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Investigators from City of Hope National Medical Center Report New Data on T–Cell Lymphoma [Long–term follow–up and management of small and medium–sized CD4(+) T cell lymphoma and CD8(+) lymphoid proliferations of acral sites: a multicenter ...] ... p.2865

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Oncology - Carcinomas. Investigators from Erasmus University Target Carcinomas (Survival in Patients With Primary Metastatic Renal Cell Carcinoma Treated With Sunitinib With or Without Previous Cytoreductive Nephrectomy: Results From a Population–based Registry) ... p.2880

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Oncology - Lymphoma. Investigators from Fred Hutchinson Cancer Research Center Report New Data on Lymphoma (Quality of life results from a phase 3 study of brentuximab vedotin consolidation following autologous haematopoietic stem cell transplant for persons with ...) … p.2887


Herpesvirus Diseases and Conditions - Cytomegalovirus. Investigators from Free University Target Cytomegalovirus (Primary maternal cytomegalovirus infections: accuracy of fetal ultrasound for predicting sequelae in offspring) … p.2889

Heart Disorders and Diseases - Heart Failure. Investigators from Fukushima Medical University Target heart failure (Associations With Eicosapentaenoic Acid to Arachidonic Acid Ratio and Mortality in Hospitalized Heart Failure Patients) … p.2893

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Cell Proliferation. Investigators from General Hospital Have Reported New Data on Cell Proliferation (Inhibitor of DNA–binding 1 promotes endothelial progenitor cell proliferation and migration by suppressing E2–2 through the helix–loop–helix domain) … p.2895

Autoinflammatory Diseases and Conditions - Familial Mediterranean Fever. Investigators from Ghent University Report New Data on Familial Mediterranean Fever (Familial Mediterranean fever mutations lift the obligatory requirement for microtubules in Pyrin inflammasome activation) … p.2896

Oncology - Bladder Cancer. Investigators from Gifu University Zero in on Bladder Cancer (A Novel Role of Dickkopf–Related Protein 3 in Macropinocytosis in Human Bladder Cancer T24 Cells) … p.2897
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Nanotechnology. Investigators from Gil Medical Center Report New Data on Nanotechnology (Recent insights into the development of nanotechnology to detect circulating tumor cells) ... p.2898

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Kidney Diseases and Conditions - Chronic Kidney Disease. Investigators from Hamamatsu University Release New Data on Chronic Kidney Disease (Impaired endogenous nighttime melatonin secretion relates to intrarenal renin–angiotensin system activation and renal damage in patients with chronic kidney ...) ... p.2900

Cardiovascular Diseases and Conditions - Atherosclerosis. Investigators from Harvard School of Medicine Release New Data on Atherosclerosis (Heterogeneity of Coronary Plaque Morphology and Natural History: Current Understanding and Clinical Significance) ... p.2901

Oncology - Thyroid Cancer. Investigators from Hebrew University Report New Data on Thyroid Cancer (Unemployment Risk and Decreased Income Two and Four Years After Thyroid Cancer Diagnosis: A Population–Based Study) ... p.2902

Cardiovascular Diseases and Conditions - Thrombosis. Investigators from Hospital Clinic Report New Data on Thrombosis (Surgical Complications in En Bloc Renal Transplantation) ... p.2903

Immunology - Immunoglobulins. Investigators from Huazhong University of Science and Technology Zero in on Immunoglobulins (SPECT and fluorescence imaging of vulnerable atherosclerotic plaque with a vascular cell adhesion molecule 1 single–chain antibody fragment) ... p.2904

Bone Research. Investigators from Imperial College Have Reported New Data on Bone Research (Blood flow controls bone vascular function and osteogenesis) ... p.2905

Biological Factors - Biological Toxins. Investigators from Institute of Applied Ecology Report New Data on Biological Toxins (Up-regulation of granzyme B and perforin by staphylococcal enterotoxin C2 mutant induces enhanced cytotoxicity in Hepal–6 cells) ... p.2906

Genetics. Investigators from Institute of Cytology Have Reported New Data on Genetics (p53 Proteoforms and Intrinsic Disorder: An Illustration of the Protein Structure–Function Continuum Concept) ... p.2907

Oncology - Brain Cancer. Investigators from Institute of Science Release New Data on Brain Cancer (OCT4 spliced variants are highly expressed in brain cancer tissues and inhibition of OCT4B1 causes G2/M arrest in brain cancer cells) ... p.2908

Amino Acids. Investigators from Institute of Science and Technology Austria Report New Data on Amino Acids (Impaired Amino Acid Transport at the Blood Brain Barrier Is a Cause of Autism Spectrum Disorder) ... p.2909

RNA Viruses - Respiratory Syncytial Viruses. Investigators from Instituto de Salud Carlos III Release New Data on Respiratory Syncytial Viruses (Trivalency of a Nanobody Specific for the Human Respiratory Syncytial Virus Fusion Glycoprotein Drastically Enhances Virus Neutralization and ...) ... p.2910

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Ameloblasts. Investigators from Iwate Medical University Release New Data on Ameloblasts (The Semaphorin 4D–RhoA–Akt Signal Cascade Regulates Enamel Matrix Secretion in Coordination With Cell Polarization During Ameloblast Differentiation) ... p.2912

Cardiovascular Diseases and Conditions - Aneurysm. Investigators from Jefferson Hospital for Neuroscience Report New Data on Aneurysm (Clipping of previously coiled cerebral aneurysms: efficacy, safety, and predictors in a cohort of 111 patients) ... p.2913

Immune System Diseases and Conditions - HIV/AIDS. Investigators from Jilin University Have Reported New Data on HIV/AIDS (Transmission of Multiple HIV–1 Subtype C Transmitted/founder Viruses into the Same Recipients Was not Determined by Modest Phenotypic Differences) ... p.2914

Heart Disorders and Diseases - Acute Coronary Syndrome. Investigators from Jilin University Target Acute Coronary Syndrome (Negative Association of Circulating MicroRNA–126 with High–sensitive C–reactive Protein and Vascular Cell Adhesion Molecule–1 in Patients with Coronary Artery Disease Following ...) ... p.2915

Parkinson’s Disease. Investigators from Jinzhou Medical University Report New Data on Parkinson’s Disease (Involvement of microRNA–135a–5p in the Protective Effects of Hydrogen Sulfide Against Parkinson’s Disease) ... p.2916

Congenital Diseases and Conditions - Congenital Heart Disease. Investigators from John Hunter Hospital Release New Data on Congenital Heart Disease (Sleep–Disordered Breathing in Patients with Pulmonary Valve Incompetence Complicating Congenital Heart Disease) ... p.2917

Oncology - Lung Cancer. Investigators from Kanagawa Cancer Center Release New Data on Lung Cancer (Prognostic Role of Subtype Classification in Small–Sized Pathologic N0 Invasive Lung Adenocarcinoma) ... p.2918

Blood Pressure. Investigators from Karolinska Institute Release New Data on Blood Pressure (Effects of antiseptic mouthwash on resting metabolic rate: A randomized, double–blind, crossover study) ... p.2919

Cardiovascular Diseases and Conditions - Carotid Stenosis. Investigators from Keimyung University Zero in on Carotid Stenosis (A lotus root–like appearance in carotid stenosis on optical coherence tomography) ... p.2920

Inflammation. Investigators from Keio University Target Inflammation (Innate lymphoid cells in allergic and nonallergic inflammation) ... p.2921

Cardiovascular Diseases and Conditions - Venous Thromboembolism. Investigators from King’s College Hospital Have Reported New Data on Venous Thromboembolism (Maternal and pregnancy characteristics affect plasma fibrin monomer complexes and D–dimer reference ranges for venous thromboembolism in pregnancy) ... p.2922

Digestive System Diseases and Conditions - Sclerosing Cholangitis. Investigators from King’s College Target Sclerosing Cholangitis [Mutations in DCDC2 (doublecortin domain containing protein 2) in neonatal sclerosing cholangitis] ... p.2923

Drugs and Therapies - Indomethacin Therapy. Investigators from Kobe Pharmaceutical University Report New Data on Indomethacin Therapy (Down–regulation of hepatic CYP3A1 expression in a rat model of indomethacin–induced small intestinal
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Intercellular Signaling Peptides and Proteins - Cytokines. Investigators from Konkuk University Report New Data on Cytokines [Intracellular interleukin (IL)–1 family cytokine processing enzyme] … p.2925

Gram-Positive Bacteria - Streptococcus pneumoniae. Investigators from Kyungpook National University Release New Data on Streptococcus pneumoniae (Antimicrobial Activity of Zabofloxacin against Clinically Isolated Streptococcus pneumoniae) … p.2926

Erythrocytosis. Investigators from Laval University Have Reported New Data on Erythrocytosis (Hypercapnic ventilatory response is decreased in a mouse model of excessive erythrocytosis) … p.2927

Oncology - Acute Lymphoblastic Leukemia. Investigators from Ludwig–Maximilians–University Target Acute Lymphoblastic Leukemia (Characterization of Rare, Dormant, and Therapy–Resistant Cells in Acute Lymphoblastic Leukemia) … p.2928

Inflammation. Investigators from Manchester Metropolitan University Release New Data on Inflammation (P116 is a shear stress and inflammation–regulated inhibitor of MMP2) … p.2929

Jaw Diseases and Conditions - Giant Cell Granuloma. Investigators from Mansoura University Have Reported New Data on Giant Cell Granuloma (Efficacy of Ethanolamine Oleate Sclerotherapy in Treatment of Peripheral Giant Cell Granuloma) … p.2930

Heart Disorders and Diseases - Atrial Fibrillation. Investigators from Marmara University Target Atrial Fibrillation (Effect of intravenous zoledronic acid infusion on electrocardiographic parameters in patients with osteoporosis) … p.2931

Life Science Research - Molecular and Cellular Biology. Investigators from Max–Planck–Institute for Biophysics Zero in on Molecular and Cellular Biology (Molecular Architecture of SF3b and Structural Consequences of Its Cancer–Related Mutations) … p.2932

Congenital Diseases and Conditions - Congenital Heart Disease. Investigators from Mayo Clinic Report New Data on Congenital Heart Disease (Postcardiomyotomy ECMO Support after High–risk Operations in Adult Congenital Heart Disease) … p.2933

Nervous System Diseases and Conditions - Neurofibromatosis Type 2. Investigators from Mayo Clinic Report New Data on Neurofibromatosis Type 2 (Gamma Knife radiosurgery for neurofibromatosis type 2–associated meningiomas: a 22–year patient series) … p.2934

Musculoskeletal Diseases and Conditions - Osteomyelitis. Investigators from Mayo Clinic Target Osteomyelitis (Mycoplasma hominis vertebral spine infection: Case report and a review of infections of bone and joints) … p.2935

Oncology - Prostate Cancer. Investigators from Mayo Clinic Zero in on Prostate Cancer [Evaluation of polymer shielding for adenovirus serotype 6 (Ad6) for systemic virotherapy against human prostate cancers] … p.2936

Heart Disorders and Diseases - Heart Disease. Investigators from McMaster University Zero in on Heart Disease (Impact of a Genetic Risk Score on Myocardial Infarction Risk Across Different Ethnic Populations) … p.2937

Papillomas. Investigators from Medical College of Wisconsin Target Papillomas (Black Raspberries Demethylate Sfrp4, a WNT Pathway Antagonist, in Rat Esophageal Squamous Cell Papilloma) … p.2938
Stem Cell Research - Mesenchymal Stem Cells. Investigators from Medical Research Institute Report New Data on Mesenchymal Stem Cells (Tyrosine kinase receptor c–ros–oncogene 1 mediates TWIST–1 regulation of human mesenchymal stem cell lineage commitment) … p.2939

Gram-Positive Bacteria - Staphylococcus aureus. Investigators from Medicines Co. Have Reported New Data on Staphylococcus aureus (Pooled analysis of single–dose ortavancin in the treatment of acute bacterial skin and skin–structure infections caused by Gram–positive pathogens, including a ...) … p.2940

Neuropathy. Investigators from Miguel Hernandez University Report New Data on Neuropathy (Roles of NTE protein and encoding gene in development and neurodevelopmental toxicity) … p.2941

Drugs and Therapies - Antibiotics. Investigators from Monash University Target Antibiotics (Pharmacokinetics/pharmacodynamics of colistin and polymyxin B: are we there yet?) … p.2942

Drugs and Therapies - Toxicology and Pharmacology. Investigators from Monsanto Zero in on Toxicology and Pharmacology (Ecological risk assessment for DvSnf7 RNA: A plant–incorporated protectant with targeted activity against western corn rootworm) … p.2943

Liver Diseases and Conditions - Hepatitis B Virus. Investigators from Nagoya City University Target Hepatitis B Virus [Molecular epidemiology of co–infection with hepatitis B virus and human immunodeficiency virus (HIV) among adult patients in Harare, Zimbabwe] … p.2944

Molecular Nutrition. Investigators from National Heart Lung and Blood Institute Have Reported New Data on Molecular Nutrition (Long–chain monounsaturated fatty acid–rich fish oil attenuates the development of atherosclerosis in mouse models) … p.2945

Subcellular Fractions. Investigators from National Heart Lung and Blood Institute Zero in on Subcellular Fractions (TP53 mutation, mitochondria and cancer) … p.2947

Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. Investigators from National Institute for Health Research Zero in on Type 2 Diabetes (Systematic Functional Characterization of Candidate Causal Genes for Type 2 Diabetes Risk Variants) … p.2948

Leukocyte Diseases and Conditions - Eosinophilia. Investigators from National Research Institute Release New Data on Eosinophilia (Platelets constitutively express IL–33 protein and modulate eosinophilic airway inflammation) … p.2949

Drugs and Therapies - Chemotherapy. Investigators from National Tsing Hua University Release New Data on Chemotherapy (Tumor Microenvironment–Responsive Nanoparticle Delivery of Chemotherapy for Enhanced Selective Cellular Uptake and Transportation within Tumor) … p.2950

Drugs and Therapies - Central Nervous System Agents. Investigators from Odense University Hospital Zero in on Central Nervous System Agents (2016 updated MASCC/ESMO consensus recommendations: prevention of radiotherapy–induced nausea and vomiting) … p.2952


Clinical Research - Clinical Trials and Studies. Investigators from Osaka University Target Clinical Trials and Studies (Intravenous Vitamin B6 Increases Resistance to Erythropoiesis–Stimulating Agents in Hemodialysis Patients: A Randomized Controlled Trial) … p.2954

Dimethylamines. Investigators from Paris Diderot University Zero in on Dimethylamines (Mechanisms of tramadol–related neurotoxicity in the rat: Does diazepam/tramadol combination play a worsening role in overdose?) … p.2955

Enzymes and Coenzymes. Investigators from Pasteur Institute Release New Data on Enzymes and Coenzymes (Crystal Structure of the Metallo–beta–Lactamase GOB in the Periplasmic Dizinc Form Reveals an Unusual Metal Site) … p.2956

Heart Disorders and Diseases - Left Ventricular Hypertrophy. Investigators from Peking University Release New Data on Left Ventricular Hypertrophy (A novel hydrodynamic approach of drag–reducing polymers to improve left ventricular hypertrophy and aortic remodeling in spontaneously hypertensive rats) … p.2957


Heart Disorders and Diseases - Heart Failure. Investigators from Peking University Zero in on Heart Failure (The predictive value of plasma catestatin for all–cause and cardiac deaths in chronic heart failure patients) … p.2959

Oncology - Rectal Cancer. Investigators from People’s Hospital Release New Data on Rectal Cancer (Relationship between serum uric acid and metastatic and nonmetastatic rectal cancer patients with undergoing no chemotherapy) … p.2960

Oncology - Lung Cancer. Investigators from Postgraduate Institute of Medical Education and Research Report New Data on Lung Cancer (Endosonography Versus Mediastinoscopy in Mediastinal Staging of Lung Cancer: Systematic Review and Meta–Analysis) … p.2964
Crystal Research. Investigators from Purdue University have reported new data on crystal research (A comparison of the crystallization inhibition properties of bile salts) ... p.2965

Parkinson's Disease. Investigators from Queensland University of Technology release new data on Parkinson's disease [Occupancy of pramipexole (Sifrol) at cerebral dopamine D2/3 receptors in Parkinson's disease patients] ... p.2966

Genetics - Assisted Reproduction and Genetics. Investigators from Radboud University report new data on assisted reproduction and genetics (Clinically applied procedures for human ovarian tissue cryopreservation result in different levels of efficacy and efficiency) ... p.2967

Eye Diseases and Conditions - Choroidal Neovascularization. Investigators from Rambam Medical Center have reported new data on choroidal neovascularization [A SEMA3E mutant resistant to cleavage by furins (UNCL–SEMA3E) inhibits choroidal neovascularization] ... p.2968

Atrial Fibrillation. Investigators from Research Hospital report new data on atrial fibrillation (Unanswered questions in complex fractionated atrial electrogram ablation) ... p.2969

Nervous System Diseases and Conditions - Charcot-Marie-Tooth Disease. Investigators from Royal Devon and Exeter NHS Foundation Trust have reported new data on Charcot-Marie-Tooth disease (Novel homozygous missense mutation in GAN associated with Charcot-Marie-Tooth disease type 2 in a large consanguineous family ...) ... p.2970

Biomedical Engineering - Tissue Engineering. Investigators from Royal University Hospital report new data on tissue engineering (Regulation of sequential release of growth factors using bilayer polymeric nanoparticles for cardiac tissue engineering) ... p.2971

Hematology - Plasma. Investigators from Rush University release new data on plasma (Membrane-based therapeutic plasma exchange: A new frontier for nephrologists) ... p.2972

Chronic Venous Disease. Investigators from Sapienza–University Zero in on chronic venous disease (Ultrasonography of skin changes in legs with chronic venous disease) ... p.2973

Human Herpesvirus Diseases and Conditions - Epstein-Barr Virus. Investigators from Sapporo Medical University release new data on Epstein-Barr virus (Virus reactivations after autologous hematopoietic stem cell transplantation detected by multiplex PCR assay) ... p.2974

Oncology - Prostate Cancer. Investigators from School of Life Science release new data on prostate cancer (Ailanthone targets p23 to overcome MDV3100 resistance in castration-resistant prostate cancer) ... p.2975

Digestive System Diseases and Conditions - Crohn's Disease. Investigators from School of Medicine report new data on Crohn's disease (A frameshift in CSF2RB predominant among Ashkenazi Jews increases risk for Crohn's disease and reduces monocyte signaling via Gm-CSF) ... p.2976

Drugs and Therapies - Pharmaceutical Research. Investigators from School of Pharmacy report new data on pharmaceutical research (Nanomedicines for advanced cancer treatments: Transitioning towards responsive systems) ... p.2977
Biological Factors - Heme. Investigators from School of Public Health Target Heme (A novel label–free and signal–on electrochemical aptasensor based on the autonomous assembly of hemin/G–quadruplex and direct electron transfer of hemin) … p.2978

Drug Development. Investigators from Shaheed Beheshti University of Medical Sciences Target Drug Development (PH–sensitive bionanocomposite hydrogel beads based on carboxymethyl cellulose/ZnO nanoparticle as drug carrier) … p.2979


Proteins - Nerve Tissue Proteins. Investigators from Shandong University Target Nerve Tissue Proteins (Gamma–synuclein binds to AKT and promotes cancer cell survival and proliferation) … p.2981

Heart Disorders and Diseases - Heart Failure. Investigators from Shanghai Jiao–Tong University Report New Data on Heart Failure (IL–34 is associated with the presence and severity of renal dysfunction and coronary artery disease in patients with heart failure) … p.2982

Oncology - Bone Cancer. Investigators from Shanghai Jiao–Tong University Target Bone Cancer (Osteotropic peptide–mediated bone targeting for photothermal treatment of bone tumors) … p.2983

Oncology - Breast Cancer. Investigators from Shantou University Have Reported New Data on Breast Cancer (Evaluating Breast Cancer Risk under Exposure to Environmental Estrogen–Like Chemicals) … p.2984


Nanotechnology - Nanoparticles. Investigators from Simon Fraser University Have Reported New Data on Nanoparticles (NanoHDA: A nanoparticle–assisted isothermal amplification technique for genotyping assays) … p.2986


Heart Disorders and Diseases - Heart Failure. Investigators from Sophiahemmet University Have Reported New Data on Heart Failure (y Patterns and the mediating role of avoidant coping style and illness perception on anxiety and depression in patients with chronic heart failure) … p.2988

Lung Diseases and Conditions - Asthma. Investigators from Southeast University Have Reported New Data on Asthma (Atopy and Specific Cancer Sites: a Review of Epidemiological Studies) … p.2989

Oncology - Head and Neck Cancer. Investigators from St. Louis University Zero in on Head and Neck Cancer (Palliative Care Considerations for Patients With Head and Neck Cancer With Children at Home) … p.2990

Clinical Research - Clinical Trials and Studies. Investigators from Sun Yat Sen University Report New Data on Clinical Trials and Studies (Sequential four–drug chemotherapy and intensity–modulated radiotherapy for larynx preservation in resectable advanced larynx and hypopharynx
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Oncology - Colon Cancer. Investigators from Taipei Medical University Release New Data on Colon Cancer (Down-regulation of let-7a–5p predicts lymph node metastasis and prognosis in colorectal cancer: Implications for chemotherapy) ... p.2992

Nephrology. Investigators from Tel Aviv University Have Reported New Data on Nephrology (Can Unenhanced CT Findings Predict Interventional Versus Conservative Treatment in Acute Renal Colic?) ... p.2993

Respiratory Tract. Investigators from Third Military Medical University Target Respiratory Tract (Deficiency of LIGHT signaling pathway exacerbates Chlamydia psittaci respiratory tract infection in mice) ... p.2994

Hematologic Diseases and Conditions - Thrombocytopenia. Investigators from Thomas Jefferson University Target Thrombocytopenia [TULA–2 (T-Cell Ubiquitin Ligand–2) Inhibits the Platelet Fc Receptor for IgG IIA (Fc gamma RIIA) Signaling Pathway and Heparin–Induced Thrombocytopenia in Mice] ... p.2995

Nutritional and Metabolic Diseases and Conditions - Obesity. Investigators from Tokyo Medical and Dental University Zero in on Obesity (Reduced Morning Cortisol Concentration in Saliva Was Associated with Obesity: Evidence from Community–Dwelling Adults in Papua New Guinea) ... p.2996

Gram-Negative Bacteria - Bacteroides. Investigators from Tufts Medical Center Zero in on Bacteroides (In Vitro Evaluation of the Activity of Imipenem–Relebactam against 451 Recent Clinical Isolates of Bacteroides Group and Related Species) ... p.2997

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Oncology - Prostate Cancer. Investigators from Tulane University Report New Data on Prostate Cancer (Emerging data on androgen receptor splice variants in prostate cancer) ... p.2998

Lung Diseases and Conditions - Tuberculosis and Lung Disease. Investigators from United Hospitals Target Tuberculosis and Lung Disease [Pyrazinamide susceptibility testing: proposed new standard with the BAGTEC(TM) MGIT(TM) 960 system] ... p.2999

Drugs and Therapies - Pharmaceutical Design. Investigators from University College Target Pharmaceutical Design (ABC Transporters and Drug Resistance in Patients with Epilepsy) ... p.2999

Drugs and Therapies - Chemotherapy. Investigators from University Hospital Zero in on Chemotherapy (Preoperative predictors of delay in initiation of adjuvant chemotherapy in patients undergoing primary debulking surgery for ovarian cancer) ... p.3000

Heart Disorders and Diseases - Atrial Fibrillation. Investigators from University Institute of Cardiology and Pneumology Quebec Research Center Release New Data on Atrial Fibrillation (Contact–Force Catheters: Efficacy Versus Safety? Case Report of 2 Atrioesophageal Fistulae) ... p.3001

Hematopoietic. Investigators from University Medical Center Have Reported New Data on Hematopoietic (Bcl–2 proteins in development, health, and disease of the hematopoietic system) ... p.3002

Drugs and Therapies - Antibiotics. Investigators from University Medical Center, Hamburg Eppendorf Report New Data on Antibiotics (Tedizolid susceptibility in linezolid– and vancomycin–resistant Enterococcus faecium isolates) ... p.3003
Endocrine System Diseases and Conditions - Insulin Resistance. Investigators from University Nova of Lisboa Release New Data on Insulin Resistance (Functional abolition of carotid body activity restores insulin action and glucose homeostasis in rats: key roles for visceral adipose tissue and the liver) … p.3004

Eye Diseases and Conditions - Retinitis Pigmentosa. Investigators from University of Adelaide Report New Data on Retinitis Pigmentosa (A review of the mechanisms of cone degeneration in retinitis pigmentosa) … p.3005

Gram-Negative Bacteria - Acinetobacter baumannii. Investigators from University of Athens Zero in on Acinetobacter baumannii (In Vitro Bactericidal Activity of Trimethoprim–Sulfamethoxazole Alone and in Combination with Colistin against Carbapenem–Resistant Acinetobacter baumannii Clinical ...) … p.3006

Oncology - Brain Cancer. Investigators from University of Bordeaux Have Reported New Data on Brain Cancer (In Vivo Follow–up of Brain Tumor Growth via Bioluminescence Imaging and Fluorescence Tomography) … p.3007

Blood Pressure. Investigators from University of Bristol Zero in on Blood Pressure (Quantifying sympathetic neuro–haemodynamic transduction at rest in humans: insights into sex, ageing and blood pressure control) … p.3008

Therapeutics. Investigators from University of British Columbia Report New Data on Therapeutics (Effective Translation of Research to Practice: Hospital–Based Rehabilitation Program Improves Health–Related Physical Fitness and Quality of Life of Cancer ...) … p.3009

Pharmacokinetics. Investigators from University of Cairo Zero in on Pharmacokinetics (UPLC–MS–MS Method for the Determination of Vilazodone in Human Plasma: Application to a Pharmacokinetic Study) … p.3010

Life Science Research - Molecular Biology. Investigators from University of California Have Reported New Data on Molecular Biology (GOLPH3 drives cell migration by promoting Golgi reorientation and directional trafficking to the leading edge) … p.3011

Respiratory Tract Diseases and Conditions - Hypoventilation. Investigators from University of California Release New Data on Hypoventilation (Treatment of ethanol poisoning and associated hypoventilation with doxapram) … p.3012

Oncology - Glioblastomas. Investigators from University of California Target Glioblastomas (Tissue mechanics promote IDH1–dependent HIF1 alpha–tenascin C feedback to regulate glioblastoma aggression) … p.3013

Drugs and Therapies - Oxaprozin Therapy. Investigators from University of Florence Release New Data on Oxaprozin Therapy [Comparison of liposomal and NLC (nanostructured lipid carrier) formulations for improving the transdermal delivery of oxaprozin: Effect of cyclodextrin complexation] … p.3013

Blood Pressure. Investigators from University of Glasgow Report New Data on Blood Pressure (Relationship Between Blood Pressure Values, Depressive Symptoms, and Cardiovascular Outcomes in Patients With Cardiometabolic Disease) … p.3014
Amphetamines. Investigators from University of Illinois Zero in on Amphetamines (Timing Of Amphetamine Exposure In Relation To Puberty Onset Determines Its Effects On Anhedonia, Exploratory Behavior, And Dopamine D–1 Receptor Expression In Young Adulthood) … p.3015

Oncology - Cancer Genetics. Investigators from University of Iowa Have Reported New Data on Cancer Genetics (The NAB2–STAT6 gene fusion in solitary fibrous tumor can be reliably detected by anchored multiplexed PCR for targeted next–generation sequencing) … p.3017


Immunology - Immunoglobulins. Investigators from University of Lisbon Target Immunoglobulins (Integration of cell harvest with affinity–enhanced purification of monoclonal antibodies using aqueous two–phase systems with a dual tag ligand) … p.3020

Oncology - Breast Cancer. Investigators from University of Louisiana Have Reported New Data on Breast Cancer (Role of Rac1/WAVE2 Signaling in Mediating the Inhibitory Effects of gamma–Tocotrienol on Mammary Cancer Cell Migration and Invasion) … p.3021

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Oncology - Gynecologic Cancer. Investigators from University of Louisville Target Gynecologic Cancer (Optimal epidural analgesia for patients diagnosed as having gynecologic cancer undergoing interstitial brachytherapy) … p.3022


Cardiovascular Research. Investigators from University of Manchester Release New Data on Cardiovascular Research (Knowledge gaps in the management of familial hypercholesterolaemia. A UK based survey) … p.3024

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Oncology - Pancreatic Cancer. Reports on Pancreatic Cancer Findings from M.D. Anderson Cancer Center Provide New Insights (Benefit and risk of primary thromboprophylaxis in ambulatory patients with advanced pancreatic cancer receiving chemotherapy: a systematic review and ...) … p.6149

Peptides and Proteins. Reports on Peptides and Proteins Findings from State University of New York Provide New Insights (The DNA Damage Transducer RNF8 Facilitates Cancer Chemoresistance and Progression through Twist Activation) … p.6150

Peptides and Proteins. Reports on Peptides and Proteins from University of Kent Provide New Insights (Efficient targeting of recombinant proteins to the thylakoid lumen in Chlamydomonas reinhardtii using a bacterial Tat signal peptide) … p.6151

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Proteins - Peroxisome Proliferator–Activated Receptors. Reports on Peroxisome Proliferator–Activated Receptors Findings from Harvard School of Medicine Provide New Insights (Molecular Pathways: Dietary Regulation of Stemness and Tumor Initiation by the PPAR–delta Pathway) … p.6153

Pharmacokinetics. Reports on Pharmacokinetics Findings from Central University Provide New Insights (Promises of a biocompatible nanocarrier in improved brain delivery of quercetin: Biochemical, pharmacokinetic and biodistribution evidences) … p.6154


Pharmacokinetics. Reports on Pharmacokinetics from Center for Disease Control and Prevention Provide New Insights (Co–administration of St. John’s wort and hormonal contraceptives: a systematic review) … p.6156

Pharmacology. Reports on Pharmacology from Jagiellonian University Provide New Insights (The unethical use of ethical rhetoric: the case of flibanserin and pharmacologisation of female sexual desire) … p.6157
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Reports on Physiology from University of Melbourne Provide New Insights
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Platinum Compounds. Reports on Platinum Compounds from All India Institute of Medical Sciences Provide New Insights
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Pneumococcal Disease. Reports on Pneumococcal Disease from University of Bern Provide New Insights
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Oncology - Prostate Cancer. Reports on Prostate Cancer Findings from University of Tehran Provide New Insights
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Oncology - Prostate Cancer. Reports on Prostate Cancer from Huazhong University of Science and Technology Provide New Insights [miR–34C Disrupts the Stemness of Purified CD133(+) Prostatic Cancer Stem Cells] ... p.6164

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Gram-Negative Bacteria - Pseudomonas aeruginosa. Reports on Pseudomonas aeruginosa from University of Manitoba Provide New Insights (The role of the temperature–regulated acyltransferase (PA3242) on growth, antibiotic resistance and virulence in Pseudomonas aeruginosa) ... p.6166

Lung Diseases and Conditions - Pulmonary Fibrosis. Reports on Pulmonary Fibrosis Findings from China Pharmaceutical University Provide New Insights (Madecassoside ameliorates bleomycin–induced pulmonary fibrosis in mice through promoting the generation of hepatocyte growth factor via PPAR–g in ...) ... p.6167

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Parasitic Diseases and Conditions - Schistosomiasis. Reports on Schistosomiasis from Marshall University Provide New Insights (Discovery of Antischistosomal Drug Leads Based on Tetraazamacrocyclic Derivatives and Their Metal Complexes) ... p.6169
Science. Reports on Science from Zuse Institute Berlin Provide New Insights (Acfs: accurate circRNA identification and quantification from RNA–Seq data) … p.6170


Heart Disorders and Diseases - Sinus Arrhythmia. Reports on Sinus Arrhythmia Findings from A.L. Shim and Co–Researchers Provide New Insights (Serum interleukin–6: Association with circulating cytokine serum levels in patients with sinus arrhythmia and patients with coronary artery disease) … p.6172

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Oncology - Squamous Cell Carcinoma. Reports on Squamous Cell Carcinoma from Kyoto Pharmaceutical University Provide New Insights (Effects of bisphosphonates on human esophageal squamous cell carcinoma cell survival) … p.6175

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Stem Cell Research - Stem Cell Factors. Reports on Stem Cell Factors from Ahvaz Jundishapur University Provide New Insights (Role of stem cell factor in the placental niche) … p.6179

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Sulfides. Reports on Sulfides Findings from Research Hospital Provide New Insights (Plasma thiols and thiol–disulfide homeostasis in patients with isolated coronary artery ectasia) … p.6181

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Oncology - Verrucous Cancer. Reports on Verrucous Cancer from All India Institute of Medical Sciences Provide New Insights (Expression of Cell Cycle–associated Proteins p53, pRb, p16, p27, and Correlation With Survival: A Comparative Study on Oral Squamous Cell Carcinoma ...) ... p.6186

Cardiovascular Diseases and Conditions - Vertebral Artery Dissection. Reports on Vertebral Artery Dissection Findings from Jena University Hospital Provide New Insights (Clinical Presentation, Magnetic Resonance Angiography, Ultrasound Findings, and Stroke Patterns in Patients with Vertebral Artery Dissection) ... p.6188

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Transplant Medicine - Kidney Transplants. Research Conducted at Barts Health NHS Trust Has Updated Our Knowledge about Kidney Transplants (The characteristics and outcome of bacteraemia in renal transplant recipients and non–transplant renal patients) ... p.6190

Drugs and Therapies - Androgens. Research Conducted at Beth Israel Deaconess Medical Center and Harvard University School of Medicine Has Updated Our Knowledge about Androgens (Protein phosphatase 1 suppresses androgen receptor ubiquitylation and degradation) ... p.6192

Drugs and Therapies - Drug Delivery Systems. Research Conducted at Boston University Has Provided New Information about Drug Delivery Systems (Microvessels–on–a–Chip to Assess Targeted Ultrasound–Assisted Drug Delivery) ... p.6193

Atrial Fibrillation. Research Conducted at Broad Institute of MIT and Harvard Has Updated Our Knowledge about Atrial Fibrillation (A Functional Variant Associated with Atrial Fibrillation Regulates PITX2c Expression through TFAP2a) ... p.6194

Pheochromocytomas. Research Conducted at CIBERER Has Provided New Information about Pheochromocytomas (ATRX driver mutation in a composite malignant pheochromocytoma) ... p.6195

Diseases and Conditions - Russell Silver Syndrome. Research Conducted at California State University Has Updated Our Knowledge about Russell Silver Syndrome (Twin Legacies: Victor and Vincent McKusick/Twin Studies: Twinning Rates I; Twinning Rates II; MZ Twin Discordance for Russell–Silver ...) ... p.6196
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Pregnancy Complications - Hydrops Fetalis. Research Conducted at Chiang Mai University Has Updated Our Knowledge about Hydrops Fetalis [Ventricular Diastolic Function in Normal Fetuses and Fetuses with Hb Bart’s Disease Assessed by Color M–Mode Propagation Velocity using Cardio–STIC–M …] … p.6200

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Oncology - Breast Cancer. Research Conducted at Chinese Academy of Medical Sciences Has Provided New Information about Breast Cancer (Functions of miR–146a and miR–222 in Tumor–associated Macrophages in Breast Cancer) … p.6202

Hearing Diseases and Conditions - Conductive Hearing Loss. Research Conducted at Chinese People’s Liberation Army General Hospital Has Updated Our Knowledge about Conductive Hearing Loss (SIX2 haploinsufficiency causes conductive hearing loss with ptosis in humans) … p.6203

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Oncology - Solid Cancer. Research Conducted at Genentech, Inc. Has Updated Our Knowledge about Solid Cancer (Safety of Onartuzumab in Patients with Solid Tumors: Experience to Date from the Onartuzumab Clinical Trial Program) ... p.6211

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Drugs and Therapies - Antibiotics. Research Conducted at Hartford Hospital Has Updated Our Knowledge about Antibiotics (Continuous and Prolonged Intravenous beta–Lactam Dosing: Implications for the Clinical Laboratory) ... p.6217

Heart Disorders and Diseases - Heart Disease. Research Conducted at Heart Hospital Has Provided New Information about Heart Disease (The relationship between heart rate and mortality of patients with acute coronary syndromes in the coronary intervention era Meta–analysis) ... p.6218

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Aortic Dissection. Research Conducted at Johns Hopkins University Has Updated Our Knowledge about Aortic Dissection (Diagnosis and treatment of uncomplicated type B aortic dissection) … p.6223

Clinical Research - Clinical Trials and Studies. Research Conducted at Johns Hopkins University School of Medicine Has Provided New Information about Clinical Trials and Studies (Recruitment techniques for alcohol pharmacotherapy clinical trials: A cost–benefit analysis) … p.6224

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Hematologic Diseases and Conditions - Fanconi Anemia. Research Conducted at King Saud University Has Updated Our Knowledge about Fanconi Anemia (Clinical characteristics and genetic subtypes of Fanconi anemia in Saudi patients) … p.6226

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Central Nervous System Diseases and Conditions - Cerebral Amyloid Angiopathy. Research Conducted at Leiden University Has Updated Our Knowledge about Cerebral Amyloid Angiopathy (Early Magnetic Resonance Imaging and Cognitive Markers of Hereditary Cerebral Amyloid Angiopathy) … p.6229

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Oncology - Breast Cancer. Research Conducted at Ludwig–Maximilians–University Has Updated Our Knowledge about Breast Cancer (Metastatic mammary carcinoma despite histologically negative sentinel lymph nodes: are there any indicators for estimating recurrence and …) … p.6231

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Eye Diseases and Conditions - Retinitis Pigmentosa. Research Conducted at Oregon Health and Science University Has Provided New Information about Retinitis Pigmentosa (Structure–Function Modeling of Optical Coherence Tomography and Standard Automated Perimetry in the Retina of Patients with ...) ... p.6241

Life Science Research - Botany. Research Conducted at Osaka Prefecture University Has Provided New Information about Botany (Diversification of sterol methyltransferase enzymes in plants and a role for b–sitosterol in oriented cell plate formation and polarized growth) ... p.6242

Drugs and Therapies - Antiinfectives. Research Conducted at Pasteur Institute Has Provided New Information about Antiinfectives (Antileishmanial Mechanism of Diamidines Involves Targeting Kinetoplasts) ... p.6243

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Kidney Diseases and Conditions - Gitelman Syndrome. Research Conducted at Radboud University Has Provided New Information about Gitelman Syndrome (Functionomics of NCC mutations in Gitelman syndrome using a novel mammalian cell–based activity assay) … p.6246

Radiology - Neuroradiology. Research Conducted at School of Medicine Has Provided New Information about Neuroradiology (Safety and efficacy of antiplatelet response assay and drug adjustment in coil embolization: a propensity score analysis) … p.6247

Cardiovascular Diseases and Conditions - Hypertension. Research Conducted at School of Medicine Has Updated Our Knowledge about Hypertension (An augmented CO2 chemoreflex and overactive orexin system are linked with hypertension in young and adult spontaneously hypertensive rats) … p.6248

Oncology - Breast Cancer. Research Conducted at Second Military Medical University Has Updated Our Knowledge about Breast Cancer (Long noncoding RNA linc00617 exhibits oncogenic activity in breast cancer) … p.6249

Drugs and Therapies - Chemotherapy. Research Conducted at Soochow University Has Provided New Information about Chemotherapy (Tie2 Expression on Macrophages Is Required for Blood Vessel Reconstruction and Tumor Relapse after Chemotherapy) … p.6250

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Drugs and Therapies - Adenosine Therapy. Research Conducted at Soochow University Has Updated Our Knowledge about Adenosine Therapy (Ubiquitin–dependent Turnover of Adenosine Deaminase Acting on RNA 1 (ADAR1) Is Required for Efficient Antiviral Activity of Type I Interferon) … p.6251

Kidney Diseases and Conditions - Lupus Nephritis. Research Conducted at Sun Yat Sen University Has Updated Our Knowledge about Lupus Nephritis (Nuclear Factor Erythroid 2–related Factor 2 Deficiency Exacerbates Lupus Nephritis in B6/lpr mice by Regulating Th17 Cell Function) … p.6252

Drugs and Therapies - Antirheumatics. Research Conducted at Tel Aviv University Has Updated Our Knowledge about Antirheumatics (Addition of an immunomodulator can reverse antibody formation and loss of response in patients treated with adalimumab) … p.6253

Environmental Health - Environmental Research and Public Health. Research Conducted at Tsinghua University Has Provided New Information about Environmental Research and Public Health (DALY–Based Health Risk Assessment of Construction Noise in Beijing, China) … p.6254

Optic Nerve Diseases. Research Conducted at University College Has Provided New Information about Optic Nerve Diseases (A neurodegenerative perspective on mitochondrial optic neuropathies) … p.6255

Heart Disorders and Diseases - Hypertrophic Cardiomyopathy. Research Conducted at University Hospital Has Updated Our Knowledge about Hypertrophic Cardiomyopathy (Comparison of hypertrophic cardiomyopathy in Afro–Caribbean versus white patients in the UK) … p.6256
Coagulation. Research Conducted at University of Birmingham Has Provided New Information about Coagulation (Determinants of Time in Therapeutic Range in Patients Receiving Oral Anticoagulants: A Substudy of IMPACT) … p.6264

Drugs and Therapies - Antivirals. Research Conducted at University of Bologna Has Updated Our Knowledge about Antivirals (Plants Producing Ribosome-Inactivating Proteins in Traditional Medicine) … p.6265

Environmental Pollution. Research Conducted at University of Bourgogne Has Provided New Information about Environmental Pollution (Occurrence of pharmaceuticals in WWTP effluents and their impact in a karstic rural catchment of Eastern France) … p.6266

Kidney Diseases and Conditions - Chronic Kidney Disease. Research Conducted at University of California Has Updated Our Knowledge about Chronic Kidney Disease (Effects of dietary iron intake and chronic kidney disease on fibroblast growth factor 23 metabolism in wild-type and hepcidin knockout mice) … p.6267

DNA Research. Research Conducted at University of California Has Updated Our Knowledge about DNA Research (Structural basis for DNA recognition by STAT6) … p.6268

Mosquito-Borne Diseases - Malaria. Research Conducted at University of Delhi Has Provided New Information about Malaria (Stearylamine Liposomal Delivery of Monensin in Combination with Free Artemisinin Eliminates Blood Stages of Plasmodium falciparum in Culture and P. berghei …) … p.6269

Oncology - Gastric Cancer. Research Conducted at University of Dresden Has Provided New Information about Gastric Cancer (Free intraperitoneal tumor cells and outcome in gastric cancer patients: a systematic review and meta-analysis) … p.6271
Drugs and Therapies - Ethnopharmacology. Research Conducted at University of Faisalabad Has Updated Our Knowledge about Ethnopharmacology (Anti–cholinergic and Ca2+–antagonist mechanisms explain the pharmacological basis for folkloric use of Sisymbrium irio Linn. in gastrointestinal, ...) … p.6272

Gram-Positive Bacteria - Streptococcus pneumoniae. Research Conducted at University of Giessen Has Provided New Information about Streptococcus pneumoniae (Host–derived extracellular RNA promotes adhesion of Streptococcus pneumoniae to endothelial and epithelial cells) … p.6273

Smoking. Research Conducted at University of Hawaii Cancer Center Has Updated Our Knowledge about Smoking (Longitudinal study of e–cigarette use and onset of cigarette smoking among high school students in Hawaii) … p.6274

Oncology - Gynecologic Oncology. Research Conducted at University of Hawaii Has Provided New Information about Gynecologic Oncology (Long non–coding RNAs, ASAP1–IT1, FAM215A, and LINC00472, in epithelial ovarian cancer) … p.6275

Neutral Amino Acids. Research Conducted at University of Lyon Has Updated Our Knowledge about Neutral Amino Acids (A Eukaryotic–like Serine/Threonine Kinase Protects Staphylococci against Phages) … p.6276

Central Nervous System Diseases and Conditions - Brain Injuries. Research Conducted at University of Maryland School of Medicine Has Provided New Information about Brain Injuries (miR–711 upregulation induces neuronal cell death after traumatic brain injury) … p.6277

Nutritional and Metabolic Diseases and Conditions - Hypercholesterolemia. Research Conducted at University of Milan Has Provided New Information about Hypercholesterolemia (Drug treatment and adherence of subjects < 40 years with diagnosis of heterozygous familial hypercholesterolemia) … p.6278

Oncology - Melanoma. Research Conducted at University of Minho Has Updated Our Knowledge about Melanoma (Fluorescent quantification of melanin) … p.6279

Neurodegenerative Diseases and Conditions - Ataxia Telangiectasia. Research Conducted at University of Oxford Has Provided New Information about Ataxia Telangiectasia (MEK inhibitors block growth of lung tumours with mutations in ataxia–telangiectasia mutated) … p.6280

Heart Disorders and Diseases - Atrial Fibrillation. Research Conducted at University of Queensland Has Updated Our Knowledge about Atrial Fibrillation (The State of the Art: Atrial Fibrillation Epidemiology, Prevention, and Treatment) … p.6282

Query Fever. Research Conducted at University of Sassari Has Provided New Information about Query Fever (Mediterranean spotted fever–like illness in Sardinia, Italy: a clinical and microbiological study) … p.6283

Enzymes and Coenzymes - Cysteine Endopeptidases. Research Conducted at University of Sonora Has Provided New Information about Cysteine Endopeptidases (Apoptotic activities of cardenolide glycosides from Asclepias subulata) … p.6284
Proteomics. Research Conducted at University of Technology Has Updated Our Knowledge about Proteomics (Systematic Analysis of Protein Interaction Network Associated with Azoospermia) … p.6285

Oncology - B-Cell Lymphoma. Research Conducted at University of Texas Has Provided New Information about B-Cell Lymphoma (Prognostic significance of baseline peripheral absolute neutrophil, monocyte and serum 2-microglobulin level in patients with diffuse large b-cell ...) … p.6286

Oncology - Urothelial Cancer. Research Conducted at University of Texas Has Provided New Information about Urothelial Cancer (Nivolumab monotherapy in recurrent metastatic urothelial carcinoma (CheckMate 032): a multicentre, open-label, two-stage, multi-arm, phase 1/2 trial) … p.6287

Myeloid Cells. Research Conducted at University of Tokyo Has Updated Our Knowledge about Myeloid Cells (Conditional Rod Photoreceptor Ablation Reveals Sall1 as a Microglial Marker and Regulator of Microglial Morphology in the Retina) … p.6288

Heart Disorders and Diseases - Ebstein Anomaly. Research Conducted at University of Toronto Has Updated Our Knowledge about Ebstein Anomaly (Contemporary Outcomes and Factors Associated With Mortality After a Fetal or Neonatal Diagnosis of Ebstein Anomaly and Tricuspid Valve Disease) … p.6289

Heart Disorders and Diseases - Heart Attack. Research Conducted at University of Toronto Has Updated Our Knowledge about Heart Attack (Anesthesia Technique and Mortality after Total Hip or Knee Arthroplasty A Retrospective, Propensity Score-matched Cohort Study) … p.6290

Cardiology. Research Conducted at University of Tours Has Updated Our Knowledge about Cardiology (Position paper for management of elderly patients with pacemakers and implantable cardiac defibrillators: Groupe de Rythmologie et Stimulation Cardiaque de la ...) … p.6291

Genetics - Medical Genetics. Research Conducted at University of Washington Has Provided New Information about Medical Genetics (CADD score has limited clinical validity for the identification of pathogenic variants in noncoding regions in a hereditary cancer panel) … p.6292

Enzymes and Coenzymes - Cholinesterases. Research Conducted at University of Zagreb Has Updated Our Knowledge about Cholinesterases (A comprehensive evaluation of novel oximes in creation of butyrylcholinesterase-based nerve agent bioscavengers) … p.6293

Drugs and Therapies - Chemotherapy. Research Conducted at Wellesley College Has Provided New Information about Chemotherapy (Bacterial Spheroplasts as a Model for Visualizing Membrane Translocation of Antimicrobial Peptides) … p.6295

Intranuclear Space. Research Conducted at Wistar Institute Has Updated Our Knowledge about Intranuclear Space (EBNA2 Drives Formation of New Chromosome Binding Sites and Target Genes for B-Cell Master Regulatory Transcription Factors RBP-jk and EBF1) … p.6295

Naphthaleneacetic Acids. Research Conducted at Wroclaw University Has Updated Our Knowledge about Naphthaleneacetic Acids (Synthesis and Formulation of Thermosensitive Drug Carrier for Temperature Triggered Delivery of Naproxen Sodium) … p.6296
Oncology - Esophageal Cancer. Research Conducted at Yokohama City University Has Provided New Information about Esophageal Cancer (Evaluation of the Glasgow Prognostic Score in patients receiving chemoradiotherapy for stage III and IV esophageal cancer) … p.6297

Drugs and Therapies - Antibiotics. Research Conducted at Zagazig University Has Provided New Information about Antibiotics (Rifaximin and midodrine improve clinical outcome in refractory ascites including renal function, weight loss, and short–term survival) … p.6298

Hematologic Diseases and Conditions - Anemia. Research Conducted by C. von Heymann and Co–Researchers Has Updated Our Knowledge about Anemia (Does the severity of preoperative anemia or blood transfusion have a stronger impact on long–term survival after cardiac surgery?) … p.6299

Drugs and Therapies - Drug Resistance. Research Conducted by E. Jagielska and Co–Researchers Has Updated Our Knowledge about Drug Resistance (LytM Fusion with SH3b–Like Domain Expands Its Activity to Physiological Conditions) … p.6300

Nanotechnology - Nanoparticles. Research Conducted by G. Choi and Co–Researchers Has Updated Our Knowledge about Nanoparticles (A cost–effective chemiluminescent biosensor capable of early diagnosing cancer using a combination of magnetic beads and platinum nanoparticles) … p.6301

Hearing Diseases and Conditions - Hearing Loss. Research Conducted by G. Girotto and Co–Authors Has Provided New Information about Hearing Loss (PSIP1/LEDGF: a new gene likely involved in sensorineuronal progressive hearing loss) … p.6302

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Pheochromocytomas. Research Conducted by L.A. Guardo and Co–Authors Has Provided New Information about Pheochromocytomas (Known difficult airway in a patient with pheochromocytoma: a case report) … p.6303

Blood Pressure. Research Conducted by Q. Wang and Co–Authors Has Provided New Information about Blood Pressure (Environmental ambient temperature and blood pressure in adults: A systematic review and meta–analysis) … p.6304

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Transfusion Medicine - Blood Transfusion. Research Data from McGill University Update Understanding of Blood Transfusion (Role of the deubiquitinating enzyme ubiquitin–specific protease–14 in proteostasis in renal cells)

Neurodegenerative Diseases and Conditions - Alzheimer Disease. Research Data from Nanjing Medical University Update Understanding of Alzheimer Disease (Different Expression Patterns of Amyloid–b Protein Precursor Secretases in Human and Mouse Hippocampal Neurons: A Potential Contribution to Species ...)

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Cardiovascular Research. Researchers from Centers for Disease Control and Prevention Report Recent Findings in Cardiovascular Research (Modification of the effects of air pollutants on mortality by temperature: A systematic review and meta–analysis) … p.6897

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Researchers from College of Medicine Report on Findings in Human Immunodeficiency Virus (Plasmablastic lymphoma in HIV patients: Experience at a tertiary care hospital in eastern India) … p.6926

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Researchers from Columbia University Detail New Studies and Findings in the Area of Amyloidosis (Transthyretin Cardiac Amyloidosis in Older Americans) … p.6927


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Electrolytes. Researchers from University of Naples Discuss Findings in Electrolytes (Diseases associated with electrolyte imbalance in the ED: age–related differences)

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Drugs and Therapies - Antiretrovirals. Researchers from University of North Carolina Describe Findings in Antiretrovirals (Time Preferences Predict Mortality among HIV–Infected Adults Receiving Antiretroviral Therapy in Kenya)

Drugs and Therapies - Antiretrovirals. Researchers from University of North Carolina Detail New Studies and Findings in the Area of Antiretrovirals (Neurocognition with maraviroc compared with tenofovir in HIV)

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Data from Affiliated Hospital Advance Knowledge in Obesity (Maternal obesity in mice not only affects fresh embryo quality but also aggravates injury due to vitrification)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "The aims of the present study are to identify the mechanism(s) whereby obesity impairs fresh embryos and to clarify the effects of vitrification on lipid droplet content within embryos from maternally obese mice. The diet-induced obesity mouse model was established, and the zygotes were captured and cultured to day 3. The eight-cell embryos were selected and divided into fresh and vitrified groups."

Financial support for this research came from The National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Affiliated Hospital, "The blastocysts derived from fresh embryos were used as a control. The expression profiles of endoplasmic reticulum (ER) stress genes (Atf4, Grp78, and Hsp70) and other genes (MnSOD, p53, Gadd45g, caspase-3, IGF-II, ZO-1, and E-cadherin) on day-3 fresh and post-warming eight-cell embryos from obese and control groups were determined. For day-5 fresh blastocysts and blastocysts previously vitrified on day 3, the expression profiles for all of the above genes were also determined."

According to the news editors, the research concluded: "For the fresh group, obesity significantly upregulated Hsp70, p53, IGF-II, and ZO-1 expression in embryos on day 3 and notably upregulated Atf4, MnSOD, Gadd45g, caspase-3, ZO-1, and E-cadherin expression in blastocysts on day 5. For vitrified ones, obesity significantly upregulated Atf4, MnSOD, and Gadd45g expression in embryos on day 3 and notably upregulated Hsp70 expression and downregulated MnSOD in day 5 blastocysts previously vitrified on day 3. Obesity impairs fresh embryos and aggravates embryonic vitrification injury at a molecular level."

For more information on this research see: Maternal obesity in mice not only affects fresh embryo quality but also aggravates injury due to vitrification. Journal of Assisted Reproduction and Genetics, 2016;33(11):1515-1523. Journal of Assisted Reproduction and
**Data on Obesity Detailed by Researchers at National Taiwan University (Piceatannol Exerts Anti-Obesity Effects in C57BL/6 Mice through Modulating Adipogenic Proteins and Gut Microbiota)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Obesity is a global health concern. Piceatannol (Pic), an analog of resveratrol (Res), has many reported biological activities."

Our news journalists obtained a quote from the research from National Taiwan University, "In this study, we investigated the anti-obesity effect of Pic in a high-fat diet (HFD)-induced obese animal model. The results showed that Pic significantly reduced mouse body weight in a dose-dependent manner without affecting food intake. Serum total cholesterol (TC), low-density lipoprotein (LDL), high-density lipoprotein (HDL) levels, and blood glucose (GLU) were significantly lowered in Pic-treated groups. Pic significantly decreased the weight of liver, spleen, perigonadal and retroperitoneal fat compared with the HFD group. Pic significantly reduced the adipocyte cell size of perigonadal fat and decreased the weight of liver. Pic-treated mice showed higher phosphorylated adenosine 5'-monophosphate-activated protein kinase (pAMPK) and phosphorylated acetyl-CoA carboxylase (pACC) protein levels and decreased protein levels of CCAAT/enhancer-binding protein C/EBP alpha, peroxisome proliferator-activated receptor PPAR gamma and fatty acid synthase (FAS), resulting in decreased lipid accumulation in adipocytes and the liver. Pic altered the composition of the gut microbiota by increasing Firmicutes and Lactobacillus and decreasing Bacteroidetes compared with the HFD group."

According to the news editors, the research concluded: "Collectively, these results suggest that Pic may be a candidate for obesity treatment."

For more information on this research see: Piceatannol Exerts Anti-Obesity Effects in C57BL/6 Mice through Modulating Adipogenic Proteins and Gut Microbiota. *Molecules,*
Data on Obesity Reported by Researchers at Massey University
(Efficacy of Exercise Intervention for Weight Loss in Overweight and Obese Adolescents: Meta-Analysis and Implications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting originating in Wellington, New Zealand, by NewsRx journalists, research stated, "The global rise in obesity prevalence among children and adolescents has been linked to modifiable lifestyle factors, including lack of physical activity. However, no known meta-analysis has been conducted on the effects of exercise intervention on body composition and cardiometabolic risk factors in overweight and obese adolescents."

The news reporters obtained a quote from the research from Massey University, "The aim of this study was to (1) estimate whether exercise intervention meaningfully improves body composition and cardiometabolic risk factors in overweight and obese adolescents; and (2) discuss the implications of the findings in terms of primary healthcare provision and public health policy, using New Zealand as an exemplar context. Electronic databases (PubMed, Web of Science, SPORTDiscus, Google Scholar) from inception to May 2015. The reference lists of eligible articles and relevant reviews were also checked. Inclusion criteria were (1) randomized controlled trial; (2) structured exercise intervention, alone or combined with any other kind of intervention; (3) control group received no structured exercise or behavioural modification designed to increase physical activity; (4) participants overweight or obese (body mass index [BMI] >= 85th percentile); and (5) participants aged between 10 and 19 years. Appraisal and Synthesis Methods Initially, 1667 articles were identified. After evaluation of study characteristics, quality and validity, data from 13 articles (15 trials) involving 556 participants (176 male, 193 female, 187 unknown) were extracted for meta-analysis. Meta-analyses were completed on five body composition parameters and ten cardiometabolic parameters. Effect sizes (ESs) were calculated as mean differences, as well as standardized mean differences in order to determine effect magnitude. Exercise intervention reduced BMI (mean 2.0 kg/m 2, 95 % CI 1.5-2.5; ES moderate), body weight (mean 3.7 kg, 95 % CI 1.7-5.8; ES small), body fat percentage (3.1 %, 95 % CI 2.2-4.1; ES small), waist circumference (3.0 cm, 95 % CI 1.3-4.8; ES small), but the increase (improvement) in lean mass was trivial (mean 1.6 kg, 95 % CI 0.5-2.6). The response to an oral glucose tolerance test following exercise intervention was for a
decrease in the area under the curve for insulin (mean 162 μU/ml, 95 % CI 93-231; ES large) and blood glucose (mean 39 mg/dl, 95 % CI 9.4-69; ES moderate). Improvements in the homeostatic model assessment were also noted (mean 1.0, 95 % CI 0.7-1.4; ES moderate) and systolic blood pressure (mean 7.1 mmHg, 95 % CI 3.5-10.7; ES moderate). The effects of exercise on total cholesterol, low-density lipoprotein cholesterol, high-density lipoprotein cholesterol, fasting insulin and fasting blood glucose were inconclusive. Limitations Most of the included trials were short term (6-36 weeks) and 13 had methodological limitations. Additionally, the meta-analyses for some of the secondary outcomes had a small number of participants or substantial statistical heterogeneity. The current evidence suggests that exercise intervention in overweight and obese adolescents improves body composition, particularly by lowering body fat.

According to the news reporters, the research concluded: "The limited available evidence further indicates that exercise intervention may improve some cardiometabolic risk factors."


Our news correspondents report that additional information may be obtained by contacting L. Stoner, Massey University, Sch Sport & Exercise, Wellington, New Zealand. Additional authors for this research include D. Rowlands, A. Morrison, D. Credeur, M. Hamlin, K. Gaffney, D. Lambrick and A. Matheson.

Keywords for this news article include: Wellington, New Zealand, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Lipids, Article Review, Risk and Prevention, Peptide Proteins, Peptide Hormones, Lipoproteins, Proinsulin, Bariatrics, Obesity, Massey University.

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**FITNESCITY Unveils its Wellness Management Program of the Future**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- FITNESCITY will formally unveil its lifestyle management program at the Consumer Electronics Show in Las Vegas on Tuesday, January 3, 2017, kicking off a new era in wellness coaching: a data-driven, 360-view approach that uses a wide range of digital health devices, along with the human element of one-on-one coaching, to help individuals improve wellness outcomes.

Rather than relying on one-size-fits-all solutions, HYPERLINK "http://www.fitnescity.com/" \nFITNESCITY gets to know the individual's wellness at the deepest level. The company uses connected devices such as wearables, wirelessly connected scales, glucometers, and heart rate and blood pressure monitors. These devices collect a large set of physiological measurements such as body composition, weight, metabolism, body shape, posture, heart rate and blood pressure. FITNESCITY then integrates these biomarkers with lifestyle data: nutrition habits, sleep patterns and stress levels, which are all collected through online assessments. The company combines those assessment data with medical history and
health risks, forming its signature FITNESCITY "Wellness Profile" for each individual. FITNESCITY then matches the client with a personal coach who helps them implement lifestyle changes in a customized 16-week program.

Get early access by requesting an invite.

Founded by a team from Stanford and MIT, FITNESCITY LABS helps clients and their coaches make more informed decisions. "FITNESCITY aims at bridging the gap between data collection and behavior change," says Co-founder & CEO Laila Zemrani. "Eighty percent of some of the most common and costly health conditions could be prevented through lifestyle changes. While digital health devices generate revenues of $15B, they have yet to create meaningful outcomes. For instance, consumer research shows that one out of two users abandons their wearable device within six months. Behavior change requires a holistic view and a deep understanding of the individual's physiology, history and lifestyle."

Fitness training, nutrition counseling, sleep monitoring and stress reduction are all part of the 16-week coaching program. The service targets both the general population and individuals with special conditions such as diabetes or injuries. (FITNESCITY does not offer medical advice.)

FITNESCITY will be available in a private Beta launch in New York, N.Y., in 2017. The company plans to expand its operations to other locations (TBA) later that year.

Keywords for this news article include: Wellness, Fitnescity, Risk and Prevention.

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Heart Disorders and Diseases - Heart Attack

Findings from G. Geri et al Update Understanding of Heart Attack (Influence of body mass index on the prognosis of patients successfully resuscitated from out-of-hospital cardiac arrest treated by therapeutic hypothermia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Attack are discussed in a new report. According to news reporting originating in Le Chesnay, France, by NewsRx journalists, research stated, "Obesity prevalence has dramatically increased over recent years and is associated with cardiovascular diseases, but data are lacking on its prognostic impact in out-of-hospital cardiac arrest (OHCA) patients. Data of all consecutive OHCA patients admitted in two cardiac arrest centers from Paris and suburbs between 2005 and 2012 were prospectively collected."

The news reporters obtained a quote from the research, "Patients treated by therapeutic hypothermia (TH) were included in the analysis. Logistic and Cox regression analyses were used to quantify the association between body mass index (BMI) at hospital admission and day-30 and 1-year mortality respectively. 818 patients were included in the study (median age 60.9 [50.8-72.7] year, 70.2% male). Obese patients (BMI > 30 kg m(-2)) were older, more frequently male and evidenced more frequently cardiovascular risk factors than normally (18.5 < BMI < 25 kg m(-2)) or overweight patients (25 < BMI < 30 kg m(-2)). Post-resuscitation shock and therapeutic hypothermia failure were more frequent in obese patients. Overall mortality at day-30 and one-year was 63.8 and 67.2%, respectively. After multivariate
adjustment, BMI > 30 kg m(-2) was independently associated with day-30 mortality (Odds ratio [OR] in comparison with normally weight patients 2.45; 95% confidence interval [95% CI: 1.32-4.56; p< 0.01]). Obesity was not associated with one-year mortality (Hazard ratio [HR] 0.99, 95% CI 0.21,4.67; p = 0.99) while underweight was associated with one-year mortality in this subgroup of patients (Hazard ratio [HR] 3.94, 95% CI 1.11,14.01; p = 0.03). In the present study, obesity was independently associated with day-30 mortality in successfully resuscitated ICU TH OHCA patients."

According to the news reporters, the research concluded: "Further studies are needed to understand the mechanisms that underpin this finding."

For more information on this research see: Influence of body mass index on the prognosis of patients successfully resuscitated from out-of-hospital cardiac arrest treated by therapeutic hypothermia. Resuscitation, 2016;109():49-55. Resuscitation can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Resuscitation - www.journals.elsevier.com/resuscitation/)

Our news correspondents report that additional information may be obtained by contacting D. Grimaldi, CH Versailles, Intens Care Unit, Le Chesnay 78, France. Additional authors for this research include G. Savary, S. Legriel, F. Dumas, S. Merceron, O. Varenne, B. Livarek, O. Richard, J.P. Mira, J.P. Bedos, J.P. Empana, A. Cariou and D. Grimaldi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Le Chesnay, France, Europe, Nutritional and Metabolic Diseases and Conditions, Cardiology, Risk and Prevention, Heart Disorders and Diseases, Nutrition Disorders, Diet and Nutrition, Cardiovascular, Cardiac Arrest, Overnutrition, Heart Attack, Hypothermia, Bariatrics, Hospital, Obesity.

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Findings from Ghent University Hospital Yields New Findings on Obesity (Reduced Expression of Chemerin in Visceral Adipose Tissue Associates with Hepatic Steatosis in Patients with Obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Obesity are discussed in a new report. According to news reporting originating in Ghent, Belgium, by NewsRx journalists, research stated, "This study aimed to evaluate whether circulating levels and/or visceral adipose tissue (VAT) expression of recently described adipokines associate with histopathological severity of nonalcoholic fatty liver disease (NAFLD), independent of obesity and insulin resistance. Serum levels of adiponectin, omentin, chemerin, monocyte chemoattractant protein-1, and secreted frizzled-related protein 4 were measured using enzyme-linked immunosorbent assay in 81 patients with obesity and NAFLD and 18 lean control subjects."

The news reporters obtained a quote from the research from Ghent University Hospital, "Expression in VAT was measured using real-time PCR and histopathological grading was scored using the NAFLD activity score (NAS). When NAFLD patients were subdivided into groups with simple steatosis, borderline nonalcoholic steatohepatitis (NASH), and NASH, adiponectin serum levels and omentin expression were lower in NASH versus simple steatosis patients. Serum adiponectin was generally lower with higher histopathological grading. Chemerin VAT expression was negatively associated with NAS (r = -0.331, P = 0.022) and steatosis score (r = -0.335, P = 0.020), independent of age, BMI, and HOMA-IR. In addition, adjusting for chemerin VAT expression in a multivariate model explained part of the association between NAS and HOMA-IR."

According to the news reporters, the research concluded: "These findings suggest that lower VAT expression of chemerin in patients with obesity may be involved in the pathophysiology of hepatic steatosis, potentially by modulating the link between insulin resistance and NAFLD."

For more information on this research see: Reduced Expression of Chemerin in Visceral Adipose Tissue Associates with Hepatic Steatosis in Patients with Obesity. Obesity, 2016;24(12):2544-2552. Obesity can be contacted at: Wiley-Blackwell, 111 River St, Hoboken..."
Our news correspondents report that additional information may be obtained by contacting B. Lapauw, Ghent Univ Hosp, Dept. of Endocrinol, Ghent, Belgium. Additional authors for this research include D.M. Ouwens, T. Horbelt, F. Van De Velde, P. Fahlbusch, D.H. de Wiza, Y. Van Nieuwenhove, P. Calders, M. Praet, A. Hoorens, A. Geerts, X. Verhelst, J.M. Kaufman and B. Lapauw.

Keywords for this news article include: Ghent, Belgium, Europe, Nutritional and Metabolic Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Fatty Liver Disease, Nutrition Disorders, Insulin Resistance, Diet and Nutrition, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Overnutrition, Adiponecitin, Adipokines, Healthcare, Proinsulin, Bariatrics, Steatosis, Obesity, Ghent University Hospital.

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Findings from J. Furlanetto and Co-Authors Update Knowledge of Obesity [Higher rate of severe toxicities in obese patients receiving dose-dense (dd) chemotherapy according to unadjusted body surface area: results of the prospectively randomized ...]
receiving dd chemotherapy according to their real BSA have a higher risk of developing severe toxicities without influencing survival."

According to the news reporters, the research concluded: "Therefore, a dose adjustment of intense dd chemotherapy should be carried out to avoid life-threatening complications."


Our news correspondents report that additional information may be obtained by contacting J. Furlanetto, German Breast Grp, Dept. of Med & Res, Neu Isenburg, Germany. Additional authors for this research include W. Eiermann, F. Marme, T. Reimer, M. Reinisch, S. Schmatloch, E. Stickeler, C. Thomssen, M. Untch, C. Denkert, G. von Minckwitz, B. Lederer, V. Nekljudova, K. Weber, S. Loibl and V. Mobus.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/annonc/mdw315. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Neu Isenburg, Germany, Europe, Nutritional and Metabolic Diseases and Conditions, Drugs and Therapies, Risk and Prevention, Chemotherapy, Bariatrics, Obesity.

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**Nutritional and Metabolic Diseases and Conditions** - …

**Findings from University of Ottawa Reveals New Findings on Obesity (The mediating role of energy intake on the relationship between screen time behaviour and body mass index in adolescents with obesity: The HEARTY study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news originating from Ottawa, Canada, by NewsRx correspondents, research stated, "Adolescents spend up to 6-8 h/day in sedentary screen behaviour and screen time is an independent risk factor for obesity. However, the mechanisms by which screen time confers obesity risk remain unclear."

Funders for this research include Children's Hospital of Eastern Ontario (CHEO), Ontario Graduate Scholarships, University of Ottawa Research Chair, Canadian Institutes of Health Research, Alberta Heritage Foundation for Medical Research.

Our news journalists obtained a quote from the research from the University of Ottawa, "Via community level recruitment this study examined whether the relationship between screen time behaviours and body mass index (BMI: kg/m(2)) was mediated by total energy intake or macronutrient consumption. In a cross-sectional study of post-pubertal adolescents (N = 283: 86M, 197F) with overweight or obesity at baseline of an intervention for weight control, we examined self-reported total energy intake (mean Calories from 3 day food
diary), macronutrient intake (grams/day of carbohydrate, fat, protein) and total screen time (aggregate of hours/day watching TV, playing seated video games, and recreational computer use). BMI was objectively measured and converted to standardized scores (z-BMI). Simple and multiple mediation analyses were conducted using the bootstrapping approach described by Preacher and Hayes. Covariates included age, sex, ethnicity, parental education, Tanner stage, and self reported physical activity. The relationship between screen time and z-BMI was significantly mediated by energy intake. Higher levels of carbohydrate intake, but not fat or protein intake, significantly mediated the relationship between screen time and z-BMI (95% bias-corrected and accelerated confidence interval [0.0004, 0.0074]). Higher carbohydrate intake mediated the relationship between TV viewing and z-BMI, and video gaming and z-BMI.

According to the news editors, the research concluded: "The relationship between screen time and BMI appears to be mediated by increased energy intake, primarily in the form of higher carbohydrate intake. It is possible that reducing time spent watching TV and playing video games may reduce food intake and help promote dietary adherence needed for weight management in obese adolescents."


The news correspondents report that additional information may be obtained from G.S. Goldfield, University of Ottawa, Sch Psychol, Ottawa, ON, Canada. Additional authors for this research include D. Maras, R.J. Sigal, G.P. Kenny, M.M. Borghese, J.P. Chaput, A.S. Alberga and G.S. Goldfield.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.appet.2016.08.101. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Nutritional and Metabolic Diseases and Conditions, Diagnostics and Screening, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of Ottawa.

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The news reporters obtained a quote from the research from the University of Palermo, "As many as 1133 subjects were enrolled in two phases and followed for 25 years (859 subjects) or 11 years (274 subjects) and incident cancer was registered in the follow-up period. Anthropometric measures and biochemical parameters were filed at baseline and evaluated as predictors of incident cancer by measuring hazards ratios (HR) using multivariate Cox parametric hazards models. Best predictive threshold for metabolic parameters and metS criteria were recalculated by ROC analysis. Fasting Blood Glucose >5.19 mmol/L [HR = 1.58 (1.0-2.4)] and the TG/HDL ratio (log(10)) (Males > 0.225, Females > 0.272) [HR = 2.44 (1.3-4.4)] resulted independent predictors of survival free of cancer with a clear additive effect together with age classes [45-65 years, HR = 2.47 (1.3-4.4), 65-75 years HR = 3.80 (2.0-7.1)] and male gender [HR = 2.07 (2.3-3.1)]. Metabolic disturbances are predictive of cancer in a 25 years follow-up of a Mediterranean population following a traditional Mediterranean diet."

According to the news reporters, the research concluded: "The high prevalence of obesity and metS and the observed underlying condition of insulin resistance expose this population to an increased risk of cardiovascular disease and cancer despite the healthy nutritional habits."


Our news correspondents report that additional information may be obtained by contacting M.R. Averna, University of Palermo, Dept. of Biomed Internal Med & Specialties Di Bi MIS, Palermo, Italy. Additional authors for this research include A.B. Cefalu, C.M. Barbagallo, A. Ganci, G. Cavera, F. Fayer, O. Palesano, R. Spina, V. Valenti, G.I. Altieri, R. Caldarella, A. Giammanco, R. Termini, M. Burrascano, G. Crupi, A. Falletta, V. Scafidi, D. Sbordone, F. La Seta and .

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.numecd.2016.07.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Palermo, Italy, Europe, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Nutrition Disorders, Risk and Prevention, Diet and Nutrition, Type 2 Diabetes, Cardiovascular, Overnutrition, Cardiology, Bariatrics, Oncology, Obesity, Cancer, University of Palermo.

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**Findings from University of Queensland Yields New Findings on Obesity (Effect of Obesity on the Population Pharmacokinetics of Fluconazole in Critically Ill Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news originating from Brisbane, Australia, by NewsRx correspondents, research stated, "Our objective was to describe the
population pharmacokinetics of fluconazole in a cohort of critically ill nonobese, obese, and morbidly obese patients. Critically ill patients prescribed fluconazole were recruited into three body mass index (BMI) cohorts, nonobese (18.5 to 29.9 kg/m(2)), obese (30.0 to 39.9 kg/m(2)), and morbidly obese (>= 40 kg/m(2))."

Funders for this research include Saudi Arabian Cultural Mission, Department of Health | National Health and Medical Research Council (NHMRC), Intensive Care Foundation (ICF).

Our news journalists obtained a quote from the research from the University of Queensland, "Serial fluconazole concentrations were determined using a validated chromatographic method. Population pharmacokinetic analysis and Monte Carlo dosing simulations were undertaken with Pmetrics. Twenty-one critically ill patients (11 male) were enrolled, including obese (n = 6) and morbidly obese (n = 4) patients. The patients mean +/- standard deviation (SD) age, weight, and BMI were 54 +/- 15 years, 90 +/- 24 kg, and 31 +/- 9 kg/m(2), respectively. A two-compartment linear model described the data adequately. The mean +/- SD population pharmacokinetic parameter estimates were clearance (CL) of 0.95 +/- 0.48 liter/h, volume of distribution of the central compartment (V-c) of 15.10 +/- 11.78 liter, intercompartmental clearance from the central to peripheral compartment of 5.41 +/- 2.28 liter/h, and intercompartmental clearance from the peripheral to central compartment of 2.92 +/- 4.95 liter/h. A fluconazole dose of 200 mg daily was insufficient to achieve an area under the concentration-time curve for the free, unbound drug fraction/MIC ratio of 100 for pathogens with MICs of >= 2 mg/liter in patients with BMI of >30 kg/m(2). A fluconazole loading dose of 12 mg/kg and maintenance dose of 6 mg/kg/day achieved pharmacodynamic targets for higher MICs."

According to the news editors, the research concluded: "A weight-based loading dose of 12 mg/kg followed by a daily maintenance dose of 6 mg/kg, according to renal function, is required in critically ill patients for pathogens with a MIC of 2 mg/liter."


The news correspondents report that additional information may be obtained from J.A. Roberts, University of Queensland, Sch Pharm, Brisbane, Qld, Australia. Additional authors for this research include S.C. Wallis, P. Jarrett, T. Starr, J. Stuart, M. Lassig-Smith, J.L.O. Mejia, M.S. Roberts, M.G. Sinnollareddy, C. Roger, J. Lipman and J.A. Roberts.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01088-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Drugs and Therapies, Fluconazole Therapy, Nutrition Disorders, Diet and Nutrition, Azole Antifungals, Pharmacokinetics, Pharmaceuticals, Antiinfectives, Overnutrition, Bariatrics, Obesity, University of Queensland.

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Findings from University of Sao Paulo Yields New Data on Tooth Wear (Nutritional status, tooth wear and quality of life in Brazilian schoolchildren)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Dental Diseases and Conditions - Tooth Wear. According to news reporting from Bauru, Brazil, by NewsRx journalists, research stated, "To evaluate the correlation among nutritional status, tooth wear and quality of life in Brazilian schoolchildren. The study followed a cross-sectional design."

The news correspondents obtained a quote from the research from the University of Sao Paulo, "Nutritional status was measured via anthropometry using BMI and tooth wear was measured using the Dental Wear Index; both these assessments were carried out by a trained recorder according to standard criteria. A modified version of the Child Oral Impacts on Daily Performances was used to assess quality of life. City of Bauru, in Brazil. A cluster sample of 396 schoolchildren (194 boys and 202 girls) aged 7-10 years. The anthropometric assessment showed similar situations for both sexes regarding underweight (31.40 % in boys and 30.20 % in girls) and overweight/obesity (33.96 % in boys and 33.17 % in girls). The underweight children showed a greater severity of tooth wear in the primary teeth (OR= 0.72; CI 0.36, 1.42), although in the permanent dentition the obese children had a greater severity of tooth wear (OR= 1.42; 95 % CI 0.31, 6.55). The tooth wear was correlated with age for both dentitions. Tooth wear in the primary and permanent dentition may be related to nutritional status."

According to the news reporters, the research concluded: "Tooth wear and obesity did not have a significant impact on the schoolchildren's perception of quality of life."


Our news journalists report that additional information may be obtained by contacting S.H.D. Sales-Peres, University of Sao Paulo, Bauru Sch Dental, Dept. of Pediat Dental Orthodont & Public Hlth, Bauru, SP, Brazil. Additional authors for this research include A.D. Sales-Peres, P.G. de Moura-Grec, M.A.A. Mapengo, A. Sales-Peres and S.H.D. Sales-Peres.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S1368980015002876. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bauru, Brazil, South America, Stomatognathic Diseases and Conditions, Dental Diseases and Conditions, Tooth Diseases and Conditions, Quality of Life, Tooth Wear, Dentistry, University of Sao Paulo.

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Findings from Washington State University Yields New Data on Obesity (Emotion regulation strategies and childhood obesity in high risk preschoolers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Pullman, Washington, by NewsRx editors, research stated, "The current study examined the relationships between the specific strategies that preschool children use to regulate their emotions and childhood weight status to see if emotion regulation strategies would predict childhood weight status over and above measures of eating self-regulation. 185 4- to 5-year-old Latino children were recruited through Head Start centers in a large city in the southeastern U.S. Children completed both a delay of gratification task (emotion regulation) and an eating in the absence of hunger task (eating regulation)."

Funders for this research include National Institute of Child Health and Human Development, U.S. Department of Agriculture, Children's Nutrition Research Center, Baylor College of Medicine.

Our news journalists obtained a quote from the research from Washington State University, "Eating regulation also was assessed by maternal reports. Four emotion regulation strategies were examined in the delay of gratification task: shut out stimuli, prevent movement, distraction, and attention to reward. Hierarchical linear regressions predicting children's weight status showed that both measures of eating regulation negatively predicted child obesity, and the use of prevent movement negatively predicted child obesity. Total wait time during the delay of gratification tasks was not a significant predictor. The current findings are consistent with studies showing that for preschool children, summary measures of emotion regulation (e.g., wait time) are not concurrently associated with child obesity. In contrast, the use of emotion regulation strategies was a significant predictor of lower child weight status."

According to the news editors, the research concluded: "These findings help identify emotion regulation strategies that prevention programs can target for helping children regulate their emotions and decrease their obesity risk."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.appet.2016.09.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pullman, Washington, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Washington State University.
Findings from Washington University Yields New Data on Obesity (Obesity Epidemiology Worldwide)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Obesity are discussed in a new report. According to news reporting from St. Louis, Missouri, by NewsRx journalists, research stated, "Obesity continues to be a public health concern across the globe. Obesity has a demonstrated association with health behaviors and health outcomes, such as diabetes, hypertension, and cancer."

The news correspondents obtained a quote from the research from Washington University, "Over the past 2 decades, obesity has increased worldwide and remains highest in the United States. It is critical to understand the definition of obesity, using body mass index appropriately, recent estimates, and risk factors as a framework within which clinicians should work to help reduce the burden of obesity."

According to the news reporters, the research concluded: "This framework, including the Healthy People 2020 place based approach to social determinants of health, is described in this article."


Our news journalists report that additional information may be obtained by contacting C. Arroyo-Johnson, Washington University, Sch Med, Dept. of Surg, Div Public Hlth Sci, St Louis, MO 63110, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gtc.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Epidemiology, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Washington University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Fullerton, California, by NewsRx editors, research stated, "This study aims to examine adolescent level of knowledge concerning obesity risk. Qualitative and quantitative data were collected using a staged process."

Our news journalists obtained a quote from the research from California State University. "Data collected with (a) Obesity Risk Knowledge Scale (ORK-10), (b) focus groups, © scientific advisory group input, and (d) the Adolescent Obesity Risk Knowledge Scale (AORK). The AORK is tailored from the ORK-10 (a=.53) to capture adolescents' knowledge of obesity complications and/or risks (a=.68)."

According to the news editors, the research concluded: "The AORK integrates questions for assisting practitioners to initiate discussions about obesity and lifestyle choices with adolescents and their families."


Our news journalists report that additional information may be obtained by contacting E.M. Rutkowski, School of Nursing, California State University, Fullerton, California, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jspn.12135. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal for Specialists In Pediatric Nursing is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Obesity, Fullerton, California, Bariatrics, United States, Overnutrition, Diet and Nutrition, Nutrition Disorders, Risk and Prevention, North and Central America, Nutritional and Metabolic Diseases and Conditions.

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Nutritional and Metabolic Diseases and Conditions -…

Findings on Obesity Reported by G.K. Lam et al (Obesity and the Critical Care Pregnant Patient)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Chattanooga, Tennessee, by NewsRx editors, the research stated, "The rise of obesity among gravid women has been tracked and documented in many first-world countries, but a dramatic rise has been noted over the last 15 years. Definitions of 'normal-weight, overweight and obese' have been defined; however, new terms are used to describe more severe degrees of obesity."

Our news journalists obtained a quote from the research, "Obesity in any form or degree increases morbidities in mothers. The unique physiologic characteristics of the obese
gravida set up unique challenges in her management, especially in an acute setting such as labor.

According to the news editors, the research concluded: "The definitions, trends, and management decisions pertaining to the obese parturient will be described in this review."


Our news journalists report that additional information may be obtained by contacting G.K. Lam, Reg Obstet Consultants Chattanooga, Chattanooga, TN, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ogc.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chattanooga, Tennessee, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Critical Care Medicine, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity.

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Nutritional and Metabolic Diseases and Conditions -

Investigators at Griffith University Zero in on Obesity [ADding negative pRESSure to improve healING (the DRESSING trial): a RCT protocol]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating in Gold Coast, Australia, by NewsRx journalists, research stated, "Obese women are more likely to develop a surgical site infection (SSI) following caesarean section (CS) than non-obese women. Negative pressure wound therapy (NPWT) is increasingly being used to reduce SSI with limited evidence for its effectiveness."

The news reporters obtained a quote from the research from Griffith University, "To determine the clinical and cost-effectiveness of using NPWT in obese women having elective and semiurgent CS. A multisite, superiority parallel pragmatic randomised controlled trial with an economic evaluation. Women with a body mass index (BMI) of (>=) 30, booked for elective and semiurgent CS at 4 Australian acute care hospitals will be targeted. A total of 2090 women will be enrolled. A centralised randomisation service will be used with participants block randomised to either NPWT or standard surgical dressings in a 1:1 ratio, stratified by hospital. The primary outcome is SSI; secondary outcomes include type of SSI, length of stay, readmission, wound complications and health-related quality of life. Economic outcomes include direct healthcare costs and cost-effectiveness, which will be evaluated using incremental cost per quality-adjusted life year gained. Data will be collected at baseline, and participants followed up on the second postoperative day and weekly from the day of surgery for 4 weeks. Outcome assessors will be masked to allocation. The primary statistical analysis will be based on intention-to-treat. Ethics approval has been obtained from the ethics committees of the
According to the news reporters, the research concluded: "The findings of the trial will be disseminated through peer-reviewed journals, national and international conference presentations."

For more information on this research see: ADdding negative pRESSure to improve healING (the DRESSING trial): a RCT protocol. Bmj Open, 2016;6(2):e010287. (BMJ Publishing Group - group.bmj.com/; Bmj Open - bmjopen.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting B.M. Gillespie, NHMRC Centre for Research Excellence in Nursing, Centre for Health Practice Innovation (HPI), Menzies Health Institute Qld (MHIQ), Griffith University, Gold Coast, Queensland, Australia. Additional authors for this research include J. Webster, D. Ellwood, H. Stapleton, J.A. Whitty, L. Thalib, N. Cullum, K. Mahomed and W. Chaboyer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bmjopen-2015-010287. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Obesity, Hospital, Gold Coast, Bariatrics, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions.

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**Nutritional and Metabolic Diseases and Conditions -**

**Investigators at Medical University Report Findings in Obesity (Nutritional interventions or exposures in infants and children aged up to 3 years and their effects on subsequent risk of overweight, obesity and body fat: a systematic review of ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Obesity are discussed in a new report. According to news originating from Warsaw, Poland, by NewsRx correspondents, research stated, "This study, performed as part of the international EarlyNutrition research project (http://www.project-earlynutrition.eu), provides a systematic review of systematic reviews on the effects of nutritional interventions or exposures in children (up to 3 years of age) on the subsequent risk of obesity, overweight and adiposity. Electronic databases (including MEDLINE, Embase and Cochrane Library) were searched up until September 2015."

Our news journalists obtained a quote from the research from Medical University, "Forty systematic reviews were included. A consistent association of breastfeeding with a modest reduction in the risk of later overweight and obesity in childhood and adulthood was found (the odds decreased by 13% based on high-quality studies), but residual confounding cannot be excluded. Lowering the protein content of infant formula is a promising intervention to reduce the risk of later overweight and obesity in children. There is no consistent evidence of an association of the age of introducing complementary foods, sugar-sweetened beverage or energy intake in early childhood with later overweight/obesity, but there are some indications of an association of protein intake during the complementary feeding period with later overweight/obesity."

According to the news editors, the research concluded: "There was inadequate
Investigators at National Institute on Alcohol Abuse and Alcoholism Report New Data on Type 2 Diabetes (Endocannabinoid regulation of b-cell functions: implications for glycaemic control and diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "Visceral obesity is a major risk factor for the development of insulin resistance which can progress to overt type 2 diabetes (T2D) with loss of b-cell function and, ultimately, loss of b-cells. Insulin secretion by b-cells of the pancreatic islets is tightly coupled to blood glucose concentration and modulated by a large number of blood-borne or locally released mediators, including endocannabinoids."

Financial supporters for this research include National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health.

Our news journalists obtained a quote from the research from National Institute on Alcohol Abuse and Alcoholism, "Obesity and its complications, including T2D, are associated with increased activity of the endocannabinoid/CB1 receptor (CB1 R) system, as indicated by the therapeutic effects of CB1 R antagonists. Similar beneficial effects of CB1 R antagonists with limited brain penetrance indicate the important role of CB1 R in peripheral tissues, including the endocrine pancreas. Pancreatic b-cells express all of the components of the endocannabinoid system, and endocannabinoids modulate their function via both autocrine and paracrine mechanisms, which influence basal and glucose-induced insulin secretion and also affect b-cell proliferation and survival."

According to the news editors, the research concluded: "The present brief review will survey available information on the modulation of these processes by endocannabinoids and their receptors, with an attempt to assess the contribution of such effects to glycaemic control in
T2D and insulin resistance."


The news correspondents report that additional information may be obtained from T. Jourdan, Laboratory of Physiologic Studies, National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, Bethesda, MD, United States. Additional authors for this research include G. Godlewski and G. Kunos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/dom.12646. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, Proinsulin, United States, Article Review, Hyperinsulinism, Type 2 Diabetes, Endocannabinoids, Peptide Hormones, Peptide Proteins, Insulin Resistance, Drugs and Therapies, Risk and Prevention, North and Central America, Glucose Metabolism Disorders, Non Insulin Dependent Diabetes Mellitus.

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**Health and Medicine - Diet and Nutrition**

**Investigators at University of Bath Describe Findings in Diet and Nutrition (Is breakfast the most important meal of the day?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Health and Medicine - Diet and Nutrition are presented in a new report. According to news reporting originating from Bath, United Kingdom, by NewsRx correspondents, research stated, "The Bath Breakfast Project is a series of randomised controlled trials exploring the effects of extended morning fasting on energy balance and health. These trials were categorically not designed to answer whether or not breakfast is the most important meal of the day."

Our news editors obtained a quote from the research from the University of Bath, "However, this review will philosophise about the meaning of that question and about what questions we should be asking to better understand the effects of breakfast, before summarising how individual components of energy balance and health respond to breakfast v. fasting in lean and obese adults. Current evidence does not support a clear effect of regularly consuming or skipping breakfast on body mass/composition, metabolic rate or diet-induced thermogenesis. Findings regarding energy intake are variable, although the balance of evidence indicates some degree of compensatory feeding later in the day such that overall energy intake is either unaffected or slightly lower when breakfast is omitted from the diet. However, even if net energy intake is reduced, extended morning fasting may not result in expected weight loss due to compensatory adjustments in physical activity thermogenesis. Specifically, we report that both lean and obese adults expended less energy during the morning when remaining in the fasted state than when consuming a prescribed breakfast."

According to the news editors, the research concluded: "Further research is required to examine whether particular health markers may be responsive to breakfast-induced responses of individual components of energy balance irrespective of their net effect on energy balance.
Investigators at University of North Carolina Report Findings in Obesity
(The interaction between physical activity and obesity gene variants in association with BMI: Does the obesogenic environment matter?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting from Chapel Hill, North Carolina, by NewsRx journalists, research stated, "Little is known about how obesity susceptibility single nucleotide polymorphisms (SNPs) interact with moderate to vigorous physical activity (MVPA) in relation to BMI during adolescence, once obesogenic neighborhood factors are accounted for. In race stratified models, including European (EA; N=4977), African (AA; N=1726), and Hispanic Americans (HA; N=1270) from the National Longitudinal Study of Adolescent to Adult Health (1996; ages 12-21), we assessed the evidence for a SNPxMVPA interaction with BMI-for-age Z score, once accounting for obesogenic neighborhood factors including physical activity amenities, transportation and recreation infrastructure, poverty and crime."

Funders for this research include National Institutes of Health, Eunice Kennedy Shriver National Institute of Child Health and Human Development.

The news correspondents obtained a quote from the research from the University of North Carolina, "Eight SNPxMVPA interactions with suggestive significance (p < 0.10; three in each EA, and AA, two in HA) were observed showing attenuation on BMI-for-age Z score in adolescents with ≥ 5 versus < 5 bouts/week MVPA, except for rs10146997 (near NRXIV3). Findings were robust to the inclusion of neighborhood-level variables as covariates."

According to the news reporters, the research concluded: "These findings suggest that any attenuation from MVPA on a genetic susceptibility to obesity during adolescence is likely not operating through obesogenic neighborhood factors."

For more information on this research see: The interaction between physical activity...

Our news journalists report that additional information may be obtained by contacting M. Graff, University of North Carolina, Gillings Sch Global Public Hlth, Dept. of Epidemiol, Chapel Hill, NC 27514, United States. Additional authors for this research include A.S. Richardson, K.L. Young, A.L. Mazul, H. Highland, K.E. North, K.L. Mohlke, L.A. Lange, E.M. Lange, K.M. Harris and P. Gordon-Larsen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.healthplace.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Adolescence, Genetics, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of North Carolina.

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**Intercellular Signaling Peptides and Proteins -...**

**Investigators at University of Oregon Report Findings in Adipokines (Adiponectin, Hemoglobin, and Cardiovascular Risk in an Indigenous Siberian Population)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Intercellular Signaling Peptides and Proteins - Adipokines are presented in a new report. According to news originating from Eugene, Oregon, by NewsRx correspondents, research stated, "Adipose tissue hypoxia appears to play a role in promoting chronic inflammation and the development of obesity-related cardiovascular and metabolic diseases, yet the underlying mechanisms are not well understood. The aim of the present research is to examine whether adiponectin levels (an adipocyte-derived hormone with anti-inflammatory properties) are inversely correlated with hemoglobin levels in an indigenous Siberian population."

Our news journalists obtained a quote from the research from the University of Oregon, "The study was conducted among 252 Yakut adults (>= 18 years; 135 females) from Berdyigestiakh, Sakha Republic, Russia. Measurements included anthropometric dimensions (body mass index [BMI], waist circumference [WC], and percent body fat) and blood levels of hemoglobin and adiponectin. Yakut females had higher adiponectin concentrations than males (15.1 +/- 9.8 vs. 11.7 +/- 10.6 mu g/ml; P< 0.001), whereas males had higher hemoglobin levels (14.4 +/- 1.4 vs. 12.6 +/- 1.5 g/dL; P< 0.001). Body composition measures in both sexes were negatively associated with adiponectin and positively associated with hemoglobin. After adjusting for central adiposity and smoking, adiponectin levels were negatively correlated with hemoglobin levels in men (P < 0.05), but not in women (P = 0.511)."

According to the news editors, the research concluded: "This investigation provides some support for the involvement of hypoxia-related dysregulation of adiponectin associated with obesity and potentially cardiovascular disease."

The news correspondents report that additional information may be obtained from J.J. Snodgrass, University of Oregon, Dept. of Anthropol, Eugene, OR 97403, United States. Additional authors for this research include E.C. Squires, W.R. Leonard, L.A. Tarskaia, T.M. Klimova, V.I. Fedorova, M.E. Baltakhinova, V.G. Krivoshapkin and J.J. Snodgrass.

Keywords for this news article include: Eugene, Oregon, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Cardiovascular, Blood Proteins, Hemoglobins, Adiponectin, Cardiology, Adipokines, Globins, University of Oregon.

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**Nutritional and Metabolic Diseases and Conditions** …

**Investigators from Indiana University School of Medicine Have Reported New Data on Obesity (Does Body Mass Index Modify Memory, Reasoning, and Speed of Processing Training Effects in Older Adults)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news originating from Indianapolis, Indiana, by NewsRx correspondents, research stated, "To describe 10-year trajectories of cognitive performance by body mass index (BMI) class and to investigate BMI differences in response to memory, reasoning, and speed of processing training in older adults. This is a secondary analysis of the multisite, randomized trial Advanced Cognitive Training for Independent and Vital Elderly."

Our news journalists obtained a quote from the research from the Indiana University School of Medicine, "There were 701 older adults with normal weight, 1,081 with overweight, and 902 with obesity (mean age 73.6) randomized to memory training, reasoning training, speed of processing training, or no-training control group. Participants completed memory, reasoning, and speed of processing tests. Baseline sociodemographic, health, and chronic disease measures were included as covariates in analyses. The 10-year trajectories of memory, reasoning, or speed of processing performance did not differ by BMI status among the participants randomized to the untrained control arm. The training effect on the reasoning and speed of processing outcomes did not differ by BMI status. The training effect on the memory outcome in participants with a BMI indicating obesity, however, was just 38% of that observed in participants with normal-weight BMI."

According to the news editors, the research concluded: "These analyses of data from the largest trial of cognitive training ever conducted suggest that older adults with obesity may be less responsive to memory training."

For more information on this research see: Does Body Mass Index Modify Memory, Reasoning, and Speed of Processing Training Effects in Older Adults. *Obesity*, 2016;24
Investigators from Research Hospital Have Reported New Data on Obesity (The assessment of maternal and umbilical cord homocysteine levels in obese pregnant women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting originating in Ankara, Turkey, by NewsRx journalists, research stated, "The aim of this study was to compare the maternal plasma and umbilical cord blood homocysteine levels in obese and non-obese pregnant women. One hundred-ten term pregnant women, who completed their 37th gestational weeks and were not in active labor, were enrolled in the study."

The news reporters obtained a quote from the research from Research Hospital, "While 41 out of them were obese (BMI > 30 kg/m(2)), 69 were non-obese (BMI < 30 kg/m(2)). The maternal plasma and umbilical cord homocysteine levels and umbilical cord pH values were compared between the groups. The statistical analyses were performed using t-test, Mann Whitney test, and Chi-square test. Ap < 0.05 value was set as statistically significant. The mean of age was higher in obese group in borderline significance (26.8 +/- 5.4 vs. 28.8 +/- 5.1, p = 0.049). The mean of gestational weeks, birthweight, the mode of delivery, and umbilical cord pH values were similar between the groups (p > 0.05). The maternal plasma homocysteine levels [median (interquartile range); 7.6 (4.1) vs. 7.1 (4.9)] and umbilical cord homocysteine values were not statistically different [8.6 (4.2) vs. 8.8 (4.5)] between the groups (p > 0.05)."

According to the news reporters, the research concluded: "The maternal and umbilical cord blood homocysteine levels are not different in obese and non-obese pregnant women."


Our news correspondents report that additional information may be obtained by contacting B. Kaya, Ankara Ataturk Educ & Res Hosp, Dept. of Obstet & Gynecol, Ankara,
Turkey. Additional authors for this research include S. Kaya, H.L. Keskin, S. Aydogmus, G.A. Yegin, A. Ekiz and A.F. Avsar.

Keywords for this news article include: Ankara, Turkey, Eurasia, Nutritional and Metabolic Diseases and Conditions, Sulfur Amino Acids, Homocysteine, Bariatrics, Obesity, Research Hospital.

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Nutritional and Metabolic Diseases and Conditions -…

Investigators from Soonchunhyang University Hospital Release New Data on Obesity (Association between obesity and lower urinary tract symptoms: propensity score matching study between healthy controls and obese patients seeking bariatric surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "To date, the association between obesity and lower urinary tract symptoms (LUTS) is controversial. To overcome the current inconsistent results regarding the association between obesity and LUTS and to investigate the association between obesity and LUTS using propensity score matching analysis."

The news reporters obtained a quote from the research from Soonchunhyang University Hospital, "Bariatric center of excellence and health promotion center at university hospital. From August 2012 to December 2014, a total of 260 obese patients (77 men and 180 women) visited to our bariatric center to undergo bariatric surgery. Patients' International Prostate Symptom Score (IPSS) and overactive bladder symptom score were compared with those of 844 healthy controls who had visited our health center during the same period. To control for the effects of age, 1:1 propensity score matching was used. After matching propensity score for age, 73 male patients and 176 female patients were included in our study. In men, all IPSS items except 'frequency' were significantly different between obese patients and controls; median scores were higher in the obese group. In women, all IPSS items except 'feeling of incomplete emptying' were significantly different between the 2 groups. Both voiding and storage subscores also had marked differences in both genders (P < .001). Total rpss, quality of life, and total overactive bladder symptom score were significantly different in both genders (P < .001). There were marked differences in LUTS between obese and nonobese patients, including in voiding and storage symptoms."

According to the news reporters, the research concluded: "Considering the relatively young age of both groups, this case-control study supports the hypothesis of a relationship between obesity and bladder pathophysiology."

For more information on this research see: Association between obesity and lower urinary tract symptoms: propensity score matching study between healthy controls and obese patients seeking bariatric surgery. Surgery for Obesity and Related Diseases, 2016;12(8):1585-1593. Surgery for Obesity and Related Diseases can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Surgery for Obesity and Related Diseases - www.journals.elsevier.com/surgery-for-obesity-and-related-diseases/)
Our news correspondents report that additional information may be obtained by contacting Y.J. Kim, Soonchunhyang Univ, Soonchunhyang Univ Hosp, Dept. of Surg, Coll Med, Seoul, South Korea. Additional authors for this research include H.Y. Sun, S.Y. Park, M.J. Soh, Y.J. Kim and Y.S. Song.

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Keywords for this news article include: Seoul, South Korea, Asia, Nutritional and Metabolic Diseases and Conditions, Operative Surgical Procedures, Nutrition Disorders, Diet and Nutrition, Bariatric Surgery, Urinary Tract, Overnutrition, Bariatrics, Obesity, Soonchunhyang University Hospital.

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Investigators from University of California Report New Data on Obesity (The Effects of Patient Obesity on Early Postoperative Complications After Shoulder Arthroscopy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of San Francisco, California, by NewsRx editors, research stated, "To report the prevalence of obesity in shoulder arthroscopy, determine a body mass index (BMI) threshold most predictive of complication within 30 days, and evaluate obesity as an independent risk factor for medical and surgical complications. Using the National Surgical Quality Improvement Program database, we reviewed all patients who underwent shoulder arthroscopy during 2011 to 2013."

Our news journalists obtained a quote from the research from the University of California, "Receiver operating characteristic and Youden coefficient were calculated to find an optimal BMI cutoff to predict complications within 30 days of surgery. A case-control matched analysis was then performed by stratifying patient BMI by this cutoff and matching patients one to one according to age, sex, type of shoulder arthroscopy, American Society of Anesthesiology rating, surgical setting, and 8 comorbidities. Operating time, complications, and readmissions were also compared. Of the 15,589 patients who underwent shoulder arthroscopy, 6,684 (43%) were classified as obese when using the optimal cutoff point of BMI = 30 according to the Youden coefficient. Obese patients had a higher risk of superficial site infection than nonobese patients (0.3% vs 0.0%; odds ratio [OR]: 6.00; 95% confidence interval [CI], 1.3 to 26.8; P = .015). Obese patients did not have significantly increased risk for overall early postoperative complication (1.2% compared with nonobese 0.8%; OR: 1.54; 95% CI, 1.0 to 2.4), readmissions (OR: 0.85; 95% CI, 0.5 to 1.5), or increased operating time (P = .068). Up to 43% of patients undergoing shoulder arthroscopy can be classified as obese, but early perioperative complications are uncommon."

According to the news editors, the research concluded: "Higher patient BMI is associated with increased risk of superficial site infection but not an overall risk for complication, readmission, or increased operating time."

For more information on this research see: The Effects of Patient Obesity on Early
Investigations from University of Medicine and Dentistry of New Jersey (UMDNJ) Release New Data on Obesity (Early postnatal amylin treatment enhances hypothalamic leptin signaling and neural development in the selectively bred diet-induced obese ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news reporting out of Newark, New Jersey, by NewsRx editors, research stated, "Selectively bred diet-induced obese (DIO) rats become obese on a high-fat diet and are leptin resistant before becoming obese. Compared with diet-resistant (DR) neonates, DIO neonates have impaired leptin-dependent arcuate (ARC) neuropeptide Y/agouti-related peptide (NPY/AgRP) and alpha-melanocytestimulating hormone (alpha-MSH; from proopiomelanocortin (POMC) neurons) axon outgrowth to the paraventricular nucleus (PVN)."

Funders for this research include American Heart Association (AHA), HHS | NIH | National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), Swiss National Science Foundation (Schweizerische Nationalfonds).

Our news journalists obtained a quote from the research from the University of Medicine and Dentistry of New Jersey (UMDNJ), "Using phosphorylation of STAT3 (pSTAT3) as a surrogate, we show that reduced DIO ARC leptin signaling develops by postnatal day 7 (P7) and is reduced within POMC but not NPY/AgRP neurons. Since amylin increases leptin signaling in adult rats, we treated DIO neonates with amylin during postnatal hypothalamic development and assessed leptin signaling, leptin-dependent ARC-PVN pathway development, and metabolic changes. DIO neonates treated with amylin from P0-6 and from P0-16 increased ARC leptin signaling and both AgRP and alpha-MSH ARC-PVN pathway development, but increased only POMC neuron number. Despite ARC-PVN pathway correction, P0-16 amylin-induced reductions in body weight did not persist beyond treatment cessation. Since amylin..."
enhances adult DIO ARC signaling via an IL-6-dependent mechanism, we assessed ARC-PVN pathway competency in IL-6 knockout mice and found that the AgRP, but not the alpha-MSH, ARC-PVN pathway was reduced. These results suggest that both leptin and amylin are important neurotrophic factors for the postnatal development of the ARC-PVN pathway. Amylin might act as a direct neurotrophic factor in DIO rats to enhance both the number of POMC neurons and their alpha-MSH ARC-PVN pathway development."

According to the news editors, the research concluded: "This suggests important and selective roles for amylin during ARC hypothalamic development."


Our news journalists report that additional information may be obtained by contacting B.E. Levin, Rutgers New Jersey Med Sch, Dept. of Neurol, Newark, NJ, United States. Additional authors for this research include S.G. Bouret, A.A. Dunn-Meynell, C.N. Boyle, T.A. Lutz and B.E. Levin.

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Keywords for this news article include: Newark, New Jersey, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Melanocyte-Stimulating Hormones, Nerve Tissue Proteins, Hypothalamic Hormones, Pro-Opiomelanocortin, Pituitary Hormones, Peptide Proteins, Peptide Hormones, Neuropeptides, Adipokines, Bariatrics, alpha-MSH, Obesity, Leptin, University of Medicine and Dentistry of New Jersey (UMDNJ).

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Investigators from University of North Carolina Zero in on Obesity (Child and youth participatory interventions for addressing lifestyle-related childhood obesity: a systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Obesity is now available. According to news originating from Chapel Hill, North Carolina, by NewsRx correspondents, research stated, "A growing number of childhood obesity interventions involve children and youth in participatory roles, but these types of interventions have not been systematically reviewed. We aimed to identify child and youth participatory interventions in the peer-reviewed literature in order to characterize the approaches and examine their impact on obesity and obesity-related lifestyle behaviours."

Our news journalists obtained a quote from the research from the University of North Carolina, "We searched PubMed/Medline, psychINFO and ERIC for quasi-experimental and randomized trials conducted from date of database initiation through May 2015 that engaged
children or youth in implementing healthy eating, physical activity or weight management strategies. Eighteen studies met our eligibility criteria. Most (n = 14) trained youth to implement pre-defined strategies targeting their peers. A few (n = 4) assisted youth to plan and implement interventions that addressed environmental changes. Thirteen studies reported at least one statistically significant weight, physical activity or dietary change outcome. Participatory approaches have potential, but variation in strategies and outcomes leave questions unanswered about the mechanisms through which child and youth engagement impact childhood obesity. Future research should compare child-delivered or youth-delivered to adult-delivered health promotion interventions and more rigorously evaluate natural experiments that engage youth to implement environmental changes."

According to the news editors, the research concluded: "With careful attention to theoretical frameworks, process and outcome measures, these studies could strengthen the effectiveness of child and youth participatory approaches."


The news correspondents report that additional information may be obtained from L. Frerichs, University of North Carolina, Center Hlth Equ Res, Chapel Hill, NC 27599, United States. Additional authors for this research include O. Ataga, G. Corbie-Smith and S.T. Lindau.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of North Carolina.

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Nutritional and Metabolic Diseases and Conditions - …

Investigators from University of Queensland Release New Data on Obesity (The fractions of cancer attributable to modifiable factors: A global review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news reporting out of Herston, Australia, by NewsRx editors, research stated, "Worldwide, the burden of cancer is rising, stimulating efforts to develop strategies to control these diseases. Primary prevention, a key control strategy, aims to reduce cancer incidence through programs directed towards reducing population exposure to known causal factors."

Financial support for this research came from Cancer Council Australia.

Our news journalists obtained a quote from the research from the University of Queensland, "Before enacting such strategies, it is necessary to estimate the likely effect on cancer incidence if exposures to known causal factors were reduced or eliminated. The population attributable fraction (PAF) is the epidemiological measure which quantifies this potential reduction in incidence. We surveyed the literature to document and summarise the
proportions of cancers across the globe attributable to modifiable causes, specifically tobacco smoke, alcohol, overweight/obesity, insufficient physical activity, solar ultraviolet (UV) radiation and dietary factors (insufficient fruit, non-starchy vegetables and fibre; red/processed meat; salt). In total, we identified 55 articles that presented PAF estimates for one or more causes. Information coverage was not uniform, with many articles reporting cancer PAFs due to overweight/obesity, alcohol and tobacco, but fewer reporting PAFs for dietary factors or solar UV radiation. At all cancer sites attributable to tobacco and alcohol, median PAFs were markedly lower for women than men. Smoking contributed to very high median PAFs (>50%) for cancers of the lung and larynx. Median PAFs for men, attributable to alcohol, were high (25-50%) for cancers of the oesophagus, oral cavity/pharynx, larynx and liver. For cancers causally associated with overweight/obesity, high median PAFs were reported for oesophageal adenocarcinoma (men 29%, women 37%), gallbladder (men 11%, women 42%) and endometrium (36%). The cancer PAF literature is growing rapidly."

According to the news editors, the research concluded: "Repeating this survey in the future should lead to more precise estimates of the potentially preventable fractions of cancer."

For more information on this research see: The fractions of cancer attributable to modifiable factors: A global review. *Cancer Epidemiology*, 2016;44():203-221. *Cancer Epidemiology* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news journalists report that additional information may be obtained by contacting D.C. Whiteman, University of Queensland, Sch Public Hlth, Herston, Qld 4006, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.06.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Herston, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Cancer, Article Review, Epidemiology, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Oncology, Obesity, University of Queensland.

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**Johns Hopkins University Details Findings in Obesity (Microvascular Endothelial Dysfunction in Sedentary, Obese Humans Is Mediated by NADPH Oxidase Influence of Exercise Training)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Obesity are discussed in a new report. According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "The objectives of this study were to determine the impact of in vivo reactive oxygen species (ROS) on microvascular endothelial function in obese human subjects and the efficacy of an aerobic exercise intervention on alleviating obesity-associated dysfunctionality. Approach and Results-Young, sedentary men and women were divided into lean (body mass index 18-25; n=14), intermediate (body mass index 28-32.5; n=
13), and obese (body mass index 33-40; n=15) groups."

The news correspondents obtained a quote from the research from Johns Hopkins University, "A novel microdialysis technique was utilized to detect elevated interstitial hydrogen peroxide (H2O2) and superoxide levels in the vastus lateralis of obese compared with both lean and intermediate subjects. Nutritive blood flow was monitored in the vastus lateralis via the microdialysis-ethanol technique. A decrement in acetylcholine-stimulated blood flow revealed impaired microvascular endothelial function in the obese subjects. Perfusion of apocynin, an NADPH oxidase inhibitor, lowered (normalized) H2O2 and superoxide levels, and reversed microvascular endothelial dysfunction in obese subjects. After 8 weeks of exercise, H2O2 levels were decreased in the obese subjects and microvascular endothelial function in these subjects was restored to levels similar to lean subjects. Skeletal muscle protein expression of the NADPH oxidase subunits p22(phox), p47(phox), and p67(phox) was increased in obese relative to lean subjects, where p22(phox) and p67(phox) expression was attenuated by exercise training in obese subjects. This study implicates NADPH oxidase as a source of excessive ROS production in skeletal muscle of obese individuals and links excessive NADPH oxidase-derived ROS to microvascular endothelial dysfunction in obesity."

According to the news reporters, the research concluded: "Furthermore, aerobic exercise training proved to be an effective strategy for alleviating these maladies."

For more information on this research see: Microvascular Endothelial Dysfunction in Sedentary, Obese Humans Is Mediated by NADPH Oxidase Influence of Exercise Training. *Arteriosclerosis Thrombosis and Vascular Biology*, 2016;36(12):2412-2420. *Arteriosclerosis Thrombosis and Vascular Biology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting J.D. La Favor, Johns Hopkins Sch Med, James Buchanan Brady Urol Inst, Dept. of Urol, Baltimore, MD, United States. Additional authors for this research include G.S. Dubis, H.M. Yan, J.D. White, M.A.M. Nelson, E.J. Anderson and R.C. Hickner.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, NADPH Oxidoreductases NADH, Enzymes and Coenzymes, NADPH Oxidase, Flavoproteins, Bariatrics, Proteins, Obesity, Johns Hopkins University.

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**Nutritional and Metabolic Diseases and Conditions**

**New Findings Reported from University College Describe Advances in Obesity (Perceived Weight Discrimination and Chronic Biochemical Stress: A Population-Based Study Using Cortisol in Scalp Hair)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Obesity is the subject of a report. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "There is increasing evidence for weight-based discrimination against persons with obesity. This study aimed to examine the physiological impact of perceived weight discrimination on cortisol in hair, an indicator of chronic stress exposure."
Our news journalists obtained a quote from the research from University College, "Data were from 563 nonsmoking individuals with obesity (body mass index, BMI >= 30 kg/m^2) participating in the English Longitudinal Study of Ageing. Experiences of discrimination were reported via questionnaire, and hair cortisol concentrations were determined from the scalp-nearest 2-cm hair segment. Height and weight were objectively measured. ANCOVAs tested associations between perceived weight discrimination and hair cortisol concentration overall and by degree of obesity. All analyses were adjusted for age, sex, ethnicity, socioeconomic status, and BMI. Mean hair cortisol concentrations were 33% higher in those who had experienced weight discrimination than those who had not (mean log pg/mg 1.241 vs. 0.933, F = 12.01, P = 0.001). The association between weight discrimination and hair cortisol was particularly pronounced in individuals with severe (class II/III) obesity (1.402 vs. 0.972, F = 11.58, P = 0.001). Weight discrimination is associated with the experience of stress at a biological level."

According to the news editors, the research concluded: "Chronic exposure to elevated levels of cortisol may play a role in generating a vicious circle of weight gain and discrimination and contribute to obesity-associated health conditions."


The news correspondents report that additional information may be obtained from S.E. Jackson, UCL, Dept. of Epidemiol & Public Hlth, London, United Kingdom. Additional authors for this research include C. Kirschbaum and A. Steptoe.

Keywords for this news article include: London, United Kingdom, Europe, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Overnutrition, Biochemicals, Biochemistry, Bariatrics, Chemicals, Obesity, University College.

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**New Findings from Bioprocessing Technology Institute Describe Advances in Obesity (Loss of Fas apoptosis inhibitory molecule leads to spontaneous obesity and hepatosteatosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting from Singapore, Singapore, by NewsRx journalists, research stated, "Altered hepatic lipogenesis is associated with metabolic diseases such as obesity and hepatosteatosis. Insulin resistance and compensatory hyperinsulinaemia are key drivers of these metabolic imbalances."

The news correspondents obtained a quote from the research from Bioprocessing Technology Institute, "Fas apoptosis inhibitory molecule (FAIM), a ubiquitously expressed antiapoptotic protein, functions as a mediator of Akt signalling. Since Akt acts at a nodal point in insulin signalling, we hypothesize that Faim may be involved in energy metabolism. In the current
study, C57BL/6 wild-type (WT) and FAIM-knockout (FAIM-KO) male mice were fed with normal chow diet and body weight changes were monitored. Energy expenditure, substrate utilization and physical activities were analysed using a metabolic cage. Liver, pancreas and adipose tissue were subjected to histological examination. Serum glucose and insulin levels and lipid profiles were determined by biochemical assays. Changes in components of the insulin signalling pathway in FAIM-KO mice were examined by immunoblots. We found that FAIM-KO mice developed spontaneous non-hyperphagic obesity accompanied by hepatosteatosis, adipocyte hypertrophy, dyslipidaemia, hyperglycaemia and hyperinsulinaemia. In FAIM-KO liver, lipogenesis was elevated as indicated by increased fatty acid synthesis and SREBP-1 and SREBP-2 activation. Notably, protein expression of insulin receptor beta was markedly reduced in insulin target organs of FAIM-KO mice. Akt phosphorylation was also lower in FAIM-KO liver and adipose tissue as compared with WT controls. In addition, phosphorylation of insulin receptor substrate-1 and Akt2 in response to insulin treatment in isolated FAIM-KO hepatocytes was also markedly attenuated. Altogether, our data indicate that Fis a novel regulator of insulin signalling and plays an essential role in energy homoeostasis."

According to the news reporters, the research concluded: "These findings may shed light on the pathogenesis of obesity and hepatosteatosis."

For more information on this research see: Loss of Fas apoptosis inhibitory molecule leads to spontaneous obesity and hepatosteatosis. Cell Death & Disease, 2016;7():e2091. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

Our news journalists report that additional information may be obtained by contacting J. Huo, Immunology Group, Bioprocessing Technology Institute, Agency for Science, Technology and Research, 20 Biopolis Way, #06-01 Centros, Singapore 138668, Singapore. Additional authors for this research include Y. Ma, J.J. Liu, Y.S. Ho, S. Liu, L.Y. Soh, S. Chen, S. Xu, W. Han, A. Hong, S.C. Lim and K.P Lam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2016.12. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Obesity, Apoptosis, Bariatrics, Proinsulin, Overnutrition, Hepatosteatosis, Peptide Hormones, Peptide Proteins, Diet and Nutrition, Nutrition Disorders, Nutritional and Metabolic Diseases and Conditions.

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Nutritional and Metabolic Diseases and Conditions -...

New Findings from Boston University Update Understanding of Obesity (WNT5A-JNK regulation of vascular insulin resistance in human obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Obesity is associated with the development of vascular insulin resistance; however, pathophysiological mechanisms are poorly understood. We sought to investigate the role of WNT5A-JNK in the regulation of insulin-mediated vasodilator responses in human adipose tissue arterioles prone to endothelial dysfunction."
The news reporters obtained a quote from the research from Boston University, "In 43 severely obese (BMI 44 +/- 11 kg/m(2)) and five metabolically normal non-obese (BMI 26 +/- 2 kg/m(2)) subjects, we isolated arterioles from subcutaneous and visceral fat during planned surgeries. Using videomicroscopy, we examined insulin-mediated, endothelium-dependent vasodilator responses and characterized adipose tissue gene and protein expression using real-time polymerase chain reaction and Western blot analyses. Immunofluorescence was used to quantify endothelial nitric oxide synthase (eNOS) phosphorylation. Insulin-mediated vasodilation was markedly impaired in visceral compared to subcutaneous vessels from obese subjects (p <0.001), but preserved in non-obese individuals. Visceral adiposity was associated with increased JNK activation and elevated expression of WNT5A and its non-canonical receptors, which correlated negatively with insulin signaling. Pharmacological JNK antagonism with SP600125 markedly improved insulin-mediated vasodilation by sixfold (p <0.001), while endothelial cells exposed to recombinant WNT5A developed insulin resistance and impaired eNOS phosphorylation (p <0.05). We observed profound vascular insulin resistance in the visceral adipose tissue arterioles of obese subjects that was associated with up-regulated WNT5A-JNK signaling and impaired endothelial eNOS activation."

According to the news reporters, the research concluded: "Pharmacological JNK antagonism markedly improved vascular endothelial function, and may represent a potential therapeutic target in obesity-related vascular disease."

For more information on this research see: WNT5A-JNK regulation of vascular insulin resistance in human obesity. Vascular Medicine, 2016;21(6):489-496. Vascular Medicine can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England. (Sage Publications - www.sagepub.com/; Vascular Medicine - vmj.sagepub.com)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1358863X16666693. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Nutrition Disorders, Insulin Resistance, Diet and Nutrition, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Overnutrition, Pharmacology, Proinsulin, Bariatrics, Therapy, Obesity, Boston University.

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New Findings from Federal University in the Area of Obesity Described (Thyroid Function in Human Obesity: Underlying Mechanisms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Obesity are discussed in a new report. According to news reporting originating from Teresina,
Brazil, by NewsRx correspondents, research stated, "Obesity is associated with several metabolic and endocrine disorders; and changes in plasma concentrations, secretion patterns, and clearance of various hormones are observed in obese patients."

Our news editors obtained a quote from the research from Federal University, "In this context, recent research has shown that overweight can influence the function of the thyroid gland, usually leading to increased thyrotropin concentrations and changes in the ratio between the hormones triiodothyronine and thyroxine, though within the normal range. The etiology of these changes is still unclear; how-ever, several mechanisms have been proposed including the adaptive process to increase energy expenditure, hyperleptinemia, changes in the activity of deiodinases, the presence of thyroid hormones resistance, chronic low-grade inflammation, and insulin resistance."

According to the news editors, the research concluded: "Although the clinical implications have not been clarified, studies suggest that these changes in the thyroid function of obese individuals may contribute to the worsening of metabolic complications and the development of diseases in the thyroid gland."

For more information on this research see: Thyroid Function in Human Obesity: Underlying Mechanisms. *Hormone and Metabolic Research*, 2016;48(12):787-794. *Hormone and Metabolic Research* can be contacted at: Georg Thieme Verlag Kg, Ruderstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

The news editors report that additional information may be obtained by contacting D.D.N. Marreiro, Univ Fed Piaui, Dept. of Nutr, Teresina, Piaui, Brazil. Additional authors for this research include M.M. Feitosa, J.S. Severo, T.E.C. Freitas, J.B.S. Morais, F.L. Torres-Leal, G.S. Henriques and D.D.N. Marreiro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0042-121421. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Teresina, Brazil, South America, Nutritional and Metabolic Diseases and Conditions, Hormones, Article Review, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Federal University.

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**Nutritional and Metabolic Diseases and Conditions -**

**New Findings from NHS Foundation Trust in the Area of Obesity Reported (Physical Activity to Reduce Systemic Inflammation Associated With Chronic Pain and Obesity: A Narrative Review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting out of Leeds, United Kingdom, by NewsRx editors, research stated, "The increasing prevalence of chronic pain and obesity has significant health and cost implications for economies in the developed and developing world. Evidence suggests that there is a positive correlation between obesity and chronic pain and the link between them is thought to be systemic inflammation."

Our news journalists obtained a quote from the research from NHS Foundation Trust, "The aim of this narrative review was to explore the physiological links between chronic
musculoskeletal pain and obesity and to consider the potential role of regular physical activity in providing a means of managing obesity-related chronic pain. Systemic inflammation, mechanical overload, and autonomic dysfunction are associated with increased prevalence and severity of chronic pain in individuals with obesity. It has been proposed, therefore, that interventions that target systemic inflammation could help to reduce chronic pain in obese individuals. Reduction in abdominal fat has been shown to alleviate pain and reduce the systemic markers of inflammation that contribute to chronic pain. Interventions that include exercise prescription have been shown to reduce both abdominal fat and systemic inflammation. Furthermore, exercise is also known to reduce pain perception and improve mental health and quality of life that also improves pain outcomes."

According to the news editors, the research concluded: "However, adherence to formal exercise prescription is poor and therefore exercise programmes should be tailored to the interests, needs, and abilities of individuals to reduce attrition."


Our news journalists report that additional information may be obtained by contacting C.A. Paley, *Airedale NHS Foundation Trust, West Yorkshire †Faculty of Health and Social Sciences, Leeds Beckett University ‡Leeds Pallium Research Group, Leeds, UK. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/AJP.0000000000000258. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leeds, Europe, Obesity, Bariatrics, Chronic Pain, Inflammation, Overnutrition, United Kingdom, Article Review, Diet and Nutrition, Nutrition Disorders, Musculoskeletal Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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### Nutritional and Metabolic Diseases and Conditions –

### New Findings in Obesity Described from Nestle Research Center

**(Chrono-nutrition: a review of current evidence from observational studies on global trends in time-of-day of energy intake and its association with obesity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Obesity are discussed in a new report. According to news reporting from Lausanne, Switzerland, by NewsRx journalists, research stated, "The importance of the circadian rhythm in regulating human food intake behaviour and metabolism has long been recognised. However, little is known as to how energy intake is distributed over the day in existing populations, and its potential association with obesity."

The news correspondents obtained a quote from the research from Nestle Research Center, "The present review describes global trends in time-of-day of energy intake in the general population based on data from cross-sectional surveys and longitudinal cohorts. Evidence of the association between time-of-day of energy intake and obesity is also..."
summarised. Overall, there were a limited number of cross-sectional surveys and longitudinal cohorts that provided data on time-of-day of energy intake. In the identified studies, a wide variation in time-of-day of energy intake was observed, with patterns of energy distribution varying greatly by country and geographical area. In relation to obesity, eight cross-sectional surveys and two longitudinal cohorts were identified. The association between time-of-day of energy intake and obesity varied widely, with several studies reporting a positive link between evening energy intake and obesity."

According to the news reporters, the research concluded: "The current review summarises global trends in time-of-day of energy intake. The large variations across countries and global regions could have important implications to health, emphasising the need to understand the socio-environmental factors guiding such differences in eating patterns. Evidence of the association between time-of-day of energy intake and BMI also varied. Further larger scale collaborations between various countries and regions are needed to sum data from existing surveys and cohorts, and guide our understanding of the role of chrono-nutrition in health."


Our news journalists report that additional information may be obtained by contacting S. Almoosawi, Nestle Res Center, Dept. of Nutr & Hlth Res, CH-1000 Lausanne, Switzerland. Additional authors for this research include S. Vingeliene, L.G. Karagounis and G.K. Pot.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S0029665116000306. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lausanne, Switzerland, Europe, Nutritional and Metabolic Diseases and Conditions, Epidemiology, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Nestle Research Center.

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**Gram-Positive Bacteria - Clostridium difficile**

**New Findings on Clostridium difficile from Einstein Medical Center Summarized (Body mass index greater than 35 is associated with severe Clostridium difficile infection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Positive Bacteria - Clostridium difficile is now available. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Obesity has been implicated in the acquisition of Clostridium difficile infections (CDI), however, no study has investigated whether there is a correlation between body mass index (BMI) and CDI severity. To determine whether obesity, as measured by BMI
correlates with severe hospital-onset or community-onset CDI."

The news correspondents obtained a quote from the research from Einstein Medical Center, "Patients admitted with CDI at a tertiary-care center from January 2013 to June 2015 were identified. The cohort was stratified by onset of disease using the National Healthcare Safety Network criteria, and by severity using the 2013 American College of Gastroenterology guidelines. Multivariate logistic regression was used to determine independent predictors of severe CDI. A total of 196 met the inclusion criteria, of which 57.1% (112) met criteria for severe disease. Overall, BMI >35 kg/m² was 1.7-fold more likely to be associated with severe CDI compared to a BMI 20-35 kg/m² (P < 0.005), and was an independent predictor of severe CDI (P = 0.038). In patients with community-onset-CDI and hospital-onset-CDI, a BMI >35 kg/m² was associated with a 1.96-fold and 1.48 greater rate of severe CDI compared to a BMI 20-35 kg/m² (P = 0.004 and 0.048), and was an independent predictor of severe CDI in these cohorts (P = 0.039 and 0.027) respectively. This study has identified an association between body mass index and Clostridium difficile infection severity."

According to the news reporters, the research concluded: "A BMI >35 kg/m² is an independent risk factor for severe community-onset and hospital-onset Clostridium difficile infections."

For more information on this research see: Body mass index greater than 35 is associated with severe Clostridium difficile infection. Alimentary Pharmacology & Therapeutics, 2017;45(1):75-81. Alimentary Pharmacology & Therapeutics can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Alimentary Pharmacology & Therapeutics - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2036)

Our news journalists report that additional information may be obtained by contacting P.O. Katz, Einstein Med Center, Div Gastroenterol & Hepatol, Philadelphia, PA, United States. Additional authors for this research include A.J. Baumann, T. Alnabelsi, N. Sandhu, Y. Alhamshari, D.S. Wheeler, S. Perloff and P.O. Katz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13832. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Gram-Positive Endospore-Forming Bacteria, Gram-Positive Endospore-Forming Rods, Clostridium, Risk and Prevention, Gram-Positive Bacteria, Clostridium difficile, Hospital, Einstein Medical Center.

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Mental Health Diseases and Conditions - Schizophrenia

New Findings on Schizophrenia from University of California Summarized (Weight change during long-term treatment with lurasidone: pooled analysis of studies in patients with schizophrenia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mental Health Diseases and Conditions - Schizophrenia have been published. According to news reporting from San Diego, California, by NewsRx journalists, research stated, "The objective of this analysis was to evaluate the effect
of 12 months of treatment with lurasidone on weight in patients with schizophrenia. Post-hoc, observed-case analysis included pooled data from six studies on 40-160 mg/day lurasidone; two studies included active comparators (2-6 mg/day risperidone or 200-800 mg/day quetiapine XR)."

The news correspondents obtained a quote from the research from the University of California, "Overall, 593 patients completed 12 months of treatment (N=471 lurasidone, N=89 risperidone, N=33 quetiapine XR). The mean baseline weight was 72.8, 80.8, and 72.4 kg in the lurasidone, risperidone, and quetiapine XR groups, respectively. The mean weight change at month 12 was -0.4 kg with lurasidone, +2.6 kg with risperidone, and +1.2 kg with quetiapine XR. Weight gain of at least 7% from study baseline was observed in 16.0, 25.8, and 15.2% of patients, and weight loss of at least 7% was seen in 18.5, 6.7, and 9.1% of patients treated with lurasidone, risperidone, and quetiapine XR, respectively. A shift from normal/underweight baseline BMI status to overweight/obese at month 12 occurred in 10.2, 27.6, and 15.0% of patients in the lurasidone, risperidone, and quetiapine XR groups, respectively. Conversely, 14.3, 1.7, and 7.7% of patients, respectively, shifted from overweight/obese to normal/underweight."

According to the news reporters, the research concluded: "In summary, a low potential for clinically significant weight gain was observed in patients with schizophrenia treated continuously with lurasidone for 12 months."


Our news journalists report that additional information may be obtained by contacting J.M. Meyer, aDept. of Psychiatry, University of California, San Diego, California bSunovion Pharmaceuticals Inc, Fort Lee, New Jersey, United States. Additional authors for this research include Y. Mao, A. Pikalov, J. Cucchiaro and A. Loebel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/YIC.0000000000000091. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Diego, California, Psychiatry, United States, Schizophrenia, North and Central America, Mental Health Diseases and Conditions.

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Inflammation

New Inflammation Study Results Reported from University of Toronto
(Diet-induced cellular neuroinflammation in the hypothalamus: Mechanistic insights from investigation of neurons and microglia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Inflammation. According to news reporting from Toronto, Canada, by NewsRx journalists, research stated, "Diet-induced obesity can lead to detrimental chronic disorders. The severity of this global epidemic has encouraged ongoing research to characterize the mechanisms underlying obesity and its comorbidities."
Funders for this research include Natural Sciences and Engineering Research Council, Canadian Institutes for Health Research, Canada Foundation for Innovation and Canada Research Chairs Program.

The news correspondents obtained a quote from the research from the University of Toronto, "Recent evidence suggests that saturated fatty acids (SEA) in high-fat diets rapidly generate inflammation in the arcuate nucleus of the hypothalamus (ARC), which centrally regulates whole-body energy homeostasis. Herein, we will review the roles of hypothalamic neurons and resident microglia in the initiation of SFA-induced hypothalamic inflammation. Particularly, we focus on neuronal and microglial free fatty acid-sensing and capacity to produce inflammatory signaling. We also outline a potential role of peripherally-derived monocytes in this inflammation."

According to the news reporters, the research concluded: "And finally, we explore synaptic plasticity as a mechanism through which hypothalamic inflammation can modulate ARC circuitry, and thus disrupt energy homeostasis."


Our news journalists report that additional information may be obtained by contacting D.D. Belsham, University of Toronto, Dept. of Med, Toronto, ON, Canada. Additional authors for this research include E.K. Tse, M.H. Kim and D.D. Belsham.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mce.2016.05.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Neuroinflammation, Inflammation, University of Toronto.

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New Obesity Findings Has Been Reported by Researchers at Garvan Institute of Medical Research (Skeletal muscle and plasma lipidomic signatures of insulin resistance and overweight/obesity in humans)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting from Sydney, Australia, by NewsRx journalists, research stated, "Alterations in lipids in muscle and plasma have been documented in insulin-resistant people with obesity. Whether these lipid alterations are a reflection of insulin resistance or obesity remains unclear."

The news correspondents obtained a quote from the research from the Garvan Institute of Medical Research, "Nondiabetic sedentary individuals not treated with lipid-lowering medications were studied (n=51). Subjects with body mass index (BMI) >25 kg/m(2) (n=28) were stratified based on median glucose infusion rate during a hyperinsulinemic-
euglycemic clamp into insulin-sensitive and insulin-resistant groups (above and below median, obesity/insulin-sensitive and obesity/insulin-resistant, respectively). Lean individuals (n=23) served as a reference group. Lipidomics was performed in muscle and plasma by liquid chromatography electrospray ionization-tandem mass spectrometry. Pathway analysis of gene array in muscle was performed in a subset (n=35). In muscle, insulin resistance was characterized by higher levels of C18:0 sphingolipids, while in plasma, higher levels of diacylglycerol and cholesterol ester, and lower levels of lysophosphatidylcholine and lysoalkylphosphatidylcholine, indicated insulin resistance, irrespective of overweight/obesity. The sphingolipid metabolism gene pathway was upregulated in muscle in insulin resistance independent of obesity. An overweight/obesity lipidomic signature was only apparent in plasma, predominated by higher triacylglycerol and lower plasmalogen species."

According to the news reporters, the research concluded: "Muscle C18:0 sphingolipids may play a role in insulin resistance independent of excess adiposity."


Our news journalists report that additional information may be obtained by contacting K.T. Tonks, Diabetes and Metabolism Division, Garvan Institute of Medical Research, Sydney, New South Wales, Australia. Additional authors for this research include A.C. Coster, M.J. Christopher, R. Chaudhuri, A. Xu, J. Gagnon-Bartsch, D.J. Chisholm, D.E. James, P.J. Meikle, J.R. Greenfield and D. Samocha-Bonet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21448. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Obesity, Bariatries, Proinsulin, Overnutrition, Hyperinsulinism, Peptide Hormones, Peptide Proteins, Diet and Nutrition, Insulin Resistance, Nutrition Disorders, Australia and New Zealand, Glucose Metabolism Disorders, Endocrine System Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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**New Obesity Findings from Hiroshima University Described (Serum Amyloid A3 Gene Expression in Adipocytes is an Indicator of the Interaction with Macrophages)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating from Higashi Hiroshima, Japan, by NewsRx correspondents, research stated, "The infiltration of macrophages into adipose tissue and their interaction with adipocytes are essential for the chronic low-grade inflammation of obese adipose tissue. In this study, we identified the serum amyloid A3 (Saa3) gene as a key adipocyte-derived factor that is affected by interaction with macrophages."

Our news editors obtained a quote from the research from Hiroshima University, "We showed that the Saa3 promoter in adipocytes actually responds to activated macrophages in a co-culture system. Decreasing C/EBP beta abundance in 3T3-L1 adipocytes or point mutation..."
of C/EBP beta elements suppressed the increased promoter activity in response to activated macrophages, suggesting an essential role of C/EBP beta in Saa3 promoter activation. Bioluminescence based on Saa3 promoter activity in Saa3-luc mice was promoted in obese adipose tissue, showing that Saa3 promoter activity is most likely related to macrophage infiltration.

According to the news editors, the research concluded: "This study suggests that the level of expression of the Saa3 gene could be utilized for the number of infiltrated macrophages in obese adipose tissue."

For more information on this research see: Serum Amyloid A3 Gene Expression in Adipocytes is an Indicator of the Interaction with Macrophages. Scientific Reports, 2016;6():1-15. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting N. Yanaka, Hiroshima University, Grad Sch Biosphere Sci, Higashihiroshima 7398528, Japan. Additional authors for this research include T. Yamamoto, R. Satake, A. Yamashita, S. Kanai, N. Kato, F.A.J. van de Loo, F. Nishimura, P.E. Scherer and N. Yanaka.

Keywords for this news article include: Higashi Hiroshima, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Mononuclear Phagocyte System, Amyloid, Genetics, Macrophages, Immunology, Phagocytes, Bariatrics, Proteins, Obesity, Hiroshima University.

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AHR. The numbers of total and cytokine-expressing lung ILC2s and ILC3s further increased in HDM-challenged obese mice compared with those in HDM-challenged lean mice, and this was accompanied by high IL-33 and IL-1 beta levels and decreased ILC markers in visceral adipose tissue. Furthermore, depletion of ILCs with an anti-CD90 antibody, followed by T-cell reconstitution, led to a profound decrease in allergic airway inflammatory features in obese mice, including T(H)2 and T(H)17 infiltration.

According to the news reporters, the research concluded: "These results indicate that HFD-induced obesity might exacerbate allergic airway inflammation through mechanisms involving ILC2s and ILC3s."

For more information on this research see: Innate lymphoid cells contribute to allergic airway disease exacerbation by obesity. *Journal of Allergy and Clinical Immunology*, 2016;138(5):1309-1318.606-616. *Journal of Allergy and Clinical Immunology* can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Journal of Allergy and Clinical Immunology - www.journals.elsevier.com/journal-of-allergy-and-clinical-immunology/)

Our news correspondents report that additional information may be obtained by contacting D. Dombrowicz, Clin Malad Resp, Lille, France. Additional authors for this research include S. Ait-Yahia, O. Molendi-Coste, H. Vorng, S. Quemener, P. LeVu, S. Fleury, E. Bouchaert, Y. Fan, C. Duez, P. de Nadai, B. Staels, D. Dombrowicz and A. Tsicopoulos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jaci.2016.03.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lille, France, Europe, Nutritional and Metabolic Diseases and Conditions, Inflammation, Epidemiology, Risk and Prevention, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Asthma.

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**Nutritional and Metabolic Diseases and Conditions -...**

**New Obesity Findings from University of Picardie Described (Does sleeve gastrectomy improve the gait parameters of obese patients?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news originating from Amiens, France, by NewsRx correspondents, research stated, "Few studies have evaluated the effect of bariatric surgery on gait parameters, which constitute an important aspect of quality of life. Evaluate the effects of sleeve gastrectomy (SG) on kinematic gait parameters 6 months after surgery."

Our news journalists obtained a quote from the research from the University of Picardie, "University Hospital, France, public practice. This prospective, nonrandomized study was conducted in patients undergoing SG between January 2013 and December 2013. The primary endpoint was the difference in functional parameters of the patient's 6-minute walk test (6 MWT) before and 6 months after SG. Secondary outcomes were surgical data, weight loss, and quality of life score. Fifty-six patients were included. Mean preoperative body mass index was 46.3 +/- 7.1 kg/m(2) (35.2-71.0). On the preoperative 6 MWT, the mean distance traveled..."
was 467 m (267-606) at an average speed of 4.6 km/hr (2.67-6.06). Three patients were unable to complete the 6 MWT. At 6 months postoperatively, mean body mass index was 34.4 +/- 6.0 kg/m(2) (24.8-53.8). On the 6-month postoperative 6 MWT, the mean distance traveled was 515 m (280-652) at an average speed of 5 km/hr (2.82-6.50; P< .01). All patients completed the test. A decrease in muscle and joint pain and an increased range of motion of the joints were observed (P < .01). All domains of the Short Form 36 questionnaire were significantly improved (P < .01). SG significantly improves walking as well as range of motion of the joints. It also allows reduction of pain, facilitating the mobilization of obese patients that may be responsible for more marked weight loss after bariatric surgery."

According to the news editors, the research concluded: "Quality of life improves and weight loss occurs after the SG."

For more information on this research see: Does sleeve gastrectomy improve the gait parameters of obese patients? Surgery for Obesity and Related Diseases, 2016;12(8):1474-1481. Surgery for Obesity and Related Diseases can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Surgery for Obesity and Related Diseases - www.journals.elsevier.com/surgery-for-obesity-and-related-diseases/)

The news correspondents report that additional information may be obtained from J.M. Regimbeau, Jules Verne Univ Picardie, Amiens, France. Additional authors for this research include P. Verhaeghe, S. Tasseel-Ponche, C. Cosse, V. Marechal, A. Dhahri, P.L. Doutrellet and J.M. Regimbeau.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.soard.2016.03.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amiens, France, Europe, Nutritional and Metabolic Diseases and Conditions, Digestive System Surgical Procedures, Operative Surgical Procedures, Bariatric Surgery, Gastroenterology, Quality of Life, Gastrectomy, Bariatrics, Obesity, University of Picardie.

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**New Obesity Findings from Wayne State University Reported (Gender dimorphism in adipose tissue response to stress conditions: A plausible mechanism to explain the conflicting data regarding trauma and obesity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Detroit, Michigan, by NewsRx editors, research stated, "Obesity is a chronic low-grade inflammatory condition associated with the elaboration of proinflammatory cytokines and adipokines from adipose tissue. Gender dimorphism (in part due to sex hormones) has been identified after injury and hemorrhagic shock."

Our news journalists obtained a quote from the research from Wayne State University, "We hypothesized that the sex hormones estrogen (E-2) and testosterone (DHT)
have disparate effects on inflammatory mediator production from adipose tissue under stress conditions. This was studied in an in vitro model. Mature adipocytes differentiated from adipose-derived stem cells were cocultured (2:1) with macrophages (RAW 264.7) and subjected to hypoxia/reoxygenation (H/R) and/or incubation with physiologic (10(-6) mu M) or stress (10(-3) mu M) concentrations of epinephrine (epi). Estrogen or DHT was added in a range of physiologic concentrations, and culture supernatants were obtained 12 hours after incubation, and tumor necrosis factor alpha (TNF-alpha), interleukin 6 (IL-6), and adiponectin levels were measured by enzyme-linked immunosorbent assay. Basal TNF-alpha and IL-6 release from cocultures was significantly increased in response to epi and/or H/R conditions. Estrogen decreased cytokine release to basal levels, whereas DHT had no effect. Of note, varying the concentration of epi had no effect on cytokine release. Basal levels of adiponectin release were significantly decreased in response to epi and/or H/R conditions. Estrogen exposure returned adiponectin levels to basal levels, whereas DHT had no effect. The inverse of this relationship was observed in regard to the sex hormones effect on leptin release. Estrogen returned leptin release to basal levels, whereas DHT had no effect. Stress levels of epi and H/R increased proinflammatory cytokine production and decreased adiponectin levels in adipocyte cocultures. Estrogen at physiologic concentrations decreased TNF-alpha, IL-6, and preserved adiponectin levels following epi and/or H/R conditions. There was no effect of DHT on mitigating the proinflammatory response.

According to the news editors, the research concluded: "Our results suggest a gender dimorphism in adipose tissue under stress conditions that may explain the conflicting data in the literature."

For more information on this research see: Gender dimorphism in adipose tissue response to stress conditions: A plausible mechanism to explain the conflicting data regarding trauma and obesity. *Journal of Trauma and Acute Care Surgery*, 2016;81(6):1028-1034. *Journal of Trauma and Acute Care Surgery* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting L.N. Diebel, Wayne State University, Marian & Michael Ilitch Dept. of Surg, Detroit, MI, United States. Additional authors for this research include L.N. Diebel and D.M. Liberati.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Nutrition Disorders, Diet and Nutrition, Overnutrition, Adiponectin, Adipokines, Bariatrics, Cytokines, Hormones, Obesity, Wayne State University. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

**New Obesity Study Findings Have Been Reported by Investigators at Children's Hospital (Family Factors that Characterize Adolescents with Severe Obesity and Their Role in Weight Loss Surgery Outcomes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Obesity is now available. According to news reporting from Cincinnati, Ohio, by NewsRx
journalists, research stated, "To comprehensively assess family characteristics of adolescents with severe obesity and whether family factors impact weight loss outcomes following weight loss surgery (WLS). Multisite prospective data from 138 adolescents undergoing WLS and primary caregivers (adolescent: M-age = 16.9; M-BMI = 51.5 kg/m(2); caregiver: M-age = 44.5; 93% female) and 83 nonsurgical comparators (NSComp: adolescent: M-age = 16.1; M-BMI = 46.9 kg/m(2); caregiver: M-age = 43.9; 94% female) were collected using standardized measures at presurgery/baseline and at 1 and 2 years."

The news correspondents obtained a quote from the research from Children's Hospital, "The majority (77.3%) of caregivers had obesity, with rates of caregiver WLS significantly higher in the WLS (23.8%) versus NSComp group (3.7%, P< 0.001). Family dysfunction was prevalent (approximate to 1 in every two to three families), with rates higher for NSComp than the WLS group. For the WLS group, preoperative family factors (i.e., caregiver BMI or WLS history, dysfunction, social support) were not significant predictors of adolescent weight loss at 1 and 2 years postoperatively, although change in family functioning over time emerged as a significant correlate of percent weight loss. Rates of severe obesity in caregivers as well as family dysfunction were clinically noteworthy, although not related to adolescent weight loss success following WLS."

According to the news reporters, the research concluded: "However, change in family communication and emotional climate over time emerged as potential targets to optimize weight loss outcomes."

For more information on this research see: Family Factors that Characterize Adolescents with Severe Obesity and Their Role in Weight Loss Surgery Outcomes. *Obesity*, 2016;24(12):2562-2569. *Obesity* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news journalists report that additional information may be obtained by contacting M.H. Zeller, Cincinnati Children's Hospital, Behav Med & Clin Psychol, Cincinnati, OH 45229, United States. Additional authors for this research include S. Hunsaker, C. Mikhail, J. Reiter-Purtill, M.B. McCullough, B. Garland, H. Austin, G. Washington, A. Baughcum, D. Rofey and K. Smith.

Keywords for this news article include: Cincinnati, Ohio, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Surgery, Obesity, Children's Hospital.

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**New Obesity Study Findings Recently Were Reported by Researchers at Albert Einstein College of Medicine (Hidden Obesity in Dialysis Patients: Clinical Implications)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating from Bronx, New York, by NewsRx correspondents, research stated, "While body-mass index (BMI) is used to diagnose obesity in the general population, its application in the end-stage renal disease (ESRD)
population is fraught with difficulty. A major limitation is its inability to distinguish muscle mass from fat mass, thereby leading to misclassification of individuals with poor muscle mass but excess adipose tissue as non-obese (i.e. BMI <30 kg/m(2))."

Financial support for this research came from National Institutes of Health.

Our news editors obtained a quote from the research from the Albert Einstein College of Medicine, "As muscle wasting is common among ESRD patients, this is an important problem. A substantial proportion of ESRD patients have levels of BMI in the normal range, yet excess adiposity based on other measures."

According to the news editors, the research concluded: "The importance of this 'hidden' obesity remains to be determined, but it must be recognized in order for obesity interventions to be appropriately targeted and tested in the ESRD population."


The news editors report that additional information may be obtained by contacting M.K. Abramowitz, Albert Einstein College of Medicine, Dept. of Epidemiol & Populat Hlth, Bronx, NY 10467, United States. Additional authors for this research include D. Sharma and V.W. Folkert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/sdi.12516. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bronx, New York, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Article Review, End Stage Renal Disease, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Albert Einstein College of Medicine.

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**Nutritional and Metabolic Diseases and Conditions -…**

**New Obesity Study Findings Recently Were Reported by Researchers at Autonomous University [4-Hydroxyisoleucine from Fenugreek (Trigonella foenum-graecum): Effects on Insulin Resistance Associated with Obesity]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting out of Queretaro, Mexico, by NewsRx editors, research stated, "Obesity and insulin resistance (IR) are interdependent multifactorial processes that cannot be understood separately. Obesity leads to systemic inflammation and increased levels of free fatty acids that provoke IR and lipotoxicity."

Our news journalists obtained a quote from the research from Autonomous University, "At the same time, IR exacerbates adipose cell dysfunction, resulting in chronic inflammation and major lipotoxic effects on nonadipose tissues. 4-Hydroxyisoleucine (4-
OHlle, a peculiar nonprotein amino acid isolated from fenugreek (Trigonella foenum-graecum) seeds, exhibits interesting effects on IR related to obesity. 4-OHlle increases glucose-induced insulin release, and the insulin response mediated by 4-OHlle depends on glucose concentration. The beneficial effects observed are related to the regulation of blood glucose, plasma triglycerides, total cholesterol, free fatty acid levels, and the improvement of liver function.

According to the news editors, the research concluded: "The mechanism of action is related to increased Akt phosphorylation and reduced activation of Jun N-terminal kinase (JNK) 1/2, extracellular signal-regulated kinase (ERK)1/2, p38 mitogen-activated protein kinase (MAPK), and nuclear factor (NF)-kappa B. Here, we present a review of the research regarding the insulinotropic and insulin-sensitising activity of 4-OHlle in in vitro and in vivo models."

For more information on this research see: 4-Hydroxyisoleucine from Fenugreek (Trigonella foenum-graecum): Effects on Insulin Resistance Associated with Obesity. *Molecules*, 2016;21(11):2626-2637. *Molecules* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting A. Avalos-Soriano, Univ Autonoma Queretaro, Fac Ciencias Nat, Queretaro 76230, Qro, Mexico. Additional authors for this research include R. De la Cruz-Cordero, J.L. Rosado and T. Garcia-Gasca.

Keywords for this news article include: Queretaro, Mexico, North and Central America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Kinase, Article Review, Enzymes and Coenzymes, Nutrition Disorders, Insulin Resistance, Diet and Nutrition, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Overnutrition, Inflammation, Proinsulin, Bariatrics, Obesity, Autonomous University.

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California, "Selectively bred DIO and DR female rats were fed chow (17% kcal fat) or Western diet (32%) for 54 days before mating and, thereafter, through weaning. As intended, despite chow-like caloric intake, Western diet increased prepregnancy weight gain and circulating leptin levels in DIO, but not DR, dams. Yet, in both genotypes, maternal Western diet increased the weight and adiposity of preweanlings, as early as in DR offspring, and increased plasma leptin, insulin, and adiponectin of weanlings. Although body weight normalized with chow feeding during adolescence, young adult Western diet offspring subsequently showed decreased energy expenditure and, in DR offspring, decreased lipid utilization as a fuel substrate. By mid-adulthood, maternal Western diet DR offspring ate more chow, weighed more, and were fatter than controls. Thus, maternal Western diet covertly programmed increased adiposity in childhood and adulthood, disrupted relations of energy regulatory hormones with body fat, and decreased energy expenditure in offspring of lean, genetically obesity-resistant mothers."

According to the news reporters, the research concluded: "Maternal Western diet exposure alone, without maternal obesity or overnutrition, can promote offspring weight gain."


Our news journalists report that additional information may be obtained by contacting E.P. Zorrilla, University of California, Grad Program Neurosci, La Jolla, CA 92093, United States. Additional authors for this research include E.M. Fekete, T.R. Nagy, B.E. Levin and E.P. Zorrilla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajpregu.00023.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Endocrine Research, Diet and Nutrition, Overnutrition, Bariatrics, Genetics, Obesity, University of California.

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The news reporters obtained a quote from the research from the University of Texas Southwestern Medical Center, "Baseline brain perfusion was measured with arterial spin labeling. Brain activity was measured via blood-oxygen-level-dependent functional magnetic resonance imaging in response to food cues, and appeal to cues was rated. Subjective hunger/fullness was reported pre- and post-imaging. After a standard meal, measures were repeated. When fasting, brain perfusion did not differ significantly between groups; and both groups showed significantly increased activity in the neo- and limbic cortices and midbrain compared with baseline (p <0.05, family-wise-error whole-brain corrected). Once fed, the lean group showed significantly decreased activation in these areas, especially the limbic cortex, whereas the group with severe obesity showed no such decreases (p <0.05, family-wise-error whole-brain corrected). After eating, appeal ratings of food decreased only in lean women. Within groups, hunger decreased (p <0.001) and fullness increased (p <0.001) fasted to fed. While fasting, brain response to food cues in women did not differ significantly despite BMI. After eating, brain activity quickly diminished in lean women but remained elevated in women with severe obesity."

According to the news reporters, the research concluded: "These brain activation findings confirm previous studies."

For more information on this research see: Brain imaging demonstrates a reduced neural impact of eating in obesity. *Obesity*, 2016;24(4):829-36. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news correspondents report that additional information may be obtained by contacting N. Puzziferri, Dept. of Surgery, University of Texas Southwestern Medical Center, Dallas, Texas, United States. Additional authors for this research include J.M. Zigman, B.P. Thomas, P. Mihalakos, R. Gallagher, M. Lutter, T. Carmody, H. Lu and C.A Tamminga.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21424. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Texas, Dallas, Obesity, Perfusion, Bariatrics, United States, Overnutrition, Diet and Nutrition, Nutrition Disorders, North and Central America, Nutritional and Metabolic Diseases and Conditions.

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**Peptide Proteins - Proinsulin**

New Proinsulin Study Findings Recently Were Reported by Researchers at University of Helsinki Central Hospital (Mitochondria-related transcriptional signature is downregulated in adipocytes in obesity: a study of young healthy MZ twins)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peptide Proteins - Proinsulin have been published. According to news originating from Helsinki, Finland, by NewsRx correspondents, research stated, "Low mitochondrial activity in adipose tissue is suggested to be an underlying factor in obesity and its metabolic complications. We aimed to find out whether mitochondrial measures are downregulated in obesity also in isolated adipocytes."
Financial supporters for this research include Biomedicum Helsinki Foundation, Finland, University of Helsinki, Helsinki, Finland, Diabetes Research Foundation Finland, Novo Nordisk Foundation, Helsinki University Hospital Research Funds, Finland, Finnish Foundation for Cardiovascular Research, Jalmari and Rauha Ahokas Foundation, Finland, Knut and Alice Wallenberg Foundation, Academy of Finland, CIBEROBN, Instituto de Salud Carlos III, Spain, Fondo de Investigacion Sanitaria-FEDER, Emil Aaltonen Foundation, Finland, Orion Foundation, Finland, Paulo Foundation, Finland, Maud Kuistila Foundation, Finland, Finnish Medical Foundation.

Our news journalists obtained a quote from the research from the University of Helsinki Central Hospital, "We studied young adult monozygotic (MZ) twin pairs discordant (n = 14, intrapair difference Delta BMI ae <yen > 3 kg/m(2)) and concordant (n = 5, Delta BMI < 3 kg/m(2)) for BMI, identified from ten birth cohorts of 22- to 36-year-old Finnish twins. Abdominal body fat distribution (MRI), liver fat content (magnetic resonance spectroscopy), insulin sensitivity (OGTT), high-sensitivity C-reactive protein, serum lipids and adipokines were measured. Subcutaneous abdominal adipose tissue biopsies were obtained to analyse the transcriptomics patterns of the isolated adipocytes as well as of the whole adipose tissue. Mitochondrial DNA transcript levels in adipocytes were measured by quantitative real-time PCR. Western blots of oxidative phosphorylation (OXPHOS) protein levels in adipocytes were performed in obese and lean unrelated individuals. The heavier (BMI 29.9 +/- 1.0 kg/m(2)) co-twins of the discordant twin pairs had more subcutaneous, intra-abdominal and liver fat and were more insulin resistant (p < 0.01 for all measures) than the lighter (24.1 +/- 0.9 kg/m(2)) co-twins. Altogether, 2538 genes in adipocytes and 2135 in adipose tissue were significantly differentially expressed (nominal p< 0.05) between the co-twins. Pathway analysis of these transcripts in both isolated adipocytes and adipose tissue revealed that the heavier co-twins displayed reduced expression of genes relating to mitochondrial pathways, a result that was replicated when analysing the pathways behind the most consistently downregulated genes in the heavier co-twins (in at least 12 out of 14 pairs). Consistently upregulated genes in adipocytes were related to inflammation. We confirmed that mitochondrial DNA transcript levels (12S RNA, 16S RNA, COX1, ND5, CYTB), expression of mitochondrial ribosomal protein transcripts and a major mitochondrial regulator PGC-1 alpha (also known as PPARGC1A) were reduced in the heavier co-twins' adipocytes (p < 0.05). OXPHOS protein levels of complexes I and III in adipocytes were lower in obese than in lean individuals. Subcutaneous abdominal adipocytes in obesity show global expressional downregulation of oxidative pathways, mitochondrial transcripts and OXPHOS protein levels and upregulation of inflammatory pathways."

According to the news editors, the research concluded: "The datasets analysed and generated during the current study are available in the figshare repository." For more information on this research see: Mitochondria-related transcriptional signature is downregulated in adipocytes in obesity: a study of young healthy MZ twins. Diabetologia. 2017;60(1):169-181. Diabetologia can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Diabetologia - www.springerlink.com/content/0012-1866/)

The news correspondents report that additional information may be obtained from K.H. Pietilainen, Helsinki Univ Cent Hosp, Endocrinol, Abdominal Center, Helsinki, Finland. Additional authors for this research include M. Muniaandy, J. Buzkova, A. Mardinoglu, A. Rodriguez, G. Fruhbeck, A. Hakkarainen, J. Lundbom, N. Lundbom, J. Kaprio, A. Rissanen and K.H. Pietilainen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00125-016-4121-2. This DOI is a link to an online electronic
New Wellness Study Findings Have Been Reported from University of Colorado (Health at hand: A systematic review of smart watch uses for health and wellness)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Wellness is the subject of a report. According to news originating from Aurora, Colorado, by NewsRx correspondents, research stated, "Smart watches have the potential to support health in everyday living by: enabling self-monitoring of personal activity; obtaining feedback based on activity measures; allowing for in-situ surveys to identify patterns of behavior; and supporting bi-directional communication with health care providers and family members. However, smart watches are an emerging technology and research with these devices is at a nascent stage."

Financial support for this research came from University of Colorado College of Nursing.

Our news journalists obtained a quote from the research from the University of Colorado, "We conducted a systematic review of smart watch studies that engaged people in their use by searching PubMed, Embase, IEEE XPlore and ACM Digital libraries. Participant demographics, device features, watch applications and methods, and technical challenges were abstracted from included studies. Seventy-three studies were returned in the search. Seventeen studies published were included. Included studies were published from 2014 to 2016, with the exception of one published in 2011. Most studies employed the use of consumer-grade smart watches (14/17, 82%), related studies focused on activity monitoring, heart rate monitoring, speech therapy adherence, diabetes self-management, and detection of seizures, tremors, scratching, eating, and medication-taking behaviors. Most patient-related studies enrolled participants with few exclusion criteria to validate smart watch function (10/17, 58%). Only studies that focused on Parkinson's disease, epilepsy, and diabetes management enrolled persons living with targeted conditions. One study focused on nursing work in the ICU and one focused on CPR training for laypeople. Consumer-grade smart watches have penetrated the health research space rapidly since 2014."

According to the news editors, the research concluded: "Smart watch technical function, acceptability, and effectiveness in supporting health must be validated in larger field studies that enroll actual participants living with the conditions these devices target."

For more information on this research see: Health at hand: A systematic review of smart watch uses for health and wellness. Journal of Biomedical Informatics, 2016;63():269-276. Journal of Biomedical Informatics can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Journal of Biomedical Informatics - www.journals.elsevier.com/journal-of-biomedical-
The news correspondents report that additional information may be obtained from B. Reeder, Univ Colorado Anschutz Med Campus, Coll Nursing, Aurora, CO 80045, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jbi.2016.09.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Wellness, Article Review, University of Colorado.

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Oncology - Acute Myeloid Leukemia

Obesity-associated protein could be linked to leukemia development

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- CINCINNATI--Cancer researchers at the University of Cincinnati (UC) College of Medicine have found an obesity-associated protein's role in leukemia development and drug response which could lead to more effective therapies for the illness.

The study, which will be published in the Dec. 22 online edition of Cancer Cell and led by Jianjun Chen, PhD, associate professor in the Department of Cancer Biology, provided evidence that FTO--the protein associated with fat mass and obesity--plays a critical cancer-promoting role by regulating expression of a set of genes through a mechanism involving ribonucleic acid (RNA) modification and thereby increasing the reproduction of leukemia cells and prohibiting drug response.

"N6-methyladenosine (m6A) RNA methylation, the most prevalent internal modification in messenger RNAs (mRNAs, which translate DNA) in genes, was first identified in 1970s. In 2011, Dr. Chuan He, professor of chemistry at the University of Chicago, a co-senior author of this paper, discovered for the first time that FTO actually functions as an eraser of m6A methylation. This means that it can remove the modification from RNA transcripts, or RNA copies, thereby showing that m6A modification is a reversible process and is highly likely it is of biological importance. In 2012, two groups independently reported the development of novel sequencing technologies to profile all m6A modification areas in the entire genome and showed that roughly one-third of mRNAs in individual mammal cells are targets of m6A modification, highlighting the prevalence and potential functional importance of m6A modification.

"Recent studies have shown that m6A modification in mRNAs or non-coding RNAs plays critical roles in virtually all major normal biological processes such as tissue development and stem cell self-renewal and differentiation. However, little is known about the biological importance of m6A modification in the regulation of cancer-causing genes and/or tumor-suppressing genes in the development of tumors."

Researchers in the study analyzed a microarray dataset of 100 human acute myeloid leukemia (AML) samples from patients and nine normal control samples as well as other large-scale microarray datasets of AML samples. They found that FTO was highly expressed in various subtypes of leukemia samples such as those that contained chromosome crossover (genetic exchange between chromosomes) or mutations in certain genes. The high level of FTO expression contributed to cancer cells multiplying and surviving and also promoted the
development of leukemia in animal models and the non-response of cancer cells to therapeutic agents.

Additionally, researchers found that genes like ASB2 and RARA, which were reported to inhibit leukemia cell growth and/or mediate the response of leukemia cells to therapeutic agents, were suppressed in the AML samples with higher FTO expression. The suppression of these genes was attributed to FTO-controlled decreased stability of their mRNA and was connected to FTO's m6A demethylase activity.

"Our study shows, for the first time, the functional importance of the m6A modification machinery in leukemia," says Chen. "In addition, given the functional importance of FTO in the formation of leukemia and drug response, targeting FTO signaling may present a new therapeutic strategy to treat leukemia. As FTO may also play a cancer-promoting role in various types of solid tumors, besides leukemia, our discoveries may have a broad impact in cancer biology and cancer therapy. Further studies are needed to advance our understanding of the critical role of FTO in various types of cancers and to develop more effective novel therapeutic strategies based on such understanding to treat cancers."

Keywords for this news article include: Cancer, Obesity, Genetics, Bariatrics, Hematology, Therapeutics, Overnutrition, Diet and Nutrition, Nutrition Disorders, Oncology - Acute Myeloid Leukemia, University of Cincinnati Academic Health Center, Nutritional and Metabolic Diseases and Conditions.

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**Recent Findings by W.T. Garvey and Colleagues in Obesity Provides New Insights (Patient-centered Care Of The Patient With Obesity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "As medical societies transition to a new perspective on obesity as a disease rather than primarily a behavioral concern, many are recommending treatment approaches that include a broader and more individualized disease-management framework. This overview of patient-centered care for patients who have overweight or obesity summarizes new perspectives and recommends treatment strategies with demonstrated efficacy for weight loss and weight-loss maintenance."

Our news journalists obtained a quote from the research, "The complex pathophysiology of obesity and its associated comorbidities illuminates the difficulties of weight management. However, even modest weight loss can result in improved obesity-related comorbidities and metabolic health. Health care practitioners and physicians can use effective communication and counseling skills to explore patients' feelings on weight management and determine their willingness to implement lifestyle interventions. Lifestyle management for overweight or obesity should include healthy meal planning, increased physical activity, and behavioral interventions comprising counseling and social support, all tailored to meet individual patient needs. Some patients who are unable to lose weight or maintain weight loss with lifestyle intervention alone may benefit from pharmacotherapy added to their obesity management strategy. There are now a variety of weight-loss medications available to prescribe; treatment decisions should take into account patient-related, biologic, and pharmacotherapeutic..."
factors, such as patient preference and treatment comorbidities, drug interactions, and side
effects."

According to the news editors, the research concluded: "Only when these strategies
are applied to treat obesity as a disease, rather than a behavioral problem, can we help improve
patient outcomes."

For more information on this research see: Patient-centered Care Of The Patient
With Obesity. *Endocrine Practice*, 2016;22():9-18. *Endocrine Practice* can be contacted at:
Amer Assoc Clinical Endocrinologists, 245 Riverside Avenue, Ste 200, Jacksonville, FL 32202,
USA.

The news correspondents report that additional information may be obtained from
W.T. Garvey, UAB Diabet Res Center, Birmingham, AL, United States. Additional authors for
this research include D.L. Hurley and R.F. Kushner.

Keywords for this news article include: Birmingham, Alabama, United States, North
and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders,
Diet and Nutrition, Overnutrition, Bariatrics, Obesity.

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**Pregnancy Complications - Cephalopelvic Disproportion**

**Recent Findings from Hospital Center Has Provided New Information about Cephalopelvic Disproportion (Indications for primary cesarean delivery relative to body mass index)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pregnancy Complications - Cephalopelvic Disproportion have been published. According to news reporting originating from Washington, District of Columbia, by NewsRx correspondents, research stated, "Obesity is a known risk factor for cesarean delivery. Limited data are available regarding the reasons for the increased rate of primary cesarean in obese women."

Our news editors obtained a quote from the research from Hospital Center, "It is important to identify the factors leading to an increased risk of cesarean to identify opportunities to reduce the primary cesarean rate. We evaluated indications for primary cesarean across body mass index (kg/m(2)) classes to identify the factors contributing to the increased rate of cesarean among obese women. In the Consortium of Safe Labor study from 2002 through 2008, we calculated indications for primary cesarean including failure to progress or cephalopelvic disproportion, non-reassuring fetal heart tracing, malpresentation, elective, hypertensive disease, multiple gestation, placenta previa or vasa previa, failed induction, HIV or active herpes simplex virus, history of uterine scar, fetal indication, placental abruption, chorioamnionitis, macrosomia, and failed operative delivery. For women with primary cesarean for failure to progress or cephalopelvic disproportion, dilation at the last recorded cervical examination was evaluated. Women were categorized according to body mass index on admission: normal weight (18.5-24.9), overweight (25.0-29.9), and obese classes I (30.0-34.9), II (35.0-39.9), and III (>= 40). Cochran-Armitage trend test and chi(2) tests were performed. Of 66,502 nulliparous and 76,961 multiparous women in the study population, 19,431 nulliparous (29.2%) and 7329 multiparous (9.5%) women underwent primary cesarean. Regardless of parity, malpresentation, failure to progress or cephalopelvic disproportion, and non-reassuring fetal heart tracing were
the common indications for primary cesarean. Regardless of parity, the rates of primary cesarean for failure to progress or cephalopelvic disproportion increased with increasing body mass index (normal weight, overweight, and classes I, II, and III obesity in nulliparous women: 33.2%, 41.6%, 46.4%, 47.4%, and 48.9% [P < .01] and multiparous women: 14.5%, 20.3%, 22.8%, 27.2%, and 25.3% [P < .01]), whereas the rates for malpresentation decreased (normal weight, overweight, and classes I, II, and III obesity in nulliparous women: 23.7%, 17.2%, 14.6%, 12.0%, and 9.1% [P < .01] and multiparous women: 35.6%, 30.6%, 26.5%, 24.3%, and 22.9% [P < .01]). Rates of primary cesarean for nonassuring fetal heart tracing were not statistically different for nulliparous (P > .05) or multiparous (P > .05) women. Among nulliparous women who had a primary cesarean for failure to progress or cephalopelvic disproportion, rates of cesarean prior to active labor (6 cm) increased as body mass index increased, accounting for 39.3% of women with class I, 47.1% of women with class II, and 56.8% of women with class III obesity compared to 35.2% for normal-weight women (P < .01). Similar to normal-weight women, the indication of cesarean for failure to progress or cephalopelvic disproportion was the major factor contributing to the increase in primary cesarean in obese women, but was even more prevalent with increasing obesity class."

According to the news editors, the research concluded: "The rates of intrapartum primary cesarean prior to achieving active labor increased with increasing obesity class in nulliparous women."


The news editors report that additional information may be obtained by contacting T. Kawakita, MedStar Washington Hosp Center, Obstet & Gynecol, Washington, DC, United States. Additional authors for this research include U.M. Reddy, H.J. Landy, S.N. Iqbal, C.C. Huang and K.L. Grantz.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Obstetric Labor Complications, Surgery, Risk and Prevention, Cephalopelvic Disproportion, Pregnancy Complications, Nutrition Disorders, Diet and Nutrition, Cesarean Section, Women's Health, Overnutrition, Obstetrics, Bariatrics, Obesity, Hospital Center.

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Peptide Proteins - Proinsulin

Recent Findings from University of Oklahoma Provides New Insights into Proinsulin (Enhanced GLUT4-Dependent Glucose Transport Relieves Nutrient Stress in Obese Mice Through Changes in Lipid and Amino Acid Metabolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peptide Proteins - Proinsulin. According to news reporting from Oklahoma City, Oklahoma, by NewsRx journalists, research
stated, "Impaired GLUT4-dependent glucose uptake is a contributing factor in the development of whole-body insulin resistance in obese patients and obese animal models. Previously, we demonstrated that transgenic mice engineered to express the human GLUT4 gene under the control of the human GLUT4 promoter (i.e., transgenic [TG] mice) are resistant to obesity-induced insulin resistance."

Financial support for this research came from National Institute of Diabetes and Digestive and Kidney Diseases.

The news correspondents obtained a quote from the research from the University of Oklahoma, "A likely mechanism underlying increased insulin sensitivity is increased glucose uptake in skeletal muscle. The purpose of this study was to investigate the broader metabolic consequences of enhanced glucose uptake into muscle. We observed that the expression of several nuclear and mitochondrially encoded mitochondrial enzymes was decreased in TG mice but that mitochondrial number, size, and fatty acid respiration rates were unchanged. Interestingly, both pyruvate and glutamate respiration rates were decreased in TG mice. Metabolomics analyses of skeletal muscle samples revealed that increased GLUT4 transgene expression was associated with decreased levels of some tricarboxylic acid intermediates and amino acids, whereas the levels of several glucogenic amino acids were elevated."

According to the news reporters, the research concluded: "Furthermore, fasting acyl carnitines in obese TG mice were decreased, indicating that increased GLUT4-dependent glucose flux decreases nutrient stress by altering lipid and amino acid metabolism in skeletal muscle."

For more information on this research see: Enhanced GLUT4-Dependent Glucose Transport Relieves Nutrient Stress in Obese Mice Through Changes in Lipid and Amino Acid Metabolism. Diabetes, 2016;65(12):3585-3597. Diabetes can be contacted at: Amer Diabetes Assoc, 1701 N Beuregard St, Alexandria, VA 22311-1717, USA. (Elsevier - www.elsevier.com; Diabetes - www.journals.elsevier.com/diabetes-and-metabolic-syndrome-clinical-research-and-reviews/)

Our news journalists report that additional information may be obtained by contacting A.L. Olson, University of Oklahoma, Hlth Sci Center, Dept. of Biochem & Mol Biol, Oklahoma City, OK 73190, United States. Additional authors for this research include O. Ilkayeva, R.M. Jackson, B.A. Griesel, P. White, S. Matsuzaki, R. Qaisar, H. Van Remmen, K.M. Humphries, C.B. Newgard and A.L. Olson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2337/db16-0709. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oklahoma City, Oklahoma, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Insulin Resistance, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Amino Acids, Bariatrics, Proinsulin, Peptides, Genetics, Obesity, University of Oklahoma.

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Nutritional and Metabolic Diseases and Conditions -…

Report Summarizes Obesity Study Findings from University of California (Effects of a mindfulness-based weight loss intervention in adults with obesity: A randomized clinical trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news originating from San Francisco, California, by NewsRx correspondents, research stated, "To determine whether adding mindfulness-based eating and stress management practices to a diet-exercise program improves weight loss and metabolic syndrome components. In this study 194 adults with obesity were randomized to a 5.5-month program with or without mindfulness training and identical diet-exercise guidelines."

Our news journalists obtained a quote from the research from the University of California, "Intention-to-treat analyses with multiple imputation were used for missing data. The primary outcome was 18-month weight change. Estimated effects comparing the mindfulness to control arm favored the mindfulness arm in (a) weight loss at 12 months, -1.9 kg (95% CI: -4.5, 0.8; p=0.17), and 18 months, -1.7 kg (95% CI: -4.7, 1.2; p=0.24), though not statistically significant; (b) changes in fasting glucose at 12 months, -3.1 mg/dl (95% CI: -6.3, 0.1; p=0.06), and 18 months, -4.1 mg/dl (95% CI: -7.3, -0.9; p=0.01); and © changes in triglyceride/HDL ratio at 12 months, -0.57 (95% CI: -0.95, -0.18; p=0.004), and 18 months, -0.36 (95% CI: -0.74, 0.03; p=0.07). Estimates for other metabolic risk factors were not statistically significant, including waist circumference, blood pressure, and C-reactive protein."

According to the news editors, the research concluded: "Mindfulness enhancements to a diet-exercise program did not show substantial weight loss benefit but may promote long-term improvement in some aspects of metabolic health in obesity that requires further study."


The news correspondents report that additional information may be obtained from J. Daubenmier, Osher Center for Integrative Medicine, University of California, San Francisco, California, United States. Additional authors for this research include P.J. Moran, J. Kristeller, M. Acree, P. Bacchetti, M.E. Kemeny, M. Dallman, R.H. Lustig, C. Grunfeld, D.F. Nixon, J.M. Milush, V. Goldman, B. Laraia, K.D. Laugero, L. Woodhouse, E.S. Epel and F.M Hecht.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21396. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Obesity, California, Bariatrics, San Francisco, United States, Overnutrition, Clinical Research, Diet and Nutrition, Nutrition Disorders, Risk and Prevention, North and Central America, Clinical Trials and Studies, Nutritional and Metabolic Diseases and Conditions.

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Nutritional and Metabolic Diseases and Conditions …

Reports Outline Obesity Findings from University of Canberra (Obesity and emotional well-being in adolescents: Roles of body dissatisfaction, loss of control eating, and self-rated health)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting out of Canberra, Australia, by NewsRx editors, research stated, "Weak or inconsistent association between obesity and impairment in emotional well-being in population-based samples has led to efforts to identify mediating variables. This study examined the relative importance of body dissatisfaction (BD), loss of control (LOC) eating, and self-rated health (SRH) in mediating the association between obesity and impairment in emotional well-being in a school-based sample of adolescents (boys, n=437; girls, n=950)."

Our news journalists obtained a quote from the research from the University of Canberra, "Moderated mediation analysis was employed to assess the relative importance of the putative mediating variables and moderation of mediation effects by sex following the methods suggested by Hayes and coworkers. BD and SRH, but not LOC eating, were found to mediate the association between obesity and impairment in emotional well-being. Stronger mediation effects were observed for BD than for SRH. None of these results was moderated by sex."

According to the news editors, the research concluded: "The findings suggest that it may be important to target BD in obesity prevention and treatment programs in order to reduce the adverse impact of excess body weight on young people's emotional well-being."

For more information on this research see: Obesity and emotional well-being in adolescents: Roles of body dissatisfaction, loss of control eating, and self-rated health. Obesity, 2016;24(4):837-42. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news journalists report that additional information may be obtained by contacting K. Gall, Dept. of Psychology, University of Canberra, Canberra, Australian Capital Territory, Australia. Additional authors for this research include K. van Zutven, J. Lindstrom, C. Bentley, K. Gratwick-Sarll, C. Harrison, V. Lewis and J. Mond.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21428. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Obesity, Canberra, Bariatrics, Epidemiology, Overnutrition, Diet and Nutrition, Nutrition Disorders, Risk and Prevention, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions.

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Reports Outline Obesity Study Findings from Research Hospital (The effects of sevoflurane and desflurane on the hemodynamics and respiratory functions in laparoscopic sleeve gastrectomy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating from Adana, Turkey, by NewsRx correspondents, research stated, "Sleeve gastrectomy has been one of the most commonly performed bariatric surgery methods. The study aimed to compare the effects of 2 most commonly used inhalation anesthetics, sevoflurane and desflurane, on the peroperative hemodynamic alterations and postoperative respiratory functions in morbidly obese patients undergoing sleeve gastrectomy. Nonrandomized cohort."

Our news editors obtained a quote from the research from Research Hospital, "Operating room, postoperative period. Eighty-four morbidly obese patients with a body mass index greater than 40 kg/m(2) who had scheduled to undergo sleeve gastrectomy operation were prospectively included in the study. Patients were divided into 2 groups. The maintenance of inhalation anesthesia was performed by sevoflurane in 1 group (sevoflurane group) and desflurane (desflurane group) in the other group. Demographic features, peroperative hemodynamic alterations, and the results of preoperative and postoperative 24th hour respiratory function tests were recorded. There was not any statistically significant difference between groups regarding age, sex, body mass index, anesthesia time, peroperative mean arterial pressure, arterial oxygen saturation, end-tidal carbon dioxide, and preoperative or postoperative forced expiratory volume 1/forced vital capacity ratios. We determined that both desflurane and sevoflurane provide similar intraoperative hemodynamic and early postoperative respiratory functions in morbidly obese patients in laparoscopic sleeve gastrectomy."

According to the news editors, the research concluded: "Both agents can be regarded as alternatives for inhalation anesthetics in maintenance of anesthesia."


The news editors report that additional information may be obtained by contacting H.K. Ozdogan, Adana Numune Training & Res Hosp, Dept. of Anesthesiol & Reanimat, Adana, Turkey. Additional authors for this research include S. Cetinkunar, F. Karateke, S. Cetinalp, M. Celik and S. Ozyazici.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.08.028. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Adana, Turkey, Eurasia, Nutritional and Metabolic Diseases and Conditions, Digestive System Surgical Procedures, Anesthesia, Epidemiology, Gastroenterology, Pain Medicine, Gastrectomy, Bariatrics, Surgery, Obesity, Research Hospital.

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Reports Outline Obesity Study Results from Arizona State University
(Prediction of Postpartum Weight in Low-Income Mexican-Origin Women From Childhood Experiences of Abuse and Family Conflict)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting out of Tempe, Arizona, by NewsRx editors, research stated, "The postpartum period represents a crucial transition period in which weight gain or loss can affect lifetime obesity risk. This study examined the prevalence of obesity and the influence of childhood abuse and family conflict on postpartum weight among low-income Mexican-origin women."

Our news journalists obtained a quote from the research from Arizona State University, "Depressive symptoms and partner support were evaluated as mediators. At a prenatal assessment, low-income Mexican-origin women (N = 322; mean [SD] age, 27.8 [6.5]) reported on childhood abuse and family conflict. Weight was measured 7 times between 6 weeks and 2 years postpartum and calculated as body mass index. Regression and growth models were used to estimate the impact of childhood abuse, childhood family conflict, partner support, and depressive symptoms on weight and weight change. Higher family conflict predicted higher weight across the first (beta = .12; p = .037) and second (beta = .16; p = .012) postpartum years. Family conflict (beta = .17; p = .018) and low partner support (beta = -.16; p = .028) also predicted increasing weight in the first year. Partner support partially mediated the effect of childhood abuse on weight change in the first year (p = .031). Depressive symptomatology mediated the effects of childhood abuse and family conflict on weight status in the second year (abuse: p = .005; conflict: p = .023)."

According to the news editors, the research concluded: "For low-income Mexican-origin women with a history of childhood abuse or high family conflict, depression and low partner support may be important targets for obesity prevention efforts in the postpartum period."

For more information on this research see: Prediction of Postpartum Weight in Low-Income Mexican-Origin Women From Childhood Experiences of Abuse and Family Conflict. *Psychosomatic Medicine*, 2016;78(9):1104-1113. Psychosomatic Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting L.J. Luecken, Arizona State University, Dept. of Psychol, Tempe, AZ 85287, United States. Additional authors for this research include S.L. Jewell and D.P. MacKinnon.

Keywords for this news article include: Tempe, Arizona, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Legal Issues, Bariatrics, Obesity, Arizona State University.

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Reports Summarize Obesity Findings from State University (Obesity Modifies Bone Marrow Microenvironment and Directs Bone Marrow Mesenchymal Cells to Adipogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting originating in Rio de Janeiro, Brazil, by NewsRx journalists, research stated, "To investigate the role of obesity on the bone marrow microenvironment and evaluate its possible impact on the adipogenic potential of mesenchymal stem cells (MSC). C57BL/6 male mice were fed with a high-fat diet (HFD) for 10 weeks."

The news reporters obtained a quote from the research from State University, "Femurs and tibiae were collected, and bone marrow mesenchymal stem cells (BM-MSC) were isolated and analyzed for proliferative potential, immunophenotype, and expression of adipogenesis markers. Their capacity to produce extracellular matrix proteins and proinflammatory cytokines in vitro was also evaluated. HFD mice presented a significant increase in bone marrow cellularity and higher tumor necrosis factor-alpha production in vitro. BM-MSC from HFD mice had higher proliferative capacity, produced more extracellular matrix proteins associated with adipogenesis, collagen I, and collagen IV, and showed increased constitutive expression of adipogenic markers, peroxisome proliferator-activated receptor-gamma, and CCAAT/enhanced binding protein family-alpha, without changes in preadipocyte factor-1 expression. Incubation with adipocyte-differentiation medium induced further increase in CCAAT/enhanced binding protein family-a and augmented adiponectin expression in obese BM-MSC. These alterations did not result in increased adipogenic differentiation within the bone marrow. Moreover, BM-HSC from HFD mice, co-cultivated with BM-MSCs from lean mice, exerted paracrine effects on these cells, inducing augmentation of peroxisome proliferator-activated receptor-gamma."

According to the news reporters, the research concluded: "The data suggest that obesity promotes an inflammatory microenvironment in bone marrow that commits BM-MSC to adipogenesis."

For more information on this research see: Obesity Modifies Bone Marrow Microenvironment and Directs Bone Marrow Mesenchymal Cells to Adipogenesis. Obesity, 2016;24(12):2522-2532. Obesity can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news correspondents report that additional information may be obtained by contacting C. Barja-Fidalgo, Estado Rio de Janeiro State University, Dept. of Biol Celular, Lab Farmacol Celular & Mol, Rio De Janeiro, Brazil. Additional authors for this research include M. Renovato-Martins, C. Ribeiro-Pereira, M. Citelli and C. Barja-Fidalgo.

Keywords for this news article include: Rio de Janeiro, Brazil, South America, Nutritional and Metabolic Diseases and Conditions, Mesenchymal Stem Cells, Nutrition Disorders, Stem Cell Research, Diet and Nutrition, Immune System, Bone Research, Overnutrition, Adipogenesis, Bone Marrow, Bariatrics, Obesity, State University.

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Reports from Beijing Genomics Institute Describe Recent Advances in Insulin Resistance [FFAR4 (GPR120) Signaling Is Not Required for Anti-Inflammatory and Insulin-Sensitizing Effects of Omega-3 Fatty Acids]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Endocrine System Diseases and Conditions - Insulin Resistance is the subject of a report. According to news originating from Shenzhen, People's Republic of China, by NewsRx correspondents, research stated, "Free fatty acid receptor-4 (FFAR4), also known as GPR120, has been reported to mediate the beneficial effects of omega-3 polyunsaturated fatty acids (omega-3-PUFAs) by inducing an anti-inflammatory immune response. Thus, activation of FFAR4 has been reported to ameliorate chronic low-grade inflammation and insulin resistance accompanying obesity."

Financial support for this research came from Danish Council for Strategic Research. Our news journalists obtained a quote from the research from Beijing Genomics Institute, "However, conflicting reports on the role of FFAR4 in mediating the effects of omega-3-PUFAs are emerging, suggesting that FFAR4 may not be the sole effector. Hence analyses of the importance of this receptor in relation to other signaling pathways and prominent effects of omega-3-PUFAs remain to be elucidated. In the present study, we used Ffar4 knockouts (KO) and heterozygous (HET) mice fed either low fat, low sucrose reference diet; high fat, high sucrose omega 3-PUFA; or high fat, high sucrose omega 6-PUFA diet for 36 weeks. We demonstrate that both KO and HET mice fed omega 3-PUFAs were protected against obesity, hepatic triacylglycerol accumulation, and whole-body insulin resistance. Moreover, omega 3-PUFA fed mice had increased circulating protein levels of the anti-inflammatory adipokine, adiponectin, decreased fasting insulin levels, and decreased mRNA expression of several proinflammatory molecules within visceral adipose tissue."

According to the news editors, the research concluded: "We find that FFAR4 signaling is not required for the reported anti-inflammatory and insulin-sensitizing effects mediated by omega 3-PUFAs."

For more information on this research see: FFAR4 (GPR120) Signaling Is Not Required for Anti-Inflammatory and Insulin-Sensitizing Effects of Omega-3 Fatty Acids. Mediators of Inflammation, 2016();1-12. Mediators of Inflammation can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Mediators of Inflammation - www.hindawi.com/journals/mi/)

The news correspondents report that additional information may be obtained from K. Kristiansen, BGI Shenzhen, Shenzhen, People's Republic of China. Additional authors for this research include M. Agerholm, A.K. Serup, T. Ma, B. Kiens, L. Madsen, K. Kristiansen and B.A.H. Jensen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/1536047. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shenzhen, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Insulin Resistance, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Proinsulin, Genetics, Beijing Genomics Institute.
Kidney Diseases and Conditions - Chronic Kidney...

Reports on Chronic Kidney Disease from Department of Internal Medicine Provide New Insights (Chronic kidney disease and high eGFR according to body composition phenotype in adults with normal BMI)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Kidney Diseases and Conditions - Chronic Kidney Disease have been published. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Body composition contributes to the risk of chronic kidney disease (CKD) and glomerular hyperfiltration. In adults with normal body mass index (BMI), the relationships of body composition with CKD and high estimated glomerular filtration rate (eGFR) are largely unknown."

Our news editors obtained a quote from the research from the Department of Internal Medicine, "We analyzed 10,734 adults from the Korean National Health and Nutrition Examination Survey (KNHANES), whose body mass index (BMI) was within the normal range (18.5-24.9 kg/m(2)). Body composition was categorized into four phenotypes (normal, sarcopenia alone, obesity alone, and sarcopenic obesity) based on appendicular lean mass index (ALMI) and total body fat percentage (TBF%) measured by dual-energy X-ray absorptiometry (DXA). We examined the relationship of CKD and high eGFR (eGFR >= 120 ml/min per 1.73 m(2)) with body composition phenotypes. Sarcopenia alone (14.3%), obesity alone (16.0%), and sarcopenic obesity (10.7%) were prevalent. The association between sarcopenia alone and eGFR was J-shaped, while that between sarcopenic obesity and eGFR was U-shaped. In multivariate logistic regression analysis compared with the normal phenotype, sarcopenic obesity had an elevated odds ratio (OR) for CKD (OR: 1.59, 95% CI: 1.16-2.19). Sarcopenia alone (OR: 1.87; 95% CI: 1.41-2.47) and sarcopenic obesity (OR: 2.37, 95% CI: 1.68-3.36) had elevated OR for high eGFR. These findings suggest that decreased muscle mass and coexistence with excess adiposity show associations with CKD and high eGFR even in adults with normal BMI."

According to the news editors, the research concluded: "Body composition measured by DXA could provide information on the relationship of body composition with CKD and high eGFR."

For more information on this research see: Chronic kidney disease and high eGFR according to body composition phenotype in adults with normal BMI. Nutrition Metabolism and Cardiovascular Diseases, 2016;26(12):1088-1095. Nutrition Metabolism and Cardiovascular Diseases can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England.

The news editors report that additional information may be obtained by contacting K.B. Lee, Sungkyunkwan UniversityDiv Nephrol, Dept. of Internal Med, Kangbuk Samsung HospSch Med, Seoul 03181, South Korea. Additional authors for this research include K.B. Lee, E.J. Rhee, C.Y. Park, Y. Chang and S. Ryu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.numecd.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Nutritional and
Reports on Swiss 3T3 Cells from Kyoto University Provide New Insights
(13-Methylberberine, a berberine analogue with stronger anti-adipogenic effects on mouse 3T3-L1 cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Swiss 3T3 Cells. According to news originating from Kyoto, Japan, by NewsRx correspondents, research stated, "Lipid metabolism modulation is a main focus of metabolic syndrome research, an area in which many natural and synthetic chemicals are constantly being screened for in vitro and in vivo activity. Berberine, a benzylisoquinoline plant alkaloid, has been extensively investigated for its anti-obesity effects and as a potential cholesterol and triglyceride-lowering drug."

Our news journalists obtained a quote from the research from Kyoto University, "We screened 11 protoberberine and 2 benzophenanthridine alkaloids for their anti-adipogenic effects on 3T3-L1 adipocytes and found that 13-methylberberine exhibited the most potent activity. 13-Methylberberine down-regulated the expression of the main adipocyte differentiation transcription factors, peroxisome proliferator-activated receptor gamma (PPAR gamma) and CCAAT enhancer binding protein alpha (C/EBP alpha), as well as their target genes. PPAR gamma, C/EBP alpha, and sterol regulatory element binding protein 1 (SREBP-1) protein levels were reduced, and this lipid-reducing effect was attenuated by an AMP-activated protein kinase (AMPK) inhibitor, indicating that the effect of this compound requires the AMPK signaling pathway. Decreased Akt phosphorylation suggested reduced de novo lipid synthesis. C-13 methyl substitution of berberine increased its accumulation in treated cells, suggesting that 13-methylberberine has improved absorption and higher accumulation compared to berberine."

According to the news editors, the research concluded: "Our findings suggest that 13-methylberberine has potential as an anti-obesity drug."

For more information on this research see: 13-Methylberberine, a berberine analogue with stronger anti-adipogenic effects on mouse 3T3-L1 cells. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from F. Sato, Kyoto University, Grad Sch Biostudies, Div Integrated Life Sci, Sakyo Ku, Kyoto 6068502, Japan. Additional authors for this research include M. Sogame and F. Sato.

Keywords for this news article include: Kyoto, Japan, Asia, Connective Tissue Cells, Swiss 3T3 Cells, 3T3-L1 Cells, Fibroblasts, Cell Line, Genetics, Kyoto University.

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Research Conducted at Laval University Has Updated Our Knowledge about Obesity (Association between nesfatin-1 levels and metabolic improvements in severely obese patients who underwent biliopancreatic derivation with duodenal switch)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news reporting originating from Quebec City, Canada, by NewsRx correspondents, research stated, "Nesfatin-1 is a neuroendocrine peptide with potent anorexigenic activity in rodents. The potential role of nesfatin-1 on the regulation of energy balance, metabolic functions and inflammation is currently debated in obese humans."

Our news editors obtained a quote from the research from Laval University, "In the present study, nesfatin-1 fluctuations and their associations with metabolic factors were investigated in severely obese patients who underwent biliopancreatic diversion with duodenal switch (BPD/DS) and severely obese controls (SOC). Basic procedures: Sixty severely obese patients who underwent BPD/DS and 15 SOC (matched for BMI and age) were included in the study. Associations between nesfatin-1 levels and body composition, glucose metabolism, lipid profile as well as inflammatory markers were evaluated at baseline and over a postsurgery 2-month (12 M) period. Body weight was reduced at 6 M and at 12 M in BPD/DS patients (P < 0.001). Nesfatin-1 levels were reduced at 6 M (women: P< 0.05) and at 12 M (men and women: 0.001) in BPD/DS patients. At baseline, nesfatin-1 levels negatively correlated with weight, fat (FM) and fat-free mass (FFM) in the whole population (combined BPD/DS and SOC patients). At 12 M, nesfatin-1 concentrations positively correlated with weight, FM, fasting insulin, insulin resistance, total cholesterol, LDL-cholesterol, triglyceride and apoB values. At 12 M, % changes in nesfatin-1 were positively associated with% changes in weight, FM, FFM, fasting insulin, insulin resistance, total cholesterol, LDL-cholesterol, apoB and C-reactive protein."

According to the news editors, the research concluded: "Nesfatin-1 levels decrease following BPD/DS-induced weight loss and are significantly associated with parameters of metabolic health."

For more information on this research see: Association between nesfatin-1 levels and metabolic improvements in severely obese patients who underwent biliopancreatic derivation with duodenal switch. Peptides, 2016:86():6-12. Peptides can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Peptides - www.journals.elsevier.com/peptides/)

The news editors report that additional information may be obtained by contacting P. Poirier, Laval University, Fac Pharm, Quebec City, PQ, Canada. Additional authors for this research include J. Martin, H. Shimizu, Y. Tagaya, T. Tsuchiya, S. Marceau, L. Biertho, M. Bastien, S.M. Caron-Cantin, S. Simard, D. Richard, K. Cianflone and P. Poirier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.peptides.2016.09.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Quebec City, Quebec, Canada, North and Central America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Wellness, Article Review, Insulin Resistance, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Cholesterol, Proinsulin,
Research Data from University of Pennsylvania Update Understanding of Obesity (Future Therapies in Obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "Although diet and exercise have been the cornerstone of therapy for obesity, efficacy is suboptimal and short lived."

Our news journalists obtained a quote from the research from the University of Pennsylvania, "Surgical procedures are durable but invasive therapy for obesity. Supplemental therapies for obesity that are minimally invasive, low risk, and effective are needed."

According to the news editors, the research concluded: "Several therapeutic options are being developed that offer obese patients and their health care providers alternatives to what is currently available."


Our news journalists report that additional information may be obtained by contacting O. Pickett-Blakely, University of Pennsylvania, Perelman Sch Med, Div Gastroenterol, GI Nutr Obes & Celiac Dis Program, Philadelphia, PA 19104, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gtc.2016.07.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of Pennsylvania.

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Researchers at Austin Health Release New Data on Obesity (The effect of body mass and sex on the accuracy of respiratory magnetometers for measurement of end-expiratory lung volumes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases
and Conditions - Obesity. According to news reporting from Heidelberg, Australia, by NewsRx journalists, research stated, "Respiratory magnetometers are increasingly being used in sleep studies to measure changes in end-expiratory lung volume (EELV), including in obese obstructive sleep apnea patients. Despite this, the accuracy of magnetometers has not been confirmed in obese patients nor compared between sexes."

Financial supporters for this research include National Health and Medical Research Council (Australia), Australian Research Council.

The news correspondents obtained a quote from the research from Austin Health, "Thus we compared spirometer-measured and magnetometer-estimated lung volume and tidal volume changes during voluntary end-expiratory lung volume changes of 1.5, 1, and 0.5 l above and 0.5 l below functional respiratory capacity in supine normal-weight [body mass index (BMI) < 25 kg/m] and healthy obese (BMI > 30 kg/ m) men and women. Two different magnetometer calibration techniques proposed by Banzett et al. [Banzett RB, Mahan ST, Garner DM, Brughera A, Loring SH. J Appl Physiol (1985) 79: 2169-2176, 1995] and Sackner et al. [Sackner MA, Watson H, Belsito AS, Feinerman D, Suarez M, Gonzalez G, Bizousky F, Krieger B. J Appl Physiol (1985) 66: 410-420, 1989] were assessed. Across all groups and target volumes, magnetometers overestimated spirometer-measured EELV by similar to 65 ml (< 0.001) with no difference between techniques (0.07). The Banzett method overestimated the spirometer EELV change in normal-weight women for all target volumes except 0.5 l, whereas no differences between mass or sex groups were observed for the Sackner technique. The variability of breath-to-breath measures of EELV was significantly higher for obese compared with nonobese subjects and was higher for the Sackner than Banzett technique. On the other hand, for tidal volume, both calibration techniques underestimated spirometer measurements (< 0.001), with the underestimation being more marked for the Banzett than Sackner technique (0.03), in obese than normal weight (< 0.001) and in men than in women (0.003)."

According to the news reporters, the research concluded: "These results indicate that both body mass and sex affect the accuracy of respiratory magnetometers in measuring EELV and tidal volume."


Our news journalists report that additional information may be obtained by contacting A.S. Jordan, Austin Hlth, Inst Breathing & Sleep, Heidelberg, Vic, Australia. Additional authors for this research include R. Bourke, J. Trinder, C.L. Nicholas, D. Brazzale, F.J. O'Donoghue, P.D. Rochford and A.S. Jordan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/japplphysiol.00571.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Heidelberg, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Medical Devices, Spirometer, Bariatrics, Obesity, Austin Health.

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Researchers at University Hospital Target Obesity (Obesity services: how best to develop a coherent way forward)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Obesity is the subject of a report. According to news reporting originating from Leeds, United Kingdom, by NewsRx correspondents, research stated, "Obesity now affects 25% of the UK population. This volume of patients cannot be managed by current NHS services."

Our news editors obtained a quote from the research from University Hospital, "It really needs a public health approach which encourages an environment where it is easier for the public to take healthy rather than unhealthy actions. However, there remain substantial numbers of patients who will benefit from medical intervention. This needs a joined-up service which extends from a healthy environment, linking gyms, weight loss groups, community cooking lessons, etc. with pathways connecting primary and secondary healthcare. To date, the National Health Service has not managed to develop a coherent policy that addresses obesity as a major cause of health and social care expenditure. The most important step in primary care is probably to identify the presence of obesity. The medical steps should be in the identification and management of comorbidities. The purpose of treating obesity is not weight loss alone but improving health, so the narrative needs to change from weight to blood pressure, glucose tolerance, physical fitness, etc. Many physicians believe that weight loss is an unwinnable battle but there are several well conducted studies in which primary care, supported by specialists, can deliver successful clinical weight loss. Specialist medical and surgical care for obesity will be required for complex cases and is essential for overseeing long-term postsurgical follow-up to prevent and treat nutritional and metabolic complications. Obesity management suffers from a lack of coherent national public health policies, fragmentation of care and a lack of knowledge of what successful treatment entails."

According to the news editors, the research concluded: "Health benefits do not require a return to a healthy BMI."


The news editors report that additional information may be obtained by contacting J.H. Barth, Obesity Clinic, St James' University Hospital, Leeds, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cen.12992. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leeds, Europe, Obesity, Bariatrics, Overnutrition, Public Health, United Kingdom, Diet and Nutrition, Nutrition Disorders, Nutritional and Metabolic Diseases and Conditions.

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Researchers at University of Antwerp Target Obesity (CNV analysis and mutation screening indicate an important role for the NPY4R gene in human obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news reporting originating from Antwerp, Belgium, by NewsRx correspondents, research stated, "Genome-wide copy number variation (CNV) analyses have associated the 10q11.22 CNV with obesity. As the NPY4R gene is the most interesting candidate gene in this region, it was hypothesized that both genetic and structural variation in NPY4R might be implicated in the pathogenesis of obesity."

Our news editors obtained a quote from the research from the University of Antwerp, "In the first part of this study, 326 children and adolescents with obesity and 298 healthy lean individuals were screened for CNV in the NPY4R-containing chr.10q11.22 region. In the second part of this study, a mutation screen for variants in the NPY4R coding region was performed in 356 children and adolescents with obesity and 337 healthy lean adults. Our CNV analysis demonstrated a significantly higher frequency of NPY4R containing 10q11.22 CNV loss in the patient population (p=0.0003), while CNV gain in this region was more prevalent in the control population (p=0.031). Mutation analysis resulted in the identification of 15 rare non-synonymous heterozygous variants. For two variants that could only be identified in the patient population, receptor dysfunction and thus a pathogenic effect were demonstrated."

According to the news editors, the research concluded: "These data support an essential role for genetic and structural variation within the NPY4R gene in the pathogenesis of obesity."

For more information on this research see: CNV analysis and mutation screening indicate an important role for the NPY4R gene in human obesity. Obesity, 2016;24(4):970-6. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

The news editors report that additional information may be obtained by contacting E. Aerts, Centre of Medical Genetics, University of Antwerp, Antwerp, Belgium. Additional authors for this research include S. Beckers, D. Zegers, K. Van Hoorenbeeck, G. Massa, A. Verrijken, S.L. Verhulst, L.F. Van Gaal and W. Van Hul.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21435. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Antwerp, Belgium, Obesity, Genetics, Bariatrics, Overnutrition, Diet and Nutrition, Nutrition Disorders, Diagnostics and Screening, Nutritional and Metabolic Diseases and Conditions.

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Researchers at University of KwaZulu-Natal Release New Data on Obesity (microRNA-27a rs895819 is associated with obesity in HIV infected preeclamptic Black South African women on HAART)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting from Durban, South Africa, by NewsRx journalists, research stated, "Preeclampsia (PE) and HIV/AIDS present a major health challenge globally. South Africa has the highest disease burden of both HIV/AIDS and PE in the world."

The news correspondents obtained a quote from the research from the University of KwaZulu-Natal, "Despite extensive research, the pathophysiology of these conditions is not completely understood, however a genetic predisposition in women may affect susceptibility. MiRNA-27a regulates adipogenesis and glucose metabolism. A single nucleotide polymorphism (SNP) in miRNA-27a (rs895819T > C) has shown to have disparate effects in various populations. This study investigated the frequency of rs895819 in pregnant normotensive and preeclamptic Black South African (SA) women. Enrollment into the study included: normotensive (n = 95; 45 HIV+; 80 analysed for rs895819T > C, age range: 16-46 years) and PE patients (n = 98; 45 HIV+; 56 analysed for rs895819T > C), age range: 16-42 years). DNA was isolated from peripheral blood mononuclear cells (PBMC). Genotyping of miRNA-27a rs895819 was detected using a TaqMan ® SNP Genotyping assay. We did not find a significant association of miR-27a polymorphism with PE susceptibility in our data. However, in the subgroup analysis (based in HIV status), the variant genotypes (TC/CC) were associated with higher body mass index (BMI) among PE women (32.57 vs. 29.25, p = 0.064), significantly in the presence of HIV infection (33.47 vs. 27.8, p = 0.005)."

According to the news reporters, the research concluded: "The results of this study suggests that miR-27a rs895819 may not be associated with PE susceptibility; however, the miR-27a TC/CC genotype increases susceptibility to elevated BMI in PE, which may be significantly influenced by co-morbid HIV infection among pregnant women on HAART."

For more information on this research see: microRNA-27a rs895819 is associated with obesity in HIV infected preeclamptic Black South African women on HAART. *BMC Medical Genetics*, 2016;17():1-8. *BMC Medical Genetics* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; BMC Medical Genetics - www.biomedcentral.com/bmcmedgenet/)

Our news journalists report that additional information may be obtained by contacting A.A. Chuturgoon, University of KwaZulu Natal, Coll Hlth Sci, Sch Lab Med & Med Sci, Discipline Med Biochem & Chem Pathol, Durban, South Africa. Additional authors for this research include P. Ramkaran, S. Pillay and A.A. Chuturgoon.

Keywords for this news article include: Durban, South Africa, Africa, Nutritional and Metabolic Diseases and Conditions, Genetics, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Nutrition Disorders, Diet and Nutrition, Vertebrate Viruses, HIV Infections, Overnutrition, Retroviridae, RNA Viruses, Bariatrics, HIV/AIDS, Obesity, University of KwaZulu-Natal.

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Researchers at University of Oulu Report New Data on Obesity (Fto-Deficiency Affects the Gene and MicroRNA Expression Involved in Brown Adipogenesis and Browning of White Adipose Tissue in Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting originating from Oulu, Finland, by NewsRx correspondents, research stated, "Genetic variants in the fat mass-and obesity-associated gene Fto are linked to the onset of obesity in humans. The causal role of the FTO protein in obesity is supported by evidence obtained from transgenic mice; however, the underlying molecular pathways pertaining to the role of FTO in obesity have yet to be established."

Our news editors obtained a quote from the research from the University of Oulu, "In this study, we investigate the Fto gene in mouse brown adipose tissue and in the browning process of white adipose tissue. We analyze distinct structural and molecular factors in brown and white fat depots of Fto-deficient mice under normal and obesogenic conditions. We report significant alterations in the morphology of adipose tissue depots and the expression of mRNA and microRNA related to brown adipogenesis and metabolism in Fto-deficient mice."

According to the news editors, the research concluded: "Furthermore, we show that high-fat feeding does not attenuate the browning process of Fto-deficient white adipose tissue as observed in wild-type tissue, suggesting a triggering effect of the FTO pathways by the dietary environment."

For more information on this research see: Fto-Deficiency Affects the Gene and MicroRNA Expression Involved in Brown Adipogenesis and Browning of White Adipose Tissue in Mice. *International Journal of Molecular Sciences*, 2016;17(11):1373-1384. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting J. Ronkainen, University of Oulu, FI-90220 Oulu, Finland. Additional authors for this research include E. Mondini, F. Cinti, S. Cinti, S. Sebert, M.J. Savolainen and T. Saloumrti.

Keywords for this news article include: Oulu, Finland, Europe, Nutritional and Metabolic Diseases and Conditions, Adipogenesis, Genetics, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of Oulu.

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Obesity have been presented. According to news reporting originating in Mexico City, Mexico, by NewsRx journalists, research stated, "Depressive symptoms are often associated with obesity, and emotional eating may play a considerable role in weight gain. This study aimed to examine the association among depression symptoms, emotional eating, and body mass index (BMI) in Mexican college students; and to assess emotional eating as mediator between depressive symptoms and BMI."

The news reporters obtained a quote from the research from Autonomous University, "A total of 1453 students at a public university in Mexico City completed the scale Self-Efficacy in Emotion- and Stress-Related Eating of the Eating and Appraisal Due to Emotions and Stress Questionnaire (EADES) to assess emotional eating, and the scale created by the Center for Epidemiologic Studies (CES-D) to identify depressive symptoms. Weight and height were measured to calculate BMI. Structural equation models (SEM) were used to assess emotional eating as mediator between depressive symptoms and BMI by sex. Depressive symptoms were associated with emotional eating in both men (Beta = -0.33, p< 0.001) and women (Beta = -0.46, p< 0.001). Emotional eating, in turn, was associated with BMI in men (Beta = -0.08, p< 0.001) as well as in women (Beta = -0.09, p< 0.001). Emotional eating was a mediator between depression and BMI, adjusted for age in both sexes."

According to the news reporters, the research concluded: "This finding suggests that emotion management should be taken into consideration in obesity prevention and treatment strategies applied to young adults."


Our news correspondents report that additional information may be obtained by contacting M.E.I. Camacho, Metropolitan Autonomous Univ, Hlth Care Department, Mexico City 04960, DF, Mexico. Additional authors for this research include M.E.I. Camacho, M.D. Velazquez-Alva and M.Z. Zepeda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.appet.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mexico City, Mexico, North and Central America, Nutritional and Metabolic Diseases and Conditions, Epidemiology, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Autonomous University.

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Researchers from Children's Hospital Describe Findings in Obesity (Increased plasminogen activator inhibitor results in a hypofibrinolytic state in adolescents with obesity: invivo and exvivo evidence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Edmonton, Canada, by NewsRx
editors, research stated, "Obesity in adolescents increases their risk for deep vein thrombosis. The objectives of this study were to determine potential mechanisms for thrombotic risk by investigating the fibrinolytic pathway in a sample of adolescents with and without obesity."

Our news journalists obtained a quote from the research from Children's Hospital, "Thirty-seven adolescents with obesity and 16 normal weight age-matched controls were recruited. Plasma levels of components of the fibrinolytic system were measured in addition to a Global Haemostasis Potential assay (GHP), which assesses plasma capacity to generate and lyse a fibrin clot. Levels of plasminogen activator inhibitor (PAI) and tissue plasminogen activator (tPA)/PAI complexes were increased in adolescents with obesity when compared to normal weight controls. There was a significant inverse association of increasing PAI with a decrease in plasmin-antiplasmin complexes. The GHP in obese adolescents displayed a hypofibrinolytic response with a markedly increased t(1/2) clot lysis time, as well as an increase in fibrin clot density as indicated by increased absorbance at maximum peak height. In the obese group, immunodepletion of PAI decreased both t(1/2) lysis time and absorbance at maximum peak height."

According to the news editors, the research concluded: "We have shown invivo and exvivo there is a hypofibrinolytic state in obese adolescents and have established the hypofibrinolytic state is due to increased PAI levels."


Our news journalists report that additional information may be obtained by contacting L.G. Mitchell, Stollery Childrens Hosp, Edmonton, AB, Canada. Additional authors for this research include G.D.C. Ball and L.G. Mitchell.

Keywords for this news article include: Edmonton, Alberta, Canada, North and Central America, Nutritional and Metabolic Diseases and Conditions, Blood Coagulation Factors, Plasminogen Activators, Enzymes and Coenzymes, Serine Endopeptidases, Nutrition Disorders, Peptide Hydrolases, Diet and Nutrition, Enzyme Precursors, Blood Proteins, Beta-Globulins, Overnutrition, Hematology, Bariatics, Obesity, Children's Hospital.

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Y gastric bypass (LRYGB) procedures classifying patients into low risk (class A), intermediate risk (class B), and high risk (class C). The primary aim of this study was to evaluate the accuracy of the OS-MRS in predicting postoperative complications after LRYGB.

The news correspondents obtained a quote from the research from the Department of Surgery, "Secondarily, the postoperative complication rate between primary and revisional LRYGB was systematically analyzed. The Obesity Center Amsterdam, located in a large teaching hospital, in Amsterdam, The Netherlands. The OS-MRS was applied to a consecutive database of patients who underwent LRYGB from November 2007 onwards. Postoperative complications were scored according to the Clavien-Dindo classification. Revisional LRYGB was separately analyzed. LRYGB was performed in 1667 patients either as a primary (81.5%) or revisional (18.5%) procedure. The majority (n = 1371, 82.2%) were female, mean age 44.6 (standard deviation 14.4) years and mean body mass index 44.2 (6.5) kg/m(2). Nine hundred and four (54.2%) were OS-MRS class A, 642 class B (38.5%), and 121 (7.3%) class C. Complications occurred in 143 (10.5%) and 44 (14.2%) patients after primary and revisional surgery, respectively. In both primary and revisional LRYGB, there was no association between complications and the OS-MRS classification. Subanalysis comparing primary with revisional LRYGB found a significant association between revisional surgery and the development of severe complications (Clavien-Dindo >= 3) (P = .003) and mortality (P = .017). The OS-MRS was not an accurate predictor for postoperative complications in patients who underwent primary or revisional LRYGB.

According to the news reporters, the research concluded: "As in other studies, revisional surgery is an independent risk factor for the development of severe complications."


Our news journalists report that additional information may be obtained by contacting U.K. Coblijn, Sint Lucas Andreas Ziekenhuis, Dept. of Surg, Amsterdam, Netherlands. Additional authors for this research include S.M. Lagarde, C.A.L. de Raaff, S.M. de Castro, W.F. van Tets, H.J. Bonjer and B.A. van Wagensveld.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.soard.2016.04.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Nutritional and Metabolic Diseases and Conditions, Surgery, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Gastroenterostomy, Gastric Bypass, Overnutrition, Bariatrics, Obesity, Department of Surgery.

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Researchers from Mt. Sinai Hospital Report Recent Findings in Wellness (Healthy and productive workers: using intervention mapping to design a workplace health promotion and wellness program to improve presenteeism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Wellness have been published. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "Presenteeism is a growing problem in developed countries mostly due to an aging workforce. The economic costs related to presenteeism exceed those of absenteeism and employer health costs."

Our news journalists obtained a quote from the research from Mt. Sinai Hospital, "Employers are implementing workplace health promotion and wellness programs to improve health among workers and reduce presenteeism. How best to design, integrate and deliver these programs are unknown. The main purpose of this study was to use an intervention mapping approach to develop a workplace health promotion and wellness program aimed at reducing presenteeism. We partnered with a large international financial services company and used a qualitative synthesis based on an intervention mapping methodology. Evidence from systematic reviews and key articles on reducing presenteeism and implementing health promotion programs was combined with theoretical models for changing behavior and stakeholder experience. This was then systematically operationalized into a program using discussion groups and consensus among experts and stakeholders. The top health problem impacting our workplace partner was mental health. Depression and stress were the first and second highest cause of productivity loss respectively. A multi-pronged program with detailed action steps was developed and directed at key stakeholders and health conditions. For mental health, regular sharing focus groups, social networking, monthly personal stories from leadership using webinars and multi-media communications, expert-led workshops, lunch and learn sessions and manager and employee training were part of a comprehensive program. Comprehensive, specific and multi-pronged strategies were developed and aimed at encouraging healthy behaviours that impact presenteeism such as regular exercise, proper nutrition, adequate sleep, smoking cessation, socialization and work-life balance. Limitations of the intervention mapping process included high resource and time requirements, the lack of external input and viewpoints skewed towards middle and upper management, and using secondary workplace data of unknown validity and reliability. In general, intervention mapping was a useful method to develop a workplace health promotion and wellness program aimed at reducing presenteeism. The methodology provided a step-by-step process to unravel a complex problem."

According to the news editors, the research concluded: "The process compelled participants to think critically, collaboratively and in nontraditional ways."

For more information on this research see: Healthy and productive workers: using intervention mapping to design a workplace health promotion and wellness program to improve presenteeism. BMC Public Health, 2016;16():11-28. BMC Public Health can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Public Health - www.biomedcentral.com/bmcpublichealth/)

The news correspondents report that additional information may be obtained from C. Ammendolia, Mt. Sinai Hospital, Toronto, ON, Canada. Additional authors for this research
Researchers from Nanjing Agricultural University Report Details of New Studies and Findings in the Area of Obesity (Both diet and gene mutation induced obesity affect oocyte quality in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting out of Nanjing, People's Republic of China, by NewsRx editors, research stated, "Obesity was shown to cause reproductive dysfunctions such as reduced conception, infertility and early pregnancy loss. However, the possible effects of obesity on oocyte quality are still not fully understood."

Our news journalists obtained a quote from the research from Nanjing Agricultural University, "In this study we investigated the effects of both diet and gene mutation induced obesity on impairments in mouse oocyte polarization, oxidative stress, and epigenetic modifications. Our results showed that high-fat diet induced obesity (HFD) and gene mutation induced obesity (ob/ob) could both impair oocyte meiotic maturation, disrupt spindle morphology, and reduce oocyte polarity. Oocytes from obese mice underwent oxidative stress, as shown by high DHE and ROS levels. Abnormal mitochondrial distributions and structures were observed in oocytes from obese groups of mice and early apoptosis signals were detected, which suggesting that oxidative stress had impaired mitochondrial function and resulted in oocyte apoptosis. Our results also showed that 5 mC levels and H3K9 and H3K27 methylation levels were altered in oocytes from obese mice, which indicated that DNA methylation and histone methylation had been affected."

According to the news editors, the research concluded: "Our results showed that both HFD and ob/ob induced obesity affected oocyte maturation and that oxidative stress-induced early apoptosis and altered epigenetic modifications may be the reasons for reduced oocyte quality in obese mice."

For more information on this research see: Both diet and gene mutation induced obesity affect oocyte quality in mice. Scientific Reports, 2016;6():18858. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting Y.J. Hou, College of Animal Science and Technology, Nanjing Agriculture University, Nanjing, 210095, People's Republic of China. Additional authors for this research include C.C. Zhu, X. Duan, H.L. Liu, Q. Wang and S.C Sun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18858. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nanjing, Obesity, Genetics, Apoptosis, Bariatrics, Overnutrition, Diet and Nutrition, Nutrition Disorders, People's Republic of China,
Researchers from State University of New York Report Findings in Obesity (Do environmental pollutants increase obesity risk in humans?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting out of Buffalo, New York, by NewsRx editors, research stated, "Obesity has become a global epidemic and threat to public health. A good understanding of the causes can help attenuate the risk and spread."

Our news journalists obtained a quote from the research from the State University of New York, "Environmental pollutants may have contributed to the rising global obesity rates. Some research reported associations between chemical pollutants and obesity, but findings are mixed. This study systematically examined associations between chemical pollutants and obesity in human subjects. Systematic review of relevant studies published between 1 January 1995 and 1 June 2016 by searching PubMed and MEDLINE®. Thirty-five cross-sectional (n = 17) and cohort studies (n = 18) were identified that reported on associations between pollutants and obesity measures. Of them, 16 studies (45.71%) reported a positive association; none reported a sole inverse association; three (8.57%) reported a null association only; six (17.14%) reported both a positive and null association; seven (20.00%) reported a positive and inverse association; and three studies (8.57%) reported all associations (positive, inverse and null). Most studies examined the association between multiple different pollutants, different levels of concentration and in subsamples, which results in mixed results. Thirty-three studies reported at least one positive association between obesity and chemicals, such as polychlorinated biphenyls, biphenyl A, dichlorodiphenyltrichloroethane, dichlorodiphenyldichloroethylene and more. Certain chemicals, such as biphenyl A, were more likely to have high ORs ranging from 1.0 to 3.0, whereas highly chlorinated polychlorinated biphenyls were more likely to have negative ORs. Effects of chemicals on the endocrine system and obesity might vary by substance, exposure level, measure of adiposity and subject characteristics (e.g. sex and age). Accumulated evidences show positive associations between pollutants and obesity in humans."

According to the news editors, the research concluded: "Future large, long-term, follow-up studies are needed to assess impact of chemical pollutants on obesity risk and related mechanisms."


Our news journalists report that additional information may be obtained by contacting Y. Wang, SUNY Buffalo, Dept. of Community Hlth & Hlth Behav, Buffalo, NY, United States. Additional authors for this research include K. Hollis-Hansen, X. Ren, Y. Qiu and W. Qu.

Keywords for this news article include: Buffalo, New York, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Chemicals, Article
Researchers from Texas Technical University Discuss Findings in Obesity (Physical activity and obesity: what we know and what we need to know)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting from Lubbock, Texas, by NewsRx journalists, research stated, "Creating a negative energy balance by decreasing caloric consumption and increasing physical activity is a common strategy used to treat obesity. A large number of review and original research papers have considered the role of physical activity in weight loss and maintenance."

The news correspondents obtained a quote from the research from Texas Technical University, "However, their conclusions are at times conflicting. In this review, we have critically evaluated the findings of systematic reviews and meta-analyses and supplemented their conclusions with recently published, high-quality clinical trials. We have eliminated studies that were methodologically flawed in an attempt to reduce the ambiguity in the literature. We further sought, through selective review of these publications, to isolate the effects of various types of exercise, independent of dietary interventions, to further clarify their independent contributions. Thus, our review describes (i) combined calorie restriction with physical activity interventions, (ii) physical activity interventions without calorie restriction and (iii) the role of physical activity on maintenance of weight loss. Through this critical examination of the literature, we have provided conclusions to address certain ambiguities regarding the role of physical activity in obesity treatment that will inform clinical practice."

According to the news reporters, the research concluded: "We have also identified several long-standing gaps in knowledge that will inform future research."


Our news journalists report that additional information may be obtained by contacting M. Binks, Texas Technical University, Behav Med & Translat Res Lab, Dept. of Nutr Sci, Lubbock, TX 79409, United States. Additional authors for this research include C.N. Kahathuduwa and M. Binks.

Keywords for this news article include: Lubbock, Texas, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Texas Technical University.

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Studies Conducted at University of Chile on Obesity Recently Reported

[Impact of a school-based intervention on nutritional education and physical activity in primary public schools in Chile (KIND) programme study protocol: cluster randomised ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting originating in Santiago, Chile, by NewsRx journalists, research stated, "Chile has suffered a fast increase in childhood obesity in the last 10 years. As a result, several school programmes have been implemented, however the effectiveness of these needs to be evaluated to identify and prioritize strategies to curve this trend."

The news reporters obtained a quote from the research from the University of Chile, 'Cluster randomized controlled trial. Twelve primary public schools chosen at random over three regions of the country will take part in this study. The sample size consisted of a total of 1,655 children. For each region one school will be selected for each of the three nutritional intervention modes and one school will be selected as the control group. The intervention modes consist of the following: Healthy Kiosk and nutritional education (KSEAN); Optimized physical activity (AFSO); Healthy Kiosk and nutritional education (KSEAN) + optimized physical activity (AFSO); Control group. The effectiveness of each intervention will be evaluated by determining the nutritional condition of each child by measuring percentage of body fat, BMI and the z-score of the BMI. This study will also identify the eating behaviours, nutritional knowledge and fitness of each child, along with the effective time of moderate activity during physical education classes. A protocol to evaluate the effectiveness of a school based intervention to control and/or reduce the rates of childhood obesity for children between 6 and 10 years of age was developed. The protocol was developed in line with the Declaration of Helsinki, the Nuremberg Code and the University of Chile Guidelines for ethical committees, and was approved by the INTA, Universidad de Chile ethical committee on Wednesday 12 March 2014. There is consensus among researchers and health and education personnel that schools are a favourable environment for actions to prevent and/or control childhood obesity. However a lack of evidence on the effectiveness of interventions to date has led some to question the wisdom of allocating resources to programmes."

According to the news reporters, the research concluded: "This is the first study of this kind in Chile and could be an important first step to provide guidance to political authorities in relation to which food and nutrition strategies to prioritize to curve this alarming trend."

For more information on this research see: Impact of a school-based intervention on nutritional education and physical activity in primary public schools in Chile (KIND) programme study protocol: cluster randomised controlled trial. BMC Public Health, 2016;16 ():30-40. BMC Public Health can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Public Health - www.biomedcentral.com/bmcpublichealth/)

Our news correspondents report that additional information may be obtained by contacting N. Bustos, University of Chile, INTA, Santiago, Chile. Additional authors for this research include S. Olivares, B. Leyton, M. Cano and C. Albala.

Keywords for this news article include: Santiago, Chile, South America, Nutritional
Nutritional and Metabolic Diseases and Conditions -…

Studies from Chungbuk National University Describe New Findings in Obesity [Effect of the Capsicoside G-rich Fraction from Pepper (Capsicum annuum L.) Seeds on High-fat Diet-induced Obesity in Mice]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting from Cheongju, South Korea, by NewsRx journalists, research stated, "Obesity is one of the most common metabolic syndromes and is a major threat to human health worldwide. Given the size of this problem, there is growing interest in natural agents that may decrease obesity."

The news correspondents obtained a quote from the research from Chungbuk National University, "In this study, we investigated the anti-obesity effect of a capsicoside G-rich fraction (CRF; 13.35% capsicoside G) isolated from pepper seeds in diet-induced obese mice. C57BL/6J mice were fed either a normal diet or a high-fat diet (HFD), with or without CRF (HFD + CRF; 10 and 100 mg/kg body weight). The body weight and food efficiency ratio of mice fed HFD+ CRF were lower in comparison to that of mice fed only an HFD. Epididymal adipose tissue weight and adipocyte hypertrophy were significantly lower in HFD+ CRF mice than in HFD mice. The fat deposition in the liver of mice fed HFD+ CRF was lower compared to that of mice fed only an HFD. CRF significantly reversed the HFD-induced elevation of the expression of key adipocyte differentiation regulators, including peroxisome proliferator-activated receptor., CCAAT/enhancer-binding protein a, sterol regulatory element binding protein 1c, and their target genes."

According to the news reporters, the research concluded: "These results suggest that CRF could be used as dietary therapy for the prevention of obesity and obesity-related metabolic diseases."

For more information on this research see: Effect of the Capsicoside G-rich Fraction from Pepper (Capsicum annuum L.) Seeds on High-fat Diet-induced Obesity in Mice. 


Our news journalists report that additional information may be obtained by contacting J. Lee, Chungbuk National University, Div Food & Anim Sci, Cheongju 28644, Chungbuk, South Korea. Additional authors for this research include H.S. Jeong and J. Lee. Keywords for this news article include: Cheongju, South Korea, Asia, Nutritional and Metabolic Diseases and Conditions, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Genetics, Obesity, Chungbuk National University.

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Studies from Harvard School of Medicine in the Area of Obesity Reported (Respiratory Management of Perioperative Obese Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "With a rising incidence of obesity in the United States, anesthesiologists are faced with a larger volume of obese patients coming to the operating room as well as obese patients with ever-larger body mass indices (BMIs). While there are many cardiovascular and endocrine issues that clinicians must take into account when caring for the obese patient, one of the most prominent concerns of the anesthesiologist in the perioperative setting should be the status of the lung."

The news reporters obtained a quote from the research from the Harvard School of Medicine, "Because the pathophysiology of reduced lung volumes in the obese patient differs from that of the ARDS patient, the best approach to keeping the obese patient's lung open and adequately ventilated during mechanical ventilation is unique. Although strong evidence and research are lacking regarding how to best ventilate the obese surgical patient, we aim with this review to provide an assessment of the small amount of research that has been conducted and the pathophysiology we believe influences the apparent results. We will provide a basic overview of the anatomy and pathophysiology of the obese respiratory system and review studies concerning pre-, intra-, and postoperative respiratory care. Our focus in this review centers on the best approach to keeping the lung recruited through the prevention of compression atelectasis and the maintaining of physiological lung volumes. We recommend the use of PEEP via noninvasive ventilation (NIV) before induction and endotracheal intubation, the use of both PEEP and periodic recruitment maneuvers during mechanical ventilation, and the use of PEEP via NIV after extubation."

According to the news reporters, the research concluded: "It is our hope that by studying the underlying mechanisms that make ventilating obese patients so difficult, future research can be better tailored to address this increasingly important challenge to the field of anesthesia."

For more information on this research see: Respiratory Management of Perioperative Obese Patients. *Respiratory Care*, 2016;61(12):1681-1692. *Respiratory Care* can be contacted at: Daedalus Enterprises Inc, 9425 N Mac Arthur Blvd, Ste 100, Irving, TX 75063-4706, USA.

Our news correspondents report that additional information may be obtained by contacting L. Berra, Harvard Med Sch, Boston, MA, United States. Additional authors for this research include M. Pirrone, C.S. Zhang, D.F. Fisher, R.M. Kacmarek and L. Berra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4187/respcare.04732. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Respiratory Management, Article Review, Bariatrics, Obesity, Harvard School of Medicine.

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Propiophenones

Studies from University of Arizona Add New Findings in the Area of Propiophenones (BMI changes in adolescents treated with bupropion SR for smoking cessation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Propiophenones have been presented. According to news reporting out of Tucson, Arizona, by NewsRx editors, research stated, "Adolescent overweight and obesity and smoking continue to be very important health challenges because of their lasting effects on overall health. Weight gain after smoking cessation is a barrier to quitting as well as a negative consequence to health."

Financial support for this research came from National Cancer Institute.

Our news journalists obtained a quote from the research from the University of Arizona, "This study reports changes in the body mass index (BMI) z-scores of adolescent smokers participating in a dose-ranging clinical trial of bupropion SR (150 mg/day and 300 mg/day) for smoking cessation. A total of N=296 adolescent smokers (placebo n=100, 150 mg/day n=101, 300 mg/day n=95) with a BMI z-score of 0.5 (sd: 1.4), 0.5 (sd: 1.3), and 0.5 (sd: 1.2) in the placebo, 150 mg/day, and 300 mg/day groups, respectively, were followed for 6 months. Adolescents in the 300 mg/day group had a significant reduction in BMI z-score 6 weeks after quitting (b=-0.16, CI=(-0.29, -0.04), P-value=0.01). This result was not sustained at the 6-month follow-up. A reduction in BMI z-score during smoking cessation with bupropion has important implications for the future of adolescent smoking cessation."

According to the news editors, the research concluded: "These results are particularly relevant for adolescents who have either overweight or obesity or who have reservations about quitting for fear of gaining weight or BMI."

For more information on this research see: BMI changes in adolescents treated with bupropion SR for smoking cessation. Obesity, 2016;24(1):26-9. (Nature Publishing Group - www.nature.com; Obesity - www.nature.com/oby/)

Our news journalists report that additional information may be obtained by contacting L. Floden, College of Public Health, University of Arizona, Tucson, Arizona, United States. Additional authors for this research include D.L. Taren, M.L. Muramoto and S.J Leischow.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21360. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tucson, Arizona, Bupropion, United States, Propiophenones, Psychotherapeutic Agents, North and Central America, Norepinephrine Dopamine Reuptake Inhibitors.

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Study Findings from Chapman University Provide New Insights into Obesity (Cortisol in Human Milk Predicts Child BMI)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Obesity is now available. According to news originating from Orange, California, by NewsRx correspondents, research stated, "Breastfeeding has been linked to lower rates of childhood obesity. Human milk contains cortisol, known to regulate glucose storage and metabolism."

Our news journalists obtained a quote from the research from Chapman University, "The aim of this study was to test the hypothesis that early exposure to cortisol in human breast milk helps to modulate infant body mass index (BMI) trajectories over the first 2 years of life. Growth curve modeling was used to examine whether infant exposure to cortisol in human milk at 3 months predicted changes in child body mass index percentile (BMIP) at 6, 12, and 24 months of age in 51 breastfeeding mother-child pairs. Infants exposed to higher milk cortisol levels at 3 months were less likely to exhibit BMIP gains over the first 2 years of life, compared with infants exposed to lower milk cortisol. By age 2, infants exposed to higher milk cortisol levels had lower BMIPs than infants exposed to lower milk cortisol. Milk cortisol was a stronger predictor of BMIP change in girls than boys. Cortisol exposure through human milk may help to program metabolic functioning and childhood obesity risk."

According to the news editors, the research concluded: "Further, because infant formula contains only trace amounts of glucocorticoids, these findings suggest that cortisol in milk is a novel biological pathway through which breastfeeding may protect against later obesity."

For more information on this research see: Cortisol in Human Milk Predicts Child BMI. *Obesity*, 2016;24(12):2471-2474. *Obesity* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

The news correspondents report that additional information may be obtained from J. Hahn-Holbrook, Chapman Univ, Dept. of Psychol, Orange, CA 92866, United States. Additional authors for this research include T.B. Le, A. Chung, E.P. Davis and L.M. Glynn.

Keywords for this news article include: Orange, California, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Chapman University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating from Cordoba, Spain, by NewsRx correspondents, research stated, "Somatostatin (SST) and cortistatin (CORT) regulate numerous endocrine secretions and their absence [knockout (KO)-models] causes important endocrine-metabolic alterations, including pituitary dysregulations. We have demonstrated that the metabolic phenotype of single or combined SST/CORT KO-models is not drastically altered under normal conditions."

Our news editors obtained a quote from the research, "However, the biological actions of SST/CORT are conditioned by the metabolic-status (e.g. obesity). Therefore, we used male/female SST- and CORT-KO mice fed low-fat (LF) or high-fat (HF) diet to explore the interplay between SST/CORT and obesity in the control of relevant pituitary-axes and whole-body metabolism. Our results showed that the SST/CORT role in the control of GH/prolactin secretions is maintained under LF- and HF-diet conditions as SST-KOs presented higher GH/prolactin-levels, while CORT-KOs displayed higher GH- and lower prolactin-levels than controls under both diets. Moreover, the impact of lack of SST/CORT on the metabolic-function was gender-and diet-dependent. Particularly, SST-KOs were more sensitive to HF-diet, exhibiting altered growth and body-composition (fat/lean percentage) and impaired glucose/insulin-metabolism, especially in males. Conversely, only males CORT-KO under LF-diet conditions exhibited significant alterations, displaying higher glucose-levels and insulin-resistance."

According to the news editors, the research concluded: "Altogether, these data demonstrate a tight interplay between SST/CORT-axis and the metabolic status in the control of endocrine/metabolic functions and unveil a clear dissociation of SST/CORT roles."

For more information on this research see: Obesity- and gender-dependent role of endogenous somatostatin and cortistatin in the regulation of endocrine and metabolic homeostasis in mice. Scientific Reports, 2016;6():1-12. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting R.M. Luque, Campus Excelencia Internac Agroalimentario ceiA3, Cordoba, Spain. Additional authors for this research include J. Cordoba-Chacon, A.I. Pozo-Salas, B. Porteiro, L. de Lecea, R. Nogueiras, M.D. Gahete and J.P. Castano.

Keywords for this news article include: Cordoba, Spain, Europe, Nutritional and Metabolic Diseases and Conditions, Pituitary Hormone Release Inhibiting Hormones, Anterior Pituitary Hormones, Pituitary Gonadotropins, Nerve Tissue Proteins, Pancreatic Hormones, Nutrition Disorders, Endocrine Research, Diet and Nutrition, Peptide Proteins, Peptide Hormones, Neuropeptides, Overnutrition, Somatostatin, Proinsulin, Bariatrics, Prolactin, Obesity.

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Study Findings on Obesity Are Outlined in Reports from Sheffield Hallam University (‘I just don’t want to get bullied anymore, then I can lead a normal life’; Insights into life as an obese adolescent and their views on obesity treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news reporting out of Sheffield, United Kingdom, by NewsRx editors, research stated, "Adolescent obesity is a complex condition involving social, emotional, behavioural and cultural issues. One-to-one interviews and small focus groups with overweight and obese young people were conducted."

Our news journalists obtained a quote from the research from Sheffield Hallam University, "Qualitative research is an appropriate method to explore the complexity of this issue. Overweight and obese adolescent’s attending a community weight management intervention in South Yorkshire. Main variables studied Interviews aimed to explore the experiences of obese adolescents and their perspectives towards obesity treatment. Adolescent's provided detailed accounts of their perspectives on weight gain, alluding to disordered patterns of eating and overeating, reported as being triggered by social and emotional factors, and in particular, bullying. Avoidance of bullying and a desire to integrate socially with peers were key drivers to seek treatment. Young people reported what they should do to lose weight, yet responsibility for successful weight loss and lifestyle change was repeatedly attributed to the treatment received, as opposed to viewing this as a combination of self-motivation coupled with support provided by friends and family."

According to the news editors, the research concluded: "Weight loss programmes need to consider the complex experience of obese young people in their design, focusing on how to implement long-term lifestyle changes."


Our news journalists report that additional information may be obtained by contacting L.J. Reece, Sheffield Hallam University, Center Sport & Exercise Sci, Sheffield, S Yorkshire, United Kingdom. Additional authors for this research include P. Bissell and R.J. Copeland.

Keywords for this news article include: Sheffield, United Kingdom, Europe, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Sheffield Hallam University.

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Study Findings on Obesity Are Outlined in Reports from University of Washington (Safety of Outpatient Surgical Abortion for Obese Patients in the First and Second Trimesters)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting originating in Seattle, Washington, by NewsRx journalists, research stated, "To evaluate the relationship between obesity and surgical abortion complications in the outpatient setting. We conducted a retrospective cohort study of 4,968 women undergoing surgical abortion at a large outpatient clinic network from September 2012 to July 2014."

The news reporters obtained a quote from the research from the University of Washington, "We used log-binomial regression to evaluate body mass index (BMI) as an independent risk factor for first- and second-trimester abortion complications. Body mass index was analyzed as both a continuous and categorical predictor. We assessed complications including need for uterine reaspiration (including same-day reaspiration), uterine perforation, cervical laceration, infection, emergency department visit or hospitalization, and excessive blood loss defined as estimated blood loss greater than or equal to 100 mL. The majority (77%) of procedures was performed in the first trimester. Forty-seven percent of women were normal weight or underweight, 28% were overweight, and 25% were obese, including 4% with BMI greater than or equal to 40. The overall complication rate was 1.7%; the most common complications were need for uterine reaspiration (1.0%) and excessive blood loss (0.6%). Obesity was not associated with increased risk of surgical complications, including when adjusting for age, gestational age, and history of prior cesarean delivery. In a high-volume outpatient abortion clinic with experienced health care providers, abortion is very safe."

According to the news reporters, the research concluded: "Obesity does not appear to be an independent predictor for abortion complications and should not be used in isolation to refer women to hospital-based facilities for abortion care in the first or second trimester."

For more information on this research see: Safety of Outpatient Surgical Abortion for Obese Patients in the First and Second Trimesters. Obstetrics and Gynecology, 2016;128(5):1065-1070. Obstetrics and Gynecology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Obstetrics and Gynecology - journals.lww.com/greenjournal/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting L.S. Benson, University of Washington, Dept. of Obstet & Gynecol, Seattle, WA 98195, United States. Additional authors for this research include E.A. Micks, C. Ingalls and S.W. Prager.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of Washington.

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Study Results from National Autonomous University Update Understanding of Obesity (Hepatic miR-33a/miR-144 and their target gene ABCA1 are associated with steatohepatitis in morbidly obese subjects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Obesity is now available. According to news reporting from Mexico City, Mexico, by NewsRx journalists, research stated, "Abnormal cholesterol metabolism may contribute to the pathogenesis of non-alcoholic steatohepatitis (NASH) and fibrosis. miR-33 and miR-144 regulate adenosine triphosphate binding cassette transporter (ABCA1) and other target genes involved in cholesterol efflux, fatty acid oxidation and inflammation. We explored relationships between non-alcoholic fatty liver disease (NAFLD) and the hepatic expression of ABCA1/ABCG1, as well as other target genes regulated by miR-33 (carnitine O-octanoyltransferase, CROT and hydroxyacyl-CoA-dehydrogenase beta-subunit, HADHB) and miR-144 (toll-like receptor-2, TLR2)."

Financial supporters for this research include Consejo Nacional de Ciencia y Tecnologia, Direcccion General Asuntos del Personal Academico, Universidad Nacional Autonoma de Mexico, PAPIIT-UNAM, Fundacion Miguel Aleman.

The news correspondents obtained a quote from the research from National Autonomous University, "Moreover, we evaluated whether the expression of these genes is correlated with miR-33a/b and miR-144 expression in Mexican individuals with morbid obesity. Eighty-four morbidly obese subjects undergoing bariatric surgery were included in this study. Liver biopsies were obtained to measure hepatic triglyceride and free cholesterol contents, as well as ABCA1, ABCG1, CROT, HADHB, TLR2, miR-33a/b and miR-144 expression. Hepatic free cholesterol content was significantly increased in NASH as compared to non-NASH subjects, while ABCA1 and ABCG1 protein levels significantly decreased with NASH and fibrosis progression. The relative expression of miR-33a and miR-144 correlated inversely with ABCA1 but not with ABCG1 protein levels. Moreover, both miRNAs increased significantly in NASH individuals. miR-33 target genes CROT and HADHB correlated inversely with miR-33a. However, the expression of these genes was not associated with NASH."

According to the news reporters, the research concluded: "MiR-33a/144 and their target gene ABCA1 may contribute to the pathogenesis of NASH in morbidly obese subjects."


Our news journalists report that additional information may be obtained by contacting S. Canizales-Quinteros, National Autonomous University of Mexico, Fac Quim, Unidad Genom Poblac Aplicada Salud, Inst Nacl Med Genom INMEGEN, Mexico City, DF, Mexico. Additional authors for this research include R. Gutierrez-Vidal, H.A. Hernandez-Perez, H. Villamil-Ramirez, P. Leon-Mimila, F. Sanchez-Munoz, S. Moran-Ramos, E. Larrieta-Carrasco, I. Fernandez-Silva, N. Mendez-Sanchez, A.R. Tovar, F. Campos-Perez, T. Villarreal-
Study Results from Pennsylvania State University Update
Understanding of Obesity (Application of the multiphase optimization strategy to a pilot study: an empirical example targeting obesity among children of low-income mothers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting out of University Park, Pennsylvania, by NewsRx editors, research stated, "Emerging approaches to building more efficient and effective behavioral interventions are becoming more widely available. The current paper provides an empirical example of the use of the engineering-inspired multiphase optimization strategy (MOST) to build a remotely delivered responsive parenting intervention to prevent obesity among children of low-income mothers with and without depressive symptoms."

Our news journalists obtained a quote from the research from Pennsylvania State University, "Participants were 107 mothers with (n = 45) and without (n = 62) depressive symptoms who had a child aged 12 to 42 months participating in the Women, Infants and Children program. Participants were randomized to one of sixteen experimental conditions using a factorial design that included a combination of the following eight remotely delivered intervention components: responsive feeding curriculum (given to all participants), parenting curriculum, portion size guidance, obesogenic risk assessment, personalized feedback on mealtime routines, feeding curriculum counseling, goal setting, mobile messaging, and social support. This design enabled efficient identification of components with low feasibility and acceptability. Completion rates were high (85%) and did not statistically differ by depressive symptoms. However, mothers with depressive symptoms who received obesogenic risk assessment and personalized feedback on mealtime routines components had lower completion rates than mothers without depressive symptoms. All intervention components were feasible to implement except the social support component. Regardless of experimental condition, most participants reported that the program increased their awareness of what, when, and how to feed their children. MOST provided an efficient way to assess the feasibility of components prior to testing them with a fully powered experiment. This framework helped identify potentially challenging combinations of remotely delivered intervention components."

According to the news editors, the research concluded: "Consideration of how these results can inform future studies focused on the optimization phase of MOST is discussed."

For more information on this research see: Application of the multiphase optimization strategy to a pilot study: an empirical example targeting obesity among children of...

Our news journalists report that additional information may be obtained by contacting K.C. Kugler, Pennsylvania State University, Methodol Center, University Park, PA 16802, United States. Additional authors for this research include K.N. Balantekin, L.L. Birch and J.S. Savage.

Keywords for this news article include: University Park, Pennsylvania, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Clinical Trials and Studies, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Clinical Research, Overnutrition, Bariatrics, Obesity, Pennsylvania State University.

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*Study Results from Sapienza-University Update Understanding of Obesity (Circulating SIRT1 inversely correlates with epicardial fat thickness in patients with obesity)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news originating from Rome, Italy, by NewsRx correspondents, research stated, "Obesity is increasing worldwide and is related to undesirable cardiovascular outcomes. Epicardial fat (EF), the heart visceral fat depot, increases with obesity and correlates with cardiovascular risk."

Financial support for this research came from Sapienza University of Rome, Italy.

Our news journalists obtained a quote from the research from Sapienza-University, "SIRT1, an enzyme regulating metabolic circuits linked with obesity, has a cardioprotective effect and is a predictor of cardiovascular events. We aimed to assess the relationship of EF thickness (EFT) with circulating SIRT1 in patients with obesity. Sixty-two patients affected by obesity and 23 lean controls were studied. Plasma SIRT1 concentration was determined by enzyme-linked immunosorbent assay (ELISA). EFT was measured by echocardiography. Body mass index (BMI), waist circumference, heart rate (HR), blood pressure, and laboratory findings (fasting glucose, insulin, HbA1c, cholesterol, and triglycerides) were assessed. SIRT1 was significantly lower (P = 0.002) and EFT was higher (P < 0.0001) in patients with obesity compared with lean controls. SIRT1 showed a negative correlation with EFT and HR in the obesity group (rho = -0.350, P = 0.005; rho = -0.303, P = 0.008, respectively). After adjustment for obesity-correlated variables, multiple linear regression analysis showed that EFT remained the best correlate of SIRT1 (beta = -0.352, P = 0.016). Circulating SIRT1 correlates with the visceral fat content of the heart."

According to the news editors, the research concluded: "Serum SIRT1 levels might provide additional information for risk assessment of coronary artery disease in patients with obesity."

For more information on this research see: Circulating SIRT1 inversely correlates with epicardial fat thickness in patients with obesity. *Nutrition Metabolism and*

The news correspondents report that additional information may be obtained from S. Mariani, Sapienza Univ Rome, Dept. of Expt Med, Sect Med Physiopathol Food Sci & Endocrinol, I-00161 Rome, Italy. Additional authors for this research include D. Costantini, C. Lubrano, S. Basciani, C. Caldaroni, G. Barbaro, E. Poggiogalle, L.M. Donini, A. Lenzi and L. Gnessi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.numecd.2016.06.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Cardiovascular, Overnutrition, Cardiology, Bariatrics, Obesity, Sapienza-University.

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Peptide Proteins - Proglucagon

Study Results from Swedish Neuroscience Institute Provide New Insights into Proglucagon (American Association Of Clinical Endocrinologists And American College Of Endocrinology Disease State Clinical Review: Update On Growth Hormone Stimulation ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peptide Proteins - Proglucagon. According to news reporting out of Seattle, Washington, by NewsRx editors, research stated, "The clinical features of adult GH deficiency (GHD) are nonspecific, and GH stimulation testing is often required to confirm the diagnosis. However, diagnosing adult GHD can be challenging due to the episodic and pulsatile GH secretion, concurrently modified by age, gender, and body mass index (BMI)."

Our news journalists obtained a quote from the research from Swedish Neuroscience Institute, "PubMed searches were conducted to identify published data since 2009 on GH stimulation tests used to diagnose adult GHD. Relevant articles in English language were identified and considered for inclusion in the present document. Testing for confirmation of adult GHD should only be considered if there is a high pretest probability, and the intent to treat if the diagnosis is confirmed. The insulin tolerance test (ITT) and glucagon stimulation test (GST) are the two main tests used in the United States. While the ITT has been accepted as the gold-standard test, its safety concerns hamper wider use. Previously, the GH-releasing hormone-arginine test, and more recently the GST, are accepted alternatives to the ITT. However, several recent studies have questioned the diagnostic accuracy of the GST when the GH cut-point of 3 mg/L is used and have suggested that a lower GH cut-point of 1 mg/L improved the sensitivity and specificity of this test in overweight/obese patients and in those with glucose intolerance. Until a potent, safe, and reliable test becomes available, the GST should remain as the alternative to the ITT in the United States. In order to reduce over-diagnosing adult GHD in overweight/obese patients with the GST, we propose utilizing a lower GH cut-point of 1 mg/L in these subjects."
According to the news editors, the research concluded: "However, this lower GH cut-point still needs further evaluation for diagnostic accuracy in larger patient populations with varying BMIs and degrees of glucose tolerance."

For more information on this research see: American Association Of Clinical Endocrinologists And American College Of Endocrinology Disease State Clinical Review: Update On Growth Hormone Stimulation Testing And Proposed Revised Cut-point For The Glucagon Stimulation Test In The Diagnosis Of A. Endocrine Practice, 2016;22(10):1235-1244. Endocrine Practice can be contacted at: Amer Assoc Clinical Endocrinologists, 245 Riverside Avenue, Ste 200, Jacksonville, FL 32202, USA.

Our news journalists report that additional information may be obtained by contacting K.C.J. Yuen, Swedish Neurosci Inst, Dept. of Neurosurg, Seattle, WA 98122, United States. Additional authors for this research include N.A. Tritos, S.L. Samson, A.R. Hoffman and L. Katznelson.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Endocrinology, Article Review, Anterior Pituitary Hormones, Peptide Hormones, Peptide Proteins, Growth Hormones, Proglucagon, Glucagon, Swedish Neuroscience Institute.

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Study Results from University Medical Center Provide New Insights into Obesity (Macrosomia, Obesity, and Macrocephaly as First Clinical Presentation of PHP1b Caused by STX16 Deletion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Utrecht, Netherlands, by NewsRx editors, research stated, "Pseudohypoparathyroidism (PHP) is a genetic disorder with resistance to parathyroid hormone (PTH) as most important feature. Main subtypes of the disease are pseudohypoparathyroidism 1b (PHP1b) and pseudohypoparathyroidism 1a (PHP1a)."

Our news journalists obtained a quote from the research from University Medical Center, "PHP1b is characterized by PTH resistance of the renal cortex due to reduced activity of the stimulatory G protein a subunit (Gs alpha) of the PTH receptor. In addition to resistance to PTH, PHP1a patients also lack sensitivity for other hormones that signal their actions through G protein-coupled receptors and display physical features of Albright hereditary osteodystrophy (AHO), which is not classically seen in PHP1b patients. PHP1a is caused by heterozygous loss-of-function mutations in maternally inherited GNAS exons 1-13, which encode Gsa. PHP1b is often caused by deletion of the STX16 gene, which is thought to have an important role in controlling the methylation and thus imprinting at part of the GNAS locus. Here we present a patient with PHP1b caused by the previously described recurrent 3-kb STX16 deletion. The patient's first symptoms were macrosomia, early onset obesity, and macrocephaly."

According to the news editors, the research concluded: "Since this is an atypical but previously described rare presentation of PHP1b, we reemphasize STX16 deletions and PHP1b as a rare cause for early onset obesity and macrosomia."

For more information on this research see: Macrosomia, Obesity, and Macrocephaly

Our news journalists report that additional information may be obtained by contacting I.M. de Lange, Univ Med Center Utrecht, Dept. of Med Genet, NL-3584 CX Utrecht, Netherlands. Additional authors for this research include A.A.V. Stuart, R.B. van der Luijt, H.K.P. van Amstel and M.M. van Haelst.

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Keywords for this news article include: Utrecht, Netherlands, Europe, Nutritional and Metabolic Diseases and Conditions, Genetics, Metabolic Bone Diseases and Conditions, Inborn Errors Metal Metabolism, Calcium Metabolism Disorders, Pseudohypoparathyroidism, Nutrition Disorders, Diet and Nutrition, Endocrinology, Overnutrition, Bariatrics, Obesity, University Medical Center.

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Peptide Proteins - Proinsulin

Study Results from University of Missouri Update Understanding of Proinsulin (Transcriptomic differences in intra-abdominal adipose tissue in extremely obese adolescents with different stages of NAFLD)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peptide Proteins - Proinsulin have been published. According to news reporting originating from Columbia, Missouri, by NewsRx correspondents, research stated, "Mechanisms responsible for progression of nonalcoholic fatty liver disease (NAFLD) to steatohepatitis (NASH) remain poorly defined. To examine the potential contribution of adipose tissue to NAFLD progression, we performed a complete transcriptomic analysis using RNA sequencing (RNA-Seq) on intra-abdominal adipose tissue (IAT) from severely obese adolescents [M-age 16.9 +/- 0.4 yr, body mass index (BMI) z-score 2.7 +/- 0.1] undergoing bariatric surgery and liver biopsy categorized into three groups: no steatosis (normal, n = 8), steatosis only (n = 13), or NASH (n = 10) by liver histology."

Funders for this research include University of Missouri Life Sciences Pre-Doctoral Fellowship, JR Albert Foundation, U.S. Department of Veterans Affairs (VA), Center for Bariatric Research and Innovation at Cincinnati Children's Hospital, HHS | National Institutes of Health (NIH).

Our news editors obtained a quote from the research from the University of Missouri, "Age, body weight, and BMI did not differ among groups, but subjects with NASH were more insulin resistant (increased homeostatic model assessment/insulin resistance, P< 0.05 vs. other groups). RNA-Seq revealed 175 up-and 492 downregulated mRNA transcripts (>= +/- 1.5-fold, false discovery rate <0.10) in IAT between NASH vs. Normal, with 'mitochondrial dysfunction, P = 4.19E-7' being the top regulated canonical pathway identified by Ingenuity Pathway Analysis; only 19 mRNA transcripts were up-and 148 downregulated when comparing Steatosis
vs. Normal, with suppression of 'EIF2 signaling, P = 1.79E-27' being the top regulated pathway indicating increased cellular stress. A comparison of IAT between NASH vs. Steatosis found 515 up-and 175 downregulated genes, with 'antigen presentation, P = 6.03E-18' being the top regulated canonical pathway and 'inflammatory response' the top diseases and disorders function."

According to the news editors, the research concluded: "Unique transcriptomic differences exist in IAT from severely obese adolescents with distinct stages of NAFLD, providing an important resource for identifying potential novel therapeutic targets for childhood NASH."

For more information on this research see: Transcriptomic differences in intra-abdominal adipose tissue in extremely obese adolescents with different stages of NAFLD. *Physiological Genomics*, 2016;48(12):897-911. *Physiological Genomics* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting R.S. Rector, University of Missouri, Dept. of Nutr & Exercise Physiol, Columbia, MO, United States. Additional authors for this research include K.M. Kanosky, K.D. Wells, L. Miles, J.W. Perfield, S. Xanthakos, T.H. Inge and R.S. Rector.

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Keywords for this news article include: Columbia, Missouri, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Peptide Proteins, Peptide Hormones, Bariatrics, Proinsulin, Steatosis, Genetics, Obesity, University of Missouri.

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Study Results from University of Salento Update Understanding of Obesity [Socio-Economic and Environmental Factors Associated with Overweight and Obesity in Children Aged 6-8 Years Living in Five Italian Cities (the MAPEC_LIFE Cohort)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news originating from Lecce, Italy, by NewsRx correspondents, research stated, "The prevalence of obesity among Italian children has reached such alarming levels as to require detailed studies of the causes of the phenomenon. A cross-sectional study was carried out in order to assess the weight status of 1164 Italian children aged 6-8 years (the Monitoring Air Pollution Effects on Children for Supporting Public Health Policy (MAPEC_LIFE) cohort) and to identify any associations between selected socio-economic and environmental factors and overweight/obesity."

Our news journalists obtained a quote from the research from the University of Salento, "The data were obtained by means of a questionnaire given to parents, and any associations were examined by binomial logistic regression analyses. Overweight was found to be positively associated with male gender, parents of non-Italian origin, and parents who smoke,
and negatively associated with the parents' level of education and employment. In addition, the frequency of overweight varied in relation to the geographical area of residence, with a greater prevalence of overweight children in the cities of central-southern Italy."

According to the news editors, the research concluded: "This study highlights the need to implement appropriate obesity prevention programs in Italy, which should include educational measures concerning lifestyle for parents from the earliest stages of their child's life."

For more information on this research see: Socio-Economic and Environmental Factors Associated with Overweight and Obesity in Children Aged 6-8 Years Living in Five Italian Cities (the MAPEC_LIFE Cohort). International Journal of Environmental Research and Public Health, 2016;13(10):918-928. International Journal of Environmental Research and Public Health can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from T. Grassi, Univ Salento, Dept. of Biol & Environm Sci & Technol, I-73100 Lecce, Italy. Additional authors for this research include A. De Donno, F. Bagordo, F. Serio, P. Piscitelli, E. Ceretti, C. Zani, G.C.V. Viola, M. Villarini, M. Moretti, S. Levorato, A. Carducci, M. Verani, G. Donzelli, S. Bonetta, S. Bonetta, E. Carraro, S. Bonizzoni, A. Bonetti and G.

Keywords for this news article include: Lecce, Italy, Europe, Nutritional and Metabolic Diseases and Conditions, Environment, Epidemiology, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of Salento.

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Musculoskeletal Diseases and Conditions -…

Findings from French National Institute of Health and Medical Research (INSERM) Has Provided New Data on Osteoarthritis [Ceftriaxone-Resistant Neisseria gonorrhoeae Isolates (2010 to 2014) in France Characterized by Using Whole-Genome Sequencing]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Neisseria gonorrhoeae have been presented. According to news originating from Paris, France, by NewsRx correspondents, research stated, "Two extended-spectrum cephalosporin-resistant Neisseria gonorrhoeae isolates were discovered among 6,340 (0.03%) French isolates between 2010 and 2014."

Our news journalists obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "One isolate corresponded to the F89 multidrug-resistant N. gonorrhoeae isolate harboring a penA mosaic; whole-genome sequencing highlighted an additional R251H substitution in the ftsX gene recently involved in cephalosporin resistance."

According to the news editors, the research concluded: "The other, ceftriaxone-resistant isolate ( MIC, 0.25 mg/liter) harbored the PBP2 pattern XXXVI plus a P551S substitution and belonged to sequence type ST1579 (multilocus sequence typing [MLST])."

For more information on this research see: Ceftriaxone-Resistant Neisseria gonorrhoeae Isolates (2010 to 2014) in France Characterized by Using Whole-Genome
New Findings from University of California Describe Advances in HIV/AIDS (Client-perpetrated and husband-perpetrated violence among female sex workers in Andhra Pradesh, India: HIV/STI risk across personal and work contexts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immune System Diseases and Conditions - HIV/AIDS is now available. According to news reporting out of La Jolla, California, by NewsRx editors, research stated, "This study examines violence experienced in work and personal contexts and relation to HIV risk factors in these contexts among female sex workers (FSW) in Andhra Pradesh, India. FSW at least 18 years of age (n=2335) were recruited through three rounds of respondent-driven sampling between 2006 and 2010 for a survey on HIV risk."

Our news journalists obtained a quote from the research from the University of California, "Using crude and adjusted logistic regression models, any sexual/physical violence (last 6 months) perpetrated by clients and husbands were separately assessed in association with accepting more money for sex without a condom (last 30 days), consistent condom use with clients and husbands (last 30 days), and sexually transmitted infection (STI) symptoms (last 6 months). The mean age among participants was 32, 22% reported being currently married, and 22% and 21% reported physical/sexual violence by clients and husbands, respectively. In adjusted logistic regression models, FSW who experienced client violence were more likely to report accepting more money for unprotected sex trades (adjusted OR (AOR)=1.7; 95% CI 1.4 to 2.2), less likely to report consistent condom use with clients (AOR=0.6; 95% CI 0.5 to 0.7) and more likely to report STI symptoms (AOR=3.5; 95% CI 2.6 to 4.6). Women who reported husband violence were more likely to report accepting more money for unprotected sex trades (AOR=2.1; 95% CI 1.2 to 3.7), less likely to report consistent condom use with clients (AOR=0.5; 95% CI 0.3 to 0.8) and more likely to report STI symptoms (AOR=2.6; 95% CI 1.6 to 4.1)."
According to the news editors, the research concluded: "Among FSW, experiences of violence in work and personal contexts are associated with sexual HIV risk behaviours with clients as well as STI symptoms."


Our news journalists report that additional information may be obtained by contacting E. Reed, University of California, Sch Med La Jolla, Div Global Public Hlth, La Jolla, CA 90037, United States. Additional authors for this research include J.T. Erausquin, A.K. Groves, M. Salazar, M. Biradavolu and K.M. Blankenship.

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Keywords for this news article include: La Jolla, California, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Sexually Transmitted Infection, Primate Lentiviruses, Risk and Prevention, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, University of California.

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**Nanotechnology - Molecular Imaging**

**Researchers from Harvard School of Medicine Provide Details of New Studies and Findings in the Area of Molecular Imaging (Sites With Small Impedance Decrease During Catheter Ablation for Atrial Fibrillation Are Associated With Recovery of ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Impedance Decrease During AF Ablation. To correlate impedance decrease during atrial fibrillation (AF) ablation with lesion durability and PV conduction recovery demonstrated during redo procedures."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "Markers of successful ablation beyond acute conduction block are needed to improve durability of pulmonary vein (PV) isolation (PVI). Local impedance decrease resulting from ablation is a real-time marker of tissue heating and is correlated with lesion creation. Impedance changes associated with point-by-point radiofrequency ablation in the PV antra were recorded during 167 consecutive first-time AF ablations. During clinically indicated redo procedures, sites of recovered PV conduction were identified, and were correlated with the impedance change achieved during ablation at these locations during the initial procedure. Redo procedures were performed in 28 patients, in whom 19 sites of recovered PV conduction were documented. Most sites of PV reconnection (58%) occurred along the posterior PV antra."
Ablation resulting in impedance decrease < 10 ohms during the initial procedure was present in 89% (17/19) of sites with conduction recovery. Regions with adjacent ablation resulting in impedance decrease < 10 ohms were associated with a higher rate of conduction recovery (37% vs. 1.5%, P< 0.001). Likewise, patients with PV conduction recovery demonstrated during redo procedure (Group 1) had larger regions where ablation resulted in < 10 ohm impedance decrease than patients without PV conduction recovery (Group 2) (21.9 +/- 15.5 mm vs. 11.5 +/- 2.1 mm, P< 0.01). Recovered PV conduction occurs predominantly in regions where adjacent ablation applications result in impedance decreases < 10 ohms."

According to the news reporters, the research concluded: "Impedance-guided ablation strategies may improve durability of PVI."

For more information on this research see: Sites With Small Impedance Decrease During Catheter Ablation for Atrial Fibrillation Are Associated With Recovery of Pulmonary Vein Conduction. *Journal of Cardiovascular Electrophysiology*, 2016;27(12):1390-1398.


Our news journalists report that additional information may be obtained by contacting J.S. Chinitz, Harvard Med Sch, Brigham & Women's Hospital, Dept. of Med, Cardiac Arrhythmia ServDiv Cardiol, Boston, MA, United States. Additional authors for this research include S. Kapur, C. Barbhaiya, S. Kumar, R. John, L.M. Epstein, U. Tedrow, W.G. Stevenson and G.F. Michaud.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Heart Disorders and Diseases, Heart Catheterization, Atrial Fibrillation, Cardiac Arrhythmias, Electrocoagulation, Catheter Ablation, Pulmonary Veins, Heart Disease, Angiology, Harvard School of Medicine.

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**Digestive System Diseases and Conditions - Colonic...**

**Researchers from University of Barcelona Report Details of New Studies and Findings in the Area of Colonic Polyps (Prognostic Value of Left Atrial Strain in Outpatients with De Novo Heart Failure)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Failure. According to news reporting out of Barcelona, Spain, by NewsRx editors, research stated, "Left atrial (LA) dysfunction has been related to symptom onset in patients with heart failure (HF). However, the potential prognostic role of LA function has been scarcely studied in outpatients with new-onset HF symptoms."

Our news journalists obtained a quote from the research from the University of Barcelona, "Consecutive outpatients with suspected HF onset evaluated at a one-stop clinic were screened. HF diagnosis was performed according to current guidelines. LA function was analyzed in patients in sinus rhythm by speckle-tracking echocardiography, determining LA peak strain rate after atrial contraction (LASRa) as a surrogate of atrial contractile function. Yearly prospective follow-up was conducted to report cardiovascular hospital admission or death. Patients without HF in sinus rhythm were followed as a control group. Survival curves
were estimated using the Kaplan-Meier method. One hundred fifty-four outpatients were included (mean age, 74 +/- 10 years; 67% women) with a median follow-up duration of 44.4 months (interquartile range, 31-58 months). Final diagnosis was 29.9% non-HF and 70.1% HF. More than two in five patients with HF (44.4%) had AF (n = 48), and 55.6% (n = 60) were in sinus rhythm. The latter were divided according to LASRa tertile: highest, -1.93 +/- 0.39 sec(-1); middle, -1.08 +/- 0.21 sec(-1); and lowest, -0.47 +/- 0.18 sec(-1). At the end of follow-up, patients with atrial fibrillation had a low event-free survival rate (56.3%), similar to those in the lower LASRa tertile (55.0%). The non-HF group had the best prognosis, and the higher and middle LASRa tertiles had intermediate prognoses (event-free survival, 85%, 75%, and 70%, respectively). The study of contractile LA function in outpatients with new-onset HF provides prognostic stratification."

According to the news editors, the research concluded: "The early identification of patients at higher risk on the basis of their atrial function would allow focusing on them independently of their final diagnoses."


Our news journalists report that additional information may be obtained by contacting L. Sanchis, University of Barcelona, Cardiovasc Inst, Barcelona Hospital Clinic, IDIBAPS, Barcelona, Spain. Additional authors for this research include R. Andrea, C. Falces, T. Lopez-Sobrino, S. Montserrat, F. Perez-Villa, B. Bijnens and M. Sitges.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.echo.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Heart Failure, Heart Disease, Cardiology, University of Barcelona.

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**Statistical Mechanics**

**Researchers from University of Cagliari Provide Details of New Studies and Findings in the Area of Statistical Mechanics (Altered Aortic Upper Wall TDI Velocity Is Inversely Related with Left Ventricular Diastolic Function in Operated Tetralogy ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Tetralogy of Fallot is now available. According to news reporting originating from Cagliari, Italy, by NewsRx correspondents, research stated, "Postoperative tetralogy of Fallot (TOF) patients often develop progressive aortic root dilatation due to an impairment in aortic elastic properties. (1) to assess aortic elasticity at the level of the aortic upper wall by tissue Doppler imaging (TDI); (2) to
evaluate the influence of aortic elasticity on left ventricular (LV) diastolic function in TOF patients."

Our news editors obtained a quote from the research from the University of Cagliari, "Twenty-eight postoperative TOF patients (14 males, 14 females. Mean age: 25.7 +/- 1.6 years) and 28 age- and sex-matched normal subjects were examined. Aortic distensibility and stiffness index were calculated. Aortic wall systolic and diastolic velocities, LV systolic and diastolic parameters were assessed by TDI. Aortic distensibility was significantly lower (P = .024), and aortic stiffness index significantly higher (P = .036) in TOF patients compared to controls. E/E' was significantly higher in TOF than in control group (P < .001). Aortic upper wall early diastolic velocity (AWEDV) was significantly correlated with aortic stiffness index (r: -0.42; P < .03), aortic distensibility (r=0.54; P< .004), left atrial volume (r=0.62; P = .0004), and E/E' ratio (r = -0.87; P< .0001). The latter relationship remained significant even when excluding the influence of age at surgery (r = 0.60; P< .0007) and of previous palliative surgery (r = -0.53; P< .02). Aortic elastic properties can be directly assessed using TDI to measure AWEDV."

According to the news editors, the research concluded: "Aortic elasticity is significantly lower in postoperative TOF patients, exerting a negative effect also on LV diastolic function, with a potential long-term influence on clinical status."

For more information on this research see: Altered Aortic Upper Wall TDI Velocity Is Inversely Related with Left Ventricular Diastolic Function in Operated Tetralogy of Fallot. Congenital Heart Disease, 2016;11(6):598-605. Congenital Heart Disease can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Congenital Heart Disease - onlinelibrary.wiley.com/journal/10.1111/(ISSN) 1747-0803)

The news editors report that additional information may be obtained by contacting P.P. Bassareo, University of Cagliari, Dept. of Med Sci M Aresu, Cagliari, Italy. Additional authors for this research include L. Saba, A.R. Marras and G. Mercuro.

Keywords for this news article include: Cagliari, Italy, Europe, Heart Disorders and Diseases, Cardiovascular Abnormalities, Congenital Heart Defects, Congenital Abnormalities, Tetralogy of Fallot, Heart Disease, Cardiology, Surgery, University of Cagliari.

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Aromatic Amino Acids

Researchers from University of North Carolina Report Details of New Studies and Findings in the Area of Aromatic Amino Acids (Co-delivery of polymeric metformin and cisplatin by self-assembled core-membrane nanoparticles to treat non-small cell ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news reporting from Chapel Hill, North Carolina, by NewsRx journalists, research stated, "Clinically, combined therapy of cisplatin (CDDP) and metformin is an effective treatment for non-small cell lung cancer (NSCLC). The success is attributed to synergistic effects between the two drugs."

Funders for this research include NIH, National Natural Science Foundation of China.
The news correspondents obtained a quote from the research from the University of North Carolina, "Therefore, we hypothesize that co-encapsulation of CDDP and metformin will avoid the prominent toxicity of CDDP while maintaining the synergy between the regimens. CDDP was first conjugated to polyglutamic acid (PGA) to form anionic PGA-CDDP which was electrostatically complexed with the cationic polymeric metformin (polymet). The nano-sized complex was then stabilized with cationic liposomes composed of DOTAP (2, 3-Dioleoyloxypropyl)trimethylammonium/Cholesterol/DSPE-PEG-anisamide aminoethyl. Both in vitro and in vivo experiments confirmed the synergy between polymet and CDDP. CDDP delivered with nanoparticles (NPs) exhibited significantly increased tumor accumulation over free CDDP and suppressed tumor growth through apoptosis in NSCLC H460 tumor-bearing mice without nephrotoxicity. The synergistic effect of polymet alongside CDDP demonstrates that polymet-CDDP NPs can activate the AMP-activated protein kinase alpha (AMPK alpha) pathway and inhibit mammalian target rapamycin (mTOR) activity to enhance growth suppression."

According to the news reporters, the research concluded: "In all, this platform is the first to successfully co-load polymet, a polymeric metformin, and CDDP into the same nanoparticle for successful treatment of NSCLC."

For more information on this research see: Co-delivery of polymeric metformin and cisplatin by self-assembled core-membrane nanoparticles to treat non-small cell lung cancer. *Journal of Controlled Release*, 2016;244():63-73. *Journal of Controlled Release* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news journalists report that additional information may be obtained by contacting L. Huang, Univ North Carolina Chapel Hill, Center Nanotechnol Drug Delivery, Eshelman Sch Pharm, Chapel Hill, NC 27599, United States. Additional authors for this research include Y. Zhao, L. Miao, C.M. Lin and L. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jconrel.2016.11.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Non-Small Cell Lung Cancer, Emerging Technologies, Drugs and Therapies, Hypoglycemic Agents, Antidiabetic Agents, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin Therapy, Alkylating Agents, Metformin Therapy, Non-Sulfonylureas, Pharmaceuticals, Antineoplastics, Nanotechnology, Lung Neoplasms, Nanoparticle, Biguanides, Oncology, University of North Carolina.

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**Biomedical Engineering - Tissue Engineering**

**Researchers from University of Pittsburgh Provide Details of New Studies and Findings in the Area of Tissue Engineering (Early Whole Blood Transcriptional Signatures Are Associated with Severity of Lung Inflammation in Cynomolgus Macaques with ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections -
Tuberculosis. According to news reporting originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "Whole blood transcriptional profiling offers great diagnostic and prognostic potential. Although studies identified signatures for pulmonary tuberculosis (TB) and transcripts that predict the risk for developing active TB in humans, the early transcriptional changes immediately following Mycobacterium tuberculosis infection have not been evaluated."

Our news editors obtained a quote from the research from the University of Pittsburgh, "We evaluated the gene expression changes in the cynomolgus macaque model of TB, which recapitulates all clinical aspects of human M. tuberculosis infection, using a human microarray and analytics platform. We performed genome-wide blood transcriptional analysis on 38 macaques at 11 postinfection time points during the first 6 mo of M. tuberculosis infection. Of 6371 differentially expressed transcripts between preinfection and postinfection, the greatest change in transcriptional activity occurred 20-56 d postinfection, during which fluctuation of innate and adaptive immune response-related transcripts was observed. Modest transcriptional differences between active TB and latent infection were observed over the time course with substantial overlap. The pattern of module activity previously published for human active TB was similar in macaques with active disease. Blood transcript activity was highly correlated with lung inflammation (lung [F-18]fluorodeoxyglucose [FDG] avidity) measured by positron emission tomography and computed tomography at early time points postinfection. The differential signatures between animals with high and low lung FDG were stronger than between clinical outcomes. Analysis of preinfection signatures of macaques revealed that IFN signatures could influence eventual clinical outcomes and lung FDG avidity, even before infection."

According to the news editors, the research concluded: "Our data support that transcriptional changes in the macaque model are translatable to human M. tuberculosis infection and offer important insights into early events of M. tuberculosis infection."

For more information on this research see: Early Whole Blood Transcriptional Signatures Are Associated with Severity of Lung Inflammation in Cynomolgus Macaques with Mycobacterium tuberculosis Infection. *Journal of Immunology*, 2016;197(12):4817-4828. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news editors report that additional information may be obtained by contacting P.L. Lin, University of Pittsburgh, Children's Hospital of Pittsburgh, Dept. of Pediat, Medical CenterSch Med, Pittsburgh, PA 15224, United States. Additional authors for this research include J.A. Skinner, N. Baldwin, J.L. Flynn and P.L. Lin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1601138. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Mycobacteria, Risk and Prevention, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Gram-Positive Rods, Infectious Disease, Mycobacteriaceae, Actinobacteria, Inflammation, Genetics, University of Pittsburgh.

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Researchers from University of Wisconsin Report Details of New Studies and Findings in the Area of South Asia (BMP1-like proteinases are essential to the structure and wound healing of skin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Matrix Biology. According to news reporting out of Madison, Wisconsin, by NewsRx editors, research stated, "Closerly related extracellular metalloproteinases bone morphogenetic protein 1 (BMP1) and mammalian Tolloid-like 1 (mTLL1) are co-expressed in various tissues and have been suggested to have overlapping roles in the biosynthetic processing of extracellular matrix components. Early lethality of mice null for the BMP1 gene Bmp1 or the mTLL1 gene Till has impaired in vivo studies of these proteinases."

Funders for this research include Department of Veterans Affairs, Debra International Epidermolysis Bullosa Medical Research Foundation, Palo Alto VA Office of Research and Development, National Institutes of Health.

Our news journalists obtained a quote from the research from the University of Wisconsin, "To overcome issues of early lethality and functional redundancy we developed the novel BTKO mouse strain, with floxed Bmp1 and Till1 alleles, for induction of postnatal, simultaneous ablation of the two genes. We previously showed these mice to have a skeletal phenotype that includes elements of osteogenesis imperfecta (OI), osteomalacia, and deficient osteocyte maturation, observations validated by the finding of BMP1 mutations in a subset of human patients with OI-like phenotypes. However, the roles of BMP1-like proteinase in non-skeletal tissues have yet to be explored, despite the supposed importance of putative substrates of these proteinases in such tissues. Here, we employ BTKO mice to investigate potential roles for these proteinases in skin. Loss of BMP1-like proteinase activity is shown to result in markedly thinned and fragile skin with unusually densely packed collagen fibrils and delayed wound healing. We demonstrate deficits in the processing of collagens I and III, decorin, biglycan, and laminin 332 in skin, which indicate mechanisms whereby BMP1-like proteinases affect the biology of this tissue."

According to the news editors, the research concluded: "In contrast, lack of effects on collagen VII processing or deposition indicates this putative substrate to be biosynthetically processed by non-BMP1-like proteinases."

For more information on this research see: BMP1-like proteinases are essential to the structure and wound healing of skin. Matrix Biology, 2016;56():114-131. Matrix Biology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Matrix Biology - www.journals.elsevier.com/matrix-biology/)

Our news journalists report that additional information may be obtained by contacting D.S. Greenspan, University of Wisconsin, Sch Med & Public Hlth, Dept. of Cell & Regenerat Biol, Madison, WI 53705, United States. Additional authors for this research include D. Massoudi, N. Nguyen, D.R. Keene, S.J. Lee, D.E. Birk, J.M. Davidson, M.P. Marinkovich and D.S. Greenspan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.matbio.2016.06.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madison, Wisconsin, United States, North
Study Data from Johns Hopkins University Provide New Insights into Cardiology (Cardiac Index Declines During Long-Term Left Ventricular Device Support)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiology are discussed in a new report. According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "To investigate longitudinal trends in valvular and ventricular function with long-term left ventricular assist device (LVAD) therapy, we analyzed hemodynamic and echocardiographic data of patients with at least 2 years of continuous LVAD support. All 130 patients who underwent HeartMate II implantation at our institution between 2005 and 2012 were reviewed."

The news correspondents obtained a quote from the research from Johns Hopkins University, "Twenty patients had hemodynamic and echocardiographic evaluations in both the early (0-6 months) and late (2-3 years) postoperative period. Patients on inotropic therapy or temporary mechanical support were excluded. The average times of early and late hemodynamic evaluations were 59,641 days and 88,961 days, respectively. Cardiac index (CI) declined by an average of 0.4 L/min/m² (P=0.04) with concomitant increase in pulmonary capillary wedge pressure (PCWP; P=0.02). The right atrial pressure to PCWP (RAP: PCWP) ratio decreased during LVAD support suggesting improvement in right ventricular function. While there was an increase in degree of aortic insufficiency (AI) at the late follow-up period (P=0.008), dichotomization by median decline in CI (20.4 L/min/m²) indicated no difference in prevalence of AI among the groups. CI declined in patients with HeartMate II after 2 years of continuous support."

According to the news reporters, the research concluded: "An increase in preload and afterload was observed in those with the greatest decline in CI."


Our news journalists report that additional information may be obtained by contacting R.J. Tedford, Johns Hopkins University, Dept. of Med, Div Cardiol, Baltimore, MD 21287, United States. Additional authors for this research include B.A. Houston, J.M. Chaisson, J.C. Grimm, G.R. Stevens, C.M. Sciortino, A.S. Shah, G.J.R. Whitman, S.D. Russell and R.J. Tedford.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiology, Johns Hopkins University.

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Pharmaceutical Companies

ALEXION ALXN ALERT: Johnson & Weaver, LLP Announces Filing of Class Action Complaint Against Alexion Pharmaceuticals, Inc.; Encourages all Investors to Contact the Firm for Information

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Johnson & Weaver, LLP announces that a class action complaint was filed on behalf of purchasers of Alexion Pharmaceuticals, Inc. (NASDAQ: ALXN) securities during the period between February 10, 2014 and November 9, 2016 (the "Class Period"). Alexion is a biopharmaceutical company that develops and commercializes therapeutic products. The lawsuit will seek to recover damages for shareholders.

According to the complaint, throughout the Class Period defendants issued materially false and misleading statements to investors and failed to disclose that: Alexion employed improper sales practices with respect to Soliris; as a result, Alexion's revenues from Soliris sales were unlikely to be sustainable; and therefore, Alexion's public statements were materially false and misleading at all relevant times.

If you have any questions concerning this notice, or if you purchased stock before the February 10, 2014, class period, please contact lead analyst Jim Baker (mailto:jimb@johnsonandweaver.com) at 619-814-4471. If you email, please include your phone number.

Any member of the putative class may move the Court to serve as lead plaintiff through counsel of their choice or may choose to do nothing and remain an absent class member.

Keywords for this news article include: Alexion Pharmaceuticals, Pharmaceutical Companies, Legal Issues, Johnson & Weaver Llp.

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Neurodegenerative Diseases and Conditions - Motor…

ALS and Alzheimer's Disease Bioinformatics Reports Confirm GM6's Role as Regulator of Disease-Relevant Pathways

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Genervon Biopharmaceuticals LLC ("Genervon") reported that in advance of the upcoming JP Morgan Healthcare Conference in San Francisco in January it will publish the confidential list of genes associated with Amyotrophic Lateral Sclerosis (ALS) (89 genes) and Alzheimer's disease (84 genes) that are modulated by GM6 to potentially bring homeostasis to these progressive, incurable and fatal neurodegenerative diseases.

GM6 is modeled upon an endogenous embryonic-stage motoneuronotrophic factor regulator that controls differentiation and development of the human nervous system while further potentially monitoring distress signals and coordinating responses to restore homeostasis. GM6 binds specifically to the beta sub-unit of the tyrosine kinase of the Insulin Receptors, IGF1 Receptors and IGF2 Receptors, to activate the monitoring and repair mechanism in the brain. GM6 has been demonstrated to be safe in phase 1 and three phase 2 trials (ALS, PD and Ischemic Stroke).
Most, if not all, ALS and Alzheimer's disease clinical trials have failed because conventional drug design has narrowly focused only on single targets believed to be associated with ALS or AD pathogenesis. Genervon has now shown that GM6 modulates 89 ALS-associated genes by at least twofold along with 84 AD-associated genes. These genes were associated with a diverse set of pathways and disease-associated processes that are consistent with our unique multi-target drug design strategy based upon an endogenous regulator.

Genervon's ALS poster is now available online showing the 89 ALS-associated genes that are modulated by GM6: https://f1000research.com/posters/5-2836.

Genervon's AD poster is now available online showing the 84 AD-associated genes that are modulated by GM6: https://f1000research.com/posters/5-2915 Genervon discovered and developed GM6 for a range of neurological disorders with a primary focus on neurodegenerative diseases including Amyotrophic Lateral Sclerosis (ALS), Parkinson's disease (PD), Muscular Dystrophy (MS), Huntington Disease (HD) and Alzheimer's disease (AD). Genervon is planning a phase 3 clinical trial for ALS in 2017.

Genervon welcomes inquiries regarding partnership opportunities, licensing, and clinical trial cooperation inquiries. For further information, click the following links: rnd@genervon.com, licensing@genervon.com, investment@genervon.com View source version on businesswire.com: http://www.businesswire.com/news/home/20161227005093/en/

Keywords for this news article include: Dementia, Genetics, Neurology, Tauopathies, Alzheimer Disease, Clinical Research, Drugs and Therapies, TDP-43 Proteinopathies, Clinical Trials and Studies, Amyotrophic Lateral Sclerosis, Brain Diseases and Conditions, Genervon Biopharmaceuticals LLC, Spinal Cord Diseases and Conditions, Neuromuscular Diseases and Conditions.

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Abortion care in the UK is 'heading towards a crisis,' warns expert

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Abortion care in the UK is "heading towards a crisis" and reform of the law is just one of the many obstacles that needs to be overcome, argues an expert in the Journal of Family Planning and Reproductive Health Care.

Among the challenges women seeking abortion face include inequitable access, a lack of trained staff, stigmatisation, and a culture of exceptionalism, explains Dr Sandy Goldbeck-Wood, editor in chief of the journal, and clinical lead for abortion services at Cambridge University Hospitals.

She argues that "problems of access and stigma, familiar worldwide, are compounded in the UK by an abortion law that is now widely seen as not fit for purpose" which is considered to be "out of step with technical advances in safe medical abortion and current UK social values."

Most women believe they have a right to make their own decision about abortion, but British law still requires the identification of serious physical or mental health risk by two doctors not necessarily qualified, and who may not know the woman personally.

The law is, therefore, widely seen by clinicians as "hypocritical and anachronistic," explains Dr Goldbeck-Wood.
Another problem is that abortion care has become artificially separated from the rest of reproductive health care, she adds. In the UK, a high proportion of abortion care is provided in specialist organisations outside the NHS.

Trainees in obstetrics and gynaecology - among them the potential service providers of the future - have too little opportunity to benefit from the learning environment that abortion care offers.

"As well as reinforcing stigma, this deprives trainees of valuable learning opportunities," she says

Organisations calling for the law to be reformed include the British Pregnancy Advisory Service, the Royal College of Nursing, the Royal College of Midwives and other women's health organisations.

And if the law is to be reformed, says Dr Goldbeck-Wood, there will be a strong need for debate which is respectful and acknowledges the ethical complexity in this sensitive area of health care.

"Abortion care remains a high-volume, under-researched and under-integrated area of women's healthcare," she writes. "2017 is an excellent time for practitioners to be challenging hypocrisy and exceptionalism in UK abortion care, and leading respectful debate centred on women's needs, with complexity acknowledged."

A study led by Dr Louise Keogh, from the University of Melbourne, assessed the decriminalisation of abortion in the Victoria state of Australia in 2008.

It found that a change in the law has empowered women, and increased clarity and safety for clinicians, but has failed to address stigma, access to services and workforce sustainability.

Commenting on the study, Sally Sheldon, professor of law at Kent University, says that the abortion law reform in Victoria has vital lessons for the UK.

She says that removal of specific criminal prohibitions against abortion "should not be seen as a panacea", even though it is important to remove criminal law prohibitions and to establish abortion care as a health issue.

Much more work is needed to remove stigma, encourage doctors to provide terminations, and improve "equitable access to excellent, modern abortion services," she concludes.

Keywords for this news article include: BMJ, Obstetrics, Legal Issues, Mental Health, Risk and Prevention, Women's Health - Reproductive Health.

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**Lung Diseases and Conditions - Cystic Fibrosis**

**Alder Hey Children's NHS Foundation Trust Details Findings in Cystic Fibrosis (Pneumococcal vaccines for cystic fibrosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Cystic Fibrosis. According to news reporting originating in Merseyside, United Kingdom, by NewsRx journalists, research stated, "Invasive pneumococcal disease is associated with significant mortality and many countries have introduced routine pneumococcal vaccination into their childhood immunisation programmes. Whilst pneumococcal disease in cystic fibrosis is
uncommon, pneumococcal immunisation may offer some protection against pulmonary exacerbations caused by this pathogen."

The news reporters obtained a quote from the research from Alder Hey Children's NHS Foundation Trust, "In the USA and UK pneumococcal vaccination is currently recommended for all children and adults with cystic fibrosis. This is an update of a previously published review. To assess the efficacy of pneumococcal vaccines in reducing morbidity in people with cystic fibrosis. Search methods We searched the Cochrane Cystic Fibrosis and Genetic Disorders Group Cystic Fibrosis Trials Register, which comprises references identified from comprehensive electronic database searches and handsearches of relevant journals and abstract books of conference proceedings. In addition, the pharmaceutical manufacturers of the polysaccharide and conjugate pneumococcal vaccines were approached. Date of the most recent search: 27 June 2016. Selection criteria Randomised and quasi-randomised controlled trials comparing pneumococcal vaccination (with either a polysaccharide or conjugate pneumococcal vaccine) with non-vaccination or placebo in children or adults with cystic fibrosis were eligible for inclusion. Data collection and analysis No relevant trials were identified. There are no trials included in this review. Authors' conclusions As no trials were identified we cannot draw conclusions on the efficacy of routine pneumococcal immunisation in people with cystic fibrosis in reducing their morbidity or mortality. As many countries now include pneumococcal immunisation in their routine childhood vaccination schedule it is unlikely that future randomised controlled trials will be initiated."

According to the news reporters, the research concluded: "Rigorously conducted epidemiological studies may offer the opportunity to evaluate the efficacy of pneumococcal vaccination in reducing morbidity and mortality in people with cystic fibrosis."

For more information on this research see: Pneumococcal vaccines for cystic fibrosis. Cochrane Database of Systematic Reviews, 2016;(9):2585-2597. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting L. Burgess, Alder Hey Childrens NHS Fdn Trust, Liverpool L12 2AP, Merseyside, United Kingdom.

Keywords for this news article include: Merseyside, United Kingdom, Europe, Respiratory Tract Diseases and Conditions, Pediatrics, Article Review, Epidemiology, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Environment and Public Health, Communicable Disease Control, Lung Diseases and Conditions, Clinical Trials and Studies, Public Health Practice, Pneumococcal Disease, Biological Products, Clinical Research, Cystic Fibrosis, Immunization, Vaccination, Vaccines, Genetics, Alder Hey Children's NHS Foundation Trust.

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**Drugs and Therapies - Behavioural Pharmacology**

**American University Reports Findings in Behavioural Pharmacology (Cocaine cues retain silent traces of an excitatory history after conversion into conditioned inhibitors: 'the ghost in the addict')**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness Week
& Wellness Week -- Researchers detail new data in Drugs and Therapies - Behavioural Pharmacology. According to news originating from Washington, District of Columbia, by NewsRx correspondents, research stated, "The present experiment investigated the extent to which the A+/AB-conditioned inhibition procedure could counteract an excitatory drug-related conditioning history. In two groups of rats, a light stimulus was established as a signal for the absence of cocaine."

Our news journalists obtained a quote from the research from American University, "For the History group, the light had previously been a discriminative stimulus (S) that occasioned cocaine self-administration and could thus be classified as a cocaine excitor. In comparison, the No-History group first encountered the light during conditioned inhibition training. During conditioned inhibition training, both groups self-administered cocaine during tone as well as during click Ss, whereas drug seeking was eliminated in click-plus-light, wherein cocaine was not available (A+/AB-). Drug seeking was essentially eliminated in both groups. Nevertheless, on a summation test the light reduced cocaine seeking occasioned by the tone S by 95% in the No-History group, but by less than 50% in the History group. This summation test result showed that the effects of a drug-related history persisted even after the light was converted into an effective conditioned inhibitor on the training baseline through the powerful A+/AB-procedure."

According to the news editors, the research concluded: "Future research should seek procedures that produce even stronger conditioned inhibition that eliminates such residual 'silent' drug excitation, the 'ghost in the addict'."

For more information on this research see: Cocaine cues retain silent traces of an excitatory history after conversion into conditioned inhibitors: 'the ghost in the addict'. Behavioural Pharmacology, 2016;27(2-3 Spec I):293-300. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

The news correspondents report that additional information may be obtained from S.J. Weiss, Dept. of Psychology, American University, Washington, District of Columbia, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000220. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Washington, United States, Drugs and Therapies, District of Columbia, Behavioural Pharmacology, North and Central America.

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EurekAlert!

Animal biology, human health dominate 2016 EurekAlert! trending news list

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- News releases about the fight against Zika, a happy sex life, and dogs were among 2016's most popular on EurekAlert!, a science news service operated by the American Association for the Advancement of Science (AAAS). For the first time, an infographic made its way to the top five most-shared list.
O, Canada

The most popular news release of 2016, titled "Canadian innovation for killing mosquito eggs could help Zika fight," received 414,825 page views between 16 December 2015 and 15 December 2016. It describes a low-cost and environmentally friendly approach to killing eggs of mosquitoes that spread diseases like dengue and Zika.

A second Canadian release, "University of Toronto study reveals secret to a happy sex life" took the 4th spot with 205,989 views. It describes how "sexpectations" -- the belief that sexual satisfaction either takes hard work or comes from being true soulmates with a partner -- can make or break a relationship.

Dog videos

For the first time, news releases about animal biology outnumbered those about human health with the most spots -- five -- in the top 10.

Our fascination with man's best friend catapulted two releases into 2nd and 7th places. A press summary from the journal Science about dogs' ability to understand vocabulary and intonation in human speech received 194,013 views.

A Cell Press news release, entitled "Your dog remembers what you did," earned 299,194 views for reminding dog owners that "your dogs are paying attention, and they'll remember." This news release was also the second-most shared release in 2016 via AddThis, with 1,600 shares and more than 1,000 social clicks on multiple platforms including Twitter, e-mail, and Facebook.

Imagine having to rip your own skin apart just to open your mouth to eat. Hydra, a tiny freshwater animal, does just that. A second Cell Press news release illustrating this process for the first time -- complete with video -- was the 3rd most popular release in 2016 with 286,475 views. (This is also the second year in a row that Cell Press occupied two spots on the annual Trending News List).

Most popular

The most popular news release in 2016 received 62% more views than its 2015 predecessor, a release about the "missing link" between the brain and the immune system (256,289). Overall, the top 10 trending news releases of 2016 received 47% more views over those from 2015 (1,545,066).

Bucking the trend from previous years, where health-related news dominated the EurekAlert! Trending News List, this year saw five releases about animal biology and four about human health occupying the top nine spots. A WiFi-related release was the lone entry from the tech arena.

Other entries in the 2016 Trending News List include releases about the relationship between wheat and chronic conditions like multiple sclerosis, asthma and rheumatoid arthritis, how coffee may help ward off dementia in some women, salmon hatcheries causing rapid genetic changes, and advances in WiFi technology.

The 10 most popular news releases on EurekAlert! in 2016 are:

Most shared

Three of the five most-shared news releases in 2016 are also among the most-read. The top spot went to the release suggesting a link between a protein in wheat and chronic conditions such as asthma, rheumatoid arthritis, and multiple sclerosis, with upwards of 1,700 shares and 6,100 social clicks. The 5th most-shared release, from The Lancet, describes a new stem cell transplantation method that may halt MS symptoms.

The two dog-related news releases on the Trending List also made it to the most-shared list, occupying the 2nd and 4th spots.
For the first time, an infographic from the multimedia archive emerged as one of the most-shared items of the year. A 2015 map showing that lice in 25 U.S. states are resistant to common treatments earned 3rd place with more than 1,100 shares and 1,000 social clicks. The related study had been presented at the 250th National Meeting & Exposition of the American Chemical Society.

The five most-shared items on EurekAlert! in 2016 are:

1. Social media sharing via AddThis in 2016 continued an upward trend with a total of 344,400 news-release shares over 2015's 340,233. Facebook, Twitter, and e-mail remained the preferred sharing platforms, while LinkedIn and Reddit made up a smaller but significant presence.

2. EurekAlert! recently surpassed 30,000 followers on Twitter and nearly 18,000 Facebook fans.

3. More than 29,500 news releases were eligible for inclusion on EurekAlert! in 2016, up from 27,859 in 2015. All news releases were submitted by accredited research institutions, peer-reviewed journals, or their press agents and made available to registered science reporters and the public. The annual EurekAlert! trending news release list was compiled based on the number of public and reporter visits to news releases between 16 December 2015 and 15 December 2016.

Related:

In late 2014 EurekAlert! introduced a fully responsive design, which better supports mobile use, multimedia, and social sharing. A staff-curated homepage feature highlighting trending news releases was also rolled out as part of the new design.

Keywords for this news article include: Genetics.

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Drugs and Therapies - Antibiotics

Antibiotic resistance just became more complex

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Bacteria that are susceptible to antibiotics can survive when enough resistant cells around them are expressing an antibiotic-deactivating factor. This new take on how the microbial context can compromise antibiotic therapy was published by a team of microbiologists from the University of Groningen microbiologists, together with colleagues from San Diego, in the journal PLOS Biology on 27 December.

The entire paper is summed up nicely in a short video clip of a crucial experiment in the study. We see Staphylococci bacteria, which have been labelled with a green fluorescent protein, expressing a resistance gene for the antibiotic chloramphenicol. Next to them are black Streptococcus pneumoniae bacteria that do not have the resistance gene. In a medium containing the antibiotic, the green cells begin to grow and divide whereas the non-resistant black cells don't. After a time, individual black cells begin to divide and they even outgrow their green companions.

What is going on here? Microbiologist Robin Sorg, first author of the paper, explains: 'The resistant cells take up the chloramphenicol and deactivate it. At a certain point, the concentration in the growth medium drops below a critical level and the non-resistant cells start growing.' Something like this has been seen before. 'Cells with resistance to penicillin can
secrete beta-lactamase enzymes which break down the antibiotic. But in our case, the antibiotic is deactivated inside the resistant cells.'

Time lapse

The discovery was made using time-lapse microscopy, and confirmed with computational modelling and a mouse pneumonia model. 'In the mice, we observed that susceptible Streptococcus pneumoniae bacteria survive the chloramphenicol treatment when the animals are co-infected with resistant bacteria.' Furthermore, the results ruled out a transfer of the resistance gene. The data is in line with anecdotal evidence from the clinic, where antibiotic-susceptible bacteria are sometimes cultured from patients who were unsuccessfully treated with antibiotics. Sorg: 'This always puzzled physicians. Our work might provide one possible explanation.'

So susceptible bacteria can survive longer when resistant bacteria are present, and in the end even outcompete them. What does this mean for the spread of antibiotic resistance? 'It is complicated', Sorg says. 'We know that antibiotic usage results in selection for resistance. However, we do not fully understand the processes, nor why antibiotic resistance can develop so fast. Single cell studies like ours help to fill in some of these details.'

Metabolism

One thing that should be noted is that the susceptible cells in the experiment stop growing, but don't die. 'Many antibiotic-induced killing mechanisms rely on dividing cells, or at least on cells with an active metabolism.' What doesn't kill the cells will perhaps not make them stronger, but certainly gives them time to pick up resistance genes from their environment.

This knowledge can inform doctors when treating a patient with antibiotics. 'We know that we should use these drugs with discretion, but we may need to be even more careful than we thought.' Sorg sketches a personalized-medicine approach, in which the non-pathogenic microbes present in a patient are checked for resistance genes. 'That would increase the risk of a transfer to pathogens.'

To prevent the occurrence of resistance in non-pathogenic microorganisms, it is of course important to use antibiotics as sparingly as possible. And perhaps one day, when our understanding of the mechanisms responsible for the spread of antibiotic resistance is more complete, we may find a way to stop it.

Keywords for this news article include: Antibacterial Agents, Antimicrobials, Pharmaceuticals, Genetics, Topical Agents, Streptococcaeae, Gram-Positive Bacteria, Chloramphenicol Therapy, Ophthalmic Preparations, University of Groningen, Streptococcus pneumoniae, Ophthalmic Antiinfectives, Drugs and Therapies - Antibiotics.

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**Oncology - Breast Cancer**

**Aromatase inhibitors for breast cancer: Advantages over tamoxifen in early-stage disease**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- The German Institute for Quality and Efficiency in Health Care (IQWiG) investigated whether and what advantages drugs from the drug class of aromatase inhibitors offer compared with other breast cancer treatments or with each other. The final report was published on 15 November.
According to the findings, the data available show advantages over tamoxifen for the early, but not for the late stage of disease: Patients survive longer and recurrences occur later. Overall, the evidence for advanced breast cancer is much poorer.

The Federal Joint Committee (G-BA) commissioned IQWiG to perform several comparisons: On the one hand, IQWiG was to compare aromatase inhibitors with other treatment options, in particular the anti-oestrogen tamoxifen. On the other, the Institute was to assess whether the 3 approved drugs from the drug class of aromatase inhibitors (anastrozole, exemestane, letrozole) differ with regard to benefit or harm.

As the IQWiG researchers determined, the evidence for early breast cancer is clearly better than for advanced disease: 12 of the overall 19 studies that IQWiG included in the assessment refer to early breast cancer. In July 2015 the results were published of a study that enrolled more than 4000 participants and compared 2 aromatase inhibitors (letrozole, anastrozole).

In contrast, the evidence is much poorer for advanced breast cancer. For instance, some questions were not investigated at all and the number of participants was much lower (approx. 3000 versus approx. 39,000). It is also remarkable that none of the studies considered the aspect "health-related quality of life".

The assessment is not only based on published studies. After a request by IQWiG, the drug manufacturers provided additional data or information on the studies conducted, so that the assessment was possible on the basis of a complete pool of data.

Aromatase inhibitors are approved for 5 different treatment regimens in early breast cancer. The data show an added benefit over tamoxifen for 2 of these regimens: In upfront therapy the patients start drug treatment with an aromatase inhibitor, while in switch therapy, after 2 to 3 years of pretreatment with an anti-oestrogen, patients switch to an aromatase inhibitor.

The results are favourable for aromatase inhibitors for 3 outcomes: overall survival, freedom of recurrence, and certain side effects (e.g. serious adverse events). Depending on the drug taken, other side effects, in particular specific adverse events, occur in part more often or less often than with tamoxifen.

For extended therapy, where the only aromatase inhibitor approved here (letrozole) is given after completion of 5 years of treatment with tamoxifen, the data show an advantage only for freedom of recurrence. However, this is accompanied by more discontinuations due to adverse events.

No data are available for neoadjuvant therapy, where aromatase inhibitors are given prior to surgery. Likewise, data are lacking for the comparison of aromatase inhibitors with each other. The only such study, which compared letrozole with anastrozole, showed no relevant differences.

In advanced breast cancer, none of the drugs offers an advantage for any of the 3 possible treatment regimens with aromatase inhibitors: Data are available for first-line therapy; however, no added benefit over tamoxifen can be inferred from them. Relevant studies are lacking for second-line therapy (i.e. after pretreatment with anti-oestrogens) and for third-line therapy.

The G-BA commissioned IQWiG to assess aromatase inhibitors as early as 2010, that is, before the introduction of the Act on the Reform of the Market for Medicinal Products (AMNOG). Since the beginning of 2011 all newly approved drugs have to be assessed. Since then, the timely completion of these assessments is of the highest priority for G-BA and IQWiG. This is also the reason why the final report on aromatase inhibitors is only available now. But of course the report considers the current state of knowledge.
Within AMNOG it was originally planned that the G-BA could request a dossier from a drug manufacturer not only for newly approved drugs, but also for selected older ones. This "call-up" for the established drug market was abolished in the first AMNOG reform at the beginning of 2014, primarily due to legal concerns that legal action could be taken against later resolutions of the G-BA. Up until then, only one drug class from the established market (gliptins) had been evaluated according to AMNOG.

The Institute Director, Jurgen Windeler, commented on the final report as follows: "The report on the aromatase inhibitors once again shows that comparative assessments are also feasible and meaningful for drugs that have been on the market for a longer period of time. This is because they can provide important information on benefit and harm and in this way help improve the quality of patient care."

IQWiG published the preliminary results in the form of the preliminary report in April 2016 and interested parties were invited to submit comments. At the end of the commenting procedure, the preliminary report was revised and sent as a final report to the commissioning agency in September 2016. The written comments submitted, which did not lead to a change in the assessment result, were published in a separate document together with the final report. The report was produced in collaboration with external experts.

Keywords for this news article include: Antineoplastics, Pharmaceuticals, Hormones, Stilbenes, Tamoxifen, Cytochromes, Heme proteins, Legal Issues, Women's Health, Oxidoreductases, Enzyme Inhibitors, Letrozole Therapy, Anastrozole Therapy, Benzene Derivatives, Drugs and Therapies, Aromatase Inhibitors, Steroid Hydroxylases, Enzymes and Coenzymes.

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Base Pair Biotechnologies, Inc.

Base Pair Biotechnologies, Inc. and Nexmos, Inc. Create the First DNA Aptamers that Inhibit Vitamin C Oxidation

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Base Pair Biotechnologies, Inc., The Aptamer Discovery Company, and Nexmos, Inc., the Aptamer Application R&D Company, announce the creation of a new class of DNA-aptamer based oxidation inhibitors. These molecules stabilize vitamin C, enabling development of new cosmetics, nutraceuticals, beverages and therapeutic agents with longer shelf life and potentially greater efficacy. Nexmos plans to launch the first product containing these molecules in the second half of 2017, as a component of an antioxidant beverage formulation, in collaboration with a major health beverage company.

Aptamers are small DNA or RNA molecules that are selected in vitro to bind specifically to a target because they fold into a shape that fits their target. Targets can be cells, viruses, proteins, small molecules or metabolites. Manufacture uses well-established synthetic chemistry methods, providing high purity and minimal batch to batch variability. At scale, aptamer manufacture can cost significantly less than more commonly used affinity agents such as antibodies. Aptamers are also relatively stable, non-toxic, and biodegradable. While aptamers with enzymatic activity are well known, these are the first aptamers known to inhibit oxidative damage.

"Base Pair addressed a significant need with this project," said Bill Jackson, Ph.D., Founder and Chief Scientist at Base Pair. "Creating a new aptamer that's selective for its target
is like throwing a bucket of keys at a lock and hoping one sticks in the keyhole. Finding an aptamer that not only binds vitamin C but also inhibits its oxidation is like throwing a bucket of keys at a locked door and having one not only fit, but turn, unlock and open the door."

"We are tremendously excited about the potential for this new class of molecules," said Nelson Son, CEO, Founder of Nexmos. Nexmos will market the aptamer-vitamin complexes under the trade name, APTAMIN™. APTAMIN™ C, the first Aptamin product, solves the fundamental stability problem of vitamin C which has limited its applications.

DNA synthesis has in the past been used to generate tools for research use, therapeutic use, forensics, and diagnostics. In most cases DNA and RNA aptamers are used as capture or detection reagents. This is the first time a synthetically manufactured DNA aptamer has been shown to be useful for general consumer products.

"We are pleased Base Pair agreed to work with us to develop aptamers to additional targets, including vitamins, food supplements, and human diagnostic biomarkers," said Mr. Son. The approach used by Base Pair to stabilize vitamin C can be used to identify and create molecules that stabilize other targets, including small molecule drugs. Base Pair and Nexmos are in the process of initiating the next series of development projects to create aptamers that stabilize other commercially important molecules.

Keywords for this news article include: Vitamin C, DNA Research, Base Pair Biotechnologies Inc.. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

**Virus Integration**

**Baylor University College of Medicine Reports Findings in Virus Integration (Clonal Dynamics In Vivo of Virus Integration Sites of T Cells Expressing a Safety Switch)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Virus Integration. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Safety switches are becoming relevant for the clinical translation of T-cell-based immunotherapies. In patients receiving an allogeneic hematopoietic stem cell transplant, the inducible caspase-9 gene (iC9) safety switch expressed by donor-derived T lymphocytes efficiently controls acute graft versus host disease (GvHD)."

Our news editors obtained a quote from the research from the Baylor University College of Medicine, "However, in vivo elimination of iC9-T cells by the chemical inducer of dimerization (CID) that activates the iC9 protein is incomplete. To study this effect, we characterized the clonal diversity and dynamics of vector insertion sites (VIS) in iC9-T cells pre-and post-CID administration in four patients who developed GvHD. We identified 3,203 VIS among four patients and followed their in vivo clonal dynamics up to 161 days post-CID. VIS were categorized by their proximity to host genome elements, gene associations, and cis-modulatory relationship to mapped promoters. We found that VIS are preferentially located near open chromatin and promoter regions; furthermore, there was no evidence for selection bias among VIS surviving the CID treatment. The majority of iC9-T cells with high normalized VIS copy number at the time of GvHD onset were eliminated by CID, while iC9-T cells detectable post-CID generally have low normalized VIS copy number."
According to the news editors, the research concluded: "We propose that suboptimal iC9 transgene expression is responsible for the incomplete elimination of iC9-T cells and illustrate here by simple model how cis-modulatory influences of local genome context and T-cell receptor activation status at time of CID treatment contribute to stochastic sparing of iC9-T cells."

For more information on this research see: Clonal Dynamics In Vivo of Virus Integration Sites of T Cells Expressing a Safety Switch. *Molecular Therapy*, 2015;24(4):736-45. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

The news editors report that additional information may be obtained by contacting E.C. Chang, Center for Cell and Gene Therapy, Baylor College of Medicine, Houston, Texas, United States. Additional authors for this research include H. Liu, J.A. West, X. Zhou, O. Dakhova, D.A. Wheeler, H.E. Heslop, M.K. Brenner and G. Dotti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2015.217. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Texas, Houston, United States, Genetic Processes, Virus Integration, North and Central America, Microbiological Processes, Virus Physiological Phenomena, Virus Physiological Processes.

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**Biophysical Society**

**Biophysical Society announces winners of 2017 CPOW Travel Awards**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- The Biophysical Society has announced the winners of its annual CPOW Travel Awards to attend the Biophysical Society's 61st Annual Meeting in New Orleans, Louisiana, February 11-15, 2017. CPOW, the Society's Committee for Professional Opportunities for Women, has initiated these travel fellowships to increase the number of women biophysicists and encourage their participation at the Meeting. The recipients of this competitive award must be female postdoctoral fellows or mid-career scientists presenting a poster or oral presentation at the conference. Each awardee receives a travel grant and will be recognized at a reception on Saturday, February 11, at the Ernest N. Morial Convention Center.

Teresa Aman, University of Washington, HCN CHANNEL GATING STUDIED WITH TMFRET AND A FLUORESCENT NONCANONICAL AMINO ACID.

Anna Blice-Baum, Sam Houston State University, CARDIAC-SPECIFIC EXPRESSION OF VCP/TER94 RNAI OR DISEASE ALLELES DISRUPTS DROSOPHILA HEART STRUCTURE AND IMPAIRS FUNCTION.

Lusine Demirkhanyan, University of Illinois at Chicago, ASSESSMENT OF ENDOGENOUS AND EXOGENOUS MODULATORS OF THE TRPM7 CHANNEL IN PLANAR LIPID BILAYERS.

Maria Hoernke, Albert-Ludwigs-Universitat, GUV AND LUV LEAKAGE: HOW ALL-OR-NONE AND GRADED LEAKAGE SCALE WITH VESICLE SIZE.

Pooja Jadiya, Temple University, GENETIC RESCUE OF MITOCHONDRIAL CALCIUM EFFLUX IN ALZHEIMER'S DISEASE PRESERVES MITOCHONDRIAL
FUNCTION AND PROTECTS AGAINST NEURONAL CELL DEATH.
Marthe Ludtmann, UCL, Institute of Neurology, DIRECT MODULATION OF THE MITOCHONDRIAL PERMEABILITY TRANSITION PORE BY OLIGOMERIC ALPHA-SYNUCLEIN CAUSES TOXICITY IN PD.
Yoojin Oh, Johannes Kepler University, Linz, CURLI MEDIATE BACTERIAL ADHESION TO FIBRONECTIN VIA A TENSILE COLLECTIVE BINDING NETWORK.
Laura Orellana, Science for Life Laboratory, TRAPPING ON-PATHWAY INTERMEDIATES FOR LARGE SCALE CONFORMATIONAL CHANGES WITH COARSE-GRAINED SIMULATIONS.
Hagit Peretz Soroka, University of Manitoba, NOVEL MECHANISM FOR DRIVING AMOEBOIDLIKE MOTILITY OF HUMAN NEUTROPHILS UNDER AN ELECTRIC FIELD, BASED ON INTRACELLULAR PROTON CURRENTS AND CYTOPLASM STREAMING.
Elsa Ronzier, University of Rochester, STATIN THERAPY IN LONG QT SYNDROME TYPE II.
Sarah Rouse, Imperial College London, STRUCTURAL AND MECHANISTIC INSIGHTS INTO TRANSPORT OF FUNCTIONAL AMYLOID SUBUNITS ACROSS THE PSEUDOMONAS OUTER MEMBRANE.
Siobhan Toal, University of Pennsylvania, DETERMINING THE ROLE OF N-TERMINAL ACETYLATION ON a-SYNUCLEIN FUNCTION.
Shelli Frey, Gettysburg College, THE ROLE OF SPHINGOMYELIN AND GANGLIOSIDE GM1 IN THE INTERACTION OF POLYGLUTAMINE PEPTIDES WITH LIPID MEMBRANES.
Rebecca Howard, Stockholm University, TRANSMEMBRANE STRUCTURAL DETERMINANTS OF ALCOHOL BINDING AND MODULATION IN A MODEL LIGAND-GATED ION CHANNEL. Sabina Mate, INIBIOLP-CONICET-UNLP, ORIENTATIONAL PROPERTIES OF DOPC/SM/CHOLESTEROL MIXTURES: A PM-IRRAS STUDY.
Ekaterina Nestorovich, The Catholic University of America, LIPID DYNAMICS AND THE ANTHRAX TOXIN INTRACELLULAR JOURNEY.

Keywords for this news article include: Genetics, Biophysical Society.
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BlueCross BlueShield of Tennessee, Inc.

BlueCross Online Wellness Portal Adds Capabilities

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- BlueCross BlueShield of Tennessee members with Apple Watches may now sync their devices to the company's member wellness portal with the AlwaysOn™ mobile app, thanks to newly-established integration with Apple Health.

Connection to the BlueCross wellness portal can have significant perks - the platform offers members access to health news, self-directed wellness courses, online health and lifestyle coaching, and other tools.

This integration is part of wider efforts to ensure members who use a smartphone or a wearable device can easily connect their favorite fitness or health tracker with the BlueCross
Our online wellness program is designed to be as user-friendly as possible, and a big part of that involves making sure our systems work with the devices members use,” explains Lauren LaFontaine, BlueHealth Solutions product manager at BlueCross BlueShield of Tennessee. "We want our BlueCross members to fully utilize the wellness benefits we offer, in ways that work for them."

More than 80 devices are now compatible with the BlueCross online portal. Access is available either via computer or the company's AlwaysOn™ mobile app. Members can find more information on how to sync a device or download the AlwaysOn app at http://www.bcbst.com/device-sync/index.page?. About BlueCross® BlueCross BlueShield of Tennessee's mission is peace of mind through better health. Founded in 1945, the Chattanooga-based company is focused on serving more than 3.4 million members in Tennessee and across the country. BlueCross BlueShield of Tennessee Inc. is an independent licensee of the BlueCross BlueShield Association. For more information, visit the company's website at bcbst.com. View source version on businesswire.com: http://www.businesswire.com/news/home/20161228005124/en/

Keywords for this news article include: Wellness, BlueCross BlueShield of Tennessee Inc.

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Biotechnology - Genomics
CHA University Reports Findings in Genomics (Next generation sequencing identifies abnormal Y chromosome and candidate causal variants in premature ovarian failure patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Biotechnology - Genomics are discussed in a new report. According to news reporting out of Gyeonggi Do, South Korea, by NewsRx editors, research stated, "Premature ovarian failure (POF) is characterized by heterogeneous genetic causes such as chromosomal abnormalities and variants in causal genes. Recently, development of techniques made next generation sequencing (NGS) possible to detect genome wide variants including chromosomal abnormalities."

Financial support for this research came from Ministry of Education.

Our news journalists obtained a quote from the research from CHA University, "Among 37 Korean POF patients, XY karyotype with distal part deletions of Y chromosome, Yp11.32-31 and Yp12 end part, was observed in two patients through NGS. Six deleterious variants in POF genes were also detected which might explain the pathogenesis of POF with abnormalities in the sex chromosomes. Additionally, the two POF patients had no mutation in SRY but three non-synonymous variants were detected in genes regarding sex reversal."

According to the news editors, the research concluded: "These findings suggest candidate causes of POF and sex reversal and show the propriety of NGS to approach the heterogeneous pathogenesis of POF."

For more information on this research see: Next generation sequencing identifies abnormal Y chromosome and candidate causal variants in premature ovarian failure patients. Genomics, 2016;108(5-6):209-215. Genomics can be contacted at: Academic Press Inc
Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Genomics - www.journals.elsevier.com/genomics/)

Our news journalists report that additional information may be obtained by contacting K. Kwack, CHA Univ, Coll Life Sci, Dept. of Biomed Sci, Seongnam Si 13488, Gyeonggi Do, South Korea. Additional authors for this research include C. Kim, Y. Park, J.A. Pyun and K. Kwack.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygeno.2016.10.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gyeonggi Do, South Korea, Asia, Genomics, Biotechnology, Genetics, CHA University.

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Inflammation

Capital Medical University Reports Findings in Inflammation (14,15-Epoyxyicosatrienoic acid suppresses cigarette smoke condensate-induced inflammation in lung epithelial cells by inhibiting autophagy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Inflammation have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Epoxyeicosatrienoic acids (EETs) are metabolic products of free arachidonic acid, which are produced through cytochrome P-450 (CYP) epoxygenases. EETs have anti-inflammatory, antiapoptotic, and antioxidative activities."

Financial supporters for this research include Beijing Municipal Natural Science Foundation, Shou Fa from Beijing Municipal Health Bureau.

The news reporters obtained a quote from the research from Capital Medical University, "However, the effect of EETs on cigarette smoke-induced lung inflammation is not clear. Autophagy is believed to be involved in the pathogenesis of chronic obstructive pulmonary disease. In addition, nuclear erythroid-related factor 2 (Nrf2), a transcription factor that regulates many antioxidant genes, is thought to regulate antioxidant defenses in several lung diseases. In addition, interaction between EETs, autophagy, and Nrf2 has been reported. The aim of this study was to explore the effect of 14,15-EET on cigarette smoke condensate (CSC)-induced inflammation in a human bronchial epithelial cell line (Beas-2B), and to determine whether the underlying mechanisms involved in the regulation of Nrf2 through inhibition of autophagy. Autophagy and expression of autophagy signaling pathway proteins (LC3B, p62, PI3K, Akt, p-Akt, and p-mTOR) and anti-inflammatory proteins (Nrf2 and HO-1) were assessed via Western blot analysis. Autophagosomes and autolysosomes were detected by adenoviral mRFP-GFP-LC3 transfection. Inflammatory factors (IL-6, IL-8, and MCP-1) were detected by ELISA. Lentiviral vectors carrying p62 short hairpin RNA were used to interfere with p62 expression to evaluate the effect of p62 on Nrf2 expression. Nrf2 expression was determined through immunocytochemistry. 14,15-EET treatment resulted in a significant reduction in IL-6, IL-8, and MCP-1 secretion, and increased accumulation of Nrf2 and expression of HO-1. In addition, 14,15-EET inhibited CSC-induced autophagy in Beas-2B cells."

According to the news reporters, the research concluded: "The mechanism of the
anti-inflammatory effect of 14,15-EET involved inhibition of autophagy and an increase in p62 levels, followed by translocation of Nrf2 into the nucleus, which then upregulated expression of the antioxidant enzyme HO-1. 14,15-EET protects against CSC-induced lung inflammation by promoting accumulation of Nrf2 via inhibition of autophagy.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00161.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Protective Agents, Epithelial Cells, Antioxidants, Inflammation, Genetics, Capital Medical University.

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Oncology - Liver Cancer

Capital Medical University Reports Findings in Liver Cancer (Worse or better?-Cirrhosis with hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Liver Cancer are discussed in a new report. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Hepatocellular carcinoma (HCC) accounts for about 90% of all malignant tumors of liver, ranking fifth in the worldwide incidence of malignant tumors and the third in fatality. More and more evidences suggest that cancer is a metabolic-related disease."

The news reporters obtained a quote from the research from Capital Medical University, "From the analysis of recent clinical research data, we found that as the severity of the cirrhosis aggravated, patients with HCC and end-stage liver cirrhosis had a flat energy metabolism which was better than it in patients with simple end-stage liver cirrhosis. Based on these clinical phenomenon, the major aim of this study is to present a new hypothesis: 'compensated liver function mechanism' for patients with HCC and liver cirrhosis, cancer cells may play a role to compensate liver function."

According to the news reporters, the research concluded: "In this study, we elaborated relevant content about this novel standpoint combined with tumor energy metabolism reprogramming mechanism and tumor cell origin as well as cell exchange mechanism."

For more information on this research see: Worse or better?-Cirrhosis with hepatocellular carcinoma. Medical Hypotheses, 2016;97():85-87. Medical Hypotheses can be
Central South University Details Findings in Non-Small Cell Lung Cancer (Resveratrol inhibits Hexokinases II mediated glycolysis in non-small cell lung cancer via targeting Akt signaling pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Non-Small Cell Lung Cancer is now available. According to news reporting originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "Deregulation of glycolysis was often observed in human cancer cells. In the present study, we reported resveratrol, a small polyphenol, which has been intensively studied in various tumor models, has a profound anti-tumor effect on human non-small cell lung cancer (NSCLC) via regulation of glycolysis."

Our news editors obtained a quote from the research from Central South University, "Resveratrol impaired hexokinase II (HK2)-mediated glycolysis, and markedly inhibited anchorage-dependent and independent growth of NSCLC cells. Exposure to resveratrol decreased EGFR and downstream kinases Akt and ERK1/2 activation. Moreover, we revealed that resveratrol impaired glucose metabolism by mainly inhibiting expression of HK2 mediated by the Akt signaling pathway, and exogenous overexpression of constitutively activated Akt1 in NSCLC cells substantially rescued resveratrol-induced glycolysis suppression. The in vivo data indicated that resveratrol obviously suppressed tumor growth in a xenograft mouse model."

According to the news editors, the research concluded: "Our results suggest targeting HK2 or metabolic enzymes appears to be a new approach for clinical NSCLC prevention or treatment."


The news editors report that additional information may be obtained by contacting W. Wang, Central South University, Xiangya Hosp 3, Cell Transplantat & Gene Therapy Inst, Changsha 410000, Hunan, People's Republic of China. Additional authors for this research...
include X.Q. Ma, N. Li, H.S. Liu, Q. Dong, J. Zhang, C.J. Yang, Y. Liu, Q. Liang, S.W. Zhang, C. Xu, W. Song, S.M. Tan, P.F. Rong and W. Wang.

The direct object identifier (DOI) for that additional information is: 
http://dx.doi.org/10.1016/j.yexcr.2016.11.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Non-Small Cell Lung Cancer, Lung Neoplasms, Oncology, Central South University.

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Immunology - Antigens

China Three Gorges University Reports Findings in Antigens (Tumor-associated antigens: Tn antigen, sTn antigen, and T antigen)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Antigens have been published. According to news reporting originating in Yichang, People's Republic of China, by NewsRx journalists, research stated, "Glycosylation is one of the major posttranslational modifications of proteins. N-glycosylation (Asn-linked) and O-glycosylation (Ser/Thr-linked) are the two main forms."

The news reporters obtained a quote from the research from China Three Gorges University, "Abnormal O-glycosylation is frequently observed on the surface of tumor cells, and is associated with an adverse outcome and poor prognosis in patients with cancer. O-glycans (Tn, sTn, and T antigen) can be synthesized in the Golgi apparatus with the aid of several glycosyltransferases (such as T-synthase and ST6GalNAc-I) in a suitable environment. The unique molecular chaperone of T-synthase is Cosmc, which helps T-synthase to fold correctly in the endoplasmic reticulum. Dysregulation of these glycosyltransferases, molecular chaperones, or the environment is involved in the dysregulation of O-glycans. Tn, sTn, and T antigen neo-or over-expression occurs in many types of cancer including gastric, colon, breast, lung, esophageal, prostate, and endometrial cancer."

According to the news reporters, the research concluded: "This review discusses the major synthetic pathway of O-glycans and the mechanism by which Tn, sTn, and T antigens promote tumor metastasis."

For more information on this research see: Tumor-associated antigens: Tn antigen, sTn antigen, and T antigen. HLA, 2016;88(6):275-286. HLA can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.


Keywords for this news article include: Yichang, People's Republic of China, Asia, Cancer, Article Review, Enzymes and Coenzymes, Biological Factors, Immunology, Oncology, Synthase, Antigens, China Three Gorges University.

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Chosun University Reports Findings in Platinum Compounds (Protective Effect of Tempol against Cisplatin-Induced Ototoxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Platinum Compounds are discussed in a new report. According to news reporting originating in Gwangju, South Korea, by NewsRx journalists, research stated, "One of the major adverse effects of cisplatin chemotherapy is hearing loss. Cisplatin-induced ototoxicity hampers treatment because it often necessitates dose reduction, which decreases cisplatin efficacy."

The news reporters obtained a quote from the research from Chosun University, "This study was performed to investigate the effect of Tempol on cisplatin-induced ototoxicity in an auditory cell line, House Ear Institute-Organ of Corti 1 (HEI-OC1). Cultured HEI-OC1 cells were exposed to 30 μM cisplatin for 24 h with or without a 2 h pre-treatment with Tempol. Cell viability was determined using 3-[4,5-dimethylthiazol-2-yl]-2,5-diphenyltetrazolium bromide (MTT) assay and apoptotic cells were identified using terminal deoxynucleotidyl transferase dUTP nick end labeling of nuclei (TUNEL) assay and flow cytometry. The effects of Tempol on cisplatin-induced cleaved poly(ADP-ribose) polymerase, cleaved caspase, and mitochondrial inducible nitric oxide synthase expression were evaluated using western blot analysis. Levels of intracellular reactive oxygen species (ROS) were measured to assess the effects of Tempol on cisplatin-induced ROS accumulation. Mitochondria were evaluated by confocal microscopy, and the mitochondrial membrane potential was measured to investigate whether Tempol protected against cisplatin-induced mitochondrial dysfunction. Cisplatin treatment decreased cell viability, and increased apoptotic features and markers, ROS accumulation, and mitochondrial dysfunction. Tempol pre-treatment before cisplatin exposure significantly inhibited all these cisplatin-induced effects."

According to the news reporters, the research concluded: "These results demonstrate that Tempol inhibits cisplatin-induced cytotoxicity in HEI-OC1, and could play a preventive role against cisplatin-induced ototoxicity."

For more information on this research see: Protective Effect of Tempol against Cisplatin-Induced Ototoxicity. International Journal of Molecular Sciences, 2016;17(11):2361-2373. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting C.K. Youn, Chosun Univ, Sch Med, Div Nat Med Sci, Gwangju 61452, South Korea. Additional authors for this research include J. Kim, E.R. Jo, J. Oh, N.Y. Do and S.I. Cho.

Keywords for this news article include: Gwangju, South Korea, Asia, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin, Chosun University.

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College of Pharmacy Details Findings in Pharmacy Practice (Valued characteristics of community pharmacy residency applicants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Pharmacy Practice is the subject of a report. According to news reporting out of Springfield, Massachusetts, by NewsRx editors, research stated, "To determine the attributes of postgraduate year 1 (PGY1) community pharmacy residency applicants and candidates that are most appealing to community residency program directors (CRPDs). A 22-question online survey, designed to collect residency demographics, desirable characteristics for consideration for interview invitation (applicants), and characteristics that should be displayed during an interview (candidates)."

Our news journalists obtained a quote from the research from the College of Pharmacy, "American Society of Health-System Pharmacists (ASHP)-recognized community pharmacy residency programs (CPRPs). The CRPDs of 109 ASHP-recognized CPRPs throughout the United States. Not applicable. Minimum applicant requirements; rank order of valued characteristics at application and interview stage of hiring process. The response rate was 71/109 (65.1%). Applicant work experience in chain pharmacy (90.1%) and independent pharmacy (77.5%) was most highly valued by CRPDs, with 85.9% preferring applicants with a minimum of 1 year or more of community pharmacy experience. A large majority of CPRPs (91.4%) indicated a preference for applicants who have been an officer of a student organization. Among CPRPs that required minimum grade point averages (GPAs), a mean GPA of 2.88 +/- 0.34 was reported (range 2.0 to 3.5; mode 3.0). Pharmacy work experience (68.1%) and letters of recommendation (59.4%) were most frequently cited as top factors in the decision-making process for selecting candidates to interview. At the interview stage, CRPDs rated interest and knowledge about the residency (62.3%), time management and prioritization (50.7%), and self-awareness and commitment to improvement (43.5%) as the most important skills for candidates to demonstrate. Community pharmacy work experience, organizational leadership experience, and positive letters of recommendation appear to be the most valued attributes of a community pharmacy residency applicant."

According to the news editors, the research concluded: "Applicants should consider aligning themselves with these characteristics to successfully match to a community pharmacy residency."


Our news journalists report that additional information may be obtained by contacting D.R. Kennedy, Western New England Univ, Coll Pharm, Pharmacol, Springfield, MA, United States. Additional authors for this research include G.S. Lezaja, E.C. Nemec, J.J. Spooner and D.R. Kennedy.

Keywords for this news article include: Springfield, Massachusetts, United States, North and Central America, Pharmacy Practice, Drugs and Therapies, College of Pharmacy.

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Columbia University Medical Center Sponsors Clinical Study Using Biocept's Liquid Biopsy Platform to Evaluate Cerebrospinal Fluid of Breast Cancer Patients for Metastatic Biomarkers

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Hyperlink "http://www.biocept.com/" \n
Biocept, Inc. (NASDAQ: BIOC), a leading commercial provider of clinically actionable liquid biopsy tests designed to improve the outcomes of cancer patients, announces that Columbia University Medical Center will conduct a study to evaluate the clinical utility of the Company's Target Selector™ platform to diagnose leptomeningeal metastases (LM) in patients with breast cancer. LM occurs when tumor cells gain access to cerebrospinal fluid (CSF) pathways and regrow in distant sites within the spinal cord and brain leading to neurological complications. Biocept's liquid biopsy platform will be used to test the CSF of breast cancer patients and will be compared to standard methods for confirming the diagnosis of LM.

"Diagnosing LM in patients with breast cancer can be challenging given the low diagnostic sensitivity of traditional methods such as cytologic analysis," stated Kevin Kalinsky, MD, MS, Assistant Professor of Medicine, Columbia University Medical Center and the study's principal investigator. "We will be using Biocept's Target Selector™ technology to evaluate oncologic biomarkers in the CSF of breast cancer patients, with the potential to provide a rapid and accurate solution to confirm diagnosis and enable patients to begin treatment for LM earlier. This clinical study addresses a significant medical need, given the devastating nature of LM involvement in breast cancer patients."

Keywords for this news article include: Hospital, Oncology, Biocept Inc., Breast Cancer, Women's Health.

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Complete Nutrition(TM) Unveils New Weight Management Product, Meal Plan & 21-Day Challenge

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- With the top New Year's resolution being losing weight and becoming fit, Complete Nutrition stores nationwide will introduce a new product, Citrine, designed to give individuals the energy and focus they need to eat better, feel better and stay on track with their weight management goals. After months of research and development, the product will hit the shelves on Jan. 9, 2017.

The Citrine supplement includes several clinically-tested ingredients, including Sensoril™ Trim (to support weight loss), Advantra Z® (to support weight loss), Teacrine® (to boost focus and energy), CapsiMax® (to support weight loss and increase BMR) and Huperzine A (to increase focus).

Taking a consultative approach to health and fitness, the 150+-store nutritional supplement retailer will also introduce a comprehensive Fitness Journal designed to help individuals break bad habits, track their progress and reach their fitness goals. Included in the
Journal are tips for a healthy, nutrition-conscious diet, an exercise guide and additional information to support being fit. The Fitness Journal also includes a step-by-step Fast Track 21-Day Meal Plan designed specifically for Complete Nutrition by Sarah Berndt, MS, RD.

While the new product and Fitness Journal aren't available until Jan. 9, 2017, Complete Nutrition is helping customers get a jump start on their fitness goals with a one-day 20 percent-off sale on Dec. 28, 2016 on all in-store products.

"There's a lot of noise in the industry right now about changing strategies and offering new lower prices. At Complete Nutrition, we believe in our model and always have. We are about empowering people to get results. Through our consultation approach and great products we help customers reach their goals," said Jim Heidenreich, CEO of Complete Nutrition. "When we developed the formula for Citrine and the 21-Day Fast Track Meal Plan I knew we had something amazing to deliver our customers that built on our DNA of helping everyone achieve results. I can't wait to hear their success stories."

Heidenreich, who committed to complete the 21-day challenge himself, said to show how confident the company is in the product and program, customers who buy Citrine, complete an in-store BodyComp Analysis and come back in after 21 days will receive one-dollar for every pound lost. "Our goal is to give $100,000 back to our customers, which also means we helped people lose over 100,000 pounds of weight. Now that's impressive," said Heidenreich. Heidenreich will share his journey, along with other Complete Nutrition customers, on the brand's FUEL Blog. About Complete Nutrition Complete Nutrition is a national retail franchise offering a wide variety of high-quality weight management, fitness and wellness supplements. Since 2005, Complete Nutrition has been helping people achieve their fitness and wellness goals through a consultative approach that applies insights gained through a body composition (BodyComp™) analysis and pairing those results with exclusive supplements. For more information about Complete Nutrition, call 866-366-5766 or visit CompleteNutrition.com. Follow Complete Nutrition on Facebook at facebook.com/completenutrition and Instagram at Instagram.com/completenutrition. View source version on businesswire.com: http://www.businesswire.com/news/home/20161228005325/en/

Keywords for this news article include: Complete Nutrition, Diet and Nutrition.

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Gram-Positive Bacteria – Staphylococcus aureus

Connolly Hospital Details Findings in Staphylococcus aureus (Eradication of Staphylococcus aureus Catheter-Related Biofilm Infections Using ML:8 and Citrox)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Positive Bacteria - Staphylococcus aureus are presented in a new report. According to news reporting out of Dublin, Ireland, by NewsRx editors, research stated, "Staphylococci are a leading cause of catheter-related infections (CRI)s due to biofilm formation. CRI:s are typically managed by either device removal or systemic antibiotics, often in combination with catheter lock solutions (CLS:s)."

Our news journalists obtained a quote from the research from Connolly Hospital, "CLS:s provide high concentrations of the antimicrobial agent at the site of infection. However, the most effective CLS:s against staphylococcal biofilm-associated infections have yet to be
The purpose of this study was to evaluate the efficacy and suitability of two newly described antimicrobial agents, ML: 8 and Citrox, as CLSs against Staphylococcus aureus biofilms. ML: 8 (1% [vol/vol]) and Citrox (1% [vol/vol]), containing caprylic acid and flavonoids, respectively, were used to treat S. aureus biofilms grown in vitro using newly described static and flow biofilm assays. Both agents reduced biofilm viability > 97% after 24 h of treatment. Using a rat model of CRI, ML: 8 was shown to inactivate early-stage S. aureus biofilms in vivo, while Citrox inactivated established, mature in vivo biofilms. Cytotoxicity and hemolytic activity of ML: 8 and Citrox were equivalent to those of other commercially available CLSs. Neither ML: 8 nor Citrox induced a cytokine response in human whole blood, and exposure of S. aureus to either agent for 90 days was not associated with any increase in resistance.

According to the news editors, the research concluded: "Taken together, these data reveal the therapeutic potential of these agents for the treatment of S. aureus catheter-related biofilm infections."


Our news journalists report that additional information may be obtained by contacting E. O'Neill, Connolly Hosp, Dept. of Microbiol, Dublin, Ireland. Additional authors for this research include M. Zapotoczna, N.T. Stevens, H. Humphreys, J.P. O'Gara and E. O'Neill.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00910-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dublin, Ireland, Europe, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Gram-Positive Bacteria, Staphylococcus aureus, Gram-Positive Cocci, Staphylococcaceae, Bacillales, Connolly Hospital.

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Corporate Whistleblower Center

Corporate Whistleblower Now Urges Physicians to Call About Potential Huge Rewards If They Can Prove a Medical Device or Drug Company Is Involved in Selling Non-FDA Approved Products

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- The HYPERLINK "http://corporatewhistleblower.com/" \nCorporate Whistleblower says, "We are urging a physician or a medical device/pharmaceutical representative to call us anytime at 866-714-6466 if they have well documented proof a company is selling non-FDA approved products to their patients-especially Medicare patients."

"Recently a whistleblower received $5 million dollars for this type of information. In the instance of off labeled drugs-drugs not approved for new uses-what could possibly go
wrong? In recent years, over $13 billion in fines have been paid by major drug companies to settle lawsuits against them for their fraudulent marketing practices, including off-label promotion of their drugs/devices not approved by the FDA. "http://corporatewhistleblower.com/"/n\http://CorporateWhistleblower.Com

In November 2016, the Department of Justice announced it had come to terms with a medical device company for selling their non-FDA approved product. In this instance the medical device was to be used as a drug-delivery device in combination with chemotherapy drugs, despite the lack of FDA approval as a drug-device combination product. In December 2009, the medical device maker filed an application with FDA for approval of their device as a drug-eluting bead combination product. However, FDA informed the company that it was not accepting the application because clinical studies did not provide adequate evidence of a therapeutic benefit.

Nonetheless, the device company routinely advised healthcare providers that their product provided "better" or "superior" therapy for certain types of cancer when, in fact, there was insufficient clinical evidence to support these claims. The medical device company will pay more than $36 million to resolve criminal and civil liability. HYPERLINK "http://corporatewhistleblower.com/"/n\http://CorporateWhistleblower.Com

The Corporate Whistleblower is saying, "Why sit on a winning lotto ticket if you are a medical doctor or a medical device/pharmaceutical company rep with proof a company is aggressively marketing medical products or drugs that are not approved by the FDA? If you have this type of information we would like to talk to you anytime at 866-714-6466. One of the unique features we offer is assisting a potential whistleblower expand their reward potential by expanding the size and scope of the wrong doing. Give us a call anytime and we will explain how it works." HYPERLINK "http://corporatewhistleblower.com/"/n\http://CorporateWhistleblower.Com

Simple rules for a whistleblower from the HYPERLINK "http://corporatewhistleblower.com/"/nCorporate Whistleblower: Do not go to the government first if you want to become a whistleblower: The Corporate Whistleblower Center says, "Major whistleblowers frequently go to the government thinking they will help. It's a huge mistake. Do not go to the news media with your whistleblower information either. Any type of public revelation of a whistleblower's information could destroy the prospect for a reward. Do not try to force a medical device or pharmaceutical company or individual to come clean on off labeling their products."

The Corporate Whistleblower is the premier advocate for whistleblowers in the United States. Unlike any group in the US, they assist potential whistleblowers with packaging their information and providing the whistleblower with access to the most accomplished whistleblower attorneys in the nation. For more information a potential whistleblowers in any state can contact the Corporate Whistleblower anytime at HYPERLINK "tel:(866)%20714-6466"/n866-714-6466 or visit HYPERLINK "http://corporatewhistleblower.com/"/n\http://CorporateWhistleblower.Com


Keywords for this news article include: Marketing, Advertising, FDA Actions, Legal Issues, Regulatory Agencies, Corporate Whistleblower Center, Government Agencies Offices and Entities.

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Mycobacterium Infections - Tuberculosis

Data from All India Institute of Medical Sciences Advance Knowledge in Tuberculosis (DevS/DosS sensor is bifunctional and its phosphatase activity precludes aerobic DevR/DosR regulon expression in Mycobacterium tuberculosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Mycobacterium Infections - Tuberculosis have been presented. According to news reporting originating in New Delhi, India, by NewsRx journalists, research stated, "Two-component systems, comprising histidine kinases and response regulators, empower bacteria to sense and adapt to diverse environmental stresses. Some histidine kinases are bifunctional; their phosphorylation (kinase) and dephosphorylation (phosphatase) activities toward their cognate response regulators permit the rapid reversal of genetic responses to an environmental stimulus."

Financial supporters for this research include Department of Science and Technology, Govt. of India for the JC Bose National Fellowship, Department of Biotechnology, Ministry of Science and Technology, Council for Scientific and Industrial Research.

The news reporters obtained a quote from the research from the All India Institute of Medical Sciences, "DevR-DevS/DosR-DosS is one of the best-characterized two-component systems of Mycobacterium tuberculosis. The kinase function of DevS is activated by gaseous stress signals, including hypoxia, resulting in the induction of similar to 48-genes DevR dormancy regulon. Regulon expression is tightly controlled and lack of expression in aerobic Mtb cultures is ascribed to the absence of phosphorylated DevR. Here we show that DevS is a bifunctional sensor and possesses a robust phosphatase activity toward DevR. We used site-specific mutagenesis to generate substitutions in conserved residues in the dimerization and histidine phosphotransfer domain of DevS and determined their role in kinase/phosphatase functions. In vitro and in vivo experiments, including a novel in vivo phosphatase assay, collectively establish that these conserved residues are critical for regulating kinase/phosphatase functions. Our findings establish DevS phosphatase function as an effective control mechanism to block aerobic expression of the DevR dormancy regulon. Asp-396 is essential for both kinase and phosphatase functions, whereas Gln-400 is critical for phosphatase function. The positive and negative functions perform opposing roles in DevS: the kinase function triggers regulon induction under hypoxia, whereas its phosphatase function prevents expression under aerobic conditions."

According to the news reporters, the research concluded: "A finely tuned balance in these opposing activities calibrates the dormancy regulon response output."


Our news correspondents report that additional information may be obtained by contacting J.S. Tyagi, All India Inst Med Sci, Dept. of Biotechnol, New Delhi 110029, India. Additional authors for this research include P. Kumari, S. Sharma, S. Sehgal and J.S. Tyagi.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/febs.13787. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Delhi, India, Asia, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Essential Amino Acids, Enzymes and Coenzymes, Cyclic Amino Acids, Gram-Positive Rods, Mycobacteriaceae, Actinobacteria, Histidine, Genetics, Kinase, All India Institute of Medical Sciences.

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Liver Diseases and Conditions - Chronic Hepatitis B…

Data from Anhui Medical University Provide New Insights into Chronic Hepatitis B Virus (Prediction model for sustained hepatitis B e antigen seroconversion to peginterferon alfa-2a in chronic hepatitis B)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Chronic Hepatitis B Virus. According to news reporting originating from Hefei, People's Republic of China, by NewsRx correspondents, research stated, "Clinically applicable models to predict hepatitis B e antigen (HBeAg)-positive chronic hepatitis B (CHB) response to peginterferon (PEG-IFN) are scarce. This study aimed to develop simple scoring systems, based on multiple parameters, for predicting sustained HBeAg seroconversion to PEG-IFN."

Our news editors obtained a quote from the research from Anhui Medical University, "Eighty-five treatment-naive patients with HBeAg-positive CHB underwent 52-week PEG-IFN treatment and 24-week follow-up. Logistic regression analysis assessed parameters at baseline and weeks 12, 24, and 52 to predict HBeAg seroconversion at week 24 off-treatment. The best three predictors at each time point were included in prediction models of PEG-IFN therapy efficacy. The three most meaningful predictors were alanine aminotransferase (ALT) > 5 x ULN, HBeAg <= 500 S/CO, and antibody to hepatitis B core antigen (anti-HBc) > 10.7 S/CO at baseline; HBeAg <= 20 S/CO, anti-HBc > 11.7 S/CO, and HBeAg decline > 1 log(10) S/CO at week 12; ALT > 2 x ULN, HBeAg <= 15 S/CO, and anti-HBc > 10.4 S/CO at week 24; HBeAg <= 5 S/CO, anti-HBc > 11.1 S/CO, and hepatitis B virus DNA decline > 2 log(10) copies/mL at week 52. Parameters meeting optimal cutoff thresholds were scored 1 or otherwise scored 0. For total scores of 0 versus 3 at baseline and weeks 12, 24, and 52, response rates were 6.3%, 12.5%, 0%, and 0% versus 90.0%, 83.3%, 76.9%, and 86.4%, respectively."

According to the news editors, the research concluded: "We successfully established prediction models for PEG-IFN response in HBeAg-positive CHB."


The news editors report that additional information may be obtained by contacting X.
Data from Anhui Medical University Provide New Insights into Esophageal Cancer (Insights into the potential use of microRNAs as a novel class of biomarkers in esophageal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Esophageal Cancer have been published. According to news originating from Hefei, People's Republic of China, by NewsRx correspondents, research stated, "MicroRNAs (abbreviated miRNAs) have been demonstrated to be involved in tumorigenesis and cancer development and proposed as promising biomarkers in cancer diagnosis. Numerous studies have observed the aberrant expression of miRNAs in esophageal cancer."

Our news journalists obtained a quote from the research from Anhui Medical University, "However, there are some discrepant results. Thus, we conducted this meta-analysis to identify the overall accuracy of miRNAs in the diagnosis of esophageal cancer. A comprehensive literature search was conducted in PubMed and other databases using combinations of key words. The summary receiver operator characteristic curves were plotted to assess the overall diagnostic performance of miRNAs. Chi-squared and I-2 tests were used to assess the heterogeneity between studies. Additionally, we conducted subgroup and sensitivity analyses to analyze the potential sources of heterogeneity. In total, 33 studies from 12 articles were available in this meta-analysis. The pooled sensitivity, specificity, positive and negative likelihood ratio (PLR, NLR) diagnostic odds ratio, and area under the curve were 0.80, 0.80, 4.0, 0.25, 16, and 0.87, respectively. Subgroup analyses based on the sample types (saliva-, serum-and plasma-based) showed no differences in the diagnostic accuracy of each subgroup. An independent meta-analysis of eight articles was conducted to evaluate the diagnostic accuracy of miRNAs in patients with esophageal squamous cell carcinoma, with a pooled sensitivity of 0.77, specificity of 0.83, PLR of 4.4, NLR of 0.27, diagnostic odds ratio of 16, and area under the curve of 0.87."

According to the news editors, the research concluded: "This meta-analysis demonstrates the feasibility of using miRNAs as non-invasive biomarkers to discriminate esophageal cancer from healthy controls. However, further high-quality studies on more clearly defined esophageal cancer patient are needed to confirm our conclusion."

For more information on this research see: Insights into the potential use of microRNAs as a novel class of biomarkers in esophageal cancer. Diseases of the Esophagus, 2016;29(5):412-420. Diseases of the Esophagus can be contacted at: Wiley-Blackwell, 111
Data from Assaf Harofe Medical Center Provide New Insights into Drug Resistance (Multidrug-Resistant Gram-Negative Bacilli: Infection Control Implications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Drug Resistance are discussed in a new report. According to news reporting originating from Zerifin, Israel, by NewsRx correspondents, research stated, "Antimicrobial resistance is a common iatrogenic complication of both modern life and medical care."

Our news editors obtained a quote from the research from Assaf Harofe Medical Center, "Certain multidrug resistant and extensively drug resistant Gram-negative organisms pose the biggest challenges to health care today, predominantly owing to a lack of therapeutic options. Containing the spread of these organisms is challenging, and in reality, the application of multiple control measures during an evolving outbreak makes it difficult to measure the relative impact of each measure."

According to the news editors, the research concluded: "This article reviews the usefulness of various infection control measures in containing the spread of multidrug-resistant Gram-negative bacilli."


The news editors report that additional information may be obtained by contacting D. Marchaim, Assaf Harofeh Med Center, Div Infect Dis, IL-70300 Zerifin, Israel. Additional authors for this research include N.D. Friedman and D. Marchaim.

Keywords for this news article include: Zerifin, Israel, Asia, Drugs and Therapies, Drug Resistance, Assaf Harofe Medical Center.

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**Drugs and Therapies - Antifungals**

**Data from Astellas Pharma Global Development Inc. Provide New Insights into Antifungals [Population Pharmacokinetics of Isavuconazole from Phase 1 and Phase 3 (SECURE) Trials in Adults and Target Attainment in Patients with Invasive Infections ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antifungals is the subject of a report. According to news reporting out of Northbrook, Illinois, by NewsRx editors, research stated, "Isavuconazole, the active moiety of the water-soluble prodrug isavuconazonium sulfate, is a triazole antifungal agent used for the treatment of invasive fungal infections. The objective of this analysis was to develop a population pharmacokinetic (PPK) model to identify covariates that affect isavuconazole pharmacokinetics and to determine the probability of target attainment (PTA) for invasive aspergillosis patients."

Financial support for this research came from Astellas Pharma Global Development, Inc.

Our news journalists obtained a quote from the research from Astellas Pharma Global Development Inc., "Data from nine phase 1 studies and one phase 3 clinical trial (SECURE) were pooled to develop the PPK model (NONMEM, version 7.2). Stepwise covariate modeling was performed in Perl-speaks-NONMEM, version 3.7.6. The area under the curve (AUC) at steady state was calculated for 5,000 patients by using Monte Carlo simulations. The PTA using the estimated pharmacodynamic (PD) target value (total AUC/MIC ratio) estimated from in vivo PD studies of invasive aspergillosis over a range of MIC values was calculated using simulated patient AUC values. A two-compartment model with a Weibull absorption function and a first-order elimination process adequately described plasma isavuconazole concentrations. The mean estimate for isavuconazole clearance was 2.360 liters/h (percent coefficient of variation [% CV], 34%), and the mean AUC from 0 to 24 h (AUC(0-24)) was similar to 100 mg center dot h/liter. Clearance was approximately 36% lower in Asians than in Caucasians. The PTA calculated over a range of MIC values by use of the nonneutropenic murine efficacy index corresponding to 90% survival indicated that adequate isavuconazole exposures were achieved in > 90% of simulated patients to treat infections with MICs up to and including 1 mg/liter according to European Committee on Antimicrobial Susceptibility Testing methodology and in > 90% of simulated patients for infections with MICs up to and including 0.5 mg/liter according to Clinical and Laboratory Standards Institute methodology."

According to the news editors, the research concluded: "The highest MIC result for PTA was the same for Caucasian and Asian patients."

For more information on this research see: Population Pharmacokinetics of Isavuconazole from Phase 1 and Phase 3 (SECURE) Trials in Adults and Target Attainment in Patients with Invasive Infections Due to Aspergillus and Other Filamentous Fungi. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5483-5491. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology. 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting A. Desai, Astellas Pharma Global Dev Inc, Northbrook, IL 60062, United States. Additional authors for this research include L. Kovanda, D. Kowalski, Q.Y. Lu, R. Townsend
Drugs and Therapies - Antiinfectives

Data from B. VanScoy et al Provide New Insights into Antiinfectives (Relationship between Fosfomycin Exposure and Amplification of Escherichia coli Subpopulations with Reduced Susceptibility in a Hollow-Fiber Infection Model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antiinfectives is now available. According to news reporting from Schenectady, New York, by NewsRx journalists, research stated, "Understanding the relationship between antibiotic exposure and amplification of bacterial subpopulations with reduced drug susceptibility over time is important for evaluating the adequacy of dosing regimens. We utilized a hollow-fiber infection model to identify the fosfomycin intravenous dosing regimens that prevented the amplification of Escherichia coli bacterial subpopulations with reduced fosfomycin susceptibility."

The news correspondents obtained a quote from the research, "The challenge isolate was E. coli ATCC 25922 (agar MIC with glucose-6-phosphate, 1 mg/liter; agar MIC without glucose-6-phosphate, 32 mg/liter). The fosfomycin dosing regimens studied were 1 to 12 g every 8 h for 10 days to approximate that planned for clinical use. The studies included a no-treatment control regimen. Two bacterial subpopulations were identified, one with reduced susceptibility with agar MIC values ranging from 32 to 128 mg/liter and the other resistant with agar MIC values of 256 to > 1,024 mg/liter on plates containing 5 x and 256 x the baseline MIC value, respectively. An inverted-U-shaped function best described the relationship between the amplification of the two bacterial subpopulations and drug exposure."

According to the news reporters, the research concluded: "The lowest fosfomycin dosing regimen that did not amplify a bacterial subpopulation with reduced susceptibility was 4 g administered every 8 h. Nearly immediate amplification of bacterial subpopulations with reduced susceptibility was observed with fosfomycin dosing regimens consisting of 1 to 2 g every 8 h. These data will be useful to support the selection of fosfomycin dosing regimens that minimize the potential for on-therapy amplification of bacterial subpopulations with reduced susceptibility."

For more information on this research see: Relationship between Fosfomycin Exposure and Amplification of Escherichia coli Subpopulations with Reduced Susceptibility in a Hollow-Fiber Infection Model. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5141-5145. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)
Our news journalists report that additional information may be obtained by contacting P.G. Ambrose, Inst Clin Pharmacodynam, Schenectady, NY 12305, United States. Additional authors for this research include J. McCauley, S.M. Bhavnani, E.J. Ellis-Grosse and P.G. Ambrose.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00355-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Schenectady, New York, United States, North and Central America, Bacterial Infections and Mycoses, Gram-Negative Bacteria, Urinary Antiinfectives, Drugs and Therapies, Enterobacteriaceae, Escherichia coli, Phosphonic Acids, Proteobacteria, Fosfomycin.

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Surgery - Cardiovascular and Thoracic Surgery

Data from Baylor University College of Medicine Advance Knowledge in Cardiovascular and Thoracic Surgery (Decision analysis to define the optimal management of athletes with anomalous aortic origin of a coronary artery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Surgery - Cardiovascular and Thoracic Surgery have been published. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "The goal of this study was to use decision analysis to evaluate the impact of varying uncertainties on the outcomes of patients with anomalous aortic origin of a coronary artery. Two separate decision analysis models were created: one for anomalous left coronary artery (ALCA) and one for anomalous right coronary artery (ARCA)."

The news reporters obtained a quote from the research from the Baylor University College of Medicine, "Three strategies were compared: observation, exercise restriction, and surgery. Probabilities and health utilities were estimated on the basis of existing literature. Deterministic and probabilistic sensitivity analyses were performed. Surgery was the optimal management strategy for patients <30 years of age with ALCA. As age increased, observation became an equivalent strategy and eventually surpassed surgery as the treatment of choice. The advantage on life expectancy for surgery over observation ranged from 2.6 +/- 1.7 years for a 10-year-old patient to -0.03 +/- 0.1 for a 65-year old patient. In patients with ARCA, observation was the optimal strategy for most patients with a life expectancy advantage over surgery of 0.1 +/- 0.1 years to 0.2 +/- 0.4 years, depending on age. Surgery was the preferred strategy only for patients <25 years of age when the perceived risk of sudden cardiac death was high and the perioperative mortality was low. Exercise restriction was a suboptimal strategy for both ALCA and ARCA in all scenarios. The optimal management in anomalous aortic origin of a coronary artery depends on multiple factors, including individual patient characteristics."

According to the news reporters, the research concluded: "Decision analysis provides a tool to understand how these characteristics affect the outcomes with each management strategy and thus may aid in the decision making process for a particular patient."

For more information on this research see: Decision analysis to define the optimal management of athletes with anomalous aortic origin of a coronary artery. Journal of Thoracic
Our news correspondents report that additional information may be obtained by contacting C.M. Mery, Texas Children's Hosp, Baylor College of Medicine, Div Congenital Heart Surg, Michael E DeBakey Dept. of Surg, Houston, TX 77030, United States. Additional authors for this research include K.N. Lopez, S. Molossi, S.K. Sexson-Tejtel, R. Krishnamurthy, E.D. McKenzie, C.D. Fraser and S.B. Cantor.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtcvs.2016.07.076. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Cardiovascular and Thoracic Surgery, Surgery, Risk and Prevention, Coronary Artery, Cardiology, Baylor University College of Medicine.

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Clinical Research - Clinical Trials and Studies

Data from Beijing Hospital Advance Knowledge in Clinical Trials and Studies (Efficacy and safety of the Chaihuguizhiganjiang-suanzaoren granule on primary insomnia: study protocol for a randomised controlled trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Clinical Research - Clinical Trials and Studies have been presented. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Insomnia is a highly prevalent, often debilitating and economically burdensome sleep disorder with limited effective therapies. Few data are available to understand which of the therapeutic alternatives is the most effective for patients with insomnia, especially for Traditional Chinese Medicine (TCM)."

The news correspondents obtained a quote from the research from Beijing Hospital, "Chinese herbal medicine, as a typical TCM, is one of the most popular complementary and alternative therapies for insomnia. We aim to evaluate the efficacy and safety of the Chaihuguizhiganjiang-suanzaoren granule (CSG), a Chinese herbal medicine treatment, in patients with primary insomnia. This is a multicentre, placebo-controlled, double-blinded, randomised controlled clinical trial. A total of 258 participants are randomly allocated to two groups: the intervention group or the placebo group. The intervention group receives CSG and the placebo group receives a placebo granule. The patients receive either CSG or placebo two times daily for 8 weeks. The primary outcome is the Pittsburgh sleep quality index (PSQI). Secondary outcomes include the Insomnia Severity Index (ISI), Total Sleep Time (TST) and the Short-Form Health Survey (SF-36). The assessment is performed at baseline (before randomisation), 4, 8 and 12 weeks after randomisation. The protocol has been approved by the Research Ethical Committee of Beijing Hospital of Traditional Chinese Medicine Affiliated to Capital Medical University (reference: 2014BL-003-01)."
According to the news reporters, the research concluded: "The trial will be helpful in identifying the efficacy and safety of CSG in patients with primary insomnia."

For more information on this research see: Efficacy and safety of the Chaihuguizhiganjiang-suansaozen granule on primary insomnia: study protocol for a randomised controlled trial. *Bmj Open*, 2016;6(2):e008459. (BMJ Publishing Group - group.bmj.com/; Bmj Open - bmjopen.bmj.com/)

Our news journalists report that additional information may be obtained by contacting Q.Q. Liu, Beijing Hospital of Traditional Chinese Medicine affiliated to Capital Medical University, Beijing, People's Republic of China. Additional authors for this research include J. Zhang, R.J. Guo, Y.Z. Xie, Q.N. Fu, T. He, X.Q. Zhu, J. Du, J. Yang, J.L. Wang, M.M. Wei, Q.Q. Li, G.X. Shi and C.Z Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bmjopen-2015-008459. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Therapy, Placebos, Clinical Research, People's Republic of China, Clinical Trials and Studies.

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**Data from Ben-Gurion University of the Negev Provide New Insights into Type 1 Diabetes Mellitus (Exploration of alpha 1-Antitrypsin Treatment Protocol for Islet Transplantation: Dosing Plan and Route of Administration)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus is now available. According to news reporting out of Beer Sheva, Israel, by NewsRx editors, research stated, "Lifelong weekly infusions of human alpha 1-antitrypsin (hAAT) are currently administered as augmentation therapy for patients with genetic AAT deficiency (AATD). Several recent clinical trials attempt to extend hAAT therapy to conditions outside AATD, including type 1 diabetes."

Our news journalists obtained a quote from the research from the Ben-Gurion University of the Negev, "Because the endpoint for AATD is primarily the reduction of risk for pulmonary emphysema, the present study explores hAAT dose protocols and routes of administration in attempt to optimize hAAT therapy for islet-related injury. Islet-grafted mice were treated with hAAT (Glassia; intraperitoneally or subcutaneously) under an array of clinically relevant dosing plans. Serum hAAT and immunocyte cell membrane association were examined, as well as parameters of islet survival. Results indicate that dividing the commonly prescribed 60 mg/kg i.p. dose to three 20 mg/kg injections is superior in affording islet graft survival; in addition, a short dynamic descending dose protocol (240 -> 120 -> 60 -> 60 mg/kg i.p.) is comparable in outcomes to indefinite 60 mg/kg injections. Although pharmacokinetics after intraperitoneal administration in mice resembles exogenous hAAT treatment in humans, subcutaneous administration better imitated the physiologic progressive rise of hAAT during acute phase responses; nonetheless, only the 60 mg/kg dose depicted an advantage using the subcutaneous route. Taken together, this study provides a platform for extrapolating an
islet-relevant clinical protocol from animal models that use hAAT to protect islets."

According to the news editors, the research concluded: "In addition, the study places emphasis on outcome-oriented analyses of drug efficacy, particularly important when considering that hAAT is presently at an era of drug-repurposing toward an extended list of clinical indications outside genetic AATD."


Our news journalists report that additional information may be obtained by contacting E.C. Lewis, Ben Gurion University of the Negev, Fac Hlth Sci, Dept. of Clin Biochem & Pharmacol, IL-84101 Beer Sheva, Israel. Additional authors for this research include E. Ozeri, G. Shahaf, D.E. Ochayon, R. Schuster, N. Bahar, N. Kalay, P. Cal, M.I. Mizrahi, O. Nisim, P. Strauss, E. Schenker and E.C. Lewis.

Keywords for this news article include: Beer Sheva, Israel, Asia, Type 1 Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions, Insulin Dependent Diabetes Mellitus, Acute-Phase Proteins, alpha 1-Antitrypsin, Risk and Prevention, Type 1 Diabetes, Alphaglobulins, Blood Proteins, Glycoproteins, Genetics, Therapy, Serpins, Ben-Gurion University of the Negev.

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**Cardiovascular Diseases and Conditions**

**Data from Bezmialem Vakif University Provide New Insights into Hypertension (Adropin levels and target organ damage secondary to high blood pressure in the ED)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Hypertension are presented in a new report. According to news reporting originating in Istanbul, Turkey, by NewsRx journalists, research stated, "High blood pressure is still a challenge for emergency physicians to discern the patients that require further analysis to establish the existence of acute hypertensive target organ damage (TOD). The present study aimed to reveal that adropin levels are useful for detecting TOD in patients presenting with high blood pressure."

The news reporters obtained a quote from the research from Bezmialem Vakif University, "Patients presenting with a blood pressure of more than 180/110 mm Hg were enrolled into the study. After a resting period of 15 minutes, patients' blood pressures were measured thrice at 5-minute intervals while the patients were sitting on a chair, and the average of these measurements was accepted as the baseline value. Blood samples were obtained for either adropin levels or possible TOD during the emergency department admission. A total of 119 patients were included in the study. The mean systolic and diastolic blood pressures of study patients were 204.8 +/- 23.2 and 108.3 +/- 10.3, respectively, and 42% (n = 50) of the patients had TOD. Although the adropin levels were similar between the patients with or without TOD (TOD group = 195 pg/mL, interquartile range [IQR]: 178-201; no-TOD group = 196 pg/mL, IQR: 176-204 [P = .982]), it is significantly higher in normotensive patients.
(normotensive group = 289 pg/mL, IQR: 193-403) compared with the hypertensive ones (P < .001)."

According to the news reporters, the research concluded: "Despite the significantly higher levels of adropin in normotensive patients compared with hypertensive ones, adropin could not be used as a decision tool for detecting TOD in patients presenting with high blood pressure to the emergency department."


Our news correspondents report that additional information may be obtained by contacting B. Gulen, Bezmialem Vakif Univ, Dept. of Emergency Med, Istanbul, Turkey. Additional authors for this research include C. Eken, O.T. Kucukdagli, M. Serinken, A. Kocyigit, E. Kilic and H. Uyarel.

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Keywords for this news article include: Istanbul, Turkey, Eurasia, Cardiovascular Diseases and Conditions, Blood Pressure, Hypertension, Bezmialem Vakif University.

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Heart Disorders and Diseases - Heart Attack

Data from Brigham and Women's Hospital Provide New Insights into Heart Attack (Continuous EEG monitoring enhances multimodal outcome prediction in hypoxic-ischemic brain injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Attack is the subject of a report. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Hypoxic brain injury is the largest contributor to disability and mortality after cardiac arrest. We aim to identify electroencephalogram (EEG) characteristics that can predict outcome on cardiac arrest patients treated with targeted temperature management (TTM)."

The news correspondents obtained a quote from the research from Brigham and Women's Hospital, "We retrospectively examined clinical, EEG, functional outcome at discharge, and in-hospital mortality for 373 adult subjects with return of spontaneous circulation after cardiac arrest. Poor outcome was defined as a Cerebral Performance Category score of 3-5. Pure suppression-burst (SB) was defined as SB not associated with status epilepticus (SE), seizures, or generalized periodic discharges. In-hospital mortality was 68.6% (N = 256). Presence of both unreactive EEG background and SE was associated with a positive predictive value (PPV) of 100% (95% confidence interval: 0.96-1) and a false-positive rate (FPR) of 0% (95% CI: 0-0.11) for poor functional outcome. A prediction model including demographics data, admission exam, presence of status epilepticus, pure SB, and lack of EEG reactivity had an area under the curve of 0.92 (95% CI: 0.87-0.95) for poor functional outcome prediction, and 0.96
(95% CI: 0.94-0.98) for in-hospital mortality. Presence of pure SB (N = 87) was confounded by anesthetics use in 83.9% of the cases, and was not an independent predictor of poor functional outcome, having a FPR of 23% (95% CI: 0.19-0.28). An unreactive EEG background and SE predicted poor functional outcome and in-hospital mortality in cardiac arrest patients undergoing TTM."

According to the news reporters, the research concluded: "Prognostic value of pure SB is confounded by use of sedative agents, and its use on prognostication decisions should be made with caution."

For more information on this research see: Continuous EEG monitoring enhances multimodal outcome prediction in hypoxic-ischemic brain injury. Resuscitation, 2016;109 ():121-126. Resuscitation can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co. Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Resuscitation - www.journals.elsevier.com/resuscitation/)

Our news journalists report that additional information may be obtained by contacting E. Amorim, Brigham & Women's Hospital, Dept. of Neurol, Boston, MA 02115, United States. Additional authors for this research include J.C. Rittenberger, J.J. Zheng, M.B. Westover, M.E. Baldwin, C.W. Callaway and A. Popescu.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Central Nervous System Diseases and Conditions, Heart Disorders and Diseases, Epilepsy, Epidemiology, Craniocerebral Trauma, Status Epilepticus, Brain Injuries, Cardiac Arrest, Heart Attack, Cardiology, Hospital, Brigham and Women's Hospital.

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**Stem Cell Research - Hematopoietic Stem Cells**

**Data from British Heart Foundation Provide New Insights into Hematopoietic Stem Cells (DNA Methylation Dynamics of Human Hematopoietic Stem Cell Differentiation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Stem Cell Research - Hematopoietic Stem Cells are presented in a new report. According to news reporting originating in Cambridge, United Kingdom, by NewsRx journalists, research stated, "Hematopoietic stem cells give rise to all blood cells in a differentiation process that involves widespread epigenome remodeling. Here we present genome-wide reference maps of the associated DNA methylation dynamics."

Financial supporters for this research include BLUEPRINT project, European Union’s Seventh Framework Programme, NIHR Cambridge Biomedical Research Centre, Austrian Academy of Sciences, Medical Research Council Clinical Training Fellowship, German Research Council, DOC Fellowship of the Austrian Academy of Sciences, NIHR, BHF, NHS Blood and Transplant, Wellcome Trust Sir Henry Dale Fellowship, Wellcome Trust, MRC, BHF Cambridge Centre of Excellence, New Frontiers Group, European Research Council (ERC) Starting Grant, European Union’s Horizon 2020.

The news reporters obtained a quote from the research from British Heart Foundation, "We used a meta-epigenomic approach that combines DNA methylation profiles across many small pools of cells and performed single-cell methylene sequencing to assess cell-to-cell heterogeneity. The resulting dataset identified characteristic differences between HSCs
derived from fetal liver, cord blood, bone marrow, and peripheral blood. We also observed lineage-specific DNA methylation between myeloid and lymphoid progenitors, characterized immature multi-lymphoid progenitors, and detected progressive DNA methylation differences in maturing megakaryocytes. We linked these patterns to gene expression, histone modifications, and chromatin accessibility, and we used machine learning to derive a model of human hematopoietic differentiation directly from DNA methylation data."

According to the news reporters, the research concluded: "Our results contribute to a better understanding of human hematopoietic stem cell differentiation and provide a framework for studying blood-linked diseases."


Our news correspondents report that additional information may be obtained by contacting M. Frontini, British Heart Fdn Center Excellence, Cambridge CB2 0QQ, United Kingdom. Additional authors for this research include F. Halbritter, F. Muller, F.A. Choudry, P. Ebert, J. Klughammer, S. Farrow, A. Santoro, V. Ciurro, A. Mathur, R. Uppal, H.G. Stunnenberg, W.H. Ouwehand, E. Laurenti, T. Lengauer, M. Frontini and C. Bock.

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Keywords for this news article include: Cambridge, United Kingdom, Europe, Hematopoietic Stem Cells, Cell Differentiation, Stem Cell Research, Bone Marrow Cells, DNA Research, Hematology, British Heart Foundation.

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Oncology - Rectal Cancer

Data from C. Hardie et al Provide New Insights into Rectal Cancer
(Effect of statin and aspirin use on toxicity and pathological complete response rate of neo-adjuvant chemoradiation for rectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Rectal Cancer. According to news reporting originating from Palmerston North, New Zealand, by NewsRx correspondents, research stated, "To retrospectively evaluate the potential impact of statin and aspirin use on acute toxicity and pathological complete response (pCR) rate in rectal cancer patients receiving neo-adjuvant long-course radiation therapy (LCRT) with concurrent chemotherapy. A retrospective review was performed of all patients undergoing neo-adjuvant LCRT for rectal adenocarcinoma at the Regional Cancer Treatment Service between 1 September 2007 and 1 June 2011."

Our news editors obtained a quote from the research, "Data obtained include demographic details; date and radiological TNM stage at diagnosis; medication taken at time of RT; toxicity during LCRT; and surgical histology to determine if a pCR was obtained following LCRT. Neo-adjuvant LCRT was administered to 142 patients for rectal cancer during this
period; concurrent chemotherapy was omitted in 13 due to significant comorbidities. TNM stage was 2 or 3 radiologically at diagnosis in 127 (89.4%) of patients. At the time of LCRT, 23% were taking a statin and 25% were taking aspirin. Of 135 assessable patients, 34 (13%) achieved a pCR at surgery. On logistic regression, pCR was not significantly associated with the use of chemotherapy, statins, aspirin, other NSAIDs, T-stage or N-stage. There was no significant correlation between statin or aspirin use with bladder or rectal toxicity. Actuarial time to maximum rectal toxicity was not different in statin users or nonusers. In contrast to other larger retrospective series, this study did not find improvements in toxicity or pCR rate through statin or aspirin use in rectal cancer patients undergoing LCRT."

According to the news editors, the research concluded: "Their potential benefits in this setting would be best studied prospectively in a large randomized trial."


The news editors report that additional information may be obtained by contacting C. Hardie, Regional Cancer Treatment Service, Palmerston North Hospital, Palmerston North, New Zealand. Additional authors for this research include Y. Jung and M. Jameson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ajco.12468. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Asia-pacific Journal of Clinical Oncology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Antiplatelet Agents, Pharmaceuticals, Oncology, Chemotherapy, Epidemiology, Benzoic Acids, Hydroxy Acids, Rectal Cancer, Aspirin Therapy, Salicylic Acids, Palmerston North, Carboxylic Acids, Gastroenterology, Organic Chemicals, Drugs and Therapies, Coagulation Modifiers, Australia and New Zealand.

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Oncology - Colon Cancer

Data from Cancer Institute Advance Knowledge in Colon Cancer [Subgroup analysis in RAISE: a randomized, double-blind phase III study of irinotecan, folinic acid, and 5-fluorouracil (FOLFIRI) plus ramucirumab or placebo in patients with ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news reporting out of Brno, Czech Republic, by NewsRx editors, research stated, "The RAISE phase III trial demonstrated ramucirumab + FOLFIRI improved survival compared with placebo + FOLFIRI for second-line metastatic colorectal carcinoma patients previously treated with first-line bevacizumab, oxaliplatin, and a fluoropyrimidine. Analyses reported here found similar efficacy and safety in patients regardless of KRAS mutational status, time to first-line progression, and age. The RAISE phase III clinical trial demonstrated that
ramucirumab + FOLFIRI improved overall survival (OS) [hazard ratio (HR) = 0.844, \( P = 0.0219 \)] and progression-free survival (PFS) (HR = 0.793, \( P < 0.0005 \)) compared with placebo + FOLFIRI for second-line metastatic colorectal carcinoma (mCRC) patients previously treated with first-line bevacizumab, oxaliplatin, and a fluoropyrimidine.

Our news journalists obtained a quote from the research from Cancer Institute, "Since some patient or disease characteristics could be associated with differential efficacy or safety, prespecified subgroup analyses were undertaken. This report focuses on three of the most relevant ones: KRAS status (wild-type versus mutant), age (< 65 versus \( \geq 65 \) years), and time to progression (TTP) on first-line therapy (< 6 versus \( \geq 6 \) months). OS and PFS were evaluated by the Kaplan-Meier analysis, with HR determined by the Cox proportional hazards model. Treatment-by-subgroup interaction was tested to determine whether treatment effect was consistent between subgroup pairs. Patients with both wild-type and mutant KRAS benefited from ramucirumab + FOLFIRI treatment over placebo + FOLFIRI (interaction \( P = 0.526 \)); although numerically, wild-type KRAS patients benefited more (wild-type KRAS: median OS = 14.4 versus 11.9 months, HR = 0.82, \( P = 0.049 \); mutant KRAS: median OS = 12.7 versus 11.3 months, HR = 0.89, \( P = 0.263 \)). Patients with both longer and shorter first-line TTP benefited from ramucirumab (interaction \( P = 0.9434 \)), although TTP < 6 months was associated with poorer OS (TTP \( \geq 6 \) months: median OS = 14.3 versus 12.5 months, HR = 0.86, \( P = 0.061 \); TTP < 6 months: median OS = 10.4 versus 8.0 months, HR = 0.86, \( P = 0.276 \)). The subgroups of patients \( \geq 65 \) versus < 65 years also derived a similar ramucirumab survival benefit (interaction \( P = 0.9521 \)) (\( \geq 65 \) years: median OS = 13.8 versus 11.7 months, HR = 0.85, \( P = 0.156 \); < 65 years: median OS = 13.1 versus 11.9 months, HR = 0.86, \( P = 0.098 \)). The safety profile of ramucirumab + FOLFIRI was similar across subgroups. These analyses revealed similar efficacy and safety among patient subgroups with differing KRAS mutation status, longer or shorter first-line TTP, and age."

According to the news editors, the research concluded: "Ramucirumab is a beneficial addition to second-line FOLFIRI treatment for a wide range of patients with mCRC. ClinicalTrials.gov, NCT01183780."


Keywords for this news article include: Brno, Czech Republic, Europe, Radiation-Sensitizing Agents, Fluorouracil Therapy, Colorectal Research, Drugs and Therapies, Parasympathomimetic, Irinotecan Therapy, Enzyme Inhibitors, Gastroenterology, Pharmaceuticals, Antimetabolites, Antineoplastics, Colon Cancer, Carcinomas, Placebos, Oncology, Genetics, Prodrug, Cancer Institute.

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**Cerebrovascular Diseases and Conditions - Vascular...**

**Data from Capital Medical University Provide New Insights into Vascular Dementia (Efficacy of Cholinesterase Inhibitors in Vascular Dementia: An Updated Meta-Analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cerebrovascular Diseases and Conditions - Vascular Dementia are discussed in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "The objective of this study was to determine whether treatment with acetylcholinesterase inhibitors would provide cognitive benefit for patients with vascular dementia. Studies in patients with vascular dementia, who had not taken acetylcholinesterase inhibitors or memantine for at least 6 weeks, were included."

The news correspondents obtained a quote from the research from Capital Medical University, "Twelve studies were included in the final analysis. Donepezil showed significant improvement in Alzheimer's Disease Assessment Scale-cognitive subscale (ADAS-cog) as compared to placebo, at the doses tested, that is, 5 and 10 mg/day (difference in means -1.389 and -1.680, respectively, p (<=) 0.008), but not on the Mini Mental State Examination (MMSE) (p (>) 0.259). Galantamine also improved the ADAS-cog in comparison to the placebo (difference in means -2.191, p<0.001), whereas, rivastigmine did not show any benefit on ADAS-cog. However, the findings with rivastigmine are difficult to interpret, given there were only 2 studies. Treatment with cholinesterase inhibitors was associated with a twofold increase in the odds of discontinuation, due to adverse events (pooled OR 1.966, 95% CI 1.630-2.371, p <0.001). The present results reveal the therapeutic benefits of donepezil and galantamine in patients with vascular dementia."

According to the news reporters, the research concluded: "Interestingly, the ADAS-cog and MMSE varied considerably in detecting cognitive improvement."


Our news journalists report that additional information may be obtained by contacting Y.D. Chen, Dept. of Neurology, Beijing Chaoyang Hospital, Capital Medical University, Beijing, People's Republic of China. Additional authors for this research include J. Zhang, Y. Wang, J.L. Yuan and W.L Hu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444253. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Vascular Dementia, Acetylcholinesterase, Enzymes and Coenzymes, People's Republic of China, Carboxylic Ester Hydrolases, Brain Diseases and Conditions, Cerebrovascular Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Heart Disorders and Diseases - Atrial Fibrillation

Data from Central South University Advance Knowledge in Atrial Fibrillation (Association Between the Left Atrial and Left Atrial Appendages Systole Strain Rate in Patients with Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting out of Changsha, People's Republic of China, by NewsRx editors, research stated, "The aim of this research was to explore the association between the left atrial (LA) and left atrial appendages (LAA) systole strain rate (SSR) in patients with atrial fibrillation (AF), and to provide evidence to aid in the assessment of disease progression. A total of 180 patients with AF were selected for the study (130 patients with paroxysmal AF (Par AF) and 50 patients with persistence AF (PerAF))."

Our news journalists obtained a quote from the research from Central South University, "In addition, 60 healthy individuals were selected as a control group. The total and side wall SSRs were calculated. The total SSR in the control group was higher than in the ParAF and PerAF groups (2.87 +/- 0.45 vs. 2.15 +/- 0.56 vs. 1.92 +/- 0.62 and 6.24 +/- 1.61 vs. 4.45 +/- 1.42 vs. 3.66 +/- 1.55). The total SSR of LAA was correlated with that of LA in the AF patient groups and the control group; the correlation coefficients were 0.720, 0.563, and 0.421. However, the ratio of total SSR of LAA to that of LA was not significant statistically different among the three groups (2.24 +/- 0.41 vs. 2.35 +/- 0.58 vs. 2.03 +/- 0.56). The posterior wall had the lowest SSRs in the control group and ParAF group. The SSRs of AF patients were lower than that of healthy individuals, and the degree was associated with disease progression."

According to the news editors, the research concluded: "The SSR was different in different side walls, and gradually shorten with disease progression."

For more information on this research see: Association Between the Left Atrial and Left Atrial Appendages Systole Strain Rate in Patients with Atrial Fibrillation. Medical Science Monitor, 2016;22():4974-4977. Medical Science Monitor can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

Our news journalists report that additional information may be obtained by contacting X.M. Zhou, Central South University, Xiang Ya Hosp 2, Dept. of Cardiac Surg, Changsha, Hunan, People's Republic of China. Additional authors for this research include M.Z. OuYang, D.M. Kong and X.M. Zhou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.901831. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Heart Disorders and Diseases, Pathologic Processes, Atrial Fibrillation, Disease Progression, Cardiac Arrhythmias, Disease Attributes, Heart Disease, Central South University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gastroenterology - Kidney Function. According to news reporting out of Durham, North Carolina, by NewsRx editors, research stated, "Brincidofovir (BCV) is an orally bioavailable lipid conjugate of cidofovir (CDV) with increased in vitro potency relative to CDV against all 5 families of double-stranded DNA viruses that cause human disease. After intravenous (IV) administration of CDV, the organic anion transporter 1 (OAT1) transports CDV from the blood into the renal proximal tubule epithelial cells with resulting dose-limiting nephrotoxicity."

Our news journalists obtained a quote from the research from Chimerix, "To study whether OAT1 transports BCV and to evaluate the pharmacokinetic and renal safety profile of oral BCV compared with IV CDV. The cellular uptake of BCV and its major metabolites was assessed in vitro. Renal function at baseline and during and after treatment in subjects in BCV clinical studies was examined. In OAT1-expressing cells, uptake of BCV and its 2 major metabolites (CMX103 and CMX064) was the same as in mock-transfected control cells and was not inhibited by the OAT inhibitor probenecid. In human pharmacokinetic studies, BCV administration at therapeutic doses resulted in detection of CDV as a circulating metabolite; peak CDV plasma concentrations after oral BCV administration in humans were,1% of those observed after IV CDV administration at therapeutic doses. Analysis of renal function and adverse events from 3 BCV clinical studies in immunocompromised adult and pediatric subjects indicated little to no evidence of associated nephrotoxicity. Over 80% of subjects who switched from CDV or foscarnet to BCV experienced an improvement in renal function as measured by maximum on-treatment estimated glomerular filtration rate."

According to the news editors, the research concluded: "The lack of BCV uptake through OAT1, together with lower CDV concentrations after oral BCV compared with IV CDV administration, likely explains the superior renal safety profile observed in immunocompromised subjects receiving BCV compared with CDV."

For more information on this research see: Brincidofovir Is Not a Substrate for the Human Organic Anion Transporter 1: A Mechanistic Explanation for the Lack of Nephrotoxicity Observed in Clinical Studies. Therapeutic Drug Monitoring, 2016;38(6):777-786. Therapeutic Drug Monitoring can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting T.K. Tippin, Chimerix, Durham, NC 27713, United States. Additional authors for this research include M.E. Morrison, T.M. Brundage and H. Mommeja-Marin.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Pharmacueticals, Drugs and Therapies, Membrane Transport Proteins, Organic Anion Transporters, Anion Transport Proteins, Membrane Proteins, Pharmacokinetics, Carrier Proteins, Gastroenterology, Kidney Function, Renal Function,
Blood Pressure

Data from China University of Science and Technology Advance Knowledge in Blood Pressure [Protective role of ACE2-Ang-(1-7)-Mas in myocardial fibrosis by downregulating K(Ca)3.1 channel via ERK1/2 pathway]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Pressure have been published. According to news reporting originating from Tangshan, People's Republic of China, by NewsRx correspondents, research stated, "The intermediate-conductance Ca^{2+}-activated K+ (K(Ca)3.1) channel plays a vital role in myocardial fibrosis induced by angiotensin (Ang) II. However, as the antagonists of Ang II, the effect of angiotensin-converting enzyme 2 (ACE2)-angiotensin-(1-7)-Mas axis on K(Ca)3.1 channel during myocardial fibrosis remains unknown."

Our news editors obtained a quote from the research from the China University of Science and Technology, "This study was designed to explore the function of K(Ca)3.1 channel in the cardioprotective role of ACE2-Ang-(1-7)-Mas. Wild-type (WT) mice, hACE2 transgenic mice (Tg), and ACE2 deficiency mice (ACE2(-/-)) were administrated with Ang II by osmotic mini-pumps. As the activator of ACE2, diminazene aceturate (DIZE) inhibited increase of blood pressure, collagen deposition, and K(Ca)3.1 protein expression in myocardium of WT mice induced by Ang II. In Tg and ACE2(-/-) mice, besides the elevation of blood pressure, Ang II induced transformation of cardiac fibroblast into myofibroblast and resulted in augmentation of hydroxyproline concentration and collagen deposition, as well as K(Ca)3.1 protein expression, but the changes in ACE2(-/-) mice were more obvious than those in Tg mice. Mas antagonist A779 reduced blood pressure, myocardium fibrosis, and myocardium K(Ca)3.1 protein expression by Ang II in Tg mice, but activation of K(Ca)3.1 with SKA-31 in Tg mice promoted the pro-fibrogenic effects of Ang II. Respectively, in ACE2(-/-) mice, TRAM-34, the K(Ca)3.1 blocker, and Ang-(1-7) inhibited increase of blood pressure, collagen deposition, and K(Ca)3.1 protein expression by Ang II. Moreover, DIZE and Ang-(1-7) depressed p-ERK1/2/ERK increases by Ang II in WT mice, and after blockage of ERK1/2 pathway with PD98059, the K(Ca)3.1 protein expression was reduced in WT mice."

According to the news editors, the research concluded: "The present study demonstrates that ACE2-Ang-(1-7)-Mas protects the myocardium from hypertension-induced injury, which is related to its inhibiting effect on K(Ca)3.1 channels through ERK1/2 pathway. Our results reveal that K(Ca)3.1 channel is likely to be a critical target on the ACE2-Ang-(1-7)-Mas axis for its protective role in myocardial fibrosis and changes of K(Ca)3.1 induced by homeostasis of ACE-Ang II-AT1 axis and ACE2-Ang-(1-7)-Mas axis may be a new therapeutic target in myocardial fibrosis."

For more information on this research see: Protective role of ACE2-Ang-(1-7)-Mas in myocardial fibrosis by downregulating K(Ca)3.1 channel via ERK1/2 pathway. Pflugers Archiv-European Journal of Physiology, 2016;468(11-12):2041-2051. Pflugers Archiv-European Journal of Physiology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.
Apoptosis

Data from Chungnam National University Advance Knowledge in Apoptosis (Mutational analysis of metacaspase CaMca1 and decapping activator Edc3 in the pathogenicity of Candida albicans)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Apoptosis are presented in a new report. According to news reporting originating in Daejeon, South Korea, by NewsRx journalists, research stated, "Candida albicans, an opportunistic fungal pathogen, displays apoptotic cell death in response to various stresses and a wide range of antifungal treatments. CaMca1, which is the only metacaspase in C. albicans, has been described as a key player in apoptotic cell death."

The news reporters obtained a quote from the research from Chungnam National University, "Edc3 is an mRNA decapping activator and a scaffold protein of processing bodies. Edc3 was previously shown to regulate CaMCA1 expression and oxidative stress-induced apoptosis. In this study, we analyzed the contribution of the catalytic residues of the CaMca1 to the oxidative stress-induced apoptosis and pathogenicity of C. albicans. The CaMCA1(C292A) mutation decreased caspase activity to a level similar to that observed in the Camca1/Camca1 deletion strain and over-expression of CaMCA1(C292A) failed to suppress the oxidative-stress phenotypes of the edc3/edc3 mutant strain. The edc3/edc3, Camca1/Camca1, and CaMCA1 (C292A) mutant strains were not virulent in a murine candidiasis model. Filamentation defects were observed in the Camca1/Camca1 mutant cells, whereas this defect was only partial in CaMCA1(C292A) mutant cells."

According to the news reporters, the research concluded: "These results suggest that CaMca1 and Edc3 play essential roles in the oxidative stress-induced apoptosis and virulence of C albicans, and also support the notion that Edc3 is a key regulator of CaMca1 expression."

For more information on this research see: Mutational analysis of metacaspase CaMca1 and decapping activator Edc3 in the pathogenicity of Candida albicans. *Fungal Genetics and Biology*, 2016;97():18-23. *Fungal Genetics and Biology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Fungal Genetics and Biology - www.journals.elsevier.com/fungal-genetics-and-biology/)

Our news correspondents report that additional information may be obtained by contacting J. Kim, Chungnam National University, Coll Biosci & Biotechnol, Dept. of Microbiol & Mol Biol, Daejeon 305764, South Korea. Additional authors for this research
include S.E. Lee and J. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.fgb.2016.10.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daejeon, South Korea, Asia, Apoptosis, Genetics, Chungnam National University.

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**Arrhythmia**

**Data from Columbia University Advance Knowledge in Arrhythmia (Validation of electromechanical wave imaging in a canine model during pacing and sinus rhythm)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Arrhythmia have been presented. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Accurate determination of regional areas of arrhythmic triggers is of key interest to diagnose arrhythmias and optimize their treatment. Electromechanical wave imaging (EWI) is an ultrasound technique that can image the transient deformation in the myocardium after electrical activation and therefore has the potential to detect and characterize location of triggers of arrhythmias."

The news reporters obtained a quote from the research from Columbia University, "The objectives of this study were to investigate the relationship between the electromechanical and the electrical activation of the left ventricular (LV) endocardial surface during epicardial and endocardial pacing and during sinus rhythm as well as to map the distribution of electromechanical delays. In this study, 6 canines were investigated. Two external electrodes were sutured onto the epicardial surface of the LV. A 64-electrode basket catheter was inserted through the apex of the LV. Ultrasound channel data were acquired at 2000 frames/s during epicardial and endocardial pacing and during sinus rhythm. Electromechanical and electrical activation maps were synchronously obtained from the ultrasound data and the basket catheter, respectively. The mean correlation coefficient between electromechanical and electrical activation was 0.81 for epicardial anterior pacing, 0.79 for epicardial lateral pacing, 0.69 for endocardial pacing, and 0.56 for sinus rhythm. The electromechanical activation sequence determined by EWI follows the electrical activation sequence and more specifically in the case of pacing."

According to the news reporters, the research concluded: "This finding is of key interest in the role that EWI can play in the detection of the anatomical source of arrhythmias and the planning of pacing therapies such as cardiovascular resynchronization therapy."

For more information on this research see: Validation of electromechanical wave imaging in a canine model during pacing and sinus rhythm. *Heart Rhythm*, 2016;13(11):2221-2227. Heart Rhythm can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Heart Rhythm - www.journals.elsevier.com/heart-rhythm/)

Our news correspondents report that additional information may be obtained by contacting E.E. Konofagou, Columbia University, Dept. of Radiol, New York, NY, United
States. Additional authors for this research include A. Costet, E. Bunting, A. Gambhir, H. Garan, E. Wan and E.E. Konofagou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.08.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Arrhythmia, Cardiology, Columbia University.

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Drugs and Therapies - Diclofenac Therapy

Data from D. Mladsi and Colleagues Advance Knowledge in Diclofenac Therapy (Cost-effectiveness of Low-dose Submicron Diclofenac Compared With Generic Diclofenac)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Diclofenac Therapy have been presented. According to news reporting from Research Triangle Park, North Carolina, by NewsRx journalists, research stated, "NSAIDs are commonly prescribed for the treatment of pain and inflammation. Despite the effectiveness of NSAIDs, concerns exist regarding their tolerability."

The news correspondents obtained a quote from the research, "Worldwide health authorities, including the European Medicines Agency, Health Canada, and the US Food and Drug Administration, have advised that NSAIDs be prescribed at the lowest effective dosage and for the shortest duration. Effective lowering of NSAID dosage without compromising pain relief has been demonstrated in randomized, controlled trials of the recently approved NSAID lower-dose submicron diclofenac. Building on previously published work from an independently published systematic review and meta-analysis, a linear dose toxicity relationship between diclofenac dose and serious gastrointestinal (GI) events was recently demonstrated, indicating that reductions in adverse events (AEs) may be seen even with modest dose reductions in many patients. The objective of the present study was to estimate the potential reduction in risk for NSAID dose related AEs, corresponding savings in health care costs, and the incremental cost-effectiveness of submicron diclofenac compared with generic diclofenac in the United States. Our decision-analytic cost-effectiveness model considered a subset of potential AEs that may be avoided by lowering NSAID dosage. To estimate the expected reductions in upper GI bleeding/perforation and major cardiovascular events with submicron diclofenac, our model used prediction equations estimated by meta-regressions using data from systematic literature reviews. Utilities, lifetime costs, and health outcomes associated with AEs were estimated using data from the literature. The face validity of the model structure and inputs was confirmed by clinical experts in the United States. Results were evaluated in 1-way and probabilistic sensitivity analyses. The model predicted that submicron diclofenac versus generic diclofenac could reduce the occurrence of modeled GI events (by 18.0%), cardiovascular events (by 6.9%), and acute renal failure (by 18.8%), leading to a 9.8% reduction in costs of treating AEs. Submicron diclofenac was predicted to be cost-saving, with results relatively insensitive to parameter uncertainty. Submicron diclofenac has the potential to provide clinical and economic value to patients using NSAIDs in the United States."

According to the news reporters, the research concluded: "Further investigation
regarding the potential effects of submicron diclofenac on the risks for additional NSAID dose related toxicities should be explored.”


Our news journalists report that additional information may be obtained by contacting D. Mladsi, RTI Hlth Solut, Res Triangle Pk, NC 27709, United States. Additional authors for this research include N. Ronquest, D. Odom, L. Miles and K. Saag.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinthera.2016.09.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Research Triangle Park, North Carolina, United States, North and Central America, Non-Steroidal Antiinflammatory Agents, Ophthalmic Antiinflammatory Agents, Cyclooxygenase Inhibitors, Ophthalmic Preparations, Drugs and Therapies, Diclofenac Therapy, Cardiovascular, Phenylacetates, Cardiology, NSAID.

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**Digestive System Diseases and Conditions** --...

**Data from Department of Internal Medicine Provide New Insights into Colorectal Neoplasms (Associations between amount of smoking and alcohol intake and risk of colorectal neoplasm)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Colorectal Neoplasms have been published. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Although smoking and alcohol has been linked to an increased risk of colorectal neoplasm (CRN), large-scale studies to identify dose-dependent relationship between amount of smoking and alcohol consumption and risk of CRN are rare. We aimed to investigate the risk for CRN according to the amount of smoking and alcohol intake in a large sample of Korean adults."

The news correspondents obtained a quote from the research from the Department of Internal Medicine, "A cross-sectional study was performed on 31,714 examinees aged (>=)30 years undergoing their first colonoscopy as part of routine preventive health care between 2010 and 2011. Never smokers were compared with six groups of smokers according to smoking amount, and individuals with alcohol intake of (<=) 6.25 g ethanol per day were compared with three groups according to alcohol amount. In adjusted models, the risk of overall CRN increased with increasing amount of smoking (P for trend <0.001). The adjusted odds ratios for overall CRN comparing never smokers with six smoker groups according to smoking amount ( (<=) 2.50, 2.51-5.60, 5.61-9.00, 9.01-13.00, 13.01-19.50, and (>=)19.51 pack-years) were 1.02, 1.19, 1.35, 1.53, 1.63, and 2.03, respectively. In addition, the risk of both non-advanced and advanced CRN increased with increasing amount of smoking (both P for trend <0.001). However, the amount of alcohol consumption was not correlated with the risk of CRN. The prevalence of
CRN was associated with increasing amount of smoking in a dose-response manner, whereas it was not associated with the amount of alcohol consumption."

According to the news reporters, the research concluded: "Our study suggests that smoking amount as well as smoking status should be considered for CRN risk stratification."


Our news journalists report that additional information may be obtained by contacting Y.S. Jung, Dept. of Internal Medicine, Kangbuk Samsung Hospital, Seoul, South Korea. Additional authors for this research include H. Jung, K.E. Yun, S. Ryu, Y. Chang, D.I. Park and K. Choi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13199. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, South Korea, Gastroenterology, Colorectal Research, Colorectal Neoplasms, Digestive System Neoplasms, Gastrointestinal Neoplasms, Rectal Diseases and Conditions, Colonic Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.

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Drugs and Therapies - Chemotherapy

Data from Department of Research Provide New Insights into Chemotherapy [Reference data of the European Organisation for Research and Treatment of Cancer (EORTC) QLQ-CIPN20 Questionnaire in the general Dutch population]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Chemotherapy have been presented. According to news reporting out of Utrecht, Netherlands, by NewsRx editors, research stated, "Chemotherapy-induced peripheral neuropathy (CIPN) is a debilitating side-effect of chemotherapy. However, CIPN symptoms are also reported by patients not receiving chemotherapy."

Our news journalists obtained a quote from the research from the Department of Research, "Normative data could help interpret CIPN among cancer patients. Our aim was to generate normative data for the European Organisation for Research and Treatment of Cancer (EORTC) QLQ-CIPN20 Questionnaire designed to assess CIPN from the patients' perspective. The normative CIPN data have also been generated for stratified subgroups formed on the basis of sex, age and comorbidity. The QLQ-CIPN20 and the Self-administered Comorbidity Questionnaire were administered to a representative panel of the Dutch-speaking population in the Netherlands. Two thousand one hundred and two (78%) of those invited completed the questionnaires. The majority reported no CIPN symptoms (83-97%). Cronbach's alpha coefficients for the sum score, and sensory, motor and autonomic subscales were 0.87, 0.76, 0.82 and 0.49, respectively. Compared with men, women scored significantly worse on the sum score (men, 3.0 versus women, 4.3; p< 0.001), motor scale (2.7 versus 5.1; p< 0.001) and
autonomic scale (3.8 versus 5.2; p< 0.01), but this difference was not clinically relevant. CIPN symptoms increased significantly with age among both men (for the sum score and all scales) and women (for the sum score, sensory and motor scale). Those with self-reported comorbidities reported significantly more CIPN symptoms, both statistically and clinically, than those without. For instance, they had a lower mean sum score (1.5) compared to those with asthma/chronic obstructive pulmonary disease (COPD; 6.9), diabetes (5.9), heart disease (8.0), hypertension (6.2), osteoarthritis (9.6) and rheumatoid arthritis (13.8). A low prevalence of neuropathy was observed in the normative population without cancer, although neuropathy did increase with age and the presence of comorbidities."

According to the news editors, the research concluded: "These data (which is freely available) can aid in the interpretation of QLQ-CIPN20 scores and can help increase our understanding of the influence of age, sex and comorbid conditions on CIPN among cancer patients."


Our news journalists report that additional information may be obtained by contacting F. Mols, Netherlands Comprehens Canc Organization IKNL, Dept. of Res, Utrecht, Netherlands. Additional authors for this research include L.V. van de Poll-Franse, G. Vreugdenhil, A.J. Beijers, J.M. Kieffer, N.K. Aaronson and O. Husson.

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Keywords for this news article include: Utrecht, Netherlands, Europe, Drugs and Therapies, Chemotherapy, Neuropathy, Oncology, Cancer, Department of Research.

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**Nutritional and Metabolic Diseases and Conditions - …**

**Data from Drexel University Advance Knowledge in Obesity (From last supper to self-initiated weight loss: Pretreatment weight change may be more important than previously thought)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting originating in Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Evaluate the association between pretreatment and during-treatment weight change, as well as differences in self-regulation between those who gain weight, remain weight stable, and lose weight pretreatment. Data from the first 6 months of a behavioral weight loss study were used."

The news reporters obtained a quote from the research from Drexel University, "Participants (n=283) were weighed at two assessment points (screening visit and baseline) prior to the start of treatment and at every treatment session. Participants were divided into those who
gained weight, remained weight stable, or lost weight between the screening visit and the first treatment session. Pretreatment weight change was not significantly associated with during-treatment change. Weight change from the screening visit to month 6 was significantly different by category, with losses of 11% and 7% for those who lost and gained weight pretreatment, respectively. Weight change from first treatment session to month 6 was not different by category. Poorer self-regulation was associated with pretreatment weight gain and better self-regulation with pretreatment weight loss. Pretreatment weight change may not relate to success during behavioral weight loss treatment. Researchers should carefully consider when the 'baseline' assessment takes place to reduce bias introduced by pretreatment weight change."

According to the news reporters, the research concluded: "Poorer self-regulation may place individuals at risk for weight gain prior to treatment."

For more information on this research see: From last supper to self-initiated weight loss: Pretreatment weight change may be more important than previously thought. *Obesity*, 2016;24(4):843-9. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news correspondents report that additional information may be obtained by contacting S.G. Kerrigan, Dept. of Psychology, Drexel University, Philadelphia, Pennsylvania, United States. Additional authors for this research include K. Schaumberg, C. Kase, M. Gaspar, E. Forman and M.L Butryn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21423. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Obesity, Philadelphia, Pennsylvania, United States, Risk and Prevention, North and Central America, Nutritional and Metabolic Diseases and Conditions.

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**Data from E.E. Caamal-Fuentes and Colleagues Advance Knowledge in Alcohols (Anti-giardia activity and acute toxicity of a methanol extract of Senna racemosa bark)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Alcohols have been published. According to news originating from Yucatan, Mexico, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: *Senna racemosa* (Mill.) H.S. Irwin & Barneby (syn."

Financial support for this research came from Fundacion Instituto Mexicano del Seguro Social.

Our news journalists obtained a quote from the research, "*Cassia racemosa* Mill.) is a plant used in traditional Mayan medicinal practices to treat diarrhea. A methanol extract of *S. racemosa* bark has been shown to have in vitro activity against *Giardia intestinalis*. No studies of its efficacy and toxicity in in vivo models have been done. The present study objective was to analyze the activity of this methanol extract of *S. racemosa* bark against *Giardia intestinalis* trophozoites in experimentally infected mice, and evaluate its toxicological effects in rats. *S. racemosa* was collected in Merida, Yucatan, Mexico (21 degrees 58'N, 89 degrees 36'W) in June
2005. The bark methanol extract was obtained and high performance liquid chromatography (HPLC-DAD) was used to generate a constituent profile. In vivo anti-giardia activity was assayed with an experimental model of G. intestinalis infection in neonatal CD-1 mice. Nine doses ranging from 0.25-15 mg extract/kg body weight were tested to determine the dose required to kill 50% of the trophozoites (ED50). An acute toxicity assay was run in which one of four single doses (200, 1000, 2000 and 3000 mg/kg body weight) was orally administered to adult Wistar rats. Animal weight, death rates, toxic effects and behavioral parameters were observed over a 14-d period. They were then euthanized and a necropsy performed. The S. racemosa bark extract inhibited growth of G. intestinalis (ED50=1.14 mg/Kg) in neonatal CD-1 mice. No toxic or lethal effects were observed even at the highest dosage (3000 mg/Kg), and neither were signs of toxicity observed in internal organs. The active compounds chrysophanol and physcion were present in the extract at a 1.76 ratio."

According to the news editors, the research concluded: "The results strongly support traditional use of S. racemosa bark for treatment of diarrhea caused by Giardia intestinalis infection."


The news correspondents report that additional information may be obtained from R.E. Moo-Puc, Inst Mex Icano Seguro Social, Center Med Ignacio Garcia Tellez, Unidad Med Alta Especialidad, Unidad Invest Med Yucatan, Merida 97150, Yucatan, Mexico. Additional authors for this research include M. Graniel-Sabido, G.J. Mena-Rejon and R.E. Moo-Puc.

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Keywords for this news article include: Yucatan, Mexico, North and Central America, Methanol, Alcohols.

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**Oncology - Multiple Myeloma**

**Data from Eberhard-Karls University Advance Knowledge in Multiple Myeloma (Simplified response monitoring criteria for multiple myeloma in patients undergoing therapy with novel agents using computed tomography)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Multiple Myeloma are discussed in a new report. According to news originating from Tubingen, Germany, by NewsRx correspondents, research stated, "Multiple myeloma is a malignant hematological disorder of the mature B-cell lymphocytes originating in the bone marrow. While therapy monitoring is still mainly based on laboratory biomarkers, the additional use of imaging has been advocated due to inaccuracies of serological biomarkers or in a-secretory myelomas."

Our news journalists obtained a quote from the research from Eberhard-Karls
University, "Non-enhanced CT and MRI have similar sensitivities for lesions in yellow marrow rich bone marrow cavities with a favourable risk and cost-effectiveness profile of CT. Nevertheless, these methods are still limited by frequently high numbers of medullary lesions and its time consumption for proper evaluation. To establish simplified response criteria by correlating size and CT attenuation changes of medullary multiple myeloma lesions in the appendicular skeleton with the course of lytic bone lesions in the entire skeleton. Furthermore to evaluate these criteria with respect to established hematological myeloma-specific parameters for the prediction of treatment response to bortezomib or lenalidomide. Non-enhanced reduced-dose whole-body CT examinations of 78 consecutive patients (43 male, 35 female, mean age 63.69 +/- 9.2 years) with stage III multiple myeloma were retrospectively re-evaluated. On per patient basis, size and mean CT attenuation of 2-4 representative lesions in the limbs were measured at baseline and at a follow-up after a mean of 8 months. Results were compared with the course of lytic bone lesions as well with that of specific hematological biomarkers. Myeloma response was assessed according to the International Myeloma Working Group (IMWG) uniform response criteria. Testing for correlation between response of medullary lesions (Resp(med)) and response of all myeloma manifestations including osteolyses total (Resp(total)) was performed using the corrected contingency, coefficient (C-corr). The correlation between Respmad based on length diameter and transverse diameter and Resp(total) was perfect (C-corr = 1.0; p< 0.0001) whereas the correlation based on density was moderate (C-corr = 0.54; p< 0.0001). The evaluation of simplified response criteria with a measurement of only 2 medullary lesions yielded the best sensitivity and specificity valued for treatment-induced changes for the length diameter evaluation with 94.4%/195.7% for prediction of progressive disease and 78.6%/93.3% for prediction of therapy response. There were no significant differences between patients treated with bortezomib and lenalidomide (p > 0.05)."

According to the news editors, the research concluded: "Measurements of size of a minimum of two medullary lesions is sufficient for response assessment and correlates very well with the course of lytic bone lesions and that of hematologic parameters."


The news correspondents report that additional information may be obtained from G. Bier, Eberhard Karls Univ Tuebingen, Dept. of Neuroradiol, D-72076 Tubingen, Germany. Additional authors for this research include M. Horger, S. Kum, K. Weisel, J. Fritz, S.D. Ioanoviciu and G. Bier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejrad.2016.10.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tubingen, Germany, Europe, Computed Tomography, Diagnostics and Screening, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Blood Protein Disorders, Hemorrhagic Disorders, Hemostatic Disorders, Imaging Technology, Multiple Myeloma, Paraproteinemias, Immune System, Bone Research, Bone Marrow, Hematology, Oncology, Therapy, Eberhard-Karls University.

Our reports deliver fact-based news of research and discoveries from around the
Nutritional and Metabolic Diseases and Conditions - …

Data from Ehime University Graduate School of Medicine Provide New Insights into Anorexia (Association between high serum carcinoembryonic antigen and clinical state of male anorexia nervosa: A case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Anorexia are presented in a new report. According to news reporting out of Ehime, Japan, by NewsRx editors, research stated, "Anorexia nervosa (AN) is a complex psychiatric disorder, which is not yet fully understood. Several studies reported that AN was associated with disruption of cytokine network."

Our news journalists obtained a quote from the research from the Ehime University Graduate School of Medicine, "Carcinoembryonic antigen (CEA) is a glycoprotein related to its network, used as a tumor marker of adenocarcinoma, and suggested to stimulate monocytes and macrophages to release proinflammatory cytokines. Here, we report a 41-year-old male suffering from AN who was suspected of having a malignant tumor due to markedly elevated serum CEA levels. However, on further examinations, he was discovered to have no malignant tumors, and, interestingly, his CEA levels actually decreased as his clinical state of AN improved. Furthermore, it was found that his CEA levels were elevated proportionally to his clinical state of AN and that his body mass index was significantly correlated with serum CEA levels."

According to the news editors, the research concluded: "Therefore, it is suggested that inflammatory responses may be associated with the clinical state of AN."


Our news journalists report that additional information may be obtained by contacting S. Ochi, Dept. of Neuropsychiatry, Ehime University Graduate School of Medicine, Toon, Ehime, Japan. Additional authors for this research include H. Shimizu and S. Ueno.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/eat.22474. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Ehime, Japan, Cancer, Anorexia, Oncology, Immunology, Cell Research, Glycoproteins, Eating Disorders, Membrane Proteins, Neoplasm Antigens, Biological Factors, Adolescent Medicine, Cell Adhesion Molecules, Biological Tumor Markers, Carcinoembryonic Antigens, Nutritional and Metabolic Diseases and Conditions.

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Data from Erasmus University Medical Center Advance Knowledge in Antineoplastics (Fasting protects against the side effects of irinotecan treatment but does not affect anti-tumour activity in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antineoplastics is now available. According to news reporting out of Rotterdam, Netherlands, by NewsRx editors, research stated, "The main limitation to the use of irinotecan in the treatment of colorectal cancer is the severity of side effects, including neutropaenia and diarrhoea. Here, we explored the effects of 3 days of fasting on irinotecan-induced toxicities, on plasma, liver and tumor pharmacokinetics and on anti-tumour activity in mice."

Financial support for this research came from KWF Kankerbestrijding.

Our news journalists obtained a quote from the research from Erasmus University Medical Center, "Male BALB/c mice received C26 colon carcinoma cells subcutaneously. They were randomized 1:1 into equally sized ad libitum fed and fasted groups after which they were treated with irinotecan. Weight and adverse side effects were recorded daily. At the end of the experiment, tumours were resected and weighed, and concentrations of irinotecan and its active metabolite SN-38 were determined in plasma and tumour. Fasting prevented the diarrhoea and visible signs of discomfort induced by irinotecan. Ad libitum fed animals developed leucopenia compared with untreated controls, whereas fasted mice did not. Irinotecan suppressed tumor growth equally in both treated groups, compared with untreated controls. Levels of the active irinotecan metabolite SN-38 9 (calculated as AUC values) were significantly lower in fasted mice in both plasma and liver, but not in tumor tissue. Fasting protected against irinotecan-induced side effects without interfering with its anti-tumour efficacy. Fasting induced a lower systemic exposure to SN-38, which may explain the absence of adverse side effects, while tumor levels of SN-38 remained unchanged."

According to the news editors, the research concluded: "These data offer important new approaches to improve treatment with irinotecan in patients."


Our news journalists report that additional information may be obtained by contacting S.A. Huisman, Dept. of Surgery, Erasmus University Medical Center, Rotterdam, Netherlands. Additional authors for this research include P. de Bruijn, I.M. Ghibadi Moghaddam-Helmantel, J.N. Ijzermans, E.A. Wiemer, R.H. Mathijssen and R.W de Bruin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13317. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the British Journal of Pharmacology is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Antineoplastics, Europe, Prodrug, Rotterdam, Netherlands, Cancer Therapy, Enzyme Inhibitors, Irinotecan Therapy, Drugs and
Oncology - Cancer Genetics

Data from Federal University Advance Knowledge in Cancer Genetics (Prevalence of Hispanic BRCA1 and BRCA2 mutations among hereditary breast and ovarian cancer patients from Brazil reveals differences among Latin American populations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Cancer Genetics are presented in a new report. According to news reporting originating in Porto Alegre, Brazil, by NewsRx journalists, research stated, "Germline mutations in BRCA1 or BRCA2 (BRCA) are responsible for 5-15% of breast (BC) and ovarian cancers (OC), predisposing to the development of early onset and often multiple primary tumors. Since mutation carriers can benefit from risk-reducing interventions, the identification of individuals with hereditary breast and ovarian cancer (HBOC) syndrome has a significant clinical impact."

Funders for this research include Breast Cancer Research Foundation, Avon, NIH/NCI, Fundo de Incentivo a Pesquisa e Eventos, Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior.

The news reporters obtained a quote from the research from Federal University, "We assessed whether a panel assay for recurrent Hispanic BRCA mutations (HISPANEL) has an adequate breadth of coverage to be suitable as a cost effective screening tool for HBOC in a cohort of patients from Southern Brazil. A multiplex, PCR-based panel was used to genotype 232 unrelated patients for 114 germline BRCA mutations, finding deleterious mutations in 3.5% of them. This mutation prevalence is within the range detected by the HISPANEL among BC patients unselected for family history in other Latin American settings. The HISPANEL would have accounted for 27% of the BRCA mutations detected by complete sequencing in a comparison cohort (n = 193). This prevalence may be region-specific since significant differences in population structure exist in Brazil."

According to the news reporters, the research concluded: "Comprehensive analysis of BRCA in a larger set of HBOC patients from different Brazilian regions is warranted, and the results could inform customization of the HISPANEL as an affordable mutation screening tool."

For more information on this research see: Prevalence of Hispanic BRCA1 and BRCA2 mutations among hereditary breast and ovarian cancer patients from Brazil reveals differences among Latin American populations. Cancer Genetics, 2016;209(9):417-422. Cancer Genetics can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Cancer Genetics - www.journals.elsevier.com/cancer-genetics/)

Our news correspondents report that additional information may be obtained by contacting P. Ashton-Prolla, Univ Fed Rio Grande do Sul, Dept. of Genet, BR-91501970 Porto Alegre, RS, Brazil. Additional authors for this research include J. Herzog, C.B.O. Netto, O. Artigalas, I.V.D. Schwartz, C.M. Bittar, P. Ashton-Prolla and J.N. Weitzel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.06.008. This DOI is a link to an online electronic
Central Nervous System Diseases and Conditions –…

Data from Federal University Provide New Insights into Epilepsy (Effects of different physical exercise programs on susceptibility to pilocarpine-induced seizures in female rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, research stated, "In epilepsy, the most common serious neurological disorder worldwide, several investigations in both humans and animals have shown the effectiveness of physical exercise programs as a complementary therapy. Among the benefits demonstrated, regular exercise can decrease the number of seizures as well as improve cardiovascular and psychological health in people with epilepsy."

Financial supporters for this research include CAPES, FAPESP, CNPq.

Our news journalists obtained a quote from the research from Federal University, "While many studies in animals have been performed to show the beneficial effects of exercise, they exclusively used male animals. However, females are also worthy of investigation because of their cyclical hormonal fluctuations and possible pregnancy. Considering the few animal studies concerning seizure susceptibility and exercise programs in females, this study aimed to verify whether exercise programs can interfere with seizure susceptibility induced by pilocarpine in adult female Wistar rats. Animals were randomly divided into three groups: control, forced, and voluntary (animals kept in a cage with a wheel). After the final exercise session, animals received a pilocarpine hydrochloride (350 mg/kg i.p.; Sigma) injection to induce seizures. To measure the intensity of pilocarpine-induced motor signs, we used a scale similar to that developed by Racine (1972) in the kindling model. During a 4-h period of observation, we recorded latency for first motor signs, latency for reaching SE, number of animals that developed SE, and intensity of pilocarpine-induced motor signs. No difference was observed among groups in latency for first motor signs and in the number of animals that developed SE. Although the voluntary group presented more intense motor signs, an increased latency for developing SE was observed compared with that in forced and control groups. Our behavioral results are not enough to explain physiological and molecular pathways, but there are mechanisms described in literature which may allow us to propose possible explanations. Voluntary exercise increased latency to SE development."

According to the news editors, the research concluded: "Further investigation is necessary to elucidate the pathways involved in these results, while more studies should be performed regarding gender specific differences."

For more information on this research see: Effects of different physical exercise programs on susceptibility to pilocarpine-induced seizures in female rats. *Epilepsy & Behavior*, 2016;64():262-267. *Epilepsy & Behavior* can be contacted at: Academic Press Inc Elsevier
Proteins - Extracellular Matrix Proteins

Data from Fourth Military Medical University Provide New Insights into Extracellular Matrix Proteins (Mutations in COL1A1 Gene Change Dentin Nanostructure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Proteins - Extracellular Matrix Proteins have been presented. According to news reporting originating in Shaanxi, People's Republic of China, by NewsRx journalists, research stated, "Although many studies have attempted to associate specific gene mutations with dentin phenotypic severity, it remains unknown how the mutations in COL1A1 gene influence the mechanical behavior of dentin collagen and matrix. Here, we reported one osteogenesis imperfecta (OI) pedigree caused by two new inserting mutations in exon 5 of COL1A1 (NM_000088.3:c.440_441insT;c.441_442insA), which resulted in the unstable expression of COL1A1 mRNA and half quantity of procollagen production."

Financial support for this research came from National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Fourth Military Medical University, "We investigated the morphological and mechanical features of proband's dentin using atomic force microscope (AFM), scanning electron microscope, and transmission electron microscope. Increased D-periodic spacing, variably enlarged collagen fibrils coating with fewer minerals were found in the mutated collagen. AFM analysis demonstrated rougher dentin surface and sparsely decreased Young's modulus in proband's dentin."

According to the news reporters, the research concluded: "We believe that our findings provide new insights into the genetic-/nano-mechanisms of dentin diseases, and may well explain OI dentin features with reduced mechanical strength and a lower crosslinked density."

Our news correspondents report that additional information may be obtained by contacting X. Duan, State Key Laboratory of Military Stomatology, Dept. of Oral Biology Clinic of Oral Rare Diseases and Genetic Diseases, The Fourth Military Medical University, Xi'an, Shaanxi, People's Republic of China. Additional authors for this research include Z. Liu, Y. Gan, D. Xia, Q. Li, Y. Li, J. Yang, S. Gao and M. Dong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ar.23308. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shaanxi, Collagen, Genetics, People's Republic of China, Extracellular Matrix Proteins.

Our news editors obtained a quote from the research from Fudan University, "We reviewed the medical records of 47 patients with GC with local peritoneal metastasis, which was found by laparotomy or laparoscopy. The patients were divided into 2 groups: those who underwent gastric resection (n=29), and a non-resection group who did not (n=18). The clinical characteristics, postoperative complications, mortality, palliative intervention, and long-term outcomes of the 2 groups were compared. Complications occurred more frequently in the resection group than in non-resection group (P=0.017). There was no postoperative mortality or reoperation in either group. Palliative intervention was performed in 9 (31%) patients in resection group and 16 (88.9%) patients in non-resection group (P <0.001). The intervention interval and hospital-free time were significant longer in resection group than in non-resection group (P <0.001, P< 0.001). The Kaplan-Meier survival curves revealed that resection group had longer survival than non-resection group (P < 0.001)."

According to the news editors, the research concluded: "Non-curative resectional surgery helps prolong survival time and improve the quality of life for patients with GC with local peritoneal metastasis."

For more information on this research see: Non-curative surgery for patients with gastric cancer with local peritoneal metastasis A retrospective cohort study. Medicine, 2016;95 (49):568-571. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting
Oncology - Gastric Cancer

Data from Fujian Normal University Provide New Insights into Gastric Cancer (Real-time optical diagnosis of gastric cancer with serosal invasion using multiphoton imaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gastric Cancer is the subject of a report. According to news reporting out of Fuzhou, People's Republic of China, by NewsRx editors, research stated, "A real-time optical biopsy, which could determine tissue histopathology, would be of extraordinary benefit to staging laparoscopy for gastric cancer with serosal invasion (T4) that requires downstage treatment. We investigated the feasibility of using multiphoton imaging to perform a real-time optical diagnosis of gastric cancer with or without serosal invasion."

Our news journalists obtained a quote from the research from Fujian Normal University, "First, a pilot study was performed to establish the optical diagnostic features of gastric cancer with or without serosal invasion using multiphoton imaging compared with hematoxylin-eosin staining and Masson's trichrome staining. Second, a blinded study was performed to compare the diagnostic sensitivity, specificity, and accuracy of multiphoton imaging and endoscopic ultrasonography (EUS) for T4 gastric cancer. In the pilot study, multiphoton imaging revealed collagen loss and degradation and cellular and nuclear pleomorphism in gastric cancer with serosal invasion. The collagen content in gastric cancer with or without serosal invasion was 0.36 +/- 0.18 and 0.79 +/- 0.16 (p < 0.001), respectively. In the blinded study, the sensitivity, specificity, and accuracy of EUS and multiphoton imaging for T4 gastric cancer were 70% and 90% (p = 0.029), 66.67% and 96.67% (p = 0.003), and 68.33% and 93.33% (p = 0.001), respectively."

According to the news editors, the research concluded: "It is feasible to use multiphoton imaging to make a real-time optical diagnosis of gastric cancer with or without serosal invasion."


Keywords for this news article include: Fuzhou, People's Republic of China, Asia,
Aortic Dissection

Data from Fujita Health University Provide New Insights into Aortic Dissection (Early and Late Outcomes of Surgical Repair for Stanford A Acute Aortic Dissection in Octogenarians)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Aortic Dissection. According to news originating from Aichi, Japan, by NewsRx correspondents, research stated, "Because increased age is a strong independent predictor of mortality and morbidity, surgery for octogenarians with Stanford type A aortic dissection (AAD) may be avoided. From 2005 to 2015, 158 patients underwent surgical repair for AAD via a median sternotomy."

Our news journalists obtained a quote from the research from Fujita Health University, "We compared 24 (15.2%) octogenarians (83 +/- 3 years) with 134 (84.8%) patients aged <= 79 years (62 +/- 13 years), based on retrospectively collected clinical data. Octogenarians were predominantly female (79.2% vs. 44.8%, P=0.0033). Ascending aortic replacement was more frequently performed in the octogenarians (95.8% vs. 65.7%, P=0.0015) and total arch replacement in the younger patients (4.2% vs. 26.9%, P=0.0165). There were 14 hospital deaths among the younger patients, none among the octogenarians (0% vs. 10.4%, P=0.1303), and major morbidity rates were comparable. There were 3 late deaths among the octogenarians and 9 deaths among the younger patients. The respective 1-, 3-, and 5-year survival rates were 94.4%, 81.5%, and 81.5% in the octogenarians and 86.9%, 85.6%, and 83.9% in the younger patients, with no significant differences. Surgical repair for AAD in octogenarians showed favorable results when compared with a younger patient cohort, with low hospital mortality rate and excellent late outcomes."

According to the news editors, the research concluded: "Therefore, this technique should not be disregarded just because the patient is an octogenarian."


The news correspondents report that additional information may be obtained from M. Tochii, Fujita Hlth Univ, Dept. of Cardiovasc Surg, Toyoake, Aichi 4701192, Japan. Additional authors for this research include Y. Takami, K. Hattori, H. Ishikawa, M. Ishida, Y. Higuchi and Y. Takagi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1253/circj.CJ-16-0918. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aichi, Japan, Asia, Aortic Dissection, Cardiology, Hospital, Fujita Health University.

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Data from Gradient Advance Knowledge in Toxicology and Pharmacology (Weight-of-evidence evaluation of associations between particulate matter exposure and biomarkers of lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Toxicology and Pharmacology. According to news reporting out of Cambridge, Massachusetts, by NewsRx editors, research stated, "Research suggests that exposure to ambient particulate matter (PM) may be associated with lung cancer; however, no mode of action (MoA) for this has been established. We applied a weight-of-evidence (WoE) approach to evaluate recent evidence from four realms of research (controlled human exposure, epidemiology, animal, and in vitro) to determine whether the overall evidence supports one or more MoAs by which PM could cause lung cancer."

Financial support for this research came from Exxon Mobil Biomedical Sciences, Inc.

Our news journalists obtained a quote from the research from Gradient, "We evaluated three general MoAs: DNA damage and repair; other genotoxic effects, including mutagenicity and clastogenicity; and gene expression, protein expression, and DNA methylation. After assessing individual study quality, we evaluated the strength of the evidence within as well as across disciplines using a modified set of Bradford Hill considerations. We conclude that the overall WoE indicates it is plausible that PM of various size fractions may cause direct DNA damage, but the evidence is insufficient regarding the alternative MoAs we evaluated."

According to the news editors, the research concluded: "More research is needed to determine whether DNA damage can lead to downstream events and, ultimately, lung cancer."

For more information on this research see: Weight-of-evidence evaluation of associations between particulate matter exposure and biomarkers of lung cancer. Regulatory Toxicology and Pharmacology, 2016;82():53-93. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting J.E. Goodman, Gradient, Cambridge, MA 02138, United States. Additional authors for this research include C.T. Loftus, J.M. Cohen, L.E. Kerper, E.M. Kennedy and J.E. Goodman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.10.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Toxicology and Pharmacology, Drugs and Therapies, Epidemiology, Gradient.

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Lymphadenopathy

Data from H.L. Gaddey et al Provide New Insights into Lymphadenopathy (Unexplained Lymphadenopathy: Evaluation and Differential Diagnosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lymphadenopathy. According to news reporting originating from Offutt AFB, Nebraska, by NewsRx correspondents, research stated, "Lymphadenopathy is benign and self-limited in most patients. Etiologies include malignancy, infection, and autoimmune disorders, as well as medications and iatrogenic causes."

Our news editors obtained a quote from the research, "The history and physical examination alone usually identify the cause of lymphadenopathy. When the cause is unknown, lymphadenopathy should be classified as localized or generalized. Patients with localized lymphadenopathy should be evaluated for etiologies typically associated with the region involved according to lymphatic drainage patterns. Generalized lymphadenopathy, defined as two or more involved regions, often indicates underlying systemic disease. Risk factors for malignancy include age older than 40 years, male sex, white race, supraclavicular location of the nodes, and presence of systemic symptoms such as fever, night sweats, and unexplained weight loss. Palpable supraclavicular, popliteal, and iliac nodes are abnormal, as are epitrochlear nodes greater than 5 mm in diameter. The workup may include blood tests, imaging, and biopsy depending on clinical presentation, location of the lymphadenopathy, and underlying risk factors. Biopsy options include fine-needle aspiration, core needle biopsy, or open excisional biopsy. Antibiotics may be used to treat acute unilateral cervical lymphadenitis, especially in children with systemic symptoms."

According to the news editors, the research concluded: "Corticosteroids have limited usefulness in the management of unexplained lymphadenopathy and should not be used without an appropriate diagnosis."


The news editors report that additional information may be obtained by contacting H.L. Gaddey, Ehrling Bergquist Family Med Residency Program, Offutt AFB, NE, United States.

Keywords for this news article include: Offutt AFB, Nebraska, United States, North and Central America, Risk and Prevention, Lymphadenopathy, Hematology.

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Lung Diseases and Conditions - Interstitial Lung...

Data from Hannover School of Medicine Provide New Insights into Interstitial Lung Disease (Pulmonary Hypertension in Patients with Chronic Fibrosing Idiopathic Interstitial Pneumonias)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Lung Diseases and Conditions - Interstitial Lung Disease are presented in a new report. According to news reporting originating in Hannover, Germany, by NewsRx journalists, research stated, "Pulmonary hypertension (PH) is a common finding in patients with chronic fibrosing idiopathic interstitial pneumonias (IIP). Little is known about the response to pulmonary vasodilator therapy in this patient population."

The news reporters obtained a quote from the research from the Hannover School of Medicine, "COMPERA is an international registry that prospectively captures data from patients with various forms of PH receiving pulmonary vasodilator therapies. We retrieved data from COMPERA to compare patient characteristics, treatment patterns, response to therapy and survival in newly diagnosed patients with idiopathic pulmonary arterial hypertension (IPAH) and PH associated with IIP (PH-IIP). Compared to patients with IPAH (n=798), patients with PH-IIP (n=151) were older and predominantly males. Patients with PH-IIP were treated predominantly with phosphodiesterase-5 inhibitors (88% at entry, 87% after 1 year). From baseline to the first follow-up visit, the median improvement in 6MWD was 30 m in patients with IPAH and 24.5 m in patients with PH-IIP (p=0.457 for the difference between both groups). Improvements in NYHA functional class were observed in 22.4% and 29.5% of these patients, respectively (p=0.179 for the difference between both groups). Survival rates were significantly worse in PH-IIP than in IPAH (3-year survival 34.0 versus 68.6%; p<0.001). Total lung capacity, NYHA class IV, and mixed-venous oxygen saturation were independent predictors of survival in patients with PH-IIP. Patients with PH-IIP have a dismal prognosis."

According to the news reporters, the research concluded: "Our results suggest that pulmonary vasodilator therapy may be associated with short-term functional improvement in some of these patients but it is unclear whether this treatment affects survival."

For more information on this research see: Pulmonary Hypertension in Patients with Chronic Fibrosing Idiopathic Interstitial Pneumonias. Plos One, 2015;10(12):e0141911. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news correspondents report that additional information may be obtained by contacting M.M. Hoeper, Dept. of Respiratory Medicine and German Center of Lung Research (DZL), Hannover Medical School, Hannover, Germany. Additional authors for this research include J. Behr, M. Held, E. Grunig, C.D. Vizza, A. Vonk-Noordegraaf, T.J. Lange, M. Claussen, C. Grohe, H. Klose, K.M. Olsson, T. Zelniker, C. Neurohr, O. Distler, H. Wirtz, C. Opitz, D. Huscher, D. Pittrow and J Gibbs.

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Keywords for this news article include: Europe, Germany, Therapy, Hannover, Pulmonology, Infectious Disease, Pulmonary Hypertension, Respiratory Tract Infections, Idiopathic Interstitial Pneumonias, Cardiovascular Diseases and Conditions, Interstitial Lung Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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Data from Harvard School of Medicine Provide New Insights into Cardiovascular Research (The association of lean and fat mass with all-cause mortality in older adults: The Cardiovascular Health Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Research. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Understanding contributions of lean and fat tissue to cardiovascular and non-cardiovascular mortality may help clarify areas of prevention in older adults. We aimed to define distributions of lean and fat tissue in older adults and their contributions to cause-specific mortality."

Funders for this research include National Heart, Lung, and Blood Institute (NHLBI), National Institute of Neurological Disorders and Stroke (NINDS), National Institute on Aging (NIA).

Our news editors obtained a quote from the research from the Harvard School of Medicine, "A total of 1335 participants of the Cardiovascular Health Study (CHS) who underwent dual-energy x-ray absorptiometry (DEXA) scans were included. We used principal components analysis (PCA) to define two independent sources of variation in DEXA-derived body composition, corresponding to principal components composed of lean ('lean PC') and fat ('fat PC') tissue. We used Cox proportional hazards regression using these PCs to investigate the relationship between body composition with cardiovascular and non-cardiovascular mortality. Mean age was 76.2 ± 4.8 years (56% women) with mean body mass index 27.1 ± 4.4 kg/m². A greater lean PC was associated with lower all-cause (HR = 0.91, 95% CI 0.84-0.98, P = 0.01) and cardiovascular mortality (HR = 0.84, 95% CI 0.74-0.95, P = 0.005). The lowest quartile of the fat PC (least adiposity) was associated with a greater hazard of all-cause mortality (HR = 1.24, 95% CI 1.04-1.48, P = 0.02) relative to fat PCs between the 25th-75th percentile, but the highest quartile did not have a significantly greater hazard (P = 0.70). Greater lean tissue mass is associated with improved cardiovascular and overall mortality in the elderly. The lowest levels of fat tissue mass are linked with adverse prognosis, but the highest levels show no significant mortality protection."

According to the news editors, the research concluded: "Prevention efforts in the elderly frail may be best targeted toward improvements in lean muscle mass."


The news editors report that additional information may be obtained by contacting A. Spahillari, Harvard Med Sch, Beth Israel Deaconess Med Center, Div Cardiol, Boston, MA 02114, United States. Additional authors for this research include K.J. Mukamal, C. DeFilippi, J.R. Kizer, J.S. Gottdiener, L. Djousse, M.F. Lyles, T.M. Bartz, V.L. Murthy and R.V. Shah.

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Keywords for this news article include: Boston, Massachusetts, United States, North...
and Central America, Cardiovascular Research, Cardiovascular, Cardiology, Harvard School of Medicine.

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Cardiovascular Diseases and Conditions -...

Data from Heart of England Foundation Trust Provide New Insights into Hypertension (The use of carbon dioxide angiography for renal sympathetic denervation: a technical report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Hypertension. According to news reporting out of Birmingham, United Kingdom, by NewsRx editors, research stated, "Hypertension is the leading attributable cause of cardiovascular mortality worldwide. Patients with hypertension have multiple comorbidities including high rates of concomitant renal disease."

Our news journalists obtained a quote from the research from the Heart of England Foundation Trust, "Current pharmacological approaches are inadequate in the treatment of resistant hypertension. Renal sympathetic denervation (RDN) has been shown to effectively treat resistant hypertension. The traditional use of iodinated contrast in RDN is contraindicated in patients with significant renal insufficiency. In patients with renal impairment, carbon dioxide (CO2) can be used as an alternative contrast material for RDN. This article describes the technical aspects of RDN using CO2 angiography. Our centre is experienced in the innovative RDN procedure using CO2 angiography. We describe the protocol for CO2 angiography for RDN using a home-made CO2 delivery system and the Symplicity ™ (Minneapolis MN 55432 USA) catheter (Medtronic) device. CO2 angiography is an excellent alternative to iodinated contrast for RDN procedures. CO2 angiography for RDN is a safe and effective alternative to iodinated contrast. RDN using CO2 angiography is an easy and feasible procedure that can be used in patients with renal insufficiency or iodinated contrast allergies. Advances in knowledge: There is a paucity of descriptive reports for CO2 angiography for RDN and we provide details of the optimal protocol for the procedure."

According to the news editors, the research concluded: "In particular, we describe the use of a Symplicity Spyral ™ catheter (Medtronic), which has not been reported to date for use in this procedure."


Our news journalists report that additional information may be obtained by contacting A. Ganeshan, Heart England Fdn Trust, Dept. of Radiol, Birmingham, W Midlands, United Kingdom. Additional authors for this research include M.A. Hameed, I. Dasgupta, E.T.D. Hoey, J. Freedman and A. Ganeshan.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Cardiovascular Diagnostic Techniques, Inorganic Carbon Compounds, Carbon Dioxide, Hypertension, Angiography, Cardiology, Nephrology, Chemicals, Kidney, Heart of England Foundation Trust.
Adenocarcinomas

Data from Hebei Medical University Provide New Insights into Adenocarcinomas (Decreased Expression and Frequent Promoter Hypermethylation of RASSF2 and RASSF6 Correlate With Malignant Progression and Poor Prognosis of Gastric Cardia ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Adenocarcinomas. According to news reporting out of Shijiazhuang, People's Republic of China, by NewsRx editors, research stated, "The RAS-association domain family (RASSF) consists of 10 members, and several members act as tumor suppressor genes and epigenetically inactivated in different tumor types. The present study investigated the role and methylation status of RASSF2, RASSF3, RASSF4, and RASSF6 in the pathogenesis and prognosis of GCA."

Our news journalists obtained a quote from the research from Hebei Medical University, "Quantitative real-time RTPCR, Western blot, and immunohistochemistry (IHC) methods were used respectively to detect the expression of RASSF2, RASSF3, RASSF4, and RASSF6 in 135 GCA cases and BS-MSP method was used to clarify the methylation status of these four genes. Decreased mRNA and protein expression of RASSF2, RASSF3, RASSF4, and RASSF6 were detected in GCA tumor tissues. Aberrant CpG island methylation of RASSF2, RASSF4, and RASSF6 were detected in GCA tumor tissues and were inversely correlated with the expression levels of these genes. Both of RASSF2 and RASSF6 expression and methylation were associated with TNM stage, depth of invasion, LN metastasis, distant metastasis or recurrence, and UGIC family history. GCA patients with simultaneous negative protein expression of RASSF2 and RASSF6 or with simultaneous methylation of both genes demonstrated poor patient survival. These results suggest that down-regulation of RASSF2, RASSF3, RASSF4, and RASSF6 is a tumor-specific phenomenon and the inactivation of RASSF2 and RASSF6 may be associated with tumor progression. Inactivation of RASSF2, RASSF4, and RASSF6 through CpG island methylation may play important roles in GCA carcinogenesis."

According to the news editors, the research concluded: "A combination of RASSF2 and RASSF6 expression or hypermethylation may serve as useful prognostic biomarker for GCA."


Our news journalists report that additional information may be obtained by contacting Z.M. Dong, Hebei Medical University, Hosp 4, Hebei Canc Inst, Pathol Lab, Shijiazhuang 050011, Hebei, People's Republic of China. Additional authors for this research include Z.M. Dong, Y.L. Guo, S.P. Shen, X. Guo, G. Kuang and Z.B. Yang. Keywords for this news article include: Shijiazhuang, People's Republic of China,
Data from Hebei Medical University Provide New Insights into Carcinomas (Enhancement of Drug Sensitivity by Knockdown of HIF-1a in Gastric Carcinoma Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Carcinomas have been presented. According to news reporting from Shijiazhuang, People's Republic of China, by NewsRx journalists, research stated, "In this study, the effects of hypoxia-inducible factor-1a (HIF-1a) on gastric carcinoma (GC) drug resistance through apoptosis-related genes are investigated. First, HIF-1a-specific siRNA was synthetized and transfected into drug-resistant GC cell line OCUM-2MD3/L-OHP."

The news correspondents obtained a quote from the research from Hebei Medical University, "Then MTT assay was applied to test the inhibition rate of GC cells by 5-fluourouracil (5-FU) and oxaliplatin (L-OHP). After that, flow cytometry (FCM) was applied to measure apoptosis rate. qPCR and Western blot assay were employed to detect HIF-1a and apoptosis-related genes. HIF-1a in OCUM-2MD3/L-OHP cells was higher than that in OCUM-2MD3 and gastric epithelial cells. After HIF-1a-siRNA transfection, inhibition rates of 5-FU and L-OHP to tumor cells increased significantly. FCM results showed that apoptosis rate of OCUM-2MD3/L-OHP cells increased significantly. After HIF-1a-siRNA transfection, survivin and Bcl-2 decreased, whereas Bax, caspase 3, and caspase 8 increased significantly. Results from this study seem to confirm that HIF-1a getting involved in GC drug resistance is possibly due to its regulation of some apoptosis-related genes."

According to the news reporters, the research concluded: "HIF-1a may be a potential target to reverse drug resistance of GC."

For more information on this research see: Enhancement of Drug Sensitivity by Knockdown of HIF-1a in Gastric Carcinoma Cells. Oncology Research, 2016;23(3):129-36.

Our news journalists report that additional information may be obtained by contacting Q. Zhao, Dept. of General Surgery, the Fourth Affiliated Hospital, Hebei Medical University, Shijiazhuang, People's Republic of China. Additional authors for this research include B.B. Tan, Y. Li, L.Q. Fan, P.G. Yang and Y. Tian.

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Keywords for this news article include: Asia, Biotechnology, siRNA, Caspase, Genetics, Oncology, Apoptosis, Carcinomas, Shijiazhuang, Drug Resistance, Drugs and Therapies, Enzymes and Coenzymes, Small Interference RNAs, People's Republic of China.

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Data from Helen Hayes Hospital Provide New Insights into Osteoporosis (A Longitudinal Study of Skeletal Histomorphometry at 6 and 24 Months Across Four Bone Envelopes in Postmenopausal Women With Osteoporosis Receiving Teriparatide or ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Osteoporosis. According to news originating from West Haverstraw, New York, by NewsRx correspondents, research stated, "Previously, we reported the effects of teriparatide (TPTD) and zoledronic acid (ZOL) on bone formation based on biochemical markers and bone histomorphometry of the cancellous envelope at month 6 in postmenopausal women with osteoporosis who participated in the 12-month primary Skeletal Histomorphometry in Subjects on Teriparatide or Zoledronic Acid Therapy (SHOTZ) study. Patients were eligible to enter a 12-month extension on their original treatment regimen: TPTD 20mg/day (s.c. injection) or ZOL 5mg/year (i.v. infusion)."

Our news journalists obtained a quote from the research from Helen Hayes Hospital, "A second biopsy was performed at month 24. Here we report longitudinal changes between and within each treatment group in the cancellous, endocortical, intracortical, and periosteal bone envelopes in patients with evaluable biopsies at months 6 and 24 (paired data set: TPTD, n = 10; ZOL, n = 9). Between-group differences are also reported in the larger set of patients with evaluable biopsies at month 6 (TPTD, n = 28; ZOL, n = 30). Data from the cancellous envelope at month 6 or month 24 provided a reference to compare differences across envelopes within each treatment group. The 24-month results extend our earlier report that TPTD and ZOL possess different tissue-level mechanisms of action. Moreover, these differences persisted for at least 2 years in all four bone envelopes. Few longitudinal differences were observed within or across bone envelopes in ZOL-treated patients, suggesting that the low bone formation indices at month 6 persisted to month 24. Conversely, the magnitude of the effect of TPTD on bone formation varied across individual envelopes: median values for mineralizing surface (MS/BS) and bone formation rate (BFR/BS) at month 6 were approximately 3-fold to 5-fold higher in the endocortical and intracortical envelopes compared to the cancellous envelope. Although MS/BS and BFR/BS declined in these envelopes at month 24, median values continued to exceed, or were not significantly different from, those in the cancellous envelope. This study demonstrates for the first time that bone formation indices are higher with TPTD treatment than with ZOL in all four bone envelopes and the difference persists for at least 2 years."

According to the news editors, the research concluded: "Moreover, the magnitude of the effect of TPTD in cortical bone remains robust at 24 months."


The news correspondents report that additional information may be obtained from D.W. Dempster, Helen Hayes Hosp, Reg Bone Center, West Haverstraw, NY 10993, United

Keywords for this news article include: West Haverstraw, New York, United States, North and Central America, Musculoskeletal Diseases and Conditions, Metabolic Bone Diseases and Conditions, Parathyroid Hormone and Analogs, Drugs and Therapies, Peptide Proteins, Zoledronic Acid, Bisphosphonates, Pharmaceuticals, Bone Research, Teriparatide, Osteoporosis, Hormones, Helen Hayes Hospital.

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Nephrology

Data from Huazhong University of Science and Technology Advance Knowledge in Nephrology (Blocking protein phosphatase 2A signaling prevents endothelial-to-mesenchymal transition and renal fibrosis: a peptide-based drug therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nephrology. According to news reporting originating in Hubei, People's Republic of China, by NewsRx journalists, research stated, "Endothelial-to-mesenchymal transition (EndMT) contributes to the emergence of fibroblasts and plays a significant role in renal interstitial fibrosis. Protein phosphatase 2A (PP2A) is a major serine/threonine protein phosphatase in eukaryotic cells and regulates many signaling pathways."

The news reporters obtained a quote from the research from the Huazhong University of Science and Technology, "However, the significance of PP2A in EndMT is poorly understood. In present study, the role of PP2A in EndMT was evaluated. We demonstrated that PP2A activated in endothelial cells (EC) during their EndMT phenotype acquisition and in the mouse model of obstructive nephropathy (i.e., UUO). Inhibition of PP2A activity by its specific inhibitor prevented EC undergoing EndMT. Importantly, PP2A activation was dependent on tyrosine nitration at 127 in the catalytic subunit of PP2A (PP2Ac). Our renal-protective strategy was to block tyrosine127 nitration to inhibit PP2A activation by using a mimic peptide derived from PP2Ac conjugating a cell penetrating peptide (CPP: TAT), termed TAT-Y127WT. Pretreatment with TAT-Y127WT was able to prevent TGF-b1-induced EndMT. Administration of the peptide to UUO mice significantly ameliorated renal EndMT level, with preserved density of peritubular capillaries and reduction in extracellular matrix deposition."

According to the news reporters, the research concluded: "Taken together, these results suggest that inhibiting PP2Ac nitration using a mimic peptide is a potential preventive strategy for EndMT in renal fibrosis."

For more information on this research see: Blocking protein phosphatase 2A signaling prevents endothelial-to-mesenchymal transition and renal fibrosis: a peptide-based drug therapy. Scientific Reports, 2016;6():19821. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting Y. Deng, Division of Nephrology, Dept. of Internal Medicine, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, Hubei,
People's Republic of China. Additional authors for this research include Y. Guo, P. Liu, R. Zeng, Y. Ning, G. Pei, Y. Li, M. Chen, S. Guo, X. Li, M. Han and G. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19821. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Hubei, Kidney, Peptides, Proteins, Nephrology, Proteomics, Drugs and Therapies, People's Republic of China.

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Cardiology

Data from Institute of Anesthesiology Advance Knowledge in Cardiology (Evaluation of a New Sonoclot Device for Heparin Management in Cardiac Surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news reporting originating in Zurich, Switzerland, by NewsRx journalists, research stated, "Sonoclot is used to measure kaolin-based activated clotting time (kACT) for heparin management. Apart from measuring kACT, the device assesses the patient's coagulation status by glass bead-activated tests (gbACTs; measuring also clot rate [CR] and platelet function [PF])."

The news reporters obtained a quote from the research from the Institute of Anesthesiology, "Recently, a new version of the Sonoclot has been released, and the redesign may result in performance changes. The aim of this study was to evaluate and compare the performance of the new (S2) and the previous (S1) Sonoclot. The S1 was used in the routine management of 30 patients undergoing elective cardiac surgery. Blood samples were taken at baseline (T1), after heparin administration (200 U/kg, 100 U/kg; T2 and T3), during cardiopulmonary bypass (T4), after protamine infusion (T5), and before intensive care unit transfer (T6). Kaolin-based activated clotting time and gbACTs were measured in duplicate by both the old and the new device and performance compared by Bland-Altman analysis and percentage error calculation. A total of 300 kACT and 180 gbACTs were available. Bland-Altman analysis for kACT revealed that S2 consistently reported results in shorter time compared to S1 (overall = -14.7%). Comparing S2 and S1, the glass bead-activated tests showed mean percentage differences of -18.9% (gbACTs), +37.4% (CR), and -3.7% (PF). Since clotting is faster in the new S2 compared to S1, shorter clotting times have to be considered in clinical practice."

According to the news reporters, the research concluded: "The use of S2 kACT in heparin management will result in higher heparin and protamine dosing unless heparin kACT target values are adjusted to correct for the differences in results between S1 and S2."


Our news correspondents report that additional information may be obtained by contacting C.K. Hofer, Triemli City Hosp, Inst Anaesthesiol & Intens Care Med, CH-8063 Zurich, Switzerland. Additional authors for this research include M.T. Ganter, A. Zientara, K.
Graves, R. Behr, M. Genoni and C.K. Hofer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1076029616651148. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zurich, Switzerland, Europe, Cardiac Surgery, Medical Devices, Cardio Device, Cardiology, Institute of Anesthesiology.

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Heart Disorders and Diseases - Heart Failure

Data from Institute of Environmental Medicine Advance Knowledge in Heart Failure (Adherence to a Mediterranean diet is associated with reduced risk of heart failure in men)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Failure are presented in a new report. According to news reporting from Stockholm, Sweden, by NewsRx journalists, research stated, "We examined the hypothesis that high adherence to a Mediterranean diet reduces the risk of developing heart failure (HF) as well as the risk of death from HF. The study population comprised 37 308 men from the Cohort of Swedish Men who were free from cardiovascular disease at baseline."

Financial supporters for this research include Vetenskapsradet, Karolinska Institutet.

The news correspondents obtained a quote from the research from the Institute of Environmental Medicine, "The modified Mediterranean diet (mMED) score was created from a self-administered food frequency questionnaire, based on consumption of presumed beneficial/detrimental foods, on a 0-8 scale. Incident HF events were ascertained by linkage to the Swedish National Patient and the Cause of Death Registers. Relative risks (RR) with 95% confidence intervals (CI), adjusted for potential confounders, were estimated by Cox proportional hazards regression models. We identified 146 deaths from HF and 1269 incident HF events over a median follow-up of 10.9 years (1998-2008). The mMED score was inversely associated with risk of HF (multivariable RR for the highest vs. lowest quartile 0.69, 95% CI 0.57, 0.83); the corresponding RR of HF mortality was 0.55 (95% CI 0.31, 0.98). The multivariable RR for every two-point increment in the mMED score was 0.85 (95% CI 0.78, 0.91) for incidence of HF and 0.78 (95% CI 0.62, 0.98) for mortality from HF, respectively. High adherence to a Mediterranean diet was associated with a lower risk of HF and mortality from HF in men."

According to the news reporters, the research concluded: "Further studies are needed to replicate these findings in other populations."


Our news journalists report that additional information may be obtained by contacting T.G. Tektonidis, Unit of Nutritional Epidemiology, Institute of Environmental Medicine (IMM), Karolinska Institutet, Nobels vag 13, Box 210, SE-171 77, Stockholm, Sweden. Additional authors for this research include A. Akesson, B. Gigante, A. Wolk and S.C
Larsson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ejhf.481. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Stockholm, Cardiology, Heart Disease, Heart Failure, Diet and Nutrition, Mediterranean Diet, Risk and Prevention, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Heart Disorders and Diseases - Atrial Fibrillation
Data from Jagiellonian University Provide New Insights into Atrial Fibrillation (A comparison of minimally invasive and standard aortic valve replacement)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Atrial Fibrillation have been presented. According to news reporting from Krakow, Poland, by NewsRx journalists, research stated, "The study objective was to compare aortic valve replacement through a right anterior minithoracotomy with aortic valve replacement through a median sternotomy. With propensity score matching, we selected 211 patients after aortic valve replacement through a right anterior minithoracotomy and 211 patients after aortic valve replacement who underwent operation between January 2010 and December 2013."

The news correspondents obtained a quote from the research from Jagiellonian University, "Perioperative outcomes were analyzed, and multivariable logistic regression analysis of risk factors of postoperative morbidity was performed. For propensity score-matched patients, hospital mortality was 1.0% in the aortic valve replacement through a right anterior minithoracotomy group and 1.4% in the aortic valve replacement group (P = 1.000). Stroke occurred in 0.5% versus 1.4% (P = .615), myocardial infarction occurred in 1.4% versus 1.9% (P = 1.000), and new onset of atrial fibrillation occurred in 12.8% versus 24.2% (P = .003) of patients in the aortic valve replacement through a right anterior minithoracotomy and aortic valve replacement groups, respectively. Postoperative drainage was 353.5 +/- 248.6 mL versus 544.3 +/- 324.5 mL (P< .001) and blood transfusion was required for 48.8% versus 67.3%(P< .001) of patients in the aortic valve replacement through a right anterior minithoracotomy and aortic valve replacement groups, respectively. Mediastinitis occurred in 2.8% of patients after aortic valve replacement and in 0.0% of patients after aortic valve replacement through a right anterior minithoracotomy surgery (P = .040). Intensive care unit stay (1.3 +/- 1.2 days vs 2.6 +/- 2.6 days) and hospital stay (5.7 +/- 1.6 days vs 8.7 +/- 4.4 days) were statistically significantly shorter in the aortic valve replacement through a right anterior minithoracotomy group. Aortic valve replacement through a right anterior minithoracotomy surgery resulted in reduced postoperative morbidity (odds ratio, 0.4; P< .001) and postoperative bleeding and blood transfusion requirements (odds ratio, 0.4; P<. 001)."

According to the news reporters, the research concluded: "Aortic valve replacement through a right anterior minithoracotomy surgery resulted in a reduced infection rate, diminished postoperative bleeding and blood transfusion requirements, reduced occurrence of new onset of atrial fibrillation, and shorter intensive care unit and hospital stays."

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Atrial Fibrillation have been presented. According to news reporting from Krakow, Poland, by NewsRx journalists, research stated, "The study objective was to compare aortic valve replacement through a right anterior minithoracotomy with aortic valve replacement through a median sternotomy. With propensity score matching, we selected 211 patients after aortic valve replacement through a right anterior minithoracotomy and 211 patients after aortic valve replacement who underwent operation between January 2010 and December 2013."

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According to the news reporters, the research concluded: "Aortic valve replacement through a right anterior minithoracotomy surgery resulted in a reduced infection rate, diminished postoperative bleeding and blood transfusion requirements, reduced occurrence of new onset of atrial fibrillation, and shorter intensive care unit and hospital stays."

Our news journalists report that additional information may be obtained by contacting J. Stolinski, Jagiellonian Univ Cracow, Dept. of Cardiovasc Surg & Transplantol, John Paul II Hosp, PL-31202 Krakow, Poland. Additional authors for this research include D. Plicner, G. Grudzien, M. Wasowicz, R. Musial, J. Andres and B. Kapelak.

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Keywords for this news article include: Krakow, Poland, Europe, Surgery, Risk and Prevention, Heart Disorders and Diseases, Transfusion Medicine, Atrial Fibrillation, Cardiac Arrhythmias, Biological Therapy, Blood Transfusion, Medical Devices, Heart Disease, Hospital, Jagiellonian University.

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Oncology - Gastric Cancer

Data from Jilin University Advance Knowledge in Gastric Cancer

[MicroRNA-520f suppresses growth of gastric carcinoma cells by target ATPase family AAA domain-containing protein 2 (ATAD2)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Gastric Cancer are discussed in a new report. According to news originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "MicroRNAs (miRNAs) are small, non-coding RNAs that can serve as tumor suppressor genes or oncogenes in tumorigenesis. More and more evidence demonstrate that abnormal expression of miRNAs lead to the gastric carcinoma occurrence."

Our news journalists obtained a quote from the research from Jilin University, "In the present study, we revealed that the expression levels of miR-520f were significantly down-regulated in gastric carcinoma cells and clinical gastric carcinoma samples. Next, we demonstrated that introduction of miR-520f inhibited the growth of gastric carcinoma cells in vitro. However, down-regulate the expression levels of miR-520f by anti-miR-520f lead to an enhanced cell proliferation, implying that miR-520f maybe serve as a novel tumor suppressor. Moreover, we found that ATPase family AAA domain-containing protein 2 (ATAD2) was one target genes of miR-520f downstream regulator, which caused the decreased expression of ATAD2. Meanwhile, the overexpression of ATAD2 reversed the inhibited proliferation ability caused by miR-520f."

According to the news editors, the research concluded: "Therefore, our find that miR-520f involves in gastric carcinoma proliferation, pointing a therapeutic probability of miR-520f in the therapy of gastric carcinoma."

For more information on this research see: MicroRNA-520f suppresses growth of gastric carcinoma cells by target ATPase family AAA domain-containing protein 2 (ATAD2).
Pharmacokinetics

Data from Jilin University Advance Knowledge in Pharmacokinetics (Simultaneous Determination of Formononetin, Calycosin and Rhamnocitrin from Astragalus Complanatus by UHPLC-MS-MS in Rat Plasma: Application to a Pharmacokinetic Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacokinetics. According to news reporting originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "This assay provided a novel and generally applicable method to simultaneously determine formononetin, calycosin and rhamnocitrin in rat plasma based on ultra-high performance liquid chromatography with tandem mass spectrometry. A single step of protein precipitation procedure with methanol was utilized, and luteolin was chosen as an internal standard."

Our news editors obtained a quote from the research from Jilin University, "Chromatographic separation was achieved using a Waters Symmetry-C-18 column, and the applied isocratic elution program allowed for the simultaneous determination of the three flavones in a one-step chromatographic separation with a total run time of 3.5 min. The fully validated methodology for the analytes demonstrated high sensitivity, good accuracy and precision. The average recoveries of the analytes and internal standard were all above 91.0% and no obvious matrix effect was observed. This method was successfully applied to the preclinical pharmacokinetic studies of formononetin, calycosin and rhamnocitrin in rats."

According to the news editors, the research concluded: "The results would be helpful to provide some references to clinical application of this herb."


The news editors report that additional information may be obtained by contacting L.
Data from Johns Hopkins University Advance Knowledge in Small Molecule Inhibitors (Small Molecule Inhibitor of NRF2 Selectively Intervenes Therapeutic Resistance in KEAP1-Deficient NSCLC Tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Small Molecule Inhibitors have been presented. According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "Loss of function mutations in Kelch-like ECH Associated Protein 1 (KEAP1), or gain-of-function mutations in nuclear factor erythroid 2-related factor 2 (NRF2), are common in non-small cell lung cancer (NSCLC) and associated with therapeutic resistance. To discover novel NRF2 inhibitors for targeted therapy, we conducted a quantitative high-throughput screen using a diverse set of 400,000 small molecules (Molecular Libraries Small Molecule Repository Library, MLSMR) at the National Center for Advancing Translational Sciences."

Funders for this research include U.S. Department of Health and Human Services, Flight Attendant Medical Research Institute.

The news correspondents obtained a quote from the research from Johns Hopkins University, "We identified ML385 as a probe molecule that binds to NRF2 and inhibits its downstream target gene expression. Specifically, ML385 binds to Nehl, the Cap 'N' Collar Basic Leucine Zipper (CNC-bZIP) domain of NRF2, and interferes with the binding of the V-Maf Avian Musculoaponeurotic Fibrosarcoma Oncogene Homologue G (MAFG)-NRF2 protein complex to regulatory DNA binding sequences. In clonogenic assays, when used in combination with platinum-based drugs, doxorubicin or taxol, ML385 substantially enhances cytotoxicity in NSCLC cells, as compared to single agents. ML385 shows specificity and selectivity for NSCLC cells with KEAP1 mutation, leading to gain of NRF2 function. In preclinical models of NSCLC with gain of NRF2 function, ML385 in combination with carboplatin showed significant antitumor activity."

According to the news reporters, the research concluded: "We demonstrate the discovery and validation of ML385 as a novel and specific NRF2 inhibitor and conclude that targeting NRF2 may represent a promising strategy for the treatment of advanced NSCLC."

For more information on this research see: Small Molecule Inhibitor of NRF2 Selectively Intervenes Therapeutic Resistance in KEAP1-Deficient NSCLC Tumors. ACS Chemical Biology, 2016;11(11):3214-3225. ACS Chemical Biology can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Chemical Biology - www.pubs.acs.org/journal/acbcct)

Our news journalists report that additional information may be obtained by contacting A. Singh, Johns Hopkins University, Dept. of Environm Hlth Sci, Bloomberg Sch Public Hlth, Baltimore, MD 21205, United States. Additional authors for this research include
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschembio.6b00651. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Small Molecule Inhibitors, Drugs and Therapies, Genetics, Therapy, Johns Hopkins University.

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Biogenic Amines

Data from Kameda Medical Center Provide New Insights into Biogenic Amines (Moderate vasomotor response to acetylcholine provocation test as an indicator of long-term prognosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biogenic Amines. According to news reporting from Chiba, Japan, by NewsRx journalists, research stated, "The acetylcholine (ACh) provocation test (ACh-test) is used for the diagnosis of vasospastic angina (VSA). However, subjects often show a moderate spasm (MS) response for which diagnosis of VSA is not definitive, and the clinical significance of this response is unknown."

The news correspondents obtained a quote from the research from Kameda Medical Center, "We assessed moderate coronary vasomotor response to the ACh test as an indicator of long-term prognosis. A total of 298 consecutive patients who underwent the ACh test for suspected VSA were retrospectively investigated. Coronary spasm severity after intracoronary administration of isosorbide dinitrate was evaluated by measuring epicardial coronary artery diameter reduction after ACh injection. Patients were divided into three groups according to the diameter reduction during the ACh test: severe spasm (SS) showing <yen >75 % diameter reduction, MS showing <yen >50 % diameter reduction, and others (N). In Kaplan-Meier analysis, the major adverse cardiac event (MACE) rates with a median follow-up of 4.6 years were significantly worse in SS (11.1 %) and MS (8.5 %) than N (1.9 %), (SS vs N; P = 0.009, MS vs N; P = 0.029). Significant difference in MACE rates was not observed between SS and MS (P = 0.534). Cox regression analysis revealed that MS remained an independent predictor of MACE after adjustment for other confounders (HR: 7.18, 95 % CI 1.42-36.4, P = 0.017)."

According to the news reporters, the research concluded: "Patients with MS by ACh test had a cardiac event rate comparable with that of patients with SS and significantly worse than that of patients with normal vasomotor responses."

For more information on this research see: Moderate vasomotor response to acetylcholine provocation test as an indicator of long-term prognosis. Heart and Vessels, 2016;31(12):1943-1949. Heart and Vessels can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

Our news journalists report that additional information may be obtained by contacting M. Hoshino, Kameda Med Center, Dept. of Cardiol, Kamogawa City, Chiba.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00380-016-0827-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chiba, Japan, Asia, Biogenic Amines, Acetylcholine, Cardiology, Kameda Medical Center.

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**Hematologic Diseases and Conditions - Anemia**

**Data from Kaohsiung Medical University Advance Knowledge in Anemia (Protective effects of the roots of Angelica sinensis on strenuous exercise-induced sports anemia in rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematologic Diseases and Conditions - Anemia is now available. According to news originating from Kaohsiung, Taiwan, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: Sports anemia is a persistent and severe problem in athletes owing to strenuous exercise-induced oxidative stress and hepcidin upregulation. The roots of Angelica sinensis (AS), a familiar traditional Chinese medicine, has been used for replenishing blood since antiquity."

Financial support for this research came from Ministry of Science and Technology, Taiwan.

Our news journalists obtained a quote from the research from Kaohsiung Medical University, "Aim of the study: To evaluate the effects of ethanolic AS extract in a 4-week study on sports anemia in female Wistar rats. To induce anemia, a strenuous exercise protocol consisting of running and swimming was employed with increasing intensity. Animals were randomly assigned to the following groups: control group; strenuous exercise group; and strenuous exercise and AS extract-treated group (300 mg kg(-1) d(-1)). After 4 weeks, rats underwent exhaustive swimming and forelimb grip strength test. The blood biochemical markers and hepatic antioxidant activities were determined. Hepatic interleukin-6 and muscle glycogen were observed through immunohistochemical and Periodic acid-Schiff staining, respectively. AS extract (consisting of ferulic acid, Z-ligustilide, and n-butylenephthalide) treatment improved forelimb grip strength and rescued exercise-induced anemia by significantly elevating the red blood cell counts and hemoglobin concentrations as well as hematocrit levels (p < 0.05). AS modulated the iron metabolism through decreasing serum hepcidin-25 concentrations by 33.0% (p < 0.05) and increasing serum iron levels by 343% (p < 0.01). The hepatic injury marker serum alanine aminotransferase concentrations were also reduced, followed by increased antioxidant enzyme catalase expression in the liver (p < 0.05). Furthermore, substantial attenuation of hepatic interleukin-6 expression and preservation of muscle glycogen content suggested the additional roles of AS acting on sports anemia and physical performance."

According to the news editors, the research concluded: "Our findings evidenced a novel and promising therapeutic approach for AS treatment for rescuing the anemic condition.
induced following 4 weeks of strenuous exercise."

For more information on this research see: Protective effects of the roots of Angelica
sinensis on strenuous exercise-induced sports anemia in rats. Journal of Ethnopharmacology,
2016;193():169-178. Journal of Ethnopharmacology can be contacted at: Elsevier Ireland Ltd,
Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier -
www.elsevier.com; Journal of Ethnopharmacology - www.journals.elsevier.com/journal-of-
ethnopharmacology/)

The news correspondents report that additional information may be obtained from
C.W. Chang, Kaohsiung Medical University, Sch Pharm, Kaohsiung 80708, Taiwan. Additional
authors for this research include Y.M. Chen, Y.J. Hsu, C.C. Huang, Y.T. Wu and M.C. Hsu.

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http://dx.doi.org/10.1016/j.jep.2016.08.010. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Kaohsiung, Taiwan, Asia, Hemic and
Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Anemia,
Kaohsiung Medical University.

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**Nephrology**

**Data from Keimyung University Provide New Insights into Nephrology**
**(Fyn deficiency attenuates renal fibrosis by inhibition of phospho-STAT3)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness &
Wellness Week -- Current study results on Nephrology have been published. According to
news reporting originating in Daegu, South Korea, by NewsRx journalists, research stated, "The
hallmark of renal tubulointerstitial fibrosis is the accumulation of myofibroblasts and
extracellular matrix proteins. Fyn, a member of the Src family of kinases, has diverse biological
functions including regulation of mitogenic signaling and proliferation and integrin-mediated
interaction."

The news reporters obtained a quote from the research from Keimyung University,
"Src family proteins promote pulmonary fibrosis by augmenting transforming growth factor-beta
signaling, but their role in renal fibrosis is less understood. We observed upregulation of Fyn in
a renal fibrosis model induced by unilateral ureteral obstruction. Upon ureteral obstruction, Fyn-
deficient mice exhibited attenuated renal fibrosis relative to wild-type mice. Furthermore,
obstruction-induced renal expression of type I collagen, fibronectin, alpha-smooth muscle actin,
and plasminogen activator inhibitor-1 was suppressed. Pharmacologic inhibition of Fyn blocked
induction of extracellular matrix proteins in kidney cell lines. Importantly, the attenuation of
renal fibrosis by Fyn deficiency was not accompanied by changes in the Smad pathway. Rather,
the antifibrotic effect of Fyn deficiency was associated with downregulation of signal transducer
and activator of transcription 3 (STAT3). Small, interfering RNA targeting STAT3 in Fyn-
deficient cells further suppressed alpha-smooth muscle actin expression, whereas a STAT3
activator partially restored plasminogen activator inhibitor-1 expression, indicating that STAT3
signaling is critically involved in this process. Thus, Fyn plays an important role in renal
fibrosis."
According to the news reporters, the research concluded: "Hence, Fyn kinase inhibitors may be therapeutically useful against renal fibrosis."


The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.kint.2016.06.038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daegu, South Korea, Asia, Plasminogen Activator Inhibitor 1, Plasminogen Inactivators, Nephrology, Proteins, Genetics, Kidney, Keimyung University.

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**Data from King Abdul-Aziz University Provide New Insights into Intellectual Disability (A novel mutation in PGAP2 gene causes developmental delay, intellectual disability, epilepsy and microcephaly in consanguineous Saudi family)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Developmental Diseases and Conditions - Intellectual Disability. According to news reporting out of Jeddah, Saudi Arabia, by NewsRx editors, research stated, "PGAP2 (Post-GPI Attachment to Proteins 2) gene is involved in lipid remodeling steps of Glycosylphosphatidylinositol (GPI)-anchor maturation. At the surface of the cell this gene is required for proper expression of GPI-anchored proteins."

Financial support for this research came from King Abdulaziz University.

Our news journalists obtained a quote from the research from King Abdul-Aziz University, "Hyperphosphatasia with mental retardation syndrome-3 is an autosomal recessive disorder usually characterized by severe mental retardation. Mutations in the PGAP2 gene cause hyperphosphatasia mental retardation syndrome-3. We have identified a large consanguineous family from Saudi origin segregating developmental delay, intellectual disability, epilepsy and microcephaly. Whole exome sequencing with 100x coverage was performed on two affected siblings of the family. Data analysis in the patient revealed a novel missense mutation c.191C>T in PGAP2 gene resulting in Alanine to Valine substitution (Ala64Val). The mutation was reconfirmed and validated by subsequent Sanger sequencing method. The mutation was ruled out in 100 unrelated healthy controls."

According to the news editors, the research concluded: "We suggest that this pathogenic mutation disrupts the proper function of the gene proteins resulting in the disease
state."

For more information on this research see: A novel mutation in PGAP2 gene causes developmental delay, intellectual disability, epilepsy and microcephaly in consanguineous Saudi family. *Journal of the Neurological Sciences*, 2016;371():121-125. *Journal of the Neurological Sciences* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of the Neurological Sciences - www.journals.elsevier.com/journal-of-the-neurological-sciences/)

Our news journalists report that additional information may be obtained by contacting M.I. Naseer, King Abdulaziz Univ, Center Excellence Genom Med Res, Jeddah 21589, Saudi Arabia. Additional authors for this research include M. Rasool, M.M. Jan, A.G. Chaudhary, P.N. Pushparaj, A.M. Abuzenadah and M.H. Al-Qahtani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jns.2016.10.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jeddah, Saudi Arabia, Asia, Musculoskeletal Diseases and Conditions, Genetics, Central Nervous System Diseases and Conditions, Malformations of Cortical Development, Developmental Diseases and Conditions, Craniofacial Diseases and Conditions, Musculoskeletal Abnormalities, Brain Diseases and Conditions, Nervous System Malformations, Craniofacial Abnormalities, Developmental Disabilities, Congenital Abnormalities, Intellectual Disability, Microcephaly, Epilepsy, King Abdul-Aziz University.

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**Life Science Research**

**Data from King's College Provide New Insights into Life Science Research (The Association between Chronic Widespread Musculoskeletal Pain, Depression and Fatigue Is Genetically Mediated)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Life Science Research is the subject of a report. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Chronic widespread musculoskeletal pain (CWP) is prevalent in the general population and associated with high health care costs, so understanding the risk factors for chronic pain is important for both those affected and for society. In the present study we investigated the underlying etiological structure of CWP to understand better the association between the major clinical features of fatigue, depression and dihydroepiandrosterone sulphate (DHEAS) using a multivariate twin design."

The news correspondents obtained a quote from the research from King’s College, "Data were available in 463 UK female twin pairs including CWP status and information on depression, chronic fatigue and serum DHEAS levels. High to moderate heritabilities for all phenotypes were obtained (42.58% to 74.24%). The highest phenotypic correlation was observed between fatigue and CWP (r=0.45), and the highest genetic correlation between CWP and fatigue (rg=0.78). Structural equation modeling revealed the AE Cholesky model to provide the best model of the observed data. In this model, two additive genetic factors could be detected loading heavily on CWP-A2 explaining 40% of the variance and A3 20%. The factor
loading heaviest on DHEAS showed only a small loading on the other phenotypes and none on fatigue at all. Furthermore, one distinct non-shared environmental factor loading specifically on CWP—but not on any of the other phenotypes—could be detected suggesting that the association between CWP and the other phenotypes is due only to genetic factors.”

According to the news reporters, the research concluded: "Our results suggest that CWP and its associated features share a genetic predisposition but that they are relatively distinct in their environmental determinants."


Our news journalists report that additional information may be obtained by contacting A. Burri, Dept. of Twin Research and Genetic Epidemiology, King's College London, St Thomas’ Hospital, London, UK. Additional authors for this research include S. Ogata, G. Livshits and F. Williams.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1371/journal.pone.0140289. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, United Kingdom, Risk and Prevention, Life Science Research.

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**Heart Disorders and Diseases - Heart Failure**

**Data from Kyushu University Provide New Insights into Heart Failure (Deep and future insights into neuromodulation therapies for heart failure)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week — Investigators publish new report on Heart Disorders and Diseases - Heart Failure. According to news originating from Fukuoka, Japan, by NewsRx editors, the research stated, "Major pathophysiology of heart failure is an autonomic nervous system dysfunction as a result of excess sympathoexcitation and/or withdrawal of vagal nerve activity. Although we already have various pharmacological and non-pharmacological therapies for heart failure, survival of heart failure patients remains around 50%.”

Our news journalists obtained a quote from the research from Kyushu University, "To achieve further reductions in morbidity and mortality of heart failure, neuromodulations with devices, such as baroreflex activating therapy, vagal nerve stimulation, renal sympathetic denervation, spinal cord stimulation, and left cardiac sympathetic denervation, have been expected. Although all of these neuromodulations have benefits on heart failure, efficacy, and safety in preclinical and small-sized clinical studies, the benefits on heart failure have been insufficient and controversial compared to our expectations in large-sized randomized trials."

According to the news editors, the research concluded: "However, we should develop and apply these novel therapies for the patients with heart failure in the near future."

For more information on this research see: Deep and future insights into neuromodulation therapies for heart failure. *Journal of Cardiology*, 2016;68(5-6):368-372.
Connective Tissue Diseases and Conditions - Ehlers-…

Data from L. Mackenroth and Colleagues Advance Knowledge in Ehlers-Danlos Syndrome (An overlapping phenotype of Osteogenesis imperfecta and Ehlers-Danlos syndrome due to a heterozygous mutation in COL1A1 and biallelic missense variants in TNXB ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Connective Tissue Diseases and Conditions - Ehlers-Danlos Syndrome. According to news reporting out of Berlin, Germany, by NewsRx editors, research stated, "Osteogenesis imperfecta (OI) and Ehlers-Danlos syndrome (EDS) are variable genetic disorders that overlap in different ways [Cole 1993; Grahame 1999]. Here, we describe a boy presenting with severe muscular hypotonia, multiple fractures, and joint hypermobility, features that are compatible with mild OI and hypermobility type EDS, respectively."

Our news journalists obtained a quote from the research, "By whole exome sequencing, we identified both a COL1A1 mutation (c.4006-1G > A) inherited from the patient's mildly affected mother and biallelic missense variants in TNXB (p.Val1213Ile, p.Gly2592Ser). Analysis of cDNA showed that the COL1A1 splice site mutation led to intron retention causing a frameshift (p.Phe1336Valfs*72). Type 1 collagen secretion by the patient's skin fibroblasts was reduced. Immunostaining of a muscle biopsy obtained from the patient revealed a clear reduction of tenascin-X in the extracellular matrix compared to a healthy control."

According to the news editors, the research concluded: "These findings imply that the combination of the COL1A1 mutation with the TNXB variants might cause the patient's unique phenotype."


Our news journalists report that additional information may be obtained by

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37547. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berlin, Europe, Germany, Skin Abnormalities, Hemostatic Disorders, Hemorrhagic Disorders, Ehlers Danlos Syndrome, Ehlers-Danlos Syndrome, Osteochondrodysplasias, Osteogenesis Imperfecta, Congenital Abnormalities, Bone Diseases and Conditions, Collagen Diseases and Conditions, Vascular Diseases and Conditions.

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Drugs and Therapies - Beta-Adrenergic Blocking...

Data from LUNAM University Provide New Insights into Beta-Adrenergic Blocking Agents (Effect of nebivolol treatment during pregnancy on the intrauterine fetal growth, mortality and pup postnatal development in the L-NAME-induced hypertensive ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Beta-Adrenergic Blocking Agents are presented in a new report. According to news reporting originating in Nantes, France, by NewsRx journalists, research stated, “The present study was carried out to evaluate the effect of nebivolol vs. bisoprolol treatment on the intrauterine fetal growth, mortality and postnatal development in N-omega-Nitro-t-arginine methyl ester hydrochloride (L-NAME)-induced hypertensive rats. Hypertension was induced in normotensive pregnant Wistar rats by daily administration of L-NAME (100 mg/kg/day, in the drinking water) for the period of pregnancy.”

The news reporters obtained a quote from the research from LUNAM University, "After 9 days of L-NAME treatment, rats with systolic and diastolic blood pressure (SBP and DBP) more than 140/90 mmHg were considered hypertensive. Then, some of them were treated from day 11 to day 18 of pregnancy with nebivolol (8 mg/kg/day) or bisoprolol (10 mg/kg/day) via oral gavage. SBP, DBP and heart rate (HR) were re-evaluated by tail cuff method on day 19 of pregnancy and morphometrical or histological studies were performed on day 20. In addition, the mortality and postnatal development of newborn pups were assessed in all groups. The L-NAME administration during pregnancy induced an increase in SBP and DBP while HR did not change. Nebivolol or bisoprolol treatment completely prevented the elevation of SBP and DBP induced by L-NAME with a reduction in HR in pregnant and non-pregnant rats. The intrauterine fetal growth and the postnatal development of newborn rats in nebivolol-treated hypertensive group were significantly lower vs. control and higher vs. bisoprolol-treated group with a higher mortality in the both types of treatments vs. control rats.”

According to the news reporters, the research concluded: "The nebivolol and bisoprolol administration produce adverse effects on fetal growth and postnatal development, that limits their therapeutic use in females during pregnancy."

For more information on this research see: Effect of nebivolol treatment during

Our news correspondents report that additional information may be obtained by contacting J.C. Desfontis, LUNAM Univ, Oniris, UPSP Physiopathol Anim & Pharmacol Fonct 5304, Atlanpole La Chantrerie, F-44307 Nantes, France. Additional authors for this research include M.Y. Mallem, C. Thorin, E. Betti and J.C. Desfontis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.028. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nantes, France, Europe, Beta-Adrenergic Blocking Agents, Phenoxypropanolamines, Cardiovascular Agents, Drugs and Therapies, Bisoprolol Therapy, Organic Chemicals, Antihypertensive, Adrenergic Agent, Amino Alcohols, Propanolamines, Sympatholytic, Nebivolol, LUNAM University.

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Gram-Negative Bacteria - Citrobacter freundii

Data from Laval University Advance Knowledge in Citrobacter freundii [Genome and Plasmid Analysis of bla(IMP-4)-Carrying Citrobacter freundii B38]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Citrobacter freundii. According to news reporting originating from Quebec City, Canada, by NewsRx correspondents, research stated, "Sequencing of the blaIMP-4-carrying C. freundii B38 using the PacBio SMRT technique revealed that the genome contained a chromosome of 5,134,500 bp and three plasmids, pOZ172 (127,005 bp), pOZ181 (277,592 bp), and pOZ182 (18,467 bp). Plasmid pOZ172 was identified as IncFIHY, like pP10164-NDM and pNDM-EcGN174."

Our news editors obtained a quote from the research from Laval University, "It carries a class 1 integron with four cassettes (bla(IMP-4)-qacG2-aacA4-aphA15) and a complete hybrid tni module (tniR-tniQ-tniB-tniA). The recombination of tniR from Tn402 (identical) with tniQBA from Tn5053 (99%) occurred within the res site of Tn402/5053. The Tn402/5053-like integron, named Tn6017, was inserted into Tn1722 at the res II site. The replication, partitioning, and transfer systems of pOZ181 were similar to those of IncHI2 plasmids (e.g., R478) and contained a sulI-type class 1 integron with the cassette array orf-dfrA1-orfgcu37-aadA5 linked to an upstream Tn1696 mpA-tnpR and to a downstream 3' conserved sequence (3'-CS) and ISCR1. A Tn2 transposon encoding a bla(TEM-1) beta-lactamase was identified on pOZ182. Other interesting resistance determinants encoded on the B38 chromosome included multidrug resistance (MDR) efflux pumps, an AmpC beta-lactamase, and resistances to Cu, Ag, As, and Zn. This is the first report of a complete tni module linked to a blat(IMP-4)-carrying class 1 integron, which, together with other recently reported non-sulI integrases, represents the emergence of a distinct evolutionary lineage of class 1 integrions lacking a 3-CS (qacE Delta 1-sulI)."
According to the news editors, the research concluded: "The unique cassette array, complete tni module of Tn6017, and incompatibility group of pOZ172 suggest a blaIMP-4 evolutionary pathway in C. freundii B38 different from that for other blaIMP-4 genes found in Gram-negative bacteria in the Western Pacific region."

For more information on this research see: Genome and Plasmid Analysis of bla (IMP-4)-Carrying Citrobacter freundii B38. Antimicrobial Agents and Chemotherapy, 2016;60 (11):6719-6725. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting P.H. Roy, Laval University, Dept. of Biochim Microbiol & Bioinformat, Quebec City, PQ, Canada. Additional authors for this research include M. Deraspe, N. Iqbal, J. Ma, F.B. Jamieson, J. Wasserscheid, K. Dewar, P.M. Hawkey and P.H. Roy.

Keywords for this news article include: Quebec City, Quebec, Canada, North and Central America, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Bacteria, Enzymes and Coenzymes, Citrobacter freundii, Gammaproteobacteria, Enterobacteriaceae, Proteobacteria, Lactamase, Genetics, Laval University.

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Drugs and Therapies - Imidazole Therapy

**Data from Loma Linda University School of Medicine Provide New Insights into Imidazole Therapy (Flavonol and imidazole derivatives block HPV16 E6 activities and reactivate apoptotic pathways in HPV8314; cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Imidazole Therapy have been published. According to news reporting from Loma Linda, California, by NewsRx journalists, research stated, "High-risk human papillomaviruses (HR-HPVs) cause nearly all cases of cervical cancer, as well as approximately 30% of head and neck cancers. HPV 16 E6, one of two major viral oncogenes, protects cells from apoptosis by binding to and accelerating the degradation of several proteins important in apoptotic signaling, including caspase 8 and p53."

The news correspondents obtained a quote from the research from the Loma Linda University School of Medicine, "We proposed that blocking the interactions between HPV E6 and its partners using small molecules had the potential to re-sensitize HPV(+) cells to apoptosis. To test this idea, we screened libraries of small molecules for candidates that could block E6/caspase 8 binding and identified several candidates from different chemical classes. We tested hits for dose-dependency and specificity in vitro and for toxicity in a cell-based assay and then used this information to select the two best candidates for further testing: myricetin, a flavonol, and spinacine, an imidazole amino-acid derivative of histidine. Both compounds clearly inhibited the ability of E6 to bind in vitro to both caspase 8 and E6AP, the protein that mediates p53 degradation. In addition, both compounds were able to increase the level of caspase 8 and p53 in SiHa cervical cancer cells, resulting in an increase of caspase 3/7 activity. Finally, both myricetin and spinacine sensitized HPV(+) cervical and oral cancer cells, but not.
HPV(-) cervical and oral cancer cells, to apoptosis induced by the cancer-specific ligand TRAIL, as well as the chemotherapeutic agents doxorubicin and cisplatin.

According to the news reporters, the research concluded: "New therapies based on this work may improve treatment for HPV(+) cancer patients."

For more information on this research see: Flavonol and imidazole derivatives block HPV16 E6 activities and reactivate apoptotic pathways in HPV+ cells. Cell Death & Disease, 2016;7():2060. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

Our news journalists report that additional information may be obtained by contacting C.H. Yuan, Dept. of Basic Sciences, Loma Linda University School of Medicine, 11021 Campus Street, 101 Alumni Hall, Loma Linda, CA 92354, United States. Additional authors for this research include M. Filippova, J.L. Krstenansky and P.J Duerksen-Hughes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2015.391. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Oncology, Loma Linda, California, United States, Imidazole Therapy, Cysteine Proteases, Initiator Caspases, Peptide Hydrolases, Drugs and Therapies, Enzymes and Coenzymes, Cysteine Endopeptidases, North and Central America, Apoptosis Regulatory Proteins, Intracellular Signaling Peptides and Proteins.

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Non-Steroidal Anti-Inflammatory Agents

Data from M. Mezzelani and Colleagues Advance Knowledge in Non-Steroidal Anti-Inflammatory Agents [Transcriptional and cellular effects of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) in experimentally exposed mussels, Mytilus ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Non-Steroidal Anti-Inflammatory Agents have been published. According to news reporting originating from Rome, Italy, by NewsRx correspondents, research stated, "The aim of the present investigation was to provide new insights on accumulation and possible adverse effects of various non-steroidal anti-inflammatory drugs (NSAIDs) in mussels, Mytilus gallo-provincialis, exposed to an environmentally realistic concentration (0.5 μg/L) of individual compounds, Acetaminophen (AMP), Diclofenac (DIC), Ibuprofen (IBU), Ketoprofen (KET) or Nimesulide (NIM). The measurement of drugs in mussel tissues was integrated with both functional alterations at cellular level and transcriptomic responses."

Financial support for this research came from EU Project REPROSEED.

Our news editors obtained a quote from the research, "Results indicated the capability of mussels to accumulate DIC and NIM, while AMP, IBU and KET were always below detection limit. A large panel of ecotoxicological biomarkers revealed the early onset of alterations induced by tested NSAIDs on immunological responses, lipid metabolism and DNA integrity. The gene transcription analysis through DNA microarrays, supported cellular biomarker results, with clear modulation of a large number of genes involved in the arachidonic acid and lipid metabolism, immune responses, cell cycle and DNA repair. The overall results
indicated an ecotoxicological concern for pharmaceuticals in M. galloprovincialis, with transcriptional responses appearing as sensitive exposure biomarkers at low levels of exposure: such changes, however, are not always paralleled by corresponding functional effects, suggesting caution when interpreting observed effects in terms of perturbed cellular pathways."

According to the news editors, the research concluded: "Fascinating similarities can also be proposed in the mode of action of NSAIDs between bivalves and vertebrate species."

For more information on this research see: Transcriptional and cellular effects of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) in experimentally exposed mussels, Mytilus galloprovincialis. Aquatic Toxicology, 2016;180():306-319. Aquatic Toxicology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Aquatic Toxicology - www.journals.elsevier.com/aquatic-toxicology/)

The news editors report that additional information may be obtained by contacting F. Regoli, Consorzio Interuniv Sci Mare, CoNISMa, Rome, Italy. Additional authors for this research include S. Gorbi, D. Fattorini, G. d'Errico, M. Benedetti, M. Milan, L. Bargelloni and F. Regoli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.aquatox.2016.10.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Non-Steroidal Anti-Inflammatory Agents, Non-Steroidal AntiInflammatory Agents, Drugs and Therapies.

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**Oncology - Colon Cancer**

**Data from Masaryk University Provide New Insights into Colon Cancer**

*(Activation of autophagy and PPAR gamma protect colon cancer cells against apoptosis induced by interactive effects of butyrate and DHA in a cell type-dependent manner: The ...)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news originating from Brno, Czech Republic, by NewsRx correspondents, research stated, "The short-chain and n-3 polyunsaturated fatty acids exhibit anticancer properties, and they may mutually interact within the colon. However, the molecular mechanisms of their action in colon cancer cells are still not fully understood."

Our news journalists obtained a quote from the research from Masaryk University, "Our study focused on the mechanisms responsible for the diverse effects of sodium butyrate (NaBt), in particular when interacting with docosahexaenoic acid (DHA), in distinct colon cancer cell types, in which NaBt either induces cell differentiation or activates programmed cell death involving mitochondrial pathway. NaBt activated autophagy both in HT-29 cells, which are sensitive to induction of differentiation, and in nondifferentiating HCT-116 cells. However, autophagy supported cell survival only in HT-29 cells. Combination of NaBt with DHA-promoted cell death, especially in HCT-116 cells and after longer time intervals. The inhibition of autophagy both attenuated differentiation and enhanced apoptosis in HT-29 cells treated with NaBt and DHA, but it had no effect in HCT-116 cells. NaBt, especially in combination with DHA, activated PPAR gamma in both cell types. PPAR gamma silencing decreased
differentiation and increased apoptosis only in HT-29 cells, therefore we verified the role of caspases in apoptosis, differentiation and also PPAR gamma activity using a pan-caspase inhibitor. In summary, our data suggest that diverse responses of colon cancer cells to fatty acids may rely on their sensitivity to differentiation, which may in turn depend on distinct engagement of autophagy, caspases and PPAR gamma."

According to the news editors, the research concluded: "These results contribute to understanding of mechanisms underlying differential effects of NaBt, when interacting with other dietary fatty acids, in colon cancer cells."


The news correspondents report that additional information may be obtained from J. Hofmanova, Masaryk University, Dept. of Expt Biol, Fac Sci, Brno, Czech Republic. Additional authors for this research include N. Strakova, J. Vondracek, A.H. Vaculova, A. Kozubik and J. Hofmanova.

Keywords for this news article include: Brno, Czech Republic, Europe, Peroxisome Proliferator-Activated Receptors, Transcription Factors, Cell Differentiation, DNA-Binding Proteins, Organic Chemicals, Carboxylic Acids, Butyric Acids, Colon Cancer, PPAR gamma, Butyrates, Apoptosis, Oncology, Masaryk University.

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**Data from Medical College of Wisconsin Provide New Insights into Congenital Heart Disease (Impact of MYH6 variants in hypoplastic left heart syndrome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Congenital Diseases and Conditions - Congenital Heart Disease is now available. According to news reporting originating in Milwaukee, Wisconsin, by NewsRx journalists, research stated, "Hypoplastic left heart syndrome (HLHS) is a clinically and anatomically severe form of congenital heart disease (CHD). Although prior studies suggest that HLHS has a complex genetic inheritance, its etiology remains largely unknown."

Funders for this research include A Healthier Wisconsin CVC Pilot Award, Wanek Consortium for HLHS, Wolfe Family Foundation, Little Hearts for Life.

The news reporters obtained a quote from the research from the Medical College of Wisconsin, "The goal of this study was to characterize a risk gene in HLHS and its effect on HLHS etiology and outcome. We performed next-generation sequencing on a multigenerational family with a high prevalence of CHD/HLHS, identifying a rare variant in the alpha-myosin heavy chain (MYH6) gene. A case-control study of 190 unrelated HLHS subjects was then performed and compared with the 1000 Genomes Project. Damaging MYH6 variants, including novel, missense, in-frame deletion, premature stop, de novo, and compound heterozygous
variants, were significantly enriched in HLHS cases (P < 1 x 10(-5)). Clinical outcomes analysis showed reduced transplant-free survival in HLHS subjects with damaging MYH6 variants (P < 1 x 10(-2)). Transcriptome and protein expression analyses with cardiac tissue revealed differential expression of cardiac contractility genes, notably upregulation of the beta-myosin heavy chain (MYH7) gene in subjects with MYH6 variants (P < 1 x 10(-3)). We subsequently used patient-specific induced pluripotent stem cells (iPSCs) to model HLHS in vitro. Early stages of in vitro cardiomyogenesis in iPSCs derived from two unrelated HLHS families mimicked the increased expression of MYH7 observed in vivo (P < 1 x 10(-2)), while revealing defective cardiomyogenic differentiation. Rare, damaging variants in MYH6 are enriched in HLHS, affect molecular expression of contractility genes, and are predictive of poor outcome."

According to the news reporters, the research concluded: "These findings indicate that the etiology of MYH6-associated HLHS can be informed using iPSCs and suggest utility in future clinical applications."

For more information on this research see: Impact of MYH6 variants in hypoplastic left heart syndrome. *Physiological Genomics*, 2016;48(12):912-921. *Physiological Genomics* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/physiolgenomics.00091.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milwaukee, Wisconsin, United States, North and Central America, Congenital Diseases and Conditions, Hypoplastic Left Heart Syndrome, Heart Disorders and Diseases, Cardiovascular Abnormalities, Macromolecular Substances, Congenital Heart Defects, Congenital Abnormalities, Congenital Heart Disease, Myosin Heavy Chains, Biopolymers, Cardiology, Genetics, Medical College of Wisconsin.

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Data from Mexican Institute of Social Security Advance Knowledge in Type 2 Diabetes (Adaptation and validation of the Distress Scale for Mexican patients with type 2 diabetes and hypertension: a cross-sectional survey)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news reporting originating from Mexico City, Mexico, by NewsRx correspondents, research stated, "The aim of this study was to adapt and validate the Distress Scale for Mexican patients with type 2 diabetes and hypertension (DSDH17M). Two family medicine clinics affiliated with the Mexican Institute of Social Security."

Our news editors obtained a quote from the research from the Mexican Institute of
Social Security, "722 patients with type 2 diabetes and/or hypertension (235 patients with diabetes, 233 patients with hypertension and 254 patients with both diseases). A cross-sectional survey. The validation procedures included: (1) content validity using a group of experts, (2) construct validity from exploratory factor analysis, (3) internal consistency using Cronbach's a, (4) convergent validity between DSDH17M and anxiety and depression using the Spearman correlation coefficient, (5) discriminative validity through the Wilcoxon rank-sum test and (6) test-retest reliability using intraclass correlation coefficient. The DSDH17M has 17 items and three factors explaining 67% of the total variance. Cronbach a ranged from 0.83 to 0.91 among factors. The first factor of 'Regime-related Distress and Emotional Burden' moderately correlated with anxiety and depression scores. Discriminative validity revealed that patients with obesity, those with stressful events and those who did not adhere to pharmacological treatment had significantly higher distress scores in all DSDH17M domains. Test-retest intraclass correlation coefficient for DSDH17M ranged from 0.92 to 0.97 among factors."

According to the news editors, the research concluded: "DSDH17M is a valid and reliable tool to identify distress of patients with type 2 diabetes and hypertension."

For more information on this research see: Adaptation and validation of the Distress Scale for Mexican patients with type 2 diabetes and hypertension: a cross-sectional survey. Bmj Open, 2016;6(3):e009723. (BMJ Publishing Group - group.bmj.com/; Bmj Open - bmjopen.bmj.com/)

The news editors report that additional information may be obtained by contacting I.P. Martinez-Vega, Epidemiology and Health Services Research Unit, CMN Siglo XXI, Mexican Institute of Social Security, Mexico City, Mexico. Additional authors for this research include S.V. Doubova, R. Aguirre-Hernandez and C. Infante-Castaneda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bmjopen-2015-009723. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mexico City, Hypertension, Type 2 Diabetes, Risk and Prevention, North and Central America, Cardiovascular Diseases and Conditions, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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**Drugs and Therapies - Cancer Therapy**

**Data from NN Blokhin Russian Cancer Research Center Advance Knowledge in Cancer Therapy (Discovery of Compound A--a selective activator of the glucocorticoid receptor with anti-inflammatory and anti-cancer activity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Cancer Therapy. According to news reporting originating in Moscow, Russia, by NewsRx journalists, research stated, "Glucocorticoids are among the most effective anti-inflammatory drugs, and are widely used for cancer therapy. Unfortunately, chronic treatment with glucocorticoids results in multiple side effects."

The news reporters obtained a quote from the research from NN Blokhin Russian Cancer Research Center, "Thus, there was an intensive search for selective glucocorticoid
receptor (GR) activators (SEGRA), which retain therapeutic potential of glucocorticoids, but with fewer adverse effects. GR regulates gene expression by transactivation (TA), by binding as homodimer to gene promoters, or transrepression (TR), via diverse mechanisms including negative interaction between monomeric GR and other transcription factors. It is well accepted that metabolic and atrophogenic effects of glucocorticoids are mediated by GR TA. Here we summarized the results of extensive international collaboration that led to discovery and characterization of Compound A (CpdA), a unique SEGRA with a proven 'dissociating' GR ligand profile, preventing GR dimerization and shifting GR activity towards TR both in vitro and in vivo. We outlined here the unusual story of compound's discovery, and presented a comprehensive overview of CpdA ligand properties, its anti-inflammatory effects in numerous animal models of inflammation and autoimmune diseases, as well as its anti-cancer effects. Finally, we presented mechanistic analysis of CpdA and glucocorticoid effects in skin, muscle, bone, and regulation of glucose and fat metabolism to explain decreased CpdA side effects compared to glucocorticoids."

According to the news reporters, the research concluded: "Overall, the results obtained by our and other laboratories underline translational potential of CpdA and its derivatives for treatment of inflammation, autoimmune diseases and cancer."

For more information on this research see: Discovery of Compound A— a selective activator of the glucocorticoid receptor with anti-inflammatory and anti-cancer activity. *Oncotarget*, 2015;6(31):30730-44.

Our news correspondents report that additional information may be obtained by contacting E. Lesovaya, Dept. of Chemical Carcinogenesis, NN Blokhin Russian Cancer Research Center, Moscow, Russia. Additional authors for this research include A. Yemelyanov, A.C. Swart, P. Swart, G. Haegeman and I. Budunova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5078. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Moscow, Russia, Eurasia, Genetics, Oncology, Immunology, Inflammation, Article Review, Cancer Therapy, Glucocorticoids, Drugs and Therapies, Adrenal Cortex Hormones, Autoimmune Diseases and Conditions, Immune System Diseases and Conditions.

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**Drugs and Therapies - Genitourinary Tract Agents**

**Data from National Autonomous University Advance Knowledge in Genitourinary Tract Agents (The potential role of serotonergic mechanisms in the spinal oxytocin-induced antinociception)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Genitourinary Tract Agents. According to news reporting from Queretaro, Mexico, by NewsRx journalists, research stated, "The role of oxytocin (OXT) in pain modulation has been suggested. Indeed, hypothalamic paraventricular nuclei (PVN) electrical stimuli, reduce the nociceptive neuronal activity (i.e., neuronal discharge associated with activation of A delta- and C-fibers) of the spinal dorsal horn wide dynamic range (WDR) cells and nociceptive behavior."
Funders for this research include Consejo Nacional de Ciencia y Tecnología, PAPIIT.

The news correspondents obtained a quote from the research from National Autonomous University, "Furthermore, raphe magnus nuclei lesion reduces the PVN-induced antinociception, suggesting a functional interaction between the OXT and the serotoninergic system. The present study investigated in Wistar rats the potential role of spinal serotoninergic mechanisms in the OXT- and PVN-induced antinociception. In long-term secondary mechanical allodynia and hyperalgesia induced by formalin or extracellular unitary recordings of the WDR cells we evaluated the role of 5-hydroxytryptamine (5-HT) effect on the OXT-induced antinociception. All drugs were given intrathecally (i.t.). OXT (1 x 10(-5)-1 x 10(-4) nmol) or 5-HT (1 x 10(-3)-1 x 10(-1) nmol) prevented the formalin-induced sensitization, an effect mimicked by PVN stimulation. Moreover, administration of OXT (1 x 10(-5) nmol) plus 5-HT (1 x 10(-3) nmol) at ineffective doses, produced antinociception. This effect was antagonized by: (i) d(CH2)(5)[Tyr(Me)(2),Thr(4),Tyr-NH29]OVT (oxytocin receptor antagonist; 2 x 10(-2) nmol); or (ii) methiothepin (a non-specific 5-H-1/2/5/6/7 receptor antagonist; 80 nmol). Similar results were obtained with PVN stimulation plus 5-HT (5 x 10(-5) nmol). In WDR cell recordings, the PVN-induced antinociception was enhanced by i.t. 5-HT and partly blocked when the spinal cord was pre-treated with methiothepin (80 nmol)."

According to the news reporters, the research concluded: "Taken together, these results suggest that serotoninergic mechanisms at the spinal cord level are partly involved in the OXT-induced antinociception."

For more information on this research see: Neuropeptides, 2016:60():51-60. Neuropeptides can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Neuropeptides - www.journals.elsevier.com/neuropeptides/)

Our news journalists report that additional information may be obtained by contacting A. Gonzalez-Hernandez, National Autonomous University of Mexico, Inst Neurobiol, Dept. of Neurobiol Desarrollo & Neurofisiol, Queretaro 76230, Qro, Mexico. Additional authors for this research include G. Martinez-Lorenzana, J. Rodriguez-Jimenez, A. Manzano-Garcia, G. Rojas-Piloni, M. Condes-Lara and A. Gonzalez-Hernandez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.npep.2016.07.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Queretaro, Mexico, North and Central America, Posterior Pituitary Hormones, Genitourinary Tract Agents, Drugs and Therapies, Uterotonic Agents, Peptide Proteins, Peptide Hormones, Oxytocin Therapy, Pharmaceuticals, National Autonomous University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Hepatitis. According to news reporting out of Hsinchu, Taiwan, by NewsRx editors, research stated, "Hepatitis B viral (HBV) infection is strongly associated with an increased risk of liver diseases like cirrhosis or hepatocellular carcinoma (HCC). Many lines of evidence suggest that deletions occurring in HBV genomic DNA are highly associated with the activity of HBV via the interplay between aberrant viral proteins release and human immune system."

Financial support for this research came from Ministry of Science and Technology, Taiwan.

Our news journalists obtained a quote from the research from National Chiao Tung University, "Deletions finding on the HBV whole genome sequences is thus a very important issue though there exist underlying the challenges in mining such big and complex biological data. Although some next generation sequencing (NGS) tools are recently designed for identifying structural variations such as insertions or deletions, their validity is generally committed to human sequences study. This design may not be suitable for viruses due to different species. We propose a graphics processing unit (GPU)-based data mining method called DeF-GPU to efficiently and precisely identify HBV deletions from large NGS data, which generally contain millions of reads. To fit the single instruction multiple data instructions, sequencing reads are referred to as multiple data and the deletion finding procedure is referred to as a single instruction. We use Compute Unified Device Architecture (CUDA) to parallelize the procedures, and further validate DeF-GPU on 5 synthetic and 1 real datasets. Our results suggest that DeF-GPU outperforms the existing commonly-used method Pindel and is able to exactly identify the deletions of our ground truth in few seconds."

According to the news editors, the research concluded: "The source code and other related materials are available at https://sourceforge.net/projectsdefgpu."

For more information on this research see: DeF-GPU: Efficient and effective deletions finding in hepatitis B viral genomic DNA using a GPU architecture. Methods, 2016;111():56-63. Methods can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Methods - www.journals.elsevier.com/methods/)

Our news journalists report that additional information may be obtained by contacting V.S. Tseng, National Chiao Tung University, Dept. of Comp Sci, Hsinchu 308, Taiwan. Additional authors for this research include K.L. Lan, W.C. Liu, T.T. Chang and V.S. Tseng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ymeth.2016.07.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hsinchu, Taiwan, Asia, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Gastroenterology, Hepatitis, Virology, Genetics, Genomics, Viral, Virus, National Chiao Tung University.

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Data from National Institutes of Health Advance Knowledge in Ebola Virus (FAM134B, the Selective Autophagy Receptor for Endoplasmic Reticulum Turnover, Inhibits Replication of Ebola Virus Strains Makona and Mayinga)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Ebola Virus. According to news reporting from Hamilton, Montana, by NewsRx journalists, research stated, "Selective autophagy of the endoplasmic reticulum (termed ER-phagy) is controlled by members of the FAM134 reticulon protein family. Here we used mouse embryonic fibroblasts from mice deficient in FAM134B to examine the role of the ER in replication of historic (Mayinga) or contemporary (Makona GCO7) strains of Ebola virus (EBOV)."

Financial supporters for this research include Division of Intramural Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health.

The news correspondents obtained a quote from the research from the National Institutes of Health, "Loss of FAM134B resulted in 1-2 log(10) higher production of infectious EBOV, which was associated with increased production of viral proteins GP and VP40 and greater accumulation of nucleocapsid lattices. In addition, only 10% of wild-type cells contained detectable nucleoprotein, whereas knockout of FAM134B resulted in 80% of cells positive for nucleoprotein."

According to the news reporters, the research concluded: "Together, these data suggest that FAM134B-dependent ER-phagy is an important limiting event in EBOV replication in mouse cells and may have implications for further development of antiviral therapeutics and murine models of infection."


Our news journalists report that additional information may be obtained by contacting A.I. Chiramel, NIAID, Lab Virol, National Institutes of Health, Rocky Mt Labs, Hamilton, MT, United States. Additional authors for this research include J.D. Dougherty, V. Nair, S.J. Robertson and S.M. Best.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/infdis/jiw270. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hamilton, Montana, United States, North and Central America, Viral Hemorrhagic Diseases and Conditions, Endoplasmic Reticulum, Cellular Structures, Intracellular Space, Mononegavirales, RNA Viruses, Filoviridae, Ebola Virus, Organelles, Cytoplasm, Virology, National Institutes of Health.

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Penile Diseases and Conditions - Priapism

Data from Near East University Advance Knowledge in Priapism (Autologous blood clot embolisation in posttraumatic high-flow priapism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Penile Diseases and Conditions - Priapism are presented in a new report. According to news reporting originating in Mersin, Turkey, by NewsRx journalists, research stated, "Non-ischemic, high-flow priapism is defined as the state of painless and permanent erection of the penis which generally develops by perineal trauma. Selective transarterial embolisation is one of the treatment options."

The news reporters obtained a quote from the research from Near East University, "We present an 18-year-old men who had complaints of painless and permanent erection after a blunt perineal trauma. Colour Doppler ultrasound revealed a pseudoaneurysm and fistula at the left cavernosal artery. Hence autologous blood clot injection was performed to embolise the pseudoaneurysm. Due to the recanalization on the postprocedural seventh day, second embolisation was performed. One month after the second procedure, colour Doppler ultrasound revealed a 50% shrink but mild refilling in the pseudoaneurysm, whereas complete thrombus formation was observed on follow-up imaging. His priapism had fully recovered and erectile functions were totally normal at the six months and one year follow up."

According to the news reporters, the research concluded: "Autologous blood clot embolisation seems as a safe and successful treatment."


Our news correspondents report that additional information may be obtained by contacting G. Yilmaz, Near East Univ, Fac Med, Dept. of Radiol, Writing & Design, Lefkosa, Mersin, Turkey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0036933015619295. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mersin, Turkey, Eurasia, Penile Diseases and Conditions, Transfusion Medicine, Blood Transfusion, Autologous Blood, Embolization, Men's Health, Angiology, Priapism, Near East University.

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Oncology - Colon Cancer

Data from Northwestern University Advance Knowledge in Colon Cancer (New Developments in Interventional Oncology Liver Metastases From Colorectal Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- New research on Oncology - Colon Cancer is the subject of a report. According to news originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Colorectal cancer is the third leading cause of cancer death in the United States. Although hepatic excision is the first-line treatment for colorectal liver metastasis (CRLM), few patients are candidates."

Our news journalists obtained a quote from the research from Northwestern University, "Locoregional therapy (LRT) encompasses minimally invasive techniques practiced by interventional radiology. These include ablative treatments (radiofrequency ablation, microwave ablation, and cryosurgical ablation) and transcatheter intra-arterial therapy (hepatic arterial infusion chemotherapy, transarterial 'bland' embolization, transarterial chemoembolization, and radioembolization with yttrium 90). The National Comprehensive Cancer Network recommends LRT for unresectable CRLM refractory to chemotherapy."

According to the news editors, the research concluded: "The following is a review of LRT in CRLM, including salient features, advantages, limitations, current roles, and future considerations."

For more information on this research see: New Developments in Interventional Oncology Liver Metastases From Colorectal Cancer. Cancer Journal, 2016;22(6):373-380. Cancer Journal can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news correspondents report that additional information may be obtained from R. Salem, Northwestern University, Robert H Lurie Comprehensive Cancer Center, Dept. of Med, Div Hematol & Oncol, Chicago, IL 60611, United States. Additional authors for this research include A. Gabr, N. Abouchaleh, R. Ali, A. Riaz, R.J. Lewandowski and R. Salem.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Cancer, Article Review, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Northwestern University.

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Oncology - Bladder Cancer

Data from Nottingham University Hospital NHS Trust Provide New Insights into Bladder Cancer (Closing the Gender Gap: Can We Improve Bladder Cancer Survival in Women? - A Systematic Review of Diagnosis, Treatment and Outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Bladder Cancer are discussed in a new report. According to news reporting out of Nottingham, United Kingdom, by NewsRx editors, research stated, "Despite recent attention, there are no gender specific guidelines to address the disparity in bladder cancer survival between the sexes. The focus of this review was to identify areas of clinical practice that may influence bladder cancer outcomes and to provide evidence-based recommendations to improve bladder cancer survival in women."

Our news journalists obtained a quote from the research from Nottingham University Hospital NHS Trust, "A systematic search of MEDLINE was conducted to identify studies related to referral, diagnosis, treatment and outcomes of patients with bladder cancer with particular reference to gender differences. Patients' knowledge of key signs and symptoms of
bladder cancer is poor. There is evidence that there is a gender difference in referral patterns both at patient and primary care level. The presence of cystitis, in particular, delays referral. Treatment and surveillance of high-risk non-muscle invasive cancers is variable and non-urothelial bladder cancer, which has higher incidence in women is more likely to be treated non-operatively than urothelial bladder cancer."

According to the news editors, the research concluded: "We have offered recommendations to improve patient education and streamline referrals and suggested considerations for treatment of high-risk cancers to help improve survival in female bladder cancer patients."


Our news journalists report that additional information may be obtained by contacting F. Burge, Nottingham Univ Hosp NHS Trust, Dept. of Urol, Nottingham NG5 1PB, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000449256. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nottingham, United Kingdom, Europe, Cancer, Article Review, Epidemiology, Bladder Cancer, Oncology, Nottingham University Hospital NHS Trust.

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**Oncology - Non-Small Cell Lung Cancer**

**Data from Okayama University Hospital Provide New Insights into Non-Small Cell Lung Cancer (Induction S-1+Concurrent Radiotherapy Followed by Surgical Resection of Locally Advanced Non-small-cell Lung Cancer in an Elderly Patient)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news reporting originating in Okayama, Japan, by NewsRx journalists, research stated, "We present the case of a 77-year-old Japanese man diagnosed with lung squamous cell carcinoma with mediastinal lymph node metastasis. He was treated with induction chemoradiotherapy for T1bN2M0 stage IIIA disease."

The news reporters obtained a quote from the research from Okayama University Hospital, "Considering his age, we selected S-1 as the chemotherapeutic drug. Observing an objective response with no severe adverse events, we performed a left upper lobectomy with sleeve resection of the pulmonary artery. No residual tumor cells were found in the resected specimens, and no critical complication was observed in the clinical course."

According to the news reporters, the research concluded: “This case suggests that induction chemoradiotherapy using S-1 combined with concurrent radiation followed by surgery
can be a therapeutic option for elderly patients with locally advanced non-small-cell lung cancer."


Our news correspondents report that additional information may be obtained by contacting H. Torigoe, Dept. of Thoracic Surgery, Okayama University Hospital, Okayama 700-8558, Japan. Additional authors for this research include S. Toyooka, K. Katsui, J. Soh, Y. Maki, K. Kiura and S. Miyoshi.

The publisher of the journal *Acta Medica Okayama* can be contacted at: Okayama Univ Med School, Dept Pharmacology, Okayama, 700, Japan.

Keywords for this news article include: Asia, Japan, Okayama, Oncology, Radiotherapy, Lung Neoplasms, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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**Oncology**

**Data from P.J. Pitts et al Provide New Insights into Oncology (21st century pharmacovigilance: efforts, roles, and responsibilities)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology have been published. According to news reporting originating in Singapore, Singapore, by NewsRx journalists, research stated, "In an era when the number of expedited and conditional review pathways for newly available brand-name drugs and biosimilar medicines to treat serious and life-threatening diseases is increasing, defining pharmacovigilance has never been more crucial. 21st century pharmacovigilance is not merely about uncovering, reporting, and addressing adverse events associated with already approved and marketed agents, but can be described as the systematic monitoring of the process of pre-market review and post-market surveillance, which includes the use of medicines in everyday practice."

The news reporters obtained a quote from the research, "Pharmacovigilance identifies previously unrecognised adverse events or changes in the patterns of these effects, the quality and adequacy of drug supply, and should ensure effective communication with the public, health-care professionals, and patients about the optimum safety and effective use of medicines."

According to the news reporters, the research concluded: "In this paper, the first in a Series of three about drug safety in oncology, we discuss evolving challenges in the purview, roles, and responsibilities of the US Food and Drug Administration and the European Medicines Agency with respect to pharmacovigilance efforts, with a special emphasis on oncology treatment."


Our news correspondents report that additional information may be obtained by
contacting P.J. Pitts, Ecole Super Sci Econ & Commerciales, Singapore, Singapore. Additional authors for this research include H. Le Louet, Y. Moride and R.M. Conti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045(16)30312-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Singapore, Singapore, Asia, Oncology.

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Transplant Medicine - Liver Transplants

Data from Porto Hospital Center Provide New Insights into Liver Transplts (Survival Predictors in Liver Transplantation: Time-Varying Effect of Red Blood Cell Transfusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Liver Transplants have been published. According to news reporting out of Oporto, Portugal, by NewsRx editors, research stated, "Many attempts have been undertaken to better predict outcome after liver transplantation. The aim of this study was to identify the pre- and intraoperative variables that may influence the survival after liver transplantation, at a single institution."

Our news journalists obtained a quote from the research from Porto Hospital Center, "Anesthetic records from 543 consecutive patients who underwent liver transplantation from June 2006 to June 2014 were reviewed in this retrospective study. Patients undergoing retransplantation were excluded from the analysis, as were patients with familial amyloid polyneuropathy. Preoperative variables studied were age, sex, Model for End-Stage Liver Disease score, primary diagnosis, cold ischemia time, preoperative international normalized ratio, serum albumin, and and hemoglobin levels. Intraoperative variables included were norepinephrine consumption, blood loss, red blood cell transfusion, and surgical time. Variables significant in the univariate analysis with a P value of <.2 were included in a multivariate Cox regression model. Only red blood cell transfusion (hazard ratio [HR], 1.16; 95% confidence interval [CI], 1.04-1.29) and female sex (HR, 1.71; 95% CI, 1.10-2.65) were identified as significant independent predictors for survival after liver transplantation. Because of proportionality assumption violation, the multivariate Cox regression model was subsequently upgraded by adding a time-varying interaction between red blood cell transfusion and time since liver transplantation. As a result, we found that at 3 months after liver transplantation, the rate of dying increased 14% (95% CI, 2%-26%) for each unit transfused, and at 6 months it increased 12% (95% CI, 0.3%-24%)."

According to the news editors, the research concluded: "Red blood cell transfusion ceased to influence survival from 1 year onward."


Our news journalists report that additional information may be obtained by

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.08.045. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oporto, Portugal, Europe, Digestive System Surgical Procedures, Liver Transplantation, Transfusion Medicine, Transplant Medicine, Blood Transfusion, Liver Transplants, Organ Transplants, Medical Devices, Cell Research, Blood Cells, Biomedicine, Surgery, Porto Hospital Center.

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**Bioscience**

**Data from Queensland University of Technology Advance Knowledge in Bioscience (Advancing student nurse knowledge of the biomedical sciences: A mixed methods study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Bioscience is now available. According to news reporting originating from Caboolture, Australia, by NewsRx correspondents, research stated, "Nursing students' ability to learn, integrate and apply bioscience knowledge to their clinical practice remains a concern. To evaluate the implementation, influence, and student perspective of a team-teaching workshop to integrate bioscience theory with clinical nursing practice."

Our news editors obtained a quote from the research from the Queensland University of Technology, "The team-teaching workshop was offered prior to commencement of the university semester as a refresher course at an Australian university. This' study employed a sequential explanatory mixed methods design incorporating both quantitative and qualitative items. An evaluation survey with quantitative and qualitative items and a focus group were employed. The qualitative data were analysed using a thematic approach. The quantitative data was combined with the emergent themes in the qualitative data. Participants were final year nursing students. Nine students attended the workshop. All students completed the evaluation (N = 9) and 44.4% (N = 4) attended the focus group. The results revealed six themes: (1) lectures are an inadequate teaching strategy for bioscience; (2) teaching strategies which incorporate active learning engage students; (3) the team-teaching workshop provides an effective learning environment; (4) the workshop content should be expanded; (5) pharmacology should relate to bioscience, and bioscience should relate to nursing; and (6) team-teaching was effective in integrating pharmacology with bioscience, and then translating this into nursing practice. Students had felt there was disjointedness between pharmacology and bioscience, and between bioscience and nursing care within their undergraduate studies."

According to the news editors, the research concluded: "The workshop that was based on team-teaching bridged those gaps, utilised active learning strategies and provided an effective learning environment Conclusion: Team-teaching that employs active learning strategies is an effective approach to assist nursing students to integrate bioscience knowledge into their nursing practice."

For more information on this research see: Advancing student nurse knowledge of
Drugs and Therapies - Immunotherapy

Data from R. Rosell et al Provide New Insights into Immunotherapy (Pathway Targeted Immunotherapy: Rationale and Evidence of Durable Clinical Responses with a Novel, EGF-directed Agent for Advanced NSCLC)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Immunotherapy have been published. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Abnormalities in the epidermal growth factor (EGF) and EGFR pathway promote progression of NSCLC. Immunization with EGF vaccine induces specific, neutralizing anti-EGF antibodies that prevent binding of the ligand to its receptor."

Our news editors obtained a quote from the research, "This concept of pathway targeted immunotherapy (PTI) was validated in vitro by dose-related suppression of EGFR, Akt, and Erk1/2 phosphorylation in cell lines with different mutations. A randomized phase II trial showed improved overall survival (OS) in subgroups with advanced NSCLC showing a clear immunologic response. By per-protocol analysis of the ensuing phase IIb trial, patients receiving EGF PTI survived 3 months longer than controls (12.43 versus 9.43 months; hazard ratio = 0.77 [95% confidence interval, 0.61-0.98]). These data were confirmed in a larger trial showing an OS benefit over control of >3 months. The variable most strongly correlated with efficacy was circulating EGF at enrolment. Patients with serum EGF levels >250 pg/mL benefited most from treatment with EGF PTI. Of 188 patients tested, 94 were above this biomarker threshold. The OS benefit from active versus control treatment was 6.7 months. More than 15% of patients had responses for >5 years. Long-term survivors are seen in all EGF PTI trials. Treatment is well-tolerated, induces high anti-EGF antibody titers, reduces levels of circulating serum EGF, achieves durable responses, and significantly prolongs OS. A threshold of 250 pg/mL has been set to enrich the study population in the ongoing pivotal trial."

According to the news editors, the research concluded: "This biomarker-guided study in an enriched population of patients with both squamous and nonsquamous stage IV NSCLC..."
aims to replicate the favorable efficacy/tolerability balance of earlier studies."


The news editors report that additional information may be obtained by contacting E. D'Hondt, Bioven Europe Ltd, London, United Kingdom. Additional authors for this research include E. Neninger, M. Nicolson, R.M. Huber, S. Thongprasert, P.M. Parikh and E. D'Hondt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtho.2016.08.132. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Drugs and Therapies, Immunotherapy, Genetics.

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**Pharmacokinetics**

**Data from R.H. Budhraja et al Provide New Insights into Pharmacokinetics (LC-MS/MS Validation Analysis of Trastuzumab Using dSIL Approach for Evaluating Pharmacokinetics)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Pharmacokinetics are discussed in a new report. According to news reporting from Gujarat, India, by NewsRx journalists, research stated, "Quantitative targeted proteomics based approaches deploy state-of-the-art Liquid chromatography tandem mass spectrometry LC-MS technologies and are evolving as a complementary technique to standard ligand-binding based assays. Advancements in MS technology, which have augmented the specificity, selectivity and sensitivity limits of detection and freedom from antibody generation, have made it amicable towards various clinical applications."

The news correspondents obtained a quote from the research, "In our current work, a surrogate peptide based quantitative proteomics assessment is performed by selecting specific signature peptides from the complementary determining region CDR region of trastuzumab (Herclon®, Roche products in India). We developed a double Stable Isotope Label (dSIL) approach by using two different surrogate peptides to evaluate the proteolytic digestion efficiency and accurate quantification of the target analyte peptide of Herclon® in human serum. Method validation experiments were meticulously performed as per bioanalytical method validation guidelines."

According to the news reporters, the research concluded: "The dSIL approach, using an LC-MS/MS based quantification assay demonstrated good linearity over a range of 5-500 μg/mL of Herclon®, and validation experimental data is in compliance with bioanalytical regulatory guidelines."

For more information on this research see: LC-MS/MS Validation Analysis of Trastuzumab Using dSIL Approach for Evaluating Pharmacokinetics. *Molecules*, 2016;21

Keywords for this news article include: Gujarat, India, Asia, Pharmacokinetics, Pharmaceuticals, Proteomics.

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Data from Radboud University Provide New Insights into Type 1 Diabetes Mellitus (Enterovirus Exposure Uniquely Discriminates Type 1 Diabetes Patients with a Homozygous from a Heterozygous Melanoma Differentiation-Associated Protein 5/Interferon ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus. According to news reporting originating from Nijmegen, Netherlands, by NewsRx correspondents, research stated, "In children at risk for type 1 diabetes, innate immune activity is detected before seroconversion. Enterovirus infections have been linked to diabetes development, and a polymorphism (A946T) in the innate immune sensor recognizing enterovirus RNA, interferon-induced with helicase C domain 1/melanoma differentiation-associated protein 5, predisposes to disease."

Our news editors obtained a quote from the research from Radboud University, "We hypothesized that the strength of innate antienteroviral responses is affected in autoimmune type 1 diabetes patients and linked to the A946T polymorphism. We compared induction of interferon-stimulated genes (ISGs) in peripheral blood mononuclear cells (PBMCs) and dendritic cells (DCs) in healthy individuals and diabetes patients upon stimulation with enterovirus, enterovirus-antibody complexes, or ligands mimicking infection in relation to the A946T polymorphism. Overall, PBMCs of diabetes patients and healthy donors showed comparable ISG induction upon stimulation. No differences were observed in DCs. Interestingly, the data imply that the magnitude of responses to enterovirus and enterovirus-antibody complexes in PBMCs is critically influenced by the A946T polymorphism and elevated in heterozygotes compared to TT homozygous individuals in autoimmune diabetes patients, but not healthy controls."

According to the news editors, the research concluded: "These data imply an intrinsic difference in the responses to enterovirus and enterovirus-antibody complexes in diabetes patients carrying a TT risk genotype compared to heterozygotes that may influence control of enterovirus clearance."

For more information on this research see: Enterovirus Exposure Uniquely Discriminates Type 1 Diabetes Patients with a Homozygous from a Heterozygous Melanoma Differentiation-Associated Protein 5/Interferon Induced with Helicase C Domain 1 A946T
Genotype. *Viral Immunology*, 2016;29(7):389-397. *Viral Immunology* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Viral Immunology - www.liebertpub.com/overview/viral-immunology/57/)

The news editors report that additional information may be obtained by contacting G.J. Adema, Radboud University, Medical Center, Radboud Inst Mol Life Sci, Dept. of Tumor Immunol, NL-6525 GA Nijmegen, Netherlands. Additional authors for this research include P.R. Gielen, E.D. Kers-Rebel, A.C. Prosser, K. Lind, M. Flodstrom-Tullberg, C.J. Tack, L.D. Elving and G.J. Adema.

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Keywords for this news article include: Nijmegen, Netherlands, Europe, Type 1 Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Insulin Dependent Diabetes Mellitus, Enzymes and Coenzymes, Risk and Prevention, Immunoglobulins, Type 1 Diabetes, Blood Proteins, Picornaviridae, Interferons, RNA Viruses, Enterovirus, Immunology, Antibodies, Cytokines, Helicase, Virology, Genetics, Oncology, Melanoma, Viral, Radboud University.

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Drugs and Therapies - Cysteamine Therapy

Data from Rhodes University Provide New Insights into Cysteamine Therapy [Photophysicochemical properties of nanoconjugates of zinc (II) 2(3)-mono-2-(4-oxy)phenoxy)acetic acid phthalocyanine with cysteamine capped silver and silver-gold ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Cysteamine Therapy. According to news originating from Grahamstown, South Africa, by NewsRx correspondents, research stated, "A novel asymmetrical zinc(II) 2(3)-mono-2-(4-oxy)phenoxy)acetic acid phthalocyanine (complex 1) was synthesized and subsequently linked to cysteamine capped silver (AgNPs) and silver-gold (AgAuNPs) nanoparticles (NPs) via amide bonds. The photophysicochemical properties and in vitro photodynamic therapy activity of complex 1 and its nanoconjugates were investigated."

Our news journalists obtained a quote from the research from Rhodes University, "The nanoconjugates showed improved photophysical properties compared to complex 1 alone. The fluorescence, triplet and singlet quantum yields of complex 1 were found to be 20%, 48%, and 43% respectively."

According to the news editors, the research concluded: "Complex 1 showed in vitro dark cytotoxicity, but the dark toxicity was reduced for the combination of complex 1 with AgAuNPs, this combination also gave the best photodynamic therapy activity when compared to complex 1 and its conjugate with AgNPs without AuNPs."

For more information on this research see: Photophysicochemical properties of nanoconjugates of zinc(II) 2(3)-mono-2-(4-oxy)phenoxy)acetic acid phthalocyanine with cysteamine capped silver and silver-gold nanoparticles. *Polyhedron*, 2016;119():434-444.
Data from S.E. Morales-Lopez et al Provide New Insights into Antifungals (Candida glabrata species complex prevalence and antifungal susceptibility testing in a culture collection: First description of Candida nivariensis in Argentina)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antifungals have been published. According to news reporting originating from Buenos Aires, Argentina, by NewsRx correspondents, research stated, "The presence of the cryptic species belonging to the Candida glabrata complex has not been studied in Argentina. We analyzed a collection of 117 clinical isolates of C. glabrata complex belonging to a National Culture Collection of Instituto Nacional de Microbiologia 'Dr. Carlos G. Malbran' from Argentina (40 isolates from blood samples, 18 from other normally sterile sites, 20 from vagina, 14 from urine, 7 from oral cavity, 3 from catheter, 1 from a stool sample and 14 isolates whose clinical origin was not recorded)."

Our news editors obtained a quote from the research, "The aims of this work were to determine the prevalence of the cryptic species Candida nivariensis and Candida bracarensis and to evaluate the susceptibility profile of isolates against nine antifungal drugs. Identification was carried out by using classical phenotypic tests, CHROMagar™ Candida, PCR and MALDI-TOF. The minimal inhibitory concentrations of amphotericin B, 5-fluorocytosine, fluconazole, itraconazole, voriconazole, ketoconazole, posaconazole, caspofungin and anidulafungin were determined according to the EDef 7.3 (EUCAST) reference document. Of the 117 isolates, 114 were identified as C. glabrata and three as C. nivariensis by using PCR and MALDI-TOF. There were no major differences between C. nivariensis and C. glabrata susceptibility profiles. No resistant strains were found to echinocandins. We have found that the percentage of C. nivariensis in our culture collection was 2.56."

According to the news editors, the research concluded: "This is the first description of C. nivariensis in Argentina, and data obtained could contribute to the knowledge of the epidemiology of this cryptic species."

For more information on this research see: Candida glabrata species complex prevalence and antifungal susceptibility testing in a culture collection: First description of Candida nivariensis in Argentina. *Mycopathologia*, 2016;181(11-12):871-878.
Data from Saitama Medical University Provide New Insights into Human Herpesvirus 8 (Clinical response to liposomal doxorubicin and rituximab in HHV-8-associated multicentric Castleman's disease in an HIV-positive patient)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Human Herpesvirus 8 is now available. According to news reporting from Saitama, Japan, by NewsRx journalists, research stated, "We report a patient with HIV-associated multicentric Castleman's disease who had recurrent human herpesvirus-8 viremia associated with intermittent febrile exanthema and lymphadenopathy."

The news correspondents obtained a quote from the research from Saitama Medical University, "Although the patient relapsed after single-agent treatment with liposomal doxorubicin, weekly infusions of rituximab led to complete remission even though the reactivation of the Kaposi's sarcoma was unfortunately observed."

According to the news reporters, the research concluded: "Rituximab could not only eliminate the accumulation of HHV-8 load but also play a part in the modulation of dysregulated CD20-positive B cells in HIV-associated multicentric Castleman's disease."

For more information on this research see: Clinical response to liposomal doxorubicin and rituximab in HHV-8-associated multicentric Castleman's disease in an HIV-positive patient. *Journal of Infection and Chemotherapy*, 2016;22(12):804-807. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

Our news journalists report that additional information may be obtained by contacting T. Maeda, Saitama Med Univ, Dept. of Microbiol, Moroyama, Saitama, Japan. Additional authors for this research include T. Maeda, K. Misawa, K. Imai, Y. Fujikura and A. Kawana.

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Oncology - Solid Cancer

Data from Sarah Cannon Research Institute Provide New Insights into Solid Cancer [A Phase I Study of the Cyclin-Dependent Kinase 4/6 Inhibitor Ribociclib (LEE011) in Patients with Advanced Solid Tumors and Lymphomas]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Solid Cancer. According to news reporting out of Nashville, Tennessee, by NewsRx editors, research stated, "Ribociclib (an oral, highly specific cyclin-dependent kinase 4/6 inhibitor) inhibits tumor growth in preclinical models with intact retinoblastoma protein (Rb+). This first-in-human study investigated the MTD, recommended dose for expansion (RDE), safety, preliminary activity, pharmacokinetics, and pharmacodynamics of ribociclib in patients with Rb+ advanced solid tumors or lymphomas."

Our news journalists obtained a quote from the research from Sarah Cannon Research Institute, "Patients received escalating doses of ribociclib (3-weeks-on/1-week-off or continuous). Dose escalation was guided by a Bayesian Logistic Regression Model with overdose control principle. Among 132 patients, 125 received ribociclib 3-weeks-on/1-week-off and 7 were dosed continuously. Nine dose-limiting toxicities were observed among 70 MTD/RDE evaluable patients during cycle 1, most commonly neutropenia (n = 3) and thrombocytopenia (n = 2). The MTD and RDE were established as 900 and 600 mg/day 3-weeks-on/1-week-off, respectively. Common treatment-related adverse events were (all-grade; grade 3/4) neutropenia (46%; 27%), leukopenia (43%; 17%), fatigue (45%; 2%), and nausea (42%; 2%). Asymptomatic Fridericia's corrected QT prolongation was specific to doses >= 600 mg/day (9% of patients at 600 mg/day; 33% at doses >600 mg/day). Plasma exposure increases were slightly higher than dose proportional; mean half-life at the RDE was 32.6 hours. Reduced Ki67 was observed in paired skin and tumor biopsies, consistent with ribociclib-mediated antiproliferative activity. There were 3 partial responses and 43 patients achieved a best response of stable disease; 8 patients were progression-free for >6 months. Ribociclib demonstrated an acceptable safety profile, dose-dependent plasma exposure, and preliminary signs of clinical activity."

According to the news editors, the research concluded: "Phase I-III studies of ribociclib are under way in various indications."

For more information on this research see: A Phase I Study of the Cyclin-Dependent
Kinase 4/6 Inhibitor Ribociclib (LEE011) in Patients with Advanced Solid Tumors and Lymphomas. *Clinical Cancer Research*, 2016;22(23):5696-5705. *Clinical Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clinicancerceres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting J.R. Infante, Sarah Cannon Res Inst, Tennessee Oncol PLLC, Nashville, TN 37203, United States. Additional authors for this research include P.A. Cassier, J.F. Gerecitano, P.O. Witteveen, R. Chugh, V. Ribrag, A. Chakraborty, A. Matano, J.R. Dobson, A.S. Crystal, S. Parasuraman and G.I. Shapiro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-16-1248. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Intracellular Signaling Peptides and Proteins, Lymphatic Diseases and Conditions, Protein-Serine-Threonine Kinases, Proline-Directed Protein Kinases, Immunoproliferative Disorders, Lymphoproliferative Disorders, Cyclin-Dependent Kinase 4, Cyclin-Dependent Kinases, Enzymes and Coenzymes, Phosphotransferases, Cell Cycle Proteins, Solid Cancer, Hematology, Lymphomas, Oncology, Sarah Cannon Research Institute.

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**Membrane Proteins - Immunologic Receptors**

**Data from School of Biology Advance Knowledge in Immunologic Receptors (Outside-in integrin signalling regulates haematopoietic stem cell function via Periostin-Itgav axis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Membrane Proteins - Immunologic Receptors have been published. According to news reporting originating in Thiruvananthapuram, India, by NewsRx journalists, research stated, "Integrins play an important role in haematopoietic stem cell (HSC) maintenance in the bone marrow niche. Here, we demonstrate that Periostin (Postn) via interaction with Integrin-alpha v (Itgav) regulates HSC proliferation."

The news reporters obtained a quote from the research from the School of Biology, "Systemic deletion of Postn results in peripheral blood (PB) anaemia, myelomonocytosis and lymphopenia, while the number of phenotypic HSCs increases in the bone marrow. Postn(-/-) mice recover faster from radiation injury with concomitant loss of primitive HSCs. HSCs from Postn(-/-) mice show accumulation of DNA damage generally associated with aged HSCs. Itgav deletion in the haematopoietic system leads to a similar PB phenotype and HSC-intrinsic repopulation defects. Unaffected by Postn, Vav-Itgav(-/-) HSCs proliferate faster in vitro, illustrating the importance of Postn-Itgav interaction. Finally, the Postn-Itgav interaction inhibits the FAK/PI3K/AKT pathway in HSCs, leading to increase in p27Kip1 expression resulting in improved maintenance of quiescent HSCs."

According to the news reporters, the research concluded: "Together, we demonstrate a role for Itgav-mediated outside-in signalling in regulation of HSC proliferation and stemness."

Our news correspondents report that additional information may be obtained by contacting S. Khurana, Indian Inst Sci Educ & Res, Sch Biol, Thiruvananthapuram 695016, Kerala, India. Additional authors for this research include S. Schouteden, J.K. Manesia, A. Santamaria-Martinez, J. Huelsken, A. Lacy-Hulbert and C.M. Verfaillie.

Keywords for this news article include: Thiruvananthapuram, India, Asia, Immunologic Receptors, Stem Cell Research, Membrane Proteins, Immune System, Bone Research, Bone Marrow, Integrins, Genetics, School of Biology.

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Aortic Stenosis

Data from School of Medicine Provide New Insights into Aortic Stenosis (Patient-defined goals for the treatment of severe aortic stenosis: a qualitative analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Aortic Stenosis is the subject of a report. According to news reporting out of Lebanon, New Hampshire, by NewsRx editors, research stated, "Patients with severe aortic stenosis (AS) at high risk for aortic valve replacement are a unique population with multiple treatment options, including medical therapy, surgical aortic valve replacement and transcatheter aortic valve replacement (TAVR). Traditionally, in elderly populations, goals of treatment may favour quality of life over survival."

Our news journalists obtained a quote from the research from the School of Medicine, "Professional guidelines recommend that clinicians engage patients in shared decision making, a process that may lead to decisions more aligned with patient-defined goals of care. Goals of care for high-risk patients with AS are not well defined in the literature, and patient-reported barriers to shared decision making highlight the need for explicit encouragement from clinicians for patient involvement. The purpose of this study was to elicit and report patient-defined goals from elderly patients facing treatment decisions for severe AS. This analysis was conducted at Dartmouth-Hitchcock Medical Center, an academic medical institution. In a retrospective manner, we qualitatively analysed goal statements reported by high-risk, elderly patients with severe AS evaluated for TAVR between June 2012 and August 2014. Forty-six patients provided treatment goals during consideration of TAVR and defined preferred outcomes as maintaining independence, staying alive, reducing symptoms or, most commonly, increasing their ability to do a specific activity or hobby. In the high-risk patient population considering TAVR, patient-reported goals may be obtained with a simple question delivered during the clinical encounter."

According to the news editors, the research concluded: "Encouraging patients to define their goals may lead to a greater degree of shared decision making, as advocated in current professional guidelines."

For more information on this research see: Patient-defined goals for the treatment of

Our news journalists report that additional information may be obtained by contacting M. Coylewright, Geisel Sch Med Dartmouth, Dartmouth Inst Hlth Policy & Clin Practice, Hlth Policy & Clin Practice, Lebanon, NH, United States. Additional authors for this research include R. Palmer, E.S. O'Neill, J.F. Robb and T.R. Fried.

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Keywords for this news article include: Lebanon, New Hampshire, United States, North and Central America, Aortic Valve Stenosis, Aortic Stenosis, Angiology, School of Medicine.

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*Lung Diseases and Conditions - Pulmonary*

**Data from School of Public Health Advance Knowledge in Pulmonary Tuberculosis (Adjuvant Efficacy of Nutrition Support During Pulmonary Tuberculosis Treating Course: Systematic Review and Meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Pulmonary Tuberculosis is now available. According to news reporting out of Guizhou, People's Republic of China, by NewsRx editors, research stated, "Malnutrition and tuberculosis (TB) tend to interact with each other. TB may lead to nutrition deficiencies that will conversely delay recovery by depressing immune functions."

Our news journalists obtained a quote from the research from the School of Public Health, "Nutrition support can promote recovery in the subject being treated for TB. The aim of this study was to evaluate the effectiveness of nutrition support on promoting the recovery of adult pulmonary TB patients with anti-TB drug therapy. English database of the Cochrane Controlled Trials Register, PubMed, EMBASE, and Chinese database of CBM, CNKI, VIP, and WANFANG were searched. Randomized controlled trials comparing nutrition support (given for more than 2 weeks) with no nutrition intervention, nutrition advice only, or placebo-control for TB patients being anti-TB treated were included. Two reviewers conducted data extraction, assessed the quality of the studies independently, and any discrepancies were solved by the third reviewer. Data were entered and analyzed by RevMan 5.2 software, and meta-analysis was done using risk ratios (RRs) for dichotomous variables and mean differences (MDs) for continuous variables with 95% confidence intervals (CIs). A total of 19 studies (3681 participants) were included. In nutritional support for TB patients, pooled RR and its 95% CI of sputum smears or culture-negative conversion rate and chest X-ray (CXR) absorption rate were 1.10 (1.04, 1.17) and 1.22 (1.08, 1.39), respectively, the pooled MD and its 95% CI of body mass index (BMI) and time of sputum smears or culture negativity were 0.59 (0.16, 1.2) and -5.42 (-7.93, -2.92), respectively, compared with the control group. The differences in outcomes of CXR zone affected, TB score, serum albumin, and hemoglobin were not statistically significant (p=0.76, 0.24, 0.28, and 0.20, respectively) between the intervention group and the control group. No
systemic adverse events were recorded. During anti-TB course, nutrition support may be helpful in treatment of TB patients by improving both sputum smears-or culture-negative conversion rate and BMI, shortening the time of sputum conversion negative."

According to the news editors, the research concluded: "Whether it can improve the final clinical effect, there still needs high-level quality studies to confirm in the future."


Our news journalists report that additional information may be obtained by contacting Y.Z. Zhou, Dept. of Hygiene Toxicology, School of Public Health, Zunyi Medical University, Zunyi, Guizhou 563099, People's Republic of China. Additional authors for this research include L.L. Kang, X.B. Shen and Y.Z Zhou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.170255. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *Chinese Medical Journal* is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Guizhou, Article Review, Clinical Research, Diet and Nutrition, Infectious Disease, Pulmonary Tuberculosis, Mycobacterium Infections, People's Republic of China, Actinomycetales Infections, Mycobacterium Tuberculosis, Clinical Trials and Studies, Lung Diseases and Conditions, Gram Positive Bacterial Infections.

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**Data from Sichuan University Provide New Insights into Pleural Effusion (Primary Intestinal Lymphangiectasia Manifested as Unusual Edemas and Effusions: A Case Report)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Respiratory Tract Diseases and Conditions - Pleural Effusion is now available. According to news reporting out of Chengdu, People's Republic of China, by NewsRx editors, research stated, "Primary intestinal lymphangiectasia (PIL) is a rare disorder of unknown etiology characterized by diffuse or localized dilation and eventual rupture of the enteric lymphatic vessels in mucosa, submucosa, and/or subserosa. Lymph, rich in all kinds of proteins and lymphocytes, leaks into the gastrointestinal tract via the affected lymphatic vessels causing hypoproteinemia and lymphopenia."

Our news journalists obtained a quote from the research from Sichuan University, "The main symptom is variable degrees of pitting edemas of bilateral lower limbs. But edemas of any other parts of body, and mild serous effusions may also occur sometimes. PIL occurs in conjunction with a right hemifacial edema, a right upper limb lymphedema, asymmetric bilateral calves edemas, and a unilateral massive pleural effusion seems never to be reported before. In
addition, increased enteric protein loss that may cause severe hypoproteinemia usually get overlooked, and the lymphatic system disorders always put the diagnoses in a dilemma. We described a case of a 17-year-old Chinese girl with a history of gradually progressive swellings of right-sided face, right upper limb, and bilateral calves since 3 to 4 months of age. A right-sided massive pleural effusion, a moderate pericardial effusion, and a mild ascites have been proved unchanged by a series of computerized tomography (CT) scans since 5 years ago. The diagnosis of PIL was finally confirmed by severe hypoproteinemia, endoscopic changes, and histology of jejunum biopsy. Further lymphoscintigraphy and lymphangiography also identified lymph leakage in her bowel and several abnormal lymphatic vessels. A high-protein, low-fat diet supplemented with medium-chain triglycerides (MCT) showed some benefit. This case suggested that PIL was a rare but important etiology of hypoproteinemia, effusions, and edemas. PIL, effusions, and lymphedema can be the features of multisegmental generalized lymphatic dysplasia."

According to the news editors, the research concluded: "In addition, both lymphoscintigraphy and intranodal lymphangiography could be considered when lymphatic system disorders are suspected."

For more information on this research see: Primary Intestinal Lymphangiectasia Manifested as Unusual Edemas and Effusions: A Case Report. *Medicine*, 2016;95(10):e2849. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting X. Wang, From the Dept. of Cardiology, Dept. of Respiratory Medicine, Dept. of Pathology, West China Hospital, Sichuan University, Chengdu, Sichuan, People's Republic of China. Additional authors for this research include H. Jin and W. Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MD.0000000000002849. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chengdu, Lymphedema, Hypoproteinemia, Pleural Effusion, Blood Protein Disorders, People's Republic of China, Pleural Diseases and Conditions, Hematologic Diseases and Conditions, Respiratory Tract Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions.

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Data from South China University of Technology Provide New Insights into Minerals (Biofunctionalization of Selenium Nanoparticle with Dictyophora Indusiata Polysaccharide and Its Antiproliferative Activity through Death-Receptor and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Minerals are discussed in a new report. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "Bio-functionalized nanoparticles with semiconducting-metallic core encapsulated in a bio-or bio-derived materials are promising for applications in biology and especially in cancer diagnostic and healing. In this report, we report a facile, single-step, first-time synthesis and in-situ functionalization strategy for the preparation of monodispersed selenium nanoparticles..."
(SeNPs) functionalized using a novel polysaccharide (DP1) extracted from Dictyophora indusiata (a fungus)."

Our news journalists obtained a quote from the research from the South China University of Technology, "The DP1 functionalized SeNPs (DP1-SeNPs), where DP1 is attached to the surface via Se-O bond as well as physic-sorption had, an average diameter of 89 nm, and were highly uniform, extremely stable compared to bare SeNPs. Detailed investigation of the biological properties of DP1-SeNP illustrated that they exhibit unprecedented, enhanced, and selective antiproliferative activity through inducing cell apoptosis confirmed by nuclear condensation, DNA cleavage, and accumulation of S phase cell arrest. The mechanism of the induced apoptosis was found to be a combination of the activation of caspases 3, 8, and 9, the Fas-associated death domain protein (FADD), reactive oxygen species (ROS) overproduction, as well as mitochondrial dysfunction."

According to the news editors, the research concluded: "It is envisioned that the reported DP1-SeNPs will offer a new phase space for high-efficiency anticancer treatment with little side effect."

For more information on this research see: Biofunctionalization of Selenium Nanoparticle with Dictyophora Indusiata Polysaccharide and Its Antiproliferative Activity through Death-Receptor and Mitochondria-Mediated Apoptotic Pathways. Scientific Reports, 2015;5():18629. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting W. Liao, College of Light Industry and Food Sciences, South China University of Technology, Guangzhou 510640, Guangdong, People's Republic of China. Additional authors for this research include Z. Yu, Z. Lin, Z. Lei, Z. Ning, J.M. Regenstein, J. Yang and J. Ren.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18629. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Genetics, Minerals, Selenium, Guangdong, Cytoplasm, Chalcogens, Organelles, Mitochondria, Nanoparticle, Nanotechnology, Cellular Structures, Intracellular Space, Emerging Technologies, Subcellular Fractions, People's Republic of China.

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Mental Health Diseases and Conditions - Bipolar...

Data from Stanford University Advance Knowledge in Bipolar Disorders (Long-term safety and tolerability of asenapine: A double-blind, uncontrolled, long-term extension trial in adults with an acute manic or mixed episode associated with bipolar ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mental Health Diseases and Conditions - Bipolar Disorders is the subject of a report. According to news reporting originating in Stanford, California, by NewsRx journalists, research stated, "Asenapine (ASN) is approved in the United States as monotherapy and adjunctive therapy (to lithium or valproate) in adults with bipolar mania, and as monotherapy in pediatric patients with bipolar mania. This is the first long-term
study evaluating safety and tolerability of ASN fixed doses in this population."

Financial support for this research came from Forest Research Institute, Inc.

The news reporters obtained a quote from the research from Stanford University, "After completing a 3-week, randomized, placebo (PBO)-controlled acute trial, patients could enroll in this 26-week, fixed-dose (5 or 10 mg twice daily), double-blind extension study. Select predefined treatment emergent adverse events (TEAEs) and metabolic parameters were reported. Overall, 164 patients were treated; 88 completed the study. The incidence of TEAE was greater for PBO/ASN 5 mg (68.3%) versus ASN 5 mg/ASN 5 mg (54.7%) and ASN 10 mg/ASN 10 mg (51.0%) with sedation, headache, somnolence, akathisia, and dizziness occurring as the most prevalent TEAEs. Predefine, TEAEs were more common for PBO/ASN 5 mg (33.3%) versus ASN 5 mg/ASN 5 mg (15.1%) and ASN 10 mg/ASN 10 mg (15.7%). Weight gain (>= 7% increase from baseline to endpoint) was more frequent for ASN 10 mg/ASN 10 mg (16.3%) versus ASN 5 mg/ASN 5 mg (13.7%) and PBO/ASN 5 mg (8.9%). No clinically significance metabolic changes were observed. The incidence of serious AEs was low and primarily related to underlying bipolar I disorder. Limitations: This study lacked a comparator group and was not powered for direct comparisons of ASIA regimens. Results may not be applicable to the general bipolar population."

According to the news reporters, the research concluded: "ASN was generally safe and well tolerated in adults with an acute manic or mixed episode associated with bipolar I disorder."

For more information on this research see: Long-term safety and tolerability of asenapine: A double-blind, uncontrolled, long-term extension trial in adults with an acute manic or mixed episode associated with bipolar I disorder. *Journal of Affective Disorders*, 2017;207 ():384-392. *Journal of Affective Disorders* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Affective Disorders - www.journals.elsevier.com/journal-of-affective-disorders/)

Our news correspondents report that additional information may be obtained by contacting T.A. Ketter, Stanford University, Sch Med, Stanford, CA 94305, United States. Additional authors for this research include S. Durgam, R. Landbloom, M. Mackle, X. Wu and M. Mathews.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jad.2016.09.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stanford, California, United States, North and Central America, Mental Health Diseases and Conditions, Psychotherapeutic Agents, Manic-Depressive Illness, Atypical Antipsychotics, Drugs and Therapies, Bipolar Disorders, Psychiatry, Asenapine, Stanford University.

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**Macrolides**

**Data from State University Advance Knowledge in Macrolides**

(Synergistic effect of pedalitin and amphotericin B against *Cryptococcus neoformans* by in vitro and in vivo evaluation)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Macrolides are presented in a new report. According to news reporting from Araraquara, Brazil, by NewsRx journalists, research stated, "Cryptococcosis is an opportunistic fungal infection responsible for high morbidity and mortality in immunocompromised patients. Combination of antifungal substances is a promising way to increase the percentage of successful treatment."

Financial supporters for this research include FAPESP, RENAMA-CNPq, CAPES, PADC/FCF.

The news correspondents obtained a quote from the research from State University, "Pedalitin (PED) is a natural substance obtained from Pterogyne nitens. The aim of this study was to verify the efficacy of PED alone and in combination with amphotericin B (AmB) in vitro and in vivo against Cryptococcus spp. In the in vitro assay, minimum inhibitory concentrations (MICs) of 0.125 mg/L for AmB and 3.9 mg/L for PED were found when the substances were tested alone, whilst in the combination treatment the active concentration of both decreased, with MICs of 0.03 mg/L for AmB and 1 mg/L for PED. In the survival assay, fungal burden study and histopathological assays it was possible to study the efficacy of the substances alone and in combination. The efficacy of combination therapy was considered better than monotherapy as evaluated in a Galleria mellonella model and amurine model. Thus, the combination of PED and AmB is an interesting alternative for anticonryptococcal fungal treatment."

According to the news reporters, the research concluded: "Moreover, a correlation was observed between the invertebrate and murine models for this antifungal treatment combination."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.07.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Araraquara, Brazil, South America, Dermatological Agents, Drugs and Therapies, Topical Antifungals, Amphotericin B, Antiinfectives, Antibiotics, Macrolides, Polenes, State University.

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Data from Sun Yat Sen University Provide New Insights into Hypersensitivity (Serum IFN-gamma-inducible chemokines CXCL9 and CXCL10 are elevated in non-immediate drug hypersensitivity reactions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immune System Diseases and Conditions - Hypersensitivity is now available. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "The recruitment to the skin of drug-responsive T cells is responsible for the inflammatory profiles of non immediate drug hypersensitivity reactions (niDHRs). Maculopapular exanthema (MPE) and Stevens-Johnson syndrome (SJS)/toxic epidermal necrolysis (TEN) have quite distinct T cell infiltrating patterns."

The news correspondents obtained a quote from the research from Sun Yat Sen University, "To investigate serum levels of CXCL9, CXCL10 and IFN-gamma in patients with niDHRs, including MPE and SJS/TEN, to evaluate correlations between the cytokines, and to determine whether the inflammatory factors correlate with clinical severity in patients with SJS/TEN. Twenty-four patients with SJS/TEN, 24 patients with MPE, and 24 healthy donors with good tolerance to the drugs involved in the drug reactions were recruited into the study. The modified severity-of-illness score for TEN (SCORTEN) and detachment of body surface area (dBSA) were used to assess the clinical severity of SJS/TEN. Serum levels of CXCL9, CXCL10 and IFN-gamma were determined by ELISA. Results: The niDHRs group, SJS/TEN and MPE subgroups all exhibited significantly higher levels of CXCL9; CXCL10 and IFN-gamma compared with the control group (P < 0.001). Serum IFN-gamma levels were positively correlated with CXCL9 levels and CXCL10 levels in patients with niDHRs ($r(s) = 0.576$, $r(s) = 0.449$, $P < 0.05$). None of the levels of CXCL9, CXCL10 and IFN-gamma had any correlation with modified SCORTEN index or dBSA in SJS/TEN group."

According to the news reporters, the research concluded: "The results suggest Th1 cytokine IFN-gamma and chemokines CXCL9 and CXCL10 may play roles in the pathogenesis of niDHRs."

For more information on this research see: Serum IFN-gamma-inducible chemokines CXCL9 and CXCL10 are elevated in non-immediate drug hypersensitivity reactions. Asian Pacific Journal of Allergy and Immunology, 2016;34(3):236-241. Asian Pacific Journal of Allergy and Immunology can be contacted at: Allergy Immunol Soc Thailand, Mahidol Univ, Dept Microbiol Immunol, Faculty Tropical Med, Bangkok 10400, Thailand.

Our news journalists report that additional information may be obtained by contacting X.Q. Zhang, Sun Yat Sen University Affiliated Hosp 1, Dept. of Dermatol, Guangzhou 510080, Guangdong, People's Republic of China. Additional authors for this research include R.X. Cai, D.Y. He, Y.K. Zhao, Y.T. Ye and X.Q. Zhang.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Immune System Diseases and Conditions, Drug Hypersensitivity, Drugs and Therapies, Biological Factors, Chemokine CXCL10, CXC Chemokines, Immunology, Cytokines, Sun Yat Sen University.

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Data from Sunnybrook Health Sciences Center Provide New Insights into Radiation Therapy (Implementation of a volumetric modulated arc therapy treatment planning solution for kidney and adrenal stereotactic body radiation therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Radiation Therapy have been presented. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "To develop a volumetric modulated arc therapy (VMAT) treatment planning solution in the treatment of primary renal cell carcinoma and oligometastatic adrenal lesions with stereotactic body radiation therapy. Single-arc VMAT plans (n = 5) were compared with clinically delivered step-and-shoot intensity-modulated radiotherapy (IMRT) with planning target volume coverage normalized between techniques."

Our news journalists obtained a quote from the research from Sunnybrook Health Sciences Center, "Target volume conformity, organ-at-risk (OAR) dose, treatment time, and monitor units were compared. A VMAT planning solution, created from a combination of arc settings and optimization constraints, auto-generated treatment plans in a single optimization. The treatment planning solution was evaluated on 15 consecutive patients receiving kidney and adrenal stereotactic body radiation therapy. Treatment time was reduced from 13.0 +/- 2.6 to 4.0 +/- 0.9 minutes for IMRT and VMAT, respectively. The VMAT planning solution generated treatment plans with increased target homogeneity, improved 95% conformity index, and a reduced maximum point dose to nearby OARs but with increased intermediate dose to distant OARs. The conformity of the 95% isodose improved from 1.32 +/- 0.39 to 1.12 +/- 0.05 for IMRT and VMAT treatment plans, respectively. Evaluation of the planning solution showed clinically acceptable dose distributions for 13 of 15 cases with tight conformity of the prescription isodose to the planning target volume of 1.07 +/- 0.04, delivering minimal dose to OARs."

According to the news editors, the research concluded: "The introduction of a stereotactic body radiation therapy VMAT treatment planning solution improves the efficiency of planning and delivery time, producing treatment plans of comparable or superior quality to IMRT in the case of primary renal cell carcinoma and oligometastatic adrenal lesions."

For more information on this research see: Implementation of a volumetric modulated arc therapy treatment planning solution for kidney and adrenal stereotactic body radiation therapy. Medical Dosimetry, 2016;41(4):323-328. Medical Dosimetry can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Medical Dosimetry - www.journals.elsevier.com/medical-dosimetry/)

The news correspondents report that additional information may be obtained from M. Sonier, Sunnybrook Hlth Sci Center, Odette Canc Center, Toronto, ON, Canada. Additional authors for this research include W. Chu, N. Lalani, D. Erler, P. Cheung and R. Korol.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.meddos.2016.09.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Drugs and Therapies, Radiation Therapy, Sunnybrook Health Sciences
Biomedical Engineering - Tissue Engineering

Data from Tabriz University of Medical Sciences Advance Knowledge in Tissue Engineering (Bacterial-derived biopolymers: Advanced natural nanomaterials for drug delivery and tissue engineering)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biomedical Engineering - Tissue Engineering is now available. According to news reporting originating in Tabriz, Iran, by NewsRx journalists, research stated, "There are several biocompatible and biodegradable biopolymers, which found tremendous medical and pharmaceutical applications and currently receiving unprecedented attention."

Financial support for this research came from Tabriz University of Medical Sciences. The news reporters obtained a quote from the research from the Tabriz University of Medical Sciences, "Various microorganisms can synthesize a variety of these biopolymers such as polysaccharides, polyamides and polyesters, which could be used for development of new generation of drug carriers and tissue repairing materials. The size, charge, chemical structure and other physicochemical properties of bacterial biodegradable polymers represent a good compatibility in development of tissue scaffolds and also as delivery vehicles of therapeutic agents."

According to the news reporters, the research concluded: "Here, we highlight recent advances in engineering biopolymers derived from bacteria, especially for drug delivery and tissue engineering."


Our news correspondents report that additional information may be obtained by contacting J.E.N. Dolatabadi, Tabriz Univ Med Sci, Res Center Pharmaceut Nanotechnol, Fac Pharm, Tabriz, Iran. Additional authors for this research include A. Alibakhshi, M. Hejazi, Y. Omidi and J.E.N. Dolatabadi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.trac.2016.06.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tabriz, Iran, Asia, Biomedical Engineering, Drug Delivery Systems, Emerging Technologies, Drugs and Therapies, Tissue Engineering, Bioengineering, Nanotechnology, Biotechnology, Nanomaterial, Biomedicine, Biopolymers, Tabriz University of Medical Sciences.

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Data from Tehran University of Medical Sciences Provide New Insights into Cyclic Peptides (Inhibition of Octreotide Acylation Inside PLGA Microspheres by Derivatization of the Amines of the Peptide with a Self-Immolative Protecting Group)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peptides - Cyclic Peptides. According to news reporting out of Tehran, Iran, by NewsRx editors, research stated, "Acylation of biopharmaceuticals such as peptides has been identified as a major obstacle for the successful development of PLGA controlled release formulations. The purpose of this study was to develop a method to inhibit peptide acylation in poly(d,l-lactide-co-glycolide) (PLGA) formulations by reversibly and temporarily blocking the amine groups of a model peptide (octreotide) with a self-immolative protecting group (SIP), O-4-nitroph enyl-O’-4-acetoxybenzyl carbonate."

Financial support for this research came from Ministry of Health and Medical Education.

Our news journalists obtained a quote from the research from the Tehran University of Medical Sciences, "The octreotide with two self-immolative protecting groups (OctdiSIP) on the N-terminus and lysine side chain was synthesized by reaction of the peptide with O-4-nitrophenyl-O’-4-acetoxybenzyl carbonate, purified by preparative RP-HPLC and characterized by mass spectrometry. Degradation studies of OctdiSIP in aqueous solutions of different pH values showed that protected octreotide was stable at low pH (pH 5) whereas the protecting group was eliminated at physiological pH, especially in the presence of an esterase, to generate native octreotide. OctdiSIP encapsulated in PLGA microspheres, prepared using a double emulsion solvent evaporation method, showed substantial inhibition of acylation as compared to the unprotected octreotide: 52.5% of unprotected octreotide was acylated after 50 days incubation of microspheres in PBS pH 7.4 at 37 ?C, whereas OctdiSIP showed only 5.0% acylation in the same time frame."

According to the news editors, the research concluded: "The incorporation of self-immolative protection groups provides a viable approach for inhibition of acylation of peptides in PLGA delivery systems."


Our news journalists report that additional information may be obtained by contacting M. Shirangi, Dept. of Drug and Food Control, Faculty of Pharmacy, Tehran University of Medical Science, Tehran 1417614411, Iran. Additional authors for this research include M. Najafi, D.T. Rijkers, R.J. Kok, W.E. Hennink and C.F van Nostrum.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.bioconjchem.5b00598. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Iran, Asia, Tehran, Hormones, Octreotide, Cyclic Peptides.

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Oncology - Cholangiocarcinoma

Data from Third Military Medical University Advance Knowledge in Cholangiocarcinoma [A polysaccharide from Pinellia ternata inhibits cell proliferation and metastasis in human cholangiocarcinoma cells by targeting of Cdc42 and 67 kDa Laminin ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cholangiocarcinoma have been published. According to news reporting originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "In this study, we isolated and purified a polysaccharide (PTPA) from the tubers of Pinellia ternate. We aimed to evaluate the cytotoxic effects of PTPA on human cholangiocarcinoma (CCA) cell lines and to identify the underlying molecular mechanism."

Our news editors obtained a quote from the research from Third Military Medical University. "PTPA at the dose from 25 to 200 μg/mL showed significant inhibitory effect on the proliferation of four cancer cell lines (SNU-245, CL-6, Sk-ChA-1 and MZ-ChA-1), among which Sk-ChA-1 was a most sensitive cell line to PTPA treatment via induction of apoptosis. Interestingly, RNA interference of Sk-ChA-1 cells with 67LR or Cdc42-targeted shRNAs resulted a similar potency in decreasing cell viability and causing apoptotic death. Moreover, PTPA (100 μg/mL) or 67LR or Cdc42 special shRNAs increased the ratio of pro-apoptotic Bax to anti-apoptotic Bcl-2, induced the activation of caspase-9 and caspase-3, but not caspase-8, and inhibited the expression of 67LR or Cdc42 protein in Sk-ChA-1 cells. Taken together, the inhibitory effect of PTPA on the cell growth of Sk-ChA-1 cells was at least in part mediated via the activation of the intrinsic mitochondrial apoptotic pathway and the downregulation of 67LR or Cdc42 protein expression."

According to the news editors, the research concluded: "Thus, PTPA may be developed as a promising candidate for chemopreventive agent in the prevention and treatment of human CCA."


The news editors report that additional information may be obtained by contacting S.G. Wang, Third Military Medical University, Inst Hepatobiliary Surg, Southwest Hosp, Chongqing, People's Republic of China. Additional authors for this research include D.J. Li, J. Chen and S.G. Wang.

Keywords for this news article include: Chongqing, People's Republic of China, Asia, Extracellular Matrix Proteins, Membrane Glycoproteins, Immunologic Receptors, Enzymes and Coenzymes, Cell Proliferation, Cholangiocarcinoma, Membrane Proteins, Laminin Receptors, Genetics, Oncology, Caspase, Third Military Medical University.

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Data from Tomsk State University Advance Knowledge in Malaria [On the ecology and range of Anopheles beklemishevi (Diptera: Culicidae) with reference to the taxonomy of An. lewisi]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mosquito-Borne Diseases - Malaria have been published. According to news reporting originating in Tomsk, Russia, by NewsRx editors, the research stated, "The ecological features and geographic distribution of Anopheles beklemishevi have not been studied extensively. These studies are important in connection with the validity of the Anopheles lewisi' taxon."

The news reporters obtained a quote from the research from Tomsk State University, "The materials were collected in Russia and Kazakhstan from 1973 to 2012, and species identity was defined by cytogenetic analysis of polytene chromosomes of larvae and adult females. A total of 7,896 specimens from 34 geographic locations was included in the analysis. It was established that An. beklemishevi is distributed from the east coast of the Baltic Sea to the basin of the Lena River, and from the forest-tundra zone to the Altai and Sayan Mountain systems. This species is exophilic and is confined to high and/or swampy terrains found in the zone of conifer and mixed forests. The frequency of An. beklemishevi in the southwestern area, where it is sympatric with An. messeae s.l., has significantly decreased over the past decades. The results of the study indirectly suggest that An. beklemishevi does not play a significant role as a vector of malaria. It is highly improbable that An. beklemishevi and An. lewisi are the same species."

According to the news reporters, the research concluded: "Changes in the proportions of the species of the Maculipennis complex, as well as a shift of their ranges, will significantly impact the epidemiology of malaria over large areas of northern Eurasia."


Our news correspondents report that additional information may be obtained by contacting Y.M. Novikov, Tomsk State Univ, Dept. of Cytol & Genet, Tomsk 634050, Russia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jvec.12215. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tomsk, Russia, Eurasia, Mosquito-Borne Diseases, Ecology, Epidemiology, Protozoan Infections, Genetics, Malaria, Tomsk State University.

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Nephrology

Data from University Hospital Provide New Insights into Nephrology
(The Microphthalmia-Associated Transcription Factor p.E318K Mutation Does Not Play a Major Role in Sporadic Renal Cell Tumors from Caucasian Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nephrology. According to news originating from Erlangen, Germany, by NewsRx correspondents, research stated, "The transcription factor MITF (microphthalmia-associated transcription factor) is known to induce expression of hypoxia-inducible factor (HIF1-a), which is involved in renal carcinogenesis. The MITF p.E318K mutation leads to deficient SUMOylation of MITF, resulting in enhanced activation of its target genes."

Our news journalists obtained a quote from the research from University Hospital, "A case-control study on melanoma patients who coincidentally were affected by renal cell carcinoma (RCC) has revealed an elevated risk for mutation carriers to be affected by one or both of these malignancies, suggesting a possible role for MITF p.E318K in renal carcinogenesis. The same study described an MITF mutation frequency of 1.5% in a small cohort of sporadic RCC, but comprehensive data on sporadic renal cell tumors are missing. We therefore tested a large cohort of sporadic renal tumors for MITF p.E318K mutation status. Genomic DNA was extracted from 426 formalin-fixed, paraffin-embedded sporadic renal tumors that had been graded according to the 2004 WHO classification of renal tumors and staged according to the 2002 TNM classification. The tumor cohort was enriched with papillary and chromophobe RCC, and also contained benign oncocytomas. DNA was tested for MITF p.E318K by pyrosequencing. Of 403 analyzable tumors, 402 renal tumors were wild-type ones, and only 1 case showed the MITF p.E318K mutation. This tumor was a clear-cell RCC (pT3b N0 M0 G3 according to the TNM classification 2002). The affected patient was male, 61 years old, and had no known coexisting malignancies."

According to the news editors, the research concluded: "The MITF p.E318K mutation does not appear to play a major role in sporadic RCC carcinogenesis, but is possibly restricted to a rare subpopulation of inherited RCC."


The news correspondents report that additional information may be obtained from C.G. Stoehr, Institute of Pathology, University Hospital Erlangen, Friedrich Alexander University Erlangen-Nuremberg, Erlangen, Germany. Additional authors for this research include B. Walter, S. Denzinger, P. Ghiorzo, R.A. Sturm, R. Hinze, H. Moch, K. Junker, A. Hartmann and R. Stoehr.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443311. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Kidney, Germany, Erlangen, Genetics, Nephrology, Carcinogenesis, DNA Binding Proteins, Renal Cell Carcinoma,
Data from University of Alabama Provide New Insights into Acute Lung Injury (Protective effect of suppressing STAT3 activity in LPS-induced acute lung injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Acute Lung Injury. According to news reporting originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "Acute lung injury (ALI) and acute respiratory distress syndrome (ARDS) are diseases with high mortality. Macrophages and neutrophils are responsible for inflammatory responses in ALI and ARDS, which are characterized by excessive production of proinflammatory mediators in bronchoalveolar lavage fluid (BALF) and plasma."

Funders for this research include HHS | NIH | National Institute of Neurological Disorders and Stroke (NINDS), HHS | NIH | National Heart, Lung, and Blood Institute (NHBLI).

Our news editors obtained a quote from the research from the University of Alabama, "Aberrant activation of the JAK/STAT pathway is critical for persistent inflammation in many conditions such as infection and autoimmunity. Given the importance of the STAT3 transcription factor in activating macrophages and neutrophils and augmenting inflammation, we investigated the therapeutic potential of inhibiting STAT3 activity using the small-molecule STAT3 inhibitor, LLL12. Our results demonstrate that LPS induces STAT3 activation in macrophages in vitro and in CD45(+)CD11b(+) cells from BALF in the LPS-induced ALI model in vivo. LLL12 treatment inhibits LPS-induced lung inflammation in the ALI model, which is accompanied by suppression of LPS-induced STAT3 activation and an inhibition of macrophage and inflammatory cell infiltration in lung and BALF. LLL12 treatment also suppresses expression of proinflammatory genes including IL-1 beta, IL-6, TNF-alpha, iNOS, CCL2, and MHC class II in macrophages and inflammatory cells from BALF and serum as determined by ELISA. Furthermore, hyperactivation of STAT3 in LysMCre-SOCS3(fl/fl) mice accelerates the severity of inflammation in the ALI model. Both pre- and post-LPS treatment with LLL12 decrease LPS-induced inflammatory responses in mice with ALI."

According to the news editors, the research concluded: "Importantly, LLL12 treatment attenuates STAT3 phosphorylation in human peripheral blood mononuclear cells induced by plasma from patients with ARDS, which suggests the feasibility of targeting the STAT3 pathway therapeutically for patients with ALI and ARDS."


The news editors report that additional information may be obtained by contacting H.W. Qin, Univ Alabama Birmingham, Dept. of Cell Dev & Integrat Biol, Birmingham, AL
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**Biotechnology**

**Data from University of Alabama Provide New Insights into Biotechnology (Evaluating the toxicity of bDtBPP on CHO-K1 cells for testing of single-use bioprocessing systems considering media selection, cell culture volume, mixing, and exposure ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology. According to news reporting originating from Tuscaloosa, Alabama, by NewsRx correspondents, research stated, "Single-use bioprocessing bags are gaining popularity due to ease of use, lower risk of contamination, and ease of process scale-up. Bis(2,4-di-tert-butylphenyl)phosphate (bDtBPP), a degradant of tris(2,4-di-tert-butylphenyl)phosphite, marketed as Irgafos 168®, which is an antioxidant stabilizer added to resins, has been identified as a potentially toxic leachate which may impact the performance of single-use, multilayer bioprocessing bags."

Our news editors obtained a quote from the research from the University of Alabama, "In this study, the toxicity of bDtBPP was tested on CHO-K1 cells grown as adherent or suspended cells. The EC50 (effective concentration to cause 50% cell death) for adherent cells was found to be one order of magnitude higher than that for suspended CHO-K1 cells. While CHO-K1 cells had good cell viability when exposed to moderate concentrations of bDtBPP, the degradant was shown to impact the viable cell density (VCD) at much lower concentrations. Hence, in developing an industry-standard assay for testing the cytotoxicity of leachates, suspended cells (as commonly used in the bioprocessing industry) would likely be most sensitive, particularly when reporting EC50 values based on VCD. The effects of mixing, cell culture volume, and exposure duration were also evaluated for suspended CHO-K1 cells."

According to the news editors, the research concluded: "It was found that the sensitivity of cell culture to leachates from single-use plastic bags was enhanced for suspended cells cultured for longer exposure times and when the cells were subjected to continuous agitation, both of which are important considerations in the production of biopharmaceuticals."

For more information on this research see: Evaluating the toxicity of bDtBPP on CHO-K1 cells for testing of single-use bioprocessing systems considering media selection, cell culture volume, mixing, and exposure duration. *Biotechnology Progress*, 2016;32(5):1318-1323. *Biotechnology Progress* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken
Eye Diseases and Conditions - Retinal Vein Occlusion

Data from University of Alexandria Provide New Insights into Retinal Vein Occlusion (Central retinal vein occlusion: modifying current treatment protocols)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Eye Diseases and Conditions - Retinal Vein Occlusion. According to news reporting originating from Alexandria, Egypt, by NewsRx correspondents, research stated, "Central retinal vein occlusion (CRVO) is a common retinal vascular disorder that can result in severe visual acuity loss. The randomized control study, CRUISE, helped establish anti-VEGFs as the standard of care in cases with CRVO."

Our news editors obtained a quote from the research from the University of Alexandria, "The extension studies for CRUISE; HORIZON and RETAIN showed that not all visual gains are maintained beyond the first year. In addition, patients showed different behavior patterns; with some patients showing complete response with few recurrences, whereas others showed partial or even no response with multiple recurrences. Long-term follow-up demonstrated that patients responding poorly to anti-VEGFs tended to do so early in the course of treatment. It also demonstrated the effectiveness of a pro re nata (PRN) protocol for improving vision and maintaining these gains over long-term follow-ups. The SHORE study further illustrated this point by demonstrating that there were minimal differences in visual outcomes between patients receiving monthly injections and patients being treated PRN. In this review we analyzed the data from the major randomized clinical trials (RCT) that looked at anti-VEGFs as the primary treatment modality in patients with CRVO (CRUISE and the extension studies HORIZON and RETAIN for ranibizumab as well as GALILEO and COPERNICUS for aflibercept). In addition, we looked at SCORE and GENEVA to help determine whether there is a place for steroids as a first line therapy in current treatment practice. We then explored alternative treatment regimens such as laser therapy and switching between anti-VEGF agents and/or steroids for non or partially responding patients."

According to the news editors, the research concluded: "Finally, we propose a simplified modified treatment algorithm for patients with CRVO for better long-term outcomes in all types of responders."

For more information on this research see: Central retinal vein occlusion: modifying

The news editors report that additional information may be obtained by contacting M. Ashraf, Ophthalmology Department, Faculty of Medicine, Alexandria University, Alexandria, Egypt. Additional authors for this research include A.A. Souka and R.P Singh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/eye.2016.10. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Eye* is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Egypt, Africa, Alexandria, Article Review, Venous Thrombosis, Retinal Vein Occlusion, Embolism and Thrombosis, Eye Diseases and Conditions, Retinal Diseases and Conditions, Cardiovascular Diseases and Conditions.

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**Drugs and Therapies - Antifungals**

**Data from University of Athens Provide New Insights into Antifungals (In vitro evaluation of the impact of gastrointestinal transfer on luminal performance of commercially available products of posaconazole and itraconazole using BioGIT)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antifungals are presented in a new report. According to news reporting out of Zografos, Greece, by NewsRx editors, research stated, "Biorelevant Gastrointestinal Transfer system (BioGIT) has been shown to be useful in reproducing concentrations of drugs in the fasted upper small intestine after their administration in the stomach. In the present investigation, we evaluated the impact of gastrointestinal transfer on luminal performance of commercially available products of two highly lipophilic weak bases, posaconazole (Noxafil ® suspension) and itraconazole (Sporanox ® hard gelatin capsules and Sporanox ® oral solution) by comparing % solid fraction, concentrations and supersaturation in the duodenal compartment of BioGIT with recently reported data in the upper small intestine of healthy adults."

Financial support for this research came from Innovative Medicines Initiative Joint.

Our news journalists obtained a quote from the research from the University of Athens, "BioGIT was useful for estimating the % solid fraction in the upper small intestine, in cases where dissolution during gastric residence was incomplete, i.e. after administration of Noxafil ® and Sporanox1 capsules, and the precipitated fraction of itraconazole in the upper small intestine after administration of Sporanox ® solution; median values in vitro were similar to the luminal values. Based on the values for the area under the concentration vs. time data estimated up to 45 min post initiation of the experiment, concentrations in the duodenal compartment of BioGIT were similar to previously measured concentrations in the upper small intestine of healthy adults or they overestimated them by up to 2.5 times."

According to the news editors, the research concluded: "In most cases, supersaturation of contents in the upper small intestine was overestimated, partly due to
underestimation of luminal solubility."


Our news journalists report that additional information may be obtained by contacting C. Reppas, University of Athens, Dept. of Pharm, Zografos, Greece. Additional authors for this research include M. Vertzoni, M. Symillides, B. Hens, J. Brouwers, P. Augustijns and C. Reppas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zografos, Greece, Europe, Itraconazole Therapy, Drugs and Therapies, Azole Antifungals, Gastroenterology, Sporanox Therapy, Pharmaceuticals, Antineoplastics, Posaconazole, University of Athens.

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**Data from University of Bologna Provide New Insights into Antineoplastic Monoclonal Antibodies (Low-dose radiotherapy and concurrent FOLFIRI-bevacizumab: a Phase II study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antineoplastic Monoclonal Antibodies have been published. According to news reporting originating from Bologna, Italy, by NewsRx correspondents, research stated, "Low-dose radiation therapy (LDRT) can increase biological efficacy of chemotherapy. This Phase II trial evaluates LDRT plus FOLFIRI-bevacizumab (FOLFIRI-B) in metastatic colorectal cancer, raising the clinical complete response rate from 5 to 25%. toxicity, progression-free survival."

Our news editors obtained a quote from the research from the University of Bologna, "Patients underwent 12 FOLFIRI-B cycles plus two daily LDRT fractions (20 cGy/6 h interval) on each cycle. Statistical analysis was planned on 18 patients. Results on 18 patients are reported. Specifically considering irradiated sites: 15/18 patients had a partial (11/18) or complete (4/18) response. Among 11 partial responders, three became a pathological CR after surgery. Grade 3-4 toxicity was recorded in two patients (11.1%). At median follow-up of 30 months (range: 8-50), 7/18 patients progressed in irradiated sites. Seven out of 18 patients (38.9%) had clinical or pathological CR in lesions treated with LDRT."

According to the news editors, the research concluded: "Further studies on this newer treatment modality seem justified."


The news editors report that additional information may be obtained by contacting
A.G. Morganti, Radiation Oncology Unit, Dept. of Experimental, Diagnostic & Specialty Medicine - DIMES, University of Bologna, S Orsola-Malpighi Hospital, Bologna, Italy. Additional authors for this research include F. Cellini, S. Mignogna, G.D. Padula, L. Caravatta, F. Deodato, V. Picardi, G. Macchia, S. Cilla, M. Buwenge, L. Di Lullo, M.A. Gambacorta, M. Balducci, G.C. Mattiucci, R. Autorino and V. Valentini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.15.350. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bologna, Italy, Europe, Antineoplastic Monoclonal Antibodies, Antineoplastics, Bevacizumab, Drugs and Therapies, Radiotherapy, Therapy, Tyrosine Kinase Inhibitors, VEGF VEGFR Inhibitors, VEGFR Inhibitors.

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Oncology - Breast Cancer

Data from University of British Columbia Provide New Insights into Breast Cancer (Differentiating the Causes of Spontaneous Rib Fracture After Breast Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting from Vancouver, Canada, by NewsRx editors, the research stated, "Spontaneous rib fracture after treatment for primary breast cancer is not uncommon."

The news correspondents obtained a quote from the research from the University of British Columbia, "Although metastatic disease accounts for about 30% of spontaneous rib fractures and should constitute the first line of diagnostic investigation, other possible contributors include primary osteoporosis or secondary osteoporosis resulting from cancer treatments. Chemotherapy-induced menopause, aromatase inhibitors, radiation therapy, and long-term bisphosphonate use can all contribute to bone fragility, including spontaneous rib fractures in the latter 3. Drawing on recent breast cancer practice guidelines as well as population-based studies of fracture risk for women with a history of breast cancer and systematic reviews, this Perspective will provide an update on recent developments in understanding how to differentiate the possible reasons for non-traumatic rib fracture in women treated for breast cancer."

According to the news reporters, the research concluded: "In addition to describing the various possible causes of spontaneous rib fracture, the recommended medical and imaging procedures for differentiating among the potential causes will be presented."

For more information on this research see: Differentiating the Causes of Spontaneous Rib Fracture After Breast Cancer. Clinical Breast Cancer, 2016;16(6):431-436. Clinical Breast Cancer can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA. (Elsevier - www.elsevier.com; Clinical Breast Cancer - www.journals.elsevier.com/clinical-breast-cancer/)

Our news journalists report that additional information may be obtained by contacting S.R. Harris, University of British Columbia, Fac Med, Dept. of Phys Therapy, Vancouver, BC V6T 1Z3, Canada.

The direct object identifier (DOI) for that additional information is:
Data from University of Calgary Advance Knowledge in Intracellular Space (The Cytoplasmic Region of Inner Helix S6 Is an Important Determinant of Cardiac Ryanodine Receptor Channel Gating)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Intracellular Space. According to news reporting from Calgary, Canada, by NewsRx journalists, research stated, "The ryanodine receptor (RyR) channel pore is formed by four S6 inner helices, with its intracellular gate located at the S6 helix bundle crossing region. The cytoplasmic region of the extended S6 helix is held by the U motif of the central domain and is thought to control the opening and closing of the S6 helix bundle."

The news correspondents obtained a quote from the research from the University of Calgary, "However, the functional significance of the S6 cytoplasmic region in channel gating is unknown. Here we assessed the role of the S6 cytoplasmic region in the function of cardiac RyR (RyR2) via structure-guided site-directed mutagenesis. We mutated each residue in the S6 cytoplasmic region of the mouse RyR2 ((4875)QQEQVKEDM(4884)) and characterized their functional impact. We found that mutations Q4876A, V4880A, K4881A, and M4884A, located mainly on one side of the S6 helix that faces the U motif, enhanced basal channel activity and the sensitivity to Ca2+ or caffeine activation, whereas mutations Q4877A, E4878A, Q4879A, and D4883A, located largely on the opposite side of S6, suppressed channel activity. Furthermore, V4880A, a cardiac arrhythmia-associated mutation, markedly enhanced the frequency of spontaneous openings and the sensitivity to cytosolic and luminal Ca2+ activation of single RyR2 channels. V4880A also increased the propensity and reduced the threshold for arrhythmogenic spontaneous Ca2+ release in HEK293 cells. Collectively, our data suggest that interactions between the cytoplasmic region of S6 and the U motif of RyR2 are important for stabilizing the closed state of the channel."

According to the news reporters, the research concluded: "Mutations in the S6/U motif domain interface likely destabilize the closed state of RyR2, resulting in enhanced basal channel activity and sensitivity to activation and increased propensity for spontaneous Ca2+ release and cardiac arrhythmias."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.758821. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Calgary, Alberta, Canada, North and Central America, Intracellular Space, Diterpenes, Cardiology, Ryanodine, Cytoplasm, Genetics, University of Calgary.

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**Data from University of California Advance Knowledge in Hypercalcemia (A Young Woman With Recurrent Gestational Hypercalcemia and Acute Pancreatitis Caused by CYP24A1 Deficiency)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Hypercalcemia are presented in a new report. According to news originating from San Diego, California, by NewsRx correspondents, research stated, "The CYP24A1 gene encodes a mitochondrial 24-hydroxylase that inactivates 1,25(OH)(2)D. Loss-of-function mutations in CYP24A1 cause hypercalcemia, nephrolithiasis and nephrocalcinosis."

Our news journalists obtained a quote from the research from the University of California, "We describe a woman with CYP24A1 deficiency and recurrent gestational hypercalcemia. Her first pregnancy, at age 20, resulted with the intrauterine demise of twin fetuses. Postpartum, she developed severe hypercalcemia (14mg/dL), altered mental status, and acute pancreatitis. Her PTH was suppressed (6 pg/mL) and her 1,25(OH) 2D was elevated (165 and 195 pg/mL on postpartum day 1 and 5, respectively). Between one and three months postpartum, her serum calcium decreased from 11.4 to 10.2 mg/dL while her 1,25(OH) 2D level decreased from 83 to 24 pg/mL. Her 24-hour urine calcium was 277 mg. Six months postpartum, she became pregnant again. At 14 weeks, her albumin-corrected calcium level was 10.4 mg/dL and her 1,25(OH)(2)D level exceeded 200 pg/mL. To establish the diagnosis of CYP24A1 deficiency, we showed her 24,25(OH) 2D level to be undetectable (<2 ng/mL). Exon sequencing of the CYP24A1 gene revealed a homozygous, 8-nucleotide deletion in exon 8, causing an S334V substitution and premature termination due to a frame shift (c.999_1006del, p.Ser334Valfs*9). To prevent hypercalcemia, she was advised to discontinue prenatal vitamins, avoid sun exposure and calcium-rich foods, and start omeprazole and a calcium binder (250mg K-Phos-neutral with meals). Despite these measures, both hypercalcemia (11.5mg/dL) and acute pancreatitis recurred. Labor was induced and a healthy, normocalcemic boy was delivered. In the absence of lactation, maternal hypercalcemia resolved within 2 months. This report shows that CYP24A1-deficient subjects may be normocalcemic at baseline. Hypercalcemia may be unmasked by pregnancy through the routine use of calciferol-containing prenatal vitamins, increased 1-alpha hydroxylation of VitD by the placenta and maternal kidney, and production of PTHrP by the uteroplacental unit."

According to the news editors, the research concluded: "CYP24A1 deficiency should
be considered in patients with unexplained vitamin D-mediated hypercalcemia."


The news correspondents report that additional information may be obtained from G.N. Woods, University of California, Dept. of Med, San Diego, CA 92103, United States. Additional authors for this research include A. Saitman, H.L. Gao, N.J. Clarke, R.L. Fitzgerald and N.W. Chi.

Keywords for this news article include: San Diego, California, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Calcium Metabolism Disorders, Water-Electrolyte Imbalance, Risk and Prevention, Acute Pancreatitis, Gastroenterology, Hypercalcemia, Endocrinology, Genetics, University of California.

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**Diet and Nutrition**

**Data from University of Coimbra Provide New Insights into Diet and Nutrition (Ketogenic diets: from cancer to mitochondrial diseases and beyond)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Diet and Nutrition. According to news reporting originating from Coimbra, Portugal, by NewsRx correspondents, research stated, "The employment of dietary strategies such as ketogenic diets, which force cells to alter their energy source, has shown efficacy in the treatment of several diseases. Ketogenic diets are composed of high fat, moderate protein and low carbohydrates, which favour mitochondrial respiration rather than glycolysis for energy metabolism."

Funders for this research include Fundacao para a Ciencia e a Tecnologia, FEDER/Compete and National Budget.

Our news editors obtained a quote from the research from the University of Coimbra, "This review focuses on how oncological, neurological and mitochondrial disorders have been targeted by ketogenic diets, their metabolic effects, and the possible mechanisms of action on mitochondrial energy homeostasis. The beneficial and adverse effects of the ketogenic diets are also highlighted."

According to the news editors, the research concluded: "Although the full mechanism by which ketogenic diets improve oncological and neurological conditions still remains to be elucidated, their clinical efficacy has attracted many new followers, and ketogenic diets can be a good option as a co-adjuvant therapy, depending on the situation and the extent of the disease."

The news editors report that additional information may be obtained by contacting A.F. Branco, CNC - Center for Neuroscience and Cell Biology, University of Coimbra, Coimbra, Portugal. Additional authors for this research include A. Ferreira, R.F. Simoes, S. Magalhaes-Novais, C. Zehowski, E. Cope, A.M. Silva, D. Pereira, V.A. Sardao and T. Cunha-Oliveira.

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Keywords for this news article include: Europe, Cancer, Coimbra, Portugal, Oncology, Article Review, Ketogenic Diet, Diet and Nutrition.

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Oncology - Thyroid Cancer

Data from University of Edinburgh Advance Knowledge in Thyroid Cancer (Management of Invasive Differentiated Thyroid Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Thyroid Cancer have been published. According to news reporting originating in Midlothian, United Kingdom, by NewsRx journalists, research stated, "Invasive disease is a poor prognostic factor for patients with differentiated thyroid cancer (DTC). Uncontrolled central neck disease is a common cause of distressing death for patients presenting in this manner."

The news reporters obtained a quote from the research from the University of Edinburgh, "Advances in assessment and management of such cases have led to significant improvements in outcome for this patient group. This article reviews the patterns of invasion and a contemporary approach to investigation and treatment of patients with invasive DTC. Aerodigestive tract invasion is reported in around 10% of case series of DTC. Assessment should include not only clinical history and physical examination with endoscopy as indicated, but ultrasound and contrast-enhanced cross-sectional imaging. Further studies including positron emission tomography should be considered, particularly in recurrent cases that are radioactive iodine (RAI) resistant. Both the patient and the extent of disease should be carefully assessed prior to embarking on surgery. The aim of surgery is to resect all gross disease. When minimal visceral invasion is encountered early, 'shave' procedures are recommended. In the setting of transmural invasion of the airway or esophagus, however, full thickness excision is required. For intermediate cases in which invasion of the viscera has penetrated the superficial layers but is not evident in the submucosa, opinion is divided. Early reports recommended an aggressive approach. More recently authors have tended to recommend less aggressive resections with postoperative adjuvant therapies. The role of external beam radiotherapy continues to evolve in DTC with support for its use in patients considered to have RAI-resistant tumors. Patients with invasive DTC require a multidisciplinary approach to investigation and treatment."

According to the news reporters, the research concluded: "With detailed assessment, appropriate surgery, and adjuvant therapy when indicated, this patient group can expect durable control of central neck disease, despite the aggressive nature of their primary tumors."

For more information on this research see: Management of Invasive Differentiated
Data from University of Edinburgh Provide New Insights into Staphylococcus aureus (IL-1 beta-Induced Protection of Keratinocytes against Staphylococcus aureus-Secreted Proteases Is Mediated by Human beta-Defensin 2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Positive Bacteria - Staphylococcus aureus are presented in a new report. According to news reporting out of Edinburgh, United Kingdom, by NewsRx editors, research stated, "Atopic dermatitis (AD) is a common chronic inflammatory skin disease that results in significant morbidity. A hallmark of AD is disruption of the critical barrier function of upper epidermal layers, causatively linked to environmental stimuli, genetics, and infection, and a critical current target for the development of new therapeutic and prophylactic interventions."

Our news journalists obtained a quote from the research from the University of Edinburgh, "Staphylococcus aureus is an AD-associated pathogen producing virulence factors that induce skin barrier disruption in vivo and contribute to AD pathogenesis. We show, using immortalized and primary keratinocytes, that S. aureus protease SspA/V8 is the dominant secreted factor (in laboratory and AD clinical strains of S. aureus) inducing barrier integrity impairment and tight junction damage. V8-induced integrity damage was inhibited by an IL-1 beta-mediated mechanism, independent of effects on claudin-1. Induction of keratinocyte expression of the antimicrobial/host defense peptide human beta-defensin 2 (hBD2) was found to be the mechanism underpinning this protective effect. Endogenous hBD2 expression was required and sufficient for protection against V8 protease-mediated integrity damage, and exogenous application of hBD2 was protective."

According to the news editors, the research concluded: "This modulatory property of hBD2, unrelated to antibacterial effects, gives new significance to the defective induction of hBD2 in the barrier-defective skin lesions of AD and indicates therapeutic potential."

For more information on this research see: IL-1 beta-Induced Protection of Keratinocytes against Staphylococcus aureus-Secreted Proteases Is Mediated by Human beta-

Our news journalists report that additional information may be obtained by contacting D.J. Davidson, University of Edinburgh, Queens Med Res Inst, MRC Center Inflammat Res, Edinburgh EH16 4TJ, Midlothian, United Kingdom. Additional authors for this research include B.J. McHugh, A. Qureshi, D.J. Campopiano, D.J. Clarke, J.R. Fitzgerald, J.R. Dorin, R. Weller and D.J. Davidson.

Keywords for this news article include: Edinburgh, United Kingdom, Europe, Gram-Positive Endospore-Forming Rods, Antimicrobial Cationic Peptides, Pore Forming Cytotoxic Proteins, Endospore-Forming Bacteria, Gram-Positive Bacteria, Enzymes and Coenzymes, Staphylococcus aureus, Gram-Positive Cocci, Membrane Proteins, Atopic Dermatitis, Staphylococcaceae, beta-Defensins, Bacillales, Protease, Genetics, University of Edinburgh.

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**Microcirculation**

**Data from University of Illinois Advance Knowledge in Microcirculation (The capillary bed offers the largest hemodynamic resistance to the cortical blood supply)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Microcirculation have been published. According to news reporting originating in Chicago, Illinois, by NewsRx journalists, research stated, "The cortical angioarchitecture is a key factor in controlling cerebral blood flow and oxygen metabolism. Difficulties in imaging the complex microanatomy of the cortex have so far restricted insight about blood flow distribution in the microcirculation."

The news reporters obtained a quote from the research from the University of Illinois, "A new methodology combining advanced microscopy data with large scale hemodynamic simulations enabled us to quantify the effect of the angioarchitecture on the cerebral microcirculation. High-resolution images of the mouse primary somatosensory cortex were input into with a comprehensive computational model of cerebral perfusion and oxygen supply ranging from the pial vessels to individual brain cells. Simulations of blood flow, hematocrit and oxygen tension show that the wide variation of hemodynamic states in the tortuous, randomly organized capillary bed is responsible for relatively uniform cortical tissue perfusion and oxygenation."

According to the news reporters, the research concluded: "Computational analysis of microcirculatory blood flow and pressure drops further indicates that the capillary bed, including capillaries adjacent to feeding arterioles (d < 10 mm), are the largest contributors to hydraulic resistance."

Data from University of Innsbruck Provide New Insights into Molecular Pharmaceutics (Structural Properties, Order-Disorder Phenomena, and Phase Stability of Orotic Acid Crystal Forms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biotechnology - Molecular Pharmaceutics is the subject of a report. According to news reporting originating in Innsbruck, Austria, by NewsRx journalists, research stated, "Orotic acid (OTA) is reported to exist in the anhydrous (AH), monohydrate (Hy1), and dimethyl sulfoxide monosolvate (SDMSO) forms. In this study we investigate the (de)hydration/desolvation behavior, aiming at an understanding of the elusive structural features of anhydrous OTA by a combination of experimental and computational techniques, namely, thermal analytical methods, gravimetric moisture (de)orption studies, water activity measurements, X-ray powder diffraction, spectroscopy (vibrational, solid-state NMR), crystal energy landscape, and chemical shift calculations."

Financial support for this research came from Austrian Science Fund.

The news reporters obtained a quote from the research from the University of Innsbruck, "The Hy1 is a highly stable hydrate, which dissociates above 135 °C and loses only a small part of the water when stored over desiccants (25 °C) for more than one year. In Hy1, orotic acid and water molecules are linked by strong hydrogen bonds in nearly perfectly planar arranged stacked layers. The layers are spaced by 3.1 Å and not linked via hydrogen bonds. Upon dehydration the X-ray powder diffraction and solid-state NMR peaks become broader, indicating some disorder in the anhydrous form. The Hy1 stacking reflection (122) is maintained, suggesting that the OTA molecules are still arranged in stacked layers in the dehydration product. Desolvation of SDMSO, a nonlayer structure, results in the same AH phase as observed upon dehydrating Hy1. Depending on the desolvation conditions, different levels of order-disorder of layers present in anhydrous OTA are observed, which is also suggested by the computed low energy crystal structures. These structures provide models for stacking faults as intergrowth of different layers is possible."

According to the news reporters, the research concluded: "The variability in anhydrate crystals is of practical concern as it affects the moisture dependent stability of AH with respect to hydration."

For more information on this research see: Structural Properties, Order-Disorder Phenomena, and Phase Stability of Orotic Acid Crystal Forms. Molecular Pharmaceutics,
Our news correspondents report that additional information may be obtained by contacting D.E. Braun, Institute of Pharmacy, University of Innsbruck, Innrain 52c, 6020 Innsbruck, Austria. Additional authors for this research include K.P. Nartowski, Y.Z. Khimyak, K.R. Morris, S.R. Byrn and U.J. Griesser.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00856. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Europe, Austria, Innsbruck, Molecular Pharmaceutics.

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Data from University of Kebangsaan Advance Knowledge in Obesity (Tumour biology of obesity-related cancers: understanding the molecular concept for better diagnosis and treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Kuala Lumpur, Malaysia, by NewsRx editors, research stated, "Obesity continues to be a major global problem. Various cancers are related to obesity and proper understanding of their aetiology, especially their molecular tumour biology is important for early diagnosis and better treatment."

Our news journalists obtained a quote from the research from the University of Kebangsaan, "Genes play an important role in the development of obesity. Few genes such as leptin, leptin receptor encoded by the db (diabetes), pro-opiomelanocortin, AgRP and NPY and melanocortin-4 receptors and insulin-induced gene 2 were linked to obesity. MicroRNAs control gene expression via mRNA degradation and protein translation inhibition and influence cell differentiation, cell growth and cell death. Overexpression of miR-143 inhibits tumour growth by suppressing B cell lymphoma 2, extracellular signal-regulated kinase-5 activities and KRAS oncogene. Cancers of the breast, uterus, renal, thyroid and liver are also related to obesity. Any disturbance in the production of sex hormones and insulin, leads to distortion in the balance between cell proliferation, differentiation and apoptosis. The possible mechanism linking obesity to cancer involves alteration in the level of adipokines and sex hormones. These mediators act as biomarkers for cancer progression and act as targets for cancer therapy and prevention. Interestingly, many anti-cancerous drugs are also beneficial in treating obesity and vice versa. We also reviewed the possible link in the mechanism of few drugs which act both on cancer and obesity."

According to the news editors, the research concluded: "The present review may be important for molecular biologists, oncologists and clinicians treating cancers and also pave the way for better therapeutic options."

For more information on this research see: Tumour biology of obesity-related cancers: understanding the molecular concept for better diagnosis and treatment. Tumor Biology, 2016;37(11):14363-14380. Tumor Biology can be contacted at: Springer, Van
Data from University of Kentucky Provide New Insights into Cardiology
(Coronary artery calcification in CKD-5D patients is tied to adverse cardiac function and increased mortality)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting originating from Lexington, Kentucky, by NewsRx correspondents, research stated, "Coronary artery calcification (CAC) is common in patients with chronic kidney disease on hemodialysis (CKD-5D) and is an important predictor of mortality. However, cardiac functional links between CAC and mortality have not been well established."

Our news editors obtained a quote from the research from the University of Kentucky, "This study tested the hypothesis that CAC increases mortality by adversely affecting cardiac function. Patients were recruited from 37 regional dialysis centers. 2-D and Doppler echocardiographic analyses were performed, and CAC was measured using 64-slice computed tomography. Relationships between CAC and echocardiographic measures of left ventricular (LV) function were analyzed. Survival was assessed with median follow-up of 37 months. There were 157 patients: 59% male, 46% Caucasian, 48% diabetic. Median age was 55 years, and median duration of CKD-5D was 45 months. Agatston CAC scores > 100 were found in 69% of patients, with 51% having a score > 400. CAC was associated with measures of LV systolic and diastolic function (global longitudinal strain (GLS; rho = 0.270, p = 0.004)), peak LV systolic velocity (rho = -0.259, p = 0.004), and estimate of LV filling pressure (E:E'; rho = 0.286, p = 0.001). Multivariate regression confirmed these relationships after adjustment for age, gender, LV ejection fraction, and coronary artery disease. Valvular calcification varied linearly with CAC (p < 0.05). Both LV diastolic and systolic functional measures were significant predictors of mortality, the strongest of which was LV diastolic dysfunction. These findings show a link between CAC, cardiac function, and mortality in CKD-5D. LV diastolic function (E'), peak LV systolic velocity, and GLS are independent predictors of mortality. Valvular calcification may be an important marker of CAC in CKD-5D."

According to the news editors, the research concluded: "These effects on cardiac function likely explain the high mortality with CKD-5D and describe a potentially-valuable role..."
for echocardiography in the routine management of these patients."

For more information on this research see: Coronary artery calcification in CKD-5D patients is tied to adverse cardiac function and increased mortality. Clinical Nephrology, 2016;86(6):291-302. Clinical Nephrology can be contacted at: Dustri-Verlag Dr Karl Feistele, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.

The news editors report that additional information may be obtained by contacting H.H. Malluche, University of Kentucky, Div Nephrol Bone & Mineral Metab, Lexington, KY, United States. Additional authors for this research include G.A. Blomquist, D.L. Davenport, M.C. Monier-Faugere, V.L. Sorrell and H.H. Malluche.

Keywords for this news article include: Lexington, Kentucky, United States, North and Central America, Coronary Artery, Cardiology, Angiology, University of Kentucky.

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Oncology - Solid Cancer

Data from University of Lodz Advance Knowledge in Solid Cancer (Identification of the key pathway of oxazolinoanthracyclines mechanism of action in cells derived from human solid tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Solid Cancer is the subject of a report. According to news reporting originating in Lodz, Poland, by NewsRx journalists, research stated, "Oxazolinodoxorubicin (O-DOX) and oxazolino daunorubicin (O-DAU) are novel anthracycline derivatives with a modified daunosamine moiety. In the present study, we evaluated the cytotoxicities, genotoxicities and abilities of O-DOX and O-DAU to induce apoptosis in cancer cell lines (SKOV-3; A549; HepG2), and compared the results with their parent drugs."

The news reporters obtained a quote from the research from the University of Lodz, "We assessed antiproliferative activity by MIT assay. We evaluated apoptosis-inducing ability by double-staining with fluorescent probes (Hoechst 33258/propidium iodide), and by determining expression levels of genes involved in programmed cell death by reverse transcription-polymerase chain reaction. Genotoxicities of the compounds were tested by comet assays. Oxazolinoanthracyclines demonstrated high antitumor activity. O-DOX had significantly higher cytotoxicity, apoptosis-inducing ability, and genotoxicity compared with parental doxorubicin (DOX) in all tested conditions, while O-DAU activity differed among cell lines. The mechanism of oxazoline analog action appeared to involve the mitochondrial pathway of programmed cell death. These results provide further information about oxazoline derivatives of commonly used anthracycline chemotherapy agents."

According to the news reporters, the research concluded: "O-DOX and O-DAU have the ability to induce apoptosis in tumor cells."

Our news correspondents report that additional information may be obtained by contacting M. Denel-Bobrowska, University of Lodz, Inst Biophys, Fac Biol & Environment Protect, Dept. of Med Biophys, PL-90236 Lodz, Poland. Additional authors for this research include M. Lukawska, A. Rogalska, E. Forma, M. Brys, I. Oszczapowicz and A. Marczak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.10.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lodz, Poland, Europe, Solid Cancer, Apoptosis, Genetics, Oncology, University of Lodz.

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Musculoskeletal Diseases and Conditions - Chronic...

Data from University of Miami Provide New Insights into Chronic Pain (Analgesic Effect of Recombinant GABAergic Cells in a Model of Peripheral Neuropathic Pain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Musculoskeletal Diseases and Conditions - Chronic Pain have been presented. According to news reporting originating from Miami, Florida, by NewsRx correspondents, research stated, "Chronic neuropathic pain represents a clinically challenging state with a poor response to current treatment options. Long-term management of chronic pain is often associated with the development of tolerance, addiction, and other side effects, reducing the therapeutic value of treatment."

Our news editors obtained a quote from the research from the University of Miami, "Alternative strategies based on cell therapy and gene manipulation, balancing the inhibitory and excitatory events in the spinal cord, may provide sustained pain relief in the long term. Transplantation of GABAergic cells has been successfully used to enhance inhibition and to restore physiological spinal pain processing. However, since the underlying mechanism of chronic pain development involves changes in several pain-signaling pathways, it is essential to develop an approach that targets several components of pain signaling. Recombinant cell therapy offers the possibility to deliver additional analgesic substances to the restricted area in the nervous system. The current study explores the analgesic potential of genetically modified rat embryonic GABAergic cells releasing a peptidergic NMDA receptor antagonist, Serine(1)-histogranin (SHG). Overactivation of glutamate NMDA receptors contributes to the hyperexcitability of spinal neurons observed in chronic pain models. Our approach allows us to simultaneously target spinal hyperexcitability and reduced inhibitory processes. Transplantable cells were transduced by viral vectors encoding either one or six copies of SHG cDNAs. The analgesic potential of recombinant cells after their intraspinal transplantation was evaluated in a model of peripheral nerve injury. Enhanced reduction of hypersensitivity to thermal and mechanical stimuli was observed in animals treated by recombinant cells compared to the nonrecombinant group. The recombinant peptide was detected in the spinal tissue, suggesting its successful production by transplanted cells."

According to the news editors, the research concluded: "Our results demonstrate the feasibility of using recombinant cells releasing adjunct analgesic peptides in the therapy of neuropathic pain."

The news editors report that additional information may be obtained by contacting S. Jergova, Miller School of Medicine, Miami Project, University of Miami, Miami, FL, United States. Additional authors for this research include S. Gajavelli, M.S. Varghese, P. Shekane and J. Sagen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3727/096368916X690782. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miami, Florida, Genetics, Analgesics, Chronic Pain, United States, Pain Medicine, Neuropathic Pain, Drugs and Therapies, Peripheral Neuropathy, North and Central America, Neurologic Manifestations, Central Nervous System Agents, Musculoskeletal Diseases and Conditions.

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**Nervous System Diseases and Conditions - Nervous...**

**Data from University of Michigan Advance Knowledge in Nervous System Paraneoplastic Syndrome (Opsoclonus-Myoclonus Syndrome in Primary Central Nervous System Lymphoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nervous System Diseases and Conditions - Nervous System Paraneoplastic Syndrome. According to news reporting from Ann Arbor, Michigan, by NewsRx journalists, research stated, "Adult-onset opsoclonus-myoclonus syndrome (OMS) has been associated with multiple cancers, most commonly small-cell lung carcinoma and breast adenocarcinoma. A 53-year-old woman who presented with OMS was found to have primary central nervous system (CNS) diffuse large B-cell lymphoma."

The news correspondents obtained a quote from the research from the University of Michigan, "OMS has been described in only 5 cases with non-Hodgkin lymphoma (NHL), and this is only the third reported case of OMS in NHL limited to the CNS. Although the paraneoplastic antibody panel was negative, we presume that the OMS was a paraneoplastic manifestation."

According to the news reporters, the research concluded: "Antineoplastic and anti-immune therapy had no effect on the neurologic manifestations."


Our news journalists report that additional information may be obtained by contacting J.D. Trobe, Univ Michigan Med Syst, Kellogg Eye Center, Dept. of Neurol, Ann Arbor, MI, United States. Additional authors for this research include J.D. Trobe and A. Fisher-Hubbard.
Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Musculoskeletal Diseases and Conditions, Nervous System Paraneoplastic Syndromes, Cranial Nerve Diseases and Conditions, Lymphatic Diseases and Conditions, Immnoproliferative Disorders, Lymphoproliferative Disorders, Opsoclonus-Myoclonus Syndrome, Eye Diseases and Conditions, Ocular Motility Disorders, Neurologic Manifestations, Dyskinesias, Hematology, Lymphomas, Oncology, University of Michigan.

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Drugs and Therapies - Central Nervous System Agents

Data from University of Michigan School of Medicine Advance Knowledge in Central Nervous System Agents (Effects of sex and remifentanil dose on rats' acquisition of responding for a remifentanil-conditioned reinforcer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Central Nervous System Agents have been published. According to news reporting originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "Opioid-conditioned reinforcement is thought to exacerbate opioid abuse and dependence. Sex/gender can influence opioid abuse behaviors, but the effects of sex/gender on opioid-conditioned reinforcement, specifically, are unclear."

Our news editors obtained a quote from the research from the University of Michigan School of Medicine, "In this study, we compared new-response acquisition with opioid-conditioned reinforcement in male and female rats. First, separate groups received response-independent remifentanil injections (0.0-32.0 mg/kg, intravenous) and presentations of a light-noise stimulus. In the experimental groups, injections and stimulus presentations always co-occurred [paired Pavlovian conditioning (PAV)]; in the control groups, the two occurred independently of each other (random PAV). Next, in the instrumental acquisition (ACQ) sessions, two novel nose-poke manipulanda were introduced. All animals (regardless of sex, dose, and PAV type) could respond in the active nose-poke, which produced the stimulus alone, or in the inactive nose-poke. Both males and females dose-dependently acquired nose-poke responding (active > inactive) after paired PAV, but not after random PAV. Therefore, the stimulus was a conditioned reinforcer. We identified three sex differences. First, only females acquired responding after paired PAV with 32.0 mg/kg remifentanil. Second, using a progressive ratio schedule for ACQ, both sexes acquired responding, but females made significantly more active responses. Third, when a single session of PAV was conducted, only males acquired responding."

According to the news editors, the research concluded: "Thus, rats' sex interacts with pharmacological and environmental factors to determine opioid-conditioned reinforcement."

For more information on this research see: Effects of sex and remifentanil dose on rats' acquisition of responding for a remifentanil-conditioned reinforcer. Behavioural Pharmacology, 2016;27(2-3 Spec I):137-47. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)
The news editors report that additional information may be obtained by contacting J.W. Bertz, Dept. of Pharmacology, University of Michigan Medical School, Ann Arbor, Michigan, United States. Additional authors for this research include E.L. Jackson, D.R. Barron and J.H Woods.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000205. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Michigan, Ann Arbor, Anesthetic, United States, Gender Health, Women's Health, Drugs and Therapies, Narcotic Analgesics, Remifentanil Therapy, Hypnotics and Sedatives, North and Central America, Central Nervous System Agents.

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**Gram-Negative Bacteria - Escherichia coli**

**Data from University of Milan Advance Knowledge in Escherichia coli [Interplay of the modified nucleotide phosphoadenosine 5′-phosphosulfate (PAPS) with global regulatory proteins in Escherichia coli: modulation of cyclic AMP (cAMP)-dependent ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Negative Bacteria - Escherichia coli. According to news reporting out of Milan, Italy, by NewsRx editors, research stated, "In the bacterium Escherichia coli, some intermediates of the sulfate assimilation and cysteine biosynthesis pathway can act as signal molecules and modulate gene expression. In addition to sensing and utilization of sulphur sources, these signaling mechanisms also impact more global cell processes, such as resistance to antimicrobial agents and biofilm formation."

Our news journalists obtained a quote from the research from the University of Milan, "In a recent work, we have shown that inactivation of the cysH gene, encoding phosphoadenosine-phosphosulfate (PAPS) reductase, and the consequent increase in intracellular PAPS concentration, strongly affect production of several cell surface-associated structures, enhancing surface adhesion and cell aggregation. In order to identify the molecular mechanism relaying intracellular PAPS concentration to regulation of cell surface-associated structures, we looked for mutations able to suppress the effects of cysH inactivation. We found that mutations in the adenylate cyclase-encoding cyaA gene abolished the effects of PAPS accumulation; consistent with this result, cyclic AMP (cAMP)-dependent gene expression appears to be increased in the cysH mutant. Experiments aimed at the direct identification of proteins interacting with either CysC or CysH, i.e. the PAPS-related proteins APS kinase and PAPS reductase, allowed us to identify several regulators, namely, CspC, CspE, HNS and HupA. Protein-protein interaction between HupA and CysH was confirmed by a bacterial two hybrid system, and inactivation of the hupA gene enhanced the effects of the cysH mutation in terms of production of cell surface-associated factors."

According to the news editors, the research concluded: "Our results indicate that PAPS can modulate different regulatory systems, providing evidence that this molecule acts as a global signal molecule in E. coli."

For more information on this research see: Interplay of the modified nucleotide

Our news journalists report that additional information may be obtained by contacting F. Longo, University of Milan, Dept. of Biosci, I-20133 Milan, Italy. Additional authors for this research include S. Motta, P. Mauri, P. Landini and E. Rossi.

Keywords for this news article include: Milan, Italy, Europe, Gram-Negative Bacteria, Genetics, Enterobacteriaceae, Escherichia coli, Proteobacteria, University of Milan.

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**Uterine Diseases and Conditions - Uterine Prolapse**

**Data from University of Naples Federico II Provide New Insights into Uterine Prolapse (Recurrence of vaginal prolapse after total vaginal hysterectomy with concurrent vaginal uterosacral ligament suspension: comparison between normal-weight and ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Uterine Diseases and Conditions - Uterine Prolapse. According to news reporting out of Naples, Italy, by NewsRx editors, research stated, "Obesity is one of the most important risk factors for the development and progression of the pelvic organ prolapse. However, data regarding whether obesity is a risk factor for recurrence after pelvic organ prolapse surgery are controversial."

Our news journalists obtained a quote from the research from the University of Naples Federico II, "The aim of this study was to estimate the risk of recurrent prolapse in any vaginal compartment after total vaginal hysterectomy with concurrent uterosacral ligament vaginal vault suspension among normal-weight women compared with either overweight or obese women. This is a 5-year retrospective cohort study of women who underwent total vaginal hysterectomy with concurrent vaginal uterosacral ligament suspension at one referral center for pelvic organ prolapse in Italy from January 2010 to January 2015. All women who underwent total vaginal hysterectomy with concurrent uterosacral ligament suspension were included in the analysis. Laparoscopic approach was excluded. Women were classified according to the body mass index of 2 groups: (1) normal weight (body mass index, 18.5-24.9 kg/m(2)) and (2) either overweight (body mass index, 25.0-29.9 kg/m(2)) or obese (body mass index, >= 30.0 kg/m(2)). The primary outcome was the incidence of recurrent prolapse in any vaginal compartment (anterior, posterior, or apical). Recurrent prolapse was defined as prolapse extending beyond the hymen with straining (pelvic organ prolapse quantification points Ba, C, Bp >= 0) or repeat treatment for prolapse with either pessary or surgery. Uterosacral ligament suspensions were performed with a vaginal approach with the use of sutures placed in the intermediate uterosacral ligament, at or above the ischial spine, and affixed to the vaginal apex. Delayed absorbable sutures were used, with 2 sutures per side. Three hundred sixty women who underwent total vaginal hysterectomy with concurrent uterosacral ligament suspension with at least 6 months of follow up after surgery were included in the study. The overall incidence of recurrent prolapse in
any vaginal compartment was 19.7% (71/360 women). The risk of recurrent prolapse in any vaginal compartment (ie, primary outcome) was similar in the normal-weight compared with the overweight or obese group (16.7% vs 21.3%; P=.30). Women in the normal-weight group had a lower risk of recurrent anterior vaginal prolapse (10.8% vs 20.0%; adjusted odds ratio, 0.49; 95% confidence interval, 0.25-0.94) and of multiple compartment prolapse (8.3% vs 14.6%; adjusted odds ratio, 0.53; 95% confidence interval, 0.31-0.83). After total vaginal hysterectomy with concurrent uterosacral ligament suspension, the risk of recurrent vaginal prolapse was 20% based on a composite outcome definition of any anatomic prolapse beyond the hymen or pessary or repeat surgery. The most common site of recurrence was the anterior compartment. The risk of recurrent surgery was 10%. Our study showed that women with normal-weight had similar risk of recurrent prolapse compared with the overweight or obese group."

According to the news editors, the research concluded: "In subgroup analyses, women with normal-weight had one-half the odds of recurrent anterior vaginal wall prolapse compared with those who were overweight or obese."


Our news journalists report that additional information may be obtained by contacting G. Saccone, University of Naples Federico II, Sch Med, Dept. of Neurosci Reprod Sci & Dental, Naples, Italy.

Keywords for this news article include: Naples, Italy, Europe, Nutritional and Metabolic Diseases and Conditions, Women's Health, Risk and Prevention, Gynecologic Surgical Procedures, Uterine Diseases and Conditions, Pelvic Organ Prolapse, Vaginal Hysterectomy, Uterine Prolapse, Gynecology, Bariatrics, Surgery, Obesity, University of Naples Federico II.

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**Oncology - Soft Tissue Sarcomas**

**Data from University of New South Wales Advance Knowledge in Soft Tissue Sarcomas (Overcoming resistance of targeted EGFR monotherapy by inhibition of STAT3 escape pathway in soft tissue sarcoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Soft Tissue Sarcomas.

According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "Although epidermal growth factor receptor (EGFR) is often over-expressed in soft tissue sarcoma (STS), a phase II trial using an EGFR inhibitor gefitinib showed a low response rate. This study identified a new secondary resistance mechanism of gefitinib in STS, and developed new strategies to improve the effectiveness of EGFR inhibition particularly by blocking the STAT3 pathway. We demonstrated that seven STS cell lines of diverse histological..."
origin showed resistance to gefitinib despite blockade of phosphorylated EGFR (pEGFR) and downstream signal transducers (pAKT and pERK) in PI3K/AKT and RAS/ERK pathways."

The news reporters obtained a quote from the research from the University of New South Wales, "Gefitinib exposure was not associated with decrease in the ratio of pSTAT3/pSTAT1. The relative STAT3 abundance and activation may be responsible for the drug resistance. We therefore hypothesized that the addition of a STAT3 inhibitor could overcome the STAT3 escape pathway. We found that the addition of STAT3 inhibitor S3I-201 to gefitinib achieved synergistic anti-proliferative and pro-apoptotic effects in all three STS cell lines examined."

According to the news reporters, the research concluded: "This was confirmed in a fibrosarcoma xenografted mouse model, where the tumours from the combination group (418mm3) were significantly smaller than those from untreated (1032mm3) or single drug (912 and 798mm3) groups. Our findings may have clinical implications for optimising EGFR-targeted therapy in STS."

For more information on this research see: Overcoming resistance of targeted EGFR monotherapy by inhibition of STAT3 escape pathway in soft tissue sarcoma. Oncotarget, 2016;7(16):21496-509.

Our news correspondents report that additional information may be obtained by contacting X. Wang, Dept. of Surgery, Adult Cancer Program, Lowy Cancer Research Centre, Clinical School of Prince of Wales Hospital, Faculty of Medicine, University of New South Wales, Sydney, Australia. Additional authors for this research include D. Goldstein, P.J. Crowe, M. Yang, K. Garrett, N. Zeps and J.L Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7452. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Pharmaceuticals, Sydney, Oncology, EGFR Inhibitors, Protein Kinases, Gefitinib Therapy, Membrane Proteins, Drugs and Therapies, Phosphotransferases, Soft Tissue Sarcomas, Australia and New Zealand, Tyrosine Kinase Inhibitors, Epidermal Growth Factor Receptor, Receptor Protein Tyrosine Kinases.

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**Clinical Research - Clinical Trials and Studies**

**Data from University of Queensland Advance Knowledge in Clinical Trials and Studies (Educational interventions for the management of cancer-related fatigue in adults)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting from Brisbane, Australia, by NewsRx journalists, research stated, "Cancer-related fatigue is reported as the most common and distressing symptom experienced by patients with cancer. It can exacerbate the experience of other symptoms, negatively affect mood, interfere with the ability to carry out everyday activities, and negatively impact on quality of life."

The news correspondents obtained a quote from the research from the University of Queensland, "Educational interventions may help people to manage this fatigue or to cope with
this symptom, and reduce its overall burden. Despite the importance of education for managing cancer-related fatigue there are currently no systematic reviews examining this approach. To determine the effectiveness of educational interventions for managing cancer-related fatigue in adults. Search methods We searched the Cochrane Central Register of Controlled Trials (CENTRAL), and MEDLINE, EMBASE, CINAH, PsycINFO, ERIC, OTseeker and PEDro up to 1st November 2016. We also searched trials registries. Selection criteria We included randomised controlled trials (RCTs) of educational interventions focused on cancer-related fatigue where fatigue was a primary outcome. Studies must have aimed to evaluate the effect of educational interventions designed specifically to manage cancer-related fatigue, or to evaluate educational interventions targeting a constellation of physical symptoms or quality of life where fatigue was the primary focus. The studies could have compared educational interventions with no intervention or wait list controls, usual care or attention controls, or an alternative intervention for cancer-related fatigue in adults with any type of cancer. Data collection and analysis Two review authors independently screened studies for inclusion and extracted data. We resolved differences in opinion by discussion. Trial authors were contacted for additional information. A third independent person checked the data extraction. The main outcome considered in this review was cancer-related fatigue. We assessed the evidence using GRADE and created a 'Summary of Findings' table. We included 14 RCTs with 2213 participants across different cancer diagnoses. Four studies used only 'information-giving' educational strategies, whereas the remainder used mainly information-giving strategies coupled with some problem-solving, reinforcement, or support techniques. Interventions differed in delivery including: mode of delivery (face to face, web-based, audiotape, telephone); group or individual interventions; number of sessions provided (ranging from 2 to 12 sessions); and timing of intervention in relation to completion of cancer treatment (during or after completion). Most trials compared educational interventions to usual care and metaanalyses compared educational interventions to usual care or attention controls. Methodological issues that increased the risk of bias were evident including lack of blinding of outcome assessors, unclear allocation concealment in over half of the studies, and generally small sample sizes. Using the GRADE approach, we rated the quality of evidence as very low to moderate, downgraded mainly due to high risk of bias, unexplained heterogeneity, and imprecision. There was moderate quality evidence of a small reduction in fatigue intensity from a meta-analyses of eight studies (1524 participants; standardised mean difference (SMD) -0.28, 95% confidence interval (CI) -0.52 to -0.04) comparing educational interventions with usual care or attention control. We found low quality evidence from twelve studies (1711 participants) that educational interventions had a small effect on general/overall fatigue (SMD -0.27, 95% CI -0.51 to -0.04) compared to usual care or attention control. There was low quality evidence from three studies (622 participants) of a moderate size effect of educational interventions for reducing fatigue distress (SMD -0.57, 95% CI -1.09 to -0.05) compared to usual care, and this could be considered clinically significant. Pooled data from four studies (439 participants) found a small reduction in fatigue interference with daily life (SMD -0.35, 95% CI -0.54 to 0.16; moderate quality evidence). No clear effects on fatigue were found related to type of cancer treatment or timing of intervention in relation to completion of cancer treatment, and there were insufficient data available to determine the effect of educational interventions on fatigue by stage of disease, tumour type or group versus individual intervention. Three studies (571 participants) provided low quality evidence for a reduction in anxiety in favour of the intervention group (mean difference (MD) -1.47, 95% CI -2.76 to -0.18) which, for some, would be considered clinically significant. Two additional studies not included in the meta-analysis also reported statistically significant improvements in anxiety in favour of the educational intervention, whereas a third study did not. Compared with usual care or attention control, educational interventions showed no significant reduction in depressive symptoms (four studies, 881 participants, SMD-0.12, 95% CI -0.47 to 0.23; very low
quality evidence). Three additional trials not included in the meta-analysis found no between-group differences in the symptoms of depression. No between-group difference was evident in the capacity for activities of daily living or physical function when comparing educational interventions with usual care (4 studies, 773 participants, SMD 0.33, 95% CI -0.10 to 0.75) and the quality of evidence was low. Pooled evidence of low quality from two of three studies examining the effect of educational interventions compared to usual care found an improvement in global quality of life on a 0-100 scale (MD 11.47, 95% CI 1.29 to 21.65), which would be considered clinically significant for some. No adverse events were reported in any of the studies. Authors’ conclusions Educational interventions may have a small effect on reducing fatigue intensity, fatigue's interference with daily life, and general fatigue, and could have a moderate effect on reducing fatigue distress. Educational interventions focused on fatigue may also help reduce anxiety and improve global quality of life, but it is unclear what effect they might have on capacity for activities of daily living or depressive symptoms. Additional studies undertaken in the future are likely to impact on our confidence in the conclusions. The incorporation of education for the management of fatigue as part of routine care appears reasonable. However, given the complex nature of this symptom, educational interventions on their own are unlikely to optimally reduce fatigue or help people manage its impact, and should be considered in conjunction with other interventions."

According to the news reporters, the research concluded: "Just how educational interventions are best delivered, and their content and timing to maximise outcomes, are issues that require further research."

For more information on this research see: Educational interventions for the management of cancer-related fatigue in adults. Cochrane Database of Systematic Reviews, 2016;(11):2397-2471. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting S. Bennett, University of Queensland, Sch Hlth & Rehabil Sci, Div Occupat Therapy, Brisbane, Qld 4072, Australia. Additional authors for this research include A. Pigott, E.M. Beller, T. Haines, P. Meredith and C. Delaney.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Rehabilitation, Article Review, Clinical Trials and Studies, Activities of Daily Living, Clinical Research, Quality of Life, Oncology, Cancer, University of Queensland.

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Proteins - Phosphoproteins

Data from University of Tennessee Advance Knowledge in Phosphoproteins (Novel Small Molecule JP-153 Targets the Src-FAK-Paxillin Signaling Complex to Inhibit VEGF-Induced Retinal Angiogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Proteins - Phosphoproteins have been published. According to news reporting from Memphis, Tennessee, by NewsRx journalists, research stated, "Targeting vascular endothelial growth factor (VEGF) is a common treatment strategy for neovascular eye disease, a major cause of vision loss in diabetic retinopathy and age-related
macular degeneration. However, the decline in clinical efficacy over time in many patients suggests that monotherapy of anti-VEGF protein therapeutics may benefit from adjunctive treatments.

The news correspondents obtained a quote from the research from the University of Tennessee, "Our previous work has shown that through decreased activation of the cytoskeletal protein paxillin, growth factor-induced ischemic retinopathy in the murine oxygen-induced retinopathy model could be inhibited. In this study, we demonstrated that VEGF-dependent activation of the Src/FAK/paxillin signalosome is required for human retinal endothelial cell migration and proliferation. Specifically, the disruption of focal adhesion kinase (FAK) and paxillin interactions using the small molecule JP-153 inhibited Src-dependent phosphorylation of paxillin (Y118) and downstream activation of Akt (S473), resulting in reduced migration and proliferation of retinal endothelial cells stimulated with VEGF. However, this effect did not prevent the initial activation of either Src or FAK. Furthermore, topical application of a JP-153-loaded microemulsion affected the hallmark features of pathologic retinal angiogenesis, reducing neovascular tuft formation and increased avascular area, in a dose-dependent manner."

According to the news reporters, the research concluded: "Our results suggest that using small molecules to modulate the focal adhesion protein paxillin is an effective strategy for treating pathologic retinal neovascularization. To our knowledge, this is the first paradigm validating modulation of paxillin to inhibit angiogenesis. As such, we have identified and developed a novel class of small molecules aimed at targeting focal adhesion protein interactions that are essential for pathologic neovascularization in the eye."


Our news journalists report that additional information may be obtained by contacting C.R. Yates, University of Tennessee, Dept. of Ophthalmol, Memphis, TN 38163, United States. Additional authors for this research include J. Pagadala, D.D. Miller, J. Baudry, F. Park, E. Chaum and C.R. Yates.

Keywords for this news article include: Memphis, Tennessee, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Intracellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Signal Transducing Adaptor Proteins, Receptor Protein-Tyrosine Kinases, Growth Factor Receptors, Cell-Matrix Junctions, Cellular Structures, Phosphotransferases, Angiogenic Proteins, Neovascularization, Membrane Proteins, Focal Adhesions, Protein Kinases, Phosphoproteins, Cell Membrane, Ophthalmology, Angiogenesis, Retinopathy, Paxillin, VEGF, University of Tennessee.

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stated, "To analyze patterns of recurrence and survival and identify prognostic factors in women with neuroendocrine cervical cancer (NECC). We reviewed patients with International Federation of Gynecology and Obstetrics stage I-IVA NECC who were enrolled in the Neuroendocrine Cervical Tumor Registry and treated with curative intent."

Financial support for this research came from National Institutes of Health.

The news reporters obtained a quote from the research from the University of Texas, "Event-free survival (EFS) and overall survival (OS) according to disease and treatment characteristics were analyzed using the Kaplan-Meier method. Among 40 patients with NECC, 25 (62%) had small cell NECC, eight (20%) had large cell NECC, and seven (18%) had unspecified neuroendocrine histology. With a median follow-up of 21.5 months, 32 patients (80%) experienced progression, and 28 (70%) died. For all patients, the 5-year EFS rate was 20%, and the 5-year OS rate was 27%. Patients with large cell NECC had significantly better median EFS (median not reached vs. 10.0 months, p = 0.02) and showed a trend toward better median OS (153 months vs. 21 months, p = 0.08) than patients with other histologic types. In patients with early-stage clinically node-negative disease, chemoradiation was associated with significantly better median EFS than surgery (median not reached vs. 18.0 months, p = 0.04). Patients with large cell NECC have better outcomes than patients with other subtypes of NECC. In early-stage node-negative NECC, chemoradiation yields better EFS than surgery."

According to the news reporters, the research concluded: "Most patients with NECC, even those with no evidence of nodal disease at diagnosis, rapidly develop widespread hematogenous metastases and die of their disease."

For more information on this research see: Patterns of recurrence and survival in neuroendocrine cervical cancer. Gynecologic Oncology, 2016;143(3):552-557. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news correspondents report that additional information may be obtained by contacting M. Frumovitz, Univ Texas MD Anderson Canc Center, Dept. of Gynecol Oncol & Reprod Med, Houston, TX 77030, United States. Additional authors for this research include A. Jhingran, J. Burzawa, P. Ramalingam, A.H. Klopp, P.J. Eifel and M. Frumovitz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Cervical Cancer, Women's Health, Oncology, Surgery, University of Texas.

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stated, "Fibulin-3 (F3) is an important, disulfide-rich, extracellular matrix glycoprotein that has been associated with a number of diseases ranging from cancer to retinal degeneration. An Arg345Trp (R345W) mutation in F3 causes the rare, autosomal dominant macular dystrophy, Malattia Leventinese."

Funders for this research include Roger and Dorothy Hirl Research Fund (JDH), National Eye Institute Visual Science Core Grant, Research to Prevent Blindness.

The news correspondents obtained a quote from the research from the University of Texas Southwestern, "The purpose of this study was to identify and validate novel intracellular interacting partners of wild-type (WT) and R345W F3 in retinal pigment epithelium cells. We used stable isotope labeling by amino acids in cell culture (SILAC) to generate 'heavy' and 'light' isotopically labeled ARPE-19 cell populations which were subsequently infected with adenovirus encoding for FLAG-tagged WT or R345W F3. After immunoprecipitation, interacting proteins were identified by multidimensional protein identification technology (MudPIT). We identified sixteen new intracellular F3 interacting partners, the vast majority of which are involved in protein folding and/or degradation in the endoplasmic reticulum (ER). Eight of these interactions (ANXA5, ERdj5, PDIA4, P4HB, PDIA6, RCN1, SDF2L1, and TXNDC5) were verified at the western blotting level."

According to the news reporters, the research concluded: "These F3 interactome results can serve as the basis for pursuing targeted genetic or pharmacologic approaches in an effort to alter the fate of either WT or mutant F3."


Our news journalists report that additional information may be obtained by contacting J.D. Hulleman, Univ Texas Southwestern Med Center Dallas, Dept. of Pharmacol, Dallas, TX 75390, United States. Additional authors for this research include J.C. Genereux and A. Nguyen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.exer.2016.10.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Experimental Eye Research, Eye Research, Genetics, University of Texas Southwestern.

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Lupus

Data from University of Tokyo Provide New Insights into Lupus (Egr2 and Egr3 in regulatory T cells cooperatively control systemic autoimmunity through Ltbp3-mediated TGF-beta 3 production)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lupus is the subject of a report. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Systemic lupus
Erythematous (SLE) is a prototypical autoimmune disease characterized by multiorgan inflammation induced by auto-antibodies. Early growth response gene 2 (Egr2), a transcription factor essential for T-cell anergy induction, controls systemic auto-immunity in mice and humans.

The news correspondents obtained a quote from the research from the University of Tokyo, "We have previously identified a subpopulation of CD4(+) regulatory T cells, CD4(+) CD25(-)LAG3(+) cells, that characteristically express both Egr2 and LAG3 and control mice model of lupus via TGF-beta 3 production. However, due to the mild phenotype of lymphocyte-specific Egr2-deficient mice, the presence of an additional regulator has been speculated. Here, we show that Egr2 and Egr3 expressed in T cells cooperatively prevent humoral immune responses by supporting TGF-beta 3 secretion. T cell-specific Egr2/Egr3 double-deficient (Egr2/3DKO) mice spontaneously developed an early onset lupus-like disease that was more severe than in T cell-specific Egr2-deficient mice. In accordance with the observation that CD4 (+)CD25(-)LAG3(+) cells from Egr2/3DKO mice completely lost the capacity to produce TGF-beta 3, the excessive germinal center reaction in Egr2/3DKO mice was suppressed by the adoptive transfer of WT CD4(+)CD25(-)LAG3(+) cells or treatment with a TGF-beta 3-expressing vector. Intriguingly, latent TGF-beta binding protein (Ltbp) 3 expression maintained by Egr2 and Egr3 was required for TGF-beta 3 production from CD4(+) CD25(-)LAG3(+) cells. Because Egr2 and Egr3 did not demonstrate cell intrinsic suppression of the development of follicular helper T cells, Egr2-and Egr3-dependent TGF-beta 3 production by CD4(+)CD25(-) LAG3(+) cells is critical for controlling excessive B-cell responses."

According to the news reporters, the research concluded: "The unique attributes of Egr2/Egr3 in T cells may provide an opportunity for developing novel therapeutics for autoantibody-mediated diseases including SLE."


Our news journalists report that additional information may be obtained by contacting T. Okamura, University of Tokyo, Max Planck Univ Tokyo Center Integrat Inflammol, Meguro Ku, Tokyo 1538505, Japan. Additional authors for this research include T. Okamura, M. Inoue, T. Komai, S. Teruya, Y. Iwasaki, S. Sumitomo, H. Shoda, K. Yamamoto and K. Fujio.

Keywords for this news article include: Tokyo, Japan, Asia, Genetics, Lupus, University of Tokyo.

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Oncology - Vestibular Schwannoma

Data from University of Virginia Advance Knowledge in Vestibular Schwannoma (Unilateral vestibular schwannoma in a patient with schwannomatosis in the absence of LZTR1 mutation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Vestibular Schwannoma is now available. According to news reporting originating from Charlottesville, Virginia, by NewsRx correspondents, research stated, "The presence of vestibular schwannomas has long been considered an exclusion criterion for the diagnosis of schwannomatosis. Recently, 2 cases of vestibular schwannoma were reported in patients with schwannomatosis, leading to a revision of the diagnostic criteria for this genetic disorder."

Our news editors obtained a quote from the research from the University of Virginia, "Overall, the relative infrequency of vestibular schwannomas in schwannomatosis is unexplained, and the genetics of this uncommon phenomenon have not been described. The authors report on a family with clinical manifestations consistent with schwannomatosis, including 4 affected members, that was identified as having an affected member harboring a unilateral cerebellopontine angle mass with extension into the internal auditory canal. Radiologically, this mass was consistent with a vestibular schwannoma and resulted in a symptomatic change in ipsilateral hearing (word recognition 86% at 52 dB) and increased latency of the wave I V interval on auditory brainstem response testing. The patient was found to be negative for a germline mutation of NF2 and LZTR1, and her affected mother was found to harbor neither NF2 nor SMARCB1 mutations on genetic testing. Although vestibular schwannomas have been classically considered to not occur in the setting of schwannomatosis, this patient with schwannomatosis and a vestibular schwannoma further confirms that schwannomas can occur on the vestibular nerve in this syndrome."

According to the news editors, the research concluded: "Further, this is the first such case found to be negative for a mutation on the LZTR1 gene."

For more information on this research see: Unilateral vestibular schwannoma in a patient with schwannomatosis in the absence of LZTR1 mutation. Journal of Neurosurgery, 2016;125(6):1469-1471. Journal of Neurosurgery can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

The news editors report that additional information may be obtained by contacting G.U. Mehta, University of Virginia, Dept. of Neurosurg, Charlottesville, VA, United States. Additional authors for this research include M.J. Feldman, H. Wang, D. Ding and P. Chittiboina.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3171/2015.11.JNS151766. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Charlottesville, Virginia, United States, North and Central America, Genetics, Diagnostics and Screening, Vestibular Schwannoma, Schwannomatosis, Neurilemmoma, Oncology, University of Virginia.

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Data from University of Virginia Provide New Insights into Colon Cancer
[Oral perfluorooctane sulfonate (PFOS) lessens tumor development in the APC(min) mouse model of spontaneous familial adenomatous polyposis]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news originating from Morgantown, West Virginia, by NewsRx correspondents, research stated, "Colorectal cancer is the second most common cause of cancer deaths for both men and women, and the third most common cause of cancer in the U.S. Toxicity of current chemotherapeutic agents for colorectal cancer, and emergence of drug resistance underscore the need to develop new, potentially less toxic alternatives."

Our news journalists obtained a quote from the research from the University of Virginia, "Our recent cross-sectional study in a large Appalachian population, showed a strong, inverse, dose-response association of serum perfluorooctane sulfonate (PFOS) levels to prevalent colorectal cancer, suggesting PFOS may have therapeutic potential in the prevention and/or treatment of colorectal cancer. In these preliminary studies using a mouse model of familial colorectal cancer, the APC(min) mouse, and exposures comparable to those reported in human populations, we assess the efficacy of PFOS for reducing tumor burden, and evaluate potential dose-response effects. At 5-6 weeks of age, APCmin mice were randomized to receive 0, 20, 250 mg PFOS/kg (females) or 0, 10, 50 and 200 mg PFOS/kg (males) via their drinking water. At 15 weeks of age, gastrointestinal tumors were counted and scored and blood PFOS levels measured. PFOS exposure was associated with a significant, dose-response reduction in total tumor number in both male and female mice. This inverse dose-response effect of PFOS exposure was particularly pronounced for larger tumors (r(2) for linear trend = 0.44 for males, p's < 0.001). The current study in a mouse model of familial adenomatous polyposis offers the first experimental evidence that chronic exposure to PFOS in drinking water can reduce formation of gastrointestinal tumors, and that these reductions are both significant and dose-dependent."

According to the news editors, the research concluded: "If confirmed in further studies, these promising findings could lead to new therapeutic strategies for familial colorectal cancer, and suggest that PFOS testing in both preventive and therapeutic models for human colorectal cancer is warranted."

For more information on this research see: Oral perfluorooctane sulfonate (PFOS) lessens tumor development in the APC(min) mouse model of spontaneous familial adenomatous polyposis. BMC Cancer, 2016;16():1-10. BMC Cancer can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Cancer - www.biomedcentral.com/bmccancer/)

The news correspondents report that additional information may be obtained from J. Wimsatt, West Univ Virginia, Morgantown, WV 26508, United States. Additional authors for this research include M. Villers, L. Thomas, S. Kamarec, C. Montgomery, L.W.Y. Yeung, Y.Q. Hu and K. Innes.

Keywords for this news article include: Morgantown, West Virginia, United States, North and Central America, Colorectal Research, Gastroenterology, Therapeutics, Colon Cancer, Oncology, Therapy, University of Virginia.
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Gastroenterology - Colorectal Research

Data from University of Wisconsin Advance Knowledge in Colorectal Research [Indeterminate but Likely Unimportant Extracolonic Findings at Screening CT Colonography (C-RADS Category E3): Incidence and Outcomes Data From a Clinical Screening ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gastroenterology - Colorectal Research have been published. According to news reporting originating in Madison, Wisconsin, by NewsRx journalists, research stated, "The purpose of this study was to analyze the incidence and outcomes of unsuspected indeterminate but likely unimportant extracolonic findings (CT Colonography Reporting and Data System [C-RADS] category E3) at screening CT colonography (CTC). Over 99 months (April 2004 through June 2012), 7952 consecutive adults without symptoms of colorectal cancer (4277 women, 3675 men; mean age +/- SD, 56.7 +/- 7.3 years) underwent first-time screening CTC."

The news reporters obtained a quote from the research from the University of Wisconsin, "Findings prospectively placed into C-RADS category E3 were retrospectively reviewed, including follow-up (range, 2-10 years) and ultimate clinical outcome. Unsuspected C-RADS category E3 extracolonic findings were detected in 9.1% (725/7952) of our patient population. A total of 751 category E3 findings were detected among these 725 patients; 25 patients had multiple findings. Commonly involved organ systems included gynecologic (24.4%, 183/751), genitourinary (20.9%, 157/751), lung (20.6%, 155/751), and gastrointestinal (16.1%, 121/751). Consideration for further imaging, if clinically warranted, was suggested in 83.8% (608/725). Sixty-five patients were lost to follow-up. Conditions requiring treatment or surveillance were ultimately diagnosed in 8.3% (55/660), including eight malignant neoplasms. In the remaining 605 patients, 25 (4.1%) underwent invasive biopsy or surgery to prove benignity (including 18 complex adnexal masses), and 278 (46.0%) received additional imaging follow-up. Indeterminate but likely unimportant extracolonic findings (C-RADS category E3) occurred in less than 10% of adults without symptoms of colorectal cancer who underwent screening CTC."

According to the news reporters, the research concluded: "Over 90% of these findings ultimately proved to be clinically insignificant, with fewer than 5% requiring an invasive procedure to prove benign disease, the majority of which (> 70%) were complex adnexal lesions in women."

For more information on this research see: Indeterminate but Likely Unimportant Extracolonic Findings at Screening CT Colonography (C-RADS Category E3): Incidence and Outcomes Data From a Clinical Screening Program. American Journal of Roentgenology, 2016;207(5):996-1001. American Journal of Roentgenology can be contacted at: Amer Roentgen Ray Soc, 1891 Preston White Dr, Subscription Fulfillment, Reston, VA 22091, USA.

Our news correspondents report that additional information may be obtained by contacting B.D. Pooler, University of Wisconsin, Dept. of Radiol, Sch Med & Public Hlth, Madison, WI 53792, United States. Additional authors for this research include D.H. Kim and P.J. Pickhardt.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2214/AJR.16.16275. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madison, Wisconsin, United States, North and Central America, Colorectal Research, Gastroenterology, University of Wisconsin.

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Data from Vrije University Provide New Insights into Meningeal Neoplasms (Meningiomas in three male-to-female transgender subjects using oestrogens/progestogens and review of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions - Meningeal Neoplasms have been presented. According to news reporting originating in Amsterdam, Netherlands, by NewsRx journalists, research stated, "Sex hormones have been proposed as a possible risk factor for the development and growth of meningiomas. Hormonal therapy plays a fundamental role in the treatment of male-to-female transgenders and needs to be continued after sex reassignment surgery."

The news reporters obtained a quote from the research from Vrije University, "Usually, this treatment leads to no adverse events; however, its impact on hormone-related tumours such as meningiomas has not yet been investigated thoroughly. We searched our cohort of 2810 male-to-female transgender persons, who have been treated between 1975 and 2010, for patients with meningiomas. Additionally, we conducted a literature search in PubMed and EMBASE. We found three patients who developed a meningioma in male-to-female transgenders in addition to five other who have been described in the literature. These findings support the role of female sex hormones in the development and growth of meningiomas. This might be an underrepresentation, because there is no standard protocol for screening for meningiomas in this population and meningiomas can remain asymptomatic for several years. We observed regression of multiple meningiomas in one of these three cases after discontinuation of hormonal treatment."

According to the news reporters, the research concluded: "The decision to stop or continue cross-sex hormone therapy in these particular patients should be carefully reconsidered individually."


Our news correspondents report that additional information may be obtained by contacting P.V. ter Wengel, Vrije Universiteit Amsterdam, Medical Center, Neurosurg Center Amsterdam, Amsterdam, Netherlands. Additional authors for this research include E. Martin, L. Gooren, M. Den Heijer and S.M. Peerdeman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/and.12550. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Central Nervous System Diseases and Conditions, Hormones, Article Review, Risk and Prevention, Central Nervous System Neoplasms, Meningeal Neoplasms, Meningioma, Vrije University.

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Oncology - Esophageal Cancer

Data from Washington University Provide New Insights into Esophageal Cancer (Neoadjuvant Chemotherapy versus Chemoradiation Prior to Esophagectomy: Impact on Rate of Complete Pathologic Response and Survival in Esophageal Cancer Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Esophageal Cancer. According to news reporting out of St. Louis, Missouri, by NewsRx editors, research stated, "The aim of this study was to evaluate differences in pathologic complete response (pCR) rates and overall survival among patients receiving either neoadjuvant chemotherapy or chemoradiation before esophagectomy for locally advanced esophageal cancer. Patients with esophageal cancer receiving either neoadjuvant chemotherapy or chemoradiation before esophagectomy were identified using the National Cancer Database."

Our news journalists obtained a quote from the research from Washington University, "Univariate analysis compared patient, tumor, and postoperative outcome characteristics. Logistic regression was performed to identify variables associated with achieving pCR. Kaplan-Meier analysis was performed to compare overall median survival by neoadjuvant therapy type and pCR status. Finally, a Cox proportional hazards model was fitted to identify variables associated with increased mortality hazard. From 2006 to 2012, a total of 916 of 7338 of patients (12.5%) received neoadjuvant chemotherapy whereas 6422 (87.5%) received neoadjuvant chemoradiation. Patients who received neoadjuvant chemoradiation were more likely to achieve a pCR (17.2% versus 6.4%, p< 0.001) and less likely to have positive margins (5.6% versus 11.5%, p< 0.001) than were patients who received neoadjuvant chemotherapy, with no difference in 30- or 90-day mortality. Achieving a pCR was associated with improved overall median survival (59.5 +/- 4.0 months versus 30.1 +/- 0.76 months for those with persistent disease, p< 0.001). On logistic regression, neoadjuvant chemoradiation therapy was independently associated with achieving a pCR (OR = 2.75, 95% confidence interval: 2.01-3.77, p< 0.001). Despite improvement in the pCR rate with neoadjuvant chemoradiation, neoadjuvant therapy type was not independently associated with long-term survival (hazard ratio = 1.12; 95% confidence interval: 0.97-1.30, p = 0.12). Although neoadjuvant chemoradiation is more successful in downstaging esophageal cancer before esophagectomy, it was not independently prognostic for improved long-term survival."

According to the news editors, the research concluded: "Other factors affecting long-term survival among pathologic complete responders and among patients with persistent disease should be investigated to clarify this association."


Our news journalists report that additional information may be obtained by contacting T. Crabtree, Washington Univ St Louis, Div Cardiothorac Surg, St Louis, MO, United States. Additional authors for this research include C. Robinson, J. Bradley, A.C. Lockhart, V. Puri, S. Broderick, D. Kreisel, A.S. Krupnick, G.A. Patterson, B. Meyers and T...
Data from Wayne State University Provide New Insights into Vancomycin Resistance (Fosfomycin Enhances the Activity of Daptomycin against Vancomycin-Resistant Enterococci in an In Vitro Pharmacokinetic-Pharmacodynamic Model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Vancomycin Resistance. According to news reporting originating from Detroit, Michigan, by NewsRx correspondents, research stated, "Daptomycin (DAP) is being used more frequently to treat infections caused by vancomycin-resistant enterococcus (VRE). DAP tends to be less active against enterococci than staphylococci and may require high doses or combination therapy to be bactericidal."

Financial support for this research came from HHS | National Institutes of Health (NIH).

Our news editors obtained a quote from the research from Wayne State University, "Fosfomycin (FOF) has activity against VRE and has demonstrated synergistic bactericidal activity with DAP in vitro. The objective of this study was to evaluate the activity of DAP alone and in combination with FOF against VRE in an in vitro pharmacokinetic/pharmacodynamic (PK/PD) model. The activity of DAP at 8 and 12 mg/kg of body weight/day (DAP 8 and DAP 12, respectively) and FOF of 40 mg/kg intravenously every 8 h, alone and in combination, were evaluated against 2 vancomycin-resistant Enterococcus faecium strains (8019 and 5938) and 2 vancomycin-resistant E. faecalis strains (V583 and R7302) in an in vitro PK/PD model over 72 h. Cell surface charge in the presence and absence of FOF was evaluated by zeta potential analysis. Daptomycin-boron-dipyrromethene (bodipy) binding was assessed by fluorescence microscopy. The addition of FOF to DAP 8 and DAP 12 resulted in significantly increased killing over DAP alone at 72 h for 8019, V583, and R7302 (P < 0.05). Therapeutic enhancement was observed with DAP 12 plus FOF against 8019, V583, and R7302. Cell surface charge became more negative after exposure to FOF by similar to 2 to 8 mV in all 4 strains. Daptomycin-bodipy binding increased by 2.6 times in the presence of fosfomycin (P < 0.0001). The combination of DAP plus FOF may provide improved killing against VRE (including DAP-resistant strains) through modulation of cell surface charge."

According to the news editors, the research concluded: "Further studies to clarify the role of intravenous FOF are warranted."

For more information on this research see: Fosfomycin Enhances the Activity of Daptomycin against Vancomycin-Resistant Enterococci in an In Vitro Pharmacokinetic-

The news editors report that additional information may be obtained by contacting M.J. Rybak, Wayne State University, Sch Med, Detroit, MI 48202, United States. Additional authors for this research include B.J. Werth, P. Nonejuie, J.P. McRoberts, J. Pogliano, G. Sakoulas, J. Yim, N. Singh and M.J. Rybak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00687-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Bacterial Physiological Phenomena, Bacterial Drug Resistance, Glycopeptide Antibiotics, Urinary Antiinfectives, Vancomycin Resistance, Drugs and Therapies, Daptomycin Therapy, Pharmacodynamics, Pharmacokinetics, Phosphonic Acids, Pharmaceuticals, Cyclic Peptides, Glycopeptides, Lipopeptides, Fosfomycin, Wayne State University.

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**Oncology - Non-Small-Cell Lung Cancer**

**Data from X.M. Yu and Colleagues Advance Knowledge in Non-Small-Cell Lung Cancer (Cell-Free RNA Content in Peripheral Blood as Potential Biomarkers for Detecting Circulating Tumor Cells in Non-Small Cell Lung Carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Non-Small-Cell Lung Cancer are discussed in a new report. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "Circulating tumor cells (CTCs) have been implicated in tumor progression and prognosis. Techniques detecting CTCs in the peripheral blood of patients with non-small cell lung carcinoma (NSCLC) may help to identify individuals likely to benefit from early systemic treatment."

The news reporters quoted from the research, "However, the detection of CTCs with a single marker is challenging, owing to low specificity and sensitivity and due to the heterogeneity and rareness of CTCs. Herein, the probability of cell-free RNA content in the peripheral blood as a potential biomarker for detecting CTCs in cancer patients was investigated. An immunomagnetic enrichment of real-time reverse-transcription PCR (RT-PCR) technology for analysis of CTCs in NSCLC patients was also developed. The mRNA levels of four candidate genes, cytokeratin 7 (CK7), E74-like factor 3 (ELF3), epidermal growth factor receptor (EGFR), and erythropoietin-producing hepatocellular carcinoma receptor B4 (EphB4) that were significantly elevated in tumor tissues and peripheral blood mononuclear cells (PBMCs) were determined. The expression of CK7 and ELF3 in tumor tissues and EGFR in PBMCs was associated with lymph node metastasis (all p< 0.05). The expression of CK7 in PBMCs was correlated with age and EphB4 in PBMCs correlated with histopathological type, respectively (all p< 0.05). The expression of all four genes in tumor tissues and PBMCs was
significantly correlated with the clinical stage (all \( p < 0.01 \)). Survival analysis showed that the patients with enhanced expression of CK7, ELF3, EGFR, and EphB4 mRNA in PBMCs had poorer disease-free survival (DFS) and overall survival (OS) than those without (all \( p < 0.0001 \))."

According to the news reporters, the research concluded: "The present study showed that this alteration of cell-free RNA content in peripheral blood might have clinical ramifications in the diagnosis and treatment of NSCLC patients."

For more information on this research see: Cell-Free RNA Content in Peripheral Blood as Potential Biomarkers for Detecting Circulating Tumor Cells in Non-Small Cell Lung Carcinoma. *International Journal of Molecular Sciences*, 2016;17(11):1285-1299. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting X.M. Yu, Zhejiang Key Lab Diag & Treatment Technol Thorac, Hangzhou 310022, Zhejiang, People's Republic of China. Additional authors for this research include: Y.C. Wu, X. Liu, X.C. Huang, X.X. Hou, J.L. Wang, X.L. Cheng, W.M. Mao, and Z.Q. Ling.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Gastrointestinal Hormone Receptors, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor, Non-Small-Cell Lung Cancer, Gastrointestinal Hormones, Epidermal Growth Factors, Growth Factor Receptors, Small Cell Carcinoma, Membrane Proteins, Carcinomas, Genetics, Oncology.

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Liver Diseases and Conditions - Hepatomas

**Data from Xinjiang Technical Institute of Physics and Chemistry Advance Knowledge in Hepatomas (MiR-107 suppresses proliferation of hepatoma cells through targeting HMGA2 mRNA 3' UTR)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases and Conditions - Hepatomas have been presented. According to news reporting originating in Urumqi, People's Republic of China, by NewsRx journalists, research stated, "Aberrant expression of miR-107 is involved in the development of several human cancers. However, the role of miR-107 in hepatocellular carcinoma (HCC) is not well documented."

The news reporters obtained a quote from the research from the Xinjiang Technical Institute of Physics and Chemistry, "In the present study, we aim to explore the function of miR-107 in hepatocarcinogenesis. Bioinformatics analysis was applied to predict the target genes of miR-107. Luciferase reporter gene assay was performed to verify the miR-107 binding sites in 3'-untranslated region (3'UTR) of high mobility group A2 (HMGA2) mRNA. The expression levels of mRNA and protein were examined using qRT-PCR and Western blot analysis. Functionally, MTT and EdU assays were carried out for proliferation analysis. Clinically, thirty HCC samples and their corresponding peritumor liver tissues were collected. Bioinformatics analysis revealed that miR-107 might target HMGA2 mRNA 3'UTR. Luciferase reporter gene assays verified that the miR-107 binding site was located in the 3'UTR of HMGA2 mRNA. Furthermore, miR-107 could down-regulate HMGA2 at the levels of mRNA and protein in a
dose dependent manner. Interestingly, miR-107 inhibited the proliferation of hepatoma cells, while antimiR-107 could promote the cell proliferation, which was blocked by the interference of HMGA2. Clinically, miR-107 was lower in HCC samples relative to peritumor liver tissues. The expression levels of miR-107 were negatively correlated with those of HMGA2 mRNA in HCC samples. MiR-107 suppresses the proliferation of hepatoma cells by targeting HMGA2 mRNA.

According to the news reporters, the research concluded: "Our finding provides new insights into the mechanism of hepatocarcinogenesis."

For more information on this research see: MiR-107 suppresses proliferation of hepatoma cells through targeting HMGA2 mRNA 3' UTR. Biochemical and Biophysical Research Communications, 2016;480(3):455-460. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)


Keywords for this news article include: Urumqi, People's Republic of China, Asia, Liver Diseases and Conditions, Applied Bioinformatics, Enzymes and Coenzymes, Gastroenterology, Reporter Gene, Luciferases, Hepatomas, Genetics, Genomics, Xinjiang Technical Institute of Physics and Chemistry.

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**Data from Zagazig University Provide New Insights into Type 2 Diabetes (Combination of Sitagliptin and Insulin against Type 2 Diabetes Mellitus with Neuropathy in Rats: Neuroprotection and Role of Oxidative and Inflammation Stress)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been presented. According to news reporting out of Zagazig, Egypt, by NewsRx editors, research stated, "The present study evaluated the effects of sitagliptin-insulin against type 2 diabetes mellitus with neuropathy in rats and possible neuroprotective mechanisms. Diabetes was induced in 32 adult male albino rats by 6-week high-fat high-sugar diet followed by streptozotocin 30 mg/kg intraperitoneal injection."

Our news journalists obtained a quote from the research from Zagazig University, "For 4 weeks thereafter, diabetic rats were divided into 4 groups, each group receiving one of the following daily: vehicle (untreated diabetic), insulin 10 IU/kg SC, sitagliptin 30 mg/kg PO or sitagliptin-insulin. We assessed systolic blood pressure (SBP), blood glucose, serum insulin and advanced glycation end-products (AGEs), thermal hyperalgesia and sciatic nerve tumor necrosis factor-alpha (TNF-alpha), superoxide dismutase (SOD) and malondialdehyde (MDA)
and sciatic histopathology. Compared to untreated and insulin-treated groups, sitagliptin decreased SBP, serum AGEs and sciatic MDA and TNF-alpha, and increased serum insulin and sciatic SOD, but insulin decreased blood glucose more. Sitagliptin-insulin (greater than sitagliptin or insulin alone) superiorly decreased and increased the above respective parameters, and ameliorated hyperalgesia and sciatic histopathological changes, but was similar to insulin in decreasing blood glucose, and similar to sitagliptin in rising serum insulin. Sitagliptin-insulin combination produced hypoglycemic and neuroprotective effect and ameliorated hyperalgesia, oxidative stress and inflammation more than either drug alone."

According to the news editors, the research concluded: "This combination might have clinical efficacy in uncontrolled type 2 diabetes with neuropathy."

For more information on this research see: Combination of Sitagliptin and Insulin against Type 2 Diabetes Mellitus with Neuropathy in Rats: Neuroprotection and Role of Oxidative and Inflammation Stress. Pharmacology, 2016;98(5-6):242-250. Pharmacology can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com/; Pharmacology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224274)

Our news journalists report that additional information may be obtained by contacting M.E. Kelany, Zagazig Univ, Fac Med, Dept. of Clin Pharmacol, Zagazig 44519, Egypt. Additional authors for this research include T.M. Hakami, A.H. Omar and M.A. Abdallah.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000448043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zagazig, Egypt, Africa, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Nervous System Diseases and Conditions, Dipeptidyl Peptidase 4 Inhibitors, Glucose Metabolism Disorders, Neurologic Manifestations, Somatosensory Disorders, Drugs and Therapies, Antidiabetic Agents, Sensation Disorders, Risk and Prevention, Peptide Proteins, Peptide Hormones, Type 2 Diabetes, Endocrinology, Inflammation, Hyperalgesia, Sitagliptin, Neuropathy, Proinsulin, Zagazig University.

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Cardiovascular Diseases and Conditions - Abdominal…

Data on Abdominal Aortic Aneurysm Discussed by Researchers at University of Turin (Acute kidney injury after open and endovascular elective repair for infrarenal abdominal aortic aneurysms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm. According to news reporting originating from Turin, Italy, by NewsRx correspondents, research stated, "The aim of this study was to evaluate the incidence of acute kidney injury (AKI) after open and endovascular abdominal aortic aneurysm repair according to the Aneurysm Renal Injury Score classification. We retrospectively evaluated 431 patients undergoing elective open aortic repair (OAR; n = 285) or endovascular repair (n = 146) for infrarenal aortic aneurysm."
Our news editors obtained a quote from the research from the University of Turin, "All data regarding preoperative and postoperative serum creatinine concentrations and postoperative outcomes were assessed. Univariate and multivariate logistic regression models investigated the association between AKI and different risk factors and complications. The incidence of AKI was significantly higher after OAR (26.3% vs 5.5%; P < .001). A significant share of patients who experienced AKI were restored to preoperative renal function at discharge (62.5% vs 77.5% in the endovascular and OAR groups, respectively; P = .37). Preoperative serum creatinine concentration was significantly higher in those patients who further developed AKI (1.25 vs 1.04 mg/dL; P < .001). At the multivariate analysis, AKI was significantly associated with current smoking (odds ratio [OR], 2.05; 95% confidence interval [CI], 1.19-3.52; P = .01), hypertension (OR, 2.46; 95% CI, 1.21-4.3; P = .01), chronic renal disease (OR, 2.53; 95% CI, 1.42-4.53; P < .001), OAR (OR, 7.3; 95% CI, 3.25-16.42; P < .001), and arrhythmias (OR, 3.16; 95% CI, 1.09-9.13; P = .03). AKI stage did not affect postoperative outcomes, except for a longer hospital stay in patients in stage 2 and stage 3 compared with stage 1. AKI is a common but often reversible complication, especially after OAR. There is an urgent need of a common classification for AKI after aortic surgery."

According to the news editors, the research concluded: "New diagnostic markers for AKI should be evaluated in large-scale studies to assess their reliability."


The news editors report that additional information may be obtained by contacting P. Rispoli, University of Turin, Div Vasc Surg, Dept. of Surg Sci, I-10126 Turin, Italy. Additional authors for this research include G. Varetto, S. Quaglino, E. Frola, G. Scozzari, F. Bert and P. Rispoli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2016.02.048. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turin, Italy, Europe, Cardiovascular Diseases and Conditions, Kidney, Surgery, Risk and Prevention, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Acute Kidney Injury, Nephrology, Cardiology, Angiology, University of Turin.

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Data on Abdominal Aortic Aneurysm Reported by Researchers at Galway-Mayo Institute of Technology (A computational assessment of the hemodynamic effects of crossed and non-crossed bifurcated stent-graft devices for the treatment of abdominal ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Abdominal
Aortic Aneurysm have been presented. According to news reporting out of Galway, Ireland, by NewsRx editors, research stated, "There are several issues attributed with abdominal aortic aneurysm endovascular repair. The positioning of bifurcated stent-grafts (SG) may affect SG hemodynamics."

Our news journalists obtained a quote from the research from the Galway-Mayo Institute of Technology, "The hemodynamics and geometrical parameters of crossing or non-crossing graft limbs have not being totally accessed. Eight patient-specific SG devices and four pre-operative cases were computationally simulated, assessing the hemodynamic and geometrical effects for crossed (n=4) and non-crossed (n=4) configurations. SGs eliminated the occurrence of significant recirculations within the sac prior treatment. Dean's number predicted secondary flow locations with the greatest recirculations occurring at the outlets especially during the deceleration phase. Peak drag force varied from 3.9 to 8.7 N, with greatest contribution occurring along the axial and anterior/posterior directions. Average resultant drag force was 20% smaller for the crossed configurations. Maximum drag force orientation varied from 1.4 degrees to 51 degrees. Drag force angle varied from 1 degrees to 5 degrees during one cardiac cycle. 44% to 62% of the resultant force acted along the proximal centerline where SG migration is most likely to occur. The clinician's decision for SG positioning may be a critical parameter, and should be considered prior to surgery."

According to the news editors, the research concluded: "All crossed SG devices had an increased spiral flow effect along the distal legs with reductions in drag forces."


Our news journalists report that additional information may be obtained by contacting L. Morris, Galway Mayo Inst Technol, Dept. of Mech & Ind Engn, Galway Med Technol Center, Galway, Ireland. Additional authors for this research include T. McGloughlin and L. Morris.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.medengphy.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Galway, Ireland, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Cardiology, Galway-Mayo Institute of Technology.

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Drugs and Therapies - Acetaminophen Therapy

Data on Acetaminophen Therapy Described by Researchers at Virginia Commonwealth University (Severe necrosis of the palate and nasal septum resulting from intranasal abuse of acetaminophen)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Acetaminophen Therapy are
discussed in a new report. According to news reporting originating from Richmond, Virginia, by NewsRx correspondents, research stated, "Intranasal drug abuse frequently leads to sinonasal complications, particularly sinus, nasal, and palatal necrosis. Classically, this type of necrosis has been linked to cocaine use, but the intranasal abuse of prescription narcotics and other pain medications can also lead to severe damage to the sinonasal tract."

Our news editors obtained a quote from the research from Virginia Commonwealth University, "We describe a case of palatal and nasal septal necrosis resulting from intranasal acetaminophen abuse. The patient was a 34-year-old man with a remote history of polysubstance abuse who presented to the emergency department with worsening dysphagia and a recent history of exclusive intranasal acetaminophen abuse. He had an existing palatal fistula that was found to have dramatically increased in size. Examination revealed complete destruction of the soft palate and nasal septum and partial destruction of the hard palate. The areas of necrosis were surgically debrided."

According to the news editors, the research concluded: "We describe the general clinical presentation and surgical outcome of this case."


The news editors report that additional information may be obtained by contacting S.A. Hardison, Dept. of Otolaryngology, Virginia Commonwealth University, Richmond, VA, United States. Additional authors for this research include K.K. Marcum and C.R Lintzenich.

Keywords for this news article include: Pharmaceuticals, Richmond, Virginia, Acetanilides, United States, Drugs and Therapies, Acetaminophen Therapy, North and Central America.

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**Gastroenterology - Achalasia**

**Data on Achalasia Described by Researchers at Washington University**

*(The learning curve for interpretation of oesophageal high-resolution manometry: a prospective interventional cohort study)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gastroenterology - Achalasia. According to news reporting out of St. Louis, Missouri, by NewsRx editors, research stated, "High-resolution manometry has become the preferred choice of oesophagologists for oesophageal motor assessment, but the learning curve among trainees remains unclear. To determine the learning curve of high-resolution manometry interpretation."

Financial support for this research came from NIH/NIDDK.

Our news journalists obtained a quote from the research from Washington University, "A prospective interventional cohort study was performed on 18 gastroenterology trainees, naive to high-resolution manometry (median age 32 +/- 4.0 years, 44.4% female). An intake questionnaire and a 1-h standardised didactic session were performed at baseline. Multiple 1-h interpretation sessions were then conducted periodically over 15 months where 10 studies were discussed; 5 additional test studies were provided for interpretation, and results were compared to gold standard interpretation by the senior author. Hypothetical management
decisions based on trainee interpretation were separately queried. Accuracy was compared across test interpretations and sessions to determine the learning curve, with a goal of 90% accuracy. Baseline accuracy was low for abnormal body motor patterns (53.3%), but higher for achalasia/outflow obstruction (65.9%). Recognition of achalasia reached 90% accuracy after six sessions (P = 0.01), while overall accurate management decisions reached this threshold by the 4th session (P < 0.001). Based on our data, the threshold of 90% accuracy for recognition of any abnormal from normal pattern was reached after 30 studies (3rd session) but fluctuated. Diagnosis of oesophageal body motor patterns remained suboptimal; accuracy of advisability of fundoplication improved, but did not reach 90%. High-resolution manometry has a steep learning curve among trainees.

According to the news editors, the research concluded: "Achalasia recognition is achieved early, but diagnosis of other abnormal motor patterns and management decisions require further supervised training."


Our news journalists report that additional information may be obtained by contacting C.P. Gyawali, Washington University, Sch Med, Div Gastroenterol, St Louis, MO 63110, United States. Additional authors for this research include C.A. Reddy, S. Munigala, A. Patel, N. Kanuri, S. Almaskeen, M.K. Rude, A. Abdalla and C.P. Gyawali.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13855. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Gastroenterology, Achalasia, Washington University.

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According to the news editors, the research concluded: "Randomized studies large enough to compare clinical outcomes (e.g., stroke and death) would be necessary to prove the efficacy of thrombus aspiration in ACS patients."


The news editors report that additional information may be obtained by contacting J.C. Blankenship, Geisinger Med Center, Danville, PA 17822, United States.

Keywords for this news article include: Danville, Pennsylvania, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Acute Coronary Syndrome, Thrombosis, Geisinger Medical Center.

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**Oncology - Acute Myeloid Leukemia**

**Data on Acute Myeloid Leukemia Detailed by Researchers at Columbia University (DNMT3A mutations promote anthracycline resistance in acute myeloid leukemia via impaired nucleosome remodeling)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Acute Myeloid Leukemia. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "Although the majority of patients with acute myeloid leukemia (AML) initially respond to chemotherapy, many of them subsequently relapse, and the mechanistic basis for AML persistence following chemotherapy has not been determined."

Our news journalists obtained a quote from the research from Columbia University, "Recurrent somatic mutations in DNA methyltransferase 3A (DNMT3A), most frequently at arginine 882 (DNMT3A(R882)), have been observed in AML(1-3) and in individuals with clonal hematopoiesis in the absence of leukemic transformation(4,5)."

According to the news editors, the research concluded: "Patients with DNMT3A (R882) AML have an inferior outcome when treated with standard-dose daunorubicin-based induction chemotherapy(6,7), suggesting that DNMT3A(R882) cells persist and drive relapse (8)."


Our news journalists report that additional information may be obtained by contacting S. Mukherjee, Columbia University, Irving Canc Res Center, New York, NY 10027, United States. Additional authors for this research include K. Shank, B. Spitzer, L. Luciani, R.P. Koche, F.E. Garrett-Bakelman, C. Ganelz, B.H. Durham, A. Mohanty, G. Hoermann, S.A. Rivera, A.G. Chramiec, E. Pronier, L. Bastian, M.D. Keller, D. Tovbin, E. Loizou, A.R.
Weinstein and .

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4210. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Cell Nucleus Structures, Acute Myeloid Leukemia, Drugs and Therapies, Intranuclear Space, Anthracyclines, Hydrocarbons, Naphthacenes, Chemotherapy, Nucleosomes, Chromosomes, Hematology, Chromatin, Proteins, Oncology, Genetics, Columbia University.

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Oncology - Acute Myeloid Leukemia

Data on Acute Myeloid Leukemia Reported by Researchers at University Hospital (T-lymphoid progenitors - we know what they are, but know not what they may be)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Acute Myeloid Leukemia. According to news reporting out of Ulm, Germany, by NewsRx editors, the research stated, "An improved understanding of the biology underlying leukemogenesis, including the determination of the cells of leukemia origin, is of great importance as it can have immediate implications on patient treatment and management."

Our news journalists obtained a quote from the research from University Hospital, "The article by Riemke etal () provides further evidence that a subgroup of acute myeloid leukemia (AML), the most common acute leukemia in adults, might arise from T-lymphoid progenitor cells. This study not only supports that the lymphoid fate of early T-cell progenitors is not yet fully stabilized but also shows that under oncogenic conditions, this multilineage plasticity potential of T-lymphoid progenitors can lead to transdifferentiation into myeloid leukemia."

According to the news editors, the research concluded: "While gene expression profiles suggest that approximately 5% of all AML cases originate from T-lymphoid progenitors, novel treatment strategies targeting JAK2/STAT3 signaling might open new avenues for this AML cohort."

For more information on this research see: T-lymphoid progenitors - we know what they are, but know not what they may be. Embo Journal, 2016;35(22):2383-2385. Embo Journal can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting L. Bullinger, Univ Hosp Ulm, Dept. of Internal Med 3, Ulm, Germany.

Keywords for this news article include: Ulm, Germany, Europe, Acute Myeloid Leukemia, Hematology, Oncology, Genetics, University Hospital.

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Data on Adrenal Cortical Steroids Described by Researchers at Sichuan University (LHD-Modified Mechanism-Based Liposome Coencapsulation of Mitoxantrone and Prednisolone Using Novel Lipid Bilayer Fusion for Tissue-Specific Colocalization and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Adrenal Cortical Steroids. According to news reporting from Chengdu, People's Republic of China, by NewsRx journalists, research stated, "Coencapsulation liposomes are of interest to researchers because they maximize the synergistic effect of loaded drugs. A combination regimen of mitoxantrone (MTO) and prednisolone (PLP) has been ideal for tumor therapy."

Funders for this research include China Postdoctoral Science Foundation, National Natural Science Foundation of China, Sichuan Provincial Department of Science and Technology.

The news correspondents obtained a quote from the research from Sichuan University, "MTO and PLP offer synergistic antitumor effects confirmed by several experiments in this research. The deduced synergistic mechanism is regulation of Akt signaling pathway including the targets of p-Akt, p-GSK-3b, p-s6 ribosomal protein, and p-AMPK by MTO reactivating PLP-induced apoptosis. The liposome fusion method is adopted to create coencapsulation liposomes (PLP-MTO-YM). Low molecular weight heparin-sodium deoxycholate conjugate (LHD) then is used as a targeting ligand to prove target binding and inhibition of angiogenesis. LHD-modified liposomes (PLP-MTO-HM) have a high entrapment efficiency around 95% for both MTO and PLP. DSC results indicate that both drugs interacted with liposomes to prevent drug leak during liposome fusion. DiD-C6-HM dyes colocalize well to tumor tissue, and coadministration of DiD-HM and C6-CM did not achieve dye colocalization until 24 h after administration. In both CT26 and B16F10 mouse model, PLP-MTO-HM shows a significantly higher tumor inhibition rate relative to the coadministration of MTO-HM and PLP-CM (p <0.05 or p<0.01)."

According to the news reporters, the research concluded: "Thus, the coencapsulation system (PLP-MTO-HM) offers ideal antitumor effects relative to coadministration therapy due to enhanced synergistic effect, and this suggests a promising future for the tumor targeting vectors."


Our news journalists report that additional information may be obtained by contacting T. Hu, State Key Laboratory of Biotherapy, Collaborative Innovation Center of Biotherapy, West China Hospital, Sichuan University , 17#, Section 3, Ren Min Nan Road, Chengdu, Sichuan 610041, People's Republic of China. Additional authors for this research include H. Cao, C. Yang, L. Zhang, X. Jiang, X. Gao, F. Yang, G. He, X. Song, A. Tong, G. Guo, C. Gong, R. Li, X. Zhang, X. Wang and Y. Zheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.5b10598. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Adrenal Cortical Steroids, Anthraquinones, Antibiotics, Antineoplastics, Biotechnology, Drug Delivery Systems, Drugs and Therapies, Glucocorticoids, Hormones, Liposomes, Mitoxantrone Therapy, Ophthalmic Preparations, Ophthalmic Steroids, Pharmaceuticals, Prednisolone Therapy.

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Eye Diseases and Conditions - Age-Related Macular...

Data on Age-Related Macular Degeneration Detailed by Researchers at National Institutes of Health (Longitudinal Structural Changes In Late-onset Retinal Degeneration)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Eye Diseases and Conditions - Age-Related Macular Degeneration are presented in a new report. According to news reporting originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "To characterize longitudinal structural changes in early stages of late-onset retinal degeneration to investigate pathogenic mechanisms. Two affected siblings, both with a S163R missense mutation in the causative gene C1QTNF5, were followed for 8+ years."

Our news editors obtained a quote from the research from the National Institutes of Health, "Color fundus photos, fundus autofluorescence images, near-infrared reflectance fundus images, and spectral domain optical coherence tomography scans were acquired during follow-up. Both patients, aged 45 and 50 years, had good visual acuities (>20/20) in the context of prolonged dark adaptation. Baseline color fundus photography demonstrated yellow-white, punctate lesions in the temporal macula that correlated with a reticular pattern on fundus autofluorescence and near-infrared reflectance imaging. Baseline spectral domain optical coherence tomography imaging revealed subretinal deposits that resemble reticular pseudodrusen described in age-related macular degeneration. During follow-up, these affected areas developed confluent thickening of the retinal pigment epithelial layer and disruption of the ellipsoidal zone of photoreceptors before progressing to overt retinal pigment epithelium and outer retinal atrophy. Structural changes in early stages of late-onset retinal degeneration, revealed by multimodal imaging, resemble those of reticular pseudodrusen observed in age-related macular degeneration and other retinal diseases."

According to the news editors, the research concluded: "Longitudinal follow-up of these lesions helps elucidate their progression to frank atrophy and may lend insight into the pathogenic mechanisms underlying diverse retinal degenerations."

For more information on this research see: Longitudinal Structural Changes In Late-onset Retinal Degeneration. Retina-The Journal of Retinal and Vitreous Diseases, 2016;36 (12):2348-2356. Retina-The Journal of Retinal and Vitreous Diseases can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news editors report that additional information may be obtained by contacting C. Cukras, NEI, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include J. Flamendorf, W.T. Wong, R. Ayyagari, D. Cunningham and
Enzymes and Coenzymes - Alcohol Oxidoreductases

Data on Alcohol Oxidoreductases Described by Researchers at Department of Pharmaceutical Chemistry [Development of 2-(Substituted Benzylamino)-4-Methyl-1, 3-Thiazole-5-Carboxylic Acid Derivatives as Xanthine Oxidase Inhibitors and Free Radical ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Alcohol Oxidoreductases have been published. According to news reporting originating in New Delhi, India, by NewsRx journalists, research stated, "A series of 2-(substituted benzylamino)-4-methylthiazole-5-carboxylic acid was designed and synthesized as structural analogue of febuxostat. A methylene amine spacer was incorporated between the phenyl ring and thiazole ring in contrast to febuxostat in which the phenyl ring was directly linked with the thiazole moiety."

Financial support for this research came from UGC (Moulana Azad National Fellowship), New Delhi, India.

The news reporters obtained a quote from the research from the Department of Pharmaceutical Chemistry, "The purpose of incorporating methylene amine was to provide a heteroatom which is expected to favour hydrogen bonding within the active site residues of the enzyme xanthine oxidase. The structure of all the compounds was established by the combined use of FT-IR, NMR and MS spectral data. All the compounds were screened in vitro for their ability to inhibit the enzyme xanthine oxidase as per the reported procedure along with DPPH free radical scavenging assay. Compounds 5j, 5k and 5l demonstrated satisfactory potent xanthine oxidase inhibitory activities with IC[50] values, 3.6, 8.1 and 9.9 mm, respectively, whereas compounds 5k, 5n and 5p demonstrated moderate antioxidant activities having IC[50] 15.3, 17.6 and 19.6 mm, respectively, along with xanthine oxidase inhibitory activity. Compound 5k showed moderate xanthine oxidase inhibitory activity as compared with febuxostat along with antioxidant activity."

According to the news reporters, the research concluded: "All the compounds were also studied for their binding affinity in active site of enzyme (PDB ID-1N5X)."


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Immune System Diseases and Conditions - Allergies

Data on Allergies Described by Researchers at Odense University Hospital (SQ grass sublingual allergy immunotherapy tablet for disease-modifying treatment of grass pollen allergic rhinoconjunctivitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - Allergies. According to news reporting out of Odense, Denmark, by NewsRx editors, research stated, "Allergy immunotherapy is a treatment option for allergic rhinoconjunctivitis (ARC). It is unique compared with pharmacotherapy in that it modifies the immunologic pathways that elicit an allergic response."

Our news journalists obtained a quote from the research from Odense University Hospital, "The SQ Timothy grass sublingual immunotherapy (SLIT) tablet is approved in North America and throughout Europe for the treatment of adults and children (>=5 years old) with grass pollen-induced ARC. The clinical evidence for the use of SQ grass SLIT-tablet as a disease-modifying treatment for grass pollen ARC is discussed in this review. The review included the suitability of SQ grass SLIT-tablet for patients with clinically relevant symptoms to multiple Pooidae grass species, single-season efficacy, safety, adherence, coseasonal initiation, and cost-effectiveness. The data from the long-term SQ grass SLIT-tablet clinical trial that evaluated a clinical effect 2 years after a continuous 3-year treatment period were presented in the context of regulatory criteria that define a clinically meaningful effect. This trial demonstrated that the clinical effect of the SQ grass SLIT-tablet is maintained, which is also supported by the immunologic findings."

According to the news editors, the research concluded: "Therefore, the SQ grass SLIT-tablet has an indication as a disease-modifying therapy in Europe, and a sustained effect is recognized in the United States."

For more information on this research see: SQ grass sublingual allergy immunotherapy tablet for disease-modifying treatment of grass pollen allergic rhinoconjunctivitis. Allergy and Asthma Proceedings, 2016;37(2):92-104.

Our news journalists report that additional information may be obtained by contacting R. Dahl, Allergy Centre, Odense University Hospital, Odense, Denmark. Additional authors for this research include G. Roberts, J. de Blic, G.W. Canonica, J. Kleine-Tebbe, H.
Nolte, S. Lawton and H.S Nelson.

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Keywords for this news article include: Odense, Europe, Denmark, Allergies, Immunotherapy, Drugs and Therapies, Rhinoconjunctivitis, Immune System Diseases and Conditions.

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Neurodegenerative Diseases and Conditions —...

Data on Alzheimer Disease Described by Researchers at University of South Carolina School of Medicine (Molecular Signaling Mechanisms of Natural and Synthetic Retinoids for Inhibition of Pathogenesis in Alzheimer's Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting from Columbia, South Carolina, by NewsRx journalists, research stated, "Retinoids, which are vitamin A derivatives, interact through retinoic acid receptors (RARs) and retinoid X receptors (RXRs) and have profound effects on several physiological and pathological processes in the brain. The presence of retinoic acid signaling is extensively detected in the adult central nervous system, including the amygdala, cortex, hypothalamus, hippocampus, and other brain areas."

The news correspondents obtained a quote from the research from the University of South Carolina School of Medicine, "Retinoids are primarily involved in neural patterning, differentiation, and axon outgrowth. Retinoids also play a key role in the preservation of the differentiated state of adult neurons. Impairment in retinoic acid signaling can result in neurodegeneration and progression of Alzheimer's disease (AD). Recent studies demonstrated severe deficiencies in spatial learning and memory in mice during retinoic acid (vitamin A) deprivation indicating its significance in preserving memory function. Defective cholinergic neurotransmission plays an important role in cognitive deficits in AD. All-trans retinoic acid is known to enhance the expression and activity of choline acetyltransferase in neuronal cell lines. Activation of RAR and RXR is also known to impede the pathogenesis of AD in mice by inhibiting accumulation of amyloids. In addition, retinoids have been shown to inhibit the expression of chemokines and pro-inflammatory cytokines in microglia and astrocytes, which are activated in AD."

According to the news reporters, the research concluded: "In this review article, we have described the chemistry and molecular signaling mechanisms of natural and synthetic retinoids and current understandings of their therapeutic potentials in prevention of AD pathology."


Our news journalists report that additional information may be obtained by
contacting M. Chakrabarti, Dept. of Pathology, Microbiology and Immunology, University of South Carolina School of Medicine, Columbia, SC, United States. Additional authors for this research include A.J. McDonald, J. Will Reed, M.A. Moss, B.C. Das and S.K Ray.

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Publisher contact information for the *Journal of Alzheimer's Disease* is: IOS Press, Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands.

Keywords for this news article include: Alkenes, Therapy, Columbia, Dementia, Retinoids, Vitamin A, Carotenoids, Tauopathies, Cyclohexanes, Hydrocarbons, United States, Retinoic Acid, South Carolina, Article Review, Cycloparaffins, Alzheimer Disease, Biological Factors, North and Central America, Brain Diseases and Conditions.

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**Neurodegenerative Diseases and Conditions —**

*Data on Alzheimer Disease Discussed by Researchers at University of Kentucky (Differential Effects of Structural Modifications on the Competition of Chalcones for the PIB Amyloid Imaging Ligand-Binding Site in Alzheimer's Disease Brain and ...)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Neurodegenerative Diseases and Conditions - Alzheimer Disease is now available. According to news reporting out of Lexington, Kentucky, by NewsRx editors, research stated, "Alzheimer's disease (AD) is a complex brain disorder that still remains ill defined. In order to understand the significance of binding of different clinical in vivo imaging ligands to the polymorphic pathological features of AD brain, the molecular characteristics of the ligand interacting with its specific binding site need to be defined."

Financial supporters for this research include National Institute of Neurological Disorders and Stroke, University of Kentucky, National Institute of Allergy and Infectious Diseases, National Institute on Aging.

Our news journalists obtained a quote from the research from the University of Kentucky, "Herein, we observed that tritiated Pittsburgh Compound B ((3)H-PIB) can be displaced from synthetic Ab(1-40) and Ab(1-42) fibrils and from the PIB binding complex purified from human AD brain (ADPBC) by molecules containing a chalcone structural scaffold. We evaluated how substitution on the chalcone scaffold alters its ability to displace (3)H-PIB from the synthetic fibrils and ADPBC. By comparing unsubstituted core chalcone scaffolds along with the effects of bromine and methyl substitution at various positions, we found that attaching a hydroxyl group on the ring adjacent to the carbonyl group (ring I) of the parent member of the chalcone family generally improved the binding affinity of chalcones toward ADPBC and synthetic fibrils F40 and F42. Furthermore, any substitution on ring I at the ortho-position of the carbonyl group greatly decreases the binding affinity of the chalcones, potentially as a result of steric hindrance. Together with the finding that neither our chalcones nor PIB interact with the Congo Red/X-34 binding site, these molecules provide new tools to selectively probe the PIB binding site that is found in human AD brain, but not in brains of AD pathology animal models."
According to the news editors, the research concluded: "Our chalcone derivatives also provide important information on the effects of fibril polymorphism on ligand binding."


Our news journalists report that additional information may be obtained by contacting M.Y. Fosso, Dept. of Pharmaceutical Sciences, College of Pharmacy, University of Kentucky, 789 South Limestone Street, Lexington, Kentucky 40536-0596, United States. Additional authors for this research include K. McCarty, E. Head, S. Garneau-Tsodikova and H. LeVine.

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Keywords for this news article include: Amyloid, Kentucky, Dementia, Genetics, Proteins, Lexington, Chalcones, Tauopathies, United States, Propiophenones, Alzheimer Disease, North and Central America, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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Enzymes and Coenzymes - Amidohydrolases

Data on Amidohydrolases Discussed by Researchers at Kirchberg Hospital [Natural Compound Histone Deacetylase Inhibitors (HDACi): Synergy with Inflammatory Signaling Pathway Modulators and Clinical Applications in Cancer]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Enzymes and Coenzymes - Amidohydrolases. According to news reporting from Luxembourg, Luxembourg, by NewsRx journalists, research stated, "The remarkable complexity of cancer involving multiple mechanisms of action and specific organs led researchers Hanahan and Weinberg to distinguish biological capabilities acquired by cancer cells during the multistep development of human tumors to simplify its understanding. These characteristic hallmarks include the abilities to sustain proliferative signaling, evade growth suppressors, resist cell death, enable replicative immortality, induce angiogenesis, activate invasion and metastasis, avoid immune destruction, and deregulate cellular energetics."

The news correspondents obtained a quote from the research from Kirchberg Hospital, "Furthermore, two important characteristics of tumor cells that facilitate the acquisition of emerging hallmarks are tumor-promoting inflammation and genome instability. To treat a multifactorial disease such as cancer, a combination treatment strategy seems to be the best approach."

According to the news reporters, the research concluded: "Here we focus on natural histone deacetylase inhibitors (HDACi), their clinical uses as well as synergies with modulators of the pro-inflammatory transcription factor signaling pathways."
For more information on this research see: Natural Compound Histone Deacetylase Inhibitors (HDACi): Synergy with Inflammatory Signaling Pathway Modulators and Clinical Applications in Cancer. *Molecules*, 2016;21(11):2784-2812. *Molecules* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting H. Losson, Hopital Kirchberg, LBMCC, L-2540 Luxembourg, Luxembourg. Additional authors for this research include M. Schnekenburger, M. Dicato and M. Diederich.

Keywords for this news article include: Luxembourg, Luxembourg, Europe, Deacetylase, Article Review, Enzymes and Coenzymes, Histone Deacetylases, Amidohydrolases, Nucleoproteins, Proteins, Histones, Oncology, Genetics, Cancer, Kirchberg Hospital.

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**Amino Acids**

**Data on Amino Acids Reported by Researchers at Fred Hutchinson Cancer Research Center (Quantitative Method to Investigate the Balance between Metabolism and Proteome Biomass: Starting from Glycine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Amino Acids have been published. According to news reporting from Seattle, Washington, by NewsRx journalists, research stated, "The balance between metabolism and biomass is very important in biological systems; however, to date there has been no quantitative method to characterize the balance. In this methodological study, we propose to use the distribution of amino acids in different domains to investigate this balance."

The news correspondents obtained a quote from the research from Fred Hutchinson Cancer Research Center, "It is well known that endogenous or exogenous amino acids in a biological system are either metabolized or incorporated into free amino acids (FAAs) or proteome amino acids (PAAs). Using glycine (Gly) as an example, we demonstrate a novel method to accurately determine the amounts of amino acids in various domains using serum, urine, and cell samples. As expected, serum and urine had very different distributions of FAA-Gly and PAA-Gly. Using Tet21N human neuroblastoma cells, we also found that Myc(oncogene)-induced metabolic reprogramming included a higher rate of metabolizing Gly, which provides additional evidence that the metabolism of proliferating cells is adapted to facilitate producing new cells."

According to the news reporters, the research concluded: "It is therefore anticipated that our method will be very valuable for further studies of the metabolism and biomass balance that will lead to a better understanding of human cancers."


Our news journalists report that additional information may be obtained by

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/anie.201609236. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Amino Acids, Proteome, Proteins, Peptides, Genetics, Glycine, Fred Hutchinson Cancer Research Center.

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**Drugs and Therapies - Ampicillins**

**Data on Ampicillins Detailed by Researchers at China University of Science and Technology (Facile synthesis of Ag/Ag3PO4/AMB composite with improved photocatalytic performance)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Ampicillins is now available. According to news reporting out of Hefei, People's Republic of China, by NewsRx editors, research stated, "Ag3PO4 exhibits extremely high photo-oxidative capabilities for organic pollutants decomposition under solar light. However, the relatively large crystallite size of Ag3PO4 lowers its light response, while the high conduction band potential intensifies the reduction to Ag by the light induced electron, limiting the practical application of Ag3PO4."

Financial supporters for this research include National Natural Science Foundation of China, National Key Technology R&D Program of the Ministry of Science and Technology, National 863 Program.

Our news journalists obtained a quote from the research from the China University of Science and Technology, "To overcome these drawbacks, we herein adopted a facile liquid phase deposition method to load Ag3PO4 onto amino-modified biochar which is an abundant and cheap byproduct of biomass pyrolysis to prepare renewable energy. The as-prepared composite (Ag/Ag3PO4/AMB) exhibited greatly enhanced photocatalytic performance to amoxicillin degradation compared with pure Ag3PO4. The results show that almost 80% amoxicillin was decomposed in 120 min in the presence of Ag/Ag3PO4/AMB, whereas only 65% of the amoxicillin was degraded with pure Ag3PO4. Multiple characterizations including X-ray diffraction (XRD), scanning electron microscope (SEM), MR, Raman, and XPS revealed that Ag3PO4 particles were evenly distributed on the surface of biochar, and a few Ag NPs were also generated due to the reduction effect of AMB. IJV-vis diffuse reflectance spectra (DRS) analysis revealed that the composite had good visible light response, while electrochemical impedance spectroscopy (EIS) measurements indicated AMB improved the efficiency of charge separation and electron transfer."

According to the news editors, the research concluded: "In addition, EPR determination suggested that the oxidant formed in photocatalysis systems under visible light irradiation plays an important role in the degradation of amoxicillin."

For more information on this research see: Facile synthesis of Ag/Ag3PO4/AMB composite with improved photocatalytic performance. *Chemical Engineering Journal,*
Data on Amyotrophic Lateral Sclerosis Reported by Researchers at Cedars-Sinai Medical Center (A model of recurrent concussion that leads to long-term motor deficits, CTE-like tauopathy and exacerbation of an ALS phenotype)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Amyotrophic Lateral Sclerosis. According to news originating from Los Angeles, California, by NewsRx correspondents, research stated, "Concussion injury is the most common form of traumatic brain injury (TBI). How recurrent concussions alter long-term outcomes is poorly understood, especially as related to the development of neurodegenerative disease."

Our news journalists obtained a quote from the research from Cedars-Sinai Medical Center, "We evaluated the functional and pathological consequences of repeated TBI over time in wild type (WT) rats as well as rats harboring the human SOD1(G93A) mutation (SOD1'), a model of familial amyotrophic lateral sclerosis (ALS). A total of 42 rats, 26 WT and 16 SOD1, were examined over a study period of 25 weeks (or endpoint). At postnatal day 60, 20 WT and 7 SOD1 rats were exposed to mild, bilateral TBI once per week for either 2 weeks (2 x TBI) or 5 weeks (5 x TBI) using a controlled cortical impact device. Six WT and nine SOD1 rats underwent sham injury with anesthesia alone. Twenty WT rats were euthanized at 12 weeks after first injury and six WT rats were euthanized at 25 weeks after first injury. SOD1 rats were euthanized when they reached ALS disease endpoint. Weekly body weights and behavioral assessments were performed. Tauopathy in brain tissue was analyzed using immunohistochemistry. 2XTBI injured rats initially demonstrated recovery of motor function but failed to recover to baseline within the 12-week study period. Relative to both 2XTBI and sham controls, 5XTBI rats demonstrated significant deficits that persisted over the 12-week period. SOD1 5XTBI rats reached a peak body weight earlier than sham SOD1 rats, indicating earlier onset of the ALS phenotype. Histologic examination of brain tissue revealed that, in contrast with sham controls, SOD1 and WT TBI rats demonstrated cortical and corpus collosum..."
thinning and tauopathy, which increased over time. Unlike previous models of repeat brain injury, which demonstrate only transient deficits in motor function, our concussion model of repeat, mild, bilateral TBI induced long-lasting deficits in motor function, decreased cortical thickness, shrinkage of the corpus callosum, increased brain tauopathy, and earlier onset of ALS symptoms in SOD1 rats."

According to the news editors, the research concluded: "This model may allow for a greater understanding of the complex relationship between TBI and neurodegenerative diseases and provides a potential method for testing novel therapeutic strategies."

For more information on this research see: A model of recurrent concussion that leads to long-term motor deficits, CTE-like tauopathy and exacerbation of an ALS phenotype. *Journal of Trauma and Acute Care Surgery*, 2016;81(6):1070-1079. *Journal of Trauma and Acute Care Surgery* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

The news correspondents report that additional information may be obtained from E.J. Ley, Cedars Sinai Med Center, Dept. of Surg, Div Trauma & Crit Care, Los Angeles, CA 90048, United States. Additional authors for this research include A.M. Ma, A. Ko, M.Y. Harada, L. Wyss, P.S. Haro, J.P. Vit, O. Shelest, P. Rhee, C.N. Svendsen and E.J. Ley.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Amyotrophic Lateral Sclerosis, Proteostasis Deficiencies, Traumatic Brain Injury, TDP-43 Proteinopathies, Craniocerebral Trauma, Brain Injuries, Tauopathies, Genetics, Cedars-Sinai Medical Center.

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**Hematologic Diseases and Conditions - Anemia**

**Data on Anemia Detailed by Researchers at University Hospital (Fetal Intra-Peritoneal Transfusion for the Management of Very Early Spontaneous Twin Anemia-Polycythemia Sequence in an Obese Patient With a Whole Anterior Placenta)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematologic Diseases and Conditions - Anemia. According to news reporting from Lausanne, Switzerland, by NewsRx journalists, research stated, "Twin anemia-polycythemia sequence (TAPS) is a rare condition in monochorionic twin pregnancies. Small intertwin placental vascular communications allow transfusion, which results in a hemoglobin difference in the twins in the absence of oligohydramnios or polyhydramnios."

The news correspondents obtained a quote from the research from University Hospital, "We report here a case of TAPS diagnosed at 17 weeks' gestation in an obese patient (BMI 42) with a whole anterior placenta. The only possible treatment at this stage of pregnancy was intra-uterine transfusion (IUT), which was repeated weekly until photocoagulation of placental anastomoses was feasible. Fetoscopic laser surgery is the only curative treatment, but
is challenging in TAPS because of the absence of polyhydramnios and the presence of minuscule anastomoses. An anterior placenta and high BMI can make the procedure even more challenging."

According to the news reporters, the research concluded: "This case report demonstrates that very early and rapidly progressing TAPS with technically complicated conditions (elevated BMI and anterior placenta) can be successfully managed with IUT until laser procedure is achievable."


Our news journalists report that additional information may be obtained by contacting C. Guenot, Materno-fetal and Obstetrics Research Unit, Departments of Gynaecology and Obstetrics, University Hospital of Lausanne CHUV, Lausanne, Switzerland. From the Swiss Fetal Laser Group, Switzerland. Additional authors for this research include R. Robyr, N. Jastrow, Y. Vial, L. Raio and D. Baud.

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Keywords for this news article include: Europe, Anemia, Obesity, Lausanne, Genetics, Bariatrics, Switzerland, Polycythemia, Hematologic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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### Data on Anemia Detailed by Researchers at Yang Ming National University (What Constitutes Normal Hemoglobin Concentrations in Community-Dwelling Older Adults?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematologic Diseases and Conditions - Anemia is the subject of a report. According to news originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "To assess the relationship between hemoglobin concentration and cause-specific mortality. Cohort study. Data from the government-sponsored Annual Geriatric Health Examination Program."

Financial supporters for this research include Taiwan Ministry of Education, Taiwan Ministry of Science and Technology.

Our news journalists obtained a quote from the research from Yang Ming National University, "Community-dwelling Taipei citizens aged 65 and older followed up between 2006 and 2010 (N = 77,532). Mortality was determined by matching participants' medical records with national death files. Cox proportional hazards regression models were used to evaluate the relationship between hemoglobin concentration (World Health Organization (WHO)-defined anemia and 7 hemoglobin concentrations) and cause-specific mortality. The mortality risk of WHO-defined anemia increased substantially in both sexes for all-cause and cancer mortalities.
(men, hazard ratio (HR) = 1.86, 95% confidence interval (CI) = 1.71-2.02 for all-cause mortality; HR = 1.94, 95% CI = 1.69-2.22 for cancer mortality; for women, HR = 1.63, 95% CI = 1.43-1.86 for all-cause mortality; HR = 1.74, 95% CI = 1.38-2.19 for cancer mortality). Men with hemoglobin concentrations of 15.0 to 15.9 g/dL and women with hemoglobin concentrations of 13.0 to 13.9 g/dL had the lowest risks of all-cause, cardiovascular, and cancer mortality. Risks of all-cause and cancer mortality increased significantly when hemoglobin concentrations were less than 14 g/dL in men and less than 12 g/dL in women. Even mild anemia (11.0-11.9 g/dL) was associated with greater mortality risk. Stratification according to age, body mass index, estimated glomerular filtration rate, and presence of comorbidities did not lead to any substantial changes.

According to the news editors, the research concluded: "Hemoglobin concentrations associated with optimal survival in older adults were identified and additional data provided regarding the relationship between hemoglobin concentrations and cause-specific mortality risks in older adults."


The news correspondents report that additional information may be obtained from C.P. Li, Yang Ming National University, Sch Med, Taipei, Taiwan. Additional authors for this research include H.Y. Hu, Y.J. Chou, N. Huang, Y.C. Chou and C.P. Li.

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Keywords for this news article include: Taipei, Taiwan, Asia, World Health Organization, Risk and Prevention, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Blood Proteins, Hemoglobins, Oncology, Globins, Cancer, Anemia, Yang Ming National University.

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**Hematologic Diseases and Conditions - Anemia**

**Data on Anemia Discussed by Researchers at Harvard School of Medicine (Anemia for the Primary Care Physician)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematologic Diseases and Conditions - Anemia. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Anemia denotes a reduced red blood cell (RBC) mass from any cause. The causes of anemia are numerous and due to decreased (or abnormal) erythropoiesis, shortened RBC life span, or blood loss."

Our news editors obtained a quote from the research from the Harvard School of Medicine, "The most common etiology of anemia is iron deficiency. A judicious work up of anemia includes evaluating the reticulocyte count and peripheral smear. The severity of illness of a patient with anemia is determined by the degree of anemia and the seriousness of the
underlying disorder."

According to the news editors, the research concluded: "Management of patients with hereditary and hemolytic anemias should involve a hematologist."

For more information on this research see: Anemia for the Primary Care Physician. Primary Care, 2016;43(4):527-542,CP5. Primary Care can be contacted at: W B Saunders Co-Elsevier Inc, 1600 John F Kennedy Boulevard, Ste 1800, Philadelphia, PA 19103-2899, USA. (Elsevier - www.elsevier.com; Primary Care - www.journals.elsevier.com/primary-care-diabetes/)

The news editors report that additional information may be obtained by contacting M.O. Achebe, Harvard Med Sch, Brigham & Women's Hospital, Div Hematol, Boston, MA 01701, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pop.2016.07.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Anemia, Harvard School of Medicine.

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Anesthesia

Data on Anesthesia Discussed by Researchers at Copenhagen University Hospital (Lack of national consensus in preoperative airway assessment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Anesthesia have been published. According to news reporting originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "Difficult airway management is associated with an increased risk of morbidity and mortality. Several preoperative risk factors associated with airway management difficulties have been proposed; however, no clear guideline for airway assessments exists."

Our news editors obtained a quote from the research from Copenhagen University Hospital, "We therefore hypothesised that Danish airway assessment was lacking uniformity. We aimed to examine whether multivariable risk assessment tools and predictors for difficult intubation and mask ventilation were used systematically. Heads of anaesthesia departments were sent a six-question survey at the beginning of 2012. We asked if systematic risk assessment tools, particularly the Simplified Airway Risk Index (SARI), and predictors for difficult intubation and mask ventilation were used. Additionally, we asked if any risk factors were pre-printed on the anaesthesia record. In all, 29 of 31 (94%) departments responded. The SARI was implemented in 8 of 29 (28%, 95% confidence interval (CI): 15-46%) departments with major regional differences. There was no significant association between using the SARI and a reduced number of unanticipated difficult intubation (p = 0.06). Mallampati classification (95.2%, 95% CI: 77.3-99.2%), history of airway management difficulties (85.7%, 95% CI: 65.4-95.0%), ability to prognath (81.0%, 95% CI: 60.0-92.3%) and neck mobility (81.0%, 95% CI: 60.0-92.3%) were the main predictors registered. We found considerable inter-departmental variance in the standards employed for airway assessment and no uniform pattern in the
registration of risk factors for airway management difficulties."

According to the news editors, the research concluded: "Better prediction of difficult intubation could not be detected in departments that used the SARI."

For more information on this research see: Lack of national consensus in preoperative airway assessment. *Danish Medical Journal*, 2016;63(10):18-22. *Danish Medical Journal* can be contacted at: Danish Medical Assoc, Trondhjemsgade 9, Dk-2100 Copenhagen, Denmark.

The news editors report that additional information may be obtained by contacting A.K. Norskov, Rigshospitalet, Center Clin Intervent Res, Copenhagen Trial Unit, Copenhagen, Denmark. Additional authors for this research include C.V. Rosenstock and L.H. Lundstrom.

Keywords for this news article include: Copenhagen, Denmark, Europe, Risk and Prevention, Medical Devices, Pain Medicine, Critical Care, Anesthesia, Copenhagen University Hospital.

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**Angiography**

**Data on Angiography Reported by Researchers at University of Texas Southwestern Medical Center (Noninvasive intraoperative angiography for reconstruction of head and neck defects)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Angiography. According to news reporting out of Dallas, Texas, by NewsRx editors, research stated, "Reconstruction of head and neck defects after cancer resection involves the use of local, pedicled musculocutaneous, and free flaps. Flap failure is often caused by vascular insufficiency, and it is associated with the presence of cardiovascular or peripheral vascular disease, a history of smoking, and previous radiation and/or surgery."

Our news journalists obtained a quote from the research from the University of Texas Southwestern Medical Center, "Failure rates may be reduced by the use of indocyanine green near-infrared fluorescence laser angiography, which detects perfusion deficits intraoperatively. Although this technology has been validated in other fields, there is limited experience in the head and neck region. We present 3 cases in which different head and neck flaps were used along with this technology in patients at high risk for flap failure. All flaps were successfully implanted without perioperative or long-term complications. The increasing complexity, age, and comorbidities of the head and neck cancer population pose significant reconstructive challenges. This report demonstrates the feasibility of employing intraoperative angiography for local, pedicled, and free flaps. This noninvasive tool optimizes intraoperative planning and assesses viability, potentially lowering failure rates in high-risk patients."

According to the news editors, the research concluded: "Identification of patients who most benefit from this technology warrants further investigation."

For more information on this research see: Noninvasive intraoperative angiography for reconstruction of head and neck defects. *Ear, Nose, & Throat Journal*, 2015;94(10-11):E32-6.

Our news journalists report that additional information may be obtained by contacting S.P. Daram, Dept. of Otolaryngology-Head and Neck Surgery, University of Texas
Southwestern Medical Center, Dallas, TX, United States. Additional authors for this research include J.M. Sacks and M.E Kupferman.

Keywords for this news article include: Texas, Dallas, Cardiology, Technology, Angiography, United States, North and Central America, Cardiovascular Diagnostic Techniques.

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Ankylosing Spondylitis

Data on Ankylosing Spondylitis Discussed by Researchers at University Health Network [IL-7 primes IL-17 in mucosal-associated invariant T (MAIT) cells, which contribute to the Th17-axis in ankylosing spondylitis]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Ankylosing Spondylitis are discussed in a new report. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "Ankylosing spondylitis (AS) is a chronic inflammatory disease of unknown origin in which interleukin (IL) 17 has been genetically and therapeutically recognised as a key player. Identification of the cellular sources and inducers of IL-17 is crucial in our understanding of the drivers of inflammation in AS."

Our news editors obtained a quote from the research from University Health Network, "Recently, mucosal-associated invariant T (MAIT) cells have been implicated in autoimmune diseases. Their gut origin, effector phenotype and expression of multiple AS-associated genes, such as IL7R and IL23R, makes them potential contributors to the pathogenesis of AS. Mononuclear cells from patients with AS, healthy controls (HCs) and patients with rheumatoid arthritis were isolated from blood and synovial fluid (SF). Flow cytometry was used to identify MAIT cells. Phenotype was assessed by intracellular staining for cytokines and granzyme. Function was assessed by antigen-specific stimulation using Salmonella, or antigen non-specific activation via priming with IL-7 or IL-23. MAIT cells were reduced in frequency in the blood of patients with AS compared with HCs, yet patients with AS had an elevated frequency IL-17A+ MAIT cells. There was an enrichment of MAIT cells in SF, which had an exaggerated IL-17 phenotype. IL-17 elevation in AS MAIT cells was dependent on priming with IL-7 but not IL-23 or antigen stimulation. The AS-associated IL7R single nucleotide polymorphism (SNP), rs11742270, had no effect on IL-7R expression or function in the experiments performed."

According to the news editors, the research concluded: "This study reveals a potential role for MAIT cells in patients with AS and is the first linking IL-7 to the elevated IL-17 profile in patients through the AS-associated risk gene IL7R."

For more information on this research see: IL-7 primes IL-17 in mucosal-associated invariant T (MAIT) cells, which contribute to the Th17-axis in ankylosing spondylitis. Annals of the Rheumatic Diseases, 2016;75(12):2124-2132. Annals of the Rheumatic Diseases can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Annals of the Rheumatic Diseases - ard.bmj.com/)

The news editors report that additional information may be obtained by contacting
R.D. Inman, Toronto Western Hosp, Univ Hlth Network, Toronto, ON, Canada. Additional authors for this research include Z. Qaiyum, I. Almaghlouth, D. Lawson, S. Karki, N. Avvaru, Z.B. Zhang, Y.C. Yao, V. Ranganathan, Y. Baglaenko and R.D. Inman.

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Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Musculoskeletal Diseases and Conditions, Infectious Bone Diseases and Conditions, Spinal Diseases and Conditions, Ankylosing Spondylitis, Genetics, University Health Network.

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Drugs and Therapies - Antibiotics

Data on Antibiotics Described by Researchers at University of Manitoba
(The Cardioprotective Role of N-Acetyl Cysteine Amide in the Prevention of Doxorubicin and Trastuzumab-Mediated Cardiac Dysfunction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antibiotics is the subject of a report. According to news reporting originating in Winnipeg, Canada, by NewsRx journalists, research stated, "In the breast cancer setting, anticancer therapies including doxorubicin (DOX) and trastuzumab (TRZ) are associated with a significantly increased risk of cardiotoxicity. Despite the increasing support for the role of oxidative stress (OS) in its pathophysiology, we still do not have an optimal antioxidant for the prevention of DOX + TRZ-mediated cardiac dysfunction."

The news reporters obtained a quote from the research from the University of Manitoba, "The objective of this study was to investigate whether the novel antioxidant N-acetylcysteine amide (NACA) can attenuate DOX + TRZ-induced heart failure in a murine model. A total of 100 C57Bl/6 female mice received 1 of the following drug regimens: (1) saline, (2) NACA, (3) DOX, (4) TRZ, (5) DOX+ TRZ, (6) NACA + DOX, (7) NACA + TRZ, and (8) NACA + DOX + TRZ. Serial echocardiography was performed over a 10-day study period, after which the mice were killed for histologic and biochemical analyses. In mice receiving DOX, the left ventricular ejection fraction (LVEF) decreased from 73% +/- 4% to 43% +/- 2% on day 10. In mice receiving DOX + TRZ, the LVEF decreased from 72% +/- 3% to 32% +/- 2% on day 10. Prophylactic administration of NACA to mice receiving DOX or DOX + TRZ was cardioprotective, with an LVEF of 62% +/- 3% and 55% +/- 3% on day 10, respectively. Histologic and biochemical analyses demonstrated a loss of cellular integrity, increased OS, and increased cardiac apoptosis in mice treated with DOX + TRZ, which was attenuated by the prophylactic administration of NACA."

According to the news reporters, the research concluded: "NACA attenuated the cardiotoxic side effects of DOX + TRZ in a murine model of chemotherapy-induced cardiac dysfunction by decreasing OS and apoptosis."

For more information on this research see: The Cardioprotective Role of N-Acetyl Cysteine Amide in the Prevention of Doxorubicin and Trastuzumab-Mediated Cardiac Dysfunction.
Data on Antibiotics Detailed by Researchers at Sojo University
(Pronounced Cellular Uptake of Pirarubicin versus That of Other Anthracyclines: Comparison of HPMA Copolymer Conjugates of Pirarubicin and Doxorubicin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antibiotics. According to news reporting out of Kumamoto, Japan, by NewsRx editors, research stated, "Many conjugates of water-soluble polymers with biologically active molecules were developed during the last two decades. Although, therapeutic effects of these conjugates are affected by the properties of carriers, the properties of the attached drugs appear more important than the same carrier polymer in this case."

Financial supporters for this research include Ministry of Education, Culture, Sports, Science, and Technology, Ministerstvo Školstvi, Mladéže a Telovychovy, Grantova Agentura Ceske Republiky, Akademie Ved Ceske Republiky, Japan Society for the Promotion of Science, European Regional Development Fund.

Our news journalists obtained a quote from the research from Sojo University, "Pirarubicin (THP), a tetrahydropyranyl derivative of doxorubicin (DOX), demonstrated more rapid cellular internalization and potent cytotoxicity than DOX. Here, we conjugated the THP or DOX to N-(2-hydroxypropyl)methacrylamide copolymer via a hydrazone bond. The polymeric prodrug conjugates, P-THP and P-DOX, respectively, had comparable hydrodynamic sizes and drug loading. Compared with P-DOX, P-THP showed approximately 10 times greater cellular uptake during a 240 min incubation and a cytotoxicity that was more than 10 times higher during a 72-h incubation. A marginal difference was seen in P-THP and P-DOX accumulation in the liver and kidney at 6 h after drug administration, but no significant difference occurred in the tumor drug concentration during 624 h after drug administration. Antitumor activity against xenograft human pancreatic tumor (SUIT2) in mice was greater for P-THP than for P-DOX. To
sum up, the present study compared the biological behavior of two different drugs, each attached to an N-(2-hydroxypropyl)methacrylamide copolymer carrier, with regard to their uptake by tumor cells, body distribution, accumulation in tumors, cytotoxicity, and antitumor activity in vitro and in vivo. No differences in the tumor cell uptake of the polymer-drug conjugates, P-THP and P-DOX, were observed. In contrast, the intracellular uptake of free THP liberated from the P-THP was 2530 times higher than that of DOX liberated from P-DOX. This finding indicates that proper selection of the carrier, and especially conjugated active pharmaceutical ingredient (API) are most critical for anticancer activity of the polymer-drug conjugates. THP, in this respect, was found to be a more preferable API for polymer conjugation than DOX.

According to the news editors, the research concluded: "Hence the treatment based on enhanced permeability and retention (EPR) effect that targets more selectively to solid tumors can be best achieved with THP, although both polymer conjugates of DOX and THP exhibited the EPR effects and drug release profiles in acidic pH similarly."

For more information on this research see: Pronounced Cellular Uptake of Pirarubicin versus That of Other Anthracyclines: Comparison of HPMA Copolymer Conjugates of Pirarubicin and Doxorubicin. Molecular Pharmaceutics, 2016;13(12):4106-4115. Molecular Pharmaceutics can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

Our news journalists report that additional information may be obtained by contacting H. Maeda, Sojo Univ, Res Inst Drug Delivery Sci, Nishi Ku, Kumamoto 8600082, Japan. Additional authors for this research include E. Koziolova, P. Chytil, K. Tsukigawa, J. Fang, M. Haratake, K. Ulbrich, T. Etrych and H. Maeda.

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Keywords for this news article include: Kumamoto, Japan, Asia, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Drugs and Therapies, Pharmaceuticals, Cancer Therapy, Sojo University.

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change in the quenching effect on Cyp18 intrinsic fluorescence. Using the thioxylated compound Cs7 as an isosteric derivative of CsA in competition assay, the experiment has led to the determination of k(off) value in solution.

According to the news editors, the research concluded: "Whereas the conformational heterogeneity of CsA has been found to be associated with its two-phase binding kinetics to Cyp18, the dissociation rate of CsA from complex is independent from the initial ligand structure."


The news editors report that additional information may be obtained by contacting Y.X. Zhang, Technical University of Dresden, CUBE Center Mol Bioengn B, D-01307 Dresden, Germany. Additional authors for this research include F. Erdmann, A. Quintero, G. Fischer and Y.X. Zhang.

Keywords for this news article include: Dresden, Germany, Europe, Drugs and Therapies, Cyclic Peptides, Protein Therapy, Biotechnology, Cyclosporins, Antibiotics, Proteomics, Technical University.

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Drugs and Therapies - Antibiotics

Data on Antibiotics Reported by Researchers at Vanderbilt University (Contribution of Organic Anion-Transporting Polypeptides 1A/1B to Doxorubicin Uptake and Clearance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antibiotics have been presented. According to news reporting originating in Nashville, Tennessee, by NewsRx journalists, research stated, "The organic anion-transporting polypeptides represent an important family of drug uptake transporters that mediate the cellular uptake of a broad range of substrates including numerous drugs. Doxorubicin is a highly efficacious and well-established anthracycline chemotherapeutic agent commonly used in the treatment of a wide range of cancers."

The news reporters obtained a quote from the research from Vanderbilt University, "Although doxorubicin is a known substrate for efflux transporters such as P-glycoprotein (P-gp; MDR1, ABCB1), significantly less is known regarding its interactions with drug uptake transporters. Here, we investigated the role of organic anion transporting polypeptide (OATP) transporters to the disposition of doxorubicin. A recombinant vaccinia-based method for expressing uptake transporters in HeLa cells revealed that OATP1A2, but not OATP1B1 or OATP1B3, and the rat ortholog Oatp1a4 were capable of significant doxorubicin uptake. Interestingly, transwell assays using Madin-Darby canine kidney II cell line cells stably expressing specific uptake and/or efflux transporters revealed that OATP1B1, OATP1B3, and OATP1A2, either alone or in combination with MDR1, significantly transported doxorubicin. An assessment of polymorphisms in SLCO1A2 revealed that four variants were associated with
significantly impaired doxorubicin transport in vitro. In vivo doxorubicin disposition studies revealed that doxorubicin plasma area under the curve was significantly higher (1.7-fold) in Slco1a1b(-/-) versus wild-type mice. The liver-to-plasma ratio of doxorubicin was significantly decreased (2.3-fold) in Slco1a1b2(-/-) mice and clearance was reduced by 40% compared with wild-type mice, suggesting Oatp1b transporters are important for doxorubicin hepatic uptake."

According to the news reporters, the research concluded: "We demonstrate important roles for OATP1A1B in transporter-mediated uptake and disposition of doxorubicin."

For more information on this research see: Contribution of Organic Anion-Transporting Polypeptides 1A/1B to Doxorubicin Uptake and Clearance. *Molecular Pharmacology*, 2017;91(1):14-24. *Molecular Pharmacology* can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

Our news correspondents report that additional information may be obtained by contacting R.H. Ho, Vanderbilt University, Sch Med, Dept. of Pediat, Div Hematol & Oncol, Nashville, TN 37235, United States. Additional authors for this research include B.F. Leake, R.B. Kim and R.H. Ho.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Drugs and Therapies, Pharmaceuticals, Vanderbilt University.

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**Drugs and Therapies - Antifungals**

**Data on Antifungals Reported by Researchers at Federal University (Miltefosine inhibits Candida albicans and non-albicans Candida spp. biofilms and impairs the dispersion of infectious cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antifungals. According to news reporting originating from Rio de Janeiro, Brazil, by NewsRx correspondents, research stated, "Candida spp. can adhere to and form biofilms over different surfaces, becoming less susceptible to antifungal treatment. Resistance of biofilms to antifungal agents is multifactorial and the extracellular matrix (ECM) appears to play an important role."

Funders for this research include Conselho Nacional de Desenvolvimento Cientifico e Tecnologico, Fundacao Carlos Chagas Filho de Amparo a Pesquisa do Estado do Rio de Janeiro.

Our news editors obtained a quote from the research from Federal University, "Among the few available antifungals for treatment of candidaemia, only the lipid formulations of amphotericin B (AmB) and the echinocandins are effective against biofilms. Our group has previously demonstrated that miltefosine has an important effect against Candida albicans biofilms. Thus, the aim of this work was to expand the analyses of the in vitro antibiofilm activity of miltefosine to non-albicans Candida spp. Miltefosine had significant antifungal activity against planktonic cells and the development of biofilms of C. albicans, Candida parapsilosis, Candida tropicalis and Candida glabrata. The activity profile in biofilms was superior to fluconazole and was similar to that of AmB and caspofungin. Biofilm-derived cells with their ECM extracted became as susceptible to miltefosine as planktonic cells, confirming
the importance of the ECM in the biofilm resistant behaviour. Miltefosine also inhibited biofilm dispersion of cells at the same concentration needed to inhibit planktonic cell growth."

According to the news editors, the research concluded: "The data obtained in this work reinforce the potent inhibitory activity of miltefosine on biofilms of the four most pathogenic Candida spp. and encourage further studies for the utilisation of this drug and/or structural analogues on biofilm-related infections."


The news editors report that additional information may be obtained by contacting T. Vila, Federal University of Rio de Janeiro, Inst Biofis Carlos Chagas Filho, Center Ciencias Saude, Lab Biol Celular Fungos, BR-21941902 Rio De Janeiro, RJ, Brazil. Additional authors for this research include K. Ishida, S.H. Seabra and S. Rozental.

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Keywords for this news article include: Rio de Janeiro, Brazil, South America, Drugs and Therapies, Antiretrovirals, Antifungals, Federal University.

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**Drugs and Therapies - Antifungals**

**Data on Antifungals Reported by Researchers at University of Science and Technology (Ketoconazole encapsulated in chitosan-gellan gum nanocomplexes exhibits prolonged antifungal activity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antifungals. According to news reporting originating in Haryana, India, by NewsRx journalists, research stated, "The objective of the present study was to prepare ketoconazole loaded chitosan-gellan gum (CSGG) nanoparticles and to evaluate them for antifungal activity against Aspergillus niger. Ketoconazole loaded CSGG nanoparticles were prepared by electrostatic complexation technique using chitosan (CS) as cationic polymer and gellan gum (GG) as anionic polymer with ketoconazole as drug."

Financial support for this research came from Ruma Rani.

The news reporters obtained a quote from the research from the University of Science and Technology, "It was observed that the effect of gellan gum on particle size was more pronounced in comparison to chitosan and increase in its concentration resulted in a significant increase in particle size but decrease in zeta potential. Whereas, increase in concentration of chitosan resulted in increase in zeta potential. The particle size and zeta potential of optimal formulation was 155.7 +/- 26.1 nm and 32.1 +/- 2.8 mV which obtained at concentration of chitosan (0.02% w/v) and gellan gum (0.01% w/v)."

According to the news reporters, the research concluded: "On comparative
evaluation, ketoconazole loaded CSGG nanoparticles showed significantly higher antifungal activity against Aspergillus niger than dummy CSGG nanoparticles (without drug) and drug individually."


Our news correspondents report that additional information may be obtained by contacting R. Thakur, Gum Jambheshwar Univ Sci & Technol, Dept. of Bio & Nanotechnol, Hisar 125001, Haryana, India. Additional authors for this research include P. Kaur, M. Bernela, R. Rani and R. Thakur.

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Keywords for this news article include: Haryana, India, Asia, Dermatological Agents, Emerging Technologies, Ketoconazole Therapy, Drugs and Therapies, Topical Antifungals, Azole Antifungals, Pharmaceuticals, Antifungals, Nanotechnology, Nanocomplexes, Nanoparticle, University of Science and Technology.

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**Drugs and Therapies - Antineoplastic Monoclonal...**

**Data on Antineoplastic Monoclonal Antibodies Detailed by Researchers at Children's Hospital (Ofatumumab in two pediatric nephrotic syndrome patients allergic to rituximab)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antineoplastic Monoclonal Antibodies have been published. According to news originating from Rome, Italy, by NewsRx correspondents, research stated, "Rituximab, a chimeric anti-CD20 monoclonal antibody, is an effective treatment in steroid-dependent nephrotic syndrome (SDNS). However, some patients develop adverse reactions."

Our news journalists obtained a quote from the research from Children's Hospital, "Patient 1, a 14-year-old boy with SDNS since the age of 2, was treated with oral prednisone, cyclosporine A (CsA) and mycophenolate mofetil. A first infusion of rituximab at age 12 years was well tolerated, but this was followed by a prolonged relapse unresponsive to oral prednisone, mycophenolate mofetil and CsA. A second rituximab infusion was attempted, but treatment was interrupted due to severe dyspnea. Treatment with a humanized anti-CD20 monoclonal antibody, ofatumumab, was then attempted. The patient experienced a mild allergic reaction and maintained remission despite interruption of all treatment at > 12 months of follow-up. Patient 2, a 3-year-old boy who presented at 18 months with nephrotic syndrome initially resistant to treatment with oral prednisone, was given with three intravenous boluses of methylprednisolone followed by CsA and achieved remission. Upon steroid discontinuation, the
NS relapsed. Prednisone was restarted and treatment with a single dose of rituximab was never completed due to a severe allergic reaction. Ofatumumab infusion was uneventful, and he maintained remission during the follow-up period (> 12 months) despite interruption of prednisone therapy. B cells reappeared at 7 months in both patients."

According to the news editors, the research concluded: "Ofatumumab may be a therapeutic option in severe forms of NS with allergy to rituximab."

For more information on this research see: Ofatumumab in two pediatric nephrotic syndrome patients allergic to rituximab. *Pediatric Nephrology*, 2017;32(1):181-184. *Pediatric Nephrology* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Pediatric Nephrology - www.springerlink.com/content/0931-041x/)

The news correspondents report that additional information may be obtained from M. Vivarelli, IRCCS Bambino Gesu Childrens Hosp, Div Nephrol & Dialysis, Rome, Italy. Additional authors for this research include M. Colucci, A. Bonanni, M. Verzani, J. Serafinelli, F. Emma and G. Ghiggeri.

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**Antioxidants**

**Data on Antioxidants Reported by Researchers at School of Chemistry (Selective and Sensitive Monitoring of Cerebral Antioxidants Based on the Dye-Labeled DNA/Polypdopamine Conjugates)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Antioxidants are presented in a new report. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "A simple and novel method for evaluating antioxidants in complex biological fluids has been developed based on the interaction of dye-labeled single strand DNA (ssDNA) and polydopamine (PDA). Due to the interaction between ssDNA and PDA, the fluorescence of dye-labeled ssDNA (e.g., FITC-ssDNA, as donor) can be quenched by PDA (as acceptor) to the fluorescence 'off' state through Forster resonance energy transfer (FRET)."

Financial supporters for this research include China Postdoctoral Science Foundation, Shanghai Municipal Education Commission, National Natural Science Foundation of China, Shanghai Education Development Foundation.

Our news editors obtained a quote from the research from the School of Chemistry, "However, in the presence of various antioxidants, such as glutathione (GSH), ascorbic acid
(AA), cysteine (Cys), and homocysteine (Hcys), the spontaneous oxidative polymerization reaction from DA to PDA would be blocked, resulting in the freedom of FITC-ssDNA and leading to the fluorescence 'on' state. The sensing system shows great sensitivity for the monitoring of antioxidants in a fluorescent 'turn on' format. The new strategy also exhibits great selectivity and is free from the interferences of amino acids, metal ions and the biological species commonly existing in brain systems. Moreover, by combining the micro dialysis technique, the present method has been successfully applied to monitor the dynamic changes of the striatum antioxidants in rat cerebrospinal microdialysates during the normal/ischemia/reperfusion process."

According to the news editors, the research concluded: "This work establishes an effective platform for in vivo monitoring antioxidants in cerebral ischemia model, and promises new opportunities for the research of brain chemistry, neuroprotection, physiological, and pathological events."

For more information on this research see: Selective and Sensitive Monitoring of Cerebral Antioxidants Based on the Dye-Labeled DNA/Polydopamine Conjugates. *Analytical Chemistry*, 2016;88(23):11647-11653. *Analytical Chemistry* can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Analytical Chemistry - www.pubs.acs.org/journal/ancham)

The news editors report that additional information may be obtained by contacting M. Zhang, East China Normal Univ, Sch Chem & Mol Engn, Shanghai 200241, People's Republic of China. Additional authors for this research include Y.X. Qi, X.Q. Jiang, J.Q. Chen, Q.Y. Zhou, G.Y. Shi and M. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.analchem6b03216. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Protective Agents, Antioxidants, Genetics, School of Chemistry.

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**Drugs and Therapies - Antiretrovirals**

**Data on Antiretrovirals Reported by Researchers at University of Torino (Clinical pharmacology of tenofovir clearance: a pharmacokinetic/pharmacogenetic study on plasma and urines)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antiretrovirals. According to news reporting from Turin, Italy, by NewsRx journalists, research stated, "The HIV virus and hepatitis B virus nucleotide reverse transcriptase inhibitor tenofovir has been associated with proximal tubular toxicity; the latter was found to be predicted by plasma concentrations and with single-nucleotide polymorphisms in transporters-encoding genes. A cross-sectional analysis in adult HIV-positive patients with estimated creatinine clearance > 60 ml min(-1) was performed."

The news correspondents obtained a quote from the research from the University of Torino, "Twelve-hour plasma and urinary tenofovir concentrations and single-nucleotide polymorphisms in several transporter-encoding genes were analysed. In 289 patients 12-h
tenofovir plasma, urinary and urinary to plasma ratios were 69 ng ml(-1) (interquartile range 51.5-95), 24.3 mg ml(-1) (14.3-37.7) and 384 (209-560). At multivariate analysis estimated creatinine clearance, protease inhibitors co-administration and SLC28A2 CT/TT genotypes were independently associated with plasma tenofovir exposure; ABCC10 GA/AA genotypes and protease inhibitor co-administration were independently associated with the urinary to plasma tenofovir ratio."

According to the news reporters, the research concluded: "Tenofovir clearance was associated with genetic polymorphisms in host genes and with co-administered drugs: if confirmed by ongoing studies these data may inform treatment tailoring and/or dose reductions."


Our news journalists report that additional information may be obtained by contacting A. Calcagno, Univ Torino, Dept. of Med Sci, Infect Dis Unit, Turin, Italy. Additional authors for this research include J. Cusato, L. Marinaro, L. Trentini, C. Alcantarini, M. Mussa, M. Simiele, A. D'Avolio, G. Di Perri and S. Bonora.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.71. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turin, Italy, Europe, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Enzymes and Coenzymes, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Pharmacogenetics, Pharmacokinetics, Pharmaceuticals, Antiretrovirals, Antiinfectives, HIV Infections, Pharmacology, Retroviridae, RNA Viruses, Antivirals, Tenofovir, Protease, Genetics, HIV/AIDS, University of Torino.

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Drugs and Therapies - Antiretrovirals

Data on Antiretrovirals Reported by S. Llabres and Co-Researchers (Mechanism of the Pseudoirreversible Binding of Amantadine to the M2 Proton Channel)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antiretrovirals have been presented. According to news reporting originating in Genoa, Italy, by NewsRx journalists, research stated, "The M2 proton channel of influenza A virus is an integral membrane protein involved in the acidification of the viral interior, a step necessary for the release of the viral genetic material and replication of new virions. The aim of this study is to explore the mechanism of drug (un)binding to the M2 channel in order to gain insight into the structural and energetic features relevant for the development of novel inhibitors."

Financial support for this research came from Generalitat de Catalunya.
The news reporters obtained a quote from the research, "To this end, we have investigated the binding of amantadine (Amt) to the wild type (wt) M2 channel and its V27A variant using multiple independent molecular dynamics simulations, exploratory conventional metadynamics, and multiple walkers well-tempered metadynamics calculations. The results allow us to propose a sequential mechanism for the (un)binding of Amt to the wt M2 channel, which involves the adoption of a transiently populated intermediate (up state) leading to the thermodynamically favored down binding mode in the channel pore. Furthermore, they suggest that chloride anions play a relevant role in stabilizing the down binding mode of Amt to the wt channel, giving rise to a kinetic trapping that explains the experimentally observed pseudoirreversible inhibition of the wt channel by Amt. We propose that this trapping mechanism underlies the inhibitory activity of potent M2 channel blockers, as supported by the experimental confirmation of the irreversible binding of a pyrrolidine analogue from electrophysiological current assays. Finally, the results reveal that the thermodynamics and kinetics of Amt (un)binding is very sensitive to the V27A mutation, providing a quantitative rationale to the drastic decrease in inhibitory potency against the V27A variant."

According to the news reporters, the research concluded: "Overall, these findings pave the way to explore the inhibitory activity of Amt-related analogues in mutated M2 channel variants, providing guidelines for the design of novel inhibitors against resistant virus strains."


Our news correspondents report that additional information may be obtained by contacting A. Cavalli, Ist Italiano Tecnol, CompuNet, I-16163 Genoa, Italy. Additional authors for this research include J. Juarez-Jimenez, M. Masetti, R. Leiva, S. Vazquez, S. Gazzarrini, A. Moroni, A. Cavalli and F.J. Luque.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/jacs.6b07096. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genoa, Italy, Europe, Dopaminergic Antiparkinsonism Agents, Central Nervous System Agents, Adamantane Antivirals, Antiparkinson Agents, Drugs and Therapies, Organic Chemicals, Antiretrovirals, Antiinfectives, Hydrocarbons, Amantadine, Genetics.

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Data on Arteriovenous Fistula Reported by Researchers at University of Alabama (Safety and Efficacy of En Bloc Renal Hilar Vascular Staple Ligation: A Meta-Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Arteriovenous Fistula have been presented. According to news reporting out of Birmingham, Alabama, by
NewsRx editors, research stated, "We reviewed the literature on the safety of en bloc ligation. We also performed a meta-analysis of the effect of using this technique with vascular staplers on perioperative factors compared to conventional renal pedicle dissection and isolated staple ligation of the renal artery and vein."

Our news journalists obtained a quote from the research from the University of Alabama, "A literature search was performed to include all primary studies related to the safety of en bloc ligation of the renal hilum. After exclusion criteria were applied 9 studies were identified for review, of which 4 included a control group and were used in the meta-analysis. The primary end point was the incidence of arteriovenous fistula. Secondary end points were procedure duration, blood loss and the number of perioperative complications. None of the total population of 595 patients in whom en bloc ligation was performed for nephrectomy were diagnosed with arteriovenous fistula formation at an average postoperative followup of 26.5 months. When comparing en bloc and isolated ligation of the renal artery and vein, the meta-analysis showed a significant improvement in procedure duration for en bloc nephrectomy. There was no difference in estimated blood loss or the number of complications."

According to the news editors, the research concluded: "En bloc ligation appears to be as safe as and potentially more beneficial in terms of perioperative factors than conventional renal pedicle dissection and isolated vascular ligation."


Our news journalists report that additional information may be obtained by contacting S. Rais-Bahrami, Univ Alabama Birmingham, Dept. of Urol WSL SR B & Radiol SR B, Birmingham, AL, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.juro.2016.07.077. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Cardiovascular Abnormalities, Arteriovenous Malformations, Congenital Abnormalities, Vascular Malformations, Arteriovenous Fistula, Vascular Fistula, Renal Artery, Nephrology, Angiology, Kidney, University of Alabama.

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Musculoskeletal Diseases and Conditions - Arthralgia

Data on Arthralgia Reported by Researchers at Research Hospital (Alendronate- and risedronate-induced acute polyarthritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Musculoskeletal Diseases and Conditions - Arthralgia is the subject of a report. According to news reporting originating in Istanbul, Turkey, by NewsRx editors, the research stated, "Bisphosphonates are the mainstay treatment for postmenopausal osteoporosis. Although bisphosphonates are safety drugs, they have numerous side-effects such as arthralgia, elevated erythrocyte sedimentation rate and C-reactive protein, gastrointestinal
disturbances, and flu-like illness with symptoms of fatigue, fever, chills, malaise, and myalgia."

The news reporters obtained a quote from the research from Research Hospital, "We present a case of acute polyarthritis after administration of alendronate and risedronate in a 52-year-old woman. To the best of the author's knowledge, this is the first case of acute polyarthritis induced by per os administration of both alendronate and risedronate during weekly usage. This is a report of a 52-year-old woman admitted to our hospital every week in a month, within 48 h, after receiving three times alendronate and one time risedronate with diffuse arthralgias, myalgias, and swelling with effusions in both wrists, both ankles, interphalangeal joints in both hands and feet, and in both knees. When we discontinued alendronate and risedronate, oral raloxifene (60 mg/day) with oral calcium (1 g/day), and vitamin D3 (800 IU/day) was initiated. The symptoms regressed in 1 week. During the 1 year follow-up period, no myalgia, arthritis, or synovitis was detected. The side-effects of bisphosphonates are rarely reported in the literature. We believe that the prevalence of these side-effects would increase by closer follow-up of patients receiving these medications."

According to the news reporters, the research concluded: "To our knowledge, this patient is the first reported case of acute polyarthritis induced by per os administration of both alendronate and risedronate during weekly usage."


Our news correspondents report that additional information may be obtained by contacting M. Ugurlar, Sisli Hamidiye Etfal Educ & Res Hosp, Istanbul, Turkey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3695-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Musculoskeletal Diseases and Conditions, Alendronate Therapy Sodium, Drugs and Therapies, Risedronate Therapy, Antihypocalcemic, Bisphosphonates, Pharmaceuticals, Diphosphonates, Antiresorptive, Arthralgia, Hormones, Research Hospital.

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**Biomedical Engineering - Artificial Saliva**

**Data on Artificial Saliva Reported by Researchers at University of Sindh**

*(Vortex-assisted ionic liquid-based dispersive liquid-liquid microextraction for assessment of chromium species in artificial saliva extract of different chewing tobacco ...)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biomedical Engineering - Artificial Saliva. According to news reporting originating from Jamshoro, Pakistan, by NewsRx correspondents, research stated, "A novel dispersive liquid-liquid microextraction (ILDLL mu E) method using an extracting solvent (ionic liquid) and dispersant (Triton X-114) was developed for the separation and preconcentration of hexavalent chromium (Cr6+) in artificial
saliva extract (ASE) of chewing tobacco products, gutkha, and mainpuri (n = 23). In the proposed method, the extraction of Cr6+ was accomplished by using ammonium pyrrolidinedithiocarbamate (APDC) as complexing agent and 1-butyl-3-methylimidazolium hexafluorophosphate [C4MIM] [PF6] as extracting solvent.

Our news editors obtained a quote from the research from the University of Sindh, "The tiny droplet of metal chelate was then dispersed into TX-114 emulsion, using vortex mixer. Various parameters such as concentration of APDC, pH of the solution, volume of [C4MIM] [PF6], and TX-114 as well as extraction time were studied. Under the most favorable conditions, the limit of detection was found to be 0.068 μg/L with the relative standard deviation < 5 %. The enrichment factor of developed method was found as 62.5, and method has been effectively applied for the analysis of Cr species in artificial saliva extract of gutkha and mainpuri products. The Cr6+ was quantitatively recovered (< 97 %) under optimal conditions, while the recovery of trivalent specie (Cr3+), at the same experimental conditions, was observed to be < 5 %. The Cr3+ was determined by the difference of total Cr and Cr6+ in artificial saliva extract of selected STP. Health risks associated with the intake of total Cr in gutkha and mainpuri were assessed in terms of estimated daily intake, such as carcinogenic and noncarcinogenic risks."

According to the news editors, the research concluded: "Estimated daily intake of Cr via chewing 10 g/day of gutkha and mainpuri was found to be below the maximum tolerable daily intake, whereas the calculated risk of cancer for Cr was observed in the acceptable range of 10E(-6)-10E(-4), except some brands of gutkha."

For more information on this research see: Vortex-assisted ionic liquid-based dispersive liquid-liquid microextraction for assessment of chromium species in artificial saliva extract of different chewing tobacco products. *Environmental Science and Pollution Research*, 2016;23(24):25288-25298. *Environmental Science and Pollution Research* can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Environmental Science and Pollution Research - www.springerlink.com/content/0944-1344/)

The news editors report that additional information may be obtained by contacting A. Akhtar, Univ Sindh, Natl Center Excellence Analyt Chem, Jamshoro 76080, Pakistan. Additional authors for this research include T.G. Kazi, H.I. Afridi, S.G. Musharraf, F.N. Talpur, N. Khan, M. Bilal and M. Khan. Keywords for this news article include: Jamshoro, Pakistan, Asia, Chromium, Risk and Prevention, Biomedical Engineering, Transition Elements, Artificial Saliva, Bioengineering, Ionic Liquids, Biotechnology, Heavy Metals, Biomedicine, Solvents, University of Sindh.

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**Cardiovascular Diseases and Conditions** -

**Data on Atherosclerosis Reported by Researchers at Albert Einstein Israelite Hospital (Epicardial fat is associated with severity of subclinical coronary atherosclerosis in familial hypercholesterolemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions -
Atherosclerosis have been published. According to news reporting from Sao Paulo, Brazil, by NewsRx journalists, research stated, "Familial hypercholesterolemia (FH) is a common genetic disorder characterized by elevated blood cholesterol, increased prevalence of subclinical atherosclerosis and high risk of premature coronary heart disease. However, this risk is not explained solely by elevated LDL-cholesterol concentrations, and other factors may influence atherosclerosis development."

Financial support for this research came from FAPESP.

The news correspondents obtained a quote from the research from Albert Einstein Israelite Hospital, "There is evidence that increased adiposity may predispose to atherosclerosis in FH. Epicardial fat has been associated with subclinical coronary atherosclerosis in the general population. This study evaluated the association of epicardial fat (EFV) volume with the presence and extent of subclinical coronary atherosclerosis detected by computed tomography angiography in FH patients. Ninety-seven FH subjects (35% male, mean age 45 +/- 13 years, LDL-C 281 +/- 56 mg/dL, 67% with proven molecular defects) underwent computed tomography angiography and coronary artery calcium (CAC) scoring. EFV was measured in non-contrast images using a semi-automated method. Segment-stenosis score (SSS) and segment-involvement score (SIS) were calculated. Multivariate Poisson regression was utilized to assess an independent association of EFV with coronary atherosclerotic burden. EFV was positively associated with age, body mass index, waist circumference, blood glucose, the presence of the metabolic syndrome components, but not with LDL-C. After adjusting for confounders and abdominal circumference, an independent association (shown as beta coefficients and 95% confidence intervals) of EVF with CAC scores [beta = 0.263 (0.234; 0.292), p = 0.000], SIS [beta = 0.304 (0.141; 0.465) p = 0.000] and SSS [beta = 0.296 (0.121; 0.471), p = 0.001] was found."

According to the news reporters, the research concluded: "In FH, EFV was independently associated with coronary atherosclerotic presence and severity."

For more information on this research see: Epicardial fat is associated with severity of subclinical coronary atherosclerosis in familial hypercholesterolemia. Atherosclerosis, 2016;254():73-77. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting R.D. Santos, Hosp Israelita Albert Einstein, Cardiol Program, Sao Paulo, Brazil. Additional authors for this research include O.C. Mangili, M.S. Bittencourt, M.H. Miname, P.H. Harada, L.M. Lima, C.E. Rochitte and R.D. Santos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.09.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Familial Hypercholesterolemia, Arterial Occlusive Diseases, Lipid Metabolism Disorders, Computed Tomography, Imaging Technology, Arteriosclerosis, Atherosclerosis, Hyperlipidemias, Dyslipidemias, Cardiology, Angiography, Genetics, Albert Einstein Israelite Hospital.

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Data on Atopic Dermatitis Reported by Researchers at Central South University (The Genetics and Epigenetics of Atopic Dermatitis-Filaggrin and Other Polymorphisms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Skin Diseases and Conditions - Atopic Dermatitis are presented in a new report. According to news reporting originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "Atopic dermatitis (AD) is a chronic inflammatory skin disease caused by a combination of genetic and environmental factors. Genetic evidences depict a complex network comprising by epidermal barrier dysfunctions and dysregulation of innate and adaptive immunity in the pathogenesis of AD."

Our news editors obtained a quote from the research from Central South University, "Mutations in the human filaggrin gene (FLG) are the most significant and well-replicated genetic mutation associated with AD, and other mutations associated with epidermal barriers such as SPINK5, FLG-2, SPRR3, and CLDN1 have all been linked to AD. Gene variants may also contribute to the abnormal innate and adaptive responses found in AD, including mutations in PRRs and AMPs, TSLP and TSLPR, IL-1 family cytokines and receptors genes, vitamin D pathway genes, FCER1A, and Th2 and other cytokines genes. GWAS and Immunochip analysis have identified a total of 19 susceptibility loci for AD. Candidate genes at these susceptibility loci identified by GWAS and Immunochip analysis also suggest roles for epidermal barrier functions, innate and adaptive immunity, interleukin-1 family signaling, regulatory T cells, the vitamin D pathway, and the nerve growth factor pathway in the pathogenesis of AD. Increasing evidences show the modern lifestyle (i.e., the hygiene hypothesis, Western diet) and other environmental factors such as pollution and environmental tobacco smoke (ETS) lead to the increasing prevalence of AD with the development of industrialization. Epigenetic alterations in response to these environmental factors, including DNA methylation and microRNA related to immune system and skin barriers, have been found to contribute to the pathogenesis of AD."

According to the news editors, the research concluded: "Genetic variants and epigenetic alteration might be the key tools for the molecular taxonomy of AD and provide the background for the personalized management."

For more information on this research see: The Genetics and Epigenetics of Atopic Dermatitis-Filaggrin and Other Polymorphisms. Clinical Reviews in Allergy & Immunology, 2016;51(3):315-328. Clinical Reviews in Allergy & Immunology can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA.

The news editors report that additional information may be obtained by contacting Q.J. Lu, Central South University, Dept. of Dermatol, Xiangya Hosp 2, Changsha 410011, Hunan, People's Republic of China. Additional authors for this research include C. Chang and Q.J. Lu.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Environment, Article Review, Immunology, Epidemiology, Skin and Connective Tissue Diseases and Conditions, Skin Diseases and Conditions, Atopic Dermatitis, Dermatology, Genetics, Central South University.

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Heart Disorders and Diseases - Atrial Fibrillation

Data on Atrial Fibrillation Detailed by Researchers at AHEPA University Hospital (Left atrial appendage occlusion for stroke prevention in atrial fibrillation: multicentre experience with the AMPLATZER Cardiac Plug)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting from Thessaloniki, Greece, by NewsRx journalists, research stated, "To investigate the safety, feasibility, and efficacy of left atrial appendage occlusion (LAAO) with the AMPLATZER Cardiac Plug (ACP) for stroke prevention in patients with atrial fibrillation (AF). Data from consecutive patients treated in 22 centres were collected."

The news correspondents obtained a quote from the research from AHEPA University Hospital, "A total of 1,047 patients were included in the study. Procedural success was 97.3%. There were 52 (4.97%) periprocedural major adverse events. Follow-up was complete in 1,001/1,019 (98.2%) of successfully implanted patients (average 13 months, total 1,349 patient-years). One-year all-cause mortality was 4.2%. No death at follow-up was reported as device-related. There were nine strokes (0.9%) and nine transient ischaemic attacks (0.9%) during follow-up. The annual rate of systemic thromboembolism was 2.3% (31/1,349 patient-years), which is a 59% risk reduction. There were 15 major bleedings (1.5%) during follow-up. The annual rate of major bleeding was 2.1% (28/1,349 patient-years), which is a 61% risk reduction. Patients with single LAAO on aspirin monotherapy or no therapy and longer follow-up had fewer cerebral and fewer bleeding events. In this multicentre study, LAAO with the ACP showed high procedural success and a favourable outcome for the prevention of AF-related thromboembolism."

According to the news reporters, the research concluded: "Modification in antithrombotic therapy after LAAO may result in reduction of bleeding events."

For more information on this research see: Left atrial appendage occlusion for stroke prevention in atrial fibrillation: multicentre experience with the AMPLATZER Cardiac Plug. Eurointervention, 2016;11(10):1170-9.

Our news journalists report that additional information may be obtained by contacting A. Tzikas, AHEPA University Hospital, Thessaloniki, Greece. Additional authors for this research include S. Shakir, S. Gafoor, H. Omran, S. Berti, G. Santoro, J. Kefer, U. Landmesser, J.E. Nielsen-Kudsk, I. Cruz-Gonzalez, H. Sievert, T. Tichelbacker, P. Kanagaratnam, F. Nietlispach, A. Aminian, F. Kasch and X. Freixa.

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Keywords for this news article include: Greece, Europe, Stroke, Cardiology, Hematology, Thessaloniki, Heart Disease, Thromboembolism, Atrial Fibrillation, Cardiac Arrhythmias, Risk and Prevention, Embolism and Thrombosis, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**Data on Atrial Fibrillation Detailed by Researchers at Fairleigh Dickinson University [Atrial Electrocardiography in Obesity and Hypertension: Clinical Insights from the Polish-Norwegian Study (PONS)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting from Florham Park, New Jersey, by NewsRx journalists, research stated, "Obesity and hypertension often coexist and represent risk factors for atrial fibrillation. This study hypothesized that their single and joint effects on atrial remodeling would be reflected in the PR interval and P-wave durations on electrocardiogram (ECG)."

The news correspondents obtained a quote from the research from Fairleigh Dickinson University, "This cross-sectional analysis of a community-based study included 11,308 men and women age 45-64. Atrial indices were obtained from digital standard 12-lead resting ECG. Analyses were adjusted for traditional cardiovascular risk factors. Both ECG indices displayed a progressive increase across anthropometric indices. Each 5-unit increment in body mass index (BMI) increased P-wave duration by 1.9 ms (95% CI 1.5-2.2) and PR interval by 2.4 ms (95% CI 1.9-3.0), with similar trends for central obesity, even among those without obesity by BMI. Both ECG indices displayed graded increases across levels of blood pressure control, including prehypertension. A joint effect of overweight and hypertension on both ECG indices was detected. P-wave duration or PR interval among people with obesity was not additionally increased by hypertension. P-wave indices increase in general and central obesity. Hypertension exerts an incremental effect in people with overweight but not in people with obesity."

According to the news reporters, the research concluded: "The study furthered the understanding of atrial remodeling in the setting of major atrial fibrillation risk factors."

For more information on this research see: Atrial Electrocardiography in Obesity and Hypertension: Clinical Insights from the Polish-Norwegian Study (PONS). Obesity, 2016;24(12):2608-2614. Obesity can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news journalists report that additional information may be obtained by contacting G.D. Vaidean, Fairleigh Dickinson Univ, Sch Pharm, Div Pharm Practice, Florham Pk, NJ 07932, United States. Additional authors for this research include M. Manczuk and J.W. Magnani.

Keywords for this news article include: Florham Park, New Jersey, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Diagnostic Techniques and Procedures, Heart Disorders and Diseases, Heart Function Tests, Electrocardiography, Nutrition Disorders, Risk and Prevention, Atrial Fibrillation, Cardiac Arrhythmias, Diet and Nutrition, Overnutrition, Heart Disease, Hypertension, Diagnosis, Bariatrics, Obesity, Fairleigh Dickinson University.

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Data on Atrial Fibrillation Detailed by Researchers at Tomsk Polytechnic University (Assessment of radiological techniques application possibility for non-invasive diagnostics of latent inflammatory processes in myocardium in patients with ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting out of Tomsk, Russia, by NewsRx editors, research stated, "Aim was to study the performance of single-photon emission computed tomography (SPECT) with Tc-99m-pyrophosphate (Tc-99m-PYP) in diagnostics of chronic latent inflammation in myocardium of patients with atrial fibrillation (AF). The research included 70 patients (the average age of 49.3 +/- 10.2 years) with persistent form of idiopathic AF."

Financial support for this research came from Russian Science Foundation.

Our news journalists obtained a quote from the research from Tomsk Polytechnic University, "All patients underwent myocardium SPECT with Tc-99m-PYP and cardiac magnetic resonance imaging (CMR) before the ablation. During the ablation endomyocardium sampling for histological and immunohistochemical verification of myocarditis was performed. Sensitivity of SPECT with Tc-99m-PYP in diagnoses of chronic latent myocarditis in patients with AF in relation to endomyocardial biopsy was 80 %, specificity-83 % and diagnostic accuracy-82 %. Sensitivity, specificity and diagnostic accuracy of myocardium perfusion scintigraphy for diagnostics of latent myocarditis in relation to endomyocardial biopsy was 30, 50 and 50 % correspondingly. Also the close correlation between the size of the perfusion defect and the severity of myocardial fibrosis in patients with AF was revealed. Specificity of the Lake Louise criteria for diagnostics of latent myocarditis in relation to endomyocardial biopsy was 77.6 %, sensitivity-60 % and diagnostic accuracy-74.5 %. For only LGE specificity was 16 %, sensitivity-90 % and diagnostic accuracy-28 %. The study showed the possibility of successful application of radionuclide methods for diagnostics of chronic latent myocarditis at AF."

According to the news editors, the research concluded: "Taking into account high informative values the results of scintigraphy can be also considered as a promising additional criteria for selecting patients with AF of unexplained etiology for non-invasive endomyocardial biopsy procedure."


Our news journalists report that additional information may be obtained by contacting S.I. Sazonova, Natl Res Tomsk Polytechnic Univ, Lab 31, Tomsk 634050, Russia. Additional authors for this research include J.N. Ilyushenkova, Y.B. Lishmanov, R.E. Batalov, A.E. Sazonov, L.A. Larionova, E.A. Nesterov, N.V. Varlamova, J.V. Rogovskaya, T.A. Shelkovnikova and S.V. Popov.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12149-016-1120-9. This DOI is a link to an online electronic document that is either free or for purchase.
Data on Atrial Fibrillation Discussed by Researchers at Kanazawa University (Inflammation of left atrial epicardial adipose tissue is associated with paroxysmal atrial fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Atrial Fibrillation is now available. According to news reporting from Ishikawa, Japan, by NewsRx journalists, research stated, "Although an increased epicardial adipose tissue (EAT) volume around the left atrium (LA) is related to the atrial fibrillation (AF) burden, the role of EAT inflammation in AF is unclear. We investigated the association between AF and inflammation of the EAT around the LA."

The news correspondents obtained a quote from the research from Kanazawa University, "We retrospectively identified regions of EAT around the LA and measured the density of these areas using computed tomography (CT). A total of 32 patients who underwent their first catheter ablation for paroxysmal AF (PAF) were enrolled (mean age 62.5 +/- 11.1 years). Patients without a history of AF (n = 32), but who underwent cardiac CT and were matched by age, sex, and metabolic risk factors, were enrolled in the control group (62.2 +/- 12.1 years). The mean EAT density around the LA was significantly higher in the PAF group than in the control group (-108.1 +/- 6.7 vs.-111.6 +/- 5.5 Hounsfield units; p = 0.02), while the densities of subcutaneous adipose tissue (SAT) in the abdomen and thorax did not differ between the two groups. In a multiple logistic regression analysis, a higher EAT density was significantly associated with the presence of PAF after adjusting for other risk factors (odds ratio: 1.25; 95% confidence interval: 1.08-1.45, p = 0.003)."

According to the news reporters, the research concluded: "This study supports the hypothesis that inflammation of EAT around the LA, but not SAT, is related to the presence of PAF."

For more information on this research see: Inflammation of left atrial epicardial adipose tissue is associated with paroxysmal atrial fibrillation. Journal of Cardiology, 2016;68(5-6):406-411. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

Our news journalists report that additional information may be obtained by contacting H. Furusho, Kanazawa University, Grad Sch Med Sci, Dept. of Dis Control & Homeostasis, Kanazawa, Ishikawa 9208641, Japan. Additional authors for this research include H. Furusho, H. Iashiwagi, T. Kato, H. Murai, S. Usui, S. Kaneko and M. Takamura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2015.11.005. This DOI is a link to an online electronic document that is either free or for purchase.
Heart Disorders and Diseases - Atrial Fibrillation

Data on Atrial Fibrillation Reported by Researchers at Tokyo Women’s Medical University (Enlarged left atrium and sudden death risk in hypertrophic cardiomyopathy patients with or without atrial fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Atrial Fibrillation are discussed in a new report. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "The relationships among enlarged left atrial dimension (LAD), the presence or absence of atrial fibrillation (AF), and sudden death risk in patients with hypertrophic cardiomyopathy (HCM) remain unclear. The aim of this study was to evaluate the impact of enlarged LAD on sudden death risk in HCM patients with or without documented AF."

The news reporters obtained a quote from the research from Tokyo Women’s Medical University, "This study included 564 HCM patients (follow-up period: 10.8 +/- 7.4 years). LAD was measured from the parasternal long-axis view as the antero-posterior linear diameter at end-systole. Sudden death was defined as the combined endpoint of sudden cardiac death and potentially lethal arrhythmic events, and log rank tests and Cox proportional hazards models were applied to evaluate the impact of LAD enlargement on the combined endpoint. The proportions of patients with sudden death and potentially lethal arrhythmic events were significantly higher among patients with enlarged LAD (>= 48 mm, N = 86) compared with those without enlarged LAD (19.8% vs. 8.2%; p = 0.002). However, enlarged LAD was not identified as an independent determinant of sudden death risk in multivariate analysis of all study HCM patients [adjusted hazard ratio (HR): 1.83; 95% confidence interval (CI): 0.95-3.53; p = 0.071]. Among patients without documented AF during the follow-up periods, enlarged LAD was an independent determinant of sudden death risk (adjusted HR: 5.23; 95% CI: 2.17-12.58; p< 0.001), although there was no significant difference in sudden death risk between patients with and without enlarged LAD in patients with documented AF (adjusted HR: 0.77; 95% CI: 0.31-1.90; p = 0.567). These results suggest that the relationship between LAD and outcome is influenced by the presence or absence of AF in HCM patients."

According to the news reporters, the research concluded: "It may thus be necessary to consider the need to prevent sudden death in LAD-enlarged HCM patients without documented AF."

For more information on this research see: Enlarged left atrium and sudden death risk in hypertrophic cardiomyopathy patients with or without atrial fibrillation. Journal of Cardiology, 2016;68(5-6):478-484. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

Our news correspondents report that additional information may be obtained by contacting Y. Minami, Tokyo Women’s Medical University, Dept. of Cardiol, Tokyo, Japan. Additional authors for this research include S. Haruki, B. Yashiro, T. Suzuki, K. Ashihara and...
Heart Disorders and Diseases - Atrial Fibrillation

Data on Atrial Fibrillation Reported by Researchers at Uppsala University (Performance and Validation of a Novel Biomarker-Based Stroke Risk Score for Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting from Uppsala, Sweden, by NewsRx journalists, research stated, "Atrial fibrillation is associated with increased but variable risk of stroke. Our aim was to validate the recently developed biomarker-based ABC (age, biomarkers [high-sensitivity troponin and N-terminal fragment B-type natriuretic peptide], and clinical history of prior stroke/transient ischemic attack)-stroke risk score and compare its performance with the CHA(2)DS(2)VASc and ATRIA (Anticoagulation and Risk Factors in Atrial Fibrillation) risk scores."

The news correspondents obtained a quote from the research from Uppsala University, "The ABC-stroke score includes age, biomarkers (N-terminal fragment B-type natriuretic peptide and high-sensitivity cardiac troponin), and clinical history (prior stroke). This validation was based on 8356 patients, 16,137 person-years of follow-up, and 219 adjudicated stroke or systemic embolic events in anticoagulated patients with atrial fibrillation in the RE-LY study (Randomized Evaluation of Long-Term Anticoagulation Therapy). Levels of N-terminal fragment B-type natriuretic peptide, high-sensitivity cardiac troponin T (hs-cTnT), and high-sensitivity cardiac troponin I (hs-cTnI) were determined in plasma samples obtained at study entry. The ABC-stroke score was well calibrated with 0.76 stroke/systemic embolic events per 100 person-years in the predefined low (<1%/y) risk group, 1.48 in the medium (1%-2%/y) risk group, and 2.60 in the high (>2%/y) risk group for the ABC-stroke score with hs-cTnT. Hazard ratios for stroke/systemic embolic events were 1.95 for medium-versus low-risk groups, and 3.44 for high-versus low-risk groups. ABC-stroke score achieved C indices of 0.65 with both hs-cTnT and hs-cTnI, in comparison with 0.60 for CHA(2)DS(2)VASc (P=0.004 for hs-cTnT and P=0.022 hs-cTnI) and 0.61 for ATRIA scores (P=0.005 hs-cTnT and P=0.034 for hs-cTnI). The biomarker-based ABC-stroke score was well calibrated and consistently performed better than both the CHA(2)DS(2)VASc and ATRIA stroke scores."

According to the news reporters, the research concluded: "The ABC score should be considered an improved decision support tool in the care of patients with atrial fibrillation."

For more information on this research see: Performance and Validation of a Novel Biomarker-Based Stroke Risk Score for Atrial Fibrillation. Circulation, 2016;134(22):1697-
Aurothioglucose

Data on Aurothioglucose Reported by Researchers at Purdue University
(Antibacterial activity and mechanism of action of auranofin against multi-drug resistant bacterial pathogens)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Aurothioglucose. According to news reporting originating from West Lafayette, Indiana, by NewsRx correspondents, research stated, "Traditional methods employed to discover new antibiotics are both a time-consuming and financially-taxing venture. This has led researchers to mine existing libraries of clinical molecules in order to repurpose old drugs for new applications (as antimicrobials)."

Our news editors obtained a quote from the research from Purdue University, "Such an effort led to the discovery of auranofin, a drug initially approved as an anti-rheumatic agent, which also possesses potent antibacterial activity in a clinically achievable range. The present study demonstrates auranofin's antibacterial activity is a complex process that involves inhibition of multiple biosynthetic pathways including cell wall, DNA, and bacterial protein synthesis. We also confirmed that the lack of activity of auranofin observed against Gram-negative bacteria is due to the permeability barrier conferred by the outer membrane. Auranofin's ability to suppress bacterial protein synthesis leads to significant reduction in the production of key methicillin-resistant *Staphylococcus aureus* (MRSA) toxins. Additionally, auranofin is capable of eradicating intracellular MRSA present inside infected macrophage cells. Furthermore, auranofin is efficacious in a mouse model of MRSA systemic infection and significantly reduces the bacterial load in murine organs including the spleen and liver."

According to the news editors, the research concluded: "Collectively, this study provides valuable evidence that auranofin has significant promise to be repurposed as a novel antibacterial for treatment of invasive bacterial infections."

For more information on this research see: Antibacterial activity and mechanism of action of auranofin against multi-drug resistant bacterial pathogens. *Scientific Reports*, 2016;6 ():22571. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting S.
Data on Autacoids Reported by Researchers at Center for Disease Control and Prevention (Drug interactions between hormonal contraceptives and psychotrophic drugs: a systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biological Factors - Autacoids.

According to news reporting originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "To examine whether the co-administration of hormonal contraceptives (HC) and psychotropic drugs commonly used to treat anxiety and/or depression results in safety or efficacy concerns for either drug. We searched PubMed and Cochrane libraries for clinical or pharmacokinetic (PK) studies that examined co-administration of any HC with psychotropic drugs [selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), tricyclic antidepressants (TCAs), oral benzodiazepines, bupropion, mirtazapine, trazadone, buspirone, hydroxyzine, monoamine oxidase inhibitors (MAOIs), or atypical antipsychotics] in reproductive aged women."

Our news editors obtained a quote from the research from Center for Disease Control and Prevention, "Of 555 articles identified, 22 articles (18 studies) met inclusion criteria. We identified 5 studies on SSRIs, four on TCAs, one on bupropion, three on atypical antipsychotics and five on oral benzodiazepines. No articles met inclusion criteria for SNRIs, mirtazapine, trazadone, buspirone, hydroxyzine, monoamine oxidase inhibitors (MAOIs). Overall, clinical studies did not demonstrate differences in unintended pregnancy rates when HCs were administered with and without psychotropic drugs or in psychotropic drug treatment outcomes when psychotropic drugs were administered with and without HCs. PK studies did not demonstrate changes in drug exposure related to contraceptive safety, contraceptive effectiveness or psychotropic drug effectiveness for most classes of psychotropic drugs. However, limited PK data raise concern for HCs increasing systemic exposure of amitriptyline and imipramine (both TCAs), theoretically posing safety concerns. Limited quality and quantity evidence on use of psychotropic drugs and HCs suggests low concern for clinically significant interactions, though no data exist specifically for non-oral formulations of HC."

According to the news editors, the research concluded: "Given the high frequency of use for both HCs and psychotropic drugs among reproductive-age women in the US, this review highlights a need for further research in this area."

The news editors report that additional information may be obtained by contacting E.N. Berry-Bibee, Center Dis Control & Prevent, Div Reprod Hlth, Atlanta, GA 30333, United States. Additional authors for this research include M.J. Kim, K.B. Simmons, N.K. Tepper, H.E.M. Riley, H.P. Pagano and K.M. Curtis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.contraception.2016.07.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Biological Factors, Article Review, Drugs and Therapies, Norepinephrine-Dopamine Reuptake Inhibitors, Psychotherapeutic Agents, Serotonin, Autacoids, Bupropion, Center for Disease Control and Prevention.

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**Developmental Diseases and Conditions - Autism…**

**Data on Autism Spectrum Disorders Detailed by Researchers at St. Louis University School of Medicine (Therapeutic Effect of a Synthetic RORa/g Agonist in an Animal Model of Autism)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Developmental Diseases and Conditions - Autism Spectrum Disorders are presented in a new report. According to news reporting originating from St. Louis, Missouri, by NewsRx correspondents, research stated, "Autism is a developmental disorder of the nervous system associated with impaired social communication and interactions as well excessive repetitive behaviors. There are no drug therapies that directly target the pathology of this disease."

Financial support for this research came from U.S. Department of Health and Human Services.

Our news editors obtained a quote from the research from the St. Louis University School of Medicine, "The retinoic acid receptor-related orphan receptor a (RORA) is a nuclear receptor that has been demonstrated to have reduced expression in many individuals with autism spectrum disorder (ASD). Several genes that have been shown to be downregulated in individuals with ASD have also been identified as putative RORA target genes. Utilizing a synthetic RORA/g agonist, SR1078, that we identified previously, we demonstrate that treatment of BTBR mice (a model of autism) with SR1078 results in reduced repetitive behavior. Furthermore, these mice display increased expression of ASD-associated ROAs target genes in both the brains of the BTBR mice and in a human neuroblastoma cell line treated with SR1078."

According to the news editors, the research concluded: "These data suggest that pharmacological activation of RORA may be a method for treatment of autism."

For more information on this research see: Therapeutic Effect of a Synthetic RORa/g Agonist in an Animal Model of Autism. *Acs Chemical Neuroscience*, 2015;7(2):143-8.
The news editors report that additional information may be obtained by contacting Y. Wang, Dept. of Pharmacology & Physiology, Saint Louis University School of Medicine, St. Louis, Missouri 63104, United States. Additional authors for this research include C. Billon, J.K. Walker and T.P. Burris.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschemneuro.5b00159. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Missouri, Genetics, St. Louis, Therapeutics, United States, North and Central America, Autism Spectrum Disorders, Developmental Diseases and Conditions.

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Autoimmune Diseases and Conditions

Data on Autoimmune Diseases and Conditions Described by Researchers at University of California (Germinal centers and autoimmune disease in humans and mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Autoimmune Diseases and Conditions. According to news reporting originating from San Francisco, California, by NewsRx editors, the research stated, "Antibodies are involved in the pathogenesis of many autoimmune diseases. Although the mechanisms underlying the antibody response to infection or vaccination are reasonably well understood, we still have a poor understanding of the nature of autoimmune antibody responses."

Our news editors obtained a quote from the research from the University of California, "The most well studied are the anti-nuclear antibody responses characteristic of systemic lupus erythematosus and studies over the past decade or so have demonstrated a critical role for signaling by TLR7 and/or TLR9 in B cells to promote these responses. These Toll-like receptors (TLRs) can promote T-cell-independent extrafollicular antibody responses with a heavy-chain class switch and a low degree of somatic mutation, but they can also strongly boost the germinal center response that gives rise to high-affinity antibodies and long-lived plasma cells. TLRs have been shown to enhance affinity maturation in germinal center responses to produce high-affinity neutralizing antibodies in several virus infection models of mice. Although more data are needed, it appears that anti-nuclear antibodies in mouse models of lupus and in lupus patients can be generated by either pathway, provided there are genetic susceptibility alleles that compromise B-cell tolerance at one or another stage. Limited data in other autoimmune diseases suggest that the germinal center response may be the predominant pathway leading to autoantibodies in those diseases."

According to the news editors, the research concluded: "A better understanding of the mechanisms of autoantibody production may ultimately be helpful in the development of targeted therapeutics for lupus or other autoimmune diseases."

For more information on this research see: Germinal centers and autoimmune disease in humans and mice. *Immunology and Cell Biology*, 2016;94(10):918-924.
Oncology - B-Cell Lymphoma

Data on B-Cell Lymphoma Detailed by Researchers at Chinese Academy of Medical Sciences (Cerebrospinal Fluid IL-10 and IL-10/IL-6 as Accurate Diagnostic Biomarkers for Primary Central Nervous System Large B-cell Lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - B-Cell Lymphoma are discussed in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Early diagnosis of primary central nervous system lymphoma (PCNSL) represents a challenge, and cerebrospinal fluid (CSF) cytokines may be diagnostic biomarkers for PCNSL. We used an electrochemiluminescence immunoassay to measure interleukin (IL)-10, IL-6, IL-8 and tumor necrosis factor alpha (TNF-alpha) in the CSF of 22 B cell PCNSL patients and 80 patients with other CNS diseases."

The news correspondents obtained a quote from the research from the Chinese Academy of Medical Sciences, "CSF IL-10 was significantly higher in PCNSL patients than in the control group (median 74.7 pg/ml vs < 5.0 pg/ml, P< 0.000). Using a CSF IL-10 cutoff value of 8.2 pg/ml, the diagnostic sensitivity and specificity were 95.5% and 96.1%, respectively (AUC, 0.957; 95% CI, 0.901-1.000). For a CSF IL-10/IL-6 cutoff value of 0.72, the sensitivity was 95.5%, and the specificity was 100.0% (AUC, 0.976; 95% CI, 0.929-1.000). An increased CSF IL-10 level at diagnosis and post-treatment was associated with poor Progression free survival (PFS) for patients with PCNSL (P = 0.0181 and P = 0.0002, respectively). A low diagnostic value for PCNSL was found with CSF IL-8 or TNF-alpha."

According to the news reporters, the research concluded: "Increased CSF IL-10 was a reliable diagnostic biomarker for large B cell PCNSL, and an IL-10/IL-6 ratio facilitates differentiation from other conditions, especially a CNS infection."

For more information on this research see: Cerebrospinal Fluid IL-10 and IL-10/IL-6 as Accurate Diagnostic Biomarkers for Primary Central Nervous System Large B-cell Lymphoma. Scientific Reports, 2016;6():1-8. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature
Oncology - B-Cell Lymphoma

Data on B-Cell Lymphoma Detailed by Researchers at European Institute of Oncology (miR-17-92 fine-tunes MYC expression and function to ensure optimal B cell lymphoma growth)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - B-Cell Lymphoma. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "The synergism between c-MYC and miR-17-19b, a truncated version of the miR-17-92 cluster, is well-documented during tumor initiation. However, little is known about miR-17-19b function in established cancers."

Our news journalists obtained a quote from the research from the European Institute of Oncology, "Here we investigate the role of miR-17-19b in c-MYC-driven lymphomas by integrating SILAC-based quantitative proteomics, transcriptomics and 3’ untranslated region (UTR) analysis upon miR-17-19b overexpression. We identify over one hundred miR-17-19b targets, of which 40% are co-regulated by c-MYC. Downregulation of a new miR-17/20 target, checkpoint kinase 2 (Chek2), increases the recruitment of HuR to c-MYC transcripts, resulting in the inhibition of c-MYC translation and thus interfering with in vivo tumor growth. Hence, in established lymphomas, miR-17-19b fine-tunes c-MYC activity through a tight control of its function and expression, ultimately ensuring cancer cell homeostasis."

According to the news editors, the research concluded: "Our data highlight the plasticity of miRNA function, reflecting changes in the mRNA landscape and 3’ UTR shortening at different stages of tumorigenesis."

For more information on this research see: miR-17-92 fine-tunes MYC expression and function to ensure optimal B cell lymphoma growth. Nature Communications, 2015;6 ():8725. (Nature Publishing Group - www.nature.com/; Nature Communications - www.nature.com/ncomms/)

The news correspondents report that additional information may be obtained from M. Mihailovich, Dept. of Experimental Oncology, European Institute of Oncology, Viaadamello 16, Milan 20139, Italy. Additional authors for this research include M. Bremang, V. Spadotto, D. Musiani, E. Vitale, G. Varano, F. Zambelli, F.M. Mancuso, D.A. Cairns, G. Pavesi, S. Casola and T. Bonaldi.

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is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Genetics, Oncology, Hematology, B Cell Lymphoma, B-Cell Lymphoma, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

**Bicuspid Aortic Valves**

**Data on Bicuspid Aortic Valves Reported by Researchers at University of Birmingham (Hemodynamics through the congenitally bicuspid aortic valve: a computational fluid dynamics comparison of opening orifice area and leaflet orientation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Bicuspid Aortic Valves. According to news originating from Birmingham, United Kingdom, by NewsRx correspondents, research stated, "A computational fluid dynamics model of a bicuspid aortic valve has been developed using idealised three-dimensional geometry. The aim was to compare how the orifice area and leaflet orientation affect the hemodynamics of a pure bicuspid valve."

Our news journalists obtained a quote from the research from the University of Birmingham, "By applying physiologic material properties and boundary conditions, blood flow shear stresses were predicted during peak systole. A reduced orifice area altered blood velocity, the pressure drop across the valve and the wall shear stress through the valve. Bicuspid models predicted impaired blood flow similar to a stenotic valve, but the flow patterns were specific to leaflet orientation. Flow patterns developed in bicuspid aortic valves, such as helical flow, were sensitive to cusp orientation."

According to the news editors, the research concluded: "The reduced opening area of a bicuspid aortic valve amplifies any impaired hemodynamics, but cusp orientation determines subsequent flow patterns which may determine the specific regions downstream from the valve most at risk of clinical complications."

For more information on this research see: Hemodynamics through the congenitally bicuspid aortic valve: a computational fluid dynamics comparison of opening orifice area and leaflet orientation. *Perfusion-Uk*, 2016;31(8):683-690. *Perfusion-Uk* can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England.

The news correspondents report that additional information may be obtained from D.M. Espino, University of Birmingham, Sch Mech Engn, Birmingham B15 2TT, W Midlands, United Kingdom. Additional authors for this research include F.S.N. de Souza Junior, M.Y.S. Kuan, N.C. Green and D.M. Espino.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Bicuspid Aortic Valves, Cardiology, Risk and Prevention, Bicuspid Aortic Valve, University of Birmingham.

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Biguanides

Data on Biguanides Reported by Researchers at Duke University
(Metformin Targets Central Carbon Metabolism and Reveals Mitochondrial Requirements in Human Cancers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biguanides is now available. According to news originating from Durham, North Carolina, by NewsRx correspondents, research stated, "Repurposing metformin for cancer therapy is attractive due to its safety profile, epidemiological evidence, and encouraging data from human clinical trials. Although it is known to systemically affect glucose metabolism in liver, muscle, gut, and other tissues, the molecular determinants that predict a patient response in cancer remain unknown."

Our news journalists obtained a quote from the research from Duke University, "Here, we carry out an integrative metabolomics analysis of metformin action in ovarian cancer. Metformin accumulated in patient biopsies, and pathways involving nucleotide metabolism, redox, and energy status, all related to mitochondrial metabolism, were affected in treated tumors. Strikingly, a metabolic signature obtained from a patient with an exceptional clinical outcome mirrored that of a responsive animal tumor. Mechanistically, we demonstrate with stable isotope tracing that these metabolic signatures are due to an inability to adapt nutrient utilization in the mitochondria."

According to the news editors, the research concluded: "This analysis provides new insights into mitochondrial metabolism and may lead to more precise indications of metformin in cancer."

For more information on this research see: Metformin Targets Central Carbon Metabolism and Reveals Mitochondrial Requirements in Human Cancers. Cell Metabolism, 2016;24(5):728-739. Cell Metabolism can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell Metabolism - www.journals.elsevier.com/cell-metabolism/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cmet.2016.09.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Drugs and Therapies, Epidemiology, Antidiabetic Agents, Non-Sulfonylureas, Biguanides, Metformin, Duke University.

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Mental Health Diseases and Conditions - Bipolar...

Data on Bipolar Disorders Detailed by Researchers at University of California (Factor analysis of temperament and personality traits in bipolar patients: Correlates with comorbidity and disorder severity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health Diseases and Conditions - Bipolar Disorders. According to news reporting from La Jolla, California, by NewsRx journalists, research stated, "Temperament and personality traits have been suggested as endophenotypes for bipolar disorder based on several lines of evidence, including heritability. Previous work suggested an anxious-reactive factor identified across temperament and personality inventories that produced significant group discrimination and could potentially be useful in genetic analyses."

The news correspondents obtained a quote from the research from the University of California, "We have attempted to further characterize this factor structure in a sample of bipolar patients. A sample of 1195 subjects with bipolar I disorder was evaluated, all with complete data available. Dimension reduction across two inventories identified 18 factors explaining 39% of the variance. The two largest factors reflected affective instability and general anxiety/worry, respectively. Subsequent analyses of the clinical features associated with bipolar disorder revealed specificity for the factor: in a predictable pattern. Cluster analysis of the factors identified a subgroup defined by a strong lack of generater anxiety and low affective instability represented by the first two factors. The remaining subjects could be distinguished into two clusters by the presence of either more positive characteristics, including persistence, drive, spirituality, expressivity, and humor, or more negative characteristics of depression and anxiety. Limitations: These analyses involved bipolar I subjects only and must be extended to other bipolar spectrum diagnoses, unaffected relatives, and individuals at risk. These results suggest that temperament and personality measures access latent traits associated with important clinical features of bipolar disorder."

According to the news reporters, the research concluded: "By translating clinical variables into quantitative traits, we may identify subgroups of bipolar patients with distinct clinical profiles, thereby facilitating both individual treatment strategies and genetic analyses."

For more information on this research see: Factor analysis of temperament and personality traits in bipolar patients: Correlates with comorbidity and disorder severity. *Journal of Affective Disorders*, 2017;207():282-290. *Journal of Affective Disorders* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Affective Disorders - www.journals.elsevier.com/journal-of-affective-disorders/)

Our news journalists report that additional information may be obtained by contacting T.A. Greenwood, University of California, Dept. of Psychiat, La Jolla, CA 92093, United States. Additional authors for this research include H.S. Akiskal, J.R. Kelsoe and T.A. Greenwood.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jad.2016.08.031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Mental Health Diseases and Conditions, Manic-Depressive Illness,
Data on Bladder Cancer Detailed by Researchers at Affiliated Hospital (Bladder cancer cells re-educate TAMs through lactate shuttling in the microfluidic cancer microenvironment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Bladder Cancer have been published. According to news reporting from Qingdao, People's Republic of China, by NewsRx journalists, research stated, "In the present study, we aimed to investigate the influence of lactate shuttling on the functional polarization and spatial distribution of transitional cell carcinoma of the bladder (TCCB) cells and macrophages. We designed a microfluidic coculture chip for real-time integrative assays."

The news correspondents obtained a quote from the research from Affiliated Hospital, "The effect of lactate shuttling on the re-education of macrophages by TCCB cells was explored by measuring the levels of NO using a total NO assay kit and by evaluating the protein expression of iNOS, p-NF-kB-p65, Arg-1 and HIF-1a via cell immunofluorescence and western blotting. Additionally, we examined TCCB cell viability using acridine orange/ethidium bromide (AO/EB) and MitoTracker staining. Moreover, the concentration distributions of lactate and large signaling proteins in the culture chambers were measured using 4',6-diamidino-2-phenylindole (DAPI) and fluorescein isothiocyanate-dextran (FITC-dextran). Furthermore, the recruitment of macrophages and the influence of macrophages on BC metastasis were observed via light microscopy. We confirmed that TCCB cells reprogrammed macrophages into an M2 phenotype. Moreover, lactate inhibited M1 polarization and induced M2 polarization of macrophages, but blockade of cancer cell-macrophage lactate flux significantly inhibited the re-education of macrophages by TCCB cells. In addition, lactate diffused faster and deeper than large signaling proteins in the microfluidic tumor microenvironment. Furthermore, lactate alone induced the migration of macrophages, and M1, but not M2, macrophages reduced the motility of TCCB cells. TCCB cells reprogrammed macrophages into an M2 phenotype in a manner that depended on cancer cell-TAM lactate flux."

According to the news reporters, the research concluded: "Furthermore, the lactate shuttle may be a determinant of the density of TAMs in tumor tissue."


Our news journalists report that additional information may be obtained by contacting Y. Zhao, Dept. of Surgery, Affiliated Hospital of Qingdao University, Qingdao, People's Republic of China. Additional authors for this research include D. Wang, T. Xu, P. Liu, Y. Cao, Y. Wang, X. Yang, X. Xu, X. Wang and H. Niu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5538. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Qingdao, Oncology, Immunology,
Oncology - Bladder Cancer

Data on Bladder Cancer Discussed by Researchers at Pennsylvania State University (FOXA1, GATA3 and PPAR gamma Cooperate to Drive Luminal Subtype in Bladder Cancer: A Molecular Analysis of Established Human Cell Lines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Bladder Cancer have been published. According to news reporting from Hershey, Pennsylvania, by NewsRx journalists, research stated, "Discrete bladder cancer molecular subtypes exhibit differential clinical aggressiveness and therapeutic response, which may have significant implications for identifying novel treatments for this common malignancy. However, research is hindered by the lack of suitable models to study each subtype."

The news correspondents obtained a quote from the research from Pennsylvania State University, "To address this limitation, we classified bladder cancer cell lines into molecular subtypes using publically available data in the Cancer Cell Line Encyclopedia (CCLE), guided by genomic characterization of bladder cancer by The Cancer Genome Atlas (TCGA). This identified a panel of bladder cancer cell lines which exhibit genetic alterations and gene expression patterns consistent with luminal and basal molecular subtypes of human disease. A subset of bladder cancer cell lines exhibit in vivo histomorphologic patterns consistent with luminal and basal subtypes, including papillary architecture and squamous differentiation. Using the molecular subtype assignments, and our own RNA-seq analysis, we found overexpression of GATA3 and FOXA1 cooperate with PPAR. activation to drive transdifferentiation of a basal bladder cancer cells to a luminial phenotype."

According to the news reporters, the research concluded: "In summary, our analysis identified a set of human cell lines suitable for the study of molecular subtypes in bladder cancer, and furthermore indicates a cooperative regulatory network consisting of GATA3, FOXA1, and PPAR. drive luminal cell fate."

For more information on this research see: FOXA1, GATA3 and PPAR gamma Cooperate to Drive Luminal Subtype in Bladder Cancer: A Molecular Analysis of Established Human Cell Lines. Scientific Reports, 2016;6():1-15. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)


Keywords for this news article include: Hershey, Pennsylvania, United States, North and Central America, Peroxisome Proliferator-Activated Receptors, Transcription Factors, DNA-Binding Proteins, Bladder Cancer, PPAR gamma, Cell Line, Oncology, Genetics,
Data on Bone Marrow Cells Detailed by Researchers at Dana-Farber Cancer Institute (Variation in the use of granulocyte-colony stimulating factor for dose dense paclitaxel: A single institution retrospective study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cell Research - Bone Marrow Cells is now available.

According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "The necessity of using granulocyte-colony stimulating factor (G-CSF) during dose-dense (DD) paclitaxel (T) after doxorubicin and cyclophosphamide (AC) is unclear. This was a retrospective cohort study including patients with stage I-III breast cancer treated at Dana-Farber Cancer Institute with adjuvant DD-ACT between January 2011 and December 2013."

The news correspondents obtained a quote from the research from Dana-Farber Cancer Institute, "Descriptive analyses evaluating patterns of G-CSF utilization during T were performed. Overall, 156 patients were treated with DD-ACT by 26 providers. The majority of patients (135, 87%) received at least one dose of G-CSF during T (group 1), 17% of these patients received it in only one cycle and 48% received it in all four cycles. Reasons for omitting G-CSF included high baseline absolute neutrophil count and pain. Twenty-one (13%) patients did not receive any G-CSF during T (group 2). Respectively, 94% and 90% of patients completed the treatment in groups 1 and 2. There were no cases of treatment cessation due to neutropenia. Six percent of patients in group 1 had at least one treatment delay. There were no treatment delays reported in group 2. Variation in the use of G-CSF by provider and by patient was found, with 11 providers choosing not to use G-CSF in at least one patient. We identified substantial variation in the use of G-CSF within the practice. However, omission of G-CSF was not associated with treatment delays or adverse events."

According to the news reporters, the research concluded: "Prospective studies are warranted to formally test whether routine G-CSF is necessary during dose-dense T therapy."


Our news journalists report that additional information may be obtained by contacting N.U. Lin, Dana Farber Canc Inst, Dept. of Med Oncol, Boston, MA 02215, United States. Additional authors for this research include F.R. Paes, I. Vaz-Luis, R.B. Batista, R.B. Costa, K. Losk, K. Camuso, O. Metzger-Filho, M.E. Hughes, C.A. Bunnell, M. Goishan, E.P. Winer and N.U. Lin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.breast.2016.09.013. This DOI is a link to an online electronic document that is either free or for purchase.
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Heart Disorders and Diseases - Bradycardia

Data on Bradycardia Reported by Researchers at Johns Hopkins University (Bradycardia and hypotension after synthetic cannabinoid use: a case series)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Bradycardia are presented in a new report. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Cardiotoxicity secondary to synthetic cannabinoid use has been reported to manifest with tachycardia and hypertension. We present here a case series of three patients who developed bradycardia and hypotension after synthetic cannabinoid use."

The news reporters obtained a quote from the research from Johns Hopkins University, "Our patients (age 64, 30, 56) were older and had more comorbidities than typical SC-poisoned patients. In all three cases, bradycardia occurred prehospital or shortly after arrival to the Emergency Department. Heart rate was as low as 37 beat/min. Hypotension occurred in all 3 cases. Bradycardia or hypotension lasted at least 6 hours in each instance. All patients responded well to supportive care, although symptoms persisted for as long as 48 hours. Two of the 3 patients were administered vasopressors. These cases represent the first reports of hypotension and bradycardia from synthetic cannabinoid use in the United States."

According to the news reporters, the research concluded: "Clinicians should recognize bradycardia and hypotension as potential complications of SC exposure."


Our news correspondents report that additional information may be obtained by contacting E.M. Kane, Johns Hopkins University, Sch Med, Dept. of Emergency Med, Baltimore, MD, United States. Additional authors for this research include J.S. Hinson, C.D. Jordan, K. Paziana, N.J. Sauber, R.E. Rothman and A.I. Stolbach.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiac Arrhythmias, Heart Disease, Cannabinoids, Hypotension, Bradycardia, Cardiology, Terpenes, Johns Hopkins University.

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Data on Bradycardia Reported by Researchers at Sheba Medical Center (The Utilization of an Insertable Cardiac Monitor in a Child With Pallid Breath-Holding Spells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Bradycardia are discussed in a new report. According to news reporting out of Ramat Gan, Israel, by NewsRx editors, research stated, "Pacing can be a successful treatment for pallid breath-holding spells, primarily in individuals with severe bradycardia. DESCRIPTION: We describe an 18-month-old girl experiencing severe pallid breath holding spells in whom repeated electrocardiographic, Holter, and electroencephalographic monitoring tests were all normal."

Our news journalists obtained a quote from the research from Sheba Medical Center, "Using a subcutaneous insertable cardiac monitor, severe bradycardia was detected during one of this girl's episodes. This finding led to a pacemaker implantation. Subsequently, her breath holding spells completely resolved. This child illustrates the ability of the insertable cardiac monitor to help and diagnose arrhythmias in children with unresolved clinical findings."

According to the news editors, the research concluded: "The ability to implant it with a minimal scar makes it ideal for uncooperative individuals with relative few and unexpected episodes that are hard to diagnose."


Our news journalists report that additional information may be obtained by contacting S. Tejman-Yarden, Sheba Med Center, Edmond J Safra Int Congenital Heart Center, Ramat Gan, Israel. Additional authors for this research include B. Ben-Zeev, Y. Goldshnit, G. Sarquella-Brugada, A. Cicurel, U. Katz, D. Mishali and M. Glikson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pediatrneurol.2016.06.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ramat Gan, Israel, Asia, Heart Disorders and Diseases, Diagnostics and Screening, Cardiac Arrhythmias, Heart Disease, Bradycardia, Cardiology, Sheba Medical Center.

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Data on Brain Neoplasms Detailed by Researchers at Institute Rotary Cancer Hospital (Role of adjuvant radiation in the management of central neurocytoma: Experience from a tertiary cancer care center of India)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Central Nervous System Diseases and Conditions - Brain Neoplasms is now available. According to news originating from New Delhi, India, by NewsRx correspondents, research stated, "Neurocytoma (NC) is a rare benign neuronal tumor. A complete excision remains curative for most of these tumors, but atypical histology and extra-ventricular location often necessitates adjuvant therapy."

Our news journalists obtained a quote from the research from Institute Rotary Cancer Hospital, "We intended to explore the clinico-pathological features and treatment outcome in patients of NC in our institute. Medical records were reviewed and data collected on NC over a 6-year period (2006-2012) from the departmental archives. Disease free survival (DFS) was analyzed by Kaplan-Meier method. A total of 18 patients met the study criteria. Fourteen patients had intra-ventricular neurocytoma (IVNC), right lateral ventricle being the most common site of origin. Gross total resection and near total resection were achieved in eight cases each whereas tumor decompression and biopsy could be done in two cases. On post-operative histopathological examination, eight patients were found to have atypical NC while 10 patients had typical NC. All patients underwent adjuvant radiation. The median dose of post-operative radiation was 56 Gy. All patients were alive at their final follow-up. One patient had both clinical and radiological evidence of local relapse. In the evaluable patients (n=18), after a median follow-up of 35 months the DFS rate at 2 years and 3 years are 100% and 83% respectively. Use of adjuvant radiation to a total dose of 56 Gy enhances the local control and achieves superior survival in patients of NC."

According to the news editors, the research concluded: "Use of 3D conformal planning techniques may help us to achieve better therapeutic ratio in patients with NC."

For more information on this research see: Role of adjuvant radiation in the management of central neurocytoma: Experience from a tertiary cancer care center of India. Indian Journal of Cancer, 2015;52(4):590-7.

The news correspondents report that additional information may be obtained from S. Roy, Dept. of Radiation Oncology, Institute Rotary Cancer Hospital, All India Institute of Medical Sciences, New Delhi, India. Additional authors for this research include S. Roy, S. Das, N.P. Joshi, V. Roshan, A.K. Gandhi, M. Jana, P.K. Julka and G.K Rath.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178378. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Cancer, Oncology, New Delhi, Cardiology, Neurocytoma, Brain Neoplasms, Brain Diseases and Conditions, Central Nervous System Neoplasms, Central Nervous System Diseases and Conditions.

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Data on Breast Cancer Described by Researchers at Charles University
(Characterization of acquired paclitaxel resistance of breast cancer cells and involvement of ABC transporters)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting out of Prague, Czech Republic, by NewsRx editors, research stated, "Development of taxane resistance has become clinically very important issue. The molecular mechanisms underlying the resistance are still unclear."

Financial supporters for this research include Ministry of Health of the Czech Republic, Ministry of Education, Youth and Sports.

Our news journalists obtained a quote from the research from Charles University, "To address this issue, we established paclitaxel-resistant sublines of the SK-BR-3 and MCF-7 breast cancer cell lines that are capable of long-term proliferation in 100 nM and 300 nM paclitaxel, respectively. Application of these concentrations leads to cell death in the original counterpart cells. Both sublines are cross-resistant to doxorubicin, indicating the presence of the MDR phenotype. Interestingly, resistance in both paclitaxel-resistant sublines is circumvented by the second-generation taxane SB-T-1216. Moreover, we demonstrated that it was not possible to establish sublines of SK-BR-3 and MCF-7 cells resistant to this taxane. It means that at least the tested breast cancer cells are unable to develop resistance to some taxanes. Employing mRNA expression profiling of all known human ABC transporters and subsequent Western blot analysis of the expression of selected transporters, we demonstrated that only the ABCB1/PgP and ABCC3/MRP3 proteins were up-regulated in both paclitaxel-resistant sublines. We found up-regulation of ABCG2/BCRP and ABCC4 proteins only in paclitaxel-resistant SK-BR-3 cells. In paclitaxel-resistant MCF-7 cells, ABCB4/MDR3 and ABCC2/MRP2 proteins were up-regulated. Silencing of ABCB1 expression using specific siRNA increased significantly, but did not completely restore full sensitivity to both paclitaxel and doxorubicin. Thus we showed a key, but not exclusive, role for ABCB1 in mechanisms of paclitaxel resistance."

According to the news editors, the research concluded: "It suggests the involvement of multiple mechanisms in paclitaxel resistance in tested breast cancer cells."

For more information on this research see: Characterization of acquired paclitaxel resistance of breast cancer cells and involvement of ABC transporters. Toxicology and Applied Pharmacology, 2016;310():215-228. Toxicology and Applied Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www elsevier com; Toxicology and Applied Pharmacology - www journals elsevier com/toxicology and applied pharmacology/)

Our news journalists report that additional information may be obtained by contacting V. Nemcova-Furstova, Charles Univ Prague, Div Cell & Mol Biol, Fac Med 3, Prague 10000 10, Czech Republic. Additional authors for this research include D. Kopperova, K. Balusikova, M. Ehrlichova, V. Brynychova, R. Vaclavikova, P. Daniel, P. Soucek and J. Kovar.

The direct object identifier (DOI) for that additional information is: http://dx doi org/10.1016/j taap 2016.09.020. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Prague, Czech Republic, Europe, Organic Chemicals, Cycloparaffins, Women's Health, Breast Cancer, Hydrocarbons, Paclitaxel, Oncology, Genetics, Terpenes, Taxoids, Charles University.

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Oncology - Breast Cancer

Data on Breast Cancer Detailed by Researchers at Institute for Biology Research (ErbB-2 nuclear function in breast cancer growth, metastasis and resistance to therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news originating from Buenos Aires, Argentina, by NewsRx correspondents, research stated, "Approximately 15-20% of breast cancers (BC) show either membrane overexpression of ErbB-2 (MЕrbB-2), a member of the ErbBs family of receptor tyrosine kinases, or ERBB2 gene amplification. Until the development of MЕrbB-2-targeted therapies, this BC subtype, called ErbB-2-positive, was associated with increased metastatic potential and poor prognosis."

Our news journalists obtained a quote from the research from Institute for Biology Research, "Although these therapies have significantly improved overall survival and cure rates, resistance to available drugs is still a major clinical issue. In its classical mechanism, MЕrbB-2 activates downstream signaling cascades, which transduce its effects in BC. The fact that ErbB-2 is also present in the nucleus of BC cells was discovered over twenty years ago. Also, compelling evidence revealed a non-canonical function of nuclear ErbB-2 as a transcriptional regulator."

According to the news editors, the research concluded: "As a deeper understanding of nuclear ErbB-2 actions would be crucial to the disclosure of its role as a biomarker and a target of therapy in BC, we will here review its function in BC, in particular, its role in growth, metastatic spreading and response to currently available MЕrbB-2-positive BC therapies."

For more information on this research see: ErbB-2 nuclear function in breast cancer growth, metastasis and resistance to therapy. Endocrine-Related Cancer, 2016;23(12):T243-T257. Endocrine-Related Cancer can be contacted at: Bioscientifica Ltd, Euro House, 22 Apex Court Woodlands, Bradley Stoke, Bristol BS32 4JT, England.

The news correspondents report that additional information may be obtained from P.V. Elizalde, Consejo Nacl Invest Cient & Tecn, Inst Biol & Med Expt, Lab Mol Mech Carcinogenesis, Buenos Aires, DF, Argentina. Additional authors for this research include R.I.C. Russo, M.F. Chervo and R. Schillaci.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1530/ERC-16-0360. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Buenos Aires, Argentina, South America, Cancer, Article Review, Women's Health, Breast Cancer, Oncology, Genetics, Therapy, Institute for Biology Research.

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Data on Breast Cancer Detailed by X.J. Huang and Co-Authors (High expressions of LDHA and AMPK as prognostic biomarkers for breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "The purpose of this study was to investigate the potential correlation between lactate dehydrogenase A (LDHA) and AMP-activated protein kinase (AMPK) and their clinicopathologic significance in breast cancer. Western blot and qRT-PCR were used to detect the expression levels of LDHA and AMPK in eight breast cancer lines and eight breast cancer tissues."

Financial supporters for this research include National Natural Science Foundation of China, Science and Technology Planning Projects of Guangdong and Guangzhou.

The news reporters obtained a quote from the research, "In addition, LDHA and AMPK were detected by immunohistochemistry (IHC) using breast cancer tissue microarrays (TMAs) of 112 patients. The association between LDHA and AMPK expression levels was statistically analyzed. So were the prognostic roles and clinicopathologic significances in breast cancer. The expression levels of LDHA and AMPK were relatively higher in triple-negative breast cancer (TNBC) cell lines than in non-triple-negative breast cancer (NTNBC) cell lines. LDHA and AMPK were also further up-regulated in TNBC tissues than in NTNBC tissues. Correlation analysis showed a positive correlation between LDHA and AMPK expression levels. Expression of LDHA and AMPK were significantly correlated with TNM stage, distant metastasis, Ki67 status and survival outcomes of patients. Patients with both positive expression of LDHA and AMPK showed shorter overall survival (OS) and disease-free survival (DFS)."

According to the news reporters, the research concluded: "These findings improve our understanding of the expression pattern of LDHA and AMPK in breast cancer and clarify the role of LDHA and AMPK as promising prognostic biomarkers for breast cancer."


Our news correspondents report that additional information may be obtained by contacting H.L. Tang, Sun Yat Sen UniversityDept. of Breast Oncol, Center Canc, State Key Lab Oncol Sout ChinaCollaborat Innovat, Guangzhou 510060, Guangdong, People's Republic of China. Additional authors for this research include X. Li, X.H. Xie, F. Ye, B. Chen, C.L. Song, H.L. Tang and X.M. Xie.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.breast.2016.08.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Women's Health, Breast Cancer, Oncology.

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Oncology - Breast Cancer

Data on Breast Cancer Discussed by Researchers at University of Turin (Predictive Diagnostic Pathology in the Target Therapy Era in Breast Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news originating from Turin, Italy, by NewsRx correspondents, research stated, "Treatment strategies in oncology are nowadays largely based on the 'target therapy model', which allows to personalize the cure of each patient depending on distinctive host and disease features. As a general concept 'targeted drugs' are effective only when the tumor exhibits the 'target', which in breast cancer pathology may correspond to the expression of estrogen receptors and/or of HER2."

Our news journalists obtained a quote from the research from the University of Turin, "These biomarkers are evaluated on breast cancer tissues by companion diagnostic tests, however, evidence suggests that the first step in breast cancer predictive pathology is still represented by morphology. For instance, histological types, such as tubular and cribriform carcinomas, define patients who may not need any treatments other than surgical excision. Neoadjuvant studies have shown that patients affected by lobular carcinomas are not likely to have any beneficial effects from chemotherapy. The second step in prediction is represented by immunophenotyping. If the immunohistochemical evaluation of four markers (estrogen and progesterone receptors, HER2 and Ki67) remains the best practice for breast cancer predictive pathology, molecular pathology has certainly reshaped the way we approach breast cancer diagnosis."

According to the news editors, the research concluded: "The aim of this review is to discuss current knowledge in predictive pathology for the management of breast cancer patients, focusing on the benefits and drawbacks of traditional tools and of novel improvements of molecular biology."


The news correspondents report that additional information may be obtained from A. Sapino, Dept. of Medical Sciences, University of Turin, via Santena 7, 10126, Turin, Italy. Additional authors for this research include D. Balmativola, R. Castiglione, L. Annaratone and A. Sapino.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1389450116666150203121218. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turin, Italy, Europe, Oncology, Pathology, Breast Cancer, Women's Health, Drugs and Therapies.

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**Data on Breast Cancer Reported by Researchers at Tabriz University of Medical Sciences (Tumor microenvironment-mediated chemoresistance in breast cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting originating in Tabriz, Iran, by NewsRx journalists, research stated, "Therapy resistance or tumor relapse in cancer is common. Tumors develop resistance to chemotherapeutic through a variety of mechanisms, with tumor microenvironment™ serving pivotal roles."

The news reporters obtained a quote from the research from the Tabriz University of Medical Sciences, "Using breast cancer as a paradigm, we propose that responses of cancer cells to drugs are not exclusively determined by their intrinsic characteristics but are also controlled by deriving signals from TM. Affected microenvironment by chemotherapy is an avenue to promote phenotype which tends to resist on to be ruined. Therefore, exclusively targeting cancer cells does not demolish tumor recurrence after chemotherapy. Regardless of tumor-microenvironment pathways and their profound influence on the responsiveness of treatment, diversity of molecular properties of breast cancer also behave differently in terms of response to chemotherapy. And also it is assumed that there is cross-talk between phenotypic diversity and TM. Collectively, raising complex signal from TM in chemotherapy condition often encourages cancer cells are not killed but strengthen. Here, we summarized how TM modifies responses to chemotherapy in breast cancer."

According to the news reporters, the research concluded: "We also discussed successful treatment strategies have been considered TM in breast cancer treatment."

For more information on this research see: Tumor microenvironment-mediated chemoresistance in breast cancer. Breast, 2016;30():92-100. Breast can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Breast - www.journals.elsevier.com/breast/)

Our news correspondents report that additional information may be obtained by contacting J.S. Rad, Tabriz Univ Med Sci, Stem Cell Res Center, Tabriz, Iran. Additional authors for this research include N. Samadi, B. Barazvan and J.S. Rad.

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Keywords for this news article include: Tabriz, Iran, Asia, Cancer, Article Review, Drugs and Therapies, Women's Health, Breast Cancer, Chemotherapy, Oncology, Tabriz University of Medical Sciences.

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Data on Breast Cancer Reported by Z. Yang and Colleagues (Downregulation of long non-coding RNA MALAT1 induces tumor progression of human breast cancer through regulating CCND1 expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting out of Tangshan, People's Republic of China, by NewsRx editors, research stated, "Metastasis-associated lung adenocarcinoma transcript 1 (MALAT1) is already known to be involved in the development and progression of many types of tumors. In the present study, we set to seek the role of MALAT1 and the molecular mechanisms in breast cancer."

Our news journalists obtained a quote from the research, "MALAT1 mRNA expression level was measured by real-time PCR in selected tissues and breast cancer cell lines. SiRNAs targeting MALAT1 were employed to knockdown the endogenous MALAT1. Then cell counting method and colony formation method were applied to reveal the proliferation changes after MALAT1 was suppressed. Afterwards, the mRNA and protein expression of growth related gene cyclinD1 (CCND1) were detected by RT-PCR and western blotting, respectively. We found a downregulation of MALAT1 expression in breast cancer cell lines and tissues. Inhibition of its expression led to enhanced cell proliferation and colony formation. Importantly, the mRNA and protein expression of CCND1 was significantly increased in MALAT1-depleted cells."

According to the news editors, the research concluded: "MALAT1 is a potential tumor suppressive long non-coding RNA that negatively regulates cell proliferation in breast cancer progression, via suppressing CCND1 expression."

For more information on this research see: Downregulation of long non-coding RNA MALAT1 induces tumor progression of human breast cancer through regulating CCND1 expression. *Open Life Sciences*, 2016;11(1):232-236. *Open Life Sciences* can be contacted at: De Gruyter Open Ltd, Bogumila Zuga 32A St, 01-811 Warsaw, Poland.

Our news journalists report that additional information may be obtained by contacting H.F. Cai, Tangshan City Workers Hosp Hebei Prov, Dept. of Breast Surg, Tangshan 063000, Hebei Province, People's Republic of China. Additional authors for this research include W. Lu, L. Ning, D. Hao, S. Jian and H.F. Cai.

Keywords for this news article include: Tangshan, People's Republic of China, Asia, Protein Expression, Cell Proliferation, Women's Health, Breast Cancer, Proteomics, Oncology, Genetics.

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Data on Bronchopulmonary Dysplasia Reported by Researchers at Mercy Hospital for Women (BNP, troponin I, and YKL-40 as screening markers in extremely preterm infants at risk for pulmonary hypertension
associated with bronchopulmonary dysplasia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Bronchopulmonary Dysplasia are discussed in a new report. According to news reporting out of Melbourne, Australia, by NewsRx editors, research stated, "Bronchopulmonary dysplasia (BPD) is often complicated by pulmonary hypertension (PH). We investigated three biomarkers potentially suitable as screening markers for extremely preterm infants at risk of BPD-associated PH."

Our news journalists obtained a quote from the research from Mercy Hospital for Women, "In this prospective observational cohort study conducted in a tertiary neonatal intensive care unit, 83 preterm infants with BPD born <28-wk gestation and still inpatients at 36-wk corrected age received an echocardiogram and blood tests of B-type natriuretic peptide (BNP), troponin I, and YKL-40. Infants were analyzed according to echocardiographic evidence of tricuspid regurgitation (TR). Thirty infants had evidence of TR on echocardiogram at 36-wk corrected age. Infants with or without TR had similar baseline demographics: mean +/- SD gestational age 26(1) +/- 1(2) vs. 26(1) +/- 11 wk and birth weight 830 +/- 206 vs. 815 +/- 187 g, respectively. There was no difference in duration of respiratory support. The right ventricular systolic pressure of infants with evidence of TR was 40 +/- 16 mmHg. BNP was the only biomarker that proved to be significantly higher in infants with evidence of TR: median (interquartile range) serum level 54.5 (35-105) vs. 41.5 (30-59) pg/ ml, P = 0.043. Subgroup analysis of infants with severe BPD requiring discharge on home oxygen or BPD-related mortality revealed similar results. There was no difference between groups for troponin I and YKL-40."

According to the news editors, the research concluded: "Increased serum levels of BNP were associated with evidence of TR at 36-wk corrected gestational age in extremely preterm infants, suggesting a potential role as a screening biomarker for BPD-associated PH."


Our news journalists report that additional information may be obtained by contacting K. Konig, Mercy Hosp Women, Dept. of Paediat, Melbourne, Vic 3084, Australia. Additional authors for this research include K.J. Guy, C.A. Nold-Petry, C.P. Barfield, G. Walsh, S.M. Drew, A. Veldman, M.F. Nold and D.M. Casalaz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00344.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Dysplasia, Diagnostics and Screening, Epidemiology, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Infant Diseases and Conditions, Ventilator-Induced Lung Injury, Lung Diseases and Conditions, Bronchopulmonary Dysplasia, Macromolecular Substances, Microfilament Proteins, Pulmonary Hypertension, Cytoskeletal Proteins, Contractile Proteins, Risk and Prevention, Muscle Proteins, Dermatology, Biopolymers, Pulmonology, Troponin I, Premature, Mercy Hospital for Women.

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Data on Bruxism Reported by Researchers at Federal University
(Association between sleep bruxism and alcohol, caffeine, tobacco, and drug abuse A systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Dental Diseases and Conditions - Bruxism are discussed in a new report. According to news reporting originating in Florianopolis, Brazil, by NewsRx journalists, research stated, "The aim of this systematic review was to answer the focused question, 'In adults, is there any association between sleep bruxism (SB) and alcohol, caffeine, tobacco, or drug abuse?' Types of Studies Reviewed. This systematic review included studies in which the investigators assessed SB diagnosis by using questionnaires, clinical assessment, or polysomnography and evaluated its association with alcohol, caffeine, tobacco, or drug abuse."

The news reporters obtained a quote from the research from Federal University, "The authors graded SB as possible, probable, or definitive. The authors developed specific search strategies for Latin American and Caribbean Health Sciences Literature, Psy-cINFO, PubMed, ScienceDirect, and Web of Science. The authors searched the gray literature by using Google Scholar and Pro-Quest. The authors evaluated the methodological quality of the included studies by using the Meta-Analysis of Statistics Assessment and Review Instrument. From among 818 studies, the authors selected 7 for inclusion in which samples ranged from 51 through 10,229 participants. SB was associated highly with alcohol and tobacco use. In 1 study, the investigators noted a positive and weak association for heavy coffee drinkers. The odds for SB seem to increase almost 2 times for those who drank alcohol, almost 1.5 times for those who drank more than 8 cups of coffee per day, and more than 2 times for those who were current smokers. The abuse of methylenedioxymethamphetamine associated with SB remained without sufficient evidence. Conclusions and Practical Implications. On the basis of limited evidence, SB was associated positively with alcohol, caffeine, and tobacco."

According to the news reporters, the research concluded: "The association between the studied drugs could not be discredited; however, there is still a need for stronger evidence based on studies with greater methodological rigor."

For more information on this research see: Association between sleep bruxism and alcohol, caffeine, tobacco, and drug abuse A systematic review. Journal of the American Dental Association, 2016;147(11):859-866,30-33. Journal of the American Dental Association can be contacted at: Amer Dental Assoc, 211 E Chicago Ave, Chicago, IL 60611, USA.

Our news correspondents report that additional information may be obtained by contacting A.L. Porporatti, Federal University of Santa Catarina, Dept. of Dental, Brazilian Center Evidence Based Res, BR-88040900 Florianopolis, SC, Brazil. Additional authors for this research include C.M. Kruger, I.P. De Toledo, A.L. Porporatti, B. Dick, C. Flores-Mir and G.D.L. Canto.

Keywords for this news article include: Florianopolis, Brazil, South America, Drug Abuse, Article Review, Drugs and Therapies, Stomatognathic Diseases and Conditions, Central Nervous System Stimulants, Dental Diseases and Conditions, Tooth Diseases and Conditions, Phosphodiesterase Inhibitors, Anorexigenic Agent, Sleep Disorders, Sleep Bruxism, Parasomnias, Dentistry, Caffeine, Federal University.

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Oncology - Cancer Care

Data on Cancer Care Discussed by T. Cooksley and Colleagues
(Emergency oncology: development, current position and future
direction in the USA and UK)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Care have been published. According to news reporting out of Manchester, United Kingdom, by NewsRx editors, research stated, "The need for supportive and palliative care services in patients with cancer is well established. However, the emerging unique challenges of acutely unwell patients with cancer necessitate the need for research into the optimal strategies and pathways for their management.

Our news journalists obtained a quote from the research, "The clinical challenges of emergency oncology alongside its increasing financial burden have led to an interest as to the best strategies for delivering this care. In the USA and UK, varying models of emergency and acute care are developing. There is a clear need for non-oncology physicians with an interest in the management of oncological emergencies to be at the heart of this work."

According to the news editors, the research concluded: "This paper considers the current situation in the USA and UK and the future directions for the delivery of this care."

For more information on this research see: Emergency oncology: development, current position and future direction in the USA and UK. Supportive Care in Cancer, 2017;25 (1):3-7. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news journalists report that additional information may be obtained by contacting T. Cooksley, The Christie, Dept. of Acute Med & Crit Care, Manchester, Lancs, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3470-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Manchester, United Kingdom, Europe, Cancer Care, Oncology.

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Oncology - Cancer Risk

Data on Cancer Risk Described by Researchers at St. James University Hospital (Clinical relevance of endoscopic assessment of inflammation in ulcerative colitis: Can endoscopic evaluation predict outcomes?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Risk. According
to news originating from Leeds, United Kingdom, by NewsRx correspondents, research stated, "Ulcerative colitis (UC) is a chronic inflammatory bowel condition characterised by a relapsing and remitting course. Symptom control has been the traditional mainstay of medical treatment."

Our news journalists obtained a quote from the research from St. James University Hospital, "It is well known that histological inflammatory activity persists despite adequate symptom control and absence of endoscopic inflammation. Current evidence suggests that presence of histological inflammation poses a greater risk of disease relapse and subsequent colorectal cancer risk. New endoscopic technologies hold promise for developing endoscopic markers of mucosal inflammation. Achieving endoscopic and histological remission appears be the future aim of medical treatments for UC."

According to the news editors, the research concluded: "This review article aims to evaluate the use of endoscopy as a tool in assessment of mucosal inflammation UC and its correlation with disease outcomes."


The news correspondents report that additional information may be obtained from V. Subramanian, Leeds Teaching Hosp NHS Trust, St James Univ Hosp, Dept. of Gastroenterol, Center Digest Dis, Leeds LS9 7TF, W Yorkshire, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i42.9324. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leeds, United Kingdom, Europe, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Risk and Prevention, Ulcerative Colitis, Colorectal Cancer, Gastroenterology, Gastroenteritis, Inflammation, Cancer Risk, Oncology, St. James University Hospital.

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Data on Cancer Risk Discussed by M. Ward and Colleagues (Genetic Testing After Previous BRCA Testing: A Case Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cancer Risk. According to news reporting from Wichita, Kansas, by NewsRx editors, the research stated, "Mutations linked to hereditary cancer syndromes may increase an individual's risk of developing cancer, as well as its recurrence. New genes that may also carry pathogenic mutations associated with cancer risk have been identified; as a result, individuals previously tested should consider additional testing."

The news correspondents obtained a quote from the research, "This article provides a case study illustrating the importance of such testing. At a Glance Although just a small
percentage of cancers have a genetic link, individuals identified as having pathogenic mutations may develop cancers earlier-and cancers that are more aggressive-than the general population. Oncology nurses are often among the first to discuss with patients their fears regarding the risks of cancer development in future generations."

According to the news reporters, the research concluded: "Identifying a pathogenic mutation early can assist in cancer prevention or earlier detection."

For more information on this research see: Genetic Testing After Previous BRCA Testing: A Case Study. Clinical Journal of Oncology Nursing, 2016;20(6):660-663. Clinical Journal of Oncology Nursing can be contacted at: Oncology Nursing Soc, 125 Enterprise Dr, Pittsburgh, PA 15275, USA.

Our news journalists report that additional information may be obtained by contacting M. Ward, Via Christi Hosp, Canc Outreach & Risk Assessment, Wichita, KS 67214, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1188/16.CJON.660-663. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wichita, Kansas, United States, North and Central America, Cancer, Diagnostics and Screening, Risk and Prevention, Cancer Risk, Oncology, Genetics.

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Drugs and Therapies - Cancer Therapy

Data on Cancer Therapy Discussed by Researchers at Faculty of Pharmacy (Betulinic Acid: Recent Advances in Chemical Modifications, Effective Delivery, and Molecular Mechanisms of a Promising Anticancer Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Cancer Therapy. According to news reporting originating in Kuala Lumpur, Malaysia, by NewsRx journalists, research stated, "An important method of drug discovery is examination of diverse life forms, including medicinal plants and natural products or bioactive compounds isolated from these sources. In cancer research, lead structures of compounds from natural sources can be used to design novel chemotherapies with enhanced biological properties."

The news reporters obtained a quote from the research from the Faculty of Pharmacy, "Betulinic acid (3b-hydroxy-lup-20(29)-en-28-oic acid or BetA) is a naturally occurring pentacyclic triterpene with a wide variety of biological activities, including potent antitumor properties. Non-malignant cells and normal tissues are not affected by BetA. Because BetA exerts its effects directly on the mitochondrion and triggers death of cancerous cells, it is an important alternative when certain chemotherapy drugs fail. Mitochondrion-targeted agents such as BetA hold great promise to circumvent drug resistance in human cancers. BetA is being developed by a large network of clinical trial groups with the support of the U.S. National Cancer Institute. This article discusses recent advances in research into anticancer activity of BetA, relevant modes of delivery, and the agent's therapeutic efficacy, mechanism of action, and future perspective as a pipeline anticancer drug."
According to the news reporters, the research concluded: "BetA is a potentially important agent in cancer therapeutics."


Our news correspondents report that additional information may be obtained by contacting M. Ali-Seyed, Faculty of Pharmacy, Universiti Kebangsaan Malaysia (UKM), The National University of Malaysia, Jalan Raja Muda Abdul Aziz, Kuala Lumpur, 50300, Malaysia. Additional authors for this research include I. Jantan, K. Vijayaraghavan and S.N Bukhari.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12682. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal *Chemical Biology & Drug Design* can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Malaysia, Oncology, Kuala Lumpur, Article Review, Cancer Therapy, Drugs and Therapies.

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**Drugs and Therapies - Cancer Therapy**

**Data on Cancer Therapy Reported by Researchers at Nanjing University**

[Paclitaxel-Loaded b-Cyclodextrin-Modified Poly(Acrylic Acid) Nanoparticles through Multivalent Inclusion for Anticancer Therapy]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Cancer Therapy. According to news reporting from Nanjing, People's Republic of China, by NewsRx journalists, research stated, "A nanoassembled drug delivery system for anticancer treatment, formed by the host-guest interactions between paclitaxel (PTX) and b-cyclodextrin (b-CD) modified poly(acrylic acid) (PCDAA), is successfully prepared. After such design, the aqueous solubility of PTX is greatly increased from 0.34 to 36.02 mg mL(-1), and the obtained PCDAA-PTX nanoparticles (PCDAA-PTX NPs) exhibit a sustained PTX release behavior in vitro."

Funders for this research include National Natural Science Foundation of China, Natural Science Foundation of Jiangsu Province.

The news correspondents obtained a quote from the research from Nanjing University, "In vitro cytotoxicity finds that PCDAA-PTX NPs can accumulate significantly in tumor cells and remain the pharmacological activity of PTX. The in vivo real-time biodistribution of PCDAA-PTX nanoparticles is investigated using near-infrared fluorescence imaging, indicating that the PCDAA-PTX NPs can effectively target to the tumor site by the enhanced permeability and retention effect in H22 tumor-bearing mice."

According to the news reporters, the research concluded: "Through in vivo antitumor examination, PCDAA-PTX NPs exhibit superior efficacy in impeding the tumor growth
compared to the commercially available Taxol?.


Our news journalists report that additional information may be obtained by contacting S. Yuan, Institute of Materials Engineering, National Laboratory of Solid State Microstructure, College of Engineering and Applied Sciences, Nanjing University, Nanjing, 210093, People's Republic of China. Additional authors for this research include J. Chen, J. Sheng, Y. Hu and Z. Jiang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/mabi.201500302. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antineoplastics, Pharmaceuticals, Nanjing, Taxoids, Terpenes, Hydrocarbons, Nanoparticle, Cancer Therapy, Cycloparaffins, Nanotechnology, Organic Chemicals, Mitotic Inhibitors, Paclitaxel Therapy, Drugs and Therapies, Emerging Technologies, People's Republic of China.

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**Drugs and Therapies - Cancer Therapy**

**Data on Cancer Therapy Reported by Researchers at University of Washington (Preloading of Hydrophobic Anticancer Drug into Multifunctional Nanocarrier for Multimodal Imaging, NIR-Responsive Drug Release, and Synergistic Therapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Cancer Therapy is now available. According to news reporting originating in Seattle, Washington, by NewsRx journalists, research stated, "Applications of hydrophobic drug-based nanocarriers (NCs) remain largely limited because of their low loading capacity. Here, development of a multifunctional hybrid NC made of a magnetic Fe3O4 core and a mesoporous silica shell embedded with carbon dots (CDs) and paclitaxel (PTX), and covered by another layer of silica is reported."

Financial support for this research came from National Institutes of Health.

The news reporters obtained a quote from the research from the University of Washington, "The NC is prepared via a one-pot process under mild condition. The PTX loading method introduced in this study simplifies drug loading process and demonstrates a high loading capacity due to mesoporous silica dual-shell structure, supramolecular p-stacking between conjugated rings of PTX molecules, and aromatic rings of the CDs in the hybrid NC. The CDs serve as both confocal and two-photon fluorescence imaging probes, while the Fe3O4 core serves as a magnetic resonance imaging contrast agent. Significantly, NC releases PTX in response to near infrared irradiation as a result of local heating of the embedded CDs and the heating of CDs also provides an additional therapeutic effect by thermally killing cancer cells in tumor in addition to the chemotherapeutic effect of released PTX."

According to the news reporters, the research concluded: "Both in vitro and in vivo results show that NC demonstrates high therapeutic efficacy through a synergistic effect from
the combined chemo-photothermal treatments."


Our news correspondents report that additional information may be obtained by contacting M.Q. Zhang, University of Washington, Dept. of Mat Sci & Engn, Seattle, WA 98195, United States. Additional authors for this research include K. Wang, B. Tian, R. Revia, Q.X. Mu, M. Jeon, F.C. Chang and M.Q. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201602263. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Drugs and Therapies, Cancer Therapy, University of Washington.

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**Oncology - Carcinomas**

**Data on Carcinomas Discussed by Researchers at SDM College of Dental Sciences and Hospital (Carcinoma of buccal mucosa: A site specific clinical audit)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Carcinomas. According to news reporting originating in Karnataka, India, by NewsRx journalists, research stated, "Carcinoma of buccal mucosa is the most common cancer of the oral cavity in India. Treatment of oral cancer poses unique reconstructive challenges, owing to the dynamic architecture of the oral cavity."

The news reporters obtained a quote from the research from the SDM College of Dental Sciences and Hospital, "Despite current progress in various treatment modalities, over the past 50 years survival rates have not improved drastically. Although, philosophy on treatment of buccal mucosa carcinoma remains well-established, due to the relative paucity of reported data, retrospective reviews of institutional experiences are of prime importance. This study provides a detailed insight on this site specific cancer of the oral cavity in the Indian population. The aim of this study is to analyze our experience with the management of carcinoma of buccal mucosa; associated clinical presentation, outcomes and prognostic factors. A retrospective chart review was performed of all cases of primary buccal mucosa carcinoma treated surgically between years 2008 and 2012 in SDM Craniofacial Unit, Karnataka, India. All cases were analyzed based on patient characteristics, clinical presentation, surgical and adjuvant therapy rendered and treatment outcomes. A retrospective chart review was carried out using the hospital's data base for the same. Kaplan-Meier methods were used for analyzing disease free survival (DFS). Univariate analysis of prognostic factors was performed with log rank test. The significant variables in univariate analysis were: Overall stage, T-stage (T1/T2 vs. T3/T4) and nodal status (N0 vs. N+). We found that staging, tumor size and nodal status were significant prognostic factors for DFS."
According to the news reporters, the research concluded: "The strong influence of overall disease stage, tumor size, nodal status, final histopathological report and habits of tobacco/betel quid chewing, on prognosis; emphasizes the importance of early diagnosis and prevention of carcinoma of buccal mucosa in the Indian population."

For more information on this research see: Carcinoma of buccal mucosa: A site specific clinical audit. *Indian Journal of Cancer*, 2015;52(4):605-10.

Our news correspondents report that additional information may be obtained by contacting V. Singhania, Dept. of Oral and Maxillofacial Surgery, Craniofacial Unit, SDM College of Dental Sciences and Hospital, Dharwad, Karnataka, India. Additional authors for this research include B.V. Jayade, V. Anehosur, K. Gopalkrishnan and N. Kumar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178383. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Cancer, Oncology, Karnataka, Carcinomas, Risk and Prevention.

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**Oncology - Carcinomas**

**Data on Carcinomas Reported by Researchers at Chungbuk National University (Impact of Young Age at Diagnosis on Survival in Patients with Surgically Treated Renal Cell Carcinoma: A Multicenter Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Carcinomas have been published. According to news originating from Chongju, South Korea, by NewsRx correspondents, research stated, "The prognostic significance of age in renal cell carcinoma (RCC) is a subject of debate. The aim of the present multi-institutional study was to evaluate the impact of age on clinicopathological features and survival in a large cohort of patients with RCC."

Financial support for this research came from National Research Foundation of Korea.

Our news journalists obtained a quote from the research from Chungbuk National University, "A total of 5,178 patients who underwent surgery for RCC at eight institutions in Korea between 1999 and 2011 were categorized into three groups according to age at diagnosis as follows: young age (< 40 years, n= 541), middle-age (>= 40 and < 60 years, n= 2,551), and old age (>= 60 years, n= 2,096) groups. Clinicopathological variables and survival rates were compared between the three groups. Young patients had lower stage tumors with a low Fuhrman grade, a lower rate of lymphovascular invasion than patients in the other age groups. Regarding histologic type, the young age group had a lower percentage of clear cell histology and a greater incidence of Xp11.2 translocation RCC. Kaplan-Meier estimates showed that cancer-specific survival was significantly better in the young age group than in the other groups (log rank test, P = 0.008). However, age at diagnosis was not an independent predictor of survival in multivariate analysis."

According to the news editors, the research concluded: "Young age at diagnosis was associated with favorable pathologic features, although it was not an independent prognostic factor for survival in patients with surgically-treated RCC. Age itself should not be regarded as a
crucial determinant for the treatment of RCC."

For more information on this research see: Impact of Young Age at Diagnosis on Survival in Patients with Surgically Treated Renal Cell Carcinoma: A Multicenter Study. Journal of Korean Medical Science, 2016;31(12):1976-1982. Journal of Korean Medical Science can be contacted at: Korean Acad Medical Sciences, 302 75 Dong Du Ichon, Dong Yongsan Ku, Seoul 140 031, South Korea.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3346/jkms.2016.31.12.1976. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chongju, South Korea, Asia, Nephrology, Carcinomas, Oncology, Genetics, Kidney, Chungbuk National University.

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Oncology - Carcinomas

Data on Carcinomas Reported by Researchers at Hannover Veterinary and Medical University (The effect of dichloroacetate in canine prostate adenocarcinomas and transitional cell carcinomas in vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Carcinomas have been presented. According to news reporting from Hannover, Germany, by NewsRx journalists, research stated, "The Warburg effect describes the ability of cancer cells to produce energy via aerobic glycolysis instead of oxidative phosphorylation of pyruvate. This deviation in mitochondrial metabolism inhibits apoptosis, allowing increased proliferation under conditions of reduced oxygen levels."

The news correspondents obtained a quote from the research from Hannover Veterinary and Medical University, "Dichloroacetate (DCA) was successfully used in several human cancer cell lines to reactivate oxidative phosphorylation in mitochondria. The aim of this study was the characterization and response of canine cancer cell lines after DCA exposure. The effect of 10 mM DCA was characterized in vitro on a set of six canine prostate adenocarcinoma and transitional cell carcinoma (TCC) derived cell lines. Cell counts, lactate levels, apoptosis, expression of apoptotic proteins, survival factors and different miRNAs were analyzed. Additionally, metabolic activity, mitochondrial activity and proliferation were investigated. DCA significantly decreased cell number of all but one utilized cell lines and leads to a significant reduction of lactate release. Decreased survivin levels were found in all cell lines, two of which presented a significant reduction in metabolic activity. Increased miR-375 levels were measured in all TCC cell lines. Reactivation of pyruvate dehydrogenase and an elevated mitochondrial activity appear to induce the transition from aerobic glycolysis back to oxidative phosphorylation."

According to the news reporters, the research concluded: "Further, these results display that DCA treatment has a suppressant effect on proliferation of canine cancer cells."

Our news journalists report that additional information may be obtained by contacting I. Nolte, Hannover Veterinary & Medical University, Small Anim Clin, D-30559 Hannover, Germany. Additional authors for this research include M. Stubbendorff, S. Willenbrock, S. Wagner, P. Schadzek, A. Ngezahayo, H.M. Escobar and I. Nolte.

Keywords for this news article include: Hannover, Germany, Europe, Transitional Cell Carcinoma, Chlorinated Hydrocarbons, Carboxylic Acids, Dichloroacetate, Adenocarcinoma, Acetic Acids, Carcinomas, Cell Line, Oncology, Urology, Cancer, Hannover Veterinary and Medical University.

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**Drugs and Therapies - Cardiac Stressing Agents**

**Data on Cardiac Stressing Agents Discussed by Researchers at University of Cairo (y Simultaneous Determination of Aspirin, Dipyridamole and Two of Their Related Impurities in Capsules by Validated TLC-Densitometric and HPLC Methods)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Cardiac Stressing Agents. According to news originating from Cairo, Egypt, by NewsRx correspondents, research stated, "Aspirin (ASP) and dipyridamole (DIP) are widely used as a combination in pharmaceutical formulations for treatment of strokes. Many of these formulations are containing tartaric acid as an excipient (in DIP pellets formulation for sustained release), which increases the probability of formation of dipyridamole tartaric acid ester impurity (DIP-I)."

Our news journalists obtained a quote from the research from the University of Cairo, "On the other hand, salicylic acid (SAL) is considered to be one of the synthesis impurities and a degradation product of ASP. In this work, two chromatographic methods, namely, TLC-densitometry and HPLC, have been established and validated for simultaneous determination of ASP, DIP, SAL and DIP-I. Good separation was achieved by using silica gel as stationary phase and toluene-methanol-ethyl acetate (2:3:5, by volume) as mobile phase in the case of TLC-densitometry and Zorbax ODS column with mobile phase consisting of phosphate buffer (pH 3.3)-acetonitrile-triethylamine (40:60:0.03, by volume) for HPLC. Influence of different organic solvents in mobile phase composition has been studied to optimize the separation efficiency in TLC densitometry. Moreover, factors affecting the efficiency of HPLC, like pH of the buffer used, organic solvent ratio in the mobile phase and flow rate, have been carefully studied using one variable at a time approach."

According to the news editors, the research concluded: "Finally, the proposed methods were validated as per ICH guidelines." For more information on this research see: y Simultaneous Determination of Aspirin, Dipyridamole and Two of Their Related Impurities in Capsules by Validated TLC-Densitometric and HPLC Methods. *Journal of Chromatographic Science*, 2016;54(7):1120-1128. *Journal of Chromatographic Science* can be contacted at: Oxford Univ Press Inc,
Cardiology

Data on Cardiology Described by Researchers at Institute for Clinical Evaluative Sciences (Baseline risk has greater influence over behavioral attrition on the real-world clinical effectiveness of cardiac rehabilitation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiology are discussed in a new report. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "Few studies have examined the correlates of real-world cardiac rehabilitation (CR) effectiveness. The objective of this study was to determine the relationship between baseline risk, behavioral attrition, and the number needed to treat (NNT) associated with CR."

Our news journalists obtained a quote from the research from Institute for Clinical Evaluative Sciences, "A retrospective study was conducted among 16,061 CR patients between 1995 and 2011 in Canada. Multiple logistic regression models were derived from patient characteristics and measured baseline risk (individual's risk of death within 3 years) and behavioral attrition (individual's risk of premature dropout). We examined the treatment efficacy of CR among nondropouts using a 20% relative risk reduction. Further sensitivity analyses were performed to assess the robustness of our assumptions. We assumed no efficacy among dropouts. Both baseline risk and behavioral attrition were independently associated with NNT, although baseline risk had a stronger association with NNT than behavioral attrition. Increasing age, lower baseline fitness, history of diabetes, hypertension, and greater comorbidities were associated with lower NNT. Being female, living alone, living in the lowest neighborhood income quintile, and greater adiposity were associated with higher NNT. The clinical effectiveness of CR is largely driven by the baseline risk rather than the behavioral attrition of the populations they serve."

According to the news editors, the research concluded: "These findings have implications for risk stratification among those with greatest survival yields and programmatic needs."

For more information on this research see: Baseline risk has greater influence over behavioral attrition on the real-world clinical effectiveness of cardiac rehabilitation. *Journal of Clinical Epidemiology*, 2016;79():55-61. *Journal of Clinical Epidemiology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier -
Data on Cardiology Discussed by Researchers at Wake Forest University (A TASER conducted electrical weapon with cardiac biomonitoring capability: Proof of concept and initial human trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting originating from Winston Salem, North Carolina, by NewsRx correspondents, research stated, "Despite research demonstrating the overall safety of Conducted Electrical Weapons (CEWs), commonly known by the brand name TASER®, concerns remain regarding cardiac safety. The addition of cardiac biomonitoring capability to a CEW could prove useful and even lifesaving in the rare event of a medical crisis by detecting and analyzing cardiac rhythms during the period immediately after CEW discharge."

Our news editors obtained a quote from the research from Wake Forest University, "To combine an electrocardiogram (ECG) device with a CEW to detect and store ECG signals while still allowing the CEW to perform its primary function of delivering an incapacitating electrical discharge. This work was performed in three phases. In Phase 1 standard law enforcement issue CEW cartridges were modified to demonstrate transmission of ECG signals. In Phase 2, a miniaturized ECG recorder was combined with a standard issue CEW and tested. In Phase 3, a prototype CEW with on-board cardiac biomonitoring was tested on human volunteers to assess its ability to perform its primary function of electrical incapacitation. Bench testing demonstrated that slightly modified CEW cartridge wires transmitted simulated ECG signals produced by an ECG rhythm generator and from a human volunteer. Ultimately, a modified CEW incorporating ECG monitoring successfully delivered incapacitating current to human volunteers and successfully recorded ECG signals from subcutaneous CEW probes after firing. An ECG recording device was successfully incorporated into a standard issue CEW without impeding the functioning of the device."

According to the news editors, the research concluded: "This serves as proof-of-concept that safety measures such as cardiac biomonitoring can be incorporated into CEWs and possibly other law enforcement devices."

For more information on this research see: A TASER conducted electrical weapon with cardiac biomonitoring capability: Proof of concept and initial human trial. Journal of
Cardiology

Data on Cardiology Reported by Researchers at Cedars-Sinai Heart Institute (Cardiac magnetic resonance imaging for myocardial perfusion and diastolic function-reference control values for women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting originating from Los Angeles, California, by NewsRx correspondents, research stated, "Angina, heart failure with preserved ejection fraction (HFpEF) and coronary microvascular dysfunction (CMD) in the absence of obstructive coronary artery disease (CAD) are more common in women and are associated with adverse cardiovascular prognosis. Cardiac magnetic resonance imaging (CMRI) is established for assessment of left ventricular (LV) morphology and systolic function and is increasingly used to assess myocardial perfusion and diastolic function."

Our news editors obtained a quote from the research from Cedars-Sinai Heart Institute, "Indeed, stress CMRI allows measurement of myocardial perfusion reserve index (MPRI) using semi-quantitative techniques, and quantification of LV volumetric filling patterns provides valuable insight into LV diastolic function. The utility of these two techniques remains limited, because reference control values for MPRI and LV diastolic function in asymptomatic middle-aged, women have not previously been established. To address this limitation, we recruited twenty women, without clinical cardiovascular disease or cardiovascular risk factors, with normal maximal Bruce protocol exercise treadmill testing. Subjects underwent CMRI (1.5 tesla) using a standardized protocol of adenosine stress and rest perfusion and LV cinematic imaging. Commercially available with automated CMRI segmentation was used for calculation of MPRI, LV filling profiles, and ejection fraction. Mean age was 54?9 years and mean body mass index was 25?4 kg/m(3). The exercise treadmill testing results demonstrated a normotensive group with normal functional capacity and hemodynamic response. We report reference control values for semi-quantitative MPRI as well as measures of LV systolic and diastolic function including ejection fraction, stroke volume, peak filling rate (PFR), PFR adjusted for end-diastolic volume (EDV) and stroke volume, time to PFR, and EDV index. The data herein provide reference values for MPRI and diastolic function in a cohort of healthy,
middle-aged of women."

According to the news editors, the research concluded: "These reference values may be used for comparison with a variety of patient populations, including women with CMD and HFpEF."

For more information on this research see: Cardiac magnetic resonance imaging for myocardial perfusion and diastolic function-reference control values for women. *Cardiovascular Diagnosis and Therapy*, 2016;6(1):78-86.

The news editors report that additional information may be obtained by contacting M. Bakir, Barbra Streisand Women's Heart Center, Cedars-Sinai Heart Institute, S Mark Taper Foundation Imaging Center, Biomedical Imaging Research Institute Cedars-Sinai Medical Center, Los Angeles, CA 90048, United States. Additional authors for this research include J. Wei, M.D. Nelson, P.K. Mehta, A. Haftbaradaran, E. Jones, E. Gill, B. Sharif, P.J. Slomka, D. Li, C.L. Shufelt, M. Minissian, D.S. Berman, C.N. Bairey Merz and L.E Thomson.

Keywords for this news article include: California, Cardiology, Los Angeles, United States, Stroke Volume, Cardiac Output, Magnetic Resonance, Risk and Prevention, North and Central America, Cardiovascular Physiological Phenomena.

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**Cardiology**

**Data on Cardiology Reported by Researchers at University of Wisconsin**

*(Inhibition of late sodium current attenuates ionic arrhythmia mechanism in ventricular myocytes expressing LaminA-N195K mutation)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting from Madison, Wisconsin, by NewsRx journalists, research stated, "Lamin A and C are nuclear filament proteins encoded by the LMNA gene. Mutations in the LMNA gene cause many congenital diseases known as laminopathies, including Emery-Dreifuss muscular dystrophy, Hutchinson-Gilford progeria syndrome, and familial dilated cardiomyopathy (DCM) with conduction disease."

The news correspondents obtained a quote from the research from the University of Wisconsin, "A missense mutation (N195K) in the A-type lamins results in familial DCM and sudden arrhythmic death. The purpose of this study was to investigate the ion current mechanism of arrhythmia and DCM caused by the LaminA-N195K variant. A homozygous mouse line expressing the Lmna-N195K mutation (Lmna(N195K/N195K)) that exhibited arrhythmia, DCM, and sudden death was used. Using whole cell patch-clamp technique, we measured action potential duration (APD), Na+ currents (I-Na) in ventricular myocytes isolated from Lmna(N195K/N195K), and wild-type mice. Both peak and late INa were significantly(P < .05) increased in LmnaN195K/N195K ventricular myocytes. Similarly, Lmna(N195K/N195K) ventricular myocytes exhibited significant (P < .005) prolongation of APD (time to 50% [APD(50)] and 90% [APD(90)] repolarization) and triggered activity. Acute application of ranolazine inhibited late INa, shortened APD, and abolished triggered activity in LmnaN(195K/N195K) ventricular myocytes."

According to the news reporters, the research concluded: "Inhibition of late I-Na may
be an effective therapy in preventing arrhythmia in patients with LmA-N195K mutation-related DCM."


Our news journalists report that additional information may be obtained by contacting R.C. Balijepalli, University of Wisconsin, Dept. of Med, Cellular & Mol Arrhythmia Res Program, Madison, WI, United States. Additional authors for this research include T. Tsubouchi, T.A. Hacker, M.R. Wolff, L. Belardinelli and R.C. Balijepalli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.08.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madison, Wisconsin, United States, North and Central America, Risk and Prevention, Arrhythmia, Cardiology, Genetics, University of Wisconsin.

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**Heart Disorders and Diseases - Cardiomyopathies**

**Data on Cardiomyopathies Described by S.R. Roof et al (Insulin-like growth factor 1 prevents diastolic and systolic dysfunction associated with cardiomyopathy and preserves adrenergic sensitivity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Cardiomyopathies. According to news reporting originating from Columbus, Ohio, by NewsRx correspondents, research stated, "Insulin-like growth factor 1 (IGF-1)-dependent signalling promotes exercise-induced physiological cardiac hypertrophy. However, the in vivo therapeutic potential of IGF-1 for heart disease is not well established."

Financial supporters for this research include National Institutes of Health, American Heart Association.

Our news editors obtained a quote from the research, "Here, we test the potential therapeutic benefits of IGF-1 on cardiac function using an in vivo model of chronic catecholamine-induced cardiomyopathy. Rats were perfused with isoproterenol via osmotic pump (1 mg kg(-1) per day) and treated with 2 mg kg(-1) IGF-1 (2 mg kg(-1) per day, 6 days a week) for 2 or 4 weeks. Echocardiography, ECG, and blood pressure were assessed. In vivo pressure-volume loop studies were conducted at 4 weeks. Heart sections were analysed for fibrosis and apoptosis, and relevant biochemical signalling cascades were assessed. After 4 weeks, diastolic function (EDPVR, EDP, tau, E/A ratio), systolic function (PRSW, ESPVR, dP/dtmax) and structural remodelling (LV chamber diameter, wall thickness) were all adversely affected in isoproterenol-treated rats. All these detrimental effects were attenuated in rats treated with Iso+IGF-1. Isoproterenol-dependent effects on BP were attenuated by IGF-1 treatment. Adrenergic sensitivity was blunted in isoproterenol-treated rats but was preserved by IGF-1 treatment. Immunoblots indicate that cardioprotective p110a signalling and activated Akt are
selectively upregulated in Iso+IGF-1-treated hearts. Expression of iNOS was significantly increased in both the Iso and Iso+IGF-1 groups; however, tetrahydrobiopterin (BH4) levels were decreased in the Iso group and maintained by IGF-1 treatment. IGF-1 treatment attenuates diastolic and systolic dysfunction associated with chronic catecholamine-induced cardiomyopathy while preserving adrenergic sensitivity and promoting BH4 production.

According to the news editors, the research concluded: "These data support the potential use of IGF-1 therapy for clinical applications for cardiomyopathies."


The news editors report that additional information may be obtained by contacting S.R. Roof, Q-Test Labs, Columbus, OH, United States. Additional authors for this research include J. Boslett, D. Russell, C. del Rio, J. Alecusan, J.L. Zweier, M.T. Ziolo, R. Hamlin, P.J. Mohler and J. Curran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apha.12607. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Acta Physiologica is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Ohio, Columbus, Cardiology, Proinsulin, Cardiotonic, Vasopressors, United States, Ethanolamines, Heart Disease, Catecholamines, Sympathomimetic, Cardiomyopathies, Peptide Hormones, Peptide Proteins, Respiratory Agents, Drugs and Therapies, Cardiovascular Agents, Isoproterenol Therapy, North and Central America.

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Heart Disorders and Diseases - Cardiomyopathies

Data on Cardiomyopathies Reported by Researchers at University of Naples Federico II (Functional Studies and In Silico Analyses to Evaluate Non-Coding Variants in Inherited Cardiomyopathies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Cardiomyopathies have been presented. According to news originating from Naples, Italy, by NewsRx correspondents, research stated, "Point mutations are the most common cause of inherited diseases. Bioinformatics tools can help to predict the pathogenicity of mutations found during genetic screening, but they may work less well in determining the effect of point mutations in non-coding regions."

Our news journalists obtained a quote from the research from the University of Naples Federico II, "In silico analysis of intronic variants can reveal their impact on the splicing process, but the consequence of a given substitution is generally not predictable. The aim of this study was to functionally test five intronic variants (MYBPC3-c.506-2A>C, MYBPC3-c.906-
7G >T, MYBPC3-c.2308+3G >C, SCN5A-c.393-5C >A, and ACTC1-c.617-7T >C) found in five patients affected by inherited cardiomyopathies in the attempt to verify their pathogenic role. Analysis of the MYBPC3-c.506-2A >C mutation in mRNA from the peripheral blood of one of the patients affected by hypertrophic cardiac myopathy revealed the loss of the canonical splice site and the use of an alternative splicing site, which caused the loss of the first seven nucleotides of exon 5 (MYBPC3-G169AfsX14). In the other four patients, we generated minigene constructs and transfected them in HEK-293 cells. This minigene approach showed that MYBPC3-c.2308+3G >C and SCN5A-c.393-5C >A altered pre-mRNA processing, thus resulting in the skipping of one exon. No alterations were found in either MYBPC3-c.906-7G >T or ACTC1-c.617-7T >C."

According to the news editors, the research concluded: "Functional in vitro analysis of the effects of potential splicing mutations can confirm or otherwise the putative pathogenicity of non-coding mutations, and thus help to guide the patient's clinical management and improve genetic counseling in affected families."

For more information on this research see: Functional Studies and In Silico Analyses to Evaluate Non-Coding Variants in Inherited Cardiomyopathies. International Journal of Molecular Sciences, 2016;17(11):1822-1834. International Journal of Molecular Sciences can be contacted at: Mdp Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from G. Frisso, Univ Napoli Federico II, Dipartimento Med Mol & Biotechnol Med, I-80131 Naples, Italy. Additional authors for this research include N. Detta, P. Coppola, C. Mazzaccara, M.R. Pricolo, A. D'Onofrio, G. Limongelli, R. Calabro and F. Salvatore.

Keywords for this news article include: Naples, Italy, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiomyopathies, Heart Disease, Genetics, University of Naples Federico II.

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arterial pressure and heart rate were compared before and after physical therapy (paired t tests). Differences among norepinephrine doses and physical activity levels were evaluated (Kruskal-Wallis test). Forty-one of the 47 patients (87%) tolerated the activity within safe ranges of vital signs. The change in patients' mean arterial pressure from before to after activity was not significant (P = .16), but a significant increase in heart rate occurred after activity (P < .001). A Kruskal-Wallis test showed no significant difference in the norepinephrine dose and activity level (chi(2) = 6.34, P = .17). No instances of cardiopulmonary or respiratory arrest occurred during any physical therapy sessions."

According to the news reporters, the research concluded: "Infusion of low-dose norepinephrine should not be considered an automatic reason to keep patients on bed rest."


Our news journalists report that additional information may be obtained by contacting R.A. Nievera, Barnes Jewish Hosp, Cardiothorac Intens Care Unit, St Louis, MO 63110, United States. Additional authors for this research include A. Fick and H.K. Harris.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Cardiovascular Agents, Drugs and Therapies, Organic Chemicals, Biogenic Amines, Norepinephrine, Amino Alcohols, Catecholamines, Ethanolamines, Hemodynamics, Vasopressors, Heart Rate, Barnes-Jewish Hospital.

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Cardiovascular Diseases
Data on Cardiovascular Diseases Described by Researchers at New York University (Recommendations for cardiovascular disease research with lesbian, gay and bisexual adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "Aims and objectives. The purpose of this paper is to provide recommendations to strengthen cardiovascular disease research with lesbian, gay and bisexual adults, and highlight implications for practice."

Financial support for this research came from National Center for Advancing Translational Sciences.

Our news journalists obtained a quote from the research from New York University, "Lesbian, gay and bisexual individuals face significant discrimination that negatively impacts their health. Health disparities research in lesbian, gay and bisexual adults have focused on mental health, sexually transmitted infections and substance use. Although cardiovascular disease is the leading cause of death and many lesbian, gay and bisexual adults report increased risk factors for cardiovascular disease, there has been limited research in this area. This paper is a critical review. A literature search was conducted that compared cardiovascular disease risk and/or prevalence between lesbian, gay and bisexual and heterosexual adults. Measures to assess cardiovascular disease risk factors and diagnoses varied widely across the 31 included studies."
There was a lack of standardisation in definitions used for alcohol consumption, illicit drug use, mental health and self-rated physical health. Most studies that reported body mass index relied on participant self-report. Few studies included measures of physical activity and diet and those that did lacked standardisation. Only seven studies used laboratory data to establish diagnosis of cardiovascular disease. This study is the first comprehensive review on this topic. In cardiovascular disease research with lesbian, gay and bisexual adults, there is a need for: (1) inclusion of stress as a risk factor for cardiovascular disease, (2) standardised measures, (3) objective measures for determining the presence of cardiovascular disease, (4) data from electronic health records to strengthen the study of cardiovascular disease in this population. Relevance to clinical practice. Strengthening cardiovascular disease research in lesbian, gay and bisexual adults is an important step in addressing health disparities in this population."

According to the news editors, the research concluded: "Nurses and other healthcare professionals should assess sexual orientation in routine health assessments."


Our news journalists report that additional information may be obtained by contacting B.A. Caceres, New York University, Rory Meyers Coll Nursing, New York, NY, United States. Additional authors for this research include A. Brody and D. Chyun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13415. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Cardiovascular Diseases and Conditions, Risk and Prevention, Cardiology, New York University.

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**Medical Imaging - Cardiovascular Imaging**

**Data on Cardiovascular Imaging Discussed by M.C. Turner and Colleagues (High-risk plaque in patients with near normal coronary angiograms)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Medical Imaging - Cardiovascular Imaging. According to news originating from Lake Charles, Louisiana, by NewsRx editors, the research stated, "The increased use of cardiac computed tomography angiography in the emergency room to triage patients who present with chest pain syndrome has led to the identification of individuals with coronary plaques with high-risk characteristics in the absence of significant stenoses."

Our news journalists obtained a quote from the research, "Anecdotal observations have suggested that the presence of coronary high-risk plaque results in an increased risk of acute coronary syndrome over time. This case presentation represents an example of this subgroup of patients."
According to the news editors, the research concluded: "Intuitively, it would seem that high-dose statin therapy would be the treatment of choice, with percutaneous intervention reserved for the development of flow-limiting lesions; however, a prospective trial to determine outcomes to our knowledge has not been performed."


The news correspondents report that additional information may be obtained from M.C. Turner, Cardiovasc Specialists Southwest Louisiana, Lake Charles, LA, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/echo.13361. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lake Charles, Louisiana, United States, North and Central America, Cardiovascular Imaging, Medical Imaging, Risk and Prevention.

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**Cardiovascular Research**

**Data on Cardiovascular Research Detailed by Researchers at Federal University (Functional topography of cardiovascular regulation along the rostrocaudal axis of the rat posterior insular cortex)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Research. According to news reporting out of Belo Horizonte, Brazil, by NewsRx editors, research stated, "Cardiovascular (CV) representation has been identified within the insular cortex (IC) and a lateralization of function previously suggested. In order to further understand the role of IC on cardiovascular control, the present study compared the CV responses evoked by stimulation of N-metil-D-aspartate (NMDA) receptors in the right and left posterior IC at different rostrocaudal levels."

Financial supporters for this research include Brazilian agencies, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico, Fundacao de Amparo a Pesquisa de Minas Gerais.

Our news journalists obtained a quote from the research from Federal University, "Intracortical microinjections of NMDA were performed into the IC of male Wistar rats anaesthetized with urethane (1.4?g/kg) prepared for blood pressure, heart rate and renal sympathetic nerve activity. Gene expression of NMDA receptor subunits NR2A and NR2B in the IC was confirmed by RT-PCR. Immunofluorescence for the NMDA receptor NR1 subunit was demonstrated in the IC (coordinates anteroposterior (AP)+1.5, 0.0 and -1.5?mm). A cardiac sympathoinhibitory site was identified, more rostrally located than identified in previous studies. A site of sympathoexcitatory cardiac control was identified more caudal to this region in agreement with earlier work. Under the experimental conditions, no lateralization of cardiovascular function was identified with chemical stimulation eliciting the same responses from either left or right insular cortices. No tonic role of the insula on cardiovascular control..."
was identified with the use of the NMDA antagonist, AP-5. Peri-insular microinjection of NMDA was without cardiovascular effect indicating the specificity of the insula as a cardiovascular regulatory site."

According to the news editors, the research concluded: "The current study reveals a functional topography for autonomic cardiovascular control along the rostrocaudal axis of the posterior IC."


Our news journalists report that additional information may be obtained by contacting F.R. Marins, Dept. of Physiology and Biophysics, INCT, Institute of Biological Sciences, Federal University of Minas Gerais, Belo Horizonte, Brazil. Additional authors for this research include M. Limborco-Filho, C.H. Xavier, V.C. Biancardi, G.C. Vaz, J.E. Stern, S.M. Oppenheimer and M.A Fontes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1440-1681.12542. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Cardiology, South America, Belo Horizonte, Cardiovascular Research.

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Cardiovascular Research

Data on Cardiovascular Research Detailed by Researchers at University of Ontario [The Science of Salt: A Regularly Updated Systematic Review of Salt and Health Outcomes (August to November 2015)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Research is the subject of a report. According to news originating from Oshawa, Canada, by NewsRx correspondents, research stated, "The purpose of this review was to systematically identify, summarize, and critically appraise studies on dietary salt relating to health outcomes that were published from August to November 2015."

Our news journalists obtained a quote from the research from the University of Ontario, "The search strategy was adapted from a previous systematic review on dietary salt and health. Overall, 15 studies were included in the review: one study assessed cardiovascular events, five studies assessed blood pressure or hypertension incidence, six studies assessed surrogate outcomes for cardiovascular or kidney diseases, and three studies assessed other outcomes (age-related cataracts, rheumatoid arthritis, and bone mineral density, respectively)."

According to the news editors, the research concluded: "Four studies were selected for detailed appraisal and commentary."


The news correspondents report that additional information may be obtained from J. Arcand, University of Ontario, Fac Hlth Sci, Inst Technol, Oshawa, ON L1H 7K4, Canada. Additional authors for this research include J. Arcand, A.A. Leung, T.S. Raj, K. Trieu, J.A. Santos and N.R.C. Campbell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12874. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oshawa, Ontario, Canada, North and Central America, Cardiovascular Research, Cardiovascular, Cardiology, University of Ontario.

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Life Science Research - Cell Biology

Data on Cell Biology Detailed by Researchers at University of California
(The Hippo Pathway Kinases LATS1/2 Suppress Cancer Immunity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Cell Biology. According to news reporting from La Jolla, California, by NewsRx journalists, research stated, "Poorly immunogenic tumor cells evade host immunity and grow even in the presence of an intact immune system, but the complex mechanisms regulating tumor immunogenicity have not been elucidated. Here, we discovered an unexpected role of the Hippo pathway in suppressing anti-tumor immunity."

Funders for this research include NIH, Whitworth Immunotherapy Foundation. The news correspondents obtained a quote from the research from the University of California, "We demonstrate that, in three different murine syngeneic tumor models (B16, SCC7, and 4T1), loss of the Hippo pathway kinases LATS1/2 (large tumor suppressor 1 and 2) in tumor cells inhibits tumor growth. Tumor regression by LATS1/2 deletion requires adaptive immune responses, and LATS1/2 deficiency enhances tumor vaccine efficacy. Mechanistically, LATS1/2-null tumor cells secrete nucleic-acid-rich extracellular vesicles, which induce a type I interferon response via the Toll-like receptors- MYD88/TRIF pathway. LATS1/2 deletion in tumors thus improves tumor immunogenicity, leading to tumor destruction by enhancing anti-tumor immune responses."

According to the news reporters, the research concluded: "Our observations uncover a key role of the Hippo pathway in modulating tumor immunogenicity and demonstrate a proof of concept for targeting LATS1/2 in cancer immunotherapy."

For more information on this research see: The Hippo Pathway Kinases LATS1/2 Suppress Cancer Immunity. Cell, 2016;167(6):1525-1539,176-192. Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell - www.journals.elsevier.com/cell/)

Our news journalists report that additional information may be obtained by contacting K.L. Guan, University of California, Moores Canc Center, La Jolla, CA 92093, United States. Additional authors for this research include T. Hayashi, W.W. Pan, Y. Fujita,
Data on Cell Differentiation Discussed by Researchers at Ningbo University (Characterization of microRNAs by deep sequencing in red claw crayfish Cherax quadricarinatus haematopoietic tissue cells after white spot syndrome virus infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cell Differentiation. According to news originating from Zhejiang, People's Republic of China, by NewsRx correspondents, research stated, "White spot syndrome virus (WSSV) is one of the most prevalent and widespread viruses in both shrimp and crayfish aquaculture. MicroRNAs (miRNAs) are crucial post-transcriptional regulators and play critical roles in cell differentiation and proliferation, apoptosis, signal transduction and immunity."

Financial supporters for this research include National Natural Science Foundation of China, SFFPC, FRFCU.

Our news journalists obtained a quote from the research from Ningbo University, "In this study, miRNA expression profiles were identified via deep sequencing in red claw crayfish Cherax quadricarinatus haematopoietic tissue (Hpt) cell cultures infected with WSSV at both early (i.e., 1 hpi) and late (i.e., 12 hpi) infection stages. The results showed that 2 known miRNAs, namely, miR-7 and miR-184 play key roles in immunity. Meanwhile, 106 novel miRNA candidates were predicted by software in these combined miRNA transcriptomes. Compared with two control groups, 36 miRNAs showed significantly different expression levels after WSSV challenge. Furthermore, 10 differentially expressed miRNAs in WSSV-exposed Hpt cells were randomly selected for expression analysis by quantitative real-time RT-PCR. Consistent with the expression profiles identified by deep sequencing, RT-PCR showed a significant increase or decrease in miRNA expression in Hpt cells after WSSV infection. Prediction of targets of miRNAs such as miR-7, cqu-miR-52, cqu-miR-126 and cqu-miR-141 revealed that their target genes have diverse biological roles, including not only immunity but also transcriptional regulation, energy metabolism, cell communication, cell differentiation, cell death, autophagy, endocytosis and apoptosis."

According to the news editors, the research concluded: "These results provide insight into the molecular mechanism of WSSV infection and highlight the function of miRNAs in the regulation of the immune response against WSSV infection in crustaceans."

For more information on this research see: Characterization of microRNAs by deep sequencing in red claw crayfish Cherax quadricarinatus haematopoietic tissue cells after white spot syndrome virus infection. Fish & Shellfish Immunology, 2016;59():469-483. Fish &

The news correspondents report that additional information may be obtained from C.H. Li, Ningbo Univ, Sch Marine Sci, Ningbo 315211, Zhejiang, People's Republic of China. Additional authors for this research include C. Meng, X.L. Xie, C.H. Li and H.P. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.fsi.2016.11.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zhejiang, People's Republic of China, Asia, Cell Differentiation, Immunology, Genetics, Ningbo University.

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Cell Proliferation

Data on Cell Proliferation Reported by Researchers at Indiana University School of Medicine (Critical role of PPARg in myeloid-derived suppressor cell-stimulated cancer cell proliferation and metastasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cell Proliferation. According to news reporting originating in Indianapolis, Indiana, by NewsRx journalists, research stated, "Lysosomal acid lipase (LAL) is a key enzyme controlling neutral lipid metabolic signaling in myeloid-derived suppressor cells (MDSCs). MDSCs from LAL-deficient (lal-/-) mice directly stimulate cancer cell proliferation."

The news reporters obtained a quote from the research from the Indiana University School of Medicine, "PPARg ligand treatment inhibited lal-/-MDSCs stimulation of tumor cell growth and metastasis in vivo, and tumor cell proliferation and migration in vitro. In addition, PPARg ligand treatment impaired lal-/-MDSCs transendothelial migration, and differentiation from lineage-negative cells. The corrective effects of PPARg ligand on lal-/-MDSCs functions were mediated by regulating the mammalian target of rapamycin (mTOR) pathway, and subsequently blocking MDSCs ROS overproduction. Furthermore, in the myeloid-specific dominant-negative PPARg (dnPPARg) overexpression bitransgenic mouse model, tumor growth and metastasis were enhanced, and MDSCs from these mice stimulated tumor cell proliferation and migration. MDSCs with dnPPARg overexpression showed increased transendothelial migration, overactivation of the mTOR pathway, and ROS overproduction."

According to the news reporters, the research concluded: "These results indicate that PPARg plays a critical role in neutral lipid metabolic signaling controlled by LAL, which provides a mechanistic basis for clinically targeting MDSCs to reduce the risk of cancer proliferation, growth and metastasis."

For more information on this research see: Critical role of PPARg in myeloid-derived suppressor cell-stimulated cancer cell proliferation and metastasis. Oncotarget, 2016;7 (2):1529-43.

Our news correspondents report that additional information may be obtained by contacting T. Zhao, Dept. of Pathology and Laboratory Medicine, Indiana University School of Medicine, Indianapolis, IN 46202, United States. Additional authors for this research include H.
Data on Cell Science Discussed by Researchers at European Molecular Biology Laboratory (PRL-3 disrupts epithelial architecture by altering the post-mitotic midbody position)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science - Cell Science have been published. According to news reporting from Heidelberg, Germany, by NewsRx journalists, research stated, "Disruption of epithelial architecture is a fundamental event during epithelial tumorigenesis. We show that the expression of the cancer-promoting phosphatase PRL-3 (PTP4A3), which is overexpressed in several epithelial cancers, in polarized epithelial MDCK and Caco(2) cells leads to invasion and the formation of multiple ectopic, fully polarized lumens in cysts."

The news correspondents obtained a quote from the research from European Molecular Biology Laboratory, "Both processes disrupt epithelial architecture and are hallmarks of cancer. The pathological relevance of these findings is supported by the knockdown of endogenous PRL-3 in MCF-7 breast cancer cells grown in threedimensional branched structures, showing the rescue from multipelumen- to single-lumen-containing branch ends. Mechanistically, it has been previously shown that ectopic lumens can arise from midbodies that have been mislocalized through the loss of mitotic spindle orientation or through the loss of asymmetric abscission. Here, we show that PRL-3 triggers ectopic lumen formation throughmidbody mispositioning without altering the spindle orientation or asymmetric abscission, instead, PRL-3 accelerates cytokinesis, suggesting that this process is an alternative new mechanism for ectopic lumen formation in MDCK cysts."

According to the news reporters, the research concluded: "The disruption of epithelial architecture by PRL-3 revealed here is a newly recognized mechanism for PRL-3 promoted cancer progression."


Our news journalists report that additional information may be obtained by contacting M. Kohn, European Mol Biol Lab, Genome Biol Unit, D-69117 Heidelberg, Germany. Additional authors for this research include G. Varsano, T. Rubio, M.L. Hennrich, T. Sachsenheimer, M. Galvez-Santisteban, F. Martin-Belmonte, A.C. Gavrin, B. Brugger and M. Kohn.

Keywords for this news article include: Heidelberg, Germany, Europe, Cell Science,
Data on Central Nervous System Agents Detailed by N. Levy-Cooperman and Co-Authors (Abuse Potential and Pharmacodynamic Characteristics of Oral and Intranasal Eluxadoline, a Mixed mu- and kappa-Opioid Receptor Agonist and delta-Opioid Receptor Agonist and Antagonist ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Central Nervous System Agents have been published. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "Drugs with mu-opioid receptor (OR) activity can be associated with abuse and misuse. The peripherally acting mixed mu-OR and kappa-OR agonist and delta-OR antagonist eluxadoline is approved in the United States for the treatment of irritable bowel syndrome with diarrhea."

Our news journalists obtained a quote from the research, "In two separate crossover studies, we evaluated the oral and intranasal abuse potential of eluxadoline versus placebo and the active control oxycodone. Healthy recreational opioid users received eluxadoline 100, 300, and 1000 mg, oxycodone 30 and 60 mg, and placebo (oral study), or eluxadoline 100 and 200 mg, oxycodone 15 and 30 mg, and placebos matched to eluxadoline and oxycodone (intranasal study). In the oral study, Drug Liking Visual Analog Scale (VAS) peak (maximum) effect (E-max) score (primary endpoint) was significantly greater with eluxadoline 300 and 1000 mg versus placebo, but scores were significantly lower versus oxycodone. Following intranasal insufflation of eluxadoline, Drug Liking VAS E-max scores were not statistically different versus placebo, and were significantly lower versus oxycodone. Across other subjective measures, eluxadoline was generally similar to or disliked versus placebo. Pupillometry indicated no or minimal central effects with oral and intranasal eluxadoline, respectively. Adverse events of euphoric mood were reported with oral and intranasal eluxadoline but at a far lower frequency versus oxycodone."

According to the news editors, the research concluded: "These data demonstrate that eluxadoline has less abuse potential than oxycodone in recreational opioid users."


The news correspondents report that additional information may be obtained from N. Levy-Cooperman, Altreos Res Partners Inc, Toronto, ON M6P 1C6, Canada. Additional authors for this research include G. McIntyre, L. Bonifacio, M. McDonnell, J.M. Davenport, P.S. Covington, L.S. Dove and E.M. Sellers.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Oxycodone Therapy Hydrochloride, Central Nervous System Agents, G-Protein-Coupled Receptors, Neuropeptide Receptors, Drugs and Therapies, Narcotic
Data on Cervical Cancer Reported by Researchers at Shandong University (Theanine from tea and its semi-synthetic derivative TBrC suppress human cervical cancer growth and migration by inhibiting EGFR/Met-Akt∥NF-kappa B signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Cervical Cancer is now available. According to news reporting originating in Shandong, People's Republic of China, by NewsRx journalists, research stated, "Cervical cancer is the third most prevalent cancer among women worldwide. Theanine from tea and its derivatives show some anticancer activities."

The news reporters obtained a quote from the research from Shandong University, "However, the role of theanine and its derivatives against human cervical cancer and the molecular mechanisms of action remain unclear. Thus, in this study, we aim to investigate the anticancer activities and underlying mechanisms of theanine and a theanine derivative, ethyl 6-bromocoumarin-3-carboxylyl L-theanine (TBrC), against human cervical cancer. In vitro and in vivo assays for cancer cell growth and migration have confirmed the inhibition of the cell growth and migration by TBrC and theanine in highly-metastatic human cervical cancer. TBrC displays much stronger activity than theanine on inhibition of the cell growth and migration as well as induction of apoptosis and regulation of related protein expressions in the human cervical cancer cells. TBrC and theanine greatly reduced endogenous and exogenous factors-stimulated cell migration and completely repressed HGF-and EGF+ HGF-activated EGFR/Met-Alt/NF-kappa B signaling by reducing the phosphorylation and expressions of EGFR, Met, Alt, and NF-kappa B in cervical cancer cells. The enhancer of zeste homolog 2 (EZH2) knockdown decreased the cancer cell migration and NF-kappa B expression. The NE-KB knockdown reduced the cancer cell migration. TBrC and theanine reduced the EZH2 expression by more than 80%. In addition, TBrC and theanine significantly suppressed human cervical tumor growth in tumor-bearing nude mice without toxicity to the mice."

According to the news reporters, the research concluded: "Our results suggest that TBrC and theanine may have the potentials of the therapeutic and/or adjuvant therapeutic application in the treatment of human cervical cancer."


Our news correspondents report that additional information may be obtained by contacting Y.P. Sun, Shandong University, Jinan Cent Hosp, Dept. of Oncol, Jinan 250013, Shandong, People's Republic of China. Additional authors for this research include Y.P. Sun, H.R. Zhang, D.X. Ji, F. Wu, H.H. Tian, K. Liu, Y. Zhang, B.H. Wu and G.Y. Zhang.
Drugs and Therapies - Chemical Biology and Drug...  

Data on Chemical Biology and Drug Design Detailed by Researchers at School of Pharmaceutical Science (Synthesis and Evaluation of Biological and Antitumor Activities of Tetrahydrobenzothieno[2,3-d] Pyrimidine Derivatives as Novel Inhibitors of ...)  

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Chemical Biology and Drug Design is now available. According to news reporting out of Wenzhou, People's Republic of China, by NewsRx editors, research stated, "A series of tetrahydrobenzothieno[2,3-d]pyrimidine derivatives were designed, synthesized, and evaluated as inhibitors of FGFR1. These analogs were synthesized via Gewald's reaction under mild conditions."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from the School of Pharmaceutical Science, "The structures of the synthesized compounds were characterized by spectroscopic data (IR, (1) H NMR and MS). Their antitumor activities were evaluated against H460, A549 and U251 cell lines in vitro. Results revealed that the tested compounds showed moderate antitumor activities. Structure-activity relationship analyses indicated that compounds with an aromatic ring substituted in the C-2 position or with larger molecules such as 3g, 4c, and 7 were more effective than others. The compound, 3g (78.8% FGFR1 inhibition at 10 mm), was identified to have the most potent antitumor activities, with IC[50] values of 7.7, 18.9, and 13.3 mm against the H460, A549, and U251 cell lines, respectively."

According to the news editors, the research concluded: "Together, the results suggested that tetrahydrobenzothieno[2,3-d]pyrimidine derivatives may serve as a potential agent for the treatment of FGFR1-mediated cancers."


Our news journalists report that additional information may be obtained by contacting X. Wang, School of Pharmaceutical Sciences, Wenzhou Medical University, Wenzhou, 325035, People's Republic of China. Additional authors for this research include D. Chen, S. Yu, Z. Zhang, Y. Wang, X. Qi, W. Fu, Z. Xie and F. Ye.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12687. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Chemical Biology & Drug Design is:
Drugs and Therapies – Chemical Biology and Drug Design

Data on Chemical Biology and Drug Design Reported by Researchers at A.E. Arbuzov Institute of Organic and Physical Chemistry (Synthesis of New 'Hybrid' Compounds Based on Benzofuroxans and Aminoalkynaphthalimides)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Chemical Biology and Drug Design are discussed in a new report. According to news reporting out of Kazan, Russia, by NewsRx editors, research stated, "Pathogenic bacteria and fungi eventually develop resistance to existing drugs, and therefore, we need constant development of new drugs. The research is aimed at addressing fundamental scientific problems-the search for new biologically active compounds among several benzofuroxan-containing 'hybrid' products."

Funders for this research include Russian Foundation for Basic Research, Southern Federal University.

Our news journalists obtained a quote from the research from the A.E. Arbuzov Institute of Organic and Physical Chemistry, "N-substituted naphthalimides were chosen as a second pharmacophore. Benzofuroxanes biological effects were studied by means of bacterial lux-biosensors."

According to the news editors, the research concluded: "Compounds IIIa, IVa, IIIc, and IVc displayed more expressed bacteriotoxic action in comparison with the initial substances Ia-c and represent a certain interest for using as antibacterial substances."


Our news journalists report that additional information may be obtained by contacting E. Chugunova, AE Arbuzov Institute of Organic and Physical Chemistry, Kazan Scientific Center, Russian Academy of Sciences, Akad Arbuzov st 8, Kazan, 420088, Russia. Additional authors for this research include R. Mukhamatdinova, M. Sazykina, A. Dobrynin, I. Sazykin, A. Karpenko, E. Mirina, M. Zhuravleva, N. Gavrilov, S. Karchava and A. Burilov.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12685. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Chemical Biology & Drug Design is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Kazan, Russia, Eurasia, Drugs and Therapies, Chemical Biology and Drug Design.
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Drugs and Therapies - Chemotherapy

Data on Chemotherapy Described by Researchers at Flinders University (Motility patterns in mouse colon: gastrointestinal dysfunction induced by anticancer chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemotherapy. According to news reporting originating in Adelaide, Australia, by NewsRx editors, the research stated, "Colon cancer is a leading cause of cancer-related death in humans. 5-Fluorouracil (5-FU), a major chemotherapy treatment, has been used for decades to fight numerous types of cancers, including breast, colon, and head and neck carcinomas. Unfortunately, a large proportion of patients treated with 5-FU develop toxicities that include diarrhea, mucositis, neutropenia, and vomiting."

Financial support for this research came from National Health and Medical Research Council.

The news reporters obtained a quote from the research from Flinders University, "While the side effects of 5-FU are well known, the mechanisms underlying the induction of these unpleasant symptoms are poorly understood. The study by McQuade etal. in this issue of Neurogastroenterology & Motility provides important new potential explanations for the gastrointestinal (GI) dysfunction induced by 5-FU. These researchers carefully investigated an overlooked research area in which the symptoms of GI-motility dysfunction maybe due to an effect on the enteric nervous system. McQuade etal. delivered 5-FU treatment to mice and discovered an initial increase in GI transit (associated with acute intestinal inflammation), followed by a slowing in transit. Major differences were noted in characteristics of colonic migrating motor complexes. These effects maybe causally related to deficits in enteric ganglia or neurotransmission. Their study identified specific neurochemical classes of neurons in the myenteric plexus most affected by 5-FU. This is the first study to provide evidence that the functional intrinsic neural pathways within the enteric nervous system are likely impaired by 5-FU, leading to colonic dysmotility."

According to the news reporters, the research concluded: "This review will describe major patterns of motor activity in isolated whole mouse colon and how these patterns are modified by anticancer chemotherapy."


Our news correspondents report that additional information may be obtained by contacting N.J. Spencer, Flinders Univ South Australia, Sch Med, Center Neurosci, Adelaide, SA, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/nmo.12990. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Gastroenterology, Article Review, Drugs and Therapies, Chemotherapy, Flinders University.

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Drugs and Therapies - Chemotherapy

Data on Chemotherapy Reported by Researchers at Department of Hematology (A preclinical acute GVHD mouse model based on chemotherapy conditioning and MHC-matched transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Chemotherapy are presented in a new report. According to news reporting originating in Berlin, Germany, by NewsRx journalists, research stated, "Animal disease models have been criticized for lack of resemblance to human illnesses, hampering transfer of knowledge from preclinical research to clinical medicine. In the field of allogeneic hematopoietic stem cell transplantation (allo-HSCT), it is standard practice to study GVHD in lethal TBI-based murine models."

The news reporters obtained a quote from the research from the Department of Hematology, "Frequently, MHC-mismatched donors are used in GVHD models. In contrast, in clinical allo-HSCT conditioning with chemotherapy (plusminusTBI) is common and donors are often MHC-matched. Aiming at a more clinically oriented situation, we established and characterized a murine MHC-matched, minor histocompatibility antigen mismatched GVHD model (LP/J [H2k(b)]-- >C57BL/6 [H2k(b)]) using busulfan and cyclophosphamide conditioning. We found typical clinical and histological features of acute GVHD. T-cell infiltration, GVHD-specific damage and systemic inflammation were similar to observations made in patients after allo-HSCT. In survivors of acute GVHD, we found expansion of CD4+ T cells and the development of scleroderma-like chronic GVHD."

According to the news reporters, the research concluded: "The use of chemotherapy-based, minor histocompatibility antigen (miHA)-mismatched GVHD animal models may be a good option when studying clinically relevant questions in the field of allo-HSCT."

For more information on this research see: A preclinical acute GVHD mouse model based on chemotherapy conditioning and MHC-matched transplantation. Bone Marrow Transplantation, 2015;51(3):410-7. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news correspondents report that additional information may be obtained by contacting K. Riesner, Dept. of Hematology, Oncology and Tumor Immunology, Charite University Medicine, Berlin, Germany. Additional authors for this research include M. Kalupa, Y. Shi, S. Elezkurtaj and O. Penack.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bmt.2015.279. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.
Keywords for this news article include: Berlin, Europe, Germany, Immunology, Isoantigens, Chemotherapy, Drugs and Therapies, Histocompatibility Antigens.

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**Chromosome Structures**

**Data on Chromosome Structures Described by Researchers at Kumamoto University [HDAC9 regulates the alternative lengthening of telomere (ALT) pathway via the formation of ALT-associated PML bodies]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Chromosome Structures is now available. According to news reporting originating in Kumamoto, Japan, by NewsRx journalists, research stated, "Cancer cells overcome cellular senescence by activating the telomere maintenance mechanism, which can be either through telomerase or the alternative lengthening of telomeres (ALT). Being exclusive to cancer cells, targeting ALT is a more promising route for the development of drugs against cancer."

Funders for this research include Grant-in-Aid for Young Scientists B, Japan Society for the Promotion of Science.

The news reporters obtained a quote from the research from Kumamoto University, "The histone deacetylase (HDAC) family plays significant roles in various cellular processes. In addition to the regulation of gene expression, HDACs are also known to directly interact with many proteins. We focused on this family, and found that HDAC9 was up-regulated in ALT-positive cells. In ALT-positive cells treated with HDAC9 siRNA, there was a decrease in the telomere replicative capacity, which was evident from the C-circles assay. Furthermore, the formation of ALT-associated promyelocytic leukemia (PML) nuclear bodies (APBs) was inhibited by HDAC9 knockdown."

According to the news reporters, the research concluded: "Based on this study, it is suggested that HDAC9 regulates the formation of APBs and could be a candidate for the target of ALT-cancer therapy."

For more information on this research see: HDAC9 regulates the alternative lengthening of telomere (ALT) pathway via the formation of ALT-associated PML bodies. *Biochemical and Biophysical Research Communications*, 2016;481(1-2):25-30. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news correspondents report that additional information may be obtained by contacting K. Tomizawa, Kumamoto University, Dept. of Mol Physiol, Fac Life Sci, Chuo Ku, Kumamoto 8608556, Japan. Additional authors for this research include T. Kaitsuka, F. Hakim, A. Fujimura, F.Y. Wei, H. Saitoh and K. Tomizawa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.11.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kumamoto, Japan, Asia, Cell Nucleus
Data on Chronic Myeloid Leukemia Reported by A. Gratwohl and Co-Researchers (Long-term outcome of patients with newly diagnosed chronic myeloid leukemia: a randomized comparison of stem cell transplantation with drug treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Chronic Myeloid Leukemia is now available. According to news reporting originating in Basel, Switzerland, by NewsRx journalists, research stated, "Tyrosine kinase inhibitors represent today's treatment of choice in chronic myeloid leukemia (CML). Allogeneic hematopoietic stem cell transplantation (HSCT) is regarded as salvage therapy."

The news reporters obtained a quote from the research, "This prospective randomized CML-study IIIA recruited 669 patients with newly diagnosed CML between July 1997 and January 2004 from 143 centers. Of these, 427 patients were considered eligible for HSCT and were randomized by availability of a matched family donor between primary HSCT (group A; N=166 patients) and best available drug treatment (group B; N=261). Primary end point was long-term survival. Survival probabilities were not different between groups A and B (10-year survival: 0.76 (95% confidence interval (CI): 0.69-0.82) vs 0.69 (95% CI: 0.61-0.76)), but influenced by disease and transplant risk. Patients with a low transplant risk showed superior survival compared with patients with high-(p <0.001) and non-high-risk disease (p=0.047) in group B; after entering blast crisis, survival was not different with or without HSCT. Significantly more patients in group A were in molecular remission (56% vs 39%; p=0.005) and free of drug treatment (56% vs 6%; p<0.001). Differences in symptoms and Karnofsky score were not significant."

According to the news reporters, the research concluded: "In the era of tyrosine kinase inhibitors, HSCT remains a valid option when both disease and transplant risk are considered."

For more information on this research see: Long-term outcome of patients with newly diagnosed chronic myeloid leukemia: a randomized comparison of stem cell transplantation with drug treatment. Leukemia, 2015;30(3):562-9. (Nature Publishing Group - www.nature.com; Leukemia - www.nature.com/leu/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/leu.2015.281. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biomedicine, Basel, Europe, Surgery,
Clinical Research - Clinical Trials and Studies

Data on Clinical Trials and Studies Described by L.L. Winkler et al
(Substituting sugar confectionery with fruit and healthy snacks at checkout - a win-win strategy for consumers and food stores? a study on consumer attitudes and sales effects ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Clinical Research - Clinical Trials and Studies. According to news reporting out of Glostrup, Denmark, by NewsRx editors, research stated, "The widespread use of in-store marketing strategies to induce unhealthy impulsive purchases has implications for shopping experience, food choice and possibly adverse health outcomes. The aim of this study was to examine consumer attitudes and evaluate sales effects of a healthy checkout supermarket intervention."

Our news journalists obtained a quote from the research, "The study was part of Project Sundhed & Lokalsamfund (Project SoL); a Danish participatory community-based health promotion intervention. Consumer attitudes towards unhealthy snack exposure in supermarkets were examined in a qualitative pre-intervention study (29 short in-store interviews, 11 semi-structured interviews and three focus group interviews). Findings were presented to food retailers and informed the decision to test a healthy checkout intervention. Sugar confectionery at one checkout counter was substituted with fruit and healthy snacking items in four stores for 4 weeks. The intervention was evaluated by 48 short exit interviews on consumer perceptions of the intervention and by linear mixed model analyses of supermarket sales data from the intervention area and a matched control area. The qualitative pre-intervention study identified consumer concern and annoyance with placement and promotion of unhealthy snacks in local stores. Store managers were willing to respond to local consumer concern and a healthy checkout intervention was therefore implemented. Exit interviews found positive attitudes towards the intervention, while intervention awareness was modest. Most participants believed that the intervention could help other consumers make healthier choices, while fewer expected to be influenced by the intervention themselves. Statistical analyses suggested an intervention effect on sales of carrot snack packs when compared with sales before the intervention in Bornholm control stores (P < 0.05). No significant intervention effect on sales of other intervention items or sugar confectionery was found. The present study finds that the healthy checkout intervention was positively evaluated by consumers and provided a 'responsible' branding opportunity for supermarkets, thus representing a win-win strategy for store managers and consumers in the short term. However, the intervention was too modest to draw conclusions on long-term sales and health implications of this initiative."

According to the news editors, the research concluded: "More research is needed to assess whether retailer-researcher collaborations on health promotion can be a winning strategy for public health."

For more information on this research see: Substituting sugar confectionery with

Our news journalists report that additional information may be obtained by contacting L.L. Winkler, Rigshosp Glostrup, Center Hlth, Res Center Prevent & Hlth, DK-2600 Glostrup, Denmark. Additional authors for this research include U. Christensen, C. Glumer, P. Bloch, B.E. Mikkelsen, B. Wansink and U. Toft.

Keywords for this news article include: Glostrup, Denmark, Europe, Clinical Trials and Studies, Clinical Research.

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**Clinical Research - Clinical Trials and Studies**

**Data on Clinical Trials and Studies Described by Researchers at Chung Ang University Hospital (Comparative study of the effects of bupropion and escitalopram on Internet gaming disorder)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Clinical Research - Clinical Trials and Studies is the subject of a report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "We compared the efficacy of bupropion and escitalopram treatments in Internet gaming disorder (IGD) patients. We recruited 119 adolescents and adults with IGD."

Our news editors obtained a quote from the research from Chung Ang University Hospital, "We treated these participants for 6 weeks in three groups as follows: 44 participants were treated with bupropion SR (bupropion group), 42 participants were treated with escitalopram (escitalopram group), and 33 patients without any medication were observed in the community (observation group). At baseline and at the 6-week follow-up visit, all subjects were evaluated using the Clinical Global Impression-Severity Scale, the Young Internet Addiction Scale, the Beck Depression Inventory, the ADHD Rating Scale, and the Behavioral Inhibition and Activation Scales. Both the escitalopram group and the bupropion group showed improvement on all clinical symptom scales after 6 weeks of treatment compared to the observation group. Additionally, the bupropion group showed greater improvement on scores for the Clinical Global Impression-Severity Scale, the Young Internet Addiction Scale, the ADHD Rating Scale, and the Behavioral Inhibition Scale than the escitalopram group. Both bupropion and escitalopram were effective in treating and managing IGD symptoms. Moreover, bupropion appeared to be more effective than escitalopram in improving attention and impulsivity in IGD patients."

According to the news editors, the research concluded: "In addition, attention and impulsivity seem to be important for the management of IGD."

The news correspondents report that additional information may be obtained from T.
Bertsche, University of Leipzig, Dept. of Clin Pharm, D-04317 Leipzig, Germany. Additional authors for this research include K. Moritz, S.J. Seichter, M. Ghanem, G. von Salis-Soglio, R. Frontini and T. Bertsche.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11096-016-0311-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leipzig, Germany, Europe, Central Nervous System Agents, Clinical Trials and Studies, Drugs and Therapies, Clinical Research, Pain Assessment, Pain Management, Pain Medicine, Algorithms, Analgesics, University of Leipzig.

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Clinical Research - Clinical Trials and Studies

Data on Clinical Trials and Studies Reported by Researchers at University of Paris [Randomized controlled trial of the NS5A inhibitor daclatasvir plus pegylated interferon and ribavirin for HCV genotype-4 (COMMAND-4)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Clinical Research - Clinical Trials and Studies. According to news reporting out of Creteil, France, by NewsRx editors, research stated, "Treatment options for HCV genotype-4 (GT4) are limited. This Phase III study (COMMAND-4; AI444-042) evaluated the efficacy and safety of daclatasvir (DCV), a pan-genotypic HCV NS5A inhibitor, with pegylated interferon-alpha 2a/ribavirin (PEG-IFN/RBV) in treatment-naive patients with HCV GT4 infection."

Our news journalists obtained a quote from the research from the University of Paris, "Patients were randomly assigned (2:1; blinded) to treatment with DCV 60 mg (n=82) or placebo (n=42) once daily plus PEG-IFN 180 mcg weekly and RBV 1,000-1,200 mg/day (weight-based) twice daily. DCV-treated patients with undetectable HCV RNA at weeks 4 and 12 (eRVR) received 24 weeks of DCV plus PEG-IFN/RBV; those without eRVR received an additional 24 weeks of PEG-IFN/RBV. All placebo-treated patients received 48 weeks of PEG-IFN/RBV. The primary end point was sustained virological response (SVR) at post-treatment week 12 (SVR12). Patients were 75% IL28B non-CC and 11% had cirrhosis. SVR rates (HCV RNA < lower limit of quantitation [LLOQ]) at post-treatment week 12 or later (imputed to include patients missing SVR12 assessments but had SVR after post-treatment week 12) were 82% (67/82) with DCV plus PEG-IFN/RBV versus 43% (18/42) with PEG-IFN/RBV (P <0.0001). In DCV recipients, SVR12 rates were comparable across subgroups. The safety and tolerability profile of DCV plus PEG-IFN/RBV was comparable to that of PEG-IFN/RBV. Discontinuations due to adverse events occurred in 4.9% of patients receiving DCV plus PEG-IFN/RBV and 7.1% of patients receiving PEG-UN/RBV. In treatment-naive patients with HCV GT4 infection, DCV plus PEG-IFN/RBV achieved higher SVR12 rates than PEG-IFN/RBV alone."

According to the news editors, the research concluded: "These data support DCV-based regimens for treatment of HCV GT4 infection, including all-oral combinations with other direct-acting antivirals (AI444-042; ClinicalTrials.gov NCT01448044)."

Our news journalists report that additional information may be obtained by contacting C. Hezode, Univ Paris Est, INSERM, U955, Hopital Henri Mondor AP HP, Creteil, France. Additional authors for this research include L. Alric, A. Brown, T. Hassanein, M. Rizzetto, M. Buti, M. Bourliere, D. Thabut, E. Molina, V. Rustgi, D. Samuel, F. McPhee, Z.H. Liu, P.D. Yin, E. Hughes and M. Treitel.

Keywords for this news article include: Creteil, France, Europe, Intercellular Signaling Peptides and Proteins, Clinical Trials and Studies, Clinical Research, Interferons, Cytokines, Genetics, University of Paris.

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**Clinical Research - Clinical Trials and Studies**

**Data on Clinical Trials and Studies Reported by Researchers at University of Texas (Incidence of Atypical Femur Fractures in Cancer Patients: The MD Anderson Cancer Center Experience)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Atypical femoral fractures (AFFs) are rare adverse events attributed to bisphosphonate (BP) use. Few cases of AFF in cancer have been described; the aim of this study is to identify the incidence and risk factors for AFF in a large cancer center."

Our news editors obtained a quote from the research from the University of Texas, "This retrospective study was conducted at the MD Anderson Cancer Center. The incidence rate of AFF among BP users was calculated from January 1, 2004 through December 31, 2013. The control group (n = 51) included 2 or 3 patients on BPs matched for age (<= 1 year) and gender. Logistic regression analysis was used to assess the relationship between clinical characteristics and AFF. Twenty-three AFF cases were identified radiographically among 10,587 BP users, the total BP exposure was 53,789 months (4482 years), and the incidence of AFF in BP users was 0.05 cases per 100,000 person-years. Meanwhile, among 300,553 patients who did not receive BPs there were 2 cases of AFF as compared with the 23 cases noted above. The odds ratio (OR) of having AFF in BP users was 355.58 times higher (95% CI, 84.1 to 1501.4, p< 0.0001) than the risk in non-BP users. The OR of having AFF in alendronate users was 5.54 times greater (OR 5.54 [95% CI, 1.60 to 19.112, p = 0.007]) than the odds of having AFF among other BP users. Patients who were on zoledronic acid (ZOL) had smaller odds of developing AFF compared with other BP users in this matched case control sample. AFFs are rare, serious adverse events that occur in patients with cancer who receive BP therapy."

According to the news editors, the research concluded: "Patients with cancer who receive BPs for prior osteoporosis therapy or for metastatic cancer are at higher risk of AFF."

For more information on this research see: Incidence of Atypical Femur Fractures in Cancer Patients: The MD Anderson Cancer Center Experience. *Journal of Bone and Mineral*
Drugs and Therapies - Coagulation Modifiers

Data on Coagulation Modifiers Detailed by Researchers at Seoul National University (End-Site-Specific Conjugation of Enoxaparin and Tetradeoxycholic Acid Using Nonenzymatic Glycosylation for Oral Delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Coagulation Modifiers is now available. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Heparin and low molecular weight heparins (LMWHs) have been the drug of choice for the treatment or the prevention of thromboembolic disease. Different methods are employed to prepare the LMWHs that are clinically approved for the market currently."

Funders for this research include Ministry of Health and Welfare, Korea Drug Development Fund, National Research Foundation of Korea.

Our news journalists obtained a quote from the research from Seoul National University, "In particular, enoxaparin, which has a reducing sugar moiety at the end-site of polysaccharide, is prepared by alkaline depolymerization. Focusing on this end-site-specific activity of LMWHs, we conjugated the tetraoligomer of deoxycholic acid (TetraDOCA; TD) at the end-site of enoxaparin via nonenzymatic glycosylation reaction. The end-site-specific conjugation is important for polysaccharide drug development because of the heterogeneity of polysaccharides. This study also showed that orally active enoxaparin and tetraDOCA conjugate (EnoxaTD) had therapeutic effect on deep vein thrombosis (DVT) without bleeding in animal models."

According to the news editors, the research concluded: "Considering the importance of end-specific conjugation, these results suggest that EnoxaTD could be a drug candidate for oral heparin development."

For more information on this research see: End-Site-Specific Conjugation of Enoxaparin and Tetradeoxycholic Acid Using Nonenzymatic Glycosylation for Oral Delivery. Journal of Medicinal Chemistry, 2016;59(23):10520-10529. Journal of Medicinal Chemistry can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Journal of Medicinal Chemistry -
www.pubs.acs.org/journal/jmcmar

Our news journalists report that additional information may be obtained by contacting Y. Byun, Seoul National University, Grad Sch Convergence Sci & Technol, Dept. of Mol Med & Biopharmaceut Sci, Seoul 151742, South Korea. Additional authors for this research include O.C. Jeon, J. Yun, H. Nam, J. Hwang, T.A. Al-Hilal, K. Kim, K. Kim and Y. Byun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jmedchem.6b00936. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Coagulation Modifiers, Drugs and Therapies, Fibrinolytic Agents, Enoxaparin Therapy, Anticoagulants, Heparins, Seoul National University.

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Oncology - Colon Cancer

Data on Colon Cancer Detailed by Researchers at Fujian Medical University (Overexpression of KiSS-1 reduces colorectal cancer cell invasion by downregulating MMP-9 via blocking PI3K/Akt/NF-kB signal pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting originating from Fujian, People's Republic of China, by NewsRx correspondents, research stated, "Metastasis of colorectal cancer (CRC) depends critically on MMP-9. KiSS-1 is a human malignant melanoma metastasis-suppressor gene."

Our news editors obtained a quote from the research from Fujian Medical University, "Thus, the interaction between MMP-9 and KiSS-1 has drawn considerable attention in recent years. In the present study, it was hypothesized that KiSS-1 gene could repress the metastatic potential of colorectal cancer cells by inhibiting the expression of MMP-9. Stable transfection of KiSS-1 specific siRNA and KiSS-1 expression vector in human CRC cell line HCT-116 was achieved by lentivirus infection. Moreover, the cell proliferation, invasiveness, and apoptosis were evaluated by CCK-8 method, transwell experiment, and fluorescence activated cell sorter, respectively. We also investigated the expression of MMP-9, PI3K, Akt, pAKt, and NF-kB subunit p65 using western blotting. KiSS-1 overexpression significantly decreased the cell proliferation and invasiveness of HCT-119 cells, while apoptosis was enhanced. The result of western blotting showed that synthesis of MMP-9, PI3K, p65, and phosphorylation of Akt were significantly blocked by overexpression of KiSS-1. Concatenated treatment of KiSS-1 overexpression vector with PI3K and Akt agonists attenuated the effect of KiSS-1 on the biological activity of CRC cells and also released the expression of MMP-9, PI3K, p65, and phosphorylation of Akt from the influence of overexpression of KiSS-1."

According to the news editors, the research concluded: "Overexpression of KiSS-1 suppressed the invasiveness of CRC cells, and the gene exerted its function by reducing the expression of MMP-9 via blocking of the PI3K/Akt/NF-kB pathway."

For more information on this research see: Overexpression of KiSS-1 reduces colorectal cancer cell invasion by downregulating MMP-9 via blocking PI3K/Akt/NF-kB signal pathway.
Data on Colon Cancer Reported by Researchers at China Medical University and Hospital (Dysregulation of MicroRNA-543 expression in colorectal cancer promotes tumor migration and invasion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news reporting out of Shenyang, People's Republic of China, by NewsRx editors, research stated, "MicroRNAs (miRNAs) have been proven to act as key post-transcriptional regulators of gene expression, involved in the genesis and development of multiple tumor types. However, the expression and roles of miR-543 in colorectal cancer (CRC) remain unknown."

Our news journalists obtained a quote from the research from China Medical University and Hospital, "Here, we found that miR-543 was constitutively up-regulated in CRC tissues and its over-expression promoted tumor cell migration and invasion. Moreover, we identified PTEN as a direct target of miR-543 using subsequent software analysis and a dual-luciferase reporter assay."

According to the news editors, the research concluded: "Data presented here demonstrate that miR-543 acts as a tumor promoter and plays a vital role in CRC metastasis. These findings confirm that miR-543 may potentially serve as a novel therapeutic target for treating CRC."


Our news journalists report that additional information may be obtained by contacting J.P. Zhou, China Med Univ, Hosp 1, Dept. of Gen Surg, Gastrointestinal Surg, Shenyang 110001, Liaoning Provin, People's Republic of China. Additional authors for this research include J.P. Zhou, M. Dong and W.W. Sheng.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, China Medical
Data on Congenital Heart Disease Described by Researchers at Cleveland Clinic (Use of dofetilide in adult patients with atrial arrhythmias and congenital heart disease: A PACES collaborative study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Congenital Diseases and Conditions - Congenital Heart Disease are presented in a new report. According to news reporting originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Arrhythmia management has become the major treatment challenge in adult patients with congenital heart disease (ACHD). We sought to investigate the utility and safety profile of dofetilide for atrial arrhythmias in ACHD."

Our news editors obtained a quote from the research from Cleveland Clinic, "A retrospective chart review was performed. We included patients (age >= 18 years) with congenital heart disease who had atrial fibrillation (AF) or intra-atrial reentrant tachycardia treated with dofetilide. We identified 64 patients with a mean age at initiation of 42.14 years. ACHD type included single ventricle (n = 19, 30%), transposition of the great arteries (n = 14, 22%), atrial septal defect (n = 9, 14%), tetralogy of Fallot (n = 8, 12%), atrioventricular canal defect (n = 5, 8%), mitraValvular stenosis (n = 7, 11%), and other (n = 2, 3%). Thirty-five (55%) had atrial fibrillation, and 29 (45%) had intra-atrial reentrant tachycardia. A total of 3 (4.7%) patients had major inpatient adverse events: torsades de pointes (n = 1, 1.5%), ventricular tachycardia (n = 1, 1.5%), and corrected QT prolongation requiring discontinuation (n = 1, 1.5%). Dofetilide was discontinued in 1 patient because of sinus node dysfunction, and another patient discontinued therapy before discharge because of persistent arrhythmia. Of the patients who were discharged on dofetilide (n = 59, 92%), 40 (68%) had adequate rhythm control and 19 (32%) had partial rhythm control. After a median follow-up of 3 years, 29 (49%) patients remained on dofetilide and 2 (3%) patients died. Reasons for discontinuation included waning effect (n = 16, 57%), side effects (n = 5, 18%), noncompliance (n = 2, 7%), successful ablation (n = 3, 11%), high cost (n = 1, 3.5%), and unknown (n = 1, 3.5%). Dofetilide remains a viable antiarrhythmic drug option in this challenging population. At 3 years, 49% remained on dofetilide."

According to the news editors, the research concluded: "Close monitoring of renal function, concomitant medications, and corrected QT interval is required."


The news editors report that additional information may be obtained by contacting P.F. Aziz, Cleveland Clin Childrens, Div Pediat Cardiol, Cleveland, OH, United States. Additional authors for this research include S.G. Al-Kindi, J. Abraham, S. Sanatani, D.J. Bradley, C. Halsey, I.H. Law, S. Balaji, I. Shetty and P.F. Aziz.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.07.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Cardiovascular Diseases and Conditions, Congenital Diseases and Conditions, Heart Disorders and Diseases, Congenital Heart Disease, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Cardiac Arrhythmias, Atrial Fibrillation, Dofetilide Therapy, Pharmaceuticals, Tachycardia, Cardiology, Cleveland Clinic.

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Intracellular Signaling Peptides and Proteins - Cyclin G

Data on Cyclin G Reported by Researchers at Osaka University
(Comprehensive phenotypic analysis of knockout mice deficient in cyclin G1 and cyclin G2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Intracellular Signaling Peptides and Proteins - Cyclin G have been published. According to news reporting originating from Osaka, Japan, by NewsRx correspondents, research stated, "Cyclin G1 (CycG1) and Cyclin G2 (CycG2) play similar roles during the DNA damage response (DDR), but their detailed roles remain elusive. To investigate their distinct roles, we generated knockout mice deficient in CycG1 (G1KO) or CycG2 (G2KO), as well as double knockout mice (DKO) deficient in both proteins."

Our news editors obtained a quote from the research from Osaka University, "All knockouts developed normally and were fertile. Generation of mouse embryonic fibroblasts (MEFs) from these mice revealed that G2KO MEFs, but not G1KO or DKO MEFs, were resistant to DNA damage insults caused by camptothecin and ionizing radiation (IR) and underwent cell cycle arrest. CycG2, but not CycG1, co-localized with H2AX foci in the nucleus after gamma-IR, and gamma H2AX-mediated DNA repair and dephosphorylation of CHK2 were delayed in G2KO MEFs. H2AX associated with CycG1, CycG2, and protein phosphatase 2A (PP2A), suggesting that H2AX affects the function of PP2A via direct interaction with its B' subunit. Furthermore, expression of CycG2, but not CycG1, was abnormal in various cancer cell lines. Kaplan-Meier curves based on TCGA data disclosed that head and neck cancer patients with reduced CycG2 expression have poorer clinical prognoses."

According to the news editors, the research concluded: "Taken together, our data suggest that reduced CycG2 expression could be useful as a novel prognostic marker of cancer."

For more information on this research see: Comprehensive phenotypic analysis of knockout mice deficient in cyclin G1 and cyclin G2. Scientific Reports, 2016;6():1-12. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Enzymes and Coenzymes - Cysteine Endopeptidases

Data on Cysteine Endopeptidases Reported by Researchers at RIKEN (Calpain research for drug discovery: challenges and potential)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Enzymes and Coenzymes - Cysteine Endopeptidases have been presented. According to news reporting originating from Saitama, Japan, by NewsRx correspondents, research stated, "Calpains are a family of proteases that were scientifically recognized earlier than proteasomes and caspases, but remain enigmatic. However, they are known to participate in a multitude of physiological and pathological processes, performing 'limited proteolysis' whereby they do not destroy but rather modulate the functions of their substrates."

Our news editors obtained a quote from the research from RIKEN, "Calpains are therefore referred to as 'modulator proteases'. Multidisciplinary research on calpains has begun to elucidate their involvement in pathophysiological mechanisms. Therapeutic strategies targeting malfunctions of calpains have been developed, driven primarily by improvements in the specificity and bioavailability of calpain inhibitors."

According to the news editors, the research concluded: "Here, we review the calpain superfamily and calpain-related disorders, and discuss emerging calpain-targeted therapeutic strategies."


The news editors report that additional information may be obtained by contacting T.C. Saido, RIKEN Brain Sci Inst, Lab Proteolyt Neurosci, Wako, Saitama 3510198, Japan. Additional authors for this research include T.C. Saido and H. Sorimachi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrd.2016.212. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Saitama, Japan, Asia, Protease, Article Review, Drugs and Therapies, Cysteine Endopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Calpain, RIKEN.

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Cystic Fibrosis

Data on Cystic Fibrosis Reported by Researchers at School of Medicine (Molecular Epidemiology of Mutations in Antimicrobial Resistance Loci of Pseudomonas aeruginosa Isolates from Airways of Cystic Fibrosis Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cystic Fibrosis are discussed in a new report. According to news reporting originating in Hannover, Germany, by NewsRx journalists, research stated, "The chronic airway infections with Pseudomonas aeruginosa in people with cystic fibrosis (CF) are treated with aerosolized antibiotics, oral fluoroquinolones, and/or intravenous combination therapy with aminoglycosides and beta-lactam antibiotics. An international strain collection of 361 P. aeruginosa isolates from 258 CF patients seen at 30 CF clinics was examined for mutations in 17 antimicrobial susceptibility and resistance loci that had been identified as hot spots of mutation by genome sequencing of serial isolates from a single CF clinic."

Financial supporters for this research include Hannover Biomedical Research School HBRS, Deutsche Forschungsgemeinschaft (DFG).

The news reporters obtained a quote from the research from the School of Medicine, "Combinatorial amplicon sequencing of pooled PCR products identified 1,112 sequence variants that were not present in the genomes of representative strains of the 20 most common clones of the global P. aeruginosa population. A high frequency of singular coding variants was seen in spuE, mexA, gyrA, rpoB, fusA1, mexZ, mexY, oprD, ampD, parR, parS, and envZ (amgS), reflecting the pressure upon P. aeruginosa in lungs of CF patients to generate novel protein variants. The proportion of nonneutral amino acid exchanges was high. Of the 17 loci, mexA, mexZ, and pagL were most frequently affected by independent stop mutations."

According to the news reporters, the research concluded: "Private and de novo mutations seem to play a pivotal role in the response of P. aeruginosa populations to the antimicrobial load and the individual CF host."

For more information on this research see: Molecular Epidemiology of Mutations in Antimicrobial Resistance Loci of Pseudomonas aeruginosa Isolates from Airways of Cystic Fibrosis Patients. Antimicrobial Agents and Chemotherapy, 2016;60(11):6726-6734. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00724-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hannover, Germany, Europe, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Gram-Negative Aerobic Rods and Cocci, Pancreatic Diseases and Conditions, Gram-Negative Aerobic Bacteria, Lung Diseases and Conditions, Antimicrobial Resistance, Gram-Negative Bacteria,
Pseudomonas aeruginosa, Gammaproteobacteria, Drugs and Therapies, Pseudomonadaceae, Drug Resistance, Cystic Fibrosis, Proteobacteria, Antimicrobials, Epidemiology, Genetics, School of Medicine.

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Herpesvirus Diseases and Conditions -...

**Data on Cytomegalovirus Reported by B. Pignoloni and Co-Researchers**

(Distinct Roles for Human Cytomegalovirus Immediate Early Proteins IE1 and IE2 in the Transcriptional Regulation of MICA and PVR/CD155 Expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Herpesvirus Diseases and Conditions - Cytomegalovirus have been published. According to news originating from Isernia, Italy, by NewsRx correspondents, research stated, "Elimination of virus-infected cells by cytotoxic lymphocytes is triggered by activating receptors, among which NKG2D and DNAM-1/CD226 play an important role. Their ligands, that is, MHC class I-related chain (MIC) A/B and UL16-binding proteins (ULBP) 1-6 (NKG2D ligand), Nectin-2/CD112, and poliovirus receptor (PVR)/CD155 (DNAM-1 ligand), are often induced on virus-infected cells, although some viruses, including human CMV (HCMV), can block their expression."

Our news journalists obtained a quote from the research, "In this study, we report that infection of different cell types with laboratory or low-passage HCMV strains upregulated MICA, ULBP3, and PVR, with NKG2D and DNAM-1 playing a role in NK cell-mediated lysis of infected cells. Inhibition of viral DNA replication with phosphonoformic acid did not prevent ligand upregulation, thus indicating that early phases of HCMV infection are involved in ligand increase. Indeed, the major immediate early (IE) proteins IE1 and IE2 stimulated the expression of MICA and PVR, but not ULBP3. IE2 directly activated MICA promoter via its binding to an IE2-responsive element that we identified within the promoter and that is conserved among different alleles of MICA. Both IE proteins were instead required for PVR upregulation via a mechanism independent of IE DNA binding activity. Finally, inhibiting IE protein expression during HCMV infection confirmed their involvement in ligand increase. We also investigated the contribution of the DNA damage response, a pathway activated by HCMV and implicated in ligand regulation. However, silencing of ataxia telangiectasia mutated, ataxia telangiectasia and Rad3-related protein, and DNA-dependent protein kinase did not influence ligand expression."

According to the news editors, the research concluded: "Overall, these data reveal that MICA and PVR are directly regulated by HCMV IE proteins, and this may be crucial for the onset of an early host antiviral response."

For more information on this research see: Distinct Roles for Human Cytomegalovirus Immediate Early Proteins IE1 and IE2 in the Transcriptional Regulation of MICA and PVR/CD155 Expression. *Journal of Immunology*, 2016;197(10):4066-4078. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news correspondents report that additional information may be obtained from A. Santoni, Mediterranean Neurol Inst Neuromed, I-86077 Pozzilli, Isernia, Italy. Additional
authors for this research include C. Fionda, V. Dell'Oste, A. Luganini, M. Cippitelli, A. Zingoni, S. Landolfo, G. Gribaudo, A. Santoni and C. Cerboni.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1502527. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Isernia, Italy, Europe, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Viral Regulatory and Accessory Proteins, Herpesvirus Diseases and Conditions, Cerebellar Diseases and Conditions, Metabolic Diseases and Conditions, Vascular Diseases and Conditions, DNA Repair-Deficiency Disorders, Brain Diseases and Conditions, Neurologic Manifestations, Immediate-Early Proteins, Neurocutaneous Syndromes, Spinocerebellar Ataxias, Human Cytomegalovirus, Ataxia Telangiectasia, Betaherpesvirinae, Viral Proteins, Herpesviridae, Dermatology, Amino Acids, Dyskinesias, DNA Viruses, Viral DNA, Neurology, Peptides, Virology, Genetics.

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Cytoplasmic Vesicles

Data on Cytoplasmic Vesicles Detailed by Researchers at China University of Science and Technology (Giant Cellular Vacuoles Induced by Rare Earth Oxide Nanoparticles are Abnormally Enlarged Endo/Lysosomes and Promote mTOR-Dependent TFEB Nucleus ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cytoplasmic Vesicles. According to news reporting from Anhui, People's Republic of China, by NewsRx journalists, research stated, "Many nanomaterials are reported to disrupt lysosomal function and homeostasis, but how cells sense and then respond to nanomaterial-elicited lysosome stress is poorly understood. Nucleus translocation of transcription factor EB (TFEB) plays critical roles in lysosome biogenesis following lysosome stress induced by starvation."

Funders for this research include National Basic Research Program of China, National Natural Science Foundation of China, China Postdoctoral Science Foundation.

The news correspondents obtained a quote from the research from the China University of Science and Technology, "The authors previously reported massive cellular vacuolization, along with autophagy induction, in cells treated with rare earth oxide (REO) nanoparticles. Here, the authors identify these giant cellular vacuoles as abnormally enlarged and alkalinized endo/lysosomes whose formation is dependent on macropinocytosis. This vacuolization causes deactivation of mammalian target of rapamycin (mTOR), a TFEB-interacting kinase that resides on the lysosome membrane. Subsequently, TFEB is dephosphorylated at serine 142 and translocated into cell nucleus. This nucleus translocation of TFEB is observed only in vacuolated cells and it is critical for maintaining lysosome homeostasis after REO nanoparticle treatment, as knockdown of TFEB gene significantly compromises lysosome function and enhances cell death in nanoparticle-treated cells."

According to the news reporters, the research concluded: "Our results reveal that cellular vacuolization, which is commonly observed in cells treated with REOs and other nanomaterials, represents a condition of profound lysosome stress, and cells sense and respond
to this stress by facilitating mTOR-dependent TFEB nucleus translocation in an effort to restore lysosome homeostasis."

For more information on this research see: Giant Cellular Vacuoles Induced by Rare Earth Oxide Nanoparticles are Abnormally Enlarged Endo/Lysosomes and Promote mTOR-Dependent TFEB Nucleus Translocation. *Small*, 2016;12(41):5759-5768. Small can be contacted at: Wiley-VCH Verlag GmbH, Postfach 101161, 69451 Weinheim, Germany. (Wiley-Blackwell - www.wiley.com/; Small - onlinelibrary.wiley.com/journal/10.1002/(ISSN) 1613-6829)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201601903. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Anhui, People's Republic of China, Asia, Cytoplasmic Structures, Emerging Technologies, Cytoplasmic Vesicles, Intracellular Space, Nanotechnology, Nanomaterial, Nanoparticle, Lysosomes, Genetics, China University of Science and Technology.

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DNA Research

Data on DNA Research Reported by Researchers at Seoul National University [BioVLAB-mCpG-SNP-EXPRESS: A system for multi-level and multi perspective analysis and exploration of DNA methylation, sequence variation (SNPs), and gene expression from ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in DNA Research. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Measuring gene expression, DNA sequence variation, and DNA methylation status is routinely done using high throughput sequencing technologies. To analyze such multi-omics data and explore relationships, reliable bioinformatics systems are much needed."

Our news editors obtained a quote from the research from Seoul National University, "Existing systems are either for exploring curated data or for processing omics data in the form of a library such as IL Thus scientists have much difficulty in investigating relationships among gene expression, DNA sequence variation, and DNA methylation using multi-omics data. In this study, we report a system called BioVLAB-mCpG-SNP-EXPRESS for the integrated analysis of DNA methylation, sequence variation (SNPs), and gene expression for distinguishing cellular phenotypes at the pairwise and multiple phenotype levels. The system can be deployed on either the Amazon cloud or a publicly available high-performance computing node, and the data analysis and exploration of the analysis result can be conveniently done using a web-based interface. In order to alleviate analysis complexity, all the process are fully automated, and graphical workflow system is integrated to represent real-time analysis progression. The
BioVLAB-mCpG-SNP-EXPRESS system works in three stages. First, it processes and analyzes multi-omics data as input in the form of the raw data, i.e., FastQ files. Second, various integrated analyses such as methylation vs. gene expression and mutation vs. methylation are performed. Finally, the analysis result can be explored in a number of ways through a web interface for the multi-level, multi-perspective exploration. Multi-level interpretation can be done by either gene, gene set, pathway or network level and multi-perspective exploration can be explored from either gene expression, DNA methylation, sequence variation, or their relationship perspective. The utility of the system is demonstrated by performing analysis of phenotypically distinct 30 breast cancer cell line data set.

According to the news editors, the research concluded: "BioVLAB-mCpG-SNP-EXPRESS is available at http://biohealth.snu.ac.kr/software/biovlab_mcpg.snp_express/".

For more information on this research see: BioVLAB-mCpG-SNP-EXPRESS: A system for multi-level and multi perspective analysis and exploration of DNA methylation, sequence variation (SNPs), and gene expression from multi-omics data. Methods, 2016;111 ():64-71. Methods can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Methods - www.journals.elsevier.com/methods/)

The news editors report that additional information may be obtained by contacting S. Kim, Seoul National University, Interdisciplinary Program Bioinformat, Seoul, South Korea. Additional authors for this research include S. Lee, S. Seo, D. Jung, H. Chang, K.P. Nephew and S. Kim.

Keywords for this news article include: Seoul, South Korea, Asia, Genetics, Genetics, DNA Research, Seoul National University.

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Proteins - DNA-Binding Proteins

Data on DNA-Binding Proteins Described by Researchers at Jiangsu Province Academy of Traditional Chinese Medicine (Icariside II inhibits the EMT of NSCLC cells in inflammatory microenvironment via down-regulation of Akt/NF-kappa B signaling ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Proteins - DNA-Binding Proteins have been published. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "Inflammatory microenvironment created by immune cells is favorable for tumor metastasis. Epithelial-mesenchymal transition (EMT) is involved in the progression of cancer invasion and metastasis in inflammatory microenvironment."

Our news journalists obtained a quote from the research from the Jiangsu Province Academy of Traditional Chinese Medicine, "In this study, we sought to investigate the effects of Icariside II, a flavonol glycoside isolated from Epimedium koreanum Nakai, on A549 and H1299 cells migration in inflammatory microenvironment. At non-cytotoxic concentrations, Icariside II could inhibit invasion and EMT of A549 and H1299 cells induced by LPS-stimulated-THP-1 medium or by pro-inflammatory cytokine tumor necrosis factor- (TNF-). Exposure to Icariside II resulted in the increment of E-cadherin, accompanied with decrement of N-cadherin, vimentin, Slug, and Snail in A549 and H1299 cells stimulated by TNF1.
Furthermore, Icariside II suppressed TNF--triggered nuclear translocation of NF-B and phosphorylation of IB, and repressed the DNA-binding activity of NF-B. Further data demonstrated that Akt/GSK-3, other than MAPK signaling pathway was taking a part in the inhibitory potential of Icariside II on NF-B activation. Importantly, Icariside II also impeded lung metastasis of A549 cells and EMT in nude mice."

According to the news editors, the research concluded: "Icariside II might prohibit invasion through inactivating Akt/NF-B pathway."


Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, NF-kappa B, Jiangsu Province Academy of Traditional Chinese Medicine.

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Data on Dementia Reported by Researchers at Tokyo Women's Medical University (Serum high-molecular-weight adiponectin level and incident dementia in patients with vascular risk factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Dementia have been published. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "The involvement of metabolic factors in the development of dementia has received much attention. However, previous studies have yielded conflicting results regarding how blood adipocytokine level impacts cognitive decline and dementia."

Financial support for this research came from Ministry of Health, Labour and Welfare.

The news reporters obtained a quote from the research from Tokyo Women's Medical University, "This study aimed to clarify whether serum high-molecular-weight (HMW) adiponectin level is related to incident dementia. Data were from 466 patients (mean age 67.8 years, male 57%)--who had normal cognitive function and received brain magnetic resonance imaging--from amongst the 1106 patients in the Osaka Follow-up Study for Carotid Atherosclerosis, Part 2, a prospective cohort study of cardiovascular events and dementia amongst patients with vascular risk factors enrolled between 2001 and 2009. Baseline HMW adiponectin levels were measured using frozen serum. Dementia occurrence was examined in June 2013. Serum HMW adiponectin level was 4.33 ? 2.95 mg/ml; the levels were lower in men than in women and negatively correlated with body mass index. During the follow-up period
(median 6.9 years), 47 patients had incident dementia including Alzheimer's disease dementia (27), vascular dementia (13), mixed dementia (four), other dementia (three). Risks of dementia in patients with high versus low HMW adiponectin levels were almost identical (p=0.689). No association was found between adiponectin levels and Alzheimer's disease dementia or vascular dementia in the whole group or amongst men and women separately. This study demonstrated that serum HMW adiponectin level has little association with future dementia.

According to the news reporters, the research concluded: "Determination of metabolic factors involved in dementia requires evaluation of other biomarkers or parameters."


Our news correspondents report that additional information may be obtained by contacting K. Kitagawa, Dept. of Neurology, Tokyo Women's Medical University, Tokyo, Japan. Additional authors for this research include K. Miwa, S. Okazaki, M. Sakaguchi and H. Mochizuki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.12915. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Dementia, Adipokines, Adiponectin, Tauopathies, Alzheimer Disease, Risk and Prevention, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Central Nervous System Diseases and Conditions.

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Diabetes

Data on Diabetes Described by Researchers at Michigan State University (Improving Coordination of Care Among Healthcare Professionals and Patients With Diabetes and Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Diabetes have been published. According to news reporting originating from East Lansing, Michigan, by NewsRx correspondents, research stated, "Patients with diabetes and cancer have higher mortality and morbidity rates, and are more likely to be hospitalized during treatment. In addition, they often prioritize cancer treatment over self-management of diabetes."

Our news editors obtained a quote from the research from Michigan State University, "This research aims to identify the issues regarding the management of diabetes in patients with cancer by examining the perspectives of oncology providers, nurses, and patients. This study used six focus groups of oncology providers, nurses, and patients with preexisting diabetes who received chemotherapy for a solid tumor or lymphoma. Participants were recruited from two outpatient cancer centers in Michigan. All focus group discussions were audio recorded and transcribed, and thematic analysis was conducted to identify common themes. Three overarching themes were identified by patients, nurses, and oncologists: prioritization and responsibility, care coordination, and health/self-management. This study highlighted areas for
improvement in the management of patients with preexisting diabetes being treated with chemotherapy."

According to the news editors, the research concluded: "Additional research is needed to test interventions that improve care coordination and self-management in this population."

For more information on this research see: Improving Coordination of Care Among Healthcare Professionals and Patients With Diabetes and Cancer. Clinical Journal of Oncology Nursing, 2016;20(6):645-651. Clinical Journal of Oncology Nursing can be contacted at: Oncology Nursing Soc, 125 Enterprise Dr, Pittsburgh, PA 15275, USA.

The news editors report that additional information may be obtained by contacting J. Goebel, Michigan State University, Coll Nursing, East Lansing, MI 48824, United States.

Additional authors for this research include S. Valinski and D.S. Hershey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1188/16.CJON.645-651. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: East Lansing, Michigan, United States, North and Central America, Oncology, Diabetes, Cancer, Michigan State University.

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Diabetes

Data on Diabetes Discussed by Researchers at Niigata University of Pharmacy and Applied Life Sciences (Attenuation of Endoplasmic Reticulum Stress-Mediated Liver Damage by Mulberry Leaf Diet in Streptozotocin-Induced Diabetic Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Diabetes is now available. According to news reporting out of Niigata, Japan, by NewsRx editors, research stated, "Endoplasmic reticulum stress (ERS) plays a crucial role in the development of insulin resistance and diabetes mellitus. Although antidiabetic use of mulberry leaves (MLs) has been popular due to their many anti-oxidative flavonoid compounds and free radical scavenging effects, ML's effects on ERS in experimental diabetic hepatocyte injury remain unknown."

Our news journalists obtained a quote from the research from the Niigata University of Pharmacy and Applied Life Sciences, "To investigate how ML affect ERS in diabetic liver, Sprague-Dawley (SD) rats were assigned to induce diabetes by a single intraperitoneal injection of streptozocin (STZ; 55 mg/kg) and fed with either normal chow or a diet containing 25% mulberry leaf powde..."
sterol regulatory element binding protein isoform 1c (SREBP 1c) levels in diabetic liver."

According to the news editors, the research concluded: "These results may suggest that MLs can preserve hepatic function in experimental diabetes by modulating ERS mediated apoptosis and liver damage."


Our news journalists report that additional information may be obtained by contacting R. Afrin, * Dept. of Clinical Pharmacology, Faculty of Pharmaceutical Sciences, Niigata University of Pharmacy and Applied Life Sciences, Niigata 956-8603, Japan. Additional authors for this research include S. Arumugam, M.I. Wahed, V. Pitchaimani, V. Karuppagounder, R. Sreedhar, M. Harima, H. Suzuki, S. Miyashita, T. Nakamura, K. Suzuki, M. Nakamura, K. Ueno and K. Watanabe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1142/S0192415X16500063. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the The American Journal of Chinese Medicine is: World Scientific Publishing Co. Pte. Ltd., 5 Toh Tuck Link, Singapore 596224.

Keywords for this news article include: Asia, Japan, Kinase, Niigata, Diabetes, Genetics, Cytoplasm, Organelles, Endocrinology, Gastroenterology, Cellular Structures, Intracellular Space, Endoplasmic Reticulum, Enzymes and Coenzymes.

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Data on Diabetes Mellitus Discussed by Researchers at Chinese University of Hong Kong (Birth weight in live births and stillbirths)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Diabetes Mellitus. According to news reporting out of Hong Kong, People's Republic of China, by NewsRx editors, research stated, "To establish a normal range of birth weights for gestational age at delivery and to compare the proportion of live births and stillbirths that are classified as small-for-gestational age (SGA) according to our normal range vs that of the INTERGROWTH-21st standard. The study population comprised 113 019 live births and 437 (0.4%) stillbirths."

Our news journalists obtained a quote from the research from the Chinese University of Hong Kong, "The inclusion criterion for establishing a normal range of birth weights for gestational age was the live birth of a phenotypically normal neonate >= 24 weeks' gestation and the exclusion criteria were smoking and prepregnancy hypertension, diabetes mellitus, systemic lupus erythematosus or antiphospholipid syndrome, pre-eclampsia, gestational hypertension, gestational diabetes mellitus or iatrogenic preterm birth for fetal growth restriction in the current pregnancy. Inclusion criteria were met by 92 018 live births. The proportions of live births and stillbirths with birth weights < 5th and < 10th percentiles of our normal range and those
according to the INTERGROWTH-21st standard were determined and compared by the chi-square test and McNemar test. The proportions of live births and stillbirths with a birth weight < 5th percentile according to our standard were significantly higher than and discordant with the proportion according to the INTERGROWTH-21st standard (live birth: 5.6% vs 3.4%; stillbirth: 37.2% vs 22.7%). Similarly, the proportion of live births and stillbirths with a birth weight < 10th percentile according to our standard were significantly higher than and discordant with those according to the INTERGROWTH-21st standard (live birth: 11.2% vs 6.9%; stillbirth: 44.3% vs 32.6%)."

According to the news editors, the research concluded: "The INTERGROWTH-21st standard underestimates the proportion of SGA live births and stillbirths in our population."


Our news journalists report that additional information may be obtained by contacting L.C.Y. Poon, Chinese University of Hong Kong, Dept. of Obstet & Gynaecol, Hong Kong, Hong Kong, People's Republic of China. Additional authors for this research include M.Y. Tan, G. Yerlikaya, A. Syngelaki and K.H. Nicolaides.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Cardiovascular Diseases and Conditions, Glucose Metabolism Disorders, Diabetes Mellitus, Hypertension, Chinese University of Hong Kong.

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Drugs and Therapies - Diclofenac Therapy

Data on Diclofenac Therapy Discussed by Researchers at Tsinghua University (Enhanced adsorption of diclofenac sodium on the carbon nanotubes-polytetrafluorethylene electrode and subsequent degradation by electro-peroxone treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Diclofenac Therapy is now available. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Effective adsorption of pharmaceuticals and then degradation of them in the regeneration process are attractive for their complete removal from water or wastewater. The adsorption of diclofenac sodium (DS) on the prepared carbon nanotubes-polytetrafluorethylene (CNTs-PTFE) anode was enhanced in the presence of applied voltage."

Financial supporters for this research include National Nature Science Foundation of China, Tsinghua University Initiative Scientific Research Program, Collaborative Innovation Center for Regional Environmental Quality.

Our news journalists obtained a quote from the research from Tsinghua University, "Compared with open circuit adsorption, the initial adsorption rate and adsorbed amount of DS in static adsorption experiments increased 2.1 and 1.2 times, respectively. After adsorption, the CNTs-PTFE anode was changed to cathode to in-situ degrade the adsorbed DS, and all DS was
degraded after 10 min using the electro-peroxone treatment. The mineralization efficiency increased with increasing ozone concentrations and current intensity, and complete mineralization of DS was achieved at 100 mA and 27 mg/L O-3 after 1 h treatment. The regenerated CNTs-PTFE electrode kept stable adsorption capacity for DS in five adsorption-degradation cycles.

According to the news editors, the research concluded: "This CNTs-PTFE electrode has a promising application for the removal of pharmaceuticals from water or wastewater via the electrosorption and subsequent oxidative degradation, and the electro-peroxone process is an effective method to regenerate the spent electrode and mineralize the adsorbed pollutants."


Our news journalists report that additional information may be obtained by contacting S.B. Deng, Tsinghua Univ, Beijing Key Lab Emerging Organ Contaminants Contr, State Key Joint Lab Environm Simulat & Pollut Con, Sch Environm, Beijing 100084, People's Republic of China. Additional authors for this research include S.B. Deng, D.N. Shan, Y.J. Wang, B. Wang, J. Huang and G. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jcis.2016.11.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Ophthalmic Antiinflammatory Agents, Cyclooxygenase Inhibitors, Ophthalmic Preparations, Emerging Technologies, Drugs and Therapies, Diclofenac Therapy, Carbon Nanotubes, Phenylacetates, Nanotechnology, Fullerenes, NSAID, Tsinghua University.

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Disease Attributes - Disease Progression

Data on Disease Progression Discussed by C.B. Saw and Colleagues (Dose planning management of patients undergoing salvage whole brain radiation therapy after radiosurgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Disease Attributes - Disease Progression is the subject of a report. According to news reporting out of Dunmore, Pennsylvania, by NewsRx editors, research stated, "Dose or treatment planning management is necessary for the re-irradiation of intracranial relapses after focal irradiation, radiosurgery, or stereotactic radiotherapy. The current clinical guidelines for metastatic brain tumors are the use of focal irradiation if the patient presents with 4 lesions or less."

Our news journalists obtained a quote from the research, "Salvage treatments with the use of whole brain radiation therapy (WBRT) can then be used to limit disease progression if there is an intracranial relapse. However, salvage WBRT poses a number of challenges in dose
planning to limit disease progression and preserve neurocognitive function."

According to the news editors, the research concluded: "This work presents the dose planning management that addresses a method of delineating previously treated volumes, dose level matching, and the dose delivery techniques for WBRT."

For more information on this research see: Dose planning management of patients undergoing salvage whole brain radiation therapy after radiosurgery. Medical Dosimetry, 2016;41(4):277-280. Medical Dosimetry can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Medical Dosimetry - www.journals.elsevier.com/medical-dosimetry/)

Our news journalists report that additional information may be obtained by contacting C.B. Saw, NROC, Dunmore, PA 18512, United States. Additional authors for this research include F. Battin, J. McKeague, M. Haggerty, M. Baikadi and C. Peters.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.meddos.2016.05.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dunmore, Pennsylvania, United States, North and Central America, Pathologic Processes, Drugs and Therapies, Disease Progression, Disease Attributes, Radiation Therapy, Radiosurgery, Radiotherapy, Surgery.

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Digestive System Diseases and Conditions - Dysphagia

Data on Dysphagia Discussed by H. Larsson and Colleagues (Grade of eosinophilia versus symptoms in patients with dysphagia and esophageal eosinophilia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Dysphagia. According to news reporting out of Trollhattan, Sweden, by NewsRx editors, research stated, "The aim of this study was to assess whether the symptom severity and health-related quality of life (HRQL) of patients with dysphagia and esophageal eosinophilia correlate with disease activity as expressed by the number of eosinophils in the esophageal mucosa. This study included newly diagnosed (n = 58) or relapsed patients (n = 7), where 40% were diagnosed in connection with esophageal bolus impaction."

Our news journalists obtained a quote from the research, "The mean age was 45 years (19-88), and 74% were men. Symptoms and HRQL were recorded using the Watson Dysphagia Scale (WDS), the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire - Oesophageal Module 18 and the Short Form-36 Questionnaire. Histological samples gathered from the proximal and distal esophageal mucosa were stained using both hematoxylin and eosin (HE) and an immunohistochemical (IHC) technique against Eosinophil Major Basic Protein,' and the peak number of eosinophils per high-power field was assessed. More eosinophils were detected after IHC staining than HE staining (P < 0.001). No correlation was found between symptoms or the HRQL and the number of eosinophils."

According to the news editors, the research concluded: "However, higher numbers of eosinophils at the proximal esophagus were found in patients with concomitant bolus impaction (IHC P< 0.05 and HE P< 0.05) and could serve as a risk marker."

Our news journalists report that additional information may be obtained by contacting H. Larsson, NAL Med Center, Dept. of ENT Head & Neck Surg, Trollhattan, Sweden. Additional authors for this research include E. Norder Grusell, B. Tegtmeyer, M. Ruth, H. Bergquist and M. Bove.

Keywords for this news article include: Trollhattan, Sweden, Europe, Digestive System Diseases and Conditions, Immunology, Diagnostics and Screening, Hematologic Diseases and Conditions, Hemic and Immune Systems, Deglutition Disorders, Leukocyte Disorders, Gastroenterology, Granulocytes, Eosinophilia, Blood Cells, Eosinophils, Dysphagia.

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**Ebola Virus**

**Data on Ebola Virus Discussed by Researchers at Emory University (Implementation of an educational program for nursing students amidst the Ebola virus disease epidemic)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Ebola Virus is now available. According to news reporting originating in Atlanta, Georgia, by NewsRx journalists, research stated, "The global Ebola virus disease (EVD) epidemic of 2014/2015 prompted faculty at Emory University to develop an educational program for nursing students to increase EVD knowledge and confidence and decrease concerns about exposure risk. The purpose of this article is to describe the development, implementation, and evaluation of the EVD Just-in-Time Teaching (JiTT) educational program."

The news reporters obtained a quote from the research from Emory University, "Informational sessions, online course links, and a targeted, self-directed slide presentation were developed and implemented for the EVD educational program. Three student surveys administered at different time points were used to evaluate the program and change in students' EVD knowledge, confidence in knowledge, and risk concern. Implementation of a JiTT educational program effectively achieved our goals to increase EVD knowledge, decrease fear, and enhance student confidence in the ability to discuss EVD risk. These achievements were sustained over time."

According to the news reporters, the research concluded: "JiTT methodology is an effective strategy for schools of nursing to respond quickly and comprehensively during an unanticipated infectious disease outbreak."

Our news correspondents report that additional information may be obtained by contacting E.P. Ferranti, Emory University, Nell Hodgson Woodruff Sch Nursing, Off Academy Adv, Atlanta, GA 30322, United States. Additional authors for this research include L. Wands, K.A. Yeager, B. Baker, M.K. Higgins, J. Lupo and S.B. Dunbar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.outlook.2016.04.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Viral Hemorrhagic Diseases and Conditions, Virus Diseases and Conditions, Viral Disease, Epidemiology, Mononegavirales, RNA Viruses, Filoviridae, Ebola Virus, Virology, Emory University.

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Biological Factors - Eicosanoids

Data on Eicosanoids Described by Researchers at Robert-Debre University Hospital (Cyclooxygenase-2-Derived Prostaglandins Mediate Cerebral Microcirculation in a Juvenile Ischemic Rat Model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biological Factors - Eicosanoids have been presented. According to news reporting from Paris, France, by NewsRx journalists, research stated, "We previously showed that the selective neuronal nitric oxide synthase inhibitor 7-nitroindazole (7-NI) increases cerebral microcirculation in a juvenile ischemic rat model. We address the roles of cyclooxygenase (COX)-elaborated prostaglandins in collateral recruitment and blood supply."

The news correspondents obtained a quote from the research from Robert-Debre University Hospital, "Fourteen-day-old rats were subjected to ischemia-reperfusion and treated with either PBS or 7-NI (25 mg/kg) at the reperfusion onset. Six-keto-prostaglandin F (1 alpha) was measured using ELISA. COX-1 and COX-2 and prostaglandin terminal synthesizing enzymes were evaluated using reverse-transcriptase polymerase chain reaction and immunofluorescence. Microvascular blood flow indexes (artery diameter and capillaries number) were measured using sidestream dark-field videomicroscopy in PBS-and 7-NI-treated ischemic rats in the absence or presence of the COX-2 inhibitor NS-398 (5 mg/kg). Cell death was measured with the TUNEL (terminal transferase dUTP nick end labeling) assay and cleavedcaspase-3 immunostaining. Six-keto-prostaglandin F-1 alpha and COX-2, associated with a prostaglandin E synthase, were significantly increased in PBS-and 7-NI-treated animals 15 minutes and 1 hour after ischemia-reperfusion, respectively. In contrast and as compared with PBS, 7-NI significantly decreased prostacyclin synthase and cytosolic prostaglandins E synthase mRNA. Selective COX-2 inhibition significantly decreased blood flow indexes and significantly reversed the effects of 7-NI, including the number of TUNEL+-and cleaved-caspase-3(+)nuclei."

According to the news reporters, the research concluded: "These results show that the juvenile rat brains mostly respond to ischemia by a COX-2-dependent prostaglandins production and suggest that the transcriptional responses observed under 7-NI facilitate and reorient COX2- dependent prostaglandins production."

For more information on this research see: Cyclooxygenase-2-Derived
Prostaglandins Mediate Cerebral Microcirculation in a Juvenile Ischemic Rat Model. *Stroke*, 2016;47(12):3048-3052. *Stroke* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Stroke - stroke.ahajournals.org/)

Our news journalists report that additional information may be obtained by contacting C. Charriaut-Marlangue, Hopital Robert Debre, INSERM, UMR 1141, F-75019 Paris, France. Additional authors for this research include J. Pansiot, V. Besson, B. Palmier, S. Renolleau, O. Baud, B. Cauli and C. Charriaut-Marlangue.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1161/STROKEAHA.116.015095. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Enzymes and Coenzymes, Transfusion Medicine, Biological Factors, Blood Transfusion, Microcirculation, Medical Devices, Cyclooxygenase, Prostaglandins, Reperfusion, Eicosanoids, Hematology, Angiology, Ischemia, Genetics, Synthase, Robert-Debre University Hospital.

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**Embryo Transfer**

**Data on Embryo Transfer Reported by Researchers at Harvard School of Medicine (Building a model to increase live birth rate through patient-specific optimization of embryo transfer day)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Embryo Transfer. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Many practices are moving away from cleavage-stage transfer in favor of blastocyst transfer. The purpose of this study is to evaluate how the overall live birth rate for fresh IVF cycles may increase by optimizing the day of transfer for each patient."

Financial support for this research came from Eunice Kennedy Shriver National Institute of Child Health and Human Development.

Our news editors obtained a quote from the research from the Harvard School of Medicine, "This is a retrospective cohort study of 1225 first fresh autologous IVF cycles performed between May 2012 and November 2013. Stepwise logistic regression was used to determine characteristics associated with live birth following cleavage-stage versus blastocyst transfer. The optimal transfer day (i.e., the day that maximized the odds of live birth) was determined for each patient, and the actual live birth rate was compared with the projected rate had each patient undergone transfer on her optimal day. With transfer on the optimal day for each patient, the overall birth rate would have increased from its actual value of 34.8 % to a projected 43.0 %, a 24 % increase. The majority of this increase (21 %) was due to optimization of patients who underwent cleavage-stage transfer but had a higher projected birth rate from blastocyst transfer. These patients were older (37.8 versus 36.0 years, p< 0.01) and had more follicles ae <yen >18 mm than patients who should have remained with a cleavage-stage transfer."

According to the news editors, the research concluded: "A model can be built enabling patient-specific identification of optimal transfer day; within this discovery cohort,
such optimization was estimated to increase live birth following a fresh transfer by 24%. This study suggests blastocyst transfer should be more widely offered; however, there remain patients for whom a cleavage-stage transfer may yield better outcomes.


The news editors report that additional information may be obtained by contacting R.H. Goldman, Harvard Med Sch, Brigham & Women's Hospital, Dept. of Obstet Gynecol & Reprod Biol, Center Infertil & Reprod Surg, Boston, MA 02115, United States. Additional authors for this research include D.J. Kaser, S.A. Missmer, S.S. Srouji, L.V. Farland and C. Racowsky.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0803-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Assisted Reproductive Techniques, Embryo Transfer, Harvard School of Medicine.

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Heart Disorders and Diseases - Endocarditis

Data on Endocarditis Reported by O. Kumpf and Co-Researchers (Rapid molecular diagnosis of infective aortic valve endocarditis caused by Coxiella burnetii)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Endocarditis. According to news originating from Berlin, Germany, by NewsRx correspondents, research stated, "We describe a case of Q-fever endocarditis with severe destruction of the aortic valve with perivalvular abscess formation and cardiac failure. The patient needed urgent operative treatment and postoperative critical care."

Our news journalists obtained a quote from the research, "All specimens sent for microbiological examination were negative. Molecular analysis, including fluorescence in situ hybridization of aortic valve tissue combined with PCR and sequencing, led to the correct diagnosis and to appropriate anti-infective treatment. The patient subsequently recovered from complex cardiovascular surgery."

According to the news editors, the research concluded: "This is the first report on Q-fever endocarditis that was rapidly diagnosed using these methods."

For more information on this research see: Rapid molecular diagnosis of infective aortic valve endocarditis caused by Coxiella burnetii. Infection, 2016;44(6):813-817. Infection can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Infection - www.springerlink.com/content/0300-8126/)

The news correspondents report that additional information may be obtained from O.
Data on Endometrial Cancer Discussed by Researchers at Eskisehir Osmangazi University (Ovarian endometrioid carcinoma with yolk sac tumor component in a postmenopausal woman)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Endometrial Cancer is the subject of a report. According to news originating from Eskisehir, Turkey, by NewsRx correspondents, research stated, "Yolk sac tumor (YST) coexisting with a variety of histologic patterns have been described, but with an epithelial malignant component is extremely rare."

Our news journalists obtained a quote from the research from Eskisehir Osmangazi University, "It has been suggested that this rare tumor represents an adenocarcinoma with aberrant differentiation because it occurs in the same age range as epithelial ovarian carcinoma and shows an aggressive behavior and poor prognosis. Although chemotherapy is effective for pure YST, YST with endometrioid adenocarcinoma does not respond to chemotherapy."

According to the news editors, the research concluded: "Here the authors report a post-menopausal women with ovarian endometrioid adenocarcinoma (OEC) associated with YST."


The news correspondents report that additional information may be obtained from D. Arik, Eskisehir Osmangazi Univ, Fac Med, Dept. of Pathol, Eskisehir, Turkey.

Keywords for this news article include: Eskisehir, Turkey, Eurasia, Female Urogenital Diseases and Conditions, Ovarian Diseases and Conditions, Endometrioid Carcinoma, Endometrial Cancer, Adenocarcinoma, Women's Health, Gynecology, Carcinomas, Oncology, Eskisehir Osmangazi University.

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Data on Environmental Research and Public Health Reported by Researchers at Deakin University (Impact of an 8-Month Trial Using Height-Adjustable Desks on Children’s Classroom Sitting Patterns and Markers of Cardio-Metabolic and Musculoskeletal ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Environmental Health - Environmental Research and Public Health have been published. According to news reporting originating in Burwood, Australia, by NewsRx journalists, research stated, "During school hours, children can sit for prolonged and unbroken periods of time. This study investigated the impact of an 8-month classroom-based intervention focusing on reducing and breaking-up sitting time on children's cardio-metabolic risk factors (i.e., body mass index, waist circumference, blood pressure) and perceptions of musculoskeletal discomfort."

The news reporters obtained a quote from the research from Deakin University, "Two Year-6 classes (24 students per class) in one primary school were assigned to either an intervention or control classroom. The intervention classroom was equipped with height-adjustable desks and the teacher was instructed in the delivery of pedagogical strategies to reduce and break-up sitting in class. The control classroom followed standard practice using traditional furniture. At baseline, and after 8-months, time spent sitting, standing, stepping, and sitting-bouts (occasions of continuous sitting) as well as the frequency of sit-to-stand transitions were obtained from activPAL inclinometers and the time spent in light-intensity physical activity was obtained from ActiGraph accelerometers. Demographics and musculoskeletal characteristics were obtained from a self-report survey. Hierarchical linear mixed models found that during class-time, children's overall time spent sitting in long bouts (>10 min) were lower and the number of sit-to-stand transitions were higher in the intervention group compared to the control group, while no changes were observed for musculoskeletal pain/discomfort. No significant intervention effects were found for the anthropometrics measures and blood pressure. Height-adjustable desks and pedagogical strategies to reduce/break-up sitting can positively modify classroom sitting patterns in children."

According to the news reporters, the research concluded: "Longer interventions, larger and varied sample size may be needed to show health impacts; however, these desks did not increase musculoskeletal pain/discomfort."

For more information on this research see: Impact of an 8-Month Trial Using Height-Adjustable Desks on Children's Classroom Sitting Patterns and Markers of Cardio-Metabolic and Musculoskeletal Health. International Journal of Environmental Research and Public Health, 2016;13(12):771-785. International Journal of Environmental Research and Public Health can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting A.M.C. Ayala, Deakin University, Sch Exercise & Nutr Sci, IPAN, Burwood, Vic 3125, Australia. Additional authors for this research include J. Salmon, A. Timperio, B. Sudholz, N.D. Ridgers, P. Sethi and D.W. Dunstan.

Keywords for this news article include: Burwood, Australia, Australia and New Zealand, Environmental Research and Public Health, Environmental Health, Hemodynamics, Risk and Prevention, Blood Pressure, Deakin University.

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Data on Epilepsy Described by Researchers at Monash University
(Temporal patterns of epileptiform discharges in genetic generalized epilepsies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Epilepsy have been published. According to news originating from Melbourne, Australia, by NewsRx correspondents, research stated, "We sought to investigate the temporal patterns and sleep-wake cycle-related epileptiform discharges (EDs) in genetic generalized epilepsies (GGEs). We studied 24-hour ambulatory electroencephalography (EEG) recordings of patients with GGE, diagnosed and classified according to the International League against Epilepsy criteria."

Our news journalists obtained a quote from the research from Monash University, "We manually coded the type of discharge, time of occurrence, duration, and arousal state of each ED. We employed mixed effects Poisson regression modeling to study the temporal distribution of epileptiform discharges. Additionally, we used multinomial regression analysis to explore the significance of the relationship between different states of arousal and types of epileptiform discharges. We analyzed 6923 EDs from 105 abnormal 24-hour EEGs. Mixed effects Poisson regression analysis demonstrated significant changes in ED counts across time blocks. This distribution was largely influenced by the state of arousal. Generalized fragments (duration < 2 s) and focal discharges were more frequent during non-REM sleep while paroxysms (duration 2 s) were more frequent in wakefulness. Overall, 67% of epileptiform discharges occurred in non-REM sleep and only 33% occurred in wakefulness. Twenty-four patients (23%) had ED exclusively in sleep. Epileptiform discharges peaked from 23:00 through 07:00 h. There is a time-of-day dependency of ED with a significant influence exerted by the state of arousal. Our observations suggest that the generation of epileptiform discharges is not a random process but is the result of complex interactions among biological rhythms such as the sleep-wake cycle and the intrinsic circadian pacemaker."

According to the news editors, the research concluded: "High density of ED in sleep suggests that 24-hour EEG recording with the capture of natural sleep may be more useful than routine EEG to diagnose GGE."

For more information on this research see: Temporal patterns of epileptiform discharges in genetic generalized epilepsies. Epilepsy & Behavior, 2016;64():18-25. Epilepsy & Behavior can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Epilepsy & Behavior - www.journals.elsevier.com/epilepsy-and-behavior/)

The news correspondents report that additional information may be obtained from U. Seneviratne, Monash University, Dept. of Med, Monash Hlth, Sch Clin Sci, Melbourne, Vic, Australia. Additional authors for this research include R.C. Boston, M. Cook and W. D'Souza.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yebeh.2016.09.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Australia, Australia and New
Zealand, Epilepsy, Central Nervous System Diseases and Conditions, Genetics, Monash University.

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Central Nervous System Diseases and Conditions - …

Data on Epilepsy Discussed by Researchers at Temple University
(Clinical features and postoperative seizure outcome in patients with drug-resistant gelastic seizures without hypothalamic hamartoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System Diseases and Conditions - Epilepsy are presented in a new report. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "The objective of this study was to describe the clinical characteristics and surgical outcome in patients with gelastic seizures without hypothalamic hamartoma. We retrospectively reviewed all the video-EEG reports over a 5-year period (2007-2011) for the occurrence of the terms 'laugh' or 'giggle' in the text body."

The news correspondents obtained a quote from the research from Temple University, "All the patients with at least one documented gelastic seizure at the epilepsy monitoring unit were studied. In patients who underwent epilepsy surgery, seizure outcomes were analyzed. Sixteen patients (10 females and 6 males) with a mean age of 46.3 years were studied. Seven patients had invasive intracranial EEG recordings. Seizure onset zone was in a temporal lobe in four patients and the frontal lobe in one patient. Two patients did not have gelastic seizures during their intracranial EEG monitoring. Nine patients underwent resective epilepsy surgery for their seizures. Six patients (67%) were seizure-free after surgery. In adult patients, gelastic seizures can be seen in patients with focal epilepsy without hypothalamic hamartoma."

According to the news reporters, the research concluded: "Nonhypothalamic hamartoma gelastic seizures originating from the temporal lobe can be amenable to surgery."

For more information on this research see: Clinical features and postoperative seizure outcome in patients with drug-resistant gelastic seizures without hypothalamic hamartoma. Epilepsy & Behavior, 2016;64():90-93. Epilepsy & Behavior can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Epilepsy & Behavior - www.journals.elsevier.com/epilepsy-and-behavior/)

Our news journalists report that additional information may be obtained by contacting C. Gutierrez, Temple University, Dept. of Neurol, Temple Univ Hosp, Comprehens Epilepsy Center, Philadelphia, PA 19122, United States. Additional authors for this research include A.A. Asadi-Pooya, C.T. Skidmore, S.D. Tobochnik, C. LoPinto-Khoury and M.R. Sperling.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yebeh.2016.09.038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Drugs and Therapies, Drug Resistance, Hamartomas, Seizures, Epilepsy,
Data on Escherichia coli Reported by Researchers at Nankai University (Directed Evolution of Dunaliella salina Ds-26-16 and Salt-Tolerant Response in Escherichia coli)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Escherichia coli are presented in a new report. According to news reporting originating from Tianjin, People's Republic of China, by NewsRx correspondents, research stated, "Identification and evolution of salt tolerant genes are crucial steps in developing salt tolerant crops or microorganisms using biotechnology. Ds-26-16, a salt tolerant gene that was isolated from Dunaliella salina, encodes a transcription factor that can confer salt tolerance to a number of organisms including Escherichia coli (E. coli), Haematococcus pluvialis and tobacco."

Our news editors obtained a quote from the research from Nankai University, "To further improve its salt tolerance, a random mutagenesis library was constructed using deoxyinosine triphosphate-mediated error-prone PCR technology, and then screened using an E. coli expression system that is based on its broad-spectrum salt tolerance. Seven variants with enhanced salt tolerance were obtained. Variant EP-5 that contained mutation S32P showed the most improvement with the E. coli transformant enduring salt concentrations up to 1.54 M, in comparison with 1.03 M for the wild type gene. Besides, Ds-26-16 and EP-5 also conferred E. coli transformant tolerance to freezing, cold, heat, Cu2+ and alkaline. Homology modeling revealed that mutation S32P in EP-5 caused the conformational change of N-and C-terminal alpha-helixes."

According to the news editors, the research concluded: "Expression of Ds-26-16 and EP-5 maintained normal cellular morphology, increased the intracellular antioxidant enzymatic activity, reduced malondialdehyde content, and stimulated Nitric Oxide synthesis, thus enhancing salt tolerance to E. coli transformants."

For more information on this research see: Directed Evolution of Dunaliella salina Ds-26-16 and Salt-Tolerant Response in Escherichia coli. International Journal of Molecular Sciences, 2016;17(11):817-829. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting Y. Guo, Nankai Univ, Dept. of Biochem & Mol Biol, Coll Life Sci, Tianjin 300071, People's Republic of China. Additional authors for this research include Y.P. Dong, X. Hong, X.N. Pang, D.F. Chen and X.W. Chen.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Escherichia coli, Escherichia Coli, Proteobacteria, Genetics, Nankai University.

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**Essential Amino Acids**

**Data on Essential Amino Acids Described by Researchers at University of Kansas (Charge Type, Charge Spacing, and Hydrophobicity of Arginine-Rich Cell-Penetrating Peptides Dictate Gene Transfection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Essential Amino Acids is the subject of a report. According to news reporting originating from Lawrence, Kansas, by NewsRx correspondents, research stated, "Noncovalent complexation of plasmid DNA (pDNA) with cell-penetrating peptides (CPPs) forms relatively large complexes with poor gene expression. Yet, condensing these CPP-pDNA complexes via addition of calcium chloride produces small and stable nanoparticles with high levels of gene expression."

Financial support for this research came from Faculty of Pharmacy, King Abdulaziz University.

Our news editors obtained a quote from the research from the University of Kansas, "This simple formulation offered high transfection efficiency and negligible cytotoxicity in HEK-293 (a virus-immortalized kidney cell) and A549 (a human lung cancer cell line). Small changes in CPP charge type, charge spacing, and hydrophobicity were studied by using five arginine-rich CPPs: the well-known hydrophilic polyarginine R9 peptide, a hydrophilic RH9 peptide, and three amphiphilic peptides (RA9, RL9, and RW9) with charge distributions that favor membrane penetration. R9 and RW9 nanoparticles were significantly more effective than the other CPPs under most formulation conditions. However, these CPPs exhibit large differences in membrane penetration potential."

According to the news editors, the research concluded: "Maximum transfection resulted from an appropriate balance of complexing with pDNA, releasing DNA, and membrane penetration potential."

For more information on this research see: Charge Type, Charge Spacing, and Hydrophobicity of Arginine-Rich Cell-Penetrating Peptides Dictate Gene Transfection. *Molecular Pharmaceutics*, 2016;13(3):1047-57. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news editors report that additional information may be obtained by contacting N.A. Alhakamy, Dept. of Pharmaceutical Chemistry, University of Kansas, Lawrence, Kansas 66047, United States. Additional authors for this research include P. Dhar and C.J Berkland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00871. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kansas, Lawrence, Arginine, Genetics, Viral DNA, Nanoparticle, United States, Nanotechnology, Basic Amino Acids, Diamino Amino Acids, Emerging Technologies, Essential Amino Acids, North and Central America.

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Data on Ethnopharmacology Detailed by Researchers at University of Mauritius (A quantitative ethnobotanical survey of phytocosmetics used in the tropical island of Mauritius)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Ethnopharmacology have been published. According to news reporting originating from Reduit, Mauritius, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: With a net turnover worth of 181 billion, the cosmetic industry is a leading worldwide business with a very lucrative future. Nonetheless, due to recent concerns regarding toxicity of synthetic cosmetics, herbal products have come into the limelight of cosmetology."

Our news editors obtained a quote from the research from the University of Mauritius, "The tropical island of Mauritius has a well-anchored diversity of indigenous plant species which are exploited for various purposes but no study has been designed to (i) quantitatively document, (ii) assess the effectiveness, and (iii) study the incidence of adverse effects and perception associated with the use of herbal products for cosmetic applications. Data was collected from herbal users via face-to-face interviews using semi-structured questionnaire. Quantitative ethnobotanical indices (fidelity level (FL), variety of use (VU) and relative frequency of citation (RFC)) were calculated. Twenty five herbs belonging to 21 families were recorded in use for 29 different cosmetics applications. Many of the documented species represented well-known plants, although we also recorded a few plants being exploited for new cosmetic applications. Plants with the highest RFC were Curcuma longa L (0.45), Lawsonia inermis L. (0.42) and Aloe vera (L.) Burm.f. (0.42). A total of 8 plants were reported to score 100% with respect to the FL. Interestingly, Lawsonia inermis L being the highly cited plant species showed a clear dominance as a popular phytocosmetic and which has also been extensively documented for its pharmacological properties. Moreover, it was found that 25% of the respondents experienced adverse effects; with pruritus (11%) being the most reported condition. It was also observed that participants perceived herbs/herbal products to be free from adverse effects. Most of the plants reported have been described in previous studies for their bioactive components which tend to justify their use as phytocosmetics."

According to the news editors, the research concluded: "Further research should be geared to explore the potential of these plant products for the cosmetic industry."


The news editors report that additional information may be obtained by contacting M.F. Mahomoodally, University of Mauritius, Dept. of Hlth Sci, Fac Sci, Reduit, Mauritius.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.07.039. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Reduit, Mauritius, Africa, Ethnopharmacology, Drugs and Therapies, University of Mauritius.
Drugs and Therapies - Ethnopharmacology

Data on Ethnopharmacology Discussed by Researchers at Prince Songkla University (A survey of herbal weeds for treating skin disorders from Southern Thailand: Songkhla and Krabi Province)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Ethnopharmacology is now available. According to news reporting out of Songkhla, Thailand, by NewsRx editors, research stated, "Ethnopharmacological relevance: Skin diseases are common health problems which affecting to all ages. In Thailand, the number of patients diagnosed with skin diseases is increasing every year."

Funders for this research include Research and Development Office, Prince of Songkla University.

Our news journalists obtained a quote from the research from Prince Songkla University, "Nowadays, The Ministry of Public Health is supporting and promoting herbs for treating various disorders, including disorders of the skin to reduce the problem of antibiotic resistance and adverse drug reactions. This study aimed to: (1) enumerate the herbal weeds for treating skin disorders; (2) study local knowledge of weed utilization for treating skin disorders according to the folk healers in Songkhla and Krabi province; and (3) study quantitative data by Informant consensus factor (ICF), Use value (UV) and Fidelity level (FL) value. Field surveys and Semi-structured interviews about the local names, parts of plants used, preparation and use method, as well as local properties were done. The data were further analyzed by descriptive statistics, interpretation and quantitative indexes (ICF, UV as well as FL). The results discovered 44 herbal species of weeds belonging to 41 genera in 25 families. The most used plant families were Amaranthaceae (6 species). Most plants were used to treat abscess (18 species; 40.91%). The highest UV was recorded for Commelina benghalensis (0.65). The highest ICF values were found in vitiligo, ringworm, tinea versicolor and burns (1.00 each). The highest FL values were recorded for Cleome gynandra, Cleome viscosa, Sphenoclea zeylanica, Acmella oleracea, Leersia hexandra, Cyperus involucratus, Phyllanthus urinaria and Iresine herbstii (100.00 each). A review of the literatures revealed that 34 plant species had already been tested for their pharmacological activities. The biological activities associated with treatment of skin diseases can be divided into four categories: antimicrobial, anti-inflammatory, wound healing and antioxidant activity. The information indicates that herbal weedy utilization is still importance to the treatment of traditional healers through accumulated experience for a long time. Therefore, this study is a guide to the conservation of folk medicinal knowledge."

According to the news editors, the research concluded: "It might be implied as the basis for drug development and application of herbal weeds to treat skin disorders along with promoting sustainable use of natural resource."

Our news journalists report that additional information may be obtained by contacting O. Neamsuvan, Prince Songkla University, Fac Tradit Thai Med, Hat Yai 90110, Songkhla, Thailand.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.09.048. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Songkhla, Thailand, Asia, Ethnopharmacology, Drugs and Therapies, Thailand, Asia, Prince Songkla University.

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Drugs and Therapies - Ethnopharmacology

Data on Ethnopharmacology Reported by Researchers at University of Belgrade [Antihyperalgesic activity of Filipendula ulmaria (L.) Maxim. and Filipendula vulgaris Moench in a rat model of inflammation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Ethnopharmacology are discussed in a new report. According to news reporting originating from Belgrade, Serbia, by NewsRx correspondents, research stated, "Ethnopharmaceutical relevance: Meadowsweet (Filipendula ulmaria (L.) Maxim.), and dropwort (Filipendula vulgaris Moench) flowers are traditionally used to treat various ailments, including inflammatory conditions. The aim of the present study was to validate the aforementioned ethnomedicinal claim by assessing antihyperalgesic and antiedematous activities and toxicity of orally administered lyophilized flower infusions (LFIs) of F. ulmaria and F. vulgaris in experimental animals."

Financial support for this research came from Ministry of Education, Science and Technological Development of Republic of Serbia.

Our news editors obtained a quote from the research from the University of Belgrade, "The phytochemical analysis of LFIs was performed by HPLC-DAD. Antihyperalgesic and antiedematous activities were estimated in a rat model of inflammation induced by intraplantar injection of carrageenan using Von Frey anesthesiometer and plethysmometer, respectively. Moreover, acute oral toxicity of LFIs in mice was evaluated by observing changes in animal behavior and mortality for a period of 14 days following the treatment. HPLC-DAD analysis revealed the presence of phenolic acids and flavonoids in LFIs, among which spiraeoside was identified as the principal component (56.27 +/- 1.03 and 55.67 +/- 1.82 mg/g of LFI in F. ulmaria and F. vulgaris, respectively). The LFIs of F. ulmaria and F. vulgaris (100-300 mg/kg; p.o.) produced significant and dose-dependent antihyperalgesic effects: ED50 +/- SEM values were 164.8 +/- 15.4 mg/kg (110.3-246.3 mg/kg) and 172.2 +/- 6.2 mg/kg (147.4-201.3 mg/kg) for F. ulmaria and F. vulgaris, respectively. On the other hand, LFIs of both species (100-300 mg/kg; p.o.) did not significantly reduce edema. Good safety profiles were evidenced in the toxicological study. The median lethal dose (LD50) of the tested extracts is likely to be greater than 2000 mg/kg."

According to the news editors, the research concluded: "The results of the present study support the use of F. ulmaria and F. vulgaris flowers in folk medicine for relieving pain in diseases with an inflammatory component."

For more information on this research see: Antihyperalgesic activity of Filipendula
The news reporters obtained a quote from the research from the University of Central Florida, "Riboflavin is a critical metabolite enabling all organisms to maintain redox homeostasis. B. burgdorferi appears to lack the metabolic capacity for de novo synthesis of riboflavin and so likely relies on scavenging riboflavin from the host environment. In this study, we sought to investigate the role of bb0318 in B. burgdorferi pathogenesis. No in vitro growth defect was observed for the Delta bb0318 clone. However, the mutant spirochetes displayed reduced levels of survival when exposed to exogenous hydrogen peroxide or murine macrophages. Spirochetes lacking bb0318 were found to have a 100-fold-higher 50% infectious dose than spirochetes containing bb0318. In addition, at a high inoculum dose, bb0318 was found to be important for effective spirochete dissemination to deep tissues for as long as 3 weeks postinoculation and to be critical for B. burgdorferi infection of mouse hearts."

According to the news reporters, the research concluded: "Together, these data implicate bb0318 in the oxidative stress response of B. burgdorferi and indicate the contribution of bb0318 to B. burgdorferi mammalian infectivity."

For more information on this research see: Gene bb0318 Is Critical for the Oxidative Stress Response and Infectivity of Borrelia burgdorferi"

Our news correspondents report that additional information may be obtained by contacting M.W. Jewett, University of Central Florida, Coll Med, Burnett Sch Biomed Sci, Div Immun & Pathogenesis, Orlando, FL 32816, United States. Additional authors for this research include G. Aranjuez, P.P. Adams and M.W. Jewett.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/IAI.00430-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Orlando, Florida, United States, North and Central America, *Borrelia burgdorferi* Group, Epidemiology, Gram-Negative Anaerobic Bacteria, Gram-Negative Bacteria, Enzymes and Coenzymes, Biological Factors, Spirochaetaceae, Spirochaetales, Borreliosis, Riboflavin, Genetics, Flavins, University of Central Florida.

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**Digestive System Diseases and Conditions** -

**Data on Functional Dyspepsia Described by Researchers at Dongguk University Ilsan Hospital (Visceral adiposity is associated with an increased risk of functional dyspepsia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Digestive System Diseases and Conditions - Functional Dyspepsia is now available. According to news reporting originating in Goyang, South Korea, by NewsRx journalists, research stated, "The relationship between visceral adiposity and the incidence of functional dyspepsia (FD) has not yet been studied. The purpose of the present study is to evaluate the association between visceral adiposity and the risk of FD."

Financial support for this research came from Dongguk University Research Fund 2010.

The news reporters obtained a quote from the research from Dongguk University Ilsan Hospital, "This is a case-control study that compares the abdominal adipose tissue area between subjects with FD and control subjects without FD, who underwent abdomen computerized tomography (CT) for health examinations in a tertiary center. Retrospectively, a telephone survey was conducted to diagnose FD using the Rome III criteria. We measured various indices of obesity including body mass index (BMI), waist circumference (WC), visceral adipose tissue (VAT) area, subcutaneous adipose tissue (SAT) area and the VAT/SAT ratio in order to evaluate the association between FD and abdominal adiposity. A total of 363 subjects were included in the present study. FD was diagnosed in 90 subjects (24.8%). In the univariate analysis, WC, VAT area, TAT area, VAT/SAT ratio, and the presence of erosive esophagitis were significantly higher in the FD group than in the non-FD group. In the multivariate analysis, a higher VAT area (odds ratio (OR), 3.76; 95% confidence interval (CI), 1.24-11.40; highest quartile vs lowest quartile, p=0.019) and VAT/SAT ratio (OR, 2.35; 95% CI, 1.27-4.32; highest quartile vs lowest quartile, p=0.006) were independently associated with a risk of FD."
According to the news reporters, the research concluded: "Visceral adiposity as measured by the VAT area and VAT/SAT ratio is associated with an increased risk of FD."


Our news correspondents report that additional information may be obtained by contacting J.G. Jung. Dept. of Internal Medicine, Dongguk University Ilsan Hospital, College of Medicine, Goyang, South Korea. Additional authors for this research include J.N. Yang, C.G. Lee, S.H. Choi, W.G. Kwack, J.H. Lee and H.W Kang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13146. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Goyang, South Korea, Gastroenterology, Functional Dyspepsia, Diagnostics and Screening, Digestive System Diseases and Conditions.

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**Fuzzy Logic**

**Data on Fuzzy Logic Discussed by Researchers at University of Coimbra (Automated fluence map optimization based on fuzzy inference systems)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Fuzzy Logic. According to news reporting originating in Coimbra, Portugal, by NewsRx journalists, research stated, "The planning of an intensity modulated radiation therapy treatment requires the optimization of the fluence intensities. The fluence map optimization (FMO) is many times based on a nonlinear continuous programming problem, being necessary for the planner to define a priori weights and/or lower bounds that are iteratively changed within a trial-and-error procedure until an acceptable plan is reached."

Financial supporters for this research include FEDER, Fundacao para a Ciencia e a Tecnologia (FCT).

The news reporters obtained a quote from the research from the University of Coimbra, "In this work, the authors describe an alternative approach for FMO that releases the human planner from trial-and-error procedures, contributing for the automation of the planning process. The FMO is represented by a voxel-based convex penalty continuous nonlinear model. This model makes use of both weights and lower/upper bounds to guide the optimization process toward interesting solutions that are able to satisfy all the constraints defined for the treatment. All the model's parameters are iteratively changed by resorting to a fuzzy inference system. This system analyzes how far the current solution is from a desirable solution, changing in a completely automated way both weights and lower/upper bounds. The fuzzy inference system is based on fuzzy reasoning that enables the use of common-sense rules within an iterative optimization process. The method is built in two stages: in a first stage, an admissible solution is calculated, trying to guarantee that all the treatment planning constraints are being
satisfied. In this first stage, the algorithm tries to improve as much as possible the irradiation of the planning target volumes. In a second stage, the algorithm tries to improve organ sparing, without jeopardizing tumor coverage. The proposed methodology was applied to ten head-and-neck cancer cases already treated in the Portuguese Oncology Institute of Coimbra (IPOCFG) and signalized as complex cases. IMRT treatment was considered, with 7, 9, and 11 equidistant beam angles. It was possible to obtain admissible solutions for all the patients considered and with no human planner intervention. The results obtained were compared with the optimized solution using a similar optimization model but with human planner intervention. For the vast majority of cases, it was possible to improve organ sparing and at the same time to assure better tumor coverage. Embedding a fuzzy inference system into FMO allows human planner reasoning to be used in the guidance of the optimization process toward interesting regions in a truly automated way.”

According to the news reporters, the research concluded: “The proposed methodology is capable of calculating high quality plans within reasonable computational times and can be an important contribution toward fully automated radiation therapy treatment planning.”

For more information on this research see: Automated fluence map optimization based on fuzzy inference systems. *Medical Physics*, 2016;43(3):1083-95. *Medical Physics* can be contacted at: Amer Assoc Physicians Medicine Amer Inst Physics, Ste 1 No 1, 2 Huntington Quadrangle, Melville, NY 11747-4502, USA. (American Association of Physicists in Medicine - www.aapm.org; Medical Physics - online.medphys.org/)

Our news correspondents report that additional information may be obtained by contacting J. Dias, FEUC and Inesc-Coimbra, University of Coimbra, Coimbra 3004512, Portugal. Additional authors for this research include H. Rocha, T. Ventura, B. Ferreira and M.do C Lopes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1118/1.4941007. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal *Medical Physics* can be contacted at: Amer Assoc Physicists Medicine Amer Inst Physics, Ste 1 No 1, 2 Huntington Quadrangle, Melville, NY 11747-4502, USA.

Keywords for this news article include: Europe, Coimbra, Portugal, Fuzzy Logic.

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Membrane Proteins - G-Protein-Coupled Receptors

Data on G-Protein-Coupled Receptors Described by N.T Zaveri et al

[Nociceptin Opioid Receptor (NOP) as a Therapeutic Target: Progress in Translation from Preclinical Research to Clinical Utility]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Membrane Proteins - G-Protein-Coupled Receptors. According to news reporting originating from Mountain View, California, by NewsRx editors, the research stated, "In the two decades since the discovery of the nociceptin opioid receptor (NOP) and its ligand, nociceptin/orphaninFQ (N/OFQ), steady progress has been achieved in understanding the pharmacology of this fourth opioid..."
receptor/peptide system, aided by genetic and pharmacologic approaches. This research spawned an explosion of small-molecule NOP receptor ligands from discovery programs in major pharmaceutical companies."

Funders for this research include National Institute of Neurological Disorders and Stroke, National Heart, Lung, and Blood Institute, National Institute on Drug Abuse.

Our news editors obtained a quote from the research, "NOP agonists have been investigated for their efficacy in preclinical models of anxiety, cough, substance abuse, pain (spinal and peripheral), and urinary incontinence, whereas NOP antagonists have been investigated for treatment of pain, depression, and motor symptoms in Parkinson's disease. Translation of preclinical findings into the clinic is guided by PET and receptor occupancy studies, particularly for NOP antagonists. Recent progress in preclinical NOP research suggests that NOP agonists may have clinical utility for pain treatment and substance abuse pharmacotherapy."

According to the news editors, the research concluded: "This review discusses the progress toward validating the NOP-N/OFQ system as a therapeutic target."


The news editors report that additional information may be obtained by contacting N.T. Zaveri, Astraea Therapeutics, 320 Logue Avenue, Suite 142, Mountain View, California 94043, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jmedchem.5b01499. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Therapy, Genetics, Neurology, California, Mountain View, United States, Opiate Receptors, Opioid Receptors, Membrane Proteins, Neuropeptide Receptors, North and Central America, G Protein Coupled Receptors, G-Protein-Coupled Receptors.

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Oncology - Gastric Cancer

Data on Gastric Cancer Reported by Researchers at Shanghai Jiao-Tong University (Bone marrow-derived mesenchymal stem cells increase drug resistance in CD133-expressing gastric cancer cells by regulating the PI3K/AKT pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Bone marrow-derived mesenchymal stem cells (BM-MSCs) are recruited to primary tumours to compose the tumour microenvironment. In various cancers, CD133(-) positive cells have been shown to possess cancer stem cell properties that confer chemoresistance."
Funders for this research include Health Bureau of Shanghai, Shanghai Jiao-tong University School of Medicine.

Our news editors obtained a quote from the research from Shanghai Jiao-Tong University, "This study aimed to investigate the role of BM-MSCs in the anti-tumour drug resistance of CD133(-) expressing gastric cancer cells and explore the underlying mechanisms that governing this role. We found that CD133(+) gastric cancer cells displayed more resistance to chemotherapeutics than CD133(-) cells. In addition, BM-MSCs increased the antiapoptotic abilities and chemoresistance of CD133(+) cells via upregulation of Bcl-2 and downregulation of BAX. Mechanistically, BM-MSCs triggered activation of the PI3K/Akt signalling cascade in CD133(+) cells. Blocking the PI3K/Akt pathway inhibited the promotion of chemoresistance. Furthermore, BM-MSCs enhanced the drug resistance of CD133(-) overexpressing cells in vitro and in vivo, but not that of CD133(-) knockdown cells, which demonstrated the contribution of CD133 to this process."

According to the news editors, the research concluded: "We demonstrated that BM-MSCs increased the anti-apoptotic abilities and drug resistance of CD133(-) expressing cells via activation of the PI3K/Akt pathway following Bcl-2 upregulation and BAX downregulation, in which CD133 played a significant role. Targeting this route may help improve the efficacy of chemotherapy in gastric cancer."


The news editors report that additional information may be obtained by contacting B.J. Jiang, Shanghai Jiao Tong University, Sch Med, Shanghai Peoples Hosp 9, Dept. of Gen Surg, Shanghai 201900, People's Republic of China. Additional authors for this research include J.W. Yu, X.C. Ni, J.G. Wu, S.L. Wang and B.J. Jiang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5319-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Mesenchymal Stem Cells, Drugs and Therapies, Stem Cell Research, Gastroenterology, Drug Resistance, Gastric Cancer, Immune System, Bone Research, Bone Marrow, Oncology, Shanghai Jiao-Tong University.

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**Gastroenterology**

**Data on Gastroenterology Reported by Researchers at Cedars-Sinai Medical Center (Prohibitin 1 Regulates the H19-Igf2 Axis and Proliferation in Hepatocytes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gastroenterology. According to news reporting originating in Los Angeles, California, by NewsRx journalists, research stated, "Prohibitin 1 (PHB1) is a mitochondrial chaperone that regulates cell growth. Phb1 knock-out
mice exhibit liver injury and hepatocellular carcinoma (HCC)."

Financial supporters for this research include National Cancer Institute, Plan Nacional of I+D and Departamento de Educacion del Gobierno Vasco.

The news reporters obtained a quote from the research from Cedars-Sinai Medical Center, "Phb1 knock-out livers show induction of tumor growth-associated genes, H19 and insulin-like growth factor 2 (Igf2). These genes are controlled by the imprinting control region (ICR) containing CCCTC-binding transcription factor (CTCF)-binding sites. Because Phb1 knock-out mice exhibited induction of H19 and Igf2, we hypothesized that PHB1-mediated regulation of the H19-Igf2 axis might control cell proliferation in normal hepatocytes. H19 and Igf2 were induced (8-20-fold) in 3-week-old Phb1 knock-out livers, in Phb1 siRNA-treated AML12 hepatocytes (2-fold), and HCC cell lines when compared with control. Phb1 knockdown lowered CTCF protein in AML12 by approximate to 30% when compared with control. CTCF overexpression lowered basal H19 and Igf2 expression by 30% and suppressed Phb1 knockdown-mediated induction of these genes. CTCF and PHB1 co-immunoprecipitated and co-localized on the ICR element, and Phb1 knockdown lowered CTCF ICR binding activity. The results suggest that PHB1 and CTCF cooperation may control the H19-Igf2 axis. Human HCC tissues with high levels of H19 and IGF2 exhibited a 40-50% reduction in PHB1 and CTCF expression and their ICR binding activity. Silencing Phb1 or overexpressing H19 in the mouse HCC cell line, SAMe-D, induced cell growth. Blocking H19 induction prevented Phb1 knockdown-mediated growth, whereas H19 overexpression had the reverse effect. Interestingly H19 silencing induced PHB1 expression."

According to the news reporters, the research concluded: "Taken together, our results demonstrate that the H19-Igf2 axis is negatively regulated by CTCF-PHB1 cooperation and that H19 is involved in modulating the growth-suppressive effect of PHB1 in the liver."


Our news correspondents report that additional information may be obtained by contacting S.C. Lu, Cedars Sinai Med Center, Div Gastroenterol & Hepatol, Los Angeles, CA 90048, United States. Additional authors for this research include N. Mavila, K.S. Ko, J.M. Mato and S.C. Lu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.744045. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Gastroenterology, Hepatocytes, Genetics, Cedars-Sinai Medical Center.

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Hormones - Gastrointestinal Hormones

Data on Gastrointestinal Hormones Discussed by Researchers at Uppsala University (PET imaging of epidermal growth factor receptor expression in tumours using 89Zr-labelled ZEGFR:2377 affibody molecules)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hormones - Gastrointestinal Hormones. According to news reporting from Uppsala, Sweden, by NewsRx journalists, research stated, "Epidermal growth factor receptor (EGFR) is a transmembrane tyrosine kinase receptor, which is overexpressed in many types of cancer. The use of EGFR-targeting monoclonal antibodies and tyrosine-kinase inhibitors improves significantly survival of patients with colorectal, non-small cell lung cancer and head and neck squamous cell carcinoma."

The news correspondents obtained a quote from the research from Uppsala University, "Detection of EGFR overexpression provides important prognostic and predictive information influencing management of the patients. The use of radionuclide molecular imaging would enable non-invasive repeatable determination of EGFR expression in disseminated cancer. Moreover, positron emission tomography (PET) would provide superior sensitivity and quantitation accuracy in EGFR expression imaging. Affibody molecules are a new type of imaging probes, providing high contrast in molecular imaging. In the present study, an EGFR-binding affibody molecule (ZEGFR:2377) was site-specifically conjugated with a deferoxamine (DFO) chelator and labelled under mild conditions (room temperature and neutral pH) with a positron-emitting radionuclide (89)Zr. The (89)Zr-DFO-ZEGFR:2377 tracer demonstrated specific high affinity (160 ± 60 pM) binding to EGFR-expressing A431 epidermoid carcinoma cell line. In mice bearing A431 xenografts, (89)Zr-DFO-ZEGFR:2377 demonstrated specific uptake in tumours and EGFR-expressing tissues. The tracer provided tumor uptake of 2.6 ± 0.5% ID/g and tumour-to-blood ratio of 3.7 ± 0.6 at 24 h after injection. (89)Zr-DFO-ZEGFR:2377 provides higher tumour-to-organ ratios than anti-EGFR antibody (89)Zr-DFO-cetuximab at 48 h after injection. EGFR-expressing tumours were clearly visualized by microPET using (89)Zr-DFO-ZEGFR:2377 at both 3 and 24 h after injection."

According to the news reporters, the research concluded: "(89)Zr-DFO-ZEGFR:2377 is a potential probe for PET imaging of EGFR-expression in vivo."


Our news journalists report that additional information may be obtained by contacting J. Garousi, Institute of Immunology, Genetic and Pathology, Uppsala University, SE-75185 Uppsala, Sweden. Additional authors for this research include K.G. Andersson, B. Mitran, M.L. Pichl, S. Stahl, A. Orlova, J. Lofblom and V. Tolmachev.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3369. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Cancer, Uppsala, Oncology, Proteomics, Nanotechnology, Protein Kinases, Membrane Proteins, Molecular Imaging, Peptide Receptors, Phosphotransferases, Emerging Technologies, Enzymes and Coenzymes, Epidermal Growth Factor Receptor, Receptor Protein Tyrosine Kinases,
Gastrointestinal Hormone Receptors.

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Genetics

Data on Genetics Described by Researchers at National Cancer Center Research Institute (IER5 generates a novel hypo-phosphorylated active form of HSF1 and contributes to tumorigenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Genetics is the subject of a report. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "The transcription factors HSF1 and p53 both modulate the stress response, thereby protecting and facilitating the recovery of stressed cells, but both have the potential to promote tumor development. Here we show that a p53 target gene, IER5, encodes an activator of HSF1."

Our news journalists obtained a quote from the research from National Cancer Center Research Institute, "IER5 forms a ternary complex with HSF1 and the phosphatase PP2A, and promotes the dephosphorylation of HSF1 at numbers of serine and threonine residues, generating a novel, hypo-phosphorylated active form of HSF1. IER5 is also transcriptionally upregulated in various cancers, although this upregulation is not always p53-dependent. The IER5 locus is associated with a so-called super enhancer, frequently associated with hyperactivated oncogenes in cancer cell lines. Enhanced expression of IER5 induces abnormal HSF1 activation in cancer cells and contributes to the proliferation of these cells under stressed conditions."

According to the news editors, the research concluded: "These results reveal the existence of a novel IER5-mediated cancer regulation pathway that is responsible for the activation of HSF1 observed in various cancers."

For more information on this research see: IER5 generates a novel hypo-phosphorylated active form of HSF1 and contributes to tumorigenesis. Scientific Reports, 2016;6():19174. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting Y. Asano, Division of Rare Cancer Research, National Cancer Center Research Institute, Tsukiji 5-1-1, Chuo-ku, Tokyo 104-0045, Japan. Additional authors for this research include T. Kawase, A. Okabe, S. Tsutsumi, H. Ichikawa, S. Tatebe, I. Kitabayashi, F. Tashiro, H. Namiki, T. Kondo, K. Semb, H. Aburatani, Y. Taya, H. Nakagama and R. Ohki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19174. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Cancer, Genetics, Oncology, p53 Gene.

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**Oncology - Glioblastomas**

**Data on Glioblastomas Discussed by Researchers at Capital Medical University [LncRNA and mRNA expression profiles of glioblastoma multiforme (GBM) reveal the potential roles of IncRNAs in GBM pathogenesis]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Glioblastomas. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Glioblastoma multiforme (GBM) is the most common brain malignancy. Long non-coding RNAs (lncRNAs) are aberrantly expressed in many cancers and are involved in their cell proliferation, apoptosis, angiogenesis, and invasion."

Financial supporters for this research include Natural Science Foundation of China, Natural Science Foundation of Beijing City, The Excellence Talents Training Projects of Beijing City.

Our news journalists obtained a quote from the research from Capital Medical University, "The functional roles of lncRNAs in GBM are less known. We analyzed a cohort of exon microarray datasets from The Cancer Genome Atlas. The differently expressed lncRNAs and mRNA were subjected to construct lncRNA-mRNA coexpression network. Probable functions for lncRNAs were predicted according to lncRNA-mRNA network and genomic adjacency by GO and pathway analysis. The expression of lncRNAs and mRNAs in GBM tissues versus normal brain tissues was examined by quantitative reverse transcription polymerase chain reaction. The 398 lncRNAs and 1995 mRNAs were identified as distinctively expressed in GBM. Probable functional roles for 98 lncRNAs were involved in 30 pathways and 32 gene functions related to tumorigenesis, development, and metastasis. The identified sets of key lncRNAs specific to GBM were subsequently verified by experiment in GBM tissues. Our reports predict the biological functions of a multitude of lncRNAs in GBM that could be potential diagnostic and prognostic biomarkers as well as therapeutic targets."

According to the news editors, the research concluded: "Moreover, our research provides a road map for the identification and analysis of lncRNAs in tumors."

For more information on this research see: LncRNA and mRNA expression profiles of glioblastoma multiforme (GBM) reveal the potential roles of IncRNAs in GBM pathogenesis. *Tumor Biology*, 2016;37(11):14537-14552. *Tumor Biology* can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting Y.J. Wang, Capital Med Univ, Beijing Tian Tan Hosp, Dept. of Clin Lab Diag, Beijing, People's Republic of China. Additional authors for this research include H.M. Jia, H.W. Li, C.Y. Dong, Y.J. Wang and Z.M. Zou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5299-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Glioblastomas, Oncology, Genetics, Capital Medical University.

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Oncology - Glioblastomas

**Data on Glioblastomas Discussed by Researchers at Sungkyunkwan University (WNT signaling in glioblastoma and therapeutic opportunities)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Glioblastomas have been presented. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "WNTs and their downstream effectors regulate proliferation, death, and migration and cell fate decision. Deregulation of WNT signaling is associated with various cancers including GBM, which is the most malignant primary brain cancer."

Our news journalists obtained a quote from the research from Sungkyunkwan University, "In this review, we will summarize the experimental evidence supporting oncogenic roles of WNT signaling in GBM and discuss current progress in the targeting of WNT signaling as an anti-cancer approach. In particular, we will focus on (1) genetic and epigenetic alterations that lead to aberrant WNT pathway activation in GBM, (2) WNT-mediated control of GBM stem cell maintenance and invasion, and (3) cross-talk between WNT and other signaling pathways in GBM."

According to the news editors, the research concluded: "We will then review the discovery of agents that can inhibit WNT signaling in preclinical models and the current status of human clinical trials."

For more information on this research see: WNT signaling in glioblastoma and therapeutic opportunities. *Laboratory Investigation*, 2015;96(2):137-50. (Nature Publishing Group - www.nature.com/; Laboratory Investigation - www.nature.com/labinvest/)

The news correspondents report that additional information may be obtained from Y. Lee, Dept. of Health Sciences and Technology, SAIHST, Sungkyunkwan University, Seoul, South Korea. Additional authors for this research include J.K. Lee, S.H. Ahn, J. Lee and D.H Nam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/labinvest.2015.140. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Genetics, Oncology, South Korea, Therapeutics, Glioblastomas, Article Review.

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Gliosarcomas

**Data on Gliosarcomas Reported by Researchers at All India Institute of Medical Sciences (Clinical outcome of patients with primary gliosarcoma treated with concomitant and adjuvant temozolomide: A single institutional analysis of 27 cases)**
Researchers detail new data in Gliosarcomas. According to news reporting originating from New Delhi, India, by NewsRx correspondents, research stated, "The prognosis of primary gliosarcoma (PGS) remains dismal with current treatment modalities. We analyzed the outcome of PGS patients treated with concurrent and adjuvant temozolomide (TMZ)."

Our news editors obtained a quote from the research from the All India Institute of Medical Sciences, "Retrospective single institutional analysis. We retrospectively evaluated 27 patients of PGS treated with radiotherapy (RT) and TMZ during 2007-2012. Overall survival (OS) was estimated by the use of Kaplan Meier method and toxicities were evaluated using common terminology criteria for adverse events version 2.0 (National Cancer Institute, USA). Median age at presentation and Karnofsky performance status was 45 years and 90 respectively and male: female ratio was 20:7. Patients received adjuvant RT to a total dose of 60 Gy at 2 Gy/fraction. All patients except 5 received adjuvant TMZ to a median number of 6 cycles. Grade 2 and 3 hematological toxicity was seen in 8% and 4% of patients respectively during concurrent RT. During adjuvant chemotherapy, 13.6% had Grade 3 thrombocytopenia and 9.5% had Grade 3 neutropenia. Median OS was 16.7 months (1 year and 2 year actuarial OS was 70.8% and 32.6% respectively). Adjuvant TMZ was associated with a better survival (median survival 21.21 vs. 11.93 months; p=0.0046) on univariate analysis and also on multivariate analysis (hazard ratio 1.82, 95% confidence interval: 1.503-25.58; p=0.012). The results of our study, largest series of patients with PGS treated with concurrent and adjuvant TMZ shows an impressive survival with acceptable toxicity."

According to the news editors, the research concluded: "We suggest TMZ be included in the 'standard of care' for this tumor."

For more information on this research see: Clinical outcome of patients with primary gliosarcoma treated with concomitant and adjuvant temozolomide: A single institutional analysis of 27 cases. *Indian Journal of Cancer*, 2015;52(4):599-603.

The news editors report that additional information may be obtained by contacting G.K. Rath, Dept. of Radiation Oncology, Dr BRA IRCH, All India Institute of Medical Sciences, New Delhi, India. Additional authors for this research include D.N. Sharma, S. Mallick, A.K. Gandhi, N.P. Joshi, K.P. Haresh, S. Gupta and P.K Julka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178407. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, New Delhi, Gliosarcomas. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
NewsRx correspondents, research stated, "We assessed etravirine resistance in treatment-experienced, HIV-1-infected children (n=41)/adolescents (n= 60) who received twice-daily etravirine 5.2 mg/kg and a background regimen (boosted protease inhibitor plus nucleoside/nucleotide reverse transcriptase inhibitors, optional enfuvirtide/raltegravir) in a Phase II, open-label, multicentre trial (PIANO). In addition to phenotypes, viral genotypes were assessed by population and deep sequencing (PS and DS) in virological failures (VFs; baseline and end point) and responders (baseline)."

Our news editors obtained a quote from the research from Janssen Infectious Diseases-Diagnostics B.V.B.A., "Minority resistance-associated mutations (RAMs) were defined as those with frequencies above 1% and not detected with PS. By week 48, 41/101 (40.6%) patients experienced VF; 17/41 (41.5%) VFs and 22/54 (40.8%) responders had >= 1 baseline etravirine RAM by PS, mainly A98G, K101E, V106I and G190A. Baseline minority etravirine RAMs (n) were detected in 8/40 VFs (V90I [2], A98G [1], L100I [1], V106I [1], E138G [1] and Y181C [2]) and 5/38 responders (V90I [3], A98G [1], V106I [1] and E138G [1]). The most frequent emerging non-nucleoside reverse transcriptase inhibitor RAMs detected by PS (>= 3 VFs; n) were the etravirine RAMs Y181C (8), V90I (3), L100I (3) and E138A (3). In 15 of 29 (51.7%) VFs with baseline DS/PS and end point PS data, = 1 emerging etravirine RAM was detected by PS, which was not detected at baseline by DS in most cases (12/15 [80.0%]). In 10/26 (38.5%) VFs with baseline/end point DS data, >= 1 additional emerging minority etravirine RAM was detected. Patterns of etravirine resistance in adults, adolescents and children experiencing VF are similar."

According to the news editors, the research concluded: "The presence of minority etravirine RAMs at baseline was not consistently associated with treatment failure."


The news editors report that additional information may be obtained by contacting L. Tambuyzer, Janssen Infect Dis BVBA, Beerse, Belgium. Additional authors for this research include K. Thys, A. Hoogstoel, S. Nijs, F. Tomaka, M. Opsomer, S. De Meyer and J. Vingerhoets.

Keywords for this news article include: Beerse, Belgium, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Enzymes and Coenzymes, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Transcriptase, Retroviridae, RNA Viruses, HIV/AIDS, HIV-1, Janssen Infectious Diseases-Diagnostics B.V.B.A.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Data on HIV/AIDS Discussed by Researchers at New York State Psychiatric Institute and Hospital (Early sex work initiation and condom use among alcohol-using female sex workers in Mombasa, Kenya: a cross-sectional analysis)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - HIV/AIDS have been published. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Early initiation of sex work is prevalent among female sex workers (FSWs) worldwide. The objectives of this study were to investigate if early initiation of sex work was associated with: (1) consistent condom use, (2) condom negotiation self-efficacy or (3) condom use norms among alcohol-using FSWs in Mombasa, Kenya."

Our news journalists obtained a quote from the research from New York State Psychiatric Institute and Hospital, "In-person interviews were conducted with 816 FSWs in Mombasa, Kenya. Sample participants were: recruited from HIV prevention drop-in centres, 18 years or older and moderate risk drinkers. Early initiation was defined as first engaging in sex work at 17 years or younger. Logistic regression modelled outcomes as a function of early initiation, adjusting for drop-in centre, years in sex work, supporting others and HIV status. FSWs who initiated sex work early were significantly less likely to report consistent condom use with paying sex partners compared with those who initiated sex work in adulthood. There was no significant difference between groups in consistent condom use with non-paying sex partners. FSWs who initiated sex work early endorsed less condom negotiation self-efficacy with paying sex partners compared with FSWs who did not initiate sex work early. Findings highlight a need for early intervention for at-risk youth and adolescent FSWs, particularly in relation to HIV sexual risk behaviours."

According to the news editors, the research concluded: "Evidence-based interventions for adolescent FSWs or adult FSWs who began sex work in adolescence should be developed, implemented and evaluated."

For more information on this research see: Early sex work initiation and condom use among alcohol-using female sex workers in Mombasa, Kenya: a cross-sectional analysis. Sexually Transmitted Infections, 2016;92(8):593-598. Sexually Transmitted Infections can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Sexually Transmitted Infections - sti.bmj.com/)

The news correspondents report that additional information may be obtained from A.M. Parcesepe, New York State Psychiat Inst & Hosp, New York, NY 10032, United States. Additional authors for this research include K.L. L'Engle, S.L. Martin, S. Green, C. Suchindran and P. Mwarogo.

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Keywords for this news article include: New York City, New York, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Risk and Prevention, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, New York State Psychiatric Institute and Hospital.

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Imune System Diseases and Conditions - HIV/AIDS

Data on HIV/AIDS Reported by Researchers at University of Stellenbosch (Point-of-Care Cepheid Xpert HIV-1 Viral Load Test in Rural African Communities Is Feasible and Reliable)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - HIV/AIDS have been published. According to news reporting originating from Tygerberg, South Africa, by NewsRx correspondents, research stated, "Routine monitoring of HIV-1 RNA or viral load (VL) in patients on antiretroviral therapy (ART) is important, but there are multiple impediments to VL testing in resource-constrained settings. An accurate point-of-care (POC) HIV-1 VL test could alleviate many of these challenges."

Funders for this research include U.S. President's Emergency Plan for AIDS Relief (PEPFAR), Wellcome Trust DELTAS Initiatives/Sub-Saharan Africa Network for TB/HIV Research Excellence (SANTHE).

Our news editors obtained a quote from the research from the University of Stellenbosch, "We compared the performance of the Cepheid Xpert HIV-1 VL assay against the laboratory-based Abbott m2000sp/m2000rt assay (Abbott assay). ART-naive individuals participating in the Botswana Combination Prevention Project in 20 communities provided EDTA-blood specimens during household surveys. Both the POC Xpert HIV-1 VL and Abbott assays were performed on specimens sampled from 277 individuals. We found a high correlation between the Xpert HIV-1 VL and Abbott assay results (r(2) = 0.92; P< 0.001). The overall mean difference in the HIV-1 RNA values obtained by Xpert HIV-1 VL assay and Abbott assay was 0.34 log(10) copies/ml (95% confidence interval [CI], 0.26 to 0.40 log(10) copies/ml) (P < 0.001). Using a clinically relevant level of 1,000 copies/ml as a threshold, agreement was 90.6% (95% CI, 87.9 to 93.1%), with a sensitivity of 98.6% (95% CI, 97.2 to 100%). The two methods agreed on their detectability of HIV-1 RNA (>40 copies/ml) at 97.1% (95% CI, 95.5 to 98.7%), with a sensitivity of 99.6% (95% CI, 97.2 to 100%). The POC Cepheid Xpert HIV-1 VL assay showed high agreement and accuracy with a laboratory-based method of HIV-1 RNA testing. The POC Xpert HIV-1 VL assay tended to overestimate HIV-1 VL, although the difference was below a clinically relevant threshold of 0.5 log(10) copies/ml."

According to the news editors, the research concluded: "The POC Cepheid Xpert HIV-1 VL assay is a promising tool for monitoring patients on ART in southern Africa."

For more information on this research see: Point-of-Care Cepheid Xpert HIV-1 Viral Load Test in Rural African Communities Is Feasible and Reliable. *Journal of Clinical Microbiology*, 2016;54(12):3050-3055. *Journal of Clinical Microbiology* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.

The news editors report that additional information may be obtained by contacting S. Moyo, University of Stellenbosch, Div Med Virol, Fac Med & Hlth Sci, Tygerberg, South Africa. Additional authors for this research include T. Mohammed, K.E. Wirth, M. Prague, K. Bennett, M.P. Holme, L. Mufpumi, P. Sebogodi, N.O. Moraka, C. Boleo, C.N. Maphorisa, B. Seraise, S. Gaseitsiwe, R.M. Musonda, E. van Widenfelt, K.M. Powis, T. Gaolathe, E.J.T. Tchetgen and Ma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/JCM.01594-16. This DOI is a link to an online electronic document that is either free or for purchase.
Nervous System Diseases and Conditions -

Data on Headache and Migraine Reported by Researchers at University of Iowa (Higher augmentation index is associated with tension-type headache and migraine in middle-aged/older humans with obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nervous System Diseases and Conditions - Headache and Migraine. According to news reporting originating in Iowa City, Iowa, by NewsRx journalists, research stated, "Obesity is a major risk factor for chronic daily headaches, including migraine and tension-type headache (TTH). Although migraine is associated with increased risk of cardiovascular diseases (CVD), a relation between TTH and CVD risk has not been established."

Financial supporters for this research include National Institutes of Health, American Heart Association.

The news reporters obtained a quote from the research from the University of Iowa, "It was hypothesized that higher carotid-femoral pulse wave velocity (CFPWV) and augmentation index (AI), measures of aortic stiffness and pressure wave reflection, respectively, and biomarkers of CVD risk, would be higher among adults with obesity and migraine or TTH compared with those with no headache. Adults with obesity (n=93; body mass index (>=)30 kg/m(2) ) who were between 40 and 75 years old with at least one additional CVD risk factor were enrolled. Subjects had CFPWV and AI assessed and a complete neurological exam for diagnosis of headache in the past 12 months. Adults with obesity and TTH (p=0.018), but not migraine (p=0.29), had significantly higher AI compared with those with no headache. When both CFPWV and AI were considered in a logistic regression model with migraine or TTH, only AI was associated with TTH (p=0.008) and migraine (p=0.032) but could not distinguish between the two headache phenotypes."

According to the news reporters, the research concluded: "Increased aortic AI but not stiffness is associated with TTH and migraine among middle-aged/older adults with obesity and high CVD risk."

For more information on this research see: Higher augmentation index is associated with tension-type headache and migraine in middle-aged/older humans with obesity. *Obesity*, 2016;24(4):865-70. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news correspondents report that additional information may be obtained by contacting G.Z. Kalil, Dept. of Health and Human Physiology, University of Iowa, Iowa City, Iowa, United States. Additional authors for this research include A. Recober, A. Hoang-Tienor, M. Bridget Zimmerman, W.G. Haynes and G.L. Pierce.

The direct object identifier (DOI) for that additional information is:
Data on Heart Attack Discussed by Researchers at University of Amsterdam (Extracorporeal life support during cardiac arrest and cardiogenic shock: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Attack is now available. According to news reporting out of Amsterdam, Netherlands, by NewsRx editors, research stated, "Veno-arterial extracorporeal life support (ECLS) is increasingly used in patients during cardiac arrest and cardiogenic shock, to support both cardiac and pulmonary function. We performed a systematic review and meta-analysis of cohort studies comparing mortality in patients treated with and without ECLS support in the setting of refractory cardiac arrest and cardiogenic shock complicating acute myocardial infarction."

Our news journalists obtained a quote from the research from the University of Amsterdam, "We systematically searched MEDLINE, EMBASE, the Cochrane Central Register of Controlled Trials and the publisher subset of PubMed updated to December 2015. Thirteen studies were included of which nine included cardiac arrest patients (n = 3098) and four included patients with cardiogenic shock after acute myocardial infarction (n = 235). Data were pooled by a Mantel-Haenzel random effects model and heterogeneity was examined by the I (2) statistic. In cardiac arrest, the use of ECLS was associated with an absolute increase of 30 days survival of 13 % compared with patients in which ECLS was not used [95 % CI 6-20 %; p< 0.001; number needed to treat (NNT) 7.7] and a higher rate of favourable neurological outcome at 30 days (absolute risk difference 14 %; 95 % CI 7-20 %; p< 0.0001; NNT 7.1). Propensity matched analysis, including 5 studies and 438 patients (219 in both groups), showed similar results. In cardiogenic shock, ECLS showed a 33 % higher 30-day survival compared with IABP (95 % CI, 14-52 %; p< 0.001; NNT 13) but no difference when compared with TandemHeart/Impella (-3 %; 95 % CI -21 to 14 %; p = 0.70; NNH 33). In cardiac arrest, the use of ECLS was associated with an increased survival rate as well as an increase in favourable neurological outcome."

According to the news editors, the research concluded: "In the setting of cardiogenic shock there was an increased survival with ECLS compared with IABP."

For more information on this research see: Extracorporeal life support during cardiac arrest and cardiogenic shock: a systematic review and meta-analysis. Intensive Care Medicine, 2016;42(12):1922-1934. Intensive Care Medicine can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Intensive Care Medicine - www.springerlink.com/content/0342-4642/)

Our news journalists report that additional information may be obtained by
contacting J.P.S. Henriques, University of Amsterdam, Academy Med Center, AMC Heart Center, NL-1105 AZ Amsterdam, Netherlands. Additional authors for this research include J.V. Schotborgh, J. Limpens, K.D. Sjauw, A.E. Engstrom, W.K. Lagrand, T.G.V. Cherpanath, A.H.G. Driessen, B. de Mol and J.P.S. Henriques.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00134-016-4536-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Heart Disorders and Diseases, Article Review, Vascular Diseases and Conditions, Myocardial Infarction, Myocardial Ischemia, Cardiogenic Shock, Cardiac Arrest, Heart Disease, Heart Attack, Cardiology, University of Amsterdam.

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Heart Disorders and Diseases - Heart Disease

Data on Heart Disease Described by Researchers at Tabriz University of Medical Sciences (Predictors of health-promoting behaviors in patients with coronary artery disease in the Iranian population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Disease have been presented. According to news reporting originating in Tabriz, Iran, by NewsRx journalists, research stated, "This study was carried out to determine the predictors of health-promoting behaviors (HPBs) in patients with coronary artery diseases (CAD) in the Iranian population. In this cross-sectional descriptive study, 250 eligible patients ages 42-80 years with a body mass index (BMI) between 18 and 45.7 kg/m(2) with CAD who were admitted to a cardiac hospital in Urmia, Iran participated."

The news reporters obtained a quote from the research from the Tabriz University of Medical Sciences, "Valid questionnaires used the Health Promoting Lifestyle Profile-II (HPLP-II), Cardiac Self-Efficacy (CSE) and General Self-Efficacy (GSE) scales to assess HPBs, CSE and GSE, respectively. Fifty five percent of participants were men and mean (SD) age was 59 (12.1) years. Hierarchical multiple regression analysis indicated that CSE, GSE, education and BMI were the best predictors of HPBs, respectively. This model predicted 31% of HPB change (adjusted R-2=0.31). Responsibility for health and spiritual growth motivates patients to apply HPBs."

According to the news reporters, the research concluded: "However, physical activity and stress management are least applied."


Our news correspondents report that additional information may be obtained by contacting M. Alizadeh, Tabriz Univ Med Sci, Tabriz Hlth Serv Management Res Center, Tabriz, Iran.
Keywords for this news article include: Tabriz, Iran, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Arteriosclerosis, Heart Disease, Cardiology, Angiology, Tabriz University of Medical Sciences.

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Heart Disorders and Diseases - Heart Disease

Data on Heart Disease Discussed by Researchers at University of Amsterdam (Prenatal Undernutrition and Autonomic Function in Adulthood)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Disease have been published. According to news originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Early-life adversity has been shown to be associated with cardiovascular disease and mortality in later life, but little is known about the mechanisms that underlie this association. Prenatal undernutrition, a severe early-life stressor, is associated with double the risk of coronary heart disease and increased blood pressure responses to psychological stress."

Our news journalists obtained a quote from the research from the University of Amsterdam, "In the present study, we tested the hypothesis that prenatal undernutrition induces alterations in the autonomic nervous system, which may increase the risk of developing heart disease. We studied autonomic function in 740 men and women (mean [SD] age, 58 [0.9] years) who were members of the Dutch famine birth cohort. We compared those exposed to famine during early (n = 64), mid (n = 107), or late gestation (n = 127) to those unexposed to famine in utero (n = 442). Participants underwent a series of 3 psychological stressors (Stroop, mirror tracing, and speech) while their blood pressure and heart rate were recorded continuously. Data had sufficient quality in 602 participants for derivation of autonomic function indices by spectral analysis. The stress protocol led to significant sample-level changes in systolic blood pressure, heart rate, and all cardiovascular control measures (all p values < .001). None of the autonomic function parameters, at rest or in response to stress, differed significantly (all p values > .050) according to prenatal famine exposure. Prenatal undernutrition was not associated with autonomic function in late adulthood."

According to the news editors, the research concluded: "We conclude that altered autonomic function does not seem to explain our previous findings of increased coronary heart disease risk among those exposed to famine prenatally."

For more information on this research see: Prenatal Undernutrition and Autonomic Function in Adulthood. Psychosomatic Medicine, 2016;78(9):991-997. Psychosomatic Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news correspondents report that additional information may be obtained from S.R. de Rooij, University of Amsterdam, Academy Med Center, Dept. of Clin Epidemiol Biostat & Bioinformat, Amsterdam, Netherlands. Additional authors for this research include A. Jones, D.I. Phillips, C. Osmond, J.M. Karemaker, T.J. Roseboom and R.C. Painter.

Keywords for this news article include: Amsterdam, Netherlands, Europe,
Heart Disorders and Diseases - Heart Disease

Data on Heart Disease Reported by Researchers at Peking University (Association between plasma ADAMTS-7 levels and severity of disease in patients with stable obstructive coronary artery disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Disease are presented in a new report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "The metalloproteinase family of a disintegrin and metalloproteinase with thrombospondin motifs-7 (ADAMTS-7) was reported to be a novel locus associated with human coronary artery disease. This study aimed to investigate plasma ADAMTS-7 levels in stable obstructive CAD patients and elucidate the relationship between plasma ADAMTS-7 levels and the severity of CAD as assessed by the Syntax score."

Our news journalists obtained a quote from the research from Peking University, "This was a single center cross-sectional study performed in 182 CAD patients. ELISA was used to measure plasma ADAMTS-7 levels. All patients were divided into subgroup according to the ADAMTS-7 median in this cohort: high group with ADAMTS-7 > = 0.99 ng/mL and low group with ADAMTS-7 < 0.99 ng/mL. Furthermore, all patients were divided into tertiles according to their Syntax scores (low group: Syntax score <= 10.0; moderate group: 10.0 < Syntax score <= 18.0; high group: Syntax score > 18.0). We followed up the participants continuously until the first major adverse cardiovascular event (MACE) for a mean time of 22.0 months. Plasma ADAMTS-7 levels in the high Syntax score group were significantly higher compared with the low Syntax score group (3.29 [0.08-26.3] ng/mL vs 1.24 [0.15-8.78] ng/mL, P=0.010). Plasma ADAMTS-7 levels were significantly positively correlated with the Syntax score tertiles (r=0.157, P=0.035). Logistic regression analysis indicated that the plasma ADAMTS-7 level was one of the independent predictors for the Syntax score tertiles (B=1.118, 95% CI: 1.194-7.830, P=0.020), together with HbA1c (B=0.946, 95% CI: 1.248-5.312, P=0.010), uric acid (B=-0.019, 95% CI: 0.974-0.988, P<0.001), and coronary artery calcium score (B=-0.001, 95% CI: 0.998-0.999, P<0.001). Compared with the low ADAMTS-7 group, the high ADAMTS-7 group had significantly higher Syntax score (17.10 +/- 8.42 vs 14.96 +/- 8.11, P=0.047). Kaplan Meier analysis showed patients in the high plasma ADAMTS-7 group tend to have a lower event-free survival rate than patients in the low plasma ADAMTS-7 group. Unfortunately, no difference was detected (86.8% vs 88.0%, log rank=0.314, P=0.575). The plasma ADAMTS-7 level was positively correlated with the Syntax score significantly."

According to the news editors, the research concluded: "The elevated plasma ADAMTS-7 level may be involved in the severity of disease in patients with stable coronary artery disease."

For more information on this research see: Association between plasma ADAMTS-7 levels and severity of disease in patients with stable obstructive coronary artery disease. Medicine, 2016;95(48):228-234. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier -
Data on Heart Failure Described by Researchers at University of Naples Federico II (Sleep-disordered breathing, impaired cardiac adrenergic innervation and prognosis in heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Failure is now available. According to news originating from Naples, Italy, by NewsRx correspondents, research stated, "Unfavourable effects of sleep-disordered breathing (SDB) in heart failure (HF) are mainly mediated by impaired sympathetic activity. Few data are available on SDB and cardiac adrenergic impairment evaluated at myocardial level."

Our news journalists obtained a quote from the research from the University of Naples Federico II, "The aim of the study was to assess the relationship between SDB, cardiac sympathetic innervation assessed by I-123-metaiodobenzylguanidine (I-123-MIBG) imaging and prognosis in HF. Observational, prospective study enrolling patients with HF and reduced systolic function. Patients underwent nocturnal cardiorespiratory monitoring to assess SDB presence by apnoea/hypopnoea index (AHI), and I-123-MIBG imaging to calculate heart-tomediastinum (H/M) ratios and washout rate. Patients were prospectively followed for 29 +/- 18 months for the combined endpoint of cardiovascular death and HF hospitalisation. Ninety-four patients (66.1 +/- 9.8 years; left ventricular ejection fraction 32 +/- 7%) were enrolled; 72 (77%) showed SDB and, compared with non-SDB, significantly reduced early (1.67 +/- 0.22 vs 1.77 +/- 0.13; p=0.019) and late H/M ratios (1.50 +/- 0.22 vs 1.61 +/- 0.23; p=0.038). Dividing patients into two groups according to SDB severity, patients with a moderate-severe disturbance (AHI > 15; n=43) showed significantly worse survival for the composite study outcome (log-rank test, p=0.001) with respect to patients with mild or no disorder (AHI <= 15; n=51). Adding SDB variables to the already known prognostic role of I-123-MIBG imaging, we observed a worse survival in patients with both SDB and H/M impairment."

According to the news editors, the research concluded: "Patients with systolic HF and SDB show more impaired cardiac adrenergic innervation assessed by I-123-MIBG imaging, and more adverse prognosis compared with HF patients without SDB."

For more information on this research see: Sleep-disordered breathing, impaired cardiac adrenergic innervation and prognosis in heart failure. *Heart*, 2016;102(22):1813-1819.
Heart Disorders and Diseases - Heart Failure

Data on Heart Failure Reported by Researchers at University of Glasgow (The incremental prognostic and clinical value of multiple novel biomarkers in heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Failure have been presented. According to news originating from Glasgow, United Kingdom, by NewsRx correspondents, research stated, "In recent years there has been an increase in the number of biomarkers in heart failure (HF). The clinical role for these novel biomarkers in combination is not clear."

Our news journalists obtained a quote from the research from the University of Glasgow, "The following novel biomarkers were measured from 628 patients recently hospitalized with decompensated HF; mid-regional pro-adrenomedullin (MR-proADM), mid-regional pro-atrial natriuretic peptide (MR-proANP), copeptin, high-sensitivity cardiac troponin T (hs-cTnT), ST2, galectin-3, cystatin C, combined free light chains (cFLC) and high sensitivity C-reactive protein (hsCRP). The incremental prognostic value of these novel biomarkers was evaluated within an extensive model containing established predictors of mortality. During a mean (SD) follow-up of 3.2 (1.5) years, 290 (46%) patients died. Elevated concentrations of all novel biomarkers were associated with an increased unadjusted risk of mortality but only two-thirds were independent predictors following multivariable analysis. Using dichotomized cut-points from receiver operating characteristic analysis, MR-proADM, hs-cTnT, cFLC, hsCRP, and ST2 remained independent predictors of mortality. Further dichotomization into low (0-2 elevated biomarkers) or high (at least three of the five biomarkers elevated) risk groups provided greatest incremental prognostic value (hazard ratio 2.20, 95% confidence interval 1.37-3.54; P = 0.001) and improved the performance of the model (C-statistic 0.730 from 0.721, net reclassification index 32.5%). The novel biomarkers included in this study added little, if any, incremental prognostic value on their own to a model containing established predictors of mortality. However, following dichotomization, five of the novel biomarkers provided
incremental prognostic value."

According to the news editors, the research concluded: "There was a clear gradient in the risk of death with increasing numbers of elevated novel biomarkers, with the presence of at least three identifying patients at greatest risk of mortality."


The news correspondents report that additional information may be obtained from C.E. Jackson, University of Glasgow, Cardiovasc Res Center, British Heart Fdn, Glasgow G12 8TA, Lanark, United Kingdom. Additional authors for this research include C. Haig, P. Welsh, J.R. Dalzell, I.K. Tsorlalis, A. McConnachie, D. Preiss, S.D. Anker, N. Sattar, M.C. Petrie, R.S. Gardner and J.J.V. McMurray.

Keywords for this news article include: Glasgow, United Kingdom, Europe, Heart Disorders and Diseases, Diagnostics and Screening, Risk and Prevention, Cardiovascular Diseases and Conditions, Heart Failure, Heart Disease, Cardiology, University of Glasgow.

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Heart Disorders and Diseases - Heart Failure

Data on Heart Failure Reported by Researchers at University of New Mexico (Hyponatremia, Cognitive Function, and Mobility in an Outpatient Heart Failure Population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news originating from Albuquerque, New Mexico, by NewsRx correspondents, research stated, "The association of hyponatremia with cognitive impairment and mobility in heart failure (HF) patients is unknown. The purpose of this study was to determine if hyponatremia is associated with cognitive and mobility impairment as measured by simple, validated, and time-sensitive tests."

Our news journalists obtained a quote from the research from the University of New Mexico, "This was a prospective study in patients with reduced and preserved ejection fraction (HFrEF, HFpEF) seen in outpatient HF clinics. Hyponatremia was defined as sodium level <= 136 mEq/L. Cognitive function was measured using the Montreal Cognitive Assessment (MoCA) tool, and mobility was measured with the Timed Up and Go test (TUG-t). A total of 121 patients were evaluated; 30% were hyponatremic (134 +/- 1.9 mEq/l, range 128-136 mEq/l). Overall, 92% of hyponatremic patients had cognitive impairment (MoCA <26) compared to 76% of the non-hyponatremic patients [relative risk 1.2 (confidence interval: 1.02-1.4, p=0.02)]. In regard to mobility, 72% of hyponatremic patients and 62% of non-hyponatremic patients (p=0.4) had TUG-t times that were considered to be worse than average. A total of 84% (N=76) of HFrEF and 71% (N=22) of HFpEF patients had cognitive impairment (p=0.86). HFrEF patients had significantly lower overall MoCA scores (21.2 +/- 3.7 vs. 23.3 +/- 3.6, p=0.006) and similar TUG-t times compared to HFpEF patients. Most heart failure patients (HFrEF and HFpEF) seen in an ambulatory setting had impairment of cognitive function and mobility, with a higher
prevalence among those with hyponatremia."

According to the news editors, the research concluded: "Screening can be done using tests that can be administered in a clinical setting."

For more information on this research see: Hyponatremia, Cognitive Function, and Mobility in an Outpatient Heart Failure Population. *Medical Science Monitor*, 2016;22():4978-4985. *Medical Science Monitor* can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

The news correspondents report that additional information may be obtained from B.E. Bleske, University of New Mexico, Coll Pharm, Albuquerque, NM 87131, United States. Additional authors for this research include M.J. Brenner, J.M. Nicklas, S.L. Hummel, M.P. McCormick, J.L. Pawlowksi, T.L. Remington, T.R. Gure, M.P. Dorsch and B.E. Bleske.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.898538. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Albuquerque, New Mexico, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Water-Electrolyte Imbalance, Heart Failure, Heart Disease, Hyponatremia, Nephrology, Cardiology, University of New Mexico.

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**Heart Function Tests**

**Data on Heart Function Tests Detailed by Researchers at Medical University (Electrocardiography in Rats: a Comparison to Human)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Function Tests. According to news reporting originating from Warsaw, Poland, by NewsRx correspondents, research stated, "Electrocardiography (ECG) in rats is a widely applied experimental method in basic cardiovascular research. The technique of ECG recordings is simple; however, the interpretation of electrocardiographic parameters is challenging."

Our news editors obtained a quote from the research from Medical University, "This is because the analysis may be biased by experimental settings, such as the type of anesthesia, the strain or age of animals. Here, we aimed to review electrocardiographic parameters in rats, their normal range, as well as the effect of experimental settings on the parameters variation."

According to the news editors, the research concluded: "Furthermore, differences and similarities between rat and human ECG are discussed in the context of translational cardiovascular research."

For more information on this research see: Electrocardiography in Rats: a Comparison to Human. *Physiological Research*, 2016;65(5):717-725. *Physiological Research* can be contacted at: Acad Sciences Czech Republic, Inst Physiology, Videnska 1083, Prague 4 142 20, Czech Republic.

The news editors report that additional information may be obtained by contacting M. Ufnal, Medical University of Warsaw, Dept. of Expt Physiol & Pathophysiol, Lab Center Preclin Res, Warsaw, Poland.
Gram-Negative Bacteria - Helicobacter pylori

Data on Helicobacter pylori Discussed by Researchers at Yonsei University (Activation of NF-κB and AP-1 Mediates Hyperproliferation by Inducing b-Catenin and c-Myc in Helicobacter pylori-Infected Gastric Epithelial Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Helicobacter pylori have been published. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "In the gastric mucosa of Helicobacter pylori (H. pylori)-infected patients with gastritis or adenocarcinoma, proliferation of gastric epithelial cells is increased. Hyperproliferation is related to induction of oncogenes, such as b-catenin and c-myc.”

Financial support for this research came from National Research Foundation of Korea.

The news correspondents obtained a quote from the research from Yonsei University, "Even though transcription factors NF-κB and AP-1 are activated in H. pylori-infected cells, whether NF-κB or AP-1 regulates the expression of b-catenin or c-myc in H. pylori-infected cells has not been clarified. The present study was undertaken to investigate whether H. pylori-induced activation of NF-κB and AP-1 mediates the expression of oncogenes and hyperproliferation of gastric epithelial cells. Gastric epithelial AGS cells were transiently transfected with mutant genes for IkBa (MAD3) and c-Jun (TAM67) or treated with a specific NF-κB inhibitor caffeic acid phenethyl ester (CAPE) or a selective AP-1 inhibitor SR-11302 to suppress activation of NF-κB or AP-1, respectively. As reference cells, the control vector pcDNA was transfected to the cells. Wild-type cells or transfected cells were cultured with or without H. pylori. H. pylori induced activation of NF-κB and AP-1, cell proliferation, and expression of oncogenes (b-catenin, c-myc) in AGS cells, which was inhibited by transfection of MAD3 and TAM67. Wild-type cells and the cells transfected with pcDNA showed similar activities of NF-κB and AP-1, proliferation, and oncogene expression regardless of treatment with H. pylori."

According to the news reporters, the research concluded: "Both CAPE and SR-11302 inhibited cell proliferation and expression of oncogenes in H. pylori-infected cells. H. pylori-induced activation of NF-κB and AP-1 regulates transcription of oncogenes and mediates hyperproliferation in gastric epithelial cells."

For more information on this research see: Activation of NF-κB and AP-1 Mediates Hyperproliferation by Inducing b-Catenin and c-Myc in Helicobacter pylori-Infected Gastric Epithelial Cells. Yonsei Medical Journal, 2016;57(3):647-51.

Our news journalists report that additional information may be obtained by contacting E. Byun, Dept. of Food and Nutrition, Brain Korea 21 PLUS Project, College of Human Ecology, Yonsei University, Seoul, South Korea. Additional authors for this research include B. Park, J.W. Lim and H. Kim.
Hematopoietic

Data on Hematopoietic Detailed by Researchers at Capital Medical University (New strategies of DLI in the management of relapse of hematological malignancies after allogeneic hematopoietic SCT)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematopoietic is the subject of a report. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "DLI is an effective strategy for patients with recurrent hematological malignancies after allogeneic hematopoietic SCT (allo-HSCT). DLI has been widely applied to boost the graft vs tumor (GVT) or GVL effects."

Our news journalists obtained a quote from the research from Capital Medical University, "However, given the potentially severe complications associated with conventional DLI and transient GVL effect, new strategies for DLI are emerging. In this review, we have discussed the recent important studies on DLI as a prophylactic or therapeutic modality for relapsed hematological disorders after allo-HSCT. The strategies to separate GVL from GVHD have also been discussed. Leukemia-targeting therapy and lymphodepletion combined with DLI, and prophylactic DLI after allo-HSCT are often employed for patients with high risk of relapse, which has been reviewed as well."

According to the news editors, the research concluded: "In addition, we have also discussed the issues on DLI to be further addressed, such as the doses, timing and frequency of DLI in different clinical settings, leukemic antigen-specific DLI as well as how to augment GVL effect while attenuating GVHD."

For more information on this research see: New strategies of DLI in the management of relapse of hematological malignancies after allogeneic hematopoietic SCT. Bone Marrow Transplantation, 2015;51(3):324-32. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news journalists report that additional information may be obtained by contacting X. Chang, Dept. of Hematology, Xuanwu Hospital, Capital Medical University, Beijing, People's Republic of China. Additional authors for this research include X. Zang and C.Q Xia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bmt.2015.288. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Bone Marrow Transplantation is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.
Data on Hematopoietic Stem Cells Reported by Researchers at Peking University People's Hospital (Causes of mortality after haploidentical hematopoietic stem cell transplantation and the comparison with HLA-identical sibling hematopoietic stem ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Stem Cell Research - Hematopoietic Stem Cells. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "This study was performed to investigate incidence, causes and factors influencing mortality after haploidentical hematopoietic stem cell transplantation (HSCT) and to compare differences between haploidentical HSCT and HLA-identical sibling HSCT. From January 2000 to June 2011, 1411 patients with acute leukemia or myelodysplastic syndrome were included in this study."

Our news journalists obtained a quote from the research from Peking University People's Hospital, "Of these patients, 571 received HLA-identical sibling HSCT and 840 received haploidentical HSCT. The cumulative incidence of overall mortality and transplant-related mortality (TRM) after haploidentical HSCT was higher than those after HLA-identical sibling HSCT (38.7% vs. 33.3%, p=0.012 and 27.5% vs. 19.9%, p=0.002), but the incidence of relapse-related mortality (RRM) did not differ between the two groups (15.6% vs. 16.7%, p=0.943). A multivariate analysis suggested that high-risk disease status and haploidentical HSCT correlated with a higher incidence of overall mortality (p <0.0001, hazard ratio=1.911 and p=0.019, hazard ratio=1.249); in addition, in haploidentical HSCT, only high-risk disease status correlated with a higher incidence of overall mortality (p <0.0001, hazard ratio=1.845). Our study suggested that haploidentical HSCT provided a higher incidence of overall mortality and TRM but the same incidence of RRM compared with HLA-identical sibling HSCT."

According to the news editors, the research concluded: "Therefore, HLA-identical sibling HSCT remains the first choice, but haploidentical HSCT is available for patients without an HLA-identical sibling donor."

For more information on this research see: Causes of mortality after haploidentical hematopoietic stem cell transplantation and the comparison with HLA-identical sibling hematopoietic stem cell transplantation. Bone Marrow Transplantation, 2015;51(3):391-7. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news journalists report that additional information may be obtained by contacting C.H. Yan, Peking University People's Hospital, Peking University Institute of Hematology, Beijing Key Laboratory of Hematopoietic Stem Cell Transplantation, Beijing, People's Republic of China. Additional authors for this research include L.P. Xu, F.R. Wang, H. Chen, W. Han, Y. Wang, J.Z. Wang, K.Y. Liu and X.J Huang.

The direct object identifier (DOI) for that additional information is:
Data on Hepatitis B Virus Detailed by A. Ducancelle and Co-Authors

(Different precore/core mutations of hepatitis B interact with, limit, or favor liver fibrosis severity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Hepatitis B Virus. According to news originating from Angers, France, by NewsRx correspondents, research stated, "The impact of basal core promoter (BCP) and precore (PC) mutants of the hepatitis B virus (HBV) on liver disease severity remains controversial. The aim of the present study was to screen BCP and PC mutations in 252 HBV surface antigen (HBsAg) positive carriers in France and to assess relationships between these mutations and severe fibrosis."

Our news journalists obtained a quote from the research, "Direct sequencing of the precore/core gene was used to detect A1762T/G1764A and G1757A mutations in the BCP and G1896A and G1899A mutations in the PC region. The prevalences of A1762T/G1764A, G1757A, G1896A, and G1899A mutations were 34.1%, 38.7%, 54.9%, and 29.3% (P < 0.001), respectively. The independent predictors of severe fibrosis (>= F3 Metavir) were older age (P < 0.001), male gender (P = 0.012), elevated alanine aminotransferase (P < 0.001), and the double A1762T/G1764A mutant with no other mutations (P = 0.011). Interestingly, the association of the G1899A mutation with the double A1762T/G1764A mutant significantly counteracted the deleterious effect of the sole double A1762T/G1764A mutant (odds ratio [OR] = 0.28 vs. OR = 3.55, respectively, P = 0.028). Patients with the A1762T/G1764A mutation have a higher risk of severe fibrosis. The G1899A mutation is a protective factor against severe fibrosis that counteracted the deleterious effect of the A1762T/G1764A mutation."

According to the news editors, the research concluded: "Finally, host phenotypic and HBV genotypic markers independently predict fibrosis severity."


The news correspondents report that additional information may be obtained from A. Ducancelle, SFR 4208, HIFIH Lab, UPRES EA 3859, F-49000 Angers, France. Additional authors for this research include A. Pivert, S. Bertrais, J. Boursier, V. Balan, P. Veillon, H. le

Keywords for this news article include: Angers, France, Europe, Liver Diseases and Conditions, Risk and Prevention, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Hepadnaviridae Infections, Hepatitis B Virus, Orthohepadnavirus, Gastroenterology, Liver Cirrhosis, Liver Fibrosis, DNA Viruses, Genetics, Viral.

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Liver Diseases and Conditions - Hepatitis C Virus

Data on Hepatitis C Virus Reported by Researchers at Walgreen Co. [New all oral therapy for chronic hepatitis C virus (HCV): a novel long-term cost comparison]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Hepatitis C Virus have been published. According to news originating from Deerfield, Illinois, by NewsRx correspondents, research stated, "In the US, the prevalence of hepatitis C virus (HCV) has surpassed the prevalence of human immunodeficiency virus (HIV), with about 3.3 million people chronically infected with the disease. Given the aging of the Baby Boomer generation and the subsequent implementation of age-based screening recommendations, HCV diagnoses are expected to increase."

Our news journalists obtained a quote from the research from Walgreen Co., "Utilization of anti-viral pharmacotherapy is also expected to increase as more effective and tolerable all-oral therapies for HCV become available in the United States. This research allows payors to assess the disease burden and treatment impact of HCV in their member group. A set of three integrated economic models was developed to estimate the disease and cost burden of HCV based on existing literature, wholesale acquisition costs, industry standards, and actuarial judgment. Model 1 estimates the HCV antibody prevalence of HCV in a payer's member group based on population size and the age, sex, and region distribution of the members. Model 2 predicts the number of uncured chronic HCV members who represent the future treatment and medical cost burden for the payer over the next 14 years. Model 3 contrasts the pharmacy, medical, and overall costs for treatment and medical care over 14 years for three therapeutic scenarios: interferon-based standard of care (SOC), all oral therapy, and natural course of disease progression, while accounting for the frequency of HCV genotype within the member population. In a payer population of 100,000 members with an age, sex, and region distribution matching the United States, the seroprevalence of HCV was estimated to be 1.26 %. Combined pharmacy and medical costs for uncured chronic HCV positive members was least expensive for all oral therapy. The per patient with HCV cost savings for all oral therapy compared to SOC were about $3000 per year over 14 years. In a sensitivity analysis, the 12-week all oral therapy for genotype 1 provided overall cost savings vs. a 24-week interferon-based SOC regimen until all oral therapy costs exceeded $99,000."

According to the news editors, the research concluded: "In most modeled scenarios, the all-oral therapeutic scenario was less costly than SOC, even in sensitivity analyses."

For more information on this research see: New all oral therapy for chronic hepatitis C virus (HCV): a novel long-term cost comparison. Cost Effectiveness and Resource Allocation, 2015;13():1-13. Cost Effectiveness and Resource Allocation can be contacted at:
Data on Hepatomegaly Discussed by Researchers at Philipps University (Altered glycogen metabolism causes hepatomegaly following an Atg7 deletion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Liver Diseases and Conditions - Hepatomegaly are discussed in a new report. According to news reporting from Marburg, Germany, by NewsRx journalists, research stated, "Autophagy is a lysosomal degradation process involved in the turnover of organelles or other cell constituents, in providing sources for energy production under starving conditions and in cell metabolism. A key protein in the macroautophagic machinery is the autophagy-related protein (Atg) 7. Constitutive deletion of Atg7 is lethal at birth."

The news correspondents obtained a quote from the research from Philipps University, "A conditional deletion of Atg7 in hepatocytes leads to hepatomegaly and in aged animals to liver tumors. With this study, we aim at analyzing the hepatomegaly development in more detail. The 3- to 4-fold enlargement of the liver takes place between days 25 and 35 after birth (P25-P35) and persists at least until P90. This is accompanied by a change in the expression of enzymes involved in the glycogen/glucose metabolism. While glycogen synthesis is inhibited, glucose is preferentially kept as glucose-6-phosphate inside the cells, inducing a swelling of the cells caused by hyperosmolarity. An increase of lipogenic enzymes suggests that glucose-6-phosphate is delivered to lipogenic pathways, which is supported by the occurrence of a steatosis around P30. The development of hepatomegaly is accompanied by a polyploidisation of hepatocytes, an enhanced expression of genes related to inflammatory processes and an infiltration of macrophages and granulocytes. Our data provide evidence that the attenuation of macroautophagy in hepatocytes leads to a glucose retention that causes cell swelling."

According to the news reporters, the research concluded: "The resulting hepatomegaly, which develops in a time interval of about 10 days, perturbs liver perfusion and induces an inflammatory reaction together with polyploidisation."

For more information on this research see: Altered glycogen metabolism causes hepatomegaly following an Atg7 deletion. Cell and Tissue Research, 2016;366(3):651-665. Cell and Tissue Research can be contacted at: Springer, 233 Spring St, New York, NY 10013,
Our news journalists report that additional information may be obtained by contacting H.P. Elsasser, Philipps Univ, Dept. of Cytobiol & Cytopathobiol, D-35033 Marburg, Germany. Additional authors for this research include J. Spreckels, A. Nist, T. Stiewe, C. Skevaki, B. Greene, M. Mernberger and H.P. Elsasser.

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Keywords for this news article include: Marburg, Germany, Europe, Digestive System Diseases and Conditions, Liver Diseases and Conditions, Gastroenterology, Hepatomegaly, Hepatocytes, Genetics, Philipps University.

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Hereditary Angioedema

Data on Hereditary Angioedema Reported by Researchers at Semmelweis University (Risk of thromboembolism in patients with hereditary angioedema treated with plasma-derived C1-inhibitor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hereditary Angioedema are presented in a new report. According to news reporting originating from Budapest, Hungary, by NewsRx correspondents, research stated, "Plasma-derived C1-inhibitor (C1-INH) concentrates (pdC1-INH) have been used as safe and effective treatments for hereditary angioedema with C1-INH deficiency (C1-INH-HAE) for >30 years. Notwithstanding this, sporadic reports and a study into the high-dose therapy of neonates with C1-INH concentrate administered in an off-label indication raised concerns that this drug might increase the risk of thromboembolism."

Our news editors obtained a quote from the research from Semmelweis University, "To investigate the incidence of thromboembolism and the background of the risk factors related to treatment with pdC1-INH. Our retrospective cohort study of 144 patients with C1-INH-HAE compared the incidence of thromboembolism and its risk factors in patients who received pdC1-INH with those who did not receive pdC1-INH as well as with those treated with danazol or with tranexamic acid. During the observation period (29 years), 104 of the 144 subjects received pdC1-INH. The average dose per treatment was 573.59 IU. None of the patients used an indwelling central venous catheter. Multiple risk factors for thromboembolism were identified in 93 of the 104 patients treated with pdC1-INH. The incidence rate of thromboembolism was 0.0019/100 person-years in patients treated with pdC1-INH, whereas it was 0.0211/100 person-years in the not-treated group."

According to the news editors, the research concluded: "Our cohort study did not find any evidence for an increased risk of thromboembolism during treatment with pdC1-INH, despite the presence of multiple predisposing factors."

For more information on this research see: Risk of thromboembolism in patients with hereditary angioedema treated with plasma-derived C1-inhibitor. Allergy and Asthma Proceedings, 2016;37(2):164-70.

The news editors report that additional information may be obtained by contacting H.
Farkas, Hungarian Angioedema Center, 3rd Dept. of Internal Medicine, Semmelweis University, Budapest, Hungary. Additional authors for this research include K.V. Kohalmi, N. Veszeli, Z. Zotter, K. Varnai and L. Varga.

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Keywords for this news article include: Europe, Hungary, Budapest, Urticaria, Hematology, Thromboembolism, Hypersensitivity, Angioneurotic Edema, Risk and Prevention, Hereditary Angioedemias, Embolism and Thrombosis, Genetic Diseases and Conditions, Immune System Diseases and Conditions, Vascular Skin Diseases and Conditions, Cardiovascular Diseases and Conditions.

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Hormones

Data on Hormones Described by Researchers at Marmara University School of Medicine (The neuroprotective and anti-apoptotic effects of melatonin on hemolytic hyperbilirubinemia-induced oxidative brain damage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hormones have been published. According to news reporting originating from Istanbul, Turkey, by NewsRx correspondents, research stated, "Melatonin exerts protection in several inflammatory and neurodegenerative disorders. To investigate the neuroprotective effects of melatonin in an experimental hemolysis-induced hyperbilirubinemia, newborn Sprague-Dawley rats (25-40 g, n=72) were injected with phenylhydrazine hydrochloride (PHZ; 75 mg/kg) and the injections were repeated at the 24th hour."

Financial support for this research came from Scientific Research Project Commission of Marmara University (BAPKO).

Our news editors obtained a quote from the research from the Marmara University School of Medicine, "Rats were treated with saline or melatonin (10 mg/kg) 30 min before the first and second PHZ injections and 24 h after the 2nd PHZ injections. Control rats (n=24) were injected with saline, but not PHZ. At sixth hours after the last injections of saline or melatonin, all rats were decapitated. Tumor necrosis factor (TNF)-a, IL-1b, IL-10 and brain-derived neurotrophic factor (BDNF) and S100B levels in the plasma were measured. Brain tissue malondialdehyde (MDA), glutathione (GSH) levels and myeloperoxidase (MPO) activities were measured, and brain tissues were evaluated for apoptosis by TUNEL method. In the saline-treated PHZ group, hemoglobin, hematocrit levels were reduced, and total/direct bilirubin levels were elevated when compared to control group. Increased plasma TNF-a, IL-1b levels, along with decreased BDNF, S100B and IL-10 values were observed in the saline-treated PHZ group, while these changes were all reversed in the melatonin-treated group. Increased MDA levels and MPO activities in the brain tissues of saline-treated hyperbilirubinemic rats, concomitant with depleted brain GSH stores, were also reversed in the melatonin-treated hyperbilirubinemic rats. Increased TUNEL(+) cells in the hippocampus of saline-treated PHZ group were reduced by melatonin treatment."
According to the news editors, the research concluded: "Melatonin exerts neuroprotective and anti-apoptotic effects on the oxidative neuronal damage of the newborn rats with hemolysis and hyperbilirubinemia."


The news editors report that additional information may be obtained by contacting A. Pazar, Dept. of Paediatrics, Marmara University School of Medicine, Istanbul, Turkey. Additional authors for this research include M. Kolgazi, A. Memisoglu, E. Bahadir, S. Sirvanci, A. Yaman, B.C. Yegen and E. Ozek.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jpi.12292. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turkey, Eurasia, Istanbul, Hormones, Hemolytic, Melatonin, Hematology.

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**Genetics - Human Genetics**

**Data on Human Genetics Described by Researchers at Osaka City University (Twin's Birth-Order Differences in Height and Body Mass Index From Birth to Old Age: A Pooled Study of 26 Twin Cohorts Participating in the CODATwins Project)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics - Human Genetics is now available. According to news reporting originating from Osaka, Japan, by NewsRx correspondents, research stated, "We analyzed birth order differences in means and variances of height and body mass index (BMI) in monozygotic (MZ) and dizygotic (DZ) twins from infancy to old age. The data were derived from the international CODATwins database."

Our news editors obtained a quote from the research from Osaka City University, "The total number of height and BMI measures from 0.5 to 79.5 years of age was 397,466. As expected, first-born twins had greater birth weight than second-born twins. With respect to height, first-born twins were slightly taller than second-born twins in childhood. After adjusting the results for birth weight, the birth order differences decreased and were no longer statistically significant. First-born twins had greater BMI than the second-born twins over childhood and adolescence. After adjusting the results for birth weight, birth order was still associated with BMI until 12 years of age. No interaction effect between birth order and zygosity was found. Only limited evidence was found that birth order influenced variances of height or BMI. The results were similar among boys and girls and also in MZ and DZ twins."

According to the news editors, the research concluded: "Overall, the differences in height and BMI between first-and second-born twins were modest even in early childhood, while adjustment for birth weight reduced the birth order differences but did not remove them for BMI."

For more information on this research see: Twin's Birth-Order Differences in Height

The news editors report that additional information may be obtained by contacting Y. Yokoyama, Dept. of Public Health Nursing, Osaka City University, Osaka, Japan. Additional authors for this research include A. Jelenkovic, R. Sund, J. Sung, J.L. Hopper, S. Ooki, K. Heikkila, S. Aaltonen, A.D. Tarnoki, D.L. Tarnoki, G. Willemsen, M. Bartels, T.C. van Beijsterveldt, K.J. Saudino, T.L. Cutler, T.L. Nelson, K.E. Whitfield and .

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Keywords for this news article include: Asia, Osaka, Japan, Human Genetics.

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**Neurodegenerative Diseases and Conditions -**

**Data on Huntington Disease Reported by Researchers at Institute of Neuroscience (Hereditary chorea - what else to consider when the Huntington's disease genetics test is negative?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neurodegenerative Diseases and Conditions - Huntington Disease. According to news reporting originating from Glasgow, United Kingdom, by NewsRx correspondents, research stated, "Chorea, cognitive, behavioural and psychiatric disturbance occur in varying combinations in Huntington's disease (HD). This is often easy to recognise particularly in the presence of an autosomal dominant history."

Our news editors obtained a quote from the research from the Institute of Neuroscience, "Whilst HD may be the most common aetiology of such a presentation, several HD phenocopies should be considered if genetic testing for HD is negative. We searched PubMed and the Cochrane Database from January 1, 1946 up to January 1, 2016, combining the search terms: 'chorea', 'Huntington's disease', 'HDL' and 'phenocopies'. HD phenocopies frequently display additional movement disorders such as myoclonus, dystonia, parkinsonism and tics. Here, we discuss the phenotypes, and investigations of HD-like disorders where the combination of progressive chorea and cognitive impairment is obvious, but HD gene test result is negative. Conditions presenting with sudden onset chorea such as vascular, infectious and autoimmune causes are not the primary focus of our discussion, but we will make a passing reference to these as some of these conditions are potentially treatable. Hereditary forms of chorea are a heterogeneous group of conditions and this number is increasing. While most of these conditions are not curable, molecular genetic testing has enabled many of these disorders to be distinguished from HD."

According to the news editors, the research concluded: "Getting a precise diagnosis may enable patients and their families to better understand the nature of their condition."

Musculoskeletal Diseases and Conditions

Data on Hyperostosis Reported by Researchers at National Institutes of Health (Phenotypic and Genotypic Characterization and Treatment of a Cohort With Familial Tumoral Calcinosisis/Hyperostosis-Hyperphosphatemia Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Hyperostosis. According to news reporting originating in Bethesda, Maryland, by NewsRx journalists, research stated, "Familial tumoral calcinosisis (FTC)/hyperostosis-hyperphosphatemia syndrome (HHS) is a rare disorder caused by mutations in the genes encoding fibroblast growth factor-23 (FGF23), N-acetylgalactosaminyltransferase 3 (GALNT3), or KLOTHO. The result is functional deficiency of, or resistance to, intact FGF23 (iFGF23), causing hyperphosphatemia, increased renal tubular reabsorption of phosphorus (TRP), elevated or inappropriately normal 1,25-dihydroxyvitamin D-3 (1,25D), ectopic calcifications, and/or diaphyseal hyperostosis."

The news reporters obtained a quote from the research from the National Institutes of Health, "Eight subjects with FTC/HHS were studied and treated. Clinical manifestations varied, even within families, ranging from asymptomatic to large, disabling calcifications. All subjects had hyperphosphatemia, increased TRP, and elevated or inappropriately normal 1,25D. C-terminal FGF23 was markedly elevated whereas iFGF23 was comparatively low, consistent with increased FGF23 cleavage. Radiographs ranged from diaphyseal hyperostosis to massive calcification. Two subjects with severe calcifications also had overwhelming systemic inflammation and elevated C-reactive protein (CRP). GALNT3 mutations were identified in seven subjects; no causative mutation was found in the eighth. Biopsies from four subjects showed ectopic calcification and chronic inflammation, with areas of heterotopic ossification observed in one subject. Treatment with low phosphate diet, phosphate binders, and phosphaturia-inducing therapies was prescribed with variable response. One subject experienced complete resolution of a calcific mass after 13 months of medical treatment. In the two subjects..."
with systemic inflammation, interleukin-1 (IL-1) antagonists significantly decreased CRP levels with resolution of calcinosis cutis and perilesional inflammation in one subject and improvement of overall well-being in both subjects. This cohort expands the phenotype and genotype of FTC/HHS and demonstrates the range of clinical manifestations despite similar biochemical profiles and genetic mutations. Overwhelming systemic inflammation has not been described previously in FTC/HHS; the response to IL-1 antagonists suggests that anti-inflammatory drugs may be useful adjuvants."

According to the news reporters, the research concluded: "In addition, this is the first description of heterotopic ossification reported in FTC/HHS, possibly mediated by the adjacent inflammation."


Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Musculoskeletal Diseases and Conditions, Phosphorus Metabolism Disorders, Calcium Metabolism Disorders, Bone Diseases and Conditions, Hyperphosphatemia, Inflammation, Hyperostosis, Calcinosis, Genetics, National Institutes of Health.

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**Cardiovascular Diseases and Conditions -**

**Data on Hypertension Described by Researchers at University of Florida (Vascular Smooth Muscle Cells From Hypertensive Patient-Derived Induced Pluripotent Stem Cells to Advance Hypertension Pharmacogenomics)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating from Gainesville, Florida, by NewsRx correspondents, research stated, "Studies in hypertension (HTN) pharmacogenomics seek to identify genetic sources of variable antihypertensive drug response. Genetic association studies have detected single-nucleotide polymorphisms (SNPs) that link to drug responses; however, to understand mechanisms underlying how genetic traits alter drug responses, a biological interface is needed."

Our news editors obtained a quote from the research from the University of Florida, "Patient-derived induced pluripotent stem cells (iPSCs) provide a potential source for studying
otherwise inaccessible tissues that may be important to antihypertensive drug response. The present study established multiple iPSC lines from an HTN pharmacogenomics cohort. We demonstrated that established HTN iPSCs can robustly and reproducibly differentiate into functional vascular smooth muscle cells (VSMCs), a cell type most relevant to vasculature tone control. Moreover, a sensitive traction force microscopy assay demonstrated that iPSC-derived VSMCs show a quantitative contractile response on physiological stimulus of endothelin-1. Furthermore, the inflammatory chemokine tumor necrosis factor α induced a typical VSMC response in iPSC-derived VSMCs. These studies pave the way for a large research initiative to decode biological significance of identified SNPs in hypertension pharmacogenomics.

Treatment of hypertension remains suboptimal, and a pharmacogenomics approach seeks to identify genetic biomarkers that could be used to guide treatment decisions; however, it is important to understand the biological underpinnings of genetic associations. Mouse models do not accurately recapitulate individual patient responses based on their genetics, and hypertension-relevant cells are difficult to obtain from patients. Induced pluripotent stem cell (iPSC) technology provides a great interface to bring patient cells with their genomic data into the laboratory and to study hypertensive responses."

According to the news editors, the research concluded: "As an initial step, the present study established an iPSC bank from patients with primary hypertension and demonstrated an effective and reproducible method of generating functional vascular smooth muscle cells."

For more information on this research see: Vascular Smooth Muscle Cells From Hypertensive Patient-Derived Induced Pluripotent Stem Cells to Advance Hypertension Pharmacogenomics. Stem Cells Translational Medicine, 2015;4(12):1380-90.

The news editors report that additional information may be obtained by contacting N. Terada, Dept. of Pathology, Immunology and Laboratory Medicine, College of Medicine, University of Florida, Gainesville, Florida USA. Center for Cellular Reprogramming, University of Florida, Gainesville, Florida, United States. Additional authors for this research include K.E. Santostefano, B.B. DiVita, N. El Rouby, S.D. Carrasquilla, C. Simmons, M. Nakanishi, R.M. Cooper-DeHoff, J.A. Johnson and N. Terada.

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Keywords for this news article include: Florida, Genetics, Gainesville, Hypertension, Muscle Cells, United States, Adult Stem Cells, Stem Cell Research, North and Central America, Induced Pluripotent Stem Cells, Cardiovascular Diseases and Conditions.

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Data on Hypertension Described by Researchers at University of Groningen (No influence of antihypertensive agents on plasma free metanephrines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news reporting originating from Groningen, Netherlands, by NewsRx correspondents, research stated. "Hypertension can be the predominant
sign of pheochromocytoma (PCC) and sympathetic paraganglioma (sPGL) and screening for PCC/sPGL is often performed in patients who are already being treated with antihypertensive agents. There is very little information about the influence of antihypertensive drugs on plasma free metanephrines.

Our news editors obtained a quote from the research from the University of Groningen, "The aim of this study was to determine whether commonly prescribed antihypertensive drugs can falsely elevate plasma free metanephrines concentrations measured by LC-MS/MS analysis. In a prospective study we included patients with newly diagnosed hypertension, who started monotherapy with an antihypertensive agent (i.e. beta-blocker, thiazide diuretic or angiotensin-converting enzyme (ACE) inhibitor). Plasma free metanephrine (MN) and normetanephrine (NMN) levels were measured before and one month after the start of the medication quantified by LC-MS/MS. Between 2009 and 2014, 39 patients were included (beta-blocker n = 13, thiazide diuretic n = 14 and ACE inhibitor n = 12). In the whole group, the median plasma free MN and NMN concentrations at baseline were 0.19 [0.17-026] nmol/L and 0.56 [0.38-0.95] nmol/L. One month after the start of antihypertensive treatment, the median plasma free MN and NMN concentrations were comparable; 0.20 [0-16-0.24] nmol/L and 0.63 [0.39-0.75] nmol/L, respectively (P = 0.43 and P = 039). Separate analysis for each of the three antihypertensive agents examined did not reveal any significant changes in the median plasma free MN and NMN concentrations. The measurement of plasma free MN and NMN with LC-MS/MS is not affected by use of beta-blockers, diuretics and ACE inhibitors."

According to the news editors, the research concluded: "Withdrawal of these drugs prior to the quantification of plasma metanephrines is therefore not necessary."


The news editors report that additional information may be obtained by contacting T.E. Oisinga, University of Groningen, Groningen University Medical Center, Dept. of Endocrinol AA31, NL-9700 RB Groningen, Netherlands. Additional authors for this research include I.P. Kema, M.N. Kerstens, W.H.A. Jong, M. van Faassen, R.P.F. Dullaart, T.P. Links and A.N.A. van der Horst-Schrivers.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinbiochem.2016.06.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Groningen, Netherlands, Europe, Cardiovascular Diseases and Conditions, Cardiovascular Agents, Biogenic Monoamines, Drugs and Therapies, Antihypertensive, Biogenic Amines, Metanephrine, Hypertension, Epinephrine, University of Groningen.

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Data on Hypertension Detailed by G.M. Keating and Co-Authors
(Macitentan: A Review in Pulmonary Arterial Hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Hypertension is now available. According to news reporting originating in Auckland, New Zealand, by NewsRx editors, the research stated, "Macitentan (Opsumit®) is an orally active, potent, dual endothelin (ET) receptor antagonist that is indicated for the treatment of pulmonary arterial hypertension (PAH). In the pivotal SERAPHIN trial in patients aged ae <yen >12 years with PAH, the risk of first PAH-related event or all-cause death (primary composite endpoint) was significantly reduced by 45 % with oral macitentan 10 mg once daily versus placebo."

The news reporters obtained a quote from the research, "Macitentan significantly reduced the risk of the primary composite endpoint across various patient subgroups. The risk of all-cause hospitalization and PAH-related hospitalization was also significantly reduced by macitentan, according to post hoc analysis. Macitentan was generally well tolerated in SERAPHIN."

According to the news reporters, the research concluded: "Macitentan is an important option for the treatment of PAH."


Our news correspondents report that additional information may be obtained by contacting G.M. Keating, Springer, Auckland 0754, New Zealand.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40256-016-0188-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Auckland, New Zealand, Australia and New Zealand, Cardiovascular Diseases and Conditions, Article Review, Drugs and Therapies, Hypertension.

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severe pulmonary arterial hypertension, but adverse effects like infusion site pain can lead to treatment discontinuation. The objective of this study was to evaluate safety, tolerability and clinical effects of a rapid up-titration dosing regimen of subcutaneous treprostinil using proactive infusion site pain management.

Our news journalists obtained a quote from the research from the University of Heidelberg, "Effects of rapid up-titration dosing regimen on tolerability and clinical parameters were evaluated in this 16-week, open-label multi-centre study. Thirty-nine patients with idiopathic or heritable pulmonary arterial hypertension on stable treatment with oral pulmonary arterial hypertension-approved drugs (90% on dual combination therapy) were included. Patients achieved a median treprostinil dosage of 35.7 ng/kg/min after 16 weeks. A good overall safety profile was demonstrated with 3 patients (8%) withdrawing due to infusion site pain, which occurred in 97% of patients. After 16 weeks, median 6-min walking distance, cardiac index, pulmonary vascular resistance, and tricuspid annular plane systolic excursion improved. Rapid up-titration of subcutaneous treprostinil was well tolerated, achieving a clinically effective dose associated with improvement of exercise capacity and haemodynamics after 16 weeks."

According to the news editors, the research concluded: "A rapid dose titration regimen and proactive infusion site pain management may improve the handling of this therapy and contribute to better treatment outcome."

For more information on this research see: Safety, Tolerability and Clinical Effects of a Rapid Dose Titration of Subcutaneous Treprostinil Therapy in Pulmonary Arterial Hypertension: A Prospective Multi-Centre Trial. Respiration, 2016;92(6):362-370. Respiration can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Respiration - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224278)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000450759. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Heidelberg, Germany, Europe, Cardiovascular Diseases and Conditions, Agents For Pulmonary Hypertension, Cardiovascular Agents, Treprostinil Therapy, Vitamin K Antagonist, Drugs and Therapies, Antithrombotic, University of Heidelberg.

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Data on Hypertension Reported by Researchers at University of Pittsburgh (Human epithelial Na+ channel missense variants identified in the GenSalt study alter channel activity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating in Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "Mutations in genes encoding subunits of the epithelial Na+ channel (ENaC) can cause early onset familial hypertension, demonstrating the importance of this channel in modulating blood pressure. It remains unclear whether other genetic variants resulting in subler alterations of channel function result in hypertension or altered sensitivity of blood pressure to dietary salt."

The news reporters obtained a quote from the research from the University of Pittsburgh, "This study sought to identify functional human ENaC variants to examine how these variants alter channel activity and to explore whether these variants are associated with altered sensitivity of blood pressure to dietary salt. Six-hundred participants of the Genetic Epidemiology Network of Salt Sensitivity (GenSalt) study with salt-sensitive or salt-resistant blood pressure underwent sequencing of the genes encoding ENaC subunits. Functional effects of identified variants were examined in a Xenopus oocyte expression system. Variants that increased channel activity included three in the gene encoding the alpha-subunit (alpha S115N, alpha R476W, and alpha V481M), one in the beta-subunit (beta S635N), and one in the gamma-subunit (gamma L438Q). One alpha-subunit variant (alpha A334T) and one gamma-subunit variant (beta D31N) decreased channel activity. Several alpha-subunit extracellular domain variants altered channel inhibition by extracellular Na+ (Na+ self-inhibition). One variant (alpha A334T) decreased and one (alpha V481M) increased cell surface expression. Association between these variants and salt sensitivity did not reach statistical significance."

According to the news reporters, the research concluded: "This study identifies novel functional human ENaC variants and demonstrates that some variants alter channel cell surface expression and/or Na+ self-inhibition."

For more information on this research see: Human epithelial Na+ channel missense variants identified in the GenSalt study alter channel activity. American Journal of Physiology-Renal Physiology, 2016;311(5):F908-F914. American Journal of Physiology-Renal Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.


Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Cardiovascular Diseases and Conditions, Blood Pressure, Epidemiology, Hypertension, Genetics, University of Pittsburgh.

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Data on Hypophosphatemia Detailed by X. Zhang and Co-Authors [Population pharmacokinetic and pharmacodynamic analyses from a 4-month intradose escalation and its subsequent 12-month dose titration studies for a human monoclonal anti-FGF23 ...]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Hypophosphatemia. According to news reporting from Princeton, New Jersey, by NewsRx journalists, research stated, "X-linked hypophosphatemia (XLH) is an inherited metabolic bone disease with abnormally elevated serum FGF23 resulting in low renal maximum threshold for phosphate reabsorption, low serum phosphate (Pi) and 1,25-dihydroxyvitamin D levels with subsequent development of short stature and skeletal deformities. KRN23 is a novel human anti-FGF23 antibody for the treatment of XLH."

Financial support for this research came from Kyowa Hakko Kirin.

The news correspondents obtained a quote from the research, "The pharmacokinetics (PK) and pharmacodynamics (PD) models of KRN23 were assessed following subcutaneous dosing every 28 days over an initial 4-month dose escalation (0.05-0.6 mg/kg) and a subsequent 12-month titration period (0.1-1.0 mg/kg) in XLH adults. The PK of KRN23 was described by a 1-compartmental model with first-order absorption and elimination at doses (>=)0.1 mg/kg. The elimination half-life was 17.8 days. Covariates did not affect KRN23 PK. Mean peak serum Pi was attained 7-10 days after dosing and progressively increased following each of the initial 4 doses with comparable peak values attained following the sixth through tenth doses with a slight decrease thereafter. A PK-PD model with a maximum effect (Emax) and a time-varying effective concentration to reach 50% of Emax (EC50,t) described data adequately. Typical Emax was 1.5 mg/dL."

According to the news reporters, the research concluded: "Typical EC50,t was 1780 ng/mL and 5999 ng/mL after first and last dose, respectively."


Our news journalists report that additional information may be obtained by contacting X. Zhang, Kyowa Hakko Kirin Pharma Inc, Princeton, NJ, United States. Additional authors for this research include T. Peyret, N.H. Gosselin, J.F. Marier, E.A. Imel and T.O Carpenter.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcph.611. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *Journal of Clinical Pharmacology* is: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Antibodies, Pharmaceuticals, Princeton, New Jersey, Immunology, United States, Blood Proteins, Immunoglobulins, Hypophosphatemia, Pharmacodynamics, Pharmacokinetics, North and Central America, Phosphorus Metabolism Disorders, Nutritional and Metabolic Diseases and Conditions.

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Data on Immunoglobulins Discussed by Researchers at Technical University [Balancing Selectivity and Efficacy of Bispecific Epidermal Growth Factor Receptor (EGFR) x c-MET Antibodies and Antibody-Drug Conjugates]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Immunoglobulins.

According to news reporting from Darmstadt, Germany, by NewsRx journalists, research stated, "Bispecific antibodies (bsAbs) and antibody-drug conjugates (ADCs) have already demonstrated benefits for the treatment of cancer in several clinical studies, showing improved drug selectivity and efficacy. In particular, simultaneous targeting of prominent cancer antigens, such as EGF receptor (EGFR) and c-MET, by bsAbs has raised increasing interest for potentially circumventing receptor cross-talk and c-MET-mediated acquired resistance during anti-EGFR monotherapy."

The news correspondents obtained a quote from the research from Technical University, "In this study, we combined the selectivity of EGFR x c-MET bsAbs with the potency of cytotoxic agents via bispecific antibody-toxin conjugation. Affinity-attenuated bispecific EGFR x c-MET antibody-drug conjugates demonstrated high in vitro selectivity toward tumor cells overexpressing both antigens and potent anti-tumor efficacy. Due to basal EGFR expression in the skin, ADCs targeting EGFR in general warrant early safety assessments. Reduction in EGFR affinity led to decreased toxicity in keratinocytes."

According to the news reporters, the research concluded: "Thus, the combination of bsAb affinity engineering with the concept of toxin conjugation may be a viable route to improve the safety profile of ADCs targeting ubiquitously expressed antigens."


Keywords for this news article include: Darmstadt, Germany, Europe, Growth Factor Receptors, Drugs and Therapies, Biological Factors, Membrane Proteins, Peptide Receptors, Drug Development, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Antigens, Technical University.

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**Immunology - Immunoglobulins**

**Data on Immunoglobulins Reported by Researchers at Singapore National University (DNA Nanostructures Carrying Stoichiometrically Definable Antibodies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Immunoglobulins have been published. According to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Targeted drug delivery is one of the key challenges in cancer nanomedicine."

Financial support for this research came from Ministry of Education - Singapore.

Our news editors obtained a quote from the research from Singapore National University, "Stoichiometric and spatial control over the antibodies placement on the nanomedicine vehicle holds a pivotal role to overcome this key challenge. Here, a DNA tetrahedral is designed with available conjugation sites on its vertices, allowing to bind one, two, or three cetuximab antibodies per DNA nanostructure."

According to the news editors, the research concluded: "This stoichiometrically definable cetuximab conjugated DNA nanostructure shows enhanced targeting on the breast cancer cells, which results with higher overall killing efficacy of the cancer cells."


The news editors report that additional information may be obtained by contacting M.I. Setyawati, Singapore National University, Dept. of Chem & Biomol Engn, Singapore 117585, Singapore. Additional authors for this research include R.V. Kutty and D.T. Leong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201601669. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Singapore, Singapore, Asia, Emerging Technologies, Immunoglobulins, Blood Proteins, Nanotechnology, Nanostructures, Nanostructural, DNA Research, Nanomedicine, Immunology, Antibodies, Oncology, Genetics, Cancer, Singapore National University.

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**Immunology - Immunoglobulins**

**Data on Immunoglobulins Reported by Researchers at University of Delaware (Identifying a robust design space for glycosylation during monoclonal antibody production)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immunology - Immunoglobulins. According
to news reporting out of Newark, Delaware, by NewsRx editors, research stated, "Glycan distribution has been identified as a critical quality attribute for many biopharmaceutical products, including monoclonal antibodies. Consequently, determining quantitatively how process variables affect glycan distribution is important during process development to control antibody glycosylation."

Our news journalists obtained a quote from the research from the University of Delaware, "In this work, we assess the effect of six bioreactor process variables on the glycan distribution of an IgG1 produced in CHO cells. Our analysis established that glucose and glutamine media concentration, temperature, pH, agitation rate, and dissolved oxygen (DO) had small but significant effects on the relative percentage of various glycans. In addition, we assessed glycosylation enzyme transcript levels and intracellular sugar nucleotide concentrations within the CHO cells to provide a biological explanation for the observed effects on glycan distributions. From these results we identified a robust operating region, or design space, in which the IgG1 could be produced with a consistent glycan distribution. Since our results indicate that perturbations to bioreactor process variables will cause only small (even if significant) changes to the relative percentage of various glycans (<+/- 1.5%) changes that are too small to affect the bioactivity and efficacy of this IgG1 significantly it follows that the glycan distribution obtained will be consistent even with relatively large variations in bioreactor process variables."

According to the news editors, the research concluded: "However, for therapeutic proteins where bioactivity and efficacy are affected by small changes to the relative percentage of glycans, the same analysis would identify the manipulated variables capable of changing glycan distribution, and hence can be used to implement a glycosylation control strategy."


Our news journalists report that additional information may be obtained by contacting B.A. Ogunnaike, University of Delaware, Dept. of Chem & Biomol Engn, Newark, DE 19716, United States. Additional authors for this research include J. Hayes, D. Radhakrishnan, J. Fernandez, B. Meyer, A.S. Robinson and B.A. Ogunnaike.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/btpr.2316. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Newark, Delaware, United States, North and Central America, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Therapy, University of Delaware.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Immunosuppressive Agents is the subject of a report. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "There is significant variability in the serum concentrations of tacrolimus attained early post transplant due to drug interactions and genomic variation. We evaluated whether tacrolimus concentrations early post transplant correlated with incidence of acute GvHD in 120 consecutive patients allografted with a uniform reduced-intensity conditioning regimen."

The news correspondents obtained a quote from the research from the University of Pennsylvania Hospital, "All patients received standard prophylaxis with oral tacrolimus and IV methotrexate. The primary variable of interest was mean weekly tacrolimus concentrations in the initial 4 weeks post transplant. In multivariate analysis, week 1 tacrolimus concentration was an independent predictor of acute grade 2-4 GvHD (hazard ratio (HR), 0.90; 95% confidence interval (CI), 0.84-0.97; p<0.01). This association was driven by a lower risk of acute grade 2-4 GvHD in patients with week 1 tacrolimus concentrations >12 ng/mL (HR, 0.47; 95% CI, 0.25-0.88; p=0.02). Week 1 tacrolimus concentrations were not associated with chronic GvHD, relapse or overall survival. Lower tacrolimus concentrations at weeks 2, 3 and 4 were not associated with a higher incidence of GvHD."

According to the news reporters, the research concluded: "In summary, we found that higher tacrolimus concentrations during the first week after allografting with a reduced-intensity conditioning regimen were associated with significantly reduced risk of acute grade 2-4 GvHD without increasing risk of relapse."

For more information on this research see: Higher tacrolimus concentrations early after transplant reduce the risk of acute GvHD in reduced-intensity allogeneic stem cell transplantation. *Bone Marrow Transplantation*, 2015;51(4):568-72. *Bone Marrow Transplantation* can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news journalists report that additional information may be obtained by contacting A. Ganetsky, Dept. of Pharmacy, Hospital of the University of Pennsylvania, Philadelphia, PA, United States. Additional authors for this research include A. Shah, T.A. Miano, W.T. Hwang, J. He, A.W. Loren, E.O. Hexner, N.V. Frey, D.L. Porter and R. Reshef.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bmt.2015.323. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Bone Marrow Transplantation* is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Biomedicine, Pharmaceuticals, Surgery, Macrolides, Philadelphia, Pennsylvania, United States, Stem Cell Research, Tacrolimus Therapy, Drugs and Therapies, Risk and Prevention, Transplant Medicine, Cell Transplantation, Immunosuppressive Agents, North and Central America.

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Data on Immunotherapy Reported by Researchers at Washington University (Harnessing NK Cell Memory for Cancer Immunotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Immunotherapy is the subject of a report. According to news reporting from St. Louis, Missouri, by NewsRx journalists, research stated, "Due to their ability to kill cancer cells and produce proinflammatory cytokines, natural killer (NK) cells have long been of clinical interest for their antitumor properties."

The news correspondents obtained a quote from the research from Washington University, "The recent discovery of NK cell memory demonstrates that NK cell functions, and potentially antitumor responses, can be enhanced long term. Following nonspecific activation with the cytokines IL-12, IL-16, and IL-18 or in response to antigens or cytomegalovirus (CMV), human and mouse NK cells exhibit stable, enhanced functional responses with phenotypic and molecular changes."

According to the news reporters, the research concluded: "Here we review mechanisms driving the differentiation of NK cell memory-like properties, evidence for antitumor activity, and the challenges and opportunities in harnessing memory-like NK cells for cancer immunotherapy."


Our news journalists report that additional information may be obtained by contacting T.A. Fehniger, Washington University, Div Oncol, Dept. of Med, Sch Med, St Louis, MO 63110, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.it.2016.09.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Cancer, Article Review, Immunology, Drugs and Therapies, Immunotherapy, Oncology, Washington University.

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Data on Insulin Resistance Described by Researchers at NIIST  
(Symplocos cochinchinensis enhances insulin sensitivity via the down regulation of lipogenesis and insulin resistance in high energy diet rat model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Endocrine System Diseases and Conditions -
Insulin Resistance have been published. According to news reporting originating in Thiruvananthapuram, India, by NewsRx journalists, research stated, "Ethnopharmacological relevance: This plant has been utilized in Indian system of medicine for treatment of diabetes. This is clearly evident from the composition of Ayurvedic preparation for diabetes 'Nisakathakadi Kashayam' where this is one of the main ingredients of this preparation. Aim of the study: The study aims in elucidating the molecular mechanisms underlying the insulin sensitizing effects of Symplocos cochinchinensis ethanol extract (SCE) using a high fructose and saturated fat (HFS) fed insulin resistant rat model."

Financial support for this research came from ICMR, India.

The news reporters obtained a quote from the research from NIIST, "Experimental groups consisted of normal diet (ND), ND+SCE 500 mg/kg bwd, HFS +vehicle, HFS+metformin 100 mg/kg bwd, HFS-FSCE 250/500 mg/kg bwd. Initially the animals were kept under HFS diet for 8 weeks, and at the end of 8 week period, animals were found to develop insulin resistance and dyslipidemia. Post-administration of SCE, metformin or vehicle were carried out for 3 weeks. Gene and protein expressions relevant to insulin signalling pathway were analysed. HFS significantly altered the normal physiology of animals via proteins and genes relevant to metabolism like stearoyl-CoA desaturase (SCD1), sterol regulatory element binding protein 1 (SREBP-1c), fatty acid synthase (FAS), glucose 6 phosphatase (G6Pase), phosphoenol pyruvate carboxykinase (PEPCK), glucose transporter 2 (GLUT2), protein tyrosine phosphatase 1B (PTP1B), peroxisome proliferator activated receptor alpha (PPAR alpha), sirtuin 1 (SIRT1) and glucokinase. SCE administration attenuates the insulin resistance in HFS rat by the down regulation of SCD1 gene expression that modulates SREBP-1c dependent and independent hepatic lipid accumulation."

According to the news reporters, the research concluded: "SCE enhances insulin sensitivity via the down regulation of lipogenesis and insulin resistance in HFS rat model."


Our news correspondents report that additional information may be obtained by contacting K.G. Raghu, NIIST, CSIR, Agroproc & Nat Prod Div, Thiruvananthapuram 695019, Kerala, India. Additional authors for this research include M.P. Riya, A. Nair, A. Mishra, A.K. Srivastava and K.G. Raghu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.09.050. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Thiruvananthapuram, India, Asia, Endocrine System Diseases and Conditions, Insulin Resistance, Peptide Proteins, Peptide Hormones, Proinsulin, Genetics, NIIST.

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Data on Intermediate Uveitis Detailed by Researchers at Medical University (Analysis of a Functional IL-6 Gene Polymorphism in HLAB27 Associated and Intermediate Uveitis Gives New Insight in Disease Pathogenesis and Commonality with Other ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Eye Diseases and Conditions - Intermediate Uveitis. According to news originating from Graz, Austria, by NewsRx correspondents, research stated, "Interleukin 6 (IL-6) plays a crucial role in both adaptive and innate immunity. The rs1800795 gene polymorphism of IL-6 is associated with various autoimmune diseases, like multiple sclerosis."

Our news journalists obtained a quote from the research from Medical University, "134 patients with HLAB27 positive iridocyclitis, 84 patients with intermediate uveitis, 132 controls, and 65 HLAB27 positive controls were recruited for the present case-control study. Main outcome measures were genotype distribution and allelic frequencies determined by polymerase chain reaction. The frequency of carriers of the minor allele for rs1800795 was significantly higher in patients with intermediate uveitis compared to controls (p=0.04; OR: 1.46; CI: 1.02-2.11). Frequencies of the minor allele for rs1800795 did not differ significantly in patients with HLAB27 associated uveitis when compared to controls (p >0.05). These findings further deepen our understanding of the commonality between multiple sclerosis and intermediate uveitis."

According to the news editors, the research concluded: "Given the functionality of the investigated polymorphism, new pathophysiological insights are gained that help to evaluate possible therapeutic targets."


The news correspondents report that additional information may be obtained from L. Ewald, Dept. of Ophthalmology, Medical University Graz, Auenbruggerplatz 4, 8036 Graz, Austria. Additional authors for this research include L.W. Beate, S. Stephanie, R. Wilfried and el-S Yosuf.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/174062. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Graz, Europe, Austria, Genetics, Immunology, Ophthalmology, Multiple Sclerosis, Intermediate Uveitis, Eye Diseases and Conditions, Uveal Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Demyelinating Diseases and Conditions, Autoimmune Diseases and Conditions of the Nervous System.

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Data on Intermittent Claudication Reported by Researchers at University of Heidelberg (Results of common femoral artery thromboendarterectomy evaluation of a traditional surgical management in the endovascular era)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Intermittent Claudication is now available. According to news reporting from Heidelberg, Germany, by NewsRx journalists, research stated, "The aim of this study was to investigate the long-term outcome of common femoral artery thromboendarterectomy in patients with peripheral arterial occlusive disease. The study retrospectively evaluated 713 vessels in 655 patients (75% male; mean age, 69.4 +/- 9.5 years) who underwent common femoral thromboendarterectomy from January 2006 until May 2012 in two high-volume vascular centers."

The news correspondents obtained a quote from the research from the University of Heidelberg, "Critical limb ischemia was present in 221 patients, and intermittent claudication was present in 434. Three patent tibial arteries, described as runoff vessels, were available in 33% of the cohort, two were present in 28.3%, one runoff vessel was present in 23.4%, and 15.2% (n = 102) showed no runoff option. Hybrid procedures were used to treat 255 limbs (35.8%). The primary end point was primary patency (PP). Secondary patency (SP), limb salvage, and survival were the secondary end points. Survival rates were 93.9%, 83.0%, 74.1%, and 60.1% at 1, 3, 5, and 7 years, respectively. PP was 78.5% and SP was 89.1% at 7 years. Patency rates were 97.3% (PP) and 97.8% (SP) at 6 months and 90.2% (PP) and 98.3% (SP) at 3 years, respectively, with 76 target lesion revascularizations. No significant difference was demonstrated for PP rates stratified for nonhybrid procedures and hybrid procedures (78.1% vs 78.6%; P = .22) and for critical limb ischemia vs intermittent claudication (76.3% vs 79.4%; P = .20) at 7 years. The mean +/- standard deviation ankle-brachial index increased from 0.46 +/- 0.3 preoperatively to 0.81 +/- 0.2 postoperatively and to 0.77 +/- 0.3 at 7 years (P < .001). A total of 20 major amputations were performed, achieving a limb salvage rate of 92.6%. Procedure-related complications occurred in 11.5% during 7 years of follow-up. Open surgery for common femoral artery stenosis is safe and effective in the long-term."

According to the news reporters, the research concluded: "Endovascular therapy will need to compete with these excellent results."


Our news journalists report that additional information may be obtained by contacting C.M. Wieker, University of Heidelberg, Dept. of Vasc & Endovasc Surg, D-69120 Heidelberg, Germany. Additional authors for this research include E. Schonefeld, N. Osada, C. Luhrs, R. Benkening, G. Torsello and D. Bockler.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2016.04.036. This DOI is a link to an online electronic document that is either free or for purchase.
Data on Intracranial Hypertension Reported by Researchers at King Saud University (Idiopathic Intracranial Hypertension Induced by Topical Application of Vitamin A)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Intracranial Hypertension are discussed in a new report. According to news reporting originating from Riyadh, Saudi Arabia, by NewsRx correspondents, research stated, "A 21-year-old nonobese woman developed headaches and papilledema while excessively using 3 topical preparations of vitamin A. Neuroimaging studies were unremarkable and opening pressure on lumbar puncture was 300 mm H2O with normal cerebrospinal fluid composition."

Our news editors obtained a quote from the research from King Saud University, "After discontinuation of the topical vitamin A preparations, the symptoms and signs of increased intracranial pressure resolved."

According to the news editors, the research concluded: "The association of intracranial hypertension and topical vitamin A application has only been reported once previously."


The news editors report that additional information may be obtained by contacting Y.M. Mohammad, King Saud Univ, Dept. of Internal Med, Riyadh 11472, Saudi Arabia. Additional authors for this research include I.R. Raslan and F.A. Al-Hussain.

Keywords for this news article include: Riyadh, Saudi Arabia, Asia, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Brain Diseases and Conditions, Intracranial Hypertension, Pseudotumor Cerebri, Vitamin A, King Saud University.

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Data on Ketones Discussed by Researchers at Institute of Statistical Science (Genome-Wide Pharmacogenomic Study on Methadone Maintenance Treatment Identifies SNP rs17180299 and Multiple Haplotypes on CYP2B6, SPON1, and GSG1L Associated with ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Ketones are discussed in a new report. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "Methadone maintenance treatment (MMT) is commonly used for controlling opioid dependence, preventing withdrawal symptoms, and improving the quality of life of heroin-dependent patients. A steady-state plasma concentration of methadone enantiomers, a measure of methadone metabolism, is an index of treatment response and efficacy of MMT."

The news reporters obtained a quote from the research from the Institute of Statistical Science, "Although the methadone metabolism pathway has been partially revealed, no genome-wide pharmacogenomic study has been performed to identify genetic determinants and characterize genetic mechanisms for the plasma concentrations of methadone R-and S-enantiomers. This study was the first genome-wide pharmacogenomic study to identify genes associated with the plasma concentrations of methadone R-and S-enantiomers and their respective metabolites in a methadone maintenance cohort. After data quality control was ensured, a dataset of 344 heroin-dependent patients in the Han Chinese population of Taiwan who underwent MMT was analyzed. Genome-wide single-locus and haplotype-based association tests were performed to analyze four quantitative traits: the plasma concentrations of methadone R-and S-enantiomers and their respective metabolites. A significant single nucleotide polymorphism (SNP), rs17180299 (raw p=2.24 ? 10(-8)), was identified, accounting for 9.541% of the variation in the plasma concentration of the methadone R-enantiomer. In addition, 17 haplotypes were identified on SPON1, GSG1L, and CYP450 genes associated with the plasma concentration of methadone S-enantiomer. These haplotypes accounted for approximately one-fourth of the variation of the overall S-methadone plasma concentration. The association between the S-methadone plasma concentration and CYP2B6, SPON1, and GSG1L were replicated in another independent study. A gene expression experiment revealed that CYP2B6, SPON1, and GSG1L can be activated concomitantly through a constitutive androstane receptor (CAR) activation pathway."

According to the news reporters, the research concluded: "This study revealed new genes associated with the plasma concentration of methadone, providing insight into the genetic foundation of methadone metabolism. The results can be applied to predict treatment responses and methadone-related deaths for individualized MMTs."

For more information on this research see: Genome-Wide Pharmacogenomic Study on Methadone Maintenance Treatment Identifies SNP rs17180299 and Multiple Haplotypes on CYP2B6, SPON1, and GSG1L Associated with Plasma Concentrations of Methadone R- and S-enantiomers in Heroin-Dependent Patients. Plos Genetics, 2016;12(3):e1005910. (Public Library of Science - www.plos.org; Plos Genetics - www.plosgenetics.org)

Our news correspondents report that additional information may be obtained by contacting H.C. Yang, Institute of Statistical Science, Academia Sinica, Taipei, Taiwan. Additional authors for this research include S.K. Chu, C.L. Huang, H.W. Kuo, S.C. Wang, S.W. Liu, I.K. Ho and Y.L Liu.
Data on Laryngeal Cancer Detailed by Researchers at University Hospital [Use of concurrent chemoradiation in advanced staged (T4) laryngeal cancer]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Laryngeal Cancer have been published. According to news reporting out of Cleveland, Ohio, by NewsRx editors, research stated, "Patients with advanced laryngeal cancer sometimes desire organ preservation protocols even if it portends a worse outcome. To assess outcomes of patients with T4 laryngeal cancer treated with chemoradiation therapy."

Our news journalists obtained a quote from the research from University Hospital, "Case series with chart review at a tertiary university hospital. Twenty-four patients with T4 laryngeal cancer all declined total laryngectomy with adjuvant radiation as the primary treatment modality and alternatively received concurrent chemoradiation therapy. The primary outcome was overall survival. Secondary outcomes were rates of tracheotomy dependence, gastric tube dependence, and need for salvage laryngectomy. All patients had T4 laryngeal disease, 71% had cartilage invasion and 59% had regional metastasis to the neck. Kaplan-Meier analysis determined 2-year and 5-year overall survival to be 64% and 59% respectively. The locoregional recurrence rate was 25%. The distant metastasis rate was 21%. The rate of salvage laryngectomy was 17%, which occurred at a mean of 56.5 months after the original diagnosis. The rate of tracheotomy dependence was 33% while gastric tube dependence was 25%. Advanced T4 laryngeal cancer, particularly with cartilage invasion, remains a surgical disease best treated with total laryngectomy and adjuvant radiation."

According to the news editors, the research concluded: "This data may help guide patients and practitioners considering concurrent chemoradiation therapy for definitive treatment of advanced laryngeal cancer."


Our news journalists report that additional information may be obtained by contacting P. Lavertu, University Hospital Cleveland, Medical Center, Ear Nose & Throat Inst, Cleveland, OH 44106, United States. Additional authors for this research include R.P. Rezaee, T. Wang, A.M. Garcia-Jarchow, C.A. Zender, M. Gibson, M. Yao and P. Lavertu.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjoto.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Otorhinolaryngologic Surgical Procedures, Laryngeal Neoplasms, Laryngeal Cancer, Laryngectomy, Oncology, Therapy, Surgery, University Hospital.

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Lipopolysaccharides

Data on Lipopolysaccharides Discussed by Researchers at National Cancer Institute (Secreted Thrombospondin-1 Regulates Macrophage Interleukin-1b Production and Activation through CD47)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lipopolysaccharides is the subject of a report. According to news reporting originating in Bethesda, Maryland, by NewsRx journalists, research stated, "Thrombospondin-1 regulates inflammation by engaging several cell surface receptors and by modulating activities of other secreted factors. We have uncovered a novel role of thrombospondin-1 in modulating production and activation of the proinflammatory cytokine IL-1b by human and murine macrophages."

The news reporters obtained a quote from the research from National Cancer Institute, "Physiological concentrations of thrombospondin-1 limit the induction by lipopolysaccharide of IL-1b mRNA and total protein production by human macrophages. This inhibition can be explained by the ability of thrombospondin-1 to disrupt the interaction between CD47 and CD14, thereby limiting activation of NF-kB/AP-1 by lipopolysaccharide. Only the CD47-binding domain of thrombospondin-1 exhibits this activity. In contrast, CD47, CD36, and integrin-binding domains of thrombospondin-1 independently enhance the inflammasome-dependent maturation of IL-1b in human THP-1 monocyte-derived macrophages. Correspondingly, mouse bone marrow-derived macrophages that lack either thrombospondin-1 or CD47 exhibit diminished induction of mature IL-1b in response to lipopolysaccharide. Lack of CD47 also limits lipopolysaccharide induction of IL-1b, NLRP3, and caspase-1 mRNAs. These data demonstrate that thrombospondin-1 exerts CD47-dependent and -independent pro-and anti-inflammatory effects on the IL-1b pathway."

According to the news reporters, the research concluded: "Therefore, thrombospondin-1 and its receptor CD47 may be useful targets for limiting the pro-inflammatory effects of lipopolysaccharide and for treating endotoxemia."

For more information on this research see: Secreted Thrombospondin-1 Regulates Macrophage Interleukin-1b Production and Activation through CD47. Scientific Reports, 2016;6 ():19684. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting E.V. Stein, Laboratory of Pathology, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD 20892-1500, United States. Additional authors for this research include T.W. Miller, K. Ivins-O'Keefe, S. Kaur and D.D Roberts.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1038/srep19684. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, Genetics, Cytokines, Endotoxins, Immunology, Macrophages, Interleukins, United States, Myeloid Cells, Bacterial Toxins, Thrombospondin 1, Membrane Proteins, Biological Factors, Lipopolysaccharides, Membrane Glycoproteins, Connective Tissue Cells, North and Central America, Bacterial Polysaccharides.

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Membrane Proteins - Lipoprotein Receptors

Data on Lipoprotein Receptors Reported by Researchers at University of Maryland [Evidence That Factor VIII Forms a Bivalent Complex with the Low Density Lipoprotein (LDL) Receptor-related Protein 1 (LRP1) IDENTIFICATION OF CLUSTER IV ON LRP1 AS ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Membrane Proteins - Lipoprotein Receptors are discussed in a new report. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "Hemophilia A is a bleeding disorder caused by a deficiency in coagulation factor VIII (fVIII) that affects 1 in 5,000 males. Current prophylactic replacement therapy, although effective, is difficult to maintain due to the cost and frequency of injections."

Our news journalists obtained a quote from the research from the University of Maryland, "Hepatic clearance of fVIII is mediated by the LDL receptor-related protein 1 (LRP1), a member of the LDL receptor family. Although it is well established that fVIII binds LRP1, the molecular details of this interaction are unclear as most of the studies have been performed using fragments of fVIII and LRP1. In the current investigation, we examine the binding of intact fVIII to full-length LRP1 to gain insight into the molecular interaction. Chemical modification studies confirm the requirement for lysine residues in the interaction of fVIII with LRP1. Examination of the ionic strength dependence of the interaction of fVIII with LRP1 resulted in a Debye-Huckel plot with a slope of 1.8 +/- 0.5, suggesting the involvement of two critical charged residues in the interaction of fVIII with LRP1. Kinetic studies utilizing surface plasmon resonance techniques reveal that the high affinity of fVIII for LRP1 results from avidity effects mediated by the interactions of two sites in fVIII with complementary sites on LRP1 to form a bivalent fVIII.LRP1 complex."

According to the news editors, the research concluded: "Furthermore, although fVIII bound avidly to soluble forms of clusters II and IV from LRP1, only soluble cluster IV competed with the binding of fVIII to full-length LRP1, revealing that cluster IV represents the major fVIII binding site in LRP1."

For more information on this research see: Evidence That Factor VIII Forms a Bivalent Complex with the Low Density Lipoprotein (LDL) Receptor-related Protein 1 (LRP1) IDENTIFICATION OF CLUSTER IV ON LRP1 AS THE MAJOR BINDING SITE. *Journal of Biological Chemistry*, 2016;291(50):26035-26044. *Journal of Biological Chemistry* can be contacted at: Amer Soc Biochemistry Molecular Biology Inc, 9650 Rockville Pike, Bethesda, MD 20814-3996, USA. (American Society for Biochemistry and Molecular Biology - www.asbmb.org; Journal of Biological Chemistry - www.jbc.org/)
Our news journalists report that additional information may be obtained by contacting P.A. Young, University of Maryland, Dept. of Physiol, Sch Med, Baltimore, MD 21201, United States. Additional authors for this research include M. Migliorini and D.K. Strickland.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, LDL-Receptor Related Protein 1, LDL-Receptor Related Proteins, Blood Coagulation Factors, Lipoprotein Receptors, Membrane Proteins, LDL Receptors, Lipoproteins, Factor VIII, Hematology, Lipids, University of Maryland.

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Biotechnology - Liposomes

Data on Liposomes Discussed by Researchers at Graduate School (Real-time characterization of fibrillization process of amyloid-beta on phospholipid membrane using a new label-free detection technique based on a cantilever-based liposome ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biotechnology - Liposomes is the subject of a report. According to news originating from Kyoto, Japan, by NewsRx correspondents, research stated, "The dynamic behavior of amyloid-beta protein (A beta) fibrillization on cell membrane is closely related to the progression of Alzheimers disease (AD). In this paper, we reports a new approach for real-time monitoring of the fibrillization process of A beta on lipid membrane using a miniaturized cantilever-based liposome biosensor, which contributes to the technology development of A beta label-free detection and the mechanism elucidation of A beta fibrillization on cell membrane. 1,2-Dipalmitoyl-sn-glycero-3-phosphocholine (DPPC) liposome as model cell membrane was immobilized on the cantilever surface and A beta(140) was selected as a target protein in this work."

Our news journalists obtained a quote from the research from Graduate School, "Liposome-A beta interaction is evaluated by detecting the resistance change rate of the strain gauge embedded in the cantilever, which is directly proportional to the deflection of cantilever. 24-h real-time monitoring result clearly shows chronological change in the resistance with the progress of A beta fibrillization on liposomes. Moreover, it is found that the extent of liposome-A beta interaction is closely dependent on the aggregate state and concentration of A beta but is less dependent on the type of used solvent (water or serum). It is indicated that DPPC liposome shows sufficient affinity and selectivity to A beta even in serum. In particular, a concentration of A beta as low as 1 mu M can be detected using the cantilever-based liposome biosensor. Furthermore, it is confirmed that this biosensor has a potential of recognizing different states of A beta."

According to the news editors, the research concluded: "We expect that the cantilever-based liposome biosensor becomes an effective tool for accelerating amyloid related research and developing the early diagnosis approach of AD."

For more information on this research see: Real-time characterization of fibrillization process of amyloid-beta on phospholipid membrane using a new label-free detection technique based on a cantilever-based liposome biosensor. Sensors and Actuators B-Chemical, 2016;236():893-899. Sensors and Actuators B-Chemical can be contacted at:
Oncology - Liver Cancer

Data on Liver Cancer Detailed by Researchers at University Hospital
(Oncological Evaluation by Positron-emission Tomography, Circulating Tumor Cells and Alpha Fetoprotein in Patients With Hepatocellular Carcinoma on the Waiting List for Liver ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting originating in Murcia, Spain, by NewsRx journalists, research stated, "The objectives of this study are the determination of the number of circulating tumor cells (CTCs), by means of the IsoFlux enrichment system (Fluxion Biosciences Inc, San Francisco, California, United States) in patients with hepatocellular carcinoma (HCC) in compliance with the Milan criteria and on the waiting list for hepatic transplantation, as well as the study of its relation with the a-fetoprotein levels (AFP) and positron-emission tomography-computed tomography (PET-CT) findings. An oncological evaluation with PET-CT, CTCs, and AFP was conducted in 24 consecutive patients with HCC eligible for orthotopic liver transplantation according to the Milan criteria."

The news reporters obtained a quote from the research from University Hospital, "The diagnosis of HCC was made according to clinical, biological, and radiological findings. We detected CTCs in peripheral blood in 21 of 24 patients (87.5%) before liver transplantation, with a mean number CTCs of 156 +/- 370 (range, 2 to 1768) with statistically significant association between number of CTCs detected in peripheral blood and the time within the waiting list (P < .05), but not between AFP levels and standard uptake value and time to orthotopic liver transplantation (P > .05)."

According to the news reporters, the research concluded: "PET-TC, CTCs, and AFP levels could be an essential key for the correct management of the patients with HCC on the waiting list for liver transplantation."


Our news correspondents report that additional information may be obtained by contacting P.A. Cascales-Campos, Clin Univ Hosp Virgen de la Arrixaca IMIB, Dept. of Surg,

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.07.035. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Murcia, Spain, Europe, Biological Tumor Markers, alpha-Fetoproteins, Biological Factors, Fetal Proteins, Liver Cancer, Carcinomas, Oncology, University Hospital.

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Oncology - Liver Cancer

Data on Liver Cancer Discussed by Researchers at National Cheng Kung University (Sp1-mediated ectopic expression of T-cell lymphoma invasion and metastasis 2 in hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Liver Cancer have been presented. According to news reporting originating in Tainan, Taiwan, by NewsRx journalists, research stated, "T-cell lymphoma invasion and metastasis 2 (TIAM2) is a neuron-specific protein that has been found ectopically expressed in hepatocellular carcinoma (HCC). Results from clinical specimens and cellular and animal models have shown that the short form of TIAM2 (TIAM2S) functions as an oncogene in the tumorigenesis of liver cancer."

Financial support for this research came from Ministry of Science and Technology, Taiwan.

The news reporters obtained a quote from the research from National Cheng Kung University, "However, the regulation of TIAM2S ectopic expression in HCC cells remains largely unknown. This study aimed to identify the mechanism underlying the ectopic expression of TIAM2S in liver cancer cells. In this report, we provide evidence illustrating that Sp1 binds directly to the GC box located in the TIAM2S core promoter. We further demonstrated that overexpression of Sp1 in HepaRG cells promotes endogenous TIAM2S mRNA and protein expressions, and knockdown of Sp1 in 2 HCC cell lines, HepG2 and PLC/PRF/5, led to a substantial reduction in TIAM2S mRNA and protein in these cells. Of 60 paired HCC samples, 70% showed a significant increase (from 1.1-to 3.6-fold) in Sp1 protein expression in the tumor cells. The elevated Sp1 expression was highly correlated with both TIAM2S mRNA and protein expressions in these samples."

According to the news reporters, the research concluded: "Together, these results illustrate that Sp1 positively controls TIAM2S transcription and that Sp1-mediated transcriptional activation is essential for TIAM2S ectopic expression in liver cancer cells."


Our news correspondents report that additional information may be obtained by
contacting W.H. Yen, Institute of Molecular Medicine, College of Medicine, National Cheng Kung University, Tainan, 70101, Taiwan. Additional authors for this research include W.S. Ke, J.J. Hung, T.M. Chen, J.S. Chen and H.S Sun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.611. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tainan, Taiwan, Genetics, Oncology, Carcinomas, Hematology, Liver Cancer, T Cell Lymphoma, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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Oncology - Liver Cancer

Data on Liver Cancer Discussed by Researchers at University Hospital (Combination of the oral histone deacetylase inhibitor resminostat with oncolytic measles vaccine virus as a new option for epi-virotherapeutic treatment of hepatocellular ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Liver Cancer have been presented. According to news reporting originating from Tubingen, Germany, by NewsRx correspondents, research stated, "Epigenetic therapies such as histone deacetylase inhibitors (HDACi) not only have the capability to decrease tumor cell proliferation and to induce tumor cell death but also to silence antiviral response genes. Here, we investigated whether the combination of an oncolytic measles vaccine virus (MeV) with the novel oral HDACi resminostat (Res), being in clinical testing in patients with hepatocellular carcinoma (HCC), results in an enhanced efficacy of this epi-virotherapeutic approach compared to any of the two corresponding monotherapies."

Our news editors obtained a quote from the research from University Hospital, "When testing a panel of human hepatoma cell lines, we found (i) a significantly improved rate of primary infections when using oncolytic MeV under concurrent treatment with resminostat, (ii) a boosted cytotoxic effect of the epi-virotherapeutic combination (Res + MeV) with enhanced induction of apoptosis, and, quite importantly, (iii) an absence of any resminostat-induced impairment of MeV replication and spread. Beyond that, we could also show that (iv) resminostat, after hepatoma cell stimulation with exogenous human interferon (IFN)-beta, is able to prevent the induction of IFN-stimulated genes, such as IFIT-1. This finding outlines the possible impact of resminostat on cellular innate immunity, being instrumental in overcoming resistances to MeV-mediated viral oncolysis."

According to the news editors, the research concluded: "Thus, our results support the onset of epi-virotherapeutic clinical trials in patients exhibiting advanced stages of HCC."

For more information on this research see: Combination of the oral histone deacetylase inhibitor resminostat with oncolytic measles vaccine virus as a new option for epi-virotherapeutic treatment of hepatocellular carcinoma. Molecular Therapy-Oncolytics, 2015;2 ():1-11. Molecular Therapy-Oncolytics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

The news editors report that additional information may be obtained by contacting U.M. Lauer, Univ Hosp Tuebingen, Dept. of Internal Med 1, Tubingen, Germany. Additional
authors for this research include S. Berchtold, S. Venturelli, M. Burkard, I. Smirnow, T. Prenzel, S.W. Henning and U.M. Lauer.

Keywords for this news article include: Tubingen, Germany, Europe, Deacetylase, Diagnostics and Screening, Infectious Diseases and Conditions, Histone Deacetylase Inhibitors, Paramyxoviridae Infections, Morbillivirus Infections, Enzymes and Coenzymes, Histone Deacetylases, Drugs and Therapies, Biological Products, Enzyme Inhibitors, Amidohydrolases, Nucleoproteins, Immunization, Liver Cancer, RNA Viruses, Carcinomas, Proteins, Histones, Vaccines, Genetics, Oncology, Measles, University Hospital.

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Oncology - Liver Cancer

Data on Liver Cancer Reported by Researchers at Fourth Military Medical University (Functional and clinical evidence that TAZ is a candidate oncogene in hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Liver Cancer are presented in a new report. According to news reporting out of Shaanxi, People's Republic of China, by NewsRx editors, research stated, "Transcriptional co-activator with PDZ-binding motif (TAZ) has been reported to be associated with carcinogenesis. However, the cellular function of TAZ in human hepatocellular carcinoma (HCC) remains elusive."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Fourth Military Medical University, "In this study, an immunohistochemistry analysis revealed that the expression of TAZ in cancer tissue samples from 180 HCC patients was significantly higher than that in adjacent normal tissues. In addition, TAZ overexpression was significantly correlated with aggressive tumor characteristics such as tumor size, TNM stage, lymph node or distant metastasis, histological differentiation, and recurrent HCC (p <0.05). The Kaplan-Meier test showed that TAZ-positive expression was related to a poor prognosis compared to TAZ-negative expression (p <0.05). Furthermore, the expression level of TAZ was generally correlated with the invasiveness of cancer cells."

According to the news editors, the research concluded: "The overexpression of TAZ in the Huh7 cell line, which endogenously expresses TAZ at low levels, significantly promoted cell proliferation, migration and invasion and inhibited apoptosis, whereas RNA interference-mediated knockdown of TAZ in the highly invasive cell line MHCC-97H significantly suppressed cell proliferation, migration and invasion in vitro and tumor formation in vivo."


Our news journalists report that additional information may be obtained by contacting Y. Guo, The State Key Laboratory of Cancer Biology, Dept. of Biochemistry and Molecular Biology, The Fourth Military Medical University, Xi'an, Shaanxi, 710032, People's Republic of China. Additional authors for this research include Q. Pan, J. Zhang, X. Xu, X. Liu,
Data on Liver Cancer Reported by Researchers at Shandong Cancer Hospital (Oxaliplatin-rapamycin combination was superior to mono-drug in treatment of hepatocellular carcinoma both in vitro and in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting out of Shandong, People's Republic of China, by NewsRx editors, research stated, "The presented study aimed to investigate the antitumor efficacy of combination of oxaliplatin with rapamycin, an mTOR inhibitor, in hepatocellular carcinoma (HCC). The activation status of mTOR pathway was first examined in HCC cell lines HepG2, BEL7402, and HuH7 using Western blotting."

Our news journalists obtained a quote from the research from Shandong Cancer Hospital, "Effects of rapamycin, oxaliplatin, and their combination on the proliferation of HCC cells were determined in vitro using MTT assay and in vivo using a nude mice model bearing HepG2 xenografts. Drug-induced cell apoptosis was examined by flow cytometry. Expression of apoptosis-related protein was determined by Western blotting. We observed that mTOR pathway was activated in all three cell lines used in the current study. MTT assay demonstrated that oxaliplatin in combination with rapamycin synergistically inhibited the proliferation of HCC cells. The combination regimen reduced terminal tumor burden more efficiently than the corresponding monotherapy. The percentages of apoptotic cells and the expression levels of apoptosis-related proteins including cleaved caspase-9,-3, and PARP were significantly higher in combination-treatment groups than those in mono-drug-treatment groups. The ratios of Bax/Bcl-2 in cells exposed to both oxaliplatin and rapamycin were significantly increased compared to those in cells subjected to oxaliplatin or rapamycin alone treatment."

According to the news editors, the research concluded: "Results obtained in the presented study suggested that combination of oxaliplatin and rapamycin was superior to mono-drug and may have a potential value in treatment of HCC."

For more information on this research see: Oxaliplatin-rapamycin combination was superior to mono-drug in treatment of hepatocellular carcinoma both in vitro and in vivo. Neoplasma, 2016;63(6):880-887. Neoplasma can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

Our news journalists report that additional information may be obtained by contacting Y.L. Sun, Shandong Canc Hosp & Inst, Dept. of Med Oncol, Jinan, Shandong, People's Republic of China. Additional authors for this research include Y.L. Sun, L.Q. Cao and M.J. Li.

The direct object identifier (DOI) for that additional information is:
Data on Liver Cancer Reported by Researchers at Shandong University School of Medicine (HBV preS2 promotes the expression of TAZ via miRNA-338-3p to enhance the tumorigenesis of hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Liver Cancer. According to news reporting originating from Shandong, People's Republic of China, by NewsRx correspondents, research stated, "Transactivators encoded by HBV, including HBx and preS2, play critical role in hepatocellular carcinoma (HCC). YAP, a downstream effector of the Hippo pathway, is involved in hepatocarcinogenesis mediated by HBx."

Our news editors obtained a quote from the research from the Shandong University School of Medicine, "Here, we investigated whether preS2, another transactivator encoded by HBV, regulates the Hippo pathway to promote HCC. We found that preS2 overexpression upregulated TAZ, a downstream effector of the Hippo pathway, at protein level but not at mRNA level. preS2 suppressed miRNA-338-3p expression in HCC cell lines. miRNA-338-3p mimics downregulated TAZ, while miRNA-338-3p inhibitor restored the expression of TAZ, suggesting that TAZ is a direct target of miRNA-338-3p. TAZ overexpression stimulated growth of HCC cell lines. Knockdown of TAZ dampened preS2-promoted HCC proliferation and migration. Thus, preS2 upregulates TAZ expression by repressing miRNA-338-3p."

According to the news editors, the research concluded: "TAZ is necessary for preS2-promoted HCC proliferation and migration."

For more information on this research see: HBV preS2 promotes the expression of TAZ via miRNA-338-3p to enhance the tumorigenesis of hepatocellular carcinoma. Oncotarget, 2015;6(30):29048-59.

The news editors report that additional information may be obtained by contacting P. Liu, Key Laboratory for Experimental Teratology of Ministry of Education and Dept. of Immunology, Shandong University School of Medicine, Jinan, Shandong, 250012, People's Republic of China. Additional authors for this research include H. Zhang, X. Liang, H. Ma, F. Luan, B. Wang, F. Bai, L. Gao and C. Ma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.4804. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shandong, Genetics, Oncology, Carcinomas, Liver Cancer, People's Republic of China.

Our reports deliver fact-based news of research and discoveries from around the
Data on Liver Cancer Reported by Researchers at Zhejiang University (A54 Peptide Modified and Redox-Responsive Glucolipid Conjugate Micelles for Intracellular Delivery of Doxorubicin in Hepatocarcinoma Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Liver Cancer. According to news reporting out of Hangzhou, People's Republic of China, by NewsRx editors, research stated, "Redox-responsive nanomaterials applied in drug delivery systems (DDS) have attracted an increasing attention in pharmaceutical research as a carrier for antitumor therapy. However, there would be unwanted drug release from a redox-responsive DDS with no selection at nontarget sites, leading to undesirable toxicities in normal tissues and cells."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Zhejiang University, "Here, an A54 peptide modified and PEGylated reduction cleavable glucolipid conjugate (A54-PEG-CSO-ss-SA, abbreviated to APC(ss)A) was designed for intracellular delivery of doxorubicin (DOX). The synthesized APC(ss)A could be assembled via micellization self assembly in aqueous water above the critical micelle concentration (54.9 µg/mL) and exhibited a high drug encapsulation efficiency (77.92%). The APC(ss)A micelles showed an enhanced redox sensitivity in that the disulfide bond could be degraded quickly and the drug would be released from micelles in 10 mM levels of glutathione (GSH). The cellular uptake studies highlighted the affinity of APC(ss)A micelles toward the hepatoma cells (BEL-7402) compared to that toward HepG2 cells. In contrast with the nonresponsive conjugate, the drug was released from APC(ss)A micelles more quickly in 10 mM level of GSH concentration (tumor cells). Moreover, the DOX-loaded APC(ss)A micelles displayed an increased cytotoxicity which was 1.6- to 2.0-fold that of unmodified and nonresponsive micelles. In vivo, the APC(ss)A micelles had stronger distribution to liver and hepatoma tissue and prolonged the circulation and retention time, while the drug release only occurred in the tumor tissue. The APC(ss)A/DOX showed the tumor inhibition rate equal to that of commercial doxorubicin hydrochloric without negative consequence."

According to the news editors, the research concluded: "This study suggested that the APC(ss)A/DOX showed promising potential to treat the tumor for its special tumor targeting, selective intracellular drug release, enhanced antitumor activity, and reduced toxicity on normal tissues."


Our news journalists report that additional information may be obtained by contacting F.Q. Hu, Zhejiang University, Coll Pharmaceut Sci, Hangzhou 310058, Zhejiang,
Data on Liver Transplants Described by H. Chen et al (Nontumoral portal vein thrombosis in patients awaiting liver transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Liver Transplants is now available. According to news reporting out of Barcelona, Spain, by NewsRx editors, research stated, "Portal vein thrombosis (PVT) occurs in approximately 2%-26% of the patients awaiting liver transplantation (LT) and is no longer an absolute contraindication for LT. Nearly half of PVT cases are accidentally found during the LT procedure."

Our news journalists obtained a quote from the research, "The most important risk factor for PVT development in cirrhosis may be the severity of liver disease and reduced portal blood flow. Whether other inherited or acquired coagulation disorders also play a role is not yet clear. The development of PVT may have no effect on the liver disease progression, especially when it is nonocclusive. PVT may not increase the risk of wait-list mortality, but it is a risk factor for poor early post-LT mortality. Anticoagulation and transjugular intrahepatic portosystemic shunt (TIPS) are 2 major treatment strategies for patients with PVT on the waiting list. The complete recanalization rate after anticoagulation is approximately 40%. The role of TIPS to maintain PV patency for LT as the primary indication has been reported, but the safety and efficacy should be further evaluated. PVT extension and degree may determine the surgical technique to be used during LT. If a 'conventional' end-to-end portal anastomotic technique is used, there is not a major impact on post-LT survival."

According to the news editors, the research concluded: "Post-LT PVT can significantly reduce both graft and patient survival after LT and can preclude future options for re-LT."


Our news journalists report that additional information may be obtained by contacting H. Chen, Barcelona Hepatic Hemodynamic Laboratory, Liver Unit, Barcelona, Spain. Additional authors for this research include F. Turon, V. Hernandez-Gea, J. Fuster, A. Garcia-Criado, M. Barrufet, A. Darnell, C. Fondevila, J.C. Garcia-Valdecasas and J.C Garcia-Pagan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/lt.24387. This DOI is a link to an online electronic document that is...
either free or for purchase.

Keywords for this news article include: Biomedicine, Spain, Europe, Surgery, Barcelona, Angiology, Hematology, Portal Vein, Article Review, Organ Transplants, Risk and Prevention, Transplant Medicine, Liver Transplantation, Embolism and Thrombosis, Liver Diseases and Conditions, Digestive System Surgical Procedures, Cardiovascular Diseases and Conditions.

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Oncology - Lung Cancer

Data on Lung Cancer Detailed by Researchers at University of Niigata (Autocrine Semaphorin3A signaling is essential for the maintenance of stem-like cells in lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting from Niigata, Japan, by NewsRx journalists, research stated, "Cancer stem-like cells (CSCs) exist in tumor tissues composed of heterogeneous cell population and are characterized by their self-renewal capacity and tumorigenicity. Many studies demonstrate that eradication of CSCs prevents development and recurrences of tumor; yet, molecules critical for the maintenance of CSCs have not been completely understood."

Financial support for this research came from JSPS KAKENHI.

The news correspondents obtained a quote from the research from the University of Niigata, "We previously reported that Semaphorin3A (Sema3a) knockdown suppressed the tumorigenicity and proliferative capacity of Lewis lung carcinoma (LLC) cells. Therefore, we identified Sema3a as an essential factor for the establishment or maintenance of CSCs derived from LLC (LLC-stem cell). shRNA against Sema3a was introduced into LLC cells to establish a LLC-stem cell line and its effects on tumorigenesis, sphere formation, and mTORC1 activity were tested. Sema3a knockdown completely abolished tumorigenicity and the sphere-formation and self-renewal ability of LLC-stem cells. The Sema3a knockdown was also associated with decreased expression of mRNA for stem cell markers. The self-renewal ability abolished by Sema3a knockdown could not be recovered by exogenous addition of recombinant SEMA3A. In addition, the activity of mammalian target of rapamycin complex 1 (mTORC1) and the expression of its substrate p70S6K1 were also decreased."

According to the news reporters, the research concluded: "These results demonstrate that Sema3a is a potential therapeutic target in eradication of CSCs."

For more information on this research see: Autocrine Semaphorin3A signaling is essential for the maintenance of stem-like cells in lung cancer. Biochemical and Biophysical Research Communications, 2016;480(3):375-379. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting T. Maeda, Niigata University of Pharmacy & Applied Life Sciences, Fac Pharm, Dept. of Pharmacol, Akiha Ku, Niigata, Niigata 9568603, Japan. Additional authors for this
research include K. Takahashi, K. Kawahara and T. Maeda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.057. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Niigata, Japan, Asia, Stem Cell Research, Lung Neoplasms, Lung Cancer, Oncology, Genetics, University of Niigata.

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Kidney Diseases and Conditions - Lupus Nephritis

Data on Lupus Nephritis Reported by Researchers at Addenbrooke's Hospital (Con: The use of calcineurin inhibitors in the treatment of lupus nephritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Kidney Diseases and Conditions - Lupus Nephritis are presented in a new report. According to news reporting originating in Cambridge, United Kingdom, by NewsRx journalists, research stated, "Lupus nephritis (LN) therapy has limited efficacy due to its toxicity, and LN patients suffer high risks of renal and cardiovascular morbidity and mortality. Calcineurin inhibitors (CNIs) have been used for over > 30 years in LN treatment and are an established alternative therapy for Class V nephritis, but uncertainty remains about their role in proliferative disease or in the maintenance of remission."

The news reporters obtained a quote from the research from Addenbrooke's Hospital, "More recently, the combination of CNIs with mycophenolate mofetil (MMF) and glucocorticoid combination therapy, 'multitarget' therapy and the use of tacrolimus as opposed to ciclosporin has received attention. Is the evidence now sufficient to support the routine use of regimens including CNIs in LN? Although CNIs appear to have similar efficacy to MMF-based regimens as induction therapy, and are comparable with azathioprine as maintenance treatment, CNI toxicities, such as new-onset hypertension, hyperglycaemia and nephrotoxicity, have been problematic. Multitarget therapy improves the rate of complete remission in short-term studies, but whether this benefit is maintained over the longer term is uncertain. However, patient tolerability is lower and the frequency of serious events is higher in multitarget versus cyclophosphamide-based regimens, and there is a paucity of evidence from non-Asian ethnic groups. CNI-based therapy is also complicated by the absence of standardized dosing and the need for drug level monitoring, as well as by pharmacogenetic differences. Also, multitarget therapy increases the complexity and the cost of treatment. There is insufficient evidence to support the routine use of CNI-based or multitarget therapy for proliferative LN."

According to the news reporters, the research concluded: "Further data on long-term renal and cardiovascular outcomes and strategies to improve tolerability and safety are required."


Our news correspondents report that additional information may be obtained by
Autoimmune Diseases and Conditions - Lupus

Data on Lupus Reported by Researchers at King's College
(Sifalimumab, an anti-interferon-a monoclonal antibody, in moderate to severe systemic lupus erythematosus: a randomised, double-blind, placebo-controlled study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Lupus. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "The efficacy and safety of sifalimumab were assessed in a phase IIb, randomised, double-blind, placebo-controlled study (NCT01283139) of adults with moderate to severe active systemic lupus erythematosus (SLE). 431 patients were randomised and received monthly intravenous sifalimumab (200 mg, 600 mg or 1200 mg) or placebo in addition to standard-of-care medications. Patients were stratified by disease activity, interferon gene-signature test (high vs low based on the expression of four genes) and geographical region."

Financial support for this research came from MedImmune.

Our news journalists obtained a quote from the research from King’s College, "The primary efficacy end point was the percentage of patients achieving an SLE responder index response at week 52. Compared with placebo, a greater percentage of patients who received sifalimumab (all dosages) met the primary end point (placebo: 45.4%; 200 mg: 58.3%; 600 mg: 56.5%; 1200 mg 59.8%). Other improvements were seen in Cutaneous Lupus Erythematosus Disease Area and Severity Index score (200 mg and 1200 mg monthly), Physician's Global Assessment (600 mg and 1200 mg monthly), British Isles Lupus Assessment Group-based Composite Lupus Assessment (1200 mg monthly), 4-point reductions in the SLE Disease Activity Index-2000 score and reductions in counts of swollen joints and tender joints. Serious adverse events occurred in 17.6% of patients on placebo and 18.3% of patients on sifalimumab. Herpes zoster infections were more frequent with sifalimumab treatment. Sifalimumab is a promising treatment for adults with SLE."

According to the news editors, the research concluded: "Improvement was consistent across various clinical end points, including global and organ-specific measures of disease activity."

ard.bmj.com/

The news correspondents report that additional information may be obtained from M. Khamashta, Graham Hughes Lupus Research Laboratory, Division of Women's Health, King's College London, The Rayne Institute, St Thomas' Hospital, London, UK. Additional authors for this research include J.T. Merrill, V.P. Werth, R. Furie, K. Kalunian, G.G. Illei, J. Drappa, L. Wang and W. Greth.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/annrheumdis-2015-208562. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, London, Europe, Genetics, Cytokines, Immunology, Interferons, United Kingdom, Blood Proteins, Immunoglobulins, Clinical Research, Clinical Trials and Studies, Systemic Lupus Erythematosus, Autoimmune Diseases and Conditions, Interellular Signaling Peptides and Proteins.

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Immune System Diseases and Conditions -

Data on Lymphoproliferative Disorders Detailed by Researchers at University of Auvergne (Usefulness of EUS-guided fine needle aspiration biopsy in the diagnosis of suspected or recurring lymphoproliferative disorders)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immune System Diseases and Conditions - Lymphoproliferative Disorders is the subject of a report. According to news reporting from Clermont Ferrand, France, by NewsRx journalists, research stated, "EUS-guided fine needle aspiration biopsy (EUS-FNAB) of deep-seated lymphadenopathy is proposed to identify lymphoproliferative disorders when no superficial lesion is accessible. We analyzed prospectively collected data of 115 EUS-FNABs from 73 thoracic or abdominopelvic targets in 52 patients with suspected lymphoproliferative disorders (LPDs) between January 2005 and May 2011 from a single institution."

The news correspondents obtained a quote from the research from the University of Auvergne, "Conventional histology and immunohistochemistry procedures were performed on samples. No complications were recorded. An LPD was identified in 29 cases and ruled out in 21 cases. In 2 cases the analysis was negative, but an LPD was identified using a secondary procedure. For the identification of LPDs irrespective of subtype, this procedure has positive and negative predictive values of 100% and 91.3% respectively, with 93.6% sensitivity and 100% specificity. In 31 patients finally diagnosed with LPDs, an accurate diagnosis meeting the 2008 World Health Organization classification criteria was established in 21 (68%) cases, success being significantly associated with target size above 30 mm in multivariate analysis (odds ratio 7.47; p = 0.05). EUS-FNAB of deep-seated lymphadenopathy with conventional morphological assessment appears to have a high diagnostic value for LPD identification and can obviate invasive surgery."

According to the news reporters, the research concluded: "A sub-classification was possible in two thirds of the cases."

For more information on this research see: Usefulness of EUS-guided fine needle

Our news journalists report that additional information may be obtained by contacting L. Poincloux, Univ Auvergne, CNRS, ISIT, UMR 6284, Clermont Ferrand, France. Additional authors for this research include M. Andre, C. Darcha, M. Goutte, M. Dapoigny, G. Bommelaer, A. Abergel and O. Tournilhac.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.suronc.2015.08.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Clermont Ferrand, France, Europe, Hemic and Lymphatic Diseases and Conditions, Diagnostics and Screening, Article Review, Immune System Diseases and Conditions, Operative Surgical Procedures, Lymphoproliferative Disorders, Medical Devices, Surgery, Biopsy, University of Auvergne.

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Mosquito-Borne Diseases - Malaria

**Data on Malaria Detailed by Researchers at International Center for Genetic Engineering and Biotechnology (Compartmentalized Metabolic Engineering for Artemisinin Biosynthesis and Effective Malaria Treatment by Oral Delivery of Plant Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mosquito-Borne Diseases - Malaria have been published. According to news reporting originating from New Delhi, India, by NewsRx correspondents, research stated, "Artemisinin is highly effective against drug-resistant malarial parasites, which affects nearly half of the global population and kills > 500 000 people each year. The primary cost of artemisinin is the very expensive process used to extract and purify the drug from Artemisia annua."

Our news editors obtained a quote from the research from International Center for Genetic Engineering and Biotechnology, "Elimination of this apparently unnecessary step will make this potent antimalarial drug affordable to the global population living in endemic regions. Here we reported the oral delivery of a non-protein drug artemisinin biosynthesized (similar to 0.8 mg/g dry weight) at clinically meaningful levels in tobacco by engineering two metabolic pathways targeted to three different cellular compartments (chloroplast, nucleus, and mitochondria). The doubly transgenic lines showed a three-fold enhancement of isopentenyl pyrophosphate, and targeting AACPR, DBR2, and CYP71AV1 to chloroplasts resulted in higher expression and an efficient photo-oxidation of dihydroartemisinic acid to artemisinin. Partially purified extracts from the leaves of transgenic tobacco plants inhibited in vitro growth progression of Plasmodium falciparum-infected red blood cells. Oral feeding of whole intact plant cells bioencapsulating the artemisinin reduced the parasitemia levels in challenged mice in comparison with commercial drug."

According to the news editors, the research concluded: "Such novel synergistic approaches should facilitate low-cost production and delivery of artemisinin and other drugs
through metabolic engineering of edible plants."


The news editors report that additional information may be obtained by contacting S. Kumar, Int Center Genet Engn & Biotechnol, Metab Engn Grp, New Delhi 110067, India. Additional authors for this research include M. Subramaniyan, K. Rawat, M. Kalamuddin, M.I. Qureshi, P. Malhotra, A. Mohmmed, K. Cornish, H. Daniell and S. Kumar.

Keywords for this news article include: New Delhi, India, Asia, Metabolic Engineering, Epidemiology, Mosquito-Borne Diseases, Protozoan Infections, Sesquiterpenes, Artemisinins, Peroxides, Genetics, Malaria, International Center for Genetic Engineering and Biotechnology.

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**Oncology - Malignant Mesothelioma**

**Data on Malignant Mesothelioma Reported by Researchers at Tokushima University (Downregulation of thymidylate synthase by RNAi molecules enhances the antitumor effect of pemetrexed in an orthotopic malignant mesothelioma xenograft mouse model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Malignant Mesothelioma are discussed in a new report. According to news originating from Tokushima, Japan, by NewsRx correspondents, research stated, "Malignant pleural mesothelioma (MPM) is an incurable cancer with an increasing incidence. Currently, pemetrexed (PMX)-based chemotherapy is the mainstay of chemotherapy for MPM, however, the outcome of PMX-based chemotherapy in patients with MPM is dismal."

Our news journalists obtained a quote from the research from Tokushima University, "RNA interference (RNAi) technology has been considered as an effective tool to substantially enhance the therapeutic efficacy of chemotherapeutic agents in many preclinical and clinical settings. In this study, therefore, we investigated whether non-viral anti-thymidylate synthase RNAi embedded liposome (TS shRNA lipoplex) would effectively guide the downregulation of TS in human malignant mesothelioma MSTO-211H cells. Consequently, it enhanced the antitumor effect of PMX both in vitro and in vivo. TS shRNA effectively enhanced the in vitro cell growth inhibition upon treatment with PMX via downregulating TS expression in the MSTO-211H cell line. In in vivo orthotopic tumor model, the combined treatment of PMX and TS shRNA lipoplex efficiently combated the progression of orthotopic thoracic tumors and as a result prolonged mouse survival, compared to each single treatment."

According to the news editors, the research concluded: "Our findings emphasize the pivotal relevance of RNAi as an effective tool for increasing the therapeutic efficacy of PMX, a cornerstone in the treatment regimens of MPM, and thereby, raising the possibility for the development of a novel therapeutic strategy, combination therapy of TS-shRNA and PMX, that can surpass many of the currently applied, but less effective, therapeutic regimes against lethal

The news correspondents report that additional information may be obtained from A.S. Abu Lila, Dept. of Pharmacokinetics and Biopharmaceutics, Institute of Health Biosciences, Tokushima University, Tokushima, Japan. Additional authors for this research include C. Kato, M. Fukushima, C.L. Huang, H. Wada and T. Ishida.

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Keywords for this news article include: Asia, Antimetabolites, Antineoplastics, Biotechnology, Japan, Cancer, Genetics, Oncology, Tokushima, Xenografts, Chemotherapy, Therapeutics, Enzyme Inhibitors, Xenotransplantation, Methyltransferases, Pemetrexed Therapy, Drugs and Therapies, Thymidylate Synthase, Enzymes and Coenzymes, Folic Acid Antagonists.

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two orders of magnitude. With regard to the clinical delivery of noncoplanar IMRT treatments, we could show that optimized beam ensembles using only a few noncoplanar beam orientations often approach the plan quality of fully noncoplanar ensembles.

According to the news editors, the research concluded: "We conclude that iterative BAS in combination with objective function surrogates can be a viable option to implement automated BAS at clinically acceptable computation times."

For more information on this research see: Accelerated iterative beam angle selection in IMRT. Medical Physics, 2016;43(3):1073-82. Medical Physics can be contacted at: Amer Assoc Physicists Medicine Amer Inst Physics, Ste 1 No 1, 2 Huntington Quadrangle, Melville, NY 11747-4502, USA. (American Association of Physicists in Medicine - www.aapm.org; Medical Physics - online.medphys.org/)

The news correspondents report that additional information may be obtained from M. Bangert, Dept. of Medical Physics in Radiation Oncology, German Cancer Research Center-DKFZ, Im Neuenheimer Feld 280, Heidelberg D-69120, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1118/1.4940350. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal Medical Physics is: Amer Assoc Physicists Medicine Amer Inst Physics, Ste 1 No 1, 2 Huntington Quadrangle, Melville, NY 11747-4502, USA.

Keywords for this news article include: Europe, Germany, Heidelberg, Medical Physics, Health and Medicine.

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Health and Medicine - Medical Research

Data on Medical Research Discussed by Researchers at Hamadan University (Effect of a high fat diet on ovary morphology, in vitro development, in vitro fertilisation rate and oocyte quality in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Health and Medicine - Medical Research is the subject of a report. According to news reporting from Hamadan, Iran, by NewsRx journalists, research stated, "The aim of this study was to determine the effect of a high-fat diet (HFD) on oocyte maturation and quality in a mouse model. Female BALB/c mice were allocated to one of the following groups: (a) control group (n=40), which received a controlled diet; or (b) HFD group (n=40), which received an HFD for 12 weeks."

The news correspondents obtained a quote from the research from Hamadan University, "Sections of the ovary were examined histologically. The number of follicles and corpora lutea were counted. In vitro maturation and in vitro fertilisation (IVF) were assessed in germinal vesicle (GV) and metaphase II (MII) oocytes, respectively. The expression of bone morphogenetic protein 15 (BMP15) and leptin receptor genes in GV and MII oocytes was evaluated using reverse transcription real-time polymerase chain reactions. In the HFD group, there was a decreased number of primordial and Graafian follicles, as well as corpora lutea (p <0.05). The rate of oocyte development to the MII stage was also reduced (p <0.001). Cumulus expansion was observed more frequently in the control group than the HFD group (p <0.05)."
The IVF rate in the HFD group was lower than that in the control group (p <0.05). In the HFD group, BMP15 and leptin receptor genes were upregulated in the GV stage (p >0.05) and MII stage (p <0.05), compared to the control group.

According to the news reporters, the research concluded: "An HFD reduces folliculogenesis in the primordial and Graafian stages, in vitro maturation and in vitro fertilisation rates, as well as oocyte quality in mice."


Our news journalists report that additional information may be obtained by contacting M. Sohrabi, Research Center for Molecular Medicine, Hamadan University of Medical Sciences, Hamadan, Iran. Additional authors for this research include A.M. Roushandeh, Z. Alizadeh, A. Vahidinia, M. Vahabian and M. Hosseini.

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Keywords for this news article include: Iran, Asia, Hamadan, Genetics, Medical Research, Health and Medicine.

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Data on Medical Research Reported by Researchers at Chinese People's Liberation Army General Hospital (Identification of Two Disease-causing Genes TJP2 and GJB2 in a Chinese Family with Unconditional Autosomal Nonsyndromic Hereditary ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Health and Medicine - Medical Research. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "There are more than 300 genetic loci that have been found to be related to hereditary hearing impairment (HHI), including 92 causative genes for nonsyndromic hearing loss, among which 34 genes are related to autosomal dominant nonsyndromic HHI (ADNSHHI). Traditional linkage analysis and candidate gene sequencing are not effective at detecting the ADNSHHI, especially for the unconditional families that may have more than one pathogenic cause."

Our news journalists obtained a quote from the research from Chinese People's Liberation Army General Hospital, "This study identified two disease-causing genes TJP2 and GJB2 in a Chinese family with unconditional ADNSHHI. To decipher the genetic code of a Chinese family (family 686) with ADNSHHI, different gene screening techniques have been performed, including linkage analysis, candidate genes screening, high-throughput sequencing and Sanger sequencing. These techniques were done on samples obtained from this family over a period of 10 years. We identified a pathogenic missense mutation, c. 2081G >A (p.G694E), in TJP2, a gene that plays a crucial role in apoptosis and age-related hearing loss (ARHL). The mutation was co-segregated in this pedigree in all, but not in the two patients who presented with different phenotypes from the other affected family members. In one of the two patients,
we confirmed that the compound heterozygosity for p.Y136* and p.G45E in the GJB2 gene may account for the phenotype shown in this patient. We identified the co-occurrence of two genetic causes in family 686. The possible disease-causing missense mutation of TJP2 in family 686 presents an opportunity for further investigation into ARHL."

According to the news editors, the research concluded: "It is necessary to combine various genes screening methods, especially for some unconventional cases."


Our news journalists report that additional information may be obtained by contacting Q.J. Wang, Dept. of Otolaryngology-Head and Neck, Chinese People's Liberation Army Institute of Otolaryngology, Chinese People's Liberation Army General Hospital, Beijing 100853, People's Republic of China. Additional authors for this research include Y.L. Zhao, Q. Liu, H. Yuan, Y. Gao, L. Lan, L. Yu, D.Y. Wang, J. Guan and Q.J Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.171440. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Chinese Medical Journal is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Beijing, Genetics, Medical Research, Health and Medicine, People's Republic of China.

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Oncology - Melanoma

Data on Melanoma Detailed by Researchers at Institute of Molecular Cell Biology (Activation of mutant TERT promoter by RAS-ERK signaling is a key step in malignant progression of BRAF-mutant human melanomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Melanoma are presented in a new report. According to news reporting from Singapore, Singapore, by NewsRx journalists, research stated, "Although activating BRAF/NRAS mutations are frequently seen in melanomas, they are not sufficient to drive malignant transformation and require additional events. Frequent co-occurrence of mutations in the promoter for telomerase reverse transcriptase (TERT), along with BRAF alterations, has recently been noted and correlated with poorer prognosis, implicating a functional link between BRAF signaling and telomerase reactivation in melanomas."

The news correspondents obtained a quote from the research from the Institute of Molecular Cell Biology, "Here, we report that RAS-ERK signaling in BRAF mutant melanomas is critical for regulating active chromatin state and recruitment of RNA polymerase II at mutant TERT promoters. Our study provides evidence that the mutant TERT promoter is a key
substrate downstream of the RAS-ERK pathway. Reactivating TERT and hence reconstituting telomerase is an important step in melanoma progression from nonmalignant nevi with BRAF mutations."

According to the news reporters, the research concluded: "Hence, combined targeting of RAS-ERK and TERT promoter remodeling is a promising avenue to limit long-term survival of a majority of melanomas that harbor these two mutations."

For more information on this research see: Activation of mutant TERT promoter by RAS-ERK signaling is a key step in malignant progression of BRAF-mutant human melanomas. Proceedings of the National Academy of Sciences of the United States of America, 2016;113 (50):14402-14407. Proceedings of the National Academy of Sciences of the United States of America can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC 20418, USA. (National Academy of Sciences - www.nasonline.org/; Proceedings of the National Academy of Sciences of the United States of America - www.nasonline.org/publications/pnas/)

Our news journalists report that additional information may be obtained by contacting Y.H. Li, Agcy Sci Technol & Res, Inst Mol & Cell Biol, Singapore 138673, Singapore. Additional authors for this research include H.S. Cheng, W.J. Chng and V. Tergaonkar.

Keywords for this news article include: Singapore, Singapore, Asia, Ribonucleoproteins, Carrier Proteins, Telomerase, Oncology, Melanoma, Genetics, Institute of Molecular Cell Biology.

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**Oncology - Melanoma**

**Data on Melanoma Reported by Researchers at University of Sydney**

*(Public preferences for communicating personal genomic risk information: a focus group study)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Melanoma have been published. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "Personalized genomic risk information has the potential to motivate behaviour change and promote population health, but the success of this will depend upon effective risk communication strategies. To determine preferences for different graphical and written risk communication formats, and the delivery of genomic risk information including the mode of communication and the role of health professionals."

Funders for this research include Sydney Catalyst Pilot and Seed Funding, National Health and Medical Research Council, Cancer Institute NSW.

The news reporters obtained a quote from the research from the University of Sydney, "Focus groups, transcribed and analysed thematically. Thirty-four participants from the public. Participants were provided with, and invited to discuss, a hypothetical scenario giving an individual’s personalized genomic risk of melanoma displayed in several graphical formats. Participants preferred risk formats that were familiar and easy to understand, such as a ‘double pie chart’ and ‘100 person diagram’ (pictograph). The 100 person diagram was considered persuasive because it humanized and personalized the risk information. People described the pie
chart format as resembling bank data and food (such as cake and pizza). Participants thought that email, web-based platforms and postal mail were viable options for communicating genomic risk information. However, they felt that it was important that a health professional (either a genetic counsellor or 'informed' general practitioner) be available for discussion at the time of receiving the risk information, to minimize potential negative emotional responses and misunderstanding. Face-to-face or telephone delivery was preferred for delivery of high-risk results."

According to the news reporters, the research concluded: "These public preferences for communication strategies for genomic risk information will help to guide translation of genome-based knowledge into improved population health."


Our news correspondents report that additional information may be obtained by contacting A.E. Cust, University of Sydney, Sydney Sch Public Hlth, Canc Epidemiol & Serv Res, Sydney, NSW 2050, Australia. Additional authors for this research include L.A. Keogh, J. Hersch, A.J. Newson, P. Butow, G. Williams and A.E. Cust.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hex.12406. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Risk and Prevention, Oncology, Melanoma, Genetics, University of Sydney.

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**Stem Cell Research - Mesenchymal Stem Cells**

**Data on Mesenchymal Stem Cells Reported by Researchers at Affiliated Hospital 1 (Low-magnitude, high-frequency vibration promotes the adhesion and the osteogenic differentiation of bone marrow-derived mesenchymal stem cells cultured on a ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Stem Cell Research - Mesenchymal Stem Cells are presented in a new report. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "The positive effect of low-magnitude, high-frequency (LMHF) vibration on implant osseointegration has been demonstrated; however, the underlying cellular and molecular mechanisms remain unknown. The aim of this study was to explore the effect of LMHF vibration on the adhesion and the osteogenic differentiation of bone marrow-derived mesenchymal stem cells (BMSCs) cultured on hydroxyapatite (HA)-coated surfaces in an in vitro model as well as to elucidate the molecular mechanism responsible for the effects of LMHF vibration on osteogenesis."

The news reporters obtained a quote from the research from Affiliated Hospital 1, "LMHF vibration resulted in the increased expression of fibronectin, which was measured by immunostaining and RT-qPCR. Stimulation of BMSCs by LMHF vibration resulted in the
rearrangement of the actin cytoskeleton with more prominent F-actin. Moreover, the expression of integrin, vinculin and paxillin was notably increased following LMHF stimulation. Scanning electron microscope observations revealed that there were higher cell numbers and more extracellular matrix attached to the HA-coated surface in the LMHF group. Alkaline phosphatase activity as well as the expression of osteogenic-specific genes, namely Runx2, osterix, collagen I and osteocalcin, were significantly elevated in the LMHF group. In addition, the protein expression of Wnt10B, -catenin, Runx2 and osterix was increased following exposure to LMHF vibration. Taken together, the findings of this study indicate that LMHF vibration promotes the adhesion and the osteogenic differentiation of BMSCs on HA-coated surfaces in vitro, and LMHF vibration may directly induce osteogenesis by activating the Wnt/-catenin signaling pathway."

According to the news reporters, the research concluded: "These data suggest that LMHF vibration enhances the osseointegration of bone to a HA-coated implant, and provide a scientific foundation for improving bone-implant osseointegration through the application of LMHF vibration."

For more information on this research see: Low-magnitude, high-frequency vibration promotes the adhesion and the osteogenic differentiation of bone marrow-derived mesenchymal stem cells cultured on a hydroxyapatite-coated surface: The direct role of Wnt/-catenin signaling pathway activation. *International Journal of Molecular Medicine*, 2016;38 (5):1531-1540. *International Journal of Molecular Medicine* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.


Keywords for this news article include: Guangdong, People's Republic of China, Asia, Mesenchymal Stem Cells, Stem Cell Research, Phosphoric Acids, Hydroxyapatites, Immune System, Bone Research, Bone Marrow, Phosphates, Affiliated Hospital 1.

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**Stem Cell Research - Mesenchymal Stem Cells**

**Data on Mesenchymal Stem Cells Reported by Researchers at New Jersey Institute of Technology (Sodium Tungstate for Promoting Mesenchymal Stem Cell Chondrogenesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Stem Cell Research - Mesenchymal Stem Cells. According to news reporting from Newark, New Jersey, by NewsRx journalists, research stated, "Articular cartilage has a limited ability to heal. Mesenchymal stem cells (MSCs) derived from the bone marrow have shown promise as a cell type for cartilage regeneration strategies."

The news correspondents obtained a quote from the research from the New Jersey Institute of Technology, "In this study, sodium tungstate (Na2WO4), which is an insulin mimetic, was evaluated for the first time as an inductive factor to enhance human MSC
chondrogenesis. MSCs were seeded onto three-dimensional electrospun scaffolds in growth medium (GM), complete chondrogenic induction medium (CCM) containing insulin, and CCM without insulin. Na2WO4 was added to the media leading to final concentrations of 0, 0.01, 0.1, and 1 mM. Chondrogenic differentiation was assessed by biochemical analyses, immunostaining, and gene expression. Cytotoxicity using human peripheral blood mononuclear cells (PBMCS) was also investigated. The chondrogenic differentiation of MSCs was enhanced in the presence of low concentrations of Na2WO4 compared to control, without Na2WO4. In the induction medium containing insulin, cells in 0.01mM Na2WO4 produced significantly higher sulfated glycosaminoglycans, collagen type II, and chondrogenic gene expression than all other groups at day 28. Cells in 0.1 mM Na2WO4 had significantly higher collagen II production and significantly higher sox-9 and aggrecan gene expression compared to control at day 28. Cells in GM and induction medium without insulin containing low concentrations of Na2WO4 also expressed chondrogenic markers. Na2WO4 did not stimulate PBMC proliferation or apoptosis.

According to the news reporters, the research concluded: "The results demonstrate that Na2WO4 enhances chondrogenic differentiation of MSCs, does not have a toxic effect, and may be useful for MSC-based approaches for cartilage repair."

For more information on this research see: Sodium Tungstate for Promoting Mesenchymal Stem Cell Chondrogenesis. *Stem Cells and Development*, 2016;25(24):1909-1918. *Stem Cells and Development* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Stem Cells and Development - www.liebertpub.com/overview/stem-cells-and-development/125/)

Our news journalists report that additional information may be obtained by contacting T.L. Arinzeh, New Jersey Inst Technol, Dept. of Biomed Engn, Newark, NJ 07102, United States. Additional authors for this research include L.S. Sherman, P. Rameshwar and T.L. Arinzeh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/scd.2016.0158. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Newark, New Jersey, United States, North and Central America, Stem Cell Research, Genetics, Mesenchymal Stem Cells, Peptide Proteins, Peptide Hormones, Proinsulin, New Jersey Institute of Technology.

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**Microcirculation**

**Data on Microcirculation Reported by Researchers at Department of Anesthesiology (Sidestream dark field imaging of the serosal microcirculation during gastrointestinal surgery)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Microcirculation have been published. According to news originating from Nieuwegein, Netherlands, by NewsRx correspondents, research stated, "The study aimed to describe the serosal microcirculation of the human bowel using sidestream dark field imaging, a microscopic technique using polarized light to visualize erythrocytes
through capillaries. We also compared its feasibility to the current practice of sublingual microcirculatory assessment."

Our news journalists obtained a quote from the research from the Department of Anesthesiology, "In 17 patients sidestream dark field measurements were performed during gastrointestinal surgery. Microcirculatory parameters like microvascular flow index (MFI), proportion of perfused vessels (PPV), perfused vessel density (PVD) and total vessel density (TVD) were determined for every patient, sublingually and on the bowel serosa. Sixty measurements were done on the bowel of which eight (13%) were excluded, five owing to too much bowel peristalsis and three because of pressure artefacts. Image stability was in favour of sublingual measurements [pixel loss per image, bowel 145 (95% CI 126-164) vs sublingual 55 (95% CI 41-68); p<0.001] and time to acquire a stable image [bowel 96 s (95% CI 63-129) vs. sublingual 46 s (95% CI 29-64); p=0.013]. No difference in the MFI was observed [bowel 2.9 (interquartile range 2.87-2.95) vs sublingual 3.0 (interquartile range 2.91-3.0); p=0.081]. There was a difference in the PPV [bowel 95% (95% CI 94-96) vs sublingual 97% (95% CI 97-99); p<0.001], PVD [bowel 12.9 mm/mm² (95% CI 11.1-14.8) vs sublingual 17.4 mm/mm² (95% CI 15.6-19.1); p=0.003] and the TVD [bowel 13.6 mm/mm² (95% CI 11.6-15.6) vs sublingual 17.7 mm/mm² (95% CI 16.0-19.4); p=0.008]. Sidestream dark field imaging is a very promising technique for bowel microcirculatory visualization and assessment."

According to the news editors, the research concluded: "It is comparable to sublingual assessment and the analysis produces a similar outcome with slightly differing anatomical features."


The news correspondents report that additional information may be obtained from A.F. de Bruin, Dept. of Anesthesiology, Intensive Care and Pain Medicine, St Antonius Hospital, Nieuwegein, Netherlands. Additional authors for this research include V.N. Kornmann, K. van der Sloot, J.L. van Vugt, M.P. Gosselink, A. Smits, B. Van Ramshorst, E.C. Boerma, P.G. Noordzij, D. Boerma and M. van Iterson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/codi.13250. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Angiology, Nieuwegein, Hematology, Netherlands, Gastroenterology, Microcirculation, Gastrointestinal Surgery.

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**Oncology - Molecular Cancer and Carcinogenesis**

**Data on Molecular Cancer and Carcinogenesis Discussed by Researchers at University of Minnesota (Functional activation of PPAR in human upper aerodigestive cancer cell lines)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Molecular Cancer and Carcinogenesis is now available. According to news reporting originating in Minneapolis, Minnesota, by NewsRx
journalists, research stated, "Upper aerodigestive cancer is an aggressive malignancy with relatively stagnant long-term survival rates over 20yr. Recent studies have demonstrated that exploitation of PPAR pathways may be a novel therapy for cancer and its prevention."

The news reporters obtained a quote from the research from the University of Minnesota, "We tested whether PPAR is expressed and inducible in aerodigestive carcinoma cells and whether it is present in human upper aerodigestive tumors. Human oral cancer CA-9-22 and NA cell lines were treated with the PPAR activators eicosatetraynoic acid (ETYA), 15-deoxy-12,14-prostaglandin J2 (PG-J2), and the thiazolidinedione, ciglitazone, and evaluated for their ability to functionally activate PPAR luciferase reporter gene constructs. Cellular proliferation and clonogenic potential after PPAR ligand treatment were also evaluated. Aerodigestive cancer specimens and normal tissues were evaluated for PPAR expression on gene expression profiling and immunoblotting. Functional activation of PPAR reporter gene constructs and increases in PPAR protein were confirmed in the nuclear compartment after PPAR ligand treatment. Significant decreases in cell proliferation and clonogenic potential resulted from treatment. Lipid accumulation was induced by PPAR activator treatment. 75% of tumor specimens and 100% of normal control tissues expressed PPAR RNA, and PPAR protein was confirmed in 66% of tumor specimens analyzed by immunoblotting. We conclude PPAR can be functionally activated in upper aerodigestive cancer and that its activation downregulates several features of the neoplastic phenotype."

According to the news reporters, the research concluded: "PPAR expression in human upper aerodigestive tract tumors and normal cells potentially legitimizes it as a novel intervention target in this disease."


Our news correspondents report that additional information may be obtained by contacting F.G. Ondrey, University of Minnesota, Dept. of Otolaryngol, Minneapolis, MN 55455, United States. Additional authors for this research include B.R. Wuertz, G. Harris, R. Abu Ghazallah, W.A. Miller, P.M. Gaffney and F.G. Ondrey.

Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Molecular Cancer and Carcinogenesis, Genetics, Genetics, Reporter Gene, Cell Line, Genomics, Oncology, Cancer, University of Minnesota.

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**Data on Molecular Research Detailed by Researchers at Konkuk University (Effects of Ganodermanondiol, a New Melanogenesis Inhibitor from the Medicinal Mushroom Ganoderma lucidum)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Molecular Research. According to news reporting out of Chungju, South Korea, by NewsRx editors, research stated, "Ganoderma lucidum, a species of the Basidiomycetes class, has been attracting international attention owing
to its wide variety of biological activities and great potential as an ingredient in skin care cosmetics including 'skin-whitening' products. However, there is little information available on its inhibitory effect against tyrosinase activity."

Our news journalists obtained a quote from the research from Konkuk University, "Therefore, the objectives of this study were to investigate the chemical composition of G. lucidum and its inhibitory effects on melanogenesis. We isolated the active compound from G. lucidum using ethanol extraction and ethyl acetate fractionation. In addition, we assayed its inhibitory effects on tyrosinase activity and melanin biosynthesis in B16F10 melanoma cells. In this study, we identified a bioactive compound, ganoderanondiol, which inhibits the activity and expression of cellular tyrosinase and the expression of tyrosinase-related protein-1 (TRP-1), TRP-2, and microphthalmia-associated transcription factor (MITF), thereby decreasing melanin production. Furthermore, ganoderanondiol also affected the mitogen-activated protein kinase (MAPK) cascade and cyclic adenosine monophosphate (cAMP)-dependent signaling pathway, which are involved in the melanogenesis of B16F10 melanoma cells."

According to the news editors, the research concluded: "The finding that ganoderanondiol from G. lucidum exerts an inhibitory effect on tyrosinase will contribute to the use of this mushroom in the preparation of skin care products in the future."

For more information on this research see: Effects of Ganoderanondiol, a New Melanogenesis Inhibitor from the Medicinal Mushroom Ganoderma lucidum. *International Journal of Molecular Sciences*, 2016;17(11):610-621. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting J.W. Kim, Konkuk University, Dept. of Biomed Chem, Chungju 27478, South Korea. Additional authors for this research include H.I. Kim, J.H. Kim, O.C. Kwon, E.S. Son, C.S. Lee and Y.J. Park.

Keywords for this news article include: Chungju, South Korea, Asia, Molecular Research, Enzymes and Coenzymes, Tyrosinase, Genetics, Konkuk University.

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**Life Science Research - Molecular and Cellular Biology**

**Data on Molecular and Cellular Biology Discussed by Researchers at Zhongshan Ophthalmic Center (TRIM14 Inhibits cGAS Degradation Mediated by Selective Autophagy Receptor p62 to Promote Innate Immune Responses)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Life Science Research - Molecular and Cellular Biology are presented in a new report. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Cyclic GMP-AMP synthase (cGAS) is an essential DNA virus sensor that triggers type I interferon (IFN) signaling by producing cGAMP to initiate antiviral immunity. However, post-translational regulation of cGAS remains largely unknown."

Our news editors obtained a quote from the research from Zhongshan Ophthalmic Center, "We report that K48-linked ubiquitination of cGAS is a recognition signal for p62-dependent selective autophagic degradation. The induction of TRIM14 by type I IFN
accelerates cGAS stabilization by recruiting USP14 to cleave the ubiquitin chains of cGAS at lysine (K) 414. Knockout of TRIM14 impairs herpes simplex virus type 1 (HSV-1)-triggered antiviral responses in a cGAS-dependent manner. Due to impaired type I IFN production, Trim14(-/-) mice are highly susceptible to lethal HSV-1 infection."

According to the news editors, the research concluded: "Taken together, our findings reveal a positive feedback loop of cGAS signaling generated by TRIM14-USP14 and provide insights into the crosstalk between autophagy and type I IFN signaling in innate immunity."

For more information on this research see: TRIM14 Inhibits cGAS Degradation Mediated by Selective Autophagy Receptor p62 to Promote Innate Immune Responses. Molecular Cell, 2016;64(1):105-119. Molecular Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

The news editors report that additional information may be obtained by contacting J.J. Huang, Sun Yat Sen UniversityState Key Lab Ophthalmol, Zhongshan Ophthalm Center, Guangzhou 510275, Guangdong, People's Republic of China. Additional authors for this research include Q.C. Meng, Y.F. Qin, P.P. Liang, P. Tan, L. He, Y.B. Zhou, Y.J. Chen, J.J. Huang, R.F. Wang and J. Cui.

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Keywords for this news article include: Guangdong, People's Republic of China, Asia, Molecular and Cellular Biology, Life Science Research, Genetics, Zhongshan Ophthalmic Center.

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Oncology - Multiple Myeloma

Data on Multiple Myeloma Detailed by Researchers at Jagiellonian University (Characteristics and outcomes of patients with multiple myeloma aged 21-40years versus 41-60years: a multi-institutional case-control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Multiple Myeloma are presented in a new report. According to news reporting from Krakow, Poland, by NewsRx journalists, research stated, "We compared the outcomes of multiple myeloma (MM) patients aged 21-40 and 41-60years in the novel agent era. This case-control study included 1089 patients between 2000 and 2015."

The news correspondents obtained a quote from the research from Jagiellonian University, "Cases and controls were matched for sex, International Staging System (ISS) stage and institution. There were 173 patients in the younger group and 916 patients in the older group. Younger patients presented with a higher incidence of lytic lesions (82% vs. 72%; P=0 <bold>04) and high-risk cytogenetic abnormalities (83% vs. 68%; P=0 <bold>007), but lower rate of elevated lactate dehydrogenase (21% vs. 44%; P<0 <bold>001). Five- and 10-year overall survival (OS) in younger versus older patients was 83% vs. 67% and 56% vs. 39%, respectively (P <0 <bold>001). Similar results were seen when studying the subset of 780 patients who underwent autologous transplantation. Younger patients
with ISS stage 1 had a better OS than older patients (P <0.001).

According to the news reporters, the research concluded: "There was no survival difference between younger and older patients with ISS stage 2 or 3. Younger MM patients, aged 21-40 years, treated in the era of novel agents have a better OS than their counterparts aged 41-60 years, but the survival advantage observed in younger patients was lost in more advanced stages of MM."


Keywords for this news article include: Krakow, Poland, Europe, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Blood Protein Disorders, Hemorrhagic Disorders, Hemostatic Disorders, Multiple Myeloma, Paraproteinemias, Hematology, Oncology, Jagiellonian University.

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**Musculoskeletal Diseases and Conditions - Muscular...**

**Data on Muscular Dystrophy Described by Researchers at Tokyo Women's Medical University (Target resequencing of neuromuscular disease-related genes using next-generation sequencing for patients with undiagnosed early-onset neuromuscular ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Musculoskeletal Diseases and Conditions - Muscular Dystrophy. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Neuromuscular disorders are clinically and genetically heterogeneous diseases with broadly overlapping clinical features. Progress in molecular genetics has led to the identification of numerous causative genes for neuromuscular disorders, but Sanger sequencing-based diagnosis remains labor-intensive and expensive because the genes are large, the genotypes and phenotypes of neuromuscular disorders overlap and multiple genes related to a single phenotype exist."

Our news journalists obtained a quote from the research from Tokyo Women's Medical University, "Recently, the advent of next-generation sequencing (NGS) has enabled efficient, concurrent examination of several related genes. Thus, we used NGS for target resequencing of neuromuscular disease-related genes from 42 patients in whom undiagnosed early-onset neuromuscular disorders. Causative genes were identified in 19/42 (45.2%) patients (six, congenital muscular dystrophy; two, Becker muscular dystrophy (BMD); three, limb-girdle..."
muscular dystrophy; one, concurrent BMD and Fukuyama congenital muscular dystrophy; three, nemaline myopathy; one, centronuclear myopathy; one, congenital fiber-type disproportion; one, myosin storage myopathy; and one, congenital myasthenic syndrome). We detected variants of uncertain significance in two patients. In 6/19 patients who received a definitive diagnosis, the diagnosis did not require muscle biopsy."

According to the news editors, the research concluded: "Thus, for patients with suspected neuromuscular disorders not identified using conventional genetic testing alone, NGS-based target resequencing has the potential to serve as a powerful tool that allows definitive diagnosis."


The news correspondents report that additional information may be obtained from K. Saito, Tokyo Women's Medical University, Inst Med Genet, Tokyo, Japan. Additional authors for this research include E. Kondo, M. Urano, R. Aoki and K. Saito.

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Keywords for this news article include: Tokyo, Japan, Asia, Musculoskeletal Diseases and Conditions, Nervous System Diseases and Conditions, Neuromuscular Diseases and Conditions, Muscular Diseases and Conditions, Myopathy, Genetics, Genetics, Atrophic Muscular Disorders, Muscular Dystrophies, Muscular Dystrophy, Tokyo Women's Medical University.

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**Hematologic Diseases and Conditions**

**Data on Myelodysplastic Syndromes Reported by Researchers at Soochow University (Monosomal karyotype of chromosome 5/7 was an independent poor prognostic factor for Chinese myelodysplastic syndrome patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematologic Diseases and Conditions - Myelodysplastic Syndromes. According to news reporting out of Suzhou, People's Republic of China, by NewsRx editors, research stated, "Monosomal karyotype (MK) was defined as the presence of at least 2 autosomal monosomies or of a single monosomy associated with at least one additional structural abnormality. 6.4-16.3% myelodysplastic syndrome (MDS) patients were reported to fulfill the criteria for MK and associated with poor prognosis in the majority of patients with MDS. In order to further clarify the prognostic significance of MK in Chinese MDS patients, 2080 primary patients were retrospectively analyzed in our center."

Funders for this research include National Key Scientific Projects of China, Priority Academic Program Development of Jiangsu Higher Education Institutions, National Public
Our news journalists obtained a quote from the research from Soochow University, "MK was observed in 8.1% patients (168/2080), and monosomies of chromosome 5/7 were the most frequent types of MK. We further found that MK was significantly associated with elderly patients, higher bone marrow blasts and relatively poor cytogenetics. In addition, MDS patients with MK (n = 59) had poor survival than those without MK (n = 491) in total cohort (P < 0.001), and there was significant difference in the OS between the patients with MK (n = 56) and without MK (n = 53) in the relatively poor cytogenetics group (P = 0.0025). Incorporation of MK into IPSS-R could further stratify MDS patients into different prognostic groups (P < 0.001). Interestingly, monosomies of chromosome 5/7 rather than MK were significantly related to shorter OS (HR = 2.709, P< 0.001) by multivariate analysis."

According to the news editors, the research concluded: "Our results suggested that 8.1% MDS patients were presented with MK, and the incidence of MK increased with the number of cytogenetic abnormalities. Monosomies of chromosome 5/7 were the most frequent MK as well as an independent poor risk factor for OS in Chinese MDS patients."

For more information on this research see: Monosomal karyotype of chromosome 5/7 was an independent poor prognostic factor for Chinese myelodysplastic syndrome patients. Cancer Genetics, 2016;209(9):423-429. Cancer Genetics can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Cancer Genetics - www.journals.elsevier.com/cancer-genetics/)

Our news journalists report that additional information may be obtained by contacting S.N. Chen, Soochow Univ, Collaborat Innovat Center Hematol, Minist Hlth, Key Lab Thrombosis & Hemostasis, Suzhou, People's Republic of China. Additional authors for this research include Y. Xu, J.L. Pan, H.Y. Qiu, D.P. Wu, S.N. Chen and A.N. Sun.

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Keywords for this news article include: Suzhou, People's Republic of China, Asia, Hematologic Diseases and Conditions, Risk and Prevention, Genetics, Bone Marrow Diseases and Conditions, Myelodysplastic Syndromes, Hematology, Soochow University.

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Korea.

Our news journalists obtained a quote from the research from Sejong University, "Macrophages can be categorized into two extreme subsets, classically activated (M1) and alternatively activated (M2) macrophages based on their distinct functional abilities in response to microenvironmental stimuli. In a tumor microenvironment, tumor associated macrophages (TAMs) are considered to be of the polarized M2 phenotype that enhances tumor progression and represent a poor prognosis. Furthermore, TAMs enhance tumor angiogenesis, growth, metastasis, and immunosuppression by secreting a series of cytokines, chemokines, and proteases."

According to the news editors, the research concluded: "The regulation of macrophage polarization is considered to be a potential future therapy for cancer management."

For more information on this research see: "Diverse macrophages polarization in tumor microenvironment. Archives of Pharmacal Research, 2016;39(11):1588-1596. Archives of Pharmacal Research can be contacted at: Pharmaceutical Soc Korea, 1489-3 Suhcho-Dong, Suhcho-Ku, Seoul 137-071, South Korea. (Springer - www.springer.com; Archives of Pharmacal Research - www.springerlink.com/content/0253-6269/)

The news correspondents report that additional information may be obtained from I. Rhee, Sejong University, Dept. of Biosci & Biotechnol, Seoul 05002, South Korea.

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Keywords for this news article include: Seoul, South Korea, Asia, Mononuclear Phagocyte System, Immunology, Article Review, Connective Tissue Cells, Myeloid Cells, Macrophages, Phagocytes, Sejong University.

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Nanotechnology - Nanocomplexes

Data on Nanocomplexes Discussed by Researchers at Ben-Gurion University of the Negev (Mechanisms of cellular uptake and endosomal escape of calcium-siRNA nanocomplexes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nanotechnology - Nanocomplexes. According to news reporting originating in Beer Sheva, Israel, by NewsRx journalists, research stated, "Ca2+-siRNA nanocomplexes represent a simple yet an effective platform for siRNA delivery into the cell cytoplasm, with subsequent successful siRNA-induced target gene silencing. Herein, we aimed to elucidate the roles played by calcium ions in siRNA nanocomplex formation, cell uptake, and endosomal escape."

The news reporters obtained a quote from the research from the Ben-Gurion University of the Negev, "We investigated whether the replacement of Ca2+ in the nanocomplex by other bivalent cations would affect their cell entry and subsequent gene silencing. Our results indicate that Mg2+ and Ba2+ lead to the formation of nanocomplexes of similar physical features (size = 100 nm, surface charge zeta = -8 mV) as the Ca2+-siRNA nanocomplexes. Yet, these nanocomplexes were not uptaken by the cells to the same extent as those prepared with Ca2+, and siRNA-induced target gene silencing was not obtained. Cell internalization of Ca2+-
siRNA nanocomplexes, examined by employing chemical inhibitors to clathrin-, caveolin- and dynamin-mediated endocytosis pathways, indicated the involvement of all mechanisms in the process. Inhibition of endosome acidification by bafilomycin completely abolished the siRNA-mediated silencing by Ca2+-siRNA nanocomplexes."

According to the research reporters, the research concluded: "Collectively, our results indicate that Ca2+ promotes cell internalization and rapid endosomal escape, thus leading to the efficient siRNA-induced target gene silencing elicited by the Ca2+-siRNA nanocomplexes."


Our news correspondents report that additional information may be obtained by contacting M. Goldshtein, Ben Gurion University of the Negev, Avram & Stella Goldstein Goren Dept. of Biotechnol En, IL-8410501 Beer Sheva, Israel. Additional authors for this research include E. Forti, E. Ruvinov and S. Cohen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beer Sheva, Israel, Asia, Emerging Technologies, Genetics, Nanotechnology, Nanocomplexes, Ben-Gurion University of the Negev.

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**Nanotechnology - Nanomaterials**

**Data on Nanomaterials Reported by Researchers at Joint Research Center (The JRC Nanomaterials Repository: A unique facility providing representative test materials for nanoEHS research)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nanotechnology - Nanomaterials have been published. According to news reporting from Ispra, Italy, by NewsRx journalists, research stated, "The European Commission has established a Nanomaterials Repository that hosts industrially manufactured nanomaterials that are distributed world-wide for safety testing of nanomaterials. In a first instance these materials were tested in the OECD Testing Programme."

The news correspondents obtained a quote from the research from Joint Research Center, "They have then also been tested in several EU funded research projects. The JRC Repository of Nanomaterials has thus developed into serving the global scientific community active in the nanoEHS (regulatory) research. The unique Repository facility is a state-of-the-art installation that allows customised sub-sampling under the safest possible conditions, with traceable final sample vials distributed world-wide for research purposes. This paper describes the design of the Repository to perform a semi-automated subsampling procedure, offering high degree of flexibility and precision in the preparation of NM vials for customers, while guaranteeing the safety of the operators, and environmental protection. The JRC nanomaterials
According to the news reporters, the research concluded: "Their wide use world-wide facilitates the generation of comparable and reliable experimental results and datasets in (regulatory) research by the scientific community, ultimately supporting the further development of the OECD regulatory test guidelines."

For more information on this research see: The JRC Nanomaterials Repository: A unique facility providing representative test materials for nanoEHS research. Regulatory Toxicology and Pharmacology, 2016;81():334-340. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting J.M.R. Sintes, European Commiss, Joint Res Center, Directorate F Consumer Prod Safety, Ispra, VA, Italy. Additional authors for this research include G. Cotogno, K. Rasmussen, F. Pianella, M. Roncaglia, H. Olsson, J.M.R. Sintes and H.P. Crutzen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.08.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ispra, Italy, Europe, Nanomaterials, Emerging Technologies, Nanotechnology, Nanomaterial, Joint Research Center.

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**Nanotechnology - Nanoparticles**

**Data on Nanoparticles Described by Researchers at Colorado School of Mines (Surface Modification of Gd Nanoparticles with pH-Responsive Block Copolymers for Use As Smart MRI Contrast Agents)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nanotechnology - Nanoparticles. According to news reporting originating in Golden, Colorado, by NewsRx journalists, research stated, "Despite recent advances in the understanding of fundamental cancer biology, cancer remains the second most common cause of death in the United States. One of the primary factors indicative of high cancer morbidity and mortality and aggressive cancer phenotypes is tumors with a low extracellular pH (pHe)."

Financial supporters for this research include Colorado School of Mines, Colorado Office of Economic Development and International Trade.

The news reporters obtained a quote from the research from the Colorado School of Mines, "Thus, the ability to measure tumor pH in vivo using noninvasive and accurate techniques that also provide high spatiotemporal resolution has become increasingly important and is of great interest to researchers and clinicians. In an effort to develop a pH-responsive magnetic resonance imaging (MRI) contrast agent (CA) that has the potential to be used to measure tumor pH, well-defined pH-responsive polymers, synthesized via reversible addition-fragmentation chain transfer polymerization, were attached to the surface of gadolinium-based nanoparticles (GdNPs) via a 'grafting to' method after reduction of the thiocarbonylthio end groups. The successful modification of the GdNPs was verified by transmission electron
microscopy, Fourier transform infrared spectroscopy, thermogravimetric analysis and dynamic light scattering. The performance of the pH-responsive polymer modified GdNPs was then evaluated for potential use as smart MRI CAs via monitoring the relaxivity changes with changing environmental pH."

According to the news reporters, the research concluded: "The results suggested that the pH-responsive polymers can be used to effectively modify the GdNPs surface to prepare a smart contrast agent for MRI."


Our news correspondents report that additional information may be obtained by contacting L. Zhu, Dept. of Chemistry and Geochemistry, Colorado School of Mines, Golden, Colorado 80401, United States. Additional authors for this research include Y. Yang, K. Farquhar, J. Wang, C. Tian, J. Ranville and S.G Boyes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.5b12463. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Golden, Cancer, Colorado, Oncology, United States, Nanotechnology, Emerging Technologies, North and Central America.

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Nanotechnology

Data on Nanotechnology Detailed by Researchers at Purdue University (Optical Clearing Delivers Ultrasensitive Hyperspectral Dark-Field Imaging for Single-Cell Evaluation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nanotechnology. According to news reporting originating from West Lafayette, Indiana, by NewsRx correspondents, research stated, "A single-cell optical clearing methodology is developed and demonstrated in hyperspectral dark-field microscopy (HSDFM) and imaging of plasmonic nanoprobes. Our strategy relies on a combination of delipidation and refractive index (RI) matching with highly biocompatible and affordable agents."

Financial supporters for this research include W.M. Keck Foundation, Purdue Center for Cancer Research.

Our news editors obtained a quote from the research from Purdue University, "Before applying the RI-matching solution, the delipidation step by using a mild solvent effectively eliminates those high-density, lipid-enriched granular structures which emit strong scattering. Upon treatment, the background scattering from cellular organelles could be repressed to a negligible level while the scattering signals from plasmonic nanomaterials increase, leading to a significant improvement of the signal-to-noise ratio (SNR). With this method established, the versatility and applicability of HSDFM are greatly enhanced. In our demonstration, quantitative mapping of the dimerization-activated receptor kinase HER2 is achieved in a single cancer cell by a nonfluorescent approach. High-resolution imaging for
oncogenic mRNAs, namely ER, PR, and HER2, is performed with single labeling. More importantly, in situ multiplex detection of mRNA and protein is made possible by HSDFM since it overcomes the difficulties of complex staining and signal imbalance suffered by the conventional optical imaging. Last, we show that with optical clearing, characterization of intracellularly grown gold particulates is accomplished at an unprecedented spatiotemporal resolution.

According to the news editors, the research concluded: "Taken together, the uniqueness of optical clearing and HSDFM is expected to open ample avenues for single-cell studies and biomedical engineering."


The news editors report that additional information may be obtained by contacting Y. Cui, Dept. of Agricultural and Biological Engineering, Bindley Bioscience Center and Birck Nanotechnology Center, Purdue Center for Cancer Research, Purdue University, West Lafayette, Indiana 47907, United States. Additional authors for this research include X. Wang, W. Ren, J. Liu and J. Irudayaraj.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.6b00142. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Indiana, Genetics, United States, West Lafayette, Nanotechnology, North and Central America.

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**Oncology - Nasopharyngeal Carcinoma**

**Data on Nasopharyngeal Carcinoma Reported by Researchers at Cancer Hospital (Therapeutic effect of TMZ-POH on human nasopharyngeal carcinoma depends on reactive oxygen species accumulation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Nasopharyngeal Carcinoma. According to news reporting originating from Jinan, People's Republic of China, by NewsRx correspondents, research stated, "Nasopharyngeal carcinoma (NPC) is a common head and neck malignancy without efficient chemotherapeutic agents for it. In our current study, we demonstrated the cytotoxicity effects of a newly patented compound temozolomide-perillyl alcohol (TMZ-POH) on NPC in vitro and in vivo, and the possible mechanisms involved."

Our news editors obtained a quote from the research from Cancer Hospital, "Human NPC cell lines CNE1, CNE2, HNE2, and SUME-a were treated with control (DMSO), TMZ, POH, TMZ plus POH, and TMZ-POH. Our data indicated that TMZ-POH could inhibit NPC cell proliferation, cause G2/M arrest and DNA damage. TMZ-POH triggered apoptosis in NPC cells via significant activation of caspase-3 and poly(ADP-ribose) polymerase (PARP). Importantly, TMZ-POH-induced cell death was found to be associated with (i) the loss of inner mitochondrial membrane potential (DPSm) and release of mitochondrial Cytochrome c, (ii) the increase in ROS generation, and (iii) the activation of stress-activated protein kinases (SAPK)/c-
Jun N-terminal kinases (JNK) signaling pathway. The generation of ROS in response to TMZ-POH seems to play a crucial role in the cell death process since the blockage of ROS production using the antioxidant N-acetyl-L-cysteine or catalase reversed the TMZ-POH-induced JNK activation, DNA damage, and cancer cell apoptosis."

According to the news editors, the research concluded: "These results provide the rationale for further research and preclinical investigation of the antitumor effect of TMZ-POH against human NPC."

For more information on this research see: Therapeutic effect of TMZ-POH on human nasopharyngeal carcinoma depends on reactive oxygen species accumulation. *Oncotarget*, 2016;7(2):1651-62.

The news editors report that additional information may be obtained by contacting L. Xie, Shandong Provincial Key Laboratory of Radiation Oncology, Shandong Cancer Hospital and Institute, Jinan, Shandong Province, People's Republic of China. Additional authors for this research include X. Song, W. Guo, X. Wang, L. Wei, Y. Li, L. Lv, W. Wang, T.C. Chen and X. Song.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6410. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Jinan, Genetics, Oncology, Therapeutics, Nasopharyngeal Carcinoma, People's Republic of China.

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**Oncology - Nasopharyngeal Carcinoma**

**Data on Nasopharyngeal Carcinoma Reported by Researchers at Wenzhou Medical University (MiR-17-5p promotes cancer cell proliferation and tumorigenesis in nasopharyngeal carcinoma by targeting p21)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Nasopharyngeal Carcinoma. According to news originating from Wenzhou, People's Republic of China, by NewsRx correspondents, research stated, "MicroRNAs (miRNAs) may act as either tumor suppressors or oncogenes in various types of cancers. Previous studies have indicated that miR-17-5p is involved in the initiation and development of human tumors."

Our news journalists obtained a quote from the research from Wenzhou Medical University, "However, its mechanism and function in nasopharyngeal carcinoma (NPC) remain largely unclear. In this study, we evaluated the expression profiles of miR-17-5p and p21 in NPC cell lines and tissues by quantitative real-time PCR (qRT-PCR). For the analysis, we have established a stable overexpression or depletion of miR-17-5p NPC cell lines for analyzing the effects of cell proliferation by MTT, colony formation, and cell cycle assay. A nude mice xenograft model was used to verify the tumor growth in vivo. MiR-17-5p was overexpressed, whereas the expression of p21 was downregulated in NPC cell lines and tissues. The miR-17-5p expression level was inversely correlated with the p21 mRNA level in NPC samples. Furthermore, analysis of 2(-Delta Delta Ct) value in 81 NPC patients suggested that the elevated expression level of miR-17-5p or the downregulated expression level of p21 was significantly
correlated with tumor size (T classification) and tumor stage, and Kaplan-Meier survival analysis revealed a correlation between miR-17-5p or p21 expression level and overall survival times in 81 NPC patients. MiR-17-5p promoted cell growth in vivo and in vitro by directly targeting p21."

According to the news editors, the research concluded: "Our results indicate that miR-17-5p can promote the occurrence of NPC and it may serve as a potential novel diagnostic maker or therapeutic target for NPC in the future."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.863. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wenzhou, People's Republic of China, Asia, Nasopharyngeal Carcinoma, Cell Proliferation, Carcinomas, Cell Line, Oncology, Genetics, Cancer, Wenzhou Medical University.

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**Natural Language Processing**

**Data on Natural Language Processing Discussed by Researchers at University of Utah (The use of natural language processing on narrative medication schedules to compute average weekly dose)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Natural Language Processing have been published. According to news reporting from Salt Lake City, Utah, by NewsRx journalists, research stated, "Medications with non-standard dosing and unstandardized units of measurement make the estimation of prescribed dose difficult from pharmacy dispensing data. A natural language processing tool named the SIG extractor was developed to identify and extract elements from narrative medication instructions to compute average weekly doses (AWDs) for disease-modifying antirheumatic drugs."

The news correspondents obtained a quote from the research from the University of Utah, "The goal of this paper is to evaluate the performance of the SIG extractor. This agreement study utilized Veterans Health Affairs pharmacy data from 2008 to 2012. The SIG extractor was designed to extract key elements from narrative medication schedules (SIGs) for 17 select medications to calculate AWD, and these medications were categorized by generic name and route of administration. The SIG extractor was evaluated against an annotator-derived reference standard for accuracy, which is the fraction of AWDs accurately computed. The overall accuracy was 89% [95% confidence interval (CI) 88%, 90%]. The accuracy was >= 85%
for all medications and route combinations, except for cyclophosphamide (oral) and cyclosporine (oral), which were 79% (95% CI 72%, 85%) and 66% (95% CI 58%, 73%), respectively. The SIG extractor performed well on the majority of medications, indicating that AWD calculated by the SIG extractor can be used to improve estimation of AWD when dispensed quantity or days' supply is questionable or improbable.”

According to the news reporters, the research concluded: "The working model for annotating SIGs and the SIG extractor are generalized and can easily be applied to other medications."


Our news journalists report that additional information may be obtained by contacting C.C. Lu, University of Utah, Salt Lake City, UT, United States. Additional authors for this research include J.W. Leng, G.W. Cannon, X. Zhou, M. Egger, B. South, Z. Buringham, Q. Zeng and B.C. Sauer.

Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Emerging Technologies, Drugs and Therapies, Epidemiology, Natural Language Processing, Machine Learning, University of Utah.

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**Surgery - Nephrectomy**

**Data on Nephrectomy Described by Researchers at Fox Chase Cancer Center (Perioperative Outcomes Following Partial Nephrectomy Performed on Patients Remaining on Antiplatelet Therapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Surgery - Nephrectomy are discussed in a new report. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "We evaluated the risk of bleeding complications in patients undergoing partial nephrectomy in whom perioperative antiplatelet therapy was continued, as antiplatelet therapy is increasingly used and hemorrhage is a significant concern in partial nephrectomy. In this 2-center retrospective analysis 1,097 patients underwent partial nephrectomy between 2000 and 2014."

Our news editors obtained a quote from the research from Fox Chase Cancer Center, "The cohort was split into 3 groups of perioperative continuation of antiplatelet therapy (group 1-67), antiplatelet therapy stopped preoperatively (group 2-254) and no chronic antiplatelet therapy (group 3-776). Bleeding complications were defined as any transfusion, or any hospital readmission or secondary procedure performed for hemorrhage. Multivariable analysis was performed to elucidate independent risk factors for bleeding complications. Patients in group 1 were older (median age 66 years vs 64 and 57 years in groups 2/3, p< 0.0001), and had greater comorbidity (median ASA classification score 3 vs 2 and 2, p< 0.0001). Group 1 had a higher rate of bleeding complications (20.9% vs 7.1% and 6.4%, p< 0.0001) and transfusions (16.4%
Multivariable analysis revealed continued antiplatelet therapy was an independent predictor of bleeding complications (OR 2.19, 95% CI 1.06-4.51, p = 0.03). These findings appear attributable to intraoperative clopidogrel use. On multivariable analysis the use of aspirin alone was not associated with bleeding complications (OR 1.64, 95% CI 0.72-3.75, p = 0.24). The risk of bleeding complications due to antiplatelet therapy use at partial nephrectomy may be due to clopidogrel.

According to the news editors, the research concluded: "The need to continue perioperative aspirin alone does not appear to be a contraindication to the safe performance of partial nephrectomy."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.juro.2016.07.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Hemorrhage, Risk and Prevention, Nephrectomy, Therapy, Surgery, Fox Chase Cancer Center.

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**Nephrology**

**Data on Nephrology Described by Researchers at Baylor University College of Medicine (Neonatal extracorporeal renal replacement therapy—a routine renal support modality?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nephrology have been published. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Peritoneal dialysis (PD) is generally considered the preferred extracorporeal therapy for neonates with acute kidney injury (AKI). However, there are situations when PD is not suitable, such as in patients with previous abdominal surgery, hyperammonemia and significant ascites or anasarca."

Our news editors obtained a quote from the research from the Baylor University College of Medicine. "Additionally, with a need to start PD soon after catheter placement, there is increased risk of PD catheter leak and infection. Extracorporeal continuous renal replacement therapy (CRRT) is challenging in severely ill neonates as it requires obtaining adequately sized central venous access to accommodate adequate blood flow rates and also adaptation of a CRRT machine meant for older children and adults. In addition, ultrafiltration often cannot be set in
sufficiently small increments to be suitable for neonates. Although CRRT practices can be modified to fit the needs of infants and neonates, there is a need for a device designed specifically for this population."

According to the news editors, the research concluded: "Until that becomes available, providing the highest level of care for neonates with AKI is dependent on the shared experiences of members of the pediatric nephrology community."

For more information on this research see: Neonatal extracorporeal renal replacement therapy-a routine renal support modality? Pediatric Nephrology, 2016;31(11):2013-2015. Pediatric Nephrology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Pediatric Nephrology - www.springerlink.com/content/0931-041x/)

The news editors report that additional information may be obtained by contacting A. Akcan-Arikan, Baylor College of Medicine, Sect Pediat Crit Care Med, Dept. of Pediat, Houston, TX 77030, United States. Additional authors for this research include J.R. Angelo and A. Akcan-Arikan.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Renal Replacement Therapy, Nephrology, Kidney, Baylor University College of Medicine.

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Intercellular Signaling Peptides and Proteins - Nerve...

Data on Nerve Growth Factors Detailed by Researchers at University of Torino (Neuregulin1 alpha activates migration of neuronal progenitors expressing ErbB4)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Intercellular Signaling Peptides and Proteins - Nerve Growth Factors have been published. According to news originating from Turin, Italy, by NewsRx correspondents, research stated, "Deficits in neuronal migration during development in the central nervous system may contribute to psychiatric diseases. The ligand neuregulin1 (NRG1) and its receptor ErbB4 are genes conferring susceptibility to schizophrenia, playing a key role in the control of neuronal migration both during development and adulthood."

Financial support for this research came from University of Torino.

Our news journalists obtained a quote from the research from the University of Torino, "Several NRG1 and ErbB4 isoforms were identified, which deeply differ in their characteristics. Here we focused on the four ErbB4 isoforms and the two NRG1 isoforms differing in their EGF-like domain, namely alpha and beta. We hypothesized that these isoforms, which are differently regulated in schizophrenic patients, could play different roles in neuronal migration. Our hypothesis was strengthened by the observation that both NRG1 alpha and NRG1 beta and the four ErbB4 isoforms are expressed in the medial and lateral ganglionic eminences and in the cortex during development in rat. We analysed in vitro the signal transduction pathways activated by the different ErbB4 isoforms following the treatment with soluble recombinant NRG1 alpha or NRG1 beta and the ability to stimulate migration."

According to the news editors, the research concluded: "Our data show that two ErbB4 isoforms, namely JMa-cyt2 and JMb-cyt1, following NRG1 alpha and NRG1 beta
treatment, strongly activate AKT phosphorylation, conferring high migratory activity to neuronal progenitors, thus demonstrating that both NRG1 alpha and NRG1 beta can play a role in neuronal migration."

For more information on this research see: Neuregulin1 alpha activates migration of neuronal progenitors expressing ErbB4. Molecular and Cellular Neuroscience, 2016;77():87-94. Molecular and Cellular Neuroscience can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Molecular and Cellular Neuroscience - www.journals.elsevier.com/molecular-and-cellular-neuroscience/)

The news correspondents report that additional information may be obtained from G. Gambarotta, Univ Torino, Dept. of Clin & Biol Sci, Turin, Italy. Additional authors for this research include M. El Soury, S. De Marchis, I. Perroteau, S. Geuna and G. Gambarotta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mcn.2016.10.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turin, Italy, Europe, Intercellular Signaling Peptides and Proteins, Nerve Growth Factors, Neuregulins, Genetics, University of Torino.

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Oncology - Neuroendocrine Cancer

Data on Neuroendocrine Cancer Described by Researchers at University of Fribourg (The matricellular protein CYR61 interferes with normal pancreatic islets architecture and promotes pancreatic neuroendocrine tumor progression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Neuroendocrine Cancer is the subject of a report. According to news reporting from Fribourg, Switzerland, by NewsRx journalists, research stated, "The significance of matricellular proteins during development and cancer progression is widely recognized. However, how these proteins actively contribute to physiological development and pathological cancer progression is only partially elucidated."

The news correspondents obtained a quote from the research from the University of Fribourg, "In this study, we investigated the role of the matricellular protein Cysteine-rich 61 (CYR61) in pancreatic islet development and carcinogenesis. Transgenic expression of CYR61 in b cells (Rip1CYR mice) caused irregular islets morphology and distorted sorting of a cells, but did not alter islets size, number or vascularization. To investigate the function of CYR61 during carcinogenesis, we crossed Rip1CYR mice with Rip1Tag2 mice, a well-established model of b cell carcinogenesis. Beta tumors in Rip1Tag2CYR mice were larger, more invasive and more vascularized compared to tumors in Rip1Tag2 mice. The effect of CYR61 on angiogenesis was fully abrogated by treating mice with the anti-VEGFR2 mAb DC101. Results from in vitro assays demonstrated that CYR61 modulated integrin a6b1-dependent invasion and adhesion without altering its expression. Taken together, these results show that CYR61 expression in pancreatic b cells interferes with normal islet architecture, promotes islet tumor growth, invasion and VEGF/VERGFR-2-dependent tumor angiogenesis."

According to the news reporters, the research concluded: "Taken together, these
observations demonstrate that CYR61 acts as a tumor-promoting gene in pancreatic neuroendocrine tumors."

For more information on this research see: The matricellular protein CYR61 interferes with normal pancreatic islets architecture and promotes pancreatic neuroendocrine tumor progression. *Oncotarget*, 2016;7(2):1663-74.

Our news journalists report that additional information may be obtained by contacting Y.T. Huang, Dept. of Medicine, Faculty of Science, University of Fribourg, Fribourg, Switzerland. Additional authors for this research include Q. Lan, L. Ponsonnet, M. Blanquet, G. Christofori, J. Zaric and C. Ruegg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6411. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Fribourg, Genetics, Oncology, Pancreas, Switzerland, Angiogenesis, Carcinogenesis, Gastroenterology, Neuroendocrine Cancer, Neuroendocrine Tumors.

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**Oncology - Neuroendocrine Cancer**

**Data on Neuroendocrine Cancer Reported by Researchers at Harris Health System (Management of neuroendocrine tumors)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Neuroendocrine Cancer is the subject of a report. According to news reporting out of Houston, Texas, by NewsRx editors, the research stated, "Current strategies for managing neuroendocrine tumors (NETs) in adult patients are reviewed, with a focus on medication safety concerns. NETs usually originate in the gastrointestinal or bronchopulmonary tract."

Our news journalists obtained a quote from the research from Harris Health System, "Symptoms due to hormonal hypersecretion often occur in patients with foregut or midgut NETs or liver metastases. Surgical resection is recommended for most localized NETs, while systemic cytotoxic chemotherapy is typically used for high-grade and pancreatic tumors. The standard of care for metastatic NETs is somatostatin analog therapy with octreotide (available in both short- and long-acting formulations) or a depot formulation of lanreotide. Everolimus and sunitinib are targeted therapies with approved indications for use in treating advanced pancreatic NETs. Some patients with liver-predominant disease or liver metastases may undergo regional chemoembolization procedures. Pharmacists should be cognizant of differences between newer and older chemoembolization agents and procedures, as well as differences between somatostatin analog products used as medications and the radiolabelled forms used, in diagnostic scintigraphy. Other medication safety issues in NET management arise during perioperative supportive care, patient education, compliance counseling, and management of adverse effects of targeted therapies and chemotherapy, including stomatitis, hyperthyroidism, and hand-foot skin reaction. Somatostatin analog therapy is the mainstay for management of locally advanced or metastatic NETs. Liver-directed therapy is an option for localized unresectable disease; platinum-based chemotherapy is the first-line treatment for poorly differentiated tumors."

According to the news editors, the research concluded: "Optimal sequencing of these..."
treatments and targeted therapies such as everolimus and tyrosine kinase inhibitors remains to be elucidated."

For more information on this research see: Management of neuroendocrine tumors. American Journal of Health-System Pharmacy, 2016;73(21):1729-1744. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting C. Chung, Harris Hlth Syst, Lyndon B Johnson Gen Hosp, Houston, TX 77230, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp150373. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Pituitary Hormone Release Inhibiting Hormones, Therapy, Article Review, Nerve Tissue Proteins, Neuroendocrine Cancer, Neuroendocrine Tumors, Pancreatic Hormones, Drugs and Therapies, Chemoembolization, Peptide Proteins, Peptide Hormones, Neuropeptides, Somatostatin, Chemotherapy, Oncology, Harris Health System.

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Neurons

Data on Neurons Discussed by Researchers at Chongqing Medical University (beta-Caryophyllene protects invitro neurovascular unit against oxygen-glucose deprivation and re-oxygenation-induced injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurons. According to news reporting out of Chongqing, People's Republic of China, by NewsRx editors, research stated, "Beta-Caryophyllene (BCP) mediates neuroprotection in cerebral ischemic animals. The neurovascular unit (NVU) acts as an intricate network to maintain the neuronal homeostatic microenvironment."

Our news journalists obtained a quote from the research from Chongqing Medical University, "However, the effects exerted by BCP on NVU remain unclear. Therefore, we established an invitro NVU model to investigate the effects of BCP on oxygen-glucose deprivation and re-oxygenation (OGD/R)-induced injury. This model involved the co-culture of brain microvascular endothelial cells, neurons, and astrocytes. BCP (10mol/L) was applied for 24h prior to OGD/R and maintained throughout OGD/R. Blood-brain barrier (BBB) integrity and neuronal apoptosis were analyzed. BCP pre-treatment prior to the initiation of OGD/R significantly (i) decreased BBB permeability and neuronal apoptosis, (ii) mitigated oxidative stress damage and the release of inflammatory cytokines, (iii) down-regulated Bax expression, metalloproteinase-9 activity and expression, and (iv) up-regulated claudin-5, occludin, ZO-1, growth-associated protein-43 and Bcl-2 expression. Thus, BCP pre-treatment exerted multiple protective effects on NVU in the context of OGD/R-induced injury. These protective effects potentially occur via reductions in oxidative stress damage and inflammatory cytokines that induce BBB breakdown, subsequently resulting in reduced neuronal apoptosis."

According to the news editors, the research concluded: "The NVU serves as putative
therapeutic targets for cerebral ischemia, and the results of this study provide new insights for the application of BCP as a neuroprotective agent."


Keywords for this news article include: Chongqing, People's Republic of China, Asia, Chalcogens, Apoptosis, Neurons, Cells, Chongqing Medical University.

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Oncology - Non-Hodgkin Lymphoma

Data on Non-Hodgkin Lymphoma Detailed by Researchers at Beijing University (Molecular genetics related to non-Hodgkin lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Non-Hodgkin Lymphoma are presented in a new report. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Non-Hodgkin lymphoma (NHL) is a serious disease, with a high proportion of mortality. Molecular genetic abnormalities are very common in NHL, but specific characterization in accordance to molecular genetics for lymphoma subtypes is not yet completed."

Our news editors obtained a quote from the research from Beijing University, "This article summarizes the relationship between B-and T-NHL and molecular genetics. We focus on NHL subtypes and emphasize its features to figure out what is exposed about NHL genetics. The basis of this method is collection of biological specimens for genomic and genetic analyses."

According to the news editors, the research concluded: "This summary may help to prompt prediction of outcomes and guide therapy in the future."

For more information on this research see: Molecular genetics related to non-Hodgkin lymphoma. Open Life Sciences, 2016;11(1):86-90. Open Life Sciences can be contacted at: De Gruyter Open Ltd, Bogumila Zuga 32A St, 01-811 Warsaw, Poland.

The news editors report that additional information may be obtained by contacting X.Q. Ding, Beijing Univ Tradit Chinese Med, Affiliated Hosp 2, Dept. of Hematol, Beijing 100078, People's Republic of China. Additional authors for this research include X.L. Mao and X.Q. Ding.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphomas, Article Review, Non-Hodgkin Lymphoma, Hematology, Oncology,
**Oncology - Non-Small Cell Lung Cancer**

**Data on Non-Small Cell Lung Cancer Reported by Researchers at Gunma University (Dosimetric comparison of carbon ion and X-ray radiotherapy for Stage IIIA non-small cell lung cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news originating from Maebashi, Japan, by NewsRx correspondents, research stated, "The present study compared the dose-volume histograms of patients with Stage IIIA non-small cell lung cancer (NSCLC) treated with carbon ion radiotherapy with those of patients treated with X-ray radiotherapy. Patients with Stage IIIA NSCLC (n = 10 patients for each approach) were enrolled."

Our news journalists obtained a quote from the research from Gunma University, "Both radiotherapy plans were calculated with the same targets and organs at risk on the same CT. The treatment plan for the prophylactic lymph node and primary tumor (PTV1) delivered 40 Gy for X-ray radiotherapy and 40 Gy (relative biological effectiveness; RBE) for carbon ion radiotherapy. The total doses for the primary tumor and clinically positive lymph nodes (PTV2) were 60 Gy for X-ray radiotherapy and 60 Gy (RBE) for carbon ion radiotherapy. The homogeneity indexes for PTV1 and PTV2 were superior for carbon ion radiotherapy in comparison with X-ray radiotherapy (PTV1, 0.57 vs 0.65, P = 0.009; PTV2, 0.07 vs 0.16, P = 0.005). The normal lung mean dose, V5, V10 and V20 for carbon ion radiotherapy were 7.7 Gy (RBE), 21.4%, 19.7% and 17.0%, respectively, whereas the corresponding doses for X-ray radiotherapy were 11.9 Gy, 34.9%, 26.6% and 20.8%, respectively. Maximum spinal cord dose, esophageal maximum dose and V50, and bone V10, V30 and V50 were lower with carbon ion radiotherapy than with X-ray radiotherapy."

According to the news editors, the research concluded: "The present study indicates that carbon ion radiotherapy provides a more homogeneous target dose and a lower dose to organs at risk than X-ray radiotherapy for Stage IIIA non-small cell lung cancer."


The news correspondents report that additional information may be obtained from N. Kubo, Gunma University, Dept. of Radiat Oncol, Grad Sch Med, Maebashi, Gunma 3718511, Japan. Additional authors for this research include J. Saitoh, H. Shimada, K. Shirai, H. Kawamura, T. Ohno and T. Nakano.

Keywords for this news article include: Maebashi, Japan, Asia, Non-Small Cell Lung Cancer, Lung Neoplasms, Radiotherapy, Oncology, Therapy, Gunma University.
Non-Steroidal Anti-Inflammatory Agents

Data on Non-Steroidal Anti-Inflammatory Agents Detailed by Researchers at University of Lyon (Encapsulation of NSAIDs for inflammation management: Overview, progress, challenges and prospects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Non-Steroidal Anti-Inflammatory Agents. According to news reporting from Lyon, France, by NewsRx journalists, research stated, "Non-steroidal anti-inflammatory drugs (NSAIDs) are among the most widely prescribed drugs. Debilitating diseases such as rheumatoid arthritis and osteoarthritis are commonly managed by NSAIDs."

The news correspondents obtained a quote from the research from the University of Lyon, "However, NSAIDs pharmacological mechanism is often associated with the presence of gastrointestinal side effects. NSAIDs encapsulation is performed in order to overcome some of the drawbacks linked to their clinical use. To fulfill this purpose, various vectors like polymer-based nanoparticles, liposomes and solid lipid nanoparticles have been proposed. Such vehicles could have advantages but some limitations as well. This manuscript highlights current NSAIDs encapsulation approaches based on either preformed polymers or lipids. Moreover, properties of the prepared carriers and their applications are also discussed. Many factors are taken into account for selecting carrier type and encapsulation method. It was concluded that different vehicles and preparation methods have been employed for NSAIDs encapsulation. Mostly, vehicles sizes ranged within the nanoscale."

According to the news reporters, the research concluded: "Main advantages that have been confirmed by in vitro and in vivo studies include promoted stability, sustained release and bioavailability enhancement."


Our news journalists report that additional information may be obtained by contacting A. Elaissari, University of Lyon, CNRS, UMR 5007, LAGEP, F-69622 Lyon, France. Additional authors for this research include K. Miladi, Q.A. Nazari, H. Greige-Gerges, H. Fessi and A. Elaissari.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.11.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Non-Steroidal Anti-Inflammatory Agents, Non-Steroidal Antiinflammatory Agents, Inflammation, Article Review, Emerging Technologies, Nanotechnology, Nanoparticle, University of Lyon.

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Data on Nuclear Engineering Discussed by Researchers at Istanbul University (Do F-18-FDG PET/CT findings have a relationship with histopathological and immunohistochemical factors of breast cancer in men?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Engineering - Nuclear Engineering have been presented. According to news reporting from Istanbul, Turkey, by NewsRx journalists, research stated, "PurposeWe aimed to investigate the relationship between histopathological and immunohistochemical features of male breast cancer (MBC) and comprehensive fluorine-18-fluorodeoxyglucose (F-18-FDG) PET/computed tomography (CT) parameters.MethodsFifteen male patients with newly diagnosed breast cancer who underwent F-18-FDG PET/CT were included in the study. Maximum and average standardized uptake value (SUVmax and SUVavg), metabolic total volume, and total lesion glycolysis (TLG) were compared with the histopathological and immunohistochemical findings of patients." The news correspondents obtained a quote from the research from Istanbul University, "In addition, metabolic tumor-node-metastases (TNM) staging was performed following the determination of metastatic axillary lymph nodes and tumor size by F-18-FDG PET/CT and verified by histopathological evaluation.ResultsThere were no significant differences between all groups classified on the basis of histopathological and immunohistochemical parameters for SUVmax, SUVavg, TLG, and metabolic total volume. The only difference was found in patients with distant metastases and stage IV. SUVmax, SUVavg, and TLG were higher in patients with distant metastases compared with patients without distant metastases (P: 0.005, 0.011, and 0.042, respectively). Strong correlations were found between metabolic TNM staging and histopathological TNM staging (for T stage; r: 0.590, P: 0.021, N stage; r: 0.694, P: 0.002, TNM stage; r: 0.835, P: 0.002). In addition, no differences were found with any metabolic F-18-FDG PET/CT parameters in survival.Conclusion Although no correlation was found between metabolic parameters and groups categorized on the basis of histopathological or immunohistochemical features, F-18-FDG PET/CT is a reliable imaging modality to determine tumor size, axillary lymph node involvement, and metabolic TNM staging of MBC."

According to the news reporters, the research concluded: "In addition, none of those metabolic F-18-FDG PET/CT parameters predicted survival in MBC."

For more information on this research see: Do F-18-FDG PET/CT findings have a relationship with histopathological and immunohistochemical factors of breast cancer in men? Nuclear Medicine Communications, 2016;37(12):1273-1281. Nuclear Medicine Communications can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Nuclear Medicine Communications - journals.lww.com/nuclearmedicinecomm/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting B. Vatankulu, Istanbul University, Cerrahpasa Fac Med, Dept. of Nucl Med, TR-34098 Istanbul, Turkey. Additional authors for this research include G. Isik, P. Kocael, S. Kuyumcu, S. Ilvan, S. Sager, M. Halac, C. Turkmen and K. Sonmezoglu.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Nuclear
Data on Obesity Described by Researchers at Purdue University
(Almond Consumption during Energy Restriction Lowers Truncal Fat and Blood Pressure in Compliant Overweight or Obese Adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting from West Lafayette, Indiana, by NewsRx journalists, research stated, "The inclusion of almonds in an energy-restricted diet has been reported both to enhance or to have no effect on weight loss. Their effects specifically on visceral body fat stores during energy restriction have not been widely examined."

The news correspondents obtained a quote from the research from Purdue University, "In addition, almond consumption has been associated with reduced blood pressure (BP), but whether this is linked to or independent of changes in body composition has to our knowledge not been examined. We evaluated the effects of consuming almonds as part of an energy-restricted diet on body composition, specifically visceral adipose tissue (VAT) and BP, compared to a nut-free energy-restricted diet. A randomized controlled 12-wk clinical trial of 86 healthy adults [body mass index (in kg/m(2)): 25-40] was conducted. Participants were randomly assigned to 1 of 2 energy-restricted (500-kcal deficit/d) diets: an almond-enriched diet (AED) (15% energy from almonds) or a nut-free diet (NFD). A linear mixed-model analysis on primary outcomes such as body weight, body fat, VAT, and BP was performed on all participants [intention-to-treat (ITT) analysis] and compliant participants (complier analysis). Body weight, truncal and total fat percentage, VAT, and systolic BP decreased after 12 wk of energy restriction in both the ITT and complier analyses (P < 0.05). The complier analysis (but not the ITT analysis) indicated a greater mean +/- SEM reduction in truncal fat (AED: -1.21% +/- 0.26%, NFD: -0.48% +/- 0.24%; P = 0.025), total fat (AED: -1.79% +/- 0.36%; NFD: -0.74% +/- 0.33%; P = 0.035), and systolic BP (AED: -2.71 +/- 1.2 mm Hg; NFD: 0.815 +/- 1.1 mm Hg; P = 0.029), and a greater tendency for VAT loss (AED: -8.19 +/- 1.8 cm(2); NFD: -3.99 +/- 1.7 cm(2); P = 0.09) over time in the AED group than the NFD group. Moderate almond consumption by compliant overweight and obese individuals during energy restriction results in greater proportional reductions of truncal and total body fat as well as diastolic BP and hence may help to reduce metabolic disease risk in obesity."

According to the news reporters, the research concluded: "This trial was registered at clinicaltrials.gov as NCT02360787." For more information on this research see: Almond Consumption during Energy Restriction Lowers Truncal Fat and Blood Pressure in Compliant Overweight or Obese Adults. *Journal of Nutrition*, 2016;146(12):2513-2519. *Journal of Nutrition* can be contacted at: Amer Soc Nutrition-Asn, 9650 Rockville Pike, Bethesda, MD 20814, USA. (Hindawi Publishing - www.hindawi.com; Journal of Nutrition - www.hindawi.com/journals/jnume/)

Our news journalists report that additional information may be obtained by contacting R.D. Mattes, Purdue University, Dept. of Nutr Sci, West Lafayette, IN 47907, United States.
States. Additional authors for this research include S.Y. Tan and R.D. Mattes. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3945/jn.116.238444. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: West Lafayette, Indiana, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Risk and Prevention, Blood Pressure, Bariatrics, Obesity, Purdue University.

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Data on Obesity Reported by M.F. Pino and Colleagues (Active Individuals have High Mitochondrial Content and Oxidative Markers in Their Abdominal Subcutaneous Adipose Tissue)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting originating from Orlando, Florida, by NewsRx correspondents, research stated, "Exercise training (training) effects on white adipose tissue (WAT) thermogenic and oxidative capacities in humans are inconclusive. This study aimed to investigate whether an active lifestyle is characterized by thermogenic and/or oxidative transcriptional markers in human WAT."

Our news editors obtained a quote from the research, "In vivo maximal muscle ATP synthetic rates (ATPmax) were measured by P-31-MRS, body composition by DXA, and peak oxygen uptake (VO(2)peak) by cycle ergometry in active (n = 7) and sedentary (SED) individuals before and after 3 weeks of training (n = 9, SED only). mRNA expressions of brown adipose and beta-oxidation markers, as well as mitochondrial DNA content (mtDNA), were measured by qRT-PCR and qPCR, respectively, in WAT. ATPmax and VO(2)peak were higher in active versus SED individuals. Following training in SED individuals, ATPmax and VO(2) peak increased. Proliferator-activated receptor gamma coactivator-1 alpha and carnitine palmitoyltransferase-1 beta gene expressions and mtDNA content were significantly higher in WAT of active versus SED individuals before training. mRNA contents of brown and beige-specific markers were not different between cohorts. Training effectively increased ATPmax and VO(2)peak but had no effect on mtDNA content or expressions of genes that regulate thermogenic and oxidative capacities in WAT."

According to the news editors, the research concluded: "Results indicate that an active lifestyle is characterized by elevated mitochondrial content and oxidative, not thermogenic, markers of WAT."

For more information on this research see: Active Individuals have High Mitochondrial Content and Oxidative Markers in Their Abdominal Subcutaneous Adipose Tissue. *Obesity*, 2016;24(12):2467-2470. *Obesity* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

The news editors report that additional information may be obtained by contacting L.M. Sparks, Sanford Burnham Prebys Med Discovery Inst, Center Clin & Mol Origins Dis, Orlando, FL, United States. Additional authors for this research include S.A. Parsons, S.R.
Data on Obesity, Fitness and Wellness Discussed by Researchers at Alfaisal University (Characterizing the morbid genome of ciliopathies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Obesity, Fitness and Wellness is the subject of a report. According to news reporting originating in Riyadh, Saudi Arabia, by NewsRx journalists, research stated, "Ciliopathies are clinically diverse disorders of the primary cilium. Remarkable progress has been made in understanding the molecular basis of these genetically heterogeneous conditions; however, our knowledge of their morbid genome, pleiotropy, and variable expressivity remains incomplete."

The news reporters obtained a quote from the research from Alfaisal University, "We applied genomic approaches on a large patient cohort of 371 affected individuals from 265 families, with phenotypes that span the entire ciliopathy spectrum. Likely causal mutations in previously described ciliopathy genes were identified in 85% (225/265) of the families, adding 32 novel alleles. Consistent with a fully penetrant model for these genes, we found no significant difference in their 'mutation load' beyond the causal variants between our ciliopathy cohort and a control non-ciliopathy cohort. Genomic analysis of our cohort further identified mutations in a novel morbid gene TXNDC15, encoding a thiol isomerase, based on independent loss of function mutations in individuals with a consistent ciliopathy phenotype (Meckel-Gruber syndrome) and a functional effect of its deficiency on ciliary signaling. Our study also highlighted seven novel candidate genes (TRAPPC3, EXOC3L2, FAM98C, C17orf61, LRRCC1, NEK4, and CELSR2) some of which have established links to ciliogenesis. Finally, we show that the morbid genome of ciliopathies encompasses many founder mutations, the combined carrier frequency of which accounts for a high disease burden in the study population. Our study increases our understanding of the morbid genome of ciliopathies."

According to the news reporters, the research concluded: "We also provide the strongest evidence, to date, in support of the classical Mendelian inheritance of Bardet-Biedl syndrome and other ciliopathies."

For more information on this research see: Characterizing the morbid genome of ciliopathies. *Genome Biology*, 2016;17():20-30. *Genome Biology* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; Genome Biology - genomebiology.com)


Keywords for this news article include: Riyadh, Saudi Arabia, Asia, Obesity, Fitness
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Peptides - Oligopeptides

Data on Oligopeptides Reported by Researchers at Mossakowski Medical Research Center (Protective Effects of Selol Against Sodium Nitroprusside-Induced Cell Death and Oxidative Stress in PC12 Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Peptides - Oligopeptides is the subject of a report. According to news reporting out of Warsaw, Poland, by NewsRx editors, research stated, "Selol is an organic selenitetriglyceride formulation containing selenium at +4 oxidation level that can be effectively incorporated into catalytic sites of Se-dependent antioxidants. In the present study, the potential antioxidative and cytoprotective effects of Selol against sodium nitroprusside (SNP)-evoked oxidative/nitrosative stress were investigated in PC12 cells and the underlying mechanisms analyzed."

Financial supporters for this research include The statutory budget of the Mossakowski Medical Research Centre, Polish Academy of Sciences, The statutory budget of the Medical University of Warsaw.

Our news journalists obtained a quote from the research from Mossakowski Medical Research Center, "Spectrophoto- and spectrofluorimetric methods as well as fluorescence microscopy were used in this study; mRNA expression was quantified by real-time PCR. Selol dose-dependently improved the survival and decreased the percentage of apoptosis in PC12 cells exposed to SNP. To determine the mechanism of this protective action, the effect of Selol on free radical generation and on antioxidative potential was evaluated. Selol offered significant protection against the elevation of reactive oxidative species (ROS) evoked by SNP. Moreover, this compound restored glutathione homeostasis by ameliorating the SNP-evoked disturbance of GSH/GSSG ratio. The protective effect exerted by Selol was associated with the prevention of SNP-mediated down-regulation of antioxidative enzymes: glutathione peroxidase (Se-GPx), glutathione reductase (GR), and thioredoxin reductase (TrxR). Finally, GPx inhibition significantly abolished the cytoprotective effect of Selol."

According to the news editors, the research concluded: "These results suggest that Selol effectively protected PC12 cells against SNP-induced oxidative damage and death by adjusting free radical levels and antioxidant system, and suppressing apoptosis. Selol could be successfully used in the treatments of diseases that involve oxidative stress and resulting apoptosis."

For more information on this research see: Protective Effects of Selol Against Sodium Nitroprusside-Induced Cell Death and Oxidative Stress in PC12 Cells. Neurochemical Research, 2016;41(12):3215-3226. Neurochemical Research can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Neurochemical Research - www.springerlink.com/content/0364-3190/)

Our news journalists report that additional information may be obtained by contacting A. Adamczyk, Polish Academy Sci, Dept. of Cellular Signalling, Mossakowski Med Res Center, PL-02106 Warsaw, Poland. Additional authors for this research include A. Wilkaniec, P. Wroczynski, H. Jesko and A. Adamczyk.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11064-016-2046-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Warsaw, Poland, Europe, Inorganic Chemicals, Nitrogen Compounds, Hydrogen Cyanide, Chromaffin Cells, Nitroprusside, Ferricyanides, Oligopeptides, Electrolytes, Glutathione, PC12 Cells, Apoptosis, Genetics, Peptides, Anions, Mossakowski Medical Research Center.

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**Oncology**

**Data on Oncology Reported by Researchers at University of Kashmir**

(Emerging tale of UPR and cancer: an essentiality for malignancy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology. According to news reporting originating in Jammu Kashmir, India, by NewsRx journalists, research stated, "A set of cellular response to counter any alteration in homeostasis of a cell originating at endoplasmic reticulum is collectively termed as unfolded protein response (UPR). It initially is adaptive in nature as to restore cellular normalcy failing in course often activates pro-apoptotic signaling pathway resulting in cell death."

Funders for this research include Department of Biotechnology, Ministry of Science and Technology, Department of Science and Technology, India, FIST.

The news reporters obtained a quote from the research from the University of Kashmir, "UPR has emerged as an essential adaptation mechanism that cross talk with various cellular processes for cancer pathogenesis. Interestingly, it plays diverse role in plethora of signaling pathways instrumental in transformation, cell invasion, cell migration, metastasis, neovascularization, proliferation, and maintenance of energy metabolism of cancerous cells. In cancerous cells, it is triggered by change in microenvironment of a cell usually driven by hypoxia, acidosis, and nutrient deprivation, which often leads to positive selection pressure involving the reprogramming of energy metabolism which promotes channelization of limited metabolites into the hexosamine biosynthetic pathway (HBP). Substantial evidences suggest the role of UPR in oncogene (Myc, mTOR, RAS, HER2) driven cancer transformation and progression."

According to the news reporters, the research concluded: "In this review, we have comprehensively underlined the role played by UPR in adaptation, transformation, proliferation, invasion, and metastasis of cancerous cells."

For more information on this research see: Emerging tale of UPR and cancer: an essentiality for malignancy. Tumor Biology, 2016;37(11):14381-14390. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news correspondents report that additional information may be obtained by contacting K.M. Fazili, University of Kashmir, Dept. of Biotechnol, Srinagar 190006, Jammu & Kashmir, India. Additional authors for this research include A. Bashir, E.U. Haq and K.M. Fazili.

The direct object identifier (DOI) for that additional information is:
Data on Oral Cancer Described by Researchers at Grigore T. Popa University of Medicine and Pharmacy (Study of Biochemical Level for Mg and Ca-Mg Imbalance in Patients with Oral Cancer and Potentially Malignant Disorder and their Prostetical and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Oral Cancer have been published. According to news reporting from Iasi, Romania, by NewsRx journalists, research stated, "In the last decade it has been noticed a significant increase of indicators of oral cancer and oral potentially malignant disorders frequency, which led to the integration of this pathology among the primary problems of public health regarding dental medicine. It seems that besides the essential role of magnesium and calcium in the functions of human body, the changes of serum and salivary levels of magnesium and calcium may play a role in the pathogenesis of oral cancer and oral potentially malignant disorders."

The news correspondents obtained a quote from the research from the Grigore T. Popa University of Medicine and Pharmacy, "The aim of the study was to measure the serum levels of magnesium and calcium in patients with oral cancer and oral potentially malignant disorders. The serum and saliva levels of magnesium in oral cancer were higher than in healthy controls subjects."

According to the news reporters, the research concluded: "There are no significant statistic differences between the serum variations of total calcium and salivary calcium in the studied groups, compared to the controls."

For more information on this research see: Study of Biochemical Level for Mg and Ca-Mg Imbalance in Patients with Oral Cancer and Potentially Malignant Disorder and their Prostetical and DSSS Treatment. Revista De Chimie, 2016;67(10):2087-2090. Revista De Chimie can be contacted at: Chiminform Data S A, Calea Plevnei Nr 139, Sector 6, Bucharest R-77131, Romania.

Our news journalists report that additional information may be obtained by contacting L.E. Checherita, Grigore T Popa Univ Med & Pharm, Fac Med Dental, Dept. of Odontol Periodontol & Fixed Prosthesis, Iasi 700115, Romania. Additional authors for this research include L.E. Checherita, O. Stamatin and D. Manuc.

Keywords for this news article include: Iasi, Romania, Europe, Mouth Neoplasms, Biochemicals, Biochemistry, Light Metals, Oral Cancers, Chemicals, Magnesium, Oncology, Grigore T. Popa University of Medicine and Pharmacy.

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Data on Oral and Maxillofacial Surgery Reported by Researchers at University of Washington (Limiting Antibiotics When Managing Mandible Fractures May Not Increase Infection Risk)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Surgery - Oral and Maxillofacial Surgery. According to news reporting originating from Seattle, Washington, by NewsRx correspondents, research stated, "To estimate and compare 1) the frequencies of surgical site infections (SSIs) and 2) adverse antibiotic effects (AAEs) between patients who receive only intraoperative antibiotics (study group) and those who receive intraoperative antibiotics plus additional preoperative or postoperative antibiotics (control group) while undergoing operative treatment of open mandibular fractures. The authors designed a retrospective cohort study and enrolled a sample derived from patients presenting to the Harborview Medical Center from 2009 through 2014 for the management of open mandibular fractures."

Our news editors obtained a quote from the research from the University of Washington, "Eligible patients were at least 18 years of age with open, isolated mandibular fractures treated by open reduction and internal fixation using transoral approaches or closed reduction and intermaxillary fixation. The primary predictor variable was antibiotic exposure. The study group received antibiotics administered within 1 hour before the incision, with possible intraoperative re-dosing, and the control group received antibiotics according to the study group plus preoperative or postoperative antibiotics. The primary outcome was SSI frequency. The secondary outcome was AAE frequency. Univariate, bivariate, and multiple logistic regression analyses were performed. Statistical significance was set at a P value less than or equal to .05. The sample was comprised of 510 patients (mean age, 29 +/- 11.4 yr; 86% men). The study group had 58 patients (11%) and the control group had 452 patients (89%). The SSI frequencies in the study and control groups were 9 and 17%, respectively (P = .13). There were 5 (1%) AAEs reported, all in the control group. In the multivariable logistic regression model, only tobacco use was associated with an increased risk for SSI (odds ratio = 2.8; 95% confidence interval, 1.5-5.5; P = .0015)."

According to the news editors, the research concluded: "Limiting antibiotic exposure to only intraoperative antibiotic prophylaxis in patients undergoing transoral operative treatment of isolated open mandibular fractures was not associated with an increased risk of SSIs."


The news editors report that additional information may be obtained by contacting J. Dillon, University of Washington, Dept. of Oral & Maxillofacial Surg, Seattle, WA 98195, United States. Additional authors for this research include B. Bailey, Y. Patel, N. Smiley, T. Dodson, D. Kim and J. Dillon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.joms.2016.05.019. This DOI is a link to an online electronic document that is either free or for purchase.
Transplant Medicine - Organ Preservation

Data on Organ Preservation Reported by Researchers at Seoul National University Hospital (Induction chemotherapy in head and neck squamous cell carcinoma of the paranasal sinus and nasal cavity: a role in organ preservation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Transplant Medicine - Organ Preservation have been presented. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "The role of induction chemotherapy (IC) for eyeball preservation has not been established in head and neck squamous cell carcinoma (HNSCC) of the paranasal sinus and nasal cavity (PNSNC). Periorbital involvement frequently leads to eyeball exenteration with a margin of safety."

Financial support for this research came from Seoul National University Hospital.

The news correspondents obtained a quote from the research from Seoul National University Hospital, "We evaluated the treatment outcomes, including survival and eyeball preservation, of patients who received IC for HNSCC of the PNSNC. We reviewed 21 patients diagnosed with HNSCC of the PNSNC who were treated with IC. We analyzed response, eyeball preservation rate, and overall survival. Tumors were located in the paranasal sinus (n=14) or nasal cavity (n=7). Most patients had stage T4a (n=10) or T4b (n=7) disease. More than half of the patients received a chemotherapy regimen of docetaxel, fluorouracil, and cisplatin (n=11). Thirteen patients (61.9%) achieved a partial response after IC and 15 patients (71.4%) achieved T down-staging. Among 17 patients with stage T4 disease, which confers a high risk of orbital exenteration, 14 (82.4%) achieved preservation of the involved eye. The 3-year overall survival (OS) rate of patients who achieved a partial response to IC was 84.6%. The 3-year OS rate of patients with stable disease or disease progression after IC was 25.0% (p=0.038). IC could be considered for down-staging patients with advanced T-stage disease."

According to the news reporters, the research concluded: "It could also be a reasonable option for eyeball preservation in locally advanced HNSCC of the PNSNC."

For more information on this research see: Induction chemotherapy in head and neck squamous cell carcinoma of the paranasal sinus and nasal cavity: a role in organ preservation. The Korean Journal of Internal Medicine, 2016;31(3):570-8.

Our news journalists report that additional information may be obtained by contacting C.Y. Ock, Dept. of Internal Medicine, Seoul National University Hospital, Seoul, South Korea. Additional authors for this research include B. Keam, T.M. Kim, D.H. Han, T.B. Won, S.H. Lee, J.H. Hah, T.K. Kwon, D.W. Kim, D.Y. Kim, C.S. Rhee, H.G. Wu, M.W. Sung and D.S Heo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3904/kjim.2015.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Biomedicine, Seoul, Surgery,
Oxides

Data on Oxides Reported by C.de A. Mendes and Colleagues (Carbon dioxide contrast medium for endovascular treatment of ilio-femoral occlusive disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oxides is now available. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Compare the use of carbon dioxide contrast medium with iodine contrast medium for the endovascular treatment of ilio-femoral occlusive disease in patients without contraindications to iodine. From August 2012 to August 2014, 21 consecutive patients with ilio-femoral occlusive disease who were eligible for endovascular treatment and lacked contraindications to either iodine contrast or carbon dioxide were randomized into the carbon dioxide or iodine groups and subjected to ilio-femoral angioplasty. We analyzed the feasibility of the procedures, the surgical and clinical outcomes, the procedure lengths, the endovascular material costs, the contrast costs and the quality of the angiographic images in each group."

Our news journalists obtained a quote from the research, "No conversions to open surgery and no contrast media related complications were noted in either group. A post-operative femoral pulse was present in 88.9% of the iodine group and 80% of the carbon dioxide group. No differences in procedure length, endovascular material cost or renal function variation were noted between the groups. Four patients in the carbon dioxide group required iodine supplementation to complete the procedure. Contrast media expenses were reduced in the carbon dioxide group. Regarding angiographic image quality, 82% of the carbon dioxide images were graded as either good or fair by observers. The use of carbon dioxide contrast medium is a good option for ilio-femoral angioplasty in patients without contraindications to iodine and is not characterized by differences in endovascular material costs, procedure duration and surgical outcomes."

According to the news editors, the research concluded: "In addition, carbon dioxide has lower contrast expenses compared with iodine."


The news correspondents report that additional information may be obtained from C.d.e. A Mendes, Hospital Israelita Albert Einstein, Sao Paulo, SP, Brazil. Additional authors for this research include A.de A. Martins, M.P. Teivelis, S. Kuzniec, A.Y. Varella, A. Fioranelli and N. Wolosker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.6061/clinics/2015%2810%2903. This DOI is a link to an online electronic document that is either free or for purchase.
Enzymes and Coenzymes - Oxidoreductases

Data on Oxidoreductases Described by Researchers at Monsanto (Safety assessment of dicamba mono-oxygenases that confer dicamba tolerance to various crops)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Oxidoreductases. According to news reporting out of St. Louis, Missouri, by NewsRx editors, research stated, "Dicamba tolerant (DT) soybean, cotton and maize were developed through constitutive expression of dicamba mono-oxygenase (DMO) in chloroplasts. DMO expressed in three DT crops exhibit 91.6-97.1% amino acid sequence identity to wild type DMO."

Our news journalists obtained a quote from the research from Monsanto, "All DMO forms maintain the characteristics of Rieske oxygenases that have a history of safe use. Additionally, they are all functionally similar in vivo since the three DT crops are all tolerant to dicamba treatment. None of these DMO sequences were found to have similarity to any known allergens or toxins. Herein, to further understand the safety of these DMO variants, a weight of evidence approach was employed. Each purified DMO protein was found to be completely deactivated in vitro by heating at temperatures 55 degrees C and above, and all were completely digested within 30 s or 5 min by pepsin and pancreatin, respectively. Mice orally dosed with each of these DMO proteins showed no adverse effects as evidenced by analysis of body weight gain, food consumption and clinical observations."

According to the news editors, the research concluded: "Therefore, the weight of evidence from all these protein safety studies support the conclusion that the various forms of DMO proteins introduced into DT soybean, cotton and maize are safe for food and feed consumption, and the small amino acid sequence differences outside the active site of DMO do not raise any additional safety concerns."

For more information on this research see: Safety assessment of dicamba mono-oxygenases that confer dicamba tolerance to various crops. Regulatory Toxicology and Pharmacology, 2016;81():171-182. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting C.X. Wang, Monsanto Co, St Louis, MO 63167, United States. Additional authors for this research include K.C. Glenn, C. Kessenich, E. Bell, L.A. Burzio, M.S. Koch, B. Li and A. Silvanovich.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.08.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North
Data on Pancreas Research Reported by Researchers at University of Minnesota (Intrapancreatic Splenule in a Pancreas Allograft: Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gastroenterology - Pancreas Research are presented in a new report. According to news reporting originating from Minneapolis, Minnesota, by NewsRx correspondents, research stated, "A 16-year-old white man was involved in a motor vehicle collision and suffered head, chest, and abdominal trauma. Despite initial resuscitative efforts, he progressed to brain death and was designated to be an organ donor by his family."

Our news editors obtained a quote from the research from the University of Minnesota, "He had no earlier medical or surgical history and no high-risk behaviors. Blood work revealed normal creatinine, liver function tests, lipase, and amylase. Viral serologies were negative except for cytomegalovirus IgG and Epstein-Barr virus nucleic acid. Imaging revealed a right kidney contusion, a manubrial fracture, and fractures of right first rib and bilateral scapulae. No other abdominal trauma was identified, specifically to the pancreas, duodenum, or spleen. Our transplant center accepted the pancreas from this donor. During back-table inspection of the pancreas, a 1.5 x 1.5 cm dark purple rubbery mass was identified within the parenchyma of the pancreas in the tail. An incisional biopsy of the lesion was sent for frozen section, which yielded a mixed inflammatory infiltrate consisting of neutrophils and lymphocytes and an overlying fibrous capsule. The diagnosis of lymphoma or another neoplasm could not be definitely ruled out. Owing to uncertainty in diagnosis, the entire lesion was excised along with the distal pancreas with the use of a linear stapler. The staple line was oversewn with running 4-0 polypropylene suture, and the pancreas was transplanted."

According to the news editors, the research concluded: "After surgery, the pancreas allograft functioned well with a small pancreatic leak, which had resolved by the first postoperative outpatient visit."


The news editors report that additional information may be obtained by contacting K. Yadav, University of Minnesota, Dept. of Surg, Div Transplant, Minneapolis, MN, United States. Additional authors for this research include O.K. Serrano and R. Kandaswamy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Pancreas Research, Gastroenterology, Genetics, University of
Data on Pancreatitis Discussed by Researchers at University of Valencia (Epigenetic Regulation of Early- and Late-Response Genes in Acute Pancreatitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Digestive System Diseases and Conditions - Pancreatitis is the subject of a report. According to news reporting from Valencia, Spain, by NewsRx journalists, research stated, "Chromatin remodeling seems to regulate the patterns of proinflammatory genes. Our aim was to provide new insights into the epigenetic mechanisms that control transcriptional activation of early- and late-response genes in initiation and development of severe acute pancreatitis as a model of acute inflammation."

The news correspondents obtained a quote from the research from the University of Valencia, "Chromatin changes were studied by chromatin immunoprecipitation analysis, nucleosome positioning, and determination of histone modifications in promoters of proinflammatory genes in vivo in the course of taurocholate-induced necrotizing pancreatitis in rats and in vitro in rat pancreatic AR42J acinar cells stimulated with taurocholate or TNF-alpha. Here we show that the upregulation of early and late inflammatory genes rely on histone acetylation associated with recruitment of histone acetyltransferase CBP. Chromatin remodeling of early genes during the inflammatory response in vivo is characterized by a rapid and transient increase in H3K14ac, H3K27ac, and H4K5ac as well as by recruitment of chromatin-remodeling complex containing BRG-1. Chromatin remodeling in late genes is characterized by a late and marked increase in histone methylation, particularly in H3K4. JNK and p38 MAPK drive the recruitment of transcription factors and the subsequent upregulation of early and late inflammatory genes, which is associated with nuclear translocation of the early gene Egr-1."

According to the news reporters, the research concluded: "Specific and strictly ordered epigenetic markers such as histone acetylation and methylation, as well as recruitment of BRG-1-containing remodeling complex are associated with the upregulation of both early and late proinflammatory genes in acute pancreatitis. Our findings highlight the importance of epigenetic regulatory mechanisms in the control of the inflammatory cascade."

For more information on this research see: Epigenetic Regulation of Early- and Late-Response Genes in Acute Pancreatitis. *Journal of Immunology*, 2016;197(10):4137-4150. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news journalists report that additional information may be obtained by contacting J. Sastre, University of Valencia, Fac Pharm, Dept. of Physiol, E-46100 Valencia, Spain. Additional authors for this research include J. Pereda, S. Perez, I. Finamor, A. Vallet-Sanchez, J.L. Rodriguez, L. Franco, J. Sastre and G. Lopez-Rodas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1502378. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Valencia, Spain, Europe, Acute Pancreatitis, Immunology, Genetics, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Cell Nucleus Structures, Chromosome Structures, Intracellular Space, Gastroenterology, Nucleoproteins, Chromatin, Proteins, Histones, University of Valencia.

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Perfusion

**Data on Perfusion Reported by M. De Sousa Mendes and Colleagues**

*(Prediction of human fetal pharmacokinetics using ex vivo human placenta perfusion studies and physiologically based models)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Perfusion. According to news reporting out of Paris, France, by NewsRx editors, research stated, "Pregnant women can be exposed to numerous drugs during the gestational period. For obvious ethical reasons, in vivo studies of fetal exposure to drugs are limited."

Our news journalists obtained a quote from the research, "Information about the transplacental transfer of drugs prior to their administration to pregnant women would be highly useful. In the present study, a novel approach was developed quantitatively predict or to predict the fetal exposure to drugs administered to the mother quantitatively. Transplacental parameters estimated from ex vivo human placenta perfusion experiments were implemented in pregnancy-physiologically based pharmacokinetic (p-PBPK) models in order to predict fetal PK. Thereafter, fetal PK profiles for two antiretroviral drugs, tenofovir (TFV) and emtricitabine (FTC) were simulated. These predictions were then compared to observed cord blood concentrations, to validate these models. Parameters obtained from the ex vivo experiments enabled a good prediction of observed cord blood concentrations without additional a scaling factor. Moreover, a sensitivity analysis showed that fetal predictions were sensitive to changes in transplacental parameters values obtained ex vivo."

According to the news editors, the research concluded: "The integration of ex vivo human placental perfusion parameters in a p-PBPK model should be a promising new approach for predicting human fetal exposure to xenobiotics."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bcp.12815. This DOI is a link to an online electronic document that is either free or for purchase.
Data on Pharmaceutical Education Reported by Researchers at University of Houston (Effect of Communication Style on Perceptions of Medication Side Effect Risk among Pharmacy Students)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Education - Pharmaceutical Education. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "To assess the effect of communication style, and frequency and severity of medication side-effects, on pharmacy students' perception of risk of experiencing side effects. One hundred responses from pharmacy students were obtained using an online survey."

Our news journalists obtained a quote from the research from the University of Houston, "Participants were presented with a drug information box containing drug name, drug usage, and one side-effect associated with the drug. Information on side-effect for each drug was presented in one of eight experimental conditions, in a 2 (side-effect frequency: low, high), X2 (side-effect severity: mild, severe) X2 (communication style: verbal, verbal + natural frequency) factorial design. Risk perception of experiencing side effects was measured. Communication style was found to have a significant impact on risk perception depending on the context of frequency and severity associated with the side effect. Communication style plays a significant role in formulating risk perceptions of medication side effects."

According to the news editors, the research concluded: "Training in pharmaceutical counseling should include special emphasis on effective language use."


The news correspondents report that additional information may be obtained from S.S. Sansgiry, University of Houston, Coll Pharm, Houston, TX 77030, United States. Additional authors for this research include C.R. Beatty and S.S. Sansgiry.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Pharmaceutical Education, Education, University of Houston.

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Data on Pharmaceutical and Biomedical Analysis Discussed by Researchers at Wenzhou Medical University (An UPLC-MS/MS method for the quantitation of alectinib in rat plasma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biotechnology - Pharmaceutical and Biomedical Analysis is the subject of a report. According to news reporting out of Zhejiang, People's Republic of China, by NewsRx editors, research stated, "Currently, crizotinib is the first generation drug, which has been used in the treatment of ALK-rearranged non-small cell lung cancer (NSCLC). However, more and more patients are found in crizotinib-resistance."

Our news journalists obtained a quote from the research from Wenzhou Medical University, "In the last year, alectinib has been approved for treatment of patients with crizotinib-resistance. In this study, we aim to develop and validate a simple, rapid and sensitive tandem mass spectrometry (UHPLC-MS/MS) method for determination of alectinib in rat plasma. Diazepam was chosen as an internal standard (IS). Protein precipitation by acetonitrile was utilized to prepare plasma samples. Chromatographic separation was achieved on a RRHD Eclipse Plus C18 (2.1 x 50 mm, 1.8 μm) column with a gradient mobile phase consisting of acetonitrile and water (containing 0.1% formic acid). The analytes were detected by an electrospray ionization (ESI) source in positive mode. A dynamic multiple reaction monitoring (MRM) method was developed to detect specific precursor and product ions. The target fragment ions were m/z 483.2 -> 396.1 for alectinib and m/z 285.0 -> 192.9 for diazepam (IS). Linear calibration plots were achieved in the range of 1-500 ng/ml for alectinib (R²= 0.997) in rat plasma. Mean recoveries of alectinib in rat plasma ranged from 84.2% to 92.2%. The intra- and inter-day precision was below 9.3% and accuracy was from -1.4% to 12.1%. No obvious matrix effect was found. This method shows a good performance: accuracy, precision and stability."

According to the news editors, the research concluded: "It has been fully validated and successfully applied to pharmacokinetic study of alectinib."

For more information on this research see: An UPLC-MS/MS method for the quantitation of alectinib in rat plasma. Journal of Pharmaceutical and Biomedical Analysis, 2017;132():227-231. Journal of Pharmaceutical and Biomedical Analysis can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Pharmaceutical and Biomedical Analysis - www.journals.elsevier.com/journal-of-pharmaceutical-and-biomedical-analysis/)

Our news journalists report that additional information may be obtained by contacting G.X. Hu, Wenzhou Med Univ, Sch Pharm, Dept. of Pharmacol, Wenzhou, Zhejiang, People's Republic of China. Additional authors for this research include Y.X. Li, X.Y. Li, X.X. Hu, P.F. Tang and G.X. Hu.

Keywords for this news article include: Zhejiang, People's Republic of China, Asia, Pharmaceutical and Biomedical Analysis, Biotechnology, Wenzhou Medical University.

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Pharmacokinetics

Data on Pharmacokinetics Detailed by Researchers at Wenzhou Medical University (Determination of Arbutin in Rat Plasma Using Liquid Chromatography-Tandem Mass Spectrometry: Application to a Pharmacokinetic Study After Oral Administration of the ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Pharmacokinetics are presented in a new report. According to news reporting from Wenzhou, People's Republic of China, by NewsRx journalists, research stated, "A rapid and sensitive bioassay based on liquid chromatography-tandem mass spectrometry (LC-MS-MS) has been developed and validated to measure arbutin in rat plasma. Sample preparation of plasma after the addition of indapamide as internal standard (IS) involved solid-phase extraction (SPE) on C18 cartridges."

The news correspondents obtained a quote from the research from Wenzhou Medical University, "Reversed-phase chromatography using acetonitrile and 0.5% formic acid solution (pH 2.56) was used for separation in a run time of 4.0 min. The analytes were detected in the negative ion mode using selective reaction monitoring (SRM) of the transitions at m/z 271.2 -> 107.8 for arbutin and 364.3 -> 189.0 for indapamide. The method has the following performance characteristics: a reliable response range of 7.5-5250.0 ng/mL with correlation coefficients (r) of > 0.995. The lower limit of quantitation (LLOQ) was 7.5 ng/mL. The intra- and inter-day precision and accuracy of the quality control (QC) samples at low, medium and high concentration levels showed <= 8.79% relative standard deviation (RSD) and -1.15 to 1.49% relative error (RE)."

According to the news reporters, the research concluded: "The method was successfully applied to a pharmacokinetic study to measure arbutin in rats after extracts of Vaccinium vitis-idaea was orally administered."


Keywords for this news article include: Wenzhou, People's Republic of China, Asia, Drug Administration Routes, Oral Administration, Pharmacokinetics, Pharmaceuticals, Wenzhou Medical University.

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Data on Pharmacology Described by Researchers at Seoul National University (Pharmacological and Mechanical Thromboprophylaxis in Critically Ill Patients: a Network Meta-Analysis of 12 Trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Pharmacology. According to news reporting originating from Seongnam, South Korea, by NewsRx correspondents, research stated, "Thromboprophylaxis for venous thromboembolism is widely used in critically ill patients. However, only limited evidence exists regarding the efficacy and safety of the various thromboprophylaxis techniques, especially mechanical thromboprophylaxis."

Our news editors obtained a quote from the research from Seoul National University, "Therefore, we performed meta-analysis of randomized controlled trials (RCTs) that compared the overall incidence of deep vein thrombosis (DVT) for between unfractionated heparin (UFH), low-molecular-weight heparin (LMWH), and intermittent pneumatic compression (IPC) in critically ill patients. A Bayesian random effects model for multiple treatment comparisons was constructed. The primary outcome measure was the overall incidence of DVT at the longest follow-up. The secondary outcome measure was the incidence of major bleeding, as defined by the original trials. Our analysis included 8,622 patients from 12 RCTs. The incidence of DVT was significantly lower in patients treated with UFH (OR, 0.45; 95% CrI, 0.22-0.83) or LMWH (OR, 0.38; 95% CrI, 0.18-0.72) than in patients in the control group. IPC was associated with a reduced incidence of DVT compared to the control group, but the effect was not statistically significant (OR, 0.50; 95% CrI, 0.20-1.23). The risk of DVT was similar for patients treated with UFH and LMWH (OR, 1.16; 95% CrI, 0.68-2.11). The risk of major bleeding was similar between the treatment groups in medical critically ill patients and also in critically ill patients with a high risk of bleeding."

According to the news editors, the research concluded: "In critically ill patients, the efficacy of mechanical thromboprophylaxis in reducing the risk of DVT is not as robust as those of pharmacological thromboprophylaxis."

For more information on this research see: Pharmacological and Mechanical Thromboprophylaxis in Critically Ill Patients: a Network Meta-Analysis of 12 Trials. Journal of Korean Medical Science, 2016;31(11):1828-1837. Journal of Korean Medical Science can be contacted at: Korean Acad Medical Sciences, 302 75 Dong Du Ichon, Dong Yongsan Ku, Seoul 140 031, South Korea.

The news editors report that additional information may be obtained by contacting Y.J. Cho, Seoul National University, Bundang Hosp, Dept. of Internal Med, Div Pulm & Crit Care Med, Seongnam 13620, South Korea. Additional authors for this research include J.M. Lee, J.S. Lee and Y.J. Cho.

Keywords for this news article include: Seongnam, South Korea, Asia, Therapy, Risk and Prevention, Pharmacology, Seoul National University.

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Pharmacology

Data on Pharmacology Detailed by Researchers at University of Cologne (Person-directed, non-pharmacological interventions for sleepiness at work and sleep disturbances caused by shift work)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacology. According to news reporting out of Cologne, Germany, by NewsRx editors, research stated, "Shift work is often associated with sleepiness and sleep disorders. Person-directed, non-pharmacological interventions may positively influence the impact of shift work on sleep, thereby improving workers' well-being, safety, and health."

Our news journalists obtained a quote from the research from the University of Cologne, "To assess the effects of person-directed, non-pharmacological interventions for reducing sleepiness at work and improving the length and quality of sleep between shifts for shift workers. Search methods We searched CENTRAL, MEDLINE Ovid, Embase, Web of Knowledge, ProQuest, PsycINFO, OpenGrey, and OSH-UPDATE from inception to August 2015. We also screened reference lists and conference proceedings and searched the World Health Organization (WHO) Trial register. We contacted experts to obtain unpublished data. Selection criteria Randomised controlled trials (RCTs) (including cross-over designs) that investigated the effect of any person-directed, non-pharmacological intervention on sleepiness on-shift or sleep length and sleep quality off-shift in shift workers who also work nights. Data collection and analysis At least two authors screened titles and abstracts for relevant studies, extracted data, and assessed risk of bias. We contacted authors to obtain missing information. We conducted meta-analyses when pooling of studies was possible. We included 17 relevant trials (with 556 review-relevant participants) which we categorised into three types of interventions: (1) various exposures to bright light (n = 10); (2) various opportunities for napping (n = 4); and (3) other interventions, such as physical exercise or sleep education (n = 3). In most instances, the studies were too heterogeneous to pool. Most of the comparisons yielded low to very low quality evidence. Only one comparison provided moderate quality evidence. Overall, the included studies' results were inconclusive. We present the results regarding sleepiness below. Bright light Combining two comparable studies (with 184 participants altogether) that investigated the effect of bright light during the night on sleepiness during a shift, revealed a mean reduction 0.83 score points of sleepiness (measured via the Stanford Sleepiness Scale (SSS) (95% confidence interval (CI) -1.3 to -0.36, very low quality evidence). Another trial did not find a significant difference in overall sleepiness on another sleepiness scale (16 participants, low quality evidence). Bright light during the night plus sunglasses at dawn did not significantly influence sleepiness compared to normal light (1 study, 17 participants, assessment via reaction time, very low quality evidence). Bright light during the day shift did not significantly reduce sleepiness during the day compared to normal light (1 trial, 61 participants, subjective assessment, low quality evidence) or compared to normal light plus placebo capsule (1 trial, 12 participants, assessment via reaction time, very low quality evidence). Napping during the night shift A meta-analysis on a single nap opportunity and the effect on the mean reaction time as a surrogate for sleepiness, resulted in a 11.87 ms reduction (95% CI 31.94 to -8.2, very low quality evidence). Two other studies also reported statistically non-significant decreases in reaction time (1 study seven participants; 1 study 49 participants, very low quality evidence). A two-nap opportunity resulted in a statistically non-significant increase of sleepiness (subjective assessment) in one study (mean difference (MD) 2.32, 95% CI
-24.74 to 29.38, 1 study, 15 participants, low quality evidence). Other interventions Physical exercise and sleep education interventions showed promise, but sufficient data to draw conclusions are lacking. Authors' conclusions Given the methodological diversity of the included studies, in terms of interventions, settings, and assessment tools, their limited reporting and the very low to low quality of the evidence they present, it is not possible to determine whether shift workers' sleepiness can be reduced or if their sleep length or quality can be improved with these interventions.

According to the news editors, the research concluded: "We need better and adequately powered RCTs of the effect of bright light, and naps, either on their own or together and other non-pharmacological interventions that also consider shift workers' chronobiology on the investigated sleep parameters."

For more information on this research see: Person-directed, non-pharmacological interventions for sleepiness at work and sleep disturbances caused by shift work. Cochrane Database of Systematic Reviews, 2016;(8):868-1027. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.


Keywords for this news article include: Cologne, Germany, Europe, Therapy, Article Review, Pharmacology, University of Cologne.

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Pharmacology

Data on Pharmacology Reported by Researchers at UNC Eshelman School of Pharmacy (Optimizing Medication Outcomes in Neurocritical Care: Focus on Clinical Pharmacology)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacology have been presented. According to news originating from Chapel Hill, North Carolina, by NewsRx correspondents, research stated, "Drug dosing in neurocritically ill patients presents enormous challenges for clinicians due to the complex pathophysiological alterations. These alterations are dynamic both, between and within patients."

Our news journalists obtained a quote from the research from the UNC Eshelman School of Pharmacy, "Unpredictable exposure from standard dosing regimens, which were extrapolated to intensive care unit patients from healthy volunteer studies, may influence medication outcomes. Knowledge of potential alterations in pharmacokinetics/pharmacodynamics in these patients could be applied to maximize the clinical response and minimize adverse effects. Recognizing potential confounding clinical and treatment factors affecting drug response is an important step, but it is not enough. Overcoming absorption and distribution challenges by using specialized formulations and delivery systems is an area of active research. Improved methods for measuring drug concentrations in clinical settings across different matrices are also needed. Even with these advances, defining
endogenous mediators signaling drug-target activation is necessary. Identifying biomarkers in disease and changes when a drug has reached its target will be pivotal."

According to the news editors, the research concluded: "This information will improve our understanding of the pharmacogenomic and pharmacokinetic variables affecting pharmacodynamic endpoints across a spectrum of neurologic diseases."

For more information on this research see: Optimizing Medication Outcomes in Neurocritical Care: Focus on Clinical Pharmacology. *Seminars in Neurology*, 2016;36(6):586-600. *Seminars in Neurology* can be contacted at: Thieme Medical Publ Inc, 333 Seventh Ave, New York, NY 10001, USA. (Thieme - www.thieme.com)

The news correspondents report that additional information may be obtained from D.H. Rhoney, UNC Eshelman Sch Pharm, Div Practice Adv & Clin Educ, Chapel Hill, NC 27599, United States. Additional authors for this research include K. Morbitzer and J. Hatton-Kolpek.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0036-1592139. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Pharmaceuticals, Pharmacology, UNC Eshelman School of Pharmacy.

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**Drugs and Therapies - Pharmacy Practice**

**Data on Pharmacy Practice Detailed by Researchers at University of British Columbia (The impact of medication reviews by community pharmacists)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Pharmacy Practice. According to news reporting originating from Vancouver, Canada, by NewsRx correspondents, research stated, "Many Canadians use prescription medicines that are unnecessary or that can lead to adverse events. In response, many provinces have introduced programs in which pharmacists are paid to perform medication reviews with patients."

Our news editors obtained a quote from the research from the University of British Columbia, "As the evidence on such programs is equivocal, we investigated the impact of British Columbia's program. Interrupted time series. British Columbia, Canada. All residents of British Columbia who received a medication review between May 1, 2012, and June 30, 2013 (163,776 individuals). Using British Columbia's population-based PharmaNet drug utilization system, we collected data on community pharmacist-led medication reviews. The PharmaNet database contains a record of all medication reviews conducted in an ambulatory setting. We studied the impact of first medication reviews conducted between May 2012 and June 2013. We used interrupted time series analysis to assess longitudinal changes in patients receiving a standard review (n = 147,770) and a more intensive pharmacist consultation (n = 16,006). Our outcomes included drug utilization, costs, potentially inappropriate prescriptions, and medication persistence measured through the proportion of commonly used chronic medications that were eventually refilled. Overall, we observed few changes in the level or trend of any of
the outcomes we studied. Both review types were followed by significant increases in both the number of prescriptions per month and expenditures. The continuation of long-term medications did not change for 3 of 4 classes, and increased very slightly for the final class. We found no evidence of deprescribing, either for classes that are potentially problematic for long-term use (benzodiazepines and proton pump inhibitors) or for potentially inappropriate prescriptions in seniors. Our results suggest that medication reviews did not significantly modify prescription drug use by recipients."

According to the news editors, the research concluded: "Future iterations of such programs might be modified to be better targeted and to encourage closer collaboration between pharmacists and prescribing health care professionals."

For more information on this research see: The impact of medication reviews by community pharmacists. *Journal of the American Pharmacists Association*, 2016;56(5):513-520,43. *Journal of the American Pharmacists Association* can be contacted at: Amer Pharmaceutical Assoc, 2215 Constitution Ave NW, Washington, DC 20037, USA.

The news editors report that additional information may be obtained by contacting M.R. Law, University of British Columbia, Sch Populat & Public Hlth, Center Hlth Serv & Policy Res, Access Med, Vancouver, BC, Canada. Additional authors for this research include L. Cheng, F.K.I. Chan, M. Harrison and M.R. Law.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.japh.2016.05.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Pharmacy Practice, Drugs and Therapies, University of British Columbia.

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**Drugs and Therapies - Pharmacy and Pharmacology**

**Data on Pharmacy and Pharmacology Detailed by Researchers at School of Pharmaceutical Science (Preparation, in-vitro and in-vivo characterisation of CoQ10 microparticles: electrospaying-enhanced bioavailability)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Pharmacy and Pharmacology is now available. According to news originating from Penang, Malaysia, by NewsRx correspondents, research stated, "This study aimed to prepare Coenzyme Q10 (CoQ10) microparticles using electrospaying technology, and evaluate the in-vitro properties and in-vivo oral bioavailability. Electrospaying was successfully used to prepare CoQ10 to enhance its solubility and dissolution properties."

Our news journalists obtained a quote from the research from the School of Pharmaceutical Science, "In-vitro evaluation of the electro sprayed microparticles showed bioavailability-enhancing properties such as reduced crystallinity and particle size. The formulation was evaluated using dissolution study and in-vivo oral bioavailability using rat model. The dissolution study revealed enhanced dissolution properties of electro sprayed microparticles compared with physical mixture and raw material. The absorption profiles
showed increasing mean plasma levels CoQ10 in the following order: raw material <physical mixture <electrosprayed microparticles."

According to the news editors, the research concluded: "Based on the findings in this study, electrospraying is a highly prospective technology to produce functional nano-and micro-structures as delivery vehicles for drugs with poor oral bioavailability due to rate-limiting solubility."


The news correspondents report that additional information may be obtained from W.Y. Fung, School of Pharmaceutical Sciences, UniversitiSains Malaysia, Penang, Malaysia. Additional authors for this research include M.T. Liong and K.H Yuen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jphp.12502. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Penang, Malaysia, Technology, Drugs and Therapies, Pharmacy and Pharmacology.

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Hematology - Plasma

Data on Plasma Discussed by Researchers at University of Otago (Collection tubes containing citrate stabiliser over-estimate plasma glucose, when compared to other samples undergoing immediate plasma separation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hematology - Plasma are presented in a new report. According to news reporting from Christchurch, New Zealand, by NewsRx journalists, research stated, "Blood collection tubes containing citrate lower pH, thereby inhibiting glycolysis. When compared to other additives, they introduce an over-estimation in measured glucose."

The news correspondents obtained a quote from the research from the University of Otago, "This study explored this overestimation across a range of glucose values. Blood samples collected into lithium-heparin tubes then cooled prior to immediate refrigerated plasma separation, were used as the primary comparator. Venous blood from individuals with and without diabetes was collected into tubes containing lithium-heparin, or fluoride, or fluoride-citrate (Terumo ™ Venosafe). Plasma was separated at time intervals of zero, 2 and 24 h. Preparation of the 'time zero' lithium-heparin and fluoride samples was optimised by processing these samples under cooled conditions. The remaining samples were prepared at room temperature. Plasma was analysed in the routine clinical laboratory using the hexokinase method. Median plasma glucose for the 50 participants was 7.1 mmol/L (range 3.1-21.5). At 'time zero', fluoride-citrate glucose was 0.37 mmol/L (95% CI 0.26-0.48) higher than lithium-heparin glucose and 029 mmol/L (95% CI 0.21-0.36) higher than glucose from fluoride tubes. Following delayed plasma separation at 24 h, glucose loss from the lithium heparin tubes averaged 0.2 mmol.L-1.hr(-1). In contrast, the fluoride citrate tubes showed minimal glucose loss over 24 h. Acid stabilises glycolysis but causes an over-estimation in glucose, across a
range of plasma glucose values, when compared to blood collected into conventional tubes under cooled conditions."

According to the news reporters, the research concluded: "The magnitude of the over-estimation seen with the fluoride-citrate tubes is unlikely to be due solely to the differential glucose stabilisation rates of acid, compared to cooling."

For more information on this research see: Collection tubes containing citrate stabiliser over-estimate plasma glucose, when compared to other samples undergoing immediate plasma separation. *Clinical Biochemistry*, 2016;49(18):1406-1411. *Clinical Biochemistry* can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Clinical Biochemistry - www.journals.elsevier.com/clinical-biochemistry/)

Our news journalists report that additional information may be obtained by contacting H. Lunt, Univ Otago Christchurch, Dept. of Med, Christchurch, New Zealand. Additional authors for this research include H. Lunt, H.F. Heenan, C.M.A. Frampton and C.M. Florkowski.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinbiochem.2016.05.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Christchurch, New Zealand, Australia and New Zealand, Hydrofluoric Acid, Hematology, Fluorides, Anions, Plasma, Blood, University of Otago.

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**Data on Pneumothorax Reported by Researchers at Princess Alexandra Hospital (Venous cutdown versus the Seldinger technique for placement of totally implantable venous access ports)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Respiratory Tract Diseases and Conditions - Pneumothorax are presented in a new report. According to news reporting originating from Brisbane, Australia, by NewsRx correspondents, research stated, "Totally implantable venous access ports (TIVAPs) provide patients with a safe and permanent venous access, for instance in the administration of chemotherapy for oncology patients. There are several methods for TIVAP placement, and the optimal evidence-based method is unclear."

Our news editors obtained a quote from the research from Princess Alexandra Hospital, "To compare the efficacy and safety of three commonly used techniques for implanting TIVAPs: the venous cutdown technique, the Seldinger technique, and the modified Seldinger technique. This review includes studies that use Doppler or real-time two-dimensional ultrasonography for locating the vein in the Seldinger technique. Search methods The Cochrane Vascular Trials Search Co-ordinator searched the Cochrane Vascular Specialised Register (last searched August 2015) and the Cochrane Central Register of Controlled Trials (CENTRAL) (2015, Issue 7), as well as clinical trials registers. Selection criteria We included randomised or quasi-randomised controlled clinical trials that randomly allocated people requiring TIVAP to the venous cutdown, Seldinger, or modified Seldinger technique. Two review authors
independently assessed studies for inclusion eligibility, with a third review author checking excluded studies. Data collection and analysis Two review authors independently extracted data. We assessed all studies for risk of bias. We assessed heterogeneity using \( \chi^2 \) statistic and variance (I\(^2 \)) statistic methods. Dichotomous outcomes, summarised as odds ratio (OR) with 95% confidence interval (CI), were: primary implantation success, complications (in particular infection), pneumothorax, and catheter complications. We conducted separate analyses to assess the two access veins, subclavian and internal jugular (IJ) vein, in the Seldinger technique versus the venous cutdown technique. We used both intention-to-treat (ITT) and on-treatment analyses and pooled data using a fixed-effect model. We included nine studies with a total of 1253 participants in the review. Five studies compared Seldinger technique (subclavian vein access) with venous cutdown technique (cephalic vein access). Two studies compared Seldinger (IJ vein) versus venous cutdown (cephalic vein). One study compared the modified Seldinger technique (cephalic vein) with the venous cutdown (cephalic vein), and one study compared the Seldinger (subclavian vein) versus the Seldinger (IJ vein) technique. Seldinger technique (subclavian or IJ vein access) versus venous cutdown (cephalic vein): We included seven trials with 1006 participants for analysis. Both ITT (OR 0.40; 95% CI 0.25 to 0.65) and on-treatment analysis (OR 0.59; 95% CI 0.36 to 0.98) showed that the Seldinger technique for implantation of TIVAP had a higher success rate compared with the venous cutdown technique. We found no difference between overall peri-and postoperative complication rates: ITT (OR 1.16; 95% CI 0.76 to 1.75) and on-treatment analysis (OR 0.93; 95% CI 0.62 to 1.40). In the Seldinger group, the majority of the trials reported use of the subclavian vein for venous access, with only a limited number of trials utilising the IJ vein for access. When individual complication rates of infection, pneumothorax, and catheter complications were analysed, the Seldinger technique (subclavian vein access) was associated with a higher rate of catheter complications compared to the venous cutdown technique: ITT (OR 6.77; 95% CI 2.31 to 19.79) and on-treatment analysis (OR 6.62; 95% CI 2.24 to 19.58). There was no difference in incidence of infections, pneumothorax, and other complications between the groups. Modified Seldinger technique (cephalic vein) versus venous cutdown (cephalic vein): We identified one trial with 164 participants. ITT analysis showed no difference in primary implantation success rate between the modified Seldinger technique (69/82, 84%) and the venous cutdown technique (66/82, 80%), \( P = 0.686 \). We observed no differences in the peri-or postoperative complication rates. Seldinger (subclavian vein access) versus Seldinger (IJ vein access): We identified one trial with 83 participants. The primary success rate was 84% (37/44) for Seldinger (subclavian vein) versus 74% (29/39) for the Seldinger (IJ vein). There was a higher overall complication rate in the subclavian group (48%) compared to the jugular group (23%), \( P = 0.02 \). However, when specific complications were compared individually, we found no differences between the groups. The overall quality of the trials included in this review was moderate. The methods used for randomisation were inadequate in four of the nine included studies, but sensitivity analysis excluding these trials did not alter the outcome. The nature of the interventions, either venous cutdown or Seldinger techniques, meant that it was not feasible to blind the participant or personnel, therefore we judged this to be at low risk of bias. The majority of participants in the included trials were oncology patients at tertiary centres, and the outcomes were applicable to the typical clinical scenario. For all outcomes, when comparing venous cutdown and Seldinger technique, serious imprecision was evident by wide confidence intervals in the included trials. The quality of the overall evidence was therefore downgraded from high to moderate. Due to the limited number of included studies we were unable to assess publication bias. Authors’ conclusions Moderate-quality evidence showed that the Seldinger technique has a higher primary implantation success rate compared with the venous cutdown technique. The majority of trials using the Seldinger technique used the subclavian vein for venous access, and only a few trials reported the use of the internal jugular vein for venous
access. Moderate-quality evidence showed no difference in the overall complication rate between the Seldinger and venous cutdown techniques. However, when the Seldinger technique with subclavian vein access was compared with the venous cutdown group, there was a higher reported incidence of catheter complications. The rates of pneumothorax and infection did not differ between the Seldinger and venous cutdown group.

According to the news editors, the research concluded: "We identified only one trial for each of the comparisons modified Seldinger technique (cephalic vein) versus venous cutdown (cephalic vein) and Seldinger (subclavian vein access) versus Seldinger (IJ vein access), thus a definitive conclusion cannot be drawn for these comparisons and further research is recommended."

For more information on this research see: Venous cutdown versus the Seldinger technique for placement of totally implantable venous access ports. Cochrane Database of Systematic Reviews, 2016;(8):2945-3024. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting C.C.T. Hsu, Princess Alexandra Hospital, Dept. of Med Imaging, Brisbane, Qld 4102, Australia. Additional authors for this research include G.N.C. Kwan, H. Evans-Barns, J.A. Rophael and M.L. van Driel.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Respiratory Tract Diseases and Conditions, Pleural Diseases and Conditions, Clinical Trials and Studies, Oncology, Article Review, Clinical Research, Subclavian Vein, Cephalic Vein, Pneumothorax, Angiology, Princess Alexandra Hospital.

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Membrane Proteins - Porins

Data on Porins Discussed by Researchers at Kyungpook National University (Molecular mechanisms regulating aquaporin-2 in kidney collecting duct)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Membrane Proteins - Porins are presented in a new report. According to news reporting originating from Taegu, South Korea, by NewsRx correspondents, research stated, "The kidney collecting duct is an important renal tubular segment for regulation of body water homeostasis and urine concentration. Water reabsorption in the collecting duct principal cells is controlled by vasopressin, a peptide hormone that induces the osmotic water transport across the collecting duct epithelia through regulation of water channel proteins aquaporin-2 (AQP2) and aquaporin-3 (AQP3)."

Our news editors obtained a quote from the research from Kyungpook National University, "In particular, vasopressin induces both intracellular translocation of AQP2-bearing vesicles to the apical plasma membrane and transcription of the Aqp2 gene to increase AQP2 protein abundance. The signaling pathways, including AQP2 phosphorylation, RhoA phosphorylation, intracellular calcium mobilization, and actin depolymerization, play a key role in the translocation of AQP2."

According to the news editors, the research concluded: "This review summarizes recent data demonstrating the regulation of AQP2 as the underlying molecular mechanism for
the homeostasis of water balance in the body."


The news editors report that additional information may be obtained by contacting T.H. Kwon, Kyungpook National University, Sch Med, Dept. of Biochem & Cell Biol, Taegu 41944, South Korea.

Keywords for this news article include: Taegu, South Korea, Asia, Membrane Transport Proteins, Aquaporins, Article Review, Membrane Glycoproteins, Membrane Proteins, Carrier Proteins, Ion Channels, Aquaporin 2, Vasopressin, Hormones, Porins, Kyungpook National University.

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**Post-Operative Complications**

**Data on Post-Operative Complications Detailed by Researchers at University of Miami (Free Versus Pedicled TRAM Flaps: Cost Utilization and Complications)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Post-Operative Complications. According to news reporting out of Miami, Florida, by NewsRx editors, research stated, "Conventionally, free transverse rectus abdominis myocutaneous (fTRAM) flap breast reconstruction has been associated with decreased donor site morbidity and improved flap inset. However, clinical success depends upon more sophisticated technical expertise and facilities."

Our news journalists obtained a quote from the research from the University of Miami, "This study aims to characterize postoperative outcomes undergoing free versus pedicled TRAM (pTRAM) flap breast reconstruction. Nationwide inpatient sample database (2008-2011) was reviewed for cases of fTRAM (ICD-9-CM 85.73) and pTRAM (85.72) breast reconstruction. Inclusion criteria were females undergoing pTRAM or fTRAM breast reconstruction; males were excluded. We examined demographics, hospital setting, insurance information, patient income, and comorbidities. Clinical endpoints included postoperative complications, length-of-stay (LOS), and total charges (TC). Bivariate/multivariate analyses were performed to identify independent risk factors associated with increased complications and resource utilization. Overall, 21,655 cases were captured. Seventy-percent were Caucasian, 95% insured, and 72% treated in an urban teaching hospital. There were 9 pTRAM and 6 fTRAM in-hospital mortalities. On bivariate analysis, the fTRAM cohort was more likely to be obese (OR 1.2), undergo revision (OR 5.9), require hemorrhage control (OR 5.7), suffer hematoma complications (OR 1.9), or wound infection (OR 1.8) (p < 0.003). The pTRAM cohort was more likely to suffer pneumonia (OR 1.6) and pulmonary embolism (OR 2.0) (p < 0.004). Reconstruction type did not affect risk of flap loss or seroma occurrence. TC were higher with fTRAM (p < 0.001). LOS was not affected by procedure type. On risk-adjusted multivariate analysis, fTRAM was an independent risk factor for increased LOS (OR 1.6), TC (OR 1.8), and postoperative complications (OR 1.3) (p < 0.001). Free TRAM has an increased risk of postoperative complications and resource utilization versus pTRAM on the current largest risk-adjusted analysis. Further analyses are required to elucidate additional factors influencing
outcomes following these procedures. This journal requires that authors assign a level of evidence to each article."

According to the news editors, the research concluded: "For a full description of these Evidence-Based Medicine ratings, please refer to the Table of Contents or the A3 online Instructions to Authors. www.springer.com/00266."


Our news journalists report that additional information may be obtained by contacting S.R. Thaller, University of Miami, DeWitt Daughtry Family Dept. of Surg, Div Plast Aesthet & Reconstruct Surg, Miami, FL 33136, United States. Additional authors for this research include D.J. Gerth, J. Tashiro and S.R. Thaller.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00266-016-0704-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Risk and Prevention, Epidemiology, Post-Operative Complications, Hospital, University of Miami.

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Propiophenones

Data on Propiophenones Detailed by Researchers at University of Michigan (Identification of non-reported bupropion metabolites in human plasma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Propiophenones. According to news reporting out of Ann Arbor, Michigan, by NewsRx editors, research stated, "Bupropion and its three active metabolites exhibit clinical efficacy in the treatment of major depression, seasonal depression and smoking cessation. The pharmacokinetics of bupropion in humans is highly variable."

Our news journalists obtained a quote from the research from the University of Michigan, "It is not known if there are any non-reported metabolites formed in humans in addition to the three known active metabolites. This paper reports newly identified and non-reported metabolites of bupropion in human plasma samples. Human subjects were dosed with a single oral dose of 75mg of an immediate release bupropion HCl tablet. Plasma samples were collected and analysed by LC-MS/MS at 0, 6 and 24h. Two non-reported metabolites (M1 and M3) were identified with mass-to-charge (m/z) ratios of 276 (M1, hydration of bupropion) and 258 (M3, hydroxylation of threo/erythrohydrobupropion) from human plasma in addition to the known hydroxybupropion, threo/erythrohydrobupropion and the glucuronidation products of the major metabolites (M2 and M4-M7)."

According to the news editors, the research concluded: "These new metabolites may provide new insight and broaden the understanding of bupropion's variability in clinical
pharmacokinetics."


Our news journalists report that additional information may be obtained by contacting D.X. Sun, University of Michigan, Dept. of Pharmaceut Sci, Ann Arbor, MI 48109, United States. Additional authors for this research include R.J. Luo, J. Windak, X.Y. Zhang, A. Babiskin, M. Kelly, G. Harrington, V.L. Ellingrod, M. Kamali, M. McInnis and D.X. Sun.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Norepinephrine-Dopamine Reuptake Inhibitors, Smoking Cessation Agents, Psychotherapeutic Agents, Drugs and Therapies, Bupropion Therapy, Pharmacokinetics, Pharmaceuticals, Antidepressants, Antipsychotics, Propiophenones, University of Michigan.

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**Oncology - Prostate Cancer**

**Data on Prostate Cancer Detailed by Researchers at International Agency for Research on Cancer (Prostate cancer burden in Central and South America)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Prostate Cancer is the subject of a report. According to news reporting out of Lyon, France, by NewsRx editors, research stated, "Rationale and objective: The incidence of prostate cancer has increased in Central and South America (CSA) in the last few decades. We describe the geographical patterns and trends of prostate cancer in CSA."

Our news journalists obtained a quote from the research from International Agency for Research on Cancer, "We obtained regional and national-level cancer incidence data from 48 population-based registries in 13 countries and nation-wide cancer deaths from the WHO mortality database for 18 countries. We estimated world population age-standardized incidence (ASR) and mortality (ASMR) rates per 100,000 person-years for 2003-2007 and the estimated annual percent change (EAPC) to describe time trends. Prostate cancer was the most common cancer diagnosis and one of the leading causes of cancer deaths among males in most CSA countries. From 2003-2007, ASRs varied between countries (6-fold) and within countries (Brazil: 3-6-fold). French Guyana (147.1) and Brazil (91.4) had the highest ASRs whereas Mexico (28.9) and Cuba (24.3) had the lowest. ASMRs varied by 4-fold. Belize, Uruguay and Cuba (24.128.9) had the highest ASMRs while Peru, Nicaragua, and El Salvador (6.8-9.7) had the lowest. In Argentina, Brazil, Chile and Costa Rica prostate cancer incidence increased by 2.8-4.8% annually whereas mortality remained stable between 1997 and 2008. The geographic and temporal variation of prostate cancer rates observed in CSA may in part reflect differences in diagnostic and registration practices, healthcare access, treatment and death certification, and public awareness."

According to the news editors, the research concluded: "The incidence of prostate
cancer is expected to increase given recent early detection activities and increased public awareness; however, the impact of these factors on mortality remains to be elucidated."

For more information on this research see: Prostate cancer burden in Central and South America. *Cancer Epidemiology*, 2016;44():S131-S140. *Cancer Epidemiology* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news journalists report that additional information may be obtained by contacting M.S. Sierra, Int Agcy Res Canc, Sect Canc Surveillance, Lyon, France. Additional authors for this research include I. Soerjomataram and D. Forman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.06.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Cancer, Epidemiology, Prostatic Neoplasms, Prostate Cancer, Oncology, International Agency for Research on Cancer.

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**Oncology - Prostate Cancer**

**Data on Prostate Cancer Detailed by Researchers at University Health Network (Technical Note: Method to correlate whole-specimen histopathology of radical prostatectomy with diagnostic MR imaging)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting originating in Toronto, Canada, by NewsRx journalists, research stated, "Validation of MRI-guided tumor boundary delineation for targeted prostate cancer therapy is achieved via correlation with gold-standard histopathology of radical prostatectomy specimens. Challenges to accurate correlation include matching the pathology sectioning plane with the in vivo imaging slice plane and correction for the deformation that occurs between in vivo imaging and histology."

Funders for this research include Cancer Care Ontario, National Institutes of Health (NIH), Ontario Institute for Cancer Research (OICR).

The news reporters obtained a quote from the research from University Health Network, "A methodology is presented for matching of the histological sectioning angle and position to the in vivo imaging slices. Patients (n=4) with biochemical failure following external beam radiotherapy underwent diagnostic MRI to confirm localized recurrence of prostate cancer, followed by salvage radical prostatectomy. High-resolution 3-D MRI of the ex vivo specimens was acquired to determine the pathology sectioning angle that best matched the in vivo imaging slice plane, using matching anatomical features and implanted fiducials. A novel sectioning device was developed to guide sectioning at the correct angle, and to assist the insertion of reference dye marks to aid in histopathology reconstruction. The percentage difference in the positioning of the urethra in the ex vivo pathology sections compared to the positioning in in vivo images was reduced from 34% to 7% through slicing at the best match angle. Reference dye marks were generated, which were visible in ex vivo imaging, in the tissue
sections before and after processing, and in histology sections. The method achieved an almost fivefold reduction in the slice-matching error and is readily implementable in combination with standard MRI technology. The technique will be employed to generate datasets for correlation of whole-specimen prostate histopathology with in vivo diagnostic MRI using 3-D deformable registration, allowing assessment of the sensitivity and specificity of MRI parameters for prostate cancer."

According to the news reporters, the research concluded: "Although developed specifically for prostate, the method is readily adaptable to other types of whole tissue specimen, such as mastectomy or liver resection."

For more information on this research see: Technical Note: Method to correlate whole-specimen histopathology of radical prostatectomy with diagnostic MR imaging. Medical Physics, 2016;43(3):1065-72. Medical Physics can be contacted at: Amer Assoc Physicists Medicine Amer Inst Physics, Ste 1 No 1, 2 Huntington Quadrangle, Melville, NY 11747-4502, USA. (American Association of Physicists in Medicine - www.aapm.org; Medical Physics - online.medphys.org/)

Our news correspondents report that additional information may be obtained by contacting D.M. McGrath, Radiation Medicine Program, Princess Margaret Hospital, University Health Network, Toronto, Ontario M5G 2M9, Canada. Additional authors for this research include J. Lee, W.D. Foltz, N. Samavati, M.A. Jewett, T. van der Kwast, P. Chung, C. Menard and K.K Brock.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1118/1.4941016. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Medical Physics can be contacted at: Amer Assoc Physicists Medicine Amer Inst Physics, Ste 1 No 1, 2 Huntington Quadrangle, Melville, NY 11747-4502, USA.

Keywords for this news article include: Canada, Toronto, Ontario, Surgery, Oncology, Histology, Prostatectomy, Histopathology, Prostate Cancer, Prostatic Neoplasms, North and Central America, Diagnostics and Screening.

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Oncology - Prostate Cancer

Data on Prostate Cancer Discussed by Researchers at Cleveland State University (Effects of interferons and double-stranded RNA on human prostate cancer cell apoptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "Prostate cancer is the second most commonly diagnosed cancer among men in the United States. Prostate cancer therapy is severely hampered by lack of response and development of resistance to conventional chemotherapeutic drugs in patients."

The news reporters obtained a quote from the research from Cleveland State University, "Therefore, the development and discovery of new drugs have become an urgent clinical need. Interferons (IFNs), a family of pleiotropic cytokines, exert antitumor activities due
to their anti-proliferative, immunomodulatory and proapoptotic functions. Here, we report that pretreatment of prostate cancer PC-3 cells with IFNs sensitized these cells to double-stranded RNAs (dsRNAs)-induced apoptosis. The enhancement effect of IFN treatment was dependent on IFN subtypes, in particular, IFN \( \gamma \). In comparison with IFN \( \alpha \) or \( \beta \), IFN \( \gamma \) treatment remarkably augmented apoptosis in PC-3 cells induced with polyinosinic:polycytidylic acid (poly I:C), a synthesized form of dsRNA. We demonstrated that IFN-signaling was necessary for these effects by using mutant cell lines. Transfection of 2-5A, the activator of RNase L, or silencing of dsRNA-dependent protein kinase R (PKR) by siRNA did not have any significant impact on this event, suggesting that neither RNase L nor PKR was involved in poly I:C/IFN \( \gamma \)-induced apoptosis in the cells. Further investigation of the apoptotic pathway revealed that Bak, a pro-apoptotic member of the Bcl-2 family, was synergistically up-regulated by IFN \( \gamma \) and poly I:C, whereas other members of the family were not affected. Knocking down of Bak demonstrated its contribution to poly I:C/IFN \( \gamma \)-induced apoptosis in the cells.

According to the news reporters, the research concluded: "We believe our findings will precipitate the design of novel therapeutic strategies for prostate cancer."

For more information on this research see: Effects of interferons and double-stranded RNA on human prostate cancer cell apoptosis. *Oncotarget*, 2015;6(36):39184-95.

Our news correspondents report that additional information may be obtained by contacting H. Tan, Clinical Chemistry Program, Dept. of Chemistry, Cleveland State University, Cleveland, OH, United States. Additional authors for this research include C. Zeng, J. Xie, N.J. Alghamdi, Y. Song, H. Zhang, A. Zhou and D. Jin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5508. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Oncology, Cleveland, Apoptosis, Cytokines, Interferons, United States, Prostate Cancer, Prostatic Neoplasms, North and Central America, Intercellular Signaling Peptides and Proteins.

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results showed that capsaicin induced prostate cancer cell death in a time-and concentration-dependent manner, increased the levels of microtubule-associated protein light chain 3-II (LC3-II, a marker of autophagy) and the accumulation of the cargo protein p62 suggesting an autophagy blockage. Moreover, confocal microscopy revealed that capsaicin treatment increased lysosomes which co-localized with LC3 positive vesicles in a similar extent to that produced by the lysosomal protease inhibitors E64 and pepstatin pointing to an autophagolysosomes breakdown inhibition. Furthermore, we found that capsaicin triggered ROS generation in cells, while the levels of ROS decreased with N-acetyl-cysteine (NAC), a ROS scavenger. Co-treatment of cells with NAC and capsaicin abrogated the effects of capsaicin on autophagy and cell death."

According to the news editors, the research concluded: "Normal prostate PNT2 and RWPE-1 cells were more resistant to capsaicin-induced cytotoxicity and did not accumulate p62 protein. Taken together, these results suggest that ROS-mediated capsaicin-induced autophagy blockage contributes to antiproliferation in prostate cancer cells, which provides new insights into the anticancer molecular mechanism of capsaicin."

For more information on this research see: The pepper's natural ingredient capsaicin induces autophagy blockage in prostate cancer cells. Oncotarget, 2016;7(2):1569-83. Our news journalists report that additional information may be obtained by contacting A. Ramos-Torres, Dept. of System Biology, Biochemistry and Molecular Biology Unit, School of Medicine, Alcala University, Alcala de Henares 28871, Madrid, Spain. Additional authors for this research include A. Bort, C. Morell, N. Rodriguez-Henche and I. Diaz-Laviada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6415. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Madrid, Europe, Oncology, Capsaicin, Catechols, Hydrocarbons, Prostate Cancer, Organic Chemicals, Prostatic Neoplasms, Polyunsaturated Alkamides.

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Oncology - Prostate Cancer

Data on Prostate Cancer Discussed by Researchers at Western University (Pathological, Oncologic and Functional Outcomes of a Prospective Registry of Salvage High Intensity Focused Ultrasound Ablation for Radio-recurrent Prostate Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Prostate Cancer is the subject of a report. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "In this prospective registry we prospectively assessed the oncologic, functional and safety outcomes of salvage high intensity focused ultrasound for radio-recurrent prostate cancer. A total of 81 men were prospectively recruited and evaluated at regular scheduled study visits to 6 months after high intensity focused ultrasound and thereafter as per standard of care."

The news correspondents obtained a quote from the research from Western University, "Transrectal ultrasound guided biopsy was performed at 6 months. The primary end
point was absence or histological persistence of disease at 6-month biopsy. Secondary end points included quality of life, biochemical recurrence-free survival, overall survival, cancer specific survival and progression to androgen deprivation therapy. Survival analysis was performed according to the Kaplan-Meier method and multivariate analysis was performed using the log rank (Mantel-Cox) test. Mean +/- SD prostate specific antigen before high intensity focused ultrasound was 4.06 +/- 2.88 ng/ml. At 6 months 63 men underwent biopsy, of whom 22 (35%) had residual disease. At a mean followup of 53.5 +/- 31.6 months median biochemical recurrence-free survival was 63 months. The 5-year overall and cancer specific survival rates were 88% and 94.4%, respectively. Nadir prostate specific antigen less than 0.5 ng/ml was a significant predictor of biochemical recurrence-free survival (p = 0.014, 95% CI 1.22-5.87). I-PSS significantly increased (p < 0.001) while IIEF-5 scores decreased and the SF-36 score did not change significantly. The rate of rectal fistulization and severe incontinence was 3.7% each. A total of 223 complications were recorded in the 180 days after high intensity focused ultrasound (Clavien-Dindo grade I-195, grade II-20, grade III-7, grade IVa-1).

According to the news reporters, the research concluded: "Salvage high intensity focused ultrasound appears to be a viable treatment option for radio-recurrent prostate cancer, with acceptable morbidity."


Our news journalists report that additional information may be obtained by contacting J.L. Chin, Western Univ, Schulich Sch Med & Dental, Div Urol, London, United Kingdom. Additional authors for this research include M. Billia, A. Arifin, F. Li, P. Violette and J.L. Chin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.juro.2016.06.092. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Prostate-Specific Antigen, Biological Tumor Markers, Prostatic Neoplasms, Biological Factors, Prostate Cancer, Biochemicals, Biochemistry, Chemicals, Oncology, Western University.

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Oncology - Prostate Cancer

Data on Prostate Cancer Reported by Researchers at Mayo Clinic (Predictors of Time to Metastasis in Castration-resistant Prostate Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Prostate Cancer are discussed in a new report. According to news reporting out of Rochester, Minnesota, by NewsRx editors, research stated, "To investigate predictors of time to metastasis among men treated with androgen deprivation therapy for nonmetastatic prostate cancer who developed castration-resistant..."
prostate cancer (CRPC) within the Shared Equal Access Regional Cancer Hospital cohort. This is a retrospective analysis of 458 nonmetastatic CRPC men."

Our news journalists obtained a quote from the research from Mayo Clinic, "Metastases were detected in routine bone scans or other imaging tests. Predictors of time to metastasis were analyzed using proportional hazards model with CRPC as time zero. A total of 256 (56%) men were diagnosed with metastatic disease over a median follow-up of 36 months. Metastasis-free survival was 79%, 65%, 52%, 47%, and 41% at 1, 2, 3, 4, and 5 years after CRPC, respectively. In multivariable analysis, Gleason score 8-10 (hazard ratio [HR] = 1.61; P = .026), receiving primary localized treatment (HR = 1.38; P = .028), higher prostate-specific antigen (PSA) levels at CRPC diagnosis (logPSA HR = 1.64; P < .001), and PSA doubling time = 6 months (HR = 1.42; P = .040) were independently associated with shorter time to metastasis. Race, year of CRPC, age, and time from androgen deprivation therapy to CRPC were not associated with metastasis. Among nonmetastatic CRPC men, nearly 60% developed metastatic disease during the first 5 years, with most of the metastasis occurring within the first 3 years. Higher Gleason score, receiving primary treatment, higher PSA, and shorter PSA doubling time were independently associated with shorter time to metastasis."

According to the news editors, the research concluded: "Therefore, these variables can be used to stratify patients according to metastasis risk."

For more information on this research see: Predictors of Time to Metastasis in Castration-resistant Prostate Cancer. Urology, 2016;96():171-176. Urology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.06.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Prostate Specific Antigen, Enzymes and Coenzymes, Prostatic Neoplasms, Prostate Cancer, Oncology, Mayo Clinic.

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Oncology - Prostate Cancer

Data on Prostate Cancer Reported by X. Filella and Colleagues

[Prostate Cancer Detection and Prognosis: From Prostate Specific Antigen (PSA) to Exosomal Biomarkers]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Prostate specific antigen (PSA) remains the most used biomarker in the management of early prostate cancer (PCa), in spite of the problems related to false positive results and
overdiagnosis. New biomarkers have been proposed in recent years with the aim of increasing specificity and distinguishing aggressive from non-aggressive PCa."

Our news editors obtained a quote from the research, "The emerging role of the prostate health index and the 4Kscore is reviewed in this article. Both are blood-based tests related to the aggressiveness of the tumor, which provide the risk of suffering PCa and avoiding negative biopsies. Furthermore, the use of urine has emerged as a non-invasive way to identify new biomarkers in recent years, including the PCA3 and TMPRSS2:ERG fusion gene.

Available results about the PCA3 score showed its usefulness to decide the repetition of biopsy in patients with a previous negative result, although its relationship with the aggressiveness of the tumor is controversial. More recently, aberrant microRNA expression in PCa has been reported by different authors. Preliminary results suggest the utility of circulating and urinary microRNAs in the detection and prognosis of PCa."

According to the news editors, the research concluded: "Although several of these new biomarkers have been recommended by different guidelines, large prospective and comparative studies are necessary to establish their value in PCa detection and prognosis."

For more information on this research see: Prostate Cancer Detection and Prognosis: From Prostate Specific Antigen (PSA) to Exosomal Biomarkers. *International Journal of Molecular Sciences*, 2016;17(11):381-402. *International Journal of Molecular Sciences* can be contacted at: Mdp Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting X. Filella, IDIBAPS??Dept. of Biochem & Mol Genet CDB, Barcelona 08036, Catalonia, Spain.

Keywords for this news article include: Barcelona, Spain, Europe, Prostate-Specific Antigen, Article Review, Diagnostics and Screening, Risk and Prevention, Prostatic Secretory Proteins, Prostate Specific Antigen, Biological Tumor Markers, Enzymes and Coenzymes, Prostatic Neoplasms, Biological Factors, Peptide Hydrolases, Neoplasm Antigens, Serine Proteases, Cancer Detection, Prostate Cancer, Endopeptidases, Kallikreins, Immunology, Oncology.

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**Gram-Negative Bacteria - Proteus mirabilis**

**Data on Proteus mirabilis Detailed by Researchers at Sun Yat Sen University (Characterization of CTX-M-140, a Variant of CTX-M-14 Extended-Spectrum beta-Lactamase with Decreased Cephalosporin Hydrolytic Activity, from Cephalosporin-Resistant ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Proteus mirabilis have been published. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "CTX-M-140, a novel CTX-M-type extended-spectrum beta-lactamase (ESBL), was identified in cephalosporin-resistant clinical isolates of Proteus mirabilis. CTX-M-140 contained an alanine-to-threonine substitution at position 109 compared to its putative progenitor, CTX-M-14."

Our news journalists obtained a quote from the research from Sun Yat Sen University, "When it was expressed in an Escherichia coli isogenic background, CTX-M-140 conferred 4-to 32-fold lower MICs of cephalosporins than those with CTX-M-14, indicating that..."
the phenotype was attributable to this single substitution. For four mutants of CTX-M-14 that were constructed by site-directed mutagenesis (A109E, A109D, A109K, and A109R mutants), MICs of cephalosporins were similar to those for the E. coli host strain, which suggested that the alanine at position 109 was essential for cephalosporin hydrolysis. The kinetic properties of native CTX-M-14 and CTX-M-140 were consistent with the MICs for the E. coli clones. Compared with that of CTX-M-14, a lower hydrolytic activity against cephalosporins was observed for CTX-M-140. bla(CTX-M-140) is located on the chromosome as determined by I-CeuI pulsed-field gel electrophoresis (I-CeuIPFGE) and Southern hybridization. The genetic environment surrounding bla(CTX-M-140) is identical to the sequence found in different plasmids with blaCTX-M-9-group genes among the Enterobacteriaceae. Genome sequencing and analysis showed that P. mirabilis strains with bla(CTX-M-140) have a genome size of similar to 4 Mbp, with a GC content of 38.7% and 23 putative antibiotic resistance genes."

According to the news editors, the research concluded: "Our results indicate that alanine at position 109 is critical for the hydrolytic activity of CTX-M-14 against oxyimino-cephalosporins."

For more information on this research see: Characterization of CTX-M-140, a Variant of CTX-M-14 Extended-Spectrum beta-Lactamase with Decreased Cephalosporin Hydrolytic Activity, from Cephalosporin-Resistant Proteus mirabilis. *Antimicrobial Agents and Chemotherapy*, 2016;60(10):6121-6126. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from X. Huang, Sun Yat Sen UniversityMinist Educ, Key Lab Trop Dis Control, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include Y.Q. Jiang, Y.M. Huang, Y. Qin, L.Q. Feng, X.F. Zhang, H.Y. Li, L.L. Zhong, K.J. Zeng, S. Patil, Y. Xing and X. Huang.


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in the Tunisian population and to expand knowledge of CARD14 variants in the European population."

Financial supporters for this research include National Institutes of Health, University of Tunisia.

Our news journalists obtained a quote from the research, "CARD14 coding exons were resequenced in patients with psoriasis and controls from Tunisia and Europe, including 16 European cases with generalized pustular psoriasis (GPP). Novel variants were evaluated for their effect on nuclear factor (NF)-kB signalling. Rare variants in CARD14 were significantly enriched in Tunisian cases compared with controls. Three were collectively found in 5% of Tunisian cases, and all affected the N-terminal region of the protein harbouring its caspase recruitment domain or coiled-coil domain. These variants were c.349G >A (p.Gly117Ser), c.205C >T (p.Arg69Trp) and c.589G >A (p.Glu197Lys). c.589G >A (p.Glu197Lys) led to upregulation of NF-kB activity in a similar manner to that of previously described psoriasis-associated mutations. p.Arg69Trp led to sevenfold downregulation of NF-kB activity. One Tunisian case harboured a c.1356+5G >A splice alteration that is predicted to lead to loss of exon 9, which encodes part of the coiled-coil domain. No cases of GPP harboured an interleukin-36RN mutation, but one of 16 cases of GPP with a family history of psoriasis vulgaris harboured a c.1805C >T (p.Ser602Leu) mutation in CARD14."

According to the news editors, the research concluded: "These observations provide further insights into the genetic basis of psoriasis in the Tunisian population and provide functional information on novel CARD14 variants seen in cases from Tunisia and other populations."


The news correspondents report that additional information may be obtained from M. Ammar, Laboratoire de Genetique d'Immunologie et de Pathologies Humaines, Faculte des Sciences de Tunis, Universite Tunis El Manar, Tunis, Tunisia. Additional authors for this research include C.T. Jordan, L. Cao, E. Lim, C. Bouchlaka Souissi, A. Jrad, I. Omrane, S. Koudhi, I. Zarra, H. Anbunathan, M. Mokni, N. Doss, E. Guttman-Yassky, A.B. El Gaaied, A. Menter and A.M Bowcock.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjd.14158. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Africa, Tunisia, Caspase, Genetics, Psoriasis, Dermatology, Enzymes and Coenzymes, Papulosquamous Skin Diseases and Conditions.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Pulmonary Hypertension is now available. According to news originating from Los Angeles, California, by NewsRx correspondents, research stated, "This study aims to evaluate the safety and efficacy of transcatheter fenestrated ASD closure and to summarize the literature regarding the published techniques and outcomes of transcatheter partial ASD closure. Patients with left ventricular diastolic dysfunction (LVDD) or right ventricular (RV) dysfunction and/or pulmonary hypertension (PHT) may suffer untoward consequences of complete closure of an ostium secundum atrial septal defect (ASD)."

Our news journalists obtained a quote from the research from the University of California, "Therefore, for patients that fall under these categories we suggest partial occlusion of the defect, which may be better tolerated than complete defect closure. After obtaining IRB approval, a search for patients that have undergone percutaneous ASD closure was performed in the Ahmanson/UCLA Adult Congenital Heart Disease Center database to identify which patients received a fenestrated ASD closure device. Eight consecutive patients ranging between 22 and 83 years of age (mean 48 years) with PHT and/or LVDD or RV dysfunction who underwent fenestrated transcatheter ASD closure at UCLA were identified. None of the subjects experienced complications related to the procedure. Postprocedure clinical evaluation showed improvement in symptoms and exercise capacity. Available follow-up transthoracic echocardiography data (mean 4 months, range 0-20 months) demonstrated patent fenestrations in four of eight patients. None of the patients had thromboembolic or infectious complications and there were no device migrations, erosions or embolizations."

According to the news editors, the research concluded: "Partial ASD occlusion in patients with diastolic dysfunction or RV dysfunction and/or PHT is safe and may be better tolerated than complete ASD closure in selected patients."

For more information on this research see: Fenestrated Transcatheter ASD Closure in Adults with Diastolic Dysfunction and/or Pulmonary Hypertension: Case Series and Review of the Literature. Congenital Heart Disease, 2016;11(6):663-671. Congenital Heart Disease can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Congenital Heart Disease - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1747-0803)

The news correspondents report that additional information may be obtained from A. Abdelkarim, University of California, David Geffen Sch Med, Ahmanson UCLA Adult Congenital Heart Dis Center, Los Angeles, CA 90095, United States. Additional authors for this research include D.S. Levi, B. Tran, J. Ghobrial and J. Aboulhosn.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Cardiovascular Diseases and Conditions, Lung Diseases and Conditions, Cardiology, Article Review, Pulmonary Hypertension, Right Ventricular, University of California.

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Nanotechnology - Quantum Dots

Data on Quantum Dots Detailed by Researchers at University of Algarve (Environmental behaviour and ecotoxicity of quantum dots at various trophic levels: A review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nanotechnology - Quantum Dots have been published. According to news reporting originating in Faro, Portugal, by NewsRx journalists, research stated, "Despite the wide application of quantum dots (QDs) in electronics, pharmacy and nanomedicine, limited data is available on their environmental health risk. To advance our current understanding of the environmental impact of these engineered nanomaterials, the aim of this review is to give a detailed insight on the existing information concerning the behaviour, transformation and fate of QDs in the aquatic environment, as well as on its mode of action (MoA), ecotoxicity, trophic transfer and biomagnification at various trophic levels (microorganisms, aquatic invertebrates and vertebrates)."

Funders for this research include Science Without Borders Program, Portuguese Foundation for Science and Technology.

The news reporters obtained a quote from the research from the University of Algarve, "Data show that several types of Cd-based QDs, even at low concentrations (bmg Cd L-1), induce different toxic effects compared to their dissolved counterpart, indicating nano-specific ecotoxicity. QD ecotoxicity at different trophic levels is highly dependent on its physico-chemical properties, environmental conditions, concentration and exposure time, as well as, species, while UV irradiation increases its toxicity. The state of the art regarding the MoA of QDs according to taxonomic groups is summarised and illustrated. Accumulation and trophic transfer of QDs was observed in freshwater and seawater species, while limited biomagnification and detoxification processes were detected. Finally, current knowledge gaps are discussed and recommendations for future research identified."

According to the news reporters, the research concluded: "Overall, the knowledge available indicates that in order to develop sustainable nanotechnologies there is an urgent need to develop Cd-free QDs and new 'core-shell-conjugate' QD structures."


Our news correspondents report that additional information may be obtained by contacting M.J. Bebianno, University of Algarve, Fac Sci & Technol, CIMA, P-8005139 Faro, Portugal. Additional authors for this research include N.C. Mestre, S.M.T. Saboia-Morais and M.J. Bebianno.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.envint.2016.09.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Faro, Portugal, Europe, Quantum Physics, Article Review, Risk and Prevention, Emerging Technologies, Nanotechnology, Quantum Dots, University of Algarve.
Rare Diseases

Data on Rare Diseases Reported by Researchers at Yonsei University
(Rare high-impact disease variants: properties and identifications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Rare Diseases. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Although many genome-wide association studies have been performed, the identification of disease polymorphisms remains important. It is now suspected that many rare disease variants induce the association signal of common variants in linkage disequilibrium (LD)."

Our news journalists obtained a quote from the research from Yonsei University, "Based on recent development of genetic models, the current study provides explanations of the existence of rare variants with high impacts and common variants with low impacts. Disease variants are neither necessary nor sufficient due to gene-gene or gene-environment interactions. A new method was developed based on theoretical aspects to identify both rare and common disease variants by their genotypes. Common disease variants were identified with relatively small odds ratios and relatively small sample sizes, except for specific situations in which the disease variants were in strong LD with a variant with a higher frequency. Rare disease variants with small impacts were difficult to identify without increasing sample sizes; however, the method was reasonably accurate for rare disease variants with high impacts. For rare variants, dominant variants generally showed better Type II error rates than recessive variants; however, the trend was reversed for common variants. Type II error rates increased in gene regions containing more than two disease variants because the more common variant, rather than both disease variants, was usually identified."

According to the news editors, the research concluded: "The proposed method would be useful for identifying common disease variants with small impacts and rare disease variants with large impacts when disease variants have the same effects on disease presentation."

For more information on this research see: Rare high-impact disease variants: properties and identifications. Genetics Research, 2016;98():e6. (Cambridge University Press - journals.cambridge.org/action/displayJournal?jid=GRH)

Our news journalists report that additional information may be obtained by contacting L. Park, Natural Science Research Institute, Yonsei University, 134 Shinchon-Dong, Seodaemun-Gu, Seoul, 120-749, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S0016672316000033. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Genetics, South Korea, Rare Diseases and Conditions.

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Data on Retinitis Pigmentosa Described by Researchers at Institute of Ophthalmology (Mutations in REEP6 Cause Autosomal-Recessive Retinitis Pigmentosa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Eye Diseases and Conditions - Retinitis Pigmentosa. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "Retinitis pigmentosa (RP) is the most frequent form of inherited retinal dystrophy. RP is genetically heterogeneous and the genes identified to date encode proteins involved in a wide range of functional pathways, including photoreceptor development, phototransduction, the retinoid cycle, cilia, and outer segment development."

Funders for this research include Foundation Fighting Blindness, National Eye Institute, NEI, RP Fighting Blindness, Fight for Sight, The Wellcome Trust, The National Institute for Health Research (UK), Biomedical Research Centre at Moorfields Eye Hospital, UCL Institute of Ophthalmology, Fight for Sight UK, Moorfields Eye Hospital Special Trustees, Foundation Fighting Blindness - USA.

Our news journalists obtained a quote from the research from the Institute of Ophthalmology, "Here we report the identification of biallelic mutations in Receptor Expression Enhancer Protein 6 (REEP6) in seven individuals with autosomal-recessive RP from five unrelated families. REEP6 is a member of the REEP/Yop1 family of proteins that influence the structure of the endoplasmic reticulum but is relatively unstudied. The six variants identified include three frameshift variants, two missense variants, and a genomic rearrangement that disrupts exon 1. Human 3D organoid optic cups were used to investigate REEP6 expression and confirmed the expression of a retina-specific isoform REEP6.1, which is specifically affected by one of the frameshift mutations. Expression of the two missense variants (c.383C >T [p.Pro128Leu] and c.404T >C [p.Leu135Pro]) and the REEP6.1 frameshift mutant in cultured cells suggest that these changes destabilize the protein. Furthermore, CRISPR-Cas9-mediated gene editing was used to produce Reep6 knock-in mice with the p.Leu135Pro RP-associated variant identified in one RP-affected individual. The homozygous knock-in mice mimic the clinical phenotypes of RP, including progressive photoreceptor degeneration and dysfunction of the rod photoreceptors."

According to the news editors, the research concluded: "Therefore, our study implicates REEP6 in retinal homeostasis and highlights a pathway previously uncharacterized in retinal dystrophy."


The news correspondents report that additional information may be obtained from M.E. Cheetham, UCL, Inst Ophthalmol, London EC1V 9EL, United Kingdom. Additional authors for this research include S.A. Agrawal, A. Eblimit, J. Bellingham, M.C. Xu, F. Wang, C. Chakarova, D.A. Parfitt, A. Lane, T. Burgoyne, S. Hull, K.J. Carss, A. Fiorentino, M.J. Hayes, P.M. Munro, R. Nicols, N. Pontikos, G.E. Holder, C. Asomugha and Raymond.

The direct object identifier (DOI) for that additional information is:
Data on Retinopathy of Prematurity Detailed by Researchers at University of Adelaide (Adverse effects of red blood cell transfusions in neonates: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Eye Diseases and Conditions - Retinopathy of Prematurity. According to news reporting originating in Adelaide, Australia, by NewsRx journalists, research stated, "Controversy exists regarding the contribution of blood transfusions to a range of adverse clinical outcomes in neonates. The aim of our systematic review was to identify the broader literature on harmful effects and associations potentially attributable to red blood cell (RBC) transfusions."

The news reporters obtained a quote from the research from the University of Adelaide, "A comprehensive search of MEDLINE (PubMed) and EMBASE was undertaken. Eligible studies included both randomized controlled trials (RCTs) and nonrandomized studies examining the effects of small volume (10-20 mL/kg) RBC transfusions on neonates. Primary outcomes of interest were mortality, chronic lung disease, retinopathy of prematurity, necrotizing enterocolitis, and intraventricular hemorrhage. Two independent authors conducted a review of abstracts and then of full-text article reviews as well as data extraction and quality assessments. Sixty-one studies were eligible for inclusion, including 16 (26%) randomized studies. The majority of studies were nonrandomized (n = 45; 74%), which included 32 observational studies with and 13 studies without a comparator group. There was no evidence that rates of mortality differed between restrictive and liberal strategies for transfusion (eight RCTs: risk ratio, 1.24; 95% confidence interval, 0.89-1.672, heterogeneity = 0%) or for necrotizing enterocolitis (five RCTs: risk ratio, 1.45; 95% confidence interval, 0.91-2.33; heterogeneity = 0%). A liberal strategy also was not superior to restrictive transfusion practice in the pooled randomized studies for rates of retinopathy of prematurity, chronic lung disease, or intraventricular hemorrhage. Statistically significant differences in a range of harmful outcomes between neonates exposed to restrictive and liberal RBC transfusion practice were not found."

According to the news reporters, the research concluded: "However, the risks of bias identified in many studies and the lack of consistent reporting and definitions of events limits our conclusions."

Our news correspondents report that additional information may be obtained by contacting A. Keir, University of Adelaide, Sch Med, Adelaide, SA, Australia. Additional authors for this research include S. Pal, M. Trivella, L. Lieberman, J. Callum, N. Shehata and S.J. Stanworth.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Retinal Diseases and Conditions, Lung Diseases and Conditions, Eye Diseases and Conditions, Hemorrhage, Article Review, Retinopathy of Prematurity, Necrotizing Enterocolitis, Transfusion Medicine, Blood Transfusion, Medical Devices, Gastroenteritis, Ophthalmology, Cell Research, Blood Cells, University of Adelaide.

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Oncology - Rhabdomyosarcomas

Data on Rhabdomyosarcomas Reported by Researchers at University of Virginia (Fusion transcriptome profiling provides insights into alveolar rhabdomyosarcoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Rhabdomyosarcomas are discussed in a new report. According to news reporting from Charlottesville, Virginia, by NewsRx journalists, research stated, "Gene fusions and fusion products were thought to be unique features of neoplasia. However, more and more studies have identified fusion RNAs in normal physiology."

Financial supporters for this research include St. Baldrick's Foundation, HHS | NIH | National Cancer Institute (NCI).

The news correspondents obtained a quote from the research from the University of Virginia, "Through RNA sequencing of 27 human noncancer tissues, a large number of fusion RNAs were found. By analyzing fusion transcriptome, we observed close clusterings between samples of same or similar tissues, supporting the feasibility of using fusion RNA profiling to reveal connections between biological samples. To put the concept into use, we selected alveolar rhabdomyosarcoma (ARMS), a myogenic pediatric cancer whose exact cell of origin is not clear. PAX3-FOXO1 (paired box gene 3 fused with forkhead box O1) fusion RNA, which is considered a hallmark of ARMS, was recently found during normal muscle cell differentiation. We performed and analyzed RNA sequencing from various time points during myogenesis and uncovered many chimeric fusion RNAs. Interestingly, we found that the fusion RNA profile of RH30, an ARMS cell line, is most similar to the myogenesis time point when PAX3-FOXO1 is expressed. In contrast, full transcriptome clustering analysis failed to uncover this connection. Strikingly, all of the 18 chimeric RNAs in RH30 cells could be detected at the same myogenic time point(s). In addition, the seven chimeric RNAs that follow the exact transient expression pattern as PAX3-FOXO1 are specific to rhabdomyosarcoma cells. Further testing with clinical samples also confirmed their specificity to rhabdomyosarcoma."

According to the news reporters, the research concluded: "These results provide further support for the link between at least some ARMSs and the PAX3-FOXO1-expressing myogenic cells and demonstrate that fusion RNA profiling can be used to investigate the etiology of fusion-gene-associated cancers."

Our news journalists report that additional information may be obtained by contacting H. Li, University of Virginia, Center Canc, Charlottesville, VA 22908, United States. Additional authors for this research include M. Babiceanu, S. Kumar, Y.M. Jia, F.J. Qin, F.G. Barr and H. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1612734113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Charlottesville, Virginia, United States, North and Central America, Rhabdomyosarcomas, RNA Research, Genomics, Genetics, Oncology, University of Virginia.

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**Health and Medicine - Rural Health**

**Data on Rural Health Discussed by M.J. Rogers and Colleagues (Cancer diagnosed in the Emergency Department of a Regional Health Service)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Health and Medicine - Rural Health are discussed in a new report. According to news originating from Geelong, Australia, by NewsRx correspondents, research stated, "Patients diagnosed with cancer in the Emergency Department (ED) have more advanced disease at diagnosis and poorer outcomes. High rates of initial presentation to ED suggest potential problems with access to care."

Our news journalists obtained a quote from the research, "The aim of this project was to interpret findings in regional/rural Victoria and explore implications for practice. Cross-sectional study linking two independent data sets. Regional city of Geelong and surrounding rural areas in south-west Victoria. All newly diagnosed cancer patients in 2009. Number of cancer patients diagnosed in the ED. One in five newly diagnosed cancer patients present to ED 6 months prior to cancer diagnosis. One in 10 is diagnosed as a result of their ED visit. Patients presenting to ED were older, more often men and from disadvantaged areas. Symptoms on presentation included chest complaints, bowel obstruction, abdominal pain, anaemia and generalised weakness. Cancer diagnosed in the ED is associated with advanced stage and shorter survival. Reasons for presentation to ED would be multifactorial and include complex cases with coexisting symptoms making diagnosis difficult. The general public appear to have a low level of awareness of alternative primary care services or difficulty accessing such information."

According to the news editors, the research concluded: "Some of the changes towards reducing the number of patients presenting to ED will include patient education."

For more information on this research see: Cancer diagnosed in the Emergency Department of a Regional Health Service. *The Australian Journal of Rural Health*, 2016;24

The news correspondents report that additional information may be obtained from M.J. Rogers, Barwon South Western Regional Integrated Cancer Services, Barwon Health, Geelong, Victoria, Australia. Additional authors for this research include L.M. Matheson, B. Garrard, V. Mukaro, S. Riches, M. Sheridan, D. Ashley and G. Pitson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ajr.12280. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Geelong, Oncology, Rural Health, Health and Medicine, Australia and New Zealand, Diagnostics and Screening.

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Salicylic Acids

Data on Salicylic Acids Reported by F. Gengo and Colleagues (Platelet response to increased aspirin dose in patients with persistent platelet aggregation while treated with aspirin 81 mg)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Salicylic Acids have been published. According to news reporting out of Buffalo, New York, by NewsRx editors, research stated, "This study demonstrates that patients who are taking 81 mg of aspirin and are nonresponsive benefit from a dose of 162 mg or greater vs a different antiplatelet therapy. We identified 100 patients who were nonresponsive to aspirin 81 mg via whole blood aggregometry and observed how many patients became responsive at a dose of 162 mg or greater."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research, "Platelet nonresponsiveness was defined as >10 O of resistance to collagen 1 ?g/mL and/or an ohms ratio of collagen 1 ?g/mL to collagen 5 ?g/mL >0.5 and/or >6 O to arachidonate. Borderline response was defined as an improvement in 1 but not both of the above criteria. Of the initial 100 patients who were nonresponsive to an aspirin dose of 81 mg, 79% became responsive at a dose of 162 mg or >162 mg. Only 6% did not respond to any increase in dose. We believe that patients treated with low-dose aspirin who have significant risk for secondary vascular events should be individually assessed to determine their antiplatelet response."

According to the news editors, the research concluded: "Those found to have persistent platelet aggregation despite treatment with 81 mg of aspirin have a higher likelihood of obtaining an adequate antiplatelet response at a higher aspirin dose."

For more information on this research see: Platelet response to increased aspirin dose in patients with persistent platelet aggregation while treated with aspirin 81 mg. Journal of Clinical Pharmacology, 2015;56(4):414-21. Journal of Clinical Pharmacology can be contacted at: SAGE Publications, USA , 2455 Teller Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com/; Journal of Clinical Pharmacology - jcp.sagepub.com)

Our news journalists report that additional information may be obtained by contacting F. Gengo, Dental Neurologic Institute, Buffalo, NY, United States. Additional authors for this research include E.S. Westphal, M.M. Rainka, M. Janda, M.J. Robson, J.M. Hourihane and V. Bates.
Data on Science Detailed by Researchers at Ajou University (A structural insight into the negative effects of opioids in analgesia by modulating the TLR4 signaling: An in silico approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news reporting originating from Suwon, South Korea, by NewsRx correspondents, research stated, "Opioids are considered the gold standard therapy for pain. However, TLR-dependent negative effects in analgesia have highlighted the complexities in the pharmacodynamics of opioids."

Our news editors obtained a quote from the research from Ajou University, "While successive studies have reported that morphine and Morphine-3-glucuronide (M3G) activate the TLR4 pathway, the structural details of this mechanism are lacking. Here, we have utilized various computational tools to reveal the structural dynamics of the opioid-bound TLR4/MD2 complex, and have proposed a potential TLR4 activation mechanism. Our results support previous findings, and include the novel insight that the stable binding of morphine and naloxone, but not M3G, in the MD2 cavity, is TLR4 dependent."

According to the news editors, the research concluded: "Morphine interacts with MD2 near its Phe126 loop to induce the active conformation (MD2(C)); however, this binding is likely reversible, and the complex gains stability upon interaction with TLR4."

For more information on this research see: A structural insight into the negative effects of opioids in analgesia by modulating the TLR4 signaling: An in silico approach. Scientific Reports, 2016;6():1-15. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting S. Choi, Ajou University, Dept. of Mol Sci & Technol, Suwon 443749, South Korea. Additional authors for this research include M.A. Anwar, D. Yesudhas, J. Krishnan and S. Choi.

Keywords for this news article include: Suwon, South Korea, Asia, Science, Ajou University.

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Data on Science Detailed by Researchers at University of Leicester
(Structural basis of N-Myc binding by Aurora-A and its destabilization by kinase inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science have been published. According to news reporting originating from Leicester, United Kingdom, by NewsRx correspondents, research stated, "Myc family proteins promote cancer by inducing widespread changes in gene expression. Their rapid turnover by the ubiquitin-proteasome pathway is regulated through phosphorylation of Myc Box I and ubiquitination by the E3 ubiquitin ligase SCFFbxW7."

Financial supporters for this research include Cancer Research UK, EC | European Research Council (ERC).

Our news editors obtained a quote from the research from the University of Leicester, "However, N-Myc protein (the product of the MYCN oncogene) is stabilized in neuroblastoma by the protein kinase Aurora-A in a manner that is sensitive to certain Aurora-A-selective inhibitors. Here we identify a direct interaction between the catalytic domain of Aurora-A and a site flanking Myc Box I that also binds SCFFbxW7. We determined the crystal structure of the complex between Aurora-A and this region of N-Myc to 1.72-angstrom resolution. The structure indicates that the conformation of Aurora-A induced by compounds such as ali-sertib and CD532 is not compatible with the binding of N-Myc, explaining the activity of these compounds in neuroblastoma cells and providing a rational basis for the design of cancer therapeutics optimized for destabilization of the complex."

According to the news editors, the research concluded: "We also propose a model for the stabilization mechanism in which binding to Aurora-A alters how N-Myc interacts with SCFFbxW7 to disfavor the generation of Lys48-linked polyubiquitin chains."


The news editors report that additional information may be obtained by contacting R. Bayliss, University of Leicester, Dept. of Canc Studies, Leicester LE1 9HN, Leics, United Kingdom. Additional authors for this research include S.G. Burgess, E. Poon, A. Carstensen, M. Eilers, L. Chesler and R. Bayliss.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1610626113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leicester, United Kingdom, Europe, Science, Enzymes and Coenzymes, Genetics, Kinase, University of Leicester.

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Data on Science Reported by Researchers at Mahidol University
(Undiluted Serum Eye Drops for the Treatment of Persistent Corneal Epithelial Defects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science have been published. According to news reporting originating in Bangkok, Thailand, by NewsRx journalists, research stated, "Several studies found that 50-100% serum eye drops provided greater benefits without inducing detrimental effects on the corneal epithelial healing. This study assessed the efficacy of undiluted serum eye drops for the treatment of persistent corneal epithelial defects (PED)."

The news reporters obtained a quote from the research from Mahidol University, "A total of 109 eyes received 100% serum eye drops for PED were recruited into this study. The data were compared with an historical control group of 79 eyes with PED who received conventional treatments from 2006-2011 at the same institution. Main outcome measures were complete healing of PED and incidence of adverse events. No significant difference in demographics between the 2 groups was noted. The success rate of the treatment and control groups were 87.16% (95% CI 0.79-0.93) and 69.62% (95% CI 0.59-0.80) (P = 0.001), respectively. The median time to complete epithelialization was 14 days (95% CI 12-21) in the treatment group and 28 days (95% CI 21-59) in the control group (P = 0.001). Serum treatment, primary diagnosis of non-limbal stem cell deficiency etiology, and prior contact lens wear significantly correlated with the corneal re-epithelialization. There were no serious side effects encountered during the study period."

According to the news reporters, the research concluded: "Undiluted serum therapy is effective and safe for treating PED."

For more information on this research see: Undiluted Serum Eye Drops for the Treatment of Persistent Corneal Epithelial Defects. Scientific Reports, 2016;6():1-7. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting K. Lekhanont, Mahidol University, Ramathibodi Hosp, Dept. of Ophthalmol, Bangkok, Thailand. Additional authors for this research include P. Jongkhajornpong, T. Anothaisintawee and V. Chuckpaiwong.

Keywords for this news article include: Bangkok, Thailand, Asia, Science, Mahidol University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Sclerosing Cholangitis have been published. According to news reporting originating in Erlangen, Germany, by NewsRx editors, the research stated, "Primary biliary cirrhosis (PBC) and primary sclerosing cholangitis (PSC) represent the major clinical entities of chronic cholestatic liver diseases. Both disorders are characterized by portal inflammation and slowly progress to obliterative fibrosis and eventually liver cirrhosis."

The news reporters obtained a quote from the research from Friedrich-Alexander-University, "Although immune-pathogenic mechanisms have been implicated in the pathogenesis of PBC and PSC, neither disorder is considered to be a classical autoimmune disease, as PSC and PBC patients do not respond to immune-suppressants. Furthermore, the decreased bile flow resulting from the immune-mediated tissue assault and the subsequent accumulation of toxic bile products in PBC and PSC not only perpetuates biliary epithelial damage, but also alters the composition of the intestinal and biliary microbiota and its mutual interactions with the host. Consistent with the close association of PSC and inflammatory bowel disease (IBD), the polyclonal hyper IgM response in PBC and (auto-) antibodies which cross-react to microbial antigens in both diseases, an expansion of individual microbes leads to shifts in the composition of the intestinal or biliary microbiota and a subsequent altered integrity of epithelial layers, promoting microbial translocation. These changes have been implicated in the pathogenesis of both devastating disorders."

According to the news reporters, the research concluded: "Thus, we will discuss here these recent findings in the context of novel and alternative therapeutic options."

For more information on this research see: Impact of Microbes on the Pathogenesis of Primary Biliary Cirrhosis (PBC) and Primary Sclerosing Cholangitis (PSC). *International Journal of Molecular Sciences*, 2016;17(11):1528-1538. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting J. Mattner, Friedrich Alexander Univ FAU Erlangen Nurnberg, D-91054 Erlangen, Germany.

Keywords for this news article include: Erlangen, Germany, Europe, Digestive System Diseases and Conditions, Biliary Tract Diseases and Conditions, Bile Duct Diseases and Conditions, Biliary Diseases and Conditions, Primary Sclerosing Cholangitis, Primary Biliary Cirrhosis, Genetics, Article Review, Gastroenterology, Friedrich-Alexander-University.

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Enzymes and Coenzymes - Serine Endopeptidases

Data on Serine Endopeptidases Detailed by Researchers at School of Medicine (Prediction of cardiovascular events with levels of proprotein convertase subtilisin/kexin type 9: A systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Serine Endopeptidases. According to news reporting from Athens, Greece, by NewsRx journalists,
research stated, "Inhibition of proprotein convertase subtilisin/kexin type 9 (PCSK9) reduces atherogenic lipoproteins and could lead to reduction of cardiovascular (CV) events. However, it is unclear whether blood PCSK9 levels predict future CV events."

The news correspondents obtained a quote from the research from the School of Medicine, "We performed a meta-analysis of all longitudinal studies to determine the ability of PCSK9 levels to predict risk of future CV events. A comprehensive search of electronic databases was conducted up to February 2016. Longitudinal studies that reported events or relative risk (RR) estimates with 95% confidence intervals (CI) were included. All 9 studies included (12,081 participants, mean follow-up 6.62 years) reported results on total CV events. The pooled RR of total CV events for an increase in baseline PCSK9 by 1 standard deviation (SD) was 1.098 (95% CI, 1.02-1.18), corresponding to a risk increase of 10% (Z = 2.43, p = 0.015). The pooled RR of total CV events for subjects categorized in the highest tertile of baseline PCSK9 was 1.228 (95% CI, 1.035-1.457), corresponding to a risk increase of 23% (Z = 2.35, p = 0.019). When pooled estimates were derived independently for low- and high-CV risk populations, baseline PCSK9 levels predicted total CV events only in apparently healthy subjects (RR = 1.13, 95% CI: 1.050-1.222, Z = 3.21, p = 0.001) and not in populations with established CV or renal disease (RR = 1.09, 95% CI: 0.961-1.23, Z = 1.33, p = 0.182). PCSK9 levels are modestly but significantly associated with increased risk of total CV events."

According to the news reporters, the research concluded: "These results suggest a predictive role of PCSK9 levels on CV health and support the possible clinical role of PCSK9 inhibitors."

For more information on this research see: Prediction of cardiovascular events with levels of proprotein convertase subtilisin/kexin type 9: A systematic review and meta-analysis. Atherosclerosis, 2016;252():50-60. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting C. Vlachopoulos, Hippokrateion Hospital, Athens Med Sch, Dept. of Cardiol 1, Hypertens & Cardiometabol Unit, Athens, Greece. Additional authors for this research include D. Terentes-Printzios, G. Georgiopoulos, I. Skoumas, I. Koutagiar, N. Ioakeimidis, C. Stefanadis and D. Tousoulis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.922. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Athens, Greece, Europe, Convertase, Article Review, Proprotein Convertases, Enzymes and Coenzymes, Serine Endopeptidases, Peptide Hydrolases, Serine Proteases, Cardiovascular, Subtilisins, Cardiology, School of Medicine.

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news originating from London, United Kingdom, by NewsRx correspondents, research stated, "Terrestrial solar ultraviolet radiation (UVR) exerts both beneficial and adverse effects on human skin. Epidemiological studies show a lower incidence of skin cancer in people with pigmented skins compared to fair skins."

Financial supporters for this research include Walgreens Boots Alliance, UK, National Institute for Health Research, King’s College London.

Our news journalists obtained a quote from the research from King's College, "This is attributed to photoprotection by epidermal melanin, as is the poorer vitamin D status of those with darker skins. We summarize a wide range of photobiological responses across different skin colours including DNA damage and immunosuppression. Some studies show the generally modest photoprotective properties of melanin, but others show little or no effect. DNA photodamage initiates non-melanoma skin cancer and is reduced by a factor of about 3 in pigmented skin compared with white skin. This suggests that if such a modest reduction in DNA damage can result in the significantly lower skin cancer incidence in black skin, the use of sunscreen protection might be extremely beneficial for susceptible population. Many contradictory results may be explained by protocol differences, including differences in UVR spectra and exposure protocols."

According to the news editors, the research concluded: "We recommend that skin type comparisons be done with solar-simulated radiation and standard erythema doses or physical doses (J/m(2)) rather than those based solely on clinical endpoints such as minimal erythema dose (MED)."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/pcmr.12511. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Skin and Connective Tissue Diseases and Conditions, Cancer, Article Review, Epidemiology, Skin Diseases and Conditions, Skin Neoplasms, Skin Cancer, Oncology, Genetics, Erythema, King's College.

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**Small Interference RNAs (siRNAs)**

**Data on Small Interference RNAs (siRNAs) Detailed by Researchers at Chongqing University (Stimuli-responsive hybrid nanocarriers developed by controllable integration of hyperbranched PEI with mesoporous silica nanoparticles for sustained ...)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Small Interference RNAs (siRNAs) is now available. According to news reporting from Chongqing, People's Republic of China, by NewsRx journalists, research stated, "Small interfering RNA (siRNA) is a highly potent drug in gene-based therapy with the challenge being to deliver it in a sustained manner. The combination of mesoporous silica nanoparticles (MSNs) and polycations in the confined pore space allows for incorporation and controlled release of therapeutic siRNA payloads."

The news correspondents obtained a quote from the research from Chongqing University, "We hereby constructed MSNs with expanded mesopores and pore-surface-hyperbranched poly(ethyleneimine) (PEI) tethered with redox-cleavable linkers that could carry a high payload of siRNA (120 mg center dot g(-1)). The developed nanocarriers were efficiently taken up by cancer cells and were subsequently able to escape to the cytoplasm from the endosomes, most likely owing to the integrated PEI. Triggered by the intracellular redox conditions, the siRNA was sustainably released inside the cells over a period of several days. Functionality of siRNAs was demonstrated by using cell-killing siRNA as cargo. Despite not being the aim of the developed system, in vitro experiments using cell-killing siRNAs showed that the efficacy of siRNA transfection was comparable to the commercial in vitro transfection agent Lipofectamine."

According to the news reporters, the research concluded: "Consequently, the developed MSN-based delivery system offers a potential approach to hybrid nanocarriers for more efficient and long-term siRNA delivery and, in a longer perspective, in vivo gene silencing for RNA interference (RNAi) therapy."

For more information on this research see: Stimuli-responsive hybrid nanocarriers developed by controllable integration of hyperbranched PEI with mesoporous silica nanoparticles for sustained intracellular siRNA delivery. International Journal of Nanomedicine, 2016;11():6591-6608. International Journal of Nanomedicine can be contacted at: Dove Medical Press Ltd, PO Box 300-008, Albany, Auckland 0752, New Zealand.

Our news journalists report that additional information may be obtained by contacting J.X. Zhang, Chongqing Univ, Coll Bioengn, Chongqing 400044, People's Republic of China. Additional authors for this research include J.X. Zhang, D. Desai, E. Casals, T. Gulin-Sarfraz, T. Nareoja, J. Westermarck and J.M. Rosenholm.

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Keywords for this news article include: Chongqing, People's Republic of China, Asia, Small Interference RNAs (siRNAs), Small Interference RNAs, Emerging Technologies, Nanotechnology, Biotechnology, Nanoparticle, Nanocarriers, Genetics, siRNA, Chongqing University.

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Health and Medicine - Spinal Research

Data on Spinal Research Reported by Researchers at Department of Orthopedic Surgery (The role of preoperative vascular embolization in surgery for metastatic spinal tumours)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Spinal Research have been published. According to news reporting originating in Singapore, Singapore, by NewsRx journalists, research stated, "To determine the effect of preoperative embolization on intraoperative blood loss in surgery for metastatic spinal tumours stratified by tumour type, type of surgical approach and extent of surgery. We retrospectively analysed 218 patients undergoing open surgery for metastatic spine tumours in our institution between 2005 and 2014."

The news reporters obtained a quote from the research from the Department of Orthopedic Surgery, "The cohort was divided to those who underwent preoperative embolization and those who did not. The patients were further stratified into different subgroups by tumour types, types of surgical procedure, levels of instrumentation and levels of decompression. Estimated blood loss, duration of surgery and length of hospital stay were compared between emboziled and non-embolized cases in each subgroup. The impact of embolization extent, the time gap between embolization and index surgery on blood loss were also studied. Preoperative embolization was performed in 45 out of 218 patients. Non-embolized cases had insignificantly lesser blood loss and shorter duration of surgery compared to embolized cases in all subgroups. Embolization, however, conferred reduction in length of hospital stay in some of the subgroups, yet the differences were not significant. The patients who achieved total embolization bled less than those who achieved subtotal or partial embolization."

According to the news reporters, the research concluded: "The effectiveness of the embolization procedure in reducing intraoperative blood loss was found to be profound when the gap between embolization and surgery was within 24 h. Our study demonstrated that success of embolization in reducing blood loss depends on the extent of embolization and time interval between embolization and index surgery."

For more information on this research see: The role of preoperative vascular embolization in surgery for metastatic spinal tumours. European Spine Journal, 2016;25 (12):3962-3970. European Spine Journal can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Spine Journal - www.springerlink.com/content/0940-6719/)

Our news correspondents report that additional information may be obtained by contacting N. Kumar, Univ Orthopaed Hand & Reconstruct Microsurg Clust, Dept. of Orthopaed Surg, Singapore 119228, Singapore. Additional authors for this research include B. Tan, A.S. Zaw, H.E. Khine, K. Maharajan, L.L. Lau, P.C. Rajendran and A. Gopinathan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00586-016-4494-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Singapore, Singapore, Asia, Spinal Research, Health and Medicine, Embolization, Angiology, Hospital, Surgery, Department of Orthopedic Surgery.

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Data on Spinocerebellar Ataxias Described by Researchers at Complutense University (Dysregulation Of The Endocannabinoid Signaling System In The Cerebellum And Brainstem In A Transgenic Mouse Model Of Spinocerebellar Ataxia Type-3)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Neurodegenerative Diseases and Conditions - Spinocerebellar Ataxias have been presented. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "Spinocerebellar ataxia type-3 (SCA-3) is a rare disease but it is the most frequent type within the autosomal dominant inherited ataxias. The disease lacks an effective treatment to alleviate major symptoms and to modify disease progression."

Funders for this research include MICINN, CIBERNED.

The news reporters obtained a quote from the research from Complutense University, "Our recent findings that endocannabinoid receptors and enzymes are significantly altered in the post-mortem cerebellum of patients affected by autosomal-dominant hereditary ataxias suggest that targeting the endocannabinoid signaling system may be a promising therapeutic option. Our goal was to investigate the status of the endocannabinoid signaling system in a transgenic mouse model of SCA-3, in the two CNS structures most affected in this disease cerebellum and brainstem. These animals exhibited progressive motor incoordination, imbalance, abnormal gait, muscle weakness, and dystonia, in parallel to reduced in vivo brain glucose metabolism, deterioration of specific neuron subsets located in the dentate nucleus and pontine nuclei, small changes in microglial morphology, and reduction in glial glutamate transporters. Concerning the endocannabinoid signaling, our data indicated no changes in CB2 receptors. By contrast, CB1 receptors increased in the Purkinje cell layer, in particular in terminals of basket cells, but they were reduced in the dentate nucleus. We also measured the levels of endocannabinoid lipids and found reductions in anandamide and oleoylethanolamide in the brainstem. These changes correlated with an increase in the FAAH enzyme in the brainstem, which also occurred in some cerebellar areas, whereas other endocannabinoid-related enzymes were not altered."

According to the news reporters, the research concluded: "Collectively, our results in SCA-3 mutant mice confirm a possible dysregulation in the endocannabinoid system in the most important brain structures affected in this type of ataxia, suggesting that a pharmacological manipulation addressed to correct these changes could be a promising option in SCA-3."

For more information on this research see: Dysregulation Of The Endocannabinoid Signaling System In The Cerebellum And Brainstem In A Transgenic Mouse Model Of Spinocerebellar Ataxia Type-3. Neuroscience, 2016;339():191-209. Neuroscience can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Neuroscience - www.journals.elsevier.com/neuroscience/)

Our news correspondents report that additional information may be obtained by contacting M. Gomez-Ruiz, Univ Complutense, Fac Psicol, Dept. of Psicobiol, Madrid, Spain. Additional authors for this research include M. Hernandez-Galvez, C.J. Hillard, P. Maciel, L. Garcia-Garcia, S. Valdeolivas, M.A. Pozo, J.A. Ramos, M. Gomez-Ruiz and J. Fernandez-Ruiz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neuroscience.2016.09.046. This DOI is a link to an online electronic
Data on Spinocerebellar Ataxias Reported by Researchers at Taipei Medical University (Depression as the Primary Cause of Insomnia and Excessive Daytime Sleepiness in a Family with Multiple Cases of Spinocerebellar Ataxia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Spinocerebellar Ataxias. According to news originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Spinocerebellar ataxia (SCA) is a hereditary disease characterized by central nervous system-related motor dysfunctions. Sleep disorders and frequent non-motor manifestations are commonly comorbid with SCA."

Our news journalists obtained a quote from the research from Taipei Medical University, "To elucidate this relationship, we present three cases in a family that included multiple SCA type 2 patients with various sleep disorders. Complete physical examination, and genetic and imaging studies were performed. Anti-parkinsonism medications were prescribed after neurological examination. Clonazepam and/or quetiapine were administered for sleep disorders but failed to resolve insomnia and excessive daytime sleepiness (EDS). Based on DSM-5 criteria, all cases were diagnosed with depression. After treatment with serotonin-norepinephrine reuptake inhibitors and noradrenergic and specific serotonergic antidepressants, symptoms of insomnia and EDS, which are strongly associated with depression in SCA type 2 patients, improved significantly."

According to the news editors, the research concluded: "It is crucial to recognize insomnia and EDS in neurodegenerative diseases, not only for earlier diagnosis, but also to improve quality of life."

For more information on this research see: Depression as the Primary Cause of Insomnia and Excessive Daytime Sleepiness in a Family with Multiple Cases of Spinocerebellar Ataxia. *Journal of Clinical Sleep Medicine*, 2016;12(7):1059-1061. *Journal of Clinical Sleep Medicine* can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.

The news correspondents report that additional information may be obtained from I.C. Liu, Taipei Medical University, Sch Med, Dept. of Psychiat, Coll Med, Taipei, Taiwan. Additional authors for this research include Y.L. Chen, D. Pei, S.M. Yu and I.C. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.5950. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Taipei, Taiwan, Asia, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Spinal Cord Diseases and Conditions, Cerebellar Diseases and Conditions, Sleep Diseases and Conditions, Spinocerebellar Degenerations, Brain Diseases and Conditions, Neurologic Manifestations, Sleep Disorders, Neurology, Genetics, Taipei Medical University.

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Oncology - Squamous Cell Carcinoma

Data on Squamous Cell Carcinoma Discussed by Researchers at Chiba University (Regulation of MMPI3 by antitumor microRNA-375 markedly inhibits cancer cell migration and invasion in esophageal squamous cell carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Squamous Cell Carcinoma is the subject of a report. According to news reporting originating from Chiba, Japan, by NewsRx correspondents, research stated, "Esophageal squamous cell carcinoma (ESCC) is one of the most aggressive malignancies. Recently developed molecular targeted therapies are not available for patients with ESCC."

Our news editors obtained a quote from the research from Chiba University, "After curative surgical resection, patients frequently suffer distant metastasis and recurrence. Exploration of novel ESCC metastatic pathways may lead to the development of new treatment protocols for this disease. Accordingly, we have sequentially identified microRNA (miRNA)-mediated metastatic pathways in several cancers. Our past studies of miRNA expression signatures have shown that microRNA-375 (miR-375) is frequently reduced in several types of cancers, including ESCC. In the present study, we aimed to investigate novel miR-375-mediated metastatic pathways in ESCC cells. The expression of miR-375 was downregulated in ESCC tissues, and ectopic expression of this miRNA markedly inhibited cancer cell migration and invasion, suggesting that miR-375 acted as an antimetastatic miRNA in ESCC cells. Our strategies for miRNA target searching demonstrated that matrix metalloproteinase 13 (MMP13) was directly regulated by miR-375 in ESCC cells. Overexpression of MMP13 was observed in ESCC clinical tissues, and the expression of MMP13 promoted cancer cell aggressiveness. Moreover, oncogenic genes, including CENPF, KIF14 and TOP2A, were shown to be regulated downstream of MMP13. Taken together, these findings demonstrated that the antitumor miR-375/oncogenic MMP13 axis had a pivotal role in ESCC aggressiveness."

According to the news editors, the research concluded: "These results provide novel insights into the potential mechanisms of ESCC pathogenesis."


The news editors report that additional information may be obtained by contacting N. Seki, Chiba University, Grad Sch Med, Dept. of Funct Genom, Chuo Ku, Chiba 2608670,

Keywords for this news article include: Chiba, Japan, Asia, Squamous Cell Carcinoma, Drugs and Therapies, Cancer Gene Therapy, Biotechnology, Carcinomas, Oncology, Genetics, Chiba University.

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Oncology - Squamous Cell Carcinoma

Data on Squamous Cell Carcinoma Reported by Researchers at Birmingham Women's NHS Foundation Trust (Over-expression of DNMT3A predicts the risk of recurrent vulvar squamous cell carcinomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Squamous Cell Carcinoma have been published. According to news reporting out of Birmingham, United Kingdom, by NewsRx editors, research stated, "Cancer initiation and progression has been linked to aberrant expression of the DNA methyltransferases (DNMT), the enzymes which establish and maintain DNA methylation patterns throughout the genome. In this study, we investigated if DNMT expression in vulvar squamous cell carcinomas (VSCC) was related to clinical outcome."

Our news journalists obtained a quote from the research from Birmingham Women's NHS Foundation Trust, "DNMT1, DNMT3A and DNMT3B expression was measured in a subset of cases drawn from a cohort of consecutive women treated for primary VSCC at the Pan Birmingham Gynaecological Cancer Centre between 2001 and 2008. Univariable and multivariable competing risk modelling was performed to identify whether DNMT expression was associated with local disease recurrence or disease morbidity. Over-expression of DNMT3A in the invasive component of the tumour was seen in 44% of tumours and was associated with an increased risk of local vulvar recurrence (LVR) (HR = 4.51, p = 0.012). This risk was found to increase further after adjustment for disease stage (HR = 6.00, p = 0.003) and groin node metastasis (HR = 4.81, p = 0.008). Over-expression of DNMT3B was associated with an increased risk of LVR (HR = 5.69 p = 0.03), however this ceased to be significant after adjustment for groin node metastasis. In a subset analysis, over-expression of DNMT3A was found to be significantly more common in VSCCs that stained negative for CDKN2A."

According to the news editors, the research concluded: "These observations are consistent with the possibility that epigenetic changes contribute to vulvar neoplasia and DNMT3A over-expression may be useful in predicting local disease recurrence."


Our news journalists report that additional information may be obtained by contacting R. Ganesan, Birmingham Womens NHS Fdn Trust, Birmingham B15 2TG, W Midlands, United Kingdom. Additional authors for this research include M. Pereira, R. Fox, N.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.09.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Squamous Cell Carcinoma, Carcinomas, Oncology, Genetics, Birmingham Women's NHS Foundation Trust.

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Gram-Positive Bacteria - Staphylococcus aureus

Data on Staphylococcus aureus Described by Researchers at University of Texas (In Vitro Assessment of the Antimicrobial Efficacy of Optimized Nitroglycerin-Citrate-Ethanol as a Nonantibiotic, Antimicrobial Catheter Lock Solution for Prevention ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Positive Bacteria - Staphylococcus aureus have been presented. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "The rapid, broad-spectrum, biofilm-eradicating activity of the combination of 0.01% nitroglycerin, 7% citrate, and 20% ethanol and its potential as a nonantibiotic, antimicrobial catheter lock solution (ACLS) were previously reported. Here, a nitroglycerincitrate-ethanol (NiCE) ACLS optimized for clinical assessment was developed by reducing the nitroglycerin and citrate concentrations and increasing the ethanol concentration."

The news reporters obtained a quote from the research from the University of Texas, "Biofilm-eradicating activity was sustained when the ethanol concentration was increased from 20 to 22% which fully compensated for reducing the citrate concentration from 7% to 4% as well as the nitroglycerin concentration from 0.01% to 0.0015% or 0.003%. The optimized formulations demonstrated complete and rapid (2 h) eradication of methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-intermediate Staphylococcus aureus (VISA), methicillin-resistant Staphylococcus epidermidis (MRSE), vancomycin-resistant enterococci (VRE), multidrug-resistant (MDR) Pseudomonas aeruginosa, MDR Klebsiella pneumoniae, MDR Enterobacter cloacae, MDR Acinetobacter baumannii, MDR Escherichia coli, MDR Stenotrophomonas maltophilia, Candida albicans, and Candida glabrata biofilms. The optimized NiCE lock solutions demonstrated anticoagulant activities comparable to those of heparin lock solutions. NiCE lock solution was significantly more effective than taurolidine-citrate-heparin lock solution in eradicating biofilms of Staphylococcus aureus and Candida glabrata."

According to the news reporters, the research concluded: "The optimized, nonantibiotic, heparin-free NiCE lock solution demonstrates rapid broad-spectrum biofilm eradication as well as effective anticoagulant activity, making NiCE a high-quality ACLS candidate for clinical assessment."

Stem Cell Research

Data on Stem Cell Research Detailed by Researchers at University of Michigan (Nanomedicine strategies for sustained, controlled and targeted treatment of cancer stem cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Stem Cell Research are discussed in a new report. According to news reporting out of Ann Arbor, Michigan, by NewsRx editors, research stated, "Cancer stem cells (CSCs) are original cancer cells that are of characteristics associated with normal stem cells. CSCs are toughest against various treatments and thus responsible for cancer metastasis and recurrence."

Our news journalists obtained a quote from the research from the University of Michigan, "Therefore, development of specific and effective treatment of CSCs plays a key role in improving survival and life quality of cancer patients, especially those in the metastatic stage. Nanomedicine strategies, which include prodrugs, micelles, liposomes and nanoparticles of biodegradable polymers, could substantially improve the therapeutic index of conventional therapeutics due to its manner of sustained, controlled and targeted delivery of high transportation efficiency across the cell membrane and low elimination by intracellular autophagy, and thus provide a practical solution to solve the problem encountered in CSCs treatment."

According to the news editors, the research concluded: "This review gives briefly the latest information to summarize the concept, strategies, mechanisms and current status as well as future promises of nanomedicine strategies for treatment of CSCs."

Our news journalists report that additional information may be obtained by contacting J. Gao, University of Michigan, Dept. of Pharmaceut Sci, Ann Arbor, MI 48109, United States. Additional authors for this research include W. Li, Y.J. Guo and S.S. Feng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/nnm-2016-0261. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Stem Cell Research, Article Review, Emerging Technologies, Nanotechnology, Nanomedicine, Oncology, Cancer, University of Michigan.

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Stem Cell Research

Data on Stem Cell Research Reported by M.G. Francipane and Colleagues (Therapeutic potential of mTOR inhibitors for targeting cancer stem cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Stem Cell Research have been published. According to news reporting originating from Palermo, Italy, by NewsRx correspondents, research stated, "The mammalian target of rapamycin (mTOR) pathway is aberrantly activated in many cancer types. As the intricate network of regulatory mechanisms controlling mTOR activity is uncovered, more refined drugs are designed and tested in clinical trials."

Our news editors obtained a quote from the research, "While first generation mTOR inhibitors have failed to show clinical efficacy due partly to the feedback relief of oncogenetic circuits, newly developed inhibitors show greater promise as anti-cancer agents. An effective drug must defeat the cancer stem cells (CSCs) while sparing the normal stem cells. Due to its opposing role on normal and malignant stem cells, mTOR lends itself very well as a therapeutic target. Indeed, a preferential inhibitory effect on CSCs has already been shown for some mTOR inhibitors."

According to the news editors, the research concluded: "These results provide a compelling rationale for the clinical development of mTOR-targeted therapies."


The news editors report that additional information may be obtained by contacting M.G. Francipane, RI MED Fdn, I-90133 Palermo, Italy.

Keywords for this news article include: Palermo, Italy, Europe, Therapy, Article Review, Stem Cell Research, Oncology, Cancer.

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Cardiovascular Diseases and Conditions - Subclavian…

Data on Subclavian Steal Syndrome Reported by Researchers at Department of Surgery (Eversion Subclavian Endarterectomy and Transposition for Coronary-Subclavian Steal Syndrome in a Patient with Refractory Angina Pectoris)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Subclavian Steal Syndrome. According to news reporting originating in Mexico City, Mexico, by NewsRx journalists, research stated, "Late onset of angina pectoris associated with subclavian artery (SA) atherosclerotic occlusive disease is a rare and recognized cause of myocardial ischemia when the lesion is proximal to a left internal mammary artery (LIMA) to coronary bypass. The symptoms typically exacerbate by increasing the flow demand in the extremity; this phenomenon is known as late coronary subclavian steal syndrome."

The news reporters obtained a quote from the research from the Department of Surgery, "We describe the case of a 66-year-old woman who underwent coronary-artery bypass grafting from the LIMA to the left anterior descending coronary artery in 2000. Years later, she experienced refractory angina pectoris associated to an occlusive lesion in the proximal left SA."

According to the news reporters, the research concluded: "SA endarterectomy with eversion technique and subclavian-carotid transposition restored the antegrade flow with resolution of the symptomatology."


Our news correspondents report that additional information may be obtained by contacting C.A. Hinojosa, Inst Nacl Ciencias Med & Nutr Salvador Zubiran, Dept. of Surg, Sect Vasc Surg & Endovasc Therapy, Mexico City 14000, DF, Mexico. Additional authors for this research include J.E. Anaya-Ayala, H. Laparra-Escareno, M. Guerrero-Hernandez and J. Galindo-Uribe.

Keywords for this news article include: Mexico City, Mexico, North and Central America, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Brain Diseases and Conditions, Vertebrobasilar Insufficiency, Heart Disorders and Diseases, Cerebrovascular Disorders, Subclavian Steal Syndrome, Myocardial Ischemia, Coronary Artery, Angina Pectoris, Endarterectomy, Brain Ischemia, Heart Disease, Cardiology, Angiology, Surgery, Department of Surgery.

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Data on Sulfonamides Described by Researchers at University of Silesia (Amorphous Protic Ionic Systems as Promising Active Pharmaceutical Ingredients: The Case of the Sumatriptan Succinate Drug)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Sulfonamides have been presented. According to news reporting originating in Katowice, Poland, by NewsRx journalists, research stated, "In this article, we highlight the benefits coming from the application of amorphous protic ionic systems as active pharmaceutical ingredients (APIs). Using the case of the sumatriptan (STR) drug, we show that the conversion of nonionic API to partially ionized amorphous protic succinate salt (STR SUCC) brings a substantial improvement in apparent solubility."

Financial support for this research came from Narodowe Centrum Nauki.

The news reporters obtained a quote from the research from the University of Silesia, "Since in general the disordered systems reveal a tendency to self-arrangement during storage, the dominant part of this article is dedicated to the physical stability issue of sumatriptan and its ionic counterpart. To recognize the crystallization tendency of the studied systems, the calorimetric measurements were performed. Additionally, the role of ion dynamics in spontaneous nucleation of amorphous sumatriptan succinate is discussed. The differential scanning calorimetry analysis of ionic and nonionic sumatriptan reveals many similarities in thermal properties of these APIs as well as distinct differences in their resistance against crystallization in the supercooled liquid state. To determine the long-term physical stability of STR SUCC at room temperature conditions, the time scale of structural relaxation below their glass transition temperatures is estimated."

According to the news reporters, the research concluded: "We show that in contrast to nonionic materials, ta predictions of STR SUCC are much more complex and require aging experiments."


Our news correspondents report that additional information may be obtained by contacting Z. Wojnarowska, Institute of Physics, University of Silesia, Uniwersytecka 4, 40-007 Katowice, Poland. Additional authors for this research include J. Knapik, M. Rams-Baron, A. Jedrzejowska, M. Paczkowska, A. Krause, J. Cielecka-Piontek, M. Jakerska, B. Ladowski and M. Paluch.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00911. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antimigraine Agents, Poland, Europe, Katowice, Analgesics, Succinates, Sulfonamides, Succinic Acids, Dicarboxylic Acids, Drugs and Therapies, Sumatriptan Therapy, Vasoconstrictor Agents, Selective Serotonin Agonist, Central Nervous System Agents.

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Heart Disorders and Diseases - Systolic Heart Failure

Data on Systolic Heart Failure Described by Researchers at National University (Combined analysis of cross-reacting antibodies anti-beta 1AR and anti-B13 in advanced stages of Chagas heart disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Systolic Heart Failure. According to news reporting from Santa Fe, Argentina, by NewsRx journalists, research stated, "Autoantibodies cross-reacting with the b1 adrenergic receptor (anti-b1AR and anti-p2b) and cardiac myosin antigens (anti-B13) have been related to the pathogenesis of chronic Chagas heart disease (CCHD). Studies exploring their levels in different stages are scarce."

The news correspondents obtained a quote from the research from National University, "We aimed to evaluate the relationship of these autoantibodies with the clinical profile of chronic patients, especially regarding their classificatory accuracy in severe presentation with heart failure. We conducted a cross-sectional study of 155 T. cruzi-seropositive patients and 26 age-and gender-matched healthy controls. They were categorised in three stages of CCHD. Serum antibodies were measured by specific immunoassays. Symptomatic individuals showed increased levels of anti-b1AR and anti-B13, while anti-p2b antibodies were similar between groups. A composite logistic regression model including anti-B13, anti-b1AR antibody levels and age was able to predict systolic heart failure yielding an area under the curve of 83% (sensitivity of 67% and specificity of 89%). In our study, anti-b1AR and anti-B13 antibodies were higher in individuals with chronic Chagas heart disease stage III, mainly in those with dilated cardiomyopathy associated with systolic heart failure. Logistic regression analysis showed that both antibodies were good predictors of severe CCHD."

According to the news reporters, the research concluded: "As well as being involved in disease progression, anti-b1AR and anti-B13 antibodies may be used as a serum marker of poor prognosis in terms of heart compromise."

For more information on this research see: Combined analysis of cross-reacting antibodies anti-beta 1AR and anti-B13 in advanced stages of Chagas heart disease. Tropical Medicine & International Health, 2016;21(12):1545-1551. Tropical Medicine & International Health can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Tropical Medicine & International Health - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-3156)

Our news journalists report that additional information may be obtained by contacting L.M. Rodeles, Natl Univ Littoral, Dept. of Internal Med, Santa Fe, Argentina. Additional authors for this research include M.H. Vicco, I.A. Bontempi, A. Siano, G. Tonarelli, O.A. Bottasso, P. Arias and I.S. Marcipar.

Keywords for this news article include: Santa Fe, Argentina, South America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Systolic Heart Failure, Immunoglobulins, Blood Proteins, Heart Disease, Immunology, Antibodies, Cardiology, National University.

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Data on Thoracoscopy Detailed by Researchers at Sichuan University
(Undiagnosed pulmonary sequestration results in an unexplained hemorrhagic shock in thoracoscopic pulmonary lobectomy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Surgical Procedures - Thoracoscopy. According to news reporting out of Chengdu, People's Republic of China, by NewsRx editors, research stated, "We report the first case of pulmonary sequestration which was not detected in the preoperative evaluation, resulting in a life-threatening hemorrhagic shock rapidly during the procedure of thoracoscopic pulmonary lobectomy."

Our news journalists obtained a quote from the research from Sichuan University, "The anesthesiologists could not figure out the reason for the hemorrhagic shock in the surgery until an emergent laparotomy was performed."

According to the news editors, the research concluded: "The aim of presenting this clinical case is to highlight the vigilance for undiagnosed pulmonary sequestration which lacks any specific clinical feature but has the potential to become an anesthetic disaster."


Our news journalists report that additional information may be obtained by contacting C.R. Wu, Sichuan University, Translat Neurosci Center, West China Hosp, Chengdu 610041, Sichuan, People's Republic of China. Additional authors for this research include H.P. Li, T. Liang and C.R. Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.09.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Thoracic Surgical Procedures, Hemorrhagic Shock, Thoracoscopy, Hematology, Lobectomy, Surgery, Sichuan University.

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correspondents, research stated, "Traversing proton beam-irradiated, mid/high-Z nanoparticles produce site-specific enhancement of X-ray photon-electron emission via the Coulomb nanoradiator (CNR) effect, resulting in a nano-to micro-scale therapeutic effect at the nanoparticle-uptake target site. Here, we demonstrate the uptake of iron oxide nanoparticles (IONs) and nanoradiator-mediated, site-specific thrombolysis without damaging the vascular endothelium in an arterial thrombosis mouse model."

Our news journalists obtained a quote from the research from Catholic University, "The enhancement of low-energy electron (LEE) emission and reactive oxygen species (ROS) production from traversing proton beam-irradiated IONs was examined. Flow recovery was only observed in CNR-treated mice, and greater than 50% removal of the thrombus was achieved. A 2.5-fold greater reduction in the thrombus-enabled flow recovery was observed in the CNR group compared with that observed in the untreated ION-only and proton-only control groups (p < 0.01)."

According to the news editors, the research concluded: "Enhancement of the X-ray photon-electron emission was evident from both the pronounced Shirley background in the electron yield and the 1.2- to 2.5-fold enhanced production of ROS by the proton-irradiated IONs, which suggests chemical degradation of the thrombus without potent emboli."

For more information on this research see: Coulomb nanoradiator-mediated, site-specific thrombolytic proton treatment with a traversing pristine Bragg peak. Scientific Reports, 2016;6():1-9. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J.K. Kim, Catholic Univ Daegu, Sch Med, Dept. of Biomed Engn, Daegu, South Korea. Additional authors for this research include S.M. Han, S.K. Min, S.J. Seo, K. Ihm, W.S. Chang and J.K. Kim.

Keywords for this news article include: Daegu, South Korea, Asia, Cardiovascular Diseases and Conditions, Emerging Technologies, Nanotechnology, Thrombolytic, Nanoparticle, Thrombosis, Angiology, Catholic University.

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Cardiovascular Diseases and Conditions - Thrombosis

Data on Thrombosis Discussed by Researchers at King's College Hospital (Anti-Coagulation and Deep Brain Stimulation: Never the Twain Shall Meet)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Thrombosis. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Deep brain stimulation (DBS) for movement disorders is usually performed in older patients who may be prone to vascular co-morbidities such as atrial fibrillation or valvular disease that may require anti-coagulation. This potentially increases the risk of peri-operative intra-cranial haemorrhage and thus anti-coagulation therapy is generally considered a contraindication for DBS implantation."

Our news journalists obtained a quote from the research from King’s College
Hospital, "Cessation of anti-coagulants has to be balanced with the risk of thrombosis or ischaemic complications and, to compound issues, there is a paucity of guidelines and consensus on the management of anti-coagulation in patients undergoing DBS. To date, we have performed DBS successfully in 4 patients on lifelong anti-coagulation, having carefully managed their anti-coagulation in the peri-operative period. One patient developed a moderate haematoma around the implantable pulse generator 2 days post-operatively that was treated conservatively. Otherwise no other adverse effects or haemorrhagic complications occurred. We therefore propose that DBS implantation in this group of patients is safe, provided strict observation of protocols and careful management of the anti-coagulation therapy are undertaken."

According to the news editors, the research concluded: "We describe the indications for anti-coagulation and provide a guideline for therapy in such patients according to our experience."


Our news journalists report that additional information may be obtained by contacting K. Ashkan, King's College Hospital, London, UK. Additional authors for this research include A. Alamri and I. Ughratdar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441232. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Thrombosis, United Kingdom, Article Review, Coagulation Therapy, Risk and Prevention, Cardiovascular Diseases and Conditions.

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Cardiovascular Diseases and Conditions - Thrombosis

Data on Thrombosis Discussed by Researchers at University of Helsinki

[Decreased maximum clot firmness in rotational thromboelastometry (ROTEM (R)) is associated with bleeding during extracorporeal mechanical circulatory support]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Thrombosis have been published. According to news reporting out of Helsinki, Finland, by NewsRx editors, research stated, "We aimed to characterize the coagulation disturbances which may increase the risk of bleeding, thrombosis or death shortly after implantation of an extracorporeal membrane oxygenation (ECMO) or ventricular assist (VAD) device. Antithrombotic treatment was started in 23 VAD and 24 ECMO patients according to the hospital protocol."

Our news journalists obtained a quote from the research from the University of Helsinki, "Additionally, conventional laboratory testing, rotational thromboelastometry (ROTEM ®) and platelet function analysis (Multiplate) were performed at predetermined..."
intervals. Four out of twenty-four (16.7%) of ECMO patients and 6/23 (26.1%) of VAD patients had severe bleeding after the procedure. When all the patients were analyzed together, low maximum clot firmness (MCF) in ExTEM and FibTEM analyses was associated with severe bleeding (p <0.05) and low MCF in FibTEM with 30-day mortality. Low platelet count and hematocrit levels were also associated with severe bleeding. When VAD and ECMO patients were separated into different groups, the association between ROTEM ® parameters, bleeding and survival was found only in limited time points. Four patients with VAD had cerebral ischemia indicative of thromboembolism. However, this had no significant correlation with ROTEM ® or Multiplate ® parameters. Hypocoagulation shown by ROTEM ® was associated with bleeding complications in patients with mechanical circulatory support."

According to the news editors, the research concluded: "In contrast, hypercoagulation did not correlate with clinical thrombosis."

For more information on this research see: Decreased maximum clot firmness in rotational thromboelastometry (ROTEM ®) is associated with bleeding during extracorporeal mechanical circulatory support. *Perfusion-Uk*, 2016;31(8):625-633. *Perfusion-Uk* can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England.

Our news journalists report that additional information may be obtained by contacting A. Laine, University of Helsinki, Helsinki Univ Hosp, Dept. of Anaesthesiol Intens Care & Pain Med, Div Anaesthesiol, Helsinki, Finland. Additional authors for this research include T. Niemi, R. Suojaranta-Ylinen, P. Raivio, L. Soininen, K. Lemstrom, P. Hammainen and A. Schramko.

Keywords for this news article include: Helsinki, Finland, Europe, Cardiovascular Diseases and Conditions, Risk and Prevention, Vascular Diseases and Conditions, Embolism and Thrombosis, Hematology, University of Helsinki.

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**Cardiovascular Diseases and Conditions - Thrombosis**

**Data on Thrombosis Reported by Researchers at University of Oviedo (Collateral Development in Thrombosis of the Hepatic Artery After Transplantation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Thrombosis have been published. According to news reporting out of Oviedo, Spain, by NewsRx editors, research stated, "The authors sought to identify strictures or hepatic artery obstruction with posterior collateral transformation in our series of liver transplantation, treatment, and evolution. The thrombosis or severe hepatic artery stenosis sometimes presents a compensation mechanism, the collateral transformation of the artery."

Our news journalists obtained a quote from the research from the University of Oviedo, "From April 2002 to December 2011 we collected 18 cases of collateral transformation. We analyzed data regarding the transplantation, diagnosis, treatment, clinical evolution, liver function, and Doppler-ultrasound. The main indication was alcoholic cirrhosis, followed by hepatocellular carcinoma hepatitis C virus. The mean cold ischemia time was 292.2 minutes mean hot ischemia was 48.8. The anastomosis was performed on the gastroduodenal-splenic
patch donor in 14 cases, the celiac trunk in 2 cases, and on grafts to the aorta in another 2. Doppler ultrasound showed 8 cases without complications, 8 with low flows, and 2 cases with alterations of the right hepatic artery. Computed tomographic (CT) angiography was performed in patients with impaired eco-Doppler and found 4 obstructions, 2 cases with kinking, 1 stenosis, and 3 normal cases. Three patients with low flows were re operated and another re-transplanted. After diagnosis of collateral transformation, all were treated with antiplatelet agents. Two cases of angioplasty were associated. The collaterals were diagnosed 1 month to 44.8 months after transplantation. Five patients died. In the latest data, 10 patients do not have analytical alteration. The Doppler ultrasound shows 7 cases being normal and 6 with flow but low resistances."

According to the news editors, the research concluded: "In our series, all patients with collateral transformation, except one who was transplanted, maintain good liver function with permeable vessels."


Our news journalists report that additional information may be obtained by contacting C.M.G. Bernardo, University of Oviedo, Univ Hosp Cent Asturias HUCA, HPB & Liver Transplant Unit, Dept. of Gen Surg, Oviedo, Spain. Additional authors for this research include B.A. Garcia, P.R. Buil, A.M. de Leon, L.G. Dieguez, V.C. Rodrigo, I.G.P. Arrillaga and L.V. Velasco.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.07.047. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oviedo, Spain, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Liver Diseases and Conditions, Embolism and Thrombosis, Gastroenterology, Hepatic Artery, Liver Function, Hepatology, Hematology, Angiology, Stenosis, University of Oviedo.

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## Oncology - Thyroid Cancer

### Data on Thyroid Cancer Detailed by Researchers at Medical University (Papillary Thyroid Carcinoma: Association Between Germline DNA Variant Markers and Clinical Parameters)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Thyroid Cancer are discussed in a new report. According to news reporting originating in Gdansk, Poland, by NewsRx journalists, research stated, "Papillary thyroid cancer (PTC) is reported to be highly heritable in epidemiological studies. Genome-wide association studies (GWAS) have uncovered several variants associated with PTC predisposition."

The news reporters obtained a quote from the research from Medical University, "It remains unknown whether these variants might contribute to better clinical stratification of PTC
patients. In order to assess the usefulness of germline genetic analyses in the management of PTC patients, the genotypes of five variants (rs965513, rs944289, rs116909374, rs2439302, and rs966423) were determined in 1216 PTC patients and 1416 controls. Additionally, the expression of seven genes located close to GWAS variants (PTCSC3, MBIP, NKX2-1, FOXE1, DIRC3, PTCSC2, and NRG1) were measured in 73 PTC paired tumor/normal tissues, respectively. Next, the association was analyzed between the genotypes of the germline variants and the levels of gene expression with clinical/pathological features such as age, sex, TNM staging, multifocality status, extrathyroidal expansion, and MACIS score. The risk allele of rs965513 was associated with larger tumor size (p = 0.025) and extrathyroidal expansion (odd ratio [OR] = 1.29, p = 0.045). The variant rs2439302 showed association with lymph node metastasis (OR = 1.24, p = 0.016), and multifocality status of the tumor (OR = 1.24, p = 0.012). The expression of MBIP was associated with T stage (p = 0.010). MBIP and PTCSC3 displayed lower expression in PTC tissue in males than in females (p = 0.025 and p = 0.036, respectively). NKX2-1 displayed lower expression in patients with N1 stage (p = 0.040). The studied germline risk alleles predisposing to PTC were associated with a more aggressive course of the disease reflected by larger tumor diameter, higher multifocality rate, and more advanced N stage at the time of diagnosis. These results show that germline variants not only predispose to PTC but also might impact its clinical course."

According to the news reporters, the research concluded: "However, these associations were only moderate, and further large multi-ethnic studies are required to evaluate the usefulness of these germline variants in the clinical stratification of PTC patients."

For more information on this research see: Papillary Thyroid Carcinoma: Association Between Germline DNA Variant Markers and Clinical Parameters. Thyroid, 2016;26(9):1276-1284. Thyroid can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Thyroid - www.liebertpub.com/overview/thyroid/55/)

Our news correspondents report that additional information may be obtained by contacting J. Jendrzejewski, Medical University of Gdansk, Dept. of Endocrinol & Internal Med, PL-80952 Gdansk, Poland. Additional authors for this research include S. Liyanarachchi, R. Nagy, L. Senter, P.E. Wakely, A. Thomas, F. Nabhan, H.L. He, W. Li, K. Sworczak, M.D. Ringel, L.S. Kirschner and A. de la Chapelle.

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Keywords for this news article include: Gdansk, Poland, Europe, Papillary Thyroid Cancer, Oncology, Epidemiology, Carcinomas, Genetics, Medical University.

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Biomedical Engineering - Tissue Engineering

Data on Tissue Engineering Discussed by Researchers at Texas A&M University (Cold Plasma Reticulation of Shape Memory Embolic Tissue Scaffolds)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Biomedical Engineering - Tissue Engineering are
discussed in a new report. According to news originating from College Station, Texas, by NewsRx correspondents, research stated, "Polyurethane shape memory polymer (SMP) foams are proposed for use as thrombogenic scaffolds to improve the treatment of vascular defects, such as cerebral aneurysms. However, gas blown SMP foams inherently have membranes between pores, which can limit their performance as embolic tissue scaffolds."

Financial supporters for this research include National Institutes of Health, National Institute of Biomedical Imaging and Bioengineering, National Institute of Neurological Disorders and Stroke, National Science Foundation.

Our news journalists obtained a quote from the research from Texas A&M University, "Reticulation, or the removal of membranes between adjacent foam pores, is advantageous for improving device performance by increasing blood permeability and cellular infiltration. This work characterizes the effects of cold gas plasma reticulation processes on bulk polyurethane SMP films and foams. Plasma-induced changes on material properties are characterized using scanning electron microscopy, uniaxial tensile testing, goniometry, and free strain recovery experiments. Device specific performance is characterized in terms of permeability, platelet attachment, and cell-material interactions."

According to the news editors, the research concluded: "Overall, plasma reticulated SMP scaffolds show promise as embolic tissue scaffolds due to increased bulk permeability, retained thrombogenicity, and favorable cell-material interactions."


The news correspondents report that additional information may be obtained from D.J. Maitland, Texas A&M University, Biomed Engn, College Stn, TX 77843, United States. Additional authors for this research include N.C. Docherty, M.B.B. Monroe, K.P. Ezell, J.K. Carrow, S.M. Hasan, A.K. Gaharwar and D.J. Maitland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/marc.201600268. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: College Station, Texas, United States, North and Central America, Biomedical Engineering, Tissue Engineering, Bioengineering, Biotechnology, Biomedicine, Hematology, Plasma, Blood, Texas A&M University.

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Skin Diseases and Conditions - Toxic Epidermal

Data on Toxic Epidermal Necrolysis Reported by Researchers at Royal Adelaide Hospital (Early toxic epidermal necrolysis syndrome post-intra-cranial tumor resection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Skin Diseases and Conditions - Toxic Epidermal Necrolysis. According to news reporting from Adelaide, Australia, by NewsRx
journalists, research stated, "SJS and TEN are two rare self-limited but serious cutaneous drug reactions with significant morbidity and mortality. There are many drugs associated with the condition."

The news correspondents obtained a quote from the research from Royal Adelaide Hospital, "We report a case of early TEN syndrome post Carbamazepine use, review the current literature and discuss the management challenges. A 51-year-old female was admitted to hospital for investigation and management of complex partial seizures secondary to a meningioma. She was commenced on 100mg BD of Carbamazepine for seizure control and discharged home. Surgical resection of the meningioma was performed electively 2 weeks later. A localized erythematous macular rash mainly in the left shoulder was noted on postoperative day 3. Two days later, the patient had sloughing of the mucosa of the lips in addition to progression of the rash. Early Toxic Epidermal Necrolysis (TEN) syndrome was diagnosed by the Burns and Dermatology teams and the culprit drug was discontinued. Skin biopsy confirmed the diagnosis. The patient was commenced on intravenous immunoglobulins with excellent improvement in skin integrity and resolution of excoriations noted on discharge. Stevens - Johnson syndrome (SJS) and TEN are two rare self-limited but serious cutaneous drug reactions with significant morbidity and mortality. The current treatment of TENS/SJS is divided into early management and symptom control. The immediate cessation of the culprit drug is quintessential. There is vast documented evidence of carbamazepine-induced SJS/TEN in patients of Asian ethnicity due to the presence of the HLA allele B*1502."

According to the news reporters, the research concluded: "HLA-B*1502 screening should be performed when using aromatic anticonvulsants such as carbamazepine in high-risk patients."


Our news journalists report that additional information may be obtained by contacting T.K. Ramachandren, Royal Adelaide Hospital, Adelaide, SA 5000, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0036933015615265. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Central Nervous System Diseases and Conditions, Central Nervous System Neoplasms, Dibenzazepine Anticonvulsants, Central Nervous System Agents, Skin Diseases and Conditions, Toxic Epidermal Necrolysis, Carbamazepine Therapy, Drugs and Therapies, Meningeal Neoplasms, Pharmaceuticals, Meningioma, Royal Adelaide Hospital.

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**Drugs and Therapies - Toxicology and Pharmacology**

**Data on Toxicology and Pharmacology Reported by Researchers at Merck & Company (Role of chronic toxicology studies in revealing new toxicities)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- New research on Drugs and Therapies - Toxicology and Pharmacology is the subject of a report. According to news reporting originating in West Point, Pennsylvania, by NewsRx journalists, research stated, "Chronic (>3 months) preclinical toxicology studies are conducted to support the safe conduct of clinical trials exceeding 3 months in duration. We have conducted a review of 32 chronic toxicology studies in non-rodents (22 studies in dogs and 10 in non-human primates) and 27 chronic toxicology studies in rats dosed with Merck compounds to determine the frequency at which additional target organ toxicities are observed in chronic toxicology studies as compared to subchronic studies of 3 months in duration."

The news reporters obtained a quote from the research from Merck & Company, "Our review shows that majority of the findings are observed in the subchronic studies since additional target organs were not observed in 24 chronic non rodent studies and in 21 chronic rodent studies. However, 6 studies in non rodents and 6 studies in rodents yielded new findings that were not seen in studies of 3 month or shorter duration. For 3 compounds the new safety findings did contribute to termination of clinical development plans."

According to the news reporters, the research concluded: "Although the incidence of compound termination associated with chronic toxicology study observations is low (similar to 10%), the observations made in these studies can be important for evaluating human safety risk."

For more information on this research see: Role of chronic toxicology studies in revealing new toxicities. Regulatory Toxicology and Pharmacology, 2016;82():94-98. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting A. Galijatovic-Idrizbegovic, Merck & Co Inc, West Point, PA 19486, United States. Additional authors for this research include J.E. Miller, W.D. Cornell, J.A. Butler, G.K. Wollenberg, F.D. Sistare and J.J. DeGeorge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.10.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: West Point, Pennsylvania, United States, North and Central America, Toxicology and Pharmacology, Drugs and Therapies, Merck & Company.

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Proteins - Transcription Factors

Data on Transcription Factors Discussed by Researchers at Kyoto University [Expression of metastasis suppressor gene AES driven by a Yin Yang (YY) element in a CpG island promoter and transcription factor YY2]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Proteins - Transcription Factors is the subject of a report. According to news reporting from Kyoto, Japan, by NewsRx journalists, research stated, "We
recently found that the product of the AES gene functions as a metastasis suppressor of colorectal cancer (CRC) in both humans and mice. Expression of amino-terminal enhancer of split (AES) protein is significantly decreased in liver metastatic lesions compared with primary colon tumors."

Financial support for this research came from Japan Agency for Medical Research and Development.

The news correspondents obtained a quote from the research from Kyoto University, "To investigate its downregulation mechanism in metastases, we searched for transcriptional regulators of AES in human CRC and found that its expression is reduced mainly by transcriptional dysregulation and, in some cases, by additional haploidization of its coding gene. The AES promoter-enhancer is in a typical CpG island, and contains a Yin-Yang transcription factor recognition sequence (YY element). In human epithelial cells of normal colon and primary tumors, transcription factor YY2, a member of the YY family, binds directly to the YY element, and stimulates expression of AES. In a transplantation mouse model of liver metastases, however, expression of YY2 (and therefore of AES) is downregulated. In human CRC metastases to the liver, the levels of AES protein are correlated with those of YY2. In addition, we noticed copy-number reduction for the AES coding gene in chromosome 19p13.3 in 12% (5/42) of human CRC cell lines. We excluded other mechanisms such as point or indel mutations in the coding or regulatory regions of the AES gene, CpG methylation in the AES promoter enhancer, expression of microRNAs, and chromatin histone modifications."

According to the news reporters, the research concluded: "These results indicate that Aes may belong to a novel family of metastasis suppressors with a CpG-island promoter enhancer, and it is regulated transcriptionally."


Our news journalists report that additional information may be obtained by contacting M.M. Taketo, Kyoto University, Grad Sch Med, Gastrointestinal Surg, Kyoto, Japan. Additional authors for this research include M. Sonoshita, H. Miyoshi, Y. Itatani, S. Ito, K. Kawada, Y. Sakai and M.M. Taketo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cas.13063. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kyoto, Japan, Asia, Transcription Factors, Proteins, Genetics, Kyoto University.

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Proteins - Transcription Factors

Data on Transcription Factors Reported by L.M. Williams and Colleagues [The transcription factor, Nuclear factor, erythroid 2 (Nfe2), is a regulator of the oxidative stress response during Danio rerio development]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Transcription Factors. According to news reporting out of Bar Harbor, Maine, by NewsRx editors, research stated, "Development is a complex and well-defined process characterized by rapid cell proliferation and apoptosis. At this stage in life, a developmentally young organism is more sensitive to toxicants as compared to an adult."

Our news journalists obtained a quote from the research, "In response to pro-oxidant exposure, members of the Cap'n'Collar (CNC) basic leucine zipper (bZIP) transcription factor family (including Nfe2 and Nfe2-related factors, Nrf1 and Nrf2) activate the expression of genes whose protein products contribute to reduced toxicity. Here, we studied the role of the CNC protein, Nfe2, in the developmental response to pro-oxidant exposure in the zebrafish (Danio rerio). Following acute waterborne exposures to diquat or tert-butyldihydroperoxide (tBOOH) at one of three developmental stages, wildtype (WT) and nfe2 knockout (KO) embryos and larvae were morphologically scored and their transcriptomes sequenced. Early in development, KO animals suffered from hypochromia that was made more severe through exposure to pro-oxidants; this phenotype in the KO may be linked to decreased expression of alas2, a gene involved in heme synthesis. WT and KO eleutheroembryos and larvae were phenotypically equally affected by exposure to pro-oxidants, where tBOOH caused more pronounced phenotypes as compared to diquat. Comparing diquat and tBOOH exposed embryos relative to the WT untreated control, a greater number of genes were up-regulated in the tBOOH condition as compared to diquat (tBOOH: 304 vs diquat: 148), including those commonly found to be differentially regulated in the vertebrate oxidative stress response (OSR) (e.g. hsp70.2, txn1, and gsr). When comparing WT and KO across all treatments and times, there were 1170 genes that were differentially expressed, of which 33 are known targets of the Nrf proteins Nrf1 and Nrf2. More specifically, in animals exposed to pro-oxidants a total of 968 genes were differentially expressed between WT and KO across developmental time, representing pathways involved in coagulation, embryonic organ development, body fluid level regulation, erythrocyte differentiation, and oxidation-reduction, amongst others. The greatest number of genes that changed in expression between WT and KO occurred in animals exposed to diquat at 2 h post fertilization (hpf). Across time and treatment, there were six genes (dhx40, cfap70, dna19b, slc35f4, spi-c, and gpr19) that were significantly up-regulated in KO compared to WT and four genes (fhad1, cyp4v7, nlrp12, and slc16a6a) that were significantly down-regulated. None of these genes have been previously identified as targets of Nfe2 or the Nrf family."

According to the news editors, the research concluded: "These results demonstrate that the zebrafish Nfe2 may be a regulator of both primitive erythropoiesis and the OSR during development."

For more information on this research see: The transcription factor, Nuclear factor, erythroid 2 (Nfe2), is a regulator of the oxidative stress response during Danio rerio development. Aquatic Toxicology, 2016;180():141-154. Aquatic Toxicology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Aquatic Toxicology - www.journals.elsevier.com/aquatic-toxicology/)

Our news journalists report that additional information may be obtained by contacting L.M. Williams, MDI Biol Lab, Bar Harbor, ME 04609, United States. Additional authors for this research include B.A. Lago, A.G. McArthur, A.R. Raphenya, N. Pray, N. Saleem, S. Salas, K. Paulson, R.S. Mangar, Y. Liu, A.H. Vo and J.A. Shavit.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.aquatox.2016.09.019. This DOI is a link to an online electronic document that is either free or for purchase.
Data on Tuberculosis Discussed by Researchers at University of Oviedo
(Comparison of isothermal helicase-dependent amplification and PCR for the detection of Mycobacterium tuberculosis by an electrochemical genomagnetic assay)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mycobacterium Infections - Tuberculosis have been published. According to news reporting originating in Oviedo, Spain, by NewsRx journalists, research stated, "Methods for the early and sensitive detection of pathogenic bacteria suited to low-resource settings could impact diagnosis and management of diseases. Helicase-dependent isothermal amplification (HDA) is an ideal tool for this purpose, especially when combined with a sequence-specific detection method able to improve the selectivity of the assay."

Financial supporters for this research include European Regional development Fund, Principado de Asturias Government, Ministerio de Economia y Competitividad.

The news reporters obtained a quote from the research from the University of Oviedo, "The implementation of this approach requires that its analytical performance is shown to be comparable with the gold standard method, polymerase chain reaction (PCR). In this study, we optimize and compare the asymmetric amplification of an 84-base-long DNA sequence specific for Mycobacterium tuberculosis by PCR and HDA, using an electrochemical genomagnetic assay for hybridization-based detection of the obtained single-stranded amplicons. The results indicate the generalizability of the magnetic platform with electrochemical detection for quantifying amplification products without previous purification. Moreover, we demonstrate that under optimal conditions the same gene can be amplified by either PCR or HDA, allowing the detection of as low as 30 copies of the target gene sequence with acceptable reproducibility. Both assays have been applied to the detection of M. tuberculosis in sputum, urine, and pleural fluid samples with comparable results."

According to the news reporters, the research concluded: "Simplicity and isothermal nature of HDA offer great potential for the development of point-of-care devices."

For more information on this research see: Comparison of isothermal helicase-dependent amplification and PCR for the detection of Mycobacterium tuberculosis by an electrochemical genomagnetic assay. *Analytical and Bioanalytical Chemistry*, 2016;408 (30):8603-8610. *Analytical and Bioanalytical Chemistry* can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Analytical and Bioanalytical Chemistry - www.springerlink.com/content/1618-2642/)

Our news correspondents report that additional information may be obtained by contacting M. Lobo-Castanon, University of Oviedo, Dpto Quim Fis & Analit, E-33006 Oviedo, Spain. Additional authors for this research include R. Miranda-Castro, N. de-los-Santos-Alvarez, A. Miranda-Ordieres and M. Lobo-Castanon.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00518-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oviedo, Spain, Europe, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Enzymes and Coenzymes, Gram-Positive Rods, Electrochemicals, Mycobacteriaceae, Actinobacteria, Chemicals, Helicase, Genetics, University of Oviedo.

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Mycobacterium Infections - Tuberculosis

Data on Tuberculosis Reported by Researchers at University of Leicester (Development of an In Vitro Assay for Detection of Drug-Induced Resuscitation-Promoting-Factor-Dependent Mycobacteria)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections - Tuberculosis. According to news reporting originating from Leicester, United Kingdom, by NewsRx correspondents, research stated, "Tuberculosis is a major infectious disease that requires prolonged chemotherapy with a combination of four drugs."

Our news editors obtained a quote from the research from the University of Leicester, "Here we present data suggesting that treatment of Mycobacterium tuberculosis, the causative agent of tuberculosis, and Mycobacterium smegmatis, a model organism widely used for the screening of antituberculosis agents, with first-line drugs resulted in the generation of substantial populations that could be recovered only by the addition of a culture supernatant from growing mycobacteria. These bacilli failed to grow in standard media, resulting in significant underestimation of the numbers of viable mycobacteria in treated samples. We generated M. smegmatis strains overexpressing M. tuberculosis resuscitation-promoting factors (Rpfs) and demonstrated their application for the detection of Rpf-dependent mycobacteria generated after drug exposure."

According to the news editors, the research concluded: "Our data offer novel opportunities for validation of the sterilizing activity of antituberculosis agents."

For more information on this research see: Development of an In Vitro Assay for Detection of Drug-Induced Resuscitation-Promoting-Factor-Dependent Mycobacteria. Antimicrobial Agents and Chemotherapy, 2016;60(10):6227-6233. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting G.V. Mukamolova, University of Leicester, Dept. of Infect Immun & Inflammation, Leicester, Leics, United Kingdom. Additional authors for this research include F.F. Pu, O. Turapov and G.V. Mukamolova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00518-16. This DOI is a link to an online electronic document that is either free or for purchase.
Data on Type 2 Diabetes Described by Y. Kimura et al (Clinical Significance of Determining Plasma MicroRNA33b in Type 2 Diabetic Patients with Dyslipidemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news reporting originating from Aomori, Japan, by NewsRx correspondents, research stated, "Sterol regulatory element-binding protein (SREBP)-1c is the dominant liver insulin-stimulated isoform and strongly correlates with diabetic dyslipidemia characterized by hyperinsulinemia [i.e., high-density lipoprotein cholesterol (HDL-C) levels and hypertriglyceridemia], MicroRNA (miRNA) 33b is harbored in the intron of SREBP-1c and represses ATP-binding cassette, sub-family A, and member 1 (ABCA1) expression, essential for HDL formation."

Our news editors obtained a quote from the research, "We measured plasma miRNA33b levels as possible biomarkers for diabetic dyslipidemia in patients with type 2 diabetes mellitus (T2DM) showing insulin resistance. The participants included 50 patients with T2DM (M/F 31/19) enrolled in an educational program for controlling blood glucose levels at Hirosaki University Hospital. HbA1c, fasting plasma glucose, insulin, and lipid levels were determined. Plasma miRNA33b, miRNA33a and miRNA148a were quantified using a TaqMan ® MicroRNA Assay, and values were corrected with reference to miRNA16. Mean BMI of participants were 28.2 +/- 6.6 (kg/m(2)) and the Homeostasis Model Assessment of Insulin Resistance was 4.3 +/- 2.7. Patients' laboratory findings indicated diabetic dyslipidemia with insulin resistance. Plasma miRNA33b/16 levels revealed a positive correlation with plasma insulin level (r=0.326, P=0.021), serum C-peptide (r =0.280, P=0.049), and triglyceride (r= 0.351, P=0.012), but no association with HDL-C (r=-0.210, P=.143). The blood level of miRNA33a was approximately 1/150th of that of miRNA33b and was not correlated with the above parameters."

According to the news editors, the research concluded: "We postulated that plasma miRNA33b may be useful as a new metabolic biomarker of dyslipidemia in patients with T2DM as well as metabolic syndrome via an insulin/SREBP-1c/miRNA33b/ABCA1 pathway."

For more information on this research see: Clinical Significance of Determining Plasma MicroRNA33b in Type 2 Diabetic Patients with Dyslipidemia. *Journal of Atherosclerosis and Thrombosis*, 2016;23(11):1276-1285. *Journal of Atherosclerosis and Thrombosis* can be contacted at: Japan Atherosclerosis Soc, Nichinai-Kaikan B1, 3-28-8 Hongo Bunkyo-Ku, Tokyo, 113-0033, Japan.

The news editors report that additional information may be obtained by contacting N. Tamasawa, Aomori Rosai Hosp, Dept. of Diabet & Endocrinol, Hachinohe, Aomori 0318551, Japan. Additional authors for this research include N. Tamasawa, K. Matsumura, H. Murakami, M. Yamashita, K. Matsuki, J. Tanabe, H. Murakami, J. Matsui and M. Daimon.
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Keywords for this news article include: Aomori, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Diabetes, Diagnostics and Screening, Glucose Metabolism Disorders, Risk and Prevention, Insulin Resistance, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Type 2 Diabetes, Endocrinology, Dyslipidemias, Hematology, Proinsulin, Plasma, Blood.

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Data on Type 2 Diabetes Reported by Researchers at Gunma University (Fibroblast growth factor 23 inhibits osteoblastic gene expression and induces osteoprotegerin in vascular smooth muscle cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news reporting out of Maebashi, Japan, by NewsRx editors, research stated, "Elevated fibroblast growth factor 23 (FGF23) levels are associated with cardiovascular mortality in patients with chronic kidney disease. However, both clinical and basic research have demonstrated conflicting evidence regarding the pathophysiological role of FGF23 in vascular calcification."

Our news journalists obtained a quote from the research from Gunma University, "The aim of this study was to determine the role of FGF23 in the osteoblastic gene expression in vascular smooth muscle cells (SMCs). We transduce human aortic SMCs (HASMCs) expressing klotho and FGF receptors with the adenovirus expressing human FGF23 (Ad-FGF23). We observed significant decreases in the expression of osteoblast-marker genes including BMP2, BMP4, MSX2, RUNX2 and ALP, as well as reduced calcification. Notably, Ad-FGF23 increased mRNA and protein levels of osteoprotegerin (OPG), and human OPG promoter was activated by FGF23. Moreover, in HASMCs overexpressing klotho, FGF23 upregulated OPG expression, whereas depletion of klotho by siRNA attenuated FGF23-induced OPG expression. Furthermore, in 73 consecutive patients with type 2 diabetes mellitus undergoing cardiac computed tomography to determine coronary calcium scores (CCSs), serum FGF23 levels were positively correlated with OPG independent of phosphate and estimated glomerular filtration rate (eGFR, r - 0.65, p< 0.01). Serum FGF23 levels were significantly elevated in patients with high CCSs (>= 100) compared to those with low CCSs (< 100). Our in vitro results indicate that FGF23 suppresses osteoblastic gene expression and induces OPG expression in HASMCs."

According to the news editors, the research concluded: "Together with our cross-sectional clinical assessment, the present study lends support to our hypothesis that FGF23 counteracts osteogenic conversion of vascular SMCs as a part of a compensatory mechanism to mitigate vascular calcification."

For more information on this research see: Fibroblast growth factor 23 inhibits osteoblastic gene expression and induces osteoprotegerin in vascular smooth muscle cells. Atherosclerosis, 2016;253():102-110. Atherosclerosis can be contacted at: Elsevier Ireland Ltd,
Our news journalists report that additional information may be obtained by contacting K. Kawai-Kowase, Gunma University, Grad Sch Med, Dept. of Gen Med, Maebashi, Gunma 3718511, Japan. Additional authors for this research include K. Kawai-Kowase, H. Matsui, H. Sunaga, T. Utsugi, T. Iso, M. Arai, S. Tomono and M. Kurabayashi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.08.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maebashi, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Tumor Necrosis Factor Decoy Receptors, Connective Tissue Cells, Muscle Cells, Genetics, Risk and Prevention, Osteoprotegerin, Type 2 Diabetes, Fibroblasts, Osteoblasts, Immunology, Gunma University.

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**Nutritional and Metabolic Diseases and Conditions**...

**Data on Type 2 Diabetes Reported by Researchers at University of Ottawa (Reactive Oxygen Species and Oxidative Stress in Obesity-Recent Findings and Empirical Approaches)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting originating from Ottawa, Canada, by NewsRx correspondents, research stated, "High levels of reactive oxygen species (ROS) are intricately linked to obesity and associated pathologies, notably insulin resistance and type 2 diabetes. However, ROS are also thought to be important in intracellular signaling, which may paradoxically be required for insulin sensitivity."

Our news editors obtained a quote from the research from the University of Ottawa, "Many theories have been developed to explain this apparent paradox, which have broadened our understanding of these important small molecules. While many sites for intracellular ROS production have been described, mitochondrial generated ROS remain a major contributor in most cell types. Mitochondrial ROS generation is controlled by a number of factors described in this review. Moreover, these studies have established both a demand for novel sensitive approaches to measure ROS, as well as a need to standardize and review their suitability for different applications. To properly assess levels of ROS and mitochondrial ROS in the development of obesity and its complications, a growing number of tools have been developed. This paper reviews many of the common methods for the investigation of ROS in mitochondria, cell, animal, and human models. Available approaches can be generally divided into those that measure ROS-induced damage (e.g., DNA, lipid, and protein damage); those that measure antioxidant levels and redox ratios; and those that use novel biosensors and probes for a more direct measure of different forms of ROS (e.g., 2',7'-dichlorofluorescein (DCF), dihydroethidium (DHE) and its mitochondrial targeted form (MitoSOX), Amplex Red, roGFP, HyPer, mt-cpYFP, ratiometric H2O2 probes, and their derivatives). Moreover, this review provides caveats and strengths for the use of these techniques in different models."
According to the news editors, the research concluded: "Advances in these techniques will undoubtedly advance the understanding of ROS in obesity and may help resolve unanswered questions in the field."


The news editors report that additional information may be obtained by contacting M.E. Harper, University of Ottawa, Fac Med, Dept. of Biochem Microbiol & Immunol, Ottawa, ON, Canada. Additional authors for this research include D.A. Patten and M.E. Harper.

Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Reactive Oxygen Species, Risk and Prevention, Oxygen Compounds, Peptide Proteins, Peptide Hormones, Type 2 Diabetes, Chalcogens, Proinsulin, University of Ottawa.

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**Nutritional and Metabolic Diseases and Conditions -**

**Data on Type 2 Diabetes Reported by Y. Lu and Co-Researchers**

*(Astragalus polysaccharide modulates ER stress response in an OVA-LPS induced murine model of severe asthma)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Endoplasmic reticulum (ER) stress has been recently revealed to play a pivotal role in the pathogenesis of severe asthma. Astragalus polysaccharide (APS), a major bioactive component from Astragalus membranaceus, exerts immunomodulatory and anti-inflammatory effects and has been shown to suppress ER stress in chronic diseases such as type-2 diabetes."

Funders for this research include Natural Science Foundation, Natural Science Project.

The news correspondents obtained a quote from the research, "However, the pharmaceutical application of APS in the treatment of severe asthma is unknown. The results obtained here indicate that APS significantly attenuates eosinophils and neutrophil-dominant airway inflammation by reducing the mRNA levels of Cxcl5, 118, and chemokine (C-C motif) ligand 20 (Cc120) and the protein levels of IL13RA and IL17RA. APS also inhibits the activation of unfolded protein response by decreasing the levels of ER stress markers such as C/EBP homologous protein (CHOP), which was associated with a reduction of PERK phosphorylation. Moreover, APS substantially blocks the nuclear translocation of ATF6 and NF-kappa B p65. Interestingly, we observed that APS markedly suppresses mucus hypersecretion by decreasing the levels of mucin (MUC) 5AC and MUC5B, which might be due to inhibition of goblet cells differentiation by suppressing the expression of IRE1 beta-correlated genes."

According to the news reporters, the research concluded: "In summary, APS can have potential pharmaceutical application in treatment of severe asthma."

Our news journalists report that additional information may be obtained by contacting X. Zhao, Jiangsu Key Lab Pediat Resp Dis, Nanjing 210023, Jiangsu, People's Republic of China. Additional authors for this research include Q.Q. Xing, J.Y. Xu, D. Ding and X. Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.09.058. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Risk and Prevention, Type 2 Diabetes, Genetics, Asthma.

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**Inflammatory Bowel Diseases and Conditions**

**Data on Ulcerative Colitis Reported by Researchers at Tianjin University**

*Colon targeted oral drug delivery system based on alginate-chitosan microspheres loaded with icariin in the treatment of ulcerative colitis*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Inflammatory Bowel Diseases and Conditions - Ulcerative Colitis is now available. According to news reporting out of Tianjin, People's Republic of China, by NewsRx editors, research stated, "In recent years, oral colon specific drug delivery system has been paid more attention in the treatment of inflammatory bowel disease (IBD). As the special pH condition in gastrointestinal tract, the challenge for treatment of IBD was that the colon drug delivery system should endure the low pH in stomach and release drugs quickly in high pH in colon."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Tianjin University, "Icariin with the poor solubility and low bioavailability limited the treatment of many diseases in clinic. In this study, the protective mechanism of alginate-chitosan microspheres loaded with icariin were investigated with trinitrobenzene sulfonic acid (TNBS)/ethanol induced colonic mucosal injury in rats. The results of drug release showed that the icariin loaded into microspheres released only 10% in simulated gastric fluid and a high amount of 65.6% released in simulated colonic fluid. The fluorescence tracer indicated high retention of targeted microspheres more than 12 h in colon. The microspheres loaded with icariin could not only reduce the colonic injury by decreasing the colon mucosa damage index in rats, but also reduce
the inflammatory response by reducing the production and gene expression of inflammatory mediators and cytokines in colonic mucosa."

According to the news editors, the research concluded: "All the results indicate that targeted microspheres loaded with icariin could exert the colon-protective effects through reducing the inflammatory response, which would be developed as a potential drug controlled release system for treatment of ulcerative colitis."


Our news journalists report that additional information may be obtained by contacting Y.L. Cui, Tianjin University for Traditional Chinese Medicine, Res Center Tradit Chinese Med, Key Lab Modern Chinese Med, Tianjin 300193, People's Republic of China. Additional authors for this research include G.F. Wang, J. Zhou, L.N. Gao and Y.L. Cui.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Drug Delivery Systems, Drugs and Therapies, Ulcerative Colitis, Gastroenterology, Gastroenteritis, Genetics, Tianjin University.

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**Data on Urology Reported by Researchers at Shanghai Jiao-Tong University (Etiology and Management of Male Iatrogenic Urethral Stricture: Retrospective Analysis of 172 Cases in a Single Medical Center)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Health and Medicine - Urology. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "To investigate the etiology and management of male iatrogenic urethral stricture in China. The data of 172 patients with iatrogenic urethral stricture who underwent treatment at a high volume reference center in China from January 2008 to February 2014 were analyzed retrospectively."

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "Databases were analyzed to understand the impact of different types of iatrogenic injury on stricture location, length and treatment of urethral strictures, as well as success rates. The most common type of iatrogenic stricture was urethral instrumentations in 80 patients (46.51%). Mean stricture length was 3.3 +/- 2.54 cm and the longest strictures were those caused by intravesica I instillation. Substitution urethroplasty was the most common..."
intervention and was performed in 60.47% (104/172) of patients. The overall success rate was 85.00% (136/160). Univariable analyses revealed that the type of iatrogenic injury was significantly related to restenosis (p = 0.036), and it is more apt to postoperative restenosis in the type of intravesical instillation than others. Our results showed that urethral instrumentation is the most common etiology of iatrogenic urethral stricture, and most iatrogenic urethral strictures involve the anterior urethra."

According to the news editors, the research concluded: "The different etiologies are closely associated with stricture location, length and the overall prognosis of urethral strictures."


The news correspondents report that additional information may be obtained from Q. Fu, Shanghai Jiao Tong University, Affiliated Peoples Hosp 6, Dept. of Urol, Shanghai 200233, People's Republic of China. Additional authors for this research include J. Zhang, Y.L. Sa, S.B. Jin, Y.M. Xu, Q. Fu and M. Lazzeri.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Urology, Health and Medicine, Shanghai Jiao-Tong University.

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**Oncology - Urothelial Cancer**

**Data on Urothelial Cancer Described by Researchers at University of Texas Southwestern (Comparing Changes in Renal Function After Radical Surgery for Upper Tract Urothelial Carcinoma and Renal Cell Carcinoma)**

2017 JAN 14 (NewsRx) - By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Urothelial Cancer have been published. According to news originating from Dallas, Texas, by NewsRx correspondents, research stated, "To compare changes in renal function after radical nephrectomy for renal cell carcinoma (RCC) and radical nephroureterectomy for upper tract urothelial carcinoma (UTUC), and assess their effects on non-cancer-specific mortality (CSM). Clinicopathologic data from 1114 patients with RCC or UTUC treated surgically from 1997 to 2013 were compiled."

Our news journalists obtained a quote from the research from the University of Texas Southwestern, "Patients who underwent nephron-sparing surgeries, had bilateral disease, received chemotherapy, or had < 1 month of follow-up were excluded. Renal function (estimated glomerular filtration rate [eGFR]) was calculated preoperatively, 3 months postoperatively, and at last follow-up. Events were defined as >= 25% decline in eGFR from baseline. Event-free survival and non-CSM were assessed using Kaplan-Meier analysis. Multivariable Cox regression was performed to identify predictors of events. Four hundred thirty-five patients were included (317 radical nephrectomy, 118 radical nephroureterectomy). Median follow-up was 38.2 months. UTUC patients were older (P < .001), had worse Charlson score (P < .001), and more frequently used tobacco (P = .006). Median baseline eGFR was
lower in UTUC patients (58.4 vs 74.9, P < .001). RCC patients experienced a larger event rate following surgery at first (56.8% vs 31.4%, P < .001) and last (51.7% vs 35.6%, P = .003) follow-up than UTUC patients. On Kaplan-Meier analysis, UTUC patients exhibited worse non-CSM (P < .001). Postsurgical decline in renal function was a significant predictor of non-CSM in RCC patients at first (hazard ratio = 4.71, P = .041) and last (hazard ratio = 4.56, P = .018) follow-up, whereas this was not the case for UTUC patients. UTUC patients had worse baseline eGFR and overall health status than RCC patients. RCC patients experienced greater postsurgical declines in renal function."

According to the news editors, the research concluded: "These results shed light on differences in patient characteristics between these forms of kidney cancer and guide expectations for postoperative renal function."


The news correspondents report that additional information may be obtained from V. Margulis, Univ Texas Southwestern Med Center Dallas, Dept. of Urol, Dallas, TX 75390, United States. Additional authors for this research include R. Hutchinson, C. Menegaz, A.Q. Haddad, L. Jiang, A.I. Sagalowsky, J.A. Cadeddu, Y. Lotan and V. Margulis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.07.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Renal Cell Carcinoma, Urothelial Cancer, Gastroenterology, Kidney Function, Renal Function, Nephrology, Carcinomas, Oncology, Surgery, University of Texas Southwestern.

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**Oncology - Urothelial Cancer**

**Data on Urothelial Cancer Detailed by Researchers at Chang Gung University (Adjuvant radiotherapy for locally advanced upper tract urothelial carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Urothelial Cancer. According to news reporting out of Taoyuan, Taiwan, by NewsRx editors, research stated, "There is relatively little literature on adjuvant radiotherapy after radical nephroureterectomy with bladder cuff excision (RNU) for patients with upper tract urothelial carcinoma (UTUC). This study was designed to determine the efficacy of adjuvant radiotherapy for patients with pT3N0M0 UTUC."

Our news journalists obtained a quote from the research from Chang Gung University, "We retrospectively reviewed 198 patients treated with RNU between December 2001 and January 2015. Postoperative radiotherapy was administered in 40 (20.2%) of patients. Patients who received radiotherapy were younger than those that did not (65.2 vs. 70.5 years, p = 0.023). With median follow up of 29.1 months, Kaplan-Meier analysis with the log-rank test
demonstrated no significant differences between those omitting vs receiving adjuvant radiotherapy in regards to 2-year rates of overall survival (72.0% vs. 73.4%, p = 0.979), cancer-specific survival (73.2% vs. 75.3%, p = 0.844), and recurrence-free survival (61.2% vs. 66.3%, p = 0.742). However, in multivariable analysis with Cox regression, young age, absence of chronic kidney disease, negative lymphovascular invasion, negative surgical margin, and adjuvant chemotherapy were also associated with better cancer-specific survival.

According to the news editors, the research concluded: "Adjuvant radiotherapy did not offer any significant benefit in terms of overall, cancer-specific, and recurrence-free survivals in patients with pT3N0M0 UTUC after RNU. More effective systemic adjuvant chemotherapy is necessary to improve the outcome of these patients."


Our news journalists report that additional information may be obtained by contacting Y.C. Huang, Chang Gung University, Grad Inst Clin Med Sci, Coll Med, Taoyuan, Taiwan. Additional authors for this research include Y.H. Chang, K.H. Chiu, A.W. Shindel and C.H. Lai.

Keywords for this news article include: Taoyuan, Taiwan, Asia, Combined Modality Therapy, Adjuvant Radiotherapy, Drugs and Therapies, Urothelial Cancer, Carcinomas, Oncology, Chang Gung University.

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**Immunization - Vaccines**

**Data on Vaccines Reported by A. De Beuckelaer and Colleagues (Type I Interferons Interfere with the Capacity of mRNA Lipoplex Vaccines to Elicit Cytolytic T Cell Responses)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immunization - Vaccines is the subject of a report. According to news reporting from Ghent, Belgium, by NewsRx journalists, research stated, "Given their high potential to evoke cytolytic T cell responses, tumor antigen-encoding messenger RNA (mRNA) vaccines are now being intensively explored as therapeutic cancer vaccines. mRNA vaccines clearly benefit from wrapping the mRNA into nano-sized carriers such as lipoplexes that protect the mRNA from degradation and increase its uptake by dendritic cells in vivo. Nevertheless, the early innate host factors that regulate the induction of cytolytic T cells to mRNA lipoplex vaccines have remained unresolved."

The news correspondents obtained a quote from the research, "Here, we demonstrate that mRNA lipoplexes induce a potent type I interferon (IFN) response upon subcutaneous, intradermal and intranodal injection. Regardless of the route of immunization applied, these type I IFNs interfered with the generation of potent cytolytic T cell responses. Most importantly, blocking type I IFN signaling at the site of immunization through the use of an IFNAR blocking antibody greatly enhanced the prophylactic and therapeutic antitumor efficacy of mRNA lipoplexes in the highly aggressive B16 melanoma model."
According to the news reporters, the research concluded: "As type I IFN induction appears to be inherent to the mRNA itself rather than to unique properties of the mRNA lipoplex formulation, preventing type I IFN induction and/or IFNAR signaling at the site of immunization might constitute a widely applicable strategy to improve the potency of mRNA vaccination."

For more information on this research see: Type I Interferons Interfere with the Capacity of mRNA Lipoplex Vaccines to Elicit Cytolytic T Cell Responses. *Molecular Therapy*, 2016;24(11):2012-2020. *Molecular Therapy* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news journalists report that additional information may be obtained by contacting S. De Koker, VIB, Medical Biotechnol, Ghent, Belgium. Additional authors for this research include C. Pollard, S. Van Lint, K. Roose, L. Van Hoecke, T. Naessens, V.K. Udhayakumar, M. Smet, N. Sanders, S. Lienenklaus, X. Saelens, S. Weiss, G. Vanham, J. Grooten and S. De Koker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2016.161. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ghent, Belgium, Europe, Intercellular Signaling Peptides and Proteins, Biological Products, Immunization, Interferons, Cytokines, Vaccines, Genetics.

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**Vinyl Compounds**

**Data on Vinyl Compounds Detailed by Researchers at Hokkaido University [Difference in the Dissolution Behaviors of Tablets Containing Polyvinylpolypyrrolidone (PVPP) Depending on Pharmaceutical Formulation After Storage Under High Temperature ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Vinyl Compounds. According to news originating from Hokkaido, Japan, by NewsRx correspondents, research stated, "Storage under high temperature and humid conditions has been reported to decrease the dissolution rate for some kinds of tablets containing polyvinylpolypyrrolidone (PVPP) as a disintegrant. The aim of this study was to elucidate the properties of pharmaceutical formulations with PVPP that cause a decrease in the dissolution rate after storage under high temperature and humid conditions by using model tablets with a simple composition."

Our news journalists obtained a quote from the research from Hokkaido University, "Model tablets, which consisted of rosuvastatin calcium or 5 simple structure compounds, salicylic acid, 2-aminodiphenylmethane, 2-aminobiphenyl, 2-(p-tolyl) benzoic acid or 4,4'-biphenol as principal agents, cellulose, lactose hydrate, PVPP and magnesium stearate as additives, were made by direct compression. The model tablets were wrapped in paraffin papers and stored for 2 weeks at 40 degrees C/75% relative humidity (RH). Dissolution tests were carried out by the paddle method in the Japanese Pharmacopoeia 16th edition. Model tablets with a simple composition were able to reproduce a decreased dissolution rate after storage at 40
degrees C/75% RH. These tablets showed significantly decreased water absorption activities after storage. In the case of tablets without lactose hydrate by replacing with cellulose, a decreased dissolution rate was not observed. Carboxyl and amino groups in the structure of the principal agent were not directly involved in the decreased dissolution. 2-Benzylaniline tablets showed a remarkably decreased dissolution rate and 2-aminobiphenyl and 2-(p-tolyl) benzoic acid tablets showed slightly decreased dissolution rates, though 4,4’-biphenol tablets did not show a decrease dissolution rate. We demonstrated that additives and structure of the principal agent were involved in the decreased in dissolution rate for tablets with PVPP. The results suggested that one of the reasons for a decreased dissolution rate was the inclusion of lactose hydrate in tablets.

According to the news editors, the research concluded: "The results also indicated that compounds as principal agents with low affinity for PVPP may be easily affected by airborne water under high temperature and humid conditions."


The news correspondents report that additional information may be obtained from Y. Takekuma, Hokkaido University, Fac Pharmaceut Sci, Sapporo, Hokkaido, Japan. Additional authors for this research include H. Ishizaka, M. Sumi, Y. Sato and M. Sugawara.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18433/J3HW3Q. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hokkaido, Japan, Asia, Organic Chemicals, Vinyl Compounds, Hydrocarbons, Polyvinyls, Polyeenes, Hokkaido University.

Our news journalists obtained a quote from the research from King George Medical University, "This case-control study included 130 subjects each in three arms (TBM, pulmonary tuberculosis and healthy control). This study was performed in a large tertiary care institution of..."
North India. Subjects were enrolled from August 2013 to July 2015. Vitamin D levels were measured using enzyme immunoassay. SNPs in VDR and TLR-2 gene were assessed using polymerase chain reaction-sequencing method. TBM patients were followed for 6 months. Vitamin D deficiency was significantly more common in TBM compared to controls and pulmonary tuberculosis (TBM versus controls p < 0.001; TBM versus pulmonary tuberculosis p < 0.001). The heterozygous (TC) and mutant (CC) genotypes of Taq1 VDR SNP were significantly associated with TBM as compared to controls [TC; p < 0.001, odds ratio (OR) = 3.53 (1.95-6.40); CC; p = 0.002 OR = 5.97 (1.89-18.84)]. The heterozygous genotypes were significantly associated with TBM as compared with pulmonary tuberculosis [p = 0.001; OR = 2.53 (1.43-4.45)]. Heterozygous (TG) and mutants (GG) forms of Apa1 VDR SNPs were significantly associated with TBM compared to controls [TG; p = 0.001, OR = 2.86 (1.58-5.17), GG; p = 0.002, OR = 5.11 (1.80-14.54)] and pulmonary tuberculosis. There was no significant difference in the frequency of TLR-2 SNPs. No association was found between outcome of TBM and vitamin D deficiency, VDR or TLR-2 SNPs."

According to the news editors, the research concluded: "Vitamin D deficiency and VDR polymorphisms are associated with the susceptibility of TBM."

For more information on this research see: Vitamin D status, vitamin D receptor and toll like receptor-2 polymorphisms in tuberculous meningitis: a case-control study. Infection, 2016;44(5):633-640. Infection can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Infection - www.springerlink.com/content/0300-8126/)


Keywords for this news article include: Uttar Pradesh, India, Asia, Nutritional and Metabolic Diseases and Conditions, Central Nervous System Diseases and Conditions, Gram-Positive Bacterial Infections, Deficiency Diseases and Conditions, Central Nervous System Infections, Pattern Recognition Receptors, Lung Diseases and Conditions, Actinomycetales Infections, Mycobacterium Tuberculosis, Mycobacterium Infections, Pulmonary Tuberculosis, Immunology, Genetics, Toll-Like Receptor 2, Vitamin D Deficiency, Toll-Like Receptors, Nutrition Disorders, Membrane Proteins, Malnutrition, Avitaminosis, Meningitis, King George Medical University.

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Proteins - Cytoskeletal Proteins

Davis Heart and Lung Research Institute Details Findings in Cytoskeletal Proteins (CRISPR-mediated Genome Editing Restores Dystrophin Expression and Function in mdx Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Proteins - Cytoskeletal Proteins have been published. According to news reporting originating in Columbus, Ohio, by NewsRx journalists, research stated, "Duchenne muscular dystrophy (DMD) is a degenerative muscle disease caused by genetic mutations that lead to the disruption of dystrophin in muscle fibers. There is no
curative treatment for this devastating disease."

The news reporters obtained a quote from the research from Davis Heart and Lung Research Institute, "Clustered regularly interspaced short palindromic repeat/Cas9 (CRISPR/Cas9) has emerged as a powerful tool for genetic manipulation and potential therapy. Here we demonstrate that CRISPR-mediated genome editing efficiently excised a 23-kb genomic region on the X-chromosome covering the mutant exon 23 in a mouse model of DMD, and restored dystrophin expression and the dystrophin-glycoprotein complex at the sarcolemma of skeletal muscles in live mdx mice. Electroporation-mediated transfection of the Cas9/gRNA constructs in the skeletal muscles of mdx mice normalized the calcium sparks in response to osmotic shock. Adenovirus-mediated transduction of Cas9/gRNA greatly reduced the Evans blue dye uptake of skeletal muscles at rest and after downhill treadmill running."

According to the news reporters, the research concluded: "This study provides proof evidence for permanent gene correction in DMD."

For more information on this research see: CRISPR-mediated Genome Editing Restores Dystrophin Expression and Function in mdx Mice. Molecular Therapy, 2015;24 (3):564-9. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news correspondents report that additional information may be obtained by contacting L. Xu, Dept. of Surgery, Davis Heart and Lung Research Institute, Biomedical Sciences Graduate Program, Biophysics Graduate Program, The Ohio State University Wexner Medical Center, Columbus, Ohio, United States. Additional authors for this research include K.H. Park, L. Zhao, J. Xu, M. El Refaey, Y. Gao, H. Zhu, J. Ma and R. Han.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2015.192. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Columbus, Genetics, Dystrophin, United States, Muscle Proteins, Membrane Proteins, Cytoskeletal Proteins, North and Central America.

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Heart Disorders and Diseases - Tachycardia

Department of Cardiology Describes Findings in Tachycardia (The Lewis Lead for Detection of Ventriculoatrial Conduction Type)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Tachycardia. According to news reporting from Berlin, Germany, by NewsRx journalists, research stated, "Identification of a possible ventriculoatrial (VA) dissociation in wide QRS complex tachycardias is one of the most reliable criteria for differentiation of tachycardia origin. The Lewis lead has been proposed for detection of atrial activity during ventricular tachycardias."

The news correspondents obtained a quote from the research from the Department of Cardiology, "A modified Lewis-lead-ECG will be superior to the standard-lead ECG for detection of ventriculoatrial conduction during ventricular tachycardia. Forty-seven patients underwent electrophysiological study, stimulated with a fixed cycle length of 400 ms in the
ventricle. During stimulation, a standard-lead ECG and a modified Lewis-lead ECG were recorded. Simultaneously, VA conduction was documented by intracardiac electrograms. Surface ECGs were presented to 6 blinded examiners for VA conduction assessment. Type of VA conduction was correctly diagnosed in significantly more ECGs in the Lewis-lead ECG group (mean, 35.0 [75%]) than in the standard-lead ECG group (mean, 29.2 [62%]; p=0.045). Ventriculoatrial dissociation also was significantly more often correctly diagnosed in the Lewis-lead ECG group (mean, 17.7 [71%]) than in the standard-lead ECG group (mean, 12.7 [49%]; p=0.014). Interobserver agreement was moderate in both groups (k=0.45 and k=0.49, respectively).

According to the news reporters, the research concluded: "Compared with standard-lead ECG, modified Lewis-lead ECG is associated with significantly improved detection of VA conduction type during fast ventricular pacing and thus may help improve ECG diagnosis."


Our news journalists report that additional information may be obtained by contacting M. Huemer, Dept. of Cardiology, Campus Virchow Klinikum, Charite-University Medicine Berlin, Berlin, Germany. Additional authors for this research include H. Meloh, P. Attanasio, A. Wutzler, A.S. Parwani, H. Matsuda, F. Blaschke, L.H. Boldt and W. Haverkamp.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/clc.22505. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berlin, Europe, Germany, Cardiology, Tachycardia, Heart Disease, Cardiovascular, Cardiac Arrhythmias, Diagnostics and Screening, Heart Disorders and Diseases.

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(inception through December 2014) and performed meta-analysis using random effects model. Detection of AF, use of anticoagulation at follow-up, recurrent stroke or TIA, and mortality were major outcomes. Four RCTs with 1149 total patients were included in the meta-analysis. Prolonged cardiac monitoring >= 7 days compared to shorter cardiac monitoring of <= 48 hours duration increased the detection of AF (>= 30 seconds duration) in patients after cryptogenic stroke or TIA (13.8% vs. 2.5%; odds ratio [OR], 6.4; 95% confidence interval [CI], 3.50-11.73; P< 0.00001; I-2, 0%). It also increased the odds of AF detection of any duration (22.6% vs. 5.2%; 5.68[3.3-9.77]; P< 0.00001; I-2, 0%). The patients who underwent prolonged monitoring were more likely to be on anticoagulation at followup (2.21[1.52-3.21]; P< 0.0001; I-2, 0%). No differences in recurrent stroke or TIA (0.78[0.40-1.55]; P = 0.48; I-2, 0%) and mortality (1.33 [0.29-6.00]; P = 0.71; I-2, 0%) were observed between two strategies.

According to the news editors, the research concluded: "Prolonged cardiac monitoring improves detection of atrial fibrillation and anti-coagulation use after cryptogenic stroke or TIA and therefore should be considered instead of shorter duration of cardiac monitoring."


Our news journalists report that additional information may be obtained by contacting K. Dahal, LRG Healthcare, Dept. of Med, Laconia, NH, United States. Additional authors for this research include B. Chapagain, R. Maharjan, H. Farah, A. Nazeer, R.J. Lootens and A. Rosenfeld.

Keywords for this news article include: Laconia, New Hampshire, United States, North and Central America, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Clinical Trials and Studies, Transient Ischemic Attack, Atrial Fibrillation, Cardiac Arrhythmias, Clinical Research, Heart Disease, Cardiology, Department of Medicine.

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**Hematology - Laboratory Hematology**

**Department of Pathology and Laboratory Medicine Details Findings in Laboratory Hematology (Verifying the performance characteristics of the TEG5000 thromboelastogram in the clinical laboratory)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hematology - Laboratory Hematology. According to news reporting originating in Sacramento, California, by NewsRx journalists, research stated, "To verify the manufacturer performance claims of the TEG5000 with traditional laboratory methods. Samples were concurrently measured using the TEG5000 analyzer and either PT, APTT, fibrinogen, factor activities, platelet count, or platelet function testing using whole blood or platelet-rich plasma methods."

The news reporters obtained a quote from the research from the Department of
Pathology and Laboratory Medicine, "Within-run imprecision yielded coefficient of variation (CV) of <5%. There was no correlation of PT or APTT with R time. Only Factor VIII and factor XII activity significantly correlated with R time. There was significant correlation between k angle with FBG, PLT count, and factor levels. There was weak inverse correlation between angle results and measures of platelet function. All laboratory methods were significantly correlated with MA. There were significant differences between citrated whole blood and fresh citrated plasma for angle and MA, and between fresh and frozen plasma for R time and MA. We demonstrated a high % inhibition noted with normal, drug naïve donors, especially with ADP PLT mapping (50% inhibition), but less so with AA PLT mapping (20% inhibition). For TEG platelet mapping, 19/22 (86.3%) and 17/22 (77.3%) results were concordant with traditional aggregation results."

According to the news reporters, the research concluded: "We demonstrated both the lack of, and strong correlation between laboratory tests and the TEG parameters."


Our news correspondents report that additional information may be obtained by contacting R.C. Gosselin, Dept. of Pathology and Laboratory Medicine, UC Davis Health System, Sacramento, CA, United States. Additional authors for this research include E.E. Estacio, J.Y. Song and D.M Dwyre.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12464. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the *International Journal of Laboratory Hematology* can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Sacramento, California, United States, Laboratory Hematology, North and Central America.

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**Bacterial Infections and Mycoses - Bacteremia**

**Division of Nephrology Details Findings in Bacteremia (Organism-specific bacteremia by hemodialysis access)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Bacterial Infections and Mycoses - Bacteremia. According to news originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Data on hemodialysis (HD)-related organism specific bacteremia rates by type of access over an extended period are scant in the literature. Using a registry data base we examined all positive blood cultures by organisms for each type of HD access over 14 years."

Our news journalists obtained a quote from the research from the Division of Nephrology, "The IRB-approved registry data collection of prevalent patients at our HD unit
from 1/1/1999 through 12/31/2012 was analyzed. All positive blood cultures were recorded and expressed as episodes/1,000 days by access type: arteriovenous fistula (AVF), arteriovenous graft (AVG), and central venous catheter (CVC). The rate of positive blood cultures in patients with CVCs was 1.86/1,000 days and was much higher than in patients with an AVF (0.08/1,000 days, p< 0.001) or an AVG (0.31/1,000 days, p< 0.002). There was considerable fluctuation in the bacteremia rate in CVCs with a spike during 2004 -2008, due predominately to coagulase-negative staphylococcus (CNS) bacteremia. The rate subsequently decreased after retraining of staff. The exit site infection (ESI) rate of CVCs was low, suggesting this was not contributing to the cause of the increase rate of CNS bacteremia. Those patients using a CVC had a markedly increased risk of multiple episodes compared to those using an AVF. Bacteremia with Pseudomonas, polymicrobial, and fungal organisms occurred only in those with a CVC. The frequency and type of positive blood culture in HD patients are highly associated with type of access used. The high rate of CNS bacteremia with CVC in conjunction with low ESI rate suggests that contamination at the time of accessing the catheter may be the problem. Staff training was followed by a decrease in infection rates."

According to the news editors, the research concluded: "Trending organism-specific bacteremia infection rates in HD units may provide important clues to bacteremia causality and thus prevention."

For more information on this research see: Organism-specific bacteremia by hemodialysis access. Clinical Nephrology, 2016;86(3):141-146. Clinical Nephrology can be contacted at: Dustri-Verlag Dr Karl Feistle, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.

The news correspondents report that additional information may be obtained from J.J. Zhang, Thomas Jefferson Sch, Sidney Kimmel Med College, Div Nephrol, Philadelphia, PA, United States. Additional authors for this research include R.A. Burr, H.S. Sheth and B. Piraino.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Bacterial Infections and Mycoses, Renal Dialysis, Hemodialysis, Bacteremia, Sepsis, Division of Nephrology.

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**DNA Research**

**Duke University Reports Findings in DNA Research (Integrative modelling of tumour DNA methylation quantifies the contribution of metabolism)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on DNA Research have been published. According to news reporting out of Durham, North Carolina, by NewsRx editors, research stated, "Altered DNA methylation is common in cancer and often considered an early event in tumorigenesis. However, the sources of heterogeneity of DNA methylation among tumours remain poorly defined."

Our news journalists obtained a quote from the research from Duke University, "Here we capitalize on the availability of multi-platform data on thousands of human tumours to build integrative models of DNA methylation. We quantify the contribution of clinical and..."
molecular factors in explaining intertumoral variability in DNA methylation. We show that the levels of a set of metabolic genes involved in the methionine cycle is predictive of several features of DNA methylation in tumours, including the methylation of cancer genes. Finally, we demonstrate that patients whose DNA methylation can be predicted from the methionine cycle exhibited improved survival over cases where this regulation is disrupted. This study represents a comprehensive analysis of the determinants of methylation and demonstrates the surprisingly large interaction between metabolism and DNA methylation variation."

According to the news editors, the research concluded: "Together, our results quantify links between tumour metabolism and epigenetics and outline clinical implications."


Our news journalists report that additional information may be obtained by contacting J.W. Locasale, Duke University, Dept. of Pharmacol & Canc Biol, Sch Med, Durham, NC 27710, United States. Additional authors for this research include L.K. Mentch, A.G. Clark and J.W. Locasale.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, DNA Research, Genetics, Duke University.

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**Endometrial cancer driver mutations detectable in uterine lavage fluid**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Mutations that have been linked to endometrial cancer can be found in the uterine lavage fluid of pre- and post-menopausal women both with and without detectable cancer, according to a study published in *PLOS Medicine* by John Martignetti from the Icahn School of Medicine at Mount Sinai, New York, USA, and colleagues.

There are no effective screening methods for endometrial cancer, which is currently increasing in both incidence and mortality in the United States. In the new study, researchers performed uterine lavage - where the inside of the uterus is rinsed with saline fluid to collect loose cells and DNA - on 107 women undergoing diagnostic hysteroscopy due to post-menopausal uterine bleeding or abnormal pelvic ultrasound results. The cells and DNA collected were analyzed with either one of two next-generation sequencing panels to detect previously established driver mutations of endometrial cancer. Hysteroscopy samples were analyzed using classic histopathology.

Of the 107 women in the study, 7 were found to have histopathological evidence of endometrial cancer and all 7, even those with only microscopic evidence of cancer, had significant cancer-driver gene mutations in their uterine lavage fluid. However, 51 women without histopathological evidence of cancer also carried cancer-driver mutations in the cells and DNA from their lavage fluid. Age and post-menopausal status were both positively associated with the likelihood of harboring these mutations. Due to this unexpected finding, uterine lavage fluid was not able to distinguish between women with and without clinically relevant evidence of endometrial cancer. More research is needed to shed light on the
significance of driver mutations in women without evidence of cancer.

"Given that a uterine lavage can be easily and quickly performed even outside of the operating room and in a physician's office-based setting, our findings suggest the future possibility of this approach for screening women for the earliest stages of endometrial cancer," the authors say. "However, our findings suggest that further insight into development of endometrial cancer or its interruption are needed before translation to the clinic."

Keywords for this news article include: PLOS, Genetics, Menopause, Gynecology, Women's Health, Diagnostics and Screening, Oncology - Endometrial Cancer.

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Oncology - Breast Cancer

Erasmus University Medical Center Describes Findings in Breast Cancer (Annexin-A1 and caldesmon are associated with resistance to tamoxifen in estrogen receptor positive recurrent breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting from Rotterdam, Netherlands, by NewsRx journalists, research stated, "Tamoxifen therapy resistance constitutes a major cause of death in patients with recurrent estrogen receptor (ER) positive breast cancer. Through high resolution mass spectrometry (MS), we previously generated a 4-protein predictive signature for tamoxifen therapy outcome in recurrent breast cancer."

The news correspondents obtained a quote from the research from Erasmus University Medical Center, "ANXA1 and CALD1, which were not included in the classifier, were however the most differentially expressed proteins. We first evaluated the clinical relevance of these markers in our MS cohort, followed by immunohistochemical (IHC) staining on an independent set of tumors incorporated in a tissue microarray (TMA) and regression analysis in relation to time to progression (TTP), clinical benefit and objective response. In order to assess which mechanisms ANXA1 and CALD1 might have been involved in, we performed Ingenuity pathway analysis (IPA) on ANXA1 and CALD1 correlated proteins in our MS cohort. ANXA1 (Hazard ratio [HR]=1.83; 95% confidence interval [CI]: 1.22-2.75; p=0.003) and CALD1 (HR=1.57; 95% CI: 1.04-2.36; p=0.039) based patient stratification showed significant association to TTP, while IHC staining on TMA showed that both ANXA1 (HR=1.82; 95% CI: 1.12-3.00; p=0.016) and CALD1 (HR=2.29; 95% CI: 1.40-3.75; p=0.001) expression was associated with shorter TTP independently of traditional predictive factors. Pearson correlation analysis showed that the majority of proteins correlated to ANXA1 also correlated with CALD1. IPA indicated that ANXA1 and CALD1 were associated with ER-downregulation and NF-kB signaling."

According to the news reporters, the research concluded: "We hereby report that ANXA1 and CALD1 proteins are independent markers for tamoxifen therapy outcome and are associated to fast tumor progression."

For more information on this research see: Annexin-A1 and caldesmon are associated with resistance to tamoxifen in estrogen receptor positive recurrent breast cancer. Oncotarget, 2016;7(3):3098-110.

Our news journalists report that additional information may be obtained by

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6521. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Europe, Hormones, Oncology, Rotterdam, Stilbenes, Tamoxifen, Annexin A1, Netherlands, Breast Cancer, Women's Health, Carrier Proteins, Steroid Receptors, Benzene Derivatives, Drugs and Therapies, DNA Binding Proteins, Transcription Factors, Selective Estrogen Receptor Modulators.

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**Escend Pharmaceuticals, Inc.**

**Escend Pharmaceuticals, Inc., Receives Second Orphan Drug Designation from FDA for ES-3000**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Escend Pharmaceuticals, Inc., a privately held company focused on the development of small molecule therapeutics for oncology orphan diseases, announced that the FDA Office of Orphan Products Development (OOPD) has granted orphan drug designation for its lead product candidate, ES-3000, for the treatment of acute myeloid leukemia (AML). The FDA previously granted ES-3000 orphan designation for the treatment of chronic myeloid leukemia (CML).

"This accomplishment validates the potential significance ES-3000 can have in shifting the AML treatment paradigm," said Saira Bates, Co-founder & CEO of Escend. "The treatment of patients with AML is complicated by relapse and refractory disease which is often attributed to the resistance of leukemic stem cells to standard therapeutics. ES-3000 will be used in conjunction with standard agents to target leukemic stem cells for more durable remissions."

The FDA orphan drug designation provides 7 years of marketing exclusivity and certain incentives, including federal grants, tax credits, and waived FDA fees. Successive drug approvals for ES-3000 in the treatment of CML and AML give Escend the possibility of up to 14 years of drug exclusivity.

Keywords for this news article include: Escend Pharmaceuticals Inc., Leukemia, Oncology, Stem Cell Research.

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**Cholesterol**

**FH and other findings from Geisinger-Regeneron genomics studies**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- DANVILLE, Pa. - A study conducted by Geisinger Health System in
collaboration with the Regeneron Genetics Center (RGC) has found that a life-threatening genetic disorder known as Familial Hypercholesterolemia (FH) is both underdiagnosed and undertreated. It was published in the peer-reviewed journal Science on Dec. 23 alongside another significant study from the same Geisinger-RGC collaboration known as DiscovEHR. That other study describes exome sequencing and analyses of the first 50,726 adult participants in the DiscovEHR cohort - all members of the Geisinger MyCode Community Health Initiative.

In the FH study, the collaborators examined genetic variants causing FH in the DiscovEHR cohort and then compared the findings against the de-identified medical histories of these patients as contained in Geisinger electronic health records. Traditionally, in the United States, FH is diagnosed in patients with high cholesterol who also have a family history of early heart attacks and strokes. Genetic testing for FH is currently uncommon in clinical practice.

FH is caused by a defect that makes the body unable to remove "bad" cholesterol from the blood. This cholesterol (low density lipoprotein cholesterol or LDL-C) then accumulates, often undetected, and can lead to early death from heart attacks or stroke - even in very young people.

Results of the new study found many undiagnosed cases of FH and helped to define the extent of FH in the general population.

"The study shows us that FH is about twice as common as it was once thought to be, and that large-scale genetic testing for FH helps identify cases that would otherwise be missed," said Michael F. Murray, M.D., Geisinger director of clinical genomics. "We now hope to use DNA sequencing to guide better management for patients."

Among the many findings of the study were that 1 in every 256 people has a disease-causing mutation, or variant, in one of the three FH genes. It showed that participants with a deleterious FH gene variant had significantly higher "bad" cholesterol than those without an FH gene variant. They also had significantly increased odds of both general and premature coronary artery disease.

"Being able to connect patient's de-identified medical records with their DNA data is an advantage that few others in this field have. Paired with the RGC's unique technological and analytical resources, we are able to make meaningful discoveries that may advance the implementation of precision medicine today and the development of new or improved medicines tomorrow," said Noura Abul-Husn, M.D., Ph.D., associate director of translational genetics at the RGC and co-author of the paper.

The study identified 35 mutations, or variants, in the genes LDLR, APOB, and PCSK9 that have been determined to cause FH. Only 24 percent of people who carry FH-causing variants had sufficient criteria within their electronic health records to support a probable or definite FH diagnosis, meaning that without genetic confirmation, many of these patients would go undiagnosed and likely undertreated. Indeed, 42 percent of people with these FH-causing variants did not have a recent active prescription for statins, the first line therapy for cholesterol lowering. Among statin-treated people with FH-causing variants, less than half met goals for cholesterol lowering.

"Geisinger is committed to translating this important research directly into improved care for our patients," said Geisinger Executive Vice President and Chief Scientific Officer David H. Ledbetter, Ph.D. "We have begun a major effort to confirm individual patient findings and inform individual participants and their doctors when genetic findings, that are known to cause illness, are discovered in our population," he said.

FH is one of 27 genetic conditions being targeted at Geisinger. So far, nearly 200 patients - including 29 FH carriers - have already been informed they carry one or more disease-causing genetic mutations with consequences that can be treated. These conditions are mainly
related to risk for cancer or cardiovascular illness. The effort to return individual results will continue as more findings are confirmed. For details see go.geisinger.org/results.

Keywords for this news article include: Genetics, Cholesterol, Geisinger Health System, Diagnostics and Screening.

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Oncology - Lung Cancer

Faculty of Medicine Reports Findings in Lung Cancer (Case report: Durable response to afatinib in a patient with lung cancer harboring two uncommon mutations of EGFR and a KRAS mutation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting out of Osaka, Japan, by NewsRx editors, research stated, "Comprehensive genomic profiling for non-small cell lung cancer (NSCLC) is likely to identify more patients with rare genetic alterations including uncommon epidermal growth factor receptor gene (EGFR) mutations. It remains unclear how such patients should be treated, however."

Our news journalists obtained a quote from the research from the Faculty of Medicine, "We here report a case of NSCLC positive for two uncommon mutations of EGFR and a KRAS mutation, including its treatment with the second-generation EGFR tyrosine kinase inhibitor (TKI) afatinib. Tumor specimen obtained by a NSCLC patient with no smoking history was analyzed by next-generation sequencing. Comprehensive genomic profiling revealed that the patient harbored the EGFR mutations G719C and S768I as well as the E49K mutation of KRAS. Treatment with afatinib was clinically effective as confirmed by PET-CT scans of bone metastases and by a marked decrease in the serum concentration of carcinoembryonic antigen. Afatinib was the most effective among seven EGFR-TKIs tested in inhibiting the growth of Ba/F3 cells expressing EGFR(S768I), showing an efficacy similar to that apparent with cells expressing the common EGFR mutant L858R, whereas first- and third-generation EGFR-TKIs were markedly less effective against EGFR(S768I) than against EGFR(L858R). These data suggest that EGFR-TKIs differ in their activity toward cells expressing EGFR(S768I) in vitro. Consistently, afatinib was clinically effective for the treatment of NSCLC harboring G719C and S768I mutations of EGFR."

According to the news editors, the research concluded: "Further studies are warranted to determine the most appropriate EGFR-TKI for treatment of NSCLC harboring uncommon EGFR mutations."


Our news journalists report that additional information may be obtained by contacting H. Hayashi, Kindai Univ, Fac Med, Dept. of Med Oncol, Osaka, Osaka 5898511, Japan. Additional authors for this research include E. Banno, Y. Togashi, H. Hayashi, K. Sakai, M. Takeda, H. Kaneda, K. Nishio and K. Nakagawa.
Fat fuels the road to cancer cell spread

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Cancer cells spread to other sites in the body through promoting the growth of new 'roads' to travel on. In a study to be published on December 26th in the top scientific journal, Nature, an international and multidisciplinary team of researchers, led by Prof. Dr. Peter Carmeliet (VIB-KU Leuven), discovered how a shift to increased fat utilization is required for the development and growth of these 'roads', termed lymphatic vessels - a special kind of blood vessels. This discovery paves the way towards developing therapeutics to limit lymphatic vessel growth in cancer by targeting fat utilization.

The spread of cancer, termed metastasis, is one of the most important and life-threatening complications of cancer today. Current chemotherapy and radiotherapy can effectively treat many cancers, however, the spread of cancer cells to multiple sites within the body results in the majority of deaths associated with cancer. In order for cancer cells to spread, they must find a pre-existing 'road', or build a new 'road' to travel on. Lymphatic vessels, a specialized kind of vessels transporting fluid rather than blood, are a primary route of cancer cell spread, and the formation of new lymphatic vessels, termed lymphangiogenesis, is a poorly understood process, which currently lacks clinically approved drugs to prevent their growth during disease.

Fat fuels lymphatics

Expanding upon recent work in the laboratory published in top journals such as Cell and Nature, a team consisting of Drs. Brian Wong, Xingwu Wang and Annalisa Zecchin, guided by Prof. Carmeliet sought to investigate the nutrient utilization (metabolism) of lymphatic vessels. The study began with a simple observation: lymphatics use more fat (fatty acids) compared to blood vessels. This is the first description of the nutrient utilization of lymphatic vessels. Using drugs to prevent fat utilization by lymphatics prevented lymphatic growth, an important step in translating this finding to the cancer setting and inhibition of metastasis.

What cells eat determines what they become

To understand why these cells are so reliant on fat, the researchers investigated how lymphatics develop. Lymphatics 'transform' from blood vessels during embryonic development, and this study shows that the signals that transform blood vessels to lymphatics also change their 'taste' to prefer eating fat. The novelty of this discovery is that this 'transformation' relies on an increase of fat utilization. In this process, the fat is used to generate molecules which can modify important factors that regulate the expression of the genetic code, termed epigenetic changes, which can ensure the function of lymphatics. The hard-wiring of the genetic code...
(DNA) itself is not altered by fat, but the utilization of this code that defines the lymphatic gene signature is modulated. A key translational aspect to this finding was the proof that resupplying another (fat) nutrient source could restore the growth and function of lymphatics.

Dr. Brian Wong (VIB-KU Leuven): "Our study shows that the usage of fat by lymphatics is programmed in their development, and required for their growth and function. We have demonstrated by enhancing or preventing the usage of fat (or fat byproducts), we can control the growth of lymphatics."

The next steps to preventing cancer cell spread and treating cancer patients

The immediate next steps of this research are clear and two-fold. On one hand, inhibitors of fat usage will be tested on a large scale for their ability to reduce metastasis in different types of cancer. On the other hand, we will test whether dietary fat supplements (for instance in the form of ketone bodies, used by athletes) can heal faulty lymphatics, a major complication in cancer patients undergoing surgical cancer removal, which leads to the debilitating swelling and dysfunction of the arms and legs, termed lymphedema, for which no drug is available.

Prof. Peter Carmeliet (VIB-KU Leuven): "Our immediate next studies are focusing on further translating these findings to the cancer setting. Previously, we could not develop drugs to target the growth of lymphatic vessels because we did not understand how they develop and function. Our work demonstrates the importance of their reliance on fat, and provides essential steps towards developing effective drugs to prevent excessive lymphatic growth in cancer, but also to treat incapacitating complications of lymphedema."

Keywords for this news article include: Cancer, Genetics, Oncology, Risk and Prevention, Hemic and Lymphatic Diseases and Conditions, Lymphatic Diseases and Conditions - Lymphedema, VIB (the Flanders Institute for Biotechnology).

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Neoplasms

Federal University Reports Findings in Neoplasms (The prevalence of CALR mutations in a cohort of patients with myeloproliferative neoplasms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neoplasms. According to news reporting originating in Rio de Janeiro, Brazil, by NewsRx journalists, research stated, "To investigate the prevalence of calreticulin (CALR) mutations in JAK2-and MPL-non-mutated patients with suspected myeloproliferative neoplasm (MPN) from a large MPN clinic and confirm a diagnosis of MPN. JAK2/MPL-non-mutated patients from the Belfast City Hospital (BCH) with either of the MPNs -ET or MF -and diagnosed between 1988 and 2014 were selected for CALR screen."

Financial support for this research came from Conselho Nacional de Desenvolvimento Cientifico e Tecnologico.

The news reporters obtained a quote from the research from Federal University, "All cases were validated according to the WHO 2008 classification for MPNs. Statistical analysis was performed with Minitab 16 Statistical Software package. Exon 9 of CALR was amplified by PCR using genomic DNA, and mutations were detected by fragment analysis. Of the 62
JAK2/MPL-non-mutated MPN patients screened, 57 had ET and 5 had MF; 34 patients (53.1%) carried CALR mutations. Three of 5 MF patients were CALR positive. Thirty-one ET patients (54.3%) harboured CALR mutation, whereas 26 (45.7%) were classified as 'triple negatives'. Detection of CALR mutations in a cohort of JAK2/MPL-non-mutated patients with suspected MPN confirmed the diagnosis of MPN in around 53% of cases. This is lower than initially reported, but similar to subsequent studies."

According to the news reporters, the research concluded: "However, a sizable cohort of patients remains lacking a specific molecular marker."


Our news correspondents report that additional information may be obtained by contacting E. Grinsztejn, Medicine, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil. Additional authors for this research include M.J. Percy, D. McClenaghan, M. Quintana, R.J. Cuthbert and M.F McMullin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12447. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the *International Journal of Laboratory Hematology* can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Brazil, Genetics, Neoplasms, South America, Rio de Janeiro, Diagnostics and Screening.

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**Findings from A. Albitar and Co-Authors in the Area of Laboratory Hematology Reported (Positive selection and high sensitivity test for MYD88 mutations using locked nucleic acid)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematology - Laboratory Hematology is the subject of a report. According to news reporting from Irvine, California, by NewsRx journalists, research stated, "Detection of mutations in the myeloid differentiation primary response gene 88 (MYD88) has clinical implications on diagnosis and therapy, especially in patients with Waldenström's macroglobulinemia (WM) and IgM monoclonal gammopathy of unknown significance (IgM-MGUS). We describe a method that provides greatly increased sensitivity for detecting minority mutations in MYD88."

The news correspondents obtained a quote from the research, "We used a locked nucleic acid oligonucleotide to block amplification of wild-type DNA during polymerase chain reaction (PCR). Sanger sequencing of amplified DNA was used for detecting mutations in MYD88 gene. This approach was used to test samples from patients with WM and IgM-MGUS. When compared to traditional PCR followed by Sanger sequencing, our methodology was
significantly more sensitive (one mutant allele in a background of 200 wild-type alleles). Using sequencing allowed us to visualize the PCR product, giving advantages over other methodologies such as allele-specific PCR. Based on analyzing 36 randomly selected, MYD88 mutated, clinically tested samples, we demonstrate that traditional PCR failed to detect MYD88 mutations in 64% of the samples that were clearly positive by wild-type blocking PCR.”

According to the news reporters, the research concluded: ”The new methodology is essential for attaining accurate results in clinical testing.”


Our news journalists report that additional information may be obtained by contacting A. Albitar, NeoGenomics Laboratories, Irvine, CA, United States. Additional authors for this research include W. Ma, I. DeDios, J. Estella, S. Agersborg and M. Albitar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12456. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the International Journal of Laboratory Hematology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Irvine, Genetics, California, United States, Laboratory Hematology, North and Central America.

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Oncology - Breast Cancer


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news originating from Tres Cantos, Spain, by NewsRx correspondents, research stated, "We study the correlation between cytoskeleton organization and stiffness of three epithelial breast cancer cells lines with different degrees of malignancy: MCF-10A (healthy), MCF-7 (tumorigenic/noninvasive), and MDA-MB-231 (tumorigenic/invasive). Peak-force modulation atomic force microscopy is used for high-resolution topography and stiffness imaging of actin filaments within living cells."

Our news journalists obtained a quote from the research, "In healthy cells, local stiffness is maximum where filamentous actin is organized as well-aligned stress fibers, resulting in apparent Young's modulus values up to 1 order of magnitude larger than those in regions where these structures are not observed, but these organized actin fibers are barely observed in tumorigenic cells. We further investigate cytoskeleton conformation in the three cell lines by immunofluorescence confocal microscopy. The combination of both techniques determines that actin stress fibers are present at apical regions of healthy cells, while in
tumorigenic cells they appear only at basal regions, where they cannot contribute to stiffness as probed by atomic force microscopy. These results substantiate that actin stress fibers provide a dominant contribution to stiffness in healthy cells, while the elasticity of tumorigenic cells appears not predominantly determined by these structures. We also discuss the effects of the high-frequency indentations inherent to peak-force atomic force microscopy for the identification of mechanical cancer biomarkers."

According to the news editors, the research concluded: "Whereas conventional low loading rate indentations (1 Hz) result in slightly differentiated average stiffness for each cell line, in high-frequency measurements (250 Hz) healthy cells are clearly discernible from both tumorigenic cells with an enhanced stiffness ratio; however, the two cancerous cell lines produced indistinguishable results."


The news correspondents report that additional information may be obtained from A. Calzado-Martin, Instituto de Microelectronica de Madrid (IMM, CSIC) Isaac Newton 8, 28760, Tres Cantos, Madrid, Spain. Additional authors for this research include M. Encinar, J. Tamayo, M. Calleja and A. San Paulo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.5b07162. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, Oncology, Tres Cantos, Breast Cancer, Women's Health.

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epithelia and squamous cell carcinomas, a similar control mechanism is present. By contrast, columnar epithelia differentiate an apical domain that recruits CRB3, Merlin (also known as NF2), KIBRA (also known as WWC1) and SAV1 to induce Hippo signalling and retain YAP/TAZ in the cytoplasm despite contact with the basal layer extracellular matrix.

According to the news reporters, the research concluded: "When columnar epithelial tumours lose their apical domain and become invasive, YAP/TAZ becomes nuclear and tumour growth becomes sensitive to the Src inhibitor Dasatinib."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/dev.133728. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Immunologic Receptors, Membrane Proteins, Integrins, Genetics.

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Bone Research

Findings from A. Gobbi and Co-Authors Provide New Insights into Bone Research (One-Stage Cartilage Repair Using a Hyaluronic Acid-Based Scaffold With Activated Bone Marrow-Derived Mesenchymal Stem Cells Compared With Microfracture Five-Year ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Bone Research have been published. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "Articular cartilage injury is frequently encountered, yet treatment options capable of providing durable cartilage repair are limited. To investigate the medium-term clinical outcomes of cartilage repair using a 1-stage technique of a hyaluronic acid-based scaffold with activated bone marrow aspirate concentrate (HA-BMAC) and compare results with those of microfracture."

Our news journalists obtained a quote from the research, "A secondary aim of this study was to identify specific patient demographic factors and cartilage lesion characteristics that are associated with superior outcomes. Cohort study; Level of evidence, 2. Fifty physically active patients (mean age, 45 years) with grade IV cartilage injury of the knee (lesion size, 1.5-24 cm(2)) were treated with HA-BMAC or microfracture and were observed prospectively for 5 years. Patients were placed into the HABMAC group if the health insurance policy of the treating institution supported this option; otherwise, they were placed into the microfracture
group. Objective and subjective clinical assessment tools were used preoperatively and at 2 and 5 years post-operatively to compare treatment outcomes. Significant improvements in outcome scores were achieved in both treatment groups at 2 years (P < .001). In the microfracture group, 64% were classified as normal or nearly normal according to the International Knee Documentation Committee (IKDC) objective score at 2 years, compared with 100% of those treated with HA-BMAC (P < .001). Normal or nearly normal objective assessments in the microfracture group declined significantly after 5 years to 28% of patients (P = .004). All patients treated with HA-BMAC maintained improvement at 5 years according to Lysholm, Tegner, IKDC objective, and IKDC subjective scores. Tegner, IKDC objective, and Knee injury and Osteoarthritis Outcome Score (KOOS) assessments demonstrated higher scores in the HA-BMAC treatment group compared with microfracture at 5 years. Lysholm and IKDC subjective scores were similar between treatment groups at 5 years. Poorer outcomes in the microfracture group were demonstrated in cases of lesions larger than 4 cm(2) and nonsolitary lesions. Age greater than 45 years, large size of lesion, and treatment of multiple lesions were not associated with poorer outcome in patients treated with HA-BMAC. Repair of chondral injury using a hyaluronic acid-based scaffold with activated bone marrow aspirate concentrate provides better clinical outcomes and more durable cartilage repair at medium-term follow-up compared with microfracture. Positive short-term clinical outcomes can be achieved with either microfracture or HA-BMAC.

According to the news editors, the research concluded: "Cartilage repair using HA-BMAC leads to successful medium-term outcomes independent of age or lesion size."


The news correspondents report that additional information may be obtained from A. Gobbi, Orthopaed Arthroscop Surg Int OASI Biore Fdn Gob, Milan, Italy.

Keywords for this news article include: Milan, Italy, Europe, Stem Cell Research, Immune System, Bone Research, Bone Marrow.

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Mycobacterium Infections - Tuberculosis

Findings from A. Nusrath Unissa and Co-Authors Provides New Data about Tuberculosis (A Note on Derivatives of Isoniazid, Rifampicin, and Pyrazinamide Showing Activity Against Resistant Mycobacterium tuberculosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mycobacterium Infections - Tuberculosis is now available. According to news reporting out of Tamil Nadu, India, by NewsRx editors, research stated, "Drug-resistant tuberculosis (DR-TB) is a serious problem that impedes the success of the TB control program. Of note, multidrug-resistant (MDR)-TB and extensively drug-resistant (XDR)-TB have certainly complicated the scenario."
Financial support for this research came from Indian Council of Medical Research.

Our news journalists obtained a quote from the research, "One of the possible strategies to overcome drug resistance in an economic and simple manner would involve modification of existing anti-TB drugs to obtain derivatives that can work on resistant TB bacilli. These may have improved half-life and increased bioavailability, be more efficacious, and serve as cost-effective alternatives, as compared to new drugs identified through conventional methods of drug discovery and development. Although extensive literature is available on the activity of various derivatives of first-line drugs (isoniazid, rifampicin and pyrazinamide) on drug-susceptible Mycobacterium tuberculosis (MTB), reports on the activity of derivatives on resistant MTB are very limited, to our knowledge."

According to the news editors, the research concluded: "In light of this, the present review aims to provide a concise report on the derivatives of first-line drugs that have the potential to overcome the resistance to the parental drug and could thus serve as effective alternatives."


Our news journalists report that additional information may be obtained by contacting A. Nusrath Unissa, Centre for Biomedical Informatics, National Institute for Research in Tuberculosis, Chennai, Tamil Nadu, 600 031, India. Additional authors for this research include L.E. Hanna and S. Swaminathan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12684. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Chemical Biology & Drug Design* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Antibiotics, Antiinfectives, Antituberculosis Agents, Pharmaceuticals, India, Tamil Nadu, Hydrazines, Actinobacteria, Article Review, Drug Resistance, Mycobacteriaceae, Isoniazid Therapy, Gram Positive Rods, Infectious Disease, Drugs and Therapies, Pyrazinamide Therapy, Gram Positive Bacteria, Mycobacterium Infections.

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Skin Diseases and Conditions - Mastocytosis

Findings from A. Payerols et al Has Provided New Information about Mastocytosis (Exophthalmos, Diplopia, and Bilateral Eyelid Edema: Symptoms of Ocular Mastocytosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Skin Diseases and Conditions - Mastocytosis have been presented. According to news reporting from Montpellier, France, by NewsRx journalists, research stated, "Mastocytosis is characterized by clonal mast cell proliferation with
accumulation within various organs and uncontrolled activation with excessive mast cell mediator release. Ocular manifestations have rarely been published."

The news correspondents obtained a quote from the research, "We describe a 63-year-old man with bilateral exophthalmos that led to the diagnosis of systemic mastocytosis. A patient presented with bilateral eyelid edema with exophthalmos associated with binocular diplopia. Ophthalmologic examination showed bilateral axial, symmetrical, and painless exophthalmos with eyelid edema, and limitation in elevation of the right eye. Visual acuity was normal. Orbital magnetic resonance imaging showed increased volume of both the superior and medial recti muscles and right inferior oblique muscle, and histopathological examination of orbital fat and muscle biopsies revealed an infiltration by mast cells. Serum tryptase was elevated. The patient also complained of a long history of pruritis and diffuse skin erythema that could be elicited with just mild pressure (Darier's sign). A bone marrow biopsy confirmed the infiltration of abnormal mast cells with a D816V mutation in the KIT gene. Treatment with cladribine was initiated and resulted in resolution in both ocular and systemic signs and symptoms that persisted without relapse 18 months after discontinuation. Ocular mastocytosis is a rare condition, which was previously reported to involve the conjunctiva, cornea, uvea, eyelid, orbit, and choroid. Cases of ocular mastocytosis can be classified into two main groups: mast cells tumors (mastocytomas) and ocular manifestations associated with systemic mastocytosis. Histological examination of ocular samples is rarely performed, and there are no standard criteria for the diagnosis of ocular mastocytosis. Our case emphasizes cladribine could represent an alternative treatment."

According to the news reporters, the research concluded: "Our case is the first published case of exophthalmos and eyelid edema associated with systemic mastocytosis confirmed by pathologic examination of periocular biopsies that was treated effectively with cladribine."

For more information on this research see: Exophthalmos, Diplopia, and Bilateral Eyelid Edema: Symptoms of Ocular Mastocytosis. Optometry and Vision Science, 2016;93 (11):1440-1443. Optometry and Vision Science can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Optometry and Vision Science - journals.lww.com/optvissci/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting A. Payerols, Hopital Gui de Chauliac, Serv Ophtalmol, F-34295 Montpellier 5, France. Additional authors for this research include E. Frouin, A. Schiffmann, N.M. de Champfleur, D. Canioni, O. Chandesris, V. Costes, M. Villain and F. Mura.

Keywords for this news article include: Montpellier, France, Europe, Skin and Connective Tissue Diseases and Conditions, Nervous System Diseases and Conditions, Skin Diseases and Conditions, Eye Diseases and Conditions, Neurologic Manifestations, Systemic Mastocytosis, Sensation Disorders, Vision Disorders, Exophthalmos, Genetics, Diplopia, Edema.

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Proteomics
Findings from AGH University of Science and Technology in Proteomics Reported (MYTHBUSTERS: a universal procedure for sample preparation for mass spectrometry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Proteomics have been presented. According to news reporting originating from Krakow, Poland, by NewsRx correspondents, research stated, "Improvements in proteomic strategies from the development of new and robust separation and identification techniques have led to broad applications of proteomics to solve numerous biological questions. For all analyses, sample quality is unquestionably a critical factor; therefore protein extraction is of utmost importance."

Our news editors obtained a quote from the research from the AGH University of Science and Technology, "The ideal extraction method should provide reproducible spectra of the most comprehensive repertoire of proteins, while minimizing sample loss and degradation. It is already known that to capture the whole proteome is an unenforceable task. Many protein extraction protocols have been described, yet there is no 'one perfect procedure' taking into account the vast diversity of biological and physical properties of proteins, including their charge, size, hydrophobicity, interactions and sub-cellular localization. The research presented here reflects the main obstacle occurring in proteomic experimental design; i.e. the lack of reproducibility as a result of alterations in protein extraction methods. We have performed a series of experiments, aimed towards identification of the aptamer-binding partners in cancerous cells. Aptamers are chemically synthesized, short, single-stranded nucleic acids with a strictly defined three-dimensional structure, which allows them to interact with a target molecule with high affinity. The low immunogenicity and cellular-targeting properties of aptamers might facilitate design of suitable drugs with low side-effects. Aptamers can be used for identification of molecules associated with a pathogenic state of a cell. Aptamers can be considered as a powerful-tool, since they possess unique properties to benefit cancer diagnosis, prevention and treatment. We have used different types of protein extraction methods prior to analyses of complex biological samples by mass spectrometry, based on slight changes of homogenization-buffers, and have observed the changes in the identified compounds."

According to the news editors, the research concluded: "These results should prove to be very useful for future proteomic studies and the design of studies in terms of sample preparation, especially sample homogenization and protein extraction."


The news editors report that additional information may be obtained by contacting A. Drabik, AGH Univ Sci & Technol, Dept. of Biochem & Neurobiol, PL-30059 Krakow, Poland. Additional authors for this research include J. Ner-Kluza, A. Bodzon-Kulakowska and P. Suder.

Keywords for this news article include: Krakow, Poland, Europe, Proteomics, Genetics, AGH University of Science and Technology.

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Oncology - B-Cell Lymphoma

Findings from Aalborg University Hospital Provides New Data on B-Cell Lymphoma (Uterine, but not ovarian, female reproductive organ involvement at presentation by diffuse large B-cell lymphoma is associated with poor outcomes and a high ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - B-Cell Lymphoma is the subject of a report. According to news reporting originating in Aalborg, Denmark, by NewsRx journalists, research stated, "Involvement of the internal female reproductive organs by diffuse large B-cell lymphoma (DLBCL) is uncommon, and there are sparse data describing the outcomes of such cases. In total, 678 female patients with DLBCL staged with positron emission tomography/computed tomography and treated with rituximab-containing chemotherapy were identified from databases in Denmark, Great Britain, Australia, and Canada."

Funders for this research include A.P. Moller og Hustru Chastine Mc-Kinney Mollers Fond til almene Formaal, North Denmark Region.

The news reporters obtained a quote from the research from Aalborg University Hospital, "Overall, 27/678 (4%) had internal reproductive organ involvement: uterus (n=14), ovaries (n=10) or both (n=3). In multivariate analysis, women with uterine DLBCL experienced inferior progression-free survival and overall survival compared to those without reproductive organ involvement, whereas ovarian DLBCL was not predictive of outcome. Secondary central nervous system (CNS) involvement (SCNS) occurred in 7/17 (41%) women with uterine DLBCL (two patients with concomitant ovarian DLBCL) and 0/10 women with ovarian DLBCL without concomitant uterine involvement. In multivariate analysis adjusted for other risk factors for SCNS, uterine involvement by DLBCL remained strongly associated with SCNS (Hazard ratio 14 <bold > </bold >13, 95% confidence interval 5<bold > </bold >09-39<bold > </bold >25, P<0 <bold > </bold >0.001). Because involvement of the uterus by DLBCL appears to be associated with a high risk of SCNS, those patients should be considered for CNS staging and prophylaxis."

According to the news reporters, the research concluded: "However, more studies are needed to determine whether the increased risk of secondary CNS involvement also applies to women with localized reproductive organ DBLCL."


The direct object identifier (DOI) for that additional information is:
Findings from Academic Medical Center Provide New Insights into Immunoglobulins [Safety and efficacy of LY3015014, a monoclonal antibody to proprotein convertase subtilisin/kexin type 9 (PCSK9): a randomized, placebo-controlled Phase 2 study]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immunology - Immunoglobulins is now available. According to news reporting from Amsterdam, Netherlands, by NewsRx journalists, research stated, "The objective of this study was to evaluate the efficacy, safety, and tolerability of LY3015014 (LY), a neutralizing antibody of proprotein convertase subtilisin/kexin type 9 (PCSK9), administered every 4 or 8 weeks in patients with primary hypercholesterolaemia, when added to a background of standard-of-care lipid-lowering therapy, including statins. Double-blind, placebo-controlled trial randomized 527 patients with primary hypercholesterolaemia from June 2013 to January 2014 at 61 community and academic centres in North America, Europe, and Japan."

Financial support for this research came from Eli Lilly and Company. The news correspondents obtained a quote from the research from Academic Medical Center, "Patients were randomized to subcutaneous injections of LY 20, 120, or 300 mg every 4 weeks (Q4W); 100 or 300 mg every 8 weeks (Q8W) alternating with placebo Q4W; or placebo Q4W. The primary endpoint was percentage change from baseline in low-density lipoprotein cholesterol (LDL-C) by beta quantification at Week 16. The mean baseline LDL-C by beta quantification was 136.3 (SD, 45.0)mg/dL. LY3015014 dose-dependently decreased LDL-C, with a maximal reduction of 50.5% with 300 mg LY Q4W and 37.1% with 300 mg LY Q8W compared with a 7.6% increase with placebo maintained at the end of the dosing interval. There were no treatment-related serious adverse events (AEs). The most common AE terms (> 10% of any treatment group) reported more frequently with LY compared with placebo were injection site (IS) pain and IS erythema. No liver or muscle safety issues emerged. LY3015014 dosed every 4 or 8 weeks, resulted in robust and durable reductions in LDL-C. No clinically relevant safety issues emerged with the administration of LY."

According to the news reporters, the research concluded: "The long-term effects on cardiovascular outcomes require further investigation."


Our news journalists report that additional information may be obtained by
contacting J.J. Kastelein, Dept. of Vascular Medicine, Academic Medical Center of the University of Amsterdam, Meibergdreef 9, Room F4-1592, 1105 AZ Amsterdam, Netherlands. Additional authors for this research include S.E. Nissen, D.J. Rader, G.K. Hovingh, M.D. Wang, T. Shen and K.A Krueger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/eurheartj/ehv707. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Europe, Therapy, Placebos, Amsterdam, Immunology, Netherlands, Subtilisins, Blood Proteins, Immunoglobulins, Serine Proteases, Peptide Hydrolases, Enzymes and Coenzymes, Serine Endopeptidases, Proprotein Convertases.

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Oncology - Cancer Risk

Findings from Academic Medical Center in the Area of Cancer Risk Reported (Phenotype, Cancer Risk, and Surveillance in Beckwith-Wiedemann Syndrome Depending on Molecular Genetic Subgroups)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cancer Risk have been presented. According to news reporting originating in Amsterdam, Netherlands, by NewsRx journalists, research stated, "Patients with Beckwith-Wiedemann syndrome (BWS) have an increased risk to develop cancer in childhood, especially Wilms tumor and hepatoblastoma. The risk varies depending on the cause of BWS."

The news reporters obtained a quote from the research from Academic Medical Center, "We obtained clinical and molecular data in our cohort of children with BWS, including tumor occurrences, and correlated phenotype and genotype. We obtained similar data from larger cohorts reported in the literature. Phenotype, genotype and tumor occurrence were available in 229 of our own patients. Minor differences in phenotype existed depending on genotype/epigenotype, similar to earlier studies. By adding patients from the literature, we obtained data on genotype and tumor occurrence of in total 1,971 BWS patients. Tumor risks were highest in the IC1 (H19/IGF2:IG-DMR) hypermethylation subgroup (28%) and pUPD subgroup (16%) and were lower in the KCNQ1OT1:TSS-DMR (IC2) subgroup (2.6%), CDKN1C (6.9%) subgroup, and the group in whom no molecular defect was detectable (6.7%). Wilms tumors (median age 24 months) were frequent in the IC1 (24%) and pUPD (7.9%) subgroups. Hepatoblastoma occurred mostly in the pUPD (3.5%) and IC2 (0.7%) subgroups, never in the IC1 and CDKN1C subgroups, and always before 30 months of age. In the CDKN1C subgroup 2.8% of patients developed neuroblastoma. We conclude tumor risks in BWS differ markedly depending on molecular background."

According to the news reporters, the research concluded: "We propose a differentiated surveillance protocol, based on tumor risks in the various molecular subgroups causing BWS."

For more information on this research see: Phenotype, Cancer Risk, and Surveillance in Beckwith-Wiedemann Syndrome Depending on Molecular Genetic Subgroups. American Journal of Medical Genetics Part A, 2016;170(9):2248-2260. American Journal of

Our news correspondents report that additional information may be obtained by contacting R.C. Hennekam, Academy Med Center, Dept. of Pediat, NL-1105 AZ Amsterdam, Netherlands. Additional authors for this research include F. Vansenne, D.J.M. Kadouch, A. Ibrahim, J. Bliek, S. Hopman, M.M. Mannens, J.H.M. Merks, E.R. Maher and R.C. Hennekam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37801. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Genetics, Epidemiology, Genetics, Genetic Diseases and Conditions, Beckwith-Wiedemann Syndrome, Congenital Abnormalities, Chromosome Disorders, Cancer Risk, Oncology, Academic Medical Center.

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**Drugs and Therapies - Coumarins and Indandiones**

**Findings from Academic Medical Center in the Area of Coumarins and Indandiones Reported (Quantitative Method for Simultaneous Analysis of a 5-Probe Cocktail for Cytochrome P450 Enzymes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Coumarins and Indandiones is the subject of a report. According to news originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "The metabolic activity of P450 enzymes in vivo can be determined using selective probe drugs. The simultaneous administration of multiple CYP-specific probe drugs is commonly known as the 'cocktail approach.' Disadvantages of a cocktail are large volumes of samples required for analysis and time-consuming analyses."

Our news journalists obtained a quote from the research from Academic Medical Center, "The aim of this study was to develop and validate a simplified but sensitive method for the simultaneous quantification of 5 probe drugs [caffeine (CYP1A2), metoprolol (CYP2D6), midazolam (CYP3A4), omeprazole (CYP2C19), and S-warfarin (CYP2C9)] in a previously validated cocktail using a liquid chromatography-tandem mass spectrometry (LC-MS/MS) method. The method entailed a single method for sample preparation that enables quick processing of the samples containing all 5 probe drugs in a small volume of blood (>= 10 μL) followed by a chiral and nonchiral LC-MS/MS method. The method was validated for selectivity, specificity, resolution of racemic warfarin, linearity, accuracy, imprecision, recovery, process efficiency, ionization efficiency, and carryover effect. The method showed good selectivity without matrix interferences and differentiated S-and R-warfarin enantiomers with adequate resolution (R-s = 1.55). For all analytes, the mean process efficiency was >95%, and the mean ionization efficiency was >97%. Furthermore, the accuracy was between 94.9% and 108% for all analytes, and the within-and between-run imprecision were <11.7% for the lower limit of quantification and <12.6% for the middle level and upper limit of quantification. The method presented here enables the simultaneous quantification of the 5 probes in a very small blood volume (>= 10 mL)."
According to the news editors, the research concluded: "Furthermore, it is less time consuming than previously reported methods because it requires only 1 simple method for sample preparation followed by a nonchiral and chiral LC-MS/MS method that can be performed sequentially."

For more information on this research see: Quantitative Method for Simultaneous Analysis of a 5-Probe Cocktail for Cytochrome P450 Enzymes. *Therapeutic Drug Monitoring*, 2016;38(6):761-768. *Therapeutic Drug Monitoring* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

The news correspondents report that additional information may be obtained from L.A. Lammers, Academy Med Center, Dept. of Hosp Pharm, NL-1105 AZ Amsterdam, Netherlands. Additional authors for this research include: R. Achterbergh, M.C.M. Pistorius, Y. Bijleveld, E.M. de Vries, A. Boelen, H.J. Klumpen, J.A. Romijn and R.A.A. Mathot.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Coumarin and Indandione Derivative, Coumarins and Indandiones, Enzymes and Coenzymes, Coagulation Modifiers, Drugs and Therapies, Warfarin Therapy, Anticoagulants, Hemepeptins, Cytochromes, Rodenticide, Proteins, Academic Medical Center.

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**Findings from Aga Khan University Hospital Yields New Findings on Subdural Hematoma (Comparison of Irrigation versus No Irrigation during Burr Hole Evacuation of Chronic Subdural Hematoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System Diseases and Conditions - Subdural Hematoma are presented in a new report. According to news reporting originating from Karachi, Pakistan, by NewsRx correspondents, research stated, "To compare the results of the use of irrigation versus no irrigation during burr hole evacuation of chronic subdural hematoma (CSDH). The study was a retrospective chart review of those patients who underwent burr hole evacuation of CSDH during a period of 5 years."

Our news editors obtained a quote from the research from Aga Khan University Hospital, "Cases were divided into two groups based on the use of irrigation during surgery. A subdural drain was placed in all patients (i.e., in both the irrigation and no-irrigation groups) and removed 24 to 48 hours postoperatively. The total sample size was 56, of which 34 patients were in the irrigation group and 22 in the no-irrigation group. Recurrence rate was 17.6% in the irrigation group and 9.1% in the no-irrigation group (p = 0.46). Systemic complications were predominantly cardiac related in the no-irrigation group compared with respiratory complications in the irrigation group. The irrigation group had a mortality rate of 5.9% compared with 4.5% in the no-irrigation group (p = 0.66)."

According to the news editors, the research concluded: "No statistically significant difference was found between the two groups in terms of recurrence or mortality."

For more information on this research see: Comparison of Irrigation versus No Irrigation during Burr Hole Evacuation of Chronic Subdural Hematoma. *Journal of*
Antioxidants

Findings from Ahmedabad University Update Knowledge of Antioxidants (Can CuO nanoparticles lead to epigenetic regulation of antioxidant enzyme system?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Antioxidants is the subject of a report. According to news reporting originating in Gujarat, India, by NewsRx journalists, research stated, "Copper has been used from ancient time in various applications. Scientists have exploited its means of exposure and consequences to living organisms."

The news reporters obtained a quote from the research from Ahmedabad University, "The peculiar property of nanomaterials that is a high surface to volume ratio has increased the range of application in products. Copper oxide nanoparticles (CuO NPs) are widely used in industrial applications such as semiconductor devices, gas sensor, batteries, solar energy converter, microelectronics, heat transfer fluids and consumer products. In contrast, acute toxicity of CuO NPs has also been reported. Subsequently, human and environmental health may be at a high risk. Their frequent use can also contaminate ecosystems. Therefore, the toxicity of CuO NPs needs to be thoroughly understood. In this review, we have tried to discuss the recent facts and mechanism that have been explored for CuO NPs-induced toxicity at a cellular, in vivo and ecotoxicological level. Accordingly, the main cause for induction of toxicity by CuO NPs is the generation of reactive oxygen species (ROS) followed by the mitochondrial destruction that leads to apoptosis via the intrinsic pathway or under the condition such as hypoxia cell on exposure to CuO NPs may commit to necrosis. Moreover, CuO NPs also result in activation of MAPK pathways, ERKs and JNK/SAPK thus play an important role in the activation of AP-1. Furthermore, CuO NPs also leads to up-regulation of p53 and caspase three genes."

According to the news reporters, the research concluded: "Therefore, careful measures are required to explore omic technology to understand the molecular mechanism of the deleterious effects caused by CuO NPs."

For more information on this research see: Can CuO nanoparticles lead to epigenetic regulation of antioxidant enzyme system? Journal of Applied Toxicology, 2017;37(1):84-91.
Findings from Aichi Medical University Broaden Understanding of Lymphoma (Synergistic activity of Card11 mutant and Bcl6 in the development of diffuse large B-cell lymphoma in a mouse model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lymphoma. According to news reporting out of Aichi, Japan, by NewsRx editors, research stated, "Diffuse large B-cell lymphoma (DLBCL) is the most common subtype of malignant lymphoma; it derives from germinal center B cells. Although DLBCL harbors many genetic alterations, synergistic roles between such alterations in the development of lymphoma are largely undefined."

Financial support for this research came from Japan Society for the Promotion of Science.

Our news journalists obtained a quote from the research from Aichi Medical University, "We previously established a mouse model of lymphoma by transplanting gene-transduced germinal center B cells into mice. Here, we chose one of the frequently mutated genes in DLBCL, Card11 mutant, to explore its possible synergy with other genes, using our lymphoma model. Given that BCL6 and BCL2 expression and/or function are often deregulated in human lymphoma, we examined the possible synergy between Card11, Bcl6, and Bcl2. Germinal center B cells were induced in vitro, transduced with Card11 mutant, Bcl6, and Bcl2, and transplanted. Mice rapidly developed lymphomas, with exogenously transduced Bcl2 being dispensable. Although some mice developed lymphoma in the absence of transduced Bcl6, the absence was compensated by elevated expression of endogenous Bcl6. Additionally, the synergy between Card11 mutant and Bcl6 in the development of lymphoma was confirmed by the fact that the combination of Card11 mutant and Bcl6 caused lymphoma or death significantly earlier and with higher penetrance than Card11 mutant or Bcl6 alone. Lymphoma cells expressed interferon regulatory factor 4 and PR domain 1, indicating their differentiation toward plasmablasts, which characterize activated B cell-like DLBCL that represents a clinically aggressive subtype in humans."

According to the news editors, the research concluded: "Thus, our mouse model provides a versatile tool for studying the synergistic roles of altered genes underlying lymphoma development."

For more information on this research see: Synergistic activity of Card11 mutant and Bcl6 in the development of diffuse large B-cell lymphoma in a mouse model. Cancer Science,
Our news journalists report that additional information may be obtained by contacting S. Tsuzuki, Aichi Med Univ, Dept. of Biochem, Sch Med, Nagakute, Aichi 4801195, Japan. Additional authors for this research include K. Matsuo, M. Seto, S. Nakamura and S. Tsuzuki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cas.13057. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aichi, Japan, Asia, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hemic and Immune Systems, Large B-Cell Lymphoma, Lymphatic System, Germinal Center, Lymph Nodes, Immunology, Hematology, Lymphomas, Genetics, Oncology, Aichi Medical University.

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**Lung Diseases and Conditions - Pneumonia**

**Findings from Aichi Medical University in the Area of Pneumonia Reported (Case-control study of pneumonia patients with Streptococcus anginosus group bacteria in their sputum)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Pneumonia are discussed in a new report. According to news reporting originating from Aichi, Japan, by NewsRx correspondents, research stated, "In recent years, Streptococcus anginosus group (SAG) bacteria are becoming increasingly recognized as important pneumonia-causing pathogens. Although several small studies have been reported, the features of SAG pneumonia remain unclear, because the identification of SAG from sputum cultures is not routinely performed in most microbiology laboratories."

Our news editors obtained a quote from the research from Aichi Medical University, "The aim of this study was to elucidate the clinical characteristics of SAG pneumonia. This was a retrospective case-control study utilizing data obtained in our hospital between September 2009 and June 2016. We investigated 31 patients with SAG pneumonia (PWP), and also assessed the difference between the 31 PWP and 37 patients without pneumonia (PWOP) in whose sputum SAG was detected. Seventy-one percent of the patients were men and the median age was 78 years in the PWP. Univariate analysis indicated that the PWP were significantly more often a bed-ridden (p < 0.01) with comorbid aspiration than were the PWOP (p < 0.05). Among the PWP, nursing and healthcare-associated pneumonia (NHCAP) was the more common type of pneumonia (54.8%). S. anginosus was detected significantly more frequently in sputum cultures of PWP than PWOP (p < 0.01), and multiple pathogens were detected more frequently in PWP (p < 0.01). Streptococcus constellatus was the most frequently detected pathogen in patients with a single bacterial infection. Empyema was observed only in patients with multiple bacteria. SAG should be recognized as important causative pathogens of pneumonia, particularly among elderly patients with underlying disease associated with
aspiration."

According to the news editors, the research concluded: "NHCAP was the more common type of SAG pneumonia in this study."

For more information on this research see: Case-control study of pneumonia patients with Streptococcus anginosus group bacteria in their sputum. *Journal of Infection and Chemotherapy*, 2016;22(12):794-799. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

The news editors report that additional information may be obtained by contacting H. Mikamo, Aichi Med Univ Hosp, Dept. of Infect Control & Prevent, Nagakute, Aichi, Japan. Additional authors for this research include D. Sakanashi, S. Haranaga, T. Kinjo, M. Hagihara, H. Kato, H. Suematsu, Y. Yamagishi, J. Fujita and H. Mikamo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.08.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aichi, Japan, Asia, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Respiratory Tract Infections, Streptococcus milleri Group, Streptococcus anginosus, Gram-Positive Bacteria, Viridans Streptococci, Gram-Positive Cocci, Infectious Disease, Streptococcaceae, Pulmonology, Pneumonia, Aichi Medical University.

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**Oncology - Acute Leukemia**

**Findings from Ain Shams University Provides New Data on Acute Leukemia (Stanniocalcin1 gene expression in patients with acute leukemia: impact on response to therapy and disease outcome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Acute Leukemia. According to news reporting from Cairo, Egypt, by NewsRx journalists, research stated, "Stanniocalcin1 (STC1) is a hormone that regulates cell growth and survival; this study aimed to evaluate the STC1 gene expression in patients with acute leukemia and assess its prognostic significance. Seventy-six patients with acute leukemia were enrolled for determination of mRNA STC1 by real-time quantitative polymerase chain reaction at diagnosis and at day 28."

The news correspondents obtained a quote from the research from Ain Shams University, "Median STC1 gene expression was 16.2 and 4.43 in patients with acute myeloid leukemia and 9.67 and 2.37 in patients with acute lymphoblastic leukemia on days 0 and 28, respectively. A cutoff level for STC1 gene expression was established subdividing patients into high-and low-STC1 gene expression groups. Median STC1 gene expression at days 0 and 28 was significantly higher among patients who were nonresponders to therapy than among those who were therapy responders in both groups. Patients achieving complete remission had significantly lower baseline STC1 gene expression than those in relapse. High STC1 gene expression was associated with shorter overall and disease-free survival times."

According to the news reporters, the research concluded: "STC1 gene expression at
diagnosis might be a useful prognostic marker for clinical outcome and monitoring therapeutic response in patients with acute leukemia."


Our news journalists report that additional information may be obtained by contacting H.M. Abaza, Clinical Pathology Department, Ain Shams University, Cairo, Egypt. Additional authors for this research include M.I. Elmougy, H.M. El Maraghy and H.M Mahmoud.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12445. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *International Journal of Laboratory Hematology* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Cairo, Egypt, Africa, Therapy, Genetics, Oncology, Hematology, Acute Leukemia.

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**Oncology - Lung Cancer**

**Findings from Ajou University Reveals New Findings on Lung Cancer**

*(Baseline neutrophil-lymphocyte ratio is associated with baseline and subsequent presence of brain metastases in advanced non-smallcell lung cancer)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Lung Cancer have been presented. According to news originating from Suwon, South Korea, by NewsRx correspondents, research stated, "We examined the predictive value of neutrophil-lymphocyte ratio (NLR) by examining their association with the baseline presence and subsequent development of brain metastases in patients with stage IV non-small cell lung cancer (NSCLC). We examined the predictive value of NLR for brain metastasis in 260 stage IV NSCLC."

Our news journalists obtained a quote from the research from Ajou University, "Logistic regression models and competing risk analysis were used to determine the association of NLR with baseline and subsequent presence of brain metastases. Multivariate analysis reveals that patients with high NLR (> = 4.95) had significantly more brain metastases at diagnosis than those with low NLR (Odds Ratio = 2.59, P = 0.01). In patients who had no baseline brain metastasis, competing risks analysis revealed that patients with high NLR showed higher cumulative incidence of subsequent brain metastases, compared to those with low NLR (P = 0.017). A high NLR was associated with the baseline presence or the subsequent development of brain metastases, particularly in the group with adenocarcinoma (P = 0.013 and P = 0.044, respectively). Furthermore, an increase in NLR during treatment was associated with subsequent brain metastases (P = 0.004)."
According to the news editors, the research concluded: "The NLR is an independent predictive factor for the baseline presence of brain metastases and subsequent brain metastases in stage IV NSCLC."

For more information on this research see: Baseline neutrophil-lymphocyte ratio is associated with baseline and subsequent presence of brain metastases in advanced non-small cell lung cancer. Scientific Reports, 2016;6():1-7. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from H.W. Lee, Ajou University, Sch Med, Dept. of Hematol Oncol, Suwon, South Korea. Additional authors for this research include J.H. Choi, M.S. Ahn, Y.W. Choi and H.W. Lee.

Keywords for this news article include: Suwon, South Korea, Asia, Hemic and Immune Systems, Mononuclear Leukocytes, Lung Neoplasms, Granulocytes, Blood Cells, Lymphocytes, Neutrophils, Lung Cancer, Immunology, Phagocytes, Oncology, Ajou University.

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DNA Research

Findings from Ajou University School of Medicine Broaden Understanding of DNA Research (Significance of the DNA-Histone Complex Level as a Predictor of Major Adverse Cardiovascular Events in Hemodialysis Patients: The Effect of Uremic Toxin on ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in DNA Research. According to news reporting originating from Suwon, South Korea, by NewsRx correspondents, research stated, "Neutrophils can release the DNA-histone complex into circulation following exposure to inflammatory stimuli. This prospective study investigated whether the DNA-histone complex and other biomarkers could predict major cardiovascular adverse events (MACEs) in hemodialysis (HD) patients."

Our news editors obtained a quote from the research from the Ajou University School of Medicine, "The levels of circulating DNA-histone complexes, cell-free DNA, interleukin (IL)-6, and neutrophil elastase were measured in 60 HD patients and 28 healthy controls. MACE was assessed at 24 months. Uremic toxin-induced neutrophil released contents were measured in vitro. Compared with controls, HD patients showed higher levels of DNA-histone complexes and IL-6. The DNA-histone complex level was inversely associated with the Kt/V. In a multivariable Cox analysis, the high level of DNA-histone complexes was a significant independent predictor of MACE. The uremic toxins induced DNA-histone complex formation in normal neutrophils in vitro. The DNA-histone complex is a potentially useful marker to predict MACE in HD patients."

According to the news editors, the research concluded: "Uremic toxins induced DNA-histone complex formation in vitro."

For more information on this research see: Significance of the DNA-Histone Complex Level as a Predictor of Major Adverse Cardiovascular Events in Hemodialysis Patients: The Effect of Uremic Toxin on DNA-Histone Complex Formation. Blood Purification,
Findings from Ajou University School of Medicine Has Provided New Information about Pharmacoepidemiology (A normalization method for combination of laboratory test results from different electronic healthcare databases in a distributed research ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Pharmacoepidemiology have been presented. According to news originating from Suwon, South Korea, by NewsRx correspondents, research stated, "Distributed research networks (DRNs) afford statistical power by integrating observational data from multiple partners for retrospective studies. However, laboratory test results across care sites are derived using different assays from varying patient populations, making it difficult to simply combine data for analysis."

Financial support for this research came from Ministry of Health & Welfare, Republic of Korea.

Our news journalists obtained a quote from the research from the Ajou University School of Medicine, "Additionally, existing normalization methods are not suitable for retrospective studies. We normalized laboratory results from different data sources by adjusting for heterogeneous clinico-epidemiologic characteristics of the data and called this the subgroup-adjusted normalization (SAN) method. Subgroup-adjusted normalization renders the means and standard deviations of distributions identical under population structure-adjusted conditions. To evaluate its performance, we compared SAN with existing methods for simulated and real datasets consisting of blood urea nitrogen, serum creatinine, hematocrit, hemoglobin, serum potassium, and total bilirubin. Various clinico-epidemiologic characteristics can be applied together in SAN. For simplicity of comparison, age and gender were used to adjust population heterogeneity in this study. In simulations, SAN had the lowest standardized difference in means (SDM) and Kolmogorov-Smirnov values for all tests (p <0.05). In a real dataset, SAN had the lowest SDM and Kolmogorov-Smirnov values for blood urea nitrogen, hematocrit, hemoglobin, and serum potassium, and the lowest SDM for serum creatinine (p <0.05). Subgroup-adjusted normalization performed better than normalization using other methods."

According to the news editors, the research concluded: "The SAN method is
applicable in a DRN environment and should facilitate analysis of data integrated across DRN partners for retrospective observational studies."


The news correspondents report that additional information may be obtained from D. Yoon, Dept. of Biomedical Informatics, Ajou University School of Medicine, Ajou University, Suwon, South Korea. Additional authors for this research include M.J. Schuemie, J.H. Kim, D.K. Kim, M.Y. Park, E.K. Ahn, E.Y. Jung, D.K. Park, S.Y. Cho, D. Shin, Y. Hwang and R.W Park.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pds.3893. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Suwon, South Korea, Drugs and Therapies, Pharmacoepidemiology.

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Drugs and Therapies - Pharmaceutical Research

Findings from Ajou University Update Understanding of Pharmaceutical Research (Dual release and molecular mechanism of bilayered aceclofenac tablet using polymer mixture)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmaceutical Research. According to news reporting out of Suwon, South Korea, by NewsRx editors, research stated, "The objectives of the present study were to develop a controlled-release bilayered tablet of aceclofenac (AFN) 200 mg with dual release and to gain a mechanistic understanding of the enhanced sustained release capability achieved by utilizing a binary mixture of the sustained release materials. Different formulations of the sustained-release layer were formulated by employing hydroxypropyl methylcellulose (HPMC) and hydroxypropyl cellulose (HPC) as the major retarding polymers."

Funders for this research include Ministry of Science, ICT, Future Planning, 2013.

Our news journalists obtained a quote from the research from Ajou University, "The in vitro dissolution studies of AFN bilayered tablets were carried out in intestinal fluid (pH 6.8 buffer). The mechanism of the synergistic rate-retarding effect of the polymer mixture containing HPC and carbomer was elucidated by the rate of swelling and erosion in intestinal fluid and the molecular interactions in the polymer network. The optimized bilayered tablets had similar in vitro dissolution profiles to the marketed tablet Clanza ® CR based on the similarity factor (f2) in combination with their satisfactory micromeritic, physicochemical properties, and stability profiles. Drug release from HPMC-based matrix was controlled by non-Fickian transport, while drug release from HPC-based matrix was solely governed by drug diffusion. The swelling and erosion data exhibited a dramatic increase of water uptake and a reduction of weight loss in the polymer mixture-loaded tablet. Fourier transform infrared (FTIR) spectra
revealed strong hydrogen bonding between HPC and carbomer in the polymer mixture. Regarding spatial distribution of polymers in the polymer mixture-loaded tablet, carbomer was found to be the main component of the gel layer during the first 2 h of the hydration process, which was responsible for retarding drug release at initial stage."

According to the news editors, the research concluded: "This process was then followed by a gradual transition of HPC from the glassy core to the gel layer for further increasing gel strength."


Our news journalists report that additional information may be obtained by contacting B.J. Lee, Ajou University, Inst Pharmaceut Sci & Technol, Suwon 16499, South Korea. Additional authors for this research include V.H. Nguyen and B.J. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Suwon, South Korea, Asia, Pharmaceutical Research, Drugs and Therapies, Ajou University.

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**Hormones**

**Findings from Akershus University Hospital in the Area of Hormones Reported (A systematic comparison of copy number alterations in four types of female cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hormones. According to news reporting originating in Lorenskog, Norway, by NewsRx journalists, research stated, "Detection and localization of genomic alterations and breakpoints are crucial in cancer research. The purpose of this study was to investigate, in a methodological and biological perspective, different female, hormone-dependent cancers to identify common and diverse DNA aberrations, genes, and pathways."

The news reporters obtained a quote from the research from Akershus University Hospital, "In this work, we analyzed tissue samples from patients with breast (n = 112), ovarian (n = 74), endometrial (n = 84), or cervical (n = 76) cancer. To identify genomic aberrations, the Circular Binary Segmentation (CBS) and Piecewise Constant Fitting (PCF) algorithms were used and segmentation thresholds optimized. The Genomic Identification of Significant Targets in Cancer (GISTIC) algorithm was applied to the segmented data to identify significantly altered regions and the associated genes were analyzed by Ingenuity Pathway Analysis (IPA) to detect over-represented pathways and functions within the identified gene sets. Analyses of high-resolution copy number alterations in four different female cancer types are presented. For appropriately adjusted segmentation parameters the two segmentation algorithms CBS and PCF..."
performed similarly. We identified one region at 8q24.3 with focal aberrations that was altered at significant frequency across all four cancer types. Considering both, broad regions and focal peaks, three additional regions with gains at significant frequency were revealed at 1p21.1, 8p22, and 13q21.33, respectively. Several of these events involve known cancer-related genes, like PPP2R2A, PSCA, PTP4A3, and PTK2. In the female reproductive system (ovarian, endometrial, and cervix [OEC]), we discovered three common events: copy number gains at 5p15.33 and 15q11.2, further a copy number loss at 8p21.2. Interestingly, as many as 75% of the aberrations (75% amplifications and 86% deletions) identified by GISTIC were specific for just one cancer type and represented distinct molecular pathways."

According to the news reporters, the research concluded: "Our results disclose that some prominent copy number changes are shared in the four examined female, hormone-dependent cancer whereas others are definitive to specific cancer types."

For more information on this research see: A systematic comparison of copy number alterations in four types of female cancer. *BMC Cancer*, 2016;16():28-42. *BMC Cancer* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; BMC Cancer - www.biomedcentral.com/bmccancer/)


Keywords for this news article include: Lorenskog, Norway, Europe, Hormones, Oncology, Genetics, Cancer, Akershus University Hospital.

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**Findings from Al Zaytoonah University Reveals New Findings on Environmental Research and Public Health (Activity Pattern of Urban Adult Students in an Eastern Mediterranean Society)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Environmental Health - Environmental Research and Public Health have been published. According to news reporting originating in Amman, Jordan, by NewsRx journalists, research stated, "Knowledge of human activity patterns is needed in air pollution exposure and health risk assessment. However, human activity patterns have never been evaluated in the Eastern Mediterranean societies."

The news reporters obtained a quote from the research from Al Zaytoonah University, "Therefore, we investigated the activity pattern of 285 subjects (17-63 years) in Amman, Jordan during October to November, 2015. The subjects spent >80% of their time indoors during weekend days and >85% on workdays. They spent similar to 4.8% and similar to 5.7% in transportation during weekend days and workdays, respectively. Males had a different activity pattern than females on weekend days, but both genders had similar activity patterns on workdays. On workdays, males spent less time indoors than females. The activity pattern found in this study is a bit different than that for North Americans and Europeans, who spend more time indoors and in transit. The activity pattern found in this study was very different than that
observed for Koreans, who spent about 59% and 67% indoors on workdays and weekend, respectively. The main outcomes of this survey can be utilized in human exposure studies."

According to the news reporters, the research concluded: "This study and the upcoming future studies have been encouraged and supported by the regional WHO office in Amman."


Our news correspondents report that additional information may be obtained by contacting I. Odeh, Al Zaytoonah Univ Jordan, Dept. of Basic Sci, Amman 11733, Jordan.

Keywords for this news article include: Amman, Jordan, Asia, Environmental Research and Public Health, Environmental Health, Risk and Prevention, Al Zaytoonah University.

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**Intercellular Signaling Peptides and Proteins -...**

**Findings from Albert Einstein College of Medicine Reveals New Findings on Fibroblast Growth Factors (Association of inflammatory, lipid and mineral markers with cardiac calcification in older adults)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Intercellular Signaling Peptides and Proteins - Fibroblast Growth Factors. According to news reporting originating from Bronx, New York, by NewsRx correspondents, research stated, "Calcification of the aortic valve and adjacent structures involves inflammatory, lipid and mineral metabolism pathways. We hypothesised that circulating biomarkers reflecting these pathways are associated with cardiac calcification in older adults."

Financial supporters for this research include National Heart, Lung, and Blood Institute, National Institute on Aging, National Institute of Neurological Disorders and Stroke.

Our news editors obtained a quote from the research from the Albert Einstein College of Medicine, "We investigated the associations of various biomarkers with valvular and annular calcification in the Cardiovascular Health Study. Of the 5888 participants, up to 3585 were eligible after exclusions for missing biomarker, covariate or echocardiographic data. We evaluated analytes reflecting lipid (lipoprotein (Lp) (a), Lp-associated phospholipase A(2) (LpPLA(2)) mass and activity), inflammatory (interleukin-6, soluble (s) CD14) and mineral metabolism (fetuin-A, fibroblast growth factor (FGF)-23) pathways that were measured within 5 years of echocardiography. The relationships of plasma biomarkers with aortic valve calcification (AVC), aortic annular calcification (AAC) and mitral annular calcification (MAC) were assessed with relative risk (RR) regression. Calcification was prevalent: AVC 59%, AAC 45% and MAC 41%. After adjustment, Lp(a), LpPLA(2) mass and activity and sCD14 were positively associated with AVC. RRs for AVC per SD (95% CI) were as follows: Lp(a), 1.051 (1.022 to 1.081); LpPLA(2) mass, 1.036 (1.006 to 1.066) and LpPLA(2) activity, 1.037 (1.004 to 1.071); sCD14, 1.039 (1.005 to 1.073). FGF-23 was positively associated with MAC, 1.040 (1.004 to 1.078) and fetuin-A was negatively associated, 0.949 (0.911 to 0.989). No biomarkers
were significantly associated with AAC. This study shows novel associations of circulating FGF-23 and fetuin-A with MAC, and LpPLA(2) and sCD14 with AVC, confirming that previously reported for Lp(a).

According to the news editors, the research concluded: "Further investigation of Lp and inflammatory pathways may provide added insight into the aetiology of AVC, while study of phosphate regulation may illuminate the pathogenesis of MAC."

For more information on this research see: Association of inflammatory, lipid and mineral markers with cardiac calcification in older adults. *Heart*, 2016;102(22):1826-1834. *Heart* can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Heart - heart.bmj.com/)

The news editors report that additional information may be obtained by contacting J.R. Kizer, Albert Einstein College of Medicine, Dept. of Epidemiol & Populat Hlth, Bronx, NY 10467, United States. Additional authors for this research include T.M. Bartz, J.H. Ix, M. Chonchol, A. Reiner, M. Cushman, D. Owens, E. Barasch, D.S. Siscovick, J.S. Gottdiener and J.R. Kizer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/heartjnl-2016-309404. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bronx, New York, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Fibroblast Growth Factors, Mineral Metabolism, Aortic Valve, Heart Valves, Cardiology, Albert Einstein College of Medicine.

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Lipid Research

**Findings from Albert Einstein College of Medicine in Lipid Research Reported [Lipoprotein (a) level, apolipoprotein (a) size, and risk of unexplained ischemic stroke in young and middle-aged adults]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lipid Research have been published. According to news reporting originating from Bronx, New York, by NewsRx correspondents, research stated, "Circulating lipoprotein (a) [Lp(a)] level relates inversely to apolipoprotein (a) [apo(a)] size. Both smaller apo(a) isoforms and higher Lp(a) levels have been linked to coronary heart disease and stroke, but their independent contributions are less well defined."

Our news editors obtained a quote from the research from the Albert Einstein College of Medicine, "We examined the role of Lp(a) in younger adults with cryptogenic stroke. Lp(a) and apo(a) isoforms were evaluated in a prospectively designed case-control study of patients with unexplained ischemic stroke and stroke-free controls, ages 18 to 64. Serum Lp(a) was measured among 255 cases and 390 controls with both apo(a)-size independent and dependent assays. Apo(a) size was determined by agarose gel electrophoresis. Cases and controls were similar in socio-demographic characteristics, but cases had more hypertension, diabetes, smoking, and migraine with aura. In race-specific analyses, Lp(a) levels showed positive associations with cryptogenic stroke in whites, but not in the smaller subgroups of
blacks and Hispanics. After full adjustment, comparison of the highest versus lowest quartile in whites was significant for apo(a)-size-independent (OR = 2.10 [95% CI = 1.04, 4.27], p = 0.040), and near-significant for apo(a)-size-dependent Lp(a) (OR = 1.81 [95% CI = 0.95, 3.47], p = 0.073). Apo(a) size was not associated with cryptogenic stroke in any race-ethnic subgroup. This study underscores the importance of Lp(a) level, but not apo(a) size, as an independent risk factor for unexplained ischemic stroke in young and middle-aged white adults."

According to the news editors, the research concluded: "Given the emergence of effective Lp(a)-lowering therapies, these findings support routine testing for Lp(a) in this setting, along with further research to assess the extent to which such therapies improve outcomes in this population."

For more information on this research see: Lipoprotein (a) level, apolipoprotein (a) size, and risk of unexplained ischemic stroke in young and middle-aged adults. *Atherosclerosis*, 2016;253():47-53. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news editors report that additional information may be obtained by contacting J.R. Kizer, Albert Einstein College of Medicine, Dept. of Epidemiol & Populat Hlth, Bronx, NY 10467, United States. Additional authors for this research include S.G. Shitole, A.Z. Segal, D. Leifer, R.P. Tracy, D.J. Rader, R.B. Devereux and J.R. Kizer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.08.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bronx, New York, United States, North and Central America, Lipid Research, Proteins, Risk and Prevention, Apolipoproteins, Lipoproteins, Apoproteins, Lipids, Albert Einstein College of Medicine.

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**Drugs and Therapies - Antipsychotic Agents**

**Findings from Alexza Pharmaceuticals Broaden Understanding of Antipsychotic Agents (A randomized, placebo-controlled repeat-dose thorough QT study of inhaled loxapine in healthy volunteers)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antipsychotic Agents is the subject of a report. According to news reporting originating from Mountain View, California, by NewsRx correspondents, research stated, "This randomized, double-blind, active-and placebo-controlled, crossover, thorough QT study assessed the effect of two inhaled loxapine doses on cardiac repolarization as measured by corrected QT (QTC) interval in healthy subjects (ClinicalTrials.gov NCT01854710). Subjects received two doses of inhaled loxapine (10 mg) 2 hours apart+oral placebo, two doses of inhaled placebo+oral placebo, or two doses of inhaled placebo+oral moxifloxacin (400 mg; positive control), with (>=)3 days washout between treatments."

Our news editors obtained a quote from the research from Alexza Pharmaceuticals, "Two-sided 90% confidence intervals (CIs) were calculated around least-squares mean predose placebo-subtracted individually corrected QT durations (DDTcIs) at 12 time points throughout
24 hours after dosing. A DDTcI 95% upper CI exceeding 10 msec was the threshold indicating QTc prolongation (primary endpoint). Secondary endpoints included Fridericia- and Bazett-corrected QT duration and QTcI outliers. Pharmacokinetics and adverse events (AEs) were also assessed. Of 60 subjects enrolled (mean age, 33.8 years; 52% male), 44 completed the study. Post loxapine dosing, no DDTcI 95% upper CI exceeded 10 msec; the largest was 6.31 msec 5 minutes post dose 2. Methodology was validated by DDTcI 95% lower CIs exceeding 5 msec at 9 of 12 time points after moxifloxacin dosing. Loxapine plasma concentrations increased rapidly (mean Cmax, 177 ng/mL; median tmax 2 minutes after dose 2, 2.03 hours after dose 1). There were no deaths, serious AEs, or AEs leading to discontinuation, and one severe AE.

According to the news editors, the research concluded: "Primary and secondary endpoints indicated two therapeutic doses of inhaled loxapine did not cause threshold QTc prolongation in this study."


The news editors report that additional information may be obtained by contacting J.V. Cassella, Alexza Pharmaceuticals, Inc, Mountain View, CA and Teva Pharmaceuticals, Frazer, PA, United States. Additional authors for this research include D.A. Spyker and P.P Yeung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5414/CP202457. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *International Journal of Clinical Pharmacology and Therapeutics* is: Dustri-Verlag Dr Karl Feistle, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.

Keywords for this news article include: Antipsychotic Agents, Pharmaceuticals, Placebos, California, Mountain View, United States, Drugs and Therapies, North and Central America, Loxapine Therapy Succinate.

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**Musculoskeletal Diseases and Conditions - Noonan…**

**Findings from Alfred I DuPont Hospital for Children Broaden Understanding of Noonan Syndrome (A Novel Rasopathy Caused by Recurrent De Novo Missense Mutations in PPP1CB Closely Resembles Noonan Syndrome with Loose Anagen Hair)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Noonan Syndrome have been published. According to news originating from Wilmington, Delaware, by NewsRx correspondents, research stated, "Noonan syndrome is a rasopathy caused by mutations in multiple genes encoding components of the RAS/MAPK pathway. Despite its variable phenotype, limited genotype-phenotype correlations exist."

Funders for this research include National Institute of General Medical Sciences,
Our news journalists obtained a quote from the research from Alfred I DuPont Hospital for Children, "Noonan syndrome with loose anagen hair (NS-LAH) is characterized by its distinctive hair anomalies, developmental differences, and structural brain abnormalities and is caused by a single recurrent missense SHOC2 mutation. SHOC2 forms a complex with protein phosphatase 1 (PP1C). Protein phosphatases counterbalance kinases and control activation of signaling proteins, such as the mitogen-activated protein kinases of the RAS/MAPK pathway. Here we report four patients with de novo missense mutations in protein phosphatase one catalytic subunit beta (PPP1CB), sharing a recognizable phenotype. Three individuals had the recurrent PPP1CB c.146C >G, p.Pro49Arg mutation, the fourth had a c.166G >C, p.Ala56Pro change. All had relative or absolute macrocephaly, low-set and posteriorly angulated ears, and developmental delay. Slow growing and/or sparse hair and/or an unruly hair texture was present in all. Three individuals had feeding difficulties requiring feeding tubes. One of two males had cryptorchidism, another had pectus excavatum. Short stature was present in three. A female with the recurrent mutation had a Dandy-Walker malformation and optic nerve hypoplasia. Mild ventriculomegaly occurred in all, cerebellar tonsillar ectopia was seen in two and progressed to Chiari 1 malformation in one individual. Based on the combination of phenotypic findings and PPP1CB's effect on RAF dephosphorylation within the RAS/MAPK pathway, this novel condition can be considered a rasopathy, most similar to NS-LAH."

According to the news editors, the research concluded: "Collectively, these mutations meet the standardized criteria for pathogenicity."


The news correspondents report that additional information may be obtained from K.W. Gripp, Alfred I DuPont Hosp Children, Div Med Genet, Wilmington, DE 19803, United States. Additional authors for this research include K.A. Aldinger, J.T. Bennett, L. Baker, J. Tusi, N. Powell-Hamilton, D. Stabiley, K. Sol-Church, A.E. Timms and W.B. Dobyns.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37781. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wilmington, Delaware, United States, North and Central America, Skin and Connective Tissue Diseases and Conditions, Musculoskeletal Diseases and Conditions, Genetics, Craniofacial Diseases and Conditions, Musculoskeletal Abnormalities, Craniofacial Abnormalities, Congenital Abnormalities, Noonan Syndrome, Alfred I DuPont Hospital for Children.

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Findings from American Cancer Society in the Area of Colon Cancer Reported (Common variants in the obesity-associated genes FTO and MC4R are not associated with risk of colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "Obesity is a convincing risk factor for colorectal cancer. Genetic variants in or near FTO and MC4R are consistently associated with body mass index and other body size measures, but whether they are also associated with colorectal cancer risk is unclear." The news correspondents obtained a quote from the research from American Cancer Society, "In the discovery stage, we tested associations of 677 FTO and 323 MC4R single nucleotide polymorphisms (SNPs) 100 kb upstream and 300 kb downstream from each respective locus with risk of colorectal cancer in data from the Colon Cancer Family Registry (CCFR: 1960 cases; 1777 controls). Next, all SNPs that were nominally statistically significant (p < 0.05) in the discovery stage were included in replication analyses in data from the Genetics and Epidemiology of Colorectal Cancer Consortium (GECCO: 9716 cases; 9844 controls). In the discovery stage, 43 FTO variants and 18 MC4R variants were associated with colorectal cancer risk (p < 0.05). No SNPs remained statistically significant in the replication analysis after accounting for multiple comparisons."

According to the news reporters, the research concluded: "We found no evidence that individual variants in or near the obesity-related genes FTO and MC4R are associated with risk of colorectal cancer."

For more information on this research see: Common variants in the obesity-associated genes FTO and MC4R are not associated with risk of colorectal cancer. Cancer Epidemiology, 2016;44():1-4. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.07.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Cancer, Epidemiology, Genetics, Colorectal Research, Nutrition Disorders, Risk and Prevention, Diet and Nutrition, Colorectal Cancer, Gastroenterology, Overnutrition, Colon Cancer, Cancer Risk, Bariatrics, Oncology, Obesity, American Cancer Society.

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Findings from Amgen Has Provided New Data on Toxicology and Pharmacology (Carcinogenicity risk assessment of romosozumab: A review of scientific weight-of-evidence and findings in a rat lifetime pharmacology study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Toxicology and Pharmacology. According to news reporting from Thousand Oaks, California, by NewsRx journalists, research stated, "Romosozumab is a humanized immunoglobulin G(2) monoclonal antibody that binds and blocks the action of sclerostin, a protein secreted by the osteocyte and an extracellular inhibitor of canonical Wnt signaling. Blockade of sclerostin binding to low-density lipoprotein receptor-related proteins 5 and 6 (LRP5 and LRP6) allows Wnt ligands to activate canonical Wnt signaling in bone, increasing bone formation and decreasing bone resorption, making sclerostin an attractive target for osteoporosis therapy."

The news correspondents obtained a quote from the research from Amgen, "Because romosozumab is a bone-forming agent and an activator of canonical Wnt signaling, questions have arisen regarding a potential carcinogenic risk. Weight-of-evidence factors used in the assessment of human carcinogenic risk of romosozumab included features of canonical Wnt signaling, expression pattern of sclerostin, phenotype of loss-of-function mutations in humans and mice, mode and mechanism of action of romosozumab, and findings from romosozumab chronic toxicity studies in rats and monkeys. Although the weight-of-evidence factors supported that romosozumab would pose a low carcinogenic risk to humans, the carcinogenic potential of romosozumab was assessed in a rat lifetime study. There were no romosozumab-related effects on tumor incidence in rats."

According to the news reporters, the research concluded: "The findings of the lifetime study and the weight-of-evidence factors collectively indicate that romosozumab administration would not pose a carcinogenic risk to humans."


Our news journalists report that additional information may be obtained by contacting R.W. Boyce, One Amgen Inc, Thousand Oaks, CA 91320, United States. Additional authors for this research include M. Felx, N. Mellal, A. Varela, P. Mann, J. Jolette, R. Samadfan, S.Y. Smith, K. Locher, S. Buntich, M.S. Ominsky, I. Pyrah and R.W. Boyce.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.08.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Thousand Oaks, California, United States, North and Central America, Toxicology and Pharmacology, Drugs and Therapies, Risk and Prevention, Amgen.

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Findings from Amirkabir University of Technology Update Knowledge of Biological Macromolecules (Encapsulation of Aloe Vera extract into natural Tragacanth Gum as a novel green wound healing product)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Life Science Research - Biological Macromolecules have been presented. According to news reporting originating from Tehran, Iran, by NewsRx correspondents, research stated, "Application of natural materials in wound healing is an interest topic due to effective treatment with no side effects. In this paper, Aloe Vera extract was encapsulated into Tragacanth Gum through a sono-chemical microemulsion process to prepare a wound healing product."

Our news editors obtained a quote from the research from the Amirkabir University of Technology, "FESEM/EDX and FT-IR proved the successfully formation of the nanocapsules with spherical shape by cross-linking aluminum ions with Tragacanth Gum. The therapeutic characteristics of the prepared wound healing product were investigated using antimicrobial, cytotoxicity and wound healing assays."

According to the news editors, the research concluded: "Relative high antimicrobial activities with the microbial reduction of 84, 91 and 80% against E. coli, S. aureus and C. albicans, a cell viability of 98% against human fibroblast cells and a good wound healing activity with considerable migration rate of fibroblast cells are the important advantages of the new formed wound healing product."

For more information on this research see: Encapsulation of Aloe Vera extract into natural Tragacanth Gum as a novel green wound healing product. *International Journal of Biological Macromolecules*, 2016;93():344-349. *International Journal of Biological Macromolecules* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; International Journal of Biological Macromolecules - www.journals.elsevier.com/international-journal-of-biological-macromolecules/)

The news editors report that additional information may be obtained by contacting M. Montazer, Amirkabir Univ Technol, Dept. of Text Engn, Funct Fibrous Struct & Environm Enhancement, Tehran, Iran. Additional authors for this research include M. Montazer and M.M. Rad.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.08.076. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Biological Macromolecules, Life Science Research, Amirkabir University of Technology.

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Findings from Anhui Medical University Yields New Findings on Chronic Hepatitis B Virus [NKp30(+) NK cells are associated with HBV control during pegylated-interferon-alpha-2b therapy of chronic hepatitis B]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Chronic Hepatitis B Virus have been published. According to news originating from Anhui, People's Republic of China, by NewsRx correspondents, research stated, "A pressing need exists for improved therapeutic options for chronic hepatitis B (CHB). Pegylated-interferon-alpha (Peg-IFN-alpha) achieves sustained off-treatment responses in many cases because of its direct anti-viral effects and regulation of the immune response."

Our news journalists obtained a quote from the research from Anhui Medical University, "However, non-responsiveness to Peg-IFN-alpha is frequent, and the mechanism is poorly understood. In this study, we found that the frequency and absolute number of NKp30(+) natural killer (NK) cells increased markedly, accompanied by enhanced CD107a and IFN-gamma production, during Peg-IFN-alpha-2b monotherapy or combination therapy with adefovir dipivoxil in patients with CHB, especially in responders. The responders and non-responders differed in the frequency of polyfunctional IFN-gamma(+) CD107(+) NK cells. In addition, the increase in NKp30+ NK cells was negatively correlated with the HBV viral load and plasma HBeAg. Moreover, it was found that IL-15 may contribute to the up-regulation of NKp30 on the NK cells, and this up-regulation was not induced in vitro by Peg-IFN-alpha-2b alone. However, in the non-responders, these NKp30(+) NK cells were dysfunctional because of increased NKG2A expression, which partly explains the inactivation of NKp30(+) NK cells and the reduced capacity of these cells to produce antiviral cytokines."

According to the news editors, the research concluded: "These findings may provide a new mechanism to explain the variable efficacy of Peg-IFN-alpha-2b therapy."

For more information on this research see: NKp30(+) NK cells are associated with HBV control during pegylated-interferon-alpha-2b therapy of chronic hepatitis B. *Scientific Reports*, 2016;6():1-10. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J.B. Li, Anhui Medical University, Chaohu Hosp, Hefei, Anhui, People's Republic of China. Additional authors for this research include B.Q. Fu, Y.Y. Liu, C. Guo, Y. Ye, R. Sun, J.B. Li, Z.G. Tian and H.M. Wei.

Keywords for this news article include: Anhui, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Chronic Hepatitis B Virus, Drugs and Therapies, Biological Factors, Interferon Type I, Interferon-alpha, Gastroenterology, Interferons, Antivirals, Cytokines, Therapy, Anhui Medical University.

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Findings from Anjo-Kosei Hospital in the Area of Heart Attack Reported
[Lipoprotein(a) levels predict adverse vascular events after acute myocardial infarction]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Attack is now available. According to news reporting originating from Anjo, Japan, by NewsRx correspondents, research stated, "Lipoprotein(a) [Lp(a)], which is genetically determined, has been reported as an independent risk factor for atherosclerotic vascular disease. However, the prognostic value of Lp(a) for secondary vascular events in patients after coronary artery disease has not been fully elucidated."

Our news editors obtained a quote from the research from Anjo-Kosei Hospital, "This 3-year observational study included a total of 176 patients with ST-elevated myocardial infarction (STEMI), whose Lp(a) levels were measured within 24 h after primary percutaneous coronary intervention. We divided enrolled patients into two groups according to Lp(a) level and investigated the association between Lp(a) and the incidence of major adverse cardiac and cerebrovascular events (MACCE). A Kaplan-Meier analysis demonstrated that patients with higher Lp(a) levels had a higher incidence of MACCE than those with lower Lp(a) levels (log-rank P = 0.034). A multivariate Cox regression analysis revealed that Lp(a) levels were independently correlated with the occurrence of MACCE after adjusting for other classical risk factors of atherosclerotic vascular diseases (hazard ratio 1.030, 95% confidence interval: 1.011-1.048, P = 0.002). In receiver-operating curve analysis, the cutoff value to maximize the predictive power of Lp(a) was 19.0 mg/dl (area under the curve = 0.674, sensitivity 69.2%, specificity 62.0%). Evaluation of Lp(a) in addition to the established coronary risk factors improved their predictive value for the occurrence of MACCE."

According to the news editors, the research concluded: "Lp(a) levels at admission independently predict secondary vascular events in patients with STEMI. Lp(a) might provide useful information for the development of secondary prevention strategies in patients with myocardial infarction."

For more information on this research see: Lipoprotein(a) levels predict adverse vascular events after acute myocardial infarction. Heart and Vessels, 2016;31(12):1923-1929. Heart and Vessels can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)


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Keywords for this news article include: Anjo, Japan, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Risk and Prevention, Myocardial Ischemia, Atherosclerosis, Heart Disease, Lipoproteins, Heart Attack, Cardiology, Genetics, Lipids, Anjo-Kosei Hospital.
Oncology - Cervical Cancer

Findings from Aristotle University Yields New Data on Cervical Cancer (Genetic polymorphisms of FAS and EVER genes in a Greek population and their susceptibility to cervical cancer: a case control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Cervical Cancer. According to news reporting originating in Thessaloniki, Greece, by NewsRx journalists, research stated, "The aim of the study was to evaluate the association of two SNPs of EVER1/2 genes’ region (rs2290907, rs16970849) and the FAS-670 polymorphism with the susceptibility to precancerous lesions and cervical cancer in a Greek population. Among the 515 women who were included in the statistical analysis, 113 belong to the case group and present with precancerous lesions or cervical cancer (27 with persistent CIN1, 66 with CIN2/3 and 20 with cervical cancer) and 402 belong to the control group."

The news reporters obtained a quote from the research from Aristotle University, "The chi-squared test was used to compare the case and the control groups with an allelic and a genotype-based analysis. The results of the statistical analysis comparing the case and the control groups for all the SNPs tested were not statistically significant. Borderline significant difference (p value = 0.079) was only found by the allelic model between the control group and the CIN1/CIN2 patients' subgroup for the polymorphism rs16970849. The comparison of the other case subgroups with the control group did not show any statistically significant difference."

According to the news reporters, the research concluded: "None of the SNPs included in the study can be associated with statistical significance with the development of precancerous lesions or cervical cancer."

For more information on this research see: Genetic polymorphisms of FAS and EVER genes in a Greek population and their susceptibility to cervical cancer: a case control study. *BMC Cancer*, 2016;16():1-7. *BMC Cancer* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; BMC Cancer - www.biomedcentral.com/bmcancer/)

Our news correspondents report that additional information may be obtained by contacting E. Pavlidou, Aristotle University, Hippokrate Gen Hosp Thessaloniki, Univ Clin Obstet & Gynecol 4, Thessaloniki, Greece. Additional authors for this research include A. Daponte, R. Egea, E. Dardiotis, G.M. Hadjigeorgiou, A. Barbadilla and T. Agorastos.

Keywords for this news article include: Thessaloniki, Greece, Europe, Cancer, Genetics, Cervical Cancer, Women's Health, Oncology, Aristotle University.

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Findings from Arizona State University Provides New Data about Prostate Cancer (Mathematical Models of Androgen Resistance in Prostate Cancer Patients under Intermittent Androgen Suppression Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting originating in Tempe, Arizona, by NewsRx journalists, research stated, "Predicting the timing of a castrate resistant prostate cancer is critical to lowering medical costs and improving the quality of life of advanced prostate cancer patients. We formulate, compare and analyze two mathematical models that aim to forecast future levels of prostate-specific antigen (PSA)."

The news reporters obtained a quote from the research from Arizona State University, "We accomplish these tasks by employing clinical data of locally advanced prostate cancer patients undergoing androgen deprivation therapy (ADT). While these models are simplifications of a previously published model, they fit data with similar accuracy and improve forecasting results. Both models describe the progression of androgen resistance. Although Model 1 is simpler than the more realistic Model 2, it can fit clinical data to a greater precision. However, we found that Model 2 can forecast future PSA levels more accurately."

According to the news reporters, the research concluded: "These findings suggest that including more realistic mechanisms of androgen dynamics in a two population model may help androgen resistance timing prediction."


Our news correspondents report that additional information may be obtained by contacting J. Baez, Arizona State University, Sch Math & Stat Sci, Tempe, AZ 85287, United States.

Keywords for this news article include: Tempe, Arizona, United States, North and Central America, Drugs and Therapies, Prostatic Neoplasms, Prostate Cancer, Androgens, Oncology, Therapy, Arizona State University.

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Findings from Arnaud de Villeneuve Hospital in the Area of Small Cell Lung Cancer Reported (Safety and Immunogenicity of the PRAME Cancer Immunotherapeutic in Patients with Resected Non-Small Cell Lung Cancer: A Phase I Dose Escalation Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Small Cell Lung Cancer have been
published. According to news reporting originating in Montpellier, France, by NewsRx journalists, research stated, "Adjuvant platinum-based chemotherapy is standard treatment for surgically resected stage II to IIIA NSCLC, but the relapse rate is high. The preferentially expressed antigen of melanoma (PRAME) tumor antigen is expressed in two-thirds of NSCLC and offers an attractive target for antigen-specific immunization."

The news reporters obtained a quote from the research from Arnaud de Villeneuve Hospital, "A phase I dose escalation study assessed the safety and immunogenicity of a PRAME immunotherapeutic consisting of recombinant PRAME plus proprietary immunostimulant AS15 in patients with surgically resected NSCLC (NCT01159964). Patients with PRAME-positive resected stage IB to IIIA NSCLC were enrolled in three consecutive cohorts to receive up to 13 injections of PRAME immunotherapeutic (recombinant PRAME protein dose of 20 μg, 100 pg, or 500 pg, with a fixed dose of AS15). Adverse events, predefined dose-limiting toxicity, and the anti-PRAME humoral response (measured by enzyme-linked immunosorbent assay) were coprimary end points. Anti-PRAME cellular responses were assessed. A total of 60 patients were treated (18 received 20 μg of PRAME, 18 received 100 μg of PRAME, and 24 received 500 μg of PRAME). No dose-limiting toxicity was reported. Adverse events considered by the investigator to be causally related to treatment were grade 1 or 2, and most were injection site reactions or fever. All patients had detectable anti-PRAME antibodies after four immunizations. The percentages of patients with PRAME-specific CD4-positive T cells were higher at the dose of 500 μg compared with lower doses. No predefined CD8-positive T-cell responses were detected. The PRAME immunotherapeutic had an acceptable safety profile. All patients had anti-PRAME humoral responses that were not dose related, and 80% of those treated at the highest dose showed a cellular immune response. The dose of 500 μg was selected."

According to the news reporters, the research concluded: "However, further development was stopped after negative results with a similar immunotherapeutic in patients with NSCLC."


Our news correspondents report that additional information may be obtained by contacting J.L. Pujol, Arnaud de Villeneuve Hosp; Thorac Oncol Unit, Resp Dis, Montpellier, France. Additional authors for this research include T. De Pas, A. Rittmeyer, E. Vallieres, B. Kubisa, E. Levchenko, S. Wiesemann, G.A. Masters, R. Shen, S.A. Tjulandin, H.S. Hofmann, N. Vanhoutte, B. Salaun, M. Debois, S. Jarnjak, P.M.D. Alves, J. Louahed, V.G. Brichard and Lehm.

Keywords for this news article include: Montpellier, France, Europe, Clinical Trials and Studies, Small Cell Lung Cancer, Clinical Research, Lung Neoplasms, Oncology, Arnaud de Villeneuve Hospital.

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Findings from Astex Pharmaceuticals Provides New Data on Chemical Biology (Structure of the Epigenetic Oncogene MMSET and Inhibition by N-Alkyl Sinefungin Derivatives)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Chemical Research - Chemical Biology. According to news reporting originating from Cambridge, United Kingdom, by NewsRx correspondents, research stated, "The members of the NSD subfamily of lysine methyl transferases are compelling oncology targets due to the recent characterization of gain-of-function mutations and translocations in several hematological cancers. To date, these proteins have proven intractable to small molecule inhibition."

Funders for this research include Cancer Research UK, Royal Marsden NHS Foundation Trust.

Our news editors obtained a quote from the research from Astex Pharmaceuticals, "Here, we present initial efforts to identify inhibitors of MMSET (aka NSD2 or WHSC1) using solution phase and crystal structural methods. On the basis of 2D NMR experiments comparing NSD1 and MMSET structural mobility, we designed an MMSET construct with five point mutations in the N-terminal helix of its SET domain for crystallization experiments and elucidated the structure of the mutant MMSET SET domain at 2.1 angstrom resolution. Both NSD1 and MMSET crystal systems proved resistant to soaking or cocrystallography with inhibitors."

According to the news editors, the research concluded: "However, use of the close homologue SETD2 as a structural surrogate supported the design and characterization of N-alkyl sinefungin derivatives, which showed low micromolar inhibition against both SETD2 and MMSET."

For more information on this research see: Structure of the Epigenetic Oncogene MMSET and Inhibition by N-Alkyl Sinefungin Derivatives. ACS Chemical Biology, 2016;11 (11):3093-3105. ACS Chemical Biology can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Chemical Biology - www.pubs.acs.org/journal/acbcct)

The news editors report that additional information may be obtained by contacting T.D. Heightman, Astex Pharmaceut, Cambridge CB4 0QA, United Kingdom. Additional authors for this research include E. Chiarparin, E. Tamanini, P. Pathuri, J.E. Coyle, A. Hold, F.P. Holding, N. Amin, A.C.L. Martin, S.J. Rich, V. Berdini, J. Yon, P. Acklam, R. Burke, L. Drouin, J.E. Harmer, F. Jeganathan, R.L.M. van Montfort, Y. Newbatt and Tor.

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Keywords for this news article include: Cambridge, United Kingdom, Europe, Chemical Biology, Chemical Research, Genetics, Astex Pharmaceuticals.

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Heart Disorders and Diseases - Atrial Fibrillation

Findings from Attikon University Hospital Provides New Data on Atrial Fibrillation (Acute effects of unilateral temporary stellate ganglion block on human atrial electrophysiological properties and atrial fibrillation inducibility)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news originating from Athens, Greece, by NewsRx correspondents, research stated, "In experimental models, stellate ganglion block (SGB) reduces the induction of atrial fibrillation (AF), while data in humans are limited. The aim of this study was to assess the effect of unilateral SGB on atrial electrophysiological properties and AF induction in patients with paroxysmal AF."

Our news journalists obtained a quote from the research from Attikon University Hospital, "Thirty-six patients with paroxysmal AF were randomized in a 2:1 order to temporary, transcutaneous, pharmaceutical SGB with Lidocaine or placebo before pulmonary vein isolation. Lidocaine was 1:1 randomly infused to the right or left ganglion. Before and after randomization, atrial effective refractory period (ERP) of each atrium, difference between right and left atrial ERP, intra- and interatrial conduction time, AF inducibility, and AF duration were assessed. After SGB, right atrial ERP was prolonged from a median (1st-3rd quartile) of 240 (220-268) ms to 260 (240-300) ms (P <.01) and left atrial ERP from 235 (220-260) ms to 245 (240-280) ms (P <.01). AF was induced by atrial pacing in all 24 patients before SGB, but only in 13 patients (54%) after the intervention (P <.01). AF duration was shorter after SGB: 1.5 (0.0-5.8) minutes from 5.5 (3.0-12.0) minutes (P <.01). Intraand interatrial conduction time was not significantly prolonged. No significant differences were observed between right and left SGB. No changes were observed in the placebo group. Unilateral temporary SGB prolonged atrial ERP, reduced AF inducibility, and decreased AF duration. An equivalent effect of right and left SGB on both atria was observed."

According to the news editors, the research concluded: "These findings may have a clinical implication in the prevention of drug refractory and postsurgery AF and deserve further clinical investigation."


The news correspondents report that additional information may be obtained from D. Leftheriotis, Attikon Univ Hosp Athens, Dept. of Cardiol, GR-12462 Athens, Greece. Additional authors for this research include P. Flevari, C. Kossyvakis, D. Katsaras, C. Batistaki, C. Arvaniti, G. Giannopoulos, S. Defteros, G. Kostopanagiotou and J. Lekakis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.06.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Athens, Greece, Europe, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Attikon University Hospital.
Chemistry - Biochemistry

Findings from B. Peck and Co-Researchers in the Area of Biochemistry Reported (Lipid desaturation - the next step in targeting lipogenesis in cancer?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Chemistry - Biochemistry is the subject of a report. According to news originating from Wurzburg, Germany, by NewsRx correspondents, research stated, "Metabolic reprogramming is a central feature of transformed cells. Cancer metabolism is now fully back in the focus of cancer research, as the interactions between oncogenic signalling and cellular metabolic processes are uncovered."

Funders for this research include Deutsche Forschungsgemeinschaft, Deutsche Krebshilfe.

Our news journalists obtained a quote from the research, "One aspect of metabolic reprogramming in cancer is alterations in lipid metabolism. In contrast to most untransformed tissues, which satisfy their demand from dietary lipids, cancer cells frequently re-activate de novo lipogenesis. However, compounds targeting fatty acid synthase (FASN), a multiprotein complex integral to lipogenesis, have so far shown limited efficacy in pre-clinical cancer models and to date only one FASN inhibitor has entered clinical trials. Recently, a number of studies have suggested that enhanced production of fatty acids in cancer cells could also increases their dependence on the activity of desaturases, a class of enzymes that insert double bonds into acyl-CoA chains. Targeting desaturase activity could provide a window of opportunity to selectively interfere with the metabolic activity of cancer cells."

According to the news editors, the research concluded: "This review will summarise some key findings that implicate altered lipid metabolism in cancer and investigate the molecular interactions between lipid desaturation and cancer cell survival."


The news correspondents report that additional information may be obtained from A. Schulze, Comprehens Canc Center Mainfranken, Wurzburg, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/febs.13681. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wurzburg, Germany, Europe, Biochemistry, Chemistry, Cancer, Article Review, Oncology.

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Findings from B.H. Munos and Co-Authors Provide New Insights into Clinical Pharmacology and Therapeutics (Biomedical Innovation: Lessons From the Past and Perspectives for the Future)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Clinical Pharmacology and Therapeutics are presented in a new report. According to news reporting originating from Washington, District of Columbia, by NewsRx editors, the research stated, "Back around the turn of the millennium, the future of the pharmaceutical industry was bright. Amazing technologies were converging to enable a top-to-bottom reengineering of drug research and development (R&D)."

Our news editors obtained a quote from the research, "The 'omics,' combinatorial chemistry, high-throughput screening, robotic automation, and systems biology, promised to bring order and method to drug research's bewildering complexity. Pharmaceutical executives—many of whom were ill at ease with their scientists' freewheeling ways—were excited."

According to the news editors, the research concluded: "Gushing with an enthusiasm that was typical of the times, a former industry Chief Executive Officer spoke gloweringly of the launch of 'two to three new blockbusters... each year driving a quadrupling of revenues.(1)."

For more information on this research see: Biomedical Innovation: Lessons From the Past and Perspectives for the Future. Clinical Pharmacology & Therapeutics, 2016;100 (6):588-590. Clinical Pharmacology & Therapeutics can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Clinical Pharmacology & Therapeutics - www.nature.com/clpt/)

The news editors report that additional information may be obtained by contacting B.H. Munos, FasterCures Center Milken Inst, Washington, DC 20005, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cpt.456. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Clinical Pharmacology and Therapeutics, Drugs and Therapies.

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According to the news reporters, the research concluded: "Prophylactic administration of obiltoxaximab before spore challenge or to spore-challenged animals before systemic bacterial dissemination is efficacious in promoting survival, ameliorating toxemia, and inhibiting bacterial spread to the periphery."

For more information on this research see: Obiltoxaximab Prevents Disseminated Bacillus anthracis Infection and Improves Survival during Pre- and Postexposure Prophylaxis in Animal Models of Inhalational Anthrax. *Antimicrobial Agents and Chemotherapy*, 2016;60 (10):5796-5805. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting N.V. Serbina, Elusys Therapeut Inc, Pine Brook, NJ 07058, United States. Additional authors for this research include A.M. Shadiack, S. Carpenter, D. Sanford, L.N. Henning, N. Gonzales, E. O'Connor, L.S. Casey and N.V. Serbina.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01102-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pine Brook, New Jersey, United States, North and Central America, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Gram-Positive Bacteria, Bacillus anthracis, Gram-Positive Rods, Bacillaceae.

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Findings from B.M. Nelms et al Update Understanding of Medical Entomology [Bionomics and Vector Potential of Culex thriambus (Diptera: Culicidae) Mosquitoes in Lake County, California]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Health and Medicine - Medical Entomology is the subject of a report. According to news reporting out of Lakeport, California, by NewsRx editors, research stated, "California statewide West Nile virus (WNV) minimum infection rates in Culex thriambus Dyar mosquitoes are high; however, few specimens are submitted and tested each year, as their distribution seems limited to larval habitats along riparian systems. To evaluate the role of Cx. thriambus in the amplification, maintenance, and overwintering of WNV in Lake County, CA, the bionomics and vector potential of the species was investigated during 2014 and 2015."

Our news journalists obtained a quote from the research, "Culex thriambus was the most abundant mosquito species, with 1,153 adults and 7,624 immatures collected by vacuum aspiration and dip sampling, respectively, at the primary study site. Detection of WNV in four mosquito pools during September through November coincided with peak seasonality. Females entered and maintained a reproductive diapause during winter under field and seminatural conditions. Diapause was initiated in the majority of Cx. thriambus females by October and was terminated by 30 March. Some parous females (7.1%) and those in host-seeking arrest (7.1%) were collected throughout the winter period. An accrual of 679.51 degree-days (degrees D) was necessary for diapause termination under seminatural conditions. Culex thriambus females fed on 16 different avian species during spring and summer, and no mammalian feeds were detected. West Nile viral RNA was detected in four of 42 Cx. thriambus pools tested during June through November and infection rates ranged from 3.53-28.15/1,000 tested."

According to the news editors, the research concluded: "In summary, WNV transmission may be increased along riparian corridors throughout California where Cx. thriambus mosquitoes remain relatively abundant."


Our news journalists report that additional information may be obtained by contacting B.M. Nelms, Lake Cty Vector Control Dist, Lakeport, CA 95453, United States. Additional authors for this research include T.C. Thiemann, D.N. Bridges, A.E. Williams, M.L. Koschik, B.M. Ryan and J.J. Scott.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/jme/tjw123. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lakeport, California, United States, North and Central America, Medical Entomology, Health and Medicine, Mosquitoes, Genetics.

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Cardiovascular Diseases and Conditions:...

Findings from Barrow Neurological Institute Broaden Understanding of Arteriovenous Fistula (Validation of an 'endovascular-first' approach to spinal dural arteriovenous fistulas: an intention-to-treat analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Arteriovenous Fistula have been presented. According to news reporting originating from Phoenix, Arizona, by NewsRx correspondents, research stated, "Spinal dural arteriovenous fistulas (SDAVFs) require pretreatment angiography; embolization can be performed in the same session. To validate this approach, obliteration and morbidity rates of 'endovascular-first' (embolization and microsurgery in the case of embolization failures) must be compared with rates for 'microsurgery-first' (microsurgical ligation without attempted embolization) approaches."

Our news editors obtained a quote from the research from Barrow Neurological Institute, "We reviewed our institutional database (January 1998-October 2015) for SDAVFs, performing an intention-to-treat analysis comparing endovascular-first and microsurgery-first approaches. A total of 71 patients underwent surgical and/or endovascular treatment for SDAVFs. All SDAVFs were ultimately occluded. Of 35 patients under consideration for an endovascular-first approach, radicular artery anatomy or anterior spinal artery embolization risk precluded attempting embolization in seven cases (20%). Among 28 patients undergoing embolization, angiographic non-opacification of the fistula was noted in 18 (64%). Fourteen patients had obliteration with excellent casting of the draining vein (50%) and did not undergo surgery. There were no significant differences in total complications (9% vs 11%; p=1.0) or permanent complications (3% vs 4%; p=1.0) after attempted endovascular and surgical treatment. Based on an intention-to-treat analysis, there were no significant differences in total complications (11% vs 14%; p=1.0), permanent complications (6% vs 3%; p=0.61), or the symptomatic resolution/improvement rate (80% vs 78%; p=1.0) between endovascular-first and microsurgery-first groups."

According to the news editors, the research concluded: "Our results support attempted embolization of SDAVFs prior to consideration of microsurgery, allowing for a less invasive treatment option in the same session as diagnostic angiography."

For more information on this research see: Validation of an 'endovascular-first' approach to spinal dural arteriovenous fistulas: an intention-to-treat analysis. Journal of Neurointerventional Surgery, 2016;9(1):102-105. (BMJ Publishing Group - group.bmj.com; Journal of Neurointerventional Surgery - jnis.bmj.com/)

The news editors report that additional information may be obtained by contacting B.A. Gross, Dept. of Neurosurgery, Barrow Neurological Institute, St Joseph's Hospital and Medical Center, Phoenix, Arizona, United States. Additional authors for this research include F.C. Albuquerque, K. Moon and C.G McDougall.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/neurintsurg-2016-012333. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Phoenix, Arizona, Angiology, Cardiology, Angiography, Embolization, Microsurgery, United States, Vascular Fistula, Arteriovenous Fistula, Vascular Malformations, Congenital Abnormalities, North and Central America, Arteriovenous Malformations, Cardiovascular Abnormalities, Operative Surgical Procedures.
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**Drugs and Therapies - Radiation Therapy**

**Findings from Baskent University in the Area of Radiation Therapy Reported (Dosimetric analysis of testicular doses in prostate intensity-modulated and volumetric-modulated arc radiation therapy at different energy levels)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Radiation Therapy. According to news reporting out of Adana, Turkey, by NewsRx editors, research stated, "The aim of this study is to evaluate the incidental testicular doses during prostate radiation therapy with intensity-modulated radiotherapy (IMRT) and volumetric-modulated arc radiotherapy (VMAT) at different energies. Dosimetric data of 15 patients with intermediate-risk prostate cancer who were treated with radiotherapy were analyzed."

Our news journalists obtained a quote from the research from Baskent University, "The prescribed dose was 78 Gy in 39 fractions. Dosimetric analysis compared testicular doses generated by 7-field intensity-modulated radiotherapy and volumetric modulated arc radiotherapy with a single arc at 6, 10, and 15 MV energy levels. Testicular doses calculated from the treatment planning system and doses measured from the detectors were analyzed. Mean testicular doses from the intensity-modulated radiotherapy and volumetric-modulated arc radiotherapy per fraction calculated in the treatment planning system were 16.3 +/- 10.3 cGy vs 21.5 +/- 11.2 cGy (p = 0.03) at 6 MV, 13.4 +/- 10.4 cGy vs 17.8 +/- 10.7 cGy (p = 0.04) at 10 MV, and 10.6 +/- 8.5 cGy vs 14.5 +/- 8.6 cGy (p = 0.03) at 15 MV, respectively. Mean scattered testicular doses in the phantom measurements were 99.5 +/- 17.2 cGy, 118.7 +/- 16.4 cGy, and 193.9 +/- 14.5 cGy at 6, 10, and 15 MV, respectively, in the intensity-modulated radiotherapy plans. In the volumetric-modulated arc radiotherapy plans, corresponding testicular doses per course were 90.4 +/- 16.3 cGy, 103.6 +/- 16.4 cGy, and 139.3 +/- 14.6 cGy at 6, 10, and 15 MV, respectively."

According to the news editors, the research concluded: "This study was the first to measure the incidental testicular doses by intensity-modulated radiotherapy and volumetric-modulated arc radiotherapy plans at different energy levels during prostate-only irradiation. Higher photon energy and volumetric-modulated arc radiotherapy plans resulted in higher incidental testicular doses compared with lower photon energy and intensity-modulated radiotherapy plans."


Our news journalists report that additional information may be obtained by contacting C. Onal, Baskent University, Dept. of Radiat Oncol, Fac Med, Adana, Turkey. Additional authors for this research include G. Arslan, Y. Dolek and E. Efe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.meddos.2016.07.004. This DOI is a link to an online electronic
Lung Diseases and Conditions - Asthma

Findings from Benaroya Research Institute Broaden Understanding of Asthma (STAT6 Regulates the Development of Eosinophilic versus Neutrophilic Asthma in Response to Alternaria alternata)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Asthma. According to news reporting from Seattle, Washington, by NewsRx journalists, research stated, "Human asthma is a heterogeneous disease characterized by the expression of both Th2 and Th17 cytokines. In vitro and in vivo studies have shown a reciprocal regulation between Th2 and Th17 pathways, suggesting a potential induction of neutrophil-promoting Th17 inflammation in the absence of a Th2 response."

The news correspondents obtained a quote from the research from Benaroya Research Institute, "Alternaria alternata is a clinically relevant allergen that is associated with severe and fatal asthma exacerbations. Exposure to A. alternata is characterized by a predominant Th2 response, but can also induce the production of factors associated with Th17 responses (e.g., CXCL8) from epithelial cells. Using a mouse model, we found that wild-type mice develop an eosinophilic Th2 airway disease in response to A. alternata exposure, whereas IL-4-, IL-13-, and STAT6-deficient mice exhibit a primarily neutrophilic response. Neutrophilic asthma in STAT6(-/)-mice was accompanied by elevated lung levels of TNF-alpha, CXCL1, CXCL2, and CXCL5, and was steroid resistant. Neutralization of Th17 signaling only partially reduced neutrophil numbers and total airway inflammation. Airway neutrophilia developed in RAG-deficient and CD4-depleted BALB/c mice, suggesting that the suppression of neutrophil responses is dependent on Th2 cytokine production by T cells and that airway neutrophilia is primarily an innate response to allergen."

According to the news reporters, the research concluded: "These results highlight the importance of combination therapies for treatment of asthma and establish a role for factors other than IL-17 as targets for neutrophilic asthma."

For more information on this research see: STAT6 Regulates the Development of Eosinophilic versus Neutrophilic Asthma in Response to Alternaria alternata. *Journal of Immunology*, 2016;197(12):4541-4551. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news journalists report that additional information may be obtained by contacting S.F. Ziegler, Benaroya Res Inst, Program Immunol, Seattle, WA 98101, United States. Additional authors for this research include C.W. Frevert, L.K. Koch, D.J. Campbell and S.F. Ziegler.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1600007. This DOI is a link to an online electronic
Autoimmune Diseases and Conditions - Multiple...

Findings from Bezmialem Vakif University Provides New Data about Multiple Sclerosis (Could Heterozygous Beta Thalassemia Provide Protection Against Multiple Sclerosis?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Multiple Sclerosis. According to news reporting originating in Istanbul, Turkey, by NewsRx journalists, research stated, "Heterozygous beta thalassemia (HBT) has been proposed to increase the risk of developing autoimmune disease. Our aim in this study was to examine the prevalence of HBT among multiple sclerosis (MS) patients."

The news reporters obtained a quote from the research from Bezmialem Vakif University, "HBT frequency was investigated in our MS group (243 patients with MS). Hemoglobin electrophoresis (HE) was carried out if MS patients had a mean corpuscular volume of (MCV) <80 fl and a mean corpuscular hemoglobin level of (MCH) <27 pg/L according to a complete blood count (CBC). If MCV was lower than 80 fl, MCH was lower than 27 pg/L, and Hemoglobin A2 equal to or higher than 3.5%, a diagnosis of HBT was established. The frequency of patients with HBT in our MS patient group was statistically compared with the prevalence of HBT in the city of Istanbul, where our MS patients lived. The HBT prevalence was 0.823% (2 patients) in the MS patient group. The prevalence of HBT in Istanbul has been reported to be 4.5%. According to the z-test, the HBT prevalence in our MS patient group was significantly lower than that in Istanbul (Z=6.3611, two-sided p value <0.0001. 95% confidence interval of prevalence of HBT in our MS patient group: 0.000998-0.029413)."

According to the news reporters, the research concluded: "Contrary to our hypothesis at the outset of study, the reduced HBT prevalence in the MS group compared to HBT frequency in the city of Istanbul might indicate that HBT is protective against MS."

For more information on this research see: Could Heterozygous Beta Thalassemia Provide Protection Against Multiple Sclerosis? Medical Science Monitor, 2016;22():4854-4858. Medical Science Monitor can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

Our news correspondents report that additional information may be obtained by contacting M.A. Cikrikcioglu, Bezmialem Vakif Univ, Fac Med, Dept. of Internal Med, Istanbul, Turkey. Additional authors for this research include M.E. Ozcan, G. Halac, I. Gultepe, K. Celik, Y. Sekin, E.E. Eser, S. Burhan, G. Cetin and O. Uysal.

The direct object identifier (DOI) for that additional information is:
Findings from Bharati Vidyapeeth Deemed University Provide New Insights into Toxicology and Pharmacology [Acute and repeated doses (28 days) oral toxicity study of Vicenin-1, a flavonoid glycoside isolated from fenugreek seeds in laboratory mice]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Toxicology and Pharmacology is now available. According to news reporting from Maharashtra, India, by NewsRx journalists, research stated, "Vicenin-1 (fenugreek glycoside) has been proven to possess potent anti-inflammatory and anti-oxidant activity. The objective of the present investigation was to determine in-vivo acute and subacute (28-days repeated dose) oral toxicity of Vicenin-1 isolated from fenugreek seed."

The news correspondents obtained a quote from the research from Bharati Vidyapeeth Deemed University, "Vicenin-1 (93%) was isolated from a hydroalcoholic extract of fenugreek seed and characterized using HPLC, TLC, H-1 NMR and C-13 NMR. Acute oral toxicity (AOT) and subacute toxicity studies of Vicenin-1 were carried out according to OECD 425 (up-and-down procedure) and OCED 407 guidelines in Swiss albino mice. In AOT, Vicenin-1 showed 10% mortality when administered at a dose of 5000 mg/kg. However, when vicenin-1 was administered for at doses of 37.5, 75, or 150 mg/kg 28-days it did not show any mortality at the administered doses. Vicenin-1 (75 mg/kg) did not show observational, behavioral, biochemical or histopathological toxic effects. There were minor alterations in body weight, hematology, and histopathology of mice administered with Vicenin-1 (150 mg/kg), but these changes were within normal laboratory ranges. The highest concentration of Venicin-1 was found in liver (3.46%) followed by lung (0.65%)."

According to the news reporters, the research concluded: "Vicenin-1 showed median lethal dose (LD50) of 4837.5 mg/kg with no-observed-adverse-effect levels (NOAEL) at 75 mg/kg and lowest adverse effect levels (LOAEL) at 150 mg/kg for both sexes of mice during AOT and sub-acute toxicity study, respectively."

For more information on this research see: Acute and repeated doses (28 days) oral toxicity study of Vicenin-1, a flavonoid glycoside isolated from fenugreek seeds in laboratory mice. Regulatory Toxicology and Pharmacology, 2016;81();522-531. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www elsevier.com; Regulatory Toxicology and Pharmacology - www journals.elsevier.com/regulatory-toxicology-and-pharmacology/)
Our news journalists report that additional information may be obtained by contacting S.L. Bodhankar, Bharati Vidyapeeth Deemed Univ, Poona Coll Pharm, Dept. of Pharmacol, Pune 411038, Maharashtra, India. Additional authors for this research include S.L. Bodhankar, V. Mohan and P.A. Thakurdesai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.10.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maharashtra, India, Asia, Toxicology and Pharmacology, Drugs and Therapies, Bharati Vidyapeeth Deemed University.

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Oncology - Myelogenous Leukemia

**Findings from Binzhou Medical University Provide New Insights into Myelogenous Leukemia (HOXB4 knockdown reverses multidrug resistance of human myelogenous leukemia K562/ADM cells by downregulating P-gp, MRP1 and BCRP expression via PI3K/Akt ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Myelogenous Leukemia. According to news reporting out of Shandong, People's Republic of China, by NewsRx editors, research stated, "Multidrug resistance (MDR) plays a pivotal role in human chronic myelogenous leukemia (CML) chemotherapy failure. MDR is mainly associated with the overexpression of drug efflux transporters of the ATP-binding cassette (ABC) proteins."

Our news journalists obtained a quote from the research from Binzhou Medical University, "Phosphoinositide 3-kinase (PI3K)/Akt signaling cascade is involved in the MDR phenotype and is correlated with multidrug resistance 1 (MDR1)/P-glycoprotein (P-gp), multidrug resistance-associated protein 1 (MRP1) and breast cancer resistance protein (BCRP) expression in many human malignancies. Homeobox (HOX) B4, a member of the HOX gene family, has been reported to be correlated with occurrence, development, poor prognosis and drug resistance of human leukemia. In the present study, HOXB4 expression was analyzed in K562 cell line and its MDR subtype K562/ADM. Compared with K562 cells, drug-resistant K562/ADM cells demonstrated evidently higher HOXB4 expression. In addition, we firstly investigated the reversal effect of HOXB4 deletion on K562/ADM cells and the underlying mechanism. The Cell Counting kit-8 (CCK-8) and flow cytometry assays showed that knockdown of HOXB4 enhanced chemosensitivity and decreased drug efflux in K562/ADM cells."

According to the news editors, the research concluded: "Moreover, HOXB4 knockout led to downregulation of P-gp, MRP1 and BCRP expression and PI3K/Akt signaling activity, suggesting that repression of HOXB4 might be a key point to reverse MDR of K562/ADM cells."

Our news journalists report that additional information may be obtained by contacting X.H. Jia, Binzhou Med Univ, Dept. of Pediat, Affiliated Hosp, Binzhou 256603, Shandong, People's Republic of China. Additional authors for this research include X.H. Jia, J.R. Chen, Y.J. Yi, J.Y. Wang, Y.J. Li and S.Y. Xie.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Multidrug Resistance, Myelogenous Leukemia, Drugs and Therapies, Drug Resistance, Hematology, Oncology, Binzhou Medical University.

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Drugs and Therapies - Drug Delivery Systems

Findings from Birla Institute of Technology and Science Broaden Understanding of Drug Delivery Systems (Homogeneous carboxymethylated orange pulp cellulose: Characterization and evaluation in terms of drug delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Drug Delivery Systems. According to news reporting originating in Jharkhand, India, by NewsRx journalists, research stated, "The aim of the present study is to develop an environment-friendly method to convert orange pulp wastes to Carboxymethyl cellulose (CMC) by homogeneous substitution. Carboxymethylation of Orange pulp treated with alkaline PEG solutions was investigated and characterized by means of TGA, DSC, XRD and SEM and compared with commercial CMC."

The news reporters obtained a quote from the research from the Birla Institute of Technology and Science, "The TGA data reveals that shifting of peaks was observed towards lower temperature with increase in monochloroacetic acid (MCA). SEM studies showed greater blending of particulate powder with increasing MCA content. The crystallinity of synthesized CMC was found to be lower than the commercial CMC. Finally, the cellulosic materials were evaluated for the formulation and dissolution studies of prepared tablets. Dissolution release studies shows that synthesized cellulose (CMCOP5, CMCOP8, CMCOP11) release up to 70.1 +/- 0.04%, whereas the commercial CMC 78.184 +/- 0.07% in 8 h respectively and thereby suggests that it may be used in delayed drug delivery and targeting drugs to the colon."

According to the news reporters, the research concluded: "The synthesized CMC from orange pulp may be used as substitute for the commercial CMC."


Our news correspondents report that additional information may be obtained by contacting K.J. Kumar, Birla Inst Technol, Dept. of Pharmaceut Sci & Technol, Ranchî 835215, Jharkhand, India. Additional authors for this research include R.K. Koley, S. Singh, A.K. Sen and K.J. Kumar.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.ijbiomac.2016.09.084. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jharkhand, India, Asia, Drug Delivery Systems, Drugs and Therapies, Birla Institute of Technology and Science.

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Immune System Diseases and Conditions - HIV/AIDS

Findings from Boston University Broaden Understanding of HIV/AIDS (A meta-analysis assessing all-cause mortality in HIV-exposed uninfected compared with HIV-unexposed uninfected infants and children)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immune System Diseases and Conditions - HIV/AIDS are discussed in a new report. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Conduct a meta-analysis examining differential all-cause mortality rates between HIV-exposed uninfected (HEU) infants and children as compared with their HIV-unexposed uninfected (HUU) counterparts. Meta-analysis summarizing the difference in mortality between HEU and HUU infants and children."

The news reporters obtained a quote from the research from Boston University, "Reviewed studies comparing children in the two groups for all-cause mortality, in any setting, from 1994 to 2016 from six databases. Meta-analyses were done estimating overall mortality comparing the two groups, stratified by duration of follow-up time from birth (0-12, 12-24 and >24 months) and by year enrollment ended in each study: less than 2002 compared with at least 2002, when single-dose nevirapine for prevention of mother-to-child transmission (PMTCT) commenced in low-income and middle-income countries. Included 22 studies, for a total of 29 212 study participants [n = 8840 (30.3%) HEU; n = 20 372 (37.7%) HUU]. Random effects models showed HEU had a more than 70% increased risk of mortality vs. HUU. Stratifying by age showed that HEU vs. HUU had a significant 60-70% increased risk of death at every age strata. There was a significant 70% increase in the risk of mortality between groups before the implementation of PMTCT, which remained after 2002 [risk ratio: 1.46; 95% confidence interval (CI): 1.14-1.87], when the availability of PMTCT services was widespread, suggesting that prenatal antiretroviral therapy, and healthier mothers, does not fully eliminate this increased risk in mortality. We show a consistent increase risk of mortality for HEU vs. HUU infants and children."

According to the news reporters, the research concluded: "Longitudinal research is needed to elucidate underlying mechanisms, such as maternal and infant health status and breast feeding practices, which may help explain these differences in mortality."

For more information on this research see: A meta-analysis assessing all-cause mortality in HIV-exposed uninfected compared with HIV-unexposed uninfected infants and children. Aids, 2016;30(15):2351-2360. Aids can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting A.T. Brennan, Boston University, Sch Public Hlth, Dept. of Epidemiol, Boston, MA 02118, United States. Additional authors for this research include R. Bonawitz, C.J. Gill, D.M.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Pediatrics, Risk and Prevention, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Boston University.

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Nutritional and Metabolic Diseases and Conditions - …

Findings from Boston University Reveals New Findings on Obesity (Validating a summary measure of weight history for modeling the health consequences of obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Data on weight history may enhance the predictive validity of epidemiologic models of the health risks of obesity, but collecting such data is often not feasible. In this study, we investigate the validity of a summary measure of weight history."

Funders for this research include National Center for Health Statistics, National Institute on Aging.

The news reporters obtained a quote from the research from Boston University, "We evaluated the quality of reporting of maximum weight in a sample of adults aged 50-84 years using data from the Health and Retirement Study. Recalled max body mass index (BMI, measured in kilogram per square meter) based on recalled weight in 2004 was compared with calculated max BMI based on self-reported weight collected biennially between 1992 and 2004. Logistic regression was used to assess similarity between the measures in predicting prevalent conditions. The correlation coefficient between recalled and calculated max weight in the overall sample was 0.95. Recalled max BMI value was within three BMI units of the calculated value 91.4% of the time. The proportions of individuals with obese I (BMI: 30.0-34.9), obese II (BMI: 35.0-39.9), and obese III (BMI: 40.0 and above) were 28.8%, 12.7%, and 6.6% using recalled values compared with 27.1%, 10.5%, and 4.9% using calculated values. In multivariate analyses, the two BMI measures similarly predicted disease prevalence across a number of chronic conditions."

According to the news reporters, the research concluded: "Recalled max BMI was strongly correlated with max BMI calculated over the 12-year period before recall, suggesting that this measure can serve as a reliable summary measure of recent weight status."


Our news correspondents report that additional information may be obtained by contacting A. Stokes, Boston University, Sch Public Hlth, Center Global Hlth & Dev, Boston, MA, United States.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.annepidem.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Epidemiology, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Boston University.

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Cysts

Findings from Boston University in the Area of Cysts Reported (Loss of Zeb2 in mesenchyme-derived nephrons causes primary glomerulocystic disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cysts. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Primary glomerulocystic kidney disease is a special form of renal cystic disorder characterized by Bowman's space dilatation in the absence of tubular cysts. ZEB2 is a SMAD-interacting transcription factor involved in Mowat-Wilson syndrome, a congenital disorder with an increased risk for kidney anomalies."

The news reporters obtained a quote from the research from Boston University, "Here we show that deletion of Zeb2 in mesenchyme-derived nephrons with either Pax2-cre or Six2-cre causes primary glomerulocystic kidney disease without tubular cysts in mice. Glomerulotubular junction analysis revealed many atubular glomeruli in the kidneys of Zeb2 knockout mice, which explains the presence of glomerular cysts in the absence of tubular dilatation. Gene expression analysis showed decreased expression of early proximal tubular markers in the kidneys of Zeb2 knockout mice preceding glomerular cyst formation, suggesting that defects in proximal tubule development during early nephrogenesis contribute to the formation of congenital atubular glomeruli. At the molecular level, Zeb2 deletion caused aberrant expression of Pkd1, Hnf1 beta, and Glis3, three genes causing glomerular cysts. Thus, Zeb2 regulates the morphogenesis of mesenchyme-derived nephrons and is required for proximal tubule development and glomerulotubular junction formation."

According to the news reporters, the research concluded: "Our findings also suggest that ZEB2 might be a novel disease gene in patients with primary glomerular cystic disease."


Our news correspondents report that additional information may be obtained by contacting W.N. Lu, Boston University, Sch Med, Div Grad Med Sci, Grad Program Genom & Genet, Boston, MA 02118, United States. Additional authors for this research include S. Kumar, S. Chan, A. Pisarek-Horowitz, R. Sharma, Q.C.J. Xi, Y. Nishizaki, Y. Higashi, D.J. Salant, R.L. Maas and W.N. Lu.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.kint.2016.06.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Genetics, Cysts, Boston University.

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**Drugs and Therapies - Protease Inhibitors**

**Findings from Brussels Free University Provide New Insights into Protease Inhibitors [Limited HIV-1 Reactivation in Resting CD4(+) T cells from Aviremic Patients under Protease Inhibitors]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Protease Inhibitors. According to news reporting out of Gosselies, Belgium, by NewsRx editors, research stated, "A latent viral reservoir that resides in resting CD4(+) T cells represents a major barrier for eradication of HIV infection. We test here the impact of HIV protease inhibitor (PI) based combination anti-retroviral therapy (cART) over nonnucleoside reverse transcriptase inhibitor (NNRTI)-based cART on HIV-1 reactivation and integration in resting CD4(+) T cells."

Our news journalists obtained a quote from the research from Brussels Free University, "This is a prospective cohort study of patients with chronic HIV-1 infection treated with conventional cART with an undetectable viremia. We performed a seven-year study of 47 patients with chronic HIV-infection treated with cART regimens and with undetectable plasma HIV-1 RNA levels for at least 1 year. Of these 47 patients treated with cART, 24 were treated with a PI-based regimen and 23 with a NNRTI-based regimen as their most recent treatment for more than one year. We evaluated the HIV-1 reservoir using reactivation assay and integrated HIV-1 DNA, respectively, in resting CD4(+) T cells. Resting CD4(+) T cells isolated from PI-treated patients compared to NNRTI-treated patients showed a limited HIV-1 reactivation upon T-cell stimulation (p = 0.024) and a lower level of HIV-1 integration (p = 0.024)".

According to the news editors, the research concluded: "Our study indicates that PI-based cART could be more efficient than NNRTI-based cART for limiting HIV-1 reactivation in aviremic chronically infected patients."

For more information on this research see: Limited HIV-1 Reactivation in Resting CD4(+) T cells from Aviremic Patients under Protease Inhibitors. *Scientific Reports*, 2016;6():1-7. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillian Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting C. Van Lint, Brussels Free University, IBMM, Lab Mol Virol, Gosselies, Belgium. Additional authors for this research include W. Abbas, S. Bouchat, J.S. Gatot, S. Pasquereau, K. Kabeya, N. Clumeck, S. De Wit, C. Van Lint and G. Herbein.

Keywords for this news article include: Gosselies, Belgium, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Enzymes and Coenzymes, Primate Lentiviruses, Drugs and Therapies, Protease Inhibitors, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Genetics, HIV-1, Brussels...
Findings from C. Chamizo and Co-Researchers Advance Knowledge in Breast Cancer (Determination of True ERBB2 Gene Amplification in Breast Cancer by Quantitative PCR Using a Reference and a Novel Control Gene)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting out of Madrid, Spain, by NewsRx editors, research stated, "Human epidermal growth factor receptor 2 (ERBB2/HER2) is amplified and overexpressed in 20% to 25% of breast carcinomas, correlates with poor outcome, and is an indication for treatment with trastuzumab. Accurate assessment of ERBB2 status is crucial for proper prognosis and to offer appropriate treatment for patients."

Our news journalists obtained a quote from the research, "ERBB2 status is generally determined by immunohistochemistry or fluorescence in situ hybridization (FISH), and sporadically by quantitative real-time polymerase chain reaction (PCR). We developed a new algorithm, termed quantitative PCR algorithm (QPA) score, and compared its performance with the gold standard FISH assay. The QPA is a computation of the relative number of copies of the ERBB2 gene with respect to a nonstandard, short-arm centromeric sequence on chromosome 17, and referenced to a single-copy gene, RPP30. This provides a more reliable determination of ERBB2 amplification, reducing the false polysomy 17 error. A total of 69 breast carcinoma samples were tested for quantitative real-time PCR and FISH, and the degree of concordance was analyzed. Sixty-two cases were in agreement between the 2 methods, and the contingency study assigned a k value of 0.729 for their correlation. A receiver operating characteristic analysis was used to determine the optimal cut-off point for ERBB2 amplification, which was estimated at a QPA=1.53 (sensitivity=0.863; specificity=0.944)."

According to the news editors, the research concluded: "Our data conclude that the QPA is able to determine ERBB2 gene status with high accuracy, while also overcoming the limitations of conventional techniques and providing better cost-effectiveness."

For more information on this research see: Determination of True ERBB2 Gene Amplification in Breast Cancer by Quantitative PCR Using a Reference and a Novel Control Gene. Applied Immunohistochemistry & Molecular Morphology, 2016;24(3):179-87. (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting C. Chamizo, Group of Cancer Biomarkers, Pathology Department, IIS-Fundacion Jimenez Diaz, UAM, Madrid, Spain. Additional authors for this research include F. Rojo and J. Madoz-Gurpide.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/PAI.0000000000000160. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Madrid, Europe, Genetics, Oncology,
Gram-Positive Bacteria - Streptococcus

Findings from C. Das and Co-Authors Update Knowledge of Streptococcus (In silico dissection of Type VII Secretion System components across bacteria: New directions towards functional characterization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - Streptococcus. According to news reporting from Pune, India, by NewsRx journalists, research stated, "Type VII Secretion System (T7SS) is one of the factors involved in virulence of Mycobacterium tuberculosis H37Rv. Numerous research efforts have been made in the last decade towards characterizing the components of this secretion system."

The news correspondents obtained a quote from the research, "An extensive genome-wide analysis through compilation of isolated information is required to obtain a global view of diverse characteristics and pathogenicity-related aspects of this machinery. The present study suggests that differences in structural components (of T7SS) between Actinobacteria and Firmicutes, observed earlier in a few organisms, is indeed a global trend. A few hitherto uncharacterized T7SS-like clusters have been identified in the pathogenic bacteria Enterococcus faecalis, Saccharomonospora viridis, Streptococcus equi, Streptococcus gordonii and Streptococcus sanguinis. Experimental verification of these clusters can shed lights on their role in bacterial pathogenesis. Similarly, verification of the identified variants of T7SS clusters consisting additional membrane components may help in unraveling new mechanism of protein translocation through T7SS."

According to the news reporters, the research concluded: "A database of various components of T7SS has been developed to facilitate easy access and interpretation of T7SS related data."


Our news journalists report that additional information may be obtained by contacting C. Das, Bio-Sciences R and D Division, TCS Innovation Labs, Tata Research Development and Design Centre, Tata Consultancy Service Ltd, Pune 411 013, India. Additional authors for this research include T.S. Ghosh and S.S Mande.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12038-016-9599-8. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Biosciences is: Springer, 233 Spring Street, New York, NY 10013, USA.

Keywords for this news article include: Pune, Asia, India, Genetics, Streptococcus,
Drugs and Therapies - Immunotherapy

Findings from C. Gerard and Colleagues Provides New Insights into Immunotherapy (A Comprehensive Preclinical Model Evaluating the Recombinant PRAME Antigen Combined With the AS15 Immunostimulant to Fight Against PRAME-expressing Tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Immunotherapy are presented in a new report. According to news reporting out of Rixensart, Belgium, by NewsRx editors, research stated, "The PRAME tumor antigen is a potential target for immunotherapy. We assessed the immunogenicity, the antitumor activity, and the safety and the tolerability of a recombinant PRAME protein (recPRAME) combined with the AS15 immunostimulant (recPRAME+AS15) in preclinical studies in mice and Cynomolgus monkeys."

Our news journalists obtained a quote from the research, "Four groups of 12 CB6F1 mice received 4 injections of phosphate-buffered saline (PBS), recPRAME, AS15, or recPRAME+AS15. Immunized mice were injected with tumor cells expressing PRAME (CT26-PRAME) 2 weeks or 2 months after the last injection. The mean tumor surface was measured twice a week. Two groups of 10 monkeys received 7 injections of saline or recPRAME+AS15. T-cell responses were measured by flow cytometry using intracellular cytokine staining (ICS). In CB6F1 mice, repeated injections of recPRAME+AS15 induced high PRAME-specific antibody titers and mostly CD4+ T cells producing cytokines. This immune response was long-lasting in these animals and was associated with protection against a challenge with PRAME-expressing tumor cells (CT26-PRAME) applied either 2 weeks or 2 months after the last injection; these data indicate the induction of an immune memory. In HLA-A2.01/HLA-DR1 transgenic mice, recPRAME+AS15 induced both CD4+ and CD8+ T-cell responses, indicating that this antigen can be processed by the human leukocyte antigen and is potentially immunogenic in humans. In addition, a repeated-dose toxicity study in monkeys showed that 7 biweekly injections of recPRAME+AS15 were well tolerated, and induced PRAME-specific antibodies and T cells."

According to the news editors, the research concluded: "These preclinical data indicate that repeated injections of the PRAME cancer immunotherapeutic are immunogenic and have an acceptable safety profile."

For more information on this research see: A Comprehensive Preclinical Model Evaluating the Recombinant PRAME Antigen Combined With the AS15 Immunostimulant to Fight Against PRAME-expressing Tumors. Journal of Immunotherapy, 2015;38(8):311-20. (Lippincott Williams and Wilkins - www.lww.com; Journal of Immunotherapy - journals.lww.com/immunotherapy-journal/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting C. Gerard, GSK Vaccines, Rixensart, Belgium. Additional authors for this research include N. Baudson, T. Ory, L. Segal and J. Louahed.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/CJI.0000000000000095. This DOI is a link to an online electronic document that is either free or for purchase.
Findings from C. Pelat and Colleagues Update Understanding of Enterobacteriaceae (Hand Hygiene, Cohorting, or Antibiotic Restriction to Control Outbreaks of Multidrug-Resistant Enterobacteriaceae)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Enterobacteriaceae is now available. According to news reporting out of Paris, France, by NewsRx editors, research stated, "The best strategy for controlling extended-spectrum b-lactamase-producing Enterobacteriaceae (ESBL-PE) transmission in intensive care units (ICUs) remains elusive. We developed a stochastic transmission model to quantify the effectiveness of interventions aimed at reducing the spread of ESBL-PE in an ICU."

Our news journalists obtained a quote from the research, "We modeled the evolution of an outbreak caused by the admission of a single carrier in a 10-bed ICU free of ESBL-PE. Using data obtained from recent multicenter studies, we studied 26 strategies combining different levels of the following 3 interventions: (1) increasing healthcare worker compliance with hand hygiene before and after contact with a patient; (2) cohorting; (3) reducing antibiotic prevalence at admission with or without reducing antibiotherapy duration. Improving hand hygiene compliance from 55% before patient contact and 60% after patient contact to 80% before and 80% after patient contact reduced the nosocomial incidence rate of ESBL-PE colonization by 91% at 90 days. Adding cohorting to hand hygiene improvement intervention decreased the proportion of ESBL-PE acquisitions by an additional 7%. Antibiotic restriction had the lowest impact on the epidemic. When combined with other interventions, it only marginally improved effectiveness, despite strong hypotheses regarding antibiotic impact on transmission."

According to the news editors, the research concluded: "Our results suggest that hand hygiene is the most effective intervention to control ESBL-PE transmission in an ICU."

For more information on this research see: Hand Hygiene, Cohorting, or Antibiotic Restriction to Control Outbreaks of Multidrug-Resistant Enterobacteriaceae. Infection Control and Hospital Epidemiology, 2015;37(3):272-80. (University of Chicago Press - press.uchicago.edu; Infection Control and Hospital Epidemiology - /ucp/journals/journal/iche.html)

Our news journalists report that additional information may be obtained by contacting C. Pelat, 1INSERM, Infection, Antimicrobials, Modelization, Evolution (IAME), UMR 1137, F-75018 Paris, France. Additional authors for this research include L. Kardas-Sloma, G. Birgand, E. Ruppe, M. Schwarzinger, A. Andremont, J.C. Lucet and Y. Yazdanpanah.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/ice.2015.284. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Hygiene,
Findings from C. Reyes and Colleagues Provides New Insights into Clinical Trials and Studies (Risks and Benefits of Bisphosphonate Therapies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news reporting originating in Barcelona, Spain, by NewsRx journalists, research stated, "Bisphosphonates are the mainstay of osteoporosis treatment but also play a fundamental role in treating other bone diseases such as Osteogenesis Imperfecta, Pagets’ disease, and in the prevention of adverse skeletal effects in certain cancers such as prostate cancer or multiple myeloma. In the last decades, the refinement of bisphosphonates and an increase in the number of new bisphosphonates commercialized has altered the clinical management of these diseases."

Financial supporters for this research include Novartis, Amgen, Bioiberica.

The news reporters obtained a quote from the research, "Despite differences between randomized controlled trials and observational studies, overall all bisphosphonates licensed have proven to reduce the risk of fracture through the inhibition of bone resorption. Other beneficial effects include pain reduction in bone metastasis and potentially a decrease in mortality. However, the chronic nature of most of these disorders implies long-term treatments, which can be associated with long-term adverse effects. Some of the adverse effects identified include an increased risk of atypical femur fractures, osteonecrosis of the jaw, gastrointestinal side effects, or atrial fibrillation. The harm/benefit thinking and the constant update regarding these medications are vital in the day-to-day decision-making in clinical practices."

According to the news reporters, the research concluded: "The aims of this review are to compile the basic characteristics of these drugs and outline the most important benefits and side effects and provide a clinical context as well as a research agenda to fill the gaps in our knowledge."


Our news correspondents report that additional information may be obtained by contacting C. Reyes, GREMPAL Research Group, Institut Universitari d'Investigacio en Atencio Primaria Jordi Gol (IDIAP Jordi Gol), Barcelona, Spain. Additional authors for this research include M. Hitz, D. Prieto-Alhambra and B. Abrahamsen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcb.25266. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, Barcelona, Bone Research, Article Review, Clinical Research, Risk and Prevention, Clinical Trials and Studies.
Findings from C. Sitzia and Co-Authors in the Area of Cytoskeletal Proteins Reported (Adaptive Immune Response Impairs the Efficacy of Autologous Transplantation of Engineered Stem Cells in Dystrophic Dogs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Proteins - Cytoskeletal Proteins. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "Duchenne muscular dystrophy is the most common genetic muscular dystrophy. It is caused by mutations in the dystrophin gene, leading to absence of muscular dystrophin and to progressive degeneration of skeletal muscle."

Our news journalists obtained a quote from the research, "We have demonstrated that the exon skipping method safely and efficiently brings to the expression of a functional dystrophin in dystrophic CD133+ cells injected scid/mdx mice. Golden Retriever muscular dystrophic (GRMD) dogs represent the best preclinical model of Duchenne muscular dystrophy, mimicking the human pathology in genotypic and phenotypic aspects. Here, we assess the capacity of intra-arterial delivered autologous engineered canine CD133+ cells of restoring dystrophin expression in Golden Retriever muscular dystrophy. This is the first demonstration of five-year follow up study, showing initial clinical amelioration followed by stabilization in mild and severe affected Golden Retriever muscular dystrophy dogs."

According to the news editors, the research concluded: "The occurrence of T-cell response in three Golden Retriever muscular dystrophy dogs, consistent with a memory response boosted by the exon skipped-dystrophin protein, suggests an adaptive immune response against dystrophin."

For more information on this research see: Adaptive Immune Response Impairs the Efficacy of Autologous Transplantation of Engineered Stem Cells in Dystrophic Dogs. *Molecular Therapy*, 2016;24(11):1949-1964. *Molecular Therapy* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Elsevier - www.nature.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

The news correspondents report that additional information may be obtained from Y. Torrente, Ystem Srl, Milan, Italy. Additional authors for this research include A. Parini, L. Jardim, P. Razini, M. Belicchi, L. Cassinelli, C. Villa, S. Erratico, D. Parolini, P. Bella, J. Bizario, L. Garcia, M. Dias-Baruffi, M. Meregalli and Y. Torrente.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2016.163. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Cytoskeletal Proteins, Membrane Proteins, Muscle Proteins, Engineering, Dystrophin.

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Heart Disorders and Diseases - Atrial Fibrillation

Findings from C.A. McHorney et al in Atrial Fibrillation Reported (Comparison of Adherence to Rivaroxaban Versus Apixaban Among Patients With Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Atrial Fibrillation are discussed in a new report. According to news reporting originating in Montreal, Canada, by NewsRx journalists, research stated, "Non-vitamin K antagonist oral anticoagulant medications are increasingly used for stroke prophylaxis in patients with nonvalvular atrial fibrillation (NVAF). This study aimed to compare adherence with rivaroxaban and apixaban among patients with NVAF in routine clinical practice."

The news reporters obtained a quote from the research, "Using pharmacy and medical claims from Truven Health Analytics MarketScan databases, we identified NVAF patients aged >= 18 years treated with rivaroxaban or apixaban. Baseline demographic and clinical features were balanced using 1:1 propensity score matching. Adherence to therapy was measured at 90 and 180 days post-index date and was defined by the proportion of days covered (PDC) >= 0.80 and PDC >= 0.90. 'Gaps in care,' defined as those with 10 or more day gaps in supply, were also evaluated. Between June 2012 and April 2014, 11,477 rivaroxaban and 2992 apixaban users were identified. Baseline characteristics for rivaroxaban and apixaban users were well matched. Relative to apixaban users, rivaroxaban users were more likely to have a PDC >= 0.80 at both 90 days (85.3% vs 79.9%; P< 0.001) and 180 days (75.8% vs 72.2%; P = 0.001). Similar results were observed with PDC >= 0.90. The proportion of patients with at least one 5+ and 10+ day gap in prescriptions was significantly lower in the rivaroxaban versus apixaban cohorts: 54.2% versus 62.4% (P < 0.001) and 40.0% versus 49.2% (P < 0.001), respectively. Adherence to non-vitamin K antagonist oral anticoagulants among NVAF patients is less than ideal, and gaps in treatment are common. Those on once-a-day rivaroxaban had significantly higher adherence and fewer gaps in treatment compared with twice-a-day apixaban."

According to the news reporters, the research concluded: "Future studies are needed to explore whether these treatment differences affect comparative patient outcomes."

For more information on this research see: Comparison of Adherence to Rivaroxaban Versus Apixaban Among Patients With Atrial Fibrillation. Clinical Therapeutics, 2016;37(11):2477-2488. Clinical Therapeutics can be contacted at: Elsevier, 685 Route 202-206, Bridgewater, NJ 08807, USA. (Elsevier - www.elsevier.com; Clinical Therapeutics - www.journals.elsevier.com/clinical-therapeutics/)

Our news correspondents report that additional information may be obtained by contacting G. Germain, Grp Anal Ltee, Montreal, PQ H3B 4W5, Canada. Additional authors for this research include E.D. Peterson, F. Laliberte, G. Germain, W.W. Nelson, C. Crivera, J. Schein and P. Lefebvre.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinthera.2016.09.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Heart Disorders and Diseases, Epidemiology, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease.

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Liver Diseases and Conditions - Hepatitis C Virus

Findings from C.M. Owens and Co-Authors Update Knowledge of Hepatitis C Virus (Preclinical Profile and Clinical Efficacy of a Novel Hepatitis C Virus NS5A Inhibitor, EDP-239)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Hepatitis C Virus have been published. According to news reporting from Watertown, Massachusetts, by NewsRx journalists, research stated, "EDP-239, a novel hepatitis C virus (HCV) inhibitor targeting nonstructural protein 5A (NS5A), has been investigated in vitro and in vivo. EDP-239 is a potent, selective inhibitor with potency at picomolar to nanomolar concentrations against HCV genotypes 1 through 6. In the presence of human serum, the potency of EDP-239 was reduced by less than 4-fold."

The news correspondents obtained a quote from the research, "EDP-239 is additive to synergistic with other direct-acting antivirals (DAAs) or host-targeted antivirals (HTAs) in blocking HCV replication and suppresses the selection of resistance in vitro. Furthermore, EDP-239 retains potency against known DAA- or HTA-resistant variants, with half-maximal effective concentrations (EC(50)s) equivalent to those for the wild type. In a phase I, single-ascending-dose, placebo-controlled clinical trial, EDP-239 demonstrated excellent pharmacokinetic properties that supported once daily dosing."

According to the news reporters, the research concluded: "A single 100-mg dose of EDP-239 resulted in reductions in HCV genotype 1a viral RNA of >3 log(10) IU/ml within the first 48 h after dosing and reductions in genotype 1b viral RNA of >4-log(10) IU/ml within 96 h."

For more information on this research see: Preclinical Profile and Clinical Efficacy of a Novel Hepatitis C Virus NS5A Inhibitor, EDP-239. Antimicrobial Agents and Chemotherapy, 2016;60(10):6207-6215. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00808-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Watertown, Massachusetts, United States, North and Central America, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Clinical Trials and Studies, Flaviviridae Infections, Pre-Trial Research, Hepatitis C Virus, Gastroenterology, RNA Viruses, Hepatology, Viral RNA, Genetics, Virology, HCV.

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Findings from CONICET Provides New Data on Estradiol Congeners
(17-Estradiol Protects Skeletal Myoblasts From Apoptosis Through p53, Bcl-2, and FoxO Families)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hormones - Estradiol Congeners. According to news reporting out of Bahia Blanca, Argentina, by NewsRx editors, research stated, "17-Estradiol (E-2) protects several nonreproductive tissues from apoptosis, including skeletal muscle. Previously, we showed that E-2 at physiological concentrations prevented apoptosis induced by H2O2 in skeletal myoblasts, reverting PKC, JNK, and p66Shc activation and exerting a beneficial action over mitochondria."

Our news journalists obtained a quote from the research from CONICET, "Since genomic actions underlying the regulation of nuclear gene transcription are a common property of this steroid, the present work characterizes the transcriptional activity modulated by E-2 to exert its antiapoptotic effect. We report that E-2 protects skeletal myoblasts against apoptosis induced by H2O2 modulating p53 and FoxO transcription factors and then their target genes Bcl-2, Bim, Puma, PERP, and MDM2, without affecting Noxa gene."

According to the news editors, the research concluded: "The results presented in this work support the notion that the transcription factors FoxO and p53 coordinate apoptosis in C2C12 cells, and deepens our knowledge about a putative molecular mechanism by which E-2 exerts beneficial effects against oxidative stress in skeletal myoblasts. J. Cell. Biochem. 118:104-115, 2017."


Our news journalists report that additional information may be obtained by contacting A. Vasconsuelo, INBIOSUR CONICET, RA-8000 Bahia Blanca, Buenos Aires, Argentina. Additional authors for this research include A. Vasconsuelo, L. Milanesi and L. Pronsato.

Keywords for this news article include: Bahia Blanca, Argentina, South America, Estradiol Congeners, Gonadal Hormones, Myoblasts, Apoptosis, Genetics, p53 Gene, Cells, CONICET.

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DNA Research

Findings from CREST Research Project Update Knowledge of DNA Research (DNA recovery from a single bacterial cell using charge-reversible magnetic nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on DNA Research are discussed in a new report. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Highly efficient DNA recovery from a single bacterial cell was performed by means of imidazole-modified magnetic nanoparticles (Imi-MNPs). The modification by imidazole was confirmed by Fourier transform infrared spectroscopy."

Financial support for this research came from Japan Science and Technology Agency (JST), CREST.

Our news journalists obtained a quote from the research from CREST Research Project, "The Imi-MNPs were highly efficient at DNA extraction owing to the charge reversible properties of Imi-MNPs, whereby DNA is attached to the particles at low pH and eluted at high pH because of electrostatic interactions. The DNA recovery ratio was determined by real-time PCR, and it revealed that complete recovery was guaranteed at >= 10^3 genome copies of Bacillus subtilis. Extraction of DNA from single bacterial cells was followed by PCR amplification of 16S rDNA and capillary electrophoresis. We achieved detection of single bacterial cells with a detection rate of 80%.

According to the news editors, the research concluded: "We believe that our DNA recovery strategy may serve as a powerful tool for efficient DNA extraction and should be useful for quality control of cosmetics, foods, and pharmaceutical products."

For more information on this research see: Colloids and Surfaces B-Biointerfaces, 2016;139():117-122. Colloids and Surfaces B-Biointerfaces can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands.

The news correspondents report that additional information may be obtained from T. Tanaka, JST, CREST, Tokyo, Japan. Additional authors for this research include T. Toyoda, T. Mogi, T. Taguchi, T. Tanaami, T. Yoshino, T. Matsunaga and T. Tanaka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.colsurfb.2015.11.057. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Emerging Technologies, Nanotechnology, Nanoparticle, DNA Research, CREST Research Project.

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Nephrology

Findings from Cambridge Institute for Medical Research Broadens Understanding of Nephrology (HIF prolyl hydroxylase inhibitors for the treatment of renal anaemia and beyond)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nephrology are discussed in a new report. According to news originating from Cambridge, United Kingdom, by NewsRx correspondents, research stated, "Small-molecule stabilizers of hypoxia inducible factor (HIF) are being developed for the treatment of renal anaemia. These molecules inhibit prolyl hydroxylase domain-containing (PHD) enzymes, resulting in HIF activation and increased production of erythropoietin."

Our news journalists obtained a quote from the research from Cambridge Institute for Medical Research, "Currently, renal anaemia is treated with recombinant human erythropoietin or related analogues, referred to as conventional erythropoiesis stimulating agents (ESAs). Advantages of PHD enzyme inhibitors over conventional ESAs include their oral administration and their simpler -and potentially cheaper -production. Importantly, inhibition of PHD enzymes is likely to have a range of consequences other than increasing levels of erythropoietin, and these effects could be beneficial -for instance by reducing the need for parenteral iron -but might in some instances be harmful. Several companies are currently testing PHD enzyme inhibitors in patients with renal anaemia and have reported clear evidence of efficacy without serious safety concerns. A central question that current studies are beginning to address is whether using PHD enzyme inhibitors will influence hard end points, including mortality and the rate of cardiovascular events. In terms of approaches to therapy, the exquisite specificity of conventional ESAs is a striking contrast to the pleiotropic effects of activating HIF."

According to the news editors, the research concluded: "Excitingly, PHD inhibitors could also be useful for conditions besides renal anaemia, such as protection from ischaemic injury."


The news correspondents report that additional information may be obtained from P.H. Maxwell, Cambridge Institute for Medical Research, Cambridge Biomedical Campus, Cambridge CB2 0XY, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrneph.2015.193. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Kidney, Therapy, Cambridge, Cytokines, Nephrology, Hydroxylase, United Kingdom, Article Review, Erythropoietin, Biological Factors, Enzymes and Coenzymes, Colony Stimulating Factors, Intercellular Signaling Peptides and Proteins.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news reporting out of Cambridge, United Kingdom, by NewsRx editors, research stated, "We compared clinical characteristics and cancer specific mortality in men diagnosed with prostate cancer before vs after age 50 years. A total of 919 men 35 to 49 years old and 45,098 men 50 to 66 years old who were diagnosed with prostate cancer between 1998 and 2012 were identified in PCBaSe (Prostate Cancer data Base Sweden)."

Our news journalists obtained a quote from the research from Cambridge University Hospitals NHS Trust, "Cancer specific mortality was compared among age groups (35 to 49, 50 to 59, 60 to 63 and 64 to 66 years) with and without adjusting for cancer characteristics, comorbidity and education in a multivariable Cox proportional hazards model. Clinical cancer characteristics indicated that most nonmetastatic cancer in men younger than 50 years was detected after prostate specific antigen testing. The proportion of nonmetastatic vs metastatic disease at diagnosis was similar in all age groups. A strong association between younger age and poor prognosis was apparent in men in whom metastatic disease was diagnosed before age 50 to 55 years. The crude and adjusted HRs of cancer specific mortality were 1.41 (95% CI 1.12-1.79) and 1.28 (95% CI 1.01-1.62) in men diagnosed before age 50 and at age 50 to 59 years, respectively. In men with nonmetastatic disease crude cancer specific mortality increased with older age but adjusted cancer specific mortality was similar in all age groups. Our findings suggest that an aggressive form of metastatic prostate cancer is particularly common in men younger than 50 to 55 years."

According to the news editors, the research concluded: "Genetic studies and trials of intensified systemic treatment are warranted in this patient group."


Our news journalists report that additional information may be obtained by contacting O. Bratt, Cambridge Univ Hosp, CamPARI Clin, Dept. of Urol, Cambridge, United Kingdom. Additional authors for this research include H. Garmo, J. Adolfsson and O. Bratt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.juro.2016.06.080. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, United Kingdom, Europe, Cancer, Diagnostics and Screening, Prostatic Neoplasms, Prostate Cancer, Oncology, Genetics, Cambridge University Hospitals NHS Trust.

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**Nutritional and Metabolic Diseases and Conditions -…**

**Findings from Cancer Institute in Hyperglycemia Reported**

[Management of hyperglycemia from epidermal growth factor receptor (EGFR) tyrosine kinase inhibitors (TKIs) targeting T790M-mediated resistance]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Hyperglycemia. According to news originating from Charlotte, North Carolina, by NewsRx correspondents, research stated, "Epidermal growth factor receptor (EGFR) mutations in non-small cell lung cancer (NSCLC) patients are associated with sensitivity to small molecule tyrosine kinase inhibitors (TKIs) such as erlotinib, gefitinib, and afatinib. Although studies show an increased progression free survival (PFS) with use of EGFR TKIs in the first-line setting, most patients will develop resistance to therapy after the first 8-16 months."

Our news journalists obtained a quote from the research from Cancer Institute, "T790M is an acquired resistance mutation reported in 60-70% of patients who initially responded to a prior EGFR TKI. Recently, EGFR TKIs targeting T790M have been developed to overcome resistance with positive results in PFS and objective response rate in patients who have had disease progression on at least one TKI. Two EGFR TKIs targeting T790M, AZD9291 and rociletinib, are new active treatment options for NSCLC but differ in adverse effect profiles. Dose-limiting hyperglycemia has been reported with rociletinib and has required dose reduction, an oral antihyperglycemic, or both, without discontinuation of therapy. This suggests that patients may be effectively treated chronically for hyperglycemia associated with EGFR TKIs targeting T790M, however, guidelines for treatment of hyperglycemia in this setting have not been published."

According to the news editors, the research concluded: "We discuss mechanisms of hyperglycemia associated with TKIs and initial management of hyperglycemia, including benefits and limitations of oral antihyperglycemic options, adjustment of therapy based on grade of hyperglycemia, and recommendations for follow-up glucose monitoring."

For more information on this research see: Management of hyperglycemia from epidermal growth factor receptor (EGFR) tyrosine kinase inhibitors (TKIs) targeting T790M-mediated resistance. Translational Lung Cancer Research, 2015;4(5):576-83.

The news correspondents report that additional information may be obtained from J. Villadolid, 1 Dept. of Pharmacy, 2 Dept. of Solid Tumor Oncology and Investigational Therapeutics, 3 Dept. of Solid Tumor Oncology, 4 Endocrine Center, Levine Cancer Institute, Carolinas HealthCare System, Charlotte, NC 28204, United States. Additional authors for this research include J.L. Ersek, M.K. Fong, L. Sirianno and E.S Story.

Keywords for this news article include: Therapy, Genetics, Charlotte, Proteomics, United States, Hyperglycemia, North Carolina, Article Review, Protein Kinases, Membrane Proteins, Peptide Receptors, Phosphotransferases, Aromatic Amino Acids, Enzymes and Coenzymes, North and Central America, Glucose Metabolism Disorders, Epidermal Growth Factor Receptor.

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Digestive System Diseases and Conditions - Colitis

Findings from Capital Medical University Broaden Understanding of Colitis [Increased CD4(+)CD45RA(-)FoxP3(low) cells alter the balance between Treg and Th17 cells in colitis mice]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and
Conditions - Colitis. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "To investigate the role of regulatory T cell (Treg) subsets in the balance between Treg and T helper 17 (Th17) cells in various tissues from mice with dextran sulfate sodium-induced colitis. Treg cells, Treg cell subsets, Th17 cells, and CD4(+)CD25(+)FoxP3(+)IL-17(+) cells from the lamina propria of colon (LPC) and other ulcerative colitis (UC) mouse tissues were evaluated by flow cytometry."

Our news editors obtained a quote from the research from Capital Medical University, "Forkhead box protein 3 (FoxP3), interleukin 17A (IL-17A), and RORC mRNA levels were assessed by real-time PCR, while interleukin-10 (IL-10) and IL-17A levels were detected with a Cytometric Beads Array. In peripheral blood monocytes (PBMC), mesenteric lymph node (MLN), lamina propria of jejunum (LPJ) and LPC from UC mice, Treg cell numbers were increased (P < 0.05), and FoxP3 and IL-10 mRNA levels were decreased. Th17 cell numbers were also increased in PBMC and LPC, as were IL-17A levels in PBMC, LPJ, and serum. The number of FrI subset cells (CD4(+)CD45RA(+)FoxP3(low)) was increased in the spleen, MLN, LPJ, and LPC. FrII subset cells (CD4(+)CD45RA-FoxP3(high)) were decreased among PBMC, MLN, LPJ, and LPC, but the number of FrIII cells (CD4(+)CD45RA(-)FoxP3(low)) and CD4(+)CD25(+)FoxP3(+)IL-17A(+) cells was increased. FoxP3 mRNA levels in CD4(+)CD45RA(-)FoxP3(low) cells decreased in PBMC, MLN, LPJ, and LPC in UC mice, while IL-17A and RORC mRNA increased. In UC mice the distribution of Treg, Th17 cells, CD4(+)CD45RA(-)FoxP3(high), and CD4(+)CD45RA(-)FoxP3(low) cells was higher in LPC relative to other tissues."

According to the news editors, the research concluded: "Increased numbers of CD4 (+)CD45RA(-)FoxP3(low) cells may cause an imbalance between Treg and Th17 cells that is mainly localized to the LPC rather than secondary lymphoid tissues."


The news editors report that additional information may be obtained by contacting X.J. Liu, Capital Med Univ, Beijing Chaoyang Hosp, Dept. of Gastroenterol, Beijing 100020, People's Republic of China. Additional authors for this research include J. Zhang, X. Chen, Y.F. Xie, Y.H. Pang and X.J. Liu.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Ulcerative Colitis, Gastroenterology, Gastroenteritis, Genetics, Capital Medical University.

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Proteins - DNA-Binding Proteins

Findings from Capital Medical University in DNA-Binding Proteins Reported (Zinc-Doped Copper Oxide Nanocomposites Inhibit the Growth of Human Cancer Cells through Reactive Oxygen Species-Mediated NF-kappa B Activations)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Proteins - DNA-Binding Proteins is now available. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Zinc-doped copper oxide nanocomposites (nZn-CuO NPs) are novel nanoparticles synthesized by our group. In the present study, the antitumor effects and the underlying molecular mechanisms of the nZn-CuO NPs were investigated."

The news correspondents obtained a quote from the research from Capital Medical University, "The cytotoxicity of nZn-CuO NPs against several types of cancer cell lines was studied using 3-(4,5-dimethylthiazol-2-yl)-5-(3-carboxymethoxyphenyl)-2-(4-sulfophenyl)-2H-tetrazolium (MTS)/phenazinemethosulfate (PMS) assay. Results showed that nZn-CuO NPs exerted obvious antiproliferation effects on cancer cells and relatively weak antiproliferation effects on normal cells. The antitumor mechanisms of nZn-CuO NPs were further investigated using human liver cancer HepG2 cells and human pancreatic cancer Panc28 cells. Hoechst 33342 staining and FITC-Annexin V/PI staining showed that nZn-CuO NPs could induce cell apoptosis in a dose dependent manner. Cell-cycle analysis using flow cytometry revealed that nZn-CuO NPs were able to arrest the cell cycle in the G2/M phase. Also, nZn-CuO NPs were found to induce reactive oxygen species (ROS) generation. Further studies confirmed that nZn-CuO NPs could increase p-IKK alpha/beta and nucleus p-NF-kappa B p65 expressions and decrease IKK alpha, IKK beta, I kappa B alpha, and nucleus NF-kappa B p65 expressions in both cell lines. Overall, our data demonstrated that nZn-CuO NPs could selectively inhibit the growth of cancer cells via ROS-mediated NF-kappa B activation."

According to the news reporters, the research concluded: "The current study provides primary evidence that nZn-CuO NPs possess the potential to be developed as a novel anticancer agent."

For more information on this research see: Zinc-Doped Copper Oxide Nanocomposites Inhibit the Growth of Human Cancer Cells through Reactive Oxygen Species-Mediated NF-kappa B Activations. ACS Applied Materials & Interfaces, 2016;8(46):31806-31812. ACS Applied Materials & Interfaces can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Applied Materials & Interfaces - www.pubs.acs.org/journal/aamick)


Keywords for this news article include: Beijing, People's Republic of China, Asia, Reactive Oxygen Species, Transcription Factors, Emerging Technologies, DNA-Binding Proteins, Oxygen Compounds, Nuclear Proteins, Nanotechnology, Nanocomposite, Chalcogens, NF-kappa B, Oncology, Cancer, Capital Medical University.

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Oncology - Multiple Myeloma

Findings from Capital Medical University in Multiple Myeloma Reported (Bortezomib-based treatment for multiple myeloma patients with renal impairment A systematic review and meta-analysis of observational studies)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Multiple Myeloma is the subject of a report. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Renal insufficiency is a common and severe complication of patients with multiple myeloma. The aim of this study was to evaluate bortezomib-based treatment for multiple myeloma patients with renal insufficiency."

Our news journalists obtained a quote from the research from Capital Medical University, "The Cochrane Library, Embase, PubMed, ISI, China National Knowledge Infrastructure, Chinese Biomedical Literature Service System, Chongqing VIP Database, and Wan Fang Data were systematically searched to identify observational studies from January 1, 2001, to December 31, 2015. Myeloma response rate and renal remission rate were pooled by using risk ratio and 95% confidence interval (CI). The Cochran Q and I statistics were used to assess heterogeneity. Sensitivity analysis was performed to test the feasibility of pooled results. Publication bias was conducted when included studies were >= 9. Furthermore, grades of evidence were performed to evaluate study quality. Eleven retrospective cohort studies were included in the final analysis. The number of available studies and risk ratios (95% CI) were, respectively, 10 and 1.48 (95% CI: 1.28-1.71) for myeloma overall response, 6 and 3.69 (95% CI: 2.22-6.13) for myeloma complete response, 9 and 1.47 (95% CI: 1.28-1.69) for renal overall remission, and 8 and 1.49 (95% CI: 1.26-1.75) for renal complete remission. No significant publication bias was observed and sensitivity analysis confirmed the stability of results. The overall qualities of evidence were high for myeloma complete response and medium for the other 3 outcomes based on the Grading of Recommendations, Assessment, Development and Evaluation system."

According to the news editors, the research concluded: "Current evidence indicated that bortezomib-based treatment could improve myeloma overall response (especially myeloma complete response) and renal overall remission (including renal complete remission)."

For more information on this research see: Bortezomib-based treatment for multiple myeloma patients with renal impairment A systematic review and meta-analysis of observational studies. Medicine, 2016;95(46):92-101. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting W.M. Chen, Capital Med Univ, Beijing Chao Yang Hosp, Multiple Myeloma Res Center Beijing, Beijing, People's Republic of China.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Blood Protein Disorders, Kidney, Article Review, Hemorrhagic Disorders, Hemostatic Disorders, Multiple Myeloma, Paraproteinemias, Nephrology, Hematology, Oncology, Capital Medical University.

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Gram-Negative Bacteria - Helicobacter pylori

Findings from Capital Medical University in the Area of Helicobacter pylori Described (High antibiotic resistance rate: A difficult issue for Helicobacter pylori eradication treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Helicobacter pylori have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx editors, the research stated, "Helicobacter pylori (H. pylori) infection is associated with a variety of upper gastrointestinal diseases, including gastric cancer. With the wide application of antibiotics in H. pylori eradication treatment, drug-resistant strains of H. pylori are increasing. H. pylori eradication treatment failure affects the outcome of a variety of diseases of the upper gastrointestinal tract."

The news reporters obtained a quote from the research from Capital Medical University, "Therefore, antibiotic resistance that affects H. pylori eradication treatment is a challenging situation for clinicians. The ideal H. pylori eradication therapy should be safe, effective, simple, and economical. The eradication rate of triple antibiotic therapy is currently less than 80% in most parts of the world."

According to the news reporters, the research concluded: "Antibiotic resistance is the main reason for treatment failure, therefore the standard triple regimen is no longer suitable as a first-line treatment in most regions. H. pylori eradication treatment may fail for a number of reasons, including H. pylori strain factors, host factors, environmental factors, and inappropriate treatment."


Our news correspondents report that additional information may be obtained by contacting M. Zhang, Mei Zhang, Dept. of Gastroenterology, Xuanwu Hospital, Capital Medical University, Beijing 100053, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v21.i48.13432. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antibacterial Agents, Antibiotics, Antimicrobials, Beijing, Epidemiology, Article Review, Gastroenterology, Drugs and Therapies, Helicobacter pylori, Epsilonproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria, People's Republic of China, Parasitic Diseases and Conditions.

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Atrial Septal Defects

Findings from Cardiology Clinic Broaden Understanding of Atrial Septal Defects (Percutaneous closure of isolated ostium secundum-type atrial septal defect in a patient with Mayer-Rokitansky-Kuster-Hauser syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Atrial Septal Defects is now available. According to news reporting originating in Samsun, Turkey, by NewsRx journalists, research stated, "Mayer-Rokitansky-Kuster-Hauser (MRKH) syndrome is a rare congenital anomaly characterized by complete or partial aplasia of the uterus and the upper part of the vagina."

The news reporters obtained a quote from the research from Cardiology Clinic, "It is reported to be associated with cardiovascular disorders including atrial septal defect, anomalous pulmonary venous return, aortopulmonary window, pulmonary valve stenosis, mitral valve prolapse, tetralogy of Fallot, truncus arteriosus, and patent ductus arteriosus."

According to the news reporters, the research concluded: "Herein, for the first time in the medical literature, we present percutaneous closure of an isolated ostium secundum atrial septal defect in this syndrome."


Our news correspondents report that additional information may be obtained by contacting M. Akcay, Terme State Hosp, Cardiol Clin, Samsun, Turkey. Additional authors for this research include O. Gulel, K. Soylu, M. Meric and M. Elmali.

Keywords for this news article include: Samsun, Turkey, Eurasia, Atrial Septal Defects, Atrial Septal Defect, Cardiology, Cardiology Clinic.

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Nutritional and Metabolic Diseases and Conditions

Findings from Catholic University of Korea Provide New Insights into Type 2 Diabetes (The Paradoxical Effects of AMPK on Insulin Gene Expression and Glucose-Induced Insulin Secretion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "The activation of AMP-activated protein kinase (AMPK) is known to repress the expression of the insulin gene and glucose-stimulated insulin secretion (GSIS). However, the mechanisms by which this occurs, as well as the effects of AMPK activation on glucolipotoxicity-induced b-cell dysfunction, have
not been elucidated."

Funders for this research include Korean Healthcare Technology R&D Project, Ministry of Health, Welfare & Family Affairs, Ministry of Education, Science and Technology. Our news editors obtained a quote from the research from the Catholic University of Korea, "To investigate the effects of 5-amino-4-imidazolecarboxamide ribonucleotide (AICAR) and peroxisome proliferator-activated receptor-coactivator-1a (PGC-1a) on b-cell-specific genes under glucolipotoxic conditions, we performed real-time PCR and measured insulin secretion by primary islets. To study these effects in vivo, we administered AICAR for 10 days (1 mg/g body weight) to 90% pancreatectomized hyperglycemic mice. The exposure of isolated rat and human islets to glucolipotoxic conditions and the overexpression of PGC-1a suppressed insulin and NEUROD1 mRNA expression. However, the expression of these genes was preserved by AICAR treatment and by PGC-1a inhibition. Exposure of isolated islets to glucolipotoxic conditions for 3 days decreased GSIS, which was also well maintained by AICAR treatment and by PGC-1a inhibition. The administration of AICAR to 90% pancreatectomized hyperglycemic mice improved glucose tolerance and insulin secretion. These results indicate that treatment of islets with an AMPK agonist under glucolipotoxic conditions protects against glucolipotoxicity-induced b-cell dysfunction."

According to the news editors, the research concluded: "A better understanding of the functions of molecules such as PGC-1a and AMPK, which play key roles in intracellular fuel regulation, could herald a new era for the treatment of patients with type 2 diabetes mellitus by providing protection against glucolipotoxicity."


The news editors report that additional information may be obtained by contacting J.W. Kim, Dept. of Endocrinology & Metabolism, The Catholic University of Korea, Seoul, 137-040, South Korea. Additional authors for this research include Y.H. You, D.S. Ham, H.K. Yang and K.H Yoon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcb.25271. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Genetics, Proinsulin, South Korea, Type 2 Diabetes, Peptide Hormones, Peptide Proteins, Risk and Prevention, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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**Oncology - Bladder Cancer**

**Findings from Catholic University of Leuven in the Area of Bladder Cancer Reported (Phase III randomised chemoprevention study with selenium on the recurrence of non-invasive urothelial carcinoma. The SELEnium and BLAdder cancer Trial)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Bladder Cancer.
According to news reporting from Leuven, Belgium, by NewsRx journalists, research stated, "In Belgium, bladder cancer (BC) is the fifth most common cancer in men. The per-patient lifetime cost is high."

Financial support for this research came from Science and Technology Belgium (IWT).

The news correspondents obtained a quote from the research from the Catholic University of Leuven, "Previous epidemiological studies have consistently reported that selenium concentrations were inversely associated with the risk of BC. We therefore hypothesised that selenium may be suitable for chemoprevention of recurrence of BC. The Selenium and Bladder Cancer Trial (SELEBLAT) was an academic phase III placebo-controlled, double-blind, randomised clinical trial designed to determine the effect of selenium on recurrence of non-invasive urothelial carcinoma conducted in 14 Belgian hospitals. Patients were randomly assigned by a computer program to oral selenium yeast 200 μg once a day or placebo for three years, in addition to standard care. All study personnel and participants were blinded to treatment assignment for the duration of the study. All randomised patients were included in the intention to treat (ITT) and safety analyses. Per protocol analyses (PPAs) included all patients in the study three months after start date. Between September 18, 2009 and April 18, 2013, 151 and 141 patients were randomised in the selenium and placebo group. Patients were followed until December 31, 2015. The ITT analysis resulted in 43 (28%; 95% CI, 0.21-0.35) and 45 (32%; 95% CI, 0.24-0.40) recurrences in the selenium and placebo group. The hazard ratio (HR) was 0.85 (95% CI, 0.56-1.29; p = 0.44) while the HR for the PPA resulted in 42 and 39 (28%; 95% CI, 0.20-0.35) recurrences in the selenium and placebo group (HR = 0.96 [95% CI, 0.62 -1.48]; p = 0.93)."

According to the news reporters, the research concluded: "Selenium supplementation does not lower the probability of recurrence in BC patients."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejca.2016.09.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leuven, Belgium, Europe, Drugs and Therapies, Epidemiology, Urothelial Cancer, Chemoprevention, Bladder Cancer, Chalcogens, Carcinomas, Oncology, Selenium, Minerals, Catholic University of Leuven.

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Nervous System Diseases and Conditions - Narcolepsy

Findings from Center for Integrative Genomics Provide New Insights into Narcolepsy (Narcolepsy-Associated HLA Class I Alleles Implicate Cell-Mediated Cytotoxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nervous System Diseases and Conditions - Narcolepsy. According to news reporting from Lausanne, Switzerland, by NewsRx journalists, research stated, "Narcolepsy with cataplexy is tightly associated with the HLA class II allele DQB1*06:02. Evidence indicates a complex contribution of HLA class II genes to narcolepsy susceptibility with a recent independent association with HLA-DPB1."

The news correspondents obtained a quote from the research from Center for Integrative Genomics, "The cause of narcolepsy is supposed be an autoimmune attack against hypocretin-producing neurons. Despite the strong association with HLA class II, there is no evidence for CD4+ T-cell-mediated mechanism in narcolepsy. Since neurons express class I and not class II molecules, the final effector immune cells involved might include class I-restricted CD8+ T-cells. HLA class I (A, B, and C) and II (DQB1) genotypes were analyzed in 944 European narcolepsy with cataplexy patients and in 4,043 control subjects matched by country of origin. All patients and controls were DQB1*06:02 positive and class I associations were conditioned on DQB1 alleles. HLA-A*11:01 (OR=1.49 [1.18-1.87] p=7.0*10(-4)), C*04:01 (OR=1.34 [1.10-1.63] p=3.23*10(-3)), and B*35:01 (OR=1.46 [1.13-1.89] p=3.64*10(-3)) were associated with susceptibility to narcolepsy. Analysis of polymorphic class I amino-acids revealed even stronger associations with key antigen-binding residues HLA-A-Tyr(9) (OR=1.32 [1.15-1.52] p=6.95*10(-5)) and HLA-C-Ser(11) (OR=1.34 [1.15-1.57] p=2.43*10(-4))."

According to the news reporters, the research concluded: "Our findings provide a genetic basis for increased susceptibility to infectious factors or an immune cytotoxic mechanism in narcolepsy, potentially targeting hypocretin neurons."


Our news journalists report that additional information may be obtained by contacting M. Tafti, Center for Integrative Genomics (CIG) University of Lausanne, Lausanne, Switzerland. Additional authors for this research include G.J. Lammers, Y. Dauvilliers, S. Overeem, G. Mayer, J. Nowak, C. Pfizer, V. Dubois, J.F. Eliaou, H.P. Eberhard, R. Liblau, A. Wierzbicka, P. Geisler, C.L. Bassetti, J. Mathis, M. Lecendreux, R. Khatami and R Heinzer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5665/sleep.5532. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Lausanne, Genetics, Cataplexy, Dyssomnias, Narcolepsy, Switzerland, Sleep Disorders, Disorders of Excessive Somnolence, Nervous System Diseases and Conditions.

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**Oncology - Esophageal Cancer**

**Findings from Central South University in the Area of Esophageal Cancer Reported (Using aptamers to elucidate esophageal cancer clinical samples)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Esophageal Cancer have been published. According to news reporting originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "The epithelial cell adhesion molecule (EpCAM) is closely correlated with the occurrence and development of various cancers of epithelial origin. This study tested, for the first time, the ability of EpCAM aptamer SYL3C to detect EpCAM expression in 170 cases of esophageal cancer (EC) and precancerous lesions, as well as 20 cases of EC series samples, using immunofluorescence imaging analysis."

Our news editors obtained a quote from the research from Central South University, "Corresponding antibodies were used as control. EpCAM overexpression was 98% in both esophageal squamous cell carcinoma (ESCC) and esophageal adenocarcinoma (EACA) and 100% in metastasis, but no EpCAM overexpression was detected in undifferentiated EC (UEC). Significant differences were noted among various stages of differentiation (p <0.05) with the degree of differentiation inversely correlated with the expression of EpCAM. Overexpressed EpCAM was detected in severe dysplasia, but negative in mild to moderate dysplasia and benign esophageal lesions. In a competitive binding experiment, EpCAM aptamer generated a staining pattern similar to that of antibody, but the binding sites with EpCAM were different."

According to the news editors, the research concluded: "Based on these results, it can be concluded that EpCAM is suitable for use as an EC biomarker, therapeutic target, and effective parameter for tumor transfer and prognosis evaluation by aptamer SYL3C staining."

For more information on this research see: Using aptamers to elucidate esophageal cancer clinical samples. *Scientific Reports*, 2015;5():18516. (Nature Publishing Group - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting Z. Liu, Xiangya Hospital, Central South University, Changsha, Hunan 410008, People's Republic of China. Additional authors for this research include Y. Lu, Y. Pu, J. Liu, B. Liu, B. Yu, K. Chen, T. Fu, C.J. Yang, H. Liu and W. Tan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18516. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changsha, Oncology, Dysplasia, Dermatology, Gastroenterology, Esophageal Cancer, People's Republic of China.

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Nephrology

Findings from Chaim Sheba Medical Center Yields New Data on Nephrology (Acute renal artery occlusion: Presentation, treatment, and outcome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nephrology have been presented. According to news reporting out of Tel Hashomer, Israel, by NewsRx editors, research stated, "Acute renal artery occlusion is an uncommon disease requiring rapid diagnosis for prevention of kidney loss or permanent kidney damage. The purpose of this study was to identify patients with acute kidney infarction; to characterize their presentation, imaging, and treatment; and to compare the subgroup of patients who underwent catheter-directed thrombolysis (CDT) with those who were treated without intervention."

Our news journalists obtained a quote from the research from Chaim Sheba Medical Center, "Hospital records between 2005 and 2015 were queried for keywords suggestive of kidney infarction. Patients were divided into two groups: the CDT group and the noninterventional group. Data collected included demographics, comorbidities, methods of diagnosis, and time from presentation to diagnosis. For patients treated with CDT, additional data collected included details of thrombolytic therapy and follow-up studies. The two groups were compared regarding their clinical characteristics and outcome. Forty-two patients were diagnosed with acute kidney infarction; 13 (31%) were treated with CDT and 29 (69%) were treated conservatively. Median time from presentation to diagnosis was 42 hours in the CDT group and 32 hours in the untreated group. Among the CDT group, complete or partial resolution of the thrombus was seen in all patients. Two required permanent dialysis, both renal transplant patients. Median follow-up was 30 months (interquartile range, 2.7-46.2) in the CDT group and 13 months (interquartile range, 0.11-16) in the noninterventional group. Mean creatinine clearance at diagnosis and at last follow-up was 74.3 and 54.6 mL/min, respectively, in the CDT group (a decrease of 27%; P = .032) and 66.1 and 60 mL/min in the conservatively treated group (a decrease of 9%; P = .04). Follow-up imaging was available in nine patients treated with CDT. Mean interval from treatment to follow-up imaging was 13 months (range, 1-35 months) and consistently showed a functional but smaller treated kidney. (Mean pole-to-pole kidney length at baseline and late follow-up: 10.4 cm and 8.5 cm, respectively). Most patients presenting with acute kidney infarction are managed conservatively. A subset of patients with complete occlusion of the renal artery undergo CDT with good angiographic results. The treated kidney is expected to decrease in size over time, and overall kidney function is expected to decrease compared with baseline. Deterioration in renal function appears to stabilize and does not continue over time."

According to the news editors, the research concluded: "CDT for acute renal artery occlusion is a safe modality of therapy and should be attempted for the purpose of kidney salvage, even in the setting of prolonged ischemia."


Our news journalists report that additional information may be obtained by contacting D. Silverberg, Chaim Sheba Med Center, Dept. of Vasc Surg, Tel Hashomer, Israel.
Additional authors for this research include T. Meser, U. Rimon, O. Salomon and M. Halak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2016.04.043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tel Hashomer, Israel, Asia, Renal Artery, Nephrology, Angiology, Kidney, Chaim Sheba Medical Center.

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Musculoskeletal Diseases and Conditions —

Findings from Chang Gung University Provides New Data about Necrotizing Fasciitis (Synchronous multifocal necrotizing fasciitis prognostic factors: a retrospective case series study in a single center)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Necrotizing Fasciitis have been published. According to news reporting out of Taoyuan, Taiwan, by NewsRx editors, research stated, "No reports have been published on synchronous multifocal necrotizing fasciitis (SMNF), a multifocal presence of necrotizing fasciitis in different extremities. We evaluated the clinical characteristics and outcomes of SMNF."

Our news journalists obtained a quote from the research from Chang Gung University, "Eighteen patients (14 men, 4 women; mean age: 59 years) diagnosed with SMNF of the extremities between January 2004 to December 2012 were enrolled and evaluated. Vibrio species were the most commonly (78%; n = 14) isolated; others were two cases (11%) of Aeromonas spp., one case (6%) of group A beta-hemolytic streptococcus, and one case of coagulase-negative staphylococcus. SMNF was in the bilateral lower limbs (72%; n = 13), bilateral upper limbs (17%; n = 3), and one patient with one upper and one lower limb (11%). Non-surviving patients had more bilateral lower limb involvement and thrombocytopenia. Most patients with SMNF were male and had bilateral lower limb and marine Gram-negative bacteria involvement."

According to the news editors, the research concluded: "The mortality of SMNF remained extremely high in patients with involvement of bilateral lower limb and initial thrombocytopenia."

For more information on this research see: Synchronous multifocal necrotizing fasciitis prognostic factors: a retrospective case series study in a single center. Infection, 2016;44(6):757-763. Infection can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Infection - www.springerlink.com/content/0300-8126/)

Our news journalists report that additional information may be obtained by contacting K.C. Huang, Chang Gung University, Grad Inst Clin Med Sci, Coll Med, Taoyuan, Taiwan. Additional authors for this research include Y.Y. Li, T.W. Huang, T.Y. Huang, W.H. Hsu, Y.H. Tsai, J.C. Huang and K.C. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s15010-016-0932-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taoyuan, Taiwan, Asia, Musculoskeletal
Heart Disorders and Diseases - Cardiogenic Shock

Findings from Chang Gung University Update Understanding of Cardiogenic Shock (Associations with 30-day survival following extracorporeal membrane oxygenation in patients with acute ST segment elevation myocardial infarction and profound ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Cardiogenic Shock is now available. According to news reporting from Kaohsiung, Taiwan, by NewsRx journalists, research stated, "Limited data are available regarding the role of percutaneous cardiopulmonary support for the treatment of ST segment elevation myocardial infarction (STEMI) with profound cardiogenic shock (CS). The aim of this study is to identify the determinant factors for survival of patients with STEMI who underwent extracorporeal membrane oxygenation (ECMO) support."

The news correspondents obtained a quote from the research from Chang Gung University, "From January 2005 to December 2013, 192 patients experienced STEMI with CS needed intraaortic balloon pumping and support with vasoactive agents at our hospital. Among them, 51 patients experienced profound CS and needed ECMO support. Higher body mass index (BMI) level, longer door-to-balloon time, higher serum blood urea nitrogen (BUN) level, and lower 24 h lactic acid clearance were associated with 30-day mortality postECMO."

According to the news reporters, the research concluded: "Longer door-to-balloon time, higher BMI, higher serum BUN level, and poorer lactic acid clearance following ECMO placement for patients with STEMI and profound CS could predict 30-day clinical outcomes."


Our news journalists report that additional information may be obtained by contacting C.J. Wu, Chang Gung University, Coll Med, Kaohsiung Chang Gung Memorial Hospital, Div CardiolDept Internal Med, Kaohsiung, Taiwan. Additional authors for this research include C.Y. Fang, H.C. Chen, C.J. Chen, C.H. Yang, C.L. Hang, H.K. Yip, H.Y. Fang and C.J. Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrtlng.2016.08.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kaohsiung, Taiwan, Asia, Extracorporeal Membrane Oxygenation, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Respiratory Therapy, Myocardial Ischemia, Cardiogenic Shock, Heart Disease, Heart Attack, Chang Gung University.

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Nutritional and Metabolic Diseases and Conditions – …

Findings from Charite University Hospital and School of Medicine
Update Knowledge of Diabetic Angiopathies (The TetO rat as a new translational model for type 2 diabetic retinopathy by inducible insulin receptor knockdown)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Diabetic Angiopathies is the subject of a report. According to news reporting from Berlin, Germany, by NewsRx journalists, research stated, "Although the renin-angiotensin system plays an important role in the progression of diabetic retinopathy, its influence therein has not been systematically evaluated. Here we test the suitability of a new translational model of diabetic retinopathy, the TetO rat, for addressing the role of angiotensin-II receptor 1 (AT1) blockade in experimental diabetic retinopathy."

Financial supporters for this research include Novartis, Marie Curie Actions EU, Berlin Institute of Health.

The news correspondents obtained a quote from the research from the Charite University Hospital and School of Medicine, "Diabetes was induced by tetracycline-inducible small hairpin RNA (shRNA) knockdown of the insulin receptor in rats, generating TetO rats. Systemic treatment consisted of an AT1 blocker (ARB) at the onset of diabetes, following which, 4-5 weeks later the retina was analysed in vivo and ex vivo. Retinal function was assessed by Ganzfeld electroretinography (ERG). Retinal vessels in TetO rats showed differences in vessel calibre, together with gliosis. The total number and the proportion of activated mononuclear phagocytes was increased. TetO rats presented with loss of retinal ganglion cells (RGC) and ERG indicated photoreceptor malfunction. Both the inner and outer blood-retina barriers were affected. The ARB treated group showed reduced gliosis and an overall amelioration of retinal function, alongside RGC recovery, whilst no statistically significant differences in vascular and inflammatory features were detected. The TetO rat represents a promising translational model for the early neurovascular changes associated with type 2 diabetic retinopathy."

According to the news reporters, the research concluded: "ARB treatment had an effect on the neuronal component of the retina but not on the vasculature."

For more information on this research see: The TetO rat as a new translational model for type 2 diabetic retinopathy by inducible insulin receptor knockdown. Diabetologica, 2017;60(1):202-211. Diabetologica can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Diabetologia - www.springerlink.com/content/0012-186x/)

Our news journalists report that additional information may be obtained by contacting N. Reichhart, Charite, Dept. of Ophthalmol, Campus Virchow Klinikum, D-13353 Berlin, Germany. Additional authors for this research include S. Crespo-Garcia, N. Haase, M. Golic, S. Skosyrski, A. Rubsam, C. Herrspiegel, N. Kociok, N. Alenina, M. Bader, R. Dechend, O. Strauss and A.M. Joussen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00125-016-4115-0. This DOI is a link to an online electronic
Liver Diseases and Conditions - Hepatitis C Virus

Findings from Charite University Hospital and School of Medicine Yields New Data on Hepatitis C Virus (Apolipoprotein E allele frequencies in chronic and self-limited hepatitis C suggest a protective effect of APOE4 in the course of hepatitis C ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Liver Diseases and Conditions - Hepatitis C Virus are discussed in a new report. According to news reporting originating from Berlin, Germany, by NewsRx correspondents, research stated, "Infectious hepatitis C virus (HCV) particles bind to host lipoproteins such as low-density lipoproteins (LDLs). Low-density lipoprotein receptors (LDLR) have been termed candidate receptors for HCV-LDL complexes."

Financial support for this research came from German Network of Competence for Viral Hepatitis (Hep Net).

Our news editors obtained a quote from the research from the Charite University Hospital and School of Medicine, "Functional host genetic single nucleotide polymorphisms (SNPs) in the apolipoprotein E (APOE) gene encoding apolipoprotein E (apoE) - a major structural LDL component and natural ligand of LDLR - likely influence the course of HCV infection. We investigated the prevalence of APOE SNPs in two large and independent cohorts of patients with chronic HCV infection compared to respective controls. We genotyped 996 chronically HCV-infected patients; 179 patients with spontaneous HCV clearance; 283 individuals with non-HCV-associated liver disease; and 2234 healthy controls. APOE genotype proportions in patients with persistent HCV infection significantly differed from healthy controls (P = 0.007) primarily because of a substantial under-representation of APOE4 alleles in chronically HCV-infected patients (10.2%) compared to 13.0% in healthy controls (P = 0.001). The distribution of APOE4 allele positive genotypes (epsilon 2 epsilon 4, epsilon 3 epsilon 4, epsilon 4 epsilon 4) also significantly differed between chronically HCV-infected patients and healthy controls (1.4%, 17%, 1% vs. 2.4%, 20.5%, 1.7%; P = 0.001), suggesting a protective effect of the APOE4 allele in HCV infection. This was confirmed by a significant over-representation of the APOE4 allele in patients with spontaneous HCV clearance (17.6%; P = 0.00008). The APOE4 allele distribution in patients with non-HCV-associated liver disease (14.0%) was very similar to healthy controls and also differed from chronically HCV-infected patients (P = 0.012), suggesting HCV specificity."

According to the news editors, the research concluded: "Our findings suggest that the APOE4 allele may confer a protective effect in the course of HCV infection."

The news editors report that additional information may be obtained by contacting T. Mueller, Charite, Campus Virchow Klinikum, Medical Klin mS Hepatol & Gastroenterol, Berlin, Germany. Additional authors for this research include J. Fischer, R. Gessner, J. Rosendahl, S. Bohm, F. van Bommel, V. Knop, C. Sarrazin, H. Witt, A.M. Marques, P. Kovacs, D. Schleinitz, M. Stumvoll, M. Bluher, P. Bugert, E. Schott and T. Berg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/liv.13094. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berlin, Germany, Europe, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Flaviviridae Infections, Hepatitis C Virus, Gastroenterology, Apolipoproteins, Lipoproteins, Apoproteins, RNA Viruses, Hepatology, Proteins, Genetics, Virology, Lipids, Viral, HCV, Charite University Hospital and School of Medicine.

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**Heart Disorders and Diseases - Heart Disease**

**Findings from Chengde Medical College Provides New Data about Heart Disease (Elevated serum uric acid and risk of cardiovascular or all-cause mortality in people with suspected or definite coronary artery disease: A meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Disease. According to news reporting originating from Chengde, People's Republic of China, by NewsRx correspondents, research stated, "Serum uric acid (SUA) has been recognized as an independent risk factor for mortality in the general population. We performed this meta-analysis to determine whether elevated SUA levels are associated with greater risk of cardiovascular or all-cause mortality in people with suspected or definite coronary artery disease (CAD)."

Financial support for this research came from National Natural Science Foundation of China.

Our news editors obtained a quote from the research from Chengde Medical College, "The Pubmed and Embase databases were searched up to April 1, 2016 for the longitudinal studies that investigated the association between the elevated SUA and cardiovascular or all-cause mortality risk in people with suspected or definite CAD. Pooled adjusted risk ratio (RR) and corresponding 95% confidence interval (CI) were calculated for the highest vs. the lowest SUA category or each 1 mg/ml SUA rise. Nine studies enrolling 25,229 participants were included in the analyses. The highest vs. lowest SUA category was associated with greater risk of cardiovascular mortality (RR 2.09; 95% CI: 1.45-3.02) and all-cause mortality (RR 1.80; 95% CI: 1.39-2.34) after adjustment for potential confounders in a random effects model. Moreover,
each 1 mg/ml SUA rise significantly increased by 12% cardiovascular mortality and by 20% all-cause mortality."

According to the news editors, the research concluded: "Elevated SUA levels are strongly and independently associated with greater risk of cardiovascular and all-cause mortality in people with suspected or definite CAD."

For more information on this research see: Elevated serum uric acid and risk of cardiovascular or all-cause mortality in people with suspected or definite coronary artery disease: A meta-analysis. *Atherosclerosis*, 2016;254():193-199. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news editors report that additional information may be obtained by contacting R.J. Wang, Chengde Med College, Affiliated Hosp, Dept. of Cardiol, Chengde 067000, Hebei Province, People's Republic of China. Additional authors for this research include Y.X. Song, Y.Q. Yan and Z.J. Ding.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.10.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chengde, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Arteriosclerosis, Heart Disease, Angiology, Chengde Medical College.

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**Bacterial Infections and Mycoses - Bacteremia**

**Findings from Chiba University Broaden Understanding of Bacteremia (Clinical and bacteriological analyses of bacteremia due to Corynebacterium striatum)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Bacterial Infections and Mycoses - Bacteremia. According to news reporting originating in Chiba, Japan, by NewsRx journalists, research stated, "Corynebacterium striatum was recently recognized as a potential pathogen of various infectious diseases. However, the clinical entity of this microorganism has not been clearly identified."

The news reporters obtained a quote from the research from Chiba University, "Therefore, we analyzed C. striatum isolates from blood culture and explored their clinical determinants. We reviewed the medical records of all patients from whom C. striatum isolates were recovered from blood culture for analysis of the patients' backgrounds and clinical course including response to antimicrobial therapy and prognosis. During the 5-year study period (January 2010 to December 2014), 24 C. striatum strains were isolated from blood samples, and the frequency of C. striatum bacteremia increased. The majority of the strains were multidrug resistant. All of the tested strains were susceptible to only vancomycin. The age at onset of C. striatum bacteremia encompassed all adult age groups, and at least one underlying condition was documented in all patients. Thirteen of the 24 patients were cured using appropriate antibiotics
(true infection group); however, 11 of the 24 patients were cured using inappropriate antibiotic therapy or no antibiotics (contamination group). Malignancy and neutropenia significantly increased the odds of true C. striatum bloodstream infection. The Corynebacterium species is often considered a contaminant when isolated in culture."

According to the news reporters, the research concluded: "Instead, particularly when the strain is isolated from blood, the species should be considered clinically relevant and identified to the species level; in addition, antimicrobial susceptibility testing is recommended."

For more information on this research see: Clinical and bacteriological analyses of bacteremia due to Corynebacterium striatum. *Journal of Infection and Chemotherapy*, 2016;22 (12):790-793. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

Our news correspondents report that additional information may be obtained by contacting N. Ishiwada, Chiba University, Medical Mycol Res Center, Dept. of Infect Dis, Chiba, Chiba, Japan. Additional authors for this research include M. Watanabe, S. Murata, N. Takeuchi, T. Taniguchi and H. Igari.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.08.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chiba, Japan, Asia, Irregular Gram-Positive Asporogenous Rods, Infectious Diseases and Conditions, Bacterial Infections and Mycoses, Gram-Positive Bacteria, Corynebacterium, Actinomycetales, Actinobacteria, Bacteremia, Sepsis, Chiba University.

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**Cardiovascular Diseases and Conditions - Hyperemia**

**Findings from Chiba University Update Understanding of Hyperemia (Efficacy of combined administration of intracoronary papaverine plus intravenous adenosine 5'-triphosphate in assessment of fractional flow reserve)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hyperemia have been published. According to news originating from Chiba, Japan, by NewsRx correspondents, research stated, "Inducing maximal coronary hyperemia is important to measure fractional flow reserve (FFR) accurately. Intravenous adenosine and adenosine 5'-triphosphate (ATP) have been used to achieve maximal hyperemia."

Our news journalists obtained a quote from the research from Chiba University, "However, they may not induce maximal hyperemia in all patients. The present study evaluated the combined effect of intracoronary papaverine and intravenous ATP on FFR measurements. FFR measurements with administration of intracoronary papaverine (12 mg in the left coronary artery and 8 mg in the right coronary artery), intravenous ATP (140 μg/kg/min), and combined administration of intracoronary papaverine and intravenous ATP were performed in 51 patients with 57 intermediate lesions. The mean FFR after intravenous ATP was higher compared to intracoronary papaverine and intravenous ATP plus intracoronary papaverine (0.76
+/- 0.13 vs. 0.75 +/- 0.13 vs. 0.75 +/- 0.13, p = 0.01). FFR-positive lesions (FFR <= 0.80) were observed more frequently with intravenous ATP plus intracoronary papaverine compared to intravenous ATP (64.9% vs. 47.4%, p = 0.02). Of 32 and 25 FFR-negative lesions with intravenous ATP and intracoronary papaverine, 11 (34%) and 7 (28%) had positive FFR after administration of intravenous ATP plus intracoronary papaverine. No ventricular tachycardia or ventricular fibrillation was observed after administration of intracoronary papaverine. Maximal hyperemia may not be induced with intravenous ATP in all lesions."

According to the news editors, the research concluded: "When sufficient hyperemia is doubtful during intravenous infusion of ATP, additional intracoronary administration of papaverine may be a possible option."

For more information on this research see: Efficacy of combined administration of intracoronary papaverine plus intravenous adenosine 5'-triphosphate in assessment of fractional flow reserve. Journal of Cardiology, 2016;68(5-6):512-516. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

The news correspondents report that additional information may be obtained from T. Nishi, Chiba University, Grad Sch Med, Dept. of Cardiovasc Med, Chiba, Japan. Additional authors for this research include H. Kitahara, Y. Iwata, Y. Fujimoto, T. Nakayama, M. Takahara, K. Sugimoto and Y. Kobayashi.

Keywords for this news article include: Chiba, Japan, Asia, Cardiovascular Diseases and Conditions, Coronary Artery, Cardiology, Hyperemia, Chiba University.

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**Pediatrics**

**Findings from Children's Hospital Broaden Understanding of Pediatrics (Fifteen-minute consultation: the agar plates your microbiology colleagues want you to be scared about)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Pediatrics. According to news reporting originating from Birmingham, United Kingdom, by NewsRx correspondents, research stated, "The WHO has recognised antibiotic resistance as one of the greatest threats to human health. As a microbiologist, antibiotic resistance is a problem that keeps me awake at night and inevitably the impact of antibiotic resistance on paediatricians is a matter of when, and not if."

Our news editors obtained a quote from the research from Children's Hospital, "I fear for the future of paediatric services such as neonatology, oncology and elective surgery. A recent US study found that 26.8% of post chemotherapy infections and 38.7-50.9% of post-operative infections were caused by bacteria resistant to standard antibiotic prophylaxis. The authors predicted that this will lead to an additional 6300 infection-related deaths in the USA each year. Closer to home, David Cameron commissioned a review into antimicrobial resistance in 2014 and the findings were extremely worrying. The report predicted that by 2050, 10 million annual worldwide deaths will be attributable to antimicrobial resistance. More than annual predicted cancer-associated and diabetes-associated mortality combined. The golden antibiotic era is certainly over. Selecting the most appropriate antibiotic to treat an infection depends on many factors, including route of administration, penetration to site of infection and pathogen
susceptibility. Most clinicians do not need an in-depth understanding of bacterial resistance mechanisms as local microbiologists can provide expertise and advice."

According to the news editors, the research concluded: "However, in an era of increasing antibiotic resistance, an insight into the organism factors that affect antibiotic selection can prove useful."


The news editors report that additional information may be obtained by contacting G. Winzor, Birmingham Childrens Hosp NHS Fdn Trust, Dept. of Microbiol, Birmingham B4 6NH, W Midlands, United Kingdom. Additional authors for this research include J. Gray and M. Patel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/archdischild-2016-310526. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Pediatrics, Children's Hospital.

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Oncology - Non-Small Cell Lung Cancer

Findings from Children's Hospital Provides New Data on Non-Small Cell Lung Cancer (miR-543 is up-regulated in gefitinib-resistant non-small cell lung cancer and promotes cell proliferation and invasion via phosphatase and tensin homolog)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Non-Small Cell Lung Cancer. According to news reporting out of Weihai, People's Republic of China, by NewsRx editors, research stated, "MicroRNAs (miRNAs) play important roles in the pathogenesis of many types of cancers by negatively regulating gene expression at posttranscriptional level. Here, we identified that miR-543 is up-regulated in gefitinib-resistant non-small cell lung cancer (NSCLC) patients comparing gefitinib-sensitive ones."

Financial support for this research came from Weihai Science and Technology Bureau.

Our news journalists obtained a quote from the research from Children's Hospital, "It promotes NSCLC cell proliferation by negatively regulates its target gene PTEN. In NSCLC cell lines, CCK-8 proliferation assay indicated that the cell proliferation is promoted by miR-543 mimics. Transwell assay showed that miR-543 mimics promotes the invasion and migration of NSCLC cells. Luciferase assays confirmed that miR-543 directly binds to the 3'untranslated region of PTEN, and western blotting showed that miR-543 suppresses the expression of PTEN at the protein level. This study indicates that miR-543 promotes proliferation and invasion of NSCLC cell lines by PTEN."
According to the news editors, the research concluded: "The miR-543 may represent a potential therapeutic target for gefitinib-resistant NSCLC intervention."

For more information on this research see: miR-543 is up-regulated in gefitinib-resistant non-small cell lung cancer and promotes cell proliferation and invasion via phosphatase and tensin homolog. Biochemical and Biophysical Research Communications, 2016;480(3):369-374. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.055. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Weihai, People's Republic of China, Asia, Tyrosine Kinase Inhibitors, Non-Small Cell Lung Cancer, Drugs and Therapies, Cell Proliferation, Gefitinib Therapy, Antineoplastics, Pharmaceuticals, EGFR Inhibitors, Lung Neoplasms, Oncology, Genetics, Children's Hospital.

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Biotechnology - Pharmacogenomics

Findings from Children's Hospital Update Understanding of Pharmacogenomics (Statin-induced expression change of INSIG1 in lymphoblastoid cell lines correlates with plasma triglyceride statin response in a sex-specific manner)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Biotechnology - Pharmacogenomics are discussed in a new report. According to news reporting originating in Oakland, California, by NewsRx journalists, research stated, "Statins are widely prescribed to lower plasma low-density lipoprotein (LDL) cholesterol levels. They also modestly reduce plasma triglyceride (TG), an independent cardiovascular disease risk factor, in most people."

The news reporters obtained a quote from the research from Children's Hospital, "The mechanism and inter-individual variability of TG statin response is poorly understood. We measured statin-induced gene expression changes in lymphoblastoid cell lines derived from 150 participants of a simvastatin clinical trial and identified 23 genes (false discovery rate, FDR=15%) with expression changes correlated with plasma TG response. The correlation of insulin-induced gene 1 (INSIG1) expression changes with TG response (rho=0.32, q=0.11) was driven by men (interaction p=0.0055), rs73161338 was associated with INSIG1 expression changes (p=5.4 ? 10) and TG response in two statin clinical trials (p=0.0048), predominantly in men. A combined model including INSIG1 expression level and splicing changes accounted for 29.5% of plasma TG statin response variance in men (p=5.6 ? 10)."
According to the news reporters, the research concluded: "Our results suggest that INSIG1 variation may contribute to statin-induced changes in plasma TG in a sex-specific manner. The Pharmacogenomics Journal advance online publication, 1 March."

For more information on this research see: Statin-induced expression change of INSIG1 in lymphoblastoid cell lines correlates with plasma triglyceride statin response in a sex-specific manner. The Pharmacogenomics Journal, 2016;().

Our news correspondents report that additional information may be obtained by contacting E. Theusch, Children's Hospital Oakland Research Institute, Oakland, CA, United States. Additional authors for this research include K. Kim, K. Stevens, J.D. Smith, Y.I. Chen, J.I. Rotter, D.A. Nickerson and M.W Medina.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2016.12. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Oakland, Genetics, Cell Line, California, United States, Pharmacogenomics, Risk and Prevention, North and Central America.

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Vascular Diseases

Findings from Children's Hospital Yields New Data on Vascular Diseases (The effect of physical activity on cardiometabolic health and inflammation in treated HIV infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Vascular Diseases is the subject of a report. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "In HIV-uninfected populations, physical activity decreases mortality and inflammation. Inflammation is a potential cause of comorbidities in HIV+ adults, the evidence examining the effect of physical activity on cardiometabolic health is limited."

The news reporters obtained a quote from the research from Children's Hospital, "This analysis examines the relationship between physical activity, cardiometabolic health and inflammation. We conducted a nested study within the SATURN-HIV trial in which 147 HIV+ adults were randomized to 10 mg daily rosvastatin or placebo. Measures of physical activity, cardiometabolic health, inflammation and vascular disease (carotid artery intima media thickness and computed tomography-acquired measures pericardial fat volume) were assessed at baseline and through 96 weeks. Spearman correlations and multivariable analyses were used to explore relationships between physical activity, cardiometabolic health and inflammation. Median age (Q1, Q3) was 46 (40.4, 52.7) years, 80% were male, 69% were African American and 46% were on protease inhibitors. Baseline median physical activity was 44 min per week (0, 150), 24% of participants performed greater than 150 min per week. At baseline, physical activity correlated with several markers of cardiometabolic health and inflammation (all P<= 0.05). Over all time points median physical activity was independently associated with carotid distensibility (beta=2.53; P=0.008), pericardial fat volume (beta=-6.13; P=0.001) and interleukin-6 (beta=-0.468; P<0.001). Physical activity is associated with vascular disease, endothelial function, and may be an adjuvant to decreasing comorbidities in HIV+ adults."

According to the news reporters, the research concluded: "Further studies should
examine long-term effects of physical activity on cardiometabolic health and inflammation in this population. Clinicaltrials.gov NCT01218802."


Our news correspondents report that additional information may be obtained by contacting G.A. McComsey, Rainbow Babies & Children's Hosp, Div Pediat Infect Dis & Rheumatol, Cleveland, OH 44106, United States. Additional authors for this research include A.R. Webel, C.T. Longenecker, B. Kinley, D. Labbato, A. Sattar and G.A. McComsey.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Cardiovascular Diseases and Conditions, Immune System Diseases and Conditions, Vascular Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Inflammation, Retroviridae, Pericardial, RNA Viruses, Cardiology, Hematology, Angiology, HIV/AIDS, Children's Hospital.

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**Heart Valves**

**Findings from Children's Hospital Yields New Findings on Heart Valves (Hybrid pulmonary artery plication followed by transcatheter pulmonary valve replacement: Comparison with surgical PVR)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Valves have been presented. According to news originating from Dublin, Ireland, by NewsRx correspondents, research stated, "Objective/Background Historically, the sole option for patients with a dysfunctional native right ventricular outflow tract (RVOT) requiring re-establishment of pulmonary competence has been surgical PVR. We sought to compare early outcomes of hybrid pulmonary valve replacement (PVR) combining surgical plication of the main pulmonary artery followed by transcatheter PVR, with a contemporary cohort of surgical PVR patients."

Our news journalists obtained a quote from the research from Children's Hospital, "Retrospective chart analysis of all patients with a dilated native RVOT eligible for surgical PVR over 36 months was performed. The cohorts included patients with previous tetralogy of Fallot repair (n=14), and previous intervention for congenital abnormality of the pulmonary valve (n=7). Twenty-one patients with a dysfunctional native RVOT met criteria for PVR; 8 using the hybrid procedure (group 1: age, 31.5 +/- 17.4 years) and 13 with cardiopulmonary bypass (CPB) (group 2: age, 31 +/- 18.4 years). Valve delivery was successful in all patients with no procedural mortality. Group 1 had a lesser requirement for blood products (P =< 0.001) and a trend toward shorter hospital stay and higher post-operative hemoglobin. No patients in group 1 received inotropic support post-operatively compared to 54% of patients in group 2. Mean follow-up was 3.4 months for group 1 and 13.6 months for group 2 with the average peak gradient across the RVOT of 20.1 and 15.1 mm Hg respectively (P=0.12), all with no more than mild PI."

According to the news editors, the research concluded: "Transcatheter hybrid PVR
following RVOT plication provides a reasonable alternative to surgical PVR particularly in higher risk cohorts, reducing possible longer-term consequences of repeated runs of CPB."


The news correspondents report that additional information may be obtained from D. Kenny, Our Ladys Childrens Hosp, Dept. of Cardiol, Dublin, Ireland. Additional authors for this research include T. Matella, L. Fogg, M. Ilbawi, H. Nagaraj, C. Kavinsky, A.R. Wolf, K. Diab, M. Caputo and D. Kenny.

Keywords for this news article include: Dublin, Ireland, Europe, Pulmonary Artery, Pulmonary Valve, Heart Valves, Angiology, Arteries, Children's Hospital.

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**Cardiovascular Diseases and Conditions - Venous**

**Findings from Children's Hospital in Venous Thrombosis Reported**

*(Neutrophil elastase-deficient mice form neutrophil extracellular traps in an experimental model of deep vein thrombosis)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Venous Thrombosis. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "ESSENTIALS: Neutrophil elastase (NE) plays a role in extracellular trap formation (NETosis) triggered by microbes. The contribution of NE was evaluated in mouse NETosis models of sterile inflammation and thrombosis."

Financial supporters for this research include National Heart, Lung, and Blood Institute, National Institute of Allergy and Infectious Diseases, Deutsche Gesellschaft fuer Kardiologie.

Our news journalists obtained a quote from the research from Children's Hospital, "NE is not required for mouse neutrophil NET production in vitro with non-infectious stimuli. NE deficiency had no significant effect on thrombosis in the inferior vena cava stenosis model. Neutrophil serine proteases have been implicated in coagulation and neutrophil extracellular trap (NET) formation. In human neutrophils, neutrophil elastase (NE) translocates to the nucleus during NETosis and cleaves histones, thus aiding in chromatin decondensation. NE(-/-) mice were shown not to release NETs in response to microbes. However, mouse studies evaluating the role of NE in NET formation in sterile inflammation and thrombosis are lacking. We wished to establish if neutrophils from NE(-/-) mice have a defect in NETosis, similar to peptidylarginine deiminase 4 (PAD4(-/-)) mice, and how this might have an impact on venous thrombosis, a model where NETs are produced and are crucial to thrombus development. We performed in vitro NET assays using neutrophils from wild-type (WT), NE(-/-), SerpinB1 (SB1) (-/-) and NE(-/-) SB1(-/-) mice. We compared WT and NE(-/-) animals using the inferior vena cava stenosis model of deep vein thrombosis (DVT). Neutrophil elastase deficiency resulted in a small reduction in ionomycin-induced NET formation in vitro without affecting histone
citrullination. However, NET production in response to phorbol 12-myristate 13-acetate or platelet activating factor was normal in neutrophils from two independent NE-deficient mouse lines, and in NE(-/-) SB1(-/-) as compared with SB1(-/-) neutrophils. NE deficiency or inhibition did not prevent NETosis in vivo or DVT outcome. Neutrophil elastase is not required for NET formation in mice. NE(-/-) mice, which form pathological venous thrombi containing NETs, do not phenocopy PAD4(-/-) mice in in vitro NETosis assays or experimental venous thrombosis.

According to the news editors, the research concluded: "Our study suggests that NET-targeted therapies need to be highly effective to have an impact on DVT."


Our news journalists report that additional information may be obtained by contacting K. Martinod, Program in Cellular and Molecular Medicine, Boston Children's Hospital, Boston, MA, United States. Additional authors for this research include T. Witsch, K. Farley, M. Gallant, E. Remold-O'Donnell and D.D Wagner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jth.13239. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Elastase, Stenosis, Angiology, Vena Cava, Hematology, Immunology, Phagocytes, Blood Cells, Neutrophils, Granulocytes, Inflammation, Massachusetts, United States, Venous Thrombosis, Deep Vein Thrombosis, Enzymes and Coenzymes, Embolism and Thrombosis, Hemic and Immune Systems, North and Central America.

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**Respiratory Tract Diseases and Conditions**

**Findings from Children's Hospital in the Area of Obstructive Sleep Apnea Described (Sleep Architecture Linked to Airway Obstruction and Intracranial Hypertension in Children with Syndromic Craniosynostosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea have been presented. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Children with syndromic craniosynostosis often have obstructive sleep apnea and intracranial hypertension. The authors aimed to evaluate (1) sleep architecture, and determine whether this is influenced by the presence of obstructive sleep apnea and/or intracranial hypertension; and (2) the effect of treatment on sleep architecture."

Our news editors obtained a quote from the research from Children's Hospital, "This study included patients with syndromic craniosynostosis treated at a national referral center, undergoing screening for obstructive sleep apnea and intracranial hypertension. Obstructive sleep apnea was identified by polysomnmography, and categorized into no, mild, moderate, or severe. Intracranial hypertension was identified by the presence of papilledema on funduscopic,
supplemented by optical coherence tomography and/or intracranial pressure monitoring. Regarding sleep architecture, sleep was divided into rapid eye movement or non-rapid eye movement sleep; respiratory effort-related arousals and sleep efficiency were scored. The authors included 39 patients (median age, 5.9 years): 19 with neither obstructive sleep apnea nor intracranial hypertension, 11 with obstructive sleep apnea (four moderate/severe), six with intracranial hypertension, and three with obstructive sleep apnea and intracranial hypertension. Patients with syndromic craniosynostosis, independent of the presence of mild obstructive sleep apnea and/or intracranial hypertension, have normal sleep architecture compared with age-matched controls. Patients with moderate/severe obstructive sleep apnea have a higher respiratory effort-related arousal index (p < 0.01), lower sleep efficiency (p = 0.01), and less rapid eye movement sleep (p = 0.04). An improvement in sleep architecture was observed following monobloc surgery (n = 5; rapid eye movement sleep, 5.3 percent; p = 0.04). Children with syndromic craniosynostosis have in principle normal sleep architecture."

According to the news editors, the research concluded: "However, moderate/severe obstructive sleep apnea does lead to disturbed sleep architecture, which fits within a framework of a unifying theory for obstructive sleep apnea, intracranial hypertension, and sleep."

For more information on this research see: Sleep Architecture Linked to Airway Obstruction and Intracranial Hypertension in Children with Syndromic Craniosynostosis. Plastic and Reconstructive Surgery, 2016;138(6):1019E-1029E. Plastic and Reconstructive Surgery can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Plastic and Reconstructive Surgery - journals.lww.com/plasreconsurg/pages/default.aspx)

The news editors report that additional information may be obtained by contacting B. Spruijt, Boston Childrens Hosp, Boston, MA, United States. Additional authors for this research include I.M.J. Mathijsen, H.H. Bredero-Boelhouwer, P.J. Cherian, L.J.A. Corel, M.L. van Veelen, R.D. Hayward, R.C. Tasker and K.F.M. Joosten.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Surgery, Central Nervous System Diseases and Conditions, Respiratory Tract Diseases and Conditions, Musculoskeletal Diseases and Conditions, Brain Diseases and Conditions, Sleep Diseases and Conditions, Respiratory Insufficiency, Intracranial Hypertension, Obstructive Sleep Apnea, Respiration Disorders, Airway Obstruction, Craniosynostosis, Sleep Disorders, Otolaryngology, Craniofacial, Neurosurgery, Pulmonology, Neurology, Children's Hospital.

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Breast Diseases and Conditions - Mastitis

Findings from China Agricultural University Provide New Insights into Mastitis (An Investigation of the Innate Immune Response in Bovine Mammary Epithelial Cells Challenged by Prototheca zopfii)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Breast Diseases and Conditions - Mastitis have been published. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Prototheca zopfii is an important bovine mastitis pathogen, which could result in severe mammary infection. However, the innate
immune response in bovine mastitis associated with P. zopfii was not clear."

Financial supporters for this research include Chinese Twelfth Five-year National Science and Technology Support Project, National Education Ministries Major Project, Specialized Research Fund for the Doctoral Program of Higher Education (SRFDP) State Education Ministry, High-end Foreign Experts Recruitment Program, National Natural Science Foundation of China.

Our news editors obtained a quote from the research from China Agricultural University, "Therefore, the aim of this study is to investigate in vitro innate immune responses implicated by P. zopfii. Bovine mammary epithelial cells (bMECs) were infected with 5.0 x 10 (4) cells/ml P. zopfii genotypes I and II independently, and the mRNA expression of TLR-2, TLR-4, TNF-alpha, IL-1 beta, IL-8, NOD-1, NOD-2 and beta-defensin-5 was determined by real-time polymerase chain reaction (RT-PCR) over a time course of 1, 3, 6, 12 and 24 h. The detection of the NF-kappa B p65 protein in nucleus and cytoplasm of infected bMECs over the same time course was evaluated. P. zopfii genotype II has ability to up-regulate the expression of TLR-2, TLR-4, TNF-alpha, IL-1 beta, IL-8, NOD-1, NOD-2 and beta-defensin-5 more strongly than genotype I. Western blot results showed that when bMECs were challenged by P. zopfii genotype II, the expression of NF-kappa B p65 protein in the nucleus was up-regulated, while in cytoplasm it appeared to be repressed, which indicated that bMECs partly regulate the innate immune responses and inflammation by the NF-kappa B signaling pathway while being infected by P. zopfii genotype II."

According to the news editors, the research concluded: "It was concluded that adhesion of genotype II was stronger than genotype I, and therefore the genotype II regulatory ability is more robust than that of the genotype I, which causes inflammation of bovine mammary tissue."

For more information on this research see: An Investigation of the Innate Immune Response in Bovine Mammary Epithelial Cells Challenged by Prototheca zopfii. Mycopathologia, 2016;181(11-12):823-832. Mycopathologia can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Mycopathologia - www.springerlink.com/content/0301-486x/)

The news editors report that additional information may be obtained by contacting B. Han, China Agricultural University, Dept. of Clin Vet Med, Coll Vet Med, Beijing 100193, People's Republic of China. Additional authors for this research include M. Shahid, L.M. Zhang, J. Gao, X.L. Gu, S.Y. Zhang, J.Q. Zou, S. Fanning and B. Han.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Breast Diseases and Conditions, Skin Diseases and Conditions, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, Epithelial Cells, Bovine Mastitis, Inflammation, NF-kappa B, Genetics, China Agricultural University.

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Cyclohexanes
Findings from China Medical University and Hospital Yields New Findings on Cyclohexanes (Changes in hippocampal AMPA receptors and cognitive impairments in chronic ketamine addiction models: another understanding of ketamine CNS toxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cyclohexanes. According to news reporting originating from Shenyang, People's Republic of China, by NewsRx correspondents, research stated, "Ketamine has been reported to impair human cognitive function as a recreational drug of abuse. However, chronic effects of ketamine on central nervous system need to be further explored."

Our news editors obtained a quote from the research from China Medical University and Hospital, "We set out to establish chronic ketamine addiction models by giving mice a three or six month course of daily intraperitoneal injections of ketamine, then examined whether long-term ketamine administration induced cognition deficits and changed hippocampal post-synaptic protein expression in adult mice. Behavior tests results showed that mice exhibited dose-and time-dependent learning and memory deficits after long-term ketamine administration. Western blot results showed levels of GluA1, p-S845 and p-S831 proteins demonstrated significant decline with ketamine 60 mg/kg until six months administration paradigm. But levels of p-S845 and p-S831 proteins exhibited obvious increase with ketamine 60 mg/kg three months administration paradigm. NR1 protein levels significantly decrease with ketamine 60 mg/kg three and six months administration paradigm. Our results indicate that reduced expression levels and decreased phosphorylation levels of hippocampal post-synaptic membrane GluA1-containing AMPA receptors maybe involved in cognition impairment after long-term ketamine administration."

According to the news editors, the research concluded: "These findings provide further evidence for the cognitive damage of chronic ketamine addiction as a recreational drug."

For more information on this research see: Changes in hippocampal AMPA receptors and cognitive impairments in chronic ketamine addiction models: another understanding of ketamine CNS toxicity. *Scientific Reports*, 2016;6():1-11. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting Y. Lu, China Med Univ, Affiliated Shengjing Hosp, Hlth Minist Congenital Malformat, Key Lab, Shenyang 110004, People's Republic of China. Additional authors for this research include Y.N. Li, A. Du, H. Yu, B.L. He, R.P. Shen, J.C. Zhou, L. Li, W. Cui, G.H. Zhang, Y. Lu and X. Wu.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Central Nervous System Agents, Drugs and Therapies, General Anesthetics, Addiction Medicine, Ketamine Therapy, Mental Health, Hydrocarbons, Cyclohexanes, Analgesics, China Medical University and Hospital.

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Findings from China Medical University and Hospital in the Area of Prostate Cancer Reported (BAP18 coactivates androgen receptor action and promotes prostate cancer progression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting originating in Liaoning, People's Republic of China, by NewsRx journalists, research stated, "BPTF associated protein of 18 kDa (BAP18) has been reported as a component of MLL1-WDR5 complex. However, BAP18 is an uncharacterized protein."

The news reporters obtained a quote from the research from China Medical University and Hospital, "The detailed biological functions of BAP18 and underlying mechanisms have not been defined. Androgen receptor (AR), a member of transcription factor, plays an essential role in prostate cancer (PCa) and castration-resistant prostate cancer (CRPC) progression. Here, we demonstrate that BAP18 is identified as a coactivator of AR in Drosophilar experimental system and mammalian cells. BAP18 facilitates the recruitment of MLL1 subcomplex and AR to androgen-response element (ARE) of AR target genes, subsequently increasing histone H3K4 trimethylation and H4K16 acetylation. Knockdown of BAP18 attenuates cell growth and proliferation of PCa cells. Moreover, BAP18 depletion results in inhibition of xenograft tumor growth in mice even under androgen-depletion conditions. In addition, our data show that BAP18 expression in clinical PCa samples is higher than that in benign prostatic hyperplasia (BPH)."

According to the news reporters, the research concluded: "Our data suggest that BAP18 as an epigenetic modifier regulates AR-induced transactivation and the function of BAP18 might be targeted in human PCa to promote tumor growth and progression to castration-resistance."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/nar/gkw472. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Liaoning, People's Republic of China, Asia, Transcription Factors, DNA-Binding Proteins, Prostatic Neoplasms, Androgen Receptors, Steroid Receptors, Prostate Cancer, Oncology, Genetics, China Medical University and Hospital.

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Findings from Chinese Academy of Medical Sciences Provide New Insights into Lung Cancer (A Matched Comparison Study of Uniportal Versus Triportal Thoracoscopic Lobectomy and Sublobectomy for Early-stage Nonsmall Cell Lung Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Lung Cancer are presented in a new report. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Both uniportal and triportal thoracoscopic lobectomy and sublobectomy are feasible for early-stage non-small cell lung cancer (NSCLC). The aim of this study was to compare the perioperative outcomes of uniportal and triportal thoracoscopic lobectomy and sublobectomy for early-stage NSCLC."

The news reporters obtained a quote from the research from the Chinese Academy of Medical Sciences, "A total of 405 patients with lung lesions underwent thoracoscopic lobectomy or sublobectomy through a uniportal or triportal procedure in approximately 7-month period (From November 2014 to May 2015). A propensity-matched analysis, incorporating preoperative variables, was used to compare the short-term outcomes of patients who received uniportal or triportal thoracoscopic lobectomy and sublobectomy. Fifty-eight patients underwent uniportal and 347 patients underwent triportal pulmonary resection. The conversion rate for uniportal and triportal procedure was 3.4% (2/58) and 2.3% (8/347), respectively. The complication rate for uniportal and triportal procedure was 10.3% and 9.5%, respectively. There was no perioperative death in either group. Most patients had early-stage NSCLC in both groups (uniportal: 45/47, 96%; triportal: 313/343, 91%). Propensity score-matching analysis demonstrated no significant differences in operation time, intraoperative blood loss, numbers of dissected lymph nodes, number of stations of lymph node dissected, duration of chest tube, and complication rate between uniportal and triportal group for early-stage NSCLC. However, the duration of postoperative hospitalization was longer in the uniportal group (6.83 ± 4.17 vs. 5.42 ± 1.86 d, p=0.036) compared with the triportal group. Uniportal thoracoscopic lobectomy and sublobectomy is safe and feasible, with comparable short-term outcomes with triportal thoracoscopic pulmonary resection."

According to the news reporters, the research concluded: "Uniportal lobectomy and sublobectomy lead to similar cure rate as triportal lobectomy and sublobectomy for early NSCLC."


Our news correspondents report that additional information may be obtained by contacting J. He, Dept. of Thoracic Surgery, Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing 100021, People's Republic of China. Additional authors for this research include S.G. Gao, Q. Xue, J. Zhao, N. Li, K. Yang, K. Su, Z.Y. Yuan and J. He.

The direct object identifier (DOI) for that additional information is:
Findings from Chinese Academy of Sciences Update Knowledge of Chemistry (Toward High-Efficient Red Emissive Carbon Dots: Facile Preparation, Unique Properties, and Applications as Multifunctional Theranostic Agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Chemistry. According to news reporting originating in Zhejiang, People's Republic of China, by NewsRx journalists, research stated, "The achievement of high-efficient pure red emissive carbon dots (CDs) is still a great challenge as well as one of the most critical issues that hinders widespread applications of CDs. Herein, a facile approach for the preparation of high-efficient red emissive CDs (R-CDs) is reported, and they exhibit numerous unique features including pure red emission (λmax approximate to 640 nm), respectable quantum yield (22.9%), low cytotoxicity, two-photon excited fluorescence (TPEF), and high photothermal conversion efficiency (43.9% under irradiation of 671 nm laser)."

Funders for this research include Ningbo Municipal Bureau of Science and Technology, National Natural Science Foundation of China, Natural Science Foundation of Zhejiang Province.

The news reporters obtained a quote from the research from the Chinese Academy of Sciences, "Moreover, the chemical composition and photophysical properties of the R-CDs are detailed characterized and analyzed, and from which their photoluminescence mechanism is proposed. Interestingly, the R-CDs are found to particularly light up RNA-rich nucleolus both in one-photon and two-photon modes as well as show excellent counterstain compatibilities with other classical subcellular dyes. The localization of the R-CDs in nucleolus is supported by ribonuclease digestion testing, and the stronger emission is further verified to be due to an accumulation process. In addition, the R-CDs are confirmed to be facilely conjugated with fluorescein isothiocyanate (FITC) and then bring it into living cells, which reveals their potentials to perform as carriers for delivery of drugs that cannot (or hardly) enter into living cells directly. Finally, the R-CDs are shown to be excellent in photothermal cancer therapy in vitro due to their high photothermal conversion efficiency."

According to the news reporters, the research concluded: "This study represents not only a facile method for the preparation of high-efficient R-CDs, but also opens many possibilities for applications, such as in biomedicine (multifunctional theranostic agents) and emitting/display devices, thanks to their unique and superior properties."

For more information on this research see: Toward High-Efficient Red Emissive Carbon Dots: Facile Preparation, Unique Properties, and Applications as Multifunctional
Chemistry

Findings from Chinese Academy of Sciences Yields New Findings on Chemistry [Near-Infrared (NIR)-Absorbing Conjugated Polymer Dots as Highly Effective Photothermal Materials for In Vivo Cancer Therapy]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Chemistry. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Photothermal therapy (PTT) holds great promise for noninvasive cancer treatment. To fulfill this goal, highly effective and low-risk photothermal agents have been intensively explored."

Financial supporters for this research include National Natural Science Foundation of China, Chinese Academy of Sciences.

Our news journalists obtained a quote from the research from the Chinese Academy of Sciences, "Here, we present a new PTT material based on conjugated polymer dots (Pdots) that exhibit strong near-infrared (NIR) absorption and high photostability. The Pdots result in a thermal response upon illumination with a NIR laser, leading to a high photothermal conversion efficiency of 65%. Thus, the photothermal ablation of cancer cells using the Pdots both in vitro and in vivo can be achieved, highlighting the potential of Pdots as a nanoplatform for clinical therapy."

According to the news editors, the research concluded: "They also open up a new avenue to develop new photothermal therapeutic materials."

For more information on this research see: Near-Infrared (NIR)-Absorbing Conjugated Polymer Dots as Highly Effective Photothermal Materials for In Vivo Cancer Therapy. Chemistry of Materials, 2016;28(23):8669-8675. Chemistry of Materials can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA.

Our news journalists report that additional information may be obtained by contacting X.J. Liang, Chinese Academy Sci, Natl Center Nanosci & Technol, CAS Key Lab Biol Effects Nanomat & Nanosafety, Center Excellence Nanosci, Beijing 100190, People's

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.chemmater.6b03738. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Chemistry, Oncology, Therapy, Cancer, Chinese Academy of Sciences.

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Oncology - Acute Myeloid Leukemia

Findings from Chinese People's Liberation Army General Hospital Provides New Data on Acute Myeloid Leukemia (Overexpression of ATP1B1 predicts an adverse prognosis in cytogenetically normal acute myeloid leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Acute Myeloid Leukemia is now available. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "ATP1B1 encodes the Na,K-ATPase b subunit, a key regulator of the Na+ and K+ electrochemical gradients across the plasma membrane and an essential regulator of cellular activity. We used several microarray datasets to test the prognostic efficacy of ATP1B1 expression in cytogenetically normal acute myeloid leukemia (CN-AML)."

Our news editors obtained a quote from the research from Chinese People's Liberation Army General Hospital, "Within the primary cohort (n=157), high ATP1B1 expression (ATP1B1(high)) was associated with shorter overall survival (OS) and event-free survival (EFS) (p=0.0068, p=0.0039, respectively). Similar results were also obtained in the European Leukemia Net (ELN) Intermediate-I genetic category (OS: p=0.0035, EFS: p=0.0007). Multivariable analyses confirmed ATP1B1(high) is an independent predictor of shorter OS (p=0.042) and EFS (p=0.035). Analysis of another CN-AML cohort confirmed that ATP1B1(high) is associated with shorter OS (p=0.0046, n=162). In addition, up-regulation of oncogenes/onco-microRNAs such as MYCN, CCND2, CDK6, KIT and miR-155, among others, was associated with ATP1B1(high), which may be indicative of ATP1B1's leukemogenicity."

According to the news editors, the research concluded: "Our results may improve risk stratification and indicate new therapeutic targets for CN-AML."

For more information on this research see: Overexpression of ATP1B1 predicts an adverse prognosis in cytogenetically normal acute myeloid leukemia. Oncotarget, 2016;7(3):2585-95.

The news editors report that additional information may be obtained by contacting J.L. Shi, Medical Engineering Support Center, Chinese PLA General Hospital, Beijing, People's Republic of China. Additional authors for this research include L. Fu, Q. Ang, G.J. Wang, J. Zhu and W.D Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6226. This DOI is a link to an online electronic document that is either free or for purchase.
Findings from Chinese University of Hong Kong Reveals New Findings on Plasma (Cell-free DNA in maternal plasma and serum: A comparison of quantity, quality and tissue origin using genomic and epigenomic approaches)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematology - Plasma. According to news reporting originating from Hong Kong, People's Republic of China, by NewsRx correspondents, research stated, "The objectives of this study were to compare the concentrations, size profiles and major tissue contributors of cell-free DNA (cfDNA) in plasma and in serum. Thirteen pregnant women in the third trimester were recruited for this study."

Financial support for this research came from Hong Kong Research Grants Council Theme-Based Research Scheme.

Our news editors obtained a quote from the research from the Chinese University of Hong Kong, "We collected EDTA-plasma and serum samples using various collection tubes. We determined their cfDNA concentrations and fetal cfDNA fractions using a zinc-finger X (ZFX)/zinc-finger Y (ZFY) droplet digital polymerase chain reaction (ZFX/ZFY ddPCR) assay. We used paired-end massively parallel sequencing (MPS) to measure plasma and serum cfDNA sizes at single-base resolution. We deconvoluted the genome-wide bisulfite sequencing data with reference to the methylation profiles of different tissues. The concentrations of cfDNA collected in Sarstedt Serum Z tubes were found to be significantly higher than those in Greiner Bio-One Vacuette ® Z Serum Separator Clot Activator tubes or Vacuette ® Z Serum Clot Activator tubes. The concentrations of fetal cfDNA were significantly reduced in samples collected in the Vacuette serum collection tubes. Fetal cfDNA fractions were significantly reduced in all sera compared to plasma. MPS of serum cfDNA revealed a right shift of the size distributions compared to plasma. Methylation-based tissue mapping of serum cfDNA revealed an increase of cfDNA from neutrophils and B cells but not T cells. The use of different serum collection tubes has a significant impact on serum cfDNA concentrations."

According to the news editors, the research concluded: "This effect is likely mediated through the combined effect of genomic DNA release from white blood cells and DNA degradation or removal."


The news editors report that additional information may be obtained by contacting F.C.K. Wong, Chinese University of Hong Kong, Prince of Wales Hospital, Dept. of Chem Pathol, Shatin, Hong Kong, People's Republic of China. Additional authors for this research

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinbiochem.2016.09.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, DNA Research, Hematology, Plasma, Blood, Chinese University of Hong Kong.

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Women's Health - Obstetrics and Gynecology

Findings from Chinese University of Hong Kong in the Area of Obstetrics and Gynecology Described (Noninvasive prenatal testing beyond genomic analysis: what the future holds)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Women's Health - Obstetrics and Gynecology have been presented. According to news reporting originating in Hong Kong, People's Republic of China, by NewsRx journalists, research stated, "The discovery of cell-free fetal DNA in maternal blood enabled the development of DNA-based noninvasive prenatal testing. Noninvasive prenatal testing for chromosomal aneuploidy detection was first applied for clinical use a few years ago, resulting in a paradigm shift in prenatal testing."

The news reporters obtained a quote from the research from the Chinese University of Hong Kong, "Apart from the use of cell-free fetal nucleic acids for the detection of fetal genetic or chromosomal diseases, we predict that the analysis of cell-free placental RNA and DNA methylation signatures would allow the noninvasive monitoring of placental function. These developments would potentially allow the screening and identification of a range of pregnancy-associated diseases, providing a holistic approach to prenatal management. This article covers the advancement of techniques in measuring cell-free fetal RNA and fetal-specific methylation patterns in maternal blood. Recently, genome-wide fetal transcriptome and methylome can be obtained from maternal plasma, which allow the identification of novel biomarkers and the elucidation of the pathogenesis of maternal and fetal diseases. In fact, some studies demonstrated the feasibility of applying the RNA and DNA methylation analysis techniques for prenatal disease assessment."

According to the news reporters, the research concluded: "This study reviews the evidence that demonstrates the potential utilities of cell-free fetal transcriptomic and methylomic analysis for the future assessment of pregnancy-associated disorders."

For more information on this research see: Noninvasive prenatal testing beyond genomic analysis: what the future holds. Current Opinion In Obstetrics & Gynecology, 2016;28 (2):105-10. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Obstetrics & Gynecology - journals.lww.com/co-obgyn/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting W.W. Hui, Dept. of Chemical Pathology, Prince of Wales Hospital, The Chinese University of Hong Kong, Sha Tin, Hong Kong, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/GCO.0000000000000252. This DOI is a link to an online electronic
Findings from Chongqing Medical University Broaden Understanding of Gliomas (Downregulation of Nitrogen Permease Regulator Like-2 Activates PDk1-AkT1 and Contributes to the Malignant Growth of Glioma Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Gliomas. According to news reporting from Chongqing, People's Republic of China, by NewsRx journalists, research stated, "Nitrogen permease regulator like-2(NPRL2) is a candidate tumor suppressor gene(TSG) located on chromosome 3p21.3 and deletions frequently occur in this region, leading to canceration. Recently, molecular pathologic researches have provided valuable insights into the downregulation of NPRL2 in carcinogenesis in some types of cancers."

The news correspondents obtained a quote from the research from Chongqing Medical University, "However, very little is known about genetic changes of NPRL2 involved in glioma. Here, for the first time, we aimed to understand the expression levels, functions and mechanisms of NPRL2 for progression of glioma. We clearly demonstrated that NPRL2 expression was decreased in glioma and was negatively correlated with the histologic grade. The upregulation of NPRL2 expression in glioma cells inhibited proliferation by inducing G0/G1 cell cycle arrest in vitro and suppressed the growth of xenotransplanted tumors. In contrast, siRNA-mediated knockdown of NPRL2 promoted glioma growth. The anti-cancer effects of NPRL2 were involved in dephosphorylation of PDK1(Tyr9) and downstream AKT1(Thr308) resulting in inactivation of the PDK1-AKT1 signaling pathway, this ultimately increased the expression of p21 and p27, and inactivated CDK2 and CDK4. Our data confirmed NPRL2 was downregulated in gliomas. More importantly, NPRL2 was able to inhibit cell proliferation in vitro and repress tumorigenicity in vivo, suggesting its role as a tumor suppressor."

According to the news reporters, the research concluded: "Our data provide a basis for the further development of a promising therapeutic target for glioma."


Keywords for this news article include: Chongqing, People's Republic of China, Asia, Tumor Suppression, Oncology, Nitrogen, Genetics, Gliomas, Chongqing Medical
Enzymes and Coenzymes - Phosphotransferases…

Findings from Chung Ang University in the Area of Phosphotransferases (Alcohol Group Acceptor) Reported (Y-27632, a Rho-Associated Protein Kinase Inhibitor, Inhibits Voltage-Dependent K plus Channels in Rabbit Coronary Arterial Smooth Muscle ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - Phosphotransferases (Alcohol Group Acceptor). According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "We examined the effects of the Rho-associated protein kinase (ROCK) inhibitor Y-27632 on voltage-dependent K+ (Kv) channels in rabbit coronary arterial smooth muscle cells using the whole-cell patch clamp technique. Y-27632 reduced the amplitude of the Kv current in a concentration-dependent manner, with an IC50 of 0.87 +/- 0.06 mu mol/l and a Hill coefficient of 1.48 +/- 0.06."

Our news journalists obtained a quote from the research from Chung Ang University, "Y-27632 did not affect the steady-state activation or inactivation curves, suggesting that the drug does not affect the voltage sensitivity of Kv channels. Another ROCK inhibitor, H-1152, did not affect the Kv current and had no significant effect on the Y-27632-induced inhibition of Kv channels, indicating that the inhibitory effect of Y-27632 on the Kv current is independent of ROCK signaling."

According to the news editors, the research concluded: "From these results, we conclude that Y-27632 inhibits the Kv channel current in a dose-dependent and ROCK signaling-independent manner."


Our news journalists report that additional information may be obtained by contacting H. Bang, Chung Ang University, Dept. of Physiol, Coll Med, Seoul 06974, South Korea. Additional authors for this research include S.E. Shin, H.W. Kim, H.S. Kim, W.K. Jung, K.S. Ha, E.T. Han, S.H. Hong, I.W. Choi, Y.M. Bae, A.L. Firth, H. Bang and W.S. Park.

Keywords for this news article include: Seoul, South Korea, Asia, Phosphotransferases (Alcohol Group Acceptor), Enzymes and Coenzymes, Protein Kinases, Muscle Cells, Chung Ang University.

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Findings from Cleveland Clinic Broadens Understanding of Lactic Acidosis [Sigmoid volvulus in a patient with mitochondrial encephalomyopathy, lactic acidosis and stroke-like episodes (MELAS): a rare occurrence]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Lactic Acidosis is now available. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "Mitochondrial diseases are rare and devastating, with a wide spectrum of clinical presentations and systemic symptoms. The majority of the published literature focuses on the neuromuscular manifestations and genetic components of this mitochondrial cytopathy, however, cardiac, renal, endocrine and gastrointestinal manifestations may also be present."

The news reporters obtained a quote from the research from Cleveland Clinic, "The authors report a case detailing a 56-year-old woman's final hospitalisation from the gastrointestinal sequelae of mitochondrial encephalomyopathy, lactic acidosis and stroke-like episodes (MELAS) (Co Q10 deficiency variant). She presented with abdominal pain and distension associated with lactic acidosis, and was shown on imaging to have a colon perforation. This resulted in emergent surgery at which a necrotic colon secondary to a sigmoid colon was identified. Following four subsequent operations, and the development of multiorgan failure, care was eventually withdrawn."

According to the news reporters, the research concluded: "Practitioners of patients with MELAS should be cognisant of the rare but devastating gastrointestinal consequences of mitochondrial diseases."

For more information on this research see: Sigmoid volvulus in a patient with mitochondrial encephalomyopathy, lactic acidosis and stroke-like episodes (MELAS): a rare occurrence. Bmj Case Reports, 2016;2016():. (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting A. Hallac, Dept. of General Surgery, Cleveland Clinic Foundation, Cleveland, Ohio, United States. Additional authors for this research include H.B. Keshava, G. Morris-Stiff and S. Ibrahim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2015-213718. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Genetics, Cleveland, United States, Lactic Acidosis, Gastroenterology, Acid Base Imbalance, Mitochondrial Myopathy, North and Central America, Mitochondrial Encephalomyopathies, Mitochondrial Diseases and Conditions, Neuromuscular Diseases and Conditions, Nervous System Diseases and Conditions.

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Findings from College of Nursing in Ebstein Anomaly Reported (Restoration of Tricuspid Valve Mechanism at the Level of Displaced Septal and Posterior Leaflets in Ebstein's Anomaly)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Ebstein Anomaly have been presented. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Surgical techniques currently used for the repair of Ebstein's anomaly comprise reconstruction of the tricuspid valve mechanism at the level of the true annulus with or without plication of the atrialized right ventricle. However, performing this procedure for patients with a dysmorphic anterior leaflet (i.e., insufficient leaflet tissue and decreased mobility due to tethering) may necessitate technical modifications."

Our news journalists obtained a quote from the research from the College of Nursing, "A retrospective review was performed of 31 patients (seven males and 24 females, median age at operation 31 years) with Ebstein's anomaly, who underwent tricuspid valve repair between March 2002 and December 2014. The original Hetzer technique (annulus to annulus approximation) was employed for six patients with a well-formed anterior leaflet. In 25 patients, the tricuspid valve mechanism was restored at the displaced septal leaflet by approximating the anterior leaflet attachment in the true annulus to the displaced septal leaflet attachment in the mid-septum. A bidirectional superior cavopulmonary anastomosis was added in 27 of 31 (87%) patients. No early or late death occurred during the median follow-up of 66 months (1-138 months). Immediate postoperative tricuspid regurgitation was trivial in 22 patients, and the median preoperative, immediate postoperative, and last follow-up tricuspid regurgitation jet areas in 21 adult patients were 23.3 cm2, 10.4 cm2, and 7.0 cm2, respectively. Two patients underwent reoperation at 81 and 119 months postoperatively. Five-year freedom from severe tricuspid regurgitation or reoperation was 93.2%. Restoration of the tricuspid valve mechanism at the level of displaced septal leaflet leads to excellent long-term outcomes."

According to the news editors, the research concluded: "The addition of the bidirectional superior cavopulmonary anastomosis has contributed to the success of this technique."


The news correspondents report that additional information may be obtained from Y.M. Im, Seoul Women's College of Nursing, Seoul, South Korea. Additional authors for this research include C.S. Park, J.J. Park and T.J Yun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocs.12689. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the Journal of Cardiac Surgery is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Seoul, South Korea, Heart Disease,
Ebstein Anomaly, Congenital Abnormalities, Congenital Heart Defects, Cardiovascular Abnormalities, Heart Disorders and Diseases.

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Enzymes and Coenzymes - Carboxylic Ester...

Findings from College of Pharmacy Provides New Data about Carboxylic Ester Hydrolases (Phospholipase A2 Isoforms as Novel Targets for Prevention and Treatment of Inflammatory and Oncologic Diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Enzymes and Coenzymes - Carboxylic Ester Hydrolases is now available. According to news reporting originating from Miami, Florida, by NewsRx correspondents, research stated, "Phospholipase A2s (PLA2s) are group of enzymes, which cleave phospholipids specifically at sn-2 position to liberate free fatty acid, mostly arachidonic acid (AA) and lysophospholipids (LPLs). Inhibition of PLA2 prevents the liberation of AA and LPLs."

Our news editors obtained a quote from the research from the College of Pharmacy, "Hence, researchers have been considering PLA2s could be a better therapeutic target than the downstream enzymes cyclooxygenase and lipoxygenase. Several isoforms of PLA2s exist; they are mainly divided into secretory PLA2s (sPLA2), cytosolic PLA2s (cPLA2), and calcium independent PLA2s (iPLA2), platelet activating factor-acyl hydrolase (PAF-AH), lysosomal PLA2 (LPLA2), adipose-specific PLA2 (Ad-PLA). Each isoform of PLA2s is different in its chemical structure and physiological functions. sPLA2s (Groups IIA, V and X) are well characterized as proinflammatory mediating enzymes but their role in cancer is controversial. Groups IVA, IVB and IVC cPLA2s are present in humans but only Group IVA cPLA2 plays key role in pathophysiology of various cancers and inflammation. The role of iPLA2 in inflammation and cancer is limited. Lipoprotein associated PLA2 (Group VIa PLA2), a PAF-AH isoform, has key role in atherosclerosis. Several isoform specific PLA2 inhibitors have been developed and some of the PLA2s inhibitors are currently under clinical trials for various inflammatory and oncologic diseases."

According to the news editors, the research concluded: "This review focuses on the recent experimental evidences to support the notion that PLA2s are causally implicated in the pathobiology of cancer and inflammatory related disorders and discuss the potential utility of isoform specific PLA2 inhibitors as preventive and/or therapeutic agents."


The news editors report that additional information may be obtained by contacting A. Bishayee, Dept. of Pharmaceutical Sciences, College of Pharmacy, Larkin Health Sciences Institute, Miami, Florida 33169, United States. Additional authors for this research include A. Bishayee, L. Vadlakonda, R. Chintala, G.R. Duddukuri, P. Reddanna and K.S Dowluru.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1389450116666150727122501. This DOI is a link to an online
Mycobacterium Infections - Tuberculosis

Findings from Colorado State University Broaden Understanding of Tuberculosis (Therapeutic Potential of the Mycobacterium tuberculosis Mycolic Acid Transporter, MmpL3)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mycobacterium Infections - Tuberculosis are presented in a new report. According to news reporting out of Fort Collins, Colorado, by NewsRx editors, research stated, "In recent years, whole-cell-based screens for novel small molecule inhibitors active against Mycobacterium tuberculosis in culture followed by the whole-genome sequencing of spontaneous resistant mutants have identified multiple chemical scaffolds thought to kill the bacterium through the inactivation of the mycolic acid transporter, MmpL3. Consistent with the fact that MmpL3 is required for the formation of the mycobacterial outer membrane, we have conclusively shown in this study, using conditionally regulated knockdown mutants, that mmpL3 is required for the replication and viability of M. tuberculosis, both under standard laboratory growth conditions and during the acute and chronic phases of infection in mice."

Funders for this research include Global Alliance for TB Drug Development, Potts Memorial Foundation, American Lebanese Syrian Associated Charities, HHS | National Institutes of Health (NIH), Bill and Melinda Gates Foundation.

Our news journalists obtained a quote from the research from Colorado State University, "Speaking for the vulnerability of this target, silencing mmpL3 had a rapid bactericidal effect on actively replicating cells in vitro and reduced by 3 to 5 logs in less than 4 weeks the bacterial loads of acutely and chronically infected mouse lungs, respectively. Depletion of MmpL3 further rendered M. tuberculosis hypersusceptible to MmpL3 inhibitors."

According to the news editors, the research concluded: "The exquisite vulnerability of MmpL3 at all stages of the infection establishes this transporter as an attractive new target with the potential to improve and shorten current drug-susceptible and drug-resistant tuberculosis chemotherapies."

For more information on this research see: Therapeutic Potential of the Mycobacterium tuberculosis Mycolic Acid Transporter, MmpL3. Antimicrobial Agents and Chemotherapy, 2016;60(9):5198-5207. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting M. Jackson, Colorado State University, Dept. of Microbiol Immunol & Pathol, Mycobacteria Res Labs, Fort Collins, CO 80523, United States. Additional authors for this research include A. Obregon-Henao, J.B. Wallach, E.J. North, R.E. Lee, M. Gonzalez-Juarrero, D. Schnappinger and M. Jackson.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00826-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fort Collins, Colorado, United States, North and Central America, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Gram-Positive Rods, Mycobacteriaceae, Actinobacteria, Mycolic Acids, Hydroxy Acids, Genetics, Therapy, Colorado State University.

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Hyperplasia

Findings from Columbia University Update Understanding of Hyperplasia (Targeting of Ras-mediated FGF signaling suppresses Pten-deficient skin tumor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hyperplasia have been published. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "Deficiency in PTEN (phosphatase and tensin homolog deleted on chromosome 10) is the underlying cause of PTEN hamartoma tumor syndrome and a wide variety of human cancers. In skin epidermis, we have previously identified an autocrine FGF signaling induced by loss of Pten in keratinocytes."

Financial support for this research came from HHS | NIH | National Eye Institute (NEI).

Our news journalists obtained a quote from the research from Columbia University, "In this study, we demonstrate that skin hyperplasia requires FGF receptor adaptor protein Frs2 alpha and tyrosine phosphatase Shp2, two upstream regulators of Ras signaling. Although the PI3-kinase regulatory sub-units p85 alpha and p85 beta are dispensable, the PI3-kinase catalytic subunit p110 alpha requires interaction with Ras to promote hyperplasia in Pten-deficient skin, thus demonstrating an important crosstalk between Ras and PI3K pathways. Furthermore, genetic and pharmacological inhibition of Ras-MAPK pathway impeded epidermal hyperplasia in Pten animals."

According to the news editors, the research concluded: "These results reveal a positive feedback loop connecting Pten and Ras pathways and suggest that FGF-activated Ras-MAPK pathway is an effective therapeutic target for preventing skin tumor induced by aberrant Pten signaling."


Our news journalists report that additional information may be obtained by contacting X. Zhang, Columbia University, Dept. of Pathol & Cell Biol, New York, NY 10032,
United States. Additional authors for this research include A. Hannan, K. Hertzler-Schaefer, F. Wang, G.S. Feng, J. Zhong, J.J. Zhao, J. Downward and X. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1604450113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Enzymes and Coenzymes, Hyperplasia, Genetics, Kinase, Columbia University.

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**DNA Research**

**Findings from Commonwealth Scientific and Industrial Research Organisation (CSIRO) Has Provided New Data on DNA Research (Co-localized genomic regulation of miRNA and mRNA via DNA methylation affects survival in multiple tumor types)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on DNA Research have been published. According to news reporting originating in Herston, Australia, by NewsRx journalists, research stated, "Aberrant gene expression in cancer is due in part to irregular patterns of DNA methylation and miRNA target gene down regulation. Using data from The Cancer Genome Atlas (TGCA), we investigated co-localized mRNA, miRNA and DNA methylation data across 15 cancer types, focusing on cases where evidence for direct regulation was strong."

The news reporters obtained a quote from the research from Commonwealth Scientific and Industrial Research Organisation (CSIRO), "Restricting attention to regions where miRNA markers co-localize within a corresponding mRNA transcript, we checked expression data from 2839 samples for 354 mRNAs, 389 miRNAs and 13,809 DNA methylation probes for correlations greater than an absolute 0.6. We identified 32 genes, 34 miRNAs and 143 DNA methylation site probes comprising 180 'triplet combinations' that together provide evidence of co-localized genomic regulation in cancer. The five triplet combinations showing the highest prevalence across tissue types were found in four genes, HOXC5, PDE2A, SH3TC2 and TP63. Of the total 32 genes, eight among two tumor types (Kidney Renal Clear Cell Carcinoma (KIRC, 4) and Low Grade Glioma (LGG, 4)) were significantly associated with survival time (p < 0.002)."

According to the news reporters, the research concluded: "Together, the data presented in this paper provide evidence toward our primary hypothesis, that both genes and miRNAs strongly correlated with methylation level are more likely to be associated with cancer outcomes."


Our news correspondents report that additional information may be obtained by contacting J.D. Doecke, CSIRO, Royal Brisbane & Womens Hospital, Hlth & Biosecur
Autoimmune Diseases and Conditions - Multiple

Findings from Complutense University Yields New Data on Multiple Sclerosis (Analysis of the Relationship between the Month of Birth and Risk of Multiple Sclerosis in a Spanish Population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Autoimmune Diseases and Conditions - Multiple Sclerosis is now available. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "Some studies have suggested an association between the month of birth and risk of multiple sclerosis (MS), related to environmental factors, mainly sun exposure and maternal vitamin D levels. Few studies have been conducted in Southern Europe countries."

The news reporters obtained a quote from the research from Complutense University, "Madrid has a continental climate with considerable variation of sun hours between winter and summer, so it may be relevant to study this relationship. MS patients, born between 1932 and 2003, 1,335 of them from our database between 2004 and 2015, were analysed. The weighted average number of births per month in Madrid from 1996 and 2012 (n = 1,098,774) was considered the control population. The month and season of birth were analysed using chi-square, Hewitt's and Roberson's seasonality tests. Birth rate increased in June, July, and September, and decreased in November, January, and February. Births were 29% more frequent in summer (July-September) than in winter (January-March), with a ratio of 0.79. Hewitt's test for seasonality gave a rank sum of 53 between May and October (p = 0.12). Rogerson's variation was applied to 3-, 4-, and 5- month periods. Substantial differences were noted in the 5- month periods (k = 5), although the largest rank sum (June-October) was not significant (p = 0.09)."

According to the news reporters, the research concluded: "Our analysis seemed to suggest that pre-natal sun exposure may have an influence on the incidence of MS, most likely in combination with other environmental or genetic factors."


Our news correspondents report that additional information may be obtained by contacting R.N. Villar-Quiles, Complutense University Madrid, Dept. of Neurol, Inst Neurosci, Hosp Clin San CarlosSan Carlos Inst Hlth Res IdI, Madrid, Spain. Additional authors for this research include J.A. Matias-Guiu, G. Ortega, I. Gonzalez-Suarez, C. Oreja-Guevara and J.
Matias-Guiu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000449246. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Autoimmune Diseases and Conditions of the Nervous System, Demyelinating Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Multiple Sclerosis, Epidemiology, Genetics, Complutense University.

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**Liver Diseases and Conditions - Hepatitis**

**Findings from Croix Rousse Hospital Update Understanding of Hepatitis (Efficiency and Safety of an Early Dose Adjustment of Ribavirin in Patients Infected With Hepatitis C Underexposed to the Drug and Treated With Peginterferon Ribavirin)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Liver Diseases and Conditions - Hepatitis is the subject of a report. According to news reporting originating in Lyon, France, by NewsRx journalists, research stated, "Ribavirin exposure after the first dose (D(0)AUC(0-4h)) >1755 mcg.h(-1).L-1 is predictive of sustained virological response (SVR) in patients with hepatitis C treated with peginterferon and ribavirin. The aim of this study was to test the benefit of ribavirin early dose adjustment based on this target in naive patients infected with genotype 1. A multicenter randomized controlled trial with two parallel groups; fixed-dose (FD) group: standard of care in 2010-2011, ie, peginterferon-alpha 2a 180 mcg.wk(-1) and weight-based ribavirin 1000-1200 mg/d during 48 weeks; adapted-dose (AD) group: increase of ribavirin dose if D(0)AUC(0-4h),1755 mcg.h(-1).L-1."

The news reporters obtained a quote from the research from Croix Rousse Hospital, "A total of 221 patients were included, 110 in the AD group and 111 in the FD group with similar baseline characteristics. In the perprotocol analysis, SVR was higher in the AD group (55.1% versus 40.4%; P = 0.042), especially in patients with D(0)AUC(0-4h),1755 mcg.h(-1).L-1 (54.3% versus 31.9%; P = 0.029). In the intention-to-treat analysis, the difference was not significant (50% versus 41%; P = 0.197). Ribavirin trough concentrations (C0s) at week 4 of treatment (intention-to-treat analysis) were higher in patients achieving SVR (2.06 versus 1.72 mg/L, P = 0.003). In the subgroup of patients with AUC(0-4h),1755 mcg.h(-1).L-1, 46% of patients with AD achieved a C0.2.0 mg/L versus 22% of patients with FD (P = 0.013). Grade 1 anemia (but not other grades) was more frequent in the AD group (70% versus 48%, P = 0.001). The number of dose reductions or discontinuation of ribavirin was similar in both groups. Early ribavirin dose adjustment increases SVR in patients underexposed to ribavirin without increasing grade II-IV anemia."

According to the news reporters, the research concluded: "Such a strategy could be useful in patients with no access to new antiviral drugs."

Findings from Curtin University Update Knowledge of Botany
(Differential effector gene expression underpins epistasis in a plant fungal disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Botany have been published. According to news reporting originating in Bentley, Australia, by NewsRx journalists, research stated, "Fungal effector-host sensitivity gene interactions play a key role in determining the outcome of septoria nodorum blotch disease (SNB) caused by Parastagonospora nodorum on wheat. The pathosystem is complex and mediated by interaction of multiple fungal necrotrophic effector-host sensitivity gene systems."

Funders for this research include Centre for Crop and Disease Management (CCDM), University of Adelaide, Australian Research Council.

The news reporters obtained a quote from the research from Curtin University, "Three effector sensitivity gene systems are well characterized in this pathosystem; SnToxA-Tsn1, SnTox1-Snn1 and SnTox3-Snn3. We tested a wheat mapping population that segregated for Snn1 and Snn3 with SN15, an aggressive P. nodorum isolate that produces SnToxA, SnTox1 and SnTox3, to study the inheritance of sensitivity to SnTox1 and SnTox3 and disease susceptibility. Interval quantitative trait locus (QTL) mapping showed that the SnTox1-Snn1 interaction was paramount in SNB development on both seedlings and adult plants. No effect of the SnTox3-Snn3 interaction was observed under SN15 infection. The SnTox3-Snn3 interaction was however, detected in a strain of SN15 in which SnTox1 had been deleted (tox1-6). Gene expression analysis indicates increased SnTox3 expression in tox1-6 compared with SN15. This indicates that the failure to detect the SnTox3-Snn3 interaction in SN15 is due - at least in part - to suppressed expression of SnTox3 mediated by SnTox1. Furthermore, infection of the mapping population with a strain deleted in SnToxA, SnTox1 and SnTox3 (toxa13) unmasked a significant SNB QTL on 2DS where the SnTox2 effector sensitivity gene, Snn2, is located. This QTL was not observed in SN15 and tox1-6 infections and thus suggesting that SnToxA and/or
SnTox3 were epistatic."

According to the news reporters, the research concluded: "Additional QTLs responding to SNB and effectors sensitivity were detected on 2AS1 and 3AL."


Our news correspondents report that additional information may be obtained by contacting R.P. Oliver, Curtin University, Dept. of Environm & Agr, Center Crop & Dis Management, Bentley, WA 6102, Australia. Additional authors for this research include K. Rybak, E. Furuki, S. Breen, P.S. Solomon, R.P. Oliver and K.C. Tan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tpj.13203. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bentley, Australia, Australia and New Zealand, Botany, Life Science Research, Genetics, Genetics, Curtin University.

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**Oncology - Neuroblastomas**

*Findings from D. Di Paolo and Co-Authors Broaden Understanding of Neuroblastomas (New therapeutic strategies in neuroblastoma: combined targeting of a novel tyrosine kinase inhibitor and liposomal siRNAs against ALK)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Neuroblastomas are presented in a new report. According to news reporting originating from Genoa, Italy, by NewsRx correspondents, research stated, "Many different aberrations in the Anaplastic Lymphoma Kinase (ALK) were found to be oncogenic drivers in several cancers including neuroblastoma (NB), therefore ALK is now considered a critical player in NB oncogenesis and a promising therapeutic target. The ALK-inhibitor crizotinib has a limited activity against the various ALK mutations identified in NB patients."

Our news editors obtained a quote from the research, "We tested: the activity of the novel ALK-inhibitor X-396 administered alone or in combination with Targeted Liposomes carrying ALK-siRNAs (TL[ALK-siRNA]) that are active irrespective of ALK gene mutational status; the pharmacokinetic profiles and the biodistribution of X-396; the efficacy of X-396 versus crizotinib treatment in NB xenografts; whether the combination of X-396 with the TL [ALK-siRNA] could promote long-term survival in NB mouse models. X-396 revealed good bioavailability, moderate half-life, high mean plasma and tumor concentrations. X-396 was more effective than crizotinib in inhibiting in vitro cell proliferation of NB cells and in reducing tumor volume in subcutaneous NB models in a dose-dependent manner. In orthotopic NB xenografts, X-396 significantly increased life span independently of the ALK mutation status. In combination studies, all effects were significantly improved in the mice treated with TL[ALK-siRNA] and X-396 compared to mice receiving the single agents."
According to the news editors, the research concluded: "Our findings provide a rational basis to design innovative molecular-based treatment combinations for clinical application in ALK-driven NB tumors."

For more information on this research see: New therapeutic strategies in neuroblastoma: combined targeting of a novel tyrosine kinase inhibitor and liposomal siRNAs against ALK. *Oncotarget*, 2015;6(30):28774-89.

The news editors report that additional information may be obtained by contacting D. Di Paolo, Laboratorio di Oncologia, Istituto G Gaslini, Genoa, Italy. Additional authors for this research include D. Yang, F. Pastorino, L. Emionite, M. Cilli, A. Daga, E. Destafanis, A. Di Fiore, F. Piaggio, C. Brignole, X. Xu, C. Liang, J. Gibbons, M. Ponzoni and P. Perri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.4342. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Genoa, Italy, siRNA, Europe, Therapy, Genetics, Oncology, Proteins, Liposomes, Hematology, Proteomics, Xenografts, Neuroblastomas, Tyrosine Kinase, Xenotransplantation, Aromatic Amino Acids, Enzymes and Coenzymes, Small Interference RNAs.

Skin Diseases and Conditions - Psoriasis

**Findings from D. Gabriel and Colleagues Update Understanding of Psoriasis (Improved topical delivery of tacrolimus: A novel composite hydrogel formulation for the treatment of psoriasis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Skin Diseases and Conditions - Psoriasis is now available. According to news reporting out of Geneva, Switzerland, by NewsRx editors, research stated, "We have developed a composite hydrogel for improved topical delivery of the poorly soluble drug Tacrolimus (TAC) to psoriasis lesions. TAC is efficiently solubilized in methoxy poly-(ethylene glycol) hexyl substituted poly-(lactic acid) (mPEGhexPLA) based nanocarriers."

Our news journalists obtained a quote from the research, "For convenient and patient-friendly topical administration, TAC loaded polymeric nanocarriers were incorporated in a Carbopol ® based hydrogel, to yield a composite hydrogel formulation (TAC composite hydrogel). TAC composite hydrogel was designed to have superior pharmaceutical formulation properties, delivery efficiency and local bioavailability, compared to currently available paraffin-based TAC ointments. Composite hydrogel formulations had good local tolerance and showed no signs of immediate toxicity after repeated topical administration in healthy mice. Skin delivery of TAC composite hydrogel in an imiquimod-induced psoriasis mouse model was found to be twice as high as for the commercial formulation Protopic ™, used as benchmark."

According to the news editors, the research concluded: "TAC composite hydrogel showed significant improvement in the in vivo and histopathological features of the imiquimod-induced psoriasis model."

Oncology - Lung Cancer

Findings from D.M. Jiao and Colleagues Update Understanding of Lung Cancer (Curcumin inhibited HGF-induced EMT and angiogenesis through regulating c-Met dependent PI3K/Akt/mTOR signaling pathways in lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news reporting from Zhejiang, People's Republic of China, by NewsRx journalists, research stated, "The epithelial-mesenchymal transition (EMT) and angiogenesis have emerged as two pivotal events in cancer progression. Curcumin has been extensively studied in preclinical models and clinical trials of cancer prevention due to its favorable toxicity profile."

The news correspondents obtained a quote from the research, "However, the possible involvement of curcumin in the EMT and angiogenesis in lung cancer remains unclear. This study found that curcumin inhibited hepatocyte growth factor (HGF)-induced migration and EMT-related morphological changes in A549 and PC-9 cells. Moreover, pretreatment with curcumin blocked HGF-induced c-Met phosphorylation and downstream activation of Akt, mTOR, and S6. These effects mimicked that of c-Met inhibitor SU11274 or PI3 kinase inhibitor LY294002 or mTOR inhibitor rapamycin treatment. c-Met gene overexpression analysis further demonstrated that curcumin suppressed lung cancer cell EMT by inhibiting c-Met/Akt/mTOR signaling pathways. In human umbilical vein endothelial cells (HUVECs), we found that curcumin also significantly inhibited PI3K/Akt/mTOR signaling and induced apoptosis and reduced migration and tube formation of HGF-treated HUVEC. Finally, in the experimental mouse model, we showed that curcumin inhibited HGF-stimulated tumor growth and induced an increase in E-cadherin expression and a decrease in vimentin, CD34, and vascular endothelial growth factor (VEGF) expression."

According to the news reporters, the research concluded: "Collectively, these findings indicated that curcumin could inhibit HGF-promoted EMT and angiogenesis by targeting c-Met and blocking PI3K/Akt/mTOR pathways."
For more information on this research see: Curcumin inhibited HGF-induced EMT and angiogenesis through regulating c-Met dependent PI3K/Akt/mTOR signaling pathways in lung cancer. Molecular Therapy-Oncolytics, 2016;3():1-12. Molecular Therapy-Oncolytics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

Our news journalists report that additional information may be obtained by contacting Q.Y. Chen, 117th Hosp PLA, Dept. of Resp Dis, Zhejiang, People's Republic of China. Additional authors for this research include J. Wang, W. Lu, X.L. Tang, J. Chen, H. Mou and Q.Y. Chen.

Keywords for this news article include: Zhejiang, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Hepatocyte Growth Factor, Organic Chemicals, Diarylheptanoids, Lung Neoplasms, Angiogenesis, Hydrocarbons, Lung Cancer, Catechols, Oncology, Curcumin, Alkanes.

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Cardiovascular Research

Findings from Dalhousie University Broaden Understanding of Cardiovascular Research (Quality of Care for Percutaneous Coronary Intervention: Development of Canadian Cardiovascular Society Quality Indicators)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Research are discussed in a new report. According to news reporting originating from Halifax, Canada, by NewsRx correspondents, research stated, "Currently there are more than 40 centres in Canada that perform more than 65,000 percutaneous coronary interventions (PCIs) in a year. Considering the high volume of procedures and number of operators, the potential for variation in processes of care is high, and might lead to variation in the quality of care."

Our news editors obtained a quote from the research from Dalhousie University, "As part of its quality initiative, the Canadian Cardiovascular Society convened a working group to develop a set of PCI Quality Indicators (QIs) that would be relevant, scientifically acceptable, and feasible to measure and report. The working group was comprised of clinical experts from across Canada and members of provincial and federal organizations involved in promoting the quality of health care. Using the Canadian Cardiovascular Society 'Best Practices for Developing Cardiovascular Quality Indicators' methodology, a total of 23 QIs were proposed. Subsequent ranking and discussion led to the selection of 8 QIs. The selection and ranking of QIs were on the basis of clinical importance and relevance, scientific acceptability, and feasibility of their operationalization at a national level. The data definitions and technical notes of the QIs were refined after feasibility testing and Web consultation."

According to the news editors, the research concluded: "Feasibility testing indicated that standardization and enhancements of knowledge infrastructure are essential to provide the comprehensive patient data necessary to evaluate the quality of PCI across Canada."

For more information on this research see: Quality of Care for Percutaneous Coronary Intervention: Development of Canadian Cardiovascular Society Quality Indicators. Canadian Journal of Cardiology, 2016;32(12):1570-1573. Canadian Journal of Cardiology
Findings from Dalhousie University Broaden Understanding of Ovarian Cancer (Contribution of reactive oxygen species to ovarian cancer cell growth arrest and killing by the anti-malarial drug artesunate)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Ovarian Cancer is the subject of a report. According to news reporting originating in Halifax, Canada, by NewsRx journalists, research stated, "Ovarian cancer is a leading cause of cancer-related death in women and the most lethal gynecological malignancy in the developed world. The morbidity and mortality of ovarian cancer underscore the need for novel treatment options."

The news reporters obtained a quote from the research from Dalhousie University, "Artesunate (ART) is a well-tolerated anti-malarial drug that also has anti-cancer activity. In this study, we show that ART inhibited the in vitro growth of a panel of ovarian cancer cell lines, as well as the growth of ovarian cancer cells isolated from patients. Moreover, ART decreased tumor growth in vivo in a mouse model of ovarian cancer. ART-treated ovarian cancer cells showed a strong induction of reactive oxygen species (ROS) and reduced proliferation. ROS-dependent cell cycle arrest occurred in the G2/M phase whereas ROS-independent cell cycle arrest occurred in the G1 phase, depending on the concentration of ART to which ovarian cancer cells were exposed. The anti-proliferative effect of ART was associated with altered expression of several key cell cycle regulatory proteins, including cyclin D3, E2F-1, and p21, as well as inhibition of mechanistic target of rapamycin signaling. Exposure of ovarian cancer cells to higher concentrations of ART resulted in ROS-dependent DNA damage and cell death. Pretreatment of ovarian cancer cells with a pan-caspase inhibitor or ferroptosis inhibitor decreased but did not completely eliminate ART-mediated cytotoxicity, suggesting the involvement of both caspase-dependent and caspase-independent pathways of killing."

According to the news reporters, the research concluded: "These data show that ART has potent anti-proliferative and cytotoxic effects on ovarian cancer cells, and may therefore be useful in the treatment of ovarian cancer."

For more information on this research see: Contribution of reactive oxygen species...

Our news correspondents report that additional information may be obtained by contacting D.W. Hoskin, Dalhousie University, Dept. of Surg, Halifax, NS, Canada. Additional authors for this research include T.G. Shepherd and D.W. Hoskin.

Keywords for this news article include: Halifax, Nova Scotia, Canada, North and Central America, Oxygen Compounds, Drugs and Therapies, Reactive Oxygen Species, Enzymes and Coenzymes, Women's Health, Ovarian Cancer, Chalcogens, Gynecology, Oncology, Genetics, Caspase, Dalhousie University.

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**Immunization - Vaccines**

**Findings from Dalhousie University Broaden Understanding of Vaccines**

(Respiratory macrophages regulate CD4 T memory responses to mucosal immunization with recombinant adenovirus-based vaccines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immunization - Vaccines is now available. According to news reporting originating from Halifax, Canada, by NewsRx correspondents, research stated, "Respiratory immunization is an attractive way to generate systemic and mucosal protective memory responses that are required for preventing mucosally transmitted infections. However, the molecular and cellular mechanisms for controlling memory T cell responses remain incompletely understood."

Financial supporters for this research include IWK Health Centre, NSHRF, CIHR, CFI.

Our news editors obtained a quote from the research from Dalhousie University, "In this study, we investigated the role of respiratory macrophage (M Phi) in regulating CD4 T cell responses to recombinant adenovirus-based (rAd) vaccines. We demonstrated that rAd intranasal (i.n.) vaccination induced migration and accumulation of respiratory M Phi and circulatory monocytes in the mediastinal lymph nodes and lung parenchyma. Under the influence of respiratory M Phi CD4 T cells exhibited slow proliferation kinetics and an increased tendency of generating central memory, as opposed to effector memory, CD4 T cell responses in vitro and in vivo. Correspondingly, depletion of M Phi using clodronate-containing liposome prior to i.n. immunization significantly enhanced CD4 T cell proliferation and increased the frequency of CD4 memory T cells in the airway lumen, demonstrating that M Phi initially serve as a negative regulator in limiting generation of mucosal tissue-resident memory CD4 T cells. However, clodronate-containing liposome delivery following i.n. immunization markedly reduced the frequencies of memory CD4 T cells in the airway lumen and spleen, indicating that respiratory M Phi and potentially circulating monocytes are critically required for maintaining long-term memory CD4 T cells."

According to the news editors, the research concluded: "Collectively, our data demonstrate that rAd-induced mucosal CD4 T memory responses are regulated by respiratory M
Phi and/or monocytes at multiple stages."

For more information on this research see: Respiratory macrophages regulate CD4 T memory responses to mucosal immunization with recombinant adenovirus-based vaccines. *Cellular Immunology*, 2016;310():53-62. *Cellular Immunology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Cellular Immunology - www.journals.elsevier.com/cellular-immunology/)

The news editors report that additional information may be obtained by contacting J. Wang, Dalhousie University, Fac Med, Dept. of Microbiol & Immunol, Halifax, NS, Canada. Additional authors for this research include C. Tram, R.M. Kampen, M.R. Tillman, R.A. Schwendener, Z. Xing, S.A. Halperin and J. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cellimm.2016.07.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Halifax, Nova Scotia, Canada, North and Central America, Mononuclear Phagocyte System, Hemic and Immune Systems, Connective Tissue Cells, Mononuclear Leukocytes, Biological Products, Bone Marrow Cells, Biotechnology, Myeloid Cells, Cell Research, Immunization, Macrophages, Blood Cells, Adenovirus, Immunology, Phagocytes, Liposomes, Monocytes, Vaccines, Dalhousie University.

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**Neurodegenerative Diseases and Conditions -...**

**Findings from Dalhousie University Update Knowledge of Alzheimer Disease (Reduced fibrillar beta-amyloid in subcortical structures in a butyrylcholinesterase-knockout Alzheimer disease mouse model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news originating from Halifax, Canada, by NewsRx correspondents, research stated, "The serine hydrolase, butyrylcholinesterase (BChE) is known to have a variety of enzymatic and nonenzymatic functions. In the brain, BChE is expressed mainly in glia, white matter and in distinct populations of neurons in areas important in cognition."

Our news journalists obtained a quote from the research from Dalhousie University, "In Alzheimer's disease (AD), many beta-amyloid (Ab) plaques become associated with BChE activity, the significance of which is unclear. A mouse model of AD containing five familial AD genes (5XFAD) also exhibits Ab plaques associated with BChE. We developed a comparable strain (5XFAD/BChE-KO) that is unable to synthesize BChE and reported diminished fibrillar Ab deposits in the cerebral cortex of 5XFAD/BChE-KO mice, compared to 5XFAD counterparts at the same age. This effect was most significant in male mice. The present study extends comparison of the two strains with a detailed examination of fibrillar Ab plaque burden in other regions of the brain that typically accumulate pathology and exhibit neurodegeneration. This work demonstrates that, as in the cerebral cortex, the absence of BChE leads to diminished fibrillar Ab deposition in amygdala, hippocampal formation, thalamus and basal ganglia."

According to the news editors, the research concluded: "This reduction is statistically
significant in males, with a trend towards such reduction in female mice."

For more information on this research see: Reduced fibrillar beta-amyloid in subcortical structures in a butyrylcholinesterase-knockout Alzheimer disease mouse model. *Chemico-Biological Interactions*, 2016;259():307-312. *Chemico-Biological Interactions* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Chemico-Biological Interactions - www.journals.elsevier.com/chemico-biological-interactions/)

The news correspondents report that additional information may be obtained from S. Darvesh, Dalhousie University, Dept. of Med Neurosci, Halifax, NS, Canada.

Keywords for this news article include: Halifax, Nova Scotia, Canada, North and Central America, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Brain Diseases and Conditions, Butyrylcholinesterase, Enzymes and Coenzymes, Alzheimer Disease, Cholinesterases, Tauopathies, Hydrolases, Proteins, Dementia, Genetics, Amyloid, Dalhousie University.

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**Oncology - Carcinomas**

**Findings from Dalian Medical University Has Provided New Data on Carcinomas (The expression and significance of WT1 in xenotransplanted ovarian carcinoma treated by paclitaxel)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Carcinomas. According to news reporting out of Dalian, People's Republic of China, by NewsRx editors, research stated, "In this study, the authors investigated the expression and significance of WT1 in xenotransplanted ovarian carcinoma cell SKOV3 of nude mice treated with paclitaxel. Xenotransplanted ovarian carcinoma was established in nude mice using the SKOV3 cell line."

Our news journalists obtained a quote from the research from Dalian Medical University, "The mice were randomized into the treatment group with paclitaxel and control group with normal sodium. The sizes of the xenotransplanted tumors were measured and the tumor specimens were confirmed by routine hemotoxyl-eosin (H&E) staining. The apoptosis index was then assayed using flow cytometry. WT1 and bcl-2 expression were detected with immunohistochemistry, and WT1 mRNA expression was determined by reverse transcriptase polymerase chain reaction (RT-PCR). The authors found that the growth of the xenotransplanted tumor was inhibited by paclitaxel therapy. Compared to the control group, the apoptosis rate was significantly increased in the treatment group (p < 0.05). At the same time, the expression of WT1, bcl-2 and WT1, mRNA were significantly decreased in the paclitaxel therapy group (p < 0.05)."

According to the news editors, the research concluded: "The authors conclude that the WT1 gene may play an important role during apoptosis of ovarian carcinoma and the mechanism may be closely related to bcl-2."

Phenethylamines

Findings from Dalian Medical University Update Understanding of Phenethylamines (Effects of P-glycoprotein on the intestine and blood-brain barrier transport of YZG-331, a promising sedative-hypnotic compound)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Phenethylamines. According to news reporting originating from Dalian, People's Republic of China, by NewsRx correspondents, research stated, "YZG-331 is a synthetic adenosine analogue which exhibits the sedative and hypnotic effects by binding to the adenosine receptor. The present study was designed to investigate the effects of P-glycoprotein (P-gp) on the intestine and brain distribution of YZG-331 in vitro and in vivo as well as related binding mechanisms."

Funders for this research include National Natural Science Foundation of China, National Science and Technology Major Project for “Major New Drugs Innovation and Development”, Public Science and Technology Research Funds Projects.

Our news editors obtained a quote from the research from Dalian Medical University, "The activity of P-gp ATPase was both induced by YZG-331 and verapamil, a typical P-gp inhibitor, but affinity of YZG-331 for P-gp was lower than that of verapamil. The docking analyses further elucidated the binding relationship of YZG-331 and P-gp. The directional transport of YZG-331 was disappeared in Caco-2 and MDCK-MDRI cells when the P-gp activity was blocked. However, the penetration of digoxin, a P-gp known substrate, was not change in MDCK-MDR1 cells along with YZG-331. In the everted intestinal sac model, the influx of YZG-331 was significantly reduced in the presence of verapamil in all the segments except for the colon. In the in situ and in vivo study, the brain exposure of YZG-331 was promoted after co-administered of verapamil. Furthermore, the Kp value changed from 0.03 to 0.05 after drug combination. Taken together, these results indicated that YZG-331 is a substrate but may not an inhibitor of P-gp. The intestine and brain permeability of YZG-331 can be restricted, at least in part, by P-gp."

According to the news editors, the research concluded: "The drug interactions should be awarded when YZG-331 and other P-gp-related drugs used together."

For more information on this research see: Effects of P-glycoprotein on the intestine and blood-brain barrier transport of YZG-331, a promising sedative-hypnotic compound. European Journal of Pharmacology, 2016;791():339-347. European Journal of Pharmacology
Amyotrophic Lateral Sclerosis

Findings from Dana-Farber Cancer Institute Provide New Insights into Amyotrophic Lateral Sclerosis (Two familial ALS proteins function in prevention/repair of transcription-associated DNA damage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Amyotrophic Lateral Sclerosis have been published. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Amyotrophic lateral sclerosis (ALS) is a progressive motor neuron dysfunction disease that leads to paralysis and death. There is currently no established molecular pathogenesis pathway."

Financial supporters for this research include Target ALS, NIH, ALS Therapy Alliance, Harvard NeuroDiscovery Center Neurodegenerative Disease Pilot Study Grant, Murray Winston Foundation, DOD BCRP, NIH NCI.

The news reporters obtained a quote from the research from Dana-Farber Cancer Institute, "Multiple proteins involved in RNA processing are linked to ALS, including FUS and TDP43, and we propose a disease mechanism in which loss of function of at least one of these proteins leads to an accumulation of transcription-associated DNA damage contributing to motor neuron cell death and progressive neurological symptoms. In support of this hypothesis, we find that FUS or TDP43 depletion leads to increased sensitivity to a transcription-arresting agent due to increased DNA damage. Thus, these proteins normally contribute to the prevention or repair of transcription-associated DNA damage. In addition, both FUS and TDP43 colocalize with active RNA polymerase II at sites of DNA damage along with the DNA damage repair protein, BRCA1, and FUS and TDP43 participate in the prevention or repair of R loop-associated DNA damage, a manifestation of aberrant transcription and/or RNA processing."

According to the news reporters, the research concluded: "Gaining a better
understanding of the role(s) that FUS and TDP43 play in transcription-associated DNA damage could shed light on the mechanisms underlying ALS pathogenesis."


Our news correspondents report that additional information may be obtained by contacting S.J. Hill, Dana Farber Canc Inst, Dept. of Canc Biol, Boston, MA 02215, United States. Additional authors for this research include D.A. Mordes, L.A. Cameron, D.S. Neuberg, S. Landini, K. Eggan and D.M. Livingston.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1611673113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Neurodegenerative Diseases and Conditions, Amyotrophic Lateral Sclerosis, Proteostasis Deficiencies, TDP-43 Proteinopathies, Deoxyribonucleic Acid, DNA Research, Proteomics, DNA Damage, Genetics, Dana-Farber Cancer Institute.

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**Hematologic Diseases and Conditions --**

**Findings from Dana-Farber Cancer Institute in the Area of Thrombocytopenia Described (Aminocaproic acid use in hospitalized patients with hematological malignancy: a case series)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematologic Diseases and Conditions - Thrombocytopenia have been published. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "The antifibrinolytic aminocaproic acid is widely used in surgical settings to prevent blood loss and decrease transfusion requirements, and small observational studies have suggested that aminocaproic acid may be useful in the setting of malignancy-related bleeding. At our institution, aminocaproic acid is sometimes prescribed to patients with hematological malignancy who experience refractory thrombocytopenia with or without bleeding."

The news correspondents obtained a quote from the research from Dana-Farber Cancer Institute, "We performed a 5-year retrospective review of 54 adult patients with 13 types of hematological malignancy who received aminocaproic acid at our institution. Indications for use included 31 (57.4%) for refractory thrombocytopenia with bleeding, 16 (29.6%) for refractory thrombocytopenia without bleeding, and 7 (13%) for bleeding alone. Patients received both oral and intravenous formulations. Administered doses ranged broadly and median duration of use was 6 days. Three patients (5.7%) developed deep venous thrombosis but none of the thrombotic events were clearly related to administration of aminocaproic acid. We conclude that
aminocaproic acid may be a relatively safe and cost-effective adjunct treatment in the setting of bleeding related to the diagnosis and treatment of hematological malignancy."

According to the news reporters, the research concluded: "Prospective trials as well as formalized protocols for the use of aminocaproic acid may be indicated."


Our news journalists report that additional information may be obtained by contacting A. Marshall, Dana Farber Canc Inst, Boston, MA 02215, United States. Additional authors for this research include A. Li, A. Drucker and W. Dzik.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Hematologic Diseases and Conditions, Blood Platelet Disorders, Aminocaproic Acids, Thrombocytopenia, Amino Acids, Hematology, Caproates, Dana-Farber Cancer Institute.

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DNA Research

Findings from Dankook University College of Medicine in DNA Research Reported (Early Prediction of Hypertensive Disorders of Pregnancy Using Cell-Free Fetal DNA, Cell-Free Total DNA, and Biochemical Markers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on DNA Research are presented in a new report. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "To evaluate the predictive value of separate and combined tests using cell-free fetal DNA (cffDNA), cell-free total DNA (cfDNA), and biochemical markers for the early detection of pregnancies with hypertensive disorders. A nested case-control study was conducted with 135 singleton pregnancies including 17 gestational hypertension cases, 34 preeclampsia (PE) cases, and 84 controls."

The news correspondents obtained a quote from the research from the Dankook University College of Medicine, "We performed real-time quantitative PCR to measure levels of DSCR3 and RASSF1A as cffDNA markers and HYP2 as a cfDNA marker in the first and early second trimesters. Levels of pregnancy-associated plasma protein A (PAPP-A), a-fetoprotein, b-human chorionic gonadotropin, unconjugated estriol, and inhibin A were also determined. Compared with controls, the median levels and multiples of the median (MoM) values of HYP2 were significantly higher in the PE and hypertensive disorders of pregnancy (HDP) groups at 6-14 and 15-23 weeks. First-trimester PAPP-A MoM was significantly lower in PE and HDP than in controls. For PE and HDP, the best model included the first-trimester DSCR3, HYP2, and PAPP-A MoM values achieving detection rates of 67 and 58% at a fixed 10% false-positive rate, respectively [area under the receiver operating characteristic curve 0.832 (95% CI 0.689-0.928) for PE; 0.751 (0.607-0.863) for HDP]."

According to the news reporters, the research concluded: "The study demonstrates
the potential utility of combined first-trimester cffDNA, cfDNA, and PAPP-A for the early prediction of PE."


Our news journalists report that additional information may be obtained by contacting S.Y. Kim, Laboratory of Medical Genetics, Medical Research Institute, Cheil General Hospital and Women's Healthcare Center, Dankook University College of Medicine, Seoul, South Korea. Additional authors for this research include H.J. Kim, S.Y. Park, Y.J. Han, J.S. Choi and H.M. Ryu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444524. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Genetics, South Korea, Biochemicals, Biochemistry, DNA Research.

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Heart Disorders and Diseases - Heart Attack

**Findings from Department of Cardiology Broaden Understanding of Heart Attack (Association of ADAMTS-7 Levels with Cardiac Function in a Rat Model of Acute Myocardial Infarction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Attack are presented in a new report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "High ADAMTS-7 levels are associated with acute myocardial infarction (AMI), although its involvement in ventricular remodeling is unclear. In this study, we investigated the association between ADAMTS-7 expression and cardiac function in a rat AMI model."

Our news journalists obtained a quote from the research from the Department of Cardiology, "Sprague-Dawley rats were randomized into AMI (n=40) and sham (n=20) groups. The left anterior descending artery was sutured to model AMI. Before surgery and 7, 14, 28, and 42 days post-surgery, ADAMTS-7 and brain natriuretic peptide (BNP), and cartilage oligomeric matrix protein (COMP) were assessed by ELISA, western blot, real-time RT-PCR, and/or immunohistochemistry. Cardiac functional and structural parameters were assessed by M-mode echocardiography. After AMI, plasma ADAMTS-7 levels increased, peaking on day 28 (AMI: 13.2 ± 6.3 vs. sham: 3.4 ± 1.3 ng/ml, p<0.05). Compared with the sham group, ADAMTS-7 expression was higher in the infarct zone at day 28. COMP present in normal myocardium was degraded by day 28 post-AMI. Plasma ADAMTS-7 correlated positively with BNP (r=0.642, p=0.025), left ventricular end-diastolic diameter (r=0.695, p=0.041), left ventricular end-systolic diameter (r=0.710, p=0.039), left ventricular ejection fraction (r=0.695, p=0.036), and left ventricular short-axis fractional shortening (r=0.721, p=0.024)."

According to the news editors, the research concluded: "ADAMTS-7 levels may
reflect the degree of ventricular remodeling after AMI."


The news correspondents report that additional information may be obtained from W. Wu, Dept. of Cardiology, China-Japan Friendship Hospital, Beijing, Beijing, People's Republic of China. Additional authors for this research include H. Wang, C. Yu, J. Li, Y. Gao, Y. Ke, Y. Wang, Y. Zhou and J. Zheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443047. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Surgery, Cardiology, Heart Attack, Heart Disease, Myocardial Ischemia, Myocardial Infarction, People's Republic of China, Heart Disorders and Diseases, Vascular Diseases and Conditions.

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**Oncology - Thyroid Cancer**

**Findings from Department of Endocrinology Broaden Understanding of Thyroid Cancer (Time course of Graves' orbitopathy after total thyroidectomy and radioiodine therapy for thyroid cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Thyroid Cancer have been presented. According to news reporting originating in Clermont Ferrand, France, by NewsRx journalists, research stated, "The risk of cancer is relatively higher in Graves' patients presenting simultaneously with thyroid nodules. Radioiodine (RAI) therapy recommended in high-risk differentiated thyroid carcinoma may be associated with worsening of a pre-existing Graves' orbitopathy (GO) or developing a new onset."

The news reporters obtained a quote from the research from the Department of Endocrinology, "The impact of RAI therapy in patients with differentiated thyroid cancer on the course of a pre-existing GO has not been specifically investigated. The aim of this study is to assess the influence of RAI treatment administered for differentiated thyroid cancer on the course of a pre-existing GO. This is a retrospective multicenter study including 35 patients from the University Hospital of Clermont-Ferrand (7 patients) and Lyon-Est (6 patients) in France and from a literature review published as case reports or studies (22 patients). Seven patients exhibited a worsened pre-existing GO after total thyroidectomy followed by RAI treatment for thyroid cancer. Older men, those who initially presented with a lower clinical score of GO before RAI therapy, received higher doses of I-131 especially when prepared with recombinant thyroid-stimulating hormone, and/or not prepared with glucocorticoids during RAI are at a higher risk to worsen their GO. This study is the first and complete study collection."

According to the news reporters, the research concluded: "We describe worsening of GO in 20% of patients after RAI treatment for thyroid cancer and determine a pool of predictive factors."
For more information on this research see: Time course of Graves' orbitopathy after total thyroidectomy and radiiodine therapy for thyroid cancer. *Medicine*, 2016;95(48):137-143. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting C. Louvet, CHU Clermont Ferrand, Dept. of Endocrinol, F-63000 Clermont Ferrand, France. Additional authors for this research include A. De Bellis, B. Pereira, C. Bournaud, A. Kelly, S. Maqdasy, B. Roche, F. Desbiez, F. Borson-Chazot, I. Tauveron and M. Batisse-Lignier.

Keywords for this news article include: Clermont Ferrand, France, Europe, Therapy, Risk and Prevention, Thyroid Neoplasms, Thyroid Cancer, Thyroidectomy, Oncology, Surgery, Department of Endocrinology.

Our news editors obtained a quote from the research from the Department of Gastroenterology, "However, the outcomes of non-curative ESD are not known in detail. We analyzed the outcomes of 165 EGCs in 165 patients after non-curative ESD, as well as the clinical course. Of these patients, 109 underwent additional surgical resection (group S) and 56 patients were followed up without additional surgery (group F). The complete resection rate was 90.7% (39/43) for intramucosal cancer (M), 97.3% (36/37) for minimally submucosal invasive cancer (SM1), and 74.1% (63/85) for deep submucosal invasive cancer (SM2). The lymph node metastasis rate was 0% for M, 5.4% for SM1, and 10.6% for SM2 cancers. Regarding long-term survival, although the number of patients who died of another disease was significantly higher in group F than in group S, there was no significant difference in overall survival between the groups. The resectability of ESD for EGCs with an invasion depth of M to SM1 after non-curative ESD was excellent, and lesions without lymphovascular invasion did not metastasize or recur, resulting in a favorable prognosis. Our data may help in deciding whether additional surgery should be performed for borderline lesions after non-curative ESD."

According to the news editors, the research concluded: "Furthermore, we suggest the possibility of further expanding the indications for ESD."

For more information on this research see: Clinicopathological Outcomes of Patients...

The news editors report that additional information may be obtained by contacting S. Hoteya, Dept. of Gastroenterology, Toranomon Hospital, Tokyo, Japan. Additional authors for this research include T. Iizuka, D. Kikuchi, O. Ogawa, T. Mitani, A. Matsui, T. Furuhata, S. Yamashita, A. Yamada and M. Kaise.

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Keywords for this news article include: Asia, Tokyo, Japan, Surgery, Oncology, Gastric Cancer, Gastroenterology.

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**Oncology - Gastric Cancer**

**Findings from Department of General Surgery in the Area of Gastric Cancer Described (TRIM25 blockade by RNA interference inhibited migration and invasion of gastric cancer cells through TGF-b signaling)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Tripartite Motif Containing 25 (TRIM25), a member of TRIM proteins, has been found abnormally expressed in cancers of female reproductive system. Here, TRIM25 was conspicuously expressed in human gastric cancer (GC) tissues in which its higher expression generally correlated with the poor prognosis of patients."

Our news journalists obtained a quote from the research from the Department of General Surgery, "Small interfering RNA (siRNA)-mediated knockdown of TRIM25 expression in MGC-803 and AGS cells had no effects on cell proliferation, whereas reduced cell migration and invasion. Gene set enrichment analysis on The Cancer Genome Atlas stomach adenocarcinoma (STAD) dataset revealed that several signaling pathways, including the migration, E-cadherin and transforming growth factor-b (TGF-b) pathways, were enriched in TRIM25 higher expression patients. Moreover, ectopic expression of TRIM25 in a GC cell line with lower expression of TRIM25 significantly promoted the migration and invasion. Further experiments with TGF-b inhibitor suggested that TRIM25 may exert its function through TGF-b pathway."

According to the news editors, the research concluded: "In summary, our results indicate that TRIM25 acts as an oncogene in GC and thus presents a novel target for the detection and treatment of GC."

For more information on this research see: TRIM25 blockade by RNA interference inhibited migration and invasion of gastric cancer cells through TGF-b signaling. *Scientific Reports*, 2016;6():19070. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from Z. Zhu, Dept. of General Surgery, Shanghai Pudong District People's Hospital, Shanghai 201299,
Findings from Department of Medical Genetics Has Provided New Data on Lymphoid Tissue (Spleen hypoplasia leads to abnormal stress hematopoiesis in mice with loss of Pbx homeoproteins in splenic mesenchyme)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lymphoid Tissue are discussed in a new report. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "The spleen plays critical roles in immunity and also provides a permissive microenvironment for hematopoiesis. Previous studies have reported that the TALE-class homeodomain transcription factor Pbx1 is essential in hematopoietic stem and progenitor cells (HSPCs) for stem cell maintenance and progenitor expansion."

Financial support for this research came from National Institutes of Health.

The news correspondents obtained a quote from the research from the Department of Medical Genetics, "However, the role of Pbx1 in the hematopoietic niche has not been investigated. Here we explored the effects that genetic perturbation of the splenic mesenchymal niche has on hematopoiesis upon loss of members of the Pbx family of homeoproteins. Splenic mesenchyme-specific inactivation of Pbx1 (SKO) on a Pbx2-or Pbx3-deficient genetic background (DKO) resulted in abnormal development of the spleen, which is dysmorphic and severely hypoplastic. This phenotype, in turn, affected the number of HSPCs in the fetal and adult spleen at steady state, as well as markedly impairing the kinetics of hematopoietic regeneration in adult mice after sublethal and lethal myelosuppressive irradiation. Spleens of mice with compound Pyx deficiency 8 days following sublethal irradiation displayed significant downregulation of multiple cytokine-encoding genes, including KitL/SCF, Cxcl12/SDF-1, IL-3, IL-4, GM-CSF/Csf2 IL-10, and Igf-1, compared with controls. KitL/SCF and Cxcl12/SDF-1 were recently shown to play key roles in the splenic niche in response to various haematopoietic stresses such as myeloablation, blood loss, or pregnancy. Our results demonstrate that, in addition to their intrinsic roles in HSPCs, non-cell autonomous functions of Pbx factors within the splenic niche contribute to the regulation of hematopoiesis, at least in part via the control of KitL/SCF and Cxcl12/SDF-1."

According to the news reporters, the research concluded: "Furthermore, our study establishes that abnormal spleen development and hypoplasia have deleterious effects on the efficiency of hematopoietic recovery after bone marrow injury."

For more information on this research see: Spleen hypoplasia leads to abnormal stress hematopoiesis in mice with loss of Pbx homeoproteins in splenic mesenchyme. Journal
Drugs and Therapies - Flumazenil Therapy

Findings from Department of Neurology Update Knowledge of Flumazenil Therapy (Flumazenil for the Treatment of Refractory Hypersomnolence: Clinical Experience with 153 Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Flumazenil Therapy have been presented. According to news originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "Patients with central disorders of hypersomnolence sometimes do not achieve satisfactory symptom control with currently available wake-promoting medications. Based on the finding that the cerebrospinal fluid from some patients with hypersomnolence demonstrates potentiation of gamma-aminobutyric acid (GABA)-A receptors in excess of that of controls, a finding that reverses with flumazenil, we initiated prescribing compounded flumazenil to carefully selected, treatment-refractory hypersomnolent patients."

Our news journalists obtained a quote from the research from the Department of Neurology, "This retrospective chart review evaluated the first 153 consecutive patients treated with transdermal and/or sublingual flumazenil by physicians at our center from 2013 through January 2015. Patients were 35.5 y old (+/- 14.4) and 92 (60.1%) were women. Mean Epworth Sleepiness Scale scores prior to flumazenil were 15.1 (+/- 4.5) despite prior or current treatment with traditional wake-promoting therapies. Symptomatic benefit was noted by 96 patients (62.8%), with a mean reduction in Epworth Sleepiness Scale score of 4.7 points (+/- 4.7) among responders. Of these, 59 remained on flumazenil chronically, for a mean of 7.8 mo (+/- 6.9 mo). Female sex and presence of reported sleep inertia differentiated flumazenil responders from nonresponders. Adverse events were common, but often did not result in treatment discontinuation. Serious adverse events included a transient ischemic attack and a lupus vasculopathy, although whether these events occurred because of flumazenil administration is unknown. This chart review demonstrates that sublingual and transdermal flumazenil provided sustained clinical benefit to 39% of patients with treatment-refractory hypersomnolence."

According to the news editors, the research concluded: "Prospective, controlled studies of this GABA-A receptor antagonist for the treatment of hypersomnolence are needed."
For more information on this research see: Flumazenil for the Treatment of Refractory Hypersomnolence: Clinical Experience with 153 Patients. *Journal of Clinical Sleep Medicine*, 2016;12(10):1389-1394. *Journal of Clinical Sleep Medicine* can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.

The news correspondents report that additional information may be obtained from L.M. Trotti, Dept. of Neuro, Atlanta, GA, United States. Additional authors for this research include P. Saini, C. Koola, V. LaBarbera, D.L. Bliwise and D.B. Rye.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.6196. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Drugs and Therapies, Flumazenil Therapy, Pharmaceuticals, Antidotes, Department of Neurology.

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**Hemorrhage**

**Findings from Department of Neurology Yields New Data on Hemorrhage (Temporal kinetics of organ damage in copper toxicity: A histopathological correlation in rat model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hemorrhage are presented in a new report. According to news originating from Uttar Pradesh, India, by NewsRx correspondents, research stated, "Excess of copper is toxic to different organs. We aim to study the histopathological changes of liver, kidney, and brain following oral CuSO4 exposure for different duration and doses in rat model."

Our news journalists obtained a quote from the research from the Department of Neurology, "Fifty-four males Wistar rats (205 +/- 10 g) were included and divided into control (group-I) and experimental (group-II and III) arms. An oral dose of 100 and 200 mg/kgBWt/Day CuSO4 was given to group-II and III respectively and group-I received normal saline by gavage. Six rats from each group were sacrificed on days 30, 60 and 90 for biochemical and histopathological examinations. The histopathological changes were graded on 1-5 scores and correlated with respective laboratory parameters. The organ functions were worsened in experimental group with increasing dose and time. Histopathological study revealed edema, hemorrhage, necrosis and fibrosis/gliosis in experimental group. The worst histopathological severity score ranged from 4 to 5(median 5) in liver, 3-5(median 4) in kidney and 4-5(median 5) in brain. The edema and hemorrhage were more marked at 30 days and fibrosis/gliosis at 90 days."

According to the news editors, the research concluded: "High-dose Cu toxicity results in structural damage to liver, kidney, and brain that correlates with organ dysfunction, Cu, GSH, TAC, and MDA concentrations. Liver damage is more severe and occurs earlier than other organs."

For more information on this research see: Temporal kinetics of organ damage in copper toxicity: A histopathological correlation in rat model. *Regulatory Toxicology and Pharmacology*, 2016;81():372-380. *Regulatory Toxicology and Pharmacology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495,
Central Nervous System Diseases and Conditions -…

Findings from Department of Neurosurgery Yields New Findings on Subdural Hematoma (Optimal perioperative management of antithrombotic agents in patients with chronic subdural hematoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Subdural Hematoma. According to news originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "The use of antithrombotic agents such as anticoagulants and antiplatelet agents is widespread, and the opportunities to treat patients with chronic subdural hematoma (CSDH) under antithrombotic therapy are growing. However, whether antithrombotic therapy contributes to postoperative complications and recurrences of CSDH and how these agents should be managed in the surgical treatment of CSDH remains unclear.”

Our news journalists obtained a quote from the research from the Department of Neurosurgery, "We retrospectively analyzed 150 consecutive patients with CSDH who underwent neurosurgical interventions at Kyushu Rosai Hospital from 2011 to 2015 and followed them for more than 3 months. Of the 150 study patients, 44 received antithrombotic therapy. All anticoagulants and 76% of the antiplatelet agents were discontinued before surgical treatment of CSDH and resumed within 1 week except in 4 patients whose treatment was terminated and 7 patients who developed postoperative complications or underwent reoperations before resumption of these agents. Postoperative hemorrhagic complications associated with surgical treatment of CSDH occurred in 8 patients (5.3%), and there was no significant difference in the incidence of these complications between patients with and without antithrombotic therapy (6.8% vs. 4.7%, respectively; p = 0.90). Postoperative thromboembolic complications occurred in 5 patients (5.4%), including 4 patients with antithrombotic therapy; these complications developed before resumption of antithrombotic agents in 2 patients. There was a significant difference in the incidence of postoperative thromboembolic complications between patients with and without antithrombotic therapy (9.1% vs. 0.9%, respectively; p = 0.04). There were no significant differences in the incidence of radiographic deterioration or reoperation of ipsilateral or contralateral hematomas between patients with and without antithrombotic therapy after surgical treatment of unilateral CSDH. A history of antithrombotic therapy was significantly correlated with the incidence of postoperative thromboembolic..."
complications in patients with CSDH.”

According to the news editors, the research concluded: "Antithrombotic agents should be resumed as soon as possible when no hemorrhagic complication is confirmed after neurosurgical intervention for CSDH.”


The news correspondents report that additional information may be obtained from T. Amano, Kyushu Rosai Hosp, Dept. of Neurosurg, Fukuoka, Japan. Additional authors for this research include K. Takahara, N. Maehara, T. Shimogawa, N. Mukae, T. Sayama, S. Arihiro, S. Arakawa, T. Morioka and S. Haga.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clineuro.2016.10.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fukuoka, Japan, Asia, Central Nervous System Diseases and Conditions, Subdural Hematoma, Antithrombotic, Neurosurgery, Angiology, Therapy, Department of Neurosurgery.

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**Oncology - Acute Myeloid Leukemia**

**Findings from Department of Pathology in the Area of Acute Myeloid Leukemia Reported (Improved Minimal Residual Disease Detection by Targeted Quantitative Polymerase Chain Reaction in Nucleophosmin 1 Type a Mutated Acute Myeloid Leukemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Acute Myeloid Leukemia. According to news reporting originating in Halmstad, Sweden, by NewsRx journalists, research stated, "Multicolor flow cytometry (MFC) and real-time quantitative PCR (RQ-PCR) are important independent techniques to determine minimal residual disease (MRD) in acute myeloid leukemia (AML). MFC is the standard method, but may be unreliable.”

The news reporters obtained a quote from the research from the Department of Pathology, "Therefore, MFC-based determination of MRD with an RQ-PCR-based approach targeting the nucleophosmin 1 (NPM1) type A mutation was set out to compare. Since most current NPM1 RQ-PCR MRD protocols suffer from clear definitions of quantifiability, we sought to define quantifiability in a reproducible and standardized manner. The limit of quantifiability of our RQ-PCR protocol for the NPM1 type A mutation varied between 0.002% and 0.04% residual leukemic cells depending on the features of the standard curve for each PCR experiment. The limit of detection was close to 0.001% leukemic cells. The limit of detection by MFC ranged from 0.01% to 1% depending on the phenotype of the leukemic cells as compared with non-leukemic bone marrow cells. Forty-five MRD samples from 15 patients using both NPM1 mutation specific RQ-PCR and MFC were analyzed. In 32 of the 45 samples (71%), an
MRD-signal could be detected with RQ-PCR. A quantifiable NPM1 mutation signal was found in 15 samples (33%) (range 0.003%-2.6% leukemic cells). By contrast, only two follow-up samples (4%) showed residual leukemic cells (0.04% and 0.3%, respectively) by MFC."

According to the news reporters, the research concluded: "Thus, RQ-PCR of the NPM1 type A mutation was more sensitive and reliable than MFC for determination of MRD, which might have clinical implications."

For more information on this research see: Improved Minimal Residual Disease Detection by Targeted Quantitative Polymerase Chain Reaction in Nucleophosmin 1 Type a Mutated Acute Myeloid Leukemia. *Genes Chromosomes & Cancer*, 2016;55(10):750-766. *Genes Chromosomes & Cancer* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting L. Pettersson, Halland Hosp Halmstad, Dept. of Pathol, Halmstad, Sweden. Additional authors for this research include P. Leveen, O. Axler, D. Dvorakova, G. Juliusson and M. Ehinger.

Keywords for this news article include: Halmstad, Sweden, Europe, Acute Myeloid Leukemia, Enzymes and Coenzymes, Residual Neoplasms, Diagnostics, Polymerase, Hematology, Diagnosis, Oncology, Genetics, Department of Pathology.

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**Drugs and Therapies - Cell Therapy**

**Findings from Department of Pediatrics Reveals New Findings on Cell Therapy (Toxicity and management in CAR T-cell therapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Cell Therapy are discussed in a new report. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "T cells can be genetically modified to target tumors through the expression of a chimeric antigen receptor (CAR). Most notably, CAR T cells have demonstrated clinical efficacy in hematologic malignancies with more modest responses when targeting solid tumors."

Our news editors obtained a quote from the research from the Department of Pediatrics, "However, CAR T cells also have the capacity to elicit expected and unexpected toxicities including: cytokine release syndrome, neurologic toxicity, 'on target/off tumor' recognition, and anaphylaxis. Theoretical toxicities including clonal expansion secondary to insertional oncogenesis, graft versus host disease, and off-target antigen recognition have not been clinically evident. Abrogating toxicity has become a critical step in the successful application of this emerging technology."

According to the news editors, the research concluded: "To this end, we review the reported and theoretical toxicities of CAR T cells and their management."

For more information on this research see: Toxicity and management in CAR T-cell therapy. *Molecular Therapy-Oncolytics*, 2016;3():1-7. *Molecular Therapy-Oncolytics* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

The news editors report that additional information may be obtained by contacting
Salicylic Acids

Findings from Department of Pharmacology Yields New Data on Salicylic Acids (Aspirin prevents bone loss with little mechanical improvement in high-fat-fed ovariectomized rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Salicylic Acids have been presented. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Obesity and osteoporosis are often concurrently happened in the menopausal women. Obesity in menopausal women is not only related to a high risk of cardiovascular disease, but also results in a detrimental effect on bone health."

The news reporters obtained a quote from the research from the Department of Pharmacology, "This study aimed to investigate the effects of aspirin, a popular anti thrombosis drug, on bone quantity and quality in the high-fat-fed animal model. Adult female rats were subjected to either sham operations or ovariectomized operations. The ovariectomized rats were orally administered with deionized water or standardized high fat emulsion with or without aspirin. All rats were injected with calcine before killed for the purpose of double in vivo labeling. Biochemistry, histo-morphometry, micro-computed tomography analysis, mechanical test, and component analysis were performed after 12 weeks. In vitro cell culture was also performed to observe the effect of aspirin in osteogenesis. We found that high fat remarkably impaired bone formation and bone biomechanics. Aspirin treatment significantly prevented bone loss by increasing bone formation. In vitro studies also validated the enhancement of osteogenic differentiation. However, aspirin presented no significant improvement in bone mechanical properties. Component analysis shown aspirin could significantly increase the content of mineral, but had limited effect on the content of collagen."

According to the news reporters, the research concluded: "Aspirin is beneficial for the prevention of bone loss; meanwhile, it may cause an imbalance in the components of bone which may weaken the mechanical properties. The current study provided further evidence that aspirin might not be powerful for the prevention of fracture in osteoporotic patients."


Our news correspondents report that additional information may be obtained by contacting L. Cui, Guangdong Med Univ, Guangdong Key Lab Res & Dev Nat Drugs, Dept. of
Hematologic Diseases and Conditions - Sickle Cell...

Findings from Department of Pharmacology Yields New Findings on Sickle Cell Anemia (Neonates with sickle cell disease are vulnerable to blue light phototherapy-induced oxidative stress and proinflammatory cytokine elevations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hematologic Diseases and Conditions - Sickle Cell Anemia have been presented. According to news originating from Maharashtra, India, by NewsRx correspondents, research stated, "Sickle cell disease is a frequent genetic anomaly characterized by altered molecular structure of hemoglobin resulting into crescent-like deformation of the red blood corpuscles. Neonatal jaundice is a frequent co-morbidity in sickle cell disease."

Financial support for this research came from R. C. Patel Institute of Pharmaceutical Education and Research.

Our news journalists obtained a quote from the research from the Department of Pharmacology, "Phototherapy induces isomerization of bilirubin rendering it extractable through urine and hence it is used as a routine treatment of neonatal jaundice. An exposure to light phototherapy as a treatment of neonatal jaundice induces oxidative stress. It is hypothesized that such exposure of neonates with sickle cell disease to the blue light phototherapy as a treatment of neonatal jaundice induces severe oxidative stress and increases the levels of proinflammatory cytokines. This hypothesis is supported with two case studies of sickle cell disease suffering neonates who were exposed to blue light phototherapy to treat jaundice. In both these cases, exposure to phototherapy induced oxidative stress (increased lipid peroxidation and superoxide dismutase, slight change in activity of catalase and GSH) and elevated the levels of proinflammatory cytokine (TNF alpha IL-1, and IL-6) in the sickle cell disease suffering neonates."

According to the news editors, the research concluded: "These observations warrant further investigations to determine the consequences and clinical significance of the blue phototherapy-induced oxidative and proinflammatory stress in Sickle cell disease suffering neonates exposed to phototherapy as a treatment of jaundice."

For more information on this research see: Neonates with sickle cell disease are

The news correspondents report that additional information may be obtained from C. Patil, RC Patel Inst Pharmaceut Educ & Res, Dept. of Pharmacol, Shirpur 425405, Maharashtra, India. Additional authors for this research include S. Goyal and C. Patil.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mehy.2016.09.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maharashtra, India, Asia, Intercellular Signaling Peptides and Proteins, Hematologic Diseases and Conditions, Newborn Diseases and Conditions, Drugs and Therapies, Sickle Cell Anemia, Neonatal Jaundice, Photomedicine, Phototherapy, Hematology, Cytokines, Genetics, Therapy, Infant, Department of Pharmacology.

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Health and Medicine - Urology

**Findings from Department of Urology Provide New Insights into Urology (Bladder Preservation Therapy: A Review of the Literature and Future Directions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Health and Medicine - Urology is the subject of a report. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Trimodal bladder preservation therapy (ie, transurethral resection followed by chemoradiotherapy) may be an acceptable treatment alternative to radical cystectomy with urinary diversion in the carefully selected patient with muscle invasive bladder cancer."

Our news editors obtained a quote from the research from the Department of Urology, "Although no head-to-head randomized controlled trials have been performed, large retrospective cohort reviews and observational data analyses suggest comparable oncologic outcomes in select patients with the additional benefit of maximizing quality of life and maintaining the patient's native bladder."

According to the news editors, the research concluded: "In this review, we discuss the evolution and clinical outcomes of bladder preservation therapy, highlighting its role in the contemporary management of muscle invasive bladder cancer."


The news editors report that additional information may be obtained by contacting D.B. Cahn, Einstein Healthcare Network, Dept. of Urol, Philadelphia, PA 19141, United States. Additional authors for this research include B.T. Ristau, E.M. Ghiraldi, T.M. Churilla, D.M.
Findings from Diabetes Center Provides New Data on Type 2 Diabetes (How much is too much? Outcomes in patients using high-dose insulin glargine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are presented in a new report. According to news reporting out of Janesville, Wisconsin, by NewsRx editors, research stated, "Many patients with type 2 diabetes mellitus (T2DM) do not achieve glycaemic control targets on basal insulin regimens. This analysis investigated characteristics, clinical outcomes and impact of concomitant oral antidiabetes drugs (OADs) in patients with T2DM treated with high-dose insulin glargine."

Our news journalists obtained a quote from the research from Diabetes Center, "Patient-level data were pooled from 15 randomised, treat-to-target trials in patients with T2DM treated with insulin glargine ? OADs for (>=) 24 weeks. Data were stratified according to whether patients exceeded three insulin dose cut-off levels (>0.5, >0.7 and >1.0 IU/kg). End-points included glycated haemoglobin A1c (A1C), fasting plasma glucose, body weight, and overall, nocturnal and severe hypoglycaemia. Data from 2837 insulin-na?ve patients were analysed. Patients with insulin titrated beyond the three doses investigated had significantly higher baseline A1C levels and were younger, with shorter diabetes duration than those at/below cut-offs (p <0.05 for all cut-offs); they also had greater weight gain (p <0.001 for the >0.5 and >0.7 IU/kg cut-offs) than those who did not exceed the cut-offs, regardless of concomitant OAD. Patients on concomitant metformin alone had higher insulin doses at Week 24, but achieved greater reductions in A1C, less weight gain and lower hypoglycaemia rates than patients on a concomitant sulfonylurea or metformin plus a sulfonylurea, regardless of whether cut-offs were exceeded."

According to the news editors, the research concluded: "In patients with T2DM, increasing basal insulin doses above 0.5 IU/kg may not improve glycaemic control; treatment strategies targeting postprandial glucose control should be considered for such patients."


Our news journalists report that additional information may be obtained by contacting T. Reid, Mercy Diabetes Center, Janesville, WI, United States. Additional authors for
this research include L. Gao, J. Gill, A. Stuhr, L. Traylor, A. Vlajnic and A. Rhinehart.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijcp.12747. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the International Journal of Clinical Practice is:
Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Antidiabetic Agents, Wisconsin, Janesville, Proinsulin, United States, Type 2 Diabetes, Insulin Glargine, Peptide Hormones, Peptide Proteins, Drugs and Therapies, Risk and Prevention, North and Central America, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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Liver Diseases and Conditions - Fatty Liver

Findings from Diabetes Institute Yields New Data on Fatty Liver (Serum uric acid is independently and linearly associated with risk of nonalcoholic fatty liver disease in obese Chinese adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Fatty Liver. According to news reporting from Xiamen, People's Republic of China, by NewsRx journalists, research stated, "The present study aimed to explore the independent association and potential pathways between serum uric acid (SUA) and nonalcoholic fatty liver disease (NAFLD). 1365 community-living obese Chinese adults who received hepatic ultrasonography scanning were included. The prevalence rates of NAFLD were 71.5% for men and 53.8% for women."

The news correspondents obtained a quote from the research from Diabetes Institute, "Compared with controls, NAFLD subjects showed significantly increased SUA levels (333.3 +/- 84.9 vs. 383.4 +/- 93.7 mu mol/L) and prevalence rate of hyperuricemia (HUA) (25.7% v.s. 47.3%, p < 0.001). After adjustment for insulin resistance (IR), components of metabolic syndrome (MetS) and other potential confounders, elevated SUA is independently associated with increased risk of NAFLD, with the adjusted OR of 1.528-2.031 (p < 0.001). By using multivariable fractional polynomial (MFP) modeling, the best FP transformation model shows that SUA was independently and linearly associated with risk of NAFLD. The one-pathway model by using structural equation modeling (SEM) about the relationships among SUA, IR, components of metabolic syndrome and NAFLD fits well (chi(2) = 57.367, p< 0.001; CFI = 0.998; TLI = 0.992; and RMSEA = 0.048) and shows SUA might increase the risk of NAFLD directly besides of the indirect effects through increasing fasting insulin, blood pressure, triglyceride and decreasing HDL-C levels."

According to the news reporters, the research concluded: "Our results imply that elevated SUA may play an important role in NAFLD pathogenesis."

For more information on this research see: Serum uric acid is independently and linearly associated with risk of nonalcoholic fatty liver disease in obese Chinese adults. Scientific Reports, 2016;6():18-27. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by

Keywords for this news article include: Xiamen, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Digestive System Diseases and Conditions, Fatty Liver Disease, Epidemiology, Liver Diseases and Conditions, Metabolic Syndrome, Peptide Proteins, Peptide Hormones, Proinsulin, Healthcare, Bariatrics, Obesity, Diabetes Institute.

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Stem Cell Research

Findings from Dongguk University Ilsan Hospital in Stem Cell Research Reported (Endogenous Cartilage Repair by Recruitment of Stem Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Stem Cell Research is now available. According to news reporting originating from Goyang, South Korea, by NewsRx editors, the research stated, "Articular cartilage has a very limited capacity for repair after injury. The adult body has a pool of stem cells that are mobilized during injury or disease."

Our news editors obtained a quote from the research from Dongguk University Ilsan Hospital, "These cells exist inside niches in bone marrow, muscle, adipose tissue, synovium, and other connective tissues. A method that mobilizes this endogenous pool of stem cells will provide a less costly and less invasive alternative if these cells successfully regenerate defective cartilage. Traditional microfracture procedures employ the concept of bone marrow stimulation to regenerate cartilage. However, the regenerated tissue usually is fibrous cartilage, which has very poor mechanical properties compared to those of normal hyaline cartilage. A method that directs the migration of a large number of autologous mesenchymal stem cells toward injury sites, retains these cells around the defects, and induces chondrogenic differentiation that would enhance success of endogenous cartilage repair."

According to the news editors, the research concluded: "This review briefly summarizes chemokines and growth factors that induce recruitment, proliferation, and differentiation of endogenous progenitor cells, endogenous cell sources for regenerating cartilage, scaffolds for delivery of bioactive factors, and bioadhesive materials that are necessary to bring about endogenous cartilage repair."


The news editors report that additional information may be obtained by contacting G.I. Im, Dept. of Orthopedics, Dongguk University Ilsan Hospital, Goyang, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/ten.teb.2015.0438. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Goyang, South Korea, Bone Marrow, Bone Research, Immune System, Article Review, Stem Cell Research.

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Findings from Dongyang University in the Area of Heart Attack Reported
(Plant-based foods containing cell wall polysaccharides rich in specific active monosaccharides protect against myocardial injury in rat myocardial infarction models)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Attack is the subject of a report. According to news reporting originating from Gyeongbuk, South Korea, by NewsRx correspondents, research stated, "Many cohort studies have shown that consumption of diets containing a higher composition of foods derived from plants reduces mortality from coronary heart disease (CHD). Here, we examined the active components of a plant-based diet and the underlying mechanisms that reduce the risk of CHD using three rat models and a quantitative proteomics approach."

Our news editors obtained a quote from the research from Dongyang University, "In a short-term myocardial infarction (MI) model, intake of wheat extract (WE), the representative cardioprotectant identified by screening approximately 4,000 samples, reduced myocardial injury by inhibiting apoptosis, enhancing ATP production, and maintaining protein homeostasis. In long-term post-MI models, this myocardial protection resulted in ameliorating adverse left-ventricular remodelling, which is a predictor of heart failure. Among the wheat components, arabinose and xylose were identified as active components responsible for the observed efficacy of WE, which was administered via ingestion and tail-vein injections. Finally, the food components of plant-based diets that contained cell wall polysaccharides rich in arabinose, xylose, and possibly fucose were found to confer protection against myocardial injury."

According to the news editors, the research concluded: "These results show for the first time that specific monosaccharides found in the cell wall polysaccharides in plant-based diets can act as active ingredients that reduce CHD by inhibiting postocclusion steps, including MI and heart failure."

For more information on this research see: Plant-based foods containing cell wall polysaccharides rich in specific active monosaccharides protect against myocardial injury in rat myocardial infarction models. Scientific Reports, 2016;6():1-15. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting M.J. Han, Dongyang Univ, Dept. of Biomol & Chem Engn, Yeongju 36040, Gyeongbuk, South Korea. Additional authors for this research include Y. Kim, K.N. Yun, J.Y. Kim, J.H. Jang, M.J. Han and J. Lee.

Keywords for this news article include: Gyeongbuk, South Korea, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Cellular Structures, Myocardial Ischemia, Heart Failure, Heart Disease, Heart Attack, Cardiology, Cell Wall, Dongyang University.

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Findings from Dow Chemical in the Area of Agrochemicals Described
[Tiered application of the neutral red release and EpiOcular (TM) assays for evaluating the eye irritation potential of agrochemical formulations]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Agrochemicals is now available. According to news reporting originating from Midland, Michigan, by NewsRx correspondents, research stated, "Agrochemical formulations have been underrepresented in validation efforts for implementing alternative eye irritation approaches but represent a significant opportunity to reduce animal testing. This study assesses the utility of the neutral red release assay (NRR) and EpiOcular™ assay (EO) for predicting the eye irritation potential of 64 agrochemical formulations relative to Draize data."

Our news editors obtained a quote from the research from Dow Chemical, "In the NRR, formulations with an NRR50 value <= 50 mg/mL were categorized as UN GHS Cat 1 and those >250 mg/mL were classified as UN GHS Non Classified (NC). The accuracy, sensitivity, and specificity were 78, 85 and 76% and 73, 85 and 61% for identifying UN GHS 1 and NC formulations, respectively. Specificity was poor for formulations with NRR50 > 50 to <= 250 mg/mL. The EO (ET-40 method) was explored to differentiate formulations that were UN GHS 1/2 and UN GHS NC. The EO resulted in accuracy, sensitivity, and specificity of 65%, 58% and 75% for identifying UN GHS NC formulations."

According to the news editors, the research concluded: "To improve the overall performance, the assays were implemented using a tiered-approach where the NRR was run as a first-tier followed by the Ea The tiered-approach resulted in improved accuracy (75%) and balanced sensitivity (73%) and specificity (77%) for distinguishing between irritating and non-irritating agrochemical formulations."

For more information on this research see: Tiered application of the neutral red release and EpiOcular™ assays for evaluating the eye irritation potential of agrochemical formulations. Regulatory Toxicology and Pharmacology, 2016;81():407-420. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news editors report that additional information may be obtained by contacting R.S. Settivari, Dow Chem Co, USA, Midland, MI 48674, United States. Additional authors for this research include R.A. Amado, M. Corvaro, N.R. Visconti, L. Kan, E.W. Carney, D.R. Boverhof and S.C. Gehen.

Keywords for this news article include: Midland, Michigan, United States, North and Central America, Agrochemicals, Dow Chemical.

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Findings from Drexel University Provide New Insights into Sickle Cell Anemia (Sickle cell disease: Its molecular mechanism and the one drug that treats it)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematologic Diseases and Conditions - Sickle Cell Anemia are discussed in a new report. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx editors, the research stated, "Sickle cell disease is probably the first known assembly disease, and its mechanism has been extensively studied. It arises because of the expression of a mutant hemoglobin that can polymerize, and which does so by a double nucleation mechanism that is now seen to operate in other diseases."

Our news editors obtained a quote from the research from Drexel University, "The polymers so formed lead to circulatory obstruction in the microcirculation. The accuracy of the description that has been developed is sufficient to describe precisely the impact of molecules that cannot join polymers but that still crowd the solution, including fetal hemoglobin. The one approved drug, hydroxyurea, is thought to achieve its benefit by enhancing the production of fetal hemoglobin, but the effects of the drug on polymerization exceed what the added fetal hemoglobin can accomplish."

According to the news editors, the research concluded: "While some possible answers to this mystery are suggested, no mechanism has been conclusively established for the remarkably efficacy of the one drug available to treat this disease."


The news editors report that additional information may be obtained by contacting F.A. Ferrone, Drexel University, Dept. of Phys, Philadelphia, PA 19104, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.09.073. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Hematologic Diseases and Conditions, Proteins, Drugs and Therapies, Sickle Cell Anemia, Fetal Hemoglobin, Blood Proteins, Heme proteins, Hemoglobins, Hematology, Globins, Drexel University.

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Nursing - Oncology Nursing

Findings from Duke Cancer Institute Broaden Understanding of Oncology Nursing (Radon Exposure: Using the Spectrum of Prevention Framework to Increase Healthcare Provider Awareness)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nursing - Oncology Nursing is the subject of a report. According to news originating from Raleigh, North Carolina, by NewsRx correspondents, research stated, "The radioactive properties of radon have been known for decades, but the risks of exposure have been understated in most professional healthcare curriculums. Healthcare providers in areas with low levels of radon exposure may not consider radon to be a main source of concern in the development of lung and other cancers."

Our news journalists obtained a quote from the research from Duke Cancer Institute, "Just as nurses counsel patients to avoid tobacco exposure, they should advocate that patients have their homes tested for radon. This article aims to increase radon awareness and address opportunities for providers to work toward various objectives to reduce radon exposure. At a Glance  Radon is the second leading cause of lung cancer in the United States and worldwide. Prevention activities are needed to increase awareness of the risks of radon exposure and promote mitigation. Healthcare providers are trusted sources of information for patients and consumers and should recommend home radon testing, even after a diagnosis of lung cancer. Jane Worrell, MSN, RN, OCN®, is an oncology nurse navigator at Duke Cancer Institute in Raleigh, NC; Phillip Gibson, BA, MS, is a radon program coordinator at the North Carolina Department of Health and Human Services in Candler; and Deborah 'Hutch' Allen, PhD, RN, CNS, FNP-BC, AOCNP®, is an advanced practice RN at Duke Cancer Institute. The authors take full responsibility for the content of the article. The authors did not receive honoraria for this work."

According to the news editors, the research concluded: "No financial relationships relevant to the content of this article have been disclosed by the authors or editorial staff."

For more information on this research see: Radon Exposure: Using the Spectrum of Prevention Framework to Increase Healthcare Provider Awareness. Clinical Journal of Oncology Nursing, 2016;20(6):664-666. Clinical Journal of Oncology Nursing can be contacted at: Oncology Nursing Soc, 125 Enterprise Dr, Pittsburgh, PA 15275, USA.

The news correspondents report that additional information may be obtained from J. Worrell, Duke Canc Inst, Raleigh, NC 27609, United States. Additional authors for this research include P. Gibson and D. Allen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1188/16.CJON.664-666. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Raleigh, North Carolina, United States, North and Central America, Oncology Nursing, Nursing, Radioactive Elements, Oncology, Cancer, Radon, Duke Cancer Institute.

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Findings from Duke Clinical Research Institute Update Understanding of Atrial Fibrillation (Off-Label Dosing of Non-Vitamin K Antagonist Oral Anticoagulants and Adverse Outcomes The ORBIT-AF II Registry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Atrial Fibrillation are presented in a new report. According to news originating from Durham, North Carolina, by NewsRx correspondents, research stated, "Although non-vitamin K antagonist oral anticoagulants (NOACs) do not require frequent laboratory monitoring, each compound requires dose adjustments on the basis of certain clinical criteria. This study assessed the frequency of off-label NOAC doses among AF patients and the associations between off-label dose therapy and clinical outcomes in community practice."

Our news journalists obtained a quote from the research from Duke Clinical Research Institute, "We evaluated 5,738 patients treated with a NOAC at 242 ORBIT-AF II (Outcomes Registry for Better Informed Treatment of Atrial Fibrillation phase II) sites. NOAC doses were classified as either underdosed or overdosed, consistent with Food and Drug Administration labeling. Longitudinal outcomes (median follow-up: 0.99 years) included stroke or systemic embolism, myocardial infarction, major bleeding (International Society of Thrombosis and Haemostasis criteria), cause-specific hospitalization, and all-cause mortality. Overall, 541 NOAC-treated patients (9.4%) were underdosed, 197 were overdosed (3.4%), and 5,000 were dosed according to U.S. labeling (87%). Compared with patients receiving the recommended dose, those who were receiving off-label doses were older (median: 79 and 80 years of age vs. 70 years of age, respectively; p< 0.0001), more likely female (48% and 67% vs. 40%, respectively; p< 0.0001), less likely to be treated by an electrophysiologist (18% and 19% vs. 27%, respectively; p< 0.0001), and had higher CHA(2)DS(2)-VASc scores (96% and 97% > = 2 vs. 86%, respectively; p< 0.0001) and higher ORBIT bleeding scores (25% and 31% >4 vs. 11%, respectively; p< 0.0001). After dose adjustment, NOAC overdosing was associated with increased all-cause mortality compared with recommended doses (adjusted hazard ratio: 1.91; 95% confidence interval [CI]: 1.02 to 3.60; p = 0.04). Underdosing was associated with increased cardiovascular hospitalization (adjusted hazard ratio: 1.26; 95% CI: 1.07 to 1.50; p = 0.007). A significant minority (almost 1 in 8) of U.S. patients in the community received NOAC doses inconsistent with labeling."

According to the news editors, the research concluded: "NOAC over-and underdosing are associated with increased risk for adverse events."

For more information on this research see: Off-Label Dosing of Non-Vitamin K Antagonist Oral Anticoagulants and Adverse Outcomes The ORBIT-AF II Registry. *Journal of the American College of Cardiology*, 2016;68(24):2597-2604. *Journal of the American College of Cardiology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.

The news correspondents report that additional information may be obtained from B.A. Steinberg, Duke Clin Res Inst, Durham, NC, United States. Additional authors for this research include P. Shrader, L. Thomas, J. Ansell, G.C. Fonorow, B.J. Gersh, P.R. Kowey, K.W. Mahaffey, G. Naccarelli, J. Reiffel, D.E. Singer, E.D. Peterson and J.P. Piccini.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Patient Care, Risk and Prevention, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Hospitalization, Heart Disease, Duke Clinical
Findings from Duke University Broaden Understanding of Infectious Diseases and Conditions (Surgical Site Infections An Update)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Infectious Diseases and Conditions is the subject of a report. According to news originating from Durham, North Carolina, by NewsRx correspondents, research stated, "Surgical site infections (SSTs) lead to adverse patient outcomes, including prolonged hospitalization and death."

Our news journalists obtained a quote from the research from Duke University, "Wound contamination occurs with each incision, but proven strategies exist to decrease the risk of SSI. In particular, improved adherence to evidence-based preventative measures related to appropriate antimicrobial prophylaxis can decrease the rate of SSI."

According to the news editors, the research concluded: "Aggressive surgical debridement and effective antimicrobial therapy are needed to optimize the treatment of SSI."


The news correspondents report that additional information may be obtained from D.J. Anderson, Duke University, Medical Center, Div Infect Dis, Durham, NC, United States.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Infectious Diseases and Conditions, Duke University.

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Findings from Duke University Provides New Data about Coagulation (Discontinuation and management of direct-acting anticoagulants for emergency procedures)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Coagulation have been presented. According to news reporting from Durham, North Carolina, by NewsRx editors, the research stated, "Patients taking direct oral anticoagulants (DOACs) who then need an emergency invasive procedure require specialized management strategies. Appropriate patient evaluation includes assessment of the current anticoagulation state, including timing of the last dose."

The news correspondents obtained a quote from the research from Duke University,
"DOACs require particular coagulation assays to measure anticoagulation levels accurately, although standard coagulation screening tests may provide qualitative guidance. Specialty societies have endorsed general recommendations for patient management to promote hemostasis in anticoagulated patients requiring surgery or other invasive procedures. These include general stopping rules (such as >= 24 hours for low-risk procedures and >= 48 hours for high-risk surgery with normal renal function) for elective procedures. Bridging therapy when oral anticoagulant treatment is interrupted has recently been questioned, depending on the clinical scenario. Novel agents for the reversal of DOAC-induced anticoagulation have recently been developed. Idarucizumab, a humanized monoclonal antibody fragment that selectively binds dabigatran, was recently approved for clinical use in patients with life-threatening or uncontrolled bleeding, and for patients requiring emergency interventions. Idarucizumab can streamline the pre- and periprocedural anticoagulation management of dabigatran-treated patients, as it provides fast, complete, and sustainable reversibility. Andexanet alfa is an inactive, decoy factor Xa (FXa) molecule that binds FXa inhibitors, and ciraparantag is a synthetic molecule designed to bind fractionated and unfractionated heparins, and each of the currently approved DOACs."

According to the news reporters, the research concluded: "As clinical development of the additional anti-FXa-specific anticoagulant reversal agents proceeds, the respective role of each in the management of emergency bleeding events and invasive procedures will be better defined, and it is hoped they will make important contributions to patient care."


Our news journalists report that additional information may be obtained by contacting J.H. Levy, Duke University, Sch Med, Dept. of Anesthesiol, Cardiothorac ICU, Durham, NC, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.09.048. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Coagulation, Surgery, Article Review, Hematology, Therapy, Duke University.

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Gender and Health

Findings from Duke University Update Knowledge of Gender and Health (Statin Adherence: Does Gender Matter?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gender and Health. According to news reporting from Durham, North Carolina, by NewsRx journalists, research stated, "Purpose of Review Cardiovascular disease (CVD) continues to be the leading cause of death for men and women in the USA. Statins have contributed significantly to noted declines in cardiovascular-
related mortality in the last decade; however, the benefit of statins is inequitable across genders."

The news correspondents obtained a quote from the research from Duke University, "Women continue to be less likely to take statins and to meet target LDL goals than men. As a possible contributing factor to this disparity, we explore the evidence for gender-based differences in provision of, and adherence to statins. Compared with men, women are less likely to adhere to statins. Potential reasons for this gender difference in use of statins can be observed across all phases of adherence including both intentional and unintentional non-adherence. Notable gender-specific contributing factors for statin non-adherence include decreased provider and patient awareness of CVD risk among women, higher risk of statin intolerance among women, and competing demands associated with family caregiving responsibilities. Similar to limitations in the broader CVD literature, there is inadequate inclusion of gender-specific analyses in statin-related trials. Gender-based disparities in statin adherence can be linked to both provider level, psychosocial, and medication intolerance factors."

According to the news reporters, the research concluded: "Interventions designed to improve statin adherence should take gender-specific challenges into consideration such as women being older at the time of increased CVD risk, higher rates of statin intolerance, and potentially greater caregiving responsibilities."


Our news journalists report that additional information may be obtained by contacting K.M. Goldstein, Duke University, Div Gen Internal Med, Durham, NC 27708, United States. Additional authors for this research include L.L. Zullig, L.A. Bastian and H.B. Bosworth.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Gender and Health, Cardiology, Article Review, Risk and Prevention, Cardiovascular Diseases and Conditions, Women's Health, Gender Health, Duke University.

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DNA Research

Findings from Duke University in the Area of DNA Research Reported (Global analysis of genomic instability caused by DNA replication stress in Saccharomyces cerevisiae)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on DNA Research have been presented. According to news reporting originating from Durham, North Carolina, by NewsRx correspondents, research stated, "DNA replication stress (DRS)-induced genomic instability is an important factor driving cancer development. To understand the mechanisms of DRS-associated genomic instability, we measured the rates of genomic alterations throughout the genome in a yeast strain with lowered expression of the replicative DNA polymerase delta."
Our news editors obtained a quote from the research from Duke University, "By a genetic test, we showed that most recombinogenic DNA lesions were introduced during S or G (2\) phase, presumably as a consequence of broken replication forks. We observed a high rate of chromosome loss, likely reflecting a reduced capacity of the low-polymerase strains to repair double-stranded DNA breaks (DSBs). We also observed a high frequency of deletion events within tandemly repeated genes such as the ribosomal RNA genes. By whole-genome sequencing, we found that low levels of DNA polymerase d elevated mutation rates, both single-base mutations and small insertions/deletions. Finally, we showed that cells with low levels of DNA polymerase d tended to accumulate small promoter mutations that increased the expression of this polymerase."

According to the news editors, the research concluded: "These deletions conferred a selective growth advantage to cells, demonstrating that DRS can be one factor driving phenotypic evolution."


The news editors report that additional information may be obtained by contacting T.D. Petes, Duke University, Sch Med, Dept. of Mol Genet & Microbiol, Durham, NC 27710, United States. Additional authors for this research include K. Zhang, X.C. Wu, P.A. Mieczkowski and T.D. Petes.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Saccharomyces cerevisiae, Enzymes and Coenzymes, Saccharomycetaceae, Saccharomycetales, Life Sciences, DNA Research, Polymerase, Genetics, Duke University.

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**Lung Diseases and Conditions - Asthma**

**Findings from Durban University of Technology Broaden Understanding of Asthma [Tumour necrosis factor alpha polymorphism (TNF-308 alpha G/A) in association with asthma related phenotypes and air pollutants among children in KwaZulu-Natal]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Asthma. According to news reporting out of Durban, South Africa, by NewsRx editors, research stated, "The study of gene-environment interactions enables us to further understand the pathogenesis of asthma and inflammation. The TNF-alpha gene has been associated with airway pathology in asthma but there is limited information in relation to pollutant exposure and the TNF-alpha 308G/A polymorphism."

Our news journalists obtained a quote from the research from the Durban University of Technology, "To determine the risk conferred by the TNF-alpha 308(G/A) polymorphism on
respiratory outcome and to evaluate whether the association between exposure to ambient air pollutants such as SO2, NO2, NO, and PM10 and variation in lung function measures is modified by genotype. The sample comprised 129 African children (between 9-11 years old). A questionnaire based on guidelines from the British Medical Research Council and the American Thoracic Society was administered to all caregivers to evaluate the prevalence of respiratory symptoms. Atopy was evaluated by skin prick testing. Bihourly measures of lung function (spirometry) were collected at school five days per week over three week periods in each of four seasons (2004-2005) using digital hand-held devices. During each of the four intensive 3-week phases, gaseous air pollutant concentrations were monitored continuously. Polymerase Chain Reaction-Restriction Fragment Length Polymorphism (PCR-PFLP) analysis was used to detect the TNF-alpha 308 genotype and plasma TNF-alpha levels were measured using the human TNF-alpha Max Standard Enzyme-linked immuno-absorbent assay (ELISA) kit. The TNF-alpha variant A allele was common among this sample of African children (40% with an allelic frequency of 0.24). There was no significant association with the TNF-alpha G/A polymorphism and any respiratory linked phenotype, nor cytokine levels. However, when exposure to pollutants were analyzed with genotypic and phenotypic data, we found relatively modest interaction effects for the TNF-alpha 308 genotype. GEE models showed that children with the TNF-alpha 308 A allele had increased deterioration of lung function post pollution exposure to SO2 \((\beta=2.62, CI:0.51-4.71, p=0.02 \text{ and } p(\text{int}) =0.03)\) and NO \([\beta=3.28, CI:0.68-5.89, p=0.01, p(\text{int})=0.03]\). The TNF-alpha 308 (G/A) polymorphism may be associated with increased pollutant-associated effects on FEV1 intraday variability for both SO2 and NO."

According to the news editors, the research concluded: "The A allele may increase susceptibility to the adverse effects of air pollutants."


Our news journalists report that additional information may be obtained by contacting P. Reddy, Durban Univ Technol, Dept. of Community Hlth Studies, ZA-4000 Durban, South Africa. Additional authors for this research include P. Reddy, A. Chuturgoon, R.N. Naidoo, G. Mentz, S. Batterman and T.G. Robins.

Keywords for this news article include: Durban, South Africa, Africa, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Asthma, Immunology, Genetics, Durban University of Technology.

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Prothrombin

Findings from E. Bernardi et al Update Understanding of Prothrombin (Management Strategies for Vitamin K Antagonists Reversal in Patients With Major Bleeding: A Survey of Italian Emergency Departments)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Prothrombin have been published. According to
news reporting originating from Conegliano, Italy, by NewsRx correspondents, research stated, "Emergency physicians frequently deal with patients on vitamin K antagonists (VKAs) suffering major bleeding events, and rapid reversal of anticoagulation in this setting is of paramount importance. In Italy, given the absence of specific national guidelines, local policies are likely to differ, possibly impacting on clinical outcomes."

Our news editors obtained a quote from the research, "We decided to perform a telephone survey among Italian emergency physicians to evaluate management strategies for VKAs reversal in patients with major bleeding. We conducted a computer-assisted, 10-minute telephone survey of 15 questions, focusing on the local prevalence, assessment, and management strategies of major and intracranial hemorrhage (ICH) occurring in patients on VKAs. We planned to interview a sample of 320 Italian emergency physicians. Institutions from all geographic areas of Italy were to participate in the survey. Of the 320 physicians contacted, 150 (47%) completed the survey, 95% being employed in public hospitals. Focusing on ICH, only 29% of the responders stated they would reverse anticoagulation irrespective of the international normalized ratio value, and only 27% would use prothrombin-complex concentrate as first-line agent. In patients needing urgent neurosurgical operation, less than 50% would administer prothrombin-complex concentrate before surgery. The average knowledge of management strategies for reversal of anticoagulation displayed by Italian emergency physicians appears to be unsatisfactory."

According to the news editors, the research concluded: "The need for an extensive educational program and for the implementation of specific guidelines, possibly endorsed by Scientific Societies, cannot be underemphasized."


The news editors report that additional information may be obtained by contacting E. Bernardi, ULSS7 Pieve Soligo, Pronto Soccorso, Conegliano, Italy. Additional authors for this research include D. Imberti and A. Ferrari.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1076029615598219. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Conegliano, Italy, Europe, Prothrombin, Hematology.

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Oncology - Acute Myeloid Leukemia

Findings from E. Ma and Co-Authors Update Knowledge of Acute Myeloid Leukemia (An Evaluation of Treatment Patterns and Outcomes in Elderly Patients Newly Diagnosed With Acute Myeloid Leukemia: A Retrospective Analysis of Electronic Medical ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Acute Myeloid Leukemia have been
published. According to news originating from Montreal, Canada, by NewsRx correspondents, research stated, "This retrospective observational study of data from the US community oncology setting evaluates real-world treatment patterns and outcomes for newly diagnosed, elderly patients with acute myeloid leukemia. The analysis focuses on those patients who did not receive standard induction therapy (3 + 7-type regimens)."

Our news journalists obtained a quote from the research, "Many elderly patients with acute myeloid leukemia (AML) are considered ineligible for standard intensive induction therapy due to performance status and comorbidities. We analyzed treatment patterns and outcomes among elderly patients newly diagnosed with AML in the US community oncology setting. A retrospective observational study was conducted using patient-level data from a network of US community oncology practices provided by Altos Solutions. Patients aged >= 60 years, diagnosed with AML between November 2005 and February 2014, with >= 1 recorded visit and >= 6 months between diagnosis and data cutoff, were included. Only patients who received active treatment or best supportive care (BSC) per National Comprehensive Cancer Network (NCCN) AML Guidelines were analyzed. Of 1139 patients meeting the inclusion criteria, 922 (median age 76 years) received NCCN-recommended treatments: standard induction (n = 5), low-intensity therapy (n = 425), BSC with hydroxyurea (HU) (n = 36), or BSC without HU (n = 455). For the low-intensity therapy cohort, median time from diagnosis to treatment initiation was 17 days; median duration of therapy was 5.1 months. Median overall survival (OS) from diagnosis in the low-intensity, BSC with HU, and BSC without HU groups was 12.3, 7.0, and 49.4 months, respectively. Median time to next therapy/death was 10.1 months in patients receiving low-intensity therapy. A higher proportion of patients receiving low-intensity therapy required transfusion or other supportive care versus those receiving BSC. As expected, OS in patients receiving low-intensity therapy or BSC with HU is poor for elderly patients with AML."

According to the news editors, the research concluded: "Remarkably, intensive induction strategies are rarely used for older patients in community oncology practice."

For more information on this research see: An Evaluation of Treatment Patterns and Outcomes in Elderly Patients Newly Diagnosed With Acute Myeloid Leukemia: A Retrospective Analysis of Electronic Medical Records From US Community Oncology Practices. Clinical Lymphoma Myeloma & Leukemia, 2016;16(11):625-636. Clinical Lymphoma Myeloma & Leukemia can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA.

The news correspondents report that additional information may be obtained from P. Lefebvre, Grp Anal Ltee, Montreal, PQ, Canada. Additional authors for this research include V. Bonthapally, A. Chawla, P. Lefebvre, R. Swords, M.H. Lafeuille, J. Fortier, B. Emond, M.S. Duh and B.J. Dezube.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Medical Records, Diagnostics and Screening, Clinical Trials and Studies, Electronic Medical Records, Information Technology, Acute Myeloid Leukemia, Clinical Research, Records as Topic, Hematology, Oncology, Therapy.

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Enzymes and Coenzymes

**Findings from East China University of Science and Technology Provides New Data about Enzymes and Coenzymes (Highly Selective Fluorescent Turn-On Probe for Protein Thiols in Biotin Receptor-Positive Cancer Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Sulfhydryl-containing proteins play critical roles in various physiological and biological processes, and the activities of those proteins have been reported to be susceptible to thiol oxidation. Therefore, the development of protein thiol target fluorescent probe is highly desirable."

Financial supporters for this research include Natural Science Foundation of Shanghai, National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from the East China University of Science and Technology, "In the present work, a biotinylated coumarin fluorescence 'off-on' probe SQ for selectively detecting protein thiols in biotin receptor-positive cancer cells was designed with a 2,4-dinitrobenzenesulfonyl as the thiol receptor. The probe exhibited dramatic fluorescence responses toward sulphydryl-containing proteins (ovalbumin (OVA), bovine serum albumin (BSA)): up to 170-fold fluorescence enhancement with 70 nm blue-shift was observed with the addition of OVA. However, low molecular weight thiols (Cys, glutathione (GSH), Hcy) caused negligible fluorescence changes of SQ. In addition, biotin receptor-positive Hela cells displayed strong red and green fluorescence after incubation of SQ for 1 h; neither red nor green fluorescence signal could be visualized in biotin-negative normal lung Wi38 cells."

According to the news editors, the research concluded: "These results imply that the probe has potential application in fluorescent imaging protein thiols on the surface of Hela cells."


Our news journalists report that additional information may be obtained by contacting Q. Sun, Shanghai Key Laboratory of Functional Materials Chemistry, School of Chemistry and Molecular Engineering, East China University of Science and Technology , Shanghai, 200237, People's Republic of China. Additional authors for this research include D. Sun, L. Song, Z. Chen, Z. Chen, W. Zhang and J. Qian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.analchem.6b00178. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Biotin, Cancer, Shanghai, Oncology, Micronutrient, Diet and Nutrition, Enzymes and Coenzymes, People's Republic of China.

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Findings from Eberhard-Karls University in Coagulation Reported (Safety of transesophageal echocardiography during extracorporeal life support)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Coagulation have been presented. According to news reporting from Tubingen, Germany, by NewsRx journalists, research stated, "Use of extracorporeal life support (ECLS) has significantly increased in critically ill patients refractory to medical management. ECLS requires systemic anticoagulation to avoid thromboembolic complications and superimposed coagulopathies are common."

The news correspondents obtained a quote from the research from Eberhard-Karls University, "Transesophageal echocardiography (TEE) is frequently employed to assess cannula position and cardiac function during extracorporeal therapy. The goal of this study was to assess whether TEE probe insertion and removal in systemically anticoagulated ECLS patients was safe compared to patients without ECLS and normal coagulation studies. Eighty-seven separate TEE examinations in 53 adult ECLS patients were analyzed. Detailed complication profiles were logged for each patient from initiation through discontinuation of ECLS. Routine coagulation testing was recorded within two hours prior to the TEE exams. Controls consisted of age- and gender-matched patients undergoing perioperative TEE without ECLS and normal coagulation (N=87). Overall TEE-associated morbidity in ECLS patients was 2.3% and consisted of minor oropharyngeal bleeding (2/87 TEE exams) exclusively. The patients presenting with oropharyngeal bleeding received heparin for anticoagulation and had two or more abnormal coagulation studies at the time of TEE. Seventy-nine percent of ECLS patients received intravenous heparin infusions, 6.8% argatroban and 3.4% epoprostenol. Ten-point-eight percent of patients were not anticoagulated at the time of TEE because of pre-existing bleeding complications and/or deranged plasmatic coagulation profiles. No major complications (e.g., esophageal perforation, gastrointestinal bleeding, accidental extubation) were recorded in either group. TEE remained safe in critically ill patients under ECLS, despite systemic anticoagulation, during probe insertion, manipulation and removal."

According to the news reporters, the research concluded: "TEE-related complications pertained solely to oropharyngeal bleeding amenable to conservative management."

For more information on this research see: Safety of transesophageal echocardiography during extracorporeal life support. Perfusion-Uk, 2016;31(8):634-639. Perfusion-Uk can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England.

Our news journalists report that additional information may be obtained by contacting J.N. Hilberath, Eberhard Karls Univ Tubingen, Dept. of Anesthesiol & Crit Care Med, Tubingen, Germany. Additional authors for this research include E. Schmid, C. Schlensak, C. Consherent, H.A. Haeberle, P. Rosenberger, H. Magunial and J.N. Hilberath.

Keywords for this news article include: Tubingen, Germany, Europe, Coagulation, Transesophageal Echocardiography, Imaging Technology, Cardiovascular, Cardiology, Hematology, Therapy, Eberhard-Karls University.

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Oncology - Bladder Cancer

Findings from Eberhard-Karls University in the Area of Bladder Cancer
Reported (Ten Years of Complete Remission of Pulmonary Metastasis after Post-Cystectomy Palliative Cisplatin-Gemcitabine Chemotherapy with Gefitinib for Muscle Invasive ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Bladder Cancer are presented in a new report. According to news reporting originating in Tubingen, Germany, by NewsRx journalists, research stated, "Muscle-invasive bladder cancer (MIBC) is considered one of the most lethal malignancies with high metastatic potential. Usually, metastatic bladder cancer carries worse prognosis with a median survival rate of approximately 6 months, which can be prolonged for up to 14 months with palliative systemic chemotherapy."

The news reporters obtained a quote from the research from Eberhard-Karls University, "We present the case of a 61-year-old male patient diagnosed with localized MIBC 10 years ago. He underwent nerve-sparing radical cystectomy with ileal neobladder, but developed pulmonary metastatic disease 7 months postoperatively. Six cycles of gemcitabine/cisplatin combination chemotherapy with an addition of gefitinib as daily oral medication were administered within a randomized phase II clinical trial; this resulted in complete remission of the pulmonary metastases. Until now, the patient is still on gefitinib daily without any side effects."

According to the news reporters, the research concluded: "Although, the addition of gefitinib to standard systemic chemotherapy has not been shown to improve the survival in metastatic urothelial cancer, this case represents a very pleasant albeit uncommon long-term outcome."


Our news correspondents report that additional information may be obtained by contacting G. Gakis, Eberhard Karls Univ Tubingen, Dept. of Urol, Tubingen, Germany. Additional authors for this research include M. Scharpf, T. Schubert, S. Feyerabend, A. Stenzl, C. Schwentner, F. Fend and G. Gakis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441700. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tubingen, Germany, Europe, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Bladder Cancer, Chemotherapy, Cystectomy, Cisplatin, Oncology, Surgery, Eberhard-Karls University.

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Gram-Positive Bacterial Infections - Listeria Infections

Findings from Ehime University Reveals New Findings on Listeria Infections [Menin Plays a Critical Role in the Regulation of the Antigen-Specific CD8(+) T Cell Response upon Listeria Infection]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Positive Bacterial Infections - Listeria Infections is now available. According to news reporting originating from Ehime, Japan, by NewsRx correspondents, research stated, "Menin, a tumor suppressor protein, is encoded by the MEN1 gene in humans. Certain germinal mutations of MEN1 induce an autosomal-dominant syndrome that is characterized by concurrent parathyroid adenomas and several other tumor types."

Our news editors obtained a quote from the research from Ehime University, "Although menin is also expressed in hematopoietic lineages, its role in CD8(+) T cells remains unclear. We generated Menin(flox/flox) CD4-Cre (Menin-KO) mice by crossing Menin (flox/flox) mice with CD4-Cre transgenic (Tg) mice to determine the role of menin in CD8(+) T cells. Wild-type (WT) and Menin-KO mice were infected with Listeria monocytogenes expressing OVA to analyze the immune response of Ag-specific CD8(+) T cells. Menin deficiency resulted in an impaired primary immune response by CD8+ T cells. On day 7, there were fewer Menin-KO OVA-specific CD8(+) T cells compared with WT cells. Next, we adoptively transferred WT and Menin-KO OT-1 Tg CD8(+) T cells into congenic recipient mice and infected them with L. monocytogenes expressing OVA to determine the CD8(+) T cell-intrinsic effect. Menin-KO OT-1 Tg CD8(+) T cells were outcompeted by the WT cells upon infection. Increased expression of Blimp-1 and T-bet, cell cycle inhibitors, and proapoptotic genes was observed in the Menin-KO OT-1 Tg CD8(+) T cells upon infection. These data suggest that menin inhibits differentiation into terminal effectors and positively controls proliferation and survival of Ag-specific CD8(+) T cells that are activated upon infection."

According to the news editors, the research concluded: "Collectively, our study uncovered an important role for menin in the immune response of CD8(+) T cells to infection."

For more information on this research see: Menin Plays a Critical Role in the Regulation of the Antigen-Specific CD8(+) T Cell Response upon Listeria Infection. Journal of Immunology, 2016;197(10):4079-4089. Journal of Immunology can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news editors report that additional information may be obtained by contacting T. Yamada, Ehime University, Grad Sch Med, Dept. of Infect & Host Def, Toon, Ehime 7910295, Japan. Additional authors for this research include M. Kanoh, S. Nabe, T. Yasuoka, J. Suzuki, A. Matsumoto, M. Kuwahara, S. Maruyama, T. Fujimoto, R. Sakisuka, M. Yasukawa and M. Yamashita.

Keywords for this news article include: Ehime, Japan, Asia, Regular Gram-Positive Asporogenous Rods, Gram-Positive Bacterial Infections, Listeria Infections, Bacillales, Genetics, Ehime University.

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Drugs and Therapies - Pharmacy and... 

Findings from Eli Lilly Provides New Data on Pharmacy and Pharmaceutical Sciences (Evaluation and Optimization of Blood Micro-Sampling Methods: Serial Sampling in a Cross-Over Design from an Individual Mouse)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Pharmacy and Pharmaceutical Sciences is now available. According to news reporting from Indianapolis, Indiana, by NewsRx journalists, research stated, "Current practices applied to mouse pharmacokinetic (PK) studies often use large numbers of animals with sporadic or composite sampling that inadequately describe PK profiles. The purpose of this work was to evaluate and optimize blood microsampling techniques coupled with dried blood spot (DBS) and LC-MS/MS analysis to generate reliable PK data in mice."

The news correspondents obtained a quote from the research from Eli Lilly, "In addition, the feasibility of cross-over designs was assessed and recommendations are presented. The work describes a comprehensive evaluation of five blood microsampling techniques (tail clip, tail vein with needle hub, submandibular, retro-orbital, and saphenous bleeding) in CD-1 mice. The feasibility of blood sampling was evaluated based on animal observations, ease of bleeding, and ability to collect serial samples. Methotrexate, gemfibrozil and glipizide were used as test compounds and were dosed either orally or intravenously, followed by DBS collection and LC-MS/MS analysis to compare PK with various bleeding methods. Submandibular and retro-orbital methods that required non-serial blood collections did not allow for inter-animal variability assessments and resulted in poorly described absorption and distribution kinetics. The submandibular and tail vein with needle-hub methods were the least favorable from a technical feasibility perspective. Serial bleeding was possible with cannulated animals or saphenous bleeding in non-cannulated animals. Of the methods that allowed serial sampling, the saphenous method when executed as described in this report, was most practical, reproducible and provided for assessment of inter-animal variability. It enabled the collection of complete exposure profiles from a single mouse and the conduct of an intravenous/oral cross-over study design."

According to the news reporters, the research concluded: "This methodology can be used routinely, it promotes the 3Rs principles by achieving reductions in the number of animals used, decreased restraints and animal stress, and improved the quality of data obtained in mouse PK studies."


Our news journalists report that additional information may be obtained by contacting N.J. Patel, Eli Lilly & Co, Drug Disposit, Indianapolis, IN 46285, United States. Additional authors for this research include E. Wickremsinhe, Y.H. Hui, A. Barr, N. Masterson, K. Ruterbories, J. Weller, J. Hanes, T. Kern and E. Perkins.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18433/J3NK60. This DOI is a link to an online electronic document that is
Findings from Eli Lilly Yields New Findings on Multiple Sclerosis (Pharmacological Characterization of a Potent Inhibitor of Autotaxin in Animal Models of Inflammatory Bowel Disease and Multiple Sclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Autoimmune Diseases and Conditions - Multiple Sclerosis have been presented. According to news reporting originating in Indianapolis, Indiana, by NewsRx journalists, research stated, "Autotaxin is a secreted enzyme that catalyzes the conversion of lysophosphatidyl choline into the bioactive lipid mediator lysophosphatidic acid (LPA). It is the primary enzyme responsible for LPA production in plasma."

The news reporters obtained a quote from the research from Eli Lilly, "It is upregulated in inflammatory conditions and inhibition of autotaxin may have anti-inflammatory activity in a variety of inflammatory diseases. To determine the role of autotaxin and LPA in the pathophysiology of inflammatory disease states, we used a potent and orally bio-available inhibitor of autotaxin that we have recently identified, and characterized it in mouse models of inflammation, inflammatory bowel disease (IBD), multiple sclerosis (MS), and visceral pain. Compound-1, a potent inhibitor of autotaxin with an IC50 of similar to 2 nM, has good oral pharmacokinetic properties in mice and results in a substantial inhibition of plasma LPA that correlates with drug exposure levels. Treatment with the inhibitor resulted in significant anti-inflammatory and analgesic effects in the carrageenan-induced paw inflammation and acetic acid-induced visceral pain tests, respectively. Compound-1 also significantly inhibited disease activity score in the dextran sodium sulfate-induced model of IBD, and in the experimental autoimmune encephalomyelitis model of MS."

According to the news reporters, the research concluded: "The present study demonstrates the anti-inflammatory and analgesic properties of a novel inhibitor of autotaxin that may serve as a therapeutic option for IBD, MS, and pain associated with inflammatory states."


Our news correspondents report that additional information may be obtained by contacting K. Thirunavukkarasu, Eli Lilly & Co, Lilly Res Lab, Indianapolis, IN 46285, United States. Additional authors for this research include B.L. Tan, C.A. Swearingen, G. Rocha, H.H. Bui, D.J. McCann, S.B. Jones, B.H. Norman, L.A. Pfeifer and J.K. Saha.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.234013. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Autoimmune Diseases and Conditions of the Nervous System, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Immune System Diseases and Conditions, Demyelinating Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Bowel Diseases and Conditions, Inflammatory Bowel Disease, Multiple Sclerosis, Gastroenteritis, Neuroimmunology, Pain Medicine, Inflammation, Pharmacology, Analgesics, Neurology, Therapy, Eli Lilly.

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Biological Factors - Metalloporphyrins

Findings from Emory University Broaden Understanding of Metalloporphyrins [Oxygen and Bis(3',5')-cyclic Dimeric Guanosine Monophosphate Binding Control Oligomerization State Equilibria of Diguanylate Cyclase-Containing Globin Coupled Sensors]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biological Factors - Metalloporphyrins have been published. According to news reporting originating in Atlanta, Georgia, by NewsRx journalists, research stated, "Bacteria sense their environment to alter phenotypes, including biofilm formation, to survive changing conditions. Heme proteins play important roles in sensing the bacterial gaseous environment and controlling the switch between motile and sessile (biofilm) states."

The news reporters obtained a quote from the research from Emory University, "Globin coupled sensors (GCS), a family of heme proteins consisting of a globin domain linked by a central domain to an output domain, are often found with diguanylate cyclase output domains that synthesize c-di-GMP, a major regulator of biofilm formation. Characterization of diguanylate cyclase-containing GCS proteins from Bordetella pertussis and Pectobacterium carotovorum demonstrated that cyclase activity is controlled by ligand binding to the heme within the globin domain. Both O-2 binding to the heme within the globin domain and c-di-GMP binding to a product-binding inhibitory site (I-site) within the cyclase domain control oligomerization states of the enzymes. Changes in oligomerization state caused by c-di-GMP binding to the I-site also affect O-2 kinetics within the globin domain, suggesting that shifting the oligomer equilibrium leads to broad rearrangements throughout the protein. In addition, mutations within the I-site that eliminate product inhibition result in changes to the accessible oligomerization states and decreased catalytic activity."

According to the news reporters, the research concluded: "These studies provide insight into the mechanism by which ligand binding to the heme and I-site controls activity of GCS proteins and suggests a role for oligomerization-dependent activity in vivo."

For more information on this research see: Oxygen and Bis(3',5')-cyclic Dimeric Guanosine Monophosphate Binding Control Oligomerization State Equilibria of Diguanylate Cyclase-Containing Globin Coupled Sensors. *Biochemistry*, 2016;55(48):6642-6651. *Biochemistry* can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Biochemistry - www.pubs.acs.org/journal/bichaw)
Our news correspondents report that additional information may be obtained by contacting E.E. Weinert, Emory University, Dept. of Chem, Atlanta, GA 30307, United States. Additional authors for this research include S. Rivera, D.D. Deer, S.C. Joynt, D. Dvorak and E.E. Weinert.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Enzymes and Coenzymes, Biological Factors, Metalloporphyrins, Heme proteins, Proteins, Genetics, Cyclase, Globins, Emory University.

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Drugs and Therapies - Antiretrovirals

Findings from Emory University Provides New Data on Antiretrovirals [CD8(+)] Lymphocytes Are Required for Maintaining Viral Suppression in SIV-Infected Macaques Treated with Short-Term Antiretroviral Therapy]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antiretrovirals. According to news reporting out of Atlanta, Georgia, by NewsRx editors, research stated, "Infection with HIV persists despite suppressive anti-retroviral therapy (ART), and treatment interruption results in rapid viral rebound. Antibody-mediated CD8(+) lymphocyte depletion in simian immunodeficiency virus (SIV)-infected rhesus macaques (RMs) shows that these cells contribute to viral control in untreated animals."

Our news journalists obtained a quote from the research from Emory University, "However, the contribution of CD8(+) lymphocytes to maintaining viral suppression under ART remains unknown. Here, we have shown that in SIV-infected RMs treated with short-term (i.e., 8-32 week) ART, depletion of CD8(+) lymphocytes resulted in increased plasma viremia in all animals and that repopulation of CD8(+) T cells was associated with prompt reestablishment of virus control. Although the number of SIV-DNA-positive cells remained unchanged after CD8 depletion and reconstitution, the frequency of SIV-infected CD4(+) T cells before depletion positively correlated with both the peak and area under the curve of viremia after depletion."

According to the news editors, the research concluded: "These results suggest a role for CD8(+) T cells in controlling viral production during ART, thus providing a rationale for exploring immunotherapeutic approaches in ART-treated HIV-infected individuals."

For more information on this research see: CD8(+) Lymphocytes Are Required for Maintaining Viral Suppression in SIV-Infected Macaques Treated with Short-Term Antiretroviral Therapy. Immunity, 2016;45(3):656-668. Immunity can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)

Our news journalists report that additional information may be obtained by contacting G. Silvestri, Emory University, Yerkes Natl Primate Res Center, Atlanta, GA 30329, United States. Additional authors for this research include L. Spicer, S.A. Smith, D. Lee, R. Fast, S. Paganini, B.O. Lawson, M. Nega, K. Easley, J.E. Schmitz, S.E. Bosinger, M. Piaiardini, A. Chahroudi, T.H. Vanderford, J.D. Estes, J.D. Lifson, C.A. Derdeyn and G. Silvestri.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Hemic and Immune Systems, Mononuclear Leukocytes, Primate
Cardiovascular Research

Findings from Erasmus University Medical Center Provide New Insights into Cardiovascular Research (Reasons to Participate or not to Participate in Cardiovascular Health Checks: A Review of the Literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Research. According to news reporting originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "Cardiovascular health checks test risk factors for cardiovascular disease (CVD). They are offered to improve health: in case of an increased risk, participants receive lifestyle advice and medication."

Our news editors obtained a quote from the research from Erasmus University Medical Center, "With this review, we investigate what is known about the reasons why people do or do not test for CVD risk factors. To what extent do these reasons relate to health monitoring and/or improvement? And do reasons differ in different contexts in which health checks are offered? We conducted a literature search and included 22 papers in which we identified a broad range of motives. We conclude that (i) people have reasons to test related to health improvement and reasons other than health improvement, (ii) practical reasons related to the way health checks are offered (facilitators and barriers) play an important role and (iii) motives should be understood in the context of the situation in which health checks are offered. Our results are relevant for public health officials and providers of health checks: first, if people undergo testing for reasons unrelated to health, this could explain why participation in health checks does not necessarily lead to health improvement."

According to the news editors, the research concluded: "Second, efforts to improve uptake not necessarily serve justice and may hamper informed consent."


The news editors report that additional information may be obtained by contacting Y.H. Stol, Erasmus MC, Dept. of Med Eth & Philosophy, Rotterdam, Netherlands. Additional authors for this research include E.C.A. Asscher and M.H.N. Schermer.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Cardiovascular Research, Cardiovascular Diseases and Conditions, Risk and Prevention, Article Review, Cardiology, Erasmus University Medical Center.
Bone Research

Findings from Eunice Kennedy Shriver National Institute of Child Health and Human Development Provides New Data about Bone Research [Bone Abnormalities in Mice with Protein Kinase A (PKA) Defects Reveal a Role of Cyclic AMP Signaling in Bone ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Bone Research. According to news reporting originating in Bethesda, Maryland, by NewsRx journalists, research stated, "Protein kinase A (PKA) is an important enzyme for all eukaryotic cells. PKA phosphorylates other proteins, thus, it is essential for the regulation of many diverse cellular functions, including cytoplasmic trafficking and signaling, organelle structure and mitochondrial oxidation, nuclear gene expression, the cell cycle, and cellular division."

The news reporters obtained a quote from the research from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, "The PKA holoenzyme is composed of 2 regulatory and 2 catalytic subunits. Four regulatory (R1 alpha, R1 beta, R2 alpha, and R2 beta) and 4 catalytic subunits (C alpha, C beta, C gamma, and Prkx) have been identified, giving rise to mainly PKA-I (when the 2 regulatory subunits are either R1 alpha or R1 beta), or PKA-II (when the 2 regulatory subunits are either R2 alpha or R2 beta). Mutations in the PKA subunits can lead to altered total PKA activity or abnormal PKA-I to PKA-II ratio, leading to various abnormalities in both humans and mice. These effects can be tissue-specific. We studied the effect of PKA subunit defects on PKA activity and bone morphology of mice that were single or double heterozygous for null alleles of the various PKA subunit genes. Bone lesions including fibrous dysplasia, myxomas, osteosarcomas, -chondromas and -chondrosarcomas were found in these mice. Observational and molecular studies showed that these lesions were derived from bone stromal cells (BSCs). We conclude that haploinsufficiency for different PKA subunit genes affected bone lesion formation, new bone generation, organization, and mineralization in variable ways."

According to the news reporters, the research concluded: "This work identified a PKA subunit-and activity-dependent pathway of bone lesion formation from BSCs with important implications for understanding how cyclic AMP affects the skeleton and its tumorigenesis."

For more information on this research see: Bone Abnormalities in Mice with Protein Kinase A (PKA) Defects Reveal a Role of Cyclic AMP Signaling in Bone Stromal Cell-Dependent Tumor Development. *Hormone and Metabolic Research*, 2016;48(11):714-725. *Hormone and Metabolic Research* can be contacted at: Georg Thieme Verlag Kg, Ruderstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

Our news correspondents report that additional information may be obtained by contacting C.A. Stratakis, Eunice Kennedy Shriver Natl Inst Child Hlth & Hum, Sect Endocrinol & Genet SEGEN, National Institutes of Health, Bethesda, MD, United States. Additional authors for this research include J.M. Shapiro, E. Saloustros and C.A. Stratakis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0042-117111. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Phosphotransferases (Alcohol Group Acceptor), Stromal Cells, Article
Findings from Eunice Kennedy Shriver National Institute of Child Health and Human Development Yields New Data on Osteogenesis Imperfecta [Osteoblast Malfunction Caused by Cell Stress Response to Procollagen Misfolding in alpha 2(I)-G610C Mouse ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Musculoskeletal Diseases and Conditions - Osteogenesis Imperfecta. According to news reporting out of Bethesda, Maryland, by NewsRx editors, research stated, "Glycine (Gly) substitutions in collagen Gly-X-Y repeats disrupt folding of type I procollagen triple helix and cause severe bone fragility and malformations (osteogenesis imperfecta [OI]). However, these mutations do not elicit the expected endoplasmic reticulum (ER) stress response, in contrast to other protein-folding diseases."

Our news journalists obtained a quote from the research from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, "Thus, it has remained unclear whether cell stress and osteoblast malfunction contribute to the bone pathology caused by Gly substitutions. Here we used a mouse with a Gly610 to cysteine (Cys) substitution in the procollagen alpha 2(I) chain to show that misfolded procollagen accumulation in the ER leads to an unusual form of cell stress, which is neither a conventional unfolded protein response (UPR) nor ER overload. Despite pronounced ER dilation, there is no upregulation of binding immunoglobulin protein (BIP) expected in the UPR and no activation of NF-kappa B signaling expected in the ER overload. Altered expression of ER chaperones alpha B crystalline and HSP47, phosphorylation of eIF2 alpha, activation of autophagy, upregulation of general stress response protein CHOP, and osteoblast malfunction reveal some other adaptive response to the ER disruption. We show how this response alters differentiation and function of osteoblasts in culture and in vivo."

According to the news editors, the research concluded: "We demonstrate that bone matrix deposition by cultured osteoblasts is rescued by activation of misfolded procollagen autophagy, suggesting a new therapeutic strategy for OI."


Our news journalists report that additional information may be obtained by contacting S. Leikin, Eunice Kennedy Shriver Natl Inst Child Hlth & Hum, Sect Phys Biochem, National Institutes of Health, Bethesda, MD, United States. Additional authors for this research include E. Makareeva, E.L. Mertz, S. Omari, A.M. Roberts-Pilgrim, A.K. Oestreich, C.L. Phillips and S. Leikin.
Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Connective Tissue Diseases and Conditions, Musculoskeletal Diseases and Conditions, Collagen Diseases and Conditions, Bone Diseases and Conditions, Connective Tissue Cells, Osteogenesis Imperfecta, Osteochondrodysplasias, Protein Precursors, Scleroproteins, Bone Research, Osteoblasts, Procollagen, Proteins, Genetics, Eunice Kennedy Shriver National Institute of Child Health and Human Development.

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**Oncology - Peripheral T-Cell Lymphoma**

**Findings from European Institute of Oncology Broaden Understanding of Peripheral T-Cell Lymphoma (Molecular investigation of coexistent chronic myeloid leukaemia and peripheral T-cell lymphoma - a case report)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Peripheral T-Cell Lymphoma have been published. According to news reporting from Milan, Italy, by NewsRx journalists, research stated, "Chronic myeloid leukemia (CML) is a myeloproliferative neoplasm underlain by the formation of BCR-ABL1 -an aberrant tyrosine kinase -in the leukaemic blasts. Long-term survival rates in CML prior to the advent of tyrosine kinase inhibitors (TKIs) were dismal, albeit the incidence of secondary malignancies was higher than that of age-matched population."

The news correspondents obtained a quote from the research from the European Institute of Oncology, "Current figures confirm the safety of TKIs with conflicting data concerning the increased risk of secondary tumours. We postulate that care has to be taken when distinguishing between coexisting, secondary-to-treatment and second in sequence, but independent tumourigenic events, in order to achieve an unbiased picture of the adverse effects of novel treatments."

According to the news reporters, the research concluded: "To illustrate this point, we present a case of a patient in which CML and peripheral T-cell lymphoma (PTCL) coexisted, although the clinical presentation of the latter followed the achievement of major molecular response of CML to TKIs."

For more information on this research see: Molecular investigation of coexistent chronic myeloid leukaemia and peripheral T-cell lymphoma - a case report. *Scientific Reports*, 2015;5():14829. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting A.M. Gruszka, Dept. of Experimental Oncology European Institute of Oncology, Milan, Italy. Additional authors for this research include C. Rabascio, L. Cannella, S. Sammassimo, G. Andreola, G. Gregato, M. Faretta, A. Calleri, R. De Molfetta, G. Pruneri, F. Bertolini and M. Alcalay.

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Keywords for this news article include: Milan, Italy, Europe, Oncology, Proteins, Hematology, Proteomics, Tyrosine Kinase, Enzymes and Coenzymes, Chronic Myeloid
Leukemia, Peripheral T Cell Lymphoma, Peripheral T-Cell Lymphoma, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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**Nosocomial Diseases and Conditions - Ventilator-…**

**Findings from F. Sbrana and Colleagues Update Understanding of Ventilator-Associated Pneumonia (Risk factors for ventilator associated pneumonia due to carbapenemase-producing Klebsiella pneumonae in mechanically ventilated patients with …)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nosocomial Diseases and Conditions - Ventilator-Associated Pneumonia have been presented. According to news reporting originating from Pisa, Italy, by NewsRx correspondents, research stated, "The aim of this study was to identify the risk factors for ventilator associated pneumonia (VAP) due to Klebsiella pneumonae carbapenemase-producing K (KPC-Kp) development in ICU patients with documented rectal and tracheal colonization.. We performed a retrospective, matched case-control study in a medical-surgical ICU (January 2011-December 2013) comparing 30 patients who developed KPC-Kp VAP during the ICU stay to 60 colonized patients not developing KPC-Kp VAP."

Our news editors obtained a quote from the research, "Analysed risk factors included: age, sex, SAPS II and SOFA scores, comorbidities, type and length of antibiotic therapy, previous non KPC-Kp infections, time between admission to rectal and tracheal colonization. Several risk factors were more frequent among patients who developed KPC-Kp pneumonia versus matched colonized controls: previous infection not related to KPC-Kp (P <0.001), duration of previous antibiotic therapy before (P <0.001) and after (P=0.002) KPC-Kp colonization. Amoxicillin/clavulanic acid prophylaxis was administered in 17% of VAP patients versus 73% of patients not developing VAP (P <0.001). Multivariate conditional logistic regression analysis identified several significant independent risk factors favoring KPC-Kp VAP in patients colonized at multiple sites: previous non KPC-Kp infections (OR: 2.046), duration of previous antibiotic therapy before (OR: 1.309) and after (OR: 1.122) KPC-Kp colonization; antibiotic therapy with amoxicillin/clavulanic acid prophylaxis (<48 hours) was associated with reduced risk of KPC-Kp VAP (OR: 0.987). In rectal and tracheal KPC-Kp colonized patients, prolonged antibiotic therapy administered for non KPC-Kp infection predisposes patients to subsequent KPC-Kp VAP."

According to the news editors, the research concluded: "Short prophylaxis of early pneumonia with amoxicillin/clavulanic acid, reducing the need for subsequent antibiotic use, may be associated with reduced risk for KPC-Kp VAP."


The news editors report that additional information may be obtained by contacting F. Sbrana, Fdn Toscana Gabriele Monasterio, UO Lipidoaferesi, Pisa, Italy. Additional authors for this research include P. Malacarne, M. Bassetti, C. Tascini, L. Vegnuti, P. Della Siega, A.
Oncology - Cancer Care

Findings from F.M. van Nuenen et al Has Provided New Information about Cancer Care (Feasibility of implementing the 'Screening for Distress and Referral Need' process in 23 Dutch hospitals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Care. According to news reporting originating in Utrecht, Netherlands, by NewsRx journalists, research stated, "In the Netherlands, the three-step process 'Screening for Distress and Referral Need' (SDRN) was developed for helping identifying, and referring cancer patients suffering from clinically relevant distress or needing a referral. This process includes (1) instrument completion, (2) patient-care provider discussion of the responses, and (3) referral based on 1 and 2. The Netherlands Comprehensive Cancer Organisation, location Groningen (IKNL-G), initiated the implementation of SDRN and developed an implementation roadmap, including procedure and materials."

The news reporters obtained a quote from the research, "This exploratory study examines the feasibility of SDRN implementation in hospitals, seen from healthcare providers' perspective, responsible for implementation, and those executing SDRN. Healthcare providers, from 22 hospitals and from 5 oncology departments of the University Medical Center Groningen (=25 % of Dutch hospitals), evaluated their experiences by responding to a 26-item internet survey. Twenty-five participants (response = 93 %) completed the survey. SDRN was implemented in 21 hospitals (implementation = 91 %), in two thirds of these hospitals in more than one patient group. Adoption of IKNL-G's roadmap elements varied between 84 and 100 %. Participants' average satisfaction score with SDRN was 6.5 (possible range = 0-10, range found = 5-8). Significant positive relationships were found between this satisfaction and participants' satisfaction with frequency of SDRN (p = 0.02), and keeping logistical agreements (p = 0.04). Participants were dissatisfied with SDRN's limited current availability to only select patient groups and only certain disease phases. The implementation of SDRN in daily practice, supported by a pre-developed implementation roadmap, is highly feasible."

According to the news reporters, the research concluded: "Continuous attention to SDRN execution, broadening implementation to all forms of cancer, and during the total disease trajectory seems vital to improve healthcare providers' satisfaction."

For more information on this research see: Feasibility of implementing the 'Screening for Distress and Referral Need' process in 23 Dutch hospitals. Supportive Care in
Findings from Faculty of Medicine Update Knowledge of Medical Genetics (Associated anomalies in cases with anotia and microtia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics - Medical Genetics is now available. According to news originating from Strasbourg, France, by NewsRx correspondents, research stated, "Infants with anotia and microtia (AM) often have other non-AM associated congenital anomalies. The purpose of this investigation was to assess the prevalence and the types of these associated anomalies in a defined population."

Our news journalists obtained a quote from the research from the Faculty of Medicine, "The associated anomalies in infants with AM were collected in all livebirths, stillbirths and terminations of pregnancy during 29 years in 387,067 consecutive births in the area covered by our population-based registry of congenital malformations. Of the 146 cases with AM registered during this period, representing a prevalence of 3.77 per 10,000, 49.3% had associated anomalies. There were 14 (9.6%) cases with chromosomal abnormalities including 5 trisomies 18, and 18 (12.3%) nonchromosomal recognized dysmorphic conditions including 6 cases with oculo-auriculo-vertebral spectrum. However, numerous other recognized dysmorphic conditions were registered. Forty (27.4%) of the cases had multiple congenital anomalies (MCA). Anomalies especially in the cardiovascular, the musculoskeletal, the urogenital, the central nervous, and the digestive systems, and facial clefts were the most common other anomalies. This study included special strengths: each affected child was examined by a geneticist, all elective terminations were ascertained, and the surveillance for anomalies was continued until 2 years of age. In conclusion the overall prevalence of associated anomalies, which was one in every two cases, emphasizes the need for a thorough investigation of cases with AM."

According to the news editors, the research concluded: "A routine screening for other anomalies may be considered in infants and in fetuses with AM."

For more information on this research see: Associated anomalies in cases with anotia and microtia. European Journal of Medical Genetics, 2016;59(12):607-614. European Journal of Medical Genetics can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Medical Genetics - www.journals.elsevier.com/european-journal-of-medical-genetics/)

The news correspondents report that additional information may be obtained from C. Stoll, Fac Med, Medical Genet Lab, F-67085 Strasbourg, France. Additional authors for this
research include Y. Alembik, B. Dott and M.P. Roth.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.ejmg.2016.10.012. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Strasbourg, France, Europe, Medical
Genetics, Genetics, Genetics, Faculty of Medicine.

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Oncology - Cancer Epidemiology

Findings from Faculty of Medicine Yields New Findings on Cancer
Epidemiology (The burden of oesophageal cancer in Central and South
America)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Oncology - Cancer Epidemiology are discussed in a
new report. According to news originating from Montevideo, Uruguay, by NewsRx
 correspondents, research stated, "Rationale and objective: Oesophageal cancer shows marked
geographic variations and is one of the leading causes of cancer death worldwide. We described
the burden of this malignancy in Central and South America."

Our news journalists obtained a quote from the research from the Faculty of
Medicine, "Regional and national level incidence data were obtained from 48 population-based
cancer registries in 13 countries. Mortality data were obtained from the WHO mortality
database. Incidence of oesophageal cancer by histological subtype were available from high-
quality population-based cancer registries. Males had higher incidence and mortality rates than
females (male-to-female ratios: 2-6:1 and 2-5:1). In 2003-2007, the highest rates were in Brazil,
Uruguay, Argentina and Chile. Mortality rates followed the incidence patterns. Incidence of
oesophageal squamous cell carcinoma (SCC) was higher than adenocarcinoma (AC), except in
females from Cuenca (Ecuador). SCC and AC incidence were higher in males than females,
except in the Region of Antofagasta and Valdivia (Chile), Manizales (Colombia) and Cuenca
(Ecuador). Incidence and mortality rates tended to decline in Argentina, Chile, Brazil
(incidence) and Costa Rica from 1997 to 2008. The geographic variation and sex disparity in
oesophageal cancer across Central and South America may reflect differences in the prevalence
of tobacco smoking and alcohol consumption which highlights the need to implement and/or
strengthen tobacco and alcohol control policies. Mate consumption, obesity, diet and
Helicobacter pylori infection may also explain the variation in oesophageal cancer rates but
these relationships should be evaluated."

According to the news editors, the research concluded: "Continuous monitoring of
oesophageal cancer rates is necessary to provide the basis for cancer prevention and control in
the region."

For more information on this research see: The burden of oesophageal cancer in
Central and South America. Cancer Epidemiology, 2016;44():S53-S61. Cancer Epidemiology
can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5
1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology -
www.journals.elsevier.com/cancer-epidemiology/)

The news correspondents report that additional information may be obtained from E.
Findings from Faculty of Medicine in Head and Neck Cancer Reported (Quality of life impairment in patients with head and neck cancer and their caregivers: a comparative study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Head and Neck Cancer is the subject of a report. According to news originating from Santo Andre, Brazil, by NewsRx correspondents, research stated, "Head and neck cancer represents 3% of all the types of malignant neoplasms and squamous cell carcinoma (SCC) is responsible for 90% of these cases. There have been some studies evaluating the quality of life of these patients, but little is known about the physical and emotional effects on their caregivers."

Our news journalists obtained a quote from the research from the Faculty of Medicine, "To evaluate the quality of life of patients with head and neck cancer and their caregivers by applying validated questionnaires. Thirty patients with advanced tumors (SCC stage III or IV) and their 30 caregivers were included. Specific questionnaires (Coop/Wonca, EORTC QLQ-C30, EORTC HEN35, Coop/Wonca, and Caregiver Strain Index-CSI) were applied during routine medical consultations. Of the 30 patients, 28 were males and 25 had stage IV tumors, with mean age of 56.6 years. 36.7% had the primary tumor in the oropharynx and 70% reported pain. The functional cognitive, physical, and emotional scales were the most affected. Pain, fatigue, and sleep disorders were the most prevalent symptoms. Of the 30 caregivers, 23 were females and 70% were the primary caregivers. 36.7% of the caregivers had high levels of stress, mainly related to the feeling of incapacity. The comparison between patients and caregivers demonstrated that the two groups had similar quality of life impairment: physical fitness (p = 0.487), mental health (p=0.615), daily activities (p=0.793), social activities (p=0.301), changes in health (p =0.649), and overall health (p=0.168). Quality of life impairment is similar between patients and 'their caregivers."

According to the news editors, the research concluded: "This result demonstrates that not only the patients show quality of life impairment, but their caregivers also have it and at similar proportions."


The news correspondents report that additional information may be obtained from L.
Rigoni, Fac Med ABC, Santo Andre, SP, Brazil. Additional authors for this research include R.F. Bruhn, R. De Cicco, J.L. Kanda and L.L. Matos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bjorl.2015.12.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Santo Andre, Brazil, South America, Clinical Trials and Studies, Head and Neck Neoplasms, Head and Neck Cancer, Clinical Research, Quality of Life, Oncology, Faculty of Medicine.

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Oncology - Prostate Cancer

Findings from Federal University Provides New Data on Prostate Cancer [A decade (2004-2014) of FTIR prostate cancer spectroscopy studies: An overview of recent advancements]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Prostate Cancer are discussed in a new report. According to news reporting from Natal, Brazil, by NewsRx journalists, research stated, "This paper presents a retrospective study from 2004 to 2014 of FTIR prostate cancer spectroscopy related to tissues and cell biology."

The news correspondents obtained a quote from the research from Federal University, "Since vibrational spectroscopy is delicately sensitive to the biochemical composition of the sample and variations therein, it is possible to monitor metabolic processes in tissue and cells, and to construct spectral maps based on thousands of collected IR spectra. These reveal information on tissue structure, distribution of cellular components, metabolic activity and the health condition of cells and tissues."

According to the news reporters, the research concluded: "In addition, rapid collection, reliable data, a powerful ability to structure elucidation about IR spectroscopy, and the need for a rapid diagnosis of traditional biopsy (subject to sampling and inter-observer) have potentiated infrared as a way for a new type of analysis based on optical examination and being more objective than conventional colour methods."


Keywords for this news article include: Natal, Brazil, South America, Prostatic Neoplasms, Prostate Cancer, Oncology, Federal University.

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Findings from Federal University Update Understanding of Cancer Therapy (Roles of OCT4 in tumorigenesis, cancer therapy resistance and prognosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Cancer Therapy are discussed in a new report. According to news reporting out of Porto Alegre, Brazil, by NewsRx editors, research stated, "OCT4 (POU5F1) is a major regulator of cell pluripotency and plays an important role not only during embryogenesis but also in tumorigenesis. It has been studied in various types of cancers, since stemness is an important factor for cancer growth and therapy."

Financial supporters for this research include CAPES, CNPq.

Our news journalists obtained a quote from the research from Federal University, "Here we present basic information about the OCT4 gene, its isoforms and pseudogenes besides discussing the current literature in which OCT4 is linked to cancer, emphasizing its roles in tumorigenesis and therapy. The majority of studies indicated a negative correlation between the expression of OCT4 and prognosis, and only in testicular germ cell tumor this correlation was positive. Using The Cancer Genome Atlas database we showed that OCT4 expression correlated negatively with patient survival in pancreatic cancer."

According to the news editors, the research concluded: "All those different impacts of OCT4 on cancer indicate the biological complexity of this transcription factor in biology and, therefore, also in cancer."


Our news journalists report that additional information may be obtained by contacting E.S. Villodre, Univ Fed Rio Grande do Sul, Dept. of Biophys, BR-91501970 Porto Alegre, RS, Brazil. Additional authors for this research include F.C. Kipper, M.B. Pereira and G. Lenz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j ctrv.2016.10.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Porto Alegre, Brazil, South America, Cancer Therapy, Drugs and Therapies, Therapy, Article Review, Oncology, Genetics, Cancer, Federal University.

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Peptide Proteins - Proinsulin

Findings from Federal University Yields New Findings on Proinsulin (L-Arginine supplementation improves insulin sensitivity and beta cell function in the offspring of diabetic rats through AKT and PDX-1 activation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Peptide Proteins - Proinsulin is now available. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, research stated, "Maternal hyperglycemia can result in defects in glucose metabolism and pancreatic beta-cell function in offspring. The purpose of this study was to evaluate the impact of maternal diabetes mellitus on pancreatic islets, muscle and adipose tissue of the offspring, with or without oral L-Arginine supplementation."

Financial support for this research came from The State of Sao Paulo Research Foundation.

Our news journalists obtained a quote from the research from Federal University, "The induction of diabetes was performed using streptozotocin (60 mg/kg). Animals were studied at 3 months of age and treatment (sucrose or L-Arginine) was administered from weaning. We observed that L-Arg improved insulin sensitivity in the offspring of diabetic mothers (DA), reflected by higher insulin-induced phosphorylation of Akt in muscle and adipose tissue. Insulin resistance is associated with increased oxidative stress and the NADPH oxidase enzyme plays an important role. Our results showed that the augmented interaction of p47(PHOX) with gp91(PHOX) subunits of the enzyme in skeletal muscle tissue in the offspring of diabetic rats (DV) was abolished after L-Arg treatment in DA rats. Maternal diabetes caused alterations in the islet functionality of the offspring leading to increased insulin secretion at both low (2.8 mM) and high (16.7 mM) concentrations of glucose. L-Arg reverses this effect, suggesting that it may be an important modulator in the insulin secretory process. In addition it is possible that L-Arg exerts its effects directly onto essential molecules for the maintenance and survival of pancreatic islets, decreasing protein expression of p47(PHOX) while increasing Akt phosphorylation and PDX-1 expression."

According to the news editors, the research concluded: "The mechanism by which L-Arg exerts its beneficial effects may involve nitric oxide bioavailability since treatment restored NO levels in the pancreas."

For more information on this research see: L-Arginine supplementation improves insulin sensitivity and beta cell function in the offspring of diabetic rats through AKT and PDX-1 activation. European Journal of Pharmacology, 2016;791():780-787. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting A.E. Hirata, Federal University of Sao Paulo, UNIFESP, Dept. of Physiol, Sao Paulo, Brazil. Additional authors for this research include M.M. Diniz, A.A. Haidar, M.D. Cavanal, E.D. Alves, A.R. Carpinelli, F.Z. Gil and A.E. Hirata.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.
Musculoskeletal Diseases and Conditions - …

Findings from Federal University in the Area of Osteopetrosis Described (Bone Mineral Density and Microarchitecture in Patients With Autosomal Dominant Osteopetrosis: A Report of Two Cases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Osteopetrosis have been published. According to news reporting from Rio de Janeiro, Brazil, by NewsRx journalists, research stated, "The aim of this case study is to describe changes in areal bone mineral density (aBMD) by dual-energy X-ray absorptiometry (DXA) scan, as well as volumetric bone density and microarchitecture by high-resolution peripheral quantitative computed tomography (HR-pQCT) in two patients with autosomal dominant osteopetrosis (ADO) and compare with 20 healthy subjects. We describe a 44-year-old male patient with six low-impact fractures since he was age 16 years, and a 32-year-old female patient with four low-impact fractures on her past history."

The news correspondents obtained a quote from the research from Federal University, "Radiographic changes were typical of ADO. Consistent with the much higher aBMD, total volumetric BMD (average bone density of the whole bone, including trabecular and cortical compartments) at distal radius and tibia (HR-pQCT) was more than twice the mean values found in healthy subjects in both patients. Trabecular number and thickness were higher, leading to an evident increase in trabecular bone volume to tissue volume. Also, an enormous increase in cortical thickness was found. Most important, a great heterogeneity in bone microstructure of the affected patients was evident on HR-pQCT images: islets of very dense bone were interposed with areas with apparent normal density. The increase in aBMD, volumetric BMD, and most indices of trabecular and cortical bone, associated with the great heterogeneity on bone tridimensional microarchitecture, reflect the accumulation of old and fragile bone randomly distributed along the skeleton."

According to the news reporters, the research concluded: "These alterations in bone microstructure probably compromise bone quality, which might justify the high prevalence of low-impact fractures in patients with ADO, despite abnormally elevated BMD."


Our news journalists report that additional information may be obtained by contacting M. Arruda, Dept. of Internal Medicine and Endocrinology Section, Medical School and Hospital Universitario Clementino Fraga Filho, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil. Additional authors for this research include M.C. Coelho, A.B. Moraes,

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jbmr.2715. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Genetics, South America, Bone Research, Osteopetrosis, Rio de Janeiro, Osteosclerosis, Osteochondrodysplasias, Bone Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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Oncology - Colon Cancer

Findings from First Affiliated Hospital in the Area of Colon Cancer Reported (5-Fluorouracil induces apoptosis of colorectal cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Colon Cancer are presented in a new report. According to news reporting originating in Changchun, People's Republic of China, by NewsRx journalists, research stated, "5-Fluorouracil (5-FU) is widely used in chemotherapy for treatment of colorectal cancer. Leucine-rich repeat-containing G protein-coupled receptor (LGR) is known to participate in the occurrence and development of breast cancer by regulating the rebirth of tumor vessels."

The news reporters obtained a quote from the research from First Affiliated Hospital, "This study aimed to explore the proliferation and apoptosis of HCT116 colorectal cancer cells treated with 5-FU and related molecular mechanisms. 5-FU (20 mg/mL) was used to treat cultured HCT116 cells. An MTT test, flow cytometry, and colony formation assays were used to examine the proliferation and apoptosis of HCT116 cells. Western blotting was applied to detect the expression of the LGR4 protein in HCT116 cells. Small interference RNA or over-expression techniques were used to manipulate LGR4 expression in HCT116 cells and describe the proliferation and apoptosis of HCT116 treated with 5-FU. A dosage of 20 mg/mL 5-FU resulted in a significant decrease in the proliferation and apoptosis of HCT116 cells and significantly decreased expression levels of LGR4."

According to the news reporters, the research concluded: "The specific gene silence or over-expression of LGR4 in HCT116 cells increased and decreased the levels of apoptosis in HCT116, respectively. 5-FU induces apoptosis of colorectal cancer cells and inhibits proliferation by suppressing LGR4 proteins."

For more information on this research see: 5-Fluorouracil induces apoptosis of colorectal cancer cells. Genetics and Molecular Research [electronic Resource], 2016;15 (1):15017326.

Our news correspondents report that additional information may be obtained by contacting J.T. Zhang, Dept. of Colorectal and Anal Surgery, First Affiliated Hospital of Jilin University, Changchun, People's Republic of China. Additional authors for this research include W.L. Zhou, C. He, T. Liu, C.Y. Li and L. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4238/gmr.15017326. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Genetics, Oncology, Changchun,
Findings from First Hospital Provide New Insights into Breast Cancer (Juglone loaded poloxamer 188/phospholipid mixed micelles evaluated in vitro and in vivo in breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating from Suqian, People's Republic of China, by NewsRx correspondents, research stated, "Investigating the effects of juglone loaded P188/phospholipid mixed micelles (J-MM) in breast cancer. In vitro cytotoxicity, apoptotic effects, in vivo therapeutic efficacy and toxicity were used to assess its antitumour effect."

Funders for this research include National Natural Science Foundation of China, 333 project of Jiangsu Province and the Science and Technology Support Project of Suqian.

Our news editors obtained a quote from the research from First Hospital, "Uptake and imaging were used to evaluate the effect on the uptake and passive targeting. Mixed micelle carrier enhanced the targeting and uptake by MB-231 cells. The tumour inhibition rates in tumour xenograft models for paclitaxel, juglone, J-MM (10 mg/kg) and J-MM (40 mg/kg) were 46%, 27%, 39% and 53%, respectively. J-MM (10 mg/kg) exhibited lower toxicity compared with that by free juglone or high dose J-MM."

According to the news editors, the research concluded: "J-MM exhibited low toxicity, improved cellular uptake, passive targeting and anti-cancer effects in breast cancer model."


The news editors report that additional information may be obtained by contacting X. Jin, First Hosp Suqian, Dept. of Hosp Pharm, Suqian 223800, People's Republic of China. Additional authors for this research include Y.W. Zhang, Z.H. Zhang, D.B. Che and H.X. Lv.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Suqian, People's Republic of China, Asia, Women's Health, Breast Cancer, Oncology, First Hospital.

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Liver Diseases and Conditions - Hepatitis B Virus

Findings from First Hospital of Jilin University Provide New Insights into Hepatitis B Virus (Association between hepatitis B virus infection and risk of multiple myeloma: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Hepatitis B Virus. According to news reporting out of Changchun, People's Republic of China, by NewsRx editors, research stated, "Hepatitis B virus (HBV) infection is a major global public health concern. Although recent findings suggest an inverse relationship between HBV infection and multiple myeloma (MM), the true relationship between these two conditions remains unclear."

Our news journalists obtained a quote from the research from the First Hospital of Jilin University, "The primary aim of this meta-analysis was to evaluate the association between HBV infection, defined as hepatitis B surface antigen positivity, and the incidence of MM. We searched the PubMed/Medline, Cochrane Library and EMBASE databases from January 1975 to July 2014 and reviewed the reference lists of all retrieved articles. Odds ratios (OR) and 95% confidence intervals (CI) were calculated using fixed-and random-effects models. We identified nine case-control studies involving 30,646 patients with MM and 379,837 controls. HBV infection was not significantly associated with the development of MM (OR=1.3; 95% CI: 0.92-1.82; p=0.14). A similar risk of developing MM was present in different HBV-prevalent countries. However, significant heterogeneity was observed among studies (p=0.01). A statistically significant relationship between HBV infection and increased MM risk was detected in sub-analyses evaluating high-quality studies and those with hospital-based controls (p <0.05). HBV infection may be associated with an increased risk of MM."

According to the news editors, the research concluded: "However, confirmation of this relationship and the specific molecular mechanisms involved in the association between HBV infection and the development of MM require further exploration."


Our news journalists report that additional information may be obtained by contacting Y. Li, Cancer Center, First Hospital of Jilin University, Changchun, Jilin Province, People's Republic of China. Additional authors for this research include O. Bai, C. Liu, Z. Du, X. Wang, G. Wang and W. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imj.12981. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HBV, Asia, Viral, Oncology, Virology, Changchun, Hepatology, DNA Viruses, Article Review, Gastroenterology, Multiple Myeloma, Paraproteinemias, Hepatitis B Virus, Orthohepadnavirus, Risk and Prevention, Hemostatic Disorders, Hemorrhagic Disorders, Blood Protein Disorders, Hepadnaviridae Infections.

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Drugs and Therapies - Antivirals

Findings from Florida State University in Antivirals Provides New Insights (Differential Binding of Rimantadine Enantiomers to Influenza A M2 Proton Channel)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antivirals have been published. According to news reporting originating from Tallahassee, Florida, by NewsRx correspondents, research stated, "Rimantadine hydrochloride (α-methyl-1-adamantane-methalamine hydrochloride) is a chiral compound which exerts antiviral activity against the influenza A virus by inhibiting proton conductance of the M2 ion channel. In complex with M2, rimantadine has always been characterized as a racemic mixture."

Financial supporters for this research include Division of Chemistry, National Institute of Allergy and Infectious Diseases.

Our news editors obtained a quote from the research from Florida State University, "Here, we report the novel enantioselective synthesis of deuterium-labeled α- and (S)-rimantadine and the characterization of their protein-ligand interactions using solid-state NMR. Isotropic chemical shift changes strongly support differential binding of the enantiomers to the proton channel. Position restrained simulations satisfying distance restraints from (13)C-(2)H rotational-echo double-resonance NMR show marked differences in the hydrogen-bonding pattern of the two enantiomers at the binding site."

According to the news editors, the research concluded: "Together these results suggest a complex set of interactions between α-rimantadine and the M2 proton channel, leading to a higher stability for this enantiomer of the drug in the channel pore."


The news editors report that additional information may be obtained by contacting A.K. Wright, National High Magnetic Field Laboratory, Florida State University, Tallahassee, Florida 32310, United States. Additional authors for this research include P. Batsomboon, J. Dai, I. Hung, H.X. Zhou, G.B. Dudley and T.A. Cross.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/jacs.5b13129. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiinfectives, Florida, Influenza, Tallahassee, Hydrocarbons, United States, Organic Chemicals, Drugs and Therapies, Rimantadine Therapy, Adamantane Antivirals, North and Central America.

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Findings from Fourth Military Medical University in the Area of Hormones Reported (Snapshot: implications for melatonin in endoplasmic reticulum homeostasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hormones is now available. According to news reporting out of Xi'an, People's Republic of China, by NewsRx editors, research stated, "The endoplasmic reticulum (ER) is an important intracellular membranous organelle. Previous studies have demonstrated that the ER is responsible for protein folding and trafficking, lipid synthesis and the maintenance of calcium homeostasis."

Our news journalists obtained a quote from the research from Fourth Military Medical University, "Interestingly, the morphology and structure of the ER were recently found to be important. Melatonin is a hormone that anticipates the daily onset of darkness in mammals, and it is well known that melatonin acts as an antioxidant by scavenging free radicals and increasing the activity of antioxidant enzymes in the body. Notably, the existing evidence demonstrates that melatonin is involved in ER homeostasis, particularly in the morphology of the ER, indicating a potential protective role of melatonin."

According to the news editors, the research concluded: "This review discusses the existing knowledge regarding the implications for the involvement of melatonin in ER homeostasis."


Our news journalists report that additional information may be obtained by contacting Y. Yang, Fourth Military Medical University, Dept. of Biomed Engn, Xian, People's Republic of China. Additional authors for this research include Z.Q. Ma, S.Y. Di, S. Jiang, Y. Li, C.X. Fan, Y. Yang and D.J. Wang.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Hormones, Article Review, Melatonin, Fourth Military Medical University.

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Findings from French National Institute of Health and Medical Research (INSERM) Broaden Understanding of Inflammation (Western diet induces a shift in microbiota composition enhancing susceptibility to Adherent-Invasive E. coli infection and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Inflammation have been published. According to news reporting from Clermont Ferrand, France, by NewsRx journalists, research stated, "Recent
advances have shown that the abnormal inflammatory response observed in CD involves an interplay among intestinal microbiota, host genetics and environmental factors. The escalating consumption of fat and sugar in Western countries parallels an increased incidence of CD during the latter 20(th) century."

The news correspondents obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "The impact of a HF/HS diet in mice was evaluated for the gut micro-inflammation, intestinal microbiota composition, function and selection of an *E. coli* population. The HF/HS diet created a specific inflammatory environment in the gut, correlated with intestinal mucosa dysbiosis characterized by an overgrowth of pro-inflammatory Proteobacteria such as *E. coli*, a decrease in protective bacteria, and a significantly decreased of SCFA concentrations. The expression of GPR43, a SCFA receptor was reduced in mice treated with a HF/HS diet and reduced in CD patients compared with controls. Interestingly, mice treated with an agonist of GPR43 were protected against DSS-induced colitis. Finally, the transplantation of feces from HF/HS treated mice to GF mice increased susceptibility to AIEC infection."

According to the news reporters, the research concluded: "Together, our results demonstrate that a Western diet could aggravate the inflammatory process and that the activation of the GPR43 receptor pathway could be used as a new strategy to treat CD patients."

For more information on this research see: Western diet induces a shift in microbiota composition enhancing susceptibility to Adherent-Invasive *E. coli* infection and intestinal inflammation. *Scientific Reports*, 2016;6():19032. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting A. Agus, Clermont Universite, M2iSH, UMR 1071 INSERM, Universite d'Auvergne, Unite Sous Contrat 2018 Institut National de la Recherche Agronomique, Clermont-Ferrand, France. Additional authors for this research include J. Denizot, J. Thevenot, M. Martinez-Medina, S. Massier, P. Sauvanet, A. Bernalier-Donadille, S. Denis, P. Hofman, R. Bonnet, E. Billard and N. Barnich.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: France, Europe, Genetics, Inflammation, Clermont Ferrand.

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dexamethasone intravitreal implant (DEX implant) in the treatment of macular edema secondary to branch or central retinal vein occlusion (BRVO, CRVO) in French clinical practice. A 24-month, prospective, multicenter, longitudinal, observational study (LOUVRE) conducted at 48 randomly selected sites in metropolitan France enrolled consecutive adult patients with macular edema following retinal vein occlusion (RVO) who were treated with DEX implant at baseline."

Financial support for this research came from Allergan plc.

The news correspondents obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "Re-treatment with DEX implant and use of other RVO treatments was at the physician's discretion. The primary endpoint was the change in best-corrected visual acuity (BCVA) from baseline to month 6. Secondary endpoints included change in BCVA, intraocular pressure (IOP), adverse events, and RVO treatments administered through month 24. The analysis population of 375 patients (53.9 % BRVO, 46.1 % CRVO) received a mean of 2.6 DEX implant injections over 2 years; mean time between injections was 6.6 months. Mean (SD) change in BCVA from baseline was 5.1 (19.0) letters at month 6 (p < 0.001) and 4.6 (22.3) letters at month 24 (p < 0.001). During the study, 208 patients (55.5 %) received treatment other than DEX implant for RVO, usually laser or ranibizumab therapy, with first use of other therapy occurring at a mean of 8.7 months. Mean change from baseline BCVA at month 6 was 5.5 letters (p < 0.001, N = 254) in patients who had received only DEX implant and 4.2 letters (p = 0.006, N = 121) in patients who had received additional other RVO treatment during the first 6 months. At month 24, mean change from baseline BCVA was +20.7 letters in patients treated with a single DEX implant only (p < 0.001), +4.9 letters in patients treated with aeyen2 DEX implants only (p = 0.029), and +2.3 letters in patients treated with DEX implant and other RVO treatment (p = 0.143). The most common adverse events (incidence) were cataract progression (39.7 %) and increased IOP (34.4 %). No glaucoma incisional surgeries were required. Efficacy and safety of DEX implant in the treatment of RVO-associated macular edema were demonstrated in the French clinical setting. Patients who switched from DEX implant to other RVO treatments did not have improved outcomes."

According to the news reporters, the research concluded: "The study is registered at ClinicalTrials.gov with the identifier NCT01618266."

For more information on this research see: Two-year, prospective, multicenter study of the use of dexamethasone intravitreal implant for treatment of macular edema secondary to retinal vein occlusion in the clinical setting in France. Graefes Archive for Clinical and Experimental Ophthalmology, 2016;254(12):2307-2318. Graefes Archive for Clinical and Experimental Ophthalmology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

Our news journalists report that additional information may be obtained by contacting J.F. Korobelnik, Bordeaux Populat Hlth Res Center, U1219, INSERM, F-33000 Bordeaux, France. Additional authors for this research include L. Kodjikian, C. Delcourt, V. Gualino, R. Leaback, S. Pinchinat and M.E. Velard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00417-016-3394-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bordeaux, France, Europe, Cardiovascular Diseases and Conditions, Retinal Diseases and Conditions, Clinical Trials and Studies, Eye Diseases and Conditions, Adrenal Cortical Steroids, Ophthalmic Preparations, Embolism and Thrombosis, Retinal Vein Occlusion, Dexamethasone Therapy, Retinal Degeneration, Macular Degeneration, Drugs and Therapies, Ophthalmic Steroids, Clinical Research, Venous
Thrombosis, Pharmaceuticals, Glucocorticoids, Macular Edema, Hormones, French National Institute of Health and Medical Research (INSERM).

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Drugs and Therapies - Antiretrovirals

Findings from French National Institute of Health and Medical Research (INSERM) in Antiretrovirals Reported (Efficacy and safety of a switch to rilpivirine-based regimens in treatment-experienced HIV-1-infected patients: a cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antiretrovirals. According to news originating from Paris, France, by NewsRx correspondents, research stated, "Rilpivirine (RPV) is a second-generation once-daily non-nucleoside reverse transcriptase inhibitor (NNRTI) which has shown non-inferior antiviral activity to efavirenz in treatment-naïve patients. Data in treatment-experienced patients are more limited."

Our news journalists obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "We wished to assess the efficacy and safety of a switch to RPV-based regimens in well-suppressed treatment-experienced patients. Between September 2012 and June 2013, all antiretroviral therapy (ART)-experienced HIV-1-infected patients with a plasma HIV RNA level < 50 copies/ml, and switching to an RPV-based regimen, were analysed in this retrospective observational monocentric cohort study. The primary end point was the proportion of patients with virological success defined as a plasma HIV RNA level < 50 copies/ml at 12 months using the FDA snapshot algorithm. A total of 281 participants were studied and 97% received a combination of RPV/tenofovir disoproxil fumarate/emtricitabine. At month 12, the rate of virological success was 59% and increased to 72% using available data beyond month 12. Sixteen (6%) patients experienced virological failure, which was associated with the presence of the M184V/I resistance mutation in prior genotypes (P= 0.02) and the use of a non-NNRTI as third agent before the switch (P= 0.03). RPV-based regimens were overall well tolerated and only 23 (8%) patients discontinued ART because of adverse events, mostly neuropsychiatric adverse events. Switching to RPV was associated with significant but modest improvement of the lipid profile."

According to the news editors, the research concluded: "In patients fully suppressed on ART, a switch to an RPV-based regimen should only be considered in the absence of prior virological failure or resistance mutations to nucleoside reverse transcriptase inhibitors and NNRTIs to avoid virological failures."


The news correspondents report that additional information may be obtained from J.M. Molina, INSERM UMR 941, Paris, France. Additional authors for this research include M. Resche-Rigon, C. Gatey, C. Yang, B. Denis, J. Fonsart, K. Desseaux, M. Guionie, W. Rozenbaum, C. Delaugerre and J.M. Molina.

Keywords for this news article include: Paris, France, Europe, Viral Sexually

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Drugs and Therapies - Fundamental and Clinical...

Findings from French National Institute of Health and Medical Research (INSERM) in the Area of Fundamental and Clinical Pharmacology Described (Illicit drugs or medicines taken by parachuting)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Fundamental and Clinical Pharmacology have been presented. According to news originating from Bordeaux, France, by NewsRx correspondents, research stated, "Parachuting (also called bombing) is a method of drug delivery where illicit drugs or medicines are ingested after wrapping the substance. There are little data describing parachuting in the literature."

Our news journalists obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "To provide a description of this practice, all cases of parachuting reported to the national addictovigilance network up to 31 December 2014 were identified from spontaneous reports and specific surveillance programs. Cases were described according to the type of substance used, patient age and gender, type of complications, context of use and year of the event. Forty-five cases of parachute use were identified and most (n=43) occurred after 2011. Patients were mostly men (60%), and mean age was 28.9 years. The context of use, known in 19 cases, was mostly recreational. Complications were present in 24 cases, of which eight were serious. The substance was supposed to be 3,4-methylenedioxyamphetamine (MDMA) in the majority of cases (64.4%); research chemicals were more involved in the most recent years. The physical form was mainly granular (51.6%). The wrappers were a cigarette paper (nine cases) and in one case plastic package; in the other cases, the term of parachute was used without further details. The reason for use was not explained in the majority of cases; two patients indicated using a parachute for faster effect than with a methadone capsule."

According to the news editors, the research concluded: "Clinicians should be aware of this delivery form as the results suggest that it is common and can involve a great variability of drugs."


The news correspondents report that additional information may be obtained from A. Daveluy, Centre d'Addictovigilance, Service de Pharmacologie Medicale, CHU de Bordeaux, INSERM, U657, Bordeaux, F-33000, France. Additional authors for this research include H. Geniaux, C. Eiden, A. Boucher, C. Chenaf, S. Deheul, M. Spadari, M. Gerardin, G. Miremont-Salame and F. Haramburu.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/fcp.12172. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: France, Europe, Bordeaux, Drugs and Therapies, Fundamental and Clinical Pharmacology.

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Transplant Medicine - Liver Transplants

Findings from French National Institute of Health and Medical Research (INSERM) in the Area of Liver Transplants Reported (A high performance liquid chromatography tandem mass spectrometry for the quantification of tacrolimus in human bile in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Liver Transplants is now available. According to news reporting originating in Rennes, France, by NewsRx journalists, research stated, "Tacrolimus whole-blood concentrations imperfectly reflect concentrations at the effect site. Tacrolimus concentrations in the transplanted organ could be more relevant to predict rejection events."

Financial support for this research came from COmite de la REcherche Clinique Translationnelle.

The news reporters obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "Because liver biopsy cannot be repeatedly performed after liver transplantation, we suggested measuring tacrolimus in the bile to have a cost-effective and clinically implementable surrogate marker of intra-hepatic tacrolimus concentration. We developed and fully validated a liquid chromatography-tandem mass spectrometry method for the determination of tacrolimus in human bile. Sample purification was achieved using protein precipitation and liquid-liquid extraction with ethylacetate. Gradient elution was performed using a C18 analytical column with a 5 min run-time. The method was linear from 0.5 ng/mL to 20 ng/mL. In this concentration range, within-day and between-day precisions as well as overall bias were within 15%. Matrix effect was fully corrected by the internal standard (ascomycin). The assay was optimized to achieve good selectivity in this complex biological matrix. Tacrolimus was found to be stable in bile stored 6 months at -80 degrees C, after 3 freeze and thaw cycles, 20 h at room temperature and 24 h in extracts kept at 15 degrees C in the auto-sampler. The method was applied to quantify tacrolimus in bile from liver transplant recipients. It allowed getting preliminary data about tacrolimus excretion profile in bile and showed the lack of correlation between tacrolimus whole blood concentration and tacrolimus liver exposition."

According to the news reporters, the research concluded: "This alternative and innovative analytical approach of tacrolimus bio-analysis appears suitable for further studies evaluating relevance of biliary tacrolimus concentration as a new pharmacological marker of immunosuppressive activity."

For more information on this research see: A high performance liquid chromatography tandem mass spectrometry for the quantification of tacrolimus in human bile in liver transplant recipients. Journal of Chromatography A, 2016;1475():55-63. Journal of
Oncology - Gastric Cancer

Findings from Fudan University Update Understanding of Gastric Cancer (Glycoprotein 130 is associated with adverse postoperative clinical outcomes of patients with late-stage non-metastatic gastric cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Gastric Cancer are discussed in a new report. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "The interaction of glycoprotein 130 (gp130) with the cytokines of Interleukin-6 (IL-6) family has proved to play a crucial part in several cancers. Our current study is designed to discover the clinical prognostic significance of gp130 in non-metastatic gastric cancer."

The news correspondents obtained a quote from the research from Fudan University, "We examined intratumoral gp130 expression in retrospectively enrolled 370 gastric cancer patients who underwent radical gastrectomy with standard D2 lymphadenectomy at Zhongshan Hospital of Fudan University during 2007 and 2008 by immunohistochemical staining. The expression of gp130 was significantly correlated with T classification, N classification and TNM stage (P = 0.003, P < 0.001 and P < 0.001, respectively; T, N, TNM refers to Tumor Invasion, Regional lymph node metastasis and Tumor Node Metastasis, respectively). Elevated intratumoral gp130 expression implied unfavourable overall survival (OS) (P < 0.001) and disease-free survival (DFS) (P < 0.001), respectively. Furthermore, among TNM II and III gp130-high patients, those who were treated with 5-fluorouracil (5-FU) based adjuvant chemotherapy had better OS (P < 0.001). The generated nomogram performed well in predicting the 3- and 5-year OS of gastric cancer patients. The incorporation of gp130 into contemporary TNM staging system would be of great significance to improve the current individual risk stratification."

According to the news reporters, the research concluded: "These findings contribute
to better clinical management for those patients who would benefit from adjuvant chemotherapy."

For more information on this research see: Glycoprotein 130 is associated with adverse postoperative clinical outcomes of patients with late-stage non-metastatic gastric cancer. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting H.Y. He, Fudan University, Zhongshan Hosp, Dept. of Gen Surg, Shanghai, People's Republic of China. Additional authors for this research include H. Zhang, H. Liu, C. Lin, R.C. Li, S.Y. Wu, H.Y. He, H. Li and J.J. Xu.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Gastroenterology, Glycoconjugates, Gastric Cancer, Glycoproteins, Oncology, Fudan University.

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Cardiovascular Diseases and Conditions - Aneurysm

Findings from Fudan University in Aneurysm Reported (Assessment of intracranial aneurysm rupture based on morphology parameters and anatomical locations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Aneurysm have been published. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "The aim of the present study was to identify image-based morphological parameters and anatomical locations associated with intracranial aneurysm (IA) rupture. Nine morphological parameters and aneurysm location were evaluated in 150 patients with saccular IAs (82 unruptured, 68 ruptured) using three-dimensional geometry."

The news reporters obtained a quote from the research from Fudan University, "Aneurysm location and morphological parameters including size, aspect ratio, size ratio, height-width ratio, flow angle, aneurysm inclination angle, parent artery angle, vessel angle, and aneurysm shape were explored to identify a correlation with aneurysm rupture. These factors were analyzed using a two-tailed independent Student t test or the chi test for significance. Significant factors were further examined using logistic regression analysis. Additionally, receiver operating characteristic (ROC) analysis was performed to evaluate each parameter. Statistically significant differences were observed in ruptured and unruptured groups for aspect ratio, size ratio, height-width ratio, flow angle, aneurysm inclination angle, vessel angle, aneurysm shape, and aneurysm location. Logistic regression analysis further revealed that size ratio (OR 1.66; 95% CI 1.05 to 2.64), height-width ratio (OR 14.22; 95% CI 2.67 to 75.88), aneurysm inclination angle (OR 1.04; 95% CI 1.01 to 1.07), aneurysm shape (OR 4.68; 95% CI 2.44 to 8.98), and aneurysm location (OR 1.60; 95% CI 1.15 to 2.23) had the strongest independent correlation with ruptured IA. The ROC analysis showed that the size ratio and flow angle had the highest area under the curve, with values of 0.735 and 0.730, respectively. Size ratio, height-width ratio, aneurysm inclination angle, aneurysm shape, and aneurysm location
might be important for discriminating between ruptured and unruptured aneurysms."

According to the news reporters, the research concluded: "Further investigation will determine whether these morphological parameters and anatomical locations will be reliable predictors of aneurysm rupture."


Our news correspondents report that additional information may be obtained by contacting B. Leng, Fudan University, Shanghai Med College, Huashan Hosp, Dept. of Neurosurg, Shanghai 200040, People's Republic of China. Additional authors for this research include F. Xu, J.M. Ren, Q. Xu, Y.J. Liu, Y.L. Tian and B. Leng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/neurintsurg-2015-012112. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Intracranial Arterial Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Brain Diseases and Conditions, Cerebrovascular Disorders, Intracranial Aneurysm, Fudan University.

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Oncology - Carcinomas

**Findings from Fudan University in the Area of Carcinomas Reported**

(Depletion of the triggering receptor expressed on myeloid cells 2 inhibits progression of renal cell carcinoma via regulating related protein expression and PTEN-PI3K/Akt pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Carcinomas are discussed in a new report. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "The triggering receptor expressed on myeloid cells 2 (TREM-2) is suggested to be involved in the development of certain human malignancies. However, the functions of TREM-2 in renal cell carcinoma (RCC) are still less known."

Our news journalists obtained a quote from the research from Fudan University, "To reveal the effects of TREM-2 on the RCC progression, we examined the TREM-2 expression in RCC tumor tissues. Then, we analyzed the cell proliferation, cell apoptosis, cell cycle and expression of the relative factors in two selected RCC cell lines post RNA interference. We also analyzed the functions of TREM-2 in an in vivo nude mouse model. We found that, the expression of TREM-2 was abnormally elevated in RCC tumor tissues. Silencing TREM-2 inhibited cell growth, induced G1 phase arrest of cell cycle and cell apoptosis in RCC cells. In vivo, the results showed that depletion of TREM-2 significantly inhibited the ACHN tumor growth in the nude mouse model. The analysis of relative protein factors suggested that silencing TREM-2 downregulated the expression levels of Bcl2 and PCNA, and upregulated the
expression levels of Bax and caspase-3 in RCC cell lines. Depletion of TREM-2 inactivated PI3K/Akt pathway through increasing the expression of PTEN.

According to the news editors, the research concluded: "Taken together, TREM-2 acts as an oncogene in the development of RCC and can be considered as a novel therapeutic factor in the treatment of RCC."


Our news journalists report that additional information may be obtained by contacting W.Q. Qian, Fudan University, Huadong Hosp, Dept. of Urol, Shanghai 200040, People's Republic of China. Additional authors for this research include L. Sheng, J. Tao, R. Chen, Y. Li, Z.Q. Sun and W.Q. Qian.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Protein Expression, Myeloid Cells, Proteomics, Nephrology, Carcinomas, Oncology, Genetics, Kidney, Fudan University.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**Findings from Fukuoka University in the Area of Atrial Fibrillation Described (Circadian variations in laboratory measurements of coagulation assays after administration of rivaroxaban or warfarin in patients with nonvalvular atrial fibrillation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "Although rivaroxaban has a relatively shorter half-life and peak and trough plasma concentrations throughout the day than warfarin, rivaroxaban has been found to be non-inferior to warfarin in preventing thromboembolic events in patients with nonvalvular atrial fibrillation (NVAF). We measured circadian variations in laboratory measurements of coagulation assays for chronic treatment with rivaroxaban or warfarin in patients with NVAF."

Our news editors obtained a quote from the research from Fukuoka University, "We included 28 consecutive patients with NVAF who were treated with rivaroxaban (n = 13) or warfarin (n = 15). Blood samples were collected at 6 AM, 11 AM, and 3 PM on the same day and on the next morning at 6 AM. Prothrombin time (PT), international normalized ratio of the PT (PT-INR), activated partial thromboplastin time (APTT), prothrombin fragment 1 + 2 (F1 + 2), and protein C level/activity were measured in each patient. PT and PT-INR were significantly and consistently lower, and the F1 + 2 and protein C level/activity were significantly and consistently higher throughout the day in rivaroxaban-treated patients than in warfarin-treated patients. Significant increases in PT and PT-INR were observed 3 h after oral administration in the patients taking rivaroxaban in the morning, whereas, significant increases in the protein C level/activity were observed 3 h after oral administration in the patients taking..."
warfarin in the morning. The protein C level/activity was significantly and consistently higher in the rivaroxaban-treated patients than in the warfarin-treated patients throughout the day, which was in contrast to the findings for other coagulation assays."

According to the news editors, the research concluded: "These findings may partly explain the specific persistent anticoagulant effects of rivaroxaban even during the trough phase of the plasma concentration."

For more information on this research see: Circadian variations in laboratory measurements of coagulation assays after administration of rivaroxaban or warfarin in patients with nonvalvular atrial fibrillation. *Journal of Cardiology*, 2016;68(5-6):529-535. *Journal of Cardiology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

The news editors report that additional information may be obtained by contacting M. Ogawa, Fukuoka Univ, Sch Med, Endowed Dept. of Adv Therapeut Cardiovasc Dis, Fukuoku, Japan. Additional authors for this research include M. Ogawa, B. Zhang, S. Goto, Y. Nagata, J. Morii, S. Imaizumi, T. Yasuda, N. Matsumoto, A. Matsunaga and K. Saku.

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Keywords for this news article include: Fukuoka, Japan, Asia, Blood Coagulation Factor Inhibitors, Heart Disorders and Diseases, Enzymes and Coenzymes, Atrial Fibrillation, Cardiac Arrhythmias, Enzyme Precursors, Blood Proteins, Glycoproteins, Heart Disease, Prothrombin, Hematology, Protein C, Fukuoka University.

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**Oncology - Esophageal Cancer**

**Findings from G. Lin et al in Esophageal Cancer Reported (Increasing the interval between neoadjuvant chemoradiotherapy and surgery in esophageal cancer: a meta-analysis of published studies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Esophageal Cancer is now available. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "The aim of this meta-analysis was to clarify whether a longer interval between the end of neoadjuvant chemoradiotherapy (nCRT) and surgery is associated with better outcomes in esophageal cancer. nCRT followed by surgery is the most common approach for patients with resectable esophageal cancer. Operations are performed within 2-8 weeks after nCRT; however, the optimal interval between nCRT and surgery for esophageal cancer is unknown."

The news reporters obtained a quote from the research, "We performed a systematic literature search in MEDLINE, EMBASE, the Cochrane Central Register of Controlled Trials, and the Clinical Trials database for studies published between January 2000 and December 2014. Eligible studies were prospective or retrospective studies of esophageal cancer that assessed the effects of intervals longer or shorter than 7-8 weeks between the end of nCRT and surgery. The primary end-points were the overall survival (OS) and pathologic complete
A meta-analysis was performed to estimate odds ratios (ORs) using fixed-effect and random-effect models, with Review Manager 5.2. The five studies that met the eligibility requirements included 1,016 patients: 520 in the shorter interval group (7-8 weeks) and 496 in the longer interval group (>7-8 weeks). The results of our meta-analysis indicate that a longer interval between nCRT and surgery may be disadvantageous for 2-year OS (OR = 1.40, 95% confidence interval [CI]: 1.09-1.80, P = 0.010) and R0 resection rate (OR = 1.71, 95% CI: 1.14-2.22, P = 0.009). The pCR, anastomotic leak rate, and postoperative morbidity were similar in the two groups. A longer interval (more than the standard 7-8 weeks) from the end of preoperative nCRT to surgery did not increase the rate of pCR in esophageal cancer, and the different intervals had similar effects on anastomotic leak rate and postoperative mortality rates. However, the longer interval between nCRT and surgery may be disadvantageous for long-term OS."

According to the news reporters, the research concluded: "These results should be validated prospectively in a randomized trial."


Financial support for this research came from France AgriMer (National Agency of Agricultural and Maritime Products).

Our news correspondents report that additional information may be obtained by contacting Y.P. Xu, Zhejiang Key Lab Diag & Treatment Technol Thorac, Hangzhou 310022, Zhejiang, People's Republic of China. Additional authors for this research include S.Y. Han, Y.P. Xu and W.M. Mao.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Esophageal Cancer, Gastroenterology, Oncology, Surgery.

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Gram-Negative Bacteria - Escherichia coli

Findings from G. Mourand et al in Escherichia coli Reported (Rare Spontaneous Loss of Multiresistance Gene Carrying IncI/ST12 Plasmid in Escherichia coli in Pig Microbiota)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Escherichia coli have been presented. According to news originating from Ploufragan, France, by NewsRx correspondents, research stated, "Resistance to extended-spectrum cephalosporins (ESCs) is a matter of considerable concern for public health. Here, we studied the spontaneous loss of an extended-spectrum beta-lactamase (ESBL)-encoding plasmid from a rifampin-resistant Escherichia coli isolate orally inoculated into pigs under controlled conditions."

Financial support for this research came from France AgriMer (National Agency of Agricultural and Maritime Products).

Our news journalists obtained a quote from the research, "Fecal samples were collected and cultured on rifampin-supplemented medium, and the resistance of the E. coli
isolates to ESCs was studied by phenotypic tests, PCR detection of plasmid genes, and complete sequencing. The results showed that only 3 out of 353 rifampin-resistant E. coli isolates were ESC susceptible, and PCR and bioinformatics analysis confirmed the loss of the plasmid."

According to the news editors, the research concluded: "These in vivo experiments indicate that the loss of an ESBL-encoding plasmid seems a rare event in gut microbiota."

For more information on this research see: Rare Spontaneous Loss of Multiresistance Gene Carrying IncI/ST12 Plasmid in Escherichia coli in Pig Microbiota. Antimicrobial Agents and Chemotherapy, 2016;60(10):6046-6049. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from I. Kempf, Univ Bretagne Loire, Agence Natl Securite Sanitaire Anses, Lab Ploufragan Plouzane, Ploufragan, France. Additional authors for this research include F. Touzain, E. Jouy, M.A. Fleury, E. Denamur and I. Kempf.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00864-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ploufragan, France, Europe, Gram-Negative Bacteria, Genetics, Gammaproteobacteria, Enterobacteriaceae, Escherichia coli, Escherichia Coli, Proteobacteria.

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Heart Disorders and Diseases - Arrhythmogenic...

Findings from G.D. Aquaro and Colleagues Provides New Insights into Arrhythmogenic Right Ventricular Dysplasia (Usefulness of Combined Functional Assessment by Cardiac Magnetic Resonance and Tissue Characterization Versus Task Force Criteria ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Arrhythmogenic Right Ventricular Dysplasia is the subject of a report. According to news reporting originating in Pisa, Italy, by NewsRx journalists, research stated, "Current task force criteria (TFC) of cardiac magnetic resonance (CMR) for the diagnosis of arrhythmogenic right ventricular cardiomyopathy (ARVC/D) were generated by comparing probands (mean age of 44 years) to healthy participants of the multi-ethnic study of atherosclerosis (mean age of 60 years). These age differences may be a selection bias because right ventricular end-diastolic volume index decreases 4.6% per decade."

The news reporters obtained a quote from the research, "Moreover, fat infiltration and late gadolinium enhancement were not included. We evaluated the diagnostic accuracy of TFC using the same methodology used by the task force but comparing probands and age- and gender-matched healthy controls and considering also other morphofunctional and tissue abnormalities detected by CMR. Forty-seven probands with previous diagnosis of ARVC/D (excluding probands if CMR was used for diagnosis) were compared with 216 age- and gender-matched healthy controls. TFC had optimal specificity (100%) but poor sensitivity (20% for
major and 13% for minor criteria). The presence of any pre- and post-contrast signal abnormalities had 100% specificity and 81% sensitivity. The best diagnostic accuracy (98%) was achieved by the combined evaluation of any right ventricular wall motion abnormality (excluding hypokinesia) with any signal abnormality (including left ventricular fat infiltration and late gadolinium enhancement) yielding a 100% specificity and 96% sensitivity. Left ventricular was involved in 45% of the probands. Current TFC for CMR presented optimal specificity but poor sensitivity to identify patient with ARVC/D."

According to the news reporters, the research concluded: "Signal and wall motion parameters of CMR should be considered together to achieve the best diagnostic accuracy for the diagnosis of ARVC/D."


Our news correspondents report that additional information may be obtained by contacting G.D. Aquaro, G Monasterio CNR Tuscany Fdn, UOC Risonanza Magnet, Pisa, Italy. Additional authors for this research include A. Barison, G. Todiere, C. Grigoratos, L.A. Ali, G. Di Bella, M. Emdin and P. Festa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjcard.2016.08.056. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pisa, Italy, Europe, Arrhythmogenic Right Ventricular Dysplasia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Ventricular Cardiomyopathy, Cardiac Magnetic Resonance, Diagnostics and Screening, Cardiomyopathies, Heart Disease, Cardiology.

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Hydrocarbons

Findings from G.M. Rusch and Co-Authors Broaden Understanding of Hydrocarbons (An approach for the development of emergency response levels for halogenated hydrocarbons)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hydrocarbons have been presented. According to news reporting from Sarasota, Florida, by NewsRx editors, the research stated, "Emergency exposure guidance levels have been developed for many halogenated hydrocarbons. These can be employed in the event of accidental releases or terrorist actions."

Financial support for this research came from Honeywell International.

The news correspondents obtained a quote from the research, "However, for a chemical release involving a substance without existing guidance levels, there is a need to be able to develop one rapidly. Two data sources are available, the Acute Exposure Guideline Levels (AEGL) and Emergency Response Guideline Levels (ERPG). The subset of halogenated
hydrocarbons and related substances included in these data sources represent 30 chemicals and 41 risk assessments. The ratios for serious toxicity/annoyance level and for potential lethality/serious toxicity were calculated. On reviewing the results, the geometric means provided the best basis for extrapolation. When the geometric means of the ratios of ERPG-3/ERPG-2 and AEGL-3/AEGL-2 were calculated their combined mean was 4.40. The geometric standard deviation for the combined data set was 2.00 suggesting the data were homogeneous. Likewise, calculation of the geometric means for ERPG-2/1 and AEGL-2/1 the combined ratio was 3.93. The geometric standard deviation for the combined set was 1.46, again suggesting homogeneity of the data.

According to the news reporters, the research concluded: "The review described in this paper confirmed that the time default 'n' values of 3 and 1 (ten Berge et al., 1986) are appropriate for extrapolation to shorter and longer exposure times, respectively."


Our news journalists report that additional information may be obtained by contacting G.M. Rusch, Risk Assessment & Toxicol Serv, Sarasota, FL 34241, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.06.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sarasota, Florida, United States, North and Central America, Organic Chemicals, Hydrocarbons.

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**Nutritional and Metabolic Diseases and Conditions -…**

**Findings from GNS Science Yields New Findings on Morbid Obesity (Morbid Obesity in Disasters: Bringing the "Conspicuously Invisible" into Focus)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Morbid Obesity are presented in a new report. According to news reporting originating in Wellington, New Zealand, by NewsRx journalists, research stated, "It is a frightening reality for some people to be caught up in the midst of a disaster, alone and vulnerable due to their relative size, shape or weight. A literature search failed to find any empirical reports of data specific to body mass index (BMI) in disaster situations."

The news reporters obtained a quote from the research from GNS Science, "A handful of largely anecdotal reports described situations in which people categorised as morbidly obese were negatively impacted in disasters because of their size and/or weight. While a small number of toolkits and training resources were found, there remains a paucity of research in relation to obesity and emergency planning or disaster risk reduction. This is somewhat surprising, considering the concern about increasing levels of obesity globally."

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**Findings from GNS Science Yields New Findings on Morbid Obesity (Morbid Obesity in Disasters: Bringing the "Conspicuously Invisible" into Focus)**
According to the news reporters, the research concluded: "Research is urgently needed to prioritise and address the specific considerations of people with morbid obesity and how communities plan, prepare, respond, and recover from disasters and public health emergencies."


Our news correspondents report that additional information may be obtained by contacting L. Gray, GNS Sci, Wellington 6021, New Zealand.

Keywords for this news article include: Wellington, New Zealand, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Morbid Obesity, Overnutrition, Bariatrics, GNS Science.

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Digestive System Diseases and Conditions - …

**Findings from Gachon University Yields New Findings on Inflammatory Bowel Disease (MicroRNA-132 and microRNA-223 control positive feedback circuit by regulating FOXO3a in inflammatory bowel disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Inflammatory Bowel Disease. According to news reporting from Inchon, South Korea, by NewsRx journalists, research stated, "Although many progresses have been achieved for inflammatory bowel disease (IBD), it is still remained as idiopathic disease to be completely controlled. MicroRNAs (miRNAs) have been identified as key players in many human diseases through degradation or translational inhibition of target genes."

The news correspondents obtained a quote from the research from Gachon University, "Because role of miRNAs in IBD is not completely understood yet, we need to identify miRNAs as novel targets for treatment of IBD. Microarray analysis for miRNAs was performed using dextran sulfate sodium-induced colitis samples and selected differentially regulated miRNAs. Candidate genes were validated using in vitro system and IBD patient samples. Molecular mechanism for regulation of inflammatory signaling was identified using gene modulation system of miRNAs. We selected 14 upregulated and 15 downregulated miRNAs through microarray analysis. Among candidate miRNAs, significant upregulation of miR-132 and miR-223 was confirmed in inflamed mouse tissues as well as human IBD patient tissues. Through bioinformatics analysis, we identified FOXO3a as direct target of miRNAs and confirmed regulatory mechanism using luciferase assay. Expression of miRNAs clearly suppressed the level of I kappa B alpha through downregulation of FOXO3a, leading to enhanced NF-kappa B signaling to promote the production of pro-inflammatory cytokines. The downregulation of FOXO3a concurrent with upregulation of cytokines was significantly reversed by sequestration of miRNAs with miRNA sponges."

According to the news reporters, the research concluded: "Our findings provided the evidences that miR-132 and 223 are critical mediators in positive circuit for pathogenesis of
IBD by negatively regulating FOXO3a to enhance the expression of inflammatory cytokines and can be a good therapeutic target for IBD treatment.


Our news journalists report that additional information may be obtained by contacting S. Hong, Gachon Univ, Lee Gil Ya Canc & Diabet Inst, Dept. of Molecular Med, Inchon, South Korea. Additional authors for this research include H.Y. Kwon, H.T.H. Thi, H.J. Lee, G. Il Kim, K.B. Hahm and S. Hong.

Keywords for this news article include: Inchon, South Korea, Asia, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Bowel Diseases and Conditions, Inflammatory Bowel Disease, Gastroenteritis, Cytokines, Genetics, Gachon University.

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**Oncology - Leukemia**

**Findings from General Hospital Provides New Data about Leukemia (Sulforaphane-induced apoptosis in human leukemia HL-60 cells through extrinsic and intrinsic signal pathways and altering associated genes expression assayed by cDNA microarray)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Leukemia have been presented. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "Sulforaphane (SFN), one of the isothiocyanates, is a biologically active compound extracted from cruciferous vegetables, and has been shown to induce cytotoxic effects on many human cancer cells including human leukemia cells. However, the exact molecular mechanism and altered gene expression associated with apoptosis is unclear."

Financial support for this research came from China Medical University, Taichung, Taiwan.

The news reporters obtained a quote from the research from General Hospital, "In this study, we investigated SFN-induced cytotoxic effects and whether or not they went through cell-cycle arrest and induction of apoptosis and further examined molecular mechanism and altered gene expression in human leukemia HL-60 cells. Cell viability, cell-cycle distribution, sub-G1 (apoptosis), reactive oxygen species (ROS) and Ca production, levels of mitochondrial membrane potential (DPS), and caspase-3, -8, and -9 activities were assayed by flow cytometry. Apoptosis-associated proteins levels and gene expressions were examined by Western blotting and cDNA microarray assays, respectively. Results indicated that SFN decreased viable cells, induced G2/M phase arrest and apoptosis based on sub-G1 phase development. Furthermore, SFN increased ROS and Ca production and decreased the levels of DPS and activated caspase-3, -8, and -9 activities in HL-60 cells. SFN significantly upregulated the expression of BAX, Bid, Fas, Fas-L, caspase-8, Endo G, AIF, and cytochrome c, and inhibited the antiapoptotic
proteins such as Bcl-x and XIAP, that is associated with apoptosis. We also used cDNA microarray to confirm several gene expressions such as caspase -8, -3, -4, -6, and -7 that are affected by SFN."

According to the news reporters, the research concluded: "Those results indicated that SFN induced apoptosis in HL-60 cells via Fas-and mitochondria-dependent pathways. 2016 Wiley Periodicals, Inc. Environ Toxicol 32:311-328."


Our news correspondents report that additional information may be obtained by contacting H.S. Shang, Dept. of Pathology, National Defense Medical Center, Division of Clinical Pathology, Tri-Service General Hospital, Taipei, Taiwan. Additional authors for this research include Y.L. Shih, C.H. Lee, S.C. Hsueh, J.Y. Liu, N.C. Liao, Y.L. Chen, Y.P. Huang, H.F. Lu and J.G Chung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/tox.22237. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taipei, Taiwan, Caspases, Genetics, Leukemia, Oncology, Apoptosis, Hematology, HL 60 Cells, Peptide Hydrolases, Enzymes and Coenzymes, Cysteine Endopeptidases, Granulocyte Precursor Cells.

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Transplant Medicine - Organ Transplants

Findings from Georges Pompidou European Hospital in the Area of Organ Transplants Reported (Early Identification of Patients With Out-of-Hospital Cardiac Arrest With No Chance of Survival and Consideration for Organ Donation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Organ Transplants. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "In patients with out-of-hospital cardiac arrest (OHCA), care requirements can conflict with the need to promptly focus efforts on organ donation in patients who are pronounced dead. To evaluate objective criteria for identifying patients with OHCA with no chance of survival during the first minutes of cardiopulmonary resuscitation to enable prompt orientation toward organ donation."

The news reporters obtained a quote from the research from Georges Pompidou European Hospital, "Retrospective assessment using OHCA data from 2 registries and 1 trial. France (Paris Sudden Death Expertise Center [SDEC] prospective cohort [2011 to 2014] and PRESENCE multicenter cluster randomized trial [ClinicalTrials.gov: NCT01009606] [2009 to 2011]) and the United States (King County, Washington, prospective cohort [2006 to 2011]). 1771 patients from the Paris SDEC 1-year cohort (2011 to 2012) and 5192 from the validation cohorts. Evaluation of 3 objective criteria (OHCA not witnessed by emergency medical services..."
personnel, nonshockable initial cardiac rhythm, and no return of spontaneous circulation before receipt of a third 1-mg dose of epinephrine), survival rate at hospital discharge among patients meeting these criteria, performance of the criteria, and number of patients eligible for organ donation. In the Paris SDEC 1-year cohort, the survival rate among the 772 patients with OHCA who met the objective criteria was 0% (95% CI, 0.0% to 0.5%), with a specificity of 100% (CI, 97% to 100%) and a positive predictive value of 100% (CI, 99% to 100%). These results were verified in the validation cohorts. Ninety-five (12%) patients in the Paris SDEC 1-year cohort may have been eligible for organ donation. Limitation: Several patients had unknown outcomes.

According to the news reporters, the research concluded: "Three objective criteria enable the early identification of patients with OHCA with essentially no chance of survival and may help in decision making about the organ donation process."

For more information on this research see: Early Identification of Patients With Out-of-Hospital Cardiac Arrest With No Chance of Survival and Consideration for Organ Donation. Annals of Internal Medicine, 2016;165(11):770-778,146-150. Annals of Internal Medicine can be contacted at: Amer Coll Physicians, Independence Mall West 6TH And Race St, Philadelphia, PA 19106-1572, USA.

Our news correspondents report that additional information may be obtained by contacting X. Jouven, Hopital European Georges Pompidou, Cardiol Department, F-75015 Paris, France. Additional authors for this research include W. Bougouin, F. Dumas, P. Carli, C. Antoine, L. Jacob, B. Dahan, F. Beganton, J.P. Empana, E. Marijon, N. Karam, A. Loupy, C. Lefaucheur, D. Jost, A. Cariou, F. Adnet, T.D. Rea and X. Jouven.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7326/M16-0402. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Heart Disorders and Diseases, Transplant Medicine, Organ Transplants, Transplantation, Cardiac Arrest, Organ Donation, Heart Attack, Biomedicine, Cardiology, Hospital, Surgery, Georges Pompidou European Hospital.

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Hematology - Plasma

Findings from Georgetown University Has Provided New Data on Plasma (The enigma of continual plasma volume expansion in pregnancy: critical role of the renin-angiotensin-aldosterone system)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematology - Plasma have been published. According to news reporting originating from Washington, District of Columbia, by NewsRx correspondents, research stated, "Pregnancy is characterized by avid renal sodium retention and plasma volume expansion in the presence of decreased blood pressure. Decreased maternal blood pressure is a consequence of reduced systemic vascular tone, which results from an increased production of vasodilators [nitric oxide (NO), prostaglandins, and relaxin] and decreased vascular responsiveness to the potent vasoconstrictor (angiotensin II)."

Our news editors obtained a quote from the research from Georgetown University,
"The kidneys participate in this vasodilatory response, resulting in marked increases in renal plasma flow and glomerular filtration rate (GFR) during pregnancy. In women, sodium retention drives plasma volume expansion (similar to 40%) and is necessary for perfusion of the growing uterus and fetus. For there to be avid sodium retention in the presence of the potent natriuretic influences of increased NO and elevated GFR, there must be modifications of the tubules to prevent salt wasting."

According to the news editors, the research concluded: "The purpose of this review is to summarize these adaptations."


The news editors report that additional information may be obtained by contacting C.A. West, Georgetown University, Dept. of Med, Washington, DC, United States. Additional authors for this research include J.M. Sasser and C. Baylis.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Aldosterone, Article Review, 11-Hydroxycorticosteroids, Adrenal Cortex Hormones, Biological Factors, Peptide Proteins, Peptide Hormones, Oligopeptides, Neuropeptides, Angiotensins, Hematology, Autacoids, Peptides, Plasma, Blood, Georgetown University.

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Mosquito-Borne Diseases - Malaria

Findings from Georgetown University Reveals New Findings on Malaria (Endoperoxide Drug Cross-Resistance Patterns for Plasmodium falciparum Exhibiting an Artemisinin Delayed-Clearance Phenotype)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mosquito-Borne Diseases - Malaria. According to news reporting originating from Washington, District of Columbia, by NewsRx correspondents, research stated, "The ring-stage susceptibility assay was modified to quantify the susceptibilities of multiple strains of control and delayed-clearance phenotype (DCP) Plasmodium falciparum strains to seven endoperoxide antimalarial drugs."

Financial support for this research came from HHS | National Institutes of Health (NIH).

Our news editors obtained a quote from the research from Georgetown University, "The susceptibility of all of the DCP lines to six of the drugs was lower than that of the controls. In contrast, DCP parasites did not show reduced susceptibility to the synthetic endoperoxide drug OZ439."

According to the news editors, the research concluded: "These data show that it is possible to circumvent emerging artemisinin resistance with a modified endoperoxide drug."

For more information on this research see: Endoperoxide Drug Cross-Resistance Patterns for Plasmodium falciparum Exhibiting an Artemisinin Delayed-Clearance Phenotype. Antimicrobial Agents and Chemotherapy, 2016;60(11):6952-6956. Antimicrobial Agents and
Inflammation

Findings from Georgetown University in the Area of Inflammation Described (Rac1-Mediated DNA Damage and Inflammation Promote Nf2 Tumorigenesis but Also Limit Cell-Cycle Progression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Inflammation. According to news reporting from Washington, District of Columbia, by NewsRx journalists, research stated, "Merlin encoded by the Nf2 gene is a bona fide tumor suppressor that has been implicated in regulation of both the Hippo-Yap and Rac1-Pak1 pathways."

Funders for this research include NIH, V Foundation, Advocure NF2 Foundation, Georgetown Undergraduate Research Opportunities Program, Cancer Center Support.

The news correspondents obtained a quote from the research from Georgetown University, "Using genetically engineered murine liver models, we show that co-deletion of Rac1 with Nf2 blocks tumor initiation but paradoxically exacerbates hepatomegaly induced by Nf2 loss, which can be suppressed either by treatment with pro-oxidants or by co-deletion of Yap. Our results suggest that while Yap acts as the central driver of proliferation during Nf2 tumorigenesis, Rac1 primarily functions as an inflammation switch by inducing reactive oxygen species that, on one hand, induce nuclear factor kappa B signaling and expression of inflammatory cytokines, and on the other activate p53 checkpoint and senescence programs dampening the cyclin D1-pRb-E2F1 pathway."

According to the news reporters, the research concluded: "Interestingly, senescence markers are associated with benign NF2 tumors but not with malignant NF2 mutant mesotheliomas, suggesting that senescence may underlie the benign nature of most NF2 tumors."

For more information on this research see: Rac1-Mediated DNA Damage and Inflammation Promote Nf2 Tumorigenesis but Also Limit Cell-Cycle Progression. Developmental Cell, 2016;39(4):452-465. Developmental Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Developmental Cell - www.journals.elsevier.com/developmental-cell/)
Our news journalists report that additional information may be obtained by contacting C.L. Yi, Georgetown University, Medical Center, Lombardi Comprehensive Cancer Center, Washington, DC 20057, United States. Additional authors for this research include S.R. Bollam, S.M. White, S.Z. Laughlin, G.T. Graham, M. Wadhwa, H.Y. Chen, C. Nguyen, J. Vitte, M. Giovannini, J. Toretsky and C.L. Yi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.devcel.2016.09.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Inflammation, Genetics, Georgetown University.

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Findings from Georgia Institute of Technology Yields New Data on CD Antigens [Local Cellular and Cytokine Cues in the Spleen Regulate In Situ T Cell Receptor Affinity, Function, and Fate of CD8(+) T Cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - CD Antigens. According to news reporting out of Atlanta, Georgia, by NewsRx editors, research stated, "T cells rapidly undergo contraction upon viral clearance, but how T cell function and fate are determined during this phase is unclear. During the contraction phase of an acute infection with lymphocytic choriomeningitis virus, we found that virus-specific CD8(+) T cells within the splenic red pulp (RP) had higher two-dimensional (2D) effective affinity than those within the white pulp (WP)."

Our news journalists obtained a quote from the research from the Georgia Institute of Technology, "This increased antigen recognition of RP-derived CD8(+) T cells correlated with more efficient target cell killing and improved control of viremia. FoxP3(+) regulatory T cells and cytokine TGF-beta limited the 2D-affinity in the WP during the contraction phase. Anatomical location drove gene expression patterns in CD8(+) T cells that led to preferential differentiation of memory precursor WP T cells into long-term memory cells."

According to the news editors, the research concluded: "These results highlight that intricate regulation of T cell function and fate is determined by anatomic compartmentalization during the early immune contraction phase."

For more information on this research see: Local Cellular and Cytokine Cues in the Spleen Regulate In Situ T Cell Receptor Affinity, Function, and Fate of CD8(+) T Cells. *Immunity*, 2016;45(5):988-998. *Immunity* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)

Our news journalists report that additional information may be obtained by contacting C. Zhu, Georgia Inst Technol, Wallace H Coulter Dept. of Biomed Engn, Atlanta, GA 30332, United States. Additional authors for this research include P. Jothikumar, M.S. Suthar, C. Zhu and A. Grakoui.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Hemic and Immune Systems,
Findings from Ghent University Has Provided New Data on Antihyperuricemic Agents (Sampling on ice will not yield reliable uric acid monitoring in rasburicase-treated patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antihyperuricemic Agents have been published. According to news reporting from Ghent, Belgium, by NewsRx journalists, research stated, "Rasburicase is administered to prevent hyperuricemia and counteract the consequences of tumour lysis syndrome (TLS). The benefit of monitoring uric acid (UA) concentrations in rasburicase-treated patients is questionable as spuriously low values are most frequently encountered."

The news correspondents obtained a quote from the research from Ghent University, "The manufacturer recommends a cold sample handling procedure to arrest ex vivo uricolysis. Contrariwise, it was recently considered that the temperature does not significantly affects rasburicase uricolysis. We here present a thorough investigation on rasburicase kinetics in clinical samples. UA was spiked in sera from rasburicase-treated patients at varying concentrations, divided in three fractions for incubation at 4 degrees C, 22 degrees C or 37 degrees C and measured at fix time points. The Michaelis-Menten constant (K-m) and activation energy (E-act) were estimated by linear regression and the Arrhenius equation, respectively. Additionally, UA concentrations retrieved in sera of rasburicase-treated patients were retrospectively studied (3.5 years period). Although uricolysis increased at a higher temperature, incubation at 4 degrees C did not arrest uricolysis entirely. The yielded K-m of 128 mu mol/L highlights that maximum uricolytic activity is reached at UA concentrations lower than those observed for TLS patients."

According to the news reporters, the research concluded: "Furthermore, the E-act of 27 kJ/mol corresponds to only a modest logarithmic decrease of the uricolytic capacity by 4-5% per -1 degrees C. In routine practise, 'negative' UA concentrations were observed during 88.5% of the rasburicase therapy episodes, even when samples were stored at 4 degrees C. In contrast to manufacturer's guidelines, simple cooling of the sample will not arrest the temperature-dependent uricolysis provoked by rasburicase and therefore not yield reliable UA monitoring."

For more information on this research see: Sampling on ice will not yield reliable uric acid monitoring in rasburicase-treated patients. Clinical Biochemistry, 2016;49(18):1390-1395. Clinical Biochemistry can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Clinical Biochemistry - www.journals.elsevier.com/clinical-biochemistry/)

Our news journalists report that additional information may be obtained by contacting J. Delanghe, University of Ghent, Dept. of Clin Chem Microbiol & Immunol, Ghent, Belgium. Additional authors for this research include V. Stove and J. Delanghe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinbiochem.2016.04.011. This DOI is a link to an online electronic
Cardiovascular Diseases and Conditions - Venous...

Findings from Gil Medical Center Broaden Understanding of Venous Thrombosis (Living Donor Liver Transplantation in a Patient With Extensive Portomesenteric Venous Thrombosis: Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Venous Thrombosis have been presented. According to news originating from Inchon, South Korea, by NewsRx correspondents, research stated, "Extensive portomesenteric venous thrombus preventing restoration of adequate portal venous flow used to be considered a contraindication to liver transplantation."

Our news journalists obtained a quote from the research from Gil Medical Center, "The subject was a 49-year-old male with hepatitis B cirrhosis and extensive thrombosis of portal, splenic, and superior mesenteric veins, and two large collateral vessels; one dilated and tortuous inferior to the pancreaticoduodenal vein and relevant to splanchnic venous return and the other a dilated coronary vein relevant to splenic venous return. During operation, the portal vein was anastomosed to these large collateral vessels using cryopreserved iliac vein."

According to the news editors, the research concluded: "Portal reconstruction with large collateral vessels in living-donor liver transplantation could be used selectively for patients with extensive portomesenteric venous thrombosis."


The news correspondents report that additional information may be obtained from S. Choi, Gachon Med & Sci, Gil Med Center, Dept. of Surg, Inchon, South Korea. Additional authors for this research include K.K. Kim, W.S. Lee, J.M. Kang and Y.H. Park.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.03.029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Inchon, South Korea, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Venous Thrombosis, Hematology, Gil Medical Center.

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Liver Diseases and Conditions - Hepatitis C Virus

Findings from Gilead Sciences Inc. Update Understanding of Hepatitis C Virus [Clinical Resistance to Velpatasvir (GS-5816), a Novel Pan-Genotypic Inhibitor of the Hepatitis C Virus NS5A Protein]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases and Conditions - Hepatitis C Virus have been presented. According to news reporting originating from Foster City, California, by NewsRx correspondents, research stated, "Velpatasvir (VEL, GS-5816) is a novel pan-genotypic hepatitis C virus (HCV) nonstructural protein 5A (NS5A) inhibitor with activity against genotype 1 (GT1) to GT6 HCV replicons. In a phase 1b 3-day monotherapy study, patients treated with a 150-mg dose of GS-5816 had a mean maximal HCV RNA decline of >= 3.3 log (10) IU/ml in GT1a, -1b, -2, -3, and -4."

Our news editors obtained a quote from the research from Gilead Sciences Inc., "This report characterizes virologic resistance to VEL in these patients. NS5A resistance-associated substitutions (RASs) were detected by deep sequencing (1% cutoff) pretreatment in 22/70 patients, i.e., 10/35 (29%) patients with GT1a, 1/8 (13%) with GT1b, 4/8 (50.0%) with GT2, 5/17 (29.4%) with GT3, and 2/2 (100.0%) with GT4. In GT1a and GT3 patients, pretreatment RASs were associated with a slightly reduced HCV RNA response compared to that of patients without pretreatment RASs; among patients with GT1b, GT2, and GT4, no significant difference in response was observed in those with or without pretreatment RASs. Following treatment, the pattern of emergent RASs was more complex for GT1a than for the other genotypes. In GT1a, substitutions emerged at positions M28, Q30, L31, P32, H58, E92, and Y93, with the most prevalent substitutions at positions Y93, M28, and L31. RASs were observed at two positions in GT1b and GT2 (Y93 and L31), three positions in GT3 (Y93, L31, and E92), and four positions in GT4 (L28, M31, P32L, and Y93)."

According to the news editors, the research concluded: "RASs that were present pretreatment persisted through the 48-week follow-up period; however, RASs emerging during treatment were more likely to decline both in prevalence and in frequency within the viral population during follow-up."

For more information on this research see: Clinical Resistance to Velpatasvir (GS-5816), a Novel Pan-Genotypic Inhibitor of the Hepatitis C Virus NS5A Protein. Antimicrobial Agents and Chemotherapy, 2016;60(9):5368-5378. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting H. Dvory-Sobol, Gilead Sci, Foster City, CA 94404, United States. Additional authors for this research include H. Dvory-Sobol, B.P. Doehle, A.S. Worth, J. McNally, D.M. Brainard, J.O. Link, M.D. Miller and H.M. Mo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00763-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Foster City, California, United States, North and Central America, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Flaviviridae Infections, Hepatitis C Virus,
Findings from GlaxoSmithKline Reveals New Findings on Pharmacology (Apneic events - A proposed new target for respiratory safety pharmacology)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pharmacology have been published. According to news reporting from King of Prussia, Pennsylvania, by NewsRx editors, the research stated, "Current practice in respiratory safety pharmacology generally follows the regulatory guidance provided by the ICH document S7A and focuses on measures of pulmonary ventilation. What these measures do not account for is the ability of drugs to cause ventilatory instability or interruptions in ventilatory rhythm."

The news correspondents obtained a quote from the research from GlaxoSmithKline, "Ventilatory instability can be identified by the presence of prolonged end-expiratory pauses or apneic periods. An apneic event has been defined as an apneic period of sufficient duration to cause hypoxia (i.e., decrease in hemoglobin oxygen saturation >= 3%). Repeated apneic events are often referred to as intermittent hypoxia. Characterizing ventilatory instability is important since (1) occurrence of apneic events in humans can lead to serious adverse outcomes such as systemic and pulmonary hypertension, cardiac arrhythmia, stroke, CNS dysfunction, metabolic disorders, enhanced tumor growth and death, (2) drugs are known to cause or exacerbate apneic events in humans, and (3) there is a preexisting condition of ventilatory instability referred to as sleep apnea that is prevalent in the human population."

According to the news reporters, the research concluded: "Evaluating this new target in respiratory safety pharmacology studies is needed to ensure that the potential for new drugs to cause or exacerbate apneic events can be identified and the impact on patient safety characterized."

For more information on this research see: Apneic events - A proposed new target for respiratory safety pharmacology. Regulatory Toxicology and Pharmacology, 2016;81():194-200. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting D.J. Murphy, GlaxoSmithKline, Dept. of Safety Pharmacol, King Of Prussia, PA, United States.

Keywords for this news article include: King of Prussia, Pennsylvania, United States, North and Central America, Pharmaceuticals, Pharmacology, GlaxoSmithKline.

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Stem Cell Research - Hematopoietic Stem Cells

Findings from Goethe-University in Hematopoietic Stem Cells Provides New Insights (DNA-damage response gene GADD45A induces differentiation in hematopoietic stem cells without inhibiting cell cycle or survival)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Stem Cell Research - Hematopoietic Stem Cells. According to news reporting from Frankfurt, Germany, by NewsRx journalists, research stated, "Hematopoietic stem cells (HSCs) maintain blood cell production life-long by their unique abilities of self-renewal and differentiation into all blood cell lineages. Growth arrest and DNA-damage-inducible 45 alpha (GADD45A) is induced by genotoxic stress in HSCs."

Financial support for this research came from The LOEWE Center for Cell and Gene Therapy.

The news correspondents obtained a quote from the research from Goethe-University, "GADD45A has been implicated in cell cycle control, cell death and senescence, as well as in DNA-damage repair. In general, GADD45A provides cellular stability by either arresting the cell cycle progression until DNA damage is repaired or, in cases of fatal damage, by inducing apoptosis. However, the function of GADD45A in hematopoiesis remains controversial. We revealed the changes in murine HSC fate control orchestrated by the expression of GADD45A at single cell resolution. In contrast to other cellular systems, GADD45A expression did not cause a cell cycle arrest or an alteration in the decision between cell survival and apoptosis in HSCs. Strikingly, GADD45A strongly induced and accelerated the differentiation program in HSCs. Continuous tracking of individual HSCs and their progeny via time-lapse microscopy elucidated that once GADD45A was expressed, HSCs differentiate into committed progenitors within 29 hours. GADD45A-expressing HSCs failed to long-term reconstitute the blood of recipients by inducing multilineage differentiation in vivo. Importantly, g-irradiation of HSCs induced their differentiation by upregulating endogenous GADD45A. The differentiation induction by GADD45A was transmitted by activating p38 Mitogen-activated protein kinase (MAPK) signaling and allowed the generation of megakaryocytic-erythroid, myeloid, and lymphoid lineages."

According to the news reporters, the research concluded: "These data indicate that genotoxic stress-induced GADD45A expression in HSCs prevents their fatal transformation by directing them into differentiation and thereby clearing them from the system."


Our news journalists report that additional information may be obtained by contacting S. Wingert, LOEWE Center for Cell and Gene Therapy and Dept. of Medicine, Hematology, Oncology, Goethe University Frankfurt, Frankfurt am Main, Germany. Additional authors for this research include F.B. Thalheimer, N. Haetscher, M. Rehage, T. Schroeder and M.A Rieger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2282. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Europe, Germany, Genetics, Frankfurt, DNA Damage, Hematology, Proteomics, DNA Research, Bone Marrow Cells, Stem Cell Research, Deoxyribonucleic Acid, Hematopoietic Stem Cells.

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Oncology - Cancer Risk

Findings from Government Medical College Update Understanding of Cancer Risk (Cytochrome P450 1A1 genetic polymorphisms as cancer biomarkers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cancer Risk. According to news reporting out of Uttarakhand, India, by NewsRx editors, research stated, "Phase I metabolic enzyme CYP1A1 plays an important role in xenobiotics metabolism and has been extensively studied as a cancer risk biomarker. CYP1A1 is polymorphic and its four variants, e.g., CYP1A1* 2 A, CYP1A1* 2C, CYP1A1* 3 and CYP1A1* 4 with trivial names m1, m2, m3, and m4 respectively, are most commonly studied for cancer link."

Our news journalists obtained a quote from the research from Government Medical College, "Gene-gene interaction studies combining polymorphisms of this enzyme with those of phase II detoxifying enzymes, especially glutathione S-transferases (GSTs) revealed greater risk for cancer susceptibility. Variants of CYP1A1 have also been found to be associated with chemotherapeutic adverse-effects. Results of these studies, however, remained largely contradictory mainly because of lack of statistical power due to involvement of small sample size."

According to the news editors, the research concluded: "Strongly powered experimental designs involving gene-gene, gene-environment interactions are required in order to validate CYP1A1 as reliable cancer-biomarker."

For more information on this research see: Cytochrome P450 1A1 genetic polymorphisms as cancer biomarkers. Indian Journal of Cancer, 2015;52(4):479-89.

Our news journalists report that additional information may be obtained by contacting A. Bag, Dept. of Biochemistry, Government Medical College, Haldwani, Uttarakhand, India. Additional authors for this research include N.S. Jyala and N. Bag.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178380. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Genetics, Oncology, Uttarakhand, Cancer Risk, Cytochromes, Hemeproteins, Article Review, Risk and Prevention, Diagnostics and Screening.

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Reactive Oxygen Species
Findings from Grigore T. Popa University of Medicine and Pharmacy Has Provided New Data on Reactive Oxygen Species (In vitro Evaluation of Morphological Integrity of Dental Enamel Exposed to Carbamide Peroxide-based Bleaching Agent)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Reactive Oxygen Species are presented in a new report. According to news reporting originating in Iasi, Romania, by NewsRx journalists, research stated, "This article presents the effect of the bleaching above the enamel of the teeth using three fundamental approaches for bleaching non vital teeth. Our purpose is to assess the effects of the carbamide peroxide on the structure of the tooth enamel at different concentrations and to check if the destructive effects are important at low concentrations."

The news reporters obtained a quote from the research from the Grigore T. Popa University of Medicine and Pharmacy, "In order to assess the morphological and topographical modifications of the whitening treatment, the three samples (incisor, premolar, molar) were analyzed with a Scanning Electron Microscope, type Quanta 200 (FEI Company). More detailed morphological aspects of the samples before and after the whitening treatment were analysed using a Scanning Probe Microscope (Solver PRO-M, NTMDT, Russia) and various tridimensional statistical parameters were calculated from the AFM measurements."

According to the news reporters, the research concluded: "Significantly higher 3D roughness parameters indicate that the surfaces were more irregular, because the demineralization process of the enamel, exhibiting numerous and deeper peaks and valleys."

For more information on this research see: In vitro Evaluation of Morphological Integrity of Dental Enamel Exposed to Carbamide Peroxide-based Bleaching Agent. Revista De Chimie, 2016;67(10):2103-2105. Revista De Chimie can be contacted at: Chiminform Data S A, Calea Plevnei Nr 139, Sector 6, Bucharest R-77131, Romania.

Our news correspondents report that additional information may be obtained by contacting R. Vasluianu, Grigore T Popa Univ Med & Pharm, Fac Med Dental, Iasi 700115, Romania. Additional authors for this research include R. Vasluianu, L. Matricala, I. Stoica and N.C. Forna.

Keywords for this news article include: Iasi, Romania, Europe, Reactive Oxygen Species, Inorganic Chemicals, Carbamide Peroxide, Otic Preparations, Organic Chemicals, Topical Agents, Cerumenolytics, Electrolytes, Otic Agents, Dentistry, Peroxides, Ions, Grigore T. Popa University of Medicine and Pharmacy.

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Drugs and Therapies - Adenosine Therapy
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Adenosine Therapy is the subject of a report. According to news originating from Bergamo, Italy, by NewsRx correspondents, research stated, "Intravenous adenosine is a short-acting blocker of the atrioventricular node that has been used to unmask subtle or latent preexcitation, and also to enable catheter ablation in selected patients with absent or intermittent preexcitation."

Our news journalists obtained a quote from the research, "Depending on the accessory pathway characteristics, intravenous adenosine may produce specific electrocardiographic changes highly suggestive of the preexcitation variant. Herein, we view different ECG responses to this pharmacological test in various preexcitation patterns that were confirmed by electrophysiological studies."

According to the news editors, the research concluded: "Careful analysis of electrocardiographic changes during adenosine test, with emphasis on P-delta interval, preexcitation degree, and atrioventricular block, can be helpful to diagnose the preexcitation variant/pattern."


The news correspondents report that additional information may be obtained from H. Ali, Humanitas Gavazzeni, Arrhythmia & Electrophysiol Unit 2, Bergamo, Lombardy, Italy. Additional authors for this research include P. Lupo, S. Foresti, G. De Ambroggi, G. Epicoco, A. Fundaliotis and R. Cappato.

Keywords for this news article include: Bergamo, Italy, Europe, Cardiac Stressing Agents, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Radiologic Adjuncts, Radiologic Agents, Adenosine Therapy, Pharmaceuticals.

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Nutritional and Metabolic Diseases and Conditions - …

Findings from H. Naik and Co-Researchers in the Area of Type 2 Diabetes Described (Application of pharmacometric approaches to evaluate effect of weight and renal function on pharmacokinetics of alogliptin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news reporting out of Deerfield, Illinois, by NewsRx editors, research stated, "The aims of the study were to characterize the pharmacokinetics (PK) of alogliptin in healthy and type 2 diabetes mellitus (T2DM) subjects using a population PK approach and to assess the influence of various covariates on alogliptin exposure. Plasma concentration data collected from two phase 1 studies and one phase 3 study following administration of alogliptin (12.5-400 mg) were used for the PK model development."

Our news journalists obtained a quote from the research, "One-and two-compartment
models were evaluated as base structural PK models. The impact of selected covariates was assessed using stepwise forward selection and backward elimination procedures. The predictability and robustness of the final model was evaluated using visual predictive check and bootstrap analyses. The final model was used to perform simulations and guide appropriate dose adjustments. A two-compartment model with first-order absorption and elimination best described the alogliptin concentration vs. time profiles. Creatinine clearance and weight had a statistically significant effect on the oral clearance (CL/F) of alogliptin. The model predicted a lower CL/F (17%, 35%, 80%) and a higher systemic exposure (56%, 89%, 339%) for subjects with mild, moderate and severe renal impairment, respectively, compared with healthy subjects. Effect of weight on CL/F was not considered clinically relevant. Simulations at different doses of alogliptin support the approved doses of 12.5 mg and 6.25 mg for patients with moderate and severe renal impairment, respectively. The PK of alogliptin was well characterized by the model."

According to the news editors, the research concluded: "The analysis suggested an alogliptin dose adjustment for subjects with moderate-to-severe renal impairment and no dose adjustments based on weight."


Our news journalists report that additional information may be obtained by contacting H. Naik, Takeda Global Research & Development Center, Inc, One Takeda Parkway, Deerfield, IL, 60015, United States. Additional authors for this research include R. Czerniak and M. Vakilynejad.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bcp.12853. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Illinois, Deerfield, Nephrology, United States, Renal Function, Kidney Function, Type 2 Diabetes, Gastroenterology, Pharmacokinetics, Risk and Prevention, North and Central America, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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Stem Cell Research

Findings from H. Patel et al Update Understanding of Stem Cell Research (Testicular Stem Cells Express Follicle-Stimulating Hormone Receptors and Are Directly Modulated by FSH)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Stem Cell Research. According to news reporting from Maharashtra, India, by NewsRx journalists, research stated, "Testicular spermatogonial stem cells (SSCs) are a heterogeneous population of stem cells, and definitive marker for the most primitive subset that undergoes asymmetric cell division remains to be identified. A novel subpopulation of pluripotent, very small embryonic-like stem cells (VSELs)
has been reported in both human and mouse testes."

The news correspondents obtained a quote from the research, "Follicle-stimulating hormone (FSH) receptors (FSHRs) are expressed on Sertoli cells in testis and on granulosa cells in ovary, but recently FSHRs are reported on VSELs in ovaries, bone marrow, and cord blood. The present study was aimed to investigate whether FSHRs are also expressed on testicular stem cells (VSELs and SSCs) and their possible modulation by FSH using intact and chemoablated (25 mg/kg busulfan) mice. Chemoablated testis was a better model to study stem cell biology since quiescent stem cells survive along with the Sertoli cells in the tubules. Proliferating cell nuclear antigen-positive, small-sized cells presumed to be VSELs were clearly visualized, and flow cytometry analysis revealed an increase in LIN-/CD45(-)/SCA-1(+) VSELs from 0.045 +/- 0.008% to 0.1 +/- 0.03% of total cells in chemoablated testis after FSH treatment. Very small embryonic-like stem cells expressing nuclear octamer-binding transcription factor 4 (OCT-4) and SSCs with cytoplasmic OCT-4 were detected. Very small embryonic-like stem cells (Oct-4A, Sca-1, Nanog), SSCs (Oct-4), and proliferation (Pcna) specific transcripts were upregulated on FSH treatment. Stem cells expressed FSHR and were stimulated by FSH, and Fshr3 was the predominant transcript maximally modulated by FSH."

According to the news reporters, the research concluded: "Nuclear OCT-4 and SCA-1 (stem cell antigen 1) positive VSELs are the most primitive stem cells in testis, and FSH stimulates them to undergo asymmetric cell division including self-renewal and give rise to SSCs, which in turn proliferate rapidly and undergo clonal expansion and further differentiation."

For more information on this research see: Testicular Stem Cells Express Follicle-Stimulating Hormone Receptors and Are Directly Modified by FSH. Reproductive Sciences, 2016;23(11):1493-1508. Reproductive Sciences can be contacted at: Sage Publications Inc, 2455 Teller Rd, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com; Reproductive Sciences - rsx.sagepub.com)

Our news journalists report that additional information may be obtained by contacting D. Bhartiya, Natl Inst Res Reprod Hlth, Stem Cell Biol Department, Bombay 400012, Maharashtra, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1933719116643593. This DOI is a link to an online electronic document that is either free for purchase.

Keywords for this news article include: Maharashtra, India, Asia, Follicle Stimulating Hormone, Pituitary Gonadotropins, Pituitary Hormones, Stem Cell Research, Peptide Proteins, Peptide Hormones, Sex Hormones.

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Oncology - Liver Cancer

Findings from H.G. Lu et al in Liver Cancer Reported (Novel substituted aminothiazoles as potent and selective anti-hepatocellular carcinoma agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Liver Cancer is the subject of a report. According to news reporting originating in Doylestown, Pennsylvania, by NewsRx journalists,
research stated, "Based on our previous identification of a disubstituted aminothiazole termed HBF-0079 with promising selective toxicity for HCC-derived cell lines versus non-HCC liver lines, a series of tri-substituted aminothiazole derivatives were prepared and evaluated."

Financial support for this research came from CURE.

The news reporters obtained a quote from the research, "This work resulted in the discovery of isopropyl 4-(pyrazin-2-yl)-2-(pyrimidin-2-ylamino) thiazole-5-carboxylate, 14, which displayed EC50 value of 0.11 \(\mu\) M and more than 450 times of selectivity, and its methyl carbonate prodrug 24 with improved solubility in organic solvents."

According to the news reporters, the research concluded: "Furthermore, 14, was shown to reduce the proliferation of several liver cancer cells derived directly from patients."


Our news correspondents report that additional information may be obtained by contacting A. Cuconati, Baruch S Blumberg Inst, Doylestown, PA 18902, United States. Additional authors for this research include J. Rogowskyj, W.Q. Yu, A. Venkatesh, N. Khan, S. Nakagawa, N. Goossens, A.P. Koh, T. Higashi, G. Gunasekaran, M.E. Schwarz, S.P. Hiotis, X.D. Xu, W. Kinney, Y.J. Hoshida, T. Block, A. Cuconati and Y.M. Du.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bmcl.2016.10.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Doylestown, Pennsylvania, United States, North and Central America, Liver Cancer, Carcinomas, Oncology.

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Lung Diseases and Conditions - Pulmonary...

**Findings from H.J. Patel and Co-Researchers Advance Knowledge in Pulmonary Hypertension (Aortic Valve Replacement in the Moderately Elevated Risk Patient: A Population-Based Analysis of Outcomes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Pulmonary Hypertension. According to news reporting originating in Ann Arbor, Michigan, by NewsRx journalists, research stated, "As transcatheter aortic valve replacement (TAVR) therapy transitions from inoperable or high-risk patients to those considered moderate risk, a contemporary evaluation of AVR in this latter group is warranted. Using the Michigan Cardiothoracic Surgical Quality Collaborative Database, we analyzed outcomes and identified predictors of a composite end point (30-day death, stroke, and dialysis) for 2,979 patients (2007 to 2015) undergoing AVR (n = 1,196) or AVR and coronary artery bypass grafting (n = 1,783) with a preoperative The Society of Thoracic Surgeons predicted risk of mortality (PROM) of 4% to 8% (mean, 5.5%; interquartile range, 4.5% to 6.3%)."

The news reporters obtained a quote from the research, "The 30-day mortality was
3.9%. Independent predictors of death included stage 4 chronic kidney disease and the presence of pulmonary hypertension (both p < 0.05), but not year of procedure, despite a significant trend in decreased PROM during the study period (p = 0.003). Morbidity included stroke in 2.3%, and renal failure, defined as Acute Kidney Injury Network stage 1 to 3, in 43.7%, although only 5.4% required dialysis. Prolonged ventilator support was required by 21.0%. After a mean length of stay of 10 days (interquartile range 6 to 11 days), 36.4% were discharged to extended care facilities. Independent predictors of the composite outcome included the Society of Thoracic Surgeons PROM (p < 0.001 for trend) and pulmonary hypertension (p < 0.001). Compared with those presenting with pure aortic stenosis, mixed aortic stenosis and aortic insufficiency was independently protective of the composite outcome (odds ratio, 0.58; p < 0.001), whereas pure aortic insufficiency was not (odds ratio, 0.87; p = 0.58). The composite end point frequency was not significantly different in the 17 hospitals developing TAVR programs (TAVR 9.6% vs nonTAVR 9.6%, p = 0.98). This population-based contemporary assessment suggests moderate-risk patients undergoing AVR experience favorable outcomes.

According to the news reporters, the research concluded: "Although increasing PROM is important in preoperative evaluation of risk, preexisting pulmonary hypertension and indication for operation are among other factors that should be considered as TAVR expands into this group of patients."


Our news correspondents report that additional information may be obtained by contacting H.J. Patel, Michigan Soc Thorac & Cardiovasc Surg Qual Collab, Ann Arbor, MI, United States. Additional authors for this research include D.S. Likosky, A.L. Pruitt, E.T. Murphy, P.F. Theurer and R.L. Prager.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Stenosis, Risk and Prevention, Epidemiology, Cardiovascular Diseases and Conditions, Lung Diseases and Conditions, Pulmonary Hypertension, Aortic Valve, Heart Valves, Angiology.

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Oncology - Breast Cancer

Findings from Harbin Medical University Provides New Data on Breast Cancer [Initial experience of automated breast volume scanning (ABVS) and ultrasound elastography in predicting breast cancer subtypes and staging]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published.
According to news reporting originating from Harbin, People's Republic of China, by NewsRx correspondents, research stated, "Breast cancer is a heterogeneous disease consisting of distinct histopathological subtypes with different clinical outcomes. In this article, we identified the automated breast volume scanning (ABVS) and shear wave velocity (SWV) characteristics of different pathological types of breast carcinoma."

Our news editors obtained a quote from the research from Harbin Medical University, "A retrospective review of both ABVS and SWV imaging of 118 consecutive breast masses was performed. The imaging features of both techniques were assessed with reference to histopathological results. Echo heterogeneity with a smooth and lobulated margin was a significant feature more frequently found in mucinous carcinoma groups (100%, $P < 0.05$). Between different stages of ductal carcinoma, echo homogeneity was more likely in high-grade ductal carcinomas ($P < 0.05$). SWV differences existed between inside tumor areas and either tumor boundary or tissues outside the tumors ($P < 0.05$), and values differed between different breast carcinoma stages. The central and tumor margin areas of ductal carcinomas were much harder than in tubular carcinoma and micro-carcinoma, respectively ($P < 0.05$). SWV ROC curve analyses yielded a cut-off value of 3.015 m/s between ductal carcinoma in situ (DCIS) and invasive ductal carcinoma in the central part of lesions, with 83.5% sensitivity and 80% specificity for TO vs T1-3 staging."

According to the news editors, the research concluded: "Since some features were associated with different breast carcinoma types and stages, ABVS and SWV imaging has the potential to give clues about breast carcinoma differentiation in a non-invasive manner."

For more information on this research see: Initial experience of automated breast volume scanning (ABVS) and ultrasound elastography in predicting breast cancer subtypes and staging. *Breast*, 2016;30():130-135. *Breast* can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Breast - www.journals.elsevier.com/breast/)

The news editors report that additional information may be obtained by contacting X.L. Zhou, Harbin Med Univ, Affiliated Hosp 2, Dept. of In Patient Ultrasound, Harbin 150086, People's Republic of China. Additional authors for this research include L. Tao, X.L. Zhou, H. Wei and J.W. Sun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.breast.2016.09.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Harbin, People's Republic of China, Asia, Ductal Carcinoma, Women's Health, Breast Cancer, Carcinomas, Oncology, Harbin Medical University.

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**Biological Factors - Metalloporphyrins**

**Findings from Harbin Medical University Update Understanding of Metalloporphyrins (Enhancement of DEN-induced liver tumorigenesis in heme oxygenase-1 G143H mutant transgenic mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
According to news originating from Harbin, People's Republic of China, by NewsRx correspondents, research stated, "Heme oxygenase (HO) is the rate-limiting enzyme in heme metabolism. HO-1 exhibits anti-oxidative and anti-inflammatory function via the actions of its metabolite, respectively."

Our news journalists obtained a quote from the research from Harbin Medical University, "A growing body of evidence demonstrates that HO-1 is implicated in the pathogenesis and progression of several types of cancer. However, whether HO-1 takes part in healthy-premalignant-malignant transformation is still undefined. In this study, we took advantage of transgenic mice which over-expressed HO-1 dominant negative mutant (HO-1 G143H) and observed its susceptibility to DEN-induced hepatocarcinogenesis. Our results indicate that HO-1 G143H mutant accelerates the progression of tumorigenesis and tumor growth. The mechanism is closely related to enhancement of ROS production which induce more hepatocytes death and secretion of inflammatory cytokines, proliferation of surviving hepatocytes. Our result provides the direct evidence that HO-1 plays an important protective role in liver carcinogenesis."

According to the news editors, the research concluded: "Alternatively, we suggest the possible explanation on effect of HO-1 promoter polymorphism which involved in tumorigenesis."

For more information on this research see: http://dx.doi.org/10.1016/j.bbrc.2016.10.148. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Harbin, People's Republic of China, Asia, Enzymes and Coenzymes, Biological Factors, Metalloporphyrins, Gastroenterology, Oxidoreductases, Oxygenases, Genetics, Heme, Harbin Medical University.
to news reporting originating in Heilongjiang, People's Republic of China, by NewsRx journalists, research stated, "Acetylated H3 lysine 23 (H3K23ac) is a specific histone post-translational modification recognized by oncoprotein TRIM24. However, it is not clear whether H3K23ac levels are correlated with TRIM24 expression and what role H3K23ac may have in cancer."

Financial supporters for this research include National Natural Science Foundation of China, Natural Science Foundation of Heilongjiang Province.

The news reporters obtained a quote from the research from Harbin Medical University, "In this study, we collected breast carcinoma samples from 121 patients and conducted immunohistochemistry to determine the levels of TRIM24 and H3K23ac in breast cancer. Our results demonstrated that TRIM24 expression is positively correlated with H3K23ac levels, and high levels of both TRIM24 and H3K23ac predict shorter overall survival of breast cancer patients. We also showed that both TRIM24 and H3K23ac are higher in HER2-positive patients, and their levels were positively correlated with HER2 levels in breast cancer. Moreover, TRIM24 expression is associated with estrogen receptor (ER) and progesterone receptor (PR) statuses in both our cohort and The Cancer Genome Atlas (TCGA) breast carcinoma."

According to the news reporters, the research concluded: "In summary, our results revealed an important role of TRIM24 and H3K23ac in breast cancer and provided further evidence that TRIM24 small-molecule inhibitors may benefit ER-and PR-negative or HER2-positive breast cancer patients."

For more information on this research see: Histone H3 lysine 23 acetylation is associated with oncogene TRIM24 expression and a poor prognosis in breast cancer. Tumor Biology, 2016;37(11):14803-14812. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news correspondents report that additional information may be obtained by contacting Q.Y. Zhang, Harbin Med Univ, Affiliated Hosp 3, Dept. of Internal Med, Harbin 150081, Heilongjiang Pr, People's Republic of China. Additional authors for this research include L.L. Yuan, J. An, M.C. Barton, Q.Y. Zhang and Z.L. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5344-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Heilongjiang, People's Republic of China, Asia, Essential Amino Acids, Diamino Amino Acids, Basic Amino Acids, Nucleoproteins, Women's Health, Breast Cancer, Proteins, Histones, Oncology, Genetics, Lysine, Harbin Medical University.

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RNA Viruses - Influenza A Virus

Findings from Harbin Veterinary Research Institute Broaden Understanding of Influenza A Virus (Human antibody 3E1 targets the HA stem region of H1N1 and H5N6 influenza A viruses)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in RNA Viruses - Influenza A Virus. According to news reporting out of Harbin, People's Republic of China, by NewsRx editors, research stated, "As influenza A viruses remain a major threat to human health worldwide, the discovery of broadly neutralizing monoclonal antibodies that recognize conserved epitopes would facilitate the development of antibody-based therapeutic strategies."

Our news journalists obtained a quote from the research from Harbin Veterinary Research Institute, "Here we report that a V(H)4-4- encoded human mAb named 3E1 could neutralize H1 and H5 subtype viruses in vitro and protect mice against the H1N1 and H5N6 viruses by inhibiting the low pH-induced conformational rearrangement of haemagglutinin (HA), hence blocking membrane fusion."

According to the news editors, the research concluded: "The crystal structures of 3E1 Fab in complex with HA of two H1N1 strains reveal that 3E1, with both heavy and light chains, binds to a conserved epitope of the HA stem region, comprising parts of the fusion peptide, the F subdomain and the outermost beta-strand preceding helix A. Altogether, these data suggest the potential of 3E1 as a therapeutic drug against H1 and H5 subtype viruses."

For more information on this research see: Human antibody 3E1 targets the HA stem region of H1N1 and H5N6 influenza A viruses. *Nature Communications*, 2016;7():1-12. *Nature Communications* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Nature Communications - www.nature.com/ncomms/)


Keywords for this news article include: Harbin, People's Republic of China, Asia, Influenza A Virus, Orthomyxoviridae, Immunoglobulins, Blood Proteins, RNA Viruses, Immunology, Antibodies, Virology, Viral, Harbin Veterinary Research Institute.

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Stem Cell Research - Hematopoietic Stem Cells

**Findings from Harvard School of Medicine Provides New Data about Hematopoietic Stem Cells (Epigenetic Memory Underlies Cell-Autonomous Heterogeneous Behavior of Hematopoietic Stem Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Stem Cell Research - Hematopoietic Stem Cells have been presented. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Stem cells determine homeostasis and repair of many tissues and are increasingly recognized as functionally heterogeneous. To define the extent of-and molecular basis for-heterogeneity, we overlaid functional, transcriptional, and epigenetic attributes of hematopoietic stem cells (HSCs) at a clonal level using endogenous fluorescent tagging."

Funders for this research include NIH, Gerald and Darlene Jordan Chair, Ellison
The news correspondents obtained a quote from the research from the Harvard School of Medicine, "Endogenous HSC had clone-specific functional attributes over time in vivo. The intra-clonal behaviors were highly stereotypic, conserved under the stress of transplantation, inflammation, and genotoxic injury, and associated with distinctive transcriptional, DNA methylation, and chromatin accessibility patterns. Further, HSC function corresponded to epigenetic configuration but not always to transcriptional state. Therefore, hematopoiesis under homeostatic and stress conditions represents the integrated action of highly heterogeneous clones of HSC with epigenetically scripted behaviors."

According to the news reporters, the research concluded: "This high degree of epigenetically driven cell autonomy among HSCs implies that refinement of the concepts of stem cell plasticity and of the stem cell niche is warranted."

For more information on this research see: Epigenetic Memory Underlies Cell-Autonomous Heterogeneous Behavior of Hematopoietic Stem Cells. Cell, 2016;167(5):1310-1322,327-342. Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell - www.journals.elsevier.com/cell/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cell.2016.10.045. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Hematopoietic Stem Cells, Stem Cell Research, Bone Marrow Cells, Hematology, Genetics, Harvard School of Medicine.

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Cardiovascular Diseases and Conditions - Aneurysm

Findings from Harvard School of Medicine Provides New Data on Aneurysm (Pipeline Embolization Device for small paraophthalmic artery aneurysms with an emphasis on the anatomical relationship of ophthalmic artery origin and aneurysm)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Aneurysm are discussed in a new report. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Contemporary treatment for paraophthalmic artery aneurysms includes flow diversion utilizing the Pipeline Embolization Device (PED). Little is known, however, about the potential implications of the anatomical relationship of the ophthalmic artery (OA) origin and aneurysm, especially in smaller aneurysms."

The news reporters obtained a quote from the research from the Harvard School of Medicine.
Medicine, "Four major academic institutions in the United States provided data on small parapaphthalmic aneurysms (<= 7 mm) that were treated with PED between 2009 and 2015. The anatomical relationship of OA origin and aneurysm, radiographic outcomes of aneurysm occlusion, and patency of the OA were assessed using digital subtraction angiography. OA origin was classified as follows: Type 1, OA separate from the aneurysm; Type 2, OA from the aneurysm neck; and Type 3, OA from the aneurysm dome. Clinical outcome was assessed using the modified Rankin Scale, and visual deficits were categorized as transient or permanent. The cumulative number of small parapaphthalmic aneurysms treated with PED between 2009 and 2015 at the 4 participating institutions was 69 in 52 patients (54.1 +/- 13.7 years of age) with a male-to-female ratio of 1:12. The distribution of OA origin was 72.5% for Type 1, 17.4% for Type 2, and 10.1% for Type 3. Radiographic outcome at the last follow-up (median 11.5 months) was available for 54 aneurysms (78.3%) with complete, near-complete, and incomplete occlusion rates of 81.5%, 5.6%, and 12.9%, respectively. Two aneurysms (3%) resulted in transient visual deficits, and no patient experienced a permanent visual deficit. At the last follow-up, the OA was patent in 96.8% of treated aneurysms. Type 3 OA origin was associated with a lower rate of complete aneurysm occlusion (p = 0.0297), demonstrating a trend toward visual deficits (p = 0.0797) and a lower rate of OA patency (p = 0.0783). Pipeline embolization treatment of small parapaphthalmic aneurysms is safe and effective."

According to the news reporters, the research concluded: "An aneurysm where the OA arises from the aneurysm dome may be associated with lower rates of aneurysm occlusion, OA patency, and higher rates of transient visual deficits."

For more information on this research see: Pipeline Embolization Device for small parapaphthalmic artery aneurysms with an emphasis on the anatomical relationship of ophthalmic artery origin and aneurysm. *Journal of Neurosurgery*, 2016;125(6):1352-1359. *Journal of Neurosurgery* can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3171/2015.12.JNS152499. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Ophthalmic Artery, Embolization, Angiology, Aneurysm, Harvard School of Medicine.

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By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mycobacterium Infections - Tuberculosis is the subject of a report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Fluoroquinolones (FQs) are effective second-line drugs for treating antibiotic-resistant tuberculosis (TB) and are being considered for use as first-line agents. Because FQs are used to treat a range of infections, in a setting of undiagnosed TB, there is potential to select for drug-resistant Mycobacterium tuberculosis mutants during FQ-based treatment of other infections, including pneumonia."

Financial supporters for this research include National Science Council of Taiwan, Pershing Square Foundation, Broad Institute Tuberculosis Donor Group, HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID), HHS | NIH | National Human Genome Research Institute (NHGRI), Natural Science Foundation of Fujian Province (Fujian Provincial Natural Science Foundation), Doris Duke Charitable Foundation (DDCF).

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Here we present a detailed characterization of ofloxacin-resistant M. tuberculosis samples isolated directly from patients in Taiwan, which demonstrates that selection for FQ resistance can occur within patients who have not received FQs for the treatment of TB. Several of these samples showed no mutations in gyrA or gyrB based on PCR-based molecular assays, but genome-wide next-generation sequencing (NGS) revealed minority populations of gyrA and/or gyrB mutants. In other samples with PCR-detectable gyrA mutations, NGS revealed subpopulations containing alternative resistance-associated genotypes. Isolation of individual clones from these apparently heterogeneous samples confirmed the presence of the minority drug-resistant variants suggested by the NGS data. Further NGS of these purified clones established evolutionary links between FQ-sensitive and-resistant clones derived from the same patient, suggesting de novo emergence of FQ-resistant TB. Importantly, most of these samples were isolated from patients without a history of FQ treatment for TB."

According to the news editors, the research concluded: "Thus, selective pressure applied by FQ monotherapy in the setting of undiagnosed TB infection appears to be able to drive the full or partial emergence of FQ-resistant M. tuberculosis, which has the potential to confound diagnostic tests for antibiotic susceptibility and limit the effectiveness of FQs in TB treatment."

For more information on this research see: Genomic Analysis of the Evolution of Fluoroquinolone Resistance in Mycobacterium tuberculosis Prior to Tuberculosis Diagnosis. Antimicrobial Agents and Chemotherapy, 2016;60(11):6600-6608. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from D.T. Hung, Harvard Med Sch, Dept. of Microbiol & Immunobiol, Boston, MA 02115, United States. Additional authors for this research include J.E. Gomez, J.Y. Chien, N. Haseley, C.A. Desjardins, A.M. Earl, P.R. Hsueh and D.T. Hung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00664-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Mycobacteria, Diagnostics and Screening, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Drugs and Therapies, Gram-Positive
Rods, Infectious Disease, Mycobacteriaceae, Drug Resistance, Actinobacteria, Antibiotics, Genetics, Harvard School of Medicine.

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Heart Disorders and Diseases - Tachycardia

Findings from Harvard School of Medicine Reveals New Findings on Tachycardia (Evaluation of a novel high-resolution mapping technology for ablation of recurrent scar-related atrial tachycardias)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Tachycardia are discussed in a new report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Rhythmia is a new technology capable of rapid and high-resolution mapping. However, its potential advantage over existing technologies in mapping complex scar-related atrial tachycardias (ATs) has not yet been evaluated."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "The purpose of this study was to examine the utility of Rhythmia for mapping scar-related ATs in patients who had failed previous ablation procedure(s). This multicenter study included 20 patients with recurrent ATs within 2 years after a previous ablation procedure (1.8 +/- 0.7 per patient). In all cases, the ATs could not be adequately mapped during the index procedure because of scar with fractionated electrograms, precluding accurate time annotation, frequent change in the tachycardia in response to pacing, and/or degeneration into atrial fibrillation. These patients underwent repeat mapping and ablation procedure with Rhythmia. From a total of 28 inducible ATs, 24 were successfully mapped. Eighteen ATs (75%) terminated during radiofrequency ablation and 4 (16.6%) with catheter pressure or entrainment from the site of origin or isthmus. Two ATs that were mapped to the interatrial septum slowed but did not terminate with ablation. In 21 of 24 ATs the mechanism was macroreentry, while in 3 of 24 the mechanism was focal. Interestingly, in 5 patients with previously failed ablation of an allegedly 'focal' tachycardia, high-resolution mapping demonstrated macroreentrant arrhythmia. The mean mapping time was 28.6 +/- 17 minutes, and the mean radiofrequency ablation time to arrhythmia termination was 3.2 +/- 2.6 minutes. During a mean follow-up of 7.5 +/- 3.1 months, 15 of 20 patients (75%) were free of AT recurrences."

According to the news editors, the research concluded: "The Rhythmia mapping system may be advantageous for mapping complex scar-related ATs."

For more information on this research see: Evaluation of a novel high-resolution mapping technology for ablation of recurrent scar-related atrial tachycardias. Heart Rhythm, 2016;13(10):2048-2055. Heart Rhythm can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Heart Rhythm - www.journals.elsevier.com/heart-rhythm/)

The news correspondents report that additional information may be obtained from E. Anter, Harvard Med Sch, Beth Israel Deaconess Med Center, Harvard Thorndike Electrophysiol Inst, Dept. of MedCardiovasc Div, Boston, MA 02215, United States. Additional authors for this research include T.H. Mc Elderry, F.M. Contreras-Valdes, J.Q. Li, P. Tung, E. Leshem, C.I. Haffajee, H. Nakagawa and M.E. Josephson.

The direct object identifier (DOI) for that additional information is:
Findings from Harvard School of Medicine Update Knowledge of Glioblastomas (Demonstration of DCE-MRI as an early pharmacodynamic biomarker of response to VEGF Trap in glioblastoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Glioblastomas are discussed in a new report. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Glioblastoma (GBM) is an incurable brain tumor characterized by the expression of pro-angiogenic cytokines. A recent phase II clinical trial studied VEGF Trap in adult patients with temozolomide-resistant GBM."

The news reporters obtained a quote from the research from the Harvard School of Medicine, "We sought to explore changes in [F-18]Fluorodeoxyglucose positron emission tomography (FDG-PET) or magnetic resonance imaging (MRI) in trial participants correlating these changes with disease response. FDG-PET and MRI images obtained before and after the first dose of VEGF Trap were spatially co-registered. Regions of interest on each image slice were combined to produce a volume of interest representative of the entire tumor. Percent and absolute changes in maximum FDG-avidity, mean apparent diffusion coefficient (ADC), K-trans, and Ve were calculated per lesion. Among the 12 participants that underwent dynamic contrast enhanced MRI (DCE-MRI), there were large, statistically significant reductions in K-trans and Ve (median difference = -41.8 %, p< 0.02 and -42.6 %, p< 0.04, respectively). In contrast, there were no significant reductions in ADC or FDG-PET SUVmax values. DCE-MRI is a useful measure of early pharmacodynamic effects of VEGF Trap on tumor vasculature. The absence of significant changes in FDG-PET and DW-MRI suggest that the early pharmacodynamic effects are specific to tumor perfusion and/or permeability and do not directly inhibit metabolism or induce cell death. DCE-MRI in conjunction with standard imaging may be promising for the identification of anti-angiogenic effects in this patient population with this therapeutic target."

According to the news reporters, the research concluded: "Further studies are needed to evaluate the relationship between DCE-MRI response and clinical outcome."

For more information on this research see: Demonstration of DCE-MRI as an early pharmacodynamic biomarker of response to VEGF Trap in glioblastoma. *Journal of Neuro-Oncology*, 2016;130(3):495-503. *Journal of Neuro-Oncology* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of Neuro-Oncology - www.springerlink.com/content/0167-594x/)

Our news correspondents report that additional information may be obtained by contacting A.F. O'Neill, Harvard Med Sch, Boston Childrens Hosp, Dana Farber Canc Inst,
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**Oncology - Carcinomas**

**Findings from Harvard School of Medicine Update Understanding of Carcinomas (Targeting PD-1/PD-L1 in the treatment of metastatic renal cell carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Carcinomas. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Immunostimulatory therapies have been a cornerstone of treatment for metastatic renal cell carcinoma (RCC) since the 1990s. However, the use of traditional immunotherapeutic approaches for RCC, such as high-dose interleukin-2 and interferon-a, has been limited by significant systemic toxicities and the need to deliver these therapies at centers of expertise."

The news reporters obtained a quote from the research from the Harvard School of Medicine, "Furthermore, in spite of the success of these immunostimulatory therapies for some patients with RCC, it is clear that most patients fail to respond to cytokine therapy. More effective immune therapy for RCC has therefore been necessary. The interaction between programmed death-1 (PD-1, present on T cells), and one of its ligands (PD-L1, present on antigen-presenting cells and tumor cells) constitutes an immune checkpoint through which tumors can induce T-cell tolerance and avoid immune destruction. Monoclonal antibodies that disrupt the PD-1/PD-L1 interaction serve as inhibitors of this immune checkpoint, and have demonstrated favorable activity in RCC as monotherapy and in combination with other active agents."

According to the news reporters, the research concluded: "This review summarizes the current landscape of anti-PD-1/PD-L1 therapy for RCC, and highlights challenges for the future development of this promising approach."


Our news correspondents report that additional information may be obtained by contacting M. Weinstock, Beth Israel Deaconess Medical Center, Dana-Farber, Harvard Cancer Center, Harvard Medical School, Boston, MA, United States.

The direct object identifier (DOI) for that additional information is:
Findings from Harvard School of Medicine Update Understanding of Cytokines (Aire Inhibits the Generation of a Perinatal Population of Interleukin-17A-Producing gamma delta T Cells to Promote Immunologic Tolerance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Intercellular Signaling Peptides and Proteins - Cytokines is the subject of a report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Aire's primary mechanism of action is to regulate transcription of a battery of genes in medullary thymic epithelial cells (mTECs) and, consequently, negative selection of effector T cells and positive selection of regulatory T cells. We found that Aire-deficient mice had expanded thymic and peripheral populations of perinatally generated IL-17A(+)V gamma 6(+) V delta 1(+)T cells, considered to be 'early responders' to tissue stress and drivers of inflammatory reactions."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Aire-dependent control of Iil7 expression in mTECs regulated the size of thymic IL-17A(+)V gamma 6(+) V delta 1(+)T compartments. In mice lacking Aire and gd T cells, certain tissues typically targeted in the "Aire-less" disease, notably the retina, were only minimally infiltrated. IL-17A(+)V gamma 6(+) V delta 1(+)T cells were present in the retina of wild-type mice and expanded very early in Aire-deficient mice. A putatively parallel population of IL-17A(+)V gamma 6(+) V delta 1(+)T cells was increased in humans lacking Aire."

According to the news editors, the research concluded: "Thus, Aire exerts multifaceted autoimmune control that extends to a population of innate-like T cells."

For more information on this research see: Aire Inhibits the Generation of a Perinatal Population of Interleukin-17A-Producing gamma delta T Cells to Promote Immunologic Tolerance. *Immunity*, 2016;45(5):999-1012. *Immunity* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)

The news correspondents report that additional information may be obtained from C. Benoist, Harvard Med Sch, Dept. of Microbiol & Immunobiol, Div Immunol, Boston, MA 02115, United States. Additional authors for this research include A.O. Mann, K. Bansal, K.R. Romito, E.M.N. Ferre, S.D. Rosenzweig, M.S. Lionakis, C. Benoist and D. Mathis.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Interleukins, Cytokines, Genetics, Harvard School of Medicine.

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Findings from Haukeland Hospital in Autoimmune Diseases and Conditions Reported (AIRE-mutations and autoimmune disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Autoimmune Diseases and Conditions have been presented. According to news originating from Bergen, Norway, by NewsRx correspondents, research stated, "The gene causing the severe organ-specific autoimmune disease autoimmune polyendocrine syndrome type-1 (APS-1) was identified in 1997 and named autoimmune regulator (AIRE). AIRE plays a key role in shaping central immunological tolerance by facilitating negative selection of T cells in the thymus, building the thymic microarchitecture, and inducing a specific subset of regulatory T cells."

Our news journalists obtained a quote from the research from Haukeland Hospital, "So far, about 100 mutations have been identified. Recent advances suggest that certain mutations located in the SAND and PHD1 domains exert a dominant negative effect on wild type AIRE resulting in milder seemingly common forms of autoimmune diseases, including pernicious anemia, vitiligo and autoimmune thyroid disease."

According to the news editors, the research concluded: "These findings indicate that AIRE also contribute to autoimmunity in more common organ-specific autoimmune disorders."

For more information on this research see: AIRE-mutations and autoimmune disease. Current Opinion in Immunology, 2016;43():8-15. Current Opinion in Immunology can be contacted at: Current Biology Ltd, 84 Theobalds Rd, London WC1X 8RR, England. (Elsevier - www.elsevier.com; Current Opinion in Immunology - www.journals.elsevier.com/current-opinion-in-immunology/)

The news correspondents report that additional information may be obtained from E.S. Husebye, Haukeland Hosp, Dept. of Med, N-5021 Bergen, Norway. Additional authors for this research include B.E. Oftedal, A.B. Wolff and E.S. Husebye.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.coi.2016.07.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bergen, Norway, Europe, Autoimmune Diseases and Conditions, Article Review, Immunology, Genetics, Haukeland Hospital.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Ovarian Cancer. According to news reporting from Istanbul, Turkey, by NewsRx journalists, research stated, "To investigate the predictive value of the Risk of Malignancy Index (RMI), CA-125, and inflammatory markers in discriminating ovarian cancers (OCs). The postmenopausal (PM) women (n=139) with adnexal masses who underwent surgery were included."

The news correspondents obtained a quote from the research from Haydarpasa Numune Education and Research Hospital, "The predictive value of CA-125, RMI (1, 2, 3, and 4) and inflammatory markers [neutrophil lymphocyte ratio (NLR), platelet lymphocyte ratio (PLR)] were calculated in geriatric (G) and non-geriatric women. OCs had significantly increased NLR and PLR. RMI models were highly reliable in PM (Kappa: 0.642-0.715; AUC: 0.907-0.934). CA-125 measurement alone had good accuracy and moderate reliability in PM (kappa: 0.507-0.587), excellent accuracy and moderate reliability in G, NLR, and PLR predicting OCs, showed fair agreement in the PM, while PLR had a moderate agreement with G. RMI algorithms were the best models for malignancy prediction."

According to the news reporters, the research concluded: "However, the rise of PLR and CA-125 levels in a G population may be used as referring adnexal masses to gynecologic oncologists."

For more information on this research see: The ovarian cancers in geriatric population: the validity of inflammatory markers, malignancy risk indices 1, 2, 3, 4, and CA-125 levels in malignancy discrimination of adnexal masses. European Journal of Gynaecological Oncology, 2016;37(6):846-851. European Journal of Gynaecological Oncology can be contacted at: I R O G Canada, Inc, 4900 Cote St-Luc, Apt#212, Montreal, Quebec H3W 2H3, Canada.

Our news journalists report that additional information may be obtained by contacting F. Vural, Haydarpasa Numune Training & Res Hosp, Gynecol & Obstet Clin, Istanbul, Turkey. Additional authors for this research include N. Aka, S. Ertas, G. Kose and E.C. Tufekci.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Women's Health, Ovarian Cancer, Gynecology, Oncology, Haydarpasa Numune Education and Research Hospital.

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Heart Disorders and Diseases - Heart Attack

Findings from Heart of England NHS Foundation Trust in the Area of Heart Attack Reported (Characteristics of patients who are not resuscitated in out of hospital cardiac arrests and opportunities to improve community response to cardiac arrest)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Attack have been presented. According to news reporting out of Birmingham, United Kingdom, by NewsRx editors, research stated, "This study explores why resuscitation is withheld when emergency medical staff arrive at the scene of a cardiac arrest and identifies modifiable factors associated with this decision. This is a secondary analysis of unselected patients who sustained an out of
hospital cardiac arrest attended by ambulance vehicles participating in a randomized controlled trial of a mechanical chest compression device (PARAMEDIC trial)."

Our news journalists obtained a quote from the research from the Heart of England NHS Foundation Trust, 'Patients were categorized as 'non-resuscitation' patients if there was a do-not-attempt-cardiopulmonary-resuscitation (DNACPR) order, signs unequivocally associated with death or resuscitation was deemed futile (15 min had elapsed since collapse with no bystander-CPR and asystole recorded on EMS arrival). Emergency Medical Services attended 11,451 cardiac arrests. Resuscitation was attempted or continued by Emergency Medical Service staff in 4805 (42%) of cases. Resuscitation was withheld in 6646 cases (58%). 711 (6.2%) had a do not attempt resuscitation decision, 4439 (38.8%) had signs unequivocally associated with death and in 1496 cases (13.1%) CPR was considered futile. Those where resuscitation was withheld due to futility were characterised by low bystander CPR rates (7.2%) and by being female. Resuscitation was withheld by ambulance staff in over one in ten (13.1%) victims of out of hospital cardiac arrest on the basis of futility. These cases were associated with a very low rate of bystander CPR."

According to the news editors, the research concluded: "Future studies should explore strengthening the 'Chain of Survival' to increase the community bystander CPR response and evaluate the effect on the numbers of survivors from out of hospital cardiac arrest."

For more information on this research see: Characteristics of patients who are not resuscitated in out of hospital cardiac arrests and opportunities to improve community response to cardiac arrest. Resuscitation, 2016;109():110-115. Resuscitation can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Resuscitation - www.journals.elsevier.com/resuscitation/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.09.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Heart Disorders and Diseases, Emergency Treatment, Cardiac Arrest, Resuscitation, Heart Attack, Cardiology, Hospital, Heart of England NHS Foundation Trust.

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**Intracellular Space**

**Findings from Hebrew University Broaden Understanding of Intracellular Space (Emulating proton-induced conformational changes in the vesicular monoamine transporter VMAT2 by mutagenesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Intracellular Space have been published. According to news originating from Jerusalem, Israel, by NewsRx correspondents, research stated, "Neurotransporters located in synaptic vesicles are essential for communication between
nerve cells in a process mediated by neurotransmitters. Vesicular monoamine transporter (VMAT), a member of the largest superfamily of transporters, mediates transport of monoamines to synaptic vesicles and storage organelles in a process that involves exchange of two H+ per substrate.

Financial supporters for this research include HHS | NIH | National Institute of Neurological Disorders and Stroke (NINDS), United States-Israel Binational Science Foundation (BSF).

Our news journalists obtained a quote from the research from Hebrew University, "VMAT transport is inhibited by the competitive inhibitor reserpine, a second-line agent to treat hypertension, and by the noncompetitive inhibitor tetrabenazine, presently in use for symptomatic treatment of hyperkinetic disorders. During the transport cycle, VMAT is expected to occupy at least three different conformations: cytoplasm-facing, occluded, and lumen-facing. The lumen-to-cytoplasm-facing transition, facilitated by protonation of at least one of the essential membrane-embedded carboxyls, generates a binding site for reserpine. Here we have identified residues in the cytoplasmic gate and show that mutations that disrupt the interactions in this gate also shift the equilibrium toward the cytoplasm-facing conformation, emulating the effect of protonation."

According to the news editors, the research concluded: "These experiments provide significant insight into the role of proton translocation in the conformational dynamics of a mammalian H+-coupled antiporter, and also identify key aspects of the mode of action and binding of two potent inhibitors of VMAT2: reserpine binds the cytoplasm-facing conformation, and tetrabenazine binds the lumen-facing conformation."


The news correspondents report that additional information may be obtained from S. Schuldiner, Hebrew University of Jerusalem, Alexander Silberman Inst Life Sci, Dept. of Biol Chem, IL-91904 Jerusalem, Israel. Additional authors for this research include A. Vergara-Jaque, L.R. Forrest and S. Schuldiner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1605162113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jerusalem, Israel, Asia, Intracellular Space, Mutagenesis, Cytoplasm, Genetics, Hebrew University.

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Liver Diseases and Conditions - Hepatitis C Virus

Findings from Henan University Provides New Data on Hepatitis C Virus
(Hepatitis C virus promotes hepatocellular carcinogenesis by targeting TIPE2, a new regulator of DNA damage response)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Hepatitis C Virus have been published. According to news reporting out of Kaifeng, People's Republic of China, by NewsRx editors, research stated, "Infection of hepatitis C virus (HCV) is associated with primary hepatocellular carcinoma (HCC). However, its underlying molecular mechanisms remain enigmatic."

Financial support for this research came from NSFC.

Our news journalists obtained a quote from the research from Henan University, "Tumor necrosis factor-a-induced protein 8-like 2 (TIPE2), a new negative regulator of immunity, plays significant roles in modulating inflammation and tumorigenesis. We hypothesized that TIPE2 might be involved in the development of HCV-induced HCC. To test this hypothesis, the expression of TIPE2 was determined by Western blot in the tumor and pericarcinomatous tissues collected from ten HCV-positive HCC patients; the interaction between TIPE2 and HCV-encoded non-structural proteins was analyzed by immunoprecipitation and immunofluorescence assays, and tumorigenesis and its mechanisms were studied in cell models and nude mice. Our results demonstrated that the expression of TIPE2 was significantly reduced in HCC tissues compared to that in the paracarcinoma tissues. HCV-encoded non-structural protein NS5A could specifically interact with TIPE2 and induce its degradation. Downregulation of TIPE2 by shRNA in cell lines increased genomic DNA damage and promoted cell colony formation in vitro and tumorigenesis in nude mice. In contrast, overexpression of TIPE2 had an opposite effect. Downregulation of TIPE2 by NS5A is associated with genomic DNA instability and HCV-induced HCC development."

According to the news editors, the research concluded: "Thus, TIPE2 may be a new therapeutic target for the treatment of HCV-associated HCC."

For more information on this research see: Hepatitis C virus promotes hepatocellular carcinogenesis by targeting TIPE2, a new regulator of DNA damage response. Tumor Biology, 2016;37(11):15265-15274. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5409-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kaifeng, People's Republic of China, Asia, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Flaviviridae Infections, Deoxyribonucleic Acid, Hepatitis C Virus, Gastroenterology, Carcinogenesis, DNA Research, RNA Viruses, Proteomics, DNA
Findings from Henri Mondor Hospital Provide New Insights into Kidney Research (Repression of CMIP transcription by WT1 is relevant to podocyte health)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nephrology - Kidney Research have been presented. According to news reporting originating from Creteil, France, by NewsRx correspondents, research stated, "The WT1 (Wilm's tumor suppressor) gene is expressed throughout life in podocytes and is essential for the functional integrity of the glomerular filtration barrier. We have previously shown that CMIP (C-Maf inducing protein) is overproduced in podocyte diseases and alters intracellular signaling."

Our news editors obtained a quote from the research from Henri Mondor Hospital, "Here we isolated the proximal region of the human CMIP promoter and showed by chromatin immunoprecipitation assays and electrophoretic-mobility shift that Wilm's tumor protein (WT1) bound to 2 WT1 response elements, located at positions -290/-274 and -57/-41 relative to transcription start site. Unlike the human CMIP gene, only one Wt1 response element was identified in the mouse Cmip proximal promoter located at position -217/-206. Luciferase reporter assays indicated that WT1 dose-dependently inhibited the transcriptional induction of the CMIP promoter. Transfection of decoy oligonucleotides mimicking the WT1 response elements prevented the inhibition of WT1 on CMIP promoter activity. Furthermore, WT1 silencing promoted Cmip expression. In line with these findings, the abundance of Cmip was early and significantly increased at the transcript and protein level in podocytes displaying a primary defect in Wt1, including Denys-Drash syndrome and Frasier syndrome."

According to the news editors, the research concluded: "Thus, WT1 is a major repressor of the CMIP gene in physiological situations, while conditional deletion of CMIP in the developing kidney did not affect the development of mature glomeruli."


The news editors report that additional information may be obtained by contacting D. Sahali, Henri Mondor Hosp, Inst Francilien Rech Nephrol & Transplantat, Creteil, France. Additional authors for this research include S.Y. Zhang, P. Vachin, V. Ory, C. Henique, V. Audard, C. Rucker-Martin, E. Gouadon, M. Eccles, A. Schedl, L. Heidet, M. Ollero, D. Sahali and A. Pawlak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.kint.2016.07.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Creteil, France, Europe, Kidney Research, Nephrology, Genetics, Henri Mondor Hospital.
Oncology - Squamous Cell Carcinoma

Findings from Hiroshima University in the Area of Squamous Cell Carcinoma Reported (Ability of Fluorine-18 Fluorodeoxyglucose Positron Emission Tomography to Predict Outcomes of Neoadjuvant Chemoradiotherapy Followed by Surgical Treatment for ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Squamous Cell Carcinoma. According to news reporting from Hiroshima, Japan, by NewsRx journalists, research stated, "Responses of esophageal cancer to neoadjuvant therapy and patient prognosis are difficult to predict preoperatively. This study aimed to determine the ability of fluorine-18 fluorodeoxyglucose ((18)FDG) positron emission tomography (FDG-PET) to predict outcomes of trimodal therapy on esophageal squamous cell carcinoma (ESCC)."

The news correspondents obtained a quote from the research from Hiroshima University, "The responses of 111 patients with ESCC were monitored using FDG-PET before and after neoadjuvant chemoradiotherapy (nCRT) followed by surgical treatment. Associations between the maximum standardized uptake value (SUVmax) and pathologic responses (PRs) and prognosis were analyzed. Responses were significantly associated with SUVmax after nCRT (post-SUVmax) and with the rate of decreases in the SUVmax (% Delta SUVmax) of the primary tumor. The optimal cutoffs for post-SUVmax and % Delta SUVmax determined from receiver operating characteristic (ROC) curves were 2.7 (area under the curve [AUC], 0.68; 95% confidence interval [CI], 0.58-0.78; p = 0.001) and 75 (AUC, 0.64; 95% CI, 0.54-0.75; p = 0.01) for predicting a pathologic complete response (pCR) and 3.7 (AUC, 0.76; 95% CI, 0.63-0.89; p < 0.001) and 70 (AUC, 0.65; 95% CI, 0.52-0.78; p = 0.02) for predicting a good response according to Japan Esophageal Society response criteria. These values reliably separated patients into groups with and without pCR and with and without a good response. Multivariate analysis showed that %Delta SUVmax (<= 70 and > 70) was an independent prognostic factor for disease-specific survival (hazard ratio [HR], 0.45; 95% CI, 0.21-0.98; p = 0.04)."

According to the news reporters, the research concluded: "SUVmax is a valuable preoperative predictor of tumor response and survival among patients who undergo trimodal therapy for ESCC."


Our news journalists report that additional information may be obtained by contacting J. Hihara, Hiroshima University, Dept. of Surg Oncol, Hiroshima, Japan. Additional authors for this research include J. Hihara, M. Emi, T. Furukawa, I. Yamakita, T. Kurokawa and M. Okada.

The direct object identifier (DOI) for that additional information is:

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Drug Delivery Systems are presented in a new report. According to news reporting originating from Hokkaido, Japan, by NewsRx correspondents, research stated, "The ultimate goal in the area of drug-delivery systems is the development of a nanoparticle that can penetrate the endothelial cell monolayer for the targeting of tissue parenchyma. In the present study, we identify a transcytosis-targeting peptide (TTP) that permits polyethyleneglycol (PEG)-modified liposomes (PEG-LPs) to penetrate through monolayers of brain-derived endothelial cells."

Financial supporters for this research include Next Generation World-Leading Researchers, Japan Science and Technology Corporation.

Our news editors obtained a quote from the research from Hokkaido University, "These endothelial cells were layered on a gelatin nanofiber sheet, a nanofiber meshwork that allows the evaluation of transcellular transport of nanosized particles (ca. 100 nm). Systematic modification of the sequences results in the identification of the consensus sequence of TTP as L(R/K)QZZZL, where Z denotes hydrophilic amino acids (R/K/S and partially D). The TTP-modified liposomes are bound on the heparin sulfate proteoglycan, and are then taken up via lipid raft-mediated endocytosis. Subsequent intracellular imaging of the particles reveals a unique intracellular sorting of TTP-modified PEG liposomes (TTP-PEG-LPs); namely the TTP-LPs are not localized with the lysosomes, whereas this co-localization is dominant in the unmodified PEG liposomes (PEG-LPs). The in vivo endothelial penetration of liposomes in adipose tissue is conferred by the dual modification of the particles with TTP and tissue-targeting ligands."

According to the news editors, the research concluded: "This technology promises innovations in intravenously available delivery system to tissue parenchyma."


The news editors report that additional information may be obtained by contacting H. Akita, Faculty of Pharmaceutical Sciences, Hokkaido University, Kita12 Nishi6, Kita-ku, Sapporo City, Hokkaido, 060-0812, Japan. Additional authors for this research include T. Fujiwara, S. Santiwarangkool, N. Hossen, K. Kajimoto, A. El-Sayed, Y. Tabata and H. Harashima.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201500909. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Biotechnology, Japan, Hokkaido, Liposomes, Nanoparticle, Transcytosis, Nanotechnology, Endothelial Cells, Drugs and Therapies, Drug Delivery Systems, Emerging Technologies.

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Diet and Nutrition

Findings from Hong Kong Polytechnic University Yields New Data on Diet and Nutrition (Association between dietary fibre intake with cancer and all-cause mortality among 15 740 adults: the National Health and Nutrition Examination Survey III)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Diet and Nutrition. According to news reporting out of Hong Kong, People's Republic of China, by NewsRx editors, research stated, "Few prospective studies have examined the longitudinal associations of total dietary fibre intake and water insoluble and soluble fibres with cancer and all-cause mortality. The present study aimed to examine these associations."

Our news journalists obtained a quote from the research from Hong Kong Polytechnic University, "We studied the effects of total dietary fibre intake and water insoluble and soluble fibres on cancer and all-cause mortality, using data from 15 740 adult participants [mean (SD) age: 44.53 (19.22) years, 46.60% male] in the National Health and Nutrition Examination Survey (NHANES) III, 1988-1994, who had completed a 24-h dietary recall. Death certificate data were obtained up to 2006. Participants had been followed for 13.74 years on average. Cox regression was used to estimate the hazard ratios (HRs) of total dietary, insoluble and soluble fibres on cancer and all-cause mortality, with the first quartile as the reference group, adjusted for demographics, lifestyle and dietary factors. Relative to those in the first quartile of total fibre intake, only the third quartile was associated with all-cause mortality, with an adjusted HR of 0.87 [95% confidence interval (CI) = 0.79, 0.97, P = 0.021], and cancer mortality, with an adjusted HR of 0.77 (95% CI = 0.61, 0.99, P = 0.05). The third quartile of insoluble fibre intake was associated with cancer mortality, with an adjusted HR of 0.76 (95% CI = 0.60, 0.96, P = 0.023), and colorectal-rectal cancer mortality (in grouped data as provided for public use), with an adjusted HR of 0.42 (95% CI = 0.19, 0.91, P = 0.03). Dietary fibre showed protective benefits in terms of mortality risk."

According to the news editors, the research concluded: "Investigating the mechanisms and components of dietary fibres underlying the different protective benefits remains an important consideration for research on fibre-mortality risk."

Our news journalists report that additional information may be obtained by contacting C.W. Chan, Hong Kong Polytechnic University, Sch Nursing, Kowloon, Hong Kong, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jhn.12389. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Diet and Nutrition, Risk and Prevention, Epidemiology, Oncology, Cancer, Hong Kong Polytechnic University.

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Oncology - Oral Squamous Cell Carcinoma

Findings from Hong Kong University of Science and Technology Has Provided New Data on Oral Squamous Cell Carcinoma (Long non-coding RNA UCA1 contributes to the progression of oral squamous cell carcinoma by regulating the WNT/beta-catenin ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Oral Squamous Cell Carcinoma. According to news reporting originating in Shenzhen, People's Republic of China, by NewsRx journalists, research stated, "With the development of functional genomics studies, a mass of long non-coding RNAs (LncRNA) were discovered from the human genome. Long non-coding RNAs serve as pivotal regulators of genes that are able to generate LncRNA-binding protein complexes to modulate a great number of genes."

The news reporters obtained a quote from the research from the Hong Kong University of Science and Technology, "Recently, the LncRNA urothelial carcinoma-associated 1 (UCA1) has been revealed to be dysregulated, which plays a critical role in the development of a few cancers. However, the role of the biology and clinical significance of UCA1 in the tumorigenesis of oral squamous cell carcinoma (OSCC) remain unknown. We found that UCA1 expression levels were upregulated aberrantly in tongue squamous cell carcinoma tissues and associated with lymph node metastasis and TNM stage. We explored the expression, function, and molecular mechanism of LncRNA UCA1 in OSCC. In the present work, we revealed that UCA1 silencing suppressed proliferation and metastasis and induced apoptosis of OSCC cell lines in vitro and in vivo, which might be related to the activation level of the WNT/beta-catenin signaling pathway."

According to the news reporters, the research concluded: "Our research results emphasize the pivotal role of UCA1 in the oncogenesis of OSCC and reveal a novel LncRNA UCA1--catenin-WNT signaling pathway regulatory network that could contribute to our understanding in the pathogenesis of OSCC and assist in the discovery of a viable LncRNA-directed diagnostic and therapeutic strategy for this fatal disease."

Our news correspondents report that additional information may be obtained by contacting W. Zhang, Hong Kong University of Science & Technology, Shenzhen Peking Univ, Medical Center, Biomed Res Inst, Shenzhen 518036, People's Republic of China. Additional authors for this research include Y.F. Wang, J.Y. Lai, S.Y. Shen, F. Wang, J. Kong, W. Zhang and H.Y. Yang.

Keywords for this news article include: Shenzhen, People's Republic of China, Asia, Oral Squamous Cell Carcinoma, Armadillo Domain Proteins, Transcription Factors, beta Catenin, Carcinomas, Catenins, Oncology, Genetics, Hong Kong University of Science and Technology.

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**Transplant Medicine - Kidney Transplants**

**Findings from Hospital Clinic Reveals New Findings on Kidney Transplants (Bortezomib for refractory acute antibody-mediated rejection in kidney transplant recipients: A single-centre case series)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Kidney Transplants have been published. According to news originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Acute antibody-mediated rejection (ABMR) after kidney transplantation (KT) is associated with poor allograft survival. Current therapies for ABMR are able to deplete B-lymphocytes but do not target plasma cells."

Our news journalists obtained a quote from the research from Hospital Clinic, "Bortezomib is a proteasome inhibitor that can eliminate plasma cells and has demonstrated utility in the treatment of ABMR. A retrospective study was carried out from 2010 to 2014, including all patients with ABMR refractory to conventional treatment who received bortezomib. Bortezomib (1.3 mg/m(2)) was administered intravenously on days 1, 4, 8, and 11. Renal function, graft survival, follow-up biopsies, and donor-specific antibodies (DSA) were recorded. We identified seven patients. Of these, high immunological risk was found in 6 of 7, preformed DSA were found in 5 of 7, flow cytometry cross-match was positive in 4 of 7, and desensitization before KTx was provided in 6 of 7 patients. ABMR was diagnosed at a median of 90 days (8-167) post-KT. After bortezomib therapy, renal function improved or stabilized in 5 of 7 patients and progressively deteriorated in 2 of 7, leading to haemodialysis after 7 and 11 months, respectively. Follow-up kidney biopsies showed persistence of ABMR in 2 of 7, chronic active ABMR 3 of 7 and inactive chronic lesions in 2 of 7. DSA titres significantly decreased after treatment (P = 0.028). All patients experienced mild adverse events. After a follow-up of 22 +/- 18 months, three grafts were lost (42%) and four remained functioning. Bortezomib could be useful as an adjuvant therapy for ABMR refractory to conventional treatment with acceptable mid-term outcomes in these severe cases."

According to the news editors, the research concluded: "More research is needed to develop strategies to better preserve graft function after refractory ABMR."

For more information on this research see: Bortezomib for refractory acute antibody-mediated rejection in kidney transplant recipients: A single-centre case series. *Nephrology*, 2016;21(8):700-704. *Nephrology* can be contacted at: Wiley-Blackwell, 111 River St,
Findings from Hospital Clinic in Acute Myeloid Leukemia Provides New Insights (The lincRNA HOTAIRM1, located in the HOXA genomic region, is expressed in acute myeloid leukemia, impacts prognosis in patients in the intermediate-risk cytogenetic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Acute Myeloid Leukemia are presented in a new report. According to news reporting from Barcelona, Spain, by NewsRx journalists, research stated, "Long non-coding RNAs (lncRNAs) are deregulated in several tumors, although their role in acute myeloid leukemia (AML) is mostly unknown. We have examined the expression of the lncRNA HOX antisense intergenic RNA myeloid 1 (HOTAIRM1) in 241 AML patients. We have correlated HOTAIRM1 expression with a miRNA expression profile."

The news correspondents obtained a quote from the research from Hospital Clinic, "We have also analyzed the prognostic value of HOTAIRM1 expression in 215 intermediate-risk AML (IR-AML) patients. The lowest expression level was observed in acute promyelocytic leukemia (p <0.001) and the highest in t(6;9) AML (p=0.005). In 215 IR-AML patients, high HOTAIRM1 expression was independently associated with shorter overall survival (OR:2.04; p=0.001), shorter leukemia-free survival (OR:2.56; p<0.001) and a higher cumulative incidence of relapse (OR:1.67; p=0.046). Moreover, HOTAIRM1 maintained its independent prognostic value within the favorable molecular subgroup (OR: 3.43; p=0.009). Interestingly, HOTAIRM1 was overexpressed in NPM1-mutated AML (p <0.001) and within this group retained its prognostic value (OR: 2.21; p=0.01). Moreover, HOTAIRM1 expression was associated with a specific 33-microRNA signature that included miR-196b (p <0.001). miR-196b is located in the HOX genomic region and has previously been reported to have an independent prognostic value in AML. miR-196b and HOTAIRM1 in combination as a prognostic factor can classify patients as high-, intermediate-, or low-risk (5-year OS: 24% vs 42% vs 70%; p=0.004). Determination of HOTAIRM1 level at diagnosis provided relevant prognostic information in IR-AML and allowed refinement of risk stratification based on common molecular markers. The prognostic information provided by HOTAIRM1 was strengthened when combined with miR-196b expression."

According to the news reporters, the research concluded: "Furthermore, HOTAIRM1
correlated with a 33-miRNA signature."

For more information on this research see: The lincRNA HOTAIR-1M, located in the HOXA genomic region, is expressed in acute myeloid leukemia, impacts prognosis in patients in the intermediate-risk cytogenetic category, and is associated with a distinctive microRNA signature. *Oncotarget*, 2015;6(31):31613-27.

Our news journalists report that additional information may be obtained by contacting M. Diaz-Beya, Hematology Department, Hospital Clinic, Institut d'Investigacions Blandiques August Pi i Sunyer (IDIBAPS), Barcelona, Spain. Additional authors for this research include S. Brunet, J. Nomdedeu, M. Pratcorona, A. Cordeiro, D. Gallardo, L. Escoda, M. Tormo, I. Heras, J.M. Ribera, R. Duarte, M.P. de Llano, J. Bargay, A. Sampol, M. Nomdedeu, R.M. Risueno, M. Hoyos, J. Sierra and Mo.

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Keywords for this news article include: Biotechnology, Spain, Europe, Genetics, Oncology, Barcelona, Hematology, Drugs and Therapies, Leukemia Gene Therapy, Acute Myeloid Leukemia.

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**Heart Disorders and Diseases - Heart Attack**

**Findings from Hospital Clinico Universitario Broadens Understanding of Heart Attack (Inhomogeneity of collagen organization within the fibrotic scar after myocardial infarction: results in a swine model and in human samples)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting originating in Valencia, Spain, by NewsRx journalists, research stated, "We aimed to characterize the organization of collagen within a fibrotic scar in swine and human samples from patients with chronic infarctions. Swine were subjected to occlusion of the left anterior descending artery followed by reperfusion 1 week (acute myocardial infarction group) or 1 month (chronic myocardial infarction group) after infarction."

Financial supporters for this research include Instituto de Salud Carlos III and FEDER, Generalitat Valenciana.

The news reporters obtained a quote from the research from Hospital Clinico Universitario, "The organization of the collagen fibers (Fast Fourier Transform of samples after picrosirius staining; higher values indicate more disorganization) was studied in 100 swine and 95 human samples. No differences in collagen organization were found between the acute and chronic groups in the core area of the scar in the experimental model. In the chronic group, the endocardium [0.90 (0.84-0.94); median (interquartile range)], epicardium [0.84 (0.79-0.91)] and peripheral area [0.73 (0.63-0.83)] displayed a much more disorganized pattern than the core area of the fibrotic scar [0.56 (0.45-0.64)]. Similarly, in human samples, the collagen fibers were more disorganized in all of the outer areas than in the core of the fibrotic scar (P <0.0001). Both in a highly controlled experimental model and in patient samples, collagen fibers exhibited an organized pattern in the core of the infarction, whereas the outer areas displayed a high level
of inhomogeneity."

According to the news reporters, the research concluded: "This finding contributes pathophysiological information regarding the healing process and may lead to a clearer understanding of the genesis and invasive treatment of arrhythmias after acute myocardial infarction."


Our news correspondents report that additional information may be obtained by contacting A. Hervas, Cardiology Department, Hospital Clinico Universitario, INCLIVA, University of Valencia, Valencia, Spain. Additional authors for this research include A. Ruiz-Sauri, E. de Dios, M.J. Forteza, G. Minana, J. Nunez, C. Gomez, C. Bonanad, N. Perez-Sole, J. Gavara, F.J. Chorro and V. Bodi.

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Keywords for this news article include: Spain, Europe, Valencia, Collagen, Heart Attack, Heart Disease, Myocardial Ischemia, Myocardial Infarction, Heart Disorders and Diseases, Extracellular Matrix Proteins, Vascular Diseases and Conditions.

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Nutritional and Metabolic Diseases and Conditions - Findings from Hospital for Special Surgery Provides New Data on Malnutrition (Malnutrition Increases With Obesity and Is a Stronger Independent Risk Factor for Postoperative Complications: A Propensity-Adjusted Analysis of Total Hip ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Malnutrition have been published. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "Obesity is frequently associated with complications after total hip arthroplasty (THA) and is often concomitant with malnutrition. The purpose of this study was to investigate the independent morbidity risk of malnutrition relative to obesity."

Our news journalists obtained a quote from the research from Hospital for Special Surgery, "The National Surgical Quality Improvement Program from 2005 to 2013 was queried for elective primary THA cases. Malnutrition was defined as albumin <3.5 g/dL. Propensity scores for having preoperative albumin data were determined from demographics, body mass index, and overall comorbidity burden. Patients were classified as nonobese (body mass index 18.5-29.9), obese I (30-34.9), obese II (35-39.9), or obese III (>= 40). Complications were compared across nutritional and obesity classes. Multivariable propensity-adjusted logistic regressions were used to examine associations between obesity and malnutrition with 30-day outcomes. A total of 40,653 THA cases were identified, of which 20,210 (49.7%) had preoperative albumin measurements. Propensity score adjustment successfully reduced potential..."
selection bias, with P> .05 for differences between those with and without albumin data. Malnutrition incidence increased from 2.8% in obese I to 5.7% in obese III patients. With multivariable propensity-adjusted logistic regression, malnutrition was a more robust predictor than any obesity class for any postoperative complication(s) (odds ratio [OR] 1.61, 95% confidence interval [CI] 1.25-2.08), major complications (OR 1.63, 95% CI 1.21-2.19), respiratory complications (OR 2.35, 95% CI 1.27-4.37), blood transfusions (OR 1.71, 95% CI 1.44-2.03), and extended length of stay (OR 1.35, 95% CI 1.14-1.59).

According to the news editors, the research concluded: "Malnutrition incidence increased significantly from obese I to obese III patients and was a stronger and more consistent predictor than obesity of complications after THA."


Our news journalists report that additional information may be obtained by contacting M.C. Fu, Hospital for Special Surgery, Adult Reconstruct & Joint Replacement Serv, New York, NY 10021, United States. Additional authors for this research include C. D'Ambrosia, A.S. McLawhorn, W.W. Schairer, D.E. Padgett and M.B. Cross.

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Keywords for this news article include: New York City, New York, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Surgery, Epidemiology, Orthopedic Procedures, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Hip Arthroplasty, Overnutrition, Malnutrition, Bariatrics, Obesity, Hospital for Special Surgery.

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Cardiology

Findings from Howard Hughes Medical Institute Broaden Understanding of Cardiology (Single-Cell Resolution of Temporal Gene Expression during Heart Development)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiology have been presented. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Activation of complex molecular programs in specific cell lineages governs mammalian heart development, from a primordial linear tube to a four-chamber organ. To characterize lineage-specific, spatiotemporal developmental programs, we performed single-cell RNA sequencing of >1,200 murine cells isolated at seven time points spanning embryonic day 9.5 (primordial heart tube) to postnatal day 21 (mature heart)."

Funders for this research include NIGMS, Harvard Medical School, NHLBI, Howard
Hughes Medical Institute, NIMH, NIH, Foundation for Anesthesia Education and Research.

Our news journalists obtained a quote from the research from Howard Hughes Medical Institute, "Using unbiased transcriptional data, we classified cardiomyocytes, endothelial cells, and fibroblast-enriched cells, thus identifying markers for temporal and chamber-specific developmental programs. By harnessing these datasets, we defined developmental ages of human and mouse pluripotent stem-cell-derived cardiomyocytes and characterized lineage-specific maturation defects in hearts of mice with heterozygous mutations in Nkx2.5 that cause human heart malformations."

According to the news editors, the research concluded: "This spatiotemporal transcriptome analysis of heart development reveals lineage-specific gene programs underlying normal cardiac development and congenital heart disease."


The news correspondents report that additional information may be obtained from C.E. Seidman, Brigham & Women's Hospital, Div Cardiovasc, Howard Hughes Med Inst, Boston, MA 02115, United States. Additional authors for this research include A.G. Bick, H. Wakimoto, D. McKean, J.M. Gorham, I.S. Kathiriya, J.T. Hinson, J. Homsy, J. Gray, W. Pu, B.G. Bruneau, J.G. Seidman and C.E. Seidman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.devcel.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiology, Genetics, Cardiomyocyte, Howard Hughes Medical Institute.

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Drugs and Therapies - Antineoplastics

Findings from Huaiyin Institute of Technology Yields New Data on Antineoplastics (Novel morphology change of Au-Methotrexate conjugates: From nanochains to discrete nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antineoplastics have been presented. According to news reporting from Huaiyan, People's Republic of China, by NewsRx journalists, research stated, "A novel morphology change of Au-methotrexate (Au-MTX) conjugates that could transform from nanochains to discrete nanoparticles was achieved by a simple, one-pot, and hydrothermal growth method. Herein, MTX was used efficiently as a complex-forming agent, reducing agent, capping agent, and importantly a targeting anticancer drug."

Financial supporters for this research include National Natural Science Foundation of China, Foundation of Key Laboratory for Palygorskite Science and Applied Technology of Jiangsu Province, Fund of Priority Academic Program Development of Jiangsu Higher
Education Institutions, Jiangsu Collaborative Innovation Center of Biomedical Functional Materials.

The news correspondents obtained a quote from the research from the Huaiyin Institute of Technology, "The formation mechanism suggested a similarity with the molecular imprinting technology. The Au-MTX complex induced the MTX molecules to selectively adsorb on different crystal facets of gold nanoparticles (AuNPs) and then formed gold nanospheres. Moreover, the abundantly binding MTX molecules promoted directional alignment of these gold nanospheres to further form nanochains. More interestingly, the linear structures gradually changed into discrete nanoparticles by adding different amount of ethylene diamine tetra (methylene phosphonic acid) (EDTMPA) into the initial reaction solution, which likely arose from the strong electrostatic effect of the negatively charged phosphonic acid groups."

According to the news reporters, the research concluded: "Compared with the as-prepared nanochains, the resultant discrete nanoparticles showed almost equal drug loading capacity but with higher drug release control, colloidal stability, and in vitro anticancer activity."


Our news journalists report that additional information may be obtained by contacting S.P. Li, Huaiyin Inst Technol, Jiangsu Prov Key Lab Palygorskite Sci & Appl Technical, Huaiian 223003, People's Republic of China. Additional authors for this research include X.F. Zhao, X.H. Ju, Y. Wang, L. Wang, S.P. Li and X.D. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Huaian, People's Republic of China, Asia, Methotrexate Therapy Sodium, Emerging Technologies, Drugs and Therapies, Pharmaceuticals, Antimetabolites, Antineoplastics, Cancer Therapy, Antirheumatics, Antipsoriatics, Nanotechnology, Nanoparticle, Nanosphere, Nanochains, Huaiyin Institute of Technology.

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Oncology - Breast Cancer

Findings from Huazhong University of Science and Technology Provide New Insights into Breast Cancer (Addition of the p110 alpha inhibitor BYL719 overcomes targeted therapy resistance in cells from Her2-positive-PTEN-loss breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "Breast cancer is one of the leading causes of death for women
worldwide. Among various subtypes of breast cancer, human epidermal growth factor receptor 2 (HER2)-positive and phosphatase and tensin homolog (PTEN) loss breast cancer is a cause of great concern in terms of its resistance to HER2-targeted therapies and its poor prognosis.

Our news editors obtained a quote from the research from the Huazhong University of Science and Technology, "Phosphatidylinositol 3-kinase (PI3K)/AKT hyperphosphorylation is considered one of key mechanisms leading to this resistance, thus combination therapy of PI3K inhibitors and HER2 antibodies is promising for overcoming this problem, and more specific regimens should be designed in this age of precision medicine. In this study, we established an HER2-positive and PTEN loss cell line and confirmed it by western blot analysis. This cell line and its orthotopic xenograft models were exposed to p110 alpha-specific inhibitor BYL719, p110 beta-specific inhibitor AZD6482, or pan-PI3K inhibitor BKM120, respectively, and the results showed sensitivity to both BYL719 and BKM120 but not AZD6482, which indicated a p110 alpha-reliance for HER2-positive-PTEN-loss breast cancer. Then, the addition of BYL719 to HER2 antibody greatly reduced tumor growth both in vitro and in vivo, accompanied by inhibited PI3K effector phosphorylation."

According to the news editors, the research concluded: "Therefore, our findings suggest that the combination of p110 alpha-selective inhibitor BYL719 with HER2 antibody could be a potential strategy for more personalized treatment of HER2-positive-PTEN-loss breast cancer; and in addition, the optimal schedule of this combination therapy needs to be further explored."

For more information on this research see: Addition of the p110 alpha-selective inhibitor BYL719 overcomes targeted therapy resistance in cells from Her2-positive-PTEN-loss breast cancer. Tumor Biology, 2016;37(11):14831-14839. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news editors report that additional information may be obtained by contacting P. Liu, Huazhong University of Science & Technology, Union Hosp, Tongji Med College, Center Canc, Wuhan 430022, People's Republic of China. Additional authors for this research include B.F. Xu and P. Liu.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Women's Health, Breast Cancer, Oncology, Therapy, Huazhong University of Science and Technology.

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The news reporters obtained a quote from the research from Hyogo Cancer Center, "164 intentional extended segmentectomies were compared with 73 lobectomies subcategorized by consolidation to maximum tumor diameter ratio (C/T) measured by computed tomographies. Preoperative characteristics were propensity score matched to evaluate local-regional recurrence-free survival using the log-rank test. Preoperative factors and surgical procedure were analyzed with the Cox proportional hazards regression model to identify independent predictor of local-regional recurrence. Local-regional recurrence per segment were assessed by Kaplan-Meier estimates between both groups. No recurrences were observed for 46 C/T <= 0.5 segmentectomies. In 59 C/T >0.5 propensity scorematched pairs, 5-year local-regional recurrence-free survival rates of segmentectomies were 76.3%, versus 91.5% for lobectomies (p = 0.082). Multivariate analysis confirmed segmentectomies to be the only independent risk factor for local-regional recurrence-free probability (p = 0.020). Subset analysis reveals superior segmentectomies have significantly less local-regional recurrence (p = 0.029) than other segments and comparable prognosis to lower lobectomies. Left upper lobe segmentectomies also showed comparable prognosis to lobectomies. Segmentectomies in the right upper lobe and of basal segments showed significantly higher local recurrence (p = 0.001) than other segments. Basal segmentectomies showed significantly poor prognosis versus lower lobectomies (p = 0.005). For radiographically invasive right upper lobe or basal segment clinical T1a NSCLC, strict inclusion criteria is necessary for intentional segmentectomy."

According to the news reporters, the research concluded: "For superior and left upper lobe segments, however, segmentectomies may be preferred with prognosis comparable to lobectomies."


Our news correspondents report that additional information may be obtained by contacting W. Nishio, Hyogo Canc Center, Dept. of Chest Surg, Akashi, Hyogo 6738558, Japan. Additional authors for this research include M. Yoshimura, Y. Maniwa, Y. Kitamura, K. Tane, D. Takenaka and S. Adachi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.05.071. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Akashi, Japan, Asia, Cancer, Risk and Prevention, Non-Small Cell Lung Cancer, Lung Neoplasms, Segmentectomy, Oncology, Surgery, Hyogo Cancer Center.

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Liver Diseases and Conditions - Hepatitis C Virus

Findings from IDIBAPS Provide New Insights into Hepatitis C Virus (Boceprevir plus pegylated interferon/ribavirin to re-treat hepatitis C virus genotype 1 in HIV-HCV co-infected patients: final results of the Spanish BOC HIV-HCV Study)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Hepatitis C Virus. According to news reporting out of Barcelona, Spain, by NewsRx editors, research stated, "Boceprevir (BOC) was one of the first oral inhibitors of hepatitis C virus (HCV) NS3 protease to be developed. This study assessed the safety and efficacy of BOC + pegylated interferon-alpha 2a/ribavirin (PEG-IFN/RBV) in the retreatment of HIV-HCV co-infected patients with HCV genotype 1. This was a phase III prospective trial."

Our news journalists obtained a quote from the research from IDIBAPS, "HIV-HCV (genotype 1) co-infected patients from 16 hospitals in Spain were included. These patients received 4 weeks of PEG-IFN/RBV (lead-in), followed by response-guided therapy with PEG-IFN/RBV plus BOC (a fixed 44 weeks was indicated in the case of cirrhosis). The primary endpoint was the sustained virological response (SVR) rate at 24 weeks post-treatment. Efficacy and safety were evaluated in all patients who received at least one dose of the study drug. From June 2013 to April 2014, 102 patients were enrolled, 98 of whom received at least one treatment dose. Seventy-three percent were male, 34% were cirrhotic, 23% had IL28b CC, 65% had genotype 1a, and 41% were previous null responders. The overall SVR rate was 67%. Previous null-responders and cirrhotic patients had lower SVR rates (57% and 51%, respectively). Seventy-six patients (78%) completed the therapy scheme; the most common reasons for discontinuation were lack of response at week 12 (12 patients) and adverse events (six patients). Response-guided therapy with BOC in combination with PEG-IFN/RBV led to an overall SVR rate of 67%, but an SVR rate of only 51% in patients with cirrhosis. The therapy was generally well tolerated."

According to the news editors, the research concluded: "Although the current standards of care do not include BOC + PEG-IFN/RBV, the authors believe that this combination can be beneficial in situations where new HCV direct antiviral agent interferonfree therapies are not available yet."


Keywords for this news article include: Barcelona, Spain, Europe, Viral Sexually Transmitted Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Immune System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Respiratory Inhalant Products, Flaviviridae Infections, Inhaled Antinfectives, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Respiratory Agents, Purine Nucleosides, Influenza Therapy, Hepatitis C Virus, Gastroenterology, Antiretrovirals, HIV Infections, Retroviridae, Interferons, RNA Viruses, Antivirals, Hepatology, Cytokines, Ribavirin, HIV/AIDS, Virology, HCV, IDIBAPS.

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Findings from IUPUI Provide New Insights into HIV/AIDS [Reasons People Give for Using (or Not Using) Condoms]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immune System Diseases and Conditions - HIV/AIDS are discussed in a new report. According to news reporting from Indianapolis, Indiana, by NewsRx journalists, research stated, "Study participants (N = 348) were asked about 46 reasons that have been suggested for why people use or do not use condoms. Participants were asked which of these reasons motivated them when they were deciding whether to use condoms in 503 sexual relationships."

Financial support for this research came from Eunice K Shriver National Institute of Child Health and Human Development.

The news correspondents obtained a quote from the research from IUPUI, "Participants were classified into one of three roles based on their HIV status and the status of each sexual partner: HIV+ people with HIV- partners; HIV- people with HIV+ partners; and HIV- people with HIV- partners. Motivations were looked at in the context of each of these roles. Of the 46 reasons, only 15 were selected by at least 1/3 of the participants, and only seven were selected by at least half. Frequently reported reasons primarily concern protecting self and partner from STDs including HIV. Less frequently reported reasons involved social norms, effects of condoms on sex, and concern for the relationship."

According to the news reporters, the research concluded: "These findings have implications for clinical interventions."

For more information on this research see: Reasons People Give for Using (or Not Using) Condoms. AIDS and Behavior, 2016;20(12):2850-2862. AIDS and Behavior can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; AIDS and Behavior - www.springerlink.com/content/1090-7165/)

Our news journalists report that additional information may be obtained by contacting D.C. Bell, IUPUI, Dept. of Sociol, Indianapolis, IN 46202, United States. Additional authors for this research include D.C. Bell and A.E. DiBacco.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10461-016-1352-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, IUPUI.

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Findings from Illinois State University in the Area of Central Nervous System Agents Reported (Modafinil Activates Phasic Dopamine Signaling in Dorsal and Ventral Striata)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Central Nervous System Agents are discussed in a new report. According to news reporting from Normal, Illinois, by NewsRx journalists, research stated, "Modafinil (MOD) exhibits therapeutic efficacy for treating sleep and psychiatric disorders; however, its mechanism is not completely understood. Compared with other psychostimulants inhibiting dopamine (DA) uptake, MOD weakly interacts with the dopamine transporter (DAT) and modestly elevates striatal dialysate DA, suggesting additional targets besides DAT."

The news correspondents obtained a quote from the research from Illinois State University, "However, the ability of MOD to induce wakefulness is abolished with DAT knockout, conversely suggesting that DAT is necessary for MOD action. Another psychostimulant target, but one not established for MOD, is activation of phasic DA signaling. This communication mode during which burst firing of DA neurons generates rapid changes in extracellular DA, the so-called DA transients, is critically implicated in reward learning. Here, we investigate MOD effects on phasic DA signaling in the striatum of urethane-anesthetized rats with fast-scan cyclic voltammetry. We found that MOD(30-300 mg/kg i.p.) robustly increases the amplitude of electrically evoked phasic-like DA signals in a time- and dose-dependent fashion, with greater effects in dorsal versus ventral striata. MOD-induced enhancement of these electrically evoked amplitudes was mediated preferentially by increased DA release compared with decreased DA uptake. Principal component regression of nonelectrically evoked recordings revealed negligible changes in basal DA with high-dose MOD (300 mg/kg i.p.). Finally, in the presence of the D2 DA antagonist, raclopride, lowdoseMOD( 30 mg/kg i.p.) robustly elicited DA transients in dorsal and ventral striata."

According to the news reporters, the research concluded: "Taken together, these results suggest that activation of phasic DA signaling is an important mechanism underlying the clinical efficacy of MOD."

For more information on this research see: Modafinil Activates Phasic Dopamine Signaling in Dorsal and Ventral Striata. Journal of Pharmacology and Experimental Therapeutics, 2016;359(3):460-470. Journal of Pharmacology and Experimental Therapeutics can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

Our news journalists report that additional information may be obtained by contacting P.A. Garris, Illinois State University, Sch Biol Sci, Normal, IL 61790, United States. Additional authors for this research include M.W. Weber, M.A. Doellman, D.R. Schuweiler, J.M. Athens, S.A. Juliano and P.A. Garris.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.236000. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Normal, Illinois, United States, North and Central America, Central Nervous System Agents, Dopamine Hydrochloride, Drugs and Therapies, Organic Chemicals, Modafinil Therapy, Pharmaceuticals, Biogenic Amines.
DNA Research

Findings from Imperial College Provides New Data on DNA Research (Single-Molecule Studies of Unlabeled Full-Length p53 Protein Binding to DNA)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in DNA Research. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "p53 is an antitumor protein that plays an important role in apoptosis, preserving genomic stability and preventing angiogenesis, and it has been implicated in a large number of human cancers. For this reason it is an interesting target for both fundamental studies, such as the mechanism of interaction with DNA, and applications in biosensing."

Our news editors obtained a quote from the research from Imperial College, "Here, we report a comprehensive study of label-free, full length p53 (flp53) and its interaction with engineered double-stranded DNA in vitro, at the single-molecule level, using atomic force microscopy (AFM) imaging and solid-state nanopore sensing. AFM data show that dimeric and tetrameric p53 bind to the DNA in a sequence-specific manner, confirming previously reported relative binding affinities. The statistical significance is tested using both the Grubbs test and stochastic simulations. For the first time, ultralow noise solid-state nanopore sensors are employed for the successful differentiation between bare DNA and p53/DNA complexes. Furthermore, translocation statistics reflect the binding affinities of different DNA sequences, in accordance with AFM data."

According to the news editors, the research concluded: "Our results thus highlight the potential of solid-state nanopore sensors for single-molecule biosensing, especially when labeling is either not possible or at least not a viable option."


The news editors report that additional information may be obtained by contacting P. Nuttall, Imperial College London, Dept. of Chemistry, Exhibition Road, London SW7 2AZ, UK. Additional authors for this research include K. Lee, P. Ciccarella, M. Carminati, G. Ferrari, K.B. Kim and T. Albrecht.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jpcb.5b11076. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, p53 Gene, DNA Research, United Kingdom, Atomic Force Microscopy.

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Findings from Imperial College Provides New Data on Sulfur Amino Acids (The Salmonella Effector SpvD Is a Cysteine Hydrolase with a Serovar-specific Polymorphism Influencing Catalytic Activity, Suppression of Immune Responses, and Bacterial ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Sulfur Amino Acids is the subject of a report. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Many bacterial pathogens secrete virulence (effector) proteins that interfere with immune signaling in their host. SpvD is a Salmonella enterica effector protein that we previously demonstrated to negatively regulate the NF-kappa B signaling pathway and promote virulence of S. enterica serovar Typhimurium in mice."

Our news editors obtained a quote from the research from Imperial College, "To shed light on the mechanistic basis for these observations, we determined the crystal structure of SpvD and show that it adopts a papa-in-like fold with a characteristic cysteine-histidine-aspartate catalytic triad comprising Cys-73, His-162, and Asp-182. SpvD possessed an in vitro deconjugative activity on aminoluciferin-linked peptide and protein substrates in vitro. A C73A mutation abolished SpvD activity, demonstrating that an intact catalytic triad is required for its function. Taken together, these results strongly suggest that SpvD is a cysteine protease. The amino acid sequence of SpvD is highly conserved across different S. enterica serovars, but residue 161, located close to the catalytic triad, is variable, with serovar Typhimurium SpvD having an arginine and serovar Enteritidis a glycine at this position. This variation affected hydrolytic activity of the enzyme on artificial substrates and can be explained by substrate accessibility to the active site. Interestingly, the SpvD(G161) variant more potently inhibited NF-kappa B-mediated immune responses in cells in vitro and increased virulence of serovar Typhimurium in mice."

According to the news editors, the research concluded: "In summary, our results explain the biochemical basis for the effect of virulence protein SpvD and demonstrate that a single amino acid polymorphism can affect the overall virulence of a bacterial pathogen in its host."


The news editors report that additional information may be obtained by contacting D.W. Holden, Imperial Coll London, Microbiol Sect, London SW7 2AZ, United Kingdom. Additional authors for this research include Y. Zhang, M. Przydacz, N. Rolhion, Y. Yang, J.N. Pruneda, D. Komander, D.W. Holden and S.A. Hare.

Keywords for this news article include: London, United Kingdom, Europe, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Bacteria, Enzymes and Coenzymes, Sulfhydryl Compounds, Gammaproteobacteria, Neutral Amino Acids, Enterobacteriaceae, Sulfur Amino Acids, Proteobacteria, Salmonellosis, Hydrolases, Salmonella, Genetics,
Cysteine, Imperial College.

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**Drugs and Therapies - Pharmaceutical Research**

**Findings from Imperial College in Pharmaceutical Research Reported**

*(ATR-FTIR spectroscopic imaging to study the drying and dissolution of pharmaceutical polymer-based films)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Pharmaceutical Research have been published. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "Pharmaceutical film dosage forms have recently become of interest to pharmaceutical formulation development, particularly for patients who experience difficulty in swallowing tablets or capsules. Furthermore, formulation scientists require a reliable analytical approach to reveal vital insight and investigate the drying process of these films to consolidate suitable quality control."

Our news journalists obtained a quote from the research from Imperial College, "Since most of the polymer-based films containing a drug are produced via solution or dispersion states, an estimation of the physicochemical properties of drugs during drying and dissolution is critical to design novel formulations with the consideration to control drug release, i.e. safety and efficacy to patients. This work presents the novel application of attenuated total reflection-Fourier transform infrared (ATR-FTIR) spectroscopic imaging to study the drying process and dissolution behaviour of polymer-based films. Two types of the ibuprofen containing films, hydroxypropyl methylcellulose (HPMC) based films for immediate release and polyvinylpyrrolidone (PVP) based films for extended release, were studied in modified pH environments and changing hydrophobicity. ATR-FTIR imaging has revealed important information on water ingress into the films and the presence, distribution, and physicochemical state of the drug."

According to the news editors, the research concluded: "ATR-FTIR imaging is a powerful technique to investigate and to deeply understand physicochemical processes for pharmaceutical polymer-based films."

For more information on this research see: ATR-FTIR spectroscopic imaging to study the drying and dissolution of pharmaceutical polymer-based films. *International Journal of Pharmaceutics*, 2016;515(1-2):57-68. *International Journal of Pharmaceutics* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; International Journal of Pharmaceutics - www.journals.elsevier.com/international-journal-of-pharmaceutics/)

The news correspondents report that additional information may be obtained from S.G. Kazarian, Imperial Coll London, Dept. of Chem Engn, London SW7 2AZ, United Kingdom. Additional authors for this research include A.V. Ewing and S.G. Kazarian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.09.085. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Pharmaceutical Research, Drugs and Therapies, Imperial College.
Findings from Indian Institute of Science Provides New Data about Antibiotics (High Antibacterial Activity of Functionalized Chemically Exfoliated MoS2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news reporting from Bangalore, India, by NewsRx journalists, research stated, "In view of the implications of inherent resistance of pathogenic bacteria, especially ESKAPE pathogens toward most of the commercially available antibiotics and the importance of these bacteria-induced biofilm formation leading to chronic infection, it is important to develop new generation synthetic materials with greater efficacy toward antibacterial property. In addressing this issue, this paper reports a proof-of-principle study to evaluate the potential of functionalized two-dimensional chemically exfoliated MoS2 (ce-MoS2) toward inhibitory and bactericidal property against two representative ESKAPE pathogenic strain a Gram-positive Staphylococcus aureus (MRSA) and a Gram-negative Pseudomonas aeruginosa."

Financial supporters for this research include Council of Scientific and Industrial Research, Department of Biotechnology, Ministry of Science and Technology, Department of Science and Technology, Ministry of Science and Technology.

The news correspondents obtained a quote from the research from the Indian Institute of Science, "More significantly, the mechanistic study establishes a different extent of oxidative stress together with rapid membrane depolarization in contact with ce-MoS2 having ligands of varied charge and hydrophobicity. The implication of our results is discussed in the light of the lack of survivability of planktonic bacteria and biofilm destruction in vitro."

According to the news reporters, the research concluded: "A comparison with widely used small molecules and other nanomaterial-based therapeutics conclusively establishes a better efficacy of 2D ce-MoS2 as a new class of antibiotics."


Our news journalists report that additional information may be obtained by contacting M. De, Indian Inst Sci, Dept. of Organ Chem, Bangalore 560012, Karnataka, India. Additional authors for this research include S. Karunakaran, S.K. Boda, B. Basu and M. De.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b10916. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bangalore, India, Asia, Antibacterial Agents, Drugs and Therapies, Antimicrobials, Antibiotics, Indian Institute of Science.
Emergency Treatment

Findings from Indiana University in Emergency Treatment Reported (Being There: Inpatients' Perceptions Of Family Presence During Resuscitation And Invasive Cardiac Procedures)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Emergency Treatment have been published. According to news reporting from Muncie, Indiana, by NewsRx journalists, research stated, "Although patients' families want to be invited to the bedside of hospitalized loved ones during crisis events, little is known about patients' perceptions of family presence. To explore adult inpatients' perceptions of family presence during resuscitation, near-resuscitation, and unplanned invasive cardiac procedures shortly after the life-threatening event."

The news correspondents obtained a quote from the research from Indiana University, "In this qualitative study, data were collected by interviews at least 13 hours after a crisis event and before hospital discharge. Data were audio recorded, transcribed, and analyzed for themes. From the bedside interviews (N = 48), the over-arching theme of 'being there' was explained more specifically as 'being there is beneficial,' 'being there is hard,' 'families in the way,' and 'desire for control.' Most participants preferred family presence, although preferences varied with types of crisis events, patients' predictions of family members' responses, and the nature of family relationships. New perspectives emerged about patients' decision making related to family presence. This study extends existing knowledge about factors that influence the decision-making processes of hospitalized patients regarding family presence during a crisis event."

According to the news reporters, the research concluded: "Health care professionals can provide support as patients ponder difficult decisions about who to have present and can reduce patients' fears that families might interfere with the life-saving efforts."

For more information on this research see: Being There: Inpatients' Perceptions Of Family Presence During Resuscitation And Invasive Cardiac Procedures. American Journal of Critical Care, 2015;24(6):E108-E115. American Journal of Critical Care can be contacted at: Amer Assoc Critical Care Nurses, 101 Columbia, Aliso Viejo, CA 92656, USA.

Our news journalists report that additional information may be obtained by contacting R.S. Twibell, Indiana University, Hlth Ball Mem Hosp, Muncie, IN, United States. Additional authors for this research include S. Craig, D. Siela, S. Simmonds and C. Thomas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4037/ajcc2015470. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Muncie, Indiana, United States, North and Central America, Emergency Treatment, Resuscitation, Cardiology, Indiana University.

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Findings from Inonu University Provide New Insights into Glottic Cancer (Dosimetric comparison of helical tomotherapy, intensity-modulated radiation therapy, volumetric-modulated arc therapy, and 3-dimensional conformal therapy for the ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Glottic Cancer. According to news reporting originating in Malatya, Turkey, by NewsRx journalists, research stated, "Various radiotherapy planning methods for T1N0 laryngeal cancer have been proposed to decrease normal tissue toxicity. We compare helical tomotherapy (HT), linac-based intensity-modulated radiation therapy (IMRT), volumetric-modulated arc therapy (VMAT), and 3-D conformal radiotherapy (3D-CRT) techniques for T1N0 laryngeal cancer."

The news reporters obtained a quote from the research from Inonu University, "Overall, 10 patients with T1N0 laryngeal cancer were selected and evaluated. Furthermore, 10 radiotherapy treatment plans have been created for all 10 patients, including HT, IMRT, VMAT, and 3D-CRT. IMRT, VMAT, and HT plans vs 3D-CRT plans consistently provided superior planning target volume (PTV) coverage. Similar target coverage was observed between the 3 IMRT modalities. Compared with 3D-CRT, IMRT, HT, and VMAT significantly reduced the mean dose to the carotid arteries. VMAT resulted in the lowest mean dose to the submandibular and thyroid glands. Compared with 3D-CRT, IMRT, HT, and VMAT significantly increased the maximum dose to the spinal cord. It was observed that the 3 IMRT modalities studied showed superior target coverage with less variation between each plan in comparison with 3D-CRT. The 3D-CRT plans performed better at the Dmax of the spinal cord."

According to the news reporters, the research concluded: "Clinical investigation is warranted to determine if these treatment approaches would translate into a reduction in radiation therapy-induced toxicities."

For more information on this research see: Dosimetric comparison of helical tomotherapy, intensity-modulated radiation therapy, volumetric-modulated arc therapy, and 3-dimensional conformal therapy for the treatment of T1N0 glottic cancer. Medical Dosimetry, 2016;41(4):329-333. Medical Dosimetry can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Medical Dosimetry - www.journals.elsevier.com/medical-dosimetry/)

Our news correspondents report that additional information may be obtained by contacting K. Ekici, Inonu University, Dept. of Radiat Oncol, Fac Med, Malatya, Turkey. Additional authors for this research include E.K. Pepele, B. Yaprak, O. Ternelli, A.F. Eraslan, N. Kucuk, A.Y. Altinok, P.A. Sut, O.D. Alpak, C. Colak and A. Mayadagli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.meddos.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Malatya, Turkey, Eurasia, Drugs and Therapies, Laryngeal Neoplasms, Radiation Therapy, Glottic Carcinoma, Laryngeal Cancer, Glottic Cancer, Radiotherapy, Oncology, Inonu University.

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Findings from Inova Fairfax Hospital Provide New Insights into Heart Transplants (Long-term outcomes of heart transplant recipients with hepatitis C positivity: the data from the US transplant registry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Transplant Medicine - Heart Transplants. According to news originating from Falls Church, Virginia, by NewsRx correspondents, research stated, "Chronic HCV infection is often considered a contraindication for receiving a heart transplantation. From the Scientific Registry of Transplant Recipients, we selected all adults with and without HCV infection who underwent a single-organ heart transplantation in 1995-2013; the mortality status was updated in September 2015."

Our news journalists obtained a quote from the research from Inova Fairfax Hospital, "A total of 32,812 heart transplant recipients were included; N=756 (2.30%) HCV positive. Post-transplant patients were discharged alive at similar rates regardless of their HCV status (P=.10). Despite this, mortality in HCV+ heart transplant recipients was consistently higher throughout post-discharge follow-up (P <.002). In multivariate survival analysis, being HCV+ was independently associated with a higher post-transplant mortality: adjusted hazard ratio 1.35 (1.16-1.56), P<.0001. Other predictors of lower post-transplant survival included being obese at transplant and pre-transplant history of comorbidities (type 2 diabetes, COPD, hypertension) (all P<.05). No association of HCV infection with graft loss rates or time to graft loss was found (all P>.23). Chronic hepatitis C infection is associated with a significantly increased post-transplant mortality in heart transplant recipients."

According to the news editors, the research concluded: "The introduction of new direct-acting antiviral agents may provide a treatment option for HCV pre-or post-heart transplantation which could have a positive impact on patients' survival."


The news correspondents report that additional information may be obtained from Z.M. Younossi, Inova Fairfax Hosp, Center Liver Dis, Dept. of Med, Falls Church, VA, United States. Additional authors for this research include T. Locklear, N. Rafiq, A. Mishra, C. Venkatesan and Z.M. Younossi.

Keywords for this news article include: Falls Church, Virginia, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Digestive System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Infectious Disease and Conditions, Liver Diseases and Conditions, Risk and Prevention, Transplant Medicine, Heart Transplants, Organ Transplants, Gastroenterology, Type 2 Diabetes, Transplantation, Biomedicine, Cardiology, Hepatitis, Surgery, Inova Fairfax Hospital.

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Immunology - Mononuclear Phagocyte System

Findings from Insmed Inc. Update Knowledge of Mononuclear Phagocyte System (Pulmonary Deposition and Elimination of Liposomal Amikacin for Inhalation and Effect on Macrophage Function after Administration in Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immunology - Mononuclear Phagocyte System are discussed in a new report. According to news reporting out of Bridgewater, New Jersey, by NewsRx editors, research stated, "Pulmonary nontuberculous mycobacterial (PNTM) infections represent a treatment challenge. Liposomal amikacin for inhalation (LAI) is a novel formulation currently in development for the treatment of PNTM infections."

Our news journalists obtained a quote from the research from Insmed Inc., "The pulmonary deposition and elimination of LAI and its effect on macrophage function were evaluated in a series of preclinical studies in healthy rats. The pulmonary deposition of LAI was evaluated in female rats (n = 76) treated with LAI by nebulizer at 10 mg/kg of body weight per day or 90 mg/kg per day for 27 days, followed by dosing of dually labeled LAI (LAI with a lipid label plus an amikacin label) on day 28 with subsequent lung histological and amikacin analyses. In a separate study for assessment of alveolar macrophage function, rats (n = 180) received daily treatment with LAI at 90 mg/kg per day or 1.5% saline over three 30-day treatment periods followed by 30-day recovery periods; phagocytic and Saccharomyces cerevisiae (yeast) killing capabilities and inflammatory mediator release were assessed at the end of each period. LAI demonstrated equal dose-dependent deposition across all lung lobes and regions. Lipid and amikacin labels showed diffuse extracellular colocalization, followed by macrophage uptake and gradual amikacin elimination. Macrophages demonstrated accumulation of amikacin during treatment periods and nearly complete elimination during recovery periods. No evidence of an inflammatory response was seen. No differences in microsphere uptake or yeast killing were seen between LAI-treated and control macrophages. Neither LAI-treated nor control macrophages demonstrated constitutive inflammatory mediator release; however, both showed normal mediator release on lipopolysaccharide stimulation."

According to the news editors, the research concluded: "LAI is readily taken up by macrophages in healthy rats without compromising macrophage function."

For more information on this research see: Pulmonary Deposition and Elimination of Liposomal Amikacin for Inhalation and Effect on Macrophage Function after Administration in Rats. Antimicrobial Agents and Chemotherapy, 2016;60(11):6540-6549. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting W.R. Perkins, Insmed Inc, Bridgewater, NJ 08807, United States. Additional authors for this research include M. Neville, G. Eagle, R. Gupta and W.R. Perkins.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00700-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bridgewater, New Jersey, United States, North and Central America, Mononuclear Phagocyte System, Biotechnology, Macrophages,
Findings from Institute Butantan Provide New Insights into Escherichia coli (Characterization of the universal stress protein F from atypical enteropathogenic Escherichia coli and its prevalence in Enterobacteriaceae)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gram-Negative Bacteria - Escherichia coli. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Atypical enteropathogenic Escherichia coli (aEPEC) are heterogeneous strains in terms of serotypes, adherence patterns and the presence of novel virulence factors. This heterogeneity is intriguing, promoting studies trying to characterize these novel proteins and to better comprehend this pathotype group."

Our news journalists obtained a quote from the research from Institute Butantan, "In a previous study analyzing low-molecular mass proteomes of four representative aEPEC strains of three different adhesion phenotypes, we classified proteins according to their annotated function, with most of them being involved in metabolism and transport; while some of them were classified as hypothetical proteins. The majority of the hypothetical proteins were homologue products of genes identified in the genome of enterohemorrhagic E. coli. One of the hypothetical proteins was annotated as Z2335, with orthologue in EPEC, and by bioinformatics analysis, this protein was revealed to be the universal stress protein F (UspF). Thus, herein we successfully obtained a recombinant UspF protein from aEPEC, which is a alpha/beta, ATP-binding protein involved in stress response, with comparable protein production among the four studied strains, but showing noteworthy differences when cultivated in different stress conditions, also present in other enterobacterial species, such as Shigella sonnei and Citrobacter freundii."

According to the news editors, the research concluded: "Furthermore, our results confirm that the Usp protein superfamily encompasses a conserved group of proteins involved in stress resistance in aEPEC and other Enterobacteriaceae."


The news correspondents report that additional information may be obtained from R.M.F. Piazza, Inst Butantan, Lab Bacteriol, BR-05503900 Sao Paulo, SP, Brazil. Additional authors for this research include A.G. Torres, A. Caravelli, A. Silva, J.M. Polatto and R.M.F. Piazza.

Keywords for this news article include: Sao Paulo, Brazil, South America, Gram-Negative Facultatively Anaerobic Rods, Enteropathogenic Escherichia coli, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Proteobacteria, Genetics, Institute Butantan.
Findings from Institute for Biochemistry Update Knowledge of Obesity
[Cardiac-Specific Down-Regulation of Carnitine Palmitoyltransferase-1b (CPT-1b) Prevents Cardiac Remodeling in Obese Mice]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "To determine whether inhibiting cardiac carnitine palmitoyltransferase-1b (CPT-1b) improves obesity-related cardiomyopathy. Four-week-old male C57BL/6J mice were fed with high-fat diet (HFD) for 12 weeks to induce obesity."

The news correspondents obtained a quote from the research from Institute for Biochemistry, "At 6 weeks of age, mice were subjected to intramyocardial injection with lentivirus to down-regulate the expression of either cardiac CPT-1b or green fluorescent protein. Morphological, biochemical, functional, histological, and ultrastructural profiles were assessed at 16 weeks of age. HFD administration elicited obesity, cardiac hypertrophy, and systolic dysfunction accompanied with altered biochemical parameters. In addition, HFD consumption promoted lipid accumulation and reactive oxygen species generation in cardiomyocytes and damaged myocardial ultrastructure. Cardiac CPT-1b silencing protected against HFD-induced cardiac remodeling by decreasing heart weight/tibial length ratio and increasing left ventricular ejection fraction and fractional shortening, as well as normalizing left ventricular diameter. Meanwhile, CPT-1b inhibition mitigated the changes in biochemical parameters, aggravated myocardial lipid accumulation, reduced intramyocardial reactive oxygen species production, and partly amended myocardial ultrastructural alterations in obese mice. Cardiac CPT-1b suppression protects against the aggravation of cardiac morphology and function associated with HFD feeding."

According to the news reporters, the research concluded: "CPT-1b represents a potential therapeutic target for the treatment of cardiac dysfunction related to metabolic diseases such as obesity and diabetes."

For more information on this research see: Cardiac-Specific Down-Regulation of Carnitine Palmitoyltransferase-1b (CPT-1b) Prevents Cardiac Remodeling in Obese Mice. Obesity, 2016;24(12):2533-2543. Obesity can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)


Keywords for this news article include: Shanghai, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Trimethyl Ammonium Compounds, Enzymes and Coenzymes, Palmitoyltransferase, Obesity and Diabetes, Nutrition Disorders, Diet and Nutrition, Overnutrition, Biochemicals, Biochemistry, Cardiology, Bariatrics,
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**Blood Diseases and Conditions - Sepsis**

**Findings from Institute for Cancer Research and Treatment (IRCCS) Broaden Understanding of Sepsis (Cardiac dysfunction and circulating cardiac markers during sepsis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Blood Diseases and Conditions - Sepsis are presented in a new report. According to news reporting out of Milan, Italy, by NewsRx editors, research stated, "Among several alterations affecting the cardiovascular system during severe sepsis or septic shock, myocardial depression has been pointed out with increasing attention over the last 30 years as a frequent and often misdiagnosed clinical condition. As expected, patients with cardiac dysfunction during sepsis have a worse prognosis than those without."

Our news journalists obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "In the present review, we will first discuss the etiology, pathophysiology, monitoring and clinical manifestations of cardiac dysfunction in patients with severe sepsis or septic shock. Thereafter, we will briefly present the evidence on the role of circulating biomarkers of cardiac function in the management of sepsis. Circulating cardiac biomarkers are becoming increasingly popular in cardiovascular diseases, as they are a simple and cost-effective tool for triage, diagnosis and prognosis. Their importance during sepsis is related to the development of complications due to an aging population with frequent co-morbidities and a scarce functional reserve. We will focus on two specific markers of cardiac origin: troponins, which reveal cardiac myocytes injury, and natriuretic peptides, as indicators of cardiac chambers wall stress and fluid homeostasis. The bulk of evidences accumulated so far on cardiac markers support their role as prognostic indicators, with marginal improvement in terms of accuracy, as compared to widely employed clinical scores."

According to the news editors, the research concluded: "Their potential to satisfy unmet needs in the daily care of septic patients is more appealing, in particular for monitoring the cardiovascular system during support therapy."

For more information on this research see: Cardiac dysfunction and circulating cardiac markers during sepsis. *Minerva Anestesiologica*, 2016;82(6):697-710. *Minerva Anestesiologica* can be contacted at: Edizioni Minerva Medica, Corso Bramante 83-85 Int Journals Dept., 10126 Turin, Italy.

Our news journalists report that additional information may be obtained by contacting R. Latini, 1st Ric Farmacol Mario Negri, IRCCS, Dept. of Cardiovasc Res, Milan, Italy. Additional authors for this research include P. Caironi and S. Masson.

Keywords for this news article include: Milan, Italy, Europe, Cardiovascular System, Article Review, Diagnostics and Screening, Blood Diseases and Conditions, Bloodstream Infection, Cardiology, Septicemia, Sepsis, Institute for Cancer Research and Treatment (IRCCS).

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**Clinical Research - Clinical Trials and Studies**

**Findings from Institute for Cancer Research and Treatment (IRCCS) Provides New Data about Clinical Trials and Studies (Brain and cognitive functions in two groups of naive HIV patients selected for a different plan of antiretroviral therapy: A ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news originating from Rome, Italy, by NewsRx correspondents, research stated, "Cortical sources of electroencephalographic (EEG) rhythms were investigated in two sub-populations of naive HIV subjects, grouped based on clinical criteria to receive different combination anti-retroviral therapies (cARTs). These EEG sources were hypothesized to reflect beneficial effects of both regimes."

Financial supporters for this research include Tosinvest Sanita, Fondazione SDN of Naples, Viiv Healthcare.

Our news journalists obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Eyes-closed resting state EEG data were collected in 19 (Group A) and 39 (Group B) naive HIV subjects at baseline (i.e. pre-treatment; T0) and after 5 months of cART (T5). Compared with the Group A, the Group B was characterized by slightly worse serological parameters and higher cardiovascular risk. At T0, mean viral load (VL) and CD4 count were 87,694 copies/ml and 435 cells/μl in the Group A and 187,370 copies/ml and 331 cells/μl in the Group B. The EEG data were also collected in 50 matched control HIV-negative subjects. Cortical EEG sources were assessed by LORETA software. Compared to the Control Group, the HIV Groups showed lower alpha (8-12 Hz) source activity at T0 while the Group B also exhibited higher delta source activity. The treatment partially normalized alpha and delta source activity in the Group A and B, respectively, in association with improved VL, CD4, and cognitive functions. Different cART regimens induced diverse beneficial effects in delta or alpha source activity in the two naive HIV Groups."

According to the news editors, the research concluded: "These sources might unveil different neurophysiological effects of diverse cART on brain function in naive HIV Groups as a function of clinical status and/or therapeutic compounds."

For more information on this research see: Brain and cognitive functions in two groups of naive HIV patients selected for a different plan of antiretroviral therapy: A qEEG study. *Clinical Neurophysiology*, 2016;127(11):3455-3469. *Clinical Neurophysiology* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Clinical Neurophysiology - www.journals.elsevier.com/clinical-neurophysiology/)

The news correspondents report that additional information may be obtained from C. Babiloni, IRCCS S Raffaele Pisana, Rome, Italy. Additional authors for this research include A. Pennica, P. Capotosto, P. Onorati, C. Muratori, S. Ferracuti, P. Roma, V. Correr, E. Piccinni, G. Noce, C. Del Percio, S. Cordone, C. Limatola, A. Soricelli, F. Di Campli, L. Gianserra, L. Ciullini, A. Aceti and M Viscione.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinph.2016.09.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Viral Sexually
Findings from Institute for Cancer Research and Treatment (IRCCS) in the Area of Chemotherapy Described (Efficacy of adjuvant chemotherapy in early stage uterine leiomyosarcoma: A systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Chemotherapy is now available. According to news reporting originating in Milan, Italy, by NewsRx journalists, research stated, "We sought to review the current evidence in order to test the efficacy of adjuvant chemotherapy in improving disease-free survival in patients affected by early stage uterine leiomyosarcoma. On July 2016, literature was searched in order to identify trials comparing different postoperative adjuvant strategies for patients diagnosed with early stage uterine leiomyosarcoma."

The news reporters obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Our analysis included 360 patients: 145 (40%), 53 (15%), and 155 (43%) had chemotherapy (with or without radiotherapy), radiotherapy, and observation, respectively. Seven (2%) patients who had radiotherapy with or without chemotherapy were excluded from further analysis in order to reduce risk of biases. Administration of chemotherapy (with or without radiotherapy) did not improve outcomes in comparison to observation (OR: 0.79 (95%CI: 0.48, 1.29)), or radiotherapy (OR: 0.90 (95%CI: 0.42, 1.94)). Loco-regional recurrence rate was similar comparing patients undergoing chemotherapy (with or without radiotherapy) with having observation alone (OR: 0.84 (95%CI: 0.44, 1.60)). Similarly, pooled results suggested that chemotherapy administration did not affect distant recurrence rate in comparison to no chemotherapy (OR: 0.80 (95%CI: 0.50, 1.28)), and observation alone (OR: 0.99 (95%CI: 0.60, 1.64)). However, patients undergoing chemotherapy (with or without radiotherapy) experienced a trend towards lower risk of developing distant recurrences (OR: 0.49 (95%CI: 024,1.03)) and a higher risk of developing loco-regional recurrences (OR: 3.45 (95%CI: 1.02, 11.73)) than patients undergoing radiotherapy. In early stage uterine leiomyosarcoma, the role of adjuvant chemotherapy remains unclear."

According to the news reporters, the research concluded: "Owing to the high recurrence rate, even in the early stage of disease, further innovative therapeutic strategies have to be tested."

For more information on this research see: Efficacy of adjuvant chemotherapy in early stage uterine leiomyosarcoma: A systematic review and meta-analysis. Gynecologic Oncology, 2016;143(2):443-447. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)
Oncology - Squamous Cell Carcinoma

Findings from Institute for Cancer Research and Treatment (IRCCS) in the Area of Squamous Cell Carcinoma Described (Phase II clinical study of valproic acid plus cisplatin and cetuximab in recurrent and/or metastatic squamous cell carcinoma of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Squamous Cell Carcinoma. According to news reporting from Naples, Italy, by NewsRx journalists, research stated, "Recurrent/metastatic squamous cell carcinoma of the head and neck (SCCHN) has a poor prognosis and the combination of cisplatin and cetuximab, with or without 5-fluorouracil, is the gold standard treatment in this stage. Thus, the concomitant use of novel compounds represents a critical strategy to improve treatment results."

The news correspondents obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Histone deacetylase inhibitors (HDACi) enhance the activity of several anticancer drugs including cisplatin and anti-Epidermal Growth Factor Receptor (anti-EGFR) compounds. Preclinical studies in models have shown that vorinostat is able to down regulate Epidermal Growth Factor Receptor (EGFR) expression and to revert epithelial to mesenchimal transition (EMT). Due to its histone deacetylase (HDAC) inhibiting activity and its safe use as a chronic therapy for epileptic disorders, valproic acid (VPA) has been considered a good candidate for anticancer therapy. A reasonable option may be to employ the combination of cisplatin, cetuximab and VPA in recurrent/metastatic SCCHN taking advantage of the possible positive interaction between histone deacetylase inhibitors, cisplatin and/or anti-EGFR. Method/Design: V-CHANCE is a phase 2 clinical trial evaluating, in patients with recurrent/metastatic squamous cell carcinoma of the head and neck never treated with first-line chemotherapy, the concomitant standard administration of cisplatin (on day 1, every 3 weeks) and cetuximab (on day 1, weekly), in combination with oral VPA given daily from day -14 with a titration strategy in each patient (target serum level of 50-100 μg/ml). Primary end point is the objective response rate measured according to Response Evaluation Criteria in Solid Tumors (RECIST). Sample size, calculated according to Simon 2 stage minimax design will include 21 patients in the first stage with upper limit for rejection being 8 responses, and 39 patients in the second stage, with upper limit for rejection being 18 responses. Secondary
Endpoints are time to progression, duration of response, overall survival, safety. Objectives of the translational study are the evaluation on tumor samples of markers of treatment efficacy/resistance (i.e., H2AX, p21/WAF, RAD51, XRCC1, EGFR, p-EGFR, Ki-67) and specific markers of VPA HDAC inhibitory activity (histones and proteins acetylation, Histone deacetylase isoforms) as well as valproate test, histones and proteins acetylation of peripheral blood mononuclear cell, tested on blood samples at baseline and at different time points during treatment. Overall, this study could provide a less toxic and more effective first-line chemotherapy regimen in patients with recurrent/metastatic squamous cell carcinoma of the head and neck by demonstrating the feasibility and efficacy of cisplatin/cetuximab plus valproic acid.

According to the news reporters, the research concluded: "Moreover, correlative studies could help to identify responder patients, and will add insights in the mechanism of the synergistic interaction between these agents."

For more information on this research see: Phase II clinical study of valproic acid plus cisplatin and cetuximab in recurrent and/or metastatic squamous cell carcinoma of Head and Neck-V-CHANCE trial. BMC Cancer, 2016;16():1-10. BMC Cancer can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Cancer - www.biomedcentral.com/bmccancer/)


Keywords for this news article include: Naples, Italy, Europe, Intercellular Signaling Peptides and Proteins, Fatty Acid Derivative Anticonvulsants, Antineoplastic Monoclonal Antibodies, Gastrointestinal Hormone Receptors, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor, Central Nervous System Agents, Clinical Trials and Studies, Tyrosine Kinase Inhibitors, Gastrointestinal Hormones, Epidermal Growth Factors, Squamous Cell Carcinoma, Growth Factor Receptors, Enzymes and Coenzymes, Histone Deacetylases, Drugs and Therapies, Phosphotransferases, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Organic Chemicals, Cisplatin Therapy, Alkylating Agents, Clinical Research, Membrane Proteins, Carboxylic Acids, Amidohydrolases, Pharmaceuticals, Pentanoic Acids, Antineoplastics, EGFR Inhibitors, Protein Kinases, Nucleoproteins, Cancer Therapy, Valproic Acid, Biotechnology, Carcinomas, Cetuximab, Histones, Oncology, Institute for Cancer Research and Treatment (IRCCS).

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correspondents, research stated, "Botulinum neurotoxins (BoNT) are the most toxic substances known, and their neurotoxic properties and paralysing effects are exploited for medical treatment of a wide spectrum of disorders. To accurately quantify the potency of a pharmaceutical BoNT preparation, its physiological key activities (binding to membrane receptor, translocation, and proteolytic degradation of SNARE proteins) need to be determined."

Financial support for this research came from 3R Foundation Switzerland.

Our news editors obtained a quote from the research from Institute for Food Research, "To date, this was only possible using animal models, or, to a limited extent, cell-based assays. We here report a novel in vitro system for BoNT/B analysis, based on nerve-cell mimicking liposomes presenting motoneuronal membrane receptors required for BoNT binding. Following triggered membrane translocation of the toxin's Light Chain, the endopeptidase activity can be quantitatively monitored employing a FRET-based reporter assay within the functionalized liposomes."

According to the news editors, the research concluded: "We were able to detect BoNT/B physiological activity at picomolar concentrations in short time, opening the possibility for future replacement of animal experimentation in pharmaceutical BoNT testing."


The news editors report that additional information may be obtained by contacting O.G. Weingart, ETH, Inst Food Nutr & Hlth, CH-8092 Zurich, Switzerland.

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Keywords for this news article include: Zurich, Switzerland, Europe, Drug Delivery Systems, Drugs and Therapies, Nanobiotechnology, Bionanotechnology, Nanotechnology, Bioengineering, Biotechnology, Neurotoxins, Biosensing, Liposomes, Institute for Food Research.

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Cardiovascular Diseases

Findings from Institute for Health Research Provide New Insights into Cardiovascular Diseases [Association between a dietary carbohydrate index and cardiovascular disease in the SUN (Seguimiento Universidad de Navarra) Project]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases is the subject of a report. According to news originating from Pamplona, Spain, by NewsRx correspondents, research stated, "Beyond the quantity of carbohydrate intake, further research is needed to know the relevance of carbohydrate quality following operational indices. No previous longitudinal study has assessed the association between an index for quality of dietary carbohydrate intake and the
risk of cardiovascular disease (CVD)."

Our news journalists obtained a quote from the research from Institute for Health Research, "Here, we examined the association between a carbohydrate quality index (CQI) and the risk of CVD. We used a validated semi-quantitative 136-item food-frequency questionnaire (FFQ) in a prospective follow-up study of 17,424 middle-aged adults from Spain. The CQI was defined by four criteria: dietary fiber intake, glycemic index, whole-grain/total-grain carbohydrate ratio, and solid/total carbohydrate ratio. We observed 129 incident cases of CVD during 10.1 y of median follow-up. An inverse association for CQI was found (hazard ratio = 0.44, 95% confidence interval (CI): 0.25-0.78 for the highest versus the lowest tertile, p for trend = 0.008). Participants in the highest tertile of the whole-grain/total-grain carbohydrate ratio had 47% lower risk of CVD (95% CI: 0.33-0.85, p for trend = 0.008). Participants with higher baseline CQI and higher baseline energy from carbohydrates had the lowest risk of CVD. In this Mediterranean cohort, a better quality of dietary carbohydrates measured by the CQI, showed a significant inverse association with the incidence of CVD."

According to the news editors, the research concluded: "Specially, a higher proportion of carbohydrates from whole grains was strongly inversely associated with CVD. 'Heart-healthy' diets should be focused not only on carbohydrate quantity but also on a multidimensional assessment of the type and quality of carbohydrates."

For more information on this research see: Association between a dietary carbohydrate index and cardiovascular disease in the SUN (Seguimiento Universidad de Navarra) Project. Nutrition Metabolism and Cardiovascular Diseases, 2016;26(11):1048-1056. Nutrition Metabolism and Cardiovascular Diseases can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England.

The news correspondents report that additional information may be obtained from M.A. Martinez-Gonzalez, Navarra Inst Hlth Res IdiSN A, Pamplona, Spain. Additional authors for this research include S. Santiago, A. Gea, M. Ruiz-Canela, S. Carlos, M. Bes-Rastrollo and M.A. Martinez-Gonzalez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.numecd.2016.07.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pamplona, Spain, Europe, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Institute for Health Research.

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Oncology - Liver Cancer

Findings from Institute for Medical Research Yields New Findings on Liver Cancer (Liver Fibrosis and Body Mass Index Predict Hepatocarcinogenesis following Eradication of Hepatitis C Virus RNA by Direct-Acting Antivirals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Liver Cancer. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Predictive factors for hepatocarcinogenesis following eradication of hepatitis C virus (HCV) RNA by antiviral therapy with direct-acting antivirals are unknown. Especially the impact of treatment with or
without interferon on hepatocarcinogenesis is not clear."

The news correspondents obtained a quote from the research from Institute for Medical Research, "A total of 958 patients with HCV genotype 1-related chronic liver disease and a sustained virological response defined as negative HCV RNA 24 weeks after cessation of antiviral therapy with direct-acting antivirals (triple therapy of NS3/4A protease inhibitor/peginterferon/ribavirin or all-oral combination therapy with NS3/4A protease inhibitor plus NS5A inhibitor) were included in a retrospective study. None of the patients had hepatocellular carcinoma before and during antiviral therapy. In all, 14 patients developed hepatocellular carcinoma during follow-up, and the development rate per 1,000 person-years was 7.35. The cumulative hepatocarcinogenesis rates were 4.2 and 4.2% at the end of 5 and 7 years, respectively. Multivariate analysis identified fibrosis 4 (FIB4) index (≥ 2.7) and body mass index (≥ 23.0) as determinants of hepatocarcinogenesis, but they did not identify the treatment regimen. In patients with a FIB4 index the hepatocarcinogenesis rates with the interferon regimen were not different from those for the regimen without interferon, regardless of gender."

According to the news reporters, the research concluded: "Liver fibrosis and body mass index, but not treatment regimen, are important predictors of hepatocarcinogenesis following eradication of HCV RNA by direct-acting antivirals."

For more information on this research see: Liver Fibrosis and Body Mass Index Predict Hepatocarcinogenesis following Eradication of Hepatitis C Virus RNA by Direct-Acting Antivirals. *Oncology*, 2016;91(6):341-347. *Oncology* can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Oncology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=223857)


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Keywords for this news article include: Tokyo, Japan, Asia, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Clinical Trials and Studies, Flaviviridae Infections, Enzymes and Coenzymes, Drugs and Therapies, Protease Inhibitors, Post-Trial Research, Enzyme Inhibitors, Hepatitis C Virus, Gastroenterology, Liver Cirrhosis, Liver Fibrosis, Liver Cancer, Interferons, RNA Viruses, Hepatology, Cytokines, Viral RNA, Genetics, Virology, Oncology, Therapy, HCV, Institute for Medical Research.

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**Biotechnology - Liposomes**

**Findings from Institute for Physical Chemistry Provide New Insights into Liposomes (Platinum-carbon electrocatalytic composites via liposome-directed electrodeposition at conductive diamond)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Biotechnology - Liposomes are discussed in a new report. According to news originating from Bucharest, Romania, by NewsRx correspondents, research stated, "A Pt precursor was entrapped in phosphatidylcholine-cholesterol vesicles and the liposomal suspension was used for direct electrodeposition of a Pt-based catalyst on boron doped diamond (BDD). The average size of the deposited particles (ca. 15 to ca. 40 nm) is closely related to that of the liposomes and Pt particles are partially embedded into a carbonaceous matrix."

Our news journalists obtained a quote from the research from Institute for Physical Chemistry, "Methanol anodic oxidation was used for gauging the electrocatalytic activity of the composites and it was found that the electrodeposition with prior adsorption of the liposomes enables more efficient use of platinum. Without preliminary adsorption, a much higher resistance to fouling was observed for the electrocatalyst This behavior was ascribed to the presence on the electrodes surface of PtO2 and of a higher amount of oxygenated carbon states."

According to the news editors, the research concluded: "These species act as oxygen donors contributing to an easier eviction of the adsorbed CO, thus partially regenerating active sites from the electrocatalyst surface."


The news correspondents report that additional information may be obtained from T. Spataru, Inst Phys Chem Ilie Murgulescu, Bucharest 060021, Romania. Additional authors for this research include T. Spataru, L. Preda, M. Anastasescu, P. Osiceanu, C. Munteanu, R.D. Baratou, A.A. Iovescu and N. Spataru.

Keywords for this news article include: Bucharest, Romania, Europe, Biotechnology, Liposomes, Institute for Physical Chemistry.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Findings from Institute for Tropical Medicine Has Provided New Data on HIV/AIDS (Sensitivity and specificity of dried blood spots for HIV-1 viral load quantification A laboratory assessment of 3 commercial assays)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news reporting out of Antwerp, Belgium, by NewsRx editors, research stated, "The use of dried blood spots (DOS) instead of plasma as a specimen type for HIV-1 viral load (VL) testing facilitates the decentralization of specimen collection and can increase access to VL testing in resource-limited settings. The performance of DBS for VL testing is lower, however, when compared to the gold standard sample type plasma."

Our news journalists obtained a quote from the research from Institute for Tropical Medicine, "In this diagnostic accuracy study, we evaluated 3 VL assays with DDS. Participants were recruited between August 2012 and April 2015. Both plasma and DBS specimens were..."
prepared and tested for HIV-1 VL with the Roche CAP/CTM HIV-1 test v2.0, the Abbott RealTime HIV-1, and the bioMerieux NucliSENS EasyQ HIV-1 v2.0. Sensitivity and specificity to detect treatment failure at a threshold of 1000 cps/mL with DBS were determined. A total of 272 HIV-positive patients and 51 HIV-negative people were recruited in the study. The mean difference or bias between plasma and DOS VL was <0.5 log cps/mL with all 3 assays but > 25% of the specimens differed by >0.5 log cps/mL. All 3 assays had comparable sensitivities around 80% and specificities around 90%. Upward misclassification rates were around 10%. but downward misclassification rates ranged from 20.3% to 23.6%. Differences in between assays were not statistically significant (P > 0.1). The 3 VL assays evaluated had suboptimal performance with DBS but still performed better than immunological or clinical monitoring. Even after the introduction of the much-anticipated point-of-care VL devices, it is expected that DBS will remain important as a complementary option for supporting access to VL monitoring, particularly in rural, resource-limited settings."

According to the news editors, the research concluded: "Manufacturers should accelerate efforts to develop more reliable, sensitive and specific methods to test VL on DOS specimens."

For more information on this research see: Sensitivity and specificity of dried blood spots for HIV-1 viral load quantification A laboratory assessment of 3 commercial assays. Medicine, 2016;95(48):144-147. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting P. Pannus, Inst Trop Med, Dept. of Clin Sci, Antwerp, Belgium. Additional authors for this research include M. Claus, M.M.P. Gonzalez, N. Ford and K. Fransen.

Keywords for this news article include: Antwerp, Belgium, Europe, Viral Sexually Transmitted Diseases and Conditions, Viral Load, Diagnostics and Screening, Immune System Diseases and Conditions, Virus Physiological Phenomena, Microbiological Techniques, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, Hematology, HIV/AIDS, Plasma, Blood, HIV-1, Institute for Tropical Medicine. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

Oncology - Melanoma

Findings from Institute of Biomedical Chemistry in the Area of Melanoma Reported (Bringing Down Cancer Aircraft: Searching for Essential Hypomutated Proteins in Skin Melanoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Melanoma is the subject of a report. According to news originating from Moscow, Russia, by NewsRx correspondents, research stated, "We propose an approach to detection of essential genes/proteins required for cancer cell survival. A gene is considered essential if a mutation with high impact upon the function of encoded protein causes death of the cancer cell."

Our news journalists obtained a quote from the research from the Institute of Biomedical Chemistry, "We draw an analogy between essential cancer proteins and well-known Abraham Wald's work on estimating the plane critical areas using data on survivability of
aircraft encountering enemy fire. Wald reasoned that parts with no bullet holes on the airplanes returned to the airbase from a combat flight are the most crucial ones for the airplane functioning: a hit in one of these parts downs an airplane, so it does not return back for the survey. We have envisaged that the airplane surface is a cancer genome and the bullets are somatic mutations with high impact upon protein function. Similarly we propose that genes specifically essential for tumor cell survival should carry less high-impact mutations in cancer cells compared to polymorphisms found in normal cells. We used data on mutations from the Cancer Genome Atlas and polymorphisms found in healthy humans (from 1000 Genomes Project) to predict 91 protein-coding genes essential for melanoma. These genes were selected according to several criteria, including negative selection, expression in melanocytes and decrease in the proportion of high-impact mutations in cancer compared with normal cells. The Gene Ontology analysis revealed enrichment of essential proteins related to membrane and cell periphery. We speculate that this could be a sign of immune system-driven negative selection of cancer neo-antigens. Another finding is the overrepresentation of semaphorin receptors, which can mediate distinctive signaling cascades and are involved in various aspects of tumor development. Cytokine receptors CCR5 and CXCR1 were also identified as cancer essential proteins and this is confirmed by other studies. Overall, our goal was to illustrate the idea of detecting proteins whose sequence integrity and functioning is important for cancer cell survival."

According to the news editors, the research concluded: "Hopefully, this prediction of essential cancer proteins may point to new targets for anti-tumor therapies."


The news correspondents report that additional information may be obtained from M. Pyatnitskiy, Institute of Biomedical Chemistry, 119121, Pogodinskaya str, 10, Moscow, Russia. Additional authors for this research include D. Karpov, E. Poverennaya, A. Lisitsa and S. Moshkovskii.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0142819. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Moscow, Russia, Cancer, Eurasia, Genetics, Melanoma, Oncology, Peptides, Proteins, Amino Acids.

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Proteins - Lectins

Findings from Institute of Biomedicine in the Area of Lectins Described (Lactose-Functionalized Gold Nanorods for Sensitive and Rapid Serological Diagnosis of Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Lectins. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "Timely and accurate diagnosis of cancer is crucial to cancer treatment. However, serological diagnosis of cancer still faces great challenge because the conventional methodology based on
the enzyme-linked immune sorbent assay (ELISA) is costly, time-consuming, and complicated, involving multiple steps."

Funders for this research include Research Grants Council, University Grants Committee, Hong Kong, City University of Hong Kong, National Natural Science Foundation of China, Shenzhen Science and Technology Innovation Committee, Guangdong Province.

Our news journalists obtained a quote from the research from the Institute of Biomedicine, "Herein, lactose-functionalized gold nanorods (Lac-GNRs) are fabricated as efficient biosensors to detect cancerous conditions based on the unique surface plasmon resonance properties of GNRs and high specificity of lactose to the galectin-1 cancer biomarker. A trace concentration of galectin-1 as small as 10(-13) M can be detected by Lac-GNRs. The comparative study among BSA, galectin-3, and galectin-1 demonstrates the good specificity of Lac-GNRs to galectin-1 either in aqueous solutions or in the complex and heterogeneous serum specimens. Clinical tests show that the Lac-GNRs biosensors can readily distinguish the serums of cancer patients from those of healthy persons simply by using a microplate reader or even direct visual observation."

According to the news editors, the research concluded: "The Lac-GNRs biosensing platform is highly efficient and easy to use and have great potential in rapid screening of cancer patients."


Our news journalists report that additional information may be obtained by contacting Y. Zhao, Institute of Biomedicine and Biotechnology, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen 518055, Guangdong, People's Republic of China. Additional authors for this research include L. Tong, Y. Li, H. Pan, W. Zhang, M. Guan, W. Li, Y. Chen, Q. Li, Z. Li, H. Wang, X.F. Yu and P.K Chu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.5b11192. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Nanorod, Oncology, Proteins, Guangdong, Biosensing, Galectin 1, Bioengineering, Bionanotechnology, Nanobiotechnology, Emerging Technologies, People's Republic of China.

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**Neurodegenerative Diseases and Conditions -...**

**Findings from Institute of Biophysics Provide New Insights into Alzheimer Disease (Vps35-dependent recycling of Trem2 regulates microglial function)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Triggering receptor expressed on myeloid cells 2 (Trem2), an immune-modulatory receptor, is preferentially expressed in microglia of central nervous
system. Trem2 might be involved in the development of Alzheimer's disease (AD) through regulating the inflammatory responses and phagocytosis of microglia."

Our news journalists obtained a quote from the research from the Institute of Biophysics, "However, the intracellular trafficking of Trem2 remains unclear. In this study, we showed that Trem2 in the plasma membrane underwent endocytosis and recycling. Trem2 is internalized in a clathrin-dependent manner and then recycled back to the plasma membrane through vacuolar protein sorting 35 (Vps35), the key component of cargo recognition core of retromer complex, but not Rab11. When Vps35 is knocked down, Trem2 accumulated in the lysosomes but was not degraded. More importantly, Vps35 deficiency leads to excessive lipopolysaccharide (LPS)-induced inducible nitric oxide synthase (iNOS) expression and IL-6 production, which can be abolished by Trem2 overexpression. Furthermore, R47H Trem2, an AD-associated mutant, failed to interact with Vps35 and became unstable compared with wild-type Trem2."

According to the news editors, the research concluded: "Our study suggests that Vps35/retromer is responsible for recycling of Trem2 in the regulation of microglial function such as proinflammatory responses, whereas R47H mutation impairs Trem2 trafficking, which might contribute to AD."


Our news journalists report that additional information may be obtained by contacting S.Q. Zhao, Chinese Academy Sci, Inst Biophys, State Key Lab Brain & Cognit Sci, Beijing 100101, People's Republic of China. Additional authors for this research include X.C. Liu, Q. He, L.J. Zhou, Z.Q. Yuan and S.Q. Zhao.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Neurodegenerative Diseases and Conditions, Alzheimer Disease, Microglia, Neuroglia, Genetics, Institute of Biophysics.

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Skin Diseases and Conditions - Actinic Keratosis

Findings from Institute of Cancer in the Area of Actinic Keratosis Reported (Pigmentation-Independent Susceptibility Loci for Actinic Keratosis Highlighted by Compound Heterozygosity Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Skin Diseases and Conditions - Actinic Keratosis. According to news reporting originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "Actinic keratosis (AK) is a skin disease frequently found in European elderly, and it represents the precursor of cutaneous squamous cell carcinoma. Our recent genome-wide association study highlighted DNA variants in two pigmentation genes, IRF4 and MC1R, that confer AK risk in Europeans."

Our news editors obtained a quote from the research from the Institute of Cancer, "Here, we performed a genome-wide search for relaxed forms of compound heterozygosity in association with AK using our recently developed software CollapsABEL. In a discovery dataset
of 3,193 Dutch Europeans, a total of 15 genetic loci showed genome-wide significant
association with AK (P < 1.25 x 10(-10)). Of those, three loci (6p21.2, 6p12.2, and 6q13) were
confirmed in a replication dataset that included 624 additional Dutch Europeans (P < 0.05).
These replicated loci harbored six genes (KCNK5/KCNK17, PAQR8/GSTA2, and
KCNQ5/KHDC1), none of them known to be involved in pigmentation. A candidate compound
heterozygosity analysis for 12 pigmentation loci highlighted SLC24A4 at 14q32.12 as showing
significant association with AK (P = 8.83 x 10(-9)). The four significantly AK-associated
compound heterozygosity single-nucleotide polymorphism pairs together explained 4.37% of
the total AK variation, which was 2.62 times greater than the two top-associated individual
single nucleotide polymorphisms together (1.67%) identified in the previous conventional
genome-wide association study.

According to the news editors, the research concluded: "CollapsABEL showed
compound heterozygosity in non-pigmentation-and pigmentation-related loci conferring genetic
risk of AK."

For more information on this research see: Pigmentation-Independent Susceptibility
Loci for Actinic Keratosis Highlighted by Compound Heterozygosity Analysis. Journal of
Investigative Dermatology, 2017;137(1):77-84. Journal of Investigative Dermatology can be
contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.
(Nature Publishing Group - www.nature.com/; Journal of Investigative Dermatology -
www.nature.com/jid/)

The news editors report that additional information may be obtained by contacting T.
Nijsten, Erasmus MC, Inst Canc, Dept. of Dermatol, Rotterdam, Netherlands. Additional
authors for this research include J.A.C. Verkouteren, L.C. Jacobs, A.G. Uitterlinden, A.
Hofman, F. Liu, T. Nijsten and M. Kayser.

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http://dx.doi.org/10.1016/j.jid.2016.09.007. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Skin and
Connective Tissue Diseases and Conditions, Skin Diseases and Conditions, Risk and
Prevention, Actinic Keratosis, Dermatology, Genetics, Institute of Cancer.

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Drugs and Therapies - Pharmacology

Findings from Institute of Cardiovascular Sciences Broaden
Understanding of Pharmacology (Effect of Dexmedetomidine on Normal
Coronary Vessel Diameter)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Researchers detail new data in Drugs and Therapies - Pharmacology.
According to news reporting from Bangalore, India, by NewsRx journalists, research stated,
"Dexmedetomidine is a selective alpha2 agonist, which is widely used for conscious sedation in
ICU patients. It is being increasingly used to provide conscious sedation in out-of-theatre
procedures like CT scan, MRI, endoscopies and catheterization (cath) procedures."

The news correspondents obtained a quote from the research from the Institute of
Cardiovascular Sciences, "There is limited data till date regarding the effect of
dexmedetomidine on coronary vessel diameter. The aim of this prospective observational study was to observe the effect of dexmedetomidine on normal coronary vessel diameter. Fifty patients who had come for elective coronary angiography in the cath lab were enrolled in the study. After taking the first shot of the coronary angiogram and confirming that the right coronary artery (RCA) is normal, dexmedetomidine was administered in a dose of 1 μg/kg intravenously over 15 min. Immediately after that, another shot was taken to check the diameter of RCA. Paired Student's t test was used to analyze the data. The mean diameter of RCA before giving dexmedetomidine was 2.7634 ± 0.3189 mm. The mean diameter decreased significantly to 2.6296 ± 0.3379 mm after administration of dexmedetomidine (p value <0.0001)."

According to the news reporters, the research concluded: "Thus, dexmedetomidine decreases the coronary vessel diameter."


Our news journalists report that additional information may be obtained by contacting T.S. Kundra, Sri Jayadeva Inst Cardiovasc Sci & Res, Dept. of Anaesthesia, Bangalore, Karnataka, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000447746. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bangalore, India, Asia, Pharmacology, Drugs and Therapies, Institute of Cardiovascular Sciences.

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Heart Disorders and Diseases - Brugada Syndrome

Findings from Institute of Cardiovascular Sciences Provide New Insights into Brugada Syndrome (Suicidal Zinc Phosphide Poisoning Unmasking Brugada Syndrome and Triggering Near Fatal Ventricular Arrhythmia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Brugada Syndrome. According to news reporting originating from Bangalore, India, by NewsRx correspondents, research stated, "Brugada syndrome (BrS) is an inherited channelopathy associated with increased incidence of ventricular arrhythmias and has many acquired triggers. Zinc phosphide (ZnP) is a rodenticide and is commonly implicated in suicidal poison ingestion."

Our news editors obtained a quote from the research from the Institute of Cardiovascular Sciences, "ZnP poisoning can cause myocardial toxicity and death. We report a case of ZnP poisoning that triggered a type I Brugada pattern and ventricular fibrillation in a 67-year-old male. He had no other features of toxicity and recovered later."

According to the news editors, the research concluded: "As metal phosphide is the commonest toxin involved in suicidal poisoning in India and BrS being endemic here, this case
highlights an important clinical problem."


The news editors report that additional information may be obtained by contacting M.A. Prabhu, Dept. of Cardiology, Electrophysiology Unit, Sri Jayadeva Institute of Cardiovascular Sciences and Research, Bangalore, India. Additional authors for this research include R. Agustinus and J. Shenthar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/pace.12749. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Bangalore, Poisoning, Cardiology, Epidemiology, Heart Disease, Brugada Syndrome, Cardiac Arrhythmias, Heart Disorders and Diseases.

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**Inflammation**

**Findings from Institute of Clinical and Experimental Medicine in the Area of Inflammation Described (Identification Of Gene Transcripts Implicated In Peritoneal Membrane Alterations)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Inflammation are discussed in a new report. According to news reporting from Prague, Czech Republic, by NewsRx journalists, research stated, "Permanent stimulation of the peritoneum during peritoneal dialysis (PD) is likely to result in increased expression of genes encoding proteins involved in inflammation and tissue remodeling. Peritoneal fibrosis and neoangiogenesis may develop."

The news correspondents obtained a quote from the research from the Institute of Clinical and Experimental Medicine, "To assess highly expressed genes potentially involved in peritoneal alterations during PD treatment using an animal model. A PD catheter was implanted in 36 male Wistar rats after 70% nephrectomy. The rats were divided into 3 groups, exposed to dialysis solution for 8 weeks, and sacrificed 2 weeks later. Group B was exposed to a buffer, group D was exposed to a 3.86% glucose-based dialysis solution, and in group D+H, a second hit of intraperitoneal blood on top of the dialysis solution was given to induce the development of peritoneal sclerosis. Before sacrifice, peritoneal function was assessed. Omental tissue was obtained for analysis of gene expression using RT-qPCR. Fibrosis scores, vessel counts, and peritoneal function parameters were not different between the groups. Genes involved in the transforming growth factor beta signaling pathway, cell proliferation, angiogenesis, and inflammation were more expressed (p < 0.05) in the D+H group. Almost no differences were found between the control groups. We identified 4 genes that were related to peritoneal transport."

According to the news reporters, the research concluded: "Already a mid-term peritoneal exposure, when no microscopical and functional alterations are present, provokes activation of gene pathways of cell proliferation, fibrosis, neoangiogenesis, and inflammation."

Our news journalists report that additional information may be obtained by contacting A. Parikova, Inst Clin & Expt Med, Transplant Center, Dept. of Nephrol, Prague, Czech Republic. Additional authors for this research include A. Vlijm, I. Brabcova, M. de Graaff, D.G. Struijk, O. Viklicky and R.T. Krediet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3747/pdi.2015.00094. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Prague, Czech Republic, Europe, Pharmaceutical Solutions, Genetics, Cell Proliferation, Dialysis Solutions, Inflammation, Institute of Clinical and Experimental Medicine.

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**Liver Diseases and Conditions - Liver Failure**

**Findings from Institute of Liver and Biliary Sciences in Liver Failure Provides New Insights (Acute-on-chronic liver failure: terminology, mechanisms and management)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Liver Failure have been published. According to news reporting originating in New Delhi, India, by NewsRx journalists, research stated, "Acute-on-chronic liver failure (ACLF) is a distinct clinical entity and differs from acute liver failure and decompensated cirrhosis in timing, presence of acute precipitant, course of disease and potential for unaided recovery. The definition involves outlining the acute and chronic insults to include a homogenous patient group with liver failure and an expected outcome in a specific timeframe."

The news reporters obtained a quote from the research from the Institute of Liver and Biliary Sciences, "The pathophysiology of ACLF relates to persistent inflammation, immune dysregulation with initial wide-spread immune activation, a state of systematic inflammatory response syndrome and subsequent sepsis due to immune paresis. The disease severity and outcome can be predicted by both hepatic and extrahepatic organ failure(s). Clinical recovery is expected with the use of nucleoside analogues for hepatitis B, and steroids for severe alcoholic hepatitis and, possibly, severe autoimmune hepatitis. Artificial liver support systems help remove toxins and metabolites and serve as a bridge therapy before liver transplantation. Hepatic regeneration during ongoing liver failure, although challenging, is possible through the use of growth factors. Liver transplantation remains the definitive treatment with a good outcome."

According to the news reporters, the research concluded: "Pre-emptive antiviral agents for hepatitis B before chemotherapy to prevent viral reactivation and caution in using potentially hepatotoxic drugs can prevent the development of ACLF."

For more information on this research see: Acute-on-chronic liver failure: terminology, mechanisms and management. *Nature Reviews Gastroenterology & Hepatology,*
Findings from Institute of Ophthalmology Broaden Understanding of Human Genetics (Mutations in CPAMD8 Cause a Unique Form of Autosomal-Recessive Anterior Segment Dysgenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics - Human Genetics is now available. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Anterior segment dysgeneses (ASDs) comprise a spectrum of developmental disorders affecting the anterior segment of the eye. Here, we describe three unrelated families affected by a previously unclassified form of ASD."

Funders for this research include National Institute for Health Research (NIHR) Biomedical Research Centre (BRC) at Moorfields Eye Hospital NHS Foundation Trust and UCL Institute of Ophthalmology, Rosetrees Trust, Moorfields Eye Charity, NIHR BRC at Great Ormond Street Hospital, Great Ormond Street Hospital Charity, MRC/Wellcome Trust Human Developmental Biology Resource.

Our news journalists obtained a quote from the research from the Institute of Ophthalmology, "Shared ocular manifestations include bilateral iris hypoplasia, ectopia lentis, corectopia, ectropion uveae, and cataracts. Whole-exome sequencing and targeted Sanger sequencing identified mutations in CPAMD8 (C3 and PZP-like alpha-2-macroglobulin domain-containing protein 8) as the cause of recessive ASD in all three families. A homozygous missense mutation in the evolutionarily conserved alpha-2-macroglobulin (A2M) domain of CPAMD8, c.4351T >C (p.Ser1451Pro), was identified in family 1. In family 2, compound heterozygous frameshift, c.2352_2353insC (p.Arg785Glnfs*23), and splice-site, c.4549-1G >A, mutations were identified. Two affected siblings in the third family were compound heterozygous for splice-site mutations c.700_1G >T and c.4002_1G >A. CPAMD8 splice-site mutations caused aberrant pre-mRNA splicing in vivo or in vitro. Intriguingly, our phylogenetic analysis revealed rodent lineage-specific CPAMD8 deletion, precluding a developmental expression study in mice. We therefore investigated the spatiotemporal expression of CPAMD8 in the developing human eye. RT-PCR and in situ hybridization revealed CPAMD8 expression in the lens, iris, cornea, and retina early in development, including strong expression in the distal
tips of the retinal neuroepithelium that form the iris and ciliary body, thus correlating CPAMD8 expression with the affected tissues."

According to the news editors, the research concluded: "Our study delineates a unique form of recessive ASD and defines a role for CPAMD8, a protein of unknown function, in anterior segment development, implying another pathway for the pathogenicity of ASD."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajhg.2016.09.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Human Genetics, Genetics, Genetics, Institute of Ophthalmology.

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**Drugs and Therapies - BCR-ABL Tyrosine Kinase…**

**Findings from Institute of Pediatrics Broaden Understanding of BCR-ABL Tyrosine Kinase Inhibitors (Field-assisted paper spray mass spectrometry for the quantitative evaluation of imatinib levels in plasma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - BCR-ABL Tyrosine Kinase Inhibitors are discussed in a new report. According to news reporting from Padua, Italy, by NewsRx journalists, research stated, "Drug levels in patients' bloodstreams vary among individuals and consequently therapeutic drug monitoring (TDM) is fundamental to controlling the effective therapeutic range. For TDM purposes, different analytical approaches have been used, mainly based on immunoassay, liquid chromatography-ultraviolet, liquid chromatography-mass spectrometry and liquid chromatography-tandem mass spectrometry (LC-MS/MS) methods."

The news correspondents obtained a quote from the research from the Institute of Pediatrics, "More recently a matrix-assisted laser desorption/ionisation method has been proposed for the determination of irinotecan levels in the plasma of subjects under therapy and this method has been cross-validated by comparison with data achieved by LC-MS/MS. However, to reach an effective point-of-care monitoring of plasma drug concentrations, a TDM platform technology for fast, accurate, low-cost assays is required. In this frame, recently the use of paper spray mass spectrometry, which is becoming a popular and widely employed MS
method, has been proposed. In this paper we report the results obtained by the development of a paper spray-based method for quantitative analysis in plasma samples of imatinib, a new generation of anticancer drug. Preliminary experiments showed that poor sensitivity, reproducibility and linear response were obtained by the 'classical' paper spray set-up. In order to achieve better results, it was thought of interest to operate in presence of a higher and more homogeneous electrical field. For this aim, a stainless steel needle connected with the high voltage power supply was mounted below the paper triangle. Furthermore, in order to obtain valid quantitative data, we analysed the role of the different equilibria participating to the phenomena occurring in paper spray experiments, depending either on instrumental parameters or on the chemical nature of analyte and solvents. A calibration curve was obtained by spiking plasma samples containing different amounts of imatinib (1) with known amounts of deuterated imatinib (1(d3)) as internal standard, with molar ratios [1]/[1(d3)] in the range 0.00-2.00.

According to the news reporters, the research concluded: "A quite good linearity was obtained (R-2 = 0.975) and some experiments performed on spiked plasma samples with known amounts of 1 confirmed the validity of this method."


Our news journalists report that additional information may be obtained by contacting P. Traldi, Inst Paediat Res Citta Speranza, Nanoinspired Biomed Lab, I-35127 Padua, Italy. Additional authors for this research include E. Calandra, S. Crotti, G. Toffoli, E. Marangon, B. Posocco, P. Traldi and M. Agostini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1255/ejms.1437. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Padua, Italy, Europe, BCR-ABL Tyrosine Kinase Inhibitors, Protein Kinase Inhibitors, Drugs and Therapies, Imatinib Therapy, Antineoplastics, Hematology, Plasma, Blood, Institute of Pediatrics.

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The news reporters obtained a quote from the research from the Institute of Pharmacology, "The dysregulated mTOR pathway in TSC leads to characteristic structural and physiologic abnormalities in multiple organs. In this review we focus on the pharmacological properties of mTOR inhibitors and clinical investigations of mTOR inhibitors for two important neurological TSC manifestations: subependymal giant cell astrocytomas (SEGAs) and epilepsy."

According to the news reporters, the research concluded: "Moreover, we present a safety profile of those agents and their current role in clinical practice."

For more information on this research see: Current Use of mTOR Inhibitors for the Treatment of Subependymal Giant Cell Astrocytomas and Epilepsy in Patients with TSC. Current Medicinal Chemistry, 2016;23(37):4260-4269. Current Medicinal Chemistry can be contacted at: Bentham Science Publ Ltd, Executive Ste Y-2, PO Box 7917, Saif Zone, 1200 Br Sharjah, U Arab Emirates. (Bentham Science Publishers - www.benthamscience.com; Current Medicinal Chemistry - www.benthamscience.com/cmc/index.htm)

Our news correspondents report that additional information may be obtained by contacting J. Samardzic, Clin Pharmacol & Toxicol, Inst Pharmacol, Belgrade, Serbia. Additional authors for this research include V. Duric, N. Ivancevic, B. Nikolic, J.N. van den Anker and J. Samardzic.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/0929867323666161013091144. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belgrade, Serbia, Europe, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Giant Cells, Article Review, Astrocytomas, Oncology, Genetics, Epilepsy, Institute of Pharmacology.

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individuals clinically or occupationally exposed to varying doses of ionizing radiation."


The news correspondents report that additional information may be obtained from S. Tapio, Helmholtz Zentrum Munchen, German Res Center Environm Hlth GmbH, Inst Radiat Biol, D-85764 Neuherberg, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/jrr/rrw064. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Neuherberg, Germany, Europe, Pathology, Article Review, Cardiology, Institute of Radiation Biology.

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**Cardiovascular Diseases and Conditions - Thrombosis**

**Findings from Institute of Urology Broaden Understanding of Thrombosis (Endovascular Removal of Intracardiac Thrombus Prior to Radical Nephrectomy and Inferior Vena Cava Thrombectomy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Thrombosis is the subject of a report. According to news reporting out of Burlington, Massachusetts, by NewsRx editors, research stated, "We report a case of a 54-year-old patient with a T3c renal mass with intracardiac extension of the thrombus to the level of the pulmonary valve."

Our news journalists obtained a quote from the research from the Institute of Urology, "The patient was not a candidate for cardiopulmonary bypass due to recent pulmonary embolism. Under transesophageal echocardiogram guidance, the intracardiac thrombus was removed percutaneously via transvenous mechanical thrombectomy."

According to the news editors, the research concluded: "The patient was effectively downstaged to T3b and underwent successful radical nephrectomy and inferior vena cava thrombectomy without the use of cardiopulmonary bypass."


Our news journalists report that additional information may be obtained by contacting D.A. Palmer, Lahey Hosp & Med Center, Inst Urol, Burlington, MA 01805, United States. Additional authors for this research include J.E. Humphrey, A. Fredrick, T.C. Piemonte and J.A. Libertino.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.07.020. This DOI is a link to an online electronic
Oncology - Head and Neck Cancer

Findings from International Agency for Research on Cancer Update Knowledge of Head and Neck Cancer (Head and neck cancer burden and preventive measures in Central and South America)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Head and Neck Cancer. According to news reporting originating in Lyon, France, by NewsRx journalists, research stated, "Rationale and objective: Central and South America comprise one of the areas characterized by high incidence rates for head and neck cancer. We describe the geographical and temporal trends in incidence and mortality of head and neck cancers in the Central and South American region in order to identify opportunities for intervention on the major identified risk factors: tobacco control, alcohol use and viral infections."

The news reporters obtained a quote from the research from International Agency for Research on Cancer, "We obtained regional- and national-level incidence data from 48 population-based cancer registries in 13 countries and cancer deaths from the WHO mortality database for 18 countries. Age-standardized incidence (ASR) and mortality (ASMR) rates per 100,000 person-years were estimated. Brazil had the highest incidence rates for oral and pharyngeal cancer in the region for both sexes, followed by Cuba, Uruguay and Argentina. Cuba had the highest incidence and mortality rates of laryngeal cancer in the region for males and females. Overall, males had rates about four times higher than those in females. Most countries in the region have implemented WHO recommendations for both tobacco and alcohol public policy control. Head and neck squamous-cell cancer (HNSCC) incidence and mortality rates in the Central and South America region vary considerably across countries, with Brazil, Cuba, French Guyana, Uruguay and Argentina experiencing the highest rates in the region. Males carry most of the HNSCC burden."

According to the news reporters, the research concluded: "Improvement and implementation of comprehensive tobacco and alcohol control policies as well as the monitoring of these factors are fundamental to prevention of head and neck cancers in the region."

For more information on this research see: Head and neck cancer burden and preventive measures in Central and South America. Cancer Epidemiology, 2016;44():S43-S52. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news correspondents report that additional information may be obtained by contacting S. Perdomo, Int Agcy Res Canc, Genet Sect, F-69372 Lyon 08, France. Additional authors for this research include G.M. Roa, P. Brennan, D. Forman and M.S. Sierra.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.03.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Cancer, Epidemiology, Risk and Prevention, Head and Neck Neoplasms, Head and Neck Cancer, Oncology, International Agency for Research on Cancer.

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Cardiovascular Diseases and Conditions...

Findings from Iran University of Medical Sciences Provide New Insights into Atherosclerosis (Carotid duplex ultrasound and transcranial Doppler findings in commercial divers and pilots)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Atherosclerosis is now available. According to news reporting out of Tehran, Iran, by NewsRx editors, research stated, "The risky working environments of divers and pilots, and the possible role of extreme ambient pressure in carotid stenosis, make ischemic stroke an important occupational concern among these professionals. In this study, we aimed to evaluate the association of being exposed to hyperbaric or hypobaric conditions with carotid artery stenosis by comparing common carotid intima-media thickness (CCIMT) and blood flow velocities of cerebral arteries in divers and pilots using carotid duplex ultrasound (CDUS) and transcranial Doppler (TCD)."

Our news journalists obtained a quote from the research from the Iran University of Medical Sciences, "CDUS and transtemporal TCD were performed in 29 divers, 36 pilots and 30 control participants. Medical history, blood pressure, lipid profile and blood sugar were recorded to control the previously well-known risk factors of atherosclerosis. Findings of the CDUS and TCD [including: CCIMT and blood flow velocities of internal carotid artery (ICA), common carotid artery (CCA), and middle cerebral artery (MCA)] of divers and pilots were compared with those of the control group using regression analysis models. Both right and left side CCIMT were significantly higher in divers (P < 0.05) and pilots (P < 0.05) in comparison with the control group. Carotid index [peak systolic velocity (PSV) of ICA/PSV of CCA] of divers and pilots were also higher than the control group. TCD findings were not significantly different between divers, pilots, and the control group."

According to the news editors, the research concluded: "Increased CCIMT and carotid index in diver and pilot groups appear to be suggestive of accelerated atherosclerosis of carotid artery in these occupational groups."

For more information on this research see: Carotid duplex ultrasound and transcranial Doppler findings in commercial divers and pilots. Neurological Sciences, 2016;37 (12):1911-1916. Neurological Sciences can be contacted at: Springer-Verlag Italia Srl, Via Decembrio, 28, Milan, 20137, Italy. (Springer - www.springer.com; Neurological Sciences - www.springerlink.com/content/1590-1874/)

Our news journalists report that additional information may be obtained by contacting K. Vosoughi, Iran Univ Med Sci, Medical Students Res Comm, Tehran, Iran. Additional authors for this research include K. Vosoughi, F.H. Akhoundi, M. Mehrpour, S.M. Fereshtehnejad, S. Esmaeili and A.S. Sabet.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10072-016-2674-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Cardiovascular Diseases and Conditions, Stenosis, Risk and Prevention, Arterial Occlusive Diseases, Arteriosclerosis, Atherosclerosis, Angiology, Iran University of Medical Sciences.

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**Nutritional and Metabolic Diseases and Conditions**

**Findings from Isfahan University of Medical Sciences Provide New Insights into Vitamin D Deficiency (Association Between Acute Infectious Mononucleosis and Vitamin D Deficiency)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Vitamin D Deficiency. According to news originating from Esfahan, Iran, by NewsRx correspondents, research stated, "Epstein-Barr virus and vitamin D both have been implicated in the pathogenesis of autoimmune diseases, especially multiple sclerosis (MS). Vitamin D influences both innate and adaptive immune responses and has been linked to increased susceptibility to other viral infections such as influenza."

Our news journalists obtained a quote from the research from the Isfahan University of Medical Sciences, "Here we aimed to examine the association between vitamin D and acute infectious mononucleosis (IM). This study is a case-control study that was conducted on IM patients and a control group of healthy individuals at infectious disease clinics of Isfahan University of Medical Sciences. Patients were recruited from January to December 2014. The viral capsid antigen (VCA) IgM titer and vitamin D levels were measured at the time of acute infection in IM patients. We also measured vitamin D levels in healthy controls recruited during the same period of time. A total number of 60 IM patients with the mean age of 23.26 +/- 7.59 and a healthy control group with the mean age of 25.13 +/- 6.72 were enrolled. In the IM patients, there was no significant association between 25(OH) D3 levels and VCA IgM titers (r = 0.190, p = 0.146). Mean 25(OH) D3 levels in IM patients were significantly lower than in the control group (15.61 +/- 9.72 vs. 21.41 +/- 12.64, p = 0.006)."

According to the news editors, the research concluded: "Our findings showed significantly lower vitamin D levels in IM patients at the time of infection than in the control group, providing some evidence that the two major risk factors for autoimmune diseases (e.g., MS) might not be independent risk factors."

For more information on this research see: Association Between Acute Infectious Mononucleosis and Vitamin D Deficiency. *Viral Immunology*, 2016;29(7):398-400. *Viral Immunology* can be contacted at: Mary Ann Liebert, Inc., 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Viral Immunology - www.liebertpub.com/overview/viral-immunology/57/)

The news correspondents report that additional information may be obtained from H. Maghzi, Isfahan Univ Med Sci, Multiple Sclerosis Res Comm, Esfahan 8174673461, Iran. Additional authors for this research include B. Ataei, F. Khorvash, M. Yaran and A.H. Maghzi.
Findings from Iuliu Hatieganu University of Medicine and Pharmacy in Allergic Rhinitis Provides New Insights (In Vivo Anti-Inflammatory Effect of H1 Antihistamines in Allergic Rhinitis: A Randomized Clinical Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immune System Diseases and Conditions - Allergic Rhinitis is now available. According to news reporting from Cluj Napoca, Romania, by NewsRx journalists, research stated, "Allergic rhinitis is characterized by a chronic inflammation of nasal mucosa and represents a risk factor for asthma occurrence. H1 antihistamines reduce the symptoms of rhinitis, but some compounds may have anti-inflammatory properties."

The news correspondents obtained a quote from the research from the Iuliu Hatieganu University of Medicine and Pharmacy, "We evaluated the plasma level of some cytokines in patients with persistent allergic rhinitis (PAR) and their evolution after a 4-week treatment with H1 anti-histamines, as well as the risk of asthma after 1.5 years. Randomized clinical trial. Eighty-five patients with PAR and 30 healthy volunteers were included in the study. The patients with PAR were randomly divided into 2 groups: 41 patients treated with 5 mg/day desloratadine and 44 patients under 5 mg/day levocetirizine for 4 weeks. The clinical and biological evaluations were performed before and after treatment and included rhinitis symptoms and total symptoms score, type of sensitization, and plasmatic levels of total IgE, IL-1b, IL-6, IL-8 and TNF-a. IL-8 and TNF-a were significantly increased in patients with PAR compared to healthy volunteers (5.85 vs 3.12, p<0.001 and 2.32 vs 1.06, p<0.001, respectively). Both H1 antihistamines reduce all symptoms of allergic rhinitis, including nasal congestion and the plasmatic level of IL-1b, IL-6, IL-8 and TNF-a, after 4 weeks of treatment. The reduction of cytokine levels was not influenced by patients' age, sex, duration or severity of rhinitis, or type of sensitization. Levocetirizine has a superior effect compared to desloratadine in reducing the rhinitis symptoms and cytokines' level. Twenty eight (32.9%) of the patients presented asthma symptoms after 1.5 years. The occurrence of asthma was influenced by house dust sensitization (OR-14.6; CI 95% 1.8-116.3; p=0.01), but baseline values of cytokines were not predictive factors for its appearance. Levocetirizine and desloratadine as a prolonged therapy reduce plasmatic levels of some pro-inflammatory cytokines in patients with PAR. Levocetirizine has a better effect on decreasing the symptoms and plasmatic levels of IL-1b and IL-8. (ClinicalTrials.gov Identifier: NCT02507635)."

According to the news reporters, the research concluded: "POSDRU and University
of Medicine and Pharmacy, Iuliu Hatieganu, Cluj Napoca."


Our news journalists report that additional information may be obtained by contacting C.I. Bocsan, Dept. of Clinical Pharmacology, Iuliu Hatieganu University of Medicine and Pharmacy, Cluj Napoca, Romania. Additional authors for this research include A.I. Bujor, N. Miron, S.C. Vesa, D. Deleanu and A.D Buzoianu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5152/balkanmedj.2015.15884. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Europe, Asthma, Romania, Allergies, Cytokines, Cluj Napoca, Allergic Rhinitis, Clinical Research, Drugs and Therapies, Risk and Prevention, Desloratadine Therapy, Clinical Trials and Studies, Nose Diseases and Conditions, Respiratory Hypersensitivity, Respiratory Tract Infections.

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**Lentivirus**

**Findings from J. Chen and Colleagues Update Understanding of Lentivirus (Targeting HIF-1 alpha and VEGF by lentivirus-mediated RNA interference reduces liver tumor cells migration and invasion under hypoxic conditions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lentivirus have been presented. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Hypoxia-inducible factor-1 alpha (HIF-1 alpha) is a key transcription factor to initiate the expressions of distinct pro-angiogenic growth genes, particularly the expression of vascular endothelial growth factor (VEGF). CoCl2 was used in rat liver tumor cell line McA RH-7777 to stimulate hypoxia to mimic the hypoxic conditions induced by transcatheter arterial chemoembolization (TACE)."

Our news journalists obtained a quote from the research, "CCK8 assays were performed to examine the effect of hypoxia on cell viability. Real-time qRT-PCR, western blot and ELISA assays were used to measure the expression of HIF-1 alpha and VEGF in McA RH-7777 cells under hypoxic conditions, respectively. Lentivirus-mediated HIF-1 alpha and/or VEGF-specific shRNA was used to establish single or HIF-1 alpha and VEGF double knocking-down McA RH-7777 cells. Transwell assays were performed to examine the effect of HIF-1 alpha and VEGF knocking-down on McA RH-7777 cells migration and invasion. The mRNA and protein expression level of HIF-1 alpha and VEGF were remarkably up-regulated in McA RH-7777 cells under hypoxic conditions, respectively. The knockdown of HIF-1 alpha or VEGF significantly reduced the expression of the secreted VEGF. More importantly, knockdown of both HIF-1 alpha and VEGF resulted in the best effective inhibitory effect in VEGF expression, and in turn remarkably reduced the cell migration and invasion activity."

According to the news editors, the research concluded: "Our findings showed that HIF-1 alpha play an important role in the stimulation of the secreted VEGF expression under
hypoxic conditions, suggesting that targeting both HIF-1 alpha and VEGF could represent a potential therapeutic strategy in combination with TACE in the treatment of liver tumors."

For more information on this research see: Targeting HIF-1 alpha and VEGF by lentivirus-mediated RNA interference reduces liver tumor cells migration and invasion under hypoxic conditions. *Neoplasma*, 2016;63(6):934-940. *Neoplasma* can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

The news correspondents report that additional information may be obtained from M. Huang, Ling Nan Hosp, Dept. of Intervent Radiol, Guangzhou 510530, Guangdong, People's Republic of China. Additional authors for this research include L. Lai, S. Liu, C. Zhou, C. Wu, M. Huang and Q. Lin.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Growth Factor Receptors, Phosphotransferases, Angiogenic Proteins, Membrane Proteins, Protein Kinases, Retroviridae, RNA Viruses, Lentivirus, Genetics, Virology, Viral, VEGF.

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**Oncology - Gastric Cancer**

**Findings from J. Dreanic and Co-Authors Broaden Understanding of Gastric Cancer (Gastric Carcinoma at the Era of Targeted Therapies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news originating from Paris, France, by NewsRx correspondents, research stated, "Gastric and gastro-esophageal cancers (GC/GEJ) appear as the second cancer-related death worldwide. Diagnosis is made at an advanced stage offering a curative attempt in less than 50% of cases."

Our news journalists obtained a quote from the research, "Despite the improvements of the systemic cytotoxic chemotherapy regimens, the prognosis of patients with metastatic GC/GEJ cancer remains poor. Recent insights in biochemical pathways have permitted to identify potential targets. The extracellular domain of HER2 receptors is implicated in cells' proliferation and in the anti-apoptotic process occurring in GC/GEJ cancers. Trastuzumab, a monoclonal antibody targeting HER2, in addition to chemotherapy permitted to obtain more than one year of survival in HER2-positive advanced GC/GEJ cancers. Recently, ramucirumab, a humanized monoclonal antibody targeting VEGFR-2 receptor demonstrated its efficacy as a second line treatment for patients with advanced GC/GEJ cancer. These encouraging results have justified evaluating targeted therapies in GC/GEJ cancers."

According to the news editors, the research concluded: "In this review, we summarize targeted therapies that might present clinical efficacy in the treatment of advanced GC/GEJ cancers."


The news correspondents report that additional information may be obtained from J. Dreanic, Gastroenterology and Endoscopy Unit, Hopital Cochin, 27, rue du faubourg Saint
Findings from J. Ettersperger and Co-Researchers in the Area of Celiac Disease Described (Interleukin-15-Dependent T-Cell-like Innate Intraepithelial Lymphocytes Develop in the Intestine and Transform into Lymphomas in Celiac Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Celiac Disease. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "The nature of gut intraepithelial lymphocytes (IELs) lacking antigen receptors remains controversial. Herein we showed that, in humans and in mice, innate intestinal IELs expressing intracellular CD3 (iCD3(+)) differentiate along an Id2 transcription factor (TF)independent pathway in response to TF NOTCH1, interleukin-15 (IL-15), and Granzyme B signals."

Our news editors obtained a quote from the research, "In NOTCH1-activated human hematopoietic precursors, IL-15 induced Granzyme B, which cleaved NOTCH1 into a peptide lacking transcriptional activity. As a result, NOTCH1 target genes indispensable for T cell differentiation were silenced and precursors were reprogrammed into innate cells with T cell marks including intracellular CD3 and T cell rearrangements. In the intraepithelial lymphoma complicating celiac disease, iCD3(+) innate IELs acquired gain-of-function mutations in Janus kinase 1 or Signal transducer and activator of transcription 3, which enhanced their response to IL-15."

According to the news editors, the research concluded: "Overall we characterized gut T cell-like innate IELs, deciphered their pathway of differentiation and showed their malignant transformation in celiac disease."

For more information on this research see: Interleukin-15-Dependent T-Cell-like Innate Intraepithelial Lymphocytes Develop in the Intestine and Transform into Lymphomas in Celiac Disease. Immunity, 2016;45(3):610-625. Immunity can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)


The direct object identifier (DOI) for that additional information is:
Findings from J. She and Co-Authors Reveals New Information on Blood Pressure (Validation of the RisingSun RS-651 Blood Pressure Monitor Based on Auscultation in Adults According to the ANSI/AAMI/ISO 81060-2:2013 Standard)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Pressure have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "This study validated the RisingSun RS-651 blood pressure (BP) monitor based on auscultation in adults according to the American National Standards Institute/Association for the Advancement of Medical Instrumentation/International Organization for Standardization (ANSI/AAMI/ISO) 81060-2:2013 standard. The RS-651 device was evaluated in a study of 97 participants."

Funders for this research include National Natural Science Foundation of China, National Key Technology Research and Development Program of China.

The news reporters obtained a quote from the research, "The same arm simultaneous method, as defined in the ANSI/AAMI/ISO standard, was used. The mean differences +/- standard deviation for criterion 1 were 0.8 +/- 2.3 mm Hg for systolic BP (SBP) and -0.1 +/- 2.9 mm Hg for diastolic BP (DBP). Analysis for criterion 2 resulted in values of 0.8 +/- 1.5 mm Hg for SBP and -0.1 +/- 2.1 mm Hg for DBP. All of the data fulfilled the ANSI/AAMI/ISO 81060-2:2013 standard requirements to pass the validation."

According to the news reporters, the research concluded: "The RisingSun RS-651 device can be recommended for both clinical and self/home use in adults according to the ANSI/AAMI/ISO 81060-2:2013 standard."


Our news correspondents report that additional information may be obtained by contacting H.Y. Xiang, Aviat Med Engn Center, Inst Aviat Med, Beijing, People's Republic of
Findings from J. Stingele and Co-Researchers in the Area of Peptide Hydrolases Reported (Mechanism and Regulation of DNA-Protein Crosslink Repair by the DNA-Dependent Metalloprotease SPRTN)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Enzymes and Coenzymes - Peptide Hydrolases. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Covalent DNA-protein crosslinks (DPCs) are toxic DNA lesions that interfere with essential chromatin transactions, such as replication and transcription. Little was known about DPC-specific repair mechanisms until the recent identification of a DPC-processing protease in yeast."

Funders for this research include NCI, Cancer Research UK, UK Medical Research Council, The Wellcome Trust.

Our news journalists obtained a quote from the research, "The existence of a DPC protease in higher eukaryotes is inferred from data in Xenopus laevis egg extracts, but its identity remains elusive. Here we identify the metalloprotease SPRTN as the DPC protease acting in metazoans. Loss of SPRTN results in failure to repair DPCs and hypersensitivity to DPC-inducing agents. SPRTN accomplishes DPC processing through a unique DNA-induced protease activity, which is controlled by several sophisticated regulatory mechanisms. Cellular, biochemical, and structural studies define a DNA switch triggering its protease activity, a ubiquitin switch controlling SPRTN chromatin accessibility, and regulatory autcatalytic cleavage."

According to the news editors, the research concluded: "Our data also provide a molecular explanation on how SPRTN deficiency causes the premature aging and cancer predisposition disorder Ruijs-Aalfs syndrome."

For more information on this research see: Mechanism and Regulation of DNA-Protein Crosslink Repair by the DNA-Dependent Metalloprotease SPRTN. *Molecular Cell*, 2016;64(4):688-703. *Molecular Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

Our news journalists report that additional information may be obtained by contacting S.J. Boulton, Francis Crick Inst, London NW1 1AT, United Kingdom. Additional authors for this research include R. Bellelli, F. Alte, G. Hewitt, G. Sarek, S.L. Maslen, S.E. Tsutakawa, A. Borg, S. Kjaer, J.A. Tainer, J.M. Skehel, M. Groll and S.J. Boulton.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.09.031. This DOI is a link to an online electronic
Findings from J.B. Whitney and Co-Authors Broaden Understanding of Assisted Reproduction and Genetics (Single center validation of routine blastocyst biopsy implementation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics - Assisted Reproduction and Genetics is now available. According to news reporting originating from Newport Beach, California, by NewsRx correspondents, research stated, "The study aims to contrast the efficacy of trophectoderm biopsy preimplantation genetic screening (PGS)/vitrification (VTF)-all cycles to past treatment protocols. Specifically, do these applied technologies increase live birth rates on a per cycle/first transfer basis? An observational, retrospective cohort study of first transfer outcomes was performed in two groups."

Financial support for this research came from Study supported by internal funds: Southern California Institutes for Reproductive Sciences.

Our news editors obtained a quote from the research, "Group 1 (PGS) included PGS/VTF-all cycles, and group 2 (no PGS) included the first transfer from non-PGS fresh cycles or VTF-ALL cycles. In group 1, all blastocysts were biopsied on days 5/6, vitrified and array CGH performed. Group 2 patients had embryo transfers on day 3 or day 5. All blastocysts were vitrified and warmed according to mu S-VTF protocols. Clinical pregnancies and implantation were confirmed by ultrasound and live birth information attained. Results were stratified by age with donor cycles excluded, and to eliminate bias, the same groups were then validated on a per cycle basis. Chi-squared used to determine significance. Analyzing 287 embryo transfers and 1,000+ PGS-tested blastocysts, an overall 97 % increase in live births favored group 1 (PGS). When utilizing PGS/VTF-ALL cycles, patients under 43 years old exhibited higher implantation, clinical pregnancy, and ongoing/live birth rates. Re-analyzing the data to include all cycles initiated revealed higher live birth rates in group 1 age groups <= 34 and 38-40 years old. Validating PGS on a per cycle basis eliminated data bias by including patients without blastocysts to biopsy or euploid embryos."

According to the news editors, the research concluded: "Clearly, PGS uses blastocysts more efficiently to achieve success, while many women over 40 may benefit most by understanding why some failures occur. None."


The news editors report that additional information may be obtained by contacting M.C. Schiewe, Ovat Fertil, Newport Beach, CA 92663, United States. Additional authors for this research include M.C. Schiewe and R.E. Anderson.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0792-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Newport Beach, California, United States, North and Central America, Assisted Reproduction and Genetics, Genetics.

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Hemodialysis

Findings from J.C. Luo et al Has Provided New Information about Hemodialysis (Spectrum and Burden of Erythropoiesis-Stimulating Agent Hyporesponsiveness Among Contemporary Hemodialysis Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hemodialysis are presented in a new report. According to news originating from Minneapolis, Minnesota, by NewsRx correspondents, research stated, "Hemodialysis patients with erythropoiesis-stimulating agent (ESA) hyporesponsiveness have been a topic of active research. However, there have been no studies of ESA hyporesponsiveness among US patients following the dramatic change in anemia management that resulted from the 2011 changes in ESA product labeling and bundling of dialysis remuneration."

Our news journalists obtained a quote from the research, "Retrospective observational study. We studied prevalent hemodialysis patients treated at a large dialysis organization in calendar years 2012 to 2013 (N 5 98,972). Predictor: ESA hyporesponsiveness, defined as 2 consecutive hemoglobin measurements < 10 g/dL (every other week) with contemporaneous ESA dose > 7,700 U/treatment. Patients with ESA hyporesponsiveness were identified during the first quarter of 2012 and followed up through 2013 using intention-to-treat principles. Associations between the study exposure (ESA hyporesponsiveness) and mortality, missed hemodialysis treatments, ESA and iron use, and hemoglobin levels were determined using generalized estimating equations adjusting for imbalanced baseline covariates. At baseline, 12,361 (12.5%) patients were identified as having ESA hyporesponsiveness. The mean hemoglobin level among patients with ESA hyporesponsiveness was similar to 1 g/dL lower than in patients without ESA hyporesponsiveness at baseline, narrowing over follow-up to 0.4 g/dL. Initially, mean ESA use was approximately 3-fold greater for patients with ESA hyporesponsiveness than for those without ESA hyporesponsiveness, decreasing to 2-fold greater at study end; iron use and missed hemodialysis treatment rates were also greater among patients with ESA hyporesponsiveness throughout. ESA hyporesponsiveness was associated with enhanced mortality risk versus non-ESA hyporesponsiveness: adjusted incidence rate ratios were estimated at 2.24 (95% CI, 1.93-2.60) in the second quarter, gradually decreasing to 1.48 (95% CI, 1.18-1.84) by study end. Limitations: It is possible that an alternative ESA hyporesponsiveness definition may be optimal. As such, the associations we observed may be conservative estimates of true relationships."

According to the news editors, the research concluded: "When using a contemporary definition at one point in time, ESA hyporesponsiveness was potently and persistently associated with greater mortality, greater iron and ESA use, and lower hemoglobin levels..."
compared to non-ESA hyporesponsiveness."


The news correspondents report that additional information may be obtained from J.C. Luo, DaVita Clin Res, Minneapolis, MN, United States. Additional authors for this research include D.E. Jensen, B.J. Maroni and S.M. Brunelli.

Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Hematology, Risk and Prevention, Erythropoiesis, Blood Proteins, Renal Dialysis, Hemodialysis, Hemoglobins, Globins.

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Cytoskeletal Proteins - Microfilament Proteins

Findings from J.P.J. Ungerer and Colleagues Update Understanding of Microfilament Proteins (Discordance with 3 Cardiac Troponin I and T Assays: Implications for the 99th Percentile Cutoff)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cytoskeletal Proteins - Microfilament Proteins are discussed in a new report. According to news reporting originating from Herston, Australia, by NewsRx correspondents, research stated, "We compared the 99th percentile reference intervals with 3 modern cardiac troponin assays in a single cohort and tested the hypothesis that the same individuals will be identified as above the cutoff and that differences will be explained by analytical imprecision. Blood was collected from 2005 apparently healthy blood donors."

Our news editors obtained a quote from the research, "Cardiac troponin was measured with Abbott Architect STAT high sensitive troponin I, Beckman Coulter Access AccuTnI + 3, and Roche Elecsys troponin T highly sensitive assays. The 99th percentile cutoff limits were as follows: Abbott cardiac troponin I (cTnI) 28.9 ng/L; Beckman Coulter cTnI 31.3 ng/L; and Roche cardiac troponin T (cTnT) 15.9 ng/L. Correlation among the assays was poor: Abbott cTnI vs Beckman Coulter cTnI, R-2 = 0.18; Abbott cTnI vs Roche cTnT, R-2 = 0.04; and Beckman Coulter cTnI vs Roche cTnT R-2 = 0.01. Of the results above the cutoff 50% to 70% were unique to individual assays, with only 4 out of 20 individuals above the cutoff for all 3 assays. The observed differences among assays were larger than predicted from analytical imprecision. The 99th percentile cutoff values were in agreement with those reported elsewhere. The poor correlation and concordance amongst the assays were notable. The differences found could not be explained by analytical imprecision and indicate the presence of inaccuracy (bias) that is unique to sample and assay combinations."

According to the news editors, the research concluded: "Based on these findings we recommend less emphasis on the cutoff value and greater emphasis on delta values in the diagnosis of myocardial infarction."

For more information on this research see: Discordance with 3 Cardiac Troponin I and T Assays: Implications for the 99th Percentile Cutoff. Clinical Chemistry, 2016;62
Findings from JMI Laboratories Broaden Understanding of Antibiotics
(Effect of the beta-Lactamase Inhibitor Vaborbactam Combined with Meropenem against Serine Carbapenemase-Producing Enterobacteriaceae)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antibiotics have been published. According to news originating from North Liberty, Iowa, by NewsRx correspondents, research stated, "Klebsiella pneumoniae carbapenemase (KPC)-producing isolates have become increasingly prevalent worldwide, and these organisms are often multidrug resistant, limiting the therapeutic options available for treating infections. We evaluated the activity of meropenem combined with the serine beta-lactamase inhibitor vaborbactam (formerly RPX7009) against 315 serine carbapenemase-producing Enterobacteriaceae (CPE) isolates by use of checkerboard-designed panels to assess the optimal inhibitor concentration (range tested, 0.5 to 32 μg/ml)."

Our news journalists obtained a quote from the research from JMI Laboratories, "Overall, meropenem alone (MIC50 and MIC90, 16 and > 64 μg/ml, respectively) inhibited only 2.2% of the isolates at <= 1 μg/ml (the CLSI susceptibility breakpoint) and 7.3% of the isolates at <= 2 μg/ml (the EUCAST breakpoint). Vaborbactam restored meropenem activity for 72.7 to 98.1% of CPE isolates at <= 2 μg/ml, and maximum potentiation was achieved with fixed concentrations of >8 μg/ml of the inhibitor (≥ 96.5% of isolates were inhibited at <= 2 μg/ml of meropenem-vaborbactam). Meropenem-vaborbactam with a fixed concentration of 8 μg/ml of the inhibitor (MIC50, <= 0.06 μg/ml for all organisms) inhibited 93.7% of the CPE isolates displaying elevated meropenem MICs at <= 1 μg/ml. Meropenem-vaborbactam MICs were elevated for isolates producing metallo-beta-lactamases (MIC, 16 to > 64 μg/ml) or displaying decreased expression of OmpK37 and/or elevated expression of the AcrAB-ToLC efflux system (MIC, 16 μg/ml). Vaborbactam showed no antibacterial activity alone (all MICs, > 64 μg/ml)."

According to the news editors, the research concluded: "Meropenem-vaborbactam appears to be a good candidate for further development and it could increase the options for treatment of serious infections caused by carbapenemase-producing pathogens."
For more information on this research see: Effect of the beta-Lactamase Inhibitor Vaborbactam Combined with Meropenem against Serine Carbapenemase-Producing Enterobacteriaceae. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5454-5458. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from M. Castanheira, JMI Labs, North Liberty, IA, United States. Additional authors for this research include P.R. Rhomberg, R.K. Flamm and R.N. Jones.

Keywords for this news article include: North Liberty, Iowa, United States, North and Central America, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Bacteria, Enzymes and Coenzymes, Gammaproteobacteria, Neutral Amino Acids, Drugs and Therapies, Enterobacteriaceae, Sulfur Compounds, beta-Lactamases, Amidohydrolases, Proteobacteria, Antiinfectives, beta-Lactams, Carbapenems, Antibiotics, Meropenem, Serine, JMI Laboratories.

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**Neurodegenerative Diseases and Conditions -...**

**Findings from Jadavpur University in Huntington Disease Reported (First molecular modeling report on novel arylpyrimidine kynurenine monooxygenase inhibitors through multi-QSAR analysis against Huntington's disease: A proposal to chemists!)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Huntington Disease. According to news reporting from Bengal, India, by NewsRx journalists, research stated, "Huntington's disease (HD) is caused by mutation of huntingtin protein (mHtt) leading to neuronal cell death. The mHtt induced toxicity can be rescued by inhibiting the kynurenine monooxygenase (KMO) enzyme."

The news correspondents obtained a quote from the research from Jadavpur University, "Therefore, KMO is a promising drug target to address the neurodegenerative disorders such as Huntington's diseases. Fiftysix arylpyrimidine KMO inhibitors are structurally explored through regression and classification based multi-QSAR modeling, pharmacophore mapping and molecular docking approaches."

According to the news reporters, the research concluded: "Moreover, ten new compounds are proposed and validated through the modeling that may be effective in accelerating Huntington's disease drug discovery efforts."


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Mycobacterium Infections - Tuberculosis

Findings from Jadavpur University in the Area of Tuberculosis Reported (In search of Tuberculosis drug design : An in silico approach to azoimidazolyl derivatives as antagonist for Cytochrome P450)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mycobacterium Infections - Tuberculosis have been published. According to news reporting out of Kolkata, India, by NewsRx editors, research stated, "Tuberculosis is a deadly disease and is caused by Mycobacterium tuberculosis (Mtb). Cytochrome P450s (CYPs) in the Mtb genome is playing important physiological role for its growth and survivability."

Our news journalists obtained a quote from the research from Jadavpur University, "Azole drugs have potent anti-mycobacterial activity and molecular docking studies indicate that CYP inhibition is the major target of the drugs. Out of six structures of CYPs in PDB (CYP51, CYP121, CYP124, CYP125, CYP130 and CYP142) CYP121 has shown better binding affinity with fluconazole, an antifungal medicine. In this work we have searched for a series of arylazoimidazole molecules, the structural analogue of fluconazole, those act as antagonist via in-silico approach with CYP121. It is calculated that arylazoimidazole ligands have better binding affinity and higher docking score compared to fluconazole and other available azole drugs. Most of the molecules have crossed the druglikeness filter though Lipinski's rule and Ghosh's rule. QSAR calculation has shown that there is positive correlation (R-2 > 0.5) among the docking scores and molecular properties of the azole structure analogous."

According to the news editors, the research concluded: "ADMET calculation has also shown that one of the arylazoimidazoles, (E)-6-((3-((1H-imidazol-2-yl)diazenyl) naphthalen-2-yl)amino)-2H-chromen-2-one (Molecular ID-85; Mol. wt., 453.54; docking score, -10.9; log P, 3.928), is best docked and druglikeness passed and crossed the barrier of ADMET filter."

For more information on this research see: In search of Tuberculosis drug design : An in silico approach to azoimidazolyl derivatives as antagonist for Cytochrome P450. Journal of the Indian Chemical Society, 2016;93(9):1067-1084. Journal of the Indian Chemical Society can be contacted at: Scientific Publ-India, 5-A, New Pali Rd, PO Box 91, Near Hotel Taj Hari Mahal, Jodhpur, 342 003, India.

Our news journalists report that additional information may be obtained by contacting C. Sinha, Jadavpur University, Inorgan Chem Sect, Dept. of Chem, Kolkata 700032,
India. Additional authors for this research include S. Mondal and C. Sinha.

Keywords for this news article include: Kolkata, India, Asia, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Drugs and Therapies, Fluconazole Therapy, Azole Antifungals, Drug Development, Pharmaceuticals, Antimicrobials, Hemeproteins, Cytochromes, Proteins, Genetics, Jadavpur University.

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Oncology - Kidney Cancer

Findings from Jagiellonian University Has Provided New Information about Kidney Cancer (Obesity and renal cancer incidence and mortality--a systematic review of prospective cohort studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Kidney Cancer. According to news reporting originating in Krakow, Poland, by NewsRx journalists, research stated, "There have been many studies published recently on obesity and the risk of renal cancer; however, the epidemiological evidence for such an association has not been consistent. Therefore, a systematic review was conducted of the prospective cohort studies to assess the association between obesity and the risk of renal cancer incidence and death."

The news reporters obtained a quote from the research from Jagiellonian University, "A search was conducted of the PubMed database and references to published studies from inception until May 2013. Guidelines for Assessing Quality in Prognostic Studies on the Basis of Framework for Potential Biases were followed for quality assessment of studies included in the systematic review. Twenty eligible studies were identified and included in the systematic review. Among the 20 selected studies, overall study quality was high. Although the evidence from the prospective cohort studies, linking obesity with renal cancer incidence, has not been entirely consistent, there is a convincing body of data for a positive relationship. Moreover, cumulative data is compelling for a strong positive association between obesity and fatal renal cancer. There is a relatively consistent amount of evidence that obesity increases the risk of renal cancer and fatal renal cancer."

According to the news reporters, the research concluded: "Further research is needed as better understanding of mechanisms by which obesity may influence renal cancer development and progression will aid the fostering of strategies for prevention and treatment of one of the most lethal human malignancies."

For more information on this research see: Obesity and renal cancer incidence and mortality--a systematic review of prospective cohort studies. Annals of Agricultural and Environmental Medicine, 2016;23(1):37-43.

Our news correspondents report that additional information may be obtained by contacting T. Golabek, Dept. of Urology, Collegium Medicum of the Jagiellonian University, Cracow, Poland. Additional authors for this research include J. Bukowczan, T. Szopinski, P. Chlosta, W. Lipczynski, J. Dobruch and A. Borowka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5604/12321966.1196850. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Krakow, Poland, Europe, Obesity, Oncology, Bariatrics, Nephrology, Epidemiology, Renal Cancer, Kidney Cancer, Overnutrition, Renal Carcinoma, Diet and Nutrition, Nutrition Disorders, Nutritional and Metabolic Diseases and Conditions.

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Cell Surface Extensions

Findings from Japan Science and Technology Agency Provide New Insights into Cell Surface Extensions [Loss of ift122, a Retrograde Intraflagellar Transport (IFT) Complex Component, Leads to Slow, Progressive Photoreceptor Degeneration Due to ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cell Surface Extensions have been published. According to news reporting out of Osaka, Japan, by NewsRx editors, research stated, "In the retina, aberrant opsin transport from cell bodies to outer segments leads to retinal degenerative diseases such as retinitis pigmentosa. Opsiin transport is facilitated by the intra-flagellar transport (LET) system that mediates the bidirectional movement of proteins within cilia."

Funders for this research include Japan Science and Technology Agency, Takeda Science Foundation, Uehara Memorial Foundation, Novartis Foundation, Mochida Memorial Foundation for Medical and Pharmaceutical Research, Naito Foundation, Kato Memorial Bioscience Foundation, Daiichi-Sankyo Foundation of Life Science, Suzuken Memorial Foundation, National Institutes of Health, National Eye Institute, Grants-in-Aid for Scientific Research on Innovative Areas, Grant-in-Aid for Scientific Research (B) and (C), Young Scientists (B), Osaka Community Foundaion.

Our news journalists obtained a quote from the research from Japan Science and Technology Agency, "In contrast to functions of the anterograde transport executed by IFT complex B (IFT-B), the precise functions of the retrograde transport mediated by LET complex A (IFT-A) have not been well studied in photoreceptor cilia. Here, we analyzed developing zebrafish larvae carrying a null mutation in ift122 encoding a component of IFT-A. ift122 mutant larvae show unexpectedly mild phenotypes, compared with those of mutants defective in IFT-B. ift122 mutants exhibit a slow onset of progressive photoreceptor degeneration mainly after 7 days post-fertilization. ift122 mutant larvae also develop cystic kidney but not curly body, both of which are typically observed in various ciliary mutants. ift122 mutants display a loss of cilia in the inner ear hair cells and nasal pit epithelia. Loss of ift122 causes disorganization of outer segment discs. Ectopic accumulation of an IFT-B component, ift88, is observed in the ift122 mutant photoreceptor cilia. In addition, pulse chase experiments using GFP-opsin fusion proteins revealed that ift122 is required for the efficient transport of opsin and the distal elongation of outer segments."

According to the news editors, the research concluded: "These results show that IFT-A is essential for the efficient transport of outer segment proteins, including opsin, and for the survival of retinal photo-receptor cells, rendering the ift122 mutant a unique model for human retinal degenerative diseases."

For more information on this research see: Loss of ift122, a Retrograde Intraflagellar Transport (IFT) Complex Component, Leads to Slow, Progressive Photoreceptor Degeneration

Our news journalists report that additional information may be obtained by contacting Y. Omori, Japan Sci & Technol Agcy JST, PRESTO, Suita, Osaka 5650871, Japan. Additional authors for this research include T. Chaya, H. Hiratal, N. Kajimura, R. Kuwahara, A. Ueno, J. Malicki, T. Furukawa and Y. Omori.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.738658. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Cell Surface Extensions, Genetics, Cilia, Japan Science and Technology Agency.

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**Myeloid Cells**

**Findings from Jawaharlal Nehru University Broaden Understanding of Myeloid Cells [Role of Macrophage (M1 and M2) in Titanium-Dioxide Nanoparticle-Induced Oxidative Stress and Inflammatory Response in Rat]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Myeloid Cells. According to news reporting from New Delhi, India, by NewsRx journalists, research stated, "Titanium-dioxide nanoparticles (TNP) are used in various consumable goods. Evidence has demonstrated the cytotoxicity of TNPs, but exact mechanism is yet to be elucidated."

The news correspondents obtained a quote from the research from Jawaharlal Nehru University, "The present study has been aimed at finding out the mechanism of TNP-induced toxicity in biological system. Different doses of anatase-TNPs administrated intravenously to Wistar rats for once a week for 1 month and properties of T-H cells, macrophages, cytokines secretion, oxidative damage, apoptotic pathway, and hematological and pathological changes were investigated as downstream events of TNP-mediated cytotoxicity. Result suggests that TNPs induce T-H1 and T-H2 response as measured by immunophenotyping (interferon gamma (IFN-gamma) and interleukin (IL)-4) of T-H cells, causing induction of M1 (nitric oxide (NO), nitric oxide synthase (iNOS), NF-kappaB (NF-kappa B), cyclooxygenase-2 (COX-2), IL-1, IL-6, and TNF-alpha) and M2 (Arg-1, Ym1) macrophages response. At lower dose, T-H1 or M1 response counteracted by T-H2 or M2 response, resulting in insignificant oxidative damage. However, with increasing dose of TNPs, the M1 response was increased over M2 response resulting in significant tissue damage. The M1-induced inflammatory response was found to cause DNA and chromosomal damage resulting apoptosis induction via upregulation of Bax/Bcl-2 ratio and subsequent loss of mitochondrial membrane potential and cyto c release in splenocytes."

According to the news reporters, the research concluded: "The TNP-led inflammatory response also causes damage at different tissue levels."
For more information on this research see: Role of Macrophage (M1 and M2) in Titanium-Dioxide Nanoparticle-Induced Oxidative Stress and Inflammatory Response in Rat. Applied Biochemistry and Biotechnology, 2016;180(7):1257-1275. Applied Biochemistry and Biotechnology can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA. (Springer - www.springer.com; Applied Biochemistry and Biotechnology - www.springerlink.com/content/0273-2289/)

Our news journalists report that additional information may be obtained by contacting R. Paulraj, Jawaharlal Nehru Univ, Sch Environm Sci, New Delhi 110067, India. Additional authors for this research include R. Meena and R. Paulraj.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12010-016-2165-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Delhi, India, Asia, Mononuclear Phagocyte System, Connective Tissue Cells, Titanium Dioxide, Myeloid Cells, Nitric Oxide, Light Metals, Macrophages, Immunology, Phagocytes, Chemicals, Genetics, Jawaharlal Nehru University.

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Respiratory Tract Diseases and Conditions - Pleural…

Findings from Jiaxing University in the Area of Pleural Effusion Reported (Promoter hypermethylation of Wnt inhibitory factor-1 in patients with lung cancer A systematic meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Respiratory Tract Diseases and Conditions - Pleural Effusion. According to news reporting originating from Jiaxing, People's Republic of China, by NewsRx correspondents, research stated, "Promoter hypermethylation of Wnt inhibitory factor-1 (WIF-1)-a tumor suppressor gene-has been detected in several types of human tumors. However, the association between WIF-1 promoter hypermethylation and lung cancer remains to be elucidated."

Our news editors obtained a quote from the research from Jiaxing University, "Therefore, we conducted this study to evaluate the clinical significance of WIF-1 promoter hypermethylation in lung cancer. A comprehensive literature search was conducted to obtain eligible studies. The combined odds ratios (ORs) or hazard ratios and 95% confidence intervals were used to estimate the strength of associations. A total of 8 eligible publications with 626 cases and 512 controls were included in our study. The combined ORs revealed that WIF-1 promoter hypermethylation was significantly higher in lung cancer than in controls (OR 10.53, P < 0.001). Moreover, WIF-1 promoter hypermethylation was significantly associated with smoking behavior (OR 1.88, P = 0.002). No significant correlation was found between WIF-1 promoter hypermethylation and sex status, age status, tumor stage, and pathological types in cancer. Multivariate analysis results indicated the absence of correlation between WIF-1 promoter hypermethylation and with relapse-free survival and overall survival. Subgroup analysis by sample type demonstrated that promoter hypermethylation of WIF-1 was significantly associated with an increased risk of lung cancer in the tissue (OR 7.89, P< 0.001), blood (OR 21.83, P = 0.034), and pleural effusion subgroups (OR 157.43, P = 0.001). Promoter hypermethylation of WIF-1 may play a crucial role in lung cancer carcinogenesis. It may be a
noninvasive biomarker using blood or pleural effusion detection. WIF-1 promoter hypermethylation is correlated with smoking behavior, but not with sex status, age status, tumor stage, pathological types, and the prognosis of lung cancer patients in terms of relapse-free survival and overall survival."

According to the news editors, the research concluded: "More investigations, including a larger number of subjects, are required to further confirm the findings of our analysis."

For more information on this research see: Promoter hypermethylation of Wnt inhibitory factor-1 in patients with lung cancer A systematic meta-analysis. Medicine, 2016;95 (49):134-141. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting X.M. Yang, Jiaxing Univ, Affiliated Hosp 1, Dept. of Oncol, Jiaxing 310006, People's Republic of China. Additional authors for this research include X. Li, Y.M. Jiang, Y.F. Xu, B.B. Song, Q. Zhou, X.D. Liang and X.M. Yang.

Keywords for this news article include: Jiaxing, People's Republic of China, Asia, Respiratory Tract Diseases and Conditions, Pleural Diseases and Conditions, Risk and Prevention, Pleural Effusion, Lung Neoplasms, Lung Cancer, Oncology, Genetics, Jiaxing University.

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Lupus

Findings from Jichi Medical University Update Understanding of Lupus (Wide discrepancies in activated clotting times measured by two devices were detected for a patient with lupus anticoagulant in a cardiac surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lupus is the subject of a report. According to news reporting from Saitama, Japan, by NewsRx journalists, research stated, "For a patient with lupus anticoagulant (LA), activated coagulation time (ACT) was measured with two different types of devices (HEMOCHRON ® 801 and HEMOCHRON ® Jr)."

The news correspondents obtained a quote from the research from Jichi Medical University, "ACTs during heparinization measured with the HEMOCHRON ® 801 were over the range of measurement, while those with the HEMOCHRON ® Jr. reflected an almost normal response to heparin. The phospholipid contained in an activating agent of the HEMOCHRON ® Jr was suggested to have counteracted the effect of LA.”

According to the news reporters, the research concluded: "It was indicated that the coagulation status for LA-positive patients might be better assessed by ACT measured with phospholipid in an activating agent, although careful interpretation is required."

For more information on this research see: Wide discrepancies in activated clotting times measured by two devices were detected for a patient with lupus anticoagulant in a cardiac surgery. Perfusion-Uk, 2016;31(8):709-710. Perfusion-Uk can be contacted at: Sage
Apoptosis

Findings from Jilin University Provides New Data on Apoptosis (A polysaccharide from the leaves of Aralia elata induces apoptosis in U-2 OS cells via mitochondrial-dependent pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Apoptosis. According to news reporting originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "In the present study, we isolated and characterized one purified polysaccharide (AEP-1) from the leaves of Aralia elata, and investigated its effect on human osteosarcoma (OS) U-2 OS cell line and analyzed its mechanism. mu assays showed that AEP-1 markedly inhibited the growth of U-2 OS cells in a dose and time-dependent fashion, suggesting a cytotoxic effect. The AEP-1 also dose-dependently induced DNA fragmentation and caused apoptotic death in U-2 OS cells."

Our news editors obtained a quote from the research from Jilin University, "The event of apoptosis was accompanied by increased ratio of Bax/Bcl-2, depolarization of mitochondrial membrane potential (Delta ym) and the release of cytochrome c from mitochondria into the cytoplasm. Moreover, AEP-1 treatment triggered the activation of caspase-9 and caspase-3, as well as the cleavage of poly (ADP-ribose) polymerase (PAPR) in U-2 OS cells."

According to the news editors, the research concluded: "All these results suggest that the induction of apoptosis by AEP-1 in U-2 OS cells occurs through the mitochondrial-dependent pathway and AEP-1 may be useful in treating OS and improving cancer chemotherapy."


The news editors report that additional information may be obtained by contacting D.H. Sun, Jilin University, Bethune Hosp 1, Dept. of Orthopaed Trauma, Changchun, People's Republic of China. Additional authors for this research include Y. Sheng, M. Zhang and D.H. Sun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.08.067. This DOI is a link to an online electronic
Findings from Jiwaji University Update Understanding of Gallbladder Cancer (Global methylation profiling to identify epigenetic signature of gallbladder cancer and gallstone disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gallbladder Cancer. According to news reporting originating in Madhya Pradesh, India, by NewsRx journalists, research stated, "Promoter methylation in various tumor suppressor genes is reported to influence gallbladder carcinogenesis. Here, we aimed to identify methylation status in gallbladder cancer (GBC) by performing a comprehensive genome-wide DNA methylation profiling."

The news reporters obtained a quote from the research from Jiwaji University, "The methylation status of 485,577 CpG sites were investigated using Illumina's Infinium Human Methylation 450 BeadChip array in 24 tissues (eight each of tumor, adjacent non-tumor, and gallstone). About 33,443 differentially methylated sites (DMRs) were obtained in the whole human genome, of which 24,188 (72 %) were hypermethylated and 9255 (28 %) were hypomethylated. The data also revealed that majority of the DMRs are localized on the proximal promoter region [Transcription start sites (TSS200, TSS1500) and 5' untranslated region (5' UTR)] and first exon. Exclusion of first exon detected a total of 10,123 (79 %) hypermethylated and 2703 (21 %) hypomethylated sites. Comparative analysis of the later with our differential proteomics data resulted in identification of 7 hypermethylated or down-regulated (e.g., FBN1, LPP, and SOD3) and 61 hypomethylated or up-regulated markers (e.g., HBE1, SNRPF, TPD52) for GBC."

According to the news reporters, the research concluded: "These genes could be further validated on the basis of their methylation/expression status in order to identify their utility to be used as biomarker/s for early diagnosis and management of GBC."


Our news correspondents report that additional information may be obtained by contacting P.K. Tiwari, Jiwaji Univ, Mol & Human Genet Div, Center Genom, Gwalior 474011, Madhya Pradesh, India. Additional authors for this research include S. Bhunia, S.S. Poojary, D.S. Tekcham, M.A. Barbhuiya, S. Gupta, B.R. Shrivastav and P.K. Tiwari.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5355-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madhya Pradesh, India, Asia, Digestive
Findings from John Radcliffe Hospital Provides New Data about Hematology Research (A novel 33-Gene targeted resequencing panel provides accurate, clinical-grade diagnosis and improves patient management for rare inherited anaemias)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Hematology Research have been published. According to news reporting from Oxford, United Kingdom, by NewsRx journalists, research stated, "Accurate diagnosis of rare inherited anaemias is challenging, requiring a series of complex and expensive laboratory tests. Targeted next-generation-sequencing (NGS) has been used to investigate these disorders, but the selection of genes on individual panels has been narrow and the validation strategies used have fallen short of the standards required for clinical use."

Funders for this research include BRC Blood Theme, BRC/NHS Translational Molecular Diagnostics Centre, Oxford University Hospitals and MRC Molecular Haematology Unit, University Of Oxford, National Institute for Health Research.

The news correspondents obtained a quote from the research from John Radcliffe Hospital, "Clinical-grade validation of negative results requires the test to distinguish between lack of adequate sequencing reads at the locations of known mutations and a real absence of mutations. To achieve a clinically-reliable diagnostic test and minimize false-negative results we developed an open-source tool (CoverMi) to accurately determine base-coverage and the discoverability' of known mutations for every sample. We validated our 33-gene panel using Sanger sequencing and microarray. Our panel demonstrated 100% specificity and 997% sensitivity. We then analysed 57 clinical samples: molecular diagnoses were made in 22/57 (386%), corresponding to 32 mutations of which 16 were new. In all cases, accurate molecular diagnosis had a positive impact on clinical management."

According to the news reporters, the research concluded: "Using a validated NGS-based platform for routine molecular diagnosis of previously undiagnosed congenital anaemias is feasible in a clinical diagnostic setting, improves precise diagnosis and enhances management and counselling of the patient and their family."


Our news journalists report that additional information may be obtained by contacting I. Roberts, John Radcliffe Hosp, Mol Haematol Unit, Weatherall Inst Mol Med, Oxford OX3 9DU, United Kingdom. Additional authors for this research include E.A. Wilson,
Findings from Johns Hopkins University Bloomberg School of Public Health in HIV/AIDS Reported (Gender-based violence against female sex workers in Cameroon: prevalence and associations with sexual HIV risk and access to health services and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immune System Diseases and Conditions - HIV/AIDS have been presented. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "Female sex workers (FSWs) are at risk for HIV and physical and sexual gender-based violence (GBV). We describe the prevalence of lifetime GBV and its associations with HIV risk behaviour, access to health services and barriers in accessing justice among FSWs in Cameroon."

Financial support for this research came from National Institute of Allergy and Infectious Diseases.

Our news journalists obtained a quote from the research from the Johns Hopkins University Bloomberg School of Public Health, "FSWs (n=1817) were recruited for a cross-sectional study through snowball sampling in seven cities in Cameroon. We examined associations of lifetime GBV with key outcomes via adjusted logistic regression models. Overall, 60% (1098/1817) had experienced physical or sexual violence in their lifetime. GBV was associated with inconsistent condom use with clients (adjusted OR (AOR) 1.49, 95% CI 1.18 to 1.87), being offered more money for condomless sex (AOR 2.09, 95% CI 1.56 to 2.79), having had a condom slip or break (AOR 1.53, 95% CI 1.25 to 1.87) and difficulty suggesting condoms with non-paying partners (AOR 1.47, 95% CI 1.16 to 1.87). Violence was also associated with fear of health services (AOR 2.25, 95% CI 1.61 to 3.16) and mistreatment in a health centre (AOR 1.66, 95% CI 1.01 to 2.73). Access to justice was constrained for FSWs with a GBV history, specifically feeling that police did not protect them (AOR 1.41, 95% CI 1.12 to 1.78). Among FSWs in Cameroon, violence is prevalent and undermines HIV prevention and access to healthcare and justice. Violence is highly relevant to FSWs' ability to successfully negotiate condom use and engage in healthcare."

According to the news editors, the research concluded: "In this setting of criminalised sex work, an integrated, multisectoral GBV-HIV strategy that attends to structural risk is needed to enhance safety, HIV prevention and access to care and justice."

For more information on this research see: Gender-based violence against female sex workers in Cameroon: prevalence and associations with sexual HIV risk and access to
health services and justice. *Sexually Transmitted Infections*, 2016;92(8):599-604. *Sexually Transmitted Infections* can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com; Sexually Transmitted Infections - sti.bmj.com/)

Our news journalists report that additional information may be obtained by contacting M.R. Decker, Johns Hopkins Bloomberg Sch Public Hlth, Center Public Hlth & Human Rights, Baltimore, MD, United States. Additional authors for this research include C. Lyons, S.C. Billong, I.M. Njindam, A. Grosso, G.T. Nunez, F. Tumasang, M. LeBreton, U. Tamoufe and S. Baral.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/sextrans-2015-052463. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Risk and Prevention, Vertebrate Viruses, HIV Infections, Legal Issues, Retroviridae, RNA Viruses, HIV/AIDS, Johns Hopkins University Bloomberg School of Public Health.

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**Eye Diseases and Conditions - Age-Related Macular...**

**Findings from Johns Hopkins University Broaden Understanding of Age-Related Macular Degeneration (Statins for age-related macular degeneration)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Eye Diseases and Conditions - Age-Related Macular Degeneration have been presented. According to news reporting originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Age-related macular degeneration (AMD) is a progressive, late-onset disorder of the macula affecting central vision. It is the leading cause of blindness in people over 65 years in industrialized countries."

Our news editors obtained a quote from the research from Johns Hopkins University, "Recent epidemiologic, genetic, and pathologic evidence has shown that AMD shares a number of risk factors with atherosclerosis, leading to the hypothesis that statins may exert protective effects in AMD. The objective of this review was to examine the effectiveness of statins compared with other treatments, no treatment, or placebo in delaying the onset and progression of AMD. Search methods We searched the Cochrane Central Register of Controlled Trials (CENTRAL) (which contains the Cochrane Eyes and Vision Trials Register) (2016, Issue 3), Ovid MEDLINE, Ovid MEDLINE In-Process and Other Non-Indexed Citations, Ovid MEDLINE Daily, Ovid OLD MEDLINE (January 1946 to March 2016), EMBASE (January 1980 to March 2016), Latin American and Caribbean Health Sciences Literature Database (LILACS) (January 1982 to March 2016), PubMed (January 1946 to March 2016), the metaRegister of Controlled Trials (mRCT) (www.controlled-trials.com) (last searched 5 June 2014), ClinicalTrials.gov (www.clinicaltrials.gov), and the WHO International Clinical Trials Registry Platform (ICTRP) (www.who.int/ictrp/search/en). We did not use any date or language restrictions in the electronic searches for trials. We last searched the electronic databases on 31 March 2016. Selection criteria We included randomized controlled trials (RCTs) and quasi-
randomized trials that compared statins with other treatments, no treatment, or placebo in people who were diagnosed as having the early stages of AMD. Data collection and analysis We used standard methodological procedures expected by Cochrane. Two review authors independently evaluated the search results against the selection criteria, abstracted data, and assessed risk of bias. We did not perform meta-analysis due to heterogeneity in the interventions and outcomes between the included studies. Two RCTs with a total of 144 participants met the selection criteria. Both trials compared simvastatin versus placebo in older people (older than 50 or 60 years) with high risk of developing AMD (drusen present on examination). Overall, we judged the quality of the evidence to be low, as we downgraded all outcomes due to limitations in the designs of the trials and insufficient outcome reporting. The larger trial, with 114 participants, was conducted in Australia and used a higher dose (40 mg daily) of simvastatin for three years. Participants and study personnel in this trial were adequately masked, however data were missing for 30% of participants at three years' follow-up. The smaller trial, with 30 participants, was conducted in Italy and used a lower dose (20 mg) of simvastatin for three months. This trial reported insufficient details to assess the risk of bias. Neither trial reported data for change in visual acuity. Low-quality evidence from the smaller trial, with 30 participants, did not show a statistically significant difference between the simvastatin and placebo groups in visual acuity values at three months of treatment (decimal visual acuity 0.21 +/- 0.56 in simvastatin group and 0.19 +/- 0.40 in placebo group) or 45 days after the completion of treatment (decimal visual acuity 0.20 +/- 0.50 in simvastatin group and 0.19 +/- 0.48 in placebo group). The lack of a difference in visual acuity was not explained by lens or retina status, which remained unchanged during and after the treatment period for both groups. Partial results of 42 participants who had completed 12 months' follow-up in the larger trial did not show a statistically significant difference between simvastatin and the placebo groups for visual acuity, drusen score, or visual function (effect estimates and confidence intervals were not available). Complete data for these outcomes at three years' follow-up were not reported. At three years, low-quality evidence showed an effect of simvastatin in slowing progression of AMD compared with placebo to be uncertain (odds ratio 0.51, 95% confidence interval 0.23 to 1.09). One trial did not report adverse outcomes. The second trial reported no difference between groups in terms of adverse events such as death, muscle aches, and acute hepatitis.

According to the news editors, the research concluded: "Authors' conclusions Evidence from currently available RCTs is insufficient to conclude that statins have a role in preventing or delaying the onset or progression of AMD."

For more information on this research see: Statins for age-related macular degeneration. Cochrane Database of Systematic Reviews, 2016;(8):2109-2143. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting P. Gehlbach, Johns Hopkins University, Sch Med, Retina Div, Wilmer Eye Inst, Baltimore, MD 21231, United States. Additional authors for this research include T.J. Li and E. Hatef.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Lovastatin, Article Review, Epidemiology, Risk and Prevention, Age-Related Macular Degeneration, Retinal Diseases and Conditions, Clinical Trials and Studies, Eye Diseases and Conditions, Retinal Degeneration, Clinical Research, Simvastatin, Genetics, Johns Hopkins University.

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Findings from Johns Hopkins University Broaden Understanding of Pulmonary Hypertension (Update on novel targets and potential treatment avenues in pulmonary hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Lung Diseases and Conditions - Pulmonary Hypertension. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "Pulmonary hypertension (PH) is a condition marked by a combination of constriction and remodeling within the pulmonary vasculature. It remains a disease without a cure, as current treatments were developed with a focus on vasodilatory properties but do not reverse the remodeling component."

Funders for this research include HHS | NIH | National Heart, Lung, and Blood Institute (NHBLI), HHS | NIH | National Institute of Child Health and Human Development (NICHD).

Our news journalists obtained a quote from the research from Johns Hopkins University, "Numerous recent advances have been made in the understanding of cellular processes that drive pathologic remodeling in each layer of the vessel wall as well as the accompanying maladaptive changes in the right ventricle. In particular, the past few years have yielded much improved insight into the pathways that contribute to altered metabolism, mitochondrial function, and reactive oxygen species signaling and how these pathways promote the proproliferative, promigratory, and antiapoptotic phenotype of the vasculature during PH. Additionally, there have been significant advances in numerous other pathways linked to PH pathogenesis, such as sex hormones and perivascular inflammation."

According to the news editors, the research concluded: "Novel insights into cellular pathology have suggested new avenues for the development of both biomarkers and therapies that will hopefully bring us closer to the elusive goal: a therapy leading to reversal of disease."


Our news journalists report that additional information may be obtained by contacting L.A. Shimoda, Johns Hopkins Sch Med, Dept. of Med, Div Pulm & Crit Care Med, Baltimore, MD, United States. Additional authors for this research include K. Suresh, M. Bernier and L.A. Shimoda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00302.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiovascular Diseases and Conditions, Lung Diseases and Conditions, Pulmonary Hypertension, Johns Hopkins University.

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Findings from Johns Hopkins University Provide New Insights into HIV/AIDS (Context of First Same-Sex Condom Use and Nonuse in Young Black Gay and Bisexual Males)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Despite high human immunodeficiency virus (HIV) rates among young Black men who have sex with men (YBMSM), there are limited data about condom use during first same-sex (FSS). This study sought to understand socio-contextual factors of 50 YBMSM aged 15-19 years that influenced condom use during FSS."

Financial supporters for this research include National Institute of Child Health and Human Development, ASTDA Development Award.

Our news editors obtained a quote from the research from Johns Hopkins University, "Condom use was influenced by individual, partner, and community factors. Individual factors—recent illness or sexually transmitted infections (STI)—prompted condom use, while frequent HIV testing prompted nonuse. Partner factors—proactive encouragement from partners—prompted condom use, while trust and condom discomfort prompted nonuse. Larger community factors—such as presence of females—were key for use, while limited sexual health information combined with peers who discouraged condoms prompted nonuse."

According to the news editors, the research concluded: "A multilevel approach may be useful in developing sexual health programming for these young men."


The news editors report that additional information may be obtained by contacting R. Arrington-Sanders, Johns Hopkins Sch Med, Baltimore, MD, United States. Additional authors for this research include A. Morgan, J. Oidtman, M.C. Gomez, A. Ogunbajo, M. Trent and J.D. Fortenberry.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jora.12255. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Johns Hopkins University.

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Findings from Johns Hopkins University School of Medicine Broaden Understanding of Chronic Obstructive Pulmonary Disease (Safety and efficacy of tiotropium Respimat versus HandiHaler in patients naive to treatment with inhaled anticholinergics: ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease are presented in a new report. According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "Patients with chronic obstructive pulmonary disease (COPD) who were naive to anticholinergics before the TIOtropium Safety and Performance In Respimat (TIOSPIR) trial may reflect patients seen in practice, in particular in primary care. In addition, investigating safety in these patients avoids the potential bias in patients who previously received anticholinergics and may be tolerant of their effects."

The news correspondents obtained a quote from the research from the Johns Hopkins University School of Medicine, "The aim of this study was to evaluate whether patients naive to anticholinergic therapy who were treated with tiotropium Respimat 2.5 or 5 mg had different safety and efficacy outcomes than patients treated with tiotropium HandiHaler 18 mg. A post hoc analysis of patients who were not receiving anticholinergics before TIOSPIR (N=6,966/17,135) was conducted. Primary end points were risk of death from any cause and risk of COPD exacerbation. Secondary outcomes included severe exacerbation and major adverse cardiovascular events (MACE). Additional analysis of exacerbations was carried out in anticholinergic-naive patients with moderate (GOLD II) disease. Anticholinergic-naive patients had less severe disease than the total TIOSPIR population. Discontinuations because of anticholinergic side effects were infrequent (0.9% overall). Similar to the primary study, patients in the tiotropium Respimat groups had no difference in the risk of death or risk of any or severe exacerbation than patients treated with tiotropium HandiHaler. Risk of MACE was similar across the Respimat and HandiHaler groups. Rates of exacerbations in the subgroup of patients with moderate disease were similar across the Respimat and HandiHaler groups."

According to the news reporters, the research concluded: "Tiotropium Respimat and HandiHaler have similar safety and efficacy profiles in patients who are naive to anticholinergic therapy."

For more information on this research see: Safety and efficacy of tiotropium Respimat versus HandiHaler in patients naive to treatment with inhaled anticholinergics: a post hoc analysis of the TIOSPIR trial. *Npj Primary Care Respiratory Medicine*, 2015;25():15067.

Our news journalists report that additional information may be obtained by contacting R. Wise, Dept. of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD, United States. Additional authors for this research include P.M. Calverley, R. Dahl, D. Dusser, N. Metzdorf, A. Muller, A. Fowler and A. Anzueto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/npjpcrm.2015.67. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Anticholinergic Bronchodilators, Maryland, Baltimore, Tiotropium, United States, Respiratory Agents, Drugs and Therapies, Risk and Prevention, North and Central America, Lung Diseases and Conditions, Chronic Obstructive Pulmonary Disease.
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Oncology - Duodenal Cancer

Findings from Johns Hopkins University Update Knowledge of Duodenal Cancer (A Polycythemia Vera JAK2 Mutation Masquerading as a Duodenal Cancer Mutation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Duodenal Cancer. According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "Next-generation sequencing (NGS) is increasingly being used in cancer care to identify both somatic tumor driver mutations that can be targeted for therapy, and heritable mutations in the germline associated with increased cancer risk. This report presents a case of a JAK2 V617F mutation falsely identified as a duodenal cancer mutation via NGS."

The news correspondents obtained a quote from the research from Johns Hopkins University. "The patient was found to have a history of polycythemia vera, a disorder with a high incidence of JAK2 somatic mutations. Buccal cell DNA showed heterozygosity for the mutation, suggesting that it was potentially germline. However, subsequent resequencing of tumor, adjacent normal tissue, and fingernail DNA confirmed the mutation was somatic, and its presence in tumor and buccal cells resulted from contaminating blood cells."

According to the news reporters, the research concluded: "This report highlights important nuances of NGS that can lead to misinterpretation of results with potential clinical implications."

For more information on this research see: A Polycythemia Vera JAK2 Mutation Masquerading as a Duodenal Cancer Mutation. *Journal of the National Comprehensive Cancer Network*, 2016;14(12):1495-1498. *Journal of the National Comprehensive Cancer Network* can be contacted at: Harborside Press, 37 Main St, Cold Spring Harbor, NY 11724, USA.

Our news journalists report that additional information may be obtained by contacting J. Lauring, Johns Hopkins University, Sch Med, Sidney Kimmel Comprehens Canc Center, Baltimore, MD, United States. Additional authors for this research include J. Axilbund, W.B. Dalton, D. Laheru, S. Watkins, D. Chu, K. Cravero, B. Button, K. Kyker-Snowman, I. Waters, C.D. Gocke, J. Lauring and B.H. Park.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Myeloproliferative Diseases and Conditions, Hematologic Diseases and Conditions, Bone Marrow Diseases and Conditions, Myeloproliferative Disorders, Cancer, Risk and Prevention, Polycythemia Vera, Duodenal Cancer, Cancer Risk, Oncology, Genetics, Johns Hopkins University.

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Findings from Johns Hopkins University in the Area of Cystic Fibrosis Described (A sequence upstream of canonical PDZ-binding motif within CFTR COOH-terminus enhances NHERF1 interaction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Cystic Fibrosis is the subject of a report. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "The development of cystic fibrosis transmembrane conductance regulator (CFTR) targeted therapy for cystic fibrosis has generated interest in maximizing membrane residence of mutant forms of CFTR by manipulating interactions with scaffold proteins, such as sodium/hydrogen exchange regulatory factor-1 (NHERF1). In this study, we explored whether COOH-terminal sequences in CFTR beyond the PDZ-binding motif influence its interaction with NHERF1."

Financial supporters for this research include Cystic Fibrosis Foundation Therapeutics (Cystic Fibrosis Foundation Therapeutics, Inc.), National Institute of Health.

Our news journalists obtained a quote from the research from Johns Hopkins University, "NHERF1 displayed minimal self-association in blot overlays (NHERF1, K-d = 1,382 +/- 61.1 nM) at concentrations well above physiological levels, estimated at 240 nM from RNA-sequencing and 260 nM by liquid chromatography tandem mass spectrometry in sweat gland, a key site of CFTR function in vivo. However, NHERF1 oligomerized at considerably lower concentrations (10 nM) in the presence of the last 111 amino acids of CFTR (20 nM) in blot overlays and cross-linking assays and in coimmunoprecipitations using differently tagged versions of NHERF1. Deletion and alanine mutagenesis revealed that a six-amino acid sequence (EENKVR1422)-E-1417 and the terminal (TRL1480)-T-1478 (PDZ-binding motif) in the COOH-terminus were essential for the enhanced oligomerization of NHERF1. Full-length CFTR stably expressed in Madin-Darby canine kidney epithelial cells fostered NHERF1 oligomerization that was substantially reduced (similar to 5-fold) on alanine substitution of EEN, KVR, or EENKVR residues or deletion of the TRL motif. Confocal fluorescent microscopy revealed that the EENKVR and TRL sequences contribute to preferential localization of CFTR to the apical membrane."

According to the news editors, the research concluded: "Together, these results indicate that COOH-terminal sequences mediate enhanced NHERF1 interaction and facilitate the localization of CFTR, a property that could be manipulated to stabilize mutant forms of CFTR at the apical surface to maximize the effect of CFTR-targeted therapeutics."


The direct object identifier (DOI) for that additional information is:
Gram-Negative Bacteria - Escherichia coli

Findings from Joint Genome Institute in the Area of Escherichia coli

Reported [Degradation of tris(2-chloroethyl) phosphate by ultraviolet-persulfate: Kinetics, pathway and intermediate impact on proteome of Escherichia coli]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Escherichia coli. According to news reporting out of Walnut Creek, California, by NewsRx editors, research stated, "Organophosphorus flame retardants (OPFRs) are commonly applied in many consumer products, resulting in their widespread distribution in water, soil and indoor air. It is in urgent need of developing efficient and safe removal methods for OPFRs."

Financial supporters for this research include National Natural Science Foundation of China, Science and Technology Planning Project of Guangdong Province.

Our news journalists obtained a quote from the research from Joint Genome Institute, "The degradation kinetics and mechanism of tris(2-chloroethyl) phosphate (TCEP), a representative OPFR, by ultraviolet-persulfate (UV/PS) were explored, and the toxicological assessment of degrading intermediate mixture was performed using isobaric tags for relative and absolute quantitation proteomic technology. The results indicated that UV/PS had a high transformation efficiency of TCEP ([TCEP](0) = 3.5 μM, [S2O8^2-](0) = 175 μM, apparent rate constant reached 0.1272 min^(-1)) with the generations of three primary intermediates, including C4H9Cl2O4P (m/z 222.97, 224.97), C6H13Cl2O5P (m/z 266.99, 268.99) and C2H6ClO4P (m/z 160.98, 162.97), through the selective electron-transfer reactions induced by activated sulfate radical. Compared to that of TCEP, the Escherichia coli ATCC11303 exposed to intermediate mixture expressed 64 up-regulated proteins those primarily associated with nutrient import, energy generation, DNA protection and signal transduction. The 86 down-regulated proteins were related to DNA repair, protein turnover and stress response, suggesting that the toxicity of the degrading intermediate mixture decreased significantly."

According to the news editors, the research concluded: "The current study provided insights into the molecular mechanisms of TCEP and its degrading intermediate mixture on E. coli, clarifying that the UV/PS degradation is an alternative efficient and safe treatment method for TCEP."

For more information on this research see: Degradation of tris(2-chloroethyl) phosphate by ultraviolet-persulfate: Kinetics, pathway and intermediate impact on proteome of Escherichia coli. Chemical Engineering Journal, 2017;308():386-395. Chemical Engineering Journal can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland. (Elsevier - www.elsevier.com; Chemical Engineering Journal -
Neuropeptides - Calcitonin

Findings from Justus-Liebig-University Broaden Understanding of Calcitonin [Spatial expression of components of a calcitonin receptor-like receptor (CRL) signalling system (CRL, calcitonin gene-related peptide, adrenomedullin, ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Neuropeptides - Calcitonin have been presented. According to news originating from Giessen, Germany, by NewsRx correspondents, research stated, "Heart valves are highly organized structures determining the direction of blood flow through the heart. Smooth muscle cells within the valve are thought to play an active role during the heart cycle, rather than just passive flaps."

Financial supporters for this research include German Academic Exchange Service (DAAD) to GM, Higher Education Commission (HEC) Pakistan to GM.

Our news journalists obtained a quote from the research from Justus-Liebig-University, "The mature heart valve is composed of extracellular matrix (ECM), various differentiations of valvular interstitial cells (VIC), smooth muscle cells and overlying endothelium. VIC are important for maintaining the structural integrity of the valve, thereby affecting valve function and ECM remodelling. Accumulating evidence suggests an important role of calcitonin receptor-like receptor (CRL) signalling in preventing heart damage under several pathological conditions. Thus we investigate the existence of a putative CRL signalling system in mouse and human heart valves by real-time RT-PCR, laser-assisted microdissection, immunofluorescence and NADPH-diaphorase histochemistry. Mouse and human heart valves expressed mRNAs for the CRL ligands adrenomedullin (AM), adrenomedullin-2 (AM-2) and calcitonin gene-related peptide (CGRP) and for their receptor components, i.e., CRL and receptor-activity-modifying proteins 1-3. Immunofluorescence analysis revealed AM-, AM-2- and CRL-immunolabelling in endothelial cells and VIC, whereas CGRP immunoreactivity was restricted to nerve fibres and some endothelial cells. Nitric oxide synthase activity, as demonstrated by NADPH-diaphorase histochemistry, was shown mainly in valvular endothelial cells in mice, whereas in human aortic valves, VIC and smooth muscle cells were positive."

According to the news editors, the research concluded: "Our results showed the
presence of an intrinsic AM/AM-2/CGRP signalling system in murine and human heart valves with distinct cellular localization, suggesting its involvement in the regulation of valve stiffness and ECM production and turnover."

For more information on this research see: Spatial expression of components of a calcitonin receptor-like receptor (CRL) signalling system (CRL, calcitonin gene-related peptide, adrenomedullin, adrenomedullin-2/intermedin) in mouse and human heart valves. *Cell and Tissue Research*, 2016;366(3):587-599. *Cell and Tissue Research* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Cell and Tissue Research - www.springerlink.com/content/0302-766x/)

The news correspondents report that additional information may be obtained from U. Pfeil, Justus Liebig Univ, Inst Anat & Cell Biol, Excellence Cluster Cardiopulm Syst, German Center Lung Res DZL, Giessen, Germany. Additional authors for this research include S. Bharathala, G. Murtaza, P. Mermer, T. Papadakis, A. Boening and W. Kummer.

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Keywords for this news article include: Giessen, Germany, Europe, Immunofluorescence, Risk and Prevention, G-Protein-Coupled Receptors, Neuropeptide Receptors, Calcitonin Receptors, Endothelial Cells, Membrane Proteins, Peptide Receptors, Peptide Proteins, Peptide Hormones, Adrenomedullin, Neuropeptides, Muscle Cells, Proteomics, Peptides, Justus-Liebig-University.

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**Oncology - Breast Cancer**

**Findings from K. Vazquez-Santillan et al in Breast Cancer Reported (NF-kappaB-inducing kinase regulates stem cell phenotype in breast cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting from Mexico City, Mexico, by NewsRx journalists, research stated, "Breast cancer stem cells (BCSCs) overexpress components of the Nuclear factor-kappa B (NF-kappa B) signaling cascade and consequently display high NF-kappa B activity levels. Breast cancer cell lines with high proportion of CSCs exhibit high NF-kappa B-inducing kinase (NIK) expression."

The news correspondents obtained a quote from the research, "The role of NIK in the phenotype of cancer stem cell regulation is poorly understood. Expression of NIK was analyzed by quantitative RT-PCR in BCSCs. NIK levels were manipulated through transfection of specific shRNAs or an expression vector. The effect of NIK in the cancer stem cell properties was assessed by mammosphere formation, mice xenografts and stem markers expression. BCSCs expressed higher levels of NIK and its inhibition through small hairpin (shRNA), reduced the expression of CSC markers and impaired clonogenicity and tumorigenesis. Genome-wide expression analyses suggested that NIK acts on ERK1/2 pathway to exert its activity. In addition, forced expression of NIK increased the BCSC population and enhanced breast cancer cell tumorigenicity. The in vivo relevance of these results is further supported by a
tissue microarray of breast cancer samples in which we observed correlated expression of Aldehyde dehydrogenase (ALDH) and NIK protein."

According to the news reporters, the research concluded: "Our results support the essential involvement of NIK in BCSC phenotypic regulation via ERK1/2 and NF-kappa B."

For more information on this research see: Scientific Reports, 2016;6():1-17. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)


Keywords for this news article include: Mexico City, Mexico, North and Central America, Enzymes and Coenzymes, Transcription Factors, DNA-Binding Proteins, Stem Cell Research, Nuclear Proteins, Women's Health, Breast Cancer, NF-kappa B, Oncology, Genetics, Kinase.

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Bone Research

Findings from K. Yamawaki and Co-Researchers in the Area of Bone Research Reported (The soluble form of BMPRIB is a novel therapeutic candidate for treating bone related disorders)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Bone Research is now available. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Bone morphogenetic proteins (BMPs) are multi-functional growth factors that belong to the TGF-beta superfamily. Recently, several soluble BMP receptors, such as ActRIIA-Fc, ActRIIB-Fc, and ALK1-Fc, are undergoing clinical trials."

Our news journalists obtained a quote from the research, "Both BMPRIA and BMPRIB are type I BMP receptors, and while BMPRIA-Fc has been reported to have bone-increasing properties, there have been no investigations concerning the biological functions of BMPRIB-Fc. Therefore, comparing the effects of BMPRIA-Fc and BMPRIB-Fc in vivo should be helpful in revealing the differences in biological function between BMPRIA and BMPRIB, and would also aid in the evaluation of BMPRIB-Fc as a therapeutic agent. Here, we produced Tg chimeras in which BMPRIA-Fc and BMPRIB-Fc proteins circulated at high concentrations (36.8-121.4 mg/mL). Both Tg chimeras showed a significant increase of bone volume and strength. Using histological analysis, adenoma of the glandular stomach was observed only in BMPRIA-Fc chimeras suggesting the tumorigenic activity of this protein. Administration of recombinant BMPRIB-Fc protein to normal mice also increased bone volumes. Finally, treatment with BMPRIB-Fc decreased the area of osteolytic regions in a mouse model of breast cancer metastasis."

According to the news editors, the research concluded: "Our data suggest that
BMPRIB-Fc can be used for the treatment of bone-related disorders with a lower risk than BMPRIA-Fc."

For more information on this research see: The soluble form of BMPRIB is a novel therapeutic candidate for treating bone related disorders. *Scientific Reports*, 2016;6():18849. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting K. Yamawaki, Nephrology Research Labs, Nephrology R&D Unit, R&D division, Kyowa Hakko Kirin Co, Ltd, 3-6-6 Asahi-machi, Machida-shi, Tokyo, 194-8533, Japan. Additional authors for this research include Y. Kondo, T. Okada, T. Oshima, M. Kakitani and K. Tomizuka.

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Keywords for this news article include: Asia, Tokyo, Japan, Bone Research, Drug Development, Drugs and Therapies.

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**Cardiovascular Diseases and Conditions - Thrombosis**

**Findings from K.A. Fiedler and Co-Researchers Advance Knowledge in Thrombosis (Impact of bivalirudin on post-procedural epicardial blood flow, risk of stent thrombosis and mortality after percutaneous coronary intervention)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Thrombosis are presented in a new report. According to news reporting from Munich, Germany, by NewsRx journalists, research stated, "We aimed to assess the association of bivalirudin with post-procedural Thrombolysis In Myocardial Infarction (TIMI) flow, acute (<=24 hours) and 30-day stent thrombosis (ST), and one-year mortality. The study included 11,623 patients undergoing percutaneous coronary intervention (PCI)."

The news correspondents obtained a quote from the research, "The primary outcomes were post-procedural TIMI flow grade (<=2) and definite acute ST. In groups treated with bivalirudin (n=3,135), abciximab plus unfractionated heparin (UFH; n=3,539) and UFH alone (n=4,949), post-procedural TIMI was (<=)2 in 5.2%, 3.2% and 3.2% of patients, respectively (adjusted odds ratio [OR]=1.96 [95% confidence interval] 1.47-2.56 for bivalirudin versus abciximab plus UFH and OR=1.56 [1.20-2.04] for bivalirudin versus UFH). Definite acute ST occurred in two patients (0.06%) treated with bivalirudin, two patients (0.06%) treated with abciximab plus UFH, and seven patients (0.14%) treated with UFH (p=0.47). Bivalirudin was not associated with increased risk of 30-day ST (hazard ratio [HR]=1.20 [0.59-2.43] versus abciximab plus UFH, and HR=0.93 [0.48-1.82] versus UFH) or one-year mortality (HR=0.95 [0.70-1.28] versus abciximab plus UFH, and HR=1.05 [0.78-1.41] versus UFH)."

According to the news reporters, the research concluded: "Bivalirudin was associated with higher risk of suboptimal post-PCI TIMI flow but not with increased risk of acute or 30-day definite ST or one-year mortality compared with abciximab plus UFH or UFH alone."

For more information on this research see: Impact of bivalirudin on post-procedural...

Our news journalists report that additional information may be obtained by contacting K.A. Fiedler, Deutsches Herzzentrum, Technische Universität, Munich, Germany. Additional authors for this research include G. Ndreppepa, S. Schulz, S. Floh, P. Hopppmann, S. Kufner, I. Bernlochner, R.A. Byrne, H. Schunkert, K.L. Laugwitz and A. Kastrati.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4244/EIJV11I11A249. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munich, Europe, Germany, Hematology, Risk and Prevention, Embolism and Thrombosis, Cardiovascular Diseases and Conditions.

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**Digestive System Diseases and Conditions -…**

**Findings from K.C. Hu and Colleagues Update Understanding of Pancreatitis (How Does Aging Affect Presentation and Management of Biliary Stones?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Digestive System Diseases and Conditions - Pancreatitis have been presented. According to news reporting out of Taipei, Taiwan, by NewsRx editors, research stated, "Common bile duct (CBD) stones are common in elderly adults, but the effect of aging on the presentation of CBD stones remains to be evaluated. Recent studies have demonstrated that the clinical presentation of CBD stones may vary with age."

Our news journalists obtained a quote from the research, "Younger adults may present with classical biliary colic symptoms, whereas elderly adults may have no unapparent clinical features. Younger adults with CBD stones were significantly more likely to have abnormal liver function tests than those without. The sensitivity and accuracy of transabdominal ultrasound scans in screening for CBD stones increases with age. Antibiotic agents should be promptly administered to individuals with CBD stones complicated by cholangitis, but the effects of pharmacotherapy on renal function should be considered in elderly adults. Endoscopic retrograde cholangiopancreatography (ERCP) is considered to be first-line treatment for CBD stones, and endoscopic biliary sphincterotomy (EST) or endoscopic papillary balloon dilation (EPBD) along with ERCP is an adequate biliary drainage method in individuals with CBD stones. EPBD has a lower bleeding risk but higher post-ERCP risk of pancreatitis than EST."

According to the news editors, the research concluded: "Longer-duration (>1 minute) EPBD may be preferred over EST because it is associated with a comparable risk of pancreatitis but a lower rate of overall complications, although recurrent cholangitis or unfavorable outcomes will increase during CBD dilation or in the presence of residual CBD stones."


Our news journalists report that additional information may be obtained by

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgs.14481. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Digestive System Diseases and Conditions, Biliary Tract Diseases and Conditions, Pancreatic Diseases and Conditions, Bile Duct Diseases and Conditions, Risk and Prevention, Gastroenterology, Pancreatitis, Cholangitis.

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Myelofibrosis

Findings from K.L. Davis and Colleagues Update Understanding of Myelofibrosis (Real-World Assessment of Clinical Outcomes in Patients with Lower-Risk Myelofibrosis Receiving Treatment with Ruxolitinib)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Myelofibrosis. According to news reporting out of Research Triangle Park, North Carolina, by NewsRx editors, research stated, "Few trial-based assessments of ruxolitinib in patients with lower-risk myelofibrosis (MF) have been conducted, and no studies have made such assessments in a real-world population. We assessed changes in spleen size and constitutional symptoms during ruxolitinib treatment using a retrospective, observational review of anonymized US medical record data of patients diagnosed with IPSS low-risk (n=25) or intermediate-1-risk (n=83) MF."

Our news journalists obtained a quote from the research, "The majority of patients were male (low risk, 60%; intermediate-1 risk, 69%). Most patients (92% and 77%) were still receiving ruxolitinib at the medical record abstraction date (median observation/exposure time, 8 months). The proportion of patients with moderate or severe palpable splenomegaly (\(>=10\) cm) decreased from diagnosis (56%) to best response (12%). Fatigue was reported in 47% of patients and was the most common constitutional symptom. For most symptoms in both risk groups, shifts in the distribution of severity from more to less severe from diagnosis to best response were observed. Both patients with low-risk and intermediate-1-risk MF experienced a substantial decrease in spleen size with ruxolitinib treatment in real-world settings. For most symptoms examined, there were distinct improvements in the distribution of severity during ruxolitinib treatment."

According to the news editors, the research concluded: "These findings suggest that patients with lower-risk MF may benefit clinically from ruxolitinib treatment."

For more information on this research see: Real-World Assessment of Clinical Outcomes in Patients with Lower-Risk Myelofibrosis Receiving Treatment with Ruxolitinib. Advances In Hematology, 2015;2015():848473. (Hindawi Publishing - www.hindawi.com; Advances In Hematology - www.hindawi.com/journals/ah/)

Our news journalists report that additional information may be obtained by contacting K.L. Davis, RTI Health Solutions, Research Triangle Park, NC 27709, United States. Additional authors for this research include I. Cote, J.A. Kaye, E. Mendelson, H. Gao and J.
Propanolamines

Findings from K.M. Mohamed and Co-Researchers in the Area of Propanolamines Described (A GC-MS Method for Detection and Quantification of Cathine, Cathinone, Methcathinone and Ephedrine in Oral Fluid)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Propanolamines have been published. According to news reporting out of Riyadh, Saudi Arabia, by NewsRx editors, research stated, "The stimulating herbal drug khat (cathine, cathinone) and its analog methcathinone are common substances of abuse in most countries. A GC-MS method was developed and validated for the detection and quantification of cathine, cathinone, methcathinone and ephedrine in oral fluid specimens."

Our news journalists obtained a quote from the research, "The analytes and internal standard (amphetamine-d5) were extracted from 0.5 mL oral fluids by ethyl acetate, and then the dried extracts were derivatized with heptafluorobutyric anhydride at 70 degrees C for 30 min. The MS was used in selected ion monitoring mode. Ions monitored were m/z 117, 240 and 330 for cathine, m/z 77, 105 and 240 for cathinone, m/z 105, 210 and 254 for methcathinone, m/z 210, 254 and 344 for ephedrine and m/z 244 and 336 for amphetamine-d(5). The calibration curves were linear (r(2) > 0.98) in the concentration range 20-2,000 ng/mL for all analytes. The intra-and inter-assay imprecisions were within (1.6-12.5%) and (1.5-9.5%), respectively, for all analytes. Intra-assay accuracies were between -5.9 and 6.7% for all analytes."

According to the news editors, the research concluded: "The method was successfully applied to detect and quantify the target analytes from oral fluid specimens collected from Khat and methcathinone users."


Our news journalists report that additional information may be obtained by contacting K.M. Mohamed, Naif Arab Univ Secur Sci, Coll Forens Sci, Forens Chem Department, Riyadh, Saudi Arabia. Additional authors for this research include A.H. Al-Hazmi, A.M. Alasiri and M.E. Ali.

Keywords for this news article include: Riyadh, Saudi Arabia, Asia,
Phenethylamines, Propanolamines, Ephedrine.

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Peptides - Oligopeptides

Findings from Kangwon National University Broaden Understanding of Oligopeptides (Genetic overexpressing of GPx-1 attenuates cocaine-induced renal toxicity via induction of anti-apoptotic factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peptides - Oligopeptides. According to news reporting from Chunchon, South Korea, by NewsRx journalists, research stated, "The present study investigates the role of the glutathione peroxidase (GPx)-1 gene in cocaine-induced renal damage in mice. Multiple doses of cocaine increased lipid peroxidation, protein oxidation, and glutathione oxidation in the kidney of the non-transgenic mice (non-TG mice)."

Funders for this research include National Research Foundation of Korea, Korea Food and Drug Administration.

The news correspondents obtained a quote from the research from Kangwon National University, "The enzymatic activities of GPx and glutathione reductase were significantly decreased in non-TG mice, whereas superoxide dismutase was increased in the early phase of cocaine exposure. Treatment with cocaine resulted in significant decreases in expression of Bcl-2 and Bcl-x1 in the kidney of non-TG mice, which resulted in significant increases in Bax and cleaved-caspase 3. Consistently, cocaine-induced tubular epithelial vacuolization and focal tubular necrosis were mainly observed in the proximal tubules in the kidneys of non-TG mice. These renal pathologic changes were much less pronounced in GPx-1 TG than in non-TG mice."

According to the news reporters, the research concluded: "These results suggest that the GPx-1 gene is a protective factor against nephrotoxicity induced by cocaine via interactive modulations between antioxidant and cell survival signaling processes."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1440-1681.12557. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Kidney, Chunchon, Genetics, Nephrology, South Korea, Glutathione, Oligopeptides.

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Findings from Kaohsiung Medical University Hospital Provides New Data about Rheumatoid Arthritis (Soluble vascular cell adhesion molecular-1 is a potential biological indicator of hemophilic arthropathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Autoimmune Diseases and Conditions - Rheumatoid Arthritis is now available. According to news reporting originating from Kaohsiung, Taiwan, by NewsRx correspondents, research stated, "Hemophilic arthropathy is the most common chronic complication in patients with hemophilia. The pathogenesis of hemophilic arthropathy involves the inflammatory processes associated with rheumatoid arthritis (RA)."

Our news editors obtained a quote from the research from Kaohsiung Medical University Hospital, "Determining the severity and/or progression of joint damage is crucial when evaluating the effect of treatment modalities. Identifying reliable biomarkers in the peripheral blood of patients with hemophilic arthropathy may be beneficial in clinical practice. Circulating soluble vascular cell adhesion molecule-1 (sVCAM-1), E-selectin, and P-selectin levels are elevated in patients with RA. Our study investigated whether these soluble adhesion molecules can be used as biological indicators in the course of joint damage in patients with hemophilia A. Patients with hemophilia A (mild, moderate, and severe) were enrolled. The plasma levels of sVCAM-1, E-selectin, and P-selectin in patients with hemophilia A and control were measured using specific enzyme-linked immunosorbent assay kits. Joint damages were evaluated using Pettersson scores. No statistically significant differences were observed in E-selectin and P-selectin levels between patients and controls. The sVCAM-1 level was significantly higher in patients with hemophilia A than in controls. The differences remained significant in patients with severe hemophilia A but not in patients with mild or moderate hemophilia A. The degree of hemophilic arthropathy was evaluated using Pettersson scores, and a score higher than 5 indicated marked arthropathy."

According to the news editors, the research concluded: "Patients with more than 1 joint with marked arthropathy showed significantly higher sVCAM-1 levels. sVCAM-1 levels in patients with hemophilia A are associated with the severity of hemophilic arthropathy."

For more information on this research see: Soluble vascular cell adhesion molecular-1 is a potential biological indicator of hemophilic arthropathy. Medicine, 2016;95 (46):283-288. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting P.C. Lin, Kaohsiung Med Univ Hosp, Special Hematol Dis Serv Center, Kaohsiung, Taiwan. Additional authors for this research include S.S. Chiou, Y.S. Zeng, S.P. Tsai, C.S. Chen, Y.M. Lao and P.C. Lin.

Keywords for this news article include: Kaohsiung, Taiwan, Asia, Autoimmune Diseases and Conditions, Platelet Membrane Glycoproteins, Cell Adhesion Molecules, Hemophilic Arthropathy, Rheumatoid Arthritis, Biological Factors, Membrane Proteins, Cell Research, Hemophilia A, CD Antigens, P-Selectin, Immunology, E-Selectin, Hematology, Selectins, Lectins, Kaohsiung Medical University Hospital.

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Findings from Kaohsiung Medical University Provides New Data about Cell Adhesion Molecules (G9a orchestrates PCL3 and KDM7A to promote histone H3K27 methylation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cell Research - Cell Adhesion Molecules have been published. According to news reporting originating from Kaohsiung, Taiwan, by NewsRx correspondents, research stated, "Methylation of histone H3-lysine 9 (H3K9) and H3K27 by the methyltransferase G9a and polycomb repressive complex 2 (PRC2) inhibits transcription of target genes. A crosstalk between G9a and PRC2 via direct physical interaction has been shown recently."

Our news editors obtained a quote from the research from Kaohsiung Medical University, "Here, we demonstrate an alternative mechanism by which G9a promotes H3K27 methylation. Overexpression of G9a increases both H3K9 and H3K27 methylation, reduces E-cadherin expression, and induces epithelial-mesenchymal transition in PANC-1 pancreatic cancer cells. Conversely, the depletion of G9a or ectopic expression of methyltransferase-dead G9a in G9a-overexpressing gemcitabine-resistant PANC-1-R cells exhibits opposite effects. G9a promotes H3K27 methylation of the E-cadherin promoter by upregulating PCL3 to increase PRC2 promoter recruitment and by downregulating the H3K27 demethylase KDM7A to silence E-cadherin gene. The depletion of PCL3 or overexpression of KDM7A elevated expression of E-cadherin in PANC-1-R cells while ectopic expression of PCL3 or knockdown of KDM7A downregulated E-cadherin in PANC-1 cells."

According to the news editors, the research concluded: "Collectively, we provide evidence that G9a orchestrates the dynamic balance within histone-modifying enzymes to regulate H3K27 methylation and gene expression."

For more information on this research see: G9a orchestrates PCL3 and KDM7A to promote histone H3K27 methylation. Scientific Reports, 2015;5():18709. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting M.R. Pan, Graduate Institute of Clinical Medicine, College of Medicine, Kaohsiung Medical University, Kaohsiung 804, Taiwan. Additional authors for this research include M.C. Hsu, L.T. Chen and W.C Hung.

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Keywords for this news article include: Asia, Taiwan, Genetics, Histones, Kaohsiung, Cadherins, Cell Research, Glycoproteins, Nucleoproteins, Membrane Proteins, Methyltransferases, Enzymes and Coenzymes, Cell Adhesion Molecules.

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Lung Diseases and Conditions - Asthma

Findings from Kaohsiung Medical University in the Area of Asthma Reported (Protective effects of elafin against adult asthma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Asthma. According to news reporting from Kaohsiung, Taiwan, by NewsRx journalists, research stated, "Elafin inhibits serine proteases, such as human neutrophil elastase and proteinase 3, to prevent excessive damage during inflammation. However, the relationship between elafin and asthma is still unclear."

The news correspondents obtained a quote from the research from Kaohsiung Medical University, "Microarray technology was used to evaluate smoking-and asthma-related biomarkers in a discovery-driven manner. We identified candidate genes, e.g., proteinase inhibitor 3 (PI3), related to asthma and smoking from gene expression microarray data sets and evaluated their potential as biomarkers for asthma. We used human genome microarray data sets from smoking-and asthma-related gene expression data sets and performed real-time quantitative polymerase chain reaction to measure and validate differences in gene expression. We also recruited adult patients with asthma and age-and sex-matched control patients who were administered a structured questionnaire and evaluated for lung function and plasma elafin levels, which are encoded by the PI3 gene. Six significantly altered candidate genes, PI3, protein kinase C iota, phosphoserine phosphatase, IQ motif-containing GTPase activating protein 1, interleukin 13 receptor a 1, and signal transducing adaptor molecule SH3 domain and ITAM motif 2, were identified from comparisons across the four asthma-and four smoking-related data sets included in this study. An in vitro study of human airway epithelial cells (A549) and a human monocytic cell line (THP-1) demonstrated that PI3 messenger RNA levels were significantly altered by nicotine exposure. Elafin concentration was significantly higher in control patients than in patients with asthma (p <0.001). The plasma elafin concentration in the highest quartile ( (>=)12.69 ng/mL) was inversely associated with asthma (adjusted odds ratio 0.122 [95% confidence interval, 0.053-0.278]) compared with the lowest quartile (<5.82 ng/mL) after adjusting for age, sex, smoking status, waist-to-hip ratio, percentage predicted forced expiratory volume in 1 second, cockroaches in the home, incense burning, and family history. Our study revealed that high elafin levels identified in smoking-and asthma-related microarray data sets and an epidemiologic study significantly reduced the risk of asthma."

According to the news reporters, the research concluded: "Further studies of elafin as a potential therapy for asthma are warranted."

For more information on this research see: Protective effects of elafin against adult asthma. Allergy and Asthma Proceedings, 2016;37(2):15-24.

Our news journalists report that additional information may be obtained by contacting Y.S. Tsai, Dept. of Public Health, College of Health Science, Kaohsiung Medical University, Kaohsiung, Taiwan. Additional authors for this research include Y.T. Tseng, P.S. Chen, M.C. Lin, C.C. Wu, M.S. Huang, C.C. Wang, K.S. Chen, Y.C. Lin and T.N Wang.

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Keywords for this news article include: Asia, Taiwan, Asthma, Elafin, Genetics, Kaohsiung, Epidemiology, Risk and Prevention, Enzymes and Coenzymes, Diagnostics and Screening, Respiratory Hypersensitivity, Bronchial Diseases and Conditions, Immune System
Findings from Karolinska Institute Broaden Understanding of Microcirculation (Fetal growth is associated with first-trimester maternal vascular function)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Microcirculation have been published. According to news reporting from Stockholm, Sweden, by NewsRx journalists, research stated, "To investigate the relationship between maternal endothelial function in the first trimester, assessed in both the brachial artery and the forearm skin microcirculation, and fetal growth. Vascular function was assessed in 56 pregnant women during gestational weeks 11-14."

The news correspondents obtained a quote from the research from Karolinska Institute, "Vascular reactivity in the brachial artery was evaluated by postischemic hyperemia-induced flow-mediated vasodilatation (FMD) and by vasodilatation following administration of sublingual glyceryl trinitrate (GTN). Forearm skin microcirculation was investigated by laser Doppler perfusion imaging during iontophoresis of acetylcholine (ACh) and sodium nitroprusside (SNP) to assess endothelium-dependent and -independent microvascular vasodilatation, respectively. Fetal growth was measured at study inclusion and birth-weight centile was calculated after delivery. FMD and GTN-induced vasodilatation were both associated with birth-weight centile. On multivariate analysis (adjusted for brachial artery diameter at rest, blood pressure, maternal age and heart rate), for FMD beta=1.7 (95% CI, 0.06-3.34), r(2) = 0.26 and P=0.042, and for GTN-induced vasodilatation beta=2.6 (95% CI, 0.44-4.68), r(2) = 0.15 and P=0.02. Endothelium-dependent and -independent microvascular reactivity were also associated with birth-weight centile: for ACh beta=7.82 (95% CI, 1.81-13.83), r(2) = 0.12 and P=0.029, and for SNP beta=6.27 (95% CI, 1.20-11.34), r(2)=0.11 and P=0.016. First-trimester maternal vascular dilatation capacity (rather than endothelial function alone) is associated with fetal growth."

According to the news reporters, the research concluded: "These findings were consistent in both the brachial artery and the forearm skin microcirculation."


Our news journalists report that additional information may be obtained by contacting C. Iacobaus, Karolinska Inst, Danderyd Hospital, Dept. of Clin Sci, Div Östhet & Gynecol, SE-18288 Stockholm, Sweden. Additional authors for this research include T. Kahan, G. Jorneskog, K. Bremme, M. Thorsell and E. Andolf.

Keywords for this news article include: Stockholm, Sweden, Europe, Microcirculation, Brachial Artery, Endothelium, Hematology, Angiology, Karolinska Institute.
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Drugs and Therapies - Toxicology and Pharmacology

Findings from Karolinska Institute Update Understanding of Toxicology and Pharmacology (Testing in artificial sweat - Is less more? Comparison of metal release in two different artificial sweat solutions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Toxicology and Pharmacology. According to news reporting originating from Stockholm, Sweden, by NewsRx correspondents, research stated, "Metal release from materials immersed in artificial sweat can function as a measure of potential skin exposure. Several artificial sweat models exist that, to various degree, mimic realistic conditions."

Our news editors obtained a quote from the research from Karolinska Institute, "Study objective was to evaluate metal release from previously examined and well characterized materials in two different artificial sweat solutions; a comprehensive sweat model intended for use within research, based on the composition of human sweat; and the artificial sweat, EN1811, intended for testing compliance with the nickel restriction in REACH. The aim was to better understand whether there are advantages using either of the sweat solutions in bio-elution testing of materials. Metal release in two different artificial sweat solutions was compared for discs of a white gold alloy and two hard metals, and a rock drilling insert of tungsten carbide at 1 h, 24 h, 1 week and 1 month. The released amount of metal was analysed by means of inductively coupled plasma mass spectrometry. Similar levels of released metals were measured from test materials in the two different artificial sweat solutions."

According to the news editors, the research concluded: "For purposes in relation to legislations, it was concluded that a metal release test using a simple artificial sweat composition may provide results that sufficiently indicate the degree of metal release at skin contact."

For more information on this research see: Testing in artificial sweat - Is less more? Comparison of metal release in two different artificial sweat solutions. Regulatory Toxicology and Pharmacology, 2016:81():381-386. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news editors report that additional information may be obtained by contacting K. Midander, Karolinska Inst, Inst Environm Med, SE-17177 Stockholm, Sweden. Additional authors for this research include A. Julander, J. Kettelarij and C. Liden.

Keywords for this news article include: Stockholm, Sweden, Europe, Toxicology and Pharmacology, Drugs and Therapies, Karolinska Institute.

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Oncology - Leukemia

Findings from Karolinska University Hospital Update Understanding of Leukemia [Role of ribosomal protein mutations in tumor development (Review)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Leukemia. According to news reporting originating in Stockholm, Sweden, by NewsRx journalists, research stated, "Ribosomes are cellular machines essential for protein synthesis. The biogenesis of ribosomes is a highly complex and energy consuming process that initiates in the nucleolus."

The news reporters obtained a quote from the research from Karolinska University Hospital, "Recently, a series of studies applying whole-exome or whole-genome sequencing techniques have led to the discovery of ribosomal protein gene mutations in different cancer types. Mutations in ribosomal protein genes have for example been found in endometrial cancer (RPL22), T-cell acute lymphoblastic leukemia (RPL10, RPL5 and RPL11), chronic lymphocytic leukemia (RPS15), colorectal cancer (RPS20), and glioma (RPL5). Moreover, patients suffering from Diamond-Blackfan anemia, a bone marrow failure syndrome caused by mutant ribosomal proteins are also at higher risk for developing leukemia, or solid tumors. Different experimental models indicate potential mechanisms whereby ribosomal proteins may initiate cancer development. In particular, deregulation of the p53 tumor suppressor network and altered mRNA translation are mechanisms likely to be involved. We envisage that changes in expression and the occurrence of ribosomal protein gene mutations play important roles in cancer development."

According to the news reporters, the research concluded: "Ribosome biology constitutes a re-emerging vital area of basic and translational cancer research."


Our news correspondents report that additional information may be obtained by contacting K.M. Goudarzi, Dept. of Oncology-Pathology, Karolinska Institutet, Cancer Center Karolinska, CCK R8:05, Karolinska University Hospital in Solna, Stockholm, Sweden.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3387. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Cancer, Genetics, Leukemia, Oncology, Stockholm, Cytoplasm, Ribosomes, Hematology, Organelles, Article Review, Cellular Structures, Intracellular Space, Risk and Prevention.

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Heart Disorders and Diseases - Heart Failure

Findings from Kasugai Municipal Hospital Has Provided New Data on Heart Failure (Clinical characteristics of patients hospitalized for acute heart failure according to hospital arrival timing)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Failure are presented in a new report. According to news originating from Kasugai, Japan, by NewsRx correspondents, research stated, "Whether clinical characteristics and outcomes in patients suffering acute heart failure (AHF) vary according to the timing of hospital arrival is unclear. We aimed to evaluate differences between subjects presenting in the daytime and nighttime."

Our news journalists obtained a quote from the research from Kasugai Municipal Hospital, "A total of 679 patients with AHF were examined, classified into the two groups from the viewpoint of hospital arrival period into daytime (n = 370; 8 am-6 pm) and nighttime (n = 309; 6 pm-8 am). The prevalence of malnutrition and longer pre-hospital delay (>= 48 h) were greater, whereas a previous history of myocardial infarction, proportion of arrival by ambulance, and the frequency of New York Heart Association class IV symptoms, as well as systolic and diastolic blood pressure, and heart rate were lower in subjects presenting in the daytime. Patients with malnutrition defined as >= of the Controlling Nutrition Status scores demonstrate a longer pre-hospital delay compared to those without (34.2% vs. 19.9%, p< 0.05). There was no significant difference in the 30-day outcomes but length of stay was significantly longer in subjects presenting in the daytime than in the nighttime. Multivariable logistic regression analysis revealed that systolic blood pressure, malnutrition, and chronic kidney disease were significantly related to prolonged length of stay."

According to the news editors, the research concluded: "Our present results suggest that patients with AHF who present in the daytime may have higher rate of malnutrition status and lower systolic blood pressure compared to those presenting in the nighttime."

For more information on this research see: Clinical characteristics of patients hospitalized for acute heart failure according to hospital arrival timing. Journal of Cardiology, 2016;68(5-6):379-383. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

The news correspondents report that additional information may be obtained from M. Oguri, Kasugai Municipal Hosp. Dept. of Cardiol, Kasugai, Aichi 4868510, Japan. Additional authors for this research include H. Ishii, K. Yasuda, H. Kawanishi, Y. Hanaki, H. Kamiya, T. Matsubara and T. Murohara.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2016.02.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kasugai, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Nutrition Disorders, Blood Pressure, Heart Failure, Heart Disease, Hemodynamics, Malnutrition, Cardiology, Hospital, Kasugai Municipal Hospital.

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Heart Disorders and Diseases - Atrial Fibrillation

Findings from Kidney Disease Center Broadens Understanding of Atrial Fibrillation (Presence of Atrial Fibrillation at the Time of Dialysis Initiation Is Associated with Mortality and Cardiovascular Events)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Atrial Fibrillation. According to news originating from Nagoya, Japan, by NewsRx correspondents, research stated, "Death in dialysis patients results mainly from cardiovascular and cerebrovascular diseases. To our knowledge, no prospective study has compared the rates of mortality or cardiovascular events between patients with and without atrial fibrillation (AF) at the time of dialysis initiation."

Our news journalists obtained a quote from the research from Kidney Disease Center, "This study included 1,516 patients who were initiated into dialysis between October 2011 and August 2013. Rates of mortality and cardiovascular events were compared between patients with and without AF, and between AF patients with and without warfarin (WF) treatment. The study comprised 1,025 men and 491 women with a mean age of 67.5 ? 13.1. Of these patients, 93 had AF, while 1,423 did not; 22.6% of the former group and 9.7% of the latter group died by March 2014 (p <0.01). Cardiovascular events occurred in 34.4% of patients with AF and 15.1% of patients without (p <0.01). Even after adjustments for various factors, AF remained an independent risk factor for mortality (hazard ratio (HR) 1.873, 95% CI 1.168-3.002, p<0.01). It was also an independent risk factor for cardiovascular events (HR 1.872, 95% CI 1.262-2.778, p<0.01). No difference in any parameter was noted between the groups that did and did not receive WF treatment. Patients with AF at the time of dialysis initiation show a poor prognosis and are at high risk of cardiovascular events."

According to the news editors, the research concluded: "Therefore, AF should be taken into consideration in dialysis patients."


The news correspondents report that additional information may be obtained from A. Tanaka, Kidney Disease Center, Japanese Red Cross Nagoya Daini Hospital, Nagoya, Japan. Additional authors for this research include D. Inaguma, H. Shinjo, M. Murata and A. Takeda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443314. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal Nephron is: S. Karger AG, Allschwilerstrasse 10, CH-4009 Basel, Switzerland.

Keywords for this news article include: Asia, Japan, Nagoya, Cardiology, Heart Disease, Cardiovascular, Atrial Fibrillation, Cardiac Arrhythmias, Risk and Prevention, Heart Disorders and Diseases.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Non-Hodgkin Lymphoma. According to news reporting originating in Bengaluru, India, by NewsRx journalists, research stated, "Lenalidomide an immunomodulatory agent has shown activity in relapsed/refractory lymphoma. This study was conducted to evaluate its efficacy and optimal dose in Indian patients with relapsed/refractory lymphoma who were unable or unwilling to undergo autologous hematopoietic stem cell transplant."

The news reporters obtained a quote from the research from the Kidwai Memorial Institute of Oncology, "Patients received oral lenalidomide at 20 mg on days 1-21 every 28 days until disease progression or unacceptable toxicity. A total of 25 patients received lenalidomide at a starting dose of 20 mg. Majority of patients were diffuse large B-cell lymphoma (DLBCL). The overall response rate (ORR) was 48%, with 16% achieved complete remission (CR)/unconfirmed CR (CRu), 32% partial response (PR) and 16% stable disease (SD) Among patients with DLBCL the ORR was of 33.3%; with CR/CRu 20%, PR (13.3%), 20% had SD, progressive disease (PD) was seen in seven patients (46.6%). All follicular lymphoma patients responded to treatment, with CR in one patient and PR in other two. Among patients with mantle cell lymphoma, ORR was 75% with PR in (75%) and SD in 25%. One case of transformed lymphoma had a PR and peripheral T-cell lymphoma had no response to treatment. The median duration of response was 8.5 months, with a time to response of 3 months. Median progression free survival was not reached in responding patients."

According to the news reporters, the research concluded: "Lenalidomide is an effective treatment option in relapsed refractory non-hodgkin's lymphoma."


Our news correspondents report that additional information may be obtained by contacting K.S. Rachan Shetty, Dept. of Medical Oncology, Kidwai Memorial Institute of Oncology, Bengaluru, Karnataka, India. Additional authors for this research include K.S. Rachan Shetty, V. Sathyanarayanan, D. Lokanatha, L.J. Abraham and K.G Babu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.151418. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Oncology, Bengaluru, Hematology, Non Hodgkin Lymphoma, Non-Hodgkin Lymphoma, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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**Coronavirus**

**Findings from King Saud bin Abdulaziz University for Health Sciences Yields New Findings on Coronavirus (Middle East respiratory syndrome coronavirus on inanimate surfaces: A risk for health care transmission)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Coronavirus have been published. According to news reporting originating in Riyadh, Saudi Arabia, by NewsRx journalists, research stated,
"The Middle East Respiratory syndrome coronavirus (MERS-CoV) has been responsible for multiple health care-associated outbreaks. We investigated whether high-touch surfaces in 3 rooms of laboratory-confirmed MERS-CoV patients were contaminated with MERS-CoV RNA."

The news reporters obtained a quote from the research from King Saud bin Abdulaziz University for Health Sciences, "We found 2 out of 51 surfaces were contaminated with MERS-CoV viral genetic material. Hence, environmental contamination may be a potential source of health care transmission and outbreaks."

According to the news reporters, the research concluded: "Meticulous environmental cleaning may be important in preventing transmission within the health care setting."


Our news correspondents report that additional information may be obtained by contacting R.M. Khan, King Saud bin Abdulaziz Univ Hlth Sci, King Abdullah Int Med Res Center, Dept. of Intens Care, Riyadh, Saudi Arabia. Additional authors for this research include H.M. Al-Dorzi, S. Al Johani, H.H. Balkhy, T.H. Alenazi, S. Baharoon and Y.M. Arabi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajic.2016.05.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Riyadh, Saudi Arabia, Asia, RNA Viruses, Epidemiology, Coronaviridae, Nidovirales, Coronavirus, Virology, Genetics, Viral, King Saud bin Abdulaziz University for Health Sciences.

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Retinal Neurons

Findings from Kitasato University in Retinal Neurons Reported (Apelin-36 is protective against N-methyl-D-aspartic-acid-induced retinal ganglion cell death in the mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Retinal Neurons have been published. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "Retinal ganglion cell death in glaucoma is caused at least in part by a large Ca2+ influx through N-methyl-D-aspartic acid (NMDA) receptors. Apelin is a peptide originally found in the tissue extracts of bovine stomach."

Financial support for this research came from Japan Society for the Promotion of Science Grant-in-Aid for Scientific Research (C).

The news reporters obtained a quote from the research from Kitasato University, "Recent studies have been shown that apelin protects against the ischemic-reperfused injury in the brain. We examined whether apelin had protective effects on the NMDA-induced retinal ganglion cell (RGC) death using B6.Cg-TgN(Thyl-CFP)23Jrs/J transgenic mice, which express the enhanced cyan fluorescent protein in RGCs in the retina, in vivo. The mice were anesthetized by ketamine and xylazine, and NMDA (40 nmol/eye) was intravitreally injected."
We evaluated the effects of apelin-13, [Glp(1)]-apelin-13, a potent agonist of apelin receptor, and apelin-36 on the NMDA-induced retinal ganglion cell death. NMDA-induced retinal ganglion cell loss was clearly seen 7 days after NMDA injection. Intravitreal apelin-36 (0.33 nmol/eye), but not apelin-13 (1 nmol/eye) nor [Glp(1)]-apelin-13 (1 nmol/eye), simultaneously injected with NMDA significantly reduced the cell loss. The protective effect of apelin-36 was not reduced by ML221 (0.1 nmol/eye; 5-[(4-Nitrobenzooyl)oxy]-2-[(2-pyrimidinylthio)methyl]-4H-pyran-4-one), an apelin receptor antagonist, GF109203X (0.03 nmol/eye), a protein kinase C inhibitor, U0126 (0.2 nmol/eye), a MAPK/ERK kinase inhibitor, LY294002 (0.1 nmol/eye), a phosphoinositide 3-kinase inhibitor, Akti 1/2 (0.05 nmol/eye), an Akt inhibitor, or 4,5,6,7-tetrabromobenzotriazole (0.2 nmol/eye), a casein kinase-2 inhibitor. In addition, human apelin-36 did not affect the kainic-acid (20 nmol/eye)-induced ganglion cell death.

According to the news reporters, the research concluded: "The present study suggests that apelin-36 protects against the NMDA-induced ganglion cell death independently of the activation of apelin receptor in the murine retina in vivo."


Our news correspondents report that additional information may be obtained by contacting K. Sakamoto, Kitasato University, Sch Pharmaceut Sci, Dept. of Mol Pharmacol, Tokyo 1088641, Japan. Additional authors for this research include Y. Murakami, S. Sawada, H. Ushikubo, A. Mori, T. Nakahara and K. Ishii.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.08.036. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Dicarboxylic Amino Acids, Excitatory Amino Acids, Retinal Ganglion Cells, Enzymes and Coenzymes, Acidic Amino Acids, D-Aspartic Acid, Retinal Neurons, Genetics, Kinase, Kitasato University.

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### Amrinone

**Findings from Kobe University Hospital Has Provided New Data on Amrinone (Impact of Milrinone Administration in Adult Cardiac Surgery Patients: Updated Meta-Analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Amrinone have been published. According to news reporting originating from Hyogo, Japan, by NewsRx correspondents, research stated, "To determine the effects of milrinone on short-term mortality in cardiac surgery patients with focus on the presence or absence of heterogeneity of the effect. A systematic review and meta-analysis."

Our news editors obtained a quote from the research from Kobe University Hospital, "Five hundred thirty-seven adult cardiac surgery patients from 12 RCTs. Milrinone
administration. The authors conducted a systematic Medline and Pubmed search to assess the effect of milrinone on short-term mortality in adult cardiac surgery patients. Subanalysis was performed according to the timing for commencement of milrinone administration and the type of comparators. The primary outcome was any short-term mortality. Overall analysis showed no difference in mortality rates in patients who received milrinone and patients who received comparators (odds ratio = 1.25, 95% CI 0.45-3.51, p = 0.67). In subanalysis for the timing to commence milrinone administration and the type of comparators, odds ratio for mortality varied from 0.19 (placebo as control drug, start of administration after cardiopulmonary bypass) to 2.58 (levosimendan as control drug, start of administration after cardiopulmonary bypass). Among RCTs to assess the effect of milrinone administration in adult cardiac surgery patients, there are wide variations of the odds ratios of administration of milrinone for short-term mortality according to the comparators and the timing of administration.

According to the news editors, the research concluded: "This fact may suggest that a simple pooling meta-analysis is not applicable for assessing the risk and benefit of milrinone administration in an adult cardiac surgery cohort."


The news editors report that additional information may be obtained by contacting M. Egi, Kobe Univ Hosp, Dept. of Anesthesiol, Kobe, Hyogo, Japan. Additional authors for this research include M. Egi, J. Wakabayashi, T. Nishimura, Y. Miyatake, N. Obata and S. Mizobuchi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.jvca.2016.07.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hyogo, Japan, Asia, Cardiopulmonary Bypass, Cardiovascular Agents, Drugs and Therapies, Vasodilator Agents, Milrinone Therapy, Inotropic Agents, Cardiac Surgery, Cardiotoxic, Cardiology, Amrinone, Kobe University Hospital.

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**Oncology - Colon Cancer**

**Findings from Koc University in the Area of Colon Cancer Reported (Evidence-based medical oncology and interventional radiology paradigms for liver-dominant colorectal cancer metastases)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Colon Cancer. According to news reporting out of Istanbul, Turkey, by NewsRx editors, research stated, "Colorectal cancer metastasizes predictably, with liver predominance in most cases. Because liver involvement has been shown to be a major determinant of survival in this population, liver-
directed therapies are increasingly considered even in cases where there is (limited) extrahepatic disease."

Our news journalists obtained a quote from the research from Koc University, "Unfortunately, these patients carry a known risk of recurrence in the liver regardless of initial therapy choice. Therefore, there is a demand for minimally invasive, non-surgical, personalized cancer treatments to preserve quality of life in the induction, consolidation, and maintenance phases of cancer therapy."

According to the news editors, the research concluded: "This report aims to review evidence-based conceptual, pharmacological, and technological paradigm shifts in parenteral and percutaneous treatment strategies as well as forthcoming evidence regarding next-generation systemic, locoregional, and local treatment approaches for this patient population."


Our news journalists report that additional information may be obtained by contacting A.A. Sag, Alan Alper Sag, Division of Interventional Radiology, Dept. of Radiology, Koc University School of Medicine, Istanbul 34450, Turkey. Additional authors for this research include F. Selcukbiricik and N.M Mandel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i11.3127. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turkey, Eurasia, Istanbul, Oncology, Radiology, Colon Cancer, Article Review, Gastroenterology, Colorectal Research, Risk and Prevention.

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**Enzymes and Coenzymes - Ligases**

**Findings from Konkuk University Broaden Understanding of Ligases (LIN-23, an E3 Ubiquitin Ligase Component, Is Required for the Repression of CDC-25.2 Activity during Intestinal Development in Caenorhabditis elegans)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Enzymes and Coenzymes - Ligases are discussed in a new report. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Caenorhabditis elegans (C. elegans) utilizes two different cell-cycle modes, binucleations during the L1 larval stage and endoreduplications at four larval moltings, for its postembryonic intestinal development. Previous genetic studies indicated that CDC-25.2 is specifically required for binucleations at the L1 larval stage and is repressed before endoreduplications."

Our news journalists obtained a quote from the research from Konkuk University, "Furthermore, LIN-23, the C. elegans beta-TrCP ortholog, appears to function as a repressor of CDC-25.2 to prevent excess intestinal divisions. We previously reported that intestinal..."
hyperplasia in lin-23(e1883) mutants was effectively suppressed by the RNAi depletion of cdc-25.2. Nevertheless, LIN-23 targeting CDC-25.2 for ubiquitination as a component of E3 ubiquitin ligase has not yet been tested. In this study, LIN-23 is shown to be the major E3 ubiquitin ligase component, recognizing CDC-25.2 to repress their activities for proper transition of cell-cycle modes during the C. elegans postembryonic intestinal development.

According to the news editors, the research concluded: "In addition, for the first time that LIN-23 physically interacts with both CDC-25.1 and CDC-25.2 and facilitates ubiquitination for timely regulation of their activities during the intestinal development."


The news correspondents report that additional information may be obtained from Y.H. Shim, Konkuk University, Dept. of Biosci & Biotechnol, Seoul 05029, South Korea. Additional authors for this research include I. Kawasaki, B.K. Oh and Y.H. Shim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.14348/molcells.2016.0238. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Caenorhabditis elegans, Enzymes and Coenzymes, Life Sciences, Rhabditidae, Ubiquitins, Proteins, Genetics, Ligases, Konkuk University.

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Enzymes and Coenzymes - Fatty Acid Desaturases

Findings from Korea Polar Research Institute in Fatty Acid Desaturases Reported (Characterization of Stearoyl-CoA Desaturases from a Psychrophilic Antarctic Copepod, Tigriopus kingsejongensis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - Fatty Acid Desaturases. According to news originating from Inchon, South Korea, by NewsRx correspondents, research stated, "Stearoyl-CoA desaturase is a key regulator in fatty acid metabolism that catalyzes the desaturation of stearic acid to oleic acid and controls the intracellular levels of monounsaturated fatty acids (MUFAs). Two stearoyl-CoA desaturases (SCD, Delta 9 desaturases) genes were identified in an Antarctic copepod, Tigriopus kingsejongensis, that was collected in a tidal pool near the King Sejong Station, King George Island, Antarctica."

Our news journalists obtained a quote from the research from Korea Polar Research Institute, "Full-length complementary DNA (cDNA) sequences of two T. kingsejongensis SCDs (TkSCDs) were obtained from next-generation sequencing and isolated by reverse transcription PCR. DNA sequence lengths of the open reading frames of TkSCD-1 and TkSCD-2 were determined to be 1110 and 681 bp, respectively. The molecular weights deduced from the corresponding genes were estimated to be 43.1 kDa (TkSCD-1) and 26.1 kDa (TkSCD-2). The
Amino acid sequences were compared with those of fatty acid desaturases and sterol desaturases from various organisms and used to analyze the relationships among TkSCDs. As assessed by heterologous expression of recombinant proteins in Escherichia coli, the enzymatic functions of both stearoyl-CoA desaturases revealed that the amount of C16:1 and C18:1 fatty acids increased by greater than 3-fold after induction with isopropyl beta-d-thiogalactopyranoside. In particular, C18:1 fatty acid production increased greater than 10-fold in E. coli expressing TkSCD-1 and TkSCD-2."

According to the news editors, the research concluded: "The results of this study suggest that both SCD genes from an Antarctic marine copepod encode a functional desaturase that is capable of increasing the amounts of palmitoleic acid and oleic acid in a prokaryotic expression system."

For more information on this research see: Characterization of Stearoyl-CoA Desaturases from a Psychrophilic Antarctic Copepod, Tigriopus kingsejongensis. Marine Biotechnology, 2016;18(5):564-574. Marine Biotechnology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Marine Biotechnology - www.springerlink.com/content/1436-2228/)

The news correspondents report that additional information may be obtained from S. Kim, Korea Polar Res Inst, Div Polar Life Sci, KIOST, Inchon 21990, South Korea. Additional authors for this research include E. Kim, S. Han, H.G. Choi and S. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10126-016-9714-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Inchon, South Korea, Asia, Stearoyl-CoA Desaturase, Fatty Acid Desaturases, Enzymes and Coenzymes, Desaturase, Genetics, Oxidoreductases, Oxygenases, Korea Polar Research Institute.

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Oncology - Gastric Cancer

Findings from Korea University Update Knowledge of Gastric Cancer (The roles of HOXB7 in promoting migration, invasion, and anti-apoptosis in gastric cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gastric Cancer have been presented. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "The aim of this study was to compare HOXB7 expression level between gastric cancer and non-cancerous gastric tissues. Additionally, the functional effects of HOXB7, including its pro-migration or invasion and anti-apoptosis roles, were evaluated in gastric cancer cells."

The news reporters obtained a quote from the research from Korea University, "Both gene and protein expression levels of HOXB7 were examined in gastric cancer cell lines, and HOXB7 expression was compared between primary or metastatic gastric cancer tissues and chronic gastritis or intestinal metaplasia tissues. Functional studies included a wound healing assay, a Matrigel invasion assay, and an Annexin-V assay were performed, and Akt/PTEN activity was measured by western blotting. Both gene and protein expression levels of HOXB7 could be clearly detected in various gastric cancer cell lines except MKN-28 cell. HOXB7
expression was significantly higher in primary or metastatic gastric cancer tissues than in chronic gastritis or intestinal metaplasia tissues. HOXB7 knockdown led to inhibition of cell invasion and migration, had an apoptotic effect, downregulated phosphor-Akt, and upregulated PTEN in AGS and SNU-638 cells. Reinforced expression of HOXB7 caused the opposite effects in MKN-28 and MKN-45 cells."

According to the news reporters, the research concluded: "Our study suggests that HOXB7 has an oncogenic role in gastric cancer, which might be related to the modulation of Akt/PTEN activity to induce cell migration/invasion and anti-apoptotic effects."


Our news correspondents report that additional information may be obtained by contacting J.J. Park, Korea University, Coll Med, Guro Hosp, Div GastroenterolDept Internal Med, Seoul 152703, South Korea. Additional authors for this research include J.J. Park, H.S. Yoo, B.J. Lee, H.J. Chun, S.W. Lee and Y.T. Bak.

Keywords for this news article include: Seoul, South Korea, Asia, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Stomach Diseases and Conditions, Protein Expression, Gastroenterology, Gastroenteritis, Gastric Cancer, Proteomics, Apoptosis, Gastritis, Oncology, Korea University.

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Lung Diseases and Conditions - Chronic Obstructive…

Findings from Kumamoto University Provides New Data on Chronic Obstructive Pulmonary Disease (Pharmacological and genetic reappraisals of protease and oxidative stress pathways in a mouse model of obstructive lung diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease are presented in a new report. According to news reporting from Kumamoto, Japan, by NewsRx journalists, research stated, "Protease-antiprotease imbalance and oxidative stress are considered to be major pathophysiological hallmarks of severe obstructive lung diseases including chronic obstructive pulmonary disease (COPD) and cystic fibrosis (CF), but limited information is available on their direct roles in the regulation of pulmonary phenotypes. Here, we utilized beta ENaC-transgenic (Tg) mice, the previously established mouse model of severe obstructive lung diseases, to produce lower-mortality but pathophysiologically highly useful mouse model by backcrossing the original line with C57/BL6J mice."

The news correspondents obtained a quote from the research from Kumamoto University, "C57/BL6J-beta ENaC-Tg mice showed higher survival rates and key pulmonary abnormalities of COPD/CF, including mucous hypersecretion, inflammatory and emphysematous phenotypes and pulmonary dysfunction. DNA microarray analysis confirmed that protease-and oxidative stress-dependent pathways are activated in the lung tissue of
C57/BL6J-beta ENaC-Tg mice. Treatments of C57/BL6J-beta ENaC-Tg mice with a serine protease inhibitor ONO-3403, a derivative of camostat methylate (CM), but not CM, and with an anti-oxidant N-acetylcystein significantly improved pulmonary emphysema and dysfunction. Moreover, depletion of a murine endogenous antioxidant vitamin C (VC), by genetic disruption of VC-synthesizing enzyme SMP30 in C57/BL6J-beta ENaC-Tg mice, exaggerated pulmonary phenotypes.

According to the news reporters, the research concluded: "Thus, these assessments clarified that protease-antiprotease imbalance and oxidative stress are critical pathways that exacerbate the pulmonary phenotypes of C57/BL6J-beta ENaC-Tg mice, consistent with the characteristics of human COPD/CF."


Keywords for this news article include: Kumamoto, Japan, Asia, Chronic Obstructive Pulmonary Disease, Lung Diseases and Conditions, Enzymes and Coenzymes, Cystic Fibrosis, Pharmacology, Protease, Genetics, Therapy, Kumamoto University.

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**Mental Health Diseases and Conditions - Schizophrenia**

**Findings from Kunming Institute of Zoology in Schizophrenia Reported (No association between schizophrenia susceptibility variants and macroscopic structural brain volume variation in healthy subjects)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health Diseases and Conditions - Schizophrenia. According to news reporting from Kunming, People's Republic of China, by NewsRx journalists, research stated, "Previous studies have suggested that genetic variants for schizophrenia susceptibility might contribute to structural brain volume variations in schizophrenia patients, including total brain volume, hippocampal volume, and amygdalar volume. However, whether these schizophrenia susceptibility variants are associated with macroscopic structural brain volume (i.e., intracranial volume, total brain volume, and hippocampal volume) in healthy subjects is still unclear."

Funders for this research include 100 Talents Program (BaiRenJiHua) of the Chinese Academy of Sciences, Thousand Talents Program (Recruitment Program of Global Youth Experts) of China.

The news correspondents obtained a quote from the research from the Kunming Institute of Zoology, "In this study, we investigated the associations between 47 schizophrenia
susceptibility variants (from 25 well-characterized schizophrenia susceptibility genes) and cranial volume variation in a healthy Chinese sample (N=1,013). We also extracted the association between these 47 schizophrenia risk variants and the macroscopic structural brain volume (intracranial volume, total brain volume and hippocampal volume) in a large healthy sample of European ancestry (ENIGMA sample, N=5,775). We identified several single-nucleotide polymorphisms (SNPs) nominally associated with intracranial volume, total brain volume, and hippocampal volume at p<0.05 (uncorrected). However, after Bonferroni corrections for multiple testing, no SNP showed significant association.

According to the news reporters, the research concluded: "Hence, our results do not support previous observations that schizophrenia susceptibility variants are associated with brain structure (e.g., hippocampal volume) in healthy individuals, and indicate that single schizophrenia risk variant may not contribute significantly to macroscopic brain structure (e.g., intracranial volume or hippocampal volume) variation in healthy subjects."


Our news journalists report that additional information may be obtained by contacting M. Li, Key Laboratory of Animal Models and Human Disease Mechanisms of the Chinese Academy of Sciences & Yunnan Province, Kunming Institute of Zoology, Kunming, Yunnan, People's Republic of China. Additional authors for this research include L. Huang, J. Wang, B. Su and X.J Luo.

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Keywords for this news article include: Asia, Kunming, Genetics, Psychiatry, Schizophrenia, Risk and Prevention, People's Republic of China, Mental Health Diseases and Conditions.

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Averaged CT (Ave-CT) and expiratory CT (Ex-CT) images were reconstructed for each patient using 4-dimensional CT data. Dose distributions were initially calculated using the Ave-CT images and recalculated (in the same monitor units [MU]) by employing Ex-CT images with the same beam arrangements. The dose-volume parameters, including D-95, D-90, D-50, and D-2 of the planning target volume (PTV), were compared between the 2 image sets. To explore the influence of dose-calculation algorithms and prescription methods on the differences in dose distributions evident between Ave-CT and Ex-CT images, we calculated dose distributions using the following 3 different algorithms: x-ray Voxel Monte Carlo (XVMC), Acuros XB (AXB), and the anisotropic analytical algorithm (AAA). We also used 2 different dose prescription methods; the isocenter prescription and the PTV periphery prescription methods.

All differences in PTV dose-volume parameters calculated using Ave-CT and Ex-CT data were within 3 percentage points (%pts) employing the isocenter prescription method, and within 1.5% pts using the PTV periphery prescription method, irrespective of which of the 3 algorithms (XVMC, AXB, and AAA) was employed. The frequencies of dose-volume parameters differing by > 1%pt when the XVMC and AXB were used were greater than those associated with the use of the AAA, regardless of the dose prescription method employed.

According to the news editors, the research concluded: "All differences in PTV dose-volume parameters calculated using Ave-CT and Ex-CT data on patients who underwent lung SBRT were within 3%pts, regardless of the dose calculation algorithm or the dose-prescription method employed."


The news editors report that additional information may be obtained by contacting M. Nakamura, Kyoto University, Grad Sch Med, Dept. of Radiat Oncol & Image Appl Therapy, Kyoto, Japan. Additional authors for this research include M. Nakamura, Y. Matsuo, N. Ueki, A. Nakamura, Y. Iizuka, W.A. Mampuya, T. Mizowaki and M. Hiraoka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.meddos.2016.07.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kyoto, Japan, Asia, Therapeutics, Computed Tomography, Imaging Technology, Radiotherapy, Algorithms, Therapy, Kyoto University.

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Wellness Week -- Current study results on Transplant Medicine - Kidney Transplants have been published. According to news reporting originating from Kyoto, Japan, by NewsRx correspondents, research stated, "Sodium retention causes posttransplant hypertension, and sodium restriction is recommended in kidney allograft recipients. However, there have been few studies on the impact of dietary counseling on sodium intake and blood pressure (BP) in this population."

Our news editors obtained a quote from the research from Kyoto University, "To determine the effect of dietary counseling on sodium intake and consequent BP control in kidney allograft recipients. A prospective single-arm study to determine the effect of dietary counseling on sodium intake. Enrolled were renal allograft recipients with sodium intake >100 mEq/d, BP >130/80, antihypertensive use, or body mass index >25 kg/m(2). Of 53 renal transplant recipients who met the criteria, 48 participated in the present study. Sodium intake was estimated based on 24-hour urinary sodium excretion before and after 3 sessions of dietary counseling by a board-certified dietitian. Sodium intake was significantly decreased after dietary counseling (158.7 vs 129.6 mEq/d; P =.005). Systolic BP was significantly decreased from 124 mm Hg (interquartile range: 122-134) before counseling to 121 mm Hg (interquartile range: 117-128) after counseling (P <.001). The number of patients with systolic BP > 130 mm Hg was decreased by 30% (n = 19-13; P =.07). Among 34 patients on antihypertensive medications, 8 (23.5%) ceased or reduced their drugs due to improvement in BP, whereas 2 increased or changed the drugs due to poor control of BP."

According to the news editors, the research concluded: "Dietary counseling showed a short-term efficacy of reducing sodium intake and clinically relevant BP improvement in renal allograft recipients."


The news editors report that additional information may be obtained by contacting O. Ogawa, Kyoto University, Dept. of Urol, Grad Sch Med, Kyoto, Japan. Additional authors for this research include T. Kobayashi, H. Miyata, Y. Tanaka, Y. Okada, K. Sakai, H. Negoro, T. Kamba, H. Tsuji, K. Shide, M. Yanagita, N. Inagaki and O. Ogawa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1526924816664084. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kyoto, Japan, Asia, Transplant Medicine, Kidney Transplants, Organ Transplants, Renal Transplant, Transplantation, Renal Allograft, Blood Pressure, Biomedicine, Nephrology, Surgery, Kyoto University.

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Lung Diseases and Conditions - Pulmonary Embolism

Findings from Kyungpook National University School of Medicine Provides New Data on Pulmonary Embolism (Clinical characteristics of pulmonary embolism with concomitant pneumonia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Current study results on Lung Diseases and Conditions - Pulmonary Embolism have been published. According to news reporting originating in Daegu, South Korea, by NewsRx journalists, research stated, "Although pneumonia is associated with an increased risk of venous thromboembolism, patients with pulmonary embolism and concomitant pneumonia are uncommon. The aim of the present study was to investigate the clinical features of pulmonary embolism with coexisting pneumonia."

The news reporters obtained a quote from the research from the Kyungpook National University School of Medicine, "We retrospectively compared clinical, radiologic and laboratory parameters between patients with pulmonary embolism and concomitant pneumonia (pneumonia group) and those with unprovoked pulmonary embolism (unprovoked group), and then between the pneumonia group and those with pulmonary infarction (infarction group). Of 794 patients with pulmonary embolism, 36 (5%) had coexisting pneumonia and six (1%) had no provoking factor other than pneumonia. Stroke was significantly more common in the pneumonia group, than either the unprovoked group or the infarction group. In the pneumonia group, fever was significantly more common and serum C-reactive protein levels were significantly higher. By contrast, central pulmonary embolism and right ventricular dilation on computed tomography were significantly less frequent in the pneumonia group. In addition, an adverse outcome due to pulmonary embolism was less common in the pneumonia group than in either of the other two groups. The coexistence of pulmonary embolism and pneumonia is rarely encountered in clinical practice, especially without the presence of other factors that could provoke venous thromboembolism and is commonly associated with stroke."

According to the news reporters, the research concluded: "It is characterized by lower incidences of central pulmonary embolism and right ventricular dilation and by a lower rate of adverse outcomes due to pulmonary embolism itself."

For more information on this research see: Clinical characteristics of pulmonary embolism with concomitant pneumonia. Blood Coagulation & Fibrinolysis, 2016;27(3):281-6. (Lippincott Williams and Wilkins - www.lww.com; Blood Coagulation & Fibrinolysis - journals.lww.com/bloodcoagulation/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting S.I. Cha, aDept. of Internal Medicine bDept. of Radiology, Kyungpook National University School of Medicine, Daegu, South Korea. Additional authors for this research include K.J. Choi, K.M. Shin, J.K. Lim, S.S. Yoo, J. Lee, S.Y. Lee, C.H. Kim and J.Y Park. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MBC.0000000000000411. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Daegu, Pneumonia, Cardiology, Hematology, South Korea, Pulmonology, Infectious Disease, Pulmonary Embolism, Risk and Prevention, Venous Thromboembolism, Embolism and Thrombosis, Lung Diseases and Conditions, Respiratory Tract Infections, Cardiovascular Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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Oncology - Soft Tissue Sarcomas

Findings from Kyushu University Provide New Insights into Soft Tissue Sarcomas (Efficacy analysis of the aprepitant-combined antiemetic prophylaxis for non-round cell soft-tissue sarcoma patients received Adriamycin and Ifosfamide therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Soft Tissue Sarcomas. According to news reporting originating in Fukuoka, Japan, by NewsRx journalists, research stated, "Appropriate antiemetic prophylaxis for moderately emetogenic chemotherapy in patients with non-round cell soft-tissue sarcomas (NRC-STS) remains unclear. We retrospectively investigated efficacy and safety of aprepitant-combined antiemetic prophylaxis in patients with NRC-STS receiving Adriamycin plus Ifosfamide (AI) therapy."

The news reporters obtained a quote from the research from Kyushu University, "Forty NRC-STS patients were enrolled, their median age was 50 years (range 18-74), and 13 (32.5%) were female. Median cycle number of AI therapy was 4. Twenty patients received the doublet antiemetic prophylaxis (5-hydroxytryptamine-3 receptor antagonist and dexamethasone), and 20 received triplet (5-hydroxytryptamine-3 receptor antagonist, dexamethasone, and aprepitant). In the overall period, complete response rate for nausea and emesis in the triplet group was significantly higher than that in the doublet group (70% vs 35%; P=0.027). Patients with no-emesis in the overall period were more frequently observed in the triplet group than in the doublet group (90% vs 65%; P=0.058). All toxicities other than emesis were almost equivalent in both the groups."

According to the news reporters, the research concluded: "These results suggest that a triplet antiemetic prophylaxis may be optimal in the treatment with AI therapy for NRC-STS."

For more information on this research see: Efficacy analysis of the aprepitant-combined antiemetic prophylaxis for non-round cell soft-tissue sarcoma patients received Adriamycin and Ifosfamide therapy. Medicine, 2016;95(49):163-167. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting H. Kusaba, Kyushu University, Dept. of Med & Biosyst Sci, Grad Sch Med Sci, Fukuoka, Japan. Additional authors for this research include H. Kumagai, K. Inadomi, T. Matsunobu, K. Harimaya, K. Takayoshi, S. Arita, H. Ariyama, K. Akashi and E. Baba.

Keywords for this news article include: Fukuoka, Japan, Asia, Central Nervous System Agents, Antiemetic-Antivertigo Agents, Nitrogen Mustard Compounds, Gastrointestinal Agents, Soft Tissue Sarcomas, Drugs and Therapies, Ifosfamide Therapy, Adriamycin Therapy, Aprepitant Therapy, Alkylation Agents, Cyclophosphamide, Pharmaceuticals, Antineoplastics, Antiemetics, Oncology, Kyushu University.

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Oncology - Melanoma

Findings from Kyushu University Update Understanding of Melanoma
(Epigallocatechin-3-O-gallate up-regulates microRNA-let-7b expression by activating 67-kDa laminin receptor signaling in melanoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Melanoma. According to news reporting from Fukuoka, Japan, by NewsRx journalists, research stated, "MicroRNAs (miRNAs) are non-coding RNAs involved in various biological processes by regulating their target genes. Green tea polyphenol (-)-epigallocatechin-3-O-gallate (EGCG) inhibits melanoma tumor growth by activating 67-kDa laminin receptor (67LR) signaling."

The news correspondents obtained a quote from the research from Kyushu University, "To examine the effect of EGCG on miRNA expression in melanoma cells, we performed miRNA microarray analysis. We showed that EGCG up-regulated miRNA-let-7b expression through 67LR in melanoma cells. The EGCG-induced up-regulation of let-7b led to down-regulation of high mobility group A2 (HMGA2), a target gene related to tumor progression. 67LR-dependent cAMP/protein kinase A (PKA)/protein phosphatase 2A (PP2A) signaling pathway activation was involved in the up-regulation of let-7b expression induced by EGCG."

According to the news reporters, the research concluded: "These findings provide a basis for understanding the mechanism of miRNA regulation by EGCG."

For more information on this research see: Epigallocatechin-3-O-gallate up-regulates microRNA-let-7b expression by activating 67-kDa laminin receptor signaling in melanoma cells. Scientific Reports, 2016;6():19225. (Nature Publishing Group - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting S. Yamada, Division of Applied Biological Chemistry, Dept. of Bioscience and Biotechnology, Faculty of Agriculture, Kyushu University, Fukuoka 812-8581, Japan. Additional authors for this research include S. Tsukamoto, Y. Huang, A. Makio, M. Kumazoe, S. Yamashita and H. Tachibana.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19225. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Fukuoka, Genetics, Melanoma, Oncology, Laminin Receptors, Membrane Proteins, Immunologic Receptors, Membrane Glycoproteins, Extracellular Matrix Proteins.

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Blood Pressure

Findings from Kyushu University in the Area of Blood Pressure Described (The Relationship between Snoring Sound Intensity and Morning Blood Pressure in Workers)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Blood Pressure. According to news reporting originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "This study aimed to determine the consequences of snoring independent of obstructive sleep apnea (OSA) and hypothesized that snoring sound intensity, as assessed by mean tracheal sound (TS) energy (Leq), is related to morning blood pressure (BP). A home-based TS monitoring study was performed for two nights on 191 workers in Japan using an IC recorder."

Our news editors obtained a quote from the research from Kyushu University, "Leq and the respiratory disturbance index (RDI) were calculated from the TS data. RDI was used as a marker of OSA severity. Systolic and diastolic BP measurements in the evening and morning (eSBP/eDBP and mSBP/mDBP, respectively) were done before and after TS recording. The data of the second night were analyzed. Leq was significantly related to both mSBP and mDBP (r = 0.32, p< 0.0001; r = 0.34, p< 0.0001, respectively). Leq was also significantly related to morning BP after adjustment for age, sex, and body mass index. However, the relationship was no longer significant when both RDI and Leq were included in the multiple regression model. In non-apneic, non-obese subjects, Leq was significantly related to both mSBP and mDBP (r = 0.38, p< 0.0001; r = 0.33, p = 0.0004, respectively). In this group, Leq was associated with mSBP after adjusting for all confounding factors (n = 106, p = 0.022). The association between night TS intensity and morning BP suggests a pathological role of heavy snoring."

According to the news editors, the research concluded: "To understand this association, a prospective cohort study in a general population is warranted."

For more information on this research see: The Relationship between Snoring Sound Intensity and Morning Blood Pressure in Workers. *Journal of Clinical Sleep Medicine*, 2016;12(12):1601-1606. *Journal of Clinical Sleep Medicine* can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.

The news editors report that additional information may be obtained by contacting T. Furukawa, Kyushu University, Grad Sch Med Sci, Dept. of Psychosomat Med, Fukuoka, Japan. Additional authors for this research include H. Nakano, K. Yoshihara and N. Sudo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.6340. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fukuoka, Japan, Asia, Sleep Disorders, Blood Pressure, Snoring, Kyushu University.

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**Oncology - Breast Cancer**

**Findings from L. Gonzalez et al Update Understanding of Breast Cancer (Gene Expression Profile of Normal and Cancer-Associated Fibroblasts According to Intratumoral Inflammatory Cells Phenotype From Breast Cancer Tissue)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news originating from Gijon, Spain, by NewsRx correspondents, research stated, "The biological heterogeneity of breast cancer leads to the need for finding new approaches to
understand the mechanisms implicated in breast cancer progression. The tumor stroma appears as a key in the progression of solid tumors towards a malignant phenotype."

Our news journalists obtained a quote from the research, "Cancer associated fibroblasts (CAFs) may orchestrate a functional 'corrupted' stroma which in turn helps metastatic spread. In this study, we investigated by real-time PCR, the expression of 19 factors by normal breast-associated fibroblasts (NAFs) and CAFs, which were implicated in several actions promoting tumor growth, such as extracellular matrix remodeling, inflammation and invasion. Also, we explored the influence of inflammatory cells phenotypes (MMP11 status) and breast cancer cell lines (MCF-7 and MDA-MB-231) on the molecular profile of CAFs. If we consider that one of the major sources of CAFs are resident NAFs, the transition of NAFs into CAFs is associated with molecular changes involving the overexpression of some molecular factors of biological importance in tumor progression. In addition, the characterization of the tumor stroma regarding to the MMP11 status by MICs reflects a type of fibroblasts which contribute even more to tumor progression. Moreover, different patterns in the induction of the expression of factors by CAFs were observed, depending on the tumor cell line which they were co-cultured with. Furthermore, CAFs influence TGF beta expression in both cancer cell lines."

According to the news editors, the research concluded: "Therefore, this study can help to a better characterization of tumor stroma in order to improve the prognostic evaluation, as well as to define the different populations of CAFs as potential therapeutic targets in breast cancer."


The news correspondents report that additional information may be obtained from F.J. Vizoso, Fdn Hosp Jove, Serv Ciruga Gen, Gijon, Spain. Additional authors for this research include N. Eiro, B. Fernandez-Garcia, L.O. Gonzalez, F. Dominguez and F.J. Vizoso.

Keywords for this news article include: Gijon, Spain, Europe, Connective Tissue Cells, Women's Health, Breast Cancer, Fibroblasts, Oncology.

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Ischemia

Findings from L. Monassier and Co-Authors in the Area of Ischemia Reported (Targeting myocardial reperfusion injuries with cyclosporine in the CIRCUS Trial - pharmacological reasons for failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Ischemia is the subject of a report. According to news reporting originating from Strasbourg, France, by NewsRx correspondents, research stated, "The mitochondrial permeability transition (mPTP) is a key feature of cardiac cell death in ischaemia-reperfusion injury (I/R). The mPTP blocker, cyclosporine A (CsA), has been shown to give protection against reperfusion-induced myocardial necrosis and troubles generated by acute coronary artery repermeabilization."
Our news editors obtained a quote from the research, "Nevertheless, the results of the CIRCUS trial (Does Cyclosporine Improve Clinical Outcome in ST-Elevation Myocardial Infarction Patients) seem to go against this hypothesis. Pharmacological reasons linked to CsA pharmacokinetics and pharmacodynamics could be suggested. First, it could be explained by a limited diffusion of the drug in the area at risk, due to the only inclusion of patients with a TIMI 0 or 1 coronary blood flow in the anterior territory and the absence of collateral perfusion. Second, to explain a low tissue diffusion of the compound, blood cell capture and high metabolism could be suggested. Moreover, CsA is highly metabolized by cytochrome P450 3A4 (CYP3A4), a polymorphic enzyme leading to variations of Cmax and AUC between 10-20% in patients using CsA. Finally, CsA blocks calcineurin, a protein implied in I/R damage but calcineurin inhibition could contribute to protection towards I/R damage only when Rcan1, a calcineurin natural inhibitor, expression is low. The results of the CIRCUS trial are disappointing and could contribute to the withdrawal of the mPTP blockade pharmacological strategy as a way to protect the myocardium from I/R lesions."

According to the news editors, the research concluded: "Nevertheless, many pharmacological insights could have contributed to an increased variability and, as a consequence, an important reduction of the pharmacological power of the study."


The news editors report that additional information may be obtained by contacting L. Monassier, Laboratoire de Neurobiologie et Pharmacie Cardiovasculaire (EA7296), CHU de Strasbourg, Federation de Medecine Translationnelle de Strasbourg, Faculte de Medecine, 11 rue Humann, Strasbourg, France. Additional authors for this research include E. Ayme-Dietrich, G. Aubertin-Kirch and A. Pathak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/fcp.12177. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: France, Europe, Strasbourg, Calcineurin, Pharmacology, Article Review, Medical Devices, Blood Transfusion, Drugs and Therapies, Transfusion Medicine, Ophthalmic Preparations, Immunosuppressive Agents, Ischemia Reperfusion Injury, Ophthalmic Antiinflammatory Agents, Cardiovascular Diseases and Conditions.

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Nephrology

**Findings from L. Prieto-Garcia and Co-Authors Provide New Insights into Nephrology (Mechanisms of triple whammy acute kidney injury)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nephrology. According to news reporting originating in Salamanca, Spain, by NewsRx journalists, research stated, "Pre-renal acute kidney injury (AKI) results from glomerular haemodynamic alterations leading to reduced glomerular filtration rate (GFR) with no parenchymal compromise. Renin-angiotensin system inhibitors, such as angiotensin-converting enzyme inhibitors (ACEIs), angiotensin receptor
antagonists (ARAs), non-steroidal anti-inflammatory drugs (NSAIDs) and diuretics, are highly prescribed drugs that are frequently administered together."

Funders for this research include Instituto de Salud Carlos III, FEDER, REDINREN-FEDER, Ministerio de Economia y Competitividad.

The news reporters obtained a quote from the research, "Double and triple associations have been correlated with increased pre-renal AKI incidence, termed 'double whammy' and 'triple whammy', respectively. This article presents an integrative analysis of the complex interplay among the effects of NSAIDs, ACEIs/ARAs and diuretics, acting alone and together in double and triple therapies. In addition, we explore how these drug combinations alter the equilibrium of regulatory mechanisms controlling blood pressure (renal perfusion pressure) and GFR to increase the odds of inducing AKI through the concomitant reduction of blood pressure and distortion of renal autoregulation. Using this knowledge, we propose a more general model of pre-renal AKI based on a multi whammy model, whereby several factors are necessary to effectively reduce net filtration. The triple whammy was the only model associated with pre-renal AKI accompanied by a course of other risk factors, among numerous potential combinations of clinical circumstances causing hypoperfusion in which renal autoregulation is not operative or is deregulated."

According to the news reporters, the research concluded: "These factors would uncouple the normal BP-GFR relationship, where lower GFR values are obtained at every BP value."


Our news correspondents report that additional information may be obtained by contacting F.J. Lopez-Hernandez, Grp Theranost Renal & Cardiovasc Dis TERCARD, Salamanca, Spain. Additional authors for this research include M. Pericacho, S.M. Sancho-Martinez, A. Sanchez, C. Martinez-Salgado, J.M. Lopez-Novoa and F.J. Lopez-Hernandez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pharmthera.2016.07.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salamanca, Spain, Europe, Peptide Proteins, Article Review, Risk and Prevention, Acute Kidney Injury, Biological Factors, Peptide Hormones, Oligopeptides, Neuropeptides, Angiotensins, Nephrology, Autacoids, Peptides.

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news reporting from Florianopolis, Brazil, by NewsRx journalists, research stated, "To identify factors associated with early mortality from cancer in adolescents and young adults in a reference institution for oncology treatment in Santa Catarina, Brazil. We studied a retrospective cohort with an intentional sample of adolescents (ages 15-19) and young adults (ages 20-29) diagnosed with neoplasia."

The news correspondents obtained a quote from the research, "Secondary data were acquired from January 2002 to December 2013. Kaplan-Meier and Cox regression methods were used for survival analysis. Logistical analysis tested the association between early death (lower tertile between diagnosis and death, according to cancer type) and clinical or sociodemographic variables. We included a total of 889 cases with an average age of 23, with similar gender distributions and a predominance of Caucasian ethnicity. Using the Cox framework of proportional risks adjusted for neoplasia types and gender, individuals with non-hematological neoplasia (solid tumors) presented a 47% higher risk of dying when compared with individuals diagnosed with leukemias and lymphomas (HR: 1.47; 95% CI: 1.12-1.93). Chances of death were 31% higher for males than for females (HR: 1.31; 95% CI: 1.02-1.69). When adjusting for type of neoplasia and age (15-24 and 25-29) the risk of death by cancer was 51% greater in individuals diagnosed with non-hematological neoplasia when compared with individuals diagnosed with leukemias and lymphomas (HR: 1.51; 95% CI: 1.15-1.99). The chance of death by cancer in patients under the age of 25 was 33% greater when compared to that in older patients between the ages of 25 and 29 (HR: 1.33; 95% CI: 1.04-1.75). In multiple regression analysis, factors associated with early mortality from cancer were the number of years in school (P = 0.011) and time between diagnosis and start of treatment (P < 0.001). The sample studied with a longer period of time between diagnosis and the start of treatment (access to oncology therapy) and with fewer years in school showed that these factors had important roles in early death from cancer for the observed individuals."

According to the news reporters, the research concluded: "This must be considered when planning and identifying risk in young cancer patients in order to lower the impact of the disease on mortality for this age group."

For more information on this research see: Cancer mortality among adolescents and young adults: A historical cohort in a reference institution for cancer treatment in Santa Catarina/South of Brazil 2002-2013. Cancer Epidemiology, 2016;45():58-64. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news journalists report that additional information may be obtained by contacting L.A. Henrique, Oncol Res Center Santa Catarina CEPON SC, Dept. of Canc Epidemiol, Florianopolis, SC, Brazil.

Keywords for this news article include: Florianopolis, Brazil, South America, Gender Health, Diagnostics and Screening, Epidemiology, Risk and Prevention, Women's Health, Neoplasia, Oncology, Cancer.

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Immune System Diseases and Conditions - HIV/AIDS

Findings from L.M. Lopez and Co-Authors Provide New Insights into HIV/AIDS (Theory-based interventions for contraception)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immune System Diseases and Conditions - HIV/AIDS. According to news originating from Durham, North Carolina, by NewsRx correspondents, research stated, "The explicit use of theory in research helps expand the knowledge base. Theories and models have been used extensively in HIV-prevention research and in interventions for preventing sexually transmitted infections (STIs)."

Our news journalists obtained a quote from the research, "The health behavior field uses many theories or models of change. However, many educational interventions addressing contraception have no explicit theoretical base. To review randomized controlled trials (RCTs) that tested a theoretical approach to inform contraceptive choice and encourage or improve contraceptive use. Search methods To 1 November 2016, we searched for trials that tested a theory-based intervention for improving contraceptive use in PubMed, CENTRAL, POPLINE, Web of Science, ClinicalTrials.gov, and ICTRP. For the initial review, we wrote to investigators to find other trials. Selection criteria Included trials tested a theory-based intervention for improving contraceptive use. Interventions addressed the use of one or more methods for contraception. The reports provided evidence that the intervention was based on a specific theory or model. The primary outcomes were pregnancy and contraceptive choice or use. Data collection and analysis We assessed titles and abstracts identified during the searches. One author extracted and entered the data into Review Manager; a second author verified accuracy. We examined studies for methodological quality. For unadjusted dichotomous outcomes, we calculated the Mantel-Haenszel odds ratio (OR) with 95% confidence interval (CI). Cluster randomized trials used various methods of accounting for the clustering, such as multilevel modeling. Most reports did not provide information to calculate the effective sample size. Therefore, we presented the results as reported by the investigators. We did not conduct meta-analysis due to varied interventions and outcome measures. We included 10 new trials for a total of 25. Five were conducted outside the USA. Fifteen randomly assigned individuals and 10 randomized clusters. This section focuses on nine trials with high or moderate quality evidence and an intervention effect. Five based on social cognitive theory addressed preventing adolescent pregnancy and were one to two years long. The comparison was usual care or education. Adolescent mothers with a home-based curriculum had fewer second births in two years (OR 0.41, 95% CI 0.17 to 1.00). Twelve months after a school-based curriculum, the intervention group was more likely to report using an effective contraceptive method (adjusted OR 1.76 +/- standard error (SE) 0.29) and using condoms during last intercourse (adjusted OR 1.68 +/- SE 0.25). In alternative schools, after five months the intervention group reported more condom use during last intercourse (reported adjusted OR 2.12, 95% CI 1.24 to 3.56). After a school-based risk-reduction program, at three months the intervention group was less likely to report no condom use at last intercourse (adjusted OR 0.67, 95% CI 0.47 to 0.96). The risk avoidance group (abstinence-focused) was less likely to do so at 15 months (OR 0.61, 95% CI 0.45 to 0.85). At 24 months after a case management and peer-leadership program, the intervention group reported more consistent use of hormonal contraceptives (adjusted relative risk (RR) 1.30, 95% CI 1.06 to 1.58), condoms (RR 1.57, 95% CI 1.28 to 1.94), and dual methods (RR 1.36, 95% CI 1.01 to 1.85). Four of the nine trials used motivational interviewing (MI). In three studies, the comparison group received handouts. The MI group more often reported effective contraception use at nine months (OR 2.04, 95% CI 1.47 to 2.83). In two
studies, the MI group was less likely to report using ineffective contraception at three months (OR 0.31, 95% CI 0.12 to 0.77) and four months (OR 0.56, 95% CI 0.31 to 0.98), respectively. In the fourth trial, the MI group was more likely than a group with non-standard counseling to initiate long-acting reversible contraception (LARC) by one month (OR 3.99, 95% CI 1.36 to 11.68) and to report using LARC at three months (OR 3.38, 95% CI 1.06 to 10.71). Authors' conclusions The overall quality of evidence was moderate. Trials based on social cognitive theory focused on adolescents and provided multiple sessions. Those using motivational interviewing had a wider age range but specific populations. Sites with low resources need effective interventions adapted for their settings and their typical clients."

According to the news editors, the research concluded: "Reports could be clearer about how the theory was used to design and implement the intervention."

For more information on this research see: Theory-based interventions for contraception. Cochrane Database of Systematic Reviews, 2016;(11):2160-2293. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from L.M. Lopez, FHI 360, Clin & Epidemiol Sci, Durham, NC 27701, United States. Additional authors for this research include T.W. Grey, M. Chen, E.E. Tolley and L.L. Stockton.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Immune System Diseases and Conditions, Contraception, Article Review, Reproductive Techniques, Risk and Prevention, Contraceptives, HIV/AIDS.

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Oncology - Melanoma

Findings from L.Z. Chen and Co-Researchers in the Area of Melanoma Reported (AMPK activation by GSK621 inhibits human melanoma cells in vitro and in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Melanoma. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Recent studies suggest that forced activation of AMP-activated protein kinase (AMPK) could inhibit melanoma cell proliferation. In this report, we evaluated the anti-melanoma cell activity by a novel small-molecular AMPK activator, GSK621."

Our news editors obtained a quote from the research, "Treatment of GSK621 decreased survival and proliferation of human melanoma cells (A375, WM-115 and SK-Mel-2 lines), which was accompanied by activation of caspase-3/-9 and apoptosis. Reversely, caspase inhibitors attenuated GSK621-induced cytotoxicity against melanoma cells. Significantly, GSK621 was more potent than other AMPK activators (A769662, Compound 13 and AICAR) in inhibiting melanoma cells. Intriguingly, same GSK621 treatment was non-cytotoxic or pro-apoptotic against human melanocytes. Molecularly, we showed that activation of AMPK mediated GSK621's activity against melanoma cells. AMPK alpha 1 shRNA knockdown or dominant negative mutation (T172A) dramatically attenuated GSK621-induced melanoma cell lethality. Further studies revealed that MEK-ERK activation might be the primary resistance factor of GSK621. MEK-ERK inhibition, either genetically or pharmacologically, significantly
sensitized melanoma cells to GSK-621. Remarkably, intraperitoneal (i.p.) injection of GSK621 inhibited A375 tumor growth in SCID mice. Co-administration of MEK-ERK inhibitor MEK162 further sensitized GSK621-induced anti-A375 tumor activity in vivo. Together, the results imply that targeted activation of AMPK by GSK621 inhibits melanoma cell survival and proliferation.

According to the news editors, the research concluded: "MEK-ERK inhibition may further sensitize GSK621's anti-melanoma cell activity in vitro and in vivo."

For more information on this research see: AMPK activation by GSK621 inhibits human melanoma cells in vitro and in vivo. Biochemical and Biophysical Research Communications, 2016;480(4):515-521. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)


Keywords for this news article include: Guangdong, People's Republic of China, Asia, Enzymes and Coenzymes, Oncology, Melanoma, Genetics, Caspase.

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Transplant Medicine - Heart Transplants

Findings from La Trobe University Yields New Data on Heart Transplants (Physical function after extracorporeal membrane oxygenation in patients pre or post heart transplantation - An observational study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Heart Transplants have been published. According to news originating from Melbourne, Australia, by NewsRx correspondents, research stated, "To describe physical function, leg complications and health-related quality of life (HRQOL) in the three months following extracorporeal membrane oxygenation (ECMO) pre-or post-heart transplantation (HTx). Little is known about functional recovery following ECMO before or after HTx."

Our news journalists obtained a quote from the research from La Trobe University, "A 2-year retrospective study in patients who received ECMO pre- or post HTx. Strength, mobility, leg complications and HRQOL were recorded to hospital discharge. Six-minute walk distance (6MWD) was assessed at hospital discharge and 3 months. 25 patients were included, with 80% (20/25) survival to hospital discharge. At ICU discharge, strength and mobility were poor but improved by hospital discharge (p < 0.001) despite leg complications in 44% (11/25) of patients. The 6MWD improved over time (mean 203 m, 95% confidence interval 140-265). HRQOL scores were lower than Australian norms (p < 0.05)."

According to the news editors, the research concluded: "Patients requiring ECMO pre or post HTx had impaired physical function at ICU discharge and leg complications were

The news correspondents report that additional information may be obtained from K. Hayes, La Trobe University, Discipline Physiotherapy, Melbourne, Vic, Australia. Additional authors for this research include A.E. Holland, V.A. Pellegrino, A.S. Leet, L.M. Fuller and C.L. Hodgson.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Extracorporeal Membrane Oxygenation, Clinical Trials and Studies, Respiratory Therapy, Transplant Medicine, Clinical Research, Heart Transplants, Organ Transplants, Transplantation, Biomedicine, Cardiology, Hospital, Surgery, La Trobe University.

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**Immunology - Immunophilins**

**Findings from Lanzhou University Provides New Data about Immunophilins (Shengmai Formula suppressed over-activated Ras/MAPK pathway in C. elegans by opening mitochondrial permeability transition pore via regulating cyclophilin D)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology - Immunophilins have been presented. According to news originating from Lanzhou, People's Republic of China, by NewsRx correspondents, research stated, "Since about 30% of all human cancers contain mutationaly activated Ras, down regulating the over-activation of Ras/MAPK pathway represents a viable approach for treating cancers. Over-activation of Ras/MAPK pathway is accompanied by accumulation of reactive oxygen species (ROS)."

Our news journalists obtained a quote from the research from Lanzhou University, "One approach for developing anti-cancer drugs is to target ROS production and their accumulation. To test this idea, we have employed C. elegans of let-60 (gf) mutant, which contain over-activated let-60 (the homolog of mammalian ras) and exhibit tumor-like symptom of multivulva phenotype, to determine whether anti-oxidants can affect their tumor-like phenotype. Specifically we studied the effect of Shengmai formula (SM), a traditional Chinese medicine that has strong anti-oxidant activity, on the physiology of let-60 (gf) mutants. Unexpectedly, we found that SM treatment led to the opening of mitochondrial permeability transition pore by regulating cyclophilin D and then triggered oxidative stress and related signaling pathway activation, including p53, JNK, and p38/MAPK pathways. Finally, SM induced mitochondrial pathway of apoptosis and inhibited the tumor-like symptom of the multivulva phenotype of let-60(gf) mutants."

According to the news editors, the research concluded: "Our results provide evidences to support that SM act as a pro-oxidant agent and could serve as a potential drug candidate for combating over-activated Ras-related cancer."

For more information on this research see: Shengmai Formula suppressed over-


Keywords for this news article include: Lanzhou, People's Republic of China, Asia, Enzymes and Coenzymes, cis-trans-Isomerases, Membrane Proteins, Immunophilins, Cyclophilins, Immunology, Genetics, Lanzhou University.

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**Oncology - Lung Cancer**

**Findings from Leibniz University Update Knowledge of Lung Cancer (Preferences of lung cancer patients for treatment and decision-making: a systematic literature review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Lung Cancer are presented in a new report. According to news reporting from Hannover, Germany, by NewsRx journalists, research stated, "The consideration of patient preferences in decision-making has become more important, especially for life-threatening diseases such as lung cancer. This paper aims to identify the preferences of lung cancer patients with regard to their treatment and involvement in the decision-making process."

Financial support for this research came from Bundesministerium fur Bildung und Forschung.

The news correspondents obtained a quote from the research from Leibniz University, "We conducted a systematic literature review from 12 electronic databases and included studies published between 2000 and 2012. A total of 20 studies were included in this review. These revealed that lung cancer patients do have preferences that should be considered in treatment decisions; however, these preferences are not homogenous. We found that patients often consider life extension to be more important than the health-related quality of life or undesirable side effects. This preference seems to depend on patient age. Nausea and vomiting are the most important side effects to be avoided; the relevance of other side effects differs highly between subgroups. The majority of lung cancer patients, nevertheless, seem to prefer a passive rather than an active role in decision-making, although the self-reported preferences differed partly from the physicians' perceptions."

According to the news reporters, the research concluded: "Overall, we identified an urgent need for larger studies that are suitable for subgroup analyses and incorporate multi-attributive measurement techniques."

For more information on this research see: Preferences of lung cancer patients for treatment and decision-making: a systematic literature review. *European Journal of Cancer Care*, 2016;25(4):580-591. *European Journal of Cancer Care* can be contacted at: Wiley-

Our news journalists report that additional information may be obtained by contacting K. Schmidt, Leibniz Univ Hannover, CHERH, D-30159 Hannover, Germany. Additional authors for this research include K. Damm, A. Prenzler, H. Golpon and T. Welte.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ecc.12425. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hannover, Germany, Europe, Cancer, Article Review, Lung Neoplasms, Lung Cancer, Oncology, Leibniz University.

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Prostheses

Findings from Leiden University in the Area of Prostheses Described (Prosthesis Dislocation After Transapical Valve-In-Valve Mitral Valve Implantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Prostheses are discussed in a new report. According to news reporting from Leiden, Netherlands, by NewsRx journalists, research stated, "Transapical valve-in-valve mitral valve implantation (TA-MVI) has been described as an alternative treatment option in patients with degenerated bioprostheses in the mitral position."

The news correspondents obtained a quote from the research from Leiden University, "We report the first case of prosthesis dislocation and migration into the left atrium after TA-MVI. A new prosthesis was implanted using the same approach."

According to the news reporters, the research concluded: "The dislocated prosthesis was successfully removed through the left atrial appendage through an extended anterolateral thoracotomy without the use of cardiopulmonary bypass."


Our news journalists report that additional information may be obtained by contacting A. Tomsic, Leiden University, Dept. of Cardiothorac Surg, Medical Center, NL-2300 RC Leiden, Netherlands. Additional authors for this research include M. Palmen, M.I.M. Versteegh, F. van der Kley, H.M.J. Siebelink, R.R. Berendsen and M.J. Schalij.

Keywords for this news article include: Leiden, Netherlands, Europe, Prostheses, Medical Devices, Mitral Valve, Heart Valves, Prosthetics, Leiden University.

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Findings from London School of Hygiene and Tropical Medicine Broaden Understanding of Vaccines (Near real-time vaccine safety surveillance using electronic health records-a systematic review of the application of statistical methods)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immunization - Vaccines. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "Pre-licensure studies have limited ability to detect rare adverse events (AEs) to vaccines, requiring timely post-licensure studies. With the increasing availability of electronic health records (EHR) near real-time vaccine safety surveillance using these data has emerged as an option."

Financial support for this research came from National Institute for Health Research Health Protection Research Unit (NIHR HPRU).

The news reporters obtained a quote from the research from the London School of Hygiene and Tropical Medicine, "We reviewed methods currently used to inform development of similar systems for countries considering their introduction. Medline, EMBASE and Web of Science were searched, with additional searches of conference abstract books. Questionnaires were sent to organizations worldwide to ascertain unpublished studies. Eligible studies used EHR and regularly assessed pre-specified AE to vaccine(s). Key features of studies were compared descriptively. From 2779 studies, 31 were included from the USA (23), UK (6), and Taiwan and New Zealand (1 each). These were published/conducted between May 2005 and April 2015. Thirty-eight different vaccines were studied, focusing mainly on influenza (47.4%), especially 2009 H1N1 vaccines. Forty-six analytic approaches were used, reflecting frequency of EHR updates and the AE studied. Poisson-based maximized sequential probability ratio test was the most common (43.5%), followed by its binomial (23.9%) and conditional versions (10.9%). Thirty-seven of 49 analyses (75.5%) mentioned control for confounding, using an adjusted expected rate (51.4% of those adjusting), stratification (16.2%) or a combination of a self-controlled design and stratification (13.5%). Guillain-Barré syndrome (11.9%), meningitis/encephalitis/myelitis (11.9%) and seizures (10.8%) were studied most often. Near real-time vaccine safety surveillance using EHR has developed over the past decade but is not yet widely used."

According to the news reporters, the research concluded: "As more countries have access to EHR, it will be important that appropriate methods are selected, considering the data available and AE of interest."


Our news correspondents report that additional information may be obtained by contacting A. Leite, Faculty of Epidemiology and Population Health, London School of Hygiene & Tropical Medicine, London, UK. Additional authors for this research include N.J. Andrews and S.L Thomas.

The direct object identifier (DOI) for that additional information is:
Findings from Loyola College Yields New Findings on Chemometrics
(Analytical expressions for topological properties of polycyclic benzenoid networks)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Chemometrics have been published. According to news reporting originating from Tamil Nadu, India, by NewsRx correspondents, research stated, "Quantitative structure-activity and structure-property relationships of complex polycyclic benzenoid networks require expressions for the topological properties of these networks. Structure-based topological indices of these networks enable prediction of chemical properties and the bioactivities of these compounds through quantitative structure-activity and structure-property relationships methods."

Our news editors obtained a quote from the research from Loyola College, "We consider a number of infinite convex benzenoid networks that include polyacene, parallelogram, trapezium, triangular, bitrapezium, and circumcoronelike benzenoid networks. For all such networks, we compute analytical expressions for both vertex-degree and edge-based topological indices such as edge-Wiener, vertex-edge Wiener, vertex-Szeged, edge-Szeged, edge-vertex Szeged, total-Szeged, Padmakar-Ivan, Schultz, Gutman, Randic, generalized Randic, reciprocal Randic, reduced reciprocal Randic, first Zagreb, second Zagreb, reduced second Zagreb, hyper Zagreb, augmented Zagreb, atom-bond connectivity, harmonic, sum-connectivity, and geometric-arithmetic indices."

According to the news editors, the research concluded: "In addition we have obtained expressions for these topological indices for 3 types of parallelogram-like polycyclic benzenoid networks."


The news editors report that additional information may be obtained by contacting J. Clement, Loyola College, Dept. of Math, Chennai 600034, Tamil Nadu, India. Additional authors for this research include J. Clement and K. Balasubramanian.

Keywords for this news article include: Tamil Nadu, India, Asia, Chemometrics, Drugs and Therapies, Loyola College.

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Findings from Luigi Sacco University Hospital Yields New Findings on Antibiotics (Therapeutic drug management of linezolid: a missed opportunity for clinicians?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a new report. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "Some studies have shown that adjustments to the linezolid dose guided by therapeutic drug monitoring (TDM) can reduce interindividual variability in drug exposure and improve linezolid tolerability. In this study, 6 years of linezolid TDM, a diagnostic service for our hospital and others in the Milan (Italy) area, is described."

Our news editors obtained a quote from the research from Luigi Sacco University Hospital, "Samples were collected immediately before the morning dose intake (trough concentrations) in steady-state conditions. Linezolid concentrations were quantified by a validated high-performance liquid chromatography (HPLC) method. Four hundred linezolid trough concentrations from 220 patients were collected. A 20-fold variability in linezolid levels was observed. Positive and significant correlations between linezolid trough concentrations and patient age (r = 0.325, P< 0.01) or serum creatinine (r = 0.511, P< 0.01) were found. A progressive increase in linezolid concentrations with time was observed in a subgroup of patients with more than one TDM assessment. Elderly patients, especially those aged >80 years and with impaired renal function, are at a higher risk of overexposure to linezolid."

According to the news editors, the research concluded: "Despite the observed progressive increase in linezolid concentrations over time, most physicians did not change the drug dose according to the TDM results, even in the presence of frank overexposure to linezolid."


The news editors report that additional information may be obtained by contacting D. Cattaneo, Luigi Sacco Univ Hosp, Clin Pharmacol Unit, I-20157 Milan, Italy. Additional authors for this research include C. Gervasoni, V. Cozzi, S. Castoldi, S. Baldelli and E. Clementi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.08.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Drugs and Therapies, Antiinfectives, Antibiotics, Linezolid, Therapy, Luigi Sacco University Hospital.

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**Cardiovascular Research**

**Findings from M. Birkholz and Co-Authors Broaden Understanding of Cardiovascular Research (Continuously Operating Biosensor and Its Integration into a Hermetically Sealed Medical Implant)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Research are discussed in a new report. According to news reporting originating in Frankfurt, Germany, by NewsRx journalists, research stated, "An integration concept for an implantable biosensor for the continuous monitoring of blood sugar levels is presented. The system architecture is based on technical modules used in cardiovascular implants in order to minimize legal certification efforts for its perspective usage in medical applications."

The news reporters obtained a quote from the research, "The sensor chip operates via the principle of affinity viscometry, which is realized by a fully embedded biomedical microelectromechanical systems (BioMEMS) prepared in 0.25-mum complementary metal-oxide-semiconductor (CMOS)/BiCMOS technology. Communication with a base station is established in the 402-405 MHz band used for medical implant communication services (MICS). The implant shall operate within the interstitial tissue, and the heretical sealing of the electronic system against interaction with the body fluid is established using titanium housing. Only the sensor chip and the antenna are encapsulated in an epoxy header closely connected to the metallic housing."

According to the news reporters, the research concluded: "The study demonstrates that biosensor implants for the sensing of low-molecular-weight metabolites in the interstitial may successfully rely on components already established in cardiovascular implantology."

For more information on this research see: Continuously Operating Biosensor and Its Integration into a Hermetically Sealed Medical Implant. *Micromachines*, 2016;7(10):198-205. *Micromachines* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting M. Birkholz, IHP, D-15236 Frankfurt, Oder, Germany. Additional authors for this research include P. Glogener, F. Glos, T. Basmer and L. Theuer.

Keywords for this news article include: Frankfurt, Germany, Europe, Cardiovascular Research, Nanobiotechnology, Bionanotechnology, Cardiovascular, Nanotechnology, Bioengineering, Biotechnology, Cardiology, Biosensing.

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**Central Nervous System Diseases and Conditions –…**

**Findings from M. Tondelli and Co-Authors Reveals New Information on Epilepsy (Cortical and subcortical brain alterations in Juvenile Absence Epilepsy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System Diseases and Conditions - Épilepsy
are presented in a new report. According to news originating from Modena, Italy, by NewsRx correspondents, research stated, "Despite the common assumption that genetic generalized epilepsies are characterized by a macroscopically normal brain on magnetic resonance imaging, subtle structural brain alterations have been detected by advanced neuroimaging techniques in Childhood Absence Epilepsy syndrome. We applied quantitative structural MRI analysis to a group of adolescents and adults with Juvenile Absence Epilepsy (JAE) in order to investigate micro-structural brain changes using different brain measures."

Our news journalists obtained a quote from the research, "We examined grey matter volumes, cortical thickness, surface areas, and subcortical volumes in 24 patients with JAE compared to 24 healthy controls; wholebrain voxel-based morphometry (VBM) and Freesurfer analyses were used. When compared to healthy controls, patients revealed both grey matter volume and surface area reduction in bilateral frontal regions, anterior cingulate, and right mesial-temporal lobe. Correlation analysis with disease duration showed that longer disease was correlated with reduced surface area in right pre- and post-central gyrus. A possible effect of valproate treatment on brain structures was excluded."

According to the news editors, the research concluded: "Our results indicate that subtle structural brain changes are detectable in JAE and are mainly located in anterior nodes of regions known to be crucial for awareness, attention and memory."


The news correspondents report that additional information may be obtained from S. Meletti, AUSL Modena, NOCSAE Hosp, Modena, Italy. Additional authors for this research include A.E. Vaudano, A. Ruggieri and S. Meletti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.07.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Modena, Italy, Europe, Central Nervous System Diseases and Conditions, Neurologic Diseases and Conditions, Brain Diseases and Conditions, Absence Seizures, Absence Epilepsy, Genetics.

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Cardiovascular Research

*Findings from M.E. Kleber and Colleagues Update Understanding of Cardiovascular Research (Omega-3 fatty acids and mortality in patients referred for coronary angiography. The Ludwigshafen Risk and Cardiovascular Health Study)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Research. According to news reporting originating in Halle, Germany, by NewsRx journalists, research stated, "There is an ongoing debate whether omega-3-fatty acids protect from cardiovascular disease mortality. We examined the associations of erythrocyte omega-3 fatty acids with mortality in patients referred for coronary angiography."
The news reporters obtained a quote from the research, "Erythrocyte omega-3 fatty acid proportions were measured at baseline in 3259 participants of the Ludwigshafen Risk and Cardiovascular Health Study (LURIC) using the HS-Omega-3 Index method. Associations of omega-3 fatty acid proportions with mortality were investigated using Cox proportional hazards regression. During a median follow-up of 9.9 years, 975 patients (29.9%) died, 614 patients (18.8%) from cardiovascular causes. Proportions of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) were inversely associated with all-cause and cardiovascular mortality in models adjusted for conventional cardiovascular risk factors. The strongest association was observed for EPA with a hazard ratio (HR) of 0.89 (0.83-0.96) per increase of one standard deviation. Furthermore, we obtained evidence for a non-linear relation between EPA and mortality."

According to the news reporters, the research concluded: "EPA and DHA were associated with reduced mortality in LURIC, independent of other risk factors, with the association of EPA with mortality being non-linear."

For more information on this research see: Omega-3 fatty acids and mortality in patients referred for coronary angiography. The Ludwigshafen Risk and Cardiovascular Health Study. *Atherosclerosis*, 2016;252():175-181. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news correspondents report that additional information may be obtained by contacting M.E. Kleber, Competence Cluster Nutr & Cardiovasc Hlth NutriCA, Halle, Germany. Additional authors for this research include G.E. Delgado, S. Lorkowski, W. Marz and C. von Schacky.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.06.049. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Halle, Germany, Europe, Cardiovascular Research, Diagnostic Techniques and Procedures, Cardiovascular Diagnostic Techniques, Coronary Angiography, Heart Function Tests, Risk and Prevention, Cardiology, Diagnosis.

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**Lung Diseases and Conditions - Pulmonary...**

**Findings from M.L. Zheng and Co-Authors Broaden Understanding of Pulmonary Tuberculosis (MiRNA-155 and miRNA-132 as potential diagnostic biomarkers for pulmonary tuberculosis: A preliminary study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Pulmonary Tuberculosis. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "In our study, we aimed to profile a panel microRNAs (miRNAs) as potential biomarkers for the early diagnosis of pulmonary tuberculosis (PTB) and to illuminate the molecular mechanisms in the development of PTB. Firstly, gene expression profile of E-GEOD-49951 was downloaded from ArrayExpress database, and quantile-adjusted conditional maximum likelihood method was utilized to identify statistical difference between miRNAs of Mycobacterium tuberculosis (MTB)-infected individuals and healthy subjects."
Our news journalists obtained a quote from the research, "Furthermore, in order to assess the performance of our methodology, random forest (RF) classification model was utilized to identify the top 10 miRNAs with better Area Under The Curve (AUC) using 10-fold cross-validation method. Additionally, Monte Carlo Cross-Validation was repeated 50 times to explore the best miRNAs. In order to learn more about the differentially-expressed miRNAs, the target genes of differentially-expressed miRNAs were retrieved from TargetScan database and Ingenuity Pathways Analysis (IPA) was used to screen out biological pathways where target genes were involved. After normalization, a total of 478 miRNAs with higher than 0.25-fold quantile average across all samples were required. Based on the differential expression analysis, 38 differentially expressed miRNAs were identified when the significance was set as false discovery rate (FDR) < 0.01. Among the top 10 differentially expressed miRNAs, miRNA-155 obtained a highest AUC value 0.976, showing a good performance between PTB and control groups. Similarly, miRNA-449a, miRNA-212 and miRNA-132 revealed also a good performance with AUC values 0.947, 0.931 and 0.930, respectively. Moreover, miRNA-155, miRNA-449a, miRNA-29b-1* and miRNA-132 appeared in 50, 49, 49 and 48 bootstraps."

According to the news editors, the research concluded: "Thus, miRNA-155 and miRNA-132 might be important in the progression of PTB and thereby, might present potential signatures for diagnosis of PTB."


The news correspondents report that additional information may be obtained from M.L. Zheng, PLA, Dept. of Chest Surg, Hosp 309, Beijing 100091, People's Republic of China. Additional authors for this research include N.K. Zhou and C.H. Luo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.micpath.2016.09.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Gram-Positive Bacterial Infections, Lung Diseases and Conditions, Actinomycetales Infections, Mycobacterium Tuberculosis, Mycobacterium Infections, Pulmonary Tuberculosis, Genetics.

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frequently been linked to the pathogenesis of myocarditis (MC) and its progression towards dilated cardiomyopathy (DCM). The exact role of the presence of B19V and its load remains controversial, as this virus is also found in the heart of healthy subjects."

Our news editors obtained a quote from the research from Maastricht University, "Moreover, the prognostic relevance of B19V prevalence in endomyocardial biopsies still remains unclear. As a result, it is unclear whether the presence of B19V should be treated. This review provides an overview of recent literature investigating the presence of B19V and its pathophysiological relevance in MC and DCM, as well as in normal hearts. In brief, no difference in B19V prevalence is observed between MC/DCM and healthy control hearts. Therefore, the question remains open whether and how cardiac B19V may be of pathogenetic importance. Findings suggest that B19V is aetiologically relevant either in the presence of other cardiotropic viruses, or when B19V load is high and/or actively replicating, which both may maintain myocardial (low-grade) inflammation. Therefore, future studies should focus on the prognostic relevance of the viral load, replicative status and virus co-infections."

According to the news editors, the research concluded: "In addition, the immunogenetic background of MC/DCM patients that makes them susceptible to develop heart failure upon presence of B19V should be more thoroughly investigated."


The news editors report that additional information may be obtained by contacting J. Verdonschot, Maastricht University, Medical Center, CARIM, Dept. of Cardiol, NL-6200 MD Maastricht, Netherlands. Additional authors for this research include M. Hazebroek, J. Merken, Y. Debing, R. Dennert, H.P. Brunner-La Rocca and S. Heymans.

Keywords for this news article include: Maastricht, Netherlands, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Parvovirus, Article Review, Dilated Cardiomyopathy, Parvovirus Infection, Cardiomyopathies, Heart Disease, Paroviridae, Parovirinae, DNA Viruses, Myocarditis, Cardiology, Virology, Viral, Maastricht University.

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**Digestive System Diseases and Conditions**

**Findings from Maastricht University Broaden Understanding of Sclerosing Cholangitis (Elevated interleukin-8 in bile of patients with primary sclerosing cholangitis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Digestive System Diseases and Conditions - Sclerosing Cholangitis are discussed in a new report. According to news reporting originating from Maastricht, Netherlands, by NewsRx correspondents, research stated, "To better understand the pathogenesis of primary sclerosing cholangitis, anti-and pro-inflammatory factors were studied in bile. Ductal bile of PSC patients (n = 36) and controls (n = 20) was collected by endoscopic retrograde cholangiography."
Financial supporters for this research include Dutch Digestive Diseases Foundation, Norwegian PSC Consortium, German Crohn's & Ulcerative Colitis Association.

Our news editors obtained a quote from the research from Maastricht University, "Gallbladder bile was collected at liver transplantation. Bile samples were analysed for cytokines, FGF19 and biliary lipids. Hepatobiliary tissues of PSC and non-PSC patients (n = 8-11 per patient group) were collected at transplantation and were analysed for IL8 and FGF19 mRNA expression and IL8 localization. The effect of IL8 on proliferation of primary human cholangiocytes and expression of pro-fibrotic genes was studied. In PSC patients, median IL8 in ductal bile was 6.6 ng/ml vs. 0.24 ng/ml in controls. Median IL8 in gallbladder bile was 7.6 ng/ml in PSC vs. 2.2 and 0.3 ng/ml in two control groups. IL8 mRNA in PSC gallbladder was increased and bile ducts stained positive for IL8. In vitro, IL8 induced proliferation of primary human cholangiocytes and increased the expression of pro-fibrotic genes. Elevation of IL8 in bile of PSC patients, collected at different stages of disease, indicates an ongoing inflammatory stimulus that drives IL8 production."

According to the news editors, the research concluded: "This challenges the idea that advanced PSC is a burned-out disease, and calls for reconsideration of anti-inflammatory therapy in PSC."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/liv.13092. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maastricht, Netherlands, Europe, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Biliary Tract Diseases and Conditions, Bile Duct Diseases and Conditions, Biliary Diseases and Conditions, Primary Sclerosing Cholangitis, Biological Factors, Gastroenterology, CXC Chemokines, Interleukin-8, Interleukins, Gallbladder, Cytokines, Genetics, Maastricht University.

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**Hematology - Blood Coagulation Factors**

**Findings from Maastricht University Yields New Data on Blood Coagulation Factors (Cardiac troponin T degradation in serum is catalysed by human thrombin)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
Wellness Week -- Current study results on Hematology - Blood Coagulation Factors have been published. According to news reporting originating from Maastricht, Netherlands, by NewsRx correspondents, research stated, "Cardiac troponin T (cTnT) has been shown to be present in fragmented forms in human serum after acute myocardial infarction (AMI). While calpain-1 and caspase-3 have been identified as intracellular proteases able to cleave the N-terminus of cTnT, it is still unclear which proteases are responsible for the extensive and progressive cTnT fragmentation observed in serum of AMI-patients."

Our news editors obtained a quote from the research from Maastricht University, "In this pilot study we have investigated the possibility that human thrombin may be involved in this process. Purified human cTnT was spiked in unprocessed and deproteinated serum in the presence or absence of either purified human thrombin or PPACK thrombin inhibitor. After immunoprecipitation, SDS-PAGE and Western blotting we observed an increase in cTnT fragmentation when purified thrombin was added to deproteinated serum. Consequently, the addition of thrombin inhibitor to unprocessed serum resulted in a decrease of cTnT fragmentation."

According to the news editors, the research concluded: "Our results suggest that multiple enzymes are involved in cTnT degradation, and that thrombin plays an important role."

For more information on this research see: Cardiac troponin T degradation in serum is catalysed by human thrombin. Biochemical and Biophysical Research Communications, 2016;481(1-2):165-168. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/) The news editors report that additional information may be obtained by contacting W. Wodzig, Maastricht University, Dept. of Clin Chem, Cent Diagnost Lab, Medical Center, Maastricht, Netherlands. Additional authors for this research include D. de Boer, W. van Doorn, J.M.M. Kocken, O. Bekers and W. Wodzig.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.149. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maastricht, Netherlands, Europe, Macromolecular Substances, Blood Coagulation Factors, Microfilament Proteins, Cytoskeletal Proteins, Serine Endopeptidases, Enzymes and Coenzymes, Contractile Proteins, Peptide Hydrolases, Muscle Proteins, Biopolymers, Troponin T, Cardiology, Hematology, Thrombin, Maastricht University.

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Findings from Maastricht University in Obesity, Fitness and Wellness Reported (New insights into the generation and role of de novo mutations in health and disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Obesity, Fitness and Wellness are presented in a new report.
According to news reporting out of Maastricht, Netherlands, by NewsRx editors, research stated, "Aside from inheriting half of the genome of each of our parents, we are born with a small number of novel mutations that occurred during gametogenesis and postzygotically. Recent genome and exome sequencing studies of parent-offspring trios have provided the first insights into the number and distribution of these de novo mutations in health and disease, pointing to risk factors that increase their number in the offspring."

Our news journalists obtained a quote from the research from Maastricht University, "De novo mutations have been shown to be a major cause of severe early-onset genetic disorders such as intellectual disability, autism spectrum disorder, and other developmental diseases. In fact, the occurrence of novel mutations in each generation explains why these reproductively lethal disorders continue to occur in our population. Recent studies have also shown that de novo mutations are predominantly of paternal origin and that their number increases with advanced paternal age."

According to the news editors, the research concluded: "Here, we review the recent literature on de novo mutations, covering their detection, biological characterization, and medical impact."

For more information on this research see: New insights into the generation and role of de novo mutations in health and disease. Genome Biology, 2016;17():1-19. Genome Biology can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; Genome Biology - genomebiology.com)

Our news journalists report that additional information may be obtained by contacting J.A. Veltman, Maastricht University, Medical Center, GROW Sch Oncol & Dev Biol, Dept. of Clin Genet, NL-6229 ER Maastricht, Netherlands. Additional authors for this research include J.A. Veltman and A. Hoischen.

Keywords for this news article include: Maastricht, Netherlands, Europe, Obesity, Fitness and Wellness, Genetics, Article Review, Risk and Prevention, Maastricht University.

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Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm Reported (Application of an Adaptive Polynomial Chaos Expansion on Computationally Expensive Three-Dimensional Cardiovascular Models for Uncertainty Quantification and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm are presented in a new report. According to news reporting originating in Maastricht, Netherlands, by NewsRx journalists, research stated, "When applying models to patient-specific situations, the impact of model input uncertainty on the model output uncertainty has to be assessed. Proper uncertainty quantification (UQ) and sensitivity analysis (SA) techniques are indispensable for this purpose."

The news reporters obtained a quote from the research from Maastricht University, "An efficient approach for UQ and SA is the generalized polynomial chaos expansion (gPCE) method, where model response is expanded into a finite series of polynomials that depend on
the model input (i.e., a meta-model). However, because of the intrinsic high computational cost of three-dimensional (3D) cardiovascular models, performing the number of model evaluations required for the gPCE is often computationally prohibitively expensive. Recently, Blatman and Sudret (2010, 'An Adaptive Algorithm to Build Up Sparse Polynomial Chaos Expansions for Stochastic Finite Element Analysis,' Probab. Eng. Mech., 25(2), pp. 183-197) introduced the adaptive sparse gPCE (agPCE) in the field of structural engineering. This approach reduces the computational cost with respect to the gPCE, by only including polynomials that significantly increase the meta-model's quality. In this study, we demonstrate the agPCE by applying it to a 3D abdominal aortic aneurysm (AAA) wall mechanics model and a 3D model of flow through an arteriovenous fistula (AVF). The agPCE method was indeed able to perform UQ and SA at a significantly lower computational cost than the gPCE, while still retaining accurate results."

According to the news reporters, the research concluded: "Cost reductions ranged between 70-80% and 50-90% for the AAA and AVF model, respectively."


Our news correspondents report that additional information may be obtained by contacting S. Quicken, Maastricht University, Dept. of Biomed Engn, Sch Cardiovasc Dis CARIM, NL-6229 ER Maastricht, Netherlands. Additional authors for this research include W.P. Donders, E.M.J. van Disseldorp, K. Gashi, B.M.E. Mees, F.N. van de Vosse, R.G.P. Lopata, T. Delhaas and W. Huberts.

Keywords for this news article include: Maastricht, Netherlands, Europe, Cardiovascular Diseases and Conditions, Abdominal Aortic Aneurysm, Mathematics, Cardiology, Polynomial, Maastricht University.

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**Gram-Negative Bacteria - Escherichia coli**

**Findings from Mahatma Gandhi University Has Provided New Information about Escherichia coli (Bioconversion of sodium dodecyl sulphate to rhamnolipids by transformed Escherichia coli DH5a cells-a novel strategy for rhamnolipid synthesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Escherichia coli have been published. According to news reporting originating from Kottayam, India, by NewsRx correspondents, research stated, "Biological synthesis of rhamnolipids from SDS by Pseudomonas aeruginosa S15 is found to be a cost effective mode of rhamnolipid synthesis. This study aimed to attempt rhamnolipid synthesis by transformant Escherichia coli DH5a cells."

Our news editors obtained a quote from the research from Mahatma Gandhi University, "Molecular analysis by curing experiments revealed that the properties of SDS based rhamnolipid synthesis were plasmid borne. Transformation of 10 kb plasmid to E. coli DH5a
cells conferred rhamnolipid synthetic ability to transformant. Various genetic elements involved in SDS based rhamnolipid synthesis were analyzed using PCR based and restriction digestion based approaches. PCR amplification using primers specific for sdsA gene encoding alkylsulfatases yielded two significant amplicons viz, 1.2 kb fragment and 422 bp fragment, coding for putative dehydratase and ABC transporter respectively. Amplicon of sdsB gene lacked ability of SDS degradation and rhamnolipid synthesis. Rhamnolipid biosynthesis by transformant E. coli DH5a containing the whole of the 10 kb plasmid, was optimized to yield of 3.38 g l(-1) in 5 days of incubation. Plasmid encoded rhamnolipid synthesis from recombinant E. coli cells is novel and could serve as yet another promising approach among various steps adopted for safe and effective rhamnolipid synthesis. SDS based rhamnolipid synthesis by S15 attained a high substrate (SDS) to product (Rhamnolipid) conversion ratio. However, the use of Pseudomonas strains is always discouraged as they are opportunistic pathogens and could sometimes turn infectious."

According to the news editors, the research concluded: "Thus, transformation of genetic elements coding SDS based rhamnolipid synthesis to nonpathogenic strains could be promising."


The news editors report that additional information may be obtained by contacting S. Rebello, School of Biosciences, Mahatma Gandhi University, Kottayam, India. Additional authors for this research include B.V. Joseph, S.V. Joseph, L. Jose, S. Mundayoor and M.S Jisha.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jam.13032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Kottayam, Genetics, Escherichia Coli, Enterobacteriaceae, Gammaproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria.

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**Immune System Diseases and Conditions** -

**Findings from Mahidol University Provide New Insights into Hypersensitivity (Skin testing with beta-lactam antibiotics for diagnosis of beta-lactam hypersensitivity in children)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immune System Diseases and Conditions - Hypersensitivity. According to news originating from Bangkok, Thailand, by NewsRx correspondents, research stated, "Skin testing with penicilloyl-polylysine (PPL) and a minor determinant mixture (MDM) were previously recommended for evaluating P-lactam hypersensitivity. However, PPL and MDM have not been commercially available."

Our news journalists obtained a quote from the research from Mahidol University,
This study was to determine the negative predictive value (NPV) of skin testing with beta-lactam antibiotics for the diagnosis of beta-lactam hypersensitivity. Patients age 1-18 years old with a history of β-lactam hypersensitivity were evaluated by skin tests. (a skin prick test, an intradermal test) with penicillin G, ampicillin, amoxicillin-clavulanic acid, and the suspect beta-lactam. The patients who had a negative skin test were performed with a drug provocation test (DPT) in a 3-dose-graded challenge. The hypersensitivity reactions were classified into immediate and non-immediate reactions. Results: A total of 126 patients were evaluated for β-lactam hypersensitivity. Twenty-two patients (17.4%) were confirmed with a beta-lactam hypersensitivity. 12 (54.54%) of them were confirmed by a skin test. There was no systemic reaction occurring after the skin tests. Ten patients (9.6%) from 104 patients with negative skin test showed reactions after a DPT providing the NPV of the skin test with a 91.2% value. Among those children with a history of beta-lactam hypersensitivity, skin testing with penicillin G, ampicillin, amoxicillin-clavulanic acid, and the suspect beta-lactam was safe and provided a good NPV when PPL and MDM were unavailable.

According to the news editors, the research concluded: "However, a skin test with beta-lactam antibiotics alone did not provide a high sensitivity; thus a DPT procedure was necessary in order to confirm the diagnosis of beta-lactam hypersensitivity."


The news correspondents report that additional information may be obtained from W. Manuyakorn, Mahidol University, Div Pediat Allergy & Immunol, Dept. of Pediat, Fac MedRamathibodi Hosp, Bangkok, Thailand. Additional authors for this research include P. Singvijarn, S. Benjaponpitak, W. Kamchaisatian, T. Rerkpattanapipat, C. Sasisakulporn and W. Jotikasthira.

Keywords for this news article include: Bangkok, Thailand, Asia, beta-Lactams, Diagnostics and Screening, Immune System Diseases and Conditions, Antibacterial Agents, Drugs and Therapies, Sulfur Compounds, Hypersensitivity, Antimicrobials, Antibiotics, Mahidol University.

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on patients who account for the differences between ANCA type and disease type classifications: antimyeloperoxidase (MPO)-ANCA-positive and ANCA-negative patients with granulomatosis with polyangiitis (Wegener's) (GPA)."

Our news journalists obtained a quote from the research from Massachusetts General Hospital, "We performed a pooled analysis of the Wegener's Granulomatosis Etanercept Trial and the Rituximab in ANCA-Associated Vasculitis trial comparing patients with MPO-ANCA-positive GPA and patients with ANCA-negative GPA to patients with proteinase 3 (PR3)-ANCA-positive GPA and patients with MPO-ANCA-positive microscopic polyangiitis (MPA). Of the 365 patients analyzed, 273 (75%) had PR3-ANCA-positive GPA, 33 (9%) had MPO-ANCA-positive GPA, 15 (4%) had ANCA-negative GPA, and 44 (12%) had MPO-ANCA-positive MPA. MPO-ANCA-positive GPA patients were younger at diagnosis compared to MPO-ANCA-positive MPA patients (53 versus 61 years; P=0.02). Their disease manifestations and rates of relapse were similar to those of PR3-ANCA-positive GPA patients. Relapse was more frequent in MPO-ANCA-positive GPA patients than in patients with MPO-ANCA-positive MPA at trial entry as well as at 12 and 18 months. ANCA-negative patients with GPA had lower Birmingham Vasculitis Activity Score for Wegener's Granulomatosis scores at trial entry than PR3-ANCA-positive patients with GPA (4.5 versus 7.7; P< 0.01), primarily because of a lower prevalence of renal involvement."

According to the news editors, the research concluded: "We were unable to demonstrate important clinical differences between MPO-ANCA-positive and PR3-ANCA-positive patients with GPA."

For more information on this research see: Myeloperoxidase-Antineutrophil Cytoplasmic Antibody (ANCA)-Positive and ANCA-Negative Patients With Granulomatosis With Polyangiitis (Wegener's) Distinct Patient Subsets. Arthritis & Rheumatology, 2016;68 (12):2945-2952. Arthritis & Rheumatology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.


Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Anti-Neutrophil Cytoplasmic Antibody-Associated Vasculitis, Interstitial Lung Diseases and Conditions, Cardiovascular Diseases and Conditions, Myeloperoxidase, Epidemiology, Wegener Granulomatosis, Enzymes and Coenzymes, Systemic Vasculitis, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Massachusetts General Hospital.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Research. According to news reporting originating from Cambridge, Massachusetts, by NewsRx correspondents, research stated, "Long non-coding RNAs (lncRNAs) are an emerging class of transcripts that can modulate gene expression; however, their mechanisms of action remain poorly understood. Here, we experimentally determine the secondary structure of Braveheart (Bvht) using chemical probing methods and show that this similar to 590 nt transcript has a modular fold."

Our news editors obtained a quote from the research from the Massachusetts Institute of Technology, "Using CRISPR/Cas9-mediated editing of mouse embryonic stem cells, we find that deletion of 11 nt in a 5' asymmetric G-rich internal loop (AGIL) of Bvht (bvht(dAGIL)) dramatically impairs cardiomyocyte differentiation. We demonstrate a specific interaction between AGIL and cellular nucleic acid binding protein (CNBP/ZNF9), a zinc-finger protein known to bind single-stranded G-rich sequences. We further show that CNBP deletion partially rescues the bvht(dAGIL) mutant phenotype by restoring differentiation capacity."

According to the news editors, the research concluded: "Together, our work shows that Bvht functions with CNBP through a well-defined RNA motif to regulate cardiovascular lineage commitment, opening the door for exploring broader roles of RNA structure in development and disease."

For more information on this research see: A G-Rich Motif in the lncRNA Braveheart Interacts with a Zinc-Finger Transcription Factor to Specify the Cardiovascular Lineage. Molecular Cell, 2016;64(1):37-50. Molecular Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

The news editors report that additional information may be obtained by contacting L.A. Boyer, MIT, Dept. of Biol Engn, Cambridge, MA 02139, United States. Additional authors for this research include S. Hennelly, B. Doyle, A.A. Gulati, I.V. Novikova, K.Y. Sanbonmatsu and L.A. Boyer.

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Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Cardiovascular Research, Transcription Factors, Cardiovascular, Cardiology, Proteins, Massachusetts Institute of Technology.

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Pharmacokinetics

Findings from Massachusetts Institute of Technology Yields New Data on Pharmacokinetics (Quantitative Assessment of Population Variability in Hepatic Drug Metabolism Using a Perfused Three-Dimensional Human Liver Microphysiological Systems)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacokinetics. According to news originating from Cambridge, Massachusetts, by NewsRx correspondents, research stated, "In this work, we first describe the population variability in hepatic drug metabolism using
cryopreserved hepatocytes from five different donors cultured in a perfused three-dimensional human liver microphysiological system, and then show how the resulting data can be integrated with a modeling and simulation framework to accomplish in vitro-in vivo translation. For each donor, metabolic depletion profiles of six compounds (phenacetin, diclofenac, lidocaine, ibuprofen, propranolol, and prednisolone) were measured, along with metabolite formation, mRNA levels of 90 metabolism-related genes, and markers of functional viability [lactate dehydrogenase (LDH) release, albumin, and urea production]."

Our news journalists obtained a quote from the research from the Massachusetts Institute of Technology, "Drug depletion data were analyzed with mixed-effects modeling. Substantial interdonor variability was observed with respect to gene expression levels, drug metabolism, and other measured hepatocyte functions. Specifically, interdonor variability in intrinsic metabolic clearance ranged from 24.1% for phenacetin to 66.8% for propranolol (expressed as coefficient of variation). Albumin, urea, LDH, and cytochrome P450 mRNA levels were identified as significant predictors of in vitro metabolic clearance. Predicted clearance values from the liver microphysiological system were correlated with the observed in vivo values. A population physiologically based pharmacokinetic model was developed for lidocaine to illustrate the translation of the in vitro output to the observed pharmacokinetic variability in vivo. Stochastic simulations with this model successfully predicted the observed clinical concentration-time profiles and the associated population variability."

According to the news editors, the research concluded: "This is the first study of population variability in drug metabolism in the context of a microphysiological system and has important implications for the use of these systems during the drug development process."


The news correspondents report that additional information may be obtained from M. Cirit, MIT, Dept. of Biol Engn, Cambridge, MA 02139, United States. Additional authors for this research include T. Kostrzewski, C.L. Stokes, L.G. Griffith, D.J. Hughes and M. Cirit.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Pharmaceuticals, Drugs and Therapies, Pharmacokinetics, Massachusetts Institute of Technology.

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**Skin Diseases and Conditions - Lichen Planus**

**Findings from Mayo Clinic Reveals New Findings on Lichen Planus (Oesophageal lichen planus: the efficacy of topical steroid-based therapies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Skin Diseases and Conditions - Lichen Planus have been presented. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Oesophageal lichen planus is an idiopathic inflammatory
disorder characterized by significant oesophageal stricturing. Oesophageal lichen planus is a rare, difficult to diagnose, and likely an under recognized disease."

Financial support for this research came from Mayo Clinic.

Our news editors obtained a quote from the research from Mayo Clinic, "As a result, there is no standardized approach to therapy and treatment strategies vary. To examine the utility of topical steroid therapy (fluticasone or budesonide) in the management of oesophageal lichen planus. A retrospective chart review was conducted of patients diagnosed with oesophageal lichen planus who underwent baseline and follow up endoscopy pre and post topical steroid therapy between 1995 and 2016 at Mayo Clinic, Rochester MN. Average time between upper GI endoscopy was 3.2 months (0.7-11.7). Swallowed steroid preparations included fluticasone 880 μg twice daily or budesonide 3 mg twice daily. Patients were reviewed for symptomatic response to therapy using the Dakkak-Bennett dysphagia score (0-4, no dysphagia to total aphagia). Pre-and post-endoscopic findings were assessed. Additional baseline demographic, endoscopic, and histologic data were also obtained. We identified 40 patients who met the inclusion criteria. A significant reduction in median dysphagia score from 1 (0-4) to 0 (0-3) after steroid therapy (P < 0.001) was noted. 62% of patients reported resolution of their dysphagia after receiving topical corticosteroids. 72.5% had an endoscopic response to steroid therapy."

According to the news editors, the research concluded: "Topical swallowed budesonide or fluticasone appear to effective treatment for oesophageal lichen planus."


The news editors report that additional information may be obtained by contacting M. Halland, Mayo Clinic, Div Gastroenterol & Hepatol, Rochester, MN 55905, United States. Additional authors for this research include D. Sunjaya, T.C. Smyrk, J.A. Murray, M. Binder, D.A. Katzka, J.A. Alexander and M. Halland.

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Acute Kidney Injury

Findings from Mayo Clinic in Acute Kidney Injury Provides New Insights (Acute Kidney Injury: Tubular Markers and Risk for Chronic Kidney Disease and End-Stage Kidney Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Acute Kidney Injury are presented in a new report. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Acute kidney injury (AKI) is a common clinical syndrome directly related to patient short-term and long-term morbidity and mortality. Over the last decade, the occurrence rate of AKI has been increasing, and there has also been a growing epidemic of chronic kidney diseases (CKD) and end-stage kidney disease (ESRD) linked to severe and repeated episodes of AKIs."

Our news editors obtained a quote from the research from Mayo Clinic, "The detection and management of AKI are currently far from satisfactory. A large proportion of AKI patients, especially those with preexisting CKD, are at an increased risk of non-resolving AKI and progressing to CKD and ESRD. Proposed pathological processes that contribute to the transition of AKI to CKD and ESRD include severity and frequency of kidney injury, alterations of tubular cell phenotype with cells predominantly in the G2/M phase, interstitial fibrosis and microvascular rarefication related to loss of endothelial-pericyte interactions and pericyte dedifferentiation. Innate immune responses, especially dendritic cell responses related to inadequate adenosine receptor (2a)-mediated signals, autophagic insufficiency and renin-angiotensin system activation have also been implicated in the progression of AKI and transitions from AKI to CKD and ESRD."

According to the news editors, the research concluded: "Although promising advances have been made in understanding the pathophysiology of AKI and AKI consequences, much more work needs to be done in developing biomarkers for detecting early kidney injury, prognosticating kidney disease progression and developing strategies to effectively treat AKI and to minimize AKI progression to CKD and ESRD."


The news editors report that additional information may be obtained by contacting H.L. Tan, Division of Nephrology and Hypertension Dept. of Medicine, Mayo Clinic College of Medicine, Rochester, MN, United States. Additional authors for this research include J.Q. Yap and Q. Qian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441269. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, Epidemiology, United States, Article Review, Acute Kidney Injury, North and Central America.

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Findings from Mayo Clinic in the Area of Cholestasis Reported [Low incidence of primary biliary cirrhosis (PBC) in the first-degree relatives of PBC probands after 8 years of follow-up]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Cholestasis have been published. According to news reporting originating in Rochester, Minnesota, by NewsRx journalists, research stated, "Primary biliary cirrhosis (PBC) is characterized by chronic cholestasis and disease-specific antimitochondrial antibodies (AMA). A high prevalence of AMAs in first-degree relatives (FDRs) of PBC probands has been reported, although the natural history of such patients has not been described."

Financial supporters for this research include National Institutes of Health, Sigismunda Palumbo Charitable Trust.

The news reporters obtained a quote from the research from Mayo Clinic, "We aimed to assess the risk of developing PBC in AMA+FDRs of patients with PBC. First-degree relatives recruited to the Mayo Clinic PBC Genetic Epidemiology Registry and Biorepository were followed for disease onset after recruitment. Development of PBC was ascertained via self-report during a telephone interview and/or via proband report on a questionnaire. Chi-squared test and t-test were used to assess the differences between categorical and continuous variables respectively. A mixed-effects model was used to assess the change in biochemical profiles over time. Forty AMA+ and 423 AMA- subjects were included and followed for a median of 8.9 and 8.4 years respectively. Overall, 3% (n = 15) of FDRs were diagnosed with PBC, and AMA+FDRs had a higher risk than AMA- FDRs (24% vs. 0.7%, P < 0.01). However, among undiagnosed FDRs, only 4% of AMA+(n = 1) and 0.4% of AMA- (n = 1) FDRs were diagnosed with PBC (P = 0.17) during the follow-up period. None of the AMA+FDRs with normal alkaline phosphatase at baseline developed PBC in follow-up. Our results suggest a low risk of developing PBC over time in FDRs of patients with PBC, particularly those without biochemical evidence of cholestasis at baseline."

According to the news reporters, the research concluded: "These data are useful in counselling and reassuring relatives of their overall favourable prognosis."


Our news correspondents report that additional information may be obtained by contacting K.N. Lazaridis, Mayo Clinic, Div Gastroenterol & Hepatol, Center Basic Res Digest Dis, Rochester, MN 55905, United States. Additional authors for this research include B.D. Juran, E.J. Atkinson, B. McCauley, E. Schlicht and K.N. Lazaridis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/liv.13143. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Chemicals, Diagnostics and Screening, Epidemiology, Risk and
Findings from McGill University Yields New Findings on Proinsulin (Hyperinsulinemic-normoglycemic clamp administered together with amino acids induces anabolism after cardiac surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Peptide Proteins - Proinsulin are discussed in a new report. According to news reporting originating in Montreal, Canada, by NewsRx journalists, research stated, "Cardiac surgery triggers an inflammatory stress response, leading to protein catabolism, a process that even high-dose insulin therapy alone cannot reverse. To determine whether hyperinsulinemic-normoglycemic clamp and perioperative amino acid (AA) supplementation improves whole body protein balance, 20 patients scheduled for elective coronary artery bypass grafting surgery were randomly assigned to have intra-and postoperative hyperinsulinemic-normoglycemic clamp, with or without intravenous AA supplementation."

Financial support for this research came from Association des Anesthesiologistes du Quebec.

The news reporters obtained a quote from the research from McGill University, "Primed continuous infusions of [6,6-H-2(2)] glucose and L-[1-C-13] leucine were used to quantify whole body protein and glucose metabolism before and after surgery. Adipose tissue and serum cytokines were also analyzed to measure their responsiveness to the anabolic effect of AA administration. During hyperinsulinemic-normoglycemic clamp, AA supplementation successfully stimulated whole body protein synthesis, resulting in a positive whole body protein balance after surgery (insulin: -13.6 +/- 4.5 vs. insulin + AA: 2.1 +/- 5.4 mu mol.kg(-1). h(-1), P < 0.001). Endogenous glucose production was equally suppressed in both groups (insulin: 0.0 +/- 3.8 vs. insulin + AA 1.6 +/- 1.6 mu mol. kg(-1). min (-1), P = 0.230). AA supplementation led to significant changes in serum and tissue IL-6 (insulin: 246.6 +/- 111.2 vs. insulin + AA: 124.5 +/- 79.3 pg/ml, P = 0.011)."

According to the news reporters, the research concluded: "Hyperinsulinemic-normoglycemic clamp technique, together with AA supplementation, can induce an anabolic state after open-heart surgery, as quantified by a positive whole body protein balance."

For more information on this research see: Hyperinsulinemic-normoglycemic clamp administered together with amino acids induces anabolism after cardiac surgery. American Journal of Physiology-Regulatory Integrative and Comparative Physiology, 2016;311 (6):R1085-R1092. American Journal of Physiology-Regulatory Integrative and Comparative Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news correspondents report that additional information may be obtained by contacting T. Codere-Maruyama, McGill University, Dept. of Anesthesia, Montreal, PQ, Canada. Additional authors for this research include T. Schricker, D. Shum-Tim, L. Wykes, E. Nitschmann, C. Guichon, A.S. Kristof and R. Hatzakorzian.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajpregu.00334.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Peptide Proteins, Peptide Hormones, Cardiac Surgery, Amino Acids, Cardiology, Proinsulin, Peptides, McGill University.

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Cardiology
Findings from McMaster University Broaden Understanding of Cardiology (Guidance signalling regulates leading edge behaviour during collective cell migration of cardiac cells in Drosophila)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting originating in Hamilton, Canada, by NewsRx journalists, research stated, "Collective cell migration is the coordinated movement of cells, which organize tissues during morphogenesis, repair and some cancers. The motile cell membrane of the advancing front in collective cell migration is termed the Leading Edge."

Financial support for this research came from NSERC Discovery.

The news reporters obtained a quote from the research from McMaster University, "The embryonic development of the vertebrate and Drosophila hearts are both characterized by the coordinated medial migration of a bilateral cluster of mesodermal cells. In Drosophila, the cardioblasts form cohesive bilateral rows that migrate collectively as a unit towards the dorsal midline to form the dorsal vessel. We have characterized the collective cell migration of cardioblasts as an in vivo quantitative model to study the behaviour of the Leading Edge. We investigated whether guidance signalling through Slit and Netrin pathways plays a role in cell migration during heart development. Through time-lapse imaging and quantitative assessment of migratory behaviour of the cardioblasts in loss of-function mutants, we demonstrate that both Slit and Netrin mediated signals are autonomously and concomitantly required to maximize migration velocity, filopodial and lamellipodial activities. Additionally, we show that another Slit and Netrin receptor, Dscam1, the role of which during heart development was previously unknown, is required for both normal migration of cardioblasts and luminal expansion. Leading edge behaviour analysis revealed a dosage dependent genetic interaction between Slit and Netrin receptors suggesting that downstream signalling through these receptors converge on a common output that increases leading edge activity of the cardioblasts."

According to the news reporters, the research concluded: "Finally, we found that guidance signalling maintains the balance between epithelial and mesenchymal characteristics of the migrating cardioblasts."

For more information on this research see: Guidance signalling regulates leading edge behaviour during collective cell migration of cardiac cells in Drosophila. Developmental Biology, 2016;419(2):285-297. Developmental Biology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Developmental Biology - www.journals.elsevier.com/developmental-biology/)
Findings from Medical College of Wisconsin Provides New Data on Bacteremia (Bacteremia in Patients with Heterotaxy: A Review and Implications for Management)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Bacterial Infections and Mycoses - Bacteremia have been published. According to news reporting out of Milwaukee, Wisconsin, by NewsRx editors, research stated, "Heterotaxy (HTX) is a laterality defect resulting in abnormal arrangement of the thoracic and abdominal organs across the right-left axis, and is associated with multiple anatomic and physiologic disruptions. HTX often occurs in association with complex congenital heart disease."

Our news journalists obtained a quote from the research from the Medical College of Wisconsin, "Splenic abnormalities are also common and convey an increased risk of bacteremia (bacteremia) with a high associated mortality. We performed a systematic review of the literature studying the risk of infection in HTX patients and strategies that can be utilized to prevent such infections. Studies were identified for inclusion using PubMed, EMBASE, and OVID, as well as hand search of references from previously identified papers. Published studies specifically investigating bacteremia in HTX were identified and included as long as they were in English. Data were extracted by two separate authors independently with review of any findings that differed between the two authors. There were 42 documented cases of bacteremia in 32 patients. Approximately, 79% of these had absence of a spleen. The average age of bacteremia was 17 months. HTX patients are at high risk for bacteremia leading to mortality, regardless of anatomic splenic type."

According to the news editors, the research concluded: "We propose strategies for the evaluation of splenic function in HTX patients, and review management practices to reduce the impact of infection risk in the HTX population."

For more information on this research see: Bacteremia in Patients with Heterotaxy: A Review and Implications for Management. Congenital Heart Disease, 2016;11(6):537-547. Congenital Heart Disease can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Congenital Heart Disease - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1747-0803)

Our news journalists report that additional information may be obtained by contacting R.S. Loomba, Medical College of Wisconsin, Children's Hospital of Wisconsin, Div Cardiol, Milwaukee, WI 53226, United States. Additional authors for this research include G.C. Geddes, D. Basel, D.W. Benson, S.R. Leuthner, D.A. Hehir, N. Ghanayem and A.J.
Cardiovascular Diseases and Conditions - Thrombosis

Findings from Medical University Has Provided New Data on Thrombosis (Perceval Sutureless Valve Dysfunction Caused by Valvular Thrombosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Thrombosis. According to news originating from Graz, Austria, by NewsRx correspondents, research stated, "Until now, to our knowledge no case of bioprosthetic valvular thrombosis after implantation of the sutureless Sorin Perceval valve has been reported."

Our news journalists obtained a quote from the research from Medical University, "Although sutureless aortic valve replacement has become a powerful tool in our daily practice, recent guidelines from the European Society of Cardiology, the European Association for Cardio-Thoracic Surgery, the American College of Cardiology, and the American Heart Association do not give specific recommendations on postoperative anticoagulation therapy."

According to the news editors, the research concluded: "We report the first case of valve dysfunction resulting from thrombosis 12 months after implantation with a possible link to postoperative cortisole therapy."

For more information on this research see: Perceval Sutureless Valve Dysfunction Caused by Valvular Thrombosis. 


The news correspondents report that additional information may be obtained from A. Votsch, Medical University of Graz, Inst Pathol, Graz, Austria. Additional authors for this research include W. Weihs, M. Asslaber and O. Dapunt.

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Keywords for this news article include: Graz, Austria, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Cardiology, Surgery, Hematology, Medical University.

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Findings from Medical University Has Provided New Information about Biological Pigments (Microphthalmia-associated transcription factor regulates the visual cycle genes Rlbp1 and Rdh5 in the retinal pigment epithelium)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Biological Factors - Biological Pigments. According to news reporting originating from Wenzhou, People's Republic of China, by NewsRx correspondents, research stated, "Regeneration of the visual pigment by cells of the retinal pigment epithelium (RPE) is fundamental to vision. Here we show that the microphthalmia-associated transcription factor, MITF, which plays a central role in the development and function of RPE cells, regulates the expression of two visual cycle genes, Rlbp1 which encodes retinaldehyde binding protein-1 (RLBP1), and Rdh5, which encodes retinol dehydrogenase-5 (RDH5)."

Our news editors obtained a quote from the research from Medical University, "First, we found that Rlbp1 and Rdh5 are downregulated in optic cups and presumptive RPEs of Mitf-deficient mouse embryos. Second, experimental manipulation of MITF levels in human RPE cells in culture leads to corresponding modulations of the endogenous levels of RLBP1 and RDH5. Third, the retinal degeneration associated with the disruption of the visual cycle in Mitf-deficient mice can be partially corrected both structurally and functionally by an exogenous supply of 9-cis-retinal."

According to the news editors, the research concluded: "We conclude that the expression of Rlbp1 and Rdh5 critically depends on functional Mitf in the RPE and suggest that MITF has an important role in controlling retinoid processing in the RPE."

For more information on this research see: Microphthalmia-associated transcription factor regulates the visual cycle genes Rlbp1 and Rdh5 in the retinal pigment epithelium. Scientific Reports, 2016;6():21208. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting B. Wen, Laboratory of Developmental Cell Biology and Disease, School of Ophthalmology and Optometry and Eye Hospital, Wenzhou Medical University, Wenzhou, 325003, People's Republic of China. Additional authors for this research include S. Li, H. Li, Y. Chen, X. Ma, J. Wang, F. Lu, J. Qu and L. Hou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep21208. This DOI is a link to an online electronic document that is either free or for purchase. Keywords for this news article include: Asia, Wenzhou, Genetics, Retinal Pigments, Biological Factors, Biological Pigments, DNA Binding Proteins, People's Republic of China, Microphthalmia Associated Transcription Factors, Basic Helix Loop Helix Leucine Zipper Transcription Factors.

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Findings from Medical University Provides New Data about Echocardiography (Echocardiographic Assessment of Aortic Pulse-Wave Velocity: Validation against Invasive Pressure Measurements)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Medical Imaging - Echocardiography are discussed in a new report. According to news reporting originating in Warsaw, Poland, by NewsRx journalists, research stated, "Aortic pulse-wave velocity (PWV) is a measure of aortic stiffness that has a prognostic role in various diseases and in the general population. A number of methods are used to measure PWV, including Doppler ultrasound."

The news reporters obtained a quote from the research from Medical University, "Although echocardiography has been used for PWV measurement, to the authors' knowledge, it has never been tested against an invasive reference method at the same time point. Therefore, the aim of this study was to compare prospectively an echocardiographic PWV measurement, called echo-PWV, with an invasive study. Forty-five patients (mean age, 66 years; 60% men) underwent simultaneous intra-arterial pressure recording and echocardiographic Doppler flow evaluation during elective cardiac catheterization. Proximal pressure and Doppler waveforms were acquired in the aortic arch. Distal pressure waveforms were registered in the right and distal Doppler waveforms in the left external iliac artery. Transit time was measured as a delay of the foot of pressure or Doppler waveform in the distal relative to the proximal location. Distance was measured on the catheter for invasive PWV and over the surface for echo-PWV. Echo-PWV was calculated as distance divided by transit time. In the whole group, mean invasive PWV was 9.38 m/sec and mean echo-PWV was 9.51 m/sec (P = .78). The Pearson' correlation coefficient between methods was 0.93 (P < .0001). A Bland-Altman plot revealed a mean difference between invasive PWV and echo-PWV of 0.13 +/- 0.79 m/sec. Echo-PWV, based on Doppler echocardiography, is a reliable method of aortic PWV measurement, with a close correlation with invasive assessment."

According to the news reporters, the research concluded: "Wider implementation of the echo-PWV method for the evaluation of aortic wall stiffness can further expand the clinical and scientific utility of echocardiography."


Our news correspondents report that additional information may be obtained by contacting C. Szmigielski, Medical University of Warsaw, Dept. of Internal Med Hypertens & Angiol, PL-02097 Warsaw, Poland. Additional authors for this research include A. Rdzanek, A. Pietrasik, J. Kochman, Z. Huczek, P. Sobieraj, Z. Gacion and C. Szmigielski.

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Keywords for this news article include: Warsaw, Poland, Europe, Medical Imaging,
Findings from Medical University Provides New Data on Prostate Cancer (Se-methylselenocysteine suppresses the growth of prostate cancer cell DU145 through connexin 43-induced apoptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Prostate Cancer are discussed in a new report. According to news reporting out of Weifang, People's Republic of China, by NewsRx editors, research stated, "Se-methylselenocysteine (MSC), as a chemopreventive agent, shows antitumor effects in some cancer models, but its mechanism is still unclear. This study is to explore whether MSC induces apoptosis in prostate cancer (PCa) cells DU145 through connexin 43 (Cx43) activation."

Our news journalists obtained a quote from the research from Medical University, "The experiment was performed in a PCa cell line model DU145 and using a series of biological assay methods to investigate the regulating pathway from MSC through Cx43 to downstream molecules, demonstrating an important role of Cx43 in PCa development and as a potential treatment target. The human PCa cell line DU145 was used as a model. The effects of MSC on Cx43 expression were examined by reverse transcription-polymerase chain reaction, western blot; effects on cell growth and proliferation were determined by WST-1 and colony formation assay; small interfering ribonucleic acid was used to evaluate the direct contribution of Cx43 to cancer cell apoptosis. Student's t-test was used to calculate the difference between the groups in SPSS software. MSC inhibited the growth and colony formation of the DU145 cells; MSC induced cell apoptosis by increasing Cx43 expression at messenger ribonucleic acid and protein levels; MSC decreased B-cell lymphoma-2 (Bcl-2) and increased bad levels of DU145 cells."

According to the news editors, the research concluded: "As a conclusion, MSC exerts pro-apoptosis effects through increasing Cx43 expression, which in turn down-regulates Bcl-2 and up-regulates bad expression."


Our news journalists report that additional information may be obtained by contacting L. Qi, Dept. of Oncology, Clinical College of Weifang Medical University, Weifang 261031, People's Republic of China. Additional authors for this research include L. Qi, G.X. Li, X.J. Bo, G.D. Liu and J.M Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.139265. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Weifang, Genetics, Oncology, Apoptosis, Connexin 43, Prostate Cancer, Carrier Proteins, Membrane Proteins, Prostatic Neoplasms, People's Republic of China, Membrane Transport Proteins.

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Findings from Medical University Reveals New Findings on Liver Failure (Invasive Aspergillosis of the Stomach and Co-infection With Candida krusei in a Patient With Terminal Liver Failure: A Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Liver Failure have been published. According to news reporting originating from Warsaw, Poland, by NewsRx correspondents, research stated, "Invasive aspergillosis (IA) is diagnosed almost exclusively in immunocompromised patients. It is located mainly in the lungs or paranasal sinuses, but occasionally other organs and the gastrointestinal tract may also be affected either alone or as a part of a disseminated disease."

Our news editors obtained a quote from the research from Medical University, "The main risk factors predisposing to IA are neutropenia, immunosuppressive and steroid therapy, as well as severe underlying disease. Despite progress in diagnostics and therapy of IA, it is still characterized by a high mortality rate. In the disseminated aspergillosis of the gastrointestinal tract, mainly the small or large intestine are affected, rarely the upper gastrointestinal tract. To our best knowledge only a very few cases of IA of the gastric wall have been reported so far in the literature. We describe a unique case of this very rare location of IA in the stomach in a patient who underwent orthotopic liver transplantation in the course of active IA and Candida krusei infection of the stomach wall."

According to the news editors, the research concluded: "The patient's condition improved on combination therapy of voriconazole and caspofungin."


The news editors report that additional information may be obtained by contacting M. Wroblewska, Medical University of Warsaw, Dept. of Dental Microbiol, PL-02097 Warsaw, Poland. Additional authors for this research include W. Figiel, M. Krawczyk and M. Wroblewska.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.06.036. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Warsaw, Poland, Europe, Bacterial Infections and Mycoses, Liver Diseases and Conditions, Therapy, Risk and Prevention, Hepatic Insufficiency, Gastroenterology, Aspergillosis, Liver Failure, Hepatology, Medical University.

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Central Nervous System Diseases and Conditions —

Findings from Medical University Update Knowledge of Epilepsy [Focal cortical dysplasia: Molecular disturbances and clinicopathological classification (Review)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System Diseases and Conditions - Epilepsy are presented in a new report. According to news reporting from Warsaw, Poland, by NewsRx journalists, research stated, "Focal cortical dysplasia (FCD) is one of the most important causes of drug-resistant epilepsy in paediatric patients, particularly in those below the age of 3. Even though over 40 years have passed since the first description of the entity by Taylor, the exact mechanisms causing these cortical abnormalities remain unelucidated. In this review, we summarise the current knowledge on clinical and histopathological aspects, taking into account the new classification system proposed by the International League Against Epilepsy."

The news correspondents obtained a quote from the research from Medical University, "We focus on the clinicopathological associations and differences in post-surgical outcome among FCD subtypes, in particular isolated FCD vs. FCD associated with principal lesions, which have not been summarised to date. We also recapitulate genetic studies, pointing to the possible mechanisms of the cortical dysregulation and drug resistance, and summarise novel factors which may contribute to epileptogenesis in FCD."

According to the news reporters, the research concluded: "Furthermore, we compare FCD type IIB (FCDIIB) with brain tumours found in a neurocutaneous disorder, tuberous sclerosis, as we evaluate the hypothesis that FCD IIB may be a local form of this disease."

For more information on this research see: Focal cortical dysplasia: Molecular disturbances and clinicopathological classification (Review). International Journal of Molecular Medicine, 2016;38(5):1327-1337. International Journal of Molecular Medicine can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

Our news journalists report that additional information may be obtained by contacting J. Jozwiak, Medical University of Warsaw, Dept. of Histol & Embryol, Center Biostruct Res, PL-02004 Warsaw, Poland. Additional authors for this research include W. Grajikowska, R. Galus, B. Dembowska-Baginska and J. Jozwiak.

Keywords for this news article include: Warsaw, Poland, Europe, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Dermatology, Dysplasia, Epilepsy, Genetics, Medical University.

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Oncology - Colon Cancer

Findings from Medical University Update Understanding of Colon Cancer (Hypoxia-inducible factor-1 modulates upregulation of mutT homolog-1 in colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According
to news reporting originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "To investigate the roles and interactions of mutT homolog (MTH)-1 and hypoxia-inducible factor (HIF)-1α in human colorectal cancer (CRC). The expression and distribution of HIF-1α and MTH-1 proteins were detected in human CRC tissues by immunohistochemistry and quantitative real-time polymerase chain reaction (qRT-PCR)."

Our news editors obtained a quote from the research from Medical University, "SW480 and HT-29 cells were exposed to normoxia or hypoxia. Protein and mRNA levels of HIF-1α and MTH-1 were analyzed by western blotting and qRT-PCR, respectively. In order to determine the effect of HIF-1α on the expression of MTH-1 and the amount of 8-oxo-deoxyguanosine triphosphate (dGTP) in SW480 and HT-29 cells, HIF-1α was silenced with small interfering RNA (siRNA). Growth studies were conducted on cells with HIF-1α inhibition using a xenograft tumor model. Finally, MTH-1 protein was detected by western blotting in vivo. High MTH-1 mRNA expression was detected in 64.2% of cases (54/84), and this was significantly correlated with tumor stage (p=0.023) and size (p=0.043). HIF-1α protein expression was correlated significantly with MTH-1 expression (R=0.640; p<0.01) in human CRC tissues. Hypoxic stress induced mRNA and protein expression of MTH-1 in SW480 and HT-29 cells. Inhibition of HIF-1α by siRNA decreased the expression of MTH-1 and led to the accumulation of 8-oxo-dGTP in SW480 and HT-29 cells. In the in vivo xenograft tumor model, expression of MTH-1 was decreased in the HIF-1α siRNA group, and the tumor volume was much smaller than that in the mock siRNA group."

According to the news editors, the research concluded: "MTH-1 expression in CRC cells was upregulated via HIF-1α in response to hypoxic stress, emphasizing the crucial role of HIF-1α-induced MTH-1 in tumor growth."


The news editors report that additional information may be obtained by contacting Y. Qiu, Yuan Qiu, Li-Hua Sun, Ke Peng, Wei-Dong Xiao, Hua Yang. Dept. of General Surgery, Xinqiao Hospital, Third Military Medical University, Chongqing 400037, People's Republic of China. Additional authors for this research include H. Zheng, L.H. Sun, K. Peng, W.D. Xiao and H. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v21.i48.13447. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Biotechnology, Genetics, Oncology, Chongqing, Proteomics, Xenografts, Colon Cancer, Gastroenterology, Xenotransplantation, Protein Expression, Colorectal Research, People's Republic of China, Hypoxia Inducible Factor 1, Basic Helix Loop Helix Transcription Factors.

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Findings from Medical University in the Area of Non-Small Cell Lung Cancer Reported (Epidermal growth factor receptor and notch signaling in non-small-cell lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news reporting originating in Bialystok, Poland, by NewsRx editors, the research stated, "Lung cancer is the most common reason of cancer deaths and about 85% of these are non-small-cell lung cancer. Currently, lung cancer therapy is mainly based on the tumor node metastasis (TNM) disease staging and tumor histological classification."

Financial support for this research came from Iuventus Plus.

The news reporters obtained a quote from the research from Medical University, "Despite therapeutic innovations, the prognosis for lung cancer patients has not significantly changed in the last years. Therefore, a proper understanding of cell signaling pathways involved in cancer pathogenesis seems to be essential for improvement in cancer therapy field. The knowledge of crosstalk between epidermal growth factor receptor (EGFR) and Notch pathway can lead to enhanced screening for the expression of these genes allowing patients to optimize treatment options and predict potential treatment resistance."

According to the news reporters, the research concluded: "This review focuses on recent advances related to the mechanisms of EGFR and Notch signaling in non-small-cell lung cancer and the effectiveness of current Notch- and EGFR-targeted therapies."


Our news correspondents report that additional information may be obtained by contacting J. Pancewicz-Wojtkiewicz, Medical University of Bialystok, Dept. of Histol & Embryol, PL-15269 Bialystok, Poland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.944. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bialystok, Poland, Europe, Intercellular Signaling Peptides and Proteins, Gastrointestinal Hormone Receptors, Membrane Proteins, Article Review, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor, Non-Small Cell Lung Cancer, Gastrointestinal Hormones, Epidermal Growth Factors, Growth Factor Receptors, Peptide Receptors, Lung Neoplasms, Oncology, Genetics, Medical University.

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**Teichoic Acids**

**Findings from Merck & Company in Teichoic Acids Reported (TarO-specific inhibitors of wall teichoic acid biosynthesis restore b-lactam efficacy against methicillin-resistant staphylococci)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Teichoic Acids is the subject of a report. According to news reporting from Kenilworth, New Jersey, by NewsRx journalists, research stated, "The widespread emergence of methicillin-resistant *Staphylococcus aureus* (MRSA) has dramatically eroded the efficacy of current b-lactam antibiotics and created an urgent need for new treatment options. We report an *S. aureus* phenotypic screening strategy involving chemical suppression of the growth inhibitory consequences of depleting late-stage wall teichoic acid biosynthesis."

The news correspondents obtained a quote from the research from Merck & Company, "This enabled us to identify early-stage pathway-specific inhibitors of wall teichoic acid biosynthesis predicted to be chemically synergistic with b-lactams. We demonstrated by genetic and biochemical means that each of the new chemical series discovered, herein named tarocin A and tarocin B, inhibited the first step in wall teichoic acid biosynthesis (TarO). Tarocins do not have intrinsic bioactivity but rather demonstrated potent bactericidal synergy in combination with broad-spectrum b-lactam antibiotics against diverse clinical isolates of methicillin-resistant staphylococci as well as robust efficacy in a murine infection model of MRSA."

According to the news reporters, the research concluded: "Tarocins and other inhibitors of wall teichoic acid biosynthesis may provide a rational strategy to develop Gram-positive bactericidal b-lactam combination agents active against methicillin-resistant staphylococci."

For more information on this research see: TarO-specific inhibitors of wall teichoic acid biosynthesis restore b-lactam efficacy against methicillin-resistant staphylococci. *Science Translational Medicine*, 2016;8(329):329ra32.

Our news journalists report that additional information may be obtained by contacting J. Su, Merck Research Laboratories, Kenilworth, NJ 07033, United States. Additional authors for this research include H. Wang, M. Labroli, S. Koseoglu, P. Zuck, T. Mayhood, C. Gill, P. Mann, X. Sher, S. Ha, S.W. Yang, M. Mandal, C. Yang, L. Liang, Z. Tan, P. Tawa, Y. Hou, R. Kuvelkar, K. DeVito, X. Wen, J. Xiao and Batchlet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1126/scitranslmed.aad7364. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amides, Kenilworth, New Jersey, United States, Teichoic Acids, Drug Resistance, Organic Chemicals, Drugs and Therapies, Penicillin Resistance, Methicillin Resistance, beta Lactam Resistance, Beta Lactam Antibiotics, North and Central America, Bacterial Polysaccharides.

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Findings from Merck Research Labs Provides New Data on Antiretrovirals (Efavirenz does not meaningfully affect the single dose pharmacokinetics of 1200mg raltegravir)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antiretrovirals. According to news originating from Kenilworth, New Jersey, by NewsRx correspondents, research stated, "Raltegravir is a human immunodeficiency virus (HIV)-1 integrase strand transfer inhibitor currently marketed at a dose of 400mg twice daily (BID). Raltegravir for once daily regimen (QD) at a dose of 1200mg (2 x 600mg) is under development and offers a new treatment option for HIV-1 infected treatment-naive subjects."

Our news journalists obtained a quote from the research from Merck Research Labs, "Since raltegravir is eliminated mainly by metabolism via an UDP-glucuronosyltransferase (UGT) 1A1-mediated glucuronidation pathway, co-administration of UGT1A1 inducers may alter plasma levels of raltegravir. Efavirenz, an UGT1A1 inducer, was used to assess the impact of altered UGT activity on a 1200mg QD dose of raltegravir. An open label, randomized, 2-period fixed-sequence Phase 1 study was performed in adult healthy male and female subjects (non-childbearing potential)19 and 55years of age, with a body mass index (BMI)18.5 and 32.0kg/m(2). Subjects (n=21) received a single oral dose of 1200mg raltegravir at bedtime on an empty stomach on Day 1 in Period 1. After a washout period of at least 7days, subjects received oral doses of 600mg efavirenz QD at bedtime for 14 consecutive days in Period 2. Subjects received a single oral dose of 1200mg raltegravir co-administered with 600mg efavirenz on Day 12 of Period 2. Pharmacokinetic (PK) samples were collected for 72hours following raltegravir dosing and analyzed using a validated bioanalytical method to quantify raltegravir plasma concentrations. PK parameters were estimated using non-compartmental analysis. Administration of single 1200mg oral doses of raltegravir alone and co-administered with multiple oral doses of efavirenz were generally well tolerated in healthy subjects. Co-administration with efavirenz yielded geometric mean ratios (GMRs) and their associated 90% confidence intervals (90% CIs) for raltegravir AUC(0-,) C-max, and C-24 of 0.86 (0.73, 1.01), 0.91 (0.70, 1.17), and 0.94 (0.76, 1.17), respectively. The results show that efavirenz modestly reduced the exposure of raltegravir."

According to the news editors, the research concluded: "The reduction in raltegravir exposure is not considered clinically meaningful."


The news correspondents report that additional information may be obtained from R. Krishna, Merck & Co Inc, Merck Res Labs, Kenilworth, NJ, United States. Additional authors for this research include L. East, P. Larson, T. Siringhaus, L. Herpok, C. Bethel-Brown, H. Manthos, J. Brejda and M. Gartner.

Keywords for this news article include: Kenilworth, New Jersey, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Integrase Strand Transfer Inhibitor, Primate Lentiviruses,
Findings from Michigan State University in the Area of Apoptosis
Reported (The unfolded protein response controls ER stress-induced apoptosis of lung epithelial cells through angiotensin generation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Apoptosis have been published. According to news reporting from East Lansing, Michigan, by NewsRx journalists, research stated, "Recent work from this laboratory showed that endoplasmic reticulum (ER) stress-induced apoptosis of alveolar epithelial cells (AECs) is regulated by the autocrine angiotensin (ANG) II/ANG1-7 system. The proteasome inhibitor MG132 or surfactant protein C (SP-C) BRICHOS domain mutation G100S induced apoptosis in human AECs by activating the proapoptotic cathepsin D and reducing antiapoptotic angiotensin converting enzyme-2 (ACE-2)."

Financial support for this research came from PHS NHLBI.

The news correspondents obtained a quote from the research from Michigan State University, "This study tested the hypothesis that ER stress-induced apoptosis of human AECs might be mediated by influence of the unfolded protein response (UPR) on the autocrine ANGII/ANG1-7 system. A549 cells were challenged with MG132 or SP-C BRICHOS domain mutant G100S to induce ER stress and activation of UPR pathways. The results showed that either MG132 or G100S SP-C mutation activated all three canonical pathways of the UPR (IRE1/XBP1, ATF6, and PERK/εIF2 alpha), which led to a significant increase in cathepsin D or in TACE (an ACE-2 ectodomain shedding enzyme) and eventually caused AEC apoptosis. However, ER stress-induced AEC apoptosis could be prevented by chemical chaperone or by UPR blockers. It is also suggested that ATF6 and IRE1 pathways might play important role in regulation of angiotensin system. These data demonstrate that ER stress induces apoptosis in human AECs through mediation of UPR pathways, which in turn regulate the autocrine ANGII/ANG1-7 system."

According to the news reporters, the research concluded: "They also demonstrated that ER stress-induced AEC apoptosis can be blocked by inhibition of UPR signaling pathways."


Our news journalists report that additional information may be obtained by contacting B.D. Uhal, Michigan State University, Dept. of Physiol, East Lansing, MI 48824, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00449.2015. This DOI is a link to an online electronic
Findings from Middle Tennessee State University Broaden Understanding of Cardiovascular Diseases [An isoflavonoid-enriched extract from Pueraria lobata (kudzu) root protects human umbilical vein endothelial cells against oxidative stress induced ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases is the subject of a report. According to news reporting from Murfreesboro, Tennessee, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Reactive oxygen species (ROS) mediate vascular cell dysfunction and lead to atherosclerosis and other chronic cardiovascular diseases. The root of Pueraria lobata (Willd.) Ohwi, also known as kudzu or Gegen (Chinese name), is one of the most important herbs in traditional Chinese medicine and has been widely used in the treatment of cardiovascular diseases, diabetes, osteonecrosis and neurodegradation diseases."

Financial support for this research came from TCBMR.

The news correspondents obtained a quote from the research from Middle Tennessee State University, "In this study, an ethanol extract from kudzu root was prepared and the in vitro protective effect of the kudzu root extract (KUD) on human umbilical vein endothelial cells (HUVECs) was investigated. An ethanol extract of dried kudzu root was purified with an AB-8 resin column, and the concentrations of puerarin, daidzin and daidzein in the KUD were determined using UV spectroscopy. HUVECs were pretreated with various concentrations of the KUD with or without rotenone and the viability was assessed by AlamarBlue cell viability assay. Next, HUVECs were pretreated with the KUD and then treated with rotenone, and the levels of ROS generation, apoptosis, and changes of the mitochondrial membrane potential (Delta Psi m) in HUVECs were measured using fluorescent staining assay and high-content analysis. The contents of three major isoflavonoids (puerarin, daidzin and daidzein) were enriched by 7.75-27.51 fold in the extract. The KUD enhanced the proliferation of HUVECs, and protected HUVECs against rotenone-induced oxidative stress and apoptosis. Additionally, the KUD prevented the loss of WPM in HUVECs stimulated by oxidative stress."

According to the news reporters, the research concluded: "We demonstrated that an isoflavonoid-rich extract prepared from kudzu root has the potential to act as a protector for vascular endothelial cells against intracellular ROS mediated apoptosis and mitochondrial damage."

For more information on this research see: An isoflavonoid-enriched extract from Pueraria lobata (kudzu) root protects human umbilical vein endothelial cells against oxidative stress induced apoptosis. *Journal of Ethnopharmacology*, 2016;193():524-530. *Journal of*
Findings from Mie University Yields New Data on Portal Hypertension (A Novel Predictor of Posttransplant Portal Hypertension in Adult-To-Adult Living Donor Liver Transplantation: Increased Estimated Spleen/Graft Volume Ratio)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases and Conditions - Portal Hypertension have been presented. According to news reporting originating in Mie, Japan, by NewsRx journalists, research stated, "In adult living donor liver transplantation (ALDLT), graft-to-recipient weight ratio of less than 0.8 is incomplete for predicting portal hypertension (>20 mm Hg) after reperfusion. We aimed to identify preoperative factors contributing to portal venous pressure (PVP) after reperfusion and to predict portal hypertension, focusing on spleen volume-to-graft volume ratio (SVGVR)."

The news reporters obtained a quote from the research from Mie University, "In 73 recipients with ALDLT between 2002 and 2013, first we analyzed survival according to PVP of 20 mm Hg as the threshold, evaluating the efficacy of splenectomy. Second, we evaluated various preoperative factors contributing to portal hypertension after reperfusion. All of the recipients with PVP greater than 20 mm Hg (n = 19) underwent PVP modulation by splenectomy, and their overall survival was favorable compared with 54 recipients who did not need splenectomy (PVP 20 mm Hg). Graft-to-recipient weight ratio had no correlation with PVP. Multivariate analysis revealed that estimated graft and spleen volume were significant factors contributing to PVP after reperfusion (P < 0.0001 and P< 0.0001, respectively). Furthermore, estimated SVGVR showed a significant negative correlation to PVP after reperfusion (R = 0.652), and the best cutoff value for portal hypertension was 0.95."

According to the news reporters, the research concluded: "In ALDLT, preoperative assessment of SVGVR is a good predictor of portal hypertension after reperfusion can be used to indicate the need for splenectomy before reperfusion."

For more information on this research see: A Novel Predictor of Posttransplant
*Transplantation* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Transplantation - journals.lww.com/transplantjournal/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting S. Mizuno, Mie Univ, Dept. of Hepatobiliary Pancreat & Transplant Surg, Sch Med, Tsu, Mie 5140001, Japan. Additional authors for this research include S. Mizuno, H. Kato, Y. Murata, A. Tanemura, Y. Azumi, N. Kuriyama, M. Kishiwada, M. Usui, H. Sakurai and S. Isaji.

Keywords for this news article include: Mie, Japan, Asia, Cardiovascular Diseases and Conditions, Liver Diseases and Conditions, Hemic and Immune Systems, Transfusion Medicine, Portal Hypertension, Blood Transfusion, Gastroenterology, Medical Devices, Splenectomy, Reperfusion, Hepatology, Surgery, Spleen, Mie University.

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**Stem Cell Research - Embryonic Stem Cells**

**Findings from Miguel Hernandez University Provides New Data on Embryonic Stem Cells (Effects of mipafox, paraoxon, chlorpyrifos and its metabolite chlorpyrifos-oxon on the expression of biomarker genes of differentiation in D3 mouse embryonic ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Stem Cell Research - Embryonic Stem Cells have been published. According to news reporting originating from Elche, Spain, by NewsRx correspondents, research stated, "Chlorpyrifos (CPS) is an organophosphorus compound (OP) capable of causing well-known cholinergic and delayed syndromes through the inhibition of acetylcholinesterase and Neuropathy Target Esterase (NTE), respectively. CPS is also able to induce neurodevelopmental toxicity in animals."

Our news editors obtained a quote from the research from Miguel Hernandez University, "NTE is codified by the Pnpla6 gene and plays a central role in differentiation and neurodifferentiation. We tested, in D3 mouse embryonic stem cells under differentiation, the effects of the NTE inhibition by the OPs mipafox, CPS and its main active metabolite chlorpyrifos-oxon (CPO) on the expression of genes Vegfa, Bcl2, Amot, Nes and Jun, previously reported to be under- or overexpressed after Pnpla6 silencing in this same cellular model. Mipafox did not significantly alter the expression of such genes at concentrations that significantly inhibited NTÉ. However, CPS and CPO at concentrations that caused NTE inhibition at similar levels to mipafox statistically and significantly altered the expression of most of these genes. Paraoxon (another OP with capability to inhibit esterases but not NTE) caused similar effects to CPS and CPO."

According to the news editors, the research concluded: "These findings suggest that the molecular mechanism for the neurodevelopmental toxicity induced by CPS is not based on NTE inhibition, and that other unknown esterases might be potential targets of neurodevelopmental toxicity."

For more information on this research see: Effects of mipafox, paraoxon, chlorpyrifos and its metabolite chlorpyrifos-oxon on the expression of biomarker genes of

The news editors report that additional information may be obtained by contacting M.A. Sogorb, Miguel Hernandez Univ, Toxicol & Chem Safety Unit, Bioengn Inst, Elche 03202, Spain. Additional authors for this research include E. Fuster, E. del Rio, J. Estevez and E. Vilanova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cbi.2016.04.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Elche, Spain, Europe, Stem Cell Research, Genetics, Organophosphorus Compounds, Embryonic Stem Cells, Paraoxon, Miguel Hernandez University.

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**Drugs and Therapies - Antibiotics**

**Findings from Monash University Provides New Data on Antibiotics**

*(Updated US and European Dose Recommendations for Intravenous Colistin: How Do They Perform?)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news reporting originating in Melbourne, Australia, by NewsRx journalists, research stated, "The US Food and Drug Administration (FDA) and European Medicines Agency (EMA) have approved updated dose recommendations for intravenous colistin in patients with various degrees of renal function. We assessed the recommendations in relation to their ability to achieve clinically relevant plasma colistin concentrations."

Financial supporters for this research include National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health, NIAID.

The news reporters obtained a quote from the research from Monash University, "Pharmacokinetic data from 162 adult critically ill patients (creatinine clearance range, 5.4-211 mL/min) were used to determine the average steady-state plasma colistin concentration (Css,avg) that would be achieved if each patient received the FDA or EMA dose. Target attainment rates for FDA-and EMA-approved daily doses to achieve colistin Css,avg of (>=)0.5, (>=)1, (>=)2, and (>=)4 mg/L were determined for each creatinine clearance category ( (>=)80 mL/min, 50 to <80 mL/min, 30 to <50 mL/min, and <30 mL/min). For creatinine clearance <30 mL/min, 100% of patients receiving the EMA dose achieved a colistin Css,avg (>=)1 mg/L, but the attainment rate was as low as 53.1% for patients receiving the FDA-approved dose. For colistinCss,avg (>=)2 mg/L, the attainment rates were 87.5% with the EMA dose but only 6.3%-34.4% in patients receiving the FDA dose. Differences in attainment rates for a colistin Css,avg of (>=)2 mg/L and (>=)4 mg/L extended to patients with creatinine clearance 30 to <50 mL/min. For patients with creatinine clearance (>=)80 mL/min, only approximately 65%-75% of patients achieved a colistin Css,avg of (>=)1 mg/L with either set of recommendations."
According to the news reporters, the research concluded: "The study highlights important differences between the FDA-and EMA-approved dose recommendations and informs the setting of clinical breakpoints."


Our news correspondents report that additional information may be obtained by contacting R.L. Nation, Drug Delivery, Disposition and Dynamics, Monash Institute of Pharmaceutical Sciences, Monash University, Melbourne, Australia. Additional authors for this research include S.M. Garonzik, J. Li, V. Thamlikitkul, E.J. Giamarellos-Bourboulis, D.L. Paterson, J.D. Turnidge, A. Forrest and F.P Silveira.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/cid/civ964. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibiotics, Colistin, Melbourne, Polymyxins, Membrane Proteins, Drugs and Therapies, Australia and New Zealand, Pore Forming Cytotoxic Proteins, Government Agencies Offices and Entities.

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**Drugs and Therapies - Chemotherapy**

**Findings from Monash University Update Understanding of Chemotherapy (Guidelines for timely initiation of chemotherapy: a proposed framework for access to medical oncology and haematology cancer clinics and chemotherapy services)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Chemotherapy have been published. According to news reporting from Melbourne, Australia, by NewsRx journalists, research stated, "These guidelines, informed by the best available evidence and consensus expert opinion, provide a framework to guide the timely initiation of chemotherapy for treating cancer. They sit at the intersection of patient experience, state-of-the-art disease management and rational efficient service provision for these patients at a system level."

The news correspondents obtained a quote from the research from Monash University, "Internationally, cancer waiting times are routinely measured and publicly reported. In Australia, there are existing policies and guidelines relating to the timeliness of cancer care for surgery and radiation therapy; however, until now, equivalent guidance for chemotherapy was lacking. Timeliness of care should be informed, where available, by evidence for improved patient outcomes. Independent of this, it should be recognised that shorter waiting periods are likely to reduce patient anxiety. While these guidelines were developed as part of a proposed framework for consideration by the Victorian Department of Health, they are clinically relevant to national and international cancer services. They are intended to be used by clinical and administrative staff within cancer services. Adoption of these guidelines, which are for the timely triage, review and treatment of cancer patients receiving systemic chemotherapy, aims to ensure that patients receive care within a timeframe that will maximise health outcomes, and
that access to care is consistent and equitable across cancer services."

According to the news reporters, the research concluded: "Local monitoring of performance against this guideline will enable cancer service providers to manage proactively future service demand."


Keywords for this news article include: Melbourne, Australia and New Zealand, Drugs and Therapies, Chemotherapy, Oncology, Cancer, Monash University.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Findings from Monash University in the Area of HIV/AIDS Reported (A 'test and treat' prevention strategy in Australia requires innovative HIV testing models: a cohort study of repeat testing among 'high-risk' men who have sex with men)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immune System Diseases and Conditions - HIV/AIDS is the subject of a report. According to news reporting out of Melbourne, Australia, by NewsRx editors, research stated, "HIV diagnoses among men who have sex with men (MSM) in several high-income countries, including Australia, have increased substantially over recent years. Australia, in line with global prevention strategies, has emphasised a 'test and treat' HIV prevention strategy which relies on timely detection of HIV through frequent testing by those at risk."

Our news journalists obtained a quote from the research from Monash University, "We examined trends in repeat testing among MSM defined as 'high-risk' according to Australian testing guidelines. HIV test records from MSM attending high caseload clinics in Melbourne 2007-2013 and classified as high-risk were analysed. Binary outcomes of 'test within 3 months' and 'test within 6 months' were assigned to tests within individuals' panel of records. Negative binomial regressions assessed trends in overall HIV testing and returning within 3 and 6 months. Annualised proportions of return tests (2007-2012) were compared using two-sample z tests. Across 18 538 tests among 7117 high-risk MSM attending primary care clinics in Melbourne (2007-2013), the number of annual HIV tests increased (p <0.01). Between 2007 and 2012 annualised proportions of tests with a subsequent test within 3 and 6 months also increased (p <0.01); however, by 2012 only 36.4% and 15.1% of tests were followed by another test inside 6 and 3 months, respectively. Repeat testing among high-risk MSM in Australia remains
unacceptably low, with recent modest increases in testing unlikely to deliver meaningful prevention impact."

According to the news editors, the research concluded: "Removing known barriers to HIV testing is needed to maximise the potential benefit of test and treat-based HIV prevention."

For more information on this research see: A 'test and treat' prevention strategy in Australia requires innovative HIV testing models: a cohort study of repeat testing among 'high-risk' men who have sex with men. *Sexually Transmitted Infections*, 2016;92(6):464-466.

*Sexually Transmitted Infections* can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Sexually Transmitted Infections - sti.bmj.com/)

Our news journalists report that additional information may be obtained by contacting A.L. Wilkinson, Monash University, Alfred Hospital, Sch Public Hlth & Prevent Med, Melbourne, Vic, Australia. Additional authors for this research include C. El-Hayek, T. Spelman, C.K. Fairley, D. Leslie, E.S. McBryde, M. Hellard and M. Stoooe.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Immune System Diseases and Conditions, Diagnostics and Screening, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Risk and Prevention, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Monash University.

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**Public Health - Disease Outbreaks**

**Findings from Morehouse School of Medicine in the Area of Disease Outbreaks Reported (Clinical profile and containment of the Ebola virus disease outbreak in two large West African cities, Nigeria, July-September 2014)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Public Health - Disease Outbreaks. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "The Ebola virus disease (EVD) outbreak in Nigeria began when an infected diplomat from Liberia arrived in Lagos, the most populous city in Africa, with subsequent transmission to another large city. First-, second-, and third-generation contacts were traced, monitored, and classified."

The news correspondents obtained a quote from the research from the Morehouse School of Medicine, "Symptomatic contacts were managed at Ebola treatment centers as suspected, probable, and confirmed EVD cases using standard operating procedures adapted from the World Health Organization EVD guidelines. Reverse transcription PCR tests confirmed EVD. Socio-demographic, clinical, hospitalization, and outcome data of the July-September 2014 Nigeria EVD cohort were analyzed. The median age of the 20 EVD cases was 33 years (interquartile range 26-62 years). More females (55%), health workers (65%), and persons < 40 years old (60%) were infected than males, non-health workers, and persons aged > = 40 years. No EVD case management worker contracted the disease. Presenting symptoms were fever (85%), fatigue (70%), and diarrhea (65%). Clinical syndromes were gastroenteritis (45%), hemorrhage (30%), and encephalopathy (15%). The case-fatality rate was 40% and there was one mental health complication. The average duration from symptom onset to presentation
was 3 +/- 2 days among survivors and 5 +/- 2 days for non-survivors. The mean duration from symptom onset to discharge was 15 +/- 5 days for survivors and 11 +/- 2 days for non-survivors. Mortality was higher in the older age group, males, and those presenting late. The EVD outbreak in Nigeria was characterized by the severe febrile gastroenteritis syndrome typical of the West African outbreak, better outcomes, rapid containment, and no infection among EVD care-providers."

According to the news reporters, the research concluded: "Early case detection, an effective incident management system, and prompt case management with on-site mobilization and training of local professionals were key to the outcome."


Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Viral Hemorrhagic Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Virus Diseases and Conditions, Environment and Public Health, Viral Disease, Epidemiology, Disease Outbreaks, Gastroenterology, Mononegavirales, Gastroenteritis, RNA Viruses, Filoviridae, Ebola Virus, Virology, Genetics, Morehouse School of Medicine.

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Aortic Stenosis

Findings from Morristown Medical Center Update Understanding of Aortic Stenosis (Medical Treatment of Aortic Stenosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Aortic Stenosis is now available. According to news reporting originating from Morristown, New Jersey, by NewsRx correspondents, research stated, "Untreated, severe, symptomatic aortic stenosis is associated with a dismal prognosis. The only treatment shown to improve survival is aortic valve replacement; however, before symptoms occur, aortic stenosis is preceded by a silent, latent phase characterized by a slow progression at the molecular, cellular, and tissue levels."

Our news editors obtained a quote from the research from Morristown Medical Center, "In theory, specific medical therapy should halt aortic stenosis progression, reduce its hemodynamic repercussions on left ventricular function and remodeling, and improve clinical outcomes. In the present report, we performed a systematic review of studies focusing on the medical treatment of patients with aortic stenosis. Lipid-lowering therapy, antihypertensive
drugs, and anticalcific therapy have been the main drug classes studied in this setting and are reviewed in depth."

According to the news editors, the research concluded: "A critical appraisal of the preclinical and clinical evidence is provided, and future research avenues are presented."

For more information on this research see: Medical Treatment of Aortic Stenosis. Circulation, 2016;134(22):1766-1784. Circulation can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news editors report that additional information may be obtained by contacting P. Genereux, Morristown Med Center, Morristown, NJ, United States. Additional authors for this research include B. Redfors, M.B. Leon and P. Genereux.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1161/CIRCULATIONAHA.116.023997. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Morristown, New Jersey, United States, North and Central America, Aortic Valve Stenosis, Aortic Stenosis, Angiology, Therapy, Morristown Medical Center.

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DNA Research

Findings from Mount Sinai Hospital Provides New Data about DNA Research (A mechanism for the suppression of homologous recombination in G1 cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on DNA Research are presented in a new report. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "DNA repair by homologous recombination is highly suppressed in G1 cells to ensure that mitotic recombination occurs solely between sister chromatids. Although many homologous recombination factors are cell-cycle regulated, the identity of the events that are both necessary and sufficient to suppress recombination in G1 cells is unknown."

Our news journalists obtained a quote from the research from Mount Sinai Hospital, "Here we report that the cell cycle controls the interaction of BRCA1 with PALB2-BRCA2 to constrain BRCA2 function to the S/G2 phases in human cells. We found that the BRCA1-interaction site on PALB2 is targeted by an E3 ubiquitin ligase composed of KEAP1, a PALB2-interacting protein, in complex with cullin-3 (CUL3)-RBX1 (ref. 6). PALB2 ubiquitylation suppresses its interaction with BRCA1 and is counteracted by the deubiquitylase USP11, which is itself under cell cycle control. Restoration of the BRCA1-PALB2 interaction combined with the activation of DNA-end resection is sufficient to induce homologous recombination in G1, as measured by RAD51 recruitment, unscheduled DNA synthesis and a CRISPR-Cas9-based gene-targeting assay. We conclude that the mechanism prohibiting homologous recombination in G1 minimally consists of the suppression of DNA-end resection coupled with a multi-step block of the recruitment of BRCA2 to DNA damage sites that involves the inhibition of BRCA1-PALB2-BRCA2 complex assembly."

According to the news editors, the research concluded: "We speculate that the ability to induce homologous recombination in G1 cells with defined factors could spur the
development of gene-targeting applications in non-dividing cells.

For more information on this research see: A mechanism for the suppression of homologous recombination in G1 cells. *Nature*, 2015;528(7582):422-6. (Nature Publishing Group - www.nature.com/nature/)

The news correspondents report that additional information may be obtained from A. Orthwein, The Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital, 600 University Avenue, Toronto, Ontario M5G 1X5, Canada. Additional authors for this research include S.M. Noordermeer, M.D. Wilson, S. Landry, R.I. Enchev, A. Sherker, M. Munro, J. Pinder, J. Salsman, G. Dellaire, B. Xia, M. Peter and D. Durocher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nature16142. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Toronto, Ontario, Genetics, DNA Research, North and Central America.

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Arthroplasty

**Findings from Mt. Carmel Health System in the Area of Arthroplasty Reported (Risk of Periprosthetic Fractures With Direct Anterior Primary Total Hip Arthroplasty)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Arthroplasty. According to news reporting originating from New Albany, Ohio, by NewsRx correspondents, research stated, "Despite increasing interest in the anterior approach for cementless, primary total hip arthroplasty (THA), studies examining the incidence of periprosthetic fractures with this approach are lacking. The purpose of this study was to (1) investigate the incidence of early periprosthetic fractures associated with primary THA performed through an anterior supine intermuscular (ASI) approach without the use of a specialized table and (2) identify potential risk factors for these fractures."

Our news editors obtained a quote from the research from Mt. Carmel Health System, "We identified 2869 primary THAs performed via the ASI approach using a single cementless, tapered titanium femoral component with short and standard length options between February 2007 and April 2014. Fifty-two percent of THAs were in female patients, whereas 48% were in males. Short stems were used in 59% vs standard length in 41%. There were 26 (0.9%) early periprosthetic femoral fractures, with 23 requiring revision. When looking at the potential risk factors of age, gender, body mass index, and stem length, the only significant finding was that increased age was associated with increased risk of femoral fracture. Logistic regression analysis revealed a significant age-fracture association for female gender only, which remained when controlled for body mass index, stem length, or both. The muscle-sparing ASI approach appears to be a safe technique for performing primary THA when used in a suitable patient population."

According to the news editors, the research concluded: "The early periprosthetic femoral fracture rate in our series may warrant consideration of using a different design or different approach in elderly female patients."

The news editors report that additional information may be obtained by contacting K.R. Berend, Mt Carmel Hlth Syst, New Albany, OH, United States. Additional authors for this research include A.J. Mirza, M.J. Morris and A.V. Lombardi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arth.2016.03.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Albany, Ohio, United States, North and Central America, Risk and Prevention, Femoral Fractures, Hip Arthroplasty, Surgery, Mt. Carmel Health System.

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Findings from N. Rogenhofer and Co-Researchers in the Area of Spontaneous Abortion Described (Lessons From the ETHIGII Trial: Proper Putative Benefit Assessment of Low-Molecular-Weight Heparin Treatment in M2/ANXA5 Haplotype Carriers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pregnancy Complications - Spontaneous Abortion. According to news reporting out of Munster, Germany, by NewsRx editors, research stated, "This study presents sample size considerations derived from the Efficacy of Thromboprophylaxis as an Intervention during Gravidity (ETHIGII) trial (ClinicalTrials.gov: NCT00400387) to address the question of low-molecular-weight heparin (LMWH) treatment in women with recurrent pregnancy loss (RPL) depending on the M2/ANXA5 haplotype. To evaluate the possible influence of such treatment on miscarriage rates of trial participants, a post hoc analysis of ANXA5 promoter genotypes in the light of M2/ANXA5 (RPRGL3) distribution was performed using logistic models."

Our news journalists obtained a quote from the research, "DNA for genotyping was available from 129 LMWH and 95 control patients, 44 (19.6%) of whom were M2/ANXA5 carriers. Miscarriages occurred in 1 (4.0%) of 25 M2/ANXA5 carriers from the LMWH group compared to 4 (21.1%) of 19 in the control group, resulting in an odds ratio (95% confidence interval) for miscarriage of 0.16 (0.016-1.5) for women treated with LMWH. In noncarriers, miscarriage rates were 6 (5.8%) of 104 versus 7 (9.2%) of 76 for the LMWH and the control groups, respectively, corresponding to an odds ratio for miscarriage of 0.60 (0.19-1.9). The apparent beneficial effects of miscarriage rate reduction in M2/ANXA5 carriers with RPL concur with biological considerations about improvement in reduced ANXA5 function through LMWH treatment in an adequate murine model."

According to the news editors, the research concluded: "The data obtained were instrumental to design proper assessment of the existence and magnitude of this effect."

Our news journalists report that additional information may be obtained by contacting A. Markoff, WWU Muenster, Munster, Germany. Additional authors for this research include A. Markoff, A. Wagner, H.G. Klein, D. Petroff, E. Schleussner and C.J. Thaler.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1076029616658117. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munster, Germany, Europe, Pregnancy Complications, Spontaneous Abortion, Women's Health.

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Environmental Research

**Findings from N. Roth et al Has Provided New Information about Environmental Research [A critical review of frameworks used for evaluating reliability and relevance of (eco)toxicity data: Perspectives for an integrated eco-human decision-making ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Environmental Research have been published. According to news originating from Basel, Switzerland, by NewsRx correspondents, research stated, "Considerable efforts have been invested so far to evaluate and rank the quality and relevance of (eco)toxicity data for their use in regulatory risk assessment to assess chemical hazards. Many frameworks, have been developed to improve robustness and transparency in the evaluation of reliability and relevance of individual tests, but these frameworks typically focus on either environmental risk assessment (ERA) or human health risk assessment (HHRA), and there is little cross talk between them."

Financial support for this research came from European Commission Seventh Framework Programme.

Our news journalists obtained a quote from the research, "There is a need to develop a common approach that would support a more consistent, transparent and robust evaluation and weighting of the evidence across ERA and HHRA. This paper explores the applicability of existing Data Quality Assessment (DQA) frameworks for integrating environmental toxicity hazard data into human health assessments and vice versa. We performed a comparative analysis of the strengths and weaknesses of eleven frameworks for evaluating reliability and/or relevance of toxicity and ecotoxicity hazard data. We found that a frequent shortcoming is the lack of a clear separation between reliability and relevance criteria. A further gaps and needs analysis revealed that none of the reviewed frameworks satisfy the needs of a common eco-human DQA system. Based on our analysis, some key characteristics, perspectives and recommendations are identified and discussed for building a common DQA system as part of a future integrated eco-human decision-making framework."

According to the news editors, the research concluded: "This work lays the basis for
developing a common DQA system to support the further development and promotion of Integrated Risk Assessment."


The news correspondents report that additional information may be obtained from N. Roth, Swiss Center Appl Human Toxicol SCAHT Directorate, Regulatory Toxicol Unit, CH-4055 Basel, Switzerland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.envint.2016.07.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Basel, Switzerland, Europe, Environmental Research, Article Review, Risk and Prevention.

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**Imino Acids**

**Findings from N. Sahu et al Has Provided New Information about Imino Acids (Proline Starvation Induces Unresolved ER Stress and Hinders mTORC1-Dependent Tumorigenesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Imino Acids. According to news originating from San Francisco, California, by NewsRx correspondents, research stated, "The role of essential amino acids in metabolic reprogramming of cancer cells is now well established, whereas the role of non-essential amino acids (NEAAs) in malignancy remains less clear. Here, we have identified an important role for the NEAA proline in the tumorigenic potential of a subset of cancer cells."

Our news journalists obtained a quote from the research, "By profiling a large panel of cancer cell lines, we observed that proline consumption and expression of proline biosynthesis enzymes were well correlated with clonogenic and tumorigenic potential. Moreover, proline starvation or inhibition of proline biosynthesis enzymes impaired clonogenic/tumorigenic potential. Cancer cells exhibiting dependency on exogenous proline displayed hyperactivation of the mTORC1-mediated 4EBP1 signaling axis, as well as unresolved ER stress. Exogenous proline alleviated ER stress and promoted cellular homeostasis and clonogenicity."

According to the news editors, the research concluded: "Increased dependence on proline may therefore define a specific vulnerability in some cancers that can be exploited by proline depletion."

For more information on this research see: Proline Starvation Induces Unresolved ER Stress and Hinders mTORC1-Dependent Tumorigenesis. *Cell Metabolism*, 2016;24(5):753-761. *Cell Metabolism* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor,
Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell Metabolism - www.journals.elsevier.com/cell-metabolism/)

The news correspondents report that additional information may be obtained from J. Settleman, Calico Life Sci, San Francisco, CA 94080, United States. Additional authors for this research include D. Dela Cruz, M. Gao, W. Sandoval, P.M. Haverty, J.F. Liu, J.P. Stephan, B. Haley, M. Classon, G. Hatzivassiliou and J. Settleman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cmet.2016.08.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Imino Acids, Oncology, Proline, Cancer.

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Biomedical Engineering - Tissue Engineering

Findings from N.H. Marei and Co-Authors in the Area of Tissue Engineering Reported (Mesenchymal stem cells growth and proliferation enhancement using PLA vs PCL based nanofibrous scaffolds)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Biomedical Engineering - Tissue Engineering. According to news reporting originating in Giza, Egypt, by NewsRx journalists, research stated, "Electrospinning of polymers is the most commonly used technique for nanofiber fabrication. polylactic acid (PLA) and polycaprolactone (PCL) have been shown to be ideal for nanofiber preparation in various biomedical applications, due to characteristics such as biodegradability and their ability to promote the cell growth, similar to native tissues. The aim of this study was to develop biocompatible and biodegradable PLA and PCL-based nanofibrous scaffolds for enhancing stem cell growth and proliferation."

The news reporters obtained a quote from the research, "The scaffolds were prepared by electrospinning, and their physicochemical properties were studied using Fourier Transform Infrared spectroscopy (FTIR), differential scanning calorimetry (DSC), thermogravimetric analysis (TGA) and X-ray diffraction (XRD). The surface morphology of the developed scaffolds was determined using scanning electron microscopy (SEM). Mesenchymal stem cells (MSCs), derived from both adipose tissue and bone marrow, were seeded onto the prepared nanofibrous scaffolds. The effect of scaffold type, and structural characteristics on survival and proliferation of MSCs were evaluated."

According to the news reporters, the research concluded: "Our results show that after full physicochemical characterization of PCL and PLA nanofibrous scaffolds both were safe and non-toxic to the evaluated cells and both scaffolds supported cell attachment and proliferation of bone marrow and adipose tissue-derived MSCs."

For more information on this research see: Mesenchymal stem cells growth and proliferation enhancement using PLA vs PCL based nanofibrous scaffolds. International Journal of Biological Macromolecules, 2016;93():9-19. International Journal of Biological Macromolecules can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; International Journal of Biological
Our news correspondents report that additional information may be obtained by contacting N. El-Badri, Zewail City Sci & Technol, Center Excellence Stem Cells & Regenerat Med, Giza, Egypt. Additional authors for this research include I.M. El-Sherbiny, A. Lotfy, A. El-Badawy and N. El-Badri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.08.053. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Giza, Egypt, Africa, Mesenchymal Stem Cells, Biomedical Engineering, Emerging Technologies, Stem Cell Research, Tissue Engineering, Nanotechnology, Bioengineering, Immune System, Bone Research, Biotechnology, Bone Marrow, Nanofibrous, Biomedicine.

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**Oncology - Prostate Cancer**

**Findings from NHS Foundation Trust in the Area of Prostate Cancer Described (Focal therapy in prostate cancer: A review of seven common controversies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Radical treatments such as prostatectomy and radiotherapy have demonstrated success in terms of biochemical and disease-specific survival for localised prostate cancer."

The news correspondents obtained a quote from the research from NHS Foundation Trust, "However, whilst the end goal of any cancer treatment is to control or cure disease it must also do so by minimising any side effects that may be experienced by the patient. Focal therapy as a concept aims to redress this established therapeutic ratio by treating areas of the prostate affected by significant disease as opposed to treating the entire gland."

According to the news reporters, the research concluded: "However, there are a number of common criticisms of focal therapy - we deem the seven sins that require further interrogation."


Our news journalists report that additional information may be obtained by contacting E.J. Bass, UCLH NHS Fdn Trust, Dept. of Urol, London, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ctrv.2016.07.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Cancer, Article Review, Prostatic Neoplasms, Prostate Cancer, Oncology, Therapy, NHS Foundation
Trust.

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Drugs and Therapies - Pharmaceutical Research

Findings from NIPER Provides New Data on Pharmaceutical Research (Co amorphous systems: A product development perspective)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Pharmaceutical Research are presented in a new report. According to news reporting originating in Andhra Pradesh, India, by NewsRx journalists, research stated, "Solubility is one of the major problems associated with most of the new chemical entities that can be reasonably addressed by drug amorphization. However, being a high-energy form, it usually tends to recrystallize, necessitating new formulation strategies to stabilize amorphous drugs."

The news reporters obtained a quote from the research from NIPER, "Polymeric amorphous solid dispersion (PASD) is one of the widely investigated strategies to stabilize amorphous drug, with major limitations like limited polymer solubility and hygroscopicity. Co amorphous system (CAM), a new entrant in amorphous arena is a promising alternative to PASD. CAMs are multi component single phase amorphous solid systems made up of two or more small molecules that may be a combination of drugs or drug and excipients. Excipients explored for CAM preparation include amino acids, carboxylic acids, nicotinamide and saccharine. Advantages offered by CAM include improved aqueous solubility and physical stability of amorphous drug, with a potential to improve therapeutic efficacy. This review attempts to address different aspects in the development of CAM as drug products."

According to the news reporters, the research concluded: "Criterion for co-former selection, various methods involved in CAM preparation, characterization tools, stability, scale up and regulatory requirements for the CAM product development are discussed."


Our news correspondents report that additional information may be obtained by contacting N.R. Shastri, NIPER, Dept. of Pharmaceut, SSPRG, Hyderabad, Andhra Pradesh, India. Additional authors for this research include R. Thipparaboina, D. Kumar and N.R. Shastri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Andhra Pradesh, India, Asia, Pharmaceutical Research, Drugs and Therapies, Article Review, NIPER.

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Findings from Nagasaki University Broaden Understanding of Bone and Mineral Research (Cbfb2 Isoform Dominates More Potent Cbfb1 and Is Required for Skeletal Development)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Health and Medicine - Bone and Mineral Research. According to news reporting from Nagasaki, Japan, by NewsRx journalists, research stated, "Cbfb is a cotranscription factor that forms a heterodimer with Runx proteins Runx1, Runx2, and Runx3. It is required for fetal liver hematopoiesis and skeletal development."

The news correspondents obtained a quote from the research from Nagasaki University, "Cbfb has two functional isoforms, Cbfb1 and Cbfb2, which are formed by alternative splicing. To address the biological functions of these isoforms in skeletal development, we examined Cbfb1(-/-) and Cbfb2(-/-) mouse embryos. Intramembranous and endochondral ossification was retarded and chondrocyte and osteoblast differentiation was inhibited in Cbfb2(-/-) embryos but not in Cbfb1(-/-) embryos. Cbfb2 mRNA was upregulated in calvariae, limbs, livers, thymuses, and hearts of Cbfb1(-/-) embryos but Cbfb1 mRNA was not in those of Cbfb2(-/-) embryos, and the total amount of Cbfb1 and Cbfb2 mRNA in Cbfb1(-/-) embryos was similar to that in wild-type embryos but was severely reduced in Cbfb2(-/-) embryos. The levels of Runx proteins were reduced in calvariae, limbs, and primary osteoblasts from Cbfb2(-/-) embryos, but the reduction in Runx2 protein was very mild. Furthermore, the amounts of Runx proteins and Cbfb in Cbfb2(-/-) embryos differed similarly among skeletal tissues, livers, and thymuses, suggesting that Runx proteins and Cbfb are mutually required for their stability. Although Cbfb1(-/-) embryos developed normally, Cbfb1 induced chondrocyte and osteoblast differentiation and enhanced DNA binding of Runx2 more efficiently than Cbfb2. Our results indicate that modulations in the relative levels of the isoforms may adjust transcriptional activation by Runx2 to appropriate physiological levels. Cbfb2 was more abundant, but Cbfb1 was more potent for enhancing Runx2 activity."

According to the news reporters, the research concluded: "Although only Cbfb2 loss generated overt skeletal phenotypes, both may play major roles in skeletal development with functional redundancy."


Our news journalists report that additional information may be obtained by contacting T. Komori, Nagasaki University, Grad Sch Biomed Sci, Dept. of Cell Biol, Nagasaki 8528588, Japan. Additional authors for this research include X. Qin, T. Kawane, H. Komori, Y. Matsuo, I. Taniuchi, K. Ito, S. Izumi and T. Komori.

Keywords for this news article include: Nagasaki, Japan, Asia, Bone and Mineral Research, Health and Medicine, Genetics, Nagasaki University.
Findings from Nanchang University in Hypertension Reported (Risk of bradykinin B2 receptor-58T/C gene polymorphism on hypertension: A meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news reporting out of Nanchang, People's Republic of China, by NewsRx editors, research stated, "The risk of bradykinin B2 receptor (BDKRB2)-58T/C gene polymorphism on hypertension remains controversial. The Cochrane Library, Chinese Biomedical Database, EBSCO, Embase, ISI, MEDLINE, and PubMed were retrieved, and relevant articles were selected."

Our news journalists obtained a quote from the research from Nanchang University, "The significant association between BDKRB2-58T/C gene polymorphism and risk of hypertension were found under C-allele comparison (odds ratio (OR): 1.22, 95% confidential intervals (CI): 1.05-1.42), recessive model (OR: 1.32, 95% CI: 1.07-1.64), dominant model (OR: 0.74, 95% CI: 0.58-0.94), homozygote model (OR: 1.66, 95% CI: 1.11-2.47) and heterozygote model (OR: 1.23, 95% CI: 1.06-1.43). The magnitude of the association between the BDKRB2-58T/C gene polymorphism and risk of hypertension was substantiated in Asians under C-allele comparison (OR: 1.24, 95% CI: 1.04-1.49), recessive model (OR: 1.39, 95% CI: 1.04-1.86), dominant model (OR: 0.72, 95% CI: 0.56-0.93), homozygote model (OR: 1.78, 95% CI: 1.09-2.90) and heterozygote model (OR: 1.26, 95% CI: 1.07-1.49). No publication bias was found in the meta-analysis. The meta-analysis suggested -58C allele and -58CC genotype increase the risk of hypertension in Asians and African-Americans."

According to the news editors, the research concluded: "Inversely, -58TT genotype decreases the risk of hypertension in Asians and African-Americans."


Our news journalists report that additional information may be obtained by contacting G.S. Xu, Nanchang University, Affiliated Hosp 2, Dept. of Nephrol, Nanchang 330006, People's Republic of China. Additional authors for this research include P.P. Yang and G.S. Xu.

Keywords for this news article include: Nanchang, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Article Review, Genetics, Cardiovascular Diseases and Conditions, Bradykinin B2 Receptor, Systolic Hypertension, Bradykinin Receptors, Risk and Prevention, Membrane Proteins, Oligopeptides, Neuropeptides, Angiology, Kinins, Nanchang University.
**Immunology**

**Findings from Nanjing Medical University Provides New Data on Immunology (BPTF Is Essential for T Cell Homeostasis and Function)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology have been presented. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Bromodomain PHD finger transcription factor (BPTF), a ubiquitously expressed ATP-dependent chromatin-remodeling factor, is critical for epigenetically regulating DNA accessibility and gene expression. Although BPTF is important for the development of thymocytes, its function in mature T cells remains largely unknown."

Our news editors obtained a quote from the research from Nanjing Medical University, "By specifically deleting BPTF from late double-negative 3/ double-negative 4 stage of developing T cells, we found that BPTF was critical for the homeostasis of T cells via a cell-intrinsic manner. In addition, BPTF was essential for the maintenance and function of regulatory T (Treg) cells. Treg cell specific BPTF deletion led to reduced Foxp3 expression, increased lymphocyte infiltration in the nonlymphoid organs, and a systemic autoimmune syndrome."

According to the news editors, the research concluded: "These findings therefore reveal a vital role for BPTF in T and Treg cell function and immune homeostasis."

For more information on this research see: BPTF Is Essential for T Cell Homeostasis and Function. *Journal of Immunology*, 2016;197(11):4325-4333. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news editors report that additional information may be obtained by contacting J. Wu, Nanjing Medical University, Affiliated Hosp 1, State Key Lab Reprod Med, Dept. of Obstet & Gynecol, Nanjing 210029, Jiangsu, People's Republic of China. Additional authors for this research include Y.Q. Wang, C.J. Wang, G.G. Wang, J. Wu and Y.Y.S. Wan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1600642. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Immunology, Genetics, Nanjing Medical University.

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**Oncology - Bladder Cancer**

**Findings from Nanjing Medical University in Bladder Cancer Reported (LINC00312 inhibits the migration and invasion of bladder cancer cells by targeting miR-197-3p)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Bladder Cancer is the subject of a report. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "To investigate the influence of the long non-coding RNA
LINC00312 on bladder cancer (BC) cell invasion and metastasis by targeting miR-197-3p. BC and corresponding adjacent tissues were collected.

Financial support for this research came from Jiangsu Planned Projects for Postdoctoral Research Fund.

The news reporters obtained a quote from the research from Nanjing Medical University. "LINC00312 and miR-197-3p were measured, and their correlation was detected through quantitative real-time PCR (qRT-PCR). BC cell line T24 was transfected and grouped (five groups) according to different transfection conditions. A scratch test was applied to analyze cell migration, and a Transwell assay was used to test cell invasion ability. Western blotting was to measure matrix metalloproteinase (MMP)-2, MMP-9, and the tissue inhibitor of metalloproteinase 2 (TIMP2) protein levels. qRT-PCR indicated that LINC00312 expression was lower but miR-197-3p expression was higher in BC tissues compared with adjacent tissues; LINC00312 was negatively correlated with miR-197-3p. The migration test revealed that the downregulation of miR-197-3p and overexpression of LINC00312 inhibited cell migration and invasion abilities, while the overexpression of miR-197-3p and the upregulation of LINC00312 promoted cell migration and invasion. BC cells with downregulated miR-197-3p or upregulated LINC00312 had low MMP-2 and MMP-9 levels but high TIMP2."

According to the news reporters, the research concluded: "LINC00312 inhibited BC cell invasion and metastasis through mediating miR-197-3p."

For more information on this research see: LINC00312 inhibits the migration and invasion of bladder cancer cells by targeting miR-197-3p. Tumor Biology, 2016;37(11):14553-14563. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news correspondents report that additional information may be obtained by contacting J.S. Meng, Nanjing Medical University, Huaian Peoples Hosp 1, Dept. of Urol, Huaian 223300, Jiangsu, People's Republic of China. Additional authors for this research include Z.Y. Wu, G.C. Wang, K. Liu, X.B. Niu, S. Gu and J.S. Meng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5303-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Enzymes and Coenzymes, Metalloproteinases, Bladder Cancer, Oncology, Genetics, Nanjing Medical University.

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Phenols

Findings from Nanjing Normal University Has Provided New Data on Phenols (Propofol inhibits hERG K+ channels and enhances the inhibition effects on its mutations in HEK293 cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Phenols are discussed in a new report. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx corresponding, research stated, "QT interval prolongation, a potential risk for arrhythmias, may
result from gene polymorphisms relevant to cardiomyocyte repolarization. Another noted cause of QT interval prolongation is the administration of chemical compounds such as anesthetics, which may affect a specific type of cardiac K+ channel encoded by the human ether-a-go-go-related gene (hERG). hERG K+ current was recorded using whole-cell patch clamp in human embryonic kidney (HEK293) cells expressing wild type (WT) or mutated hERG channels.

Financial support for this research came from National Natural Science Foundation of China.

Our news editors obtained a quote from the research from Nanjing Normal University, "Expression of hERG K+ channel proteins was evaluated using western blot and confirmed by fluorescent staining and imaging. Computational modeling was adopted to identify the possible binding site(s) of propofol with hERG K+ channels. Propofol had a significant inhibitory effect on WT hERG K+ currents in a concentration-dependent manner, with a half-maximal inhibitory concentration (IC50) of 60.9 +/- 6.4 mu M. Mutations in drug-binding sites (Y652A or F656C) of the hERG channel were found to attenuate hERG current blockage by propofol. However, propofol did not inhibit the trafficking of hERG protein to the cell membrane. Meanwhile, for the three selective hERG K+ channel mutant heterozygotes WT/Q738X-hERG, WT/A422T-hERG, and WT/H562P-hERG, the IC50 of propofol was calculated as 14.2 +/- 2.8 mu M, 3.3 +/- 1.2 mu M, and 5.9 +/- 1.9 mu M, respectively, which were much lower than that for the wild type."

According to the news editors, the research concluded: "These findings indicate that propofol may potentially increase QT interval prolongation risk in patients via direct inhibition of the hERG K+ channel, especially in those with other concurrent triggering factors such as hERG gene mutations."

For more information on this research see: Propofol inhibits hERG K+ channels and enhances the inhibition effects on its mutations in HEK293 cells. European Journal of Pharmacology, 2016;791():168-178. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news editors report that additional information may be obtained by contacting Z. Zhang, Nanjing Normal Univ, Coll Life Sci, Jiangsu Key Lab Mol & Med Biotechnol, Nanjing 210046, Jiangsu, People's Republic of China. Additional authors for this research include Y. Jing, L.L. Yang, Z. Zhang and L.R. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.08.028. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Central Nervous System Agents, Arrhythmia, Genetics, Risk and Prevention, Drugs and Therapies, General Anesthetics, Propofol Therapy, Pharmaceuticals, Cardiology, Phenols, Nanjing Normal University.

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Findings from Nankai University in the Area of Type 2 Diabetes Reported (Toxicology Assessment of a Dual-Function Peptide 5rolGLP-HV in Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting originating from Tianjin, People's Republic of China, by NewsRx correspondents, research stated, "5rolGLP-HV had an ideal therapeutic potential in the prevention of hyperglycemia in type 2 diabetes and delay of the thrombosis. The objective of the study was to investigate the toxicology effects of 5rolGLP-HV and guarantee its safety."

Financial support for this research came from Key Project of Tianjin.

Our news editors obtained a quote from the research from Nankai University, "In acute toxicity test, the mice were orally receiving 5rolGLP-HV at a single dose of 300 mg/kg or 2000 mg/kg. For sub-chronic toxicity study, the mice received 5rolGLP-HV at doses of 800 mg/kg or 1600 mg/kg for 9 weeks. No significant adverse effects were evident in acute and sub-chronic toxicity tests, indicating that the LD50 value is greater than 2000 mg/kg. Although the liver and kidney exhibited a little abnormal in sub-chronic toxicity study, they could recovery to normal after withdrawal 5rolGLP-HV for 2 weeks. In micronucleus assay, the mice received 5rolGLP-HV at doses of 250, 500, or 1000 mg/kg for two consecutive days. The micronucleus numbers and the polychromatic erythrocytes to normochromatic erythrocytes (PCE/NCE) ratios among 5rolGLP-HV groups were within the normal range. Similarly, sperm aberration test demonstrated that 5rolGLP-HV had no teratogenic effect on the mice sperm."

According to the news editors, the research concluded: "The combined results clearly demonstrated the safety of 5rolGLP-HV and support its use as a drug to treat diabetes and thrombosis."

For more information on this research see: Toxicology Assessment of a Dual-Function Peptide 5rolGLP-HV in Mice. Applied Biochemistry and Biotechnology, 2016;180 (7):1276-1285. Applied Biochemistry and Biotechnology can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA. (Springer - www.springer.com; Applied Biochemistry and Biotechnology - www.springerlink.com/content/0273-2289/)

The news editors report that additional information may be obtained by contacting M.G. Li, Nankai Univ, Coll Life Sci, Tianjin 300071, People's Republic of China. Additional authors for this research include B. Wang, X.F. Ma, H.K. Duan, P.Z. Jiang, X.D. Li, Q. Wei, X.Z. Ji and M.G. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12010-016-2166-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Risk and Prevention, Type 2 Diabetes, Hyperglycemia, Hematology, Nankai University.

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Arsenic

Findings from Nantong University Broaden Understanding of Arsenic (Arsenic trioxide mediates HAPI microglia inflammatory response and the secretion of inflammatory cytokine IL-6 via Akt/NF-kappa B signaling pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Arsenic are presented in a new report. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "Arsenic is a widely distributed toxic metalloid in around the world. Inorganic arsenic species are deemed to affect astrocytes functions and to cause neuron apoptosis."

Our news journalists obtained a quote from the research from Nantong University, "Microglia are the key cell type involved in innate immune responses in CNS, and microglia activation has been linked to inflammation and neurotoxicity. In this study, using ELISA and reverse transcriptase PCR (RT-PCR), we showed that Arsenic trioxide up-regulated the expression and secretion of IL-6 in a dose-dependent manner and a time dependent manner in cultured HAPI microglia cells. These pro-inflammatory responses were inhibited by the Akt blocker, LY294002. Further, Arsenic trioxide exposure could induce phosphorylation and degradation of I kappa B alpha, and the translocation of NF-kappa B p65 from the cytosol to the nucleus in this HAPI microglia cell line. Thus, the NF-kappa B signaling pathway can be activated after Arsenic trioxide treatment. Besides, Akt blocker LY294002 also obviously attenuated NF-kappa B activation and transnuclear induced by Arsenic trioxide."

According to the news editors, the research concluded: "In concert with these results, we highlighted that the secretion of pro-inflammatory cytokine and NF-kappa B activation induced by Arsenic trioxide can be mediated by elevation of p-Akt in HAPI microglia cells."

For more information on this research see: Arsenic trioxide mediates HAPI microglia inflammatory response and the secretion of inflammatory cytokine IL-6 via Akt/NF-kappa B signaling pathway. Regulatory Toxicology and Pharmacology, 2016;81():480-488. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting Q.Y. Wu, Nantong University, Sch Public Hlth, Dept. of Nutr & Food Hyg, Nantong 226001, Jiangsu, People's Republic of China. Additional authors for this research include J.M. Mao, J.M. Zhao, Y. Zhang, T. Li, C. Wang, L.F. Xu, Q.Y. Hu, X.K. Wang, S.Y. Jiang, X.K. Nie and Q.Y. Wu.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, Arsenic Trioxide, NF-kappa B, Cytokines, Chemicals, Microglia, Neuroglia, Genetics, Nantong University.

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Findings from Nanyang Technological University in Chemotherapy Reported (Polymeric Prodrug Grafted Hollow Mesoporous Silica Nanoparticles Encapsulating Near-Infrared Absorbing Dye for Potent Combined Photothermal-Chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemotherapy. According to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "In this study, polymeric prodrug coated hollow mesoporous silica nanoparticles (HMSNs) with encapsulated near-infrared (NIR) absorbing dye were prepared and explored for combined photothermal-chemotherapy. A copolymer integrated with tert-butoxycarbonyl protected hydrazide groups and oligoethylene glycols was initially grafted on the surface of HMSNs via reversible addition-fragmentation chain-transfer (RAFT) polymerization followed by the deprotection to reactivate the hydrazide groups for the conjugation of anticancer drug doxorubicin (DOX)."

Financial supporters for this research include Agency for Science, Technology and Research, National Research Foundation-Prime Minister's office, Republic of Singapore, Nanyang Technological University, Northwestern Institute for Nanomedicine, Nanyang Technological University.

Our news editors obtained a quote from the research from Nanyang Technological University, "DOX was covalently bound onto the polymer substrate by acid-labile hydrazone bond and released quickly in weak acidic environment for chemotherapy. The hollow cavity of HMSNs was loaded with an NIR absorbing dye IR825 to form the final multifunctional hybrid denoted as HMSNs-DOX/IR825. The hybrid exhibited good dispersity and stability as well as high light-to-heat conversion efficiency. As revealed by confocal microscopy and flow cytometry analysis, the hybrid was efficiently taken up by cancer cells, and the conjugated DOX could be released under the cellular environment. In vitro cytotoxicity study demonstrated that anticancer activity of HMSNs-DOX/IR825 could be significantly improved by the NIR irradiation, which led to a satisfactory therapeutic efficacy through the combination treatment."

According to the news editors, the research concluded: "Thus, the developed hybrid could be a promising candidate for the combined photothermal-chemotherapy of cancer."


The news editors report that additional information may be obtained by contacting Y. Zhang, Division of Chemistry and Biological Chemistry, School of Physical and Mathematical Sciences, Nanyang Technological University, 21 Nanyang Link, Singapore 637371, Singapore. Additional authors for this research include C.Y. Ang, M. Li, S.Y. Tan, Q. Qu and Y. Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b00376. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chemotherapy, Nanoparticle, Cancer Therapy, Nanotechnology, Drugs and Therapies, Silicon Nanocrystals, Emerging Technologies.
Findings from Nara Medical University in Cardiology Reported  
(Prediction of contrast-induced nephropathy by the serum creatinine level on the day following cardiac catheterization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiology. According to news originating from Nara, Japan, by NewsRx correspondents, research stated, "The majority of patients who undergo coronary arteriography are discharged from the hospital on the day of the procedure or on the following day. The aim of this study is to investigate whether the change in serum creatinine (SCr) and estimated glomerular filtration rate (eGFR) on the day following cardiac catheterization can predict the development of contrast-induced nephropathy (CIN)."

Our news journalists obtained a quote from the research from Nara Medical University, "This is a multicenter prospective observational study, which consists of 860 patients who underwent cardiac catheterization. We measured SCr and eGFR before cardiac catheterization, on the following day, and 48-72 h post-procedure. Definition of CIN is changes in SCr >= 0.5 mg/dL or >= 25% from baseline 48-72 h after contrast exposure. CIN occurred in 40 patients. SCr levels significantly increased from a baseline of 1.55 +/- 1.08 mg/dL to 1.79 +/- 1.26 mg/dL on the following day in patients with CIN (p < 0.0001), but significantly decreased from a baseline of 1.21 +/- 0.65 mgic/L to 1.18 +/- 0.61 mg/dL on the following day in those without CIN (p < 0.0001). eGFR significantly decreased from a baseline of 47.3 +/- 28.3 mL/min/1.73 m(2) to 40.6 +/- 26.7 mL/min/1.73 m(2) on the following day in patients with CIN (p < 0.0001), but significantly increased from a baseline of 53.1 +/- 22.0 mg/dL to 53.6 +/- 21.2 mg/dL on the following day in those without CIN (p = 0.0236). Receiver operating characteristic curve analysis indicated that SCr change >= 0.1 mg/dL [area under the curve (AUC) = 0.852, sensitivity 72.5%, specificity 86.1%] and eGFR change <=-1.1 mL/min/1.73 m(2) (AUC = 0.789, sensitivity 85.0%, specificity 64.9%) were the best cut-off values for predicting CIN. Multivariate logistic regression showed that a change in SCr >= 0.1 mg/dL [odds ratio (OR), 29.3; 95% confidence interval (CI), 10.8-96.2] and change in eGFR <=-1.1 mL/min/1.73 m(2) (OR, 69.7; 95% CI, 13.3-952) were powerful independent predictors of CIN."

According to the news editors, the research concluded: "Changes in SCr and eGFR on the day following cardiac catheterization predict the development of CIN."

For more information on this research see: Prediction of contrast-induced nephropathy by the serum creatinine level on the day following cardiac catheterization. Journal of Cardiology, 2016;68(5-6):412-418. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

The news correspondents report that additional information may be obtained from Y. Saito, Nara Medical University, Dept. of Internal Med 1, Kashihara, Nara 6348522, Japan. Additional authors for this research include Y. Saito, K. Aonuma, A. Hirayama, N. Tamaki, H. Tsutsui, T. Murohara, H. Ogawa, T. Akasaka, M. Yoshimura, A. Sato, T. Takayama, M. Sakakibara, S. Suzuki, K. Ishigami and K. Onoue.

The direct object identifier (DOI) for that additional information is:
Findings from Naresuan University in Acinetobacter baumannii
Reported (Distribution of virulence genes involved in biofilm formation in multi-drug resistant Acinetobacter baumannii clinical isolates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Acinetobacter baumannii have been published. According to news reporting originating from Phitsanulok, Thailand, by NewsRx correspondents, research stated, "Acinetobacter baumannii is an opportunistic bacterial pathogen that is the major cause of hospital-acquired infections. It has been shown that A. baumannii with high biofilm formation increases the risk of acquiring infection."

Our news editors obtained a quote from the research from Naresuan University, "In this study, the prevalence of virulence genes involved in biofilm formation was determined in 225 A. baumannii clinical isolates from three hospitals in Thailand. Most of the isolates were multidrug-resistant A. baumannii strains (86.2%). Among all isolates, 76.9% (173/225) showed biofilm formation ability. The association between biofilm forming ability and gentamicin resistance was found (P < 0.05). The presence of virulence genes, epsA, bap, ompA, bfmS and blaper-1 genes, was investigated by PCR. The prevalence of ompA, bfmS, bap, blaper-1 and epsA genes among the isolated strains was 84.4%, 84%, 48%, 30.2%, respectively. Biofilm formation related genes, ompA and bap were associated with multidrug-resistant A. baumannii strains. The result of this study revealed that a high prevalence of biofilm-forming phenotypes among A. baumannii strains obtained from different hospitals."

According to the news editors, the research concluded: "Effective strategies to prevent infection due to A. baumannii that produce biofilms are therefore needed."

For more information on this research see: Distribution of virulence genes involved in biofilm formation in multi-drug resistant Acinetobacter baumannii clinical isolates. International Microbiology, 2016;19(2):121-129. International Microbiology can be contacted at: Inst Estudis Catalans, Carrer Del Carme, 47, Barcelona, 08001, Spain. (Springer - www.springer.com; International Microbiology - www.springerlink.com/content/1139-6709/)

The news editors report that additional information may be obtained by contacting S. Sitthisak, Naresuan Univ, Center Excellence Med Biotechnol, Fac Med Sci, Phitsanulok, Thailand. Additional authors for this research include P. Kongthai, U. Leungtongkam and S. Sitthisak.

Keywords for this news article include: Phitsanulok, Thailand, Asia, Moraxellaceae, Risk and Prevention, Genetics, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Acinetobacter baumannii, Gram-Negative Bacteria, Gammaproteobacteria, Drugs and Therapies, Drug Resistance, Proteobacteria, Hospital, Naresuan University.

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Findings from National Cancer Institute in Medical Research Reported (T-Cell Transfer Therapy Targeting Mutant KRAS in Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Health and Medicine - Medical Research are discussed in a new report. According to news reporting out of Bethesda, Maryland, by NewsRx editors, research stated, "We identified a polyclonal CD8+ T-cell response against mutant KRAS G12D in tumor-infiltrating lymphocytes obtained from a patient with metastatic colorectal cancer. We observed objective regression of all seven lung metastases after the infusion of approximately 1.11x10^{11} HLA-C*08:02-restricted tumor-infiltrating lymphocytes that were composed of four different T-cell clonotypes that specifically targeted KRAS G12D."

Our news journalists obtained a quote from the research from National Cancer Institute, "However, one of these lesions had progressed on evaluation 9 months after therapy. The lesion was resected and found to have lost the chromosome 6 haplotype encoding the HLA-C*08:02 class I major histocompatibility complex (MHC) molecule. The loss of expression of this molecule provided a direct mechanism of tumor immune evasion."

According to the news editors, the research concluded: "Thus, the infusion of CD8+ cells targeting mutant KRAS mediated effective antitumor immunotherapy against a cancer that expressed mutant KRAS G12D and HLA-C*08:02."

For more information on this research see: T-Cell Transfer Therapy Targeting Mutant KRAS in Cancer. New England Journal of Medicine, 2016;375(23):2255-2262. New England Journal of Medicine can be contacted at: Massachusetts Medical Soc, Waltham Woods Center, 860 Winter St, Waltham, MA 02451-1413, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1056/NEJMoa1609279. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Medical Research, Health and Medicine, Oncology, Genetics, Therapy, Cancer, National Cancer Institute.

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Findings from National Center for Scientific Research (CNRS) Broaden Understanding of Osteoarthritis (Fibroblast Growth Factor 23 drives MMP13 expression in human osteoarthritic chondrocytes in a Klotho-independent manner)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Musculoskeletal Diseases and Conditions - Osteoarthritis is now available. According to news reporting out of Vandoeuvre les Nancy, France, by NewsRx editors, research stated, "Fibroblast Growth Factor 23 (FGF23) may represent an attractive candidate that could participate to the osteoarthritic (OA)-induced phenotype switch of chondrocytes. To address this hypothesis, we investigated the expression of FGF23, its receptors (FGFRs) and co-receptor (Klotho) in human cartilage and studied the effects of rhFGF23 on OA chondrocytes." Financial supporters for this research include CNRS, Universite de Lorraine, Fondation pour la Recherche Medicale.

Our news journalists obtained a quote from the research from National Center for Scientific Research (CNRS), "Gene expression or protein levels were analysed by RT-PCR and immunohistochemistry. Collagenase 3 (MMP13) activity was measured by a fluorescent assay. MAPK signalling pathways were investigated by phosphoprotein array, immunoblotting and the use of selective inhibitors. RNA silencing was performed to confirm the respective contribution of FGFR1 and Klotho. We showed that the expression of FGF23, FGFR1 and Klotho was up-regulated at both mRNA and protein levels in OA chondrocytes when compared to healthy ones. These overexpressions were markedly elevated in the damaged regions of OA cartilage. When stimulated with rhFGF23, OA chondrocytes displayed an extended expression of FGF23 and of markers of hypertrophy such as MMP13, COL10A1, and VEGF. We demonstrated that FGF23 auto-stimulation was both FGFR1- and Klotho-dependent, whereas the expression of markers of hypertrophy was mainly dependent on FGFR1 alone. Finally, we showed that FGF23-induced MMP13 expression was strongly regulated by the MEK/ERK cascade and to a lesser extent, by the PI-3K/AKT pathway."

According to the news editors, the research concluded: "These results demonstrate that FGF23 sustains differentiation of OA chondrocytes in a Klotho-independent manner."


Our news journalists report that additional information may be obtained by contacting A. Bianchi, Biopole Univ Lorraine, CNRS, UMR 7365, Univ Lorraine Ingn Mol & Physiopathol Articulaire, F-54505 Vandoeuvre Les Nancy, France. Additional authors for this research include M. Guibert, F. Cailotto, A. Gasser, N. Presle, D. Mainard, P. Netter, H. Kempf, J.Y. Jouzeau and P. Reboul.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.joca.2016.06.003. This DOI is a link to an online electronic document that is either free or for purchase.
Findings from National Cheng Kung University Broaden Understanding of Bone Cancer (Alleviating Bone Cancer-induced Mechanical Hypersensitivity by Inhibiting Neuronal Activity in the Anterior Cingulate Cortex)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Bone Cancer. According to news reporting from Tainan, Taiwan, by NewsRx journalists, research stated, "The anterior cingulate cortex (ACC) is a brain region that has been critically implicated in the processing of pain perception and modulation. While much evidence has pointed to an increased activity of the ACC under chronic pain states, less is known about whether pain can be alleviated by inhibiting ACC neuronal activity."

The news correspondents obtained a quote from the research from National Cheng Kung University, "The authors used pharmacologic, chemogenetic, and optogenetic approaches in concert with viral tracing technique to address this issue in a mouse model of bone cancer-induced mechanical hypersensitivity by intratibia implantation of osteolytic fibrosarcoma cells. Bilateral intra-ACC microinjections of -aminobutyric acid receptor type A receptor agonist muscimol decreased mechanical hypersensitivity in tumor-bearing mice (n = 10). Using adenoviral-mediated expression of engineered G(i/o)-coupled human M4 (hM4Di) receptors, we observed that activation of G(i/o)-coupled human M4 receptors with clozapine-N-oxide reduced ACC neuronal activity and mechanical hypersensitivity in tumor-bearing mice (n = 11). In addition, unilateral optogenetic silencing of ACC excitatory neurons with halorhodopsin significantly decreased mechanical hypersensitivity in tumor-bearing mice (n = 4 to 9), and conversely, optogenetic activation of these neurons with channelrhodopsin-2 was sufficient to provoke mechanical hypersensitivity in sham-operated mice (n = 5 to 9). Furthermore, we found that excitatory neurons in the ACC send direct descending projections to the contralateral dorsal horn of the lumbar spinal cord via the dorsal corticospinal tract."

According to the news reporters, the research concluded: "The findings of this study indicate that enhanced neuronal activity in the ACC contributes to maintain bone cancer-induced mechanical hypersensitivity and suggest that the ACC may serve as a potential therapeutic target for treating bone cancer pain."

For more information on this research see: Alleviating Bone Cancer-induced Mechanical Hypersensitivity by Inhibiting Neuronal Activity in the Anterior Cingulate Cortex. Anesthesiology. 2016;125(4):779-792. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting K.S. Hsu, National Cheng Kung University, Coll Med, Dept. of Pharmacol, Tainan
Findings from National Chung Hsing University Update Understanding of Allergies (Cloning, expression, and purification of recombinant major mango allergen Mani 1 in Escherichia coli)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - Allergies have been published. According to news originating from Taichung, Taiwan, by NewsRx correspondents, research stated, "In recent years, the number of people around the world who suffer from fruit allergies has increased. Mango can induce anaphylaxis, and two major mango allergens have been identified-Mani 1 and Mani 2. Apart from their molecular weights and pI values, no other information about them is known."

Our news journalists obtained a quote from the research from National Chung Hsing University, "This work identifies the DNA and amino acid sequences of Man i 1 and constructs an expression system for recombinant Man i 1 (rMan i 1). Firstly, 3' and 5' RACE assays were used to identify the cDNA fragment of Man i 1. Subsequently, the full length of Man i 1 cDNA was inserted into a pET-21a(+) vector, and the inserted plasmid was transformed to Escherichia coli BL21 (DE3) to express rMan i 1. The conditions for the expression of rMan i 1, including IPTG concentration, induction temperature, and induction time, were optimized. The highest amount of soluble rMan i 1 was obtained after induction with 0.1 mM IPTG at 16 degrees C for 20 h. The His-tagged rMan i 1 was purified using Ni-NTA agarose and its identity was verified using an anti-histidine antibody and the serum of a mango-allergic person."

According to the news editors, the research concluded: "Additionally, rMan i 1 was identified as glyceraldehyde 3-phosphate dehydrogenase (GAPDH) and shared 86.2% identity in amino acid sequence of GAPDH from wheat. Finally, an E. coli expression system of rMan i 1 was established, with the potential to be used in immunotherapy against mango allergy or the development of assays for detecting the residues of mango allergens."

For more information on this research see: Cloning, expression, and purification of recombinant major mango allergen Mani 1 in Escherichia coli. Protein Expression and Purification, 2017;130():35-43. Protein Expression and Purification can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Protein Expression and Purification - www.journals.elsevier.com/protein-expression-and-purification/)

The news correspondents report that additional information may be obtained from H.W. Wen, National Chung Hsing University, Dept. of Food Sci & Biotechnol, Taichung 402, Taiwan. Additional authors for this research include T.C. Wu, B.L. Chiang and H.W. Wen.
Oncology - Head and Neck Cancer

Findings from National Defense Medical College Provides New Data on Head and Neck Cancer (Serum midkine as a biomarker for malignancy, prognosis, and chemosensitivity in head and neck squamous cell carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Head and Neck Cancer. According to news reporting originating in Tokoroza wa, Japan, by NewsRx journalists, research stated, "Improved therapies for individuals with head and neck squamous cell carcinoma (HNSCC) may be developed by identification of appropriate biomarkers. The aim of this study was to evaluate the usefulness of serum midkine measurement as a biomarker for HNSCC."

Financial supporters for this research include Ministry of Defense of Japan, Ministry of Education, Culture, Sports, Science, and Technology.

The news reporters obtained a quote from the research from National Defense Medical College, "Pretreatment serum midkine concentrations were measured in 103 patients with HNSCC and 116 control individuals by enzyme-linked immunosorbent assay. Midkine expression in tumor tissues from 33 patients with HNSCC who underwent definitive surgical resection without preoperative treatment was examined by immunohistochemistry. The cut-off serum midkine concentrations for predicting the presence of head and neck malignancy and chemosensitivity to induction chemotherapy, as determined using receiver operating characteristic curves, were 482 and 626 pg/mL, respectively. Spearman bivariate correlations showed positive correlations between serum midkine levels and immunohistochemistry staining score (r=0.612, p<0.001). The sensitivity, specificity, positive predictive value, negative predictive value, and accuracy of serum midkine concentration for detection of HNSCC were 57.3, 85.3, 77.6, 69.2, and 72.1%, respectively. However, for predicting the response to induction chemotherapy, the values were 84.6, 60.9, 71.0, 77.8, and 73.5%, respectively. Serum midkine concentration was identified as an independent prognostic factor by multivariate analysis, using Cox's proportional hazards model (p=0.027). Overexpression of serum midkine yielded a relative risk of death of 3.77, with 95% confidence limits ranging from 1.15 to 17.0. Serum midkine levels in patients with HNSCC were associated with malignancy, chemosensitivity, and prognosis."

According to the news reporters, the research concluded: "Serum midkine may be a useful, minimally invasive biomarker for early detection, therapeutic decision-making, and predicting prognosis."


Our news correspondents report that additional information may be obtained by contacting T. Yamashita, Dept. of Otorhinolaryngology-Head and Neck Surgery, National Defense Medical College, Tokorozawa, Saitama, 359-8513, Japan. Additional authors for this

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.600. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Oncology, Tokorozawa, Risk and Prevention, Head and Neck Cancer, Squamous Cell Carcinoma, Diagnostics and Screening.

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Digestive System Diseases and Conditions

Findings from National Hospital Organization Has Provided New Data on Intrahepatic Cholestasis (Recurrence of Progressive Familial Intrahepatic Cholestasis Type 2 Phenotype After Living-donor Liver Transplantation: A Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Intrahepatic Cholestasis. According to news reporting from Hiroshima, Japan, by NewsRx journalists, research stated, "Progressive familial intrahepatic cholestasis 2 (PFIC2) is the result of mutations in the ABCB11, which encodes for bile salt export pump (BSEP). An absence of BSEP in the canalicular membrane causes cholestasis and leads to the development of end-stage liver disease in the first decade of life."

The news correspondents obtained a quote from the research from National Hospital Organization, "Liver transplantation (LT) has been considered curative for BSEP disease. However, patients with PFIC2 having undergone LT have recently been reported to develop recurrence of cholestasis together with the clinical and histological features of primary BSEP disease. We herein present a rare case of a patient with PFIC2 who developed post transplantation recurrence of progressive intrahepatic cholestasis due to antibodies against BSEP after living-donor LT, which mimicked primary BSEP disease. The patient had mutations in the ABCB11 gene, resulting in the complete absence of BSEP in the native liver, explaining the lack of tolerance. Immunofluorescence staining of normal human liver sections with the patient's serum and using an anti-human immunoglobulin G antibody to detect serum antibodies showed reactivity to the BSEP epitope in the canalicular membrane. We suggest that the patients having undergone LT had been associated with a risk of autoantibody formation against the BSEP protein."

According to the news reporters, the research concluded: "The absence of primary tolerance for the BSEP epitopes may explain the formation of the anti-BSEP antibodies after LDLT."


Our news journalists report that additional information may be obtained by
Mycobacterium Infections - Tuberculosis

Findings from National Hospital Organization Provide New Insights into Tuberculosis (Anti-PD1 Antibody Treatment and the Development of Acute Pulmonary Tuberculosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mycobacterium Infections - Tuberculosis is the subject of a report. According to news reporting originating in Kyoto, Japan, by NewsRx journalists, research stated, "Recently, cancer immunotherapy by immune checkpoint inhibitors has been considered one of the pillars for the treatment of cancer. Nivolumab is the first immune checkpoint inhibitor approved for lung cancer treatment in Japan."

The news reporters obtained a quote from the research from National Hospital Organization, "Although nivolumab has superior survival benefits and fewer adverse events than cytotoxic agents, it can generate dys-immune toxicities, known as immune-related adverse events. Although autoimmune manifestations are well-known immune-related adverse events, the development of infectious diseases is rare."

According to the news reporters, the research concluded: "Here, we report on a patient with advanced NSCLC in whom pulmonary tuberculosis developed rapidly during nivolumab treatment and discuss the potential mechanisms as well as what is known about infections during checkpoint inhibitor therapy."


Our news correspondents report that additional information may be obtained by contacting K. Fujita, National Hospital Organization, Kyoto Med Center, Div Resp Med, Kyoto, Japan. Additional authors for this research include T. Terashima and T. Mio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtho.2016.07.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kyoto, Japan, Asia, Gram-Positive Bacterial Infections, Lung Diseases and Conditions, Actinomycetales Infections, Mycobacterium
Findings from National Human Genome Research Institute Broaden Understanding of Cardiovascular Diseases (Associations between Vitamin D and Cardiovascular Disease Risk Factors in African Americans Are Partly Explained by Circulating Adipokines ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases. According to news reporting from Bethesda, Maryland, by NewsRx journalists, research stated, "Although it is recognized that vitamin D deficiency is associated with cardiovascular disease (CVD) risk factors, and is more common in African Americans (AAs), the pathologic mechanisms by which vitamin D may influence these risk factors are poorly understood. We explored the association between vitamin D status, as reflected by serum 25-hydroxyvitamin D [25(OH)D] concentrations, and CVD risk factors including mean arterial pressure (MAP), fasting plasma glucose (FPG), plasma HDL cholesterol, and waist circumference (WC) in adult AAs."

The news correspondents obtained a quote from the research from National Human Genome Research Institute, "We also tested whether plasma C-reactive protein (CRP), adipokines (adiponectin and leptin), and aldosterone mediated the associations between 25(OH)D and these risk factors. Data on 4010 (63.8% women; mean age: 54.0 y) individuals from the Jackson Heart Study were analyzed. Multivariable linear regression models were used to examine the associations of 25(OH)D with CVD risk factors. We used path analysis and bootstrapping methods to quantify and test the share of these associations that was statistically explained by each of the mediators by decomposing the associations into direct and indirect effects. Serum 25(OH)D concentrations were inversely associated with WC, FPG, and MAP and were positively associated with HDL cholesterol in multivariable analysis. A nearly 20% effect of 25(OH)D on MAP was masked by aldosterone (total indirect effect: beta = 0.01, P< 0.05). Approximately 23% of the effect of 25(OH)D on WC (beta = 0.03, P< 0.05) and similar to 9% of the effect of 25(OH)D on FPG (beta = -0.02, P< 0.05) were mediated through CRP, adiponectin, and leptin together. A 23% share of the association between 25(OH)D and HDL cholesterol was mediated by adiponectin alone (beta = 0.03, P< 0.05). Our findings suggest that the associations between vitamin D status and CVD risk factors in AAs are partially mediated through circulating adipokines and CRP."

According to the news reporters, the research concluded: "More evidence, however, is required from longitudinal and randomized controlled studies to validate our findings."

Our news journalists report that additional information may be obtained by contacting R.J. Khan, NHGRI, Metab Cardiovasc & Inflammatory Dis Genom Branch, Cardiovasc Sect, Social Epidemiol Unit NIH, Bethesda, MD 20892, United States. Additional authors for this research include S.Y. Gebreab, P. Riestra, M. Sims, A. Gaye, R.H. Xu and S.K. Davis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3945/jn.116.239509. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, 11-Hydroxycorticosteroids, Diagnostics and Screening, Adrenal Cortex Hormones, Acute-Phase Proteins, Waist Circumference, Risk and Prevention, C-Reactive Protein, HDL Cholesterol, Immunoproteins, C-Reactive Protein, C Reactive Protein, HDL Lipoproteins, Peptide Proteins, Peptide Hormones, HDL Cholesterol, Immunoproteins, Aldosterone, Adiponectin, Cardioiology, Adipokines, Immunology, Proteomics, Albumins, National Human Genome Research Institute.

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Liver Diseases and Conditions - Liver Fibrosis

Findings from National Institute of Immunology Update Understanding of Liver Fibrosis (Molecular and Cellular Functions Distinguish Superior Therapeutic Efficiency of Bone Marrow CD45 Cells Over Mesenchymal Stem Cells in Liver Cirrhosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Liver Fibrosis. According to news reporting from New Delhi, India, by NewsRx journalists, research stated, "Liver fibrosis is strongly associated with chronic inflammation. As an alternative to conventional treatments for fibrosis, mesenchymal stem cells (MSCs) therapy is found to be attractive due to its immunomodulatory functions."

Financial support for this research came from Department of Biotechnology, Government of India for generous support for the Center for Molecular Medicine programme.

The news correspondents obtained a quote from the research from the National Institute of Immunology, "However, low survival rate and profibrogenic properties of MSCs remain the major concerns, leading to skepticism in many investigators. Here, we have asked the question whether bone marrow (BM)-derived CD45 cells is the better candidate than MSCs to treat fibrosis, if so, what are the molecular mechanisms that make such distinction. Using CC14 -induced liver fibrosis mouse model of a Metavir fibrosis score 3, we showed that BM-CD45 cells have better antifibrotic effect than adipose-derived (AD)-MSCs. In fact, our study revealed that antifibrotic potential of CD45 cells are compromised by the presence of MSCs. This difference was apparently due to significantly high level expressions of matrix metalloproteinases-9 and 13, and the suppression of hepatic stellate cells' (HpSCs) activation in the CD45 cells transplantation group. Mechanism dissection studied in vitro supported the above opposing results and revealed that CD45 cell-secreted FasL induced apoptotic death of activated HpSCs. Further analyses suggest that MSC-secreted transforming growth factor b and insulin-like growth factor-1 promoted myofibroblastic differentiation of HpSCs and their
proliferation. Additionally, the transplantation of CD45 cells led to functional improvement of the liver through repair and regeneration."

According to the news reporters, the research concluded: "Thus, BM-derived CD45 cells appear as a superior candidate for the treatment of liver fibrosis due to structural and functional improvement of CCl4-induced fibrotic liver, which were much lower in case of AD-MSC therapy."


Our news journalists report that additional information may be obtained by contacting P. Baligar, Stem Cell Biology Laboratory, National Institute of Immunology, New Delhi, India. Additional authors for this research include S. Mukherjee, V. Kochat, A. Rastogi and A. Mukhopadhyay.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2210. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, New Delhi, Hepatology, Bone Marrow, Bone Research, Immune System, Liver Fibrosis, Liver Cirrhosis, Gastroenterology, Stem Cell Research, Mesenchymal Stem Cells, Liver Diseases and Conditions, Digestive System Diseases and Conditions.

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Mental Health Diseases and Conditions - Schizophrenia

Findings from National Institute of Mental Health and Neurosciences Update Understanding of Schizophrenia (The impact of HLA-G 3' UTR variants and sHLA-G on risk and clinical correlates of schizophrenia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mental Health Diseases and Conditions - Schizophrenia have been published. According to news reporting originating in Bangalore, India, by NewsRx journalists, research stated, "The Major Histocompatibility Complex (MHC)/Human Leukocyte Antigen (HLA) is known to influence the pathogenesis of several complex human diseases resulting from gene-environmental interactions. Recently, it has emerged as one of the risk determinants of schizophrenia."

The news reporters obtained a quote from the research from the National Institute of Mental Health and Neurosciences, "The HLA-G protein (a non-classical MHC class I molecule), encoded by the HLA-G gene, is shown to play important role in embryonic development. Importantly, its genetic variations and aberrant expression have been implicated in pregnancy complications like preeclampsia, inflammation, and autoimmunity. Converging evidence implicates these phenomena as risk mechanisms of schizophrenia. However, the functional implications of HLA-G in schizophrenia are yet to be empirically examined. The impact of two functional polymorphisms [14 bp Insertion/Deletion (INDEL) and +3187 A>G] and soluble HLA-G (sHLA-G) levels on schizophrenia risk was evaluated. In this exploratory study, the Ins/Ins genotype of 14 bp INDEL was found to confer a strong risk for schizophrenia."
According to the news reporters, the research concluded: "Further, low levels of sHLA-G were shown to have a significant impact on Clinical Global Impression (CGI) severity in people with schizophrenia."

For more information on this research see: The impact of HLA-G 3 ' UTR variants and sHLA-G on risk and clinical correlates of schizophrenia. *Human Immunology*, 2016;77 (12):1166-1171. *Human Immunology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

Our news correspondents report that additional information may be obtained by contacting M. Debnath, Natl Inst Mental Hlth & Neurosci, Dept. of Human Genet, Bangalore 560029, Karnataka, India. Additional authors for this research include V. Shivakumar, S.V. Kalmady, J.C. Narayanaswamy, M. Subbana, D. Venugopal, A.C. Amaresha, G. Venkatasubramanian, M. Berk and M. Debnath.

Keywords for this news article include: Bangalore, India, Asia, Mental Health Diseases and Conditions, Immunology, Risk and Prevention, Schizophrenia, Psychiatry, Genetics, National Institute of Mental Health and Neurosciences.

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functional categories, such as gene ontologies and then molecular pathways, illustrate target processes of relevance to TBI pathology."

According to the news reporters, the research concluded: "These processes may be further dissected to identify key factors that can be evaluated at the protein level to highlight possible treatments for TBI in human disease and potential biomarkers of neurodegenerative processes."


Our news correspondents report that additional information may be obtained by contacting D. Tweedie, NIA, Translat Gerontol Branch, Intramural Res Program, National Institutes of Health, Baltimore, MD 21224, United States. Additional authors for this research include L. Rachmany, D.S. Kim, V. Rubovitch, E. Lehrmann, Y.Q. Zhang, K.G. Becker, E. Perez, C.G. Pick and N.H. Greig.

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Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Pathology, Epidemiology, Genetics, Traumatic Brain Injury, Cranioencephral Trauma, Drugs and Therapies, Drug Development, Brain Injuries, National Institutes of Health.

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**Organelles**

**Findings from National Pingtung University of Science and Technology**

Update Knowledge of Organelles (Cytotoxicity of 11-epi-Sinulariolide Acetate Isolated from Cultured Soft Corals on HA22T Cells through the Endoplasmic Reticulum Stress Pathway ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Organelles are presented in a new report. According to news reporting originating in Pingtung, Taiwan, by NewsRx journalists, research stated, "Natural compounds from soft corals have been increasingly used for their antitumor therapeutic properties. This study examined 11-epi-sinulariolide acetate (11-epi-SA), an active compound isolated from the cultured soft coral Sinularia flexibilis, to determine its potential antitumor effect on four hepatocellular carcinoma cell lines."

The news reporters obtained a quote from the research from the National Pingtung University of Science and Technology, "Cell viability was investigated using 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay, and the results demonstrated that 11-epi-SA treatment showed more cytotoxic effect toward HA22T cells. Protein profiling of the 11-epi-SA-treated HA22T cells revealed substantial protein alterations associated with stress.
response and protein synthesis and folding, suggesting that the mitochondria and endoplasmic reticulum (ER) play roles in 11-epi-SA-initiated apoptosis. Moreover, 11-epi-SA activated caspase-dependent apoptotic cell death, suggesting that mitochondria-related apoptosis genes were involved in programmed cell death. The unfolded protein response signaling pathway-related proteins were also activated on 11-epi-SA treatment, and these changes were accompanied by the upregulated expression of growth arrest and DNA damage-inducible protein (GADD153) and CCAAT/enhancer binding protein (C/EBP) homologous protein (CHOP), the genes encoding transcription factors associated with growth arrest and apoptosis under prolonged ER stress. Two inhibitors, namely salubrinal (Sal) and SP600125, partially abrogated 11-epi-SA-related cell death, implying that the protein kinase R (PKR)-like endoplasmic reticulum kinase (PERK)-activating transcription factor (ATF) 6-CHOP or the inositol-requiring enzyme 1 alpha (IRE1 alpha)-c-Jun N-terminal kinase (JNK)-cJun signal pathway was activated after 11-epi-SA treatment.

According to the news reporters, the research concluded: "In general, these results suggest that 11-epi-SA exerts cytotoxic effects on HA22T cells through mitochondrial dysfunction and ER stress cell death pathways."

For more information on this research see: Cytotoxicity of 11-epi-Sinulariolide Acetate Isolated from Cultured Soft Corals on HA22T Cells through the Endoplasmic Reticulum Stress Pathway and Mitochondrial Dysfunction. International Journal of Molecular Sciences, 2016;17(11):431-454. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting J.J. Lin, Natl Pingtung Univ Sci & Technol, Grad Inst Vet Med, Pingtung 91201, Taiwan. Additional authors for this research include R.Y.L. Wang, J.C. Chen, C.C. Chiu, M.H. Liao and Y.J. Wu.

Keywords for this news article include: Pingtung, Taiwan, Asia, Enzymes and Coenzymes, Endoplasmic Reticulum, Cellular Structures, Intracellular Space, Organelles, Apoptosis, Cytoplasm, Genetics, Kinase, National Pingtung University of Science and Technology.

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Oncology - Colon Cancer

**Findings from National Research Council Broaden Understanding of Colon Cancer (Preventive screening of colorectal cancer with a device based on chemoresistive sensors)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating in Florence, Italy, by NewsRx journalists, research stated, "Colorectal cancer is one of the widely diffused tumors. Despite its high curable rate, if diagnosed in its polyp state, an efficient screening method is highly desirable for preventing and decreasing deaths."

The news reporters obtained a quote from the research from National Research Council, "Tumor biomarkers, emitted by the peroxidation of the cell membrane, may alter the composition of feces. We developed an array of chemoresistive sensors (both metal oxides and
sulfides) capable of distinguishing between real stool samples of healthy subjects and of patients with colorectal cancer at diverse degeneration stages. Preliminary clinical validation of real samples was carried out. Results have shown the selectivity of the sensor array towards tumor affected and healthy subject samples."

According to the news reporters, the research concluded: "A quadratic discriminant analysis was performed, with a classification error of about 5%.

For more information on this research see: Preventive screening of colorectal cancer with a device based on chemoresistive sensors. Sensors and Actuators B-Chemical, 2017;238 ():1098-1101. Sensors and Actuators B-Chemical can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland.

Our news correspondents report that additional information may be obtained by contacting G. Zonta, CNR, INO, I-50124 Florence, Italy. Additional authors for this research include G. Anania, B. Fabbri, A. Gaiardo, S. Gherardi, A. Giberti, N. Landini, C. Malagu, L. Scaglierini and V. Guidi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.snb.2016.07.079. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Florence, Italy, Europe, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, National Research Council.

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Musculoskeletal Diseases and Conditions ...

Findings from National Taiwan University Reveals New Findings on Osteoarthritis (C-phycocyanin alleviates osteoarthritic injury in chondrocytes stimulated with H2O2 and compressive stress)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Osteoarthritis. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "During the progression of osteoarthritis (OA), dysregulation of extracellular matrix anabolism, abnormal generation of reactive oxygen species (ROS) and inflammatory cytokines have been shown to accelerate the degradation process of cartilage. The potency of c-phycocyanin (C-PC) to protect cellular components against oxidative stress, along with its anti-inflammation and anti-apoptosis effects, are well documented; however, effects of C-PC on OA are still unclear."

Financial support for this research came from National Science Council.

The news reporters obtained a quote from the research from National Taiwan University. "In this study, we aimed to investigate the effects of C-PC on OA using H2O2 or compression-stimulated OA-like porcine chondrocyte models. The results showed that C-PC had the ability to inhibit ROS production, reverse caspase-3 activity, and reduce apoptosis cell population. C-PC also reversed aggrecan and type II collagen gene expressions after stimulation with 1 mM H2O2 or 60 psi of compression. Inhibition of IL-6 and MMP-13 genes was observed in compression-stimulated chondrocytes but not in H2O2-treated cells. In dimethylmethylen blue assay and alcian blue staining, C-PC maintained the sulfated-glycosaminoglycan (sGAG) content after stimulation with compression. We concluded that C-PC can prevent early signs of..."
According to the news reporters, the research concluded: "Therefore, we suggest that C-PC can be used as a potential drug candidate for chronic OA treatment."


Our news correspondents report that additional information may be obtained by contacting F.H. Lin, National Taiwan University, Inst Biomed Engn, Taipei 10672, Taiwan. Additional authors for this research include S.T. Chuang, C.H. Hsu, Y.J. Sun and F.H. Lin. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.09.051. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Musculoskeletal Diseases and Conditions, Light-Harvesting Protein Complexes, Connective Tissue Cells, Biological Pigments, Biological Factors, Phycobiliproteins, Plant Proteins, Osteoarthritis, Chondrocytes, Phycocyanin, Arthritis, Genetics, National Taiwan University.

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**Neurodegenerative Diseases and Conditions -...**

**Findings from National Yang Ming University Has Provided New Information about Alzheimer Disease (Antroquinonol Lowers Brain Amyloid-b Levels and Improves Spatial Learning and Memory in a Transgenic Mouse Model of Alzheimer's Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Alzheimer's disease (AD) is the most common form of dementia. The deposition of brain amyloid-b peptides (Ab), which are cleaved from amyloid precursor protein (APP), is one of the pathological hallmarks of AD."

Our news journalists obtained a quote from the research from National Yang Ming University, "Ab-induced oxidative stress and neuroinflammation play important roles in the pathogenesis of AD. Antroquinonol, a ubiquinone derivative isolated from Antrodia camphorata, has been shown to reduce oxidative stress and inflammatory cytokines via activating the nuclear transcription factor erythroid-2-related factor 2 (Nrf2) pathway, which is downregulated in AD. Therefore, we examined whether antroquinonol could improve AD-like pathological and behavioral deficits in the APP transgenic mouse model. We found that antroquinonol was able to cross the blood-brain barrier and had no adverse effects via oral intake. Two months of antroquinonol consumption improved learning and memory in the Morris water maze test, reduced hippocampal Ab levels, and reduced the degree of astrogliosis. These effects may be mediated through the increase of Nrf2 and the decrease of histone deacetylase 2..."
(HDAC2) levels."

According to the news editors, the research concluded: "These findings suggest that antroquinonol could have beneficial effects on AD-like deficits in APP transgenic mouse."

For more information on this research see: Antroquinonol Lowers Brain Amyloid-b Levels and Improves Spatial Learning and Memory in a Transgenic Mouse Model of Alzheimer's Disease. Scientific Reports, 2015;5():15067. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from W.H. Chang, Institute of Brain Science, National Yang-Ming University, Taipei, Taiwan. Additional authors for this research include M.C. Chen and I.H Cheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep15067. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taipei, Taiwan, Amyloid, Dementia, Genetics, Proteins, Tauopathies, Alzheimer Disease, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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Oncology - Gliomas

Findings from Nencki Institute of Experimental Biology Provides New Data on Gliomas (BIX01294, an inhibitor of histone methyltransferase, induces autophagy-dependent differentiation of glioma stem-like cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gliomas. According to news reporting from Warsaw, Poland, by NewsRx journalists, research stated, "Glioblastoma (GBM) contains rare glioma stem-like cells (GSCs) with capacities of self-renewal, multi-lineage differentiation, and resistance to conventional therapy. Drug-induced differentiation of GSCs is recognized as a promising approach of anti-glioma therapy."

The news correspondents obtained a quote from the research from the Nencki Institute of Experimental Biology, "Accumulating evidence suggests that unique properties of stem cells depend on autophagy. Here we demonstrate that BIX01294, an inhibitor of a G9a histone methyltransferase (introducing H3K9me2 and H3K27me3 repressive marks) triggers autophagy in human glioma cells. Pharmacological or genetic inhibition of autophagy decreased LC3-II accumulation and GFP-LC3 punctation in BIX01294-treated cells. GSCs-enriched spheres originating from glioma cells and GBM patient-derived cultures express lower levels of autophagy related (ATG) genes than the parental glioma cell cultures. Typical differentiation inducers that upregulate neuronal and astrocytic markers in sphere cultures, increase the level of ATG mRNAs. G9a binds to the promoters of autophagy (LC3B, WIP1) and differentiation-related (GFAP, TUBB3) genes in GSCs. Higher H3K4me3 (an activation mark) and lower H3K9me2 (the repressive mark) levels at the promoters of studied genes were detected in serum-differentiated cells than in sphere cultures. BIX01294 treatment upregulates the expression of autophagy and differentiation-related genes in GSCs."

According to the news reporters, the research concluded: "Pharmacological inhibition of autophagy decreases GFAP and TUBB3 expression in BIX01294-treated GSCs.
suggesting that BIX01294-induced differentiation of GSCs is autophagy-dependent."


Our news journalists report that additional information may be obtained by contacting I.A. Ciechomska, Polish Academy Sci, Mol Neurobiol Lab, Neurobiol Center, Nencki Inst Expt Biol, PL-02093 Warsaw, Poland. Additional authors for this research include P. Przanowski, J. Jackl, B. Wojtas and B. Kaminska.

Keywords for this news article include: Warsaw, Poland, Europe, One-Carbon Group Transferases, Enzymes and Coenzymes, Methyltransferases, Therapy, Genetics, Nucleoproteins, Pharmacology, Proteins, Histones, Oncology, Gliomas, Nencki Institute of Experimental Biology.

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Oncology - Bladder Cancer

**Findings from Netherlands Cancer Institute Broaden Understanding of Bladder Cancer (Pathological downstaging and survival after induction chemotherapy and radical cystectomy for clinically node-positive bladder cancer-Results of a nationwide ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Bladder Cancer. According to news originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Induction chemotherapy (IC) for clinically node-positive bladder cancer is applied without clinical evidence of improved outcome. Our objective was to compare complete pathological downstaging (pCD) and overall survival (OS) for IC versus upfront radical cystectomy (RC) in cT1-4aN1-3M0 urothelial carcinoma (UC)."

Our news journalists obtained a quote from the research from Netherlands Cancer Institute, "This population-based study included 659 cN+ patients treated with RC between 1995 and 2013. IC was applied in 212 (32%) patients. We defined pCD as <(y)pT1N0 at RC. Multivariable analyses were preformed to identify independent predictors of pCD and OS. In cN1 and cN2-3 patients, 31% and 19% of patients proved to be pN0 at upfront RC. In cN1, pCD was achieved in 39% following IC versus 5% for upfront RC (P < 0.001). In cN2-3 UC, rates were 27% versus 3% (P < 0.001). Three-year OS for pCD and ypCD were 81% and 84%, respectively. Three-year OS rates were 66% versus 37% (cN1) and 43% versus 22% (cN2-3), again in favour of IC (P < 0.001). In multivariable analyses, IC was associated with pCD (Odds ratio, 14; 95% confidence interval [CI], 7.4-25) and a 53% decreased risk of death (Hazard ratio [HR], 0.47; 95% CI, 0.36-0.61). Indication bias and unequal distributions of factors associated with OS (e.g. patients proceeding to RC) limit interpretation of our results. Patients with clinical nodal involvement should not be neglected. Up to 1/4 of patients with cN+ disease had pN0 at upfront RC. Moreover, IC followed by RC for clinically node-positive UC was associated with improved pathological downstaging compared with RC alone. A potential OS benefit for IC needs to be validated in a randomised trial. Take home message: IC followed by RC for
clinically node-positive UC is associated with improved pathological downstaging compared with RC alone."

According to the news editors, the research concluded: "A potential OS benefit for IC needs to be validated in a randomised trial."


The news correspondents report that additional information may be obtained from B.W.G. van Rhijn, Antoni van Leeuwenhoek Hosp, Netherlands Canc Inst, Dept. of Surg Oncol, Div Urol, NL-1066 CX Amsterdam, Netherlands. Additional authors for this research include E.E.F. van de Putte, S. Horenblas, R.P. Meijer, J.L. Boormans, K.K.H. Aben, M.S. van der Heijden, R. de Wit, L.V. Beerepoot, R.H.A. Verhoeven and B.W.G. van Rhijn.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Cancer, Risk and Prevention, Epidemiology, Drugs and Therapies, Radical Cystectomy, Bladder Cancer, Chemotherapy, Oncology, Surgery, Netherlands Cancer Institute.

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**Hematopoietic**

**Findings from New York University in the Area of Hematopoietic Reported (MED12 Regulates HSC-Specific Enhancers Independently of Mediator Kinase Activity to Control Hematopoiesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematopoietic. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "Hematopoietic-specific transcription factors require coactivators to communicate with the general transcription machinery and establish transcriptional programs that maintain hematopoietic stem cell (HSC) self-renewal, promote differentiation, and prevent malignant transformation. Mediator is a large coactivator complex that bridges enhancer-localized transcription factors with promoters, but little is known about Mediator function in adult stem cell self-renewal and differentiation."

Our news journalists obtained a quote from the research from New York University, "We show that MED12, a member of the Mediator kinase module, is an essential regulator of HSC homeostasis, as in vivo deletion of Med12 causes rapid bone marrow aplasia leading to acute lethality. Deleting other members of the Mediator kinase module does not affect HSC function, suggesting kinase-independent roles of MED12. MED12 deletion destabilizes P300 binding at lineage-specific enhancers, resulting in H3K27Ac depletion, enhancer de-activation, and consequent loss of HSC stemness signatures."

According to the news editors, the research concluded: "As MED12 mutations have been described recently in blood malignancies, alterations in MED12-dependent enhancer regulation may control."

For more information on this research see: MED12 Regulates HSC-Specific
enhancers independently of mediator kinase activity to control hematopoiesis. cell stem cell, 2016;19(6):784-799. cell stem cell can be contacted at: cell press, 600 technology square, 5th floor, cambridge, ma 02139, usa. (elsevier - www.elsevier.com; cell stem cell - www.journals.elsevier.com/cell-stem-cell/)

our news journalists report that additional information may be obtained by contacting i. aifantis, new york university, sch med, helen l & martin s kimmel center stem cell biol, new york, ny 10016, united states. additional authors for this research include r. saldana-meyer, e. wang, e. trompouki, a. fassl, s. lau, j. mullenders, p.p. rocha, r. raviram, m. guillamot, m. sanchez-diaz, k. wang, c. kayembe, n. zhang, l. amoasii, a. choudhuri, j.a. skok, m. schober and reinber.

the direct object identifier (doi) for that additional information is: http://dx.doi.org/10.1016/j.stem.2016.08.004. this doi is a link to an online electronic document that is either free or for purchase.

keywords for this news article include: new york city, new york, united states, north and central america, enzymes and coenzymes, stem cell research, hematopoietic, hematology, genetics, kinase, new york university.

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oncology - squamous cell carcinoma

findings from nippon school of medicine in squamous cell carcinoma reported (insulin-like growth factor 2 mrna-binding protein-3 as a marker for distinguishing between cutaneous squamous cell carcinoma and keratoacanthoma)

2017 jan 14 (newsrx) -- by a news reporter-staff news editor at obesity, fitness & wellness week -- current study results on oncology - squamous cell carcinoma have been published. according to news reporting from tokyo, japan, by newsrx journalists, research stated, "in the histopathological diagnosis of cutaneous tumors, the differential diagnosis of squamous cell carcinoma (scm) with crateriform architecture and keratoacanthoma (ka) is often difficult so an accurate understanding of the biological features and the identification of reliable markers of scm and ka are crucial issues. insulin-like growth factor 2 mrna-binding protein-3 (igf2bp3, also known as imp3) is thought of as a bona fide oncofetal protein, which is overexpressed and is involved in cell proliferation, migration, and invasion in several kinds of tumors."

the news correspondents obtained a quote from the research from the nippon school of medicine, "however, the role of imp3 in cutaneous scm and ka has not been well studied. therefore, we focused on studying the biological functions of imp3 in scm and ka. in human skin scm cell lines, hsc-1 and hsc-5, and the human keratinocyte cell line, hacaT, imp3 mrna levels were significantly higher than that of normal human skin. the knockdown of imp3 expression reduced the proliferation of hsc-1, and significantly reduced invasion by hsc-1 and hsc-5. in contrast, the knockdown of imp3 did not significantly affect invasion by hacaT cells. in immunohistochemical studies of scm and ka tissues, the ki-67 labeling index (li) of the suprabasal cell layer was significantly higher in scm, compared with ka tissues and the tumor-free margin (tfm) adjacent to scm and ka. most scm tissues stained strongly positive for imp3, but ka tissues and tfm were mostly negative for imp3. the ki-67 li of the...
IMP3-positive group was significantly higher than that of the IMP3-negative group in the suprabasal cell layer of SCC. These results suggest that IMP3 plays an important role in proliferation and, more significantly, in the invasion of SCC, and may be a suitable marker for the histopathological diagnosis of SCC with a crateriform architecture and KA.

According to the news reporters, the research concluded: "Furthermore, IMP3 may potentially be a new therapeutic target for SCC."

For more information on this research see: Insulin-like growth factor 2 mRNA-binding protein-3 as a marker for distinguishing between cutaneous squamous cell carcinoma and keratoacanthoma. *International Journal of Oncology*, 2016;48(3):1007-15.

Our news journalists report that additional information may be obtained by contacting A. Kanzaki, Dept. of Integrated Diagnostic Pathology, Nippon Medical School, Tokyo, Japan. Additional authors for this research include M. Kudo, S. Ansai, W.X. Peng, K. Ishino, T. Yamamoto, R. Wada, T. Fujii, K. Teduka, K. Kawahara, Y. Kawamoto, T. Kitamura, S. Kawana, H. Saeki and Z. Naito.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3323. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Genetics, Oncology, Proinsulin, Keratoacanthoma, Peptide Hormones, Peptide Proteins, Squamous Cell Carcinoma, Skin Diseases and Conditions, Skin and Connective Tissue Diseases and Conditions.

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**Enzymes and Coenzymes - Cysteine Endopeptidases**

**Findings from Northwest A&F University Update Knowledge of Cysteine Endopeptidases [3-Monochloro-1,2-propanediol (3-MCPD) induces apoptosis via mitochondrial oxidative phosphorylation system impairment and the caspase cascade pathway]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Enzymes and Coenzymes - Cysteine Endopeptidases are presented in a new report. According to news reporting out of Yangling, People's Republic of China, by NewsRx editors, research stated, "3-Monochloro-1,2-propanediol (3-MCPD) is the most toxic chloropropanols compounds in foodstuff which mainly generated during thermal processing. Kidney is one of the primary target organs for 3-MCPD."

Financial supporters for this research include National Natural Science Foundation of China, Fundamental Research Funds for the Central Universities of China.

Our news journalists obtained a quote from the research from Northwest A&F University, "Using human embryonic kidney cell (HEK293FT) as an in vitro model, we found that 3-MCPD caused concentration-dependent increase in cytotoxicity as assessed by dye uptake, lactatedehydrogenase (LDH) leakage and MTT assays. HEK293FT cell treated with 3-MCPD suffered the decrease of mitochondrial membrane potential and the impairment of mitochondrial oxidative phosphorylation system, especially the reduced amount of mRNA expression and protein synthesis of electron transport chain complex II, complex IV, and complex III. More importantly, energy release (ATP synthesis) was significantly inhibited by 3-MCPD resulting from the down regulation expressions of ATP synthase (ATP6 and ATP8), as well as the loss of
transmembrane potential required for synthesis of ATP. The decreased ratio of mitochondrial apoptogenic factors Bax/Bcl-2 and the cytochrome-c release from mitochondria to cytosol followed by the activation of apoptotic initiators caspase 9 and apoptotic executioners (caspase 3, caspase 6 and caspase 7) leading to apoptosis."

According to the news editors, the research concluded: "The activation of caspase 8 and caspase 2 implied that there were probably other factors to induce the caspase-dependent apoptosis."

For more information on this research see: 3-Monochloro-1,2-propanediol (3-MCPD) induces apoptosis via mitochondrial oxidative phosphorylation system impairment and the caspase cascade pathway. Toxicology, 2016;372():1-11. Toxicology can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Toxicology - www.journals.elsevier.com/toxicology/)

Our news journalists report that additional information may be obtained by contacting X.D. Xia, Northwest A&F Univ, Coll Food Sci & Engn, Yangling 712100, Shaanixi, People's Republic of China. Additional authors for this research include J. Gan, Q. Wang, Z.Q. Shi and X.D. Xia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tox.2016.09.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yangling, People's Republic of China, Asia, Cysteine Endopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Apoptosis, Genetics, Caspases, Northwest A&F University.

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Respiratory Tract Diseases and Conditions - …

Findings from Northwestern Memorial Hospital Broaden Understanding of Pneumothorax (Primary Spontaneous Pneumothorax in Menstruating Women Has High Recurrence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Respiratory Tract Diseases and Conditions - Pneumothorax are presented in a new report. According to news reporting originating in Chicago, Illinois, by NewsRx journalists, research stated, "Primary spontaneous pneumothorax (PSP) is treated on the basis of studies that have predominantly consisted of tall male subjects. Here, we determined recurrence of PSP in average-statured menstruating women and studied prevalence of catamenial pneumothorax (CP) in this population."

The news reporters obtained a quote from the research from Northwestern Memorial Hospital, "Men and menstruating women, aged 18 to 55 years, without underlying lung disease or substance abuse were retrospectively studied between 2009 and 2015. A chest pathologist reviewed all specimens for thoracic endometriosis. Kaplan-Meier curves were constructed to determine recurrence. The median age of women (n = 33) and men (n = 183) was 33.4 and 31.6 years, respectively. In women, 9 (27%) had left-sided and 24 (73%) had right-sided PSP, treated with tube thoracostomy. Recurrence occurred in 21 women (64%) with median follow-up of 14 months, and they were treated with thoracoscopic pleurodesis. Right PSP had higher recurrence (70%) than left PSP (56%, p = 0.02). Four women (12%) presented with recurrent tension
pneumothorax within 6 months. Eight patients (24%) had PSP within 72 hours of menses, meeting clinical criteria of CP. All these were placed on hormonal suppression after initial episode but went on to experience recurrence that was treated with pleurodesis. Classical endometrial glands were not found in any biopsy specimens obtained during the thoracoscopy. In contrast to female subjects, only 8 average-statured men (4.4%) had recurrence (p < 0.001) with a median follow-up of 16 months. PSP in healthy average-statured menstruating women has high recurrence compared with male counterparts."

According to the news reporters, the research concluded: "CP is a clinical diagnosis and often recurs despite hormonal suppression therapy."


Our news correspondents report that additional information may be obtained by contacting A. Bharat, Northwestern Mem Hosp, Dept. of Pathol, Chicago, IL 60611, United States. Additional authors for this research include B.P. Stanifer, S. Fore-Kosterski, C. Gillespie, A. Yeldandi, S. Meyerson, D.D. Odell, M.M. DeCamp and A. Bharat.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.069. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Respiratory Tract Diseases and Conditions, Pleural Diseases and Conditions, Pneumothorax, Northwestern Memorial Hospital.

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Oncology - Breast Cancer

Findings from Northwestern University Provide New Insights into Breast Cancer (Radiology as the Point of Cancer Patient and Care Team Engagement: Applying the 4R Model at a Patient’s Breast Cancer Care Initiation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting from Chicago, Illinois, by NewsRx journalists, research stated, "Radiologists aspire to improve patient experience and engagement, as part of the Triple Aim of health reform. Patient engagement requires active partnerships among health providers and patients, and rigorous teamwork provides a mechanism for this."

The news correspondents obtained a quote from the research from Northwestern University, "Patient and care team engagement are crucial at the time of cancer diagnosis and care initiation but are complicated by the necessity to orchestrate many interdependent consultations and care events in a short time. Radiology often serves as the patient entry point into the cancer care system, especially for breast cancer. It is uniquely positioned to play the value-adding role of facilitating patient and team engagement during cancer care initiation. The 4R approach (Right Information and Right Care to the Right Patient at the Right Time),
previously proposed for optimizing teamwork and care delivery during cancer treatment, could be applied at the time of diagnosis. The 4R approach considers care for every patient with cancer as a project, using project management to plan and manage care interdependencies, assign clear responsibilities, and designate a quarterback function. The authors propose that radiology assume the quarterback function during breast cancer care initiation, developing the care initiation sequence, as a project care plan for newly diagnosed patients, and engaging patients and their care teams in timely, coordinated activities. After initial consultations and treatment plan development, the quarterback function is transitioned to surgery or medical oncology. This model provides radiologists with opportunities to offer value-added services and solidifies radiology's relevance in the evolving health care environment."

According to the news reporters, the research concluded: "To implement 4R at cancer care initiation, it will be necessary to change the radiology practice model to incorporate patient interaction and teamwork, develop 4R content and local adaption approaches, and enrich radiology training with relevant clinical knowledge, patient interaction competence, and teamwork skill set."


Our news journalists report that additional information may be obtained by contacting C.B. Weldon, Northwestern University, Feinberg Sch Med, Chicago, IL 60611, United States. Additional authors for this research include S.M. Friedewald, S.A. Kulkarni, M.A. Simon, R.C. Carlos, J.B. Strauss, M.M. Bunce, A. Small and J.R. Trosman.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Women's Health, Breast Cancer, Radiology, Oncology, Northwestern University.

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Central Nervous System - Metencephalon

Findings from Nova Southeastern University Update Understanding of Metencephalon (Heterologous regulation of the cannabinoid type 1 receptor by angiotensin II in astrocytes of spontaneously hypertensive rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Central Nervous System - Metencephalon is now available. According to news originating from Fort Lauderdale, Florida, by NewsRx correspondents, research stated, "Brainstem and cerebellar astrocytes have critical roles to play in hypertension and attention-deficit hyperactivity disorder, respectively. Angiotensin (Ang) II, via the astroglial Ang type 1 receptor (AT1R), has been demonstrated to elevate pro-inflammatory mediators in the brainstem and the cerebellum."

Financial supporters for this research include President's Faculty Research &
Development Grant, Health Professions Grant.

Our news journalists obtained a quote from the research from Nova Southeastern University, "The activation of astroglial cannabinoid type 1 receptor (CB1R), a master regulator of homeostasis, has been shown to neutralize inflammatory states. Factors that drive disease progression are known to alter the expression of CB1Rs. In this study, we investigated the role of Ang II in regulating CB1R protein and mRNA expression in astrocytes isolated from the brainstem and the cerebellum of spontaneously hypertensive rats (SHRs). The results were then compared with their normotensive counterpart, Wistar rats. Not only was the basal expression of CB1R protein and mRNA significantly lower in SHR brainstem astrocytes, but treatment with Ang II resulted in lowering it further in the initial 12h. In the case of cerebellum, Ang II upregulated the CB1R protein and mRNA in SHR astrocytes. While the effect of Ang II on CB1R protein was predominantly mediated via the AT1R in SHR brainstem; both AT1R- and AT2R-mediated Ang II's effect in the SHR cerebellum. These data are strongly indicative of a potential new mode of cross-talk between components of the renin angiotensin system and the endocannabinoid system in astrocytes."

According to the news editors, the research concluded: "The consequence of such a cross-talk could be a potential reduced endocannabinoid tone in brainstem in hypertensive states, but not in the cerebellum under the same conditions."


The news correspondents report that additional information may be obtained from M.A. Clark, Nova Southeastern Univ, Coll Pharm, Dept. of Pharmaceut Sci, Fort Lauderdale, FL 33328, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jnc.13776. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fort Lauderdale, Florida, United States, North and Central America, Central Nervous System, Nerve Tissue Proteins, Biological Factors, Peptide Proteins, Peptide Hormones, Angiotensin II, Oligopeptides, Neuropeptides, Metencephalon, Cannabinoids, Angiotensins, Brain Stem, Cerebellum, Autacoids, Terpenes, Peptides, Genetics, Nova Southeastern University.

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**Skin Diseases and Conditions - Atopic Dermatitis**

**Findings from O. Nemoto and Co-Researchers Advance Knowledge in Atopic Dermatitis (The first trial of CIM331, a humanized anti-human interleukin-31 receptor A antibody, in healthy volunteers and patients with atopic dermatitis to evaluate ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Skin Diseases and Conditions - Atopic Dermatitis have
been presented. According to news reporting originating in Hokkaido, Japan, by NewsRx journalists, research stated, "The cytokine interleukin-31 (IL-31) is considered to be responsible for the development of pruritus in humans. At present, no available evidence has been provided on the safety and efficacy of blocking the IL-31 signal in humans for the amelioration of pruritus in atopic dermatitis (AD)."

The news reporters obtained a quote from the research, "CIM331 is a humanized antihuman IL-31 receptor A (IL-31RA) monoclonal antibody, which binds to IL-31RA to inhibit subsequent IL-31 signalling. To assess the tolerability, safety, pharmacokinetics and preliminary efficacy of CIM331 in healthy Japanese and white volunteers, and Japanese patients with AD. In this randomized, double-blind, placebo-controlled phase I/Ib study, CIM331 was administered in a single subcutaneous dose. The primary outcomes were safety and tolerability; the exploratory analysis was efficacy. No deaths, serious adverse events (AEs) or discontinuations due to AEs were reported in any part of the study. No dose-dependent increase in the incidence of AEs occurred in any part of the study. In healthy volunteers, all AEs occurred once in the placebo groups, and increased creatine phosphokinase was more common in the CIM331 groups. In patients with AD, CIM331 reduced pruritus visual analogue scale score to about -50% at week 4 with CIM331 compared with -20% with placebo. CIM331 increased sleep efficiency and decreased the use of hydrocortisone butyrate. A single subcutaneous administration of CIM331 was well tolerated in healthy volunteers and patients with AD. It decreased pruritus, sleep disturbance and topical use of hydrocortisone."

According to the news reporters, the research concluded: "CIM331 may become a novel therapeutic option for AD by inhibiting IL-31."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjd.14207. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antibodies, Pharmaceuticals, Japan, Therapy, Hokkaido, Placebos, Pruritus, Cytokines, Immunology, Dermatology, Interleukins, Blood Proteins, Hydrocortisone, Immunoglobulins, Pharmacokinetics, Atopic Dermatitis, Adrenal Cortex Hormones, 11 Hydroxycorticosteroids, 17 Hydroxycorticosteroids, Skin Diseases and Conditions.

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**Heart Disorders and Diseases - Left Ventricular...**

**Findings from Obafemi Awolowo University in the Area of Left Ventricular Dysfunction Reported (Correlation between volume overload, chronic inflammation, and left ventricular dysfunction in chronic kidney disease patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Left Ventricular Dysfunction is the subject of a report. According to news reporting out of Ife, Nigeria, by NewsRx editors, research stated, "Fluid overload is common in chronic kidney disease (CKD) patients, potentially driving chronic inflammation and left ventricular dysfunction. We investigated the association between volume overload, chronic inflammation, and left ventricular dysfunction across subgroups of CKD patients."

Our news journalists obtained a quote from the research from Obafemi Awolowo University, "The study included 160 participants, comprising peritoneal dialysis (PD), hemodialysis (HD), stage-3 CKD patients, and age-and sex-matched controls (40 in each group). Fluid status was assessed using a body composition monitor (BCM); serum endotoxin, lipopolysaccharide binding protein (LBP), C-reactive protein (CRP). and interleukin-6 (IL-6) levels were measured as markers of inflammation. Echocardiography was done to assess left ventricular dimension and function. Endotoxemia and volume overload were common across the spectrum of CKD patients and were aggravated by worsening kidney function. Among HD cohorts, postdialysis endotoxemia was increased among patients with dialysis-induced hemodynamic instability and was also closely related to ultrafiltration volume. Endotoxin, IL-6, CRP, and LBP levels were elevated in patients with volume overload compared to euvolemic patients (p < 0.05). Patients with elevated circulating endotoxemia had higher left ventricular mass index (LVMI) compared to patients with lower endotoxin levels. Fluid overload correlated with endotoxin levels, IL-6, and LVMI; while LVMI correlated weakly with LBP and CRP. CKD patients typically presented with significant endotoxemia and overt volume overload, which may contribute significantly to chronic low-grade inflammation and left ventricular dysfunction."

According to the news editors, the research concluded: "An additive contribution from hemodialysis treatment may strongly enhance the severity of endotoxemia in HD patients."

For more information on this research see: Correlation between volume overload, chronic inflammation, and left ventricular dysfunction in chronic kidney disease patients. *Clinical Nephrology*, 2016;86():S131-S135. *Clinical Nephrology* can be contacted at: Dustri-Verlag Dr Karl Feistle, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.

Our news journalists report that additional information may be obtained by contacting M.O. Hassan, Obafemi Awolowo University, Teaching Hosp Complex, Dept. of Med, Renal Unit, Ife, Osun State, Nigeria. Additional authors for this research include R. Duarte, T. Dix-Peek, A. Vachiat, S. Naidoo, C. Dickens, S. Grinter, P. Manga and S. Naicker.

Keywords for this news article include: Ife, Nigeria, Africa, Cardiovascular Diseases and Conditions, Bacterial Infections and Mycoses, Kidney Diseases and Conditions, Heart Disorders and Diseases, Left Ventricular Dysfunction, Chronic Kidney Disease, Biological Factors, Bacterial Toxins, Renal Dialysis, Heart Disease, Hemodialysis, Inflammation, Endotoxemia, Endotoxins, Cardiology, Bacteremia, Sepsis, Obafemi Awolowo University.
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Findings from Ohio State University Broaden Understanding of Anterior Cruciate Ligament (Effect of High-Grade Preoperative Knee Laxity on Anterior Cruciate Ligament Reconstruction Outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Anterior Cruciate Ligament are discussed in a new report. According to news reporting originating in Columbus, Ohio, by NewsRx journalists, research stated, "Knee laxity in the setting of suspected anterior cruciate ligament (ACL) injury is frequently assessed through physical examination using the Lachman, pivot-shift, and anterior drawer tests. The degree of laxity noted on these examinations may influence treatment decisions and prognosis."

The news reporters obtained a quote from the research from Ohio State University, "Increased preoperative knee laxity would be associated with increased risk of subsequent revision ACL reconstruction and worse patient-reported outcomes 2 years postoperatively. Cohort study; Level of evidence, 2. From an ongoing prospective cohort study, 2333 patients who underwent primary isolated ACL reconstruction without collateral or posterior cruciate ligament injury were identified. Patients reported by the operating surgeons as having an International Knee Documentation Committee (IKDC) grade D for Lachman, anterior drawer, or pivot-shift examination were classified as having high-grade laxity. Multiple logistic regression modeling was used to evaluate whether having high-grade preoperative laxity was associated with increased odds of undergoing revision ACL reconstruction within 2 years of the index procedure, controlling for patient age, sex, Marx activity level, level of competition, and graft type. Multiple linear regression modeling was used to evaluate whether having high-grade preoperative laxity was associated with worse IKDC score or Knee injury and Osteoarthritis Outcome Score Knee-Related Quality of Life subscale (KOOS-QOL) scores at a minimum 2 years postoperatively, controlling for baseline score, patient age, ethnicity, sex, body mass index, marital status, smoking status, sport participation, competition level, Marx activity rating score, graft type, and articular cartilage and meniscus status. Pre-reconstruction laxity data were available for 2325 patients (99.7%). Two-year revision data were available for 2259 patients (96.8%), and patient-reported outcomes were available for 1979 patients (84.8%). High-grade preoperative laxity was noted in 743 patients (31.9%). The mean postoperative IKDC score was 81.8 15.9, and the mean KOOS-QOL score was 72.0 +/- 22.0. The presence of high-grade pre-reconstruction laxity was associated with significantly increased odds of ACL graft revision (odds ratio [OR] = 1.87 [95% CI, 1.19-2.95]; P = .007). The presence of high-grade pre-reconstruction laxity was not associated with any difference in postoperative IKDC ( = -0.56, P = .44) or KOOS-QOL ( = 0.04, P = .97)."

According to the news reporters, the research concluded: "The presence of high-grade pre-reconstruction knee laxity as assessed by manual physical examination under anesthesia is associated with significantly increased odds of revision ACL surgery but has no association with patient-reported outcome scores at 2 years after ACL reconstruction."

For more information on this research see: Effect of High-Grade Preoperative Knee Laxity on Anterior Cruciate Ligament Reconstruction Outcomes. American Journal of Sports Medicine, 2016;44(12):3077-3082. American Journal of Sports Medicine can be contacted at:
Genetics - Human Genetics

Findings from Ohio State University Has Provided New Data on Human Genetics (Block-based association tests for rare variants using Kullback-Leibler divergence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Genetics - Human Genetics is the subject of a report. According to news originating from Columbus, Ohio, by NewsRx correspondents, research stated, "Although genome-wide association studies have successfully detected numerous associations between common variants and complex diseases, these variants typically can only explain a small part of the heritable component of a disease. With the advent of next-generation sequencing, attention has turned to rare variants."

Our news journalists obtained a quote from the research from Ohio State University, "Recently, a variety of approaches for detecting associations of rare variants have been proposed, including the Kullback-Leibler divergence-based tests (KLTs) for detecting genotypic differences between cases and controls. However, few of these approaches consider linkage disequilibrium (LD) structure among rare variants and common variants. In this study, we propose two block-based association tests for testing the effects of rare variants on a disease. The main idea for this approach comes from the hypothesis that a region of interest may consist of two or more LD blocks such that single-nucleotide variants (SNVs) within each block are correlated, whereas SNVs in different blocks are independent or weakly correlated. Under this hypothesis, we propose two tests that are generalizations of the KLTs by taking the block structure into account. A simulation study under various scenarios shows that the proposed methods have well-controlled type I error rates and outperform some leading methods in the literature."

According to the news editors, the research concluded: "Moreover, application to the Dallas Heart Study data demonstrates the feasibility and performance of the two proposed methods in a realistic setting."

For more information on this research see: Block-based association tests for rare variants using Kullback-Leibler divergence. Journal of Human Genetics, 2016;61(11):965-975. Journal of Human Genetics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Journal
Findings from Ohio State University Reveals New Findings on Periodontitis (Comparative metagenomics reveals taxonomically idiosyncratic yet functionally congruent communities in periodontitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Periodontal Diseases and Conditions - Periodontitis are presented in a new report. According to news reporting originating in Columbus, Ohio, by NewsRx journalists, research stated, "The phylogenetic characteristics of microbial communities associated with periodontitis have been well studied, however, little is known about the functional endowments of this ecosystem. The present study examined 73 microbial assemblages from 25 individuals with generalized chronic periodontitis and 25 periodontally healthy individuals using whole genome shotgun sequencing."

The news reporters obtained a quote from the research from Ohio State University, "Core metabolic networks were computed from taxa and genes identified in at least 80% of individuals in each group. 50% of genes and species identified in health formed part of the core microbiome, while the disease-associated core microbiome contained 33% of genes and only 1% of taxa. Clinically healthy sites in individuals with periodontitis were more aligned with sites with disease than with health. 68% of the health-associated metagenome was dedicated to energy utilization through oxidative pathways, while in disease; fermentation and methanogenesis were predominant energy transfer mechanisms. Expanded functionality was observed in periodontitis, with unique-or over-representation of genes encoding for fermentation, antibiotic resistance, detoxification stress, adhesion, invasion and intracellular resistance, proteolysis, quorum sensing, Type III/IV secretion systems, phages and toxins in the disease-associated core microbiome. However, different species or consortia contributed to these functions in each individual."

According to the news reporters, the research concluded: "Several genes, but not species, demonstrated robust discriminating power between health and disease."

For more information on this research see: Comparative metagenomics reveals taxonomically idiosyncratic yet functionally congruent communities in periodontitis. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting P.S. Kumar, Ohio State University, Coll Dental, Div Periodontol, Columbus, OH 43210, United States. Additional authors for this research include S.M. Ganesan and P.S. Kumar.
Findings from Ohio State University Update Knowledge of Clinical Trials and Studies (Real-World Assessment of Acute Left Ventricular Lead Implant Success and Complication Rates: Results from the Attain Success Clinical Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Clinical Research - Clinical Trials and Studies. According to news reporting originating in Columbus, Ohio, by NewsRx journalists, research stated, "Left ventricular lead (LVL) implant success rates have historically ranged between 70.5% and 95.5%. To date, there are few large studies that evaluate LVL implant success utilizing a single family of delivery catheters and leads."

The news reporters obtained a quote from the research from Ohio State University, "The Attain Success study was a prospective nonrandomized multicenter global study with the main objectives of assessing single-system LVL implant success and complication rates. Patients undergoing cardiac resynchronization therapy implantation were eligible for enrollment. There was no prespecified level of experience for investigator participation. LVL implant success and complication rates were assessed through 3 months of follow-up. A total of 2,014 patients (69.1 +/- 12.0 years, 71% male and 38% atrial fibrillation) were enrolled from 114 centers with a follow-up of 3.5 +/- 2.1 months. Coronary sinus cannulation success rate was 96.4% with Attain Family delivery catheters. Implant success rate for Attain Family leads using Attain Family catheters was 94.0%; overall LVL implant success rate was 97.1%. Median procedure time was 4 minutes for cannulation and 9 minutes for LVL placement. Median fluoroscopy time was 17 minutes and median contrast used was 25 cc. There were 55 catheter or LVL-related complications in 53 subjects; the majority were LVL dislodgements (34, 1.7%) and extracardiac stimulation (11, 0.5%). The Kaplan-Meier estimate of the 3-month complication probability was 2.6%.

According to the news reporters, the research concluded: "This study represents the largest prospective evaluation of LVL implantation to date, revealing a high LVL implant success rate and low complication rate using a single family of leads and delivery catheters."

For more information on this research see: Real-World Assessment of Acute Left Ventricular Lead Implant Success and Complication Rates: Results from the Attain Success Clinical Trial. PACE-Pacing and Clinical Electrophysiology, 2016;39(11):1246-1253. PACE-Pacing and Clinical Electrophysiology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting J.D. Hummel, Ohio State University, Columbus, OH 43210, United States. Additional authors for this research include M.A. Coppess, J.S. Osborn, R. Yee, J.W.H. Fung, R. Augustini, S. Li, D. Hine and J.P. Singh.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Periodontal Diseases and Conditions, Genetics, Mouth Diseases and Conditions, Periodontitis, Ohio State University.
Drugs and Therapies - Phenylpiperazine…

Findings from Ohio State University Yields New Findings on Phenylpiperazine Antidepressants (Effects of trazodone on behavioral signs of stress in hospitalized dogs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Phenylpiperazine Antidepressants have been published. According to news reporting out of Columbus, Ohio, by NewsRx editors, research stated, "To determine the effects of trazodone treatment on behavioral signs of stress in hospitalized dogs. Prospective observational study."

Our news journalists obtained a quote from the research from Ohio State University, "ANIMALS 120 client-owned dogs. PROCEDURES Hospitalized dogs administered trazodone (n = 60) were observed for stress-related signs or behaviors = 45 minutes after the drug was administered (time 1) and approximately 90 minutes later (time 2). Dogs that did not receive trazodone (n = 60) were selected to serve as controls for environmental stimuli that could affect behavior and were observed at the same times. Signs or behaviors (scored as present or absent) were assessed individually and grouped into behavioral summation categories (frenetic [lip licking, pacing, panting, spinning, trembling, wet dog shake, whining, and yawning], freeze [averting gaze, pinning back ears, and whale eye sign], or fractious [growling, lunging, showing teeth, and snapping], with lifting of a forelimb and pupil dilation included in all categories). Results were compared between groups and within groups over time. Logistic regression was performed to assess associations between reduction in stress-related signs or behaviors and trazodone administration while controlling for environmental influences. Lip licking, panting, and whining were reduced (defined as present at time 1 and absent at time 2) in trazodone-treated but not environmentally matched dogs. The median number of stress-related behaviors and of frenetic and freeze behaviors was significantly lower at time 2, compared with time 1, in trazodone-treated dogs. Odds of reduced panting and reduced frenetic behaviors at time 2 for trazodone-treated dogs were > 2 times those for environmentally matched dogs."

According to the news editors, the research concluded: "Results indicated that trazodone administration reduced stress-related signs and behaviors in hospitalized dogs and may thereby improve patient welfare."

For more information on this research see: Effects of trazodone on behavioral signs of stress in hospitalized dogs. *Javma-Journal of the American Veterinary Medical Association, 2016;249(11):1281-1291. Javma-Journal of the American Veterinary Medical Association* can be contacted at: Amer Veterinary Medical Assoc, 1931 N Meacham Rd Suite 100, Schaumburg, IL 60173-4360, USA.

Our news journalists report that additional information may be obtained by contacting S.E. Gilbert-Gregory, Ohio State University, Coll Vet Med, Dept. of Vet Clin Sci, Columbus, OH 43210, United States. Additional authors for this research include J.W. Stull, M.R. Rice and M.E. Herron.

The direct object identifier (DOI) for that additional information is:
Findings from Ohio State University in Pancreatic Cancer Reported [STAT3 as a potential therapeutic target in ALDH(+) and CD44(+)/CD24(+)) stem cell-like pancreatic cancer cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Pancreatic Cancer are presented in a new report. According to news reporting out of Columbus, Ohio, by NewsRx editors, research stated, "Persistent activation of signal transducers and activators of transcription 3 (STAT3) is commonly detected in many types of cancer including pancreatic cancer. Whether STAT3 is activated in stem cell-like pancreatic cancer cells and the effect of STAT3 inhibition, is still unknown."

Our news journalists obtained a quote from the research from Ohio State University, "Flow cytometry was used to isolate pancreatic cancer stem-like cells which are identified by both aldehyde dehydrogenase (ALDH)-positive (ALDH(+)) as well as cluster of differentiation (CD) 44-positive/CD24-positive subpopulations (CD44(+)/CD24(+)). STAT3 activation and the effects of STAT3 inhibition by STAT3 inhibitors, LLL12, FLLL32, and Stattic in ALDH and CD44(+)/CD24(+) cells were examined. Our results showed that ALDH(+) and CD44(+)/CD24(+) pancreatic cancer stem-like cells expressed higher levels of phosphorylated STAT3, an active form of STAT3, compared to ALDH-negative (ALDH(-)) and CD44-negative/CD24-negative (CD44(-)/CD24(-)) pancreatic cancer cells, suggesting that STAT3 is activated in pancreatic cancer stem-like cells. Small molecular STAT3 inhibitors inhibited STAT3 phosphorylation, STAT3 downstream target gene expression, cell viability, and tumoursphere formation in ALDH and CD44-CD24(+) cells."

According to the news editors, the research concluded: "Our results indicate that STAT3 is a novel therapeutic target in pancreatic cancer stem-like cells and inhibition of activated STAT3 in these cells by STAT3 inhibitors may offer an effective treatment for pancreatic cancer."

For more information on this research see: STAT3 as a potential therapeutic target in ALDH(+) and CD44(+)/CD24(+) stem cell-like pancreatic cancer cells. International Journal of Oncology, 2016;49(6):2265-2274. International Journal of Oncology can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

Our news journalists report that additional information may be obtained by contacting L. Lin, Ohio State University, Coll Med, Nationwide Childrens Hosp, Center Childhood CancRes InstDept PediatInternal, Columbus, OH 43205, United States. Additional authors for this research include D. Jou, Y.N. Wang, H.Y. Ma, T.S. Liu, J. Fuchs, P.K. Li, J.G. Lu, C.L. Li and J.Y. Lin.

Keywords for this news article include: Columbus, Ohio, United States, North and
Findings from Ohio State University in the Area of Pancreatic Cancer Described (The Impact of Obesity on Gallstone Disease, Acute Pancreatitis, and Pancreatic Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Pancreatic Cancer. According to news reporting originating in Columbus, Ohio, by NewsRx journalists, research stated, "Obesity is a well-recognized risk factor for gallstone formation and increases the risk for gallstone-related complications. Pancreatic diseases are impacted adversely by obesity."

The news reporters obtained a quote from the research from Ohio State University, "Although weight loss surgery increases the risk of gallstone disease, evidence suggests that bariatric surgery mitigates the obesity-associated adverse prognostication in acute pancreatitis. Obesity is also a significant risk factor for pancreatic cancer. Obesity is a global epidemic and is increasing worldwide and among all age groups. There is an urgent need for focused health policies aimed at reducing the incidence and prevalence of obesity."

According to the news reporters, the research concluded: "This article summarizes the current literature highlighting the association between obesity and the pathophysiology and outcome of gallstone disease, pancreatitis, and pancreatic cancer."


Our news correspondents report that additional information may be obtained by contacting S.G. Krishna, Ohio State University, Wexner Med Center, Div Gastroenterol Hepatol & Nutr, Sect Pancreat Dis, Columbus, OH 43210, United States. Additional authors for this research include D.L. Conwell and S.G. Krishna.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gtc.2016.07.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Digestive System Diseases and Conditions, Biliary Tract Diseases and Conditions, Gallbladder Diseases and Conditions, Pancreatic Diseases and Conditions, Gallstone Disease, Epidemiology, Pancreatic Neoplasms, Risk and Prevention, Cholelithiasis, Nutrition Disorders, Acute Pancreatitis, Diet and Nutrition, Pancreatic Cancer, Gastroenterology, Cholelithiasis, Overnutrition, Gallstones, Bariatrics, Oncology, Pancreas, Surgery, Obesity, Ohio State University.
Findings from Ohio University Yields New Findings on Type 2 Diabetes (Fenofibrate Decreases Insulin Clearance and Insulin Secretion to Maintain Insulin Sensitivity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is the subject of a report. According to news reporting originating in Athens, Ohio, by NewsRx journalists, research stated, "High fat diet reduces the expression of CEACAM1 (carcinoembryonic antigen-related cell adhesion molecule 1), a transmembrane glycoprotein that promotes insulin clearance and down-regulates fatty acid synthase activity in the liver upon its phosphorylation by the insulin receptor. Because peroxisome proliferator-activated receptor (PPAR) transcriptionally suppresses CEACAM1 expression, we herein examined whether high fat down-regulates CEACAM1 expression in a PPAR-dependent mechanism."

Financial support for this research came from National Institutes of Health.

The news reporters obtained a quote from the research from Ohio University, "By activating PPAR, the lipid-lowering drug fenofibrate reverses dyslipidemia and improves insulin sensitivity in type 2 diabetes in part by promoting fatty acid oxidation. Despite reducing glucose-stimulated insulin secretion, fenofibrate treatment does not result in insulin insufficiency. To examine whether this is mediated by a parallel decrease in CEACAM1-dependent hepatic insulin clearance pathways, we fed wild-type and Ppar(-/-) null mice a high fat diet supplemented with either fenofibrate or Wy14643, a selective PPAR agonist, and examined their effect on insulin metabolism and action. We demonstrated that the decrease in insulin secretion by fenofibrate and Wy14643 is accompanied by reduction in insulin clearance in wild-type but not Ppar(-/-) mice, thereby maintaining normoinsulinemia and insulin sensitivity despite continuous high fat intake. Intact insulin secretion in L-CC1 mice with protected hepatic insulin clearance and CEACAM1 levels provides in vivo evidence that insulin secretion responds to changes in insulin clearance to maintain physiologic insulin and glucose homeostasis."

According to the news reporters, the research concluded: "These results also emphasize the relevant role of hepatic insulin extraction in regulating insulin sensitivity."


Our news correspondents report that additional information may be obtained by contacting S.M. Najjar, Ohio University, Dept. of Biomed Sci, Heritage Coll Osteopath Med, Athens, OH 45701, United States. Additional authors for this research include L. Russo, S.S. Ghanem, P.R. Patel, A.M. Oyarce, G. Heinrich and S.M. Najjar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.745778. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Athens, Ohio, United States, North
Platinum Compounds

Findings from Ondokuz Mayis University Has Provided New Data on Platinum Compounds (Effects of Ginkgo biloba extract on brain oxidative condition after cisplatin exposure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Platinum Compounds is now available. According to news reporting from Samsun, Turkey, by NewsRx journalists, research stated, "The purpose of this study was to evaluate the efficacy of Ginkgo biloba extract (EGb 761) on oxidative events of brain in cisplatin-administrated rats. Rats were divided into four experimental groups: 1) control (n=6); 2) cisplatin (8 mg/kg, intraperitoneally one dose, n=6); 3) EGb 761 (100 mg/kg intraperitoneally for 15 days, n=6); and 4) cisplatin + EGb 761 (n=6)."

The news correspondents obtained a quote from the research from Ondokuz Mayis University, "After drug administration, rats were sacrificed and brain tissues were removed. Nitric oxide (NO), malondialdehyde (MDA) and glutathione (GSH) levels were evaluated in brain tissues. Single dose cisplatin administration significantly increased NO and GSH levels, but decreased MDA levels in brain tissue samples. EGb 761 treatment reversed the effects of cisplatin on NO and GSH levels, but did not affect the decreased MDA levels. Results of the study indicate that oxidative stress can be an important pathogenetic mechanism of cisplatin-induced neurotoxicity."

According to the news reporters, the research concluded: "EGb 761, an standardized extract of G. biloba leaves that has antioxidant properties, may improve the oxidative stress-related neurological side effects of cisplatin."

For more information on this research see: Effects of Ginkgo biloba extract on brain oxidative condition after cisplatin exposure. *Clinical and Investigative Medicine*, 2016;39 (6):S100-S105. *Clinical and Investigative Medicine* can be contacted at: Canadian Soc Clinical Investigation, Csci Head Office, 774 Echo Drive, Ottawa, On K1S 5N8, Canada.

Our news journalists report that additional information may be obtained by contacting E. Agar, Ondokuz Mayis University, Fac Med, Dept. of Physiol, Samsun, Turkey. Additional authors for this research include E.G.G. Peker, M.D. Karakurt, A. Gurel, M. Ayyildiz, S.C. Cevher, E. Agar and S. Dane.

Keywords for this news article include: Samsun, Turkey, Eurasia, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin Therapy, Alkylating Agents, Pharmaceuticals, Antineoplastics, Nitric Oxide, Ondokuz Mayis University.

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Musculoskeletal Diseases and Conditions - Myotonic...

Findings from Oregon Health and Science University Provides New Data about Myotonic Dystrophy (Results from an external proficiency testing program: 11 years of molecular genetics testing for myotonic dystrophy type 1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Musculoskeletal Diseases and Conditions - Myotonic Dystrophy. According to news originating from Portland, Oregon, by NewsRx correspondents, research stated, "The aim of this study was to examine the performance of laboratories offering assessment for myotonic dystrophy type 1 (DM1) using external proficiency testing samples. DM1, a dominant disorder, has a prevalence of 1:20,000 due to the expansion of CTG trinucleotide repeats in the DMPK gene."

Our news journalists obtained a quote from the research from Oregon Health and Science University, "External proficiency testing administered by the College of American Pathologists/American College of Medical Genetics and Genomics distributes three samples twice yearly. Responses from 2003 through the first distribution of 2013 were analyzed after stratification by location (United States/international). Both the repeat sizes (analytic validity) and clinical interpretations were assessed. Over the 21 distributions, 45 US and 29 international laboratories participated. Analytic sensitivity for detecting and reporting expanded repeats (>= 50) was 99.2% (382/385 challenges) and 97.1% (133/137 challenges), respectively. Analytic specificity (to within two repeats of the consensus) was 99.2% (1,790/1,805 alleles) and 98.6% (702/712 alleles), respectively. Clinical interpretations were correct for 99.3% (450/453) and 98.2% (224/228) of positive challenges and in 99.9% (936/937) and 99.6% (455/457) of negative challenges, respectively. Of four incorrect interpretations made in the United States, two were probably due to sample mix-up."

According to the news editors, the research concluded: "This review of laboratory performance regarding laboratory-developed genetic tests indicates very high performance for both the analytic and interpretative challenges for DM1."

For more information on this research see: Results from an external proficiency testing program: 11 years of molecular genetics testing for myotonic dystrophy type 1. Genetics in Medicine, 2016;18(12):1290-1294. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)

The news correspondents report that additional information may be obtained from C.S. Richards, Oregon Health Sciences University, Dept. of Mol & Med Genet, Portland, OR 97201, United States. Additional authors for this research include G.E. Palomaki and M. Hegde.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gim.2016.59. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Portland, Oregon, United States, North and Central America, Musculoskeletal Diseases and Conditions, Diagnostics and Screening, Genetics, Nervous System Heredodegenerative Disorders, Neurodegenerative Diseases and Conditions, Nervous System Diseases and Conditions, Neuromuscular Diseases and Conditions, Muscular Diseases and Conditions, Muscular Dystrophies, Myotonic Dystrophy, Myotonic Disorders, Oregon Health and Science University.
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Phenanthrenes

Findings from Oregon State University in Phenanthrenes Reported (Dibenzo[def,p]chrysene transplacental carcinogenesis in wild-type, Cyp1b1 knockout, and CYP1B1 humanized mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Phenanthrenes. According to news reporting out of Corvallis, Oregon, by NewsRx editors, research stated, "The cytochrome P450 (CYP) 1 family is active toward numerous environmental pollutants, including polycyclic aromatic hydrocarbons (PAHs). Utilizing a mouse model, null for Cyp1b1 and expressing human CYP1B1, we tested the hypothesis that hCYP1B1 is important for dibenzo[def,p]chrysene (DBC) transplacental carcinogenesis."

Our news journalists obtained a quote from the research from Oregon State University, "Wild-type mCyp1b1, transgenic hCYP1B1 (mCyp1b1 null background), and mCyp1b1 null mice were assessed. Each litter had an equal number of siblings with Ahr(b-1/d) and Ahr(d/d) alleles. Pregnant mice were dosed (gavage) on gestation day 17 with 6.5 or 12mg/kg of DBC or corn oil. At 10 months of age, mortality, general health, lymphoid disease and lung tumor incidence, and multiplicity were assessed. hCYP1B1 genotype did not impact lung tumor multiplicity, but tended to enhance incidence compared to Cyp1b1 wild-type mice (P=0.07). As with Cyp1b1 in wild-type mice, constitutive hCYP1B1 protein is non-detectable in liver but was induced with 2,3,7,8-tetrachlorodibenzo-p-dioxin. Wild-type mice were 59% more likely to succumb to T-cell Acute Lymphoblastic Leukemia (T-ALL). Unlike an earlier examination of the Ahr genotype in this model (Yu et al., Cancer Res, 2006;66:755-762), but in agreement with a more recent study (Shorey et al., Toxicol Appl Pharmacol, 2013;270:60-69), this genotype was not associated with lung tumor incidence, multiplicity, or mortality. Sex was not significant with respect to lung tumor incidence or mortality but males exhibited significantly greater multiplicity. Lung tumor incidence was greater in mCyp1b1 nulls compared to wild-type mice."

According to the news editors, the research concluded: "To our knowledge, this is the first application of a humanized mouse model in transplacental carcinogenesis."


Our news journalists report that additional information may be obtained by contacting D.E. Williams, Oregon State University, Superfund Res Program, Corvallis, OR 97331, United States. Additional authors for this research include C.V. Lohr, H. You, L.K. Siddens, S.K. Krueger, R.H. Dashwood, F.J. Gonzalez, W.M. Baird, E. Ho, L. Bramer, K.M. Waters and D.E. Williams.

Keywords for this news article include: Corvallis, Oregon, United States, North and Central America, Phenanthrenes, Hydrocarbons, Chrysenes, Oregon State University.
Heart Disorders and Diseases - Acute Coronary…

Findings from Osaka City University Broaden Understanding of Acute Coronary Syndrome (New insights into spotty calcification and plaque rupture in acute coronary syndrome: an optical coherence tomography study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Acute Coronary Syndrome have been published. According to news originating from Osaka, Japan, by NewsRx correspondents, research stated, "Although recent optical coherence tomography (OCT) studies have focused on spotty calcification, whether there were any characteristics in the concomitant existence of calcification and plaque rupture remains unknown. The aim of the present study was to investigate the characteristics of spotty calcification in acute coronary syndrome (ACS) patients with or without plaque rupture, using OCT."

Our news journalists obtained a quote from the research from Osaka City University, "This study enrolled 98 consecutive patients with ACS. OCT image acquisitions were performed in the culprit lesions, and patients were divided into the plaque rupture group (n = 38) and the non-rupture group (n = 60). The frequency of spotty calcification (p = 0.006), thin-capped fibroatheroma (p = 0.012), macrophage infiltration (p = 0.022), and the number of spotty calcification per patient (p < 0.001) were significantly higher and the largest arc and the minimum depth of spotty calcification from the luminal surface were significantly smaller in the rupture group. Moreover, in the rupture group, most of the spotty calcifications in the site nearest to the minimum lumen area were observed in the proximal portion of that site, and tended to be located near the plaque rupture. Multivariate analysis revealed that the presence of spotty calcification (OR 3.19, 95 % CI 1.12-9.76, p = 0.030) and age (OR 1.08, 95 % CI 1.02-1.14, p = 0.008) were independent predictive factors for plaque rupture. This study demonstrates the characteristics of spotty calcification in ACS patients with plaque rupture and the positional relationship between spotty calcification and plaque rupture."

According to the news editors, the research concluded: "These detailed observations could impact on treatment strategies for the prevention of ACS."

For more information on this research see: New insights into spotty calcification and plaque rupture in acute coronary syndrome: an optical coherence tomography study. Heart and Vessels, 2016;31(12):1915-1922. Heart and Vessels can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

The news correspondents report that additional information may be obtained from T. Hasegawa, Osaka City University, Grad Sch Med, Dept. of Cardiovasc Med, Abeno Ku, Osaka 5458586, Japan. Additional authors for this research include T. Hasegawa, S. Ehara, K. Matsumoto, K. Mizutani, T. Iguchi, H. Ishii, M. Nakagawa, K. Shimada and M. Yoshiyama.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00380-016-0820-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Vascular Diseases and
Heart Disorders and Diseases - Dilated

Findings from Osaka Medical College Provide New Insights into Dilated Cardiomyopathy (Is cardiac and hepatic iron status assessed by MRI T2* associated with left ventricular function in patients with idiopathic cardiomyopathy?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Dilated Cardiomyopathy have been published. According to news originating from Takatsuki, Japan, by NewsRx correspondents, research stated, "Excess accumulation of iron in the heart is known to aggravate cardiac function in some cases of genetic and acquired iron overload. We investigated the possible association between cardiac function and iron content in the heart and liver, estimated non-invasively by T2 star (T2*)-weighted magnetic resonance (MR) imaging among patients with cardiomyopathy."

Our news journalists obtained a quote from the research from Osaka Medical College, "MR images were acquired on a 3.0 T MR imaging system using an 8-channel phased-array cardiac coil. Average T2* values of the heart were estimated at regions of interest that were located on short axis mid-ventricular slices positioned at the cardiac septum. In total, 82 patients were enrolled: 48 patients with dilated cardiomyopathy (DCM), 16 patients with hypertrophic cardiomyopathy (HCM), and 18 patients without apparent cardiovascular abnormalities. Cardiac T2* values were lower in the DCM group (median 18.6 ms) than in the HCM (22.0 ms) and control (21.4 ms) groups, although hepatic T2* values did not differ significantly across the groups. Among the whole population, the highest cardiac T2* tertile (ae <yen >21.2 ms) was significantly negatively associated with a low left ventricular ejection fraction (LVEF) of < 50 %, and this association retained statistical significance after adjustment for sex, age, renal function, hemoglobin and hepatic T2*. Among DCM patients, both hemoglobin and cardiac T2* were selected as parameters that were, respectively, negatively and positively, associated with LVEF (P < 0.05). DCM patients with lower cardiac T2*, and thus higher iron content, were found to have lower LVEF."

According to the news editors, the research concluded: "The possibility that cardiac iron overload may have a role in reducing the systolic cardiac function in DCM patients who do not have systemic iron overload requires further investigation in the future."

For more information on this research see: Is cardiac and hepatic iron status assessed by MRI T2* associated with left ventricular function in patients with idiopathic cardiomyopathy? Heart and Vessels, 2016;31(12):1950-1959. Heart and Vessels can be contacted at: Springer, 233 Spring St. New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

The news correspondents report that additional information may be obtained from N. Ishizaka, Osaka Medical College, Dept. of Cardiol, Takatsuki, Osaka 5698686, Japan. Additional authors for this research include M. Yuki, K.I. Yamamura, Y. Narumi and N.
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**DNA Research**

**Findings from Osaka University Provides New Data on DNA Research (A chimeric protein composed of NuMA fused to the DNA binding domain of LANA is sufficient for the ori-P-dependent DNA replication)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in DNA Research. According to news reporting out of Osaka, Japan, by NewsRx editors, research stated, "The Kaposi's sarcoma-associated herpesvirus (KSHV) genome is stably maintained in KSHV-infected PEL cell lines during cell division. We previously showed that accumulation of LANA in the nuclear matrix fraction could be important for the latent DNA replication, and that the functional significance of LANA should be its recruitment of ori-P to the nuclear matrix."

Financial support for this research came from Japan Society for the Promotion of Science (JSPS).

Our news journalists obtained a quote from the research from Osaka University, "Here, we investigated whether the forced localization of the LANADNA binding domain (DBD) to the nuclear matrix facilitated ori-P-containing plasmid replication. We demonstrated that chimeric proteins constructed by fusion of LANA DBD with the nuclear mitotic apparatus protein (NuMA), which is one of the components of the nuclear matrix, could bind with ori-P and enhance replication of an ori-P-containing plasmid, compared with that in the presence of DBD alone."

According to the news editors, the research concluded: "These results further suggested that the ori-P recruitment to the nuclear matrix through the binding with DBD is important for latent viral DNA replication."

For more information on this research see: A chimeric protein composed of NuMA fused to the DNA binding domain of LANA is sufficient for the ori-P-dependent DNA replication. *Virology*, 2017;500():190-197. *Virology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; *Virology* - www.journals.elsevier.com/virology/)

Our news journalists report that additional information may be obtained by contacting K. Ueda, Osaka University, Grad Sch Med, Dept. of Microbiol & Immunol, Div Virol, Suita, Osaka 5650871, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.virol.2016.10.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Cellular Structures,
Clinical Research - Clinical Trials and Studies

Findings from Oslo University Hospital Broadens Understanding of Clinical Trials and Studies (Phase I trial of EpCAM-targeting immunotoxin MOC31PE, alone and in combination with cyclosporin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Clinical Research - Clinical Trials and Studies is the subject of a report. According to news reporting out of Oslo, Norway, by NewsRx editors, research stated, "A phase I trial was performed to determine the maximum tolerated dose (MTD), safety, pharmacokinetics and immunogenicity of the anti-EpCAM immunotoxin (IT) MOC31PE in cancer patients. An important part of the study was to investigate whether the addition of Sandimmune (cyclosporin, CsA) suppressed the development of anti-IT antibodies."

Our news journalists obtained a quote from the research from Oslo University Hospital, "Patients with EpCAM-positive metastatic disease were eligible for treatment with intravenous MOC31PE using a modified Fibonacci dose escalation sequence. Maximum tolerated dose was first established without, then with intravenously administered CsA. Sixty-three patients were treated with MOC31PE in doses ranging from 0.5 to 8 mg kg(-1). Maximum tolerated dose was 8 mg kg(-1) for MOC31PE alone, and 6.5 mg kg(-1) when combined with CsA. The dose-limiting adverse event was reversible liver toxicity. No radiological complete or partial responses were observed, whereas stable disease was seen in 36% of the patients receiving MOC31PE only. The pharmacokinetic profile of MOC31PE was characterised by linear kinetics and with a half-life of &sim;3 h. The addition of CsA delayed the generation of anti-IT antibodies. Intravenous infusion of MOC31PE can safely be administered to cancer patients. Immune suppression with CsA delays the development of anti-MOC31PE antibodies."

According to the news editors, the research concluded: "The antitumour effect of MOC31PE warrants further evaluation in EpCAM-positive metastatic disease."

For more information on this research see: Phase I trial of EpCAM-targeting immunotoxin MOC31PE, alone and in combination with cyclosporin. British Journal of Cancer, 2015;113(11):1548-55. (Nature Publishing Group - www.nature.com/; British Journal of Cancer - www.nature.com/bjc/)

Our news journalists report that additional information may be obtained by contacting Y. Andersson, Dept. of Tumor Biology, Institute for Cancer Research, Oslo University Hospital Radiumhospitalet, 0424 Oslo, Norway. Additional authors for this research include O. Engebraaten, S. Juell, S. Aamdal, P. Brunsvig, O. Fodstad and S. Dueland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bjc.2015.380. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Antibiotics, Antibodies, Norway, Europe, Immunology, Cyclosporins, Immunotoxins, Blood Proteins, Immunoproteins, Cyclic Peptides, Immunoglobulins, Serum Globulins, Immunoconjugates, Clinical Research, Drugs and Therapies, Clinical Trials and Studies.
Findings from Oslo University Hospital Provide New Insights into Prostate Cancer (Low $\beta_2$-adrenergic receptor level may promote development of castration resistant prostate cancer and altered steroid metabolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Prostate Cancer is the subject of a report. According to news reporting out of Oslo, Norway, by NewsRx editors, research stated, "The underlying mechanisms responsible for the development of castration-resistant prostate cancer (CRPC) in patients who have undergone androgen deprivation therapy are not fully understood. This is the first study to address whether $\beta_2$-adrenergic receptor (ADRB2)-mediated signaling may affect CRPC progression in vivo."

Our news journalists obtained a quote from the research from Oslo University Hospital, "By immunohistochemical analyses, we observed that low levels of ADRB2 is associated with a more rapid development of CRPC in a Norwegian patient cohort. To elucidate mechanisms by which ADRB2 may affect CRPC development, we stably transfected LNCaP cells with shRNAs to mimic low and high expression of ADRB2. Two UDP-glucuronosyltransferases, UGT2B15 and UGT2B17, involved in phase II metabolism of androgens, were strongly downregulated in two LNCaP shADRB2 cell lines. The low-ADRB2 LNCaP cell lines displayed lowered glucuronidation activities towards androgens than high-ADRB2 cells. Furthermore, increased levels of testosterone and enhanced androgen responsiveness were observed in LNCaP cells expressing low level of ADRB2. Interestingly, these cells grew faster than high-ADRB2 LNCaP cells, and sustained their low glucuronidation activity in castrated NOD/SCID mice. ADRB2 immunohistochemical staining intensity correlated with UGT2B15 staining intensity in independent TMA studies and with UGT2B17 in one TMA study. Similar to ADRB2, we show that low levels of UGT2B15 are associated with a more rapid CRPC progression."

According to the news editors, the research concluded: "We propose a novel mechanism by which ADRB2 may affect the development of CRPC through downregulation of UGT2B15 and UGT2B17."

For more information on this research see: Low $\beta_2$-adrenergic receptor level may promote development of castration resistant prostate cancer and altered steroid metabolism. Oncotarget, 2016;7(2):1878-94.

Our news journalists report that additional information may be obtained by contacting P.R. Braadland, Dept. of Tumor Biology, Institute for Cancer Research, Oslo University Hospital, Oslo, Norway. Additional authors for this research include H.H. Grytli, H. Ramberg, B. Katz, R. Kellman, L. Gauthier-Landry, L. Fazli, K.A. Krobert, W. Wang, F.O. Levy, A. Bjartell, V. Berge, P.S. Rennie, G. Mellgren, G.M. Malandsmo, A. Svidland, O. Barbier and K Tasken.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6479. This DOI is a link to an online electronic document that is either free or for purchase.
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**Keywords for this news article include:** Oslo, Norway, Europe, Oncology, Prostate Cancer, Membrane Proteins, Prostatic Neoplasms, Adrenergic Receptors, Catecholamine Receptors.

**Helper-Inducer T-Lymphocytes**

**Findings from Oslo University Hospital Provides New Data about Helper-Inducer T-Lymphocytes (Adoptive Transfer of Tumor-Specific Th2 Cells Eradicates Tumors by Triggering an In Situ Inflammatory Immune Response)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Helper-Inducer T-Lymphocytes. According to news reporting originating in Oslo, Norway, by NewsRx journalists, research stated, "Adoptive cell therapy (ACT) trials to date have focused on transfer of autologous tumor-specific cytotoxic CD8(+) T cells; however, the potential of CD4(+) T helper (Th) cells for ACT is gaining interest. While encouraging results have been reported with IFN gamma-producing Th1 cells, tumor-specific Th2 cells have been largely neglected for ACT due to their reported tumor-promoting properties."

The news reporters obtained a quote from the research from Oslo University Hospital, "In this study, we tested the efficacy of idiotype-specific Th2 cells for the treatment of mice with MHC class II-negative myeloma. Th2 ACT efficiently eradicated sub-cutaneous myeloma in an antigen-specific fashion. Transferred Th2 cells persisted in vivo and conferred long-lasting immunity. Cancer eradication mediated by tumor-specific Th2 cells did not require B cells, natural killer T cells, CD8(+) T cells, or IFN gamma. Th2 ACT was also curative against B-cell lymphoma. Upon transfer, Th2 cells induced a type II inflammation at the tumor site with massive infiltration of M2-type macrophages producing arginase. In vivo blockade of arginase strongly inhibited Th2 ACT, consistent with a key role of arginase and M2 macrophages in myeloma elimination by Th2 cells. These results illustrate that cancer eradication may be achieved by induction of a tumor-specific Th2 inflammatory immune response at the tumor site."

According to the news reporters, the research concluded: "Thus, ACT with tumor-specific Th2 cells may represent a highly efficient immunotherapy protocol against cancer."

For more information on this research see: Adoptive Transfer of Tumor-Specific Th2 Cells Eradicates Tumors by Triggering an In Situ Inflammatory Immune Response. *Cancer Research*, 2016;76(23):6864-6876. *Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

Our news correspondents report that additional information may be obtained by contacting A. Corthay, Oslo Univ Hosp, Rigshospitalet, Oslo, Norway. Additional authors for this research include C. Hammarstrom, M. Fauskanger, O.A.W. Haabeth, M. Zangani, G. Haraldsen, B. Bogen and A. Corthay.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/0008-5472.CAN-16-1219. This DOI is a link to an online electronic
Findings from P. Benotti and Co-Authors Update Knowledge of Obstructive Sleep Apnea (The impact of obstructive sleep apnea on nonalcoholic fatty liver disease in patients with severe obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea. According to news originating from Danville, Pennsylvania, by NewsRx correspondents, research stated, "Obstructive sleep apnea (OSA) is common among candidates for bariatric surgery. OSA and its associated intermittent hypoxia have been implicated in the pathogenesis of nonalcoholic fatty liver disease (NAFLD) and nonalcoholic steatohepatitis."

Our news journalists obtained a quote from the research, "A large cohort of bariatric surgery patients was studied in an effort to explore the relationship between OSA severity, hypoxia, metabolic syndrome, and the severity of NAFLD. Bariatric surgery candidates who underwent both polysomnography and liver biopsy were studied. The severity of OSA as determined by the apnea-hypopnea index (AHI) and parameters of hypoxia was studied in relation to extent of abnormalities of liver histology as measured by the presence of hepatic steatosis, inflammation, and fibrosis. The study cohort included 362 patients with a mean age of 46.2 years and BMI of 49.9 kg/m(2). On the basis of AHI, 26% of the cohort had no OSA, 32% mild OSA, 22% moderate OSA, and 20% severe OSA. For the study subjects without metabolic syndrome, positive correlations were found between OSA severity, as measured by AHI, and parameters of hypoxia, with the severity of NAFLD."

According to the news editors, the research concluded: "OSA severity and its accompanying hypoxia are associated with the severity of NAFLD."

For more information on this research see: The impact of obstructive sleep apnea on nonalcoholic fatty liver disease in patients with severe obesity. Obesity, 2016;24(4):871-7. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

The news correspondents report that additional information may be obtained from P. Benotti, Geisinger Obesity Institute, Danville, Pennsylvania, United States. Additional authors for this research include G.C. Wood, G. Argyropoulos, A. Pack, B.T. Keenan, X. Gao, G. Gerhard and C. Still.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21409. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Obesity, Danville, Healthcare, Pulmonology, Pennsylvania, Craniofacial, United States, Overnutrition, Otolaryngology, Sleep Disorders,
Bariatric Surgery, Diet and Nutrition, Metabolic Syndrome, Fatty Liver Disease, Nutrition Disorders, Respiration Disorders, Obstructive Sleep Apnea, North and Central America.

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**Drugs and Therapies - Adrenal Cortical Steroids**

**Findings from P. Daull and Co-Researchers Advance Knowledge in Adrenal Cortical Steroids (Efficacy of a new topical cationic emulsion of cyclosporine A on dry eye clinical signs in an experimental mouse model of dry eye)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Adrenal Cortical Steroids are presented in a new report. According to news originating from Evry, France, by NewsRx correspondents, research stated, "Dry eye disease (DED) is a complex, multifactorial pathology characterized by corneal epithelium lesions and inflammation. The aim of the present study was to evaluate the efficacy of a cationic emulsion of cyclosporine A (CsA) in a mouse model that mimics severe dry eye."

Our news journalists obtained a quote from the research, "Eight to 12-week-old female C57BL/6N mice with tail patches of scopolamine were housed in controlled environment chambers to induce dry eye. At day three, following dry eye confirmation by corneal fluorescein staining (CFS, score 0-15) and phenol red thread (PRT) lacrimation test, the mice (n = 10/gp) were either treated 3 times a day in both eyes with drug-free cationic emulsion, a 0.1% CsA cationic emulsion, or 1% methylprednisolone (positive control), or non-treated. Aqueous tear production and CFS scores were evaluated at baseline and throughout the treatment period. The lacrimation test confirmed the scopolamine-induced decrease in aqueous production by the lacrimal gland. A reduction of 59% in induced-CFS was observed following topical treatment with 0.1% CsA. The beneficial effect of the cationic emulsion vehicle itself on keratitis was also clearly evidenced by its better performance over 1% methylprednisolone, -36%, vs.-28% on the CFS scores, respectively. This study indicates that the cationic emulsion of CsA (0.1%) was a very effective formulation for the management of corneal epithelium lesions in a severe DED mouse model. In addition, it performed better than a potent glucocorticosteroid (1% methylprednisolone)."

According to the news editors, the research concluded: "This cationic emulsion of CsA (0.1%), combining CsA and a tear film oriented therapy (TFOT), i.e. with vehicle properties that mechanically stabilize the tear film, represents a promising new treatment strategy for the management of the signs of dry eye."


The news correspondents report that additional information may be obtained from J.S. Garrigue, SANTEN SAS, Novagali Innovat Center, F-91458 Evry, France. Additional authors for this research include L. Feraille, S. Barabino, N. Cimbolini, S. Antonelli, V. Mauro.
and J.S. Garrigue.

Keywords for this news article include: Evry, France, Europe, Ophthalmic Antiinflammatory Agents, Methylprednisolone Therapy, Adrenal Cortical Steroids, Immunosuppressive Agents, Ophthalmic Preparations, Drugs and Therapies, Cyclic Peptides, Pharmaceuticals, Glucocorticoids, Cyclosporins, Cyclosporine, Hormones.

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Drugs and Therapies - Antiretrovirals

Findings from P. Suntharasamai and Co-Authors Update Knowledge of Antiretrovirals (Assessment of Oral Fluid HIV Test Performance in an HIV Pre-Exposure Prophylaxis Trial in Bangkok, Thailand)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antiretrovirals are discussed in a new report. According to news reporting originating from Bangkok, Thailand, by NewsRx correspondents, research stated, "Rapid easy-to-use HIV tests offer opportunities to increase HIV testing among populations at risk of infection. We used the OraQuick Rapid HIV-1/2 antibody test (OraQuick) in the Bangkok Tenofovir Study, an HIV pre-exposure prophylaxis trial among people who inject drugs."

Our news editors obtained a quote from the research, "The Bangkok Tenofovir Study was a randomized, double-blind, placebo-controlled trial. We tested participants' oral fluid for HIV using OraQuick monthly and blood using a nucleic-acid amplification test (NAAT) every 3 months. We used Kaplan-Meier methods to estimate the duration from a positive HIV NAAT until the mid-point between the last non-reactive and first reactive oral fluid test and proportional hazards to examine factors associated with the time until the test was reactive. We screened 3678 people for HIV using OraQuick. Among 447 with reactive results, 436 (97.5%) were confirmed HIV-infected, 10 (2.2%) HIV-uninfected, and one (0.2%) had indeterminate results. Two participants with non-reactive OraQuick results were, in fact, HIV-infected at screening yielding 99.5% sensitivity, 99.7% specificity, a 97.8% positive predictive value, and a 99.9% negative predictive value. Participants receiving tenofovir took longer to develop a reactive OraQuick (191.8 days) than participants receiving placebo (16.8 days) (p=0.02) and participants infected with HIV CRF01_AE developed a reactive OraQuick earlier than participants infected with other subtypes (p=0.04). The oral fluid HIV test performed well at screening, suggesting it can be used when rapid results and non-invasive tools are preferred. However, participants receiving tenofovir took longer to develop a reactive oral fluid test result than those receiving placebo."

According to the news editors, the research concluded: "Thus, among people using pre-exposure prophylaxis, a blood-based HIV test may be an appropriate choice."


The news editors report that additional information may be obtained by contacting P. Suntharasamai, Bangkok Tenofovir Study Group, Bangkok, Thailand. Additional authors for this research include M. Martin, K. Choopanya, S. Vanichseni, U. Sangkum, P. Tararut, W.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0145859. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antiinfectives, Antiretrovirals, Antivirals, Bangkok, Thailand, Genetics, HIV/AIDS, Tenofovir, RNA Viruses, Retroviridae, HIV Infections, Vertebrate Viruses, Drugs and Therapies, Risk and Prevention, Primate Lentiviruses, Diagnostics and Screening, Immune System Diseases and Conditions.

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Drugs and Therapies - Ethnopharmacology

Findings from Panjab University Update Understanding of Ethnopharmacology (Isolation, characterization and quantification of an anxiolytic constituent - mahanimbine, from Murraya koenigii Linn. Spreng Leaves)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Ethnopharmacology have been published. According to news reporting from Chandigarh, India, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Leaves of M. koenigii Linn. Spreng (Rutaceae) have been used as traditional medicine for anxiety disorders."

The news correspondents obtained a quote from the research from Panjab University, "Aim of the study was to isolate antianxiety principle(s) from the leaves of M. koenigii using bioactivity guided approach. Hydroalcoholic extract of M. koenigii leaves was prepared using soxhlet apparatus, and the same was evaluated for antianxiety activity at 250, 500 and 750 mg/kg, po, using Elevated plus-maze (EPM). The extract was further partitioned successively with pet'ether, chloroform, ethyl acetate and 1-butanol. All the fractions were evaluated for antianxiety activity. The bioactive ethyl acetate fraction was column chromatographed to get 5 fractions (F-1-F-5). All the fractions were evaluated for antianxiety activity using EPM. A pure compound, separated out from F-2, was characterized using standard spectroscopic techniques, and its anxiolytic activity was evaluated using EPM. Antianxiety activity of isolated compound was further evaluated using Actophotometer and m-CPP induced anxiety model. TLC-densitometric method was developed to quantify mahanimbine in the plant. The present study resulted in the isolation of mahanimbine, which exhibits potent antianxiety activity at 3 mg/kg, and the activity was statistically comparable to that of diazepam (2 mg/kg). The developed TLC-densitometric method is specific, linear, precise, accurate, repeatable and robust. This study validates the ethnopharmacological use of M. koenigii leaves in the management of anxiety disorders."

According to the news reporters, the research concluded: "Mahanimbine is responsible for the antianxiety effect of M. koenigii leaves."

For more information on this research see: Isolation, characterization and quantification of an anxiolytic constituent - mahanimbine, from Murraya koenigii Linn. Spreng Leaves. *Journal of Ethnopharmacology*, 2016;193():706-711. *Journal of Ethnopharmacology* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon,
Findings from Paratek Pharmaceuticals in Chemotherapy Reported (In Vitro and In Vivo Assessments of Cardiovascular Effects with Omadacycline)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Chemotherapy. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Omadacycline is a first-in-class aminomethylcycline antibiotic with a broad spectrum of activity against Gram-positive and Gram-negative aerobes and anaerobes and atypical bacterial pathogens. A series of nonclinical studies, including mammalian pharmacologic receptor binding studies, human ether-a-go-go-related gene (hERG) channel binding studies, studies of the effects on ex vivo sinoatrial (SA) node activity, and studies of in vivo effects on cardiovascular function in the cynomolgus monkey, was undertaken to assess the cardiovascular risk potential."

Our news editors obtained a quote from the research from Paratek Pharmaceuticals, "Omadacycline was found to bind almost exclusively to the muscarinic subtype 2 acetylcholine receptor (M-2), and in the SA node model it antagonized the effect of a pan-muscarinic agonist (carbamylcholine) in a concentration-dependent manner. Omadacycline exhibited no effect on hERG channel activity at 100 mu g/ml (179.5 mu M), with a 25% inhibitory concentration of 166 mu g/ml (298.0 mu M). Omadacycline had no effect on QTc in conscious monkeys at doses up to 40 mg/kg of body weight."

According to the news editors, the research concluded: "Overall, omadacycline appears to attenuate the parasympathetic influence on the heart rate but has a low potential to induce cardiac arrhythmia or to have clinically significant cardiovascular toxicity."

For more information on this research see: In Vitro and In Vivo Assessments of Cardiovascular Effects with Omadacycline. Antimicrobial Agents and Chemotherapy, 2016;60 (9):5247-5253. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting S. Villano, Paratek Pharmaceut, Boston, MA 02116, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00320-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North America, Drugs and Therapies, Chemotheraphy, Omadacycline.
Drugs and Therapies - Antifungals
Findings from Pasteur Institute in the Area of Antifungals Described (Administration of Zinc Chelators Improves Survival of Mice Infected with Aspergillus fumigatus both in Monotherapy and in Combination with Caspofungin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antifungals have been published. According to news reporting out of Paris, France, by NewsRx editors, research stated, "Aspergillus fumigatus can infect immunocompromised patients, leading to high mortality rates due to the lack of reliable treatment options. This pathogen requires uptake of zinc from host tissues in order to successfully grow and cause virulence."

Our news journalists obtained a quote from the research from Pasteur Institute, "Reducing the availability of that micronutrient could help treat A. fumigatus infections. In this study, we examined the in vitro effects of seven chelators using a bioluminescent strain of A. fumigatus. 1,10-Phenanthroline and N, N, N', N'-tetrakis(2-pyridylmethyl) ethane-1,2-diamine (TPEN) proved to be the chelators most effective at inhibiting fungal growth. Intraperitoneal administration of either phenanthroline or TPEN resulted in a significant improvement in survival and decrease of weight loss and fungal burden for immunosuppressed mice intranasally infected with A. fumigatus. In vitro both chelators had an indifferent effect when employed in combination with caspofungin. The use of TPEN in combination with caspofungin also significantly increased survival compared to that when using these drugs individually."

According to the news editors, the research concluded: "Our results suggest that zinc chelation may be a valid strategy for dealing with A. fumigatus infections and that both phenanthroline and TPEN could potentially be used either independently or in combination with caspofungin, indicating that their use in combination with other antifungal treatments might also be applicable."

For more information on this research see: Administration of Zinc Chelators Improves Survival of Mice Infected with Aspergillus fumigatus both in Monotherapy and in Combination with Caspofungin. Antimicrobial Agents and Chemotherapy, 2016;60(10):5631-5639. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting O. Ibrahim-Granet, Inst Pasteur, Dept. of Infect & EpidemioI, Cytokines & Inflammat, Paris, France. Additional authors for this research include A. Atrouni, A. Calera, C. d'Enfert, H. Munier-Lehmann, J.M. Cavaillon, J.P. Latge and O. Ibrahim-Granet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00324-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Aspergillus fumigatus, Drugs and Therapies, Caspofungin Therapy, Antiinfectives, Echinocandins,
Antifungals, Pasteur Institute.

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**Drugs and Therapies - Cancer Therapy**

**Findings from Payame Noor University in the Area of Cancer Therapy Described (Novel dual stimuli-responsive ABC triblock copolymer: RAFT synthesis, "schizophrenic" micellization, and its performance as an anticancer drug delivery nanosystem)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Cancer Therapy is the subject of a report. According to news reporting from Tehran, Iran, by NewsRx journalists, research stated, "A novel pH- and thermo-responsive ABC triblock copolymer poly[(2-succinyloxyethyl methacrylate)-b-(N-isopropylacrylamide)-b-[(N-4-vinylbenzyl),N,N-diethylamine] ] [P(SEMA-b-NIPAAm-b-VEA)] was successfully synthesized via reversible addition of fragmentation chain transfer (RAFT) polymerization technique. The molecular weights of PHEMA, PNIPAAm, and PVEA segments in the synthesized triblock copolymer were calculated to be 10,670, 6140, and 9060 g mol(-1), respectively, from proton nuclear magnetic resonance (1H NMR) spectroscopy."

The news correspondents obtained a quote from the research from Payame Noor University, "The schizophrenic self-assembly behavior of the synthesized P(SEMA-b-NIPAAm-b-VEA) triblock copolymer under pH and thermal stimulus were investigated by means of 1H NMR and ultraviolet-visible (UVvis) spectroscopies as well as dynamic light scattering (DLS) and zeta potential (ξ) measurements. The doxorubicin hydrochloride (DOX)-loading capacity, and stimuli-responsive drug release ability of the synthesized triblock copolymer were also investigated. The biocompatibility of the synthesized triblock copolymer was confirmed through the assessing survival rate of breast cancer cell line (MCF7) using MTT assay. In contrast, DOX-loaded triblock copolymer exhibited an efficient anticancer performance in comparison with free DOX verified by MTT and DAPI staining assays."

According to the news reporters, the research concluded: "As the results, we envision that the synthesized P(SEMA-b-NIPAAm-b-VEA) triblock copolymer can be applied as an enhanced anticancer drug delivery nanosystem, mainly due to its smart physicochemical and biocompatibility properties."


Our news journalists report that additional information may be obtained by contacting B. Massoumi, Payame Noor Univ, Dept. of Chem, Tehran, Iran. Additional authors for this research include A. Ghahmehr, E. Alizadeh, B. Massoumi and M. Jaymand.

Keywords for this news article include: Tehran, Iran, Asia, Mental Health Diseases and Conditions, Drug Delivery Systems, Drugs and Therapies, Cancer Therapy,
Findings from Peking Union Medical College Has Provided New Data on Abdominal Aortic Aneurysm (Application of physician-modified fenestrated stent graft in urgent endovascular repair of abdominal aortic aneurysm with hostile neck anatomy Case ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "This study aimed to evaluate the feasibility and effectiveness of the Gore Excluder aortic stent graft (WL Gore & Associates, Inc., Flagstaff, AZ) using the C3 Delivery System after physician modification of fenestration for the urgent treatment of patients with abdominal aortic aneurysm showing hostile neck anatomy. Case summary: Three urgent cases of abdominal aortic aneurysm with hostile neck anatomy symptom with abdominal pain were reported."

Our news journalists obtained a quote from the research from Peking Union Medical College, "The same fenestration method was applied to align the target superior mesenteric artery and bilateral renal arteries with 1 scallop and 2 fenestrations, followed by the reconstruction of the target artery using a bare-metal stent or stent graft. Balloon-assisted positioning and image fusion technology were intraoperatively applied to assist the accurate release of the stent graft body. The follow-up periods for all cases exceeded 6 months, showing smooth circulation in the target arteries with no endoleaks. In the absence of other available treatment methods, it is feasible to use a stent graft with physician-modified fenestration for the urgent endovascular repair of abdominal aortic aneurysm with hostile neck anatomy."

According to the news editors, the research concluded: "However, this procedure's long-term efficacy needs to be further investigated."

For more information on this research see: Application of physician-modified fenestrated stent graft in urgent endovascular repair of abdominal aortic aneurysm with hostile neck anatomy Case report. Medicine, 2016;95(46):420-425. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from C.W. Liu, Peking Union Med College, Beijing 100730, People's Republic of China. Additional authors for this research include W. Ye, C.W. Liu, X. Wang, X.J. Song, L. Ni, B. Liu, Y.J. Li and Y.H. Zheng.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Cardiology, Angiology, Peking Union Medical College.
Findings from Peking Union Medical College Yields New Findings on Obesity, Fitness and Wellness (First-in-Human Percutaneous Balloon Pulmonary Valvuloplasty Under Echocardiographic Guidance Only)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Obesity, Fitness and Wellness have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "The objective of this study was to assess the feasibility of percutaneous balloon pulmonary valvuloplasty (PBPV) under echocardiographic guidance only. PBPV has become the preferred choice for pulmonary valve stenosis (PS)."

The news reporters obtained a quote from the research from Peking Union Medical College, "We report the first-in-human successful PBPV under only echocardiography guidance for isolated PS. From March 2013 to December 2014, 34 patients with congenital PS underwent PBPV with echocardiography as the only imaging modality in the ordinary operation room or catheter lab. Outpatient follow-up including chest radiography, electrocardiography, and transthoracic echocardiography (TTE) was conducted at 1, 3, 6, and 12 months. All 34 patients successfully underwent PBPV under echocardiography guidance without radiation and contrast agent. The pulmonic transvalvular pressure gradient dropped from 62.8 +/- 10.1 mm Hg to 14.7 +/- 4.2 mm Hg measured on catheterization (P <.05). The balloon diameter/pulmonary annulus diameter ratio was 1.34 +/- 0.07. Slight regurgitation of the pulmonary valve occurred in five patients and mild pulmonary regurgitation occurred in one patients. The pulmonic transvalvular pressure gradient measured on TTE 12 months after the procedure was 14.1 +/- 4.6 mm Hg. No pericardial effusion and peripheral vascular complications occurred."

According to the news reporters, the research concluded: "This study demonstrated that PBPV can be successfully performed under only echocardiography guidance and appears safe and effective while avoiding radiation and contrast agent use."


Our news correspondents report that additional information may be obtained by contacting X.B. Pan, Peking Union Med College, Beijing 100037, People's Republic of China. Additional authors for this research include W.B. Ou-Yang, S.S. Hu, K.J. Pang, Y. Liu, F.W. Zhang, D.W. Zhang and X.B. Pan.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Obesity, Fitness and Wellness, Echocardiography, Cardiovascular, Cardiology, Peking Union Medical College.

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Findings from Peking Union Medical College in Cardiovascular Research Reported (Ambient Fine Particulate Matter Exposure and Risk of Cardiovascular Mortality: Adjustment of the Meteorological Factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Research have been published. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Few studies have explicitly explored the impacts of the extensive adjustment (with a lag period of more than one week) of temperature and humidity on the association between ambient fine particulate matter (PM2.5) and cardiovascular mortality. In a time stratified case-crossover study, we used a distributed lag nonlinear model to assess the impacts of extensive adjustments of temperature and humidity for longer lag periods (for 7, 14, 21, 28 and 40 days) on effects of PM2.5 on total cardiovascular mortality and mortality of cerebrovascular and ischemic heart disease and corresponding exposure-response relationships in Beijing, China, between 2008 and 2011."

Our news editors obtained a quote from the research from Peking Union Medical College, "Compared with results only controlled for temperature and humidity for 2 days, the estimated effects of PM2.5 were smaller and magnitudes of exposure-response curves were decreased when longer lag periods of temperature and relative humidity were included for adjustments, but these changes varied across subpopulation, with marked decreases occurring in males and the elderly who are more susceptible to PM2.5-related mortalities. Our findings suggest that the adjustment of meteorological factors using lag periods shorter than one week may lead to overestimated effects of PM2.5."

According to the news editors, the research concluded: "The associations of PM2.5 with cardiovascular mortality in susceptible populations were more sensitive to further adjustments for temperature and relative humidity."


The news editors report that additional information may be obtained by contacting K. Luo, Chinese Academy Med Sci, Center Environm & Hlth Sci, Peking Union Med College, Beijing 100005, People's Republic of China. Additional authors for this research include W.J. Li, R.M. Zhang, R.K. Li, Q. Xu and Y. Cao.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Research, Cardiovascular, Cardiology, Peking Union Medical College.

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Thrombolysis

Findings from Peking University Provide New Insights into Thrombolysis (Regional variation in acute stroke care organisation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Thrombolysis are discussed in a new report. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Few studies have assessed regional variation in the organisation of stroke services, particularly health care resourcing, presence of protocols and discharge planning. Our aim was to compare stroke care organisation within middle- (MIC) and high-income country (HIC) hospitals participating in the Head Position in Stroke Trial (HeadPoST)."

Financial support for this research came from NHMRC.

Our news editors obtained a quote from the research from Peking University, "HeadPoST is an on-going international multicenter crossover cluster-randomized trial of 'sitting-up' versus 'lying-flat' head positioning in acute stroke. As part of the start-up phase, one stroke care organisation questionnaire was completed at each hospital. The World Bank gross national income per capita criteria were used for classification. 94 hospitals from 9 countries completed the questionnaire, 51 corresponding to MIC and 43 to HIC. Most participating hospitals had a dedicated stroke care unit/ward, with access to diagnostic services and expert stroke physicians, and offering intravenous thrombolysis. There was no difference for the presence of a dedicated multidisciplinary stroke team, although greater access to a broad spectrum of rehabilitation therapists in HIC compared to MIC hospitals was observed. Significantly more patients arrived within a 4-h window of symptoms onset in HIC hospitals (41 vs. 13%; P<0.001), and a significantly higher proportion of acute ischemic stroke patients received intravenous thrombolysis (10 vs. 5%; P=0.002) compared to MIC hospitals. Although all hospitals provided advanced care for people with stroke, differences were found in stroke care organisation and treatment."

According to the news editors, the research concluded: "Future multilevel analyses aims to determine the influence of specific organisational factors on patient outcomes."

For more information on this research see: Regional variation in acute stroke care organisation. Journal of the Neurological Sciences, 2016;371():126-130. Journal of the Neurological Sciences can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of the Neurological Sciences - www.journals.elsevier.com/journal-of-the-neurological-sciences/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jns.2016.10.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Thrombolysis, Hematology, Hospital, Peking University.

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Oncology - Non-Small Cell Lung Cancer

Findings from Peking University Reveals New Findings on Non-Small Cell Lung Cancer (Upregulation of programmed cell death ligand 1 promotes resistance response in non-small-cell lung cancer patients treated with neo-adjuvant chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Non-Small Cell Lung Cancer is now available. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "To assess the association of the programmed cell death ligand 1 (PD-L1) with cisplatin-based neo-adjuvant chemotherapy (NAC) response, we investigated the level of PD-L1 and found increased PD-L1 expression in chemo-resistant tumors compared with chemo-sensitive tumors according to RNA-Seq analysis. In a cohort of 92 patients with NAC, the positive staining of PD-L1 was correlated with TNM stage, lower sensitive-response rates and shorter overall survival rates."

Funders for this research include Peking University, Beijing Municipal Administration of Hospitals' Clinical Medicine Development Special Fund, Capital Health Research and Development Special Fund, National High Technology Research and Development Program of China.

Our news journalists obtained a quote from the research from Peking University, "In another 30 paired tumor specimens pre- and post-chemotherapy, the patients with high PD-L1 expression post-chemotherapy had a worse outcome and higher stable disease rate. CD8(+) tumor-infiltrating lymphocytes were found to be related to chemosensitive response and better prognosis and negative PD-L1 expression. Furthermore, in two patient-derived xenograft models and cell lines A549 and PC-9, cisplatin upregulated PD-L1 expression, and the enhancement of PD-L1 in cancer cell lines was in a drug dose-dependent manner. Moreover, the depletion of PD-L1 significantly reduced cisplatin resistance. When phosphatidylinositol 3-kinase/protein kinase B signaling was inhibited by corresponding inhibitors, PD-L1 expression was downregulated and apoptosis was upregulated in the cisplatin-treated cancer cells. These results suggest that the upregulation of PD-L1 promotes a resistance response in lung cancer cells that might be through activation of the phosphatidylinositol 3-kinase/protein kinase B pathway and suppression of tumor-infiltrating lymphocytes."

According to the news editors, the research concluded: "The high expression of PD-L1 after NAC could be an indication of therapeutic resistance and poor prognosis in patients with non-small-cell lung cancer."


The news correspondents report that additional information may be obtained from Y. Yang, Peking University, Canc Hosp & Inst, Minist Educ Beijing, Dept. of Thorac Surg 2Key Lab Carcinogenesis & Trans, Beijing, People's Republic of China. Additional authors for this

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cas.13072. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Non-Small Cell Lung Cancer, Combined Modality Therapy, Enzymes and Coenzymes, Adjuvant Chemotherapy, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin Therapy, Alkylating Agents, Pharmaceuticals, Antineoplastics, Lung Neoplasms, Oncology, Genetics, Kinase, Peking University.

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RNA Viruses - Simian Immunodeficiency Virus

Findings from Peking University in Simian Immunodeficiency Virus Reported (Simian Immunodeficiency Virus Impacts MicroRNA-16 Mediated Post-Transcriptional Regulation of mu Opioid Receptor in CEM ?174 Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in RNA Viruses - Simian Immunodeficiency Virus. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Although the mechanism which regulates transcription in the 5'-UTR of the mc opioid receptor gene (OPRM1) in lymphocytes has been well-studied, a question remains as to whether there is post-transcriptional regulation of OPRM1 gene in lymphocytes. In this study, the authors describe both the role played by miRNAs and the impact of SIVmac239 infection on post-transcriptional regulation of OPRM1 gene in CEM ?174 cells."

Funders for this research include National Natural Science Foundation of China, Beijing Natural Science Foundation, Guangdong Province Natural Science Fund Project, Shenzhen Research Fund.

Our news editors obtained a quote from the research from Peking University, "Our results show that miR-16 is able to bind the target site in the range of 8699-8719 nt from the stop codon in MOR-1 mRNA 3'-UTR and suppress the expression of OPRM1 gene. Mutation of this target site reduces the effect of miR-16. Morphine (1 ?M) inhibits the expression of miR-16, and this effect is reversed by the antagonist naloxone. Thus, morphine may up-regulate receptor level by both stimulating OPRM1 gene transcription and stabilizing its mRNA. SIVmac239 infection results in an apparent elevation of miR-16 and gradual reduction of OPRM1 gene expression. The inverse correlation of elevated miR-16 and reduced OPRM1 gene expression under viral loading confirmed the effect of SIVmac239 on post-transcriptional regulation of OPRM1 gene in lymphocytes. The authors conclude that miR-16 is a primary factor in post-transcriptional regulation of OPRM1 gene. SIVmac239 upregulates miR-16 levels and consequently suppresses OPRM1 gene expression."

According to the news editors, the research concluded: "This finding will be helpful for full understanding of the regulatory mechanism of OPRM1 gene in lymphocytes, as well as the synergistic mechanism of HIV infection and morphine addiction in the pathogenesis of
AIDS."


The news editors report that additional information may be obtained by contacting W. Hou, Dept. of Biochemistry and Molecular Biology, Peking University Health Science Center, Peking University, Beijing, 100191, People's Republic of China. Additional authors for this research include H. Li, W. Jiang, C. Zhang, M.A. McNutt and G. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcb.25251. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Genetics, Neurology, Immunology, Blood Cells, Lymphocytes, RNA Viruses, Retroviridae, mu Receptors, Opiate Receptors, Opioid Receptors, Membrane Proteins, Vertebrate Viruses, Simian Retroviruses, Primate Lentiviruses, Mononuclear Leukocytes, Neuropeptide Receptors, Hemic and Immune Systems.

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**Cardiology**

**Findings from Pennsylvania State University Yields New Data on Cardiology (Self-organizing visualization and pattern matching of vectorcardiographic QRS waveforms)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting from University Park, Pennsylvania, by NewsRx journalists, research stated, "QRS morphology is commonly used in the electrocardiographic diagnosis of ventricular depolarization such as left bundle branch block (LBBB) and ventricular septal infarction. We investigated whether pattern matching of QRS loops in the 3-dimensional vectorcardiogram (VCG) will improve the grouping of patients whose spacetime electrical activity akin to each other, thereby assisting in clinical decision making."

Funders for this research include National Science Foundation, Harold and Inge Marcus Career Professorship.

The news correspondents obtained a quote from the research from Pennsylvania State University, "First, pattern dissimilarity of VCG QRS loops is qualitatively measured and characterized among patients, resulting in a 93x93 distance matrix of patient-to-patient dissimilarity. Each patient is then represented as a node in the network (or a star in the galaxy), but node locations are optimized to preserve the dissimilarity matrix. The optimization is achieved with a self-organizing algorithm that iteratively minimizes the network energy. Experimental results showed that patients' locations converge as the representation error reaches a stable phase. The convergence is independent of initial locations of network nodes. Most importantly, 93 patients are automatically organized into 3 clusters of healthy control, LBBB, and infarction. Spatial coordinates of nodes (or patients) are evidently novel predictors that can
be used in the computer-assisted detection of cardiac disorders."

According to the news reporters, the research concluded: "Self-organizing pattern matching is shown to have strong potentials for large-scale unsupervised learning of patient groups."


Our news journalists report that additional information may be obtained by contacting H. Yang, Pennsylvania State University, Complex Syst Monitoring Modeling & Control Lab, University Park, PA 16802, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.compbiomed.2016.09.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: University Park, Pennsylvania, United States, North and Central America, Cardiology, Pennsylvania State University.

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**Liver Diseases**

**Findings from Pennsylvania State University Yields New Data on Liver Diseases [Regulation of Cytochrome P450 2B10 (CYP2B10) Expression in Liver by Peroxisome Proliferator-activated Receptor-beta/delta Modulation of SP1 Promoter Occupancy]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases have been published. According to news reporting out of University Park, Pennsylvania, by NewsRx editors, research stated, "Alcoholic liver disease is a pathological condition caused by overconsumption of alcohol. Because of the high morbidity and mortality associated with this disease, there remains a need to elucidate the molecular mechanisms underlying its etiology and to develop new treatments."

Our news journalists obtained a quote from the research from Pennsylvania State University, "Because peroxisome proliferator-activated receptor-beta/delta (PPAR beta/delta) modulates ethanol-induced hepatic effects, the present study examined alterations in gene expression that may contribute to this disease. Chronic ethanol treatment causes increased hepatic CYP2B10 expression in Ppar beta/delta(+/+) mice but not in Ppar beta/delta(-/-) mice. Nuclear and cytosolic localization of the constitutive androstane receptor (CAR), a transcription factor known to regulate Cyp2b10 expression, was not different between genotypes. PPAR gamma co-activator 1 alpha, a co-activator of both CAR and PPAR beta/delta, was up-regulated in Ppar beta/delta(+/-) liver following ethanol exposure, but not in Ppar beta/delta(-/-) liver. Functional mapping of the Cyp2b10 promoter and ChIP assays revealed that PPAR beta/delta-dependent modulation of SP1 promoter occupancy up-regulated Cyp2b10 expression in response to ethanol. These results suggest that PPAR beta/delta regulates Cyp2b10 expression indirectly by modulating SP1 and PPAR gamma co-activator 1 alpha expression and/or activity.
independent of CAR activity. Ligand activation of PPAR beta/delta attenuates ethanol-induced Cyp2b10 expression in Ppar beta/delta(+/+) liver but not in Ppar beta/delta(-/-) liver. Strikingly, Cyp2b10 suppression by ligand activation of PPAR beta/delta following ethanol treatment occurred in hepatocytes and was mediated by paracrine signaling from Kupffer cells."

According to the news editors, the research concluded: "Combined, results from the present study demonstrate a novel regulatory role of PPAR beta/delta in modulating CYP2B10 that may contribute to the etiology of alcoholic liver disease."


Our news journalists report that additional information may be obtained by contacting J.M. Peters, Pennsylvania State University, Center Mol Toxicol & Carcinogenesis, University Park, PA 16802, United States. Additional authors for this research include P.L. Yao, M. Goudarzi, I.A. Murray, G. Balandaram, F.J. Gonzalez, G.H. Perdew, A.J. Fornace and J.M. Peters.

Keywords for this news article include: University Park, Pennsylvania, United States, North and Central America, Peroxisome Proliferator-Activated Receptors, Digestive System Diseases and Conditions, Cytoplasmic and Nuclear Receptors, Liver Diseases and Conditions, Alcoholic Liver Disease, Cytoplasmic Structures, Transcription Factors, Cytoplasmic Vesicles, DNA-Binding Proteins, Intracellular Space, Ethanolamines, Hemeproteins, Cytochromes, Peroxisomes, Microbodies, Alcoholism, Organelles, PPAR-beta, Genetics, Alcohols, Pennsylvania State University.

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Vascular Endothelial Growth Factor

Findings from People's Hospital Provides New Data on Vascular Endothelial Growth Factor (Mechanistic Study of the Inhibitory Effect of Kaempferol on Uterine Fibroids In Vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Vascular Endothelial Growth Factor is now available. According to news reporting originating from Liaocheng, People's Republic of China, by NewsRx correspondents, research stated, "This study examined the effect of kaempferol on uterine fibroids in vitro and the underlying mechanism, and investigated the potential of kaempferol as a clinical drug for the treatment of uterine fibroids. Uterine fibroid tissue and surrounding smooth muscle tissue were collected for primary culture."

Our news editors obtained a quote from the research from People's Hospital, "Different concentrations of kaempferol (12 mu M, 24 mu M, and 48 mu M) were used to treat the cells for 24, 48, and 72 hours. Ethanol was used in the control group. A CCK-8 colorimetric assay was used to detect cell proliferation. Real-time PCR and immunoblot were used to detect estrogen receptor (ER), insulin-like growth factor-1 (IGF-1), and vascular endothelial growth
factor (VEGF) levels in mRNA and protein. The differences in proliferation at different time points and concentrations of kaempferol were statistically significant. The inhibitory effect of kaempferol on mRNA levels of ER and IGF, and protein levels of ER, VEGF, and IGF-1 were positively correlated with kaempferol concentration. Changes in kaempferol concentration showed no effect on VEGF mRNA expression. Treatment with kaempferol significantly lowered myocardin levels in uterine fibroid tissue compared to normal uterine smooth muscle (P < 0.05).

According to the news editors, the research concluded: "Kaempferol might be used for clinical treatment of uterine fibroids due to its inhibitory effect on the proliferation of uterine fibroids cells."

For more information on this research see: Mechanistic Study of the Inhibitory Effect of Kaempferol on Uterine Fibroids In Vitro. Medical Science Monitor, 2016;22():1-6. Medical Science Monitor can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

The news editors report that additional information may be obtained by contacting Y.X. Li, Second Peoples Hosp Liaocheng, Dept. of Gynaecol, Liaocheng, Shandong, People's Republic of China. Additional authors for this research include Z.X. Ding and C.Z. Wu.

Keywords for this news article include: Liaocheng, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Growth Factor Receptors, Angiogenic Proteins, Membrane Proteins, Genetics, VEGF, People's Hospital.

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CI: 0.54-0.90, p = .006). No associations were noted for *01 and *09. Pooled ORs revealed associations of *0101 (OR = 1.58), *0401 (OR = 2.17), *0404 (OR = 1.91), *0405 (OR = 3.73), *0410 (OR = 2.24), *1001 (OR = 1.78) and SE positive (OR = 2.38) with RA. HLA-DRB1 *14 subtypes did not show associations with RA.

According to the news editors, the research concluded: "HLA-DRB1 allelic variations are associated with RA in Asian patients."

For more information on this research see: HLA-DRB1 shared epitope allele polymorphisms and rheumatoid arthritis: a systemic review and meta-analysis. Clinical and Investigative Medicine, 2016;39(6):E1-E22. Clinical and Investigative Medicine can be contacted at: Canadian Soc Clinical Investigation, Csci Head Office, 774 Echo Drive, Ottawa, On K1S 5N8, Canada.

Our news journalists report that additional information may be obtained by contacting Y. Jiang, Shanghai Sixth Peoples Hosp, Dept. of Orthoped, Shanghai 200233, People's Republic of China. Additional authors for this research include Y. Jiang, Q.X. Hu and X.B. You.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Rheumatoid Arthritis, Risk and Prevention, People's Hospital.

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Oncology - Breast Cancer

**Findings from Periyar University Broaden Understanding of Breast Cancer [Synergistic effect of chemo-photothermal for breast cancer therapy using folic acid (FA) modified zinc oxide nanosheet]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting from Tamil Nadu, India, by NewsRx journalists, research stated, "Modern therapies for malignant breast cancer in clinics are not efficacious and often result in deprived patient compliance owing to squat therapeutic effectiveness and strong systemic side effects. In order to overcome this, we combined chemo-photothermal targeted therapy of breast cancer within one novel multifunctional drug delivery system."

Financial support for this research came from University Grant Commission, New Delhi, India.

The news correspondents obtained a quote from the research from Periyar University, "Folic Acid-functionalized polyethylene glycol coated Zinc Oxide nanosheet (FA-PEG-ZnO NS), was successfully synthesized, characterized and introduced to the drug delivery field for the first time. A doxorubicin (DOX)-loaded FA-PEG-ZnO NS based system (DOX-FAPEG-ZnO NS) showed stimulative effect of heat, pH responsive and sustained drug release properties. Cytotoxicity experiments confirmed that combined therapy mediated the maximum rate of death in breast cancer cells compared to that of single chemotherapy or photothermal therapy. In vivo toxicity evaluation showed that the DOX-FA-PEG-ZnO NS contains minimum systemic toxicity in the mice model system. The findings of the present study provided an ideal drug delivery system for breast cancer therapy due to the advanced chemo-photothermal synergistic targeted therapy and good drug release properties of DOX-FA-PEG-ZnO NS, which
could effectively avoid frequent and invasive dosing and improve patient compliance."

According to the news reporters, the research concluded: "Thus, functionalized-ZnO NS could be used as a novel nanomaterial for selective chemo-photothermal therapy."


Our news journalists report that additional information may be obtained by contacting K. Vimala, Periyar Univ, Dept. of Zool, Prote & Mol Cell Physiol Lab, Salem 636011, Tamil Nadu, India. Additional authors for this research include K. Shanthi, S. Sundarraj and S. Kannan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jcis.2016.10.067. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tamil Nadu, India, Asia, Drug Delivery Systems, Drugs and Therapies, Pharmaceuticals, Zinc Compounds, Women's Health, Breast Cancer, Zinc Oxide, Folic Acid, Chemicals, Oncology, Therapy, Periyar University.

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**Oncology - Rectal Cancer**

**Findings from Peter MacCallum Cancer Center Update Understanding of Rectal Cancer (Predicting pathological complete response to neoadjuvant chemoradiotherapy in locally advanced rectal cancer: a systematic review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Rectal Cancer have been presented. According to news originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Approximately 20% of patients treated with neoadjuvant chemoradiotherapy (nCRT) for locally advanced rectal cancer achieve a pathological complete response (pCR) while the remainder derive the benefit of improved local control and downstaging and a small proportion show a minimal response. The ability to predict which patients will benefit would allow for improved patient stratification directing therapy to those who are likely to achieve a good response, thereby avoiding ineffective treatment in those unlikely to benefit."

Our news journalists obtained a quote from the research from Peter MacCallum Cancer Center, "A systematic review of the English language literature was conducted to identify pathological factors, imaging modalities and molecular factors that predict pCR following chemoradiotherapy. PubMed, MEDLINE and Cochrane Database searches were conducted with the following keywords and MeSH search terms: 'rectal neoplasm', 'response', 'neoadjuvant', 'preoperative chemoradiation', 'tumor response'. After review of title and abstracts, 85 articles addressing the prediction of pCR were selected. Clear methods to predict pCR before chemoradiotherapy have not been defined. Clinical and radiological features of the primary cancer have limited ability to predict response. Molecular profiling holds the greatest potential
to predict pCR but adoption of this technology will require greater concordance between cohorts for the biomarkers currently under investigation. At present no robust markers of the prediction of pCR have been identified and the topic remains an area for future research. This review critically evaluates existing literature providing an overview of the methods currently available to predict pCR to nCRT for locally advanced rectal cancer."

According to the news editors, the research concluded: "The review also provides a comprehensive comparison of the accuracy of each modality."


The news correspondents report that additional information may be obtained from J.E. Ryan, Division of Cancer Surgery, Peter MacCallum Cancer Centre, Melbourne, Victoria, Australia. Additional authors for this research include S.K. Warrier, A.C. Lynch, R.G. Ramsay, W.A. Phillips and A.G Heriot.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/codi.13207. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oncology, Melbourne, Rectal Cancer, Article Review, Gastroenterology, Australia and New Zealand.

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Endoscopic Submucosal Dissection

Findings from Portuguese Oncology Institute Update Knowledge of Endoscopic Submucosal Dissection (Risk factors for bleeding after gastric endoscopic submucosal dissection: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Endoscopic Submucosal Dissection is now available. According to news reporting out of Oporto, Portugal, by NewsRx editors, research stated, "Postprocedural bleeding (PPB) is the most common adverse event associated with endoscopic resection. Several studies have tried to identify risk factors for PPB after gastric EMR and endoscopic submucosal dissection (ESD), with controversial results."

Our news journalists obtained a quote from the research from Portuguese Oncology Institute, "This systematic review and meta-analysis aimed to identify significant risk factors for PPB after gastric EMR and ESD. Three online databases were searched. Pooled odds ratio (OR) was computed for each risk factor using a random-effects model, and heterogeneity was assessed by Cochran's Q test and I-2. Seventy-four articles were included. Pooled PPB rate was 5.1% (95% confidence interval, 4.5%-5.7%), which did not vary according to different study designs. Male sex (OR, 1.25), cardiopathy (OR, 1.54), antithrombotic drugs (OR, 1.63), cirrhosis (OR, 1.76), chronic kidney disease (OR, 3.38), tumor size > 20 mm (OR, 2.70), resected specimen size > 30 mm (OR, 2.85), localization in the lesser curvature (OR, 1.74), flat/depressed morphology (OR, 1.43), carcinoma histology (OR, 1.46), and ulceration (OR, 1.64) were identified as significant risk factors for PPB, whereas age, hypertension, submucosal
invasion, fibrosis, and localization (upper, middle, or lower third) were not. Procedure duration > 60 minutes (OR, 2.05) and the use of histamine-2 receptor antagonists instead of proton pump inhibitors (OR, 2.13) were the procedural factors associated with PPB, whereas endoscopist experience and preprocedural proton pump inhibitors were not. Second-look endoscopy was not associated with decreased PPB (OR, 1.34; 95% confidence interval, .85-2.12). Risk factors for PPB were identified that can help to guide management after gastric ESD, namely adjusting further management.

According to the news editors, the research concluded: "Second-look endoscopy is not associated with decreased PPB."


Our news journalists report that additional information may be obtained by contacting D. Libanio, Portuguese Oncol Inst Porto, Dept. of Gastroenterol, P-4200072 Oporto, Portugal. Additional authors for this research include M.N. Costa, P. Pimentel-Nunes and M. Dinis-Ribeiro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gie.2016.06.033. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oporto, Portugal, Europe, Endoscopic Submucosal Dissection, Proton Pumps, Article Review, Risk and Prevention, Surgery, Portuguese Oncology Institute.

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Liver Diseases and Conditions - Fatty Liver

Findings from Postgraduate Institute of Medical Education and Research Reveals New Findings on Fatty Liver (Genetic polymorphism in CD14 gene, a co-receptor of TLR4 associated with non-alcoholic fatty liver disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases and Conditions - Fatty Liver have been presented. According to news reporting from Chandigarh, India, by NewsRx journalists, research stated, "To evaluate the pathogenic role of toll-like receptor (TLR) gene polymorphisms in patients with non-alcoholic fatty liver disease (NAFLD). Two hundred and fifty subjects (NAFLD = 200, healthy volunteers = 50) underwent polymerase chain reaction and restriction fragment length polymorphism to assess one polymorphism in the toll-like receptor 2 (TLR2) gene (A753G), two polymorphisms in the TLR4 gene (TLR4 Asp299Gly and Thr399Ile allele), and two polymorphisms in the cluster of differentiation 14 (CD14) (C-159T and C-550T) gene, a co-receptor of TLR4."

The news correspondents obtained a quote from the research from the Postgraduate Institute of Medical Education and Research, "Association of TLR gene polymorphisms with
NAFLD and its severity was evaluated by genetic models of association. On both multiplicative and recessive models of gene polymorphism association, there was significant association of CD14 C (-159) T polymorphism with NAFLD; patients with TT genotype had a 2.6 fold increased risk of developing NAFLD in comparison to CC genotype. There was no association of TLR2 Arg753Gln, TLR4 Asp299Gly, Thr399Ile, and CD14 C (-550) T polymorphisms with NAFLD. None of the TLR gene polymorphisms had an association with histological severity of NAFLD.

According to the news reporters, the research concluded: "Patients with CD14 C (-159) T gene polymorphism, a co-receptor of TLR4, have an increased risk of NAFLD development."


Our news journalists report that additional information may be obtained by contacting A. Duseja, Postgraduate Inst Med Educ & Res, Dept. of Hepatol, Chandigarh 160012, India. Additional authors for this research include A. Duseja, B.K. Sharma, B. Singla, A. Chakraborti, A. Das, P. Ray, R.K. Dhiman and Y. Chawla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i42.9346. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chandigarh, India, Asia, Fatty Liver Disease, Risk and Prevention, Genetics, Digestive System Diseases and Conditions, Liver Diseases and Conditions, Toll Like Receptors, Membrane Proteins, Postgraduate Institute of Medical Education and Research.

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**Oncology - Colon Cancer**

**Findings from Postgraduate Institute of Medical Education and Research in the Area of Colon Cancer Reported (Frequent Activation of the beta-Catenin Gene in Sporadic Colorectal Carcinomas: A Mutational & Expression Analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting originating in Chandigarh, India, by NewsRx journalists, research stated, "Beta-catenin (CTNNB1), an oncogene/onco-protein and an adhesion molecule is a key effector in colorectal cancer (CRC). Its activation, and subsequent up-regulation of Wnt-signaling, is an important event in the development of certain human cancers including CRC."

The news reporters obtained a quote from the research from the Postgraduate Institute of Medical Education and Research, "Mutations in the beta-catenin gene in the region of serine-threonine glycogen kinase (GSK)-3 beta phosphorylation target sites have been identified in colorectal cancer in humans. In the current study, we investigated 60 sporadic..."
colorectal adenocarcinomas along with adjoining and normal mucosa cases in humans for beta-catenin mutations. Thirteen of sixty colorectal tumors from humans had point mutations with a frequency of 21.66% at codons 24, 26, 27, 32, 34, 35, 41, 42, 43, 46, 49, 54, 55, or 67 sites which are mutated in colorectal cancer and some of these sites in other cancers. Thus, there appears to be a key involvement of beta-catenin activation in human colorectal carcinogenesis. mRNA expression analysis using q-Real Time PCR showed 21.5-fold up-regulation of beta-catenin mRNA in tumor tissue compared to normal and adjoining mucosa. Protein expression analysis using immunohistochemistry, confocal microscopy, and Western blot confirmed aberrant accumulation of beta-catenin protein along the nucleus and cytoplasm following mutation.

According to the news reporters, the research concluded: "The observed mutations and up-regulation of mRNA in tumors, and the increased expression of beta-catenin protein in CRC suggest that these alterations are early and prognostic events in sporadic colorectal carcinogenesis in humans."


Keywords for this news article include: Chandigarh, India, Asia, Armadillo Domain Proteins, Carcinogenesis, Genetics, Transcription Factors, Colorectal Research, Gastroenterology, beta Catenin, Colon Cancer, Carcinomas, Oncology, Catenins, Postgraduate Institute of Medical Education and Research.

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mechanism is highlighted in this review."

According to the news editors, the research concluded: "The recent inclusion of imaging agents in the nanocarriers has important consequences for the field of theranostics."


Our news journalists report that additional information may be obtained by contacting V.H. Tam, Princeton University, Chem & Biol Engn, Princeton, NJ 08544, United States. Additional authors for this research include C. Sosa, R. Liu, N. Yao and R.D. Priestley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Princeton, New Jersey, United States, North and Central America, Drug Delivery Systems, Emerging Technologies, Blood Brain Barrier, Blood-Brain Barrier, Drugs and Therapies, Nanotechnology, Nanomedicine, Princeton University.

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Immune System Diseases and Conditions - HIV/AIDS

Findings from Public Hospital System Broaden Understanding of HIV/AIDS (Total HIV-1 DNA, a Marker of Viral Reservoir Dynamics with Clinical Implications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immune System Diseases and Conditions - HIV/AIDS are discussed in a new report. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "HIV-1 DNA persists in infected cells despite combined antiretroviral therapy (cART), forming viral reservoirs. Recent trials of strategies targeting latent HIV reservoirs have rekindled hopes of curing HIV infection, and reliable markers are thus needed to evaluate viral reservoirs."

The news reporters obtained a quote from the research from Public Hospital System, "Total HIV DNA quantification is simple, standardized, sensitive, and reproducible. Total HIV DNA load influences the course of the infection and is therefore clinically relevant. In particular, it is predictive of progression to AIDS and death, independently of HIV RNA load and the CD4 cell count. Baseline total HIV DNA load is predictive of the response to cART. It declines during cART but remains quantifiable, at a level that reflects both the history of infection (HIV RNA zenith, CD4 cell count nadir) and treatment efficacy (residual viremia, cumulative viremia, immune restoration, immune cell activation). Total HIV DNA load in blood is also predictive of the presence and severity of some HIV-1-associated end-organ disorders. It can be useful to guide individual treatment, notably, therapeutic de-escalation. Although it does not distinguish between replication-competent and -defective latent viruses, the total HIV DNA load in blood, tissues, and cells provides insights into HIV pathogenesis, probably because all viral
forms participate in host cell activation and HIV pathogenesis. Total HIV DNA is thus a biomarker of HIV reservoirs, which can be defined as all infected cells and tissues containing all forms of HIV persistence that participate in pathogenesis. This participation may occur through the production of new virions, creating new cycles of infection and disseminating infected cells; maintenance or amplification of reservoirs by homeostatic cell proliferation; and viral transcription and synthesis of viral proteins without new virion production."

According to the news reporters, the research concluded: "These proteins can induce immune activation, thus participating in the vicious circle of HIV pathogenesis."

For more information on this research see: Total HIV-1 DNA, a Marker of Viral Reservoir Dynamics with Clinical Implications. *Clinical Microbiology Reviews*, 2016;29 (4):859-880. *Clinical Microbiology Reviews* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Clinical Microbiology Reviews - cmr.asm.org)

Our news correspondents report that additional information may be obtained by contacting V. Avettand-Fenoel, Hopital Necker Enfants Malad, AP HP, Virol Lab, Paris, France. Additional authors for this research include L. Hocqueloux, J. Ghosn, A. Cheret, P. Frange, A. Melard, J.P. Viard and C. Rouzioux.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/CMR.00015-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, DNA Research, Article Review, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Genetics, HIV-1, Public Hospital System.

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**Autoimmune Diseases and Conditions - Psoriatic…**

**Findings from Public Hospital System Broaden Understanding of Psoriatic Arthritis (Management of psoriatic arthritis in 2016: a comparison of EULAR and GRAPPA recommendations)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Psoriatic Arthritis. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "Psoriatic arthritis (PsA) is a heterogeneous, potentially severe disease. Many therapeutic agents are now available for PsA, but treatment decisions are not always straightforward."

The news reporters obtained a quote from the research from Public Hospital System, "To assist in this decision making, two sets of recommendations for the management of PsA were published in 2016 by international organizations - the European League Against Rheumatism (EULAR) and the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA). In both sets of recommendations, the heterogeneity of PsA is recognized and the place of various drugs in the therapeutic armamentarium is discussed. Such agents include conventional DMARDs, such as methotrexate, and targeted therapies including biologic agents, such as ustekinumab, secukinumab and TNF inhibitors, or the targeted synthetic drug
apremilast. The proposed sequential use of these drugs, as well as some other aspects of PsA management, differ between the two sets of recommendations. This disparity is partly the result of a difference in the evaluation process; the focus of EULAR was primarily rheumatological, whereas that of GRAPPA was balanced between the rheumatological and dermatological aspects of disease."

According to the news reporters, the research concluded: "In this Perspectives article, we address the similarities and differences between these two sets of recommendations and the implications for patient management."


Our news correspondents report that additional information may be obtained by contacting L. Gossec, Pitie Salpetriere Hospital, AP HP, Serv Rhumatol, F-75013 Paris, France. Additional authors for this research include L.C. Coates, M. de Wit, A. Kavanaugh, S. Ramiro, P.J. Mease, C.T. Ritchlin, D. van der Heijde and J.S. Smolen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrrheum.2016.183. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Psoriatic Arthritis, Rheumatology, Public Hospital System.

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Eye Diseases and Conditions - Uveitis

Findings from Q.D. Nguyen et al Update Understanding of Uveitis [Intravitreal Sirolimus for Noninfectious Uveitis: A Phase III Sirolimus Study Assessing Double-masKed Uveitis TReAtment (SAKURA)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Eye Diseases and Conditions - Uveitis are discussed in a new report. According to news reporting originating in Omaha, Nebraska, by NewsRx journalists, research stated, "To evaluate the efficacy and safety of intravitreal sirolimus in the treatment of noninfectious uveitis (NIU) of the posterior segment (i.e., posterior, intermediate, or panuveitis). Phase III, randomized, double-masked, active-controlled, 6-month study with intravitreal sirolimus."

The news reporters obtained a quote from the research, "Adults with active NIU of the posterior segment (intermediate, posterior, or panuveitis), defined as a vitreous haze (VH) score >1+. Subjects discontinued NIU medications before baseline, except for systemic corticosteroids, which were allowed only for those already receiving them at baseline and were rapidly tapered after baseline per protocol. Intravitreal sirolimus assigned 1:1:1 at doses of 44 (active control), 440, or 880 mg, administered on Days 1, 60, and 120. The primary efficacy outcome was the percentage of subjects with VH 0 response at Month 5 (study eye) without use
of rescue therapy. Secondary outcomes at Month 5 were VH 0 or 0.5+ response rate, corticosteroid tapering success rate (i.e., tapering to a prednisone-equivalent dosage of <= 5 mg/day), and changes in best-corrected visual acuity (BCVA). Adverse events during the double-masked treatment period are presented. A total of 347 subjects were randomized. Higher proportions of subjects in the intravitreal sirolimus 440 mg (22.8%; P = 0.025) and 880 mg (16.4%; P = 0.182) groups met the primary end point than in the 44 mg group (10.3%). Likewise, higher proportions of subjects in the 440 mg (52.6%; P = 0.008) and 880 mg (43.1%; P = 0.228) groups achieved a VH score of 0 or 0.5+ than in the 44 mg group (35.0%). Mean BCVA was maintained throughout the study in each dose group, and the majority of subjects receiving corticosteroids at baseline successfully tapered off corticosteroids (44 mg [63.6%], 440 mg [76.9%], and 880 mg [66.7%]). Adverse events in the treatment and active control groups were similar in incidence, and all doses were well tolerated."

According to the news reporters, the research concluded: "Intravitreal sirolimus 440 mg demonstrated a significant improvement in ocular inflammation with preservation of BCVA in subjects with active NIU of the posterior segment."


Our news correspondents report that additional information may be obtained by contacting Q.D. Nguyen, Ocular Imaging Res & Reading Center, Omaha, NE, United States. Additional authors for this research include P.T. Merrill, W.L. Clark, A.S. Banker, C. Fardeau, P. Franco, P. LeHoang, S. Ohno, S.R. Rathinam, S. Thurau, A. Abraham, L. Wilson, Y. Yang and N. Shams.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ophtha.2016.07.029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Omaha, Nebraska, United States, North and Central America, Uveal Diseases and Conditions, Eye Diseases and Conditions, Immunosuppressive Agents, Drugs and Therapies, Sirolimus Therapy, Pharmaceuticals, Ophthalmology, Macrolides, Panuveitis, Uveitis.

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**Wilson's Disease**

**Findings from Q.J. Zhang and Co-Authors Provide New Insights into Wilson's Disease (Four-year follow-up of a Wilson disease pedigree complicated with epilepsy and hypopituitarism Case report with a literature review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Wilson's disease have been presented. According to news reporting out of Fuzhou, People's Republic of China, by NewsRx editors, research stated, "Wilson's disease (WD) is an autosomal recessive inherited disorder of copper metabolism with excellent prognosis if treated timely. However, WD is usually prone to neglect and misdiagnosis
at an early stage."

Our news journalists obtained a quote from the research, "We reported a rare WD pedigree, and the clinical features, laboratory tests, and gene mutations were analyzed in detail. Patient concerns: The patient was a 17-year-old and 136-cm-tall girl who presented with limb weakness, combined with multi-organ disorders including blind eye, epilepsy, and hypopituitarism. Diagnoses: Clinical tests showed a low serum ceruloplasmin level, high urinary copper excretion and Kayser-Fleischer (K-F) rings. She carried a compound heterozygous mutations in ATP7B gene (c.2828G >A and c.3884C >T). Her younger brother, as an asymptomatic patient, manifested with elevation of transaminases but without neurological and hepatic symptoms. They were diagnosed as WD finally. They were treated with sodium dimercaptosulphonate, supplemented with zinc gluconate, vitamin B6, vitamin C, as well as restriction of dietary copper. The urinary copper excretion and serum transaminase level decreased gradually. The abnormal signals in brainstem and basal ganglia were also remarkably decreased after 4-year of de-copper treatment. Lessons: As to the patients with complicated clinical manifestations, the extrapyramidal symptom and basal ganglia signals should be concerned."

According to the news editors, the research concluded: "The serum ceruloplasmin detection and ATP7B gene mutation screening are necessary."

For more information on this research see: Four-year follow-up of a Wilson disease pedigree complicated with epilepsy and hypopituitarism Case report with a literature review. Medicine, 2016;95(49):71-76. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting W.J. Chen, Fujian Key Lab Mol Neurol, Fuzhou, People's Republic of China. Additional authors for this research include L.Q. Xu, C. Wang, W. Hu, N. Wang and W.J. Chen.

Keywords for this news article include: Fuzhou, People's Republic of China, Asia, Pituitary Gland Diseases and Conditions, Article Review, Genetics, Nutritional and Metabolic Diseases and Conditions, Central Nervous System Diseases and Conditions, Endocrine System Diseases and Conditions, Hypothalamic Diseases and Conditions, Pituitary Diseases and Conditions, Brain Diseases and Conditions, Wilson's Disease, Hypopituitarism, Endocrinology, Epilepsy.

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Membrane Proteins - Membrane Glycoproteins

Findings from Qiqihar Medical University Update Knowledge of Membrane Glycoproteins (Acid-sensing ion channels are expressed in the ventrolateral medulla and contribute to central chemoreception)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Membrane Proteins - Membrane Glycoproteins have been presented. According to news reporting originating in Heilongjiang, People's Republic of China, by NewsRx journalists, research stated, "The role of acid-sensing ion channels (ASICs) in the ventrolateral medulla (VLM) remains uncertain. Here, we found that ASIC1a and ASIC2 are widely expressed in rat medulla, and the expression level is higher at neonatal stage as
compared to adult stage."

The news reporters obtained a quote from the research from Qiqihar Medical University, "The two ASIC subunits co-localized in medulla neurons. Furthermore, pH reduction triggered typical ASIC-type currents in the medulla, including the VLM. These currents showed a pH(50) value of 6.6 and were blocked by amiloride. Based on their sensitivity to psalmotoxin 1 (PcTx1) and zinc, homomeric ASIC1α and heteromeric ASIC1α/2 channels were likely responsible for acid-mediated currents in the mouse medulla. ASIC currents triggered by pH 5 disappeared in the VLM neurons from ASIC1(-/-), but not ASIC2(-/-) mice. Activation of ASICs in the medulla also triggered neuronal excitation. Moreover, microinjection of artificial cerebrospinal fluid at a pH of 6.5 into the VLM increased integrated phrenic nerve discharge, inspiratory time and respiratory drive in rats. Both amiloride and PcTx1 inhibited the acid-induced stimulating effect on respiration."

According to the news reporters, the research concluded: "Collectively, our data suggest that ASICs are highly expressed in the medulla including the VLM, and activation of ASICs in the VLM contributes to central chemoreception."

For more information on this research see: Acid-sensing ion channels are expressed in the ventrolateral medulla and contribute to central chemoreception. Scientific Reports, 2016;6():1-15. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting X.P. Chu, Qiqihar Med Univ, Sch Mental Hlth, Qiqihar 161006, Heilongjiang, People's Republic of China. Additional authors for this research include R.J. Guan, Q. Jiang, C.J. Hassanzadeh, Y.Y. Chu, X.M. Zhao, X. Wang, D.W. Yang, Q.J. Du, X.P. Chu and L.L. Shen.

Keywords for this news article include: Heilongjiang, People's Republic of China, Asia, Potassium-Sparing Diuretics, Membrane Transport Proteins, Membrane Glycoproteins, Cardiovascular Agents, Membrane Proteins, Carrier Proteins, Ion Channels, Amiloride, Qiqihar Medical University.

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Enzymes and Coenzymes - Amidohydrolases

Findings from Quaid-i-Azam University in Amidohydrolases Provides New Insights (Iminothiazoline-Sulfonamide Hybrids as Jack Bean Urease Inhibitors; Synthesis, Kinetic Mechanism and Computational Molecular Modeling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Amidohydrolases have been published. According to news originating from Islamabad, Pakistan, by NewsRx correspondents, research stated, "The present work reports the synthesis of several 2-iminothiazoline derivatives of sulfanilamide (3a-j) as inhibitors of jack bean ureases. The title compounds were synthesized by the heterocyclization of sulfanilamide thioureas with propargyl bromide in dry ethanol in the presence of 1,8-Diazabicyclo[5.4.0]undec-7-ene as a base."

Our news journalists obtained a quote from the research from Quaid-i-Azam
University, "All of the compounds showed higher urease inhibitory activity than the standard thionurea. The compounds (3h) and (3i) exhibited excellent enzyme inhibitory activity with IC₅₀ 0.064 and 0.058 mm, respectively, while IC₅₀ of thionurea is 20.9 mm. The kinetic mechanism analyzed by Dixon plot showed that compound (3h) is a mixed-type inhibitor while (3i) is a competitive one. Docking studies suggested that Asp633, Ala636, His492, Ala440, Lue523, Asp494 and Arg439 are the major interacting residues in the binding site of the protein and may have an instrumental role in the inhibition of enzyme's function. 2-iminothiazoline analogues (3a-j) showed good docking score (-10.6466 to -8.7215 Kcal/mol) and binding energy (London dG ranging from -14.4825 to -10.4087 Kcal/mol) which is far better than the standard thionurea (binding score in S field -4.5790 Kcal/mol London dG -4.7726 Kcal/mol).

According to the news editors, the research concluded: "Our results inferred compound (3i) may serve as a structural model for the design of most potent urease inhibitors."


The news correspondents report that additional information may be obtained from A. Saeed, Dept. of Chemistry, Quaid-i-Azam University, Islamabad, 45320, Pakistan. Additional authors for this research include S.U. Mahmood, M. Rafiq, Z. Ashraf, F. Jabeen and S.Y Seo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12675. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal *Chemical Biology & Drug Design* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Urease, Pakistan, Islamabad, Amidohydrolases, Molecular Modeling, Drugs and Therapies, Enzymes and Coenzymes.

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**Oncology - Colon Cancer**

**Findings from Queen's University Broaden Understanding of Colon Cancer (Statin use and survival in colorectal cancer: Results from a population-based cohort study and an updated systematic review and meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Colon Cancer. According to news reporting originating from Belfast, United Kingdom, by NewsRx correspondents, research stated, "The aim of this study was to investigate the association between statin use and survival in a population-based colorectal cancer (CRC) cohort and perform an updated meta-analysis to quantify the magnitude of any association. A cohort of 8391 patients with newly diagnosed Dukes' A-C CRC (2009-2012) was identified from the Scottish Cancer Registry."

Our news editors obtained a quote from the research from Queen's University, "This cohort was linked to the Prescribing Information System and the National Records of Scotland..."
Death Records (until January 2015) to identify 1064 colorectal cancer-specific deaths. Adjusted hazard ratios (HRs) and 95% confidence intervals (CIs) for cancer-specific mortality by statin use were calculated using time dependent Cox regression models. The systematic review included relevant studies published before January 2016. Meta-analysis techniques were used to derive combined HRs for associations between statin use and cancer-specific and overall mortality. In the Scottish cohort, statin use before diagnosis (HR = 0.84, 95% CI 0.75-0.94), but not after (HR = 0.90, 95% CI 0.77-1.05), was associated with significantly improved cancer-specific mortality. The systematic review identified 15 relevant studies. In the meta-analysis, there was consistent (I² = 0%, heterogeneity P = 0.57) evidence of a reduction in cancer-specific mortality with statin use before diagnosis in 6 studies (n = 86,622, pooled HR = 0.82, 95% CI 0.79-0.86) but this association was less apparent and more heterogeneous (I² = 67%, heterogeneity P = 0.03) with statin use after diagnosis in 4 studies (n = 19,152, pooled HR = 0.84, 95% CI 0.68-1.04). In a Scottish CRC cohort and updated meta-analysis there was some evidence that statin use was associated with improved survival.

According to the news editors, the research concluded: "However, these associations were weak in magnitude and, particularly for post-diagnosis use, varied markedly between studies."

For more information on this research see: Statin use and survival in colorectal cancer: Results from a population-based cohort study and an updated systematic review and meta-analysis. Cancer Epidemiology, 2016;45():71-81. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news editors report that additional information may be obtained by contacting R.T. Gray, Queen's University Belfast, Royal Victoria Hospital, Center Public Hlth, Canc Epidemiol & Hlth Serv Res Grp, Belfast BT12 6BA, Antrim, United Kingdom. Additional authors for this research include H.G. Coleman, C. Hughes, L.J. Murray and C.R. Cardwell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.10.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belfast, United Kingdom, Europe, Cancer, Article Review, Epidemiology, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Queen's University.

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Drugs and Therapies - Alkylating Agents

Findings from R. Daillere et al Has Provided New Information about Alkylating Agents (Enterococcus hirae and Barnesiella intestinohominis Facilitate Cyclophosphamide-Induced Therapeutic Immunomodulatory Effects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Alkylating Agents are discussed in a new report. According to news reporting out of Villejuif, France, by NewsRx editors, research stated, "The efficacy of the anti-cancer immunomodulatory agent
cyclophosphamide (CTX) relies on intestinal bacteria."

Our news journalists obtained a quote from the research, "How and which relevant bacterial species are involved in tumor immunosurveillance, and their mechanism of action are unclear. Here, we identified two bacterial species, Enterococcus hirae and Barnesiella intestinihominis that are involved during CTX therapy. Whereas E. hirae translocated from the small intestine to secondary lymphoid organs and increased the intratumoral CD8/Treg ratio, B. intestinihominis accumulated in the colon and promoted the infiltration of IFN-gamma-producing gamma delta Tau cells in cancer lesions."

According to the news editors, the research concluded: "The immune sensor, NOD2, limited CTX-induced cancer immunosurveillance and the bioactivity of these microbes. Finally, E. hirae and B. intestinihominis specific-memory Th1 cell immune responses selectively predicted longer progression-free survival in advanced lung and ovarian cancer patients treated with chemo-immunotherapy. Altogether, E. hirae and B. intestinihominis represent valuable "oncomicrobiotics" ameliorating the efficacy of the most common alkylating immunomodulatory compound."

For more information on this research see: Enterococcus hirae and Barnesiella intestinihominis Facilitate Cyclophosphamide-Induced Therapeutic Immunomodulatory Effects. *Immunity*, 2016;45(4):931-943. *Immunity* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)

Our news journalists report that additional information may be obtained by contacting L. Zitvogel, Center Clin Invest Biotherapies Canc CICBT 1428, F-94805 Villejuif, France. Additional authors for this research include M. Vetizou, N. Waldschmitt, T. Yamazaki, C. Isnard, V. Poirier-Colame, C.P.M. Duong, C. Flament, P. Lepage, M.P. Roberti, B. Routy, N. Jacquelot, L. Apetoh, S. Becharef, S. Rusakiewicz, P. Langella, H. Sokol, G. Kroemer and En.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.immuni.2016.09.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Villejuif, France, Europe, Cancer, Immunology, Epidemiology, Cyclophosphamide Therapy, Phosphoramide Mustards, Gram-Positive Bacteria, Drugs and Therapies, Mustard Compounds, Alkylating Agents, Lactobacillales, Enterococcaceae, Pharmaceuticals, Antineoplastics, Hydrocarbons, Enterococcus, Oncology.

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Drugs and Therapies - Aldosterone Receptor...

**Findings from R. Fung et al Has Provided New Information about Aldosterone Receptor Antagonists (Differential Effects of Cyproterone Acetate vs Spironolactone on Serum High-Density Lipoprotein and Prolactin Concentrations in the Hormonal ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Aldosterone Receptor Antagonists have been published. According to news reporting from Toronto, Canada, by NewsRx journalists, research stated, "Spironolactone and cyproterone acetate (CPA) are the two
main antiandrogen medications used in feminizing hormone therapy in transgender women. Previous studies have suggested that these two agents might have opposite effects on high-density lipoprotein (HDL) level when used in this context, and limited data have suggested CPA increases prolactin more than spironolactone."

The news correspondents obtained a quote from the research, "To compare the effects of spironolactone and CPA on HDL and prolactin serum concentrations in transgender women. A retrospective chart review was conducted at three clinical sites in Toronto, Ontario, Canada. Patients were selected if they (i) identified as a transgender woman, (ii) had newly started spironolactone or CPA with estrogen or restarted spironolactone or CPA after a washout period of at least 6 months, and (iii) had not used other antiandrogens within the previous 6 months. HDL and prolactin concentrations between the two treatment groups at baseline and at 12 months. Eighty-two patients were included in the spironolactone group and 31 patients were included in the CPA group. Baseline HDL and prolactin levels were not significantly different between the two groups. At 12 months, HDL increased by 0.10 mmol/L (SD = 0.24) in the spironolactone group but decreased by 0.07 mmol/L (SD = 0.21) in the CPA group (P = .002). The difference remained significant after adjusting for baseline HDL, use of lipid-lowering drugs, and age. The change in prolactin was +3.10 μg/L (SD = 5.70) in the spironolactone group and +11.8 μg/L (SD = 8.63) in the CPA group (P < 0.001). This difference also remained significant after adjusting for baseline prolactin level. These data suggest that spironolactone use in transgender women increases HDL levels and that CPA has the opposite effect. CPA also is associated with a larger increase in prolactin."

According to the news reporters, the research concluded: "These factors should be considered when choosing between these two antiandrogen agents."


Our news journalists report that additional information may be obtained by contacting R. Fung, Toronto East Hlth Network, Michael Garron Hosp, Toronto, ON, Canada. Additional authors for this research include M. Hellstern-Layefsky, C. Tastenhoye, I. Lega and L. Steele.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jsxm.2016.09.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Aldosterone Receptor Antagonists, Anterior Pituitary Hormones, Potassium-Sparing Diuretics, Pituitary Gonadotropins, Spironolactone Therapy, Cardiovascular Agents, Drugs and Therapies, Peptide Proteins, Peptide Hormones, Pharmaceuticals, Lipoproteins, Prolactin, Lipids.

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Findings from R. Goldberg and Co-Authors Provide New Insights into Inflammatory Bowel Disease (Thiopurine metabolite testing in inflammatory bowel disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Inflammatory Bowel Disease have been published. According to news originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Thiopurine use in inflammatory bowel disease (IBD) is limited by drug toxicity and lack of therapeutic efficacy. We assessed the utility of thiopurine metabolite testing and the relationship between disease activity, dose, and metabolite levels in a real world setting."

Our news journalists obtained a quote from the research, "Patients identified from pathology databases (2007-2012) at two tertiary IBD centers were included if they had thiopurines for at least four weeks. Demographics, dose, test indication, clinical status, action taken, and outcome were obtained by retrospective medical record review. A total of 169 patients were included. 6-Thioguanine (TGN) levels were sub-therapeutic in 52%, therapeutic in 34%, and supratherapeutic in 14%. Test indication was active disease (79%), adverse effect (11%), or adherence assessment (7%). TGN trended lower in the active disease group compared to those with adverse effects (273 (plusminus)23.2 versus 447 (plusminus)117.7 pmol/8 ? 10 (8) RBC, p=0.05). Weight-based dosing did not improve rates of therapeutic TGN levels (under-dosed 31.5% vs standard dose 35.4%), but was significantly associated with shunting toward 6-MMP (23.1% vs 6.8%, p=0.008, OR=4.1). Testing resulted in a change in patient treatment in 86% of patients with active disease and subtherapeutic levels and in 68% of tested patients overall. Metabolite testing resulted in a change in management in most patients not responding to thiopurines or experiencing adverse events."

According to the news editors, the research concluded: "Weight-based dosing did not increase rates of therapeutic levels but was associated with increased 6MMP shunting."


The news correspondents report that additional information may be obtained from R. Goldberg, Monash Health, Melbourne, Victoria, Australia. Additional authors for this research include G. Moore, G. Cunningham, J. Schulberg, P. Marsh, S. Brown, W. Connell, M. Lust, M.A. Kamm and S. Bell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13210. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Therapy, Melbourne, Epidemiology, Gastroenteritis, Australia and New Zealand, Diagnostics and Screening, Inflammatory Bowel Disease, Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.

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Drugs and Therapies - Indomethacin Therapy

Findings from R. Kamel et al in Indomethacin Therapy Reported (Development and optimization of self-assembling nanosystem for intra-articular delivery of indomethacin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Indomethacin Therapy have been published. According to news reporting originating from Cairo, Egypt, by NewsRx correspondents, research stated, "Osteoarthritis is a propagated debilitating condition affecting patients' quality of life. Intra-articular injection approach was investigated as a localized treatment strategy providing: site-specific delivery, decreased side effects and, increased patient compliance."

Our news editors obtained a quote from the research, "A 3(2) full factorial experimental design was employed to prepare the indomethacin-loaded self-assembling nanosystems (SANS). The surfactant (Poloxamer 407/Tetronic 90R4) ratio and the poly(lactic-co-glycolic acid) (PLGA) concentration significantly affected encapsulation efficiency and drug release (p < 0.05). The optimized formula was subjected to modification by addition of different proteoglycans, as a compensatory treatment, to improve its pharmacological properties. The modified SANS, containing glucosamine (150 mg), was selected for in-vivo studies as it had a sustained drug release profile and a small particle size (173.90 nm). The effect of the optimized SANS, with or without PLGA, was compared with the modified formula containing glucosamine and, with the drug suspension on the arthritic knee joints of rats. It was found that the formulation containing PLGA and glucosamine showed significantly higher reduction in both, knee diameter and TNF-a levels, compared to other groups. Furthermore, all SANS showed histological improvement in the cellularity of the synovial membranes and joints."

According to the news editors, the research concluded: "Our results indicate that SANS containing PLGA and glucosamine is capable of treating arthritic joints."


The news editors report that additional information may be obtained by contacting A.A. Mahmoud, Future Univ Egypt, Fac Pharmaceut Sci & Pharmaceut Ind, Dept. of Pharmaceut & Pharmaceut Technol, Cairo, Egypt. Additional authors for this research include A.H. Salama and A.A. Mahmoud.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.063. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cairo, Egypt, Africa, Indomethacin Therapy, Drugs and Therapies, Pharmaceuticals.

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Connective Tissue Cells

Findings from R.G. Scheraga et al Has Provided New Information about Connective Tissue Cells (Activation of heat shock response augments fibroblast growth factor-1 expression in wounded lung epithelium)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Connective Tissue Cells. According to news reporting originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "We previously showed that coincident exposure to heat shock (HS; 42 degrees C for 2 h) and TNF-alpha synergistically induces apoptosis in mouse lung epithelium. We extended this work by analyzing HS effects on human lung epithelial responses to clinically relevant injury."

Funders for this research include HHS | NIH | National Heart, Lung, and Blood Institute (NHBLI), Vetrarans Administration.

Our news editors obtained a quote from the research, "Cotreatment with TNF-alpha and HS induced little caspase-3 and poly(ADP-ribose) polymerase cleavage in human small airway epithelial cells, A549 cells, and BEAS2B cells. Scratch wound closure rates almost doubled when A549 and BEAS2B cells and air-liquid interface cultures of human bronchial epithelial cells were heat shocked immediately after wounding. Microarray, qRT-PCR, and immunoblotting showed fibroblast growth factor 1 (FGF1) to be synergistically induced by HS and wounding. Enhanced FGF1 expression in HS/wounded A549 was blocked by inhibitors of p38 MAPK (SB203580) or HS factor (HSF)-1 (KNK-437) and in HSF1 knockout BEAS2B cells. PCR demonstrated FGF1 to be expressed from the two most distal promoters in wounded/HS cells. Wound closure in HS A549 and BEAS2B cells was reduced by FGF receptor-1/3 inhibition (SU-5402) or FGF1 depletion. Exogenous FGF1 accelerated A549 wound closure in the absence but not presence of HS. In the presence of exogenous FGF1, HS slowed wound closure, suggesting that it increases FGF1 expression but impairs FGF1-stimulated wound closure. Frozen sections from normal and idiopathic pulmonary fibrosis (IPF) lung were analyzed for FGF1 and HSP70 by immunofluorescence confocal microscopy and qRT-PCR. FGF1 and HSP70 mRNA levels were 7.5 and 5.9-fold higher in IPF than normal lung, and the proteins colocalized to fibroblastic foci in IPF lung."

According to the news editors, the research concluded: "HS signaling may have an important impact on gene expression contributing to lung injury, healing, and fibrosis."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00262.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North
Oncology - Breast Cancer

Findings from R.H. Hamunyela and Co-Researchers Advance Knowledge in Breast Cancer (Strong Strong synergism between small molecule inhibitors of HER2, PI3K, mTOR and Bcl-2 in human breast cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting from Windhoek, Namibia, by NewsRx journalists, research stated, "Targeting pro-survival cell signaling components has been promising in cancer therapy, but the benefit of targeting with single agents is limited. For malignancies such as triple-negative breast cancer, there is a paucity of targets that are amenable to existing interventions as they are devoid of the human epidermal growth factor receptor 2 (HER2), progesterone receptor (PR), and estrogen receptor (ER)."

The news correspondents obtained a quote from the research, "Concurrent targeting of cell signaling entities other than HER2, PR and ER with multiple agents may be more effective. Evaluating modes of interaction between agents can inform efficient selection of agents when used in cocktails. Using clonogenic cell survival, interaction between inhibitors of HER2 (TAK-165), phosphoinositide 3-kinase (PI3K) and mammalian target of rapamycin (mTOR) (NVP-BEZ235), and the pro-survival gene (Bcl-2) (ABT-263) in three human breast cell lines (MDA-MB-231, MCF-7 and MCF-12A) ranged from strong to very strong synergism. The strongest synergy was demonstrated in PR and ER negative cells. Inhibition of PI3K, mTOR and Bcl-2 could potentially be effective in the treatment of triple-negative cancers. The very strong synergy observed even at lowest concentrations of inhibitors indicates that these cocktails might be able to be used at a minimised risk of systemic toxicity."

According to the news reporters, the research concluded: "Concurrent use of multiple inhibitors can potentiate conventional interventions like radiotherapy and chemotherapy."


Our news journalists report that additional information may be obtained by contacting R.H. Hamunyela, Minist Hlth & Social Serv, Dr B May Canc Care Center, Windhoek, Namibia. Additional authors for this research include A.M. Serafin and J.M. Akudugu.

Keywords for this news article include: Windhoek, Namibia, Africa, Cancer, Risk and Prevention, Small Molecule Inhibitors, Drugs and Therapies, Women's Health, Breast Cancer, Oncology.

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Heart Disorders and Diseases - Heart Attack

Findings from R.N. Leao and Co-Authors Provide New Insights into Heart Attack (Therapeutic hypothermia after cardiac arrest: outcome predictors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Attack are presented in a new report. According to news reporting originating in Lisbon, Portugal, by NewsRx journalists, research stated, "The determination of coma patient prognosis after cardiac arrest has clinical, ethical and social implications. Neurological examination, imaging and biochemical markers are helpful tools accepted as reliable in predicting recovery."

The news reporters obtained a quote from the research, "With the advent of therapeutic hypothermia, these data need to be reconfirmed. In this study, we attempted to determine the validity of different markers, which can be used in the detection of patients with poor prognosis under hypothermia. Data from adult patients admitted to our intensive care unit for a hypothermia protocol after cardiac arrest were recorded prospectively to generate a descriptive and analytical study analyzing the relationship between clinical, neurophysiological, imaging and biochemical parameters with 6-month outcomes defined according to the Cerebral Performance Categories scale (good 1-2, poor 3-5). Neuron-specific enolase was collected at 72 hours. Imaging and neurophysiologic exams were carried out in the 24 hours after the rewarming period. Sixty-seven patients were included in the study, of which 12 had good neurological outcomes. Ventricular fibrillation and electroencephalographic theta activity were associated with increased likelihood of survival and improved neurological outcomes. Patients who had more rapid cooling (mean time of 163 versus 312 minutes), hypoxic-ischemic brain injury on magnetic resonance imaging or neuron-specific enolase >58ng/mL had poor neurological outcomes (p <0.05). Hypoxic-ischemic brain injury on magnetic resonance imaging and neuron-specific enolase were strong predictors of poor neurological outcomes."

According to the news reporters, the research concluded: "Although there is the belief that early achievement of target temperature improves neurological prognoses, in our study, there were increased mortality and worse neurological outcomes with earlier target-temperature achievement."


Our news correspondents report that additional information may be obtained by contacting R.N. Leao, Unidade de Urgencia Medica, Centro Hospitalar de Lisboa Central, Lisboa, Portugal. Additional authors for this research include P. Avila, R. Cavaco, N. Germano and L. Bento.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5935/0103-507X.20150056. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lisbon, Europe, Enolase, Portugal, Cardiology, Hypothermia, Biochemicals, Biochemistry, Heart Attack, Brain Injuries, Cardiac Arrest, Craniocerebral Trauma, Enzymes and Coenzymes, Heart Disorders and Diseases, Central Nervous System Diseases and Conditions.

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**Drugs and Therapies - Toxicology and Pharmacology**

**Findings from R.R. Dalefield and Co-Authors Update Knowledge of Toxicology and Pharmacology (A 28-day oral toxicity study of echimidine and lasiocarpine in Wistar rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Toxicology and Pharmacology. According to news reporting from Wellington, New Zealand, by NewsRx journalists, research stated, "Pyrrolizidine alkaloids (PAs) are a class of naturally-occurring plant toxins. Echimidine is one of the predominant PAs found in honeys produced in Australia and New Zealand."

Financial supporters for this research include Rural Industries Research and Development Corporation, Australia, Bee Products Standards Council, Ministry of Primary Industries.

The news correspondents obtained a quote from the research, "There is a lack of information on the oral toxicity of echimidine on which to base regulatory decisions concerning the risk to humans of these honeys. This GLP study was conducted to assess the subchronic dietary toxicity of echimidine to rats compared to that of lasiocarpine as a positive control. Wistar rats, 10/sex, were fed diets containing 0, 0.6, 1.2 or 2.5 mg/kg bw echimidine. Positive control groups, 10/sex, were fed diets containing 0.6, 1.2 or 2.5 mg/kg bw lasiocarpine. Neither PA had any effect on survival, food consumption, clinical signs, gross lesions, or histopathology. Consumption of lasiocarpine, but not echimidine, decreased bodyweight gain in males at >= 1.2 mg/kg bw, and in females at 2.5 mg/kg bw. Slight alterations in white cell counts and serum ALT concentrations at 2.5 mg/kg bw of both PAs were not clinically significant, had no histological correlates, and were considered to be of equivocal relevance."

According to the news reporters, the research concluded: "The subchronic No Observed Adverse Effect Level (NOAEL) for echimidine is 2.5 mg/kg bw/day, whereas, on the basis of a treatment-related decrease in bodyweight gain in males at 1.2 mg/kg bodyweight, the NOAEL for lasiocarpine is 0.6 mg/kg bw/day." For more information on this research see: A 28-day oral toxicity study of echimidine and lasiocarpine in Wistar rats. *Regulatory Toxicology and Pharmacology*, 2016;81 ():146-154. *Regulatory Toxicology and Pharmacology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting R.R. Dalefield, Food Stand Australia New Zealand, Wellington 6011, New Zealand. Additional authors for this research include M.A. Gosse and U. Mueller.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.08.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wellington, New Zealand, Australia and New Zealand, Toxicology and Pharmacology, Drugs and Therapies.

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Smoking

Findings from RAND Update Understanding of Smoking (Hiding the tobacco power wall reduces cigarette smoking risk in adolescents: using an experimental convenience store to assess tobacco regulatory options at retail point-of-sale)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Smoking. According to news reporting originating in Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "This experiment tested whether changing the location or visibility of the tobacco power wall in a life sized replica of a convenience store had any effect on adolescents' susceptibility to future cigarette smoking. The study was conducted in the RAND StoreLab (RSL), a life sized replica of a convenience store that was developed to experimentally evaluate how changing aspects of tobacco advertising displays in retail point-of-sale environments influences tobacco use risk and behaviour."

The news reporters obtained a quote from the research from RAND, "A randomised, between-subjects experimental design with three conditions that varied the location or visibility of the tobacco power wall within the RSL was used. The conditions were: cashier (the tobacco power wall was located in its typical position behind the cash register counter); sidewall (the tobacco power wall was located on a sidewall away from the cash register); or hidden (the tobacco power wall was located behind the cashier but was hidden behind an opaque wall). The sample included 241 adolescents. Hiding the tobacco power wall significantly reduced adolescents' susceptibility to future cigarette smoking compared to leaving it exposed (ie, the cashier condition; p=0.02). Locating the tobacco power wall on a sidewall away from the cashier had no effect on future cigarette smoking susceptibility compared to the cashier condition (p=0.80)."

According to the news reporters, the research concluded: "Hiding the tobacco power wall at retail point-of-sale locations is a strong regulatory option for reducing the impact of the retail environment on cigarette smoking risk in adolescents."

For more information on this research see: Hiding the tobacco power wall reduces cigarette smoking risk in adolescents: using an experimental convenience store to assess tobacco regulatory options at retail point-of-sale. Tobacco Control, 2016;25(6):679-684. Tobacco Control can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Tobacco Control - tobaccocontrol.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting W.G. Shadel, RAND Corp, Pittsburgh, PA 15213, United States. Additional authors for this research include S.C. Martino, C.M. Setodji, D.M. Scharf, D. Kusuke, A. Sicker and M. Gong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/tobaccocontrol-2015-052529. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Smoking, RAND.

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Findings from Radboud University Broaden Understanding of Antiretrovirals (Ribavirin concentration determines treatment success of first-generation DAA-based chronic HCV therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antiretrovirals is the subject of a report. According to news reporting out of Nijmegen, Netherlands, by NewsRx editors, research stated, "Monitoring ribavirin concentrations during hepatitis C treatment with dual therapy can help optimize treatment response and minimize anaemia. A defined therapeutic range for ribavirin during direct-acting antiviral-based therapies is lacking."

Our news journalists obtained a quote from the research from Radboud University, "This analysis explores whether a therapeutic range for ribavirin concentrations can be defined in patients treated with boceprevir- or telaprevir-based triple therapies. Treatment-naive patients from ADVANCE, ILLUMINATE, OPTIMIZE and SPRINT-2, and treatment-experienced patients from RESPOND-2 were included. Multivariable logistic regression analyses were performed to evaluate whether ribavirin concentrations were an independent predictor of sustained virological response or anaemia. Optimal cutoff values and the percentage of patients within the proposed therapeutic range were determined, along with the associated chance of response. Overall, 1,502 patients were included. In both regimens, ribavirin concentrations were significantly associated with anaemia (haemoglobin level <10 g/dl) at all time points (1.75 < odds ratio [OR] <2.45) and sustained virological response was associated with ribavirin concentrations at week 8 (OR=1.43 for telaprevir and 1.78 for boceprevir). A therapeutic range for ribavirin at week 8 of 2.2-3.5 mg/l was defined for telaprevir treatment. Of the 48% of patients with a concentration within this range, 81% achieved sustained virological response and only 5.1% reported anaemia. For boceprevir treatment, the week 8 optimal range was defined as 2.2-3.6 mg/l and 50% of patients had a concentration within this range, of whom 69% achieved sustained virological response and 46% developed anaemia."

According to the news editors, the research concluded: "We established the therapeutic range for ribavirin in boceprevir-and telaprevir-based therapy that balances safety and efficacy."


Our news journalists report that additional information may be obtained by contacting C.T. de Kanter, Radboud University, Medical Center, Radboud Inst Hlth Sci, Nijmegen, Netherlands. Additional authors for this research include M. Buti, R. DeMasi, S. Ouwerkerk-Mahadevan, A.S. Dofferhoff, J. Witek, J.P. Drenth, S. Zeuzem and D.M. Burger.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Respiratory Inhalant Products, Inhaled Antinfectives, Drugs and Therapies, Respiratory Agents, Purine Nucleosides, Influenza Therapy, Antiretrovirals, Antivirals, Ribavirin, Radboud University.

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Findings from Radboud University Update Understanding of Metabolic Syndrome (Exercise Improves Insulin Sensitivity in the Absence of Changes in Cytokines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Metabolic Syndrome. According to news reporting out of Nijmegen, Netherlands, by NewsRx editors, research stated, "The benefits of aerobic exercise training on insulin sensitivity in subjects with metabolic syndrome (MetS) are, at least in part, associated with changes in cytokines. Recent studies identified novel cytokines (e.g., fractalkine, omentin, and osteopontin) that are strongly involved in glucose homeostasis and therefore potentially contribute in the exercise-induced changes in insulin sensitivity."

Our news journalists obtained a quote from the research from Radboud University, "Therefore, we aim to examine changes in skeletal muscle RNA expression and plasma levels of novel cytokines after exercise training and correlate these changes to the exercise-induced changes in insulin sensitivity. Women with metabolic syndrome (MetS, n = 11) and healthy women (n = 10) participated in a 6-month aerobic exercise training intervention (three times a week, 45 min per session at 65%-85% of individual heart rate reserve). Before and after training, we examined insulin sensitivity (M value during hyperinsulinemic euglycemic clamp) and circulating blood levels of cytokines (venous blood sample; leptin, adiponectin, omentin, fractalkin, and osteopontin). The skeletal muscle RNA expression of these cytokines (muscle biopsy) was examined in two subgroups (MetS, n = 6; healthy women, n = 6). At baseline, plasma levels of omentin (85.8 +/- 26.2 ng.mL(-1)) and adiponectin (5.0 +/- 1.7 mu g.mL(-1)) levels were significantly higher in controls compared with MetS (51.1 +/- 27.1; 3.6 +/- 1.1 respectively), and leptin levels were lower in controls (18.7 +/- 11.5 vs 53.0 +/- 23.5 ng.mL(-1)). M value was significantly higher in controls (8.1 +/- 1.9 mg.kg(-1).min(-1)) than in MetS (4.0 +/- 1.7). Exercise training significantly improved M values in both groups (P < 0.01). Exercise training did not alter plasma and skeletal muscle RNA expression levels of cytokines, but no correlation was observed between changes in cytokine level/RNA expression and M values (P > 0.05)."

According to the news editors, the research concluded: "Although exercise training successfully improves insulin sensitivity in MetS and healthy women, we found no change in plasma and mRNA expression levels of novel cytokines."

For more information on this research see: Exercise Improves Insulin Sensitivity in the Absence of Changes in Cytokines. Medicine and Science in Sports and Exercise, 2016;48 (12):2378-2386. Medicine and Science in Sports and Exercise can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Medicine and Science in Sports and Exercise - journals.lww.com/acsm-msse/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting M.T.E. Hopman, Radboud University, Medical Center, Radboud Inst Hlth Sci, Dept. of Physiol, NL-6500 HB Nijmegen, Netherlands. Additional authors for this research include F. Poelkens, S. Roerink, R. Ramakers, M. Catoire, A. Hermus, D.H.J. Thijssen and M.T.E. Hopman.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Nutritional and Metabolic Diseases and Conditions, Metabolic Syndrome, Peptide Proteins, Peptide
Findings from Ragon Institute Has Provided New Data on Human Genetics (HLA-C Level Is Regulated by a Polymorphic Oct1 Binding Site in the HLA-C Promoter Region)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Genetics - Human Genetics. According to news reporting from Cambridge, Massachusetts, by NewsRx journalists, research stated, "Differential HLA-C levels influence several human diseases, but the mechanisms responsible are incompletely characterized. Using a validated prediction algorithm, we imputed HLA-C cell surface levels in 228 individuals from the 1000 Genomes dataset."

Funders for this research include Frederick National Laboratory for Cancer Research, NIH, Frederick National Lab, Center for Cancer Research, European Research Council, NIHR Oxford Biomedical Research Centre and Wellcome Trust, Wellcome Trust, Medical Research Council, NIHR Oxford Biomedical Research Centre, Rhodes Trust.

The news correspondents obtained a quote from the research from Ragon Institute, "We tested 68,726 SNPs within the MHC for association with HLA-C level. The HLA-C promoter region variant, rs2395471, 800 bp upstream of the transcription start site, gave the most significant association with HLA-C levels (p = 4.2 x 10(-66)). This imputed expression quantitative trait locus, termed impeQTL, was also shown to associate with HLA-C expression in a genome-wide association study of 273 donors in which HLA-C mRNA expression levels were determined by quantitative PCR (qPCR) (p = 1.8 x 10(-20)) and in two cohorts where HLA-C cell surface levels were determined directly by flow cytometry (n = 369 combined, p<10(-15)). rs2395471 is located in an Oct1 transcription factor consensus binding site motif where the A allele is predicted to have higher affinity for Oct1 than the G allele. Mobility shift electrophoresis demonstrated that Oct1 binds to both alleles in vitro, but decreased HLA-C promoter activity was observed in a luciferase reporter assay for rs2395471_G relative to rs2395471_A on a fixed promoter background. The rs2395471 variant accounts for up to 36% of the explained variation of HLA-C level."

According to the news reporters, the research concluded: "These data strengthen our understanding of HLA-C transcriptional regulation and provide a basis for understanding the potential consequences of manipulating HLA-C levels therapeutically."


Our news journalists report that additional information may be obtained by contacting M. Carrington, Ragon Inst MGH MIT & Harvard, Cambridge, MA 02139, United States. Additional authors for this research include H.C. Li, V. Ramsuran, V. Naranbhai, F.M.
Duh, B.P. Fairfax, B. Saleh, J.C. Knight, S.K. Anderson and M. Carrington.

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Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Human Genetics, Genetics, Ragon Institute.

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Life Science Research - Apoptosis and Cell Death

Findings from Regina Elena Cancer Institute Has Provided New Information about Apoptosis and Cell Death (Affinity purification-mass spectrometry analysis of bcl-2 interactome identified SLIRP as a novel interacting protein)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Life Science Research - Apoptosis and Cell Death is the subject of a report. According to news reporting originating in Rome, Italy, by NewsRx journalists, research stated, "Members of the bcl-2 protein family share regions of sequence similarity, the bcl-2 homology (BH) domains. Bcl-2, the most studied member of this family, has four BH domains, BH1-4, and has a critical role in resistance to antineoplastic drugs by regulating the mitochondrial apoptotic pathway."

The news reporters obtained a quote from the research from Regina Elena Cancer Institute, "Moreover, it is also involved in other relevant cellular processes such as tumor progression, angiogenesis and autophagy. Deciphering the network of bcl-2-interacting factors should provide a critical advance in understanding the different functions of bcl-2. Here, we characterized bcl-2 interactome by mass spectrometry in human lung adenocarcinoma cells. In silico functional analysis associated most part of the identified proteins to mitochondrial functions. Among them we identified SRA stem-loop interacting RNA-binding protein, SLIRP, a mitochondrial protein with a relevant role in regulating mitochondrial messenger RNA (mRNA) homeostasis. We validated bcl-2/SLIRP interaction by immunoprecipitation and immunofluorescence experiments in cancer cell lines from different histotypes. We showed that, although SLIRP is not involved in mediating bcl-2 ability to protect from apoptosis and oxidative damage, bcl-2 binds and stabilizes SLIRP protein and regulates mitochondrial mRNA levels."

According to the news reporters, the research concluded: "Moreover, we demonstrated that the BH4 domain of bcl-2 has a role in maintaining this binding."

For more information on this research see: Affinity purification-mass spectrometry analysis of bcl-2 interactome identified SLIRP as a novel interacting protein. Cell Death & Disease, 2016;7();e2090. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

Our news correspondents report that additional information may be obtained by contacting D. Trisciuoglio, Dept. of Research, Advanced Diagnostics and Technological Innovation, Regina Elena National Cancer Institute, Rome, Italy. Additional authors for this research include M. Desideri, V. Farini, T. De Luca, M. Di Martile, M.G. Tupone, A. Urbani, S. D'Aguanno and D. Del Bufalo.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2015.357. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Genetics, Life Science Research, Apoptosis and Cell Death.

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Drugs and Therapies - Anticholinergics

Findings from Regina Margherita Children's Hospital Reveals New Findings on Anticholinergics (Pain-relieving agents for infantile colic)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Anticholinergics are presented in a new report. According to news reporting originating from Turin, Italy, by NewsRx correspondents, research stated, "Infantile colic is a common disorder in the first months of life, affecting somewhere between 4% and 28% of infants worldwide, depending on geography and definitions used. Although it is self limiting and resolves by four months of age, colic is perceived by parents as a problem that requires action."

Our news editors obtained a quote from the research from Regina Margherita Children's Hospital, "Pain-relieving agents, such as drugs, sugars and herbal remedies, have been suggested as interventions to reduce crying episodes and severity of symptoms. To assess the effectiveness and safety of pain-relieving agents for reducing colic in infants younger than four months of age. Search methods We searched the following databases in March 2015 and again in May 2016: CENTRAL, Ovid MEDLINE, Embase and PsycINFO, along with 11 other databases. We also searched two trial registers, four thesis repositories and the reference lists of relevant studies to identify unpublished and ongoing studies. Selection criteria We included randomised controlled trials (RCTs) and quasi-RCTs evaluating the effects of pain-relieving agents given to infants with colic. Data collection and analysis We used the standard methodological procedures of The Cochrane Collaboration. We included 18 RCTs involving 1014 infants. All studies were small and at high risk of bias, often presenting major shortcomings across multiple design factors (e.g. selection, performance, attrition, lack of washout period). Three studies compared simethicone with placebo, and one with Mentha piperita; four studies compared herbal agents with placebo; two compared sucrose or glucose with placebo; five compared dicyclomine with placebo; and two compared cimetropium - one against placebo and the other at two different dosages. One multiple-arm study compared sucrose and herbal tea versus no treatment. Simethicone. Comparison with placebo revealed no difference in daily hours of crying reported for simethicone at the end of treatment in one small, low-quality study involving 27 infants. A meta-analysis of data from two cross-over studies comparing simethicone with placebo showed no difference in the number of infants who responded positively to treatment (risk ratio (RR) 0.95, 95% confidence interval (CI) 0.73 to 1.23; 110 infants, low-quality evidence). One small study (30 participants) compared simethicone with Mentha piperita and found no difference in crying duration, number of crying episodes or number of responders. Herbal agents. We found low-quality evidence suggesting that herbal agents reduce the duration of crying compared with placebo (mean difference (MD) 1.33, 95% CI 0.71 to 1.96; three studies, 279 infants), with different magnitude of benefit noted across studies (I-2 = 96%). We found moderate-quality evidence indicating that herbal agents
increase response over placebo (RR 2.05, 95% CI 1.56 to 2.70; three studies, 277 infants). Sucrose. One very low-quality study involving 35 infants reported that sucrose reduced hours spent crying compared with placebo (MD 1.72, 95% CI 1.38 to 2.06). Dicyclomine. We could consider only one of the five studies of dicyclomine (48 infants) for the primary comparison. In this study, more of the infants given dicyclomine responded than than those given placebo (RR 2.50, 95% CI 1.17 to 5.34). Cimetropium bromide. Data from one very low-quality study comparing cimetropium bromide with placebo showed reduced crying duration among infants treated with cimetropium bromide (MD -30.20 minutes per crisis, 95% CI -39.51 to -20.89; 86 infants). The same study reported that cimetropium increased the number of responders (RR 2.29, 95% CI 1.44 to 3.64). No serious adverse events were reported for all of the agents considered, with the exception of dicyclomine, for which two of five studies reported relevant adverse effects (longer sleep 4%, wide-eyed state 4%, drowsiness 13%).

Authors' conclusions
At the present time, evidence of the effectiveness of pain-relieving agents for the treatment of infantile colic is sparse and prone to bias. The few available studies included small sample sizes, and most had serious limitations. Benefits, when reported, were inconsistent. We found no evidence to support the use of simethicone as a pain-relieving agent for infantile colic. Available evidence shows that herbal agents, sugar, dicyclomine and cimetropium bromide cannot be recommended for infants with colic. Investigators must conduct RCTs using standardised measures that allow comparisons among pain-relieving agents and pooling of results across studies."

According to the news editors, the research concluded: "Parents, who most often provide the intervention and assess the outcome, should always be blinded."

For more information on this research see: Pain-relieving agents for infantile colic. Cochrane Database of Systematic Reviews, 2016;(9):329-434. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting F. Savino, Regina Margherita Childrens Hosp, Dept. of Pediat, I-10126 Turin, Italy. Additional authors for this research include V. Tarasco, C. Lingua, L. Moja and F. Savino.

Keywords for this news article include: Turin, Italy, Europe, Simethicone, Article Review, Cyclohexanecarboxylic Acids, Organosilicon Compounds, Dimethylpolysiloxanes, Drugs and Therapies, Dicyclomine Therapy, Organic Chemicals, Anticholinergics, Antispasmodics, Antimuscarinic, Hydrocarbons, Cyclohexanes, Colic, Regina Margherita Children's Hospital.

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most cells, recognized as new candidates with important roles in intercellular and tissue-level communication."

The news correspondents obtained a quote from the research from the Renmin Hospital of Wuhan University, "Cells can package proteins and RNA messages into exosome and secret to recipient cells, which regulate gene expression in recipient cells. The research on exosomes in cardiovascular disease is just emerging. It is well-known that exosomes from cardiomyocyte can transflect endothelial cells, stem cells, fibroblasts and smooth muscle cells to induce cellular changes. After myocardial infarction (MI), the exosomes play important roles in local and distant microcommunication. Nowadays, exosomal microRNAs transportation has been found to deliver signals to mediate cardiac repair after MI. However, the exosomes quality and quantities are variable under different pathological conditions."

According to the news reporters, the research concluded: "Therefore, we speculate that the monitoring of the quality and quantity of exosomes may serve as diagnosis and prognosis biomarkers of MI, and the study of exosomes will provide insights for the new therapeutics to cardiac remodeling after MI."


Our news journalists report that additional information may be obtained by contacting M.J. Yuan, 1 Dept. of Cardiology, Renmin Hospital of Wuhan University, Wuhan 430060, People's Republic of China. Additional authors for this research include T. Maghsoudi and T. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7150/ijms.14112. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Wuhan, Exosomes, Genetics, Cardiology, Organelles, Heart Attack, Heart Disease, Article Review, Transport Vesicles, Myocardial Ischemia, Myocardial Infarction, Cytoplasmic Structures, People's Republic of China, Heart Disorders and Diseases, Vascular Diseases and Conditions.

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**Eye Diseases and Conditions - Retinitis Pigmentosa**

**Findings from Research Foundation Reveals New Findings on Retinitis Pigmentosa (Homozygosity mapping guided next generation sequencing to identify the causative genetic variation in inherited retinal degenerative diseases)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Eye Diseases and Conditions - Retinitis Pigmentosa have been presented. According to news reporting from Tamil Nadu, India, by NewsRx journalists, research stated, "Inherited retinal degeneration (IRD) are a group of genetically heterogeneous disease of which retinitis pigmentosa (RP) and Leber congenital amaurosis (LCA) are the most common and severe type. In our study we had taken three unrelated South Indian consanguineous IRD families."

The news correspondents obtained a quote from the research from Research
Foundation, "Homozygosity mapping was done using Affymetrix 250K Nsp1 GeneChip in each of LCA, Cone-Rod dystrophy (CRD) and autosomal recessive RP (arRP) families followed by targeted re-sequencing by next generation sequencing (NGS) on Illumina MiSeq. Known candidate genes ranging from 1-8 in numbers within the homozygous blocks were identified by homozygosity mapping and targeted NGS revealed the causative mutations; RDH12 c.832A >C, ABCA4 c.1462G >T, CDHR1 c. 1384_1392delCTCCTGGACinsG, in the LCA, CRD and arRP families, respectively. The identified mutations were validated by Sanger sequencing, segregation in the families and their absence in 200 control chromosomes. Homozygosity mapping guided targeted NGS, especially when more numbers of known candidate genes within the homozygous blocks are observed is a comprehensive method for mutation identification. Molecular data from a larger retinal degenerative disease cohort would reveal the spectrum and prevalence of mutations and genes in Indian population."

According to the news reporters, the research concluded: "Molecular diagnosis also aids in genetic counseling, offering carrier and prenatal testing to family members."

For more information on this research see: Homozygosity mapping guided next generation sequencing to identify the causative genetic variation in inherited retinal degenerative diseases. *Journal of Human Genetics*, 2016;61(11):951-958. *Journal of Human Genetics* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Journal of Human Genetics - www.nature.com/jhg/)

Our news journalists report that additional information may be obtained by contacting N. Soumittra, Vis Res Fdn, SNONGC Dept. of Genet & Mol Biol, Madras 600006, Tamil Nadu, India. Additional authors for this research include M. Swaminathan, P. Sen, T. Arokiasamy, S. Deshpande, N. John, R.A. Gadkari, A.U. Mannan and N. Soumittra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/jhg.2016.83. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tamil Nadu, India, Asia, Genetics, Genetics, Eye Diseases and Conditions, Retinitis Pigmentosa, Research Foundation.

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**Cell Research - Cell Adhesion Molecules**

**Findings from Research Hospital Broaden Understanding of Cell Adhesion Molecules (Association between the Levels of IL-6, sE-Selectin and Distal Sensory Nerve Conduction Studies in Patients with Prediabetes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cell Research - Cell Adhesion Molecules is now available. According to news reporting out of Izmir, Turkey, by NewsRx editors, research stated, "To determine the association between interleukin-6 (IL-6) and soluble E-selectin (sE-selectin) levels with the electrodiagnostic abnormalities in patients with impaired fasting glucose (IFG) and impaired glucose tolerance (IGT). Serum HbA1c, C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), fibrinogen, IL-6 and sE-selectin levels were analyzed in 25 IFG patients, 22 IGT patients and 41 controls."
Our news journalists obtained a quote from the research from Research Hospital, "Nerve conduction studies (NCS) of sural, dorsal sural (DS), medial dorsal cutaneous and medial plantar sensory nerves were conducted. HbA1c and IL-6 levels were significantly higher in IFG and IGT patients than the controls. IGT patients had higher sE-selectin levels compared to controls and IFG patients. IL-6 levels were significantly correlated with levels of CRP, fibrinogen, ESR and sE-selectin in patients with prediabetes. Both IFG and IGT patients had substantial impairments in very distal sensory NCS. IL-6 levels were positively correlated with HbA1c and negatively correlated with DS NCS in prediabetic patients. Inflammation and endothelial dysfunction might be important in patients with IFG or IGT. Furthermore, our findings strengthen the idea that inflammation (increased levels of IL-6) might be associated with early electrophysiological impairments in patients with prediabetes. NCS of the most distal sensory nerves significantly enhanced the diagnosis of subclinical neuropathy in patients with prediabetes."

According to the news editors, the research concluded: "Subclinical peripheral sensory neuropathy should be investigated in prediabetes to lower the number of future outcomes they are associated with."


Our news journalists report that additional information may be obtained by contacting B.I. Tiftikcioglu, Dept. of Neurology, Tepecik Education and Research Hospital, Izmir, Turkey. Additional authors for this research include T. Duksal, S. Bilgin, S. Kose and Y. Zorlu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444661. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Izmir, Turkey, Eurasia, Selectins, Inflammation, Cell Research, Glycoproteins, Membrane Proteins, Cell Adhesion Molecules.

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Heart Disorders and Diseases - Takotsubo...

Findings from Research Hospital in Takotsubo Cardiomyopathy Reported (Warm-up Brugada phenocopy associated with takotsubo cardiomyopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Takotsubo Cardiomyopathy have been published. According to news reporting originating in Ankara, Turkey, by NewsRx journalists, research stated, "Rapid diagnosis of ST-segment elevation myocardial infarction (STEMI) is essential for the appropriate management of patients; however, various conditions may present with an identical electrocardiographic pattern as STEMI in clinical practice."

The news reporters obtained a quote from the research from Research Hospital, "Obtaining a satisfactory history, comparing previous electrocardiograms, and assessing serial
tests may provide valuable clues. Brugada syndrome or phenocopy also has been reported as amisdiagnosis of STEMI in clinical practice."

According to the news reporters, the research concluded: "We present an interesting image of progressive Brugada-type ST elevation in precordial leads associated with takotsubo cardiomyopathy."


Keywords for this news article include: Ankara, Turkey, Eurasia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Left Ventricular Dysfunction, Takotsubo Cardiomyopathy, Cardiomyopathies, Heart Disease, Research Hospital.

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Oncology - Neuroblastomas

Findings from Research Institute Update Understanding of Neuroblastomas (MicroRNA-497 impairs the growth of chemoresistant neuroblastoma cells by targeting cell cycle, survival and vascular permeability genes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Neuroblastomas have been presented. According to news reporting from Barcelona, Spain, by NewsRx journalists, research stated, "Despite multimodal therapies, a high percentage of high-risk neuroblastoma (NB) become refractory to current treatments, most of which interfere with cell cycle and DNA synthesis or function, activating the DNA damage response (DDR). In cancer, this process is frequently altered by deregulated expression or function of several genes which contribute to multidrug resistance (MDR)."

The news correspondents obtained a quote from the research from Research Institute, "MicroRNAs are outstanding candidates for therapy since a single microRNA can modulate the expression of multiple genes of the same or different pathways, thus hindering the development of resistance mechanisms by the tumor. We found several genes implicated in the MDR to be overexpressed in high-risk NB which could be targeted by microRNAs simultaneously. Our functional screening identified several of those microRNAs that reduced proliferation of chemoresistant NB cell lines, the best of which was miR-497. Low expression of miR-497 correlated with poor patient outcome. The overexpression of miR-497 reduced the proliferation of multiple chemoresistant NB cell lines and induced apoptosis in MYCN-amplified cell lines. Moreover, the conditional expression of miR-497 in NB xenografts reduced tumor growth and inhibited vascular permeabilization."
According to the news reporters, the research concluded: "MiR-497 targets multiple genes related to the DDR, cell cycle, survival and angiogenesis, which renders this molecule a promising candidate for NB therapy."

For more information on this research see: MicroRNA-497 impairs the growth of chemoresistant neuroblastoma cells by targeting cell cycle, survival and vascular permeability genes. *Oncotarget*, 2016;7(8):9271-87.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, Genetics, Oncology, Barcelona, Cell Line, Hematology, Neuroblastomas.

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**Chemistry - Cell Biochemistry**

**Findings from Research Institute Yields New Findings on Cell Biochemistry (Intracellular MMP3 Promotes HSP Gene Expression in Collaboration With Chromobox Proteins)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Chemistry - Cell Biochemistry. According to news reporting from Aichi, Japan, by NewsRx journalists, research stated, "Matrix metalloproteinases (MMPs) are crucial factors in tumor progression, inflammatory/immune responses and tissue development/regeneration. Of note, it has been known that MMPs promote genome instability, epithelial-mesenchymal transition, invasion, and metastasis in tumor progression."

The news correspondents obtained a quote from the research from Research Institute, "We previously reported that human MMP3 could translocate into cellular nuclei and control transcription in human chondrosarcoma-derived cells and in articular cartilage (Eguchi et al. [2008] Mol Cell Biol 28(7):2391-2413); however, further transcriptional target genes and cofactors of intranuclear MMP3 have not been uncovered. In this paper, we used transcriptomics analysis in order to examine novel transcriptional target genes regulated by intracellular MMP3. We found that mRNA levels of HSP family members (HSP70B, HSP72, HSP40/DNAJ, and HSP20/CRYAB) are upregulated by the intracellular MMP3 overload. Bioinformatic analysis predicted several transcription factors that possibly interact with MMP3. Among these factors, heat shock factor 1 (HSF1) cooperated with the MMP3 to activate the HSP70B gene promoter in reporter gene assays, while a dominant negative HSF1 blocked the role for MMP3 in the trans-activation. The hemopexin-like repeat (PEX) domain of the human MMP3 was essential for transcriptional induction of the HSP70B gene. In addition, chromobox proteins CBX5/HP1 and CBX3/HP1 cooperated with the PEX domain in induction of HSP70B
mRNA."

According to the news reporters, the research concluded: "Taken together, this study newly clarified that intracellular MMP3 cooperate with CBXs/HP1s in transcriptional promotion of HSP genes. J. Cell. Biochem. 118: 43-51, 2017."


Our news journalists report that additional information may be obtained by contacting T. Eguchi, Natl Center Geriatr & Gerontol, Res Inst, Dept. of Oral Dis Res, Obu, Aichi 4748511, Japan. Additional authors for this research include S.K. Calderwood, M. Takigawa, S. Kubota and K. Kozaki.

Keywords for this news article include: Aichi, Japan, Asia, Cell Biochemistry, Chemistry, Genetics, Genetics, Research Institute.

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**Skin Diseases and Conditions - Psoriasis**

**Findings from Rockefeller University in the Area of Psoriasis Reported (Increased expression of interleukin-17 pathway genes in nonlesional skin of moderate-to-severe psoriasis vulgaris)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Skin Diseases and Conditions - Psoriasis are presented in a new report. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Psoriasis vulgaris is an inflammatory immune-mediated disease, with lesional skin characterized by sharply demarcated, erythematous scaly plaques. Uninvolved psoriatic skin appears clinically similar to normal skin."

Financial supporters for this research include 2012 LEO Pharma Research Foundation Silver Award, National Center for Advancing Translational Sciences, National Institutes of Health, Irma T. Hirschl/Monique Weill-Caulier research award.

Our news editors obtained a quote from the research from Rockefeller University, "However, it has been hypothesized that inflammatory cytokines, e.g. interleukin (IL)-17, may affect any organ or tissue having a vascular supply; thus, distant uninvolved skin could be exposed to increased circulating IL-17. To establish comparative genomic profiles between noninvolved skin and normal skin, in particular, determining immune abnormalities in distant uninvolved skin. We performed a meta-analysis on three gene array studies, comparing the nonlesional (NL) psoriatic skin transcriptome with normal gene expression. We investigated immunological features of noninvolved skin, particularly linked to IL-17 signalling. We detected 252 differentially expressed gene transcripts in uninvolved skin compared with normal skin; multiple immune-related genes, including IL-17-downstream genes, were upregulated. Increased expression of IL-17-signature genes (e.g. DEFB4 and S100A7) was associated with an increased number of CD3+, CD8+ and DC-LAMP+ cells in NL skin vs. normal controls. Inducible T-cell costimulator (ICOS) expression was detected only in a few T-cells within NL skin."
According to the news editors, the research concluded: "Our data described the genomic profile in NL skin, characterizing the immune activation that was mainly attributed to IL-17 signalling."


The news editors report that additional information may be obtained by contacting A. Chiricozzi, Laboratory of Investigative Dermatology, The Rockefeller University, New York City, NY, United States. Additional authors for this research include M. Suarez-Farinas, J. Fuentes-Duculan, I. Cueto, K. Li, S. Tian, C. Brodmkerk and J.G Krueger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjd.14034. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Cytokines, Psoriasis, Dermatology, New York City, United States, Interleukin 17, North and Central America, Papulosquamous Skin Diseases and Conditions, Intercellular Signaling Peptides and Proteins.

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**Cardiovascular Diseases**

**Findings from Roma Tor Vergata University in the Area of Cardiovascular Diseases Reported (Preterm delivery and elevated maternal total vascular resistance: signs of suboptimal cardiovascular adaptation to pregnancy?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases is now available. According to news reporting out of Rome, Italy, by NewsRx editors, research stated, "To evaluate the maternal hemodynamic profile in women with a diagnosis of threatened preterm delivery (TPD) in order to understand the possible pathophysiologic mechanism leading to an increased lifetime risk for future cardiovascular disease. Patients with a diagnosis of TPD were enrolled and assessed using a non-invasive method (USCOM ®) for the determination of hemodynamic parameters."

Our news journalists obtained a quote from the research from Roma Tor Vergata University, "Vaginal and rectal swabs were taken, cervical length, blood inflammatory indices, fetal blood-vessel Doppler velocimetry were measured and gestational age at the time of delivery and neonatal outcomes were noted. A total of 68 patients were enrolled and included in the analysis. The population was divided into two groups according to total vascular resistance (TVR): Group A with a TVR of <= 1000 dynesxs/cm(5) (n=48) and Group B with a TVR of > 1000 dynesxs/cm(5) (n = 20). C-reactive protein (CRP) was higher in Group B than in Group A, suggesting a systemic inflammation status. Group B delivered earlier (32+4weeks vs 38+2weeks; P<0.01) and neonatal outcome was worse than in Group A. Significantly lower values of cardiac output, stroke volume, peak velocity of flow, velocity time integral, minute distance, stroke volume index, cardiac index, stroke work, cardiac power, inotropy index and potential-to-kinetic energy ratio were observed in Group B than in Group A. Women with a diagnosis of
TPD showing TVR values of > 1000 dynesxs/cm(5) and elevated levels of CRP are at high risk of preterm delivery."

According to the news editors, the research concluded: "An impaired maternal cardiovascular adaptation during pregnancy in these patients might suggest a possible higher risk for subsequent future cardiovascular disease."


Our news journalists report that additional information may be obtained by contacting H. Valensise, Roma Tor Vergata University, Policinico Casilino, Dept. of Bioimaging Obstet & Gynecol, Rome, Italy. Additional authors for this research include D. Farsetti, D. Lo Presti, I. Pisani, G.M. Tiralongo, G. Gagliardi, B. Vasapollo and G.P. Novelli.

Keywords for this news article include: Rome, Italy, Europe, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Cardiovascular Diseases and Conditions, Stroke Volume, Risk and Prevention, Vascular Resistance, Cardiac Output, Hemodynamics, Cardiology, Roma Tor Vergata University.

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Findings from Royal Brompton Hospital Provide New Insights into Left Ventricular Hypertrophy (Differential diagnosis of left ventricular hypertrophy: usefulness of multimodality imaging and tissue characterization with cardiac magnetic resonance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Left Ventricular Hypertrophy are presented in a new report. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Differential diagnosis of asymmetrical left ventricular hypertrophy may be challenging, particularly in patients with history of hypertension. A middle-aged man underwent an echocardiographic examination during workup for hypertension, which unexpectedly showed significant asymmetrical septal hypertrophy and raised suspicion for hypertrophic cardiomyopathy."

Funders for this research include Imperial College London, NIHR Cardiovascular Biomedical Research Unit of Royal Brompton & Harefield NHS Foundation Trust.

Our news editors obtained a quote from the research from Royal Brompton Hospital, "Cardiovascular magnetic resonance confirmed the asymmetrical hypertrophy. No myocardial late gadolinium contrast enhancement was seen. However, precontrast T1 mapping revealed a low native myocardial T1 value. This was highly suggestive of Anderson-Fabry disease, which was subsequently proved with very low alpha galactosidase enzyme levels and mutation analysis."

According to the news editors, the research concluded: "The case illustrates clinical usefulness of multimodality imaging and the novel tissue characterization techniques for
assessment of left ventricular hypertrophy."


The news editors report that additional information may be obtained by contacting C. Izgi, Royal Brompton Hosp, NIHR Cardiovasc Biomed Res Unit, London, United Kingdom. Additional authors for this research include V. Vassiliou, A.J. Baksi and S.K. Prasad.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/echo.13367. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Left Ventricular Hypertrophy, Magnetic Resonance, Hypertension, Cardiology, Genetics, Royal Brompton Hospital.

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Heart Disorders and Diseases - Rheumatic Heart…

**Findings from Royal Children's Hospital Has Provided New Data on Rheumatic Heart Disease (Adherence to secondary antibiotic prophylaxis for patients with rheumatic heart disease diagnosed through screening in Fiji)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Rheumatic Heart Disease. According to news reporting originating from Parkville, Australia, by NewsRx correspondents, research stated, "Echocardiographic screening for rheumatic heart disease (RHD) can detect subclinical cases; however, adequate adherence to secondary antibiotic prophylaxis (SAP) is required to alter disease outcomes. We aimed to investigate the adherence to SAP among young people with RHD diagnosed through echocardiographic screening in Fiji and to investigate factors associated with adherence."

Financial supporters for this research include Cure Kids, National Health and Medical Research Council, National Heart Foundation of Australia, University of Melbourne Nossal Global Scholars program.

Our news editors obtained a quote from the research from Royal Children's Hospital, "Patients diagnosed with RHD through echocardiographic screening in Fiji from 2006 to 2014 were included. Dates of benzathine penicillin G injections were collected from 76 health clinics nationally from December 2011 to December 2014. Adherence was measured using the proportion of days covered (PDC). Multivariate logistic regression analysis was used to identify characteristics associated with any adherence (= 1 injection received) and adequate adherence (PDC = 0.80). Of 494 patients, 268 (54%) were female and the median age was 14 years. Overall, 203 (41%) had no injections recorded and just 33 (7%) had adequate adherence. Multivariate logistic regression showed increasing age (OR 0.93 per year, 95% CI 0.87-0.99)
and time since diagnosis = 1.5 years (OR 0.53, 95% CI 0.37-0.79) to be inversely associated with any adherence. Non-iTaukei ethnicity (OR 2.58, 95% CI 1.04-6.33) and urban residence (OR 3.36, 95% CI 1.54-7.36) were associated with adequate adherence, whereas time since diagnosis = 1.5 years (OR 0.38, 95% CI 0.17-0.83) was inversely associated with adequate adherence. Adherence to SAP after screening in Fiji is currently inadequate for individual patient protection or population disease control."

According to the news editors, the research concluded: "Secondary prevention should be strengthened before further screening can be justified."

For more information on this research see: Adherence to secondary antibiotic prophylaxis for patients with rheumatic heart disease diagnosed through screening in Fiji. Tropical Medicine & International Health, 2016;21(12):1583-1591. Tropical Medicine & International Health can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Tropical Medicine & International Health - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-3156)

The news editors report that additional information may be obtained by contacting D. Engelman, Royal Children's Hospital, Parkville, Vic, Australia. Additional authors for this research include R.L. Mataika, J.H. Kado, M.A. Kee, S. Donath, T. Parks and A.C. Steer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tmi.12796. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Parkville, Australia, Australia and New Zealand, Chemoprevention, Diagnostics and Screening, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Streptococcal Infections, Rheumatic Heart Disease, Antibiotic Prophylaxis, Gram-Positive Bacteria, Rheumatic Fever, Premedication, Cardiology, Royal Children's Hospital.

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of Surgeons, "The model has been characterized in C57BL/6, BALB/c, and SJL mice where strain-specific differences were found in the extent of hippocampal damage. 129/P mice are a common baciground strain for genetic models and may display unique characteristics in this model. We therefore compared responses to intraamygdala kainic acid between 129/P and C57BL/6 mice. Racine scale-scored convulsive behavior during status epilepticus was substantially lower in 129/P mice compared with that in C57BL/6 mice. Analysis of surface-recorded electroencephalogram (EEG) showed differences between strains in several frequency bands; EEG total power was greater during ictal episodes while duration of seizures was slightly shorter in 129/P mice. Histological analysis revealed similar hippocampal injury between strains, with neuronal death mainly confined to the ipsilateral CA3 subfield. Expression of genes associated with gliosis and neuroinflammatory responses was also similar between strains after seizures. Video EEG telemetry recordings showed that 129/P mice first display spontaneous seizures within a few days of status epilepticus similar to C57BL/6 mice. However, high mortality in 129/P mice prevented a quantitative comparison of the epileptic seizure phenotypes between strains. This study defined behavioral, EEG, and histopathologic features of this mouse strain in a model increasingly useful for the study of the genetic contribution to acquired epilepsy."

According to the news reporters, the research concluded: "Intraamygdala kainic acid in 129/P mice could serve as a model of nonconvulsive status epilepticus, but long-term assessments will require model adjustment to mitigate the severity of the emergent epileptic phenotype."

For more information on this research see: Distinct behavioral and epileptic phenotype differences in 129/P mice compared to C57BL/6 mice subject to intraamygdala kainic acid-induced status epilepticus. Epilepsy & Behavior, 2016;64():186-194. Epilepsy & Behavior can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Epilepsy & Behavior - www.journals.elsevier.com/epilepsy-and-behavior/)

Our news journalists report that additional information may be obtained by contacting D.C. Henshall, Royal College of Surgeons Ireland, Dept. of Physiol & Med Phys, Dublin 2, Ireland. Additional authors for this research include T. Engel, C.R. Reschke, R.M. Conroy, E. Langa and D.C. Henshall.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yebeh.2016.09.031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dublin, Ireland, Europe, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Neurologic Manifestations, Status Epilepticus, Seizures, Epilepsy, Genetics, Royal College of Surgeons.

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**Hormones - Anterior Pituitary Hormones**

**Findings from Royal Manchester Children's Hospital Update**

**Understanding of Anterior Pituitary Hormones (Effect of summer daylight exposure and genetic background on growth in growth hormone-deficient children)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hormones - Anterior Pituitary Hormones. According to news reporting originating in Manchester, United Kingdom, by NewsRx journalists, research stated, "The response to growth hormone in humans is dependent on phenotypic, genetic and environmental factors. The present study in children with growth hormone deficiency (GHD) collected worldwide characterised gene-environment interactions on growth response to recombinant human growth hormone (r-hGH)."

The news reporters obtained a quote from the research from Royal Manchester Children’s Hospital, "Growth responses in children are linked to latitude, and we found that a correlate of latitude, summer daylight exposure (SDE), was a key environmental factor related to growth response to r-hGH. In turn growth response was determined by an interaction between both SDE and genes known to affect growth response to r-hGH. In addition, analysis of associated networks of gene expression implicated a role for circadian clock pathways and specifically the developmental transcription factor NANOG."

According to the news reporters, the research concluded: "This work provides the first observation of gene-environment interactions in children treated with r-hGH."


Our news correspondents report that additional information may be obtained by contacting A. Stevens, Cent Manchester Univ Hosp NHS Fdn Trust, Royal Manchester Children’s Hospital, Manchester Academy Hlth Sci Center, Manchester M13 9WL, Lancs, United Kingdom. Additional authors for this research include P. Chatelain, C. Knight, P. Clayton and A. Stevens.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.67. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Manchester, United Kingdom, Europe, Anterior Pituitary Hormones, Peptide Hormones, Growth Hormones, Genetics, Royal Manchester Children's Hospital.

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Gram-Positive Bacteria - Staphylococcus aureus

Findings from Royal Prince Alfred Hospital in the Area of Staphylococcus aureus Reported (Prevention and Control of Methicillin-Resistant Staphylococcus aureus in Acute Care Settings)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Positive Bacteria - Staphylococcus aureus are presented in a new report. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "Methicillin-resistant Staphylococcus aureus (MRSA) is a leading cause of health care associated infections worldwide."

The news reporters obtained a quote from the research from Royal Prince Alfred
Hospital, "Controversies with regard to the effectiveness of various MRSA control strategies have contributed to varying approaches to the control of this pathogen in different settings. However, new evidence from large-scale studies has emerged, particularly with regards to MRSA screening and decolonization strategies, which will inform future control practices."

According to the news reporters, the research concluded: "The implementation as well as outcomes of control measures in the real world is not only influenced by scientific evidence but also depends on economic, administrative, governmental, and political influences."


Our news correspondents report that additional information may be obtained by contacting A.S. Lee, Royal Prince Alfred Hospital, Dept. of Microbiol, Sydney, NSW 2050, Australia. Additional authors for this research include B. Huttner and S. Harbarth.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.idc.2016.07.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Methicillin-Resistant Staphylococcus aureus, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Beta-Lactam Antibiotics, Gram-Positive Bacteria, beta-Lactam Resistance, Methicillin Resistance, Penicillin Resistance, Drugs and Therapies, Gram-Positive Cocci, Organic Chemicals, Staphylococaceae, Drug Resistance, Penicillins, Bacillales, Amides, MRSA, Royal Prince Alfred Hospital.

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Clinical Research - Clinical Trials and Studies

Findings from Royal United Hospital Update Understanding of Clinical Trials and Studies [Safety and effectiveness of hormonal treatment versus hormonal treatment with vigabatrin for infantile spasms (ICISS): a randomised, multicentre, open-label ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Clinical Research - Clinical Trials and Studies have been presented. According to news originating from Avon, United Kingdom, by NewsRx correspondents, research stated, "Infantile spasms constitutes a severe infantile epilepsy syndrome that is difficult to treat and has a high morbidity. Hormonal therapies or vigabatrin are the most commonly used treatments."

Our news journalists obtained a quote from the research from Royal United Hospital, "We aimed to assess whether combining the treatments would be more effective than hormonal therapy alone. In this multicentre, open-label randomised trial, 102 hospitals (Australia [three], Germany [11], New Zealand [two], Switzerland [three], and the UK [83]) enrolled infants who had a clinical diagnosis of infantile spasms and a hypsarrhythmic (or similar) EEG no more than 7 days before enrolment. Participants were randomly assigned (1:1) by a secure website to
receive hormonal therapy with vigabatrin or hormonal therapy alone. If parents consented, there was an additional randomisation (1:1) of type of hormonal therapy used (prednisolone or tetracosactide depot). Block randomisation was stratified for hormonal treatment and risk of developmental impairment. Parents and clinicians were not masked to therapy, but investigators assessing electro-clinical outcome were masked to treatment allocation. Minimum doses were prednisolone 10 mg four times a day or intramuscular tetracosactide depot 0.5 mg (40 IU) on alternate days with or without vigabatrin 100 mg/kg per day. The primary outcome was cessation of spasms, which was defined as no witnessed spasms on and between day 14 and day 42 from trial entry, as recorded by parents and carers in a seizure diary. Analysis was by intention to treat. The trial is registered with The International Standard Randomised Controlled Trial Number (ISRCTN), number 54363174, and the European Union Drug Regulating Authorities Clinical Trials (EUDRACT), number 2006-000788-27. Between March 7, 2007, and May 22, 2014, 766 infants were screened and, of those, 377 were randomly assigned to hormonal therapy with vigabatrin (186) or hormonal therapy alone (191). All 377 infants were assessed for the primary outcome. Between days 14 and 42 indusive no spasms were witnessed in 133 (72%) of 186 patients on hormonal therapy with vigabatrin compared with 108 (57%) of 191 patients on hormonal therapy alone (difference 15.0%, 95% CI 1.2-24.9, p=0.002). Serious adverse reactions necessitating hospitalisation occurred in 33 infants (16 on hormonal therapy alone and 17 on hormonal therapy with vigabatrin). The most common serious adverse reaction was infection occurring in five infants on hormonal therapy alone and four on hormonal therapy with vigabatrin. There were no deaths attributable to treatment. Hormonal therapy with vigabatrin is significantly more effective at stopping infantile spasms than hormonal therapy alone."

According to the news editors, the research concluded: "The 4 week period of spasm cessation required to achieve a primary clinical response to treatment suggests that the effect seen might be sustained, but this needs to be confirmed at the 18 month follow-up."


The news correspondents report that additional information may be obtained from F.K. O'Callaghan, Royal United Hosp Bath NHS Fdn Trust, Childrens Department, Bath, Avon, United Kingdom. Additional authors for this research include S.W. Edwards, F.D. Alber, E. Hancock, A. Johnson, C.R. Kennedy, M. Likeman, A.L. Lux, M. Mackay, A.A. Mallick, R.W. Newton, M. Nolan, R. Pressler, D. Rating, B. Schmitt, C.M. Verity and J.P. Osborne.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1474-4422%2816%2930294-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Avon, United Kingdom, Europe, Gamma-aminobutyric Acid Analogs, Central Nervous System Agents, Clinical Trials and Studies, gamma-Aminobutyric Acid, Drugs and Therapies, Vigabatrin Therapy, Enzyme Inhibitors, Clinical Research, Anticonvulsants, Royal United Hospital.

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Heart Disorders and Diseases - Atrial Fibrillation

Findings from Ruhr University Has Provided New Information about Atrial Fibrillation (Vdrive Evaluation of Remote Steering and Testing in Lasso Electrophysiology Procedures Study: The VERSA TILE Study in Atrial Fibrillation Ablation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Atrial Fibrillation is now available. According to news reporting out of Bad Oeynhausen, Germany, by NewsRx editors, research stated, "Circular mapping catheters (CMC) are an essential tool in most atrial fibrillation ablation procedures. The Vdrive? with V-Loop? system enables a physician to remotely manipulate a CMC during electrophysiology studies."

Financial supporters for this research include Stereotaxis, Inc, Clinical Trials.gov.

Our news journalists obtained a quote from the research from Ruhr University, "Our aim was to compare the clinical performance of the system to conventional CMC navigation according to efficiency and safety endpoints. A total of 120 patients scheduled to undergo a CMC study followed by pulmonary vein isolation (PVI) were included. Treatment allocation was randomized 2:1, remote navigation:manual navigation. The primary effectiveness endpoint was assessed based on both successful navigation to the targeted pulmonary vein (PV) and successful recording of PV electrograms. All PVs were treated independently within and between patients. The primary safety endpoint was assessed based on the occurrence of major adverse events (MAEs) through seven days after the study procedure. Primary effectiveness endpoints were achieved in 295/302 PVs in the Vdrive arm (97.7%) and 167/167 PVs in the manual arm (100%). Effectiveness analysis indicates Vdrive non-inferiority (pnon-inferiority=0.0405; d=-0.05) per the Cochran-Mantel-Haenszel test adjusted for PV correlation. Five MAEs related to the ablation procedure occurred (three in the Vdrive arm-3.9%; two in the manual arm-2.33%). No device-related MAEs were observed; safety analysis indicates Vdrive non-inferiority (pnon-inferiority=0.0441; d=0.07) per the normal Z test. Remote navigation of a CMC is equivalent to manual in PVI in terms of safety and effectiveness."

According to the news editors, the research concluded: "This allows for single-operator procedures in conjunction with a magnetically guided ablation catheter."


Our news journalists report that additional information may be obtained by contacting G. Nolker, Clinic for Cardiology, Herz- und Diabeteszentrum Nordrhein-Westfalen, Ruhr-Universitat Bochum, Bad Oeynhausen, Germany. Additional authors for this research include B. Schwagten, J.B. Deville, J.D. Burkhardt, R.P. Horton, Q. Sha and G. Tomassoni.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jce.12916. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Cardiovascular Electrophysiology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.
Findings from Rutgers State University Reveals New Findings on Hyperalgesia (Contribution of the Suppressor of Variegation 3-9 Homolog 1 in Dorsal Root Ganglia and Spinal Cord Dorsal Horn to Nerve Injury-induced Nociceptive Hypersensitivity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nervous System Diseases and Conditions - Hyperalgesia is now available. According to news reporting originating from Newark, New Jersey, by NewsRx correspondents, research stated, "Peripheral nerve injury-induced gene alterations in the dorsal root ganglion (DRG) and spinal cord likely participate in neuropathic pain genesis. Histone methylation gates gene expression."

Our news editors obtained a quote from the research from Rutgers State University, "Whether the suppressor of variegation 3-9 homolog 1 (SUV39H1), a histone methyltransferase, contributes to nerve injury-induced nociceptive hypersensitivity is unknown. Quantitative real-time reverse transcription polymerase chain reaction analysis, Western blot analysis, or immunohistochemistry were carried out to examine the expression of SUV39H1 mRNA and protein in rat DRG and dorsal horn and its colocalization with DRG mu-opioid receptor (MOR). The effects of a SUV39H1 inhibitor (chaetocin) or SUV39H1 siRNA on fifth lumbar spinal nerve ligation (SNL)-induced DRG MOR down-regulation and nociceptive hypersensitivity were examined. SUV39H1 was detected in neuronal nuclei of the DRG and dorsal horn. It was distributed predominantly in small DRG neurons, in which it coexpressed with MOR. The level of SUV39H1 protein in both injured DRG and ipsilateral fifth lumbar dorsal horn was time dependently increased after SNL. SNL also produced an increase in the amount of SUV39H1 mRNA in the injured DRG (n = 6/time point). Intrathecal chaetocin or SUV39H1 siRNA as well as DRG or intraspinal microinjection of SUV39H1 siRNA impaired SNL-induced alldynia and hyperalgesia (n = 5/group/treatment). DRG microinjection of SUV39H1 siRNA also restored SNL-induced DRG MOR down-regulation (n = 6/group). The findings of this study suggest that SUV39H1 contributes to nerve injury-induced allodynia and hyperalgesia through gating MOR expression in the injured DRG."

According to the news editors, the research concluded: "SUV39H1 may be a potential target for the therapeutic treatment of nerve injury-induced nociceptive hypersensitivity."

For more information on this research see: Contribution of the Suppressor of Variegation 3-9 Homolog 1 in Dorsal Root Ganglia and Spinal Cord Dorsal Horn to Nerve Injury-induced Nociceptive Hypersensitivity. Anesthesiology, 2016;125(4):765-778. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

The news editors report that additional information may be obtained by contacting

Keywords for this news article include: Newark, New Jersey, United States, North and Central America, Nervous System Diseases and Conditions, Immune System Diseases and Conditions, Neurologic Manifestations, Somatosensory Disorders, Central Nervous System, Sensation Disorders, Hypersensitivity, Microinjections, Nerve Injury, Hyperalgesia, Spinal Cord, Genetics, Rutgers State University.

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Central Nervous System Diseases and Conditions –…

Findings from S. Fischer et al Update Understanding of Intracranial Aneurysm [Single-center experience in the endovascular treatment of wide-necked intracranial aneurysms with a bridging intra-/extra-aneurysm implant (pCONus)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Intracranial Aneurysm have been published. According to news reporting from Bochum, Germany, by NewsRx journalists, research stated, "To retrospectively evaluate the safety and efficacy of the endovascular treatment of wide-necked intracranial aneurysms assisted by a novel intra-/extra-aneurysm stent-like implant (pCONus). Initial and follow-up angiographic and clinical results are presented of 25 patients with 25 unruptured and ruptured wide-necked intracranial aneurysms treated by reconstruction of the aneurysm neck using the pCONus implant followed by coil occlusion of the fundus."

The news correspondents obtained a quote from the research, "Successful intra-/extra-aneurysm deployment of the pCONus with coil occlusion of the fundus was achieved in all but one case. Procedure-related ischemic complications were observed in three cases with permanent deterioration in one. Acceptable aneurysm occlusion was achieved in all cases. Follow-up angiography revealed sufficient occlusion in 81.0% of the aneurysms. Intimal hyperplasia in the stented segment of the parent artery or device migration has not been observed to date. The pCONus device offers a promising treatment option for complex wide-necked bifurcation intracranial aneurysms."

According to the news reporters, the research concluded: "Acute or delayed dislocations of coils into the parent artery are successfully avoided."


Our news journalists report that additional information may be obtained by contacting S. Fischer, Knappschaftskrankenhaus Bochum, Inst Diagnost & Interv ent Radiol, Langendreer Univ Klin, Neuroradiol & Nukl Med, D-44892 Bochum, Germany. Additional
authors for this research include A. Weber, A. Titschert, C. Brenke, A. Kowoll and W. Weber.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/neurintsurg-2015-012004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bochum, Germany, Europe, Central Nervous System Diseases and Conditions, Intracranial Arterial Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Brain Diseases and Conditions, Cerebrovascular Disorders, Intracranial Aneurysm, Parent Artery, Angiology.

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Drugs and Therapies - Pharmacology

Findings from S. Klenke and Co-Authors Broaden Understanding of Pharmacology (Easy-to-use strategy for reference gene selection in quantitative real-time PCR experiments)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Pharmacology have been presented. According to news reporting originating in Essen, Germany, by NewsRx journalists, research stated, "Real-time PCR is an indispensable technique for mRNA expression analysis but conclusions depend on appropriate reference gene selection. However, while reference gene selection has been a topic of publications, this issue is often disregarded when measuring target mRNA expression."

The news reporters obtained a quote from the research, "Therefore, we (1) evaluated the frequency of appropriate reference gene selection, (2) suggest an easy-to-use tool for least variability reference gene selection, (3) demonstrate application of this tool, and (4) show effects on target gene expression profiles. All 2015 published articles in Naunyn-Schmiedeberg's Archives of Pharmacology were screened for the use of quantitative real-time PCR analysis and selection of reference genes. Target gene expression (Vegfa, Grk2, Sirt4, and Timp3) in H9c2 cells was analyzed following various interventions (hypoxia, hyperglycemia, and/or isoflurane exposure with and without subsequent hypoxia) in relation to putative reference genes (Actb, Gapdh, B2m, Sdha, and Rplp1) using the least variability method vs. an arbitrarily selected but established reference gene. In the vast majority (18 of 21) of papers, no information was provided regarding selection of an appropriate reference gene. In only 1 of 21 papers, a method of appropriate reference gene selection was described and in 2 papers reference gene selection remains unclear. The method of reference gene selection had major impact on interpretation of target gene expression. With hypoxia, for instance, the least variability gene was Rplp1 and target gene expression (Vegfa) heavily showed a 2-fold up-regulation (p = 0.022) but no change (p = 0.3) when arbitrarily using Gapdh."

According to the news reporters, the research concluded: "Frequency of appropriate reference gene selection in this journal is low, and we propose our strategy for reference gene selection as an easy tool for proper target gene expression."

For more information on this research see: Easy-to-use strategy for reference gene selection in quantitative real-time PCR experiments. Naunyn-Schmiedebergs Archives of Pharmacology, 2016;389(12):1353-1366. Naunyn-Schmiedebergs Archives of Pharmacology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.
Our news correspondents report that additional information may be obtained by contacting S. Klenke, Univklinikum Essen, D-45122 Essen, Germany. Additional authors for this research include K. Renckhoff, A. Engler, J. Peters and U.H. Frey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00210-016-1305-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Essen, Germany, Europe, Pharmacology, Drugs and Therapies, Genetics, Genetics.

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Oncology - Colon Cancer

Findings from S. Mukherjee and Colleagues Provides New Insights into Colon Cancer (Chromosomal microarray provides enhanced targetable gene aberration detection when paired with next generation sequencing panel in profiling lung and colorectal ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news reporting originating from Nashville, Tennessee, by NewsRx correspondents, research stated, "The development of targeted therapies based on specific genomic alterations has altered the treatment and management of lung and colorectal cancers. Chromosomal microarray (CMA) has allowed identification of copy number variations (CNVs) in lung and colorectal cancers in great detail, and next-generation sequencing (NGS) is used extensively to analyze the genome of cancers for molecular subtyping and use of molecularly guided therapies."

Our news editors obtained a quote from the research, "The main objective of this study was to evaluate the utility of combining CMA and NGS for a comprehensive genomic assessment of lung and colorectal adenocarcinomas, especially for detecting drug targets. We compared the results from NGS and CMA data from 60 lung and 51 colorectal tumors. From CMA analysis, 33% were amplified, 89% showed gains, 75% showed losses and 41% demonstrated loss of heterozygosity; pathogenic variants were identified in 81% of colon and 67% lung specimens through NGS. KRAS mutations commonly occurred with loss in TP53 and there was significant loss of BRCA1 and NF1 among male patients with lung cancer. For clinically actionable targets, 23% had targetable CNVs when no pathogenic variants were detected by NGS."

According to the news editors, the research concluded: "The data thus indicate that combining the two approaches provides significant benefit in a routine clinical setting not available by NGS alone."


The news editors report that additional information may be obtained by contacting P.A. Lennon, PathGrp, Nashville, TN 37203, United States. Additional authors for this research...
Cyclohexanes

Findings from S. Sassano-Higgins and Co-Researchers in the Area of Cyclohexanes Reported (A Review Of Ketamine Abuse And Diversion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cyclohexanes have been published. According to news reporting originating in Atlanta, Georgia, by NewsRx journalists, research stated, "Ketamine was discovered in the 1960s and released for public use in 1970. Originally developed as a safer alternative to phencyclidine, ketamine is primarily used in clinical settings for analgesia and sedation."

The news reporters obtained a quote from the research, "In recent years, other uses have been developed, including pain management and treatment of asthma and depression. Clinical use of ketamine causes dissociation and emergence delirium. These effects have led to recreational abuse. Although death from direct pharmacologic effects appears rare, the disinhibition and altered sensory perceptions caused by ketamine puts users at risk of environmental harm. Ketamine has also been implicated in nonconsensual sexual intercourse. Data continue to build that chronic ketamine use may lead to morbidity. Impairment of memory and persistent dissociative, depressive, and delusional thinking has also been reported with long-term use. Lower urinary tract symptoms, including cystitis have been described. Gastric and hepatic pathology have also been noted, including abnormal liver function tests, choleodochal cysts and dilations of the common bile duct. S- ketamine, an enantiomer in racemic ketamine, has been shown to be hepatotoxic in vitro. Abstinence from ketaminemay reduce the adverse effects of chronic use and is considered the mainstay of treatment."

According to the news reporters, the research concluded: "Specialized urine drug testing may be required to detect use, as not all point of care urine drug screens include ketamine."


Our news correspondents report that additional information may be obtained by contacting S. Sassano-Higgins, Rivermend Hlth, Atlanta, GA, United States. Additional authors for this research include D. Baron, G. Juarez, N. Esmaili and M. Gold.

Keywords for this news article include: Atlanta, Georgia, United States, North and
Findings from S. Svenson and Co-Authors Broaden Understanding of Small Interference RNAs (siRNAs) (Tumor Selective Silencing Using an RNAi-Conjugated Polymeric Nanopharmaceutical)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Small Interference RNAs (siRNAs). According to news reporting originating from Waltham, Massachusetts, by NewsRx correspondents, research stated, "Small interfering RNA (siRNA) therapeutics have potential advantages over traditional small molecule drugs such as high specificity and the ability to inhibit otherwise 'undruggable' targets. However, siRNAs have short plasma half-lives in vivo, can induce a cytokine response, and show poor cellular uptake."

Our news editors obtained a quote from the research, "Formulating siRNA into nanoparticles offers two advantages: enhanced siRNA stability against nuclease degradation beyond what chemical modification alone can provide; and improved site-specific delivery that takes advantage of the enhanced permeability and retention (EPR) effect. Existing delivery systems generally suffer from poor delivery to tumors. Here we describe the formation and biological activity of polymeric nanopharmaceuticals (PNPs) based on biocompatible and biodegradable poly(lactic-co-glycolic acid) (PLGA) conjugated to siRNA via an intracellular cleavable disulfide linker (PLGA-siRNA). Additionally, these PNPs contain (1) PLGA conjugated to polyethylene glycol (PEG) for enhanced pharmacokinetics of the nanocarrier; (2) a cation for complexation of siRNA and charge compensation to avoid high negative zeta potential; and (3) neutral poly(vinyl alcohol) (PVA) to stabilize the PNPs and support the PEG shell to prevent particle aggregation and protein adsorption. The biological data demonstrate that these PNPs achieve prolonged circulation, tumor accumulation that is uniform throughout the tumor, and prolonged tumor-specific knockdown. PNPs employed in this study had no effect on body weight, blood cell count, serum chemistry, or cytokine response at doses >10 times the effective dose."

According to the news editors, the research concluded: "PNPs, therefore, constitute a promising solution for achieving durable siRNA delivery and gene silencing in tumors."

For more information on this research see: Tumor Selective Silencing Using an RNAi-Conjugated Polymeric Nanopharmaceutical. Molecular Pharmaceutics, 2016;13(3):737-47. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news editors report that additional information may be obtained by contacting S. Svenson, Cerulean Pharma Inc., 35 Gatehouse Drive, Waltham, Massachusetts 02451, United States. Additional authors for this research include R.I. Case, R.O. Cole, J. Hwang, S.R. Kabir, D. Lazarus, P. Lim Soo, P.S. Ng, C. Peters, P. Shum, B. Sweryda-Krawiec, S. Tripathi, D. van der Poll and S. Eliasof.

The direct object identifier (DOI) for that additional information is:
Gram-Negative Bacteria - Enterobacteriaceae

Findings from S.D. Braun and Co-Researchers in the Area of Enterobacteriaceae Described (Carbapenemase-producing Enterobacteriaceae: a 2-year surveillance in a hospital in Iasi, Romania)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Enterobacteriaceae have been published. According to news reporting originating in Jena, Germany, by NewsRx journalists, research stated, "Limited information is currently available about the prevalence of carbapenemase-producing Enterobacteriaceae (CPE) in Romania. Routine tests of 1,993 clinical isolates at a hospital in Iasi yielded 46 isolates that were resistant to carbapenems."

The news reporters obtained a quote from the research, "All 46 isolates were phenotypically and genotypically analyzed using VITEK-2 and DNA microarray-based assays. Isolates were assigned to Klebsiella pneumoniae and Enterobacter cloacae. For 39 isolates, carbapenem resistance was confirmed and 37 harbored at least one carbapenem resistance gene. Two isolates were probably resistant due to AmpC β-lactamases in combination with a porin loss. The overall concordance between detected phenotype and genotype was 95%."

According to the news reporters, the research concluded: "Our data show that carbapenemase-producing isolates with different underlying resistance mechanisms are still rare in Iasi, but the global rise of CPE warrants intensified surveillance."

For more information on this research see: Carbapenemase-producing Enterobacteriaceae: a 2-year surveillance in a hospital in Iasi, Romania. Future Microbiology, 2016;11(3):391-401.

Our news correspondents report that additional information may be obtained by contacting S.D. Braun, Alere Technologies GmbH, Jena, Germany. Additional authors for this research include O.S. Dorneanu, T. Vremera, A. Reißig, S. Monecke and R. Ehricht.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fmb.15.148. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jena, Europe, Germany, Genetics, Hospital, Carbapenems, Epidemiology, beta Lactams, Enterobacteriaceae, Gammaproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria, Gram Negative Facultatively Anaerobic Rods.

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Findings from S.K. Singh and Co-Researchers Provides New Data on Urinary Tract Infection (Detection of AmpC beta-lactamase and adherence factors in uropathogenic Escherichia coli isolated from aged patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Urologic Diseases and Conditions - Urinary Tract Infection. According to news reporting originating from Jamshedpur, India, by NewsRx correspondents, research stated, "Escherichia coli mediated urinary tract infection has been reported to be most prevalent among patients of different class, gender and ages. Currently, multidrug resistant E. coli harboring several virulence factors are most perilous threats for patients especially for elders."

Our news editors obtained a quote from the research, "The aim of this study was to determine the antibiotic resistance pattern, co-resistance and phenotypic virulence factors present in uropathogenic E. coli isolated from aged patients. Thirty-nine E. coli isolates were collected during May June 2014 from patients between 50 to 80 years of age. Experiments have been carried out to determine the antibiotic resistance, co-resistances and phenotypic adherence factors present in each isolate. Clonal relatedness was also determined in the AmpC positive uropathogenic E. coli (UPEC). 97.43% isolates were found to be multidrug resistant and 41.02% of them were AmpC producer. AmpC producer group showed higher multiple antibiotic resistance index than AmpC non-producer (p value < 0.01) group. Interestingly, adherence factor Type 1 fimbriae were found among 84.61% of total isolates which were more prevalent in elderly female patients than males. Biofilm production studies revealed that 84.61% of total isolates are more common in elderly males."

According to the news editors, the research concluded: "This study adds value for the proper empiric selection of antibiotic therapy as well as calls for continuous monitoring of the incidence of drug resistance virulent uropathogenic E. coli mediated urinary tract infection in elderly patients."


The news editors report that additional information may be obtained by contacting M. Gupta, TATA Main Hosp, Jamshedpur, Jharkhand, India. Additional authors for this research include K. Seema and M. Gupta.

Keywords for this news article include: Jamshedpur, India, Asia, Male Urogenital Diseases and Conditions, Urologic Diseases and Conditions, Uropathogenic Escherichia coli, Urinary Tract Infections, Gram-Negative Bacteria, Enzymes and Coenzymes, Antibacterial Agents, Drugs and Therapies, Gammaproteobacteria, Enterobacteriaceae, Biological Factors, Virulence Factors, Biological Toxins, Escherichia Coli, Proteobacteria, Antimicrobials, Men's Health, Antibiotics, Lactamase.

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Findings from S.S. Saha and Colleagues Provides New Insights into Cancer Research (Identification of genetic variation in the IncRNA HOTAIR associated with HPV16-related cervical cancer pathogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cancer Research are presented in a new report. According to news reporting from Bengal, India, by NewsRx journalists, research stated, "Previously, over-expression of the long noncoding RNA (IncRNA) HOTAIR has been found to be associated with the invasive and metastatic capacities of several epithelial cancers, including cervical cancer (CaCx). Here, we aimed at identifying functionally relevant genetic variants that may be employed to differentiate between clinically distinct CaCx subtypes, i.e., those exhibiting high HOTAIR levels and molecular signatures of metastasis and those lacking such signatures in the presence of low HOTAIR expression levels."

Funders for this research include Department of Biotechnology, Ministry of Science and Technology, National Institute of Biomedical Genomics, Kalyani.

The news correspondents obtained a quote from the research, "Genomic DNA isolated from various cervical tissue samples (characterized by histopathology and HPV status) was used for HOTAIR amplicon sequencing, followed by validation of the findings by Sanger sequencing. The impact of the genetic variants found on the secondary structure of HOTAIR and the concomitant alterations in miRNA binding sites were determined through in silico analysis, followed by miRNA expression analysis by quantitative real-time PCR and confirmation of miRNA binding using a luciferase reporter assay. We found that rs2366152C was over-represented [ORage-adjusted = 2.58 (1.23-5.57); p = 0.014] in low HOTAIR expressing HPV positive CaCx cases compared to HPV negative controls. This genetic variant showed the propensity of a secondary structure alteration and gain of a miR-22 binding site in HOTAIR, which was found to be concordant with miR-22 over-expression in low HOTAIR CaCx cases compared to controls. We found that miR-22 expression negatively correlated with HOTAIR and E7 expression in HPV16 positive cases and in an E7 transfected HPV negative CaCx-derived cell line (C33A), but was not altered in high HOTAIR cases compared to controls. Reduced luciferase activity of a HOTAIR rs2366152C expression plasmid in C33A cells through miR-22 co-transfection confirmed the ability of miR-22 to specifically target rs2366152C-harbouring HOTAIR IncRNA in CaCx cells, ultimately leading to its down-regulation."

According to the news reporters, the research concluded: "Our data indicate that rs2366152C not only has the potential to serve as a marker for singling out CaCx cases lacking metastatic molecular signatures, but also to explain the functional inactivation of HOTAIR in these cases, including the mechanism of its down-regulation."


Our news journalists report that additional information may be obtained by contacting S. Sengupta, Netaji Subhas Sanat, Natl Inst Biomed Genom, Kalyani 741251, W Bengal, India. Additional authors for this research include R.R. Chowdhury, N.R. Mondal, B.
Findings from Sacred Heart Catholic University Provides New Data on Colon Cancer (Infliximab does not increase colonic cancer risk associated to murine chronic colitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting from Rome, Italy, by NewsRx journalists, research stated, "To explore the influence of Infliximab (IFX) on cancer progression in a murine model of colonic cancer associated to chronic colitis. AOM/DSS model was induced in C57BL/6 mice."

The news correspondents obtained a quote from the research from Sacred Heart Catholic University, "Mice were injected with IFX (5 mg/kg) during each DSS cycle while control mice received saline. Body weight, occult blood test and stool consistency were measured to calculate the disease activity index (DAI). Mice were sacrificed at week 10 and colons were analyzed macroscopically and microscopically for number of cancers and degree of inflammation. MTT assay was performed on CT26 to evaluate the potential IFX role on metabolic activity and proliferation. Cells were incubated with TNF-alpha or IFX or TNF-alpha plus IFX, and cell vitality was evaluated after 6, 24 and 48 h. The same setting was used after pre-incubation with TNF-alpha for 24 h. IFX significantly reduced DAI and body weight loss in mice compared with controls, preserving also colon length at sacrifice. Histological score was also reduced in treated mice. At macroscopic analysis, IFX treated mice showed a lower number of tumor lesions compared to controls. This was confirmed at microscopic analysis, although differences were not statistically significant. In vitro, IFX treated CT26 maintained similar proliferation ability at MTT test, both when exposed to IFX alone and when associated to TNF-alpha."

According to the news reporters, the research concluded: "IFX did not increase colonic cancer risk in AOM-DSS model of cancer on chronic colitis nor influence directly the proliferation of murine colon cancer epithelial cells."


Our news journalists report that additional information may be obtained by contacting F. Scaldaferri, Sacred Heart Catholic University, Div Gastroenterol, I-00168 Rome, Italy. Additional authors for this research include V. Petito, T. Zinicola, C. Graziani, V. Gerardi,
Findings from Safarik University Yields New Findings on Polycystic Ovary Syndrome (The Effect of Alfacalcidiol and Metformin on Phenotype Manifestations in Women with Polycystic Ovary Syndrome - a Preliminary Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Endocrine System Diseases and Conditions - Polycystic Ovary Syndrome have been presented. According to news reporting originating from Kosice, Slovakia, by NewsRx correspondents, research stated, "Aim of this study was to evaluate the effect of vitamin D supplementation in obese, insulin resistant and vitamin D deficient PCOS women on biochemical and clinical hyperandrogenism and menstrual irregularity in comparison to effect of metformin or combined metformin plus vitamin D therapy. Thirty nine PCOS women were randomized into three groups and treated with alfacalcidiol (Group 1), combined alfacalcidiol and metformin therapy (Group 2) and metformin (Group 3) for 6 months."

Our news editors obtained a quote from the research from Safarik University, "Serum TST, fTST, DHEAS, LH and LH/FSH were measured before and after six months of treatment. Menstrual cycle regularity, hirsutism, acne and pregnancy rate were assessed at the same time. There was a significant decrease in TST levels in the Group 2 and slight but not significant decrease in the Group 3. No significant changes in other parameters (fTST, DHEAS, LH, LH/FSH) have been found after 6 months therapy in all three groups. An improvement of menstrual cycle was detected in 78 % of patients in Group 1 (p <0.04), 80 % in the Group 2 (p <0.03) and in 90 % in the Group 3 (p <0.002), respectively. There was no significant improvement of acne and hirsutism in all three groups (all p not significant). Pregnancy rate was higher in the Group 3 as compared with Groups 1 and 2 (67 % vs. 0 % and 25 %, respectively), however without statistical significance. Vitamin D administration has no significant effect on androgen levels and clinical features of hyperandrogenism in obese vitamin D deficient PCOS women."

According to the news editors, the research concluded: "However, it can potentiate effect of metformin on testosterone levels and LH/FSH ratio but not on clinical hyperandrogenism and pregnancy rate."

For more information on this research see: The Effect of Alfacalcidiol and Metformin on Phenotype Manifestations in Women with Polycystic Ovary Syndrome - a Preliminary Study. *Physiological Research*, 2016;65(5):815-822. *Physiological Research* can
Findings from Sahmyook University Provides New Data about Drug Delivery Systems (On-Demand Drug Delivery System Using Micro-organogels with Gold Nanorods)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Delivery Systems have been published. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "In this study, we designed a biocompatible drug carrier: micro-organogels prepared by emulsification using vegetable oils and self-assembled gelator fibers."

Financial support for this research came from National Research Foundation of Korea.

Our news journalists obtained a quote from the research from Sahmyook University, "Flurbiprofen was chosen as a hydrophobic model drug and is classified as a nonsteroidal anti-inflammatory drug. In the absence of NIR light, flurbiprofen encapsulated in micro-organogels with gold nanorods (GNRs) was released slowly, while release was accelerated in the presence of NIR light due to the increase in the temperature surrounding the GNRs that transforms the gels into liquid."

According to the news editors, the research concluded: "These results suggest that our system can be efficiently used as a versatile scaffold for on-demand drug delivery systems."


Our news journalists report that additional information may be obtained by contacting M.H. Park, Sahmyook Univ, Dept. of Chem, Seoul 01795, South Korea. Additional authors for this research include S. Yang, J.Y. Kang and M.H. Park.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsmedchemlett.6b00293. This DOI is a link to an online electronic
Findings from Saitama Medical University Broaden Understanding of Human Genetics (HDR: a statistical two-step approach successfully identifies disease genes in autosomal recessive families)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics - Human Genetics. According to news reporting originating from Saitama, Japan, by NewsRx correspondents, research stated, "In the search for sequence variants underlying disease, commonly applied filtering steps usually result in a number of candidate variants that cannot further be narrowed down. In autosomal recessive families, disease usually occurs only in one generation so that genetic linkage analysis is unlikely to help."

Our news editors obtained a quote from the research from Saitama Medical University, "Because homozygous recessive mutations tend to be inherited together with flanking homozygous variants, we developed a statistical method to detect pathogenic variants in autosomal recessive families: We look for differences in patterns of homozygosity around candidate variants between patients and control individuals and expect that such differences are greater for pathogenic variants than random candidate variants. In six autosomal recessive mitochondrial disease families, in which pathogenic homozygous variants have already been identified, our approach succeeded in prioritizing pathogenic mutations."

According to the news editors, the research concluded: "Our method is applicable to single patients from recessive families with at least a few dozen control individuals from the same population; it is easy to use and is highly effective for detecting causative mutations in autosomal recessive families."


The news editors report that additional information may be obtained by contacting Y. Okazaki, Saitama Med Univ, Res Center Genom Med, Div Funct Genom & Syst Med, Saitama, Japan. Additional authors for this research include M. Kohda, A. Nakaya, Y. Sakata, K. Murayama, A. Ohtake, M. Lathrop, Y. Okazaki and J. Ott.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/jhg.2016.85. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Saitama, Japan, Asia, Human Genetics, Genetics, Genetics, Saitama Medical University.
Liver Diseases and Conditions - Hepatitis C Virus

Findings from Saitama Medical University Provide New Insights into Hepatitis C Virus (Development of rare resistance-associated variants that are extremely tolerant against NS5A inhibitors during daclatasvir/asunaprevir therapy by a two-hit ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Hepatitis C Virus have been published. According to news reporting out of Saitama, Japan, by NewsRx editors, research stated, "The virologic characteristics of resistance-associated variants (RAVs) developing in patients receiving dual oral therapy with daclatasvir/asunaprevir, including those with previous triple therapy with simeprevir, were evaluated. A total of 206 patients with genotype-1b HCV infection, including 5 patients with previous simeprevir therapy, were treated with daclatasvir/asunaprevir for 24 weeks."

Our news journalists obtained a quote from the research from Saitama Medical University, "Resistance-associated variants in the NS5A regions at baseline and during/after therapy were evaluated using cycling-probe real-time polymerase chain reaction combined with direct sequencing. The dynamics of rare RAVs were also assessed using ultra-deep sequencing. A sustained virologic response (SVR12) was achieved in 180 patients (87%); the rates were 95% in patients without baseline NS5A-RAVs and 83%, 59%, and 77% in those with hepatitis C virus (HCV) strains carrying NS5A-L31M, NS5A-Y93H/C, and NS5A-R30Q/H/L mutations, respectively. A multivariate analysis revealed baseline NS5A-R30Q/H/L mutation and NS5A-Y93H mutations as significant factors associated with SVR12. Virologic failure developed in all 5 patients with previous simeprevir treatment, and rare RAVs (HCV strains with NS5A-R30H, NS5A-A92K, NS5A-P29del, and NS5A-P32del) developed at virologic failure. Ultra-deep sequencing revealed that HCV strains with NS5AP29del or NS5A-P32del were absent at baseline and emerged within 4 weeks of dual oral therapy among the strains appearing after simeprevir administration. NS5A-R30Q/H/L and NS5A-Y93H mutations at baseline determined the therapeutic efficacy of dual oral therapy with daclatasvir/asunaprevir, but rare NS5A-RAVs developed frequently in patients with previous simeprevir treatment."

According to the news editors, the research concluded: "Such RAVs may develop in a two-hit manner, with simeprevir altering the quasispecies of HCV strains in the NS5A regions, leading to the emergence of HCV strains with NS5A-P29del and NS5A-P32del during exposure to daclatasvir/asunaprevir."

For more information on this research see: Development of rare resistance-associated variants that are extremely tolerant against NS5A inhibitors during daclatasvir/asunaprevir therapy by a two-hit mechanism. Hepatology Research, 2016;46 (12):1234-1246. Hepatology Research can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Elsevier - www.elsevier.com; Hepatology Research - www.journals.elsevier.com/hepatology-research/)

Our news journalists report that additional information may be obtained by contacting S. Mochida, Saitama Med Univ, Dept. of Gastroenterol & Hepatol, Fac Med, Moroyama, Saitama 3500495, Japan. Additional authors for this research include J. Kouyama, K. Naiki, K. Sugawara, M. Inao, Y. Imai, N. Nakayama and S. Mochida.
Heart Disorders and Diseases - Cardiogenic Shock

Findings from San Gerardo Hospital Broaden Understanding of Cardiogenic Shock (Effects of Levosimendan on Endothelial Function and Hemodynamics During Weaning From Veno-Arterial Extracorporeal Life Support)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Cardiogenic Shock. According to news reporting from Monza, Italy, by NewsRx journalists, research stated, "Weaning from veno-arterial extracorporeal life support is challenging. The objective of this trial was to investigate the endothelial and hemodynamic effects of levosimendan in cardiogenic shock patients supported with veno-arterial extracorporeal life support."

The news correspondents obtained a quote from the research from San Gerardo Hospital, "This was a prospective observational trial. Cardiovascular intensive care unit of a large tertiary care university hospital in Monza, Italy. Flow-mediated dilatation of the brachial artery and hemodynamic parameters were assessed in 10 cardiogenic shock patients supported with veno-arterial extracorporeal life support, before and after the infusion of levosimendan. Flow-mediated dilatation increased both as absolute value and as a percentage after levosimendan, from 0.10 +/- 0.12 to 0.61 +/- 0.21 mm (p < 0.001) and from 3.2 +/- 4.2% to 17.8 +/- 10.4% (p < 0.001), respectively. Cardiac index increased from 1.93 +/- 0.83 to 2.64 +/- 0.97 L/min/m(2) (p = 0.008) while mixed venous oxygen saturation increased from 66.0% to 71.5% (p = 0.006) and arterial lactate levels decreased from 1.25 to 1.05 mmol/L (p = 0.004) without significant variations in arterial oxygen saturation or hemoglobin levels. This made it possible for clinicians to reduce extracorporeal membrane oxygenation blood flow from 1.92 +/- 0.65 to 1.12 +/- 0.49 L/min/m(2) (p < 0.001)."

According to the news reporters, the research concluded: "In the authors' study population of adult cardiogenic shock patients supported with veno-arterial extracorporeal life support, their observations supported the use of levosimendan to improve endothelial function and hemodynamics and facilitate weaning from the extracorporeal support."


Our news journalists report that additional information may be obtained by contacting F. Sangalli, San Gerardo Hosp, Dept. of Anesthesia & Intens Care Med, Monza,
Italy. Additional authors for this research include L. Avalli, M. Laratta, F. Formica, E. Maggioni, R. Caruso, M.C. Costa, M. Guazzi and R. Fumagalli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.jvca.2016.03.139. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Monza, Italy, Europe, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Heart Disorders and Diseases, Cardiogenic Shock, Hemodynamics, San Gerardo Hospital.

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Oncology - Epithelial Cancer

Findings from Sapienza-University Broaden Understanding of Epithelial Cancer [Interleukin-15 enhances cytokine induced killer (CIK) cytotoxic potential against epithelial cancer cell lines via an innate pathway]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Epithelial Cancer are discussed in a new report. According to news reporting out of Rome, Italy, by NewsRx editors, research stated, "CIK cells are a subset of effector lymphocytes endowed with a non-MHC restricted anti-tumor activity making them an appealing and promising cell population for adoptive immunotherapy. CIK are usually generated ex-vivo by initial priming with Interferon-gamma (IFN-gamma) and monoclonal antibody against CD3 (anti-CD3), followed by culture in medium containing Interleukin-2 (IL-2)."

Financial support for this research came from Ministero dell’Istruzione, dell’Università e della Ricerca.

Our news journalists obtained a quote from the research from Sapienza-University, "Interleukin-15 (IL-15) shares with IL-2 similar biological functions and recently it has been reported to induce CIK with increased anti leukemic potential. The aim of the study was to compare the killing efficacy of CIK generated by IL-2 alone or IL-2 and IL-15 toward tumor targets of different origins, leukemic cells and malignant cells from epithelial solid tumors. CIK bulk cultures were examined for cell proliferation, surface phenotype and cytotoxic potential against tumor cell lines K562, HL60, HeLa and MCF-7. The results showed that IL-15 is able to induce a selective expansion of CIK cells, but it is less effective in sustaining CIK cell proliferation compared to IL-2."

According to the news editors, the research concluded: "Conversely, our data confirm and reinforce the feature of IL-15 to induce CIK cells with a potent cytotoxic activity mostly against tumor cells from epithelial solid malignancies via NKG2D-mediated mechanism."

For more information on this research see: Interleukin-15 enhances cytokine induced killer (CIK) cytotoxic potential against epithelial cancer cell lines via an innate pathway. Human Immunology, 2016;77(12):1239-1247. Human Immunology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

Our news journalists report that additional information may be obtained by contacting L. Pierelli, Sapienza Univ, Dept. of Expt Med, Rome, Italy. Additional authors for
this research include D. Fioravanti, E. Cicchetti, I.G. Zizzari, A. Pandolfi, R. Scocchera, R. Fazzina and L. Pierelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.humimm.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Intercellular Signaling Peptides and Proteins, Cell Proliferation, Immunology, Epithelial Cancer, Interleukin-15, Interleukins, Cytokines, Cell Line, Oncology, Leukemia, Sapienza-University.

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Oncology - Breast Cancer

Findings from Sarah Cannon Research Institute Provide New Insights into Breast Cancer (Ramucirumab With Eribulin Versus Eribulin in Locally Recurrent or Metastatic Breast Cancer Previously Treated With Anthracycline and Taxane Therapy: A ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting out of Nashville, Tennessee, by NewsRx editors, research stated, "We describe the efficacy and safety of ramucirumab with eribulin versus eribulin monotherapy as third-to fifth line therapy in women with advanced breast cancer. The primary end point of progression-free survival was not met."

Our news journalists obtained a quote from the research from Sarah Cannon Research Institute, "Screening for brain metastases upon trial entry showed an unanticipated prevalence of asymptomatic brain disease, raising new considerations for screening in late-stage metastatic breast cancer irrespective of HER2 or hormone receptor status. Use of antiangiogenic agents in treatment of metastatic breast cancer (MBC) remains controversial. We evaluated the efficacy and safety of ramucirumab and eribulin versus eribulin alone as third-to fifth-line therapy in women with advanced breast cancer. In this randomized (1:1), open-label, phase II study, US women aged 18 years or older with 2 to 4 previous chemotherapy regimens for locally recurrent or MBC, previous anthracycline and taxane treatment, and Eastern Cooperative Oncology Group performance status of 0 or 1 received ramucirumab with eribulin or eribulin alone in 21-day cycles (eribulin 1.4 mg/m(2) intravenously on days 1 and 8; ramucirumab 10 mg/kg intravenously on day 1). Randomization was stratified according to previous antiangiogenic therapy and triple-negative status. The primary end point was progression-free survival (PFS) in the intention to treat population. One hundred forty-one women were randomized to ramucirumab with eribulin (n = 71) or eribulin alone (n = 70). Median PFS for ramucirumab with eribulin was 4.4 months (95% confidence interval [CI], 3.1-6.7) compared with 4.1 months (95% CI, 3.2-5.6) for eribulin (hazard ratio [HR], 0.83; 95% CI, 0.56-1.23; P =.35). Median overall survival in patients who received ramucirumab with eribulin was 13.5 months (95% CI, 10.4-17.9) compared with 11.5 months (95% CI, 9.0-17.3) in patients who received eribulin alone (HR, 0.91; 95% CI, 0.59-1.41; P =.68); objective response rate was 21% (13 of 62 patients) for the combination and 28% (17 of 60 patients) for eribulin alone. No unexpected toxicity was identified for the combination."

According to the news editors, the research concluded: "Ramucirumab combined
with eribulin did not significantly improve PFS in advanced MBC."

For more information on this research see: Ramucirumab With Eribulin Versus Eribulin in Locally Recurrent or Metastatic Breast Cancer Previously Treated With Anthracycline and Taxane Therapy: A Multicenter, Randomized, Phase II Study. *Clinical Breast Cancer*, 2016;16(6):471-479. *Clinical Breast Cancer* can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA. (Elsevier - www.elsevier.com; Clinical Breast Cancer - www.journals.elsevier.com/clinical-breast-cancer/)


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Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Clinical Trials and Studies, Metastatic Breast Cancer, Clinical Research, Anthracyclines, Women's Health, Hydrocarbons, Naphthacenes, Oncology, Therapy, Sarah Cannon Research Institute.

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**Apoptosis**

**Findings from Sathyabama University Yields New Data on Apoptosis (Pectin mediated gold nanoparticles induces apoptosis in mammary adenocarcinoma cell lines)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Apoptosis. According to news reporting originating from Tamil Nadu, India, by NewsRx correspondents, research stated, "Pectin and its several modified forms have shown remarkable impact in therapeutic use against various cancers. In the present study, pectin, an anionic polysaccharide isolated from Musa paradisiaca is employed for the synthesis of gold nanoparticles at ambient temperature conditions."

Our news editors obtained a quote from the research from Sathyabama University, "The synthesized nanoparticles were characterized using microscopic and spectroscopic studies and its anti-cancer potential was evaluated in mammary adenocarcinoma cell lines MCF-7 and MDA-MB-231. Apoptosis induction was evident from increase in sub-G1 population studied using flow cytometry analysis. DNA damage followed by cell death in pectin mediated gold nanoparticles (p-GNPs) treated cells was confirmed by Comet assay."

According to the news editors, the research concluded: "Uptake of p-GNPs by cancer cells (MCF-7 and MDA-MB-231) was analyzed using FE-SEM which revealed the presence of p-GNPs as aggregates over the surface of cells with loss in cellular integrity compared to control cells."

For more information on this research see: Pectin mediated gold nanoparticles

The news editors report that additional information may be obtained by contacting K. Govindaraju, Sathyabama Univ, Nanosci Div, Center Ocean Res, Madras 600119, Tamil Nadu, India. Additional authors for this research include K. Govindaraju, V.G. Kumar, V. Karthick and K. Parthasarathy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.08.086. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tamil Nadu, India, Asia, Emerging Technologies, Gold Nanoparticles, Adenocarcinoma, Nanotechnology, Apoptosis, Cell Line, Genetics, Sathyabama University.

Our news journalists report that additional information may be obtained by contacting M. Janitz, Univ New South Wales, Sch Biotechnol & Biomol Sci, Sydney, NSW 2052, Australia. Additional authors for this research include B.J. Chen, S.C. Modesitt, F.L. Byrne, K.L. Hoehn and M. Janitz.

The direct object identifier (DOI) for that additional information is:
Findings from School of Medicine Broaden Understanding of Biochemistry (MAGI-1 Interacts with Nephrin to Maintain Slit Diaphragm Structure through Enhanced Rap1 Activation in Podocytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Chemistry - Biochemistry have been published. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "MAGI-1 is a multidomain cytosolic scaffolding protein that in the kidney is specifically located at the podocyte slit diaphragm, a specialized junction that is universally injured in proteinuric diseases. There it interacts with several essential molecules, including nephrin and nephl, which are required for slit diaphragm formation and as an intracellular signaling hub."

Funders for this research include National Institute of Diabetes and Digestive and Kidney Diseases, European Research Council, Bundesministerium fur Bildung und Forschung, Deutsche Forschungsgemeinschaft.

Our news journalists obtained a quote from the research from the School of Medicine, "Here, we show that diminished MAGI-1 expression in cultured podocytes reduced nephrin and nephl membrane localization and weakened tight junction integrity. Global magil knock-out mice, however, demonstrated normal glomerular histology and function into adulthood. We hypothesized that a second mild but complementary genetic insult might induce glomerular disease susceptibility in these mice. To identify such a gene, we utilized the developing fly eye to test for functional complementation between MAGI and its binding partners. In this way, we identified diminished expression of fly Hibris (nephrin) or Roughbest (nephl) as dramatically exacerbating the effects of MAGI depletion. Indeed, when these combinations were studied in mice, the addition of nephrin, but not nephl, heterozygosity to homozygous deletion of MAGI-1 resulted in spontaneous glomerulosclerosis. In cultured podocytes, MAGI-1 depletion reduced intercellular contact-induced Rap1 activation, a pathway critical for proper podocyte function. Similarly, magi1 knock-out mice showed diminished glomerular Rap1 activation, an effect dramatically enhanced by concomitant nephrin haploinsufficiency. Finally, combined overexpression of MAGI-1 and nephrin increased Rap1 activation, but not when substituting a mutant MAGI-1 that cannot bind nephrin."

According to the news editors, the research concluded: "We conclude that the interaction between nephrin and MAGI-1 regulates Rap1 activation in podocytes to maintain long term slit diaphragm structure."

For more information on this research see: MAGI-1 Interacts with Nephrin to Maintain Slit Diaphragm Structure through Enhanced Rap1 Activation in Podocytes. Journal of Biological Chemistry, 2016;291(47):24406-24417,661. Journal of Biological Chemistry can
Findings from School of Medicine Broaden Understanding of Malignant Hypertension (Incidence and risk of hypertension in patients newly treated for multiple myeloma: a retrospective cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Malignant Hypertension. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Hypertension is commonly reported in multiple myeloma (MM) patients and may be associated with older age, disease-related complications and consequences of MM treatments. This study evaluated the incidence rates of and risk factors for hypertension and malignant hypertension in newly-treated MM patients in the United States."

The news correspondents obtained a quote from the research from the School of Medicine, "Newly-treated adult MM patients were identified from Truven MarketScan claims database from 1/1/05 to 3/31/14. Inclusion criteria were new diagnosis of MM with start of MM treatment, >= 12 months continuous enrollment prior to diagnosis, >= 30 days of continuous enrollment following initial diagnosis, and prescription drug coverage. Non-MM patients were matched for age (within +/-5 years), sex and distribution of index dates to MM patients. Baseline cardiovascular (CV) comorbidities, incidence rate of hypertension and malignant hypertension in the follow-up period, and risk of hypertension and malignant hypertension based on existing baseline CV comorbidities were evaluated. A total of 7895 MM patients (38% with hypertension history) and 23,685 non-MM patients (24% with hypertension history) were included in the study. Twenty-two percent of MM patients versus 3% of non-MM patients had baseline renal failure. A higher percentage of MM versus non-MM patients had baseline hypertension in combination with renal failure, congestive heart failure or both. The incidence rate of hypertension in MM and non-MM patients was 260 and 178 per 1000 person-years, respectively. There was a 30% increase in the risk of hypertension for MM versus non-MM patients: hazard ratio (HR) 1.30 (95% confidence interval [CI] 1.22, 1.37). In MM patients with a history of hypertension, the risk of malignant hypertension was significantly increased with the following comorbid conditions: cardiomyopathy, HR 2.79 (95% CI 1.20, 6.48); renal failure, HR 2.13 (95% CI 1.36, 3.34); and diabetes mellitus, HR 1.59 (95% CI 1.05, 2.39). This study
confirms that the incidence of hypertension and malignant hypertension is significantly higher in newly-treated MM versus non-MM patients. Hypertension is a risk factor for MM patients developing malignant hypertension."

According to the news reporters, the research concluded: "Management of CV comorbidities in MM patients is important based on the increased risk of hypertension and malignant hypertension among patients with these comorbidities."


Our news journalists report that additional information may be obtained by contacting A. Chari, Icahn Sch Med Mt Sinai, New York, NY 10029, United States. Additional authors for this research include K. Mezzi, S. Zhu, W. Werther, D. Felici and A.R. Lyon.

Keywords for this news article include: New York City, New York, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Cardiovascular Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Blood Protein Disorders, Malignant Hypertension, Systolic Hypertension, Hemorrhagic Disorders, Hemostatic Disorders, Risk and Prevention, Multiple Myeloma, Paraproteinemias, Nephrology, Hematology, Angiology, Oncology, Kidney, School of Medicine.

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**Nephrology**

**Findings from School of Medicine Broaden Understanding of Nephrology (Photothermal Ablation of in Situ Renal Tumor by PEG-IR780-C13 Micelles and Near-Infrared Irradiation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nephrology are presented in a new report. According to news reporting out of Nanjing, People's Republic of China, by NewsRx editors, research stated, "PEG-IR780-C13 micelles have been demonstrated to be a novel photothermal agent with tumor-targeting property. This study was designed to explore the feasibility of applying PEG-IR780-C13 micelles and near-infrared (NIR) irradiation for thermal ablation of renal tumor by using an in situ tumor model."

Funders for this research include Natural Science Foundation of Jiangsu Province, National Natural Science Foundation of China, Changzhou Biotechnology and Pharmaceutical Technology Special Project, Changzhou Special Project of Biotechnology and Biopharmacy.

Our news journalists obtained a quote from the research from the School of Medicine, "In addition, the potential thermal injury to normal renal tissue was evaluated. PEG-IR780-C13 micelles were intended to accumulate in renal tumor after systemic delivery. In vitro results revealed that PEG-IR780-C13 micelles were uptaken by RENCA cells mainly through caveola-mediated endocytosis and mainly distributed in late endosomes and lysosomes. Upon NIR irradiation, PEG-IR780-C13 micelles generated heat effectively both in vitro and in vivo, exhibiting a promising photothermal therapeutic property. The photothermal effect of PEG-
IR780-C13 micelles could effectively destroy RENCA cells in vitro and adequately inhibit growth of in situ renal tumor in vivo. Meanwhile, PEG-IR780-C13 micelles mediated photothermal therapy (PTT) resulting in only limited injury to normal renal tissue surrounding tumor sites."

According to the news editors, the research concluded: "Our data indicated that PEG-IR780-C13 micelles mediating PTT could generate tumor-specific heat for destruction of renal tumor in a minimally invasive way, providing a novel strategy for thermal ablation of renal tumor."


Our news journalists report that additional information may be obtained by contacting X. Qiu, State Key Laboratory of Pharmaceutical Biotechnology, Medical School of Nanjing University, Nanjing 210093, People's Republic of China. Additional authors for this research include L. Xu, Y. Zhang, A. Yuan, K. Wang, X. Zhao, J. Wu, H. Guo and Y. Hu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00734. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Kidney, Nanjing, Nephrology, People's Republic of China.

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Digestive System Diseases and Conditions - ...

Findings from School of Medicine Broadens Understanding of Sclerosing Cholangitis (The features of mucosa-associated microbiota in primary sclerosing cholangitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Digestive System Diseases and Conditions - Sclerosing Cholangitis are presented in a new report. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Little is known about the role of the microbiome in primary sclerosing cholangitis. To explore the mucosa-associated microbiota in primary sclerosing cholangitis (PSC) patients across different locations in the gut, and to compare it with inflammatory bowel disease (IBD)-only patients and healthy controls."

Financial supporters for this research include National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Chemotherapy Foundation, Helmsley Foundation.

The news reporters obtained a quote from the research from the School of Medicine, "Biopsies from the terminal ileum, right colon, and left colon were collected from patients and healthy controls undergoing colonoscopy. Microbiota profiling using bacterial 16S rRNA sequencing was performed on all biopsies. Forty-four patients were recruited: 20 with PSC (19 with PSC-IBD and one with PSC-only), 15 with IBD-only and nine healthy controls. The overall microbiome profile was similar throughout different locations in the gut. No differences in the global microbiome profile were found. However, we observed significant PSC-associated..."
enrichment in Barnesiellaceae at the family level, and in Blautia and an unidentified Barnesiellaceae at the genus level. At the operational taxa unit level, most shifts in PSC were observed in Clostridiales and Bacteroidales orders, with approximately 86% of shifts occurring within the former order. The overall microbiota profile was similar across multiple locations in the gut from the same individual regardless of disease status."

According to the news reporters, the research concluded: "In this study, the mucosa associated-microbiota of patients with primary sclerosing cholangitis was characterised by enrichment of Blautia and Barnesiellaceae and by major shifts in operational taxa units within Clostridiales order."


Our news correspondents report that additional information may be obtained by contacting J. Torres, Division of Gastroenterology, Dept. of Medicine, Icahn School of Medicine at Mount Sinai, New York, NY, United States. Additional authors for this research include X. Bao, A. Goel, J.F. Colombel, J. Pekow, B. Jabri, K.M. Williams, A. Castillo, J.A. Odin, K. Meckel, F. Fasihuddin, I. Peter, S. Itzkowitz and J. Hu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13552. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, United States, Gastroenterology, North and Central America, Inflammatory Bowel Disease, Primary Sclerosing Cholangitis, Biliary Diseases and Conditions, Bile Duct Diseases and Conditions, Biliary Tract Diseases and Conditions, Digestive System Diseases and Conditions.

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**Heart Disorders and Diseases - Heart Attack**

**Findings from School of Medicine Provide New Insights into Heart Attack (Amiodarone or nifekalant upon hospital arrival for refractory ventricular fibrillation after out-of-hospital cardiac arrest)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Attack are presented in a new report. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "We evaluated the association between nifekalant or amiodarone on hospital admission and in-hospital mortality for cardiac arrest patients with persistent ventricular fibrillation on hospital arrival. This was a retrospective cohort study using the Japanese Diagnosis Procedure Combination inpatient database."

Funders for this research include Ministry of Health, Labour and Welfare, Japan, Scientific Research, Japan.

Our news journalists obtained a quote from the research from the School of Medicine, "We identified 2961 patients who suffered cardiogenic out-of-hospital cardiac arrest and who had ventricular fibrillation on hospital arrival between July 2007 and March 2013. Patients were categorized into amiodarone (n = 2353) and nifekalant (n = 608) groups, from
which 525 propensity score-matched pairs were generated. We found a significant difference in the admission rate between the nifekalant and amiodarone groups in propensity score-matched groups (75.6% vs. 69.3%, respectively; difference, 6.3%; 95% confidence interval (CI), 0.9-11.7). An analysis using the hospital nifekalant/amiodarone rate as an instrumental variable found that receiving nifekalant was associated with an improved admission rate (22.2%, 95% CI, 11.9-32.4). We found no significant difference in in-hospital mortality between the nifekalant and amiodarone groups (81.5% vs. 82.1%, respectively; difference, -0.6%; 95% CI, -5.2 to 4.1). Instrumental variable analysis showed that receiving nifekalant was not associated with reduced in-hospital mortality (6.2%, 95% CI, -2.4 to 14.8). This nationwide study suggested no significant in-hospital mortality association between nifekalant and amiodarone for cardiogenic out-of-hospital cardiac arrest patients with ventricular fibrillation/persistent ventricular tachycardia on hospital arrival."

According to the news editors, the research concluded: "Although nifekalant may potentially improve hospital admission rates compared with amiodarone for these patients, further studies are required to confirm our results."


Our news journalists report that additional information may be obtained by contacting T. Tagami, Tama Nagayama Hosp, Nippon Med Sch, Dept. of Emergency & Crit Care Med, Tama, Tokyo, Japan. Additional authors for this research include H. Matsui, S. Ishinokami, M. Oyanagi, A. Kitahashi, R. Fukuda, K. Unemoto, K. Fushimi and H. Yasunaga.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.08.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Heart Disorders and Diseases, Ventricular Fibrillation, Cardiac Arrhythmias, Cardiovascular, Cardiac Arrest, Heart Disease, Heart Attack, Cardiology, Hospital, School of Medicine.

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Breast Diseases and Conditions

Findings from School of Medicine Provides New Data about Breast Diseases and Conditions (Endothelial cell colony forming units derived from malignant breast diseases are resistant to tumor necrosis factor-alpha-induced apoptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Breast Diseases and Conditions. According to news reporting out of Taipei, Taiwan, by NewsRx editors, research stated, "Mobilisation of endothelial progenitor cells (EPCs) from the bone marrow is a crucial step in the formation of de novo blood vessels, and levels of peripheral blood EPCs have been shown to be elevated in certain malignant states. Using flow cytometry and a Hill-based colony forming unit (CFU) assay, the present study indicated that higher levels of CD34 and vascular
endothelial growth factor receptor 2 (VEGFR2) double-positive EPCs, as well as increased formation of endothelial cell colony-forming units (EC-CFUs) are associated with benign and malignant breast diseases, providing possible indicators for breast disease detection.

Our news journalists obtained a quote from the research from the School of Medicine, "Gene expression profiles revealed a genetic difference between CD34(+) VEGFR2 (+) EPCs and EC-CFUs. Decreased expression of tumour necrosis factor receptor 2 (TNFR2) signalling-related genes and inhibition of tumour necrosis factor (TNF)-induced signalling were demonstrated in EC-CFUs derived from patients with malignant breast disease in comparison with those from healthy controls."

According to the news editors, the research concluded: "Interestingly, our data provided the first evidence that EC-CFUs derived from patients with malignant breast disease were resistant to TNF-alpha-induced apoptosis, indicating a plausible target for future therapeutic interventions."

For more information on this research see: Endothelial cell colony forming units derived from malignant breast diseases are resistant to tumor necrosis factor-alpha-induced apoptosis. Scientific Reports, 2016;6():1-12. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting C.P. Chou, Natl Def Med Center, Sch Med, Taipei, Taiwan. Additional authors for this research include S.S. Jiang, H.B. Pan, Y.C. Yen, H.H. Tseng, Y.T. Hung, S.H. Wang, Y.L. Chen and Y.W. Chen.

Keywords for this news article include: Taipei, Taiwan, Asia, Skin and Connective Tissue Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Breast Diseases and Conditions, Skin Diseases and Conditions, Tumor Necrosis Factor-alpha, Tumor Necrosis Factors, Endothelial Cells, Membrane Proteins, Blood Proteins, Glycoproteins, Monokines, Cytokines, Apoptosis, Genetics, School of Medicine.

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Drugs and Therapies - Pharmaceutical Research

Findings from School of Medicine Provides New Data on Pharmaceutical Research (Immune checkpoint inhibitors for cancer treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmaceutical Research. According to news reporting originating in Daejeon, South Korea, by NewsRx journalists, research stated, "During immune responses antigen-specific T cells are regulated by several mechanisms, including through inhibitory receptors and regulatory T cells, to avoid excessive or persistent immune responses. These regulatory mechanisms, which are called 'immune checkpoints', suppress T cell responses, particularly in patients with chronic viral infections and cancer where viral antigens or tumor antigens persist for a long time and contribute to T cell exhaustion."

Financial supporters for this research include Ministry of Health and Welfare, National Research Foundation of Korea.
The news reporters obtained a quote from the research from the School of Medicine, "Among these regulatory mechanisms, cytotoxic T lymphocyte associated protein-4 (CTLA-4) and programmed cell death 1 (PD-1) are the most well-known receptors and both have been targeted for drug development. As a result, anti-CTLA-4 and anti-PD-1 (or anti-PD-L1) antibodies were recently developed as immune checkpoint inhibitors for use in cancer treatments."

According to the news reporters, the research concluded: "In this review we describe several receptors that function as immunological checkpoints as well as the pharmaceuticals that target them."

For more information on this research see: Immune checkpoint inhibitors for cancer treatment. *Archives of Pharmacal Research*, 2016;39(11):1577-1587. *Archives of Pharmacal Research* can be contacted at: Pharmaceutical Soc Korea, 1489-3 Suhcho-Dong, Suhcho-Ku, Seoul 137-071, South Korea. (Springer - www.springer.com; Archives of Pharmacal Research - www.springerlink.com/content/0253-6269/)

Our news correspondents report that additional information may be obtained by contacting E.C. Shin, Korea Adv Inst Sci & Technol, Grad Sch Med Sci & Engn, Lab Immunol & Infect Dis, Daejeon 34141, South Korea. Additional authors for this research include M. Kwon and E.C. Shin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12272-016-0850-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daejeon, South Korea, Asia, Pharmaceutical Research, Drugs and Therapies, Cancer, Article Review, Oncology, School of Medicine.

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showed significant values for differentiating CD from PIL included multiple-site lesions, longitudinal ulcer, irregular ulcer, and intraluminal proliferative mass (P < 0.05). The CTE parameters that were useful in the identification of the two conditions included involvement of <= 3 segments, circular thickening of the bowel wall, wall thickness > 8 mm, aneurysmal dilation, stricture with proximal dilation, 'comb sign', mass showing the 'sandwich sign', and intussusceptions (P < 0.05). The sensitivity, specificity, accuracy, positive predictive value, and negative predictive value of the differentiation model were 91.8%, 96.4%, 93.6%, 97.5%, and 88.5%, respectively. The cutoff value was 0.5. The area under the ROC curve was 0.989.

According to the news editors, the research concluded: "The differentiation model that integrated the various parameters together may yield a high diagnostic efficacy in the differential diagnosis between CD and PIL."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i42.9411. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphomas, Epidemiology, Gastroenterology, Crohn's Disease, Gastroenteritis, Hematology, Oncology, School of Medicine.

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**Lung Diseases and Conditions - Pneumonia**

**Findings from School of Medicine in Pneumonia Reported (Dual-seq transcriptomics reveals the battle for iron during Pseudomonas aeruginosa acute murine pneumonia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Pneumonia have been published. According to news reporting originating in Morgantown, West Virginia, by NewsRx journalists, research stated, "Determining bacterial gene expression during infection is fundamental to understand pathogenesis. In this study, we used dual RNA-seq to simultaneously measure P. aeruginosa and the murine host's gene expression and response to respiratory infection."
The news reporters obtained a quote from the research from the School of Medicine, "Bacterial genes encoding products involved in metabolism and virulence were differentially expressed during infection and the type III and VI secretion systems were highly expressed in vivo. Strikingly, heme acquisition, ferric-enterobactin transport, and pyoverdine biosynthesis genes were found to be significantly up-regulated during infection. In the mouse, we profiled the acute immune response to P. aeruginosa and identified the pro-inflammatory cytokines involved in acute response to the bacterium in the lung. Additionally, we also identified numerous host iron sequestration systems upregulated during infection."

According to the news reporters, the research concluded: "Overall, this work sheds light on how P. aeruginosa triggers a pro-inflammatory response and competes for iron with the host during infection, as iron is one of the central elements for which both pathogen and host fight during acute pneumonia."

For more information on this research see: Dual-seq transcriptomics reveals the battle for iron during Pseudomonas aeruginosa acute murine pneumonia. Scientific Reports, 2016;6():14-25. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting M. Barbier, West Virginia Univ, Sch Med, Dept. of Microbiol Immunol & Cell Biol, Morgantown, WV 26505, United States. Additional authors for this research include A.G. Oglesby-Sherrouse, A. Wilks and M. Barbier.

Keywords for this news article include: Morgantown, West Virginia, United States, North and Central America, Respiratory Tract Diseases and Conditions, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Lung Diseases and Conditions, Respiratory Tract Infections, Gram-Negative Bacteria, Pseudomonas aeruginosa, Gammaproteobacteria, Infectious Disease, Pseudomonadaceae, Proteobacteria, Pulmonology, Pneumonia, Genetics, School of Medicine.

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Proteins - Mitochondrial Proteins

Findings from School of Pharmacy Yields New Findings on Mitochondrial Proteins (Identification of small molecules that bind to the mitochondrial protein mitoNEET)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Mitochondrial Proteins. According to news reporting out of Morgantown, West Virginia, by NewsRx editors, research stated, "MitoNEET (CISD1) is a 2Fe-2S iron-sulfur cluster protein belonging to the zinc-finger protein family. Recently mitoNEET has been shown to be a major role player in the mitochondrial function associated with metabolic type diseases such as obesity and cancers."

Financial supporters for this research include Michael J. Fox Foundation for Parkinson’s Research, National Institute of General Medical Sciences.

Our news journalists obtained a quote from the research from the School of Pharmacy. "The anti-diabetic drug pioglitazone and rosiglitazone were the first identified ligands to mitoNEET. Since little is known about structural requirements for ligand binding to
mitoNEET, we screened a small set of compounds to gain insight into these requirements. We found that the thiazolidinedione (TZD) warhead as seen in rosiglitazone was not an absolutely necessity for binding to mitoNEET."

According to the news editors, the research concluded: "These results will aid in the development of novel compounds that can be used to treat mitochondrial dysfunction seen in several diseases."


Our news journalists report that additional information may be obtained by contacting W.J. Geldenhuys, West Virginia Univ, Sch Pharm, Dept. of Pharmaceut Sci, Morgantown, WV 26506, United States. Additional authors for this research include H.M. Yonutas, D.L. Morris, P.G. Sullivan, A.S. Darvesh and T.C. Leeper.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bmcl.2016.09.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Morgantown, West Virginia, United States, North and Central America, Mitochondrial Proteins, School of Pharmacy.

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**Gastroenterology**

**Findings from School of Science Reveals New Findings on Gastroenterology (3D engineered In vitro hepatospheroids for studying drug toxicity and metabolism)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gastroenterology is now available. According to news originating from Maharashtra, India, by NewsRx correspondents, research stated, "Drug toxicity is one of the reasons for late stage drug attrition, because of hepatotoxicity. Various in vitro liver models like primary human hepatocytes, immortalized human hepatic cell lines, liver slices and microsomes have been used; but limited by viability, hepatic gene expression and function."

Financial support for this research came from Jawaharlal Nehru Memorial Fund.

Our news journalists obtained a quote from the research from the School of Science, "The 3D-engineered construct of hepatocyte-like-cells (HLCs) differentiated from stem cells, may provide a limitless source of hepatocytes with improved reproducibility. Towards this end, we used hepatospheroids (diameter = 50-80 pm) differentiated from human-umbilical-cord-mesenchymal stem cells (hUC-MSCs) on 3D scaffold GEVAC (Gelatin-vinyl-acetate -copolymer) as in vitro model for studying drug metabolism/toxicity. Our data demonstrated that hUC-MSCs-derived-hepatospheroids cultured on GEVAC expressed significantly higher drug-metabolizing enzymes (CYPs) both at mRNA and activity level compared to 2D culture, using HR-LC/MS. We further showed that hepatospheroids convert phenacetin (by CYP1A2) and testosterone (by CYP3A4) to their human-specific metabolites acetaminophen and 6 beta-
hydroxytestosterone with a predictive clearance rate of 0.011 ml/h/10(6) cells and 0.021 ml/h/10 (6) cells respectively, according to first-order kinetics. Hepatotoxicity was confirmed by exposing hepatospheroids to ethanol and acetaminophen; ROS generation cell viability, cytoskeleton structure, elevation of liver function enzymes, i.e. AST and ALT, was analyzed.

According to the news editors, the research concluded: "To the best of our knowledge, this is the first report to use hUC-MSCs-derived-hepatospheroids on GEVAC in vitro model for drug metabolism/toxicity study; which can replace the conventional 2D-models used in drug development."


The news correspondents report that additional information may be obtained from A. Khanna, SVKMS NMIMS Deemed To Be Univ, Sunandan Divatia Sch Sci, Dept. of Biol Sci, Bombay 400056, Maharashtra, India. Additional authors for this research include P. Nair and A. Khanna.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tiv.2016.10.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maharashtra, India, Asia, Stem Cell Research, Drugs and Therapies, Gastroenterology, Engineering, School of Science. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
FISH. A subset of ESs (5/51) showed biallelic deletion of SMARCB1 with no overexpression of any miRNA, suggesting these tumors could be the counterpart of pediatric RT, at least genetically. Another subset (5/51) was genetically either intact or monoallelic deleted with at least threefold overexpression of one of miR-206,-381,-671-5p, suggesting epigenetic regulation only. 39/51 ESs had a biallelic deletion (>20% by FISH and/or by MLPA) but with overexpressed miR-206,-381, and 671-5p, suggesting intratumoral heterogeneity, i.e., both genetic and epigenetic regulation. At least threefold overexpression of one of miR-206,-381, and 671-5p was detected in all MPNSTs, EMCSs, SSs and 7 MCs. Except for ESs, four SSs and one MPNST, there was no event above threefold overexpression of miR-765 among all 195 tested tumors. Our results suggest a general role of miR-206,-381, and 671-5p in SMARCB1 gene silencing of ES, MC, EMCS, MPNST and SS.

According to the news reporters, the research concluded: "In the future, miR-765 could possibly be a diagnostic tool for ES because of its 97% specificity and 80% sensitivity."


Our news journalists report that additional information may be obtained by contacting Z. Sapi, Semmelweis University, Dept. of Pathol & Expt Canc Res, Budapest, Hungary. Additional authors for this research include G. Papp, M. Szendroi, Z. Papai, V. Plotar, T. Krausz and C.D.M. Fletcher.

Keywords for this news article include: Budapest, Hungary, Europe, Genetics and Cancer, Genetics, Semmelweis University.

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**Drugs and Therapies - Antifungals**

**Findings from Semmelweis University Reveals New Findings on Antifungals (Development and characterization of the voriconazole loaded lipid-based nanoparticles)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antifungals is now available. According to news reporting originating in Budapest, Hungary, by NewsRx journalists, research stated, "The number of topical fungal infections is growing, mostly owing to immunosuppressive therapy. Several topical fungal infections, such as eye mycoses, can be treated by local administration of antifungal drugs."

The news reporters obtained a quote from the research from Semmelweis University, "One major group of the antifungal agents is triazole, such as voriconazole (VCZ), which is used as the first line treatment of aspergillosis. A disadvantage of VCZ is its low water solubility making the drug difficult to administer in a liquid preparation. The lipid-based nanoparticles (LNP) have attracted increasing attention due to their advantageous properties. Contrarily to the conventional carrier systems, LNP can improve the poor solubility of topically used drugs, such as VCZ. Therefore, LNP represents promising alternatives to traditional carrier..."
systems. The aim of the study was to formulate VCZ loaded lipid-based nanoparticles (VCZ-LNP) by high pressure homogenization (HPH). The developed LNPs were characterized by particle size analysis, IR spectroscopy, differential scanning calorimetry, dialysis test and antifungal efficacy studies. The particle size of the optimized nanoparticles from the selected lipid base, Witepsol ® W35, was 182 +/- 4.1 nm after five cycles of homogenization at 600 bar."

According to the news reporters, the research concluded: "The antifungal study confirmed that the optimized VCZ-LNP inhibited the fungus reproduction."

For more information on this research see: Development and characterization of the voriconazole loaded lipid-based nanoparticles. *Journal of Pharmaceutical and Biomedical Analysis*, 2017;132():184-189. *Journal of Pharmaceutical and Biomedical Analysis* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Pharmaceutical and Biomedical Analysis - www.journals.elsevier.com/journal-of-pharmaceutical-and-biomedical-analysis/)

Our news correspondents report that additional information may be obtained by contacting I. Klebovich, Semmelweis University, Dept. of Pharmaceut, H-1092 Budapest, Hungary. Additional authors for this research include Z.E. Papay, K. Kovacs, B.D. Kiss, K. Ludanyi, I. Antal and I. Klebovich.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jpba.2016.09.047. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Budapest, Hungary, Europe, Emerging Technologies, Voriconazole Therapy, Drugs and Therapies, Azole Antifungals, Pharmaceuticals, Antinfectives, Nanotechnology, Nanoparticle, Semmelweis University.

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**Oncology - Esophageal Cancer**

**Findings from Seoul National University in the Area of Esophageal Cancer Described (Risk Factors for Local Recurrence and Optimal Length of Esophagectomy in Esophageal Squamous Cell Carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Esophageal Cancer is now available. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "The risk factors for local recurrence in residual esophagus after esophagectomy have not been well documented. This study aimed to identify risk factors of local recurrence and optimal length of esophageal resection in esophageal cancer."

The news correspondents obtained a quote from the research from Seoul National University. "Patients who underwent curative esophagectomy with more than 2 years of follow-up were included. Patients who received preoperative chemoradiation or in whom the ex vivo length of proximal margin (LPM) from resected tumor was not documented in the pathologic report were excluded. A total of 551 patients from January 1995 to February 2013 were included. Complete resection was possible in 516 patients (94%), and mean LPM was 3.4 +/- 2.5 cm. Sex, age, location of tumor, location of anastomosis, minimally invasive esophagectomy, three-field lymphadenectomy, cell type, differentiation, proximal resection
margin status, tumor size, number of dissected lymph nodes, and T stages were not risk factors for local recurrence in multivariate analysis. The N stage (p = 0.034) and LPM (p = 0.007) were risk factors for local recurrence in multivariate analysis. The LPM was not related to local recurrence in N0, but 5-year freedom from local recurrence was higher for LPM of 5 cm or greater in ND esophageal cancer (72% in LPM less than 5 cm versus 93% in LPM of 5 cm or greater, p = 0.040). Local recurrence after esophagectomy in esophageal cancer is related to lymphatic metastasis rather than to proximal margin status, which raises the possibility that the main mechanism of local recurrence is submucosal lymphatic metastasis."

According to the news reporters, the research concluded: "Esophagectomy with LPM more than 5 cm is recommended for esophageal cancer with nodal metastasis."


Our news journalists report that additional information may be obtained by contacting C.H. Kang, Seoul National University, Seoul National University, Coll Med, Dept. of Thorac & Cardiovasc Surg, Seoul, South Korea. Additional authors for this research include Y. Hwang, H.J. Lee, I.K. Park and Y.T. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.03.117. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Digestive System Surgical Procedures, Squamous Cell Carcinoma, Risk and Prevention, Esophageal Cancer, Gastroenterology, Esophagectomy, Carcinoma, Carcinomas, Oncology, Surgery, Seoul National University.

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Oncology - Carcinomas
Findings from Shandong Academy of Medical Sciences in the Area of Carcinomas Described (Differentiating Brain Metastases from Different Pathological Types of Lung Cancers Using Texture Analysis of T1 Postcontrast MR)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Carcinomas are discussed in a new report. According to news reporting from Jinan, People's Republic of China, by NewsRx journalists, research stated, "The goal of this study was to investigate the feasibility of differentiating brain metastases from different types of lung cancers using texture analysis (TA) of T1 postcontrast MR images. TA was performed, and four subset textures were extracted and calculated separately."

The news correspondents obtained a quote from the research from the Shandong Academy of Medical Sciences, "The capability of each texture to classify the different types of lung carcinoma was investigated using the Kruskal-Wallis test and receiver operating
characteristic analysis. K-nearest neighbor (KNN) classifier model and back-propagation artificial neural network (BP-ANN) classifier model were used to build models and improve the predictive ability of TA. Texture-based lesion classification was highly specific in differentiating brain metastases originated from different types of lung cancers, with misclassification rates of 3.1%, 4.3%, 5.8%, and 8.1%, respectively, for small cell lung carcinoma, squamous cell carcinoma, adenocarcinoma, and large cell lung carcinoma. The BP-ANN model had a better predictive ability than the KNN model. No texture feature could distinguish between all four types of lung cancer. TA may predict the differences among various pathological types of lung cancer with brain metastases."

According to the news reporters, the research concluded: "The texture parameters, which reflect the tumor histopathology structure, may serve as an adjunct tool for clinically accurate diagnoses and deserves further investigation."


Our news journalists report that additional information may be obtained by contacting B.S. Li, Shandong Academy Med Sci, Shandong Canc Hosp, Dept. of Radiat Oncol, Key Lab Radiat Oncl Shandong ProvChest Sect, Jinan, People's Republic of China. Additional authors for this research include Y. Mao, H.S. Li, G. Yu, H.L. Wan and B.S. Li.

Keywords for this news article include: Jinan, People's Republic of China, Asia, Lung Neoplasms, Lung Cancer, Carcinomas, Oncology, Shandong Academy of Medical Sciences.

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Chemistry - Chemistry and Materials Research

Findings from Shandong University Broaden Understanding of Chemistry and Materials Research (Multifunctional Mixed Micelles for Efficient Docetaxol Delivery for Cancer Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Chemistry - Chemistry and Materials Research. According to news reporting out of Shandong, People's Republic of China, by NewsRx editors, research stated, "The objective of this study was to build mixed micelles based on two functional co-polymers, including the redox-sensitive polymer-drug conjugate methoxy poly(ethylene glycol)-poly(2-benzyl l-glutamate)-disulfide-docetaxel (PEG-PBLG-SS-SS-DTX) and the actively targeting methoxy poly(ethylene glycol)-folic acid (PEG-FA), for enhanced target specificity and improved anticancer efficiency of docetaxel (DTX). The spherical PEG-PBLG-SS-SS-DTX/PEG-FA mixed micelles prepared by the dialysis method revealed a narrowly distributed size at 129.7 +/- 2.1nm with low polydispersity of 0.10 +/- 0.02."

Financial supporters for this research include National Natural Science Foundation of China, NSFC.

Our news journalists obtained a quote from the research from Shandong University,
"Furthermore, the critical micelle concentration of the mixed micelles was 5.08gmL(-1), indicating excellent self-assembly ability in water and stability against dilution in blood circulation. The invitro release study revealed that the conjugated DTX was rapidly released in response to dl-dithiothreitol (DTT), a reducing agent. Only 12.3% of DTX was released from the mixed micelles after 120h in the absence of DTT. However, the accumulative release of DTX dramatically accelerated and reached more than 40% in 120h after addition of DTT. The invitro cytotoxicity, cellular uptake and cell apoptosis experiments on the mixed micelles were performed using MTT assay, fluorescence inverted microscopy and flow cytometric analysis, and 4,6-diamidino-2-phenylindole (DAPI) staining, respectively, on folate receptor (FR)-negative A549 and FR-positive MCF-7 cells. The mixed micelles could be taken up efficiently by MCF-7 cells by FR-mediated endocytosis compared with PEG-PBLG-SS-DTX micelles. Furthermore, remarkable cytotoxicity and cell apoptosis were identified for the mixed micelles against MCF-7 cells, which was consistent with the results of the cellular uptake study."

According to the news editors, the research concluded: "On the basis of these results, the redox-sensitive PEG-PBLG-SS-DTX/PEG-FA mixed micelles using FA as a targeting ligand revealed prominent antitumor efficiency and might be a latent drug carrier for cancer chemotherapy."


Our news journalists report that additional information may be obtained by contacting Y.X. Luan, Shandong University, Sch Pharmaceut Sci, Jinan 250012, Shandong, People's Republic of China. Additional authors for this research include W.X. He, H.Y. Zhang, C.Z. Huang, D.J. Zhao and Y.X. Luan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cplu.201600363. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Chemistry and Materials Research, Chemistry, Oncology, Therapy, Cancer, Shandong University.

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Cardiovascular Diseases and Conditions - Thrombosis

Findings from Shandong University Update Understanding of Thrombosis (Neoadjuvant Transcatheter Arterial Chemoembolization For Biliary Tumor Thrombosis: A Retrospective Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Thrombosis. According to news reporting from Shandong, People's Republic of China, by NewsRx journalists, research stated, "Curative hepatectomy and tumor thrombectomy for hepatocellular carcinoma with complicating biliary tumor thrombosis (HCC/BTT) is associated with high surgical morbidity and mortality. This retrospective study evaluated the effectiveness
and safety of neoadjuvant transcatheter arterial chemoembolization (TACE) in HCC/BTT patients scheduled for curative resection."

The news correspondents obtained a quote from the research from Shandong University, "Thirty consecutive patients with diagnosed HCC/BTT were hospitalized for neoadjuvant TACE and elective curative liver resection (group A; n = 20) or curative liver resection alone (group B; n = 10). The primary outcome measure was median survival. Group A had a significantly shorter overall operative time (160 +/- 25 versus 190 +/- 35 min; p<.01) and duration of inflow control (14.3 +/- 3.6 versus 25.1 +/- 5.1 min; p<.01) and significantly less intraoperative blood loss (150 +/- 35 versus 520 +/- 75 ml; p<.01) and transfusion (100 +/- 40 versus 375 +/- 55 ml; p<.01) as compared to group B. Among patients undergoing both thrombectomy and curative resection, the median survival of group A was significantly longer than that of group B (28.5 [9-54] versus 21.5 [6-39] months; p<.01); among those who received thrombectomy alone, the median survival of group A was also significantly longer than that of group B (12.8 [6-25] versus 4.5 [2-7] months; p<.01)."

According to the news reporters, the research concluded: "Neoadjuvant TACE significantly reduced the surgical risk of curative liver resection and significantly prolonged median survival in HCC patients with complicating BTT."


Our news journalists report that additional information may be obtained by contacting H. Tian, Shandong University, Shandong Academy Med Sci, Shandong Canc Hosp, Jinan, Shandong, People's Republic of China. Additional authors for this research include P. Li, K. Cui, Z.D. Wang, F.C. Yu, H. Tian and S. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S0266462316000374. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Chemoembolization, Gastroenterology, Liver Resection, Thrombectomy, Hepatology, Hematology, Surgery, Shandong University.

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**Enterovirus**

**Findings from Shandong University Yields New Data on Enterovirus (In Vitro Assessment of Combinations of Enterovirus Inhibitors against Enterovirus 71)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enterovirus have been published. According to news reporting originating in Qingdao, People's Republic of China, by NewsRx journalists,
research stated, "Enterovirus 71 (EV-A71) is a major causative pathogen of hand, foot, and mouth disease (HFMD) epidemics. No antiviral therapies are currently available for treating EV-A71 infections."

Financial supporters for this research include National Natural Science Foundation of China (NSFC), Science and Technology Commission of Shanghai Municipality (STCSM).

The news reporters obtained a quote from the research from Shandong University, "Here, we selected five reported enterovirus inhibitors (suramin, itraconazole [ITZ], GW5074, rupintrivir, and favipiravir) with different mechanisms of action to test their abilities to inhibit EV-A71 replication alone and in combination. All selected compounds have anti-EV-A71 activities in cell culture. The combination of rupintrivir and ITZ or favipiravir was synergistic, while the combination of rupintrivir and suramin was additive. The combination of suramin and favipiravir exerted a strong synergistic antiviral effect. The observed synergy was not due to cytotoxicity, as there was no significant increase in cytotoxicity when compounds were used in combinations at the tested doses. To investigate the potential inhibitory mechanism of favipiravir against enterovirus, two favipiravir-resistant EV-A71 variants were independently selected, and both of them carried an S121N mutation in the finger subdomain of the 3D polymerase. Reverse engineering of this 3D S121N mutation into an infectious clone of EV-A71 confirmed the resistant phenotype. Moreover, viruses resistant to ITZ or favipiravir remained susceptible to other inhibitors. Most notably, combined with ITZ, rupintrivir prevented the development of ITZ-resistant variants."

According to the news reporters, the research concluded: "Taken together, these results provide a rational basis for the design of combination regimens for use in the treatment of EV-A71 infections."

For more information on this research see: In Vitro Assessment of Combinations of Enterovirus Inhibitors against Enterovirus 71. Antimicrobial Agents and Chemotherapy, 2016;60(9):5357-5367. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting R. Altmeyer, Shandong University, Shandong Univ Helmholtz Inst Biotechnol, Qingdao, People's Republic of China. Additional authors for this research include G.M. Li, S.L. Yuan, Q.Q. Gao, K. Lan, R. Altmeyer and G. Zou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01073-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Qingdao, People's Republic of China, Asia, RNA Viruses, Epidemiology, Picornaviridae, Enterovirus, Virology, Genetics, Viral, Shandong University.

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Cyclohydrolase 1 in Vivo

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Hyperglycemia have been published. According to news reporting from Shandong, People's Republic of China, by NewsRx journalists, research stated, "GTP cyclohydrolase 1 (GCH1) deficiency is critical for endothelial nitric oxide synthase uncoupling in endothelial dysfunction. MicroRNAs (miRs) are a class of regulatory RNAs that negatively regulate gene expression."

The news correspondents obtained a quote from the research from Shandong University, "We investigated whether statins prevent endothelial dysfunction via miR-dependent GCH1 upregulation. Endothelial function was assessed by measuring acetylcholine-induced vasorelaxation in the organ chamber. MiR-133a expression was assessed by quantitative reverse transcription polymerase chain reaction and fluorescence in situ hybridization. We first demonstrated that GCH1 mRNA is a target of miR-133a. In endothelial cells, miR-133a was robustly induced by cytokines/oxidants and inhibited by lovastatin. Furthermore, lovastatin upregulated GCH1 and tetrahydrobiopterin, and recoupled endothelial nitric oxide synthase in stressed endothelial cells. These actions of lovastatin were abolished by enforced miR-133a expression and were mirrored by a miR-133a antagonim. In mice, hyperlipidemia- or hyperglycemia-induced ectopic miR-133a expression in the vascular endothelium, reduced GCH1 protein and tetrahydrobiopterin levels, and impaired endothelial function, which were reversed by lovastatin or miR-133a antagonim. These beneficial effects of lovastatin in mice were abrogated by in vivo miR-133a overexpression or GCH1 knockdown. In rats, multiple cardiovascular risk factors including hyperglycemia, dyslipidemia, and hyperhomocysteinemia resulted in increased miR-133a vascular expression, reduced GCH1 expression, uncoupled endothelial nitric oxide synthase function, and induced endothelial dysfunction, which were prevented by lovastatin. Statin inhibits aberrant miR-133a expression in the vascular endothelium to prevent endothelial dysfunction by targeting GCH1."

According to the news reporters, the research concluded: "Therefore, miR-133a represents an important therapeutic target for preventing cardiovascular diseases."

For more information on this research see: Inhibition of Aberrant MicroRNA-133a Expression in Endothelial Cells by Statin Prevents Endothelial Dysfunction by Targeting GTP Cyclohydrolase 1 in Vivo. Circulation, 2016;134(22):1752-1765. Circulation can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.


Keywords for this news article include: Shandong, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Angiology, Risk and Prevention, Glucose Metabolism Disorders, Antihyperlipidemic Agents, Enzymes and Coenzymes, Drugs and Therapies, Lovastatin Therapy, GTP Cyclohydrolase, Endothelial Cells, Pharmaceuticals, Aminohydrolases, Cardiovascular, Hyperglycemia, Nitric Oxide, Hydrocarbons, Naphthalenes, Endothelium, Cardiology, Chemicals, Synthase, Genetics, Shandong University.

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Findings from Shandong University in the Area of Esophageal Cancer Described (Longitudinal, observational study on associations between postoperative nutritional vitamin D supplementation and clinical outcomes in esophageal cancer patients ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Esophageal Cancer is now available. According to news reporting from Shandong, People's Republic of China, by NewsRx journalists, research stated, "Vitamin D can exert anticancer effect beyond bone and calcium metabolism. We aimed to investigate whether postoperative vitamin D supplementation affects quality of life (QOL) and survival in esophageal cancer (EC) patients."

The news correspondents obtained a quote from the research from Shandong University, "We utilized the widely used EORTC QLQ-C30 and QLQ-OES18 to assess QOL at EC diagnosis and 24 months after surgery. Generalized estimating equations (GEEs) were used to analyze the association of vitamin D supplement use with QOL. Kaplan-Meier method and Cox regression model were used to evaluate the prognostic value of vitamin D supplementation. The notably improved QOL were found among vitamin D supplementation users compared with non-users (p < 0.05). Kaplan-Meier analysis revealed that vitamin D supplement use was significantly associated with improved disease-free survival (DFS) (p = 0.030), but not related to overall survival (OS) (p = 0.303). The multivariable analysis further demonstrated vitamin D supplement use as an independent prognostic factor for DFS (p = 0.040; HR 0.610; 95% CI 0.381-0.978)."

According to the news reporters, the research concluded: "These results showed that vitamin D supplement use could serve as a promising intervention to enhancing QOL and prolonging DFS in EC."

For more information on this research see: Longitudinal, observational study on associations between postoperative nutritional vitamin D supplementation and clinical outcomes in esophageal cancer patients undergoing esophagectomy. *Scientific Reports*, 2016;6():1-10. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting Y.F. Cheng, Shandong University, Qilu Hosp, Dept. of Radiat Oncol, Jinan, Shandong, People's Republic of China. Additional authors for this research include C. Wang, J.F. Wang, X.C. Huang and Y.F. Cheng.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Digestive System Surgical Procedures, Clinical Trials and Studies, Clinical Research, Esophageal Cancer, Gastroenterology, Esophagectomy, Oncology, Surgery, Shandong University.

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Oncology - Oral Squamous Cell Carcinoma

Findings from Shanghai Jiao-Tong University Broaden Understanding of Oral Squamous Cell Carcinoma (Overexpression of stathmin/oncoprotein 18 correlates with poorer prognosis and interacts with p53 in oral squamous cell carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Oral Squamous Cell Carcinoma are presented in a new report. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "The stathmin/oncoprotein 18 (STMN1) is overexpressed in various human cancers. The aim of our study was to investigate its clinical significance and interaction with p53 in oral squamous cell carcinoma (OSCC)."

Our news editors obtained a quote from the research from Shanghai Jiao-Tong University, "Stathmin expression was assessed by Oncomine, Gene Expression Omnibus (GEO) database, western blotting, and reverse transcription polymerase chain reaction. We investigated the relationship between stathmin expression and clinical characteristics among 109 OSCC patients by immunohistochemical staining. The prognosis factors were analyzed using univariate and multivariate analysis. Immunoprecipitation assay and The Cancer Genome Atlas (TCGA) analysis were used to detect the relationship between mutant p53 and stathmin. Stathmin was overexpressed in OSCC. In immunohistochemical analysis, high stathmin expression correlated with gender (P = 0.040), T stage (P = 0.015), TNM stage (P = 0.045), and pathological differentiation (P = 0.000). We found a correlation between the stathmin expression and overall survival (P = 0.027). Multivariate analysis suggested only lymph node metastasis (P = 0.007) and stathmin expression (P = 0.013) as independent prognostic factors. There was interaction between stathmin and p53 in OSCC cell lines with mutant p53 through immunoprecipitation assay."

According to the news editors, the research concluded: "These results suggest that overexpression of stathmin could contribute to cancer progression/prognosis, and that interaction between p53 and stathmin may contribute to the gain-of-function of p53."


The news editors report that additional information may be obtained by contacting Z.Y. Zhang, Shanghai Jiao Tong University, Shanghai Peoples Hosp 9, Shanghai Key Lab Stomatol, Dept. of Oral Maxillofacial Head & Neck OncolSch Med, Shanghai 200011, People's Republic of China. Additional authors for this research include S.F. Jin, W.J. Tao, M.L. Zhang and Z.Y. Zhang.

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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Microtubule-Associated Proteins, Oral Squamous Cell Carcinoma, Proto-Oncogene Proteins,
Spermatogenesis

Findings from Shanghai Jiao-Tong University Broadens Understanding of Spermatogenesis (Dynamics of the Transcriptome during Human Spermatogenesis: Predicting the Potential Key Genes Regulating Male Gametes Generation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Spermatogenesis. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Many infertile men are the victims of spermatogenesis disorder. However, conventional clinical test could not provide efficient information on the causes of spermatogenesis disorder and guide the doctor how to treat it."

The news reporters obtained a quote from the research from Shanghai Jiao-Tong University, "More effective diagnosis and treating methods could be developed if the key genes that regulate spermatogenesis were determined. Many works have been done on animal models, while there are few works on human beings due to the limited sample resources. In current work, testis tissues were obtained from 27 patients with obstructive azoospermia via surgery. The combination of Fluorescence Activated Cell Sorting and Magnetic Activated Cell Sorting was chosen as the efficient method to sort typical germ cells during spermatogenesis. RNA Sequencing was carried out to screen the change of transcriptomic profile of the germ cells during spermatogenesis. Differential expressed genes were clustered according to their expression patterns."

According to the news reporters, the research concluded: "Gene Ontology annotation, pathway analysis, and Gene Set Enrichment Analysis were carried out on genes with specific expression patterns and the potential key genes such as HOXs, JUN, SPI, and TCF3 which were involved in the regulation of spermatogenesis, with the potential value serve as molecular tools for clinical purpose, were predicted."

For more information on this research see: Dynamics of the Transcriptome during Human Spermatogenesis: Predicting the Potential Key Genes Regulating Male Gametes Generation, Scientific Reports, 2016;6():19069. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting Z. Zhu, Dept. of Urology, Ren Ji Hospital, School of Medicine, Shanghai Jiao Tong University, 1630 Dongfang Road, Shanghai 200127, People's Republic of China. Additional authors for this research include C. Li, S. Yang, R. Tian, J. Wang, Q. Yuan, H. Dong, Z. He, S. Wang and Z. Li.

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Keywords for this news article include: Asia, Shanghai, Genetics, Genomics, RNA Research, Women's Health, Spermatogenesis, People's Republic of China.
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Curettage

Findings from Shanghai Jiao-Tong University Yields New Findings on Curettage (Management of Cesarean Scar Pregnancy Using Ultrasound-Guided Dilation and Curettage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Curettage is now available. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "To evaluate the potential risk factors associated with failed ultrasound-guided dilation and curettage (D&C) treatment of cesarean scar pregnancy (CSP). Retrospective study. University hospital. Fifty-one patients diagnosed with CSP and treated with ultrasound-guided D&C at Shanghai General Hospital of Shanghai Jiao Tong University."

The news correspondents obtained a quote from the research from Shanghai Jiao-Tong University, "Lesion resection using ultrasound-guided D&C. Clinical characteristics, vaginal bleeding, abdominal pain, the size of the gestational sac, cardiac motion, blood flow around the gestational sac, cesarean scar thickness, and serum beta-human chorionic gonadotropin (beta-hCG) levels were compared between the successful operation group and the failed operation group. Cesarean scar thickness was the main risk factor that determined the success of ultrasound-guided D&C. The success rates were 50% and 97.67% for those with cesarean scars <3 mm thick and those with scars >3 mm thick, respectively (p = .001). The success rate was also associated with the abundance of blood flow surrounding the capsule and size of the gestational sac (p < .005). Surgical success was not affected by abnormal vaginal bleeding, abdominal pain, cardiac motion, or serum beta-hCG levels. Ultrasound-guided D&C is the first choice for treating CSP if the cesarean scar is >3 mm thick, blood flow is not abundant, and the maximum diameter of the gestational sac is <30 mm."

According to the news reporters, the research concluded: "A transabdominal procedure is preferred for patients with high-risk factors."


Our news journalists report that additional information may be obtained by contacting Y.Y. Sun, Shanghai Jiao Tong University, Sch Med, Shanghai Gen Hosp, Dept. of Obstet & Gynecol, Shanghai 201600, People's Republic of China. Additional authors for this research include J. Sun, B. Cai, X.W. Xi, L. Yang and Y.Y. Sun.

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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Operative Surgical Procedures, Risk and Prevention, Cardiology, Curettage, Hospital, Surgery, Shanghai Jiao-Tong University.
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**Nutritional and Metabolic Diseases and Conditions**

**Findings from Shanghai Jiao-Tong University in Type 2 Diabetes Reported (Glucose enhances rat islet function via stimulating CART expression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Cocaine- and amphetamine-regulated transcript (CART) is an anorexigenic peptide widely expressed in the central and peripheral nervous systems, as well as in endocrine cells. CART is markedly upregulated in the beta-cells of several rodent models of type-2 diabetes."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "The stimulatory effect of exogenous CART peptide on insulin secretion is CAMP dependent. Glucose is the most important regulator of islet function. However, the role of CART in glucose-potentiated insulin secretion remains unclear. Here, our results showed that glucose time- and dose-dependently elicited CART mRNA expression in rat islets. Both the glucokinase agonist GKA50 and the long-acting GLP-1 analogue exendin-4 increased CART mRNA expression. The protein kinase A (PKA) inhibitor H89 and the inactivation of cAMP response element binding protein (CREB) suppressed forskolin-stimulated CART mRNA expression. Furthermore, CART overexpression amplified insulin secretion from rat islets in response to glucose and forskolin, and ameliorated dexamethasone-impaired insulin secretion."

According to the news editors, the research concluded: "These findings suggest that islet-derived CART is involved, at least in part, in high glucose-potentiated pancreatic beta-cell function."

For more information on this research see: Glucose enhances rat islet function via stimulating CART expression. *Biochemical and Biophysical Research Communications*, 2016;481(1-2):84-89. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news correspondents report that additional information may be obtained from L.B. Zhou, Shanghai Jiao Tong University, Shanghai Inst Endocrine & Metab Dis, Shanghai Clin Center Endocrine & Metab Dis, Dept. of Endocrine & Metab Dis, Ruijin HospSch Med, Shanghai 200025, People's Republic of China. Additional authors for this research include Y.Q. Zhang, M.Y. Bai, F.Y. Zhou, R.Y. Deng, X.Y. Ji, J. Zhang, Y. Liu, L.B. Zhou and X. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.11.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia,
Chalcones

Findings from Shanghai Jiao-Tong University in the Area of Chalcones Described (Chalcone-benzoxaborole hybrids as novel anticancer agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Chalcones. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "In this study, we report the synthesis of a series of chalcone-benzoxaborole hybrid molecules and the evaluation of their anticancer activity. Their anticancer potency and toxicity were tested on three human cancer cell lines and two normal cell lines."

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "The 4-fluoro compound 15 was found to be the most potent compound with an IC50 value of 1.4 μM on SKOV3 cells. The 4-iodo compound 18 and 3-methoxy-4-amino compound 47 showed good potency on SKOV3 cells while exhibiting low toxicity on normal cells."

According to the news editors, the research concluded: "This work extended the application of benzoxaboroles to the field of anticancer research."


Keywords for this news article include: Shanghai, People's Republic of China, Asia, Propiophenones, Chalcones, Shanghai Jiao-Tong University.

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Oncology - Cancer Research

Findings from Shanghai Normal University Update Understanding of Cancer Research (Rap1A promotes ovarian cancer metastasis via activation of ERK/p38 and notch signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Research have been published. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "As one of the Ras-associated proteins, Rap1A has been linked to cancer initiation and development. However, the precise function of Rap1A in ovarian cancer is still not understood."

Financial supporters for this research include National Natural Science Foundation of China, National Key Research and Development Program of China, Ministry of Education of the People's Republic of China.

The news correspondents obtained a quote from the research from Shanghai Normal University, "Here, we show that Rap1A promotes ovarian cancer tumorigenesis and metastasis via stimulating cell proliferation, migration and invasion both in vivo and in vitro. Mechanistic study showed that Rap1A activates extracellular signal-regulated kinase (ERK), p38 mitogen-activated protein kinase (MAPK) and Notch pathways, leading to the enhanced expression of several epithelial-mesenchymal transition (EMT) markers such as slug, zeb1, vimentin, fibronectin, and MMP9. However, the pretreatment of Rap1A-overexpressing cells with the Notch inhibitor DAPT or ERK inhibitor (U0126) inhibited the up-regulated expression of those molecules."

According to the news reporters, the research concluded: "These findings provide the first evidence linking Rap1A with ovarian cancer development through the ERK/p38 and Notch signaling pathways, indicating that Rap1A may be used as a novel diagnostic marker or a therapeutic target for ovarian cancer."


Our news journalists report that additional information may be obtained by contacting P. Wan, Shanghai Normal Univ, Dept. of Biol, Coll Life & Environm Sci, Shanghai 200234, People's Republic of China. Additional authors for this research include J.S. Wang, Y. Wu, P. Wan and G. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.946. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Cancer Research, Enzymes and Coenzymes, Oncology, Kinase, Cancer, Shanghai Normal University.

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Findings from Shanghai University Yields New Data on Science (Remarkable alterations of Nav1.6 in reactive astrogliosis during epileptogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science have been published. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Voltage-gated sodium channels (VGSCs) play a vital role in controlling neuronal excitability. Nav1.6 is the most abundantly expressed VGSCs subtype in the adult central nervous system and has been found to contribute to facilitate the hyperexcitability of neurons after electrical induction of status epilepticus (SE)."

Our news journalists obtained a quote from the research from Shanghai University, "To clarify the exact expression patterns of Nav1.6 during epileptogenesis, we examined the expression of Nav1.6 at protein and mRNA levels in two distinct animal models of temporal lobe epilepsy (TLE) including a post-SE model induced by kainic acid (KA) intrahippocampal injection and a kindling model evoked by pentylenetetrazole (PTZ). A prominent, seizure intensity-dependent increase of Nav1.6 expression in reactive astrocytes was observed in ipsilateral hippocampus of post-SE rats, reaching the peak at 21 days after SE, a time point during the latent stage of epileptogenesis. However, Nav1.6 with low expression level was selectively expressed in the hippocampal neurons rather than astrocytes in PTZ-kindled animals."

According to the news editors, the research concluded: "This seizure-related increase of a VGSCs subtype in reactive astrocytes after SE may represent a new mechanism for signal communication between neuron and glia in the course of epileptogenesis, facilitating the neuronal hyperexcitability."

For more information on this research see: Remarkable alterations of Nav1.6 in reactive astrogliosis during epileptogenesis. Scientific Reports, 2016;6():1-14. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting H.Y. Zhu, Shanghai Univ, Sch Life Sci, Lab Neuropharmacol & Neurotoxicol, Shanghai 200444, People's Republic of China. Additional authors for this research include Y.X. Zhao, H. Wu, N. Jiang, Z.Y. Wang, W.D. Lin, J.H. Jin and Y.H. Ji.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Science, Genetics, Shanghai University.

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Findings from Shanxi Medical University Update Understanding of Apoptosis (Overproduction of reactive oxygen species and activation of MAPKs are involved in apoptosis induced by PM2.5 in rat cardiac H9c2 cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Apoptosis. According to news originating from Taiyuan, People's Republic of China, by NewsRx correspondents, research stated, "Epidemiological studies show a positive correlation between the air levels of fine particulate matter (PM2.5) and cardiovascular disorders, but how PM2.5 affects cardiomyocytes has not been studied in great deal. The aim of the present study was to obtain an insight into the links among intracellular levels of reactive oxygen species (ROS), apoptosis and mitogen-activated protein kinases (MAPKs) in rat cardiac H9c2 cells exposed to PM2.5."

Our news journalists obtained a quote from the research from Shanxi Medical University, "H9c2 cells were incubated with PM2.5 at 100-800 ?g ml(-1) to evaluate the effects of PM2.5 on cell viability, cell apoptosis, intracellular levels of ROS and expression of apoptosis-related proteins as well as activation of MAPKs. PM2.5 decreased cell viability, increased the cell apoptosis rate and intracellular ROS production in a concentration-dependent manner. PM2.5 decreased the Bcl-2/Bax ratio and increased cleaved caspase-3 levels. A Western blots study showed up-regulation of phosphorylated MAPKs including extracellular signal-regulated protein kinases (ERKs), c-Jun NH2-terminal kinases (JNKs) and p38 MAPK in the PM2.5-treated cells. The p38 MAPK inhibitor SB239063 attenuated whereas the ERKs inhibitor PD98059 augmented the effects of PM2.5 on apoptosis and the expression of related proteins."

According to the news editors, the research concluded: "PM2.5 decreases cell viability and increases apoptosis by enhancing intracellular ROS production and activating the MAPKs signaling pathway in H9c2 cells. The MAPKs signaling pathway could be a new promising target for clinical therapeutic strategies against PM2.5-induced cardiac injury."

For more information on this research see: Overproduction of reactive oxygen species and activation of MAPKs are involved in apoptosis induced by PM2.5 in rat cardiac H9c2 cells. Journal of Applied Toxicology, 2015;36(4):609-17. (Wiley-Blackwell - www.wiley.com/; Journal of Applied Toxicology - onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-1263)

The news correspondents report that additional information may be obtained from J. Cao, The First Clinical Hospital, Shanxi Medical University, Taiyuan, 030001, Shanxi Province, People's Republic of China. Additional authors for this research include G. Qin, R. Shi, F. Bai, G. Yang, M. Zhang and J. Lv.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jat.3249. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiyuan, Apoptosis, Cardiology, Chalcogens, Epidemiology, Oxygen Compounds, Reactive Oxygen Species, People's Republic of China.

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Findings from Shihezi University Has Provided New Data on Ethnopharmacology (Protective effects of seed melon extract on CCl4-induced hepatic fibrosis in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Ethnopharmacology are presented in a new report. According to news reporting originating from Shihezi, People's Republic of China, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: Citrullus lanatus ssp. vulgaris var. megalaspermus Lin et Chao, was also known as watermelon belongs to family Cucurbitaceae, variously used as healthy food and in the treatment of liver and lungs problems. Currently, Citrullus lanatus has become a major economic crop of medicinal and edible effects with regional characteristics."

Financial support for this research came from Support Technology Program of Xinjiang Production and Construction Corps.

Our news editors obtained a quote from the research from Shihezi University, "This study was designed to evaluate the hepatoprotective and antioxidant activity of the seed melon (Citrullus lanatus ssp. vulgaris var. megalaspermus Lin et Chao) extract (SME) against carbon tetrachloride (CCl4) induced hepatic fibrosis in mice. In this study, mice were randomly divided into 7 groups, including normal control, model, silymarin tablets as the positive control, SME 100, 200, 400, and 800 mg/kg. After 8 weeks, activities of serum alanine aminotransferase (ALT), aspartate aminotransferase (AST), triglycerides (TG), hyaluronic acid (HA) and laminin (LN) were checked. The levels of antioxidant enzymes such as superoxide dismutase (SOD), glutataion (GSH) and glutathione peroxidase (GSH-Px) were determined after SME administration. The hydroxyproline (HYP) levels, malondialdehyde (MDA) levels and histopathologic examinations of hepatocyte fibrosis were also determined. Additionally, effects of SME on alpha-smooth muscle actin (alpha-SMA) and transforming growth factor beta-1 (TGF-beta 1) protein expressions were determined. We found that SME could significantly lower the serum levels of hepatic enzyme markers AST, ALT, HA and LN (P < 0.01). Compared with the CCl4-only treatment group, levels of hepatic SOD and GSH-Px were significantly increased, and the MDA levels were remarkably decreased in mice treated by SME at medium dose (400 mg/kg) and high dose (800 mg/kg) (P < 0.01). A histological examination of the liver showed that lesions, including necrosis, lymphocyte infiltration and fatty degeneration, were partially healed by treatment with SME. The results of protein expressions studies displayed that SME could inhibit alpha-SMA and TGF-beta 1 protein expression (P < 0.01)."

According to the news editors, the research concluded: "The present results suggested that protective effect of SME against CCl4-induced hepatic fibrosis may rely on its effect on reducing oxidative stress and improving drug metabolizing enzyme activity in liver."


The news editors report that additional information may be obtained by contacting L.P. Tian, Shihezi Univ, Sch Pharm, Minist Educ, Key Lab Xinjiang Phytomed Resources, Shihezi 832000, People's Republic of China. Additional authors for this research include J.H.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.10.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shihezi, People's Republic of China, Asia, Ethnopharmacology, Drugs and Therapies, Enzymes and Coenzymes, Aminotransferase, Shihezi University.

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Cell Research - Cell Adhesion Molecules

Findings from Shihezi University Has Provided New Information about Cell Adhesion Molecules (Meta-analysis of downregulated E-cadherin as a poor prognostic biomarker for cervical cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cell Research - Cell Adhesion Molecules. According to news reporting originating in Xinjiang, People's Republic of China, by NewsRx journalists, research stated, "This meta-analysis was conducted to evaluate the diagnostic and prognostic functions of E-cadherin expression in cervical cancer. PubMed and other databases were searched for articles associated with E-cadherin and cervical cancer."

The news reporters obtained a quote from the research from Shihezi University, "These articles were published before June 2015 and written in English or Chinese. Random-effects model was used to pool odds ratios on the heterogeneity test in the meta-analysis. All of 20 studies were analyzed, in which 522 (42.6%) subjects exhibited reduced E-cadherin expression. Evaluation of clinicopathologic features showed that the downregulation of E-cadherin was related to the overall survival, clinicopathological parameters and age. Downregulation of E-cadherin in cervical cancer patients showed poor overall survival."

According to the news reporters, the research concluded: "Therefore, E-cadherin may be a metastasis-suppressor gene in cervical cancer."


Our news correspondents report that additional information may be obtained by contacting J. Peng, Dept. of Pathology, Shihezi University School of Medicine & the Key Laboratories for Xinjiang Endemic & Ethnic Diseases, Chinese Ministry of Education, Shihezi, Xinjiang 832002, People's Republic of China. Additional authors for this research include S. Qi, P. Wang, W. Li, L. Song, C. Liu and F. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.15.332. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Xinjiang, Oncology, Cadherins, Cell Research, Glycoproteins, Article Review, Membrane Proteins, Cell Adhesion Molecules, People's Republic of China.

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Findings from Shiraz University in Leptospira Reported (Prevalence of renal lesions in slaughtered cattle in Shiraz, Iran, and detection of Leptospira in them by nested PCR-RFLP)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Leptospira. According to news reporting from Shiraz, Iran, by NewsRx journalists, research stated, "Renal diseases in cattle are frequently not recognized due to the subclinical conditions. Some species of Leptospira are the main cause of infectious agents that damage the kidneys and lead to abortion and economic losses in cattle and are also of major concern in the public health."

The news correspondents obtained a quote from the research from Shiraz University, "This study was aimed to assess the prevalence of renal lesions of slaughtered cattle in the Shiraz abattoir and to determine the correlation between rejected kidneys and infection with Leptospira using nested PCR-restriction fragment length polymorphism (RFLP) techniques. Out of 1000 inspected animals, 205 (20.5 %) revealed the renal lesions. Chronic nephritis (7.5 %), white-spotted kidney (7.3 %), and petechial hemorrhage (3.5 %) were the most prevalent forms of the lesions. A direct correlation between increasing the age and significant increase in the rate of lesions was also observed (P = 0.03). Using nested PCR-RFLP assay, 40.8 % of the tested kidneys were turned to be infected to the pathogenic species of Leptospira. The risk of infection of the kidneys with white spot to pathogenic species of Leptospira (53.8 %) was more than that of the kidneys with other lesions (25.0 %) (P = 0.014). The odd ratio indicates that the kidneys with white spot lesions are likely to be infected with pathogenic species of Leptospira, five times greater than other lesions. This study showed that renal lesions especially white-spotted kidney, which were considerably associated with Leptospira in slaughtered cattle in Shiraz, were very high."

According to the news reporters, the research concluded: "This is important in terms of public health and in particular, increases the risk of transmission of disease to human specially in the high-risk careers including farmers, veterinarians, and abattoir workers."


Our news journalists report that additional information may be obtained by contacting S. Hosseinzadeh, Shiraz Univ, Sch Vet Med, Dept. of Food Hyg, Shiraz 744169155, Iran. Additional authors for this research include S. Hosseinzadeh, S.S. Shekarforoush and A. Samiei.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11250-016-1145-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shiraz, Iran, Asia, Gram-Negative Aerobic Rods and Cocci, Leptospiraceae, Risk and Prevention, Gram-Negative Bacteria,
Leukocyte Diseases and Conditions - Neutropenia

Findings from Shizuoka Prefectural General Hospital in the Area of Neutropenia Described (Augmented Renal Clearance in Patients With Febrile Neutropenia is Associated With Increased Risk for Subtherapeutic Concentrations of Vancomycin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Leukocyte Diseases and Conditions - Neutropenia are discussed in a new report. According to news reporting originating in Shizuoka, Japan, by NewsRx journalists, research stated, "Augmented renal clearance (ARC) has frequently been observed in critically ill patients. The risk factors for ARC in patients, including those in the general ward, and their influences on vancomycin (VCM) treatment remain unclear."

The news reporters obtained a quote from the research from Shizuoka Prefectural General Hospital, "The aims of this study were to investigate the risk factors for ARC and to evaluate the influence of ARC on the pharmacokinetic parameters of VCM. This study included a total of 292 patients with VCM treatment who had normal serum creatinine concentrations. ARC was defined by an estimated creatinine clearance $\geq 130 \text{ mL.min}^{-1}.1.73 \text{ m}^{-2}$. The risk factors for ARC were determined with stepwise logistic regression analysis. The pharmacokinetic parameters of VCM were estimated through the Bayesian method using a 2-compartment model. ARC was observed in 48 patients (16.4%). Age $\leq 65$ years [odds ratio (OR): 5.77; 95% CI: 2.89-11.97; $P < 0.0001$], brain injury (OR: 5.11; 95% CI: 1.49-17.57; $P = 0.0086$), febrile neutropenia (OR: 2.76; 95% CI: 1.11-6.67; $P = 0.0086$), and a mean volume of infusion fluid $\geq 1500 \text{ mL/d}$ (OR: 2.53; 95% CI: 1.27-5.16; $P = 0.0091$) were independent risk factors for the occurrence of ARC. The patients with ARC exhibited higher VCM clearance values than the non-ARC patients. The median trough serum concentrations of VCM were 7.4 (interquartile range: 5.2-11.6) mcg/mL in the ARC patients and 12.2 (8.9-16.3) mcg/mL in the non-ARC patients ($P < 0.0001$). Subtherapeutic trough concentrations of VCM ($<10.0 \text{ mcg/mL}$) were found in 68.8% of the ARC patients and in 32.8% of the non-ARC patients ($P < 0.0001$). This observational study investigated the influence of febrile neutropenia on the emergency of ARC for the first time. ARC was strongly associated with VCM pharmacokinetics, and twothirds of the ARC patients had subtherapeutic VCM concentrations."

According to the news reporters, the research concluded: "In patients with ARC, individualized dosing regimens are required to achieve the target trough concentration."

For more information on this research see: Augmented Renal Clearance in Patients With Febrile Neutropenia is Associated With Increased Risk for Subtherapeutic Concentrations of Vancomycin. Therapeutic Drug Monitoring, 2016;38(6):706-710. Therapeutic Drug Monitoring can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting K. Itoh, Shizuoka Prefectural Gen Hosp, Lab Clin Pharmacogen, Shizuoka, Japan. Additional authors for this research include H. Ishii, T. Shimoshikiryō, T. Shimomura, D. Tsuji,
K. Inoue, T. Kadoiri and K. Itoh.

Keywords for this news article include: Shizuoka, Japan, Asia, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Leukocyte Diseases and Conditions, Glycopeptide Antibiotics, Risk and Prevention, Drugs and Therapies, Leukocyte Disorders, Pharmacokinetics, Pharmaceuticals, Agranulocytosis, Antiinfectives, Glycopeptides, Neutropenia, Nephrology, Vancomycin, Hematology, Leukopenia, Peptides, Kidney, Shizuoka Prefectural General Hospital.

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Central Nervous System Diseases and Conditions —

**Findings from Sichuan University Broadens Understanding of Meningitis (Clinical features, Outcomes and Molecular Profiles of Drug Resistance in Tuberculous Meningitis in non-HIV Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System Diseases and Conditions - Meningitis are presented in a new report. According to news originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "Tuberculous meningitis continues to be a serious problem for physicians because it is difficult to make an early diagnosis and the consequences of delaying treatment are severe. The objective of this study is to provide data for the optimization of diagnostic and timely treatment of tuberculous meningitis."

Our news journalists obtained a quote from the research from Sichuan University, "Of the 401 human immunodeficiency virus (HIV)-negative tuberculous meningitis patients in our study, 332 were found to have an impaired blood brain barrier (82.8%). Nearly 17.0% of patients failed to be timely diagnosed. Headache (53.6%) and fever (48.6%) were the most common features, and Computed Tomography/Magnetic Resonance Imaging (CT/MRI) detected 96 patients (23.9%) with abnormal meningeal imaging. Cerebrospinal fluid real-time polymerase chain reaction was positive in 73.8% of the tuberculous meningitis patients, whereas, smears and cultures detected only 6.7% and 5.2%, respectively. Further analysis identified striking differences between drug-resistant and drug-susceptible tuberculous meningitis. Patients with drug resistance correlated with grave prognosis. Tuberculous meningitis diagnosis should overall embody clinical symptoms, laboratory and cerebral imaging findings, and more sensitive diagnostic approaches are still warranted."

According to the news editors, the research concluded: "Our data suggest cerebrospinal fluid polymerase chain reaction for mycobacterial DNA and molecular drug susceptibility testing as routine assays for suspected tuberculous meningitis patients, and observation of the blood brain barrier function could be performed for individual management."

For more information on this research see: Clinical features, Outcomes and Molecular Profiles of Drug Resistance in Tuberculous Meningitis in non-HIV Patients. *Scientific Reports*, 2016;6():19072. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J. Zhang, Dept. of Laboratory Medicine, West China Hospital, Sichuan University, Chengdu 610041, Sichuan Province, People's Republic of China. Additional authors for this research

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19072. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chengdu, Genetics, HIV/AIDS, Diagnosis, Meningitis, Polymerase, RNA Viruses, Retroviridae, HIV Infections, Vertebrate Viruses, Blood Brain Barrier, Drugs and Therapies, Primate Lentiviruses, Enzymes and Coenzymes, Viral Drug Resistance, Diagnostics and Screening, People's Republic of China.

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**Oncology - Breast Cancer**

**Findings from Sinai Urban Health Institute in the Area of Breast Cancer Described (Black:white disparities in breast cancer mortality in the 50 largest cities in the United States, 2005-2014)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news originating from Chicago, Illinois, by NewsRx correspondents, research stated, "This paper presents race-specific breast cancer mortality rates and the corresponding rate ratios for the 50 largest U.S. cities for each of the 5-year intervals between 2005 and 2014. The 50 largest cities in the U.S. were the units of analysis."

Our news journalists obtained a quote from the research from Sinai Urban Health Institute, "Numerator data were abstracted from national death files where the cause was malignant neoplasm of the breast (ICD-10 = C50) for women. based denominators were obtained from the U.S. Census Bureau for 2010-2014. To measure the racial disparity, we calculated Black: White rate ratios (RRs) and confidence intervals for each 5-year period. To determine whether changes over time in the disparity were statistically significant, we calculated a 2-sided z score for the change in the relative percent difference between the Black and White rates for 2005-2009 and 2010-2014. At the most recent time point (2010-2014), the RR was significantly greater than 1.00 in the US and 24 cities. The change in the Black: White disparity was statistically significant in five cities and the US. The percent difference increased significantly in Atlanta, GA (from 4.1 to 117.4, p< 0.001); San Antonio, TX (from 24.4 to 79.3, p = 0.034); and the US (from 39.7 to 43.1, p = 0.007). The percent difference decreased significantly in Memphis, TN (from 111.0 to 68.9, p = 0.043); Philadelphia, PA (from 43.1 to 23.5, p = 0.049); and Boston, MA (from 48.9 to 0.7, p = 0.022). This analysis provides updated city-level breast cancer mortality data for Black and White women through 2014, and reveals that in the US and 24 of the 43 largest US cities, Black women continue to die from breast cancer at a higher rate than their White counterparts."

According to the news editors, the research concluded: "Importantly, however, a few cities, Memphis, Boston and Philadelphia, showed a decrease in the Black: White breast cancer mortality disparity between 2005-2009 and 2010-2014."

For more information on this research see: Black:white disparities in breast cancer mortality in the 50 largest cities in the United States, 2005-2014. *Cancer Epidemiology*, 2016;45():169-173. *Cancer Epidemiology* can be contacted at: Elsevier Sci Ltd, The
Oncology - Gastric Cancer

Findings from Singapore National University Update Knowledge of Gastric Cancer (A simple biomarker scoring matrix for early gastric cancer detection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gastric Cancer have been presented. According to news reporting from Singapore, Singapore, by NewsRx journalists, research stated, "Gastric cancer (GC) is a major cause of death in many parts of the world. While 90% of early GC is curable by resection, only about 5% of patients diagnosed in the late stages survive beyond five years."

Funders for this research include Singapore Gastric Cancer Consortium, Translational and Clinical Research.

The news correspondents obtained a quote from the research from Singapore National University, "This provides strong impetus to push for early GC detection through the use of non-invasive biomarkers, before metastatic complications arise. It is also of strong medical interest to identify patients of the diffuse subtype at the earliest time possible, since the disease variant progresses very rapidly and is associated with much higher mortality rate. In this study, we compared quantitatively the gastric fluid proteome of 70 GC patients to 17 individuals with benign gastritis in search of potential biomarkers that aid in GC diagnosis, prognosis and subtype stratification. We report that as much as half of the gastric fluid proteome is subject to regulation in diseased states, and propose a simple biomarker panel scoring matrix for early GC detection with diagnostic sensitivity of 95.7%.

According to the news reporters, the research concluded: "We also demonstrate as proof-of-concept that a digitised record generated with SWATH-MS based on 380 protein abundance signatures from the gastric fluid could segregate patients with diffuse-type GC."


Our news journalists report that additional information may be obtained by contacting M.C.M. Chung, Singapore National University, Dept. of Biol Sci, Fac Sci, Singapore, Singapore. Additional authors for this research include W.W. Yong and M.C.M. Chung.

The direct object identifier (DOI) for that additional information is:
Mesotheliomas

Findings from Sir Charles Gairdner Hospital Yields New Data on Mesotheliomas (The IASLC Mesothelioma Staging Project: Proposals for Revisions of the T Descriptors in the Forthcoming Eighth Edition of the TNM Classification for Pleural...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mesotheliomas. According to news reporting out of Nedlands, Australia, by NewsRx editors, research stated, "The current T component for malignant pleural mesothelioma (MPM) has been predominantly informed by surgical data sets and consensus. The International Association for the Study of Lung Cancer undertook revision of the seventh edition of the staging system for MPM with the goal of developing recommendations for the eighth edition."

Funders for this research include Mesothelioma Applied Research Foundation, National Institutes of Health/National Cancer Institute Cancer Center.

Our news journalists obtained a quote from the research from Sir Charles Gairdner Hospital, "Data elements including detailed T descriptors were developed by consensus. Tumor thickness at three pleural levels was also recorded. An electronic data capture system was established to facilitate data submission. A total of 3519 cases were submitted to the database. Of those eligible for T-component analysis, 509 cases had only clinical staging, 836 cases had only surgical staging, and 642 cases had both available. Survival was examined for T categories according to the current seventh edition staging system. There was clear separation between all clinically staged categories except T1a versus T1b (hazard ratio = 0.99, p = 0.95) and T3 versus T4 (hazard ratio = 1.22, p = 0.09), although the numbers of T4 cases were small. Pathological staging failed to demonstrate a survival difference between adjacent categories with the exception of T3 versus T4. Performance improved with collapse of T1a and T1b into a single T1 category; no current descriptors were shifted or eliminated. Tumor thickness and nodular or rindlike morphology were significantly associated with survival. A recommendation to collapse both clinical and pathological T1a and T1b into a T1 classification will be made for the eighth edition staging system."

According to the news editors, the research concluded: "Simple measurement of pleural thickness has prognostic significance and should be examined further with a view to incorporation into future staging."

Our news journalists report that additional information may be obtained by contacting A.K. Nowak, Sir Charles Gairdner Hosp, Dept. of Med Oncol, Nedlands, WA, Australia. Additional authors for this research include K. Chansky, D.C. Rice, H.I. Pass, H.L. Kindler, L. Shemanski, A. Bille, R.C. Rintoul, H.F. Batirel, C.F. Thomas, J. Friedberg, S. Cedres, M. de Perrot and V.W. Rusch.

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Keywords for this news article include: Nedlands, Australia, Australia and New Zealand, Mesotheliomas, Sir Charles Gairdner Hospital.

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Oncology - Cancer Genetics

Findings from Soochow University Broaden Understanding of Cancer Genetics [Clinical and molecular cytogenetic studies in ten patients with hematological malignancies characterized by t(20;21)(q11;q11) resulted from del(20q)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Genetics. According to news reporting from Suzhou, People's Republic of China, by NewsRx journalists, research stated, "This study reports 10 patients with hematological malignancies with t(20;21)(q11;q11) resulting from del(20q) (for example, der(20)del(20)(q11;q13)t(20;21)(q11;q11) and der(21)t(20;21)(q11;q11)) and described their clinical features and the possible prognostic significance of this abnormality. The t(20;21)(q11;q11) was a rare but recurrent abnormality secondary to del(20q) besides i(20q)."

The news correspondents obtained a quote from the research from Soochow University, "The frequency of der(20)del(20)(q11;q13)t(20;21)(q11;q11) among our patients with del(20q) was 2.4%. It was considered that the 20q deletion preceded translocation with chromosome 21. This abnormality is often cryptic, occurs predominantly in older men and is observed most often in myelodysplastic syndromes. Patients with this abnormality have an unfavorable prognosis, similar to patients with i(20q-). The molecular consequences of der(20)del(20)(q11q13)420;21)(q11;q11) may be different from patients with i(20q-)."

According to the news reporters, the research concluded: "To the best of our knowledge this is the largest dataset published to date."

For more information on this research see: Clinical and molecular cytogenetic studies in ten patients with hematological malignancies characterized by t(20;21)(q11;q11) resulted from del(20q). Cancer Genetics, 2016;209(10):456-462. Cancer Genetics can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Cancer Genetics - www.journals.elsevier.com/cancer-genetics/)

Our news journalists report that additional information may be obtained by contacting J.L. Pan, Soochow Univ, Affiliated Hosp 1, Jiangsu Inst Hematol, Key Lab Thrombosis & Hemostasis, Suzhou 215006, People's Republic of China. Additional authors for this research include J. Zhang, S.X. Bai, J.X. Yao, H.Y. Qiu, Y.Q. Xue, S.N. Chen, Y.F. Wu, J.
Shen and J.L. Pan.

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Keywords for this news article include: Suzhou, People's Republic of China, Asia, Cancer Genetics, Oncology, Genetics, Genetics, Soochow University.

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Oncology - Gastric Cancer

Findings from Soochow University Provides New Data about Gastric Cancer [Rs56288038 (C/G) in 3'UTR of IRF-1 Regulated by MiR-502-5p Promotes Gastric Cancer Development]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Gastric Cancer is now available. According to news reporting originating from Suzhou, People's Republic of China, by NewsRx correspondents, research stated, "Interferon regulatory factor 1 (IRF-1) has been shown to function as a transcriptional activator or repressor of a variety of target genes. However, its upstream, non-coding RNA-related regulatory capacity remains unknown."

Our news editors obtained a quote from the research from Soochow University, "In this study, we focus on the miRNA-associated single nucleotide polymorphisms (SNPs) in the 3' untranslated region (UTR) of IRF-1 to further investigate the functional relationship and potential diagnostic value of the SNPs and miRNAs among Chinese gastric cancer (GC) patients. We performed a case control study with 819 GC patients and 756 cancer-free controls. Genotyping by real-time PCR assay, cell transfection, and the dual luciferase reporter assay were used in our study, and the 5-year overall survival rate and relapse-free survival rate in different groups were investigated. We found that patients suffering from Helicobacter pylori (Hp) infection were the susceptible population compared to controls. SNP rs56288038 (C/G) in IRF-1 3'UTR was involved in the occurrence of GC by acting as a tumor promoter factor. SNP rs56288038 (C/G) could be up-regulated by miR-502-5p, which caused a down-regulation of IRF-1 in cell lines and decreased apoptosis induced by IFN-gamma. Carrying the G genotype was related to significantly low expression of IRF-1 and Hp infection, poor differentiation, big tumor size, invasion depth, as well as the high probability of metastasis, and moreover, the C/G SNP was associated with shorter survival of GC patients with five years of follow-up study."

According to the news editors, the research concluded: "Our findings have shown that the SNP rs56288038 (C/G) in IRF-1 3'UTR acted as a promotion factor in GC development through enhancing the regulatory role of miR-502-5p in IRF-1 expression."

For more information on this research see: Rs56288038 (C/G) in 3'UTR of IRF-1 Regulated by MiR-502-5p Promotes Gastric Cancer Development. Cellular Physiology and Biochemistry, 2016;40(1-2):391-399. Cellular Physiology and Biochemistry can be contacted at: Karger, Allschwilerstrasse 10, CH-4009 Basel, Switzerland. (Karger - www.karger.com; Cellular Physiology and Biochemistry - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224332)

The news editors report that additional information may be obtained by contacting J.X. Fu, Soochow Univ, Affiliated Hosp 2, Dept. of Hematol, Suzhou, People's Republic of
Therapeutics

Findings from Sorbonne University in Therapeutics Reported (Highly selective inhibition of myosin motors provides the basis of potential therapeutic application)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Therapeutics. According to news originating from Paris, France, by NewsRx correspondents, research stated, "Direct inhibition of smooth muscle myosin (SMM) is a potential means to treat hypercontractile smooth muscle diseases. The selective inhibitor CK-2018571 prevents strong binding to actin and promotes muscle relaxation in vitro and in vivo."

Financial supporters for this research include Fondation pour la Recherche Medicale (Foundation for Medical Research in France), Agence Nationale de la Recherche (L' Agence Nationale de la Recherche), AFM-Telethon (French Muscular Dystrophy Association).

Our news journalists obtained a quote from the research from Sorbonne University, "The crystal structure of the SMM/drug complex reveals that CK-2018571 binds to a novel allosteric pocket that opens up during the 'recovery stroke' transition necessary to reprime the motor. Trapped in an intermediate of this fast transition, SMM is inhibited with high selectivity compared with skeletal muscle myosin (IC50 = 9 nM and 11,300 nM, respectively), although all of the binding site residues are identical in these motors. This structure provides a starting point from which to design highly specific myosin modulators to treat several human diseases."

According to the news editors, the research concluded: "It further illustrates the potential of targeting transition intermediates of molecular machines to develop exquisitely selective pharmacological agents."


Nutritional and Metabolic Diseases and Conditions:  

**Findings from Southeast University in the Area of Type 2 Diabetes Described (Renal Denervation: A Potential Novel Treatment for Type 2 Diabetes Mellitus?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Type 2 diabetes mellitus (T2DM) is a group of metabolic diseases of multiple etiologies. Although great progress has been made, researchers are still working on the pathogenesis of T2DM and how to best use the treatments available."

Our news journalists obtained a quote from the research from Southeast University, "Aside from several novel pharmacological approaches, catheter-based sympathetic renal denervation (RDN) has gained a significant role in resistant hypertension, as well as improvements in glycemic control in T2DM. In this article, we will summarize herein the role sympathetic activation plays in the progression of T2DM and review the recent clinical RDN experience in glucose metabolism. We performed systematic review in online databases, including PubMed, EmBase, and Web of Science, from inception until 2015. Studies were included if a statistical relationship was investigated between RDN and T2DM. The quality of each included study was assessed by Newcastle-Ottawa scale score. To synthesize these studies, a random-effects model or a fixed-effects model was applied as appropriate. Then, we calculated heterogeneity, performed sensitivity analysis, tested publication bias, and did meta-regression analysis. Finally, we identified 4 eligible articles. In most studies, RDN achieved via novel catheter-based approach using radiofrequency energy has gained a significant role in resistant hypertension, as well as improvements in glycemic control in T2DM. But the DREAMS-Study showed that RDN did not change median insulin sensitivity nor systemic sympathetic activity. Firstly, the current published studies lacked a proper control group, along with the sample capacity was small. Also, data obtained in the subgroups of diabetic patients were not separately analyzed and the follow-up period was very short."

According to the news editors, the research concluded: "In addition, a reduction in blood pressure accounts for the improvements in glucose metabolism and insulin resistance cannot be excluded. If the favorable result of better glucose metabolism is confirmed in large-scale, randomized studies, RDN may emerge as a novel therapeutic option for patients with T2DM."

For more information on this research see: Renal Denervation: A Potential Novel Treatment for Type 2 Diabetes Mellitus? *Medicine*, 2015;94(44):e1932. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)
The news correspondents report that additional information may be obtained from T. Pan, From the Dept. of Interventional and Vascular Surgery, Zhongda Hospital, Southeast University, Jiangsu, People's Republic of China. Additional authors for this research include J.H. Guo and G.J Teng.

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Keywords for this news article include: Asia, Kidney, Jiangsu, Nephrology, Proinsulin, Hypertension, Endocrinology, Article Review, Type 2 Diabetes, Peptide Hormones, Peptide Proteins, Risk and Prevention, People's Republic of China, Glucose Metabolism Disorders, Cardiovascular Diseases and Conditions, Non Insulin Dependent Diabetes Mellitus.

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**Oncology - Squamous Cell Carcinoma**

**Findings from Southern Medical University Broadens Understanding of Squamous Cell Carcinoma (Epb41l3 suppresses esophageal squamous cell carcinoma invasion and inhibits MMP2 and MMP9 expression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Squamous Cell Carcinoma have been published. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "EPB41L3 may play a role as a metastasis suppressor by supporting regular arrangements of actin stress fibres and alleviating the increase in cell motility associated with enhanced metastatic potential. Down regulation of epb41l3 has been observed in many cancers, but the role of this gene in esophageal squamous cell carcinoma (ESCC) remains unclear."

Funders for this research include National Natural Science Foundation of China, Natural Science Foundation of Guangdong Province.

The news correspondents obtained a quote from the research from Southern Medical University, "Our study aimed to determine the effect of epb41l3 on ESCC cell migration and invasion. We investigated epb41l3 protein expression in tumor and non-tumour tissues by immunohistochemical staining. Expression in the non-neoplastic human esophageal cell line Het-1a and four ESCC cell lines -Kyse150, Kyse510, Kyse450 and Caes17 -was assessed by quantitative Polymerase Chain Reaction (qPCR) and Western blotting. Furthermore, an EPB41L3 overexpression plasmid and EPB41L3-specific small interfering RNA were used to upregulate EPB41L3 expression in Kyse150 cells and to downregulate EPB41L3 expression in Kyse450 cells, respectively. Cell migration and invasion were evaluated by wound healing and transwell assays, respectively. The expression levels of p-AKT, matrix metalloproteinase (MMP)2 and MMP9 were evaluated. Expression of epb41l3 was significantly lower in tumor tissues than in non-tumour tissues and in ESCC cell lines compared with the Het-1a cell line, Kyse450 and Caes17 cells exhibited higher expression of epb41l3 than Kyse150 and Kyse510 cells. Overexpressing epb41l3 decreased Kyse150 cell migration and invasion, whereas EPB41L3-specific small interfering RNA silencing increased these functions in Kyse450 cells. Furthermore, overexpressing epb41l3 led to downregulation of MMP2 and MMP9 in Kyse150 and Kyse510 cells."
According to the news reporters, the research concluded: "Our findings reveal that EPB41L3 suppresses tumor cell invasion and inhibits MMP2 and MMP9 expression in ESCC cells."


Our news journalists report that additional information may be obtained by contacting R. Zeng, Oncology Center, Zhujiang Hospital, Southern Medical University, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include J.P. Huang, X.F. Li, W.B. Xiong, G. Wu, Z.J. Jiang, S.J. Song, J.Q. Li, Y.F. Zheng and J.R Zhang.

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Keywords for this news article include: Asia, Genetics, Oncology, Guangdong, Squamous Cell Carcinoma, People's Republic of China.

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Mental Health Diseases and Conditions - Depression

Findings from Southern Medical University in the Area of Depression Described (A pilot integrative genomics study of GABA and glutamate neurotransmitter systems in suicide, suicidal behavior, and major depressive disorder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mental Health Diseases and Conditions - Depression is now available. According to news reporting from Guangzhou, People's Republic of China, by NewsRx journalists, research stated, "Gamma-amino butyric acid (GABA) and glutamate are the major inhibitory and excitatory neurotransmitters in the mammalian central nervous system, respectively, and have been associated with suicidal behavior and major depressive disorder (MDD). We examined the relationship between genotype, brain transcriptome, and MDD/suicide for 24 genes involved in GABAergic and glutamatergic signaling."

The news correspondents obtained a quote from the research from Southern Medical University, "In part 1 of the study, 119 candidate SNPs in 24 genes (4 transporters, 4 enzymes, and 16 receptors) were tested for associations with MDD and suicidal behavior in 276 live participants (86 nonfatal suicide attempters with MDD and 190 non-attempters of whom 70% had MDD) and 209 postmortem cases (121 suicide deaths of whom 62% had MDD and 88 sudden death from other causes of whom 11% had MDD) using logistic regression adjusting for sex and age. In part 2, RNA-seq was used to assay isoform-level expression in dorsolateral prefrontal cortex of 59 postmortem samples (21 with MDD and suicide, 9 MDD without suicide, and 29 sudden death non-suicides and no psychiatric illness) using robust regression adjusting for sex, age, and RIN score. In part 3, SNPs with subthreshold (uncorrected) significance levels below 0.05 for an association with suicidal behavior and/or MDD in part 1 were tested for eQTL effects in prefrontal cortex using the Brain eQTL Almanac.
(www.braineac.org). No SNPs or transcripts were significant after adjustment for multiple comparisons. However, a protein coding transcript (ENST00000414552) of the GABA A receptor, gamma 2 (GABRG2) had lower brain expression postmortem in suicide (p=0.01) and evidence for association with suicide death (p=0.03) in a SNP that may be an eQTL in prefrontal cortex (rs424740, p=0.02)."

According to the news reporters, the research concluded: "These preliminary results implicate GABRG2 in suicide and warrant further investigation and replication in larger samples."


Our news journalists report that additional information may be obtained by contacting H. Yin, Dept. of Psychiatry, Nanfang Hospital, Southern Medical University, Guangzhou, People's Republic of China. Additional authors for this research include S.P. Pantazatos, H. Galfalvy, Y.Y. Huang, G.B. Rosoklija, A.J. Dwork, A. Burke, V. Arango, M.A. Oquendo and J.J. Mann.

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Keywords for this news article include: Asia, Cerebrum, Genetics, Guangzhou, Depression, Glutamates, Psychiatry, Frontal Lobe, Glutamic Acid, Telencephalon, Brain Research, Prosencephalon, Prefrontal Cortex, Suicidal Behavior, Central Nervous System, People's Republic of China, Major Depressive Disorders, Mental Health Diseases and Conditions.

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**Pharmacokinetics**

**Findings from Southwest University Has Provided New Data on Pharmacokinetics (Pharmacokinetics, excretion of 8-cetylberberine and its main metabolites in rat urine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Pharmacokinetics. According to news originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "Berberine (BBR) is a bioactive plant ingredient derived from the roots and bark of Berberis aristata and Coptis chinensis and has a wide variety of pharmacological effects. 8-cetylberberine (8-BBR-C16) is the berberine (BBR) derivative reconstructed from adding octadecyl at C-8 of BBR to enhance its activity. This study presents a reliable method for the determination of BBR and 8-BBR-C16 in rat plasma, urine and feces."

Funders for this research include Specialized Research Fund for the Doctoral Program of Higher Education of China, High-end Engineering and Technical Personnel Training Plan of Chongqing, Achievement Transfer Program of Institutions of Higher Education in Chongqing, Special Program for Scientific and Technical Innovation of Chongqing Social
Livelihood, County-University Cooperation Innovation Funds of Southwest University.

Our news journalists obtained a quote from the research from Southwest University, "BBR and 8-BBR-C16 were determined by HPLC-UV after liquid-liquid extraction for plasma samples, and solid-phase extraction for urinary and fecal samples. The method was linear over the concentration range of 10-300 ng.ml(-1) for the plasma samples, 25-2000 ng.ml(-1) for the urinary samples, and 100-2000 ng.g(-1) for the fecal samples. Furthermore, a metabolic investigation on urine was performed by LC/MS/MS analysis to identify the structures of 8-BBR-C16 metabolites by full scan and product ion scan. Adult Sprague-Dawley rats were divided into two groups. In the control group, rats received 80 mg.kg(-1) BBR, and in the drug-treated group, rats received 80 mg.kg(-1) 8-BBR-C16. The results indicate that there were significant differences in the pharmacokinetic parameters and in the accumulated excretion levels between the control group and the drug-treated group. The C-max and AUC(0-t) of 8-BBR-C16 were 2.8 and 12.9 times higher than those of BBR, and the relative bioavailability of BBR to 8-BBR-C16 was 7.7%. The total excretion amount through the urine and feces of 8-BBR-C16 was 76.9%, but that of BBR was only 20.5%.

According to the news editors, the research concluded: "Additionally, 8-BBR-C16 was metabolized in rat urine with phase I demethylation and phase II glucuronidation or sulfation."


The news correspondents report that additional information may be obtained from X.G. Li, Southwest University, Coll Pharmaceut Sci, Chongqing 400715, People's Republic of China. Additional authors for this research include S.J. Fan, X.B. Liao, C. Chen, L. Su and X.G. Li.

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Keywords for this news article include: Chongqing, People's Republic of China, Asia, Pharmacokinetics, Pharmaceuticals, Southwest University.

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Peptidoglycan

Findings from Spanish National Research Council (CSIC) Provides New Data about Peptidoglycan (Orthologous and Paralogous AmpD Peptidoglycan Amidases from Gram-Negative Bacteria)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Peptidoglycan are presented in a new report. According to news reporting originating from Madrid, Spain, by NewsRx correspondents, research stated, "Cell wall recycling and beta-lactam antibiotic resistance are linked in Enterobacteriaceae and in Pseudomonas aeruginosa."
Our news editors obtained a quote from the research from Spanish National Research Council (CSIC), "This process involves a large number of murolytic enzymes, among them a cytoplasmic peptidoglycan amidase AmpD, which plays an essential role by cleaving the peptide stem from key intermediates en route to the beta-lactamase production (a resistance mechanism) and cell wall recycling. Uniquely, P. aeruginosa has two additional paralogues of AmpD, designated AmpDh2 and AmpDh3, which are periplasmic enzymes. Despite the fact that AmpDh2 and AmpDh3 share a common motif for their respective catalytic domains, they are each comprised of multidomain architectures and exhibit distinct oligomerization properties."

According to the news editors, the research concluded: "We review herein the structural and biochemical properties of orthologous and paralogous AmpD proteins and discuss their implication in cell wall recycling and antibiotic resistance processes."

For more information on this research see: Orthologous and Paralogous AmpD Peptidoglycan Amidases from Gram-Negative Bacteria. Microbial Drug Resistance, 2016;22 (6):470-1. Microbial Drug Resistance can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Microbial Drug Resistance - www.liebertpub.com/overview/microbial-drug-resistance/44/)

The news editors report that additional information may be obtained by contacting J.A. Hermoso, CSIC, Inst Quim Fis Rocasolano, Dept. of Crystallog & Struct Biol, Madrid 28006, Spain. Additional authors for this research include R. Molina, M. Lee, S. Mobashery and J.A. Hermoso.

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Keywords for this news article include: Madrid, Spain, Europe, Cell Wall, Drugs and Therapies, Bacterial Polysaccharides, Cellular Structures, Peptidoglycan, Glycopeptides, Mucoproteins, Proteins, Peptides, Spanish National Research Council (CSIC).

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Oncology - Prostate Cancer

Findings from Stanford University Provides New Data about Prostate Cancer (Fluorescence Monitoring of the Oxidative Repair of DNA Alkylation Damage by ALKBH3, a Prostate Cancer Marker)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting from Stanford, California, by NewsRx journalists, research stated, "The 2-oxoglutarate-dependent iron enzyme ALKBH3 is an antitumor target and a potential diagnostic marker for several tumor types, including prostate cancer. However, there is at present no simple way to measure this enzyme's activity."

Funders for this research include National Cancer Institute, Army Research Office, Human Frontier Science Program, National Institute of General Medical Sciences. The news correspondents obtained a quote from the research from Stanford University. "Here we describe a fluorogenic probe design (MAQ) that is directly responsive to ALKBH3 repair activity. It makes use of the fluorescence-quenching properties of 1-
methyladenine; removal of the alkyl group results in a >10-fold light-up signal. The probe is specific for ALKBH3 over its related homologue ALKBH2 and can be used to identify and measure the effectiveness of enzyme inhibitors. Measurements of the enzyme substrate parameters show that MAQ displays Km and kcat values essentially the same as those of the native substrate. Finally, we show that the probe functions efficiently in cells, allowing imaging and quantitation of ALKBH3 activity by microscopy and flow cytometry.

According to the news reporters, the research concluded: "We expect that MAQ probes will be broadly useful in the study of the basic biology of ALKBH3 and in clinical cancer applications as well."


Our news journalists report that additional information may be obtained by contacting A.A. Beharry, Dept. of Chemistry, Stanford University, Stanford, California 94305, United States. Additional authors for this research include S. Lacoste, T.R. O'Connor and E.T Kool.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/jacs.6b00986. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stanford, Oncology, California, United States, Prostate Cancer, Prostatic Neoplasms, Enzymes and Coenzymes, North and Central America.

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increased by shifts in pharmacies, which often have different medication-labeling standards. It is important to examine how recent immigrant parents are addressing the medication needs for their children based on their cultural norms and how those cultural practices and acculturation into the U.S. health care system may affect their risk for injury."

According to the news reporters, the research concluded: "New research and policy efforts may help to address these barriers to safe medication use."


Our news correspondents report that additional information may be obtained by contacting M.C.J. Smith, Stanford University, Sch Med, Primary Care Outcomes Res Center, Palo Alto, CA 94304, United States. Additional authors for this research include H.S. Yin and L.M. Sanders.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.japh.2016.07.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Palo Alto, California, United States, North and Central America, Pharmacy Practice, Drugs and Therapies, Stanford University.

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**Cardiology**

**Findings from Stanford University in the Area of Cardiology Reported (Transcriptomic Profiling Maps Anatomically Patterned Subpopulations among Single Embryonic Cardiac Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting from Stanford, California, by NewsRx journalists, research stated, "Embryonic gene expression intricately reflects anatomical context, developmental stage, and cell type. To address whether the precise spatial origins of cardiac cells can be deduced solely from their transcriptional profiles, we established a genomewide expression database from 118, 949, and 1,166 single murine heart cells at embryonic day 8.5 (e8.5), e9.5, and e10.5, respectively."

Financial supporters for this research include NIH, American Heart Association Grant-in-Aid, Stanford Cardiovascular Institute, Institute for Stem Cell Biology and Regenerative Medicine.

The news correspondents obtained a quote from the research from Stanford University, "We segregated these cells by type using unsupervised bioinformatics analysis and identified chamber-specific genes. Using a random forest algorithm, we reconstructed the spatial origin of single e9.5 and e10.5 cardiomyocytes with 92.0% +/- 3.2% and 91.2% +/- 2.8% accuracy, respectively (99.4% +/- 1.0% and 99.1% +/- 1.1% if a +/- 1 zone margin is permitted) and predicted the second heart field distribution of Is1-1-lineage descendants. When applied to Nkx2-5(-/-) cardiomyocytes from murine e9.5 hearts, we showed their transcriptional alteration and lack of ventricular phenotype."

According to the news reporters, the research concluded: "Our database and zone
classification algorithm will enable the discovery of novel mechanisms in early cardiac development and disease."


Our news journalists report that additional information may be obtained by contacting S.M. Wu, Stanford University, Dept. of Med, Sch Med, Div Cardiovac Med, Stanford, CA 94305, United States. Additional authors for this research include A. Xu, S. Sim, J.R. Priest, X.Y. Tian, T. Khan, T. Quertermous, B. Zhou, P.S. Tsao, S.R. Quake and S.M. Wu. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.devcel.2016.10.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stanford, California, United States, North and Central America, Cardiomyocyte, Cardiology, Stanford University.

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**Drugs and Therapies - Acetylcysteine**

**Findings from State University in Acetylcysteine Reported (The Coadministration of N-Acetylcysteine Ameliorates the Effects of Arsenic Trioxide on the Male Mouse Genital System)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Acetylcysteine is now available. According to news reporting from Botucatu, Brazil, by NewsRx journalists, research stated, "Arsenic trioxide (As2O3) has shown effectiveness in treatment of leukemia but is also associated with reproductive toxicity. Since remediation with N-acetylcysteine (NAC) may mitigate the adverse effects caused by exposure, we assessed the effects of As2O3 and its potential reversibility after exposure cessation or coadministration of NAC."

Financial supporters for this research include Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior, The State of Sao Paulo Research Foundation, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico.

The news correspondents obtained a quote from the research from State University, "Animals received 0.3 or 3.0 mg/Kg/day of As2O3 subcutaneously and 40 mM of NAC in tap water. As2O3 treatment impaired spermatogenesis and sperm motility and decreased seminal vesicle weight and testosterone serum levels; after suspension of treatment, these parameters remained altered. When NAC was administered, animals showed improvement in sperm parameters and seminal vesicle weight. In vitro epididymal contractility was increased in As2O3-treated animals. We concluded that As2O3 is toxic to the male mouse genital system by compromising sperm quality and quantity; these effects persisted even after suspension of the treatment."

According to the news reporters, the research concluded: "However, the coadministration of NAC ameliorates the harmful effects of the drug on the male genital system."

Our news journalists report that additional information may be obtained by contacting R.F. da Silva, Dept. of Morphology, Institute of Biosciences, Universidade Estadual Paulista (UNESP), 18618-970 Botucatu, SP, Brazil. Additional authors for this research include C.dos S. Borges, P. Villela E Silva, G. Missassi, L.R. Kiguti, A.S. Pupo, F. Barbosa Junior, J.A. Anselmo-Franci and W.de G Kempinas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/4257498. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antidotes, Antineoplastics, Pharmaceuticals, Brazil, Botucatu, Chemicals, Mucolytics, South America, Acetylcysteine, Respiratory Agents, Drugs and Therapies, Arsenic Trioxide Therapy, Respiratory Inhaling Products.

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Drugs and Therapies - Cardiovascular Agents

Findings from State University of Campinas Provide New Insights into Cardiovascular Agents [Beneficial Effect of the Nitric Oxide Donor Compound 3-(1,3-Dioxoisoindolin-2-yl)Benzyl Nitrate on Dysregulated Phosphodiesterase 5, NADPH Oxidase, and ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Cardiovascular Agents. According to news reporting originating in Campinas, Brazil, by NewsRx journalists, research stated, "Patients with sickle cell disease (SCD) display priapism, and dysregulated nitric oxide (NO) pathway may contribute to this condition. However, current therapies offered for the prevention of priapism in SCD are few."

The news reporters obtained a quote from the research from the State University of Campinas, "The 3-(1,3-dioxoisooindolin-2-yl) benzyl nitrate (compound 4C) was synthesized through molecular hybridization of hydroxyurea and thalidomide, which displays an NO-donor property. This study aimed to evaluate the effects of compound 4C on functional and molecular alterations of erectile function in murine models that display low NO bioavailability, SCD transgenic mice, and endothelial NO synthase and neuronal NO synthase double gene-deficient (dNOS(-/-)) mice, focusing on the dysregulated NO-cGMP-phosphodiesterase type 5 (PDE5) pathway and oxidative stress in erectile tissue. Wild-type, SCD, and dNOS(-/-) mice were treated with compound 4C (100 mu mol/kg/d, 3 weeks). Intracavernosal pressure in anesthetized mice was evaluated. Corpus cavernosum tissue was dissected free and mounted in organ baths. SCD and dNOS(-/-) mice displayed a priapism phenotype, which was reversed by compound 4C treatment. Increased corpus cavernosum relaxant responses to acetylcholine and electrical-field stimulation were reduced by 4C in SCD mice. Likewise, increased sodium nitroprusside-induced relaxant responses were reduced by 4C in cavernosal tissue from SCD and dNOS(-/-) mice. Compound 4C reversed PDE5 protein expression and reduced protein expressions of
reactive oxygen species markers, NADPH oxidase subunit gp91(phox), and 3-nitrotyrosine in penises from SCD and dNOS(-/-) mice."

According to the news reporters, the research concluded: "3-week therapy with the NO donor 4C reversed the priapism in murine models that display lower NO bioavailability. NO donor compounds may constitute an additional strategy to prevent priapism in SCD."

For more information on this research see: Beneficial Effect of the Nitric Oxide Donor Compound 3-(1,3-Dioxoisooindolin-2-yl)Benzyl Nitrate on Dysregulated Phosphodiesterase 5, NADPH Oxidase, and Nitrosative Stress in the Sickle Cell Mouse Penis: Implication for Priapism Treatment. *Journal of Pharmacology and Experimental Therapeutics*, 2016;359(2):230-237. *Journal of Pharmacology and Experimental Therapeutics* can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

Our news correspondents report that additional information may be obtained by contacting F.H. Silva, Campinas State University, Hematol & Hemotherapy Center, BR-13083970 Campinas, SP, Brazil. Additional authors for this research include S. Karakus, B. Musicki, H. Matsui, T.J. Bivalacqua, J.L. dos Santos, F.F. Costa and A.L. Burnett.

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Keywords for this news article include: Campinas, Brazil, South America, NADPH Oxidoreductases NADH, Reactive Nitrogen Species, Enzymes and Coenzymes, Cardiovascular Agents, Drugs and Therapies, Nitric Oxide Donors, Phosphodiesterases, Nitrogen Oxides, Pharmaceuticals, NADPH Oxidase, Flavoproteins, Chemicals, Synthase, Proteins, Genetics, State University of Campinas.

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**Gram-Negative Bacteria - Burkholderia**

**Findings from State University of New York in the Area of Burkholderia Reported (Burkholderia ginsengisoli bacteraemia: emergence of a novel pathogen)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Burkholderia have been presented. According to news reporting originating in Buffalo, New York, by NewsRx journalists, research stated, "Burkholderia ginsengisoli is a non-pathogenic Gram-negative bacterium that ordinarily serves as a plant endosymbiont. We report the first case of human infection with B. ginsengisoli presenting as bacteraemia in a young man with severe Crohn's disease."

The news reporters obtained a quote from the research from the State University of New York, "Definitive identification of the pathogen could not be accomplished with conventional techniques and required DNA sequencing. The bacteraemia may have been related to ingestion of organic vegetables and compromised gastrointestinal mucosa, coupled with treatment with tumor necrosis factor a inhibitors."

According to the news reporters, the research concluded: "Although there are no standard antibiotics to treat this pathogen, we devised a successful treatment regimen."
For more information on this research see: Burkholderia ginsengisoli bacteraemia: emergence of a novel pathogen. *Bmj Case Reports*, 2016;2016(). (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting L.R. Marks, State University of New York at Buffalo, Buffalo, New York, United States. Additional authors for this research include H. Dodd, T.A. Russo and C.S Berenson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2015-213584. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Buffalo, New York, Genetics, United States, Burkholderiaceae, Betaproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria, North and Central America, Gram Negative Aerobic Rods and Cocci.

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**Oncology - Gliomas**

**Findings from State University of New York in the Area of Gliomas Described (TRPM7 channel inhibition mediates midazolam-induced proliferation loss in human malignant glioma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Gliomas is now available. According to news reporting out of Stony Brook, New York, by NewsRx editors, research stated, "The melastatin-like transient receptor potential 7 (TRPM7) has been implicated in proliferation or apoptosis of some cancers, indicating the potential of TRPM7 as an anti-anaplastic target. Here, we identified the characteristic TRPM7 channel currents in human malignant glioma MGR2 cells, which could be blocked by a pharmacologic inhibitor Gd3+.

Financial supporters for this research include Fundamental Research Funds for the Central Universities, Science and Technology Planning Project of Guangdong Province, Medical Scientific Research Foundation of Guangdong Province, China Postdoctoral Science Foundation (CN), Guangdong Natural Science Foundation.

Our news journalists obtained a quote from the research from the State University of New York, "We mined the clinical sample data from Oncomine Database and found that human malignant glioma tissues expressed higher TRPM7 mRNA than normal brain ones. Importantly, we identified a widely used clinical anesthetic midazolam as a TRPM7 inhibitor. Midazolam treatment for seconds suppressed the TRPM7 currents and calcium influx, and treatment for 48 h inhibited the TRPM7 expression. The inhibitory effect on TRPM7 accounts for the proliferation loss and G(0)/G(1) phase cell cycle arrest induced by midazolam. Our data demonstrates that midazolam represses proliferation of human malignant glioma cells through inhibiting TRPM7 currents, which may be further potentiated by suppressing the expression of TRPM7."

According to the news editors, the research concluded: "Our result indicates midazolam as a pharmacologic lead compound with brain-blood barrier permeability for targeting TRPM7 in the glioma."

For more information on this research see: TRPM7 channel inhibition mediates midazolam-induced proliferation loss in human malignant glioma. *Tumor Biology*, 2016;37

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5317-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stony Brook, New York, United States, North and Central America, Anxiolytics Sedatives and Hypnotics, Central Nervous System Agents, Hypnotics and Sedatives, Drugs and Therapies, Midazolam Therapy, Benzodiazepines, GABA Modulator, Antianxiety, Anesthetic, Adjuvant, Oncology, Genetics, Gliomas, State University of New York.

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Oncology - Breast Cancer

Findings from Sun Yat Sen University Yields New Data on Breast Cancer (Allelic expression imbalance polymorphisms in susceptibility chromosome regions and the risk and survival of breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "Allelic expression imbalance (AEI) has been applied to indicate potential function of genetic variants. Combining earlier results from global differential allele-specific expression analysis and genome wide association studies (GWASs), we select the single nuclear polymorphisms (SNPs) exhibiting AEI phenomenon located in breast cancer susceptibility chromosome regions, and evaluate their associations with breast cancer risk and survival."

Our news journalists obtained a quote from the research from Sun Yat Sen University, "We examined the genotypes of 10 AEI SNPs in 1551 incident breast cancer cases and 1605 age-frequency matched controls from Guangzhou, China. In total, 1168 cases were followed up. MUC16 rs2591592 (AT/AA vs. TT) was associated with an increased risk of premenopausal breast cancer (OR [95%CI]: 1.30 [1.07, 1.57]); SLAMF1 rs1061217 (CT/TT vs. CC) decreased the risk of breast cancer among overweight women (OR [95%CI]: 0.74 [0.57, 0.96]) but increased the risk among normal-weight women (OR [95%CI]: 1.15 [1.01, 1.39]); ZNF331 rs8109631 (AG/AA vs. GG) and CHRAC1 rs10216653 (GC/GG vs. CC) were associated with progression free survival among breast cancer patients with negative ER/PR status and higher clinical stage (HRs [95%CIs]: 2.39 [1.14, 5.00], 1.85 [1.03, 3.32], and 0.49 [0.30, 0.80], respectively). ZNF331 rs8109631 and CHRAC1 rs10216653 were further found to represent several functional SNPs through bioinformatic analysis."

According to the news editors, the research concluded: "Our findings demonstrated suggestive associations of AEI polymorphisms with breast cancer risk (MUC16 rs2591592 and
SLAMF1 rs1061217) and prognosis (ZNF331 rs8109631 and CHRAC1 rs10216653).”


Keywords for this news article include: Guangdong, People's Republic of China, Asia, Breast Ductal Carcinoma, Risk and Prevention, Women's Health, Breast Cancer, Cancer Risk, Oncology, Genetics, Sun Yat Sen University.

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Oncology - Lung Cancer

Findings from Sungkyunkwan University Broaden Understanding of Lung Cancer (Do New pN Subclassifications Proposed by IASLC’s Lung Cancer Staging Project Agree with ypN Categories after Trimodality Therapy for Initial N2 Disease?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lung Cancer. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "The International Association for the Study of Lung Cancer's lung cancer staging project has recently proposed a new subclassification of pN1-2 based on multiplicity of involved nodal stations and presence of skip metastasis. The authors investigated whether this new subclassification agrees with the ypN categories after trimodality therapy for initially N2 disease."

Our news journalists obtained a quote from the research from Sungkyunkwan University, "From March 2001 until June 2014, trimodality therapy consisting of preoperative thoracic radiation therapy concurrent with weekly platinum-based doublet chemotherapy and surgical resection was successfully undertaken in 508 patients after histopathologic confirmation of N2 disease. Data on 481 patients were analyzed and compared with special focus on the current and new pN classification. The median duration of overall survival (OS) was 58 months, and the 5-year OS rate of all patients was 48.8%: 62.6% in ypN0; 45.5% in ypN1; 37.6% in ypN2; and 0% in ypN3. Comparisons between neighboring ypN categories showed significant difference between ypNO and ypN1 (p = 0.028) but not between other categories. The 5-year OS rates according to new ypN subclassification were 48.2% in ypN1a, 39.0% in ypN1b, 52.8% in ypN2a1, 37.9% in ypN2a2, and 32.1% in ypN2b. Although the OS rate of ypN2a1 was numerically higher than those of ypN1b and ypN2b, comparisons between neighboring ypN categories revealed no significant difference. The current study was specifically intended to investigate whether ypN categories after trimodality therapy agree with International Association for the Study of Lung Cancer's new pN subclassification."
According to the news editors, the research concluded: "Through the current study, the authors have confirmed that ypN down staging to ypNO-1 from initial N2 stage is a favorable factor with respect to OS and raised the need for refinement of ypN subcategorization after trimodality therapy."


The news correspondents report that additional information may be obtained from Y.C. Ahn, Sungkyunkwan UniversitySch Med, Samsung Med Center, Dept. of Radiat Oncol, Seoul 135710, South Korea. Additional authors for this research include Y.C. Ahn, H. Pyo, D. Oh, J.M. Noh, J.M. Sun, J.S. Ahn, M.J. Ahn, K. Park, Y.S. Choi, J. Kim, J.I. Zo, Y.M. Shim, M. Lee and J. Han.

Keywords for this news article include: Seoul, South Korea, Asia, Lung Neoplasms, Lung Cancer, Oncology, Therapy, Sungkyunkwan University.

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**Oncology - Liver Cancer**

**Findings from Sungkyunkwan University Provides New Data about Liver Cancer (Aggressive Inrasegmental Recurrence of Hepatocellular Carcinoma After Combined Transarterial Chemoembolization and Radiofrequency Ablation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Liver Cancer are discussed in a new report. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "The goal of this study is to evaluate the outcomes of combined transarterial chemoembolization (TACE) and radiofrequency ablation (RFA) for hepatocellular carcinoma (HCC) in terms of the frequency of aggressive intrasegmental recurrence. Sixty-one patients (43 men and 18 women; mean [+/- SD] age, 65.8 +/- 8.6 years; age range, 44-82 years) with 71 HCCs (mean [+/- SD] size, 2.8 +/- 0.9 cm; range, 0.7-4.2 cm) underwent combined TACE and RFA."

The news correspondents obtained a quote from the research from Sungkyunkwan University, "Aggressive intrasegmental recurrence was defined as initial tumor recurrence at least 6 months after treatment and the simultaneous development of recurrence of multiple (at least three) nodular or infiltrative tumors in the treated segment. Tumor contact with a thick (diameter, >= 3 mm) portal vein (i.e., periportal HCC) was evaluated. The frequency of aggressive intrasegmental recurrence, the local tumor progression (LTP) rate, and the complication rate were assessed. The median follow-up period was 25.6 months (range, 6.1-75.5 months). Twenty-two HCCs (31%) were in contact with a thick portal vein. Aggressive intrasegmental recurrence was observed in one patient (representing 1.4% of all treated HCCs and 4.5% of periportal HCCs) after treatment of a 4.0-cm periportal HCC. The cumulative LTP rates at 1, 3, and 5 years were 6.7%, 21.0%, and 30.5%, respectively. The rate of major..."
complications was 6.6%.

According to the news reporters, the research concluded: "The frequency of aggressive intrasegmental recurrence after combined TACE and RFA for HCCs was very low."

For more information on this research see: Aggressive Intrasegmental Recurrence of Hepatocellular Carcinoma After Combined Transarterial Chemoembolization and Radiofrequency Ablation. American Journal of Roentgenology, 2016;207(5):1122-1127. American Journal of Roentgenology can be contacted at: Amer Roentgen Ray Soc, 1891 Preston White Dr, Subscription Fulfillment, Reston, VA 22091, USA.

Our news journalists report that additional information may be obtained by contacting M.W. Lee, Sungkyunkwan University Sch Med, Samsung Med Center, Center Imaging Sci, Seoul 135710, South Korea. Additional authors for this research include M.W. Lee, H. Rhim, Y.S. Kim, T.W. Kang, S.W. Shin and S.K. Cho.

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Keywords for this news article include: Seoul, South Korea, Asia, Chemoembolization, Liver Cancer, Portal Vein, Carcinomas, Angiology, Oncology, Sungkyunkwan University.

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Oncology - Breast Cancer

Findings from Sungkyunkwan University School of Medicine Broadens Understanding of Breast Cancer (Zerumbone suppresses the motility and tumorigenecity of triple negative breast cancer cells via the inhibition of TGF-b1 signaling pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Aberrant transforming growth factor-b (TGF-b) plays an important role in the development of cancer such as tumor metastasis and invasion. TGF-b-responsive gene signature is highly activated in chemotherapy-treated triple negative breast cancer (TNBC)."

Our news journalists obtained a quote from the research from the Sungkyunkwan University School of Medicine, "Here, we investigated the effect of zerumbone (ZER) on TGF-b1 signaling pathway and tumorigenecity of TNBC cells. Our results showed that the level of TGF-b1 mRNA expression and cell invasiveness were higher in TNBC cells than in non-TNBC cells. On the other hand, the cell motility of TNBC cells was completely suppressed by LY2109761, a novel selective TGF-b receptor type I/II (TbRI/II) dual inhibitor. In addition, FN and MMP-2 expression, which play an important role on cell motility in various cancer cells, were dose-dependently decreased by LY2109761. TGF-b1 increased FN, MMP-2 and MMP-9 expression in HCC1806 TNBC cells. TGF-b1-induced MMP-9 expression was decreased by both a MEK inhibitor, UO126, and a smad3 inhibitor, SIS3. Induction of FN and MMP-2 by TGF-b1 was just decreased by SIS3. Overexpression of smad3 significantly increased FN, MMP-2, and MMP-9 expression. Interestingly, ZER significantly suppressed TGF-b1-induced FN, MMP-2, and MMP-9 expression in HCC1806 cells. In addition, ZER completely decreased..."
TGF-b1-induced the phosphorylation of smad3. Finally, we observed that ZER suppressed the tumorigenecity such as tumor volume, weight, Ki67 expression, and metastasis in TNBC cells xenograft models. Taken together, we demonstrated that ZER suppresses TGF-b1-induced FN, MMP-2, and MMP-9 expression through the inactivation of smad3 and inhibits the tumorigenecity of TNBC cells.

According to the news editors, the research concluded: "Therefore, we suggest that ZER may act as a promising drug for treatment of TNBC."

For more information on this research see: Zerumbone suppresses the motility and tumorigenecity of triple negative breast cancer cells via the inhibition of TGF-b1 signaling pathway. Oncotarget, 2016;7(2):1544-58.

Our news journalists report that additional information may be obtained by contacting S. Kim, Dept. of Surgery, Samsung Medical Center, Sungkyunkwan University School of Medicine, Gangnam-gu, Seoul, South Korea. Additional authors for this research include J. Lee, M. Jeon, J.E. Lee and S.J Nam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6441. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Genetics, Oncology, South Korea, Breast Cancer, Cell Motility, Women's Health.

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Cardiology

Findings from Sungkyunkwan University in the Area of Cardiology Described (Association Between Presence of a Cardiac Intensivist and Mortality in an Adult Cardiac Care Unit)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Dedicated intensive care unit (ICU) physician staffing is associated with a reduction in ICU mortality rates in general medical and surgical ICUs. However, limited data are available on the role of a cardiac intensivist in the cardiac intensive care unit (CICU)."

The news correspondents obtained a quote from the research from Sungkyunkwan University, "This study investigated the association of cardiac intensivist-directed care with clinical outcomes in adult patients admitted to the CICU. This study analyzed 2,431 patients admitted to the CICU at Samsung Medical Center in Seoul, South Korea, from January 2012 to December 2015. In January 2013 the CICU was changed from a low-intensity staffing model to a high-intensity staffing model managed by a dedicated cardiac intensivist. Eligible patients were divided into either a low-intensity management group (n = 616) or a high-intensity management group (n = 1,815). One-to-many (1:N) propensity score matching with variable matching ratios was also performed. The primary outcome was death in the CICU. Death in the CICU occurred in 55 patients (8.9%) in the low-intensity group versus 74 patients (4.1%) in the high-intensity group (p < 0.001). Of 135 patients who underwent extracorporeal membrane oxygenation, the CICU mortality rate in the high-intensity group was also lower than that in the low-intensity group (54.5% vs. 22.5%; p = 0.001). On propensity score matching, high-intensity
staffing was found associated with a lower CICU mortality rate in the matched cohort of patients (7.5% vs. 3.7%; adjusted odds ratio: 0.53; 95% confidence interval: 0.32 to 0.86; p = 0.010). In overall and propensity-matched patients, there were no substantive differences in either median length of CICU stay or readmission rates between the 2 groups."

According to the news reporters, the research concluded: "The presence of a dedicated cardiac intensivist was associated with a reduction in CICU mortality rates in patients with cardiovascular disease who required critical care."

For more information on this research see: Association Between Presence of a Cardiac Intensivist and Mortality in an Adult Cardiac Care Unit. *Journal of the American College of Cardiology*, 2016;68(24):2637-2648. *Journal of the American College of Cardiology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.


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Keywords for this news article include: Seoul, South Korea, Asia, Cardiology, Sungkyunkwan University.

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**Immunology - Immunoglobulins**

**Findings from Swiss Federal Institute of Technology Broaden Understanding of Immunoglobulins (Immunocytokines and bispecific antibodies: two complementary strategies for the selective activation of immune cells at the tumor site)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Immunoglobulins have been published. According to news originating from Zurich, Switzerland, by NewsRx correspondents, research stated, "The activation of the immune system for a selective removal of tumor cells represents an attractive strategy for the treatment of metastatic malignancies, which cannot be cured by existing methodologies. In this review, we examine the design and therapeutic potential of immunocytokines and bispecific antibodies, two classes of bifunctional products which can selectively activate the immune system at the tumor site."

Funders for this research include Eidgenossische Technische Hochschule Zurich, European Research Council, Schweizerischer Nationalfonds zur Forderung der Wissenschaftlichen Forschung, Bovena Stiftung.

Our news journalists obtained a quote from the research from the Swiss Federal Institute of Technology, "Certain protein engineering aspects, such as the choice of the antibody format, are common to both classes of therapeutic agents and can have a profound impact on tumor homing performance in vivo of individual products. However, immunocytokines and
bispecific antibodies display different mechanisms of action."

According to the news editors, the research concluded: "Future research activities will reveal whether an additive of even synergistic benefit can be obtained from the judicious combination of these two types of biopharmaceutical agents."


The news correspondents report that additional information may be obtained from J.D. Kiefer, Dept. of Chemistry and Applied Biosciences, Swiss Federal Institute of Technology (ETH Zurich), Zurich, Switzerland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imr.12391. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Zurich, Europe, Immunology, Switzerland, Article Review, Blood Proteins, Immunoglobulins, Hemic and Immune Systems.

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opinion or 'guidelines..'"


The news correspondents report that additional information may be obtained from L.M. Nagao, Drinker Biddle & Reath LLP, Washington, DC, United States. Additional authors for this research include S. Glowienke, U.S. Bruen, L.M. Nagao, A. Teasdale, C.L.M. Stults, K.L. Li, L.A. Iciek, G. Erexson, E.A. Martin and D.J. Ball.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Genetically-Engineered Proteins, Genetic Engineering, Bioengineering, Biotechnology, Biologics.

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**Cardiovascular Diseases and Conditions...**

**Findings from T.J. Milling and Co-Authors in the Area of Thromboembolism Reported (Re-initiation of dabigatran and direct factor Xa antagonists after a major bleed)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Thromboembolism. According to news originating from Austin, Texas, by NewsRx correspondents, research stated, "Direct oral anticoagulants (DOACs) are a relatively recent addition to the oral anticoagulant armamentarium, and provide an alternative to the use of vitamin K antagonists such as warfarin."

Our news journalists obtained a quote from the research, "Regardless of the type of agent used, bleeding is the major complication of anticoagulant therapy. The decision to restart oral anticoagulation following a major hemorrhage in a previously anticoagulated patient is supported largely by retrospective studies rather than randomized clinical trials (mostly with vitamin K antagonists), and remains an issue of individualized clinical assessment: the patient's risk of thromboembolism must be balanced with the risk of recurrent major bleeding."

According to the news editors, the research concluded: "This review provides guidance for clinicians regarding if and when a patient should be re-initiated on DOAC therapy following a major hemorrhage, based on the existing evidence."


The news correspondents report that additional information may be obtained from T.J. Milling, Seton Dell Med Sch, Stroke Inst, Dept. of Surg & Perioperat Care, Austin, TX, United States.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.09.049. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Austin, Texas, United States, North and Central America, Cardiovascular Diseases and Conditions, Clinical Trials and Studies, Hemorrhage, Article Review, Blood Coagulation Factors, Coagulation Modifiers, Drugs and Therapies, Thrombin Inhibitors, Post-Trial Research, Risk and Prevention, Thromboembolism, Blood Proteins, Anticoagulants, Hematology, Dabigatran, Factor Xa.

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Oncology - Prostate Cancer

Findings from Taipei Medical University Update Knowledge of Prostate Cancer (Obstructive sleep apnea and urological comorbidities in males: a population-based study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "This study aimed to investigate associations between obstructive sleep apnea (OSA) and urological comorbidities using a large population-based dataset. This cross-sectional study used the Taiwan Longitudinal Health Insurance Database 2005."

The news reporters obtained a quote from the research from Taipei Medical University, "We included 1236 males with OSA in the study group and 4944 males without OSA in the comparison group. Conditional logistic regressions were performed to examine relationships between OSA and urological comorbidities. We found that patients with OSA had significantly greater prevalences of hypertrophy of the prostate (15.13 vs. 7.28 %), chronic prostatitis (4.37 vs. 2.16 %), urinary incontinence (3.32 vs. 0.87 %), nocturia (2.02 vs. 0.61 %), erectile dysfunction (2.91 vs. 0.97 %), urinary calculi (12.06 vs. 6.80 %), and prostate cancer (0.97 vs. 0.40 %) than the comparison group. Additionally, the adjusted odds ratios in males with OSA for hypertrophy of prostate, chronic prostatitis, urinary incontinence, nocturia, erectile dysfunction, urinary calculi, and prostate cancer were 2.54 (95 % confidence interval (CI) 2.05 similar to 3.15), 1.95 (95 % CI 1.38 similar to 2.74), 4.13 (95 % CI 2.63 similar to 6.50), 3.54 (95 % CI 2.03 similar to 6.18), 2.95 (95 % CI 1.89 similar to 4.61), 1.89 (95 % CI 1.53 similar to 2.33), and 2.14 (95 % CI 1.03 similar to 4.43) than those without OSA, respectively."

According to the news reporters, the research concluded: "This study concluded that males with OSA had higher odds ratios of hypertrophy of the prostate, chronic prostatitis, urinary incontinence, nocturia, erectile dysfunction, urinary calculi, and prostate cancer than comparison group."

For more information on this research see: Obstructive sleep apnea and urological comorbidities in males: a population-based study. Sleep and Breathing, 2016;20(4):1203-1208. Sleep and Breathing can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Sleep and Breathing - www.springerlink.com/content/1520-9512/)

Our news correspondents report that additional information may be obtained by contacting H.C. Lin, Taipei Medical University, Sch Hlth Care Adm, Coll Med, Taipei 110,
Taiwan. Additional authors for this research include S.H. Hung, H.C. Lin, M.C. Tsai and L.T. Kao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11325-016-1336-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Respiratory Tract Diseases and Conditions, Male Urogenital Diseases and Conditions, Male Genital Diseases and Conditions, Prostatic Diseases and Conditions, Urologic Diseases and Conditions, Sleep Diseases and Conditions, Male Urinary Tract Disorders, Obstructive Sleep Apnea, Respiration Disorders, Cancer, Epidemiology, Urinary Incontinence, Erectile Dysfunction, Urination Disorders, Prostatic Neoplasms, Urinary Calculi, Sleep Disorders, Prostate Cancer, Prostate Gland, Otolaryngology, Men's Health, Urolithiasis, Craniofacial, Hypertrophy, Prostatitis, Pulmonology, Impotence, Oncology, Urology, Taipei Medical University.

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**Life Science Research - Cell Biology**

**Findings from Technical University Broaden Understanding of Cell Biology (Rare phenotypes in the understanding of autoimmunity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Cell Biology. According to news reporting from Dresden, Germany, by NewsRx journalists, research stated, "The study of rare phenotypes has a long history in the description of autoimmune disorders. First Mendelian syndromes of idiopathic tissue destruction were defined more than 100 years ago and were later revealed to result from immune-mediated reactivity against self."

The news correspondents obtained a quote from the research from Technical University, "In the past two decades, continuous advances in sequencing technology and particularly the advent of next-generation sequencing have allowed to define the genetic basis of an ever-growing number of Mendelian forms of autoimmunity. This has provided unique insight into the molecular pathways that govern immunological homeostasis and that are indispensable for the prevention of self-reactive immune-mediated tissue damage and 'horror autotoxicus'. Here we will discuss selected examples of past and recent investigations into rare phenotypes of autoimmunity that have delineated pathways critical for central and peripheral control of the adaptive immune system. We will outline the implications of these findings for rare and common forms of autoimmunity and will discuss the benefits and potential pitfalls of the integration of next-generation sequencing into algorithms for clinical diagnostics."

According to the news reporters, the research concluded: "Because of the concise nature of this review, we will focus on syndromes caused by defects in the control of adaptive immunity as innate immune-mediated autoinflammatory disorders have been covered in excellent recent reviews on Mendelian and polygenic forms of autoimmunity."

For more information on this research see: Rare phenotypes in the understanding of autoimmunity. *Immunology and Cell Biology*, 2016;94(10):943-948. *Immunology and Cell Biology* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Immunology and Cell Biology - www.nature.com/icb/)

Our news journalists report that additional information may be obtained by
contacting S. Zeissig, Technical University of Dresden, Center Regenerat Therapies, Dresden, Germany. Additional authors for this research include B.S. Petersen, A. Franke, R.S. Blumberg and S. Zeissig.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/icb.2016.76. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dresden, Germany, Europe, Cell Biology, Life Science Research, Genetics, Article Review, Immunology, Technical University.

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Oncology - Breast Cancer

Findings from Technical University Has Provided New Data on Breast Cancer (Changes in apoptosis-related gene expression and cytokine release in breast cancer cells treated with CpG-loaded magnetic PAMAM nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting originating from Ankara, Turkey, by NewsRx correspondents, research stated, "CpG-oligodeoxynucleotide (CpG-ODN) can function as an immune adjuvant. Previously, we showed that stimulation of breast cancer cells with CpG-ODN conjugated with PAMAM dendrimer-coated magnetic nanoparticles (DcMNPs) has induced apoptosis."

Our news editors obtained a quote from the research from Technical University, "The aim of the current study was to evaluate the expression levels of some apoptosis-regulating genes in several human breast cancer cells treated with CpG/DcMNPs. Treated MDA-MB231 cells showed an increase in Noxa and Bax gene expression levels, whereas the expression level of Survivin decreased. Similarly, Noxa gene was overexpressed in treated MCF7 cells. In treated SKBR3 cells, a decline in the c-Flip mRNA level was determined. Furthermore, release of cytokines, IL-6, IL-10, and TNF-alpha, was determined in cell culture supernatants. CpG/DcMNP treatment leads to an increase in the release of IL-6 in MDA-MB231 and SKBR3 cells, whereas release of IL-10 and TNF-alpha did not change significantly."

According to the news editors, the research concluded: "It is indicated that CpG-ODN may show its cytotoxic effect by regulating the expression of apoptosis-related genes and the release of cytokine in breast cancer cells."


The news editors report that additional information may be obtained by contacting N.T. Pourianazar, Middle East Technical Univ, Dept. of Biotechnol, TR-06800 Ankara, Turkey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.007. This DOI is a link to an online electronic
Findings from Technical University Provide New Insights into Statistical Mechanics (Some thermodynamic considerations on low frequency electromagnetic waves effects on cancer invasion and metastasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Statistical Mechanics. According to news reporting originating in Turin, Italy, by NewsRx journalists, research stated, "Cell membranes are the reason of the cell energy transfer. In cells energy transfer, thermoelectro-chemical processes and transports phenomena occur through their membranes."

The news reporters obtained a quote from the research from Technical University, "Cells can actively modify their behaviours in relation to any change of their environment. They waste heat into their environment. The analysis of irreversibility related to this wasted heat, to the ions transport and the related cell-environment pH changes represents a new useful approach to the study of the cells behaviour."

According to the news reporters, the research concluded: "This analysis allows also the explanation of the effects of electromagnetic fields on the cell behaviour, and to suggest how low intensity electromagnetic fields could represent a useful support to the present anticancer therapies."

For more information on this research see: Some thermodynamic considerations on low frequency electromagnetic waves effects on cancer invasion and metastasis. Physica A-Statistical Mechanics and Its Applications, 2017;467():289-295. Physica A-Statistical Mechanics and Its Applications can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands.

Our news correspondents report that additional information may be obtained by contacting U. Lucia, Politecn Torino, Dipartimento Energia, I-10129 Turin, Italy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.physa.2016.10.043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turin, Italy, Europe, Statistical Mechanics, Oncology, Cancer, Technical University.

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Oncology - Prostate Cancer

Findings from Technical University Provides New Data on Prostate Cancer (Current use of PSMA-PET in prostate cancer management)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting out of Munich, Germany, by NewsRx editors, research stated, "Currently, the findings of imaging procedures used for detection or staging of prostate cancer depend on morphology of lymph nodes or bone metabolism and do not always meet diagnostic needs. Prostate-specific membrane antigen (PSMA), a transmembrane protein that has considerable overexpression on most prostate cancer cells, has gained increasing interest as a target molecule for imaging."

Our news journalists obtained a quote from the research from Technical University, "To date, several small compounds for labelling PSMA have been developed and are currently being investigated as imaging probes for PET with the (68)Ga-labelled PSMA inhibitor Glu-NH-CO-NH-Lys(Ahx)-HBED-CC being the most widely studied agent. (68)Ga-PSMA-PET imaging in combination with multiparametric MRI (mpMRI) might provide additional molecular information on cancer localization within the prostate. In patients with primary prostate cancer of intermediate-risk to high-risk, PSMA-based imaging has been reported to improve detection of metastatic disease compared with CT or mpMRI, rendering additional cross-sectional imaging or bone scintigraphy unnecessary. Furthermore, in patients with biochemically recurrent prostate cancer, use of (68)Ga-PSMA-PET imaging has been shown to increase detection of metastatic sites, even at low serum PSA values, compared with conventional imaging or PET examination with different tracers."

According to the news editors, the research concluded: "Thus, although current knowledge is still limited and derived mostly from retrospective series, PSMA-based imaging holds great promise to improve prostate cancer management."


Our news journalists report that additional information may be obtained by contacting T. Maurer, Dept. of Urology, Technische Universitat Munchen, Klinikum rechts der Isar, Ismaninger Strasse 22, 81671 Munich, Germany. Additional authors for this research include M. Eiber, M. Schwaiger and J.E Gschwend.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrurol.2016.26. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munich, Europe, Germany, Oncology, Bone Research, Article Review, Prostate Cancer, Prostatic Neoplasms.

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Findings from Technical University Update Knowledge of Aggressive Periodontitis (Differentiation of Chronic and Aggressive Periodontitis by FTIR Spectroscopy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Periodontal Diseases and Conditions - Aggressive Periodontitis. According to news reporting originating from Ankara, Turkey, by NewsRx correspondents, research stated, "Without longitudinal clinical data, it is difficult to differentiate some cases of chronic periodontitis (CP) and aggressive periodontitis (AgP). Furthermore, both forms of disease are exacerbated by tobacco use."

Our news editors obtained a quote from the research from Technical University, "Therefore, this cross-sectional study was planned, primarily, to determine the ability of Fourier-transform infrared (FTIR) spectroscopy to distinguish CP and AgP patients by analysis of human saliva samples and, secondarily, to assess the potential confounding influence of smoking on discriminating disease-specific spectral signatures. FTIR spectra were collected from patients with a clinical diagnosis of CP (n = 18; 7 smokers) or AgP (n = 23; 9 smokers). Self-reported smoking status, which may be unreliable, was confirmed by salivary cotinine analysis. Spectral band area analysis and hierarchical cluster analyses were performed to clarify if the 2 periodontitis groups as well as smoker and nonsmoker patients could be differentiated from each other. Significant variations in lipid, amino acid, lactic acid, and nucleic acid content were found between nonsmoker CP and AgP groups. Although significantly lower lipid, phospholipid, protein, amino acid, lactic acid, and nucleic acid content was noted in the smoker AgP group compared with the nonsmoker AgP group, in the CP group, phospholipid, protein, amino acid, lactic acid, and nucleic acid content was noted in the smoker AgP group compared with the nonsmoker AgP group. Based on these variations, nonsmoker CP and AgP patients were discriminated from each other with high sensitivity and specificity. Successful differentiation was also obtained for the smoker CP and AgP groups. Thiocyanate levels successfully differentiated smokers from nonsmokers, irrespective of periodontal status, with 100% accuracy."

According to the news editors, the research concluded: "Differentiation of AgP and CP forms, concomitant with determination of smoking status, may allow the dental health professional to tailor treatment accordingly."


The news editors report that additional information may be obtained by contacting F. Severcan, Middle East Technical Univ, Dept. of Biol Sci, TR-06800 Ankara, Turkey. Additional authors for this research include I. Zeller, D.E. Renaud, P. Gumus, N. Nizam, F. Severcan, N. Buduneli and D.A. Scott.

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Keywords for this news article include: Ankara, Turkey, Eurasia, Stomatognathic Diseases and Conditions, Periodontal Diseases and Conditions, Mouth Diseases and
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Cardiology

Findings from Tel Aviv University Has Provided New Data on Cardiology (Left atrial appendage and pulmonary artery anatomic relationship by cardiac-gated computed tomography: Implications for late pulmonary artery perforation by left atrial ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiology is now available. According to news reporting out of Tel Aviv, Israel, by NewsRx editors, research stated, "Delayed pulmonary artery (PA) perforation and tamponade caused by implantable left atrial appendage (LAA) closure devices has been reported in patients with dose proximity between these structures. The LAA and PA anatomic relationship (LAA-PA(ar)) has not been analyzed systematically."

Our news journalists obtained a quote from the research from Tel Aviv University, "The purpose of this study was to identify LAA-PA(ar) variants potentially susceptible to this complication using cardiac gated computed tomography angiography. We studied 100 consecutive patients with atrial fibrillation undergoing cardiac-gated computed tomography angiography of the left atrium. The LAA-PA(ar) was classified into 3 types on the basis of the location, length, and thickness of the segment of contact between the PA and/or its branches and the LAA: type 1, no contact; type 2, contact involving the proximal LAA (defined as the proximal 15 mm extending into the LAA from its ostium, or the LAA proximal to the first major bend arising <15 mm from the ostium); and type 3, contact limited to the distal LAA. LAA-PA(ar) types 1, 2, and 3 were present in 7 (7%), 28 (28%), and 65 (65%) patients, respectively. For LAA-PA(ar) type 2, the mean contact segment thickness and length were 0.6 +/- 0.3 and 18.1 +/- 10.6 mm, respectively. For LAA-PA(ar) type 3, the distance between the LAA orifice and the segment of contact was <30 mm in 52 patients (80%). In this series, the LAA came in direct contact with the main PA in the majority of patients."

According to the news editors, the research concluded: "Contact involved the proximal LAA (where the fixation components of most LAA closure devices are positioned) in 28% of patients, posing potential vulnerability to PA perforation."


Our news journalists report that additional information may be obtained by contacting A. Halkin, Tel Aviv University, Sackler Fac Med, Tel Aviv, Israel. Additional authors for this research include C. Cohen, R. Rosso, E. Chorin, M. Schnapper, S. Biner, Y. Topilsky, A. Shiran, H. Shmilovich, D. Cohen, G. Keren, S. Banai and G. Aviram.

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document that is either free or for purchase.

Keywords for this news article include: Tel Aviv, Israel, Asia, Computed Tomography, Imaging Technology, Pulmonary Artery, Cardiology, Angiography, Angiology, Tel Aviv University.

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Oncology - Breast Cancer

Findings from Tel Aviv University Reveals New Findings on Breast Cancer (First trimester human placenta prevents breast cancer cell attachment to the matrix: The role of extracellular matrix)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting out of Tel Aviv, Israel, by NewsRx editors, research stated, "The extracellular matrix (ECM) affects cancer cell characteristics. Its detachment from the ECM induces cell apoptosis, termed anoikis."

Our news journalists obtained a quote from the research from Tel Aviv University, "Cancer cells can develop anoikis resistance, a necessary step for metastasis, by switching integrins, over-expressing growth factor receptors, and inducing epithelial mesenchymal transition (EMT). The placenta is a non-supportive microenvironment for cancer cells. We showed that breast cancer cells (BCCL) were eliminated from placental implantation sites. During implantation, the placenta manipulates its surrounding matrix, which may induce BCCL elimination. Here, we explored the effect of placenta-induced ECM manipulations on BCCL. During experiments, BCCL (MCF-7/T47D) were cultured on placenta/BCCL-conditioned ECM (Matrigel used for first trimester placenta/BCCL culture and cleared by NH4OH). After culturing the cells, we analyzed cancer cell phenotype (death, count, aggregation, MMP) and signaling (microarray analysis and pathway validation). We found that the BCCL did not attach to previous placental implantation sites and instead, similarly to anoikis-resistant cells, migrated away, displayed increased MMP levels/activity, and formed aggregates in distant areas. T47D were less affected than the MCF-7 cells, since MCF-7 also showed modest increases in cell death, EMT, and increased proliferation. Microarray analysis of the MCF-7 highlighted changes in the integrin, estrogen, EGFR, and TGF pathways. Indeed, placental ECM reduced ER, induced Smad3/JNK phosphorylation and increased integrin-5 expression (RGD-dependent integrin) in the BCCL. Addition of RGD or TGFR/JNK inhibitors reversed the phenotypic changes."

According to the news editors, the research concluded: "This study helps explain the absence of metastases to the placenta and why advanced cancer is found in pregnancy, and provides possible therapeutic targets for anoikis-resistant cells."


Our news journalists report that additional information may be obtained by
Oncology - Endometrial Cancer

Findings from Temple University Hospital Provides New Data about Endometrial Cancer (The obese endometrial cancer patient: how do we effectively improve morbidity and mortality in this patient population?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Endometrial Cancer have been presented. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Endometrial cancer patients have increased mortality from obesity-related comorbidities. Gynecologic oncologists should regularly incorporate screening and treatment methods to address this risk. The relationship between obesity, metabolic syndrome, and endometrial cancer has been established and accepted for decades."

Our news editors obtained a quote from the research from Temple University Hospital, "However, despite this understanding, endometrial cancer patients continue to die of their obesity-related comorbidities such as cardiovascular disease and diabetes. Furthermore, studies show that gynecologic oncologists, general obstetrician/gynecologists, and bariatric specialists do not appropriately address obesity as a risk factor for cancer and also do not provide appropriate counseling on weight loss and lifestyle modification during screening, diagnosis, and follow-up for endometrial cancer. Given the increasing numbers of obese women both in the United States as well as globally, it is imperative that this risk be addressed and mitigated during patient interactions. Therefore, this article reviews the literature on obesity, metabolic syndrome, and endometrial cancer, as well as the literature on causes of death in endometrial cancer patients. Given the increased cardiovascular and all-cause mortality, we provide a number of methods to address obesity as a risk factor for cancer during patient visits. These methods include self-directed diet and exercise, supervised diet and exercise programs, medical management with insulin-sensitizing agents and statins, as well as bariatric surgery in extreme cases."

According to the news editors, the research concluded: "Furthermore, we also encourage collaboration between general obstetrician/gynecologists, gynecologic oncologists, and bariatric specialists in the care of obese endometrial cancer patients to ensure that they not only survive their diagnosis, but also go on to live long, healthy lives."


The news editors report that additional information may be obtained by contacting K.
Lymphatic Diseases and Conditions –...

Findings from Thomas Jefferson University Update Understanding of Hemophagocytic Lymphohistiocytosis (Hemophagocytic lymphohistiocytosis in the ED)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lymphatic Diseases and Conditions - Hemophagocytic Lymphohistiocytosis. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Hemophagocytic lymphohistiocytosis (HLH) is a hyperinflammatory syndrome characterized by tissue invasion of liver, spleen, and lymph nodes by benign lymphocytes and hemophagocytosing macrophages with marked release of inflammatory cytokines. The result is a cytokine storm with systemic inflammatory response syndrome, multiorgan dysfunction, and often death."

Our news editors obtained a quote from the research from Thomas Jefferson University, "Patients present with fever, hepatosplenomegaly, unexplained cytopenias, marked hyperferetinemia, liver dysfunction, coagulopathy, central nervous system dysfunction, and/or renal dysfunction. An infectious or malignant trigger is often found. We describe here a case that presented to the emergency department with fever, jaundice, a change in mental status, acute kidney injury, and severe pancytopenia. The patient was admitted to the intensive care unit, and hemophagocytic lymphohistiocytosis was diagnosed. Recovery occurred with supportive therapy. Emergency medicine physicians need to be aware of this syndrome to obtain confirmatory testing and appropriate subspecialty consultation in a timely manner and to initiate the search for triggering infections. Chemoimmunotherapy of the hyperinflammatory state and specific treatment of triggering infections may be lifesaving. Hemophagocytic lymphohistiocytosis (HLH) is a frequently fatal, hyperinflammatory syndrome resulting from exuberant proliferation of CD8+ cytotoxic T-lymphocytes (CTL) and benign macrophages with tissue invasion involving lymph nodes, liver, and spleen [1]. There is marked release of proinflammatory cytokines, resulting in a 'cytokine storm,' with severe systemic inflammatory response syndrome, multiorgan dysfunction syndrome, and often death. Autosomal recessive, primary familial HLH (FHL) as well as X-linked forms usually present in infancy or early childhood [2]. Secondary HLH (sHLH) can occur at any age, triggered by infection, malignancy, immunosuppression, or flare of rheumatologic disease (known as macrophage activation syndrome) [3]. Cases of sHLH not uncommonly also have an underlying genetic predisposition.
Clinical manifestations include unremitting fever; rash; lymphadenopathy; hepatosplenomegaly; and dysfunction of liver, kidney, lung, and/or central nervous system. Bicytopenia or pancytopenia is characteristic along with markedly elevated ferritin, abnormal liver function tests, coagulopathy, hypofibrinogenemia, hypertriglyceridemia, and hyponatremia."

According to the news editors, the research concluded: "Bone marrow aspiration (BMA) usually, but not always, reveals hemophagocytes (HPCs), macrophages that have phagocytosed red cells, leukocytes, and/or platelets, and their precursors."


The news editors report that additional information may be obtained by contacting E.J. Filippone, Thomas Jefferson University, Div Nephrol, Dept. of Med, Sydney Kimmel Med College, Philadelphia, PA 19107, United States. Additional authors for this research include L.M. Filippone and E.J. Filippone.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Hemophagocytic Lymphohistiocytosis, Mononuclear Phagocyte System, Connective Tissue Cells, Central Nervous System, Myeloid Cells, Pancytopenia, Macrophages, Immunology, Phagocytes, Genetics, Thomas Jefferson University.

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**Pharmacology**

**Findings from Tianjin University Yields New Findings on Pharmacology (Phytochemical and Pharmacological Studies on the Genus Psoralea: A Mini Review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pharmacology have been published. According to news originating from Tianjin, People's Republic of China, by NewsRx correspondents, research stated, "The genus Psoralea, which belongs to the family Fabaceae, comprises ca. 130 species distributed all over the world, and some of the plants are used as folk medicine to treat various diseases."

Financial supporters for this research include National Natural Science Foundation of China, Tianjin Science and Technology Commissioner Project, National Science and Technology Major Projects.

Our news journalists obtained a quote from the research from Tianjin University, "Psoralea corylifolia is a typical example, whose seeds have been widely used in many traditional Chinese medicine formulas for the treatment of various diseases such as leucoderma and other skin diseases, cardiovascular diseases, nephritis, osteoporosis, and cancer. So, the chemical and pharmacological studies on this genus were performed in the past decades."

According to the news editors, the research concluded: "Here, we give a mini review on this genus about its phytochemical and pharmacological studies from 1910 to 2015."

The news correspondents report that additional information may be obtained from X. Chai, Tianjin University for Traditional Chinese Medicine, Tianjin Key Lab Modern Chinese Med, Tianjin 300193, People's Republic of China. Additional authors for this research include T.L. Wang, Z.Q. Zhang, W.Q. Yang, Y.F. Wang, X. Chai, C.H. Wang and Z. Li.

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Keywords for this news article include: Tianjin, People's Republic of China, Asia, Therapy, Article Review, Pharmacology, Tianjin University.

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**Drugs and Therapies - Pharmacology**

**Findings from Tohoku University Update Knowledge of Pharmacology (Effects of ZD0947, a novel and potent ATP-sensitive K+ channel opener, on smooth muscle-type ATP-sensitive K+ channels)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Pharmacology have been published. According to news reporting originating in Miyagi, Japan, by NewsRx journalists, research stated, "The effects of ZD0947, a novel ATP-sensitive K+ channel (K-ATP channel) opener, on the activity of reconstituted KATP channels were investigated using cell-attached recordings. KATP channels were studied in HEK 293 cells by co-expression of inwardly rectifying-6 family K+ channel subunits (Kir6.x: Kir6.1 and Kir6.2) with 3 different types of sulphonylurea receptors (SUR.x: SUR1, SUR2A and SUR2B)."

The news reporters obtained a quote from the research from Tohoku University, "ZD0947 (100 mu M) activated SUR2B/Kir6.2 channels in a concentration-dependent manner, but caused only weak activation of SUR1/Kir6.2 channels and SUR2A/Kir6.2 channels expressed in HEK 293 cells. ZD0947 reversibly suppressed diazoxide-elicited SUR1/Kir6.2 channels activity and pinacidil-elicited SUR2A/Kir6.2 channel activity. However, ZD0947 did not affect SUR2B/Kir6.2 channels fully activated by 100 mu M pinacidil. ZD0947 had little inhibitory effects on the activity of Kir6.2 Delta C26 channels (a truncated isoform of Kir6.2) or its mutant channels (i.e. Kir6.2 Delta C26C166A) expressed in HEK 293 cells. ZD0947 also elicited activity in SUR2B/Kir6.1 channels expressed in HEK 293 cells, in a concentration-dependent manner. Therefore, ZD0947 is a relatively effective activator of smooth muscle-type KATP channels (SUR2B/Kir6.1 and SUR2B/Kir6.2) but is a partial antagonist of pancreatic-type KATP channels (i.e. SUR1/Kir6.2) and cardiac-type KATP channels (i.e. SUR2A/Kir6.2)."

According to the news reporters, the research concluded: "These results suggest that a pharmacological agent can possess either agonist or antagonist actions on the activity of KATP channels, depending on the subtype of SUR.x."

Our news correspondents report that additional information may be obtained by contacting N. Teramoto, Tohoku University, Grad Sch Biomed Engn, Biomed Engn Lab, Sendai, Miyagi 9808575, Japan. Additional authors for this research include Y. Yamashita and N. Teramoto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miyagi, Japan, Asia, Pharmacology, Drugs and Therapies, Tohoku University.

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**Necroptosis**

**Findings from Tokyo Medical and Dental University Broaden Understanding of Necroptosis (Necroptosis-like Neuronal Cell Death Caused by Cellular Cholesterol Accumulation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Necroptosis have been published. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Aberrant cellular accumulation of cholesterol is associated with neuronal lysosomal storage disorders such as Niemann-Pick disease Type C (NPC). We have shown previously that L-norephedrine (L-Nor), a sympathomimetic amine, induces necrotic cell death associated with massive cytoplasmic vacuolation in SH-SY5Y human neuroblastoma cells."

Financial support for this research came from Japan Society for the Promotion of Science.

Our news journalists obtained a quote from the research from Tokyo Medical and Dental University, "To reveal the molecular mechanism underling necrotic neuronal cell death caused by L-Nor, we examined alterations in the gene expression profile of cells during L-Nor exposure. DNA microarray analysis revealed that the gene levels for cholesterol transport (LDL receptor and NPC2) as well as cholesterol biosynthesis (mevalonate pathway enzymes) are increased after exposure to 3 mM L-Nor for similar to 6 h. Concomitant with this observation, the master transcriptional regulator of cholesterol homeostasis, SREBP-2, is activated by L-Nor. The increase in cholesterol uptake as well as biosynthesis is not accompanied by an increase in cholesterol in the plasma membrane, but rather by aberrant accumulation in cytoplasmic compartments. We also found that cell death by L-Nor can be suppressed by nec-1s, an inhibitor of a regulated form of necrosis, necroptosis. Abrogation of SREBP-2 activation by the small molecule inhibitor betulin or by overexpression of dominant-negative SREBP-2 efficiently reduces cell death by L-Nor. The mobilization of cellular cholesterol in the presence of cyclodextrin also suppresses cell death. These results were also observed in primary culture of..."
striatum neurons."

According to the news editors, the research concluded: "Taken together, our results indicate that the excessive uptake as well as synthesis of cholesterol should underlie neuronal cell death by L-Nor exposure, and suggest a possible link between lysosomal cholesterol storage disorders and the regulated form of necrosis in neuronal cells."


The news correspondents report that additional information may be obtained from T. Aki, Tokyo Medical & Dental University, Grad Sch Med & Dental Sci, Dept. of Forens Med, Tokyo 1138519, Japan. Additional authors for this research include T. Aki, M. Tajiri, K. Unuma and K. Uemura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.727404. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Cholesterol, Necroptosis, Genetics, Neurons, Cells, Tokyo Medical and Dental University.

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**Drugs and Therapies - Antibiotics**

**Findings from Tongji University Update Knowledge of Antibiotics (Preparation and Antibacterial Mechanism Insight of Polypeptide-Based Micelles with Excellent Antibacterial Activities)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a new report. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Traditional antibiotics usually sterilize in chemical ways, which may lead to serious drug resistance. By contrast, peptide-based antibacterial materials are less susceptible to drug resistance."

Funders for this research include Ministry of Education of the People's Republic of China, National Natural Science Foundation of China, Shanghai 1000 Talents Plan, Beijing National Laboratory for Molecular Sciences, Shanghai International Scientific Collaboration Fund.

Our news journalists obtained a quote from the research from Tongji University, "Herein we report the preparation of an antibacterial peptide-based copolymer micelle and the investigation of its membrane-penetration antibacterial mechanism by transmission electron microscopy (TEM). The copolymer is poly(L-lactide)-block-poly(phenylalanine-stat-lysine) [PLLA(31)-b-poly(Phe(24)-stat-Lys(36))], which is synthesized by ring-opening polymerization. The PLLA chains form the core, whereas the polypeptide chains form the coronas of the micelle in aqueous solution. This micelle boasts excellent antibacterial efficacy against both Gram-positive and Gram-negative bacteria. Furthermore, TEM studies clearly reveal that the micelles
pierce and then destroy the cell membrane of the bacteria. We also compared the advantages and disadvantages of two general methods for measuring the Minimal Inhibitory Concentration (MIC) values of antibacterial micelles."

According to the news editors, the research concluded: "Overall, this study provides us with direct evidence for the antibacterial mechanism of polypeptide-based micelles and a strategy for synthesizing biodegradable antibacterial nano materials without antibiotic resistance."

For more information on this research see: Preparation and Antibacterial Mechanism Insight of Polypeptide-Based Micelles with Excellent Antibacterial Activities. *Biomacromolecules*, 2016;17(12):3922-3930. *Biomacromolecules* can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Biomacromolecules - www.pubs.acs.org/journal/bomaf6)

The news correspondents report that additional information may be obtained from J.Z. Du, Tongji Univ, Sch Mat Sci & Engn, Dept. of Polymer Mat, Shanghai 201804, People's Republic of China. Additional authors for this research include T. Song, S.Y. Tang, N.S. Wang and J.Z. Du.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.biomac.6b01285. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Antibacterial Agents, Drugs and Therapies, Drug Resistance, Antimicrobials, Antibiotics, Tongji University.

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fistula type. We identified a total of 84 patients: 45 had a BCAVF, and 39 had an mNT-BBAVF. The two groups were well matched for baseline characteristics. Maturation rates at 1 month were 97% for mNT-BBAVF and 96% for BCAVF. The 1-year primary unassisted patency was significantly higher in the NT-BBAVF group than that in the BCAVF group (87% vs 67%; hazard ratio, 2.86; 95% confidence interval, 1.11-6.40; P =.03), although cumulative patency did not differ (90% vs 73%; hazard ratio, 2.80; 95% confidence interval, 0.98-6.96; P =.06). There were no differences in thrombosis, failure of maturation, bleeding, steal syndrome, arm swelling, aneurysm, and stenosis between the two groups during the 12-month study. Importantly, diameters and blood flow volumes of the proximal cephalic vein, distal cephalic vein, and distal basilic vein in patients who received an mNT-BBAVF increased significantly after 12 months. All three vessels met the Kidney Disease Outcomes Quality Initiative (KDOQI) criteria for fistula maturation and were available for dialysis cannulation, whereas only the proximal cephalic vein in the BCAVF group met the maturation criteria and could be used for cannulation."

According to the news editors, the research concluded: "MNT-BBAVF appeared to be an effective alternative to BCAVF for upper arm hemodialysis access."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2016.03.450. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Cardiovascular Abnormalities, Arteriovenous Malformations, Congenital Abnormalities, Vascular Malformations, Arteriovenous Fistula, Angiography, Surgery, Vascular Fistula, Renal Dialysis, Cephalic Vein, Basilic Vein, Hemodialysis, Tongji University.

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**Autoimmune Diseases and Conditions – Psoriatic…**

**Findings from Toronto Western Hospital Yields New Data on Psoriatic Arthritis (CXCL10 Is a Possible Biomarker for the Development of Psoriatic Arthritis Among Patients With Psoriasis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Autoimmune Diseases and Conditions - Psoriatic Arthritis are discussed in a new report. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "Biomarkers that can predict the
development of psoriatic arthritis (PsA) in patients with psoriasis would be useful in clinical practice. The aim of this study was to assess whether CXCL10 could be a predictive biomarker of PsA prior to its onset."

Our news editors obtained a quote from the research from Toronto Western Hospital, "Psoriasis patients without arthritis were followed up prospectively and assessed annually for development of PsA by a rheumatologist. Patients in whom PsA developed were designated as converters, while those in whom PsA did not develop were termed nonconverters. Baseline serum concentrations of CXCL10 were measured by Luminox assay in 46 converters and 45 nonconverters. The level of CXCL10 was significantly higher in converters (median 493 pg/ml [interquartile range (IQR) 356-984]) than in nonconverters (median 371 pg/ml [IQR 263-578]; P=0.005). In contrast, C-reactive protein (CRP) levels were not significantly different between converters and nonconverters at baseline. CXCL10 was associated with conversion status after adjustment for age, sex, duration of psoriasis, and duration of follow-up (odds ratio 1.3, 95% confidence interval 1.1-1.5, P=0.004). In a subset of converters, the CXCL10 level was significantly higher at baseline (median 927.4 pg/ml [IQR 547.6-1,243]) than after PsA diagnosis (491.5 pg/ml [IQR 323.2-607]; P<0.0001), while CRP levels were lower at baseline (26.6 mu g/ml [IQR 16.37-62.75]) than after PsA diagnosis (36.1 mu g/ml [IQR 14.74-101.7]; P=0.003). CXCL10 gene expression was increased 17.3-fold in synovial fluid (SF) compared with blood from PsA patients (P=0.01) and 44.3-fold in the SF of PsA patients compared with the SF of patients with gout (P=0.001)."

According to the news editors, the research concluded: "CXCL10 may be involved in PsA pathogenesis and is a candidate predictive biomarker for PsA in patients with psoriasis."

For more information on this research see: CXCL10 Is a Possible Biomarker for the Development of Psoriatic Arthritis Among Patients With Psoriasis. *Arthritis & Rheumatology*, 2016;68(12):2911-2916. *Arthritis & Rheumatology* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting D.D. Gladman, Toronto Western Hosp, Toronto, ON, Canada. Additional authors for this research include R.A. Pollock, K. Liang, V. Chandran and D.D. Gladman.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Papulosquamous Skin Diseases and Conditions, Musculoskeletal Diseases and Conditions, Arthritis, Diagnostics and Screening, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Psoriatic Arthritis, Dermatology, Psoriasis, Genetics, Toronto Western Hospital.

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**Choline**

**Findings from Tottori University Broaden Understanding of Choline (M3 Muscarinic Receptor Signaling Stabilizes a Novel Mutant Human Ether-Go-Go-Related Gene Channel Protein via Phosphorylation of Heat Shock Factor 1 in Transfected Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Choline have been published. According to news reporting out of Tottori, Japan, by NewsRx editors, research stated, "Long QT syndrome 2
(LQT2) is caused by mutations in the human ether-a-go-go-related gene (hERG). Most of its mutations give rise to unstable hERG proteins degraded by the proteasome."

Our news journalists obtained a quote from the research from Tottori University, "Recently, carbachol was reported to stabilize the wild-type hERG-FLAG via activation of the muscarinic type 3 receptor (M3-mAChR). Its action on mutant hERG-FLAG, however, remains uninvestigated. A novel mutant hERG-FLAG carried 2 mutations: an amino acid substitution G572S and an in-frame insertion D1037_V1038insGD. When expressed in HEK293 cells, this mutant hERG-FLAG was degraded by the proteasome and failed to be transported to the cell surface. Carbachol restored stability of the mutant hERG-FLAG and facilitated cell-surface expression. Carbachol activated PKC, augmented phosphorylation of heat shock factor 1 (HSF1) and enhanced expression of heat shock proteins (hsp70 and hsp90. Both a M3-mAChR antagonist, 4-DAMP, and a PKC inhibitor, bisindolylmaleimide, abolished carbachol-induced stabilization of the mutant hERG-FLAG. M3-mAChR activation leads to enhancement of hsp expression via PKC-dependent phosphorylation of HSF1, thereby stabilizing the mutant hERG-FLAG protein."

According to the news editors, the research concluded: "Thus, M3-mAChR activators may have a therapeutic value for patients with LQT2."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1253/circj.CJ-16-0712. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tottori, Japan, Asia, Quaternary Ammonium Compounds, Membrane Proteins, Genetics, G-Protein-Coupled Receptors, Ophthalmic Glaucoma Agents, Ophthalmic Preparations, Cholinergic Receptors, Muscarinic Receptors, Drugs and Therapies, Carbachol Therapy, Organic Chemicals, Pharmaceuticals, Amines, Tottori University.

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Immune System Diseases and Conditions - Graft-…

Findings from Toulouse University Hospital Reveals New Findings on Graft-Versus-Host Disease (Photo-induced graft-versus-host disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immune System Diseases and Conditions - Graft-Versus-Host Disease is now available. According to news originating from Toulouse, France, by
NewsRx correspondents, research stated, "Overlap chronic graft-versus-host disease (GVHD) associates both features of acute and chronic GVHD. Trigger factors for chronic GVHD are unclear."

Our news journalists obtained a quote from the research from Toulouse University Hospital, "We describe two patients who received allogenic haematopoietic stem-cell transplantation, and who later developed overlap chronic GVHD after sun exposure. Available data from in vivo investigations suggest ultraviolet B radiation (UVB) has a beneficial effect on acute and chronic GVHD. The role of sun irradiation as a trigger for isomorphic cutaneous GVHD has been rarely reported in the literature."

According to the news editors, the research concluded: "Herein, we demonstrate for the first time, using repetitive broadband phototesting, that UVB triggers chronic GVHD."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/phpp.12273. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toulouse, France, Europe, Immune System Diseases and Conditions, Graft-Versus-Host Disease, Toulouse University Hospital.

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Immunology - Immune System

Findings from Trinity College in Immune System Provides New Insights (The Role of the Oxysterol/EBI2 Pathway in the Immune and Central Nervous Systems)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immunology - Immune System. According to news originating from Dublin, Ireland, by NewsRx correspondents, research stated, "Oxysterols are pleiotropic messengers interacting with multiple receptor systems. One of the cognate receptors for oxysterols is EBI2, a G protein-coupled receptor highly expressed in the cells of the immune system."

Our news journalists obtained a quote from the research from Trinity College, "Here we discuss the receptor's role in the adapted immunity and inflammation as well as the receptor's expression and function in the CNS with the focus on astrocytes. We also discuss expression and signalling of oxysterol-producing enzymes such as CH25H and CYP7B1 in the CNS and the immune system."

According to the news editors, the research concluded: "These steps will help to elucidate a possible role for this pathway in the physiology of the central and peripheral nervous
system and its possible link to human disease."


The news correspondents report that additional information may be obtained from A. Rutkowska, School of Medicine, Dept. of Physiology, Trinity College Dublin, Dublin 152 - 160 Pearse Street, Ireland. Additional authors for this research include K.K. Dev and A.W Sailer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1389450117666160217123042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dublin, Europe, Ireland, Immunology, Drugs and Therapies, Hemic and Immune Systems, Central Nervous System Disorders.

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**Findings from Triserv General Hospital Yields New Findings on Stroke (Differentiating contrast staining after acute ischemic stroke from hemorrhagic transformation during emergency evaluation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Stroke is now available. According to news originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "A hyperdense lesion observed in a computed tomographic (CT) image of the brain is usually suspected to be a hemorrhage during an emergency evaluation. Other rare differential diagnoses include contrast-induced encephalopathy (CIN) and acute cerebral infarction with contrast staining (CS)."

Our news journalists obtained a quote from the research from Triserv General Hospital, "Recent contrast administration is a common risk factor for both CIN and CS. The former has been associated with favorable neurologic outcomes, whereas CS might have complications, such as hemorrhagic transformation (HT). Contrast staining on brain CT scans was most often reported in acute ischemic stroke patients receiving thrombolytic therapy and being administered contrast; the incidence of CS was 31% to 60% among these patients. Differentiating CS from HT after acute ischemic stroke was dependent on the presence of anatomical boundaries and on the absence of a significant mass effect and surrounding edema. The Hounsfield unit scale was also used to differentiate contrast or hemorrhage alone from mixed contrast and hemorrhage on brain CT scans. Clarifying the properties of a hyperdense lesion on a brain CT scan is essential because the therapeutic strategies for treating CS vs HT are completely different, including differences in the therapeutic goal of controlling blood pressure and in the use of antiplatelet agents. We report a rare condition in which CS developed in an elderly patient because of end-stage renal disease, but the patient was not receiving thrombolytic therapy."

According to the news editors, the research concluded: "An urgent brain magnetic resonance imaging scan was used to confirm the diagnosis of CS, which further guided the treatment of this patient."

For more information on this research see: Differentiating contrast staining after

The news correspondents report that additional information may be obtained from C.W. Liu, Natl Def Med Center, Triserv Gen Hosp, Div Cardiol, Dept. of Internal MedSongslian Branch, Taipei, Taiwan. Additional authors for this research include J.K. Lee, Y.J. Lai, T.C. Lin and C.W. Liu.

Keywords for this news article include: Taipei, Taiwan, Asia, Angiology, Risk and Prevention, Hemorrhagic Disorders, Thrombolytic, Hemorrhage, Hematology, Stroke, Triserv General Hospital.

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**Membrane Proteins - Arrestins**

**Findings from Tufts University Update Understanding of Arrestins (Mutation-Induced Functional Alterations of CCR6)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Membrane Proteins - Arrestins are discussed in a new report. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "The Cys-Cys chemokine receptor 6 (CCR6) is a well-established modulator of inflammation. Although several genetic associations have been identified between CCR6 polymorphisms and immune system disorders (e.g., rheumatoid arthritis and Crohn's disease), the pharmacological effects of naturally occurring missense mutations in this receptor have yet to be characterized."

The news correspondents obtained a quote from the research from Tufts University, "In this study, we initially assessed G protein-mediated signaling and observed that wild-type (WT) CCR6 exhibited ligand-independent activity. In addition, we found that the five most frequent CCR6 missense variants (A89T, A150V, R155W, G345S, and A369V) exhibited decreased basal and/or ligand induced G alpha i protein signaling. To complement the study of these loss-of-function variants, we engineered a set of constitutively active CCR6 receptors. Selected mutations enhanced basal Gprotein-mediated signaling up to 3-fold relative to the WT value. Using a bioluminescence resonance energy transfer assay we investigated the ability of each naturally occurring and engineered CCR6 receptor mutant to recruit beta-arrestin. In contrast to G protein-mediated signaling, beta-arrestin mobilization was largely unperturbed by the naturally occurring loss-of-function CCR6 variants. Elevated recruitment of b-arrestin was observed in one of the engineered constitutively active mutants (T98P). Our results demonstrate that point mutations in CCR6 can result in either a gain or loss of receptor function."

According to the news reporters, the research concluded: “These observations underscore the need to explore how CCR6 natural variants may influence immune cell physiology and human disease."

Heart Disorders and Diseases - Atrial Fibrillation

Findings from Turgut Ozal University Yields New Data on Atrial Fibrillation (Galectin-3: A biochemical marker to detect paroxysmal atrial fibrillation?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting originating in Ankara, Turkey, by NewsRx journalists, research stated, "Atrial fibrillation (AF) is the most common form of arrhythmia. AF leads to electrical remodelling and fibrosis of the atria; however, the mechanism(s) remain poorly understood."

The news reporters obtained a quote from the research from Turgut Ozal University, "Galectin-3 is a potential mediator of cardiac fibrosis. The present study aimed to examine the relationship between serum galectin-3 levels and paroxysmal AF. Forty-six patients with paroxysmal AF and preserved left ventricular systolic function, and 38 age-and gender-matched control subjects, were involved in the study. Serum galectin-3 levels were analyzed with an enzyme-linked immunosorbent assay (ELISA). Serum galectin-3 levels (median 1.38 ng/mL; 1.21 ng/mL-1.87 ng/mL; p< 0.001) were significantly elevated in patients with paroxysmal AF compared with the control. Left atrial diameter was significantly higher in patients with paroxysmal AF (41.2 +/- 3.0 mm vs. 39.6 +/- 3.3 mm). Left atrial diameter was found to be significantly correlated with serum galectin-3 levels in patients with paroxysmal AF (r= 0.378, p = 0.001)."

According to the news reporters, the research concluded: "Serum galectin-3 levels are significantly elevated and significantly correlated with left atrial diameter in patients with paroxysmal AF."

For more information on this research see: Galectin-3: A biochemical marker to detect paroxysmal atrial fibrillation? *Clinical and Investigative Medicine*, 2016;39(6):S197-S202. *Clinical and Investigative Medicine* can be contacted at: Canadian Soc Clinical Investigation, Csci Head Office, 774 Echo Drive, Ottawa, On K1S 5N8, Canada.


Keywords for this news article include: Ankara, Turkey, Eurasia, Heart Disorders
Findings from Umea University Broaden Understanding of Endocarditis
(High incidence of infective endocarditis in adults with congenital ventricular septal defect)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Endocarditis have been published. According to news reporting from Umea, Sweden, by NewsRx journalists, research stated, "Ventricular septal defects (VSDs), if haemodynamically important, are closed whereas small shunts are left without intervention. The long-term prognosis in congenital VSD is good but patients are still at risk for long-term complications."

The news correspondents obtained a quote from the research from Umea University, "The aim of this study was to clarify the incidence of infective endocarditis (IE) in adults with VSD. The Swedish registry for congenital heart disease (SWEDCON) was searched for adults with VSD. 779 patients were identified, 531 with small shunts and 248 who had the VSD previously closed. The National Patient Register was then searched for hospitalisations due to IE in adults during a 10-year period. Sixteen (2%) patients were treated for IE, 6 men and 10 women, with a mean age of 46.3 +/- 12.2 years. The incidence of IE was 1.7-2.7/1000 years in patients without previous intervention, 20-30 times the risk in the general population. Thirteen had small shunts without previous intervention. There was no mortality in these 13 cases. Two patients had undergone repair of their VSD and also aortic valve replacement before the episode of endocarditis and a third patient with repaired VSD had a bicuspid aortic valve, all of these three patients needed reoperation because of their IE and one patient died. No patient with isolated and operated VSD was diagnosed with IE."

According to the news reporters, the research concluded: "A small unoperated VSD in adults carries a substantially increased risk of IE but is associated with a low risk of mortality."

For more information on this research see: High incidence of infective endocarditis in adults with congenital ventricular septal defect. Heart, 2016;102(22):1835-1838,104. Heart can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Heart - heart.bmj.com/)

Our news journalists report that additional information may be obtained by contacting B. Johansson, Umea University, Dept. of Public Hlth & Clin Med, S-90187 Umea, Sweden. Additional authors for this research include B. Johansson, M. Dellborg, P. Sorensson, C. Christersson, N.E. Nielsen, D. Rinnstrom and U. Thilen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/heartjnl-2015-309133. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Umea, Sweden, Europe, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Heart Disorders and Diseases,
Autoinflammatory Diseases and Conditions - Familial...

Findings from University Children's Hospital Broaden Understanding of Familial Mediterranean Fever (Correlation of Secretory Activity of Neutrophils With Genotype in Patients With Familial Mediterranean Fever)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Autoinflammatory Diseases and Conditions - Familial Mediterranean Fever are discussed in a new report. According to news reporting out of Munster, Germany, by NewsRx editors, research stated, "Familial Mediterranean fever (FMF) is an autoinflammatory disorder caused by pyrin-encoding MEFV mutations. Patients present with recurrent but self-limiting episodes of acute inflammation and often have persistent subclinical inflammation."

Our news journalists obtained a quote from the research from University Children's Hospital, "The pathophysiology is only partially understood, but neutrophil overactivation is a hallmark of the disease. S100A12 is a neutrophil-derived proinflammatory danger signal that is strongly elevated in active FMF. This study was undertaken to characterize the secretory activity of neutrophils in vitro and investigate the association of S100A12 with disease activity and genotype in patients with FMF. Neutrophils from FMF patients carrying the p.M694V mutation (1 compound heterozygous and 5 homozygous) and neutrophils from 4 healthy control subjects were purified and stimulated in vitro. Neutrophil secretion of S100A12, interleukin-18 (IL-18), IL-1 beta, and caspase 1 was determined. Based on these in vitro analyses, serum concentrations of S100A12, IL-18, and IL-1 beta were also analyzed in 128 clinically and genetically characterized patients with FMF. In vitro, unstimulated neutrophils from p.M694V-positive patients spontaneously secreted more S100A12, IL-18, and caspase 1 compared to neutrophils from healthy controls. Serum concentrations of S100A12 correlated with disease activity and genotype, with the levels being highest in homozygous patients and with compound heterozygotes displaying higher levels than heterozygotes. Compared to individuals negative for the p.M694V mutation, heterozygous, compound heterozygous, or homozygous p.M694V-positive patients had higher serum levels of S100A12 and IL-18 during inactive and subclinical disease. The FMF phenotype is known to be more severe in patients carrying the p.M694V mutation. This report describes 2 molecules secreted by unconventional secretory pathways, S100A12 and IL-18, whose concentrations correlated with clinical disease activity and genotype in patients with FMF."

According to the news editors, the research concluded: "In this clinically and genetically heterogeneous disease, management of these surrogate markers might help to improve patient care and outcomes."

For more information on this research see: Correlation of Secretory Activity of Neutrophils With Genotype in Patients With Familial Mediterranean Fever. *Arthritis & Rheumatology*, 2016;68(12):3010-3022. *Arthritis & Rheumatology* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by
Sexually Transmitted Diseases and Conditions (STDs)

Findings from University College Broaden Understanding of Sexually Transmitted Diseases and Conditions (STDs) (Men who have sex with men in Great Britain: comparing methods and estimates from probability and convenience sample surveys)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Sexually Transmitted Diseases and Conditions (STDs). According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "To examine sociodemographic and behavioural differences between men who have sex with men (MSM) participating in recent UK convenience surveys and a national probability sample survey. We compared 148 MSM aged 18-64 years interviewed for Britain's third National Survey of Sexual Attitudes and Lifestyles (Natsal-3) undertaken in 2010-2012, with men in the same age range participating in contemporaneous convenience surveys of MSM: 15 500 British resident men in the European MSM Internet Survey (EMIS); 797 in the London Gay Men's Sexual Health Survey; and 1234 in Scotland's Gay Men's Sexual Health Survey."

Our news journalists obtained a quote from the research from University College, "Analyses compared men reporting at least one male sexual partner (past year) on similarly worded questions and multivariable analyses accounted for sociodemographic differences between the surveys. MSM in convenience surveys were younger and better educated than MSM in Natsal-3, and a larger proportion identified as gay (85%-95% vs 62%). Partner numbers were higher and same-sex anal sex more common in convenience surveys. Unprotected anal intercourse was more commonly reported in EMIS. Compared with Natsal-3, MSM in convenience surveys were more likely to report gonorrhoea diagnoses and HIV testing (both past year). Differences between the samples were reduced when restricting analysis to gay-identifying MSM. National probability surveys better reflect the population of MSM but are limited by their smaller samples of MSM. Convenience surveys recruit larger samples of MSM but tend to over-represent MSM identifying as gay and reporting more sexual risk behaviours."

According to the news editors, the research concluded: "Because both sampling strategies have strengths and weaknesses, methods are needed to triangulate data from probability and convenience surveys."

For more information on this research see: Men who have sex with men in Great Britain: comparing methods and estimates from probability and convenience sample surveys. Sexually Transmitted Infections, 2016;92(6):455-463. Sexually Transmitted Infections can be
Findings from University College Yields New Findings on Regenerative Medicine (Liver resection for cancer: New developments in prediction, prevention and management of postresectional liver failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Biomedical Engineering - Regenerative Medicine. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Hepatic failure is a feared complication that accounts for up to 75% of mortality after extensive liver resection. Despite improved perioperative care, the increasing complexity and extensiveness of surgical interventions, in combination with an expanding number of resections in patients with compromised liver function, still results in an incidence of postresectional liver failure (PLF) of 1-9%.

Our news editors obtained a quote from the research from University College, "Preventive measures aim to enhance future remnant liver size and function. Numerous non-invasive techniques to assess liver function and predict remnant liver volume are being developed, along with introduction of novel surgical strategies that augment growth of the future remnant liver. Detection of PLF is often too late and treatment is primarily symptomatic. Current therapeutic research focuses on ([bio]artificial) liver function support and regenerative medicine. In this review we discuss the current state and new developments in prediction, prevention and management of PLF, in light of novel insights into the aetiology of this complex syndrome. Lay summary: Liver failure is the main cause of death after partial liver resection for cancer, and is presumably caused by an insufficient quantity and function of the liver remnant. Detection of liver failure is often too late, and current treatment focuses on relieve of symptoms."

According to the news editors, the research concluded: "New research initiatives explore artificial support of liver function and stimulation of regrowth of the remnant liver."

For more information on this research see: Liver resection for cancer: New developments in prediction, prevention and management of postresectional liver failure. Journal of Hepatology, 2016;65(6):1217-1231. Journal of Hepatology can be contacted at:
Cardiology

Findings from University Health Network Broadens Understanding of Cardiology (The cardiac repair benefits of inflammation do not persist: evidence from mast cell implantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiology have been presented. According to news reporting originating in Toronto, Canada, by NewsRx journalists, research stated, "Multiple mechanisms contribute to progressive cardiac dysfunction after myocardial infarction (MI) and inflammation is an important mediator. Mast cells (MCs) trigger inflammation after MI by releasing bio-active factors that contribute to healing. c-Kit-deficient (Kit(W/W-v)) mice have dysfunctional MCs and develop severe ventricular dilatation post-MI."

Financial support for this research came from Canadian Institutes of Health Research.

The news reporters obtained a quote from the research from University Health Network, "We explored the role of MCs in post-MI repair. Mouse wild-type (WT) and Kit (W/W-v) MCs were obtained from bone marrow (BM). MC effects on fibroblasts were examined in vitro by proliferation and gel contraction assays. MCs were implanted into infarcted mouse hearts and their effects were evaluated using molecular, cellular and cardiac functional analyses. In contrast to WT, Kit(W/W-v) MC transplantation into Kit(W/W-v) mice did not improve cardiac function or scar size post-MI. Kit(W/W-v) MCs induced significantly reduced fibroblast proliferation and contraction compared to WT MCs. MC influence on fibroblast proliferation was Basic fibroblast growth factor (bFGF)-dependent and MC-induced fibroblast contractility functioned through transforming growth factor (TGF)-b. WT MCs transiently rescue cardiac function early post-MI, but the benefits of BM cell implantation lasted longer. MCs induced increased inflammation compared to the BM-injected mice, with increased neutrophil infiltration and infarct tumor necrosis factor-a (TNF-a) concentration. This augmented inflammation was followed by increased angiogenesis and myofibroblast formation and reduced scar size at early time-points. Similar to the functional data, these beneficial effects..."
were transient, largely vanishing by day 28. Dysfunctional Kit(W/W-v) MCs were unable to rescue cardiac function post-MI. WT MC implantation transiently enhanced angiogenesis and cardiac function.

According to the news reporters, the research concluded: "These data suggest that increased inflammation is beneficial to cardiac repair, but these effects are not persistent."


Our news correspondents report that additional information may be obtained by contacting Z. Shao, Division of Cardiovascular Surgery, Toronto General Research Institute, University Health Network, Toronto, ON, Canada. Additional authors for this research include M. Nazari, L. Guo, S.H. Li, J. Sun, S.M. Liu, H.P. Yuan, R.D. Weisel and R.K Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jcmm.12703. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the Journal of Cellular and Molecular Medicine can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Canada, Toronto, Ontario, Cardiology, Mast Cells, Fibroblasts, Angiogenesis, Inflammation, Immune System, Connective Tissue Cells, North and Central America.

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### Findings from University Hospital Broaden Understanding of Type 2 Diabetes (Development of an Interleukin-1b Vaccine in Patients with Type 2 Diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is the subject of a report. According to news reporting out of Basel, Switzerland, by NewsRx editors, research stated, "Interleukin-1b (IL-1b) is a key cytokine involved in inflammatory illnesses including rare hereditary diseases and common chronic inflammatory conditions as gout, rheumatoid arthritis, and type 2 diabetes mellitus, suggesting reduction of IL-1b activity as new treatment strategy. The objective of our study was to assess safety, antibody response, and preliminary efficacy of a novel vaccine against IL-1b."

Our news journalists obtained a quote from the research from University Hospital, "The vaccine hIL1bQb consisting of full-length, recombinant IL-1b coupled to virus-like particles was tested in a preclinical and clinical, randomized, placebo-controlled, double-blind study in patients with type 2 diabetes. The preclinical simian study showed prompt induction of IL-1b-specific antibodies upon vaccination, while neutralizing antibodies appeared with delay. In the clinical study with 48 type 2 diabetic patients, neutralizing IL-1b-specific antibody responses were detectable after six injections with doses of 900 µg. The development of
neutralizing antibodies was associated with higher number of study drug injections, lower baseline body mass index, improvement of glycemia, and C-reactive protein (CRP). The vaccine hIL1bQb was safe and well-tolerated with no differences regarding adverse events between patients receiving hIL1bQb compared to placebo.

According to the news editors, the research concluded: "This is the first description of a vaccine against IL-1b and represents a new treatment option for IL-1b-dependent diseases such as type 2 diabetes mellitus (ClinicalTrials)."

For more information on this research see: Development of an Interleukin-1b Vaccine in Patients with Type 2 Diabetes. Molecular Therapy, 2015;24(5):1003-12. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news journalists report that additional information may be obtained by contacting C. Cavelti-Weder, Dept. of Endocrinology, Diabetes and Metabolism, University Hospital of Basel, Basel, Switzerland. Additional authors for this research include K. Timper, E. Seelig, C. Keller, M. Osranek, U. Lassing, G. Spohn, P. Maurer, P. Muller, G.T. Jennings, J. Willers, P. Saudan, M.Y. Donath and M.F. Bachmann.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2015.227. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Basel, Europe, Vaccines, Cytokines, Immunology, Switzerland, Immunization, Interleukins, Blood Proteins, Immunoglobulins, Type 2 Diabetes, Biological Products, Risk and Prevention, Glucose Metabolism Disorders, Non Insulin Dependent Diabetes Mellitus, Endocrine System Diseases and Conditions.

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Cardiovascular Diseases and Conditions - Abdominal...

Findings from University Hospital Has Provided New Data on Abdominal Aortic Aneurysm (Three-dimensional Ultrasound in the Management of Abdominal Aortic Aneurysms: A Topical Review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm. According to news reporting from Manchester, United Kingdom, by NewsRx journalists, research stated, "Three-dimensional (3D) ultrasound is an evolving modality that may have numerous applications in the management of abdominal aortic aneurysms."

The news correspondents obtained a quote from the research from University Hospital, "Many vascular specialists will not be familiar with the different ways in which 3D vascular ultrasound data can be acquired nor how potential applications are being explored by researchers. Most of the current literature consists of small series and single-centre experience, although clinical themes such as measurement of abdominal aortic aneurysm volume and surveillance following endovascular repair are emerging."

According to the news reporters, the research concluded: "The aim of this topical review is to introduce clinicians to the current concepts of 3D ultrasound, review the current literature, and highlight avenues for further research in this new and exciting field of vascular..."
imaging."


Our news journalists report that additional information may be obtained by contacting C. Lowe, Univ Hosp South Manchester, Dept. of Vasc & Endovasc Surg, Manchester, Lancs, United Kingdom. Additional authors for this research include Q. Ghulam, K. Bredahl, S. Rogers, J. Ghosh, H. Sillesen, C.N. McCollum and J. Eiberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejvs.2016.06.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Manchester, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Article Review, Surgery, Epidemiology, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Cardiology, University Hospital.

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Transplant Medicine - Liver Transplants

Findings from University Hospital Provide New Insights into Liver Transplants (Effects of the Hypnotic Agent on Primary Graft Dysfunction After Liver Transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Transplant Medicine - Liver Transplants have been presented. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "Morbidity and mortality rates in orthotopic liver transplantation have decreased in the past few years. Risk factors related to severe postoperative complications, such as primary graft dysfunction, still need to be analyzed."

Our news journalists obtained a quote from the research from University Hospital, "We evaluated the influence of the hypnotic agent used during anesthesia on primary graft dysfunction. We performed a retrospective analysis of 419 consecutive patients who received a liver transplant between 2005 and 2013 in a single center. We analyzed the incidence of primary graft dysfunction (defined as alanine aminotransferase or aspartate aminotransferase levels higher than 1500 IU/L on the first 3 days after surgery) and if the hypnotic agent was associated with this event. The incidence of primary graft dysfunction was 42.2% (114 patients), similar in both groups (propofol group, 89 patients, 43.2% and sevoflurane group, 25 patients, 39.1%). In the multivariate analysis, we did not find any relationship between the hypnotic agent (propofol or sevoflurane) and early graft dysfunction. In our patients, we found no differences in the incidence of liver graft dysfunction according to the hypnotic used during transplantation."

According to the news editors, the research concluded: "We can suggest that both drugs (sevoflurane and propofol) are equally safe in orthotopic liver transplantation."

The news correspondents report that additional information may be obtained from L.G. Martin, Ramon & Cajal Univ Hosp, Dept. of Anesthesiol & Intens Care, Madrid 28034, Spain. Additional authors for this research include C. Gonzalez, I.R. Torres, C.F. Martin, A.M. Grande, E.E. Martin, D.P. Roux and J.M.D. Sanchez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.08.048. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Cardiovascular Diseases and Conditions, Digestive System Surgical Procedures, Vascular Diseases and Conditions, Central Nervous System Agents, Primary Graft Dysfunction, Enzymes and Coenzymes, Liver Transplantation, Drugs and Therapies, General Anesthetics, Sevoflurane Therapy, Transplant Medicine, Reperfusion Injury, Liver Transplants, Organ Transplants, Aminotransferase, Propofol Therapy, Pharmaceuticals, Biomedicine, Surgery, University Hospital.

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**Oncology - Rectal Cancer**

**Findings from University Hospital Yields New Data on Rectal Cancer (Primary squamous cell carcinoma of the rectum: an atypical histology)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Rectal Cancer have been published. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "Squamous cell carcinoma of the rectum is one of the differential diagnoses of rectal tumors. It represents a low incidence in the population."

Our news journalists obtained a quote from the research from University Hospital, "The etiopathogenesis and the biology of these tumors are unclear, for this reason the gold standard treatment is difficult to establish. We present a 47-years-old woman who had a squamous cell carcinoma in medium rectum."

According to the news editors, the research concluded: "She was treated with radiation therapy and chemotherapy and the treatment was followed by surgical excision."


The news correspondents report that additional information may be obtained from A. Ballestero-Perez, Hosp Univ Ramon y Cajal, Dept. of Gen Surg & Digest Diseases, Madrid 28034, Spain. Additional authors for this research include P. Abadia-Barno, F. Garcia-Moreno-Nisa, J. Die-Trill and J. Galindo-Alvarez.

Keywords for this news article include: Madrid, Spain, Europe, Squamous Cell
Oncology - Prostate Cancer

Findings from University Hospital in the Area of Prostate Cancer Reported (Current Status of Lymph Node Imaging in Bladder and Prostate Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting from Bern, Switzerland, by NewsRx journalists, research stated, "The bladder and the prostate have a multitude of primary lymphatic landing sites, making the sentinel node concept inapplicable in patients with bladder or prostate cancer."

The news correspondents obtained a quote from the research from University Hospital, "However, some imaging techniques may be helpful in guiding surgeons for the removal of suspicious nodes that would not have been resected in a standardized template."

According to the news reporters, the research concluded: "Despite the multitude of new imaging techniques available today, a meticulous histologic workup of lymph nodes retrieved by an extended pelvic lymph node dissection still has the highest accuracy for detection of lymph node metastases in bladder or prostate cancer."


Our news journalists report that additional information may be obtained by contacting U.E. Studer, University Hospital Bern, Dept. of Urol, CH-3010 Bern, Switzerland. Additional authors for this research include H.C. Thoeny and U.E. Studer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.02.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bern, Switzerland, Europe, Hemic and Immune Systems, Cancer, Article Review, Prostatic Neoplasms, Lymphoid Tissue, Prostate Cancer, Lymph Nodes, Immunology, Oncology, University Hospital.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Lung Diseases and Conditions - Pulmonary Sarcoidosis are presented in a new report. According to news reporting originating in Gottingen, Germany, by NewsRx journalists, research stated, "Patients with sarcoidosis undergo spontaneous remission or may be effectively controlled with glucocorticoids alone in many cases. Progressive and refractory pulmonary sarcoidosis constitute more than 10% of patients seen at specialized centers."

The news reporters obtained a quote from the research from University Medical Center, "Pulmonary fibrosis and associated complications, such as infections and pulmonary hypertension are leading causes of mortality. No universal definition of refractoriness exists, we therefore propose classifying patients as having refractory disease when the following criteria are fulfilled: (1) progressive disease despite at least 10 mg of prednisolone or equivalent for at least three months and need for additional disease-modifying anti-sarcoid drugs due to lack of efficacy, drug toxicity or intolerability and (2) treatment started for significant impairment of life due to progressive pulmonary symptoms. Both criteria should be fulfilled. Treatment options in addition to or instead of glucocorticoids for these patients include second- (methotrexate, azathioprine, leflunomide) and third-line agents (infliximab, adalimumab). Other immunomodulating agents can be used, but the evidence is very limited. Newer agents with anti-fibrotic properties, such as pirfenidone or nintedanib, might hold promise also for the pulmonary fibrosis seen in sarcoidosis. Treating physicians have to actively look for potentially treatable complications, such as pulmonary hypertension, cardiac disease or infections before patients should be classified as treatment-refractory. Ultimately, lung transplantation has to be considered as treatment option for patients not responding to medical therapy."

According to the news reporters, the research concluded: "In this review, we aim to propose a new definition of refractoriness, describe the associated clinical features and suggest the therapeutic approach."

For more information on this research see: Refractory pulmonary sarcoidosis - proposal of a definition and recommendations for the diagnostic and therapeutic approach. Clinical Pulmonary Medicine, 2016;23(2):67-75. (Lippincott Williams and Wilkins - www.lww.com; Clinical Pulmonary Medicine - journals.lww.com/clinpulm/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting P. Korsten, Dept. of Nephrology and Rheumatology, University Medical Center Gottingen, Gottingen, Germany. Additional authors for this research include K. Strohmayer, R.P. Baughman and N.J Sweiss.

Keywords for this news article include: Europe, Germany, Therapy, Gottingen, Dermatology, Glucocorticoids, Pulmonary Fibrosis, Pulmonary Sarcoidosis, Pulmonary Hypertension, Adrenal Cortex Hormones, Lung Diseases and Conditions, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions, Cardiovascular Diseases and Conditions.

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Investigators discuss new findings in Digestive System Diseases and Conditions - Inflammatory Bowel Disease. According to news reporting originating from Utrecht, Netherlands, by NewsRx correspondents, research stated, "Genome-wide association studies (GWAS) have revealed many susceptibility loci for complex genetic diseases. For most loci, the causal genes have not been identified."

Our news editors obtained a quote from the research from University Medical Center, "Currently, the identification of candidate genes is predominantly based on genes that localize close to or within identified loci. We have recently shown that 92 of the 163 inflammatory bowel disease (IBD)-loci co-localize with non-coding DNA regulatory elements (DREs). Mutations in DREs can contribute to IBD pathogenesis through dysregulation of gene expression. Consequently, genes that are regulated by these 92 DREs are to be considered as candidate genes. This study uses circular chromosome conformation capture-sequencing (4C-seq) to systematically analyze chromatin-interactions at IBD susceptibility loci that localize to regulatory DNA. Using 4C-seq, we identify genomic regions that physically interact with the 92 DRE that were found at IBD susceptibility loci. Since the activity of regulatory elements is cell-type specific, 4C-seq was performed in monocytes, lymphocytes, and intestinal epithelial cells. Altogether, we identified 902 novel IBD candidate genes. These include genes specific for IBD-subtypes and many noteworthy genes including ATG9A and IL10RA. We show that expression of many novel candidate genes is genotype-dependent and that these genes are upregulated during intestinal inflammation in IBD. Furthermore, we identify HNF4 alpha as a potential key upstream regulator of IBD candidate genes. We reveal many novel and relevant IBD candidate genes, pathways, and regulators."

According to the news editors, the research concluded: "Our approach complements classical candidate gene identification, links novel genes to IBD and can be applied to any existing GWAS data."


The news editors report that additional information may be obtained by contacting M. Mokry, Univ Med Center Utrecht, Wilhelmina Childrens Hosp, Dept. of Pediat Gastroenterol, NL-3508 AB Utrecht, Netherlands. Additional authors for this research include M. Harakalova, N.A.M. van den Dungen, H.F. Asl, H.J. Hijma, E. Cuppen, J.L.M. Bjorkegren, F.W. Asselbergs, E.E.S. Nieuwenhuis and M. Mokry.

Keywords for this news article include: Utrecht, Netherlands, Europe, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Bowel Diseases and Conditions, Inflammatory Bowel Disease, Cell Nucleus Structures, Chromosome Structures, Proteins, Genetics, Intranuclear Space, Gastroenteritis, Nucleoproteins, Chromatin, University Medical Center.

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Nutritional and Metabolic Diseases and Conditions —

Findings from University Medical Center, Erlangen Provides New Data on Type 2 Diabetes (Benefits and Risks of Aliskiren Treatment in Patients With Type 2 Diabetes: Analyses of the 3A Registry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting out of Erlangen, Germany, by NewsRx editors, research stated, "The authors sought to retrospectively analyze the real-world evidence on aliskiren in diabetic patients with or without concomitant renin-angiotensin system (RAS) blocker use based on the Registry for Ambulant Therapy With RAS Inhibitors in Hypertension Patients in Germany (3A). Of 14,986 patients included, 3772 patients had diabetes and 28.5% received aliskiren, 14.3% received angiotensin-converting enzyme (ACE) inhibitors/angiotensin receptor blockers (ARBs), 35.4% received aliskiren plus an ACE inhibitor/ARB, and 10.5% received other drugs."

Financial support for this research came from Novartis Pharma.

Our news journalists obtained a quote from the research from University Medical Center, Erlangen, "Ambulatory blood pressure (BP) monitoring (baseline BP 148 +/- 15.8/84.0 +/- 10.9 mm Hg) revealed stronger diastolic BP reduction for aliskiren plus ACE inhibitor/ARB than aliskiren alone in the low (2.8 +/- 0.5 vs 0.6 +/- 0.6; P=.004) and intermediate (5.9 +/- 0.5 vs 4.5 +/- 0.5; P=.04) baseline BP groups. There was a lesser ambulatory BP reduction observed for patients receiving non-RAS in the high baseline category for both systolic (12.5 +/- 1.8 vs 17.1 +/- 1.0; P=.02) and diastolic (6.9 +/- 1.0 vs 9.8 +/- 0.6; P=.01) BP."

According to the news editors, the research concluded: "In patients with hypertension and type 2 diabetes, aliskiren was beneficial in lowering BP, with no observed increases in major adverse effects compared with RAS-blocking therapy alone."


Our news journalists report that additional information may be obtained by contacting R.E. Schmieder, Univ Klinikum Erlangen, Nephrol & Hypertensiol, Erlangen, Germany. Additional authors for this research include U. Zeymer, R. Dechend, I. Hagedorn, T. Riemer, P. Bramlage, D. Pittrow, J. Senges and R.E. Schmieder.

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Keywords for this news article include: Erlangen, Germany, Europe, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Cardiovascular Diseases and Conditions, Cardiovascular Agents, Drugs and Therapies, Risk and Prevention, Biological Factors, Peptide Proteins, Peptide Hormones, Renin Inhibitors, Type 2 Diabetes, Oligopeptides, Neuropeptides, Angiotensins, Hypertension, Autacoids, Aliskiren, Peptides, University Medical Center, Erlangen.

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Findings from University do Estado da Bahia Broadens Understanding of Heart Transplants (Use of venoarterial extracorporeal membrane oxygenation in fulminant chagasic myocarditis as a bridge to heart transplant)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Heart Transplants have been published. According to news reporting originating from Salvador, Brazil, by NewsRx correspondents, research stated, "A 17-year-old Brazilian male presented with progressive dyspnea for 15 days, worsening in the last 24 hours, and was admitted in respiratory failure and cardiogenic shock, with multiple organ dysfunctions. Echocardiography showed a left ventricle ejection fraction of 11%, severe diffuse hypokinesia, and a systolic pulmonary artery pressure of 50mmHg, resulting in the need for hemodynamic support with dobutamine (20mcg/kg/min) and noradrenaline (1.7mcg/kg/min)."

Our news editors obtained a quote from the research from University do Estado da Bahia, "After 48 hours with no clinical or hemodynamic improvement, an extracorporeal membrane oxygenation was implanted. The patient presented with hemodynamic, systemic perfusion and renal and liver function improvements; however, his cardiac function did not recover after 72 hours, and he was transfer to another hospital. Air transport was conducted from Salvador to Recife in Brazil. A heart transplant was performed with rapid recovery of both liver and kidney functions, as well as good graft function. Histopathology of the explanted heart showed chronic active myocarditis and amastigotes of Trypanosoma cruzi. The estimated global prevalence of T. cruzi infections declined from 18 million in 1991, when the first regional control initiative began, to 5.7 million in 2010. Myocarditis is an inflammatory disease due to infectious or non-infectious conditions. Clinical manifestation is variable, ranging from subclinical presentation to refractory heart failure and cardiogenic shock. Several reports suggest that the use of extracorporeal membrane oxygenation in patients presenting with severe refractory myocarditis is a potential bridging therapy to heart transplant when there is no spontaneous recovery of ventricular function."

According to the news editors, the research concluded: "In a 6-month follow-up outpatient consult, the patient presented well and was asymptomatic."

For more information on this research see: Use of venoarterial extracorporeal membrane oxygenation in fulminant chagasic myocarditis as a bridge to heart transplant. Revista Brasileira De Terapia Intensiva, 2015;27(4):397-401.

The news editors report that additional information may be obtained by contacting A.R. Duraes, Universidade do Estado da Bahia, Salvador, BA, Brazil. Additional authors for this research include F.A. Figueira, A.R. Lafayette, J.de C. Martins and J.C de Sa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5935/0103-507X.20150066. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biomedicine, Brazil, Surgery, Salvador, Cardiology, Myocarditis, Hemodynamics, South America, Heart Disease, Transplantation, Cardiomyopathies, Cardiogenic Shock, Heart Transplants, Organ Transplants, Respiratory
Neurodegenerative Diseases and Conditions

Findings from University of Aberdeen Broaden Understanding of Alzheimer Disease (Efficacy and safety of tau-aggregation inhibitor therapy in patients with mild or moderate Alzheimer’s disease: a randomised, controlled, double-blind, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurodegenerative Diseases and Conditions - Alzheimer Disease are presented in a new report. According to news originating from Aberdeen, United Kingdom, by NewsRx correspondents, research stated, "Leuco-methylthioninium bis (hydromethanesulfonate; LMTM), a stable reduced form of the methylthioninium moiety, acts as a selective inhibitor of tau protein aggregation both in vitro and in transgenic mouse models. Methylthioninium chloride has previously shown potential efficacy as monotherapy in patients with Alzheimer's disease."

Our news journalists obtained a quote from the research from the University of Aberdeen, "We aimed to determine whether LMTM was safe and effective in modifying disease progression in patients with mild to moderate Alzheimer's disease. We did a 15-month, randomised, controlled double-blind, parallel-group trial at 115 academic centres and private research clinics in 16 countries in Europe, North America, Asia, and Russia with patients younger than 90 years with mild to moderate Alzheimer's disease. Patients concomitantly using other medicines for Alzheimer's disease were permitted to be included because we considered it infeasible not to allow their inclusion; however, patients using medicines carrying warnings of methaemoglobinaemia were excluded because the oxidised form of methylthioninium in high doses has been shown to induce this condition. We randomly assigned participants (3: 3: 4) to 75 mg LMTM twice a day, 125 mg LMTM twice a day, or control (4 mg LMTM twice a day to maintain blinding with respect to urine or faecal discolouration) administered as oral tablets. We did the randomisation with an interactive web response system using 600 blocks of length ten, and stratified patients by severity of disease, global region, whether they were concomitantly using Alzheimer's disease-labelled medications, and site PET capability. their study partners (generally carers), and all assessors were masked to treatment assignment throughout the study.

The coprimary outcomes were progression on the Alzheimer's Disease Assessment Scale-Cognitive Subscale (ADAS-Cog) and the Alzheimer's Disease Co-operative Study-Activities of Daily Living Inventory (ADCS-ADL) scales from baseline assessed at week 65 in the modified intention-to-treat population. This trial is registered with Clinicaltrials.gov (NCT01689246) and the European Union Clinical Trials Registry (2012-002866-11). Between Jan 29, 2013, and June 26, 2014, we recruited and randomly assigned 891 participants to treatment (357 to control, 268 to 75 mg LMTM twice a day, and 266 to 125 mg LMTM twice a day). The prespecified primary analyses did not show any treatment benefit at either of the doses tested for the coprimary outcomes (change in ADAS-Cog score compared with control [ n= 354, 6.32, 95% CI 5.31-7.34]: 75 mg LMTM twice a day [n= 257] -0.02, -1.60 to 1.56, p= 0.9834, 125 mg LMTM twice a day [n= 250] -0.43, -2.06 to 1.20, p= 0.9323; change in ADCS-ADL score compared with control [ -8. 22, 95% CI -9. 63 to -6. 82]: 75 mg LMTM twice a day -0.93, -3.12 to 1.26, p=...
0.8659; 125 mg LMTM twice a day -0.34, -2.61 to 1.93, p= 0.9479). Gastrointestinal and urinary effects were the most common adverse events with both high doses of LMTM, and the most common causes for discontinuation. Non-clinically significant dose-dependent reductions in haemoglobin concentrations were the most common laboratory abnormality. Amyloid-related imaging abnormalities were noted in less than 1% (8/885) of participants. The primary analysis for this study was negative, and the results do not suggest benefit of LMTM as an add-on treatment for patients with mild to moderate Alzheimer's disease."

According to the news editors, the research concluded: "Findings from a recently completed 18-month trial of patients with mild Alzheimer's disease will be reported soon."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S0140-6736%2816%2931275-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aberdeen, United Kingdom, Europe, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Brain Diseases and Conditions, Clinical Trials and Studies, Clinical Research, Alzheimer Disease, Tauopathies, Dementia, Genetics, Therapy, University of Aberdeen.

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**Drugs and Therapies - Monoclonal Antibodies**

**Findings from University of Adelaide Broaden Understanding of Monoclonal Antibodies (What are we paying for? A cost-effectiveness analysis of patented denosumab and generic alendronate for postmenopausal osteoporotic women in Australia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Monoclonal Antibodies are presented in a new report. According to news reporting originating in Adelaide, Australia, by NewsRx journalists, research stated, "Zoledronic acid and denosumab were funded by the Australian government for the management of osteoporosis at an equivalent price to alendronate. The price of alendronate has declined by around 65%, but the price of the other two therapies has remained stable."

The news reporters obtained a quote from the research from the University of Adelaide, "Using data published since the listing, this paper reports current estimates of the value of denosumab compared to alendronate from an Australian health system perspective. A
A cohort-based state transition model was developed that predicted changes in bone mineral density (BMD), and calibrated fracture probabilities as a function of BMD, age and previous fracture to estimate differences in costs and QALYs gained over a 10-year time horizon. The base-case incremental cost per QALY gained for denosumab versus alendronate was $246,749. There is a near zero probability that denosumab is cost-effective at a threshold value of $100,000 per QALY gained. If the price of denosumab was reduced by 50%, the incremental cost per QALY gained falls to $50,068. Current Australian legislation precludes price reviews when comparator therapies come off patent."

According to the news reporters, the research concluded: "The presented analysis illustrates a review process, incorporating clinical data collected since the original submission to inform a price at which denosumab would provide value for money."


Our news correspondents report that additional information may be obtained by contacting J. Karnon, University of Adelaide, Sch Public Hlth, Adelaide, SA 5005, Australia. Additional authors for this research include A.S. Shafie, N. Orji and S.K. Usman.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Alendronate Therapy Sodium, Monoclonal Antibodies, Drugs and Therapies, Bisphosphonates, Pharmaceuticals, Diphosphonates, Biotechnology, Immunotherapy, Denosumab, Hormones, University of Adelaide.

Our news journalists obtained a quote from the research from the University of Adelaide, "Treating resistant breast cancer requires co-targeting of ER and alternate signalling pathways that contribute to resistance to improve the efficacy and benefit of currently available treatments. Emerging data have shown that other SSRs may regulate the sites at which ER binds to DNA in ways that can powerfully suppress the oncogenic activity of ER in breast cancer. This includes the progesterone receptor (PR) that was recently shown to reprogram the ER DNA binding landscape towards genes associated with a favourable outcome. Another attractive candidate is the androgen receptor (AR), which is expressed in the majority of breast cancers.
and inhibits growth of the normal breast and ER-positive tumours when activated by ligand. These findings have led to the initiation of breast cancer clinical trials evaluating therapies that selectively harness the ability of SSRs to 'push' ER towards anti-tumorigenic activity."

According to the news editors, the research concluded: "Our review will focus on the established and emerging clinical evidence for activating PR or AR in ER-positive breast cancer to inhibit the tumour growth-promoting functions of ER."

For more information on this research see: Pushing estrogen receptor around in breast cancer. Endocrine-Related Cancer, 2016;23(12):T227-T241. Endocrine-Related Cancer can be contacted at: Bioscientifica Ltd, Euro House, 22 Apex Court Woodlands, Bradley Stoke, Bristol BS32 4JT, England.

Our news journalists report that additional information may be obtained by contacting W.D. Tilley, University of Adelaide, Adelaide Prostate Canc Res Center, Adelaide, SA, Australia. Additional authors for this research include G. Tarulli, N. Portman, T.E. Hickey, W.D. Tilley and C. Palmieri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1530/ERC-16-0427. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Proteins, Article Review, Transcription Factors, DNA-Binding Proteins, Estrogen Receptors, Steroid Receptors, Women's Health, Breast Cancer, Oncology, Genetics, University of Adelaide.

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Heart Disorders and Diseases - Heart Disease

Findings from University of Alabama Provide New Insights into Heart Disease (Idiopathic ventricular arrhythmias Relevance to the anatomy, diagnosis and treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Disease is the subject of a report. According to news reporting originating from Birmingham, Alabama, by NewsRx editors, the research stated, "Idiopathic ventricular arrhythmias (VAs) are ventricular tachycardias (VTs) or premature ventricular contractions (PVCs) whose mechanisms are not related to myocardial scar. Idiopathic VAs occur most commonly without structural heart disease, but can occur with structural heart disease."

Our news editors obtained a quote from the research from the University of Alabama, "Imaging tests, such as echocardiography, nuclear test, and cardiac magnetic resonance imaging, are helpful for excluding any association of an idiopathic VA occurrence with myocardial scar. Since catheter ablation emerged, the sites of idiopathic VA origins, commonly endocardial but sometimes epicardial, have been increasingly recognized. Idiopathic VAs usually originate from specific anatomical structures, and exhibit characteristic electrocardiograms based on their anatomical background. Idiopathic VAs are basically benign, but they require medical treatment or catheter ablation when idiopathic VAs are symptomatic, incessant, or produce left ventricular dysfunction."

According to the news editors, the research concluded: "This review describes the
up-to-date information on the prevalence of idiopathic VA origins relevant to the anatomy, and diagnosis, and treatment of idiopathic VAs."

For more information on this research see: Idiopathic ventricular arrhythmias: Relevance to the anatomy, diagnosis and treatment. *Journal of Cardiology*, 2016;68(5-6):463-471. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

The news editors report that additional information may be obtained by contacting T. Yamada, Univ Alabama Birmingham, Div Cardiovasc Dis, Birmingham, AL 35294, United States.

Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Cardiovascular Diseases and Conditions, Catheter Ablation, Article Review, Heart Disorders and Diseases, Electrocoagulation, Heart Disease, Arrhythmia, Cardiology, University of Alabama.

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**Musculoskeletal Manipulations**

**Findings from University of Alberta Update Understanding of Musculoskeletal Manipulations (Tissue loading created during spinal manipulation in comparison to loading created by passive spinal movements)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Musculoskeletal Manipulations have been presented. According to news reporting from Edmonton, Canada, by NewsRx journalists, research stated, "Spinal manipulative therapy (SMT) creates health benefits for some while for others, no benefit or even adverse events. Understanding these differential responses is important to optimize patient care and safety."

The news correspondents obtained a quote from the research from the University of Alberta, "Toward this, characterizing how loads created by SMT relate to those created by typical motions is fundamental. Using robotic testing, it is now possible to make these comparisons to determine if SMT generates unique loading scenarios. In 12 porcine cadavers, SMT and passive motions were applied to the L3/L4 segment and the resulting kinematics tracked. The L3/L4 segment was removed, mounted in a parallel robot and kinematics of SMT and passive movements replayed robotically. The resulting forces experienced by L3/L4 were collected. Overall, SMT created both significantly greater and smaller loads compared to passive motions, with SMT generating greater anterioposterior peak force (the direction of force application) compared to all passive motions. In some comparisons, SMT did not create significantly different loads in the intact specimen, but did so in specific spinal tissues. Despite methodological differences between studies, SMT forces and loading rates fell below published injury values."

According to the news reporters, the research concluded: "Future studies are warranted to understand if loading scenarios unique to SMT confer its differential therapeutic effects."

For more information on this research see: Tissue loading created during spinal

Our news journalists report that additional information may be obtained by contacting G.N. Kawchuk, University of Alberta, Dept. of Phys Therapy, Edmonton, AB, Canada. Additional authors for this research include G.N. Kawchuk, A.H. Vette, P. Goldsmith and N. Prasad.

Keywords for this news article include: Edmonton, Alberta, Canada, North and Central America, Musculoskeletal Manipulations, Spinal Manipulation, University of Alberta.

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**Developmental Diseases and Conditions - Autism**

**Findings from University of Antwerp Broaden Understanding of Autism**

*(The ethics of complexity. Genetics and autism, a literature review)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Developmental Diseases and Conditions - Autism are discussed in a new report. According to news reporting out of Antwerp, Belgium, by NewsRx editors, research stated, "It is commonly believed that the etiology of autism is at least partly explained through genetics. Given the complexity of autism and the variability of the autistic phenotype, genetic research and counseling in this field are also complex and associated with specific ethical questions."

Financial supporters for this research include “Opening the Future” Leuven University Fund, Federaal Wetenschapsbeleid, Research Foundation-Flanders (FWO).

Our news journalists obtained a quote from the research from the University of Antwerp, "Although the ethics of autism genetics, especially with regard to reproductive choices, has been widely discussed on the public fora, an in depth philosophical or bioethical reflection on all aspects of the theme seems to be missing. With this literature review we wanted to map the basic questions and answers that exist in the bioethical literature on autism genetics, research, counseling and reproduction, and provide suggestions as to how the discussion can proceed. We found 19 papers that fitted the description of 'bioethics literature focusing on autism genetics,' and analyzed their content to distill arguments and themes. We concluded that because of the complexity of autism, and the uncertainty with regard to its status, more ethical reflection is needed before definite conclusions and recommendations can be drawn. Moreover, there is a dearth of bioethical empirical studies querying the opinions of all parties, including people with autism themselves. Such empirical bioethical studies should be urgently done before bioethical conclusions regarding the aims and desirability of research into autism genes can be done."

According to the news editors, the research concluded: "Also, fundamental philosophical reflection on concepts of disease should accompany research into the etiology of autism."

Health and Medicine - Clinical Dysmorphology

Findings from University of Antwerp Broaden Understanding of Clinical Dysmorphology (Germline mosaicism in osteopathia striata with cranial sclerosis--recurrence in siblings)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Clinical Dysmorphology have been published. According to news reporting originating in Antwerp, Belgium, by NewsRx journalists, research stated, "We report recurrence of osteopathia striata with cranial sclerosis (OSCS) in two full siblings conceived by unaffected parents. Molecular confirmation of OSCS in both siblings was achieved by identification of a novel heterozygous mutation in the WTX gene."

The news reporters obtained a quote from the research from the University of Antwerp, "Neither parent had clinical features of OSCS nor was the pathogenic mutation demonstrable in DNA extracted from both peripheral blood leucocytes and buccal cells. This case demonstrates germline mosaicism in OSCS and represents the third report of mosaicism affecting the germline in families with OSCS. Previous reports were of parental gonadosomal mosaicism, with one showing recurrence in multiple children."

According to the news reporters, the research concluded: "Our observation adds to a body of evidence that suggests that germline mosaicism in OSCS may occur more frequently than believed previously and may have implications for counselling families with OSCS."


Our news correspondents report that additional information may be obtained by contacting J.J. O'Byrne, Departments of aClinical Genetics bRadiology, Our Lady's Children's Hospital Crumlin, Dublin, Ireland cDept. of Medical Genetics, University of Antwerp, Antwerp, Belgium. Additional authors for this research include E. Phelan, E. Steenackers, W. van Hul and W. Reardon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MCD.0000000000000116. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Antwerp, Belgium, Genetics, Health
Findings from University of Antwerp in Oncology Reported (Evaluation and consequences of heterogeneity in the circulating tumor cell compartment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology. According to news reporting originating in Antwerp, Belgium, by NewsRx journalists, research stated, "A growing understanding of the molecular biology of cancer and the identification of specific aberrations driving cancer evolution have led to the development of various targeted agents. Therapeutic decisions concerning these drugs are often guided by single biopsies of the primary tumor."

The news reporters obtained a quote from the research from the University of Antwerp, "Yet, it is well known that tumors can exhibit significant heterogeneity and change over time as a result of selective pressure. Circulating tumor cells (CTCs) are shed from various tumor sites and are thought to represent the molecular landscape of a patient's overall tumor burden. Moreover, a minimal-invasive liquid biopsy facilitates monitoring of clonal evolution during therapy pressure and disease progression in real-time. While more information becomes available regarding heterogeneity among CTCs, comparison between these studies is needed."

According to the news reporters, the research concluded: "In this review, we focus on the genomic and transcriptional heterogeneity found in the CTC compartment, and its significance for clinical decision making."

For more information on this research see: Evaluation and consequences of heterogeneity in the circulating tumor cell compartment. Oncotarget, 2016;7(30):48625-48643.

Our news correspondents report that additional information may be obtained by contacting A. Brouwer, Center for Oncological Research (CORE), University of Antwerp, Antwerp, Belgium. Additional authors for this research include B. De Laere, D. Peeters, M. Peeters, R. Salgado, L. Dirix and S. Van Laere.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Antwerp, Belgium, Genetics, Oncology, Article Review.

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Gram-Positive Bacteria - Staphylococcus aureus

Findings from University of Arkansas Broaden Understanding of Staphylococcus aureus (Evaluation of Antibiotics Active against Methicillin-Resistant Staphylococcus aureus Based on Activity in an
Established Biofilm

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Positive Bacteria - Staphylococcus aureus have been published. According to news originating from Little Rock, Arkansas, by NewsRx correspondents, research stated, "We used in vitro and in vivo models of catheter-associated biofilm formation to compare the relative activity of antibiotics effective against methicillin-resistant Staphylococcus aureus (MRSA) in the specific context of an established biofilm. The results demonstrated that, under in vitro conditions, daptomycin and ceftaroline exhibited comparable activity relative to each other and greater activity than vancomycin, telavancin, oritavancin, dalbavancin, or tigecycline."

Funders for this research include HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID), HHS | NIH | National Center for Research Resources (NCRR), HHS | NIH | National Institute of General Medical Sciences (NIGMS), DOD | United States Army | Congressionally Directed Medical Research Programs (CDMRP).

Our news journalists obtained a quote from the research from the University of Arkansas, "This was true when assessed using established biofilms formed by the USA300 methicillin-resistant strain LAC and the USA200 methicillin-sensitive strain UAMS-1. Oxacillin exhibited greater activity against UAMS-1 than LAC, as would be expected, since LAC is an MRSA strain. However, the activity of oxacillin was less than that of daptomycin and ceftaroline even against UAMS-1. Among the lipoglycopeptides, telavancin exhibited the greatest overall activity. Specifically, telavancin exhibited greater activity than oritavancin or dalbavancin when tested against biofilms formed by LAC and was the only lipoglycopeptide capable of reducing the number of viable bacteria below the limit of detection. With biofilms formed by UAMS-1, telavancin and dalbavancin exhibited comparable activity relative to each other and greater activity than oritavancin. Importantly, ceftaroline was the only antibiotic that exhibited greater activity than vancomycin when tested in vivo in a murine model of catheter-associated biofilm formation."

According to the news editors, the research concluded: "These results emphasize the need to consider antibiotics other than vancomycin, most notably, ceftaroline, for the treatment of biofilm-associated S. aureus infections, including by the matrix-based antibiotic delivery methods often employed for local antibiotic delivery in the treatment of these infections."

For more information on this research see: Evaluation of Antibiotics Active against Methicillin-Resistant Staphylococcus aureus Based on Activity in an Established Biofilm. Antimicrobial Agents and Chemotherapy, 2016;60(10):5688-5694. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from M.S. Smeltzer, University of Arkansas, Dept. of Microbiol & Immunol, Little Rock, AR 72205, United States. Additional authors for this research include K.E. Beenken, W.B. Mills, A.J. Loughran, H.J. Spencer, W.B. Lynn and M.S. Smeltzer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01251-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Little Rock, Arkansas, United States, North and Central America, Methicillin-Resistant Staphylococcus aureus, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Beta-Lactam Antibiotics, Gram-Positive Bacteria, beta-Lactam Resistance, Methicillin Resistance, Penicillin Resistance, Drugs and
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Cardiology

Findings from University of Arkansas Reveals New Findings on Cardiology (Effects of registered nurse staffing level on hospital-acquired conditions in cardiac surgery patients: A propensity score matching analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting from Little Rock, Arkansas, by NewsRx journalists, research stated, "The ramifications of inadequate nurse staffing may have serious consequences due to reimbursement policies. To determine the effects of registered nurse staffing on hospital-acquired conditions in cardiac surgery patients."

The news correspondents obtained a quote from the research from the University of Arkansas, "Data from the 2009 to 2011 Nationwide Inpatient Sample were used to construct a propensity score-matched cohort. Multivariate regressions were performed to compare the probability, length of stay, mortality, and costs of three common hospital-acquired conditions between low- and high-staffing hospitals. A total of 439,365 patients in low-staffing hospitals were 1:1 matched to patients in high-staffing hospitals. High-staffing hospitals had 10% to 25% fewer cases (adjusted odds ratio [AOR] 0.75-0.90, p<.0001), 5% to 20% lower mortality (AOR 0.80-0.95, p<.0001), and 4% to 6% shorter length of stay (coefficient -0.06 to -0.04, p<.0001). The costs for patients with hospital-acquired conditions were 13% to 17% greater in high-staffing hospitals (coefficient 0.13-0.17, p<.0001)."

According to the news reporters, the research concluded: "Alternatives to the current staffing and reimbursement policies should be considered to reduce hospital-acquired conditions."


Our news journalists report that additional information may be obtained by contacting X.C. Li, University of Arkansas, Fay W Boozman Coll Public Hlth, Dept. of Hlth Policy & Management, Little Rock, AR 72205, United States. Additional authors for this research include S.M. Bowman and T.C. Smith.

Keywords for this news article include: Little Rock, Arkansas, United States, North and Central America, Cardiac Surgery, Cardiology, Hospital, University of Arkansas.
Findings from University of Auckland in the Area of Endometrial Hyperplasia Reported (Body mass index trumps age in decision for endometrial biopsy: cohort study of symptomatic premenopausal women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Uterine Diseases and Conditions - Endometrial Hyperplasia is now available. According to news reporting originating from Auckland, New Zealand, by NewsRx correspondents, research stated, "Clinical guidelines recommend that women with abnormal uterine bleeding with risk factors have an endometrial biopsy to exclude hyperplasia or cancer. Given the majority of endometrial cancer occurs in postmenopausal women, it has not been widely recognized that obesity is a significant risk factor for endometrial hyperplasia and cancer in young, symptomatic, premenopausal women."

Our news editors obtained a quote from the research from the University of Auckland, "We sought to evaluate the effect of body mass index on risk of endometrial hyperplasia or cancer in premenopausal women with abnormal uterine bleeding. This was a retrospective cohort study in a single large urban secondary women's health service. Participants were 916 premenopausal women referred for abnormal uterine bleeding of any cause and had an endometrial biopsy from 2008 through 2014. The primary outcome was complex endometrial hyperplasia (with or without atypia) or endometrial cancer. Almost 5% of participants had complex endometrial hyperplasia or cancer. After adjusting for clinical and demographic factors, women with a measured body mass index >= 30 kg/m(2) were 4 times more likely to develop complex hyperplasia or cancer (95% confidence interval, 1.36-11.74). Other risk factors were nulliparity (adjusted odds ratio, 3.08; 95% confidence interval, 1.43-6.64) and anemia (adjusted odds ratio, 2.23; 95% confidence interval, 1.14-4.35). Age, diabetes, and menstrual history were not significant. Obesity is an important risk factor for complex endometrial hyperplasia or cancer in premenopausal women with abnormal uterine bleeding who had an endometrial biopsy in a secondary gynecology service. As over half of women with the outcome in this study were age <45 years, deciding to biopsy primarily based on age, as currently recommended in national guidelines, potentially misses many cases or delays diagnosis."

According to the news editors, the research concluded: "Body mass index should be the first stratification in the decision to perform endometrial biopsy and/or to refer secondary gynecology services."


The news editors report that additional information may be obtained by contacting M.R. Wise, University of Auckland, Fac Med & Hlth Sci, Dept. of Obst & Gynecol, Auckland, New Zealand. Additional authors for this research include P. Gill, S. Lensen, J.M.D. Thompson and C.M. Farquhar.

Keywords for this news article include: Auckland, New Zealand, Australia and New Zealand, Uterine Diseases and Conditions, Endometrial Hyperplasia, Cancer, Epidemiology,
Findings from University of Aveiro in the Area of Antibiotics Described (Potential of Constructed Wetlands for Removal of Antibiotics from Saline Aquaculture Effluents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antibiotics. According to news reporting from Aveiro, Portugal, by NewsRx journalists, research stated, "This work aimed to evaluate the potential of constructed wetlands (CWs) for removal of antibiotics (enrofloxacin and oxytetracycline) and antibiotic resistant bacteria from saline aquaculture wastewaters. Removal of other contaminants (nutrients, organic matter and metals) and toxicity reduction and the influence of antibiotics with these processes were evaluated."

The news correspondents obtained a quote from the research from the University of Aveiro, "Thus, nine CWs microcosms, divided into three treatments, were assembled and used to treat wastewater (doped or not with the selected antibiotics) between October and December of 2015. Each week treated wastewater was removed and new wastewater (doped or not) was introduced in CWs. Results showed >99% of each antibiotic was removed in CWs. After three weeks of adaptation, removal percentages >95% were also obtained for total bacteria and for antibiotic resistant bacteria. Nutrients, organic matter and metal removal percentages in CWs treated wastewater were identical in the absence and in the presence of each antibiotic. Toxicity in treated wastewaters was significantly lower than in initial wastewaters, independently of antibiotics presence. Results showed CWs have a high efficiency for removing enrofloxacin or oxytetracycline as well as antibiotic resistant bacteria from saline aquaculture wastewaters."

According to the news reporters, the research concluded: "CWs can also remove other contaminants independently of drug presence, making the aquaculture wastewater possible to be reutilized and/or recirculated."


Our news journalists report that additional information may be obtained by contacting M. Boto, University of Aveiro, Dept. of Biol, P-3810193 Aveiro, Portugal. Additional authors for this research include C.M.R. Almeida and A.P. Mucha.

Keywords for this news article include: Aveiro, Portugal, Europe, Antibacterial Agents, Drugs and Therapies, Antimicrobials, Antibiotics, University of Aveiro.
Findings from University of Bari in the Area of Bladder Cancer Described (Celecoxib for the prevention of nonmuscle invasive bladder cancer: results from a matched control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Bladder Cancer have been published. According to news reporting originating in Bari, Italy, by NewsRx journalists, research stated, "New targets and approaches are under investigation for the treatment of nonmuscle invasive bladder cancer (NMIBC). Preclinical data suggest cyclooxygenase-2 (COX-2) as a promising target."

The news reporters obtained a quote from the research from the University of Bari, "Celecoxib, a COX-2 selective inhibitor, inhibits tumor development and enhances survival, both in vitro and in vivo models of bladder cancer. Therefore, we conducted a pilot study of celecoxib to prevent recurrence in patients with intermediate risk NMIBC. Treatment with celecoxib was administered orally for 12 months and compared with a contemporary series of patients treated with intravesical mitomycin C (MMC), given weekly for 4 weeks and then monthly for 11 months. Primary endpoints were time to first recurrence and adverse events. From 2003 through 2006, 58 patients were treated with celecoxib and compared with 66 patients receiving MMC. After a median follow up of 75 months, 49 patients were disease free, including 23 (34.85%) in the MMC group and 26 (44.8%) in the celecoxib group. Median disease-free interval was 67 months [95% confidence interval (CI) 35.8 to NA] versus 41 months (95% CI 27.1-67.1; log-rank p=0.25) for patients treated with MMC and celecoxib, respectively. In the multivariate analysis, treatment was not found to be an independent predictor for recurrence [hazard ratio (HR) 0.76, 95% CI 0.47-1.22, p=0.25). Overall, 45 AEs were recorded in 35/124 patients. There were no differences between the two groups."

According to the news reporters, the research concluded: "Our data support a clinical benefit of celecoxib and encourage future trials in which COX-2 inhibitors may be tested in selected patients with NMIBC."

For more information on this research see: Celecoxib for the prevention of nonmuscle invasive bladder cancer: results from a matched control study. Therapeutic Advances In Urology, 2015;7(6):303-11. (Sage Publications - www.sagepub.com/; Therapeutic Advances In Urology - tau.sagepub.com)

Our news correspondents report that additional information may be obtained by contacting V. Pagliarulo, Urology and Andrology Unit, Dept. of Emergency and Organ Transplantation, University of Bari, Piazza G Cesare 11, 70124 Bari, Italy. Additional authors for this research include P. Ancona, I. Martines, R. Spadavecchia, S. Di Stasi, S. Alba, L. Cormio, C. Fanizza, A. Salerno, G. Carrieri and A. Pagliarulo.

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Keywords for this news article include: Bari, Italy, Europe, Oncology, Bladder Cancer.

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Pharmacokinetics

Findings from University of Basel in the Area of Pharmacokinetics Reported (Population Pharmacokinetic Modeling of Tribendimidine Metabolites in Opisthorchis viverrini-Infected Adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Pharmacokinetics is now available. According to news reporting from Basel, Switzerland, by NewsRx journalists, research stated, "There is a pressing need for alternative treatments against the liver fluke Opisthorchis viverrini. Oral tribendimidine is a promising candidate, but its population pharmacokinetic properties are unknown."

The news correspondents obtained a quote from the research from the University of Basel, "Two phase IIA trials were conducted in Laos in O. viverrini-infected adults receiving single oral doses of 25 to 600 mg tribendimidine administered as different formulations in each study (study 1 used 200-mg tablets, and study 2 used 50-mg tablets). Venous whole blood, plasma, and capillary dried blood spots were sampled frequently from 68 adults, and concentrations of the tribendimidine metabolites dADT (deacetylated amidantel) and adADT (acetylated dADT) were measured. Population pharmacokinetics were assessed by using nonlinear mixed-effects modeling. The relationship between drug exposure and cure (assessed at 21 days posttreatment) was evaluated by using univariable logistic regression. A six-transit compartment absorption model with a one-disposition compartment for each metabolite described the data well. Compared to the 50-mg formulation (study 2), the 200-mg formulation (study 1) had a 40.1% higher mean transit absorption time, a 113% higher dADT volume of distribution, and a 364% higher adADT volume of distribution. Each 10-year increase in age was associated with a 12.7% lower dADT clearance and a 21.2% lower adADT clearance. The highest cure rates (>= 55%) were observed with doses of >= 100 mg. Higher dADT, but not adADT, peak concentrations and exposures were associated with cure (P = 0.004 and 0.003, respectively). For the first time, population pharmacokinetics of tribendimidine have been described. Known differences in the 200-mg versus 50-mg formulations were captured by covariate modeling."

According to the news reporters, the research concluded: "Further studies are needed to validate the structural model and confirm covariate relationships."

For more information on this research see: Population Pharmacokinetic Modeling of Tribendimidine Metabolites in Opisthorchis viverrini-Infected Adults. Antimicrobial Agents and Chemotherapy, 2016;60(10):5695-5704. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting F. Vanobberghen, University of Basel, Basel, Switzerland. Additional authors for this research include M.A. Penny, U. Duthaler, P. Odermatt, S. Sayasone, J. Keiser and J. Tarning.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00655-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Basel, Switzerland, Europe, Pharmacokinetics, Pharmaceuticals, University of Basel.

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Findings from University of Birmingham Update Knowledge of Breast Cancer (Modeling Canadian Quality Control Test Program for Steroid Hormone Receptors in Breast Cancer: Diagnostic Accuracy Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating from Birmingham, United Kingdom, by NewsRx correspondents, research stated, "The Canadian Immunohistochemistry Quality Control program monitors clinical laboratory performance for estrogen receptor and progesterone receptor tests used in breast cancer treatment management in Canada. Current methods assess sensitivity and specificity at each time point, compared with a reference standard."

Our news editors obtained a quote from the research from the University of Birmingham, "We investigate alternative performance analysis methods to enhance the quality assessment. We used 3 methods of analysis: meta-analysis of sensitivity and specificity of each laboratory across all time points; sensitivity and specificity at each time point for each laboratory; and fitting models for repeated measurements to examine differences between laboratories adjusted by test and time point. Results show 88 laboratories participated in quality control at up to 13 time points using typically 37 to 54 histology samples. In meta-analysis across all time points no laboratories have sensitivity or specificity below 80%. Current methods, presenting sensitivity and specificity separately for each run, result in wide 95% confidence intervals, typically spanning 15% to 30%. Models of a single diagnostic outcome demonstrated that 82% to 100% of laboratories had no difference to reference standard for estrogen receptor and 75% to 100% for progesterone receptor, with the exception of 1 progesterone receptor run. Laboratories with significant differences to reference standard identified with Generalized Estimating Equation modeling also have reduced performance by meta-analysis across all time points."

According to the news editors, the research concluded: "The Canadian Immunohistochemistry Quality Control program has a good design, and with this modeling approach has sufficient precision to measure performance at each time point and allow laboratories with a significantly lower performance to be targeted for advice."

For more information on this research see: Modeling Canadian Quality Control Test Program for Steroid Hormone Receptors in Breast Cancer: Diagnostic Accuracy Study. Applied Immunohistochemistry & Molecular Morphology, 2016;24(10):679-687. Applied Immunohistochemistry & Molecular Morphology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

The news editors report that additional information may be obtained by contacting S. Mallett, University of Birmingham, Sch Hlth & Populat Sci, Birmingham B15 2TT, W Midlands, United Kingdom. Additional authors for this research include N. Makrestsov, J. Garatt, E. Torlakovic, C.B. Gilks and S. Mallett.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Diagnostics and Screening, Progesterone Receptors, Corpus Luteum Hormones, Transcription
Sexually Transmitted Diseases and Conditions (STDs)

Findings from University of Birmingham in the Area of Sexually Transmitted Diseases and Conditions (STDs) Described (Sexual behaviour of backpackers who visit Koh Tao and Koh Phangan, Thailand: a cross-sectional study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Sexually Transmitted Diseases and Conditions (STDs) are discussed in a new report. According to news reporting from Birmingham, United Kingdom, by NewsRx journalists, research stated, "To measure the proportion of backpackers engaging in unprotected sex while travelling in Thailand and to identify predictors of unsafe sexual behaviour. A cross-sectional study using an anonymous questionnaire was performed."

The news correspondents obtained a quote from the research from the University of Birmingham, "English-speaking backpackers, excluding US and Thai citizens, were recruited while travelling through the piers of Koh Tao and Koh Phangan between 25 January and 13 March 2013. Results 61.5% (1238/2013) respondents were travelling without a long-term sexual partner, of whom 39.1% (29.4% females; 51.9% males) reported intercourse with a new partner. 36.8% of these reported inconsistent/no condom use. Inconsistent condom use was independently associated with age <25 years, UK (vs Canadian) nationality and not bringing condoms from home. Backpackers who brought condoms from home were more likely to have sex with a new partner. Male gender and longer trip length increased the likelihood of new partner acquisition and overall risk of unsafe sex. Partner demographics demonstrate a mechanism of international sexually transmitted infection (STI) transfer. In an era of growing antibiotic resistance and continuing HIV transmission, targeting unsafe sex in backpackers has the potential to reduce STI incidence internationally. These data highlight the need for innovative public health intervention."

According to the news reporters, the research concluded: "To focus such measures, future research may elucidate why certain groups are at higher risk."


Our news journalists report that additional information may be obtained by contacting C.T. Lewis, University of Birmingham, Inst Clin Sci, Birmingham, W Midlands, United Kingdom.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1136/sextrans-2015-052301. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Sexually Transmitted Diseases and Conditions (STDs), Thailand, Asia, University of Birmingham.

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Aortic Dissection

Findings from University of Bologna Provide New Insights into Aortic Dissection (Composite valve graft implantation for the treatment of aortic valve and root disease: Results in 1045 patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Aortic Dissection. According to news reporting originating in Bologna, Italy, by NewsRx journalists, research stated, "Aortic root replacement using a composite graft is the treatment of choice for a large variety of aortic root conditions with a diseased aortic valve. The objective of the current study was to evaluate the long-term results of this procedure."

The news reporters obtained a quote from the research from the University of Bologna, "Between 1978 and 2010, 1045 patients aged 58.7 +/- 13.6 years underwent aortic root composite graft replacement using the following techniques: 95 Bentall operation; 926 the "button technique;" 24 the Cabrol technique. A mechanical composite valve graft was implanted in 69.6% of the patients. Sixhundred and thirty-five patients (62.3%) had annuloaortic ectasia and 162 (15.5%) had aortic dissection. Early mortality was 5.3% (55/1045). Independent risk factors for early mortality at logistic regression analysis were age >= 70 years (P =.051; odds ratio [OR], 2.97), New York Heart Association III-IV (P =.052; OR, 1.88), reoperation (P =.021; OR, 2.36), urgency/emergency (P =.003; OR, 3.09), mitral valve replacement (P =.001; OR, 6.01), or coronary artery bypass grafting (CABG) (P <.001; OR, 4.39); while bicuspid aortic valve (BAV) (P =.013; OR, 0.21), and time of operation 2001-2011 (P =.025; OR, 0.60) were protective predictors for early mortality. Overall survival at 5, 10, and 20 years was 84.1% +/- 1.3%, 65.5% +/- 2.6%, and 40.7% +/- 4.6%, respectively. Multivariate analysis revealed chronic renal insufficiency (P =.001; hazard ratio [HR], 3.48), chronic obstructive pulmonary disease (P =.027; HR, 1.94), aortic dissection (P =.001; HR, 2.63), Cabrol technique (P =.009; HR, 15.34), and CABG (P =.016; HR, 2.02) to be significant predictors of late death, and BAV (P =.010; HR, 0.43) to be a significant protective predictor. Freedom from thromboembolism, bleeding complications, and endocarditis was 93.7% +/- 2.6%, 90.3% +/- 3.1%, and 98.4% +/- 1% at 20 years, respectively. Freedom from aortic reoperation was 91.8% +/- 2.1% at 20 years and was significantly lower in patients with aortic dissection. Within the limitations of this retrospective study, we can conclude that aortic root replacement for aortic root aneurysms can be performed with low morbidity and mortality and with satisfactory long-term results. Few late serious complications were related to the need for long-term anticoagulation or a prosthetic valve."

According to the news reporters, the research concluded: "Reoperation on the proximal or in the distal aorta was most commonly performed in patients with aortic dissection."

For more information on this research see: Composite valve graft implantation for the treatment of aortic valve and root disease: Results in 1045 patients. Journal of Thoracic
Our news correspondents report that additional information may be obtained by contacting L. Di Marco, University of Bologna, S Orsola Malpighi Hosp, Dept. of Cardiac Surg, I-40138 Bologna, Italy. Additional authors for this research include D. Pacini, A. Pantaleo, A. Leone, G. Barberio, G. Marinelli and R. Di Bartolomeo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtcvs.2016.05.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bologna, Italy, Europe, Cardiology, Risk and Prevention, Aortic Dissection, University of Bologna.

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Oncology - Bladder Cancer

Findings from University of Bourgogne Broaden Understanding of Bladder Cancer (Apoptotic effect of the selective PPAR beta/delta agonist GW501516 in invasive bladder cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Bladder Cancer are presented in a new report. According to news originating from Besancon, France, by NewsRx correspondents, research stated, "GW501516 is a selective and high-affinity synthetic agonist of peroxisome proliferator-activated receptor beta/delta (PPAR beta/delta). This molecule promoted the inhibition of proliferation and apoptosis in few cancer cell line, but its anticancer action has never been investigated in bladder tumor cells."

Our news journalists obtained a quote from the research from the University of Bourgogne, "Thus, this study was undertaken to determine whether GW501516 had antiproliferative and/or apoptotic effects on RT4 and T24 urothelial cancer cells and to explore the molecular mechanisms involved. Our results indicated that, in RT4 cells (derived from a low-grade papillary tumor), GW501516 did not induce cell death. On the other hand, in T24 cells (derived from an undifferentiated high-grade carcinoma), this PPAR beta/delta agonist induced cytotoxic effects including cell morphological changes, a decrease of cell viability, a G2/M cell cycle arrest, and the cell death as evidenced by the increase of the sub-G1 cell population. Furthermore, GW501516 triggered T24 cell apoptosis in a caspase-dependent manner including both extrinsic and intrinsic apoptotic pathways through Bid cleavage. In addition, the drug led to an increase of the Bax/Bcl-2 ratio, a mitochondrial dysfunction associated with the dissipation of Delta Psi m, and the release of cytochrome c from the mitochondria to the cytosol. GW501516 induced also ROS generation which was not responsible for T24 cell death since NAC did not rescue cells upon PPAR beta/delta agonist exposure. For the first time, our data highlight the capacity of GW501516 to induce apoptosis in invasive bladder cancer cells."

According to the news editors, the research concluded: "This molecule could be
relevant as a therapeutic drug for high-grade urothelial cancers."


The news correspondents report that additional information may be obtained from I. Lascombe, Univ Bourgogne Franche Comte, SFR FED4234, EA3181, F-25030 Besancon, France. Additional authors for this research include S. Fauconnet, H. Bittard and I. Lascombe.

Keywords for this news article include: Besancon, France, Europe, Peroxisome Proliferator-Activated Receptors, Transcription Factors, DNA-Binding Proteins, Bladder Cancer, Apoptosis, PPAR-beta, Oncology, University of Bourgogne.

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**Dentistry**

**Findings from University of Brescia Yields New Findings on Dentistry (Mutation analysis by direct and whole exome sequencing in familial and sporadic tooth agenesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Dentistry. According to news reporting originating from Brescia, Italy, by NewsRx correspondents, research stated, "Dental agenesis is one of the most common congenital craniofacial abnormalities. Dental agenesis can be classified, relative to the number of missing teeth (excluding third molars), as hypodontia (1 to 5 missing teeth), oligodontia (6 or more missing teeth), or anodontia (lack of all teeth)."

Our news editors obtained a quote from the research from the University of Brescia, "Tooth agenesis may occur either in association with genetic syndromes, based on the presence of other inherited abnormalities, or as a non-syndromic trait, with both familiar and sporadic cases reported. In this study, we enrolled 16 individuals affected by tooth agenesis, prevalently hypodontia, and we carried out direct Sanger sequencing of paired box 9 (PAX9) and Msh homeobox 1 (MSX1) genes in 9 subjects. Since no mutations were identified, we performed whole exome sequencing (WES) in the members of 5 families to identify causative gene mutations either novel or previously described. Three individuals carried a known homozygous disease mutation in the Wnt family member 10A (WNT10A) gene (rs121908120). Interestingly, two of these individuals were siblings and also carried a heterozygous functional variant in EDAR-associated death domain (EDARADD) (rs114632254), another disease causing gene, generating a combination of genetic variants never described until now. The analysis of exome sequencing data in the members of other 3 families highlighted new candidate genes potentially involved in tooth agenesis and considered suitable for future studies. Overall, our study confirmed the major role played by WNT10A in tooth agenesis and the genetic heterogeneity of this disease."

According to the news editors, the research concluded: "Moreover, as more genes are shown to be involved in tooth agenesis, WES analysis may be an effective approach to search for genetic variants in familiar or sporadic tooth agenesis, at least in more severe clinical manifestations."
Findings from University of Brighton Broaden Understanding of Obesity
[Weight bias, health consciousness and behavioral actions (activities)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting originating from Brighton, United Kingdom, by NewsRx correspondents, research stated, "This study examines the influence of weight bias and health consciousness on eating and dietary behavior; it also investigates the role of normative influences. A sample of adults living in South-East England (N = 498) completed anonymous questionnaires about their diet, attitudes and beliefs towards obese people, health consciousness and normative influences."

Our news editors obtained a quote from the research from the University of Brighton, "The survey included validated measures of anti-fat attitudes, and beliefs about obese people. The findings demonstrate anti-fat attitudes are positively related to self-perceived dietary behavior. Surprisingly, self-perceived dietary behavior is negatively related to health consciousness and activities designed to enable healthy eating, for example meal planning. Significant differences exist between people with, or without, obese family members. Attempts to improve eating behavior by raising health consciousness and offering related support activities may fail; promoting health eating may also contribute to weight bias in society."

According to the news editors, the research concluded: "However, interventions which focus on the negative impact of obesity itself may have a positive effect."

For more information on this research see: Weight bias, health consciousness and behavioral actions (activities). Eating Behaviors, 2016;23():200-205. Eating Behaviors can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Eating Behaviors - www.journals.elsevier.com/eating-behaviors/)

The news editors report that additional information may be obtained by contacting M. Wood, University of Brighton, Brighton Business Sch, Brighton, E Sussex, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.eatbeh.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brighton, United Kingdom, Europe,
Nutritional and Metabolic Diseases and Conditions, Bariatics, Obesity, University of Brighton.

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Life Science Research - Plant Biology

Findings from University of British Columbia Update Knowledge of Plant Biology (Identification of Methylosome Components as Negative Regulators of Plant Immunity Using Chemical Genetics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Plant Biology. According to news reporting out of Vancouver, Canada, by NewsRx editors, research stated, "Nucleotide-binding leucine-rich repeat (NLR) proteins serve as immune receptors in both plants and animals. To identify components required for NLR-mediated immunity, we designed and carried out a chemical genetics screen to search for small molecules that can alter immune responses in Arabidopsis thaliana."

Our news journalists obtained a quote from the research from the University of British Columbia, "From 13 600 compounds, we identified Ro 8-4304 that was able to specifically suppress the severe autoimmune phenotypes of chs3-2D (chilling sensitive 3, 2D), including the arrested growth morphology and heightened PR (Pathogenesis Related) gene expression. Further, six Ro 8-4304 insensitive mutants were uncovered from the Ro 8-4304-insensitive mutant (rim) screen using a mutagenized chs3-2D population. Positional cloning revealed that rim1 encodes an allele of AtICln (I, currents; Cl, chloride; n, nucleotide). Genetic and biochemical analysis demonstrated that AtICln is in the same protein complex with the methylosome components small nuclear ribonucleoprotein D3b (SmD3b) and protein arginine methyltransferase 5 (PRMT5), which are required for the biogenesis of small nuclear ribonucleoproteins (snRNPs) involved in mRNA splicing. Double mutant analysis revealed that SmD3b is also involved in the sensitivity to Ro 8-4304, and the prmt5-1 chs3-2D double mutant is lethal. Loss of AtICln, SmD3b, or PRMT5 function results in enhanced disease resistance against the virulent oomycete pathogen Hyaloperonospora arabidopsidis Noco2, suggesting that mRNA splicing plays a previously unknown negative role in plant immunity."

According to the news editors, the research concluded: "The successful implementation of a high-throughput chemical genetic screen and the identification of a small-molecule compound affecting plant immunity indicate that chemical genetics is a powerful tool to study whole-organism plant defense pathways."


Our news journalists report that additional information may be obtained by contacting X. Li, University of British Columbia, Dept. of Bot, Vancouver, BC V6T 1Z4, Canada. Additional authors for this research include A. Balgi, Y.P. Pan, M. Li, X.R. Zhang, L.L. Du, M. Zhou, M. Roberge and X. Li.

The direct object identifier (DOI) for that additional information is:
Biomedical Engineering - Tissue Engineering

Findings from University of British Columbia Yields New Findings on Tissue Engineering (It May Seem Inflammatory, but Some T Cells Are Innately Healing to the Bone)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Biomedical Engineering - Tissue Engineering are discussed in a new report. According to news reporting originating from Vancouver, Canada, by NewsRx editors, the research stated, "Among the most significant developments to have taken place in osteology over the last few decades is an evolution from treating and viewing bone disorders primarily through an endocrine lens to instead seeing them as metabolic disorders that interface at the molecular and cellular level with the immune system. Osteoimmunology was officially born in response to accumulating evidence that the immune system is integrally involved in bone remodeling, but much of the early work focused on the role of conventional alpha beta T cells in driving bone loss."

Our news editors obtained a quote from the research from the University of British Columbia, "There is, however, emerging data indicating that innate lymphocytes, in particular gamma delta T cells, may in fact be important for bone regeneration. We first observed that bisphosphonate-associated osteonecrosis of the jaw (ONJ), a rare but serious adverse drug effect characterized by nonhealing necrotic bone tissue of the mandible or maxilla, was linked to a deficiency in a subset of gamma delta T cells found in human peripheral blood. Patients who developed ONJ while on bisphosphonate therapy not only lacked the main subset of circulating gamma delta T cells, but they also all had underlying conditions that compromised their immune integrity. A number of recent studies have unraveled the role of gamma delta T cells (and lymphocytes sharing their characteristics) in bone regeneration-particularly for fracture healing. These findings seem to contradict the prevailing view of such 'inflammatory' T cells as being bone degenerative rather than restorative."

According to the news editors, the research concluded: "This viewpoint melds together the emerging evidence of these so-called inflammatory T cells in bone remodeling and healing-showing that they are not in fact 'all bad to the bone.."


The news editors report that additional information may be obtained by contacting S. Kalyan, University of British Columbia, Dept. of Med, CeMCOR, Vancouver, BC, Canada.

Keywords for this news article include: Vancouver, British Columbia, Canada,
Findings from University of Cairo Broaden Understanding of Andrology

(Molecular screening of CFTR gene in Egyptian patients with congenital bilateral absence of the vas deferens: a preliminary study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Men's Health - Andrology. According to news reporting originating in Cairo, Egypt, by NewsRx journalists, research stated, "In the current study, we enrolled 14 Egyptian infertile males with isolated congenital bilateral absence of the vas deferens (CBAVD). Screening for the most commonly reported 36 CFTR mutations, and the intron 8 (T)n splice variant was performed by multiplex PCR followed by reversed hybridisation."

Financial support for this research came from Cairo University.

The news reporters obtained a quote from the research from the University of Cairo, "Samples with the 5T variant were picked for DNA sequencing of intron 8/exon 9 region to identify the number of adjacent TG repeats. The p.Phe508del and the p.Ser1251Asn mutations were detected in heterozygous state in three patients (10.7% of alleles) and in one patient (3.6% of alleles), respectively, while the 5T variant was detected in five patients (28.6% of alleles). Among those five patients, four had TG12 repeats and one had TG13 repeats confirming the pathogenic penetrance of all 5T alleles in Egyptian CBAVD patients. The allelic frequencies of the mutations p.Phe508del, p.Ser1251Asn and the 5T variant in 60 Egyptian cystic fibrosis patients were 24.2%, 3.3% and 2.5% respectively. The mutation p.Ser1251Asn was detected for the first time in isolated CBAVD patient in our study."

According to the news reporters, the research concluded: "Due to the high prevalence of p. Phe508del mutation and 5T variant in Egyptian CBAVD patients, we recommend their screening initially, ideally followed by full CFTR gene sequencing in unidentified patients."


Our news correspondents report that additional information may be obtained by contacting M.A. Elmonem, Cairo University, Fac Med, Clin & Chem Pathol Department, Cairo, Egypt. Additional authors for this research include T. Ramzy, M.A. Elmonem, M. Amer, A. Zeidan, F.A. Hassan and D.A. Mehaney.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/and.12563. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cairo, Egypt, Africa, Andrology, Men's Health, Genetics, Genetics, University of Cairo.
Lung Diseases and Conditions - Asthma

Findings from University of Calgary Broaden Understanding of Asthma [Understanding how long-acting beta(2)-adrenoceptor agonists enhance the clinical efficacy of inhaled corticosteroids in asthma - an update]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Asthma have been published. According to news originating from Calgary, Canada, by NewsRx correspondents, research stated, "In moderate-to-severe asthma, adding an inhaled long-acting (2)-adrenoceptor agonist (LABA) to an inhaled corticosteroid (ICS) provides better disease control than simply increasing the dose of ICS. Acting on the glucocorticoid receptor (GR, gene NR3C1), ICSs promote anti-inflammatory/anti-asthma gene expression."

Our news journalists obtained a quote from the research from the University of Calgary, "In vitro, LABAs synergistically enhance the maximal expression of many glucocorticoid-induced genes. Other genes, including dual-specificity phosphatase 1(DUSP1) in human airways smooth muscle (ASM) and epithelial cells, are up-regulated additively by both drug classes. Synergy may also occur for LABA-induced genes, as illustrated by the bronchoprotective gene, regulator of G-protein signalling 2 (RGS2) in ASM. Such effects cannot be produced by either drug alone and may explain the therapeutic efficacy of ICS/LABA combination therapies. While the molecular basis of synergy remains unclear, mechanistic interpretations must accommodate gene-specific regulation. We explore the concept that each glucocorticoid-induced gene is an independent signal transducer optimally activated by a specific, ligand-directed, GR conformation. In addition to explaining partial agonism, this realization provides opportunities to identify novel GR ligands that exhibit gene expression bias. Translating this into improved therapeutic ratios requires consideration of GR density in target tissues and further understanding of gene function. Similarly, the ability of a LABA to interact with a glucocorticoid may be suboptimal due to low (2)-adrenoceptor density or biased (2)-adrenoceptor signalling. Strategies to overcome these limitations include adding-on a phosphodiesterase inhibitor and using agonists of other Gs-coupled receptors."

According to the news editors, the research concluded: "In all cases, the rational design of ICS/LABA, and derivative, combination therapies requires functional knowledge of induced (and repressed) genes for therapeutic benefit to be maximized."


The news correspondents report that additional information may be obtained from R. Newton, University of Calgary, Cumming Sch Med, Dept. of Cell Biol & Anat, Airways Inflammation Res Grp, Calgary, AB T2N 4N1, Canada.

Keywords for this news article include: Calgary, Alberta, Canada, North and Central
Infectious Diseases

Findings from University of Calgary Has Provided New Data on Infectious Diseases (A Primer on Infectious Disease Bacterial Genomics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Infectious Diseases have been published. According to news reporting from Calgary, Canada, by NewsRx journalists, research stated, "The number of large-scale genomics projects is increasing due to the availability of affordable high-throughput sequencing (HTS) technologies."

The news correspondents obtained a quote from the research from the University of Calgary, "The use of HTS for bacterial infectious disease research is attractive because one whole-genome sequencing (WGS) run can replace multiple assays for bacterial typing, molecular epidemiology investigations, and more in-depth pathogenomic studies. The computational resources and bioinformatics expertise required to accommodate and analyze the large amounts of data pose new challenges for researchers embarking on genomics projects for the first time."

According to the news reporters, the research concluded: "Here, we present a comprehensive overview of a bacterial genomics projects from beginning to end, with a particular focus on the planning and computational requirements for HTS data, and provide a general understanding of the analytical concepts to develop a workflow that will meet the objectives and goals of HTS projects."

For more information on this research see: A Primer on Infectious Disease Bacterial Genomics. Clinical Microbiology Reviews, 2016;29(4):881-913. Clinical Microbiology Reviews can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Clinical Microbiology Reviews - cmr.asm.org)

Our news journalists report that additional information may be obtained by contacting T. Lynch, University of Calgary, Dept. of Pathol & Lab Med, Calgary, AB, Canada. Additional authors for this research include A. Petkau, N. Knox, M. Graham and G. Van Domselaar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/CMR.00001-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Calgary, Alberta, Canada, North and Central America, Infectious Diseases and Conditions, Article Review, Epidemiology, Genetics, University of Calgary.

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Disease Attributes - Chronic Disease

Findings from University of Calgary Update Knowledge of Chronic Disease (Finding resiliency in the face of financial barriers Development of a conceptual framework for people with cardiovascular-related chronic disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Disease Attributes - Chronic Disease have been published. According to news reporting out of Calgary, Canada, by NewsRx editors, research stated, "Patients with chronic diseases often face financial barriers to optimize their health. These financial barriers may be related to direct healthcare costs such as medications or self-monitoring supplies, or indirect costs such as transportation to medical appointments."

Our news journalists obtained a quote from the research from the University of Calgary, "No known framework exists to understand how financial barriers impact patients' lives or their health outcomes. We undertook a grounded theory study to develop such a framework. We used semistructured interviews with a purposive sample of participants with cardiovascular-related chronic disease (hypertension, diabetes, heart disease, or stroke) from Alberta, Canada. Interview transcripts were analyzed in triplicate, and interviews continued until saturation was reached. We interviewed 34 participants. We found that the confluence of 2 events contributed to the perception of having a financial barrier -onset of chronic disease and lack of income or health benefits. The impact of having a perceived financial barrier varied considerably. Protective, predisposing, or modifying of factors determined how impactful a financial barrier would be. An individual's particular set of factors is then shaped by their worldview. This combination of factors and lens determines one's degree of resiliency, which ultimately impacts how well they cope with their disease. The role of financial barriers is complex. How well an individual copes with their financial barriers is intimately tied to resiliency, which is related to the composite of a personal circumstances and their worldview."

According to the news editors, the research concluded: "Our framework for understanding the experience of financial barriers can be used by both researchers and clinicians to better understand patient behavior."

For more information on this research see: Finding resiliency in the face of financial barriers Development of a conceptual framework for people with cardiovascular-related chronic disease. Medicine, 2016;95(49):422-429. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting K. King-Shier, University of Calgary, Fac Nursing, Calgary, AB T2N 1N4, Canada. Additional authors for this research include B.J. Manns, P. Leblanc, B.R. Hemmelgarn, C. Sanmartin and K. King-Shier.

Keywords for this news article include: Calgary, Alberta, Canada, North and Central America, Investment and Finance, Pathologic Processes, Disease Attributes, Chronic Disease, Cardiovascular, Cardiology, University of Calgary.

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Findings from University of California Broaden Understanding of Hematopoietic Stem Cells (A Transient Developmental Hematopoietic Stem Cell Gives Rise to Innate-like B and T Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Stem Cell Research - Hematopoietic Stem Cells have been presented. According to news reporting from Santa Cruz, California, by NewsRx journalists, research stated, "The generation of distinct hematopoietic cell types, including tissue-resident immune cells, distinguishes fetal from adult hematopoiesis. However, the mechanisms underlying differential cell production to generate a layered immune system during hematopoietic development are unclear."

The news correspondents obtained a quote from the research from the University of California, "Using an irreversible lineage-tracing model, we identify a definitive hematopoietic stem cell (HSC) that supports long-term multilineage reconstitution upon transplantation into adult recipients but does not persist into adulthood in situ. These HSCs are fully multipotent, yet they display both higher lymphoid cell production and greater capacity to generate innate-like B and T lymphocytes as compared to coexisting fetal HSCs and adult HSCs."

According to the news reporters, the research concluded: "Thus, these developmentally restricted HSCs (drHSCs) define the origin and generation of early lymphoid cells that play essential roles in establishing self-recognition and tolerance, with important implications for understanding autoimmune disease, allergy, and rejection of transplanted organs."


Our news journalists report that additional information may be obtained by contacting E.C. Forsberg, University of California, Inst Biol Stem Cells, Dept. of Biomol Engn, Santa Cruz, CA 95064, United States. Additional authors for this research include S.W. Boyer, J. Perez-Cunningham, G.E. Hernandez, S.C. Derderian, C. Jujjavarapu, E. Aaserude, T. MacKenzie and E.C. Forsberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.stem.2016.08.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Santa Cruz, California, United States, North and Central America, Hematopoietic Stem Cells, Stem Cell Research, Bone Marrow Cells, Hematology, University of California.

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Endocrine System Diseases and Conditions - Insulin...

Findings from University of California Has Provided New Data on Insulin Resistance (Mitochondrial quality control in insulin resistance and diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Endocrine System Diseases and Conditions - Insulin Resistance have been published. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "Diabetes is increasingly prevalent and a primary contributor to the major causes of disability and death."

Funders for this research include American Federation for Aging Research, Glenn Foundation for Medical Research, UCLA Hartford Center of Excellence, National Institute on Aging, UCLA Older Americans Independence Center, Ellison Medical Foundation, UCSD/UCLA Diabetes Research Center, UCLA Department of Medicine, UCLA Iris Cantor Women's Health Center Foundation Executive Board, Jonsson Comprehensive Cancer Center, National Institutes of Health.

Our news journalists obtained a quote from the research from the University of California, "Despite the central role of mitochondria in metabolism, the relationship between mitochondrial quality and insulin action remains unclear. An increasing number of genetically-engineered and aging rodent models are shedding additional light on the mitochondrion's role in regulating glucose metabolism and insulin sensitivity by modulating mitochondrial morphology, function and quality control pathways."

According to the news editors, the research concluded: "Clarification of the role of mitochondria in regulating key cellular processes including metabolic flux, autophagy, and apoptosis will drive the development of novel therapeutic strategies for maintaining mitochondrial quality and improving human health."


Our news journalists report that additional information may be obtained by contacting J. Wanagat, University of California, David Geffen Sch Med, Dept. of Med, Div Geriatr, Los Angeles, CA 90095, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gde.2016.05.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Subcellular Fractions, Cytoplasm, Genetics, Cellular Structures, Intracellular Space, Insulin Resistance, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Mitochondria, Organelles, Proinsulin, Diabetes, University of California.

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Findings from University of California Provide New Insights into Retinitis Pigmentosa (Establishing the involvement of the novel gene AGBL5 in retinitis pigmentosa by whole genome sequencing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Eye Diseases and Conditions - Retinitis Pigmentosa. According to news originating from La Jolla, California, by NewsRx correspondents, research stated, "While more than 250 genes are known to cause inherited retinal degenerations (IRD), nearly 40-50% of families have the genetic basis for their disease unknown. In this study we sought to identify the underlying cause of IRD in a family by whole genome sequence (WGS) analysis."

Financial supporters for this research include Foundation Fighting Blindness (Foundation Fighting Blindness, Inc.), HHS | National Institutes of Health (NIH), University of California San Diego-Dept of Ophthalmology.

Our news journalists obtained a quote from the research from the University of California, "Clinical characterization including standard ophthalmic examination, fundus photography, visual field testing, electroretinography, and review of medical and family history was performed. WGS was performed on affected and unaffected family members using Illumina HiSeq X10. Sequence reads were aligned to hg19 using BWA-MEM and variant calling was performed with Genome Analysis Toolkit. The called variants were annotated with SnpEff v4.11, PolyPhen v2.2.2, and CADD v1.3. Copy number variations were called using Genome STRiP (svtoolkit 2.00.1611) and SpeedSeq software. Variants were filtered to detect rare potentially deleterious variants segregating with disease. Candidate variants were validated by dideoxy sequencing. Clinical evaluation revealed typical adolescent-onset recessive retinitis pigmentosa (arRP) in affected individuals. Two rare and potentially deleterious compound heterozygous variants p.Arg281Cys and p.Arg487* were identified in the gene ATP/GTP binding protein like 5 (AGBL5) as likely causal variants. No additional variants in IRD genes that segregated with disease were identified. Mutation analysis confirmed the segregation of these variants with the IRD in the pedigree. Homology models indicated destabilization of AGBL5 due to the p.Arg281Cys change."

According to the news editors, the research concluded: "Our findings establish the involvement of mutations in AGBL5 in RP and validate the WGS variant filtering pipeline we designed."

For more information on this research see: Establishing the involvement of the novel gene AGBL5 in retinitis pigmentosa by whole genome sequencing. Physiological Genomics, 2016;48(12):922-927. Physiological Genomics can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news correspondents report that additional information may be obtained from R. Ayyagari, University of California, Shiley Eye Inst, La Jolla, CA 92037, United States. Additional authors for this research include H. Matsui, P. Biswas, A.A. Guru, M. Hicks, J.J. Suk, H. Li, D. Jakubosky, T. Long, A. Telenti, N. Nariai, J.R. Heckenlively, K.A. Frazer, P.A. Sieving and R. Ayyagari.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/physiolgenomics.00101.2016. This DOI is a link to an online
electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Hereditary Eye Diseases and Conditions, Eye Diseases and Conditions, Genetics, Retinal Diseases and Conditions, Retinal Degeneration, Retinitis Pigmentosa, University of California.

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**Stem Cell Research**

**Findings from University of California Provides New Data on Stem Cell Research (Regional signals in the planarian body guide stem cell fate in the presence of genomic instability)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Stem Cell Research is now available. According to news reporting originating from Merced, California, by NewsRx correspondents, research stated, "Cellular fate decisions are influenced by their topographical location in the adult body. For instance, tissue repair and neoplastic growth are greater in anterior than in posterior regions of adult animals."

Financial support for this research came from National Institutes of Health.

Our news editors obtained a quote from the research from the University of California, "However, the molecular underpinnings of these regional differences are unknown. We identified a regional switch in the adult planarian body upon systemic disruption of homologous recombination with RNA-interference of Rad51. Rad51 knockdown increases DNA double-strand breaks (DSBs) throughout the body, but stem cells react differently depending on their location along the anteroposterior axis. In the presence of extensive DSBs, cells in the anterior part of the body resist death, whereas cells in the posterior region undergo apoptosis. Furthermore, we found that proliferation of cells with DNA damage is induced in the presence of brain tissue and that the retinoblastoma pathway enables overproliferation of cells with DSBs while attending to the demands of tissue growth and repair."

According to the news editors, the research concluded: "Our results implicate both autonomous and non-autonomous mechanisms as key mediators of regional cell behavior and cellular transformation in the adult body."


The news editors report that additional information may be obtained by contacting N.J. Oviedo, Univ Calif Merced, Hlth Sci Res Inst, Merced, CA 95343, United States. Additional authors for this research include D. Ramirez, P.G. Barghouth, U. Ofoha, D. Davidian, F. Weckerle and N.J. Oviedo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/dev.131318. This DOI is a link to an online electronic document that is either free or for purchase.
Biomedical Engineering - Tissue Engineering

Findings from University of California Provides New Data on Tissue Engineering (Transforming Growth Factor-b-Induced KDM4B Promotes Chondrogenic Differentiation of Human Mesenchymal Stem Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biomedical Engineering - Tissue Engineering. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "The high prevalence of cartilage diseases and limited treatment options create a significant biomedical burden. Due to the inability of cartilage to regenerate itself, introducing chondrocyte progenitor cells to the affected site is of significant interest in cartilage regenerative therapies."

Financial support for this research came from NIH/NIDCR.

Our news journalists obtained a quote from the research from the University of California, "Tissue engineering approaches using human mesenchymal stem cells (MSCs) are promising due to their chondrogenic potential, but a comprehensive understanding of the mechanisms governing the fate of MSCs is required for precise therapeutic applications in cartilage regeneration. TGF-b is known to induce chondrogenesis by activating SMAD signaling pathway and upregulating chondrogenic genes such as SOX9; however, the epigenetic regulation of TGF-b-mediated chondrogenesis is not understood. In this report, we found that TGF-b dramatically induced the expression of KDM4B in MSCs. When KDM4B was overexpressed, chondrogenic differentiation was significantly enhanced while KDM4B depletion by shRNA led to a significant reduction in chondrogenic potential. Mechanistically, upon TGF-b stimulation, KDM4B was recruited to the SOX9 promoter, removed the silencing H3K9me3 marks, and activated the transcription of SOX9. Furthermore, KDM4B depletion reduced the occupancy of SMAD3 in the SOX9 promoter, suggesting that KDM4B is required for SMAD-dependent coactivation of SOX9. Our results demonstrate the critical role of KDM4B in the epigenetic regulation of TGF-b-mediated chondrogenic differentiation of MSCs."

According to the news editors, the research concluded: "Since histone demethylases are chemically modifiable, KDM4B may be a novel therapeutic target in cartilage regenerative therapy."


Our news journalists report that additional information may be obtained by contacting H.L. Lee, Laboratory of Molecular Signaling, Division of Oral Biology and Medicine, School of Dentistry and Broad Stem Cell Research Center, University of California, Los Angeles, Los Angeles, California, United States. Additional authors for this research include B. Yu, P. Deng, C.Y. Wang and C. Hong.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2231. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Tissue Engineering, Biomedical Engineering, Biomedicine, Genetics, California, Los Angeles, United States, Bioengineering, Stem Cell Research, Mesenchymal Stem Cells, North and Central America, Transforming Growth Factors, TGF beta Superfamily Proteins, Intercellular Signaling Peptides and Proteins.

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Findings from University of California Yields New Findings on Surgical Technologies (Compatibility of Radiofrequency Surgical Sponge Detection Technology with Cardiac Implantable Electronic Devices and Temporary Pacemakers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Surgery - Surgical Technologies have been published. According to news reporting originating from La Jolla, California, by NewsRx correspondents, research stated, "Radiofrequency (RF) technology has improved detection of retained surgical sponges with a reported 100% sensitivity and specificity. However, the potential for interactions of the RF signals emitted by the detection system with cardiac implantable electronic devices (CIEDs) or temporary pacemakers may limit its use in those patients with these devices."

Our news editors obtained a quote from the research from the University of California, "This study investigated whether RF detection technology causes interference or clinically significant changes in the programmed settings of implanted pacemakers and defibrillators or temporary epicardial pacemakers. Fifty patients who were scheduled either for CIED removal or placement of a temporary epicardial pacemaker (at the time of open heart surgery) were recruited for this study. Device settings and measurements from separate interrogations before and after scanning with the RF detection system were compared. For the temporary pacemakers, we observed for any changes in hemodynamics or signs of pacing interference. Twenty (40%) pacemakers, 20 (40%) implantable cardioverter defibrillators, and 10 (20%) temporary pacemakers were analyzed in this study. During scanning, no signal interference was detected in any permanent device, and there were no significant changes in programmed settings after scanning with the RF detection system. However, pacing inhibition was detected with temporary pacing systems when programmed to a synchronous mode (DDD)."

According to the news editors, the research concluded: "RF detection technology can be safely used to scan for retained surgical sponges in patients with permanent CIEDs and temporary pacemakers set to asynchronous mode."

For more information on this research see: Compatibility of Radiofrequency Surgical Sponge Detection Technology with Cardiac Implantable Electronic Devices and Temporary Pacemakers. PACE-Pacing and Clinical Electrophysiology, 2016;39(11):1254-1260. PACE-Pacing and Clinical Electrophysiology can be contacted at: Wiley-Blackwell, 111...
River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting J.D. Salcedo, University of California, Sch Med, Sulpizio Cardiovasc Center, Dept. of Med & SurgDiv Cardiothorac Surg, La Jolla, CA 92039, United States. Additional authors for this research include V.G. Pretorius, J.C. Hsu, G.G. Lalani, A.A. Schricker, S.M. Hebsur, T.J. McGarry, J.A. Hunter, K.E. Lewis, D.E. Krummen, G.K. Feld and U. Birgersdotter-Green.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Surgical Technologies, Medical Devices, Cardio Device, Cardiology, Technology, Surgery, University of California.

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Drugs and Therapies - Antibiotics

Findings from University of California in Antibiotics Provides New Insights (Exploring Synergy between Classic Mutagens and Antibiotics To Examine Mechanisms of Synergy and Antibiotic Action)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antibiotics have been presented. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "We used classical mutagens in Gram-negative *Escherichia coli* to study synergies with different classes of antibiotics, test models of antibiotic mechanisms of action, and examine the basis of synergy. We used 4-nitroquinoline 1-oxide (4NQO), zebularine (ZEB), 5-azacytidine (5AZ), 2-aminopurine (2AP), and 5-bromodeoxyuridine (5BrdU) as mutagens (with bactericidal potency of 4NQO >ZEB >5AZ >2Ap >5BrdU) and vancomycin (VAN), ciprofloxacin (CPR), trimethoprim (TMP), gentamicin (GEN), tetracycline (TET), erythromycin (ERY), and chloramphenicol (CHL) as antibiotics."

Our news journalists obtained a quote from the research from the University of California, "We detected the strongest synergies with 4NQO, an agent that oxidizes guanines and ultimately results in double-strand breaks when paired with the bactericidal antibiotics VAN, TMP, CPR, and GEN, but no synergies with the bacteriostatic antibiotics TET, ERY, and CHL. Each of the other mutagens displays synergies with the bactericidal antibiotics to various degrees that reflect their potencies, as well as with some of the other mutagens. The results support recent models showing that bactericidal antibiotics kill bacteria principally by ultimately generating more double-strand breaks than can be repaired. We discuss the synergies seen here and elsewhere as representing dose effects of not the proximal target damage but rather the ultimate resulting double-strand breaks."

According to the news editors, the research concluded: "We also used the results of pairwise tests to place the classic mutagens into functional antibacterial categories within a previously defined drug interaction network."


Our news journalists report that additional information may be obtained by contacting P. Yeh, Dept. of Ecology and Evolutionary Biology, University of California, Los
Los Angeles, California, United States. Additional authors for this research include S. D'Souza, K. Lam, T.M. Kang, P. Yeh and J.H Miller.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.02485-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibacterial Agents, Antibiotics, Antimicrobials, California, Los Angeles, United States, Drugs and Therapies, North and Central America.

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**Chemistry - Biochemistry**

**Findings from University of California in the Area of Biochemistry Reported (Effect of site-directed mutations in multidrug efflux pump AcrB examined by quantitative efflux assays)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Chemistry - Biochemistry is now available. According to news reporting originating from Berkeley, California, by NewsRx correspondents, research stated, "The Resistance-Nodulation-Division (RND) family transporter AcrB plays a major role in the intrinsic and increased resistance of Escherichia coli to a large number of antibiotics. The distal binding pocket within this multidrug efflux transporter is very large, but the effort to define the roles of various residues facing this pocket through site-directed mutagenesis so far involved only the determination of minimal inhibitory concentrations of drugs in mutants."

Our news editors obtained a quote from the research from the University of California, "We measured in intact E. coli cells the kinetics of efflux of two substrates, nitrocefin (a cephalosporin) that is predicted mainly to bind to the upper, 'groove' domain of the pocket, and L-alanyl-beta-naphthylamide (Ala-Naph) that is likely to bind to the lower, 'cave' domain, in a number of site directed mutants of AcrB, where a hydrophobic or aromatic residue was changed into alanine. The efflux of nitrocefin became attenuated by some mutations in the groove domain, such as I278A and F178A, but in some experiments a mutation in the cave domain, F628A produced a similar result. In some cases an increased value of KM was detected. The efflux of Ala-Naph was increased by mutations in the cave domain, such as F136A and I626A, but also by those in the groove domain (I277A, I278A, F178A). In most cases the increased V-max values appeared to be responsible. F610A mutation had a profound effect on the efflux of both substrates, as reported earlier. Our data show for the first time effects of various substrate-binding pocket mutations on the kinetics of efflux of two substrates by the AcrB pump."

According to the news editors, the research concluded: "They also confirm interactions between substrates and drugs predicted by MD simulation studies, and also reveal areas that need future research."

For more information on this research see: Effect of site-directed mutations in multidrug efflux pump AcrB examined by quantitative efflux assays. Biochemical and Biophysical Research Communications, 2016;480(4):552-557. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and
Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/

The news editors report that additional information may be obtained by contacting H. Nikaido, University of California, Dept. of Mol & Cell Biol, Berkeley, CA 94720, United States. Additional authors for this research include A.V. Vargiu and H. Nikaido.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.083. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berkeley, California, United States, North and Central America, Biochemistry, Chemistry, Genetics, University of California.

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**Blood Pressure**

**Findings from University of Cambridge Provides New Data about Blood Pressure (Clinical relevance of central blood pressure - a critical review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Blood Pressure. According to news reporting originating in Cambridge, United Kingdom, by NewsRx journalists, research stated, "Vital organs are exposed to the central rather than the brachial blood pressure. To date, central blood pressure can be assessed noninvasively through the use of several devices."

The news reporters obtained a quote from the research from the University of Cambridge, "In this review, we critically discuss the clinical relevance of central blood pressure assessment. Considerable evidence suggests that central blood pressure is a better predictor of end-organ damage than brachial blood pressure. However, there is still uncertainty concerning the value of central pressure for predicting cardiovascular outcomes, as the existing studies are underpowered to address this issue. A full synthesis of the available data is needed in this regard. Among the different antihypertensive drug classes, beta-blockers appear to lower central blood pressure less than brachial blood pressure. This difference may, at least in part, explain the reduced efficacy of beta-blockers in the prevention of cardiovascular outcomes compared with the other antihypertensive drug classes, which may lower central and brachial blood pressure to a similar extent Nevertheless, this differential effect might not be relevant to the newer beta-blockers with vasodilating properties, including nebivolol, celliprolol and carvedilol. However, whether a preferential reduction of central blood pressure results in better outcomes should be further assessed by appropriately powered clinical trials."

According to the news reporters, the research concluded: "Other emerging challenges include the assessment of the potential predictive value of central blood pressure variability and the development of new antihypertensive medications based on central blood pressure rather than brachial blood pressure."


Our news correspondents report that additional information may be obtained by
Contacting M. Kostapanos, University of Cambridge, Div Expt Med & Immunopathologist, Cambridge CB2 0QQ, United Kingdom. Additional authors for this research include C.M. McEniery and I.B. Wilkinson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1024/0301-1526/a000565. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, United Kingdom, Europe, Cardiology, Article Review, Cardiovascular, Blood Pressure, Hemodynamics, University of Cambridge.

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Immune System Diseases and Conditions - HIV/AIDS

Findings from University of Cape Town Update Knowledge of HIV/AIDS (HIV-1 Coinfection Does Not Reduce Exposure to Rifampin, Isoniazid, and Pyrazinamide in South African Tuberculosis Outpatients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news reporting originating from Cape Town, South Africa, by NewsRx correspondents, research stated, "There are contrasting data in the literature about antituberculosis plasma drug concentrations in HIV-1-coinfected patients. We report the pharmacokinetics of rifampin, isoniazid, and pyrazinamide in a cohort of patients being treated for active tuberculosis, the majority of whom were coinfected with HIV-1 and had commenced antiretroviral therapy within 2 months of starting antituberculosis treatment."

Funders for this research include Wellcome Trust, Medical Research Council (MRC), National Research Foundation (NRF).

Our news editors obtained a quote from the research from the University of Cape Town, "We also examined the association between antituberculosis drug concentrations and reported drug side effects at the 2-month clinical review. One hundred patients with pulmonary tuberculosis (65% coinfected with HIV-1) were intensively sampled to determine rifampin, isoniazid, and pyrazinamide plasma concentrations after 7 to 8 weeks of a daily quadruple-therapy regimen dosed according to World Health Organization (WHO) weight bands. Pharmacokinetic parameters were determined for each patient by using nonlinear mixed-effects models. HIV-1-coinfected patients had lower clearance rates for rifampin (21% decrease) and isoniazid (23% decrease) than HIV-1-uninfected patients, with resulting higher areas under the concentration-time curve from 0 to 24 h (AUC(0-24)) and maximum concentrations of drug in serum (C-max). Antiretroviral therapy (ART) that included double-standard-dose lopinavir/ritonavir further lowered rifampin clearance, by 46%, and increased the AUC(0-24). The current uniform dosing (per kilogram of body weight) across WHO weight bands was associated with a trend of decreased pharmacokinetic exposures for the lowest weight band. Use of fat-free mass as opposed to total body weight for allometric scaling of clearance significantly improved the model."

According to the news editors, the research concluded: "Ambulant HIV-1-coinfected patients, the majority of whom were coprescribed ART, did not have reduced antituberculosis drug concentrations compared to HIV-1-uninfected patients."

The news editors report that additional information may be obtained by contacting P. Denti, University of Cape Town, Dept. of Med, Div Clin Pharmacol, Cape Town, South Africa. Additional authors for this research include G. Meintjes, M. Chirehwa, L. Wiesner, H. McIlleron, R.J. Wilkinson and P. Denti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00480-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cape Town, South Africa, Africa, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Nicotinic Acid Derivatives, Mycobacterium Tuberculosis, Actinomycetales Infections, HIV/AIDS and Tuberculosis, Mycobacterium Infections, Opportunistic Infections, Antituberculosis Agents, Gram-Positive Bacteria, Rifamycin Derivatives, Pyrazinamide Therapy, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Isoniazid Therapy, Pharmacokinetics, Rifampin Therapy, Pharmaceuticals, Antiinfectives, HIV Infections, Retroviridae, RNA Viruses, Hydrazines, HIV-1, University of Cape Town.

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**Cardiology**

**Findings from University of Central Florida Broadens Understanding of Cardiology (SOD1 Overexpression Preserves Baroreflex Control of Heart Rate with an Increase of Aortic Depressor Nerve Function)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiology is now available. According to news originating from Orlando, Florida, by NewsRx correspondents, research stated, "Overproduction of reactive oxygen species (ROS), such as the superoxide radical (O2 (&#8729;)), is associated with diseases which compromise cardiac autonomic function. Overexpression of SOD1 may offer protection against ROS damage to the cardiac autonomic nervous system, but reductions of O2 (&#8729;) may interfere with normal cellular functions."

Our news journalists obtained a quote from the research from the University of Central Florida, "We have selected the C57B6SJL-Tg (SOD1)2 Gur/J mouse as a model to determine whether SOD1 overexpression alters cardiac autonomic function, as measured by baroreflex sensitivity (BRS) and aortic depressor nerve (ADN) recordings, as well as evaluation of baseline heart rate (HR) and mean arterial pressure (MAP). Under isoflurane anesthesia, C57 wild-type and SOD1 mice were catheterized with an arterial pressure transducer and measurements of HR and MAP were taken. After establishing a baseline, hypotension and hypertension were induced by injection of sodium nitroprusside (SNP) and phenylephrine (PE), respectively, and DHR versus DMAP were recorded as a measure of baroreflex sensitivity (BRS). SNP and PE treatment were administered sequentially after a recovery period to measure
arterial baroreceptor activation by recording aortic depressor nerve activity."

According to the news editors, the research concluded: "Our findings show that overexpression of SOD1 in C57B6SJL-Tg (SOD1)2 Gur/J mouse preserved the normal HR, MAP, and BRS but enhanced aortic depressor nerve function."


The news correspondents report that additional information may be obtained from J. Hatcher, Biomolecular Science Center, Burnett School of Biomedical Sciences, College of Medicine, University of Central Florida, Orlando, FL 32816, United States. Additional authors for this research include H. Gu and Z.J Cheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/3686829. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Orlando, Florida, Cardiology, United States, North and Central America.

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**Evolution**

**Findings from University of Chester in the Area of Evolution Described (Consequences of mating and predation risk for longevity in a freshwater snail: abstinence makes the heart beat longer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Evolution. According to news reporting out of West Chester, Pennsylvania, by NewsRx editors, research stated, "Senescence is not a static property of an individual or population, but rather it is a dynamic process that may be influenced by environmental conditions. This can occur in at least two ways: in the long-term across multiple generations, and in the short-term via phenotypic plasticity."

Financial supporters for this research include Andrew W. Mellon Foundation, National Science Foundation.

Our news journalists obtained a quote from the research from the University of Chester, "The former has attracted a lot of attention, both theoretically and empirically; the latter has lagged behind. To determine whether two important environmental variables (predation risk and mate availability) affect the pattern of actuarial senescence (i.e. the increase in mortality with age), we reared 30 full-sib families of the simultaneously hermaphroditic freshwater snail Physa acuta under four different environmental conditions and tracked individuals until death. Individuals were reared in a 292 factorial experiment that manipulated the nonlethal presence of chemical cues from predatory crayfish (presence/absence) and the opportunity to mate with an unrelated partner (mated/not mated). Snails that receive a partner reproduce by outcrossing, whereas those that remain in isolation can reproduce by self-fertilization. We compared the cumulative survival curves to test for an effect of predation risk and mating. The hazard ratio (HR) for the predation risk comparison was 1.042 indicating no significant difference between
the curves. However, the HR for the mating comparison was 4.021, reflecting a significant reduction in survival probability for mated snails relative to isolated snails."

According to the news editors, the research concluded: "As such, mating resulted in a much shorter lifespan, an outcome that we interpret in terms of shifting resource allocation."


Our news journalists report that additional information may be obtained by contacting J.R. Auld, West Chester Univ, Dept. of Biol, W Chester, PA 19383, United States. Additional authors for this research include A.D. Helker and A. Kolpas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jeb.12976. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: West Chester, Pennsylvania, United States, North and Central America, Evolution, University of Chester.

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**Oncology - Pancreatic Cancer**

**Findings from University of Chicago Has Provided New Data on Pancreatic Cancer (External radiation is associated with limited improvement in overall survival in resected margin-negative stage IIB pancreatic adenocarcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Pancreatic Cancer are presented in a new report. According to news originating from Chicago, Illinois, by NewsRx correspondents, research stated, "The absolute benefit of adjuvant external beam radiation therapy iffer a margin-negative resection in early stage pancreatic cancer has not been determined. We queried the National Cancer Data Base for patients with pathologic stage I-II pancreatic adenocarcinoma who underwent operative resection between 2004 and 2012."

Our news journalists obtained a quote from the research from the University of Chicago, "Multivariate Cox regression adjusted for age, race, comorbidities, facility type, location and volume, type of pancreatectomy, and tumor grade was used to estimate stage-specific survival. A total of 15,966 patients with stage I-II pancreatic adenocarcinoma underwent up front operative therapy (no neoadjuvant treatment) and had a margin-negative resection during the study period. A total of 835 (5.2%) patients were pathologic stage IA, 1,539 (9.5 %) were stage IB, 3,378 (20.9%) were stage IIA, and 10,214 (63.1%) were stage IIB. Chemoradiation utilization increased with increasing stage (22.8% in stage IA vs 39.6% in stage IIB, P< .01). Chemoradiation was more common at low-volume centers (39.0% vs 31.7% at high-volume centers, P< .01) and with younger age (43.3% of patients <70 years old compared to 25.0% >= 70 years old, P< .01). Treatment at a high-volume center was associated with decreased mortality (hazard ratio 0.80-0.89) across all stages. Age >= 70 years old (hazard ratio
Chemotherapy alone for stage IIB disease (21.8 months vs 19.5 months, P< .01). Chemoradiation was not associated with a significant benefit in median overall survival for stage IA, IB, or IIA disease (P > .30).

According to the news editors, the research concluded: "Addition of radiation to adjuvant chemotherapy after margin-negative resection of pancreatic adenocarcinoma is associated with a limited survival benefit in patients with pathologic stage JIB disease and should be weighed against its associated risks in these patient groups.

For more information on this research see:  


The news correspondents report that additional information may be obtained from M.S. Baker, University Chicago, Pritzker Sch Med, Chicago, IL 60637, United States. Additional authors for this research include M.S. Talamonti, W. Lutfi, C.H. Wang, D.J. Winchester, R. Marsh, R.A. Prinz and M.S. Baker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.surg.2016.07.033. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include:  Chicago, Illinois, United States, North and Central America, Pancreas, Risk and Prevention, Pancreatic Cancer, Gastroenterology, Adenocarcinoma, Oncology, University of Chicago.

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Drugs and Therapies - Antibiotics

Findings from University of Cincinnati Update Knowledge of Antibiotics

[MDMA decreases glutamic acid decarboxylase (GAD) 67-immunoreactive neurons in the hippocampus and increases seizure susceptibility: Role for glutamate]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a new report. According to news reporting originating from Cincinnati, Ohio, by NewsRx correspondents, research stated, "3,4-Methylenedioxy-methamphetamine (MDMA) is a unique psychostimulant that continues to be a popular drug of abuse. It has been well documented that MDMA reduces markers of 5-HT axon terminals in rodents, as well as humans."

Our news editors obtained a quote from the research from the University of Cincinnati, "A loss of parvalbumin-immunoreactive (IR) interneurons in the hippocampus following MDMA treatment has only been documented recently. In the present study, we tested the hypothesis that MDMA reduces glutamic acid decarboxylase (GAD) 67-IR, another biochemical marker of GABA neurons, in the hippocampus and that this reduction in GAD67-IR neurons and an accompanying increase in seizure susceptibility involve glutamate receptor activation. Repeated exposure to MDMA (3 x 10 mg/kg, ip) resulted in a reduction of 37-58%
of GAD67-IR cells in the dentate gyrus (DG), CA1, and CA3 regions, as well as an increased susceptibility to kainic acid-induced seizures, both of which persisted for at least 30 days following MDMA treatment. Administration of the NMDA antagonist MK-801 or the glutamate transporter type 1 (GLT-1) inducer ceftriaxone prevented both the MDMA-induced loss of GAD67-IR neurons and the increased vulnerability to kainic acid-induced seizures. The MDMA-induced increase in the extracellular concentration of glutamate in the hippocampus was significantly diminished in rats treated with ceftriaxone, thereby implicating a glutamatergic mechanism in the neuroprotective effects of ceftriaxone.

According to the news editors, the research concluded: "In summary, the present findings support a role for increased extracellular glutamate and NMDA receptor activation in the MDMA-induced loss of hippocampal GAD67-IR neurons and the subsequent increased susceptibility to evoked seizures."

For more information on this research see: MDMA decreases glutamic acid decarboxylase (GAD) 67-immunoreactive neurons in the hippocampus and increases seizure susceptibility: Role for glutamate. Neurotoxicology, 2016;57():282-290. Neurotoxicology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Neurotoxicology - www.journals.elsevier.com/neurotoxicology/)

The news editors report that additional information may be obtained by contacting G.A. Gudelsky, University of Cincinnati, James Winkle Coll Pharm, Div Pharmaceut Sci, Cincinnati, OH 45267, United States. Additional authors for this research include R.L. Morano, J.P. Herman, B.K. Yamamoto and G.A. Gudelsky.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neuro.2016.10.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cincinnati, Ohio, United States, North and Central America, Nervous System Diseases and Conditions, Third Generation Cephalosporins, Neurologic Manifestations, Dicarboxylic Amino Acids, Beta-Lactam Antibiotics, Excitatory Amino Acids, Enzymes and Coenzymes, Drugs and Therapies, Acidic Amino Acids, Antimicrobials, Decarboxylase, Glutamic Acid, Ceftriaxone, Glutamates, Cefotaxime, Seizures, Neurons, Cells, University of Cincinnati.

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Oncology - Cervical Cancer

Findings from University of Colorado Broaden Understanding of Cervical Cancer (Disparities in standard of care treatment and associated survival decrement in patients with locally advanced cervical cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Cervical Cancer is now available. According to news originating from Aurora, Colorado, by NewsRx correspondents, research stated, "Standard of care (SOC) treatment for locally advanced cervical cancer includes pelvic external beam radiation (EBRT) with chemotherapy and interdigitated brachytherapy. We evaluated national utilization trends and factors associated with receiving SOC therapy."

Our news journalists obtained a quote from the research from the University of
Colorado, "We utilized the National Cancer Database (NCDB) to identify women with locally advanced cervical cancer treated with definitive radiation or chemoradiation therapy and stratified these patients by treatment received. We identified 15,194 patients. Only 44.3% of patients received SOC treatment and this group had significantly improved OS. High volume centers, academic centers, comprehensive community cancer centers, private insurance, and higher income, were all associated with an increased likelihood of receiving SOC, whereas Black patients were less likely to receive SOC. We found 26.8% of patients received no radiation boost, 23.8% received an EBRT boost only, and 49.5% of patients received EBRT with brachytherapy. Although an EBRT boost was advantageous over no boost at all (HR 0.720, p<0.001), OS was superior in patients who received brachytherapy (HR 0.554, p<0.001). Patients were more likely to receive no radiotherapy boost if they had lower incomes, Medicaid, were treated at low volume centers, or were treated at non-comprehensive community cancer centers. SOC for locally advanced cervical cancer offers superior outcomes, yet less than half of patients receive SOC and there are disparities in which patients receive SOC treatment."

According to the news editors, the research concluded: "No additional treatment, including sophisticated EBRT techniques including IMRT or SBRT, can make up for the survival decrement from lack of brachytherapy as a component of definitive care."

For more information on this research see: Disparities in standard of care treatment and associated survival decrement in patients with locally advanced cervical cancer. Gynecologic Oncology, 2016;143(2):319-325. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

The news correspondents report that additional information may be obtained from C.M. Fisher, University of Colorado, Dept. of Radiat Oncol, Center Canc, Aurora, CO 80045, United States. Additional authors for this research include A. Amini, T.E. Schefter, K. Behbakht and C.M. Fisher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.09.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Drugs and Therapies, Cervical Cancer, Women's Health, Brachytherapy, Radiotherapy, Oncology, Therapy, University of Colorado.

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Oncology - Medulloblastomas

Findings from University of Colorado Broadens Understanding of Medulloblastomas (A WEE1 Inhibitor Analog of AZD1775 Maintains Synergy with Cisplatin and Demonstrates Reduced Single-Agent Cytotoxicity in Medulloblastoma Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Medulloblastomas. According to news originating from Aurora, Colorado, by NewsRx correspondents, research stated, "The current treatment for medulloblastoma includes surgical resection, radiation, and
cytotoxic chemotherapy. Although this approach has improved survival rates, the high doses of chemotherapy required for clinical efficacy often result in lasting neurocognitive defects and other adverse events."

Funders for this research include National Center for Advancing Translational Sciences, National Institute of Neurological Disorders and Stroke.

Our news journalists obtained a quote from the research from the University of Colorado, "Therefore, the development of chemosensitizing agents that allow dose reductions of cytotoxic agents, limiting their adverse effects but maintaining their clinical efficacy, would be an attractive approach to treat medulloblastoma. We previously identified WEE1 kinase as a new molecular target for medulloblastoma from an integrated genomic analysis of gene expression and a kinome-wide siRNA screen of medulloblastoma cells and tissue. In addition, we demonstrated that WEE1 prevents DNA damage-induced cell death by cisplatin and that the WEE1 inhibitor AZD1775 displays synergistic activity with cisplatin. AZD1775 was developed as a WEE1 inhibitor from an initial hit from a high-throughput screen. However, given the lack of structure-activity data for AZD1775, we developed a small series of analogs to determine the requirements for WEE1 inhibition and further examine the effects of WEE1 inhibition in medulloblastoma. Interestingly, the compounds that inhibited WEE1 in the same nanomolar range as AZD1775 had significantly reduced single-agent cytotoxicity compared with AZD1775 and displayed synergistic activity with cisplatin in medulloblastoma cells."

According to the news editors, the research concluded: "The potent cytotoxicity of AZD1775, unrelated to WEE1 inhibition, may result in dose-limiting toxicities and exacerbate adverse effects; therefore, WEE1 inhibitors that demonstrate low cytotoxicity could be dosed at higher concentrations to chemosensitize the tumor and potentiate the effect of DNA-damaging agents such as cisplatin."

For more information on this research see: A WEE1 Inhibitor Analog of AZD1775 Maintains Synergy with Cisplatin and Demonstrates Reduced Single-Agent Cytotoxicity in Medulloblastoma Cells. Acs Chemical Biology, 2016;11(4):921-30. (American Chemical Society - www.acs.org; Acs Chemical Biology - www.pubs.acs.org/journal/acbcct)

The news correspondents report that additional information may be obtained from C.J. Matheson, Dept. of Pharmaceutical Sciences, Skaggs School of Pharmacy and Pharmaceutical Sciences, University of Colorado Anschutz Medical Campus, 12850 East Montview Boulevard, V20-2102, Aurora, Colorado 80045, United States. Additional authors for this research include S. Venkataraman, V. Amani, P.S. Harris, D.S. Backos, A.M. Donson, M.F. Wempe, N.K. Foreman, R. Vibhakar and P. Reigan.

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Keywords for this news article include: Aurora, Colorado, Genetics, Oncology, Cisplatin, United States, Medulloblastomas, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, North and Central America, Diagnostics and Screening.

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Findings from University of Colorado Has Provided New Data on Cell Biology (Diverse Intestinal Bacteria Contain Putative Zwitterionic Capsular Polysaccharides with Anti-inflammatory Properties)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Life Science Research - Cell Biology are discussed in a new report. According to news originating from Aurora, Colorado, by NewsRx correspondents, research stated, "Zwitterionic capsular polysaccharides (ZPSs) are bacterial products that modulate T cells, including inducing anti-inflammatory IL-10-secreting T regulatory cells (Tregs). However, only a few diverse bacteria are known to modulate the host immune system via ZPS."

Our news journalists obtained a quote from the research from the University of Colorado, "We present a genomic screen for bacteria encoding ZPS molecules. We identify diverse host-associated bacteria, including commensals and pathogens with known anti-inflammatory properties, with the capacity to produce ZPSs. Human mononuclear cells stimulated with lysates from putative ZPS-producing bacteria induce significantly greater IL-10 production and higher proportions of Tregs than lysates from non-ZPS-encoding relatives or a commensal strain of Bacteroides cellulosilyticus in which a putative ZPS biosynthetic operon was genetically disrupted. Similarly, wild-type B. cellulosilyticus DSM 14838, but not a close relative lacking a putative ZPS, attenuated experimental colitis in mice."

According to the news editors, the research concluded: "Collectively, this screen identifies bacterial strains that may use ZPSs to interact with the host as well as those with potential probiotic properties."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.chom.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Cell Biology, Life Science Research, Genetics, University of Colorado.

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Hematologic Diseases and Conditions - Anemia

Findings from University of Colorado School of Medicine Provide New Insights into Anemia (Twin-twin transfusion and laser therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematologic Diseases and Conditions - Anemia. According to news reporting originating from Aurora, Colorado, by NewsRx correspondents, research stated, "Twin-to-twin transfusion syndrome (TTTS) is an uncommon, but dangerous, complication of monochorionic diamniotic twin gestations. The purpose of this review is to provide an update on the evolving treatments in TTTS as it pertains primarily to laser photocoagulation, as well as to provide recently published information on outcomes."

Our news editors obtained a quote from the research from the University of Colorado School of Medicine, "The Solomon laser technique, in which selective fetoscopic laser photocoagulation is first performed and then followed by laser of the vascular equator from one side of the placenta to the other, reduces TTTS complications of twin anemia-polycythemia syndrome and recurrent TTTS. The addition of fetal echocardiography to the historical staging of TTTS adds important information that may guide future therapies. The postlaser ablation rate of neurodevelopmental delay in TTTS has recently been reported to be 14%. Cotwin demise is a significant complication of untreated TTTS and survival carries a 25% risk of cystic periventricular leukomalacia, middle cerebral artery infarction, and injury to other central nervous system structures as noted by neuroimaging. Laser therapy for TTTS is clearly the only therapy that halts the disease process, allows both fetuses an opportunity to survive and protects a surviving cotwin in the event of the demise of one twin. Laser techniques have evolved greatly over the last 25 years and recent reports with the addition of the Solomon technique appearing to reduce some postlaser complications (twin anemia-polycythemia sequence and recurrent TTTS)."

According to the news editors, the research concluded: "Future focus of TTTS therapy should be centered on understanding the pathophysiology of the disease better with improvement in staging of the disease and on comparison of different laser techniques with the overall goal of not only increasing twin survival rates but also reducing long term neurodevelopmental morbidity."

For more information on this research see: Twin-twin transfusion and laser therapy. Current Opinion In Obstetrics & Gynecology, 2016;28(2):79-85. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Obstetrics & Gynecology - journals.lww.com/co-obgyn/pages/default.aspx)

The news editors report that additional information may be obtained by contacting N. Behrendt, Division of Maternal-Fetal Medicine, Dept. of Obstetrics and Gynecology, University of Colorado School of Medicine, Colorado Institute for Maternal and Fetal Health, Aurora, Colorado, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/GCO.0000000000000247. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aurora, Anemia, Colorado, Polycythemia, United States, Laser Therapy, Article Review, Photocoagulation, Surgical Procedures, North and Central America, Hematologic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions.

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Thyroid Diseases and Conditions - Hypothyroidism

Findings from University of Colorado in Hypothyroidism Reported (Clinical significance of sunitinib-associated macrocytosis in metastatic renal cell carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Thyroid Diseases and Conditions - Hypothyroidism. According to news originating from Aurora, Colorado, by NewsRx correspondents, research stated, "Increases in the mean corpuscular volume (MCV) have been observed in patients with metastatic renal cell carcinoma (mRCC) on tyrosine kinase inhibitor (TKI) treatment; however, its association with progression-free-survival (PFS) is unknown. We aimed to characterize TKI-associated macrocytosis in mRCC and its relationship with PFS."

Financial supporters for this research include Paul Calabresi Career Development Award for Clinical Oncology (K12), National Institutes of Health, Cancer Center Biostatistic Resource, National Cancer Institute.

Our news journalists obtained a quote from the research from the University of Colorado, "Retrospective review of data on macrocytosis and thyroid dysfunction on mRCC patients treated with sunitinib and/or sorafenib. These results are evaluated in the context of our previous report on the association of hypothyroidism in this setting. We assessed PFS as clinically defined by the treating physician. Seventy-four patients, 29 of whom received both drugs, were included. A treatment period was defined as time from initiation to discontinuation of either sunitinib or sorafenib; 103 treatment periods [sorafenib (47), sunitinib (56)] were analyzed. Macrocytosis was found in 55 and 8% of sunitinib- and sorafenib-treated patients, respectively, P< 0.001. The median time to developing macrocytosis was 3 months (m, range 1-7). Median PFS in sunitinib-treated patients was 11 m (95% CI: 6-19). Median PFS was higher among those with macrocytosis compared to normocytosis (21 m [95% CI: 11-25] vs. 4 m [95% CI: 3-8] P = 0.0001). Macrocytosis and hypothyroidism were two significant predictors of PFS. The greatest difference in PFS among all patients was observed in patients with both macrocytosis and hypothyroidism (25 m), compared to the normocytic and euthyroid patients (5 m) (P < 0.0001). Sunitinib-related macrocytosis was associated with prolonged PFS, and concurrent development of hypothyroidism and macrocytosis further prolonged PFS. Increased MCV may have a role as a predictive biomarker for sunitinib."

According to the news editors, the research concluded: "Prospective studies accounting for other known prognostic factors are needed to confirm this finding."


The news correspondents report that additional information may be obtained from T.W. Flaig, University of Colorado, Center Canc, Aurora, CO, United States. Additional authors for this research include D.X. Gao, S. Trigero, J.E. Clemons, K. Breaker, E.T. Lam and T.W. Flaig.

The direct object identifier (DOI) for that additional information is:
Findings from University of Concepcion Has Provided New Data on Piscirickettsia [Novel insights into the response of Atlantic salmon (Salmo salar) to Piscirickettsia salmonis: Interplay of coding genes and IncRNAs during bacterial infection]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Piscirickettsia are discussed in a new report. According to news reporting originating from Concepcion, Chile, by NewsRx correspondents, research stated, "Despite the high prevalence and impact to Chilean salmon aquaculture of the intracellular bacterium Piscirickettsia salmonis, the molecular underpinnings of host-pathogen interactions remain unclear. Herein, the interplay of coding and non-coding transcripts has been proposed as a key mechanism involved in immune response."

Financial support for this research came from PhD Program in Renewable Resources Management of the University of Concepcion, Chile.

Our news editors obtained a quote from the research from the University of Concepcion, "Therefore, the aim of this study was to evidence how coding and non coding transcripts are modulated during the infection process of Atlantic salmon with P. salmonis. For this, RNA-seq was conducted in brain, spleen, and head kidney samples, revealing different transcriptional profiles according to bacterial load. Additionally, while most of the regulated genes annotated for diverse biological processes during infection, a common response associated with clathrin-mediated endocytosis and iron homeostasis was present in all tissues. Interestingly, while endocytosis-promoting factors and clathrin inductions were upregulated, endocytic receptors were mainly down-regulated. Furthermore, the regulation of genes related to iron homeostasis suggested an intracellular accumulation of iron, a process in which heme biosynthesis/degradation pathways might play an important role. Regarding the non-coding response, 918 putative long non-coding RNAs were identified, where 425 were newly characterized for S. salar. Finally, co-localization and co-expression analyses revealed a strong correlation between the modulations of long non-coding RNAs and genes associated with endocytosis and iron homeostasis."

According to the news editors, the research concluded: "These results represent the first comprehensive study of putative interplaying mechanisms of coding and non-coding RNAs during bacterial infection in salmonids."

For more information on this research see: Novel insights into the response of Atlantic salmon (Salmo salar) to Piscirickettsia salmonis: Interplay of coding genes and

The news editors report that additional information may be obtained by contacting C. Gallardo-Escarate, Univ Concepcion, Interdisciplinary Center Aquaculture Res INCAR, Lab Biotechnol & Aquat Genom, Concepcion, Chile.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.fsi.2016.11.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Concepcion, Chile, South America, Bacterial Infections and Mycoses, Gram-Negative Bacteria, Endocytosis, Genetics, Gammaproteobacteria, Piscirickettsiaceae, Proteobacteria, University of Concepcion.

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Nitrofurans

**Findings from University of Copenhagen Broaden Understanding of Nitrofurans [Near-infrared chemical imaging (NIR-CI) of 3D printed pharmaceuticals]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nitrofurans have been presented. According to news originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "Hot-melt extrusion and 3D printing are enabling manufacturing approaches for patient-centred medicinal products. Hot-melt extrusion is a flexible and continuously operating technique which is a crucial part of a typical processing cycle of printed medicines."

Funders for this research include Drug Research Academy (University of Copenhagen), Takeda Pharma, Danish Council for Independent Research (DFF), Technology and Production Sciences (FTP).

Our news journalists obtained a quote from the research from the University of Copenhagen, "In this work we use hot-melt extrusion for manufacturing of medicinal films containing indomethacin (IND) and polycaprolactone (PCL), extruded strands with nitrofurantoin monohydrate (NFMH) and poly (ethylene oxide) (PEO), and feedstocks for 3D printed dosage forms with nitrofurantoin anhydrate (NFAH), hydroxyapatite (HA) and poly (lactic acid) (PLA). These feedstocks were printed into a prototype solid dosage form using a desktop 3D printer. These model formulations were characterized using near-infrared chemical imaging (NIR-CI) and, more specifically, the image analytical data were analysed using multivariate curve resolution-alternating least squares (MCR-ALS). The MCR-ALS algorithm predicted the spatial distribution of IND and PCL in the films with reasonable accuracy. In the extruded strands both the chemical mapping of the components in the formulation as well as the solid form of the active compound could be visualized. Based on the image information the total nitrofurantoin and PEO contents could be estimated. The dehydration of NFMH to NFAH, a process-induced solid form change, could be visualized as well. It was observed that the level of dehydration increased with increasing processing time (recirculation during the mixing phase of molten PEO and nitrofurantoin). Similar results were achieved in the 3D printed solid dosage
forms produced from the extruded feedstocks. The results presented in this work clearly demonstrate that NIR-CI in combination with MCR-ALS can be used for chemical mapping of both active compound and excipients, as well as for visualization of solid form variation in the final product."

According to the news editors, the research concluded: "The suggested NIR-CI approach is a promising process control tool for characterization of innovative patient-centred medicinal products."


The news correspondents report that additional information may be obtained from J. Rantanen, University of Copenhagen, Dept. of Pharm, Fac Hlth & Med Sci, DK-2100 Copenhagen, Denmark. Additional authors for this research include M. Edinger, D. Raijada, J. Botker, J. Aho and J. Rantanen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.09.075. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Nitrofurans, Nitrofurantoin, University of Copenhagen.

**Gastroenterology - Colorectal Research**

**Findings from University of Copenhagen Provide New Insights into Colorectal Research (Phosphodiesterases in non-neoplastic appearing colonic mucosa from patients with colorectal neoplasia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gastroenterology - Colorectal Research. According to news reporting out of Copenhagen, Denmark, by NewsRx editors, research stated, "Intracellular signaling through cyclic nucleotides, both cyclic AMP and cyclic GMP, is altered in colorectal cancer. Accordingly, it is hypothesized that an underlying mechanism for colorectal neoplasia involves altered function of phosphodiesterases (PDEs), which affects cyclic nucleotide degradation."

Our news journalists obtained a quote from the research from the University of Copenhagen, "Here we present an approach to evaluate the function of selected cyclic nucleotide-PDEs in colonic endoscopic biopsies from non-neoplastic appearing mucosa. Biopsies were obtained from patients with and without colorectal neoplasia. Activities of PDEs were characterized functionally by measurements of transepithelial ion transport and their expression and localization by employing real-time qPCR and immunohistochemistry. In functional studies PDE subtype-4 displayed lower activity in colorectal neoplasia patients (p = 0.006). Furthermore, real-time qPCR analysis showed overexpression of subtype PDE4B (p = 0.002) and subtype PDE5A (p = 0.02) in colorectal neoplasia patients. Finally, immunohistochemistry for 7 PDE isozymes demonstrated the presence of all 7 isozymes, albeit..."
with weak reactions, and with no differences in localization between colorectal neoplasia and control patients. Of note, quantification of PDE subtype immunostaining revealed a lower amount of PDE3A (p = 0.04) and a higher amount of PDE4B (p = 0.02) in samples from colorectal neoplasia patients. In conclusion, functional data indicated lower activity of PDE4 subtypes while expression and abundance data indicated a higher expression of PDE4B in patients with colorectal neoplasia. We suggest that cyclic nucleotide-PDE4B is overexpressed as a malfunctioning protein in non-neoplastic appearing colonic mucosa from patients with colorectal neoplasia."

According to the news editors, the research concluded: "If a predisposition of reduced PDE4B activity in colonic mucosa from colorectal neoplasia patients is substantiated further, this subtype could be a potential novel early diagnostic risk marker and may even be a target for future medical preventive treatment of colorectal cancer."


Our news journalists report that additional information may be obtained by contacting B. Mahmood, University of Copenhagen, Dept. of Biomed Sci, Fac Hlth Sci, DK-2200 Copenhagen, Denmark. Additional authors for this research include M.M.B. Damm, T.S.R. Jensen, M.B. Backe, M.S. Dahllof, S.S. Poulsen, N. Bindslev and M.B. Hansen.

Keywords for this news article include: Copenhagen, Denmark, Europe, Cyclic Nucleotide Research, Colorectal Research, Gastroenterology, Neoplasia, Genetics, University of Copenhagen.

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**Endocrine System Diseases and Conditions - Insulin...**

**Findings from University of Copenhagen Provide New Insights into Insulin Resistance (Increasing insulin resistance accentuates the effect of triglyceride-associated loci on serum triglycerides during 5 years)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Endocrine System Diseases and Conditions - Insulin Resistance have been presented. According to news reporting from Copenhagen, Denmark, by NewsRx journalists, research stated, "Blood concentrations of triglycerides are influenced by genetic factors as well as a number of environmental factors, including adiposity and glucose homeostasis. The aim was to investigate the association between a serum triglyceride weighted genetic risk score (wGRS) and changes in fasting serum triglyceride level over 5 years and to test whether the effect of the wGRS was modified by 5 year changes of adiposity, insulin resistance, and lifestyle factors."

Financial supporters for this research include Novo Nordisk Foundation, Danish Council for Independent Research, Medical Sciences.

The news correspondents obtained a quote from the research from the University of Copenhagen, "A total of 3,474 nondiabetic individuals from the Danish Inter99 cohort participated in both the baseline and 5 year follow-up physical examinations and had
information on the wGRS comprising 39 genetic variants. In a linear regression model adjusted for age, sex, and baseline serum triglyceride, the wGRS was associated with increased serum triglyceride levels over 5 years [per allele effect = 1.3% (1.0-1.6%); P = 1.0 x 10(-17)]. This triglyceride-increasing effect of the wGRS interacted with changes in insulin resistance (P-interaction = 1.5 x 10(-6)). This interaction indicated that the effect of the wGRS was stronger in individuals who became more insulin resistant over 5 years."

According to the news reporters, the research concluded: "Our findings suggest that increased genetic risk load is associated with a larger increase in fasting serum triglyceride levels in nondiabetic individuals during 5 years of follow-up. This effect of the wGRS is accentuated by increasing insulin resistance."


Our news journalists report that additional information may be obtained by contacting E.A. Andersson, University of Copenhagen, Novo Nordisk Fdn Center Basic Metab Res, Sect Metab Genet, Fac Hlth & Med Sci, Copenhagen, Denmark. Additional authors for this research include E.A. Andersson, K.H. Allin, C.H. Sandholt, T. Jorgensen, A. Linneberg, M.E. Jorgensen, T. Hansen, O. Pedersen and N. Grarup.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1194/jlr.P068379. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Peptide Proteins, Risk and Prevention, Epidemiology, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Insulin Resistance, Peptide Hormones, Hyperinsulinism, Proinsulin, Genetics, University of Copenhagen.

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Gram-Negative Bacteria - Pseudomonas fluorescens

Findings from University of Copenhagen Update Knowledge of Pseudomonas fluorescens (Lipopeptide biosurfactant viscosin enhances dispersal of Pseudomonas fluorescens SBW25 biofilms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Pseudomonas fluorescens are discussed in a new report. According to news reporting out of Copenhagen, Denmark, by NewsRx editors, research stated, "Pseudomonads produce several lipopeptide biosurfactants that have antimicrobial properties but that also facilitate surface motility and influence biofilm formation. Detailed studies addressing the significance of lipopeptides for biofilm formation and architecture are rare."

Our news journalists obtained a quote from the research from the University of Copenhagen, "Hence, the present study sets out to determine the specific role of the lipopeptide
viscosin in Pseudomonas fluorescens SBW25 biofilm formation, architecture and dispersal, and to relate viscA gene expression to viscosin production and effect. Initially, we compared biofilm formation of SBW25 and the viscosin-deficient mutant strain SBW25 Delta viscA in static microtitre assays. These experiments demonstrated that viscosin had little influence on the amount of biofilm formed by SBW25 during the early stages of biofilm development. Later, however, SBW25 formed significantly less biofilm than SBW25DviscA. The indication that viscosin is involved in biofilm dispersal was confirmed by chemical complementation of the mutant biofilm. Furthermore, a fluorescent bioreporter showed that viscA expression was induced in biofilms 4 h prior to dispersal. Subsequent detailed studies of biofilms formed in flow cells for up to 5 days revealed that SBW25 and SBW25DviscA developed comparable biofilms dominated by well-defined, mushroom-shaped structures. Carbon starvation was required to obtain biofilm dispersal in this system. Dispersal of SBW25 biofilms was significantly greater than of SBW25DviscA biofilms after 3 h and, importantly, carbon starvation strongly induced viscA expression, in particular for cells that were apparently leaving the biofilm.

According to the news editors, the research concluded: "Thus, the present study points to a role for viscosin-facilitated motility in dispersal of SBW25 biofilms."


Our news journalists report that additional information may be obtained by contacting L. Bonnichsen, University of Copenhagen, Dept. of Plant & Environm Sci, Fac Sci, Sect Microbial Ecol & Biotechnol, Copenhagen, Denmark. Additional authors for this research include N.B. Svenningsen, M. Rybtke, I. de Bruijn, J.M. Raaijmakers, T. Tolker-Nielsen and O. Nybroe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1099/mic.0.000191. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Pseudomonas fluorescens, Gram-Negative Bacteria, Gammaproteobacteria, Pseudomonadaceae, Proteobacteria, Lipopeptides, Genetics, University of Copenhagen.

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### Nutritional and Metabolic Diseases and Conditions - ...

#### Findings from University of Copenhagen in Type 2 Diabetes Reported

(Metformin-associated risk of acute dialysis in patients with type 2 diabetes: A nationwide cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news originating from Herlev, Denmark, by NewsRx correspondents, research stated, "Recent guidelines governing anti-diabetic medications increasingly advocate metformin as first-line therapy in all patients with
type 2 diabetes. However, metformin could be associated with increased risk of acute kidney injury (AKI), acute dialysis and lactate acidosis in marginal patients."

Our news journalists obtained a quote from the research from the University of Copenhagen, "In a retrospective nationwide cohort study, a total of 168 443 drug-naive patients with type 2 diabetes 50 years, initiating treatment with either metformin or sulphonyl in Denmark between 2000 and 2012 were included in this study (70.7% initiated treatment with metformin); calculation of 1-year risk of acute dialysis was based on g-standardization of cause-specific Cox regression models for acute dialysis, end-stage renal disease and death. One-year risks of acute dialysis were 92.4 per 100 000 (95% CI, 67.1-121.3) and 142.7 per 100 000 (95% CI, 118.3-168.0) for sulphonylurea and metformin, respectively."

According to the news editors, the research concluded: "The metformin-associated 1-year risk of acute dialysis was increased by 50.3 per 100 000 (95% CI, 7.9-88.6), corresponding to a risk ratio of 1.53 (95% CI, 1.06-2.23), and a number needed to harm of 1988, thus providing evidence of potential concerns pertaining to the increasing use of metformin."


The news correspondents report that additional information may be obtained from N. Carlson, University of Copenhagen, Herlev Hosp, Dept. of Nephrol, Herlev, Denmark. Additional authors for this research include K. Hommel, J.B. Olesen, T.A. Gerds, A.M. Soja, T. Vilsboll, A.L. Kamper, C. Torp-Pedersen and G. Gislason.

Keywords for this news article include: Herlev, Denmark, Europe, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Drugs and Therapies, Hypoglycemic Agents, Antidiabetic Agents, Risk and Prevention, Metformin Therapy, Non-Sulfonylureas, Type 2 Diabetes, Biguanides, University of Copenhagen.

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Cardiovascular Diseases and Conditions -...

Findings from University of Copenhagen in the Area of Hypertension Reported (Causes of Death Data in the Global Burden of Disease Estimates for Ischemic and Hemorrhagic Stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "Stroke mortality estimates in the Global Burden of Disease (GBD) study are based on routine mortality statistics and redistribution of ill-defined codes that cannot be a cause of death, the so-called 'garbage codes' (GCs). This study describes the contribution of these codes to stroke mortality estimates."

Our news journalists obtained a quote from the research from the University of Copenhagen, "All available mortality data were compiled and non-specific cause codes were redistributed based on literature review and statistical methods. Ill-defined codes were redistributed to their specific cause of disease by age, sex, country and year. The reassignment was done based on the International Classification of Diseases and the pathology behind each
code by checking multiple causes of death and literature review. Unspecified stroke and primary and secondary hypertension are leading contributing 'GCs' to stroke mortality estimates for hemorrhagic stroke (HS) and ischemic stroke (IS). There were marked differences in the fraction of death assigned to IS and HS for unspecified stroke and hypertension between GBD regions and between age groups. A large proportion of stroke fatalities are derived from the redistribution of 'unspecified stroke' and 'hypertension' with marked regional differences."

According to the news editors, the research concluded: "Future advancements in stroke certification, data collections and statistical analyses may improve the estimation of the global stroke burden."


The news correspondents report that additional information may be obtained from T. Truelsen, Dept. of Neurology, University of Copenhagen Rigshospitalet, Copenhagen, Denmark. Additional authors for this research include L.H. Krarup, H.K. Iversen, G.A. Mensah, V.L. Feigin, L.A. Sposato and M. Naghavi.

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Keywords for this news article include: Europe, Denmark, Copenhagen, Hematology, Epidemiology, Hypertension, Article Review, Hemorrhagic Stroke, Global Burden Of Disease, Cardiovascular Diseases and Conditions.

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Cardiovascular Diseases and Conditions - Thrombosis

Findings from University of Cordoba in the Area of Thrombosis Reported (Partial thrombosis of the corpus cavernosum: should we dig deeper into coagulopathy disorders?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Thrombosis. According to news reporting originating from Cordoba, Spain, by NewsRx correspondents, research stated, "Partial thrombosis of the corpus cavernosum, also known as partial priapism is a rare condition. The condition is known to be unilateral, and its aetiology is not well known."

Our news editors obtained a quote from the research from the University of Cordoba, "Usually, symptoms are pain and perineal mass and Magnetic Resonance is needed to confirm the diagnosis. In most cases the treatment is conservative with anticoagulation therapy."

According to the news editors, the research concluded: "We present a case of partial thrombosis of the corpus cavernosum with a Factor V Leyden mutation."

For more information on this research see: Partial thrombosis of the corpus cavernosum: should we dig deeper into coagulopathy disorders? Andrologia, 2016;48 (10):1313-1316. Andrologia can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Andrologia -
Heart Disorders and Diseases - Atrial Fibrillation

Findings from University of Eastern Finland Has Provided New Data on Atrial Fibrillation (Reduced kidney function is a risk factor for atrial fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting originating in Kuopio, Finland, by NewsRx journalists, research stated, "There is limited knowledge on the relationship between kidney function and incidence of atrial fibrillation. Thus, this prospective study was designed to evaluate whether various biomarkers of kidney function are associated to the risk of atrial fibrillation."

The news reporters obtained a quote from the research from the University of Eastern Finland, "The study population consisted of 1840 subjects (615 women and 1225 men) aged 61-82 years. Cystatin C-and creatinine-based estimation of glomerular filtration rate (eGFRcys and eGRFcreat, respectively) and urinary albumin/creatinine ratio (ACR) were assessed to investigate their relationship with the risk of atrial fibrillation. During a median follow-up of 3.7 years, a total of 159 incident atrial fibrillation cases occurred. After adjustment for potential confounders, the risk of atrial fibrillation was increased (hazard ratio 2.74, 95% confidence interval (CI) 1.56-4.81, P>0.001) in subjects with reduced kidney function (eGFRcys, 15-59 mL/min per 1.73 m(2)) compared to subjects with normal kidney function (>= 90 mL/min per 1.73 m(2)). Similar results were also found when comparing the respective groups of subjects defined by their eGRFcreat levels (hazard ratio 2.41, CI 1.09-5.30, P=0.029). Consistently, subjects with ACR >= 300 mg/g had an increased risk of incident atrial fibrillation (hazard ratio 2.16, CI 1.35-2.82, P>0.001) compared to those with ACR >30 mg/g."

According to the news reporters, the research concluded: "Reduced eGFR and albuminuria were associated with an increased risk of atrial fibrillation."


Our news correspondents report that additional information may be obtained by
contacting J.A. Laukkanen, Univ Eastern Finland, Dept. of Med, Inst Public Hlth & Clin Nutr, Kuopio, Finland. Additional authors for this research include F. Zaccardi, J. Karppi, K. Ronkainen and S. Kurl. Keywords for this news article include: Kuopio, Finland, Europe, Heart Disorders and Diseases, Risk and Prevention, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, University of Eastern Finland.

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**Oncology - Glioblastomas**

**Findings from University of Edinburgh Provides New Data on Glioblastomas (A Zebrafish Live Imaging Model Reveals Differential Responses of Microglia Toward Glioblastoma Cells In Vivo)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Glioblastomas have been presented. According to news reporting out of Edinburgh, United Kingdom, by NewsRx editors, research stated, "Glioblastoma multiforme is the most common and deadliest form of brain cancer. Glioblastomas are infiltrated by a high number of microglia, which promote tumor growth and surrounding tissue invasion."

Our news journalists obtained a quote from the research from the University of Edinburgh, "However, it is unclear how microglia and glioma cells physically interact and if there are differences, depending on glioma cell type. Hence, we have developed a novel live imaging assay to study microglia-glioma interactions in vivo in the zebrafish brain. We transplanted well-established human glioblastoma cell lines, U87 and U251, into transgenic zebrafish lines with labelled macrophages/microglia. Our confocal live imaging results show distinct interactions between microglia and U87, as well as U251 glioblastoma cells that differ in number and nature. Importantly these interactions do not appear to be antitumoral as zebrafish microglia do not engulf and phagocytose the human glioblastoma cells. Finally, xenotransplants into the irf8(-/-) zebrafish mutant that lacks microglia, as well as pharmacological inhibition of the CSF-1 receptor (CSF-1R) on microglia, confirm a prominent role for zebrafish microglia in promoting human glioblastoma cell growth."

According to the news editors, the research concluded: "This new model will be an important tool for drug screening and the development of future immunotherapeutics targeting microglia within glioma."

For more information on this research see: A Zebrafish Live Imaging Model Reveals Differential Responses of Microglia Toward Glioblastoma Cells In Vivo. *Zebrafish*. 2016;13 (6):523-534. *Zebrafish* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Zebrafish - www.liebertpub.com/overview/zebrafish/122/)

Our news journalists report that additional information may be obtained by contacting D. Sieger, University of Edinburgh, Center Neuroregenerat, Edinburgh EH16 4SB, Midlothian, United Kingdom. Additional authors for this research include K.R. Astell, G. Velikova and D. Sieger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/zeb.2016.1339. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Edinburgh, United Kingdom, Europe, Glioblastomas, Microglia, Neuroglia, Oncology, Genetics, Gliomas, University of Edinburgh.

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**Cardiovascular Diseases and Conditions**

**Findings from University of Florida Broaden Understanding of Hypertension (Interaction of Alu Polymorphisms and Novel Measures of Discrimination in Association with Blood Pressure in African Americans Living in Tallahassee, Florida)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Hypertension. According to news reporting from Gainesville, Florida, by NewsRx journalists, research stated, "African Americans are 40% more likely to be afflicted with hypertension than are non-Hispanic, white Americans, resulting in a 30% higher instance of mortality due to cardiovascular disease. There is debate about the relative contributions of genetic and sociocultural risk factors to the racial disparity in hypertension."

The news correspondents obtained a quote from the research from the University of Florida, "We assayed three Alu insertion polymorphisms located in the ACE (angiotensin I converting enzyme), PLAT (plasminogen activator, tissue), and WNK1 (lysine deficient protein kinase 1) genes. We also estimated West African genetic ancestry and developed novel measures of perceived discrimination to create a biocultural model of blood pressure among African American adults in Tallahassee, Florida (n = 158). When tested separately, the ACE Alu noninsertion allele was significantly associated with higher systolic and diastolic blood pressure. In multiple regression analyses, West African genetic ancestry was not associated with blood pressure and reduced the strength of all blood pressure models tested. A gene x environment interaction was identified between the ACE Alu genotype and a new measure of unfair treatment that includes experiences by individuals close to the study participant. Inclusion of the WNK1 Alu genotype further improved this model of blood pressure variation. Our results suggest an association of the ACE and WNK1 genotypes with blood pressure that is consistent with their proposed gene functions. Measures of perceived unfair treatment of others show a threshold effect, with increased blood pressure occurring at higher values."

According to the news reporters, the research concluded: "The interaction between the ACE genotype and unfair treatment highlights the benefits of including both genetic and cultural data to investigate complex disease."


Our news journalists report that additional information may be obtained by contacting C.J. Mulligan, University of Florida, Gainesville, FL 32610, United States. Additional authors for this research include J. Quinlan, A.T. Miro-Herrans, L.N. Pearson, N.L. Todd, C.C. Gravlee and C.J. Mulligan.
Findings from University of Florida Provides New Data about Cytokines
(Sexual dimorphic function of IL-17 in salivary gland dysfunction of the C57BL/6.NOD-Aec1Aec2 model of Sjoren's syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cytokines is now available. According to news reporting originating from Gainesville, Florida, by NewsRx correspondents, research stated, "Interleukin (IL)-17 is one of the critical inflammatory cytokines that plays a direct role in development of Sjogren's syndrome (SjS), a systemic autoimmune disease characterized by a progressive chronic attack against the exocrine glands. The expression levels of IL-17 are correlated with a number of essential clinical parameters such as focus score and disease duration in human patients."

Our news editors obtained a quote from the research from the University of Florida, "Significantly immunological differences of Th17 cells were detected at the onset of clinical disease in female SjS mice compared to males. To further define the role of IL-17 in SjS and elucidate its involvement in the sexual dimorphism, we examined the systemic effect of IL-17 by genetically ablating IL-17 in the C57BL/6. NOD-Aec1Aec2, spontaneous SjS murine model. The results indicate that IL-17 is a potent inflammatory molecule in the induction of chemoattractants, cytokines, and glandular apoptosis in males and females. Elimination of IL-17 reduced sialadenitis more drastically in females than males. IL-17 is highly involved in modulating Th2 cytokines and altering autoantibody profiles which has a greater impact on changing plasma cells and germinal center B cell populations in females than males."

According to the news editors, the research concluded: "The result supports a much more important role for IL-17 and demonstrates the sexual dimorphic function of IL-17 in SjS."

For more information on this research see: Scientific Reports, 2016;6():1-14. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting C.Q. Nguyen, University of Florida, Coll Dental, Center Orphan Autoimmune Disorders, Gainesville, FL 32610, United States. Additional authors for this research include L. Esfandiary, A. Wanchoo, P. Glenton, A. Donate, W.F. Craft, S.L.M. Craft and C.Q. Nguyen.

Keywords for this news article include: Gainesville, Florida, United States, North and Central America, Cytokines, Genetics, University of Florida.

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Nutritional and Metabolic Diseases and Conditions —

Findings from University of Florida Provides New Data about Obesity (Accuracy of Weight Loss Information in Spanish Search Engine Results on the Internet)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news originating from Gainesville, Florida, by NewsRx correspondents, research stated, "To systematically assess the quality of online information related to weight loss that Spanish speakers in the U.S. are likely to access. This study evaluated the accessibility and quality of information for websites that were identified from weight loss queries in Spanish and compared this with previously published results in English."

Our news journalists obtained a quote from the research from the University of Florida, "The content was scored with respect to five dimensions: nutrition, physical activity, behavior, pharmacotherapy, and surgical recommendations. Sixty-six websites met eligibility criteria (21 commercial, 24 news/media, 10 blogs, 0 medical/government/university, 11 unclassified sites). Of 16 possible points, mean content quality score was 3.4 (SD=2.0). Approximately 1.5% of sites scored greater than 8 (out of 12) on nutrition, physical activity, and behavior. Unsubstantiated claims were made on 94% of the websites. Content quality scores varied significantly by type of website (P <0.0001) with unclassified websites scoring the highest (mean=6.3, SD=1.4) and blogs scoring the lowest (mean=2.2, SD=1.2). All content quality scores were lower for Spanish websites relative to English websites. Weight loss information accessed in Spanish Web searches is suboptimal and relatively worse than weight loss information accessed in English, suggesting that U.S."

According to the news editors, the research concluded: "Spanish speakers accessing weight loss information online may be provided with incomplete and inaccurate information."


The news correspondents report that additional information may be obtained from M.I. Cardel, University of Florida, Coll Med, Dept. of Hlth Outcomes & Policy, Gainesville, FL 32610, United States. Additional authors for this research include S. Chavez, J. Bian, E. Penaranda, D.R. Miller, T. Huo and F. Modave.

Keywords for this news article include: Gainesville, Florida, United States, North and Central America, Obesity, Nutritional and Metabolic Diseases and Conditions, University of Florida.

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Biotechnology - Cellular and Molecular Medicine

Findings from University of Fudan in the Area of Cellular and Molecular Medicine Described (Gene mutation-based and specific therapies in precision medicine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biotechnology - Cellular and Molecular Medicine have been presented. According to news reporting from Shanghai, People's Republic of China, by NewsRx editors, the research stated, "Precision medicine has been initiated and gains more and more attention from preclinical and clinical scientists. A number of key elements or critical parts in precision medicine have been described and emphasized to establish a systems understanding of precision medicine."

The news correspondents obtained a quote from the research from the University of Fudan, "The principle of precision medicine is to treat patients on the basis of genetic alterations after gene mutations are identified, although questions and challenges still remain before clinical application. Therapeutic strategies of precision medicine should be considered according to gene mutation, after biological and functional mechanisms of mutated gene expression or epigenetics, or the correspondent protein, are clearly validated. It is time to explore and develop a strategy to target and correct mutated genes by direct elimination, restoration, correction or repair of mutated sequences/genes. Nevertheless, there are still numerous challenges to integrating widespread genomic testing into individual cancer therapies and into decision making for one or another treatment. There are wide-ranging and complex issues to be solved before precision medicine becomes clinical reality."

According to the news reporters, the research concluded: "Thus, the precision medicine can be considered as an extension and part of clinical and translational medicine, a new alternative of clinical therapies and strategies, and have an important impact on disease cures and patient prognoses."


Our news journalists report that additional information may be obtained by contacting X. Wang, Zhongshan Hospital Biomedical Research Center, Fudan University Medical School, Fudan University Center for Clinical Bioinformatics, Shanghai Institute of Clinical Bioinformatics, Shanghai, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jcmm.12722. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Cellular and Molecular Medicine is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Biotechnology, Shanghai, Genetics, People's Republic of China, Cellular and Molecular Medicine.

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Pharmacogenetics

Findings from University of Geneva in the Area of Pharmacogenetics Described (Pharmacogenetic comparison of CYP2D6 predictive and measured phenotypes in a South African cohort)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacogenetics. According to news originating from Geneva, Switzerland, by NewsRx correspondents, research stated, "The relationship between genetic variation in CYP2D6 and variable drug response represents a potentially powerful pharmacogenetic tool. However, little is known regarding this relationship in the genetically diverse South African population."

Our news journalists obtained a quote from the research from the University of Geneva, "The aim was therefore to evaluate the relationship between predicted and measured CYP2D6 phenotype. An XL-PCR+ Sequencing approach was used to determine CYP2D6 genotype in 100 healthy volunteers and phenotype was predicted using activity scores. With dextromethorphan as the probe drug, metabolic ratios served as a surrogate measure of in vivo CYP2D6 activity. Three-hour plasma metabolic ratios of dextrorphan/dextromethorphan were measured simultaneously using semi-automated online solid phase extraction coupled with tandem mass spectrometry. Partial adaptation of the activity score system demonstrated a strong association between genotype and phenotype, as illustrated by a kappa value of 0.792, inter-rater discrepancy of 0.051 and sensitivity of 72.7%. Predicted phenotype frequencies using the modified activity score were 1.3% for poor metabolisers (PM), 7.6% for intermediate metabolisers (IM) and 87.3% for extensive metabolisers (EM). Measured phenotype frequencies were 1.3% for PM, 13.9% for IM and 84.8% for EM."

According to the news editors, the research concluded: "Comprehensive CYP2D6 genotyping reliably predicts CYP2D6 activity in this South African cohort and can be utilised as a valuable pharmacogenetic tool."

For more information on this research see: Pharmacogenetic comparison of CYP2D6 predictive and measured phenotypes in a South African cohort. Pharmacogenomics Journal, 2016;16(6):566-572. Pharmacogenomics Journal can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Pharmacogenomics Journal - www.nature.com/tpj/)

The news correspondents report that additional information may be obtained from M. Pepper, University of Geneva, Dept. of Genet Med & Dev, Geneva, Switzerland. Additional authors for this research include C.D.J. Labuschagne, A. van Schalkwyk, F.E. Steffens, A. Gaedigk, A. Cromarty, M. Alessandrini and M. Pepper.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.76. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Geneva, Switzerland, Europe, Pharmacogenetics, Pharmaceuticals, University of Geneva.

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Heart Disorders and Diseases - Heart Failure

Findings from University of Genoa Provides New Data about Heart Failure (Update on cardiotoxicity of anti-cancer treatments)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting out of Genoa, Italy, by NewsRx editors, research stated, "Anti-cancer treatments markedly improved the prognosis of patients, but unfortunately might be hampered by cardiotoxicity. Both symptomatic and asymptomatic clinical forms of heart failure have been reported, which may be reversible or irreversible."

Financial support for this research came from Schweizerischer Nationalfonds zur Forderung der Wissenschaftlichen Forschung.

Our news journalists obtained a quote from the research from the University of Genoa, "The aim of this review is to provide an overview of the antineoplastic agents associated with cardiac toxicity and of the available diagnostic techniques. This narrative review is based on material from MEDLINE and PUBMED up to November 2015. We looked at the terms antineoplastic drugs and cardiac toxicity in combination with echocardiography, troponins, cardiac magnetic resonance, and positron emission tomography. Anthracyclines, monoclonal antibodies, fluoropyrimidines, taxanes, alkylating agents, vinka alkaloids were reported to induce different clinical manifestations of cardiotoxicity. Chest radiotherapy is also associated with various forms of cardiac damage, which are indistinguishable from those found in patients with heart disease of other aetiologies and that may even appear several years after administration. Among diagnostic techniques, echocardiography is a noninvasive, cost-effective, and widely available imaging tool. Nuclear imaging and cardiac magnetic resonance may be used but are not so widely available and are more difficult to perform. Finally, some biomarkers, such as troponins, may be used to evaluate cardiac damage, but establishing the optimal timing of troponin assessment remains unclear and defining the cut-off point for positivity is still an important goal. Cardiotoxicity of anti-cancer treatments is associated with development of heart failure."

According to the news editors, the research concluded: "Novel diagnostic tools might be relevant to early recognize irreversible forms cardiac diseases."


Our news journalists report that additional information may be obtained by contacting G.M. Rosa, Division of Cardiology, Dept. of Internal Medicine, University of Genoa - IRCCS Azienda Ospedaliera Universitaria San Martino - IST Istituto Nazionale per la Ricerca sul Cancro, Genoa, Italy. Additional authors for this research include L. Gigli, M.I. Tagliasacchi, C. Di Iorio, F. Carbone, A. Nencioni, F. Montecucco and C. Brunelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/eci.12589. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genoa, Italy, Europe, Cancer, Oncology, Cardiology, Heart Disease, Heart Failure, Article Review, Echocardiography, Diagnostics and Screening, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.
Oncology - Prostate Cancer

Findings from University of Glasgow Provide New Insights into Prostate Cancer (Loss of Signal Transducer and Activator of Transcription 1 is Associated With Prostate Cancer Recurrence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Prostate Cancer is the subject of a report. According to news reporting from Glasgow, United Kingdom, by NewsRx journalists, research stated, "STAT1 loss has previously been implicated in cell line studies to modify prostate cancer cell growth and survival, however the clinical significance of this has not previously been established. This study investigated if STAT1 loss was associated with patient outcome measures and the phenotypic consequence of STAT1 silencing."

The news correspondents obtained a quote from the research from the University of Glasgow, "STAT1 expression was assessed in two patient cohorts with localised (n = 78) and advanced prostate cancer at initial diagnosis (n = 39) by immunohistochemistry (IHC). Impact of STAT1 silencing on prostate cancer cells lines was assessed using Cell Death detection ELISA, TLDA gene signature apoptosis arrays, WST-1 assay, xCELLigence system, clonogenic assay, and wound healing assay. In the localised patient cohort, low expression of STAT1 was associated with shorter time to disease recurrence (3.8 vs 7.3 years, P = 0.02) and disease specific survival (6.6 vs 9.3 years, P = 0.05). In the advanced patient cohort, low expression was associated with shorter time to disease recurrence (2.0 vs 3.9 years, P = 0.001). When STAT1 was silenced in PC3 cells (AR negative) and LNCaP cells (AR positive) silencing did not influence levels of apoptosis in either cell line and had little effect on cell viability in the LNCaP cells. In contrast, STAT1 silencing in the PC3 cells resulted in a pronounced increase in cell viability (WST-1 assay: mock silenced vs STAT1 silenced, P< 0.001), clonogenicity (clonogenic assay: mock silenced vs STAT1 silenced, P< 0.001), and migration (wound healing: mock silenced vs STAT1 silenced, P< 0.001)."

According to the news reporters, the research concluded: "Loss of STAT1 may promote prostate cancer recurrence in AR negative patients via increasing cell viability."


Keywords for this news article include: Glasgow, United Kingdom, Europe, Prostatic Neoplasms, Prostate Cancer, Oncology, University of Glasgow.

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Mononuclear Leukocytes

Findings from University of Glasgow Provides New Data on Mononuclear Leukocytes (Use of neutrophil to lymphocyte ratio for predicting histopathological grade of canine mast cell tumours)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mononuclear Leukocytes. According to news reporting originating in Glasgow, United Kingdom, by NewsRx journalists, research stated, "Canine mast cell tumours (MCTs) are variable in their biological behaviour and treatment decisions depend heavily on the histopathological grade. Biomarkers such as neutrophil to lymphocyte ratio (NLR) and albumin to globulin ratio are used to predict the biological behaviour of human neoplasms, but have not been widely studied in dogs."

The news reporters obtained a quote from the research from the University of Glasgow, "A retrospective analysis identified 62 cases of gross MCT (14 high-grade, 48 low-grade tumours). Median NLR was significantly different between high-and low-grade MCT and tumours at different locations. A multivariable model identified increasing NLR (OR 2.0) and age (OR 1.7) to be associated with an increased risk of high-grade MCT. Receiver operating characteristic curve analysis identified an NLR threshold value of 5.67 (sensitivity 85.7 per cent; specificity 54.2 per cent) for predicting a high-grade MCT. An NLR threshold of 5.67 could be useful alongside existing tools (appearance, location, etc.) to help to predict the grade of MCT."

According to the news reporters, the research concluded: "With further validation, this biomarker could be used to guide clinical decisions before obtaining a histopathological diagnosis."

For more information on this research see: Use of neutrophil to lymphocyte ratio for predicting histopathological grade of canine mast cell tumours. Veterinary Record, 2016;179 (19):491,49-53. Veterinary Record can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Veterinary Record - veterinaryrecord.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting M.J. Macfarlane, University of Glasgow, Sch Vet Med, Glasgow, Lanark, United Kingdom. Additional authors for this research include L.L. Macfarlane, T. Scase, T. Parkin and J.S. Morris.

Keywords for this news article include: Glasgow, United Kingdom, Europe, Mononuclear Leukocytes, Granulocytes, Neutrophils, Lymphocytes, Phagocytes, University of Glasgow.

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Lung Diseases and Conditions - Chronic Obstructive...

Findings from University of Groningen Provide New Insights into Chronic Obstructive Pulmonary Disease (Susceptibility for cigarette smoke-induced DAMP release and DAMP-induced inflammation in COPD)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease is the subject of a report. According to news reporting originating in Groningen, Netherlands, by NewsRx journalists, research stated, "Cigarette smoke (CS) exposure is a major risk factor for chronic obstructive pulmonary disease (COPD). We investigated whether CS-induced damage-associated molecular pattern (DAMP) release or DAMP-mediated inflammation contributes to susceptibility for COPD."

Financial supporters for this research include Netherlands Lung Foundation, Top Institute Pharma (TI Pharma), Stichting Astma Bestrijding.

The news reporters obtained a quote from the research from the University of Groningen, "Samples, including bronchial brushings, were collected from young and old individuals, susceptible and nonsusceptible for the development of COPD, before and after smoking, and used for gene profiling and airway epithelial cell (AEC) culture. AECs were exposed to CS extract (CSE) or specific DAMPs. BALB/cByJ and DBA/2J mice were intranasally exposed to LL-37 and mitochondrial (mt) DAMPs. Functional gene-set enrichment analysis showed that CS significantly increases the airway epithelial gene expression of DAMPs and DAMP receptors in COPD patients. In cultured AECs, we observed that CSE induces necrosis and DAMP release, with specifically higher galectin-3 release from COPD-derived compared with control-derived cells. Galectin-3, LL-37, and mtDAMPs increased CXCL8 secretion in AECs. LL-37 and mtDAMPs induced neutrophilic airway inflammation, exclusively in mice susceptible for CS-induced airway inflammation. Collectively, we show that in airway epithelium from COPD patients, the CS-induced expression of DAMPs and DAMP receptors in vivo and the release of galectin-3 in vitro is exaggerated."

According to the news reporters, the research concluded: "Furthermore, our studies indicate that a predisposition to release DAMPs and subsequent induction of inflammation may contribute to the development of COPD."


Our news correspondents report that additional information may be obtained by contacting S.D. Pouwels, University of Groningen, Groningen University Medical Center, GRIAC Res Inst, Groningen, Netherlands. Additional authors for this research include L. Hesse, A. Faiz, J. Lubbers, P.K. Bodha, N.H.T. ten Hacken, A.J.M. van Oosterhout, M.C. Nawijn and I.H. Heijink.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00135.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Groningen, Netherlands, Europe, Chronic Obstructive Pulmonary Disease, Proteins, Risk and Prevention, Lung Diseases and Conditions, Inflammation, Galectin 3, Galectins, Genetics, Lectins, University of Groningen.

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Angiology

Findings from University of Groningen Reveals New Findings on Angiology (Advanced glycation end products: An emerging biomarker for adverse outcome in patients with peripheral artery disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Angiology are presented in a new report. According to news reporting originating in Groningen, Netherlands, by NewsRx journalists, research stated, "Patients with peripheral artery disease (PAD) suffer from widespread atherosclerosis. Partly due to the growing awareness of cardiovascular disease, the incidence of PAD has increased considerably during the past decade."

The news reporters obtained a quote from the research from the University of Groningen, "It is anticipated that algorithms to identify high risk patients for cardiovascular events require being updated, making use of novel biomarkers. Advanced glycation end products (AGEs) are moieties formed non-enzymatically on long-lived proteins under influence of glycemic and oxidative stress reactions. We elaborate about the formation and effects of AGEs, and the methods to measure AGEs. Several studies have been performed with AGEs in PAD."

According to the news reporters, the research concluded: "In this review, we evaluate the emerging evidence of AGEs as a clinical biomarker for patients with PAD."

For more information on this research see: Advanced glycation end products: An emerging biomarker for adverse outcome in patients with peripheral artery disease. Atherosclerosis, 2016;254():291-299. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news correspondents report that additional information may be obtained by contacting A.J. Smit, University of Groningen, Groningen University Medical Center, Dept. of Internal Med, Div Vasc Med, Groningen, Netherlands. Additional authors for this research include J.D. Lefrandt, R.P.F. Dullaart, C.J. Zeebregts and A.J. Smit.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.10.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Groningen, Netherlands, Europe, Cardiology, Article Review, Diagnostics and Screening, Peripheral Artery Disease, Cardiovascular, Hematology, Angiology, University of Groningen.

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Heart Disorders and Diseases - Right Ventricular...

Findings from University of Groningen in the Area of Right Ventricular Dysfunction Reported (Right ventricular dysfunction in heart failure with preserved ejection fraction: a systematic review and meta-analysis)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Right Ventricular Dysfunction are discussed in a new report. According to news reporting from Groningen, Netherlands, by NewsRx journalists, research stated, "Right ventricular (RV) dysfunction and pulmonary hypertension (PH) are increasingly recognized in heart failure with preserved ejection fraction (HFpEF). The prevalence and prognostic value of RV dysfunction in HFpEF have been widely but variably reported."

The news correspondents obtained a quote from the research from the University of Groningen, "We therefore conducted a systematic review and meta-analysis according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses. English literature until May 2016 was evaluated for prevalence of RV dysfunction [i.e. tricuspid annular plane systolic excursion (TAPSE) < 16 mm, fractional area change (FAC) < 35%, or tricuspid annular systolic velocity (RV S') < 9.5 cm/s] and PH [i.e. mean pulmonary artery pressure (MPAP) >= 25 mmHg or pulmonary artery systolic pressure (PASP) = 35 mmHg]. Combined hazard ratios (HRs) for outcomes were calculated. A total of 38 studies was included. In studies with stringent HFpEF criteria, prevalence of RV dysfunction was 28% for TAPSE, 18% for FAC, and 21% for RV S'. Prevalence of PH was 68% for both increased MPAP and PASP. TAPSE (HR 1.26/5mm decrease; P< 0.0001), FAC (HR 1.15/5% decrease; P< 0.0001), MPAP (HR 1.26/5 mmHg increase; P< 0.0001), and PASP (1.16/5 mmHg increase; P< 0.0001) were all univariably associated with mortality. HRs for RV S' were not reported."

According to the news reporters, the research concluded: "RV dysfunction and PH are highly prevalent and are both associated with poor outcome in patients with HFpEF."


Our news journalists report that additional information may be obtained by contacting T.M. Gorter, University of Groningen, Groningen University Medical Center, Dept. of Cardiol, NL-9700 RB Groningen, Netherlands. Additional authors for this research include E.S. Hoendermis, D.J. van Veldhuisen, A.A. Voors, C.S.P. Lam, B. Geelhoed, T.P. Willems and J.P. van Melle.

Keywords for this news article include: Groningen, Netherlands, Europe, Cardiovascular Diseases and Conditions, Right Ventricular Dysfunction, Heart Disorders and Diseases, Angiology, Article Review, Pulmonary Artery, Heart Disease, Heart Failure, Cardiology, University of Groningen.

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**Oncology - Prostate Cancer**

**Findings from University of Helsinki Central Hospital Broaden Understanding of Prostate Cancer (Estimating bias in causes of death ascertainment in the Finnish Randomized Study of Screening for Prostate Cancer)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Prostate Cancer is the subject of a report. According to news reporting from Helsinki, Finland, by NewsRx journalists, research stated, "Precise cause of death (CoD) ascertainment is crucial in any cancer screening trial to avoid bias from misclassification due to excessive recording of diagnosed cancer as a CoD in death certificates instead of non-cancer disease that actually caused death. We estimated whether there was bias in CoD determination between screening (SA) and control arms (CA) in a population-based prostate cancer (PCa) screening trial."

The news correspondents obtained a quote from the research from the University of Helsinki Central Hospital, "Our trial is the largest component of the European Randomized Study of Screening for Prostate Cancer with more than 80,000 men. Randomly selected deaths in men with PCa (N = 442/2568 cases, 17.2%) were reviewed by an independent CoD committee. Median follow-up was 16.8 years in both arms. Overdiagnosis of PCa was present in the SA as the risk factor for PCa incidence was 1.19 (95% confidence interval (CI) 1.14-1.24). The hazard ratio (HR) for PCa mortality was 0.94 (95% CI 0.82-1.08) in favor of the SA. Agreement with official CoD registry was 94.6% (k = 0.88) in the SA and 95.4% (k = 0.91) in the CA. Altogether 14 PCa deaths were estimated as false-positive in both arms and exclusion of these resulted in HR 0.92 (95% CI 0.80-1.06). A small differential misclassification bias in ascertainment of CoD was present, most likely due to attribution bias (overdiagnosis in the SA). Maximum precision in CoD ascertainment can only be achieved with independent review of all deaths in the diseased population."

According to the news reporters, the research concluded: "However, this is cumbersome and expensive and may provide little benefit compared to random sampling."

For more information on this research see: Estimating bias in causes of death ascertainment in the Finnish Randomized Study of Screening for Prostate Cancer. Cancer Epidemiology, 2016;45();1-5. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news journalists report that additional information may be obtained by contacting T.P. Kilpelainen, Helsinki Univ Hosp, FI-00029 Helsinki, Finland. Additional authors for this research include T. Makinen, P.J. Karhunen, J. Aro, J. Lahtela, K. Taari, K. Talala, T.L.J. Tammela and A. Auvinen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.08.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Helsinki, Finland, Europe, Cancer, Diagnostics and Screening, Epidemiology, Clinical Trials and Studies, Prostatic Neoplasms, Clinical Research, Prostate Cancer, Oncology, University of Helsinki Central Hospital.

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Coagulation

**Findings from University of Helsinki Central Hospital in Coagulation Reported (Platelet Function Tests in Bleeding Disorders)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Coagulation. According to news
reporting out of Helsinki, Finland, by NewsRx editors, the research stated, "Functional disorders of platelets can involve any aspect of platelet physiology, with many different effects or outcomes. These include platelet numbers (thrombocytosis or thrombocytopenia); changes in platelet production or destruction, or capture to the liver (Ashwell receptor); altered adhesion to vascular injury sites and/or influence on hemostasis and wound healing; and altered activation or receptor functions, shape change, spreading and release reactions, procoagulant and antifibrinolytic activity."

Our news journalists obtained a quote from the research from the University of Helsinki Central Hospital, "Procoagulant membrane alterations, and generation of thrombin and fibrin, also affect platelet aggregation. The above parameters can all be studied, but standardization and quality control of assay methods have been limited despite several efforts. Only after a comprehensive clinical bleeding assessment, including family history, information on drug use affecting platelets, and exclusion of coagulation factor, and tissue deficits, should platelet function testing be undertaken to confirm an abnormality. Current diagnostic tools include blood cell counts, platelet characteristics according to the cell counter parameters, peripheral blood smear, exclusion of pseudothrombocytopenia, whole blood aggregometry (WBA) or light transmission aggregometry (LTA) in platelet-rich plasma, luminescence, platelet function analysis (PFA-100) for platelet adhesion and deposition to collagen cartridges under blood flow, and finally transmission electron microscopy to exclude rare structural defects leading to functional deficits. The most validated test panels are included in WBA, LTA, and PFA. Because platelets are isolated from their natural environment, many simplifications occur, as circulating blood and interaction with vascular wall are omitted in these assays. The target to reach a highly specific platelet disorder diagnosis in routine clinical management can be exhaustive, unless needed for genetic counseling."

According to the news editors, the research concluded: "The elective overall assessment of platelet function disorder primarily aims at better management of hemostasis in case of emergency surgery or other interventions and acute bleeding events."

For more information on this research see: Platelet Function Tests in Bleeding Disorders. Seminars In Thrombosis and Hemostasis, 2016;42(3):185-90. (Thieme - www.thieme.com)

Our news journalists report that additional information may be obtained by contacting R. Lassila, Coagulation Disorders, Hematology, Comprehensive Cancer Center, Helsinki University Hospital, Helsinki University, Helsinki, Finland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0036-1571307. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Finland, Helsinki, Genetics, Hematology, Coagulation, Article Review, Bleeding Disorder.

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Diet and Nutrition - Nutritional Biochemistry

Findings from University of Helsinki in the Area of Nutritional Biochemistry Reported (Western diet enhances intestinal tumorigenesis in Min/ plus mice, associating with mucosal metabolic and inflammatory stress and loss of Apc heterozygosity)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Diet and Nutrition - Nutritional Biochemistry have been published. According to news reporting originating from Helsinki, Finland, by NewsRx correspondents, research stated, "Western-type diet (WD) is a risk factor for colorectal cancer, but the underlying mechanisms are poorly understood. We investigated the interaction of WD and heterozygous mutation in the Apc gene on adenoma formation and metabolic and immunological changes in the histologically normal intestinal mucosa of Apc(Min+)/+(Min/+) mice."

Our news editors obtained a quote from the research from the University of Helsinki, "The diet used was high in saturated fat and low in calcium, vitamin D, fiber and folate. The number of adenomas was twofold higher in the WD mice compared to controls, but adenoma size, proliferation or apoptosis did not differ. The ratio of the MM to wild-type allele was higher in the WD mice, indicating accelerated loss of Apc heterozygosity (LOH). Densities of intraepithelial CD3 epsilon(+) T lymphocytes and of mucosal FoxP3(+) regulatory T cells were higher in the WD mice, implying inflammatory changes. Western blot analyses from the mucosa of the WD mice showed suppressed activation of the ERK and AKT pathways and a tendency for reduced activation of the mTOR pathway as measured in phosphoS6/S6 levels. The expression of pyruvate dehydrogenase kinase 4 was up-regulated in both mRNA and protein levels. Gene expression analyses showed changes in oxidation/reduction, fatty acid and monosaccharide metabolic pathways, tissue organization, cell fate and regulation of apoptosis."

According to the news editors, the research concluded: "Together, our results suggest that the high-risk Western diet primes the intestine to tumorigenesis through synergistic effects in energy metabolism, inflammation and oxidative stress, which culminate in the acceleration of LOH of the Apc gene."


The news editors report that additional information may be obtained by contacting M. Mutanen, University of Helsinki, Div Nutr, Dept. of Food & Environm Sci, FI-00014 Helsinki, Finland. Additional authors for this research include A.M. Pajari, L. Sarantaus, E. Paivarinta, M. Storvik, A. Heiman-Lindh, S. Suokas, M. Nystrom and M. Mutanen.

Keywords for this news article include: Helsinki, Finland, Europe, Nutritional Biochemistry, Diet and Nutrition, Genetics, Risk and Prevention, University of Helsinki.

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Drugs and Therapies - Antibiotics

Findings from University of Houston in Antibiotics Reported (Comparative Pharmacokinetic Profiling of Different Polymyxin B Components)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a
new report. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Polymyxin B is increasingly used as a treatment of last resort for multidrug-resistant Gram-negative infections."

Our news editors obtained a quote from the research from the University of Houston, "Despite being available as a mixture of several structurally related analogues, the properties are commonly reported as an aggregate of the individual components. We compared the pharmacokinetics of individual polymyxin B components in an animal model and in humans."

According to the news editors, the research concluded: "There were no considerable differences observed in the pharmacokinetics among major components of polymyxin B. Combining different components for pharmacokinetic analysis appeared reasonable."

For more information on this research see: Comparative Pharmacokinetic Profiling of Different Polymyxin B Components. Antimicrobial Agents and Chemotherapy, 2016;60 (11):6980-6982. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting V.H. Tam, University of Houston, Coll Pharm, Dept. of Pharm Practice & Translat Res, Houston, TX 77030, United States. Additional authors for this research include Y. Dubrovskaya, S. Gao and V.H. Tam.

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Keywords for this news article include: Houston, Texas, United States, North and Central America, Antimicrobial Cationic Peptides, Pore Forming Cytotoxic Proteins, Drugs and Therapies, Membrane Proteins, Pharmacokinetics, Pharmaceuticals, Cyclic Peptides, Antibiotics, Polymyxin B, Polymyxins, University of Houston.

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Cardiology

Findings from University of Illinois in Cardiology Reported (Cardiac MR Elastography of the Mouse: Initial Results)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiology have been presented. According to news reporting from Chicago, Illinois, by NewsRx journalists, research stated, "Many cardiovascular diseases are associated with abnormal function of myocardial contractility or dilatability, which is related to elasticity changes of the myocardium over the cardiac cycle. The mouse is a common animal model in studies of the progression of various cardiomyopathies."

The news correspondents obtained a quote from the research from the University of Illinois, "We introduce a novel noninvasive approach using microscopic scale MR elastography (MRE) to measure the myocardium stiffness change during the cardiac cycle on a mouse model. A harmonic mechanical wave of 400 Hz was introduced into the mouse body. An electrocardiograph-gated and respiratory-gated fractional encoding cine-MRE pulse sequence was applied to encode the resulting oscillatory motion on a short-axis slice of the heart. Five healthy mice (age range, 3-13.5 mo) were examined. The weighted summation effective
stiffness of the left ventricle wall during the cardiac cycle was estimated. The ratio of stiffness at end diastole and end systole was 0.5-0.67. Additionally, variation in shear wave amplitude in the left ventricle wall throughout the cardiac cycle was measured and found to correlate with estimates of stiffness variation."

According to the news reporters, the research concluded: "This study demonstrates the feasibility of implementing cardiac MRE on a mouse model."


Our news journalists report that additional information may be obtained by contacting T.J. Royston, University of Illinois, Dept. of Bioengn, Chicago, IL, United States. Additional authors for this research include T.J. Royston, D. Klatt and E.D. Lewandowski.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Myocardium, Cardiology, Heart, University of Illinois.

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Gram-Negative Bacteria - Pseudomonas aeruginosa

Findings from University of Insubria Yields New Findings on Pseudomonas aeruginosa (Pigments influence the tolerance of Pseudomonas aeruginosa PAO1 to photodynamically induced oxidative stress)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Pseudomonas aeruginosa have been published. According to news reporting from Varese, Italy, by NewsRx journalists, research stated, "Pseudomonas aeruginosa is an opportunistic pathogen known to be resistant to different classes of antibiotics and disinfectants. P. aeruginosa also displays a certain degree of tolerance to photodynamic therapy (PDT), an alternative antimicrobial approach exploiting a photo-oxidative stress induced by exogenous photosensitizers and visible light. To evaluate whether P. aeruginosa pigments can contribute to its relative tolerance to PDT, we analysed the response to this treatment of isogenic transposon mutants of P. aeruginosa PAO1 with altered pigmentation."

The news correspondents obtained a quote from the research from the University of Insubria, "In general, in the presence of pigments a higher tolerance to PDT-induced photo-oxidative stress was observed. Hyperproduction of pyomelanin makes the cells much more tolerant to stress caused by either radicals or singlet oxygen generated by different photosensitizers upon photoactivation. Phenazines, pyocyanin and phenazine-1-carboxylic acid, produced in different amounts depending on the cultural conditions, are able to counteract both types of PDT-elicited reactive oxygen species."

According to the news reporters, the research concluded: "Hyperproduction of pyoverdine, caused by a mutation in a quorum-sensing gene, rendered P. aeruginosa more tolerant to a photosensitizer that generates mainly singlet oxygen, although in this case the observed tolerance to photooxidative stress cannot be exclusively attributed to the presence of
the pigment."

For more information on this research see: Pigments influence the tolerance of Pseudomonas aeruginosa PAO1 to photodynamically induced oxidative stress. *Microbiology-Sgm*, 2015;161(12):2298-2309. *Microbiology-Sgm* can be contacted at: Microbiology Soc, Charles Darwin House, 12 Roger St, London WC1N 2JU, Erks, England.

Our news journalists report that additional information may be obtained by contacting V.T. Orlandi, University of Insubria, Dept. of Theoret & Appl Sci, Varese, Italy. Additional authors for this research include F. Bolognese, L. Chiodaroli, T. Tolker-Nielsen and P. Barbieri.

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Keywords for this news article include: Varese, Italy, Europe, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Gram-Negative Bacteria, Pseudomonas aeruginosa, Gammaproteobacteria, Pseudomonadaceae, Proteobacteria, Genetics, University of Insubria.

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**Keto Acids**

**Findings from University of Iowa Reveals New Findings on Keto Acids (Mitochondrial pyruvate carrier function and cancer metabolism)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Keto Acids. According to news reporting originating from Iowa City, Iowa, by NewsRx correspondents, research stated, "Metabolic reprogramming in cancer supports the increased biosynthesis required for unchecked proliferation. Increased glucose utilization is a defining feature of many cancers that is accompanied by altered pyruvate partitioning and mitochondrial metabolism."

Financial support for this research came from NIH.

Our news editors obtained a quote from the research from the University of Iowa, "Cancer cells also require mitochondrial tricarboxylic acid cycle activity and electron transport chain function for biosynthetic competency and proliferation. Recent evidence demonstrates that mitochondrial pyruvate carrier (MPC) function is abnormal in some cancers and that increasing MPC activity may decrease cancer proliferation. Here we examine recent findings on MPC function and cancer metabolism."

According to the news editors, the research concluded: "Special emphasis is placed on the compartmentalization of pyruvate metabolism and the alternative routes of metabolism that maintain the cellular biosynthetic pools required for unrestrained proliferation in cancer."


The news editors report that additional information may be obtained by contacting
Findings from University of Karachi Broaden Understanding of Olanzapine Therapy [MALDI-MS analysis and theoretical evaluation of olanzapine as a UV laser desorption ionization (LDI) matrix]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Olanzapine Therapy. According to news reporting out of Karachi, Pakistan, by NewsRx editors, research stated, "Matrix-assisted laser desorption/ionization mass spectrometry (MALDI-MS) being soft ionization technique, has become a method of choice for high-throughput analysis of proteins and peptides. In this study, we have explored the potential of atypical anti-psychotic drug olanzapine (012) as a matrix for MALDI-MS analysis of peptides aided with the theoretical studies."

Our news journalists obtained a quote from the research from the University of Karachi, "Seven small peptides were employed as target analytes to check performance of olanzapine and compared with conventional MALDI matrix alpha-cyano-4-hydroxycinnamic acid (HCCA). All peptides were successfully detected when olanzapine was used as a matrix. Moreover, peptides angiotensin I and angiotensin II were detected with better S/N ratio and resolution with this method as compared to their analysis by HCCA."

According to the news editors, the research concluded: "Computational studies were performed to determine the thermochemical properties of olanzapine in order to further evaluate its similarity to MALDI matrices which were found in good agreement with the data of existing MALDI matrices."

For more information on this research see: MALDI-MS analysis and theoretical evaluation of olanzapine as a UV laser desorption ionization (LDI) matrix. *Journal of Pharmaceutical and Biomedical Analysis*, 2017;132():190-194. *Journal of Pharmaceutical and Biomedical Analysis* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Pharmaceutical and Biomedical Analysis - www.journals.elsevier.com/journal-of-pharmaceutical-and-biomedical-analysis/)

Our news journalists report that additional information may be obtained by contacting S.G. Musharraf, Univ Karachi, Dr Panjwani Center Mol Med & Drug Res, Int Center Chem & Biol Sci, Karachi 75270, Pakistan. Additional authors for this research include M. Ameera and A. Ali.

The direct object identifier (DOI) for that additional information is:
Findings from University of Karachi Yields New Data on Oral Cancer (Metabolite Profiling of Preneoplastic and Neoplastic Lesions of Oral Cavity Tissue Samples Revealed a Biomarker Pattern)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Oral Cancer are presented in a new report. According to news reporting from Karachi, Pakistan, by NewsRx journalists, research stated, "Oral cancer is a major health challenge in the Indian subcontinent and a dreadful form of cancers worldwide. The current study is focused on the identification of distinguished metabolites of oral cancer tissue samples in comparison with precancerous and control tissue samples using gas chromatography coupled with triple quadrupole tandem mass spectrometry and chemometric analyses."

The news correspondents obtained a quote from the research from the University of Karachi, "Metabolites obtained were identified through National Institute of Standards and Technology (NIST) mass spectral (Wiley registry) library. Mass Profiler Professional (MPP) software was used for the alignment and for all the statistical analysis. 31 compounds out of 735 found distinguishing among oral cancer, precancerous and control group samples using p-value <= 0.05. Partial Least Square Discriminant Analysis (PLSDA) model was generated using statistically significant metabolites gave an overall accuracy of 90.2%. Down-regulated amino acid levels appear to be the result of enhanced energy metabolism or up-regulation of the appropriate biosynthetic pathways, and required cell proliferation in cancer tissues."

According to the news reporters, the research concluded: "These results suggest that tissue metabolic profiles have great potential in detecting oral cancer and may aid in understanding its underlying mechanisms."

For more information on this research see: Metabolite Profiling of Preneoplastic and Neoplastic Lesions of Oral Cavity Tissue Samples Revealed a Biomarker Pattern. Scientific Reports, 2016;6():1-8. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)


Keywords for this news article include: Karachi, Pakistan, Asia, Mouth Neoplasms, Oral Cancers, Oncology, University of Karachi.

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Findings from University of Kebangsaan Yields New Data on Coumarins and Indandiones ( Influence of Genotype on Warfarin Maintenance Dose Predictions Produced Using a Bayesian Dose Individualization Tool)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Coumarins and Indandiones. According to news originating from Bangi, Malaysia, by NewsRx correspondents, research stated, "A previously established Bayesian dosing tool for warfarin was found to produce biased maintenance dose predictions. In this study, we aimed (1) to determine whether the biased warfarin dose predictions previously observed could be replicated in a new cohort of patients from 2 different clinical settings, (2) to explore the influence of CYP2C9 and VKORC1 genotype on predictive performance of the Bayesian dosing tool, and (3) to determine whether the previous population used to develop the kinetic-pharmacodynamic model underpinning the Bayesian dosing tool was sufficiently different from the test (posterior) population to account for the biased dose predictions."

Our news journalists obtained a quote from the research from the University of Kebangsaan, "The warfarin maintenance doses for 140 patients were predicted using the dosing tool and compared with the observed maintenance dose. The impact of genotype was assessed by predicting maintenance doses with prior parameter values known to be altered by genetic variability (eg, EC50 for VKORC1 genotype). The prior population was evaluated by fitting the published kinetic-pharmacodynamic model, which underpins the Bayesian tool, to the observed data using NONMEM and comparing the model parameter estimates with published values. The Bayesian tool produced positively biased dose predictions in the new cohort of patients (mean prediction error [95% confidence interval]; 0.32 mg/d [0.14-0.5]). The bias was only observed in patients requiring >= 7 mg/d. The direction and magnitude of the observed bias was not influenced by genotype. The prior model provided a good fit to our data, which suggests that the bias was not caused by different prior and posterior populations. Maintenance doses for patients requiring >= 7 mg/d were overpredicted. The bias was not due to the influence of genotype nor was it related to differences between the prior and posterior populations."

According to the news editors, the research concluded: "There is a need for a more mechanistic model that captures warfarin dose-response relationship at higher warfarin doses."

For more information on this research see: Influence of Genotype on Warfarin Maintenance Dose Predictions Produced Using a Bayesian Dose Individualization Tool. Therapeutic Drug Monitoring, 2016;38(6):677-683. Therapeutic Drug Monitoring can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

The news correspondents report that additional information may be obtained from S.M. Saffian, Univ Kebangsaan Malaysia, Fac Pharm, Bangi, Malaysia. Additional authors for this research include S.B. Duffull, R.L. Roberts, R.C. Tait, L. Black, K.A. Lund, A.H. Thomson and D.F.B. Wright.

Keywords for this news article include: Bangi, Malaysia, Asia, Coumarin and Indandione Derivative, Coumarins and Indandiones, Coagulation Modifiers, Drugs and Therapies, Pharmacodynamics, Warfarin Therapy, Pharmaceuticals, Anticoagulants, Rodenticide, University of Kebangsaan.
Findings from University of KwaZulu-Natal Provides New Data about Type 1 Diabetes Mellitus (Naringin Mitigates Cardiac Hypertrophy by Reducing Oxidative Stress and Inactivating c-Jun Nuclear Kinase-1 Protein in Type I Diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus. According to news reporting originating from Durban, South Africa, by NewsRx correspondents, research stated, "Cardiac hypertrophy (CH) in type 1 diabetes mellitus is attributed to increased oxidative stress-associated activation of c-Jun Nuclear Kinase (JNK). We investigated the effects of naringin on hyperglycemia-associated oxidative stress, activation of JNK-1, and CH."

Our news editors obtained a quote from the research from the University of KwaZulu-Natal, "Male Sprague-Dawley rats (225-250 g) (n=7) were divided into 6 groups. Groups I and II were orally treated with distilled water [3.0 mL/kg body weight/day (BW)] and naringin (50 mg/kg BW), respectively. Groups III-VI were rendered diabetic by a single intraperitoneal injection of 65 mg/kg BW of streptozotocin. Groups III, IV, and V were further treated with insulin (4.0 I.U, s.c, twice daily), naringin (50 mg/kg BW), and ramipril (3.0 mg/kg BW), respectively. After 56 days, the animals were sacrificed and then plasma and cardiac tissues obtained for further analysis. Naringin treatment of diabetic rats significantly reversed oxidative stress, lipid peroxidation, proteins oxidation, CH indices, and JNK protein activation compared with untreated diabetic animals. Our results do suggest that naringin mitigates CH by inhibiting oxidative stress leading to inactivation of JNK-1."

According to the news editors, the research concluded: "Naringin supplements could therefore ameliorate CH in diabetic patients."

For more information on this research see: Naringin Mitigates Cardiac Hypertrophy by Reducing Oxidative Stress and Inactivating c-Jun Nuclear Kinase-1 Protein in Type I Diabetes. Journal of Cardiovascular Pharmacology, 2016;67(2):136-44. (Lippincott Williams and Wilkins - www.lww.com; Journal of Cardiovascular Pharmacology - journals.lww.com/cardiovascularpharm/pages/default.aspx)

The news editors report that additional information may be obtained by contacting A.O. Adebiyi, Dept. of Pharmacology, Discipline of Pharmaceutical Sciences, School of Health Sciences, University of KwaZulu-Natal, Durban, South Africa. Additional authors for this research include O.O. Adebiyi and P.M Owira.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FJC.0000000000000325. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durban, Kinase, Cardiology, Hypertrophy, South Africa, Cardiomegaly, Endocrinology, Risk and Prevention, Enzymes and Coenzymes, Type 1 Diabetes Mellitus, Heart Disorders and Diseases, Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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Oncology - Prostate Cancer

Findings from University of L'Aquila in the Area of Prostate Cancer Described (Cyclin D1 silencing suppresses tumorigenicity, impairs DNA double strand break repair and thus radiosensitizes androgen-independent prostate cancer cells to DNA ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting originating from L'Aquila, Italy, by NewsRx correspondents, research stated, "Patients with hormone-resistant prostate cancer (PCa) have higher biochemical failure rates following radiation therapy (RT). Cyclin D1 deregulated expression in PCa is associated with a more aggressive disease: however its role in radioresistance has not been determined."

Our news editors obtained a quote from the research from the University of L'Aquila, "Cyclin D1 levels in the androgen-independent PC3 and 22Rv1 PCa cells were stably inhibited by infecting with cyclin D1-shRNA. Tumorigenicity and radiosensitivity were investigated using in vitro and in vivo experimental assays. Cyclin D1 silencing interfered with PCa oncogenic phenotype by inducing growth arrest in the G1 phase of cell cycle and reducing soft agar colony formation, migration, invasion in vitro and tumor formation and neo-angiogenesis in vivo. Depletion of cyclin D1 significantly radiosensitizes PCa cells by increasing the RT-induced DNA damages by affecting the NHEJ and HR pathways responsible of the DNA double-strand break repair. Following treatment of cells with RT the abundance of a biomarker of DNA damage, g-H2AX, was dramatically increased in sh-cyclin D1 treated cells compared to shRNA control. Concordant with these observations DNA-PKcs-activation and RAD51-accumulation, part of the DNA double-strand break repair machinery, were reduced in shRNA-cyclin D1 treated cells compared to shRNA control. We further demonstrate the physical interaction between CCND1 with activated-ATM, -DNA-PKcs and RAD51 is enhanced by RT. Finally, siRNA-mediated silencing experiments indicated DNA-PKcs and RAD51 are downstream targets of CCND1-mediated PCa cells radioresistance."

According to the news editors, the research concluded: "In summary, these observations suggest that CCND1 is a key mediator of PCa radioresistance and could represent a potential target for radioresistant hormone-resistant PCa."

For more information on this research see: Cyclin D1 silencing suppresses tumorigenicity, impairs DNA double strand break repair and thus radiosensitizes androgen-independent prostate cancer cells to DNA damage. Oncotarget, 2016;7(5):5383-400.

The news editors report that additional information may be obtained by contacting F. Marampon, University of L'Aquila, Dept. of Biotechnological and Applied Clinical Sciences, L'Aquila, Italy. Additional authors for this research include G. Gravina, X. Ju, A. Vetuschi, R. Sferra, M. Casimiro, S. Pompili, C. Festuccia, A. Colapietro, E. Gaudio, E. Di Cesare, V. Tombolini and R.G Pestell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6579. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, L'Aquila, Genetics, Hormones,
Central Nervous System Diseases and Conditions –

Findings from University of Lausanne Hospital Reveals New Findings on Subarachnoid Hemorrhage (Intracranial pressure and outcome in critically ill patients with aneurysmal subarachnoid hemorrhage: a systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Central Nervous System Diseases and Conditions - Subarachnoid Hemorrhage is the subject of a report. According to news reporting from Lausanne, Switzerland, by NewsRx journalists, research stated, "Evidences supporting the use of intracranial pressure (ICP) monitoring after aneurysmal subarachnoid hemorrhage (aSAH) are limited. The aim of our paper was to examine whether elevated intracranial pressure and ICP-derived variables predict mortality and functional outcomes after aSAH."

The news correspondents obtained a quote from the research from the University of Lausanne Hospital, "EVIDENCE ACQUISITION: A systematic review of the literature was performed through PubMed and Cochrane data-bases up to June 2015. Population was restricted to aSAH patients requiring admission to the intensive care unit. ICP was included in the analysis as absolute value as well as variables derived from ICP monitoring (pressure reactivity index, ICP pulse wave amplitude, ICP-arterial blood pressure wave amplitude correlation and ICP variability). Outcomes included mortality, neurological recovery and delayed cerebral ischemia (DCI). Quality of evidence was rated using the GRADE system. EVIDENCE SYNTHESIS: Twenty-six studies were examined. Due to heterogeneity in qualifying studies, a meta-analysis could not be generated. We found a correlation between elevated ICP and mortality. However, ICP absolute values were not independent predictors of long-term functional outcomes (low quality of evidence). A variable relationship between elevated ICP and DCI was found (very low quality of evidence). ICP-derived variables had higher accuracy than ICP absolute values in predicting functional outcomes (moderate quality of evidence). Elevated ICP was associated with higher mortality however absolute ICP values per se were not independent predictors of functional recovery. Variables derived from ICP monitoring are more accurate than ICP absolute values in predicting outcome."

According to the news reporters, the research concluded: "Given the absence of good quality data, additional large studies may help to better define the prognostic value of ICP after aSAH."


Our news journalists report that additional information may be obtained by contacting G. Cossu, Univ Lausanne Hosp, Fac Biol & Med, Div Neurosurg, Dept. of Clin Neurosci, Lausanne, Switzerland. Additional authors for this research include M. Messerer, N.

Keywords for this news article include: Lausanne, Switzerland, Europe, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Brain Diseases and Conditions, Hemorrhage, Article Review, Cerebrovascular Disorders, Intracranial Hemorrhages, Subarachnoid Hemorrhage, University of Lausanne Hospital.  

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Mental Health Diseases and Conditions - Schizophrenia

Findings from University of Lausanne Provides New Data about Schizophrenia (Neurons acetylate their way to migration)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mental Health Diseases and Conditions - Schizophrenia have been published. According to news reporting out of Lausanne, Switzerland, by NewsRx editors, research stated, "The centrosome is crucial for neuronal migration and polarisation, processes that are disrupted in a number of neurodevelopmental disorders including schizophrenia. Mutation of DISC1, associated with increased risk of schizophrenia and psychiatric illness, has been shown to affect the centrosome, but the mechanisms involved have not been elucidated."

Our news journalists obtained a quote from the research from the University of Lausanne, "In this issue of EMBO Reports, Fukuda and colleagues demonstrate that a DISC1-interacting protein, CAMDI, suppresses the activity of the histone deacetylase HDAC6, thereby promoting centrosome stability and consequently neuronal migration. Loss of CAMDI leads to cortical migration defects and behavioural phenotypes that model autism spectrum disorders and which can be rescued by inhibition of HDAC6."

According to the news editors, the research concluded: "The study provides novel mechanistic insight into centrosome regulation in neurodevelopment."

For more information on this research see: Neurons acetylate their way to migration. EMBO Reports, 2016;17(12):1674-1676. EMBO Reports can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; EMBO Reports - www.nature.com/embor/)

Our news journalists report that additional information may be obtained by contacting C. Bagni, University of Lausanne, Dept. of Fundamental Neurosci, Lausanne, Switzerland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.15252/embr.201643427. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lausanne, Switzerland, Europe, Mental Health Diseases and Conditions, Risk and Prevention, Schizophrenia, Genetics, University of Lausanne.

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Findings from University of Lausanne Yields New Findings on Bacterial Infections (Impact of the microbial derived short chain fatty acid propionate on host susceptibility to bacterial and fungal infections in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Bacterial Infections are discussed in a new report. According to news reporting originating from Epalinges, Switzerland, by NewsRx correspondents, research stated, "Short chain fatty acids (SCFAs) produced by intestinal microbes mediate anti-inflammatory effects, but whether they impact on antimicrobial host defenses remains largely unknown. This is of particular concern in light of the attractiveness of developing SCFA-mediated therapies and considering that SCFAs work as inhibitors of histone deacetylases which are known to interfere with host defenses."

Our news editors obtained a quote from the research from the University of Lausanne, "Here we show that propionate, one of the main SCFAs, dampens the response of innate immune cells to microbial stimulation, inhibiting cytokine and NO production by mouse or human monocytes/macrophages, splenocytes, whole blood and, less efficiently, dendritic cells. In proof of concept studies, propionate neither improved nor worsened morbidity and mortality parameters in models of endotoxemia and infections induced by gram-negative bacteria (Escherichia coli, Klebsiella pneumoniae), gram-positive bacteria (Staphylococcus aureus, Streptococcus pneumoniae) and Candida albicans. Moreover, propionate did not impair the efficacy of passive immunization and natural immunization. Therefore, propionate has no significant impact on host susceptibility to infections and the establishment of protective antibacterial responses."

According to the news editors, the research concluded: "These data support the safety of propionate-based therapies, either via direct supplementation or via the diet/microbiota, to treat non-infectious inflammation-related disorders, without increasing the risk of infection."

For more information on this research see: Impact of the microbial derived short chain fatty acid propionate on host susceptibility to bacterial and fungal infections in vivo. Scientific Reports, 2016;6():1-15. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting T. Roger, University of Lausanne, CH-1066 Epalinges, Switzerland. Additional authors for this research include T. Heinonen, J. Herderschee, C. Fenwick, M. Mombelli, D. Le Roy and T. Roger.

Keywords for this news article include: Epalinges, Switzerland, Europe, Bacterial Infections, Risk and Prevention, Bacterial Infections and Mycoses, Acyclic Acids, Propionates, University of Lausanne.

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**Oncology - Colon Cancer**

**Findings from University of Leeds Update Understanding of Colon Cancer (Poor predictive value of lower gastrointestinal alarm features in the diagnosis of colorectal cancer in 1981 patients in secondary care)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Colon Cancer. According to news reporting originating in Leeds, United Kingdom, by NewsRx journalists, research stated, "Clinicians are advised to refer patients with lower gastrointestinal (GI) alarm features for urgent colonoscopy to exclude colorectal cancer (CRC). However, the utility of alarm features is debated."

Financial support for this research came from Canadian Association of Gastroenterology.

The news reporters obtained a quote from the research from the University of Leeds, "To assess whether performance of alarm features is improved by using a symptom frequency threshold to trigger referral, or by combining them into composite variables, including minimum age thresholds, as recommended by the National Institute for Health and Care Excellence (NICE). We collected data prospectively from 1981 consecutive adults with lower GI symptoms. Assessors were blinded to symptom status. The reference standard to define CRC was histopathological confirmation of adenocarcinoma in biopsy specimens from a malignant-looking colorectal lesion. Controls were patients without CRC. Sensitivity, specificity, positive predictive values (PPVs) and negative predictive values were calculated for individual alarm features, as well as combinations of these. In identifying 47 (2.4%) patients with CRC, individual alarm features had sensitivities ranging from 11.1% (family history of CRC) to 66.0% (loose stools), and specificities from 30.5% (loose stools) to 75.6% (family history of CRC). Using higher symptom frequency thresholds improved specificity, but to the detriment of sensitivity. NICE referral criteria also had higher specificities and lower sensitivity, with PPVs above 4.8%. More than 80% of those with CRC met at least one of the NICE referral criteria. Using higher symptom frequency thresholds for alarm features improved specificity, but sensitivity was low."

According to the news reporters, the research concluded: "NICE referral criteria had PPVs above 4.8%, but sensitivities ranged from 2.2% to 32.6%, meaning many cancers would be missed."


Our news correspondents report that additional information may be obtained by contacting A.C. Ford, University of Leeds, Leeds Inst Biomed & Clin Sci, Leeds, W Yorkshire, United Kingdom. Additional authors for this research include M.I. Pinto-Sanchez, P. Moayyedi, P. Bercik, D.G. Morgan, C. Bolino and A.C. Ford.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13846. This DOI is a link to an online electronic document that is either free or for purchase.
Findings from University of Leicester Provides New Data about Atherosclerosis [Gene and Protein Expression of Chemokine (C-C-Motif) Ligand 19 is Upregulated in Unstable Carotid Atherosclerotic Plaques]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Atherosclerosis have been presented. According to news reporting originating from Leicester, United Kingdom, by NewsRx correspondents, research stated, "Objective/Background: The aim was to investigate the expression of genes associated with carotid plaque instability and their protein products at a local and systemic level. Carotid plaques from 24 patients undergoing carotid endarterectomy (CEA) were classified as stable or unstable using clinical, histological, ultrasound, and transcranial Doppler criteria, and compared using whole genome microarray chips."

Our news editors obtained a quote from the research from the University of Leicester, "Initial results of differentially expressed genes were validated by quantitative reverse transcriptase polymerase chain reaction in an independent group of 96 patients undergoing CEA. The protein product of genes significantly differently expressed between patients with stable and unstable plaques were analysed by plaque immunohistochemistry and serum protein quantification by enzyme-linked immunosorbent assay on a further independent cohort. Expression of chemokine (c-c-motif) ligand 19 (CCL19) was significantly upregulated in plaques from patients with clinically unstable disease (p < .001). Cathepsin G expression was upregulated in histologically unstable plaques (p = .04). Serum concentration of CCL19 was significantly higher in patients with clinically unstable plaques (p = .02). Immunohistochemical staining for CCL19 demonstrated positive staining in histologically and clinically unstable plaques (p = .03). CCL19 also co-localised with CD3(+) T-cell lymphocytes in the core region, around where CCL19 was expressed."

According to the news editors, the research concluded: "CCL19 is significantly overexpressed in patients with unstable carotid atherosclerotic plaques and may be a possible novel biomarker for identifying high-risk patients in whom more urgent intervention may be indicated."


The news editors report that additional information may be obtained by contacting M.K. Salem, University of Leicester, Dept. of Cardiovasc Sci, Vasc Surg Grp, Leicester LE2 7LX, Leics, United Kingdom. Additional authors for this research include H.Z. Butt, E. Choke,
Gram-Negative Bacteria - Pseudomonas aeruginosa

Findings from University of Lethbridge Broaden Understanding of Pseudomonas aeruginosa (The C-terminal Helix of Pseudomonas aeruginosa Elongation Factor Ts Tunes EF-Tu Dynamics to Modulate Nucleotide Exchange)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Pseudomonas aeruginosa have been published. According to news reporting from Lethbridge, Canada, by NewsRx journalists, research stated, "Little is known about the conservation of critical kinetic parameters and the mechanistic strategies of elongation factor (EF) Ts-catalyzed nucleotide exchange in EF-Tu in bacteria and particularly in clinically relevant pathogens. EF-Tu from the clinically relevant pathogen Pseudomonas aeruginosa shares over 84% sequence identity with the corresponding elongation factor from Escherichia coli."

The news correspondents obtained a quote from the research from the University of Lethbridge, "Interestingly, the functionally closely linked EF-Ts only shares 55% sequence identity. To identify any differences in the nucleotide binding properties, as well as in the EF-Ts-mediated nucleotide exchange reaction, we performed a comparative rapid kinetics and mutagenesis analysis of the nucleotide exchange mechanism for both the E. coli and P. aeruginosa systems, identifying helix 13 of EF-Ts as a previously unnoticed regulatory element in the nucleotide exchange mechanism with species-specific elements."

According to the news reporters, the research concluded: "Our findings support the base side-first entry of the nucleotide into the binding pocket of the EF-Tu.EF-Ts binary complex, followed by displacement of helix 13 and rapid binding of the phosphate side of the nucleotide, ultimately leading to the release of EF-Ts."


Our news journalists report that additional information may be obtained by contacting H.J. Wieden, University of Lethbridge, Alberta RNA Res & Training Inst, Dept. of
Musculoskeletal Diseases and Conditions –

Findings from University of London in the Area of Osteoarthritis Reported (Endochondral Growth Defect and Deployment of Transient Chondrocyte Behaviors Underlie Osteoarthritis Onset in a Natural Murine Model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Musculoskeletal Diseases and Conditions - Osteoarthritis are presented in a new report. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "To explore whether aberrant transient chondrocyte behaviors occur in the joints of STR/Ort mice (which spontaneously develop osteoarthritis [OA]) and whether they are attributable to an endochondral growth defect. Knee joints from STR/Ort mice with advanced OA and age-matched CBA (control) mice were examined by Affymetrix microarray profiling, multiplex polymerase chain reaction (PCR) analysis, and immunohistochemical labeling of endochondral markers, including sclerostin and MEPE."

Financial supporters for this research include Arthritis Research UK, Engineering and Physical Sciences Research Council.

Our news journalists obtained a quote from the research from the University of London, "The endochondral phenotype of STR/Ort mice was analyzed by histologic examination, micro-computed tomography, and ex vivo organ culture. A novel protocol for quantifying bony bridges across the murine epiphysis (growth plate fusion) using synchrotron x-ray computed microtomography was developed and applied. Meta-analysis of transcription profiles showed significant elevation in functions linked with endochondral ossification in STR/Ort mice (compared to CBA mice; p<0.05). Consistent with this, immunolabeling revealed increased matrix metalloproteinase 13 (MMP-13) and type X collagen expression in STR/Ort mouse joints, and multiplex quantitative reverse transcriptase-PCR showed differential expression of known mineralization regulators, suggesting an inherent chondrocyte defect. Support for the notion of an endochondral defect included accelerated growth, increased zone of growth plate proliferative chondrocytes (p <0.05), and widespread type X collagen/MMP-13 labeling beyond the expected hypertrophic zone distribution. OA development involved concomitant focal suppression of sclerostin/MEPE in STR/Ort mice. Our novel synchrotron radiation microtomography method showed increased numbers (p <0.001) and mean areal growth plate bridge densities (p <0.01) in young and aged STR/Ort mice compared to age-matched CBA mice."

According to the news editors, the research concluded: "Taken together, our data support the notion of an inherent endochondral defect that is linked to growth dynamics and subject to regulation by the MEPE/sclerostin axis and may represent an underlying mechanism
of pathologic ossification in OA."


The news correspondents report that additional information may be obtained from K.A. Staines, Royal Veterinary College, University of London, London, UK and Roslin Institute and Royal (Dick) School of Veterinary Studies, University of Edinburgh, Easter Bush, UK. Additional authors for this research include K. Madi, S.M. Mirczuk, S. Parker, A. Burleigh, B. Poulet, M. Hopkinson, A.J. Bodey, R.C. Fowkes, C. Farquharson, P.D. Lee and A.A. Pitsillides.

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Keywords for this news article include: London, Europe, Physics, Genetics, Synchrotrons, United Kingdom, Osteoarthritis, Joint Diseases and Conditions, Rheumatic Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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**Gram-Positive Bacteria - Staphylococcus aureus**

**Findings from University of Lyon Yields New Findings on Staphylococcus aureus (Disk Diffusion Testing for Detection of Methicillin-Resistant Staphylococci: Does Moxalactam Improve upon Cefoxitin?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Positive Bacteria - Staphylococcus aureus have been presented. According to news reporting originating in Lyon, France, by NewsRx journalists, research stated, "Disk diffusion testing is widely used to detect methicillin resistance in staphylococci, and cefoxitin is currently considered the best marker for mecA-mediated methicillin resistance. In low-inoculum diffusion testing (colony suspension at 10(6) CFU/ml), the addition of moxalactam in combination with cefoxitin has been reported to improve on cefoxitin alone for the detection of methicillin-heteroresistant staphylococci."

The news reporters obtained a quote from the research from the University of Lyon, "However, moxalactam is absent from EUCAST and CLSI guidelines, which use high-inoculum diffusion testing (colony suspension at 10(8) CFU/ml), calling into question the potential interest of including moxalactam in their recommendations. The inhibition zone diameters of cefoxitin and moxalactam, alone and in combination, were evaluated for concordance with mecA and mecC positivity in a large collection of clinical Staphylococcus isolates (611 Staphylococcus aureus, Staphylococcus lugdunensis, and Staphylococcus saprophyticus isolates and 307 coagulase-negative staphylococci other than S. lugdunensis and S. saprophyticus isolates, of which 22% and 53% were mecA-positive, respectively) and in 25 mecC-positive S. aureus isolates using high-inoculum diffusion testing. Receiver operating characteristic, sensitivity, and specificity analyses indicated that the detection of mecA- and mecC-positive and negative isolates did not improve with moxalactam, either alone or in combination with cefoxitin, compared to cefoxitin alone. These findings were similar in both the S. aureus/S. lugdunensis/S. saprophyticus group and in the coagulase-negative staphylococci group."
According to the news reporters, the research concluded: "Our results do not support the use of moxalactam as an additional marker of methicillin resistance when testing with high-inoculum disk diffusion."


Our news correspondents report that additional information may be obtained by contacting G. Lina, University of Lyon, INserm U1111, Ecole Normale Super Lyon, CNRS UMR5308, Lyon, France. Additional authors for this research include E. Hodille, O. Dumitrescu, C. Dupieux, C. N. Mongo, C. Allam, M. Béghin, M. Paris, O. Borrel, H. Chardon, F. Laurent, J. P. Rasigade and G. Lina.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/JCM.01195-16. This DOI is a link to an online electronic document that is either free or for purchase.


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Hematologic Diseases and Conditions - Anemia

Findings from University of Malaysia Update Understanding of Anemia (Effects of various microalgae on fatty acid composition and survival rate of the blue swimming crab Portunus pelagicus larvae)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hematologic Diseases and Conditions - Anemia. According to news originating from Kuala Terengganu, Malaysia, by NewsRx correspondents, research stated, "Present study is to examine effect of various microalgae on Fatty Acid (FA) of Portunus pelagicus larvae. Larvae were subjected to five different treatments; T1, T2, T3, T4 and T5."

Our news journalists obtained a quote from the research from the University of Malaysia, "T1: rotifer and Artemia only; T2: rotifer, Artemia and Chaetoceros sp.; T3: rotifer, Anemia and Chlorella sp.; T4: rotifer, Anemia and Isochrysina sp. and T5: rotifer, Anemia and Nannochloropsis sp. Highest FA component in Zoea 3 was saturated FA group of T2 with concentration 26.06 +/- 26.23mg/g. For monounsaturated FA group, highest FA component in Zoea 1 was T5 with concentration 9.88 +/- 0.34mg/g, FA component in polyunsaturated FA group in Zoea 4, T4 with concentration 9.33 +/- 0.45mg/g was highest. For survival rate, highest survival rate obtained from T4 with 10.21% +/- 0.45. In this study, essential FA requirement in each stage of P. pelagicus larvae can be reveal."

According to the news editors, the research concluded: "Species of microalgae suitable for larvae can be characterized and selected for hatchery purpose."
For more information on this research see: Effects of various microalgae on fatty acid composition and survival rate of the blue swimming crab Portunus pelagicus larvae. *Indian Journal of Geo-Marine Sciences*, 2016;45(11):1512-1521. *Indian Journal of Geo-Marine Sciences* can be contacted at: Natl Inst Science Communication-Niscair, Dr K S Krishnan Marg, Pusa Campus, New Delhi 110 012, India.

The news correspondents report that additional information may be obtained from M. Ikhwanuddin, Univ Malaysia Terengganu, Inst Trop Aquaculture, Kuala Terengganu 21030, Terengganu, Malaysia. Additional authors for this research include Z. Bachok, M.N. Azra and M. Ikhwanuddin.

Keywords for this news article include: Kuala Terengganu, Malaysia, Asia, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Anemia, University of Malaysia.

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**Findings from University of Manchester in the Area of Epilepsy**

**Reported (Monotherapy treatment of epilepsy in pregnancy: congenital malformation outcomes in the child)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting out of Manchester, United Kingdom, by NewsRx editors, research stated, "There is evidence that certain antiepileptic drugs (AEDs) are teratogenic and are associated with an increased risk of congenital malformation. The majority of women with epilepsy continue taking AEDs throughout pregnancy; therefore it is important that comprehensive information on the potential risks associated with AED treatment is available."

Our news journalists obtained a quote from the research from the University of Manchester, "To assess the effects of prenatal exposure to AEDs on the prevalence of congenital malformations in the child. Search methods We searched the Cochrane Epilepsy Group Specialized Register (September 2015), Cochrane Central Register of Controlled Trials (CENTRAL) (2015, Issue 11), MEDLINE (via Ovid) (1946 to September 2015), EMBASE (1974 to September 2015), Pharmline (1978 to September 2015), Reprotox (1983 to September 2015) and conference abstracts (2010-2015) without language restriction. Selection criteria We included prospective cohort controlled studies, cohort studies set within pregnancy registries and randomised controlled trials. Participants were women with epilepsy taking AEDs; the two control groups were women without epilepsy and women with epilepsy who were not taking AEDs during pregnancy. Data collection and analysis Three authors independently selected studies for inclusion. Five authors completed data extraction and risk of bias assessments. The primary outcome was the presence of a major congenital malformation. Secondary outcomes included specific types of major congenital malformations. Where meta-analysis was not possible, we reviewed included studies narratively. We included 50 studies, with 31 contributing to meta-analysis. Study quality varied, and given the observational design, all were at high risk of certain biases. However, biases were balanced across the AEDs investigated and we believe that the results are not explained by these biases. Children exposed to carbamazepine (CBZ) were at a higher risk of malformation than children born to women without epilepsy (N = 1367..."
vs 2146, risk ratio (RR) 2.01, 95% confidence interval (CI) 1.20 to 3.36) and women with untreated epilepsy (N = 3058 vs 1287, RR 1.50, 95% CI 1.03 to 2.19). Children exposed to phenobarbital (PB) were at a higher risk of malformation than children born to women without epilepsy (N = 345 vs 1591, RR 2.84, 95% CI 1.57 to 5.13). Children exposed to phenytoin (PHT) were at an increased risk of malformation compared with children born to women without epilepsy (N = 477 vs 987, RR 2.38, 95% CI 1.12 to 5.03) and to women with untreated epilepsy (N = 640 vs 1256, RR 2.40, 95% CI 1.42 to 4.08). Children exposed to topiramate (TPM) were at an increased risk of malformation compared with children born to women without epilepsy (N = 359 vs 442, RR 3.69, 95% CI 1.36 to 10.07). The children exposed to valproate (VPA) were at a higher risk of malformation compared with children born to women without epilepsy (N = 467 vs 1936, RR 5.69, 95% CI 3.33 to 9.73) and to women with untreated epilepsy (N = 1923 vs 1259, RR 3.13, 95% CI 2.16 to 4.54). There was no increased risk for major malformation for lamotrigine (LTG). Gabapentin, levetiracetam (LEV), oxcarbazepine (OXC), primidone (PRM) or zonisamide (ZNS) were not associated with an increased risk, however, there were substantially fewer data for these medications. For AED comparisons, children exposed to VPA had the greatest risk of malformation (10.93%, 95% CI 8.91 to 13.13). Children exposed to VPA were at an increased risk of malformation compared with children exposed to CBZ (N = 2529 vs 4549, RR 2.44, 95% CI 2.00 to 2.94), GBP (N = 1814 vs 190, RR 6.21, 95% CI 1.91 to 20.23), LEV (N = 1814 vs 817, RR 5.82, 95% CI 3.13 to 10.81), LTG (N = 2021 vs 4164, RR 3.56, 95% CI 2.77 to 4.58), TPM (N = 1814 vs 473, RR 2.35, 95% CI 1.40 to 3.95), OXC (N = 676 vs 238, RR 3.71, 95% CI 1.65 to 8.33), PB (N = 1137 vs 626, RR 1.59, 95% CI 1.11 to 2.29), PHT (N = 2319 vs 1137, RR 2.00, 95% CI 1.48 to 2.71) or ZNS (N = 323 vs 90, RR 17.13, 95% CI 1.06 to 277.48). Children exposed to CBZ were at a higher risk of malformation than those exposed to LEV (N = 3051 vs 817, RR 1.84, 95% CI 1.03 to 3.29) and children exposed to LTG (N = 3385 vs 4164, RR 1.34, 95% CI 1.01 to 1.76). Children exposed to PB were at a higher risk of malformation compared with children exposed to GBP (N = 204 vs 159, RR 8.33, 95% CI 1.04 to 50.00), LEV (N = 204 vs 513, RR 2.33, 95% CI 1.04 to 5.00) or LTG (N = 282 vs 1959, RR 3.13, 95% CI 1.64 to 5.88). Children exposed to PHT had a higher risk of malformation than children exposed to LTG (N = 624 vs 4082, RR 1.89, 95% CI 1.19 to 2.94) or to LEV (N = 566 vs 817, RR 2.04, 95% CI 1.09 to 3.85); however, the comparison to LEV was not significant in the random-effects model. Children exposed to TPM were at a higher risk of malformation than children exposed to LEV (N = 473 vs 817, RR 2.00, 95% CI 1.03 to 3.85) or LTG (N = 473 vs 3975, RR 1.79, 95% CI 1.06 to 2.94). There were no other significant differences, or comparisons were limited to a single study. We found significantly higher rates of specific malformations associating PB exposure with cardiac malformations and VPA exposure with neural tube, cardiac, oro-facial/craniofacial, and skeletal and limb malformations in comparison to other AEDs. Dose of exposure mediated the risk of malformation following VPA exposure; a potential dose-response association for the other AEDs remained less clear. Authors’ conclusions Exposure in the womb to certain AEDs carried an increased risk of malformation in the foetus and may be associated with specific patterns of malformation. Based on current evidence, LEV and LTG exposure carried the lowest risk of overall malformation; however, data pertaining to specific malformations are lacking.”

According to the news editors, the research concluded: "Physicians should discuss both the risks and treatment efficacy with the patient prior to commencing treatment.”

For more information on this research see: Monotherapy treatment of epilepsy in pregnancy: congenital malformation outcomes in the child. Cochrane Database of Systematic Reviews, 2016;(11):687-1040. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by
Immune System Diseases and Conditions - HIV/AIDS

Findings from University of Maryland Update Understanding of HIV/AIDS (Prevalence of transmitted HIV-1 drug resistance among young adults attending HIV counselling and testing clinics in Kigali, Rwanda)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "Scaling-up antiretroviral therapy (ART) in resource-limited settings has raised concerns of emerging HIV drug resistance (DR) and its transmission to newly infected individuals. To assess the prevalence of transmitted drug resistance (TDR) in recently HIV-infected individuals, a WHO TDR threshold survey was conducted among young adults in Kigali, Rwanda."

Our news journalists obtained a quote from the research from the University of Maryland, "Between May and July 2011, HIV subtype and genotyping were performed on dried blood spots (DBS) prepared from blood specimens collected from newly HIV-diagnosed and ART-naive individuals aged 15 to 21 years in eight HIV voluntary counselling and testing (VCT) sites in Kigali. In total, 57 of the 68 DBS collected from eligible participants were successfully amplified. The median age of participants was 20 years and 86% were female. Most participants (96%) were infected with subtype A1 virus. Two participants (4%) had the K103N non-nucleoside reverse transcriptase inhibitor (NNRTI) mutation and one (2%) had the M46L protease inhibitor (PI) mutation. The TDR prevalence was 3.5% (95% CI 0.4, 12.1) for NNRTI and 1.8% (95% CI 0.0, 9.4) for PI. The prevalence of HIV TDR in VCT attendees in Kigali was characterized as low (<5%) for all drug classes according to the WHO HIV DR threshold survey methodology. Despite a decade of widespread ART in Rwanda, TDR prevalence remains low, and so the current first-line ART regimens should continue to be effective."

According to the news editors, the research concluded: "However, as scale-up of ART continues, frequent HIV DR surveillance is needed to monitor the effectiveness of available ART regimens at the population level."


Our news journalists report that additional information may be obtained by contacting D.J. Riedel, University of Maryland, Sch Med, Div Infect Dis, Baltimore, MD 21201,
Myeloid Cells

Findings from University of Massachusetts School of Medicine in Myeloid Cells Reported (Peptide- and Amine-Modified Glucan Particles for the Delivery of Therapeutic siRNA)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Myeloid Cells have been published. According to news reporting from Worcester, Massachusetts, by NewsRx journalists, research stated, "Translation of siRNA technology into the clinic is limited by the need for improved delivery systems that target specific cell types. Macrophages are particularly attractive targets for RNAi therapy because they promote pathogenic inflammatory responses in a number of important human diseases."

Financial supporters for this research include Novo Nordisk, U.S. Department of Health and Human Services, U.S. Department of Defense, Juvenile Diabetes Research Foundation International.

The news correspondents obtained a quote from the research from the University of Massachusetts School of Medicine, "We previously demonstrated that a multicomponent formulation of b-1,3-d-glucan-encapsulated siRNA particles (GeRPs) can specifically and potently silence genes in mouse macrophages. A major advance would be to simplify the GeRP system by reducing the number of delivery components, thus enabling more facile manufacturing and future commercialization. Here we report the synthesis and evaluation of a simplified glucan-based particle (GP) capable of delivering siRNA in vivo to selectively silence macrophage genes. Covalent attachment of small-molecule amines and short peptides containing weak bases to GPs facilitated electrostatic interaction of the particles with siRNA and aided in the endosomal release of siRNA by the proton-sponge effect. Modified GPs were nontoxic and were efficiently internalized by macrophages in vitro. When injected intraperitoneally (i.p.), several of the new peptide-modified GPs were found to efficiently deliver siRNA to peritoneal macrophages in lean, healthy mice. In an animal model of obesity-induced inflammation, i.p. administration of one of the peptide-modified GPs (GP-EP14) bound to siRNA selectively reduced the expression of target inflammatory cytokines in the visceral adipose tissue macrophages. Decreasing adipose tissue inflammation resulted in an improvement of glucose metabolism in these metabolically challenged animals."

According to the news reporters, the research concluded: "Thus, modified GPs represent a promising new simplified system for the efficient delivery of therapeutic siRNAs specifically to phagocytic cells in vivo for modulation of inflammation responses."
Findings from University of Massachusetts Yields New Findings on Transcultural Nursing (A Culturally Adapted Smoking Cessation Intervention for Korean Americans: Preliminary Findings)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nursing - Transcultural Nursing are discussed in a new report. According to news reporting from Boston, Massachusetts, by NewsRx editors, the research stated, "Korean Americans have the highest smoking rate within the Asian American population. This study examined the feasibility and acceptability of a culturally adapted telephone cessation intervention for Korean Americans."

The news correspondents obtained a quote from the research from the University of Massachusetts, "Participants were recruited from advertisements on a Korean radio station channel in New York City. All received a combination of telephone cessation counseling and nicotine patches. Thirty-one (2 women and 29 men) participated in the study. At 3-month follow-up, 14 (45.2%) reported 7-day point prevalence abstinence and 13 (41.9%) achieved 3-month prolonged abstinence. Except for two who lived alone, self-reported abstinence was corroborated by a family member. The findings point to the direction that a nationally centralized Korean-language quitline service should be established to help Korean Americans quit smoking."

According to the news reporters, the research concluded: "Furthermore, the service should be adapted at a deep level of the culture."

Our news journalists report that additional information may be obtained by contacting S.S. Kim, University of Massachusetts, Boston, MA, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1043659615600765. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Transcultural Nursing, Nursing, Asia, University of Massachusetts.

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Cardiovascular Diseases and Conditions - Aneurysm

Findings from University of Massachusetts in the Area of Aneurysm Reported (Endovascular management of radiation-induced subclavian and axillary artery aneurysms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Aneurysm. According to news reporting originating from Worcester, Massachusetts, by NewsRx correspondents, research stated, "Subclavian and axillary artery aneurysms are rare occurrences and are associated with serious sequelae if they are untreated. Little is known about these aneurysms, and best practice guidelines are lacking."

Our news editors obtained a quote from the research from the University of Massachusetts, "We describe an 87-year-old man with a history of chest irradiation who presented with radiation-induced subclavian and axillary aneurysms and acute upper extremity ischemia. An endovascular stent graft procedure was undertaken because of his prohibitive high risk for open surgical treatment. Follow-up duplex ultrasound revealed patent stent grafts with complete exclusion of aneurysm sacs."

According to the news editors, the research concluded: "Endovascular therapy is a viable option for upper extremity aneurysms in patients at high risk for open surgical repair."


The news editors report that additional information may be obtained by contacting S. Mohan, University of Massachusetts, Sch Med, Div Vasc Surg, Worcester, MA 01655, United States. Additional authors for this research include A. Schanzer, W.P. Robinson and F.A. Aiello.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2015.08.073. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Worcester, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Angiology, Surgery, Axillary Artery, Aneurysm, University of Massachusetts.

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Heart Disorders and Diseases - Heart Attack

Findings from University of Massachusetts in the Area of Heart Attack Described (Emergency department point-of-care ultrasound in out-of-hospital and in-ED cardiac arrest)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Attack are presented in a new report. According to news reporting out of Worcester, Massachusetts, by NewsRx editors, research stated, "Point-of-care ultrasound has been suggested to improve outcomes from advanced cardiac life support (ACLS), but no large studies have explored how it should be incorporated into ACLS. Our aim was to determine whether cardiac activity on ultrasound during ACLS is associated with improved survival."

Our news journalists obtained a quote from the research from the University of Massachusetts, "We conducted a non-randomized, prospective, protocol-driven observational study at 20 hospitals across United States and Canada. Patients presenting with out-of-hospital arrest or in-ED arrest with pulseless electrical activity or asystole were included. An ultrasound was performed at the beginning and end of ACLS. The primary outcome was survival to hospital admission. Secondary outcomes included survival to hospital discharge and return of spontaneous circulation. 793 patients were enrolled, 208 (26.2%) survived the initial resuscitation, 114 (14.4%) survived to hospital admission, and 13 (1.6%) survived to hospital discharge. Cardiac activity on US was the variable most associated with survival at all time points. On multivariate regression modeling, cardiac activity was associated with increased survival to hospital admission (OR 3.6, 2.2-5.9) and hospital discharge (OR 5.7, 1.5-21.9). No cardiac activity on US was associated with non-survival, but 0.6% (95% CI 0.3-2.3) survived to discharge. Ultrasound identified findings that responded to non-ACLS interventions. Patients with pericardial effusion and pericardiocentesis demonstrated higher survival rates (15.4%) compared to all others (1.3%). Cardiac activity on ultrasound was the variable most associated with survival following cardiac arrest."

According to the news editors, the research concluded: "Ultrasound during cardiac arrest identifies interventions outside of the standard ACLS algorithm."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.09.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Worcester, Massachusetts, United States,
Findings from University of Melbourne Provides New Data on Dental Cavities (Breastfeeding and the risk of dental caries: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Dental Cavities. According to news reporting originating from Carlton, Australia, by NewsRx correspondents, research stated, "To synthesise the current evidence for the associations between breastfeeding and dental caries, with respect to specific windows of early childhood caries risk. Systematic review, meta-analyses and narrative synthesis following searches of PubMed, CINAHL and EMBASE databases. Sixty-three papers included."

Financial support for this research came from World Health Organization.

Our news editors obtained a quote from the research from the University of Melbourne, "Children exposed to longer versus shorter duration of breastfeeding up to age 12 months (more versus less breastfeeding), had a reduced risk of caries (OR 0.50; 95%CI 0.25, 0.99, I(2) 86.8%). Children breastfed >12 months had an increased risk of caries when compared with children breastfed <12 months (seven studies (OR 1.99; 1.35, 2.95, I(2) 69.3%). Amongst children breastfed >12 months, those fed nocturnally or more frequently had a further increased caries risk (five studies, OR 7.14; 3.14, 16.23, I(2) 77.1%). There was a lack of studies on children aged >12 months simultaneously assessing caries risk in breastfed, bottle-fed and children not bottle or breastfed, alongside specific breastfeeding practices, consuming sweet drinks and foods, and oral hygiene practices limiting our ability to tease out the risks attributable to each. Breastfeeding in infancy may protect against dental caries."

According to the news editors, the research concluded: "Further research needed to understand the increased risk of caries in children breastfed after 12 months."


The news editors report that additional information may be obtained by contacting R. Tham, Allergy and Lung Health Unit, Centre for Epidemiology and Biostatistics, Melbourne School of Population and Global Health, The University of Melbourne, Carlton, Vic, Australia. Additional authors for this research include G. Bowatte, S.C. Dharmage, D.J. Tan, M.X. Lau, X. Dai, K.J. Allen and C.J Lodge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apa.13118. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Acta Paediatrica* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.
Eye Diseases and Conditions - Retinoblastoma

Findings from University of Miami Provides New Data on Retinoblastoma (Antagonists of growth hormone-releasing hormone receptor induce apoptosis specifically in retinoblastoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Eye Diseases and Conditions - Retinoblastoma is the subject of a report. According to news originating from Miami, Florida, by NewsRx correspondents, research stated, "Retinoblastoma (RB) is the most common intraocular cancer in children worldwide. Current treatments mainly involve combinations of chemotherapies, cryotherapies, and laser-based therapies."

Our news journalists obtained a quote from the research from the University of Miami, "Severe or late-stage disease may require enucleation or lead to fatality. Recently, RB has been shown to arise from cone precursor cells, which have high MDM2 levels to suppress p53-mediated apoptosis. This finding leads to the hypothesis that restoring apoptosis mechanisms in RBs could specifically kill the cancer cells without affecting other retinal cells. We have previously reported involvement of an extrapituitary signaling pathway of the growth hormone-releasing hormone (GHRH) in the retina. Here we show that the GHRH receptor (GHRH-R) is highly expressed in RB cells but not in other retinal cells. We induced specific apoptosis with two different GHRH-R antagonists, MIA-602 and MIA-690. Importantly, these GHRH-R antagonists do not trigger apoptosis in other retinal cells such as retinal pigmented epithelial cells. We delineated the gene expression profiles regulated by GHRH-R antagonists and found that cell proliferation genes and apoptotic genes are down-and up-regulated, respectively."

According to the news editors, the research concluded: "Our results reveal the involvement of GHRH-R in survival and proliferation of RB and demonstrate that GHRH-R antagonists can specifically kill the RB cells."


The news correspondents report that additional information may be obtained from A.V. Schally, University of Miami, Sch Med, Sylvester Comprehens Canc Center, Miami, FL 33136, United States. Additional authors for this research include K.S. Law, S.O. Chan, J.C.S. Yam, L.J. Chen, H. Zhang, H.S. Cheung, N.L. Block, A.V. Schally and C.P. Pang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1617427113. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Pituitary Hormone-Releasing Hormones, Growth Hormone-Releasing Hormone, Retinal Diseases and Conditions, Anterior Pituitary Hormones, Eye Diseases and Conditions, Nerve Tissue Proteins, Retinal Neoplasms, Peptide Proteins, Peptide Hormones, Growth Hormones, Retinoblastoma, Neuropeptides, Ophthalmology, Eye Neoplasms, Apoptosis, Genetics, Oncology, University of Miami.

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Proteomics

Findings from University of Michigan Broaden Understanding of Proteomics (ESR1 and PGR polymorphisms are associated with estrogen and progesterone receptor expression in breast tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteomics. According to news reporting out of Ann Arbor, Michigan, by NewsRx editors, research stated, "Hormone receptor-positive (HR+) breast cancers express the estrogen (ER alpha) and/or progesterone (PgR) receptors. Inherited single nucleotide polymorphisms (SNPs) in ESR1, the gene encoding ER alpha, have been reported to predict tamoxifen effectiveness."

Financial supporters for this research include HHS | NIH | National Cancer Institute (NCI), HHS | NIH | National Institute of General Medical Sciences (NIGMS), HHS | NIH | National Center for Research Resources (NCRR).

Our news journalists obtained a quote from the research from the University of Michigan, "We hypothesized that these associations could be attributed to altered tumor gene/protein expression of ESR1/ER alpha and that SNPs in the PGR gene predict tumor PGR/PgR expression. Formalin-fixed paraffin-embedded breast cancer tumor specimens were analyzed for ESR1 and PGR gene transcript expression by the reverse transcription polymerase chain reaction based Oncotype DX assay and for ER alpha and PgR protein expression by immunohistochemistry (IHC) and an automated quantitative immunofluorescence assay (AQUA). Germline genotypes for SNPs in ESR1 (n = 41) and PGR (n = 8) were determined by allele-specific TaqMan assays. One SNP in ESR1 (rs9322336) was significantly associated with ESR1 gene transcript expression (P = 0.006) but not ER alpha protein expression (P > 0.05). A PGR SNP (rs518162) was associated with decreased PGR gene transcript expression (P = 0.003) and PgR protein expression measured by IHC (P = 0.016), but not AQUA (P = 0.054). There were modest, but statistically significant correlations between gene and protein expression for ESR1/ER alpha and PGR/PgR and for protein expression measured by IHC and AQUA (Pearson correlation = 0.32-0.64, all P< 0.001). Inherited ESR1 and PGR genotypes may affect tumor ESR1/ER alpha and PGR/PgR expression, respectively, which are moderately correlated."

According to the news editors, the research concluded: "This work supports further research into germline predictors of tumor characteristics and treatment effectiveness, which may someday inform selection of hormonal treatments for patients with HR+ breast cancer."

For more information on this research see: ESR1 and PGR polymorphisms are associated with estrogen and progesterone receptor expression in breast tumors. *Physiological*
Heart Disorders and Diseases - Heart Failure

Findings from University of Michigan Has Provided New Information about Heart Failure (Refusal to participate in heart failure studies: do age and gender matter?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "The objective of this retrospective study was to evaluate reasons heart failure patients decline study participation, to inform interventions to improve enrollment. Failure to enrol older heart failure patients (age >65) and women in studies may lead to sampling bias, threatening study validity."

Funders for this research include National Institutes of Health, National Institute of Nursing Research, General Clinical Research Centers at University of Kentucky, Emory University, Presbyterian Historical Society, Clinical and Translational Science Award program, National Center for Research Resources, Atlanta Veterans Administration Medical Center, Indiana University, MCubed Project of the University of Michigan, Michigan Institute for Clinical and Health Research.

Our news editors obtained a quote from the research from the University of Michigan, "This study was a retrospective analysis of refusal data from four heart failure studies that enrolled 788 patients in four states. Chi-Square and a pooled t-test were computed to analyse refusal data (n=300) obtained from heart failure patients who were invited to participate in one of the four studies but declined. Refusal reasons from 300 patients (66% men, mean age 65?33) included: not interested (n=163), too busy (n=64), travel burden (n=50), too sick (n=38), family problems (n=14), too much commitment (n=13) and privacy concerns (n=4). Chi-Square analyses showed no differences in frequency of reasons (p >0?05) between men and women. Patients who refused were older, on average, than study participants. Some reasons were patient-dependent; others were study-dependent. With 'not interested' as the most common reason, cited by over 50% of patients who declined, recruitment measures should be targeted at
stimulating patients' interest. Additional efforts may be needed to recruit older participants. However, reasons for refusal were consistent regardless of gender. Heart failure researchers should proactively approach a greater proportion of women and patients over age 65. With no gender differences in type of reasons for refusal, similar recruitment strategies can be used for men and women. However, enrolment of a representative proportion of women in heart failure studies has proven elusive and may require significant effort from researchers."

According to the news editors, the research concluded: "Employing strategies to stimulate interest in studies is essential for recruiting heart failure patients, who overwhelmingly cited lack of interest as the top reason for refusal."


The news editors report that additional information may be obtained by contacting J.M. Harrison, School of Nursing, University of Michigan, Ann Arbor, MI, United States. Additional authors for this research include M. Jung, T.A. Lennie, D.K. Moser, D.G. Smith, S.B. Dunbar, D.L. Ronis, T.M. Koelling, B. Giordani, P.L. Riley and S.J Pressler.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13135. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Michigan, Ann Arbor, Cardiology, United States, Heart Disease, Heart Failure, North and Central America, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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**Oncology - Prostate Cancer**

**Findings from University of Michigan Reveals New Findings on Prostate Cancer (Health Care Integration and Quality among Men with Prostate Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to news reporting originating in Ann Arbor, Michigan, by NewsRx journalists, research stated, "The delivery of high quality prostate cancer care is increasingly important for health systems, physicians and patients. Integrated delivery systems may have the greatest ability to deliver high quality, efficient care."

The news reporters obtained a quote from the research from the University of Michigan, "We sought to understand the association between health care integration and quality of prostate cancer care. We used SEER-Medicare data to perform a retrospective cohort study of men older than age 65 with prostate cancer diagnosed between 2007 and 2011. We defined integration within a health care market based on the number of discharges from a top 100 integrated delivery system, and compared rates of adherence to well accepted prostate cancer quality measures in markets with no integration vs full integration (greater than 90% of discharges from an integrated system). The average man treated in a fully integrated market was more likely to receive pretreatment counseling by a urologist and radiation oncologist (62.6% vs
60.3%, \( p = 0.03 \)), avoid inappropriate imaging (72.2% avoided vs 60.6%, \( p < 0.001 \)), avoid treatment when life expectancy was less than 10 years (23.7% vs 17.3%, \( p < 0.001 \)) and avoid multiple hospitalizations in the last 30 days of life (50.2% vs 43.6%, \( p = 0.001 \)) than when treated in markets with no integration. Additionally, patients treated in fully integrated markets were more likely to have complete adherence to all eligible quality measures (OR 1.38, 95% CI 1.27-1.50). Integrated systems are associated with improved adherence to several prostate cancer quality measures."

According to the news reporters, the research concluded: "Expansion of the integrated health care model may facilitate greater delivery of high quality prostate cancer care."


Our news correspondents report that additional information may be obtained by contacting B.K. Hollenbeck, University of Michigan, Dept. of Urol, Dow Div Urol Hlth Serv Res, Ann Arbor, MI 48109, United States. Additional authors for this research include S.R. Kaufman, P. Yan, D.C. Miller, F.R. Schroek, T.A. Skolarus, V.B. Shahinian and B.K. Hollenbeck.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.juro.2016.07.040. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Prostatic Neoplasms, Prostate Cancer, Oncology, University of Michigan.

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### Mononuclear Leukocytes

**Findings from University of Milan Broaden Understanding of Mononuclear Leukocytes (Transcriptional Landscape of Human Tissue Lymphocytes Unveils Uniqueness of Tumor-Infiltrating T Regulatory Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mononuclear Leukocytes. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "Tumor-infiltrating regulatory T lymphocytes (Treg) can suppress effector T cells specific for tumor antigens. Deepermolecular definitions of tumor-infiltrating-lymphocytes could thus offer therapeutic opportunities."

Our news editors obtained a quote from the research from the University of Milan, "Transcriptomes of T helper 1 (Th1), Th17, and Treg cells infiltrating colorectal or non-small-cell lung cancers were compared to transcriptomes of the same subsets from normal tissues and validated at the single-cell level. We found that tumor-infiltrating Treg cells were highly suppressive, upregulated several immune-checkpoints, and expressed on the cell surfaces specific signature molecules such as interleukin-1 receptor 2 (IL1R2), programmed death (PD)-1
Ligand1, PD-1 Ligand2, and CCR8 chemokine, which were not previously described on Treg cells. Remarkably, high expression in whole-tumor samples of Treg cell signature genes, such as LAYN, MAGEH1, or CCR8, correlated with poor prognosis."

According to the news editors, the research concluded: "Our findings provide insights into the molecular identity and functions of human tumor-infiltrating Treg cells and define potential targets for tumor immunotherapy."

For more information on this research see: Transcriptional Landscape of Human Tissue Lymphocytes Unveils Uniqueness of Tumor-Infiltrating T Regulatory Cells. Immunity, 2016;45(5):1135-1147. Immunity can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)

The news editors report that additional information may be obtained by contacting S. Abrignani, University of Milan, Dept. of Clin Sci & Community Hlth, I-20122 Milan, Italy. Additional authors for this research include A. Arrigoni, G. Rossetti, P. Gruarin, V. Ranzani, C. Politoano, R.J.P. Bonnal, E. Provasi, M.L. Sarnicola, I. Panzeri, M. Moro, M. Crosti, S. Mazzara, V. Vaira, S. Bosari, A. Palleschi, L. Santambrogio, G. Bovo and N. Zucchini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.immuni.2016.10.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Hemic and Immune Systems, Mononuclear Leukocytes, RNA Research, Blood Cells, Lymphocytes, Immunology, Genomics, Genetics, University of Milan.

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Metabolic Diseases

Findings from University of Minnesota Broaden Understanding of Metabolic Diseases (Gut microbiota from metabolic disease-resistant, macrophagespecific RIP140 knockdown mice improves metabolic phenotype and gastrointestinal integrity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Metabolic Diseases are discussed in a new report. According to news reporting originating in Minneapolis, Minnesota, by NewsRx journalists, research stated, "While fecal microbiota transplantation (FMT) presents an attractive therapeutic strategy, it remains unclear how to choose the microbiota repertoire that most effectively transfers benefit to recipients."

The news reporters obtained a quote from the research from the University of Minnesota, "We identified a beneficial taxonomic repertoire in a transgenic mouse model (RIP140m phi KD) which resists the development of high fat diet (HFD)-induced metabolic diseases due to enhanced anti-inflammation engineered by lowering receptor interacting protein (RIP140) expression in macrophage. We confirmed using FMT from HFD-fed RIP140m phi KD to wild type (WT) mice that recipient mice acquired the microbiota repertoire of donor mice. Importantly, FMT from RIP140m phi KD to WT not only effectively transferred the beneficial taxonomic repertoire to WT recipients, but also enabled recipient animals acquiring the anti-inflammatory status of RIP140m phi KD donor animals and avoid HFD-induced insulin
resistance, which is associated with significantly improved intestinal integrity."

According to the news reporters, the research concluded: "FMT can transfer not only microbiota but also the donors' intestinal innate immune status and improved intestinal integrity."

For more information on this research see: Gut microbiota from metabolic disease-resistant, macrophage-specific RIP140 knockdown mice improves metabolic phenotype and gastrointestinal integrity. *Scientific Reports, 2016;6():1-10.* *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting Y.W. Lin, University of Minnesota, Sch Med. Dept. of Pharmacol, Minneapolis, MN 55455, United States. Additional authors for this research include E. Montassier, D. Knights and N. Wei.

Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Mononuclear Phagocyte System, Gastroenterology, Macrophages, Immunology, Phagocytes, Genetics, University of Minnesota.

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Thiazoles

**Findings from University of Minnesota Broadens Understanding of Thiazoles (Cocaine-induced reward enhancement measured with intracranial self-stimulation in rats bred for low versus high saccharin intake)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Thiazoles. According to news reporting from Minneapolis, Minnesota, by NewsRx journalists, research stated, "Rats selectively bred for high (HiS) or low (LoS) saccharin intake are a well-established model of drug-abuse vulnerability, with HiS rats being more likely to consume sweets and cocaine than LoS rats. Still, the nature of these differences is poorly understood."

The news correspondents obtained a quote from the research from the University of Minnesota, "This study examined whether the motivational consequences of cocaine exposure are differentially expressed in HiS and LoS rats by measuring intracranial self-stimulation (ICSS) thresholds following acute injections of cocaine (10 mg/kg). Reductions in ICSS thresholds following cocaine injection were greater in HiS rats than in LoS rats, suggesting that the reward-enhancing effects of cocaine are greater in the drug-vulnerable HiS than LoS rats."

According to the news reporters, the research concluded: "Higher cocaine-induced reward, indicated by lower ICSS thresholds, may explain the higher rates of drug consumption in sweet-preferring animal models, providing a clue to the etiology of cocaine addiction in vulnerable populations."

For more information on this research see: Cocaine-induced reward enhancement measured with intracranial self-stimulation in rats bred for low versus high saccharin intake. *Behavioural Pharmacology, 2016;27(2-3 Spec I):133-6.* (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology -
Our news journalists report that additional information may be obtained by contacting A.K. Radke, Dept. of Psychiatry, University of Minnesota, Minneapolis, Minnesota, United States. Additional authors for this research include N.E. Zlebnik, N.A. Holtz and M.E. Carroll.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000182. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Minnesota, Saccharin, Thiazoles, Minneapolis, United States, North and Central America.

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Drugs and Therapies - Pharmacy Practice

Findings from University of Minnesota Provides New Data on Pharmacy Practice (Strategies and steps fostering the success of medication management services in community pharmacies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Pharmacy Practice. According to news originating from Minneapolis, Minnesota, by NewsRx correspondents, research stated, "To identify and describe the steps and strategies that community pharmacies with established medication management services have used to integrate medication management services into their practice settings. Qualitative case study with semistructured interviews and focus groups."

Our news journalists obtained a quote from the research from the University of Minnesota, "Community pharmacy organizations in Minnesota. Pharmacists and pharmacy leadership from 4 different pharmacy organizations including independent, chain, and health system pharmacies. Not applicable. Qualitative case study analysis of community pharmacy management and pharmacists' perceptions of the factors that led to the establishment and sustainability of their medication management programs. Focus groups and interviews were undertaken with 25 pharmacists and pharmacy leaders from 4 distinct community pharmacy organizations from April to June 2015. Five themes emerged, representing specific implementation and continuation stages of medication management services in community practice: Deciding to Act, Setting the Stage, Executing the Service, Sticking to It, and Continuing to Grow. This study sheds light on key stages that have commonly occurred across community pharmacies that are delivering medication management services."

According to the news editors, the research concluded: "The results of this work may serve as a road map for other community pharmacies looking to integrate medication management services into their own practice settings."

For more information on this research see: Strategies and steps fostering the success of medication management services in community pharmacies. Journal of the American Pharmacists Association, 2016;56(5):504-512,34. Journal of the American Pharmacists Association can be contacted at: Amer Pharmaceutical Assoc, 2215 Constitution Ave NW, Washington, DC 20037, USA.

The news correspondents report that additional information may be obtained from
Microcystis

Findings from University of Minnesota in the Area of Microcystis Reported (Influence of fluid motion on growth and vertical distribution of cyanobacterium Microcystis aeruginosa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Microcystis. According to news originating from Minneapolis, Minnesota, by NewsRx correspondents, research stated, "Cyanobacterium Microcystis aeruginosa (M. aeruginosa) is one of the dominant algae in lakes surrounded by urban and agriculture-dominated landscapes. Microcystis blooms pose ecological, economical, and human health risk, and there is a need to identify the forcing factors that influence Microcystis growth and blooms."

Financial support for this research came from Environment and Natural Resources Trust Fund.

Our news journalists obtained a quote from the research from the University of Minnesota, "We hypothesize that fluid motion has an influence on the growth and the vertical variability of M. aeruginosa, and its influence can be quantified by measuring the corresponding rate of energy dissipation levels of fluid motion. We conducted laboratory experiment measuring the population growth and vertical distribution of M. aeruginosa in a dual tower bioreactor with one tower used as experimental control. Fluid velocities were measured using a two-dimensional particle image velocimetry allowing the estimate of turbulence statistics that were related to measured M. aeruginosa growth rates and vertical cell concentration profiles. The effects of turbulence on M. aeruginosa physiology was evident by a 22% increase in growth rate at depth-averaged energy dissipation rate (ε) of 8.5 x 10(-5) m(2) s(-3), suppressed growth rate at > 2.8 x 10(-4) m(2) s(-3), and no impact for < 4 x 10(-6) m(2) s(-3). A similar trend was observed by analyzing the depth-dependent M. aeruginosa concentration versus the corresponding time-averaged local turbulent kinetic energy dissipation rate. A maximum cell biomass was discovered at ε similar to 8.0 x 10(-5) m(2) s(-3). Findings from this study can facilitate a greater understanding of physiology and spatial distribution of M. aeruginosa in aquatic ecosystems."

According to the news editors, the research concluded: "The results will be instrumental in developing mechanistic models of the spatial and temporal distribution of M. aeruginosa that can improve management of aquatic ecosystems."

For more information on this research see: Influence of fluid motion on growth and vertical distribution of cyanobacterium Microcystis aeruginosa. Aquatic Ecology, 2016;50
Hormones - Corpus Luteum Hormones

Findings from University of Mississippi Provides New Data on Corpus Luteum Hormones (Serelaxin improves the pathophysiology of placental ischemia in the reduced uterine perfusion pressure rat model of preeclampsia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hormones - Corpus Luteum Hormones. According to news reporting out of Jackson, Mississippi, by NewsRx editors, research stated, "Preeclampsia is a hypertensive disorder of pregnancy that has limited therapeutic options. In healthy pregnancy, relaxin plays an important vasodilatory role to maintain vascular compliance; however, currently, there is no preclinical evidence to support the use of relaxin during preeclampsia."

Financial support for this research came from NIH.

Our news journalists obtained a quote from the research from the University of Mississippi, "Therefore, the goal of this study was to test the hypothesis that recombinant human relaxin-2 (Serelaxin, Novartis; RLX) could reduce mean arterial pressure (MAP) and improve uterine artery resistance index (UARI) and nitric oxide bioavailability, and/or decrease prepro-endothelin-1 (PPET-1), soluble fms-like tyrosine kinase-1 (sFlt-1), and TNF-alpha in the reduced uterine perfusion pressure (RUPP) model of preeclampsia. On day 14 of gestation (GD14), pregnant rats were assigned to normal pregnant (NP), RUPP, RUPP + RLX, or NP + RLX groups. Treated rats received RLX at 0.4 μg/h or RLX2 4 μg/h RLX via minipump implanted on GD14. On GD18, carotid arterial catheters were inserted, and on GD19, MAP and tissues were collected. MAP was increased in RUPP rats compared with NP but was lowered with either dose of RLX. UARI and sFlt-1 were significantly improved in both treated RUPP groups. Total circulating nitrate-nitrite improved and placental PPET-1 and TNF-alpha were significantly decreased with the higher dose of RLX. Renal cortex PPET-1 was reduced with both doses of RLX."

According to the news editors, the research concluded: "Serelaxin improved blood pressure, sFlt-1, TNF-alpha, UARI, and nitric oxide bioavailability and PPET-1 in a rat model..."
of preeclampsia, thereby suggesting a potential therapeutic role for RLX in maintaining maternal health and prolonging pregnancy in the face of placental ischemia."

For more information on this research see: Serelaxin improves the pathophysiology of placental ischemia in the reduced uterine perfusion pressure rat model of preeclampsia. American Journal of Physiology-Regulatory Integrative and Comparative Physiology, 2016;311 (6):R1158-R1163. American Journal of Physiology-Regulatory Integrative and Comparative Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting B. LaMarca, University of Mississippi, Medical Center, Dept. of Pharmacol & Toxicol, Jackson, MS 39216, United States. Additional authors for this research include L.M. Amaral, J. Faulkner, T. Ibrahim, V.R. Vaka, M.W. Cunningham and B. LaMarca.

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Keywords for this news article include: Jackson, Mississippi, United States, North and Central America, Corpus Luteum Hormones, Peptide Proteins, Peptide Hormones, Nitric Oxide, Chemicals, Perfusion, Ischemia, Relaxin, University of Mississippi.

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Blood Diseases and Conditions - Sepsis

Findings from University of Miyazaki in the Area of Sepsis Described (Preterm labor and neonatal sepsis caused by intrauterine Helicobacter cinaedi infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Blood Diseases and Conditions - Sepsis. According to news reporting from Miyazaki, Japan, by NewsRx journalists, research stated, "Helicobacter cinaedi is a rare pathogen but known to cause bacteremia, cellulitis and enterocolitis. Recently, cases of involving various organs are increasingly reported such as endocarditis, meningitis, and kidney cyst infection."

The news correspondents obtained a quote from the research from the University of Miyazaki, "We report a case of intrauterine H. cinaedi infection leading preterm birth and neonatal sepsis. A 29-year-old pregnant women who was no underlying disease hospitalized due to threatened preterm labor at 22 weeks of gestation. Clinical findings showed uterine tenderness, fever, leukocytosis and elevated C-reactive protein. H. cinaedi was isolated from amniotic fluid obtained by transabdominal amniocentesis. We diagnosed as intrauterine H. cinaedi infection and administered intravenous ampicillin followed by oxytocin to terminate pregnancy. A live 446 g male infant was delivered. The patient was no signs of infection throughout postpartum course and discharged on post-deley day 5. The neonate was admitted in neonatal intensive care unit and administered ampicillin and amikacin. H. cinaedi was isolated from umbilical cord blood culture."

According to the news reporters, the research concluded: "He has no signs of infection on day 5 but died from uncontrollable hyperglycemia and ketoacidosis on 15 days of age. H. cinaedi can cause intrauterine infection during pregnancy and lead preterm labor and
neonatal sepsis."

For more information on this research see: Preterm labor and neonatal sepsis caused by intrauterine Helicobacter cinaedi infection. *Journal of Infection and Chemotherapy*, 2016;22 (6):414-416. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

Our news journalists report that additional information may be obtained by contacting Y. Maki, Miyazaki University, Dept. of Obstet & Gynecol, Miyazaki, Miyazaki 8891692, Japan. Additional authors for this research include S. Furukawa, Y. Kodama, K. Sumiyoshi, E. Kino and H. Sameshima.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2015.12.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miyazaki, Japan, Asia, Blood Diseases and Conditions, Gram-Negative Bacteria, Epsilonproteobacteria, Bloodstream Infection, Proteobacteria, Helicobacter, Septicemia, Sepsis, University of Miyazaki.

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**Cell Research - Bone Marrow Cells**

**Findings from University of Munster Yields New Data on Bone Marrow Cells [Increased intermediate CD14(++)CD16(++) monocyte subset levels associate with restenosis after peripheral percutaneous transluminal angioplasty]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cell Research - Bone Marrow Cells have been presented. According to news reporting originating in Munster, Germany, by NewsRx journalists, research stated, "We aimed at studying the association of three major human monocyte subsets after percutaneous transluminal angioplasty (PTA) in patients with femoropopliteal disease. We prospectively studied 67 sequential patients (40 male, 27 female; mean age 71 +/- 11 years) treated with femoropopliteal angioplasty."

The news reporters obtained a quote from the research from the University of Munster, "Multi-color flow cytometry characterized monocyte subsets from venous blood for expression of CD14 and CD16 and intracellular myeloperoxidase (MPO) prior to, and 3, 6 and 12 months post PTA. Analyses tested associations between monocyte subsets and risk for restenosis. 16/67 patients (24%) developed restenosis within 12 months after PTA. Patients with hyperlipidemia had increased risk for restenosis (HR = 1.7, 95% CI 0.7-2.9, p = 0.001). Increased baseline monocytes associated with an increased risk of late restenosis (HR = 4.9, 95% CI: 1.3-18.6, p = 0.047). CD14(++)CD16(++) 'intermediate' monocytes assessed at baseline, and after 3, 6, and 12 months significantly associated with the risk for subsequent restenosis: HR = 3.9 (95% CI: 2.4-6.5, p = 0.029), HR = 5.7 (95% CI - 0.7-44.7, p = 0.013), HR - 6.5 (95% CI: 2.5-16.9, p = 0.001) and HR - 1.5 (95% CI - 1.4-15.5 p = 0.001), respectively. Moreover, the probability for freedom of restenosis decreased with increased levels of intermediate subsets at 12 months after PTA. Additionally, intracellular MPO expression in CD14(++)CD16(++) measured at 3, 6 and 12 months associated with an increased restenosis
risk (HR similar to 1.5, 95% CI: 0.8-2.1, p = 0.214, HR = 1.9, 95% CI: 1.0-2.3 p = 0.051 and HR = 1.4, 95% CI: 1.0-1.8, p = 0.052). Our results imply altered innate immunity after angioplasty."

According to the news reporters, the research concluded: "Elevated CD14(++)CD16(++) intermediate monocyte frequencies and increased MPO expression may identify individuals at heightened risk for restenosis."

For more information on this research see: Increased intermediate CD14(++)CD16(++) monocyte subset levels associate with restenosis after peripheral percutaneous transluminal angioplasty. *Atherosclerosis*, 2016;253():128-134. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news correspondents report that additional information may be obtained by contacting M. Wildgruber, Munster University Medical Center Inst Klin Radiol, Munster, Germany. Additional authors for this research include M. Czubba, T. Aschenbrenner, H. Wendorff, A. Hapfelmeier, A. Glinzer, M. Schiemann, A. Zimmermann, H.H. Eckstein, H. Berger, W.A. Wohlgemuth, R. Meier, P. Libby and A. Zernecke.

Keywords for this news article include: Munster, Germany, Europe, Percutaneous Transluminal Angioplasty, Mononuclear Phagocyte System, Hemic and Immune Systems, Mononuclear Leukocytes, Risk and Prevention, Surgical Technology, Bone Marrow Cells, Medical Devices, Catheterization, Cardiovascular, Heart Disease, Cell Research, Blood Cells, Cardiology, Restenosis, Immunology, Phagocytes, Monocytes, Surgery, University of Munster.

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**Cardiovascular Diseases and Conditions - Vasculitis**

**Findings from University of Nantes Has Provided New Data on Vasculitis (Exercise-Induced Vasculitis: A Review with Illustrated Cases)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Vasculitis. According to news reporting originating in Nantes, France, by NewsRx journalists, research stated, "Although exercise-induced vasculitis (EIV) is usually misdiagnosed, it is not uncommon. Occurring mostly after prolonged exercise, especially in hot weather, EIV is an isolated cutaneous vasculitis with stereotypical presentation."

The news reporters obtained a quote from the research from the University of Nantes, “This article reviews the clinical characteristics, treatments, and outcomes of EIV based on the published literature. We report 99 patients who developed EIV after walking, dancing, swimming, or hiking especially during hot weather, including the records of 16 patients with EIV treated at our hospital from 2007 to 2015. Erythematous or purpuric plaques arise on the lower legs, without the involvement of compression socks or stockings. Symptoms include itch, pain, and a burning sensation. EIV is an isolated cutaneous vasculitis. Lesions resolve spontaneously after 10 days. When triggering conditions persist, relapses are frequent (77.5%). Histopathology demonstrates leukocytoclastic vasculitis in 95% of cases with C3 or
immunoglobulin M deposits in 88 and 46% of cases, respectively. Blood investigations are negative. EIV appears to be a consequence of venous stasis induced by an acute failure of the muscle pump of the calf and thermoregulation decompensation. Both appear after prolonged and unusual exercise in hot weather."

According to the news reporters, the research concluded: "Treatment is not codified; topical corticosteroids may reduce symptoms and wearing light clothes might limit lesion occurrence."


Our news correspondents report that additional information may be obtained by contacting O. Espitia, Univ Nantes, Dept. of Internal Med, Hotel Dieu, Center Hosp, F-44093 Nantes, France. Additional authors for this research include B. Dreno, E. Cassagnau, Q. Didier, T. Quillard, C. Nicol, Y. Le Bouch, B. Planchon and M.A. Pistorius.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40257-016-0218-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nantes, France, Europe, Cardiovascular Diseases and Conditions, Article Review, Vasculitis, University of Nantes.

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Oncology - Breast Cancer

Findings from University of Naples Federico II Update Understanding of Breast Cancer (Tumor characteristics and prognosis in familial breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news originating from Naples, Italy, by NewsRx correspondents, research stated, "Approximately 5-10% of breast cancers are hereditary and their biology and prognosis appear to differ from those of sporadic breast cancers. In this study we compared the biological features and clinical characteristics of non metastatic breast cancer in patients with BRCA mutations versus patients with a family history suggesting hereditary breast cancer but without BRCA mutations (BRCA wild type) versus patients with sporadic disease, and correlated these findings with clinical outcome."

Our news journalists obtained a quote from the research from the University of Naples Federico II, "We retrieved the clinical and biological data of 33 BRCA-positive, 66 BRCA-wild type and 1826 sporadic breast cancer patients contained in a single institution clinical database between 1980 and 2012. Specifically, we recorded age, tumor size, nodal status, treatment type, pattern of relapse, second primary incidence, outcome (disease-free survival and overall survival), and biological features (estrogen receptor [ER], progesterone receptor [PgR], tumor grade, proliferation and c-erbB2 status). Median follow-up was 70 months. BRCA-positive patients were significantly younger than sporadic breast cancer patients, and less likely to be ER-, PgR- or c-erbB2-positive than women with BRCA-wild type or
sporadic breast cancer. Tumor size and grade, nodal status and proliferation did not differ among the three groups. Rates of radical mastectomy were 58, 42 and 37%, and those of conservative surgery were 42, 58 and 63% in women with BRCA-positive, BRCA-wild type and sporadic breast cancer (p = 0.03), respectively. The incidence of contralateral breast cancer was 12, 14 and 0% (p < 0.0001) and the incidence of second primary tumors (non breast) was 9, 1 and 2% (p < 0.0001) in BRCA-positive, BRCA-wild type and sporadic breast cancer, respectively. Median disease-free survival in years was 29 in BRCA-wild type, 19 in BRCA-positive and 14 in sporadic breast cancer patients (log-rank = 0.007). Median overall survival in years was not reached for BRCA-wild type, 19 for BRCA-positive and 13 for sporadic breast cancer patients (log-rank < 0.0001). At multivariate analyses only BRCA-wild type status was related to a significant improvement in overall survival versus the sporadic breast cancer group (HR = 0.51; 95% CI (0.28-0.93) p = 0.028)."

According to the news editors, the research concluded: "The biology and outcome of breast cancer differ between patients with BRCA mutations, patients with a family history but no BRCA mutations and patients with sporadic breast cancer."

For more information on this research see: Tumor characteristics and prognosis in familial breast cancer. *BMC Cancer, 2016;16():8-15*. *BMC Cancer* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Cancer - www.biomedcentral.com/bmccancer/)

The news correspondents report that additional information may be obtained from G. Arpino, University of Naples Federico II, Dept. of Clin Med & Surg, Naples, Italy. Additional authors for this research include M. Pensabene, C. Condello, R. Ruocco, I. Cerillo, R. Lauria, V. Forestieri, M. Giuliano, C. De Angelis, M. Montella, A. Crispo and S. De Placido.

Keywords for this news article include: Naples, Italy, Europe, Environment and Public Health, Disease-Free Survival, Statistics as Topic, Survival Analysis, Women's Health, Breast Cancer, Epidemiology, Oncology, Genetics, University of Naples Federico II.

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situation. Boolean networks models are less demanding on the required data to be implemented and can provide insights into the dynamics of biological networks. This methodology allows the integration of all the available knowledge into a single framework to evaluate the behavior of the system under different conditions and test hypotheses about unknown aspects of the disease. In this proof-of-concept study, we explored the potential of a systems pharmacology model based on Boolean networks to support drug development in SLE. We focused the analysis on the antigen presentation by the antigen presenting cells (APC) to the T-cells to evaluate the scope of this methodology in a medium size network before full implementation of the whole SLE pathway. The heterogeneity of SLE patients was replicated using this methodology simulating subjects with distinct pathway alterations. A perturbation analysis of the network coupled with clustering analysis showed potential to identify drug targets, optimal combinatorial regimens and subpopulations of responders and non-responders to drug treatment.

According to the news editors, the research concluded: "We propose this approach as a first step towards the development of more quantitative platforms to address the current challenges in drug development for complex diseases."


The news correspondents report that additional information may be obtained from I.F. Troconiz, University of Navarra, Pharmacometr & Syst Pharmacol, Dept. of Pharm & Pharmaceut Technol, Sch Pharm, Pamplona 310890, Spain. Additional authors for this research include I. Irurzun-Arana, I. Gonzalez-Garcia, C.P. Hu, H.H. Zhou, A. Vermeulen, I.F. Troconiz and J.D. Gomez-Mantilla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejps.2016.04.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pamplona, Spain, Europe, Immune System Diseases and Conditions, Autoimmune Diseases and Conditions, Systemic Lupus Erythematosus, Drugs and Therapies, Drug Development, Pharmaceuticals, Pharmacology, Immunology, University of Navarra.

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consecutive Phase II protocols of high-dose-rate (HDR) brachytherapy used at the authors institution from 2001 to 2012. Patients with National Comprehensive Cancer Network high risk and very high risk prostate cancer enrolled in studies HDR4 (2001-2007, n = 183) and HDR2 (2007-2012, n = 56) were analyzed."

The news reporters obtained a quote from the research from the University of Navarra, "Patients received minipelvis external beam radiation therapy/intensity-modulated external radiotherapy to 54 Gy and 2 years of androgen blockade along with HDR brachytherapy. HDR4 protocol consisted of four 4.75 Gy fractions delivered in 48 hours; the HDR2 protocol delivered two 9.5 Gy fractions in 24 hours. Average 2-Gy equivalent dose (alpha/beta = 1.2) prostate D-90 doses for the HDR4 and HDR2 groups were 89.8 Gy and 110.5 Gy, respectively (p = 0.0001). Both groups were well balanced regarding risk factors. Prior transurethral resection of the prostate was more frequent in the HDR2 group (p = 0.001). After a median followup of 7.4 years (range, 2-11.2), there was no difference in adverse grade >= 2 rectal events (HDR4 = 10.4% vs. HDR2 = 12.5%; p = ns) or grade (HDR4 = 2.2% vs. HDR2 = 3.6%; p = ns). No differences in urinary grade adverse events (HDR4 = 23% vs. HDR2 = 26.8%; p = ns) or grade >=3 (HDR4 = 7.7% vs. HDR2 = 8.9%; p = ns) were detected. The 7-year bRFS for HDR4 and HDR2 protocols was 88.7% and 87.8%, respectively (p = ns)."

According to the news reporters, the research concluded: "HDR4 and HDR2 protocols produce similar results in terms of toxicity and bRFS at the intermediate time point of 7 years."


Our news correspondents report that additional information may be obtained by contacting R. Martinez-Monge, University of Navarra, Univ Navarra Clin, Dept. of Radiat Oncol, E-31080 Pamplona, Navarre, Spain. Additional authors for this research include M. Cambeiro, M. Moreno-Jimenez, L. Arbea, J.L. Perez-Gracia, I. Gil-Bazo, I. Pascual, J. Aristu and R. Martinez-Monge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.brachy.2015.12.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pamplona, Spain, Europe, Cancer, Risk and Prevention, Drugs and Therapies, Prostatic Neoplasms, Radiation Therapy, Prostate Cancer, Brachytherapy, Radiotherapy, Androgens, Oncology, University of Navarra.

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Cardiovascular Diseases and Conditions - Abdominal…
Findings from University of Navarra Update Understanding of Abdominal Aortic Aneurysm (Anisotropic abdominal aortic aneurysm replicas with biaxial material characterization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm are discussed in a new report. According to news reporting from San Sebastian, Spain, by NewsRx journalists, research stated, "An Abdominal Aortic Aneurysm (AAA) is a permanent focal dilatation of the abdominal aorta at least 1.5 times its normal diameter. The criterion of maximum diameter is still used in clinical practice, although numerical studies have demonstrated the importance of other biomechanical factors."

The news correspondents obtained a quote from the research from the University of Navarra, "Numerical studies, however, must be validated experimentally before they can be clinically implemented. We have developed a methodology for manufacturing anisotropic AAA replicas with non-uniform wall thickness. Different composites were fabricated and tested, and one was selected in order to manufacture a phantom with the same properties. The composites and the phantom were characterized by biaxial tensile tests and a material model was fit to the experimental data. The experimental results were compared with data from the literature, and similar responses were obtained. The anisotropic AAA replicas with non-uniform wall thickness can be used in benchtop experiments to validate deformations obtained with numerical simulations or for pre-intervention testing of endovascular grafts."

According to the news reporters, the research concluded: "This is a significant step forward considering the importance of anisotropy in numerical simulations."


Our news journalists report that additional information may be obtained by contacting R. Anton, University of Navarra, Dept. of Mech Engn, Tecnun, San Sebastian 20018, Spain. Additional authors for this research include R. Anton, A. Cazon, G.S. Larraona and E.A. Finol.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.medengphy.2016.09.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Sebastian, Spain, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Numerical Modeling, Mathematics, Cardiology, University of Navarra.

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stated, "Pancreatic ductal adenocarcinomas are highly malignant cancers characterized by extensive invasion into surrounding tissues, metastasis to distant organs, and a limited response to therapy. A main feature of pancreatic ductal adenocarcinomas is desmoplasia, which leads to extensive deposition of collagen I. We have demonstrated that collagen I can induce epithelialmesenchymal transition (EMT) in pancreatic cancer cells."

Financial supporters for this research include National Cancer Institute, National Institute of General Medical Sciences.

The news reporters obtained a quote from the research from the University of Nebraska, "A hallmark of EMT is an increase in the expression of the mesenchymal cadherin N-cadherin. Previously we showed up-regulation of N-cadherin promotes tumor cell invasion and that collagen I-induced EMT is mediated by two collagen receptors, alpha 2 beta 1-integrin and discoidin domain receptor 1 (DDR1). DDR1 is a receptor-tyrosine kinase widely expressed during embryonic development and in many adult tissues and is also highly expressed in many different cancers. In the signaling pathway initiated by collagen, we have shown proline-rich tyrosine kinase 2 (Pyk2) is downstream of DDR1. In this study we found isoform b of DDR1 is responsible for collagen I-induced up-regulation of N-cadherin and tyrosine 513 of DDR1b is necessary. Knocking down Shc1, which binds to tyrosine 513 of DDR1b via its PTB (phosphotyrosine binding) domain, eliminates the upregulation of N-cadherin. The signaling does not require a functional SH2 domain or the tyrosine residues commonly phosphorylated in Shc1 but is mediated by the interaction between a short segment of the central domain of Shc1 and the proline-rich region of Pyk2."

According to the news reporters, the research concluded: "Taken together, these data illustrate DDR1b, but not DDR1a, mediates collagen I-induced N-cadherin up-regulation, and Shc1 is involved in this process by coupling to both DDR1 and Pyk2."


Our news correspondents report that additional information may be obtained by contacting K.R. Johnson, Univ Nebraska Med Center, Fred & Pamela Buffett Canc Center, Omaha, NE 68198, United States. Additional authors for this research include R.A. Svoboda, A.J. Lazenby, J. Saowapa, N. Chaika, K. Ding, M.J. Wheelock and K.R. Johnson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.740605. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Omaha, Nebraska, United States, North and Central America, Extracellular Matrix Proteins, Cell Adhesion Molecules, Enzymes and Coenzymes, Aromatic Amino Acids, Pancreatic Neoplasms, Membrane Proteins, Pancreatic Cancer, Gastroenterology, Tyrosine Kinase, Cell Research, Glycoproteins, Proteomics, Cadherins, Oncology, Pancreas, Collagen, University of Nebraska.

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**Blood Diseases and Conditions - Sepsis**

**Findings from University of North Carolina Yields New Data on Sepsis (Vancomycin-resistant Enterococcal Bloodstream Infections in Hematopoietic Stem Cell Transplant Recipients and Patients with Hematologic Malignancies: Impact of Daptomycin ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Blood Diseases and Conditions - Sepsis. According to news reporting out of Chapel Hill, North Carolina, by NewsRx editors, research stated, "Case reports of treatment failure with standard-dose daptomycin (6 mg/kg) have recently surfaced in vancomycin-resistant Enterococcus (VRE) bloodstream infection (BSI) episodes with daptomycin MICs of 3 to 4 mg/L. The clinical implications of daptomycin MICs of 3 to 4 mg/L in VRE BSIs have not been elucidated."

Our news journalists obtained a quote from the research from the University of North Carolina, "We performed a single institutional retrospective analysis of adult stem cell transplant recipients and patients with hematologic malignancies diagnosed with VRE BSI from 2006 to 2014 and compared outcomes between those with daptomycin MICs of 3 to 4 mg/L those with 2 mg/L, as determined by Etest. Forty-two daptomycin-treated VRE BSI episodes, all due to Enterococcus faecium were identified; 19 episodes with daptomycin MICs of 3 to 4 mg/L and 23 episodes with a daptomycin MIC of 2 mg/L. Patients in the higher daptomycin MIC group were more likely to be male, to be stem cell transplant recipients, and to have received high-dose daptomycin treatment (> 6 mg/kg). In unadjusted analyses, microbiological failure in the daptomycin MICs 3 to 4 mg/L versus 2 mg/L groups (odds ratio = 1.79, 95% CI, 0.52-6.11; P = 0.35), the median duration of bacteremia (4 days in daptomycin MICs 3-4 mg/L vs 3 days in daptomycin MIC 2 mg/L; P = 0.18) and all-cause 30-day mortality (21% in daptomycin MICs 3-4 mg/L vs 35% in daptomycin MIC 2 mg/L group; P = 0.49) were not different. In adjusted analyses, the association between higher Pitt bacteremia scores and all-cause 30-day mortality was statistically significant (P = 0.0006), whereas the association between daptomycin MICs of 3 to 4 mg/L and all-cause 30-day mortality approached statistical significance (P = 0.06). Duration of bacteremia and microbiological failure rates did not differ by daptomycin MICs in VRE BSI episodes in our patients, composed of adult stem cell transplant recipients and patients with hematologic malignancies."

According to the news editors, the research concluded: "There was a nonsignificant trend in multivariable analysis suggesting that all cause 30-day mortality was lower in patients whose VRE bloodstream isolates were with daptomycin MICs of 3 to 4 mg/L."

For more information on this research see: Vancomycin-resistant Enterococcal Bloodstream Infections in Hematopoietic Stem Cell Transplant Recipients and Patients with Hematologic Malignancies: Impact of Daptomycin MICs of 3 to 4 mg/L. *Clinical Therapeutics*, 2016;37(11):2468-2476. *Clinical Therapeutics* can be contacted at: Elsevier, 685 Route 202-206, Bridgewater, NJ 08807, USA. (Elsevier - www.elsevier.com; Clinical Therapeutics - www.journals.elsevier.com/clinical-therapeutics/)

Our news journalists report that additional information may be obtained by contacting P.P. Chong, University of North Carolina, Div Infect Dis, Chapel Hill, NC, United States. Additional authors for this research include D. van Duin, A. Bangdiwala, A. Ivanova, W.C. Miller, D.J. Weber, P.H. Gilligan and T.C. Shea.

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http://dx.doi.org/10.1016/j.clinthera.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Bacterial Physiological Phenomena, Bacterial Infections and Mycoses, Blood Diseases and Conditions, Bacterial Drug Resistance, Hematopoietic Stem Cells, Vancomycin Resistance, bloodstream infection, Drugs and Therapies, Stem Cell Research, Bone Marrow Cells, Adult Stem Cells, Cyclic Peptides, Glycopeptides, Lipopeptides, Daptomycin, Bacteremia, Septicemia, Sepsis, University of North Carolina.

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Oncology - Lung Cancer

Findings from University of Oklahoma Reveals New Findings on Lung Cancer (Nanosomes carrying doxorubicin exhibit potent anticancer activity against human lung cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Lung Cancer is the subject of a report. According to news reporting originating in Oklahoma City, Oklahoma, by NewsRx journalists, research stated, "Successful chemotherapeutic intervention for management of lung cancer requires an efficient drug delivery system. Gold nanoparticles (GNPs) can incorporate various therapeutics; however, GPNs have limitations as drug carriers."

The news reporters obtained a quote from the research from the University of Oklahoma, "Nano-sized cellular vesicles like exosomes (Exo) can ferry GNPtherapeutic complexes without causing any particle aggregation or immune response. In the present study, we describe the development and testing of a novel Exo-GNP-based therapeutic delivery system -'nanosomes'--for lung cancer therapy. This system consists of GNPs conjugated to anticancer drug doxorubicin (Dox) by a pH-cleavable bond that is physically loaded onto the exosomes (Exo-GNP-Dox). The therapeutic efficacy of Dox in nanosomes was assessed in H1299 and A549 non-small cell lung cancer cells, normal MRC9 lung fibroblasts, and Dox-sensitive human coronary artery smooth muscle cells (HCASM). The enhanced rate of drug release under acidic conditions, successful uptake of the nanosomes by the recipient cells and the cell viability assays demonstrated that nanosomes exhibit preferential cytotoxicity towards cancer cells and have minimal activity on non-cancerous cells. Finally, the underlying mechanism of cytotoxicity involved ROS-mediated DNA damage."

According to the news reporters, the research concluded: "Results from this study mark the establishment of an amenable drug delivery vehicle and highlight the advantages of a natural drug carrier that demonstrates reduced cellular toxicity and efficient delivery of therapeutics to cancer cells."


Our news correspondents report that additional information may be obtained by contacting R. Ramesh, University of Oklahoma, Hlth Sci Center, Grad Program Biomed Sci,
Findings from University of Ottawa in the Area of Carcinoid Tumor
Reported (Recurrence of a Thymic Carcinoid Tumour 15 Years After Resection With Multiple Myopericardial Cardiac Metastases: The Role of Multimodality Imaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Carcinoid Tumor is the subject of a report. According to news originating from Ottawa, Canada, by NewsRx correspondents, research stated, "Carcinoid tumours arising from the thymus are exceedingly rare, and cardiac metastases have not previously been described in the setting of a primary thymic carcinoid tumour. We present a patient with recurrence of a carcinoid tumour initially resected from the thymus 15 years earlier, with multiple cardiac metastases."

Our news journalists obtained a quote from the research from the University of Ottawa, "These metastatic tumours were visualized using multiple imaging modalities, including computed tomography, transthoracic echocardiogram, magnetic resonance imaging, and octreotide scan. A subsequent biopsy confirmed recurrence of his carcinoid tumour."

According to the news editors, the research concluded: "This case highlights the role of multimodality imaging for diagnosis and the need for continued long-term surveillance in these patients."


The news correspondents report that additional information may be obtained from G. Dwivedi, University of Ottawa, Inst Heart, Dept. of Med, Div Cardiol, Ottawa, ON, Canada. Additional authors for this research include A. Dick, A. Alzahrani, H.S. Sekhon, I.G. Burwash and G. Dwivedi.

Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Cardiology, Epidemiology, Carcinoid Tumor, Oncology, Cancer, University of Ottawa.

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Findings from University of Ottawa in the Area of Hepatitis C Virus Described (Influence of female sex on hepatitis C virus infection progression and treatment outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases and Conditions - Hepatitis C Virus have been presented. According to news reporting from Ottawa, Canada, by NewsRx journalists, research stated, "The influence of sex on hepatitis C virus (HCV)-related outcomes is often neglected. The effects of sex on liver fibrosis progression and the effect of socioeconomic status on management are unclear."

The news correspondents obtained a quote from the research from the University of Ottawa, "Data were evaluated from patients followed at The Ottawa Hospital and Regional Viral Hepatitis Program. Of 1978 chronic HCV-infected patients, 630 (32%) were women. Women had lower liver enzyme levels, HCV RNA levels, and weight compared with men. Women were more likely to be non-genotype-1 infected, Black or Asian, and immigrants from Africa and Asia (all p<0.01). Under 50 years of age, women on average had lower fibrosis scores than men. Beyond the age of 50 years, the mean fibrosis scores were similar, suggesting a 'catch-up' phase. Women were less likely to have initiated interferon-based HCV antiviral therapy (35.3 vs. 43.3%, p=0.01). Crude sustained virological responses were higher in women (65.3 vs. 56.3%, p=0.03), but were similar to men as determined by multivariable analysis (odds ratio: 0.92, 95% confidence interval: 0.58-1.46). Women of low socioeconomic status were more likely to be HIV coinfected and had higher rates of fibrosis progression. Women living in low-income neighborhoods were less likely to achieve sustained virological response (odds ratio: 0.50, 95% confidence interval: 0.34-0.75, p=0.01) compared with women in higher income regions. Sex differences have been identified as a potential barrier to overcome when managing viral infections."

According to the news reporters, the research concluded: "Our analysis suggests that sex influences fibrosis progression, likelihood of initiating HCV antiviral therapy, and treatment outcomes."


Our news journalists report that additional information may be obtained by contacting D.J. Corsi, aThe Ottawa Hospital Research Institute bThe Ottawa Hospital and Regional Viral Hepatitis Program Ottawa cThe University of Ottawa, Ottawa, Ontario, Canada. Additional authors for this research include W. Karges, K. Thavorn, A.M. Crawley and C.L Cooper.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MEG.0000000000000567. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HCV, Viral, Ottawa, Canada, Ontario, Genetics, Virology, Hepatology, RNA Viruses, Gastroenterology, Hepatitis C Virus,
Findings from University of Oxford Has Provided New Data on Genetics
(53BP1 Integrates DNA Repair and p53-Dependent Cell Fate Decisions via Distinct Mechanisms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics have been published. According to news reporting originating in Oxford, United Kingdom, by NewsRx journalists, research stated, "The tumor suppressor protein 53BP1, a pivotal regulator of DNA double-strand break (DSB) repair, was first identified as a p53-interacting protein over two decades ago. However, its direct contributions to p53-dependent cellular activities remain undefined."

The news reporters obtained a quote from the research from the University of Oxford, "Here, we reveal that 53BP1 stimulates genome-wide p53-dependent gene transactivation and repression events in response to ionizing radiation (IR) and synthetic p53 activation. 53BP1-dependent p53 modulation requires both auto-oligomerization and tandem-BRCT domain-mediated bivalent interactions with p53 and the ubiquitin-specific protease USP28. Loss of these activities results in inefficient p53-dependent cell-cycle checkpoint and exit responses. Furthermore, we demonstrate 53BP1-USP28 cooperation to be essential for normal p53-promoter element interactions and gene transactivation-associated events, yet dispensable for 53BP1-dependent DSB repair regulation."

According to the news reporters, the research concluded: "Collectively, our data provide a mechanistic explanation for 53BP1-p53 cooperation in controlling anti-tumorigenic cell-fate decisions and reveal these activities to be distinct and separable from 53BP1's regulation of DNA double-strand break repair pathway choice."


Our news correspondents report that additional information may be obtained by contacting J.R. Chapman, University of Oxford, Chromatin & Genome Integr Lab, Wellcome Trust Center Human Genet, Oxford OX3 7BN, United Kingdom. Additional authors for this research include C. Oliveira, H.E. Lockstone, S. Snellenberg, N. Grolmusova and J.R. Chapman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, United Kingdom, Europe, DNA Research, Genetics, p53 Gene, University of Oxford.

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Ankylosing Spondylitis

Findings from University of Oxford Update Understanding of Ankylosing Spondylitis (An ankylosing spondylitis-associated genetic variant in the IL23R-IL12RB2 intergenic region modulates enhancer activity and is associated with increased Th1-cell ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Ankylosing Spondylitis have been published. According to news reporting out of Oxford, United Kingdom, by NewsRx editors, research stated, "To explore the functional basis for the association between ankylosing spondylitis (AS) and single-nucleotide polymorphisms (SNPs) in the IL23R-IL12RB2 intergenic region. We performed conditional analysis on genetic association data and used epigenetic data on chromatin remodelling and transcription factor (TF) binding to identify the primary AS-associated IL23R-IL12RB2 intergenic SNP."

Our news journalists obtained a quote from the research from the University of Oxford, "Functional effects were tested in luciferase reporter assays in HEK293T cells and allele-specific TF binding was investigated by electrophoretic mobility gel shift assays. IL23R and IL12RB2 mRNA levels in CD4+ T cells were compared between cases homozygous for the AS-risk 'A' allele and the protective 'G' allele. The proportions of interleukin (IL)-17A+ and interferon (IFN)-g+ CD4+ T-cells were measured by fluorescence-activated cell sorting and compared between these AS-risk and protective genotypes. Conditional analysis identified rs11209032 as the probable causal SNP within a 1.14 kb putative enhancer between IL23R and IL12RB2. Reduced luciferase activity was seen for the risk allele (p <0.001) and reduced H3K4me1 methylation observed in CD4+ T-cells from 'A/A' homozygotes (p=0.02). The binding of nuclear extract to the risk allele was decreased ∼3.5-fold compared with the protective allele (p <0.001). The proportion of IFN-g+ CD4+ T-cells was increased in 'A/A' homozygotes (p=0.004), but neither IL23R nor IL12RB2 mRNA was affected. The rs11209032 SNP downstream of IL23R forms part of an enhancer, allelic variation of which may influence Th1-cell numbers. Homozygosity for the risk 'A' allele is associated with more IFN-g-secreting (Th1) cells."

According to the news editors, the research concluded: "Further work is necessary to explain the mechanisms for these important observations."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/annrheumdis-2015-208640. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, Europe, Genetics, Th1 Cells,
Findings from University of Oxford Yields New Data on Pulmonary Hypertension (Elevation of iron storage in humans attenuates the pulmonary vascular response to hypoxia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Pulmonary Hypertension is now available. According to news reporting from Oxford, United Kingdom, by NewsRx journalists, research stated, "Sustained hypoxia over several hours induces a progressive rise in pulmonary artery systolic pressure (PASP). Administration of intravenous iron immediately prior to the hypoxia exposure abrogates this effect, suggesting that manipulation of iron stores may modify hypoxia-induced pulmonary hypertension."

Financial supporters for this research include Sir John Monash Scholarship, Avant Scholarship, NIHR Clinical Lectureship, DH | National Institute for Health Research (NIHR) Biomedical Research Centre Programme.

The news correspondents obtained a quote from the research from the University of Oxford, "Iron (ferric carboxymaltose) administered intravenously has a plasma half-life of 7-12 h. Thus any therapeutic use of intravenous iron would require its effect on PASP to persist long after the iron-sugar complex has been cleared from the blood. To examine this, we studied PASP during sustained (6 h) hypoxia on 4 separate days (days 0, 1, 8, and 43) in 22 participants. On day 0, the rise in PASP with hypoxia was well matched between the iron and saline groups. On day 1, each participant received either 1 g of ferric carboxymaltose or saline in a double-blind manner. After administration of intravenous iron, the rise in PASP with hypoxia was attenuated by similar to 50%, and this response remained suppressed on both days 8 and 43 (P < 0.001). Following administration of intravenous iron, values for ferritin concentration, transferrin saturation, and hepcidin concentration rose significantly (P < 0.001, P< 0.005, and P < 0.001, respectively), and values for transferrin concentration fell significantly (P < 0.001). These changes remained significant at day 43. We conclude that the attenuation of the pulmonary vascular response to hypoxia by elevation of iron stores persists long after the artificial iron-sugar complex has been eliminated from the blood."

According to the news reporters, the research concluded: "The persistence of this effect suggests that intravenous iron may be of benefit in some forms of pulmonary hypertension."

For more information on this research see: Elevation of iron storage in humans attenuates the pulmonary vascular response to hypoxia. Journal of Applied Physiology, 2016;121(2):537-544. Journal of Applied Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting P.A. Robbins, University of Oxford, Dept. of Physiol Anat & Genet, Oxford OX1 3PT, United Kingdom. Additional authors for this research include M.K. Curtis, H.Y. Cheng,
Genetic Diseases and Conditions - Floating-Harbor…

Findings from University of Oxford Yields New Findings on Floating-Harbor Syndrome (Chiari I malformation as part of the Floating-Harbor syndrome?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Genetic Diseases and Conditions - Floating-Harbor Syndrome. According to news reporting out of Oxford, United Kingdom, by NewsRx editors, research stated, "We report the first case of a patient diagnosed with Floating-Harbor syndrome (FHS) and Chiari I malformation."

Our news journalists obtained a quote from the research from the University of Oxford, "The 3-year-old girl was of proportional short stature, had delay of language development, conductive hearing loss and a high threshold of pain. Diagnosis of Chiari I malformation may be difficult in FHS patients who present with communication problems."

According to the news editors, the research concluded: "Clinicians following patients with FHS should be aware of a possible relation between FHS and Chiari I malformation."

For more information on this research see: Chiari I malformation as part of the Floating-Harbor syndrome? European Journal of Medical Genetics, 2016;59(12):615-617. European Journal of Medical Genetics can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Medical Genetics - www.journals.elsevier.com/european-journal-of-medical-genetics/)

Our news journalists report that additional information may be obtained by contacting A.R. Kurzbuch, Oxford Univ Hosp NHS Fdn Trust, John Radcliffe Hosp, Dept. of Pediat Neurosurg, Oxford OX3 9DU, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejmg.2016.10.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, United Kingdom, Europe, Genetic Diseases and Conditions, Genetics, Floating-Harbor Syndrome, University of Oxford.

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Findings from University of Oxford in Prostate Cancer Reported
[Lifestyle factors and prostate-specific antigen (PSA) testing in UK Biobank: Implications for epidemiological research]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "The central role of prostate-specific antigen (PSA) testing in the diagnosis of prostate cancer leads to the possibility that observational studies that report associations between risk factors and prostate cancer could be affected by detection bias. This study aims to investigate whether reported risk factors for prostate cancer are associated with PSA testing in a large middle-aged population-based cohort in the UK."

Our news journalists obtained a quote from the research from the University of Oxford, "The cross-sectional association between a wide range of sociodemographic, lifestyle, dietary and health characteristics with PSA testing was examined in 212,039 men aged 40-69 years in UK Biobank. A total of 62,022 (29%) men reported they had ever had a PSA test. A wide range of factors was associated with a higher likelihood of PSA testing including age, height, education level, family history of prostate cancer, black ethnic origin, not being in paid/self-employment, living with a wife or partner, having had a vasectomy, being diagnosed with cancer or hypertension and having a high dietary intake of cereal, cooked and salad/raw vegetables, fresh fruit and tea. Conversely, socioeconomic deprivation, Asian ethnic origin, current smoking, low alcohol intake, high body-mass index, high coffee consumption and being diagnosed with diabetes, heart disease or stroke were associated with a lower likelihood of PSA testing."

According to the news editors, the research concluded: "A variety of sociodemographic, lifestyle and health-related characteristics are associated with PSA testing, suggesting that observed associations of some of these traits with risk for prostate cancer in epidemiological studies may be, at least partially, due to detection bias."

For more information on this research see: Lifestyle factors and prostate-specific antigen (PSA) testing in UK Biobank: Implications for epidemiological research. Cancer Epidemiology, 2016;45():40-46. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news correspondents report that additional information may be obtained from T.J. Littlejohns, University of Oxford, Epidemiol Studies Unit, Nuffield Dept. of Populat Hlth, Oxford OX3 7LF, United Kingdom. Additional authors for this research include R.C. Travis, T.J. Key and N.E. Allen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.09.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, United Kingdom, Europe, Prostate-Specific Antigen, Diagnostics and Screening, Prostatic Secretory Proteins, Metastatic Prostate Cancer, Prostate Specific Antigen, Biological Tumor Markers, Enzymes and Coenzymes, Risk and Prevention, Prostatic Neoplasms, Biological Factors, Peptide Hydrolases, Neoplasm Antigens, Serine Proteases, Endopeptidases, Epidemiology, Kallikreins, Immunology,
Findings from University of Paris Has Provided New Information about Antiretrovirals (A Predictive Model for Selecting Patients with HCV Genotype 3 Chronic Infection with a High Probability of Sustained Virological Response to Peginterferon ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antiretrovirals is the subject of a report. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "Access to direct-acting antiviral agents (DAAs) is restricted in some settings; thus, the European Association for the Study of the Liver recommends dual peginterferon/ribavirin (PegIFN/RBV) therapy wherever DAAs are unavailable. HCV genotype (GT) 3 infection is now the most difficult genotype to eradicate and PegIFN/RBV remains an effective option."

The news reporters obtained a quote from the research from the University of Paris, "The goal of this study was to devise a simple predictive score to identify GT3 patients with a high probability of achieving a sustained virologic response (SVR) with PegIFN alfa-2a/RBV therapy. Relationships between baseline characteristics and SVR were explored by multiple logistic regression models and used to develop a simple scoring system to predict SVR using data from 1239 treatment-naive GT3 patients who received PegIFN alfa-2a/RBV for 24 weeks in two large observational cohort studies. The score was validated using a database of 473 patients. Scores were assigned for six factors as follows: age (years) (<=)40: 2 points; >40 but <=55: 1; bodyweight (kg) (<70: 2; (>=)70 but <90: 1); no cirrhosis/transition to cirrhosis (2); ALT (<=)2.5 x ULN (1); platelets (109/L) (>200: 2; (>=)100 but <200: 1); HCV RNA (<400,000 IU/mL: 1). The points are summed to arrive at a score ranging from 0-10 where higher scores indicate higher chances of SVR; 141, 123, 203, 249, 232, and 218 patients had total scores of 0-4, 5, 6, 7, 8, and 9-10, respectively, among whom SVR rates were 45%, 62%, 72%, 76%, 84%, and 89%. Among 622 patients who had scores of 6-10 and HCV RNA <50 IU/mL by treatment week 4 the SVR rate was 86% (532/622)."

According to the news reporters, the research concluded: "A simple baseline scoring system involving age, bodyweight, cirrhosis status, ALT level, platelet count and HCV RNA level can be used to identify treatment-naive Caucasian patients with HCV GT3 infection with a high probability of SVR with PegIFN alfa-2a/RBV therapy."

For more information on this research see: A Predictive Model for Selecting Patients with HCV Genotype 3 Chronic Infection with a High Probability of Sustained Virological Response to Peginterferon Alfa-2a/Ribavirin. Plos One, 2016;11(3):e0150569. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news correspondents report that additional information may be obtained by contacting T. Asselah, Centre de Recherche sur l'Inflammation (CRI), UMR 1149 Inserm, Universite Paris Diderot, Service d'Hepatologie, AP-HP Hopital Beaujon, Paris, France. Additional authors for this research include A.J. Thompson, R. Flisiak, M. Romero-Gomez, D. Messinger, G. Bakalos and M.L Shiffman.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0150569. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiretrovirals, Antiviral Interferons, Paris, France, Europe, Fibrosis, Genetics, Cirrhosis, Ribavirin, Influenza Therapy, Purine Nucleosides, Respiratory Agents, Drugs and Therapies, Peginterferon Alfa 2a, Inhaled Antiinfectives, Respiratory Inhalant Products.

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Gram-Negative Bacteria - Acinetobacter baumannii

Findings from University of Paris-Sud Provide New Insights into Acinetobacter baumannii (First Occurrence of OXA-72-Producing Acinetobacter baumannii in Serbia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Acinetobacter baumannii have been published. According to news reporting from Le Kremlin Bicetre, France, by NewsRx journalists, research stated, "Here, we characterized the first OXA-72-producing Acinetobacter baumannii isolate (designated MAL) recovered from a urine sample from a Serbian patient. Antimicrobial susceptibility testing, plasmid analysis, and whole-genome sequencing (WGS) were performed to fully characterize the resistome of the A. baumannii MAL clinical isolate."

Funders for this research include Joint Program Initiative on Antimicrobial Resistance, European Community.

The news correspondents obtained a quote from the research from the University of Paris-Sud, "The isolate was multidrug resistant and remained susceptible only to colistin and tigecycline. PCR analysis revealed the presence of the carbapenemase OXA-72, an OXA-40 variant. Extraction by the Kieser method revealed the presence of two plasmids, and one of these, a ca. 10-kb plasmid, harbored the bla(OXA-72) gene. WGS revealed 206 contigs corresponding to a genome of 3.9 Mbp in size with a G + C content of 38.8%. The isolate belonged to sequence type 492 and to worldwide clone II (WWCII). Naturally occurring beta-lactamase-encoding genes (bla(ADC-25) and bla(OXA-66)) were also identified. Aminoglycoside resistance genes encoding one aminoglycoside adenyltransferase (aadA2), three aminoglycoside phosphatases (strA, strB, aphA6), and one 16S RNA methylase (armA) conferring resistance to all aminoglycosides were identified. Resistance to fluoroquinolones was likely due to mutations in gyrA, parC, and parE."

According to the news reporters, the research concluded: "Of note, the resistome matched perfectly with the antibiotic susceptibility testing results."

For more information on this research see: First Occurrence of OXA-72-Producing Acinetobacter baumannii in Serbia. Antimicrobial Agents and Chemotherapy, 2016;60 (10):5724-5730. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting L. Dortet, Univ Paris Saclay, Univ Paris Sud, Fac Med, Struct Dynam Funct &
Express Broad Spectrum Ss La, Le Kremlin Bicetre, France. Additional authors for this research include R.A. Bonnin, S. Bernabeu, L. Escaut, D. Vittecoq, D. Girlich, D. Imanci, N. Fortineau and T. Naas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01016-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Le Kremlin Bicetre, France, Europe, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Acinetobacter baumannii, Gram-Negative Bacteria, Gammaproteobacteria, Drugs and Therapies, Proteobacteria, Moraxellaceae, Antibiotics, Genetics, University of Paris-Sud.

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Oncology - Melanoma

Findings from University of Paris-Sud Provide New Insights into Melanoma (Adjuvant ipilimumab in stage III melanoma: New landscape, new questions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Melanoma. According to news reporting from Le Kremlin Bicetre, France, by NewsRx editors, the research stated, "The recently reported significant prolongation of overall survival with ipilimumab as adjuvant in high-risk stage III melanoma patients represents an important event in the adjuvant treatment landscape. The European Organisation for Research and Treatment of Cancer 18071 trial demonstrated a 28% reduction in risk of death in patients treated with ipilimumab at 10 mg/kg (hazard ratio for death, 0.72; 95.1% CI, 0.58-0.88; P = 0.001) compared with placebo."

The news correspondents obtained a quote from the research from the University of Paris-Sud, "All end-points-recurrence-free survival (RFS), distant-metastasis-free survival (DMFS) and overall survival (OS)-showed similar benefits. Survival rates at 5 years in ipilimumab-treated patients were OS 11%, DMFS 9% and RFS 11% higher than in placebo-treated patients. Global Health quality-of-life scores were not significantly different between treatment arms, in spite of significant adverse event rates that resulted in only 42% of patients receiving more than four doses of ipilimumab and only 28.9% of patients going beyond 1 year of treatment. Grades 3-4 immune-related adverse events occurred in 41.6% of ipilimumab-treated patients and in 2.7% of placebo-treated patients. One can speculate on dose and duration of treatment, as well as on the requirement for complete lymph-node dissection in sentinel-node-positive patients. The remaining role of interferons will be discussed regarding differences in sensitivity profiles-such as in ulcerated melanoma versus non-ulcerated melanoma-and access to new drugs. Ongoing trials with targeted agents and with anti programmed cell death protein 1 (anti-PD-1) agents may bring significant additional results in the next few years that will redefine how we treat stage III patients."

According to the news reporters, the research concluded: "Overall, pricing of new treatments will determine access and whether patients will actually benefit from new treatment options."

For more information on this research see: Adjuvant ipilimumab in stage III melanoma: New landscape, new questions. European Journal of Cancer, 2016;69():39-42.
Liver Diseases and Conditions - Hepatitis C Virus

Findings from University of Parma Has Provided New Information about Hepatitis C Virus (Are Anti-TNF-a Agents Safe for Treating Psoriasis in Hepatitis C Virus Patients with Advanced Liver Disease? Case Reports and Review of the Literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Liver Diseases and Conditions - Hepatitis C Virus. According to news originating from Parma, Italy, by NewsRx correspondents, research stated, "Tumor necrosis factor-alpha (TNF-a) inhibitors represent an effective treatment for severe psoriasis in hepatitis C virus (HCV) patients. The literature reports mainly on short-term treatment in patients with chronic hepatitis with minimum-to-moderate activity with an acceptable safety profile."

Our news journalists obtained a quote from the research from the University of Parma, "We report the first 2 cases of hepatocellular carcinoma (HCC) arising in HCV psoriatic patients with advanced liver disease during long-term treatment with etanercept. Our first patient, known to have had HCV infection for 41 years, developed an HCC after 21 months of therapy with etanercept (50 mg/week). The second patient, HCV+ for 20 years, was treated for 58 months with the same therapy, and despite no signs of liver function impairment was diagnosed with HCC. Both of them presented with cirrhosis, which was diagnosed 9 and 5 years earlier, respectively. It remains to be clarified whether there is any connection between psoriasis treatment with anti-TNF-a agents and the development of HCC in HCV-infected patients."

According to the news editors, the research concluded: "Further long-term, follow-up studies and registries of HCV patients with mild/moderate activity may contribute to clarify this issue."


The news correspondents report that additional information may be obtained from S. Di Nuzzo, Section of Dermatology, Dept. of Clinical and Experimental Medicine, University of Parma, Parma, Italy. Additional authors for this research include V. Boccaletti, C. Fantini, C.
Cortelazzi, G. Missale, G. Fabrizi, T. Lotti, J. Hercogova and C. Pagliarello. 

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000439587. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HCV, Parma, Italy, Viral, Europe, Virology, Psoriasis, Hepatology, Dermatology, RNA Viruses, Article Review, Gastroenterology, Hepatitis C Virus, Flaviviridae Infections, Diagnostics and Screening, Liver Diseases and Conditions, Infectious Disease and Conditions, Digestive System Diseases and Conditions.

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Terpenes

Findings from University of Pennsylvania Provides New Data on Terpenes (Structure and Function of Fusicoccadiene Synthase, a Hexameric Bifunctional Diterpene Synthase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Terpenes. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "Fusicoccin A is a diterpene glucoside phytotoxin generated by the fungal pathogen Phomopsis amygdali that causes the plant disease constriction canker, first discovered in New Jersey peach orchards in the 1930s. Fusicoccin A is also an emerging new lead in cancer chemotherapy."

Financial supporters for this research include Radcliffe Institute for Advanced Study, Harvard University, Office of Science, National Institute of General Medical Sciences.

Our news journalists obtained a quote from the research from the University of Pennsylvania, "The hydrocarbon precursor of fusicoccin A is the tricyclic diterpene fusicoccadiene, which is generated by a bifunctional terpenoid synthase. Here, we report X-ray crystal structures of the individual catalytic domains of fusicoccadiene synthase: the C-terminal domain is a chain elongation enzyme that generates geranylgeranyl diphosphate, and the N-terminal domain catalyzes the cyclization of geranylgeranyl diphosphate to form fusicoccadiene. Crystal structures of each domain complexed with bisphosphonate substrate analogues suggest that three metal ions and three positively charged amino acid side chains trigger substrate ionization in each active site. While in vitro incubations reveal that the cyclase domain can utilize farnesyl diphosphate and geranyl diphosphate as surrogate substrates, these shorter isoprenoid diphosphates are mainly converted into acyclic alcohol or hydrocarbon products."

According to the news editors, the research concluded: "Gel filtration chromatography and analytical ultracentrifugation experiments indicate that full-length fusicoccadiene synthase adopts hexameric quaternary structure, and small-angle X-ray scattering data yield a well-defined molecular envelope illustrating a plausible model for hexamer assembly."


Our news journalists report that additional information may be obtained by contacting M. Chen, Roy and Diana Vagelos Laboratories, Dept. of Chemistry, University of
Pennsylvania, Philadelphia, Pennsylvania 19104-6323, United States. Additional authors for this research include W.K. Chou, T. Toyomasu, D.E. Cane and D.W Christianson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschembio.5b00960. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Anions, Synthase, Diterpenes, Philadelphia, Pennsylvania, Diphosphates, Electrolytes, United States, Polyphosphates, Phosphoric Acids, Phosphorus Compounds, Enzymes and Coenzymes, North and Central America.

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Heart Disorders and Diseases - Atrial Fibrillation

Findings from University of Pennsylvania Yields New Findings on Atrial Fibrillation (Mechanistic insights into mitral regurgitation due to atrial fibrillation: "Atrial functional mitral. regurgitation.")

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Atrial Fibrillation are presented in a new report. According to news reporting originating in Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Mitral regurgitation (MR) is common, and definitive management of significant MR often requires percutaneous or surgical correction. Lone atrial fibrillation has been proposed to result in 'atrial functional mitral regurgitation (AFMR)' via left atrial enlargement and mitral annular dilation."

The news reporters obtained a quote from the research from the University of Pennsylvania, "Patients with AFMR may represent a subgroup in which a rhythm control strategy may be preferred and catheter ablation is a promising nonsurgical therapy. This review discusses the anatomy of the mitral valve apparatus and MR classification schemes."

According to the news reporters, the research concluded: "Potential mechanisms in the pathogenesis of AFMR the implications for treatment will be discussed in detail."


Our news correspondents report that additional information may be obtained by contacting J.J. Liang, University of Pennsylvania, University of Pennsylvania Hospital, Perelman Sch Med, Div Cardiovasc, Philadelphia, PA 19104, United States.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, University of Pennsylvania.

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Digestive System Diseases and Conditions - Acid Reflux Disease

Findings from University of Pennsylvania in the Area of Acid Reflux Disease Described (Autophagy Levels Are Elevated in Barrett's Esophagus and Promote Cell Survival From Acid and Oxidative Stress)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Digestive System Diseases and Conditions - Acid Reflux Disease is the subject of a report. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "Autophagy is a highly conserved mechanism that is activated during cellular stress. We hypothesized that autophagy may be induced by acid reflux, which causes injury, and inflammation, and therefore, contributes to the pathogenesis of Barrett's esophagus (BE) and esophageal adenocarcinoma (EAC)."

Our news journalists obtained a quote from the research from the University of Pennsylvania, "Currently, the role of autophagy in BE and EAC is poorly studied. We quantitatively define autophagy levels in human BE cell lines, a transgenic mouse model of BE, and human BE, and EAC biopsies. Human non-dysplastic BE had the highest basal number of autophagic vesicles (AVs), while AVs were reduced in normal squamous cells and dysplastic BE cells, and nearly absent in EAC. To demonstrate a functional role for autophagy in BE pathogenesis, normal squamous (STR), non-dysplastic BE (CPA), dysplastic BE (CPD), and EAC (OE19) cell lines were exposed to an acid pulse (pH 3.5) followed by incubation in the presence or absence of chloroquine, an autophagy inhibitor. Acid exposure increased reactive oxygen species (ROS) levels in STR and CPA cells. Chloroquine alone had a small impact on intracellular ROS or cell survival. However, combination of chloroquine with the acid pulse resulted in a significant increase in ROS levels at 6 h in STR and CPA cells, and increased cell death in all cell lines. These findings establish increased numbers of AVs in human BE compared to normal squamous or EAC, and suggest that autophagy functions to improve cell survival after acid reflux injury."

According to the news editors, the research concluded: "Autophagy may thus play a critical role in BE pathogenesis and progression."


Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Esophageal Diseases and Conditions, Digestive System Abnormalities, Acid Reflux Disease, Barrett Esophagus, Barrett Syndrome, Gastroenterology, Cell Line, Genetics, University of Pennsylvania.

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Findings from University of Pisa in the Area of Malaria Described (Ethnopharmacology in the fight against Plasmodium parasites and brain disorders: In memoriam of Philippe Rasoanaivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mosquito-Borne Diseases - Malaria is the subject of a report. According to news reporting originating from Pisa, Italy, by NewsRx correspondents, research stated, "Prof. Philippe Rasoanaivo was a highly dedicated and brilliant scientist in the field of ethnopharmacology."

Our news editors obtained a quote from the research from the University of Pisa, "He worked for the Institut Malgache de Recherches Appliquees and the University of Antananarivo, Madagascar. His research was mainly focused on the endemic medicinal and aromatic plants used by traditional healers in Madagascar against a range of parasites, with special reference to Plasmodium spp."

According to the news editors, the research concluded: "In this Editorial, we resumed the key findings of his research activity, with special reference to the discovery of alkaloids that markedly enhance the action of chloroquine against malaria parasites."


The news editors report that additional information may be obtained by contacting G. Benelli, University of Pisa, Dept. of Agr Food & Environm, I-56124 Pisa, Italy. Additional authors for this research include F. Maggi and M. Nicoletti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.07.077. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pisa, Italy, Europe, Mosquito-Borne Diseases, Epidemiology, Malaria, University of Pisa.

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Findings from University of Pompeu Fabra Update Knowledge of Antibiotics (Validation of a colistin plasma concentration breakpoint as a predictor of nephrotoxicity in patients treated with colistin methanesulfonate)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news reporting out of Barcelona, Spain, by NewsRx editors, research stated, "Nephrotoxicity limits the effective use of colistin for the treatment of multidrug-resistant Gram-negative bacteria (MDR-GNB) infections. We previously defined a steady-state colistin plasma concentration (C-ss) of 2.42 mg/L that predicted nephrotoxicity at end of treatment (EOT)."

Our news journalists obtained a quote from the research from the University of Pompeu Fabra, "The objective of this study was to validate this breakpoint in a prospective cohort. This was a multicentre, prospective, observational study conducted at three hospitals with a cohort of patients treated for MDR-GNB infection with colistin methanesulfonate from September 2011 until January 2015. Nephrotoxicity was evaluated at Day 7 and at EOT using the RIFLE criteria. C-ss values were measured and analysed using HPLC. Taking the previously defined breakpoint for colistin concentration as a criterion, patients were divided into two groups (C-ss, <= 2.42 mg/L vs. > 2.42 mg/L). Sixty-four patients were included. Seven patients (10.9%) had a C-ss > 2.42 mg/L and were compared with the remaining patients. Bivariate analysis showed that patients with a C-ss > 2.42 mg/L were older and had a significantly higher incidence of nephrotoxicity at Day 7 and EOT. Although not statistically significant, nephrotoxicity occurred earlier in these patients (6.2 days vs. 9.2 days in patients with lower C-ss; P = 0.091). Multivariate analysis of nephrotoxicity showed that C-ss > 2.42 mg/L was the only predictive factor. Nephrotoxicity was more frequent and occurred earlier in patients with colistin plasma concentrations higher than the previously defined breakpoint (2.42 mg/L)."

According to the news editors, the research concluded: "Colistin therapeutic drug monitoring should be routinely considered to avoid reaching this toxicity threshold and potential clinical consequences."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.08.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Pore Forming Cytotoxic Proteins, Drugs and Therapies, Membrane Proteins, Antibiotics, Polymyxins, Colistin, University of Pompeu Fabra.

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Findings from University of Porto Reveals New Findings on Hypertension (Pulmonary arterial hypertension: Basic knowledge for clinicians)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Hypertension. According to news originating from Oporto, Portugal, by NewsRx correspondents, research stated, "Pulmonary arterial hypertension is a progressive syndrome based on diverse aetiologies, which is characterized by a persistent increase in pulmonary vascular resistance and overload of the right ventricle, leading to heart failure and death."

Our news journalists obtained a quote from the research from the University of Porto, "Currently, none of the available treatments is able to cure pulmonary arterial hypertension; additional research is therefore needed to unravel the associated pathophysiological mechanisms."

According to the news editors, the research concluded: "This review summarizes current knowledge related to this disorder, and the several experimental animal models that can mimic pulmonary arterial hypertension and are available for translational research."

For more information on this research see: Pulmonary arterial hypertension: Basic knowledge for clinicians. Archives of Cardiovascular Diseases, 2016;109(10):550-561. Archives of Cardiovascular Diseases can be contacted at: Elsevier Masson, Via Paleocapa 7, 20121 Milano, Italy. (Elsevier - www.elsevier.com; Archives of Cardiovascular Diseases - www.journals.elsevier.com/archives-of-cardiovascular-diseases/)

The news correspondents report that additional information may be obtained from C. Bras-Silva, University of Porto, Fac Nutr & Food Sci, P-4200465 Oporto, Portugal. Additional authors for this research include P. Mendes-Ferreira, C. Maia-Rocha, R. Adao, A.F. Leite-Moreira and C. Bras-Silva.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.acvd.2016.03.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oporto, Portugal, Europe, Cardiovascular Diseases and Conditions, Article Review, Hypertension, University of Porto.

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Findings from University of Quebec Provide New Insights into Human Coronavirus Oc43 (Safe and Sensitive Antiviral Screening Platform Based on Recombinant Human Coronavirus OC43 Expressing the Luciferase Reporter Gene)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Human Coronavirus Oc43 are presented in a new report. According to news reporting originating in Laval, Canada, by NewsRx journalists, research
stated, "Human coronaviruses (HCoVs) cause 15 to 30% of mild upper respiratory tract infections. However, no specific antiviral drugs are available to prevent or treat HCoV infections to date."

The news reporters obtained a quote from the research from the University of Quebec, "Here, we developed four infectious recombinant HCoVs-OC43 (rHCoVs-OC43) which express the Renilla luciferase (Rluc) reporter gene. Among these four rHCoVs-OC43, rOC43-ns2DelRluc (generated by replacing ns2 with the Rluc gene) showed robust luciferase activity with only a slight impact on its growth characteristics. Additionally, this recombinant virus remained stable for at least 10 passages in BHK-21 cells. rOC43-ns2DelRluc was comparable to its parental wild-type virus (HCoV-OC43-WT) with respect to the quantity of the antiviral activity of chloroquine and ribavirin. We showed that chloroquine strongly inhibited HCoV-OC43 replication in vitro, with a 50% inhibitory concentration (IC50) of 0.33 μM. However, ribavirin showed inhibition of HCoV-OC43 replication only at high concentrations which may not be applicable to humans in clinical treatment, with an IC50 of 10 μM. Furthermore, using a luciferase-based small interfering RNA (siRNA) screening assay, we identified double-stranded-RNA-activated protein kinase (PKR) and DEAD box RNA helicases (DDX3X) that exhibited antiviral activities, which were further verified by the use of HCoV-OC43-WT."

According to the news reporters, the research concluded: "Therefore, rOC43-ns2DelRluc represents a promising safe and sensitive platform for high-throughput antiviral screening and quantitative analysis of viral replication."

For more information on this research see: Safe and Sensitive Antiviral Screening Platform Based on Recombinant Human Coronavirus OC43 Expressing the Luciferase Reporter Gene. Antimicrobial Agents and Chemotherapy, 2016;60(9):5492-5503. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting P.J. Talbot, University of Quebec, Inst Armand Frappier, INRS, Lab Neuroimmunovirol, Laval, PQ, Canada. Additional authors for this research include Y. Yang, F. Ye, G.S. Liu, M. Desforges, P.J. Talbot and W.J. Tan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00814-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Laval, Quebec, Canada, North and Central America, Genetics, Diagnostics and Screening, Genetics, Human Coronavirus OC43, Human Coronavirus Oc43, Enzymes and Coenzymes, Luminescent Proteins, Vertebrate Viruses, Bioluminescence, Oxidoreductases, Reporter Gene, Coronaviridae, Luciferases, RNA Viruses, Nidovirales, Viral RNA, Genomics, Virology, University of Quebec.

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Cardiovascular Research

Findings from University of Queensland Broaden Understanding of Cardiovascular Research (Sedentary Time, Cardiorespiratory Fitness, and Cardiovascular Risk Factor Clustering in Older Adults-the Generation 100 Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Research. According to news originating from Brisbane, Australia, by NewsRx correspondents, research stated, "To determine whether meeting physical activity (PA) recommendations and/or having high age-specific cardiorespiratory fitness (CRF) attenuate the adverse effect of prolonged sedentary time on cardiovascular risk factor (CV-RF) clustering in older adults. We conducted a cross-sectional study of Norwegian women (495) and men (379) aged 70 to 77 years from August 22, 2012, through June 30, 2013."

Our news journalists obtained a quote from the research from the University of Queensland, "Sedentary time and PA were assessed by accelerometers and CRF by directly measured peak oxygen uptake (VO2peak). Logistic regression was used to estimate adjusted odds ratios (ORs) and CIs for the association between sedentary time and prevalence of CV-RF clustering (≥ 3 of the following: hypertension, high blood glucose level, high waist circumference, low high-density lipoprotein cholesterol level, or high triglyceride level) and for the modifying effect of PA and CRF. Overall, 163 of the 495 women (32.9%) and 140 of the 379 men (36.9%) had CV-RF clustering. Each additional hour of sedentary time was associated with 22% (OR, 1.22; 95% CI, 1.02-1.45) and 27% (OR, 1.27; 95% CI, 1.04-1.55) higher likelihood of having CV-RF clustering in women and men, respectively, whereas a 1-metabolic equivalent decrement in VO2peak corresponded to 57% (OR, 1.57; 95% CI, 1.34-1.84) and 67% (OR, 1.67; 95% CI, 1.44-1.95) higher likelihood of CV-RF clustering in women and men, respectively. High CRF (VO2peak >27.5 mL/kg per minute in women and >34.4 mL/kg per minute in men) attenuated the adverse effects of high sedentary time on CV-RF clustering, even among individuals not meeting recommendations for PA."

According to the news editors, the research concluded: "High age-specific CRF fully attenuates the adverse effect of prolonged sedentary time on CV-RF clustering, independent of meeting the PA consensus recommendation in older adults."


The news correspondents report that additional information may be obtained from U. Wisloff, University of Queensland, Sch Human Movement & Nutr Sci, Brisbane, Qld, Australia. Additional authors for this research include J. Nauman, N. Zisko, O. Sandbakk, N.P. Aspvik, D. Stensvold and U. Wisloff.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Cardiovascular Research, Risk and Prevention, Cardiovascular, Cardiology, University of Queensland.

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Findings from University of Queensland Yields New Data on Pancreatic Cancer (Association between family cancer history and risk of pancreatic cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Pancreatic Cancer.

According to news reporting out of Herston, Australia, by NewsRx editors, research stated, "Family history of pancreatic adenocarcinoma is an established risk factor for the disease. However, associations of pancreatic cancer with other familial cancers are less clear."

Funders for this research include National Health and Medical Research Council Australia, NHMRC Senior Research Fellowships and N Pandeya by an NHMRC postdoctoral fellowship, Australian Research Council Future fellowship.

Our news journalists obtained a quote from the research from the University of Queensland, "We analyzed data from the Queensland Pancreatic Cancer Study (QPCS), an Australian population-based case-control study, to investigate associations between family history of various cancer types and risk of pancreatic cancer. Our study included 591 pancreatic cancer patients and 646 controls, all of whom self-reported the histories of cancer in their first-degree relatives. We used logistic regression to estimate adjusted odds ratios (ORs) and their 95% confidence intervals (CIs). Based on our results, we conducted a systematic literature review using the Medline (OVID) database to identify articles pertaining to the association between family history of melanoma and risk of pancreatic cancer. A meta-analysis including associations in five published studies, unpublished results from a study co-author and the QPCS results was then performed using the DerSimonian and Laird random-effects model. Cases were more likely than controls to report a family history of pancreatic cancer (OR 2.20, 95% CI 1.16-4.19) and melanoma (OR 1.74, 95% CI 1.03-2.95), but not of breast, ovarian, respiratory, other gastrointestinal or prostate cancer. Meta-analysis of melanoma family history and pancreatic cancer risk yielded an OR of 1.22 (95% CI 1.00-1.51). Our results yield further evidence of increased risk of pancreatic cancer in those with family histories of the disease."

According to the news editors, the research concluded: "We also provide suggestive evidence of an association between family history of melanoma and risk of pancreatic cancer."

For more information on this research see: Association between family cancer history and risk of pancreatic cancer. Cancer Epidemiology, 2016;45():145-150. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news journalists report that additional information may be obtained by contacting A. Schulte, University of Queensland, Sch Med, Herston, Qld 4006, Australia. Additional authors for this research include N. Pandeya, J. Fawcett, L. Fritschi, K. Klein, H.A. Risch, P.M. Webb, D.C. Whiteman and R.E. Neale.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Herston, Australia, Australia and New
Nanotechnology and Microtechnology

Findings from University of Queensland in the Area of Nanotechnology and Microtechnology Described (Toward Precision Medicine: A Cancer Molecular Subtyping Nano-Strategy for RNA Biomarkers in Tumor and Urine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nanotechnology and Microtechnology. According to news reporting originating in Brisbane, Australia, by NewsRx journalists, research stated, "Cancer is a heterogeneous disease which manifests as different molecular subtypes due to the complex nature of tumor initiation, progression, and metastasis. The concept of precision medicine aims to exploit this cancer heterogeneity by incorporating diagnostic technology to characterize each cancer patient's molecular subtype for tailored treatments."

Financial supporters for this research include Australian Research Council, National Breast Cancer Foundation.

The news reporters obtained a quote from the research from the University of Queensland, "To characterize cancer molecular subtypes accurately, a suite of multiplexed bioassays have currently been developed to detect multiple oncogenic biomarkers. Despite the reliability of current multiplexed detection techniques, novel strategies are still needed to resolve limitations such as long assay time, complex protocols, and difficulty in interpreting broad overlapping spectral peaks of conventional fluorescence readouts. Herein a rapid (80 min) multiplexed platform strategy for subtyping prostate cancer tumor and urine samples based on their RNA biomarker profiles is presented. This is achieved by combining rapid multiplexed isothermal reverse transcription-recombinase polymerase amplification (RT-RPA) of target RNA biomarkers with surface-enhanced Raman spectroscopy (SERS) nanotags for 'one-pot' readout. This is the first translational application of a RT-RPA/SERS-based platform for multiplexed cancer biomarker detection to address a clinical need."

According to the news reporters, the research concluded: "With excellent sensitivity of 200 zmol (100 copies) and specificity, we believed that this platform methodology could be a useful tool for rapid multiplexed subtyping of cancers."


Our news correspondents report that additional information may be obtained by contacting E.J.H. Wee, University of Queensland, AI BN, Center Personalized Nanomed, Brisbane, Qld 4072, Australia. Additional authors for this research include E.J.H. Wee, P.N. Mainwaring, Y.L. Wang and M. Trau.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201602161. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Nanotechnology and Microtechnology, Cancer, Diagnostics and Screening, Oncology, Genetics, University of Queensland.

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Oncology - Breast Cancer

Findings from University of Reims Update Knowledge of Breast Cancer (Costs associated with Eribulin treatment for patients with metastatic breast cancer in a comprehensive cancer center in France)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting originating in Reims, France, by NewsRx journalists, research stated, "There is no standard recommendation for metastatic breast cancer treatment (MBC) after two chemotherapy regimens. Eribulin (Halaven ®) has shown a significant improvement in overall survival (OS) in this setting."

The news reporters obtained a quote from the research from the University of Reims, "Its use may however be hampered by its cost, which is up to three times the cost of other standard drugs. We report the clinical outcomes and health care costs of a large series of consecutive MBC patients treated with Eribulin. A monocentric retrospective study was conducted at Institut Curie over 1 year (August 2012 to August 2013). Data from patient’s medical records were extracted to estimate treatment and outcome patterns, and direct medical costs until the end of treatment were measured. Factors affecting cost variability were identified by multiple linear regressions and factors linked to OS by a multivariate Cox model. We included 87 MBC patients. The median OS was 10.7 months (95%CI = 8.0-13.3). By multivariate Cox analysis, independent factors of poor prognosis were an Eastern Cooperative Oncology Group (ECOG) performance status of 3, a number of metastatic sites >= 4 and the need for hospitalization. Per patient costs during whole treatment were 18,694 [CI 95%: 16,028-21,360], and 2581 [CI 95%: 2226 3038] per month. Eribulin administration contributed to 79% of per-patient costs. Innovative and expensive drugs often appear to be the main cost drivers in cancer treatment, particularly for MBC."

According to the news reporters, the research concluded: "There is an urgent need to assess clinical practice benefits."


Our news correspondents report that additional information may be obtained by contacting A. Hurtaud, University of Reims, Dept. of Gen Practice, Fac Med, F-51100 Reims, France. Additional authors for this research include A. Donnadieu, L. Escalup, P.H. Cottu and S. Baffert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.breast.2016.08.015. This DOI is a link to an online electronic
Drugs and Therapies - Metabolic Agents

Findings from University of Rostock Has Provided New Data on Metabolic Agents (Pharmacologic Treatment Assigned for Niemann Pick Type C1 Disease Partly Changes Behavioral Traits in Wild-Type Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Metabolic Agents. According to news originating from Rostock, Germany, by NewsRx correspondents, research stated, "Niemann-Pick Type C1 (NPC1) is an autosomal recessive inherited disorder characterized by accumulation of cholesterol and glycosphingolipids. Previously, we demonstrated that BALB/c-npc1(nih)Npc1(-/-) mice treated with miglustat, cyclodextrin and allopregnanolone generally performed better than untreated Npc1(-/-) animals."

Our news journalists obtained a quote from the research from the University of Rostock, "Unexpectedly, they also seemed to accomplish motor tests better than their sham-treated wild-type littermates. However, combination-treated mutant mice displayed worse cognition performance compared to sham-treated ones. To evaluate effects of these drugs in healthy BALB/c mice, we here analyzed pharmacologic effects on motor and cognitive behavior of wild-type mice. For combination treatment mice were injected with allopregnanolone/cyclodextrin weekly, starting at P7. Miglustat injections were performed daily from P10 till P23. Starting at P23, miglustat was embedded in the chow. Other mice were treated with miglustat only, or sham-treated. The battery of behavioral tests consisted of accelerod, Morris water maze, elevated plus maze, open field and hot-plate tests. Motor capabilities and spontaneous motor behavior were unaltered in both drug-treated groups. Miglustat-treated wild-type mice displayed impaired spatial learning compared to sham-and combination-treated mice. Both combination-and miglustat-treated mice showed enhanced anxiety in the elevated plus maze compared to sham-treated mice. Additionally, combination treatment as well as miglustat alone significantly reduced brain weight, whereas only combination treatment reduced body weight significantly."

According to the news editors, the research concluded: "Our results suggest that allopregnanolone/cyclodextrin ameliorate most side effects of miglustat in wild-type mice."

For more information on this research see: Pharmacologic Treatment Assigned for Niemann Pick Type C1 Disease Partly Changes Behavioral Traits in Wild-Type Mice. *International Journal of Molecular Sciences*, 2016;17(11):1551-1567. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from V. Schlegel, University of Rostock, Inst Anat, D-18055 Rostock, Germany. Additional authors for this research include M. Thieme, C. Holzmann, M. Witt, U. Grittner, A. Rolfs and A. Wree.

Keywords for this news article include: Rostock, Germany, Europe, Drugs and
Oncology - Colon Cancer

Findings from University of Sannio Provides New Data about Colon Cancer (Proteomic screening identifies calreticulin as a miR-27a direct target repressing MHC class I cell surface exposure in colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting from Benevento, Italy, by NewsRx journalists, research stated, "Impairment of the immune response and aberrant expression of microRNAs are emerging hallmarks of tumor initiation/progression, in addition to driver gene mutations and epigenetic modifications. We performed a preliminary survey of independent adenoma and colorectal cancer (CRC) miRnoma data sets and, among the most dysregulated miRNAs, we selected miR-27a and disclosed that it is already upregulated in adenoma and further increases during the evolution to adenocarcinoma."

The news correspondents obtained a quote from the research from the University of Sannio, "To identify novel genes and pathways regulated by this miRNA, we employed a differential 2DE-DIGE proteome analysis. We showed that miR-27a modulates a group of proteins involved in MHC class I cell surface exposure and, mechanistically, demonstrated that calreticulin is a miR-27a direct target responsible for most downstream effects in epistasis experiments. In vitro miR-27a affected cell proliferation and angiogenesis; mouse xenografts of human CRC cell lines expressing different miR-27a levels confirmed the protein variations and recapitulated the cell growth and apoptosis effects. In vivo miR-27a inversely correlated with MHC class I molecules and calreticulin expression, CD8(+) T cells infiltration and cytotoxic activity (LAMP-I exposure and perforin release). Tumours with high miR-27a, low calreticulin and CD8(+) T cells' infiltration were associated with distant metastasis and poor prognosis. Our data demonstrate that miR-27a acts as an oncomiRNA, represses MHC class I expression through calreticulin downregulation and affects tumor progression."

According to the news reporters, the research concluded: "These results may pave the way for better diagnosis, patient stratification and novel therapeutic approaches."

For more information on this research see: Proteomic screening identifies calreticulin as a miR-27a direct target repressing MHC class I cell surface exposure in colorectal cancer. *Cell Death & Disease, 2016;7():e2120. (Nature Publishing Group - www.nature.com/cddis/)

Our news journalists report that additional information may be obtained by contacting T. Colangelo, Dept. of Sciences and Technologies, University of Sannio, Benevento, Italy. Additional authors for this research include G. Polcaro, P. Ziccardi, B. Pucci, L. Muccillo, M. Galgani, A. Fucci, M.R. Milone, A. Budillon, M. Santopaoalo, C. Votino, M. Pancione, A. Piepoli, G. Mazzoccoli, M. Binaschi, M. Bigioni, C.A. Maggi and M Fassan.

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Keywords for this news article include: Italy, Europe, Lectins, Genetics, Oncology, Benevento, Proteomics, Calreticulin, Colon Cancer, Carrier Proteins, Gastroenterology, Colorectal Research, Intracellular Calcium Sensing Proteins, Intracellular Signaling Peptides and Proteins.

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Liver Diseases and Conditions - Non-Alcoholic...

Findings from University of Seville Has Provided New Data on Non-Alcoholic Steatohepatitis (Improvement in liver histology due to lifestyle modification is independently associated with improved kidney function in patients with non-alcoholic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Liver Diseases and Conditions - Non-Alcoholic Steatohepatitis is the subject of a report. According to news originating from Seville, Spain, by NewsRx correspondents, research stated, "Several recent studies have shown a strong association between non-alcoholic steatohepatitis (NASH) and chronic kidney disease. To examine the relationship between changes in liver histology and renal function in patients with NASH."

Financial support for this research came from National Institute of Gastroenterology and Ministry of Health.

Our news journalists obtained a quote from the research from the University of Seville, "The present analysis represents a post hoc analysis of a recently published trial that included 261 patients with NASH who were treated with lifestyle modifications during 52 weeks. Kidney function was evaluated through Chronic Kidney Disease Epidemiology Collaboration estimated glomerular filtration rates (eGFR, mL/min/1.73 m(2)) overtime. We explored correlations between the kidney function and improvement in histological outcomes at 52 weeks. Interestingly, a one-stage reduction in fibrosis (r = 0.20, P< 0.01) and resolution of NASH (r = 0.17, P< 0.01) were significantly correlated with an improvement in the kidney function. The eGFR values significantly increased in patients with fibrosis improvement (+7.6 +/- 6.5 mL/min/1.73 m(2)), compared to those without fibrosis improvement (-1.98 +/- 6.4 mL/min/1.73 m(2)) (P < 0.01) at end of treatment (EOT). Likewise, NASH resolution was associated with an increase in eGFR compared with patients without NASH resolution (2.32 +/- 7.8 mL/min/1.73 m(2) vs. -1.04 +/- 5.9 mL/min/1.73 m(2), P = 0.04) at EOT. After controlling for the confounders, the association between fibrosis improvement, NASH resolution and eGFR change remained significant (P < 0.05 for both). Improvement in liver histology due to lifestyle modification is independently associated with improved kidney function in patients with NASH."

According to the news editors, the research concluded: "As new drugs for NASH emerge, studies should address whether improvement in histology in response to pharmacotherapies yield the same improvement in kidney function as weight loss."

For more information on this research see: Improvement in liver histology due to lifestyle modification is independently associated with improved kidney function in patients with non-alcoholic steatohepatitis. *Alimentary Pharmacology & Therapeutics*, 2017;45(2):332-344. *Alimentary Pharmacology & Therapeutics* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Alimentary...
Pharmacology & Therapeutics - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2036

The news correspondents report that additional information may be obtained from E. Vilar-Gomez, Univ Seville, Virgen Macarena Virgen del Rocio Univ Hosp, Unit Clin Management Digest Dis, Inst BiomedCiberehd, Seville, Spain. Additional authors for this research include L. Calzadilla-Bertot, S.L. Friedman, B. Gra-Oramas, L. Gonzalez-Fabian, O. Villa-Jimenez, S. Lazo-Del Vallin, M. Diago, L.A. Adams, M. Romero-Gomez and N. Chalasani.

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Keywords for this news article include: Seville, Spain, Europe, Liver Diseases and Conditions, Non-Alcoholic Steatohepatitis, Histology, Epidemiology, University of Seville.

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Nutritional and Metabolic Diseases and Conditions ...

Findings from University of Sherbrooke Provides New Data about Hyperglycemia (Persistent Insulin Resistance in Podocytes Caused by Epigenetic Changes of SHP-1 in Diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Hyperglycemia have been presented. According to news reporting originating in Sherbrooke, Canada, by NewsRx journalists, research stated, "Poor glycemic control profoundly affects protein expression and the cell signaling action that contributes to glycemic memory and irreversible progression of diabetic nephropathy (DN). We demonstrate that SHP-1 is elevated in podocytes of diabetic mice, causing insulin unresponsiveness and DN."

Funders for this research include Canadian Institute of Health Research, JDRF International, Diabete Estrie.

The news reporters obtained a quote from the research from the University of Sherbrooke, "Thus, sustained SHP-1 expression caused by hyperglycemia despite systemic glucose normalization could contribute to the glycemic memory effect in DN. Microalbuminuria, glomerular filtration rate, mesangial cell expansion, and collagen type IV and transforming growth factor-beta expression were significantly increased in diabetic Ins2 (+/c96Y) mice compared with nondiabetic Ins2(+/+) mice and remained elevated despite glucose normalization with insulin implants. A persistent increase of SHP-1 expression in podocytes despite normalization of systemic glucose levels was associated with sustained inhibition of the insulin signaling pathways. In cultured podocytes, high glucose levels increased mRNA, protein expression, and phosphatase activity of SHP-1, which remained elevated despite glucose concentration returning to normal, causing persistent insulin receptor-beta inhibition. Histone posttranslational modification analysis showed that the promoter region of SHP-1 was enriched with H3K4me1 and H3K9/14ac in diabetic glomeruli and podocytes, which remained elevated despite glucose level normalization."

According to the news reporters, the research concluded: "Hyperglycemia induces SHP-1 promoter epigenetic modifications, causing its persistent expression and activity and leading to insulin resistance, podocyte dysfunction, and DN."
For more information on this research see: Persistent Insulin Resistance in Podocytes Caused by Epigenetic Changes of SHP-1 in Diabetes. *Diabetes*, 2016;65(12):3705-3717. *Diabetes* can be contacted at: Amer Diabetes Assoc, 1701 N Beauregard St, Alexandria, VA 22311-1717, USA. (Elsevier - wwwElsevier.com; Diabetes - wwwjournalsElseviercom/diabetes-and-metabolic-syndrome-clinical-research-and-reviews/)

Our news correspondents report that additional information may be obtained by contacting P. Geraldes, University of Sherbrooke, Div Endocrinol, Sherbrooke, PQ, Canada. Additional authors for this research include B. Denhez, A. Guay, N. Gevry, A.M. Cote and P. Geraldes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2337/db16-0254. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sherbrooke, Quebec, Canada, North and Central America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Protein Expression, Insulin Resistance, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Endocrinology, Hyperglycemia, Proteomics, Proinsulin, Podocytes, Diabetes, Genetics, University of Sherbrooke.

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**Nanotechnology - Nanoparticles**

**Findings from University of Sonora Update Understanding of Nanoparticles (Folate Functionalized PLGA Nanoparticles Loaded with Plasmid pVAX1-NH36: Mathematical Analysis of Release)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nanotechnology - Nanoparticles. According to news reporting originating in Hermosillo, Mexico, by NewsRx journalists, research stated, "Plasmid DNA (pVAX1-NH36) was encapsulated in nanoparticles of poly-dL-lactic-coglycolic (PLGA) functionalized with polyethylene glycol (PEG) and folic acid (PLGA-PEG-FA) without losing integrity. PLGA-PEG-FA nanoparticles loaded with pVAX1-NH36 (pDNA-NPs) were prepared by using a double emulsification-solvent evaporation technique."

The news reporters obtained a quote from the research from the University of Sonora, "PLGA-PEG-FA synthesis was verified by FT-IR and spectrophotometry methods. pVAX1-NH36 was replicated in Escherichia coli (E. coli) cell cultures. Atomic force microscopy (AFM) analysis confirmed pDNA-NPs size with an average diameter of 177-229 nm, depending on pVAX1-NH36 loading and zeta potentials were below 24 mV for all preparations. In vitro release studies confirmed a multiphase release profile for the duration of more than 30-days. Plasmid release kinetics were analyzed with a release model that considered simultaneous contributions of initial burst and degradation-relaxation of nanoparticles. Fitting of release model against experimental data presented excellent correlation."

According to the news reporters, the research concluded: "This mathematical analysis presents a novel approach to describe and predict the release of plasmid DNA from biodegradable nanoparticles."

Our news correspondents report that additional information may be obtained by contacting C.A. Gutierrez-Valenzuela, Univ Sonora, Nanotechnol Grad Program, Dept. of Phys, Hermosillo 83000, Sonora, Mexico. Additional authors for this research include P. Guerrero-German, A. Tejeda-Mansir, R. Esquivel, R. Guzman-Z and A. Lucero-Acuna.

Keywords for this news article include: Hermosillo, Mexico, North and Central America, Nanoparticles, Emerging Technologies, Nanotechnology, Nanoparticle, Genetics, University of Sonora.

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Proteins - Heme Proteins

**Findings from University of Stellenbosch in the Area of Heme Proteins Reported [Inhibitory Interactions of Aspalathus linearis (Rooibos) Extracts and Compounds, Aspalathin and Z-2-(beta-D-Glucopyranosyloxy)-3-phenylpropenoic Acid, on Cytochromes ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Heme Proteins. According to news reporting out of Cape Town, South Africa, by NewsRx editors, research stated, "Rooibos extract, due to its glucose and lipid lowering effects, has potential as a nutraceutical for improvement of metabolic dysfunction. Potential herb-drug interactions as a result of the use of natural products are of increasing concern."

Our news journalists obtained a quote from the research from the University of Stellenbosch, "Cytochrome P450 enzymes, CYP2C8, CYP2C9, and CYP3A4, are important in the metabolism of hypoglycemic drugs, such as thiazolidinediones (TZDs) and sulfonylureas, and hypocholesterolemic drugs, such as atorvastatin. This study investigated the effects of rooibos extracts, prepared from 'unfermented' and 'fermented' rooibos plant material and two of the major bioactive compounds, Z-2-(beta-D-glucopyranosyloxy)-3-phenylpropenoic acid (PPAG) and aspalathin (ASP), on Vivid r recombinant CYP450 enzymes. Unfermented (GRT) and fermented (FRE) rooibos extracts inhibited the activity of CYP2C8 (7.69 +/- 8.85 mu g/mL and 8.93 +/- 8.88 mu g/mL, respectively) and CYP3A4 (31.33 +/- 4.69 mu g/mL and 51.44 +/- 4.31 mu g/mL, respectively) based on their respective IC50 concentrations. Both extracts dose- and time-dependently inhibited CYP2C8 activity, but only time-dependently inhibited CYP2C9. CYP3A4 showed concentration-dependent inhibition by ASP, GRT, and FRE at 25, 50, and 100 mu g/mL concentrations. ASP, GRT, and FRE time-dependently inhibited CYP3A4 activity with GRT and FRE showing a more potent time-dependent inhibition, comparable to erythromycin."

According to the news editors, the research concluded: "These findings suggest that herb-drug interactions may occur when nutraceuticals containing rooibos extracts are co-administered with hypoglycemic drugs such as TZDs, sulfonylureas, and dyslipidemic drug, atorvastatin."

For more information on this research see: Inhibitory Interactions of Aspalathus
linearis (Rooibos) Extracts and Compounds, Aspalathin and Z-2-(beta-D-Glucopyranosyloxy)-3-phenylpropenoic Acid, on Cytochromes Metabolizing Hypoglycemic and Hypolipidemic Drugs. *Molecules*, 2016;21(11):1453-1465. *Molecules* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting O. Patel, University of Stellenbosch, Div Clin Pharmacol, Dept. of Med, Fac Med & Hlth Sci, ZA-8000 Cape Town, South Africa. Additional authors for this research include C. Muller, E. Joubert, J. Louw, B. Rosenkranz and C. Awortwe.

Keywords for this news article include: Cape Town, South Africa, Africa, Proteins, Drugs and Therapies, Hemeproteins, Cytochromes, University of Stellenbosch.

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**Oncology - Cancer Care**

**Findings from University of Sussex Provides New Data about Cancer Care (Therapeutic aims of drugs offering only progression-free survival are misunderstood by patients, and oncologists may be overly optimistic about likely benefits)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cancer Care is the subject of a report. According to news reporting originating from Brighton, United Kingdom, by NewsRx correspondents, research stated, "The use of novel and often expensive drugs offering limited survival benefit in advanced disease is controversial. Treatment recommendations are influenced by patient characteristics and trial data showing overall response rates (ORR), progression-free survival (PFS) and overall survival (OS)."

Financial support for this research came from Boehringer Ingelheim International GmbH.

Our news editors obtained a quote from the research from the University of Sussex, "PFS is frequently the primary outcome in licencing studies. As part of a longitudinal study Assessing the 'VALue' to patients of PROgression Free Survival (AVALPROFS), oncologists completed checklists at baseline following consultations with patients. Questions probed perceived clinical benefits of the drugs to populations in general. Patients completed study-specific interview schedules at baseline, 6 weeks into treatment, and at withdrawal due to toxicity or progression. Patients also completed tumour- and treatment-specific quality of life questionnaires monthly for their time in the study. Only baseline results are reported here. Thirty-two UK oncologists discussed management options with 90 patients with heterogeneous advanced cancers. Oncologists' estimates of medical benefit in general from treatment varied between 10 and 80 %. They expected 46/90 (51 %) of their patients to derive some clinical benefit from the prescribed treatment but were either unsure or expected none for 44/90 (49 %). Predictions of life expectancy were variable but 62 % (56/90) of patients were expected to survive longer with treatment. A majority of patients 51/90 (57 %) had 'no idea' or were 'unclear' what PFS meant and 45/90 (50 %) thought extension of life was the primary therapeutic aim of treatment. Discussions between doctors and patients with metastatic disease about future management plans and likely therapeutic gains are challenging."
According to the news editors, the research concluded: "Factors influencing decisions about putative benefits of novel drugs are often applied inconsistently can be overly optimistic and may even contradict published data."

For more information on this research see: Therapeutic aims of drugs offering only progression-free survival are misunderstood by patients, and oncologists may be overly optimistic about likely benefits. Supportive Care in Cancer, 2017;25(1):237-244. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

The news editors report that additional information may be obtained by contacting V.A. Jenkins, University of Sussex, Brighton & Sussex Med Sch, SHORE C, Brighton BN1 9RX, E Sussex, United Kingdom. Additional authors for this research include S.L. Catt, S.F. May, L. Matthews, V.M. Shilling, R. Simcock, S. Westwell and V.A. Jenkins.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3408-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brighton, United Kingdom, Europe, Cancer Care, Oncology, Therapy, Drugs and Therapies, University of Sussex.

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Oncology - Breast Cancer

Findings from University of Sydney in the Area of Breast Cancer Reported (The Role of Socially Embedded Concepts in Breast Cancer Screening: An Empirical Study with Australian Experts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting out of Sydney, Australia, by NewsRx editors, research stated, "It is not clear whether breast cancer screening is a public health intervention or an individual clinical service. The question is important because the concepts best suited for ethical reasoning in public health might be different to the concepts commonly employed in biomedical ethics."

Our news journalists obtained a quote from the research from the University of Sydney, "We consider it likely that breast screening has elements of a public health intervention and used an empirical ethics approach to explore this further. If breast screening has public health characteristics, it is probable that policy and practice experts will employ socially embedded concepts when reasoning about it. We gathered data on whether and how these concepts existed in the discussion and reasoning of Australian breast screening experts. We found that experts employed these concepts when talking about the purpose and practices of breast screening, and the behaviour of breast screening professionals and consumers. Experts gave varied judgements about breast screening based on reasoning with these concepts, considering it to be more or less successful in contributing to the public interest and in incorporating socially embedded concepts into its operational agenda. Our findings are compatible with breast screening having public health characteristics."

According to the news editors, the research concluded: "We advocate for the incorporation of socially embedded concepts in breast screening policy and practice."

Our news journalists report that additional information may be obtained by contacting L.M. Parker, University of Sydney, Center Values Eth & Law Med VELiM, Sydney Sch Public Hlth, Sydney, NSW 2006, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/phe/phw012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Cancer, Diagnostics and Screening, Women's Health, Public Health, Breast Cancer, Oncology, University of Sydney.

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**Oncology - Prostate Cancer**

**Findings from University of Tampere Broaden Understanding of Prostate Cancer (Additive inhibitory effects of simvastatin and enzalutamide on androgen-sensitive LNCaP and VCaP prostate cancer cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting out of Tampere, Finland, by NewsRx editors, research stated, "We evaluated the effects of simvastatin and antiandrogen enzalutamide on growth and androgen signaling in androgen-sensitive LNCaP and VCaP prostate cancer cells."

Our news journalists obtained a quote from the research from the University of Tampere, "Simvastatin alone abolished androgen-induced growth in both cell lines but decreased androgen receptor (AR) and prostate-specific antigen protein expression only in LNCaP, indicating that statin-induced growth inhibition is beyond AR transcriptional activity in VCaP. Combination of simvastatin and enzalutamide exerted additive growth inhibition in both cell lines accompanied with strong induction of autophagy in LNCaP."

According to the news editors, the research concluded: "The data provide new insight into statins' effects on androgen signaling and their proposed role in enhancing androgen deprivation therapy in prostate cancer."

For more information on this research see: Additive inhibitory effects of simvastatin and enzalutamide on androgen-sensitive LNCaP and VCaP prostate cancer cells. Biochemical and Biophysical Research Communications, 2016;481(1-2):46-50. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting P. Pennanen, University of Tampere, Sch Med, Tampere, Finland. Additional authors
Connective Tissue Cells

Findings from University of Tehran Provides New Data on Connective Tissue Cells (Inhibition of MicroRNA-21 induces apoptosis in dermal fibroblasts of patients with systemic sclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Connective Tissue Cells. According to news reporting out of Tehran, Iran, by NewsRox editors, research stated, "Prolonged activation of dermal fibroblasts is the main cause of progressive fibrosis in systemic sclerosis (SSc). It seems that inhibition of apoptosis in SSc fibroblasts deregulates fibrosis."

Funders for this research include Iran National Science Foundation, Tehran University of Medical Sciences and Health Services.

Our news journalists obtained a quote from the research from the University of Tehran, "MicroRNA-21 (miR-21) is a pro-fibrotic factor with high expression in lesional areas of SSc skin and fibroblasts. The effects of miR-21 on expression of Bcl-2 and Bax, two apoptotic genes, in dermal fibroblasts of SSc patients were evaluated using real-time polymerase chain reaction and Western blot analysis. Apoptotic cells were detected using flow cytometry and Hoechst 33258 staining assays. Overexpression of miR-21 using synthetic miR-21 RNA increased expression of Bcl-2, an inhibitor of apoptosis, and decreased the Bax: Bcl-2 expression ratio, a cell fate determinant, in SSc fibroblasts. Antisense inhibition of miR-21 induced a high rate of apoptosis in SSc fibroblasts. We propose that this may be associated with a decrease in Bcl-2 expression and a shift in the Bax: Bcl-2 ratio."

According to the news editors, the research concluded: "Although further studies are necessary to determine the underlying apoptotic pathway, we propose that inhibition of miR-21 in dermal fibroblasts from lesional skin may be useful in harnessing progressive fibrosis in SSc."


Our news journalists report that additional information may be obtained by contacting A. Farazmand, Univ Tehran, Dept. of Cell & Mol Biol, Tehran, Iran. Additional authors for this research include A. Farazmand, F. Gharibdoost, E. Karimizadeh, F. Noorbakhsh, H. Faridani, M. Mahmoudi and A.R. Jamshidi.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijd.13308. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Connective Tissue Cells, Fibroblasts, Apoptosis, Genetics, University of Tehran.

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Oncology - Prostate Cancer

Findings from University of Texas Broaden Understanding of Prostate Cancer (Tissue-scale, personalized modeling and simulation of prostate cancer growth)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting from Austin, Texas, by NewsRx journalists, research stated, "Recently, mathematical modeling and simulation of diseases and their treatments have enabled the prediction of clinical outcomes and the design of optimal therapies on a personalized (i.e., patient-specific) basis. This new trend in medical research has been termed 'predictive medicine.' Prostate cancer (PCa) is a major health problem and an ideal candidate to explore tissue-scale, personalized modeling of cancer growth for two main reasons: First, it is a small organ, and, second, tumor growth can be estimated by measuring serum prostate-specific antigen (PSA, a PCa biomarker in blood), which may enable in vivo validation."

Financial support for this research came from EC | European Research Council (ERC).

The news correspondents obtained a quote from the research from the University of Texas, "In this paper, we present a simple continuous model that reproduces the growth patterns of PCa. We use the phase-field method to account for the transformation of healthy cells to cancer cells and use diffusion-reaction equations to compute nutrient consumption and PSA production. To accurately and efficiently compute tumor growth, our simulations leverage isogeometric analysis (IGA). Our model is shown to reproduce a known shape instability from a spheroidal pattern to fingered growth. Results of our computations indicate that such shift is a tumor response to escape starvation, hypoxia, and, eventually, necrosis. Thus, branching enables the tumor to minimize the distance from inner cells to external nutrients, contributing to cancer survival and further development. We have also used our model to perform tissue-scale, personalized simulation of a PCa patient, based on prostatic anatomy extracted from computed tomography images."

According to the news reporters, the research concluded: "This simulation shows tumor progression similar to that seen in clinical practice."

Our news journalists report that additional information may be obtained by contacting T.J.R. Hughes, Univ Texas Austin, Inst Computat Engn & Sci, Austin, TX 78712, United States. Additional authors for this research include M.A. Scott, K. Tew, T.J.R. Hughes, Y.J. Zhang, L. Liu, G. Vilanova and H. Gomez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1615791113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Austin, Texas, United States, North and Central America, Prostatic Neoplasms, Prostate Cancer, Oncology, University of Texas.

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Transplant Medicine - Liver Transplants
Findings from University of Texas Medical Branch Update Understanding of Liver Transpals (Increased Risk of Death for Patients on the Waitlist for Liver Transplant Residing at Greater Distance From Specialized Liver Transplant Centers in the ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Liver Transplants. According to news reporting originating from Galveston, Texas, by NewsRx correspondents, research stated, "We have previously shown that patients listed for orthotopic liver transplantation (OLT) in United Network for Organ Sharing Region 4 (Texas and Oklahoma) have higher waitlist mortality rates when residing more than 30 miles from specialized liver transplant centers (LTC). Considering that findings might only be exclusive for this region with its peculiarities in terms of having the highest land surface extensions, lowest population densities, and largest rural populations."

Our news editors obtained a quote from the research from the University of Texas Medical Branch, "We investigated the entire OLT patient population in the United States to assess if our previous regional findings are nationally validated and if a rural, micropolitan, or metropolitan residence location affects outcome of waitlisted OLT patients in the nation. Patients waiting for OLT in the United States from 2002 to 2012 were stratified by distance from the patients' residence to LTC and by Rural Urban Commuting Area (RUCA) codes classification. Statistical analyses were performed to evaluate risk of mortality on the waitlist and the likelihood to receive an OLT using a Cox proportional hazards model and a generalized additive model with a logistic link. Survival time and probability of death while on the waitlist for OLT using distance to LTC showed significant increased risk with the distance (P = 0.001 and P< 0.0001, respectively). At the same time, using RUCA classification as the variable did not show significance (P = 0.14 and P = 0.73, respectively)."

According to the news editors, the research concluded: "Distance from an LTC is a risk factor of mortality on the waitlist for OLT, whereas RUCA classification is not a significant factor."

For more information on this research see: Increased Risk of Death for Patients on the Waitlist for Liver Transplant Residing at Greater Distance From Specialized Liver Transplant Centers in the United States. Transplantation, 2016;100(10):2146-2152. Transplantation can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001
Findings from University of Texas Provides New Data on Thyroid Cancer (Spine Stereotactic Radiosurgery for Patients with Metastatic Thyroid Cancer: Secondary Analysis of Phase I/II Trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Thyroid Cancer. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Metastatic deposits to the spine in thyroid cancer patients represent the most common site of bone involvement and can contribute to pain, neurologic deficits, and death. This study sought to determine the efficacy and safety of spine stereotactic radiosurgery (SSRS) for thyroid cancer patients."

Our news editors obtained a quote from the research from the University of Texas, "Thyroid cancer patients with spine metastases were selected and analyzed from a cohort of patients who were prospectively enrolled in two single-institution Phase I/II studies. SSRS was delivered in single or multi-fraction schedules. Dose regimens ranged from 16-18 Gy in one fraction to 27-30 Gy in three to five fractions. Toxicity was graded according to the NCI-CTC toxicity scale. Local control was determined by serial post-treatment magnetic resonance imaging scans showing no evidence of progressive disease. Patients were followed until date of death or date of last known visit for survival analyses. Local control and overall survival rates were carried out using Kaplan-Meier estimates. The log-rank test was used to assess the equality of the survivor function across groups. A p-value of <= 0.05 was considered to be statistically significant. A total of 27 spine lesions were treated in 23 patients over a six-year period. Median follow-up was 28.9 months (range 5-93 months). Local control was 88% at two years and 79% at three years. In patients with progressive disease following conventional radiation therapy, local control for salvage SSRS remained at 88% at three years. Patients requiring upfront surgical intervention and treated with adjuvant SSRS achieved sustained control rates of 86% at three years. Overall survival rates were 85% and 67% at one and two years, respectively. In patients classified with oligoprogression and controlled extra-spinal disease, overall survival was significantly higher than those with evidence of systemic progression (81% vs. 45% at two years; p = 0.01). Univariate analysis did not show significant correlations between local control and age, systemic disease status, prior 131 I therapy, SSRS fraction regimen, spine location, histological subtype, or time from initial diagnosis to evidence of spinal metastasis. No patient experienced any grade 3-5 toxicity. Pain flare was reported in 30% of patients, with only three patients (13%) requiring narcotics or short-course steroids. There was no evidence of vertebral
According to the news editors, the research concluded: "SSRS for thyroid metastases as a primary or adjuvant/salvage therapy is well tolerated and yields high rates of local control."

For more information on this research see: Spine Stereotactic Radiosurgery for Patients with Metastatic Thyroid Cancer: Secondary Analysis of Phase I/II Trials. *Thyroid*, 2016;26(9):1269-1275. *Thyroid* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Thyroid - www.liebertpub.com/overview/thyroid/55/)

The news editors report that additional information may be obtained by contacting M.B. Bernstein, Univ Texas MD Anderson Canc Center, Div Radiat Oncol, Houston, TX 77030, United States. Additional authors for this research include E.L. Chang, B. Amini, H. Pan, M. Cabanillas, X.A. Wang, P.K. Allen, L.D. Rhines, C. Tatsui, J. Li, P.D. Brown and A.J. Ghia.

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Keywords for this news article include: Houston, Texas, United States, North and Central America, Clinical Trials and Studies, Drugs and Therapies, Clinical Research, Thyroid Neoplasms, Thyroid Cancer, Radiosurgery, Radiotherapy, Oncology, Therapy, Surgery, University of Texas.

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**Drugs and Therapies - Therapeutic Drug Monitoring**

**Findings from University of Texas School of Medicine Provide New Insights into Therapeutic Drug Monitoring (Suitability of the DRI Hydrocodone/Hydromorphone Immunoassay in the Clinical Environment at a Lower Cutoff: Validation With LC-MS/MS ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Therapeutic Drug Monitoring are discussed in a new report. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "We evaluated the analytical performance of the DRI hydrocodone/hydromorphone assay by comparing semi-quantitative values obtained by this assay with values obtained by a liquid chromatography combined with tandem mass spectrometry (LC-MS/MS) method. We also evaluated the possibility of lowering the cutoff of the DRI assay from 300 to 100 ng/mL."

The news reporters obtained a quote from the research from the University of Texas School of Medicine, "We compared semiquantitative values obtained by the DRI assay in 97 specimens with values obtained by the LC-MS/MS method including 10 specimens containing hydrocodone and/or hydromorphone concentrations between 105.0 and 145.0 ng/mL (determined by LC-MS/MS) to determine the sensitivity at 100 ng/mL. In addition, several opioids at a concentration of 5000 ng/mL were also analyzed by the DRI assay to determine its specificity. We observed no false-negative result using the DRI immunoassay in 96 specimens that showed semiquantitative values at 100 ng/mL or higher. However, one specimen containing 110 ng/mL of hydrocodone was false negative with the DRI assay (semiquantitative value 88
The semiquantitative values produced by DRI showed poor correlation with values determined by the LC-MS/MS method. The sensitivity of the DRI assay at 100 ng/mL was 90%, and the assay was very specific showing minimal cross-reactivity only with oxycodone and oxymorphone.

According to the news reporters, the research concluded: "DRI immunoassay for hydrocodone/hydromorphone is a cost-effective method of screening urine specimens in the clinical environment at a lower cutoff of 100 ng/mL."

For more information on this research see: Suitability of the DRI Hydrocodone/Hydromorphone Immunoassay in the Clinical Environment at a Lower Cutoff: Validation With LC-MS/MS Analysis. Therapeutic Drug Monitoring, 2016;38(6):787-790.

Therapeutic Drug Monitoring can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting A. Dasgupta, Univ Texas Houston Med Sch, Dept. of Pathol & Lab Med, Houston, TX 77030, United States.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Therapeutic Drug Monitoring, Drugs and Therapies, University of Texas School of Medicine.

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### Aortic Aneurysms

**Findings from University of Texas Southwestern Has Provided New Data on Aortic Aneurysms (Safety and effectiveness of total percutaneous access for fenestrated endovascular aortic aneurysm repair)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Aortic Aneurysms are discussed in a new report. According to news reporting originating in Dallas, Texas, by NewsRx journalists, research stated, "Percutaneous femoral vascular access is frequently used for aortic endovascular procedures, with a local access complication rate of 5% to 16%. Fenestrated endovascular aneurysm repair (FEVAR) has recently emerged as a new technique for the repair of short-neck and juxtarenal abdominal aortic aneurysms."

The news reporters obtained a quote from the research from the University of Texas Southwestern, "The safety and effectiveness of percutaneous access for FEVAR has not been established to date. Since United States Food and Drug Administration approval of the Zenith fenestrated aortic endograft (Cook Medical, Bloomington, Ind), 94 patients (60 Zenith fenestrated, 6 p-Branch, and 28 custom-made devices) have undergone FEVAR. Percutaneous access was performed using the 'preclose' technique with the Perclose Proglide device (Abbott Vascular, Redwood City, Calif). Open access was performed when severely disease or calcified femoral arteries prevented percutaneous access. Based analysis was performed assessing outcomes for the access site used for the larger profile sheath of the main device. Percutaneous access was used in 90 patients (177 common femoral arteries) and open access in four (11
common femoral arteries). Arm access was used in 41 patients (44%). The median sheath size was 20F (interquartile range [IQR], 20F-22F). Median operative time was 207 minutes (IQR, 160-270 minutes), with a median blood loss of 500 mL (IQR, 300-700 mL). The percutaneous access success rate was 92%. No preoperative factors predicted technical failure. No 30-day deaths occurred. Patients with failed percutaneous closure and who required conversion to open repair had higher estimated median blood loss of 800 (IQR, 600-1200) vs 500 (IQR, 300-600) mL (P = .01) and a longer median time to start ambulation of 4 (IQR, 2-7) vs 2 (IQR, 1-3) days (P = .03). Patients undergoing percutaneous closure had lower median blood loss (500 mL; IQR, 300-600 mL) than patients who underwent open surgical access (800 mL; IQR, 750-800 mL). Postoperative complications related to vascular access occurred in 11 patients (12%).

Percutaneous femoral access is a safe and effective alternative to open access for FEVAR."

According to the news reporters, the research concluded: "Operative blood loss and longer time to ambulation are significantly increased after failed percutaneous closure."


Our news correspondents report that additional information may be obtained by contacting D.E. Timaran, Univ Texas Southwestern Med Center Dallas, Dept. of Surg, Div Vasc & Endovasc Surg, Dallas, TX 75390, United States. Additional authors for this research include M. Soto, M. Knowles, J.G. Modrall, J.E. Rectenwald and C.H. Timaran.

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Keywords for this news article include: Dallas, Texas, United States, North and Central America, Aortic Aneurysms, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Angiology, Surgery, Aortic Aneurysm, Cardiology, University of Texas Southwestern.

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Oncology - Gliomas

**Findings from University of Texas Southwestern Medical Center Provides New Data on Gliomas (Phase I study of RO4929097 with bevacizumab in patients with recurrent malignant glioma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gliomas is the subject of a report. According to news reporting from Dallas, Texas, by NewsRx journalists, research stated, "Antiangiogenic therapies for malignant gliomas often result in transient response, and recurrent disease is characterized by adoption of invasive and hypoxic phenotype. The notch signaling pathway is activated in gliomas, and augments cell migration and hypoxic response."

Financial support for this research came from National Institutes of Health.

The news correspondents obtained a quote from the research from the University of
Texas Southwestern Medical Center, "Here we report a clinical study of the combination of bevacizumab and RO4929097, an inhibitor of the notch signaling cascade. A phase I clinical trial was conducted through the Adult Brain Tumor Consortium in subjects with recurrent malignant glioma. Primary objectives were to assess safety and to define the maximum tolerated dose of RO4929097 in combination with bevacizumab. Secondary objectives were to determine overall survival, progression free survival, radiographic response, pharmacokinetic evaluation, and tissue biomarker analysis. Thirteen subjects were enrolled. Of the three subjects treated with the highest dose of RO4929097, one grade 3 toxicity and one grade 2 toxicity were observed. Definitive maximum tolerated dose of RO4929097 in combination with bevacizumab was not identified due to manufacturer's decision to halt drug production. 2 of 12 evaluable subjects demonstrated radiographic response; one subject experienced CR and the second PR. The median overall survival was 10.9 months with a median progression-free survival of 3.7 months. Two subjects remained free of disease progression at 6 months from treatment initiation. PK evaluation did not identify clinically significant drug-drug interactions. All analyzed tissue specimens revealed activation of notch signaling. Combination of RO4929097 and bevacizumab was well-tolerated."

According to the news reporters, the research concluded: "Given the compelling scientific rationale, additional studies of antiangiogenic and notch signaling inhibitors should be considered."

For more information on this research see: Phase I study of RO4929097 with bevacizumab in patients with recurrent malignant glioma. Journal of Neuro-Oncology, 2016;130(3):571-579. Journal of Neuro-Oncology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of Neuro-Oncology - www.springerlink.com/content/0167-594x/)

Our news journalists report that additional information may be obtained by contacting E. Pan, UT Southwestern Med Center, Simmons Comprehns Canc Center, Dept. of Med, Dallas, TX 75390, United States. Additional authors for this research include J.G. Supko, T.J. Kaley, N.A. Butowski, T. Cloughesy, J. Jung, S. Desideri, S. Grossman, X.B. Ye and D.M. Park.

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Autoimmune Diseases and Conditions - Multiple...

Findings from University of Texas Southwestern Yields New Findings on Multiple Sclerosis (CD40-Mediated NF-kappa B Activation in B Cells Is Increased in Multiple Sclerosis and Modulated by Therapeutics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions
Multiple Sclerosis. According to news originating from Dallas, Texas, by NewsRx correspondents, research stated, "CD40 interacts with CD40L and plays an essential role in immune regulation and homeostasis. Recent research findings, however, support a pathogenic role of CD40 in a number of autoimmune diseases."

Our news journalists obtained a quote from the research from the University of Texas Southwestern, "We previously showed that memory B cells from relapsing remitting multiple sclerosis (RRMS) patients exhibited enhanced proliferation with CD40 stimulation compared with healthy donors. In this study, we used a multiparameter phosflow approach to analyze the phosphorylation status of NF-kappa B and three major MAPKs (P38, ERK, and JNK), the essential components of signaling pathways downstream of CD40 engagement in B cells from MS patients. We found that memory and naive B cells from RRMS and secondary progressive MS patients exhibited a significantly elevated level of phosphorylated NF-kappa B (p-P65) following CD40 stimulation compared with healthy donor controls. Combination therapy with IFN-beta-1a (Avonex) and mycophenolate mofetil (Cellcept) modulated the hyperphosphorylation of P65 in B cells of RRMS patients at levels similar to healthy donor controls. Lower disease activity after the combination therapy correlated with the reduced phosphorylation of P65 following CD40 stimulation in treated patients."

According to the news editors, the research concluded: "Additionally, glatiramer acetate treatment also significantly reduced CD40-mediated P65 phosphorylation in RRMS patients, suggesting that reducing CD40-mediated p-P65 induction may be a general mechanism by which some current therapies modulate MS disease."

For more information on this research see: CD40-Mediated NF-kappa B Activation in B Cells Is Increased in Multiple Sclerosis and Modulated by Therapeutics. *Journal of Immunology*, 2016;197(11):4257-4265. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news correspondents report that additional information may be obtained from N.L. Monson, Univ Texas Southwestern Med Center Dallas, Dept. of Immunol, Dallas, TX 75390, United States. Additional authors for this research include S.J. Ireland, G. Remington, E. Alvarez, M.K. Racke, B. Greenberg, E.M. Frohman and N.L. Monson.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Autoimmune Diseases and Conditions of the Nervous System, Immune System Diseases and Conditions, Demyelinating Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Transcription Factors, DNA-Binding Proteins, Multiple Sclerosis, Nuclear Proteins, Neuroimmunology, NF-kappa B, Neurology, University of Texas Southwestern.

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**Oncology - Pancreatic Cancer**

Findings from University of Texas Update Knowledge of Pancreatic Cancer (Identification of KIAA1199 as a Biomarker for Pancreatic Intraepithelial Neoplasia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Pancreatic Cancer are presented in a new report.
According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Pancreatic cancer is one of the most aggressive cancers and has an extremely poor prognosis. Despite recent progress in both basic and clinical research, most pancreatic cancers are detected at an incurable stage owing to the absence of disease-specific symptoms."

The news correspondents obtained a quote from the research from the University of Texas, "Thus, developing novel approaches for detecting pancreatic cancer at an early stage is imperative. Our in silico and immunohistochemical analyses showed that KIAA1199 is specifically expressed in human pancreatic cancer cells and pancreatic intraepithelial neoplasia, the early lesion of pancreatic cancer, in a genetically engineered mouse model and in human patient samples. We also detected secreted KIAA1199 protein in blood samples obtained from pancreatic cancer mouse models, but not in normal mice. Furthermore, we found that assessing KIAA1199 autoantibody increased the sensitivity of detecting pancreatic cancer."

According to the news reporters, the research concluded: "These results indicate the potential benefits of using KIAA1199 as a biomarker for early-stage pancreatic cancer."

For more information on this research see: Identification of KIAA1199 as a Biomarker for Pancreatic Intraepithelial Neoplasia. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting J.I. Park, Univ Texas MD Anderson Canc Center, Program Canc Biol, Houston, TX 77030, United States. Additional authors for this research include S. Jun, A.Y. Oh, M. Srivastava, S. Lee, C.M. Taniguchi, S.L. Zhang, W.S. Lee, J.J. Chen, B.J. Park and J.I. Park.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Pancreatic Neoplasms, Pancreatic Cancer, Gastroenterology, Neoplasia, Oncology, Genetics, Pancreas, University of Texas.

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Oncology - Lung Cancer

Findings from University of Texas Update Understanding of Lung Cancer (The IASLC Mesothelioma Staging Project: Proposals for Revisions of the N Descriptors in the Forthcoming Eighth Edition of the TNM Classification for Pleural Mesothelioma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "Nodal categories for malignant pleural mesothelioma are derived from the lung cancer staging system and have not been adequately validated. The International Association for the Study of Lung Cancer developed a multinational database to generate evidence-based recommendations to inform the eighth edition of the TNM classification of malignant pleural mesothelioma."

Financial support for this research came from National Institutes of Health/National Cancer Institute Cancer Center.

Our news journalists obtained a quote from the research from the University of...
Texas, "Data from 29 centers were entered prospectively (n = 1566) or by transfer of retrospective data (n = 1953). Survival according to the seventh edition N categories was evaluated using Kaplan-Meier survival curves and Cox proportional hazards regression analysis. Survival was measured from the date of diagnosis. There were 2432 analyzable cases: 1603 had clinical (c) staging, 1614 had pathologic (p) staging, and 785 had both. For clinically staged tumors there was no separation in Kaplan-Meier curves between cNO, cN1 or cN2 (cN1 versus cNO hazard ratio [HR] = 1.06, p = 0.77 and cN2 versus cN1 HR = 1.04, p = 0.85). For pathologically staged tumors, patients with pN1 or pN2 tumors had worse survival than those with pN0 tumors (HR = 1.51, p< 0.0001) but no survival difference was noted between those with pN1 and pN2 tumors (HR = 0.99, p = 0.99). Patients with both pN1 and pN2 nodal involvement had poorer survival than those with pN2 tumors only (HR = 1.60, p = 0.007) or pN0 tumors (HR = 1.62, p< 0.0001). A recommendation to collapse both clinical and pN1 and pN2 categories into a single N category comprising ipsilateral, intrathoracic nodal metastases (N1) will be made for the eighth edition. staging system."

According to the news editors, the research concluded: "Nodes previously categorized as N3 will be reclassified as N2."


The news correspondents report that additional information may be obtained from D. Rice, Univ Texas MD Anderson Canc Center, Houston, TX, United States. Additional authors for this research include K. Chansky, A. Nowak, H. Pass, H. Kindler, L. Shemanski, I. Opitz, S. Call, S. Hasegawa, K. Kernstine, C. Atinkaya, F. Rea, P. Nafteux and V.W. Rusch.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtho.2016.09.121. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Lung Neoplasms, Mesotheliomas, Lung Cancer, Oncology, University of Texas.

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Drugs and Therapies - Central Nervous System Agents

Findings from University of Texas in the Area of Central Nervous System Agents Described (Effects of Lorcaserin on Cocaine and Methamphetamine Self-Administration and Reinstatement of Responding Previously Maintained by Cocaine in Rhesus Monkeys)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Central Nervous System Agents. According to news reporting from San Antonio, Texas, by NewsRx journalists, research stated, "Stimulant abuse is a serious public health issue for which there is no effective pharmacotherapy. The serotonin(2C) [5-hydroxytryptamine(2C) (5-HT2C)] receptor agonist
lorcaserin decreases some abuse-related effects of cocaine in monkeys and might be useful for treating stimulant abuse."

The news correspondents obtained a quote from the research from the University of Texas, "The current study investigated the effectiveness of lorcaserin to reduce self-administration of either cocaine or methamphetamine and cocaine-induced reinstatement of extinguished responding. Four rhesus monkeys responded under a progressive-ratio (PR) schedule in which the response requirement increased after each cocaine infusion (32-320 µg/kg/infusion). A separate group of four monkeys responded under a fixed-ratio (FR) schedule for cocaine (32 µg/kg/infusion) and reinstatement of extinguished responding was examined following administration of noncontingent infusions of cocaine (0.1-1 mg/kg) that were combined with response-contingent presentations of the drug-associated stimuli. Finally, three monkeys responded under a FR schedule for methamphetamine (0.32-100 µg/kg/infusion). Lorcaserin (3.2 mg/kg) significantly decreased the final ratio completed (i.e., decreased break point) in monkeys responding under the PR schedule and reduced the reinstatement of responding for drug-associated stimuli following a noncontingent infusion of cocaine; these effects did not appear to change when lorcaserin was administered daily. The same dose of lorcaserin decreased responding for methamphetamine in two of the three monkeys, and the effect was maintained during daily lorcaserin administration; larger doses given acutely (10-17.8 mg/kg) significantly decreased responding for methamphetamine, although that effect was not sustained during daily lorcaserin administration."

According to the news reporters, the research concluded: "Together, these results indicate that lorcaserin might be effective in reducing cocaine and methamphetamine abuse and cocaine relapse at least in some individuals."


Our news journalists report that additional information may be obtained by contacting C.P. France, Univ Texas Hlth Sci Center San Antonio, Dept. of Psychiat, San Antonio, TX 78229, United States. Additional authors for this research include G.T. Collins and C.P. France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.236307. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Antonio, Texas, United States, North and Central America, Central Nervous System Agents, Drugs and Therapies, Organic Chemicals, Methamphetamine, CNS Stimulants, Ethylamines, Anorexiants, University of Texas.

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Gram-Negative Bacteria - Pseudomonas putida

Findings from University of Tokyo in the Area of Pseudomonas putida Reported (Effects of carbazole-degradative plasmid pCAR1 on biofilm morphology in Pseudomonas putida KT2440)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Pseudomonas putida are presented in a new report. According to news reporting originating in Bunkyo ku, Japan, by NewsRx journalists, research stated, "Bacteria typically form biofilms under natural conditions. To elucidate the effect of the carriage of carbazole-degradative plasmid pCAR1 on biofilm formation by host bacteria, we compared the biofilm morphology, using confocal laser scanning microscopy, of three pCAR1-free and pCAR1-carrying Pseudomonas hosts: P. putida KT2440, P. aeruginosa PAO1 and P. fluorescens Pf0-1."

Financial support for this research came from JSPS KAKENHI.

The news reporters obtained a quote from the research from the University of Tokyo, "Although pCAR1 did not significantly affect biofilm formation by PAO1 or Pf0-1, pCAR1-carrying KT2440 became filamentous and formed flat biofilms, whereas pCAR1-free KT2440 formed mushroom-like biofilms. pCAR1 contains three genes encoding nucleoid-associated proteins (NAPs), namely, Pmr, Pnd and Phu. The enhanced filamentous morphology was observed in two double mutants [KT2440(pCAR1DpmrDpnd) and KT2440 (pCAR1DpmrDphu)], suggesting that these NAPs are involved in modulating the filamentous phenotype. Transcriptome analyses of the double mutants identified 32 candidate genes that may be involved in filamentation of KT2440. Overexpression of PP_2193 in KT2440 induced filamentation and overexpression of PP_0308 or PP_0309 in KT2440(pCAR1) enhanced filamentation of cells over time. This suggests that pCAR1 induces development of an abnormal filamentous morphology by KT2440 via a process involving overexpression of several genes, such as PP_2193."

According to the news reporters, the research concluded: "In addition, pCAR1-encoded NAPs partly suppress too much filamentation of KT2440(pCAR1) by repressing transcription of some genes, such as PP_0308 and PP_0309."


Our news correspondents report that additional information may be obtained by contacting S. Lee, Biotechnology Research Center, The University of Tokyo, 1-1-1 Yayoi, Bunkyo-ku, Tokyo, 113-8657, Japan. Additional authors for this research include Y. Takahashi, H. Oura, C. Suzuki-Minakuchi, K. Okada, H. Yamane, N. Nomura and H. Nojiri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1758-2229.12376. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Genetics, Bunkyo ku, Pseudomonadaceae, Pseudomonas putida, Gammaproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria, Gram Negative Aerobic Bacteria, Gram Negative Aerobic Rods and Cocci.

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Steatosis

Findings from University of Toledo Yields New Findings on Steatosis [Glucocorticoid Receptor beta Induces Hepatic Steatosis by Augmenting Inflammation and Inhibition of the Peroxisome Proliferator-activated Receptor (PPAR) alpha]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Steatosis have been published. According to news reporting out of Toledo, Ohio, by NewsRx editors, research stated, "Glucocorticoids (GCs) regulate energy supply in response to stress by increasing hepatic gluconeogenesis during fasting. Long-term GC treatment induces hepatic steatosis and weight gain."

Our news journalists obtained a quote from the research from the University of Toledo, "GC signaling is coordinated via the GC receptor (GR) GR alpha, as the GR beta isoform lacks a ligand-binding domain. The roles of the GR isoforms in the regulation of lipid accumulation is unknown. The purpose of this study was to determine whether GR beta inhibits the actions of GCs in the liver, or enhances hepatic lipid accumulation. We show that GR beta expression is increased in adipose and liver tissues in obese high-fat fed mice. Adenovirus-mediated delivery of hepatic GR beta overexpression (GR beta-Ad) resulted in suppression of gluconeogenic genes and hyperglycemia in mice on a regular diet. Furthermore, GR beta-Ad mice had increased hepatic lipid accumulation and serum triglyceride levels possibly due to the activation of NF-kappa B signaling and increased tumor necrosis factor alpha (TNF alpha) and inducible nitric-oxide synthase expression, indicative of enhanced M1 macrophages and the development of steatosis. Consequently, GR beta-Ad mice had increased glycogen synthase kinase 3 beta (GSK3 beta) activity and reduced hepatic PPAR alpha and fibroblast growth factor 21 (FGF21) expression and lower serum FGF21 levels, which are two proteins known to increase during fasting to enhance the burning of fat by activating the beta-oxidation pathway."

According to the news editors, the research concluded: "GR beta antagonizes the GC-induced signaling during fasting via GR alpha and the PPAR alpha-FGF21 axis that reduces fat burning. Furthermore, hepatic GR beta increases inflammation, which leads to hepatic lipid accumulation."


Our news journalists report that additional information may be obtained by contacting T.D. Hinds, University of Toledo, Coll Med, Center Hypertens & Personalized Med, Dept. of Physiol & Pharmacol, Toledo, OH 43614, United States. Additional authors for this research include L.A. Stechschulte, D.E. Stec, A. Nestor-Kalinoski, S. Coleman and T.D. Hinds.

Keywords for this news article include: Toledo, Ohio, United States, North and Central America, Peroxisome Proliferator-Activated Receptors, Cytoplasmic and Nuclear Receptors, Glucocorticoid Receptors, Adrenal Cortex Hormones, Diseases and Conditions,
Findings from University of Toronto Broaden Understanding of Clinical Trials and Studies (Integrated safety of levodopa-carbidopa intestinal gel from prospective clinical trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Research - Clinical Trials and Studies. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "Continuous administration of levodopa-carbidopa intestinal gel (carbidopa-levodopa enteral suspension) through a percutaneous endoscopic gastrojejunostomy is a treatment option for advanced Parkinson disease (PD) patients with motor fluctuations resistant to standard oral medications. Safety data from 4 prospective studies were integrated to assess the safety of this therapy.”

Financial support for this research came from AbbVie Inc.

Our news journalists obtained a quote from the research from the University of Toronto, "Safety data from 4 studies were summarized using 2 overlapping data sets, permitting the separation of procedure/device-associated (n=395) from non-procedure/device adverse events (n=412). At the data cutoff, median exposure to levodopa-carbidopa intestinal gel was 911 days (range, 1-1980 days) with 963 total patient-years of exposure. Procedure/device adverse events occurred in 300 patients (76%), and serious adverse events occurred in 68 (17%); most frequently reported procedure/device adverse events and serious adverse events were complications of device insertion (41% and 8%, respectively) and abdominal pain (36% and 4%, respectively). Non-procedure/device adverse events occurred in 92% (379), with most frequently reported being insomnia (23%) and falls (23%); 42% (171) had non-procedure/device serious adverse events, with most frequently reported being pneumonia (5%) and PD symptoms (2%). Adverse events led to discontinuation in 17% (72), most frequently because of complication of device insertion (2.4%). There were 34 treatment-emergent deaths (8.3%) in the overlapping data sets, 2 of which (0.5%) were considered 'possibly related' to the treatment system. In the largest collection of levodopa-carbidopa intestinal gel safety data from prospective clinical studies, procedure/device events were frequently reported and occasionally life threatening. Most non-procedure/device events were typical for levodopa treatment and an elderly population."  

According to the news editors, the research concluded: "These factors combined with high treatment efficacy led to a relatively low discontinuation rate in advanced PD patients."


Our news journalists report that additional information may be obtained by contacting A.E. Lang, Morton and Gloria Shulman Movement Disorders Clinic and the Edmond
Hematologic Diseases and Conditions - Sickle Cell...

Findings from University of Toronto Broaden Understanding of Sickle Cell Anemia (MRI-based cerebrovascular reactivity using transfer function analysis reveals temporal group differences between patients with sickle cell disease and healthy ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematologic Diseases and Conditions - Sickle Cell Anemia. According to news reporting from Toronto, Canada, by NewsRx journalists, research stated, "Cerebrovascular reactivity (CVR) measures the ability of cerebral blood vessels to change their diameter and, hence, their capacity to regulate regional blood flow in the brain. High resolution quantitative maps of CVR can be produced using blood-oxygen level-dependent (BOLD) magnetic resonance imaging (MRI) in combination with a carbon dioxide stimulus, and these maps have become a useful tool in the clinical evaluation of cerebrovascular disorders."

Financial supporters for this research include Canadian Institutes of Health Research, Canada Research Chairs.

The news correspondents obtained a quote from the research from the University of Toronto, "However, conventional CVR analysis does not fully characterize the BOLD response to a stimulus as certain regions of the brain are slower to react to the stimulus than others, especially in disease. Transfer function analysis (TFA) is an alternative technique that can account for dynamic temporal relations between signals and has recently been adapted for CVR computation. We investigated the application of TFA in data on children with sickle cell disease (SCD) and healthy controls, and compared them to results derived from conventional CVR analysis. Data from 62 pediatric patients with SCD and 34 age-matched healthy controls were processed using conventional CVR analysis and TFA. BOLD data were acquired on a 3 Tesla MRI scanner while a carbon dioxide stimulus was quantified by sampling the end-tidal partial pressures of each exhaled breath. In addition, T1 weighted structural imaging was performed to identify grey and white matter regions for analysis. The TFA method generated maps representing both the relative magnitude change of the BOLD signal in response to the stimulus..."
(Gain), as well as the BOLD signal speed of response (Phase) for each subject. These were compared to CVR maps calculated from conventional analysis. The effect of applying TFA on data from SCD patients versus controls was also examined. The Gain measures derived from TFA were significantly higher than CVR values based on conventional analysis in both SCD patients and healthy controls, but the difference was greater in the SCD data. Moreover, while these differences were uniform across the grey and white matter regions of controls, they were greater in white matter than grey matter in the SCD group. Phase was also shown to be significantly correlated with the amount that TFA increases CVR estimates in both the grey and white matter. We demonstrated that conventional CVR analysis underestimates vessel reactivity and this effect is more prominent in patients with SCD. By using TFA, the resulting Gain and Phase measures more accurately characterize the BOLD response as it accounts for the temporal dynamics responsible for the CVR underestimation.”

According to the news reporters, the research concluded: "We suggest that the additional information offered through TFA can provide insight into the mechanisms underlying CVR compromise in cerebrovascular diseases."


Our news journalists report that additional information may be obtained by contacting A. Kassner, University of Toronto, Dept. of Med Imaging, Toronto, ON, Canada. Additional authors for this research include J. Duffin, J.A. Fisher and A. Kassner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.09.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Hematologic Diseases and Conditions, Sickle Cell Anemia, Carbon Dioxide, Hematology, Chemicals, University of Toronto.

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Health and Medicine - Clinical Epidemiology

Findings from University of Toronto in the Area of Clinical Epidemiology Described (A third of systematic reviews changed or did not specify the primary outcome: a PROSPERO register study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Health and Medicine - Clinical Epidemiology. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "To examine outcome reporting bias of systematic reviews registered in PROSPERO. Retrospective cohort study."

Our news editors obtained a quote from the research from the University of Toronto, "The primary outcomes from systematic review publications were compared with those reported in the corresponding PROSPERO records; discrepancies in the primary outcomes were assessed as upgrades, additions, omissions, or downgrades. Relative risks (RRs) and 95% confidence
intervals (CI) were calculated to determine the likelihood of having a change in primary outcome when the meta-analysis result was favorable and statistically significant. Ninety-six systematic reviews were published. A discrepancy in the primary outcome occurred in 32% of the included reviews and 39% of the reviews did not explicitly specify a primary outcome(s); 6% of the primary outcomes were omitted. There was no significant increased risk of adding/upgrading (RR, 2.14; 95% CI: 0.53, 8.63) or decreased risk of downgrading (RR, 0.76; 95% CI: 0.27, 2.17) an outcome when the meta-analysis result was favorable and statistically significant As well, there was no significant increased risk of adding/upgrading (RR, 0.89; 95% CI: 0.31, 2.53) or decreased risk of downgrading (RR, 0.56; 95% CI: 0.29, 1.08) an outcome when the conclusion was positive."

According to the news editors, the research concluded: "We recommend review authors carefully consider primary outcome selection, and journals are encouraged to focus acceptance on registered systematic reviews." For more information on this research see: A third of systematic reviews changed or did not specify the primary outcome: a PROSPERO register study. Journal of Clinical Epidemiology, 2016;79():46-54. Journal of Clinical Epidemiology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Journal of Clinical Epidemiology - www.journals.elsevier.com/journal-of-clinical-epidemiology/)

The news editors report that additional information may be obtained by contacting A.C. Tricco, University of Toronto, Dalla Lana Sch Public Hlth, Div Epidemiol, Toronto, ON M5T 3M7, Canada. Additional authors for this research include E. Cogo, M.J. Page, J. Polisena, A. Booth, K. Dwan, H. MacDonald, T.J. Clifford, L.A. Stewart, S.E. Straus and D. Moher. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinepi.2016.03.025. This DOI is a link to an online electronic document that is either free or for purchase. Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Clinical Epidemiology, Health and Medicine, Article Review, Epidemiology, University of Toronto.

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Oncology - Breast Cancer

Findings from University of Turin Broadens Understanding of Breast Cancer (Luminal long non-coding RNAs regulated by estrogen receptor alpha in a ligand-independent manner show functional roles in breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting out of Turin, Italy, by NewsRx editors, research stated, "Estrogen Receptor alpha (ERa) activation by estrogenic hormones induces luminal breast cancer cell proliferation. However, ERa plays also important hormone-independent functions to maintain breast tumor cells epithelial phenotype."

Our news journalists obtained a quote from the research from the University of Turin, "We reported previously by RNA-Seq that in MCF-7 cells in absence of hormones ERa
down-regulation changes the expression of several genes linked to cellular development, representing a specific subset of estrogen-induced genes. Here, we report regulation of long non-coding RNAs from the same experimental settings. A list of 133 Apo-ERα-Regulated IncRNAs (AER-IncRNAs) was identified and extensively characterized using published data from cancer cell lines and tumor tissues, or experiments on MCF-7 cells. For several features, we ran validation using cell cultures or fresh tumor biopsies. AER-IncRNAs represent a specific subset, only marginally overlapping estrogen-induced transcripts, whose expression is largely restricted to luminal cells and which is able to perfectly classify breast tumor subtypes. The most abundant AER-IncRNA, DSCAM-AS1, is expressed in ERα+ breast carcinoma, but not in pre-neoplastic lesions, and correlates inversely with EMT markers. Down-regulation of DSCAM-AS1 recapitulated, in part, the effect of silencing ERα, i.e. growth arrest and induction of EMT markers."

According to the news editors, the research concluded: "We report an ERα-dependent IncRNA set representing a novel luminal signature in breast cancer cells."

For more information on this research see: Luminal long non-coding RNAs regulated by estrogen receptor alpha in a ligand-independent manner show functional roles in breast cancer. Oncotarget, 2016;7(3):3201-16.

Our news journalists report that additional information may be obtained by contacting V. Miano, Center for Molecular Systems Biology, University of Turin, Turin, Italy. Additional authors for this research include G. Ferrero, S. Reineri, L. Caizzi, L. Annaratone, L. Ricci, S. Cutrupi, I. Castellano, F. Cordero and M. De Bortoli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6420. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turin, Italy, Europe, Genetics, Hormones, Oncology, Breast Cancer, Women's Health, Steroid Receptors, DNA Binding Proteins, Transcription Factors, Estrogen Receptor alpha.

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Neurodegenerative Diseases and Conditions -...

Findings from University of Ulm Broaden Understanding of Creutzfeldt-Jakob Disease (Neurofilaments in blood and CSF for diagnosis and prediction of onset in Creutzfeldt-Jakob disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Creutzfeldt-Jakob Disease. According to news reporting from Ulm, Germany, by NewsRx journalists, research stated, "While cerebrospinal fluid (CSF) biomarkers for Creutzfeldt-Jakob disease (CJD) are established and partly included in the diagnostic criteria, no blood biomarkers are available. Here, we assessed the utility of serum neurofilament light chain (NF-L) and tau protein in comparison to CSF markers (NF-L and phosphorylated NF heavy chain (pNF-H), tau, S100B, 14-3-3) and prion conversion assay (realtime quaking induced conversion (RT-QuIC)) for sporadic and genetic CJD."

The news correspondents obtained a quote from the research from the University of Ulm, "Importantly, a Gerstmann-Straussler-Scheinker mutation carrier in the asymptomatic
phase and at disease onset was included as well. Both NF-L and tau were markedly increased in CJD serum, reaching similar or even better performance as in CSF (sensitivity and specificity for serum NF-L 100% and 85.5%, and for serum tau 84.6% and 96.2%, respectively). Serum S100B showed high sensitivity as well (84.2%), but lower specificity (63%). CSF neurofilaments were increased before symptom onset, while prion seeding assay was negative. Just before a clinical diagnosis could be made, all CSF markers and NF-L in the serum were increased and CSF prion conversion assay was positive."

According to the news reporters, the research concluded: "The data suggest that neurofilaments are sensitive and specific blood markers for the diagnosis of genetic and sporadic CJD and might represent promising tools to predict disease onset."


Our news journalists report that additional information may be obtained by contacting M. Otto, Univ Ulm, Dept. of Neurol, Ulm, Germany. Additional authors for this research include K. Blennow, S. Hallgebauer, S. Shi, V. Ruf, P. Oeckl, A. Giese, J. Kuhle, D. Slivarichova, H. Zetterberg and M. Otto.

Keywords for this news article include: Ulm, Germany, Europe, Neurodegenerative Diseases and Conditions, Diagnostics and Screening, Central Nervous System Diseases and Conditions, Central Nervous System Infections, Prion Diseases and Conditions, Creutzfeldt-Jakob Disease, Genetics, University of Ulm.

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Drugs and Therapies - Testosterone Congeners

Findings from University of Utrecht Update Knowledge of Testosterone Congeners (Where does hydrolysis of nandrolone decanoate occur in the human body after release from an oil depot?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Testosterone Congeners have been published. According to news reporting from Utrecht, Netherlands, by NewsRx journalists, research stated, "Long-term therapy of nandrolone (N) is recommended to increase mineral density and muscle strength. Using a parenteral sustained release drug formulation with nandrolone decanoate (ND), therapeutic N levels can be achieved and maintained."

The news correspondents obtained a quote from the research from the University of Utrecht, "Until now, it is unknown if hydrolysis of ND into N occurs in tissue at the injection site or after systemic absorption. Therefore, hydrolysis studies were conducted to investigate the location and rate of ND hydrolysis after its release from the oil depot. ND hydrolysis was studied in porcine tissues, to mimic the human muscular and subcutaneous tissues. Additionally, the ND hydrolysis was studied in human whole blood, plasma and serum at a concentration range of 23.3-233.3 μM. ND hydrolysis only occurred in human whole blood. The hydrolysis did not start immediately, but after a lag time. The mean lag time for all studied concentrations was 34.9 +/- 2.5 min. Because of a slow penetration into tissue, hydrolysis of ND is found to be
very low in surrounding tissue. Therefore the local generation of the active compound is clinically irrelevant. It is argued that after injection of the oil depot, ND molecules will be transported via the lymphatic system towards lymph nodes."

According to the news reporters, the research concluded: "From here, it will enter the central circulation and within half an hour it will hydrolyse to the active N compound."

For more information on this research see: Where does hydrolysis of nandrolone decanoate occur in the human body after release from an oil depot? International Journal of Pharmaceutics, 2016;515(1-2):721-728. International Journal of Pharmaceutics can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www elsevier com; International Journal of Pharmaceutics - www journals elsevier com international journal of pharmaceutics/)

Our news journalists report that additional information may be obtained by contacting R.W. Kalicharan, University of Utrecht, UIPS, Dept. of Pharmaceut, NL-3508 TB Utrecht, Netherlands. Additional authors for this research include M.R. Bout, C. Oussoren and H. Vromans.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.068. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Utrecht, Netherlands, Europe, Nandrolone Decanoate Therapy, Testosterone Congeners, Drugs and Therapies, Gonadal Hormones, Pharmaceuticals, University of Utrecht.

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Central Nervous System Diseases and Conditions -…

Findings from University of Verona Has Provided New Data on Epilepsy (Melatonin as add-on treatment for epilepsy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting from Verona, Italy, by NewsRx journalists, research stated, "This is an updated version of the original Cochrane review published in Issue 6, 2012. Epilepsy is one of the most common chronic neurological disorders."

The news correspondents obtained a quote from the research from the University of Verona, "Despite the plethora of antiepileptic drugs (AEDs) currently available, 30% of people continue having seizures. This group of people requires a more aggressive treatment, since monotherapy, the first choice scheme, fails to control seizures. Nevertheless, polytherapy often results in a number of unwanted effects, including neurological disturbances (somnolence, ataxia, dizziness), psychiatric and behavioural symptoms, andmetabolic alteration (osteoporosis, induction or inhibition of hepatic enzymes, etc.). The need for better tolerated AEDs is even more urgent in this group of people. Reports have suggested an antiepileptic role of melatonin with a good safety profile. To assess the efficacy and tolerability of melatonin as add-on treatment for epilepsy. Search methods For the latest update, we searched the Cochrane Epilepsy Group's Specialized Register (12 January 2016), the Cochrane Central Register of Controlled Trials (CENTRAL) via the Cochrane Register of Studies Online (CRSO, 12 January 2016), and MEDLINE (Ovid, 11 January 2016). We searched the bibliographies of any identified study for further references. We handsearched selected journals and conference
proceedings. We applied no language restrictions. In addition, we contacted melatonin manufacturers (i.e. Nathura) and original investigators to identify any unpublished studies. Selection criteria Randomized controlled trials; double, single, or unblinded trials; parallel group or cross-over studies. People with epilepsy regardless of age and gender, including children and adults with disabilities. Administration of melatonin as add-on treatment to any AED(s) compared to add-on placebo or no add-on treatment. Data collection and analysis Review authors independently selected trials for inclusion according to pre-defined criteria, extracted relevant data, and evaluated the methodological quality of trials. We assessed the following outcomes: at least 50% seizure reduction, seizure freedom, adverse events, and quality of life. We included six publications, with 125 participants (106 aged under 18 years). Two different comparisons were available: melatonin versus placebo and melatonin 5 mg versus melatonin 10 mg. Despite our primary intention, due to insufficient information on outcomes, we were unable to perform any meta-analyses, but summarized data narratively. Four studies were randomized, double-blind, cross-over, placebo-controlled trials and two were randomized, double-blind, parallel, placebo-controlled trials. Only two studies provided the exact number of seizures during the trial compared to the baseline: none of the participants with seizures during the trial had a change in seizure frequency compared with the baseline. Two studies systematically evaluated adverse effects (worsening of headache was reported in a child with migraine under melatonin treatment). Only one study systematically evaluated quality of life, showing no statistically significant improvement in quality of life in the add-on melatonin group. Authors' conclusions Included studies were of poor methodological quality, and did not systematically evaluate seizure frequency and adverse events, so that it was impossible to summarize data in a meta-analysis."

According to the news reporters, the research concluded: "It is not possible to draw any conclusion about the role of melatonin in reducing seizure frequency or improving quality of life in people with epilepsy."

For more information on this research see: Melatonin as add-on treatment for epilepsy. *Cochrane Database of Systematic Reviews*, 2016;(8):2144-2172. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting F. Brigo, University of Verona, Neurol Sect, Dept. of Neurol Biomed & Movement Sci, I-37134 Verona, Italy. Additional authors for this research include S.C. Igwe and A. Del Felice.

Keywords for this news article include: Verona, Italy, Europe, Central Nervous System Diseases and Conditions, Quality of Life, Article Review, Brain Diseases and Conditions, Clinical Trials and Studies, Neurologic Manifestations, Free Radical Scavenger, Drugs and Therapies, Melatonin Therapy, Clinical Research, Anticonvulsants, Antiepileptics, Antioxidants, Seizures, Epilepsy, Adjuvant, Hormones, University of Verona.

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*Findings from University of Verona in the Area of Type 2 Diabetes Reported (Evidence of left atrial remodeling and left ventricular diastolic dysfunction in type 2 diabetes mellitus with preserved systolic function)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting originating from Verona, Italy, by NewsRx correspondents, research stated, "Prognosis of type 2 diabetes is associated with the occurrence of cardiovascular diseases. Left atrial (LA) size is a predictor of outcome in several diseases, including diabetes."

Our news editors obtained a quote from the research from the University of Verona, "Long duration of diabetes is an established risk factor of poor prognosis. No data are available on the relationship between LA size and duration of diabetes. The present study was aimed to investigate the relationship between LA volume index (LAVI) and the duration of diabetes to test the hypothesis that LA volume will increase as a function of diabetes duration. Forty-four male patients with newly diagnosed and 172 male patients with established type 2 diabetes were recruited for this cross-sectional study. All patients were evaluated with a transthoracic echocardiographic Doppler. About 28.2% of patients had increased LAVI. Indices of both diastolic and systolic function were significantly lower in patients with larger left atrium. The values of LAVI increased across classes of duration of diabetes. In multivariable analysis, longer duration was a predictor of LAVI >= 34 ml/m2 (odds ratio 1.65, 95% CI 1.11 -2.46, p = 0.014) after adjusting for age, hemoglobin A1c, hypertension, microvascular complication status, and relevant echocardiographic parameters of systolic and diastolic function. These results indicate that duration of diabetes is strongly and positively associated with larger LAVI in type 2 diabetic men with preserved systolic function."

According to the news editors, the research concluded: "Future studies are needed to better elucidate the biological mechanisms underlying linking type 2 diabetes with abnormally increased LAVI in subjects with type 2 diabetes."

For more information on this research see: Evidence of left atrial remodeling and left ventricular diastolic dysfunction in type 2 diabetes mellitus with preserved systolic function. Nutrition Metabolism and Cardiovascular Diseases, 2016;26(11):1026-1032. Nutrition Metabolism and Cardiovascular Diseases can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England.

The news editors report that additional information may be obtained by contacting G. Zoppini, University of Verona, Azienda Osped Univ Integrata, Dept. of Med, Sect Endocrinol Diabet & Metab, Verona, Italy. Additional authors for this research include S. Bonapace, C. Bergamini, A. Rossi, M. Trombetta, L. Lanzoni, L. Bertolini, L. Zenari, E. Bonora and G. Targher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.numecc.2016.05.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Verona, Italy, Europe, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Glucose Metabolism Disorders, Diabetes Management, Risk and Prevention, Type 2 Diabetes, Endocrinology, Cardiology, University of Verona.

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Findings from University of Waikato Broaden Understanding of Breast Cancer (Urban Rural Differences in Breast Cancer in New Zealand)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting from Hamilton, New Zealand, by NewsRx journalists, research stated, "Many rural communities have poor access to health services due to a combination of distance from specialist services and a relative shortage of general practitioners. Our aims were to compare the characteristics of urban and rural women with breast cancer in New Zealand, to assess breast cancer-specific and all-cause survival using the Kaplan-Meier method and Cox proportional hazards model, and to assess whether the impact of rurality is different for Maori and New Zealand (NZ) European women."

The news correspondents obtained a quote from the research from the University of Waikato, "We found that rural women tended to be older and were more likely to be Maori. Overall there were no differences between urban and rural women with regards their survival. Rural Maori tended to be older, more likely to be diagnosed with metastatic disease and less likely to be screen detected than urban Maori. Rural Maori women had inferior breast cancer-specific survival and all-cause survival at 10 years at 72.1% and 55.8% compared to 77.9% and 64.9% for urban Maori."

According to the news reporters, the research concluded: "The study shows that rather than being concerned that more needs to be done for rural women in general it is rural Maori women where we need to make extra efforts to ensure early stage at diagnosis and optimum treatment."


Our news journalists report that additional information may be obtained by contacting R. Lawrenson, Univ Waikato, Natl Inst Demog & Econ Anal, Hamilton 3240, New Zealand. Additional authors for this research include C.H. Lao, M. Elwood, C. Brown, D. Sarfati and I. Campbell.

Keywords for this news article include: Hamilton, New Zealand, Australia and New Zealand, Women's Health, Breast Cancer, Oncology, University of Waikato.

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Findings from University of Waikato Yields New Data on Prostate Cancer (Communication networks of men facing a diagnosis of prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Prostate Cancer have been presented. According to news reporting out of Hamilton, New Zealand, by NewsRx editors, research
stated, "Aims and objectives. This study seeks to identify the factors that shape the communication networks of men who face a potential diagnosis of prostate cancer, and how these factors relate to their disclosure about their changing health status."

Financial support for this research came from University of Waikato and the Prostate Cancer Foundation of New Zealand.

Our news journalists obtained a quote from the research from the University of Waikato, "Men facing a potential diagnosis of prostate cancer are in a challenging situation; the support benefits of disclosing their changing health status to others in their communication networks is set against a backdrop of the potential stigma and uncertainty of the diagnosis. All men on a prostate biopsy waiting list were eligible for inclusion in an exploratory and interpretive study. Semi-structured interviews with 40 men explored their network structures and disclosure of health information. Thematic analysis highlighted the factors which contributed to their network structures and their disclosure about their health status. Four network factors shaped men's perspectives about disclosing their health status: (1) tie strength, comprising both strong and weak ties; (2) knowledgeable others, with a focus on medical professionals in the family; (3) homophily, which included other individuals with a similar medical condition; and (4) geographical proximity, with a preference for face-to-face communication. Communication networks influence men's disclosure of their health status and in particular weak ties with medical knowledge have an important role. Men who use the potential for support in their networks may experience improved psychosocial outcomes.

Relevance to clinical practice. Using these four network factors-tie strength, knowledgeable others, homophily or geographical proximity-to forecast men's willingness to disclose helps identify men who lack potential support and so are at risk of poor psychosocial health. Those with few strong ties or knowledgeable others in their networks may be in the at-risk cohort."

According to the news editors, the research concluded: "The support provided in communication networks complements formal medical care from nurses and other health professionals, and encouraging patients to use their communication networks improves the psychosocial health of the men themselves, their partners and their families."


Our news journalists report that additional information may be obtained by contacting D. Brown, Univ Waikato, Management Commun Department, Hamilton 3240, New Zealand. Additional authors for this research include J. Oetzel and A. Henderson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13369. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hamilton, New Zealand, Australia and New Zealand, Psychosocial, Risk and Prevention, Prostatic Neoplasms, Prostate Cancer, Oncology, University of Waikato.

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Findings from University of Washington Broaden Understanding of Hyperglycemia (Blood-Brain Barrier Disruption and Neurovascular Unit Dysfunction in Diabetic Mice: Protection with the Mitochondrial Carbonic Anhydrase Inhibitor Topiramate)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Hyperglycemia. According to news reporting out of Seattle, Washington, by NewsRx editors, research stated, "All forms of diabetes mellitus are characterized by chronic hyperglycemia, resulting in the development of a number of microvascular and macrovascular pathologies. Diabetes is also associated with changes in brain microvasculature, leading to dysfunction and ultimately disruption of the blood-brain barrier (BBB)."

Our news journalists obtained a quote from the research from the University of Washington, "These changes are correlated with a decline in cognitive function. In diabetes, BBB damage is associated with increased oxidative stress and reactive oxygen species. This occurs because of the increased oxidative metabolism of glucose caused by hyperglycemia. Decreasing the production of bicarbonate with the use of a mitochondrial carbonic anhydrase inhibitor (mCAi) limits oxidative metabolism and the production of reactive oxygen species."

According to the news editors, the research concluded: "In this study, we have demonstrated that 1) streptozotocin-induced diabetes resulted in BBB disruption, 2) ultrastructural studies showed a breakdown of the BBB and changes to the neurovascular unit (NVU), including a loss of brain pericytes and retraction of astrocytes, the two cell types that maintain the BBB, and 3) treatment with topiramate, a mCAi, attenuated the effects of diabetes on BBB disruption and ultrastructural changes in the neurovascular unit."

For more information on this research see: Blood-Brain Barrier Disruption and Neurovascular Unit Dysfunction in Diabetic Mice: Protection with the Mitochondrial Carbonic Anhydrase Inhibitor Topiramate. Journal of Pharmacology and Experimental Therapeutics, 2016;359(3):452-459. Journal of Pharmacology and Experimental Therapeutics can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

Our news journalists report that additional information may be obtained by contacting W.A. Banks, University of Washington, Div Gerontol & Geriatr Med, Dept. of Med, Seattle, WA, United States. Additional authors for this research include G.N. Shah, T.O. Price, M.R. Hayden and W.A. Banks.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.237057. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Carbonic Anhydrase Inhibitors, Glucose Metabolism Disorders, Enzymes and Coenzymes, Blood Brain Barrier, Blood-Brain Barrier, Carbonic Anhydrases, Drugs and Therapies, Enzyme Inhibitors, Endocrinology, Hyperglycemia, Hydro-Lyases, Diabetes, University of Washington.

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Heart Disorders and Diseases - Sinus Arrhythmia

Findings from University of Washington Provides New Data about Sinus Arrhythmia (Respiratory sinus arrhythmia as a potential measure in substance use treatment--outcome studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Sinus Arrhythmia have been published. According to news reporting from Seattle, Washington, by NewsRx journalists, research stated, "Dysfunction of physiological regulation systems may underlie the disrupted emotional and self-regulatory processes among people with substance use disorder (SUD). This paper reviews evidence as to whether or not respiratory sinus arrhythmia (RSA), as a psychophysiological index of emotional regulation, could provide useful information in treatment-outcome research to provide insights into recovery processes."

The news correspondents obtained a quote from the research from the University of Washington, "We reviewed the use of RSA in clinical research and studies on SUD treatment. Search terms for the review of RSA in clinical research included respiratory sinus arrhythmia, heart rate variability, vagal, cardiac vagal control, psychophysiology, intervention, treatment, mindfulness, mind-body, mental health, substance use, chemical dependence, regulation and emotion regulation. For the review of RSA in intervention studies, we included only those that provided adequate description of psychophysiological methods, and examined RSA in the context of an intervention study. RSA appears to be able to provide an index of self-regulatory capacity; however, it has been little used in either intervention or treatment research. Of the four intervention studies included in this review, all were mindfulness-based interventions. Two studies were with substance-using samples, and both showed pre-post increases in RSA and related improved substance use outcomes. Two of the three studies were randomized controlled trials (RCTs), and both showed significant increases in RSA in the experimental compared to comparison condition."

According to the news reporters, the research concluded: "Respiratory sinus arrhythmia may be a useful index of emotional regulation in people with substance use disorder, and a potential measure of underlying mechanisms for SUD treatment studies, particularly mindfulness-based interventions."


Our news journalists report that additional information may be obtained by contacting C.J. Price, Biobehavioral Nursing, University of Washington, Seattle, WA, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/add.13232. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Addiction* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Seattle, Washington, Cardiology, United States, Article Review, Sinus Arrhythmia, Clinical Research, North and Central America, Heart Disorders and Diseases - Sinus Arrhythmia.
Findings from University of Waterloo Has Provided New Information about *Escherichia coli* (Cinnamaldehyde Characterization as an Antibacterial Agent toward *E. coli* Metabolic Profile Using 96-Blade Solid-Phase Microextraction Coupled to Liquid ...)
Findings from University of Waterloo in the Area of Breast Cancer Described (Identification of potential compensatory muscle strategies in a breast cancer survivor population: A combined computational and experimental approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting originating in Waterloo, Canada, by NewsRx journalists, research stated, "Biomechanical models are often used to estimate the muscular demands of various activities. However, specific muscle dysfunctions typical of unique clinical populations are rarely considered."

Financial supporters for this research include Ontario Ministry of Research and Innovation, NSERC.

The news reporters obtained a quote from the research from the University of Waterloo, "Due to iatrogenic tissue damage, pectoralis major capability is markedly reduced in breast cancer population survivors, which could influence arm internal and external rotation muscular strategies. Accordingly, an optimization-based muscle force prediction model was systematically modified to emulate breast cancer population survivors through adjusting pectoralis capability and enforcing an empirical muscular co-activation relationship. Model permutations were evaluated through comparisons between predicted muscle forces and empirically measured muscle activations in survivors. Similarities between empirical data and model outputs were influenced by muscle type, hand force, pectoralis major capability and co-activation constraints. Differences in magnitude were lower when the co-activation constraint was enforced (-18.4% [31.9]) than unenforced (-23.5%[27.6]) (p < 0.0001). This research demonstrates that muscle dysfunction in breast cancer population survivors can be reflected through including a capability constraint for pectoralis major. Further refinement of the co-activation constraint for survivors could improve its generalizability across this population and activities."

According to the news reporters, the research concluded: "Improving biomechanical models to more accurately represent clinical populations can provide novel information that can help in the development of optimal treatment programs for breast cancer population survivors."


Our news correspondents report that additional information may be obtained by contacting C.R. Dickerson, University of Waterloo, Dept. of Kinesiol, Waterloo, ON N2L 3G1, Canada. Additional authors for this research include R.L. Brookham and C.R. Dickerson.

The direct object identifier (DOI) for that additional information is:
Findings from University of Western Australia Provide New Insights into Microcephaly (Reinforcing the association between distal 1q CNVs and structural brain disorder: A case of a complex 1q43-q44 CNV and a review of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Musculoskeletal Diseases and Conditions - Microcephaly have been presented. According to news reporting originating in Nedlands, Australia, by NewsRx journalists, research stated, "Copy Number Variations (CNVs) comprising the distal 1q region 1q43-q44 are associated with neurological impairments, structural brain disorder, and intellectual disability. Here, we report an extremely rare, de novo case of a 1q43-q44 deletion with an adjacent duplication, associated with severe seizures, microcephaly, agenesis of the corpus callosum, and pachygyria, a consequence of defective neuronal migration disorder."

Funders for this research include National Health and Medical Research Council (Australia), Telethon-Perth Children's Hospital Research Fund, Sunsuper Ride to Conquer Cancer.

The news reporters obtained a quote from the research from the University of Western Australia, "We conducted a literature survey to find that our patient is only the second case of such a 1q43-q44 CNV ever to be described. Our data support an association between 1q43-q44 deletions and microcephaly, as well as an association between 1q43-q44 duplications and macrocephaly. We compare and contrast our findings with previous studies reporting on critical 1q43-q44 regions and their constituent genes associated with seizures, microcephaly, and corpus callosum abnormalities [Ballif et al., 2012; Hum Genet 131:145-156; Nagamani et al., 2012; Eur J Hum Genet 20:176-179]." According to the news reporters, the research concluded: "Taken together, our study reinforces the association between 1q43-q44 CNVs and brain disorder."


Our news correspondents report that additional information may be obtained by contacting I.A. Hemming, The Harry Perkins Institute of Medical Research, QEII Medical Centre, Nedlands, Western Australia, Australia. Additional authors for this research include A.R. Forrest, P. Shipman, K.J. Woodward, P. Walsh, D.G. Ravine and J.I Heng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.b.32427. This DOI is a link to an online electronic document that
Nutritional and Metabolic Diseases and Conditions - …

Findings from University of Western Australia Provides New Data on Obesity (Sun Exposure and Its Effects on Human Health: Mechanisms through Which Sun Exposure Could Reduce the Risk of Developing Obesity and Cardiometabolic Dysfunction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news originating from Perth, Australia, by NewsRx correspondents, research stated, "Obesity is a significant burden on global healthcare due to its high prevalence and associations with chronic health conditions. In our animal studies, ongoing exposure to low dose ultraviolet radiation (UVR, found in sunlight) reduced weight gain and the development of signs of cardiometabolic dysfunction in mice fed a high fat diet."

Our news journalists obtained a quote from the research from the University of Western Australia, "These observations suggest that regular exposure to safe levels of sunlight could be an effective means of reducing the burden of obesity. However, there is limited knowledge around the nature of associations between sun exposure and the development of obesity and cardiometabolic dysfunction, and we do not know if sun exposure (independent of outdoor activity) affects the metabolic processes that determine obesity in humans. In addition, excessive sun exposure has strong associations with a number of negative health consequences such as skin cancer. This means it is very important to 'get the balance right' to ensure that we receive benefits without increasing harm."

According to the news editors, the research concluded: "In this review, we detail the evidence around the cardiometabolic protective effects of UVR and suggest mechanistic pathways through which UVR could be beneficial."

For more information on this research see: Sun Exposure and Its Effects on Human Health: Mechanisms through Which Sun Exposure Could Reduce the Risk of Developing Obesity and Cardiometabolic Dysfunction. *International Journal of Environmental Research and Public Health, 2016;13(10):880-897.* *International Journal of Environmental Research and Public Health* can be contacted at: Mdp Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from N. Fleury, University of Western Australia, Telethon Kids Inst, Perth, WA 6872, Australia. Additional authors for this research include S. Geldenhuys and S. Gorman.

Keywords for this news article include: Perth, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Article Review, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of Western
Findings from University of Western Australia Yields New Data on Lung Transplants (Successful Single-Lung Transplant for Severe Lung Graft-Versus-Host Disease Two Years After Sibling Allograft for Acute Lymphoblastic Leukemia: A Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Lung Transplants is now available. According to news originating from Perth, Australia, by NewsRx correspondents, research stated, "Bone marrow transplantation (BMT) has been performed as a successful life-saving treatment for hematological and neoplastic diseases."

Our news journalists obtained a quote from the research from the University of Western Australia, "Despite the predictable long-term survival rates in BMT, pulmonary complications reduce the survival rates significantly mainly because of chronic graft-versus-host disease (GVHD). This report briefly discusses a successful lung transplantation case for severe lung GVHD after allograft for acute lymphoblastic leukemia."

According to the news editors, the research concluded: "This case report supports the scarce evidence in the literature for the importance of lung transplantation as a therapeutic option for patients who develop respiratory failure secondary to BMT."


The news correspondents report that additional information may be obtained from J.P. Cooney, University of Western Australia, Fac Med Dental & Hlth Sci, Perth, WA, Australia. Additional authors for this research include M. Musk and J.P. Cooney.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.07.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Perth, Australia, Australia and New Zealand, Immune System Diseases and Conditions, Acute Lymphoblastic Leukemia, Graft-Versus-Host Disease, Lung Transplantation, Transplant Medicine, Organ Transplants, Lung Transplants, Biomedicine, Hematology, Oncology, Surgery, University of Western Australia.
Findings from University of Western Ontario in Anxiolytics Sedatives and Hypnotics Provides New Insights (Relationships between Endogenous Plasma Biomarkers of Constitutive Cytochrome P450 3A Activity and Single-Time-Point Oral Midazolam ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Anxiolytics Sedatives and Hypnotics. According to news reporting originating from London, Canada, by NewsRx correspondents, research stated, "Due to high basal interindividual variation in cytochrome P450 3A (CYP3A) activity and susceptibility to drug interactions, there has been interest in the application of efficient probe drug phenotyping strategies, as well as endogenous biomarkers for assessment of in vivo CYP3A activity. The biomarkers 4b-hydroxycholesterol (4bHC) and 6b-hydroxycortisol (6bHCL) are sensitive to CYP3A induction and inhibition."

Financial support for this research came from Canadian Institutes of Health Research.

Our news editors obtained a quote from the research from the University of Western Ontario, "However, their utility for the assessment of constitutive CYP3A activity remains uncertain. We investigated whether endogenous plasma biomarkers (4bHC and 6bHCL) are associated with basal CYP3A metabolic activity in healthy subjects assessed by a convenient single-time-point oral midazolam (MDZ) phenotyping strategy. Plasma 4bHC and 6bHCL metabolic ratios (MRs) were analysed in 51 healthy adult participants. CYP3A activity was determined after administration of an oral MDZ microdose (100 mg). Simple linear and multiple linear regression analyses were performed to assess relationships between MDZ oral clearance, biomarkers and subject covariates. Among study subjects, basal MDZ oral clearance, 4bHC and 6bHCL MRs ranged 6.5-, 10-and 13-fold, respectively. Participant age and alcohol consumption were negatively associated with MDZ oral clearance (p=0.03 and p=0.045, respectively), while weight and female sex were associated with lower plasma 4bHC MR (p=0.0003 and p=0.032, respectively). Neither 4bHC nor 6bHCL MRs were associated with MDZ oral clearance."

According to the news editors, the research concluded: "Plasma 4bHC and 6bHCL MRs do not relate to MDZ single-time-point metabolic phenotype in the assessment of constitutive CYP3A activity among healthy individuals."


The news editors report that additional information may be obtained by contacting S.J. Woolsey, Dept. of Physiology & Pharmacology, Schulich School of Medicine and Dentistry, The University of Western Ontario, London, ON, Canada. Additional authors for this research include M.D. Beaton, Y.H. Choi, G.K. Dresser, S.E. Gryn, R.B. Kim and R.G Tirona.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bcpt.12492. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antianxiety, London, Canada, Ontario, Adjuvant, Anesthetic, Cytochromes, Hemeproteins, GABA Modulator, Benzodiazepines,
Findings from University of Wisconsin Has Provided New Information about Prostate Cancer (Optimizing an 18F-NaF and 18F-FDG cocktail for PET assessment of metastatic castration-resistant prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news reporting originating from Madison, Wisconsin, by NewsRx correspondents, research stated, "PET/computed tomography (CT) imaging with the sodium-(F)-fluoride/2-(F)-fluoro-2-deoxy-D-glucose (F-NaF/F-FDG) cocktail has been proposed for patients with osseous metastases. This work aimed to optimize the cocktail composition for patients with metastatic castration-resistant prostate cancer (mCRPC)."

Our news editors obtained a quote from the research from the University of Wisconsin, "The study was carried out on six patients with mCRPC, with a total of 26 analyzed lesions. The patients were injected with F-NaF and F-FDG at separate time points. Dynamic PET/CT imaging recorded the uptake time course for both the tracers into osseous metastases. F-NaF and F-FDG uptakes were decoupled by kinetic analysis, which enabled calculation of F-NaF and F-FDG standardized uptake values (SUVs) images. Peak, mean, and total SUVs were evaluated for both tracers and all visible lesions. The F-NaF/F-FDG cocktail was optimized under the assumption that the contribution of both tracers to image formation is equal. SUV images from PET/CT imaging with a combination of F-NaF and F-FDG were generated for cocktail compositions with an F-NaF : F-FDG ratio varying from 1:8 to 1:2. The F-NaF peak and mean SUVs were on average four to five times higher than the F-FDG peak and mean SUVs, with an interlesion coefficient of variations of 20%. The total SUV for F-NaF was on average seven times higher than that for F-FDG. When the F-NaF : F-FDG ratio changed from 1:8 to 1:2, the typical SUV on the generated PET images increased by 50%, whereas the change in the uptake visual pattern was hardly noticeable. F-NaF and F-FDG in the cocktail contribute equally to image formation when the F-NaF : F-FDG ratio is 1:5. Therefore, we propose this ratio as the optimal cocktail composition for mCRPC patients."

According to the news editors, the research concluded: "We also urge to strictly control the cocktail composition during any F-NaF/F-FDG cocktail PET/CT examination."

For more information on this research see: Optimizing an 18F-NaF and 18F-FDG cocktail for PET assessment of metastatic castration-resistant prostate cancer. Nuclear Medicine Communications, 2015;36(12):1174-80. (Lippincott Williams and Wilkins - www.lww.com; Nuclear Medicine Communications - journals.lww.com/nuclearmedicinecomm/pages/default.aspx)

The news editors report that additional information may be obtained by contacting U. Simoncic, aJozef Stefan Institute, Ljubljana, Slovenia Departments of bMedical Physics cRadiology dGenitourinary Oncology Research Program eUniversity of Wisconsin Carbone Cancer Center, University of Wisconsin - Madison, Madison, Wisconsin, United States. Additional authors for this research include S. Perlman, G. Liu and R. Jeraj.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MNM.0000000000000383. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madison, Oncology, Wisconsin, United States, Prostate Cancer, Prostatic Neoplasms, North and Central America.

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**Health and Medicine - Addiction Research**

**Findings from University of Wisconsin School of Medicine and Public Health Broaden Understanding of Addiction Research (Comparative effectiveness of motivation phase intervention components for use with smokers unwilling to quit: a factorial ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Addiction Research. According to news reporting originating in Madison, Wisconsin, by NewsRx journalists, research stated, "To screen promising intervention components designed to reduce smoking and promote abstinence in smokers initially unwilling to quit. A balanced, four-factor, randomized factorial experiment."

Financial support for this research came from National Cancer Institute to the University of Wisconsin Center for Tobacco Research and Intervention and by the Wisconsin Partnership Program.

The news reporters obtained a quote from the research from the University of Wisconsin School of Medicine and Public Health, "Eleven primary care clinics in southern Wisconsin, USA. A total of 517 adult smokers (63.4% women, 91.1% white) recruited during primary care visits who were willing to reduce their smoking but not quit. Four factors contrasted intervention components designed to reduce smoking and promote abstinence: (1) nicotine patch versus none; (2) nicotine gum versus none; (3) motivational interviewing (MI) versus none; and (4) behavioral reduction counseling (BR) versus none. Participants could request cessation treatment at any point during the study. The primary outcome was percentage change in cigarettes smoked per day at 26 weeks post-study enrollment; the secondary outcomes were percentage change at 12 weeks and point-prevalence abstinence at 12 and 26 weeks post-study enrollment. There were few main effects, but a significant four-way interaction at 26 weeks post-study enrollment (p=0.01, b=0.12) revealed relatively large smoking reductions by two component combinations: nicotine gum combined with BR and BR combined with MI. Further, BR improved 12-week abstinence rates (p=0.04), and nicotine gum, when used without MI, increased 26-week abstinence after a subsequent aided quit attempt (p=0.01)."

According to the news reporters, the research concluded: "Motivation-phase nicotine gum and behavioral reduction counseling are promising intervention components for smokers who are initially unwilling to quit."

Our news correspondents report that additional information may be obtained by contacting J.W. Cook, University of Wisconsin School of Medicine and Public Health, Center for Tobacco Research and Intervention, Madison, WI, United States. Additional authors for this research include L.M. Collins, M.C. Fiore, S.S. Smith, D. Fraser, D.M. Bolt, T.B. Baker, M.E. Piper, T.R. Schlam, D. Jorenby, W.Y. Loh and R. Mermelstein.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/add.13161. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Addiction can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Madison, Wisconsin, United States, Addiction Research, Health and Medicine, North and Central America.

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Drugs and Therapies - Immunosuppressive Agents

Findings from University of Witwatersrand Has Provided New Data on Immunosuppressive Agents (Sirolimus-induced lymphoedema)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Immunosuppressive Agents is now available. According to news originating from Johannesburg, South Africa, by NewsRx correspondents, research stated, "Sirolimus is an inhibitor of the mammalian target of rapamycin (mTOR), used as an immunosuppressant for solid-organ transplant recipients and patients with autoimmune disorders."

Our news journalists obtained a quote from the research from the University of Witwatersrand, "We report a case of lymphoedema, a rare complication of sirolimus, and discuss the mechanism of drug action, the adverse effects and the challenges of treating a kidney transplant recipient with this complication in a resource-limited environment. Lymphoedema is a rare complication of sirolimus, and the mechanisms are not completely understood; however, early recognition can prevent permanent disfigurement."

According to the news editors, the research concluded: "This case highlights the need for early recognition of adverse drug effects and further research into their pathophysiology and management."

For more information on this research see: Sirolimus-induced lymphoedema. SAMJ South African Medical Journal, 2016;106(9):53-54. SAMJ South African Medical Journal can be contacted at: Sa Medical Assoc, Block F Castle Walk Corporate Park, Nossob Street, Erasmuskloof EXT3, Pretoria, 0002, South Africa.

The news correspondents report that additional information may be obtained from K.G. Motse, University of Witwatersrand, Sch Clin Med, Fac Hlth Sci, Johannesburg, South Africa.

Keywords for this news article include: Johannesburg, South Africa, Africa, Immunosuppressive Agents, Drugs and Therapies, Sirolimus Therapy, Pharmaceuticals, Macrolides, University of Witwatersrand.

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Findings from University of Wollongong in the Area of Environmental Research and Public Health Described (Improving Precautionary Communication in the EMF Field? Effects of Making Messages Consistent and Explaining the Effectiveness of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Environmental Health - Environmental Research and Public Health have been presented. According to news originating from Wollongong, Australia, by NewsRx correspondents, research stated, "Many radiation health agencies communicate precautionary measures regarding the use of mobile communication devices, e.g. the use of a headset while talking on the phone. These precautionary messages have, however, been shown to unintentionally increase risk perceptions about radiofrequency electromagnetic fields (RF-EMFs)."

Our news journalists obtained a quote from the research from the University of Wollongong, "The current study tested two potential ways of amending precautionary messages in order to minimise this unintentional effect. Firstly, the messages' potential to be perceived as inconsistent and thereby raise suspicions was addressed; secondly, the effectiveness of the precautions was explained. An experimental design was applied in which a quota sample of 1717 Australian residents was randomly assigned to one of six message conditions. Three different risk perception measures served as dependent variables, two of them are conditional measures. The original effect of precautionary messages to amplify risk perceptions could not be replicated. Furthermore, amending precautionary messages in favour of more consistency had no effect, while explaining the effectiveness of the precautions increased conditional risk perception under the condition that no precautions are taken. This was contrary to our assumptions. We infer from these results that changing precautionary messages in terms of consistency and effectiveness in order to reduce risk perception is hardly possible. The use of conditional risk perception measures seems fruitful for studies looking at the effects of precautionary or protective messages, given that previous studies have only investigated effects on unconditional risk perception."

According to the news editors, the research concluded: "However, the present results should not be over-interpreted as the measures' validity in the EMF context still needs further investigation."

For more information on this research see: Improving Precautionary Communication in the EMF Field? Effects of Making Messages Consistent and Explaining the Effectiveness of Precautions. *International Journal of Environmental Research and Public Health*, 2016;13 (10):774-791. *International Journal of Environmental Research and Public Health* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from C. Boehmert, University of Wollongong, Australian Center Electromagnet Bioeffects Res, Wollongong, NSW 2522, Australia. Additional authors for this research include P. Wiedemann and R. Croft.

Keywords for this news article include: Wollongong, Australia, Australia and New Zealand, Environmental Research and Public Health, Environmental Health, University of Wollongong.

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Ebola Virus

Findings from University of Zambia Yields New Findings on Ebola Virus
[Development of an Immunochromatography Assay (QuickNavi-Ebola) to Detect Multiple Species of Ebolaviruses]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Ebola Virus have been presented. According to news originating from Lusaka, Zambia, by NewsRx correspondents, research stated, "The latest outbreak of Ebola virus disease (EVD) in West Africa has highlighted the urgent need for the development of rapid and reliable diagnostic assays. We used monoclonal antibodies specific to the ebolavirus nucleoprotein to develop an immunochromatography (IC) assay (QuickNavi-Ebola) for rapid diagnosis of EVD."

Funders for this research include Agency for Medical Research and Development, Japan International Cooperation Agency, Science and Technology Research Partnership for Sustainable Development, Health and Labor Sciences Research Grant, Division of Intramural Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health.

Our news journalists obtained a quote from the research from the University of Zambia, "The IC assay was first evaluated with tissue culture supernatants of infected Vero E6 cells and found to be capable of detecting 10(3)-10(4) focus-forming units/mL of ebolaviruses. Using serum samples from experimentally infected nonhuman primates, we confirmed that the assay could detect the viral antigen shortly after disease onset. It was also noted that multiple species of ebolaviruses could be detected by the IC assay."

According to the news editors, the research concluded: "Owing to the simplicity of the assay procedure and absence of requirements for special equipment and training, QuickNavi-Ebola is expected to be a useful tool for rapid diagnosis of EVD."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/infdis/jiw252. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lusaka, Zambia, Africa, Viral Hemorrhagic Diseases and Conditions, Epidemiology, Mononegavirales, RNA Viruses, Filoviridae, Ebola Virus, Virology, University of Zambia.

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Findings from University of Zurich in Cell Transplants Reported (Blood Stem Cell Activity Is Arrested by Th1-Mediated Injury Preventing Engraftment following Nonmyeloablative Conditioning)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Transplant Medicine - Cell Transplants are presented in a new report. According to news reporting originating in Zurich, Switzerland, by NewsRx journalists, research stated, "T cells are widely used to promote engraftment of hematopoietic stem cells (HSCs) during an allogeneic hematopoietic cell transplantation. Their role in overcoming barriers to HSC engraftment is thought to be particularly critical when patients receive reduced doses of preparative chemotherapy and/or radiation compared with standard transplantations."

The news reporters obtained a quote from the research from the University of Zurich, "In this study, we sought to delineate the effects CD4(+) cells on engraftment and blood formation in a model that simulates clinical hematopoietic cell transplantation by transplanting MHC-matched, minor histocompatibility-mismatched grafts composed of purified HSCs, HSCs plus bulk T cells, or HSCs plus T cell subsets into mice conditioned with low-dose irradiation. Grafts containing conventional CD4(+) T cells caused marrow inflammation and inhibited HSC engraftment and blood formation. Posttransplantation, the marrows of HSCs plus CD4(+) cell recipients contained IL-12-secreting CD11c(+) cells and IFN-gamma-expressing donor Th1 cells. In this setting, host HSCs arrested at the short-term stem cell stage (G0). As a consequence, donor HSCs failed to engraft and hematopoiesis was suppressed. Our data show that Th1 cells included in a hematopoietic allograft can negatively impact HSC activity, blood reconstitution, and engraftment of donor HSCs. This potential negative effect of donor T cells is not considered in clinical transplantation in which bulk T cells are transplanted."

According to the news reporters, the research concluded: "Our findings shed new light on the effects CD4(+) T cells on HSC biology and are applicable to other pathogenic states in which immune activation in the bone marrow occurs such as aplastic anemia and certain infectious conditions."

For more information on this research see: Blood Stem Cell Activity Is Arrested by Th1-Mediated Injury Preventing Engraftment following Nonmyeloablative Conditioning. Journal of Immunology, 2016;197(10):4151-4162. Journal of Immunology can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news correspondents report that additional information may be obtained by contacting A.M.S. Muller, University of Zurich, Dept. of Hematol, CH-8091 Zurich, Switzerland. Additional authors for this research include M. Florek, H.E.K. Kohrt, N.J. Kupper, A. Filatenkov, J.A. Linderman, H. Hadeiba, R.S. Negrin and J.A. Shizuru.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1500715. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zurich, Switzerland, Europe, Cell
Findings from University of the West of Scotland Provides New Data about Down Syndrome (Investigating the Lived Experience of People with Down Syndrome with Dementia: Overcoming Methodological and Ethical Challenges)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetic Diseases and Conditions - Down Syndrome have been published. According to news reporting originating in Hamilton, United Kingdom, by NewsRx editors, the research stated, "Adults with Down syndrome are at increased risk of dementia at a significantly younger age and remain under-represented as participants in dementia-related research. Because little is known about their personal experiences either immediately postdiagnosis or as dementia progresses, there is little opportunity that shared individual experiences can shape future policy and practice."

The news reporters obtained a quote from the research from the University of the West of Scotland, "To remedy this omission, the author examined methodological and ethical challenges identified as part of a research study that included people with Down syndrome affected by dementia. It has been contended that traditional qualitative approaches are less effective when participants are affected by changing cognitive functioning and reduced verbal communication. To counteract this contention overt participant observation and an adapted narrative research method were used as part of a three-year longitudinal study to help better understand the lived experiences of three adults with Down syndrome affected by dementia. Methodological and ethical challenges were shown to collide, and factors contributing to this effect included identifying process consent, accurate representation of participants, the role of and relationship with the researcher, participants, lack of awareness of their diagnosis of dementia, and need to recognize the importance of social interaction while maintaining academic rigor. Reflections are proffered on two conceptual and practice issues, with a call for both to be recognized and addressed in terms of future policy and practice. First is a lack of awareness of a sense of 'self' or identity, resulting in individuals with Down syndrome and dementia being defined by their situation rather than individual preference or need."

According to the news reporters, the research concluded: "Second is the lack of information postdiagnosis about dementia being shared with people who have Down syndrome."


Our news correspondents report that additional information may be obtained by
Central Nervous System Diseases and Conditions —...

Findings from Uppsala University Broaden Understanding of Epilepsy
(Novel SACS mutations associated with intellectual disability, epilepsy and widespread supratentorial abnormalities)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting originating from Uppsala, Sweden, by NewsRx correspondents, research stated, "We describe eight subjects from two consanguineous families segregating with autosomal recessive childhood onset spastic ataxia, peripheral neuropathy and intellectual disability. The degree of intellectual disability varied from mild to severe and all four affected individuals in one family developed aggressive behavior and epilepsy."

Funders for this research include Swedish Research Council, Uppsala University Hospital, Uppsala University, Science for Life Laboratory.

Our news editors obtained a quote from the research from Uppsala University, "Using exome sequencing, we identified two novel truncating mutations (c.2656C > T (p.Gln886*)) and (c.4756_4760delAATCA (p.Asn1586Tyrfs*3)) in the SACS gene responsible for autosomal recessive spastic ataxia of Charlevoix-Saguenay (ARSACS). MRI revealed typical cerebellar and pontine changes associated with ARSACS as well as multiple supratentorial changes in both families as likely contributing factors to the cognitive symptoms. Intellectual disability and behavioral abnormalities have been reported in some cases of ARSACS but are not a part of the characteristic triad of symptoms that includes cerebellar ataxia, spasticity and peripheral neuropathy."

According to the news editors, the research concluded: "Our combined findings bring further knowledge to the phenotypic spectrum, neurodegenerative changes and genetic variability associated with the SACS gene of clinical and diagnostic importance."

For more information on this research see: Novel SACS mutations associated with intellectual disability, epilepsy and widespread supratentorial abnormalities. *Journal of the Neurological Sciences*, 2016;371():105-111. *Journal of the Neurological Sciences* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of the Neurological Sciences - www.journals.elsevier.com/journal-of-the-neurological-sciences/)

The news editors report that additional information may be obtained by contacting Z. Ali, Uppsala University, Sci Life Lab, Dept. of Immunol Genet & Pathol, S-75108 Uppsala, Sweden. Additional authors for this research include J. Klar, M. Jameel, K. Khan, A. Fatima, R.
Findings from Uppsala University Broaden Understanding of Materials Science and Physical Chemistry (Partitioning into Colloidal Structures of Fasted State Intestinal Fluid Studied by Molecular Dynamics Simulations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science - Materials Science and Physical Chemistry. According to news reporting from Uppsala, Sweden, by NewsRx journalists, research stated, "We performed molecular dynamics (MD) simulations to obtain insights into the structure and molecular interactions of colloidal structures present in fasted state intestinal fluid. Drug partitioning and interaction were studied with a mixed system of the bile salt taurocholate (TCH) and 1,2-dilinoleoyl-sn-glycero-3-phosphocholine (DLiPC)."

Financial supporters for this research include Vetenskapsradet, European Research Council, Seventh Framework Programme, European Federation of Pharmaceutical Industries and Associations.

The news correspondents obtained a quote from the research from Uppsala University, "Spontaneous aggregation of TCH and DLiPC from unconstrained MD simulations at the united-atom level using the Berger/Gromos54A7 force fields demonstrated that intermolecular hydrogen bonding between TCH molecules was an important factor in determining the overall TCH and DLiPC configuration. In bilayered systems, these intermolecular hydrogen bonds resulted in embedded transmembrane TCH clusters. Free energy simulations using the umbrella sampling technique revealed that the stability of these transmembrane TCH clusters was superior when they consisted of 3 or 4 TCH per bilayer leaflet. All-atom simulations using the Slipids/GAFF force fields showed that the TCH embedded in the bilayer decreased the energy barrier to penetrate the bilayer (Delta G(pen)) for water, ethanol, and carbamazepine, but not for the more lipophilic felodipine and danazol. This suggests that diffusion of hydrophilic to moderately lipophilic molecules through the bilayer is facilitated by the embedded TCH molecules. However, the effect of embedded TCH on the overall lipid/water partitioning was significant for danazol, indicating that the incorporation of TCH plays a crucial role for the partitioning of lipophilic solutes into e.g. lipidic vesicles existing in fasted state intestinal fluids."

According to the news reporters, the research concluded: "To conclude, the MD simulations revealed important intermolecular interactions in lipidic bilayers, both between the bile components themselves and with the drug molecules."

For more information on this research see: Partitioning into Colloidal Structures of

Our news journalists report that additional information may be obtained by contacting C.A.S. Bergstrom, Uppsala University, Uppsala Biomed Center, Dept. of Pharm, SE-75123 Uppsala, Sweden. Additional authors for this research include P. Larsson, J. Anwar and C.A.S. Bergstrom.

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Keywords for this news article include: Uppsala, Sweden, Europe, Materials Science and Physical Chemistry, Science, Molecular Dynamics, Physics, Uppsala University.

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**Gram-Negative Bacteria - Klebsiella pneumoniae**

**Findings from V. Szijarto et al Has Provided New Information about Klebsiella pneumoniae (Both clades of the epidemic KPC-producing Klebsiella pneumoniae clone ST258 share a modified galactan O-antigen type)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Klebsiella pneumoniae is now available. According to news originating from Vienna, Austria, by NewsRx correspondents, research stated, "Klebsiella pneumoniae ST258 is a globally disseminated, extremely drug resistant, nosocomial clone with limited treatment options. We show that the vast majority of ST258 isolates express modified d-galactan-I lipopolysaccharide O-antigen, termed hereinafter as D-galactan-III."

Financial support for this research came from Eurostars.

Our news journalists obtained a quote from the research, "The genetic determinant required for galactan-III synthesis was identified as a distinct operon adjacent to the rfb (wb) locus encoding D-galactan-I synthesis. The three genes within the operon encode predicted glycosyltransferases. Testing an isogenic transformant pair revealed that expression of D-galactan-III, in comparison to D-galactan-I, conferred improved survival in the presence of human serum. Eighty-three percent of the more than 200 ST258 draft genome sequences currently available carries the corresponding operon and hence these isolates are predicted to express galactan-III antigens. A D-galactan-III specific monoclonal antibody (mAb) was shown to bind to extracted LPS from a panel of ST258 isolates. The same mAb confirmed accessibility of galactan-III in surface staining of ST258 irrespective of the distinct capsular antigens expressed by both clades described previously."

According to the news editors, the research concluded: "Based on these data, the galactan-III antigen may represent an attractive target for active and passive immunization approaches against K."

For more information on this research see: Both clades of the epidemic KPC-producing Klebsiella pneumoniae clone ST258 share a modified galactan O-antigen type.

The news correspondents report that additional information may be obtained from V. Szijarto, Arsanis Biosciences GmbH, Vienna, Austria. Additional authors for this research include L.M. Guachalla, K. Hartl, C. Varga, P. Banerjee, K. Stojkovic, M. Kaszowska, E. Nagy, J. Lukasiewicz and G. Nagy.

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Keywords for this news article include: Vienna, Europe, Austria, Genetics, Endotoxins, Immunology, O Antigens, Biological Factors, Enterobacteriaceae, Gammaproteobacteria, Lipopolysaccharides, Klebsiella pneumoniae, Gram Negative Bacteria, Gram Negative Facultatively Anaerobic Rods.

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Autoimmune Diseases and Conditions - Multiple ...

Findings from V.D. Nazarov et al Has Provided New Information about Multiple Sclerosis (Immunogenicity of human interferon-beta-containing pharmaceuticals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Autoimmune Diseases and Conditions - Multiple Sclerosis is the subject of a report. According to news reporting out of St. Petersburg, Russia, by NewsRx editors, research stated, "Multiple sclerosis is a severe autoimmune disease with inflammatory component that continues to be resistant to treatment. One of the approaches retarding its progression is based on using nonspecific therapy with human interferon-beta (IFN-beta)-containing pharmaceuticals."

Our news journalists obtained a quote from the research, "Neutralizing antibodies (NAbs) against genetically engineered pharmaceuticals developed by the patient's immune system, which reduce their therapeutic and biological activity, pose a serious problem. Cell lines sensitive to IFN-beta activity also quantifying NAb level are applied because direct measurement of IFN-beta antiviral activity is complicated."

According to the news editors, the research concluded: "This study was aimed at standardization and validation of a reporter cell system for measuring antihuman IFN-beta NAb titers, and evaluation data were obtained with samples from 33 patients with multiple sclerosis."


Our news journalists report that additional information may be obtained by contacting V.D. Nazarov, Pavlov First St Petersburg State Med Univ, Center Mol Med, St Petersburg 197022, Russia. Additional authors for this research include S.V. Lapin, A.V. Mazing, E.P. Evdoshenko and A.A. Totolian.

The direct object identifier (DOI) for that additional information is:
Nephrology

Findings from V.H. Thourani and Co-Authors Update Knowledge of Nephrology (Impact of Preoperative Chronic Kidney Disease in 2,531 High-Risk and Inoperable Patients Undergoing Transcatheter Aortic Valve Replacement in the PARTNER Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nephrology. According to news originating from Plano, Texas, by NewsRx correspondents, research stated, "Although preoperative renal dysfunction (RD) is associated with increased mortality and morbidity after surgical aortic valve replacement, its impact on clinical outcomes after transcatheter aortic valve replacement (TAVR) is less defined. TAVR patients in the PARTNER (Placement of Aortic Transcatheter Valves) trial with a calculable glomerular filtration rate (GFR) using the Modification of Diet in Renal Disease equation were included."

Our news journalists obtained a quote from the research, "Patients were divided into three groups: GFR >60 mL/min (none/mild RD), GFR 31 to 60 mL/min (moderate RD), and GFR <= 30 mL/min (severe RD). Operative characteristics and clinical outcomes were analyzed. Cox regression models were used to determine multivariable predictors of 1-year all-cause mortality. A total of 2,531 inoperable or high surgical risk patients from the PARTNER trial and continued access registries had a calculable GFR level: 767 (30%) had normal renal function or mild RD, 1,473 (58%) had moderate RD, and 291 (12%) presented with severe RD. The mean Society of Thoracic Surgeons Predicted Risk Mortality for the cohort was 11.5%, and it was highest in those with severe RD (13.8%). Patients with severe RD were more often women with a higher prevalence of diabetes. Patients with severe RD had the highest incidence of 30-day and 1-year all-cause mortality and ADULT CARDIAC rehospitalization. The 30-day rate of death from any cause was 10.7% in the severe RD group versus 6.0% in the moderate and mild RD groups (p = 0.01). The 1-year rate of death from any cause was 34.4% in the severe RD group versus 21.5% in the moderate RD and 20.8% in the none/mild RD groups (adjusted hazard ratio [HR] 2.24, p< 0.0001 for severe versus none/mild; adjusted HR 1.14, p = 0.24 for severe versus moderate). Other significant predictors of 1-year all-cause mortality included lower body mass index, frailty, the transapical approach, a lower ejection fraction, oxygen-dependent chronic obstructive pulmonary disease, liver disease, and male sex. Preoperative severe RD is a significant predictor for 1-year mortality in TAVR patients."

According to the news editors, the research concluded: "Careful risk stratification by the heart team is required in patients with severe preprocedural RD."

The news correspondents report that additional information may be obtained from V.H. Thourani, Baylor Scott & White Healthcare, Plano, TX, United States. Additional authors for this research include J. Forcillo, N. Beohar, D. Doshi, R. Parvataneni, G.M. Ayele, A.J. Kirtane, V. Babaliaros, S. Kodali, C. Devireddy, W. Szeto, H.C. Herrmann, R. Makkar, G. Ailawadi, S. Lim, H.S. Maniar, A. Zajarias, R. Suri, E.M. Tuzcu and .

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.07.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Plano, Texas, United States, North and Central America, Cardiology, Surgery, Nephrology, Kidney.

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**Cardiovascular Diseases**

**Findings from V.L. Mendy and Co-Authors Broaden Understanding of Cardiovascular Diseases (Decreasing prevalence of no known major risk factors for cardiovascular disease among Mississippi adults, Mississippi Behavioral Risk Factor Surveillance ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases are discussed in a new report. According to news reporting originating in Jackson, Mississippi, by NewsRx journalists, research stated, "Cardiovascular disease (CVD) is the leading cause of death in Mississippi. However, the prevalence of no known CVD risk factors among Mississippi adults and the change of prevalence in the past 9 years have not been described."

The news reporters obtained a quote from the research, "We assess changes in prevalence of no known CVD risk factors during 2001 and 2009. Prevalence of high blood pressure, high cholesterol, diabetes, physical inactivity, smoking, and obesity were investigated. Survey respondents who reported having none of these factors were defined as having no known CVD risk factors. Differences in prevalence and 95% confidence intervals were determined using t-test analysis. Overall, age-standardized prevalence of having no known CVD risk factors significantly decreased from 17.3% in 2001 to 14.5% in 2009 (p = 0.0091). The age-standardized prevalence of no known CVD risk factors were significantly lower in 2009 than in 2001 among blacks (8.9% vs. 13.2%, p = 0.008); males (13.5% vs. 17.9%, p = 0.0073); individuals with a college degree (25.2%, vs. 30.8%, p = 0.0483); and those with an annual household income of $20,000-$34,999 (11.6% vs. 16.9%, p = 0.0147); and $35,000-$49,999 (15.2% vs. 23.3%, p = 0.0135)."

According to the news reporters, the research concluded: "The prevalence of no known CVD risk factors among Mississippi adults significantly decreased from 2001 to 2009 with observed differences by race, age group, sex, and annual household income."

Our news correspondents report that additional information may be obtained by contacting V.L. Mendy, Mississippi Dept. of Hlth, Off Hlth Data & Res, Jackson, MS 39215, United States. Additional authors for this research include R. Vargas, L. El-Sadek and V.L. Short.

Keywords for this news article include: Jackson, Mississippi, United States, North and Central America, Cardiovascular Diseases and Conditions, Risk and Prevention, Cardiology.

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**Stem Cell Research - Embryonic Stem Cells**

**Findings from Venetian Institute of Molecular Medicine Provides New Data on Embryonic Stem Cells (Analysis of Calcium Transients and Uniaxial Contraction Force in Single Human Embryonic Stem Cell-Derived Cardiomyocytes on Microstructured ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Stem Cell Research - Embryonic Stem Cells have been presented. According to news originating from Padua, Italy, by NewsRx correspondents, research stated, "The mechanical activity of cardiomyocytes is the result of a process called excitation-contraction coupling (ECC). A membrane depolarization wave induces a transient cytosolic calcium concentration increase that triggers activation of calcium-sensitive contractile proteins, leading to cell contraction and force generation."

Funders for this research include Deutsche Forschungsgemeinschaft, Universita degli Studi di Padova, ASCM Onlus, Associazione Amici del Cuore di Montebelluna.

Our news journalists obtained a quote from the research from the Venetian Institute of Molecular Medicine, "An experimental setup capable of acquiring simultaneously all ECC features would have an enormous impact on cardiac drug development and disease study. In this work, we develop a microengineered elastomeric substrate with tailor-made surface chemistry to measure simultaneously the uniaxial contraction force and the calcium transients generated by single human cardiomyocytes in vitro. Microreplication followed by photocuring is used to generate an array consisting of elastomeric micropillars. A second photochemical process is employed to spatially control the surface chemistry of the elastomeric pillar. As result, human embryonic stem cell-derived cardiomyocytes (hESC-CMs) can be confined in rectangular cell-adhesive areas, which induce cell elongation and promote suspended cell anchoring between two adjacent micropillars. In this end-to-end conformation, confocal fluorescence microscopy allows simultaneous detection of calcium transients and micropillar deflection induced by a single-cell uniaxial contraction force. Computational finite elements modeling (FEM) and 3D reconstruction of the cell-pillar interface allow force quantification. The platform is used to follow calcium dynamics and contraction force evolution in hESC-CMs cultures over the course
of several weeks."

According to the news editors, the research concluded: "Our results show how a biomaterial-based platform can be a versatile tool for in vitro assaying of cardiac functional properties of single-cell human cardiomyocytes, with applications in both in vitro developmental studies and drug screening on cardiac cultures."


The news correspondents report that additional information may be obtained from N. Elvassore, Venetian Inst Mol Med, I-35129 Padua, Italy. Additional authors for this research include S. Martewicz, E. Serena, V. Le Houerou, J. Ruhe and N. Elvassore.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.langmuir.6b03138. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Padua, Italy, Europe, Embryonic Stem Cells, Stem Cell Research, Cardiomyocyte, Cardiology, Chemistry, Venetian Institute of Molecular Medicine.

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**Cardiovascular Diseases and Conditions**

**Findings from Vesalius Research Center Broaden Understanding of Atherosclerosis (Endothelial cell metabolism: A novel player in atherosclerosis? Basic principles and therapeutic opportunities)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Atherosclerosis have been presented. According to news originating from Leuven, Belgium, by NewsRx correspondents, research stated, "Atherosclerosis is a leading cause of morbidity and mortality in Western society. Despite improved insight into disease pathogenesis and therapeutic options, additional treatment strategies are required."

Our news journalists obtained a quote from the research from Vesalius Research Center, "Emerging evidence highlights the relevance of endothelial cell (EC) metabolism for angiogenesis, and indicates that EC metabolism is perturbed when ECs become dysfunctional to promote atherogenesis. In this review, we overview the latest insights on EC metabolism and discuss current knowledge on how atherosclerosis deregulates EC metabolism, and how maladaptation of deregulated EC metabolism can contribute to atherosclerosis progression."

According to the news editors, the research concluded: "We will also highlight possible therapeutic avenues, based on targeting EC metabolism."

Findings from Veterans Affairs Medical Center Broaden Understanding of Melanoma (Primary and Secondary Chemoprevention of Malignant Melanoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Melanoma. According to news reporting from Denver, Colorado, by NewsRx journalists, research stated, "The incidence of malignant melanoma (MM) continues to rise in the United States. While sun protection and full body skin examinations remain the mainstay of preventative care, chemoprevention of the deadly disease has become an increasingly popular field of study."

The news correspondents obtained a quote from the research from Veterans Affairs Medical Center, "In this focused review, we discuss current findings and analyze the risks and benefits of various agents investigated for the primary and secondary chemoprevention of MM. Such agents include topical retinoids, vitamins, and supplements, Polypodium leucotomos extracts, non-steroidal anti-inflammatory agents (NSAIDs), statins, sunscreens, and field therapy with topical imiquimod for primary and secondary chemoprevention."

According to the news reporters, the research concluded: "We further identify a need for expanded high quality human research on the topic."


Our news journalists report that additional information may be obtained by contacting R.P. Dellavalle, Denver VA Med Center, Dept. of Dermatol, Denver, CO 80220, United States. Additional authors for this research include T. Buntinx-Krieg, R. Qin, C.A. Dunnick and R.P. Dellavalle.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40257-016-0221-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Denver, Colorado, United States, North and Central America, Drugs and Therapies, Article Review, Chemoprevention, Oncology,
Physiology - Applied Physiology

Findings from Victoria University in the Area of Applied Physiology Described (Salbutamol effects on systemic potassium dynamics during and following intense continuous and intermittent exercise)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Physiology - Applied Physiology. According to news reporting originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Salbutamol inhalation is permissible by WADA in athletic competition for asthma management and affects potassium regulation, which is vital for muscle function. Salbutamol effects on arterial potassium concentration ([K+]a) during and after high-intensity continuous exercise (HIcont) and intermittent exercise comprising repeated, brief sprints (HIint), and on performance during HIint are unknown and were investigated."

Our news editors obtained a quote from the research from Victoria University, "Seven recreationally active men participated in a double-blind, randomised, cross-over design, inhaling 1000 µg salbutamol or placebo. Participants cycled continuously for 5 min at 40 % O-2peak and 60 % O-2peak, then HIcont (90 s at 130 % O-2peak), 20 min recovery, and then HIint (3 sets, 5 x 4 s sprints), with 30 min recovery. Plasma [K+]a increased throughout exercise and subsequently declined below baseline (P < 0.001). Plasma [K+]a was greater during HIcont than HIint (P < 0.001, HIcont 5.94 +/- 0.65 vs HIint set 1, 4.71 +/- 0.40 mM); the change in [K+]a from baseline (Δ[K+]a) was 2.6-fold greater during HIcont than HIint (P < 0.001). The Δ[K+]a throughout the trial was less with salbutamol than placebo (P < 0.001, treatment main effect, 0.03 +/- 0.67 vs 0.22 +/- 0.69 mM, respectively); and remained less after correction for fluid shifts (P < 0.001). The Δ[K+] during HIcont was less after salbutamol (P < 0.05), but not during HIint. Blood lactate, plasma pH, and the work output during HIint did not differ between trials. Inhaled salbutamol modulated the [K+]a rise across the trial, comprising intense continuous and intermittent exercise and recovery, lowering Δ[K+] during HIcont."

According to the news editors, the research concluded: "The limited [K+]a changes during HIint suggest that salbutamol is unlikely to influence systemic [K+] during periods of intense effort in intermittent sports."

For more information on this research see: Salbutamol effects on systemic potassium dynamics during and following intense continuous and intermittent exercise. European Journal of Applied Physiology, 2016;116(11-12):2389-2399. European Journal of Applied Physiology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Journal of Applied Physiology - www.springerlink.com/content/1439-6319/)

The news editors report that additional information may be obtained by contacting M.J. McKenna, Victoria Univ, ISEAL, Clin Exercise Sci Res Program, Melbourne, Vic 8001, Australia. Additional authors for this research include A. Petersen, R. Smith, D.M. Rouffet, F. Billaut, B.D. Perry, V.L. Wyckelsma, A. Tobin and M.J. McKenna.

The direct object identifier (DOI) for that additional information is:
Bacterial Infections and Mycoses - Endotoxemia

Findings from Virginia Commonwealth University Broaden Understanding of Endotoxemia (Chronic opioid use is associated with altered gut microbiota and predicts readmissions in patients with cirrhosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Bacterial Infections and Mycoses - Endotoxemia. According to news reporting from Richmond, Virginia, by NewsRx journalists, research stated, "Opioid use is epidemic in cirrhosis, which could precipitate hepatic encephalopathy (HE) potentially through gut dysbiosis and inflammation. To define the effect of opioids on readmissions and gut microbiota composition and functionality."

Financial support for this research came from U.S. Department of Veterans Affairs. The news correspondents obtained a quote from the research from Virginia Commonwealth University, "Cohort 1 had 200 cirrhotic in-patients (with/without opioid use) followed prospectively through the index hospitalisation and 6 months post discharge. Readmissions (HE-related/unrelated) were compared between patients discharged on opioids compared to the rest, including using a multi-variable analysis. Cohort 2 consisted of 72 cirrhotics on chronic opioids who were age/model for end-stage liver disease (MELD) and prior HE-balanced with 72 cirrhotics not on opioids. Stool microbiota composition (multi-tagged sequencing), predicted functionality (PiCRUST), endotoxemia and systemic inflammation (IL-6, IL-17) were compared. Cohort 1: Chronic opioid use was statistically similar between those admitted with/without HE, and was judged to be an HE precipitant in <5% of cases during the index hospitalisation. Of the 144 patients alive at 6 months, 82 were readmitted. The opioid users had a significantly higher all cause (69% vs. 48%, P = 0.008), but not HE-related readmissions (30% vs. 41%, P = 0.30). On regression, opioid therapy and female gender were predictive of readmission independent of MELD score and previous HE. Cohort 2: Significant dysbiosis was noted in the opioid cohort, especially in HE+opioid patients with lower autochthonous taxa and Bacteroidaceae relative abundance. PiCRUST showed highest aromatic amino acid and endotoxin production in opioid users. Opioid users also had higher endotoxemia and IL-6 but not IL-17."

According to the news reporters, the research concluded: "Chronic opioid use in cirrhosis is associated with increased endotoxemia, dysbiosis and all-cause readmissions."

Our news journalists report that additional information may be obtained by contacting J.S. Bajaj, Virginia Commonwealth University, Medical Center, Richmond, VA 23249, United States. Additional authors for this research include N.S. Betrapally, P.M. Gillevet, R.K. Sterling, H. Akbarali, M.B. White, D. Ganapathy, A. Fagan, M. Sikaroodi and J.S. Bajaj.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13858. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Richmond, Virginia, United States, North and Central America, Bacterial Infections and Mycoses, Inflammation, Epidemiology, Cardiovascular, Endotoxemia, Cardiology, Bacteremia, Cirrhosis, Fibrosis, Sepsis, Virginia Commonwealth University.

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Science

Findings from Virginia Polytechnic Institute and State University Provides New Data about Science (Convex Analysis of Mixtures for Separating Non-negative Well-grounded Sources)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science. According to news originating from Arlington, Virginia, by NewsRx correspondents, research stated, "Blind Source Separation (BSS) is a powerful tool for analyzing composite data patterns in many areas, such as computational biology. We introduce a novel BSS method, Convex Analysis of Mixtures (CAM), for separating non-negative well-grounded sources, which learns the mixing matrix by identifying the lateral edges of the convex data scatter plot."

Our news journalists obtained a quote from the research from Virginia Polytechnic Institute and State University, "We propose and prove a sufficient and necessary condition for identifying the mixing matrix through edge detection in the noise-free case, which enables CAM to identify the mixing matrix not only in the exact-determined and over-determined scenarios, but also in the under-determined scenario. We show the optimality of the edge detection strategy, even for cases where source well-groundedness is not strictly satisfied. The CAM algorithm integrates plug-in noise filtering using sector-based clustering, an efficient geometric convex analysis scheme, and stability-based model order selection. The superior performance of CAM against a panel of benchmark BSS techniques is demonstrated on numerically mixed gene expression data of ovarian cancer subtypes."

According to the news editors, the research concluded: "We apply CAM to dissect dynamic contrast-enhanced magnetic resonance imaging data taken from breast tumors and time-course microarray gene expression data derived from in-vivo muscle regeneration in mice, both producing biologically plausible decomposition results."

The news correspondents report that additional information may be obtained from Y. Wang, Virginia Polytechnic Institute & State Univ, Bradley Dept. of Elect & Comp Engn, Arlington, VA 22203, United States. Additional authors for this research include N.T. Wang, D.J. Miller and Y. Wang.

Keywords for this news article include: Arlington, Virginia, United States, North and Central America, Science, Genetics, Virginia Polytechnic Institute and State University.

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Oncology - Prostate Cancer

Findings from Virginia University Medical Center Broaden Understanding of Prostate Cancer (Development of a patient decision aid for the treatment of localised prostate cancer: a participatory design approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Prostate Cancer have been presented. According to news reporting out of Amsterdam, Netherlands, by NewsRx editors, research stated, "To develop a patient decision aid and to prepare an overview of requirements for implementation. We developed a decision aid that fits the preferences of patients and health care professionals to ensure adequate uptake in clinical practice."

Our news journalists obtained a quote from the research from Virginia University Medical Center, "A participatory design approach was used to acquire insight into preferences regarding the content and design of a decision aid and into barriers and aspects of the decision aid that facilitate implementation in clinical practice. Three focus group interviews with patients, their partners and health care professionals were conducted. A prototype of the decision aid was developed and presented to patients (n=14) and health care professionals (n=13) in semi-structured interviews. Patients (n=5) participated in a usability study. Data were analysed by two independent coders. Health care professionals considered medical information on treatments and side effects as the most important aspect to be included in the decision aid. Patients also focused on nonmedical considerations, such as location. Both expected the decision aid to support patients in making a treatment choice. According to health care professionals, the oncology nurse was the most suitable to discuss the decision aid with patients, while some patients preferred to discuss the patient decision aid with the urologist. The main barrier to implementation of the decision aid was said to be the expectation that it is time and money consuming, while the incorporation of the decision aid into clinical guidelines and basing the content on these guidelines, would promote implementation. By using a participatory design approach a patient decision aid was designed to meet patients' and health care professionals' needs. Insight was also gained on requirements for implementation. Wide-scale implementation of decision aids is desirable."

According to the news editors, the research concluded: "An overview is provided of requirements for implementation to successfully incorporate a decision aid into clinical practice."

Findings from W. Zhou and Co-Researchers Provides New Data on Atherosclerosis (Study on material base and action mechanism of compound Danshen dripping pills for treatment of atherosclerosis based on modularity analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Atherosclerosis are discussed in a new report. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Traditional Chinese medicine (TCM) has been widely used in China and its surrounding countries in clinical treatments for centuries-long time. However, due to the complexity of TCM constituents, both action mechanism and material base of TCM remain nearly unknown."

Financial supporters for this research include National Natural Science Foundation of China, Natural Science Foundation of Guangdong Province, The Pearl River Young Talents Program of the Bureau of Science and Technology of Guangzhou City, Excellent Young Teachers Program of the Department of Education of Guangdong Province.

The news reporters obtained a quote from the research, "Aim of the study: The present study was designed to uncover the action mechanism and material base of TCM in a low-cost manner. Compound Danshen dripping pills (DSP) is a widely used TCM for treatment of atherosclerosis, and was researched here to demonstrate the effectiveness of our method. We constructed a heterogeneous network for DSP, identified the significant network module, and analyzed the primary pharmacological units by performing GO and pathways enrichment analysis. Two significant network modules were identified from the heterogeneous network of DSP, and three compounds out of four hub nodes in the network were found to intervene in the process of atherosclerosis. Moreover, 13 out of 20 enriched pathways that were ranked in top 10 corresponding to both the two pharmacological units were found to be involved in the process of atherosclerosis. Quercetin, luteolin and apigenin may be the main active compounds which modulate the signaling pathways, such as metabolism of xenobiotics by cytochrome P450, retinol metabolism, etc."

According to the news reporters, the research concluded: "The present method helps reveal the action mechanism and material base of DSP for treatment of atherosclerosis."

Our news correspondents report that additional information may be obtained by contacting C. Chen, Res Center Qual Engn Technol Tradit Chinese Med Guan, Guangzhou 510006, Guangdong, People's Republic of China. Additional authors for this research include W.F. Yuan, C. Chen, S.M. Wang and S.W. Liang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.07.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Arteriosclerosis, Atherosclerosis, Pharmacology, Therapy.

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**Oncology - Prostate Cancer**

**Findings from Wayne State University Has Provided New Data on Prostate Cancer (Appropriateness Criteria for Active Surveillance of Prostate Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Prostate Cancer. According to news reporting originating in Detroit, Michigan, by NewsRx journalists, research stated, "The adoption of active surveillance varies widely across urological communities, which suggests a need for more consistency in the counseling of patients. To address this need we used the RAND/UCLA Appropriateness Method to develop appropriateness criteria and counseling statements for active surveillance."

The news reporters obtained a quote from the research from Wayne State University, "Panelists were recruited from MUSIC urology practices. Combinations of parameters thought to influence decision making were used to create and score 160 theoretical clinical scenarios for appropriateness of active surveillance. Recent rates of active surveillance among real patients across the state were assessed using the MUSIC registry. Low volume Gleason 6 was deemed highly appropriate for active surveillance whereas high volume Gleason 6 and low volume Gleason 3+4 were deemed appropriate to uncertain. No scenario was deemed inappropriate or highly inappropriate. Prostate specific antigen density, race and life expectancy impacted scores for intermediate and high volume Gleason 6 and low volume Gleason 3+4. The greatest degree of score dispersion (disagreement) occurred in scenarios with long life expectancy, high volume Gleason 6 and low volume Gleason 3+4. Recent rates of active surveillance use among real patients ranged from 0% to 100% at the provider level for low or intermediate biopsy volume Gleason 6, demonstrating a clear opportunity for quality improvement. By virtue of this work urologists have the opportunity to present specific recommendations from the panel to their individual patients."
According to the news reporters, the research concluded: "Community-wide efforts aimed at increasing rates of active surveillance and reducing practice and physician level variation in the choice of active surveillance vs treatment are warranted."


Our news correspondents report that additional information may be obtained by contacting M.L. Cher, Wayne State University, Dept. of Urol, Detroit, MI, United States. Additional authors for this research include A. Dhir, G.B. Auffenberg, S. Linsell, Y. Gao, B. Rosenberg, S.M. Jafri, L. Klotz, D.C. Miller, K.R. Ghani, S.J. Bernstein, J.E. Montie and B.R. Lane.

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Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Cancer, Epidemiology, Prostatic Neoplasms, Prostate Cancer, Oncology, Wayne State University.

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**Otolaryngology**

**Findings from Wayne State University Provides New Data about Otolaryngology (Otolaryngology Concerns for Illicit and Prescription Drug Use)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Otolaryngology. According to news reporting out of Detroit, Michigan, by NewsRx editors, research stated, "Concern for illicit and restricted drug use in otolaryngology is similar to other surgical specialties with a few notable exceptions. Many illicit drugs are consumed transnasally."

Our news journalists obtained a quote from the research from Wayne State University, "Repeated nasal exposure to stimulants or narcotics can cause local tissue destruction that can present as chronic rhinosinusitis or nasoseptal perforation. Further, the Food and Drug Administration has taken a stance against codeine for pediatric patients undergoing adenotonsillectomy. They have identified an increased risk of death postoperatively with these medications."

According to the news editors, the research concluded: "Because codeine has been the most commonly prescribed narcotic, this has shifted the standard practice."

Our news journalists report that additional information may be obtained by contacting N.J. Gonik, Wayne State University, Sch Med, Dept. of Otolaryngol Head & Neck Surg, ENT ClinChildrens Hosp Michigan, Detroit, MI 48201, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cll.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Otolaryngology, Drugs and Therapies, Risk and Prevention, Wayne State University.

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Liver Diseases and Conditions - Hepatitis C Virus

Findings from Weill Cornell Medical College Update Understanding of Hepatitis C Virus (Treatment adherence and virological response rates in hepatitis C virus infected persons treated with sofosbuvir-based regimens: results from ERCHIVES)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Hepatitis C Virus have been published. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Role of non-adherence upon virological success with newer oral regimens is unknown. We sought to determine the impact of treatment adherence upon virological outcomes in hepatitis C virus (HCV) infected persons on sofosbuvir (SOF)-based regimens, using pharmacy prescription data as a measure of adherence."

The news correspondents obtained a quote from the research from Weill Cornell Medical College, "We analysed HCV infected persons in Electronically Retrieved Cohort of HCV Infected Veterans, who were initiated on SOF-based regimens, excluding those with human immunodeficiency virus, positive hepatitis-B surface antigen, hepatocellular carcinoma and missing HCV RNA. The final dataset included following regimens: SOF+simeprevir (SIM) (n = 1050), SOF+ledipasvir (LDV) (n = 974), SOF+ribavirin (RBV) (n = 663, genotype 2 or 3), and SOF+pegylated interferon (PEG)+RBV (n = 519, genotype 1 or 4). Those treated with a SOF-based regimen were older and more likely to have cirrhosis, diabetes, chronic kidney disease, higher HCV RNA levels, higher body mass index, compared with 1652 controls receiving a boceprevir-based (BOC) regimen. Sustained virological response (SVR12) rates for the SOF+SIM and SOF+LDV groups did not decline significantly even when as low as 50% of the full course was prescribed (except SOF+LDV, 90-99% prescriptions had SVR12 of 84.6%; n = 13). SOF+RBV for genotype 2/3 who received 50-80% of the prescriptions, 23/34 (67.6%) achieved SVR12. For persons with genotype 1/4 infection treated with SOF+PEG+RBV, no declines in SVR12 were seen with lower rates of prescriptions (40/43, or 93% SVR12 rate). Sofosbuvir-based treatment regimens are highly effective in achieving SVR12."

According to the news reporters, the research concluded: "This efficacy is not significantly affected when treated persons receive less than a full prescribed course of treatment."

For more information on this research see: Treatment adherence and virological response rates in hepatitis C virus infected persons treated with sofosbuvir-based regimens:
Inflammation

Findings from Weill Cornell Medical College Yields New Findings on Inflammation (The Microbiome and the Liver: The Basics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Inflammation. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "The relationships between the microbiota and other aspects of normal human biology continue to be explored. Indeed, the volume of information relating to the interplay between the host and the microbiota has grown exponentially especially with the advent of ever-improving techniques for rapidly sequencing and identifying bacterial populations and their functions."

Our news journalists obtained a quote from the research from Weill Cornell Medical College, "The gut is initially sterile at birth and colonization and dynamic changes occur during infancy and early childhood in order to establish a mature microbiome. The mature microbiome has direct and important interactions with host metabolism. Bacterial translocation from the gut microbiome is thought to be a key driver of inflammation in liver disease and changes in tolerance to these bacteria drive inflammation in the liver and elsewhere in the host."

According to the news editors, the research concluded: "As we are better able to describe the composition and functional properties of the microbiome, the range of its impact on the homeostatic functions of the human body and implications for disease continue to be extended."

For more information on this research see: The Microbiome and the Liver: The Basics. Seminars in Liver Disease, 2016;36(4):299-305. Seminars in Liver Disease can be contacted at: Thieme Medical Publ Inc, 333 Seventh Ave, New York, NY 10001, USA. (Thieme - www.thieme.com)

The news correspondents report that additional information may be obtained from D.W. Victor, Houston Methodist Hosp, Weill Cornell Med College, Lynda K & David M Underwood Center Digest Disorders, Div Gastroenterol & Hepatol, Houston, TX, United States.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0036-1593879. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Inflammation, Article Review, Genetics, Weill Cornell Medical College.

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**Oncology - Breast Cancer**

**Findings from Wroclaw University Broaden Understanding of Breast Cancer (Expression of metallothionein 3 in ductal breast cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating in Wroclaw, Poland, by NewsRx journalists, research stated, "Metallothionein 3 (MT-3) has the ability to regulate the growth of nerve cells, but the significance of MT-3 expression outside the central nervous system and its participation in carcinogenesis have not yet been clarified. The aim of our study was to investigate the expression of MT-3 in ductal breast cancer and to determine its relationship with well-defined clinicopathological factors in this type of tumor."

The news reporters obtained a quote from the research from Wroclaw University, "The study was conducted on 134 cases of invasive ductal breast carcinoma (IDC), 42 samples of non-malignant breast tissue (NMBT), and 26 cases of mastopathy. Moreover, selected breast cancer cell lines (MCF-7, SKBR-3, MDA-MB-231, BO2) and normal human breast epithelial cells (hTERT-HME1) were used. The expression of MT-3 was examined on the protein level using immunohistochemistry and on the mRNA level using real-time PCR. It was shown that the MT-3 protein in cells of IDC and mastopathy appeared in the cytoplasm as well as in the cell nuclei. Both the cytoplasmic and nuclear expression of MT-3 was significantly lower in IDC than in the mastopathies (p <0.0001 and p<0.001). However, no significant correlation was demonstrated between the level of MT-3 protein and the studied clinicopathological factors. The mRNA expression of MT-3 in IDC was also lower than in non-malignant breast tissue (p <0.0001). Furthermore, in the cases of IDC with lymph node metastasis, the level of MT-3 mRNA was significantly lower than in the cases without metastasis (p<0.0199). The expression of MT-3 mRNA in breast cancer cell lines was significantly lower than in the normal human breast epithelial cell line (p <0.001)."

According to the news reporters, the research concluded: "These results suggest that MT-3 may play a role in the malignant transformation of breast epithelial cells and in tumor progression."


Our news correspondents report that additional information may be obtained by contacting A. Gomulkiewicz, Wroclaw University, Dept. of Histol & Embryol, PL-50368 Wroclaw, Poland. Additional authors for this research include K. Jablonska, B. Pula, J. Grzegzolka, S. Borska, M. Podhorska-Okolow, A. Wojnar, J. Rys, A. Ambicka, M. Ugorski, M. Zabel and P. Dziegieł.
Keywords for this news article include: Wroclaw, Poland, Europe, Metallothionein, Metalloproteins, Women's Health, Breast Cancer, Proteins, Oncology, Genetics, Wroclaw University.

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Transfusion Medicine - Blood Transfusion

Findings from Wuhan University Broaden Understanding of Blood Transfusion (Associations between autophagy, the ubiquitin-proteasome system and endoplasmic reticulum stress in hypoxia-deoxygenation or ischemia-reperfusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transfusion Medicine - Blood Transfusion. According to news reporting out of Wuhan, People's Republic of China, by NewsRx editors, research stated, "The activation of autophagy has been demonstrated to exert protective roles during hypoxia-reoxygenation (H/R)-induced brain injuries. This study aimed to investigate whether and how preconditioning with a proteasome inhibitor (MG-132), a proteasome promoter (Adriamycin, ADM), an autophagy inhibitor (3-methyladenine, 3-MA) and an autophagy promoter (Rapamycin, Rap) affected endoplasmic reticulum stress (ERS), the ubiquitin-proteasome system (UPS), autophagy, inflammation and apoptosis."

Funders for this research include National Natural Science Foundation of China, Wuhan University.

Our news journalists obtained a quote from the research from Wuhan University, "Ubiquitin protein and 26S proteasome activity levels were decreased by MG-132 pretreatment but increased by ADM pretreatment at 2 h, 4 h and 6 h following H/R treatment. MG-132 pretreatment led to the increased expression of autophagy-related genes, ER stress-associated genes and I kappa B but decreased the expression levels of NF-kappa B and caspase-3. ADM pretreatment led to the decreased expression of autophagy-related genes, ERS-associated genes and I kappa B but increased the expression of NF-kappa B and caspase-3. Pretreatment with 3-MA reduced the expression of autophagy-related genes, autophagy and UPS co-related genes, as well as apoptosis-related although the latter was increased by Rap pretreatment at 2 h, 4 h and 6 h following H/R treatment. In vivo, pretreatment of rats with ADM, MG-132, 3-MA or Rap followed by ischemia-reperfusion (PR) treatment resulted in similar changes. Proteasome inhibition preconditioning strengthened autophagy and ER stress but decreased apoptosis and inflammation. Autophagy promotion preconditioning exhibited similar changes."

According to the news editors, the research concluded: "The combination of a proteasome inhibitor and an autophagy promoter might represent a new possible therapy to treat H/R or I/R injury-related diseases."

For more information on this research see: Associations between autophagy, the ubiquitin-proteasome system and endoplasmic reticulum stress in hypoxia-deoxygenation or ischemia-reperfusion. European Journal of Pharmacology, 2016;791():157-167. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by
Findings from Wuhan University Broaden Understanding of Breast Cancer (Progress in the clinical detection of heterogeneity in breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting from Hubei, People's Republic of China, by NewsRx journalists, research stated, "Breast cancer is currently the most common form of cancer and the second-leading cause of death from cancer in women. Though considerable progress has been made in the treatment of breast cancer, the heterogeneity of tumors (both inter- and intratumor) remains a considerable diagnostic and prognostic challenge."

Funders for this research include National Key Scientific Instrument and Equipment Development Project, Natural Science Foundation of Hubei Province, National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from Wuhan University, "From clinical observation to genetic mutations, the history of understanding the heterogeneity of breast cancer is lengthy and detailed. Effectively detecting heterogeneity in breast cancer is important during treatment. Various methods of depicting this heterogeneity are now available and include genetic, pathologic, and imaging analysis. These methods allow characterization of the heterogeneity of breast cancer on a genetic level, providing greater insight during the process of establishing an effective therapeutic plan."

According to the news reporters, the research concluded: "This study reviews how the understanding of tumor heterogeneity in breast cancer evolved, and further summarizes recent advances in the detection and monitoring of this heterogeneity in patients with breast cancer."


Our news journalists report that additional information may be obtained by contacting S.R. Sun, Wuhan University, Dept. of Breast & Thyroid Surg, Renmin Hosp, Wuhan
Diseases and Conditions - Birt-Hogg-Dube Syndrome

Findings from Y. Gunji-Niitsu and Co-Authors Broaden Understanding of Birt-Hogg-Dube Syndrome (Benign clear cell "sugar" tumor of the lung in a patient with Birt-Hogg-Dube syndrome: a case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Diseases and Conditions - Birt-Hogg-Dube Syndrome. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "Birt-Hogg-Dube (BHD) syndrome is a rare inherited autosomal genodermatosis and caused by germline mutation of the folliculin (FLCN) gene, a tumor suppressor gene of which protein product is involved in mechanistic target of rapamycin (mTOR) signaling pathway regulating cell growth and metabolism. Clinical manifestations in BHD syndrome is characterized by fibrofolliculomas of the skin, pulmonary cysts with or without spontaneous pneumothorax, and renal neoplasms."

The news reporters obtained a quote from the research, "There has been no pulmonary neoplasm reported in BHD syndrome, although the condition is due to deleterious sequence variants in a tumor suppressor gene. Here we report, for the first time to our knowledge, a patient with BHD syndrome who was complicated with a clear cell 'sugar' tumor (CCST) of the lung, a benign tumor belonging to perivascular epithelioid cell tumors (PEComas) with frequent causative relation to tuberous sclerosis complex 1 (TSC1) or 2 (TSC2) gene. Case presentation: In a 38-year-old Asian woman, two well-circumscribed nodules in the left lung and multiple thin-walled, irregularly shaped cysts on the basal and medial area of the lungs were disclosed by chest roentgenogram and computer-assisted tomography (CT) during a preoperative survey for a bilateral faucial tonsillectomy. Analysis of the resected tumor showed large polygonal cells with clear cytoplasm proliferating in a solid pattern. Immunohistochemistry revealed that these tumor cells were positive for microphthalmia-transcription factor, S100, and CD1a but negative for HMB45, indicating that the tumor was a CCST. Genetic testing indicated that the patient had a germline mutation on exon 12 of the FLCN gene, i.e., insertion of 7 nucleotides (CCACCCT) (c.1347_1353dupCCACCCT). Direct sequencing of the FLCN exon 12 using genomic DNA obtained from her microdissected CCST cells clearly revealed loss of the wild-type FLCN sequence, which confirmed complete functional loss of the FLCN gene. On the other hand, no loss of heterozygosity around TCS1- or TSC2-associated genetic region was demonstrated."

According to the news reporters, the research concluded: "To our knowledge, this is the first report of CCST of the lung in a patient with BHDS, indicating that CCST should be
added to the spectrum of pulmonary manifestations of BHDS.

For more information on this research see: Benign clear cell "sugar" tumor of the lung in a patient with Birt-Hogg-Dube syndrome: a case report. BMC Medical Genetics, 2016;17():1-8. BMC Medical Genetics can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Medical Genetics - www.biomedcentral.com/bmcmedgenet/)

Our news correspondents report that additional information may be obtained by contacting K. Seyama, Study Grp Pneumothorax & Cyst Lung Dis, Setagaya Ku, Tokyo 1580095, Japan. Additional authors for this research include T. Kumasaka, S. Kitamura, Y. Hoshika, T. Hayashi, H. Tokuda, R. Morita, E. Kobayashi, K. Mitani, M. Kikkawa, K. Takahashi and K. Seyama.

Keywords for this news article include: Tokyo, Japan, Asia, Diseases and Conditions, Birt-Hogg-Dube Syndrome, Oncology, Genetics, Tumor Suppression.

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Connective Tissue Cells

Findings from Y. Huang and Colleagues Provides New Insights into Connective Tissue Cells (CRISPR/Cas9 knockout of HAS2 in rat chondrosarcoma chondrocytes demonstrates the requirement of hyaluronan for aggrecan retention)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Connective Tissue Cells is the subject of a report. According to news reporting from Greenville, North Carolina, by NewsRx journalists, research stated, "Hyaluronan (HA) plays an essential role in cartilage where it functions to retain aggrecan. Previous studies have suggested that aggrecan is anchored indirectly to the plasma membrane of chondrocytes via its binding to cell-associated HA."

Financial supporters for this research include Brody School of Medicine Seed Grant Program (EBA), National Institute of Arthritis and Musculoskeletal and Skin Diseases of the National Institutes of Health.

The news correspondents obtained a quote from the research, "However, reagents used to test these observations such as hyaluronidase and HA oligosaccharides are short term and may have side activities that complicate interpretation. Using the CRISPR/Cas9 gene editing approach, a model system was developed by generating HA-deficient chondrocyte cell lines. HA synthase-2 (Has2)-specific single guide RNA, was introduced into two different variant lines of rat chondrosarcoma chondrocytes; knockout clones were isolated and characterized. Two other members of the HA synthase gene family were expressed at very low relative copy number but showed no compensatory response in the Has2 knockouts. Wild type chondrocytes of both variants exhibited large pericellular matrices or coats extending from the plasma membrane. Addition of purified aggrecan monomer expanded the size of these coats as the proteoglycan became retained within the pericellular matrix. Has2 knockout chondrocytes lost all capacity to assemble a particle-excluding pericellular matrix and more importantly, no matrices formed around the knockout cells following the addition of purified aggrecan. When grown as pellet cultures so as to generate a bioengineered neocartilage tissue, the Has2 knockout chondrocytes assumed a tightly-compacted morphology as compared to the wild type cells.
When knockout chondrocytes were transduced with Adeno-ZsGreen1-mycHas2, the cell-associated pericellular matrices were restored including the capacity to bind and incorporate additional exogenous aggrecan into the matrix."

According to the news reporters, the research concluded: "These results suggest that HA is essential for aggrecan retention and maintaining cell separation during tissue formation."

For more information on this research see: CRISPR/Cas9 knockout of HAS2 in rat chondrosarcoma chondrocytes demonstrates the requirement of hyaluronan for aggrecan retention. *Matrix Biology*, 2016;56():74-94. *Matrix Biology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Matrix Biology - www.journals.elsevier.com/matrix-biology/)

Our news journalists report that additional information may be obtained by contacting W. Knudson, East Carolina Univ, Brody Sch Med, Dept. of Anat & Cell Biol, Greenville, NC 27834, United States. Additional authors for this research include E.B. Askew, C.B. Knudson and W. Knudson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.matbio.2016.04.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Greenville, North Carolina, United States, North and Central America, Extracellular Matrix Proteins, Proteochondroitin Sulfates, Connective Tissue Cells, Enzymes and Coenzymes, Chondrosarcoma, C-Type Lectins, Glycoproteins, Chondrocytes, Aggrecans, Synthase, Genetics.

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**Lung Diseases and Conditions - Chronic Obstructive...**

**Findings from Y. Li and Colleagues Update Understanding of Chronic Obstructive Pulmonary Disease (Bufei Yishen granules combined with acupoint sticking therapy suppress oxidative stress in chronic obstructive pulmonary disease rats: Via ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease are discussed in a new report. According to news reporting originating from Zhengzhou, People's Republic of China, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: Traditional Chinese medicine (TCM) is clinically used under the guidance of its unique theory system. Bufei Yishen (BY) granules, an oral Chinese herbal formula, is confirmed effective for treating the syndrome of lung-kidney qi deficiency in chronic obstructive pulmonary disease (COPD) patients."

Funders for this research include National Natural Science Foundation, Basic Research Program of Scientific and Technological Research Key Program of Henan Province Department of Education.

Our news editors obtained a quote from the research, "Shu-Fei Tie ointment is another prescription for acupoint sticking (AS) therapy based on the theory of treating an internal disease by external treatment on proper acupoints. The beneficial effects of BY granules combined with Shu-Fei Tie have been proved in previous clinical trials. However, the underlying mechanism remains unclear. The present study was initiated to explore the..."
antioxidative mechanism of the integrated therapy of BY granules and acupoint sticking via regulating by peroxisome proliferator activated receptor-gamma (PPAR gamma) signaling in a cigarette-smoke/bacterial exposure induced COPD rat model. Rats were randomized into Control, Model, BY, AS, BY+AS and aminophylline (APL) groups. COPD rats were induced by cigarette-smoke and bacterial exposures, and were administrated with normal saline, BY granules, AS, BY+AS or aminophylline from week 9 and sacrificed at week 20. Activity of superoxide dismutase (SOD) and levels of methane dicarboxylic aldehyde (MDA) in peripheral blood and bronchoalveolar lavage fluid (BALF) were determined by hydroxylamine and thiobarbituric acid methods. The gene and protein expressions of PPARy in the lung tissues were analyzed by quantitative polymerase chain reaction and western blot. Serum and BALF SOD decreased significantly in Model group (P < 0.01), while MDA increased (P < 0.01). Compared to COPD rats, serum SOD was higher in all treatment groups (P < 0.01), and BALF SOD was higher in BY and BY+AS groups (P < 0.01); serum and BALF MDA was lower in all treatment groups (P < 0.01). Serum and BALF SOD was higher in BY+AS group than in AS group, while MDA was lower (P < 0.05). BALF SOD increased in BY+AS group compared with APL group, while MDA decreased (P < 0.05). PPAR gamma mRNA and protein and the phosphorylation of PPAR gamma (p-PPAR gamma) decreased in COPD rats (P < 0.01), and increased in all treatment groups (P < 0.01). PPAR gamma mRNA was higher in BY+AS group than in AS group (P < 0.05), PPAR gamma and p-PPAR gamma were higher in BY+AS group than in AS and APL groups (P < 0.05, P < 0.01); PPAR gamma protein was higher in BY group than in APL group (P < 0.05).

According to the news editors, the research concluded: "Bufei Yishen granules, Shu-Fei Tie and their combination have beneficial effects in stable COPD, and can attenuate the oxidative stress, and the activation of PPAR gamma signaling might be involved in."


The news editors report that additional information may be obtained by contacting Y. Li, Collaborat Innovat Center Resp Dis Diagnost Treatmen, Zhengzhou 450046, Henan, People's Republic of China. Additional authors for this research include Y.G. Tian, J.S. Li, Y.Q. Dong, M.H. Wang, S.X. Feng, L.L. Li, J. Mao, L.L. Wang and S. Luo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Peroxisome Proliferator-Activated Receptors, Chronic Obstructive Pulmonary Disease, Cytoplasmic and Nuclear Receptors, Lung Diseases and Conditions, Transcription Factors, DNA-Binding Proteins, PPAR gamma, Genetics, Therapy.

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Findings from Y.J. Li and Co-Authors Broaden Understanding of Adipogenesis (Berberine Alleviates Olanzapine-Induced Adipogenesis via the AMPK alpha-SREBP Pathway in 3T3-L1 Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Adipogenesis. According to news reporting out of Chongqing, People's Republic of China, by NewsRx editors, research stated, "The aim of this study was to investigate the mechanisms underlying the inhibitory effects of berberine (BBR) on olanzapine (OLZ)-induced adipogenesis in a well-replicated 3T3-L1 cell model. Oil-Red-O (ORO) staining showed that BBR significantly decreased OLZ-induced adipogenesis."

Our news journalists obtained a quote from the research, "Co-treatment with OLZ and BBR decreased the accumulation of triglyceride (TG) and total cholesterol (TC) by 55.58% +/- 3.65% and 49.84% +/- 8.31%, respectively, in 3T3-L1 adipocytes accompanied by reduced expression of Sterol regulatory element binding proteins 1 (SREBP1), fatty acid synthase (FAS), peroxisome proliferator activated receptor-gamma (PPAR gamma), SREBP2, low-density lipoprotein receptor (LDLR), and hydroxymethylglutaryl-coenzyme A reductase (HMGR) genes compared with OLZ alone. Consistently, the co-treatment downregulated protein levels of SREBP1, SREBP2, and LDLR by 57.71% +/- 9.42%, 73.05% +/- 11.82%, and 59.46% +/- 9.91%, respectively. In addition, co-treatment reversed the phosphorylation level of AMP-activated protein kinase-alpha (AMPK alpha), which was reduced by OLZ, determined via the ratio of pAMPK alpha: AMPK alpha (94.1%) compared with OLZ alone. The results showed that BBR may prevent lipid metabolism disorders caused by OLZ by reversing the degree of SREBP pathway upregulated and the phosphorylation of AMPK alpha downregulated."

According to the news editors, the research concluded: "Collectively, these results indicated that BBR could be used as a potential adjuvant to prevent dyslipidemia and obesity caused by the use of second-generation antipsychotic medication."

For more information on this research see: Berberine Alleviates Olanzapine-Induced Adipogenesis via the AMPK alpha-SREBP Pathway in 3T3-L1 Cells. International Journal of Molecular Sciences, 2016;17(11):1539-1550. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting Y.J. Li, Engn Res Center Chongqing Pharmaceut Proc & Qual Con, Chongqing 400715, People's Republic of China. Additional authors for this research include X.M. Zhao, X.Y. Feng, X.M. Liu, C. Deng and C.H. Hu.

Keywords for this news article include: Chongqing, People's Republic of China, Asia, Connective Tissue Cells, Swiss 3T3 Cells, 3T3-L1 Cells, Adipogenesis, Fibroblasts, Cell Line, Genetics.

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Eye Diseases and Conditions - Retinal Vein Occlusion

Findings from Yonsei University Update Understanding of Retinal Vein Occlusion (Central Retinal Vein Occlusion Associated with Ulcerative Colitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Eye Diseases and Conditions - Retinal Vein Occlusion are discussed in a new report. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "To report a case of central retinal vein occlusion without macular edema associated with ulcerative colitis and its novel treatment with intravitreal dexamethasone. A 40-year-old man with ulcerative colitis presented with sudden visual disturbances."

The news reporters obtained a quote from the research from Yonsei University, "An initial fundus examination showed subtle yellow-to-white patches within the inner retina of the right eye superotemporal to the fovea. There were intraretinal hemorrhages and cotton-wool spots within the superior vascular arcade and nasal to the optic disc. Despite initiation of systemic corticosteroids, 2 weeks later there was an increase in retinal hemorrhages, formation of cotton wool spots, and development of optic disc swelling in the right eye. The patient was eventually diagnosed with nonischemic central retinal vein occlusion associated with ulcerative colitis. He received sustained-release intravitreal dexamethasone, which led to the resolution of retinal hemorrhage, optic disc swelling, and cotton-wool spots. Three months after the injection, retinal hemorrhages were not detectable. However, ocular coherence imaging showed marked thinning of the inner retina at the locations that were previously hyper-reflective. Central retinal vein occlusion is an uncommon ophthalmologic manifestation associated with ulcerative colitis."

According to the news reporters, the research concluded: "Injection of intravitreal dexamethasone could be a viable treatment option in these patients even without the presence of macular edema."

For more information on this research see: Central Retinal Vein Occlusion Associated with Ulcerative Colitis. *Optometry and Vision Science, 2016;93(12):1567-1570. Optometry and Vision Science* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Optometry and Vision Science - journals.lww.com/optvissci/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting M. Kim, Yonsei University, Coll Med, Gangnam Severance Hosp, Dept. of Ophthalmol, Seoul 135720, South Korea. Additional authors for this research include M. Kim, J.H. Kim, J.J. Park and S.C. Lee.

Keywords for this news article include: Seoul, South Korea, Asia, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Cardiovascular Diseases and Conditions, Colonic Diseases and Conditions, Retinal Diseases and Conditions, Eye Diseases and Conditions, Embolism and Thrombosis, Retinal Vein Occlusion, Retinal Degeneration, Macular Degeneration, Retinal Hemorrhage, Ulcerative Colitis, Venous Thrombosis, Gastroenterology, Gastroenteritis, Eye Hemorrhage, Macular Edema, Yonsei University.

Our reports deliver fact-based news of research and discoveries from around the
Nutritional and Metabolic Diseases and Conditions - …

Findings from Yonsei University Yields New Findings on Type 2 Diabetes (Mitochondria and the NLRP3 inflammasome: physiological and pathological relevance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "The NLRP3 inflammasome is assembled and activated in certain types of myeloid cells upon sensing microbe-derived toxins or host-derived danger signals. Activation of the NLRP3 inflammasome by endogenous ligands has been discovered in various disorders, including metabolic syndrome, type 2 diabetes, atherosclerosis, gout, reperfusion injury of the heart, neurodegeneration, such as Alzheimer's disease, chronic kidney diseases, and macular degeneration of the eyes."

Financial support for this research came from National Research Foundation of Korea.

The news reporters obtained a quote from the research from Yonsei University, "Despite the potential significance of the NLRP3 inflammasome in the pathogenesis of several diseases, details on the activation mechanism of the NLRP3 inflammasome by a variety of stimulators have yet to be reported. Emerging evidence suggests that mitochondrial events are associated with NLRP3 activation in disease conditions. Mitochondrial dysfunction acts upstream of NLRP3 activation by providing reactive oxygen species (ROS) to trigger NLRP3 oligomerization or by inducing alpha-tubulin acetylation to relocate mitochondria to the proximity of NLRP3. In addition, mitochondria work as a platform for inflammasome assembly. Mitochondrial events may also lie downstream of NLRP3 activation. While the molecular mechanisms of mitochondrial dysfunction associated with NLRP3 activation are still unclear, they may involve the perturbation of mitochondria by K+ efflux and subsequent intracellular disequilibrium."

According to the news reporters, the research concluded: "Thus, mitochondria and NLRP3 machinery appear to be closely interwoven at multiple levels."


Our news correspondents report that additional information may be obtained by contacting M.S. Lee, Yonsei University, Coll Med, Dept. of Internal Med, Seoul 03722, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12272-016-0827-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Cytoplasm,
Findings from Z.P. Yang and Co-Authors Broaden Understanding of Gastric Cancer (Equol Induces Mitochondria-Dependent Apoptosis in Human Gastric Cancer Cells via the Sustained Activation of ERK1/2 Pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news originating from Fujian, People's Republic of China, by NewsRx correspondents, research stated, "The cancer chemo-preventive effects of equol have been demonstrated for a wide variety of experimental tumours. In a previous study, we found that equol inhibited proliferation and induced apoptotic death of human gastric cancer MGC-803 cells."

Our news journalists obtained a quote from the research, "However, the mechanisms underlying equol-mediated apoptosis have not been well understood. In the present study, the dual AO (acridine orange)/EB (ethidium bromide) fluorescent assay, the comet assay, MTS, western blotting and flow cytometric assays were performed to further investigate the pro-apoptotic effect of equol and its associated mechanisms in MGC-803 cells. The results demonstrated that equol induced an apoptotic nuclear morphology revealed by AO/EB staining, the presence of a comet tail, the cleavage of caspase-3 and PARP and the depletion of cIAP1, indicating its pro-apoptotic effect. In addition, equol-induced apoptosis involves the mitochondria-dependent cell-death pathway, evidenced by the depolarization of the mitochondrial membrane potential, the cleavage of caspase-9 and the depletion of Bcl-xL and full-length Bid. Moreover, treating MGC-803 cells with equol induced the sustained activation of extracellular signal-regulated kinase (ERK), and inhibiting ERK by U0126, a MEK/ERK pathway inhibitor, significantly attenuated the equol-induced cell apoptosis. These results suggest that equol induces mitochondria-dependent apoptosis in human gastric cancer MGC-803 cells via the sustained activation of the ERK1/2 pathway."

According to the news editors, the research concluded: "Therefore, equol may be a novel candidate for the chemoprevention and therapy of gastric cancer."

For more information on this research see: Equol Induces Mitochondria-Dependent Apoptosis in Human Gastric Cancer Cells via the Sustained Activation of ERK1/2 Pathway. Molecules and Cells, 2016;39(10):742-749. Molecules and Cells can be contacted at: Korean Soc Molecular & Cellular Biology, 635-4, Yucksam-Dong, Gangnam-Gu, Seoul 135-703, South Korea. (Springer - www.springer.com; Molecules and Cells - www.springerlink.com/content/1016-8478/)

The news correspondents report that additional information may be obtained from X.N. Wu, Xiamen Med College, Xiamen 350108, Fujian, People's Republic of China. Additional authors for this research include Y. Zhao, Y.H. Yao, J. Li, W.S. Wang and X.N. Wu. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.14348/molcells.2016.0162. This DOI is a link to an online electronic
Findings from Zagazig University in the Area of Type 2 Diabetes Reported (PARP-1 inhibition alleviates diabetic cardiac complications in experimental animals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting from Zagazig, Egypt, by NewsRx journalists, research stated, "Cardiovascular complications are the major causes of mortality among diabetic population. Poly(ADPribose) polymerase-1 enzyme (PARP-1) is activated by oxidative stress leading to cellular damage."

Funders for this research include Egyptian Ministry for Higher Education Funding Agency (grant number 1024), Science and Technology Development.

The news correspondents obtained a quote from the research from Zagazig University, "We investigated the implication of PARP-1 in diabetic cardiac complications. Type 2 diabetes was induced in rats by high fructose-high fat diet and low streptozotocin dose. PARP inhibitor 4-aminobenzamide (4-AB) was administered daily for ten weeks after diabetes induction. At the end of study, surface ECG, blood pressure and vascular reactivity were studied. PARP-1 activity, reduced glutathione (GSH) and nitrite contents were assessed in heart muscle. Fasting glucose, fructosamine, insulin, and tumor necrosis factor alpha (TNIF-alpha) levels were measured in serum. Finally, histological examination and collagen deposition detection in rat ventricular and aortic sections were carried out. Hearts isolated from diabetic animals showed increased PARP-1 enzyme activity compared to control animals while significantly reduced by 4-AB administration. PARP-1 inhibition by 4-AB alleviated cardiac ischemia in diabetic animals as indicated by ECG changes. PARP-1 inhibition also reduced cardiac inflammation in diabetic animals as evidenced by histopathological changes. In addition, 4-AB administration improved the elevated blood pressure and the associated exaggerated vascular contractility, endothelial destruction and vascular inflammation seen in diabetic animals. Moreover, PARP-1 inhibition decreased serum levels of TNIF-alpha and cardiac nitrite but increased cardiac GSH contents in diabetic animals. However, PARP-1 inhibition did not significantly affect the developed hyperglycemia."

According to the news reporters, the research concluded: "Our findings prove that PARP-1 enzyme plays an important role in diabetic cardiac complications through combining inflammation, oxidative stress, and fibrosis mechanisms."

For more information on this research see: PARP-1 inhibition alleviates diabetic cardiac complications in experimental animals. European Journal of Pharmacology, 2016;791 (1):444-454. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal
Findings from Zhejiang University Broaden Understanding of Medicinal Chemistry [Discovery of 4-chloro-3-(5-(pyridin-3-yl)-1,2,4-oxadiazole-3-yl) benzamides as novel RET kinase inhibitors]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Health and Medicine - Medicinal Chemistry. According to news reporting out of Hangzhou, People's Republic of China, by NewsRx editors, research stated, "A series of novel 4-chloro-benzamides derivatives containing substituted five-membered heteroaryl ring were designed, synthesized and evaluated as RET kinase inhibitors for cancer therapy. Most of compounds exhibited moderate to high potency in ELISA-based kinase assay."

Our news journalists obtained a quote from the research from Zhejiang University, "In particular, compound I-8 containing 1,2,4-oxadiazole strongly inhibited RET kinase activity both in molecular and cellular level. In turn, I-8 inhibited cell proliferation driven by RET wildtype and gatekeeper mutation."

According to the news editors, the research concluded: "The results implied that 4-chloro-3-(5-(pyridin-3-yl)-1,2,4-oxadiazole-3-yl) benzamides are promising lead compounds as novel RET kinase inhibitor for further investigation."


Keywords for this news article include: Hangzhou, People's Republic of China,
Findings from Zhejiang University Provides New Data on Cytokines
(RKIP and TBK1 form a positive feedback loop to promote type I interferon production in innate immunity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Intercellular Signaling Peptides and Proteins - Cytokines. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "TANK-binding kinase 1 (TBK1) activation is a central event in type I interferon production in anti-virus innate immunity. However, the regulatory mechanism underlying TBK1 activation remains unclear."

The news reporters obtained a quote from the research from Zhejiang University, "Here we report that Raf kinase inhibitory protein (RKIP) is essential for TBK1 activation and type I interferon production triggered by viral infection. Upon viral infection, RKIP is phosphorylated at serine 109 (S109) by TBK1. Phosphorylation of RKIP enhances its interaction with TBK1 and in turn promotes TBK1 autophosphorylation. Mutation of RKIP S109 to alanine abrogates the interaction between RKIP and TBK1, and the anti-viral function of RKIP. RKIP deficiency inhibits intracellular double-stranded RNA- or DNA-induced type I interferon production. Consistently, RKIP deficiency renders the mice more susceptible to vesicular stomatitis virus (VSV) and herpes simplex virus (HSV) infections."

According to the news reporters, the research concluded: "This study reveals a previously unrecognized positive feedback loop between RKIP and TBK1 that is essential for type I interferon production in anti-viral innate immunity."

For more information on this research see: RKIP and TBK1 form a positive feedback loop to promote type I interferon production in innate immunity. *Embo Journal*, 2016;35(23):2553-2565. *Embo Journal* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.


Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Enzymes and Coenzymes, Interferons, Cytokines, Genetics, Kinase, Zhejiang University.

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Findings from Zhejiang University Provides New Data on Nanoparticles (Tetraphenylethene-based highly emissive metallacage as a component of theranostic supramolecular nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nanotechnology - Nanoparticles. According to news reporting from Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "A theranostic agent combines diagnostic reporter with therapeutic activity in a single entity, an approach that seeks to increase the efficacy of cancer treatment. Herein, we describe the synthesis of a highly emissive tetraphenylethene-based metallacage using multicomponent coordination-driven self-assembly that exhibits a coordination-triggered aggregation-induced emission (AIE) enhancement."

Financial supporters for this research include National Science Foundation (NSF), National Basic Research Program, National Natural Science Foundation of China (NSFC), Key Science Technology Innovation Team of Zhejiang Province, Open Project of State Key Laboratory of Supramolecular Structure and Materials.

The news correspondents obtained a quote from the research from Zhejiang University, "The formation of metallacage-loaded nanoparticles (MNPs) occurs when the assembly is treated with two variants of a 1,2-distearoyl-phosphatidylethanolamine (DSPE)/polyethylene glycol (PEG) conjugate, mPEG-DSPE, and biotin-PEG-DSPE. This combination endows the resultant MNPs with excellent stability and targeting ability, specifically enabling selective delivery of the metallacages to cancer cells that overexpress biotin receptors via receptor-mediated endocytosis. Although the mechanism of activity is based on existing Pt(II) anticancer drugs such as oxaliplatin, carboplatin, and cisplatin, in vitro and in vivo studies indicate that the MNPs are more active and show low systemic activity while also possessing emissive properties that allow for fluorescence-based imaging."

According to the news reporters, the research concluded: "This pioneering example of a metallacage that combines biologically active components with AIE imaging establishes supra-molecular coordination complexes imbedded within nanoparticles as a promising potential theranostic platform for cancer treatment."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1616836113. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Nanoparticles, Emerging Technologies, Supramolecular, Nanotechnology, Nanoparticle, Oncology, Cancer, Zhejiang University.

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Genetics - Human Mutation

Findings from Ziv Medical Center Update Understanding of Human Mutation (Systematic Analysis of CCNO Variants in a Defined Population: Implications for Clinical Phenotype and Differential Diagnosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Genetics - Human Mutation. According to news reporting from Safed, Israel, by NewsRx journalists, research stated, "Reduced generation of multiple motile cilia (RGMC) is a novel chronic destructive airway disease within the group of mucociliary clearance disorders with only few cases reported. Mutations in two genes, CCNO and MCIDAS, have been identified as a cause of this disease, both leading to a greatly reduced number of cilia and causing impaired mucociliary clearance."

The news correspondents obtained a quote from the research from Ziv Medical Center, "This study was designed to identify the prevalence of CCNO mutations in Israel and further delineate the clinical characteristics of RGMC. We analyzed 170 families with mucociliary clearance disorders originating from Israel for mutations in CCNO and identified two novel mutations (c.165delC, p.Gly56Alafs*38; c.638T >C, p.Leu213Pro) and two known mutations in 15 individuals from 10 families (6% prevalence). Pathogenicity of the missense mutation (c.638T>C, p.Leu213Pro) was demonstrated by functional analyses in Xenopus. Combining these 15 patients with the previously reported CCNO case reports revealed rapid deterioration in lung function, an increased prevalence of hydrocephalus (10%) as well as increased female infertility (22%). Consistent with these findings, we demonstrate that CCNO expression is present in murine ependyma and fallopian tubes."

According to the news reporters, the research concluded: "CCNO is mutated more frequently than expected from the rare previous clinical case reports, leads to severe clinical manifestations, and should therefore be considered an important differential diagnosis of mucociliary clearance disorders."


Our news journalists report that additional information may be obtained by contacting I. Amirav, Ziv Medical Center, Faculty of Medicine, Bar Ilan University, Safed 13100, Israel. Additional authors for this research include J. Wallmeier, N.T. Loges, T. Menchen, P. Pennekamp, H. Mussaffi, R. Abitbul, A. Avital, L. Bentur, G.W. Dougherty, E. Nael, M. Lavie, H. Olbrich, C. Werner, C. Kintner and H. Omran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/humu.22957. This DOI is a link to an online electronic document that is either free or for purchase.
Oncology - Acute Lymphoblastic Leukemia

Findings in Acute Lymphoblastic Leukemia Reported from University of Southern California [Expression and polymorphism (rs4880) of mitochondrial superoxide dismutase (SOD2) and asparaginase induced hepatotoxicity in adult patients with acute ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Acute Lymphoblastic Leukemia. According to news reporting originating in Los Angeles, California, by NewsRx journalists, research stated, "Asparaginase, which depletes asparagine and glutamine, activates amino-acid stress response. Oxidative stress mediated by excessive reactive oxygen species (ROS) causes enhanced mitochondrial permeabilization and subsequent cell apoptosis and is considered as a plausible mechanism for drug-induced hepatotoxicity, a common toxicity of asparaginase in adults with acute lymphoblastic leukemia (ALL)."

The news reporters obtained a quote from the research from the University of Southern California, "Studies investigating the pharmacogenetics of asparaginase in ALL are limited and focused on asparaginase-induced allergic reaction common in pediatric patients. Here, we sought to determine a potential association between the variant rs4880 in SOD2 gene, a key mitochondrial enzyme that protects cells against ROS, and hepatotoxicity during asparaginase-based therapy in 224 patients enrolled on CALGB-10102, a treatment trial for adults with ALL. We report that the CC genotype of rs4880 is associated with increased hepatotoxicity following asparaginase-based treatment."

According to the news reporters, the research concluded: "Thus, rs4880 likely contributes to asparaginase-induced hepatotoxicity, and functional studies investigating this single-nucleotide polymorphism (SNP) are needed to develop therapeutic approaches that mitigate this toxicity. The Pharmacogenomics Journal advance online publication, 29 March."

For more information on this research see: Expression and polymorphism (rs4880) of mitochondrial superoxide dismutase (SOD2) and asparaginase induced hepatotoxicity in adult patients with acute lymphoblastic leukemia. The Pharmacogenomics Journal, 2016;():.

Our news correspondents report that additional information may be obtained by contacting H. Alachkar, Dept. of Pharmacy, USC School of Pharmacy, University of Southern California, Los Angeles, CA, United States. Additional authors for this research include N. Fulton, B. Sanford, G. Malnassy, M. Mutonga, R.A. Larson, C.D. Bloomfield, G. Marcucci, Y. Nakamura and W. Stock.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2016.7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Pharmaceuticals, Genetics, Oncology, Dismutase, California, Hematology, Los Angeles, United States, Amidohydrolases, Gastroenterology, Drugs and Therapies, Asparaginase Therapy, Enzymes and Coenzymes, North and Central America, Acute Lymphoblastic Leukemia.
Findings in Acute Myeloid Leukemia Reported from Wroclaw Medical University (Variations in genes involved in regulation of the nuclear factor - kB pathway and the risk of acute myeloid leukaemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Acute Myeloid Leukemia have been published. According to news reporting originating from Wroclaw, Poland, by NewsRx correspondents, research stated, "Genes involved in regulation of the nuclear factor -kappa B (NF-kB) pathway are suggested to play a role in the pathogenesis of acute myeloid leukaemia (AML). The present study aimed to assess the association between the NF-kB1, TRAF3 and TLRs genes single nucleotide polymorphisms (SNPs) and disease susceptibility as well as progression in patients with AML."

Financial support for this research came from Wroclaw Medical University. Our news editors obtained a quote from the research from Wroclaw Medical University, "For this purpose 62 patients and 126 healthy individuals were genotyped for NF-kB1 (rs28362491), TRAF3 (rs11160707; rs12147254), TLR2 (rs201786064), TLR4 (rs4986790; rs4986791) and TLR9 (rs5743836; rs187084) alleles. Three SNPs were found to be associated with the risk for the AML development. The TRAF3 (rs12147254) AA homozygosity (RR=2.770, p=0.0392), TLR9 (rs5743836) C wild-type allele (RR=2.542, p=0.0096) as well as TLR9 (rs187084) T allele (RR=13.396, p<0.0001) and its homozygosity (RR=11.805, p<0.0001) were more frequent among patients with AML than healthy individuals. The associations of the rs187084 SNP were significant for both sexes. Moreover, patients who relapsed were more frequently characterized with the presence of the rs187084 TLR9 TT genotype (p=0.045) or the rs12147254 TRAF3 A variant (p=0.066)."

According to the news editors, the research concluded: "Polymorphisms within the TLR9 and TRAF3 genes are associated with predisposition to AML and may affect the progression of the disease in the Polish population."


The news editors report that additional information may be obtained by contacting J. Rybka, Dept. of Haematology, Blood Neoplasms and Bone Marrow Transplantation, Wroclaw Medical University, Wroclaw, Poland. Additional authors for this research include K. Gebura, T. Wrobel, B. Wysoczanska, E. Stefanko, K. Kuliczkowski and K. Bogunia-Kubik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/iji.12255. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Poland, Europe, Wroclaw, Genetics, Oncology, Hematology, Acute Myeloid Leukemia.

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Adenocarcinomas

Findings in Adenocarcinomas Reported from Gazi University (Unusual Presentation of an Adenocarcinoma of the Lung Metastasizing to the Mandible, Including Molecular Analysis and a Review of the Literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Adenocarcinomas is now available. According to news reporting out of Ankara, Turkey, by NewsRx editors, research stated, "Lung cancer is the most frequent cause of cancer-related death worldwide. Metastases of non-small cell lung carcinoma to the oral and maxillofacial region are rare."

Our news journalists obtained a quote from the research from Gazi University, "Thus, the diagnosis of a metastatic lesion in the oral cavity is challenging to the clinician and to the pathologist. This report presents a case of a 72-year-old man with metastatic lung adenocarcinoma located in the posterior mandibular region."

According to the news editors, the research concluded: "Next-generation sequencing analysis showed no important mutations in the relevant genes except in the TP53 tumor suppressor gene."


Our news journalists report that additional information may be obtained by contacting B. Senguven, Gazi University, Fac Dental, Dept. of Oral Pathol, TR-06510 Ankara, Turkey. Additional authors for this research include B. Senguven, I.I. Gonul, B. Okur and R. Buettner.

Keywords for this news article include: Ankara, Turkey, Eurasia, Adenocarcinomas, Adenocarcinoma, Genetics, Gazi University.

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Pediatrics - Adolescent Medicine

Findings in Adolescent Medicine Reported from University of Miami (Substance Use and Sexual Risk Behavior in Sexual Minority Hispanic Adolescents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Pediatrics - Adolescent Medicine are presented in a new report. According to news reporting out of Miami, Florida, by NewsRx editors, research stated, "This study examines substance use and sexual risk in sexual minority Hispanic adolescents..."
(SMHAs) relative to their heterosexual counterparts. Baseline data (total, n = 1,632; SMHA, n = 195) from five completed trials of a family-based intervention for Hispanic adolescents were synthesized.

Our news journalists obtained a quote from the research from the University of Miami, "SMHA were identified by self-reported anal/vaginal/oral sex with a partner of the same gender (SMHA vs. non-SMHA). Dichotomous outcomes were lifetime and past 90-day cigarette, alcohol and illicit drug use, past 90-day condomless sex, and condom use at last sex. Logistic regression models controlled for sociodemographic and study-level characteristics testing the association between sexual minority status and each outcome. SMHA reported significantly more substance use than non-SMHA, including lifetime cigarette and illicit drug use. Adjusted odds of lifetime use for all substances and past 90-day cigarette use (AOR = 3.07; 95% confidence interval: 1.50-6.31) were significantly higher in SMHA."

According to the news editors, the research concluded: "SMHA substance use etiology should be explored to inform tailored intervention development."


Our news journalists report that additional information may be obtained by contacting M.A. Ocasio, University of Miami, Miller Sch Med, Dept. of Public Hlth Sci, Miami, FL 33136, United States. Additional authors for this research include D.J. Feaster and G. Prado.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jadohealth.2016.07.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Adolescent Medicine, Pediatrics, Risk and Prevention, University of Miami.

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### Amino Acids

**Findings in Amino Acids Reported from Baylor University College of Medicine (Whole genome sequence analysis of serum amino acid levels)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Amino Acids have been published. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "Blood levels of amino acids are important biomarkers of disease and are influenced by synthesis, protein degradation, and gene-environment interactions. Whole genome sequence analysis of amino acid levels may establish a paradigm for analyzing quantitative risk factors."

The news reporters obtained a quote from the research from the Baylor University College of Medicine, "In a discovery cohort of 1872 African Americans and a replication cohort of 1552 European Americans we sequenced exons and whole genomes and measured serum levels of 70 amino acids. Rare and low-frequency variants (minor allele frequency <= 5%) were analyzed by three types of aggregating motifs defined by gene exons, regulatory regions, or
genome-wide sliding windows. Common variants (minor allele frequency >5%) were analyzed individually. Over all four analysis strategies, 14 gene-amino acid associations were identified and replicated. The 14 loci accounted for an average of 1.8% of the variance in amino acid levels, which ranged from 0.4 to 9.7%. Among the identified locus-amino acid pairs, four are novel and six have been reported to underlie known Mendelian conditions. These results suggest that there may be substantial genetic effects on amino acid levels in the general population that may underlie inborn errors of metabolism. We also identify a predicted promoter variant in AGA (the gene that encodes aspartyglucosaminidase) that is significantly associated with asparagine levels, with an effect that is independent of any observed coding variants. These data provide insights into genetic influences on circulating amino acid levels by integrating -omic technologies in a multi-ethnic population."

According to the news reporters, the research concluded: "The results also help establish a paradigm for whole genome sequence analysis of quantitative traits."

For more information on this research see: Whole genome sequence analysis of serum amino acid levels. Genome Biology, 2016;17():21-30. Genome Biology can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; Genome Biology - genomebiology.com)

Our news correspondents report that additional information may be obtained by contacting E. Boerwinkle, Baylor College of Medicine, Human Genome Sequencing Center, Houston, TX 77030, United States. Additional authors for this research include P.S. de Vries, G.A. Metcalf, Z. Wang, E.V. Feofanova, X.M. Liu, D.M. Muzny, L.E. Wagenknecht, R.A. Gibbs, A.C. Morrison and E. Boerwinkle.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Proteins, Risk and Prevention, Amino Acids, Peptides, Genetics, Baylor University College of Medicine.

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**Drugs and Therapies - Androgens**

**Findings in Androgens Reported from University of Ulster (Androgen deprivation in LNCaP prostate tumour xenografts induces vascular changes and hypoxic stress, resulting in promotion of epithelial-to-mesenchymal transition)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Androgens is the subject of a report. According to news reporting originating from Coleraine, United Kingdom, by NewsRx correspondents, research stated, "When single-agent androgen deprivation therapy (ADT) is administered for locally advanced prostate cancer, men usually relapse within 1-2 years with more malignant castrate-resistant disease. The reason for this is currently unknown."

Our news editors obtained a quote from the research from the University of Ulster, "We now hypothesise that an initial treatment response that increases tumor hypoxia drives selection of more malignant tumours. The LNCaP prostate tumor xenografts were analysed for physiological (oxygen and vasculature) and genetic (PCR array) changes during longitudinal treatment with ADT (bicalutamide, 6 or 2 mg kg^-1 daily for 28 days). Bicalutamide caused an immediate (within 24 h) dose-dependent fall in oxygenation in LNCaP-luc prostate
tumours with a nadir of (<=) 0.1% oxygen within 3-7 days; this was attributed to a significant loss of tumor microvessels (window chamber study). The hypoxic nadir persisted for 10-14 days. During the next 7 days, tumours regrew, oxygenation improved and the vasculature recovered; this was inhibited by the VEGF inhibitor B20.4.1.1. Gene expression over 28 days showed marked fluctuations consistent with the physiological changes. Accompanying the angiogenic burst (day 21) was a particularly striking increase in expression of genes associated with epithelial-to-mesenchymal transition (EMT). In particular, insulin-like growth factor 1 (IGF-1) showed increases in mRNA and protein expression."

According to the news editors, the research concluded: "Hypoxic stress caused by ADT promotes EMT, providing a mechanism for the cause of malignant progression in prostate cancer."

For more information on this research see: Androgen deprivation in LNCaP prostate tumour xenografts induces vascular changes and hypoxic stress, resulting in promotion of epithelial-to-mesenchymal transition. British Journal of Cancer, 2016;114(6):659-68. (Nature Publishing Group - www.nature.com/bjc/)

The news editors report that additional information may be obtained by contacting N.M. Byrne, Biomedical Science Research Institute, University of Ulster, Cromore Road, Coleraine, BT52 1SA Northern Ireland UK, UK. Additional authors for this research include H. Nesbitt, L. Ming, S.R. McKeown, J. Worthington and D.J McKenna.

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Keywords for this news article include: Biotechnology, Europe, Genetics, Coleraine, Androgens, Xenografts, United Kingdom, Xenotransplantation, Drugs and Therapies.

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Angiography

Findings in Angiography Reported from Second Military Medical University (Dynamic contrast-enhanced MRI for the assessment of spinal tumor vascularity: correlation with angiography)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Angiography. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "To determine if dynamic contrast-enhanced MRI (DCE-MRI) could correlate well with invasive angiography in the characterization of spinal tumor vascularity. Totally 40 patients with untreated spinal tumors underwent MRI before preoperative angiography and embolization."

Our news journalists obtained a quote from the research from Second Military Medical University, "Tumors were assigned to hypervascular, moderate, or hypovascular groups based on angiographic appearance. Tumor vascularity was also evaluated with enhancement degree on standard MR and with DCE-MRI parameters via ROI analysis of enhanced tumor area. The Spearman correlation coefficient was calculated to determine the correlation between the degree of angiographic vascularity and enhancement on MRI and DCE-MRI parameters. ROC analysis was conducted to assess the appropriate cut-off value. There were 12 hypervascular, 12 moderate, and 16 hypovascular tumors, respectively. The Spearman
correlation coefficient between DCE-MRI parameter and the degree of angiographic vascularity was 0.899 (RSlope(max)), 0.847 (Slope(max)), 0.697 (E (max)), 0.694 (ERmax), and -0.587 (TTP), respectively, which showed excellent-to-moderate relationships. The RSlope(max) cut-off value of 1.325 provided the highest specificity of 100 % and sensitivity of 87.5 % in predicting hypovascular tumors and the value of 1.85 provided the highest sensitivity of 100 % and specificity of 96.4 % in characterizing hypervascular ones."

According to the news editors, the research concluded: "DCE-MRI is an accurate technique for the assessment of spinal tumor vascularity, which may have a potential value in the decision-making of preoperative embolization."

For more information on this research see: Dynamic contrast-enhanced MRI for the assessment of spinal tumor vascularity: correlation with angiography. European Spine Journal, 2016;25(12):3952-3961. European Spine Journal can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Spine Journal - www.springerlink.com/content/0940-6719/)


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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Embolization, Cardiology, Angiography, Angiology, Second Military Medical University.

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Drugs and Therapies - Antibiotics

Findings in Antibiotics Reported from Institute of Surgery Research
(Ciprofloxacin-loaded keratin hydrogels reduce infection and support healing in a porcine partial-thickness thermal burn)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antibiotics are presented in a new report. According to news reporting out of Fort Sam Houston, Texas, by NewsRx editors, research stated, "Infection is a leading cause of morbidity and mortality in burn patients. Current therapies include silver-based creams and dressings, which display limited antimicrobial effectiveness and impair healing."

Our news journalists obtained a quote from the research from the Institute of Surgery Research, "The need exists for a topical, point-of-injury antibiotic treatment that provides sustained antimicrobial activity without impeding wound repair. Fitting this description are keratin-based hydrogels, which are fully biocompatible and support the slow-release of antibiotics. Here we develop a porcine model of an infected partial-thickness burn to test the effects of ciprofloxacin-loaded keratin hydrogels on infection and wound healing. Partial-thickness burns were inoculated with either Pseudomonas aeruginosa or Methicillin-resistant Staphylococcus aureus, resulting in infections that persisted for >2 weeks that exceeded 10(5) and 10(6) cfu per gram of tissue, respectively. Compared to silver sulfadiazine, ciprofloxacin-
loaded keratin hydrogel treatment significantly reduced the amount of P. aeruginosa and S. aureus in the burn by >99% on days 4, 7, 11, and 15 postinjury. Further, burns treated with ciprofloxacin-loaded keratin hydrogels exhibited similar healing patterns as uninfected burns with regards to reepithelialization, macrophage recruitment, and collagen deposition and remodeling.

According to the news editors, the research concluded: "The ability of keratin hydrogels to deliver antibiotics to fight infection and support healing of partial-thickness burns make them a strong candidate as a first-line burn therapy."


Our news journalists report that additional information may be obtained by contacting R.J. Christy, US Army, Inst Surg Res, Fort Sam Houston, TX, United States. Additional authors for this research include S. Tomblyn, K.M. Isaac, C.J. Kowalczewski, D.M. Burmeister, L.R. Burnett and R.J. Christy.

Keywords for this news article include: Fort Sam Houston, Texas, United States, North and Central America, Ophthalmic Antiinfectives, Ophthalmic Preparations, Drugs and Therapies, Otic Antiinfectives, Otic Preparations, Scleroproteins, Ciprofloxacin, Antibiotics, Quinolones, Proteins, Keratins, Institute of Surgery Research.

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the efficiency of pulmonary drug delivery in both nebulizers. Population pharmacokinetic analysis of ipratropium bromide was performed. Additionally, the noise level during the nebulizer operation and the aerosol particle size for each device were measured. The dose-normalized AUC(last) was 0.10 min/L for both nebulizers. The pharmacokinetics of nebulized ipratropium bromide can be described best by a one-compartment model with first-order absorption. The apparent volume of distribution and metabolic clearance were 1340 L and 6.78 L/min, respectively. Type of nebulizer was a significant covariate for absorption rate constant. The equivalent sound level and median aerosol particle diameter were 35.0 dB and 4.52 mm for the test nebulizer, and 60.2 dB and 3.85 mm for the control nebulizer, respectively."

According to the news reporters, the research concluded: "From the standpoint of the dose-normalized AUC(last), a new vibrating mesh-type nebulizer shows similar performance in the intrapulmonary delivery of ipratropium bromide to that of a jet-type nebulizer in surgical patients."

For more information on this research see: Efficiency of a New Mesh-Type Nebulizer (NE-SM1 NEPLUS) for Intrapulmonary Delivery of Ipratropium Bromide in Surgical Patients. Basic & Clinical Pharmacology & Toxicology, 2015;118(4):313-9. (Wiley-Blackwell - www.wiley.com; Basic & Clinical Pharmacology & Toxicology - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1742-7843)

Our news correspondents report that additional information may be obtained by contacting Y.H. Lee, Dept. of Anaesthesiology and Pain Medicine, Asan Medical Centre, University of Ulsan College of Medicine, Seoul, South Korea. Additional authors for this research include G.Y. Kwon, D.Y. Park, J.Y. Bang, D.M. Jang, S.H. Lee, E.K. Lee, B.M. Choi and G.J Noh.

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Keywords for this news article include: Asia, Anticholinergic Bronchodilators, Antimuscarinic, Antispasmodics, Seoul, Surgery, Tropanes, South Korea, Aza Compounds, Medical Devices, Respiratory Agents, Drugs and Therapies, Ipratropium Therapy, Atropine Derivatives, Azabicyclo Compounds, Surgical Technologies, Cholinergic Antagonist.

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Drugs and Therapies - Antiinfectives

Findings in Antiinfectives Reported from Ehime University (The antibacterial activity of levofloxacin eye drops against staphylococci using an in vitro pharmacokinetic model in the bulbar conjunctiva)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiinfectives have been published. According to news reporting originating in Ehime, Japan, by NewsRx journalists, research stated, "The incidence of fluoroquinolone-resistant staphylococcal isolates from the conjunctival sac is increasing. We compared pharmacological effects of levofloxacin (LVFX) against Staphylococcus epidermidis using an in vitro pharmacokinetic (PK) model simulating the concentration in the bulbar conjunctiva after applying eye drops of 0.5% and 1.5% LVFX. We used S. epidermidis conjunctival sac isolates [minimum inhibitory concentrations (MICs) of
LVFX, 0.125 µg/mL]."

The news reporters obtained a quote from the research from Ehime University, "LVFX-resistant strains were obtained from parental strains after culture with LVFX. The in vitro PK model simulated the concentration in the bulbar conjunctiva following three topical applications of 0.5% or 1.5% LVFX ophthalmic solution (0, 4, and 8 h) to rabbit eyes. Parental and LVFX-resistant strains were exposed to LVFX in the in vitro PK model, and changes in viable bacterial counts were evaluated for 12 h. The MICs of LVFX for the resistant isolates were 2-32 times higher than the parental strain, and those with MICs >= 2 µg/mL had mutations in the quinolone resistance-determining region. The PK model simulation predicts that 1.5% LVFX exerts bactericidal and bacteriostatic effects against strains with MICs of 0.125-2 and 4 µg/mL, respectively, whereas 0.5% LVFX would only be effective against strains with MICs of 0.125-1 µg/mL."

According to the news reporters, the research concluded: "The PK model predicts that the 1.5% LVFX ophthalmic solution exhibits a stronger bactericidal effect against resistant staphylococci in the bulbar conjunctiva than the 0.5% LVFX ophthalmic solution."

For more information on this research see: The antibacterial activity of levofloxacin eye drops against staphylococci using an in vitro pharmacokinetic model in the bulbar conjunctiva. *Journal of Infection and Chemotherapy*, 2016;22(6):360-365. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

Our news correspondents report that additional information may be obtained by contacting T. Suzuki, Ehime University, Grad Sch Med, Dept. of Ophthalmol, Toon, Ehime 7910295, Japan. Additional authors for this research include T. Yamamoto and Y. Ohashi.

Keywords for this news article include: Ehime, Japan, Asia, Ophthalmic Antiinfectives, Ophthalmic Preparations, Drugs and Therapies, Levofloxacin, Quinolones, Ehime University.

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**Lung Diseases and Conditions - Asthma**

**Findings in Asthma Reported from Queensland University of Technology (Exhaled nitric oxide levels to guide treatment for adults with asthma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Asthma have been published. According to news reporting originating from Brisbane, Australia, by NewsRx correspondents, research stated, "Asthma guidelines aim to guide health practitioners to optimise treatment for patients so as to minimise symptoms, improve or maintain good lung function, and prevent acute exacerbations or flare-ups. The principle of asthma guidelines is based on a step-up or step-down regimen of asthma medications to maximise good health outcomes using minimum medications."

Our news editors obtained a quote from the research from the Queensland University of Technology, "Asthma maintenance therapies reduce airway inflammation that is usually eosinophilic. Tailoring asthma medications in accordance with airway eosinophilic levels may
improve asthma outcomes such as indices of control or reduce exacerbations or both. Fractional exhaled nitric oxide (FeNO) is a marker of eosinophilic inflammation, and as it is easy to measure, has an advantage over other measurements of eosinophilic inflammation (for example sputum eosinophils). To evaluate the efficacy of tailoring asthma interventions based on exhaled nitric oxide (FeNO), in comparison to not using FeNO, that is management based on clinical symptoms (with or without spirometry/peak flow) or asthma guidelines or both, for asthma-related outcomes in adults. Search methods We searched the Cochrane Airways Group Specialised Register of Trials, the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, and reference lists of articles. The last searches were undertaken in June 2016. Selection criteria All randomised controlled trials (RCTs) comparing adjustment of asthma medications based on exhaled nitric oxide levels compared to not using FeNO, that is management based on clinical symptoms (with or without spirometry/peak flow) or asthma guidelines or both. Data collection and analysis We reviewed results of searches against predetermined criteria for inclusion. We independently selected relevant studies in duplicate. Two review authors independently assessed trial quality and extracted data. We contacted study authors for further information, receiving responses from four. We included seven adult studies; these studies differed in a variety of ways including definition of asthma exacerbations, FeNO cutoff levels used (15 to 35 ppb), the way in which FeNO was used to adjust therapy, and duration of study (4 to 12 months). Of 1700 randomised participants, 1546 completed the trials. The mean ages of the participants ranged from 28 to 54 years old. The inclusion criteria for the participants in each study varied, but all had a diagnosis of asthma and required asthma medications. In the meta-analysis, there was a significant difference in the primary outcome of asthma exacerbations between the groups, favouring the FeNO group. The number of people having one or more asthma exacerbations was significantly lower in the FeNO group compared to the control group (odds ratio (OR) 0.60, 95% confidence interval (CI) 0.43 to 0.84). The number needed to treat to benefit (NNTB) over 52 weeks was 12 (95% CI 8 to 32). Those in the FeNO group were also significantly more likely to have a lower exacerbation rate than the controls (rate ratio 0.59, 95% CI 0.45 to 0.77). However, we did not find a difference between the groups for exacerbations requiring hospitalisation (OR 0.14, 95% CI 0.01 to 2.67) or rescue oral corticosteroids (OR 0.86, 95% CI 0.50 to 1.48). There was also no significant difference between groups for any of the secondary outcomes (FEV1, FeNO levels, symptoms scores, or inhaled corticosteroid doses at final visit). We considered three included studies that had inadequate blinding to have a high risk of bias. However, when these studies were excluded from the meta-analysis, the difference between the groups for the primary outcomes (exacerbations) remained statistically significant. The GRADE quality of the evidence ranged from moderate (for the outcome 'exacerbations') to very low (for the outcome 'inhaled corticosteroid dose at final visit') based on the lack of blinding and statistical heterogeneity. Six of the seven studies were industry supported, but the company had no role in the study design or data analyses. Authors’ conclusions With new studies included since the last version of this review, which included adults and children, this updated meta-analysis in adults with asthma showed that tailoring asthma medications based on FeNO levels (compared with primarily on clinical symptoms) decreased the frequency of asthma exacerbations but did not impact on day-to-day clinical symptoms, end-of-study FeNO levels, or inhaled corticosteroid dose. Thus, the universal use of FeNO to help guide therapy in adults with asthma cannot be advocated. As the main benefit shown in the studies in this review was a reduction in asthma exacerbations, the intervention may be most useful in adults who have frequent exacerbations.

According to the news editors, the research concluded: "Further RCTs encompassing different asthma severity, ethnic groups in less affluent settings, and taking into account different FeNO cutoffs are required."
For more information on this research see: Exhaled nitric oxide levels to guide treatment for adults with asthma. *Cochrane Database of Systematic Reviews*, 2016;(9):1473-1525. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting H.L. Petsky, Queensland University of Technology, Inst Hlth & Biomed Innovat, Brisbane, Qld, Australia. Additional authors for this research include K.M. Kew, C. Turner and A.B. Chang.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Immune System Diseases and Conditions, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Clinical Trials and Studies, Reactive Nitrogen Species, Hemic and Immune Systems, Therapy, Article Review, Clinical Research, Corticosteroids, Nitrogen Oxides, Pharmaceuticals, Inflammation, Nitric Oxide, Granulocytes, Blood Cells, Eosinophils, Immunology, Chemicals, Asthma, Queensland University of Technology.

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**Cardiovascular Diseases and Conditions --**

**Findings in Atherosclerosis Reported from Peking Union Medical College (Association of BMI with total mortality and recurrent stroke among stroke patients: A meta-analysis of cohort studies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Studies of the association between obesity and total mortality and recurrent stroke events have shown contradictory results. Therefore, we aimed to conduct a meta-analysis to examine the association of body mass index (BMI) with total mortality and recurrent stroke events among patients after stroke onset."

Our news journalists obtained a quote from the research from Peking Union Medical College, "We performed an electronic search of PubMed, EMBASE and the Cochrane Library Database, as well as a bibliography review to identify relevant cohort studies published prior to 15th December 2015. Estimates of relative risks (RRs) and corresponding 95% confidence intervals (CIs) comparing underweight, overweight and obese groups with normal weight were pooled using random effects models. In total, 15 studies with 122,472 stroke patients were eligible for inclusion in the meta-analysis. Compared with the normal weight group, obese stroke patients had a significant decreased risk for total mortality (RR - 0.83, 95% CI, 0.73-0.93, p - 0.002), while underweight patients had a significant increased risk for total mortality (RR = 1.54, 95% CI, 1.31-1.82, p = 3.66 x 10(7)). A similar, but not significant, association of BMI categories with recurrent stroke events was also observed. Furthermore, the dose-response meta-analysis identified a nonlinear trend for total mortality and a linear trend for recurrent stroke events, associated with BMI."

According to the news editors, the research concluded: "Our results suggested that obesity may have a protective effect on total mortality and recurrent stroke events among patients with established stroke."

For more information on this research see: Association of BMI with total mortality

The news correspondents report that additional information may be obtained from X.L. Yang, Peking Union Med College, Beijing 100037, People's Republic of China. Additional authors for this research include F.C. Liu, X.K. Han, C. Huang, J.F. Huang, D.F. Gu and X.L. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.08.042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Atherosclerosis, Cardiovascular Diseases and Conditions, Peking Union Medical College.

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**Cardiovascular Diseases and Conditions -…**

**Findings in Atherosclerosis Reported from University of Heidelberg**

[Reduced glyoxalase 1 activity in carotid artery plaques of nondiabetic patients with increased hemoglobin A(1c) level]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news reporting originating in Heidelberg, Germany, by NewsRx journalists, research stated, "Glyoxalase 1 (GLO1) is ubiquitously expressed in the cytosol of the cell and is the major opponent against the reactive metabolite methylglyoxal, which is involved in the development of atherosclerosis. Nondiabetic individuals with an increased hemoglobin A(1c) (HbA(1c)) level are at higher risk for development of cardiovascular diseases."

The news reporters obtained a quote from the research from the University of Heidelberg, "As such, this study investigated whether there was an association between reduced GLO1 activity in atherosclerotic lesions of nondiabetic patients with an increased HbA(1c) level. HbA(1c) level was determined in venous blood of patients with carotid artery disease. Protein level of GLO1 was measured in endarterectomy-derived carotid artery plaques by Western blotting. Activity was measured by spectrophotometric assay in the plaques as well as in the erythrocytes; GLO1 activity in erythrocytes was compared with that in a cohort of healthy individuals (n = 15; 33% men; average age, 60 years). There were 36 patients with carotid artery disease (69% men; average age, 69 years) included in this study and divided into two equal groups: group I, HbA(1c) < 5.7% (< 39 mmol/mol); and group II, 5.7% <= HbA(1c) < 6.5% (39 mmol/mol <= HbA(1c) < 48 mmol/mol). GLO1 activity in carotid plaques was reduced by 29% in group II compared with group I (P = .048), whereas protein expression was unchanged (P = .25). Analysis of GLO1 activity in erythrocytes revealed no difference between the groups (P = .36) or in comparison to healthy controls (P = .15). Examination of clinical parameters showed an increased amount of patients with concomitant peripheral arterial disease in group II (44% vs 10%; P = .020). Reduction of GLO1 activity in atherosclerotic lesions of nondiabetic patients with increased HbA(1c) is associated with a functional involvement of this protective enzyme in
According to the news reporters, the research concluded: "Systemic GLO1 activity seems to be independent of both HbA(1c) and localized atherosclerosis as it was unchanged between group I and group II as well as compared with healthy controls, respectively."


Our news correspondents report that additional information may be obtained by contacting A.S. Peters, Heidelberg Univ, Vaskulare Biomat Bank Heidelberg Vasc Biobank Hei, Heidelberg, Germany. Additional authors for this research include M. Lercher, T.H. Fleming, P.P. Nawroth, M.S. Bischoff, S. Dihlmann, D. Bockler and M. Hakimi.

Keywords for this news article include: Heidelberg, Germany, Europe, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Carotid Artery Diseases and Conditions, Glyoxalase, Risk and Prevention, Brain Diseases and Conditions, Arterial Occlusive Diseases, Cerebrovascular Disorders, Enzymes and Coenzymes, Carotid Arteries, Atherosclerosis, Blood Proteins, Hemeproteins, Hemoglobin A, Erythrocytes, Hemoglobins, Cardiology, Angiology, Globins, University of Heidelberg.

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Atrial Fibrillation

Findings in Atrial Fibrillation Reported from University of Tokushima (Relationship between local production of microRNA-328 and atrial substrate remodeling in atrial fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Atrial Fibrillation. According to news reporting originating from Tokushima, Japan, by NewsRx correspondents, research stated, "The underlying mechanism of atrial substrate remodeling in atrial fibrillation (AF) remains unknown. In this study, we investigated whether local and systemic levels of microRNA (miR) might be associated with the presence of AF and with left atrial (LA) substrate properties."

Our news editors obtained a quote from the research from the University of Tokushima, "Blood from the periphery, pulmonary vein (PV), and left atrial appendage (LAA) was sampled from 30 patients with AF undergoing PV isolation, and from 10 control subjects with Wolff-Parkinson White syndrome and without AF. We measured peripheral, PV, and LAA plasma levels of miR-1,-26, -133a, -328, and -590 by reverse transcription-polymerase chain reaction. LA global contact mapping during sinus rhythm was performed before PV isolation. Plasma levels of miR-328 were higher in patients with AF than in control subjects. Plasma miR-328 levels were significantly higher in the LAA than in the periphery and PV in patients with AF, but not in control subjects. Plasma miR-1 levels were also higher in the LAA than in the PV in AF patients. Interestingly, LAA plasma levels of miR-328 showed a positive correlation with the LA voltage zone index (area with voltage <0.5 mV divided by total LA surface area) and a
weak correlation with LA volume."

According to the news editors, the research concluded: "Local production of miR-328 in the left atrium may be involved in the process of atrial remodeling in patients with AF."

For more information on this research see: Relationship between local production of microRNA-328 and atrial substrate remodeling in atrial fibrillation. *Journal of Cardiology*, 2016;68(5-6):472-477. *Journal of Cardiology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2015.12.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokushima, Japan, Asia, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Hematology, Genetics, Plasma, Blood, University of Tokushima.

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**Biguanides**

**Findings in Biguanides Reported from Dana-Farber Cancer Institute (Environment Dictates Dependence on Mitochondrial Complex I for NAD plus and Aspartate Production and Determines Cancer Cell Sensitivity to Metformin)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biguanides have been published. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Metformin use is associated with reduced cancer mortality, but how metformin impacts cancer outcomes is controversial. Although metformin can act on cells autonomously to inhibit tumor growth, the doses of metformin that inhibit proliferation in tissue culture are much higher than what has been described in vivo."

The news reporters obtained a quote from the research from Dana-Farber Cancer Institute, "Here, we show that the environment drastically alters sensitivity to metformin and other complex I inhibitors. We find that complex I supports proliferation by regenerating nicotinamide adenine dinucleotide (NAD)+, and metformin's anti-proliferative effect is due to loss of NAD+/NADH homeostasis and inhibition of aspartate biosynthesis. However, complex I is only one of many inputs that determines the cellular NAD+/NADH ratio, and dependency on complex I is dictated by the activity of other pathways that affect NAD+ regeneration and aspartate levels."

According to the news reporters, the research concluded: "This suggests that cancer drug sensitivity and resistance are not intrinsic properties of cancer cells, and demonstrates that
the environment can dictate sensitivity to therapies that impact cell metabolism."

For more information on this research see: Environment Dictates Dependence on Mitochondrial Complex I for NAD plus and Aspartate Production and Determines Cancer Cell Sensitivity to Metformin. *Cell Metabolism*, 2016;24(5):716-727. *Cell Metabolism* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell Metabolism - www.journals.elsevier.com/cell-metabolism/)

Our news correspondents report that additional information may be obtained by contacting M.G. Vander Heiden, Dana Farber Canc Inst, Boston, MA 02115, United States. Additional authors for this research include L.B. Sullivan, A. Luengo, A.M. Hosios, L.N. Bush, N. Gitego, S.M. Davidson, E. Freinkman, C.J. Thomas and M.G. Vander Heiden.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Drugs and Therapies, Hypoglycemic Agents, Antidiabetic Agents, Metformin Therapy, Non-Sulfonylureas, Biguanides, Oncology, Cancer, Dana-Farber Cancer Institute.

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**Blood Pressure**

**Findings in Blood Pressure Reported from Capital Medical University (Cumulative systolic blood pressure exposure in relation to cognitive function in middle-aged and elderly adults A prospective, population-based study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Blood Pressure is the subject of a report. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "The association between systolic blood pressure (SBP) and cognitive function is controversial in elderly adults. In addition, few studies focused on the cumulative effect of SBP."

Our news journalists obtained a quote from the research from Capital Medical University, "We aimed to investigate the association between cumulative SBP exposure and cognitive function among middle-aged and elderly adults. The analysis was based on the Asymptomatic Polyvascular Abnormalities Community (APAC) study. The primary predictor was the cumulative SBP calculated by consecutive SBP values measured through baseline (2006-2007) up to the fourth examination (2012-2013). The cognitive function was estimated by mini-mental state examination (MMSE) in the fourth examination. Linear regression and logistic regression analyses were used to investigate the association between cumulative SBP and cognitive function. Among 2211 participants (41.4 % female, aged 40-94 years). 167 (7.55%) were diagnosed with cognitive impairment (MMSE score < 24). Higher cumulative exposure to SBP (per SD increment) was independently associated with poor cognitive performance after controlling for multiple factors (P < 0.001). We observed nondifferential association between men and women. However, higher cumulative SBP in the adults aged >= 60 years had a stronger association with poor cognitive performance compared with that in adults aged 40 to 60 years. Greater exposure to cumulative SBP is associated with worse cognitive performance among middle-aged and elderly adults."

According to the news editors, the research concluded: "This association is similar between men and women, but stronger in elderly adults."
For more information on this research see: Cumulative systolic blood pressure exposure in relation to cognitive function in middle-aged and elderly adults A prospective, population-based study. *Medicine*, 2016;95(48):223-227. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)


Keywords for this news article include: Beijing, People's Republic of China, Asia, Diagnostics and Screening, Systolic Blood Pressure, Capital Medical University.

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**Bone Research**

**Findings in Bone Research Reported from University of Oxford (The Effects of Age, Adiposity, and Physical Activity on the Risk of Seven Site-Specific Fractures in Postmenopausal Women)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Bone Research. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "Risk factors for fracture of the neck of the femur are relatively well established, but those for fracture at other sites are little studied. In this large population study we explore the role of age, body mass index (BMI), and physical activity on the risk of fracture at seven sites in postmenopausal women."

Our news journalists obtained a quote from the research from the University of Oxford, "As part of the Million Women Study, 1,154,821 postmenopausal UK women with a mean age of 56.0 (SD 4.8) years provided health and lifestyle data at recruitment in 1996 to 2001. All participants were linked to National Health Service (NHS) hospital records for day-case or overnight admissions with a mean follow-up of 11 years per woman. Adjusted absolute and relative risks for seven site-specific incident fractures were calculated using Cox regression models. During follow-up, 4931 women had a fracture of the humerus; 2926 of the forearm; 15,883 of the wrist; 9887 of the neck of the femur; 1166 of the femur (not neck); 3199 a lower leg fracture; and 10,092 an ankle fracture. Age-specific incidence rates increased gradually with age for fractures of forearm, lower leg, ankle, and femur (not neck), and steeply with age for fractures of neck of femur, wrist, and humerus. When compared to women with desirable BMI (20.0 to 24.9 kg/m(2)), higher BMI was associated with a reduced risk of fracture of the neck of femur, forearm, and wrist, but an increased risk of humerus, femur (not neck), lower leg, and ankle fractures (p < 0.001 for all). Strenuous activity was significantly associated with a decreased risk of fracture of the humerus and femur (both neck and remainder of femur) (p < 0.001), but was not significantly associated with lower leg, ankle, wrist, and forearm fractures. Postmenopausal women are at a high lifetime risk of fracture."

According to the news editors, the research concluded: "BMI and physical activity are modifiable risk factors for fracture, but their associations with fracture risk differ
substantially across fracture sites."


The news correspondents report that additional information may be obtained from M.E.G. Armstrong, University of Oxford, Canc Epidemiol Unit, Oxford OX3 7LF, United Kingdom. Additional authors for this research include B.J. Cairns, J. Green, G.K. Reeves, V. Beral and M.E.G. Armstrong.

Keywords for this news article include: Oxford, United Kingdom, Europe, Risk and Prevention, Bone Research, University of Oxford.

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**Drugs and Therapies - Cancer Therapy**

**Findings in Cancer Therapy Reported from Chonbuk National University (Nano-Fenton Reactors as a New Class of Oxidative Stress Amplifying Anticancer Therapeutic Agents)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cancer Therapy have been published. According to news originating from Chonbuk, South Korea, by NewsRx correspondents, research stated, "Cancer cells, compared to normal cells, are under oxidative stress associated with an elevated level of reactive oxygen species (ROS) and are more vulnerable to oxidative stress induced by ROS generating agents. Thus, manipulation of the ROS level provides a logical approach to kill cancer cells preferentially, without significant toxicity to normal cells, and great efforts have been dedicated to the development of strategies to induce cytotoxic oxidative stress for cancer treatment."

Financial supporters for this research include Ministry of Health and Welfare, Korea Research Institute of Bioscience and Biotechnology.

Our news journalists obtained a quote from the research from Chonbuk National University, "Fenton reaction is an important biological reaction in which irons convert hydrogen peroxide (H₂O₂) to highly toxic hydroxyl radicals that escalate ROS stress. Here, we report Fenton reaction-performing polymer (PolyCAFe) micelles as a new class of ROS-manipulating anticancer therapeutic agents. Amphiphilic PolyCAFe incorporates H₂O₂-generating benzoyloxyccinnamaldehyde and iron-containing compounds in its backbone and self-assembles to form micelles that serve as Nano-Fenton reactors to generate cytotoxic hydroxyl radicals, killing cancer cells preferentially. When intravenously injected, PolyCAFe micelles could accumulate in tumors preferentially to remarkably suppress tumor growth, without toxicity to normal tissues."

According to the news editors, the research concluded: "This study demonstrates the tremendous translatable potential of Nano-Fenton reactors as a new class of anticancer drugs."

For more information on this research see: Nano-Fenton Reactors as a New Class of Oxidative Stress Amplifying Anticancer Therapeutic Agents. *Acs Applied Materials &
The news correspondents report that additional information may be obtained from B. Kwon, Dept. of BIN Convergence Technology, Chonbuk National University, Jeonju, Chonbuk 561-756, South Korea. Additional authors for this research include E. Han, W. Yang, W. Cho, W. Yoo, J. Hwang, B.M. Kwon and D. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.5b12523. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chonbuk, Oncology, South Korea, Cancer Therapy, Drugs and Therapies.

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Tumor Markers - Carcinoembryonic Antigens

Findings in Carcinoembryonic Antigens Reported from University of Jinan (Amperometric sandwich immunoassay for the carcinoembryonic antigen using a glassy carbon electrode modified with iridium nanoparticles, polydopamine and reduced graphene ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Tumor Markers - Carcinoembryonic Antigens have been published. According to news reporting from Jinan, People's Republic of China, by NewsRx journalists, research stated, "The authors describe a sandwich-type electrochemical immunoassay for sensitive determination of the carcinoembryonic antigen (CEA). It is based on the use of iridium nanoparticles (Ir NPs) acting as electrochemical signal amplifier on the surface of a glassy carbon electrode."

The news correspondents obtained a quote from the research from the University of Jinan, "At first, polydopamine-reduced graphene oxide (PDA-rGO) was employed to immobilize primary antibody (Ab(1)) against CEA. Secondly, Ir-NPs were used as a support for the immobilization of secondary antibody (Ab(2)) to afford signal labels. The large surface area of PDA-rGO and the excellent electro-oxidative H2O2-sensing properties of Ir NPs result in a sensitive assay for CEA. Operated best at a working voltage of -0.6 V (vs. SCE), the assay has a linear range that extends from 0.5 pgai...mL(-1) to 5 ng center dot mL(-1), and the lower detection limit is 0.23 pgai...mL(-1). The immunosensor displays satisfactory reproducibility and stability, thus demonstrating a reliable immunoassay strategy for tumor biomarkers."

According to the news reporters, the research concluded: "It was applied to the determination of CEA in spiked serum samples."

For more information on this research see: Amperometric sandwich immunoassay for the carcinoembryonic antigen using a glassy carbon electrode modified with iridium nanoparticles, polydopamine and reduced graphene oxide. Microchimica Acta, 2017;184 (1):169-175. Microchimica Acta can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria. (Springer - www.springer.com; Microchimica Acta - www.springerlink.com/content/0026-3672/)

Our news journalists report that additional information may be obtained by contacting H. Li, Univ Jinan, Sch Biol Sci & Technol, Jinan 250022, People's Republic of
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Eye Diseases and Conditions - Cataracts

Findings in Cataracts Reported from Peking Union Medical College Hospital (Novel mutations in CRYGD are associated with congenital cataracts in Chinese families)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Eye Diseases and Conditions - Cataracts. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Congenital cataract disease is a clinically and genetically heterogeneous lens disorder. The purpose of this study was to identify the genetic defects and to investigate the relationships between disease-causing genes and lens morphology in congenital cataracts."

The news correspondents obtained a quote from the research from Peking Union Medical College Hospital, "Patients were given a physical examination, and their blood samples were collected for DNA extraction. Mutation analysis was performed by direct sequencing of the following candidate genes: CRYGC, CRYGD, CRYGS, GJA8, GJA3 and CRYAA. Mutational analysis of CRYGD identified a recurrent (p.P24T) mutation in two unrelated families with congenital coralliform cataracts and three novel (p.Q101X, p.E104fsX4 and p.E135X) mutations in three families with congenital nuclear cataracts. The p.E135X mutation is a de novo mutation. Haplotype analysis showed patients inherited the same CRYGD allele originated from father."

According to the news reporters, the research concluded: "The p.E135X mutation seen in two siblings suggests a mechanism of gonadal mosaicism in the father."

For more information on this research see: Novel mutations in CRYGD are associated with congenital cataracts in Chinese families. Scientific Reports, 2016;6():18912. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting G. Yang, Dept. of Ophthalmology, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences &Peking Union Medical College, Beijing, People’s Republic of China. Additional authors for this research include Z. Chen, W. Zhang, Z. Liu and J. Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18912. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Genetics, Cataracts, Ophthalmology, People's Republic of China, Eye Diseases and Conditions, Lens Diseases and
Findings in Chronic Obstructive Pulmonary Disease Reported from China Pharmaceutical University (Liujunzi Tang, a famous traditional Chinese medicine, ameliorates cigarette smoke-induced mouse model of COPD)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Liujunzi Tang is a traditional herbal medicine widely used in East Asia and clinically applied to treat Phlegm-Heat Syndrome. The purpose of the present study was to investigate the protective effects of Liujunzi Tang on cigarette smoke-induced (CS) mouse model of chronic obstructive pulmonary disease (COPD) and explore its potential molecular mechanism."

Financial support for this research came from Jiangsu Province Program for Culture and Creation Project.

The news reporters obtained a quote from the research from China Pharmaceutical University, "The mice received 1 h of cigarette smoke for 8 weeks. The serum levels of tumor necrosis factor-alpha (TNF-alpha), interleukin (IL)-1 beta and IL-6 were determined by enzyme-linked immunosorbent assay (ELISA) kits. Superoxide dismutase (SOD) and malondialdehyde (MDA) were tested by biochemical methods. Histopathological alteration was observed by hematoxylin-eosin (H & E) staining. Additionally, the expressions of nuclear transcription factor-kappa B (NF-kappa Bp65) and (inhibitor of NF-kappa B)I kappa B-alpha were determined by western blot and immunohistochemistry analysis."

According to the news reporters, the research concluded: "Liujunzi Tang enhanced the activities of antioxidant enzymes and attenuated the levels of lipid oxidative production, meanwhile significantly inhibited the generations of inflammatory cytokines by inhibiting the phosphorylation of I kappa B-alpha and NF-kappa B. Our findings indicated that Liujunzi Tang exhibited the protective effect on cigarette smoke induced COPD mice by anti-inflammatory and anti-oxidative properties through the inhibition of NF-kappa B activation."


Our news correspondents report that additional information may be obtained by contacting T.H. Yan, China Pharmaceutical University, Dept. of Physiol & Pharmacol, Nanjing 210009, Jiangsu, People's Republic of China. Additional authors for this research include F. Luo, H. Lei, K. Zhang, J.Y. Liu, H. He, J. Gao, X.Y. Chang, L. He, H. Ji, T.H. Yan and T. Chen.

The direct object identifier (DOI) for that additional information is:
Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Chronic Obstructive Pulmonary Disease, Lung Diseases and Conditions, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, NF-kappa B, Genetics, China Pharmaceutical University.

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Cloning

Findings in Cloning Reported from Z.M. Xiang and Co-Researchers (Cloning, characterization and comparative analysis of four death receptor TNFRs from the oyster Crassostrea hongkongensis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cloning have been presented. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Apoptosis plays an important role in homeostasis of the immune systems. The tumor necrosis factor receptors (TNFRs) play critical roles in the extrinsic apoptosis pathways and in determining cell fate."

Funders for this research include National Basic Research Program of China, National Natural Science Foundation of China, Science and Technology Planning Project of Guangdong Province, China.

Our news journalists obtained a quote from the research, "In this study, four death receptors (DR) named ChEDAR, ChTNFR27, ChTNFR5, and ChTNFR16 were identified from the oyster Crassostrea hongkongensis. These ChDRs proteins had 382, 396, 414 and 384 amino acids, respectively, with the typical domains of death receptors, such as the signal peptide (SP), transmembrane helix region TM and death domains. Phylogenetic analysis showed that the ChDR proteins clustered into three distinct groups, indicating that these subfamilies had common ancestors. mRNA expression of the ChDRs were detected in all 8 of the selected oyster tissues and at different stages of development. Furthermore, expression of all the genes was increased in the hemocytes of oysters challenged with pathogens or air stress. Fluorescence microscopy revealed that the full-length proteins of the ChDRs were located in the plasma membrane of HEK293T cells. Over-expression of the ChDRs activated the NF-kappa B-Luc reporter in HEK293T cells in a dose-dependent manner."

According to the news editors, the research concluded: "These results indicate that the ChDRs may play important roles in the extrinsic apoptotic pathways in oysters."

For more information on this research see: Cloning, characterization and comparative analysis of four death receptor TNFRs from the oyster Crassostrea hongkongensis. Fish & Shellfish Immunology, 2016;59():288-297. Fish & Shellfish Immunology can be contacted at: Academic Press Ltd- Elsevier Science Ltd, 24-28 Oval Rd, London NW1 7DX, England. (Elsevier - www.elsevier.com; Fish & Shellfish Immunology - www.journals.elsevier.com/fish-and-shellfish-immunology/)

The news correspondents report that additional information may be obtained from Z.N. Yu, South China Sea BioResource Exploitiat & Utilizat, Guangzhou 510275, Guangdong, People's Republic of China. Additional authors for this research include S. Xiao, F.X. Wang,
Findings in Colon Cancer Reported from Chonnam National University (Association between the TCF7L2 polymorphism and colorectal cancer does not differ by diabetes and obesity statuses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating in Jeonnam, South Korea, by NewsRx journalists, research stated, "This study evaluated the association between polymorphism in a newly identified locus, rs11196172, located in transcription factors 7-like 2 (TCF7L2) and colorectal cancer (CRC) risk according to diabetes and obesity statuses. A study enrolled 6138 CRC patients and 4367 community controls."

The news reporters obtained a quote from the research from Chonnam National University, "The adjusted odds ratios (aORs) with age, sex, smoking, and body mass index of the A allele, compared with the G allele, was 1.08 (95% CI 1.01-1.16). The significantly higher risk of CRC with the A allele remained after adjusting for diabetic status (aOR 1.07, 95% CI 1.01-1.15). When stratified by diabetic or obesity status, significant associations between TCF7L2 polymorphism and CRC risk were limited to non-diabetic or normal-weight subjects. No significant interactions between the A/G allele and diabetes status or the A/G allele and overweight status were found."

According to the news reporters, the research concluded: "The results indicated that the TCF7L2 rs11196172 polymorphism increases the risk of CRC independently, with no evidence of an interaction with diabetes or obesity."

For more information on this research see: Association between the TCF7L2 polymorphism and colorectal cancer does not differ by diabetes and obesity statuses. Cancer Epidemiology, 2016;45():108-111. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news correspondents report that additional information may be obtained by contacting S.S. Kweon, Chonnam National University, Hwasun Hosp, Jeonnam Reg Canc Center, Hwasun, Jeonnam, South Korea. Additional authors for this research include R. Lee, M.H. Shin, H.N. Kim and S.S. Kweon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.10.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jeonnam, South Korea, Asia, Nutritional and Metabolic Diseases and Conditions, Diabetes, Epidemiology, Colorectal Research,
Oncology - Colon Cancer

Findings in Colon Cancer Reported from Department of Surgery
(Synchronous polyps predict metachronous colorectal lesions after curative resection of colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news originating from Treviso, Italy, by NewsRx correspondents, research stated, "The principal aim of endoscopic follow-up programs after curative resection of colorectal cancer (CRC) is to improve survival and identify local recurrence and metachronous CRC. The aim of our study was to identify the possible predictors of metachronous colorectal lesions."

Our news journalists obtained a quote from the research from the Department of Surgery, "The records of 348 consecutive patients with CRC and who completed at least 1 year of endoscopic follow-up after surgery were analyzed. In this group, 336 patients underwent surgery for primitive CRC and 12 for metachronous cancer. Patients' characteristics, operative details, and endoscopical follow-up findings were retrieved. Multivariate survival analyses were used to identify patient categories at risk of metachronous colonic lesions. 128 patients presented a metachronous lesion: 118 adenomas and 10 adenocarcinomas. At multivariate analysis, active smoke (HR = 1.84, p = 0.03), neoadjuvant therapy (HR = 0.24, p = 0.01), and presence of synchronous polyps (HR = 1.55, p = 0.04) resulted independent predictors of metachronous adenoma after CRC removal while neoadjuvant therapy (HR = 0.25, p = 0.02), active smoke (HR = 1.54, p = 0.04), and presence of synchronous polyps (HR = 1.86, p = 0.02) resulted independent predictors of metachronous lesions after CRC removal. This study demonstrated a high rate of metachronous lesions in the early follow-up after curative CRC resection."

According to the news editors, the research concluded: "The negative effects of synchronous polyps should be carefully evaluated when planning patients' follow-up."


The news correspondents report that additional information may be obtained from C. Ruffolo, Reg Hosp Ca Foncello, Dept. of Surg 2, Unit 4, I-31100 Treviso, Italy. Additional authors for this research include C. Ruffolo, A. Fiorot, L. Padoan, F. Erroi, M. Massani, E. Caratozzolo, L. Bonariol, F. Ferrara, L. Norberto, C. Castoro, N. Bassi and M. Scarpa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/00015458.2016.1171075. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Treviso, Italy, Europe, Surgery, Risk and Prevention, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Department of Surgery.
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Oncology - Colon Cancer

Findings in Colon Cancer Reported from Osaka University (BRAF V600E inhibition stimulates AMP-activated protein kinase-mediated autophagy in colorectal cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Colon Cancer. According to news reporting out of Osaka, Japan, by NewsRx editors, research stated, "Although BRAF (V600E) mutation is associated with adverse clinical outcomes in patients with colorectal cancer (CRC), response and resistance mechanisms for therapeutic BRAF(V600E) inhibitors remains poorly understood. In the present study, we demonstrate that selective BRAF(V600E) inhibition activates AMP-activated protein kinase (AMPK), which induces autophagy as a mechanism of therapeutic resistance in human cancers."

Our news journalists obtained a quote from the research from Osaka University, "The present data show AMPK-dependent cytoprotective roles of autophagy under conditions of therapeutic BRAF(V600E) inhibition, and AMPK was negatively correlated with BRAF (V600E)-dependent activation of MEK-ERK-RSK signaling and positively correlated with unc-51-like kinase 1 (ULK1), a key initiator of autophagy. Furthermore, selective BRAF(V600E) inhibition and concomitant suppression of autophagy led to the induction of apoptosis."

According to the news editors, the research concluded: "Taken together, present experiments indicate that AMPK plays a role in the survival of BRAF(V600E) CRC cells by selective inhibition and suggest that the control of autophagy contributes to overcome the chemoresistance of BRAF(V600E) CRC cells."

For more information on this research see: BRAF V600E inhibition stimulates AMP-activated protein kinase-mediated autophagy in colorectal cancer cells. Scientific Reports, 2016;6():18949. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting T. Sueda, Dept. of Frontier Science for Cancer and Chemotherapy, Osaka University, Graduate School of Medicine, 2-2, Yamadaoka, Suita, Osaka, 565-0871, Japan. Additional authors for this research include D. Sakai, K. Kawamoto, M. Konno, N. Nishida, J. Koseki, H. Colvin, H. Takahashi, N. Haraguchi, J. Nishimura, T. Hata, I. Takemasa, T. Mizushima, H. Yamamoto, T. Sato, Y. Doki, M. Mori and H. Ishii.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18949. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Osaka, Japan, Genetics, Oncology, Colon Cancer, Therapeutics, Gastroenterology, Colorectal Research, Enzymes and Coenzymes, AMP Activated Protein Kinases, Protein Serine Threonine Kinases, Phosphotransferases (Alcohol Group Acceptor), Intracellular Signaling Peptides and Proteins.

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Findings in Colon Cancer Reported from Zhengzhou University [Stage dependent expression and tumor suppressive function of FAM134B (JK1) in colon cancer]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news originating from Zhengzhou, People's Republic of China, by NewsRx correspondents, research stated, "The aims of the present study are to investigate sub-cellular location, differential expression in different cancer stages and functional role of FAM134B in colon cancer development. FAM134B expression was studied and quantified at protein and mRNA levels in cell lines using immunocytochemistry, Western blot and real-time PCR."

Our news journalists obtained a quote from the research from Zhengzhou University, "In vitro functional assays and an in vivo xenotransplantation mouse models were used to investigate the molecular role of FAM134B in cancer cell biology in response to FAM134B silencing with shRNA lentiviral particles. FAM134B protein was noted in both cytoplasm and nuclei of cancer cells. In cancer cells derived from stage IV colon cancer, FAM134B expression was remarkably reduced when compared to non-cancer colon cells and cancer cells derived from stage II colon cancer. FAM134B knockdown significantly (P <0.05) increased the proliferation of colon cancer cells following lentiviral transfection. Furthermore, FAM134B suppression significantly increased (34-52%; P<0.05) the clonogenic capacity, wound healing potential of and increases the proportion of cells performing DNA synthesis (P <0.01). Xenotransplantation model showed that larger and higher-grade tumors were formed in mice receiving FAM134B knockdown cells."

According to the news editors, the research concluded: "To conclude, expression analysis, in vitro and in vivo indicated that FAM134B acts as a cancer suppressor gene in colon cancer."


The news correspondents report that additional information may be obtained from A.K.Y. Lam, Zhengzhou Univ, Affiliated Hosp 1, Dept. of Stomatol, Zhengzhou, Henan Province, People's Republic of China. Additional authors for this research include V. Gopalan, R. Wahab, R.A. Smith, B. Qiao and A.K.Y. Lam.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Drugs and Therapies, Cancer Gene Therapy, Biotechnology, Colon Cancer, Oncology, Genetics, Zhengzhou University.

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Findings in Crohn's Disease Reported from All India Institute of Medical Sciences (Endoscopic and clinical responses to anti-tubercular therapy can differentiate intestinal tuberculosis from Crohn's disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Digestive System Diseases and Conditions - Crohn's Disease are presented in a new report. According to news reporting from New Delhi, India, by NewsRx journalists, research stated, "Differentiation between intestinal tuberculosis and Crohn's disease is difficult and may require therapeutic trial with anti-tubercular therapy in tuberculosis-endemic regions. To evaluate the role of therapeutic trial with anti-tubercular therapy in patients with diagnostic confusion between intestinal tuberculosis and Crohn's disease."

Financial supporters for this research include Amgen, Merck, National Institutes of Health.

The news correspondents obtained a quote from the research from the All India Institute of Medical Sciences, "We performed retrospective-comparative (n = 288:131 patients who received anti-tubercular therapy before being diagnosed as Crohn's disease and 157 intestinal tuberculosis patients) and prospective-validation study (n = 55 patients with diagnostic confusion of intestinal tuberculosis/Crohn's disease). Outcomes assessed were global symptomatic response and endoscopic mucosal healing. In the derivation cohort, among those eventually diagnosed as Crohn's disease, global symptomatic response with anti-tubercular therapy was seen in 38% at 3 months and in 37% who completed 6 months of anti-tubercular therapy. Ninety-four per cent of intestinal tuberculosis patients showed global symptomatic response by 3 months. Endoscopic mucosal healing was seen in only 5% of patients with Crohn's disease compared with 100% of intestinal tuberculosis patients. In the validation cohort, all the patients with intestinal tuberculosis had symptomatic response and endoscopic mucosal healing after 6 months of antitubercular therapy. Among the patients with an eventual diagnosis of Crohn's disease, symptomatic response was seen in 64% at 2 months and in 31% who completed 6 months of anti-tubercular therapy, none had mucosal healing. Disproportionately lower mucosal healing rate despite an overall symptom response with 6 months of anti-tubercular therapy in patients with Crohn's disease suggests a need for repeat colonoscopy for diagnosing Crohn's disease."

According to the news reporters, the research concluded: "Patients with intestinal tuberculosis showing significant symptomatic response after 2-3 months of anti-tubercular therapy, suggest that symptom persistence after a therapeutic trial of 3 months of anti-tubercular therapy may indicate the diagnosis of Crohn's disease."


Our news journalists report that additional information may be obtained by contacting V. Ahuja, All India Inst Med Sci, Human Nutr Unit, New Delhi, India. Additional authors for this research include K. Munot, A. Ananthakrishnan, S. Kedia, S. Addagalla, S.K. Garg, J. Benjamin, V. Singla, R. Dhingra, V. Tiwari, S. Bopanna, S. Hutfless, G. Makharia and
V. Ahuja.

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Keywords for this news article include: New Delhi, India, Asia, Therapy, Diagnostics and Screening, Epidemiology, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Gastroenterology, Crohn's Disease, Gastroenteritis, All India Institute of Medical Sciences.

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DNA Research

Findings in DNA Research Reported from Tohoku University (DNA Garden: A Simple Method for Producing Arrays of Stretchable DNA for Single-Molecule Fluorescence Imaging of DNA-Binding Proteins)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on DNA Research. According to news reporting out of Miyagi, Japan, by NewsRx editors, research stated, "We developed a simple method for producing arrays of stretchable DNAs, called DNA garden, for single-molecule fluorescence measurements. The method is based on micro-contact printing of biotinylated bovine serum albumin (biotin-BSA) on a coverslip coated by 2-methacryloyloxyethyl phosphorylcholine (MPC) polymer and on the subsequent tethering of neutravidin and biotinylated DNA."

Our news journalists obtained a quote from the research from Tohoku University, "Without the need for a microfabricated substrate used for DNA tethering, it facilitates single-molecule investigations of DNA and DNA-binding proteins based on fluorescence microscopic imaging. The salient advantage of DNA garden is continuous observation of DNA in the repeated cycles of extension and relaxation by flow control, enabling the characterization of processes occurring in and on the relaxed DNA. The DNA garden was applied to the detection of cleavage sites of restriction enzymes and for the observation of the sliding dynamics of a tumor suppressor, p53, along extended DNA at the single-molecule level. Furthermore, experiments based on the repetitive extension and relaxation of DNA demonstrated that p53 causes looping of DNA, probably by connecting multiple regions of the relaxed DNA."

According to the news editors, the research concluded: "The DNA garden is expected to be a powerful tool for the single-molecule imaging assay of DNA and DNA-binding proteins."


Our news journalists report that additional information may be obtained by contacting S. Takahashi, Tohoku University, Grad Sch Sci, Dept. of Chem, Sendai, Miyagi
9808578, Japan. Additional authors for this research include A. Murata, Y. Itoh, D. Rendra, G. Subekti, S. Takahashi and K. Kamagata.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1246/bcsj.20160298. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miyagi, Japan, Asia, DNA-Binding Proteins, DNA Research, Genetics, p53 Gene, Tohoku University.

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DNA Research

Findings in DNA Research Reported from University of California [In Vitro Lesion Bypass Studies of O(4)-Alkylthymidines with Human DNA Polymerase e]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in DNA Research. According to news reporting from Riverside, California, by NewsRx journalists, research stated, "Environmental exposure and endogenous metabolism can give rise to DNA alkylaion. Among alkylated nucleosides, O(4)-alkylthymidine (O(4)-alkyldT) lesions are poorly repaired in mammalian systems and may compromise the efficiency and fidelity of cellular DNA replication."

Financial support for this research came from National Institute of Environmental Health Sciences.

The news correspondents obtained a quote from the research from the University of California, "To cope with replication-stalling DNA lesions, cells are equipped with translesion synthesis DNA polymerases that are capable of bypassing various DNA lesions. In this study, we assessed human DNA polymerase e (Pol e)-mediated bypass of various O(4)-alkyldT lesions, with the alkyl group being Me, Et, nPr, iP r, nBu, iBu, ®-sBu, or (S)-sBu, in template DNA by conducting primer extension and steady-state kinetic assays. Our primer extension assay results revealed that human Pol e, but not human polymerases k and i or yeast polymerase z, was capable of bypassing all O(4)-alkyldT lesions and extending the primer to generate full-length replication products. Data from steady-state kinetic measurements showed that Pol e preferentially misincorporated dGMP opposite O(4)-alkyldT lesions with a straight-chain alkyl group. The nucleotide misincorporation opposite most lesions with a branched-chain alkyl group was, however, not selective, where dCMP, dGMP, and dTMP were inserted at similar efficiencies opposite O(4)-iPrdT, O(4)-iBudT, and O(4)-®-sBudT."

According to the news reporters, the research concluded: "These results provide important knowledge about the effects of the length and structure of the alkyl group in O(4)-alkyldT lesions on the fidelity and efficiency of DNA replication mediated by human Pol e."

For more information on this research see: In Vitro Lesion Bypass Studies of O(4)-Alkylthymidines with Human DNA Polymerase e. Chemical Research In Toxicology, 2016;29 (4):669-75. (American Chemical Society - www.acs.org; Chemical Research In Toxicology - www.pubs.acs.org/journal/crtoec)

Our news journalists report that additional information may be obtained by contacting N.L. Williams, Environmental Toxicology Graduate Program, ‡Dept. of Chemistry, University of California, Riverside, California 92521-0403, United States. Additional authors
Nervous System Diseases and Conditions - Delirium

Findings in Delirium Reported from J. Norbaek and Co-Researchers
(Delirium is seen in one-third of patients in an acute hospital setting. Identification, pharmacologic and non-pharmacologic treatment is inadequate)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nervous System Diseases and Conditions - Delirium are discussed in a new report. According to news reporting originating in Hvidovre, Denmark, by NewsRx journalists, research stated, "Delirium is an organically caused acute dysfunction of the brain associated with increased morbidity, mortality, cost of care and poor cognitive recovery. This point prevalence study of delirium was conducted at Hvidovre Hospital, Copenhagen, Denmark at two separate occasions."

The news reporters obtained a quote from the research, "Patients were examined with the Brief Confusion Assessment Method (bCAM) in both, but in the second survey bCAM was supplemented with a psychiatric assessment using the Diagnostic and Statistical Manual of Mental Disorders, fourth ed. In all, 126 patients were assessed and eight patients were excluded. The delirious patients' charts were examined. Out of the 118 patients included in the study, 38 (32%) were delirious and in 18 (47%) patients, the diagnosis was documented. Furthermore, in 18 (47%) patients, a pharmacological treatment plan for agitation was prepared (in 89% of those diagnosed with delirium and in 10% of those without the diagnosis). In 26 (68%), a plan to increase care existed (in 78% of those with a diagnosis of delirium and in 60% without the diagnosis). In 11 patients (29%), there was a plan for reducing stress (in 44% of those with a diagnosis of delirium and in 15% without the diagnosis). Delirium is a common phenomenon in a Danish acute hospital setting. Identification and treatment are inadequate."

According to the news reporters, the research concluded: "The diagnosis of delirium is a possible determinant for treatment and care; hence, as this study found that pharmacological treatment for agitation, optimised care and stress reduction were more frequently considered in patients with the delirium diagnosis than in patients who did not have the diagnosis."

For more information on this research see: Delirium is seen in one-third of patients in an acute hospital setting. Identiﬁcation, pharmacologic and non-pharmacologic treatment is inadequate. *Danish Medical Journal*, 2016;63(11):13-17. *Danish Medical Journal* can be contacted at: Danish Medical Assoc, Trondhjemsgade 9, Dk-2100 Copenhagen, Denmark.

Our news correspondents report that additional information may be obtained by contacting J. Norbaek, Psychiat Center Hvidovre, Liaisonpsychiat Unit, Hvidovre, Denmark.

Keywords for this news article include: Hvidovre, Denmark, Europe, Nervous
Findings in Dermatology Reported from University of Connecticut
(Basics of Confocal Microscopy and the Complexity of Diagnosing Skin Tumors: New Imaging Tools in Clinical Practice, Diagnostic Workflows, Cost-Estimate, and New Trends)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Dermatology have been published. According to news reporting originating from Farmington, Connecticut, by NewsRx correspondents, research stated, "The use of reflectance confocal microscopy (RCM) and other noninvasive imaging devices can potentially streamline clinical care, leading to more precise and efficient management of skin cancer."

Our news editors obtained a quote from the research from the University of Connecticut, "This article explores the potential role of RCM in cutaneous oncology, as an adjunct to more established techniques of detecting and monitoring for skin cancer, such as dermoscopy and total body photography. Discussed are current barriers to the adoption of RCM, diagnostic workflows and standards of care in the United States and Europe, and medicolegal issues."

According to the news editors, the research concluded: "The potential role of RCM and other similar technological innovations in the enhancement of dermatologic care is evaluated."


Dermatologic Clinics can be contacted at: W B Saunders Co-Elsevier Inc, 1600 John F Kennedy Boulevard, Ste 1800, Philadelphia, PA 19103-2899, USA. (Elsevier - www.elsevier.com; Dermatologic Clinics - www.journals.elsevier.com/dermatologic-clinics/)

The news editors report that additional information may be obtained by contacting S.K.T. Que, University of Connecticut, Center Hlth, Dept. of Dermatol, Farmington, CT 06030, United States. Additional authors for this research include J.M. Grant-Kels, C. Longo and G. Pellacani.

Keywords for this news article include: Farmington, Connecticut, United States, North and Central America, Dermatology, Health and Medicine, University of Connecticut.

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Diabetes

Findings in Diabetes Reported from Lund University (Nerve regeneration in chitosan conduits and in autologous nerve grafts in healthy and in type 2 diabetic Goto-Kakizaki rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Diabetes. According to news reporting originating from Malmo, Sweden, by NewsRx correspondents, research stated, "Knowledge about nerve regeneration after nerve injury and reconstruction in appropriate diabetic animal models is incomplete. Short-term nerve regeneration after reconstruction of a 10-mm sciatic nerve defect with either a hollow chitosan conduit or an autologous nerve graft was investigated in healthy Wistar and diabetic Goto-Kakizaki (GK) rats."

Financial supporters for this research include Seventh Framework Programme, Vetenskapsradet, Lunds Universitet.

Our news editors obtained a quote from the research from Lund University, "After 21 days, axonal outgrowth, the presence of activated and apoptotic Schwann cells and the thickness of the formed matrix in the conduits were measured. In general, nerve regeneration was superior in autologous nerve grafts. In chitosan conduits, a matrix, which was thicker in diabetic rats, was formed and was positively correlated with length of axonal outgrowth. Axonal outgrowth in conduits and in nerve grafts extended further in diabetic rats than in healthy rats. There was a higher percentage of activating transcription factor 3 (ATF3)-immunostained cells in nerve segments from healthy rats than in diabetic rats after autologous nerve graft reconstruction. In chitosan conduits, more cleaved caspase 3-stained Schwann cells were generally observed in the matrix from the diabetic rats than in healthy rats. However, there were fewer apoptotic cells in the distal segment in diabetic rats reconstructed with a chitosan conduit. Preoperative glucose levels were positively correlated with axonal outgrowth after both reconstruction methods. Axonal regeneration was better in autologous nerve grafts than in hollow chitosan conduits and was enhanced in diabetic GK rats compared to healthy rats after reconstruction."

According to the news editors, the research concluded: "This study provides insights into the nerve regeneration process in a clinically relevant diabetic animal model."


The news editors report that additional information may be obtained by contacting L. Stenberg, Dept. of Translational Medicine - Hand Surgery, Lund University, Jan Waldenstroms gata 5, 205 02, Malmo, Sweden. Additional authors for this research include A. Kodama, C. Lindwall-Blom and L.B Dahlin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ejn.13068. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Malmo, Sweden, Europe, Diabetes, Genetics, Endocrinology.

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Findings in Drug Delivery Systems Reported from Institute of Macromolecular Chemistry (Multifunctional nanogels with dual temperature and pH responsiveness)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Delivery Systems have been published. According to news originating from Iasi, Romania, by NewsRx correspondents, research stated, 'Over the last 10 years, the development of intelligent biomaterials for medical and pharmaceutical applications has attracted growing interest by combining interdisciplinary efforts. Between them nanogels represent one of the most attractive carriers for innovative drug delivery systems.'

Financial support for this research came from Romanian National Authority for Scientific Research.

Our news journalists obtained a quote from the research from the Institute of Macromolecular Chemistry, 'In the present investigation new variants of multi-responsive nanogels have been synthesized by crosslinking poly (itaconic anhydride-co-3,9-divinyl-2,4,8,10-tetraoxaspiro [5.5] undecane) copolymer (having different molar ratios between comonomers) with 1,12-dodecandiol. The new structures were obtained by using modification of itaconic anhydride moieties in the copolymer. This is a convenient method for the preparation of a network with increased functionality, which further may ensure new strategies for coupling various bioactive compounds, especially owing to the behavior of the used copolymers, which present dual pH and temperature sensitive characteristics. The chemical structure of the new compounds was confirmed by FTIR and H-1 RMN spectra. Also, the evaluation of thermal stability by thermogravimetric analysis sustains the covalent bonds occurring between the copolymer and diol. The dual responsiveness of the nanogel structures to temperature and pH was put into evidence by DLS studies. This feature can be used for the development of drug delivery systems, which can mimic biological response behavior to a certain extent. The new synthesized nanogels were tested as drug delivery systems by using diclofenac as a model drug.'

According to the news editors, the research concluded: 'The results obtained from in vitro and in vivo investigation confirm the bioactivity of the nanogel networks.'


The news correspondents report that additional information may be obtained from A.P. Chiriac, PETRU PONI Inst Macromol Chem, RO-700487 Iasi, Romania. Additional authors for this research include A.P. Chiriac, A. Diaconu, N. Tudorachi and L. Mititelu-Tartau.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Iasi, Romania, Europe, Drug Delivery Systems, Emerging Technologies, Drugs and Therapies, Nanotechnology, Nanogels, Institute of Macromolecular Chemistry.

Our reports deliver fact-based news of research and discoveries from around the
Findings in Drug Development Reported from GlaxoSmithKline (Epigenetic drug discovery: breaking through the immune barrier)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Development have been published. According to news reporting originating in Herts, United Kingdom, by NewsRx journalists, research stated, "Immune-mediated diseases are clinically heterogeneous but they share genetic and pathogenic mechanisms. These diseases may develop from the interplay of genetic factors and environmental or lifestyle factors."

The news reporters obtained a quote from the research from GlaxoSmithKline, "Exposure to such factors, including infectious agents, is associated with coordinated changes in gene transcription owing to epigenetic alterations. A growing understanding of how epigenetic mechanisms control gene expression patterns and cell function has been aided by the development of small-molecule inhibitors that target these processes. These chemical tools have helped to reveal the importance of epigenetics in guiding cell fate decisions during immune responses and have also highlighted the potential for targeting epigenetic mechanisms for the treatment of inflammation and immune-mediated diseases. In this Review, we discuss the most advanced areas of epigenetic drug development for autoimmune and inflammatory diseases and summarize the promising preclinical data in this exciting and evolving field."

According to the news reporters, the research concluded: "These agents will inevitably begin to move into clinical trials for use in patients with immune-mediated diseases."


Our news correspondents report that additional information may be obtained by contacting R.K. Prinjha, GlaxoSmithKline, Epinova Epigenet Discovery Performance Unit, Immunoinflammat Therapy Area, Medical Res Center, Stevenage SG1 2NY, Herts, United Kingdom. Additional authors for this research include P.P. Tak, A. Tarakhovsky and R.K. Prinjha.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrd.2016.185. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Herts, United Kingdom, Europe, Drug Development, Genetics, Article Review, Drugs and Therapies, GlaxoSmithKline.

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Findings in Duchenne Muscular Dystrophy Reported from Stanford University (Telomere shortening and metabolic compromise underlie dystrophic cardiomyopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Duchenne Muscular Dystrophy. According to news reporting originating in Stanford, California, by NewsRx journalists, research stated, "Duchenne muscular dystrophy (DMD) is an incurable X-linked genetic disease that is caused by a mutation in the dystrophin gene and affects one in every 3,600 boys. We previously showed that long telomeres protect mice from the lethal cardiac disease seen in humans with the same genetic defect, dystrophin deficiency."

Funders for this research include California Institute for Regenerative Medicine (CIRM), HHS | National Institutes of Health (NIH), Gouvernement du Canada | Canadian Institutes of Health Research (Instituts de recherche en sante du Canada), American Heart Association (AHA).

The news reporters obtained a quote from the research from Stanford University, "By generating the mdx(4CV)/mTR(G2) mouse model with 'humanized' telomere lengths, the devastating dilated cardiomyopathy phenotype seen in patients with DMD was recapitulated. Here, we analyze the degenerative sequelae that culminate in heart failure and death in this mouse model. We report progressive telomere shortening in developing mouse cardiomyocytes after postnatal week 1, a time when the cells are no longer dividing. This proliferation-independent telomere shortening is accompanied by an induction of a DNA damage response, evident by p53 activation and increased expression of its target gene p21 in isolated cardiomyocytes. The consequent repression of Pgc1 alpha/beta leads to impaired mitochondrial biogenesis, which, in conjunction with the high demands of contraction, leads to increased oxidative stress and decreased mitochondrial membrane potential. As a result, cardiomyocyte respiration and ATP output are severely compromised. Importantly, treatment with a mitochondrial-specific antioxidant before the onset of cardiac dysfunction rescues the metabolic defects."

According to the news reporters, the research concluded: "These findings provide evidence for a link between short telomere length and metabolic compromise in the etiology of dilated cardiomyopathy in DMD and identify a window of opportunity for preventive interventions."


Our news correspondents report that additional information may be obtained by contacting H.M. Blau, Stanford University, Sch Med, Stanford Cardiovasc Inst, Stanford, CA 94305, United States. Additional authors for this research include S.G. Ong, E.L. LaGory, P.E. Kraft, A.J. Giaccia, J.C. Wu and H.M. Blau.
Environmental Research

Findings in Environmental Research Reported from State University of New York (Innovating e-waste management: From macroscopic to microscopic scales)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Environmental Research. According to news reporting from Oneonta, New York, by NewsRx journalists, research stated, "Waste electrical and electronic equipment (WEEE or e-waste) has become a global problem, due to its potential environmental pollution and human health risk, and its containing valuable resources (e.g., metals, plastics). Recycling for e-waste will be a necessity, not only to address the shortage of mineral resources for electronics industry, but also to decline environmental pollution and human health risk."

Funders for this research include China Postdoctoral Science Foundation, National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from the State University of New York, "To systematically solve the e-waste problem, more attention of e-waste management should transfer from macroscopic to microscopic scales. E-waste processing technology should be significantly improved to diminish and even avoid toxic substance entering into downstream of material. The regulation or policy related to new production of hazardous substances in recycled materials should also be carried out on the agenda."

According to the news reporters, the research concluded: "All the findings can hopefully improve WEEE legislation for regulated countries and non-regulated countries."

For more information on this research see: Innovating e-waste management: From macroscopic to microscopic scales. Science of the Total Environment, 2017;575():1-5. Science of the Total Environment can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Science of the Total Environment - www.journals.elsevier.com/science-of-the-total-environment/)

Our news journalists report that additional information may be obtained by contacting J.F. Chiang, SUNY Coll Oneonta, Dept. of Chem & Biochem, Oneonta, NY 13820, United States. Additional authors for this research include C.R. Yang, J.F. Chiang and J.H. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.scitotenv.2016.09.078. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Oneonta, New York, United States, North and Central America, Environmental Research, Article Review, Risk and Prevention, State University of New York.

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Enzymes and Coenzymes - Esterases

Findings in Esterases Reported from Affiliated Hospital (Reduced apurinic/apyrimidinic endonuclease activity enhances the antitumor activity of oxymatrine in lung cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Esterases have been published. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Lung cancer is the leading cause of cancer-related deaths worldwide and is associated with a very poor outcome. Oxymatrine exerts antitumor effects by inducing apoptosis and inhibiting the proliferation of different cancer cells; however, the anticancer effects and mechanism of action of oxymatrine have not been evaluated sufficiently in human lung cancer cells."

Our news journalists obtained a quote from the research from Affiliated Hospital, "Thus, the present study aimed to investigate the anticancer effects of oxymatrine in human lung cancer cells and identify the molecular mechanisms underlying these effects. MTT assays demonstrated that oxymatrine significantly inhibited the proliferation of A549 and H1299 cells in a time and dose-dependent manner. In addition, flow cytometry and terminal deoxynucleotidyl transferase-mediated dUTP-biotin nick end-labeling assays suggested that oxymatrine treatment may induce lung cancer cell apoptosis in a dose-dependent manner. Furthermore, we detected that oxymatrine induced a significant increase in DNA damage and the expression of PARP and phosphorylated H2AX, and a significant decrease in that of nuclear APE1 and AP endonuclease activity in A549 cells. APE1 knockdown cells (APE1(shRNA)) plus oxymatrine treatment reduced cells proliferation and induced apoptosis more seriously than control shRNA cells. This appeared to be a consequence of an increase in the number of apurinic/apyrimidinic (AP) sites, DNA damage, PARP and H2AX phosphorylation, which together resulted in the induction of apoptosis. In contrast, the sensitizing effects of APE1 over expression plus oxymatrine treatment did not occur in APE(OE) cells."

According to the news editors, the research concluded: "These findings reveal a potential mechanism of action for oxymatrine-induced apoptosis and suggest that oxymatrine is a promising potential therapeutic agent for the treatment of lung cancer."


Keywords for this news article include: Guangdong, People's Republic of China,
Findings in Follicular Lymphoma Reported from Okayama University
(CD10 down expression in follicular lymphoma correlates with gastrointestinal lesion involving the stomach and large intestine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Follicular Lymphoma have been published. According to news reporting out of Okayama, Japan, by NewsRx editors, research stated, "Follicular lymphoma (FL) shows co-expression of B-cell lymphoma 2 (BCL2) and CD10, whereas downexpression of CD10 is occasionally experienced in gastrointestinal (GI) FL with unknown significance. Gastrointestinal FL is a rare variant of FL, and its similarity with mucosa-associated lymphoid tissue lymphoma was reported."

Financial support for this research came from Japan Society for the Promotion of Science.

Our news journalists obtained a quote from the research from Okayama University, "We investigated the clinicopathological and genetic features of CD10 downexpressed (CD10 (down)) GI-FL. The diagnosis of CD10(down) FL was carried out with a combination of pathological and molecular analyses. The incidence of CD10(down) GI-FL was shown in 35/172 (20.3%) cases, which was more frequent than nodal FL (3.5%, P< 0.001). The difference was additionally significant between GI-FL and nodal FL when the analysis was confined to primary GI-FL (55.2% vs 3.5%, P< 0.001). Compared to CD10(+) GI-FL, CD10(down) GI-FL significantly involved the stomach or large intestine (P = 0.015), and additionally showed the downexpression of BCL6 (P < 0.001). The follicular dendritic cell meshwork often showed a duodenal pattern in the CD10(down) group (P = 0.12). Furthermore, a lymphoepithelial lesion was observed in 5/12 (40%) gastric FL cases, which indicated caution in the differentiation of mucosa-associated lymphoid tissue lymphoma. Molecular analyses were undertaken in seven cases of CD10(down) GI-FL, and an identical clone was found between CD10(down) follicles and CD10(+)BCL2(+) neoplastic follicles."

According to the news editors, the research concluded: "In the diagnosis of cases with CD10(down) BCL2(+) follicles, careful examination with molecular studies should be carried out."


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http://dx.doi.org/10.1111/cas.13031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Okayama, Japan, Asia, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Follicular Lymphoma, Gastroenterology, Hematology, Lymphomas, Oncology, Genetics, Okayama University.

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Drugs and Therapies - Gliclazide Therapy

Findings in Gliclazide Therapy Reported from Department of Chemistry (Swelling behavior of cross-linked dextran hydrogels and preliminary Gliclazide release behavior)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Gliclazide Therapy is now available. According to news reporting from Jabalpur, India, by NewsRx journalists, research stated, "In this study, dextran (Dex) has been cross-linked with epichlorohydrin (Ech) to yield cross-linked hydro gels. These gels were characterized by Fourier transform infrared (FTIR) spectroscopy, X-ray diffraction (XRD) analysis, Thermogravimetric analysis (TGA), and Scanning electron microscopy (SEM)."

The news correspondents obtained a quote from the research from the Department of Chemistry, "The water absorption behavior of gels was studied in simulating gastric fluid (SGF) and simulating intestinal fluid (SIF) at 37 degrees C. The data was interpreted by various kinetic models. The swelling was found to be totally diffusion controlled. The equilibrium data was also used to calculate network parameters. The antidiabetic drug Gliclazide (Glz) was loaded to the gels and its release was investigated in the media of varying pH, to mimic transition from mouth to colon. Finally, the in-vivo study on 'Albino Wistar rats' was carried out to investigate the efficiency of the formulations."

According to the news reporters, the research concluded: "The drug-loaded hydrogel was found to be quite effective in reducing the glucose level at lower administration frequency as compared to the plain drug."


Our news journalists report that additional information may be obtained by contacting S.K. Bajpai, Govt Model Sci College, Dept. of Chem, Polymer Res Lab, Jabalpur 482001, MP, India. Additional authors for this research include N. Chand, S. Tiwari and S. Soni.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.09.075. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Jabalpur, India, Asia, Sulfonylurea Compounds, Drugs and Therapies, Hypoglycemic Agents, Gliclazide Therapy, Sulfonylureas, Department of Chemistry.

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Heart Disorders and Diseases - Heart Failure

Findings in Heart Failure Reported from Division of Nephrology (Pulmonary hypertension in patients on chronic hemodialysis and with heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Failure is the subject of a report. According to news reporting originating from Pingtung, Taiwan, by NewsRx correspondents, research stated, "Pulmonary hypertension (PH) is linked to chronic kidney disease. However, few studies have examined the prevalence, risk factors, or outcomes of PH in patients with chronic hemodialysis and concomitant heart failure."

Our news editors obtained a quote from the research from the Division of Nephrology, "This retrospective cohort study enrolled 160 patients with a history of acute decompensated heart failure after maintenance hemodialysis therapy. All patients were prospectively observed until December 2013 or death. PH was defined as pulmonary artery systolic pressure >35 mmHg, as determined through echocardiography. Fifty-one (32%) patients had PH, more of whom were female (70% vs. 52%, p=0.04). The patients with PH had a lower body mass index (21.8 vs. 23.0, p=0.03), higher cardiothoracic ratio (55% vs. 52%, p=0.006), larger left atrium (38.5 vs. 35.7 mm, p=0.01), and an increased proportion of mitral regurgitation (MR) (73% vs. 38%, p<0.001) compared with the patients who did not have PH. In the multivariate regression analysis, MR was associated most strongly with PH (odds ratio 3.75, 95% confidence interval [CI]: 1.67-8.43, p=0.001). In the multivariate Cox proportional hazard models, PH was related independently to all-cause mortality (hazard ratio [HR], 3.11; 95% CI, 1.53-6.31; p=0.002) and combined cardiovascular events (HR, 2.71; 95% CI, 1.66-4.44; p<0.001) after the model was adjusted for conventional cardiovascular risk factors."

According to the news editors, the research concluded: "PH is related to MR and independently associated with increased all-cause mortality and cardiovascular events in patients with chronic hemodialysis and heart failure."


The news editors report that additional information may be obtained by contacting C.W. Hsieh, Division of Nephrology, Dept. of Internal Medicine, Pingtung Christian Hospital, Pingtung, Taiwan. Additional authors for this research include C.T. Lee, C.C. Chen, L.P. Hsu, H.H. Hu and J.C Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hdi.12380. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiwan, Pingtung, Cardiology, Hemodialysis, Heart Disease, Heart Failure, Renal Dialysis, Risk and Prevention, Pulmonary
Findings in Heart Failure Reported from University of Pisa (Right ventricular recovery during follow-up is associated with improved survival in patients with chronic heart failure with reduced ejection fraction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting out of Pisa, Italy, by NewsRx editors, research stated, "A compromised tricuspid annular plane systolic excursion (TAPSE) is associated with worse survival in patients with chronic heart failure with reduced ejection fraction (HFrEF). However, it is not known whether a reversible abnormal TAPSE at follow-up predicts survival."

Our news journalists obtained a quote from the research from the University of Pisa, "Our aim was to evaluate whether a reversible abnormal TAPSE is associated with a better survival in patients with chronic HFrEF. A complete echocardiography was performed in 706 patients with chronic HFrEF (LVEF <= 45%) at baseline and after 6+/-3 months. Right ventricular (RV) systolic function was evaluated using TAPSE. The study endpoint was all-cause mortality. At baseline, TAPSE was severely reduced (<= 14 mm) in 89 (13%) patients, and slightly reduced (> 14 but < 18 mm) in 157 (22%) patients. During a median follow-up of 40 months, 152 patients reached the endpoint. The event rate (per 100 patients/year) was lower in patients with persistently normal TAPSE (>= 18 mm, n = 393) [3.3%, 95% confidence interval (CI) 2.5-4.3], and in those with reversible TAPSE (n = 120) (4.6%, 95% CI 3.1-7.0), compared with patients with worsening TAPSE (n = 90) (11.9%, 95% CI 8.7-16.3), and those with persistently reduced TAPSE (n = 103) (12.6%, 95% CI 9.3-17.1; log-rank 69.4, P<0.0001). A reversible abnormal TAPSE was associated with improved survival at multivariable Cox regression analysis (hazard ratio 0.48, 95% CI 0.29-0.79, P = 0.004)."

According to the news editors, the research concluded: "Patients with chronic HFrEF who have abnormal TAPSE at baseline but reverse their dysfunction during follow-up have better survival than patients with either worsened TAPSE or persistently abnormal TAPSE, and similar to that of patients with persistently normal TAPSE."

For more information on this research see: Right ventricular recovery during follow-up is associated with improved survival in patients with chronic heart failure with reduced ejection fraction. European Journal of Heart Failure, 2016;18(12):1462-1471. European Journal of Heart Failure can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Oxford University Press - www.oup.com/; European Journal of Heart Failure -eurjhf.oxfordjournals.org)

Our news journalists report that additional information may be obtained by contacting F.L. Dini, University of Pisa, Cardiac Thorac & Vasc Department, Pisa, Italy. Additional authors for this research include E. Carluccio, A. Simioniuc, P. Biagioli, G. Reboldi, G.G. Galeotti, C. Raineri, L. Gargani, L. Scelsi, G.E. Mandoli, A. Cannito, A. Rossi, P.L. Temporelli and S. Ghio.
Keywords for this news article include: Pisa, Italy, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Chronic Heart Failure, Heart Disease, Heart Attack, Cardiology, University of Pisa.

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Transplant Medicine - Kidney Transplants

Findings in Kidney Transplants Reported from Tel Aviv University
(Anemia and markers of erythropoiesis in pediatric kidney transplant recipients compared to children with chronic renal failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Transplant Medicine - Kidney Transplants have been presented. According to news reporting from Ramat Aviv, Israel, by NewsRx journalists, research stated, "PTA and anemia of CKD share a similar pathogenesis. However, PTA may be disproportionate to the reduction in the GFR."

The news correspondents obtained a quote from the research from Tel Aviv University, "Data relating to the mechanism of PTA are scarce. We evaluated the erythropoiesis parameters in pediatric kidney recipients compared to children with CKD. A total of 100 patients (54 post-kidney TX, 46 with CKD) were enrolled in the single-center cohort study. GFR was found to be significantly lower in the CKD group (49.7 +/- 22.4 vs 72.9 +/- 28.5 mL/min/1.73 m(2), P<.001); anemia was significantly more common in the TX patients (52% vs 41.3%, P<.001). Iron transferrin saturation and serum ferritin levels were lower in the CKD patients. In both groups, hemoglobin Z scores significantly correlated with GFR (R=.31, P=.07). This correlation was more prominent in the CKD group (R=.43, P=.008) compared to the TX group (R=.31, P=.04). Anemia was significantly more common in the TX patients than in the CKD patients despite a better GFR. The higher prevalence of anemia in the TX group could not be explained by an iron deficiency or reduced EPO production."

According to the news reporters, the research concluded: "We speculate that immunosuppressive therapy together with resistance to EPO may play a role in the pathogenesis of post-transplantation anemia."


Our news journalists report that additional information may be obtained by contacting I. Krause, Tel Aviv University, Sackler Fac Med, Ramat Aviv, Israel. Additional authors for this research include M. Davidovits, H. Tamary, M. Yutcis and A. Dagan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/petr.12792. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ramat Aviv, Israel, Asia, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Transplant Medicine, Kidney Transplants, Organ Transplants, Transplantation, Erythropoiesis,
Lipid Research

Findings in Lipid Research Reported from UFCSPA (ESR1 polymorphisms and statin therapy: a sex-specific approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Lipid Research are presented in a new report. According to news reporting originating from Porto Alegre, Brazil, by NewsRx correspondents, research stated, "Lipid-lowering therapy has shown a high degree of variability in clinical response and there is evidence that the variability in drug response between individuals is due to genetic factors. Thirteen single nucleotide polymorphisms (SNPs) within the ESR1 gene were evaluated with basal lipid and lipoprotein levels, as well as response to lipid-lowering therapy, in 495 hypercholesterolemic individuals of European descent receiving simvastatin or atorvastatin."

Our news editors obtained a quote from the research from UFCSPA, "Significant associations were detected between rs4870061 (P = 0.040, corrected P-value (PC) = 0.440), rs1801132 (P = 0.002, PC = 0.022) and the SNP rs3020314 (P = 0.013, PC = 0.143) with triglyceride (TG) baseline levels. The rs4870061 was also associated with high-density lipoprotein cholesterol (HDL-C) baseline levels (P = 0.045, PC = 0.495). Regarding statin efficacy, rs2234693 C/C was associated with greater HDL-C increase (P = 0.037; PC = 0.407) and rs3798577 T allele was associated with greater total cholesterol (TC) reduction (P = 0.019; PC = 0.209) and greater TG reduction (P = 0.026; PC = 0.286)."

According to the news editors, the research concluded: "These associations suggest that ESR1 polymorphisms are in part responsible for the TC, HDL-C and TG variation levels and this effect may be sex-specific."


The news editors report that additional information may be obtained by contacting S. Almeida, UFCSPA, Dept. of Ciencias Basicas Saude, Porto Alegre, RS, Brazil. Additional authors for this research include M. Fiegenbaum, M.H. Hutz, C.R. Van Der Sand, L.C. Van Der Sand, M.E.W. Ferreira, R.C. Pires and S. Almeida.

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Keywords for this news article include: Porto Alegre, Brazil, South America, Lipid Research, Lipoproteins, Therapy, Lipids, UFCSPA.

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Findings in Lipopolysaccharides Reported from Northwestern University (Lipopolysaccharide Domains Modulate Urovirulence)


Financial supporters for this research include HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID), HHS | NIH | National Institute of General Medical Sciences (NIGMS), HHS | NIH | National Center for Complementary and Integrative Health (NCCIH).

The news correspondents obtained a quote from the research from Northwestern University, "However, modification of lipopolysaccharide (LPS) structure by deleting the O-antigen ligase gene (waaL) enhanced proinflammatory cytokine secretion. Vaccination with the Delta waaL mutant diminished NU14 reservoirs and protected against subsequent infections. Therefore, we hypothesized that LPS structural determinants shape immune responses. We evaluated the contribution of LPS domains to urovirulence corresponding to the inner core (waaP, waaY, and rfaQ), outer core (rfaG), and O-antigen (waaL, wzzE, and wzyE). Deletion of waaP, waaY, and rfaG attenuated adherence to urothelial cells in vitro. In a murine UTI model, the Delta rfaG mutant had the most severe defect in colonization. The mutation of rfaG, waaL, wzzE, and wzyE resulted in an inability to form reservoirs in mouse bladders. Infection with the LPS mutant panel resulted in various levels of urinary myeloperoxidase. Since the Delta waaL mutant promoted Th1-associated adaptive responses in previous studies (B. K. Billips, R. E. Yaggie, J. P. Cashy, A. J. Schaeffer, and D. J. Klumpp, J Infect Dis 200: 263-272, 2009, http://dx.doi.org/10.1086/599839), we assessed NU14 for Th2-associated cytokines. We found NU14 infection stimulated TLR4-dependent bladder interleukin-33 (IL-33) production. Inoculation with rfaG, waaL, wzzE, and wzyE mutants showed decreased IL-33 production. We quantified antigen-specific antibodies after infection and found significantly increased IgE and IgG1 in Delta waaP mutant-infected mice."

According to the news reporters, the research concluded: "Our studies show LPS structural constituents mediate multiple aspects of the UPEC life cycle, including the ability to acutely colonize bladders, form reservoirs, and evoke innate and adaptive immune responses."

For more information on this research see: Lipopolysaccharide Domains Modulate Urovirulence. *Infection and Immunity*, 2016;84(11):3131-3140. *Infection and Immunity* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Infection and Immunity - iai.asm.org)

Our news journalists report that additional information may be obtained by contacting D.J. Klumpp, Northwestern University, Feinberg Sch Med, Dept. of Microbiol & Immunol, Chicago, IL 60611, United States. Additional authors for this research include R.E. Yaggie, A.J. Schaeffer and D.J. Klumpp.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/IAI.00315-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Bacterial Polysaccharides, Lipopolysaccharides, Biological Factors, Bacterial Toxins, Endotoxins, Genetics, Northwestern University.

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Oncology - Liver Cancer

Findings in Liver Cancer Reported from Fourth Military Medical University (Dominant Suppression of beta 1 Integrin by Ectopic CD98-ICD Inhibits Hepatocellular Carcinoma Progression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting out of Xi'an, People's Republic of China, by NewsRx editors, research stated, "Hepatocellular carcinoma (HCC) is currently the third most common cause of cancer-related death in the Asia-Pacific region. Our previous work showed that knockdown of CD98 significantly inhibits malignant HCC cell phenotypes in vitro and in vivo."

Our news journalists obtained a quote from the research from Fourth Military Medical University, "The level of CD98 in the membrane is tightly regulated to mediate complex processes associated with cell-cell communication and intracellular signaling. In addition, the intracellular domain of CD98 (CD98-ICD) seems to be of vital importance for recycling CD98 to the membrane after it is endocytosed. The intracellular and transmembrane domains of CD98 associate with beta-integrins (primarily beta 1 but also beta 3), and this association is essential for CD98 mediation of integrin-like signaling and complements dominant suppression of beta 1-integrin. We speculated that isolated CD98-ICD would similarly suppress beta 1-integrin activation and inhibit the malignant behaviors of cancer cells. In particular, the exact role of CD98-ICD has not been studied independently in HCC. In this study, we found that ectopic expression of CD98-ICD inhibited the malignant phenotypes of HCC cells, and the mechanism possibly involves beta 1-integrin suppression. Moreover, the expression levels of CD98, beta 1-integrin-A (the activated form of beta 1-integrin) and Ki-67 were significantly increased in HCC tissues relative to those of normal liver tissues. Therefore, our preliminary study indicates that ectopic CD98-ICD has an inhibitory role in the malignant development of HCC, and shows that CD98-ICD acts as a dominant negative mutant of CD98 that attenuates beta 1-integrin activation."

According to the news editors, the research concluded: "CD98-ICD may emerge as a promising candidate for antitumor treatment."

For more information on this research see: Dominant Suppression of beta 1 Integrin by Ectopic CD98-ICD Inhibits Hepatocellular Carcinoma Progression. International Journal of Molecular Sciences, 2016;17(11):1808-1821. International Journal of Molecular Sciences can be contacted at: Mdp i Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting B. Wu, Fourth Military Medical University, Dept. of Cell Biol, State Key Lab Canc Biol, Xian 710032, People's Republic of China. Additional authors for this research include Y.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Immunologic Receptors, Membrane Proteins, Liver Cancer, Carcinomas, Integrins, Oncology, Fourth Military Medical University.

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Oncology - Lung Cancer

Findings in Lung Cancer Reported from J. Li and Co-Researchers (Microbial HSP70 peptide epitope 407-426 as adjuvant in tumor-derived autophagosome vaccine therapy of mouse lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Lung Cancer have been presented. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "Tumor-derived autophagosome (DRibble) is an effective therapeutic cancer vaccine inducing T cell recognition and death of tumor cells in mice. However, the potential for improved anti-tumor response still remains."

Our news journalists obtained a quote from the research, "Our previous study demonstrated that two repeats of a mycobacterial HSP70(407-426) (M2) peptide acted as adjuvant in improving anti-tumor efficacy of human umbilical vein endothelial cell (HUVEC) vaccine. Here, a DRibble vaccine conjugated with M2 (DRibble-M2) was designed as a novel vaccine to enhance anti-tumor activity. Compared with DRibble alone, DRibble-M2 vaccination more significantly inhibited the growth of mouse Lewis lung cancer both in a subcutaneous tumor model and in a lung metastasis model. Higher expression of antigen-specific CTL was induced by DRibble-M2. DRibble-M2 induced higher CD83 and CD86 expression in DC2.4 and also improved the internalization of DRibble antigen into DC2.4."

According to the news editors, the research concluded: "Our data indicated that DRibble-M2 is a potential vaccine for clinical cancer therapy."

For more information on this research see: Microbial HSP70 peptide epitope 407-426 as adjuvant in tumor-derived autophagosome vaccine therapy of mouse lung cancer. Tumor Biology, 2016;37(11):15097-15105. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting J. Li, Jinling Pharmaceut Co Ltd, Nanjing 210009, Jiangsu, People's Republic of China. Additional authors for this research include Y. Xing, Z.X. Zhou, W.J. Yao, R.Y. Cao, T.M. Li, M.L. Xu and J. Wu.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Drugs and Therapies, Biological Products, Cancer Therapy, Lung Neoplasms, Immunization, Lung Cancer, Oncology, Vaccines.

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Findings in Macrolides Reported from Medical University
(Thermodynamics and kinetics of amphotericin B self-association in aqueous solution characterized in molecular detail)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Macrolides are presented in a new report. According to news reporting originating from Gdansk, Poland, by NewsRx correspondents, research stated, "Amphotericin B (AmB) is a potent but toxic drug commonly used to treat systemic mycoses. Its efficiency as a therapeutic agent depends on its ability to discriminate between mammalian and fungal cell membranes."

Our news editors obtained a quote from the research from Medical University, "The association of AmB monomers in an aqueous environment plays an important role in drug selectivity, as oligomers formed prior to membrane insertion -presumably dimers -are believed to act differently on fungal (ergosterol-rich) and mammalian (cholesterol-rich) membranes. In this work, we investigate the initial steps of AmB self-association by studying the structural, thermodynamic and spectral properties of AmB dimers in aqueous medium using molecular dynamics simulations. Our results show that in water, the hydrophobic aggregation of AmB monomers yields almost equiprobable populations of parallel and antiparallel dimers that rapidly interconvert into each other, and the dipole-dipole interaction between zwitterionic head groups plays a minor role in determining the drug's tendency for self-aggregation. A simulation of circular dichroism (CD) spectra indicates that in experimental measurements, the signature CD spectrum of AmB aggregates should be attributed to higher-order oligomers rather than dimers."

According to the news editors, the research concluded: "Finally, we suggest that oligomerization can impair the selectivity of AmB molecules for fungal membranes by increasing their hydrophobic drive for non-specific membrane insertion."

For more information on this research see: Thermodynamics and kinetics of amphotericin B self-association in aqueous solution characterized in molecular detail. Scientific Reports, 2016;6():19109. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting J. Zielinska, Dept. of Pharmaceutical Chemistry, Medical University of Gdansk, Gdansk, Poland. Additional authors for this research include M. Wieczor, T. Baczek, M. Gruszecki and J. Czub.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19109. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibiotics, Antiinfectives, Gdansk, Poland, Europe, Physics, Polyenes, Macrolides, Amphotericin B, Thermodynamics, Drugs and Therapies, Topical Antifungals, Dermatological Agents.

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Findings in Nasopharyngeal Carcinoma Reported from University of Wisconsin (Radiation therapy for nasopharyngeal carcinoma: the predictive value of interim survival assessment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Nasopharyngeal Carcinoma. According to news reporting from Madison, Wisconsin, by NewsRx journalists, research stated, "Pretreatment characteristics are suggested as predictive and/or prognostic factors for nasopharyngeal carcinoma (NPC); however, individual tumor radiosensitivities have previously not been considered. As boost planning is recommended for NPC, we performed interim assessments of magnetic resonance (MR) images for boost planning and retrospectively evaluated their predictive value for the survival of NPC patients."

The news correspondents obtained a quote from the research from the University of Wisconsin, "Radiation therapy via elective nodal irradiation (median dose: 39.6 Gy) with/without chemotherapy was used to treat 63 NPC patients. Boost irradiation (median total dose: 70 Gy) was performed based on the interim assessment. The largest lymph node (LN) was measured on MR images acquired at the time of interim assessment. The site of first failure was local in 8 (12.7%), regional in 7 (11.1%), and distant in 12 patients (19.0%). All 7 patients with regional failure harbored LNs a parts per thousand yen15 mm at interim assessment. We divided the 63 patients into two groups based on LN size [large (a parts per thousand yen15 mm), n = 10 and small (< 15 mm), n = 53]. Univariate analysis showed that 5-year overall survival (OS) and cause-specific survival (CSS) rates for large LNs were significantly lower than for small LNs (OS: 12.5% vs 70.5%, P< 0.001 and CSS: 25.0% vs 80.0%, P< 0.001). Multivariate analysis showed that large LNs were a significantly unfavorable factor for both OS (hazard ratio = 4.543, P = 0.002) and CSS (hazard ratio = 6.020, P = 0.001)."

According to the news reporters, the research concluded: "The results suggest that LN size at interim assessment could predict survival in NPC patients."


Our news journalists report that additional information may be obtained by contacting R. Toya, University of Wisconsin, Dept. of Human Oncol, Sch Med & Public Hlth, Madison, WI, United States. Additional authors for this research include R. Murakami, T. Saito, D. Murakami, T. Matsuyama, Y. Baba, R. Nishimura, T. Hirai, A. Semba, E. Yumoto, Y. Yamashita and N. Oya.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/jrr/rrw038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madison, Wisconsin, United States, North and Central America, Nasopharyngeal Carcinoma, Drugs and Therapies, Radiation Therapy, Carcinomas, Oncology, University of Wisconsin.

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Nephrology

Findings in Nephrology Reported from Zhengzhou University (Early initiation of renal replacement treatment in patients with acute kidney injury A systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nephrology. According to news reporting from Zhengzhou, People's Republic of China, by NewsRx journalists, research stated, "Acute kidney injury (AKI) is associated with a substantially increased risk of mortality for many hospitalized patients. It has been suggested that early initiation of renal replacement treatment has a favorable outcome in critically ill patients complicated with AKI."

The news correspondents obtained a quote from the research from Zhengzhou University, "However, results of studies evaluating the effect of early initiation strategy of renal replacement treatment on AKI have been controversial and contradictory. The aim of this meta-analysis is to examine the effect of early initiation of renal replacement treatment on patients with AKI. The authors searched relevant studies in PubMed, EMBASE, and the Cochrane Library through August 2016. We searched for all eligible randomized controlled trials with regard to the role of early initiation of renal replacement treatment in mortality among patients with AKI. We extracted the following information from each study: mortality, length of stay in intensive care unit (ICU), and length of stay in hospital. Random and fixed effect models were used for pooling data. Twelve trials including 1756 patients were included. The results of this meta-analysis showed that there was no significant difference between the mortality of early and delayed strategy for the initiation of renal replacement treatment using the random effect model (odds ratio = 0.78; 95% confidence interval [CI], 0.52-1.19; P = 0.25), with wild heterogeneity (chi(2) = 33.50; I-2 = 67%). Analyses from subgroup sepsis and postsurgery came to similar results. In addition, compared with delayed initiation strategy, early initiation showed no significant advantage in length of stay in ICU (mean difference = -0.80; 95% CI, -2.59 to 0.99; P = 0.56) and length of stay in hospital (mean difference = -7.69; 95% CI, -16.14 to 0.76; P = 0.07). According to the results from present meta-analysis, early initiation of renal replacement treatment showed no survival benefits in patients with AKI."

According to the news reporters, the research concluded: "To achieve optimal timing of renal replacement treatment, further large multicenter randomized trials, with widely accepted and standardized definition of early initiation, are still needed."

For more information on this research see: Early initiation of renal replacement treatment in patients with acute kidney injury A systematic review and meta-analysis. Medicine, 2016;95(46):374-380. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting Y.Q. Ai, Zhengzhou Univ, Dept. of Anesthesiol, Affiliated Hosp 1, Zhengzhou 450052, Henan, People's Republic of China. Additional authors for this research include L.W. Li, Q.J. Chu, Y. Wang, Z.S. Li, W. Zhang, L.L. Li, L. He and Y.Q. Ai.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Acute Kidney Injury, Article Review, Risk and Prevention, Nephrology, Hospital, Zhengzhou University.

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Findings in Oesophagitis Reported from K. Ashida and Co-Researchers (Randomised clinical trial: vonoprazan, a novel potassium-competitive acid blocker, vs. lansoprazole for the healing of erosive oesophagitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gastroenterology - Oesophagitis. According to news reporting from Kyoto, Japan, by NewsRx journalists, research stated, "Vonoprazan is a novel potassium-competitive acid blocker which may provide clinical benefit in acid-related disorders. To verify the non-inferiority of vonoprazan vs. lansoprazole in patients with erosive oesophagitis (EE), and to establish its long-term safety and efficacy as maintenance therapy."

Financial support for this research came from Takeda Pharmaceutical Company.

The news correspondents obtained a quote from the research, "In this multicentre, randomised, double-blind, parallel-group comparison study, patients with endoscopically confirmed EE (LA Classification Grades A-D) were randomly allocated to receive vonoprazan 20 mg or lansoprazole 30 mg once daily after breakfast. The primary endpoint was the proportion of patients with healed EE confirmed by endoscopy up to week 8. In addition, subjects who achieved healed EE in the comparison study were re-randomised into a long-term study to investigate the safety and efficacy of vonoprazan 10 or 20 mg as maintenance therapy for 52 weeks. Of the 409 eligible subjects randomised, 401 completed the comparison study, and 305 entered the long-term maintenance study. The proportion of patients with healed EE up to week 8 was 99.0% for vonoprazan (203/205) and 95.5% for lansoprazole (190/199), thus verifying the non-inferiority of vonoprazan (p <0.0001). Vonoprazan was also effective in patients with more severe EE (LA Classification Grades C/D) and CYP2C19 extensive metabolisers. In the long-term maintenance study, there were few recurrences (<10%) of EE in patients treated with vonoprazan 10 or 20 mg. Overall, vonoprazan was well-tolerated."

According to the news reporters, the research concluded: "The non-inferiority of vonoprazan to lansoprazole in EE was verified in the comparison study, and vonoprazan was well-tolerated and effective during the long-term maintenance study."


Our news journalists report that additional information may be obtained by contacting K. Ashida, Rakuwakai Otowa Hospital, Kyoto, Japan. Additional authors for this research include Y. Sakurai, T. Hori, K. Kudou, A. Nishimura, N. Hiramatsu, E. Umegaki and K. Iwakiri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13461. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Pharmaceuticals, Kyoto, Japan, Oesophagitis, Gastroenterology, Clinical Research, Drugs and Therapies, Lansoprazole Therapy,
Findings in Oropharyngeal Cancer Reported from Churchill Hospital
(Long-term survival outcomes in patients with surgically treated oropharyngeal cancer and defined human papilloma virus status)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Oropharyngeal Cancer is the subject of a report. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "This study investigated long-term survival outcomes in surgically treated oropharyngeal cancer patients with known human papilloma virus status. A case note review was performed of all patients undergoing primary surgery for oropharyngeal cancer in a single centre over a 10-year period."

Our news journalists obtained a quote from the research from Churchill Hospital, "Human papilloma virus status was determined via dual modality testing. Associations between clinicopathological variables and survival were identified using a log-rank test. Of the 107 cases in the study, 40 per cent (n = 41) were human papilloma virus positive. The positive and negative predictive values of p16 immunohistochemistry for human papilloma virus status were 57 per cent and 100 per cent, respectively. At a mean follow up of 59.5 months, 5-year overall and disease-specific survival estimates were 78 per cent and 69 per cent, respectively. Human papilloma virus status (p = 0.014), smoking status (p = 0.021) and tumour stage (p = 0.03) were significant prognostic indicators. The long-term survival rates in surgically treated oropharyngeal cancer patients were comparable to other studies."

According to the news editors, the research concluded: "Variables including human papilloma virus status and tumour stage were associated with survival in patients treated with primary surgery; however, nodal stage and presence of extracapsular spread were non-prognostic."


The news correspondents report that additional information may be obtained from O.T. Dale, John Radcliffe & Churchill Hosp, Head & Neck Department, Oxford, United Kingdom. Additional authors for this research include S. Sood, K.A. Shah, C. Han, D. Rapozo, H. Mehanna and S.C. Winter.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S0022215116009099. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, United Kingdom, Europe, Oropharyngeal Cancer, Papillomas, Oncology, Virology, Surgery, Viruses, Churchill Hospital.
Findings in Parkinson's Disease Reported from King's College

(Dementia in Parkinson's disease is associated with enhanced mitochondrial complex I deficiency)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Parkinson's disease. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Dementia is a common feature of Parkinson's disease (PD), but the neuropathological changes associated with the development of Parkinson's disease dementia (PDD) are only partially understood. Mitochondrial dysfunction is a hallmark of PD but has not been studied in PDD."

The news correspondents obtained a quote from the research from King's College, "Molecular and biochemical approaches were used to study mitochondrial activity and quantity in postmortem prefrontal cortex tissue. Tissues from pathologically confirmed PD and PDD patients and from age-matched controls were used to analyze the activity of mitochondrial enzyme complex nicotinamide adenine dinucleotide:ubiquinone oxidoreductase, or complex I (the first enzyme in the mitochondrial respiratory chain), mitochondrial DNA levels, and the expression of mitochondrial proteins. Complex I activity was significantly decreased (27% reduction; analysis of variance with Tukey's post hoc test; p<0.05) in PDD patients, and mitochondrial DNA levels were also significantly decreased (18% reduction; Kruskal-Wallis analysis of variance with Dunn's multiple comparison test; p<0.05) in PDD patients compared with controls, but neither was significantly reduced in PD patients. Overall, mitochondrial biogenesis was unaffected in PD or PDD, because the expression of mitochondrial proteins in patients was similar to that in controls. Patients with PDD have a deficiency in mitochondrial complex I activity and reduced mitochondrial DNA levels in the prefrontal cortex without a change in mitochondrial protein quantity."

According to the news reporters, the research concluded: "Therefore, mitochondrial complex I deficiency and reduced mitochondrial DNA in the prefrontal cortex may be a hallmark of dementia in patients with PD."


Our news journalists report that additional information may be obtained by contacting A.P. Gatt, Wolfson Center for Age-Related Diseases, King's College London, Guy's Campus, London, UK. Additional authors for this research include O.F. Duncan, J. Attems, P.T. Francis, C.G. Ballard and J.M Bateman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/mds.26513. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Cerebrum, Dementia, Genetics, Frontal Lobe, Telencephalon, United Kingdom, Brain Research, Proencephalon, Prefrontal Cortex, Movement Disorders, Parkinson's Disease, Mitochondrial Proteins,
Proteins - Peroxisome Proliferator-Activated Receptors

Findings in Peroxisome Proliferator-Activated Receptors Reported from Columbia University (Distinct functions of PPAR gamma isoforms in regulating adipocyte plasticity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Peroxisome Proliferator-Activated Receptors. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "A better understanding of the mechanisms underlying obesity and its comorbidities is key to designing new therapies and treatments. PPAR gamma is a master regulator of adipocyte biology but the functions of its isoforms are poorly distinguished."

Our news journalists obtained a quote from the research from Columbia University, "Here we demonstrated that PPAR gamma 1 is preferentially expressed in catabolic fat depots while PPAR gamma 2 presents itself at a higher level in browning-resistant depots. PPAR gamma 2, but not PPAR gamma 1, responds to endogenous ligands to induce adipogenesis, and the isoforms regulate distinct sets of white and brown adipocyte genes. Moreover, PPAR gamma 1 negatively correlates while PPAR gamma 2 positively correlates with adiposity in human subcutaneous and visceral fat."

According to the news editors, the research concluded: "These results together indicate that PPAR gamma 1 and PPAR gamma 2 have distinct functions in regulating adipocyte plasticity, and future research should take into account the binary roles of both isoforms in order to identify druggable gene targets and pathways relevant for treatment of metabolic disorders."

For more information on this research see: Distinct functions of PPAR gamma isoforms in regulating adipocyte plasticity. Biochemical and Biophysical Research Communications, 2016;481(1-2):132-138. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting L. Qiang, Columbia University, Naomi Berrie Diabet Center, Dept. of Pathol & Cell Biol, New York, NY 10032, United States. Additional authors for this research include F. Zhang, X. Zhang, C.Y. Xue, M. Namwanje, L.H. Fan, M.P. Reilly, F. Hu and L. Qiang.

Keywords for this news article include: New York City, New York, United States, North and Central America, Peroxisome Proliferator-Activated Receptors, Transcription Factors, DNA-Binding Proteins, PPAR gamma, Genetics, Columbia University.

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Drugs and Therapies - Pharmacology

Findings in Pharmacology Reported from University of Florence (What is the evidence for the role of TRP channels in inflammatory and immune cells?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Pharmacology are presented in a new report. According to news reporting from Florence, Italy, by NewsRx journalists, research stated, "A complex network of many interacting mechanisms orchestrates immune and inflammatory responses. Among these, the cation channels of the transient receptor potential (TRP) family expressed by resident tissue cells, inflammatory and immune cells and distinct subsets of primary sensory neurons, have emerged as a novel and interrelated system to detect and respond to harmful agents."

The news correspondents obtained a quote from the research from the University of Florence, "TRP channels, by means of their direct effect on the intracellular levels of cations and/or through the indirect modulation of a large series of intracellular pathways, orchestrate a range of cellular processes, such as cytokine production, cell differentiation and cytotoxicity. The contribution of TRP channels to the transition of inflammation and immune responses from a defensive early response to a chronic and pathological condition is also emerging as a possible underlying mechanism in various diseases."

According to the news reporters, the research concluded: "This review discusses the roles of TRP channels in inflammatory and immune cell function and provides an overview of the effects of inflammatory and immune TRP channels on the pathogenesis of human diseases."


Our news journalists report that additional information may be obtained by contacting A. Parenti, Clinical Pharmacology and Oncology Unit, Dept. of Health Sciences, University of Florence, Florence, Italy. Additional authors for this research include F. De Logu, P. Geppetti and S. Benemei.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13392. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the British Journal of Pharmacology is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Italy, Europe, Florence, Pharmacology, Article Review, Drugs and Therapies.

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Drugs and Therapies - Phytotherapy

Findings in Phytotherapy Reported from British Columbia Institute of Technology (Single-Laboratory Validation for the Determination of Flavonoids in Hawthorn Leaves and Finished Products by LC-UV)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Phytotherapy is the subject of a report. According to news originating from Burnaby, Canada, by NewsRx correspondents, research stated, "Suitably validated analytical methods that can be used to quantify medicinally active phytochemicals in natural health products are required by regulators, manufacturers, and consumers. Hawthorn (Crataegus) is a botanical ingredient in natural health products used for the treatment of cardiovascular disorders."

Our news journalists obtained a quote from the research from the British Columbia Institute of Technology, "A method for the quantitation of vitexin-2 "-O-rhamnoside, vitexin, isovitexin, rutin, and hyperoside in hawthorn leaf and flower raw materials and finished products was optimized and validated according to AOAC International guidelines. A two-level partial factorial study was used to guide the optimization of the sample preparation. The optimal conditions were found to be a 60-minute extraction using 50: 48:2 methanol: water: acetic acid followed by a 25-minute separation using a reversed phased liquid chromatography column with ultraviolet absorbance detection. The single-laboratory validation study evaluated method selectivity, accuracy, repeatability, linearity, limit of quantitation, and limit of detection. Individual flavonoid content ranged from 0.05 mg/g to 17.5mg/g in solid dosage forms and raw materials. Repeatability ranged from 0.7 to 11.7% relative standard deviation corresponding to HorRat ranges from 0.2 to 1.6. Calibration curves for each flavonoid were linear within the analytical ranges with correlation coefficients greater than 99.9%. Herein is the first report of a validated method that is fit for the purpose of quantifying five major phytochemical marker compounds in both raw materials and finished products made from North American (Crataegus douglasii) and European (Crataegus monogyna and Crataegus laevigata) hawthorn species."

According to the news editors, the research concluded: "The method includes optimized extraction of samples without a prolonged drying process and reduced liquid chromatography separation time."

For more information on this research see: Single-Laboratory Validation for the Determination of Flavonoids in Hawthorn Leaves and Finished Products by LC-UV. *Planta Medica*, 2016;82(17):1487-1492. *Planta Medica* can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

The news correspondents report that additional information may be obtained from P.N. Brown, British Columbia Inst Technol, Center Appl Res & Innovat, Burnaby, BC V5G 3H2, Canada. Additional authors for this research include Y. Liu, J.A. Lund and P.N. Brown.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0042-118463. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Burnaby, British Columbia, Canada, North and Central America, Phytotherapy, Drugs and Therapies, British Columbia Institute of Technology.

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Findings in Prostate Cancer Reported from Fox Chase Cancer Center

(Men's health supplement use and outcomes in men receiving definitive intensity-modulated radiation therapy for localized prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology-Prostate Cancer have been published. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Approximately 50% of newly diagnosed cancer patients start taking dietary supplements. Men's health supplements (MHSs), which we define as supplements that are specifically marketed with the terms men's health and prostate health (or similar permutations), are often mislabeled as having potential anticancer benefits."

Our news editors obtained a quote from the research from Fox Chase Cancer Center, "We evaluated the effects of MHSs on patient outcomes and toxicities in patients who were undergoing definitive intensity modulated radiation therapy (IMRT) for localized prostate cancer. This retrospective analysis included patients who were being treated at a National Cancer Institute designated comprehensive cancer center and consented to have information stored in a prospective database. MHSs were queried online. Outcome measures were freedom from biochemical failure (FFBF) (biochemical failure was defined with the use of the prostate-specific antigen nadir + 2-ng/mL definition), freedom from distant metastasis (FFDM), cancer-specific survival (CSS), and overall survival (OS) as well as toxicities. Kaplan-Meier analysis, log-rank tests, Fine and Gray competing-risk regression (to adjust for patient and lifestyle factors), and Cox models were used. From 2001 to 2012, 2207 patients were treated with IMRT with a median dose of 78 Gy, and a median follow-up of 46 mo. Of these patients, 43% were low risk, 37% were intermediate risk, and 20% were high risk; 10% used MHSs. MHSs contained a median of 3 identifiable ingredients (range: 0-78 ingredients). Patients who were taking an MHS compared with those who were not had improved 5-y OS (97% compared with 92%, respectively; P = 0.01), but there were no differences in the FFBF (94% compared with 89%, respectively; P = 0.12), FFDM (96% compared with 97%, respectively; P = 0.32), or CSS (100% compared with 99%, respectively; P = 0.22). The unadjusted association between MHS use and improved OS was attenuated after adjustment for patient lifestyle factors and comorbidities. There was no difference in toxicities between the 2 groups (late-grade 3-4 genitourinary <3%; gastrointestinal <4%)."

According to the news editors, the research concluded: "The use of MHSs is not associated with outcomes or toxicities."


The news editors report that additional information may be obtained by contacting N.G. Zaorsky, Fox Chase Canc Center, Dept. of Radiat Oncol, Philadelphia, PA 19111, United States. Additional authors for this research include T.M. Churilla, K. Ruth, S.B. Hayes, M.L. Sobczak, M.A. Hallman, M.C. Smaldone, D.Y.T. Chen and E.M. Horwitz.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Drugs and Therapies, Prostatic Neoplasms, Radiation Therapy, Prostate Cancer, Biochemicals, Biochemistry, Chemicals, Oncology, Fox Chase Cancer
Findings in Prostate Cancer Reported from University of Catania
[Prevalence of Cardiovascular Disease and Osteoporosis During Androgen Deprivation Therapy Prescription Discordant to EAU Guidelines: Results From a Multicenter, Cross-sectional ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting from Catania, Italy, by NewsRx journalists, research stated, "To analyze the prevalence of cardiovascular disease (CVD) and osteoporosis in patients treated with androgen deprivation therapy (ADT) for prostate cancer (PCa) but not adherent to European Association of Urology (EAU) guidelines. The CHOosIng Treatment for Prostate CanCEr (CHOICE) study was an Italian multicenter, cross-sectional study conducted from December 2010 to January 2012."

The news correspondents obtained a quote from the research from the University of Catania, "A total of 1386 patients treated with ADT for PCa (first prescription or renewal of ADT) were selected. According to EAU guidelines, the cohort was categorized in discordant ADT (Group A) and concordant ADT (Group B). The prevalence of CVD and osteoporosis after ADT was recorded. The final cohort included 1075 patients. According to EAU guidelines adherence, 285 (26.51%) and 790 (73.49%) were considered discordant and concordant, respectively. The proportion of men with Charlson Comorbidity Index > 2 at baseline was statistically similar in Group A (81.8%) compared to Group B (80.8%) (P =.96). The number of complications reported at enrollment was as follows: cardiovascular in 351 (32.7%), endocrine in 166 (15.4%), sexual in 498 (46.3%), osteoporosis in 181 (16.8%), and gynecomastia in 274 (25.5%) subjects. At the multivariate logistic regression analysis adjusted for confounding factors, discordant ADT was associated with greater risk of cardiovascular complications (odds ratio: 2.07; P<.01) and osteoporosis (odds ratio: 1.75; P =.04). About one-third of patients with PCa received inappropriate ADT and showed a greater risk of CVD and osteoporosis."

According to the news reporters, the research concluded: "These results could be useful for setting better policy strategies to limit the inappropriateness of ADT prescription."

For more information on this research see: Prevalence of Cardiovascular Disease and Osteoporosis During Androgen Deprivation Therapy Prescription Discordant to EAU Guidelines: Results From a Multicenter, Cross-sectional Analysis From the CHOosIng Treatment for Prostate canCEr (CHOICE) Study. Urology, 2016;96():165-170. Urology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

Our news journalists report that additional information may be obtained by contacting G.I. Russo, University of Catania, Dept. of Urol, Catania, Italy. Additional authors for this research include G.I. Russo, A. Tubaro, R. Bortolus, D. Randone, P. Gabriele, F. Trippa, F. Zattoni, M. Porena, V. Mirone, S. Serni, A. Del Nero, G. Lay, U. Ricardi, F. Rocco, C. Terrone, A. Pagliarulo, G. Ludovico, G. Vespasiani and M. Brausi.

The direct object identifier (DOI) for that additional information is:
Findings in Pulmonary Embolism Reported from Department of Cardiology (Endosonography of a Pulmonary Artery Obstruction in Echinococcosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Pulmonary Embolism are discussed in a new report. According to news reporting from The Hague, Netherlands, by NewsRx journalists, research stated, "A 44-year-old woman with a history of pulmonary embolism and abdominal echinococcosis complained of sudden thoracic pain and shortness of breath. A D-dimer of 77.5 mg/l (reference <= 0.5 mg/l) was found."

The news correspondents obtained a quote from the research from the Department of Cardiology, "Chest CT scan revealed obstruction of the right lower and middle lobe pulmonary artery (PA). Anticoagulation therapy was initiated for the presumed diagnosis of recurrent pulmonary embolism. However, due to persistent symptoms of dyspnea, follow-up CT angiography of the chest was performed 3 months later. A persistent PA obstruction was found and the presumed diagnosis of embolism was questioned. Subsequently, endobronchial ultrasound (EBUS) imaging was performed to support an alternative diagnosis. EBUS imaging showed an inhomogeneous, sharply demarcated, intravascular lesion with round hypoechoic areas compatible with cysts. The diagnosis of embolism was rejected and treatment with albendazole was initiated for pulmonary echinococcosis. Echinococcosis is a parasitic disease and cystic spread in the PA is exceptional. The patient has remained stable for more than 4 years."

According to the news reporters, the research concluded: "In case of disease progression, including progressive PA obstruction or life-threatening hemoptysis, surgical resection will be considered."


Our news journalists report that additional information may be obtained by contacting M.J. Schuuring, Haga Teaching Hosp, Dept. of Cardiol, The Hague, Netherlands. Additional authors for this research include P.I. Bonta, M. van Vugt, F. Smithhuis, O.M. van Delden, J.T. Annema and K. Stijnis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000451031. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: The Hague, Netherlands, Europe, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Parasitic Diseases and Conditions, Vascular Diseases and Conditions, Lung Diseases and Conditions, Embolism and Thrombosis, Cestode Infections, Pulmonary Embolism, Pulmonary Artery, Echinococcosis, Helminthiasis, Angiology, Department of Cardiology.

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Science

Findings in Science Reported from University of Florida
(Spatiotemporal dynamics of androgen signaling underlie sexual differentiation and congenital malformations of the urethra and vagina)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science. According to news reporting out of Gainesville, Florida, by NewsRx editors, research stated, "Disorders of sex development (DSDs) are congenital anomalies that affect sexual differentiation of genitourinary organs and secondary sex characters. A common cause of female genital virilization is congenital adrenal hyperplasia (CAH), in which excess androgen production during development of 46XX females can result in vaginal atresia, masculinization of the urethra, a single urogenital sinus, and clitoral hypertrophy or ambiguous external genitalia."

Financial supporters for this research include HHS | NIH | National Institute of Environmental Health Sciences (NIEHS), HHS | NIH | National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).

Our news journalists obtained a quote from the research from the University of Florida, "Development of the vagina depends on sexual differentiation of the urogenital sinus ridge, an epithelial thickening that forms where the sex ducts attach to the anterior urethra. In females, the sinus ridge descends posteriorly to allow the vaginal opening to form in the vulva, whereas in males and in females with CAH, androgens inhibit descent of the sinus ridge. The mechanisms that regulate development of the female urethra and vagina are largely unknown. Here we show that the timing and duration of, and the cell population targeted by, androgen signaling determine the position of vaginal attachment to the urethra. Manipulations of androgen signaling in utero reveal a temporal window of development when sinus ridge fate is determined. Cell type-specific genetic deletions of androgen receptor (Ar) identify a subpopulation of mesenchymal cells that regulate sinus ridge morphogenesis."

According to the news editors, the research concluded: "These results reveal a common mechanism that coordinates development of the vagina and feminization of the urethra, which may account for development of a single urogenital sinus in females exposed to excessive androgen during a critical period of prenatal development."

For more information on this research see: Spatiotemporal dynamics of androgen signaling underlie sexual differentiation and congenital malformations of the urethra and vagina. Proceedings of the National Academy of Sciences of the United States of America, 2016;113 (47):E7510-E7517. Proceedings of the National Academy of Sciences of the United States of America can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC 20418, USA. (National Academy of Sciences - www.nasonline.org; Proceedings of the
Biomedical Engineering - Tissue Engineering

Findings in Tissue Engineering Reported from University of Maryland (Improving the clinical impact of biomaterials in cancer immunotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biomedical Engineering - Tissue Engineering. According to news reporting originating in College Park, Maryland, by NewsRx journalists, research stated, "Immunotherapies for cancer have progressed enormously over the past few decades, and hold great promise for the future. The successes of these therapies, with some patients showing durable and complete remission, demonstrate the power of harnessing the immune system to eradicate tumors."

The news reporters obtained a quote from the research from the University of Maryland, "However, the effectiveness of current immunotherapies is limited by hurdles ranging from immunosuppressive strategies employed by tumors, to inadequate specificity of existing therapies, to heterogeneity of disease. Further, the vast majority of approved immunotherapies employ systemic delivery of immunomodulators or cells that make addressing some of these challenges more difficult. Natural and synthetic biomaterials -such as biocompatible polymers, self-assembled lipid particles, and implantable biodegradable devices -offer unique potential to address these hurdles by harnessing the benefits of therapeutic targeting, tissue engineering, co-delivery, controlled release, and sensing. However, despite the enormous investment in new materials and nanotechnology, translation of these ideas to the clinic is still an uncommon outcome."

According to the news reporters, the research concluded: "Here we review the major challenges facing immunotherapies and discuss how the newest biomaterials and nanotechnologies could help overcome these challenges to create new clinical options for patients."

For more information on this research see: Improving the clinical impact of biomaterials in cancer immunotherapy. Oncotarget, 2016;7(13):15421-43.

Our news correspondents report that additional information may be obtained by contacting J.M. Gammon, Fischell Dept. of Bioengineering, University of Maryland, College Park, MD, United States. Additional authors for this research include N.M. Dold and C.M Jewell.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7304. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Tissue Engineering, Biomedical Engineering, Biomedicine, Cancer, Maryland, Oncology, College Park, United States, Immunotherapy, Article Review, Bioengineering, Drugs and Therapies, North and Central America.

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Coachtoday: "A total of 568 type 2 diabetic patients with normal albuminuria at baseline were followed up for a mean of 5.3 +/- 1.5 years. Urinary albumin-to-creatinine ratio (ACR) >= 30 mg/g in two consecutive urine tests were defined as progression to diabetic nephropathy (n = 143). Five polymorphisms of IL-6 gene, rs1800795, rs1800796, rs1524107, rs2069837, and rs2069840, were genotyped. Cox proportional hazard models were used to estimate hazard ratio (HR) and 95% CI of progression to diabetic nephropathy under different genetic models. Almost all patients (99.6%) carried the rs1800795 GG homozygous genotypes. In the Cox proportional models adjusted for multiple covariates, the HR under recessive model was 2.02 for rs1800796 GG (vs. CC + CG, 95% CI: 1.08-3.75, p = 0.027), 2.37 for rs2069837 GG (vs. AA + AG, 95% CI: 1.15-4.87, p = 0.019), and 2.08 for rs1524107 CC (vs. TT + TC, 95% CI: 1.12-3.89, p = 0.021). These associations remained significant for rs1800796 and rs1524107 after correction for multiple testing (alpha = 0.017). Overall, our results suggest that rs1800796 GG and rs1524107 CC homozygous genotypes may confer a greater risk for development of nephropathy in type 2 diabetes."

According to the news reporters, the research concluded: "IL-6 gene polymorphisms rs1800796 and rs1524107 may serve as predictors of progression of nephropathy in Chinese patients with type 2 diabetes."

For more information on this research see: Interleukin-6 gene polymorphisms correlate with the progression of nephropathy in Chinese patients with type 2 diabetes: A prospective cohort study. Diabetes Research and Clinical Practice, 2016;120():15-23.
Heart Disorders and Diseases - Acute Coronary...

Findings in the Area of Acute Coronary Syndrome Reported from Bellvitge University Hospital (Does anemia affect the predictive ability of bleeding risk scores in patients with acute coronary syndromes?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Acute Coronary Syndrome. According to news originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Introduction and objective: Anemia is a common comorbidity in patients with acute coronary syndromes (ACS), and is associated with higher risk for both bleeding and ischemic complications. We aimed to assess the predictive ability of bleeding risk scores (Can Rapid risk stratification of Unstable angina patients Suppress ADverse outcomes with Early implementation of the ACC/AHA guidelines [CRUSADE], Mehran and Acute Coronary Treatment and Intervention Outcomes Network [ACTION]) in ACS patients with anemia."

Our news journalists obtained a quote from the research from Bellvitge University Hospital, "All consecutive ACS patients were prospectively included. The primary outcome was in-hospital major bleeding according to the CRUSADE, Mehran and ACTION definitions. Anemia was defined as hemoglobin <130 g/l in men and <120 g/l in women. The predictive ability of the bleeding risk scores was assessed by binary logistic regression, calculating receiver operating characteristic (ROC) curves and their corresponding area under the curve (AUC). We included 2255 patients, mean age 62.4 years. Anemia was present in 550 patients (24.4%). Patients with anemia had a significantly higher prevalence of comorbidities. The three bleeding risk scores adequately predicted major bleeding in the whole cohort. No significant differences were observed regarding the predictive ability of each of the scores in patients with and without anemia (CRUSADE: AUC 0.73 without anemia vs. 0.74 with anemia, p=0.913; ACTION: AUC 0.68 without anemia vs. 0.73 with anemia, p=0.353; Mehran: AUC 0.69 without anemia vs. 0.61 with anemia, p=0.210). Only the Mehran score showed significantly lower predictive
ability in patients with hemoglobin <11 g/dl (AUC 0.51, p=0.044). Anemia was a common comorbidity in patients with ACS from our series."

According to the news editors, the research concluded: "Currently available bleeding risk scores showed an adequate predictive ability in patients with mild anemia."

For more information on this research see:  Does anemia affect the predictive ability of bleeding risk scores in patients with acute coronary syndromes?  
Revista Portuguesa De Cardiologia can be contacted at:  
Elsevier Doyma SL, Travesera De Garcia, 17-21, Barcelona, 08021, Spain. (Elsevier - www.elsevier.com; Revista Portuguesa De Cardiologia - www.journals.elsevier.com/revista-portuguesa-de-cardiologia/)

The news correspondents report that additional information may be obtained from A. Ariza-Sole, Bellvitge Univ Hosp, Barcelona, Spain. Additional authors for this research include A. Ariza-Sole, F. Formiga, V. Lorente, J.C. Sanchez-Salado, J. Salazar-Mendiguchia, G. Roura, G. Muntane, O. Alegre, L. Fuentes, J.A. Gomez-Hospital and A. Cequier.

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Keywords for this news article include:  Barcelona, Spain, Europe, Heart Disorders and Diseases, Risk and Prevention, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Acute Coronary Syndrome, Myocardial Ischemia, Heart Disease, Cardiology, Anemia, Bellvitge University Hospital.

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**Drugs and Therapies - Adverse Drug Reactions**

**Findings in the Area of Adverse Drug Reactions Reported from University of Chicago [Safety and efficacy of EMR for sporadic, nonampullary duodenal adenomas: a single US center experience (with video)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Adverse Drug Reactions have been published. According to news reporting from Chicago, Illinois, by NewsRx journalists, research stated, "EMR is increasingly used for resection of sporadic, nonampullary duodenal adenomas (SNDAs), but there are no guidelines for the management of these lesions. The aims of this study were to evaluate the safety and efficacy of EMR exclusively for SNDAs and to determine the factors predictive of outcomes."

The news correspondents obtained a quote from the research from the University of Chicago, "We performed a retrospective review of patients with SNDAs referred for endoscopic therapy from 2006 to 2013. The outcomes studied were successful endoscopic resection, major adverse events, early and late recurrences, and clinical remission. Sixty-eight patients with SNDAs were included and 51 (75%) underwent EMR. The mean adenoma size was 22.0 +/- 8.9 mm. Successful resection was achieved in 49 of 51 patients (96.1%), and major adverse events were noted in 8 of 51 patients (15.7%). Early and late recurrences were noted in 25.6% and 5.2% of patients, respectively, and were treated endoscopically. Clinical remission was achieved
in 89.7% of patients after a median follow-up of 15 months. Presence of villous histology was associated with increased recurrence (P = .019), but no association of recurrence was noted with other endoscopic features or resection technique. Large adenoma size (P = .0057) and need for intraprocedural hemostasis (P = .006) were associated with increased adverse events, but no association of adverse events was noted with location or resection technique. Large duodenal adenomas can be effectively managed with EMR at a referral center with experienced endoscopists. However, EMR has a significant recurrence rate, especially early recurrence, and the risk of adverse events is not negligible."

According to the news reporters, the research concluded: "Endoscopic therapy is successful in managing recurrent adenomas."


Our news journalists report that additional information may be obtained by contacting A. Singh, University Chicago, Center Endoscop Res & Therapeut, Dept. of Pathol, Chicago, IL, United States. Additional authors for this research include U.D. Siddiqui, V.J. Konda, E. Whitcomb, J. Hart, S.Y. Xiao, M.G. Ruiz, A. Koons and I. Waxman.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Adenomas, Risk and Prevention, Adverse Drug Reactions, Drugs and Therapies, Endocrinology, University of Chicago.

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Cardiovascular Diseases and Conditions - Aneurysm

Findings in the Area of Aneurysm Reported from Health Science Center (A direct aspiration first pass technique for retrieval of a detached coil)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Aneurysm. According to news reporting from Kochi, Japan, by NewsRx journalists, research stated, "A 64-year-old man was referred to our hospital for treatment of a cerebral aneurysm that was incidentally found. The aneurysm was 7 mm in size and located on the left anterior communicating artery."

The news correspondents obtained a quote from the research from Health Science Center, "Using a balloon assisted technique, we performed coil embolization. During the second coil insertion, the first coil was dislodged into the anterior communicating artery. We attempted coil retrieval using a snare, which was unsuccessful. We applied a direct aspiration first pass technique (ADAPT) and advanced a Penumbra 4MAX immediately proximal to the dislodged coil; the dislodged coil was then successfully retrieved."

According to the news reporters, the research concluded: "ADAPT is a simple procedure for retrieval of a detached coil, and it can be used as an alternative to the snare technique."

For more information on this research see: A direct aspiration first pass technique
Our news journalists report that additional information may be obtained by contacting T. Ohta, Kochi Hlth Sci Center, Dept. of Neurosurg, Kochi, Kochi 7818555, Japan. Additional authors for this research include T. Ohta, N. Fukui, T. Yanagawa, Y. Kondou, M. Morimoto and T. Ueba.

Keywords for this news article include: Kochi, Japan, Asia, Cardiovascular Diseases and Conditions, Anterior Communicating Artery, Angiology, Aneurysm, Health Science Center.

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Musculoskeletal Diseases and Conditions –

Findings in the Area of Angelman Syndrome Reported from University of California (Protein Delivery of an Artificial Transcription Factor Restores Widespread Ube3a Expression in an Angelman Syndrome Mouse Brain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Musculoskeletal Diseases and Conditions - Angelman Syndrome are discussed in a new report. According to news reporting from Davis, California, by NewsRx journalists, research stated, "Angelman syndrome (AS) is a neurological genetic disorder caused by loss of expression of the maternal copy of UBE3A in the brain. Due to brain-specific genetic imprinting at this locus, the paternal UBE3A is silenced by a long antisense transcript."

The news correspondents obtained a quote from the research from the University of California, "Inhibition of the antisense transcript could lead to unsilencing of paternal UBE3A, thus providing a therapeutic approach for AS. However, widespread delivery of gene regulators to the brain remains challenging. Here, we report an engineered zinc finger-based artificial transcription factor (ATF) that, when injected i.p. or s.c., crossed the blood-brain barrier and increased Ube3a expression in the brain of an adult mouse model of AS. The factor displayed widespread distribution throughout the brain. Immunohistochemistry of both the hippocampus and cerebellum revealed an increase in Ube3a upon treatment. An ATF containing an alternative DNA-binding domain did not activate Ube3a. We believe this to be the first report of an injectable engineered zinc finger protein that can cause widespread activation of an endogenous gene in the brain."

According to the news reporters, the research concluded: "These observations have important implications for the study and treatment of AS and other neurological disorders."

For more information on this research see: Protein Delivery of an Artificial Transcription Factor Restores Widespread Ube3a Expression in an Angelman Syndrome Mouse Brain. Molecular Therapy, 2016;24(3):548-55. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news journalists report that additional information may be obtained by contacting B.J. Bailus, Genome Center, MIND Institute and Dept. of Biochemistry and
Molecular Medicine, University of California, Davis, California, United States. Additional authors for this research include B. Pyles, M.M. McAlister, H. O'Geen, S.H. Lockwood, A.N. Adams, J.T. Nguyen, A. Yu, R.F. Berman and D.J. Segal.

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Keywords for this news article include: Biotechnology, Biomedical Engineering, Biomedicine, Davis, Genetics, Proteins, California, United States, Bioengineering, Angelman Syndrome, Movement Disorders, Chromosome Disorders, Congenital Abnormalities, North and Central America, Artificial Transcription Factors, Musculoskeletal Diseases and Conditions.

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Immunology - Antigen-Presenting Cells

Findings in the Area of Antigen-Presenting Cells Reported from University of Pittsburgh (Dendritic Cells Regulate Extrafollicular Autoreactive B Cells via T Cells Expressing Fas and Fas Ligand)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Antigen-Presenting Cells have been published. According to news reporting originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "The extrafollicular (EF) plasmablast response to self-antigens that contain Toll-like receptor (TLR) ligands is prominent in murine lupus models and some bacterial infections, but the inhibitors and activators involved have not been fully delineated. Here, we used two conventional dendritic cell (cDC) depletion systems to investigate the role of cDCs on a classical TLR-dependent autoreactive EF response elicited in rheumatoid-factor B cells by DNA-containing immune complexes."

Financial supporters for this research include NIH, Ruth L. Kirschstein National Research Service Award NIH, Arthritis Foundation Postdoctoral Fellowship.

Our news editors obtained a quote from the research from the University of Pittsburgh, "Contrary to our hypothesis, cDC depletion amplified rather than dampened the EF response in Fas-intact but not Fas-deficient mice. Further, we demonstrated that cDC-dependent regulation requires Fas and Fas ligand (FasL) expression by T cells, but not Fas expression by B cells. Thus, cDCs activate FasL-expressing T cells that regulate Fas-expressing extrafollicular helper T (Teff) cells."

According to the news editors, the research concluded: "These studies reveal a regulatory role for cDCs in B cell plasmablast responses and provide a mechanistic explanation for the excess autoantibody production observed in Fas deficiency."

For more information on this research see: Dendritic Cells Regulate Extrafollicular Autoreactive B Cells via T Cells Expressing Fas and Fas Ligand. Immunity, 2016;45(5):1052-1065. Immunity can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)

The news editors report that additional information may be obtained by contacting M.J. Shlomchik, University of Pittsburgh, Sch Med. Dept. of Immunol, Pittsburgh, PA 15261, United States. Additional authors for this research include J.L. Cullen, A. Turqueti-Neves, J.
Giles and M.J. Shlomchik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.immuni.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Mononuclear Phagocyte System, Antigen-Presenting Cells, Dendritic Cells, Immunology, Genetics, University of Pittsburgh.

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Arthroplasty

Findings in the Area of Arthroplasty Reported from University of Los Andes (Primary Joint Arthroplasty Surgery: Is the Risk of Major Bleeding Higher in Elderly Patients? A Retrospective Cohort Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Arthroplasty. According to news reporting from Bogota, Colombia, by NewsRx journalists, research stated, "Increased risk of bleeding after major orthopedic surgery (MOS) has been widely documented in general population. However, this complication has not been studied in elderly patients."

The news correspondents obtained a quote from the research from the University of Los Andes, "The purpose of this study is to determine whether the risk of major bleeding after MOS is higher in elderly patients, compared with those operated at a younger age. This retrospective cohort study included total hip and total knee arthroplasty patients operated during 5 consecutive years. The main outcome was the occurrence of major bleeding. Patients with other causes of bleeding were excluded. Relative risks (RRs) and confidence intervals (CIs) were calculated, and a multivariate analysis was performed. A total of 1048 patients were included, 56% of patients were hip arthroplasties. At the time of surgery, 553 (53%) patients were older than 70 years. Patients aged >70 years showed an increased risk of major bleeding (RR: 2.42 [95% CI: 1.54-3.81]). For hip arthroplasty, the RR of bleeding was 2.61 (95% CI: 1.50-4.53) and 2.25 (95% CI: 1.03-4.94) for knee arthroplasty. After multivariate analysis, age was found to be independently associated with higher risk of major bleeding. According to European Medicines Agency criteria, patients aged >= 70 years are at a higher risk of major bleeding after MOS, result of a higher frequency of blood transfusions in this group of patients."

According to the news reporters, the research concluded: "Standardized protocols for blood transfusion in these patients are still required."


Our news journalists report that additional information may be obtained by contacting G.A. Bonilla, Los Andes University, Sch Med, Bogota, Colombia. Additional authors for this research include L.L.C. Cardenas, M. Navas, M.P. Bautista, G.A. Bonilla and A.M. Llinas.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arth.2016.03.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bogota, Colombia, South America, Surgery, Risk and Prevention, Orthopedic Procedures, Arthroplasty, University of Los Andes.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**Findings in the Area of Atrial Fibrillation Reported from Tianjin Medical University (Association between air pollution and development of atrial fibrillation: A meta-analysis of observational studies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Atrial Fibrillation have been presented. According to news originating from Tianjin, People's Republic of China, by NewsRx correspondents, research stated, "Current evidence suggests that gaseous or particulate pollutants may increase the risk of atrial fibrillation (AF), although this association is still uncertain. We conducted a systematic review of literature using PubMed, Ovid, Embase and Web of Science to identify studies reporting on the association between gaseous (ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide) or particulate matter 2.5 (PM2.5) and AF risk published until March 2015."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Tianjin Medical University, "The overall effect estimate was presented as the population-attributable risks with 95% CI. We used both, fix-effects and random effects models to calculate the overall effect estimate. We retrieved 4 studies, involving 461,441 participants. There was a statistically significant association between AF development and all gaseous pollutant as well as PM2.5 [NO: 1.19% (0.70-1.67%), CO: 0.60 (0.20-1.09), SO2: 0.90 (0.60-1.28), O3:1.09 (0.20-1.86), PM2.5: 0.89 (0.20-1.57)]."

According to the news editors, the research concluded: "Our comprehensive meta-analysis suggests that gaseous or particulate pollutants are associated with the increased risk of AF."


The news correspondents report that additional information may be obtained from T. Liu, Tianjin Med Univ, Tianjin Key Lab Ion Mol Funct Cardiovasc Dis, Dept. of Cardiol, Tianjin Inst CardiolHosp 2, Tianjin 300211, People's Republic of China. Additional authors for this research include T. Liu, P. Korantzopoulos, Z.W. Zhang, J.P. Zhao and G.P. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrtlng.2016.08.001. This DOI is a link to an online electronic document that is either free or for purchase.
Findings in the Area of Blood Coagulation Factors Reported from Lerner Research Institute (Thrombin Cleavage of Inter-alpha-inhibitor Heavy Chain 1 Regulates Leukocyte Binding to an Inflammatory Hyaluronan Matrix)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hematology - Blood Coagulation Factors have been presented. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "Dynamic alterations of the extracellular matrix in response to injury directly modulate inflammation and consequently the promotion and resolution of disease. During inflammation, hyaluronan (HA) is increased at sites of inflammation where it may be covalently modified with the heavy chains (HC) of inter-alpha-trypsin inhibitor."

The news reporters obtained a quote from the research from Lerner Research Institute, "Deposition of this unique, pathological form of HA (HC-HA) leads to the formation of cable-like structures that promote adhesion of leukocytes. Naive mononuclear leukocytes bind specifically to inflammation-associated HA matrices but do not adhere to HA constitutively expressed under homeostatic conditions. In this study, we have directly investigated a role for the blood-coagulation protease thrombin in regulating the adhesion of monocytic cells to smooth muscle cells producing an inflammatory matrix. Our data demonstrate that the proteolytic activity of thrombin negatively regulates the adhesion of monocytes to an inflammatory HG-HA complex. This effect is independent of protease-activated receptor activation but requires proteolytic activity toward a novel substrate. Components of HC-HA complexes were predicted to contain conserved thrombin-susceptible cleavage sites based on sequence analysis, and heavy chain 1 (HC1) was confirmed to be a substrate of thrombin. Thrombin treatment is sufficient to cleave HC1 associated with either cell-surface HA or serum inter-alpha-trypsin inhibitor. Furthermore, thrombin treatment of the inflammatory matrix leads to dissolution of HC-HA cable structures and abolishes leukocyte adhesion."

According to the news reporters, the research concluded: "These data establish a novel mechanism whereby thrombin cleavage of HC1 regulates the adhesive properties of an inflammatory HA matrix."


Our news correspondents report that additional information may be obtained by contacting C.A. de la Motte, Cleveland Clinic, Lerner Res Inst, Dept. of Pathobiol, Cleveland, OH 44195, United States.
Drugs and Therapies - Botulinum Toxin Therapy

Findings in the Area of Botulinum Toxin Therapy Reported from Institute of Pharmacology (Participation of pro- and anti-nociceptive interleukins in botulinum toxin A-induced analgesia in a rat model of neuropathic pain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Botulinum Toxin Therapy are discussed in a new report. According to news reporting out of Krakow, Poland, by NewsRx editors, research stated, "Botulinum neurotoxin serotype A (BoNT/A) shows antinociceptive properties, and its clinical applications in pain therapy are continuously increasing. BoNT/A specifically cleaves SNAP-25, which results in the formation of a non-functional SNARE complex, thereby potently inhibiting the release of neuro-transmitters and neuropeptides, including those involved in nociception."

Financial supporters for this research include National Science Centre of Poland, Institute of Pharmacology, Foundation of Polish Science, Ministry of Science and Higher Education.

Our news journalists obtained a quote from the research from the Institute of Pharmacology, "The aim of the present study was to determine the effects of BoNT/A (300 pg/paw) on pain-related behavior and the levels of glial markers and interleukins in the spinal cord and dorsal root ganglia (DRG) after chronic constriction injury (CCI) to the sciatic nerve in rats. Glial activity was also examined after repeated intraperitoneal injection of minocycline combined with a single BoNT/A injection. Our results show that a single intraplantar BoNT/A injection did not influence motor function but strongly diminished pain-related behaviors in naïve and CCI-exposed rats. Additionally, microglial inhibition using minocycline enhanced the analgesic effects of BoNT/A. Western blotting results suggested that CCI induces the upregulation of the pronociceptive proteins IL-18, IL-6 and IL-113 in the ipsilateral lumbar spinal cord and DRG, but no changes in the levels of the antinociceptive proteins IL-18BP, IL-IRA and IL-10 were observed. Interestingly, BoNT/A injection suppressed the CCI-induced upregulation of IL-18 and IL-113 in the spinal cord and/or DRG and increased the levels of IL-10 and IL-IRA in the DRG."

According to the news editors, the research concluded: "In summary, our results suggest that BoNT/A significantly attenuates pain-related behavior and microglial activation and restores the neuroimmune balance in a CCI model by decreasing the levels of pronociceptive factors (IL-1 beta and IL-18) and increasing the levels of antinociceptive factors (IL-10 and IL-IRA) in the spinal cord and DRG."

Findings in the Area of Breast Cancer Reported from Capital Medical University (Long non-coding RNA UCA1 enhances tamoxifem resistance in breast cancer cells through a miR-18a-HIF1 alpha feedback regulatory loop)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Recent studies reported that long non-coding RNAs (lncRNAs) might play critical roles in regulating endocrine resistance of breast cancer. Urothelial carcinoma-associated 1 (UCA1) is an lncRNA with an oncogenic role in breast cancer."

Our news editors obtained a quote from the research from Capital Medical University. "This study aimed to investigate whether UCA1 is involved in acquired tamoxifen resistance in estrogen receptor (ER)-positive cancer cells. Our findings reveal that tamoxifen induces UCA1 upregulation in ER-positive breast cancer cells in a HIF1 alpha-dependent manner. UCA1 upregulation results in significantly enhanced tamoxifen resistance. The upregulated UCA1 sponges miR-18a, which is a negative regulator of HIF1 alpha. Therefore, UCA1 upregulation is further enhanced through a miR-18a-HIF1 alpha feedback loop. In addition, our data also showed that miR-18a is a modulator of tamoxifen sensitivity due to its regulative effect on cell cycle proteins. miR-18a inhibitor reduced the sensitivity of MCF-7 cells to tamoxifen, while miR-18a mimics sensitized BT474 cells to tamoxifen. Therefore, miR-18a downregulation also partly contributes to acquired tamoxifen resistance in the cancer cells."

According to the news editors, the research concluded: "These findings provide some useful information for future clinical treatment of tamoxifen resistance."

For more information on this research see: Long non-coding RNA UCA1 enhances tamoxifen resistance in breast cancer cells through a miR-18a-HIF1 alpha feedback regulatory loop.
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**Oncology - Breast Cancer**

**Findings in the Area of Breast Cancer Reported from Sun Yat-Sen University (Estrogen receptor beta as a prognostic factor in breast cancer patients: A systematic review and meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news originating from Guangzhou, People's Republic of China, by NewsRx correspondents, research stated, "The prognostic role of estrogen receptor beta (ERb) in early-stage breast cancer is unclear. We performed a systematic review and meta-analysis to evaluate the prognostic value of ERb in early-stage breast cancer patients."

Our news journalists obtained a quote from the research from Sun Yat-Sen University, "We searched Medline, Embase, and the Web of Science for studies published between 1990 and 2015 that assessed ERb status in breast cancer patients. A total of 25 studies comprising 9919 patients fitting our inclusion and exclusion criteria were included. The hazard ratios of ERb status were extracted for disease-free survival (DFS) and overall survival (OS). Random or fixed-effects models were used when appropriate, and between-study heterogeneity was assessed. In the 20 studies that assessed ERb status using immunohistochemical (IHC) methods, we observed significantly improved DFS in patients positive for ERb-1 (HR=0.56, 95% CI 0.40-0.78, p=0.0007) and ERb-2 (HR=0.67, 95% CI 0.45-1.00, p=0.05). Improved OS was associated with a positive status for pan-ERb (HR=0.60, 95% CI 0.45-0.80, p=0.0004) and ERb-2 (HR=0.44, 95% CI 0.31-0.62, p<0.0001). In ERa-positive patients, ERb positivity was not associated with DFS (HR=0.77, 95% CI 0.46-1.27, p=0.31) or OS (HR=0.64, 95% CI 0.37-1.11, p=0.11). In contrast, ERb expression was significantly associated with increased DFS (HR=0.37, 95% CI 0.14-0.93, p=0.03) or OS (HR=0.44, 95% CI 0.30-0.65, p<0.0001) in ERa-negative patients. We did not observe an association between ERb mRNA levels and DFS and OS. In this study, we showed that IHC ERb status, rather than mRNA levels, is a prognostic factor that is associated with DFS and OS in breast cancer patients."

According to the news editors, the research concluded: "The prognostic value of ERb may be higher in ERa-negative patients than in ERa-positive patients."

For more information on this research see: Estrogen receptor beta as a prognostic factor in breast cancer patients: A systematic review and meta-analysis. Oncotarget, 2016;7 (9):10373-85.
The news correspondents report that additional information may be obtained from W. Tan, Guangdong Provincial Key Laboratory of Malignant Tumor Epigenetics and Gene Regulation, Sun Yat-Sen Memorial Hospital, Sun Yat-Sen University, People's Republic of China. Additional authors for this research include Q. Li, K. Chen, F. Su, E. Song and C. Gong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7219. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Genetics, Oncology, Guangzhou, Breast Cancer, Women's Health, Steroid Receptors, DNA Binding Proteins, Transcription Factors, Estrogen Receptor beta, People's Republic of China.

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Oncology - Breast Cancer

Findings in the Area of Breast Cancer Reported from University of Fudan (mTOR complex-2 stimulates acetyl-CoA and de novo lipogenesis through ATP citrate lyase in HER2/PIK3CA hyperactive breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "The mechanistic target of rapamycin (mTOR) is a major regulator of cell growth and is frequently dysregulated in cancer. While mTOR complex-1 (mTORC1) is a validated cancer target, the role of mTOR complex-2 (mTORC2) remains less defined."

The news reporters obtained a quote from the research from the University of Fudan, "Here, we reveal mTORC2 as a critical regulator of breast cancer metabolism. We showed that hyperphosphorylation in ATP citrate lyase (ACL) occurs frequently in human breast tumors and correlates well with HER2+ and/or PIK3CA-mutant (HER2+/PIK3CAmut) status in breast tumor cell lines. In HER2+/PIK3CAmut cells, mTORC2 controls Ser-455 phosphorylation of ACL thereby promoting acetyl-CoA production, de novo lipogenesis and mitochondrial physiology, all of which were inhibited by an mTORC1/mTORC2 kinase inhibitor (mTOR-KI) or cellular depletion of mTORC2 or ACL. mTOR-KI but not rapamycin blocked the IGF-1-induced ACL phosphorylation and glucose to lipid conversion. Depletion of mTORC2 but not mTORC1 specifically inhibited the ACL-dependent acetyl-CoA production. In the HER2+/PIK3CAmut MDA361, MDA453, BT-474 and T47D cells, depletion of mTORC2 or ACL led to growth inhibition and mitochondrial hyperpolarization, which were partially rescued by an alternate source of acetyl-CoA. These same changes were not apparent in mTORC2- or ACL-depleted HER2-/PIK3CAwt MDA231 and HCC1806 cells, highlighting a differential dependence of mTORC2-ACL for survival in these two cell types. Moreover, ACL Ser-455 mutants S455E (phosphomimetic) and S455A (non-phosphorylatable) each increased or decreased, respectively, the acetyl-CoA production, mitochondrial homeostasis and survival in ACL-depleted MDA453 cells."

According to the news reporters, the research concluded: "These studies define a new and rapamycin-resistant mechanism of mTORC2-ACL in lipogenesis and acetyl-CoA biology..."
and provide a rationale for targeting of mTORC1 and mTORC2 in HER2+/PIK3CAmut breast cancer."

For more information on this research see: mTOR complex-2 stimulates acetyl-CoA and de novo lipogenesis through ATP citrate lyase in HER2/PIK3CA-hyperactive breast cancer. Oncotarget, 2016;7(18):25224-40.

Our news correspondents report that additional information may be obtained by contacting Y. Chen, Dept. of Pharmacology, Fudan University School of Pharmacy, Shanghai, People's Republic of China. Additional authors for this research include J. Qian, Q. He, H. Zhao, L. Toral-Barza, C. Shi, X. Zhang, J. Wu and K. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8279. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Lyases, Shanghai, Oncology, Breast Cancer, Women's Health, Enzymes and Coenzymes, People's Republic of China.

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Oncology - Cancer Research

Findings in the Area of Cancer Research Reported from National University (Cancer-related fatigue in post-treatment cancer survivors: application of the common sense model of illness representations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cancer Research is the subject of a report. According to news reporting out of Galway, Ireland, by NewsRx editors, research stated, "Cancer-related fatigue (CrF) is a common and disruptive symptom that may be experienced during and after cancer. Research into the subjective experience of fatigue in this group is required."

Our news journalists obtained a quote from the research from National University, "The common sense model of self-regulation of health and illness (SRM) addresses personal beliefs or mental representations—whether medically sound or unsubstantiated—that a person holds about a health issue. The current study assesses if the SRM could be used as a theoretical framework for organizing the experiences of people with CrF, with a view to identifying methods to address fatigue in cancer survivors. Four focus groups were held with a total of 18 cancer survivors who reported they experienced 'significant fatigue or reduced energy.' A thematic analysis was conducted within the framework of the SRM. Findings were aligned with the SRM, with participants discussing fatigue with reference to representation, coping, and appraisal of symptoms. In particular, the wider social context of CrF was frequently addressed. Perceived inadequacies in support available to those with lingering fatigue after the completion of cancer treatment were highlighted by the participants. This study explored the subjective experience of fatigue after cancer using the SRM. CrF should be approached as a complex psychosocial issue and considered from the patient perspective to facilitate better understanding and management of symptoms."

According to the news editors, the research concluded: "The SRM is an applicable framework for identifying modifiable factors that could lead to improved coping with CrF in post-treatment cancer survivors."

Our news journalists report that additional information may be obtained by contacting T. Corbett, Natl Univ Ireland Galway, Sch Psychol, Galway, Ireland. Additional authors for this research include A. Groarke, J.C. Walsh and B.E. McGuire.

Keywords for this news article include: Galway, Ireland, Europe, Cancer Research, Oncology, Cancer, National University.

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Carcinogenesis

Findings in the Area of Carcinogenesis Reported from Dow Chemical

[Methyl isobutyl ketone-induced hepatocellular carcinogenesis in B6C3F(1) mice: A constitutive androstane receptor (CAR)-mediated mode of action]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Carcinogenesis. According to news reporting originating in Midland, Michigan, by NewsRx journalists, research stated, "In a National Toxicology Program (NTP) chronic inhalation study with methyl isobutyl ketone (MIBK), increases in hepatocellular adenomas and hepatocellular adenomas and carcinomas (combined) were observed in male and female B6C3F(1) mice at 1800 ppm. A DNA reactive Mode-of-Action (MOA) for this liver tumor response is not supported by the evidence as MIBK and its major metabolites lack genotoxicity in both in vitro and in vivo studies."

The news reporters obtained a quote from the research from Dow Chemical, "Constitutive androstane receptor (CAR) nuclear receptor mediated activation has been hypothesized as the MOA for MIBK-induced mouse liver tumorigenesis. To further investigate the MOA for MIBK-induced murine liver tumors, male and female B6C3F1, C57BL/6, and CAR/PXR Knockout (KO) mice were exposed to either 0 or 1800 ppm MIBK for 6 h/day, 5 days/week for a total of 10 days. On day 1, mice were implanted with osmotic mini-pumps containing 5-Bromo-2-deoxyuridine (BrdU) 1 h following exposure and humanely euthanized 1-3 h following the final exposure. B6C3F(1) and C57BL/6 mice had statistically significant increases in liver weights compared to controls that corresponded with hepatocellular hypertrophy and increased mitotic figures. Hepatocellular proliferation data indicated induction of S-phase DNA synthesis in B6C3F(1) and C57BL/6 mice exposed to 1800 ppm MIBK compared to control, and no increase was observed in MIBK exposed CAR/PXR KO mice. Liver gene expression changes indicated a maximally-induced Cyp2b10 (CAR-associated) transcript and a slight increase in Cyp3a11(PXR-associated) transcript in B6C3F(1) and C57BL/6 mice exposed to 1800 ppm MIBK compared to controls, but not in Cyp1a1 (AhR-associated) or Cyp4a10 (PPAR-alpha-associated) transcripts. CAR/PXR KO mice exposed to 1800 ppm MIBK showed no evidence of activation of AhR, CAR, PXR or PPAR-alpha nuclear receptors via their associated transcripts."

According to the news reporters, the research concluded: "MIBK induced hepatic
effects are consistent with a phenobarbital-like MOA where the initiating events are activation
of the CAR and PXR nuclear receptors and resultant hepatocellular proliferation leading to
rodent liver tumors."

For more information on this research see: Methyl isobutyl ketone-induced hepatocellular
carcinogenesis in B6C3F(1) mice: A constitutive androstane receptor (CAR)-
Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier
Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com;
Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-
and-pharmacology/)

Our news correspondents report that additional information may be obtained by
contacting B.J. Hughes, Dow Chem Co, USA, Midland, MI 48674, United States. Additional
authors for this research include J. Thomas, A.M. Lynch, S.J. Borghoff, S. Green, T. Mensing,
S.S. Sarang and M.J. LeBaron.

Keywords for this news article include: Midland, Michigan, United States, North and Central America, Carcinogenesis, Genetics, Dow Chemical.

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Cardiology

Findings in the Area of Cardiology Reported from Children's Hospital
(Acetylation of VGLL4 Regulates Hippo-YAP Signaling and Postnatal
Cardiac Growth)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Cardiology are discussed in a new report. According
to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated,
"Binding of the transcriptional co-activator YAP with the transcription factor TEAD stimulates
growth of the heart and other organs. YAP overexpression potently stimulates fetal
cardiomyocyte (CM) proliferation, but YAP's mitogenic potency declines postnatally."

Funders for this research include NIH, AHA Established, American Heart
Association Scientist Development.

The news reporters obtained a quote from the research from Children's Hospital,
"While investigating factors that limit YAP's postnatal mitogenic activity, we found that the CM
enriched TEAD1 binding protein VGLL4 inhibits CM proliferation by inhibiting TEAD1-YAP
interaction and by targeting TEAD1 for degradation. Importantly, VGLL4 acetylation at lysine
225 negatively regulated its binding to TEAD1. This developmentally regulated acetylation
event critically governs postnatal heart growth, since overexpression of an acetylation-refractory
VGLL4 mutant enhanced TEAD1 degradation, limited neonatal CM proliferation, and caused
CM necrosis. Our study defines an acetylation-mediated, VGLL4-dependent switch that
regulates TEAD stability and YAP-TEAD activity."

According to the news reporters, the research concluded: "These insights may
improve targeted modulation of TEAD-YAP activity in applications from cardiac regeneration
to cancer."

For more information on this research see: Acetylation of VGLL4 Regulates Hippo-
Findings in the Area of Cardiology Reported from Nagoya University
(Predictors of surgery-induced muscle proteolysis in patients undergoing cardiac surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news reporting out of Nagoya, Japan, by NewsRx editors, research stated, "Muscle proteolysis due to post-operative hypercatabolism is responsible for the functional decline observed in patients undergoing cardiac surgery. The aim of this study was to explore the factors underlying increased muscle proteolysis by measuring the urinary 3-methylhistidine/creatinine ratio (3-MH/Cr) in patients who had recently undergone cardiac surgery."

Our news journalists obtained a quote from the research from Nagoya University, "Sixty-nine patients undergoing elective cardiac surgery participated in this study. The 24-h urinary 3-MH/Cr was collected for 3 days after surgery. Serum levels of metabolic markers, amino acids, and skeletal muscle strength were measured before and after surgery. Cumulative 3-MH/Cr during 3 days after surgery (cum3-MH/Cr) was 676.7 +/- 169.0 nmol/g Cr, and was positively associated with the decrease in muscle strength. In multivariate analysis, factors associated with an increased cum3MH/Cr were preoperative grip strength (beta = -0.309, p = 0.003), body mass index (beta = -0.299, p = 0.001), hemoglobin (beta = -0.243, p = 0.007), cardiopulmonary bypass time (beta = 0.184, p = 0.049), and immediate post-operative interleukin-6 (beta = 0.295, p = 0.002). Our findings suggest that post-operative muscle proteolysis is facilitated by preoperative catabolic accelerators in patients undergoing cardiac surgery."

According to the news editors, the research concluded: "The factors of muscle proteolysis immediately after surgery may be a novel therapeutic target in rehabilitation intervention."

For more information on this research see: Predictors of surgery-induced muscle proteolysis in patients undergoing cardiac surgery. *Journal of Cardiology*, 2016;68(5-6):536-541. *Journal of Cardiology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae
Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.comjournal-of-cardiology/)

Our news journalists report that additional information may be obtained by contacting S. Yamada, Nagoya University, Dept. of Rehabil Sci, Grad Sch Med, Nagoya, Aichi, Japan. Additional authors for this research include T. Yamazaki, H. Arima, T. Kawabe and S. Yamada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2015.11.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nagoya, Japan, Asia, Cardiac Surgery, Cardiology, Nagoya University.

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**Cardiovascular Diseases**

**Findings in the Area of Cardiovascular Diseases Reported from Azienda Ospedaliera University (Hypolipidemic drugs in elderly subjects: Indications and limits)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases are presented in a new report. According to news reporting out of Ferrara, Italy, by NewsRx editors, research stated, "Cardiovascular disease is a major cause of death worldwide. Safety and efficacy of lipid lowering therapy have been clearly established for either primary and secondary prevention of cardiovascular events in adults."

Our news journalists obtained a quote from the research from Azienda Ospedaliera University, "Nevertheless, the use of hypolipidemic drugs in elderly individuals, especially in the oldest ones, still raises some concerns. Aim of this paper is to review indications and limits of lipid lowering in advanced age, furnishing a practical medical attitude tempered by clinical and geriatric competences. Data synthesis: While figures from randomized controlled trials and from observational studies seem to support the use of lipid lowering drugs for secondary prevention in the elderly, drawing inferences from primary prevention in old populations is far more challenging. Although these pharmacological agents seem to reduce the incidence of cardiovascular events, they do not prolong survival. In addition, there is some doubt about the cost-effectiveness of treatment because of a more delicate balance between benefit and potential adverse reactions. However, lipid-lowering drugs seem largely underutilized in older age, mainly due to safety concerns that must be reconsidered, at least in part, given the somewhat reassuring results deriving from specific cohort surveys. Data on the use and on the effects of lipid lowering drugs in elderly populations are incomplete, especially those concerning very old subjects without established cardiovascular disease."

According to the news editors, the research concluded: "Comprehensive guidelines for the management of dyslipidemias in this rapidly-growing population is a urgent need, and treatment should be based, besides the aforementioned considerations, on patient preferences, cognitive function and life expectancy."

For more information on this research see: Hypolipidemic drugs in elderly subjects: Indications and limits. *Nutrition Metabolism and Cardiovascular Diseases*, 2016;26(12):1064-
Findings in the Area of Cell Transplants Reported from Institute for Cancer Research and Treatment (IRCCS) (Treosulfan based reduced toxicity conditioning followed by allogeneic stem cell transplantation in patients with myelofibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Cell Transplants is now available. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "Allogeneic transplantation is the only potentially curative strategy for myelofibrosis, even in the era of new drugs that so far only mitigate symptoms. The choice to proceed to allogeneic transplantation is based on several variables including age, disease phase, degree of splenomegaly, donor availability, comorbidities and iron overload."

Our news editors obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "These factors, along with conditioning regimen and time to transplantation, may influence the outcome of ASCT. We report 14 patients affected by myelofibrosis with a median age of 57 years (range, 41-76) receiving a treosulfan-fludarabine based reduced toxicity conditioning. Patients (pts) received a stem cell transplantation from an HLA identical (n = 10) or matched unrelated donor (n = 4). All pts had a complete myeloablation followed by engraftment and in 12 out of 13 evaluated pts donor chimerism was 100% at 1 month. In most cases a reduction of splenomegaly and a reduction (or resolution) of bone marrow fibrosis was observed. After a median follow-up of 39 months (range, 3-106), the 3-year probability of overall survival and disease free survival was 54 +/- 14% and 46 +/- 14%, respectively. The cumulative incidence of non-relapse mortality at 2 years was 39 +/- 15%. Causes of non-relapse mortality were: infection (n = 2), GvHD (n = 2) and haemorrhage (n = 1)."

According to the news editors, the research concluded: "We can conclude that a treosulfan and fludarabine based conditioning has a potent myeloablative and anti-disease activity although non-relapse mortality remains high in this challenging clinical setting."

For more information on this research see: Treosulfan based reduced toxicity conditioning followed by allogeneic stem cell transplantation in patients with myelofibrosis. *Hematological Oncology*, 2016;34(3):154-160. *Hematological Oncology* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell -
Findings in the Area of Chemotherapy Reported from University of Toronto (Approach to evaluation of fever in ambulatory cancer patients receiving chemotherapy: A systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Chemotherapy. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "To define the optimal model of care for patients receiving outpatient chemotherapy who experience a fever. Fever is a common symptom in patients receiving chemotherapy, but the approach to evaluation of fever is not standardized."

Our news editors obtained a quote from the research from the University of Toronto, "We conducted a search for existing guidelines and a systematic review of the primary literature from database inception to November 2015. Full-text reports and conference abstracts were considered for inclusion. The search focused on the following topics: the relationship between temperature and poor outcome; predictors for the development of febrile neutropenia (FN); the timing, location, and personnel involved in fever assessment; and the provision of information to patients receiving chemotherapy. Eight guidelines and 38 studies were included. None of the guidelines were directly relevant to the target population because they dealt primarily with the management of FN after diagnosis. The primary studies tended to include fever as one of many symptoms assessed in the setting of chemotherapy. Temperature level was a weak predictor of poor outcomes. We did not find validated prediction models for identifying patients at risk of FN among patients receiving chemotherapy. Several studies presented approaches to symptom management that included fever among the symptoms, but results were not mature enough to merit widespread adoption. Despite the frequency and risks of fever in the setting of chemotherapy, there is limited evidence to define who needs urgent assessment, where the assessment should be performed, and how quickly."

According to the news editors, the research concluded: "Future research in this area is greatly needed to inform new models of care."

For more information on this research see: Approach to evaluation of fever in ambulatory cancer patients receiving chemotherapy: A systematic review. Cancer Treatment Reviews, 2016;51():35-45. Cancer Treatment Reviews can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier -
The news editors report that additional information may be obtained by contacting M.K. Krzyzanowska, University of Toronto, Toronto, ON, Canada. Additional authors for this research include C. Walker-Dilks, A.M. Morris, R. Gupta, R. Halligan, C.T. Kouroukis, K. McCann and C.L. Atzema.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ctrv.2016.10.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Cancer, Article Review, Risk and Prevention, Drugs and Therapies, Chemotherapy, Oncology, University of Toronto.

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Oncology - Chronic Lymphocytic Leukemia

Findings in the Area of Chronic Lymphocytic Leukemia Reported from University of Oslo (National trends in incidence and survival of chronic lymphocytic leukemia in Norway for 1953-2012: a systematic analysis of population-based data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Chronic Lymphocytic Leukemia have been published. According to news reporting originating in Oslo, Norway, by NewsRx journalists, research stated, "Chronic lymphocytic leukemia is a disease of the elderly, and despite major advances in treatment, remains incurable. The Cancer Registry of Norway has registered data on patients with chronic lymphocytic leukemia since 1953."

The news reporters obtained a quote from the research from the University of Oslo, "We aimed to analyze trends in incidence and survival of chronic lymphocytic leukemia in Norway. We identified 7664 patients reported with chronic lymphocytic leukemia to the registry between 1953 and 2012. We gathered information on sex, age at diagnosis, date of death and basis for diagnosis. The age-standardized incidence increased from 0.6/100,000 person-years in 1953 to 3.1/100,000 person-years in 2012. We found a significant decrease in median age between 1993-2002 and 2003-2012 (75 vs. 72 years, 95% CI: 2.52-3.98, P< 0.001). Men were diagnosed at a significantly younger age than women. Immunophenotyping has become the most important diagnostic method after 2002. Median observed survival increased from 3 years in 1952-1963 to 8.5 years in 2003-2012. Five- and 10-year age-standardized net survival increased throughout the whole period across age groups and reached 79% and 57%, respectively. Median observed survival was significantly shorter in men than in women in 1993-2002 (4.9 vs. 6.1 years, P< 0.001). The gap between survival rates for men and women was diminishing in 2003-2012 in patients younger than 60 years while it remained considerable in older patients. Despite an aging Norwegian population, chronic lymphocytic leukemia (CLL) patients become younger at diagnosis."

According to the news reporters, the research concluded: "A fourfold increase in incidence, a prolonged survival, and major changes in diagnostic methods in Norway were observed."

Our news correspondents report that additional information may be obtained by contacting A. Lenartova, University of Oslo, Inst Clin Med, Fac Med, Oslo, Norway. Additional authors for this research include T.B. Johannesen and G.E. Tjonnfjord.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.849. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Norway, Europe, Leukemia, Diagnostics and Screening, Chronic Lymphocytic Leukemia, Hematology, Oncology, University of Oslo.

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Drugs and Therapies - Clinical Therapeutics

Findings in the Area of Clinical Therapeutics Reported from National University [The Internal Reliability of Family Crisis Oriented Personal Evaluation Scale (F-COPES) in Malay version among caregivers of individual with learning disabilities]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Clinical Therapeutics are presented in a new report. According to news reporting originating in Kuala Lumpur, Malaysia, by NewsRx journalists, research stated, "Caregivers face challenges to adapt while handling individual with learning disabilities (LD). The Family Crisis Oriented Personal Evaluation Scale (F-COPES) is a widely used instrument to measure coping strategies among caregivers."

The news reporters obtained a quote from the research from National University, "The current study performed cross cultural translation of F-COPES in Malay language. This study aims to examine the reliability by testing internal consistency of Malay version of F-COPES which is developed through back to back translation method from original English version. The Malay version of F-COPES was administered among 30 caregivers. The reliability of F-COPES in Malay version is good with Cronbach's alpha coefficient value of 0.79. The internal consistency on sub domains of F-COPES such as reframing, acquiring social support and seeking spiritual support also acceptable with Cronbach's alpha values 0.67, 0.74, and 0.80, respectively."

According to the news reporters, the research concluded: "The Malay version of F-COPES is a reliable tool to evaluate the coping strategies adopted by the caregivers of individual with LD."

For more information on this research see: The Internal Reliability of Family Crisis Oriented Personal Evaluation Scale (F-COPES) in Malay version among caregivers of individual with learning disabilities. La Clinica Terapeutica, 2015;166(6):e361-4.

Our news correspondents report that additional information may be obtained by
Findings in the Area of Clinical Trials and Studies Reported from China Medical University and Hospital (Subintimal angioplasty for lower limb arterial chronic total occlusions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting from Shenyang, People's Republic of China, by NewsRx journalists, research stated, "In recent years subintimal angioplasty (SIA) has become an established percutaneous procedure for the treatment of symptomatic lower limb arterial chronic total occlusions. However, the clinical benefits of this practice remain unclear."

The news correspondents obtained a quote from the research from China Medical University and Hospital, "The aim of the review was to determine the effectiveness of SIA on clinical outcomes. This is an update of a review first published in 2013. To assess the effectiveness of SIA versus other treatment for people with lower limb arterial chronic total occlusions, determined by the effects on clinical improvement, technical success rate, patency rate, limb salvage rate, and morbidity rates. Search methods The Cochrane Vascular Information Specialist searched the Cochrane Vascular Specialised Register (last searched January 2016) and Cochrane Central Register of Controlled Trials (CENTRAL) (2015, Issue 12). We also searched clinical trials registries. Selection criteria We included data from randomized controlled trials comparing the effectiveness of SIA and any other management method in the treatment of lower limb arterial chronic total occlusions. The primary intervention of interest was SIA, with or without a stent, for the restoration of vessel patency in people with occlusions of a lower limb artery. We compared SIA against alternative modalities used to restore vessel patency, including conventional percutaneous transluminal angioplasty, surgical bypass, or any other treatments. We compared different SIA devices and techniques against each other. Data collection and analysis Two review authors independently selected trials, assessed trials for eligibility and methodological quality, and extracted data. The third review author resolved disagreements. Two studies, involving a total of 147 participants with TransAtlantic Inter-Society Consensus (TASC)-II D femoral-popliteal lesions, met our inclusion criteria and were included in the review. Both studies were small but otherwise of high methodological quality. However, the treatment techniques and control groups of the two studies differed, precluding the combining of study results and resulting in the evidence being less applicable. We therefore considered the quality of the evidence to be low. In one study, participants with TASC-II D lesions were randomized to receive either SIA with stenting of the superficial femoral artery or remote endarterectomy (RE) with stenting of the superficial femoral artery. Three-year follow-up results showed a Rutherford classification improvement of 64% in the SIA group compared to 80% in the RE group (risk ratio (RR) 0.79, 95% confidence interval (CI) 0.61 to 1.03; 95 participants; P = 0.079). Postexercise ankle brachial index improvements
(defined as an increased value of 0.2) were reported in 70% of participants in the SIA group compared to 82% in the RE group (RR 0.86, 95% CI 0.68 to 1.08; 95 participants; P = 0.18). The study reported the technical success rate was 93% for the SIA group and 96% for the RE group (RR 0.97, 95% CI 0.88 to 1.07; 95 participants; P = 0.91). Primary patency at 12 months was 59.1% in the SIA group compared to 78.4% in the RE group (RR 0.75, 95% CI 0.57 to 1.00; 95 participants; P = 0.05). Primary patency at 24 months was 56.8% in the SIA group compared to 76.5% in the RE group (RR 0.74, 95% CI 0.55 to 1.00; 95 participants; P = 0.05) and 47.7% in the SIA group and 62.7% in the RE group at 36 months (RR 0.76, 95% CI 0.52 to 1.11; 95 participants; P = 0.15). Assisted primary patency was 52.3% in the SIA group compared to 70.6% in the RE group (P = 0.01) at 36 months. Secondary patency was better for the RE group (P = 0.03) at 36 months. Limb salvage at three years' follow-up was 95% in the SIA group and 98% in the RE group (RR 0.97, 95% CI 0.90 to 1.05; 95 participants; P = 0.4).

There were no perioperative deaths, but complications occurred in two SIA participants (femoral pseudoaneurysm and pulmonary edema) and in three RE participants (seroma, femoral pseudoaneurysm, superficial femoral artery acute occlusion). In the second study, the effects of the SIA OUTBACK re-entry catheter device in people affected by TASC-II D superficial femoral artery chronic total occlusion were compared with the SIA manual re-entry technique. This study did not report clinical improvement and limb salvage. Technical success was achieved in all cases in both the OUTBACK device and manual groups. The primary 6-month patency rate was 100% in the OUTBACK group (26 of 26 participants) compared to 96.2% in the manual group (25 of 26 participants) (RR 1.04, 95% CI 0.94 to 1.15). The primary 12-month patency rate was 92.3% in the OUTBACK group (24 of 26 participants) compared to 84.6% in the manual group (22 of 26 participants) (RR 1.09, 95% CI 0.90 to 1.33). Patency rates at 24 and 36 months were not reported. The study reported that there were no complications. Authors' conclusions Using the GRADE approach, we classified the quality of the evidence presented by both studies in this review as low due to small study size and the small number of studies. In addition, the two included trials differed from each other in the techniques and control used, and we were therefore unable to combine the data. Consequently there is currently insufficient evidence to support SIA over other techniques."

According to the news reporters, the research concluded: "Evidence from more randomized controlled trials is needed to assess the role of SIA in people with chronic lower limb arterial total occlusions."

For more information on this research see: Subintimal angioplasty for lower limb arterial chronic total occlusions. Cochrane Database of Systematic Reviews, 2016;(11):350-388. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting Z.Y. Liu, China Med Univ, ShengJing Hosp, Radiol Department, Shenyang 110004, LiaoNing, People's Republic of China. Additional authors for this research include J.H. Zheng and Z.Y. Liu.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Clinical Trials and Studies, Angiology, Article Review, Clinical Research, Catheterization, Femoral Artery, Angioplasty, China Medical University and Hospital.

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**Gram-Positive Bacteria - Clostridium thermocellum**

**Findings in the Area of Clostridium thermocellum Reported from National Renewable Energy Laboratory (CO2-fixing one-carbon metabolism in a cellulose-degrading bacterium Clostridium thermocellum)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Positive Bacteria - Clostridium thermocellum are presented in a new report. According to news reporting originating from Golden, Colorado, by NewsRx correspondents, research stated, "Clostridium thermocellum can ferment cellululosic biomass to formate and other end products, including CO2. This organism lacks formate dehydrogenase (Fdh), which catalyzes the reduction of CO2 to formate."

Our news editors obtained a quote from the research from National Renewable Energy Laboratory, "However, feeding the bacterium C-13-bicarbonate and cellobiose followed by NMR analysis showed the production of C-13-formate in C. thermocellum culture, indicating the presence of an uncharacterized pathway capable of converting CO2 to formate. Combining genomic and experimental data, we demonstrated that the conversion of CO2 to formate serves as a CO2 entry point into the reductive one-carbon (C1) metabolism, and internalizes CO2 via two biochemical reactions: the reversed pyruvate: ferredoxin oxidoreductase (rPFOR), which incorporates CO2 using acetyl-CoA as a substrate and generates pyruvate, and pyruvate-formate lyase (PFL) converting pyruvate to formate and acetyl-CoA. We analyzed the labeling patterns of proteinogenic amino acids in individual deletions of all five putative PFOR mutants and in a PFL deletion mutant. We identified two enzymes acting as rPFOR, confirmed the dual activities of rPFOR and PFL crucial for CO2 uptake, and provided physical evidence of a distinct in vivo ‘rPFOR-PFL shunt' to reduce CO2 to formate while circumventing the lack of Fdh. Such a pathway precedes CO2 fixation via the reductive C1 metabolic pathway in C. thermocellum."

According to the news editors, the research concluded: "These findings demonstrated the metabolic versatility of C. thermocellum, which is thought of as primarily a cellulitic heterotroph but is shown here to be endowed with the ability to fix CO2 as well."

For more information on this research see: CO2-fixing one-carbon metabolism in a cellulose-degrading bacterium Clostridium thermocellum. *Proceedings of the National Academy of Sciences of the United States of America*, 2016;113(46):13180-13185.

*Proceedings of the National Academy of Sciences of the United States of America* can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC 20418, USA. (National Academy of Sciences - www.nasonline.org; Proceedings of the National Academy of Sciences of the United States of America - www.nasonline.org/publications/pnas/)

The news editors report that additional information may be obtained by contacting P.C. Maness, Natl Renewable Energy Lab, Biosci Center, Golden, CO 80401, United States. Additional authors for this research include P.P. Lin, L. Magnusson, L. Warner, J.C. Liao, P.C. Maness and K.J. Chou.

Keywords for this news article include: Golden, Colorado, United States, North and Central America, Gram-Positive Endospore-Forming Bacteria, Gram-Positive Endospore-Forming Rods, Clostridium thermocellum, Gram-Positive Bacteria, Keto Acids, Pyruvates, Genetics, National Renewable Energy Laboratory.

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Oncology - Colon Cancer

Findings in the Area of Colon Cancer Reported from University of Melbourne [Synthesis of an inositol hexakisphosphate (IP6) affinity probe to study the interactome from a colon cancer cell line]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news originating from Parkville, Australia, by NewsRx correspondents, research stated, "Inositol hexakisphosphate (InsP6 or IP6) is an important signalling molecule in vesicular trafficking, neurotransmission, immune responses, regulation of protein kinases and phosphatases, activation of ion channels, antioxidant functions and anticancer activities. An IP6 probe was synthesised from myo-inositol via a derivatised analogue, which was immobilised through a terminal amino group onto Dynabeads."

Our news journalists obtained a quote from the research from the University of Melbourne, "Systematic analysis of the IP6 interactome has been performed using the IP6 affinity probe using cytosolic extracts from the LIM1215 colonic carcinoma cell line. LC/MS/MS analysis identified 77 proteins or protein complexes that bind to IP6 specifically, including AP-2 complex proteins and b-arrestins as well as a number of novel potential IP6 interacting proteins."

According to the news editors, the research concluded: "Bioinformatic enrichment analysis of the IP6 interactome reinforced the concept that IP6 regulates a number of biological processes including cell cycle and division, signal transduction, intracellular protein transport, vesicle-mediated transport and RNA splicing."

For more information on this research see: Synthesis of an inositol hexakisphosphate (IP6) affinity probe to study the interactome from a colon cancer cell line. Integrative Biology, 2016;8(3):309-18. (Royal Society of Chemistry - www.rsc.org/; Integrative Biology - pubs.rsc.org/en/journals/journalissues/ib)

The news correspondents report that additional information may be obtained from M.X. Yin, School of Chemistry, Bio21 Institute, The University of Melbourne, 30 Flemington Road, Parkville, Victoria 3052, Australia. Additional authors for this research include B. Catimel, M. Gregory, M. Condron, E. Kapp, A.B. Holmes and A.W Burgess.

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Keywords for this news article include: Genetics, Inositol, Oncology, Parkville, Cell Line, Colon Cancer, Sugar Alcohols, Australia and New Zealand.

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Health and Medicine - Cutaneous Medicine and...

Findings in the Area of Cutaneous Medicine and Surgery Reported from Research Institute (Cosmeceuticals in skin of color)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Cutaneous Medicine and
Surgery have been published. According to news reporting originating in Miami, Florida, by NewsRx editors, the research stated, "Patients with skin of color have similar skin care needs as lighter-skin patients."

The news reporters obtained a quote from the research from Research Institute, "However, they are less likely to use sun protection on a daily basis, which leads to an increased risk of dyschromia, skin cancer, and other disorders. This article discusses the importance of a correct and consistent skin care regimen and the various cutaneous issues that should be considered when prescribing a skin care regimen for patients with darker skin types."

According to the news reporters, the research concluded: "Adopting a standardized methodology to identify affordable, efficacious products and to streamline the process of skin-type diagnosis, skin care regimen prescribing, patient communication, and staff education will result in improved patient outcomes and increased patient satisfaction."


Our news correspondents report that additional information may be obtained by contacting L. Baumann, Baumann Cosmet & Res Inst, Miami, FL 33137, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12788/j.sder.2016.056. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Cutaneous Medicine and Surgery, Health and Medicine, Research Institute. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

**Health and Medicine - Dermatology**

**Findings in the Area of Dermatology Reported from Philipps University (Research Techniques Made Simple: Mouse Models of Autoimmune Blistering Diseases)***

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Health and Medicine - Dermatology are discussed in a new report. According to news reporting from Marburg, Germany, by NewsRx journalists, research stated, "Autoimmune blistering diseases are examples of autoantibody-mediated, organ-specific autoimmune disorders. Based on a genetic susceptibility, such as a strong HLA-class II association, as yet unknown triggering factors induce the formation of circulating and tissue-bound autoantibodies that are mainly directed against adhesion structures of the skin and mucous membranes."

The news correspondents obtained a quote from the research from Philipps University, "Compared with other autoimmune diseases, especially systemic disorders, the pathogenicity of autoimmune blistering diseases is relatively well described. Several animal models of autoimmune blistering diseases have been established that helped to uncover the immunological and molecular mechanisms underlying the blistering phenotypes. Each in vivo
model focuses on specific aspects of the autoimmune cascade, from loss of immunological tolerance on the level of T and B cells to the pathogenic effects of autoantibodies upon binding to their target autoantigen."

According to the news reporters, the research concluded: "We discuss current mouse models of autoimmune blistering diseases, including models of pemphigus vulgaris, bullous pemphigoid, epidermolysis bullosa acquisita, and dermatitis herpetiformis."


Our news journalists report that additional information may be obtained by contacting R. Eming, Philipps Univ Marburg, Dept. of Dermatol & Allergol, D-35043 Marburg, Germany.

Keywords for this news article include: Marburg, Germany, Europe, Dermatology, Health and Medicine, Genetics, Philipps University.

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**Drug Development**

**Findings in the Area of Drug Development Reported from Motilal Nehru National Institute of Technology [Self-assembling N-(9-Fluorenylmethoxycarbonyl)-L-Phenylalanine hydrogel as novel drug carrier]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drug Development have been published. According to news reporting originating in Uttar Pradesh, India, by NewsRx journalists, research stated, "Supramolecular hydrogel as a novel drug carrier was prepared from N-(9-Fluorenylmethoxycarbonyl) (Fmoc) modified L-phenylalanine. Its different properties like stability at different pH, temperature and rheology were evaluated in reference to salicylic acid (SA) as a model drug, entrapped in the supramolecular hydrogel network."

The news reporters obtained a quote from the research from the Motilal Nehru National Institute of Technology, "The release behaviour of SA drug in supramolecular hydrogel was investigated by UV-vis spectroscopy. The influence of hydrogelator, pH values of the accepting media, temperature and concentration of SA drug on the release behaviour was investigated under static conditions. The results indicated that the release rate of SA in the supramolecular hydrogels was slightly retarded with an increase of the hydrogelator concentration. Also, the release rates of SA increased with an increase of temperature and its concentration. Furthermore, the release behaviour of SA was found to be different at various pH values in buffers."

According to the news reporters, the research concluded: "The study of the release kinetics indicated that the release behaviour of SA from the carrier was in accord with the Peppas model and the diffusion controlled mechanism involved in the Fickian model."

For more information on this research see: Self-assembling N-(9-Fluorenylmethoxycarbonyl)-L-Phenylalanine hydrogel as novel drug carrier. *International*
Our news correspondents report that additional information may be obtained by contacting P.K. Dutta, Motilal Nehru Natl Inst Technol, Dept. of Chem, Allahabad 211004, Uttar Pradesh, India. Additional authors for this research include B.K. Singh, A.S. Mehta, R.P. Tewari and P.K. Dutta.

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Keywords for this news article include: Uttar Pradesh, India, Asia, Essential Amino Acids, Drug Delivery Systems, Emerging Technologies, Aromatic Amino Acids, Polyethylene Glycols, Drugs and Therapies, Organic Chemicals, Drug Development, Salicylic Acid, Supramolecular, Nanotechnology, Phenylalanine, Alcohols, Hydrogel, Motilal Nehru National Institute of Technology.

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**Drugs and Therapies - Drug Targets**

**Findings in the Area of Drug Targets Reported from CNIO**

**Antiangiogenic Resistance and Cancer Metabolism: Opportunities for Synthetic Lethality**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Drug Targets are discussed in a new report. According to news reporting from Madrid, Spain, by NewsRx journalists, research stated, "Antiangiogenic resistance is a major problem in cancer therapeutics. Preclinical research has identified several compensatory proangiogenic pathways that arise upon vascular endothelial growth factor inhibition, several of which have led to the development of novel drugs."

The news correspondents obtained a quote from the research from CNIO, "However, the combination of two or more targeted agents in the angiogenesis system is hampered by toxicity, as the system is involved in normal physiology. We propose a different approach for improving the efficacy of this drug class, which takes advantage of aberrant cancer metabolism. Several features distinguish cancer metabolism from that of normal cells, including increased glycolysis, glutaminolysis, and pentose-phosphate shunt, as well as an anaplerotic shift of the Krebs cycle. In addition, these aberrations are driven by most of the common mutations that can be targeted by drugs. Antiangiogenics may hamper the ability of cancer to sustain aberrant metabolism due to their impacts on nutrient and oxygen supplies, and thus they may induce some metabolic pathways to become essential for tumor survival (induced essentiality or contextual lethality, a type of synthetic lethality). Thus, some metabolic and signaling pathways that are otherwise nonessential may induce synthetic lethality when inhibited in combination with antiangiogenics. The key problems, however, are interpatient and intratumor heterogeneity, as not all patients with the same tumor type show the same metabolic traits and the same metabolic reprogramming in response to antiangiogenics. With each cancer there are
heterogeneous hypoxic areas."

According to the news reporters, the research concluded: "Integrating dynamic tracking of metabolism may allow us to tailor our choices of companion drugs with antiangiogenics, taking advantage of window-of-opportunity designs."


Our news journalists report that additional information may be obtained by contacting M. Quintela-Fandino, Breast Cancer Clinical Research Unit, CNIO - Spanish National Cancer Research Center, Melchor Fernandez Almagro, 3, Madrid 28029, Spain. Additional authors for this research include J.M. Funes, A.L. Harris and M. Quintela-Fandino.

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Keywords for this news article include: Spain, Madrid, Europe, Cancer, Genetics, Oncology, Drug Targets, Drugs and Therapies.

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**Gram-Positive Bacteria - Enterococcus faecalis**

**Findings in the Area of Enterococcus faecalis Reported from University of Zurich (The Heterodimeric ABC Transporter EfrCD Mediates Multidrug Efflux in Enterococcus faecalis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - Enterococcus faecalis. According to news reporting originating in Zurich, Switzerland, by NewsRx journalists, research stated, "Nosocomial infections with Enterococcus faecalis are an emerging health problem. However, drug efflux pumps contributing to intrinsic drug resistance are poorly studied in this Gram-positive pathogen."

Funders for this research include Gouvernement du Canada | Canadian Institutes of Health Research (CIHR), Schweizerischer Nationalfonds zur Forderung der Wissenschaftlichen Forschung (SNF).

The news reporters obtained a quote from the research from the University of Zurich, "In this study, we functionally investigated seven heterodimeric ABC transporters of E. faecalis that are annotated as drug efflux pumps. Deletion of ef0789-ef0790 on the chromosome of E. faecalis resulted in increased susceptibility to daunorubicin, doxorubicin, ethidium, and Hoechst 33342, and the corresponding transporter was named EfrCD. Unexpectedly, the previously described heterodimeric multidrug ABC transporter EfrAB contributes marginally to drug efflux in the endogenous context of E. faecalis. In contrast, heterologous expression in Lactococcus lactis revealed that EfrAB, EfrCD, and the product of ef2226-ef2227 (EfrEF) mediate the efflux of fluorescent substrates and confer resistance to multiple dyes and drugs, including fluoroquinolones. Four of seven transporters failed to exhibit drug efflux activity for the set of drugs and dyes tested, even upon overexpression in L. lactis. Since all seven transporters were purified as heterodimers after overexpression in L. lactis, a lack of drug efflux activity is not
attributed to poor expression or protein aggregation. Reconstitution of the purified multidrug transporters EfrAB, EfrCD, and EfrEF in proteoliposomes revealed functional coupling between ATP hydrolysis and drug binding."

According to the news reporters, the research concluded: "Our analysis creates an experimental basis for the accurate prediction of drug efflux transporters and indicates that many annotated multidrug efflux pumps might be incapable of drug transport and thus might fulfill other physiological functions in the cell."

For more information on this research see: The Heterodimeric ABC Transporter EfrCD Mediates Multidrug Efflux in Enterococcus faecalis. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5400-5411. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting M.A. Seeger, University of Zurich, Inst Med Microbiol, Zurich, Switzerland. Additional authors for this research include V. Corradi, M. Hohl, G.V. Bloemberg, D.P. Tieleman and M.A. Seeger.

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Keywords for this news article include: Zurich, Switzerland, Europe, Gram-Positive Bacteria, Enterococcus faecalis, Lactobacillales, Enterococcaceae, Genetics, University of Zurich.

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Oncology - Esophageal Cancer

**Findings in the Area of Esophageal Cancer Reported from Department of Thoracic Surgery (LeNeoadjuvant chemoradiation treatment followed by surgery for esophageal cancer: there is much more than the Mandard tumor regression score)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Esophageal Cancer is now available. According to news reporting originating from Leuven, Belgium, by NewsRx correspondents, research stated, "Tumor regression grading (TRG) systems categorize residual tumor volume on the primary tumor after neoadjuvant treatment. Aim was to evaluate the impact of Mandard TRG, residual tumor depth (ypT) and residual lymph node status (ypN) and extent (ELNI) i.e. intracapsular versus extracapsular involvement on overall (OS) and disease-free survival (DFS) in esophageal carcinoma."

Our news editors obtained a quote from the research from the Department of Thoracic Surgery, "Between 2005 and 2014, 344 patients receiving R0-esophagectomy after neoadjuvant chemoradiation therapy (nCRT) were selected. Mandard TRG, ypTN and ELNI were prospectively recorded. Mandard TRG1 was found in 110 (32%); TRG2 in 120 (35%); TRG3 in 53 (15%); TRG4 in 54 (16%) and TRG5 in 7 (2%) patients. Both OS and DFS showed no significant difference between TRG1 and 2 (p = 0.059 and 0.105, respectively). Therefore,
TRG1/2 was classified together as `major response', TRG3/4 as 'minor response' and TRG5 as 'no response'. Multivariate analysis showed two independent prognosticators for OS (tumor regression response (TRR) and number of positive lymph nodes) and three independent prognosticators for DFS (TRR, ypT and ELNI). After nCRT followed by surgery for esophageal carcinoma, number of residual positive lymph nodes as well as TRR are prognosticators for OS."

According to the news editors, the research concluded: "Minor TRR, ypT and extracapsular lymph node invasion are prognosticators for recurrence."

For more information on this research see: leNeoadjuvant chemoradiation treatment followed by surgery for esophageal cancer: there is much more than the standard tumor regression score. *Acta Chirurgica Belgica*, 2016;116(3):149-155. *Acta Chirurgica Belgica* can be contacted at: Acta Medical Belgica, Avenue Circulaire 138 A, B-1180 Brussels, Belgium.

The news editors report that additional information may be obtained by contacting L. Depypere, UZ Leuven Gasthuisberg, Dept. of Thoracic Surg, Leuven, Belgium. Additional authors for this research include J. Moons, T. Lerut, G. De Hertogh, X. Sagaert, W. Coosemans, H. Van Veer, A. Renders and P. Naeftex.

Keywords for this news article include: Leuven, Belgium, Europe, Esophageal Cancer, Gastroenterology, Oncology, Surgery, Department of Thoracic Surgery.

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Oncology - Esophageal Cancer

Findings in the Area of Esophageal Cancer Reported from Hubei University of Medicine (Tooth loss is associated with increased risk of esophageal cancer: evidence from a meta-analysis with dose-response analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Esophageal Cancer have been published. According to news reporting from Shiyan, People's Republic of China, by NewsRx journalists, research stated, "Epidemiological studies have revealed the association between tooth loss and the risk of esophageal cancer (EC); however, consistent results were not obtained from different single studies. Therefore, we conducted the present meta-analysis to evaluate the association between tooth loss and EC."

The news correspondents obtained a quote from the research from the Hubei University of Medicine, "We conducted electronic searches of PubMed until February 10, 2015 to identify relevant observational studies that examined the association between tooth loss and the risk of EC. Study selection and data extraction from eligible studies were independently performed by two authors. The meta-analysis was conducted using Stata 12.0 software. Finally eight eligible publications with ten studies involving 3 cohort studies, 5 case-control studies, and 1 cross-sectional study were yielded. Meta-analysis identified tooth loss increased risk of EC 1.30 times (Relative risk=1.30, 95% confidence interval=1.06-1.60, I(2)=13.5%). Dose-response analysis showed linear relationship between tooth loss and risk of EC (RR=1.01, 95% CI=1.00-1.03; P for non-linearity test was 0.45). Subgroup analysis proved similar results and publication bias was not detected."

According to the news reporters, the research concluded: "Tooth loss could be
considered to be a significant and dependent risk factor for EC based on the current evidence."

For more information on this research see: Tooth loss is associated with increased risk of esophageal cancer: evidence from a meta-analysis with dose-response analysis. *Scientific Reports*, 2016;6():18900. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting Q.L. Chen, Dept. of Stomatology, Taihe Hospital, Hubei University of Medicine, Shiyan 442000, Hubei Province, People's Republic of China. Additional authors for this research include X.T. Zeng, Z.X. Luo, X.L. Duan, J. Qin and W.D Leng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18900. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shiyan, Oncology, Dentistry, Tooth Loss, Epidemiology, Gastroenterology, Esophageal Cancer, Risk and Prevention, People's Republic of China, Mouth Diseases and Conditions, Tooth Diseases and Conditions, Periodontal Diseases and Conditions, Stomatognathic Diseases and Conditions.

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**Drugs and Therapies - Ethnopharmacology**

**Findings in the Area of Ethnopharmacology Reported from Department of Microbiology (Myrtus communis L. and its application in treatment of Recurrent Aphthous Stomatitis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Ethnopharmacology are presented in a new report. According to news reporting originating in Kashan, Iran, by NewsRx editors, the research stated, "Ethnopharmacological relevance: In Iranian Traditional Medicine, M. communis is a famous plant in treatment of oral ulcers and 'Gholaa'- the ancient name of aphthous. The aim of this review is to create a bridge between the traditional claims about the application of M. communis in treatment of 'Gholaa' and its prescription for aphthous, the current form of 'Gholaa' in modern medicine Methods: We extracted the information about the application of M. communis in treatment of aphthous from different resources including Google scholar, Pubmed, ScienceDirect, Springer, ethnobotanical, the traditional books from Traditional Medicine Tehran University of Medical Sciences."

Financial support for this research came from Medicinal Plants, Research Center of Barij, Kashan, Iran.

The news reporters obtained a quote from the research from the Department of Microbiology, "In Iranian traditional texts, 'Gholaa' was the corrosive diseases on the surface and inner layer of mouth and tongue and divided into three types of bloody, phlegmatic and burned black bile types. Recurrent Aphthous Stomatitis (RAS) is equal to the black bile and phlegmatic types and minor aphthous type can be matched with phlegmatic type. The corrosive propagated lesions can be herpetic aphthous. In modern medicine, M. communis essential oil and its decoction decreased the average time of pain relief and decreased the size of ulcers in patients with minor RAS without any adverse effects. The number of ulcers was not the subjects
of any different clinical trials. All patients were satisfied with M. communis topical essential oil (5%), and 81% patients were satisfied with M. communis topical decoctions (5%)."

According to the news reporters, the research concluded: "It appears the efficacy of M. communis is related to its analgesic, anti-inflammatory, antiseptic and wound healing effects. M. communis is effective in minor RAS as its traditional claims and confirming its efficacy in major and herpetiform RAS and comparing the efficacy of its decoction topical formulations or essential oil topical ones are required more and larger experimental and clinical investigations in future."


Liver Diseases and Conditions - Fatty Liver

Findings in the Area of Fatty Liver Reported from University of Pennsylvania (Nonalcoholic Fatty Liver Disease Pathophysiology and Management)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Fatty Liver have been published. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Nonalcoholic fatty liver disease (NAFLD) is an important cause of morbidity and mortality worldwide and is rapidly becoming the leading cause of end stage liver disease and liver transplant. With a prevalence of 30% in the United States, it has reached epidemic proportions."

The news correspondents obtained a quote from the research from the University of Pennsylvania, "The clinical syndrome of NAFLD spans from bland steatosis to steatohepatitis, which can progress to fibrosis and cirrhosis. The pathogenesis includes the roles of hormones, nutritional and intestinal dysbiosis, insulin resistance, lipotoxicity, hepatic inflammation, and genes. Noninvasive testing and liver biopsy indications are reviewed."

According to the news reporters, the research concluded: "Approved and investigational therapies for NAFLD and nonalcoholic steatohepatitis are outlined in this article."

For more information on this research see: Nonalcoholic Fatty Liver Disease Pathophysiology and Management. Gastroenterology Clinics of North America, 2016;45
Findings in the Area of Head and Neck Cancer Reported from Columbia University College of Physicians and Surgeons (De-escalation of radiation dose for human papillomavirus-positive oropharyngeal head and neck squamous cell carcinoma: A case ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Head and Neck Cancer. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Traditionally, head and neck squamous cell carcinoma (HNSCC) has been considered to be a relatively homogeneous disease. However, recent data have demonstrated that human papillomavirus (HPV)-positive and HPV-negative disease are two different clinical entities associated with different outcomes."

Our news editors obtained a quote from the research from the Columbia University College of Physicians and Surgeons, "Preclinical and clinical studies have reported a divergence in treatment strategies as well as prognostic outcomes for HNSCCs that are HPV-positive versus HPV-negative. The present study describes the case of a 52-year-old man who presented with stage IVB cT2N3M0 right tonsillar HPV-positive squamous cell carcinoma. Induction chemotherapy with docetaxel, cisplatin and 5-fluorouracil (TPF), followed by chemoradiation therapy with carboplatin and 70 Gray (Gy) radiation in daily fractions was recommended. The patient completed the TPF and carboplatin treatment; however, he was unable to tolerate the radiation course, receiving a final dose of 46 Gy. A 60-day follow-up right neck salvage dissection was subsequently performed. Despite having received a partial radiation treatment of 46 Gy, the patient had no pathological evidence of disease at 60 days post radiation treatment. Repeat positron emission tomography-computed tomography at 32 months after the right neck dissection revealed no evidence of disease. The present study also discusses the current preclinical and targets for HPV-positive HNSCC and the obstacles presented in advancing clinical treatment modalities. Previous preclinical models investigating radiation sensitivity have yielded mixed results. Thus, it is important to understand and establish representative preclinical models for studying HPV and HNSCC to improve clinical research and therapeutic development."

According to the news editors, the research concluded: "This review may guide future understanding of the role of HPV in HNSCC."
For more information on this research see: De-escalation of radiation dose for human papillomavirus-positive oropharyngeal head and neck squamous cell carcinoma: A case report and preclinical and clinical literature review. *Oncology Letters*, 2015;11(1):141-149.

The news editors report that additional information may be obtained by contacting C.C. Wu, Dept. of Radiation Oncology, Columbia University College of Physicians and Surgeons, New York, NY 10032, United States. Additional authors for this research include D.P. Horowitz, I. Deutsch, R. Rahmati, J.M. Schecter, A. Saqi and T.J Wang.

Keywords for this news article include: Viral, Oncology, Virology, New York City, United States, Head and Neck Cancer, Human Papillomavirus, Squamous Cell Carcinoma, North and Central America.

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**Health and Medicine**

**Findings in the Area of Health and Medicine Reported from University of Pretoria (Sudden and unexpected childhood deaths investigated at the Pretoria Medico-Legal Laboratory, South Africa, 2007-2011)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Health and Medicine is now available. According to news reporting originating from Pretoria, South Africa, by NewsRx correspondents, research stated, "Sudden and unexpected death is well known to occur in infants, and although sudden deaths are less frequent after the first birthday, they still account for a significant proportion of childhood deaths. In 2009, 1.9% of the total deaths in the USA were childhood deaths."

Our news editors obtained a quote from the research from the University of Pretoria, "In South Africa (SA) this proportion was much higher at 11.85%. According to the law, sudden and unexpected deaths are generally investigated as unnatural deaths. Establishing an exact underlying anatomical cause of death will depend on available resources and can be difficult in a substantial proportion of cases. A retrospective descriptive case audit was conducted at the Pretoria Medico-Legal Laboratory (PMLL), SA, from 1 January 2007 through to 31 December 2011. All children aged 1 - 18 years who died suddenly and unexpectedly were included. Ninety-eight cases were identified, which constituted nearly 1% of total admissions to the PMLL. The majority of the deaths were of children aged 1 - 5 years, and the male/female ratio was 1.04:1. In the largest proportion of cases (n=28, 28.6%), the medicolegal investigation, including autopsy and ancillary investigations, did not establish an underlying anatomical cause of death. In the cases where a cause of death was established, pneumonia was the most common diagnosis (n=22, 22.4%). The fact that the cause of the largest proportion of deaths could not be ascertained emphasises the need for consideration of additional investigative techniques, such as molecular/genetic screening, which have provided an underlying cause of death in a significant number of cases in other countries."

According to the news editors, the research concluded: "There is a lack of published research on the causes and incidence of sudden unexpected deaths in children in SA, and further research in this area is needed."

Findings in the Area of Hemophilia Reported from Virginia Commonwealth University (Coated platelets and severe haemophilia A bleeding phenotype: Is there a connection?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematologic Diseases and Conditions - Hemophilia are discussed in a new report. According to news originating from Richmond, Virginia, by NewsRx correspondents, research stated, "Coated platelets are a subpopulation of platelets that possess highly prothrombotic properties. Previous observational data suggest that bleeding phenotype in severe haemophilia A is associated with coated platelet levels."

Financial support for this research came from Novo Nordisk.

Our news journalists obtained a quote from the research from Virginia Commonwealth University, "Haemophilia A patients with higher coated platelet levels may have a mild bleeding phenotype; those with lower levels may have a more severe bleeding phenotype. The aim of the study was to test the hypothesis that coated platelet levels are correlated with clinical bleeding phenotype. This cross-sectional, observational study enrolled 20 severe haemophilia A patients, including 15 with severe and five with a mild bleeding phenotype, and a control group of 12 healthy volunteers. The haemophilia bleeding phenotype was determined by the patient’s medical history and haemophilia treatment centre records. Blood was obtained from each patient by venipuncture and platelets were analysed by flow cytometry. Patients categorized as having a severe bleeding phenotype experienced a median eight bleeds per year compared to one bleed annually in the mild bleeding phenotype group. Both groups had similar total platelet counts and fibrinogen levels. There was no difference in coated platelet percentage between severe and mild bleeding phenotype (17 and 16% respectively), however, both groups had significantly lower % coated platelets compared to controls (44%, p<0.0001)."

According to the news editors, the research concluded: "Coated platelet levels were not associated with bleeding phenotype in this study; however, these data may suggest coated platelet levels are lower in haemophilia patients relative to healthy volunteers."


The news correspondents report that additional information may be obtained from K.K. Lastrapes, Dept. of Pediatric Hematology, Oncology, Children's Hospital of Richmond and
Findings in the Area of Human Herpesvirus 6 Reported from Osaka Medical College (Hippocampal signal abnormality on the first day of illness in acute encephalopathy with biphasic seizures and late reduced diffusion caused by HHV-6 infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Human Herpesvirus Diseases and Conditions - Human Herpesvirus 6. According to news reporting out of Takatsuki, Japan, by NewsRx editors, research stated, "We report a 13-month-old girl who developed acute encephalopathy with biphasic seizures and late reduced diffusion (AESD) with transient reduced diffusion in the hippocampus and anterior commissure on diffusion-weighted imaging (DWI), which was performed on the first day after febrile status epilepticus (FSE) as the initial neurological symptom of AESD. DWI just after late seizures showed high signal intensity lesions in both left hippocampus and anterior commissure, and left extratemporal and occipital subcortical white matter."

Our news journalists obtained a quote from the research from Osaka Medical College, "HHV-6 DNA was positive in both blood and cerebrospinal fluid samples. DWI at two months after onset showed atrophy in the left mesial temporal lobe and extratemporal and occipital lobe without the signal abnormalities."

According to the news editors, the research concluded: "Although it has been reported that magnetic resonance images tend to show no acute abnormality during the first two days in typical AESD, transient reduced diffusion could be found on the DWI performed on the first day of AESD."

For more information on this research see: Hippocampal signal abnormality on the first day of illness in acute encephalopathy with biphasic seizures and late reduced diffusion caused by HHV-6 infection. *Brain & Development*, 2016;38(10):943-946. *Brain & Development* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Brain & Development - www.journals.elsevier.com/brain-and-development/)

Our news journalists report that additional information may be obtained by contacting S. Shimakawa, Osaka Medical College, Dept. of Pediat, Takatsuki, Osaka 5698686, Japan. Additional authors for this research include S. Shimakawa, H. Toshikawa, M. Hatanaka, M. Fukui, A. Mori and H. Tamai.

The direct object identifier (DOI) for that additional information is:
Findings in the Area of Human Immunodeficiency Virus Reported from Florida State University (Caring for Older Adults with the Human Immunodeficiency Virus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Human Immunodeficiency Virus have been published. According to news reporting originating from Tallahassee, Florida, by NewsRx correspondents, research stated, "Increasing proportions of older adults are living with the human immunodeficiency virus (HIV). It is estimated that more than 50% of individuals with HIV in the United States are aged 50 and older."

Our news editors obtained a quote from the research from Florida State University, "Part of this group consists of individuals who have aged with chronic HIV infection, but a large proportion also results from new HIV diagnosis, with approximately 17% of new HIV diagnoses in 2013 occurring in individuals aged 50 and older. Although many of the recommendations on management of HIV infection are not age-specific, individuals with HIV aged 50 and older differ from their younger counterparts in many aspects, including immune response to antiretroviral therapy, multimorbidity, antiretroviral toxicities, and diagnostic considerations."

According to the news editors, the research concluded: "This article outline these differences, offers a strategy on how to care for this unique population, and provides special considerations for problem-based management of individuals with HIV aged 50 and older."


The news editors report that additional information may be obtained by contacting J.S. Appelbaum, Florida State University, Dept. of Clin Sci, Coll Med, Tallahassee, FL 32306, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgs.14584. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tallahassee, Florida, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Human Immunodeficiency Virus, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Florida State University.

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Findings in the Area of Hypotension Reported from General Hospital

(Induction of endothelium-dependent constriction of mesenteric arteries in endotoxemic hypotensive shock)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Hypotension. According to news originating from Hualien, Taiwan, by NewsRx correspondents, research stated, "Effective management of hypotension refractory to vasoconstrictors in severe sepsis is limited. A new strategy to ameliorate endotoxemic hypotension by inducing endothelium-dependent constriction of large arteries was assessed."

Our news journalists obtained a quote from the research from General Hospital, "Endotoxemia in rats was induced by injection of LPS (10 mg?kg(-1), i.v.). Haemodynamics were measured in vivo, reactivity of isolated mesenteric arteries by myography and expression of proteins and enzyme activities by immunohistochemistry, biochemistry and molecular biology. Six hours after LPS, the hypotension was promptly reversed following injection (i.v. or i.p.) of oroxylin-A (OroA). In isolated LPS-treated but not normal mesenteric arteries, OroA (1-10 mM) induced endothelium-dependent, sustained constriction, blocked by endothelin-1 (ET-1) receptor antagonists. OroA further enhanced LPS-induced expression of endothelin-converting enzyme, ET-1 mRNA and proteins and ET-1 release, OroA also enhanced phosphorylation of Rho-associated protein kinase (ROCK) and reversed LPS-induced suppression of RhoA activities in smooth muscle of arteries with endothelium. Activated-phosphorylation of smooth muscle ROCK was blocked by ET-1-receptor antagonists and ROCK inhibitors. Moreover, OroA post-treatment suppressed, via inhibiting NF-kB activation, inducible NOS expression and circulating NO. Reversal of endotoxemic hypotensive by OroA was due to release of endothelial ET-1, upregulated by LPS, from mesenteric arteries, inducing prompt and sustained vasoconstriction via activation of vascular smooth muscle RhoA/ROCK-pathway. In late endotoxemia, OroA-induced vasoconstriction was partly due to decreased circulating NO."

According to the news editors, the research concluded: "Activation of endothelium-dependent constriction in large resistance arteries and suppression of systemic inflammation offer new strategies for acute management of endotoxemic hypotensive shock."


The news correspondents report that additional information may be obtained from T.L. Tseng, Dept. of Medical Research, Buddhist Tzu Chi General Hospital, Hualien, Taiwan. Additional authors for this research include M.F. Chen, C.H. Liu, C.Y. Pang, Y.H. Hsu and T.J Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13415. This DOI is a link to an online electronic document that is
either free or for purchase.

The publisher's contact information for the *British Journal of Pharmacology* is:
Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Asia, Taiwan, Hualien, Genetics, Angiology, Endothelium, Hypotension, Cardiovascular Diseases and Conditions.

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**Immunology - Immunoglobulins**

**Findings in the Area of Immunoglobulins Reported from Dana-Farber Cancer Institute (Paraprotein-Related Kidney Disease: Glomerular Diseases Associated with Paraproteinemias)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immunology - Immunoglobulins are presented in a new report. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Paraproteins are monoclonal Igs that accumulate in blood as a result of abnormal excess production. These circulating proteins cause a diversity of kidney disorders that are increasingly being comanaged by nephrologists."

The news correspondents obtained a quote from the research from Dana-Farber Cancer Institute, "In this review, we discuss paraprotein-related diseases that affect the glomerulus. We provide a broad overview of diseases characterized by nonorganized deposits, such as monoclonal Ig deposition disease (MIDD), proliferative GN with monoclonal Ig deposits (PGNMID), and C3 glomerulopathy, as well as those characterized by organized deposits, such as amyloidosis, immunotactoid glomerulopathy, fibrillary GN, and cryoglobulinemic GN, and rarer disorders, such as monoclonal crystalline glomerulopathies, paraprotein related thrombotic microangiopathies, and membranous-like glomerulopathy with masked IgGt deposits."

According to the news reporters, the research concluded: "This review will provide the nephrologist with an up to date understanding of these entities and highlight the areas of deficit in evidence and future lines of research."


Our news journalists report that additional information may be obtained by contacting A.Q. Lam, Dana Farber Canc Inst, Adult Survivorship Program, Boston, MA 02115, United States. Additional authors for this research include L. Herlitz, D. Monga, K.D. Jhaveri and A.Q. Lam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2215/CJN.02980316. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Immune System Diseases and Conditions, Hematologic Diseases and Conditions, Immunoproliferative Disorders, Blood Protein Disorders, Glomerular Disease,
Findings in the Area of Immunoglobulins Reported from MedImmune (Critical Role of Alpha-Toxin and Protective Effects of Its Neutralization by a Human Antibody in Acute Bacterial Skin and Skin Structure Infections)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology - Immunoglobulins have been presented. According to news originating from Gaithersburg, Maryland, by NewsRx correspondents, research stated, "Methicillin-resistant Staphylococcus aureus (MRSA) causes large-scale epidemics of acute bacterial skin and skin structure infections (ABSSSI) within communities across the United States. Animal models that reproduce ABSSSI as they occur in humans are urgently needed to test new therapeutic strategies."

Financial support for this research came from HHS | National Institutes of Health (NIH).

Our news journalists obtained a quote from the research from MedImmune, "Alpha-toxin plays a critical role in a variety of staphylococcal infection models in mice, but its role in the pathogenesis of ABSSSI remains to be elucidated in rabbits, which are similar to humans in their susceptibility to S. aureus superantigens and certain bicomponent pore-forming leukocidins. We report here a new rabbit model of ABSSSI and show that those infected with a mutant deficient in expression of alpha-toxin (Delta hla) developed a small dermonecrotic lesion, whereas those infected with isogenic USA300 MRSA wild-type or complemented Delta hla strains developed ABSSSI that mimic the severe infections that occur in humans, including the large central dermonecrotic core surrounded by erythema, induration, and marked subcutaneous hemorrhage. More importantly, immunoprophylaxis with MEDI4893*, an anti-alphatoxin human monoclonal antibody, significantly reduced the severity of disease caused by a USA300 wild-type strain to that caused by the Delta hla mutant, indicating that this toxin could be completely neutralized during infection. Thus, this study illustrates a potential high standard for the development of new immunotherapeutic agents in which a toxin-neutralizing antibody provides protection to the same degree achieved with a toxin gene knockout."

According to the news editors, the research concluded: "When MEDI4893* was administered as adjunctive therapy with a subtherapeutic dose of linezolid, the combination was significantly more efficacious than either agent alone in reducing the severity of ABSSSI."

For more information on this research see: Critical Role of Alpha-Toxin and Protective Effects of Its Neutralization by a Human Antibody in Acute Bacterial Skin and Skin Structure Infections. Antimicrobial Agents and Chemotherapy, 2016;60(10):5640-5648. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from B.R. Sellman, MedImmune LLC, Dept. of Infect Dis, Gaithersburg, MD 20878, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00710-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gaithersburg, Maryland, United States, North and Central America, Bacterial Infections and Mycoses, Epidemiology, Immunoglobulins, Blood Proteins, Immunology, Antibodies, MedImmune.

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Lung Diseases and Conditions - Interstitial Lung...

Findings in the Area of Interstitial Lung Disease Reported from Kansai Medical University (Clinicopathological, Immunohistochemical, and Genetic Features of Primary Lung Adenocarcinoma Occurring in the Setting of Usual Interstitial Pneumonia ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Lung Diseases and Conditions - Interstitial Lung Disease are presented in a new report. According to news reporting out of Osaka, Japan, by NewsRx editors, research stated, "An association between usual interstitial pneumonia (UIP) and carcinogenesis has been well established. However, few detailed analyses have investigated the clinicopathological, immunohistochemical, and genetic features of patients with primary lung adenocarcinoma (ADC) with UIP (UIP-ADC)."

Financial supporters for this research include National Cancer Center Research and Development, MEXT KAKENHI.

Our news journalists obtained a quote from the research from Kansai Medical University, "We identified 44 patients with ADC in the setting of UIP (the UIP-ADC group) (1.9%) from 2309 patients with primary ADC and compared clinicopathological, immunohistochemical, and genetic features between the UIP-ADC group and patients with ADC Without UIP (the non-UIP-ADC group). Clinicopathological features of UIP-ADC included an older age at occurrence; male predominance; smoking history; predilection for the lower lobe; large tumor size; high incidence of lymph vessel invasion, pleural invasion, and lymph node metastasis; and poor survival rate. However, the cause of death of patients with UIP-ADC was largely influenced by respiratory complications. Histologically, patients in the UIP-ADC group could be stratified according to invasive mucinous-predominant subtype. Genetically, patients in the UIP-ADC group had lower EGFR and higher KRAS mutation rates compared with patients in the non-UIP-ADC group. UIP-ADC was associated with a poor prognosis owing to the high frequency of perioperative complications rather than the malignancy of the tumor itself. There was a high prevalence of the invasive mucinous-predominant subtype in cases of UIP-ADC. UIP-ADC also had a low prevalence of EGFR mutations and a high prevalence of KRAS mutations."

According to the news editors, the research concluded: "These findings suggest that UIPADC should be distinct from non-UIP-ADC."

For more information on this research see: Clinicopathological,

Our news journalists report that additional information may be obtained by contacting K. Tsuta, Kansai Medecical University, Hirakata Hosp, Clin Lab Div, Osaka, Japan. Additional authors for this research include K. Tsuta, N. Motoi, K. Shiraishi, K. Furuta, S. Suzuki, K. Asakura, K. Nakagawa, H. Sakurai, S. Watanabe, N. Hiraoka and H. Asamura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtho.2016.07.034. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Respiratory Tract Infections, Interstitial Lung Disease, Infectious Disease, Adenocarcinoma, Lung Cancer, Pulmonology, Pneumonia, Genetics, Oncology, Kansai Medical University.

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**Transplant Medicine - Kidney Transplants**

**Findings in the Area of Kidney Transplants Reported from University of Groningen (Urinary potassium excretion, renal ammoniagenesis, and risk of graft failure and mortality in renal transplant recipients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Transplant Medicine - Kidney Transplants. According to news reporting out of Groningen, Netherlands, by NewsRx editors, research stated, "Renal transplant recipients (RTRs) have commonly been urged to limit their potassium intake during renal insufficiency and may adhere to this principle after transplantation. Importantly, in experimental animal models, low dietary potassium intake induces kidney injury through stimulation of ammoniagenesis."

Our news journalists obtained a quote from the research from the University of Groningen, "In humans, low potassium intake is an established risk factor for high blood pressure. We hypothesized that low 24-h urinary potassium excretion [UKV; urinary potassium concentration X volume], the gold standard for assessment of dietary potassium intake, represents a risk factor for graft failure and mortality in RTRs. In secondary analyses, we aimed to investigate whether these associations could be explained by ammoniagenesis, plasma potassium, or blood pressure. In a prospective cohort of 705 RTRs, we assessed dietary potassium intake by a single 24-h UKV and food-frequency questionnaires. Cox regression analyses were used to investigate prospective associations with outcome. We included 705 stable RTRs (mean +/- SD age: 53 +/- 13 y; 57% men) at 5.4 y (IQR: 1.9-12.0 y) after transplantation and 253 kidney donors. Mean +/- SD UKV was 73 +/- 24 mmol/24 h in RTRs compared with 85 +/- 25 mmol/24 h in kidney donors. During follow-up for 3.1 y (IQR: 2.7-3.9 y), 45 RTRs developed graft failure and 83 died. RTRs in the lowest sex-specific tertile of UKV (women, <55 mmol/24 h; men, <65 mmol/24 h) had an increased risk of graft failure (HR: 3.70; 95% CI: 1.64, 8.34) and risk of mortality (HR: 2.66; 95% CI: 1.53, 4.61), independent of potential confounders. In causal path analyses, 24-h urinary ammonia excretion, plasma
potassium, and blood pressure did not affect these associations. Our results indicate that low UKV is associated with a higher risk of graft failure and mortality in RTRs.

According to the news editors, the research concluded: "Specific attention for adequate potassium intake after transplantation seems warranted."


Our news journalists report that additional information may be obtained by contacting M.F. Eisenga, University of Groningen, Groningen University Medical Center, Dept. of Nephrol, Groningen, Netherlands. Additional authors for this research include L.M. Kieneker, S.S. Soedamah-Muthu, E. van den Berg, P.E. Deetman, G.J. Navis, R.O.B. Gans, C. Gaillard, S.J.L. Bakker and M.M. Joosten.

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Keywords for this news article include: Groningen, Netherlands, Europe, Risk and Prevention, Transplant Medicine, Kidney Transplants, Organ Transplants, Renal Transplant, Transplantation, Renal Allograft, Blood Pressure, Biomedicine, Nephrology, Surgery, University of Groningen.

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Oncology - Liver Cancer

**Findings in the Area of Liver Cancer Reported from National Taiwan Normal University (An indolylquinoline derivative activates DNA damage response and apoptosis in human hepatocellular carcinoma cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Liver Cancer. According to news reporting originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Human liver cancer is one of the most frequently diagnosed cancers worldwide. The development of resistance to therapy limits the application against the disease."

Our news editors obtained a quote from the research from National Taiwan Normal University, "To improve treatment, new effective anticancer agents are constantly pursued. Previously, we reported that an indolylquinoiline, 3-((7-ethyl-1H-indol-3-yl)-methyl)-2-methylquinoline (EMMQ), is effective in suppressing the growth of human lung cancer by impairing mitochondria functions. The present study revealed that EMMQ inhibited cell growth and induced apoptosis in liver cancer cells, but not in normal cells. This study demonstrated that EMMQ induced DNA damage by activating p53 and gamma-H2AX and cell arrest by suppressing cyclin D1 and CDK2. Damaged DNA injured mitochondrial functions by lowering the membrane potential and producing reactive oxygen species. The subsequent mitochondrial cytochrome c release attenuated pro-survival signals and increased apoptotic characteristics. Introduction of p53 shRNA abrogated drug effects by reducing DNA damage while maintaining mitochondria integrity. In brief, the study demonstrates that the effectiveness of EMMQ"
accentuated apoptosis of hepatocarcinoma cells by activating p53."

According to the news editors, the research concluded: "Based on these collective findings, the study offered a new perspective of EMMQ that was shown to be a promising candidate to treat liver cancer."


The news editors report that additional information may be obtained by contacting K. Fang, National Taiwan Normal University, Dept. of Life Sci, Taipei 116, Taiwan. Additional authors for this research include C.H. Hsieh, S.H. Kim, J.P. Wang, Y.L. Ni, C.L. Su, C.F. Yao and K. Fang.

Keywords for this news article include: Taipei, Taiwan, Asia, Deoxyribonucleic Acid, DNA Research, Liver Cancer, Proteomics, DNA Damage, Carcinomas, Apoptosis, Oncology, Genetics, p53 Gene, National Taiwan Normal University.

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**Oncology - Liver Cancer**

**Findings in the Area of Liver Cancer Reported from University of Bologna (Relationship between indocyanine green retention test, decompensation and survival in patients with Child-Pugh A cirrhosis and portal hypertension)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting from Bologna, Italy, by NewsRx journalists, research stated, "Indocyanine green retention test (ICG-r15) is a non-invasive marker of functional hepatic reserve. Among patients with compensated cirrhosis, ICG-r15 correlates to the degree of portal hypertension (PH); however, its prognostic relationship with the occurrence of decompensation events still requires clarification."

The news correspondents obtained a quote from the research from the University of Bologna, "ICG-r15 was prospectively measured in 154 patients with compensated cirrhosis. Patients with hepatocellular carcinoma (HCC), Child-Pugh B-C, MELD > 15, bilirubin > 2 mg/dl, INR > 1.5 or portal vein thrombosis were excluded. All patients underwent laboratory tests, upper endoscopy and hepatic venous pressure gradient (HVPG). Decompensation, development of HCC, liver transplant and death were recorded and analysed through competing-risk analysis. The study group was composed of 134 patients who were followed for a median of 39 months. During follow-up, 46 patients (34.3%) developed liver decompensation. Hepatocellular carcinoma occurred in 18 patients and two patients died from non-liver-related causes. The 1-, 2-and 3-year cumulative incidences of decompensation were 9.7%, 28.4% and 33.4% respectively. Patients with ICG-r15 < 10% did not experience any decompensation events during follow-up, while the 3-year cumulative incidence of decompensation of patients with ICG-r15 between 10% and 22.9% was 29.2% and that of patients with ICG-r15 >= 23% was 70.0% (P < 0.001). ICG-r15 gave the lowest pseudo-log-likelihood value, in comparison to oesophageal varices present, MELD, low platelet count and HVPG."
According to the news reporters, the research concluded: "ICG-r15 appears to be strictly related to liver decompensation, longitudinally confirming the preliminary findings of its correlation with PH among patients with compensated cirrhosis, and can be used for patient prognostication."


Our news journalists report that additional information may be obtained by contacting A. Lisotti, University of Bologna, S Orsola Malpighi Hosp, Dept. of Med & Surg Sci DIMEC, Bologna, Italy. Additional authors for this research include F. Azzaroli, A. Cucchetti, F. Buonfiglioli, P. Cecinato, C. Calvanese, P. Simoni, R. Arena, M. Montagnani, R. Golfieri, A. Colecchia, D. Festi and G. Mazzella.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/liv.13070. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bologna, Italy, Europe, Cardiovascular Diseases and Conditions, Liver Diseases and Conditions, Portal Hypertension, Liver Cancer, Hepatology, Cirrhosis, Fibrosis, Oncology, University of Bologna.

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**Magnesium Silicates**

**Findings in the Area of Magnesium Silicates Reported from University of Minnesota [A Review of Mortality Associated With Elongate Mineral Particle (EMP) Exposure in Occupational Epidemiology Studies of Gold, Talc, and Taconite Mining]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Magnesium Silicates. According to news originating from Minneapolis, Minnesota, by NewsRx correspondents, research stated, "Mining of gold, talc, and talc may involve exposure to elongate mineral particles (EMP). The involved EMPs are typically non-asbestiform, include dimensions that regulatory definitions exclude, and have been less studied."

Our news journalists obtained a quote from the research from the University of Minnesota, "A review of the literature was undertaken for this exposure and occupational epidemiological studies that occur in gold, talc, and talc mining. Quantitative EMP exposure information in these industries is incomplete. However, there are consistent findings of pneumoconiosis in each of these types of mining. A recent case-control study suggests a possible association between this exposure and mesothelioma. Lung cancer is inconsistently reported in these industries and is an unlikely outcome of non-asbestiform EMP exposure. There is evidence of cardiovascular mortality excess across all of these types of mining. Non-malignant respiratory disease and cardiovascular mortality have been consistently increased in these industries."
According to the news editors, the research concluded: "Further investigation, including additional insights for the role of non-asbestiform EMP, is warranted."


The news correspondents report that additional information may be obtained from J.H. Mandel, University of Minnesota, Sch Public Hlth, Div Environm Hlth Sci, Minneapolis, MN 55455, United States. Additional authors for this research include B.H. Alexander and G. Ramachandran.

Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Cardiology, Article Review, Magnesium Silicates, Silicon Compounds, Silicon Dioxide, Cardiovascular, Epidemiology, Silicic Acid, Talc, University of Minnesota.

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**Mosquito-Borne Diseases - Malaria**

**Findings in the Area of Malaria Reported from Institute for Molecular Biology (Release of Plasmodium sporozoites requires proteins with histone-fold dimerization domains)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mosquito-Borne Diseases - Malaria have been published. According to news reporting out of Iraklion, Greece, by NewsRx editors, research stated, "The sporozoite, the stage of the malaria parasite transmitted by the mosquito, first develops for similar to 2 weeks in an oocyst. Rupture of the oocyst capsule is required for release of sporozoites, which then transfer to the salivary gland where they are injected into a new host."

Our news journalists obtained a quote from the research from Institute for Molecular Biology, "Here we identify two parasite proteins that we call oocyst rupture proteins 1 (ORP1) and ORP2. These proteins have a histone-fold domain (HFD) that promotes heterodimer formation in the oocyst capsule at the time of rupture. Oocyst rupture is prevented in mutants lacking either protein. Mutational analysis confirms the HFD as essential for ORP1 and ORP2 function, and heterodimer formation was verified in vitro."

According to the news editors, the research concluded: "These two proteins are potential targets for blocking transmission of the parasite in the mosquito."


Our news journalists report that additional information may be obtained by contacting I. Siden-Kiamos, Fdn Res & Technol Hellas, Inst Mol Biol & Biotechnol, GR-70013
Findings in the Area of Obesity Reported from Karolinska University Hospital (Impaired atrial natriuretic peptide-mediated lipolysis in obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting from Stockholm, Sweden, by NewsRx journalists, research stated, "Catecholamines and natriuretic peptides (NPs) are the only hormones with pronounced lipolytic effects in human white adipose tissue. Although catecholamine-induced lipolysis is well known to be impaired in obesity and insulin resistance, it is not known whether the effect of NPs is also altered."

The news correspondents obtained a quote from the research from Karolinska University Hospital, "Catecholamine-and atrial NP (ANP)-induced lipolysis was investigated in abdominal subcutaneous adipocytes in vitro and in situ by microdialysis. In a cohort of 122 women, both catecholamine-and ANP-induced lipolysis in vitro was markedly attenuated in obesity (n=87), but normalized after substantial body weight loss (n=52). The impairment of lipolysis differed between the two hormones when expressing lipolysis per lipid weight, the ratio of stimulated over basal (spontaneous) lipolysis rate or per number of adipocytes. Thus, while the response to catecholamines was lower when expressed as the former two measures, it was higher when expressed per cell number, a consequence of the significantly larger fat cell size in obesity. In contrast, although ANP-induced lipolysis was also attenuated when expressed per lipid weight or the ratio stimulated/basal, it was similar between non-obese and obese subjects when expressed per cell number suggesting that the lipolytic effect of ANP may be even more sensitive to the effects of obesity than catecholamines. Obesity was characterized by a decrease in the protein expression of the signaling NP A receptor (NPRA) and a trend toward increased levels of the clearance receptor NPRC. The impairment in ANP-induced lipolysis observed in vitro was corroborated by microdialysis experiments in situ in a smaller cohort of lean and overweight men. ANP-and catecholamine-induced lipolysis is reversibly attenuated in obesity."

According to the news reporters, the research concluded: "The pro-lipolytic effects of ANP are relatively more impaired compared with that of catecholamines, which may in part be due to specific changes in NP receptor expression."


Our news journalists report that additional information may be obtained by
Findings in the Area of Obesity Reported from Max-Planck-Institute
(Stopping at the sight of food - How gender and obesity impact on response inhibition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting out of Leipzig, Germany, by NewsRx editors, research stated, "Recent research indicates that reduced inhibitory control is associated with higher body mass index (BMI), higher food craving and increased food intake. However, experimental evidence for the relationship between response inhibition and weight status is inconsistent and to date has been investigated predominantly in women."

Our news journalists obtained a quote from the research from Max-Planck-Institute, "In the current study, 56 participants (26 obese, 30 lean; 27 female, 29 male) performed a Food Picture Rating Task followed by a Stop Signal Task where pictures of palatable high or low caloric food or non-food items were presented prior to the Go signal. We further assessed participants' self-reported eating behavior and trait impulsivity as potential factors influencing response inhibition, in particular within the food context. Independent of BMI, women showed significantly higher liking for low caloric food items than men. This was accompanied by shorter Stop Signal Reaction Times (SSRT) after high compared to low caloric food pictures for women, and shorter SSRT in women compared to men for high caloric food. No influence of gender on SSRT was observable outside of the food context. While SSRTs did not differ between obese and lean participants across the three picture categories, we found a moderating effect of trait impulsivity on the relationship between BMI and SSRT, specifically in the high caloric food context. Higher BMI was predictive of longer SSRT only for participants with low to normal trait impulsivity, pointing at a complex interplay between response inhibition, general impulsivity and weight status. Our results support the notion that individuals with obesity do not suffer from diminished response inhibition capacity per se."

According to the news editors, the research concluded: "Rather, the ability to withhold a response depends on context and social norms, and strongly interacts with factors like gender and trait impulsivity."

For more information on this research see: Stopping at the sight of food - How gender and obesity impact on response inhibition. Appetite, 2016;107():663-676. Appetite can
Findings in the Area of Osteomyelitis Reported from Aichi Medical University (Osteomyelitis caused by Veillonella species: Case report and review of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Musculoskeletal Diseases and Conditions - Osteomyelitis. According to news originating from Aichi, Japan, by NewsRx correspondents, research stated, "Previously, Veillonella species had been considered as nonpathogenic and rarely caused serious infections. We report a case of 25-year-old man with osteomyelitis caused by Veillonella species."

Our news journalists obtained a quote from the research from Aichi Medical University, "He was admitted to the hospital due to an open fracture to the left radial bone caused by industrial washing machine accident, and emergency surgery was performed. However, wound infections occurred one week after the operation. Although Acinetobacter baumannii and Serratia marcescens were cultured from the pus, obligate anaerobic bacteria were not detected at that point. Debridement was repeated and antibiotics were changed according to the result of bacterial culture and drug sensitivity. Despite this, the infection was poorly controlled. On the 5th debridement, granulomatous bone tissues on pseudarthrosis were found for the first time at the infection site. Although no bacteria was detected with aerobic culture, anaerobic incubation revealed Gram-negative cocci which was later identified as Veillonella species by 16S rRNA gene sequence analysis. His condition improved without any additional debridement after adding effective antibiotics against Veillonella species. It is well known that prolonged infection with aerobes consumes oxygen in the infection site and leads the environment to more favorable conditions for anaerobic bacteria, thus we speculated that prolonged infection with bacteria such as S. marcescens induced the favorable environment for Veillonella species. Physicians should realize the importance of anaerobic culture method in routine practice, especially in complicated cases such as the present case."

According to the news editors, the research concluded: "In this article, we reviewed case reports of Veillonella infection and summarized the clinical features of this organism."

For more information on this research see: Osteomyelitis caused by Veillonella species: Case report and review of the literature. *Journal of Infection and Chemotherapy*, 2016;22(6):417-420. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com;
Musculoskeletal Diseases and Conditions —

Findings in the Area of Osteoporosis Reported from Southern Medical University (Activation of mTORC1 in B Lymphocytes Promotes Osteoclast Formation via Regulation of beta-Catenin and RANKL/OPG)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Musculoskeletal Diseases and Conditions - Osteoporosis are presented in a new report. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "The cytokine receptor activator of nuclear factor-kappa B ligand (RANKL) induces osteoclast formation from monocyte/macrophage lineage cells. However, the mechanisms by which RANKL expression is controlled in cells that support osteoclast differentiation are still unclear."

The news correspondents obtained a quote from the research from Southern Medical University. "We show that deletion of TSC1 (tuberous sclerosis complex 1) in murine B cells causes constitutive activation of mechanistic target of rapamycin complex 1 (mTORC1) and stimulates RANKL but represses osteoprotegerin (OPG) expression and subsequently promotes osteoclast formation and causes osteoporosis in mice. Furthermore, the regulation of RANKL/OPG and stimulation of osteoclastogenesis by mTORC1 was confirmed in a variety of RANKL-expressing cells and in vivo. Mechanistically, mTORC1 controls RANKL/OPG expression through negative feedback inactivation of Akt, destabilization of beta-catenin mRNA, and downregulation of beta-catenin. Our findings demonstrate that mTORC1 activation-stimulated RANKL expression in B cells is sufficient to induce bone loss and osteoporosis."

According to the news reporters, the research concluded: "The study also established a link between mTORC1 and the RANKL/OPG axis via negative regulation of beta-catenin."

Surgery - Osteotomy
Findings in the Area of Osteotomy Reported from University Hospital (Mandibular Access Osteotomy for Tumor Ablation: Could a More Tissue-Preserving Technique Affect Healing Outcome?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Surgery - Osteotomy have been published. According to news originating from Lund, Sweden, by NewsRx correspondents, research stated, "Paramedial mandibulotomy facilitates access for the resection of tumors in the oral and oropharyngeal space; however, severe complications related to surgical techniques and radiotherapy have been reported for this procedure. This study evaluated whether preservation of the periosteum during a mandibulotomy would decrease postoperative complications owing to the increased healing capacity provided by preserving more tissue."

Our news journalists obtained a quote from the research from University Hospital, "Patients who underwent mandibulotomy for surgical tumor ablation from 2007 through 2012 were included in a retrospective controlled cohort study. The trial was comprised of 2 groups: 1 group underwent subperiosteal and 1 group underwent supraperiosteal surgical dissection in the area of the mandibulotomy. The primary predictor variable was surgical technique and the primary outcome variable was surgical complications. The groups were matched according to tumor type, age, and gender. Clinical and radiographic follow-up was performed 12 months after surgery. Complications regarding bone exposure, plate exposure, osteoradionecrosis, nonunion, infection of the soft tissue flap, abscesses, fistulas, and gingival necrosis were recorded. Recordings of other factors, such as age, smoking habits, and timing of radiotherapy and chemotherapy, were performed and the 2 groups were compared for postoperative complications. Data analysis used the chi(2) test (Fisher exact test) to compare the sub-and supraperiosteal groups for postoperative complications. Thirty-two patients were included (16 per group; 14 women and 18 men; mean age, 56 yr). Thirteen patients in the subperiosteal group and 7 in the supraperiosteal group showed complications during the first 12 months. Seven patients had complications that persisted to the 12-month follow-up (6 in the subperiosteal group and 1 in the supraperiosteal group); however, the difference was not statistically relevant."

According to the news editors, the research concluded: "This study found more persistent complications in the subperiosteal group compared with the supraperiosteal group at
12-month follow-up, which could imply that a more tissue-preserving surgical technique promotes mandibular healing in patients undergoing mandibular access osteotomy in combination with radiotherapy.


The news correspondents report that additional information may be obtained from M. Bengtsson, Univ Hosp Skane, Dept. of Oral & Maxillofacial Surg, SE-22185 Lund, Sweden. Additional authors for this research include M. Korduner, V. Campbell, P. Fransson and J. Becktor.

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Keywords for this news article include: Lund, Sweden, Europe, Orthopedic Procedures, Radiotherapy, Osteotomy, Therapy, Surgery, University Hospital.

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**Enzymes and Coenzymes - Phosphoprotein...**

**Findings in the Area of Phosphoprotein Phosphatases Reported from Institute for Clinical Chemistry (Analytical Validation and Cross-Validation of an NFAT-Regulated Gene Expression Assay for Pharmacodynamic Monitoring of Therapy With Calcineurin ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Phosphoprotein Phosphatases have been published. According to news reporting originating from Stuttgart, Germany, by NewsRx correspondents, research stated, "Analysis of residual gene expression of the nuclear factor of activated T cell (NFAT)-regulated genes has been developed as a pharmacodynamic biomarker to monitor therapy with calcineurin inhibitors. The availability of commercial primer sets (Search-LC) and the well-established assay protocol makes this biomarker a promising candidate to be used clinically in different laboratories."

Our news editors obtained a quote from the research from Institute for Clinical Chemistry. "However, implementation of the method in routine practice requires analytical robustness and comparable results across laboratories. Therefore, a protocol originally established at the Institute of Immunology, Heidelberg was verified at the Institute of Laboratory Medicine, Klinikum Stuttgart, and a comparison study was conducted between the 2 laboratories. For the analytical verification, whole blood samples of healthy individuals were incubated with tacrolimus in vitro. Linearity, imprecision, and limit of quantification, as well as sample stability, were investigated. For interlaboratory comparison, samples of patients under cyclosporine A therapy were analyzed in Heidelberg and then reanalyzed in Stuttgart within 24 hours. Tacrolimus (6.25-50 mcg/L) decreased the expression of NFAT-regulated genes in vitro
dose dependently (15%-89%). Within- and between-assay coefficient of variations (n = 6 each) were <17%. The limit of quantification was,200 cDNA copies for each of the interleukin-2, interferon-g, and granulocyte-macrophage colony-stimulating factor genes. Samples were stable for 24 hours. Interlaboratory comparison using patient samples correlated well (r = 0.951) but showed an inconsistent bias depending on the magnitude of residual gene expression. The assay can be set up with a satisfactory analytical performance in a routine molecular biological laboratory and shows comparable results between laboratories."

According to the news editors, the research concluded: "The reproducibility of the NFAT-regulated gene expression assay across laboratories can facilitate the implementation of this assay for pharmacodynamic routine monitoring of calcineurin inhibitors in different centers."

For more information on this research see: Analytical Validation and Cross-Validation of an NFAT-Regulated Gene Expression Assay for Pharmacodynamic Monitoring of Therapy With Calcineurin Inhibitors. *Therapeutic Drug Monitoring*, 2016;38(6):711-716. *Therapeutic Drug Monitoring* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

The news editors report that additional information may be obtained by contacting E. Abdel-Kahaar, Klinikum Stuttgart, Cent Inst Clin Chem & Lab Med, D-70174 Stuttgart, Germany. Additional authors for this research include T. Giese, C. Sommerer, H. Rieger, M. Shipkova and E. Wieland.

Keywords for this news article include: Stuttgart, Germany, Europe, Intracellular Signaling Peptides and Proteins, Therapy, Drugs and Therapies, Genetics, Phosphoprotein Phosphatases, Enzymes and Coenzymes, Pharmacodynamics, Pharmaceuticals, Calcineurin, Hydrolases, Esterases, Institute for Clinical Chemistry.

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**Liver Diseases and Conditions - Portal Hypertension**

**Findings in the Area of Portal Hypertension Reported from Medical University (Interferon-free regimens improve portal hypertension and histological necroinflammation in HIV/HCV patients with advanced liver disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Liver Diseases and Conditions - Portal Hypertension is the subject of a report. According to news originating from Vienna, Austria, by NewsRx correspondents, research stated, "HIV/HCV co-infected patients show accelerated fibrosis progression and higher risk for complications of portal hypertension (PHT). To assess the effects of interferon-free therapy on portal pressure, liver histology and plasma biomarkers in HIV/HCV-coinfected patients with PHT."

Financial support for this research came from Medical Scientific Fund of the Major of the City of Vienna.

Our news journalists obtained a quote from the research from Medical University, "Twenty-two patients with paired hepatic venous pressure gradient (HVPG) measurements prior
and after successful treatment (SVR) with interferon-free regimens were included. Liver stiffness was assessed by transient elastography and biopsies were scored according to METAVIR. Plasma biomarkers were determined by ELISA. Overall, HVPG decreased from 10.7 +/- 4.1 mmHg at baseline to 7.4 +/- 4.2 mmHg after HCV treatment (Delta:-3.3 +/- 2.7 mmHg; p< 0.001). In patients with clinically significant PHT (HVPG >= 10 mmHg, n = 11), HVPG decreased from 14.1 +/- 2.9 to 10.4 +/- 3.9 mmHg (Delta:-3.7 +/- 3.3 mmHg; p = 0.004) and a haemodynamic response (HVPG decrease >= 10%) was observed in 73%. In 64% of patients with subclinical PHT (HVPG 6-9 mmHg, n = 11), portal pressure normalised at SVR. Mean liver stiffness decreased from 20.8 kPa to 11.5 kPa (Delta:-8.8 +/- 7.4 kPa; p< 0.001). Fifty percent (7/14) of patients with cirrhosis were re-classified as METAVIR <= F3 and all patients with decompensated cirrhosis improved their Child-Pugh stage. After successful HCV treatment, 39% still had persistent histological necroinflammatory activity (METAVIR A1), which correlated with less HVPG response and more steatosis. While most biomarkers improved with SVR, METAVIR A1 patients had significantly higher plasma levels of fibrogenic (PDGF, TGF-beta) and angiogenic (VEGF, Angiopoietin1) biomarkers. Interferon-free therapy reduces PHT and halts histological necroinflammatory activity in the majority of HIV/HCV-coinfected patients after SVR, which may lead to re-compensation of liver function in cirrhosis."

According to the news editors, the research concluded: "Biomarkers could identify patients with persisting hepatic necroinflammation."


The news correspondents report that additional information may be obtained from T. Reiberger, Medical University of Vienna, Vienna HIV & Liver Study Grp, Vienna, Austria. Additional authors for this research include M. Mandorfer, S. Steiner, B. Scheiner, D. Chromy, M. Herac, T. Bucsics, H. Hayden, K. Grabmeier-Pfistershammer, A. Ferlitsch, G. Oberhuber, M. Trauner, M. Peck-Radosavljevic and T. Reiberger.

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Keywords for this news article include: Vienna, Austria, Europe, Fibrosis, Diagnostics and Screening, Risk and Prevention, Viral Sexually Transmitted Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Cardiovascular Diseases and Conditions, Immune System Diseases and Conditions, Liver Diseases and Conditions, Primate Lentiviruses, Portal Hypertension, Vertebrate Viruses, HIV Infections, Retroviridae, Interferons, RNA Viruses, Hepatology, Cirrhosis, Cytokines, HIV/AIDS, Medical University.

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Findings in the Area of Prostate Cancer Reported from Technical University (Prevention of bisphosphonate-related osteonecrosis of the jaws in patients with prostate cancer treated with zoledronic acid - A prospective study over 6 years)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news originating from Munich, Germany, by NewsRx correspondents, research stated, "To explore the preventive effect of a prophylactic oral and maxillofacial treatment to reduce bisphosphonate associated necrosis of the jaws (BRONJ) in metastatic prostate cancer (PC) patients treated with zoledronic acid (4.0 mg i.v./months). Materials and method: 253 PC patients with bone metastases were prospectively randomized."

Our news journalists obtained a quote from the research from Technical University, "All patients received baseline assessments including a dental panoramic tomogram. Group A was monitored and treated where deemed necessary by the patient's dentist and were re-evaluated once a year. In group B patients were monitored and treated where necessary by the authors at 12 week intervals. We compared the incidence rate per year (IR) and incidence proportion (IP) in both cohorts and assessed independent risk factors for BRONJ. Patients in group A were evaluated 3.2 (range 2-4) vs. 6.8 times (range 4-24) in group B. A significantly higher proportion of dental extractions was performed in group B vs. A (26.7% vs. 22.7%, p = 0.006). A BRONJ was detected with an IP of 23.3% vs. 2.2% in group A vs. B, revealing a 2.59 fold higher relative risk for group A (p = 0.01, 95% CI 0.01-0.56). The IR in group A was 0.073 cases/year while the IR in group B was significantly decreased by 82% to 0.0131 (p < 0.001). Extraction therapy was the only independent risk factor for BRONJ (p < 0.0001; 95% CI 21.22-189.06). Preventive oral and maxillofacial treatment before bisphosphonate application combined with 3-monthly dental follow-ups significantly reduces the occurrence and risk of BRONJ in PC patients."

According to the news editors, the research concluded: "Therefore this approach should be implemented in the specific treatment algorithms."


The news correspondents report that additional information may be obtained from T. Mucke, Technical University of Munich, Klinikum Rechts Isar, Dept. of Oral & Maxillofacial Surg, D-81675 Munich, Germany. Additional authors for this research include H. Deppe, J. Hein, K.D. Wolff, D.A. Mitchell, M.R. Kesting, M. Retz, J.E. Gschwend and M. Thalgott.

Keywords for this news article include: Munich, Germany, Europe, Dentistry, Surgery, Risk and Prevention, Musculoskeletal Diseases and Conditions, Bone Diseases and Conditions, Clinical Trials and Studies, Drugs and Therapies, Prostatic Neoplasms, Clinical Research, Zoledronic Acid, Bisphosphonates, Pharmaceuticals, Prostate Cancer, Osteonecrosis, Oncology, Hormones, Technical University.
Lung Diseases and Conditions - Pulmonary Fibrosis

Findings in the Area of Pulmonary Fibrosis Reported from University of Texas Medical Branch (BRD4 mediates NF-kappa B-dependent epithelial-mesenchymal transition and pulmonary fibrosis via transcriptional elongation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Lung Diseases and Conditions - Pulmonary Fibrosis are presented in a new report. According to news reporting from Galveston, Texas, by NewsRx journalists, research stated, "Chronic epithelial injury triggers a TGF-beta-mediated cellular transition from normal epithelium into a mesenchymal-like state that produces subepithelial fibrosis and airway remodeling. Here we examined how TGF-beta induces the mesenchymal cell state and determined its mechanism."

The news correspondents obtained a quote from the research from the University of Texas Medical Branch, "We observed that TGF-beta stimulation activates an inflammatory gene program controlled by the NF-kappa B/RelA signaling pathway. In the mesenchymal state, NF-kappa B-dependent immediate-early genes accumulate euchromatin marks and processive RNA polymerase. This program of immediate-early genes is activated by enhanced expression, nuclear translocation, and activating phosphorylation of the NF-kappa B/RelA transcription factor on Ser276, mediated by a paracrine signal. Phospho-Ser276 RelA binds to the BRD4/CDK9 transcriptional elongation complex, activating the paused RNA Pol II by phosphorylation on Ser2 in its carboxy-terminal domain. RelA-initiated transcriptional elongation is required for expression of the core epithelial-mesenchymal transition transcriptional regulators SNAI1, TWIST1, and ZEB1 and mesenchymal genes. Finally, we observed that pharmacological inhibition of BRD4 can attenuate experimental lung fibrosis induced by repetitive TGF-beta challenge in a mouse model. These data provide a detailed mechanism for how activated NF-kappa B and BRD4 control epithelial-mesenchymal transition initiation and transcriptional elongation in model airway epithelial cells in vitro and in a murine pulmonary fibrosis model in vivo."

According to the news reporters, the research concluded: "Our data validate BRD4 as an in vivo target for the treatment of pulmonary fibrosis associated with inflammation-coupled remodeling in chronic lung diseases."


Our news journalists report that additional information may be obtained by contacting B. Tian, Univ Texas Med Branch, Sealy Center Mol Med, Galveston, TX 77555, United States. Additional authors for this research include Y.X. Zhao, H. Sun, Y.Q. Zhang, J. Yang and A.R. Brasier.

Keywords for this news article include: Galveston, Texas, United States, North and Central America, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions,
Transcription Factors, DNA-Binding Proteins, Pulmonary Fibrosis, Nuclear Proteins, NF-kappa B, Genetics, University of Texas Medical Branch.

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**Science**

**Findings in the Area of Science Reported from Chinese Academy of Sciences (Elucidating the druggable interface of protein-protein interactions using fragment docking and coevolutionary analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Protein-protein interactions play a central role in cellular function. Improving the understanding of complex formation has many practical applications, including the rational design of new therapeutic agents and the mechanisms governing signal transduction networks."

Our news journalists obtained a quote from the research from the Chinese Academy of Sciences, "The generally large, flat, and relatively featureless binding sites of protein complexes pose many challenges for drug design. Fragment docking and direct coupling analysis are used in an integrated computational method to estimate druggable protein-protein interfaces. (i) This method explores the binding of fragment-sized molecular probes on the protein surface using a molecular docking-based screen. (ii) The energetically favorable binding sites of the probes, called hot spots, are spatially clustered to map out candidate binding sites on the protein surface. (iii) A coevolution-based interface interaction score is used to discriminate between different candidate binding sites, yielding potential interfacial targets for therapeutic drug design. This approach is validated for important, well-studied disease-related proteins with known pharmaceutical targets, and also identifies targets that have yet to be studied."

According to the news editors, the research concluded: "Moreover, therapeutic agents are proposed by chemically connecting the fragments that are strongly bound to the hot spots."


Our news journalists report that additional information may be obtained by contacting H.L. Jiang, Chinese Academy Sci, Shanghai Inst Mat Med, Drug Discovery & Design Center, State Key Lab Drug Res, Shanghai 201203, People's Republic of China. Additional authors for this research include F. Morcos, R.R. Cheng, H.L. Jiang and J.N. Onuchic.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Science, Therapy, Chinese Academy of Sciences.

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Drugs and Therapies - Serum albumin Therapy

Findings in the Area of Serum albumin Therapy Reported from First Affiliated Hospital (Numb Protects Human Renal Tubular Epithelial Cells From Bovine Serum Albumin-Induced Apoptosis Through Antagonizing CHOP/PERK Pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Serum albumin Therapy have been published. According to news reporting from Zhengzhou, People's Republic of China, by NewsRx journalists, research stated, "In recent studies, we found that Numb is involved in oxidative stress-induced apoptosis of renal proximal tubular cells; however, its function on ER stress-induced apoptosis in proteinuric kidney disease remains unknown. The objective of the present study is to explore the role of Numb in urinary albumin-induced apoptosis of human renal tubular epithelial cells (HKCs)."

Funders for this research include National Natural Science Foundation of China, The Youth Innovation Fund of The First Affiliated Hospital of Zhengzhou University, The 5451 Project of Health Department of Henan Province.

The news correspondents obtained a quote from the research from First Affiliated Hospital, "In this study, we demonstrate that incubation of HKCs with bovine serum albumin (BSA) resulted in caspase three-dependent cell death. Numb expression was down-regulated by BSA in a time-and dose-dependent manner. Knockdown of Numb by siRNA sensitized HKCs to BSA-induced apoptosis, whereas overexpression of Numb protected HKCs from BSA-induced apoptosis. Moreover, BSA activated CHOP/PERK signaling pathway in a time-and dose-dependent manner as indicated by increased expression of CHOP, PERK, and P-PERK. Furthermore, knockdown of CHOP or PERK significantly attenuated the promoting effect of Numb on BSA-induced apoptosis, while overexpression of CHOP impaired the protective effect of Numb on BSA-induced apoptosis. Taken together, our findings demonstrate that Numb plays a protective role on BSA-induced apoptosis through inhibiting CHOP/PERK signaling pathway in human renal tubular epithelial cells."

According to the news reporters, the research concluded: "Therefore, the results from this study provides evidence that Numb is a new target of ER-associated apoptotic signaling networks and Numb may serve as a promising therapeutic target for proteinuric diseases."


Our news journalists report that additional information may be obtained by contacting X. Ding, Dept. of Neurology, The First Affiliated Hospital of Zhengzhou, Zhengzhou, 450052, Henan, People's Republic of China. Additional authors for this research include M. Ma, J. Teng, F. Shao, E. Wu and X. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcb.25261. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Kidney, Zhengzhou, Apoptosis, Nephrology, Blood Proteins, Epithelial Cells, Drugs and Therapies, Acute Phase Proteins,
Findings in the Area of Sexually Transmitted Diseases and Conditions (STDs) Reported from University College [Forming new sex partnerships while overseas: findings from the third British National Survey of Sexual Attitudes & Lifestyles ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Sexually Transmitted Diseases and Conditions (STDs) have been published. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "Travelling away from home presents opportunities for new sexual partnerships, which may be associated with sexually transmitted infection (STI) risk. We examined the prevalence of, and factors associated with, reporting new sexual partner(s) while overseas, and whether this differed by partners' region of residence."

Financial supporters for this research include Wellcome Trust, Medical Research Council.

Our news journalists obtained a quote from the research from University College, "We analysed data from 12 530 men and women aged 16-74 years reporting >= 1 sexual partner (s) in the past 5 years in Britain's third National Survey of Sexual Attitudes and Lifestyles (Natsal-3), a probability survey undertaken 2010-2012. Results 9.2% (95% CI 8.3% to 10.1%) of men and 5.3% (4.8% to 5.8%) of women reported new sexual partner(s) while overseas in the past 5 years. This was strongly associated with higher partner numbers and other sexual and health risk behaviours. Among those with new partners while overseas, 72% of men and 58% of women reported partner(s) who were not UK residents. Compared with those having only UK partners while abroad, these people were more likely to identify as 'White Other' or 'Non-White' (vs White British ethnicity), report higher partner numbers, new partners from outside the UK while in the UK and paying for sex (men only) all in the past 5 years. There was no difference in reporting STI diagnosis/es during this time period. Reporting new partners while overseas was associated with a range of sexual risk behaviours."

According to the news editors, the research concluded: "Advice on sexual health should be included as part of holistic health advice for all travellers, regardless of age, destination or reason for travel."

For more information on this research see: Forming new sex partnerships while overseas: findings from the third British National Survey of Sexual Attitudes & Lifestyles (Natsal-3). Sexually Transmitted Infections, 2016;92(6):415-423. Sexually Transmitted Infections can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Sexually Transmitted Infections - sti.bmj.com/)

The news correspondents report that additional information may be obtained from C. Tanton, UCL, Res Dept. of Infect & Populat Hlth, London WC1E 6JB, United Kingdom. Additional authors for this research include A.M. Johnson, W. Macdowall, J. Datta, S. Clifton, N. Field, K.R. Mitchell, K. Wellings, P. Sonnenberg and C.H. Mercer.

The direct object identifier (DOI) for that additional information is:
Oncology - Squamous Cell Carcinoma

Findings in the Area of Squamous Cell Carcinoma Reported from University of Athens School of Medicine (Novel therapies for advanced squamous cell carcinoma of the lung)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Squamous Cell Carcinoma is now available. According to news originating from Athens, Greece, by NewsRx correspondents, research stated, "Advanced squamous non-small-cell lung carcinoma (SqCC) has traditionally been considered the 'neglected sibling' compared with lung adenocarcinoma due to lack of effective targeted treatment options. Currently, limited progress has been made in the systemic treatment of advanced disease and combination chemotherapy remains the gold standard."

Our news journalists obtained a quote from the research from the University of Athens School of Medicine, "However, the recent completion of the molecular characterization of SqCC revealed an interestingly complex genomic profile, comprising various genetic alterations that can potentially function as molecular targets for the development of novel targeted agents. Recent encouraging results of the use of immune checkpoint inhibitors in several neoplasms has emerged as a promising novel treatment option for advanced SqCC."

According to the news editors, the research concluded: "Future personalized studies, enrolling SqCC patients according to specific driving mutations are underway."


The news correspondents report that additional information may be obtained from K. Koutsoukos, Medical Oncology Department, Alexandra Hospital, University of Athens School of Medicine, Athens, Greece.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.15.358. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Athens, Greece, Europe, Genetics, Oncology, Lung Cancer, Article Review, Cancer Gene Therapy, Drugs and Therapies, Squamous Cell Carcinoma.

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Findings in the Area of Steatosis Reported from Capital Medical University (Akebia Saponin D Decreases Hepatic Steatosis through Autophagy Modulation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Steatosis. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Nonalcoholic fatty liver disease (NAFLD) is considered to be a hepatic manifestation of the metabolic syndrome, and the incidence of NAFLD is increasing rapidly. However, appropriate drugs for treatment of NAFLD are lacking."

Our news editors obtained a quote from the research from Capital Medical University, "This study aimed to elucidate the protective effects and mechanisms of Akebia saponin D (ASD) against NAFLD in ob/ob mice and Buffalo rat liver cells. ASD significantly decreased hepatic steatosis and hepatocyte apoptosis in ob/ob mice. ASD also significantly activated autophagic flux, as assessed by the decreased expression of light chain 3 (LC3)-II and P62 accumulation of autophagosomes. In Buffalo rat liver cells, ASD prevented oleic acid (OA)-induced lipid droplets and increased autophagic flux acting as increase the number of autolysosomes than autophagosomes in mTagRFP-mWasabi-LC3. ASD treatment also prevented OA-induced expression of LC3-II, P62, Beclin, and phospho-mammalian target of rapamycin. These effects were similar to those of cotreatment with rapamycin. ASD treatment could not prevent OA-increased, autophagy-related protein expression after treatment with chloroquine or small interfering RNA-mediated knockdown of atg7."

According to the news editors, the research concluded: "These results suggest that ASD alleviates hepatic steatosis targeted at the fusion of autophagosomes to lysosomes, and autophagy modulation via ASD may offer a new strategy for treating NAFLD."


The news editors report that additional information may be obtained by contacting L.H. Liu, Capital Med Univ, Beijing Chao Yang Hosp, Beijing 100020, People's Republic of China. Additional authors for this research include G.R. Li, W. Zhang, H. Liu, Y.L. Lv, F.F. Han, Z.R. Wan, M.B. Shi and L.H. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.236562. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Diseases and Conditions, Fatty Liver Disease, Healthcare, Steatosis, Genetics, Capital Medical University.

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Central Nervous System Diseases and Conditions —

Findings in the Area of Subarachnoid Hemorrhage Reported from Wenzhou Medical University (Aneurysm rebleeding after poor-grade aneurysmal subarachnoid hemorrhage: Predictors and impact on clinical outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Subarachnoid Hemorrhage have been published. According to news reporting originating from Wenzhou, People's Republic of China, by NewsRx correspondents, research stated, "Aneurysm rebleeding is a major cause of morbidity and mortality after aneurysmal subarachnoid hemorrhage (aSAH) and more often occurs in patients with poor-grade aSAH. Limited data on predictors of rebleeding in these patients are available."

Our news editors obtained a quote from the research from Wenzhou Medical University, "To investigate predictors of aneurysm rebleeding after poor-grade aSAH and the association of rebleeding with clinical outcomes. A multicenter poor-grade aneurysm study was a prospective and observational registry of consecutive patients who presented with poor-grade aSAH defined as a World Federation of Neurosurgical Societies (WFNS) grade of IV or V. Rebleeding was defined as a new hemorrhage on computed tomography scan. Clinical outcomes were assessed with modified Rankin score. Multivariate logistic regression analyses were used to determine independent predictors of rebleeding and association between the rebleeding and clinical outcomes at 12 months. Of the 297 patients included in this study, 30 (10.1%) patients experienced rebleeding. Most rebleeding occurred within 24 h after ictus. 22 (73.3%) patients died at discharge. Aneurysm rebleeding was independently associated with poor outcome (odds ratio [OR] 36.37, p < 0.001) and associated with mortality (OR 25.03, p < 0.001) at 12 months. The multivariate analysis showed that a lower Fisher grade (OR 0.49, 95% CI 0.31-0.77; p = 0.002), ruptured anterior cerebral artery aneurysms (OR 4.26, 95% CI 1.07-16.90; p = 0.039), external ventricular drainage (OR 4.62, 95% CI 1.46-14.59; p = 0.009) were independently associated with aneurysm rebleeding. The outcome of aneurysm rebleeding remains very poor."

According to the news editors, the research concluded: "A lower Fisher grade, ruptured anterior cerebral artery aneurysms, external ventricular drainage were associated with increased risk of rebleeding."

For more information on this research see: Aneurysm rebleeding after poor-grade aneurysmal subarachnoid hemorrhage: Predictors and impact on clinical outcomes. Journal of the Neurological Sciences, 2016;371():62-66. Journal of the Neurological Sciences can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of the Neurological Sciences - www.journals.elsevier.com/journal-of-the-neurological-sciences/)

The news editors report that additional information may be obtained by contacting M. Zhong, Wenzhou Med Univ, Affiliated Hosp 1, Dept. of Neurosurg, Wenzhou 325000, People’s Republic of China. Additional authors for this research include Y.L. Fan, Y. Xiong, R. Yin, K. Zheng, Z.Q. Li, X.X. Tan, H. Yang and M. Zhong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jns.2016.10.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wenzhou, People's Republic of China, Asia,
Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Brain Diseases and Conditions, Cerebrovascular Disorders, Anterior Cerebral Artery, Intracranial Hemorrhages, Subarachnoid Hemorrhage, Cardiology, Angiology, Aneurysm, Wenzhou Medical University.

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Proteins - Transcription Factor

Findings in the Area of Transcription Factor Reported from Mayo Clinic (Computational discovery of transcription factors associated with drug response)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Proteins - Transcription Factor is the subject of a report. According to news reporting out of Rochester, Minnesota, by NewsRx editors, research stated, "This study integrates gene expression, genotype and drug response data in lymphoblastoid cell lines with transcription factor (TF)-binding sites from ENCODE (Encyclopedia of Genomic Elements) in a novel methodology that elucidates regulatory contexts associated with cytotoxicity. The method, GENMi (Gene Expression in the Middle), postulates that single-nucleotide polymorphisms within TF-binding sites putatively modulate its regulatory activity, and the resulting variation in gene expression leads to variation in drug response."

Our news journalists obtained a quote from the research from Mayo Clinic, "Analysis of 161 TFs and 24 treatments revealed 334 significantly associated TF-treatment pairs. Investigation of 20 selected pairs yielded literature support for 13 of these associations, often from studies where perturbation of the TF expression changes drug response. Experimental validation of significant GENMi associations in taxanes and anthracyclines across two triple-negative breast cancer cell lines corroborates our findings. The method is shown to be more sensitive than an alternative, genome-wide association study-based approach that does not use gene expression."

According to the news editors, the research concluded: "These results demonstrate the utility of GENMi in identifying TFs that influence drug response and provide a number of candidates for further testing."

For more information on this research see: Computational discovery of transcription factors associated with drug response. Pharmacogenomics Journal, 2016;16(6):573-582. Pharmacogenomics Journal can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Pharmacogenomics Journal - www.nature.com/tpj/)

Our news journalists report that additional information may be obtained by contacting L. Wang, Mayo Clinic, Dept. of Mol Pharmacol & Expt Therapeut, Div Clin Pharmacol, Rochester, MN 55905, United States. Additional authors for this research include J. Cairns, L. Wang and S. Sinha.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.74. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Proteins, Drugs and Therapies, Genetics, Transcription Factors, Mayo
Findings in the Area of Type 2 Diabetes Reported from Juntendo University School of Medicine (Gut microbiota in health and disease: an overview focused on metabolic inflammation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is the subject of a report. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "In concern to the continuously rising global prevalence of obesity, diabetes and associated diseases, novel preventive and therapeutic approaches are urgently required. However, to explore and develop such innovative strategies, a meticulous comprehension of the biological basis of these diseases is extremely important."

Our news editors obtained a quote from the research from the Juntendo University School of Medicine, "Past decade has witnessed an enormous amount of research investigation and advancement in the field of obesity, diabetes and metabolic syndrome, with the gut microbiota receiving a special focus in the triangle of nutrition, health and diseases. In particular, the role of gut microbiota in health and diseases has been one of the most vigorous and intriguing field of recent research; however, much still remains to be elucidated about its precise role in host metabolism and immune functions and its implication in the onset, progression as well as in the amelioration of metabolic ailments. Recent investigations have suggested a significant contribution of the gut microbiota in the regulation and impairment of energy homeostasis, thereby causing metabolic disorders, such as metabolic endotoxemia, insulin resistance and type 2 diabetes. Numerous inflammatory biomarkers have been found to be associated with obesity, diabetes and risk of other associated adverse outcomes, thereby suggesting that a persistent low-grade inflammatory response is a potential risk factor."

According to the news editors, the research concluded: "In this milieu, this review intends to discuss potential evidences supporting the disturbance of the gut microbiota balance and the intestinal barrier permeability as a potential triggering factor for systemic inflammation in the onset and progression of obesity, type 2 diabetes and metabolic syndrome."

For more information on this research see: Gut microbiota in health and disease: an overview focused on metabolic inflammation. Beneficial Microbes, 2015;7(2):181-94.

The news editors report that additional information may be obtained by contacting R. Nagpal, 1 Probiotics Research Laboratory, Juntendo University Graduate School of Medicine, Tokyo 113-0033, Japan. Additional authors for this research include M. Kumar, A.K. Yadav, R. Hemalatha, H. Yadav, F. Marotta and Y. Yamashiro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3920/bm2015.0062. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Obesity, Bariatrics, Healthcare, Inflammation, Overnutrition, Article Review, Type 2 Diabetes, Diet and Nutrition, Metabolic Syndrome, Nutrition Disorders, Risk and Prevention, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.
Findings in the Area of Vasculitis Reported from University of Kiel

[Myeloperoxidase-Antineutrophil Cytoplasmic Antibody (ANCA)-Positive Granulomatosis With Polyangiitis (Wegener's) Is a Clinically Distinct Subset of ANCA-Associated Vasculitis A ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Vasculitis have been published. According to news reporting originating from Kiel, Germany, by NewsRx correspondents, research stated, "To compare the phenotype, clinical course, and outcome of myeloperoxidase (MPO)-antineutrophil cytoplasmic antibody (ANCA)-positive granulomatosis with polyangiitis (Wegener's) (GPA) to proteinase 3 (PR3)-ANCA-positive GPA and to MPO-ANCA-positive microscopic polyangiitis (MPA). We characterized all MPO-ANCA-positive patients classified as having GPA by the European Medicines Agency algorithm who attended our center, in a retrospective chart review."

Our news editors obtained a quote from the research from the University of Kiel, "A second cohort of patients with PR3-ANCA-positive GPA matched for age and sex was characterized. Patients with MPO-ANCA-positive MPA from a recently published cohort were also included in the analysis. All patients were diagnosed and treated according to a standardized interdisciplinary approach at a vasculitis referral center. Comprehensive data were available for 59 patients with MPO-ANCA-positive GPA, and they were compared to 118 patients with PR3-ANCA-positive GPA and 138 patients with MPO-ANCA-positive MPA. We observed a distinct phenotype in MPO-ANCA-positive GPA as compared to the other 2 cohorts. Patients with MPO-ANCA-positive GPA frequently had limited disease without severe organ involvement, had a high prevalence of subglottic stenosis, and had less need for aggressive immunosuppressive therapy (cyclophosphamide/rituximab). The patients with MPO-ANCA-positive GPA were also younger than the MPA patients and were predominantly female (significantly different than the MPA cohort). While GPA patients had higher survival rates compared to MPA patients (due to a high prevalence of pulmonary fibrosis in MPA), patients with MPO-ANCA had significantly lower relapse rates than those with PR3-ANCA. Patients with MPO-ANCA2 positive GPA show significantly different clinical courses compared to those with PR3-ANCA2 positive GPA or MPO-ANCA positive MPA, which should be considered in their clinical management."

According to the news editors, the research concluded: "Classification according to ANCA specificity may improve the evaluation of relapse risk."

For more information on this research see: Myeloperoxidase-Antineutrophil Cytoplasmic Antibody (ANCA)-Positive Granulomatosis With Polyangiitis (Wegener's) Is a Clinically Distinct Subset of ANCA-Associated Vasculitis A Retrospective Analysis of 315 Patients From a German Vasculitis Referral. Arthritis & Rheumatology, 2016;68(12):2953-2963. Arthritis & Rheumatology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting J.H. Schirmer, University of Kiel, Kiel, Germany. Additional authors for this research include
Cardiovascular Diseases and Conditions - Venous…

Findings in the Area of Venous Thrombosis Reported from University of Cairo (Endothelial cell protein C receptor gene 6936A/G and 4678G/C polymorphisms as risk factors for deep venous thrombosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Venous Thrombosis. According to news originating from Giza, Egypt, by NewsRx correspondents, research stated, "Endothelial cell protein C receptor (EPCR) enhances the generation of activated protein C by the thrombin-thrombomodulin complex. A soluble form of EPCR (sEPCR) is present in plasma."

Our news journalists obtained a quote from the research from the University of Cairo, "Two polymorphisms in the EPCR gene (6936A/G and 4678G/C) have been reported to influence the risk of venous thromboembolism. We aimed to investigate the relation between EPCR gene polymorphisms (6936A/G and 4678C/G) and deep venous thrombosis (DVT) and their relations to sEPCR level. This study involved 90 patients with DVT and 90 age and sex-matched healthy controls. Plasma levels of sEPCR were measured in 45 cases of the primary DVT by ELISA. PCR-restriction fragment length polymorphism (RFLP) was used for detection of EPCR polymorphisms (6936A/G and 4678G/C). Regarding 6936A/G, our results demonstrated that mutant genotypes (AG, GG) were associated with an increased risk for DVT [p <0.001, odds ratio (OR) 4.125, 95% confidence interval (95% CI) 2.198-7.740] as well as its mutant allele G (p <0.001, OR 2.549, 95% CI 1.601-4.061). The mutant genotypes were associated with increased levels of sEPCR. Although in 4678G/C, our results demonstrated that the mutant genotype (CC) was considered as a protective factor against DVT (p=0.014, OR 0.289, 95% CI 0.108-0.776) as well as its mutant allele C (p=0.02, OR 0.600, 95% CI 0.388-0.927), but it had no effect on sEPCR level."

According to the news editors, the research concluded: "Our data suggest that 6936A/G polymorphism is a risk factor for DVT and is associated with elevated plasma levels of sEPCR, while 4678G/C polymorphism plays a role in protection against DVT."


The news correspondents report that additional information may be obtained from N. Zoheir, aDept. of Clinical and Chemical Pathology bDept. of General Surgery, Faculty of Medicine, Cairo University, Giza, Egypt. Additional authors for this research include N.
Eldanasouri, A.A. Abdel-Aal, K.A. Hosny and W.M Abd el-Ghany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MBC.0000000000000402. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Giza, Egypt, Africa, Genetics, Protein C, Hematology, Glycoproteins, Blood Proteins, Endothelial Cells, Enzyme Precursors, Venous Thrombosis, Risk and Prevention, Enzymes and Coenzymes, Venous Thromboembolism, Embolism and Thrombosis, Cardiovascular Diseases and Conditions.

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Abdominal Aortic Aneurysm

Findings on Abdominal Aortic Aneurysm Detailed by Investigators at University of Michigan (The use of pre-existing CT imaging in screening for abdominal aortic aneurysms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Abdominal Aortic Aneurysm are presented in a new report. According to news originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "Ultrasound screening for abdominal aortic aneurysm (AAA) is recommended for male smokers >65 years of age, but screening rates remain low. If computed tomography (CT) performed for other indications could be considered adequate for screening, one-third of ultrasounds would potentially be unnecessary, and overall screening rates would be substantially higher."

Our news journalists obtained a quote from the research from the University of Michigan, "The objective of this study was to evaluate the sensitivity of CT imaging of the abdomen for the detection of AAA when performed for other clinical indications. We performed a retrospective study of patients eligible for AAA screening who had undergone an abdominal ultrasound as well as an abdominal CT scan for other indications within 3 years prior to that study. The primary outcome was identification of an AAA, recorded in the findings narrative or impression of the CT scan report. Of 142 patients with both a CT scan and an AAA on ultrasound, 127 (89.4%) were noted to have an AAA in the report of a CT scan performed within the 3 years prior to the ultrasound. An additional 10 films demonstrated an AAA that was not mentioned in the report. The sensitivity of pre-existing CT scans for AAA screening was 97.2% (137/141) [95% CI: 93.4-99.0%]; 123 (86.6%) of these positive findings were reported in the radiologist's final impression. The sensitivity for AAA identification in the report of a pre-existing CT scan of the abdomen performed for alternate indications appears high enough to use as a screening test."

According to the news editors, the research concluded: "When radiologists note an AAA, they should be sure to include it in the final impression."

For more information on this research see: The use of pre-existing CT imaging in screening for abdominal aortic aneurysms. Vascular Medicine, 2016;21(6):515-519. Vascular Medicine can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England. (Sage Publications - www.sagepub.com/; Vascular Medicine - vmj.sagepub.com)

The news correspondents report that additional information may be obtained from A.
Ruff, University of Michigan, Dept. of Internal Med, Ann Arbor, MI 48109, United States. Additional authors for this research include K. Patel, J.R. Joyce, H.L. Gornik and M.B. Rothberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1358863X16651505. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Cardiovascular Diseases and Conditions, Diagnostics and Screening, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Cardiology, University of Michigan.

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Gram-Negative Bacteria - Acinetobacter baumannii

Findings on Acinetobacter baumannii Discussed by Investigators at University of Tehran (Carbapenem-resistant Acinetobacter baumannii Recovered from Burn Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Acinetobacter baumannii are presented in a new report. According to news originating from Tehran, Iran, by NewsRx correspondents, research stated, "Emergence of carbapenem-resistant Acinetobacter baumannii (CRAB) and their prolonged presence in burn units increases the risk of acquisition of CRAB. From November 2012 to September 2013, 1474 burn patients were screened for CRAB isolates through testing susceptibility to imipenem and its comparators meropenem, and doripenem."

Our news journalists obtained a quote from the research from the University of Tehran, "Furthermore, the in vitro activity of other antibiotics against CRAB was investigated. Three patients were infected with carbapenem-susceptible A. baumannii (CSAB) and 168 were infected with CRAB. Approximately one-fifth (n=32) of CRAB isolates were obtained from patients hospitalized in Burn Intensive Care Unit (BICU). Most of CRABs were isolated from wound. The mean length of stay (LOS) in hospital prior to A. baumannii isolation was significantly higher for CRAB compared to CSAB cases (P=0.04). Amongst the independent variables, percentage of total burn surface area (TBSA) significantly increased the mortality rate using multivariate logistic regression (P=0.001, OR=16.5; 95% CI: 4.72-57.7). The majority of tested isolates were resistant to imipenem (94.8%), and to its comparators, doripenem (97.7%), and meropenem (97.7%). The susceptibility of CRAB isolates was less than 10% to all tested antibiotics except for colistin (100%), doxycycline (61.9%), gentamicin (18.5%), and tigecycline (11.9%). Resistance to carbapenem reduces the number of effective antibiotics."

According to the news editors, the research concluded: "The coordinated and intensive efforts of healthcare personnel are required to meet the challenge of dissemination of CRAB."

The news correspondents report that additional information may be obtained from M. Douraghi, Univ Tehran Med Sci, Food Microbiol Res Center, Tehran, Iran. Additional authors for this research include M. Douraghi, H. Zeraati, F. Bazmi, M. Rahbar, M.R. Pourmand, M.S. Tabrizi, A. Aliramezani and S. Ghourichian.

Keywords for this news article include: Tehran, Iran, Asia, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Acinetobacter baumannii, Gram-Negative Bacteria, Gammaproteobacteria, Proteobacteria, Moraxellaceae, beta-Lactams, Carbapenems, University of Tehran.

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Acrylates

Findings on Acrylates Discussed by J. Eisele and Co-Researchers
(Toxicological assessment of Anionic Methacrylate Copolymer: I. Characterization, bioavailability and genotoxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Acrylates have been published. According to news originating from Darmstadt, Germany, by NewsRx correspondents, research stated, "Anionic Methacrylate Copolymer (AMC) is a fully polymerized copolymer used in the pharmaceutical industry as an enteric/delayed-release coating to permit the pH-dependent release of active ingredients in the gastrointestinal tract from oral dosage forms. This function is of potential use for food supplements."

Our news journalists obtained a quote from the research, "Oral administration of radiolabeled copolymer to rats resulted in the detection of chemically unchanged copolymer in the feces, with negligible absorption (<0.1%). AMC is therefore determined not to be bioavailable. Within a genotoxicity test battery AMC did not show any evidence of genotoxicity in bacteria and mammalian cells. Furthermore, no genotoxic effects occurred in vivo within a micronucleus test."

According to the news editors, the research concluded: "There would therefore appear to be no safety concerns under intended conditions of oral use for the discussed toxicological endpoints."

For more information on this research see: Toxicological assessment of Anionic Methacrylate Copolymer: I. Characterization, bioavailability and genotoxicity. Regulatory Toxicology and Pharmacology, 2016;82():39-47. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news correspondents report that additional information may be obtained from J. Eisele, Evonik Nutr & Care GmbH, D-64293 Darmstadt, Germany. Additional authors for this research include G. Haynes, K. Kreuzer and C. Hall.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.11.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Darmstadt, Germany, Europe, Methacrylates.
Findings on Acute Lung Injury Reported by Investigators at Tianjin Medical University (Heme Oxygenase-1/Carbon Monoxide-regulated Mitochondrial Dynamic Equilibrium Contributes to the Attenuation of Endotoxin-induced Acute Lung Injury in Rats ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lung Diseases and Conditions - Acute Lung Injury have been presented. According to news reporting out of Tianjin, People's Republic of China, by NewsRx editors, research stated, "Sepsis-associated acute lung injury remains the major cause of mortality in critically ill patients and is characterized by marked oxidative stress and mitochondrial dysfunction. Mitochondrial dynamics are indispensable for functional integrity."

Our news journalists obtained a quote from the research from Tianjin Medical University, "Additionally, heme oxygenase (HO)-1/carbon monoxide conferred cytoprotection against end-organ damage during endotoxin shock. Herein, we tested the hypothesis that HO-1/carbon monoxide played a critical role in maintaining the dynamic process of mitochondrial fusion/fission to mitigate lung injury in Sprague-Dawley rats or RAW 264.7 macrophages exposed to endotoxin. The production of reactive oxygen species, the respiratory control ratio (RCR), and the expressions of HO-1 and mitochondrial dynamic markers were determined in macrophages. Concurrently, alterations in the pathology of lung tissue, lipid peroxidation, and the expressions of the crucial dynamic proteins were detected in rats. Endotoxin caused a 31% increase in reactive oxygen species and a 41% decrease in RCR levels (n = 5 per group). In parallel, the increased expression of HO-1 was observed in lipopolysaccharide-stimulated macrophages, concomitantly with excessive mitochondrial fission. Furthermore, carbon monoxide-releasing molecule-2 or hemin normalized mitochondrial dynamics, which were abrogated by zinc protoporphyrin IX. Additionally, impaired mitochondrial dynamic balance was shown in Sprague-Dawley rats that received lipopolysaccharide, accompanied by pathologic injury, elevated malondialdehyde contents, decreased manganese superoxide dismutase activities, and lowered RCR levels in rat lung mitochondria. However, the above parameters were augmented by zinc protoporphyrin IX and were in turn reversed by hemin."

According to the news editors, the research concluded: "The HO-1/carbon monoxide system modulated the imbalance of the dynamic mitochondrial fusion/fission process evoked by lipopolysaccharide and efficiently ameliorated endotoxin-induced lung injury in vivo and in vitro."

For more information on this research see: Heme Oxygenase-1/Carbon Monoxide-regulated Mitochondrial Dynamic Equilibrium Contributes to the Attenuation of Endotoxin-induced Acute Lung Injury in Rats and in Lipopolysaccharide-activated Macrophages. *Anesthesiology*, 2016;125(6):1190-1201. *Anesthesiology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting J.B. Yu, Tianjin Med Univ, Tianjin Nankai Hosp, Dept. of Anesthesiol, Tianjin
300100, People's Republic of China. Additional authors for this research include J. Shi, D. Wang, S. Dong, Y. Zhang, M. Wang, L.R. Gong, Q. Fu and D.Q. Liu.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Respiratory Tract Diseases and Conditions, Mononuclear Phagocyte System, Lung Diseases and Conditions, Inorganic Carbon Compounds, Bacterial Polysaccharides, Enzymes and Coenzymes, Lipopolysaccharides, Biological Factors, Metallorphyrins, Acute Lung Injury, Bacterial Toxins, Carbon Monoxide, Oxidoreductases, Protoporphyrins, Heme Oxygenase, Macrophages, Oxygenases, Immunology, Phagocytes, Porphyrins, Endotoxins, Chemicals, Hemin, Tianjin Medical University.

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**Oncology - Acute Myeloid Leukemia**

**Findings on Acute Myeloid Leukemia Detailed by Investigators at Broad Institute of MIT and Harvard (Development of ML390: A Human DHODH Inhibitor That Induces Differentiation in Acute Myeloid Leukemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Acute Myeloid Leukemia have been presented. According to news reporting from Cambridge, Massachusetts, by NewsRx journalists, research stated, "Homeobox transcription factor A9 (HoxA9) is overexpressed in 70% of patients diagnosed with acute myeloid leukemia (AML), whereas only a small subset of AML patients respond to current differentiation therapies. A cell line overexpressing HoxA9 was derived from the bone marrow of a lysozyme-GFP mouse."

Financial supporters for this research include Bayer, Amelia Peabody Charitable Fund, Harvard Catalyst, Harvard University, Fundacao de Amparo a Pesquisa do Estado de Sao Paulo, American Cancer Society, Alex's Lemonade Stand Foundation for Childhood Cancer, American Society of Hematology, Leukemia and Lymphoma Society, National Institutes of Health.

The news correspondents obtained a quote from the research from the Broad Institute of MIT and Harvard, "In this fashion, GFP served as an endogenous reporter of differentiation, permitting a high-throughput phenotypic screen against the MLPCN library. Two chemical scaffolds were optimized for activity yielding compound ML390, and genetic resistance and sequencing efforts identified dihydroorotate dehydrogenase (DHODH) as the target enzyme. The DHODH inhibitor brequinar works against these leukemic cells as well."

According to the news reporters, the research concluded: "The X-ray crystal structure of ML390 bound to DHODH elucidates ML390's binding interactions."


Our news journalists report that additional information may be obtained by contacting T.A. Lewis, Broad Inst, Center Sci Therapeut, Cambridge, MA 02142, United States. Additional authors for this research include D.B. Sykes, J.M. Law, B. Munoz, J.K. Rustiguel,

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsmedchemlett.6b00316. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Acute Myeloid Leukemia, Hematology, Oncology, Genetics, Broad Institute of MIT and Harvard.

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Oncology - Acute Myeloid Leukemia

Findings on Acute Myeloid Leukemia Reported by Investigators at University of California (RNA Splicing Modulation Selectively Impairs Leukemia Stem Cell Maintenance in Secondary Human AML)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Acute Myeloid Leukemia are presented in a new report. According to news reporting originating from La Jolla, California, by NewsRx correspondents, research stated, "Age-related human hematopoietic stem cell (HSC) exhaustion and myeloid-lineage skewing promote oncogenic transformation of hematopoietic progenitor cells into therapy-resistant leukemia stem cells (LSCs) in secondary acute myeloid leukemia (AML). While acquisition of clonal DNA mutations has been linked to increased rates of secondary AML for individuals older than 60 years, the contribution of RNA processing alterations to human hematopoietic stem and progenitor aging and LSC generation remains unclear."

Our news editors obtained a quote from the research from the University of California, "Comprehensive RNA sequencing and splice-isoform-specific PCR uncovered characteristic RNA splice isoform expression patterns that distinguished normal young and aged human stem and progenitor cells (HSPCs) from malignant myelodysplastic syndrome (MDS) and AML progenitors. In splicing reporter assays and pre-clinical patient-derived AML models, treatment with a pharmacologic splicing modulator, 17S-FD-895, reversed pro-survival splice isoform switching and significantly impaired LSC maintenance."

According to the news editors, the research concluded: "Therapeutic splicing modulation, together with monitoring splice isoform biomarkers of healthy HSPC aging versus LSC generation, may be employed safely and effectively to prevent relapse, the leading cause of leukemia-related mortality."


The news editors report that additional information may be obtained by contacting L.A. Crews, University of California, Sanford Consortium Regenerat Med, La Jolla, CA 92039, United States. Additional authors for this research include L. Balaian, N.P. Delos Santos, H.S. Leu, A.C. Court, E. Lazzari, A. Sadarangani, M.A. Zipeto, J.J. La Clair, R. Villa, A. Kulidjian, R. Storb, S.R. Morris, E.D. Ball, M.D. Burkart and C.H.M. Jamieson.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.stem.2016.08.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Acute Myeloid Leukemia, Stem Cell Research, Hematopoietic, Hematology, Oncology, Genetics, University of California.

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Oncology - Acute Myeloid Leukemia

Findings on Acute Myeloid Leukemia Reported by Investigators at University of Florida (Serum Uric Acid Exhibits Inverse Relationship with Estimated Glomerular Filtration Rate)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Acute Myeloid Leukemia have been published. According to news reporting from Gainesville, Florida, by NewsRx journalists, research stated, "In this study, we investigated the relationship between serum uric acid (SUA) and renal function in a unique patient cohort wherein SUA levels fluctuate during the course of standard care. Correlation coefficients between SUA and serum creatinine (SCr) and kinetic estimated GFR (KeGFR) were retrospectively investigated in acute myeloid leukemia (AML) patients, and statistically significant and clinically relevant determinants were studied in multiple regression models."

The news correspondents obtained a quote from the research from the University of Florida, "One hundred and twenty-six patients were included in the analysis. Baseline SUA was associated with an increased risk for acute kidney injury (AKI; OR 1.27, 95% CI 1.1-1.5, p = 0.003) and laboratory tumor lysis syndrome (OR 1.26, 95% CI 1.1-1.5, p = 0.005). Prophylactic uric acid-lowering therapy and hydration resulted in lower SUA values from baseline in 88.1% of the patients, the lowest values were observed on post-induction day 1 (20.4% reduction). Significant linear correlations were observed between SUA and SCr (r = 0.35, p<0.001) values with a significant inverse correlation between SUA and KeGFR on day 1 (r = -0.33, p<0.001) that persisted through day 4. By subgroup analysis, patients with primary AML (r = -0.49, p<0.001), baseline SUA >5.5 mg/dl (r = -0.41, p = 0.002) and baseline eGFR >60 ml/min/1.73 m(2) (r = -0.51, p<0.001) demonstrated robust relationships between SUA and KeGFR. The relationship was more robust when the groups were combined (primary AML plus baseline SUA >5.5 mg/dl plus baseline eGFR >60 ml/min/1.73 m(2), r = -0.52, p<0.001)."

According to the news reporters, the research concluded: "The demonstration of linear relationship between SUA and SCr and inverse relationship between SUA and KeGFR reinforces the emerging translational physiological evidence regarding the role of uric acid in AKI."


Our news journalists report that additional information may be obtained by
Enzymes and Coenzymes - Acyl-CoA Dehydrogenases

Findings on Acyl-CoA Dehydrogenases Detailed by Investigators at University of Pennsylvania (Morbidity and mortality among exclusively breastfed neonates with medium-chain acyl-CoA dehydrogenase deficiency)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Enzymes and Coenzymes - Acyl-CoA Dehydrogenases is the subject of a report. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "Despite greatly improved morbidity and mortality among infants with medium-chain acyl-CoA dehydrogenase deficiency (MCAD) since the implementation of universal newborn screening, (NBS), a population of neonates still becomes ill before their positive screen results are available. Exclusive breastfeeding is a proposed risk factor in this group."

Our news journalists obtained a quote from the research from the University of Pennsylvania, "Since initial studies of MCAD NBS, breastfeeding rates have increased substantially. In this study, we quantify the current risk of early decompensation in neonates with MCAD and identify factors associated with poor outcomes. We completed a retrospective analysis of neonates with MCAD referred to our center between 2010 and 2015. Of 46 infants with MCAD, 11 (23.9%) were symptomatic before the return of the NBS results. Four died or had cardiac arrest; the remaining seven had lethargy and hypoglycemia. All symptomatic patients were exclusively breastfed; only 40.6% of asymptomatic patients were exclusively breastfed. Breastfeeding rates increased from 45.5% in 2010-2011 to 64.7% in 2012-2013 and 87.5% in 2014-2015. Over these same periods, rates of early decompensation increased from 9.09% to 23.5% and 75%, respectively. Exclusively breastfed neonates with MCAD are at risk for early metabolic decompensation."

According to the news editors, the research concluded: "As breastfeeding rates increase, close management of feeding difficulties is essential for all neonates awaiting NBS results."

For more information on this research see: Morbidity and mortality among exclusively breastfed neonates with medium-chain acyl-CoA dehydrogenase deficiency. Genetics in Medicine, 2016;18(12):1315-1319. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)
Our news journalists report that additional information may be obtained by contacting C. Ficicioglu, University of Pennsylvania, Children's Hospital of Philadelphia, Perelman Sch Med, Sect Metab Dis, Philadelphia, PA 19104, United States. Additional authors for this research include L.C. Pyle and C. Ficicioglu.

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Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Dehydrogenase, Risk and Prevention, Genetics, Oxidoreductases Acting on CH-CH Group Donors, Acyl-CoA Dehydrogenases, Enzymes and Coenzymes, Flavoproteins, Proteins, University of Pennsylvania.

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**Drugs and Therapies - Adrenal Cortical Steroids**

**Findings on Adrenal Cortical Steroids Detailed by Investigators at Free University (Core-multishell nanocarriers: Transport and release of dexamethasone probed by soft X-ray spectromicroscopy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Adrenal Cortical Steroids. According to news originating from Berlin, Germany, by NewsRx correspondents, research stated, "Label-free detection of core-multishell (CMS) nanocarriers and the anti-inflammatory drug dexamethasone is reported. Selective excitation by tunable soft X-rays in the O 1s-regime is used for probing either the CMS nanocarrier or the drug."

Funders for this research include German Research Foundation, Freie Universitat Berlin.

Our news journalists obtained a quote from the research from Free University, "Furthermore, the drug loading efficiency into CMS nanocarriers is determined by X-ray spectroscopy. The drug-loaded nanocarriers were topically applied to human skin explants providing insights into the penetration and drug release processes. It is shown that the core-multishell nanocarriers remain in the stratum corneum when applied for 100 min to 1000 min. Dexamethasone, if applied topically to human ex vivo skin explants using different formulations, shows a vehicle-dependent penetration behavior. Highest local drug concentrations are found in the stratum corneum as well as in the viable epidermis. If the drug is loaded to core-multishell nanocarriers, the concentration of the free drug is low in the stratum corneum and is enhanced in the viable epidermis as compared to other drug formulations. The present results provide insights into the penetration of drug nanocarriers as well as the mechanisms of controlled drug release from CMS nanocarriers in human skin."

According to the news editors, the research concluded: "They are also compared to related work using dye-labeled nanocarriers and dyes that were used as model drugs."

For more information on this research see: Core-multishell nanocarriers: Transport and release of dexamethasone probed by soft X-ray spectromicroscopy. *Journal of Controlled Release*, 2016;242():64-70. *Journal of Controlled Release* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

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Keywords for this news article include: Berlin, Germany, Europe, Adrenal Cortical Steroids, Ophthalmic Preparations, Dexamethasone Therapy, Emerging Technologies, Drugs and Therapies, Ophthalmic Steroids, Pharmaceuticals, Glucocorticoids, Nanotechnology, Nanocarriers, Hormones, Free University.

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Drugs and Therapies - Adverse Drug Reactions

Findings on Adverse Drug Reactions Reported by Investigators at University of California (Root Cause Analysis of Ambulatory Adverse Drug Events That Present to the Emergency Department)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Adverse Drug Reactions have been published. According to news reporting from San Francisco, California, by NewsRx journalists, research stated, "Adverse drug events (ADEs) among patients self-administering medications in home/community settings are a common cause of emergency department (ED) visits, but the causes of these ambulatory ADEs remain unclear. Root cause analysis, rarely applied in outpatient settings, may reveal the underlying factors that contribute to adverse events."

The news correspondents obtained a quote from the research from the University of California, "To elicit patient and provider perspectives on ambulatory ADEs and apply root cause analysis methodology to identify cross-cutting themes among these events. Emergency department clinical pharmacists screened, identified, and enrolled a convenience sample of adult patients 18 years or older who presented to a single, urban, academic ED with symptoms or diagnoses consistent with suspected ADEs. Semistructured phone interviews were conducted with the patients and their providers. We conducted a qualitative analysis. We applied a prespecified version of the injury prevention framework (deductive coding), identifying themes relating to the agent (drug), host (patient), and environment (social and health systems). These themes were used to construct a root cause analysis for each ADE. From 18 interviews overall, we identified the following themes within the injury prevention framework. Agent factors included high-risk drugs, narrow therapeutic indices, and uncommon severe effects. Host factors included patient capacity or understanding of how to use medications, awareness of side effects, mistrust of the medical system, patients with multiple comorbidities, difficult risk-benefit assessments, and high health-care users. Environmental factors included lack of social support, and health systems issues included access to care, encompassing medication availability, access to specialists, and a lack of continuity and communication among prescribing physicians. Root cause analysis revealed multiple underlying factors relating to agent, host, and environment for each event. Patient and physician perspectives can inform a root cause analysis of ambulatory
ADEs."

According to the news reporters, the research concluded: "Such methodology may be applied to understand the factors that contribute to ambulatory ADEs and serve as the formative work for future interventions improving home/community medication use."


Our news journalists report that additional information may be obtained by contacting U. Sarkar, University of California, Div Gen Internal Med, San Francisco, CA 94143, United States. Additional authors for this research include Z. Coralic, A. Lopez, J.C. Stein and U. Sarkar.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Adverse Drug Reactions, Drugs and Therapies, University of California.

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**Immune System Diseases and Conditions - Allergies**

**Findings on Allergies Reported by Researchers at University of Salzburg (Prophylactic mRNA Vaccination against Allergy Confers Long-Term Memory Responses and Persistent Protection in Mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immune System Diseases and Conditions - Allergies. According to news reporting originating in Salzburg, Austria, by NewsRx journalists, research stated, "Recently, mRNA vaccines have been introduced as a safety-optimized alternative to plasmid DNA-based vaccines for protection against allergy. However, it remained unclear whether the short persistence of this vaccine type would limit memory responses and whether the protective immune response type would be maintained during recurrent exposure to allergen."

Funders for this research include Austrian Science Fund, Christian Doppler Research Association, Biomay AG, Vienna, Austria.

The news reporters obtained a quote from the research from the University of Salzburg, "We tested the duration of protective memory responses in mice vaccinated with mRNA encoding the grass pollen allergen Phi p 5 by challenging them with recombinant allergen, 3.5, 6, and 9 months after vaccination. In a second experiment, vaccinated mice were repeatedly challenged monthly with aerosolized allergen over a period of 7 months. Antibody and cytokine responses as well as lung inflammation and airway hyperresponsiveness were assessed. mRNA vaccination induced robust TH1 memory responses for at least 9 months. Vaccination efficiently suppressed TH2 cytokines, IgE responses, and lung eosinophilia. Protection was maintained after repeated exposure to aerosolized allergen and no TH1 associated pathology was observed. Lung function remained improved compared to nonvaccinated controls."
According to the news reporters, the research concluded: "Our data clearly indicate that mRNA vaccination against Phl p 5 induces robust, long-lived memory responses, which can be recalled by allergen exposure without side effects. mRNA vaccines fulfill the requirements for safe prophylactic vaccination without the need for booster immunizations."

For more information on this research see: Prophylactic mRNA Vaccination against Allergy Confers Long-Term Memory Responses and Persistent Protection in Mice. *Journal of Immunology Research*, 2015;2015():797421.

Our news correspondents report that additional information may be obtained by contacting E. Hattinger, Dept. of Molecular Biology, University of Salzburg, 5020 Salzburg, Austria. Additional authors for this research include S. Scheiblhofer, E. Roesler, T. Thalhamer, J. Thalhamer and R. Weiss.

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Keywords for this news article include: Europe, Austria, Salzburg, Genetics, Vaccines, Allergens, Allergies, Immunology, Vaccination, Immunization, Biological Products, Immune System Diseases and Conditions.

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**Health and Medicine - Allergy and Rhinology**

**Findings on Allergy and Rhinology Reported by Researchers at University of Adelaide (The bacterial microbiome in chronic rhinosinusitis: Richness, diversity, postoperative changes, and patient outcomes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Health and Medicine - Allergy and Rhinology are discussed in a new report. According to news originating from Adelaide, Australia, by NewsRx correspondents, research stated, "The bacterial microbiome in chronic rhinosinusitis (CRS) remains poorly understood. Microorganisms are believed to be important contributors to the inflammatory response seen in these patients."

Our news journalists obtained a quote from the research from the University of Adelaide, "To examine the bacterial CRS microbiome by using a pyrosequencing technique and determine the diversity, richness, prevalence, and abundance of bacterial species in these patients. Furthermore, the postoperative changes that occur in the microbiome and correlations with patient outcomes are assessed. Swabs were collected from 23 patients with CRS and 11 controls during surgery. Further postoperative swabs were collected in the CRS group. Bacterial DNA was extracted from the swabs and then sequenced by using 16S ribosomal DNA bacterial tag-encoded FLX amplicon pyrosequencing. A total of 456 unique bacterial species were detected. No difference was seen for richness or diversity between the study groups (p >0.05). Diversity declined after surgery in the CRS group (p=0.01). Propionibacterium acnes and *Staphylococcus epidermidis* were the most prevalent species. Several significant differences were determined for prevalence and mean relative abundance (MRA) between the study groups. In particular, *Acinetobacter johnsonii* was more prevalent and had a higher MRA in the controls. Furthermore, the MRA of this species increased after surgery and was associated with improved
quality of life. This study characterized the sinonasal microbiome in a group of controls and patients with CRS. Important differences in diversity, prevalence, abundance, and temporal changes were described. Of great interest is the potential association between A. johnsonii and health."

According to the news editors, the research concluded: "These findings provide new insights into the interplay between the microbiome and health in the paranasal sinuses."


The news correspondents report that additional information may be obtained from E.J. Cleland, Dept. of Surgery-Otorhinolaryngology, Head and Neck Surgery, University of Adelaide, Adelaide, South Australia, Australia. Additional authors for this research include A. Bassioumi, S. Vreugde and P.J Wormald.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2500/ajra.2016.30.4261. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Surgery, Adelaide, Genetics, Health and Medicine, Allergy and Rhinology, Australia and New Zealand.

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**Enzymes and Coenzymes - Amidohydrolases**

**Findings on Amidohydrolases Reported by Investigators at University of Bristol (Structural and Biochemical Characterization of Rm3, a Subclass B3 Metallo-beta-Lactamase Identified from a Functional Metagenomic Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - Amidohydrolases. According to news reporting originating in Bristol, United Kingdom, by NewsRx journalists, research stated, "Beta-Lactamase production increasingly threatens the effectiveness of beta-lactams, which remain a mainstay of antimicrobial chemotherapy. New activities emerge through both mutation of previously known beta-lactamases and mobilization from environmental reservoirs."

The news reporters obtained a quote from the research from the University of Bristol, "The spread of metallo-beta-lactamases (MBLs) represents a particular challenge because of their typically broad-spectrum activities encompassing carbapenems, in addition to other beta-lactam classes. Increasingly, genomic and metagenomic studies have revealed the distribution of putative MBLs in the environment, but in most cases their activity against clinically relevant beta-lactams and, hence, the extent to which they can be considered a resistance reservoir remain uncharacterized. Here we characterize the product of one such gene, bla(Rm3), identified through functional metagenomic sampling of an environment with high levels of biocide exposure. bla(Rm3) encodes a subclass B3 MBL that, when expressed in a recombinant Escherichia coli strain, is exported to the bacterial periplasm and hydrolyzes clinically used penicillins, cephalosporins, and carbapenems with an efficiency limited by high K-m values. An Rm3 crystal structure reveals the MBL superfamily alpha beta/beta alpha fold, which more
closely resembles that in mobilized B3 MBLs (AIM-1 and SMB-1) than other chromosomal enzymes (L1 or FEZ-1). A binuclear zinc site sits in a deep channel that is in part defined by a relatively extended N terminus. Structural comparisons suggest that the steric constraints imposed by the N terminus may limit its affinity for beta-lactams. Sequence comparisons identify Rm3-like MBLs in numerous other environmental samples and species.

According to the news reporters, the research concluded: "Our data suggest that Rm3-like enzymes represent a distinct group of B3 MBLs with a wide distribution and can be considered an environmental reservoir of determinants of beta-lactam resistance."

For more information on this research see: Structural and Biochemical Characterization of Rm3, a Subclass B3 Metallo-beta-Lactamase Identified from a Functional Metagenomic Study. Antimicrobial Agents and Chemotherapy, 2016;60(10):5828-5840. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting J. Spencer, University of Bristol, Sch Cellular & Mol Med, Bristol, Avon, United Kingdom. Additional authors for this research include L.H. Zhang, P. Hinchliffe, E.M.H. Wellington, J. Brem, C.J. Schofield, W.H. Gaze and J. Spencer.

Keywords for this news article include: Bristol, United Kingdom, Europe, Enzymes and Coenzymes, Sulfur Compounds, beta-Lactamases, Amidohydrolases, Biochemicals, Biochemistry, beta-Lactams, Chemicals, University of Bristol.

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**Nutritional and Metabolic Diseases and Conditions - …**

**Findings on Amyloidosis Reported by Investigators at Chinese Academy of Medical Sciences (Clinical correlates and prognostic values of pseudoinfarction in cardiac light-chain amyloidosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Amyloidosis have been published. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Pseudoinfarction is one of the most common electrocardiographic characteristics in cardiac light-chain (AL) amyloidosis. The aim of the present study was to analyze the prognostic significance of pseudoinfarction and define the relation between pseudoinfarction and clinical parameters in cardiac AL amyloidosis."

Our news editors obtained a quote from the research from the Chinese Academy of Medical Sciences, "A total 110 consecutive patients who presented with a diagnosis of cardiac AL amyloidosis and without a positive history of coronary disease between 2010 and 2014 were enrolled. Patients were divided into two groups according to the presence (n = 40) or absence (n = 70) of pseudoinfarction on electrocardiography (ECG). Clinical parameters including laboratory tests, echocardiography, and follow-up were collected and analyzed. Patients with pseudoinfarction had higher N-terminal pro-brain natriuretic peptide levels (9131 pg/ml vs 4644 pg/ml, p = 0.02) and a worse New York Heart Association (NYHA) function (p < 0.001). The pseudoinfarction group also had a larger left atrium size (44 mm vs 41 mm, p = 0.03), a thicker
ventricular wall (septum 14 mm vs 13 mm, p = 0.005 and posterior wall 14 mm vs 13 mm, p = 0.01), a lower left ventricular ejection fraction (50% vs 58%, p = 0.013), and higher early-to-atrial transmitral flow velocity ratio (p = 0.001). Also, the pseudoinfarction group was closely associated with a lower voltage (70% vs 38.6%, p = 0.002), poor precordial R wave progression (78.4% vs 43.9%, p = 0.001), lower Sokolow-Lyon index (13 mm vs 9 mm, p< 0.001), and lower voltage to mass ratio (0.521 vs 0.442, p = 0.028) on the ECG. After a median follow-up of 39 months, Kaplan-Meier survival analysis showed that lifetime was significantly shorter in the pseudoinfarction group (median 4 months vs 17 months, p< 0.001). By adopting the multivariate Cox proportional model, NYHA heart failure III to IV and the presence of pseudoinfarction remained the only two independent prognostic determinants with death hazard ratio of 3.16 and 1.9, respectively."

According to the news editors, the research concluded: "The presence of pseudoinfarction on the ECG has a negative prognostic effect on AL patients with cardiac involvement."

For more information on this research see: Clinical correlates and prognostic values of pseudoinfarction in cardiac light-chain amyloidosis. *Journal of Cardiology*, 2016;68(5-6):426-430. *Journal of Cardiology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

The news editors report that additional information may be obtained by contacting Z. Tian, Chinese Academy Med Sci, Beijing, People's Republic of China. Additional authors for this research include J. Li, Z. Tian and Q. Fang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2015.11.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Proteostasis Deficiencies, Amyloidosis, Cardiology, Nephrology, Chinese Academy of Medical Sciences.

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**Findings on Anaphylaxis Reported by Investigators at Vanderbilt University (Intraoperative medications associated with hemodynamically significant anaphylaxis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immune System Diseases and Conditions - Anaphylaxis have been presented. According to news reporting out of Nashville, Tennessee, by NewsRx editors, research stated, "To facilitate the identification of drugs and patient factors associated with hemodynamically significant anaphylaxis. Using an existing database containing complete perioperative records, instances of hemodynamically significant anaphylaxis were identified using a physiologic and treatment-based screening algorithm."

Our news journalists obtained a quote from the research from Vanderbilt University, "All cases were manually reviewed by 2 clinicians, with a third adjudicating disagreements, and confirmed cases were matched 3:1 with control cases. Intraoperative medications given in
instances of hemodynamically significant anaphylaxis and patient risk factors were compared with control cases. University of Michigan Hospital, a large, tertiary care hospital. All adult patients undergoing surgery between January 1, 2004, and January 5, 2015. None. Incidence of hemodynamically significant anaphylaxis during anesthesia. Patient risk factors and intraoperative medications associated with hemodynamically significant anaphylaxis. Hemodynamically significant anaphylaxis occurred in 55 of 461 986 cases (1 in 8400). Hemodynamically significant anaphylaxis occurred in 52 patients, with 1 patient experiencing 3 instances and another patient 2 instances. Only 1 drug was associated with an increased risk of hemodynamically significant anaphylaxis: protamine (odds ratio, 11.78; 95% confidence interval, 1.40-99.26; P = .0233). No category of drugs was associated with increased risk. Of patient risk factors, only personal history of anaphylaxis was associated with an increased risk (odds ratio, 77.1; 95% confidence interval, 10.46-567.69; P =<.0001). Postoperative follow-up and evaluation of patients were low at our institution. A serum tryptase level was sent in only 49% of cases, and 41% of levels were positive, an overall positive rate of 20% of cases. Following instances of hemodynamically significant anaphylaxis, only 29% of patients were seen and evaluated by an allergist at our institution. Hemodynamically significant anaphylaxis is a rare complication of anesthesia, with an incidence consistent with the existing literature. Contrary to most existing literature, only protamine was associated with increased risk."

According to the news editors, the research concluded: "A personal history of anaphylaxis appears to best predict risk of hemodynamically significant anaphylaxis."


Our news journalists report that additional information may be obtained by contacting R.E. Freundlich, Vanderbilt University, Medical Center, Dept. of Anesthesiol, Nashville, TN 37212, United States. Additional authors for this research include N.M. Duggal, M. Housey, T.T. Tremper, M.C. Engoren and S. Kheterpal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.09.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Immune System Diseases and Conditions, Immediate Hypersensitivity, Risk and Prevention, Pain Medicine, Anaphylaxis, Anesthesia, Hospital, Vanderbilt University.

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**Hematologic Diseases and Conditions - Anemia**

**Findings on Anemia Reported by Investigators at Division of Cardiovascular (Possible Inhibitory Effect of Erythropoiesis-Stimulating Agents at the Predialysis Stage on Early-Phase Coronary Events after Hemodialysis Initiation)**
Researchers detail new data in Hematologic Diseases and Conditions - Anemia. According to news reporting originating in Kyoto, Japan, by NewsRx journalists, research stated, "We examined whether the use of erythropoiesis-stimulating agents (ESAs) to correct anemia at the predialysis stage could inhibit early-phase coronary events after hemodialysis initiation. We enrolled 242 patients with chronic kidney disease who had received continued medical treatments and initiated maintenance hemodialysis from 1 September 2000 to 31 December 2014 at Toujinkai Hospital."

The news reporters obtained a quote from the research from the Division of Cardiovascular, "Patients with a previous history of blood transfusion or any cardiovascular events or interventions were excluded. The coronary events were followed for 1 year after initiation of hemodialysis. Coronary events occurred in 51 of 242 patients: 10 patients had acute coronary syndrome [9 with percutaneous coronary intervention (PCI), 1 without intervention], and 41 had elective coronary revascularization (38 PCI and 3 coronary artery bypass graft). ESA was administered in 118 of 242 patients (48.8%). In stepwise logistic analysis, coronary events were positively associated with nonuse of ESA at the predialysis stage (odds ratio 2.66, p = 0.005) and diabetes mellitus (odds ratio 5.33, p< 0.001). When dividing the patients into 4 subgroups by blood hemoglobin (Hb) level (8.5 g/dl) and the use/nonuse of ESA, coronary event-free survival rates were higher (p = 0.005) in those with Hb >= 8.5 g/dl, ESA+ (86.6%, n = 82) and tended to be higher (p = 0.055) in those with Hb <8.5 g/dl, ESA+ (86.1%, n = 36) than in patients with Hb < 8.5 g/dl, ESA- (68.6%, n = 86) in a Kaplan-Meier analysis."

According to the news reporters, the research concluded: "The use of ESA to correct anemia at the predialysis stage may inhibit early-phase coronary events after hemodialysis initiation."


Our news correspondents report that additional information may be obtained by contacting M. Nishimura, Toujinkai Hosp, Div Cardiovasc, Kyoto, Japan. Additional authors for this research include K. Watanabe, Y. Kitamura, T. Nagashima, T. Tokoro, T. Takatani, N. Sato, S. Yamazaki, T. Hashimoto, H. Kobayashi and T. Ono.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000448009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kyoto, Japan, Asia, Hematologic Diseases and Conditions, Erythropoiesis, Renal Dialysis, Hemodialysis, Hematology, Anemia, Division of Cardiovascular.

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Cardiovascular Diseases and Conditions - Aneurysm

Findings on Aneurysm Described by M. Razavian and Colleagues (Optical imaging of MMP-12 active form in inflammation and aneurysm)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Aneurysm have been published. According to news reporting originating in West Haven, Connecticut, by NewsRx journalists, research stated, "Matrix metalloproteinase (MMP)-12 plays a key role in the development of aneurysm. Like other members of MMP family, MMP-12 is produced as a proenzyme, mainly by macrophages, and undergoes proteolytic activation to generate an active form."

The news reporters obtained a quote from the research, "Accordingly, molecular imaging of the MMP-12 active form can inform of the pathogenic process in aneurysm. Here, we developed a novel family of fluorescent probes based on a selective MMP-12 inhibitor, RXP470.1 to target the active form of MMP-12. These probes were stable in complex media and retained the high affinity and selectivity of RXP470.1 for MMP-12. Amongst these, probe 3 containing a zwitterionic fluorophore, ZW800-1, combined a favorable affinity profile toward MMP-12 and faster blood clearance. In vivo binding of probe 3 was observed in murine models of sterile inflammation and carotid aneurysm. Binding specificity was demonstrated using a non-binding homolog. Co-immunostaining localized MMP-12 probe binding to MMP-12 positive areas and F4/80 positive macrophages in aneurysm."

According to the news reporters, the research concluded: "The active form of MMP-12 can be detected by optical imaging using RXP470.1-based probes. This is a valuable adjunct for pathophysiology research, drug development, and potentially clinical applications."

For more information on this research see: Optical imaging of MMP-12 active form in inflammation and aneurysm. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting M.M. Sadeghi, Vet Affairs Connecticut Healthcare Syst, West Haven, CT, United States. Additional authors for this research include T. Bordenave, D. Georgiadis, F. Beau, J.S. Zhang, R. Golestani, J. Toczek, J.J. Jung, Y.P. Ye, H.Y. Kim, J. Han, V. Dive, L. Devel and M.M. Sadeghi.

Keywords for this news article include: West Haven, Connecticut, United States, North and Central America, Cardiovascular Diseases and Conditions, Mononuclear Phagocyte System, Inflammation, Macrophages, Immunology, Phagocytes, Aneurysm.

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Ankylosing Spondylitis

Findings on Ankylosing Spondylitis Reported by Investigators at University of Oxford (An ankylosing spondylitis-associated genetic variant in the IL23R-IL12RB2 intergenic region modulates enhancer
activity and is associated with increased ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Ankylosing Spondylitis. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "To explore the functional basis for the association between ankylosing spondylitis (AS) and single-nucleotide polymorphisms (SNPs) in the IL23R-IL12RB2 intergenic region. We performed conditional analysis on genetic association data and used epigenetic data on chromatin remodelling and transcription factor (TF) binding to identify the primary AS-associated IL23R-IL12RB2 intergenic SNP."

Our news journalists obtained a quote from the research from the University of Oxford, "Functional effects were tested in luciferase reporter assays in HEK293T cells and allele-specific TF binding was investigated by electrophoretic mobility gel shift assays. IL23R and IL12RB2 mRNA levels in CD4+ T cells were compared between cases homozygous for the AS-risk 'A' allele and the protective 'G' allele. The proportions of interleukin (IL)-17A+ and interferon (IFN)-gamma+ CD4+ T-cells were measured by fluorescence-activated cell sorting and compared between these AS-risk and protective genotypes. Conditional analysis identified rs11209032 as the probable causal SNP within a 1.14 kb putative enhancer between IL23R and IL12RB2. Reduced luciferase activity was seen for the risk allele (p <0.001) and reduced H3K4me1 methylation observed in CD4+ T-cells from 'A/A' homozygotes (p=0.02). The binding of nuclear extract to the risk allele was decreased similar to 3.5-fold compared with the protective allele (p <0.001). The proportion of IFN-gamma+ CD4+ T-cells was increased in 'A/A' homozygotes (p=0.004), but neither IL23R nor IL12RB2 mRNA was affected. The rs11209032 SNP downstream of IL23R forms part of an enhancer, allelic variation of which may influence Th1-cell numbers. Homozygosity for the risk 'A' allele is associated with more IFN-gamma-secreting (Th1) cells."

According to the news editors, the research concluded: "Further work is necessary to explain the mechanisms for these important observations."


The news correspondents report that additional information may be obtained from B.P. Wordsworth, University of Oxford, Botnar Res Center, Nuffield Dept. of Orthopaed Rheumatol & Musculoskelet, Oxford, United Kingdom. Additional authors for this research include M. Vecellio, L.Y. Chen, A. Ridley, A. Cortes, J.C. Knight, P. Bowness, C.J. Cohen and B.P. Wordsworth.

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Keywords for this news article include: Oxford, United Kingdom, Europe, Musculoskeletal Diseases and Conditions, Infectious Bone Diseases and Conditions, Spinal Diseases and Conditions, Joint Diseases and Conditions, Helper-Inducer T-Lymphocytes, Ankylosing Spondylitis, Enzymes and Coenzymes, Cell Differentiation, Risk and Prevention, Luciferases, Immunology, Th1 Cells, Genetics, University of Oxford.

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Anterior Cruciate Ligament

Findings on Anterior Cruciate Ligament Reported by Investigators at Department of Orthopedic Surgery (Predictors of Revision Surgery After Anterior Cruciate Ligament Reconstruction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Anterior Cruciate Ligament is the subject of a report. According to news reporting from Portsmouth, Virginia, by NewsRx journalists, research stated, "Arthroscopically assisted anterior cruciate ligament (ACL) reconstruction is a common orthopaedic procedure. Graft failure after reconstruction remains a devastating complication, often requiring revision surgery and less aggressive or modified rehabilitation."

The news correspondents obtained a quote from the research from the Department of Orthopedic Surgery, "Worse functional and patient-reported outcomes are reported compared with primary reconstruction. Moreover, both rates and risk factors for revision are variable and inconsistent within the literature. To determine the rate of revision surgery after ACL reconstruction in a large cohort of patients, to assess the influence of patient characteristics on the odds of revision, and to compare revision rates between active-duty military members and non-active-duty beneficiaries. Descriptive epidemiology study. Using administrative data from the Military Health System, a retrospective study was designed to characterize the rate of ACL revision surgery among patients treated within a military facility. All patients 18 years at the time of ACL reconstruction were identified using the American Medical Association Current Procedural Terminology (CPT) for ACL reconstruction (CPT code 29888) over 7 years (2005-2011). Revision ACL reconstructions were identified as having 2 ACL reconstruction procedure codes on the ipsilateral knee at least 90 days apart. Univariate analysis was performed to calculate odds ratios (ORs) for demographic, perioperative medication use, and concomitant procedure-related risk factors. A multivariate logistic regression model determined risk covariates in the active-duty cohort. The study population consisted of 17,164 ACL reconstructions performed among 16,336 patients, of whom 83.3% were male with a mean SD age of 28.9 +/- 7.6 years for the nonrevision group, and was predominantly active duty (89.2%). Patients undergoing ACL reconstruction on both knees only contributed their index knee for analyses. There were 587 patients who underwent revision surgery, corresponding to an overall revision rate of 3.6%. The median time from the index surgery to revision surgery was 500 days (interquartile range, 102-2406 days). Revision rates were higher in the active-duty cohort as compared with non-active-duty beneficiaries (3.8% vs 1.8%, respectively; OR, 2.14; 95% CI, 1.49-3.07). Based on multivariate logistic regression in the active-duty cohort, age 35 years (OR, 0.44; 95% CI, 0.33-0.58) and concomitant meniscal repair (OR, 0.69; 95% CI, 0.53-0.91) were found to be protective with regard to the odds of revision surgery. Perioperative medication use of nonsteroidal anti-inflammatory drugs (NSAIDs) (OR, 1.33; 95% CI, 1.12-1.58; number needed to harm [NNH], 100) and COX-2 inhibitors (OR, 1.31; 95% CI, 1.04-1.66; NNH, 333) was associated with increased odds of revision surgery. No significant findings were detected among sex, race, nicotine use, body mass index, or other concomitant procedures of interest. In this large cohort study, the rate of revision ACL reconstruction was 3.6%, which is consistent with the existing literature. Increased odds of revision surgery among active-duty personnel were associated with the perioperative use of NSAIDs and COX-2 inhibitors."

According to the news reporters, the research concluded: "Age 35 years and concomitant meniscal repair were found to be protective against ACL revision."

For more information on this research see: Predictors of Revision Surgery After

Our news journalists report that additional information may be obtained by contacting B. Bryant, Naval Med Center Portsmouth, Dept. of Orthopaed Surg, Portsmouth, VA 23703, United States. Additional authors for this research include B. Bryant, T. Gaskill, N. Sicignano, A.M. Evans and M. DeMaio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0363546516660062. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Portsmouth, Virginia, United States, North and Central America, Risk and Prevention, Epidemiology, Anterior Cruciate Ligament, Surgery, Department of Orthopedic Surgery.

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Drugs and Therapies - Antibiotics

Findings on Antibiotics Discussed by Investigators at University of Kebangsaan (Doxorubicin and siRNA Codelivery via Chitosan-Coated pH-Responsive Mixed Micellar Polyplexes for Enhanced Cancer Therapy in Multidrug-Resistant Tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news reporting originating in Kuala Lumpur, Malaysia, by NewsRx journalists, research stated, "This study investigated the potential of chitosan-coated mixed micellar nanocarriers (polyplexes) for codelivery of siRNA and doxorubicin (DOX). DOX-loaded mixed micelles (serving as cores) were prepared by thin film hydration method and coated with chitosan (CS, serving as outer shell), and complexed with multidrug resistance (MDR) inhibiting siRNA."

Funders for this research include Universiti Kebangsaan Malaysia, Kementerian Sains, Teknologi dan Inovasi.

The news reporters obtained a quote from the research from the University of Kebangsaan, "Selective targeting was achieved by folic acid conjugation. The polyplexes showed pH-responsive enhanced DOX release in acidic tumor pH, resulting in higher intracellular accumulation, which was further augmented by downregulation of mdr-1 gene after treatment with siRNA-complexed polyplexes. In vitro cytotoxicity assay demonstrated an enhanced cytotoxicity in native 4T1 and multidrug-resistant 4T1-mdr cell lines, compared to free DOX. Furthermore, in vivo, polyplexes codelivery resulted in highest DOX accumulation and significantly reduced the tumor volume in mice with 4T1 and 4T1-mdr tumors as compared to the free DOX groups, leading to improved survival times in mice."

According to the news reporters, the research concluded: "Codelivery of siRNA and DOX via polyplexes has excellent potential as targeted drug nanocarriers for treatment of MDR cancers."

For more information on this research see: Doxorubicin and siRNA Codelivery via

Our news correspondents report that additional information may be obtained by contacting M. Amin, Univ Kebangsaan Malaysia, Center Drug Delivery Res, Fac Pharm, Kuala Lumpur 50300, Malaysia. Additional authors for this research include M. Amin, H. Katas, A.A. Murad, R. Jamal and P. Kesharwani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.6b00776. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kuala Lumpur, Malaysia, Asia, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Small Interference RNAs, Emerging Technologies, Drugs and Therapies, Drug Resistance, Pharmaceuticals, Nanotechnology, Biotechnology, Nanocarriers, Oncology, Genetics, Cancer, siRNA, University of Kebangsaan.

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Drugs and Therapies - Antibiotics

**Findings on Antibiotics Reported by Investigators at Hunan University**

**[Voltammetric determination of levofloxacin using a glassy carbon electrode modified with poly(o-aminophenol) and graphene quantum dots]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a new report. According to news reporting originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "A strategy was developed for the voltammetric determination of the antibiotic drug levofloxacin (LV) based on a glassy carbon electrode modified with a composite consisting of poly(o-aminophenol) and graphene quantum dots (PoAP/GQD) that was fabricated by electropolymerization."

Financial supporters for this research include National Natural Science Foundation of China, National Natural Science Foundation of China (CN).

Our news editors obtained a quote from the research from Hunan University, "The PoAP/GQD composite provides a large surface area and sensing interface and strongly promotes the oxidation current of LV. Under optimal conditions, the modified GCE displays an oxidation peak current (best measured at a working voltage of 1.05 V vs. SCE) that is linearly related to the levofloxacin concentration in the range from 0.05 to 100 μM, and the detection limit is 10 nM (at an S/N of 3)."

According to the news editors, the research concluded: "The method was applied to the determination of levofloxacin in spiked milk samples where is gave recoveries between 96.0 and 101.0 %." For more information on this research see: Voltammetric determination of levofloxacin using a glassy carbon electrode modified with poly(o-aminophenol) and graphene

The news editors report that additional information may be obtained by contacting W. Wen, Hunan Univ, State Key Lab Chemo Biosensing & Chemometr, Changsha 410082, Hunan, People's Republic of China. Additional authors for this research include T. Bao, T.X. Hu, W. Wen, X.H. Zhang and S.F. Wang.

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**Drugs and Therapies - Antihyperlipidemic Agents**

**Findings on Antihyperlipidemic Agents Discussed by P. Partani and Co-Researchers (Development and Validation of an LC-MS-MS Method for Determination of Simvastatin and Simvastatin Acid in Human Plasma: Application to a Pharmacokinetic Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antihyperlipidemic Agents have been published. According to news originating from Gurgaon, India, by NewsRx correspondents, research stated, "A liquid chromatography-tandem mass spectrometry method was developed and validated for the simultaneous determination of simvastatin (SV) and simvastatin acid (SVA) in human plasma. To improve assay sensitivity and achieve simultaneous analysis, SVA monitored in (-) ESI (electrospray ionization) mode within the first 4.5 min and SV thereafter in (+) ESI mode."

Our news journalists obtained a quote from the research, "The separation of all compounds was achieved in about 6.2 min using a C-18 reverse-phase fused-core © column (Ascentis ® Express C-18) and a mobile phase, which was composed of 2.00 +/- 0.05 mMammonium acetate buffer titrated to pH 3.8 with glacial acetic acid-acetonitrile (25:75, v/v), in isocratic mode at a flow rate of 0.500 mL/min. Additionally, a solid-phase extraction step was performed to reduce any ion-suppression and/or enhancement effects. The developed method was linear in the concentration range of 0.100-74.626 ng/mL for SV, and 0.100-48.971 ng/mL for SVA, with correlation coefficient greater than 0.99 for both analytes. The method has shown tremendous reproducibility, with intra- and inter-day precision <7.6%, and intra- and interday accuracy within +/- 10.9% of nominal values, for the both analytes."

According to the news editors, the research concluded: "The method was successfully applied to characterize the pharmacokinetic profiles of SV and SVA following an oral administration of 40 mg SV tablet to healthy human volunteers."

For more information on this research see: Development and Validation of an LC-MS-MS Method for Determination of Simvastatin and Simvastatin Acid in Human Plasma:

The news correspondents report that additional information may be obtained from P. Partani, Sun Pharmaceut Ind Ltd, Dept. of Clin Pharmacol & Pharmacokinet, Gurgaon 122015, Haryana, India. Additional authors for this research include S.M. Verma and T. Monif.

Keywords for this news article include: Gurgaon, India, Asia, Antihyperlipidemic Agents, Drugs and Therapies, Simvastatin Therapy, Pharmacokinetics, Pharmaceuticals, Lovastatin.

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**Drugs and Therapies - Antiinfectives**

**Findings on Antiinfectives Described by Researchers at University of Leipzig (Effects of minocycline on parameters of cardiovascular recovery after cardioplegic arrest in a rabbit Langendorff heart model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antiinfectives. According to news reporting from Leipzig, Germany, by NewsRx journalists, research stated, "Pharmacological cardiac organ protection during cardiopulmonary bypass presents an opportunity for improvement. A number of different strategies have been established to minimize ischemia/reperfusion-induced damage to the heart."

The news correspondents obtained a quote from the research from the University of Leipzig, "Among these, cardioplegia with histidine-tryptophan-ketoglutarate solution and hypothermia are the most frequently used regimens. The antibiotic minocycline has been used in this context for neuroprotection. The aim of the current study was to evaluate whether the application of minocycline prior to cardioplegia exerts a protective effect on cardiac muscle. For this purpose, this study investigated six rabbit hearts with minocycline treatment (1 mmol/L) and six without in a Langendorff model of 90 min cold cardioplegic arrest using Custodiol followed by a 30 min recovery phase. Histological analysis of cardiac muscle revealed that markers of apoptosis, oxidative and nitrosative stress were significantly lower in the minocycline group, whereas adenosine triphosphate (ATP)-and malondialdehyde (MDA)-levels and O2-consumption were not affected by minocycline. Functionally, recovery of dP/dt (max) and dP/dt (min) was significantly faster in the minocycline group than in control."

According to the news reporters, the research concluded: "This leads to the conclusion that adding minocycline to the cardioplegic solution may improve left ventricular recovery after cardioplegic arrest involving reduced pro-apoptotic effects."


Our news journalists report that additional information may be obtained by contacting A. Salameh, Clinic for Pediatric Cardiology, Heart Centre, University of Leipzig,
Leipzig, Germany. Additional authors for this research include M. Halling, T. Seidel and S. Dhein.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/1440-1681.12485. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiinfectives, Europe, Leipzig, Germany, Minocycline, Tetracyclines, Drugs and Therapies.

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Drugs and Therapies - Antiinflammatory Agents

Findings on Antiinflammatory Agents Detailed by Investigators at University of Bourgogne (Inflammasomes and Natural Ingredients towards New Anti-Inflammatory Agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antiinflammatory Agents. According to news reporting originating in Dijon, France, by NewsRx editors, the research stated, "Inflammasomes are a family of proteins in charge of the initiation of inflammatory process during innate immune response. They are now considered major actors in many chronic inflammatory diseases."

The news reporters obtained a quote from the research from the University of Bourgogne, "However, no major drug focusing on this target is currently on the market. Among the various approaches aiming to control this major metabolic pathway, compounds aiming to modify the intracellular antioxidant profile appear to be promising. This can be obtained by 'light' antioxidants able to induce natural antioxidant response of the cell itself."

According to the news reporters, the research concluded: "This review will give an overview of the current available information on this promising pharmacology approach."

For more information on this research see: Inflammasomes and Natural Ingredients towards New Anti-Inflammatory Agents. Molecules, 2016;21(11):1047-1059. Molecules can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news correspondents report that additional information may be obtained by contacting P. Dutartre, Univ Bourgogne Franche Comte, Fac Sci SVTE, Lab BioperoxIL, F-21000 Dijon, France.

Keywords for this news article include: Dijon, France, Europe, Drugs and Therapies, Article Review, Antiinflammatory Agents, University of Bourgogne.

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Findings on Antimicrobials Discussed by Investigators at BioMerieux Inc. [Antimicrobial binding and growth kinetics in BacT/ALERTA (R) FA Plus and BACTECA (R) Aerobic/F Plus blood culture media]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antimicrobials is now available. According to news reporting from Durham, North Carolina, by NewsRx journalists, research stated, "The capacity of absorbent beads in BacT/ALERTA ® FA Plus and BACTECA ® Aerobic/F Plus blood culture bottles to bind and neutralize antibiotics was compared."

The news correspondents obtained a quote from the research from BioMerieux Inc., "Binding was established using reverse-phase HPLC, and inactivation was based on the recovery of susceptible test stains from simulated blood cultures. The FA Plus medium demonstrated more rapid and better overall binding kinetics for each drug tested, resulting in significantly better overall recovery rates."

According to the news reporters, the research concluded: "Differences in time to detection favored the FA Plus medium for three drug/organism combinations and Aerobic/F Plus for two."

For more information on this research see: Antimicrobial binding and growth kinetics in BacT/ALERTA ® FA Plus and BACTECA ® Aerobic/F Plus blood culture media. European Journal of Clinical Microbiology & Infectious Diseases, 2016;35(12):2033-2036. European Journal of Clinical Microbiology & Infectious Diseases can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Journal of Clinical Microbiology & Infectious Diseases - www.springerlink.com/content/0934-9723/)

Our news journalists report that additional information may be obtained by contacting W.M. Dunne, BioMerieux Inc, Durham, NC 27712, United States. Additional authors for this research include B. Katzin, K. Johnson, D. Broadwell, E. Miller, A. Gates, P. Deol, K. Doing, A. van Belkum, C. Marshall, E. Mathias and W.M. Dunne.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Drugs and Therapies, Antimicrobials, BioMerieux Inc.

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Findings on Antimicrobials Reported by Investigators at Indian Institute of Technology (Development and Scale-up of an Efficient and Green Process for HPLC Purification of Antimicrobial Homologues of Commercially Important Microbial Lipopeptides)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antimicrobials are presented in a new report. According to news originating from Kharagpur, India, by NewsRx correspondents, research stated, "Lipopeptides are green surfactants with myriad applications in the areas of
healthcare, energy, and the environment. However, the commercial potential of these ecofriendly molecules could not be fully realized due to lack of an economically viable and environmentally sustainable purification process.

Financial supporters for this research include Ministry of Earth Sciences, Department of Biotechnology, Ministry of Science and Technology.

Our news journalists obtained a quote from the research from the Indian Institute of Technology, "Thus, we endeavored to systematically develop and scale-up a green chromatographic process with zero solvent discharge for rapid and efficient purification of bioactive homologues of three lipopeptide families produced by marine Bacillus megaterium. On optimization of the purification process by analytical HPLC, significant reduction of elution time from 80 to 30 min with simultaneous improvement in peak resolution was achieved. This process was scaled-up to semipreparative HPLC, while maintaining the solvent linear velocity constant to achieve the same purification efficiency and product quality. MALDI-ToF mass spectral analysis of the purified fractions confirmed the presence of the homologues of the iturin, fengycin, and surfactin families of lipopeptides, which were subsequently tested positive for their antimicrobial activities. As evident from minimum inhibitory concentrations, the homologues containing long chain fatty acid exhibited stronger antimicrobial activities than those with shorter chains."

According to the news editors, the research concluded: "Thus, the ecofriendly process can well qualify as a standard operating procedure for efficient purification of a particular lipopeptide homologue with the desired therapeutic properties."

For more information on this research see: Development and Scale-up of an Efficient and Green Process for HPLC Purification of Antimicrobial Homologues of Commercially Important Microbial Lipopeptides. *ACS Sustainable Chemistry & Engineering*, 2016;4(12):6638-6646. *ACS Sustainable Chemistry & Engineering* can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA.

The news correspondents report that additional information may be obtained from R. Sen, Indian Inst Technol, Dept. of Biotechnol, Kharagpur 721302, W Bengal, India. Additional authors for this research include V. Rangarajan, P.R. Sridhar and R. Sen.

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Keywords for this news article include: Kharagpur, India, Asia, Drugs and Therapies, Antimicrobials, Lipopeptides, Indian Institute of Technology.

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**Drugs and Therapies - Antineoplastics**

**Findings on Antineoplastics Reported by Investigators at Imam Khomeini International University (Kinetic and thermodynamic studies of methotrexate adsorption on chitosan-modified magnetic multi-walled carbon nanotubes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antineoplastics have been presented. According to news reporting originating in Qazvin, Iran, by NewsRx journalists,
research stated, "A new type of drug delivery system involved chitosan (CS)-modified magnetic multi-walled carbon nanotubes (M-CS-MWNTs) was synthesized. Prepared M-CS-MWNTs was characterized by Fourier transform infrared spectroscopy, scanning electron microscope, thermogravimetric analysis, X-ray diffraction, and CHN techniques."

The news reporters obtained a quote from the research from Imam Khomeini International University, "The nanocarrier was used for controllable loading and release of anticancer drug methotrexate. The full factorial design methodology was employed to obtain the optimum conditions for time, dose of adsorbent, initial methotrexate concentration, and pH of preparative media on the drug loading efficiency, by using Minitab 16 and Design Expert 7.1.6 software. The maximum loading (89 %) was achieved under optimized condition (pH: 7.0, time: 35 min, methotrexate concentration: 20 mg dm(-3), and M-CS-MWNTs dosage: 0.20 g dm(-3)). The adsorption isotherm and other properties including kinetics and thermodynamics were studied. Pseudo-second order shows the best fitting of methotrexate adsorption."

According to the news reporters, the research concluded: "The thermodynamic studies showed that the adsorption of methotrexate on nanocarrier is spontaneous and exothermic in nature."

For more information on this research see: Kinetic and thermodynamic studies of methotrexate adsorption on chitosan-modified magnetic multi-walled carbon nanotubes. *Monatshefte Fur Chemie*, 2016;147(12):2051-2060. *Monatshefte Fur Chemie* can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria.

Our news correspondents report that additional information may be obtained by contacting B.V. Farahani, Imam Khomeini Int Univ, Dept. of Chem, Fac Sci, Qazvin 34149, Iran.

Keywords for this news article include: Qazvin, Iran, Asia, Methotrexate Therapy Sodium, Multiwalled Carbon Nanotube, Emerging Technologies, Drugs and Therapies, Carbon Nanotubes, Pharmaceuticals, Antimetabolites, Antineoplastics, Antirheumatics, Antipsoriatics, Nanotechnology, Fullerenes, Imam Khomeini International University.

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Antioxidants

**Findings on Antioxidants Detailed by Investigators at Tarbiat Modares University (Antioxidant effects of alfalfa can improve iron oxide nanoparticle damage: Invivo and invitro studies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Antioxidants. According to news reporting originating in Tehran, Iran, by NewsRx journalists, research stated, "Medicago sativa Linn. or alfalfa (Leguminosae) has been used traditionally as an effective cure for CNS, heart and metabolic disorders and digestive aids. Alfalfa is a resistant plant against stress due to small antioxidant molecules and enzymes."

The news reporters obtained a quote from the research from Tarbiat Modares University, "Our previous work demonstrated that 100 ggiml of 50 nm size Fe2O3-NP causes harsh oxidative stress in HepG2 cells and 100 mg/kg of same nanoparticle causes extreme damage in rat's liver. Therefore it can be used as a useful model for invivo and invitro studies of oxidative stress. This study assessed the effects of two concentration of alfalfa on the mentioned..."
invivo and invitro damage. Our results showed alfalfa reduced reactive oxygen species (ROS) production and enhanced reduced glutathione (GSH) that cause reduction of DNA fragmentation and prevent apoptosis pathway so improve viability of the cells. Results also showed alfalfa decreased hepatic enzymes penetrating and lipid peroxidation in rat's liver. Note that Fe203-NP potentially has widespread biological application but its usage is limited due to bio incompatibility."

According to the news reporters, the research concluded: "A suitable antioxidant compound that reduce nanoparticle side effects can be used as an effective adjuvant with iron oxide nanoparticle (and may be other nanomaterials) in biological applications."

For more information on this research see: Antioxidant effects of alfalfa can improve iron oxide nanoparticle damage: Invivo and invitro studies. Regulatory Toxicology and Pharmacology, 2016;81():39-46. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting L. Sadeghi, Tarbiat Modares Univ, Fac Biol Sci, Dept. of Biochem, Tehran, Iran. Additional authors for this research include F. Tanwir and V.Y. Babadi.

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Keywords for this news article include: Tehran, Iran, Asia, Risk and Prevention, Protective Agents, Antioxidants, Apoptosis, Genetics, Tarbiat Modares University.

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Drugs and Therapies - Antipsychotics

Findings on Antipsychotics Reported by Researchers at University of Calgary (Amygdala responses to quetiapine XR and citalopram treatment in major depression: the role of 5-HTTLPR-S/Lg polymorphisms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antipsychotics. According to news reporting out of Calgary, Canada, by NewsRx editors, research stated, "Genotype and drug pharmacology may contribute to variations in brain response to antidepressants. We examined the impact of two antidepressants with differential actions on serotonin transporter and the 5-HHTLPR-S/Lg polymorphisms on amygdala responses in major depressive disorder (MDD)."

Funders for this research include Astra Zeneca, Hotchkiss Brain Institute for Neuroimaging Research Unit, Foothills Hospital, Mathison Centre for Mental Health Research and Education, Calgary.

Our news journalists obtained a quote from the research from the University of Calgary, "Caucasians with MDD were given either citalopram or quetiapine extended release for 8 weeks. Patients were genotyped for 5-HTTLPR. Clinical efficacy was assessed using the Hamilton Depression Rating Scale. fMRI responses to negative emotional faces were acquired..."
at baseline, week 1 and week 8. The outcome measure was change in amygdala responses at week 8. Citalopram had no effect on amygdala responses in MDD patients with S/Lg alleles at weeks 1 and 8 compared with baseline, whereas it induced changes in amygdala responses in LL homozygotes. By contrast, quetiapine decreased amygdala responses at both time points in S/Lg carriers, and changes in amygdala responses at week 8 correlated with a reduction in depression scores. The small number of LL homozygotes in quetiapine group was a limitation. Efficacy of both treatments was comparable."

According to the news editors, the research concluded: "These preliminary data suggest that pharmacological mechanisms and genetics need to be considered in the development of neuroimaging markers for the evaluation of antidepressant treatments." For more information on this research see: Amygdala responses to quetiapine XR and citalopram treatment in major depression: the role of 5-HTTLPR-S/Lg polymorphisms. Human Psychopharmacology, 2016;31(2):144-55. (Wiley-Blackwell - www.wiley.com/; Human Psychopharmacology - onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-1077)

Our news journalists report that additional information may be obtained by contacting R. Ramasubbu, Dept. of Psychiatry, University of Calgary, Calgary, AB, Canada. Additional authors for this research include A. Burgess, I. Gaxiola-Valdez, F. Cortese, D. Clark, A. Kemp, B. Goodyear, G. Macqueen, N.T. Bech-Hansen, J. Foster and V.A Diwadkar. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/hup.2521. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antidepressants, Canada, Calgary, Alberta, Amygdala, Genetics, Nitriles, Healthcare, Propylamines, Basal Ganglia, Limbic System, Telencephalon, Brain Research, Proscencephalon, Citalopram Therapy, Quetiapine Therapy, Drugs and Therapies, Central Nervous System, Atypical Antipsychotics, Diseases and Conditions.

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Drugs and Therapies - Antiretrovirals

Findings on Antiretrovirals Reported by Investigators at Vall d'Hebron Research Institute (Impact of low-level viraemia on virological failure in HIV-1-infected patients with stable antiretroviral treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antiretrovirals are presented in a new report. According to news reporting originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Low-level viraemia (LLV) occurs in 20-40% of patients achieving viral suppression with antiretroviral therapy (ART). The risk of virological failure (VF: confirmed HIV RNA > 200 copies/ml) in these patients is still a matter of debate."

Our news editors obtained a quote from the research from Vall d'Hebron Research Institute, "This is a prospective cohort study in HIV-infected adults attending the HIV clinic of a tertiary care hospital in Spain. Patients with HIV RNA < 25 copies/ml and stable ART for at least 6 months presenting LLV (defined as HIV RNA between 25-1,000 copies/ml) from January 2011 to January 2013 were included and followed until VF or end of follow-up in June 2014. A total of 300 out of 1,733 (17.3%) patients with undetectable viraemia for 4.2 years
showed LLV: 25-50 copies/ml in 167 (55.7%) patients, 51-200 copies/ml in 111 (37%) and 201-1,000 copies/ml in 22 (7.3%) cases. After a median follow-up of 2.6 years, 23 (7.7%) patients presented VF. No patient with a single or multiple unconfirmed LLV went on to develop VF. HIV RNA > 200 copies/ml (HR 59.6; 95% CI 15.7, 227), ritonavir-boosted protease inhibitor (PI/r)-based dual therapy (HR 10.2; 95% CI 2.1, 49.8) and PI/r monotherapy (HR 7.9; 95% CI 1.4, 43.3) were associated with VF. Persistent LLV, defined as HIV RNA < 200 copies/ml in at least three consecutive samples, for at least 12 weeks, was detected in 27 (1.6%) patients and 14 (51.9%) of those evolved to VF. Nearly one-fifth of patients on suppressive ART showed LLV and 8% of them developed VF. HIV RNA > 200 copies/ml was the strongest predictor of VF.

According to the news editors, the research concluded: "Over half of patients with persistent viraemia < 200 copies/ml showed VF."


The news editors report that additional information may be obtained by contacting J. Navarro, Vall d'Hebron Res Inst, Barcelona, Spain. Additional authors for this research include E. Caballero, A. Curran, J. Burgos, I. Ocana, V. Falco, A. Torrella, M. Perez, E. Ribera and M. Crespo.

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Keywords for this news article include: Barcelona, Spain, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Antiretrovirals, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Genetics, HIV-1, Vall d'Hebron Research Institute.

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**Drugs and Therapies - Antiseptic and Germicides**

**Findings on Antiseptic and Germicides Discussed by Investigators at University of Medicine and Dentistry of New Jersey (UMDNJ) (Chlorhexidine versus Tincture of Iodine for Reduction of Blood Culture Contamination Rates: a Prospective Randomized ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antiseptic and Germicides are presented in a new report. According to news reporting originating from New Brunswick, New Jersey, by NewsRx correspondents, research stated, "Blood cultures (BCs) are the standard method for diagnosis of bloodstream infections (BSIs). However, the average BC contamination rate (CR) in U.S. hospitals is 2.9%, potentially resulting in unnecessary antibiotic use and excessive therapy costs."

Our news editors obtained a quote from the research from the University of Medicine and Dentistry of New Jersey (UMDNJ), "Several studies have compared various skin antisepsis agents without a clear consensus as to which agent is most effective in reducing contamination. A prospective, randomized crossover study directly comparing blood culture contamination
rates using chlorhexidine versus iodine tincture for skin antisepsis was performed at Robert Wood Johnson University Hospital (RWJUH). Eight nursing units at RWJUH were provided with blood culture kits containing either chlorhexidine (CH) or iodine tincture (IT) for skin antisepsis prior to all blood culture venipunctures, which were obtained by nurses or clinical care technicians. At quarterly intervals, the antiseptic agent used on each nursing unit was switched. Analyses of positive BCs were performed to distinguish true BSIs from contaminants. Of the 6,095 total BC sets obtained from the participating nursing units, 667 (10.94%) were positive and 238 (3.90%) were judged by the investigators to be contaminated. Of the 3,130 BCs obtained using IT, 340 (10.86%) were positive and 123 (3.93%) were contaminated. Of 2,965 BCs obtained using CH, 327 (11.03%) were positive and 115 (3.88%) were contaminated. The rates of contaminated BCs were not statistically significant between the two antiseptic agents ($P = 1.0$).

According to the news editors, the research concluded: "CH and IT are equivalent agents for blood culture skin antisepsis."

For more information on this research see: Chlorhexidine versus Tincture of Iodine for Reduction of Blood Culture Contamination Rates: a Prospective Randomized Crossover Study. *Journal of Clinical Microbiology*, 2016;54(12):3007-3009. *Journal of Clinical Microbiology* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.

The news editors report that additional information may be obtained by contacting M.P. Weinstein, Rutgers Robert Wood Johnson Med Sch, Dept. of Pathol & Lab Med, New Brunswick, NJ 08903, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/JCM.01457-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Brunswick, New Jersey, United States, North and Central America, Antiseptic and Germicides, Chlorhexidine Therapy, Drugs and Therapies, Antiinfectives, Antibiotics, Biguanides, Halogens, Iodine, University of Medicine and Dentistry of New Jersey (UMDNJ).

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**Aortic Aneurysms**

**Findings on Aortic Aneurysms Detailed by Investigators at University of Cologne (Single Centre Results of Total Endovascular Repair of Complex Aortic Aneurysms with Custom Made Anaconda Fenestrated Stent Grafts)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Aortic Aneurysms are discussed in a new report.

According to news reporting originating from Cologne, Germany, by NewsRx correspondents, research stated, "Fenestrated endovascular aneurysm repair (F-EVAR) has increased the number of patients with aneurysmal disease and a short or no existing neck being eligible for endovascular treatment. The aim of the study is to report experience using the Anaconda fenestrated device with special emphasis on. target vessel patency and pitfalls with the device."

Our news editors obtained a quote from the research from the University of Cologne,
Between 2011 and 2016, 48 F-EVAR procedures were performed in 37 males and 11 females under general anaesthesia using the Anaconda custom made device (CMD). Cerebrospinal fluid drainage was performed in selected cases only. Primary endpoints were 30 day mortality and any stent graft related complications. The median aneurysm diameter was 56 mm. Most of the patients had a juxtarenal aneurysm and six had an aorto-iliac aneurysm. The primary technical success was 94% with three unsuccessful cannulations of renovisceral arteries, two of which were successfully performed later. In the third patient an open repair was necessary because of occlusion of the main graft. The 30 day mortality was 4% because of colonic ischemia with two thrombotic occlusions of the superior mesenteric artery. Thirty day morbidity included four cases (8%) of acute limb ischemia: one with a complete limb occlusion caused by a torsion of the main body; two cases (4%) of assumed temporary spinal cord ischemia; six cases (12%) of acute renal failure; and 16 endoleaks (33%) (15 type II, 1 type III). During the median 24 months (range 0-53) follow up, three patients died (6%). One had migration of the stent graft, leading to open repair and post-operative multi-organ failure. The second had graft limb occlusion and died because of multi-organ failure caused by post-operative thrombosis of the reno-visceral stents. The third patient died of an unrelated cause. Two occlusions of the right renal stent/artery were detected. Moreover, there were three cases (6%) of late partial and seven cases (15%) of total graft limb thrombosis, with one being bilateral. 'Real world' feasibility of the fenestrated Anaconda stent graft is demonstrated with 4% perioperative mortality.

According to the news editors, the research concluded: "Target vessel patency is in line with other series; however, limb thrombosis during follow up is of concern."


The news editors report that additional information may be obtained by contacting J. Brunkwall, University of Cologne, University Hospital, Dept. of Vasc & Endovasc Surg, Cologne, Germany. Additional authors for this research include D. Gray, M. Gawenda and J. Brunkwall.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejvs.2016.07.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cologne, Germany, Europe, Aortic Aneurysms, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Embolism and Thrombosis, Ischemia, Surgery, Aortic Aneurysm, Hematology, Cardiology, Angiology, University of Cologne.

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Cardiovascular Diseases and Conditions -...

Findings on Arteriovenous Fistula Reported by Investigators at Johns Hopkins University (Neuromyelitis optica unmasked by a spinal dural arteriovenous fistula)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Arteriovenous Fistula. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "Neuromyelitis optica spectrum disorder (NMO-SD) and spinal dural arteriovenous fistula (SDAVF) can both cause longitudinally extensive myelopathy. We describe a case of longitudinally extensive myelopathy attributed to a SDAVF."

Our news journalists obtained a quote from the research from Johns Hopkins University, "Despite treatment, myelopathy recurred and led to subsequent NMO-SD diagnosis. We consider a possible link between the two disorders which may shed light on the pathophysiology of NMO-SD."

According to the news editors, the research concluded: "To our knowledge, this is the first published case of co-existent NMO-SD and SDAVF leading to myelopathy."

For more information on this research see: Neuromyelitis optica unmasked by a spinal dural arteriovenous fistula. Journal of Neuroimmunology, 2016;300();18-20. Journal of Neuroimmunology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Neuroimmunology - www.journals.elsevier.com/journal-of-neuroimmunology/)

Our news journalists report that additional information may be obtained by contacting B. Freund, Johns Hopkins University, Dept. of Neurol, Baltimore, MD 21218, United States. Additional authors for this research include E.M. Mowry, M. Levy and S.D. Newsome.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jneuroim.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Autoimmune Diseases and Conditions of the Nervous System, Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Cranial Nerve Diseases and Conditions, Demyelinating Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Spinal Cord Diseases and Conditions, Optic Nerve Diseases and Conditions, Vascular Diseases and Conditions, Cardiovascular Abnormalities, Arteriovenous Malformations, Congenital Abnormalities, Vascular Malformations, Arteriovenous Fistula, Neuromyelitis Optica, Transverse Myelitis, Multiple Sclerosis, Vascular Fistula, Optic Neuritis, Neurology, Johns Hopkins University.

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Findings on Arthritis Discussed by Investigators at CSL Ltd.  
(Therapeutic Targeting of the G-CSF Receptor Reduces Neutrophil Trafficking and Joint Inflammation in Antibody-Mediated Inflammatory Arthritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Musculoskeletal Diseases and Conditions - Arthritis is now available. According to news reporting out of Parkville, Australia, by NewsRx editors, research stated, "G-CSF is a hemopoietic growth factor that has a role in steady state granulopoiesis, as well as in mature neutrophil activation and function. G-CSF and G-CSF receptor deficient mice are profoundly protected in several models of rheumatoid arthritis, and Ab blockade of G-CSF also protects against disease."

Our news journalists obtained a quote from the research from CSL Ltd., "To further investigate the actions of blocking G-CSF/G-CSF receptor signaling in inflammatory disease, and as a prelude to human studies of the same approach, we developed a neutralizing mAb to the murine G-CSF receptor, which potently antagonizes binding of murine G-CSF and thereby inhibits STAT3 phosphorylation and G-CSF receptor signaling. Anti G-CSF receptor rapidly halted the progression of established disease in collagen Ab-induced arthritis in mice. Neutrophil accumulation in joints was inhibited, without rendering animals neutropenic, suggesting an effect of G-CSF receptor blockade on neutrophil homing to inflammatory sites. Consistent with this, neutrophils in the blood and arthritic joints of anti G-CSF receptor treated mice showed alterations in cell adhesion receptors, with reduced CXCR2 and increased CD62L expression. Furthermore, blocking neutrophil trafficking with anti G-CSF receptor suppressed local production of proinflammatory cytokines (IL-1 beta, IL-6) and chemokines (KC, MCP-1) known to drive tissue damage. Differential gene expression analysis of joint neutrophils showed a switch away from an inflammatory phenotype following anti G-CSF receptor therapy in collagen Ab-induced arthritis. Importantly, G-CSF receptor blockade did not adversely affect viral clearance during influenza infection in mice."

According to the news editors, the research concluded: "To our knowledge, we describe for the first time the effect of G-CSF receptor blockade in a therapeutic model of inflammatory joint disease and provide support for pursuing this therapeutic approach in treating neutrophil-associated inflammatory diseases."

For more information on this research see: Therapeutic Targeting of the G-CSF Receptor Reduces Neutrophil Trafficking and Joint Inflammation in Antibody-Mediated Inflammatory Arthritis. Journal of Immunology, 2016;197(11):4392-4402. Journal of Immunology can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1600121. This DOI is a link to an online electronic
Cardiovascular Diseases and Conditions - 

Findings on Atherosclerosis Described by Researchers at Department of Neurology (Higher Levels of Cystatin C Are Associated with Extracranial Carotid Artery Steno-Occlusive Disease in Patients with Noncardioembolic Ischemic Stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting originating in Nagoya, Japan, by NewsRx journalists, research stated, "Large artery atherosclerosis is a major cause of ischemic stroke worldwide. Differential biomarker profiles associated with extra-and intracranial atherosclerosis are a topic of considerable interest."

The news reporters obtained a quote from the research from the Department of Neurology, "Cystatin C (CysC), a marker of renal function, is a risk factor for cardiovascular disease. We sought to determine whether CysC levels were associated with extra-and intracranial large artery stenosis (LAS) in patients with acute ischemic stroke. We retrospectively analyzed data of acute noncardioembolic ischemic stroke patients who were admitted to our stroke center within 5 days from symptom onset. Serum CysC levels were measured using latex agglutination turbidimetric immunoassay. Extra-and intracranial LAS were defined as (>=) 50% diameter stenosis or occlusion of the relevant internal carotid artery (ICA) and/or middle cerebral artery (MCA) using carotid echography and volume rendering on magnetic resonance angiography. Multivariate logistic analyses were used to assess the association between CysC levels and LAS after adjustment for potential confounders. Of 205 patients (mean age 70.2 years), 76 (37.1%) had LAS. The distribution of LAS was 29 extracranial ICA, 34 intracranial ICA/MCA (8 ICA only, 25 MCA only, 1 ICA+MCA) and 13 tandem stenosis (both extracranial ICA and intracranial ICA/MCA). Levels of CysC were higher in patients with extracranial ICA stenosis than in those with intracranial ICA/MCA stenosis (1.23 ? 0.33 vs. 0.97 ? 0.21 mg/l, p<0.001). In multivariate analysis, the highest CysC tertile (>1.04 mg/l) was significantly associated with extracranial ICA stenosis (adjusted odds ratio [OR] 5.01, 95% confidence interval [CI] 1.51-16.63, p=0.009) after adjustment for age, sex, diabetes, chronic kidney disease, current smoking, systolic blood pressure, HDL cholesterol, high-sensitivity C-reactive protein (hs-CRP) and premorbid lipid-lowering drugs use. When CysC was considered as a continuous variable, 1 SD increase in CysC was significantly associated with extracranial ICA stenosis (adjusted OR 3.01, 95% CI 1.58-5.72, p=0.001). However, there were no significant associations between CysC levels and intracranial ICA/MCA stenosis. In addition, CysC levels showed a weak but statistically significant correlation with hs-CRP levels (r=0.195, p=0.021). Using receiver operating characteristic curve analysis, CysC value displayed good performance in discriminating extracranial ICA stenosis (c-statistic 0.79, 95% CI 0.69-
0.89, p<0.001). This preliminary study suggests that higher levels of CysC were independently associated with symptomatic extracranial ICA stenosis, but not with intracranial ICA/MCA stenosis in patients with noncardioembolic stroke.

According to the news reporters, the research concluded: "Our findings provide new insights into the link between serum CysC and carotid atherosclerosis."


Our news correspondents report that additional information may be obtained by contacting T. Umemura, Dept. of Neurology, Preventive Medical Center, Nagoya, Japan. Additional authors for this research include T. Kawamura, S. Mashita, T. Kameyama and G. Sobue.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443338. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Nagoya, Proteins, Stenosis, Angiology, Cystatin C, Atherosclerosis, Arteriosclerosis, Carotid Arteries, Risk and Prevention, Arterial Occlusive Diseases, Cardiovascular Diseases and Conditions.

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**Cardiovascular Diseases and Conditions**

**Findings on Atherosclerosis Detailed by Investigators at Singapore National University (NKT Cell Hyporesponsiveness Leads to Unrestrained Accumulation of Marginal Zone B Cells in Hypercholesterolemic Apolipoprotein E-Deficient Mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Atherosclerosis is the subject of a report. According to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Recently, the role of B cells in atherosclerosis has gained more attention but studies have mainly focused on B1 and follicular B cell subsets. Therefore, the contribution of marginal zone (MZ) B cells in experimental atherosclerosis remains elusive."

Our news editors obtained a quote from the research from Singapore National University, "In the current study, we examined the MZ B cell compartment in atherosclerotic apoE-deficient (apoE(-/-)) mice and found that hypercholesterolemia in these mice was associated with an increased number and percentage of MZ B cells. This aberrant accumulation of MZ B cells was not associated with alterations in their development or increased proliferation but was due to decreased apoptotic cell death. This decrease in MZ B cell death in apoE(-/-) mice was associated with the reduced capacity of invariant NKT (iNKT) cells to produce IFN-gamma and IL-4 after activation. Lowering cholesterol plasma levels with ezetimibe in apoE(-/-) mice reversed iNKT function and MZ B cell accumulation. To elucidate the mechanism whereby iNKT cells control MZ B cell accumulation in apoE(-/-) mice, we performed an
adoptive transfer of iNKT cells and found that only wild-type iNKT cells but not IFN-gamma (-/-) iNKT cells reversed MZ B cell accumulation in apoE(-/-) recipient mice. Our findings reveal that lipid changes associated with atherosclerotic disease induce decreased production of IFN-gamma by iNKT, which in turn leads to aberrant accumulation of MZ B cells."

According to the news editors, the research concluded: "This study further extends the importance of iNKT cells in regulating MZ B cell compartment."

For more information on this research see: NKT Cell Hyporesponsiveness Leads to Unrestrained Accumulation of Marginal Zone B Cells in Hypercholesterolemic Apolipoprotein E-Deficient Mice. *Journal of Immunology*, 2016;197(10):3894-3904. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)


Keywords for this news article include: Singapore, Singapore, Asia, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Arteriosclerosis, Apolipoproteins, Atherosclerosis, Lipoproteins, Apoproteins, Cardiology, Proteins, Singapore National University.

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**Cardiovascular Diseases and Conditions -...**

**Findings on Atherosclerosis Discussed by Investigators at Erasmus University Medical Center [Plasma cystatin C and neutrophil gelatinase-associated lipocalin in relation to coronary atherosclerosis on intravascular ultrasound and cardiovascular ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Atherosclerosis are presented in a new report. According to news reporting originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "We investigated whether plasma cystatin C (CysC) and neutrophil gelatinase-associated lipocalin (NGAL) are associated with intravascular ultrasound (IVUS)-derived characteristics of coronary atherosclerosis and 1-year adverse coronary events in patients with normal and mildly-to-moderately impaired kidney function. Between 2008 and 2011, virtual histology (VH)-IVUS of a non-culprit coronary artery was performed in 581 patients undergoing coronary angiography."

Our news editors obtained a quote from the research from Erasmus University Medical Center, "Creatinine, CysC and NGAL were measured in pre-procedural blood samples. Presence of VH-IVUS-derived thin-cap fibroatheroma (TCFA) lesions, lesions with plaque burden (PB) >= 70% and lesions with minimal luminal area (MLA) <= 4 mm 2 was assessed. Major adverse coronary events (MACE) comprised the composite of all-cause mortality, acute coronary syndrome, or unplanned coronary revascularization. Analyses were stratified using eGFR(Cr) of 90 ml/min/1.73 m(2) as the cut-off. In patients with normal kidney function, those
with higher CysC levels had fewer lesions with PB >= 70% and fewer VH-TFCA lesions (adjusted odds ratios (ORs) and 95% confidence intervals (CIs): 0.46 [0.30-0.69] and 0.59 [0.44-0.83], respectively, per standard deviation (SD) ln[ng/mL] CysC). Those with higher NGAL levels also had fewer lesions with PB >= 70% (adjusted OR [95% CI]: 0.49 [0.29-0.82]).

In patients with impaired kidneys, no differences in high-risk lesions were observed for CysC or NGAL. However, those with higher CysC had higher risk of MACE (hazard ratio (HR): 1.4, 95% CI [1.03-1.92]). This was not the case in patients with normal kidney function. NGAL did not influence risk of MACE. Mild-to-moderate kidney dysfunction modifies the relationship between CysC and high-risk coronary lesions.

According to the news editors, the research concluded: "This has not been established before, and offers an explanation for the difference in findings between experimental and epidemiologic studies."


The news editors report that additional information may be obtained by contacting I. Kardys, Erasmus MC, Dept. of Cardiol, Rotterdam, Netherlands. Additional authors for this research include K.M. Akkerhuis, N. Buljubasic, J.M. Cheng, R.M. Oemrawsingh, H.M. Garcia-Garcia, E. Regar, P.W. Serruys, R.J. van Geuns, E. Boersma and I. Kardys.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.09.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Cardiology, Epidemiology, Hemic and Immune Systems, Metalloendopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Carrier Proteins, Arteriosclerosis, Atherosclerosis, Intravascular, Granulocytes, Gelatinases, Blood Cells, Neutrophils, Cystatin C, Lipocalins, Immunology, Phagocytes, Hematology, Cystatins, Angiology, Plasma, Erasmus University Medical Center.

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(HFrEF). This study evaluated the effect of permanent AF on renal function in HFrEF and investigated the associations of atrial fibrillation, neutrophil gelatinase-associated lipocalin (NGAL), and neutrophil-to-lymphocyte ratio (NLR) with adverse clinical outcome."

Our news editors obtained a quote from the research from the Department of Cardiology, "Serum NGAL levels measured by ELISA and NLR were compared between patients with sinus rhythm (HFrEF-SR, n=68), with permanent AF (HFrEF-AF, n=62), and a healthy control group (n=50). Mean eGFR levels were significantly lower, and NLR and NGAL levels were significantly higher in the HFrEF patients than in the control patients but the difference between HFrEF-SR and HFrEF-AF was not statistically significant (NGAL: 95 ng/mL in HFrEF-SR, 113 ng/mL in HFrEF-AF and 84 ng/mL in the control group; p<0.001). Independent associates of baseline eGFR were age, hemoglobin, NLR, triiodothyronine, and pulmonary artery systolic pressure. In a mean 16 months follow-up, adverse clinical outcome defined as progression of kidney dysfunction and composite of all-cause mortality and re-hospitalization were not different between HFrEF-SR and HFrEF-AF patients. Although NGAL was associated with clinical endpoints in the univariate analysis, Cox regression analysis showed that independent predictors of increased events were the presence of signs right heart failure, C-reactive protein, NLR, triiodothyronine, and hemoglobin. In ROC analysis, a NLR >3 had a 68% sensitivity and 75% specificity to predict progression of kidney disease (AUC=0.72, 95% CI 0.58-0.85, p=0.001). Presence of AF in patients with HFrEF was not an independent contributor of adverse clinical outcome (i.e., all-cause death, re-hospitalization) or progression of renal dysfunction."

According to the news editors, the research concluded: "Renal dysfunction in HFrEF was associated with both NLR and NGAL levels, but systemic inflammation reflected by NLR seemed to be a more important determinant of progression of kidney dysfunction."

For more information on this research see: Associations Between Neutrophil Gelatinase Associated Lipocalin, Neutrophil-to-Lymphocyte Ratio, Atrial Fibrillation and Renal Dysfunction in Chronic Heart Failure. Medical Science Monitor, 2016;22():4765-4772. Medical Science Monitor can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

The news editors report that additional information may be obtained by contacting O. Argan, Kocaeli State Hosp, Dept. of Cardiol, Kocaeli, Turkey. Additional authors for this research include D. Ural, G. Kozdag, T. Sahin, S. Bozyel, M. Aktas, K. Karauzum, I. Yilmaz, E. Dervis and A. Agir.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.898608. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kocaeli, Turkey, Eurasia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Hemic and Immune Systems, Mononuclear Leukocytes, Metalloendopeptidases, Enzymes and Coenzymes, Chronic Heart Failure, Atrial Fibrillation, Cardiac Arrhythmias, Peptide Hydrolases, Triiodothyronine, Carrier Proteins, Heart Disease, Granulocytes, Heart Attack, Gelatinases, Blood Cells, Lymphocytes, Neutrophils, Lipocalins, Nephrology, Immunology, Phagocytes, Cardiology, Kidney, Department of Cardiology.

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Findings on Atrial Fibrillation Discussed by Investigators at University of Pennsylvania Hospital (Recurrent atrial arrhythmias in the setting of chronic pulmonary vein isolation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Atrial Fibrillation are discussed in a new report. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "Atrial arrhythmias may still occur in patients after durable pulmonary vein isolation (PVI). The purpose of this study was to examine the incidence of patients undergoing ablation for recurrent arrhythmia despite chronic PVI and their clinical outcomes."

Our news journalists obtained a quote from the research from the University of Pennsylvania Hospital, "Patients undergoing repeat left atrial ablation procedures were selected from a prospective registry. From this population, we identified patients with chronic PVI. Clinical characteristics, ablation strategies, and outcomes were analyzed. Between January 2003 and December 2013, 1045 patients underwent 1298 repeat left atrial procedures. Of these, 900 patients had atrial fibrillation (AF) and 145 had atrial flutter (AFL)/atrial tachycardia (AT). Fifty-two patients (5.0%; 27 with AF and 25 with AFL/AT) had chronic PVI and were included in the study. Patients were followed for 19.7 +/- 5.6 months. In patients with AF, 11 (41%) had a non-PV trigger identified. Ablation strategies included non-PV trigger ablation (n = 11), empiric trigger-site ablation (n = 3), provoked arrhythmia ablation (n = 9), complex fractionated atrial electrogram ablation (n = 2), and linear ablation (n = 2). During follow-up, 9 (33%) had no recurrence, 7 (26%) had rare AF (<= 2 episodes during follow-up >= 1 year), and 11 (41%) had AF recurrence. In patients with AFL/AT, 12 (48%) had no recurrence, 4 (16%) had rare recurrence (<= 2 episodes during follow-up >= 1 year), and 9 (36%) had recurrence. In patients with PVI undergoing a repeat procedure during the time period studied, only a small portion had chronic PVI."

According to the news editors, the research concluded: "A strategy of targeting non-PV triggers for AF and linear/focal ablation for AFL/AT may achieve long-term arrhythmia control in the majority of patients."


Our news journalists report that additional information may be obtained by contacting F.E. Marchlinski, University of Pennsylvania Hospital, Founders Pavil Cardiol 9, Philadelphia, PA 19104, United States. Additional authors for this research include S. Maeda, W. Chik, P. Santangeli, E.S. Zado, R.D. Schaller, G.E. Supple, D.S. Frankel, M.D. Hutchinson, F.C. Garcia, M.P. Riley, D. Lin, S. Dixit, D.J. Callans and F.E. Marchlinski.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.08.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Heart Disorders and Diseases, Atrial Fibrillation, Pulmonary Veins, Arrhythmia, Cardiology, Angiology, University of Pennsylvania Hospital.
Heart Disorders and Diseases - Atrial Fibrillation

Findings on Atrial Fibrillation Reported by A.G. Bejinariu et al (Left atrial thrombi and spontaneous echo contrast in patients with atrial fibrillation Systematic analysis of a single-center experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting originating from Detmold, Germany, by NewsRx correspondents, research stated, "Atrial fibrillation is associated with a high risk for thromboembolic events. Thrombi in the left atrial appendage and spontaneous echo contrast (SEC) correlate positively with this embolic risk."

Our news editors obtained a quote from the research, "We studied the laboratory, echocardiographic, and epidemiologic parameters that could predict left atrial thrombi and the intensity of the SEC. Between September 2013 and June 2015 we included 372 patients with atrial fibrillation before planned electrical cardioversion (transesophageal-guided strategy) in this study. After assessing the risk of stroke and bleeding (CHA(2)DS(2)-VASc and HAS-BLED scores), we measured the concentration of the D-dimer and B-type natriuretic peptide at the time of the transesophageal echocardiography as well as the left atrial volume and the ejection fraction during transthoracic echocardiography. The ejection fraction and the CHA(2)DS(2)-VASc score were identified as independent predictors of both left atrial thrombi and SEC, whereas the left atrial volume could only predict the intensity of SEC. In contrast to the results of other studies, the biomarkers in this study failed to predict the outcome. Only the echocardiographic and epidemiologic parameters were predictors of left atrial thrombi and SEC intensity, while the studied biomarkers had no predictive power."

According to the news editors, the research concluded: "Using clinical data and transthoracic echocardiography, we can change the therapeutic strategy in high-risk patients."

For more information on this research see: Left atrial thrombi and spontaneous echo contrast in patients with atrial fibrillation Systematic analysis of a single-center experience. Herz, 2016;41(8):706-714. Herz can be contacted at: Urban & Vogel, Neumarkter Strasse 43, D-81673 Munich, Germany. (Springer - www.springer.com; Herz - www.springerlink.com/content/0340-9937/)

The news editors report that additional information may be obtained by contacting A.G. Bejinariu, Klinikum Lippe Detmold, Clin Cardiol Angiol & Intens Care, D-32756 Detmold, Germany. Additional authors for this research include D.U. Hartel, J. Brockmeier, R. Oeckinghaus, A. Herzer and U. Tebbe.

Keywords for this news article include: Detmold, Germany, Europe, Stroke, Diagnostics and Screening, Epidemiology, Diagnostic Techniques and Procedures, Heart Disorders and Diseases, Heart Function Tests, Risk and Prevention, Atrial Fibrillation, Cardiac Arrhythmias, Echocardiography, Cardiovascular, Heart Disease, Cardiology, Diagnosis.

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**Findings on Autism Spectrum Disorders Detailed by Investigators at University of California (Histone Acetylome-wide Association Study of Autism Spectrum Disorder)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Developmental Diseases and Conditions - Autism Spectrum Disorders are discussed in a new report. According to news reporting originating in Los Angeles, California, by NewsRx journalists, research stated, "The association of histone modification changes with autism spectrum disorder (ASD) has not been systematically examined. We conducted a histone acetylome-wide association study (HAWAS) by performing H3K27ac chromatin immunoprecipitation sequencing (ChIP-seq) on 257 postmortem samples from ASD and matched control brains."

Financial supporters for this research include PsychENCODE, Agency for Science, Technology and Research.

The news reporters obtained a quote from the research from the University of California, "Despite etiological heterogeneity, ≥68% of syndromic and idiopathic ASD cases shared a common acetylome signature at >5,000 cis-regulatory elements in prefrontal and temporal cortex. Similarly, multiple genes associated with rare genetic mutations in ASD showed common 'epi-mutations.' Acetylome aberrations in ASD were not attributable to genetic differentiation at cis-SNPs and highlighted genes involved in synaptic transmission, ion transport, epilepsy, behavioral abnormality, chemokinesis, histone deacetylation, and immunity. By correlating histone acetylation with genotype, we discovered >2,000 histone acetylation quantitative trait loci (haQTLs) in human brain regions, including four candidate causal variants for psychiatric diseases."

According to the news reporters, the research concluded: "Due to the relative stability of histone modifications postmortem, we anticipate that the HAWAS approach will be applicable to multiple diseases."


Our news correspondents report that additional information may be obtained by contacting D.H. Geschwind, University of California, David Geffen Sch Med, Center Autism Res & Treatment, Program NeurogenetDept NeurolSemel Inst, Los Angeles, CA 90095, United States. Additional authors for this research include J. Poschmann, R.C.H. del Rosario, N.N. Parikshak, H.S. Hajan, V. Kumar, R. Ramasamy, T.G. Belgard, B. Elangovan, C.C.Y. Wong, J. Mill, D.H. Geschwind and S. Prabhakar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cell.2016.10.031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Developmental Diseases and Conditions, Autism Spectrum Disorders, Nucleoproteins, Proteins, Histones, Genetics, University of California.

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Oncology - B-Cell Lymphoma

Findings on B-Cell Lymphoma Described by M. Saito and Colleagues
(Regression of gastric de novo diffuse large B-cell lymphoma following Helicobacter pylori eradication: a case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - B-Cell Lymphoma.

According to news reporting originating in Hokkaido, Japan, by NewsRx journalists, research stated, "We report a case of primary gastric diffuse large B-cell lymphoma (DLBCL), de novo DLBCL without the features of mucosa-associated lymphoid tissue (MALT) lymphoma, which regressed after Helicobacter pylori (HP) eradication. A 27-year-old Japanese female with epigastralgia was revealed to have ulcerated lesions in the angle and antral regions on gastroscopy."

The news reporters obtained a quote from the research, "Biopsy specimen was consistent with a diagnosis of DLBCL without MALT lymphoma component, indicating de novo development. Her clinical staging on the Lugano system was Stage I. HP was positive on a rapid urease test, and she received HP eradication therapy twice, because the first therapy was not successful."

According to the news reporters, the research concluded: "On gastroscopy performed 1 month after the second HP eradication therapy, no ulcerated lesion was noted, and the lymphoma cells had regressed histopathologically."


Our news correspondents report that additional information may be obtained by contacting M. Saito, Aiiku Hosp, Dept. of Internal Med & Hematol, Sapporo, Hokkaido, Japan. Additional authors for this research include M. Masutani, K. Mabe, K. Izumiyama, A. Mori, T. Irie, M. Tanaka, M. Morioka and M. Tanino.

Keywords for this news article include: Hokkaido, Japan, Asia, Parasitic Diseases and Conditions, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Gram-Negative Bacteria, Large B-Cell Lymphoma, Epsilonproteobacteria, Helicobacter pylori, Proteobacteria, Hematology, Lymphomas, Oncology, Therapy.

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Bacterial Infections and Mycoses - Bacteremia

Findings on Bacteremia Detailed by G. Sakoulas and Co-Authors
(Cefazolin and Ertapenem, a Synergistic Combination Used To Clear Persistent Staphylococcus aureus Bacteremia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Bacterial Infections and Mycoses - Bacteremia.

According to news reporting originating in Cheongju, South Korea, by NewsRx journalists, research stated, "We report a case of persistent Staphylococcus aureus bacteremia treated with cefazolin and ertapenem. A 70-year-old female with diabetes and chronic obstructive pulmonary disease was admitted to the hospital with fever and chills. Blood cultures were positive for S. aureus."

The news reporters obtained a quote from the research, "Blood cultures were positive for S. aureus, and she received empiric antibiotic therapy with cefazolin and ertapenem. Her S. aureus isolate was resistant to methicillin.

According to the news reporters, the research concluded: "The patient's fever resolved within 24 hours of antibiotic treatment. Her S. aureus isolate was sensitive to ertapenem."


Our news correspondents report that additional information may be obtained by contacting G. Sakoulas, Dept. of Internal Med, Clin Univ Saint Luk, 10 Ave Hippocrate, Brussels, B-1200, Belgium. Additional authors for this research include M. Cid, B. Yassin, F. Tanghe, F. Guerin, P. Vandenplas, M. Zanini and L. De Smet.

Keywords for this news article include: Cheongju, South Korea, Asia, Bacterial Infections and Mycoses - Bacteremia, Staphylococcus aureus, Antimicrobial Agents, Antibiotics, Methicillin, Resistance, Therapy.

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& Wellness Week -- Fresh data on Bacterial Infections and Mycoses - Bacteremia are presented in a new report. According to news reporting originating in San Diego, California, by NewsRx journalists, research stated, "Ertapenem and cefazolin were used in combination to successfully clear refractory methicillin-susceptible Staphylococcus aureus (MSSA) bacteremia. In addition, recent work has demonstrated activity of combination therapy with beta-lactams from different classes against methicillin-resistant S. aureus (MRSA)."

Financial support for this research came from HHS | National Institutes of Health (NIH).

The news reporters obtained a quote from the research, "The ertapenem-plus-cefazolin combination was evaluated for synergy in vitro and in vivo in a murine skin infection model using an index MSSA bloodstream isolate from a patient in whom persistent bacteremia was cleared with this combination and against a cadre of well-described research strains and clinical strains of MSSA and MRSA. Against the index MSSA bloodstream isolate, ertapenem and cefazolin showed synergy using both checkerboard (fractional inhibitory concentration [FIC] index = 0.375) and time-kill assays. Using a disk diffusion ertapenem potentiation assay, the MSSA isolate showed a cefazolin disk zone increased from 34 to 40 mm. In vitro pharmacokinetic/pharmacodynamic modeling at clinically relevant drug concentrations demonstrated bactericidal activity (>3 log10-CFU/ml reduction) of the combination but bacteriostatic activity of ether drug alone at 48 h. A disk diffusion potentiation assay showed that ertapenem increased the cefazolin zone of inhibition by >3 mm for 34/35 (97%) MSSA and 10/15 (67%) MRSA strains. A murine skin infection model of MSSA showed enhanced activity of cefazolin plus ertapenem compared to monotherapy with these agents. After successful use in clearance of MSSA bacteremia, the combination of ertapenem and cefazolin showed synergy against MSSA in vitro and in vivo."

According to the news reporters, the research concluded: "This combination may warrant consideration for future clinical study in MSSA bacteremia."

For more information on this research see: Cefazolin and Ertapenem, a Synergistic Combination Used To Clear Persistent Staphylococcus aureus Bacteremia. Antimicrobial Agents and Chemotherapy, 2016;60(11):6609-6618. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting G. Sakoulas, Sharp Healthcare Syst, San Diego, CA 92123, United States. Additional authors for this research include J. Olson, J. Yim, N.B. Singh, M. Kumaraswamy, D.T. Quach, M.J. Rybak, J. Pogliano and V. Nizet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01192-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Diego, California, United States, North and Central America, Gram-Positive Endospore-Forming Rods, Bacterial Infections and Mycoses, First Generation Cephalosporins, Endospore-Forming Bacteria, Beta-Lactam Antibiotics, Gram-Positive Bacteria, Staphylococcus aureus, Drugs and Therapies, Gram-Positive Cocci, Organic Chemicals, Staphylococcaceae, Antiinfectives, Carbapenems, Bacillales, Bacteremia, Cefazolin, Ertapenem, Amides, Sepsis.

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Findings on Bacteremia Detailed by Investigators at Mayo Clinic
(Management of bacteremia in patients living with cardiovascular implantable electronic devices)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Bacterial Infections and Mycoses - Bacteremia have been presented. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "Cardiovascular implantable electronic devices (CIEDs) have become a critical component in management of patients with cardiac rhythm disturbances, heart failure, and prevention of sudden cardiac death. However, infection remains a major complication of CIED implantation and is associated with significant morbidity and mortality for device recipients."

The news correspondents obtained a quote from the research from Mayo Clinic, "Early-onset CIED infections frequently originate from the generator pocket, secondary to device or pocket contamination at the time of implantation, and may progress to involve device leads or cardiac valves. However, hematogenous seeding of the device leads from a remote source of bacteremia is not infrequent in patients with late-onset CIED infections. Whereas CIED pocket infection can be diagnosed in the majority of cases based on physical findings at the pulse generator site, device lead infection may only manifest with fever and positive blood cultures. However, not every patient with a CIED and positive blood cultures has underlying CIED lead infection. Consequently, management of bacteremia in a CIED recipient without local signs of infection presents a significant challenge. The risk of underlying CIED lead infection in patients presenting with bacteremia depends on several factors, including the type of microorganism isolated in blood cultures, duration and source of bacteremia, type of CIED, and number of device-related procedures. These risk factors must be considered when making decisions regarding the need for further diagnostic imaging and whether to retain or remove the device."

According to the news reporters, the research concluded: "In this article, we review the published data regarding risk of CIED infection in patients presenting with bacteremia and propose an algorithm for appropriate evaluation and management."


Our news journalists report that additional information may be obtained by contacting D.C. DeSimone, Mayo Clin Coll Med, Dept. of Med, Div Hosp Internal Med, Rochester, MN, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.08.029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cardio Device, Article Review, Risk and Prevention, Bacterial Infections and Mycoses, Medical Devices, Cardiovascular, Cardiology, Bacteremia, Sepsis, Mayo Clinic.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Bacterial Infections and Mycoses - Bacteremia. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "With the increasing use of carbapenems, carbapenem-resistant Gram-negative bacteria have become a major concern in health care-associated infections. The present study was performed to evaluate the clinical and microbiological features of breakthrough Gram-negative bacteremia (GNB) during carbapenem therapy and to assess risk factors for development of breakthrough GNB."

Our news journalists obtained a quote from the research from Sungkyunkwan University, "A case-control study was performed at a tertiary hospital from 2005 to 2014. Case patients were defined as individuals whose blood cultures grew Gram-negative bacteria while the patients were receiving carbapenems for at least 48 h before breakthrough GNB. Age-, sex-, and date-matched controls were selected from patients who received carbapenem for at least 48 h and did not develop breakthrough GNB during carbapenem treatment. A total of 101 cases of breakthrough GNB were identified and compared to 100 controls. The causative microorganisms for breakthrough GNB were Stenotrophomonas maltophilia (n = 33), Acinetobacter baumannii (n = 32), Pseudomonas aeruginosa (n = 21), and others (n = 15). Approximately 90% of S. maltophilia isolates were susceptible to levofloxacin and trimethoprim-sulfamethoxazole. The most common infection types were primary bacteremia (38.6%) and respiratory infections (35.6%). More than half of the patients died within a week after bacteremia, and the 30-day mortality rate was 70.3%. In a multivariate analysis, a longer hospital stay, hematologic malignancy, persistent neutropenia, immunosuppressant use, and previous colonization by causative microorganisms were significantly associated with breakthrough GNB." According to the news editors, the research concluded: "Our data suggest that S. maltophilia, A. baumannii, and P. aeruginosa are the major pathogens of breakthrough GNB during carbapenem therapy, in association with a longer hospital stay, hematologic malignancy, persistent neutropenia, immunosuppressant use, and previous colonization."

For more information on this research see: Clinical Features and Risk Factors for Development of Breakthrough Gram-Negative Bacteremia during Carbapenem Therapy. Antimicrobial Agents and Chemotherapy, 2016;60(11):6673-6678. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00984-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Gram-Negative Bacterial Infections, Bacterial Infections and Mycoses, Risk and Prevention, Drugs and Therapies, beta-Lactams, Carbapenems, Antibiotics, Bacteremia, Hospital, Therapy, Sepsis, Sungkyunkwan University.

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**Biological Factors - Biological Pigments**

**Findings on Biological Pigments Detailed by Investigators at University of Montpellier (Martinique Crinkled Retinal Pigment Epitheliopathy Clinical Stages and Pathophysiologic Insights)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biological Factors - Biological Pigments is the subject of a report. According to news reporting originating in Montpellier, France, by NewsRx journalists, research stated, "To reappraise the autosomal dominant Martinique crinkled retinal pigment epitheliopathy (MCRPE) in light of the knowledge of its associated mutated gene mitogen-activated protein kinase-activated protein kinase 3 (MAPKAPK3), an actor in the p38 mitogen-activated protein kinase pathway. Clinical and molecular study."

The news reporters obtained a quote from the research from the University of Montpellier, "A total of 45 patients from 3 generations belonging to a family originating from Martinique with an autosomal dominant MCRPE were examined. Best-corrected visual acuity, fundus photographs, and spectral-domain optical coherence tomography (SD OCT) of all clinically affected patients and carriers for the causal mutation were reviewed at the initial visit and 4 years later for 10 of them. Histologic retinal lesions of Mapkapk3(-/-) mice were compared with those of the human disease. The MCRPE natural history in view of MAPKAPK3 function and Mapkapk3(-/-) mouse retinal lesions. Eighteen patients had the c. 518T >C mutation. One heterozygous woman aged 20 years was asymptomatic with normal fundus and SD OCT (stage 0). All c. 518T >C heterozygous patients older than 30 years of age had the characteristic dried-out soil fundus pattern (stages 1 and 2). Complications (stage 3) were observed in 7 cases, including polypoidal choroidal vasculopathy (PCV) and macular fibrosis or atrophy. One patient was homozygous and had a form with severe Bruch's membrane (BM) thickening and macular exudation with a dried-out soil pattern in the peripheral retina. The oldest heterozygous patient, who was legally blind, had peripheral nummular pigmentary changes (stage 4). After 4 years, visual acuity was unchanged in 6 of 10 patients. The dried-out soil elementary lesions radically enlarged in patients with a preferential macular extension and confluence. These findings are in line with the progressive thickening of BM noted with age in the mouse model. During follow-up, there was no occurrence of PCV. MCRPE is an autosomal dominant, fully penetrant retinal dystrophy with a preclinical stage, an onset after the age of 30 years, and a preserved visual acuity until occurrence of macular complications."

According to the news reporters, the research concluded: "The natural history of MCRPE is in relation to the role of MAPKAPK3 in BM modeling, vascular endothelial growth factor activity, retinal pigment epithelial responses to aging, and oxidative stress."

For more information on this research see: Martinique Crinkled Retinal Pigment
Transplant Medicine - Bone Marrow Harvesting

Findings on Bone Marrow Harvesting Discussed by Investigators at Medical University (Multiple small versus few large amount aspirations for bone marrow harvesting in autologous and allogeneic bone marrow transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Transplant Medicine - Bone Marrow Harvesting are presented in a new report. According to news reporting out of Vienna, Austria, by NewsRx editors, research stated, "For successful bone marrow transplantation it is necessary to obtain enough progenitor cells during the bone marrow (BM) harvesting procedure. Most centers are using multiple aspirations of maximum 2 ml BM (A), while other centers are using few larger amount aspirations for BM harvesting (B)."

Our news journalists obtained a quote from the research from Medical University, "There is still a discussion about possible differences in graft composition between A and B. To evaluate the feasibility in children we evaluated twenty BM harvestings that were performed in 18 donors, 7 autologous (median age 6.93y; 2.48-16.6) and 13 allogeneic donors (median age 19.75y; 6.45-50.7). A and B were performed crosswise by 2 operators starting with A (2 ml) or B (100 ml) changing to B or A, collecting identically amounts with both methods. We found no statistically significant difference between A and B for MNC, T-cells, and CFU (MNC/ml 824572 versus 725000, p = 0.728; MNC/kg 3.1 10(7) versus 2.9 10(7), p = 0.296; CD3/m1162500 versus 300000, p = 0.310; CFU/10(5) MNC 1678 versus 1315, p = 0.094), but for CD34+ cells (CD34/kg 2.62 versus 2.09, p = 0.045)."

According to the news editors, the research concluded: "BM harvest by the large amount few punctures method (B) is as sufficient as the commonly used small amount frequent punctures method (A), and could be therefore used equally."

For more information on this research see: Multiple small versus few large amount aspirations for bone marrow harvesting in autologous and allogeneic bone marrow transplantation. Transfusion and Apheresis Science, 2016;55(2):221-224. Transfusion and Apheresis Science can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com;
Our news journalists report that additional information may be obtained by contacting V. Witt, Medical University of Vienna, Dept. of Pediat, St Anna Kinderspital, Vienna, Austria. Additional authors for this research include H. Pichler, G. Fritsch and C. Peters.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transci.2016.07.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vienna, Austria, Europe, Bone Marrow Harvesting, Transplant Medicine, Transplantation, Immune System, Bone Research, Biomedicine, Surgery, Medical University.

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Bone Research

Findings on Bone Research Detailed by Investigators at Iran University of Medical Sciences (A Dermal Equivalent Engineered with TGF-beta 3 Expressing Bone Marrow Stromal Cells and Amniotic Membrane: Cosmetic Healing of Full-Thickness Skin ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Bone Research is the subject of a report. According to news reporting originating from Tehran, Iran, by NewsRx correspondents, research stated, "Transforming growth factor beta-3 (TGF-beta 3) has been shown to decrease scar formation after scheduled topical applications to the cutaneous wounds. This study aimed to continuously deliver TGF-beta 3, during the early phase of wound healing, by engineering a dermal equivalent (DE) using TGF-beta 3 expressing bone marrow stromal cells (BM-SCs) and human dehydrated amniotic membrane (hDAM)."

Our news editors obtained a quote from the research from the Iran University of Medical Sciences, "To engineer a DE, rat BM-SCs were seeded on the hDAM and TGF-beta 3 was transiently transfected into the BM-SCs using a plasmid vector. Pieces of the dermal equivalent were transplanted onto the full-thickness excisional skin wounds in rats. The process of wound healing was assessed by image analysis, Manchester Scar Scale (MSS), and histopathological studies 7, 14, 21, and 85 days after the excision. The results confirmed accurate construction of recombinant pcDNA3.1-TGF-beta 3 expression system and showed that the transfected BM-SCs seeded on hDAM expressed TGF-beta 3 mRNA and protein from day 3 through day 7 after transfection. After implantation of the DE, contraction of the wounds was measured from day 7 through 21 and analyzed by linear regression, which revealed that the rate of wound contraction in all experimental groups was similar. Histologic evaluation demonstrated that transfected BM-SCs decreased retention and recruitment of the cells during the early stage of wound healing, decreased the formation of vascular structures and led to formation of uniformly parallel collagen bundles. MSS scores showed that TGF-beta 3 secreting cells significantly improved the cosmetic appearance of the healed skin and decreased the scar formation."

According to the news editors, the research concluded: "From these results, it could
be concluded that transient secretion of TGF-beta 3, during the early phase of healing, by BM-SCs seeded on hDAM can improve the cosmetic appearance of the scar in cutaneous wounds without negatively affecting the process of wound repair.


The news editors report that additional information may be obtained by contacting A. Samadikuchakaraei, Iran Univ Med Sci, Fac Allied Med, Dept. of Med Biotechnol, Tehran, Iran. Additional authors for this research include A. Mehdipour, M.H. Roudkenar, J. Verdi, M.T. Joghataei, K. As'adi, F. Amir, M.D. Harati, M. Gholipourmalekabadi and N.K. Osguei.

Keywords for this news article include: Tehran, Iran, Asia, Connective Tissue Cells, Stromal Cells, Immune System, Bone Research, Engineering, Bone Marrow, Iran University of Medical Sciences.

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**Musculoskeletal Diseases and Conditions - Bone**

**Findings on Bone Resorption Discussed by Investigators at Tianjin Medical University (Aggravation of spinal cord compromise following new osteoporotic vertebral compression fracture prevented by teriparatide in patients with surgical ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Bone Resorption have been published. According to news reporting from Tianjin, People's Republic of China, by NewsRx journalists, research stated, "Patients with spinal cord deficits following new unstable osteoporotic compression fracture and surgical contraindications were considered to receive conservative treatment. Teriparatide was better than alendronate at improving bone mineral density and bone turnover parameters, as well as preventing aggravation of spinal cord compromise."

Financial support for this research came from National Science Foundation of China. The news correspondents obtained a quote from the research from Tianjin Medical University, "This study compared the preventive effects of teriparatide and alendronate on aggravation of spinal cord compromise following new unstable osteoporotic vertebral compression fracture (OVCF) in patients with surgical contraindications. This was a 12-month, randomized, open-label study of teriparatide versus alendronate in 49 patients with new unstable OVCF and surgical contraindications. Neurological function was evaluated using modified Japanese Orthopedic Association (mJOA) score (11-point scale, the maximum score of 11 implies normalcy). Visual analog scale (VAS) scores, kyphotic angles, anterior-border heights and diameters of the spinal canal of the fractured vertebrae, any incident of new OVCFs (onset of OVCF during follow-up), spine bone mineral density (BMD), and serumarkers of bone resorption and bone formation were also examined at baseline and 1, 3, 6, and 12 months after initiation of the medication regimen. At 12 months, mean mJOA score had improved in the
teriparatide group and decreased in the alendronate group. Mean concentrations of bone formation and bone resorption biomarkers, mean spine BMD, and mean anterior-border height and spinal canal diameter of the fractured vertebrae were significantly greater in the teriparatide group than in the alendronate group. Mean VAS score, mean kyphotic angle of the fractured vertebrae, and incidence of new OVCFs were significantly smaller in the teriparatide group than in the alendronate group."

According to the news reporters, the research concluded: "In patients with neurological deficits following new unstable OVCF and with surgical contraindications, teriparatide was better than alendronate at improving the BMD and the bone turnover parameters, as well as preventing aggravation of spinal cord compromise."


Our news journalists report that additional information may be obtained by contacting Y. Xue, Tianjin Med Univ, General Hospital, Dept. of Orthopaed, Tianjin, People's Republic of China. Additional authors for this research include R. Xue, N. Shi, Y. Xue, Y. Zong, W. Lin, B. Pei, C. Sun, R. Fan and Y. Jiang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3651-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Bone Diseases and Conditions, Central Nervous System, Compression Fractures, Parathyroid Hormone, Peptide Proteins, Bone Resorption, Diphosphonates, Bone Research, Teriparatide, Alendronate, Spinal Cord, Hormones, Tianjin Medical University.

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Musculoskeletal Diseases and Conditions - Bone...

Findings on Bone Resorption Discussed by Investigators at Veterans Affairs Medical Center (Protection From Glucocorticoid-Induced Osteoporosis by Anti-Catabolic Signaling in the Absence of Sost/Sclerostin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Musculoskeletal Diseases and Conditions - Bone Resorption. According to news originating from Indianapolis, Indiana, by NewsRx correspondents, research stated, "Excess of glucocorticoids, either due to disease or iatrogenic, increases bone resorption and decreases bone formation and is a leading cause of osteoporosis and bone fractures worldwide. Improved therapeutic strategies are sorely needed."

Our news journalists obtained a quote from the research from Veterans Affairs Medical Center, "We investigated whether activating Wnt/beta-catenin signaling protects against the skeletal actions of glucocorticoids, using female mice lacking the Wnt/beta-catenin
antagonist and bone formation inhibitor Sost. Glucocorticoids decreased the mass, deteriorated the microarchitecture, and reduced the structural and material strength of bone in wild-type (WT), but not in Sost(-/-) mice. The high bone mass exhibited by Sost(-/-) mice is due to increased bone formation with unchanged resorption. However, unexpectedly, preservation of bone mass and strength in Sost(-/-) mice was due to prevention of glucocorticoid-induced bone resorption and not to restoration of bone formation. In WT mice, glucocorticoids increased the expression of Sost and the number of sclerostin-positive osteocytes, and altered the molecular signature of the Wnt/beta-catenin pathway by decreasing the expression of genes associated with both anticatabolism, including osteoprotegerin (OPG), and anabolism/survival, such as cyclin D1. In contrast in Sost(-/-) mice, glucocorticoids did not decrease OPG but still reduced cyclin D1. Thus, in the context of glucocorticoid excess, activation of Wnt/beta-catenin signaling by Sost/sclerostin deficiency sustains bone integrity by opposing bone catabolism despite markedly reduced bone formation and increased apoptosis.

According to the news editors, the research concluded: "This crosstalk between glucocorticoids and Wnt/beta-catenin signaling could be exploited therapeutically to halt resorption and bone loss induced by glucocorticoids and to inhibit the exaggerated bone formation in diseases of unwanted hyperactivation of Wnt/beta-catenin signaling."


The news correspondents report that additional information may be obtained from T. Bellido, Richard L Roudebush Vet Adm Med Center, Indianapolis, IN, United States. Additional authors for this research include M. Gregor, J. Delgado-Calle, K.W. Condon, M.R. Allen, M. Peacock, L.I. Plotkin and T. Bellido.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Musculoskeletal Diseases and Conditions, Metabolic Bone Diseases and Conditions, Armadillo Domain Proteins, Adrenal Cortex Hormones, Transcription Factors, Drugs and Therapies, Glucocorticoids, Bone Resorption, Bone Research, beta Catenin, Osteoporosis, Catenins, Genetics, Veterans Affairs Medical Center.

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**Drugs and Therapies - Botulinum Toxin Therapy**

**Findings on Botulinum Toxin Therapy Discussed by R.L. Rosales and Co-Researchers (Botulinum toxin as early intervention for spasticity after stroke or non-progressive brain lesion: A meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Botulinum Toxin Therapy have been presented. According to news originating from Manila, Philippines, by NewsRx correspondents, research stated, "Spasticity is a functionally limiting disorder that commonly occurs following stroke or severe brain injury, and may lead to disability and pain. In tandem with neurorehabilitation, botulinum toxin type A (BoNT-A) is the recommended first-line treatment for spasticity and, to date, the majority of trials have reported BoNT-A use in patients..."
>6 months after ictus."

Financial support for this research came from Ipsen Pharma.

Our news journalists obtained a quote from the research, "The present meta-analysis aimed to evaluate the effects of early BoNT-A injection for post-stroke spasticity on improvements in hypertonicity, disability, function and associated pain. A literature search yielded six studies reporting the effects of BoNT-A treatment within 3 months post-stroke; three in the upper limb and three in the lower limb. All six studies permitted concomitant rehabilitation. Reduction in hyper-tonicity was compared in all six studies and revealed a significant treatment effect (P = 0.0002) on the most affected joints between weeks 4 and 12 following injection. However, no significant effects of treatment were observed for improvement in disability at week 4 or improvement in function at weeks 4 and 20-24. A trend towards reduction in spasticity-related pain at week 4 following BoNT-A treatment (P = 0.13) was also observed."

According to the news editors, the research concluded: "These results demonstrate the beneficial effects of BoNT-A treatment on improving hypertonicity within 3 months post-stroke and emphasise the importance of concomitant neurorehabilitation therapy."

For more information on this research see: Botulinum toxin as early intervention for spasticity after stroke or non-progressive brain lesion: A meta-analysis. Journal of the Neurological Sciences, 2016;371():6-14. Journal of the Neurological Sciences can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of the Neurological Sciences - www.journals.elsevier.com/journal-of-the-neurological-sciences/)

The news correspondents report that additional information may be obtained from R.L. Rosales, Metropolitan Med Center, Center Neurodiagnost & Therapeut Serv, Manila 1000, Philippines. Additional authors for this research include F. Efendy, E.S.A. Teleg, M.M.D. Delos Santos, M.C.E. Rosales, M. Ostrea, M.J. Tanglao and A.R. Ng.

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Keywords for this news article include: Manila, Philippines, Asia, Botulinum Toxin Therapy, Neurorehabilitation, Drugs and Therapies, Biological Factors, Bacterial Toxins, Botulinum Toxins, Antidystonic, Antiwrinkle, Spasticity, Neurology, Stroke.

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Oncology - Breast Cancer

Findings on Breast Cancer Detailed by Researchers at Catholic University of Korea (The Long-term Prognostic Performance of Ki-67 in Primary Operable Breast Cancer and Evaluation of Its Optimal Cutoff Value)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting from Daejeon, South Korea, by NewsRx journalists, research stated, "Markers of proliferation are considered to have prognostic importance in breast cancer (BC). The Ki-67 index has been reported as a prognostic factor, but standardized cutoff values and counting
methods are not yet established."

The news correspondents obtained a quote from the research from the Catholic University of Korea, "We assayed the Ki-67 labeling index (LI) of 589 consecutive operable BC patients who underwent surgical resection. Ki-67 immunostaining was performed, and the LI was manually counted using an image processing program. We also compared the manual cell count (MCC) of Ki-67 to the whole-section eyeballed estimate count (EEC). Univariate survival analysis showed statistically significant differences in long-term BC-specific survival in the following factors: tumor size, histologic grade, nuclear grade, lymph node metastasis stage, estrogen receptor, progesterone receptor, human epidermal growth factor-2 (HER2) status, and intrinsic type (p <0.05). The MCC and EEC Ki-67 evaluations were statistically well correlated (Pearson correlation=0.683, p<0.001). Their agreement rate was highest at a 20% cutoff (k-coefficient=0.464). With cutoff values of 14% and 20%, high Ki-67 LI was associated with poor BC-specific survival (p=0.028 and 0.012, respectively), and a 20% cutoff had a higher hazard ratio. High Ki-67 LI with a 20% cutoff was also associated with poor survival in the hormone receptor-positive and lymph node-positive subgroups (p=0.015 and 0.016, respectively)."

According to the news reporters, the research concluded: "Ki-67 LI had prognostic significance, especially in hormone receptor-positive and lymph node-positive BC patients. EEC was relatively reliable counting method with a higher cutoff value. We suggest that the 20% cutoff value be the preferable value in clinical practice."

For more information on this research see: The Long-term Prognostic Performance of Ki-67 in Primary Operable Breast Cancer and Evaluation of Its Optimal Cutoff Value. Applied Immunohistochemistry & Molecular Morphology, 2016;24(3):159-66. (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting U. Cho, Departments of *Hospital Pathology ‡Surgery, Seoul St Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul †Dept. of Pathology, School of Medicine, Chungnam National University, Daejeon, South Korea. Additional authors for this research include H.E. Kim, W.J. Oh, M.K. Yeo, B.J. Song and A. Lee.

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Keywords for this news article include: Asia, Daejeon, Hormones, Oncology, Immunology, South Korea, Lymph Nodes, Breast Cancer, Women's Health, Lymphoid Tissue, Hemic and Immune Systems.

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Oncology - Breast Cancer

Findings on Breast Cancer Discussed by Investigators at Chulalongkorn University (Plumbagin Enhances Tamoxifen Sensitivity and Inhibits Tumor Invasion in Endocrine Resistant Breast Cancer through EMT Regulation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report.
According to news reporting from Bangkok, Thailand, by NewsRx journalists, research stated, "Tamoxifen is widely used as the first line drug for estrogen receptor-positive subtype which is expressed in 70% of overall breast cancer patients. However, approximately 50% of these patients develop acquired resistance after 5 years of treatment, which is characterized by tumor recurrence and metastasis."

The news correspondents obtained a quote from the research from Chulalongkorn University, "The epithelial mesenchymal transition (EMT) is an important process in breast cancer invasion. Fundamentally, targeting the EMT represents a crucial therapeutic strategy for preventing or treating breast cancer metastasis. Plumbagin (PLB) is a natural naphthoquinone with significant anticancer effects against several types of tumor cells including breast cancer. In this study, we investigated the effect of PLB on human endocrine-resistant breast cancer cell growth, invasion and the possible mechanisms underlying such actions. PLB exhibited potent cytotoxic activity at a micromolar concentration against endocrine-resistant breast cancer cells. Interestingly, a fixed low concentration of PLB and tamoxifen combination resulted in an increase in growth inhibition in endocrine-resistant cells. In addition, PLB also significantly suppressed mesenchymal biomarker expressions that govern the EMT process, resulting in attenuated metastatic capabilities."

According to the news reporters, the research concluded: "PLB should be developed as a pharmacological agent for the use as a single treatment or in combination for endocrine-resistant breast cancer."


Our news journalists report that additional information may be obtained by contacting W. Ketchart, Chulalongkorn University, Dept. of Pharmacol, Fac Med, Bangkok 10330, Thailand. Additional authors for this research include N. Kalpongnukul, T. Pisitkun and W. Ketchart.

Keywords for this news article include: Bangkok, Thailand, Asia, Selective Estrogen Receptor Modulators, Drugs and Therapies, Benzene Derivatives, Endocrine Research, Antineoplastics, Women's Health, Breast Cancer, Tamoxifen, Stilbenes, Oncology, Hormones, Chulalongkorn University.

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Oncology - Breast Cancer

Findings on Breast Cancer Reported by Investigators at Singapore National University (miR-93 inhibits the invasive potential of triple-negative breast cancer cells in vitro via protein kinase WNK1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Despite advances in treatment, the highly metastatic nature of breast tumors has given
rise to the urgent need for development of novel therapeutic and prognostic markers. miR-93 is known to regulate the epithelial to mesenchymal transition process and to influence metastatic spread in breast carcinoma, although the exact mechanism(s)/genes involved remain unknown. In the present study, we examined the role of miR-93 in MDA-MB-231 breast cancer cells.

Our news editors obtained a quote from the research from Singapore National University, "Overexpression of mature miR-93-5p in MDA-MB-231 cells decreased cell migratory capability and invasive potential, as well as increased adhesion. In contrast, inhibition of miR-93 induced the opposite effects. miRNA-mRNA target prediction (TargetScan) identified WNK lysine deficient protein kinase 1 (WNK1), which is known to interact with diverse signaling pathways and regulate cell proliferation, survival, angiogenesis and metastasis, as one of the potential targets of miR-93. Furthermore, we showed by luciferase assay that WNK1 is a putative miR-93 target. siRNA mediated silencing of WNK1 also decreased the invasive ability of the cells, suggesting that the effects of miR-93 may be attributed at least in part to decreased WNK1 expression."

According to the news editors, the research concluded: "Further in vivo studies are required to ascertain the miR-93-WNK1-metastasis cascade, that has potential implications in breast cancer therapy."


The news editors report that additional information may be obtained by contacting B.H. Bay, Singapore National University, Yong Loo Lin Sch Med, Dept. of Anat, Singapore 117594, Singapore. Additional authors for this research include H.P. Lim and B.H. Bay.

Keywords for this news article include: Singapore, Asia, Phosphotransferases (Alcohol Group Acceptor), Enzymes and Coenzymes, Protein Kinases, Women's Health, Breast Cancer, Oncology, Genetics, Singapore National University.

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**Diagnostics and Screening - Breast Cancer Screening**

**Findings on Breast Cancer Screening Discussed by Investigators at International Hospital (Contrast enhanced dual energy spectral mammogram, an emerging addendum in breast imaging)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Diagnostics and Screening - Breast Cancer Screening are discussed in a new report. According to news reporting from Tamil Nadu, India, by NewsRx journalists, research stated, "To assess the role of contrast-enhanced dual-energy spectral mammogram (CEDM) as a problem-solving tool in equivocal cases. 44 consenting females with equivocal findings on full-field digital mammogram underwent CEDM."

The news correspondents obtained a quote from the research from International Hospital, "All the images were interpreted by two radiologists independently. Confidence of presence was plotted on a three-point Likert scale and probability of cancer was assigned on Breast Imaging Reporting and Data System scoring. Histopathology was taken as the gold standard. Statistical analyses of all variables were performed. 44 breast lesions were included in
the study, among which 77.3% lesions were malignant or precancerous and 22.7% lesions were benign or inconclusive. 20% of lesions were identified only on CEDM. True extent of the lesion was made out in 15.9% of cases, multifocality was established in 9.1% of cases and ductal extension was demonstrated in 6.8% of cases. Statistical significance for CEDM was p-value < 0.05. Interobserver kappa value was 0.837. CEDM has a useful role in identifying occult lesions in dense breasts and in triaging lesions. In a mammographically visible lesion, CEDM characterizes the lesion, affirms the finding and better demonstrates response to treatment. Hence, we conclude that CEDM is a useful complementary tool to standard mammogram.

Advances in knowledge: CEDM can detect and demonstrate lesions even in dense breasts with the advantage of feasibility of stereotactic biopsy in the same setting."

According to the news reporters, the research concluded: "Hence, it has the potential to be a screening modality with need for further studies and validation."


Our news journalists report that additional information may be obtained by contacting K.D. Kariyappa, MIOT Int Hosp, Dept. of Radiodiag, Madras, Tamil Nadu, India. Additional authors for this research include F. Gnanaprakasam, S. Anand, M. Krishnaswami and M. Ramachandran.

Keywords for this news article include: Tamil Nadu, India, Asia, Diagnostics and Screening, Breast Cancer Screening, Risk and Prevention, Women's Health, Mammography, Mammogram, Oncology, International Hospital.

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**Gram-Negative Bacteria - Burkholderia pseudomallei**

**Findings on Burkholderia pseudomallei Detailed by Researchers at Federal University (Farnesol increases the susceptibility of Burkholderia pseudomallei biofilm to antimicrobials used to treat melioidosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Negative Bacteria - Burkholderia pseudomallei. According to news originating from Fortaleza, Brazil, by NewsRx correspondents, research stated, "The aim of this study was to analyse the in vitro activity of farnesol alone and combined with the antibacterial drugs amoxicillin, doxycycline, ceftazidime and sulfamethoxazole-trimethoprim against Burkholderia pseudomallei biofilms. Susceptibility was assessed by the broth microdilution test and cell viability was read with the oxidation-reduction indicator dye resazurin."

Funders for this research include Conselho Nacional de Desenvolvimento Cientifico e Tecnologico, FUNCAP-PPSUS.

Our news journalists obtained a quote from the research from Federal University, "The biofilms were evaluated through three microscopic techniques (optical, confocal and electronic microscopy). The minimum biofilm eradication concentration (MBEC) for farnesol was 75-2400 mmol l(-1). In addition, farnesol significantly reduced the MBEC values for
ceftazidime, amoxicillin, doxycycline and sulfamethoxazole-trimethoprim by 256, 16, 4 and 4 times respectively (p <0.05). Optical, confocal and electronic microscopic analyses of farnesol-treated B. pseudomallei biofilms demonstrated that this compound damages biofilm matrix, probably facilitating antimicrobial penetration in the biofilm structure. This study demonstrated the effectiveness of farnesol against B. pseudomallei biofilms and its potentiating effect on the activity of antibacterial drugs, in particular ceftazidime, amoxicillin, doxycycline and sulfamethoxazole-trimethoprim. The intrinsic antimicrobial resistance of B. pseudomallei is a serious challenge for the treatment of melioidosis."

According to the news editors, the research concluded: "Thus, this paper reports the inhibitory potential of farnesol against B. pseudomallei biofilms, as well as highlights the favourable pharmacological interaction of farnesol with antibiotics tested, not only on cell viability, but also in the structural morphology of biofilms."

For more information on this research see: Farnesol increases the susceptibility of Burkholderia pseudomallei biofilm to antimicrobials used to treat melioidosis. *Journal of Applied Microbiology*, 2016;120(3):600-6. (Wiley-Blackwell - [www.wiley.com/](http://www.wiley.com/); Journal of Applied Microbiology - [onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2672])

The news correspondents report that additional information may be obtained from D.S. Castelo-Branco, Postgraduate Program in Medical Microbiology, Federal University of Ceara, Fortaleza, Ceara, Brazil. Additional authors for this research include G.B. Riello, D.C. Vasconcelos, G.M. Guedes, R. Serpa, T.J. Bandeira, A.J. Monteiro, R.A. Cordeiro, M.F. Rocha, J.J. Sidrim and R.S Brilhante.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jam.13027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antimalarial Agents, Antimicrobials, Pharmaceuticals, Brazil, Amides, Farnesol, Fortaleza, Ampicillins, Ceftazidime, Doxycycline, Melioidosis, South America, Cephaloridine, Tetracyclines, Fatty Alcohols, Sesquiterpenes, Aminopenicillins, Burkholderiaceae, Sulfur Compounds, Betaproteobacteria, Amoxicillin Therapy.

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**Gram-Negative Bacteria - Burkholderia pseudomallei**

**Findings on Burkholderia pseudomallei Reported by Researchers at Case Western Reserve University (Exposing a β-Lactamase "Twist" the Mechanistic Basis for the High Level of Ceftazidime Resistance in the C69F Variant of the Burkholderia ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Burkholderia pseudomallei are presented in a new report. According to news originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Around the world, Burkholderia spp. are emerging as pathogens highly resistant to β-lactam antibiotics, especially ceftazidime. Clinical variants of Burkholderia pseudomallei possessing the class A β-lactamase PenI with substitutions at positions C69 and P167 are known to demonstrate ceftazidime resistance."

Funders for this research include HHS | National Institutes of Health (NIH), U.S.
Department of Veterans Affairs (VA).

Our news journalists obtained a quote from the research from Case Western Reserve University, "However, the biochemical basis for ceftazidime resistance in class A β-lactamases in B. pseudomallei is largely undefined. Here, we performed site saturation mutagenesis of the C69 position and investigated the kinetic properties of the C69F variant of PenI from B. pseudomallei that results in a high level of ceftazidime resistance (2 to 64 mg/liter) when expressed in Escherichia coli. Surprisingly, quantitative immunoblotting showed that the steady-state protein levels of the C69F variant β-lactamase were ∼4-fold lower than those of wild-type PenI (0.76 fg of protein/cell versus 4.1 fg of protein/cell, respectively). However, growth in the presence of ceftazidime increases the relative amount of the C69F variant to greater than wild-type PenI levels. The C69F variant exhibits a branched kinetic mechanism for ceftazidime hydrolysis, suggesting there are two different conformations of the enzyme. When incubated with an anti-PenI antibody, one conformation of the C69F variant rapidly hydrolyzes ceftazidime and most likely contributes to the higher levels of ceftazidime resistance observed in cell-based assays. Molecular dynamics simulations suggest that the electrostatic characteristics of the oxyanion hole are altered in the C69F variant. When ceftazidime was positioned in the active site, the C69F variant is predicted to form a greater number of hydrogen-bonding interactions than PenI with ceftazidime."

According to the news editors, the research concluded: "We propose 'a new twist' for enhanced ceftazidime resistance mediated by the C69F variant of the PenI β-lactamase based on conformational changes in the C69F variant. Our findings explain the biochemical basis of ceftazidime resistance in B. pseudomallei, a pathogen of considerable importance, and suggest that the full repertoire of conformational states of a β-lactamase profoundly affects β-lactam resistance."

For more information on this research see: Exposing a β-Lactamase "Twist"the Mechanistic Basis for the High Level of Ceftazidime Resistance in the C69F Variant of the Burkholderia pseudomallei PenI β-Lactamase. Antimicrobial Agents and Chemotherapy, 2015;60(2):777-88. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from K.M. Papp-Wallace, Research Service, Louis Stokes Cleveland Dept. of Veterans Affairs, Cleveland, Ohio USA. Dept. of Medicine, Case Western Reserve University, Cleveland, Ohio, United States. Additional authors for this research include S.A. Becka, M.A. Taracila, M.L. Winkler, J.A. Gatta, D.A. Rholl, H.P. Schweizer and R.A Bonomo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.02073-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Amides, Cleveland, Lactamase, Thiazines, Ceftazidime, Biochemicals, Biochemistry, United States, Cephaloridine, Cephalosporins, Burkholderiaceae, Sulfur Compounds, Organic Chemicals, Betaproteobacteria, Enzymes and Coenzymes, Gram Negative Bacteria, Gram-Negative Bacteria, Beta Lactam Antibiotics.

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Findings on Cancer Epidemiology Reported by Investigators at University of Health Sciences [Cancer patterns in Karachi (all districts), Pakistan: First results (2010-2015) from a Pathology based cancer registry of the largest government-run ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cancer Epidemiology. According to news reporting out of Karachi, Pakistan, by NewsRx editors, research stated, "National level population-based cancer data have never been published from Pakistan in seven decades since independence (1947). Therefore, generation of high-quality regional data becomes highly relevant."

Our news journalists obtained a quote from the research from the University of Health Sciences, "Cancer data for the period of 2010-2015 representing the population from all districts of Karachi (14.6 million) are presented herein. After institutional approval (Ref no. IRB-459/DUHS/-14), a Pathology based cancer registry was established at the largest government-run diagnostic and reference center of Karachi. During 2010-2015, a total of 13,508 cancers (including 668 non-melanoma-skin-cancers (NMSC)) were diagnosed. Of these, 5665 (41.9%) were in males while 7843 (58.1%) were in females. Incidence rates for all cancers (excluding NMSC) were 66.7 per 100,000 (crude) and 105.1 per 100,000 (ASR) for males and 112.0 per 100,000 (crude) and 175.8 per 100,000 (ASR) for females. In males, cancer of lip and oral cavity was the most frequently diagnosed cancer (30.8%, ASR 33.1), followed by NMSC (7.7%, ASR 9.5) and colorectum (7%, ASR 7.3). In females, breast cancer was the most frequently recorded malignancy (49.5%, ASR 87.9), followed by lip and oral cavity (11.2%, ASR 22.0) and oesophagus (5.6%, ASR 10.7). We report that Karachi has the highest incidence of cancers of breast, lip and oral cavity, oesophagus and larynx in females and cancer of lip and oral cavity and larynx (2nd only to Turkey) in males compared to any of the Asian populations."

According to the news editors, the research concluded: "Notably, incidence of tobacco associated cancers is very high in Karachi, demanding urgent attention by relevant authorities to address the un-controlled and drastically high consumption of various forms of tobacco in the city."


Our news journalists report that additional information may be obtained by contacting M.A. Qureshi, Dow Univ Hlth Sci, Dow Int Med College, Karachi, Pakistan. Additional authors for this research include T. Mirza, S. Khan, B. Sikandar, M. Zahid, M. Aftab, S. Mohsin, S. Sharafat, L. Avesi and S. Hassan.

Keywords for this news article include: Karachi, Pakistan, Asia, Cancer Epidemiology, Oncology, Epidemiology, University of Health Sciences.

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Findings on Cancer Therapy Detailed by Investigators at Dalian Medical University (Anti-tumor effects of osthole on ovarian cancer cells in vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Cancer Therapy is now available. According to news originating from Liaoning, People's Republic of China, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: Cnidium monnieri (L.) Cusson is a commonly used traditional Chinese medicine to treat gynecological disease in some countries. Osthole, an active O-methylated coumarin isolated from Cnidium monnieri (L) Cusson, has been shown to induce various beneficial biochemical effects such as anti-seizure and anti-inflammatory effects."

Our news journalists obtained a quote from the research from Dalian Medical University, "However, the anti-tumor mechanism of osthole is not well known. Aim of study: Here, we show that osthole inhibited the proliferation and migration of two widely used ovarian cancer cell lines, A2780 and OV2008 cells, in a dose-dependent manner. The study investigated the molecular mechanisms underlying ovarian cancer cells proliferation, apoptosis, cell cycle arrest and migration triggered by osthole. Ovarian cancer cell lines A2780, OV2008 and normal ovarian cell line IOSE80 were used as experimental model. MTT assay was employed to evaluate cell viability. Flow cytometry assays were performed to confirm apoptosis and cell cycle. We employed wound healing and transwell assays to delineate invasive and migratory potential triggered by osthole. MTT assays indicated that cell viability significantly decreased in ovarian cancer cells treated with osthole without effect on normal ovarian cells. Flow cytometric analysis revealed that osthole suppressed cells proliferation by promoting G2/M arrest and inducing apoptosis. The underlying mechanisms involved were regulation of the relative apoptotic protein Bcl-2, Bax and Caspase 3/9. In addition, wound healing and transwell assays revealed that the migratory potential and activity of matrix metalloproteinase MMP-2 and MMP-9 were markedly inhibited when cells were exposed to osthole."

According to the news editors, the research concluded: "Our findings suggested that osthole has the potential to be used in novel anti-cancer therapeutic formulations for ovarian cancer treatment."


The news correspondents report that additional information may be obtained from W.L. Li, Dalian Med Univ, Dept. of Biotechnol, Dalian 116044, Liaoning, People's Republic of China. Additional authors for this research include J. Liu, B.Y. Ren, Y.W. Tang, L. Owusu, M. Li, J. Zhang, L.K. Liu and W.L. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.045. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Liaoning, People's Republic of China, Asia, Drugs and Therapies, Cancer Therapy, Apoptosis, Oncology, Dalian Medical University.
Findings on Cancer Therapy Reported by Researchers at National Cancer Center Research Institute (Telomerase reverse transcriptase moonlights: Therapeutic targets beyond telomerase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Cancer Therapy. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Telomeres, the repetitive sequences at chromosomal ends, protect intact chromosomes. Telomeres progressively shorten through successive rounds of cell divisions, and critically shortened telomeres trigger senescence and apoptosis."

Funders for this research include Project for Development of Innovative Research on Cancer Therapeutics, Ministry of Education, Culture, Sports, Science, and Technology, Ichiro Kanehara Foundation for the Promotion of Medical Sciences and Medical Care.

Our news editors obtained a quote from the research from National Cancer Center Research Institute, "The enzyme that elongates telomeres and maintains their structure is known as telomerase. The catalytic subunit of this enzyme (telomerase reverse transcriptase [TERT]) is expressed at a high level in malignant cells, but at a very low level in normal cells. Although telomerase activity was long believed to be the only function of TERT, emerging evidence indicates that TERT plays roles beyond telomeres. For example, TERT contributes to stem cell maintenance and cell reprogramming processes in a manner independent of its canonical function. Even some types of splice variants that lack the telomerase catalytic domains exhibit the functions in a manner that does not depend on telomerase activity. We recently demonstrated that the RNA-dependent RNA polymerase (RdRP) activity of TERT is involved in regulation of gene silencing and heterochromatic transcription. Moreover, TERT RdRP activity is mediated by a newly identified complex, distinct from the authentic telomerase complex, that plays a role in cancer stem cells in a telomere maintenance independent manner. TERT has attracted interest as a molecular target for anticancer treatment, but previous efforts aimed at developing novel therapeutic strategies focused only on the canonical function of TERT. However, accumulating evidence about the non-canonical functions of TERT led us to speculate that the functions other than telomerase might be therapeutic targets as well."

According to the news editors, the research concluded: "In this review, we discuss the non-canonical functions of TERT and their potential applications for anticancer treatment."


The news editors report that additional information may be obtained by contacting Y. Maida, Division of Cancer Stem Cell, National Cancer Center Research Institute, Tokyo, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cas.12806. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Genetics, Proteomics,
Drugs and Therapies - Carbamazepine Therapy

Findings on Carbamazepine Therapy Reported by Researchers at University of Michigan (Influence of Coformer Stoichiometric Ratio on Pharmaceutical Cocrystal Dissolution: Three Cocrystals of Carbamazepine/4-Aminobenzoic Acid)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Carbamazepine Therapy is the subject of a report. According to news reporting originating in Ann Arbor, Michigan, by NewsRx journalists, research stated, "Cocrystallization is a technique to optimize solid forms that shows great potential to improve the solubility of active pharmaceutical ingredients (APIs). In some systems, an API can form cocrystals in multiple stoichiometries with the same coformer."

Financial support for this research came from U.S. Department of Health and Human Services.

The news reporters obtained a quote from the research from the University of Michigan, "However, it remains unclear how coformer stoichiometry influences solubility. This paper investigates the pharmaceutical:coformer pair carbamazepine (CBZ)/p-aminobenzoic acid (PABA); both CBZ/PABA 1:1 and 2:1 cocrystals are known, and a novel 4:1 CBZ/PABA cocrystal is reported here. The 4:1 cocrystal is structurally characterized, and phase stability data suggest that it is a thermodynamically unstable form. Dissolution experiments show that there is no correlation between the cocrystal stoichiometry and dissolution rate in this system."

According to the news reporters, the research concluded: "On the other hand, with the relatively weak intermolecular interactions, metastable forms can be beneficial to dissolution rate, which suggests that more effort should be devoted to cocrystal production with kinetic growth methods."


Our news correspondents report that additional information may be obtained by contacting Z. Li, Dept. of Chemistry, Macromolecular Science and Engineering Program, University of Michigan, 930 North University Avenue, Ann Arbor, Michigan 48109-1055, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00843. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Michigan, Ann Arbor, United States, Aminobenzoic Acids, Drugs and Therapies, Carbamazepine Therapy, North and
Oncology - Carcinomas

Findings on Carcinomas Described by Researchers at Postgraduate Institute of Medical Education and Research (Dosimetric evaluation and clinical outcome in post-operative patients of carcinoma vulva treated with intensity-modulated radiotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Carcinomas is now available. According to news reporting from Chandigarh, India, by NewsRx journalists, research stated, "To compare dosimetric parameters of intensity-modulated radiation therapy (IMRT) with 3D conformal radiotherapy (3DCRT) in post-operative patients of vulvar cancer and to assess clinical outcome and toxicity with IMRT. A total of 8 post-operative patients of vulvar cancer were treated with IMRT."

The news correspondents obtained a quote from the research from the Postgraduate Institute of Medical Education and Research, "All patients were also planned by 3DCRT for comparison with IMRT. The two plans were compared in terms of conformity index, homogeneity index, tumor control probability (TCP) and normal tissue complication probability (NTCP) for the planning target volume and organs at risk (OAR). IMRT resulted in significantly lesser doses to rectum, bladder, bowel and femoral head as compared with 3DCRT plans. Mean conformity and homogeneity indices were better and within range with IMRT. The TCP was comparable between the two treatment plans and NTCP for rectum, bladder, bowel and femoral head was significantly less with IMRT as compared with 3DCRT. Treatment was well-tolerated and none of the patients developed Grade 3 or higher toxicity. IMRT yielded superior plans with respect to target coverage, homogeneity and conformality while lowering dose to adjacent OAR as compared with 3DCRT."

According to the news reporters, the research concluded: "Thus, IMRT offers a reduction in NTCP while maintaining TCP."


Our news journalists report that additional information may be obtained by contacting D. Khosla, Dept. of Radiotherapy and Oncology, Regional Cancer Centre, Postgraduate Institute of Medical Education and Research, Chandigarh, India. Additional authors for this research include F.D. Patel, A.K. Shukla, B. Rai, A.S. Oinam and S.C Sharma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178448. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Oncology, Chandigarh, Carcinomas, Conformal Radiotherapy, Intensity Modulated Radiotherapy.

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Oncology - Carcinomas

Findings on Carcinomas Reported by Investigators at University of Michigan (Trends in hospice discharge, documented inpatient palliative care services and inpatient mortality in ovarian carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Carcinomas. According to news reporting originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "To investigate the trends in discharge to hospice, documented inpatient palliative care services, and inpatient mortality in metastatic ovarian cancer (mOvCa) patients. Patients >= 18 years with mOvCa and a non-elective admission between January 1, 2006 and December 31, 2011 were identified from the National Inpatient Sample (NIS)."

Our news editors obtained a quote from the research from the University of Michigan, "The primary outcome of interest was the temporal trend in the annual proportion of hospitalizations for mOvCa where discharge destination was hospice. Secondary outcomes included temporal trend of inpatient mortality and documented palliative care services. Multivariable logistic regression models were used to ascertain independent factors predictive of hospice discharge and documented palliative services across the clusters of hospitals. A total of 106,203 non-elective hospitalizations were identified. The rate of hospice discharge increased from 9.2% in 2004 to 11.1% in 2011 (p(trend) < 0.001). Similarly, the rate of documented palliative care services increased from 2.7% in 2004 to 10.4% in 2011 (p(trend) < 0.001). The inpatient mortality decreased from 9.6% in 2004 to 7.4% in 2011 (p(trend) < 0.001). In a subset of hospitalizations with extreme risk of dying, 22% were discharged to hospice and 11% received documented palliative care services. One fifth of the patients who died in the hospital received documented palliative care services. The use of hospice as a discharge destination and documented palliative care services is relatively low but appears to be increasing over time for mOvCa patients."

According to the news editors, the research concluded: "Monitoring this data is vital to plan educational programs regarding palliative care approaches in this at-risk population."

For more information on this research see: Trends in hospice discharge, documented inpatient palliative care services and inpatient mortality in ovarian carcinoma. *Gynecologic Oncology*, 2016;143(2):371-378. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

The news editors report that additional information may be obtained by contacting S. Uppal, University of Michigan, Inst Healthcare Policy & Innovat, Ann Arbor, MI 48109, United States. Additional authors for this research include L.W. Rice, A. Beniwal and R.J. Spencer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.08.238. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Palliative and Supportive Care, Risk and Prevention, Carcinomas, Oncology, University of Michigan.

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Findings on Carcinomas Reported by Researchers at Ain Shams University (Continuous Low-Dose Oral Cyclophosphamide and Methotrexate as Maintenance Therapy in Patients With Advanced Ovarian Carcinoma After Complete Clinical Response to Platinum ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Carcinomas is now available. According to news reporting originating from Cairo, Egypt, by NewsRx correspondents, research stated, "The aim of this study was to evaluate efficacy and safety of continuous, low dose of oral, metronomic chemotherapy as maintenance therapy in patients with advanced ovarian carcinoma after complete clinical response to platinum and paclitaxel chemotherapy. In this nonrandomized study, patients older than 18 years, with Eastern Cooperative Oncology Group performance status less than 2, with advanced ovarian carcinoma after complete clinical response to platinum and paclitaxel chemotherapy were enrolled in 2 arms--arm A (maintenance arm), treated with continuous low-dose oral cyclophosphamide 50 mg and methotrexate 2.5 mg, and arm B (observation arm)."

Our news editors obtained a quote from the research from Ain Shams University, "Both arms were followed up for progression-free survival and toxicity. Thirty patients were accrued in each arm from January 2009 to December 2010 in Ain Shams University Hospitals, where they received the treatment and followed up for disease progression and toxicity. Patients had a median age of 53 years in maintenance arm and 52.5 years in the observational arm, respectively. Over 80% had papillary serous adenocarcinoma, and over 40% of them had a stage IV disease in both arms. After median follow-up of 27 months, patients achieved median progression-free survival of 18 months in maintenance arm (A) and 15.5 months in observational arm (B), respectively. Toxicity profile was excellent with no grade 3 or 4 toxicity reported."

According to the news editors, the research concluded: "Current study may provide an evidence of efficacy and tolerability of continuous low-dose oral cyclophosphamide and methotrexate as a maintenance therapy in patients with advanced ovarian carcinoma after complete clinical response to platinum and paclitaxel chemotherapy."


The news editors report that additional information may be obtained by contacting K. El-Husseiny, Departments of *Clinical Oncology and †Obstetrics and Gynecology, Ain Shams University Hospitals, Cairo, Egypt. Additional authors for this research include H. Motawei and M.S Ali.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/IGC.0000000000000647. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antimetabolites, Antineoplastics, Antipsoriatics, Antirheumatics, Pharmaceuticals, Cairo, Egypt, Africa, Taxoids, Oncology,
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Cardiology

Findings on Cardiology Described by Researchers at Institute of Genetics (Bioinspired negatively charged calcium phosphate nanocarriers for cardiac delivery of MicroRNAs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiology is the subject of a report. According to news reporting originating in Milan, Italy, by NewsRx journalists, research stated, "To develop biocompatible and bioresorbable negatively charged calcium phosphate nanoparticles (CaP-NPs) as an innovative therapeutic system for the delivery of bioactive molecules to the heart. CaP-NPs were synthesized via a straightforward one-pot biomineralization-inspired protocol employing citrate as a stabilizing agent and regulator of crystal growth."

The news reporters obtained a quote from the research from the Institute of Genetics, "CaP-NPs were administered to cardiac cells in vitro and effects of treatments were assessed. CaP-NPs were administered in vivo and delivery of microRNAs was evaluated. CaP-NPs efficiently internalized into cardiomyocytes without promoting toxicity or interfering with any functional properties. CaP-NPs successfully encapsulated synthetic microRNAs, which were efficiently delivered into cardiac cells in vitro and in vivo."

According to the news reporters, the research concluded: "CaP-NPs are a safe and efficient drug-delivery system for potential therapeutic treatments of polarized cells such as cardiomyocytes."


Our news correspondents report that additional information may be obtained by contacting V. Di Mauro, National Research Council (CNR), Institute of Genetics & Biomedical Research, Milan Unit, Milan 20138, Italy. Additional authors for this research include M. Iafisco, N. Salvarani, M. Vacchiano, P. Carullo, G.B. Ramirez-Rodriguez, T. Patricio, A. Tampieri, M. Miragoli and D. Catalucci.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/nnm.16.26. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Anions, Cardiology, Nanocarriers, Cardiomyocyte, Nanotechnology, Phosphoric Acids, Calcium Compounds, Calcium Phosphates, Inorganic Chemicals, Phosphorus Compounds, Emerging Technologies.

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Findings on Cardiology Detailed by Investigators at University of Leeds (Acute Reverse Remodelling After Transcatheter Aortic Valve Implantation: A Link Between Myocardial Fibrosis and Left Ventricular Mass Regression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting originating in Leeds, United Kingdom, by NewsRx journalists, research stated, "Despite the wealth of data showing the positive effects on cardiac reverse remodelling in the long-term, the immediate effects of transcatheter aortic valve implantation (TAVI) on the left ventricle are yet to be comprehensively described using cardiovascular magnetic resonance imaging. Also, the link between myocardial fibrosis and acute left ventricular (LV) mass regression is unknown."

The news reporters obtained a quote from the research from the University of Leeds, "Fifty-seven patients with severe aortic stenosis awaiting TAVI underwent paired cardiovascular magnetic resonance scans before and early after the procedure (4 [interquartile range, 3-5] days). LV mass, volume, and function were measured. Late gadolinium enhancement (LGE) imaging was performed to assess for the presence of and pattern of myocardial fibrosis. After the procedure, 53 (95%) patients experienced an immediate (10.1 +/- 7.1%) reduction in indexed LV mass (LVMi) from 76 +/- 15.5 to 68.4 +/- 14.7 g/m(2) (P < 0.001). Those with no LGE experienced the greatest LVMi regression (13.9 +/- 7.1%) compared with those with a midwall/focal fibrosis pattern LGE (7.4 +/- 5.8%) and infarct pattern LGE (7.2 +/- 7.0%; P = 0.005). There was no overall change in LV ejection fraction (LVEF; 55.1 +/- 12.1% to 55.5 +/- 10.9%; P = 0.867), however a significant improvement in LVEF was seen in those with abnormal (< 55%; n = 24; 42%) baseline LVEF (43.2 +/- 8.9 to 46.7 +/- 10.5%; P = 0.027). Baseline LVMi (P = 0.005) and myocardial fibrosis (P < 0.001) were strong independent predictors of early LVMi regression. LV reverse remodelling occurs immediately after TAVI, with significant LV mass regression in the total population and an improvement in LVEF in those with preexisting LV impairment."

According to the news reporters, the research concluded: "Those without myocardial fibrosis at baseline experience greater LV mass regression than those with fibrosis."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.04.009. This DOI is a link to an online electronic document that is either free or for purchase.
Drugs and Therapies - Cardiovascular Agents

Findings on Cardiovascular Agents Detailed by Investigators at Copenhagen University Hospital (Effect of clonidine to prevent agitation in children after sevoflurane anaesthesia: a randomised placebo controlled multicentre trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cardiovascular Agents have been published. According to news reporting from Koge, Denmark, by NewsRx journalists, research stated, "Post-operative agitation (PA) is a common problem (20-70%) in children anaesthetised with sevoflurane. Clonidine is widely used off-label in children for several indications, including PA; but the current level of evidence is limited."

The news correspondents obtained a quote from the research from Copenhagen University Hospital, "Our aim is to investigate the impact of prophylactic intravenous (IV) clonidine administered at the end of surgery on the incidence and degree of PA. Furthermore, the pharmacokinetic profile of IV clonidine in children is not well established and our aim is to obtain pharmacokinetic data relating hereto. This is a multicentre, randomised and blinded clinical trial in which we will be enrolling 380 children aged 1-5 years who are planned for anaesthesia with sevoflurane and fentanyl. Inclusion is based on computer-generated randomisation (1:1) and stratified by age and site. The study drug is administered IV approximately 20 min. before the expected completion of surgery (intervention: clonidine 3 μg per kg; placebo: equal quantity of saline). The primary outcome is PA measured on the Watcha scale. The secondary outcomes include post-operative pain relief and adverse effects, including a 30-day follow-up."

According to the news reporters, the research concluded: "In total, 40 children will be allocated to drug assay sampling, enabling a compartmental pharmacokinetic analysis."

For more information on this research see: Effect of clonidine to prevent agitation in children after sevoflurane anaesthesia: a randomised placebo controlled multicentre trial. *Danish Medical Journal*, 2016;63(6):3-7. *Danish Medical Journal* can be contacted at: Danish Medical Assoc, Trondhjemsgade 9, Dk-2100 Copenhagen, Denmark.

Our news journalists report that additional information may be obtained by contacting M. Ydemann, Rigshospitalet, Juliane Marie Center, Dept. of Anaesthesiol, Koge, Denmark. Additional authors for this research include B.N. Nielsen, J. Wetterslev, S. Henneberg, T. Lauritsen, N. Steen, B. Edstrom and A. Afshari.

Keywords for this news article include: Koge, Denmark, Europe, Central Nervous System Agents, Antiadrenergic Agents, Cardiovascular Agents, Drugs and Therapies, Sevoflurane Therapy, General Anesthetics, Clonidine Therapy, Pharmacokinetics, Centrally Acting, Pharmaceuticals, Pain Medicine, Anesthesia, Surgery, Copenhagen University Hospital.

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Findings on Cardiovascular Imaging Described by H.U. Aksu and Colleagues (Isolated cleft of both the anterior and posterior mitral valve leaflets)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Medical Imaging - Cardiovascular Imaging is the subject of a report. According to news originating from Istanbul, Turkey, by NewsRx correspondents, research stated, "A 37 year-old female patient in whom the transthoracic echocardiography examination revealed dilatation of left heart chambers with left ventricular ejection fraction of 30% and moderate-to-severe mitral valve regurgitation was admitted to our hospital."

Our news journalists obtained a quote from the research, "On 2DTEE examination, mitral valve was normal; however, on 3D images, clefts of both anterior and posterior leaflets were revealed."

According to the news editors, the research concluded: "Isolated cleft mitral valve without any other feature of atrioventricular septal defect is uncommon. 2D echocardiography has limited capability in defining the complex 3D anatomic characteristics of the cleft. 3DTEE allows to visualize the cleft position, morphology, and size, and it is important for surgical planning."

For more information on this research see: Isolated cleft of both the anterior and posterior mitral valve leaflets. Echocardiography-A Journal of Cardiovascular Ultrasound and Allied Techniques, 2016;33(11):1793-1794. Echocardiography-A Journal of Cardiovascular Ultrasound and Allied Techniques can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from H.U. Aksu, Mehmet Akif Ersoy Thorac & Cardiovasc Surg Traini, Istanbul, Turkey. Additional authors for this research include M. Aslan, D. Ozturk, A.A. Yalcin and A. Yildirim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/echo.13309. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Cardiovascular Imaging, Medical Imaging, Echocardiography, Cardiovascular, Cardiology.

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Cardiovascular Research

Findings on Cardiovascular Research Reported by Investigators at School of Medicine (Effect of diastolic dysfunction on postoperative outcomes after cardiovascular surgery: A systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Research have been presented. According to news reporting originating in Lima, Peru, by NewsRx journalists, research stated, "The
objective of this study was to investigate the effect of preoperative diastolic dysfunction on postoperative mortality and morbidity after cardiovascular surgery. We systematically searched for articles that assessed the prognostic role of diastolic dysfunction on cardiovascular surgery in PubMed, Cochrane Library, Web of Science, Embase, and Scopus until February 2016."

The news reporters obtained a quote from the research from the School of Medicine, "Twelve studies (n = 8224) met our inclusion criteria. Because of the scarcity of outcome events, fixed-effects meta-analysis was performed via the Mantel-Haenszel method. Preoperative diagnosis of diastolic dysfunction was associated with greater postoperative mortality (odds ratio [OR], 2.41; 95% confidence interval [CI], 1.54-3.71; P < .0001), major adverse cardiac events (OR, 2.07; 95% CI, 1.55-2.78; P = .0001), and prolonged mechanical ventilation (OR, 2.08; 95% CI, 1.04-4.16; P = .04) compared with patients without diastolic dysfunction among patients who underwent cardiovascular surgery. The odds of postoperative myocardial infarction (OR, 1.29; 95% CI, 0.82-2.05; P = .28) and atrial fibrillation (OR, 2.67; 95% CI, 0.49-14.43; P = .25) did not significantly differ between the 2 groups. Severity of preoperative diastolic dysfunction was associated with increased postoperative mortality (OR, 21.22; 95% CI, 3.74-120.33; P = .0006) for Grade 3 diastolic dysfunction compared with patients with normal diastolic function. Inclusion of left ventricular ejection fraction (LVEF) <40% accompanying diastolic dysfunction did not further impact postoperative mortality (P = .27; I^2 = 18%) compared with patients with normal LVEF and diastolic dysfunction. Presence of preoperative diastolic dysfunction was associated with greater postoperative mortality and major adverse cardiac events, regardless of LVEF."

According to the news reporters, the research concluded: "Mortality was significantly greater in grade III diastolic dysfunction."


Our news correspondents report that additional information may be obtained by contacting A.V. Hernandez, Univ Peruana Ciencias Aplicadas UPC, Sch Med, Lima 9, Peru. Additional authors for this research include A.V. Hernandez, V. Pasupuleti, A. Deshpande, V. Nagarajan, H. Bueno, C.I. Coleman, J.P.A. Ioannidis, D.L. Bhatt and E.H. Blackstone.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtcvs.2016.05.057. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lima, Peru, South America, Cardiovascular Research, Cardiovascular, Cardiology, Surgery, School of Medicine.

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Membrane Proteins - Catecholamine Receptors

Findings on Catecholamine Receptors Discussed by Investigators at University of North Carolina (Discovery of G Protein-Biased D2 Dopamine Receptor Partial Agonists)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Membrane Proteins - Catecholamine Receptors is the subject of a report. According to news reporting out of Chapel Hill, North Carolina, by NewsRx editors, research stated, "Biased ligands (also known as functionally selective ligands) of G protein-coupled receptors are valuable tools for dissecting the roles of G protein-dependent and independent signaling pathways in health and disease. Biased ligands have also been increasingly pursued by the biomedical community as promising therapeutics with improved efficacy and reduced side effects compared with unbiased ligands."

Financial support for this research came from National Institute of Mental Health.

Our news journalists obtained a quote from the research from the University of North Carolina, "We previously discovered first-in-class, beta-arrestin-biased agonists of dopamine D2 receptor (D2R) by extensively exploring multiple regions of aripiprazole, a balanced D2R agonist. In our continuing efforts to identify biased agonists of D2R, we unexpectedly discovered a G protein-biased agonist of D2R, compound 1, which is the first G protein-biased D2R agonist from the aripiprazole scaffold. We designed and synthesized novel analogues to explore two regions of 1 and conducted structure functional selectivity relationship (SFSR) studies."

According to the news editors, the research concluded: "Here we report the discovery of 1, findings from our SFSR studies, and characterization of novel G protein-biased D2R agonists."


Our news journalists report that additional information may be obtained by contacting B.L. Roth, University of North Carolina, NIMH, Psychoact Drug Screening Program, Sch Med, Chapel Hill, NC 27599, United States. Additional authors for this research include J.D. McCorvy, M.G. Fischer, K.V. Butler, Y.D. Shen, B.L. Roth and J. Jin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jmedchem.6b01208. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Catecholamine Receptors, Dopamine Hydrochloride, Dopamine Receptors, Organic Chemicals, Membrane Proteins, Pharmaceuticals, Biogenic Amines, Catecholamines, University of North Carolina.

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Drugs and Therapies - Central Nervous System Agents

Findings on Central Nervous System Agents Discussed by Investigators at Kerman University of Medical Sciences (Induction of antinociceptive tolerance to the chronic intrathecal administration of apelin-13 in rat)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Central Nervous System Agents is the subject of a report. According to news reporting originating from Kerman, Iran, by NewsRx correspondents, research stated, "Pain represents a major contributing factor to the individual's quality of life. Although pain killers as opioids, endogenous or exogenous peptides can decrease pain perception, the chronic use of them leads to antinociceptive tolerance."

Financial support for this research came from Kerman University of Medical Sciences.

Our news editors obtained a quote from the research from the Kerman University of Medical Sciences, "It has been demonstrated that neuropeptide apelin has potent antinociceptive effect. However, the possibility of the induction of its antinociceptive tolerance has not yet been clarified. The tail-flick test was used to assess the nociceptive threshold. All experiments were carried out on male Wistar rats which received intrathecal apelin for 7 days. To determine the role of apelin and opioid receptors on the development of apelin analgesic tolerance, their receptor antagonists (F-13 A and naloxone, respectively) were injected simultaneously with apelin. The lumbar spinal cord was assayed to determine apelin receptor levels by the western blotting method. Plasma corticosterone levels were assayed using ELISA. Results showed that apelin (3 mu g/rat) induced strong thermal antinociception. In addition, chronic apelin produced tolerance to its antinociceptive effect and down regulated spinal apelin receptor. F-13 A and naloxone could inhibit apelin tolerance development. The corticosterone levels did not change following drug administration."

According to the news editors, the research concluded: "Taken together, the data indicated that apelin like other analgesic drugs leads to the induction of side effects such as analgesic tolerance which is mediated partly via the apelin and opioid receptors activation."

For more information on this research see: Induction of antinociceptive tolerance to the chronic intrathecal administration of apelin-13 in rat. Neuropeptides, 2016;60():7-12. Neuropeptides can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Neuropeptides - www.journals.elsevier.com/neuropeptides/)

The news editors report that additional information may be obtained by contacting E. Abbasloo, Kerman Univ Med Sci, Inst Neuropharmacol, Physiol Res Center, Kerman, Iran. Additional authors for this research include H. Najafipour and S. Esmaeili-Mahani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.npep.2016.08.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kerman, Iran, Asia, Central Nervous System Agents, 11-Hydroxycorticosteroids, Adrenal Cortex Hormones, Drugs and Therapies, Membrane Proteins, Opiate Receptors, Opioid Receptors, Antinociceptive, Corticosterone, Pain Medicine, Analgesics, Neurology, Kerman University of Medical Sciences.

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Drugs and Therapies - Central Nervous System Agents

Findings on Central Nervous System Agents Discussed by Investigators at University of Toronto (Enhanced Thalamic Spillover Inhibition during Non-rapid-eye-movement Sleep Triggers an Electrocortical Signature of Anesthetic Hypnosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Central Nervous System Agents is now available. According to news reporting originating in Toronto, Canada, by NewsRx journalists, research stated, "Alterations in thalamic-a-aminobutyric acid-mediated signaling are thought to underlie the increased frontal alpha-beta frequency electrocortical activity that signals anesthetic-induced loss of consciousness with a-aminobutyric acid receptor type A (GABA(A)R)-targeting general anesthetics. The general anesthetic etomidate elicits phasic extrasynaptic GABA(A)R activation (‘spillover’ inhibition) at thalamocortical neurons in vitro."

The news reporters obtained a quote from the research from the University of Toronto, "We hypothesize that this action of etomidate at the thalamus is sufficient to trigger an increase in frontal alpha-beta frequency electrocortical activity and that this effect of etomidate is fully recapitulated by enhanced thalamic spillover inhibition in vivo. We recorded electrocortical activity and sleep-wake behavior in freely behaving wild-type (n = 33) and extrasynaptic delta-subunit-containing GABA(A)R knockout mice (n = 9) during bilateral microperfusion of the thalamus with etomidate and/or other pharmacologic agents that influence GABA(A)R or T-type Ca2+ channel activity. Microperfusion of etomidate into the thalamus elicited an increase in alpha-beta frequency electrocortical activity that occurred only during non-rapid-eye-movement (REM) sleep (11.0 +/- 11.8% and 16.0 +/- 14.2% greater 8 to 12- and 12 to 30-Hz power, respectively; mean +/- SD; both P< 0.031) and was not affected by blockade of thalamic T-type Ca2+ channels. Etomidate at the thalamus also increased spindle-like oscillations during non-REM sleep (4.5 +/- 2.4 spindle per minute with etomidate vs. 3.2 +/- 1.7 at baseline; P = 0.002). These effects of etomidate were fully recapitulated by enhanced thalamic extrasynaptic GABA(A)R-mediated spillover inhibition."

According to the news reporters, the research concluded: "These findings identify how a prototypic GABA(A)R-targeting general anesthetic agent can elicit the characteristic brain wave pattern associated with anesthetic hypnosis when acting at the thalamus by promoting spillover inhibition and the necessity of a preexisting non-REM mode of activity in the thalamus to generate this effect."

For more information on this research see: Enhanced Thalamic Spillover Inhibition during Non-rapid-eye-movement Sleep Triggers an Electrocortical Signature of Anesthetic Hypnosis. Anesthesiology, 2016;125(5):964-978. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting R.L. Horner, University of Toronto, Dept. of Physiol, Toronto, ON, Canada. Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Central Nervous System Depressants, Central Nervous System Agents, Drugs and Therapies, General Anesthetics, Etomidate Therapy, Pharmaceuticals, Diencephalon, Thalamus, Brain, University of Toronto.
Drugs and Therapies - Central Nervous System Agents

Findings on Central Nervous System Agents Reported by Researchers at University of Texas Health Science Center (Delay discounting of the m-opioid receptor agonist remifentanil in rhesus monkeys)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Central Nervous System Agents. According to news originating from San Antonio, Texas, by NewsRx correspondents, research stated, "Although increased impulsivity (delay discounting) is an important risk factor for drug abuse, the impact of delay on drug taking has received relatively little attention. This study examined delay discounting of the m-opioid receptor agonist remifentanil in rhesus monkeys (n=4) responding for intravenous infusions under a concurrent choice procedure."

Our news journalists obtained a quote from the research from the University of Texas Health Science Center, "Dose-effect curves for remifentanil were determined by varying the dose available on one lever (0.001-0.32 mg/kg/infusion) while keeping the dose available on the other lever (0.1 mg/kg/infusion) the same. Dose-effect curves were determined when both infusions were delivered immediately and when delivery of the fixed dose was delayed (15-180 s). When both doses of remifentanil were delivered immediately, monkeys chose the large dose. Delaying delivery of the fixed dose reduced choice of that dose and increased choice of small immediately available doses. Extending previous studies, these results show that the effects of delay on choice between two doses of a m-opioid receptor agonist are consistent with hyperbolic discounting. Delaying delivery of a preferred reinforcer (e.g. large dose of drug) reduces its effectiveness and increases the effectiveness of small immediately available doses."

According to the news editors, the research concluded: "This effect of delay, particularly on drug self-administration, might contribute to drug abuse."

For more information on this research see: Delay discounting of the m-opioid receptor agonist remifentanil in rhesus monkeys. *Behavioural Pharmacology*, 2016;27(2-3 Spec I):148-54. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

The news correspondents report that additional information may be obtained from D.R. Maguire, Departments of aPharmacology bPsychiatry, The University of Texas Health Science Center at San Antonio, San Antonio, Texas, United States. Additional authors for this research include L.R. Gerak and C.P France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000193. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Texas, San Antonio, Remifentanil, United States, Opioid Receptors, Membrane Proteins, Drugs and Therapies, Narcotic Analgesics, Risk and Prevention, Neuropeptide Receptors, North and Central America, G Protein Coupled Receptors, Central Nervous System Agents.

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Findings on Cerebral Palsy Detailed by Investigators at University of Gothenburg (Association of COL4A1 gene polymorphisms with cerebral palsy in a Chinese Han population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Cerebral Palsy have been published. According to news reporting originating from Gothenburg, Sweden, by NewsRx correspondents, research stated, "The basement membrane (BM) is an extracellular matrix associated with overlying cells and is important for proper tissue development, stability, and physiology. COL4A1 is the most abundant component of type IV collagen in the BM, and COL4A1 variants can present with variable phenotypes that might be related to cerebral palsy (CP)."

Our news editors obtained a quote from the research from the University of Gothenburg, "We postulated, therefore, that variations in the COL4A1 gene might play an important role in the etiology of CP. In this study, six single nucleotide polymorphisms (SNPs) in the COL4A1 gene were genotyped among 351 CP patients and 220 healthy controls from the Chinese Han population. Significant association was found for an association between CP and rs1961495 (allele: p= 0.008, odds ratio (OR)= 1.387, 95% confidence interval (CI)= 1.088-1.767) and rs1411040 (allele: p= 0.009, OR= 1.746, 95% CI= 1.148-2.656) SNPs of the COL4A1 gene. Multifactor dimensionality reduction analysis suggested that these SNPs had interactive effects on the risk of CP. This study is the first attempt to investigate the contribution of polymorphisms in the COL4A1 gene to the susceptibility of CP in a Chinese Han population."

According to the news editors, the research concluded: "This study shows an association of the COL4A1 gene with CP and suggests a potential role of COL4A1 in the pathogenesis of CP."


The news editors report that additional information may be obtained by contacting C. Zhu, University of Gothenburg, Center Brain Repair & Rehabil, Gothenburg, Sweden. Additional authors for this research include H. Wang, Q. Shang, Y. Xu, F. Wang, M. Chen, C. Ma, Y. Sun, X. Zhao, C. Gao, L. Wang, C. Zhu and Q. Xing.

Keywords for this news article include: Gothenburg, Sweden, Europe, Central Nervous System Diseases and Conditions, Cerebral Palsy, Genetics, Genetics, Brain Diseases and Conditions, Chronic Brain Damage, University of Gothenburg.

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Findings on Cervical Cancer Reported by Investigators at Academic Medical Center (Vaginal high-risk human papillomavirus infection in a cross-sectional study among women of six different ethnicities in Amsterdam, the Netherlands: the HELIUS ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cervical Cancer is the subject of a report. According to news reporting originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "In the Netherlands the incidence of cervical cancer is higher among ethnic minority populations compared with the general Dutch population. We investigated the prevalence of, and risk factors associated with, vaginal high-risk human papillomavirus (hrHPV) infection in women of six different ethnicities living in Amsterdam."

Our news editors obtained a quote from the research from Academic Medical Center, "For this cross-sectional study we selected women aged 18-34 years old of six ethnicities from the large-scale multiethnic HEalthy LIfe in an Urban Setting study. Self-collected vaginal swabs were tested for HPV DNA and genotyped using a highly sensitive PCR and reverse line blot assay (short PCR fragment (SPF) 10-PCR DNA enzyme immunoassay/LiPA25-system version-1, delft diagnostic laboratory (DDL)). Participants completed a questionnaire regarding demographics and sexual behaviour. Logistic regression using generalised estimating equations was used to assess risk factors of hrHPV, and to investigate whether prevalence of hrHPV differed among ethnicities. The study population consisted of 592 women with a median age of 27 (IQR: 23-31) years. Dutch and African Surinamese women reported the highest sexual risk behaviour. HrHPV prevalence was highest in the Dutch (40%) followed by the African Surinamese (32%), Turkish (29%), Ghanaian (26%), Moroccan (26%) and South-Asian Surinamese (18%). When correcting for sexual risk behaviour, the odds to be hrHPV-positive were similar for all non-Dutch groups when compared with that of the Dutch group. We found an overall higher hrHPV prevalence and higher sexual risk behaviour in the native Dutch population."

According to the news editors, the research concluded: "Further research is needed to unravel the complex problem concerning cervical cancer disparities, such as differences in participation in the cervical cancer screening programme, or differences in clearance and persistence of hrHPV."

For more information on this research see: Vaginal high-risk human papillomavirus infection in a cross-sectional study among women of six different ethnicities in Amsterdam, the Netherlands: the HELIUS study. Sexually Transmitted Infections, 2016;92(8):611-618. Sexually Transmitted Infections can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Sexually Transmitted Infections - sti.bmj.com/)

The news editors report that additional information may be obtained by contacting C.J. Alberts, Academy Med Center, Center Infect & Immun Amsterdam CINIMA, Dept. of Internal Med, Div Infect Dis, Amsterdam, Netherlands. Additional authors for this research include R.A. Vos, H. Borgdorff, W. Vermeulen, J. van Bergen, S.M. Bruisten, S.E. Geerlings, M.B. Snijder, R. van Houdt, S.A. Morre, H.J.C. de Vries, J. van de Wijgert, M. Prins and M.F.S. van der Loeff.

The direct object identifier (DOI) for that additional information is:
Findings on Chemical Biology and Drug Design Reported by Researchers at Ministry of Education (Novel Peptides from Skins of Amphibians Showed Broad-Spectrum Antimicrobial Activities)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemical Biology and Drug Design. According to news originating from Kunming, People's Republic of China, by NewsRx correspondents, research stated, "Peptide agents are often considered as potential biomaterials for developing new drugs that can overcome the rising resistance of pathogenic micro-organisms to classic antibiotic treatments. One key source of peptide agents is amphibian skin, as they provide a great deal of naturally occurring antimicrobial peptide (AMP) templates awaiting further exploitation and utilization."

Financial supporters for this research include National Natural Science Foundation of China, Chinese Academy of Sciences, Youth Science Foundation of Yunnan Minzu University, Scientific Research Foundation of Yunnan Minzu University, Open Research Fund of Key Laboratory of Chemistry in Ethnic Medicinal Resources (Yunnan Minzu University), State Ethnic Affairs Commission & Ministry of Education, P.R. China.

Our news journalists obtained a quote from the research from the Ministry of Education, "In this study, 12 novel AMPs from the skins of 3 ranid frogs, Rana limnocharis, R. exilispinosa, and Amolops afghanus, were identified using a 5' PCR primer. A total of 11 AMPs exhibited similarities with currently known AMP families, including brevinin-1, brevinin-2, esculetin-1, and nigrocin, besides, one AMP, named as Limnocharin, represented a novel AMP family. All 12 AMPs contain a C-terminus cyclic motif and most of them show obvious antimicrobial activities against 18 standard and clinically isolated strains of bacteria, including 4 Gram-positive bacteria, 11 Gram-negative bacteria, and 3 fungus."

According to the news editors, the research concluded: "These findings provide helpful insight that will be useful in the design of anti-infective peptide agents."


The news correspondents report that additional information may be obtained from Y. Wang, Key Laboratory of Chemistry in Ethnic Medicine Resource, State Ethnic Affairs Commission & Ministry of Education, School of Ethnic Medicine, Yunnan Minzu University, Kunming, 650500, People's Republic of China. Additional authors for this research include Y.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/cbdd.12672. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal Chemical Biology & Drug Design is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Kunming, Drugs and Therapies, People's Republic of China, Chemical Biology and Drug Design.

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Chemistry

Findings on Chemistry Discussed by Investigators at University of Santiago (Ruthenation of Non-stacked Guanines in DNA G-Quadruplex Structures: Enhancement of c-MYC Expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Chemistry are presented in a new report. According to news reporting originating from Santiago de Compostela, Spain, by NewsRx correspondents, research stated, "Guanine quadruplexes (GQs) are compact four-stranded DNA structures that play a key role in the control of a variety of biological processes, including gene transcription."

Our news editors obtained a quote from the research from the University of Santiago, "Bulky ruthenium complexes featuring a bipyridine, a terpyridine, and one exchangeable ligand ([Ru(terpy)(bpy)X](n+)) are able to metalate exposed guanines present in the GQ of the c-MYC promoter region that are not involved in quadruplex base pairing. qRT-PCR and western-blot experiments indicated that the complexes promote a remarkable increase in the expression of this oncogene."

According to the news editors, the research concluded: "We also show that exchangeable thioether ligands (X = RSR', Met) allow regulation of the metalating activity of the complex with visible light."


The news editors report that additional information may be obtained by contacting M.E. Vazquez, University of Santiago, Dept. of Quim Organ, Santiago De Compostela 15782, Spain. Additional authors for this research include J. Mosquera, J.R. Couceiro, M.E. Vazquez and J.L. Mascarenas.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1002/anie.201607965. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Santiago de Compostela, Spain, Europe, Chemistry, Genetics, University of Santiago.

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Findings on Chronic Lymphocytic Leukemia Detailed by Researchers at University of Kansas (Targeting HSF1 disrupts HSP90 chaperone function in chronic lymphocytic leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Chronic Lymphocytic Leukemia. According to news reporting originating in Kansas City, Kansas, by NewsRx journalists, research stated, "CLL is a disease characterized by chromosomal deletions, acquired copy number changes and aneuploidy. Recent studies have shown that overexpression of Heat Shock Factor (HSF) 1 in aneuploid tumor cells can overcome deficiencies in heat shock protein (HSP) 90-mediated protein folding and restore protein homeostasis."

The news reporters obtained a quote from the research from the University of Kansas, "Interestingly, several independent studies have demonstrated that HSF1 expression and activity also affects the chaperoning of HSP90 kinase clients, although the mechanism underlying this observation is unclear. Here, we determined how HSF1 regulates HSP90 function using CLL as a model system. We report that HSF1 is overexpressed in CLL and treatment with triptolide (a small molecule inhibitor of HSF1) induces apoptosis in cultured and primary CLL B-cells. We demonstrate that knockdown of HSF1 or its inhibition with triptolide results in the reduced association of HSP90 with its kinase co-chaperone cell division cycle 37 (CDC37), leading to the partial depletion of HSP90 client kinases, Bruton's Tyrosine Kinase (BTK), c-RAF and cyclin-dependent kinase 4 (CDK4). Treatment with triptolide or HSF1 knockdown disrupts the cytosolic complex between HSF1, p97, HSP90 and the HSP90 deacetylase-Histone deacetylase 6 (HDAC6). Consequently, HSF1 inhibition results in HSP90 acetylation and abrogation of its chaperone function. Finally, tail vein injection of Mec-1 cells into Rag2-/IL2Rgc--/mice followed by treatment with minnelide (a pro-drug of triptolide), reduced leukemia, increased survival and attenuated HSP90-dependent survival signaling in vivo."

According to the news reporters, the research concluded: "Our study provides a strong rationale to target HSF1 and test the activity of minnelide against human CLL."

For more information on this research see: Targeting HSF1 disrupts HSP90 chaperone function in chronic lymphocytic leukemia. Oncotarget, 2015;6(31):31767-79.

Our news correspondents report that additional information may be obtained by contacting S. Ganguly, The University of Kansas Cancer Center, Kansas City, KS, United States. Additional authors for this research include T. Home, A. Yacoub, S. Kambhampati, H. Shi, P. Dandawate, S. Padhye, A.K. Saluja, J. McGuirk and R. Rao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5167. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kinase, Genetics, Oncology, Hematology, Kansas City, Deacetylase, United States, Enzymes and Coenzymes, North and Central America, Chronic Lymphocytic Leukemia.

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Lung Diseases and Conditions - Chronic Obstructive...

Findings on Chronic Obstructive Pulmonary Disease Reported by Researchers at Leiden University Medical Center (Prediction of Long-Term Benefits of Inhaled Steroids by Phenotypic Markers in Moderate-to-Severe COPD: A Randomized Controlled Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease are discussed in a new report. According to news reporting originating from Leiden, Netherlands, by NewsRx correspondents, research stated, "The decline in lung function can be reduced by long-term inhaled corticosteroid (ICS) treatment in subsets of patients with chronic obstructive pulmonary disease (COPD). We aimed to identify which clinical, physiological and non-invasive inflammatory characteristics predict the benefits of ICS on lung function decline in COPD."

Our news editors obtained a quote from the research from Leiden University Medical Center, "Analysis was performed in 50 steroid-naive compliant patients with moderate to severe COPD (postbronchodilator forced expiratory volume in one second (FEV1), 30-80% of predicted, compatible with GOLD stages II-III), age 45-75 years, >10 packyears smoking and without asthma. Patients were treated with fluticasone propionate (500 mg bid) or placebo for 2.5 years. Postbronchodilator FEV1, dyspnea and health status were measured every 3 months; lung volumes, airway hyperresponsiveness (PC20), and induced sputum at 0, 6 and 30 months. A linear mixed effect model was used for analysis of this hypothesis generating study. Significant predictors of attenuated FEV1-decline by fluticasone treatment compared to placebo were: fewer packyears smoking, preserved diffusion capacity, limited hyperinflation and lower inflammatory cell counts in induced sputum (p <0.04). Long-term benefits of ICS on lung function decline in patients with moderate-to-severe COPD are most pronounced in patients with fewer packyears, and less severe emphysema and inflammation."

According to the news editors, the research concluded: "These data generate novel hypotheses on phenotype-driven therapy in COPD."

For more information on this research see: Prediction of Long-Term Benefits of Inhaled Steroids by Phenotypic Markers in Moderate-to-Severe COPD: A Randomized Controlled Trial. Plos One; 2015;10(12):e0143793. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news editors report that additional information may be obtained by contacting J.B. Snoeck-Stroband, Dept. of Public Health and Primary Care, Leiden University Medical Center, Leiden, Netherlands. Additional authors for this research include T.S. Lapperre, P.J. Sterk, P.S. Hiemstra, H.A. Thiadens, H.M. Boezen, N.H. Ten Hacken, H.A. Kerstjens, D.S. Postma, W. Timens and J.K Sont.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0143793. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leiden, Europe, Netherlands, Clinical Research, Clinical Trials and Studies, Lung Diseases and Conditions, Chronic Obstructive Pulmonary Disease.

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Musculoskeletal Diseases and Conditions - Chronic...

Findings on Chronic Pain Described by Researchers at Department of Anesthesiology (Prevalence and determinants of medication non-adherence in chronic pain patients: a systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Musculoskeletal Diseases and Conditions - Chronic Pain is the subject of a report. According to news reporting out of Nieuwegein, Netherlands, by NewsRx editors, research stated, "Chronic pain is commonly treated with analgesic medication. Non-adherence to prescribed pain medication is very common and may result in sub-optimal treatment outcome."

Financial support for this research came from Center for Pain Medicine of the Erasmus MC University Medical Center Rotterdam.

Our news journalists obtained a quote from the research from the Department of Anesthesiology, "The aim of this review was to investigate the prevalence of medication non-adherence and to present determinants that may help identify patients at risk for non-adherence to analgesic medication. A search was performed in PubMed and Embase with systematic approach including PRISMA recommendations. Individual risk of bias was assessed and systematic data extraction was performed. Twenty-five studies were included. Non-adherence rates to pain prescriptions ranged from 8% to 62% with a weighted mean of 40%. Underuse of pain medication was more common than overuse in most studies. Factors that were commonly positively associated with non-adherence were dosing frequency, polymedication, pain intensity, and concerns about pain medication. Factors negatively associated with non-adherence were age, again pain intensity and quality of the patient-caregiver relationship. Underuse was positively associated with active coping strategies and self-medication, and negatively associated with perceived need for analgesic medication. Overuse was positively associated with perceived need, pain intensity, opioid use, number of prescribed analgesics, a history of drug abuse, and smoking. Non-adherence to analgesic medication use is very common in the chronic pain population. The choice for pharmacological therapy should not only be based upon pain diagnosis but should also take the risks of non-adherence into account."

According to the news editors, the research concluded: "The value of adherence monitoring or adherence enhancing interventions has to be investigated in future studies."


Our news journalists report that additional information may be obtained by contacting L. Timmerman, Dept. of Anesthesiology, Intensive Care and Pain Medicine, St Antonius Hospital, Nieuwegein, Netherlands. Additional authors for this research include D.L. Stronks, J.G. Groeneweg and F.J Huygen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/aas.12697. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Nieuwegein, Analgesics, Netherlands, Chronic Pain, Pain Medicine, Article Review, Pain Medication, Drugs and
Findings on Clinical Epidemiology Reported by Investigators at Public Hospital System (Peer reviewers identified spin in manuscripts of nonrandomized studies assessing therapeutic interventions, but their impact on spin in abstract conclusions ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Health and Medicine - Clinical Epidemiology is now available. According to news originating from Paris, France, by NewsRx correspondents, research stated. "To describe the impact of peer reviewers on spin in reports of nonrandomized studies assessing a therapeutic intervention. This is a systematic review and retrospective before after study."

Our news journalists obtained a quote from the research from Public Hospital System, "The sample consists of primary reports (n = 128) published in BioMed Central Medical Series journals between January 1, 2011, and December 31, 2013. The main outcome measures are the following: number and type of spin examples identified, deleted, or added by peer reviewers in the whole manuscript; number of reports with spin in abstract conclusions not detected by peer reviewers; the level of spin (i.e., no, low, moderate, and high level of spin) in the abstract conclusions before and after the peer review. For 70 (55%) submitted manuscripts, peer reviewers identified at least one example of spin. Of 123 unique examples of spin identified by peer reviewers, 82 (67%) were completely deleted by the authors. For 19 articles (15%), peer reviewers requested adding some spin, and for 11 (9%), the spin was added by the authors. Peer reviewers failed to identify spin in abstract conclusions of 97 (76%) reports. Peer reviewers identified many examples of spin in submitted manuscripts."

According to the news editors, the research concluded: "However, their influence on changing spin in the abstract conclusions was low."

For more information on this research see: Peer reviewers identified spin in manuscripts of nonrandomized studies assessing therapeutic interventions, but their impact on spin in abstract conclusions was limited. *Journal of Clinical Epidemiology*, 2016;77():44-51. *Journal of Clinical Epidemiology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Journal of Clinical Epidemiology - www.journals.elsevier.com/journal-of-clinical-epidemiology/)

The news correspondents report that additional information may be obtained from I. Boutron, AP HP, Center Epidemiol Clin, F-75004 Paris, France. Additional authors for this research include R. Haneef, P. Ravaud, S. Hopewell, D.G. Altman and I. Boutron. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinepi.2016.04.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Clinical Epidemiology, Health and Medicine, Therapy, Epidemiology, Public Hospital System.

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Findings on Clinical Nephrology Described by A. Bellasi and Colleagues
(Cinacalcet but not vitamin D use modulates the survival benefit associated with sevelamer in the INDEPENDENT study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Clinical Nephrology have been published. According to news reporting out of Solofra, Italy, by NewsRx editors, research stated, "Whether differences in outcomes of calcium-free vs. calcium-containing phosphate binder treatments can be amplified by concurrent treatment with a calcium-sensing receptor agonist or vitamin D remains to be elucidated. A post-hoc analysis of the INDEPENDENT study, an open-label randomized controlled trial designed to evaluate the impact of sevelamer (SV) vs. calcium salts (CS) on survival in incident dialysis patients."

Our news journalists obtained a quote from the research, "We recruited 466 middle-aged men and women. Cinacalcet (CC) and vitamin D (VD) were administered to a portion of patients as part of their routine care. We tested the impact of CC and VD on survival in the overall and in both treatment arms of the original study cohort. Overall SV, but not CC or VD, administration was associated with a survival benefit (mean follow-up: 28 (10) months). However, a significant (p = 0.006) interaction of SV and CC on mortality was observed. CC use was associated with improved survival if administered in combination with SV (HR 0.34, 95% CI 0.14 - 0.81, p = 0.01 for subjects receiving or not CC) but not CS (HR 1.28, 95% CI 0.82 - 2.00; p = 0.26 for subjects receiving or not CC). No effect on mortality or interaction of phosphate binder use with VD was noted."

According to the news editors, the research concluded: "Though hypothesis generating, these results lend support to the idea that use of a CC may increase survival in incident hemodialysis patients when used with a calcium-free phosphate binder."

For more information on this research see: Cinacalcet but not vitamin D use modulates the survival benefit associated with sevelamer in the INDEPENDENT study. Clinical Nephrology, 2016;86(3):113-124. Clinical Nephrology can be contacted at: Dustri-Verlag Dr Karl Feistle, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.

Our news journalists report that additional information may be obtained by contacting B. Di Iorio, PO A Landolfo, UOC Nefrol, I-83029 Solofra, AV, Italy. Additional authors for this research include M. Cozzolino, D. Russo, D. Molony and B. Di Iorio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5414/CN108827. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Solofra, Italy, Europe, Clinical Nephrology, Health and Medicine, Cinacalcet.

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Findings on Clinical Pharmacology and Therapeutics Reported by Investigators at Massachusetts Institute of Technology (Leveraging Industry-Academia Collaborations in Adaptive Biomedical Innovation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Clinical Pharmacology and Therapeutics have been presented. According to news reporting originating in Cambridge, Massachusetts, by NewsRx journalists, research stated, "Despite the rapid pace of biomedical innovation, research and development (R&D) productivity in the pharmaceutical industry has not improved broadly. Increasingly, firms need to leverage new approaches to product development and commercial execution, while maintaining adaptability to rapid changes in the marketplace and in biomedical science."

The news reporters obtained a quote from the research from the Massachusetts Institute of Technology, "Firms are also seeking ways to capture some of the talent, infrastructure, and innovation that depends on federal R&D investment. As a result, a major transition to external innovation is taking place across the industry. One example of these external innovation initiatives is the Sanofi-MIT Partnership, which provided seed funding to MIT investigators to develop novel solutions and approaches in areas of interest to Sanofi. These projects were highly collaborative, with information and materials flowing both ways."

According to the news reporters, the research concluded: "The relatively small amount of funding and short time frame of the awards built an adaptable and flexible process to advance translational science."


Our news correspondents report that additional information may be obtained by contacting S.L. Springs, MIT, Center Biomed Innovat, Cambridge, MA 02139, United States. Additional authors for this research include P.W. Barone, A. Bellisario, C.L. Cooney, P.A. Sharp, A.J. Sinskey, S. Natesan and S.L. Springs.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cpt.504. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Clinical Pharmacology and Therapeutics, Drugs and Therapies, Massachusetts Institute of Technology.

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Findings on Clinical Trials and Studies Discussed by Y.K. Chae and Co-Researchers (Repurposing metformin for cancer treatment: current clinical studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Clinical Research - Clinical Trials and Studies have been presented. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "In recent years, several studies have presented evidence suggesting a potential role for metformin in anti-cancer therapy. Preclinical studies have demonstrated several anticancer molecular mechanisms of metformin including mTOR inhibition, cytotoxic effects, and immunomodulation."

Our news journalists obtained a quote from the research, "Epidemiologic data have demonstrated decreased cancer incidence and mortality in patients taking metformin. Several clinical trials, focused on evaluation of metformin as an anti-cancer agent are presently underway. Data published from a small number of completed trials has put forth intriguing results. Clinical trials in pre-surgical endometrial cancer patients exhibited a significant decrease in Ki67 with metformin monotherapy. Another interesting observation was made in patients with breast cancer, wherein a trend towards improvement in cancer proliferation markers was noted in patients without insulin resistance. Data on survival outcomes with the use of metformin as an anti-cancer agent is awaited."

According to the news editors, the research concluded: "This manuscript will critically review the role of metformin as a potential cancer treatment."

For more information on this research see: Repurposing metformin for cancer treatment: current clinical studies. Oncotarget, 2016;7(26):40767-40780.

Our news journalists report that additional information may be obtained by contacting Y.K. Chae, Northwestern Medicine Developmental Therapeutics Institute, Chicago, IL, United States. Additional authors for this research include A. Arya, M.K. Malecek, D.S. Shin, B. Carneiro, S. Chandra, J. Kaplan, A. Kalyan, J.K. Altman, L. Platanias and F. Giles.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8194. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antidiabetic Agents, Cancer, Chicago, Illinois, Oncology, Biguanides, Epidemiology, United States, Article Review, Clinical Research, Metformin Therapy, Non Sulfonylureas, Drugs and Therapies, Hypoglycemic Agents, North and Central America, Clinical Trials and Studies.

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Findings on Clinical Trials and Studies Reported by Investigators at Copenhagen University Hospital [Thromboelastography (TEG) or thromboelastometry (ROTEM) to monitor haemostatic treatment versus usual care in adults or children with bleeding]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Research - Clinical Trials and Studies. According to news reporting originating in Copenhagen, Denmark, by NewsRx journalists, research stated, "Severe bleeding and coagulopathy are serious clinical conditions that are associated with high mortality. Thromboelastography (TEG) and thromboelastometry (ROTEM) are increasingly used to guide transfusion strategy but their roles remain disputed."

The news reporters obtained a quote from the research from Copenhagen University Hospital, "This review was first published in 2011 and updated in January 2016. We assessed the benefits and harms of thromboelastography (TEG)-guided or thromboelastometry (ROTEM)-guided transfusion in adults and children with bleeding. We looked at various outcomes, such as overall mortality and bleeding events, conducted subgroup and sensitivity analyses, examined the role of bias, and applied trial sequential analyses (TSAs) to examine the amount of evidence gathered so far. Search methods In this updated review we identified randomized controlled trials (RCTs) from the following electronic databases: Cochrane Central Register of Controlled Trials (CENTRAL; 2016, Issue 1); MEDLINE; Embase; Science Citation Index Expanded; International Web of Science; CINAHL; LILACS; and the Chinese Biomedical Literature Database (up to 5 January 2016). We contacted trial authors, authors of previous reviews, and manufacturers in the field. The original search was run in October 2010. Selection criteria We included all RCTs, irrespective of blinding or language, that compared transfusion guided by TEG or ROTEM to transfusion guided by clinical judgement, guided by standard laboratory tests, or a combination. We also included interventional algorithms including both TEG or ROTEM in combination with standard laboratory tests or other devices. The primary analysis included trials on TEG or ROTEM versus any comparator. Data collection and analysis Two review authors independently abstracted data; we resolved any disagreements by discussion. We presented pooled estimates of the intervention effects on dichotomous outcomes as risk ratio (RR) with 95% confidence intervals (CIs). Due to skewed data, meta-analysis was not provided for continuous outcome data. Our primary outcome measure was all-cause mortality. We performed subgroup and sensitivity analyses to assess the effect based on the presence of coagulopathy of a TEG- or ROTEM-guided algorithm, and in adults and children on various clinical and physiological outcomes. We assessed the risk of bias through assessment of trial methodological components and the risk of random error through TSA. We included eight new studies (617 participants) in this updated review. In total we included 17 studies (1493 participants). A total of 15 trials provided data for the meta-analyses. We judged only two trials as low risk of bias. The majority of studies included participants undergoing cardiac surgery. We found six ongoing trials but were unable to retrieve any data from them. Compared with transfusion guided by any method, TEG or ROTEM seemed to reduce overall mortality (7.4% versus 3.9%; risk ratio (RR) 0.52, 95% CI 0.28 to 0.95; I2 = 0%, 8 studies, 717 participants, low quality of evidence) but only eight trials provided data on mortality, and two were zero event trials. Our analyses demonstrated a statistically significant effect of TEG or ROTEM compared to any comparison on the proportion of participants transfused with pooled red blood cells (PRBCs) (RR 0.86, 95% CI 0.79 to 0.94; I2 = 0%, 10 studies, 832 participants, low quality of evidence), fresh frozen plasma (FFP) (RR 0.57, 95% CI 0.33 to 0.96; I2 = 86%, 8 studies, 761 participants, low quality of evidence), platelets (RR 0.73, 95% CI 0.60 to 0.88; I2 = 0%, 10 studies, 832 participants, low quality of evidence), and overall haemostatic transfusion with FFP or platelets (low quality of evidence). Meta-analyses also showed fewer participants with dialysis-dependent renal failure. We found no difference in the proportion needing surgical reinterventions (RR 0.75, 95% CI 0.50 to 1.10; I2 = 0%, 9 studies, 887 participants, low quality of evidence) and excessive bleeding events or massive transfusion (RR 0.38, 95% CI 0.38 to 1.77; I2 = 34%, 2 studies, 280 participants, low quality of evidence). The
planned subgroup analyses failed to show any significant differences. We graded the quality of evidence as low based on the high risk of bias in the studies, large heterogeneity, low number of events, imprecision, and indirectness. TSA indicates that only 54% of required information size has been reached so far in regards to mortality, while there may be evidence of benefit for transfusion outcomes. Overall, evaluated outcomes were consistent with a benefit in favour of a TEG-or ROTEM-guided transfusion in bleeding patients. Authors’ conclusions There is growing evidence that application of TEG-or ROTEM-guided transfusion strategies may reduce the need for blood products, and improvement in patients with bleeding. However, these results are primarily based on trials of elective cardiac surgery involving cardiopulmonary bypass, and the level of evidence remains low."

According to the news reporters, the research concluded: "Further evaluation of TEG-or ROTEM-guided transfusion in acute settings and other patient categories in low risk of bias studies is needed."

For more information on this research see: Thromboelastography (TEG) or thromboelastometry (ROTEM) to monitor haemostatic treatment versus usual care in adults or children with bleeding. *Cochrane Database of Systematic Reviews*, 2016;(8):2432-2580. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting A. Afshari, Copenhagen Univ Hosp, Rigshospitalet, Dept. of 4013, Juliane Marie CenterAnaesthesia & Surg Clin, Copenhagen, Denmark. Additional authors for this research include J. Wetterslev, A.M. Moller and A. Afshari.

Keywords for this news article include: Copenhagen, Denmark, Europe, Cardiac Surgery, Article Review, Clinical Trials and Studies, Transfusion Medicine, Blood Transfusion, Clinical Research, Medical Devices, Cardiology, Copenhagen University Hospital.

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**Clinical Research - Clinical Trials and Studies**

**Findings on Clinical Trials and Studies Reported by Investigators at Maastricht University (Randomized clinical trial on the efficacy of hesperidin 2S on validated cardiovascular biomarkers in healthy overweight individuals)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news originating from Maastricht, Netherlands, by NewsRx correspondents, research stated, "Endothelial dysfunction (ED) is involved in the development of atherosclerosis. Hesperidin, a citrus flavonoid with antioxidant and other biological properties, potentially exerts beneficial effects on endothelial function (EF)."

Our news journalists obtained a quote from the research from Maastricht University, "We investigated the effect of hesperidin 2S supplementation on EF in overweight individuals. This was a randomized, double-blind, placebo-controlled study in which 68 individuals were randomly assigned to receive hesperidin 2S (450 mg/d) or a placebo for 6 wk. At baseline and after 6 wk of intervention, flow-mediated dilation (FMD), soluble vascular adhesion molecule-1
(sVCAM-1), soluble intracellular adhesion molecule-1 (sICAM-1), soluble P-selectin (sP-selectin), systolic blood pressure (SBP), and diastolic blood pressure (DBP) were assessed. Acute, reversible ED was induced by intake of a high-fat meal (HFM). A second FMD scan was performed 2 h postprandially, and adhesion molecules were assessed 2 and 4 h postprandially. An additional exploratory analysis was performed in subjects with baseline FMD >= 3%. No significant change in fasting or postprandial FMD was observed after 6 wk of hesperidin intake compared with placebo intake. However, there was a trend for a reduction of sVCAM-1, sICAM-1, sP-selectin, SBP, and DBP after 6 wk of hesperidin treatment. In the FMD >= 3% group, hesperidin protected individuals from postprandial ED (P = 0.050) and significantly downregulated sVCAM-1 and sICAM-1 (all P <= 0.030). The results reported in the current article were not adjusted for multiplicity. Six weeks of consumption of hesperidin 2S did not improve basal or postprandial FMD in our total study population. There was a tendency toward a reduction of adhesion molecules and a decrease in SBP and DBP. Further exploratory analyses revealed that, in subjects with baseline FMD >= 3%, hesperidin 2S improved ED after an HFM and reduced adhesion molecules. These results indicate the cardiovascular health benefits of hesperidin 2S in overweight and obese individuals with a relatively healthy endothelium.

According to the news editors, the research concluded: "This trial was registered at clinicaltrials.gov as NCT02228291."


The news correspondents report that additional information may be obtained from B.N. Salden, Maastricht University, Medical Center, Sch Nutr & Translat Res Metab, Dept. of Internal MedDiv Gastroenterol Hepatol, Maastricht, Netherlands. Additional authors for this research include F.J. Troost, E. de Groot, Y.R. Stevens, M. Garces-Rimon, S. Possemiers, B. Winkens and A.A. Masclee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3945/ajcn.116.136960. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maastricht, Netherlands, Europe, Clinical Trials and Studies, Diagnostics and Screening, Diastolic Blood Pressure, Cell Adhesion Molecules, Systolic Blood Pressure, Membrane Proteins, Clinical Research, Cardiovascular, Cell Research, Glycoproteins, Hemodynamics, Cardiology, Selectins, Lectins, Maastricht University.

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Clinical Research - Clinical Trials and Studies

Findings on Clinical Trials and Studies Reported by Investigators at Zhejiang University (Dexmedetomidine Versus Propofol Sedation Improves Sublingual Microcirculation After Cardiac Surgery: A Randomized Controlled Trial)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news reporting from Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "To compare the effects of dexmedetomidine and propofol on sublingual microcirculation in patients after cardiac surgery. A prospective, randomized, single-blind study. University hospital."

The news correspondents obtained a quote from the research from Zhejiang University, "Adult patients undergoing elective valve surgery with cardiopulmonary bypass. On arrival in the intensive care unit (ICU), patients were assigned randomly to receive either dexmedetomidine (0.2-1.5 μg/kg/h) or propofol (5-50 μg/kg/min) with open-label titration to a target Richmond Agitation Sedation Scale of 0 to -3. Sublingual microcirculation was recorded using sidestream dark-field imaging at ICU admission (baseline [T1]) and 4 hours (T2) and 24 hours after ICU admission (T3). At T2, median changes in perfused small vessel density and the De Backer score from baseline were significantly greater in the dexmedetomidine group (n = 29) than in the propofol group (n = 32) (1.3 v 0 mm/mm², p = 0.025; 0.9 v -0.1/mm, p = 0.005, respectively); median changes in small-vessel density and the proportion of perfused small vessels from baseline also tended to be higher in the dexmedetomidine group compared with the propofol group (1.0 v -0.1 mm/mm², p = 0.050; 2.1% v 0.5%, p = 0.062, respectively). At T3, there still was a trend toward greater improvements in the small-vessel density, proportion of perfused small-vessels, perfused small-vessel density, and De Backer score from baseline in the dexmedetomidine group than in the propofol group."

According to the news reporters, the research concluded: "This trial demonstrated that dexmedetomidine sedation may be better able to improve microcirculation in cardiac surgery patients during the early postoperative period compared with propofol."


Our news journalists report that additional information may be obtained by contacting X.M. Fang, Zhejiang University, Sch Med, Affiliated Hosp 1, Dept. of Anesthesiol & Intens Care Unit, Hangzhou, Zhejiang, People's Republic of China. Additional authors for this research include K. Zhang, W. Wang, G.H. Xie, B.L. Cheng, Y. Wang, Y.Q. Hu and X.M. Fang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.jvca.2016.05.038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Clinical Trials and Studies, Clinical Research, Microcirculation, Cardiac Surgery, Cardiology, Hematology, Angiology, Propofol, Phenols, Zhejiang University.

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Findings on Clinical Trials and Studies Reported by Researchers at Fukuoka University [Intracellular mechanisms underlying lipid accumulation (white opaque substance) in gastric epithelial neoplasms: A pilot study of expression profiles of ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Research - Clinical Trials and Studies. According to news reporting out of Fukuoka, Japan, by NewsRx editors, research stated, "White opaque substance (WOS) is a novel endoscopic finding in gastric neoplasms, indicating the intracellular accumulation of lipid droplets (LDs). However, gastric lipid metabolism has not been extensively investigated, even in normal mucosa."

Funders for this research include Central Research Institute for Endoscopy (Fukuoka iEndo), Fukuoka University, Clinical Research from the National Hospital Organization of Japan.

Our news journalists obtained a quote from the research from Fukuoka University, "We investigated the expression profiles of lipid-metabolism-associated genes in gastric neoplasms. Thirty-four patients with early gastric cancer or adenoma were enrolled in this study. Paired biopsy samples from tumor and adjacent non-tumor areas were obtained and analyzed by real-time polymerase chain reaction. Endoscopically resected specimens were evaluated histopathologically. Genes associated with b-oxidation (peroxisome proliferator-activated receptor a, carnitine palmitoyltransferase 1A, and hydroxyacyl-CoA dehydrogenase), lipoprotein excretion (apolipoprotein B, microsomal triglyceride transfer protein, and acyl-CoA:cholesterol acyltransferase 2), fatty acid transport (fatty acid-binding protein), construction of triglycerides in the endoplasmic reticulum (acyl-CoA:diacylglycerol acyltransferase 1), and LD degradation/lipolysis (comparative gene identification-58, adipose triglyceride lipase) were significantly downregulated in neoplasms compared with non-tumor areas. Pyruvate dehydrogenase lipoamide kinase isozyme 4 (negative regulator of glycolysis) and adipophilin (LD surface component) were also repressed. Conversely, expression levels of genes associated with de novo lipogenesis (sterol regulatory element-binding protein 1c, acyl-CoA:diacylglycerol acyltransferase 2) were significantly enhanced in neoplasms. There was no significant difference in gene expression levels between carcinomas and adenomas, or between WOS-positive and WOS-negative neoplasms. Gene expression profiles in neoplasms suggest a predominance of lipid storage (lipogenesis/LD formation) over consumption (b-oxidation/excretion/lipolysis)."

According to the news editors, the research concluded: "Lipid accumulation and WOS in gastric epithelial neoplasms may be caused by impaired mitochondrial oxidation, lipoprotein excretion, and LD degradation."


Our news journalists report that additional information may be obtained by contacting M. Enjoji, Faculty of Pharmaceutical Sciences, Fukuoka University, Fukuoka, Japan. Additional authors for this research include M. Kohjima, K. Ohtsu, K. Matsunaga, Y. Murata, M. Nakamuta, K. Imamura, H. Tanabe, A. Iwashita, T. Nagahama and K. Yao.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13216. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Lipids, Fukuoka, Genetics, Neoplasms, Lipoproteins, Dehydrogenase, Acyltransferases, Clinical Research, Enzymes and Coenzymes, Clinical Trials and Studies.

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**Drugs and Therapies - Coagulation Modifiers**

**Findings on Coagulation Modifiers Reported by Investigators at CSIR**

*(Site-Specific Thiol-mediated PEGylation of Streptokinase Leads to Improved Properties with Clinical Potential)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Coagulation Modifiers. According to news reporting out of Chandigarh, India, by NewsRx editors, research stated, "Streptokinase (SK) is an efficient thrombolytic agent that dissolves fibrin blood clots with clinical efficiency comparable to the high priced drug, tissue plasminogen activator (tPA). However, being of bacterial origin, its major drawbacks are its potentially high antigenicity, and relatively short circulating half-life (approximately 10-15 min)."

Our news journalists obtained a quote from the research from CSIR, "In the present investigation, an attempt has been made to address both these shortcomings by site-specific pegylation, and to obtain longer lasting thrombolytics, which are consistent with clinical requirements. Therefore, we employed available three-dimensional structural information on SK to carry out site-specific cysteine incorporation at 'optimal' surface-exposed sites within all the three domains in streptokinase followed by pegylation with 20KDa PEG groups, and screening for biologically active variants. Interestingly, some of these SK PEG-conjugates exhibited considerably subdued immune-reactivity along with enhanced in-vitro proteolytic stability profiles and extended circulating in-vivo half-lives (2 to 20-fold compared to that of native unconjugated SK) depending upon location and number of PEG-groups per molecule obtained in homogeneous form."

According to the news editors, the research concluded: "The obtained results are a promising approach for favorably modulating immune-reactivity and half-life by cysteine-specific PEGylation of SK to achieve therapeutic attributes desirable for the treatment of different circulatory disorders, such as ischemic stroke, myocardial infarction and pulmonary embolism."


Our news journalists report that additional information may be obtained by contacting G. Sahni, CSIR Inst Microbial Technol, Dept. of Mol Biol & Prot Sci & Engn, Chandigarh 160036, India. Additional authors for this research include S. Kumar, N.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.2174/1381612822666160204120547. This DOI is a link to an online
electronic document that is either free or for purchase.

Keywords for this news article include: Chandigarh, India, Asia, Plasminogen
Activators, Streptokinase Therapy, Enzymes and Coenzymes, Coagulation Modifiers, Drugs
and Therapies, Pharmaceuticals, Blood Proteins, Endopeptidases, Thrombolytics,
Hydrolases, CSIR.

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FINDINGS

Oncology - Colon Cancer

Findings on Colon Cancer Detailed by Researchers at Peking Union
Medical College (Developmental genes significantly afflicted by
aberrant promoter methylation and somatic mutation predict overall
survival of late-stage colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators discuss new findings in Oncology - Colon Cancer. According
to news originating from Beijing, People's Republic of China, by NewsRx correspondents,
research stated, "Carcinogenesis is an exceedingly complicated process, which involves multi-
level dysregulations, including genomics (majorly caused by somatic mutation and copy number
variation), DNA methyomics, and transcriptomics. Therefore, only looking into one molecular
level of cancer is not sufficient to uncover the intricate underlying mechanisms."

Our news journalists obtained a quote from the research from Peking Union Medical
College, "With the abundant resources of public available data in the Cancer Genome Atlas
(TCGA) database, an integrative strategy was conducted to systematically analyze the aberrant
patterns of colorectal cancer on the basis of DNA copy number, promoter methylation, somatic
mutation and gene expression. In this study, paired samples in each genomic level were
retrieved to identify differentially expressed genes with corresponding genetic or epigenetic
dysregulations. Notably, the result of gene ontology enrichment analysis indicated that the
differentially expressed genes with corresponding aberrant promoter methylation or somatic
mutation were both functionally concentrated upon developmental process, suggesting the
intimate association between development and carcinogenesis. Thus, by means of random walk
with restart, 37 significant development-related genes were retrieved from a priori-knowledge
based biological network."

According to the news editors, the research concluded: "In five independent
microarray datasets, Kaplan-Meier survival and Cox regression analyses both confirmed that the
expression of these genes was significantly associated with overall survival of Stage III/IV
colorectal cancer patients."

For more information on this research see: Developmental genes significantly
afflicted by aberrant promoter methylation and somatic mutation predict overall survival of late-
stage colorectal cancer. Scientific Reports, 2015;5():18616. (Nature Publishing Group -
www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from N.
An, State Key Laboratory of Molecular Oncology, Dept. of Etiology and Carcinogenesis, Peking
Findings on Colon Cancer Discussed by Investigators at McGill University (Four-week prehabilitation program is sufficient to modify exercise behaviors and improve preoperative functional walking capacity in patients with colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating in Montreal, Canada, by NewsRx journalists, research stated, "High complication rates following colorectal surgery render many patients unable to fully regain functional capacity, thus seriously compromising quality of life. The aim of this study was to assess whether a 4-week trimodal prehabilitation program (exercise, nutritional supplementation, and counseling on relaxation techniques), implemented during the preoperative period, is sufficient to modify exercise behaviors and improve functional capacity of elderly patients scheduled for colorectal cancer surgery."

Financial supporters for this research include Montreal General Hospital Foundation, Peri-Operative Program (POP) Foundation.

The news reporters obtained a quote from the research from McGill University, "Patients were assigned to either a prehabilitation (PREHAB; n = 57) or matched time control group (CTRL; n = 59). Over the 4-week period prior to surgery, patients in PREHAB participated in a trimodal prehabilitation program. Patients in CTRL received the same program but only postoperatively. The Community Healthy Activities Model Program for Seniors (CHAMPS) questionnaire was used to measure physical activity levels, while the 6-min walk test (6MWT) was used for assessment of functional walking capacity. Measurements were collected at baseline and at the time of surgery. Over the preoperative period, patients in PREHAB significantly increased the amount of moderate- and vigorous-intensity physical activities that they performed. PREHAB patients also demonstrated a greater improvement in 6MWT compared to CTRL. At the time of surgery, a greater proportion of patients in PREHAB met current physical activity guidelines, as compared to CTRL."

According to the news reporters, the research concluded: "These findings highlight the positive effects of a trimodal prehabilitation program on patients' physical activity levels and functional walking capacity and demonstrate that modifying exercise behaviors and improving physical function within the 4-week preoperative period are an achievable goal."

For more information on this research see: Four-week prehabilitation program is sufficient to modify exercise behaviors and improve preoperative functional walking capacity in...
patients with colorectal cancer. *Supportive Care in Cancer*, 2017;25(1):33-40. *Supportive Care in Cancer* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news correspondents report that additional information may be obtained by contacting C. Scheede-Bergdahl, McGill University, Dept. of Anesthesia, Montreal, PQ, Canada. Additional authors for this research include R. Awasthi, S.N. Sweet, E.M. Minnella, A. Bergdahl, D.S. Mina, F. Carli and C. Scheede-Bergdahl.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3379-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Operative Surgical Procedures, Colorectal Research, Preoperative Period, Gastroenterology, Colon Cancer, Oncology, Surgery, McGill University.

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**Oncology - Colon Cancer**

**Findings on Colon Cancer Discussed by Investigators at Tongji University (A nomogram improves AJCC stages for colorectal cancers by introducing CEA, modified lymph node ratio and negative lymph node count)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Colon Cancer is the subject of a report. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Lymph node stages (pN stages) are primary contributors to survival heterogeneity of the 7th AJCC staging system for colorectal cancer (CRC), indicating spaces for modifications. To implement the modifications, we selected eligible CRC patients from the Surveillance Epidemiology and End Results (SEER) database as participants in a training (n = 6675) and a test cohort (n = 6760), and verified tumor deposits to be metastatic lymph nodes to derive modified lymph node count (mLNC), lymph node ratio (mLNR), and positive lymph node count (mPLNC)."

Our news journalists obtained a quote from the research from Tongji University, "After multivariate Cox regression analyses with forward stepwise elimination of the mLNC and mPLNC for the training cohort, a nomogram was constructed to predict overall survival (OS) via incorporating preoperative carcinoembryonic antigen, pT stages, negative lymph node count, mLNR and metastasis. Internal validations of the nomogram showed concordance indexes (c-index) of 0.750 (95% CI, 0.736-0.764) and 0.749 before and after corrections for overfitting. Serial performance evaluations indicated that the nomogram outperformed the AJCC stages (c-index = 0.725) with increased accuracy, net benefits, risk assessment ability, but comparable complexity and clinical validity. All the results were reproducible in the test cohort. In summary, the proposed nomogram may serve as an alternative to the AJCC stages."

According to the news editors, the research concluded: "However, validations with longer follow-up periods are required."

For more information on this research see: A nomogram improves AJCC stages for

The news correspondents report that additional information may be obtained from H.Y. Ge, Tongji Univ, Shanghai East Hosp, Sch Med, Dept. of Gastrointestinal Surg, Shanghai, People's Republic of China. Additional authors for this research include W. Gao, Q.F. Luo, X.W. Yin, S. Basnet, Z.L. Dai and H.Y. Ge.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Hemic and Immune Systems, Cancer, Epidemiology, Colorectal Research, Gastroenterology, Lymphoid Tissue, Colon Cancer, Lymph Nodes, Immunology, Oncology, Tongji University.

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**Oncology - Colon Cancer**

**Findings on Colon Cancer Reported by Investigators at Liaoning University (Oncogenic Activin C Interacts With Decorin in Colorectal Cancer In Vivo and In Vitro)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating from Shenyang, People's Republic of China, by NewsRx correspondents, research stated, "Activin C is a member of the transforming growth factor-beta (TGF-beta) superfamily with various biological activities. Decorin is a member of the small leucine-rich proteoglycan family, which can bind to TGF-beta and modulate TGF-beta-mediated signaling."

Our news editors obtained a quote from the research from Liaoning University, "In the decorin-deficient mouse model, we found that the expression of activin C was remarkably increased in the intestine of Dcn(-/-) mice compared to the expression of activin C in the intestine of Dcn(+/+) mice. Addition of activin C protein to colorectal cancer cells or over-expression of activin C in these cells stimulated cell growth, migration, and invasion in vitro. Enhanced AP-1 expression in colorectal cancer cells was found to be associated with the oncoprotein-like effects of activin C through the JNK/AP-1 pathway, and not the Smad signaling pathway. However, these effects were abolished when decorin expression was restored by transfecting the cells with a decorin-expressing plasmid or by reducing the expression of activin C via interfering RNA."

According to the news editors, the research concluded: "Further analysis demonstrated that decorin could directly bind to and accelerate the degradation of activin C. our data provided the first evidence demonstrating the oncogenic role of activin C in intestinal tumorigenesis of decorin-deficient mice and colorectal cancer cells."


The news editors report that additional information may be obtained by contacting
Findings on Colon Cancer Reported by Investigators at National Institute for Public Health and the Environment (The Dutch public are positive about the colorectal cancer-screening programme, but is this a well-informed opinion?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news reporting originating in Bilthoven, Netherlands, by NewsRx journalists, research stated, "Population-based colorectal cancer (CRC) screening is widely recommended, and members of the eligible screening population seem to be positive about it. However, it is not well known how people outside the eligible screening population view CRC screening, and whether they are supportive of the government providing this."

The news reporters obtained a quote from the research from National Institute for Public Health and the Environment, "Public opinion may affect people's personal views and their screening decision. The aim of our study was to examine the opinion of the Dutch general public regarding the national CRC screening programme. An online survey was carried out in a Dutch population sample of adults aged 18 and older, assessing level of support, personal attitude, collective attitude, perceived social norm, awareness, and knowledge regarding the CRC screening programme. The response rate was 56% (n = 1679/3000). Generally, the Dutch public are positive about and supportive of the CRC screening programme. We found the biggest proportion of support (86%) when people were asked directly. A smaller proportion (48%) was supportive when people had to choose between other options concerning how the government could possibly deal with CRC. People report knowing more about the benefits of CRC screening than about its possible harms and risks. Many people found it difficult to answer the knowledge questions that asked about numerical information concerning CRC screening correctly. People were less supportive of the CRC screening programme when having to choose between other options concerning dealing with CRC, and their support may not be based on a full comprehension of what CRC screening entails."

According to the news reporters, the research concluded: "Further research is needed to establish what knowledge people need in order to form a wellfounded opinion."

For more information on this research see: The Dutch public are positive about the colorectal cancer-screening programme, but is this a well-informed opinion? BMC Public Health, 2016;16():76-87. BMC Public Health can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Public Health - www.biomedcentral.com/bmcpublichealth/)

Our news correspondents report that additional information may be obtained by
Contacting L.N. Douma, Natl Inst Public Hlth & Environm RIVM, NL-3720 BA Bilthoven, Netherlands. Additional authors for this research include E. Uiters and D.R.M. Timmermans.

Keywords for this news article include: Bilthoven, Netherlands, Europe, Cancer, Diagnostics and Screening, Epidemiology, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, National Institute for Public Health and the Environment.

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Oncology - Colon Cancer

Findings on Colon Cancer Reported by Investigators at School of Medicine (Functional exploration of colorectal cancer genomes using Drosophila)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "The multigenic nature of human tumours presents a fundamental challenge for cancer drug discovery. Here we use Drosophila to generate 32 multigenic models of colon cancer using patient data from The Cancer Genome Atlas."

Our news editors obtained a quote from the research from the School of Medicine, "These models recapitulate key features of human cancer, often as emergent properties of multigenic combinations. Multigenic models such as ras p53 pten apc exhibit emergent resistance to a panel of cancer-relevant drugs. Exploring one drug in detail, we identify a mechanism of resistance for the PI3K pathway inhibitor BEZ235. We use this data to identify a combinatorial therapy that circumvents this resistance through a two-step process of emergent pathway dependence and sensitivity we term 'induced dependence'. This approach is effective in cultured human tumour cells, xenografts and mouse models of colorectal cancer."

According to the news editors, the research concluded: "These data demonstrate how multigenic animal models that reference cancer genomes can provide an effective approach for developing novel targeted therapies."


The news editors report that additional information may be obtained by contacting R.L. Cagan, Icahn Sch Med Mt Sinai, Dept. of Dev & Regenerat Biol, New York, NY 10029, United States. Additional authors for this research include C. Murgia, A.G.S. Teague, O.J. Sansom and R.L. Cagan.

Keywords for this news article include: New York City, New York, United States, North and Central America, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, School of Medicine.

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Findings on Congenital Myopathy Detailed by Investigators at National Institute of Neuroscience (Calcium Dyshomeostasis in Tubular Aggregate Myopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Congenital Diseases and Conditions - Congenital Myopathy. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Calcium is a crucial mediator of cell signaling in skeletal muscles for basic cellular functions and specific functions, including contraction, fiber-type differentiation and energy production. The sarcoplasmic reticulum (SR) is an organelle that provides a large supply of intracellular Ca2+ in myofibers."

The news correspondents obtained a quote from the research from the National Institute of Neuroscience, "Upon excitation, it releases Ca2+ into the cytosol, inducing contraction of myofibrils. During relaxation, it takes up cytosolic Ca2+ to terminate the contraction. During exercise, Ca2+ is cycled between the cytosol and the SR through a system by which the Ca2+ pool in the SR is restored by uptake of extracellular Ca2+ via a specific channel on the plasma membrane. This channel is called the store-operated Ca2+ channel or the Ca2+ release-activated Ca2+ channel. It is activated by depletion of the Ca2+ store in the SR by coordination of two main molecules: stromal interaction molecule 1 (STIM1) and calcium release-activated calcium channel protein 1 (ORAI1). Recently, myopathies with a dominant mutation in these genes have been reported and the pathogenic mechanism of such diseases have been proposed. This review overviews the calcium signaling in skeletal muscles and role of store-operated Ca2+ entry in calcium homeostasis."

According to the news reporters, the research concluded: "Finally, we discuss the phenotypes and the pathomechanism of myopathies caused by mutations in the STIM1 and ORAI1 genes."

For more information on this research see: Calcium Dyshomeostasis in Tubular Aggregate Myopathy. International Journal of Molecular Sciences, 2016;17(11):2661-2675. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting J.M. Lee, Natl Center Neurol & Neuropsychiat, Natl Inst Neurosci, Dept. of Neuromuscular Res, Kodaira, Tokyo 1878502, Japan.

Keywords for this news article include: Tokyo, Japan, Asia, Congenital Diseases and Conditions, Article Review, Congenital Myopathy, Genetics, National Institute of Neuroscience.

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**Drugs and Therapies - Coumarins and Indandiones**

**Findings on Coumarins and Indandiones Discussed by Investigators at Central South University (The effects of Chuanxiong on the pharmacokinetics of warfarin in rats after biliary drainage)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Coumarins and Indandiones. According to news reporting out of Changsha, People's Republic of China, by NewsRx editors, research stated, "Ethnopharmacological relevance: Chuanxiong Rhizoma (rhizomes of Ligusticum chuanxiong Hort), known as Chuanxiong in Chinese, has been used for treating cardiovascular diseases for centuries. Chuanxiong is a classical activating blood circulation herb in the treatment of thromboembolism heart diseases."

Financial supporters for this research include Education Department of Hunan Province, Natural Science Foundation of Hunan Province, National Natural Science Foundation for Young Scientists of China, National Natural Science Foundation.

Our news journalists obtained a quote from the research from Central South University, "Warfarin often combines with herbal prescriptions containing Chuanxiong in China. Aim of the study: The herb-drug interaction involving enterohepatic circulation process remains unclear. This study aimed to elucidate the effects of Chuanxiong Rhizoma on the pharmacokinetics of warfarin in rats after biliary drainage. Thirty-two rats were randomly divided into four groups: WN (healthy rats after the gastric-administration of 0.5 mg/kg warfarin sodium), WO (a rat model of biliary drainage after the gastric-administration of 0.5 mg/kg warfarin sodium), WCN (healthy rats after the gastric-administration of 0.5 mg/kg warfarin sodium and 10 g/kg Chuanxiong decoction), and WCO (a rat model of biliary drainage after the gastric-administration of 0.5 mg/kg warfarin sodium and 10 g/kg Chuanxiong decoction). The levels of warfarin and internal standard were quantified by LC-MS/MS. Comparisons between groups were performed according to the main pharmacokinetic parameters calculated by the DAS 2.1.1 software. The established LC-MS/MS method was specific, precise and rapid. The pharmacokinetic parameters showed a significant difference between the WN and WO groups. There were significant differences in the area under the curve (AUC(0-t)), peak concentration (C-max), total plasma clearance (CLz/F) and mean residence time (MRT0-t) between the WCO and WCN groups; the AUC(0-t) of warfarin in the WCN group was 2.42 times than that of the WN group (p < 0.01); the WCO group displayed a decreased to 61.6% in the Cmax compared the WO group (p < 0.01)."

According to the news editors, the research concluded: "Biliary drainage significantly influenced the disposition of warfarin, and Chuanxiong significantly affected the warfarin disposition in rat plasma."


Our news journalists report that additional information may be obtained by contacting Y. Wang, Central South University, Xiangya Hosp, Lab Ethnopharmacol, Dept. of Integrated Tradit Chinese & Western Med, Changsha 410008, Hunan, People's Republic of China. Additional authors for this research include C.H. Zhang, R. Fan, H. Sun, H.T. Xie, J.K.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Coumarin and Indandione Derivative, Coumarins and Indandiones, Coagulation Modifiers, Drugs and Therapies, Pharmacokinetics, Warfarin Therapy, Pharmaceuticals, Anticoagulants, Rodenticide, Central South University.

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Lung Diseases and Conditions – Cystic Fibrosis

Findings on Cystic Fibrosis Reported by Investigators at University of Tehran (Antimicrobial susceptibility of microorganisms isolated from sputum culture of patients with cystic fibrosis: Methicillin-resistant Staphylococcus aureus as a ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Cystic Fibrosis is the subject of a report. According to news reporting out of Tehran, Iran, by NewsRx editors, research stated, "Infection is a major cause of morbidity and mortality in patients with cystic fibrosis (CF). Antimicrobial resistance of the bacterial spp. particularly methicillin resistance in Staphylococcus aureus has caused a lot of attention."

Financial support for this research came from Tehran University of Medical Sciences.

Our news journalists obtained a quote from the research from the University of Tehran, "The aim of this study was to describe the prevalence of S. aureus, Pseudomonas aeruginosa and Burkholderia cepacia-complex as well as their antimicrobial susceptibility patterns in CF patients in an Iranian referral pediatrics Hospital. From March 2011 until February 2012, 172 samples were collected at the Children Medical Center (CMC), an Iranian referral hospital in Tehran, Iran. Sputum specimens were cultured for the following bacterial pathogens: P. aeruginosa, S. aureus, B. cepacia complex. Antimicrobial susceptibility was performed according to the Clinical Laboratory Standards Institute recommendations. In our study, 54% of the patients (n = 93) harbored at least once S. aureus, 30% (n = 52) P. aeruginosa, and 2% (n = 3) Burkholderia cepacia. In 40 patients (23%), none of these organisms was grown. An increasing colonization rate of P. aeruginosa in the second decade of life was found. In contrast, the colonization rate of S. aureus was constant in both decades of life. Methicillin resistant S. aureus (MRSA) was detected in 40 isolates (43%). Among MRSA, no resistance against vancomycin, linezolid and quinupristinidalfopristin occurred. The susceptibility of P. aeruginosa isolates to meropenem, imipenem, doripenem, levofloxacin and polymixin B were more than 90%. The prevalence of MRSA has been rising."

According to the news editors, the research concluded: "Since its impact on clinical outcomes, optimal prevention and treatment strategies are unclear, further studies to expand the knowledge about the infection control strategies and MRSA treatment are highly recommended."

For more information on this research see: Antimicrobial susceptibility of

Our news journalists report that additional information may be obtained by contacting S. Mamishi, Univ Tehran Med Sci, Pediat Infect Dis Res Center, Tehran, Iran. Additional authors for this research include S. Mahmoudi, B. Pourakbari, R.H. Sadeghi, M.N. Sani, F. Farahmand, F. Motamed, R.N. Rafsanjani and S. Mamishi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.micpath.2016.09.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Methicillin-Resistant Staphylococcus aureus, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Gram-Positive Endospore-Forming Rods, Gram-Negative Aerobic Rods and Cocci, Pancreatic Diseases and Conditions, Gram-Negative Aerobic Bacteria, Burkholderia cepacia complex, Lung Diseases and Conditions, Endospore-Forming Bacteria, Beta-Lactam Antibiotics, Pseudomonas aeruginosa, Gram-Positive Bacteria, beta-Lactam Resistance, Methicillin Resistance, Gram-Negative Bacteria, Penicillin Resistance, Drugs and Therapies, Gram-Positive Cocci, Betaproteobacteria, Organic Chemicals, Staphylococcaceae, Burkholderiaceae, Drug Resistance, Cystic Fibrosis, Proteobacteria, Penicillins, Bacillales, Hospital, Amides, MRSA, University of Tehran.

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**Proteins - DNA-Binding Proteins**

**Findings on DNA-Binding Proteins Reported by Investigators at Jinzhou Medical University (Tenuigenin exhibits protective effects against LPS-induced acute kidney injury via inhibiting TLR4/NF-kappa B signaling pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - DNA-Binding Proteins. According to news originating from Jinzhou, People's Republic of China, by NewsRx correspondents, research stated, "Tenuigenin (TNG) has been reported to have various pharmacological activities, such as anti-oxidative and anti-inflammatory activities. However, the protective effects of TNG on lipopolysaccharides (LPS)induced acute kidney injury (AKI) are still not clear."

Our news journalists obtained a quote from the research from Jinzhou Medical University. "The aim of this study was to investigate the protective effects and mechanism of TGN on LPS-induced AKI in mice. The kidney histological change, levels of blood urea nitrogen (BUN), and creatinine were measured to assess the protective effects of TNG on LPS-induced AKI. The levels of TNF-alpha, IL-1 beta, and IL-6 in serum and kidney tissues were detected by ELISA. The extent of nuclear factor kappa-B (NF-kappa B) p65 and the expression of Toll-like receptor-4 (TLR4) were detected by western blot analysis. The results showed that TNG markedly attenuated the histological alterations, BUN and creatinine levels in kidney."
TNG also suppressed LPS-induced TNF-alpha, IL-1 beta, and IL-6 production. Furthermore, the expression of TLR4 and NF-kappa B activation induced by LPS were markedly inhibited by TNG."

According to the news editors, the research concluded: "This study demonstrated that TNG protected against LPS-induced AKI by inhibiting TLR4/NF-kappa B signaling pathway."


Keywords for this news article include: Jinzhou, People's Republic of China, Asia, Transcription Factors, DNA-Binding Proteins, Acute Kidney Injury, Nuclear Proteins, NF-kappa B, Jinzhou Medical University.

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**Mosquito-Borne Diseases - Dengue Hemorrhagic Fever**

**Findings on Dengue Hemorrhagic Fever Detailed by Investigators at La Jolla Institute for Allergy and Immunology [HLA-DRB1 Alleles Are Associated With Different Magnitudes of Dengue Virus-Specific CD4(+) T-Cell Responses]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mosquito-Borne Diseases - Dengue Hemorrhagic Fever. According to news reporting out of La Jolla, California, by NewsRx editors, research stated, "Each year dengue virus (DENV) infects 400 million human but causes symptomatic disease in only a subset of patients, suggesting that host genetic factors may play a role. HLA molecules that restrict T-cell responses are one of the most polymorphic host factors in humans."

Our news journalists obtained a quote from the research from La Jolla Institute for Allergy and Immunology, "Here we map HLA DRB1-restricted DENV-specific epitopes in individuals previously exposed to DENV, to identify the breadth and specificity of CD4(+) T-cell responses. To investigate whether HLA-specific variations in the magnitude of response might predict associations between dengue outcomes and HLA-DRB1 alleles, we assembled samples from hospitalized patients with known severity of disease. The capsid protein followed by nonstructural protein 3 (NS3), NS2A, and NS5 were the most targeted proteins. We further noticed a wide variation in magnitude of T-cell responses as a function of the restricting DRB1 allele and found several HLA alleles that showed trends toward a lower risk of hospitalized disease were associated with a higher magnitude of T-cell responses."

According to the news editors, the research concluded: "Comprehensive identification of unique CD4(+) T-cell epitopes across the 4 DENV serotypes allows the testing
of T-cell responses by use of a simple, approachable technique and points to important implications for vaccine design."


Our news journalists report that additional information may be obtained by contacting D. Weiskopf, La Jolla Inst Allergy & Immunol, Div Vaccine Discovery, La Jolla, CA, United States. Additional authors for this research include M.A. Angelo, A. Grifoni, P.H. O'Rourke, J. Sidney, S. Paul, A.D. De Silva, E. Phillips, S. Mallal, S. Premawansa, G. Premawansa, A. Wijewickrama, B. Peters and A. Sette.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Dengue Hemorrhagic Fever, Viral Hemorrhagic Fevers, Mosquito-Borne Diseases, Flaviviridae Infections, Flavivirus Infections, RNA Virus Infections, Arbovirus Infections, Dengue Virus, Dengue Fever, RNA Viruses, Virology, Genetics, La Jolla Institute for Allergy and Immunology.

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**Findings on Diabetic Nephropathy Reported by Investigators at University of Utah (An additive effect of anti-PAI-1 antibody to ACE inhibitor on slowing the progression of diabetic kidney disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Diabetic Nephropathy have been published. According to news reporting out of Salt Lake City, Utah, by NewsRx editors, research stated, "While angiotensin II blockade slows the progression of diabetic nephropathy, current data suggest that it alone cannot stop the disease process. New therapies or drug combinations will be required to further slow or halt disease progression."

Our news journalists obtained a quote from the research from the University of Utah, "Inhibition of plasminogen activator inhibitor type 1 (PAI-1) aimed at enhancing ECM degradation has shown therapeutic potential in diabetic nephropathy. Here, using a mouse model of type diabetes, the maximally therapeutic dose of the PAI-1-neutralizing mouse monoclonal antibody (MEDI-579) was determined and compared with the maximally effective dose of enalapril. We then examined whether addition of MEDI-579 to enalapril would enhance the efficacy in slowing the progression of diabetic nephropathy. Untreated uninephrectomized diabetic db/db mice developed progressive albuminuria and glomerulosclerosis associated with increased expression of transforming growth factor (TGF)-beta 1, PAI-1, type IV collagen, and fibronectin from weeks 18 to 22, which were reduced by MEDI-579 at 3 mg/kg body wt, similar to enalapril given alone from weeks 12 to 22. Adding MEDI-579 to enalapril from weeks 18 to 22 resulted in further reduction in albuminuria and markers of renal fibrosis. Renal plasmin generation was dramatically reduced by 57% in diabetic mice, a decrease that was partially reversed by MEDI-579 or enalapril given alone but was further restored by these two treatments given in combination. Our results suggest that MEDI-579 is effective in slowing the progression..."
of diabetic nephropathy in db/db mice and that the effect is additive to ACEI."

According to the news editors, the research concluded: "While enalapril is renal protective, the add-on PAI-1 antibody may offer additional renoprotection in progressive diabetic nephropathy via enhancing ECM turnover."

For more information on this research see: An additive effect of anti-PAI-1 antibody to ACE inhibitor on slowing the progression of diabetic kidney disease. American Journal of Physiology-Renal Physiology, 2016;311(5):F852-F863. American Journal of Physiology-Renal Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting Y.F. Huang, University of Utah, Div Nephrol, Salt Lake City, UT, United States. Additional authors for this research include J.D. Zhang, N.A. Noble, X.R. Peng and Y.F. Huang.

Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Angiotensin Converting Enzyme Inhibitors, Angiotensin-Converting Enzyme Inhibitor, Diabetes Complications, Cardiovascular Agents, Diabetic Nephropathy, Drugs and Therapies, Enalapril Therapy, Diabetes Mellitus, Antihypertensive, Immunoglobulins, Blood Proteins, ACE-Inhibitors, Endocrinology, Nephrology, Immunology, Antibodies, Dipeptides, Peptides, Kidney, University of Utah.

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Diet and Nutrition

Findings on Diet and Nutrition Detailed by Investigators at Queensland University of Technology (Exploring power and influence in nutrition policy in Australia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Diet and Nutrition are presented in a new report. According to news reporting out of Brisbane, Australia, by NewsRx editors, research stated, "The food industry is often described as having more power and influence in nutrition policymaking than nutrition professionals, scientists and other practitioners working for the public interest; yet authors often allude to this point as an assumed truth, rather than an evidence-based fact. This paper applies social network analysis techniques to provide a concise evidence-based demonstration of the food industry's capacity to influence nutrition policymaking networks in Australia."

Our news journalists obtained a quote from the research from the Queensland University of Technology, "Network analysis using four rounds of data collection was undertaken, and the capacity of individual actors and occupational categories to influence policy decision makers were analysed. Network graphs were developed using cluster analysis to identify the structure of clusters and the path distance of actors from decision makers. The assumed advantage for the 'food industry' was present both strategically in overall network position and with respect to the number of direct access points to 'decision makers', whereas 'nutrition professionals' were densely clustered together with limited links to key 'decision makers'. The results demonstrate that the food industry holds the strategic high ground in advocating their interests to policymakers in the contexts studied."
According to the news editors, the research concluded: "Nutrition professionals may be hampered by their reliance on strong ties with other nutrition professionals as well as limited direct links to 'decision makers.'"


Our news journalists report that additional information may be obtained by contacting K. Cullerton, Queensland University of Technology, Sch Exercise & Nutr Sci, Brisbane, Qld 4059, Australia. Additional authors for this research include T. Donnet, A. Lee and D. Gallegos.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Diet and Nutrition, Food Industries, Queensland University of Technology.

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**Disability Research**

**Findings on Disability Research Discussed by Investigators at Oregon Health and Science University (Parent Beliefs About the Causes of Learning and Developmental Problems Among Children With Autism Spectrum Disorder: Results From a National ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Disability Research have been presented. According to news reporting from Portland, Oregon, by NewsRx journalists, research stated, "This study aimed to assess variation in parent beliefs about causes of learning and developmental problems in U.S. children with autism spectrum disorder, using data from a nationally representative survey. Results showed that beliefs about a genetic/hereditary cause of learning/developmental problems were most common, but nearly as many parents believed in exposure causes."

The news correspondents obtained a quote from the research from Oregon Health and Science University, "Forty present of parents had no definite causal beliefs. On multivariate analysis, parents who were non-White, publicly insured or poor were more likely than other parents to endorse exposure causes, or less likely to endorse genetic causes, compared to other parents."

According to the news reporters, the research concluded: "Further research should assess how these beliefs modify health care quality or services use."


Our news journalists report that additional information may be obtained by contacting K.E. Zuckerman, Oregon Health Sciences University, Portland, OR 97201, United
Disease Attributes - Disease Progression

Findings on Disease Progression Reported by Researchers at University Medical Center (Recommendations for the use of tolvaptan in autosomal dominant polycystic kidney disease: a position statement on behalf of the ERA-EDTA Working Groups on ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Disease Attributes - Disease Progression is now available. According to news reporting out of Groningen, Netherlands, by NewsRx editors, research stated, "Recently, the European Medicines Agency approved the use of the vasopressin V2 receptor antagonist tolvaptan to slow the progression of cyst development and renal insufficiency of autosomal dominant polycystic kidney disease (ADPKD) in adult patients with chronic kidney disease stages 1-3 at initiation of treatment with evidence of rapidly progressing disease. In this paper, on behalf of the ERA-EDTA Working Groups of Inherited Kidney Disorders and European Renal Best Practice, we aim to provide guidance for making the decision as to which ADPKD patients to treat with tolvaptan."

Our news journalists obtained a quote from the research from University Medical Center, "The present position statement includes a series of recommendations resulting in a hierarchical decision algorithm that encompasses a sequence of risk-factor assessments in a descending order of reliability. By examining the best-validated markers first, we aim to identify ADPKD patients who have documented rapid disease progression or are likely to have rapid disease progression. We believe that this procedure offers the best opportunity to select patients who are most likely to benefit from tolvaptan, thus improving the benefit-to-risk ratio and cost-effectiveness of this treatment."

According to the news editors, the research concluded: "It is important to emphasize that the decision to initiate treatment requires the consideration of many factors besides eligibility, such as contraindications, potential adverse events, as well as patient motivation and lifestyle factors, and requires shared decision-making with the patient."


Our news journalists report that additional information may be obtained by contacting R.T. Gansevoort, Dept. of Nephrology, University Medical Center Groningen, University of Groningen, Groningen, Netherlands. Additional authors for this research include M. Arici, T. Benzing, H. Birn, G. Capasso, A. Covic, O. Devuyst, C. Drechsler, K.U. Eckardt, O.J. Lindly and B. Sinche. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1352/1944-7558-121.5.432. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Portland, Oregon, United States, North and Central America, Disability Research, Genetics, Oregon Health and Science University.
Drugs and Therapies - Drug Delivery Systems

Findings on Drug Delivery Systems Reported by Investigators at Tongji University (A superparamagnetic polymersome with extremely high T-2 relaxivity for MRI and cancer-targeted drug delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Drug Delivery Systems. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Improving the relaxivity of magnetic resonance imaging (MRI) contrast agents is an important challenge for cancer theranostics. Herein we report the design, synthesis, characterization, theoretical analysis and in vivo tests of a superparamagnetic polymersome as a new MRI contrast agent with extremely high T-2 relaxivity (611.6 mM(-1)s(-1))."

Our news journalists obtained a quote from the research from Tongji University, "First, a noncytotoxic cancer-targeting polymersome is synthesized based on a biodegradable diblock copolymer, folic acid-poly(L-glutamic acid)-block-poly(epsilon-caprolactone) [FA-PGA-b-PCL]. Then, ultra-small superparamagnetic iron oxide nanoparticles (SPIONs) are in situ generated in the hydrophilic PGA coronas of polymersomes to afford magnetic polymersomes. The in vivo MRI assay revealed prominent negative contrast enhancement of magnetic polymersomes at a very low Fe dose of 0.011 mmol/kg."

According to the news editors, the research concluded: "Moreover, this cancer-targeting magnetic polymersome can effectively encapsulate and deliver anticancer drug to inhibit the tumor growth, demonstrating promising theranostic applications in biomedicine."


Our news journalists report that additional information may be obtained by contacting J.Z. Du, Tongji Univ, Sch Mat Sci & Engn, Dept. of Polymer Mat, Shanghai 201804, People's Republic of China. Additional authors for this research include L.W. Song, S.A. Chen, J.Y. Gao, P.Y. Zhao and J.Z. Du.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Drug Delivery Systems, Drugs and Therapies, Oncology, Cancer, Tongji University.

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Drug Development

Findings on Drug Development Reported by Investigators at Monash University (The ways and means of fragment-based drug design)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drug Development have been presented. According to news originating from Parkville, Australia, by NewsRx correspondents, research stated, "Fragment-based drug design (FBDD) has emerged as a mainstream approach for the rapid and efficient identification of building blocks that can be used to develop high-affinity ligands against protein targets. One of the strengths of FBDD is the relative ease and low cost of the primary screen to identify fragments that bind."

Our news journalists obtained a quote from the research from Monash University, "However, the fragments that emerge from primary screens often have low affinities, with K-D values in the high mu M to mM range, and a significant challenge for FBDD is to develop the initial fragments into more potent ligands. Successful fragment elaboration often requires co-structures of the fragments bound to their target proteins, as well as a range of biophysical and biochemical assays to track potency and efficacy. These challenges have led to the development of specific chemical strategies for the elaboration of weakly binding fragments into more potent 'hits' and lead compounds."

According to the news editors, the research concluded: "In this article we review different approaches that have been employed to meet these challenges and describe some of the strategies that have resulted in several fragment-derived compounds entering clinical trials."


The news correspondents report that additional information may be obtained from M.J. Scanlon, Monash University, Monash Inst Pharmaceut Sci, Medical Chem, Parkville, Vic 3052, Australia. Additional authors for this research include R.S. Norton and M.J. Scanlon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pharmthera.2016.07.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Parkville, Australia, Australia and New Zealand, Drugs and Therapies, Article Review, Drug Development, Monash University.

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Ebola Virus

Findings on Ebola Virus Discussed by Investigators at University of Pennsylvania (Pathogenicity Comparison Between the Kikwit and Makona Ebola Virus Variants in Rhesus Macaques)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Ebola Virus are presented in a new report. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Enhanced virulence and/or transmission of West African Ebola virus (EBOV) variants, which are divergent from their Central African counterparts, are suspected to have contributed to the sizable toll of the recent Ebola virus disease (EVD) outbreak. This study evaluated the pathogenicity and shedding in rhesus macaques infected with 1 of 2 West African isolates (EBOV-C05 or EBOV-C07) or a Central African isolate (EBOV-K)."

Funders for this research include Public Health Agency of Canada, Canadian Safety and Security Program, Canadian Institutes of Health Research, Banting Postdoctoral Fellowship, Chinese Academy of Sciences President's International Fellowship Initiative.

The news correspondents obtained a quote from the research from the University of Pennsylvania, "All animals infected with EBOV-C05 or EBOV-C07 died of EVD, whereas 2 of 3 EBOV-K-infected animals died. The viremia level was elevated 10-fold in EBOV-C05-infected animals, compared with EBOV-C07- or EBOV-K-infected animals. More-severe lung pathology was observed in 2 of 6 EBOV-C05/C07-infected macaques. This is the first detailed analysis of the recently circulating EBOV-C05/C07 in direct comparison to EBOV-K with 6 animals per group, and it showed that EBOV-C05 but not EBOV-C07 can replicate at higher levels and cause more tissue damage in some animals."

According to the news reporters, the research concluded: "Increased virus shedding from individuals who are especially susceptible to EBOV replication is possibly one of the many challenges facing the community of healthcare and policy-making responders since the beginning of the outbreak."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/infdis/jiw267. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Viral Hemorrhagic Diseases and Conditions, Epidemiology, Mononegavirales, RNA Viruses, Filoviridae, Ebola Virus, Virology, University of Pennsylvania.
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**Oncology - Endometrial Cancer**

**Findings on Endometrial Cancer Detailed by Investigators at Royal Marsden NHS Foundation Trust (Assessment of sexual difficulties associated with multi-modal treatment for cervical or endometrial cancer: A systematic review of measurement ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Endometrial Cancer. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Practitioners and researchers require an outcome measure that accurately identifies the range of common treatment-induced changes in sexual function and well-being experienced by women after cervical or endometrial cancer. This systematic review critically appraised the measurement properties and clinical utility of instruments validated for the measurement of female sexual dysfunction (FSD) in this clinical population."

Financial support for this research came from Remedi and MacMillan Cancer Support.

Our news editors obtained a quote from the research from Royal Marsden NHS Foundation Trust, "A bibliographic database search for questionnaire development or validation papers was completed and methodological quality and measurement properties of selected studies rated using the Consensus-based Standards for the selection of health Measurement Instrument (COSMIN) checklist. 738 articles were screened, 13 articles retrieved for full text assessment and 7 studies excluded, resulting in evaluation of 6 papers; 2 QoL and 4 female sexual morbidity measures. Five of the six instruments omitted one or more dimension of female sexual function and only one instrument explicitly measured distress associated with sexual changes as per DSM V (APA 2013) diagnostic criteria. None of the papers reported measurement error, responsiveness data was available for only two instruments, three papers failed to report on criterion validity, and test-retest reliability reporting was inconsistent. Heterosexual penile-vaginal intercourse remains the dominant sexual activity focus for sexual morbidity PROMS terminology and instruments lack explicit reference to solo or non-coital sexual expression or validation in a non-heterosexual sample. Four out of six instruments included mediating treatment or illness items such as vaginal changes, menopause or altered body image. Findings suggest that the Female Sexual Function Index (FSFI) remains the most robust sexual morbidity outcome measure, for research or clinical use, in sexually active women treated for cervical or endometrial cancer."

According to the news editors, the research concluded: "Development of an instrument that measures sexual dysfunction in women who are infrequently/not sexually active due to treatment consequences is still required to identify women in need of sexual rehabilitation."

For more information on this research see: Assessment of sexual difficulties associated with multi-modal treatment for cervical or endometrial cancer: A systematic review of measurement instruments. *Gynecologic Oncology*, 2016;143(3):664-673. *Gynecologic Oncology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology -
Findings on Environmental Research and Public Health Reported by Investigators at Nanjing Medical University (Polymorphism of the XRCC1 Gene Is Associated with Susceptibility and Short-Term Recovery of Ischemic Stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Environmental Health - Environmental Research and Public Health have been published. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Base excision repair (BER) is the primary DNA repair system with the ability to fix base lesions caused by oxidative damage. Genetic variants influencing the BER pathway may affect the susceptibility and the outcomes of ischemic stroke."

The news reporters obtained a quote from the research from Nanjing Medical University. "Here, we examined how single nucleotide polymorphisms (SNPs) associated with BER impact susceptibility and short-term recovery of ischemic stroke. We selected 320 ischemic stroke patients and 303 controls. Then we genotyped SNPs of NEIL1 rs4462560, NEIL3 rs12645561 and XRCC1 rs25487 in both groups. Polymorphism in XRCC1 rs25487 was significantly associated with reduced ischemic stroke (IS) risk (dominant model: OR = 0.53, 95% CI = 0.36-0.79, p = 0.002), a milder initial stroke (dominant model: OR = 0.57, 95% CI = 0.33-0.98, p = 0.043), and also a better short-term recovery (dominant model: OR = 0.57, 95% CI = 0.35-0.92, p = 0.022). No association was observed in the other two SNPs."

According to the news reporters, the research concluded: "Our study suggests that the genetic variant of XRCC1 rs25487 may contribute to the etiology of ischemic stroke."

For more information on this research see: Polymorphism of the XRCC1 Gene Is Associated with Susceptibility and Short-Term Recovery of Ischemic Stroke. International Journal of Environmental Research and Public Health, 2016;13(10):1106-1113. International Journal of Environmental Research and Public Health can be contacted at: MdpI Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting W. He, Nanjing Medical University, Dept. of Rehabil Med, Affiliated Hosp 1, Nanjing 210029, Jiangsu, People's Republic of China. Additional authors for this research
include P. Huang, D.H. Liu, L.L. Zhong, R.B. Yu and J. Li.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Environmental Research and Public Health, Environmental Health, Genetics, Genetics, Nanjing Medical University.

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Central Nervous System Diseases and Conditions —

Findings on Epilepsy Discussed by Investigators at Dartmouth-Hitchcock Medical Center (The implantation effect: delay in seizure occurrence with implantation of intracranial electrodes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting out of Lebanon, New Hampshire, by NewsRx editors, research stated, "A transient decrease in seizure frequency has been identified during therapeutic brain stimulation trials with stimulator in patients in the inactive sham group. This study was performed to examine whether the implantation of intracranial electrodes decreases seizure occurrence and explores factors that may be associated."

Our news journalists obtained a quote from the research from Dartmouth-Hitchcock Medical Center, "A retrospective review of 193 patients was performed, all evaluated with both scalp video EEG monitoring and intracranial EEG (iEEG) monitoring. Data about the number of seizures per day during the monitoring period, the number of days until the first seizure, anti-epileptic drugs (AEDs), pain medications, types of implanted electrodes, and anesthetic agents were reviewed. We conducted a repeated measure analysis for counted data using generalized estimating equations with a log-link function and adjustment for number of days and anti-epileptic medication load on the previous day to compare seizure frequencies between scalp and iEEG monitoring. The time to the first seizure was significantly prolonged during iEEG monitoring as compared to scalp monitoring after correction for AED withdrawal (hazard ratio: 0.81, CI 0.69-0.96). During scalp video EEG monitoring, patients experienced an average of 1.09 seizures/day vs 1.27 seizures/day during iEEG monitoring (P=.066). There was no significant difference in seizure frequency in patients that received craniotomy vs burr holes only for intracranial implantation. An increasing number of electrodes implanted increased the delay to seizures (P=.01). Of all anesthetic agents used, desflurane seemed to have an anticonvulsive effect compared to other anesthetics (P=.006). Pain medication did not influence delay to seizures. Seizures are delayed during iEEG as opposed to scalp monitoring illustrating the 'implantation effect' previously observed."

According to the news editors, the research concluded: "Surgical planning should account for longer monitoring periods, particularly when using larger intracranial arrays."


Our news journalists report that additional information may be obtained by contacting B.C. Jobst, Dartmouth Hitchcock Med Cent, Dept. of Neurol, Lebanon, NH 03766,
Findings on Epilepsy Reported by Investigators at Department of Neurology (Is intravenous lorazepam really more effective and safe than intravenous diazepam as first-line treatment for convulsive status epilepticus? A systematic review with ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Epilepsy. According to news originating from Merano, Italy, by NewsRx correspondents, research stated, "Some guidelines or expert consensus indicate that intravenous (IV) lorazepam (LZP) is preferable to IV diazepam (DZP) for initial treatment of convulsive status epilepticus (SE). We aimed to critically assess all the available data on efficacy and tolerability of IV LZP compared with IV DZP as first-line treatment of convulsive SE."

Our news journalists obtained a quote from the research from the Department of Neurology, "Systematic search of the literature (MEDLINE, CENTRAL, EMBASE, ClinicalTrials.gov) to identify randomized controlled trials (RCTs) comparing IV LZP versus IV DZP used as first-line treatment for convulsive SE (generalized or focal). Inverse variance, Mantel-Haenszel meta-analysis to obtain risk ratio (RR) with 95% confidence intervals (CI) of following outcomes: seizure cessation after drug administration; continuation of SE requiring a different drug; seizure cessation after a single dose of medication; need for ventilator support; clinically relevant hypotension. Five RCTs were included, with a total of 656 patients, 320 randomly allocated to IV LZP and 336 to IV DZP. No statistically significant differences were found between IV LZP and IV DZP for clinical seizure cessation (RR 1.09; 95% CI 1.00 to 1.20), continuation of SE requiring a different drug (RR 0.76; 95% CI 0.57 to 1.02), seizure cessation after a single dose of medication (RR 0.96; 95% CI 0.85 to 1.08), need for ventilator support RR 0.93; 95% CI 0.61 to 1.43, and clinically relevant hypotension."

According to the news editors, the research concluded: "Despite its favorable pharmacokinetic profile, a systematic appraisal of the literature does not provide evidence to strongly support the preferential use of IV LZP as first-line treatment of convulsive SE over IV DZP."

For more information on this research see: Is intravenous lorazepam really more effective and safe than intravenous diazepam as first-line treatment for convulsive status epilepticus? A systematic review with meta-analysis of randomized controlled trials. *Epilepsy & Behavior*, 2016;64():29-36. *Epilepsy & Behavior* can be contacted at: Academic Press Inc
Gram-Negative Bacteria - Escherichia coli

Findings on Escherichia coli Detailed by Investigators at University of Toronto (Mechanism of Selective Nickel Transfer from HypB to HypA, Escherichia coli [NiFe]-Hydrogenase Accessory Proteins)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Escherichia coli have been presented. According to news reporting originating in Toronto, Canada, by NewsRx journalists, research stated, 

"[NiFe]-hydrogenase enzymes catalyze the reversible reduction of protons to molecular hydrogen and serve as a vital component of the metabolism of many pathogens. The synthesis of the bimetallic catalytic center requires a suite of accessory proteins, and the penultimate step, nickel insertion, is facilitated by the metallochaperones HypA and HypB."

Funders for this research include Institute of Infection and Immunity, Natural Sciences and Engineering Research Council of Canada.

The news reporters obtained a quote from the research from the University of Toronto, "In Escherichia coli, nickel moves from a site in the GTPase domain of HypB to HypA in a process accelerated by GDP. To determine how the transfer of nickel is controlled, the impacts of HypA and nucleotides on the properties of HypB were examined. Integral to this work was His2Gln HypA, a mutant with attenuated nickel affinity that does not support hydrogenase production in E. coli. This mutation inhibits the translocation of nickel from HypB. H2Q-HypA does not modulate the apparent metal affinity of HypB, but the stoichiometry and stability of the HypB nickel complex are modulated by the nucleotide. Furthermore, the HypA HypB interaction was detected by gel filtration chromatography if HypB was loaded with GDP, but not a GTP analogue, and the protein complex dissociated upon binding of nickel to His2 of HypA. In contrast, a nucleotide does not modulate the binding of zinc to HypB, and loading zinc into the GTPase domain of HypB inhibits formation of the complex with HypA."

According to the news reporters, the research concluded: "These results demonstrate that GTP hydrolysis controls both metal binding and protein-protein interactions, conferring selective and directional nickel transfer during [NiFe]-hydrogenase biosynthesis."

Our news correspondents report that additional information may be obtained by contacting D.B. Zamble, University of Toronto, Dept. of Biochem, Toronto, ON M5S 1A8, Canada. Additional authors for this research include C.D. Douglas and D.B. Zamble.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.biochem.6b00706. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Gram-Negative Bacteria, Enzymes and Coenzymes, Transition Elements, Enterobacteriaceae, Escherichia coli, Oxidoreductases, Proteobacteria, Hydrogenase, Genetics, GTPase, Nickel, University of Toronto.

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**Gram-Negative Bacteria - Escherichia coli**

**Findings on Escherichia coli Reported by Investigators at Duke University (In Vivo and in Vitro Synthesis of Phosphatidylglycerol by an Escherichia coli Cardiolipin Synthase)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Escherichia coli is now available. According to news reporting out of Durham, North Carolina, by NewsRx editors, research stated, "Phosphatidylglycerol (PG) makes up 5-20% of the phospholipids of Escherichia coli and is essential for growth in wild-type cells. PG is synthesized from the dephosphorylation of its immediate precursor, phosphatidylglycerol phosphate (PGP) whose synthase in E. coli is PgsA."

Our news journalists obtained a quote from the research from Duke University, "Using genetic, biochemical, and highly sensitive mass spectrometric approaches, we identified an alternative mechanism for PG synthesis in E. coli that is PgsA independent. The reaction of synthesis involves the conversion of phosphatidylethanolamine and glycerol into PG and is catalyzed by ClsB, a phospholipase D-type cardiolipin synthase. This enzymatic reaction is demonstrated herein both in vivo and in vitro as well as by using the purified ClsB protein. When the growth medium was supplemented with glycerol, the expression of E. coli ClsB significantly increased PG and cardiolipin levels, with the growth deficiency of pgsA null strain also being complemented under such conditions. Identification of this alternative mechanism for PG synthesis not only expands our knowledge of bacterial anionic phospholipid biosynthesis, but also sheds light on the biochemical functions of the cls gene redundancy in E. coli and other bacteria."

According to the news editors, the research concluded: "Finally, the PGP-independent PG synthesis in E. coli may also have important implications for the understanding of PG biosynthesis in eukaryotes that remains incomplete."

For more information on this research see: In Vivo and in Vitro Synthesis of

Our news journalists report that additional information may be obtained by contacting Z.Q. Guan, Duke University, Medical Center, Dept. of Biochem, Durham, NC 27710, United States. Additional authors for this research include B.K. Tan, J.S. Zhao and Z.Q. Guan.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Gram-Negative Bacteria, Enzymes and Coenzymes, Gammaproteobacteria, Biological Factors, Enterobacteriaceae, Escherichia coli, Escherichia Coli, Proteobacteria, Biochemicals, Biochemistry, Cardiolipins, Immunology, Chemicals, Synthase, Genetics, Haptens, Duke University.

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**Oncology - Esophageal Cancer**

**Findings on Esophageal Cancer Detailed by Researchers at University Medical Center (Current understanding of the functional roles of aberrantly expressed microRNAs in esophageal cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Esophageal Cancer.

According to news reporting from Utrecht, Netherlands, by NewsRx journalists, research stated, "The incidence of esophageal cancer is rising, mostly because the increasing incidence of esophageal adenocarcinoma in Western countries. Despite improvements in diagnosis and treatment, the overall 5-year survival rates remain low."

The news correspondents obtained a quote from the research from University Medical Center, "MicroRNAs (miRNAs) are small non-coding RNA molecules that regulate the expression of target genes. Recently, disease specific miRNAs have been identified, which act as tumor suppressors or oncogenes. In this review, we will summarize the current knowledge about the function of aberrantly expressed miRNAs in esophageal cancer. We selected 5 miRNAs (miRNA-21, -143, -145, -196a and let-7) based on the available literature, and described their potential role in regulating pathways that are deregulated in esophageal cancer. Finally we will highlight the current achievements of using and targeting miRNAs."

According to the news reporters, the research concluded: "Because these miRNAs likely have important regulatory roles in cancer development, they open a therapeutic window for new treatment modalities."


Our news journalists report that additional information may be obtained by contacting C. Kestens, Christine Kestens, Peter D Siersema, Jantine WPM van Baal, Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, 3508 GA Utrecht,
Netherlands. Additional authors for this research include P.D. Siersema and J.W van Baal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i1.1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Utrecht, Genetics, Oncology, Netherlands, Gastroenterology, Esophageal Cancer.

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Oncology - Esophageal Cancer

Findings on Esophageal Cancer Discussed by Investigators at Fudan University (Landscape of expression profiles in esophageal carcinoma by The Cancer Genome Atlas data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Esophageal Cancer have been published. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "In this study, we explored the gene and microRNA (miRNA) expressions profile of esophageal carcinoma. The expression data for messenger RNAs and miRNAs in normal and cancerous esophageal tissues were obtained from the Cancer Genome Atlas database and then the differentially expressed genes and miRNAs were identified."

Our news journalists obtained a quote from the research from Fudan University, "As a result, we identified 2962 genes and 45 miRNAs differentially expressed in esophageal carcinoma compared with normal esophageal tissues. Subsequently, the altered gene functions and signaling pathways were investigated using gene ontology (GO) and Kyoto Encyclopedia of Genes and Genomes (KEGG) analyses, and these differentially expressed genes were significantly enriched in the cell cycle, cell migration, mitogen-activated protein kinase (MAPK) and toll-like receptor signaling pathway, and so on. Then the regulatory relationships between the differentially expressed miRNAs and genes were examined with Targetscan and Miranda, and the potential target sites of transcription factors (TFs) in the promoter regions of these miRNAs and genes were identified using the TRANSFAC database. Finally the TF-miRNA-gene network in esophageal cancer was established, summarizing the regulatory links among the TFs, differentially expressed miRNAs and differentially expressed genes. Factors such as core promoter-binding protein (CPBP), nuclear factor of activated T-cells 1 (NFAT-1), miR-30c-5p, were located in the central hub of this network, highlighting their vital roles in esophageal tumorigenesis."

According to the news editors, the research concluded: "These findings may extend our understanding of the molecular mechanisms underlying esophageal carcinoma and promote new perspectives for prevention, diagnosis and treatment."


The news correspondents report that additional information may be obtained from Y.
Findings on Fabry Disease Reported by Investigators at School of Medicine (Later Onset Fabry Disease, Cardiac Damage Progress in Silence Experience With a Highly Prevalent Mutation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Fabry Disease are discussed in a new report. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Recently, several studies revealed a much higher prevalence of later onset Fabry disease (FD) than previously expected. It suggested that later onset FD might present as an important hidden health issue in certain ethnic or demographic populations in the world."

Our news journalists obtained a quote from the research from the School of Medicine, "However, the natural history of its phenotype has not been systemically investigated, especially the cardiac involvement. The study analyzed a large-scale newborn screening program for FD to understand the natural course of later onset FD. To date, 916,383 newborns have been screened for FD in Taiwan, including more than 1,200 individuals with the common, later onset IVS4+919G >A (IVS4) mutation. Echocardiography was performed in 620 adults with the IVS4 mutation to analyze the prevalence of left ventricular hypertrophy (LVH), and gadolinium-enhanced cardiac magnetic resonance imaging was performed in 129 patients with FD, including 100 IVS4 adults. LVH was observed in 67% of men and 32% of women older than 40 years. Imaging evidenced significant late gadolinium enhancement in 38.1% of IVS4 men and 16.7% of IVS4 women with the IVS4 mutation but without LVH. Seventeen patients underwent endomyocardial biopsies, which revealed significant globotriaosylceramide substrate accumulation in their cardiomyocytes. Significant cardiomyocyte substrate accumulation in IVS4 patients led to severe and irreversible cardiac fibrosis before development of LVH or other significant cardiac manifestations. Thus, it might be too late to start enzyme replacement therapy after the occurrence of LVH or other significant cardiac manifestations in patients with later onset FD."

According to the news editors, the research concluded: "This study also indicated the importance of newborn screening for early detection of the insidious, ongoing, irreversible cardiac damage in patients with later onset FD."

For more information on this research see: Later Onset Fabry Disease, Cardiac Damage Progress in Silence Experience With a Highly Prevalent Mutation. Journal of the American College of Cardiology, 2016;68(23):2554-2563. Journal of the American College of Cardiology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.

Keywords for this news article include: New York City, New York, United States, North and Central America, Left Ventricular Hypertrophy, Diagnostics and Screening, Epidemiology, Nutritional and Metabolic Diseases and Conditions, Lysosomal Storage Diseases and Conditions, X-Linked Genetic Diseases and Conditions, Brain Diseases and Conditions, Lipid Metabolism Disorders, Sphingolipidoses, Fabry Disease, Cardiology, Neurology, Genetics, School of Medicine.

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Nutritional and Metabolic Diseases and Conditions -

Findings on Fabry Disease Reported by Investigators at Tohoku University (Focal Reduction in Cardiac I-123-Metaiodobenzylguanidine Uptake in Patients With Anderson-Fabry Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Fabry Disease. According to news reporting from Miyagi, Japan, by NewsRx journalists, research stated, "It remains to be elucidated whether cardiac sympathetic nervous activity is impaired in patients with Anderson-Fabry disease (AFD). We performed I-123-meta-iodobenzylguanidine (MIBG) scintigraphy and gadolinium-enhanced cardiovascular magnetic resonance (CMR) in 5 AFD patients."

The news correspondents obtained a quote from the research from Tohoku University, "MIBG uptake in the inferolateral wall, where wall thinning and delayed enhancement were noted on CMR, was significantly lower compared with the anteroseptal wall. The localized reduction in MIBG uptake was also noted in 2 patients with no obvious abnormal findings on CMR."

According to the news reporters, the research concluded: "Cardiac sympathetic nervous activity is impaired in AFD before development of structural myocardial abnormalities."


Our news journalists report that additional information may be obtained by contacting K. Sugimura, Tohoku University, Grad Sch Med, Dept. of Cardiovasc Med, Sendai, Miyagi, Japan. Additional authors for this research include H. Suzuki, K. Sugimura, S. Tatebe, T. Aoki, M. Miura, N. Yaoita, H. Sato, K. Kozu, H. Ota, K. Takanami, K. Takase and H. Shimokawa.

Keywords for this news article include: Miyagi, Japan, Asia, Nutritional and
Findings on Frontotemporal Dementia Detailed by Investigators at Free University (Cerebral blood flow in presymptomatic MAPT and GRN mutation carriers: A longitudinal arterial spin labeling study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurodegenerative Diseases and Conditions - Frontotemporal Dementia. According to news reporting originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Frontotemporal dementia (FTD) is characterized by behavioral disturbances and language problems. Familial forms can be caused by genetic defects in microtubule-associated protein tau (MAPT), progranulin (GRN), and C9orf72."

Funders for this research include Dioraphte Foundation, NWO.

Our news editors obtained a quote from the research from Free University, "In light of upcoming clinical trials with potential disease-modifying agents, the development of sensitive biomarkers to evaluate such agents in the earliest stage of FTD is crucial. In the current longitudinal study we used arterial spin labeling MRI (ASL) in presymptomatic carriers of MAPT and GRN mutations to investigate early changes in cerebral blood flow (CBF). Healthy first-degree relatives of patients with a MAPT or GRN mutation underwent ASL at baseline and follow-up after two years. We investigated cross-sectional and longitudinal differences in CBF between mutation carriers (n = 34) and controls without a mutation (n = 31). GRN mutation carriers showed significant frontoparietal hypoperfusion compared with controls at follow-up, whereas we found no cross-sectional group differences in the total study group or the MAPT subgroup. Longitudinal analyses revealed a significantly stronger decrease in CBF in frontal, temporal, parietal, and subcortical areas in the total group of mutation carriers and the GRN subgroup, with the strongest decrease in two mutation carriers who converted to clinical FTD during follow-up. We demonstrated longitudinal alterations in CBF in presymptomatic FTD independent of grey matter atrophy, with the strongest decrease in individuals that developed symptoms during follow-up."

According to the news editors, the research concluded: "Therefore, ASL could have the potential to serve as a sensitive biomarker of disease progression in the presymptomatic stage of FTD in future clinical trials."


The news editors report that additional information may be obtained by contacting J.C. van Swieten, Vrije Univ Amsterdam Med Center, Dept. of Clin Genet, Amsterdam, Netherlands. Additional authors for this research include V. Chalos, E. Ghariq, T. den Heijer, A.
Findings on Frontotemporal Dementia Reported by Investigators at University of Sao Paulo (GRN and MAPT Mutations in 2 Frontotemporal Dementia Research Centers in Brazil)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Neurodegenerative Diseases and Conditions - Frontotemporal Dementia have been presented. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, research stated, "Mutations in GRN (progranulin) and MAPT (microtubule-associated protein tau) are among the most frequent causes of monogenic frontotemporal dementia (FTD), but data on the frequency of these mutations in regions such as Latin America are still lacking. We aimed to investigate the frequencies of GRN and MAPT mutations in FTD cohorts from 2 Brazilian dementia research centers, the University of Sao Paulo and the Federal University of Minas Gerais medical schools."

Our news journalists obtained a quote from the research from the University of Sao Paulo, "We included 76 probands diagnosed with behavioral-variant FTD (n = 55), semantic-variant Primary Progressive Aphasia (PPA) (n = 11), or nonfluent-variant PPA (n = 10). Twenty-five percent of the cohort had at least 1 relative affected with FTD. Mutations in GRN were identified in 7 probands, and in MAPT, in 2 probands. We identified 3 novel GRN mutations (p.Q130X, p.317Afs*12, and p.K259Afs*23) in patients diagnosed with nonfluent-variant PPA or behavioral-variant FTD. Plasma progranulin levels were measured and a cutoff value of 70 ng/mL was found, with 100% sensitivity and specificity to detect null GRN mutations. The frequency of GRN mutations was 9.6% and that of MAPT mutations was 7.1%.

According to the news editors, the research concluded: "Among familial cases of FTD, the frequency of GRN mutations was 31.5% and that of MAPT mutations was 10.5%.

For more information on this research see: GRN and MAPT Mutations in 2 Frontotemporal Dementia Research Centers in Brazil. Alzheimer Disease & Associated Disorders, 2016;30(4):310-317. Alzheimer Disease & Associated Disorders can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Alzheimer Disease & Associated Disorders - journals.lww.com/alzheimerjournal/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting L.T. Takada, University of Sao Paulo, Sch Medical??Cognit & Behav Neurol UnitDept Neurol, Sao Paulo, Brazil. Additional authors for this research include V.S. Bahia, H.C. Guimaraes, T. Costa, T.C. Vale, R.D. Rodriguez, F.H.G. Porto, J.C.B. Machado, R.G.
Findings on Gastric Cancer Discussed by Investigators at Xiamen University (Trefoil factor family 2 expression inhibits gastric cancer cell growth and invasion in vitro via interactions with the transcription factor Sp3)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Gastric Cancer is now available. According to news reporting from Fujian, People's Republic of China, by NewsRx journalists, research stated, "The trefoil factor family (TFF) is a group of short secretory peptides of gastric mucous neck cells. The loss of TFF2 protein expression enhances gastric inflammation and occurs in gastric cancer."

The news correspondents obtained a quote from the research from Xiamen University, "In this study, we examined the effect of TFF2 on gastric cancer cell lines in vitro and characterized the interaction between TFF2 and Sp3, including the mechanisms that mediate this interaction, using genomics and proteomics approaches, as well as genetics techniques, such as RNA interference and gene knockdown. Assays were performed to examine the role of TFF2 and Sp3 in cancer cell proliferation, invasion and migration. We found that TFF2 expression inhibited the proliferation and invasion capacity of gastric cancer cells, and induced apoptosis. TFF2 interacted with the Sp3 protein, as shown by immunofluorescence staining and immunoprecipitation with western blot analysis. Sp3 knockdown in gastric cancer cells antagonized TFF2 anti-tumor activity. Additionally, TFF2 upregulated the expression of pro-apoptotic proteins, such as Bid, but downregulated the expression of NF-B and the anti-apoptotic proteins, Bcl-xL and Mcl-1. By contrast, Sp3 knockdown significantly blocked TFF2 activity, affecting the expression of these proteins. The data from our study demonstrate that the antitumor activity of TFF2 is mediated by an interaction with the Sp3 protein in gastric cancer cells."

According to the news reporters, the research concluded: "Additional in vivo and ex vivo warned in order to fully characterize this interaction."


*International Journal of Molecular Medicine* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

Our news journalists report that additional information may be obtained by contacting H.X. Shi, Xiamen University, Dept. of Gastroenterol, Zhongshan Hosp, Xiamen
Our news journalists obtained a quote from the research from Yeungnam University, "Patients were categorized into two groups; the H. pylori tested group (n = 257) and the H. pylori non-tested group (n = 176) based on performance of H. pylori status test after ESD of EGC. The H. pylori tested group was further categorized into three subgroups based on H. pylori status; the H. pylori-eradicated subgroup (n = 120), the H. pylori-persistent subgroup (n = 42), and the H. pylori-negative subgroup (n = 95). Incidences of MGC and risk factors of MGC were identified. Median follow-up duration after ESD was 30.00 mo (range, 6-107 mo). Total 15 patients developed MGC during follow-up. MGC developed in 11 patients of the H. pylori tested group (7 in the H. pylori-negative subgroup, 3 in the H. pylori-eradicated subgroup, and 1 in the H. pylori-persistent subgroup) and 4 patients of the H. pylori non-tested group (P > 0.05). The risk factors of MGC were endoscopic mucosal atrophy in the H. pylori tested group and intestinal metaplasia in all patients. H. pylori eradication and H. pylori status test seems to have no preventive effect on the development of MGC after ESD for EGC."

According to the news editors, the research concluded: "The risk factors of MGC development were endoscopic mucosal atrophy in the H. pylori tested group alone and intestinal metaplasia in all patients."


The news correspondents report that additional information may be obtained from S.H. Lee, Yeungnam University, Coll Med, Dept. of Internal Med, Daegu 42415, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i44.9794. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daegu, South Korea, Asia, Parasitic Diseases and Conditions, Gram-Negative Bacteria, Epsilonproteobacteria, Risk and Prevention, Helicobacter pylori, Gastroenterology, Proteobacteria, Gastric Cancer, Oncology, Yeungnam University.

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Oncology - Gastric Cancer

Findings on Gastric Cancer Reported by Investigators at Nanjing University (Expression profile of E-cadherin, estrogen receptors, and P53 in early-onset gastric cancers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Early-onset gastric cancer (EOGC) is predominant in females, diffuse histology, and hereditary pattern. Germline mutation of CDH1 and p53 has been reported previously and female dominance was speculated to be associated with estrogen and its receptors."

Financial support for this research came from Nanjing Scientific Technology and Development Project.

Our news journalists obtained a quote from the research from Nanjing University, "Expression of E-cadherin, estrogen receptor alpha (ER alpha), estrogen receptor beta (ER beta), and p53 in EOGC remains unclear, which was the focus of this study, to assess clinical significance of their expression in EOGC. The expression of E-cadherin, ER alpha, ER beta, and p53 in tumors and normal tissues from surgically resected EOGCs was assessed by immunohistochemistry (n = 139) and Western blot (n = 7) methods, respectively. The expression in tumor tissues was significantly higher for ER alpha, ER beta, and p53, but lower for E-cadherin, compared to uninvolved mucosa. Positive staining of ER beta and p53 was more frequently observed in younger patients with advanced TNM stages. For E-cadherin, significant correlation was observed between the immunopositivity and TNM stages IA+ IB. P53-negative patients had significantly better outcomes than p53-positive patients. Significant association between expression of E-cadherin and histologic types was found in familial, but not in sporadic, EOGC."

According to the news editors, the research concluded: "Our results demonstrated E-cadherin may have a role in initiation of EOGC and positive ER beta and p53 expression may partially explained early-onset and tumor progression of EOGC."

The news correspondents report that additional information may be obtained from L. Wang, Nanjing University, Dept. of Gastroenterol, Drum Tower Hosp, Sch Med, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include Y.Y. Xu, J. Shi, X. Lan, X.P. Zou, L. Wang and Q. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.931. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Cell Adhesion Molecules, Transcription Factors, DNA-Binding Proteins, Estrogen Receptors, Steroid Receptors, Membrane Proteins, Gastroenterology, Gastric Cancer, Cell Research, Glycoproteins, Cadherins, Oncology, Genetics, p53 Gene, Nanjing University.

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Oncology - Gastric Cancer

Findings on Gastric Cancer Reported by Investigators at Research Institute (Effects for Sequential Treatment of siAkt and Paclitaxel on Gastric Cancer Cell Lines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Real-time screening of cellular response on the drugs could provide valuable insights for the early detection of therapeutic efficiency and the evaluation of disease progression. Cancer cells have the ability to vary widely in response to stress in a manner to adjust the signaling pathway to promote the survival or having a resistance to stimulation."

Our news journalists obtained a quote from the research from Research Institute, "Cell-based label-free technologies using electronic impedance sensor have strategies for constructing the signature profiles of each cells. To achieve exquisite sensitivity to substantially change of live-cell response have an important role that predict the potential of therapeutic effects. In this study, we use an impedance-based real-time cell analysis system to investigate dynamic phenotypes of cells described as a cellular index value. We show that gastric cancer cells generated characteristic kinetic patterns that corresponded to the treatment order of therapeutics. The kinetic feature of the cells offers insightful information that cannot be acquired from a conventional single end-point assay. Furthermore, we employ a 'sequential treatment strategy' to increase cytotoxic effects with minimizing the use of chemotherapeutics. Specifically, treatment of paclitaxel (PTX) after down-regulating Akt gene expression using RNAi reduces the cell proliferation and increases apoptosis. We propose that the sequential treatment may exhibit more effective approach rather than traditional combination therapy."

According to the news editors, the research concluded: "Moreover, the dynamic monitoring of cell-drug interaction enables us to obtain a better understanding of the temporal effects in vitro."

For more information on this research see: Effects for Sequential Treatment of siAkt and Paclitaxel on Gastric Cancer Cell Lines. International Journal of Medical Sciences, 2016;13(9):708-716. International Journal of Medical Sciences can be contacted at: Ivyspring
Our news journalists report that additional information may be obtained by contacting J. Yang, YUHS KRIBB Med Convergence Res Inst, Seoul 03722, South Korea. Additional authors for this research include M. Kang, J.S. Suh and J. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7150/ijms.15501. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Drugs and Therapies, Paclitaxel Therapy, Mitotic Inhibitors, Organic Chemicals, Gastroenterology, Pharmaceuticals, Antineoplastics, Cycloparaffins, Gastric Cancer, Hydrocarbons, Cell Line, Oncology, Genetics, Terpenes, Taxoids, Research Institute.

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Digestive System Diseases and Conditions - Gastric...

Findings on Gastric Ulcers Reported by Researchers at Jagiellonian University College of Medicine [The renin-angiotensin system and its vasoactive metabolite angiotensin-(1-7) in the mechanism of the healing of preexisting gastric ulcers. The ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Digestive System Diseases and Conditions - Gastric Ulcers have been presented. According to news reporting originating in Krakow, Poland, by NewsRx journalists, research stated, "The inhibition of angiotensin-converting enzyme (ACE) or the blockade of angiotensin (Ang) AT-1 receptors affords protection against acute gastric mucosal injury, but whether the major metabolite of renin-angiotensin system (RAS), Ang-(1-7), accelerates the healing process of preexisting gastric ulcers remains unknown. Previous studies documented that Ang-(1-7) acting via its own Mas receptor exerts vascular responses opposing those of Ang II."

The news reporters obtained a quote from the research from the Jagiellonian University College of Medicine, "We studied the effects of the Ang-(1-7)/Mas receptor axis on the healing rate of acetic-acid-induced gastric ulcers with or without the blockade of Mas receptors by A 779 and compared it with the effects of activation and blockade of the AT-1 receptor by the treatment with Ang II and losartan, respectively, the inhibition of ACE by lisinopril, the NO/cNOS inhibition by L-NAME and inhibition of prostaglandin/COX system by indomethacin in the presence of Ang-(1-7). Additionally, ex vivo metabolism of Ang I in gastric tissue was assessed by LC/MS method. At day 9 after ulcer induction, the area of these ulcers and the accompanying changes in total gastric blood flow (GBF) were determined as were gastric mucosal blood flow (GMBF) at ulcer margin and gastric oxygen uptake (GVO2). The gastric mucosal expression of mRNAs for constitutive nitric oxide synthase (cNOS), superoxide dismutase (SOD), and pro-inflammatory cytokines interleukin 1b (IL-1b) and tumor necrosis factor alpha (TNF-a) and plasma level of both cytokines were determined by RT-PCR and ELISA. The 9 days treatment with Ang II dose-dependently increased the area of gastric ulcers and this effect was accompanied by a significant fall in the GBF, GVO2 and GMBF at ulcer margin. In contrast, treatment with Ang-(1-7) which produced a significant rise in the luminal content of NO significantly reduced the area of gastric ulcer and significantly increased the
GBF, GVO2 and the GMBF at ulcer margin. Similar GMBF changes and significant reduction in the area of gastric ulcer was observed in rats with gastric ulcers treated with the agonist of Mas receptor, AVE 0991. These effects of Ang-(1-7) and AVE 0991 were eliminated by blockade of the Mas receptor with A779. Similarly to Ang-(1-7), treatment with losartan or lisinopril significantly reduced the area of gastric ulcers and the accompanying increase in the GMBF at ulcer margin and these effects were significantly attenuated by a concomitant administration of L-NAME and indomethacin. The rate of healing of ulcers was associated with a decrease in ex vivo Ang-(1-7) formation and this effect was attenuated by lisinopril. The treatment with Ang-(1-7) or AVE 0991 increased the expression of mRNA for cNOS and SOD and downregulated that of IL-1b and TNF-a followed by the decrease in the plasma IL-1b and TNF-a levels. We conclude that the Ang-(1-7)/Mas receptor system accelerates the healing of preexisting gastric ulcers via an increase in the gastric macro- and microcirculations, and an increase in gastric tissue oxygenation. These effects are mediated by PG and NO derived from overexpression of cNOS, an increase in the expression of antioxidizing enzyme SOD2 and an anti-inflammatory action involving the inhibition of expression and release of pro-inflammatory cytokines IL-1b and TNF-a.

According to the news reporters, the research concluded: "Our results seem to underlie the importance of the Ang-(1-7), AT-1 and Mas receptors in the regulation of local vascular and metabolic effects associated with mechanism of gastric ulcer healing."

For more information on this research see: The renin-angiotensin system and its vasoactive metabolite angiotensin-(1-7) in the mechanism of the healing of preexisting gastric ulcers. The involvement of Mas receptors, nitric oxide, prostaglandins and proinflammatory cytokines. *Journal of Physiology and Pharmacology*, 2016;67(1):75-91.

Our news correspondents report that additional information may be obtained by contacting M.W. Pawlik, Dept. of Physiology Jagiellonian University Medical College, Cracow, Poland. Additional authors for this research include S. Kwiecien, A. Ptak-Belowska, R. Pajdo, R. Olszanecki, M. Suski, J. Madej, A. Targosz, S.J. Konturek, R. Korbut and T. Brzozowski.

Keywords for this news article include: Renin, Krakow, Poland, Genetics, Autacoids, Chemicals, Cytokines, Dipeptides, Lisinopril, Eicosanoids, Angiotensins, Nitric Oxide, Neuropeptides, Oligopeptides, Gastric Ulcers, Prostaglandins, Nitrogen Oxides, Gastroenterology, Gastrointestinal, Peptide Hormones, Peptide Proteins, Biological Factors, Peptide Hydrolases.

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**Genetics**

**Findings on Genetics Discussed by Investigators at School of Public Health [Human epidermal growth factor receptor 4 (Her4) Suppresses p53 Protein via Targeting the MDMX-MDM2 Protein Complex IMPLICATION OF A NOVEL MDMX SER-314 PHOSPHOSITE]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Genetics. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Deregulated receptor tyrosine kinase (RTK) signaling is frequently associated with tumorigenesis and therapy resistance, but its underlying mechanisms still need to be elucidated.
In this study, we have shown that the RTK human epidermal growth factor receptor 4 (Her4, also known as Erbb4) can inhibit the tumor suppressor p53 by regulating MDMX-mouse double minute 2 homolog (MDM2) complex stability.

Our news editors obtained a quote from the research from the School of Public Health, "Upon activation by either overexpression of a constitutively active vector or ligand binding (Neuregulin-1), Her4 was able to stabilized the MDMX-MDM2 complex, resulting in suppression of p53 transcriptional activity, as shown by p53-responsive element-driven luciferase assay and mRNA levels of p53 target genes. Using a phospho-proteomics approach, we functionally identified a novel Her4-induced posttranslational modification on MDMX at Ser-314, a putative phosphorylation site for the CDK4/6 kinase. Remarkably, inhibition of Ser-314 phosphorylation either with Ser-to-Ala substitution or with a specific inhibitor of CDK4/6 kinase blocked Her4-induced stabilization of MDMX-MDM2 and rescued p53 activity."

According to the news editors, the research concluded: "Our study offers insights into the mechanisms of deregulated RTK-induced carcinogenesis and provides the basis for the use of inhibitors targeting RTK-mediated signals for p53 restoration."


The news editors report that additional information may be obtained by contacting Z.M. Yuan, Harvard TH Chan Sch Public Hlth, John B Little Center Radiat Sci, Boston, MA 02115, United States. Additional authors for this research include A. de Polo, X.S. Liu, M. El Kharbili, J.B. Little and Z.M. Yuan.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Growth Factor Receptors, Enzymes and Coenzymes, Membrane Proteins, Peptide Receptors, Genetics, p53 Gene, Kinase, School of Public Health.

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Life Science Research - Genetics
Findings on Genetics Discussed by Investigators at University of Pittsburgh (The Fitness Effects of Spontaneous Mutations Nearly Unseen by Selection in a Bacterium with Multiple Chromosomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Life Science Research - Genetics is now available. According to news reporting originating in Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "Mutation accumulation (MA) experiments employ the strategy of minimizing the population size of evolving lineages to greatly reduce effects of selection on newly arising mutations. Thus, most mutations fix within MA lines independently of their fitness effects."

The news reporters obtained a quote from the research from the University of Pittsburgh, "This approach, more recently combined with genome sequencing, has detailed the rates, spectra, and biases of different mutational processes. However, a quantitative
understanding of the fitness effects of mutations virtually unseen by selection has remained an untapped opportunity. Here, we analyzed the fitness of 43 sequenced MA lines of the multi-chromosome bacterium Burkholderia cenocepacia that had each undergone 5554 generations of MA and accumulated an average of 6.73 spontaneous mutations. Most lineages exhibited either neutral or deleterious fitness in three different environments in comparison with their common ancestor. The only mutational class that was significantly overrepresented in lineages with reduced fitness was the loss of the plasmid, though nonsense mutations, missense mutations, and coding insertion-deletions were also overrepresented in MA lineages whose fitness had significantly declined. Although the overall distribution of fitness effects was similar between the three environments, the magnitude and even the sign of the fitness of a number of lineages changed with the environment, demonstrating that the fitness of some genotypes was environmentally dependent."

According to the news reporters, the research concluded: "These results present an unprecedented picture of the fitness effects of spontaneous mutations in a bacterium with multiple chromosomes and provide greater quantitative support for the theory that the vast majority of spontaneous mutations are neutral or deleterious."

For more information on this research see: The Fitness Effects of Spontaneous Mutations Nearly Unseen by Selection in a Bacterium with Multiple Chromosomes. *Genetics*, 2016;204(3):1225-1238,583-589. *Genetics* can be contacted at: Genetics Society America, 9650 Rockville Ave, Bethesda, MD 20814, USA. (Cell Press - www.cell.com; Genetics - www.cell.com/trends/genetics/home)

Our news correspondents report that additional information may be obtained by contacting V.S. Cooper, University of Pittsburgh, Sch Med, Dept. of Microbiol & Mol Genet, Pittsburgh, PA 15219, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1534/genetics.116.193060. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Life Science Research, Genetics, Genetics, University of Pittsburgh.

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**Oncology - Germ Cell Cancer**

**Findings on Germ Cell Cancer Reported by Researchers at Institute for Cancer Research and Treatment (IRCCS) (Prognostic impact of progression to induction chemotherapy and prior paclitaxel therapy in patients with germ cell tumors receiving ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Germ Cell Cancer have been published. According to news reporting from Milano, Italy, by NewsRx journalists, research stated, "Little is known about the prognostic impact of prior paclitaxel therapy and response to induction chemotherapy defined as the regimen preceding high-dose chemotherapy (HDCT) for the salvage therapy of advanced germ cell tumors. Twenty European Society for Blood and Marrow Transplantation centers contributed data on patients treated between 2002 and 2012."
The news correspondents obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Paclitaxel used in either prior lines of therapy or in induction-mobilization regimens was considered. Multivariable Cox analyses of prespecified factors were undertaken on PFS and overall survival (OS). As of October 2013, data for 324 patients had been contributed to this study. One hundred and ninety-two patients (59.3%) had received paclitaxel. Sixty-one patients (19%) had a progression to induction chemotherapy, 234 (72%) a response (29 (9%) missing or granulocyte colony-stimulating factor without chemotherapy). Both progression to induction chemotherapy and prior paclitaxel were significantly associated with shorter OS univariably (p <0.001 and p=0.032). On multivariable analysis from the model with fully available data (N=216) progression to induction was significantly prognostic for PFS and OS (p=0.003), but prior paclitaxel was not (p=0.674 and p=0.739). These results were confirmed after multiple imputation of missing data."

According to the news reporters, the research concluded: "Progression to induction chemotherapy could be demonstrated as an independent prognostic factor, in contrast to prior paclitaxel."

For more information on this research see: Prognostic impact of progression to induction chemotherapy and prior paclitaxel therapy in patients with germ cell tumors receiving salvage high-dose chemotherapy in the last 10 years: a study of the European Society for Blood and Marrow Transplantation. Bone Marrow Transplantation, 2015;51(3):384-90. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news journalists report that additional information may be obtained by contacting A. Necchi, Fondazione IRCCS Istituto Nazionale dei Tumori, Milano, Italy. Additional authors for this research include R. Miceli, M. Bregni, C. Bokemeyer, L.A. Berger, K. Oechsle, K. Schumacher, E. Kanfer, J.H. Bourhis, C. Massard, D. Laszlo, J. Montoro, A. Flechon, F. Arpaci, S. Secondino, P. Wuchter, P. Dreger, M. Crysandt and .

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bmt.2015.300. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Bone Marrow Transplantation is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Antineoplastics, Pharmaceuticals, Milano, Europe, Taxoids, Oncology, Terpenes, Genitalia, Chemotherapy, Hydrocarbons, Cycloparaffins, Germ Cell Cancer, Organic Chemicals, Mitotic Inhibitors, Paclitaxel Therapy, Drugs and Therapies, Germ Cell Carcinoma.

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Oncology - Glioblastomas

Findings on Glioblastomas Discussed by B. Kim and Co-Researchers (Apigenin Inhibits Cancer Stem Cell-Like Phenotypes in Human Glioblastoma Cells via Suppression of c-Met Signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Glioblastomas. According
to news originating from Chungnam, South Korea, by NewsRx correspondents, research stated, "Glioblastoma (GBM) is a highly malignant human brain tumor with limited treatment choices. The extremely aggressive characteristics of GBM result from GBM stem cells (GSCs), a subpopulation in tumor having self-renewal potential and resistance to chemotherapy and radiotherapy."

Our news journalists obtained a quote from the research, "Therefore, eliminating GSCs is an effective strategy to treat this fatal disease. In this study, we investigated the therapeutic effects of dietary flavonoids, including apigenin, quercetin, and naringenin, against cancer stem cell-like phenotypes of human GBM cell lines U87MG and U373MG. Among flavonoids studied, apigenin and quercetin significantly suppressed not only the self-renewal capacity such as cell growth and clonogenicity, but also the invasiveness of GBM stem-like cells. Notably, apigenin blocked the phosphorylation of c-Met and its downstream effectors, transducer and activator of transcription 3, AKT (Protein kinase B), and mitogen-activated protein kinase in the GSCs, thereby reducing the expression levels of GSC markers such as CD133, Nanog, and Sox2."

According to the news editors, the research concluded: "These results suggest that the GSC inhibition effect of apigenin may be caused by downregulation of c-Met signaling pathway."


The news correspondents report that additional information may be obtained from H.J. Jung, Sun Moon UniversityDept. of BT Convergent Pharmaceut Engn, Asan 336708, Chungnam, South Korea. Additional authors for this research include N. Jung, S. Lee, J.K. Sohng and H.J. Jung.

Keywords for this news article include: Chungnam, South Korea, Asia, Enzymes and Coenzymes, Stem Cell Research, Glioblastomas, Oncology, Genetics, Kinase, Cancer.

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Gynecology

Findings on Gynecology Reported by Investigators at Democritus University (MiRNAs: regulators of human disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gynecology are discussed in a new report. According to news reporting out of Athens, Greece, by NewsRx editors, research stated, "MicroRNAs (miRNAs) represent the mediators of important leading biological functions of molecular pathways in humans. They are a class of very small, non-coding RNAs; their function is the balance of the protein levels at the post-transcriptional stage."

Our news journalists obtained a quote from the research from Democritus University, "They are implicated in molecular processes and diseases, including diabetes, metabolism, autoimmune diseases, angiogenesis and tumorigenesis, and female fertility, exhibiting an altered expression profile. Any process taking place in the human organism is intertwined by miRNAs.
MiRNAs have an impact on the biochemistry of pathways of the invisible molecular world. They circulate in a stable chemical configuration in body fluids (tears, serum, plasma, amniotic fluid, ascetic fluid, urine) with their molecular sequence specificity remaining unchanged. Their indisputable molecular stability ranks them as extremely vigorous potential markers in human disease. MiRNAs demonstrate a specific expressive signature, representative of the tissue specificity and the clinical staging. The shift on the concentration and expression of a miRNA reflects the course of a disease. MiRNAs may operate as oncogenes (tumor growth) or tumor suppressor (tumor reduction) genes in cancer pathways."

According to the news editors, the research concluded: "In malignant disease, proliferation, maintenance, and progression of cancer cells is induced by the stimulation of the oncogenes or complete deactivation of the tumor suppressor gene activity."


Our news journalists report that additional information may be obtained by contacting E.N. Kontomanolis, Democritus University of Thrace, Dept. of Obstet & Gynecol, Athens, Greece. Additional authors for this research include Z. Koukouli, A. Liberis, G. Stanulov and H. Achouhan.

Keywords for this news article include: Athens, Greece, Europe, Gynecology, Oncology, Article Review, Tumor Suppression, Genetics, Democritus University.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Findings on HIV/AIDS Reported by Investigators at Center for Disease Control and Prevention (Prevalence and Correlates of Heterosexual Anal Intercourse Among Men and Women, 20 US Cities)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news reporting originating in Atlanta, Georgia, by NewsRx journalists, research stated, "Heterosexual anal intercourse (HAI) is not an uncommon behavior and it confers a higher risk of HIV transmission than vaginal intercourse. We examined data from heterosexuals recruited in 20 US cities for the 2013 National HIV Behavioral Surveillance system."

The news reporters obtained a quote from the research from Center for Disease Control and Prevention, "We assessed correlates of reporting HAI in the previous year. Then, among people reporting HAI in the past year, we assessed what event-level factors are associated with having HAI at last sex. Thirty percent of women and 35 % of men reported HAI in the past year. Among people who had HAI in the past year, those who had HAI at last sex were more likely to have a partner who was HIV-positive or of unknown status or to have exchanged money or drugs for sex at last sex."

According to the news reporters, the research concluded: "Information that highlights the risk of HIV transmission associated with HAI would complement existing HIV prevention messages focused on heterosexuals in the U.S."

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Our news correspondents report that additional information may be obtained by contacting K.L. Hess, Center Dis Control & Prevent, Natl Center HIV Viral Hepatitis STD & TB Prevent, Div HIV AIDS Prevent, Atlanta, GA 30329, United States. Additional authors for this research include E. DiNenno, C. Sionean, W. Ivy and G. Paz-Bailey.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Immune System Diseases and Conditions, Epidemiology, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Risk and Prevention, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Center for Disease Control and Prevention.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Findings on HIV/AIDS Reported by Investigators at Population Council (First-in-Human Trial of MIV-150 and Zinc Acetate Coformulated in a Carrageenan Gel: Safety, Pharmacokinetics, Acceptability, Adherence, and Pharmacodynamics)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immune System Diseases and Conditions - HIV/AIDS is the subject of a report. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "To evaluate the safety and pharmacokinetics of MIV-150 and zinc acetate in a carrageenan gel (PC-1005). Acceptability, adherence, and pharmacodynamics were also explored."

Our news editors obtained a quote from the research from Population Council, "A 3-day open-label safety run-in (n = 5) preceded a placebo-controlled, double-blind trial in healthy, HIV-negative, abstinent women randomized (4: 1) to vaginally apply 4 mL of PC-1005 or placebo once daily for 14 days. Assessments included physical examinations, safety labs, colposcopy, biopsies, cervicovaginal lavages (CVLs), and behavioral questionnaires. MIV-150 (plasma, CVL, tissue), zinc (plasma, CVL), and carrageenan (CVL) concentrations were determined with LC-MS/MS, ICP-MS, and ELISA, respectively. CVL antiviral activity was measured using cell-based assays. Safety, acceptability, and adherence were analyzed descriptively. Pharmacokinetic parameters were calculated using noncompartmental techniques and actual sampling times. CVL antiviral EC50 values were calculated using a dose-response inhibition analysis. Participants (n = 20) ranged from 19-44 years old; 52% were black or African American. Among those completing the trial (13/17, PC-1005; 3/3, placebo), 11/17 reported liking the gel overall; 7 recommended reducing the volume. Adverse events, which were primarily mild and/or unrelated, were comparable between groups. Low systemic MIV-150 levels were observed, without accumulation. Plasma zinc levels were unchanged from baseline. Seven of seven CVLs collected 4-hour postdose demonstrated antiviral (HIV, human papillomavirus) activity. High baseline CVL anti-herpes-simplex virus type-2 (HSV-2) activity
precluded assessment of postdose activity. PC-1005 used vaginally for 14 days was well tolerated. Low systemic levels of MIV-150 were observed. Plasma zinc levels were unchanged. Postdose CVLs had anti-HIV and antihuman papillomavirus activity."

According to the news editors, the research concluded: "These data warrant further development of PC-1005 for HIV and sexually transmitted infection prevention."


Keywords for this news article include: New York City, New York, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, HIV/AIDS and Human Papillomavirus, HIV/AIDS and Herpes Simplex, Opportunistic Infections, Primate Lentiviruses, Vertebrate Viruses, Carboxylic Acids, Pharmacokinetics, Pharmaceuticals, HIV Infections, Zinc Acetate, Acetic Acids, Retroviridae, Herpesvirus, RNA Viruses, Population Council.

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**Oncology - Head and Neck Cancer**

**Findings on Head and Neck Cancer Reported by Investigators at University of Amsterdam (A critical evaluation of lymph node ratio in head and neck cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Head and Neck Cancer. According to news reporting originating in Amsterdam, Netherlands, by NewsRx journalists, research stated, "In head and neck squamous cell carcinoma (HNSCC), the search for better prognostic factors beyond TNM-stage is ongoing. Lymph node ratio (LNR) (positive lymph nodes/total lymph nodes) is gaining interest in view of its potential prognostic significance."

The news reporters obtained a quote from the research from the University of Amsterdam, "All HNSCC patients at the Netherlands Cancer Institute undergoing neck dissection for lymph node metastases in the neck region between 2002 and 2012 (n = 176) were included. Based on a protocol change in specimen processing, the cohort was subdivided in two distinct consecutive periods (pre and post 2007). The prognostic value of LNR, N-stage, and number of positive lymph nodes for overall survival was assessed. The mean number of examined lymph nodes after 2007 was significantly higher (42.3) than before (35.8) (p = 0.024). The higher number concerned mostly lymph nodes in level V. The mean number of positive lymph nodes before 2007 was 3.3 vs. 3.6 after 2007 (p = 0.745). By multivariate analysis of both pre- and post-2007 cohort data, two factors remained associated with an increased hazard..."
of dying: N2 [HR 2.1 (1.1-4.1) and 2.4 (1.0-5.8)] and ≥ 3 positive lymph nodes [HR 2.0 (1.1-3.5) and 3.1 (1.4-6.9)]. Hazard ratio for LNR > 7% was not significantly different: pre 2007 at 2.2 (1.3-3.8) and post 2007 at 2.1 (1.0-4.8, p = 0.053). In this study, changes in specimen processing influenced LNR values, but not the total number of tumor positive nodes found.

According to the news reporters, the research concluded: "Therefore, in HNSCC, the number of positive nodes seems a more reliable parameter than LNR, provided a minimum number of lymph nodes are examined."


Our news correspondents report that additional information may be obtained by contacting M. de Ridder, University of Amsterdam, Academy Med Center, Dept. of Radiat Oncol, Amsterdam, Netherlands. Additional authors for this research include C.C.M. Marres, L.E. Smeele, M.W.M. van den Brekel, M. Hauptmann, A.J.M. Balm and M.L.F. van Velthuysen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00428-016-2015-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Hemic and Immune Systems, Head and Neck Neoplasms, Head and Neck Cancer, Lymphoid Tissue, Lymph Nodes, Immunology, Oncology, University of Amsterdam.

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**Health and Medicine**

**Findings on Health and Medicine Reported by Investigators at King Abdul-Aziz University Hospital (Costly coagulation profile tests prior to performing breast biopsies Do we really need it?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Health and Medicine are discussed in a new report. According to news originating from Jeddah, Saudi Arabia, by NewsRx correspondents, research stated, "To reassess the need for routine coagulation profile testing in patients undergoing image-guided breast biopsies. This is a retrospective cross-sectional study."

Our news journalists obtained a quote from the research from King Abdul-Aziz University Hospital, "Data was collected from the logbook of patients that underwent image-guided biopsies in the breast unit at the Department of Radiology, King Abdulaziz University Hospital, Jeddah, Saudi Arabia. Patients' electronic records between November 2013 and October 2014 were included in the study. Exclusion criteria were those on anticoagulants, or platelet aggregation inhibitors, and patients with known primary, or secondary bleeding diathesis. The study was analyzed using the IBM Statistical Packages for Social Sciences Version 22 (IBM Corp, Armonk, NY, USA). A total of 136 patients were included in our study. Neither partial thromboplastin time (PTT), or thrombocytenia was related to bleeding with p-values of 0.536 PTT and 0.997 thrombocytenia. Needle gauge was found to be significantly related to bleeding episodes with a p=0.020. We advise against the routine use of coagulation
profiles to predict bleeding risk. A thorough bleeding assessment is more advantageous."

According to the news editors, the research concluded: "Laboratory tests should be
tailored according to the patient's history and examination findings."

For more information on this research see: Costly coagulation profile tests prior to
Saudi Medical Journal can be contacted at: Saudi Med J, Armed Forces Hospital, PO Box
7897, Riyadh 11159, Saudi Arabia.

The news correspondents report that additional information may be obtained from
R.M. Hafiz, King Abdulaziz Univ Hosp, Dept. of Radiol, Jeddah, Saudi Arabia.

Keywords for this news article include: Jeddah, Saudi Arabia, Asia, Health and
Medicine, Risk and Prevention, King Abdul-Aziz University Hospital.

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Health and Medicine

Findings on Health and Medicine Reported by Investigators at Mayo
Clinic (The Promise and Peril of Precision Medicine: Phenotyping Still
Matters Most)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators discuss new findings in Health and Medicine. According to
news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research
stated, "We illustrate the work necessary to reverse course after identification of a KCNQ1
variant interpreted erroneously as causing long QT syndrome (LQTS) and to identify the true
cause of a case of sudden death in the young. Surrogate genetic testing of a decedent's living
brother identified a rare KCNQ1-V133I variant, which prompted an implantable cardioverter
defibrillator and subsequent diagnosis of LQTS in other family members."

Our news editors obtained a quote from the research from Mayo Clinic,
"Subsequently, this presumed LQT1 family came to our institution for further clinical evaluation
and research-based investigations, including KCNQ1-V133I variant-specific analysis of the
decedent, heterologous expression studies of KCNQ1-V133I, and a whole-exome molecular
autopsy along with genomic triangulation using his unaffected parents' DNA. After evaluating
several V133I-positive family members, clinical doubt was cast on the veracity of the previously
levied diagnosis of LQT1, resulting in a re-opening of the case and an intense pursuit of the
lethal substrate. Furthermore, the decedent tested negative for V133I, and heterologous
expression studies demonstrated a normal cellular phenotype for V133I-containing Kv7.1
channels. Instead, after whole-exome molecular autopsy, a de novo pathogenic variant
(p.R454W) in DES-encoded desmin was identified. As detailed herein, the forensic evaluation
of sudden death in the young requires meticulous focus on the decedent followed by a careful
and deliberate assessment of the decedent's relatives. Surrogate genetic testing can have
disastrous consequences and should be avoided. Genetic test results require careful scrutiny to
avoid unintended and potentially devastating repercussions. Although the root cause of the
decedent's tragic death would have remained a mystery, the unintended consequences for the
living relatives described herein might have been avoided based on clinical grounds alone. All
family members had electrocardiograms with normal QT intervals, making the diagnosis of
familial LQTS unlikely."
According to the news editors, the research concluded: "As such, if the clinicians caring for these patients had focused solely on clinical data from the survivors, there might have been no reason to embark on a path of inappropriate treatment based on genetic testing."


The news editors report that additional information may be obtained by contacting M.J. Ackerman, Mayo Clinic, Dept. of Mol, Windland Smith Rice Sudden Death Genom Lab, Rochester, MN 55905, United States. Additional authors for this research include D.C. Bartos, J.D. Kapplinger, D.J. Tester, B.P. Delisle and M.J. Ackerman.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Health and Medicine, Genetics, Mayo Clinic.

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**Health and Medicine - Health and Society**

**Findings on Health and Society Detailed by Investigators at Michigan State University (Three modes of power operation: Understanding doctor-patient conflicts in China's hospital therapeutic landscapes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Health and Medicine - Health and Society. According to news reporting originating from East Lansing, Michigan, by NewsRx correspondents, research stated, "Doctor-patient conflicts in contemporary China are increasing in numbers and severity. This health geographic study shows how hospitals as a type of therapeutic landscape can shape doctor-patient relationships."

Our news editors obtained a quote from the research from Michigan State University, "First, the comprehensive nature of therapeutic landscapes with an emphasis on power operation within symbolic environments is provided as a framework for this study. Second, the results from participant observation and interviews with patients and doctors previously involved in conflicts are reported from Internal Medicine and Surgery Departments, within four hospitals in Anhui Province, Eastern China. The study finds that the spatial and temporal arrangements of spaces, the inside decorations and the different modes of discourses can build or ruin harmonious doctor-patient relations."

According to the news editors, the research concluded: "The research concludes that adaptations to current hospital therapeutic landscapes can improve trust between patients and doctors, resulting in fewer conflicts and better health outcomes in China."


The news editors report that additional information may be obtained by contacting P.L. Zhou, Michigan State University, Dept. of Geog Environm & Spatial Sci, East Lansing, MI
Findings on Heart Disease Detailed by Investigators at Landspitali University Hospital (Adult height associates with angiographic extent of coronary artery disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Disease. According to news originating from Reykjavik, Iceland, by NewsRx correspondents, research stated, "Shorter stature is an established risk factor for coronary artery disease (CAD), but less is known about its association with extent of the disease. We assessed the relationship between self-reported height and angiographic findings in 7706 men and 3572 women identified from a nationwide coronary angiography registry in Iceland."

Our news journalists obtained a quote from the research from Landspitali University Hospital, "After adjustment for traditional cardiovascular risk factors, a standard deviation decrease in height associated with a greater likelihood of significant CAD (defined as >= 50% luminal diameter stenosis) both in men (adjusted odds ratio [ORadj]: 1.24, 95% confidence interval [CI]: 1.18, 1.31; p = 3.2 x 10(-16)) and women (ORadj = 1.10, 95% CI: 1.02, 1.18; p = 0.012). In partial proportional odds logistic regression models, a standard deviation decrease in height was associated with higher odds of having greater extent of CAD in men (ORadj = 1.19, 95% CI: 1.15, 1.25; p = 1.5 x 10(-16)) and women (ORadj = 1.09, 95% CI: 1.02, 1.16; p = 0.014). When limited to patients with significant CAD, the association was statistically significant in men (ORadj = 1.08, 95% CI: 1.03, 1.14; p = 0.0022) but not in women (p = 0.56). Our findings show that shorter stature is associated with greater extent of coronary atherosclerosis in a large unselected population of individuals undergoing coronary angiography."

According to the news editors, the research concluded: "This relationship appears to be sex-dependent, with stronger effects in men than in women."


The news correspondents report that additional information may be obtained from T. Gudnason, Landspitali Univ Hosp, Dept. of Internal Med, Cardiovasc Res Center, IS-101 Reykjavik, Iceland. Additional authors for this research include G. Thorgeirsson and T. Gudnason.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.918. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Reykjavik, Iceland, Europe, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Arteriosclerosis, Heart Disease, Angiography, Angiology, Landspitali University Hospital.

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Heart Disorders and Diseases - Heart Disease

Findings on Heart Disease Reported by Researchers at Department of Cardiology (Unrecognized Myocardial Infarction Assessed by Cardiac Magnetic Resonance Imaging--Prognostic Implications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Disease have been published. According to news reporting out of Orebro, Sweden, by NewsRx editors, research stated, "Clinically unrecognized myocardial infarctions (UMI) are not uncommon and may be associated with adverse outcome. The aims of this study were to determine the prognostic implication of UMI in patients with stable suspected coronary artery disease (CAD) and to investigate the associations of UMI with the presence of CAD."

Our news journalists obtained a quote from the research from the Department of Cardiology, "In total 235 patients late gadolinium enhancement cardiovascular magnetic resonance (LGE-CMR) imaging and coronary angiography were performed. For each patient with UMI, the stenosis grade of the coronary branch supplying the infarcted area was determined. UMI were present in 25% of the patients and 67% of the UMI were located in an area supplied by a coronary artery with a stenosis grade (>=)70%. In an age-and gender-adjusted model, UMI independently predicted the primary endpoint (composite of death, myocardial infarction, resuscitated cardiac arrest, hospitalization for unstable angina pectoris or heart failure within 2 years of follow-up) with an odds ratio of 2.9; 95% confidence interval 1.1-7.9. However, this association was abrogated after adjustment for age and presence of significant coronary disease. There was no difference in the primary endpoint rates between UMI patients with or without a significant stenosis in the corresponding coronary artery. The presence of UMI was associated with a threefold increased risk of adverse events during follow up. However, the difference was no longer statistically significant after adjustments for age and severity of CAD. Thus, the results do not support that patients with suspicion of CAD should be routinely investigated by LGE-CMR for UMI."

According to the news editors, the research concluded: "However, coronary angiography should be considered in patients with UMI detected by LGE-CMR."

For more information on this research see: Unrecognized Myocardial Infarction Assessed by Cardiac Magnetic Resonance Imaging--Prognostic Implications. Plos One, 2016;11 (2):e0148803. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting A.M. Nordenskjold, Dept. of Cardiology, Faculty of Health, Orebro University, Orebro, Sweden. Additional authors for this research include P. Hammar, H. Ahlstrom, T.
Heart Disorders and Diseases - Heart Failure

Findings on Heart Failure Discussed by J. Tomono and Co-Researchers (Usefulness of anaerobic threshold to peak oxygen uptake ratio to determine the severity and pathophysiological condition of chronic heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Failure is the subject of a report. According to news reporting from Maebashi, Japan, by NewsRx journalists, research stated, "Anaerobic threshold (AT) and peak oxygen uptake (VO2) are well known as indicators of severity and prognosis of heart failure. Since these parameters are regulated by many factors, multiple organ dysfunction may occur in chronic heart failure, and these two parameters would vary among patients."

The news correspondents obtained a quote from the research, "However, it is not clear whether AT and peak VO2 deteriorate similarly. Therefore, we planned to compare the degree of deterioration of these two parameters using a ratio of AT and peak VO2 (%AT/peak), and evaluated its significance in heart failure subjects. One hundred ninety-four stable heart failure patients who had optimal medical treatment for at least 3 months were enrolled. Cardiopulmonary exercise testing, echocardiography, and blood sampling were examined within one week. Since %AT/peak varied from 50.3% to 108.5%, we divided patients into tertiles of %AT/peak [Group A, 50.1-70.0 (n = 112), Group B, 70.1-90.0 (n = 64), Group C, 90.1-110.0 (n = 18)], and compared factors relating with skeletal muscle and heart failure among these 3 groups. In Group A, ratio of measured AT against predicted value (%AT) and measured peak VO2 against predicted value (%peak VO2) were similar (80.3 +/- 19.0% and 80.4 +/- 17.1%, respectively). Peak VO2 became lower as %AT/peak increased (Group B; 65.6 +/- 14.8%, p< 0.01 vs. Group A, Group C; 38.3 +/- 9.7%, p< 0.01 vs. Group B). On the other hand, %AT in Group B (77.1 +/- 18.5%) was similar to Group A, and diminished in Group C (58.0 +/- 8.2%, p < 0.05 vs. Group B). Peak work rate and lean body mass were smaller in Group B than those in Group A. Although, left ventricular ejection fraction and E/E' deteriorated in Group B compared with Group A, plasma B-type natriuretic peptide and estimated glomerular filtration rate stayed constant in Group B and deteriorated in Group C. %AT/peak showed negative correlation with peak VO2."

According to the news reporters, the research concluded: "In chronic heart failure, muscle weakness occurs at an early stage, and this can be evaluated using %AT/peak."

For more information on this research see: Usefulness of anaerobic threshold to
peak oxygen uptake ratio to determine the severity and pathophysiological condition of chronic heart failure. *Journal of Cardiology*, 2016;68(5-6):373-378. *Journal of Cardiology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

Our news journalists report that additional information may be obtained by contacting H. Adachi, Gunma Prefectural Cardiovasc Center, Maebashi, Gumma 3710004, Japan. Additional authors for this research include H. Adachi, S. Oshima and M. Kurabayashi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2016.01.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maebashi, Japan, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Chronic Heart Failure, Heart Disease, Heart Attack, Chalcogens, Cardiology.

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**Transplant Medicine - Heart Transplants**

**Findings on Heart Transplants Reported by Investigators at University of Louisville (Differences in Status 1A Heart Transplantation Survival in the Continuous Flow Left Ventricular Assist Device Era)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Heart Transplants have been published. According to news reporting originating in Louisville, Kentucky, by NewsRx journalists, research stated, "Heart transplantation remains the gold standard therapy for end-stage heart failure patients; however, volumes are limited because of donor organ shortage. With the increasing availability of more durable continuous flow left ventricular assist devices (CFLVADs), the matrix of the heart transplantation waiting list and that of donor allocation have seen substantial changes."

The news reporters obtained a quote from the research from the University of Louisville, "We aimed to evaluate the impact of the stated reasons for status 1A at time of transplantation on post-transplantation survival in CFVAD patients. The United Network of Organ Sharing (UNOS) thoracic organ transplantation database was queried between 2006 and 2013 to identify patients aged 18 years or older who underwent heart transplantation as UNOS status 1A. We further assessed the data to identify reasons for status 1A at time of transplantation in CFVAD patients. We also computed posttransplantation survival of patients supported with CFLVAD who were status 1A at the time of transplantation. A total of 15,779 patients underwent heart transplantation during the study time period, of whom 8,429 were Status 1A, and 3,913 had CFLVAD at time of transplantation. Of all status 1A patients, 2,737 had CFLVAD at time of transplantation, of which 52% (1,413) had device complications (thrombosis, infection, malfunction, and other) and 48% (1,314) were on 30-day grace status 1A. Post-transplantation survival (at 3 years) of CFLVAD patients who received a transplant on 30-day grace status 1A was similar to patients who underwent transplantation on status 1B (84% versus 85%, p = 0.5), both of which were significantly better than status 1A patients because of device complications (84% and 85% versus 78%, p = 0.01) (Fig 1). CFLVAD patients who underwent transplantation as Status 1B or on the 30-day grace Status 1A have similar post-
transplantation survival."

According to the news reporters, the research concluded: "These data suggest that there needs to be an objective organ allocation system for recipients of heart transplant that prioritize patients with CFVAD complications and patients not eligible for CFVAD for transplantation over 30-day grace period patients."


Our news correspondents report that additional information may be obtained by contacting M.S. Slaughter, University of Louisville, Dept. of Cardiovasc & Thorac Surg, Louisville, KY 40292, United States. Additional authors for this research include K. Rajagopal, E.M. Schumer, E.J. Birks, A. Lenneman, A. Cheng and M.S. Slaughter.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Louisville, Kentucky, United States, North and Central America, Left Ventricular Assist Device, Cardiac Surgical Procedures, Heart Transplantation, Transplant Medicine, Heart Transplants, Organ Transplants, Medical Devices, Biomedicine, Cardiology, Surgery, University of Louisville.

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Liver Diseases and Conditions - Hepatitis B Virus

Findings on Hepatitis B Virus Reported by Investigators at University of Naples (Occult HBV infection in the oncohematological setting)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis B Virus are presented in a new report. According to news reporting out of Naples, Italy, by NewsRx editors, research stated, "Occult hepatitis B infection (OBI), a virological condition characterized by a low release of Hepatitis B Virus (HBV) from liver cells and low HBV-DNA levels in serum and/or liver tissue of HBsAg-negative subjects, may reactivate in oncohematological patients undergoing immunosuppression by aggressive chemotherapy or hematopoietic stem cell transplantation. The entity of OBI reactivation varies from an increase in HBV replication without liver damage to an active HBV replication followed by liver cell necrosis, frequently severe and in some cases life threatening."

Our news journalists obtained a quote from the research from the University of Naples, "Because of a possible severe outcome associated with OBI reactivation (hepatic failure or death due to the discontinuation of chemotherapy), prophylaxis with anti-HBV nucleot(s) ide analogues is recommended in relation to the foreseeable degree of immunosuppression. This review article focuses on the clinical impact of OBI in the oncohematological setting and is addressed to all health care workers having in care oncohematological patients or involved in the treatment of HBV infection and OBI prophylaxis. International guidelines have indicated lamivudine prophylaxis in hematopoietic stem cell transplantation and when high-dose
corticosteroids or anti-CD20 or anti-CD52 monoclonal antibodies are used. Entecavir or tenofovir should replace lamivudine for patients with advanced liver diseases for whom reactivation of OBI may be life threatening."

According to the news editors, the research concluded: "When anti-CD20 or anti-CD52 sparing schedules or other non-aggressive chemotherapies are used, monitoring may be indicated, but very early treatment with highly effective antiviral drugs (entecavir or tenofovir) should be administered once a reactivation of OBI has occurred."

For more information on this research see: Occult HBV infection in the oncohematological setting. Infection, 2016;44(5):575-582. Infection can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Infection - www.springerlink.com/content/0300-8126/)

Our news journalists report that additional information may be obtained by contacting E. Sagnelli, University of Naples, Dept. of Mental Hlth & Public Med, Infect Dis Sect, I-80131 Naples, Italy. Additional authors for this research include M. Macera, M. Pisaturo, R. Zampino, M. Coppola and E. Sagnelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s15010-016-0891-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Naples, Italy, Europe, Digestive System Diseases and Conditions, Stem Cell Research, Article Review, Infectious Disease and Conditions, Liver Diseases and Conditions, Hepadnaviridae Infections, Hematopoietic Stem Cells, Cell Transplantation, Transplant Medicine, Bone Marrow Cells, Hepatitis B Virus, Orthohepadnavirus, Gastroenterology, Cell Transplants, Biomedicine, DNA Viruses, Hematology, Genetics, Surgery, Viral, University of Naples.

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Liver Diseases and Conditions - Hepatitis C Virus

Findings on Hepatitis C Virus Discussed by Investigators at China Medical University and Hospital (RELATIONSHIP BETWEEN UVEITIS, DIFFERENT TYPES OF VIRAL HEPATITIS, AND LIVER CIRRHOSIS A 12-Year Nationwide Population-Based Cohort Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Liver Diseases and Conditions - Hepatitis C Virus. According to news reporting originating in Taichung, Taiwan, by NewsRx journalists, research stated, "This study investigates whether patients with viral hepatitis and cirrhosis are at risk of uveitis in the years following hepatitis. We used data from Taiwan National Health Insurance system."

The news reporters obtained a quote from the research from China Medical University and Hospital, "The cases were patients newly diagnosed with viral hepatitis from 2000 to 2011. The end point of interest was a diagnosis of uveitis. A chi-square test was used for the difference of demographic characteristics between viral hepatitis and comparison. The risk of uveitis in hepatitis was stratified using Cox proportional hazard regression. We selected 17,389 patients with viral hepatitis and 34,778 matched comparison. The risk of uveitis in hepatitis cohort was 1.30-fold (95% confidence interval = 1.01-1.69). Patients with hepatitis B
virus and hepatitis C virus coinfection had the highest risk (hazard ratio = 2.88; 95% confidence interval = 1.07-7.78), and followed by only hepatitis C virus infection (hazard ratio = 1.75; 95% confidence interval = 1.10-2.79). Patients with cirrhosis had a higher risk in the multivariable model but did not attach statistic difference. Patients with hepatitis B virus and hepatitis C virus coinfection had the highest risk of uveitis. In patients with hepatitis C virus and/or hepatitis B virus infection, the symptoms of uveitis should be alerted.

According to the news reporters, the research concluded: "Although these epidemiologic studies yielded informative results, the underlying mechanisms and the host's genetic factors remain to be investigated."

For more information on this research see: RELATIONSHIP BETWEEN UVEITIS, DIFFERENT TYPES OF VIRAL HEPATITIS, AND LIVER CIRRHOSIS A 12-Year Nationwide Population-Based Cohort Study. Retina-The Journal of Retinal and Vitreous Diseases, 2016;36(12):2391-2398. Retina-The Journal of Retinal and Vitreous Diseases can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news correspondents report that additional information may be obtained by contacting C.J. Lin, China Med Univ, Coll Med, Sch Med, Taichung, Taiwan. Additional authors for this research include C.J. Lin, Y.Y. Tsai, H.S. Chen, D.K. Hwang, C.H. Muo, J.M. Lin and W.L. Chen.

Keywords for this news article include: Taichung, Taiwan, Asia, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Uveal Diseases and Conditions, Eye Diseases and Conditions, Fibrosis, Epidemiology, Risk and Prevention, Hepatitis B Virus, Orthohepadnavirus, Hepatitis C Virus, Gastroenterology, Liver Cirrhosis, Viral Hepatitis, Hepadnaviridae, Ophthalmology, DNA Viruses, Hepatology, Genetics, Virology, Uveitis, HBV, HCV, China Medical University and Hospital.

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Findings on Hepatocyte Growth Factor Discussed by Investigators at Imperial College (Identifying ultrasensitive HGF dose-response functions in a 3D mammalian system for synthetic morphogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Intercellular Signaling Peptides and Proteins - Hepatocyte Growth Factor have been published. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "Nonlinear responses to signals are widespread natural phenomena that affect various cellular processes. Nonlinearity can be a desirable characteristic for engineering living organisms because it can lead to more switch-like responses, similar to those underlying the wiring in electronics."

Our news journalists obtained a quote from the research from Imperial College, "Steeper functions are described as ultrasensitive, and can be applied in synthetic biology by using various techniques including receptor decoys, multiple co-operative binding sites, and sequential positive feedbacks. Here, we explore the inherent non-linearity of a biological signaling system to identify functions that can potentially be exploited using cell genome engineering. For this, we performed genome-wide transcription profiling to identify genes with...
ultrasensitive response functions to Hepatocyte Growth Factor (HGF). We identified 3,527 genes that react to increasing concentrations of HGF, in Madin-Darby canine kidney (MDCK) cells, grown as cysts in 3D collagen cell culture. By fitting a generic Hill function to the dose-responses of these genes we obtained a measure of the ultrasensitivity of HGF-responsive genes, identifying a subset with higher apparent Hill coefficients (e.g. MMP1, TIMP1, SNORD75, SNORD86 and ERRFI1).

According to the news editors, the research concluded: "The regulatory regions of these genes are potential candidates for future engineering of synthetic mammalian gene circuits requiring nonlinear responses to HGF signalling."


The news correspondents report that additional information may be obtained from M. Isalan, Imperial Coll London, Dept. of Life Sci, London SW7 2AZ, United Kingdom. Additional authors for this research include M. Sturrock, G. Piedrafita and M. Isalan.

Keywords for this news article include: London, United Kingdom, Europe, Intercellular Signaling Peptides and Proteins, Hepatocyte Growth Factor, Engineering, Genetics, Imperial College.

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Oncology - Hereditary Cancer Syndrome

**Findings on Hereditary Cancer Syndrome Detailed by Investigators at Genomic Medicine Institute (Strategies for clinical implementation of screening for hereditary cancer syndromes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Hereditary Cancer Syndrome have been published. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "Hereditary cancer syndromes generally account for 5%-10% of malignancies. While these syndromes are rare, affected patients carry significantly elevated risks of developing cancer, as do their at-risk relatives."

The news reporters obtained a quote from the research from Genomic Medicine Institute, "Identification of these patients is critical to ensure timely and appropriate genetic testing relevant to cancer patients and their relatives. Several guidelines and tools are available to assist clinicians. Patients suspected to have hereditary cancer syndromes should be offered genetic testing in the setting of genetic counseling by a qualified genetics professional. Germline testing ranges from testing for a known specific familial mutation to testing of a broad differential diagnosis using a pan-cancer multi-gene panel."

According to the news reporters, the research concluded: "Taking a family history, referring specific types of tumors with higher likelihood of heredity, implementing universal screening protocols such as microsatellite instability/immunohistochemistry (MSI/IHC) for specific tumors, and referring patients with somatic tumor testing that have potentially germline consequences are all important components to the identification of hereditary cancer syndromes.
Drugs and Therapies - Hormone Replacement Therapy

Findings on Hormone Replacement Therapy Reported by Investigators at School of Psychology (Estradiol Is Associated With Altered Cognitive and Physiological Responses During Fear Conditioning and Extinction in Healthy and Spider Phobic Women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Hormone Replacement Therapy have been presented. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "The first-line psychological treatment for anxiety disorders is exposure therapy, which can be modeled in the laboratory using fear extinction. In healthy women, estradiol levels predict return of fear following extinction, whereas low levels are associated with greater return of fear."

The news reporters obtained a quote from the research from the School of Psychology, "Investigating whether estradiol is similarly associated with extinction in clinically anxious women may provide insight to mechanisms underlying symptom relapse following exposure therapy. In the present study, women with spider phobia and healthy women participated in a 2-day fear conditioning and extinction procedure during a period of high or low estradiol levels. Skin conductance responses, shock expectancy, and valence ratings were measured throughout. Women exhibited comparable decreases in physiological arousal from conditioning to the end of extinction training on Day 1. However, compared to women with high estradiol, and irrespective of clinical status, women with low estradiol exhibited significant return of physiological arousal at extinction recall on Day 2, despite accurate ratings regarding the likelihood of shock. Low estradiol women also reported heightened threat expectancy and physiological responding during presentation of safety cues."

According to the news reporters, the research concluded: "These results may point to novel means of enhancing exposure therapy in women by timing treatment delivery during
periods of higher estradiol levels."


Our news correspondents report that additional information may be obtained by contacting B.M. Graham, Univ New South Wales Australia, Sch Psychol, Sydney, NSW 2052, Australia.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Hormone Replacement Therapy, Vaginal Preparations, Drugs and Therapies, Vaginal Agents, Sex Hormones, Estradiol, Estrogens, School of Psychology.

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Genetics - Human Genetics

Findings on Human Genetics Detailed by Investigators at Hanken School of Economics (Twinning Rates in Isolates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Genetics - Human Genetics. According to news reporting from Helsinki, Finland, by NewsRx editors, the research stated, "The aim of this study was to investigate the twinning rates (TWRs) in isolates relative to the TWRs in the surrounding populations. It is not uncommon that the TWR shows extreme values (high or low rates) within isolated subpopulations."

The news correspondents obtained a quote from the research from the Hanken School of Economics, "Starting from the isolated populations of the Aland Islands in Finland (high rates), we enlarged our studies to other isolated subpopulations in other countries: the island of Gotland (high rates), the county of Alvsborg located in the southwestern part of Sweden (low rates), and mountain villages in Norway. In our statistical analyses, we paid special attention to the robustness of the variance formula of the TWR and to alternative confidence intervals for the TWR. Particularly, we show how to obtain the most precise confidence intervals for the twinning rates. These statistical methods are crucial when the extreme TWRs within subpopulations are compared with the TWRs within the general population."

According to the news reporters, the research concluded: "One must decide whether the differences are real or caused by random fluctuations within the small isolates."

For more information on this research see: Twinning Rates in Isolates. Twin Research and Human Genetics, 2016;19(6):673-678. Twin Research and Human Genetics can be contacted at: Cambridge Univ Press, 32 Avenue Of The Americas, New York, NY 10013-2473, USA. (Cambridge University Press - www.cambridge.org; Twin Research and Human Genetics - journals.cambridge.org/action/displayJournal?jid=THG)

Our news journalists report that additional information may be obtained by contacting J. Fellman, Hanken Sch Econ, FI-00101 Helsinki, Finland.

The direct object identifier (DOI) for that additional information is:
Findings on Hypercholesterolemia from R. Mehta and Colleagues Provide New Insights (The panorama of familial hypercholesterolemia in Latin America: a systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Hypercholesterolemia. According to news reporting originating from Mexico City, Mexico, by NewsRx correspondents, research stated, "The burden caused by familial hypercholesterolemia (FH) varies among countries and ethnic groups. The prevalence and characteristics of FH in Latin American (LA) countries is largely unknown."

Our news editors obtained a quote from the research, "We present a systematic review (following the PRISMA statement) of FH in LA countries. The epidemiology, genetics, screening, management, and unique challenges encountered in these countries are discussed. Published reports discussing FH in Hispanic or LA groups was considered for analysis. Thirty studies were included representing 10 countries. The bulk of the data was generated in Brazil and Mexico. Few countries have registries and there was little commonality in FH mutations between LA countries. LDL receptor mutations predominate; APOB and PCSK9 mutations are rare. No mutation was found in an FH gene in nearly 50% of cases. In addition, some country-specific mutations have been reported. Scant information exists regarding models of care, cascade screening, cost, treatment effectiveness, morbidity, and mortality."

According to the news editors, the research concluded: "FH is largely underdiagnosed and undertreated in the LA region. The genetic admixture with indigenous populations, producing mestizo's groups, may influence the mutational findings in Latin America. Potential opportunities to close gaps in knowledge and health care are identified."


The news editors report that additional information may be obtained by contacting C.A. Aguilar-Salinas, Inst Nacl Ciencias Med Nutr Salvador Zubiran, Dept. of Endocrinol Metab, Mexico City, DF, Mexico. Additional authors for this research include R. Zubiran, A.J. Martagon, A. Vazquez-Cardenas, Y. Segura-Kato, M.T. Tusie-Luna and C.A. Aguilar-Salinas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1194/jlr.R072231. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mexico City, Mexico, North and Central
Cardiovascular Diseases and Conditions...

Findings on Hypertension Detailed by Investigators at George Mason University (Improving Prognostic Web Calculators: Violation of Preferential Risk Independence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news reporting from Fairfax, Virginia, by NewsRx journalists, research stated, "Web-based applications are available for prognostication of individual patients. These prognostic models were developed for groups of patients."

The news correspondents obtained a quote from the research from George Mason University, "No one is the average patient, and using these calculators to inform individual patients could provide misleading results. This article gives an example of paradoxical results that may emerge when indices used for prognosis of the average person are used for care of an individual patient. We calculated the expected mortality risks of stomach cancer and its associated comorbidities. Mortality risks were calculated using data from 140,699 Veterans Administration nursing home residents. On average, a patient with hypertension has a higher risk of mortality than one without hypertension. Surprisingly, among patients with lung cancer, hypertension is protective and reduces risk of mortality. This paradoxical result is explained by how group-level, average prognosis could mislead individual patients. In particular, average prognosis of lung cancer patients reflects the impact of various comorbidities that co-occur in lung cancer patients. The presence of hypertension, a relatively mild comorbidity of lung cancer, indicates that more serious comorbidities have not occurred. It is not that hypertension is protective; it is the absence of more serious comorbidities that is protective. The article shows how the presence of these anomalies can be checked through the mathematical concept of preferential risk independence."

According to the news reporters, the research concluded: "Instead of reporting average risk scores, web-based calculators may improve accuracy of predictions by reporting the unconfounded risks."


Our news journalists report that additional information may be obtained by contacting F. Alemi, George Mason University, Dept. of Hlth Adm & Policy, Fairfax, VA 22030, United States. Additional authors for this research include C. Levy, B.A. Citron, A.R. Williams, E. Pracht and A. Williams.

The direct object identifier (DOI) for that additional information is:
Findings on Hypertension Discussed by Investigators at Catholic University of Leuven (BMPRII influences the response of pulmonary microvascular endothelial cells to inflammatory mediators)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Hypertension have been presented. According to news reporting from Leuven, Belgium, by NewsRx journalists, research stated, "Mutations in the bone morphogenetic protein receptor (BMPR2) gene have been observed in 70% of patients with heritable pulmonary arterial hypertension (HPAH) and in 11-40% with idiopathic PAH (IPAH). However, carriers of a BMPR2 mutation have only 20% risk of developing PAH."

The news correspondents obtained a quote from the research from the Catholic University of Leuven, "Since inflammatory mediators are increased and predict survival in PAH, they could act as a second hit inducing the development of pulmonary hypertension in BMPR2 mutation carriers. Our specific aim was to determine whether inflammatory mediators could contribute to pulmonary vascular cell dysfunction in PAH patients with and without a BMPR2 mutation. Pulmonary microvascular endothelial cells (PMEC) and arterial smooth muscle cells (PASMC) were isolated from lung parenchyma of transplanted PAH patients, carriers of a BMPR2 mutation or not, and from lobectomy patients or lung donors. The effects of CRP and TNF alpha on mitogenic activity, adhesiveness capacity, and expression of adhesion molecules were investigated in PMECs and PASMCs. PMECs from BMPR2 mutation carriers induced an increase in PASMC mitogenic activity; moreover, endothelin-1 secretion by PMECs from carriers was higher than by PMECs from non-carriers. Recruitment of monocytes by PMECs isolated from carriers was higher compared to PMECs from non-carriers and from controls, with an elevated ICAM-1 expression. CRP increased adhesion of monocytes to PMECs in carriers and non-carriers, and TNF alpha only in carriers."

According to the news reporters, the research concluded: "PMEC from BMPR2 mutation carriers have enhanced adhesiveness for monocytes in response to inflammatory mediators, suggesting that BMPR2 mutation could generate susceptibility to an inflammatory insult in PAH."


Our news journalists report that additional information may be obtained by contacting R. Quarck, Univ Leuven, Dept. of Clin & Expt Med, Leuven, Belgium. Additional
Cardiovascular Diseases and Conditions -…

Findings on Hypertension Reported by Investigators at Johns Hopkins University (Microbial short chain fatty acid metabolites lower blood pressure via endothelial G protein-coupled receptor 41)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Hypertension is now available. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Short chain fatty acid (SCFA) metabolites are byproducts of gut microbial metabolism that are known to affect host physiology via host G protein-coupled receptor (GPCRs). We previously showed that an acute SCFA bolus decreases blood pressure (BP) in anesthetized mice, an effect mediated primarily via Gpr41."

Funders for this research include American Heart Association (AHA), Japan Heart foundation, HHS | National Institutes of Health (NIH), Hopkins Conte Digestive Diseases Basic and Traslational Research Core Center.

The news reporters obtained a quote from the research from Johns Hopkins University, "In this study, our aims were to identify the cellular localization of Gpr41 and to determine its role in BP regulation. We localized Gpr41 to the vascular endothelium using RT-PCR: Gpr41 is detected in intact vessels (with endothelium) but is absent from denuded vessels (without endothelium). Furthermore, using pressure myography we confirmed that SCFAs dilate resistance vessels in an endothelium-dependent manner. Since we previously found that Gpr41 mediates a hypotensive response to acute SCFA administration, we hypothesized that Gpr41 knockout (KO) mice would be hypertensive. Here, we report that Gpr41 KO mice have isolated systolic hypertension compared with wild-type (WT) mice; diastolic BP was not different between WT and KO. Older Gpr41 KO mice also exhibited elevated pulse wave velocity, consistent with a phenotype of systolic hypertension; however, there was no increase in ex vivo aorta stiffness (measured by mechanical tensile testing). Plasma renin concentrations were also similar in KO and WT mice. The systolic hypertension in Gpr41 KO is not salt sensitive, as it is not significantly altered on either a high-or low-salt diet."

According to the news reporters, the research concluded: "In sum, these studies suggest that endothelial Gpr41 lowers baseline BP, likely by decreasing active vascular tone without altering passive characteristics of the blood vessels, and that Gpr41 KO mice have hypertension of a vascular origin."
For more information on this research see: Microbial short chain fatty acid metabolites lower blood pressure via endothelial G protein-coupled receptor 41. *Physiological Genomics*, 2016;48(11):826-834. *Physiological Genomics* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news correspondents report that additional information may be obtained by contacting J.L. Pluznick, Johns Hopkins University, Sch Med, Dept. of Physiol, Baltimore, MD 21205, United States. Additional authors for this research include D. Hori, S. Flavahan, J. Steppan, N.A. Flavahan, D.E. Berkowitz and J.L. Pluznick.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/physiolgenomics.00089.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiovascular Diseases and Conditions, G-Protein-Coupled Receptors, Cell Surface Receptors, Systolic Hypertension, Membrane Proteins, Blood Pressure, Endothelium, Angiology, Johns Hopkins University.

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**Cardiovascular Diseases and Conditions**

**Findings on Hypertension Reported by Investigators at University of Catania (Blood Pressure Control in Smokers with Arterial Hypertension Who Switched to Electronic Cigarettes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Hypertension are presented in a new report. According to news reporting originating in Catania, Italy, by NewsRx journalists, research stated, "Electronic cigarettes (ECs) are battery-operated devices designed to vaporise nicotine, which may help smokers with quitting or reducing their tobacco consumption. No data is available regarding the health effects of ECs use among smokers with arterial hypertension and whether regular use results in blood pressure (BP) changes."

The news reporters obtained a quote from the research from the University of Catania, "We investigated long-term changes in resting BP and level of BP control in hypertensive smokers who quit or reduced substantially their tobacco consumption by switching to ECs. A medical records review of patients with hypertension was conducted to identify patients reporting regular daily use of ECs on at least two consecutive follow-up visits. Regularly smoking hypertensive patients were included as a reference group. A marked reduction in cigarette consumption was observed in ECs users (n = 43) though consumption remained unchanged in the control group (n = 46). Compared to baseline, at 12 months (follow-up visit 2) decline in cigarette consumption was associated with significant reductions in median (25th-, 75th-centile) systolic BP (140 (134.5, 144) to 130 (123.5, 138.5) mmHg; p< 0.001) and diastolic BP (86 (78, 90) to 80 (74.5, 90) mmHg; p = 0.006). No significant changes were observed in the control group. As expected, decline in cigarette consumption in the ECs users was also associated with improved BP control. The study concludes that regular ECs use may aid smokers with arterial hypertension reduce or abstain from cigarette smoking, with only trivial post-cessation weight gain."

According to the news reporters, the research concluded: "This resulted in
improvements in systolic and diastolic BP as well as better BP control."


Our news correspondents report that additional information may be obtained by contacting R. Polosa, University of Catania, Policlinico V Emanuele, Internal & Emergency Med, I-95123 Catania, Italy. Additional authors for this research include J.B. Morjaria, P. Caponnetto, E. Battaglia, C. Russo, C. Ciampi, G. Adams and C.M. Bruno.

Keywords for this news article include: Catania, Italy, Europe, Cardiovascular Diseases and Conditions, Blood Pressure, Hypertension, Smoking, University of Catania.

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**Drugs and Therapies - Ibuprofen Therapy**

**Findings on Ibuprofen Therapy Discussed by Investigators at Silesian Technical University (Influence of Inorganic Ions and Organic Substances on the Degradation of Pharmaceutical Compound in Water Matrix)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Ibuprofen Therapy is now available. According to news reporting from Gliwice, Poland, by NewsRx journalists, research stated, "The paper determined the influence of inorganic substances and high-molecular organic compounds on the decomposition of diclofenac, ibuprofen, and carbamazepine in the process of photocatalysis conducted with the presence of Titanium dioxide (TiO2). It was determined that the presence of such ions as CO32-, HCO3-, HPO42- as well as SO42- inhibited the decomposition of carbamazepine, whereas the efficiency of diclofenac degradation was decreased only by the presence of CO32- and HCO3- anions."

The news correspondents obtained a quote from the research from Silesian Technical University, "In case of ibuprofen sodium salt (IBU), all investigated anions influenced the increase in its decomposition rate. The process of pharmaceutical photooxidation conducted in suspensions with Al3+ and Fe3+ cations was characterized by a significantly decreased efficiency when compared to the solution deprived of inorganic compounds. The addition of Ca2+, Mg2+ and NH4 + affected the increase of reaction rate constant value of diclofenac and ibuprofen decomposition. On the other hand, high molecular organic compounds present in the model effluent additionally catalysed the degradation process of pharmaceutical compounds and constituted an additional sorbent that enabled to decrease their concentration."

According to the news reporters, the research concluded: "Toxicological analysis conducted in deionized water with pharmaceutical compounds' patterns proved the production of by-products from oxidation and/or reduction of micropollutants, which was not observed for model effluent irradiation."

For more information on this research see: Influence of Inorganic Ions and Organic Substances on the Degradation of Pharmaceutical Compound in Water Matrix. *Water*, 2016;8 (11):934-951. *Water* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel,
Our news journalists report that additional information may be obtained by contacting E. Kudlek, Silesian Technical University, Fac Energy & Environm Engn, PL-44100 Gliwice, Poland. Additional authors for this research include M. Dudziak and J. Bohdziewicz.

Keywords for this news article include: Gliwice, Poland, Europe, Ophthalmic Antiinflammatory Agents, Cyclooxygenase Inhibitors, Ophthalmic Preparations, Drugs and Therapies, Diclofenac Therapy, Ibuprofen Therapy, Pharmaceuticals, NSAID, Silesian Technical University.

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Proteins - Immediate-Early Proteins

Findings on Immediate-Early Proteins Detailed by Investigators at State Oceanic Administration (Shrimp STAT was hijacked by white spot syndrome virus immediate-early protein IE1 involved in modulation of viral genes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Proteins - Immediate-Early Proteins. According to news reporting originating from Xiamen, People's Republic of China, by NewsRx correspondents, research stated, "STATs are a family of transcription factors that regulate a cascade of cellular processes including cell growth, differentiation, apoptosis and immune responses. However, they are usually targeted by viruses to assist infection."

Funders for this research include Major State Basic Research Development Program of China, China Agriculture Research System-47, National Natural Science Foundation of China, Scientific Research Foundation of Third Institute of Oceanography, Fujian Science and Technology Project.

Our news editors obtained a quote from the research from State Oceanic Administration, "In this study, we identified that white spot syndrome virus (WSSV) immediate-early protein IE1 interacted with Litopenaeus vannamei STAT (LvSTAT) and thereby led to its phosphorylation activation. In addition, we demonstrated that LvSTAT could bind to the promoters of the viral immediate early genes wsv051 and iel through STAT-binding motifs in vitro and vivo, allowing the enhancement of their promoters' activities. Moreover, IE1 could promote the transcriptional activation activity of LvSTAT to augment the transcription of wsv051 and iel."

According to the news editors, the research concluded: "Our findings revealed a novel linkage between WSSV IE1 and shrimp STAT, which was a clue to well understand how WSSV adopted the active strategies to modulate the shrimp signaling pathway."

For more information on this research see: Shrimp STAT was hijacked by white spot syndrome virus immediate-early protein IE1 involved in modulation of viral genes. *Fish & Shellfish Immunology*, 2016;59():268-275. *Fish & Shellfish Immunology* can be contacted at: Academic Press Ltd- Elsevier Science Ltd, 24-28 Oval Rd, London NW1 7DX, England. (Elsevier - www.elsevier.com; Fish & Shellfish Immunology - www.journals.elsevier.com/fish-and-shellfish-immunology/)

The news editors report that additional information may be obtained by contacting
Immunology - Immunoglobulins

Findings on Immunoglobulins Discussed by Investigators at Genentech, Inc. (Peripheral neuropathy with microtubule inhibitor containing antibody drug conjugates: Challenges and perspectives in translatability from nonclinical toxicology studies ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Immunoglobulins have been published. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "Antibody drug conjugates (ADC) consist of potent cytotoxic drugs conjugated to antibodies via chemical linkers, which enables specific targeting of tumor cells while reducing systemic exposure to the cytotoxic drug and improving the therapeutic window. The valine citrulline monomethyl auristatin E (vcMMAE, conventional linker-drug) ADC platform has shown promising clinical activity in several cancers, but peripheral neuropathy (PN) is a frequent adverse event leading to treatment discontinuation and dose reduction."

Financial support for this research came from Genentech.

Our news editors obtained a quote from the research from Genentech, Inc., "This was not predicted based on nonclinical toxicology studies in monkeys or rats treated with vcMMAE ADCs. We evaluated four hypotheses for the lack of translatability of PN with vcMMAE ADCs: 1) species differences in exposure; 2) insensitivity of animal models; 3) species differences in target biology and other vcMMAE ADC properties in peripheral nerves and 4) increased susceptibility of patient population. The result of this hypothesis-based approach identified opportunities to improve the predictivity of PN in our animal models by increasing duration of exposure and adding an expanded neurohistopathology assessment of peripheral nerves."

According to the news editors, the research concluded: "The utility of a predictive animal model would be to provide possible mitigation strategies in the clinic with vcMMAE ADCs and help to screen the next generation microtubule inhibitor (MTI) ADCs for reduced PN."

For more information on this research see: Peripheral neuropathy with microtubule inhibitor containing antibody drug conjugates: Challenges and perspectives in translatability from nonclinical toxicology studies to the clinic. Regulatory Toxicology and Pharmacology, 2016;82(1-13. Regulatory Toxicology and Pharmacology can be contacted at: Academic
Membrane Proteins - Immunologic Receptors

Findings on Immunologic Receptors Detailed by Investigators at China Pharmaceutical University (Structural and functional aspects of decorsin and its analog as recognized by integrin alpha IIb beta 3)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Membrane Proteins - Immunologic Receptors is now available. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Decorsin is an antagonist of platelet glycoprotein integrin alpha IIb beta 3 on platelets; the protein is 39 amino acids long with three disulfide bridges in its tertiary structure. To demonstrate decorsin's mechanism of action, we applied the computational virtual technique and platelet aggregation inhibition assay, which showed that the flanking amino-acid residues of the Arg-Gly-Asp (RGD) motif play an important role in platelet aggregation."

Our news journalists obtained a quote from the research from China Pharmaceutical University, "The computational simulations revealed that the RGD motif mainly contributes to the stability of the complex when decorsin interacts with integrin alpha IIb beta 3. However, the C-terminal residues, such as 34A -> W and 35D -> R, was also found to possibly play a key role in their binding structures. Moreover, we produced a decorsin analog (A34W plus D35R decorsin), in which the 34A (alanine) and 35D (aspartic acid) residues were respectively substituted by W (tryptophan) and R (arginine). This isoform was then recombinantly expressed in Escherichia coli. Intriguingly, this mutant type showed higher anti-platelet aggregation activity than the wildtype."

According to the news editors, the research concluded: "Our study may further contribute to finding decorsin mutants with higher anti-platelet aggregation activity."

For more information on this research see: Structural and functional aspects of decorsin and its analog as recognized by integrin alpha IIb beta 3. Journal of Molecular Modeling, 2016;22(11):280-289. Journal of Molecular Modeling can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of
Inflammation

Findings on Inflammation Detailed by J.M. De Cock and Co-Authors (Inflammation Triggers Zeb1-Dependent Escape from Tumor Latency)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Inflammation have been presented. According to news reporting from Cambridge, Massachusetts, by NewsRx journalists, research stated, "The emergence of metastatic disease in cancer patients many years or decades after initial successful treatment of primary tumors is well documented but poorly understood at the molecular level. Recent studies have begun exploring the cell-intrinsic programs, causing disseminated tumor cells to enter latency and the cellular signals in the surrounding non-permissive tissue microenvironment that maintain the latent state."

The news correspondents obtained a quote from the research, "However, relatively little is known about the mechanisms that enable disseminated tumor cells to escape cancer dormancy or tumor latency. We describe here an in vivo model of solitary metastatic latency in the lung parenchyma. The induction of a localized inflammation in the lungs, initiated by lipopolysaccharide treatment, triggers the awakening of these cells, which develop into macroscopic metastases. The escape from latency is dependent on the expression of Zeb1, a key regulator of the epithelial-to-mesenchymal transition (EMT)."

According to the news reporters, the research concluded: "Furthermore, activation of the EMT program on its own, as orchestrated by Zeb1, is sufficient to incite metastatic outgrowth by causing carcinoma cells to enter stably into a metastasis-initiating cell state."

For more information on this research see: Inflammation Triggers Zeb1-Dependent Escape from Tumor Latency. Cancer Research, 2016;76(23):6778-6784. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting R.A. Weinberg, MIT Ludwig Center Mol Oncol, Cambridge, MA, United States. Additional authors for this research include T. Shibue, A. Dongre, Z. Keckesova, F. Reinhardt and R.A. Weinberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/0008-5472.CAN-16-0608. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States,
Findings on Inflammatory Bowel Disease Discussed by Investigators at Shanghai Jiao-Tong University (Exosome in intestinal mucosal immunity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Inflammatory Bowel Disease. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Intercellular communication of immune cells is critical to elicit efficient inflammatory responses. In intestinal mucosa, imbalance in pro-inflammatory and anti-inflammatory mediators, especially cytokines and chemokines, characterizes the underlying immune mechanisms of inflammatory bowel disease."

The news reporters obtained a quote from the research from Shanghai Jiao-Tong University, "Exosomes, small membrane vesicles secreted into the extracellular environment, are emerging as another important intercellular messenger in immune responses. A major recent breakthrough in this field unveils the capacity of exosomes to mediate the functional transfer of genetic materials (mRNAs and miRNAs) between immune cells. RAB27A and RAB27B are two small GTPases involved in exosome secretion. With respect to intestinal mucosal immunity, increased number of RAB27A-positive immune cells and RAB27B-positive immune cells are demonstrated in the colonic mucosa of patients with active ulcerative colitis as compared with that of healthy controls. This indicates the important role of exosome-mediated immune responses in the pathogenesis of inflammatory bowel disease."

According to the news reporters, the research concluded: "Here, we will discuss the immune properties of exosomes and recent advances in their function with a special focus on intestinal mucosal immunity."


Our news correspondents report that additional information may be obtained by contacting Z.H. Ran, Shanghai Jiao Tong University, Key Lab Gastroenterol & Hepatol, Shanghai Inst Digest DisDiv Gastroenterol & Hepa, Minist HlthRen Ji HospSch MedShanghai IBD Res, Shanghai, People's Republic of China. Additional authors for this research include J.T. Lu, Z.H. Ran and Q. Zheng.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Bowel Diseases and Conditions, Inflammatory Bowel Disease, Exosomes, Article Review, Cytoplasmic Structures, Transport Vesicles, Gastroenteritis, Organelles, Genetics, Shanghai Jiao-Tong University.
Findings on Intermediate Uveitis Detailed by Investigators at Duke University (Injectable Fluocinolone Acetonide Long-Acting Implant for Noninfectious Intermediate Uveitis, Posterior Uveitis, and Panuveitis Two-Year Results)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Eye Diseases and Conditions - Intermediate Uveitis have been published. According to news reporting originating from Durham, North Carolina, by NewsRx correspondents, research stated, "To determine the effect of an injectable fluocinolone acetonide implant (FAi) in eyes with noninfectious intermediate uveitis, posterior uveitis, or panuveitis. Noncomparative, interventional, dose-randomized, dose-masked, prospective, individual, investigator-sponsored investigational new drug study."

Our news editors obtained a quote from the research from Duke University, "Eleven eyes of 11 participants with a history of recurrent noninfectious intermediate uveitis, posterior, or panuveitis. Participants were randomized to receive either a low-or a high-dose FAi. Eyes were observed on day 0 (day the implant was injected) and then at regular intervals through 2 years. Ocular inflammation, visual acuity, anti-inflammatory medication use, and safety parameters before and after FAi implantation. All participants were followed up for 2 years. At baseline, mean study eye visual acuity was 0.56 logarithm of the minimum angle of resolution (logMAR; standard deviation [SD], 0.43 logMAR). These values improved significantly to +0.25 logMAR (SD, 0.14 logMAR) and +0.17 logMAR (SD, 0.14 logMAR) at 12 and 24 months after implantation, respectively (P = 0.041 and P = 0.016, respectively). The average number of inflammation recurrences in the 12 months before implantation was 1.54 episodes per eye. None of the study eyes experienced a recurrence during the follow-up period. Of the 6 participants who continued receiving systemic medication after implantation, the dosage was reduced in 4 participants. Five of 11 eyes received an average of 1.6 posterior sub-Tenon triamcinolone acetonide (PSTA) injections in the 12 months preceding implantation. None required a PSTA injection after FAi implantation. The most common adverse event was intraocular pressure (IOP) rise. At baseline, 1 study eye (9%) required pressure-lowering drops; 2 additional study eyes (18%) required them during the follow-up period. Filtering procedures were performed in 2 of these eyes (18.1%). No FAi explantations were required, nor were any participants lost to follow-up during the investigation. It is feasible to place a long-acting FAi in an outpatient setting, without prolonged adverse events attributed to the implant injection procedure. The FAi effectively controlled intraocular inflammation in all eyes in the study, and at the last follow-up, all implanted eyes demonstrated an improvement in visual acuity. Elevated IOP that occurred in 18% of FAi-implanted eyes was managed by standard means."

According to the news editors, the research concluded: "The FAi implant is a promising approach for patients with noninfectious intermediate uveitis, posterior uveitis, or panuveitis who do not respond to, or are intolerant to, conventional therapy."

Findings on Investigative Medicine Detailed by Investigators at Turgut Ozal University (Suppression of bromodomain-containing protein 4 by shRNA: A new approach for cancer treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Health and Medicine - Investigative Medicine have been presented. According to news reporting originating in Ankara, Turkey, by NewsRx journalists, research stated, "MYC is a transcription factor coding gene that is believed to control 15% of the genes in the entire human genome. The central role of c-MYC in cancer pathogenesis makes it a major therapeutic target in field of anticancer agent development."

The news reporters obtained a quote from the research from Turgut Ozal University, "We targeted the acetyl-lysine binding modules or bromodomains, which are associated with c-MYC transcriptional activation. Sequence specific inhibition of BET bromodomains with small hairpin RNAs (shRNAs) resulted in cessation of cellular proliferation in different cancer cell lines. Unlike previous studies on inhibition of bromodomains with selective small-molecule inhibitors, our study revealed the significant role of BET bromodomains in solid tumours and also highlighted the ease of RNA interference (RNAi) methodology for inhibition of bromodomain translation."

According to the news reporters, the research concluded: "The degree of influence of BET bromodomain inhibition on proliferation in five cancer cell lines established it as the major target in malignancies characterized by activation of c-MYC."


Our news correspondents report that additional information may be obtained by contacting T. Kaya, Turgut Ozal Univ, Fac Med, Ankara, Turkey. Additional authors for this research include B. Kahraman, N. Bazarov, A.S. Toker, A. Celik, S. Cigdem and E. Gunduz. Keywords for this news article include: Ankara, Turkey, Eurasia, Investigative Medicine, Health and Medicine, Oncology, Genetics, Cancer, Turgut Ozal University.

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Findings on Kidney Transplants Reported by Investigators at University of Birmingham (Clinical outcomes with ABO antibody titer variability in a multicenter study of ABO-incompatible kidney transplantation in the United Kingdom)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Kidney Transplants is now available. According to news reporting out of Birmingham, United Kingdom, by NewsRx editors, research stated, "ABO blood group-incompatible kidney transplantation (ABOiKTx) outcomes are good, but complications are more common than in conventional transplantation. Regimens that use extracorporeal antibody removal therapy (EART) and enhanced immunosuppression are guided by titration of ABO blood group antibodies (using hemagglutination [HA] dilution assays), and these assays vary significantly in performance between centers."

Our news journalists obtained a quote from the research from the University of Birmingham, "This study aims to describe the differences in titer measurement and the effect on clinical practice and outcomes. This multicentre, prospective cohort study of 100 ABOiKTx recipients assessed treatment and outcome data, including HA assay results measured retrospectively in a single central laboratory. Patient and allograft survival at 1 year was 99% and 94%, respectively. There were significant differences in the number of pretransplantation EART sessions in centers undertaking plasma exchange (PEx), compared with immunoadsorption (IA) (median, 6 vs. 4 sessions; p = 0.007). The pre-EART HA titer in both groups was the same when centrally assayed. The local HA assay used to guide treatment yielded significantly higher titers in centers undertaking PEx compared with IA (median, 128 vs. 32; p < 0.005). Patients undergoing PEx rather than IA were significantly more likely to suffer postoperative hematoma (12.9% vs. 1.8%; p = 0.05) or any perioperative collection requiring drainage (19.4% vs. 3.6%; p = 0.02). The colinearity of HA assay sensitivity with the receipt of PEx and EART limits some conclusions regarding the likely direction of causation."

According to the news editors, the research concluded: "However, the association of differences in clinical practice with recognized perioperative complications of ABOiKTx identifies targets for further investigation and quality improvement."


Our news journalists report that additional information may be obtained by contacting S. Ball, University of Birmingham, Sch Immum & Infect, Birmingham, W Midlands, United Kingdom. Additional authors for this research include A.N.R. Barnett, M. Braitch, N. Kessaris, W. McKane, C. Newstead, G. McHaffie, A. Brown, S. Griffin, N. Mamode, D. Briggs and S. Ball.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Transplant Medicine, Kidney Transplants, Organ Transplants, Immunoglobulins,
Findings on Leg Ulcers Discussed by Investigators at Federal University (Autologous stem cell-based therapy for sickle cell leg ulcer: a pilot study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Skin Diseases and Conditions - Leg Ulcers. According to news reporting out of Salvador, Brazil, by NewsRx editors, research stated, "Recurrent chronic leg ulcers are among the most severe vasculopathic complications of sickle cell disease (SCD). Their treatment remains a challenge."

Funders for this research include Ministerio da Saude, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico, Fundacao de Amparo a Pesquisa do Estado da Bahia.

Our news journalists obtained a quote from the research from Federal University, "Stem cell therapy with bone marrow mononuclear cells (BMMC) is a promising new therapeutic option for other forms of chronic ulcers. This prospective pilot study was performed to evaluate safety and feasibility of BMMC implantation in patients with SCD and chronic leg ulcers (SCLU). Ulcer closure, recurrence and local pain were evaluated. BMMC were successfully administered to 23 SCLU patients and no serious adverse events occurred. During the 6-month follow-up period, 91 <bold>3% </bold> of patients had improved ulcer pain compared with baseline and 29 <bold>2% </bold> of the treated ulcers achieved total healing. The frequency of progenitor stem cells (CD34CD45(low) and fibroblast colony-forming units) in BMMC was found to be significantly reduced in SCLU patients and compared to SCD patients without ulcers (P <0 004 and P<0 01, respectively). No relationship was observed between treatment outcome and the number of implanted BM progenitor stem cells."

According to the news editors, the research concluded: "BMMC implantation is a feasible and safe procedure, showing favourable outcomes for the treatment of SCLU, and encouraging further controlled clinical trials."


Our news journalists report that additional information may be obtained by contacting V. Fortuna, Federal University of Bahia, Hlth Sci Inst, BR-40110100 Salvador, BA, Brazil. Additional authors for this research include V. Fortuna, E.S. de Souza, G.C. Daltro, R. Meyer, C.P. Minniti and R. Boroevic.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjh.14326. This DOI is a link to an online electronic document that is either free or for purchase.
Findings on Leishmaniasis Reported by Investigators at Bernhard-Nocht-Institute for Tropical Medicine (A Telomeric Cluster of Antimony Resistance Genes on Chromosome 34 of Leishmania infantum)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Parasitic Diseases and Conditions - Leishmaniasis have been presented. According to news reporting originating from Hamburg, Germany, by NewsRx correspondents, research stated, "The mechanisms underlying the drug resistance of Leishmania spp. are manifold and not completely identified. Apart from the highly conserved multidrug resistance gene family known from higher eukaryotes, Leishmania spp. also possess genus-specific resistance marker genes."

Financial support for this research came from European Union 7th Framework Programme.

Our news editors obtained a quote from the research from Bernhard-Nocht-Institute for Tropical Medicine, "One of them, ARM58, was first identified in Leishmania braziliensis using a functional cloning approach, and its domain structure was characterized in L. infantum. Here we report that L. infantum ARM58 is part of a gene cluster at the telomeric end of chromosome 34 also comprising the neighboring genes ARM56 and HSP23. We show that overexpression of all three genes can confer antimony resistance to intracellular amastigotes. Upon overexpression in L. donovani, ARM58 and ARM56 are secreted via exosomes, suggesting a scavenger/secretion mechanism of action. Using a combination of functional cloning and next-generation sequencing, we found that the gene cluster was selected only under antimony tartrate challenge and weakly under Cu2+ challenge but not under sodium arsenite, Cd2+, or miltefosine challenge. The selective advantage is less pronounced in intracellular amastigotes treated with the sodium stibogluconate, possibly due to the known macrophage-stimulatory activity of this drug, against which these resistance markers may not be active."

According to the news editors, the research concluded: "Our data point to the specificity of these three genes for antimony resistance."

For more information on this research see: A Telomeric Cluster of Antimony Resistance Genes on Chromosome 34 of Leishmania infantum. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5262-5275. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting J. Clos, Bernhard Nocht Inst Trop Med, Hamburg, Germany. Additional authors for this research include E. Bifeld, K. Hohn and J. Clos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00544-16. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Hamburg, Germany, Europe, Parasitic Diseases and Conditions, Protozoan Parasites, Cloning, Genetics, Human Parasites, Leishmaniasis, Bernhard-Nocht-Institute for Tropical Medicine.

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**Leukocyte Diseases and Conditions - Leukocytosis**

**Findings on Leukocytosis Reported by Investigators at Brown University (Leukocytosis and Leukemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Leukocyte Diseases and Conditions - Leukocytosis have been presented. According to news originating from Providence, Rhode Island, by NewsRx correspondents, research stated, "Leukocytosis is among the most common findings on peripheral blood smear."

Our news journalists obtained a quote from the research from Brown University, "A wide range of causes may mediate this finding, and careful clinical and laboratory evaluation assist in differentiating between benign and malignant causes of increased white blood cell counts. In this article, various nonmalignant causes are explored, including infectious, inflammatory, autoimmune, and allergic."

According to the news editors, the research concluded: "In addition, malignant causes of leukocytosis are discussed, including myeloproliferative disorders, acute leukemia, and chronic leukemia, as well as treatment and monitoring for patients with these diseases."


The news correspondents report that additional information may be obtained from E.S. Winer, Brown University, Rhode Island Hospital, Div Hematol Oncol, Providence, RI 02903, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pop.2016.07.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Providence, Rhode Island, United States, North and Central America, Hematologic Diseases and Conditions, Leukocyte Diseases and Conditions, Leukocyte Disorders, Leukocytosis, Hematology, Leukemia, Oncology, Brown University.

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Findings on Leukotriene Modifiers Reported by Investigators at Consejo Nacl Invest Cient and Tecn (Development of an enantioselective capillary electrophoretic method for the simultaneous determination of montelukast enantiomeric and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Leukotriene Modifiers. According to news reporting originating from Buenos Aires, Argentina, by NewsRx correspondents, research stated, "A stereoselective CD-MEKC system has been developed for the quality control of Montelukast (MK), commercialized as a pure enantiomer. The proposed method is the first one that allows the simultaneous determination of MK, its enantiomeric form, diastereoisomers and its main degradation compound (MK sulphoxide)."

Our news editors obtained a quote from the research from Consejo Nacl Invest Cient and Tecn, "CD-MEKC system is composed of 10 mM SDS, 10 mM sulfobutylether-beta-CD, 10 mM TM-beta-CD, and 20 mM borate buffer at pH 9.0. Combination of these two CDs allows high baseline enantioresolution between MK and its enantiomeric impurity, but also, between the diastereoisomeric forms. Moreover, a multivariate design was applied to optimize operational parameters. The method was designed to meet with requirements of the official pharmacopoeias and fully validated according to international guidelines. Linearity of MK was demonstrated in the range from 10.0 to 100.0 μg/mL (r^2 = 0.9908) with a LOD and LOQ of 0.30 and 0.90 μg/mL, respectively. Intra and interday precision were evaluated and RSD values were below 2%, and also, accuracy expressed as percentage of recovery was in a range from 99.0 to 101.9 for the three assayed levels. The method allows determining 0.02% w/w of the enantiomeric and diastereoisomeric impurities, and 0.01% w/w of MK sulphoxide. Robustness was evaluated by a Plackett and Burman design."

According to the news editors, the research concluded: "Finally, the CD-MEKC system was successfully applied to the determination of related substances in MK bulk drug and its quantification in two pediatric pharmaceutical dosage forms."


The news editors report that additional information may be obtained by contacting S. Lucangioli, Consejo Nacl Invest Cient & Tecn, Buenos Aires, DF, Argentina. Additional authors for this research include M.H. Juan, V. Tripodi and S. Lucangioli.

Keywords for this news article include: Buenos Aires, Argentina, South America, Antiarrhythmic Agents, Leukotriene Modifiers, Drugs and Therapies, Montelukast Therapy, Respiratory Agents, Consejo Nacl Invest Cient and Tecn.

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Findings on Liposomes Detailed by Investigators at Rush University
(Postoperative Pain Management After Primary Total Knee Arthroplasty: The Value of Liposomal Bupivacaine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology - Liposomes. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "Multimodal pain protocols have been proposed to achieve improved long-acting postoperative analgesia. Controlling postoperative pain after joint arthroplasty is especially important as it relates to patient satisfaction and outcomes."

Our news journalists obtained a quote from the research from Rush University, "The purpose of this study was to compare the postoperative pain, time to ambulation, and overall narcotic usage between patients who received either a femoral nerve block with a periarticular bupivacaine injection or a periarticular bupivacaine and extended-release liposomal bupivacaine injection after primary total knee arthroplasty. A total of 597 consecutive primary total knee arthroplasties performed between September 1, 2012 and August 31, 2014 received preoperative celecoxib, oxycodone, and transdermal scopolamine. Intraoperatively, patients either received a single-dose bupivacaine femoral nerve block along with 30-mL 0.25% bupivacaine periarticular injection (group A) or a 60-mL periarticular injection alone (20-mL liposomal bupivacaine, 30-mL 0.25% bupivacaine, and 10-mL saline; group B). The postoperative pain scores, narcotic usage, and time to ambulation were retrospectively collected from the electronic medical record. These outcomes were compared between treatment groups. There were 325 patients in group A compared with 272 in group B during the time frame. There was no difference among age, gender, race, and body mass index between the groups. Group B demonstrated a decreased need for breakthrough pain medication (16.9% vs 36.3% P< .001), decreased pain 12 hours postoperatively (3.2 vs 3.6 P< .003), and an earlier time to ambulation (29.5 hours vs 32.2 hours, P< .017). There was no difference in hospital length of stay (2.8 vs 2.6 days, P = .123). On controlling for demographic factors, patients in group B were able to ambulate 2.3 hours earlier than those in group A (coefficient = -2.3, P = .049)."

According to the news editors, the research concluded: "Liposomal bupivacaine resulted in a decrease need for breakthrough pain medication, improved pain scores at 12 hours, and an earlier time to ambulation compared to a combined femoral nerve block and periarticular bupivacaine injection."


Our news journalists report that additional information may be obtained by contacting S.M. Sporer, Rush University, Medical Center, Dept. of Orthopaed Surg, Chicago, IL 60612, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arth.2016.05.012. This DOI is a link to an online electronic document that is either free or for purchase.
Biotechnology - Liposomes

Findings on Liposomes Reported by Investigators at University of Waterloo (Adsorption of Nanoceria by Phosphocholine Liposomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biotechnology - Liposomes. According to news reporting from Waterloo, Canada, by NewsRx journalists, research stated, "Nanoceria (CeO2 nanoparticle) possesses a number of enzyme-like activities. In particular, it scavenges reactive oxygen species based on in-vitro and in vivo antioxidation studies."

Financial support for this research came from Natural Sciences and Engineering Research Council of Canada.

The news correspondents obtained a quote from the research from the University of Waterloo, "An important aspect of fundamental physical understanding is its interaction with lipid membranes that are the main components of the cell membrane. In this work, adsorption of nanoceria onto phosphocholine (PC) liposomes was performed. PC lipids are the main constituents of the cell outer membrane. Using a fluorescence quenching assay, a nanoceria adsorption isotherm was determined at various pH values and ionic strengths. A non-Langmuir isotherm occurred at pH 4 because of lateral electrostatic repulsion among the adsorbed cationic nanoceria. The phosphate group in the PC lipid is mainly responsible for the interaction, and the adsorbed nanoceria can be displaced by free inorganic phosphate. The tendency of the system to form large aggregates is a function of pH and the concentration of nanoceria, attributable to nanoceria being positively charged at pH 4 and neutral at physiological pH. Calcein leakage tests indicate that nanoceria induces liposome leakage because of transient lipid phase transition, and cryo-transmission electron microscopy indicates that the overall shape of the liposome is retained although deformation is still observed."

According to the news reporters, the research concluded: "This study provides fundamental biointerfacial information at a molecular level regarding the interaction of nanoceria and model cell membranes."


Our news journalists report that additional information may be obtained by contacting J.W. Liu, University of Waterloo, Waterloo Inst Nanotechnol, Dept. of Chem, Waterloo, ON N2L 3G1, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.langmuir.6b03342. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Waterloo, Ontario, Canada, North and Central America, Biotechnology, Liposomes, University of Waterloo.
Findings on Liver Cancer Discussed by Investigators at China Medical University and Hospital (Short-term and long-term efficacy of 7 targeted therapies for the treatment of advanced hepatocellular carcinoma: a network meta-analysis Efficacy of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting originating in Shenyang, People's Republic of China, by NewsRx journalists, research stated, "A variety of targeted drug therapies in clinical trials have been proven to be effective for the treatment of hepatocellular carcinoma (HCC). Our study aims to compare the short-term and long-term efficacies of different targeted drugs in advanced hepatocellular carcinoma (AHCC) treatment using a network meta-analysis approach."

The news reporters obtained a quote from the research from China Medical University and Hospital, "PubMed, Embase, Ovid, EBSCO, and Cochrane central register of controlled trials were searched for randomized controlled trials (RCTs) of different targeted therapies implemented to patients with AHCC. And the retrieval resulted in 7 targeted drugs, namely, sorafenib, ramucirumab, everolimus, brivanib, tivantinib, sunitinib, and sorafenib+erlotinib. Direct and indirect evidence were combined to evaluate stable disease (SD), progressive disease (PD), complete response (CR), partial response (PR), disease control rate (DCR), overall response ratio (ORR), overall survival (OS), and surface under the cumulative ranking curve (SUCRA) of patients with AHCC. A total of 11 RCTs were incorporated into our analysis, including 6594 patients with AHCC, among which 1619 patients received placebo treatment and 4975 cases had targeted therapies. The results revealed that in comparison with placebo, sorafenib, and ramucirumab displayed better short-term efficacy in terms of PR and ORR, and brivanib was better in ORR. Regarding long-term efficacy, sorafenib and sorafenib+erlotinib treatments exhibited longer OS. The data of cluster analysis showed that ramucirumab or sorafenib+erlotinib presented relatively better short-term efficacy for the treatment of AHCC."

According to the news reporters, the research concluded: "This network meta-analysis shows that ramucirumab and sorafenib+erlotinib may be the better targeted drugs for AHCC patients, and sorafenib+erlotinib achieved a better long-term efficacy."

For more information on this research see: Short-term and long-term efficacy of 7 targeted therapies for the treatment of advanced hepatocellular carcinoma: a network meta-analysis Efficacy of 7 targeted therapies for AHCC. Medicine, 2016;95(49):511-520. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting K. Xu, China Med Univ, Dept. of Radiol, Hosp 1, Shenyang 110001, People's Republic of China. Additional authors for this research include D. Hong, T.C. Ma, X.W. Chen, J.H. Han, J. Sun and K. Xu.

Keywords for this news article include: Shenyang, People's Republic of China, Asia,
Findings on Liver Cancer Reported by Investigators at Kansai Medical University (Effects of implementing an "enhanced recovery after surgery" program on patients undergoing resection of hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting from Osaka, Japan, by NewsRx journalists, research stated, "To evaluate the effects of implementing an 'enhanced recovery after surgery' (ERAS) program on the feasibility, safety, and effectiveness of extensive and potentially curative liver resection for hepatocellular carcinoma (HCC). We compared clinicopathologic factors, surgical factors, and outcomes of patients who underwent extended hepatectomy (defined as resection of more than two sections) for HCC, before and after the introduction of an ERAS program."

The news correspondents obtained a quote from the research from Kansai Medical University, "Operating times and postoperative hospital stay were significantly shorter, and total volume infused during surgery was significantly lower, for the ERAS group than for the control group. Although the ERAS group had a significantly lower percentage of patients with retention of abdominal drainage, this group had a higher frequency of abdominal paracentesis in patients without intraoperative abdominal drainage. Oral dietary intake and the ability to walk steadily resumed significantly earlier in the ERAS group. Postoperative serum concentrations of albumin and cholinesterase were significantly higher in the ERAS group than in the control group."

According to the news reporters, the research concluded: "The ERAS program was feasible and effective for patients with chronic liver disease undergoing extended liver resection for HCC, because it allowed earlier oral dietary intake and promoted faster postoperative recovery."


Our news journalists report that additional information may be obtained by contacting M. Kaibori, Kansai Mededical University, Next Generat Minimally Invas Surg, Hirakata, Osaka 5731191, Japan. Additional authors for this research include K. Matsui, M. Ishizaki, H. Iida, K. Yoshii, H. Asano and M. Kon.

Keywords for this news article include: Osaka, Japan, Asia, Gastroenterology, Liver Resection, Liver Cancer, Hepatology, Carcinomas, Oncology, Surgery, Kansai Medical University.

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Findings on Liver Cancer Reported by Investigators at Soochow University (Biomarker MicroRNAs for Diagnosis, Prognosis and Treatment of Hepatocellular Carcinoma: A Functional Survey and Comparison)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Liver Cancer are discussed in a new report. According to news reporting from Suzhou, People's Republic of China, by NewsRx journalists, research stated, "Hepatocellular Carcinoma (HCC) is one of the most common malignant tumors with high incidence and mortality rate. Precision and effective biomarkers are therefore urgently needed for the early diagnosis and prognostic estimation."

The news correspondents obtained a quote from the research from Soochow University, "MicroRNAs (miRNAs) are important regulators which play functions in various cellular processes and biological activities. Accumulating evidence indicated that the abnormal expression of miRNAs are closely associated with HCC initiation and progression. Recently, many biomarker miRNAs for HCC have been identified from blood or tissues samples, however, the universality and specificity on clinicopathological features of them are less investigated."

According to the news reporters, the research concluded: "In this review, we comprehensively surveyed and compared the diagnostic, prognostic, and therapeutic roles of HCC biomarker miRNAs in blood and tissues based on the cancer hallmarks, etiological factors as well as ethnic groups, which will be helpful to the understanding of the pathogenesis of biomarker miRNAs in HCC development and further provide accurate clinical decisions for HCC diagnosis and treatment."


Keywords for this news article include: Suzhou, People's Republic of China, Asia, Oncology, Diagnostics and Screening, Liver Cancer, Carcinomas, Soochow University. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Findings on Liver Cancer Reported by Researchers at Yonsei University College of Medicine (Subclassification of Barcelona Clinic Liver Cancer B and C hepatocellular carcinoma: A cohort study of the multicenter registry database)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "We aimed to subclassify hepatocellular carcinoma (HCC) using Barcelona Clinic Liver Cancer intermediate and advanced stages, which include a highly heterogeneous population. From two registries ('random' and 'voluntary' cohorts in the Korean Liver Cancer Study Group), patients who were newly diagnosed as HCC with intermediate or advanced stage between 2003 and 2005 were considered eligible."

Our news journalists obtained a quote from the research from the Yonsei University College of Medicine, "Overall survival (OS) was analyzed using Kaplan-Meier method with comparison by log-rank test. Patients with intermediate-stage HCC (n=994) were subclassified according to tumor size and Child-Pugh class. Patients with tumor size <5 cm (B1), those with tumor size (≥) 5 cm and Child-Pugh A (B2), and those with tumor size (≥) 5 cm and Child-Pugh B (B3) had median OS of 30.73, 20.60, and 9.23 months, respectively (p <0.001 by log-rank test). Among patients with advanced stage HCC (n=1746), patients were subclassified according to presence of significant portal vein invasion (sPVI; defined as portal vein invasion in lobar, main, or contralateral branch) and extrahepatic spread (EHS). Patients with neither sPVI nor EHS (C1), those with either sPVI or EHS (C2), and those with both sPVI and EHS (C3) had median OS of 8.43, 4.63, and 3.63 months, respectively (p <0.001 by log-rank test)."

According to the news editors, the research concluded: "Subclassification of Barcelona Clinic Liver Cancer intermediate and advanced stages might be useful for determining patient prognosis and guiding treatment strategies for HCC."


Our news journalists report that additional information may be obtained by contacting S. Lee, The Korean Liver Cancer Study Group, Yonsei University College of Medicine, Seoul, South Korea. Additional authors for this research include B.K. Kim, K. Song, J.Y. Park, S.H. Ahn, S.U. Kim, K.H. Han and do Y Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13218. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Oncology, Angiology, Carcinomas, South Korea, Portal Vein, Liver Cancer.

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Findings on Lung Cancer Discussed by Investigators at People's Hospital (WWOX inhibits the invasion of lung cancer cells by downregulating RUNX2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Lung Cancer is now available. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "The WW domain-containing oxidoreductase (WWOX) is a tumor suppressor that is lost or decreased in most human tumors. The role of WWOX in human lung carcinoma invasion is still not clear."

The news correspondents obtained a quote from the research from People's Hospital, "This study aimed to elucidate the potential role of WWOX in lung cancer cell invasion. WWOX mRNA levels in human lung cancers and lung cancer cell lines were assayed by quantitative real-time. PCR. WWOX in lung cancer cell lines was manipulated by transfection of expression vector or small interfering RNA. Cell migration and invasion were assessed by wound healing and/or transwell migration and invasion assays. The protein levels of WWOX, E-cadherin and RUNX2 were analyzed by western blot or immunofluorescence. WWOX expression is inversely correlated to invasiveness of lung cancer. WWOX overexpression in highly invasive H1299 cells reduced cell motility and invasiveness, and inhibited the expression of RUNX2 and its target gene matrix metalloprotease-9 (MMP-9). Silencing WWOX in less invasive NL9980 cells resulted in opposite effects. Overexpressing RUNX2 in H1299 or silencing RUNX2 in NL9980 cells reversed the effects of WWOX."

According to the news reporters, the research concluded: "These results suggested that WWOX inhibited the invasive phenotype of lung cancer through downregulating the expression of RUNX2."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cgt.2016.59. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Cancer, Gene Therapy, Lung Neoplasms, Lung Cancer, Oncology, Genetics, People's Hospital.

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Findings on Lung Cancer Reported by Investigators at City of Hope National Medical Center (Perceptions and Utilization of Lung Cancer Screening Among Primary Care Physicians)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news reporting originating in Duarte, California, by NewsRx journalists, research stated, "Lung cancer screening (LCS) with low-dose computed tomography (LDCT) is effective at reducing lung cancer mortality in high-risk current and former smokers. Despite the fact that screening is recommended by the U.S."

Funders for this research include Lung Cancer Research Foundation, National Institutes of Health.

The news reporters obtained a quote from the research from the City of Hope National Medical Center, "Preventative Services Task Force (USPSTF), few eligible patients are screened. We set out to study the barriers to LCS by surveying primary care physicians (PCPs). We surveyed a randomly selected sample of 1384 eligible PCPs between January and October 2015, using the American Medical Association Physician Masterfile, though surveys sent by mail, fax, and e-mail. The survey included questions regarding knowledge of LCS guidelines, utilization of LCS over the prior 12 months, and perceptions of barriers to LCS. Training background, years in practice, practice type, and demographics were also collected. The survey response rate was 18%. Responders and nonresponders did not differ by practice or demographic characteristics. Of the respondents, 47% indicated that LCS was recommended by the USPSTF, 52% had referred at least one patient for LDCT, and 12% had referred at least one patient to a LCS program over the prior 12 months. Perceived barriers to LCS included uncertainty regarding their benefit of LCS, concern regarding insurance coverage, and the harm of LCS. Although LCS is recommended by the USPSTF, LDCT is utilized in a minority of eligible patients, as reported by surveyed PCPs. Approximately half of PCPs are familiar with USPSTF recommendations for LCS and a number of physician barriers to adherence to guidelines exist."

According to the news reporters, the research concluded: "Additional study of physician- and system-based interventions to improve adherence to LCS recommendations is needed."


Our news correspondents report that additional information may be obtained by contacting D.J. Raz, City Hope Natl Med Center, Div Thorac Surg, Duarte, CA, United States. Additional authors for this research include G.X. Wu, M. Consunji, R. Nelson, C. Sun, L. Erhunmwunsee, B. Ferrell, V. Sun and J.Y. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtho.2016.06.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Duarte, California, United States, North and
Central America, Cancer, Diagnostics and Screening, Epidemiology, Lung Neoplasms, Lung Cancer, Oncology, City of Hope National Medical Center.

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Oncology - Lymphoma

Findings on Lymphoma Detailed by Investigators at University of Alberta (The Influence of Corticosteroids on Diagnostic Accuracy of Biopsy for Primary Central Nervous System Lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lymphoma have been published. According to news reporting from Edmonton, Canada, by NewsRx journalists, research stated, "Classical neurosurgical teaching suggests that corticosteroid administration reduces the diagnostic yield of stereotactic brain biopsy for primary central nervous system lymphoma (PCNSL)."

The news correspondents obtained a quote from the research from the University of Alberta, "In a single-center series spanning 6 years, we reviewed 155 consecutive biopsy patients, 135 treated with prebiopsy corticosteroids. PCNSL was correctly diagnosed on initial biopsy in 15 of 16 steroid-treated patients; in the single nondiagnostic specimen, polymerase chain reaction reanalysis by an outside institution showed evidence of lymphoproliferative disease consistent with PCNSL."

According to the news reporters, the research concluded: "Our data challenge the notion that it is necessary to withhold corticosteroid therapy for cerebral edema in patients awaiting stereotactic biopsy for suspected PCNSL."

For more information on this research see: The Influence of Corticosteroids on Diagnostic Accuracy of Biopsy for Primary Central Nervous System Lymphoma. Canadian Journal of Neurological Sciences, 2016;43(5):721-725. Canadian Journal of Neurological Sciences can be contacted at: Cambridge Univ Press, 32 Avenue Of The Americas, New York, NY 10013-2473, USA.

Our news journalists report that additional information may be obtained by contacting T. Sankar, University of Alberta, Dept. of Surg, Div Neurosurg, Edmonton, AB, Canada. Additional authors for this research include K. Au, J.Q. Lu, B.M. Wheatley and T. Sankar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/cjn.2016.255. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Edmonton, Alberta, Canada, North and Central America, Central Nervous System, Diagnostics and Screening, Lymphatic Diseases and Conditions, Central Nervous System Disorders, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hematology, Lymphomas, Oncology, University of Alberta.

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Findings on Lymphoma Discussed by Investigators at University of Athens (Brentuximab vedotin in combination with or without donor lymphocyte infusion for patients with Hodgkin lymphoma after allogeneic stem cell transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lymphoma have been published. According to news originating from Athens, Greece, by NewsRx correspondents, research stated, "In our study, we evaluated the safety and efficacy of Brentuximab vedotin (BV) with or without the addition of donor lymphocyte infusion (DLI) after allogeneic stem cell transplantation (allo-SCT) in 16 patients with advanced Hodgkin lymphoma (HL). Thirteen patients with relapsed HL after allo-SCT received BV as treatment for active disease."

Our news journalists obtained a quote from the research from the University of Athens, "Three patients without progression of HL after allo-SCT received BV as consolidation. Twelve patients had been previously exposed to BV for treatment of relapse after autologousSCT. Ten out of 16 patients received BV in combination with DLI. Among the 13 patients treated for active disease, CR and PR was observed in 7 and 2 patients, respectively. With a median follow-up of 13 months, 13 out of 16 patients are alive, while 3 died because of disease progression. The median PFS was 6 months. DLI-associated GVHD occurred in seven patients. Five patients with GVHD required immunosuppression, and in all cases, GVHD resolved after a short course of low dose steroids, implying that an antiGVHD modulating effect could be induced by the concurrent administration of BV."

According to the news editors, the research concluded: "No serious adverse event was observed in any of the patients."

For more information on this research see: Brentuximab vedotin in combination with or without donor lymphocyte infusion for patients with Hodgkin lymphoma after allogeneic stem cell transplantation. Bone Marrow Transplantation, 2016;51(10):1313-1317. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

The news correspondents report that additional information may be obtained from P. Tsirigotis, University of Athens, ATTIKO Univ Hosp, Dept. of Internal Med 2, Athens 2462, Greece. Additional authors for this research include I. Danylesko, K. Gkirkas, N. Shem-Tov, R. Yerushalmi, M. Stamouli, A. Avigdor, A. Spyridonidis, J. Gauthier, G. Goldstein, J. Apostolidis, M. Mohty, A. Shimoni and A. Nagler.

Keywords for this news article include: Athens, Greece, Europe, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hemic and Immune Systems, Mononuclear Leukocytes, Cell Transplantation, Transplant Medicine, Stem Cell Research, Cell Transplants, Blood Cells, Lymphocytes, Biomedicine, Immunology, Hematology, Lymphomas, Oncology, Surgery, University of Athens.

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Findings on Lymphoma Reported by Researchers at Alexandra Hospital
(Recent treatment advances in Hodgkin lymphoma: a concise review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lymphoma. According to news reporting originating in Brisbane, Australia, by NewsRx journalists, research stated, "The majority of patients with Hodgkin lymphoma enjoy durable remissions following front-line treatment. This typically involves combination chemotherapy with or without radiotherapy."

The news reporters obtained a quote from the research from Alexandra Hospital, "A significant minority of patients experience relapsed/refractory disease, of whom only approximately half can be 'salvaged' with conventional second-line treatments. Until recently, for those patients either failing or who are not fit for salvage, there have been few curative alternatives. Furthermore, there is a significant risk of delayed treatment complications to conventional therapies, including secondary malignancies and cardiac disease. However, novel targeted therapies are producing excellent results in clinical trials. They provide additional treatment options for those with relapsing/refractory disease; they may have potential in front-line therapy. The anti-CD30 antibody brentuximab vedotin (BV) has been tested as monotherapy and in combination in a variety of clinical settings, including in relapsed/refractory patients and as consolidative therapy following standard second-line therapy. Nivolumab and pembrolizumab, currently used in other malignancies that are known to utilise the programmed death pathway for survival, have shown outstanding results when used as single agents in heavily pre-treated (including BV refractory) patients. Individualising and adapting a patient's treatment course, whether augmenting or rationalising therapy, based on an interim positron emission tomography/computed tomography response is an important strategy currently under exploration to minimise toxicity while maximising response. Further work is needed to explore clinical and biological factors associated with improved outcomes."

According to the news reporters, the research concluded: "Knowledge of these factors combined with the movement of novel therapies into the front-line setting will enable individualised therapy to enhance clinical responses and minimise toxicities."


Our news correspondents report that additional information may be obtained by contacting S. Arulogun, Dept. of Haematology, Princess Alexandra Hospital, Brisbane, Queensland, Australia. Additional authors for this research include M. Hertzberg and M.K Gandhi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imj.13051. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Therapy, Brisbane, Oncology, Lymphomas, Hematology, Article Review, Refractory Disease, Australia and New Zealand, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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Findings on Macropinocytosis Reported by Investigators at School of Medicine (A Diaphanous-related formin links Ras signaling directly to actin assembly in macropinocytosis and phagocytosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Macropinocytosis are presented in a new report. According to news reporting originating in Hannover, Germany, by NewsRx journalists, research stated, "Phagocytosis and macropinocytosis are Ras-regulated and actin-driven processes that depend on the dynamic rearrangements of the plasma membrane that protrudes and internalizes extracellular material by cup-shaped structures. However, the regulatory mechanisms underlying actin assembly in large-scale endocytosis remain elusive."

The news reporters obtained a quote from the research from the School of Medicine, "Here, we show that the Diaphanous-related formin G (ForG) from the professional phagocyte Dictyostelium discoideum localizes to endocytic cups. Biochemical analyses revealed that ForG is a rather weak nucleator but efficiently elongates actin filaments in the presence of profilin. Notably, genetic inactivation of ForG is associated with a strongly impaired endocytosis and a markedly diminished F-actin content at the base of the cups. By contrast, ablation of the Arp2/3 (actin-related protein-2/3) complex activator SCAR (suppressor of cAMP receptor) diminishes F-actin mainly at the cup rim, being consistent with its known localization. These data therefore suggest that ForG acts as an actin polymerase of Arp2/3-nucleated filaments to allow for efficient membrane expansion and engulfment of extracellular material."

According to the news reporters, the research concluded: "Finally, we show that ForG is directly regulated in large-scale endocytosis by RasB and RasG, which are highly related to the human proto-oncogene KRas."

For more information on this research see: A Diaphanous-related formin links Ras signaling directly to actin assembly in macropinocytosis and phagocytosis. Proceedings of the National Academy of Sciences of the United States of America, 2016;113(47):E7464-E7473. Proceedings of the National Academy of Sciences of the United States of America can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC 20418, USA. (National Academy of Sciences - www.nasonline.org; Proceedings of the National Academy of Sciences of the United States of America - www.nasonline.org/publications/pnas/)


Keywords for this news article include: Hannover, Germany, Europe, Macropinocytosis, Phagocytosis, Endocytosis, Genetics, School of Medicine.

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Findings on Mathematics Reported by Investigators at Mississippi State University (Constrained topological optimization of a football helmet facemask based on brain response)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mathematics is now available. According to news reporting originating from Mississippi State, Mississippi, by NewsRx correspondents, research stated, "Surrogate model-based multi-objective design optimization was performed to reduce concussion risk during frontal football helmet impacts. In particular, a topological decomposition of the football helmet facemask was performed to formulate the design problem, and brain injury metrics were exploited as objective functions."

Our news editors obtained a quote from the research from Mississippi State University, "A validated finite element model of a helmeted human head was used to recreate facemask impacts. Due to the prohibitive computational expense of the full scale simulations, a surrogate modeling approach was employed. An optimal surrogate model selection framework, called Concurrent Surrogate Model Selection, or COSMOS, was utilized to identify the surrogate models best suited to approximate each objective function. The resulting surrogate models were implemented in the Non-dominated Sorting Genetic Algorithm II (NSGA-II) optimization algorithm. Constraints were implemented to control the solid material fraction in the facemask design space, and binary variables were used to control the placement of the facemask bars. The optimized facemask designs reduced the maximum tensile pressure in the brain by 7.5% and the maximum shear strain by a remarkable 39.5%." According to the news editors, the research concluded: "This research represents a first-of-its-kind approach to multi-objective design optimization on a football helmet, and demonstrates the possibilities that are achievable in improving human safety by using such a simulation-based design optimization."


The news editors report that additional information may be obtained by contacting K.L. Johnson, Mississippi State University, CAVS, Mississippi State, MS 39762, United States. Additional authors for this research include S. Chowdhury, W.B. Lawrimore, Y. Mao, A. Mehmani, R. Prabhu, G.A. Rush and M.F. Horstemeyer. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.matdes.2016.08.064. This DOI is a link to an online electronic document that is either free or for purchase. Keywords for this news article include: Mississippi State, Mississippi, United States, North and Central America, Mathematics, Genetics, Mississippi State University. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Findings on Medical Genetics Reported by Investigators at Hospital of Santa Maria (A Novel MED12 Mutation: Evidence for a Fourth Phenotype)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Genetics - Medical Genetics is the subject of a report. According to news reporting out of Perugia, Italy, by NewsRx editors, research stated, "Mutations of the MED12 gene have been reported mainly in males with FG (Opitz-Kaveggia), Lujan-Fryns, or X-linked Ohdo syndromes. Recently, a different phenotype characterized by minor anomalies, severe intellectual disability (ID), and absent language was reported in female and male patients belonging to the same family and carrying a frameshift MED12 mutation (c.5898dupC)."

Our news journalists obtained a quote from the research from the Hospital of Santa Maria, "Here, we report on two brothers and their niece affected by severe and mild ID, respectively, where whole exome sequencing combined with variant analysis within a panel of ID-related genes, disclosed a novel c.2312T>C (p.Ile771Thr) MED12 mutation. This variant, which has not been reported as a polymorphism, was not present in a third unaffected brother, and was predicted to be deleterious by five bioinformatic databases. This finding together with the phenotypic analogies shared with the carriers of c.5898dupC mutation suggests the existence of a fourth MED12-related disorder, characterized by severe ID, absent or deficient language and, milder, clinical manifestation in heterozygotes."

According to the news editors, the research concluded: "We have reviewed the literature on MED12 heterozygotes, their clinical manifestations, and discuss the possible biological causes of this condition."


Our news journalists report that additional information may be obtained by contacting P. Prontera, Hosp Santa Maria Misericordia, Medical Genet Unit, Perugia, Italy. Additional authors for this research include V. Ottaviani, D. Rogaia, I. Isidori, A. Mencarelli, N. Malerba, D. Cocciadiferro, P. Rolph, G. Stangoni, A. Vulto-vanSilfhout and G. Merla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37805. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Perugia, Italy, Europe, Medical Genetics, Genetics, Hospital of Santa Maria.

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Health and Medicine - Medical Physics

Findings on Medical Physics Detailed by Researchers at Sunnybrook Research Institute (Quantifying masking in clinical mammograms via local detectability of simulated lesions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Medical Physics. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "High mammographic density is known to be associated with decreased sensitivity of mammography. Recent changes in the BI-RADS density assessment address the effect of masking by densities, but the BI-RADS assessment remains qualitative and achieves only moderate agreement between radiologists."

Funders for this research include Ontario Institute for Cancer Research (OICR), Canadian Cancer Society Research Institute (CCSRI).

Our news editors obtained a quote from the research from Sunnybrook Research Institute, "An automated, quantitative algorithm that estimates the likelihood of masking of simulated masses in a mammogram by dense tissue has been developed. The algorithm considers both the effects of loss of contrast due to density and the distracting texture or appearance of dense tissue. A local detectability (dL) map is created by tessellating the mammograms into overlapping regions of interest (ROIs), for which the detectability by a non-prewhitening observer is computed using local estimates of the noise power spectrum and volumetric breast density (VBD). The dL calculation was validated in a 4-alternative forced-choice observer study on the ROIs of 150 craniocaudal digital mammograms. The dL metric was compared against the inverse threshold contrast, \((DmT)^{-1}\) from the observer study, the anatomic noise parameter \(b\), the radiologist's BI-RADS density category, and a validated measure of VBD (Cumulus). The mean dL had a high correlation of \(r=0.915\) and \(r=0.699\) with \((DmT)^{-1}\) in the computerized and human observer study, respectively. In comparison, the local VBD estimate had a low correlation of \(0.538\) with \((DmT)^{-1}\). The mean dL had a correlation of \(0.663\), \(0.835\), and \(0.696\) with BI-RADS density, \(b\), and Cumulus VBD, respectively. The proposed dL metric may be useful in characterizing the potential for lesion masking by dense tissue."

According to the news editors, the research concluded: "Because it uses information about the anatomic noise or tissue appearance, it is more closely linked to lesion detectability than VBD metrics."

For more information on this research see: Quantifying masking in clinical mammograms via local detectability of simulated lesions. Medical Physics, 2016;43(3):1249-58. Medical Physics can be contacted at: Amer Assoc Physicists Medicine Amer Inst Phys, Ste 1 No 1, 2 Huntington Quadrangle, Melville, NY 11747-4502, USA. (American Association of Physicists in Medicine - www.aapm.org; Medical Physics - online.medphys.org/)

The news editors report that additional information may be obtained by contacting J.G. Mainprize, Physical Sciences, Sunnybrook Research Institute, 2075 Bayview Avenue, Toronto, Ontario M4N 3M5, Canada. Additional authors for this research include O. Alonzo-Proulx, R.A. Jong and M.J Yaffe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1118/1.4941307. This DOI is a link to an online electronic document that is either free or for purchase.
Oncology - Melanoma

Findings on Melanoma Reported by Investigators at University of Ulsan
(Upregulation of annexin A1 expression by butyrate in human melanoma cells induces invasion by inhibiting E-cadherin expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Melanoma. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Epithelial to mesenchymal transition (EMT) is a critical step in the metastasis of epithelial cancer cells. Butyrate, which is produced from dietary fiber by colonic bacterial fermentation, has been reported to influence EMT."

Funders for this research include Basic Science Research Program through the National Research Foundation of Korea (NRF) funded by the Ministry of Education, Asan Institute for Life Sciences.

The news correspondents obtained a quote from the research from the University of Ulsan, "However, some studies have reported that butyrate promotes EMT, while others have reported an inhibitory effect. To clarify these controversial results, it is necessary to elucidate the mechanism by which butyrate can influence EMT. In this study, we examined the potential role of annexin A1 (ANXA1), which was previously reported to promote EMT in breast cancer cells, as a mediator of EMT regulation by butyrate. We found that ANXA1 mRNA and protein were expressed in highly invasive melanoma cell lines (A2058 and A375), but not in SK-MEL-5 cells, which are less invasive. We also showed that butyrate induced ANXA1 mRNA and protein expression and promoted EMT-related cell invasion in SK-MEL-5 cells. Downregulation of ANXA1 expression using specific small interfering RNAs in butyrate-treated SK-MEL-5 cells resulted in increased expression of the epithelial marker E-cadherin and decreased cell invasion. Moreover, overexpressing ANXA1 decreased the expression of the E-cadherin."

According to the news reporters, the research concluded: "Collectively, these results indicate that butyrate induces the expression of ANXA1 in human melanoma cells, which then promotes invasion through activating the EMT signaling pathway."


Our news journalists report that additional information may be obtained by contacting S.W. Jang, University of Ulsan, Coll Med, Dept. of Biochem & Mol Biol, Seoul 138736, South Korea. Additional authors for this research include I.S. Song, J.H. Pak and S.W.
Oncology - Merkel Cell Cancer

Findings on Merkel Cell Cancer Reported by Investigators at IBBTEC (Shared Oncogenic Pathways Implicated in Both Virus-Positive and UV-Induced Merkel Cell Carcinomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Merkel Cell Cancer are presented in a new report. According to news reporting originating from Santander, Spain, by NewsRx correspondents, research stated, "Merkel cell carcinoma (MCC) is a highly malignant neuroendocrine tumor of the skin whose molecular pathogenesis is not completely understood, despite the role that Merkel cell polyomavirus can play in 55-90% of cases. To study potential mechanisms driving this disease in clinically characterized cases, we searched for somatic mutations using whole-exome sequencing, and extrapolated our findings to study functional biomarkers reporting on the activity of the mutated pathways."

Our news editors obtained a quote from the research from IBBTEC, "Confirming previous results, Merkel cell polyomavirus-negative tumors had higher mutational loads with UV signatures and more frequent mutations in TP53 and RB compared with their Merkel cell polyomavirus-positive counterparts. Despite important genetic differences, the two Merkel cell carcinoma etiologies both exhibited nuclear accumulation of oncogenic transcription factors such as NFAT or nuclear factor of activated T cells (NFAT), P-CREB, and P-STAT3, indicating commonly deregulated pathogenic mechanisms with the potential to serve as targets for therapy."

According to the news editors, the research concluded: "A multi-variable analysis identified phosphorylated CRE-binding protein as an independent survival factor with respect to clinical variables and Merkel cell polyomavirus status in our cohort of Merkel cell carcinoma patients."


The news editors report that additional information may be obtained by contacting J.P. Vaque, IBBTEC UC CSIC SODERCAN, Inst Biomed & Biotecnol Cantabria, Santander, Spain. Additional authors for this research include S. Curiel-Olmo, S. Derdak, S. Beltran, M.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jid.2016.08.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article in clude: Santander, Spain, Europe, Peripheral Nervous System, Sensory Receptor Cells, Merkel Cell Carcinoma, Vertebrate Viruses, Merkel Cell Cancer, DNA Tumor Viruses, Mechanoreceptors, Polyomaviridae, Merkel Cells, Polyomavirus, DNA Viruses, Carcinomas, Genetics, Virology, Oncology, Neurons, Viral, IBBTEC.

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Nutritional and Metabolic Diseases and Conditions - …

Findings on Metabolic Syndrome Discussed by Investigators at Ignacio Chavez National Institute of Cardiology (Effect of the Aged Garlic Extract on Cardiovascular Function in Metabolic Syndrome Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Metabolic Syndrome have been published. According to news reporting from Mexico City, Mexico, by NewsRx journalists, research stated, "The antioxidant properties of aged garlic extract (AGE) on cardiovascular functioning (CF) in metabolic syndrome (MS) remains poorly studied. Here we study the AGE effects on CF in a rat model of MS."

The news correspondents obtained a quote from the research from the Ignacio Chavez National Institute of Cardiology, "Control rats plus saline solution (C + SS), MS rats (30% sucrose in drinking water from weaning) plus saline solution (MS + SS), control rats receiving AGE (C + AGE 125 mg/Kg/12 h) and MS rats with AGE (MS + AGE) were studied. MS + SS had increased triglycerides, systolic blood pressure, insulin, leptin, HOMA index, and advanced glycation end products. AGE returned their levels to control values (p < 0.01). Cholesterol was decreased by AGE (p = 0.05). Glutathion and GPx activity were reduced in MS + SS rats and increased with AGE (p = 0.05). Lipid peroxidation was increased in MS + SS and AGE reduced it (p = 0.001). Vascular functioning was deteriorated by MS (increased vasocontraction and reduced vasodilatation) and AGE improved it (p = 0.001). Coronary vascular resistance was increased in MS rats and AGE decreased it (p = 0.001). Cardiac performance was not modified by MS but AGE increased it. NO measured in the perfusate liquid from the heart and serum citrulline, nitrites/nitrates were decreased in MS and AGE increased them (p < 0.01)."

According to the news reporters, the research concluded: "AGE reduces MS-induced cardiovascular risk, through its anti-oxidant properties."

For more information on this research see: Effect of the Aged Garlic Extract on Cardiovascular Function in Metabolic Syndrome Rats. *Molecules*, 2016;21(11):180-194. *Molecules* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting I. Perez-Torres, Inst Nacl Cardiol Ignacio Chavez, Dept. of Pathol, Mexico City

Keywords for this news article include: Mexico City, Mexico, North and Central America, Nutritional and Metabolic Diseases and Conditions, Metabolic Syndrome, Cardiovascular, Cardiology, Healthcare, Ignacio Chavez National Institute of Cardiology.

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Minimally Invasive Gynecology

Findings on Minimally Invasive Gynecology Discussed by Investigators at Mayo Clinic (Location of the Deep Epigastric Vessels in the Resting and Insufflated Abdomen)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Minimally Invasive Gynecology have been published. According to news reporting originating in Rochester, Minnesota, by NewsRx journalists, research stated, "To determine whether the location of the superior and inferior epigastric vessels (deep epigastric vessels) change with abdominal insufflation. Descriptive study (Canadian Task Force classification III)."

The news reporters obtained a quote from the research from Mayo Clinic, "Tertiary care academic institution. Patients undergoing gynecologic laparoscopic surgery were recruited. A total of 35 subjects were enrolled. Subjects underwent color Doppler ultrasound assessment of deep epigastric vessel location preoperatively and intraoperatively following abdominal insufflation. The deep epigastric vessels were identified at 5 points along the abdomen (pubic symphysis, anterior superior iliac spine [ASIS], umbilicus, xiphoid, and midpoint from umbilicus to xiphoid), with the distance from vessels to midline measured. Paired t tests and split-plot analysis of variance were used as appropriate. The mean patient age was 45.6 +/- 16.5 years, and mean BMI was 29.8 +/- 7.2. A significant difference between vessel location in the resting abdomen and insufflated abdomen was noted bilaterally at the ASIS, umbilicus, and midpoint from the umbilicus to the xiphoid. At each of these points, the deep epigastric vessels were found more laterally after insufflation on average, ranging from 0.6 +/- 0.9 cm (p <.001) more laterally at the midpoint between the umbilicus and xiphoid to 1.1 +/- 0.8 cm (p <.001) more laterally at the umbilicus. The most lateral location of the deep vessels after insufflation was seen at the ASIS (10.6 cm) and the umbilicus (10.9 cm). In a subanalysis of subjects grouped by body mass index (obese vs nonobese), deep epigastric vessels were more lateral in the insufflated abdomen of obese subjects compared with that of nonobese subjects at the ASIS, umbilicus, and midpoint from umbilicus to xiphoid (p <.05 for each point bilaterally). The deep epigastric vessels shift laterally with abdominal insufflation, and may be found as far as 10.9 cm from the midline; this is more lateral than previously described and is clinically significant."

According to the news reporters, the research concluded: "Obesity is associated with a more lateral location of the deep epigastric vessels."

invasive-gynecology/)

Our news correspondents report that additional information may be obtained by contacting T.L. Burnett, Mayo Clinic, Dept. of Obstet & Gynecol, Rochester, MN 55906, United States. Additional authors for this research include A. Garza-Cavazos, K. Groesch, R. Robbs, P. Diaz-Sylvester and S.A. Siddique.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jmig.2016.04.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Minimally Invasive Gynecology, Mayo Clinic.

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**Oncology - Molecular Cancer and Carcinogenesis**

**Findings on Molecular Cancer and Carcinogenesis Reported by Investigators at University of Sao Paulo (beta-ionone modulates the expression of miRNAs and genes involved in the metastatic phenotype of microdissected persistent preneoplastic ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Molecular Cancer and Carcinogenesis have been published. According to news reporting originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "MicroRNAs (miRNAs) are post-transcriptional gene expression regulators which expression is frequently altered in hepatocellular carcinoma (HCC). -ionone (I) is noted for its ability to inhibit persistent preneoplastic lesions (pPNLs) in liver rats. We evaluated the expression of miRNAs involved in carcinogenesis and possible targets modulated by I, in pPNLs and surrounding of microdissected tissues."

Our news editors obtained a quote from the research from the University of Sao Paulo, "Rats subjected to resistant hepatocyte model were treated during promotion stage with I (16mg/100g body weight) or corn oil (CO; 0.25mL/100g body weight; controls). Five animals receive no treatment (NT). In CO group, 38 and 29 miRNAs showed reduced expression relative to NT (P <0.05) in pPNLs and surrounding, respectively. No miRNAs showed increased expression in surrounding of the CO compared to NT group; however, 30 miRNAs showed increased expression (P0.05) in pPNLs of the CO group. There was no difference between I and CO groups (P >0.05) in the expression of miRNAs in surrounding. In pPNLs I increased expression of miR-122 and miR-34a (P0.05) and reduced of Igf2 (P0.05), target of the latter, compared to CO. Additionally, I decreased the expression of miR-181c and its target Gdf2 (P0.05). I reduced the expression of miR-181b and miR-708 (P0.05) and increased the expression of their respective target mRNAs Timp3 and Mtss1 (P0.05), relative to CO group. Modulation of miRNAs target genes by I was confirmed in vitro."

According to the news editors, the research concluded: "I is a promising chemopreventive agent in the initial stages of hepatocarcinogenesis, as it modulates the expression of the miRNAs and target genes that can alter the metastatic phenotype of HCC."

For more information on this research see: beta-ionone modulates the expression of miRNAs and genes involved in the metastatic phenotype of microdissected persistent preneoplastic lesions in rats submitted to hepatocarcinogenesis. *Molecular Carcinogenesis,*
Findings on Molecular Research Discussed by Investigators at Dong-A University (Transcriptional and Posttranslational Regulation of Nucleotide Excision Repair: The Guardian of the Genome against Ultraviolet Radiation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Molecular Research are presented in a new report. According to news reporting out of Busan, South Korea, by NewsRx editors, research stated, "Ultraviolet (UV) radiation from sunlight represents a constant threat to genome stability by generating modified DNA bases such as cyclobutane pyrimidine dimers (CPD) and pyrimidine-pyrimidone (6-4) photoproducts (6-4PP). If unrepaired, these lesions can have deleterious effects, including skin cancer."

Our news journalists obtained a quote from the research from Dong-A University, "Mammalian cells are able to neutralize UV-induced photolesions through nucleotide excision repair (NER). The NER pathway has multiple components including seven xeroderma pigmentosum (XP) proteins (XPA to XPG) and numerous auxiliary factors, including ataxia telangiectasia and Rad3-related (ATR) protein kinase and RCC1 like domain (RLD) and homologous to the E6-AP carboxyl terminus (HECT) domain containing E3 ubiquitin protein ligase 2 (HERC2)."

According to the news editors, the research concluded: "In this review we highlight recent data on the transcriptional and posttranslational regulation of NER activity."

For more information on this research see: Transcriptional and Posttranslational Regulation of Nucleotide Excision Repair: The Guardian of the Genome against Ultraviolet Radiation. International Journal of Molecular Sciences, 2016;17(11):1207-1220. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting J.M. Park, Dong A Univ, Dept. of Biol Sci, Busan 49315, South Korea.

Keywords for this news article include: Busan, South Korea, Asia, Molecular Research, Genetics, Article Review, Dong-A University.

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Molecular Research

Findings on Molecular Research Reported by Investigators at Pusan National University (MICAL-like Regulates Fasciclin II Membrane Cycling and Synaptic Development)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Molecular Research is the subject of a report. According to news reporting originating in Yangsan, South Korea, by NewsRx journalists, research stated, "Fasciclin II (FasII), the Drosophila ortholog of neural cell adhesion molecule (NCAM), plays a critical role in synaptic stabilization and plasticity. Although this molecule undergoes constitutive cycling at the synaptic membrane, how its membrane trafficking is regulated to ensure proper synaptic development remains poorly understood."

The news reporters obtained a quote from the research from Pusan National University, "In a genetic screen, we recovered a mutation in Drosophila mical-like that displays an increase in bouton numbers and a decrease in FasII levels at the neuromuscular junction (NMJ). Similar phenotypes were induced by presynaptic, but not postsynaptic, knockdown of mical-like expression. FasII trafficking assays revealed that the recycling of internalized FasII molecules to the cell surface was significantly impaired in mical-like-knockdown cells. Importantly, this defect correlated with an enhancement of endosomal sorting of FasII to the lysosomal degradation pathway. Similarly, synaptic vesicle exocytosis was also impaired in mical-like mutants."

According to the news reporters, the research concluded: "Together, our results identify Mical-like as a novel regulator of synaptic growth and FasII endocytic recycling."


Our news correspondents report that additional information may be obtained by contacting J. Lee, Pusan National University, Inst Translat Dental Sci, Yangsan 50612, South Korea. Additional authors for this research include S. Park, J. Lee and S. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.14348/molcells.2016.0203. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yangsan, South Korea, Asia, Molecular Research, Genetics, Pusan National University.

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Monoterpenes

Findings on Monoterpenes from S.F. Yang and Colleagues Provide New Insights (A Multiscale Study on the Penetration Enhancement Mechanism of Menthol to Osthole)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Monoterpenes are presented in a new report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Menthol is a widely used penetration enhancer in clinical medicine due to its high efficiency and relative safety. However, details of the penetration enhancement mechanism of menthol on the molecular level is rarely involved in the discussion."

Funders for this research include Program for New Century Excellent Talents in University, National Natural Science Foundation of China.

Our news journalists obtained a quote from the research, "In this work, the penetration enhancement (PE) mechanism of menthol is explored by a multiscale method containing molecular dynamics simulations, in vitro penetration experiments, and transmission electron microscopy. Osthole is chosen to be the tested drug due to its common use in external preparations and because it often accompanies menthol as a PE in the preparations. The results show that menthol in each testing concentration can impair the lipid packing of stratum corneum (SC) and promote osthole permeating into SC, and the penetration promoting effect has an optimal concentration. At a low concentration, menthol causes the bilayer to relax with a reduction in thickness and increment in the lipid headgroup area. At a high concentration, menthol destroys the bilayer structure of SC and causes lipids to form a reversed micelle structure. The penetration enhancement mechanism of menthol is characterized mainly by the disruption of the highly ordered SC lipid in low concentrations and an improvement in the partitioning of drugs into the SC in high concentrations."

According to the news editors, the research concluded: "The results can provide some assistance for additional studies and applications of menthol as a penetration enhancer."


The news correspondents report that additional information may be obtained from X.Y. Shi, Key Lab TCM Informat Engn State Adm TCM, Beijing 100102, People's Republic of China. Additional authors for this research include R. Wang, G. Wan, Z.M. Wu, S.J. Guo, X.X. Dai, X.Y. Shi and Y.J. Qiao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jcim.6b00232. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Drugs and Therapies, Menthol Therapy, Cyclohexanols, Antipruritic, Monoterpenes.

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Autoimmune Diseases and Conditions - Multiple…

Findings on Multiple Sclerosis Discussed by Investigators at Royal Melbourne Hospital (A genetic basis for multiple sclerosis severity: Red herring or real?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Multiple Sclerosis. According to news reporting originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Multiple Sclerosis (MS) is an autoimmune degenerative disease of the central nervous system, characterized by multifocal demyelination and neurodegeneration. The genetic architecture of MS is complex, where genetic risk has been attributed to over 100 polymorphic loci each with small odds ratios."

Our news editors obtained a quote from the research from Royal Melbourne Hospital, "MS is a highly heterogeneous disease with numerous clinical and paraclinical endophenotypes. To-date, no genetic variant has been associated with clinical outcome, however, evidence exists that MS outcomes, like risk, are to an extent also controlled by genetic variation."

According to the news editors, the research concluded: "Here we summarise the current evidence for genetic determination of disease outcomes and make recommendations for future research directions."


The news editors report that additional information may be obtained by contacting V.G. Jokubaitis, Royal Melbourne Hospital, Dept. of Neurol, Melbourne, Vic, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mcp.2016.08.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Autoimmune Diseases and Conditions of the Nervous System, Multiple Sclerosis, Article Review, Risk and Prevention, Demyelinating Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Genetics, Royal Melbourne Hospital.

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Gram-Negative Bacteria - Mycoplasma pneumoniae

Findings on Mycoplasma pneumoniae Reported by Researchers at Georg-August-University (Hydrogen sulfide is a novel potential virulence factor of Mycoplasma pneumoniae: characterization of the unusual cysteine desulfurase/desulfhydrase HapE)
A new study on Gram-Negative Bacteria - Mycoplasma pneumoniae is now available. According to news reporting from Gottingen, Germany, by NewsRx journalists, research stated, "Mycoplasma pneumoniae is a human pathogen causing atypical pneumonia with a minimalized and highly streamlined genome. So far, hydrogen peroxide production, cytadherence, and the ADP-ribosylating CARDS toxin have been identified as pathogenicity determinants."

The news correspondents obtained a quote from the research from Georg-August-University, "We have studied haemolysis caused by M. pneumoniae, and discovered that hydrogen peroxide is responsible for the oxidation of heme, but not for lysis of erythrocytes. This feature could be attributed to hydrogen sulfide, a compound that has previously not been identified as virulence factor in lung pathogens. Indeed, we observed hydrogen sulfide production by M. pneumoniae. The search for a hydrogen sulfide-producing enzyme identified HapE, a protein with similarity to cysteine desulfurases. In contrast to typical cysteine desulfurases, HapE is a bifunctional enzyme: it has both the cysteine desulfurase activity to produce alanine and the cysteine desulphydrase activity to produce pyruvate and hydrogen sulfide."

According to the news reporters, the research concluded: "Experiments with purified HapE showed that the enzymatic activity of the protein is responsible for haemolysis, demonstrating that HapE is a novel potential virulence factor of M."

For more information on this research see: Hydrogen sulfide is a novel potential virulence factor of Mycoplasma pneumoniae: characterization of the unusual cysteine desulfurase/desulphydrase HapE. Molecular Microbiology, 2016;100(1):42-54. (Wiley-Blackwell - www.wiley.com/; Molecular Microbiology - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2958)

Our news journalists report that additional information may be obtained by contacting S. Großhennig, Dept. of General Microbiology, Georg-August-University Gottingen, Grisebachstr 8, D-37077, Gottingen, Germany. Additional authors for this research include T. Ischebeck, J. Gibhardt, J. Busse, I. Feussner and J. Stulke.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/mmi.13300. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gases, Europe, Germany, Cysteine, Elements, Genetics, Gottingen, Mollicutes, Desulfurase, Desulphydrase, Mycoplasmatales, Hydrogen Sulfide, Mycoplasmataceae, Sulfur Compounds, Biological Toxins, Hydrogen Peroxide, Virulence Factors, Biological Factors, Sulfur Amino Acids, Inorganic Chemicals, Neutral Amino Acids.

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Nanotechnology - Nanoparticles

Findings on Nanoparticles Discussed by Investigators at School of Chemistry and Environment (Using hyaluronic acid-functionalized pH stimuli-responsive mesoporous silica nanoparticles for targeted delivery to CD44-overexpressing cancer cells)
According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "In this study, novel hyaluronic acid-pH stimuli-responsive lipid membrane mesoporous silica nanoparticles (HA-PL-MSNs) were designed and assembled, with the chemotherapeutic agent doxorubicin (DOX) as the model drug. HA-PL-MSNs exhibited a well-defined mesostructure covered by lipid bilayer and particle size of similar to 150 nm."

Our news journalists obtained a quote from the research from the School of Chemistry and Environment, "The drug loading capacity was up to similar to 18.2%. DOX release could be effectively retained by the lipid bilayer in pH 7.4 buffer and exhibited a pH-triggered burst release in the acidic condition. Confocal laser scanning microscopy and fluorescence-activated cell sorting showed that HA-PL-MSNs exhibited higher cellular uptake efficiency via CD44 receptor-mediated endocytosis compared with PL-MSNs in HeLa cells. In vitro cytotoxicity studies demonstrated that HA-PL-MSNs could effectively enhance the targeted delivery of DOX and restrain the growth of HeLa cells."

According to the news editors, the research concluded: "This might provide a promising alternative for the development of a targeted anticancer drug delivery system."

For more information on this research see: Using hyaluronic acid-functionalized pH stimuli-responsive mesoporous silica nanoparticles for targeted delivery to CD44-overexpressing cancer cells. *International Journal of Nanomedicine, 2016;11():6485-6497*. *International Journal of Nanomedicine* can be contacted at: Dove Medical Press Ltd, PO Box 300-008, Albany, Auckland 0752, New Zealand.

The news correspondents report that additional information may be obtained from L. Gan, Shanghai Inst Technol, Sch Chem & Environm Engn, Dept. of Pharmaceut Engn, Shanghai, People's Republic of China. Additional authors for this research include Y.F. Tian, H. Zhang, Y.M. Qin, D. Li, L. Gan and F.H. Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/IJN.S117184. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Nanoparticles, Emerging Technologies, Nanotechnology, Nanoparticle, Oncology, Cancer, School of Chemistry and Environment.

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**Nephrology**

**Findings on Nephrology Discussed by D. Habedank and Co-Researchers (Vasodilation and Exercise Capacity in Patients with End-Stage Renal Disease: A Prospective Proof-of-Concept Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nephrology have been presented. According to news reporting out of Berlin, Germany, by NewsRx editors, research stated, "Previous data have pointed to the fact that vascular function is significantly impaired in patients with end-stage renal disease (ESRD). We aimed to better characterise vasodilation and exercise capacity in both ESRD and chronic heart failure (CHF) patients."
Our news journalists obtained a quote from the research, "A total of 30 ESRD patients (23 male; mean age 45.7 +/- 9.9 years) were included in a prospective proof-of-concept study at a tertiary care academic centre. The patients underwent forearm venous plethysmography with post-ischaemic peak blood flow (PF) and flow-dependent flow (FDF) testing as well as cardiopulmonary exercise testing during the morning of the day following the last haemodialysis. After matching for age, gender, and body mass index, the data were compared to 30 patients with CHF and 20 age-matched healthy controls. PF in ESRD patients was reduced when compared to that in CHF patients (12.5 +/- 4.2 vs. 15.6 +/- 6.9 ml/100 ml/min; p = 0.048) and healthy controls (26.4 +/- 9.3 ml/100 ml/min; p< 0.001). When compared to controls, FDF was significantly reduced in ESRD patients (7.6 +/- 3.1 vs. 6.0 +/- 2.5 ml/100 ml/min; p = 0.03), but not in CHF patients, whereas resting blood flow did not differ between the ESRD, CHF, and healthy control groups. In contrast to indices of vasodilative capacity, maximum exercise capacity (peakVO(2)) was higher in ESRD when compared to CHF patients (23.8 +/- 7.3 vs. 18.8 +/- 5.2 ml/min/kg), but significantly impaired when compared to controls (32.8 +/- 6.7 ml/min/kg; p< 0.001). In this proof-of-concept study, exercise capacity was relatively preserved, while vasodilative capacity was substantially impaired in ESRD patients."

According to the news editors, the research concluded: "Additional studies are warranted to examine the underlying mechanisms and potential clinical implications of our findings."


Our news journalists report that additional information may be obtained by contacting D. Habedank, DRK Kliniken Berlin Kopenick, Medical Klin Kardiol, DE-12559 Berlin, Germany. Additional authors for this research include J.C. Schefold, C. Bernhardt, T. Karhausen, W. Doehner, S.D. Anker and P. Reinke.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000449174. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berlin, Germany, Europe, Vasodilation, Diagnostics and Screening, Cardiovascular Physiological Phenomena, Renal Disease, Hemodynamics, Nephrology, Kidney.

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reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Mutation of PKD1, encoding the protein polycystin-1 (PC1), is the main cause of autosomal dominant polycystic kidney disease (ADPKD). The signaling pathways downstream of PC1 in ADPKD are still not fully understood."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Here, we provide genetic evidence for the necessity of G alpha 12 (encoded by Gna12, hereafter G alpha 12) for renal cystogenesis induced by Pkd1 knockout. There was no phenotype in mice with deletion of Galpha12 (Galpha12(-/-)). Polyinosine-polycytosine (pI: pC)-induced deletion of Pkd1 (Mx1Cre(+)Pkd1(f/f)G alpha 12(+/-)) in 1-week-old mice resulted in multiple kidney cysts by 9 weeks, but the mice with double knockout of Pkd1 and Galpha12 (Mx1Cre(+)Pkd1(f/f)G alpha 12(-/-)) had no structural and functional abnormalities in the kidneys. These mice could survive more than one year without kidney abnormalities except multiple hepatic cysts in some mice, which indicates that the effect of G alpha 12 on cystogenesis is kidney specific. Furthermore, Pkd1 knockout promoted G alpha 12 activation, which subsequently decreased cell-matrix and cell-cell adhesion by affecting the function of focal adhesion and E-cadherin, respectively."

According to the news editors, the research concluded: "Our results demonstrate that G alpha 12 is required for the development of kidney cysts induced by Pkd1 mutation in mouse ADPKD."


Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Nephrology, Genetics, Kidney, Cysts, Harvard School of Medicine.

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Nephrology

**Findings on Nephrology Reported by Investigators at University of Sydney (Recent advances in autosomal-dominant polycystic kidney disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nephrology have been published. According to news reporting originating from Sydney, Australia, by NewsRx correspondents, research stated, "Autosomal-dominant polycystic kidney disease (ADPKD) is the most common genetic renal disease in adults, affecting one in every 1000 Australians. It is caused by loss-of-function heterozygous mutations in either PKD1 or PKD2, which encode the proteins, polycystin-1 and polycystin-2 respectively."

Our news editors obtained a quote from the research from the University of Sydney,
"The disease hallmark is the development of hundreds of microscopic fluid-filled cysts in the kidney during early childhood, which grow exponentially and continuously through life at varying rates (between 2% and 10% per year), causing loss of normal renal tissue and up to a 50% lifetime risk of dialysis-dependent kidney failure. Other systemic complications include hypertensive cardiac disease, hepatic cysts, intracranial aneurysms, diverticular disease and hernias. Over the last two decades, advances in the genetics and pathogenesis of this disease have led to novel treatments that reduce the rate of renal cyst growth and may potentially delay the onset of kidney failure. New evidence indicates that conventional therapies (such as angiotensin inhibitors and statins) have mild attenuating effects on renal cyst growth and that systemic levels of vasopressin are critical for promoting renal cyst growth in the postnatal period. Identifying and integrating patient-centred perspectives in clinical trials is also being advocated."

According to the news editors, the research concluded: "This review will provide an update on recent advances in the clinical management of ADPKD."


The news editors report that additional information may be obtained by contacting G.K. Rangan, University of Sydney, Westmead Inst Med Res, Center Transplant & Renal Res, Sydney, NSW, Australia. Additional authors for this research include M.C. Tchan, A. Tong, A.T.Y. Wong and B.J. Nankivell.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Nephrology, Genetics, Kidney, Cysts, University of Sydney.

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**Neurodegenerative Diseases**

**Findings on Neurodegenerative Diseases Reported by Investigators at Max-Planck-Institute (The m-AAA Protease Associated with Neurodegeneration Limits MCU Activity in Mitochondria)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases have been published. According to news reporting from Cologne, Germany, by NewsRx journalists, research stated, "Mutations in subunits of mitochondrialm-AAA proteases in the inner membrane cause neurodegeneration in spinocerebellar ataxia (SCA28) and hereditary spastic paraplegia (HSP7). m-AAA proteases preserve mitochondrial proteostasis, mitochondrial morphology, and efficient OXPHOS activity, but the cause for neuronal loss in disease is unknown. We have determined the neuronal interactome of m-AAA proteases in mice and identified a complex with C2ORF47 (termed MAIP1), which counteracts cell death by regulating the assembly of the mitochondrial Ca2+ uniporter MCU."

The news correspondents obtained a quote from the research from Max-Planck-Institute, "While MAIP1 assists biogenesis of the MCU subunit EMRE, the m-AAA protease degrades non-assembled EMRE and ensures efficient assembly of gatekeeper subunits with
MCU. Loss of the m-AAA protease results in accumulation of constitutively active MCU-EMRE channels lacking gatekeeper subunits in neuronal mitochondria and facilitates mitochondrial Ca2+ overload, mitochondrial permeability transition pore opening, and neuronal death."

According to the news reporters, the research concluded: "Together, our results explain neuronal loss in m-AAA protease deficiency by deregulated mitochondrial Ca2+ homeostasis."

For more information on this research see: The m-AAA Protease Associated with Neurodegeneration Limits MCU Activity in Mitochondria. *Molecular Cell*, 2016;64(1):148-162. *Molecular Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)


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Keywords for this news article include: Cologne, Germany, Europe, Neurodegenerative Diseases, Subcellular Fractions, Enzymes and Coenzymes, Cellular Structures, Intracellular Space, Neurodegenerative, Mental Health, Mitochondria, Organelles, Cytoplasm, Protease, Genetics, Neurons, Cells, Max-Planck-Institute.

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**Oncology - Neuroendocrine Cancer**

**Findings on Neuroendocrine Cancer Detailed by Investigators at Ochsner Medical Center (Neuroendocrine Tumors and Lanreotide Depot: Clinical Considerations and Nurse and Patient Preferences)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Neuroendocrine Cancer is now available. According to news reporting out of Kenner, Louisiana, by NewsRx editors, research stated, "Somatostatin analogs (SSAs) are a mainstay therapy for the treatment of carcinoid syndrome associated with neuroendocrine tumors (NETs). They are effective for a range of gastroenteropancreatic NETs (GEP-NETs)."

Our news journalists obtained a quote from the research from Ochsner Medical Center, "Lanreotide depot (Somatuline ®) is an SSA that is approved for the treatment of GEP-NETs to improve progression-free survival (PFS). The article reviews the efficacy, safety, and administration of lanreotide depot and relates those attributes to considerations and preferences of oncology nurses and their patients. A review of the literature on the use of lanreotide for the treatment of NETs and carcinoid syndrome was conducted. In addition, the literature on drug delivery and routes of administration was surveyed to provide context for comparative studies related to clinical and patient preferences. Lanreotide depot prolongs PFS and is well tolerated.
by patients who expressed satisfaction in the ability to control symptoms related to carcinoid syndrome. Nurses cited several benefits to using lanreotide depot in the clinical setting, including more time saved to address other patient care issues."

According to the news editors, the research concluded: "Attributes of lanreotide depot—including its efficacy, safety and tolerability, dosing and administration, and cost-may contribute to healthcare decisions regarding the treatment and management of NETs."

For more information on this research see: Neuroendocrine Tumors and Lanreotide Depot: Clinical Considerations and Nurse and Patient Preferences. Clinical Journal of Oncology Nursing, 2016;20(6):E139-E146. Clinical Journal of Oncology Nursing can be contacted at: Oncology Nursing Soc, 125 Enterprise Dr, Pittsburgh, PA 15275, USA.

Our news journalists report that additional information may be obtained by contacting P. Ryan, Ochsner Med Center, Infus Center, Kenner, LA 70065, United States. Additional authors for this research include A.T. Phan, D.T. Adelman and M. Iwasaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1188/16.CJON.E139-E146. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kenner, Louisiana, United States, North and Central America, Somatostatin and Somatostatin Analogs, Neuroendocrine Cancer, Neuroendocrine Tumors, Drugs and Therapies, Lanreotide Therapy, Carcinoid Tumor, Hormones, Oncology, Ochsner Medical Center.

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Neurons

Findings on Neurons Detailed by Investigators at Tokyo Women's Medical University (Endoplasmic reticulum stress-mediated neuronal apoptosis by acrylamide exposure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Neurons is the subject of a report. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Acrylamide (AA) is a well-known neurotoxic compound in humans and experimental animals. However, intracellular stress signaling pathways responsible for the neurotoxicity of AA are still not clear."

Our news journalists obtained a quote from the research from Tokyo Women's Medical University, "In this study, we explored the involvement of the endoplasmic reticulum (ER) stress response in AA-induced neuronal damage in vitro and in vivo. Exposure of SH-SY5Y human neuroblastoma cells to AA increased the levels of phosphorylated form of eukaryotic translation initiation factor 2 alpha (eIF2 alpha) and its downstream effector, activating transcription factor 4 (ATF4), indicating the induction of the unfolded protein response (UPR) by AA exposure. Furthermore, AA exposure increased the mRNA level of c/EBP homologous protein (CHOP), the ER stress-dependent apoptotic factor, and caused the accumulation of reactive oxygen species (ROS) in SH-SY5Y cells. Treatments of SH-SY5Y cells with the chemical chaperone, 4-phenylbutyric acid and the ROS scavenger, N-acetyl-cysteine reduced the AA-induced expression of ATF4 protein and CHOP mRNA, and resulted in the suppression of apoptosis. In addition, AA-induced eIF2 alpha phosphorylation was also
suppressed by NAC treatment. In consistent with in vitro study, exposure of zebrafish larvae at 6-day post fertilization to AA induced the expression of chop mRNA and apoptotic cell death in the brain, and also caused the disruption of brain structure. These findings suggest that AA exposure induces apoptotic neuronal cell death through the ER stress and subsequent elF2 alpha-ATF4-CHOP signaling cascade."

According to the news editors, the research concluded: "The accumulation of ROS by AA exposure appears to be responsible for this ER stress-mediated apoptotic pathway."


The news correspondents report that additional information may be obtained from Y. Komoike, Tokyo Women's Medical University, Dept. of Hyg & Public Hlth, Shinjuku Ku, Tokyo 1628666, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.09.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Endoplasmic Reticulum, Cellular Structures, Intracellular Space, Organic Chemicals, Carboxylic Acids, Acrylamides, Organelles, Acrylates, Cytoplasm, Apoptosis, Genetics, Neurons, Cells, Tokyo Women's Medical University.

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**Neutral Amino Acids**

**Findings on Neutral Amino Acids Detailed by Investigators at Van Andel Research Institute (The role of the unusual threonine string in the conversion of prion protein)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Neutral Amino Acids are discussed in a new report. According to news originating from Grand Rapids, Michigan, by NewsRx correspondents, research stated, "The conversion of normal prion protein (PrP) into pathogenic PrP conformers is central to prion disease, but the mechanism remains unclear. The alpha-helix 2 of PrP contains a string of four threonines, which is unusual due to the high propensity of threonine to form beta-sheets."

Our news journalists obtained a quote from the research from Van Andel Research Institute, "This structural feature was proposed as the basis for initiating PrP conversion, but experimental results have been conflicting. We studied the role of the threonine string on PrP conversion by analyzing mouse Prnp(a) and Prnp(b) polymorphism that contains a polymorphic residue at the beginning of the threonine string, and PrP mutants in which threonine 191 was replaced by valine, alanine, or proline. The PMCA (protein misfolding cyclic amplification) assay was able to recapitulate the in vivo transmission barrier between PrPa and PrPb. Relative to PMCA, the amyloid fibril growth assay is less restrictive, but it did reflect certain properties
of in vivo prion transmission."

According to the news editors, the research concluded: "Our results suggest a plausible theory explaining the apparently contradictory results in the role of the threonine string in PrP conversion and provide novel insights into the complicated relationship among PrP stability, seeded conformational change, and prion structure, which is critical for understanding the molecular basis of prion infectivity."

For more information on this research see: The role of the unusual threonine string in the conversion of prion protein. Scientific Reports, 2016;6():1-9. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J.Y. Ma, Van Andel Res Inst, Center Neurodegenerat Sci, Grand Rapids, MI 49503, United States. Additional authors for this research include F. Wang, K.J.V. Stel, K. Sinniah and J.Y. Ma.

Keywords for this news article include: Grand Rapids, Michigan, United States, North and Central America, Essential Amino Acids, Neutral Amino Acids, Threonine, Genetics, Van Andel Research Institute.

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Oncology - Non-Small Cell Lung Cancer

Findings on Non-Small Cell Lung Cancer Described by Researchers at School of Public Health (Dose-Dependent Mutation Rates Determine Optimum Erlotinib Dosing Strategies for EGFR Mutant Non-Small Cell Lung Cancer Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "The advent of targeted therapy for cancer treatment has brought about a paradigm shift in the clinical management of human malignancies. Agents such as erlotinib used for EGFR-mutant non-small cell lung cancer or imatinib for chronic myeloid leukemia, for instance, lead to rapid tumor responses."

Our news journalists obtained a quote from the research from the School of Public Health, "Unfortunately, however, resistance often emerges and renders these agents ineffective after a variable amount of time. The FDA-approved dosing schedules for these drugs were not designed to optimally prevent the emergence of resistance. To this end, we have previously utilized evolutionary mathematical modeling of treatment responses to elucidate the dosing schedules best able to prevent or delay the onset of resistance. Here we expand on our approaches by taking into account dose-dependent mutation rates at which resistant cells emerge. The relationship between the serum drug concentration and the rate at which resistance mutations arise can lead to non-intuitive results about the best dose administration strategies to prevent or delay the emergence of resistance. We used mathematical modeling, available clinical trial data, and different considerations of the relationship between mutation rate and drug concentration to predict the effectiveness of different dosing strategies. We designed
several distinct measures to interrogate the effects of different treatment dosing strategies and found that a low-dose continuous strategy coupled with high-dose pulses leads to the maximal delay until clinically observable resistance. Furthermore, the response to treatment is robust against different assumptions of the mutation rate as a function of drug concentration.

According to the news editors, the research concluded: "For new and existing targeted drugs, our methodology can be employed to compare the effectiveness of different dose administration schedules and investigate the influence of changing mutation rates on outcomes."


Our news journalists report that additional information may be obtained by contacting L.L. Liu, Dept. of Biostatistics, Harvard T H Chan School of Public Health, Boston, MA 02115, United States. Additional authors for this research include F. Li, W. Pao and F. Michor.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0141665. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Boston, Genetics, Oncology, Massachusetts, United States, Lung Neoplasms, EGFR Inhibitors, Erlotinib Therapy, Drugs and Therapies, North and Central America, Protein Kinase Inhibitors, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer, Tyrosine Kinase Inhibitors.

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**Oncology - Non-Small Cell Lung Cancer**

**Findings on Non-Small Cell Lung Cancer Detailed by Investigators at Kyungpook National University (The Different Effect of VEGF Polymorphisms on the Prognosis of Non-Small Cell Lung Cancer according to Tumor Histology)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Non-Small Cell Lung Cancer are discussed in a new report. According to news originating from Daegu, South Korea, by NewsRx correspondents, research stated, "Vascular endothelial growth factor (VEGF) contributes to tumor angiogenesis. The role of VEGF single nucleotide polymorphisms (SNPs) in lung cancer susceptibility and its prognosis remains inconclusive and controversial."

Our news journalists obtained a quote from the research from Kyungpook National University, "This study was performed to investigate whether VEGF polymorphisms affect survival outcomes of patients with early stage non-small cell lung cancer (NSCLC) after surgery. Three potentially functional VEGF SNPs (rs833061T >C, rs2010963G >C, and rs3025039C >T) were genotyped. A total of 782 NSCLC patients who were treated with surgical resection were enrolled. The association of the SNPs with overall survival (OS) and disease free survival (DFS) was analyzed. In overall population, none of the three polymorphisms were significantly associated with OS or DFS. However, when the patients were stratified by tumor histology, squamous cell carcinoma (SCC) and adenocarcinoma (AC) had significantly different
OS (Adjusted hazard ratio [aHR] = 0.76, 95% CI = 0.56-1.03 in SCC; aHR = 1.33, 95% CI = 0.98-1.82 in AC; P for heterogeneity = 0.001) and DFS (aHR = 0.75, 95% CI = 0.58-0.97 in SCC; aHR = 1.26, 95% CI = 1.00-1.60 in AC; P for heterogeneity = 0.004) according to the rs833061T >C genotypes."

According to the news editors, the research concluded: "Our results suggest that the prognostic role of VEGF rs833061T >C may differ depending on tumor histology."

For more information on this research see: The Different Effect of VEGF Polymorphisms on the Prognosis of Non-Small Cell Lung Cancer according to Tumor Histology. Journal of Korean Medical Science, 2016;31(11):1735-1741. Journal of Korean Medical Science can be contacted at: Korean Acad Medical Sciences, 302 75 Dong Du Ichon, Dong Yongsan Ku, Seoul 140 031, South Korea.

The news correspondents report that additional information may be obtained from J.Y. Park, Kyungpook National University, Medical Center, Lung Canc Center, Daegu 41404, South Korea. Additional authors for this research include H.G. Kang, J.E. Choi, J.H. Lee, H.J. Kang, S.A. Baek, E. Lee, Y. Seok, W.K. Lee, S.Y. Lee, S.S. Yoo, J. Lee, S.I. Cha, C.H. Kim, S. Cho and J.Y. Park.

Keywords for this news article include: Daegu, South Korea, Asia, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Non-Small Cell Lung Cancer, Squamous Cell Carcinoma, Growth Factor Receptors, Phosphotransferases, Angiogenic Proteins, Membrane Proteins, Protein Kinases, Lung Neoplasms, Histology, Oncology, Genetics, VEGF, Kyungpook National University.

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Proteins - Nucleoproteins

Findings on Nucleoproteins Detailed by Investigators at Stanford University (A New Chromatin-Cytoskeleton Link in Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Proteins - Nucleoproteins is now available. According to news reporting originating from Stanford, California, by NewsRx editors, the research stated, "The set domain containing 2 ( SETD2) histone methyltransferase, located at 3p2, specifically trimethylates lysine 36 of histone H3 (H3K36me3). H3K36me3 is an active mark involved in transcriptional elongation and RNA processing and a key regulator of DNA repair."

Our news editors obtained a quote from the research from Stanford University, "In fact, SETD2 is the only methyltransferase that 'writes' the H3K36me3 mark. Recent results from Park and colleagues have found a new role for SETD2 in the methylation of K40 of alpha-tubulin. Loss of SETD2 abolishes methylation of K40 of alpha-tubulin and results in a dysfunctional mitotic spindle and abnormalities in cytokinesis. Thus, SETD2 links chromatin and cytoskeleton homeostasis through its methyltransferase activity."

According to the news editors, the research concluded: "These studies have important implications on the role of SETD2 mutations in promoting genomic instability and tumor progression."

For more information on this research see: A New Chromatin-Cytoskeleton Link in Cancer. Molecular Cancer Research, 2016;14(12):1173-1175. Molecular Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA
Nutritional and Metabolic Diseases and Conditions —

**Findings on Obesity Detailed by Investigators at Salzburg University (Attentional and motor impulsivity interactively predict 'food addiction' in obese individuals)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating in Salzburg, Austria, by NewsRx journalists, research stated, "Impulsivity is a multifaceted construct and constitutes a common risk factor for a range of behaviors associated with poor self-control (e.g., substance use or binge eating). The short form of the Barratt Impulsiveness Scale (BIS-15) measures impulsive behaviors related to attentional (inability to focus attention or concentrate), motor (acting without thinking), and non planning (lack of future orientation or forethought) impulsivity."

The news reporters obtained a quote from the research from Salzburg University, "Eating-related measures appear to be particularly related to attentional and motor impulsivity and recent findings suggest that interactive effects between these two facets may play a role in eating- and weight-regulation. One-hundred thirty-three obese individuals presenting for bariatric surgery (77.4% female) completed the BIS-15 and the Yale Food Addiction Scale (YFAS) 2.0, which measures addiction-like eating based on the eleven symptoms of substance use disorder outlined in the fifth version of the Diagnostic and Statistical Manual of Mental Disorders. Sixty-three participants (47.4%) were classified as being 'food addicted'. Scores on attentional and motor impulsivity interactively predicted 'food addiction' status: higher attentional impulsivity was associated with a higher likelihood of receiving a YFAS 2.0 diagnosis only at high (+1 SD), but not at low (-1 SD) levels of motor impulsivity. Results support previous findings showing that non-planning impulsivity does not appear to play a role in eating-related self regulation. Furthermore, this is the first study that shows interactive effects between different impulsivity facets when predicting 'food addiction' in obese individuals."

According to the news reporters, the research concluded: "Self-regulatory failure in eating-regulation (e.g., addiction-like overeating) may particularly emerge when both attentional and motor impulsivity levels are elevated."

For more information on this research see: Attentional and motor impulsivity interactively predict 'food addiction' in obese individuals. *Comprehensive Psychiatry, 2017;72*
Findings on Obesity Discussed by Investigators at University of New Mexico (Mirror, Mirror on the Wall: Children's Preferences and Self-Perceptions of Weight in a Rural Hispanic Community)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Obesity is the subject of a report. According to news reporting from Albuquerque, New Mexico, by NewsRx journalists, research stated, "Although studies have documented parents' misperceptions regarding their children's weight, studies examining preadolescent children's self-perceptions of weight-in particular, Hispanic children's self-perceptions of weight-are limited. A convenience sample of 424 children from a rural community, aged 8 to 11 years and in grades 3 through 5, participated in this cross-sectional, descriptive, nonexperimental study."

The news correspondents obtained a quote from the research from the University of New Mexico, "Using the Children's Body Image Scale, the children were asked to select a figure representing their actual body perception and a figure representing their ideal body perception. The children were weighed and measured, body mass index (BMI) was calculated, and each child was assigned to one of the Centers for Disease Control and Prevention weight categories: underweight, normal or healthy weight, overweight, or obese. Only BMI category was found to be significantly associated with accurate perception, \( \chi^2(3) = 201.4, p < .001 \), with only 9% of overweight or obese children selecting figures representing their actual BMI category. Actual BMI category, \( \chi^2(2) = 8.8, p = .032 \), and grade level, \( \chi^2(2) = 6.7, p = .036 \), had a significant association with selection of an underweight ideal. Overall, 32% of children selected an underweight figure as ideal. Prepubertal children who are either overweight or obese do not accurately perceive their weight status."

According to the news reporters, the research concluded: "Rather than focusing solely on weight reduction programs, emphasis should be placed on promoting healthy lifestyles and choices."

Our news journalists report that additional information may be obtained by contacting C. Montoya, University of New Mexico, Coll Nursing, Albuquerque, NM 87131, United States. Additional authors for this research include B. Boursaw, B. Tigges and M.L. Lobo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pedhc.2015.11.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Albuquerque, New Mexico, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Pediatrics, Bariatrics, Obesity, University of New Mexico.

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Nutritional and Metabolic Diseases and Conditions -…

Findings on Obesity Reported by Investigators at University of Zurich (Organic Cation Transporter 2 Overexpression May Confer an Increased Risk of Gentamicin-Induced Nephrotoxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Obesity is the subject of a report. According to news reporting originating from Zurich, Switzerland, by NewsRx correspondents, research stated, "Nephrotoxicity is a relevant limitation of gentamicin, and obese patients have an increased risk for gentamicin-induced kidney injury. This damage is thought to depend on the accumulation of the drug in the renal cortex."

Our news editors obtained a quote from the research from the University of Zurich, "Obese rats showed substantially higher levels of gentamicin in the kidney than did lean animals. This study characterized the role of organic cation transporters (OCTs) in gentamicin transport and elucidated their possible contribution in the increased renal accumulation of gentamicin in obesity. The mRNA and protein expression levels of the organic cation transporters Oct2 (Slc22a2) and Oct3 (Slc22a3) were increased in kidney samples from obese mice fed a high-fat diet. Similarly, OCT2 (similar to 2-fold) and OCT3 (similar to 3-fold) showed increased protein expression in the kidneys of obese patients compared with those of nonobese individuals. Using HEK293 cells overexpressing the different OCTs, human OCT2 was found to transport [H-3] gentamicin with unique sigmoidal kinetics typical of homotropic positive cooperativity (autoactivation). In mouse primary proximal tubular cells, [H-3] gentamicin uptake was reduced by approximately 40% when the cells were coincubated with the OCT2 substrate metformin. The basolateral localization of OCT2 suggests that gentamicin can enter proximal tubular cells from the blood side, probably as part of a slow tubular secretion process that may influence intracellular drug concentrations and exposure time."

According to the news editors, the research concluded: "Increased expression of OCT2 may explain the higher accumulation of gentamicin, thereby conferring an increased risk of renal toxicity in obese patients."

For more information on this research see: Organic Cation Transporter 2 Overexpression May Confer an Increased Risk of Gentamicin-Induced Nephrotoxicity.
Findings on Obstructive Sleep Apnea Reported by Investigators at Capital Medical University [Mean apnea-hypopnea duration (but not apnea-hypopnea index) is associated with worse hypertension in patients with obstructive sleep apnea]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "To determine which polysomnography parameters are associated with severity of hypertension. This retrospective study collected data on all patients admitted to our urban, academic center in Beijing with hypertension who had undergone polysomnograms (PSG) and were diagnosed with obstructive sleep apnea (OSA) (apnea-hypopnea index [AHI] >= 5/hour)."

The news reporters obtained a quote from the research from Capital Medical University, "We then compared polysomnographic parameters (AHI, oxygen desaturation index [ODI], lowest oxygen saturation [LOS], and mean apnea hypopnea duration [MAD]) by hypertension severity in this cohort. There were 596 subjects who met entry criteria. Age, sex distribution, body mass index (BMI), history of current smoking and alcohol were similar among groups. Subjects with longer MAD suffered from more severe hypertension (P=0.011). There were no relationship between AHI, ODI, and LOS and hypertension in our cohort. There were no significant differences in age, sex, BMI, history of current smoking and alcohol use between hypertension groups. MAD had a small but significant independent association (odds ratio [OR]=1.072, 95% confidence interval [CI] 1.019-1.128, P=0.007) with moderate to severe hypertension, using logistic regression analysis that accounted for age, sex, BMI, history of current smoking and alcohol, AHI, and LOS. Chinese inpatients with longer MAD by PSG face higher odds of moderate to severe hypertension. The mechanism of these effects may be due to aggravated nocturnal hypoxaemia and hypercapnia, as well as disturbed sleep architecture."
According to the news reporters, the research concluded: "These results suggest that additional information available in the polysomnogram, such as MAD, should be considered when evaluating OSA patients."

For more information on this research see: Mean apnea-hypopnea duration (but not apnea-hypopnea index) is associated with worse hypertension in patients with obstructive sleep apnea. *Medicine, 2016;95(48):183-187.* *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting Y.X. Wei, Capital Med Univ, Beijing An Zhen Hosp, Beijing 100029, People's Republic of China. Additional authors for this research include X.J. Zhan, M.N. Zhao and Y.X. Wei.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Sleep Diseases and Conditions, Obstructive Sleep Apnea, Respiration Disorders, Sleep Disorders, Otolaryngology, Hypertension, Craniofacial, Pulmonology, Capital Medical University.

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**Oncology**

**Findings on Oncology Described by T. Baker and Colleagues**

*(Acquisition of a single EZH2 D1 domain mutation confers acquired resistance to EZH2-targeted inhibitors)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology is now available. According to news originating from Cambridge, Massachusetts, by NewsRx correspondents, research stated, "Although targeted therapies have revolutionized cancer treatment, overcoming acquired resistance remains a major clinical challenge. EZH2 inhibitors (EZH2i), EPZ-6438 and GSK126, are currently in the early stages of clinical evaluation and the first encouraging signs of efficacy have recently emerged in the clinic."

Our news journalists obtained a quote from the research, "To anticipate mechanisms of resistance to EZH2i, we used a forward genetic platform combining a mutagenesis screen with next generation sequencing technology and identified a hotspot of secondary mutations in the EZH2 D1 domain (Y111 and I109). Y111D mutation within the WT or A677G EZH2 allele conferred robust resistance to both EPZ-6438 and GSK126, but it only drove a partial resistance within the Y641F allele. EZH2 mutants required histone methyltransferase (HMT) catalytic activity and the polycomb repressive complex 2 (PRC2) components, SUZ12 and EED, to drive drug resistance. Furthermore, D1 domain mutations not only blocked the ability of EZH2i to bind to WT and A677G mutant, but also abrogated drug binding to the Y641F mutant. These data provide the first cellular validation of the mechanistic model underpinning the oncogenic function of WT and mutant EZH2."

According to the news editors, the research concluded: "Importantly, our findings suggest that acquired-resistance to EZH2i may arise in WT and mutant EZH2 patients through a single mutation that remains targetable by second generation EZH2i."

For more information on this research see: Acquisition of a single EZH2 D1 domain

The news correspondents report that additional information may be obtained from T. Baker, ARIAD Pharmaceuticals, Inc, Cambridge, MA 02139, United States. Additional authors for this research include S. Nerle, J. Pritchard, B. Zhao, V.M. Rivera, A. Garner and F. Gonzalvez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5066. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Oncology, Cambridge, Massachusetts, United States, North and Central America.

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Nursing - Oncology Nursing

Findings on Oncology Nursing Discussed by Investigators at Isfahan University of Medical Sciences (Perceptions of patients, families, physicians and nurses regarding challenges in cancer disclosure: A descriptive qualitative study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nursing - Oncology Nursing have been presented. According to news reporting out of Esfahan, Iran, by NewsRx editors, research stated, "The findings of numerous studies have illustrated that there is still a high proportion of cancer patients in Eastern and Middle-East countries including Iran, who are not properly informed of their disease due to the concealment atmosphere which still prevails. This descriptive qualitative study is aimed at exploring perceptions of patients, patients' family members, physicians and nurses regarding cancer disclosure challenges."

Our news journalists obtained a quote from the research from the Isfahan University of Medical Sciences, "Thirty-five participants (15 patients, 6 family members, 9 physicians, and 5 nurses) were selected through purposive sampling. The data were collected through in-depth interviews; after which they were analyzed using a qualitative content analysis with an inductive approach. Data analysis revealed the following three categories: first, challenges related to healthcare system which deals with the deficiencies, strains and concerns in medical setting and healthcare team training; second, challenges related to family insistence on concealment which includes their fear of cancer disclosure and its negative impact on the patients; and third, challenges related to policy making which consists of deficiencies in legislative and supportive institutions for advocacy of truth telling."

According to the news editors, the research concluded: "Successful move from concealment to effective disclosure attitude in cancer patients in Iran requires a national determination for resolving challenges in medical education as well as other different social,. cultural and policy making dimensions."

For more information on this research see: Perceptions of patients, families, physicians and nurses regarding challenges in cancer disclosure: A descriptive qualitative study. European Journal of Oncology Nursing, 2016;25():55-61. European Journal of Oncology Nursing can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington,
Findings on Oral Cancer Reported by Investigators at National Taiwan
University (Phenethyl isothiocyanate enhances TRAIL-induced
apoptosis in oral cancer cells and xenografts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Oncology - Oral Cancer. According to
news originating from Hsinchu, Taiwan, by NewsRx correspondents, research stated, "Tumor
necrosis factor-related apoptosis-inducing ligand (TRAIL) has been regarded as a promising
candidate for cancer therapy. However, most of oral cancer cell lines are resistant to the TRAIL-
induced cytotoxicity."

Financial supporters for this research include National Taiwan University Hospital,
Hsin-chu Branch, National Science Council, Taipei, Taiwan.

Our news journalists obtained a quote from the research from National Taiwan
University. "The aim of this study was to investigate the ability of phenethyl isothiocyanate
(PEITC) to sensitize TRAIL-induced apoptosis in TRAIL-resistant oral cancer cells and
xenografts. Terminal deoxynucleotidyl transferase-mediated dUTP nick-end labeling assay,
Western blotting, and a mouse xenograft model were used to study the effects of PEITC and
TRAIL on two TRAIL-resistant human oral cancer cells, SAS and Ca9-22. PEITC upregulated
death receptor 4 (DR4) and DR5 protein expression and increased reactive oxygen species
(ROS) production in both SAS and Ca9-22 cells. Antioxidant N-acetyl-l-cysteine (NAC) and c-
Jun NH2-terminal kinase (JNK) inhibitor SP600125 inhibited PEITC-induced DR4 and DR5
expression. Inhibitor experiments showed that PEITC induced apoptosis through ROS-mediated
JNK activation and upregulation of DR4 and DR5. Furthermore, treatment with PEITC
significantly increased TRAIL-induced apoptosis in both cells. Combined treatment with PEITC
and TRAIL had greater effect on the inhibition of tumor growth than either agent alone. We
showed for the first time that PEITC overcomes TRAIL resistance in oral cancer cells and
enhance the therapeutic potential of TRAIL in vivo."

According to the news editors, the research concluded: "PEITC, either alone or in
combination with TRAIL, can be used as a new therapeutic approach for the treatment of oral
cancers."

For more information on this research see: Phenethyl isothiocyanate enhances

The news correspondents report that additional information may be obtained from Y.T. Deng, National Taiwan University, Hsinchu Branch, Dept. of Dental, Hsinchu, Taiwan. Additional authors for this research include H.H. Ko, Y.P. Hsieh, K.J. Wu, M.Y.P. Kuo and Y.T. Deng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00784-016-1736-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hsinchu, Taiwan, Asia, Xenotransplantation, Sulfur Compounds, Isothiocyanates, Mouth Neoplasms, Biotechnology, Oral Cancers, Isocyanates, Xenografts, Apoptosis, Oncology, National Taiwan University.

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Musculoskeletal Diseases and Conditions –

Findings on Osteoporosis Reported by Investigators at Columbia University (Effects of Daily or Cyclic Teriparatide on Bone Formation in the Iliac Crest in Women on No Prior Therapy and in Women on Alendronate)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Osteoporosis have been published. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "There is little information on the effects of combination therapy for osteoporosis at the tissue level. Using quadruple tetracycline-labeled bone biopsies, we have compared the bone formation response to teriparatide (TPTD) in treatment-naive subjects (Rx-Naive) and in subjects on prior and ongoing alendronate (ALN) treatment (ALN-Rx)."

The news correspondents obtained a quote from the research from Columbia University. "Three bone envelopes were analyzed: cancellous, endocortical, and intracortical. TPTD was given as a standard, continuous daily injection or as a cyclic regimen (3 months on daily TPTD, 3 months off, 3 months on daily TPTD). Subjects were biopsied at 7 weeks and at 7 months to allow comparison of the bone formation response to the first and second cycles of TPTD. Baseline values for dynamic bone formation indices were lower in ALN-Rx than Rx-Naive subjects. Both Rx-Naive and ALN-RX subjects responded to TPTD with significant increases in bone formation indices at both time points. With cyclic TPTD treatment, the first and second cycles of TPTD stimulated bone formation rate in the cancellous and endocortical envelopes to a similar extent in ALN-Rx and Rx-Naive subjects. However, in Rx-Naive patients, bone formation rate (BFR/BS) was higher in patients receiving daily treatment compared with those receiving cyclic TPTD treatment in all three envelopes in the 7-month biopsies. This suggests that the cyclic approach does not provide a skeletal benefit in treatment-naive patients. In the 7-month biopsies, cortical porosity was higher in the Rx-Naive group receiving daily TPTD than in all other groups."
According to the news reporters, the research concluded: "These data provide supporting evidence at the tissue level for previous biochemical and densitometric data suggesting that addition of either cyclic or daily TPTD to ongoing ALN treatment may be an effective approach for patients with severe osteoporosis already treated with ALN who remain at high risk of fracture."


Our news journalists report that additional information may be obtained by contacting D.W. Dempster, Columbia University, Dept. of Pathol & Cell Biol, New York, NY, United States. Additional authors for this research include F. Cosman, H. Zhou, J.W. Nieves, M. Bostrom and R. Lindsay.

Keywords for this news article include: New York City, New York, United States, North and Central America, Musculoskeletal Diseases and Conditions, Metabolic Bone Diseases and Conditions, Alendronate, Risk and Prevention, Parathyroid Hormone and Analogs, Alendronate Therapy Sodium, Drugs and Therapies, Peptide Proteins, Bisphosphonates, Pharmaceuticals, Diphosphonates, Bone Research, Teriparatide, Osteoporosis, Hormones, Columbia University.

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**Oncology - Ovarian Cancer**

**Findings on Ovarian Cancer Detailed by Investigators at Jagiellonian University (17-Estradiol Reverses Leptin-Inducing Ovarian Cancer Cell Migration by the PI3K/Akt Signaling Pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Ovarian Cancer are discussed in a new report. According to news reporting originating in Krakow, Poland, by NewsRx journalists, research stated, "Accumulating evidence suggests that leptin is expressed at higher levels in obese women and stimulates cell migration in epithelial cancers. However, the biology of ovarian cancer is different from others, mainly due to the production of estrogens because of the involvement of ovarian tissue, which is the main source of estrogens; as a result, the levels are at least 100- to 1000-fold higher than normal circulating levels."

The news reporters obtained a quote from the research from Jagiellonian University, "Thus, ovarian cancer tissues are exposed to 17-estradiol, which promotes ovarian cancer cell migration and may modulate the effect of other hormones. Therefore, this study investigated the effects of 17-estradiol (1 nmol/L) with leptin (1-40 ng/mL) at physiological levels, on the migration of OVCAR-3 and SKOV-3 ovarian cancer cells, and the expression levels and activity of metalloproteinases (MMPs) 2 and 9. Here, we found that leptin stimulated ovarian cancer cell line migration, which is mediated via the expression and activity of MMP-9 in the OVCAR-3 but not in the SKOV-3 cells. After the administration of 17-estradiol and leptin, we observed antagonistic effects of 17-estradiol on leptin-induced OVCAR-3 cell migration and MMP-9 expression and activity. Moreover, the antagonistic effect of 17-estradiol on leptin-induced
cancer cell migration was reversed by pretreatment of the cells with the phosphatidylinositol 3-kinase (PI3K) pathway inhibitor."

According to the news reporters, the research concluded: "Taken together, our results, for the first time, show that in ovarian cancer cells ObR(+)/ER+, 17-estradiol has an antagonistic effect on leptin-induced cell migration as well as MMP-9 expression and activity, which is mediated by the PI3K pathway."

For more information on this research see: 17-Estradiol Reverses Leptin-Inducing Ovarian Cancer Cell Migration by the PI3K/Akt Signaling Pathway. *Reproductive Sciences*, 2016;23(11):1600-1608. *Reproductive Sciences* can be contacted at: Sage Publications Inc, 2455 Teller Rd, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com; Reproductive Sciences - rsx.sagepub.com)

Our news correspondents report that additional information may be obtained by contacting A. Ptak, Jagiellonian University, Inst Zool, Dept. of Physiol & Toxicol Reprod, Chair Anim Physiol, PL-30387 Krakow, Poland. Additional authors for this research include E. Fiedor and A. Ptak.

Keywords for this news article include: Krakow, Poland, Europe, Intercellular Signaling Peptides and Proteins, Estradiol Congeners, Gonadal Hormones, Women's Health, Ovarian Cancer, Gynecology, Adipokines, Oncology, Leptin, Jagiellonian University.

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**Oncology - Ovarian Cancer**

**Findings on Ovarian Cancer Reported by Researchers at Royal Marsden NHS Foundation Trust (UK BRCA mutation testing in patients with ovarian cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Ovarian Cancer is now available. According to news reporting from London, United Kingdom, by NewsRx editors, the research stated, "Despite the increasing clinical importance of germline BRCA mutation status in managing women with ovarian cancer, few patients are currently being tested. The traditional means of selecting patients for BRCA mutation testing using restrictive criteria will miss many women with a mutation."

The news correspondents obtained a quote from the research from Royal Marsden NHS Foundation Trust, "To expand access to testing and streamline the testing process, several centres in the UK have been developing new models for BRCA testing. Trials with these integrated models involving closer collaborations between genetics and oncology services are now under way. In addition to testing for BRCA mutations, there is also increasing interest in testing for other genes associated with a predisposition to ovarian cancer. Advances in next-generation sequencing technology have resulted in the development of comprehensive genetic testing panels for use in the research and diagnostic settings. Interest is also increasing in expanding testing for somatic mutations in ovarian cancer, particularly for genes such as BRCA1 and BRCA2, whereby mutations may allow more patients to benefit from targeted agents, including poly(ADP-ribose) polymerase inhibitors."

According to the news reporters, the research concluded: "In this review, the issues of who should be offered testing, how testing could be delivered, when testing should occur and
the technology and costs associated with genetic testing are addressed."


Our news journalists report that additional information may be obtained by contacting A. George, The Royal Marsden NHS Foundation Trust, Fulham Road, London SW3 6JJ, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bjc.2015.396. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, Oncology, Gynecology, Technology, United Kingdom, Article Review, Ovarian Cancer, Women's Health, Diagnostics and Screening.

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*Surgery - Ovariectomy*

**Findings on Ovariectomy Detailed by Investigators at Veterans Affairs Medical Center [RANKL (Receptor Activator of NF kappa B Ligand) Produced by Osteocytes Is Required for the Increase in B Cells and Bone Loss Caused by Estrogen Deficiency in ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Surgery - Ovariectomy. According to news reporting out of Little Rock, Arkansas, by NewsRx editors, research stated, "The cytokine receptor activator of NF kappa B ligand (RANKL) produced by osteocytes is essential for osteoclast formation in cancellous bone under physiological conditions, and RANKL production by B lymphocytes is required for the bone loss caused by estrogen deficiency. Here, we examined whether RANKL produced by osteocytes is also required for the bone loss caused by estrogen deficiency."

Our news journalists obtained a quote from the research from Veterans Affairs Medical Center, "Mice lacking RANKL in osteocytes were protected from the increase in osteoclast number and the bone loss caused by ovariectomy. Moreover, these mice did not exhibit the increase in bone marrow B lymphocytes caused by ovariectomy that occurred in control littermates. Deletion of estrogen receptor alpha from B cells did not alter B cell number or bone mass and did not alter the response to ovariectomy. In addition, lineage-tracing studies demonstrated that B cells do not act as osteoclast progenitors in estrogen-replete or estrogen-deficient mice. Taken together, these results demonstrate that RANKL expressed by osteocytes is required for the bone loss as well as the increase in B cell number caused by estrogen deficiency. Moreover, they suggest that estrogen control of B cell number is indirect via osteocytes and that the increase in bone marrow B cells may be a necessary component of the cascade of events that lead to cancellous bone loss during estrogen deficiency."

According to the news editors, the research concluded: "However, the role of B cells is not to act as osteoclast progenitors but may be to act as osteoclast support cells."

For more information on this research see: RANKL (Receptor Activator of NF kappa B Ligand) Produced by Osteocytes Is Required for the Increase in B Cells and Bone Loss..."
Findings on Oxygenators Reported by Investigators at Oslo University Hospital (VAVD vacuum may cause bubble transgression in membrane oxygenators)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oxygenators is the subject of a report. According to news reporting from Oslo, Norway, by NewsRx journalists, research stated, "Vacuum-assisted venous drainage (VAVD) is widely used to enhance venous blood return from patients undergoing cardiopulmonary bypass (CPB). This vacuum can accidentally reach the oxygenator of the heart-lung machine and draw gas bubbles into the blood."

The news correspondents obtained a quote from the research from Oslo University Hospital, "This is known as bubble transgression (BT) and may cause air emboli in the arterial blood line. In order to avoid BT and minimize the risk of patient injury, knowledge of oxygenator tolerance to vacuum load is critical. Thus, the main aim of this thesis was to investigate how much vacuum a membrane oxygenator can withstand before BT appears. We investigated four different adult oxygenators: Quadrox-i, Affinity Fusion, Capiox RX25 and Inspire 6M. They were tested in an in vitro setup where VAVD vacuum was allowed to reach the oxygenator through a non occlusive roller pump. An ultrasonic clinical bubble counter, Gampt BCC 200, was used to count bubbles on the arterial line when the arterial pump was restarted. We observed a significant increase in bubble count for two of the oxygenators, caused by-30 mmHg of VAVD vacuum in the blood reservoir (Affinity Fusion and Inspire 6M). Massive air ingress was shown in two of the oxygenators, caused by-30 mmHg of VAVD vacuum in the reservoir (Capiox RX25) and -40 mmHg of VAVD vacuum in the reservoir (Affinity Fusion). VAVD vacuum may cause bubble transgression in an oxygenator. This was shown for all the oxygenators in this test. VAVD vacuum may cause visible massive air ingress in an oxygenator. This was shown for two of the oxygenators in this test (Capiox RX25 and Affinity Fusion)."

According to the news reporters, the research concluded: "An alarm triggering on negative pressure in the oxygenator or a pressure relief valve might improve safety when using
For more information on this research see: VAVD vacuum may cause bubble transgression in membrane oxygenators. *Perfusion-Uk*, 2016;31(8):648-652. *Perfusion-Uk* can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England.

Our news journalists report that additional information may be obtained by contacting K. Nygaard, Oslo Univ Hosp, Oslo, Norway. Additional authors for this research include A.S. Thiara, C. Tronstad, M.A. Ringdal and A.E. Fiane.

Keywords for this news article include: Oslo, Norway, Europe, Oxygenators, Oxygenator, Risk and Prevention, Medical Devices, Oslo University Hospital.

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**Oncology - Pancreatic Cancer**

**Findings on Pancreatic Cancer Discussed by Investigators at Veterans Affairs Medical Center (Tissue Transglutaminase Activates Cancer-Associated Fibroblasts and Contributes to Gemcitabine Resistance in Pancreatic Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Pancreatic Cancer have been published. According to news reporting originating in Chicago, Illinois, by NewsRx journalists, research stated, "Resistance to chemotherapy is a hallmark of pancreatic ductal adenocarcinoma (PDA) and has been partly attributed to the dense desmoplastic stroma, which forms a protective niche for cancer cells. Tissue transglutaminase (TG2), a Ca2+-dependent enzyme, is secreted by PDA cells and cross-links proteins in the tumor microenvironment (TME) through acyl-transfer between glutamine and lysine residues, promoting PDA growth."

The news reporters obtained a quote from the research from Veterans Affairs Medical Center, "The objective of the current study was to determine whether secreted TG2 by PDA cells alters the response of pancreatic tumors to gemcitabine. Orthotopic pancreatic xenografts and co-culture of PDA and stromal cells were employed to determine the mechanisms by which TG2 alters tumor-stroma interactions and response to gemcitabine. Analysis of the pancreatic The Cancer Genome Atlas (TCGA) database demonstrated that increased TG2 expression levels correlate with worse overall survival (hazard ratio = 1.37). Stable TG2 knockdown in PDA cells led to decreased size of pancreatic xenografts and increased sensitivity to gemcitabine in vivo. However, TG2 downregulation did not increase cytotoxicity of gemcitabine in vitro. Additionally, multivessel density and gemcitabine uptake in pancreatic tumor tissue, as measured by mass spectrometry (MS-HPLC), were not significantly different in tumors expressing TG2 versus tumors in which TG2 was knocked down. Fibroblasts, stimulated by TG2 secreted by PDA cells, secrete laminin A1, which protects cancer cells from gemcitabine-induced cytotoxicity. In all, our results demonstrate that TG2 secreted in the pancreatic TME orchestrates the cross talk between cancer cells and stroma, impacting tumor growth and response to chemotherapy."

According to the news reporters, the research concluded: "Our study supports TG2 inhibition to increase the antitumor effects of gemcitabine in PDA."

For more information on this research see: Tissue Transglutaminase Activates

Our news correspondents report that additional information may be obtained by contacting D. Matei, Jesse Brown VA Med Center, Chicago, IL, United States. Additional authors for this research include B. Yakubov, C. Ivan, D.R. Jones, A. Caperell-Grant, M. Fishel, H. Cardenas and D. Matei.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neo.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Connective Tissue Cells, Enzymes and Coenzymes, Aminoacyltransferases, Pancreatic Neoplasms, Xenotransplantation, Transglutaminases, Pancreatic Cancer, Gastroenterology, Biotechnology, Fibroblasts, Xenografts, Oncology, Genetics, Pancreas, Veterans Affairs Medical Center.

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Oncology - Pancreatic Cancer

Findings on Pancreatic Cancer Reported by Investigators at Nanjing Medical University (Long non-coding RNA IRAIN suppresses apoptosis and promotes proliferation by binding to LSD1 and EZH2 in pancreatic cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Pancreatic Cancer have been published. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Long non-coding RNA (lncRNA) modulates gene expression, while lncRNA dysregulation is associated with human cancer. Furthermore, while recent studies have shown that lncRNA IRAIN plays an important role in other malignancies, the role of IRAIN in pancreatic cancer (PC) progression remains unclear."

Financial supporters for this research include The Six Talents Peak Project of Jiangsu Province, The Key Project supported by Medical Science and technology development Foundation, Nanjing Department of Health, The Medical Science and Technology Development Foundation, Nanjing Medical University.

Our news editors obtained a quote from the research from Nanjing Medical University, "In this study, we found that upregulation of lncRNA IRAIN was significantly correlated with tumor size, TNM stage, and lymph node metastasis in a cohort of 37 PC patients. In vitro experiments showed that knockdown of IRAIN by small interfering RNA (siRNA) significantly induced cell apoptosis and inhibited cell proliferation in both BxPC-3 and PANC-1 cells. Further mechanism study showed that, by binding to histone demethylase lysine-specific demethylase 1 (LSD1), an enhancer of zeste homolog 2 (EZH2), IRAIN reduced PC tumor cell apoptosis and induced growth arrest by silencing the expression of Kruppel-like factor 2 (KLF2) and P15. Moreover, IRAIN expression was inversely correlated with that of KLF2 and P15 in PC tissues."

According to the news editors, the research concluded: "To our knowledge, this is
the first report elucidating the role and mechanism of IRAIN in PC progression."

For more information on this research see: Long non-coding RNA IRAIN suppresses apoptosis and promotes proliferation by binding to LSD1 and EZH2 in pancreatic cancer. *Tumor Biology*, 2016;37(11):14929-14937. *Tumor Biology* can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news editors report that additional information may be obtained by contacting K.M. Wang, Nanjing Medical University, Affiliated Hosp 2, Dept. of Oncol, Nanjing 210000, Jiangsu, People's Republic of China. Additional authors for this research include J. Wang, J. Feng, J. Ding, Z.H. Ma, J. Li, P. Peng, W. De and K.M. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5380-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Enzymes and Coenzymes, Pancreatic Neoplasms, Pancreatic Cancer, Gastroenterology, Demethylase, Apoptosis, Pancreas, Oncology, Genetics, Nanjing Medical University.

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**Oncology - Pancreatic Cancer**

**Findings on Pancreatic Cancer Reported by Investigators at University of Tokyo (Measles virus selectively blind to signaling lymphocyte activity molecule has oncolytic efficacy against nectin-4-expressing pancreatic cancer cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Pancreatic Cancer are discussed in a new report. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Pancreatic cancer is one of the most intractable cancers and has a devastating prognosis; over the past three decades the 5-year survival rate has been <10%. Therefore, development of a novel anticancer treatment for pancreatic cancer is a matter of urgency."

Funders for this research include Ministry of Health, Labour, and Welfare of Japan, Japan Agency for Medical Research and Development.

Our news journalists obtained a quote from the research from the University of Tokyo, "We previously developed an oncolytic recombinant measles virus (MV), rMV-SLAMblind, that had lost the ability to bind to its principal receptor, signaling lymphocyte activity molecule (SLAM), but which selectively infected and efficiently killed nectin-4-expressing breast and lung cancer cells. In this study, we analyzed the antitumor effect of this virus against pancreatic cancer. Nectin-4 was expressed on the surface of 4/16 tested pancreatic cancer cell lines, which were efficiently infected and killed by rMV-SLAMblind invitro. The intratumoral inoculation of rMV-SLAMblind suppressed the growth of KLM1 and Capan-2 cells xenografted in SCID mice. The sequence analysis of MV isolated from the tumor revealed that the designed mutation in the H protein of rMV-SLAMblind had been stably maintained for 47days after the last inoculation."

According to the news editors, the research concluded: "These results suggest that
rMV-SLAMblind is a promising candidate for the novel treatment of pancreatic cancer."


Our news journalists report that additional information may be obtained by contacting C. Kai, University of Tokyo, Inst Med Sci, Lab Anim Res Center, Tokyo, Japan. Additional authors for this research include T. Fujiyuki, K. Shoji, Y. Amagai, Y. Murakami, Y. Furukawa, H. Sato, M. Yoneda and C. Kai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cas.13064. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Hemic and Immune Systems, Mononuclear Leukocytes, Pancreatic Neoplasms, Pancreatic Cancer, Gastroenterology, Mononegavirales, Paramyxoviridae, Paramyxovirinae, Morbillivirus, Measles Virus, Blood Cells, Lymphocytes, RNA Viruses, Immunology, Pancreas, Oncology, Genetics, Virology, Viral, University of Tokyo.

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Oncology - Pancreatic Cancer

Findings on Pancreatic Cancer Reported by Researchers at North Dakota State University (Acridine Orange Conjugated Polymersomes for Simultaneous Nuclear Delivery of Gemcitabine and Doxorubicin to Pancreatic Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Pancreatic Cancer. According to news reporting from Fargo, North Dakota, by NewsRx journalists, research stated, "Considering the systemic toxicity of chemotherapeutic agents, there is an urgent need to develop new targeted drug delivery systems. Herein, we have developed a new nuclear targeted, redox sensitive, drug delivery vehicle to simultaneously deliver the anticancer drugs gemcitabine and doxorubicin to the nuclei of pancreatic cancer cells."

Financial supporters for this research include National Institute of General Medical Sciences, Division of Materials Research.

The news correspondents obtained a quote from the research from North Dakota State University, "We prepared polymeric bilayer vesicles (polymersomes), and actively encapsulated the drug combination by the pH gradient method. A redox-sensitive polymer (PEG-S-S-PLA) was incorporated to sensitize the formulation to reducing agent concentration. Acridine orange (AO) was conjugated to the surface of the polymersomes imparting nuclear localizing property. The polymersomes' toxicity and efficacy were compared with those of a free drug combination using monolayer and three-dimensional spheroid cultures of pancreatic cancer cells. We observed that the redox sensitive, nuclear-targeted polymersomes released more than 60% of their encapsulated contents in response to 50 mM glutathione. The nanoparticles are
nontoxic; however, the drug encapsulated vesicles have significant toxicity. The prepared formulation can increase the drug's therapeutic index by delivering the drugs directly to the cells' nuclei, one of the key organelles in the cells."

According to the news reporters, the research concluded: "This study is likely to initiate research in targeted nuclear delivery using other drug formulations in other types of cancers."


Our news journalists report that additional information may be obtained by contacting T. Anajafi, Dept. of Pharmaceutical Sciences and ‡Dept. of Physics, North Dakota State University, Fargo, North Dakota 58108, United States. Additional authors for this research include M.D. Scott, S. You, X. Yang, Y. Choi, S.Y. Qian and S. Mallik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.bioconjchem.5b00694. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fargo, North Dakota, United States, North and Central America, Antibiotics Antineoplastics, Antimetabolites, Antivirals, Doxorubicin Therapy Hydrochloride, Drugs and Therapies, Gastroenterology, Gemcitabine Therapy, Immunosuppressive Agents, Oncology, Pancreas, Pancreatic Cancer, Pancreatic Neoplasms, Pharmaceuticals, Radiation Sensitizing Agents.

Our news journalists report that additional information may be obtained by contacting T. Anajafi, Dept. of Pharmaceutical Sciences and ‡Dept. of Physics, North Dakota State University, Fargo, North Dakota 58108, United States. Additional authors for this research include M.D. Scott, S. You, X. Yang, Y. Choi, S.Y. Qian and S. Mallik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.bioconjchem.5b00694. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fargo, North Dakota, United States, North and Central America, Antibiotics Antineoplastics, Antimetabolites, Antivirals, Doxorubicin Therapy Hydrochloride, Drugs and Therapies, Gastroenterology, Gemcitabine Therapy, Immunosuppressive Agents, Oncology, Pancreas, Pancreatic Cancer, Pancreatic Neoplasms, Pharmaceuticals, Radiation Sensitizing Agents.

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### Papillomas

**Findings on Papillomas Reported by Researchers at Johns Hopkins University (Immunologic Control of Mus musculus Papillomavirus Type 1)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Papillomas is the subject of a report. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "Persistent papillomas developed in ~10% of out-bred immune-competent SKH-1 mice following MusPV1 challenge of their tail, and in a similar fraction the papillomas were transient, suggesting potential as a model. However, papillomas only occurred in BALB/c or C57BL/6 mice depleted of T cells with anti-CD3 antibody, and they completely regressed within 8 weeks after depletion was stopped."

Our news journalists obtained a quote from the research from Johns Hopkins University, "Neither CD4+ nor CD8+ T cell depletion alone in BALB/c or C57BL/6 mice was sufficient to permit visible papilloma formation. However, low levels of MusPV1 were sporadically detected by either genomic DNA-specific PCR analysis of local skin swabs or in situ hybridization of the challenge site with an E6/E7 probe. After switching to CD3+ T cell depletion, papillomas appeared upon 14/15 of mice that had been CD4+ T cell depleted throughout the challenge phase, 1/15 of CD8+ T cell depleted mice, and none in mice without any prior T cell depletion. Both control animals and those depleted with CD8-specific antibody
generated MusPV1 L1 capsid-specific antibodies, but not those depleted with CD4-specific antibody prior to T cell depletion with CD3 antibody. Thus, normal BALB/c or C57BL/6 mice eliminate the challenge dose, whereas infection is suppressed but not completely cleared if their CD4 or CD8 T cells are depleted, and recrudescence of MusPV1 is much greater in the former following treatment with CD3 antibody, possibly reflecting their failure to generate capsid antibody. Systemic vaccination of C57BL/6 mice with DNA vectors expressing MusPV1 E6 or E7 fused to calreticulin elicits potent CD8 T cell responses and these immunodominant CD8 T cell epitopes were mapped. Adoptive transfer of a MusPV1 E6-specific CD8+ T cell line controlled established MusPV1 infection and papilloma in RAG1-knockout mice.

According to the news editors, the research concluded: "These findings suggest the potential of immunotherapy for HPV-related disease and the importance of host immunogenetics in the outcome of infection."

For more information on this research see: Immunologic Control of Mus musculus Papillomavirus Type 1. Plos Pathogens, 2015;11(10):e1005243. (Public Library of Science - www.plos.org; Plos Pathogens - www.plospathogens.org)

Our news journalists report that additional information may be obtained by contacting J.W. Wang, Dept. of Pathology, The Johns Hopkins University, Baltimore, Maryland, United States. Additional authors for this research include R. Jiang, S. Peng, Y.N. Chang, C.F. Hung and R.B Roden.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.ppat.1005243. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Viral, Virion, Maryland, Genetics, Virology, Baltimore, Immunology, Nucleocapsid, United States, Blood Proteins, Immunoglobulins, Papillomavirus Infection, North and Central America.

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**Life Science Research - Parasitology**

**Findings on Parasitology Reported by Researchers at University of Berne (Approaches for the vaccination and treatment of Neospora caninum infections in mice and ruminant models)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Life Science Research - Parasitology have been presented. According to news reporting originating from Bern, Switzerland, by NewsRx correspondents, research stated, "Neospora caninum is a leading cause of abortion in cattle, and is thus an important veterinary health problem of high economic significance. Vaccination has been considered a viable strategy to prevent bovine neosporosis."

Our news editors obtained a quote from the research from the University of Berne, "Different approaches have been investigated, and to date the most promising results have been achieved with live-attenuated vaccines. Subunit vaccines have also been studied, and most of them represented components that are functionally involved in (i) the physical interaction between the parasite and its host cell during invasion or (ii) tachyzoite-to-bradyzoite stage conversion. Drugs have been considered as an option to limit the effects of vertical transmission of N. caninum. Promising results with a small panel of compounds in small laboratory animal..."
models indicate the potential value of a chemotherapeutical approach for the prevention of neosporosis in ruminants. For both, vaccines and drugs, the key for success in preventing vertical transmission lies in the application of bioactive compounds that limit parasite proliferation and dissemination, without endangering the developing fetus not only during an exogenous acute infection but also during recrudescence of a chronic infection.

According to the news editors, the research concluded: "In this review, the current status of vaccine and drug development is presented and novel strategies against neosporosis are discussed."

For more information on this research see: Approaches for the vaccination and treatment of Neospora caninum infections in mice and ruminant models. Parasitology, 2015;143(3):245-59. Parasitology can be contacted at: Cambridge University Press, 32 Avenue of the Americas, New York, NY 10013-2473. (Cambridge University Press - www.cambridge.org; Parasitology - journals.cambridge.org/action/displayJournal?jid=PAR)

The news editors report that additional information may be obtained by contacting A. Hemphill, Institute of Parasitology, University of Berne, Berne, Switzerland. Additional authors for this research include A. Aguado-Martinez and J. Muller.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S0031182015001596. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Parasitology is: Cambridge University Press, 32 Avenue of the Americas, New York, NY 10013-2473.

Keywords for this news article include: Bern, Europe, Switzerland, Parasitology, Article Review, Risk and Prevention, Life Science Research.

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Neurodegenerative Diseases and Conditions -...

Findings on Parkinson's Disease Detailed by Investigators at Palacky University (Familial atypical parkinsonism with rare variant in VPS35 and FBX07 genes A case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Parkinson's Disease. According to news reporting originating from Olomouc, Czech Republic, by NewsRx correspondents, research stated, "A higher prevalence of parkinsonism was recently identified in southeastern Moravia (Czech Republic). Further research confirmed 3 large pedigrees with familial autosomal-dominant parkinsonism spanning 5 generations."

Our news editors obtained a quote from the research from Palacky University, "This case report concerns a patient belonging to one of these 3 pedigrees, in whom motor and oculomotor symptoms were accompanied by frontal-type dementia, who finally developed a clinical phenotype of progressive supranuclear palsy. Molecular genetic examinations were performed due to the positive family history. No previously described causal mutation was found. After filtering against common variants (minor allele frequency (MAF) < 0.01), 2 noncoding and 1 synonymous rare mutation potentially associative with parkinsonism were identified: GIGYF2-GRB10 Interacting GYF Protein 2, PARK11 (c.*2030G > A,
rs115669549); VPS35 gene-vacuolar protein sorting 35, PARK17 (c. 102 + 33G > A, rs192115886); and FBXO7-F-box only protein 7 gene, PARK15 (c. 540A > G, rs41311141). As to the changes in the FBXO7 and VPS35 genes (despite phylogenetic conservation in primates), probably neither the FBXO7 nor the VPS35 variants will be direct causal mutations."

According to the news editors, the research concluded: "Both described variants, and possibly the influence of their combination, could increase the risk of the disease."

For more information on this research see: Familial atypical parkinsonism with rare variant in VPS35 and FBXO7 genes A case report. Medicine, 2016;95(46):312-316. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting K. Mensikova, Palacky Univ, University Hospital, Fac Med & Dental, Dept. of Neurol, Olomouc, Czech Republic. Additional authors for this research include K. Mensikova, L. Mikulicova, R. Vodicka, R. Vrtel, M. Godava, M. Vastik, M. Kaiserova, P. Otruba, I. Dolinova, M. Nevrly and P. Kanovsky.

Keywords for this news article include: Olomouc, Czech Republic, Europe, Parkinson's Disease, Risk and Prevention, Genetics, Neurodegenerative Diseases and Conditions, Parkinsonian Disorders, Parkinsonism, Palacky University.

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Pentanoic Acids

Findings on Pentanoic Acids Discussed by Investigators at University of Michigan (Alterations in the human proteome following administration of valproic acid)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Pentanoic Acids. According to news reporting from Ann Arbor, Michigan, by NewsRx journalists, research stated, "High doses of the histone deacetylase inhibitor valproic acid (VPA, 150-400 mg/kg) improve outcomes in animal models of lethal insults. We are conducting a US Food and Drug Administration-approved Phase I, double-blind, placebo-controlled trial to evaluate the safety and tolerability of ascending doses of VPA in human volunteers."

The news correspondents obtained a quote from the research from the University of Michigan, "We hypothesized that VPA would induce significant changes in the proteome of healthy humans when given at doses lower than those used in prior animal studies. Peripheral blood mononuclear cells were obtained from three healthy subjects randomized to receive VPA (120 mg/kg over 1 hour) at baseline and at 4 and 8 hours following infusion. Detailed proteomic analysis was performed using 1D gel electrophoresis, liquid chromatography, and mass spectrometry. Proteins with differential expression were chosen for functional annotation and pathway analysis using Ingenuity Pathway Analysis (Qiagen GmbH, Hilden, Germany) and Panther Gene Ontology. A total of 3,074 unique proteins were identified. The average number of proteins identified per sample was 1,716 +/- 459. There were a total of 140 unique differentially expressed proteins (p < 0.05). There was a minor and inconsistent increase in histone and nonhistone protein acetylation. Functional annotation showed significant
enrichment of apoptosis (p = 3.5E-43), cell death (p = 9.9E-72), proliferation of cells (p = 1.6E-40), dementia (p = 9.6E-40), amyloidosis (p = 6.3E-38), fatty acid metabolism (p = 4.6E-76), quantity of steroid (p = 4.2E-75), and cell movement (p = 1.9E-64). Valproic acid induces significant changes to the proteome of healthy humans when given at a dose of 120 mg/kg. It alters the expression of key proteins and pathways, including those related to cell survival, without significant modification of protein acetylation."

According to the news reporters, the research concluded: "In the next part of the ongoing Phase I trial, we will study the effects of VPA on trauma patients in hemorrhagic shock."

For more information on this research see: Alterations in the human proteome following administration of valproic acid. Journal of Trauma and Acute Care Surgery, 2016;81 (6):1020-1027. Journal of Trauma and Acute Care Surgery can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting H.B. Alam, University of Michigan, Dept. of Surg, Ann Arbor, MI 48109, United States. Additional authors for this research include I. Halaweish, V.C. Nikolian, G.A. Higgins, T. Bonham, C. Tafatia, H. Remmer, R. Menon, B.L. Liu, Y.Q. Li and H.B. Alam.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Fatty Acid Derivative Anticonvulsants, Central Nervous System Agents, Drugs and Therapies, Organic Chemicals, Carboxylic Acids, Pharmaceuticals, Pentanoic Acids, Valproic Acid, Proteome, Proteins, University of Michigan.

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Enzymes and Coenzymes - Peptide Hydrolases

Findings on Peptide Hydrolases Described by Researchers at University of Wurzburg (Development of a New Antileishmanial Aziridine-2,3-Dicarboxylate-Based Inhibitor with High Selectivity for Parasite Cysteine Proteases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Enzymes and Coenzymes - Peptide Hydrolases is the subject of a report. According to news reporting originating from Wuerzburg, Germany, by NewsRx correspondents, research stated, "Leishmaniasis is one of the major neglected tropical diseases of the world. Druggable targets are the parasite cysteine proteases (CPs) of clan CA, family C1 (CAC1)."

Our news editors obtained a quote from the research from the University of Wurzburg, "In previous studies, we identified two peptidomimetic compounds, the aziridine-2,3-dicarboxylate compounds 13b and 13e, in a series of inhibitors of the cathepsin L (CL) subfamily of the papain clan CAC1. Both displayed antileishmanial activity in vitro while not showing cytotoxicity against host cells. In further investigations, the mode of action was characterized in Leishmania major. It was demonstrated that aziridines 13b and 13e mainly inhibited the parasitic cathepsin B (CB)-like CPC enzyme and, additionally, mammalian CL. Although these compounds induced cell death of Leishmania promastigotes and amastigotes in
vitro, the induction of a proleishmanial T helper type 2 (Th2) response caused by host CL inhibition was observed in vivo. Therefore, we describe here the synthesis of a new library of more selective peptidomimetic aziridine-2,3-dicarboxylates discriminating between host and parasite CPs. The new compounds are based on 13b and 13e as lead structures. One of the most promising compounds of this series is compound s9, showing selective inhibition of the parasite CPs LmaCatB (a CB-like enzyme of L. major; also named L. major CPC) and LmCPB2.8 (a CL-like enzyme of Leishmania mexicana) while not affecting mammalian CL and CB. It displayed excellent leishmanicidal activities against L. major promastigotes (50% inhibitory concentration [IC[50]=37.4 mM) and amastigotes (IC[50]=2.3 mM).

According to the news editors, the research concluded: "In summary, we demonstrate a new selective aziridine-2,3-dicarboxylate, compound s9, which might be a good candidate for future in vivo studies."

For more information on this research see: Development of a New Antileishmanial Aziridine-2,3-Dicarboxylate-Based Inhibitor with High Selectivity for Parasite Cysteine Proteases. Antimicrobial Agents and Chemotherapy, 2015;60(2):797-805. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting U. Schurigt, Institute for Molecular Infection Biology, University of Wuerzburg, Wuerzburg, Germany. Additional authors for this research include U. Baum, B. Frank, U. Dietzel, F. Mattern, C. Gomes, A. Ponte-Sucre, H. Moll, U. Schurigt and T. Schirmeister.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00426-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Wuerzburg, Cysteine Proteases, Peptide Hydrolases, Sulfur Amino Acids, Neutral Amino Acids, Sulphydryl Compounds, Enzymes and Coenzymes.

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vacuoles, swollen mitochondria, and apoptosis in tubular epithelial cells. Pericyte ablation led to endothelial cell swelling, reduced expression of vascular homeostasis markers, and peritubular capillary loss. Despite the observed injury, no signs of the acute inflammatory response were observed. Pathway enrichment analysis of genes expressed in kidney pericytes in vivo identified basement membrane proteins, angiogenic factors, and factors regulating vascular tone as major regulators of vascular function. Using novel microphysiological devices, we recapitulated human kidney peritubular capillaries coated with pericytes and showed that pericytes regulate permeability, basement membrane deposition, and microvascular tone.

According to the news reporters, the research concluded: "These findings suggest that through the active support of the microvasculature, pericytes are essential to adult kidney homeostasis."

For more information on this research see: Maintenance of vascular integrity by pericytes is essential for normal kidney function. American Journal of Physiology-Renal Physiology, 2016;311(6):F1230-F1242. American Journal of Physiology-Renal Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news correspondents report that additional information may be obtained by contacting J.S. Duffield, University of Washington, Dept. of Med, Div Nephrol, Seattle, WA 98195, United States. Additional authors for this research include G. Marsh, A. Huang, G. Campanholle, T. Aburatani, L. Dang, I. Gomez, K. Fisher, G. Ligresti, J. Peti-Peterdi and J.S. Duffield.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Pericytes, Genetics, Cells, University of Washington.

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Drugs and Therapies - Pharmacoepidemiology and Drug Safety Reported by Investigators at University of Milan (A probabilistic bias analysis for misclassified categorical exposures, with application to oral antihyperglycaemic drugs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Pharmacoepidemiology and Drug Safety. According to news reporting from Milan, Italy, by NewsRx journalists, research stated, "The effect of drug exposure misclassification generally receives little attention in pharmacoepidemiological research. In this paper, we illustrate a probabilistic bias analysis approach for misclassified categorical exposures and apply it in a database study of oral anti-hyperglycaemic drugs (OADs)."

The news correspondents obtained a quote from the research from the University of Milan, "A cohort study based on the Health Search Database general-practice database was carried out by including 12 640 adult (>= 40 years) patients newly treated with OADs during 2003-2010. The proportion of days covered by OADs prescriptions during the first year of follow-up was evaluated for each individual, either by means of the prescribed daily dose or the defined daily dose. The effect of misclassification on hypothetical OAD-outcome association profiles was assessed through the proposed probabilistic bias analysis approach, taking advantage of available exposure validation data. During the first year of follow-up, the average
(SD) number of months with OADs available was 7 (4) months and 5 (3) months according to the prescribed daily dose and defined daily dose metrics, respectively. Probabilistic bias analysis results based on validation data suggest that the effect of misclassification is complex, as conventional exposure-outcome association estimates may be of greater or lower magnitude than their misclassification-adjusted values. Misclassification should be taken into account in database studies on the safety of prescribed medications."

According to the news reporters, the research concluded: "To this aim, investigators should take advantage of external exposure validation data in sensitivity analysis approaches such as ours."


Our news journalists report that additional information may be obtained by contacting A. Arfe, Univ Milano Bicocca, Dept. of Stat & Quantitat Methods, Milan, Italy. Additional authors for this research include F. Nicotra, A. Ghirardi, M. Simonetti, F. Lapi, M. Sturkenboom and G. Corrao.

Keywords for this news article include: Milan, Italy, Europe, Pharmacoepidemiology and Drug Safety, Drugs and Therapies, Epidemiology, University of Milan.

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Pharmacology

**Findings on Pharmacology Detailed by Researchers at University of Naples Federico II (Insights on FXR selective modulation. Speculation on bile acid chemical space in the discovery of potent and selective agonists)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacology have been presented. According to news originating from Naples, Italy, by NewsRx correspondents, research stated, "Bile acids are the endogenous modulators of the nuclear receptor FXR and the membrane receptor GPBAR1. FXR represents a promising pharmacological target for the treatment of cholestatic liver disorders."

Our news journalists obtained a quote from the research from the University of Naples Federico II, "Currently available semisynthetic bile acid derivatives cover the same chemical space of bile acids and therefore they are poorly selective toward BA receptors, increasing patient risk for adverse side effects. In this report, we have investigated around the structure of CDCA describing the synthesis and the in vitro and in vivo pharmacological characterization of a novel family of compounds modified on the steroidal tetracyclic core and on the side chain. Pharmacological characterization resulted in the identification of several potent and selective FXR agonists."

According to the news editors, the research concluded: "These novel agents might add utility in the treatment of cholestatic disorders by potentially mitigating side effects linked
to unwanted activation of GPBAR1."

For more information on this research see: Insights on FXR selective modulation. Speculation on bile acid chemical space in the discovery of potent and selective agonists. *Scientific Reports*, 2016;6():19008. (Nature Publishing Group - www.nature.com/, Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from V. Sepe, Dept. of Pharmacy, University of Naples Federico II, Via D Montesano, 49, 80131 Naples, Italy. Additional authors for this research include C. Festa, B. Renga, A. Carino, S. Cipriani, C. Finamore, D. Masullo, F. Del Gaudio, M.C. Monti, S. Fiorucci and A. Zampella.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Naples, Europe, Therapy, Pharmacology.

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**Pharmacology**

**Findings on Pharmacology Reported by Investigators at Ministry of Agriculture (Synthesis and Pharmacological Evaluation of Novel Pleuromutilin Derivatives with Substituted Benzimidazole Moieties)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacology. According to news reporting out of Lanzhou, People's Republic of China, by NewsRx editors, research stated, "A series of novel pleuromutilin derivatives with substituted benzimidazole moieties were designed and synthesized from pleuromutilin and 5-amino-2-mercaptobenzimidazole through sequential reactions. All the newly synthesized compounds were characterized by IR, NMR, and HRMS."

Our news journalists obtained a quote from the research from the Ministry of Agriculture, "Each of the derivatives was evaluated in vitro for their antibacterial activity against Escherichia coli (E. coli) and five Gram (+) inoculums. 14-O-((5-amino-benzimidazole-2-yl)thioacetyl)mutilin (3) was the most active compound and showed highest antibacterial activities. Furthermore, we evaluated the inhibition activities of compound 3 on short-term S. aureus and MRSA growth and cytochrome P450 (CYP)."

According to the news editors, the research concluded: "The bioassay results indicate that compound 3 could be considered potential antibacterial agents but with intermediate inhibition of CYP3A4."

For more information on this research see: Synthesis and Pharmacological Evaluation of Novel Pleuromutilin Derivatives with Substituted Benzimidazole Moieties. *Molecules*, 2016;21(11):995-1005. *Molecules* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting X. Ai, Lanzhou Inst Husb & Pharmaceut Sci CAAS, Minist Agr, Key Lab Vet Pharmaceut Dev, Key Lab New Anim Drug Project Gansu Prov, Lanzhou 730050, People's Republic of China. Additional authors for this research include X.Y. Pu, Y.P. Yi, Y. Liu, S.J.
Xu, J.P. Liang and R.F. Shang.

Keywords for this news article include: Lanzhou, People's Republic of China, Asia, Pharmacology, Therapy, Ministry of Agriculture.

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Pharmacology

Findings on Pharmacology Reported by R.C. Anderson et al (Iodinated benzimidazole PARP radiotracer for evaluating PARP1/2 expression in vitro and in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Pharmacology are presented in a new report. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "PARP inhibitors (PARPi) have the potential to impact cancer therapy in a selective patient population; however, despite current patient selection methods clinical trials have shown mixed response rates. It is therefore clinically useful to determine which patients will respond prior to receiving PARPi therapy."

The news correspondents obtained a quote from the research, "One essential biomarker is to measure the level of PARP enzyme expression in tumors. Small molecule radiotracers have been developed to accurately quantify PARP-1 expression in vitro and in vivo. [I-125]KX-02-019 is the first report of a radioiodinated analogue of the benzimidazole class of PARPi. Herein, we studied the pharmacological properties of [I-125]KX-02-019 as well as the in vivo biodistribution. [I-125]KX-02-019 was evaluated in both cancer and non-cancer cell lines. We evaluated the pharmacologic properties of [I-125]KX-02-019 in live cells by measuring enzyme association and dissociation kinetics, saturation, and specificity. In addition, competitive inhibition experiments were carried out with commercially available PARPi. Protein expression was analyzed by Western blot to compare PARP-1 and PARP-2 expression across cell lines studied. The biodistribution was studied in a mouse EMT6 tumor model at time points of 0.5, 1, 2, 4 and 6 h. [I-125]KX-02-019 showed subtle differences in pharmacological properties in the absence of PARP-2. In addition, [I-125]KX-02-019 was competitively displaced by clinical PARPi. In vivo biodistribution studies showed an increasing tumor to muscle ratio over 6 h as well as fast clearance from healthy tissues. [I-125]KX-02-019 has binding sites in both PARP1 KO cells as well as PARP2 MO cells showing higher affinity for PARP-2. This observation is supported by a decrease in binding affinity in PARP2 MO cells compared to PARP1 KO cells."

According to the news reporters, the research concluded: "The pharmacologic and biological properties of [I-125]KX-02-019 studied in vitro and in vivo showed that this analogue may be useful in determining pharmacokinetic and pharmacodynamic properties of clinical PARPi."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nucmedbio.2016.08.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Pharmacology, Oncology, Therapy, Cancer.

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Drugs and Therapies - Pharmacy Practice

Findings on Pharmacy Practice Discussed by Investigators at University of Arkansas (Community pharmacy owners’ views of star ratings and performance measurement: In-depth interviews)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmacy Practice. According to news reporting from Little Rock, Arkansas, by NewsRx journalists, research stated, "The star rating system implemented by Medicare has the potential to positively affect patient health and may have financial implications for community pharmacies. Learning from owners of community pharmacies with high performance on these quality measures may help us to identify and further understand factors contributing to their success."

The news correspondents obtained a quote from the research from the University of Arkansas, "This study described high-performing community pharmacy owners' current awareness and knowledge of star ratings, attitudes toward star ratings and performance measurement, and initiatives being offered in pharmacies that aim to improve the quality of care. Qualitative interviews with owners of independent community pharmacies were conducted in Spring 2015. Fifteen community pharmacies with high performance on the star rating measures were invited to participate. Recruitment did not end until the saturation point had been reached. All interviews were transcribed verbatim. Interview data were analyzed with the use of ATLAS.ti by 2 coders trained in thematic analysis. Krippendorf's alpha was calculated to assess intercoder reliability. Ten high-performing pharmacy owners participated. Analysis identified 8 themes, which were organized into the following categories: 1) current awareness and knowledge (i.e., superficial or advanced knowledge); 2) attitudes toward star ratings (positive perceptions, skeptical of performance rewards, and lack a feeling of control); and 3) pharmacy initiatives (personal patient relationships, collaborative employee relationships, and use of technology). Intercoder reliability was good overall. Interviews with high-performing pharmacies suggested that awareness of the star rating measures, overall positive attitudes toward the star ratings, the relationships that pharmacy owners have with their patients and their employees, and the use of technology as a tool to enhance patient care may contribute to high performance on the star rating measures."

According to the news reporters, the research concluded: "Future research is needed to determine if and how these constructs are associated with pharmacy performance in a larger population."
For more information on this research see: Community pharmacy owners' views of star ratings and performance measurement: In-depth interviews. *Journal of the American Pharmacists Association*, 2016;56(5):549-554. *Journal of the American Pharmacists Association* can be contacted at: Amer Pharmaceutical Assoc, 2215 Constitution Ave NW, Washington, DC 20037, USA.

Our news journalists report that additional information may be obtained by contacting B.S. Teeter, University of Arkansas, Coll Pharm, Little Rock, AR 72205, United States. Additional authors for this research include B.I. Fox, K.B. Garza, S.G. Harris, D.P. Nau, J.K. Owensby and S.C. Westrick.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.japh.2016.04.567. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Little Rock, Arkansas, United States, North and Central America, Pharmacy Practice, Drugs and Therapies, Technology, University of Arkansas.

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**Photodynamics**

**Findings on Photodynamics Detailed by Investigators at University of Sao Paulo (In vitro effects of photodynamic therapy induced by chloroaluminum phthalocyanine nanoemulsion)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Photodynamics have been published. According to news reporting from Ribeirao Preto, Brazil, by NewsRx journalists, research stated, "The photodynamic therapy (PDT) has been used to treat cancer mainly by inducing oxidative stress. Our aim was to evaluate the effect of PDT and its combination with methoxyamine (MX), a blocker of base excision repair (BER), in cells expressing high levels of the APE1 protein, which is involved in cell oxidative damage response."

The news correspondents obtained a quote from the research from the University of Sao Paulo, "The HeLa and A549 cells were treated for 3 h with chloroaluminum phthalocyanine incorporated into a well-designed nanoemulsion (C1A1Pc/NE); and then irradiated by visible light (@670 nm) with doses of 0.1, 0.5 and 1.0 J/cm(2). A simultaneous combination of MX+CIA1Pc/NE was performed and then irradiated with the selected dose of 0.5 J/cm(2). The treatments were evaluated in terms of viability, clonogenicity, DNA fragmentation, and cell death mechanism by apoptosis and/or necrosis. The APE1 protein expression observed was higher in HeLa than in A549. Both cell lines exhibited substantial differences in cell cytotoxicity. The PDT decreased the clonogenicity of HeLa by inducing apoptosis (sub-G1 and annexin detection). Additionaly, the MX potentiates the PDT-effects in HeLa. Otherwise, low cytotoxicity was observed in A549 cells."

According to the news reporters, the research concluded: "The PDT induced apoptosis in high APE1 expressive HeLa cells, and the blockage of BER by MX increased its effects."

For more information on this research see: In vitro effects of photodynamic therapy induced by chloroaluminum phthalocyanine nanoemulsion. *Photodiagnosis and Photodynamic*
Findings on Platinum Compounds Reported by Investigators at University of Messina (Evaluation of cisplatin plasma levels in patients undergoing cytoreductive surgery and hyperthermic intraperitoneal chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Platinum Compounds are discussed in a new report. According to news reporting out of Messina, Italy, by NewsRx editors, research stated, "Peritoneal surface malignancies have long been regarded as incurable, however, they can be treated with cytoreductive surgery in addition to hyperthermic intraperitoneal chemotherapy. This approach is associated with an increase in morbidity and mortality, unless hyperhydration is provided in a timely manner."

Our news journalists obtained a quote from the research from the University of Messina, "Cisplatin (CDDP) is the most widely used chemotherapeutic agent. Plasma levels of cisplatin (CDDP), a widely used chemotherapeutic agent, were measured before, during, and after the procedure. This was done in order to identify the window of highest risk as a function of drug concentrations, assuming a dose-dependent effect. Plasma levels of CDDP peak during perfusion. The concentration remains high until the 4th post-operative day and returns to pre-operative levels by the 7th post-operative day."

According to the news editors, the research concluded: "Our findings suggest that ensuring hyperhydration as well as infusing albumin and fresh frozen plasma may be of particular value for at least the first 4 days after the procedure."


Our news journalists report that additional information may be obtained by contacting F. Fleres, University of Messina, Dept. of Human Pathol, I-98125 Messina, Italy. Additional authors for this research include E. Saladino, R. Catanoso, V. Arcoraci, T.
Platinum Compounds

Findings on Platinum Compounds Reported by Researchers at Shanghai Jiao-Tong University (Phenylethyl isothiocyanate reverses cisplatin resistance in biliary tract cancer cells via glutathionylation-dependent degradation of Mcl-1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Platinum Compounds. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Biliary tract cancer (BTC) is a highly malignant cancer. BTC exhibits a low response rate to cisplatin (CDDP) treatment, and therefore, an understanding of the mechanism of CDDP resistance is urgently needed."

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "Here, we show that BTC cells develop CDDP resistance due, in part, to upregulation of myeloid cell leukemia 1 (Mcl-1). Phenyethyl isothiocyanate (PEITC), a natural compound found in watercress, could enhance the efficacy of CDDP by degrading Mcl-1. PEITC-CDDP co-treatment also increased the rate of apoptosis of cancer stem-like side population (SP) cells and inhibited xenograft tumor growth without obvious toxic effects. In vitro, PEITC decreased reduced glutathione (GSH), which resulted in decreased GSH/oxidized glutathione (GSSG) ratio and increased glutathionylation of Mcl-1, leading to rapid proteasomal degradation of Mcl-1. Furthermore, we identified Cys16 and Cys286 as Mcl-1 glutathionylation sites, and mutating them resulted in PEITC-mediated degradation resistant Mcl-1 protein."

According to the news editors, the research concluded: "We demonstrate for the first time that CDDP resistance is partially associated with Mcl-1 in BTC cells and we identify a novel mechanism that PEITC can enhance CDDP-induced apoptosis via glutathionylation-dependent degradation of Mcl-1. Hence, our results provide support that dietary intake of watercress may help reverse CDDP resistance in BTC patients."

For more information on this research see: Phenylethyl isothiocyanate reverses cisplatin resistance in biliary tract cancer cells via glutathionylation-dependent degradation of Mcl-1. Oncotarget, 2016;7(9):10271-82.

The news correspondents report that additional information may be obtained from Q. Li, Dept. of Biliary-Pancreatic Surgery, Ren Ji Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai, People's Republic of China. Additional authors for this research include M. Zhan, W. Chen, B. Zhao, K. Yang, J. Yang, J. Yi, Q. Huang, M. Mohan, Z. Hou and J. Wang.
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Keywords for this news article include: Asia, Cancer, Shanghai, Oncology, Cisplatin, Isocyanates, Isothiocyanates, Sulfur Compounds, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, People's Republic of China.

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Polyethylene Glycols

Findings on Polyethylene Glycols Reported by Investigators at University of Lisbon (Controlled drug release from hydrogels for contact lenses: Drug partitioning and diffusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Polyethylene Glycols are presented in a new report. According to news reporting from Lisbon, Portugal, by NewsRx journalists, research stated, "Optimization of drug delivery from drug loaded contact lenses assumes understanding the drug transport mechanisms through hydrogels which relies on the knowledge of drug partition and diffusion coefficients. We chose, as model systems, two materials used in contact lens, a poly-hydroxyethylmethacrylate (pHEMA) based hydrogel and a silicone based hydrogel, and three drugs with different sizes and charges: chlorhexidine, levofloxacin and diclofenac."

The news correspondents obtained a quote from the research from the University of Lisbon, "Equilibrium partition coefficients were determined at different ionic strength and pH, using water (pH 5.6) and PBS (pH 7.4). The measured partition coefficients were related with the polymer volume fraction in the hydrogel, through the introduction of an enhancement factor following the approach developed by the group of C. J. Radke (Kotsmar et al., 2012; Liu et al., 2013). This factor may be decomposed in the product of three other factors E-HS, E-el and E-ad which account for, respectively, hard-sphere size exclusion, electrostatic interactions, and specific solute adsorption. While E-HS and E-el are close to 1, E-ad >> 1 in all cases suggesting strong specific interactions between the drugs and the hydrogels. Adsorption was maximal for chlorhexidine on the silicone based hydrogel, in water, due to strong hydrogen bonding. The effective diffusion coefficients, D-e, were determined from the drug release profiles."

According to the news reporters, the research concluded: "Estimations of diffusion coefficients of the non-adsorbed solutes D = De x E-ad allowed comparison with theories for solute diffusion in the absence of specific interaction with the polymeric membrane."


Our news journalists report that additional information may be obtained by contacting B. Saramago, University of Lisbon, Inst Super Tecn, Center Quim Estrutural, P-1049001 Lisbon, Portugal. Additional authors for this research include J. Ascenso, J.C.S. Fernandes, R. Colaco, A.P. Serro and B. Saramago.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.047. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lisbon, Portugal, Europe, Alcohols, Drugs and Therapies, Polyethylene Glycols, Organic Chemicals, Hydrogel, University of Lisbon.

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**Peptide Proteins - Posterior Pituitary Hormones**

**Findings on Posterior Pituitary Hormones Discussed by Investigators at Mental Health Research Institute (A meta-analytic review of the correlation between peripheral oxytocin and cortisol concentrations)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Peptide Proteins - Posterior Pituitary Hormones. According to news reporting originating from Ottawa, Canada, by NewsRx correspondents, research stated, "The stress dampening effects of exogenous oxytocin in humans have been well documented. However, the relation between endogenous oxytocin and cortisol is poorly understood."

Our news editors obtained a quote from the research from Mental Health Research Institute, "We conducted a meta analysis on the correlation between oxytocin and cortisol levels measured at baseline (k = 24, N = 739). The effect size for the baseline correlation statistic was small (Pearson r = 0.163, p = 0.008), with high heterogeneity (I-2 = 67.88%). Moderation analysis revealed that studies where participants anticipated an experimental manipulation evidenced a greater positive correlation compared to those that did not (Pearson r = 0.318, p = 0.006). A supplementary analysis including additional studies indicated that oxytocin levels in unextracted samples were 60 times higher when using this questionable practice. The findings suggest that the interplay between oxytocin and cortisol is dynamic and sensitive to the anticipation of stress or novelty."

According to the news editors, the research concluded: "Furthermore, extraction of oxytocin appears to be an essential methodological practice."


The news editors report that additional information may be obtained by contacting C. Cardoso, Royal Ottawa Mental Hlth Center, Mental Hlth Res Inst, Ottawa, ON, Canada. Additional authors for this research include C. Cardoso and M.A. Ellenbogen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yfrne.2016.11.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Peptide Proteins, Article Review, Posterior Pituitary Hormones, Peptide Hormones, Oxytocin, Mental Health Research Institute.
Findings on Prostate Cancer Detailed by Investigators at Duke University (Physician Recommendations Trump Patient Preferences in Prostate Cancer Treatment Decisions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness \& Wellness Week -- New research on Oncology - Prostate Cancer is the subject of a report. According to news reporting originating from Durham, North Carolina, by NewsRx correspondents, research stated, "To assess the influence of patient preferences and urologist recommendations in treatment decisions for clinically localized prostate cancer. We enrolled 257 men with clinically localized prostate cancer (prostate-specific antigen < 20; Gleason score 6 or 7) seen by urologists (primarily residents and fellows) in 4 Veterans Affairs medical centers."

Our news editors obtained a quote from the research from Duke University, "We measured patients' baseline preferences prior to their urology appointments, including initial treatment preference, cancer-related anxiety, and interest in sex. In longitudinal follow-up, we determined which treatment patients received. We used hierarchical logistic regression to determine the factors that predicted treatment received (active treatment v. active surveillance) and urologist recommendations. We also conducted a directed content analysis of recorded clinical encounters to determine if urologists discussed patients' interest in sex. Patients' initial treatment preferences did not predict receipt of active treatment versus surveillance, Delta chi(2)(4) = 3.67, P = 0.45. Instead, receipt of active treatment was predicted primarily by urologists' recommendations, Delta chi(2)(2) = 32.81, P< 0.001. Urologists' recommendations, in turn, were influenced heavily by medical factors (age and Gleason score) but were unrelated to patient preferences, Delta chi(2)(6) = 0, P = 1. Urologists rarely discussed patients' interest in sex (< 15% of appointments)."

According to the news editors, the research concluded: "Patients' treatment decisions were based largely on urologists' recommendations, which, in turn, were based on medical factors (age and Gleason score) and not on patients' personal views of the relative pros and cons of treatment alternatives."


The news editors report that additional information may be obtained by contacting P.A. Ubel, Duke University, Sanford Sch Public Policy, Durham, NC, United States. Additional authors for this research include A. Fagerlin, T. Hofer, L.D. Scherer, M. Holmes-Rovner, L.D. Williamson, V.C. Kahn, J.S. Montgomery, K.L. Greene, B.Q. Zhang and P.A. Ubel.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Cancer, Epidemiology, Prostatic Neoplasms, Prostate Cancer, Oncology, Duke University.

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Findings on Prostate Cancer Detailed by Researchers at Institute of Medical Sciences (Outcome of radical prostatectomy as primary treatment for high-risk prostate cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Prostate Cancer are discussed in a new report. According to news reporting originating from Maharashtra, India, by NewsRx correspondents, research stated, "Recently, there has been considerable interest in the role of radical prostatectomy (RP) in men with high-risk prostate cancer. The objective of our study is to report the outcome of upfront RP in our patients with high-risk prostate cancer (Stage (>=) cT2c, a pre-operative serum prostate specific antigen >20 ng/ml or a biopsy Gleason score [GS] 8-10)."

Our news editors obtained a quote from the research from the Institute of Medical Sciences, "From 1996 to 2010, 208 patients of prostate cancer (high risk category D'Amico's criteria) underwent open RP with bilateral pelvic lymphadenectomy. The data was statistically analyzed using Kaplan Meier method and log rank test to calculate progression free, metastasis free survival (MFS) and cancer specific survival (CSS). Furthermore multivariate analysis (MVA) was carried out using SPSS 14 software. (IBM company). At 7 and 10 years, prostate cancer-specific survival (PCSS) was found to be 79.7% and 65%, respectively, biochemical recurrence free survival (BRFS) was 42.4% and 36.7%, respectively and the MFS was 71.1% and 64.4% respectively. High GS was highly predictable of PCSS, BRFS and MFS. Node positivity was the single poor risk factor on MVA whereas biopsy GS, pStage (p=0.016) and seminal vesicle invasion (p=0.045) had statistical significance in predicting the MFS."

According to the news editors, the research concluded: "RP provides accurate pathologic staging of patients with high risk prostate cancer, allows better stratification of patients for further adjuvant therapy and either as an initial approach or part of a multimodal regimen, can provide durable local control and provides excellent CSS."

For more information on this research see: Outcome of radical prostatectomy as primary treatment for high-risk prostate cancer patients. Indian Journal of Cancer, 2015;52 (4):646-52.

The news editors report that additional information may be obtained by contacting V.S. Gunavanthe, Dept. of Urology, Bombay Hospital Institute of Medical Sciences, Mumbai, Maharashtra, India. Additional authors for this research include V.S. Gunavanthe and A. Dhale.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178446. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Surgery, Oncology, Maharashtra, Prostatectomy, Prostate Cancer, Prostatic Neoplasms, Risk and Prevention.

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Oncology - Prostate Cancer

Findings on Prostate Cancer Reported by Investigators at Cancer Institute (Sexual Function After Hypofractionated Versus Conventionally Fractionated Radiotherapy for Prostate Cancer: Results From the Randomized Phase III HYPRO Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Prostate Cancer.

According to reports originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "Hypofractionated radiotherapy could increase the radiobiological tumor dose for localized prostate cancer. The effects of hypofractionation on sexual function are not well known."

Our news journalists obtained a quote from the research from Cancer Institute, "To compare sexual function in patients with prostate cancer treated with 78 Gy in 39 fractions of 2 Gy or 64.6 Gy in 19 fractions of 3.4 Gy. In total, 820 men with intermediate-to high-risk T1b-T4NX-0MX-0 prostate cancer were enrolled in the phase III HYPRO trial (2007-2010) and randomized to conventional fractionation (39 x 2 Gy) or hypofractionation (19 x 3.4 Gy). Sexual function was assessed at baseline and at 6, 12, 24, and 36 months after treatment using the International Index of Erectile Function (IIEF). For this analysis, patients (n = 322) with a baseline assessment, at least one follow-up assessment, and no or short-term (6-month) androgen-deprivation therapy were included. Mean IIEF domain scores were compared between treatments in the total population and the hormone-naive population (n = 197) using the independent t-test. Incidences of severe erectile dysfunction (domain score < 11) at last follow-up were calculated in patients with partial or full baseline function. Binary logistic regression analyses were applied to calculate the odds ratio of hypofractionation vs conventional fractionation and to adjust for clinical factors. Median age was 71 years (interquartile range = 67-71) and median follow-up was 37 months (interquartile range = 25-38). Androgen-deprivation therapy was prescribed in 125 (39%). IIEF domain scores decreased after treatment but were comparable between treatment arms at baseline and during follow-up. Orgasmic function scores in hormone-naive patients were significantly higher at 3 years after hypofractionation (4.08 vs 2.65, P = .031). In patients (n = 120) with partial or full baseline erectile function, the incidence of erectile dysfunction at last follow-up was 34.4% for hypofractionated treatment vs 39.3% for conventional treatment (adjusted odds ratio = 0.84, 95% CI = 0.37-1.90, P = .67). No significant differences in erectile functioning between conventional and hypofractionated radiotherapy were found."

According to the news editors, the research concluded: "Hormone-naive patients reported significantly higher orgasmic function scores at 3 years after hypofractionation."


The news correspondents report that additional information may be obtained from L. Incrocci, Erasmus MC Canc Inst, Dept. of Radian Oncol, NL-3075 EA Rotterdam, Netherlands. Additional authors for this research include F.J. Pos, W.D. Heemsbergen and L. Incrocci.
Keywords for this news article include: Rotterdam, Netherlands, Europe, Male Genital Diseases and Conditions, Erectile Dysfunction, Prostatic Neoplasms, Prostate Cancer, Radiotherapy, Men's Health, Impotence, Hormones, Oncology, Therapy, Cancer Institute.

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**Oncology - Prostate Cancer**

**Findings on Prostate Cancer Reported by Investigators at Yale University School of Medicine (The Association Between Evaluation at Academic Centers and the Likelihood of Expectant Management in Low-risk Prostate Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting out of New Haven, Connecticut, by NewsRx editors, research stated, "To identify factors associated with expectant management (EM) in a large cohort of men with low-risk prostate cancer based on cancer center type (community vs academic). EM, consisting of active surveillance or observation for men with low-risk prostate cancer, is an increasingly recognized management option, given the morbidity and lack of a survival benefit associated with definitive treatment."

Our news journalists obtained a quote from the research from the Yale University School of Medicine, "However, the influence of cancer center type on treatment selection is uncertain. We performed a retrospective analysis of the National Cancer Data Base from 2010 to 2013. Men with low-risk prostate cancer were divided by management strategy into groups consisting of EM or definitive treatment. The association between management strategy and facility type (community vs academic) was characterized using 2-level hierarchical mixed effects logistic regression models. There were 52,417 (57%) men evaluated at community centers and 39,139 men (43%) evaluated at academic centers. Patients evaluated at academic centers were significantly more likely to receive EM than those at community centers (17% vs 8%, P<.001). After adjusting for pertinent covariates, evaluation at an academic vs community facility was independently associated with increased odds of EM utilization (adjusted odds ratio 2.70, 95% confidence interval 2.00-3.66). Fifty-one percent of the total variance was explained by interfacility variation. The likelihood of receiving EM for low-risk prostate cancer was significantly lower in men evaluated at community centers."

According to the news editors, the research concluded: "Further investigation is warranted to elucidate factors that influence the management of low-risk prostate cancer, including individual treatment center patterns."


Our news journalists report that additional information may be obtained by contacting N.H. Lester-Coll, Yale Sch Med, Dept. of Internal Med, New Haven, CT, United States. Additional authors for this research include H.S. Park, C.E. Rutter, C.D. Corso, B.R. Mancini, D.N. Yeboa, S.P. Kim, C.P. Gross and J.B. Yu.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.06.042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Cancer, Epidemiology, Prostatic Neoplasms, Prostate Cancer, Oncology, Yale University School of Medicine.

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Prothrombin

Findings on Prothrombin Discussed by K. Kapoor and Co-Researchers (Discovery of Novel Nonactive Site Inhibitors of the Prothrombinase Enzyme Complex)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Prothrombin are discussed in a new report. According to news reporting originating from Knoxville, Tennessee, by NewsRx correspondents, research stated, "The risk of serious bleeding is a major liability of anticoagulant drugs that are active-site competitive inhibitors targeting the Factor Xa (FXa) prothrombin (PT) binding site. The present work identifies several new classes of small molecule anticoagulants that can act as nonactive site inhibitors of the prothrombinase (PTase) complex composed of FXa and Factor Va (FVa)."

Financial support for this research came from National Heart, Lung, and Blood Institute.

Our news editors obtained a quote from the research, "These new classes of anticoagulants were identified, using a novel agnostic computational approach to identify previously unrecognized binding pockets at the FXa-FVa interface. From about three million docking calculations of 281,128 compounds in a conformational ensemble of FXa heavy chains identified by molecular dynamics (MD) simulations, 97 compounds and their structural analogues were selected for experimental validation, through a series of inhibition assays. The compound selection was based on their predicted binding affinities to FXa and their ability to successfully bind to multiple protein conformations while showing selectivity for particular binding sites at the FXa/FVa interface. From these, thirty-one (31) compounds were experimentally identified as nonactive site inhibitors. Concentration-based assays further identified 10 compounds represented by four small-molecule families of inhibitors that achieve dose-independent partial inhibition of PTase activity in a nonactive site-dependent and self-limiting mechanism."

According to the news editors, the research concluded: "Several compounds were identified for their ability to bind to protein conformations only seen during MD, highlighting the importance of accounting for protein flexibility in structure-based drug discovery approaches."


The news editors report that additional information may be obtained by contacting K.
Lung Diseases and Conditions - Pulmonary Embolism

Findings on Pulmonary Embolism Discussed by Investigators at Queen Margaret Hospital (D-dimer test for excluding the diagnosis of pulmonary embolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Pulmonary Embolism have been published. According to news reporting originating in Fife, United Kingdom, by NewsRx journalists, research stated, "Pulmonary embolism (PE) can occur when a thrombus (blood clot) travels through the veins and lodges in the arteries of the lungs, producing an obstruction. People who are thought to be at risk include those with cancer, people who have had a recent surgical procedure or have experienced long periods of immobilisation and women who are pregnant."

The news reporters obtained a quote from the research from Queen Margaret Hospital, "The clinical presentation can vary, but unexplained respiratory symptoms such as difficulty breathing, chest pain and an increased respiratory rate are common. D-dimers are fragments of protein released into the circulation when a blood clot breaks down as a result of normal body processes or with use of prescribed fibrinolytic medication. The D-dimer test is a laboratory assay currently used to rule out the presence of high D-dimer plasma levels and, by association, venous thromboembolism (VTE). D-dimer tests are rapid, simple and inexpensive and can prevent the high costs associated with expensive diagnostic tests. To investigate the ability of the D-dimer test to rule out a diagnosis of acute PE in patients treated in hospital outpatient and accident and emergency (A&E) settings who have had a pre-test probability (PTP) of PE determined according to a clinical prediction rule (CPR), by estimating the accuracy of the test according to estimates of sensitivity and specificity. The review focuses on those patients who are not already established on anticoagulation at the time of study recruitment. Search methods We searched 13 databases from conception until December 2013. We cross-checked the reference lists of relevant studies. Selection criteria Two review authors independently applied exclusion criteria to full papers and resolved disagreements by discussion. We included cross-sectional studies of D-dimer in which ventilation/perfusion (V/Q) scintigraphy, computerised tomography pulmonary angiography (CTPA), selective pulmonary angiography and magnetic resonance pulmonary angiography (MRPA) were used as the reference standard. Adults who were managed in hospital outpatient and A&E settings and were suspected of acute PE were eligible for inclusion in the review if they had received a pre-test probability score based on a CPR. Index tests: quantitative, semi quantitative and qualitative D-
dimer tests. Target condition: acute symptomatic PE. Reference standards: We included studies that used pulmonary angiography, V/Q scintigraphy, CTPA and MRPA as reference standard tests. Data collection and analysis Two review authors independently extracted data and assessed quality using Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2). We resolved disagreements by discussion. Review authors extracted patient-level data when available to populate 2 x 2 contingency tables (true-positives (TPs), true-negatives (TNs), false-positives (FPs) and false-negatives (FNs)). We included four studies in the review (n = 1585 patients). None of the studies were at high risk of bias in any of the QUADAS-2 domains, but some uncertainty surrounded the validity of studies in some domains for which the risk of bias was uncertain. D-dimer assays demonstrated high sensitivity in all four studies, but with high levels of false-positive results, especially among those over the age of 65 years. Estimates of sensitivity ranged from 80% to 100%, and estimates of specificity from 23% to 63%. Authors' conclusions A negative D-dimer test is valuable in ruling out PE in patients who present to the A&E setting with a low PTP."

According to the news reporters, the research concluded: "Evidence from one study suggests that this test may have less utility in older populations, but no empirical evidence was available to support an increase in the diagnostic threshold of interpretation of D-dimer results for those over the age of 65 years."

For more information on this research see: D-dimer test for excluding the diagnosis of pulmonary embolism. Cochrane Database of Systematic Reviews, 2016;(8):1472-1517. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting F. Crawford, Queen Margaret Hosp, NHS Fife, Dunfermline KY12 0SU, Fife, United Kingdom. Additional authors for this research include A. Andras, K. Welch, K. Sheares, D. Keeling and F.M. Chappell.

Keywords for this news article include: Fife, United Kingdom, Europe, Cardiology, Article Review, Diagnostics and Screening, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Lung Diseases and Conditions, Embolism and Thrombosis, Pulmonary Embolism, Angiography, Hospital, Queen Margaret Hospital.

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Lung Diseases and Conditions - Pulmonary…

Findings on Pulmonary Hypertension Reported by Investigators at University of Toronto (Simvastatin prevents and reverses chronic pulmonary hypertension in newborn rats via pleiotropic inhibition of RhoA signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Pulmonary Hypertension. According to news reporting from Toronto, Canada, by NewsRx journalists, research stated, "Chronic neonatal pulmonary hypertension (PHT) frequently results in early death. Systemically administered Rho-kinase (ROCK) inhibitors prevent and reverse chronic PHT in neonatal rats, but at the cost of severe adverse effects, including systemic
h typedr and growth restriction."

Financial support for this research came from Canadian Institutes of Health Research.

The news correspondents obtained a quote from the research from the University of Toronto, "Simvastatin has pleiotropic inhibitory effects on isoprenoid intermediates that may limit activity of RhoA, which signals upstream of ROCK. We therefore hypothesized that statin treatment would safely limit pulmonary vascular RhoA activity and prevent and reverse experimental chronic neonatal PHT via downstream inhibitory effects on pathological ROCK activity. Sprague-Dawley rats in normoxia (room air) or moderate normobaric hypoxia (13% O-2) received simvastatin (2 mg.kg(-1).day(-1) ip) or vehicle from postnatal days 1-14 (prevention protocol) or from days 14-21 (rescue protocol). Chronic hypoxia increased RhoA and ROCK activity in lung tissue. Simvastatin reduced lung content of the isoprenoid intermediate farnesyl pyrophosphate and decreased RhoA/ROCK signaling in the hypoxia-exposed lung. Preventive or rescue treatment of chronic hypoxia-exposed animals with simvastatin decreased pulmonary vascular resistance, right ventricular hypertrophy, and pulmonary arterial remodeling. Preventive simvastatin treatment improved weight gain, did not lower systemic blood pressure, and did not cause apparent toxic effects on skeletal muscle, liver or brain. Rescue therapy with simvastatin improved exercise capacity."

According to the news reporters, the research concluded: "We conclude that simvastatin limits RhoA/ROCK activity in the chronic hypoxia-exposed lung, thus preventing or ameliorating hemodynamic and structural markers of chronic PHT and improving long-term outcome, without causing adverse effects."


Our news journalists report that additional information may be obtained by contacting R.P. Jankov, University of Toronto, Fac Med, Dept. of Physiol, Toronto, ON, Canada. Additional authors for this research include C. Kantores, J. Ivanovska, A. Jain and R.P. Jankov.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00345.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Cardiovascular Diseases and Conditions, Lung Diseases and Conditions, Antihyperlipidemic Agents, Pulmonary Hypertension, Drugs and Therapies, Simvastatin Therapy, Pharmaceuticals, Lovastatin, University of Toronto.

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Findings on Radiation Pneumonitis Reported by Investigators at Department of Radiation Oncology (Dosimetric factors predicting radiation pneumonitis after CyberKnife stereotactic body radiotherapy
for peripheral lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Lung Diseases and Conditions - Radiation Pneumonitis. According to news reporting originating from Hyogo, Japan, by NewsRx correspondents, research stated, "The aims of this study were to investigate the frequency of symptomatic radiation pneumonitis (RP) after CyberKnife lung stereotactic body radiotherapy (SBRT) and to evaluate predictive factors of symptomatic RP. 56 patients with peripheral non-small-cell lung cancer were treated using the CyberKnife ® VSI ™ System (Accuracy Inc., Sunnyvale, CA) between May 2013 and September 2015."

Our news editors obtained a quote from the research from the Department of Radiation Oncology, "Total radiation doses ranged from 48 to 56 Gy, as delivered in four equal fractions. Symptomatic RP was defined as a grade of >= 2. Predictive factors for symptomatic RP were evaluated using univariate and multivariate analyses. With a median follow-up duration of 12.5 months (range, 3-27 months), symptomatic RP was observed in 6 (10.7%) of the 56 patients. In the univariate analysis, percent vital capacity (p < 0.05), maximum tumour diameter (p < 0.05), gross tumour volume (p < 0.05), planning target volume (p < 0.01), mean lung dose (p < 0.01) and a normal lung volume receiving 5-50 Gy of radiation (V5-50) (p < 0.01) were identified as significant predictive factors for symptomatic RP. In the multivariate analysis, only a V-25 > 3.4% (p = 0.011) was identified as a significant predictive factor of symptomatic RP. The incidence of symptomatic RP after CyberKnife SBRT was almost identical to the incidences reported in the linear accelerator-based SBRT. A significant association was observed between a V-25 > 3.4% and the risk of developing symptomatic RP. Advances in knowledge: This is the first report that has investigated prognostic factors for symptomatic RP after CyberKnife SBRT for lung cancer."

According to the news editors, the research concluded: "The newly developed scoring system may help to predict symptomatic RP."


The news editors report that additional information may be obtained by contacting H. Nishimura, Kobe Minimally Invas Canc Center, Dept. of Radiat Oncol, Kobe, Hyogo, Japan. Additional authors for this research include H. Nishimura, M. Nakayama, H. Mayahara, H. Uezono, A. Harada, N. Hashimoto, Y. Ejima, T. Ishihara and R. Sasaki.

Keywords for this news article include: Hyogo, Japan, Asia, Interstitial Lung Diseases and Conditions, Cancer, Risk and Prevention, Radiation Pneumonitis, Lung Neoplasms, Radiotherapy, Lung Cancer, Lung Injury, Oncology, Therapy, Department of Radiation Oncology.

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Drugs and Therapies - Radiotherapy

Findings on Radiotherapy Detailed by Investigators at French National Institute of Health and Medical Research (INSERM) (Vaginal dose assessment in image-guided brachytherapy for cervical cancer: Can we
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Radiotherapy. According to news reporting out of Villejuif, France, by NewsRx editors, research stated, "Although dose-volume parameters in image-guided brachytherapy have become a standard, the use of posterior-inferior border of the pubic symphysis (PIES) points has been recently proposed in the reporting of vaginal doses. The aim was to evaluate their pertinence."

Our news journalists obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "Nineteen patients who received image-guided brachytherapy after concurrent radiochemotherapy were included. Per treatment, CT scans were performed at Days 2 and 3, with reporting of the initial dwell positions and times. Doses delivered to the PIES points were evaluated on each plan, considering that they were representative of one-third of the treatment. The movements of the applicator according to the PIES point were analysed. Mean prescribed doses at PIGS -2, PIES, PIES +2 were, respectively, 2.23 +/- 1.4, 6.39 +/- 6.6, and 31.85 +/- 36.06 Gy. Significant differences were observed between the 5 patients with vaginal involvement and the remaining 14 at the level of PIES +2 and PIES: +47.60 Gy and +7.46 Gy, respectively (p = 0.023 and 0.03). The variations, between delivered and prescribed doses at PIES points were not significant. However, at International commission on radiation units and measurements rectovaginal point, the delivered dose was decreased by 1.43 +/- 2.49 Gy from the planned dose (p = 0.019). The delivered doses at the four points were strongly correlated with the prescribed doses with R-2 ranging from 0.93 to 0.95. The movements of the applicator in regard of the PEES point assessed with the Digital Imaging and Communications in Medicine coordinates were insignificant. The doses evaluated at PIES points are not impacted by intrafractional movements. PEES and PIES +2 dose points allow distinguishing the plans of patients with vaginal infiltration."

According to the news editors, the research concluded: "Further studies are needed to correlate these parameters with vaginal morbidity."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.brachy.2015.11.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Villejuif, France, Europe, Drugs and Therapies, Brachytherapy, Radiotherapy, French National Institute of Health and Medical Research (INSERM).

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Findings on Rectal Cancer Reported by Investigators at Aarhus University (Cancer of the Upper Rectum)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Rectal Cancer. According to news reporting from Aarhus, Denmark, by NewsRx editors, the research stated, "Rectal cancer constitutes one-third of all colorectal cancers, and the incidence in Denmark increasing. In 2012, 1,400 cases were registered, and of these 38% were located in the upper rectum."

The news correspondents obtained a quote from the research from Aarhus University, "There have been several key advances in the optimal management of rectal cancer during the past decades, primarily by standardisation and improvement of the surgical procedure. There is now general agreement that the optimal surgical treatment involves the concept of total mesorectal excision and that a resection with tumour-free margins is crucial. Controversy exists as to whether total mesorectal excision (TME) is necessary for upper rectal cancers or if a partial mesorectal excision (PME) with mesorectal transection 5 cm below the tumour is adequate. Furthermore, there is no agreement as to whether surgery alone is sufficient or whether neoadjuvant radio-and/or chemotherapy should be administered for tumours of the upper rectum. This thesis aims to discuss aspects of the treatment of rectal cancer with regard to the adequacy of mesorectal excision and oncological outcome with a particular focus on cancer of the upper rectum. In study I, the extent and completeness of mesorectal excision was estimated by postoperative magnetic resonance imaging of the pelvis in patients with primary surgery for rectal cancer. In the 136 patients with postoperative MRI, inadvertent residual mesorectal tissue was evident in 40%, especially following PME, suggesting suboptimal surgery performed. Additionally in patients who had PME, the distal margin was found to be less than 3 cm in more than 50% of patients, suggesting a discrepancy between guidelines and the actual surgery performed. In study II, we estimated the risk of local recurrence in the previously audited cohort of patients, with a particular focus on patients with upper rectal cancer treated by PME and without neoadjuvant therapy as standard. Using Kaplan-Meier analysis, the total three-year local recurrence rate was 7% with tumour stage and an involved circumferential margin as the most important predictors of local recurrence. The local recurrence rate after PME was significantly higher than for TME (14% vs. 3%; p=0.032), and were diagnosed earlier (p=0.001). In all cases with local recurrence following PME there was evidence of either inadvertent residual mesorectum and/or an insufficient distal resection margin. In study III, we investigated the length of the distal resection margin and degree of tissue shrinkage after surgical removal and fixation by using MRI of the fresh and fixed specimen. We found that the length of the specimen and the distal margin was reduced by 30% after surgical removal and fixation."

According to the news reporters, the research concluded: "If a 5-cm distal margin below the luminal level of the primary tumour on the fresh specimen is the objective for advanced cancer of the upper rectum treated with PME surgery, a margin of at least 3.5 cm of mesorectum on the fixed specimen should be attained for the pathologist to accurately establish distal radicality."

For more information on this research see: Cancer of the Upper Rectum. Danish Medical Journal, 2016;63(10):34-64. Danish Medical Journal can be contacted at: Danish Medical Assoc, Trondhjemsgade 9, Dk-2100 Copenhagen, Denmark.

Our news journalists report that additional information may be obtained by
Findings on Retinoblastoma Reported by Investigators at Scripps Research Institute (Mapping the interactions of adenoviral E1A proteins with the p160 nuclear receptor coactivator binding domain of CBP)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Eye Diseases and Conditions - Retinoblastoma. According to news reporting originating from La Jolla, California, by NewsRx correspondents, research stated, "Many viruses deregulate the cell and force transcription of viral genes by competing with cellular proteins for binding to the transcriptional co-activators CREB-binding protein (CBP) and p300. Through its interactions with CBP/p300 and the retinoblastoma protein, the adenovirus (AdV) early region 1A (E1A) oncoprotein hijacks the cell cycle and, in rodents, transforms the cell; the mechanistic and structural basis for these effects remain unclear."

Our news editors obtained a quote from the research from Scripps Research Institute, "In this study we compare the affinity of protein constructs from the E1A proteins from two adenovirus serotypes, non-oncogenic AdV5 and highly oncogenic AdV12, for binding to the nuclear receptor coactivator binding domain (NCBD) of CBP. NMR spectra show that the E1A constructs from both serotypes are intrinsically disordered in the free state and that each contains three homologous binding sites for the NCBD, one in the N-terminal region and two within conserved region 1 (CR1) of E1A. The binding sites in CR1 correspond to the motifs that bind the retinoblastoma protein and the TAZ2 domain of CBP/ p300. The E1A and NCBD peptides fold synergistically upon complex formation. Binding affinities determined from NMR titrations show that, although the overall affinities for AdV5 and AdV12 E1A are comparable, there are significant differences between the two E1A serotypes in the relative strength with which their constituent interaction motifs bind to the NCBD."

According to the news editors, the research concluded: "The individual E1A interaction motifs were unable to compete effectively with p53 for binding to the NCBD and both the N-terminal region and CR1 region of E1A are required for efficient competition with p53."


The news editors report that additional information may be obtained by contacting P.E. Wright, Scripps Res Inst, Skaggs Inst Chem Biol, La Jolla, CA 92037, United States. Additional authors for this research include M. Arai, M.A. Martinez-Yamout, H.J. Dyson and P.E. Wright.

Keywords for this news article include: La Jolla, California, United States, North
Findings on Rotavirus from V. Hoffman and Colleagues Provide New Insights (Validation of current procedural terminology codes for rotavirus vaccination among infants in two commercially insured US populations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Rotavirus. According to news originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "We validated procedure codes used in health insurance claims for reimbursement of rotavirus vaccination by comparing claims for monovalent live-attenuated human rotavirus vaccine (RV1) and live, oral pentavalent rotavirus vaccine (RV5) to medical records. Using administrative data from two commercially insured United States populations, we randomly sampled vaccination claims for RV1 and RV5 from a cohort of infants aged less than 1 year from an ongoing post-licensure safety study of rotavirus vaccines."

Our news journalists obtained a quote from the research, "The codes for RV1 and RV5 found in claims were confirmed through medical record review. The positive predictive value (PPV) of the Current Procedural Terminology codes for RV1 and RV5 was calculated as the number of medical record-confirmed vaccinations divided by the number of medical records obtained. Medical record review confirmed 92 of 104 RV1 vaccination claims (PPV: 88.5%; 95% CI: 80.7-93.9%) and 98 of 113 RV5 vaccination claims (PPV: 86.7%; 95% CI: 79.1-92.4%). Among the 217 medical records abstracted, only three (1.4%) of vaccinations were misclassified in claims-all were RV5 misclassified as RV1. The medical records corresponding to 9 RV1 and 15 RV5 claims contained insufficient information to classify the type of rotavirus vaccine. Misclassification of rotavirus vaccines is infrequent within claims."

According to the news editors, the research concluded: "The PPVs reported here are conservative estimates as those with insufficient information in the medical records were assumed to be incorrectly coded in the claims."


The news correspondents report that additional information may be obtained from V. Hoffman, Optum Epidemiol, Ann Arbor, MI 48108, United States. Additional authors for this research include N.J. Everage, S.C. Quinlan, K. Skerry, D. Esposito, N. Praet, D. Rosillon, C.N. Holick and D.D. Dore.
Blood Diseases and Conditions - Sepsis

Findings on Sepsis Detailed by Investigators at Harbin Medical University (The plasma levels of CST and BCKDK in patients with sepsis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Diseases and Conditions - Sepsis have been published. According to news reporting out of Harbin, People's Republic of China, by NewsRx editors, research stated, "CST has been recently identified as a mediator of various beneficial effects in animal models of sepsis. At present, no data are available concerning the levels of CST in sepsis patients."

Financial support for this research came from Provincial youth science fund.

Our news journalists obtained a quote from the research from Harbin Medical University. "In sepsis the plasma amino acid pattern is characterized by decreased branched chain amino acids (BCAAs). We investigated the levels of plasma CST or branched-chain ce-ketoacid dehydrogenase kinase (BCKDK) and their relationship to component traits in patients with sepsis. We studied 228 patients and divided them into two groups based on severity of infection. Blood samples were taken at study entry, and CST, BCKDK were measured. CST and BCKDK levels were significantly higher in patients with sepsis than in controls: the median plasma CST concentration was 103.1 ng/ml (range, <83.13-189.7 ng/ml) in patients with sepsis and 49.69 ng/ml (range, <19.38-100.8 ng/ml) in controls (p= 0.0022); the median plasma BCKDK concentration was 801.7 ng/ml in sepsis group and 745 ng/ml in controls (p = 0.0292). Additionally, there was correlation between the plasma concentrations of CST and BCKDK in sepsis patients (r(2) = 0.6357, p< 0.01). We conclude that the plasma levels of CST in sepsis patients were higher than in controls, and there is a relationship between CST and BCKDK in sepsis patients."

According to the news editors, the research concluded: "Future experimental and clinical studies are needed to evaluate CST as a novel prognostic tool in sepsis patients and its potential therapeutic use in sepsis."

For more information on this research see: The plasma levels of CST and BCKDK in patients with sepsis. *Peptides*, 2016;86():80-84. *Peptides* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Peptides - www.journals.elsevier.com/peptides/)

Our news journalists report that additional information may be obtained by contacting B. Zhang, Harbin Med Univ, Affiliated Hosp 4, Dept. of Cardiol, Harbin 150001, People's Republic of China. Additional authors for this research include G.Z. Sun, M.L. Zhu, Y. Li, D.J. Sun, B. Zhang and X.P. Bai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.peptides.2016.10.006. This DOI is a link to an online electronic...
Blood Diseases and Conditions - Sepsis

Findings on Sepsis Reported by Investigators at Logan College of Chiropractic (Pharmacist impact on time to antibiotic administration in patients with sepsis in an ED)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Blood Diseases and Conditions - Sepsis are presented in a new report. According to news reporting originating from Loma Linda, California, by NewsRx correspondents, research stated, "The purpose was to determine if the physical presence of a clinical pharmacist in the emergency department (ED) would decrease antibiotic order to administration time in adult patients with sepsis, severe sepsis, or septic shock. We conducted a retrospective review of adult patients presenting to the ED between January and December 2014 with a diagnosis of sepsis, severe sepsis, or septic shock who required intravenous antibiotics."

Our news editors obtained a quote from the research from the Logan College of Chiropractic, "A total of 186 patients (92 patients when an ED pharmacist was present and 94 when no ED pharmacist was present) were included in the analysis. Baseline characteristics were similar between groups. When a pharmacist was present, patients received antibiotics sooner (median 0.61 vs 0.88 hour, P = .001), Surviving Sepsis Campaign goals for antibiotic administration time were more likely to be met (88% vs 72%, P = .0097), and initial antibiotics were appropriate more often (97% vs 81%, P = .0008). No significant differences were noted in intensive care unit length of stay, hospital length of stay, ventilator days, or in-hospital mortality."

According to the news editors, the research concluded: "Physical presence of a clinical pharmacist in the ED decreased time to administration and increased appropriateness of intravenous antibiotics for adult patients with sepsis, severe sepsis, or septic shock."


The news editors report that additional information may be obtained by contacting K. Moussavi, Loma Linda Logan College of Chiropractic, Sch Pharm, Loma Linda, CA 92354, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.07.031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Loma Linda, California, United States, North and Central America, Blood Diseases and Conditions, Bloodstream Infection,
Findings on Sickle Cell Anemia Detailed by Investigators at Oregon Health and Science University (Contemporary outcomes of sickle cell disease in pregnancy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hematologic Diseases and Conditions - Sickle Cell Anemia have been presented. According to news reporting originating from Portland, Oregon, by NewsRx correspondents, research stated, "Data regarding pregnancy outcomes in sickle cell disease are conflicting. Previous studies are limited by small sample size, narrow geographic area, and a wide range of resource availability."

Our news editors obtained a quote from the research from Oregon Health and Science University, "The purpose of this study was to examine the association between maternal sickle cell disease and adverse pregnancy outcomes in a contemporary North American cohort. We performed a retrospective cohort study of 2,027,323 women with singleton pregnancies delivered in California from 2005-2008. Deliveries at < 24 or > 42 6/7 weeks of gestation were excluded. Women with sickle cell disease were compared with control subjects. Maternal outcomes of interest included preeclampsia, preterm delivery, placental abruption, oligohydramnios, and cesarean delivery; neonatal outcomes included small for gestational age, anomalies, stillbirth, neonatal death, and infant death. The prevalence of sickle cell disease was 0.017%. Compared with control subjects, women with sickle cell disease were more likely to have limited prenatal care (7.4 vs 3.8%; P = .001), underlying chronic hypertension (2.3% vs 1.1%; P = .038), and fetal anomalies (14.0 vs 6.4%; P < .001). The increased odds of fetal anomalies persisted after adjustment for multiple confounders (odds ratio, 1.73; 95% confidence interval, 1.26-2.38). Women with sickle cell disease also had higher odds of severe preeclampsia (odds ratio, 3.75; 95% confidence interval, 2.21-6.38), preterm delivery (odds ratio, 2.50; 95% confidence interval, 1.93-3.21), small for gestational age (odds ratio, 1.96; 95% confidence interval, 1.18-3.25), and cesarean delivery (odds ratio, 1.93; 95% confidence interval, 1.40-2.67). Women with sickle cell disease are at high risk of maternal and neonatal morbidity. Low rates of fetal and neonatal death may reflect improved antenatal surveillance and management as compared with previous studies."

According to the news editors, the research concluded: "The association between sickle cell disease and fetal anomalies warrants further investigation."


The news editors report that additional information may be obtained by contacting K. Kuo, Oregon Health Sciences University, Dept. of Obstet & Gynecol, Portland, OR 97201,
Drugs and Therapies - Small Molecule Inhibitors

Findings on Small Molecule Inhibitors Reported by Researchers at University of New South Wales (A small molecule inhibitor of tropomyosin dissociates actin binding from tropomyosin-directed regulation of actin dynamics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Small Molecule Inhibitors have been published. According to news reporting from Sydney, Australia, by NewsRx journalists, research stated, "The tropomyosin family of proteins form end-to-end polymers along the actin filament. Tumour cells rely on specific tropomyosin-containing actin filament populations for growth and survival."

The news correspondents obtained a quote from the research from the University of New South Wales, "To dissect out the role of tropomyosin in actin filament regulation we use the small molecule TR100 directed against the C terminus of the tropomyosin isoform Tpm3.1. TR100 nullifies the effect of Tpm3.1 on actin depolymerisation but surprisingly Tpm3.1 retains the capacity to bind F-actin in a cooperative manner. In vivo analysis also confirms that, in the presence of TR100, fluorescently tagged Tpm3.1 recovers normally into stress fibers. Assembling end-to-end along the actin filament is thereby not sufficient for tropomyosin to fulfil its function. Rather, regulation of F-actin stability by tropomyosin requires fidelity of information communicated at the barbed end of the actin filament."

According to the news reporters, the research concluded: "This distinction has significant implications for perturbing tropomyosin-dependent actin filament function in the context of anti-cancer drug development."

For more information on this research see: A small molecule inhibitor of tropomyosin dissociates actin binding from tropomyosin-directed regulation of actin dynamics. *Scientific Reports*, 2016;6():19816. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting T.T. Bonello, School of Medical Sciences, University of New South Wales, Sydney, NSW, 2052, Australia. Additional authors for this research include M. Janco, J. Hook, A. Byun, M. Appaduray, I. Dedova, S. Hitchcock-DeGregori, E.C. Hardeman, J.R. Stehn, T. Bocking and P.W Gunning.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19816. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Tropomyosin, Muscle Proteins, Drugs and Therapies, Cytoskeletal Proteins, Microfilament Proteins, Australia and New
Oncology - Squamous Cell Carcinoma

Findings on Squamous Cell Carcinoma Detailed by Investigators at Soochow University (Sunitinib modulates the radiosensitivity of esophageal squamous cell carcinoma cells in vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Squamous Cell Carcinoma. According to news reporting originating in Changzhou, People's Republic of China, by NewsRx journalists, research stated, "This study aims to explore the radiosensitivity of sunitinib on esophageal cancer cell lines. For in vitro studies, human esophageal squamous cell carcinoma (ESCC) cell lines were treated with sunitinib 24hours before irradiation."

The news reporters obtained a quote from the research from Soochow University, "ESCC cell lines were treated with sunitinib with or without radiation. Cell proliferation was detected by Cell Counting Kit 8 assay. Radiosensitization was evaluated by clonogenic survival assay. Cell apoptosis and cell cycle analysis were detected by flow cytometry. Deoxyribonucleic acid (DNA) double-strand breaks were performed by immunocytofluorescence analysis. Western blot analysis was used to determine the effect of sunitinib on radiation induced signal transduction. Sunitinib potently sensitized ESCC cells to radiation with a sensitization enhancement ratio of 1.13-1.72. Furthermore, sunitinib increased radiation induced DNA double-strand breaks, promoted the apoptosis of ESCC cells and induced the G2/M arrest. Radiosensitization was accompanied with enhanced apoptosis and regulated by the intrinsic pathway of apoptosis. Sunitinib sensitized ESCC cells to the cytotoxic effects of radiation."

According to the news reporters, the research concluded: "This compound is promising for future clinical trials with chemoradiation in esophageal cancer."


Keywords for this news article include: Changzhou, People's Republic of China, Asia, Squamous Cell Carcinoma, Carcinomas, Cell Line, Apoptosis, Genetics, Oncology, Soochow University.

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Oncology - Squamous Cell Carcinoma

Findings on Squamous Cell Carcinoma Discussed by Investigators at Hebei Medical University (Association of programmed death-1 polymorphisms with the risk and prognosis of esophageal squamous cell carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Squamous Cell Carcinoma. According to news reporting from Shijiazhuang, People's Republic of China, by NewsRx journalists, research stated, "Programmed death-1 (PD-1) is an immunoinhibitory receptor belonging to the CD28 family. This study was designed to investigate the association of PD-1 rs36084323:A>G, rs2227981:C>T, rs2227982:C>T and rs10204525:A>G single nucleotide polymorphisms (SNPs) with the risk and prognosis of esophageal squamous cell carcinoma (ESCC) in a high-incidence population from Northern China."

Financial support for this research came from Financial Department of Hebei Province.

The news correspondents obtained a quote from the research from Hebei Medical University, "These four SNPs were genotyped by polymerase chain reaction ligase detection reaction (PCR-LDR) method in 584 ESCC patients and 585 healthy controls. The rs2227981:C>T SNP C/T genotype increased the risk of ESCC for the smokers (OR = 1.483, 95% Cl = 1.018-2.160) and rs2227982:C>T SNP UT genotype enhanced susceptibility to ESCC for the females (OR = 1.708, 95% CI = 1.056-2.762). For rs10204525:A>G SNP, A/A genotype was related to increased risk of ESCC (OR = 1.735, 95% CI = 1.086-2.771) overall. Among the 584 ESCC patients, the survival information of 204 ESCC patients was collected. The rs36084323:A>G SNP A/G genotype was associated with lower risk of death in ESCC patients with upper gastrointestinal cancer (UGIC) family history (HR = 0.339, 95%CI = 0.115-0.996). The rs2227982:C>T SNP C/T genotype was associated with lower risk of death in smoker ESCC patients and ESCC patients with UGIC family history (HR = 0.409 and 0.292, 95%CI = 0.194-0.863 and 0.101-0.847). PD-1 rs2227981:C>T, rs2227982:C>T and rs10204525:A>G SNPs might be used as predictive markers of the susceptibility to ESCC for the Han nationality in a high-incidence population from Northern China."

According to the news reporters, the research concluded: "PD-1 rs36084323:A>G and rs2227982:C>T SNPs were associated with the prognosis of the Han ESCC patients in this high-incidence region."

For more information on this research see: Association of programmed death-1 polymorphisms with the risk and prognosis of esophageal squamous cell carcinoma. Cancer Genetics, 2016;209(9):365-375. Cancer Genetics can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Cancer Genetics - www.journals.elsevier.com/cancer-genetics/)

Our news journalists report that additional information may be obtained by contacting B.E. Shan, Hebei Medical University, Hosp 4, Hebei Prov Canc Inst, Shijiazhuang, Hebei Province, People's Republic of China. Additional authors for this research include Y. Li, N. Wang, X. Huang, S.R. Cao and B.E. Shan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.06.006. This DOI is a link to an online electronic document that is either free or for purchase.
Findings on Squamous Cell Carcinoma Discussed by Investigators at Nanchang University (CD47 is a Potential Target for the Treatment of Laryngeal Squamous Cell Carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Squamous Cell Carcinoma have been published. According to news reporting from Nanchang, People's Republic of China, by NewsRx journalists, research stated, "This study aims to investigate the effect of CD47 on the development of laryngeal squamous cell carcinoma (LSCC) and the therapeutic potential of monoclonal antibody against CD47 and its ligand SIRP alpha in the treatment of LSCC. We firstly detected the expressions of CD47 mRNA and protein in LSCC and para-carcinoma tissues, introduced the most efficient CD47siRNA sequence into LSCC cells by lentiviral transfection and employed three monoclonal antibodies to evaluate their anti-LSCC effects in vitro and in vivo."

The news correspondents obtained a quote from the research from Nanchang University, "We observed that the mRNA and protein expressions of CD47 in LSCC tissue had significant increase in LSCC tissues compared with those in para-carcinoma tissue (p < 0.05). After the treatments of three monoclonal antibodies, i.e. anti-SIRP alpha, anti CD47 BRIC126, anti-CD47 B6H12.2, in rats transfected with Hep-2 cell, it has been showed that the mRNA and protein expressions of CD47 in LSCC tissue decreased, macrophage efficiency was promoted when anti-SIRPa and/or CD47siRNA were used, the amounts, viabilities and expressions of CD47 protein of tumor cell were significantly inhibited. Additionally, combined use of CD47siRNA and anti-SIRPa seemed more efficient than solo use of CD47siRNA/antiSIRP alpha."

According to the news reporters, the research concluded: "The results suggested a critical role of CD47 in LSCC development and the promising treatment of antiCD47/SIRP alpha and/or CD47siRNA in LSCC."

For more information on this research see: CD47 is a Potential Target for the Treatment of Laryngeal Squamous Cell Carcinoma. Cellular Physiology and Biochemistry, 2016;40(1-2):126-136. Cellular Physiology and Biochemistry can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com/; Cellular Physiology and Biochemistry - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224332)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000452530. This DOI is a link to an online electronic document that is
Central Nervous System Diseases and Conditions –…

Findings on Subarachnoid Hemorrhage Described by I.R. Da Silva and Colleagues (Effect of Age on Transcranial Doppler Velocities in Patients with Aneurysmal Subarachnoid Hemorrhage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Central Nervous System Diseases and Conditions - Subarachnoid Hemorrhage is the subject of a report. According to news reporting originating in Rio de Janeiro, Brazil, by NewsRx journalists, research stated, "It is not well understood whether age impacts transcranial Doppler (TCD) mean flow velocities (MFVs) in patients with aneurysmal subarachnoid hemorrhage (SAH) with or without delayed cerebral ischemia (DCI). The aim of our study was to analyze the behavior of TCD MFV during the first 7 days after SAH in patients of different ages and correlate them with the occurrence of DCI."

The news reporters obtained a quote from the research, "This study is a databank analysis of patients with SAH admitted between 2010 and 2012 in a single center. We analyzed mean MFV of bilateral middle cerebral arteries (MCAs) in all patients enrolled in the study on days 1, 3 and 7. The correlation between age and TCD MFV was analyzed using a univariate linear regression model. Fifty-five patients were studied. Starting on the third day after the bleeding, increasing age was associated with slower MFVs. This trend was not affected by the interrogation of the right or left MCA."

According to the news reporters, the research concluded: "After correction to include only patients who developed DCI, the same findings persisted on days 3 and 7. Older age was correlated with a significant decrease on TCD velocities in patients with SAH, even after correction for patients who developed DCI."

For more information on this research see: Effect of Age on Transcranial Doppler Velocities in Patients with Aneurysmal Subarachnoid Hemorrhage. European Neurology, 2016;76(5-6):261-266. European Neurology can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; European Neurology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=223840)

Our news correspondents report that additional information may be obtained by contacting I.R. Da Silva, Amer Med City, Neurocrit Care Unit, BR-22230090 Rio De Janeiro, Brazil. Additional authors for this research include J.A. Gomes, A. Wachsman, G.R. de Freitas and J.J. Provencio.

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Keywords for this news article include: Rio de Janeiro, Brazil, South America, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Brain Diseases and Conditions, Cerebrovascular Disorders, Intracranial Hemorrhages, Subarachnoid Hemorrhage.
Heart Disorders and Diseases - Takotsubo…

**Findings on Takotsubo Cardiomyopathy Detailed by Investigators at University of Athens (A Heartbreaking Renal Transplantation: Is Norepinephrine the Culprit to Blame?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Takotsubo Cardiomyopathy are discussed in a new report. According to news reporting originating in Athens, Greece, by NewsRx journalists, research stated, "Takotsubo cardiomyopathy (TCM), also known as 'broken heart syndrome,' 'apical ballooning syndrome,' and 'stress-induced cardiomyopathy,' was first described in Japanese patients in 1990 by Sato et al. TCM is an increasingly recognized syndrome characterized by transient and reversible systolic dysfunction of the apical and middle segments of the left ventricle."

The news reporters obtained a quote from the research from the University of Athens, "This syndrome resembles acute myocardial infarction in the absence of evident coronary artery occlusion. Herein, we present a case of a 51-year old male who underwent his second deceased-donor renal transplantation for end-stage renal disease due to a work-related accident. Perioperatively, initiation of continuous infusion of noradrenaline was decided to achieve adequate graft perfusion due to persistently low blood pressure. On the second postoperative day, the patient experienced tachycardia and atypical angina-like chest pain. Electrocardiogram (ECG) showed signs of myocardial infarction and elevated troponin levels were observed. Urgent coronary angiography was normal and transthoracic echocardiography (TEE) was indicative for Takotsubo cardiomyopathy. Although, the precise pathophysiology of Takotsubo cardiomyopathy is still unknown, it seems that it is associated with excessive sympathetic stimulation, microvascular dysfunction, coronary artery vasospasm, and abnormal myocardial tissue metabolism. The development of patient's symptoms after the initiation of norepinephrine along with their immediate resolution after the discontinuation of the drug might suggest a causal relationship."

According to the news reporters, the research concluded: "This is the first time that TCM after renal transplantation is thought to be linked with the administration of exogenous catecholamines."


Our news correspondents report that additional information may be obtained by contacting M.G. Vailas, University of Athens, Sch Med, Laiko Gen Hosp, Transplantat Unit, Athens 11527, Greece. Additional authors for this research include S. Vernadakis, K. Kakavia, I. Paizis, J. Bokos, J. Boletis and G. Zavos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.05.014. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Athens, Greece, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Left Ventricular Dysfunction, Takotsubo Cardiomyopathy, Cardiovascular Agents, Myocardial Infarction, Drugs and Therapies, Myocardial Ischemia, Organic Chemicals, Cardiomyopathies, Coronary Artery, Biogenic Amines, Norepinephrine, Amino Alcohols, Catecholamines, Ethanolamines, Heart Disease, Vasopressors, Heart Attack, Cardiology, Nephrology, Angiology, Kidney, University of Athens.

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Lymphatic Diseases and Conditions - Thymoma

Findings on Thymoma Reported by Investigators at Yonsei University (Limited thymectomy as a potential alternative treatment option for early-stage thymoma: A multi-institutional propensity-matched study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lymphatic Diseases and Conditions - Thymoma. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "For early-stage thymoma, complete thymectomy has classically been regarded as the standard treatment protocol. However, several studies have shown that limited thymectomy may be an alternative treatment option for thymoma."

The news correspondents obtained a quote from the research from Yonsei University, "This study compared perioperative outcomes, survival, and recurrence rates between patients undergoing limited thymectomy and complete thymectomy. Between January 2000 and December 2013, a total of 762 patients underwent thymectomy for stage I or II thymomas at four institutions participating in the Korean Association for Research on the Thymus. Patients were divided into two groups: limited thymectomy group (n = 295) and complete thymectomy group (n = 467). Comparative clinicopathological, surgical, and oncological features were reviewed retrospectively. The median follow-up time was 49 months (range: 0.2-189 months). A propensity score matching analysis, based on seven variables (age, sex, surgical approach, tumor size, WHO histological type, Masaoka-Koga stage, and adjuvant radiotherapy), was performed using 141 patients selected from each group. The 5- and 10-year freedom-from-recurrence rates in the limited thymectomy group were 96.3% and 89.7%, respectively, and those in the complete thymectomy group were 97.0% and 85.0%, respectively. No significant differences in these rates were observed between groups (p = 0.86). A multivariate Cox regression analysis showed that overall survival and freedom-from-recurrence rates did not significantly differ by surgery extent (p = 0.27, 0.66, respectively). Perioperative outcomes were better in the limited thymectomy group. Limited thymectomy was not inferior to complete thymectomy with respect to recurrence, and had better perioperative outcomes."

According to the news reporters, the research concluded: "Limited thymectomy may be a viable treatment option for early stage thymoma."


Our news journalists report that additional information may be obtained by
Thyroid Diseases and Conditions - Thyroiditis

Findings on Thyroiditis Discussed by Investigators at Catholic University of Louvain (Pioglitazone, a PPAR gamma Agonist, Upregulates the Expression of Caveolin-1 and Catalase, Essential for Thyroid Cell Homeostasis: A Clue to the Pathogenesis ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Thyroid Diseases and Conditions - Thyroiditis have been presented. According to news originating from Brussels, Belgium, by NewsRx correspondents, research stated, "Peroxisome proliferator-activated receptor gamma (PPAR gamma) is a transcription factor that regulates the expression of multiple target genes involved in several metabolic pathways as well as in inflammation. The expression and cell localization of caveolin-1 (Cav-1), thyroperoxidase (TPO), and dual oxidase (DUOX), involved in extracellular iodination, is modulated by Th1 cytokines in human normal thyroid cells and in Hashimoto's thyroiditis (HT)."

Our news journalists obtained a quote from the research from the Catholic University of Louvain, "The objectives of this study were (i) to analyze the PPAR gamma protein and mRNA expression at the follicular level in HT versus controls in correlation with the one of Cav-1; (ii) to study the effects of Th1 cytokines on PPAR gamma and catalase expression in human thyrocyte primary cultures; and (iii) to study the effects of pioglitazone, a PPAR gamma agonist, on thyroxisome components (Cav-1, TPO, DUOX) and on catalase, involved in antioxidant defense. Although the global expression of PPAR gamma in the whole gland of patients with HT was not modified compared with controls, there was great heterogeneity among glands and among follicles within the same thyroid. Besides normal (type 1) follicles, there were around inflammatory zones, hyperactive (type 2) follicles with high PPAR gamma and Cav-1 expression, and inactive (type 3) follicles which were unable to form thyroxine and did not express PPAR gamma or Cav-1. In human thyrocytes in primary culture, Th1 cytokines decreased PPAR gamma and catalase expression; pioglitazone increased Cav-1, TPO, and catalase expression. PPAR gamma may play a central role in normal thyroid physiology by upregulating Cav-1, essential for the organization of the thyroxisome and extracellular iodination. By upregulating catalase, PPAR gamma may also contribute to cell homeostasis."

According to the news editors, the research concluded: "The inhibitory effect of Th1 cytokines on PPAR gamma expression may be considered as a new pathogenetic mechanism for
HT, and the use of PPAR gamma agonists could open a new therapeutic approach."

For more information on this research see: Pioglitazone, a PPAR gamma Agonist, Upregulates the Expression of Caveolin-1 and Catalase, Essential for Thyroid Cell Homeostasis: A Clue to the Pathogenesis of Hashimoto's Thyroiditis. Thyroid, 2016;26(9):1320-1331. Thyroid can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Thyroid - www.liebertpub.com/overview/thyroid/55/)

The news correspondents report that additional information may be obtained from M.C. Many, Catholic University of Louvain, Fac Med, IREC, Pole Morphol, Brussels, Belgium. Additional authors for this research include V. Joris, M. Hepp, L. Papasokrati, L. Marique, C.D. de Goyet, V. Van Regemorter, M. Mourad, B. Lengele, C. Daumerie, E. Marbaix, S. Brichard, M.C. Many and J. Craps.

Keywords for this news article include: Brussels, Belgium, Europe, Intracellular Signaling Peptides and Proteins, Peroxisome Proliferator-Activated Receptors, Endocrine System Diseases and Conditions, Signal Transducing Adaptor Proteins, Pioglitazone Therapy Hydrochloride, Thyroid Diseases and Conditions, Vesicular Transport Proteins, Hashimoto Thyroiditis, Transcription Factors, Enzymes and Coenzymes, DNA-Binding Proteins, Drugs and Therapies, Antidiabetic Agents, Thiazolidinediones, Membrane Proteins, Phosphoproteins, Pharmaceuticals, Peroxidases, Caveolin 1, Enzymology, PPAR gamma, Cytokines, Caveolins, Catalase, Genetics, Catholic University of Louvain.

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Biomedical Engineering - Tissue Engineering

Findings on Tissue Engineering Described by Researchers at Institute of Basic Medical Sciences (Development of Electrically Conductive Double-Network Hydrogels via One-Step Facile Strategy for Cardiac Tissue Engineering)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Biomedical Engineering - Tissue Engineering are presented in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Cardiac tissue engineering is an effective method to treat the myocardial infarction. However, the lack of electrical conductivity of biomaterials limits their applications."

The news correspondents obtained a quote from the research from the Institute of Basic Medical Sciences, "In this work, a homogeneous electronically conductive double network (HEDN) hydrogel via one-step facile strategy is developed, consisting of a rigid/hydrophobic/conductive network of chemical crosslinked poly(thiophene-3-acetic acid) (PTAA) and a flexible/hydrophilic/biocompatible network of photo-crosslinking methacrylated aminated gelatin (MAAG). Results suggest that the swelling, mechanical, and conductive properties of HEDN hydrogel can be modulated via adjusting the ratio of PTAA network to MAAG network. HEDN hydrogel has Young's moduli ranging from 22.7 to 493.1 kPa, and its conductivity (&asymp;10(-4) S cm(-1)) falls in the range of reported conductivities for native myocardium tissue. To assess their biological activity, the brown adipose-derived stem cells (BADSCs) are seeded on the surface of HEDN hydrogel with or without electrical stimulation.
Our data show that the HEDN hydrogel can support the survival and proliferation of BADSCs, and that it can improve the cardiac differentiation efficiency of BADSCs and upregulate the expression of connexin 43. Moreover, electrical stimulation can further improve this effect."

According to the news reporters, the research concluded: "Overall, it is concluded that the HEDN hydrogel may represent an ideal scaffold for cardiac tissue engineering."


Our news journalists report that additional information may be obtained by contacting B. Yang, Dept. of Advanced Interdisciplinary Studies, Institute of Basic Medical Sciences and Tissue Engineering Research Center, Academy of Military Medical Sciences, Beijing, 100850, People's Republic of China. Additional authors for this research include F. Yao, T. Hao, W. Fang, L. Ye, Y. Zhang, Y. Wang, J. Li and C. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/adhm.201500520. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Biotechnology, Tissue Engineering, Biomedical Engineering, Biomedicine, Beijing, Alcohols, Hydrogel, Cardiology, Bioengineering, Organic Chemicals, Polyethylene Glycols, People's Republic of China.

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Biomedical Engineering - Tissue Engineering

Findings on Tissue Engineering Reported by Investigators at National Institute of Technology (Alginate Bead Based Hexagonal Close Packed 3D Implant for Bone Tissue Engineering)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biomedical Engineering - Tissue Engineering. According to news reporting originating in Rourkela, India, by NewsRx journalists, research stated, "Success of bone tissue engineering (BTE) relies on the osteogenic microarchitecture of the biopolymeric scaffold and appropriate spatiotemporal distribution of therapeutic molecules (growth factors and drugs) inside it. However, the existing technologies have failed to address both the issues together."

The news reporters obtained a quote from the research from the National Institute of Technology, "Keeping this perspective in mind, we have developed a novel three-dimensional (3D) implant prototype by stacking hexagonal close packed (HCP) layers of calcium alginate beads. The HCP arrangement of the beads lead to a patterned array of interconnected tetrahedral and octahedral pores of average diameter of 142.9 and 262.9 μm, respectively, inside the implant. The swelling pattern of the implants changed from isotropic to anisotropic in the z-direction in the absence of bivalent calcium ions (Ca2+) in the swelling buffer. Incubation of the implant in simulated body fluid (SBF) resulted in a 2.7-fold increase in the compressive modulus. The variation in the relaxation times as derived from the Weichert viscoelasticity model predicted a gradual increase in the interactions among the alginate molecules in the matrix. We demonstrated the tunability of the spatiotemporal drug release from the implant in a
tissue mimicking porous semisolid matrix as well as in conventional drug release set up by changing the spatial coordinates of the 'drug loaded depot layer' inside the implant. The therapeutic potential of the implant was confirmed against Escherichia coil using metronidazole as the model drug. Detailed analysis of cell viability, cell cycle progression, and cytoskeletal reorganization using osteoblast cells (MG-63) proved the osteoconductive nature of the implant. Expression of differentiation markers such as alkaline phosphatase, runx2, and collagen type 1 in human mesenchymal stem cell in vitro confirmed the osteogenic nature of the implant. When tested in vivo, VEGF loaded implant was found capable of inducing angiogenesis in a mice model."

According to the news reporters, the research concluded: "The bead based implant may find its utility in non-load-bearing BTE."

For more information on this research see: Alginate Bead Based Hexagonal Close Packed 3D Implant for Bone Tissue Engineering. ACS Applied Materials & Interfaces, 2016;8 (47):32132-32145. ACS Applied Materials & Interfaces can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Applied Materials & Interfaces - www.pubs.acs.org/journal/aamick)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b08512. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rourkela, India, Asia, Bone-Tissue Engineering, Biomedical Engineering, Bone Regeneration, Bone Substitutes, Bioengineering, Biotechnology, National Institute of Technology.

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Bacterial Infections and Mycoses - Toxemia

Findings on Toxemia from B.J. Yamamoto and Colleagues Provide New Insights (Efficacy Projection of Obiltoxaximab for Treatment of Inhalational Anthrax across a Range of Disease Severity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Bacterial Infections and Mycoses - Toxemia are discussed in a new report. According to news reporting originating from Pine Brook, New Jersey, by NewsRx correspondents, research stated, "Inhalational anthrax has high mortality even with antibiotic treatment, and antitoxins are now recommended as an adjunct to standard antimicrobial regimens. The efficacy of obiltoxaximab, a monoclonal antibody against anthrax protective antigen (PA), was examined in multiple studies conducted in two animal models of inhalational anthrax."

Our news editors obtained a quote from the research, "A single intravenous bolus of 1 to 32 mg/kg of body weight obiltoxaximab or placebo was administered to New Zealand White rabbits (two studies) and cynomolgus macaques (4 studies) at disease onset (significant body temperature increase or detection of serum PA) following lethal challenge with aerosolized
Bacillus anthracis spores. The primary endpoint was survival. The relationship between efficacy and disease severity, defined by pretreatment bacteremia and toxemia levels, was explored. In rabbits, single doses of 1 to 16 mg/kg obiltoxaximab led to 17 to 93% survival. In two studies, survival following 16 mg/kg obiltoxaximab was 93% and 62% compared to 0% and 0% for placebo (P = 0.0010 and P = 0.0013, respectively). Across four macaque studies, survival was 6.3% to 78.6% following 4 to 32 mg/kg obiltoxaximab. In two macaque studies, 16 mg/kg obiltoxaximab reduced toxemia and led to survival rates of 31%, 35%, and 47% versus 0%, 0%, and 6.3% with placebo (P = 0.0085, P = 0.0053, P = 0.0068). Pretreatment bacteremia and toxemia levels inversely correlated with survival.

According to the news editors, the research concluded: "Overall, obiltoxaximab monotherapy neutralized PA and increased survival across the range of disease severity, indicating clinical benefit of toxin neutralization with obiltoxaximab in both early and late stages of inhalational anthrax."

For more information on this research see: Efficacy Projection of Obiltoxaximab for Treatment of Inhalational Anthrax across a Range of Disease Severity. Antimicrobial Agents and Chemotherapy, 2016;60(10):5787-5795. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting N.V. Serbina, Elusys Therapeut Inc, Pine Brook, NJ 07058, United States. Additional authors for this research include A.M. Shadiack, S. Carpenter, D. Sanford, L.N. Henning, E. O'Connor, N. Gonzales, J. Mondick, J. French, G.V. Stark, A.C. Fisher, L.S. Casey and N.V. Serbina.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00972-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pine Brook, New Jersey, United States, North and Central America, Bacterial Infections and Mycoses, Toxemia.

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Drugs and Therapies - Trimethoprim Therapy

Findings on Trimethoprim Therapy Detailed by Investigators at University of Otago (Pharmacist-only trimethoprim: pharmacist satisfaction on their training and the impact on their practice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Trimethoprim Therapy is the subject of a report. According to news reporting originating from Dunedin, New Zealand, by NewsRx correspondents, research stated, "In 2012, in a first for the developed world, New Zealand reclassified trimethoprim to allow specially trained pharmacists to supply the medicine without a prescription to women with cystitis fitting specific criteria. This study explored pharmacists' views of the training and screening tool, impact on practice, and the pharmacists' perceptions of views of patients and doctors."

Our news editors obtained a quote from the research from the University of Otago, "Structured interviews were conducted with 28 New Zealand pharmacists trained to supply..."
trimethoprim. These pharmacists were selected to represent geographical spread as well as urban, suburban and rural. The key areas for investigation were: satisfaction about training, appropriateness of training, opinions on the screening tool, impact on clinical practice and perception of others. Audio recorded interviews were thematically analyzed. Of 40 pharmacies invited, 28 pharmacists agreed to participate. Most pharmacists were positive about being able to supply trimethoprim, the training and increased clinical focus of their practice. The content of the training was considered appropriate, as was the screening tool, which was well utilised during consultations. Minor suggestions on the training and consultation materials were provided. Some pharmacists reported that referral to the doctor without supply in a minority of trimethoprin consultations, frustrated some women. Frequency of supplies varied considerably by pharmacists from none supplied to weekly supplies. Some pharmacists questioned the exclusion to supply for women who had taken antibiotics in the last six months. Many women had reportedly appreciated the easier access in the pharmacy compared with doctor access, especially at weekends, but sometimes misunderstood the role of the pharmacist in the supply. While pharmacists reported that some doctors had been negative about pharmacist-supply, others were informing women about the service from the pharmacist. Pharmacist supply of trimethoprim using mandated training and a screening tool or algorithm for supply is workable and well-accepted by pharmacists. Minor changes have been recommended.

According to the news editors, the research concluded: "Further research is needed to understand perspectives of other stakeholders (women, doctors and practice nurses) and outcomes for patients."


The news editors report that additional information may be obtained by contacting R. Braund, University of Otago, Sch Pharm, Clin Pharm Practice, Dunedin 9054, New Zealand. Additional authors for this research include E. Henderson, E. Mcnab, R. Sarten, E. Wallace and N. Gauld.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11096-016-0388-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dunedin, New Zealand, Australia and New Zealand, Urinary Antiinfectives, Trimethoprim Therapy, Drugs and Therapies, Pharmaceuticals, University of Otago.

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Tryptamines

Findings on Tryptamines Described by Z.I. Sandor and Colleagues (Serotonin or the Mucosa Do Not Mediate the Motor Effect of Allyl Isothiocyanate in the Guinea-Pig Small Intestine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
Research findings on Tryptamines are discussed in a new report. According to news reporting out of Pecs, Hungary, by NewsRx editors, research stated, "Serotonin (5-hydroxytryptamine, 5-HT), originating from the enterochromaffin cells has been reported to mediate the contractile effect of the sensory stimulant and TRPA1 activator allyl isothiocyanate (AITC) in the guinea-pig small intestine [Nozawa et al: Proc Natl Acad Sci U.S.A 2009; 106:3408-3413]. In the present experiments, the nerve-mediated contraction of this preparation due to AITC was not inhibited by a combination of methysergide (broad-spectrum 5-HT antagonist; 0.3 µmol/l), Y 25130 (azasetron, 5-HT3 receptor antagonist; 1 µmol/l) and SB 204070 (5-HT4 receptor antagonist; 2 µmol/l) or by 5-HT receptor desensitization, that is, pretreatments that practically abolished contractions of similar size in response to exogenous 5-HT, without causing nonspecific effects."

Our news journalists obtained a quote from the research, "AITC also contracted longitudinal muscle-myenteric plexus preparations, an effect also fully resistant to the combination of 5-HT receptor antagonists. The pharmacology of AITC in strip preparations matched that in the whole ileum. Key Messages: It is concluded that neither endogenous 5-HT nor the gut mucosa contributes to the excitatory effect of AITC in the guinea-pig small intestine."

According to the news editors, the research concluded: "The combination of 5-HT antagonists elaborated is suitable for studying the possible involvement of 5-HT in motor responses of the guinea-pig intestine."

For more information on this research see: Serotonin or the Mucosa Do Not Mediate the Motor Effect of Allyl Isothiocyanate in the Guinea-Pig Small Intestine. Pharmacology, 2016;98(5-6):199-203. Pharmacology can be contacted at: Karger, Allschwilerstrasse 10, CH-4009 Basel, Switzerland. (Karger - www.karger.com; Pharmacology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224274)

Our news journalists report that additional information may be obtained by contacting L. Bartho, Univ Med Sch Pecs, Dept. of Pharmacol & Pharmacotherapy, HU-7624 Pecs, Hungary. Additional authors for this research include T. Bencsik, A. Dekany and L. Bartho.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000447427. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pecs, Hungary, Europe, Biological Factors, Organic Chemicals, Sulfur Compounds, Isothiocyanates, Biogenic Amines, Isocyanates, Tryptamines, Serotonin, Autacoids.

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Findings on Tuberculosis Reported by Investigators at Capital Medical University (Interactions of linezolid and second-line anti-tuberculosis agents against multidrug-resistant Mycobacterium tuberculosis in vitro and in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Mycobacterium Infections - Tuberculosis have been
presented. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "The objectives of this study were to evaluate the interactions between linezolid (LZD) and second-line anti-tuberculosis (TB) agents in susceptible and multidrug-resistant (MDR) TB in vitro, and to validate the in vitro results in a murine TB model. The minimum inhibitory concentrations of LZD and seven second-line anti-TB drugs against H37Rv and three multidrug-resistant clinical isolates were determined by Alamar Blue assay, and the interaction patterns of LZD and the seven second-line anti-TB agents against the four isolates were studied using a dynamic checkerboard method."

Our news journalists obtained a quote from the research from Capital Medical University, "The activities of these combinations against Mycobacterium tuberculosis were evaluated in a murine model of TB. The combination of LZD + capreomycin exhibited partial synergism for three of four isolates, LZD + para-aminosalicylic acid exhibited partial synergism for two of four isolates, and LZD + levofloxacin and LZD + amikacin exhibited partial synergism for one of four isolates; all other combinations showed indifference or an additive effect in vitro. The activities of six combinations and the standard regimen rifampicin + isoniazid + pyrazinamide were investigated in a murine model of TB (infection with H37Rv). Significant reductions in colony-forming units (CFU) were found in LZD + capreomycin and LZD + clofazimine groups when the CFU in the lungs on day 0 (the day of beginning treatment) was compared with the CFU in the lungs after 2 months of treatment."

According to the news editors, the research concluded: "These combinations of LZD and second-line anti-TB drugs were all active against MDR-TB with indifference or an additive effect, except LZD + capreomycin, which showed partial synergy."


The news correspondents report that additional information may be obtained from Z.Y. Guo, Capital Med Univ, Pharm Beijing Chest Hosp, Beijing, People's Republic of China. Additional authors for this research include M.Q. Zheng, B. Wang, X.P. Mu, P. Li, L. Fu, S. Liu and Z.Y. Guo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijid.2016.08.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Streptomycyes Derivatives, Mycobacterium Infections, Antituberculosis Agents, Gram-Positive Bacteria, Drugs and Therapies, Gram-Positive Rods, Infectious Disease, Mycobacteriaceae, Cyclic Peptides, Drug Resistance, Antinfectives, Actinobacteria, Capreomycin, Antibiotics, Linezolid, Capital Medical University.

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**Mycobacterium Infections - Tuberculosis**

**Findings on Tuberculosis Reported by Investigators at University of Arkansas (Mobility patterns of persons at risk for drug-resistant tuberculosis in Mumbai, India)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mycobacterium Infections - Tuberculosis have been published. According to news reporting originating from Fayetteville, Arkansas, by NewsRx correspondents, research stated, "Tuberculosis (TB) hospital in Mumbai, India. To describe the mobility patterns of persons with suspected drug-resistant tuberculosis (DR-TB) and to assess whether there were significant differences in demographic or risk characteristics based on mobility."

Our news editors obtained a quote from the research from the University of Arkansas, "Observational cohort study of TB clinic patients at risk for DR-TB. Among 602 participants, 37% had ever moved from their place of birth; 14% were local movers (within state), and 23% were distant movers, between states or countries. Univariate multinomial logistic regression models showed that distant movers were more likely than non-movers to have lower income, less education, a greater number of previous TB episodes, and to have ever smoked. Compared to non-movers, local movers were more likely to have lower income and were more likely to have seen a doctor in the past 2 years. Clinical outcomes, including DR-TB, diabetes, and human immunodeficiency virus (HIV), did not differ between the three mobility groups. Mobility was common among patients at risk for DR-TB in Mumbai."

According to the news editors, the research concluded: "TB programs should consider the implications of mobility on the protracted treatment for DR-TB in India."

For more information on this research see: Mobility patterns of persons at risk for drug-resistant tuberculosis in Mumbai, India. *International Journal of Tuberculosis and Lung Disease, 2016;20(12):1633-1638.* *International Journal of Tuberculosis and Lung Disease* can be contacted at: Int Union Against Tuberculosis Lung Disease (I U A T L D), 68 Boulevard Saint-Michel, 75006 Paris, France.

The news editors report that additional information may be obtained by contacting D.G. Catanzaro, University of Arkansas, Dept. of Biol Sci, Fayetteville, AR 72701, United States. Additional authors for this research include R.S. Garfein, T.C. Rodwell, Z.F. Udwadia and D.G. Catanzaro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5588/ijtld.16.0187. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fayetteville, Arkansas, United States, North and Central America, Drugs and Therapies, Epidemiology, Virus Physiological Phenomena, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Viral Drug Resistance, Infectious Disease, University of Arkansas.

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Nutritional and Metabolic Diseases and Conditions ...

Findings on Type 1 Diabetes Mellitus Reported by Investigators at Harvard School of Medicine [Singular role for T-BET+ CXCR3(+) regulatory T cells in protection from autoimmune diabetes]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus is now available. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Foxp3(+) regulatory T (Treg) cells are crucial for restraining inflammation in a variety of autoimmune diseases, including type 1 diabetes (T1D). However, the transcriptional and functional phenotypes of Treg cells within the pancreatic lesion remain poorly understood."

Our news editors obtained a quote from the research from the Harvard School of Medicine, "Here we characterized pancreas-infiltrating Treg cells in the NOD mouse model of T1D and uncovered a substantial enrichment of the Treg subpopulation expressing the chemokine receptor CXCR3. Accumulation of CXCR3(+) Treg cells within pancreatic islets was dependent on the transcription factor T-BET, and genetic ablation of T-BET increased the onset and penetrance of disease, abrogating the sex bias normally seen in the NOD model. Both male and female mice lacking T-BET+ Treg cells showed a more aggressive insulitic infiltrate, reflected most prominently by elevated production of type 1 cytokines."

According to the news editors, the research concluded: "Our results suggest the possibility of fine therapeutic targeting of Treg cells, in a tissue-and cell-subset-specific fashion, as a more focused immunotherapy for T1D."


The news editors report that additional information may be obtained by contacting D. Mathis, Harvard Med Sch, Dept. of Microbiol & Immunobiol, Div Immunol, Boston, MA 02115, United States. Additional authors for this research include D. Mathis and C. Benoist.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Type 1 Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions, Insulin Dependent Diabetes Mellitus, Risk and Prevention, Type 1 Diabetes, Genetics, Harvard School of Medicine.

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Nutritional and Metabolic Diseases and Conditions - …

Findings on Type 2 Diabetes Detailed by W. Stonehouse and Co-Authors (Short term effects of palm-tocotrienol and palm-carotenes on vascular function and cardiovascular disease risk: A randomised controlled trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting originating from Adelaide, Australia, by NewsRx correspondents, research stated, "In vitro, ex vivo and animal studies suggest palm-based tocotrienols and carotenes enhance vascular function, but limited data in humans exists. The aim was to examine the effects of palm-tocotrienols (TRF-80) and palm-carotene (CC-60) supplementation on vascular function and cardiovascular disease (CVD) risk factors in adults at increased risk of impaired vascular function."

Our news editors obtained a quote from the research, "Ninety men and women (18-70 yr, 20-45 kg/m(2)) with type 2 diabetes, impaired fasting glucose and/or elevated waist circumference were randomised to consume either TRF-80 (420 mg/day tocotrienol + 132 mg/day tocopherol), CC-60 (21 mg/day carotenes) or placebo (palm olein) supplements for 8 weeks. Brachial artery flow-mediated dilation (FMD), other physiological and circulatory markers of vascular function, lipid profiles, glucose, insulin and inflammatory markers were assessed pre- and post-supplementation. Pairwise comparisons were performed using mixed effects longitudinal models (n = 87, n = 3 withdrew before study commencement). Plasma alpha- and beta-carotene and alpha-, delta- and gamma-tocotrienol concentrations increased in CC-60 and TRF-80 groups, respectively, compared to placebo (mean +/- SE difference in total plasma carotene change between CC-60 and placebo: 1.5 +/- 0.13 mu g/ml, p< 0.0001; total plasma tocotrienol change between TRF-80 and placebo: 0.36 +/- 0.05 mu g/ml, p< 0.0001). Neither FMD (treatment x time effect for CC-60 vs. placebo, p = 0.71; TRF-80 vs. placebo, p = 0.80) nor any other vascular function and CVD outcomes were affected by treatments."

According to the news editors, the research concluded: "CC-60 and TRF-80 supplementation increased bioavailability of palm-based carotenes and tocotrienols but had no effects, superior or detrimental, on vascular function or CVD risk factors."


The news editors report that additional information may be obtained by contacting W. Stonehouse, Commonwealth Sci Ind Res Organization, Hlth & Biosecur, Adelaide, SA, Australia. Additional authors for this research include G.D. Brinkworth, C.H. Thompson and M.Y. Abeywardena.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.10.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes
Findings on Type 2 Diabetes Discussed by Investigators at Central South University (Long-term effects intensive medical therapy on the development and progression of subclinical atherosclerosis and the metabolic syndrome in Chinese patients ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "Few studies have investigated the progression of subclinical atherosclerosis and metabolic syndrome (MetS) in Chinese patients with type 2 diabetes mellitus (T2DM). This study was to compare the long-term effects of intensive medical therapy on the development and progression of subclinical atherosclerosis and MetS in Chinese T2DM patients with that of a conventional treatment regimen."

Our news journalists obtained a quote from the research from Central South University, "A total of 316 T2DM patients were randomized to receive conventional pharmacological treatment or intensive medical therapy, consisting of diet and exercise counseling, from 2002 to 2014 at our hospital in Changsha, China. Clinical indicators of subclinical atherosclerosis and MetS were evaluated over the 12-year follow-up period. A chi(2) analysis or t tests was used to compare the data between the 2 groups. Risk factors for subclinical atherosclerosis were identified using Cox proportional hazard models. The incidence of subclinical atherosclerosis increased in both groups over time, and did not differ significantly between the 2 groups at the end of the study. However, after 6 years of treatment, the risk of subclinical atherosclerosis was significantly lower in the intensive medical therapy group, based on intima-media thickness (IMT) measurements, compared with that in the conventional treatment (44.2% vs. 69.7%; P<0.01). Age, creatinine, and IMT of the common iliac artery were significantly associated with subclinical atherosclerosis. Although the indicators of MetS did not differ significantly at the end of study, the success rate for the management of MetS in the intensive medical therapy group was significantly higher than that in the conventional treatment group in 2006, 2008, 2010, and 2012. The incidence of atherosclerosis in the intensive medical therapy group was significantly lower than that in the conventional treatment group from 2006 to 2010 (P <0.05), and the incidence of MetS in the intensive medical therapy group was significantly higher than that in the conventional treatment group from 2006 to 2012."

According to the news editors, the research concluded: "Kaplan-Meier estimations showed that the risk of subclinical atherosclerosis in the intensive medical therapy group was significantly lower than that in the conventional treatment group (P <0.001), whereas the risk of MetS was not significantly different between the treatment groups (P >0.05)."

For more information on this research see: Long-term effects intensive medical therapy on the development and progression of subclinical atherosclerosis and the metabolic syndrome in Chinese patients with type 2 diabetes mellitus. Medicine, 2016;95(46):84-91.
Findings on Type 2 Diabetes Reported by Investigators at Merck & Company (Discovery of benzofuran propanoic acid GPR120 agonists: From uHTS hit to mechanism-based pharmacodynamic effects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting originating in Kenilworth, New Jersey, by NewsRx journalists, research stated, "The transformation of an aryloxybutanoic acid ultra high-throughput screening (uHTS) hit into a potent and selective series of G-protein coupled receptor 120 (GPR120) agonists is reported. uHTS hit 1 demonstrated an excellent rodent pharmacokinetic profile and selectivity over the related fatty acid receptor GPR40, but only modest GPR120 potency."

The news reporters obtained a quote from the research from Merck & Company, "Optimization of the 'left-hand' aryl group led to compound 6, which demonstrated a GPR120 mechanism-based pharmacodynamic effect in a mouse oral glucose tolerance test (oGTT). Further optimization gave rise to the benzofuran propanoic acid series (exemplified by compound 37), which demonstrated acute mechanism-based pharmacodynamic effects."

According to the news reporters, the research concluded: "The combination of in vivo efficacy and attractive rodent pharmacodynamic profiles suggests compounds generated from this series may afford attractive candidates for the treatment of Type 2 diabetes."


Our news correspondents report that additional information may be obtained by contacting M. Lombardo, Merck & Co Inc, Kenilworth, NJ 07033, United States. Additional
Findings on Urothelial Cancer Discussed by Investigators at University of G. d'Annunzio [The Clinical Use of the Neutrophil to Lymphocyte Ratio (NLR) in Urothelial Cancer: A Systematic Review]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Urothelial Cancer. According to news reporting originating in Chieti, Italy, by NewsRx journalists, research stated, "The neutrophil to lymphocyte ratio (NLR) is an inflammatory index that has been considered as a potential prognostic factor in human cancer. The aim of this study was to evaluate the available evidence regarding the NLR as a prognostic value in patients affected by urothelial cancer."

The news reporters obtained a quote from the research from the University of G. d'Annunzio, "This literature review, including papers on NLR in urothelial cancers, was done on PubMed/Medline and Cochrane libraries in November 2015. The selection of the articles followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses process. Twenty-three of 99 articles fulfilled all the inclusion criteria, including data on 6240 patients affected by urothelial cancers. Overall, cancer specific, and recurrence-free survival were evaluated as the main oncological outcomes. There was significant heterogeneity among studies, and the majority of studies were of poor quality. Overall, NLR was considered as a prognostic marker in 87.5%, 80%, and 60% of the studies on upper tract urothelial cancer, urothelial bladder cancer, and metastatic and advanced disease, respectively. The NLR cut-off value ranged between 2 and 5. A high NLR was associated with worse overall, cancer-specific, and recurrence-free survival. NLR is a widely available, easy-to-collect, costless, prognostic marker in urothelial cancers."

According to the news reporters, the research concluded: "Its clinical use still remains under investigation, especially for the need for cut-off values, particularly in different subsets of patients."

For more information on this research see: The Clinical Use of the Neutrophil to Lymphocyte Ratio (NLR) in Urothelial Cancer: A Systematic Review. Clinical Genitourinary Cancer, 2016;14(6):473-484. Clinical Genitourinary Cancer can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA. (Elsevier - www.elsevier.com; Clinical Genitourinary Cancer - www.journals.elsevier.com/clinical-
Our news correspondents report that additional information may be obtained by contacting M. Marchioni, Univ G d'Annunzio, SS Annunziata Hosp, Dept. of Urol, Chieti, Italy. Additional authors for this research include G. Primiceri, M. Ingrosso, R. Filograna, P. Castellan, P. De Francesco and L. Schips.

Keywords for this news article include: Chieti, Italy, Europe, Prognostic Markers, Article Review, Hemic and Immune Systems, Mononuclear Leukocytes, Urothelial Cancer, Granulocytes, Blood Cells, Lymphocytes, Neutrophils, Immunology, Phagocytes, Oncology, University of G. d'Annunzio.

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Immunization - Vaccines

Findings on Vaccines Reported by Investigators at Chinese Academy of Sciences (Improving adjuvanticity of quaternized chitosan-based microgels for H5N1 split vaccine by tailoring the particle properties to achieve antigen dose sparing effect)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunization - Vaccines. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "In this study, we developed the quaternized chitosan microgels without chemical crosslinking as an adjuvant of H5N1 split vaccine. The microgels with pH-sensitivity, positive surface charge and good biocompatibility, have been demonstrated in favor of enhancing both humoral and cellular immune response."

Our news editors obtained a quote from the research from the Chinese Academy of Sciences, "However, the detailed mechanism of the chitosan-based microgels to enhance antigen specific immune responses remains unclear. Therefore, we prepared the quaternized chitosan microgels with well defined quaternization degrees (QDs, 20-80%) and particle sizes (800 nm-5 μm) by the premix membrane emulsification technique, and investigated the effect of quaternization degree (QD) and size on the adjuvanticity of microgels. Results suggested that microgels with relatively smaller size (807 nm) and moderate quaternization degree (QD 41% and 60%) were favorable for a maximum immune response. The mechanism was studied and explained by examining the characteristics of microgels and investigating the stimulation of bone-marrow derived dendritic cells (BMDCs). Moreover, they induced significantly stronger immune responses at lower antigen doses (known as antigen sparing effect) compared to aluminum adjuvant."

According to the news editors, the research concluded: "These data indicated that a maximum immune response can be achieved by controlling properties of chitosan microgels, which also could serve as a significant guidance for rational design of chitosan-based particle adjuvant."

For more information on this research see: Improving adjuvanticity of quaternized chitosan-based microgels for H5N1 split vaccine by tailoring the particle properties to achieve antigen dose sparing effect. *International Journal of Pharmaceutics*, 2016;515(1-2):84-93. *International Journal of Pharmaceutics* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; International Journal of
Cardiovascular Diseases and Conditions - Venous...

**Findings on Venous Thromboembolism Described by Researchers at Leiden University Medical Center (Instrumental variable analysis as a complementary analysis in studies of adverse effects: venous thromboembolism and second-generation versus ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Venous Thromboembolism. According to news reporting from Leiden, Netherlands, by NewsRx journalists, research stated, "A potentially useful role for instrumental variable (IV) analysis may be as a complementary analysis to assess the presence of confounding when studying adverse drug effects. There has been discussion on whether the observed increased risk of venous thromboembolism (VTE) for third-generation oral contraceptives versus second-generation oral contraceptives could be (partially) attributed to confounding."

Financial support for this research came from Netherlands Organisation for Health Research and Development.

The news correspondents obtained a quote from the research from Leiden University Medical Center, "We investigated how prescribing preference IV estimates compare with conventional estimates. Women in the Clinical Practice Research Database who started a second-generation or third-generation oral contraceptive from 1989 to 2013 were included. Ordinary least squares and two-stage least squares regression were used to estimate risk differences in VTE. Cox regression and IV for Cox proportional hazards regression were used to calculate hazard ratios (HR). The instrument used was the proportion of prescriptions for third-generation oral contraceptives by the general practitioner in the year preceding the current prescription. All analyses pointed in the direction of an increased VTE risk for third-generation oral contraceptives. The adjusted HR from the conventional Cox regression was 1.62 (95% confidence interval 1.16-2.27) and the fully adjusted HR from the IV Cox regression was 3.45 (95% confidence interval; 0.97-11.7), showing a larger risk and wider confidence intervals in the IV analysis. The similarity in direction of results from the IV analyses and conventional analyses suggests that major confounding is unlikely."

According to the news reporters, the research concluded: "IV analysis can be a useful complementary analysis to assess the presence of confounding in studies of adverse drug effects in very large databases."

For more information on this research see: Instrumental variable analysis as a complementary analysis in studies of adverse effects: venous thromboembolism and second-generation versus third-generation oral contraceptives. *Pharmacoepidemiology and Drug Safety*,...
Cardiovascular Diseases and Conditions - Venous...

Findings on Venous Thromboembolism Reported by Investigators at Huazhong University of Science and Technology (Subtypes of SERPINC1 mutations and the thrombotic phenotype of inherited antithrombin deficient individuals in Chinese Han population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Venous Thromboembolism. According to news reporting out of Wuhan, People's Republic of China, by NewsRx editors, research stated, "Inherited antithrombin (AT) deficiency is a rare autosomal disease that could increase the risk of venous thromboembolism (VTE) and usually caused by mutations of SERPINC1. Although a number of mutations of SERPINC1 have been reported in Chinese Han population, the impact of different subtypes of these mutations on the thrombotic phenotype is still unknown."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from the Huazhong University of Science and Technology, "Here, we performed a retrospective cohort study including 169 AT patients from 63 families to compare the clinical features between null mutation carriers and missense mutation carriers. We found that patients carrying null mutations have a higher risk of VTE (HR 2.29, 95% CI 1.16-4.69, P = 0.02 adjusted for sex and VTE family history) and earlier median onset age of VTE (27 vs. 32 years, P = 0.045) as well as lower AT activities (47.6 +/- 1.0% vs. 59.1 +/- 2.3%, P< 0.001) than those with missense mutations. We also observed that thrombus location sites showed no difference between null mutation carriers and missense mutation carriers, gene locations of the mutations did not relate with the incidence rate of VTE."

According to the news editors, the research concluded: "This study demonstrated that different types of SERPINC1 mutations may play different roles in the development of VTE and should be considered in the prevention of VTE."

For more information on this research see: Subtypes of SERPINC1 mutations and

Our news journalists report that additional information may be obtained by contacting G.L. Cui, Huazhong University of Science & Technology, Tongji Med College, Tongji Hosp. Inst HypertensDept Internal Med. Wuhan 430030, People’s Republic of China. Additional authors for this research include G.L. Cui, S.L. Hu and D.W. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bcmd.2016.10.029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Venous Thromboembolism, Risk and Prevention, Antithrombins, Angiology, Proteins, Genetics, Serpins, Huazhong University of Science and Technology.

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**beta-Lactams**

**Findings on beta-Lactams Detailed by Investigators at Aix-Marseille University [First Report of German Cockroaches (Blattella germanica) as Reservoirs of CTX-M-15 Extended-Spectrum-beta-Lactamase-and OXA-48 Carbapenemase-Producing ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on beta-Lactams have been presented. According to news reporting originating in Marseille, France, by NewsRx journalists, research stated, "Here we report the isolation of extended-spectrum beta-lactamase (ESBL)-and carbapenemase-producing Enterobacteriaceae from German cockroaches caught in the burn unit of Batna University Hospital in Algeria."

The news reporters obtained a quote from the research from Aix-Marseille University, "Nine of 12 isolates harbored the bla(CTX-M-15) ESBL gene. One Enterobacter cloacae isolate belonging to sequence type 528 coexpressed the bla(OXA-48), bla(CTX-M-15), and blaTEM genes."

According to the news reporters, the research concluded: "Our findings indicate that cockroaches may be one of the most dangerous reservoirs for ESBL and carbapenemase producers in hospitals."


Our news correspondents report that additional information may be obtained by contacting J.M. Rolain, Aix Marseille Univ, Fac Med & Pharm, IHU Mediterranee Infect,
French National Institute of Health and Medical Research (INSERM) Reports Findings in Age-Related Macular Degeneration (Twelve-Month Outcomes of Ranibizumab vs. Afiblercept for Neovascular Age-Related Macular Degeneration: Data from an ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Eye Diseases and Conditions - Age-Related Macular Degeneration. According to news reporting from Montpellier, France, by NewsRx journalists, research stated, "To directly compare visual acuity (VA) outcomes with ranibizumab vs. aflibercept for eyes with neovascular age-related macular degeneration (nAMD) treated in routine clinical practice. Database observational study."

The news correspondents obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "Treatment-naive eyes with nAMD tracked by the Fight Retinal Blindness outcome registry that commenced antivascular endothelial growth factor therapy with ranibizumab or aflibercept between December 1, 2013, and January 31, 2015. Eyes were matched at baseline for VA, age, and choroidal neovascular membrane (CNV) size. Locally weighted scatterplot smoothing curves were used to display VA results. Eyes that switched or discontinued treatment were included with their last observation carried forward. Change in mean VA (number of letters read on a logarithm of the minimum angle of resolution chart); number of injections and visits; proportion of eyes with inactive CNV over 12 months. We identified 394 eyes (197 treated with ranibizumab and 197 with aflibercept) from 372 patients who received treatment from 34 practitioners. Baseline parameters were well matched. The mean (standard deviation [SD]) VA of ranibizumab-treated eyes increased from 58.6 (20.3) letters at baseline to 62.3 (23.9) (+3.7 [95% confidence interval CI 1.4-6.1]) letters (P = 0.001), compared with 58.9 (19.2) letters at baseline to 63.1 (21.5) (+4.26 [95% CI 2.0-6.5]) letters (P < 0.001) for eyes receiving aflibercept. The difference in change in crude VA of 0.6 letters between the 2 groups was not statistically significant (P = 0.76), nor was the difference in adjusted mean VA of the 2 groups (P = 0.26). In completers, the mean (SD) numbers of injections (8.1 [2.1] vs. 8.0 [2.3]; P = 0.27) and visits (9.6 [3.0] vs. 9.5 [3.1]; P = 0.15) did not differ between the 2 groups. The adjusted proportion of eyes in which the CNV lesion was graded as inactive during the study was similar between the eyes receiving ranibizumab and aflibercept (74% vs. 77%, respectively; P = 0.63)."

According to the news reporters, the research concluded: "Visual acuity outcomes at 12 months did not differ between ranibizumab and aflibercept used for nAMD in this large observational study, nor was a difference in treatment frequency found."
For more information on this research see: Twelve-Month Outcomes of Ranibizumab vs. Aflibercept for Neovascular Age-Related Macular Degeneration: Data from an Observational Study. *Ophthalmology, 2016;123(12):2545-2553.* *Ophthalmology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Springer - www.springer.com; Ophthalmology - www.springerlink.com/content/2193-6528/)

Our news journalists report that additional information may be obtained by contacting V. Daien, Inserm, U1061, F-U1061 Montpellier, France. Additional authors for this research include V. Nguyen, V. Daïen, J.J. Arnold, N. Morlet and D. Barthelmes.

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Keywords for this news article include: Montpellier, France, Europe, Antiangiogenic Ophthalmic Agents, Age-Related Macular Degeneration, Retinal Diseases and Conditions, Clinical Trials and Studies, Eye Diseases and Conditions, Ophthalmic Preparations, Monoclonal Antibodies, Retinal Degeneration, Drugs and Therapies, Clinical Research, Biotechnology, Immunotherapy, Ranibizumab, French National Institute of Health and Medical Research (INSERM).

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**Oncology - Prostate Cancer**

**Fudan University Shanghai Cancer Center Reports Findings in Prostate Cancer (Effect of body mass index on the performance characteristics of PSA-related markers to detect prostate cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "To examine whether the predictive performance of prostate-specific antigen (PSA) and PSA-related markers for prostate cancer (PCa) is modified by body mass index (BMI). Patients with a PSA 2-10 ng/mL who underwent multicore prostate biopsies were recruited from three tertiary centers."

The news reporters obtained a quote from the research from Fudan University Shanghai Cancer Center, "Serum markers measured included total PSA (tPSA), free-to-total PSA (f/tPSA), p2PSA, percentage of p2PSA (%p2PSA), and prostate health index (PHI). The association between serum markers and PCa risk was assessed by logistic regression. Predictive performance for each marker was quantified using the area under the receiver operator curves (AUC). Among 516 men, 18.2% had PCa at biopsy. For all tested markers, their predictive value on PCa risk was lower in obese patients compared to normal weight patients. We found statistically significant interactions between BMI and tPSA (p=0.0026) and p2PSA (p=0.038). PHI achieved an AUC of 0.872 in normal weight patients and 0.745 in obese patients, which outperformed the other predictors regardless of BMI category."

According to the news reporters, the research concluded: "PHI achieved the best predictive performance for detecting PCa and was not influenced by BMI."

For more information on this research see: Effect of body mass index on the performance characteristics of PSA-related markers to detect prostate cancer. *Scientific Reports,*
Our news correspondents report that additional information may be obtained by contacting Y. Zhu, Dept. of Urology, Fudan University Shanghai Cancer Center, Shanghai, People's Republic of China. Additional authors for this research include C.T. Han, G.M. Zhang, F. Liu, Q. Ding, J.F. Xu, A.C. Vidal, S.J. Freedland, C.F. Ng and D.W Ye.

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Keywords for this news article include: Asia, Shanghai, Oncology, Prostate Cancer, Prostatic Neoplasms, Enzymes and Coenzymes, Prostate Specific Antigen, People's Republic of China.

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Drugs and Therapies - Drug Delivery Systems

Fujian Agriculture and Forestry University Details Findings in Drug Delivery Systems (Rehmannia glutinosa polysaccharide liposome as a novel strategy for stimulating an efficient immune response and their effects on dendritic cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Drug Delivery Systems have been presented. According to news reporting from Fuzhou, People's Republic of China, by NewsRx journalists, research stated, "Nanomedicine, the medical application of nanotechnology, promises a seemingly limitless range of applications from drug delivery to adjuvants and therapeutics. Our current research is focused on natural polymer-based liposome adjuvants."

The news correspondents obtained a quote from the research from Fujian Agriculture and Forestry University, "With the aim of inducing protective and long-lasting immunity, the immunological adjuvant activity of Rehmannia glutinosa polysaccharide liposome (RGPL) was investigated. In vivo, the splenic lymphocyte proliferation ratios and ovalbumin-specific immunoglobulin G titers of ovalbumin-RGPL-vaccinated mice were significantly upregulated. In draining lymph nodes, the expression of MHC II(+)CD11c(+) and CD86(+)CD11c(+) was increased by RGPL; in addition, the percentages of central memory cells (T-CM) and effector memory cells (T-EM) were also elevated. RGPL could effectively provide adequate antigen exposure in lymph nodes. In vitro, RGPL could promote dendritic cell maturation and enhance dendritic cell functions, such as the mixed lymphocyte reaction and antigen presentation."

According to the news reporters, the research concluded: "Overall, the results demonstrated that RGPL has the potential to act as an effective controlled release vaccine adjuvant."

For more information on this research see: Rehmannia glutinosa polysaccharide liposome as a novel strategy for stimulating an efficient immune response and their effects on dendritic cells. International Journal of Nanomedicine, 2016;11():6795-6808. International Journal of Nanomedicine can be contacted at: Dove Medical Press Ltd, PO Box 300-008, Albany, Auckland 0752, New Zealand.

Our news journalists report that additional information may be obtained by
Oncology - Breast Cancer

Gene test could pinpoint patients sensitive to new type of cancer drug

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Testing for a gene commonly mutated in ovarian cancers could pick out patients who will respond well to a promising new class of cancer drugs, a major new study reveals.

Scientists found that defects in a gene called ARID1A caused sensitivity to new drugs targeting the DNA repair process within tumour cells.

The new drugs - called ATR inhibitors - are already being tested in early clinical trials, and the new research could help identify those patients who will benefit most.

Scientists at The Institute of Cancer Research, London, used molecular screening techniques to find that cancers with mutations in ARID1A were particularly sensitive to ATR inhibitors.

ARID1A is mutated in a wide range of hard-to-treat tumour types, including ovarian cancer and stomach cancer, but until now there has been no way of targeting treatment at tumours with this genetic defect.

The research, which is published in the journal Nature Communications, was funded by Cancer Research UK and Breast Cancer Now.

Scientists at The Institute of Cancer Research (ICR) found that ATR inhibitors stopped cancer cells with ARID1A mutations from growing, both in culture dishes and in mice. They also found that switching off the ARID1A gene in breast and bowel cancer cells greatly increased their sensitivity to ATR inhibitors.

The researchers found the treatment killed cancer cells with ARID1A mutations through a process called 'synthetic lethality'.

Cancer cells with ARID1A mutations become particularly reliant on the DNA safeguarding activity of the ATR protein to survive - so they are especially sensitive to drugs that block its effects.

Patients on clinical trials of ATR inhibitors could now start to be tested for ARID1A mutations in their tumours - in order to assess whether those with the genetic defects are particularly likely to benefit.

Dr Chris Lord, Leader of the Gene Function Team at The Institute of Cancer Research, London, said: "Our research has opened up a potential way of personalising treatment for cancer by targeting drugs to those patients who will benefit most.

"We found in cell cultures and in mice that cancers with defective versions of the
ARID1A gene are particularly sensitive to a new class of drug called ATR inhibitors."

"Our research could lead to patients with ARID1A mutant tumours being assessed for whether they respond particularly well to this new class of cancer treatment."

Dr Justine Alford, Cancer Research UK's senior science information officer, said: "By identifying a potential way to exploit a specific genetic vulnerability in cancer this research could point the way to tailoring treatments to each patient, helping to make them kinder and more effective. The next steps will be to better understand the effects of targeting this weakness, and to find out whether this promising strategy will work in people."

Katie Goates, Senior Research Communications Officer at Breast Cancer Now, said: "This early finding could bring us a step closer to more 'personalised' medicine, targeting treatment to exploit weaknesses in patients' tumours and hopefully improve their chances of survival.

"It's particularly exciting to see an idea that was initially tested in breast cancer cells be translated into potential benefit for a number of other cancers. We hope these findings now lay the groundwork for clinical trials to investigate the potential of ATR inhibitors as a targeted cancer treatment in the near future."

Keywords for this news article include: Genetics, Women's Health, Clinical Research, Oncology - Breast Cancer, Clinical Trials and Studies, Institute of Cancer Research.

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Central Nervous System Diseases and Conditions -

General Hospital Describes Findings in Subarachnoid Hemorrhage (Melatonin attenuated early brain injury induced by subarachnoid hemorrhage via regulating NLRP3 inflammasome and apoptosis signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Subarachnoid Hemorrhage have been published. According to news reporting originating in Shenyang, People's Republic of China, by NewsRx journalists, research stated, "Subarachnoid hemorrhage (SAH) is a devastating condition with high morbidity and mortality rates due to the lack of effective therapy. Nucleotide-binding oligomerization domain-like receptor family pyrin domain-containing 3 (NLRP3) inflammasome activation associated with the upregulation of apoptotic signaling pathway has been implicated in various inflammatory diseases including hemorrhagic insults."

Funders for this research include National Natural Science Foundation of China, Medical Science Youth Breeding Project of Chinese People's Liberation Army, China Postdoctoral Science Foundation.

The news reporters obtained a quote from the research from General Hospital, "Melatonin is reported to possess substantial anti-inflammatory properties, which is beneficial for early brain injury (EBI) after SAH. However, the molecular mechanisms have not been clearly identified. This study was designed to investigate the protective effects of melatonin against EBI induced by SAH and to elucidate the potential mechanisms. The adult mice were subjected to SAH. Melatonin or vehicle was injected intraperitoneally 2 hr after SAH. Melatonin was neuroprotective, as shown by increased survival rate, as well as elevated
neurological score, greater survival of neurons, preserved brain glutathione levels, and reduced brain edema, malondialdehyde concentrations, apoptotic ratio, and blood-brain barrier (BBB) disruption. Melatonin also attenuated the expressions of NLRP3, apoptosis-associated speck-like protein containing a caspase recruitment domain (ASC), cleaved caspase-1, interleukin-1β (IL-1β), and interleukin-6 (IL-6); these changes were also associated with an increase in the anti-apoptotic factor (Bcl2) and reduction in the pro-apoptotic factor (Bim)."

According to the news reporters, the research concluded: "In summary, our results demonstrate that melatonin treatment attenuates the EBI following SAH by inhibiting NLRP3 inflammasome-associated apoptosis."


Our news correspondents report that additional information may be obtained by contacting Y. Dong, Dept. of Neurosurgery, General Hospital of Shenyang Military Area Command, Shenyang, People's Republic of China. Additional authors for this research include C. Fan, W. Hu, S. Jiang, Z. Ma, X. Yan, C. Deng, S. Di, Z. Xin, G. Wu, Y. Yang, R.J. Reiter and G. Liang.

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Keywords for this news article include: Asia, Anticonvulsants, Antioxidants, Caspase, Shenyang, Adjuvant, Genetics, Hormones, Apoptosis, Brain Injuries, Melatonin Therapy, Drugs and Therapies, Craniocerebral Trauma, Enzymes and Coenzymes, Free Radical Scavenger, Subarachnoid Hemorrhage, Intracranial Hemorrhages, Cerebrovascular Disorders.

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Oncology - Carcinomas

**General Hospital Details Findings in Carcinomas (The influence of American Society of Anesthesiologists Physical Status on patient morbidity and survival after total thyroidectomy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Carcinomas have been published. According to news reporting from Hyogo, Japan, by NewsRx journalists, research stated, "In cases of thyroid papillary carcinoma, a less aggressive cancer, surgeons may hesitate to perform total thyroidectomy on patients with poor general condition because these may experience longer survival without undergoing surgery. To investigate the influence of general patient condition on the patients' survival who received total thyroidectomy, we utilized the American Society of Anesthesiologists Physical Status (ASA-PS)."

The news correspondents obtained a quote from the research from General Hospital, "We retrospectively reviewed all patients undergoing total thyroidectomy under general anesthesia and graded by ASA-PS between 2004 and 2014. Patients with anaplastic carcinoma and metastatic thyroid renal cell carcinoma were excluded. There were 77 (30%), 149 (58%),
and 30 (12%) ASA-PS 1, 2, and 3 cases, respectively. Patient age increased significantly with increasing ASA-PS score (median age of 53, 64, and 71 years for ASA-PS 1, 2, and 3). Hospitalization periods extended significantly for patients with ASA-PS 3. Twenty patients died during the study (3.89 median years). Five-year overall survival rates were 100%, 93%, and 79% for ASA-PS 1, 2 and 3, respectively. Patients in the ASA-PS 1 group had significantly better prognosis by log-rank test. Univariate analysis showed an increased risk of death as ASA-PS score increased (hazard ratio: 3.03, 95% confidence interval: 1.55-5.92, p=0.00). In multivariate analysis, including patient age and presence of malignancy, patient age was the only significant predictor of overall survival (hazard ratio: 1.09 by year, 95% confidence interval: 1.03-1.14, p=0.00)."

According to the news reporters, the research concluded: "We concluded that a high ASA-PS score should not inhibit performance of total thyroidectomy if a patient's age is suitable for the surgery."


Our news journalists report that additional information may be obtained by contacting S. Shinohara, General Hospital, Dept. of Otolaryngol Head & Neck Surg, Kobe City Med Center, Kobe, Hyogo, Japan. Additional authors for this research include M. Kikuchi, H. Harada, S. Takebayashi, K. Yunoki and K. Yamazaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1507/endocrj.EJ16-0342. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hyogo, Japan, Asia, Endocrine Surgical Procedures, Surgery, Risk and Prevention, Thyroidectomy, Carcinomas, Oncology, General Hospital.

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**Neurodegenerative Diseases**

**Genes Nardilysin and OGDHL linked to human neurological conditions**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- An international team of scientists has discovered that the gene, OGDHL, a key protein required for normal function of the mitochondria -- the energy-producing factory of the cell -- and its chaperone, nardilysin (NRD1) are linked to progressive loss of neurological function in humans. Working with the fruit fly, an experimental animal model in the lab, the scientists found a mechanism by which misregulation of mitochondrial function leads to neurodegeneration. The results appear in Neuron.

"In our research we look for genes whose loss of function results in deterioration of neurological functions in the fruit fly Drosophila melanogaster," said first author Dr. Wan Hee Yoon, postdoctoral fellow in the laboratory of Dr. Hugo Bellen, professor at Baylor College of Medicine, investigator at the Howard Hughes Medical Institute, and senior author of the paper. "In the fly we found that loss of function of nardilysin led to a slow, progressive neurodegeneration."
Yoon and colleagues discovered that nardilysin helps the folding of an important protein, an enzyme called OGDH, present in mitochondria. Loss of nardilysin function results in loss of OGDH and a build-up of a compound called a-ketoglutarate (a-KG). High levels of a-KG increase a cellular response mechanism called mTOR that normally provides clearance of cellular components such as proteins and organelles. Yoon observed that mutation of nardilysin leads to abnormal build-up of a-KG followed by mTOR activation and eventually to slow accumulation of cellular trash. Importantly, a drug named rapamycin suppresses the neurodegenerative conditions caused by this accumulation of cellular garbage.

In 2009, a group led by Dr. Eiichiro Nishi in Japan genetically engineered a mouse to lack nardilysin. The mice developed neurological problems with motor coordination, balance and memory issues, findings which at the time were not known to be linked to the mechanism described above in the fruit fly. The team led by Bellen realized that the results in fruit flies and in mice might suggest a role for nardilysin and its target protein OGDH in neurological problems in humans.

Searching for disease variants of nardilysin, OGDHL

At the same time that Yoon was investigating nardilysin and its target protein OGDH, across the street co-author Dr. Ender Karaca, a postdoctoral fellow in the laboratory of Dr. James R. Lupski’s group at Baylor, was working to solve a rare disease by sequencing the patient's genome through the Baylor-Hopkins Center for Mendelian Genomics (BHCMG). Karaca had discovered a 16-year-old patient with a rare variant in OGDHL who was unable to walk, was bound to a wheelchair and whose head had not grown normally. Yoon and Karaca connected and realized that the mechanism in flies that Yoon was working on might explain the undiagnosed patient of Karaca. "We realized that Ender had identified OGDHL as the top candidate gene for his patient at the same time that we were identifying OGDHL as a target of nardilysin," said Yoon. "After we saw a patient with a severe disorder and variants in OGDHL, we wondered about nardilysin," said Bellen. The researchers then widened their search for similar patients by posting the information of the disease-causing variants of nardilysin in GeneMatcher, a web tool for rare disease researchers developed by the BHCMG team at Johns Hopkins University. Researchers looking for patients carrying rare disease genes post the gene in GeneMatcher. If another researcher around the world has a patient with a matching gene, the teams can contact each other to share the information and collaborate. By posting nardilysin in GeneMatcher, Yoon and colleagues identified a patient whose DNA had been sequenced at the University of California in Los Angeles Clinical Genomics Center. The patient is a 15-year-old boy who presents with symptoms that are remarkably similar to those present in the patient identified by Karaca. "We knew then that these two patients had a very similar disorder, but we had to prove that the genetic variants were causing their conditions," said Yoon and Bellen.

Using flies to study how human disease genes work

The data from the two patients were strong evidence that the variants in nardilysin and OGDHL are linked to neurodegenerative disease in humans. However, to establish that the disease variants can cause the condition, the researchers turned back to the flies where they could use genetic technology to test the variants. "We can test a human gene side by side with a copy containing a variant from a patient in flies," said co-author Dr. Michael F. Wangler, assistant professor of molecular and human genetics at Baylor. Using this technology, Yoon showed that mutant flies carrying a normal copy of the human gene show normal development and neuronal function. However, flies carrying genes with deleterious variants found in patients failed to rescue the loss of the genes in flies. This suggests that the mutations found in patients are indeed deleterious.

"These studies show how valuable the fruit fly model is to uncover and test genes
linked to human conditions, and to work out how mutations may cause diseases," said Bellen.

Keywords for this news article include: Genetics, Technology, Mental Health, Baylor College of Medicine, Neurodegenerative Diseases, Rare Diseases and Conditions.

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Gram-Negative Bacteria - Pseudomonas aeruginosa

Georgia State University Reports Findings in Pseudomonas aeruginosa (Inhibition and Dispersal of Pseudomonas aeruginosa Biofilms by Combination Treatment with Escapin Intermediate Products and Hydrogen Peroxide)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Pseudomonas aeruginosa have been presented. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "Escapin is an L-amino acid oxidase that acts on lysine to produce hydrogen peroxide (H2O2), ammonia, and equilibrium mixtures of several organic acids collectively called escapin intermediate products (EIP). Previous work showed that the combination of synthetic EIP and H2O2 functions synergistically as an antimicrobial toward diverse planktonic bacteria."

Financial support for this research came from Georgia Research Alliance (GRA).

The news correspondents obtained a quote from the research from Georgia State University, "We initiated the present study to investigate how the combination of EIP and H2O2 affected bacterial biofilms, using Pseudomonas aeruginosa as a model. Specifically, we examined concentrations of EIP and H2O2 that inhibited biofilm formation or fostered disruption of established biofilms. High-throughput assays of biofilm formation using microtiter plates and crystal violet staining showed a significant effect from pairing EIP and H2O2, resulting in inhibition of biofilm formation relative to biofilm formation in untreated controls or with EIP or H2O2 alone. Similarly, flow cell analysis and confocal laser scanning microscopy revealed that the EIP and H2O2 combination reduced the biomass of established biofilms relative to that of the controls. Area layer analysis of biofilms posttreatment indicated that disruption of biomass occurs down to the substratum. Only nanomolar to micromolar concentrations of EIP and H2O2 were required to impact biofilm formation or disruption, and these concentrations are significantly lower than those causing bactericidal effects on planktonic bacteria. Micromolar concentrations of EIP and H2O2 combined enhanced P. aeruginosa swimming motility compared to the effect of either EIP or H2O2 alone."

According to the news reporters, the research concluded: "Collectively, our results suggest that the combination of EIP and H2O2 may affect biofilms by interfering with bacterial attachment and destabilizing the biofilm matrix."

For more information on this research see: Inhibition and Dispersal of Pseudomonas aeruginosa Biofilms by Combination Treatment with Escapin Intermediate Products and Hydrogen Peroxide. Antimicrobial Agents and Chemotherapy, 2016;60(9):5554-5562. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by
contacting A.J. Santiago, Georgia State University, Dept. of Biol, Atlanta, GA 30302, United States. Additional authors for this research include M.N.A. Ahmed, S.L. Wang, K. Damera, B.G. Wang, P.C. Tai, E.S. Gilbert and C.D. Derby.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.02984-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Reactive Oxygen Species, Gram-Negative Bacteria, Pseudomonas aeruginosa, Inorganic Chemicals, Gammaproteobacteria, Hydrogen Peroxide, Organic Chemicals, Pseudomonadaceae, Proteobacteria, Electrolytes, Peroxides, Elements, Anions, Gases, Ions, Georgia State University.

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**Pharmaceutical Companies**

**Gilead Sciences to Present at the 35th Annual J.P. Morgan Healthcare Conference on Monday, January 9**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Gilead Sciences, Inc. (Nasdaq: GILD) announced that its corporate presentation will be webcast from the 35th Annual J.P. Morgan Healthcare Conference in San Francisco.

John F. Milligan, PhD, Gilead's President and Chief Executive Officer, will provide an overview of the company at the conference on Monday, January 9 at 10:30 a.m. Pacific Time (1:30 p.m. Eastern Time).

The live webcast can be accessed at the company's Investors page at www.gilead.com/investors. Please connect to the company's website at least 15 minutes prior to the start of the presentation to ensure adequate time for any software download that may be required to listen to the webcast. The replay will be available for 14 days following the presentation. About Gilead Gilead Sciences is a biopharmaceutical company that discovers, develops and commercializes innovative therapeutics in areas of unmet medical need. The company's mission is to advance the care of patients suffering from life-threatening diseases. Gilead has operations in more than 30 countries worldwide, with headquarters in Foster City, California. For more information on Gilead Sciences, please visit the company's website at www.gilead.com, follow Gilead on Twitter (@GileadSciences) or call Gilead Public Affairs at 1-800-GILEAD-5 or 1-650-574-3000. View source version on businesswire.com: http://www.businesswire.com/news/home/20161226005001/en/

Keywords for this news article include: Pharmaceutical Companies, Gilead Sciences Inc..

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Glancy Prongay & Murray LLP Commences Investigation on Behalf of Endologix, Inc. Investors

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Glancy Prongay & Murray LLP ("GPM") announces an investigation on behalf of Endologix, Inc. ("Endologix" or the "Company") (NASDAQ: ELGX) investors concerning the Company and its officers' possible violations of federal securities laws. GPM is preparing a lawsuit on behalf of Endologix investors.

Endologix develops, manufactures, markets and sells medical devices for the treatment of abdominal aortic aneurysms in the United States and internationally.

Nellix is Endologix's endovascular aneurysm sealing system for infrarenal abdominal aortic aneurysms. On August 2, 2016, Endologix indicated that it would seek approval of the original version of the Nellix system that was used in the Nellix investigational device exemption (IDE) clinical trial, the EVAS FORWARD-IDE Study. However, on November 16, 2016, Endologix disclosed that the FDA had requested a two-year follow-up on patients enrolled in the EVAS-FORWARD-IDE study to accurately evaluate Nellix. On this news, shares of Endologix fell over 20% to close at just $7.82 per share on November 16, 2016.

Then on December 27, 2016 Endologix announced a temporarily hold on AFX Endovascular AAA System shipments, citing the need to complete an investigation of a manufacturing issue with different sizes of the device.

On this news, shares of Endologix have fallen nearly 20% to just $5.76 per share during intra-day trading on December 27, 2016.

If you purchased Endologix securities, have information or would like to learn more about these claims, or have any questions concerning this announcement or your rights or interests with respect to these matters, please contact Lesley Portnoy, Esquire, of GPM, 1925 Century Park East, Suite 2100, Los Angeles, California 90067 at 310-201-9150, Toll-Free at 888-773-9224, by email to shareholders@glancylaw.com, or visit our website at http://www.glancylaw.com. If you inquire by email please include your mailing address, telephone number and number of shares purchased.

This press release may be considered Attorney Advertising in some jurisdictions under the applicable law and ethical rules. View source version on businesswire.com: http://www.businesswire.com/news/home/20161228005396/en/

Keywords for this news article include: Angiology, Cardiology, Legal Issues, Abdominal Aortic Aneurysm, Glancy Prongay & Murray LLP, Aortic Diseases and Conditions, Cardiovascular Diseases and Conditions.

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Digestive System Diseases and Conditions --

Gut microorganisms affect our physiology

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers have found evidence that could shed new light on the complex community of trillions of microorganisms living in all our guts, and how they interact with our
bodies.

Scientists at the University of Exeter Medical School and University of Zaragoza in Spain studied a protein known as TLR2, a critical detector of the microbiota found in the intestine. They found that it regulates levels of serotonin - a neurotransmitter which carries messages to the brain, and is also found in the gut, where it regulates our bowel routines.

The research, carried out in cell cultures and verified in mice, provides strong evidence that microbiota can interfere with human physiology by modulating the serotonin transporter activity. Serotonin transporter is a target for numerous diseases and it seems that microbiota living in our guts is able to interfere with this transporter, controlling our serotonin levels.

The finding, published in PLOS ONE, comes as scientists across the world are working to understand the complicated interactions between the "invisible world" of the microbiota in our bodies and the impact they have on our health and even our moods. Recently, scientists in California found evidence that the bacteria in the gut play a role in causing Parkinson's Disease.

It may also help explain how the microbiota in our guts affect our physiology. Inflammatory bowel disease is thought to be triggered when TLR2 is not functioning properly, but so far, the mechanisms behind this have not been fully understood. This study aimed to further this understanding, and was supported the Foundation for the Study of Inflammatory Bowel Diseases in Aragon (ARAINF), in Spain.

Dr Eva Latorre, a postdoctoral researcher at the University of Exeter Medical School, said the new finding helped to further understanding in a fast-growing research area. She said: "This paper has concluded that the protein TLR2 alters the availability of serotonin, which is important in a range of conditions from depression to inflammatory bowel disease. It is early days in this research though. We need to understand much more about the relationship between the microbiota in our guts and how they interact, before we can hope to harness effective new treatments."

The research team examined human cells in a model of the intestine in the laboratory, looking at how they express proteins and RNA - activities which regulate how they behave. They found that TLR2 controls serotonin transporter - obtaining the same result in studies on mice.

Principal investigator of this study, Professor Jose E Mesonero, at the University of Zaragoza, said: "This paper opens our minds about the complex universe of this forgotten organ: the microbiome. We have concluded that TLR2 not only can detect microbiota, but also modulate serotonin transport, one of the crucial mechanism in neurological and inflammatory diseases. Much has to be yet studied, but this work can improve our understanding about the connection between gut and brain thought microbiota."

Keywords for this news article include: Genetics, Autacoids, Serotonin, Tryptamines, Biogenic Amines, Gastroenteritis, Organic Chemicals, Biological Factors, University of Exeter, Gastrointestinal Diseases and Conditions, Digestive System Diseases and Conditions - Inflammatory Bowel Disease.

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Oncology - Glioblastomas

Hadassah-Hebrew University Details Findings in Glioblastomas
(Expression level of miRNAs on chromosome 14q32.31 region correlates with tumor aggressiveness and survival of glioblastoma patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Glioblastomas is now available. According to news reporting originating from Jerusalem, Israel, by NewsRx correspondents, research stated, "The 54 microRNAs (miRNAs) within the DLK-DIO3 genomic region on chromosome 14q32.31 (cluster-14-miRNAs) are organized into sub-clusters 14A and 14B. These miRNAs are downregulated in glioblastomas and might have a tumor suppressive role."

Our news editors obtained a quote from the research from Hadassah-Hebrew University, "Any association between the expression levels of cluster-14-miRNAs with overall survival (OS) is undetermined. We randomly selected miR-433, belonging to sub-cluster 14A and miR-323a-3p and miR-369-3p, belonging to sub-cluster 14B, and assessed their role in glioblastomas in vitro and in vivo. We also determined the expression level of cluster-14-miRNAs in 27 patients with newly diagnosed glioblastoma, and analyzed the association between their level of expression and OS. Overexpression of miR-323a-3p and miR-369-3p, but not miR-433, in glioblastoma cells inhibited their proliferation and migration in vitro. Mice implanted with glioblastoma cells overexpressing miR323a-3p and miR369-3p, but not miR433, exhibited prolonged survival compared to controls (P = .003). Bioinformatics analysis identified 13 putative target genes of cluster-14-miRNAs, and real-time RT-PCR validated these findings. Pathway analysis of the putative target genes identified neuregulin as the most enriched pathway. The expression level of cluster-14-miRNAs correlated with patients' OS. The median OS was 8.5 months for patients with low expression levels and 52.7 months for patients with high expression levels (HR 0.34; 95 % CI 0.12-0.59, P = .003)."

According to the news editors, the research concluded: "The expression level of cluster-14-miRNAs correlates directly with OS, suggesting a role for this cluster in promoting aggressive behavior of glioblastoma, possibly through ErBb/neuregulin signaling."

For more information on this research see: Expression level of miRNAs on chromosome 14q32.31 region correlates with tumor aggressiveness and survival of glioblastoma patients. Journal of Neuro-Oncology, 2016;130(3):413-422. Journal of Neuro-Oncology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of Neuro-Oncology - www.springerlink.com/content/0167-594x/)

The news editors report that additional information may be obtained by contacting I. Lavon, Hadassah Hebrew Univ, Medical Center, Agnes Ginges Center Human Neurogenet, Leslie & Michael Gaffin Center NeurooncolNeurol Dep, Jerusalem, Israel. Additional authors for this research include A. Granit, D. Zrihan, T. Canello, H. Charbit, O. Einstein, U. Rozovski, S. Elgavish, Z. Ram, T. Siegal and I. Lavon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11060-016-2248-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jerusalem, Israel, Asia, Cellular Structures, Intracellular Space, Intranuclear Space, Glioblastomas, Cell Nucleus, Chromosomes, Genetics, Oncology, Hadassah-Hebrew University.
Harbin Institute of Technology Reports Findings in Cellular Structures (How Leucocyte Cell Membrane Modified Janus Microcapsules are Phagocytosed by Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cellular Structures. According to news reporting out of Harbin, People's Republic of China, by NewsRx editors, research stated, "Modern drug delivery systems rely on either antibody-based single-surface recognition or on surface-hydrophobicity-based approaches. For a tumor showing various surface mutations, both approaches fail."

Financial supporters for this research include Harbin Institute of Technology, National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from the Harbin Institute of Technology, "This publication hereby presents Janus capsules based on polyelectrolyte multilayer microcapsules exhibiting human leucocyte (THP-1 cell line) cell membranes for discriminating HUVEC cells from three different cancer cell lines. Despite destroying the cellular integrity of leucocyte cells, the modified Janus capsules are able to adhere to cancer cells."

According to the news editors, the research concluded: "Leucocyte cell-membrane-coated Janus capsules are phagocytosed with the cellular membrane part pointing to the cells."


Our news journalists report that additional information may be obtained by contacting W. He, Key Laboratory of Microsystems and Microstructures Manufacturing, Ministry of Education, Micro, Nano Technology Research Centre, Harbin Institute of Technology, Yikuang Street 2 B1, Harbin 150080, People's Republic of China. Additional authors for this research include J. Frueh, Z. Wu and Q. He.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.5b10885. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Harbin, Cancer, Genetics, Oncology, Cell Membrane, Cellular Structures, People's Republic of China.

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Musculoskeletal Diseases and Conditions - Kyphosis

Harvard School of Medicine Reports Findings in Kyphosis (Heritability of Thoracic Spine Curvature and Genetic Correlations With Other Spine Traits: The Framingham Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Kyphosis have been published. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Hyperkyphosis is a common spinal disorder in older adults, characterized by excessive forward curvature of the thoracic spine and adverse health outcomes. The etiology of hyperkyphosis has not been firmly established, but may be related to changes that occur with aging in the vertebrae, discs, joints, and muscles, which function as a unit to support the spine."

The news reporters obtained a quote from the research from the Harvard School of Medicine, "Determining the contribution of genetics to thoracic spine curvature and the degree of genetic sharing among co-occurring measures of spine health may provide insight into the etiology of hyperkyphosis. The purpose of our study was to estimate heritability of thoracic spine curvature using T-4-T-12 kyphosis (Cobb) angle and genetic correlations between thoracic spine curvature and vertebral fracture, intervertebral disc height narrowing, facet joint osteoarthritis (OA), lumbar spine volumetric bone mineral density (vBMD), and paraspinal muscle area and density, which were all assessed from computed tomography (CT) images. Participants included 2063 women and men in the second and third generation offspring of the original cohort of the Framingham Study. Heritability of kyphosis angle, adjusted for age, sex, and weight, was 54% (95% confidence interval [CI], 43% to 64%). We found moderate genetic correlations between kyphosis angle and paraspinal muscle area (G), 0.05; 95% CI, -0.15 to 0.24) were low."

According to the news reporters, the research concluded: "Thoracic spine curvature may be heritable and share genetic factors with other age-related spine traits including trunk muscle size, vertebral fracture, and bone mineral density."


Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Musculoskeletal Diseases and Conditions, Spinal Diseases and Conditions, Bone Diseases and Conditions, Spinal Curvatures, Bone Research, Orthopedics, Kyphosis, Genetics, Harvard School of Medicine.

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Heart-related deaths spike at Christmas

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Heart-related deaths spike during Christmas, but the effect may have nothing to do with the cold winter season, according to new research in Journal of the American Heart Association, the Open Access Journal of the American Heart Association/American Stroke Association.

"Spikes in deaths from natural causes during Christmas and New Year's Day has been previously established in the United States. However, the Christmas holiday period (December 25th to January 7th) in the U.S. falls within the coldest period of the year when death rates are already seasonally high due to low temperatures and influenza," said Josh Knight, B.Sc., study author and research fellow at the University of Melbourne in Australia.

In this study, researchers analyzed trends in deaths in New Zealand, where Christmas occurs during the summer season when death rates are usually at a seasonal low - allowing researchers to separate any winter effect from a holiday effect.

During a 25-year period (1988-2013), there were a total of 738,409 deaths (197,109 were noted as cardiac deaths).

Researchers found:

A 4.2 percent increase in heart-related deaths occurring away from a hospital from December 25 - January 7.

The average age of cardiac death was 76.2 years during the Christmas period, compared with 77.1 years during other times of the year.

There are a range of theories that may explain the spike in deaths during the holiday season, including the emotional stress associated with the holidays, changes in diet and alcohol consumption, less staff at medical facilities, and changes in the physical environment (for example visiting relatives). However, there have been few attempts to replicate prior studies.

Although more research is needed to explain the spike in deaths, researchers suggest one possibility may be that patients hold back in seeking medical care during the holiday season.

"The Christmas holiday period is a common time for travel within New Zealand, with people frequently holidaying away from their main medical facilities. This could contribute to delays in both seeking treatment, due to a lack of familiarity with nearby medical facilities, and due to geographic isolation from appropriate medical care in emergency situations," Knight said.

Another explanation may have to do with a terminally ill patients' will to live and hold off death for a day that is important to them.

"The ability of individuals to modify their date of death based on dates of significance has been both confirmed and refuted in other studies, however it remains a possible explanation for this holiday effect," Knight said.

However, researchers note that the study did not track daily temperatures and New Zealand has an island climate, which almost eliminates the extremes of temperature that have been associated with heart-related death rates in previous studies.

Keywords for this news article include: Hospital, Cardiology, American Heart Association.

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Helix BioPharma Corp. Successfully Out-Licenses Late Stage Biphasix Technology

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Helix BioPharma Corp. ("Helix" or the "Company") (TSX: HBP) (FRANKFURT: HBP), a clinical-stage, immuno-oncology company developing innovative drug candidates for the prevention and treatment of cancer, announces it has signed an exclusive out-license agreement with Xisle Pharma Ventures Trust ("Xisle") for the Company's late-stage, Biphasix™ technology platform, including the lead product candidate, interferon alpha. Xisle will be responsible for the continued clinical development and subsequent commercialization of the product for the treatment of HPV-induced, low-grade, cervical intraepithelial lesions. As part of its asset development strategy, Xisle has initiated collaboration with senior pharmaceutical executives at Altum Pharmaceuticals Inc., who possess extensive regulatory, clinical, and product development expertise.

Under the terms of the agreement, Xisle has paid an up-front fee and agreed to subsequent milestone payments as they advance the technology to registration and market approvals. Helix has retained marketing rights for certain territories. EVOLUTION Life Science Partners LLC, a division of Gordian Investments, LLC acted as advisor to Helix BioPharma Corp.

"This is an important milestone for Helix as it represents our ability to take a novel immunotherapy asset from discovery to out license," said Dr. Sven Rohmann, Chief Executive Officer for Helix. Dr. Rohmann added that, "We can now fully concentrate our financial and development efforts on advancing our clinical stage Tumor Defense Breaker and newest CAR-T program aimed at solid tumors."

Keywords for this news article include: Technology, Drugs and Therapies - Biopharmaceuticals.

Oncology - Lung Cancer

Histologic classification impacts SBRT treatment in early-stage lung cancer patients

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- DENVER - Early-stage non-small cell lung cancer (NSCLC) patients with squamous cell carcinoma (SqCC) have a significantly higher rate of local failure after stereotactic body radiation therapy (SBRT) than other NSCLC histological subtypes.

Lung cancer is the leading cause of cancer deaths worldwide, causing more deaths than breast, colon, and prostate cancers combined. NSCLC is the most common type of lung cancer, accounting for roughly 85% of lung cancers. Surgical resection is the standard treatment of early-stage (stage I, II) lung cancers. However, a subset of early-stage patients will be unable to tolerate surgery due to their age, location of tumor, or medical comorbidities. SBRT is a
noninvasive, high-precision radiation delivery technique of a few (or even a single) high-dose fractions to small areas or tumors that has become established as the standard of care in medically inoperable patients. NSCLC is composed of several histological subtypes that effect the genetic and microenvironments of tumors, and the impact of histology or tumor heterogeneity on SBRT treatments is not very well understood.

A group of researchers from Cleveland Clinic in Cleveland, Ohio, USA analyzed 740 patients from an institutional review board-approved database of early-stage NSCLC patients treated with SBRT from 2003 through 2015 to investigate the impact of histological subtype and tumor heterogeneity on SBRT treatment. Patients were grouped into four categories by tumor type: adenocarcinoma, SqCC, unknown, and NSCLC not otherwise specified (NOS). The unknown group included patients who did not undergo a tissue biopsy and those with a nondiagnostic biopsy result. The NSCLC NOS group included patients with large cell carcinoma and NSCLC NOS. Patients were well balanced for patient age, sex, BMI, performance status, length of follow-up, and radiotherapy (RT) dose. Cumulative incidence curves (CICs) for local failure, defined as radiographic progression with or without positive biopsy results within 1 cm of the planning target volume (PTV), were estimated using the competing risk method. Predictors of local failure were estimated using Fine and Gray regression. Actuarial analysis was used to estimate rates of overall survival (OS), and the Kaplan-Meier method was used to generate OS curves.

The results of the study published in the Journal of Thoracic Oncology, the official journal of the International Association for the Study of Lung Cancer (IASLC), show that of the 740 eligible patients 32% were characterized as adenocarcinoma, 29% as SqCC, 30% as unknown, and 8% as NSCLC NOS. Overall, 72 patients had a local failure, with a cumulative incidence of local failure at 3 years of 11.8%. Univariate analysis demonstrated that SqCC histological subtype, younger age, fewer medical comorbidities, higher body mass index, higher positron emission tomography standardized uptake value, central tumors, and lower radiation dose were associated with an increased risk for local failure. Multivariate analysis identified SqCC histological subtype (hazard ratio = 2.4, p = 0.008) as the strongest predictor of local failure. Three year cumulative rates of local failure demonstrated that patients with SqCC (18.9% (95% CI: 12.7-25.1)) failed SBRT at a significantly higher rate than those with adenocarcinomas (8.7% (95% CI: 4.6-12.8)), or NSCLC NOS (4.1% (95% CI: 0-9.6)).

The authors comment that, "This study is the first demonstration of a histological basis for local failure after SBRT. The results demonstrate that SqCC have a significantly higher rate of local failure after SBRT than other NSCLCs do. The local failure rate for SqCC was twofold higher than for adenocarcinomas. These results suggest that SqCCs are more resistant to SBRT than other NSCLCs are. The clinically significant implication of our study is that SBRT treatments should be optimized on the basis of histological subtype."

Keywords for this news article include: Biopsy, Surgery, Genetics, Adenocarcinoma, Lung Neoplasms, Oncology - Lung Cancer, Operative Surgical Procedures, International Association for the Study of Lung Cancer.

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History of kidney injury increases risk of pregnancy complications

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A study by Massachusetts General Hospital (MGH) investigators finds, for the first time, that women with a history of acute kidney injury with complete clinical recovery have an increase of several adverse outcomes of pregnancy - including premature delivery and preeclampsia, a condition that is hazardous for both mother and baby - even though they appear to have normal kidney function prior to pregnancy. Their findings are being published online in the Journal of the American Society of Nephrology.

"Our findings that women with a history of acute kidney injury were at increased risk of complications including preeclampsia are important, because all of these women appeared to have recovered from their kidney injury prior to pregnancy," says Jessica Sheehan Tangren, MD, of the MGH Division of Nephrology, lead and corresponding author of the report. "They would not necessarily have been identified as at high risk for pregnancy complications."

While acute kidney injury is primarily seen in the elderly and in critically ill individuals, it can occur in children or young adults hospitalized for conditions including serious infections, major surgery, trauma or from medication side effects or interactions. Existing kidney disease is recognized to increase the risk for pregnancy complications, but the possibility that a previous episode of acute kidney injury could also increase risk had not previously been investigated.

To address that question the research team analyzed medical records for all women who delivered babies at the MGH between 1998 and 2007 - 105 of whom had a history of recovering from acute kidney injury and 24,640 with no history of kidney disease. Despite having normal results on the standard test for kidney function - the glomerular filtration rate - women with a history of acute kidney injury were more likely to develop preeclampsia (23 percent versus 4 percent) and to have cesarean deliveries (40 percent versus 27 percent). In addition to greater likelihood of being born early, their babies were more likely to be small for their gestational age and to require intensive care treatment.

After adjustment for several factors, a history of acute kidney injury was associated with a 2.4 times greater risk of any adverse fetal outcome and a 5.9 times greater risk of preeclampsia. While the reason behind this increased risk is unclear, it's possible that changes known to take place in small blood vessels within in the kidneys during recovery from acute kidney injury may compromise the organ's ability to cope with the demands of pregnancy. "We know that kidneys undergo major changes during pregnancy, and that sort of 'renal stress test' may reveal previously undetected kidney disease in women with a history of acute kidney injury," says Tangren.

Jeffrey Ecker, MD, chief of Obstetrics and Gynecology at MGH, says, "Information like this helps obstetric providers know what to be vigilant for in pregnant women with a history of acute kidney injury and indicates that asking about such history is important. Being especially watchful for signs and symptoms of preeclampsia in such patients is one immediate application of this work. In a longer view, work like this offers important hypotheses for future study. Can interventions in patients with a history of acute kidney injury prevent complications like preeclampsia? Taking a baby aspirin each day during pregnancy is recommended for some women at high risk for preeclampsia. Should such preventative treatment be used in women with a history of acute kidney injury? Questions like this deserve further thought and study."

Keywords for this news article include: Nephrology, Obstetrics, Women's Health,
Hong Kong Baptist University Details Findings in Clinical Trials and Studies [Tolerability, exposure and pharmacokinetics in healthy subjects of a Chinese herbal medicine MaZiRenWan (MZRW): Study protocol for a randomized open-labelled, ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Clinical Research - Clinical Trials and Studies. According to news reporting from Hong Kong, People's Republic of China, by NewsRx journalists, research stated, "The formula of MaZiRenWan (MZRW) has been commonly used in Chinese medicine to treat constipation. Our previous studies have showed benefits in terms of increased bowel movement, relief in the severity of constipation and straining of evacuation when compared with placebo."

The news correspondents obtained a quote from the research from Hong Kong Baptist University, "However, the lack of studies on its safety, tolerability, system exposure and pharmacokinetics making it difficult to obtain a consistent picture of its mechanism of action. This is a randomized, open-labelled, three-arm phase 0/1 clinical trial. After the run-in period, eligible healthy subjects will be randomized assigned in a ratio of 1: 1:1 to receive 5.0 g, 7.5 g, 10 g q.d. of MZRW. The primary outcome will be the number of participants with adverse events as a measurement of safety and tolerability among three doses of MZRW. Secondary outcome will be the clearness of pharmacokinetic parameters of main active ingredients in human sample, include the area under the plasma concentration-time curve (AUC), the peak plasma concentration of an ingredient after administration (C-max), the time to reach Cmax (t (max)), the elimination half-life (t(1/2)) and clearance (CL). Ethics and dissemination: The study was approved by Hong Kong Baptist University Ethics Committee on the Use of Human Subjects for Teaching and Research (Approval no. HASC/13-14/0017) and was registered with an identifier (NCT02359396) in Clinical Trial. gov."

According to the news reporters, the research concluded: "The potential risks incurred by study participants will be reported to the public and the study results will be released to the investigators, patients and the general medical community."


Our news journalists report that additional information may be obtained by contacting L.L.D. Zhong, Hong Kong Baptist University, Hong Kong Chinese Med Clin Study Center, Kowloon Tong, Hong Kong, People's Republic of China. Additional authors for this
research include W. Kun, L. Zhao, C.Y. Lin, T. Huang and Z.X. Bian.

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Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Complementary and Alternative Medicine, Clinical Trials and Studies, Clinical Research, Pharmacokinetics, Pharmaceuticals, Herbal Medicine, Therapy, Hong Kong Baptist University.

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Cardiovascular Diseases and Conditions - Abdominal…

IMPORTANT INVESTOR ALERT: Goldberg Law PC Announces an Investigation of Endologix, Inc. and Advises Investors with Losses to Contact the Firm

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Goldberg Law PC, a national shareholder rights litigation firm, announces that it is investigating Endologix, Inc. ("Endologix" or the "Company") (Nasdaq: ELGX) concerning possible violations of federal securities laws.

If you purchased or otherwise acquired Endologix shares and would like more information regarding the investigation, we encourage you to contact Michael Goldberg or Brian Schall, of Goldberg Law PC, 1999 Avenue of the Stars Suite 1100, Los Angeles, CA 90067, at 800-977-7401, to discuss your rights without cost to you. You can also reach us through the firm's website at http://www.Goldberglawpc.com, or by email at info@goldberglawpc.com.

Endologix designs, manufactures and sells medical products intended to treat abdominal aortic aneurysms.

Nellix is used as Endologix's endovascular aneurysm sealing system for infrarenal abdominal aortic aneurysms. Endologix stated that it would approve the initial version of the Nellix system used in the Nellix investigational device exemption (IDE) clinical trial, the EVAS FORWARD-IDE Study.

On November 16, 2016 however, Endologix revealed that the FDA requested a two-year follow-up on patients in the EVAS-FORWARD-IDE study to accurately measure Nellix.

On December 27, 2016 Endologix revealed that it was temporarily holding AFX Endovascular AAA System shipments, due to an investigation of a manufacturing problem.

When this information was released to the public, the value of Endologix fell 20%, causing investors harm.

If you have any questions concerning your legal rights, please immediately contact Goldberg Law PC at 800-977-7401, or visit our website at http://www.Goldberglawpc.com, or email us at info@goldberglawpc.com.

Goldberg Law PC represents shareholders around the world and specializes in securities class actions and shareholder rights litigation.

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INVESTOR ALERT: Law Offices of Howard G. Smith Commences Investigation on Behalf of Endologix, Inc. Investors

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Law Offices of Howard G. Smith announces an investigation on behalf of investors of Endologix, Inc. ("Endologix" or the "Company") (NASDAQ: ELGX) concerning the Company and its officers' potential violation of federal securities laws.

Endologix develops, manufactures, markets and sells medical devices for the treatment of abdominal aortic aneurysms in the United States and internationally.

Nellix is Endologix's endovascular aneurysm sealing system for infrarenal abdominal aortic aneurysms. On August 2, 2016, Endologix indicated that it would seek approval of the original version of the Nellix system that was used in the Nellix investigational device exemption (IDE) clinical trial, the EVAS FORWARD-IDE Study. However, on November 16, 2016, Endologix disclosed that the FDA had requested a two-year follow-up on patients enrolled in the EVAS-FORWARD-IDE study to accurately evaluate Nellix. On this news, shares of Endologix fell over 20% to close at just $7.82 per share on November 16, 2016.

Then on December 27, 2016 Endologix announced a temporarily hold on AFX Endovascular AAA System shipments, citing the need to complete an investigation of a manufacturing issue with different sizes of the device.

On this news, shares of Endologix have fallen nearly 20% to just $5.76 per share during intra-day trading on December 27, 2016.

If you purchased Endologix securities, have information or would like to learn more about these claims, or have any questions concerning this announcement or your rights or interests with respect to these matters, please contact Howard G. Smith, Esquire, of Law Offices of Howard G. Smith, 3070 Bristol Pike, Suite 112, Bensalem, Pennsylvania 19020 by telephone at (215) 638-4847, toll-free at (888) 638-4847, or by email to howardsmith@howardsmithlaw.com, or visit our website at www.howardsmithlaw.com.

This press release may be considered Attorney Advertising in some jurisdictions under the applicable law and ethical rules. View source version on businesswire.com: http://www.businesswire.com/news/home/20161227005250/en/

Keywords for this news article include: Angiology, Cardiology, Legal Issues, Aortic Diseases and Conditions, Law Offices of Howard G. Smith, Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm.

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**Imperial College Details Findings in Chronic Obstructive Pulmonary Disease (Angiotensin-Converting Enzyme Inhibition as an Adjunct to Pulmonary Rehabilitation in Chronic Obstructive Pulmonary Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease is the subject of a report. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "Epidemiological studies in older individuals have found an association between the use of angiotensin-converting enzyme (ACE) inhibition (ACE-I) therapy and preserved locomotor muscle mass, strength, and walking speed. ACE-I therapy might therefore have a role in the context of pulmonary rehabilitation (PR)."

Our news journalists obtained a quote from the research from Imperial College, "To investigate the hypothesis that enalapril, an ACE inhibitor, would augment the improvement in exercise capacity seen during PR. We performed a double-blind, placebo-controlled, parallel-group randomized controlled trial. Patients with chronic obstructive pulmonary disease, who had at least moderate airflow obstruction and were taking part in PR, were randomized to either 10 weeks of therapy with an ACE inhibitor (10 mg enalapril) or placebo. The primary outcome measurement was the change in peak power (assessed using cycle ergometry) from baseline. Eighty patients were enrolled, 78 were randomized (age 67 +/- 8 years; FEV1 48 +/- 21% predicted), and 65 completed the trial (34 on placebo, 31 on the ACE inhibitor). The ACE inhibitor-treated group demonstrated a significant reduction in systolic blood pressure (Delta, -16 mm Hg; 95% confidence interval [CI], -22 to -11) and serum ACE activity (Delta, -18 IU/L; 95% CI, -23 to -12) versus placebo (between-group differences, P< 0.0001). Peak power increased significantly more in the placebo group (placebo Delta, +9 W; 95% CI, 5 to 13 vs. ACE-I Delta, + 1 W; 95% CI, -2 to 4; between-group difference, 8 W; 95% CI, 3 to 13; P = 0.001). There was no significant between group difference in quadriceps strength or health-related quality of life."

According to the news editors, the research concluded: "Use of the ACE inhibitor enalapril, together with a program of PR, in patients without an established indication for ACE-I, reduced the peak work rate response to exercise training in patients with chronic obstructive pulmonary disease."


The news correspondents report that additional information may be obtained from N.S. Hopkinson, Imperial College, London, United Kingdom. Additional authors for this research include V.M. Meyrick, B. Mehta, G.S. Haji, K. Li, H. Montgomery, W.D.C. Man, M.I. Polkey and N.S. Hopkinson.

Keywords for this news article include: London, United Kingdom, Europe, Angiotensin Converting Enzyme Inhibitors, Angiotensin-Converting Enzyme Inhibitor, Chronic Obstructive Pulmonary Disease, Enzyme Inhibition, Epidemiology, Lung Diseases and Conditions, Enzymes and Coenzymes, Cardiovascular Agents, Drugs and Therapies, Biological Factors, Enalapril Therapy, Peptide Proteins, Peptide Hormones, Antihypertensive, Rehabilitation, ACE-Inhibitors, Oligopeptides, Neuropeptides, Angiotensins, Dipeptides,
Indiana University School of Medicine Reports Findings in Esterases (Identification and Characterization of New Chemical Entities Targeting Apurinic/Apyrimidinic Endonuclease 1 for the Prevention of Chemotherapy-Induced Peripheral Neuropathies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Enzymes and Coenzymes - Esterases are discussed in a new report. According to news reporting originating in Indianapolis, Indiana, by NewsRx journalists, research stated, "Chemotherapy-induced peripheral neuropathy (CIPN) is a potentially debilitating side effect of a number of chemotherapeutic agents. There are currently no U.S."

The news reporters obtained a quote from the research from the Indiana University School of Medicine, "Food and Drug Administration-approved interventions or prevention strategies for CIPN. Although the cellular mechanisms mediating CIPN remain to be determined, several lines of evidence support the notion that DNA damage caused by anticancer therapies could contribute to the neuropathy. DNA damage in sensory neurons after chemotherapy correlates with symptoms of CIPN. Augmenting apurinic/apyrimidinic endonuclease (APE)-1 function in the base excision repair pathway reverses this damage and the neurotoxicity caused by anticancer therapies. This neuronal protection is accomplished by either overexpressing APE1 or by using a first-generation targeted APE1 small molecule, E3330 [(2E)-2-[(4,5-dimethoxy-2-methyl-3,6-dioxo-1,4-cyclohexadien-1yl) methylene]-undecanoic acid; also called APX3330]. Although E3330 has been approved for phase 1 clinical trials (Investigational New Drug application number IND125360), we synthesized novel, second-generation APE1-targeted molecules and determined whether they would be protective against neurotoxicity induced by cisplatin or oxaliplatin while not diminishing the platin's antitumor effect. We measured various endpoints of neurotoxicity using our ex vivo model of sensory neurons in culture, and we determined that APX2009 [(2E)-2-[(3-methoxy-1,4-dioxo-1,4-dihydonaphthalen-2-yl) methylidene]N, N-diethylpentanamide] is an effective small molecule that is neuroprotective against cisplatin and oxaliplatin-induced toxicity. APX2009 also demonstrated a strong tumor cell killing effect in tumor cells and the enhanced tumor cell killing was further substantiated in a more robust three-dimensional pancreatic tumor model."

According to the news reporters, the research concluded: "Together, these data suggest that the second-generation compound APX2009 is effective in preventing or reversing platinum-induced CIPN while not affecting the anticancer activity of platin."


Our news correspondents report that additional information may be obtained by
contacting M.R. Kelley, Indiana Univ Sch Med, Dept. of Pharmacol & Toxicol, Indianapolis, IN 46202, United States. Additional authors for this research include J.H. Wikel, C.L. Guo, K.E. Pollok, B.J. Bailey, R. Wireman, M.L. Fishel and M.R. Vasko.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Enzymes and Coenzymes, Endonucleases, Esterases, Indiana University School of Medicine.

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Clinical Research - Clinical Trials and Studies

Institute for Cardiovascular Research Reports Findings in Clinical Trials and Studies [Phosphate Binding Therapy to Lower Serum Fibroblast-Growth-Factor-23 Concentrations in Chronic Kidney Disease: Rationale and Study Design of the Sevelamer on ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Research - Clinical Trials and Studies. According to news reporting out of Amsterdam, Netherlands, by NewsRx editors, research stated, "Increased levels of phosphate and fibroblast growth factor-23 (FGF23) are strong predictors of cardiovascular morbidity and mortality in patients with chronic kidney disease (CKD)."

Our news journalists obtained a quote from the research from Institute for Cardiovascular Research, "Preliminary data suggest that interventions lowering gastro-intestinal phosphate uptake lowers serum FGF23 concentrations and improves cardiovascular risk and subsequently survival. However, data are lacking about the magnitude of effects, the effect in different stages of CKD and whether there is a dose effect relationship."

According to the news editors, the research concluded: "Therefore, the Sevelamer on FGF23 Trial (SoFT) is designed as an open-label, single-arm, clinical pilot study aiming to demonstrate the feasibility of a phosphate-restricted diet in combination with the phosphate binder sevelamer to induce an effective, predictable and sustained decrease in FGF23 level in patients with an estimated glomerular filtration rate (eGFR) of 15-90 or >90 ml/min/1.73 m(2) with proteinuria >1.0 g in 24 h urine collection, despite optimally dosed RAAS blockade, without inducing hypophosphatemia using a forced uptitration treatment regimen aimed at restricting phosphate uptake."


Our news journalists report that additional information may be obtained by contacting M.G. Vervloet, Inst Cardiovasc Res VU ICar VU, Amsterdam, Netherlands. Additional authors for this research include M.A. de Jong, M.H. de Borst, P.M. ter Wee and M.G. Vervloet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000448184. This DOI is a link to an online electronic document that is
Lung Diseases and Conditions - Asthma

Interleukin-1α causes people to choke on air

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Scientists at the Immunology Frontier Research Center (IFReC) at Osaka University, Japan have pinpointed a specific molecular events that could explain allergic reactions to air pollution. These findings provide a new therapeutic candidate to treat asthma and related respiratory diseases.

Photos of cities darkened by pollution are becoming evermore common. These same cities are seeing a rise in cases of asthma and other respiratory ailments, marking a relationship between pollution and health costs. Nanosopic particulates polluting the air enter the lungs to cause the allergic reactions. Which immune-related events in the lung lead to this response, however, are unclear.

"We found that particulates kill macrophages, which then go on to release interleukin-1α (IL-1α)", explains Etsushi Kuroda, who first-authored a new study in Immunity that indicates IL-1α triggers a series of events that causes respiratory illnesses. The release of IL-1α in mice primed the lungs for inflammation when the mice were later exposed to an allergen. Kuroda added, "Particulates that did not kill macrophages did not cause an allergic reaction."

However, the vulnerability of macrophages to particulates remains unclear, which is why understanding the events following IL-1α secretion may be key to prevention and treatment.

"IL-1α secretion was followed by the formation of iBALTs. iBALTs are frequently found in infected or inflamed lungs and in patients with asthma," said Osaka University Professor Ken J. Ishii, who led the study. The increase in iBALTs led to an increase in IgE antibodies, which intensified the immune response. On the other hand, mutant mice that were insensitive to IL-1α did not produce iBALTs and reduced IgE responses.

The presence of iBALTs would suggest that a human population could remain susceptible to high levels of asthma attacks even on clear days, as the iBALTs could form on days of high pollution, but the patient could then be exposed to the allergen much later.

This finding suggested that iBALTs could prime the lungs to an allergic reaction, which is why Ishii believes that iBALTs could make a promising therapeutic target to combat the rise of respiratory illnesses associated with air pollution. But first, he said, "we must identify the molecular signals and key chemicals that form these iBALTs."

Keywords for this news article include: Cytokines, Interleukins, Air Pollution, Osaka University, Respiratory Hypersensitivity, Bronchial Diseases and Conditions, Lung Diseases and Conditions - Asthma, Obstructive Lung Diseases and Conditions, Respiratory Tract Diseases and Conditions, Intercellular Signaling Peptides and Proteins.

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Lung Diseases and Conditions - Pulmonary Embolism

Investigators at A.T. Still University of Health Sciences Report Findings in Pulmonary Embolism [Pulseless electrical activity in pulmonary embolism treated with thrombolysis (from the "PEAPETT" study)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Pulmonary Embolism. According to news reporting originating in Mesa, Arizona, by NewsRx journalists, research stated, "Pulseless electrical activity (PEA) during cardiac arrest portends a poor prognosis. There is a paucity of data in the use of thrombolytic therapy in PEA and cardiopulmonary arrest due to confirmed pulmonary embolism (PE)."

The news reporters obtained a quote from the research from the A.T. Still University of Health Sciences, "We evaluated the outcome of low-dose systemic thrombolysis with tissue plasminogen activator (tPA) in patients presenting with PEA due to PE. During a 34-month period, we treated 23 patients with PEA and cardiopulmonary arrest due to confirmed massive PE. All patients received 50 mg of tPA as intravenous push in 1 minute while cardiopulmonary resuscitation was ongoing. The time from initiation of cardiopulmonary resuscitation to administration of tPA was 6.5 +/- 2.1 minutes. Return of spontaneous circulation occurred in 2 to 15 minutes after tPA administration in all but 1 patient. There was no minor or major bleeding despite chest compression. Of the 23 patients, 2 died in the hospital, and at 22 +/- 3 months of follow-up, 20 patients (87%) were still alive. The right ventricular/left ventricular ratio and pulmonary artery systolic pressure dropped from 1.79 +/- 0.27 and 58.10 +/- 7.99 mm Hg on admission to 1.16 +/- 0.13 and 40.25 +/- 4.33 mm Hg within 48 hours, respectively (P <.001 for both comparisons). There was no recurrent venous thromboembolism or bleeding during hospitalization or at follow-up."

According to the news reporters, the research concluded: "Rapid administration of 50 mg of tPA is safe and effective in restoration of spontaneous circulation in PEA due to massive PE leading to enhanced survival and significant reduction in pulmonary artery pressures."


Our news correspondents report that additional information may be obtained by contacting M. Sharifi, AT Still Univ, Mesa, AZ, United States. Additional authors for this research include J. Berger, P. Beeston, C. Bay, Z. Vajo and S. Javadpoor.

Keywords for this news article include: Mesa, Arizona, United States, North and Central America, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Cardiopulmonary Resuscitation, Tissue Plasminogen Activator, Lung Diseases and Conditions, Embolism and Thrombosis, Enzymes and Coenzymes, Emergency Treatment, Pulmonary Embolism, Pulmonary Artery, Thrombolysis, Cardiology, Hematology, Angiology, A.T. Still University of Health Sciences.

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Gram-Positive Bacteria - Corynebacterium glutamicum

Investigators at Academy of Sciences Detail Findings in Corynebacterium glutamicum (Stereospecificity of Corynebacterium glutamicum 2,3-butanediol dehydrogenase and implications for the stereochemical purity of bioproduced 2,3-butanediol)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - Corynebacterium glutamicum. According to news originating from Lisbon, Portugal, by NewsRx correspondents, research stated, "The stereochemistry of 2,3-butanediol (2,3-BD) synthesis in microbial fermentations is important for many applications. In this work, we showed that Corynebacterium glutamicum endowed with the Lactococcus lactis genes encoding alpha-acetolactate synthase and decarboxylase activities produced meso-2,3-BD as the major end product, meaning that β-acetoin is a substrate for endogenous 2,3-butanediol dehydrogenase (BDH) activity."

Financial support for this research came from Fundacao para a Ciencia e a Tecnologia FCT.

Our news journalists obtained a quote from the research from the Academy of Sciences, "This is curious in view of the reported absolute stereospecificity of C. glutamicum BDH for (S)-acetoin (Takusagawa et al. Biosc Biotechnol Biochem 65:1876-1878, 2001). To resolve this discrepancy, the enzyme encoded by butA (Cg) was produced in Escherichia coli and purified, and the stereospecific properties of the pure protein were examined. Activity assays monitored online by H-1-NMR using racemic acetoin and an excess of NADH showed an initial, fast production of (2S,3S)-2,3-BD, followed by a slow (similar to 20-fold lower apparent rate) formation of meso-2,3-BD. Kinetic parameters for (S)-acetoin, β-acetoin, meso-2,3-BD and (2S,3S)-BD were determined by spectrophotometric assays."

According to the news editors, the research concluded: "V (max) values for (S)-acetoin and β-acetoin were 119 +/- 15 and 5.23 +/- 0.06 mu mol min(-1) mg protein(-1), and K (m) values were 0.23 +/- 0.02 and 1.49 +/- 0.07 mM, respectively. C. glutamicum BDH is not absolutely specific for (S)-acetoin, though this is the preferred substrate. Importantly, the low activity of BDH with β-acetoin was sufficient to support high yields of meso-2,3-BD in the engineered strain C. glutamicum Delta aceE Delta pko Delta ldhA(pEKEx2-als,aldB,butA (Cg)). Additionally, we found that the BDH activity was nearly abolished upon inactivation of butA (Cg) (from 0.30 +/- 0.03 to 0.004 +/- 0.001 mu mol min(-1) mg protein(-1)), indicating that C. glutamicum expresses a single BDH under the experimental conditions examined."

For more information on this research see: Stereospecificity of Corynebacterium glutamicum 2,3-butanediol dehydrogenase and implications for the stereochemical purity of bioproduced 2,3-butanediol. Applied Microbiology and Biotechnology, 2016;100(24):10573-10583. Applied Microbiology and Biotechnology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Applied Microbiology and Biotechnology - www.springerlink.com/content/0175-7598/)

The news correspondents report that additional information may be obtained from H. Santos, Lisbon Academy Sci, P-1249 Lisbon, Portugal. Additional authors for this research include D.L. Turner, T. Catarino, E. Hoffart, A.R. Neves, B.J. Eikmanns, B. Blombach and H. Santos.

The direct object identifier (DOI) for that additional information is:
Investigators at Addenbrooke's Hospital Report Findings in Blood Cells (The Allelic Landscape of Human Blood Cell Trait Variation and Links to Common Complex Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cell Research - Blood Cells is now available. According to news originating from Cambridge, United Kingdom, by NewsRx correspondents, research stated, "Many common variants have been associated with hematological traits, but identification of causal genes and pathways has proven challenging. We performed a genome-wide association analysis in the UK Biobank and INTERVAL studies, testing 29.5 million genetic variants for association with 36 red cell, white cell, and platelet properties in 173,480 European-ancestry participants."

Funders for this research include NHS Health Education England, BLUEPRINT Grant Code, BHF Cambridge Centre of Excellence, MRC CASE Industrial, Pfizer, British Heart Foundation, European Research Council, National Institute for Health Research, NIHR BioResource-Rare Diseases, NIHR, European Commission, Bristol Myers-Squibb, NHSBT, UK Medical Research Council, BHF, Cambridge Biomedical Research Centre, European Commission Framework Programme 7, Merck, Wellcome Trust, EU FP7, NIHR-BTRU, "la Caixa".

Our news journalists obtained a quote from the research from Addenbrooke's Hospital, "This effort yielded hundreds of low frequency (<5%) and rare (<1%) variants with a strong impact on blood cell phenotypes. Our data highlight general properties of the allelic architecture of complex traits, including the proportion of the heritable component of each blood trait explained by the polygenic signal across different genome regulatory domains."

According to the news editors, the research concluded: "Finally, through Mendelian randomization, we provide evidence of shared genetic pathways linking blood cell indices with complex pathologies, including autoimmune diseases, schizophrenia, and coronary heart disease and evidence suggesting previously reported population associations between blood cell indices and cardiovascular disease may be non-causal."


The news correspondents report that additional information may be obtained from J. Danesh, Addenbrookes Hospital, Div Cardiovasc Med, British Heart Fdn Center Excellence,

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cell.2016.10.042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, United Kingdom, Europe, Cell Research, Blood Cells, Genetics, Addenbrooke's Hospital.

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Oncology - Osteosarcomas

Investigators at Albert Einstein College of Medicine Report Findings in Osteosarcomas [Targeted therapy of osteosarcoma with radiolabeled monoclonal antibody to an insulin-like growth factor-2 receptor (IGF2R)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Osteosarcomas have been published. According to news reporting from Bronx, New York, by NewsRx journalists, research stated, "Osteosarcoma overall survival has plateaued around 70%, without meaningful improvements in over 30 years. Outcomes for patients with overt metastatic disease at presentation or who relapse are dismal."

The news correspondents obtained a quote from the research from the Albert Einstein College of Medicine, "In this study we investigated a novel osteosarcoma therapy utilizing radioimmunotherapy (RIT) targeted to IGF2R, which is widely expressed in OS. Binding efficiency of the Rhenium-(188)(Re-188)-labeled IGF2R-specific monoclonal antibody (mAb) to IGF2R on OS17 OS cells was assessed with Scatchard plot analysis. Biodistribution studies were performed in heterotopic murine osteosarcoma xenografts. Tumor growth was compared over a 24-day period post-treatment between mice randomized to receive Re-188-labeled IGF2R-specific murine mAb MEM-238 (Re-188-MEM-238) or one of three controls: Re-188-labeled isotype control mAb, unlabeled MEM-238, or no treatment. Results demonstrate that the radioimmunoconjugate had a high binding constant to IGF2R. Both Re-188-MEM-238 and the isotype control had similar initial distribution in normal tissue. After 48 h Re-588-MEM-238 exhibited a 1.8 fold selective uptake within tumor compared to the isotype control (p = 0.057). Over 24 days, the tumor growth ratio was suppressed in animals treated with RIT compared to unlabeled and untreated controls (p = 0.005) as demonstrated by a 38% reduction of IGF2R expressing osteosarcoma cells in the RIT group (p = 0.002). In conclusion, given the lack of new effective therapies in osteosarcoma, additional investigation into this target is warranted. Advances in knowledge: High expression of IGF2R on osteosarcoma tumors, paired with the specificity and in vivo anti-cancer activity of Re-188-labeled IGF2R-specific mAb suggests that IGF2R may represent a novel therapeutic target in the treatment of osteosarcoma."

According to the news reporters, the research concluded: "Implications for patient care: This targeted approach offers the benefits of being independent of a specific pathway, a resistance mechanism, and/or an inherent biologic tumor trait and therefore is relevant to all OS tumors that express IGF2R."

Our news journalists report that additional information may be obtained by contacting D.S. Geller, Albert Einstein College of Medicine, Bronx, NY 10467, United States. Additional authors for this research include J. Morris, E. Revskaya, M. Kahn, W. Zhang, S. Piperdi, A. Park, P. Koirala, H. Guzik, C. Hall, B. Hoang, R. Yang, M. Roth, J. Gill, R. Gorlick and E. Dadachova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nucmedbio.2016.07.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bronx, New York, United States, North and Central America, Peptide Proteins, Peptide Hormones, Immunoglobulins, Blood Proteins, Osteosarcomas, Orthopedics, Immunology, Antibodies, Proinsulin, Oncology, Therapy, Albert Einstein College of Medicine.

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**Oncology - Thyroid Cancer**

**Investigators at Allegheny General Hospital Describe Findings in Thyroid Cancer (Lymphocytic Thyroiditis Is Associated With Increased Number Of Benign Cervical Nodes And Fewer Central Neck Compartment Metastatic Lymph Nodes In Patients With ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Thyroid Cancer is now available. According to news originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "Whether or not autoimmune thyroid disease influences the progression of differentiated thyroid cancer (DTC) remains controversial. Findings of previous studies are influenced by lead time bias and/or procedure bias selection."

Our news journalists obtained a quote from the research from Allegheny General Hospital, "These biases can be reduced by studying a single-institution patient population that underwent a similar extent of surgical resection. From a cohort of 660 patients with DTC who underwent thyroidectomy, we retrospectively studied 357 patients who underwent total thyroidectomy and central compartment node dissection (CCND) for DTC between 2003 and 2013. Forty-one percent (140/345) of study patients had lymphocytic thyroiditis (IT), and 30% (91/301) had serum positive for thyroglobulin antibody (TgAb). IT was reported in 78% of the TgAb-positive cases. Sixty percent (213/357) of cases had metastatic thyroid carcinoma in 1 or more neck lymph nodes (55% [198/357] central compartment, and 22% [77/356] lateral compartment). Patients with IT had fewer metastatic cervical lymph nodes than those with no LT (2.7 +/- 4.7 vs 3.5 +/- 4.8, respectively, P = .0285). Patients with positive TgAb and thyroiditis had a larger number of benign cervical lymph nodes removed than those with negative TgAb or no LT No significant difference was observed in age, tumor size,
multifocality, extrathyroidal extension, vascular invasion, or frequency of cervical lymph node metastasis between TgAb-negative and -positive cases or between cases with and without LT. Lymphocytic thyroiditis is associated with fewer central neck compartment metastatic lymph nodes and a larger number of excised reactive benign cervical lymph nodes."

According to the news editors, the research concluded: "Whether this association indicates a protective role of thyroid autoimmunity in lymph node spreading remains unclear."

For more information on this research see: Lymphocytic Thyroiditis Is Associated With Increased Number Of Benign Cervical Nodes And Fewer Central Neck Compartment Metastatic Lymph Nodes In Patients With Differentiated Thyroid Cancer. *Endocrine Practice*, 2016;22(10):1192-1198. *Endocrine Practice* can be contacted at: Amer Assoc Clinical Endocrinologists, 245 Riverside Avenue, Ste 200, Jacksonville, FL 32202, USA.

The news correspondents report that additional information may be obtained from I. Donangelo, Allegheny Gen Hosp, Allegheny Hlth Network, Div Endocrinol, Pittsburgh, PA 15212, United States. Additional authors for this research include A.E. Walts, C. Bresee and G.D. Braunstein.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4158/E151078.OR. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Endocrine System Diseases and Conditions, Autoimmune Diseases and Conditions, Thyroid Diseases and Conditions, Hemic and Immune Systems, Autoimmune Thyroiditis, Thyroid Neoplasms, Lymphoid Tissue, Thyroid Cancer, Lymph Nodes, Immunology, Oncology, Allegheny General Hospital.

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**Oncology - Pancreatic Cancer**

**Investigators at Asia University Report Findings in Pancreatic Cancer (Oncogenic Functions of Gli1 in Pancreatic Adenocarcinoma Are Supported by Its PRMT1-Mediated Methylation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Pancreatic Cancer. According to news reporting out of Taichung, Taiwan, by NewsRx editors, research stated, "The oncogenic transcription factor Gli1 is a critical effector in the Hedgehog (Hh) pathway, which is necessary for the development and progression of pancreatic ductal adenocarcinoma (PDAC). Although TGF beta and K-Ras are known regulators of Gli1 gene transcription in this setting, it is not understood how Gli1 functional activity is regulated." Our news journalists obtained a quote from the research from Asia University, "Here, we report the identification of Gli1 as a substrate for the protein arginine N-methyltransferase PRMT1 in PDAC. We found that PRMT1 methylates Gli1 at R597, promoting its transcriptional activity by enhancing the binding of Gli1 to its target gene promoters. Interruption of Gli1 methylation attenuates oncogenic functions of Gli1 and sensitizes PDAC cells to gemcitabine treatment. In human PDAC specimens, the levels of both total Gli1 and methylated Gli1 were correlated positively with PRMT1 protein levels. Notably, PRMT1 regulated Gli1 independently of the canonical Hh pathway as well as the TGF beta/Kras-
mediated noncanonical Hh pathway, thereby signifying a novel regulatory mechanism for Gli1 transcriptional activity."

According to the news editors, the research concluded: "Taken together, our results identified a new posttranslational modification of Gli1 that underlies its pivotal oncogenic functions in PDAC."

For more information on this research see: Oncogenic Functions of Gli1 in Pancreatic Adenocarcinoma Are Supported by Its PRMT1-Mediated Methylation. Cancer Research, 2016;76(23):7049-7058. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)


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Keywords for this news article include: Taichung, Taiwan, Asia, Pancreatic Cancer, Gastroenterology, Adenocarcinoma, Pancreas, Genetics, Oncology, Asia University.

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Pharmacology

Investigators at Assam University Target Pharmacology (Cicca acida L.: phytochemistry and pharmacological studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacology have been presented. According to news reporting originating from Silchar, India, by NewsRx correspondents, research stated, "Cicca acida L., is reported with traditional and pharmacological uses, and a good number of pure compounds have been isolated from its different parts. But published information is sporadic and fragmentary in nature."

Our news editors obtained a quote from the research from Assam University, "Therefore, it is imperative to have a comprehensive account of all of its medicinal potentialities with critical analysis. In this review, the traditional reports, phytochemical and pharmacology studies associated with Cicca acida have been compiled to figure out the net possibilities for its application in modern medicine. Careful scrutiny reveals that the plant possesses a huge range of medicinal properties, but published report analysis suggests that the plant is effectively used as antibacterial, hepatoprotective, anticonceptive and antidiabetic purposes. The published papers revealed the bioactivity of only 04 compounds. This indicates that a good number of isolated major compounds of this plant are yet to be pharmacologically investigated. Intensive study of Cicca acida showed that despite of its plentiful isolated molecules, the effort leading to final product stage seems to be less."

According to the news editors, the research concluded: "Therefore, the plant and its
compounds need concentrated effort towards establishment of its therapeutic potentialities."


The news editors report that additional information may be obtained by contacting R. Ghosh Tarafdar, Ethnobotany and Medicinal Plants Research Laboratory, Dept. of Life Science and Bioinformatics, Assam University, Silchar, India. Additional authors for this research include S. Nath, A. Das Talukdar and M. Dutta Choudhury.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jphp.12514. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Silchar, Therapy, Pharmacology, Article Review, Phytochemistry.

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**Heart Disorders and Diseases - Ventricular Tachycardia**

**Investigators at Baylor University College of Medicine Have Reported New Data on Ventricular Tachycardia (Safety and Feasibility of Open Chest Epicardial Mapping and Ablation of Ventricular Tachycardia During the Period of Left Ventricular ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Ventricular Tachycardia have been published. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "Patients undergoing catheter ablation for ventricular tachycardia (VT) may require epicardial mapping. In patients with end-stage heart failure, hybrid surgical epicardial mapping and ablation during the period of left ventricular assist device (LVAD) implantation may be considered in select patients to reduce post-LVAD ventricular tachycardia."

Our news journalists obtained a quote from the research from the Baylor University College of Medicine, "From March 2009 to October 2012, 5 patients (4 men and 1 woman, age range 52-73 years) underwent open chest electrophysiology study and epicardial mapping for recurrent ventricular tachycardia while the heart was exposed during the period of LVAD implantation. Epicardial mapping was considered if patients had recurrent VT despite failed prior endocardial ablation and/or electrocardiogram (EKG) features of an epicardial exit. Activation and/or a substrate mapping approach were employed during all procedures. Three of 5 patients (60%) had acute procedural success. In all patients, VT was either eliminated or significantly reduced with epicardial ablation. One patient had mediastinal bleeding delaying sternal closure. During a follow-up period of 363 ? 368 days, 4 patients died due to nonarrhythmic causes."

According to the news editors, the research concluded: "Open-chest hybrid epicardial mapping and ablation for recurrent VT is feasible and can be considered in select patients during the period of LVAD implantation."

For more information on this research see: Safety and Feasibility of Open Chest Epicardial Mapping and Ablation of Ventricular Tachycardia During the Period of Left Ventricular Assist Device Implantation. *Journal of Cardiovascular Electrophysiology*, 2015;27
Investigators at Baylor University College of Medicine Report Findings in Immunoglobulins (Coming-of-Age of Antibodies in Cancer Therapeutics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immunology - Immunoglobulins are presented in a new report. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Antibody-based therapies have garnered considerable success in recent years. This is due to the availability of strategies to successfully engineer antibodies into humanized forms, better understanding of the biological processes involved in cancer development, the availability of novel recombinant antibody formats, better antibody selection platforms, and improved antibody conjugation methodologies."

The news correspondents obtained a quote from the research from the Baylor University College of Medicine, "Such achievements have led to an explosion in the generation of antibodies and antibody-associated constructs for the treatment of cancer and other diseases. In this review, we critically assess recent trends in the development and applications of bispecific antibodies (bsAbs), antibody drug conjugates (ADCs), and immune checkpoint inhibitors (ICIs) as cancer therapeutics."

According to the news reporters, the research concluded: "We also highlight recent US FDA approvals and clinical trials of antibody-based cancer therapies."


Our news journalists report that additional information may be obtained by
contacting B.V. Ayyar, Baylor College of Medicine, Dept. of Biochem & Mol Biol, Houston, TX 77030, United States. Additional authors for this research include S. Arora and R. O’Kennedy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tips.2016.09.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Therapy, Article Review, Immunoglobulins, Blood Proteins, Therapeutics, Immunology, Antibodies, Oncology, Cancer, Baylor University College of Medicine.

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Drugs and Therapies - Pharmacology

Investigators at Beijing Institute of Pharmacology and Toxicology Detail Findings in Pharmacology (Allosteric activation of midazolam CYP3A5 hydroxylase activity by icotinib - Enhancement by ketoconazole)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmacology. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Icotinib (ICO), a novel small molecule and a tyrosine kinase inhibitor, was developed and approved recently in China for non-small cell lung cancer. During screening for CYP inhibition potential in human liver microsomes (HLM), heterotropic activation toward CYP3A5 was revealed."

The news reporters obtained a quote from the research from the Beijing Institute of Pharmacology and Toxicology, "Activation by icotinib was observed with CYP3A-mediated midazolam hydroxylase activity in HLM (similar to 40% over the baseline) or recombinant human CYP3A5 (rhCYP3A5) (similar to 70% over the baseline), but not in the other major CYPs including rhCYP3A4. When co-incubated with selective CYP3A4 inhibitor CYP3cide or monoclonal human CYP3A4 inhibitory antibody in HLM, the activation was extended to similar to 60%, suggesting CYP3A5 might be the isozyme involved. Further, the relative activation was enhanced to similar to 270% in rhCYP3A5 in the presence of ketoconazole. The activation was substrate and pathway dependent and observed only in the formation of 1'-OH-midazolam, and not 4-OH-midazolam, 6p-OH-testosterone, or oxidized nifedipine. The activation requires the presence of cytochrome b5 and it is only observed in the liver microsomes of dogs, monkeys, and humans, but not in rats and mice. Kinetic analyses of 1'-OH-midazolam formation showed that ICO increased the V-max values in HLM and rhCYP3A5 with no significant changes in K-m values. By adding CYP3cide with ICO to the incubation, the V, values increased 2-fold over the CYP3cide control. Addition of ketoconazole with ICO alone or ICO plus CYP3cide resulted in an increase in V-max values and decrease in K-m values compared to their controls."

According to the news reporters, the research concluded: "This phenomenon may be attributed to a new mechanism of CYP3A5 heterotropic activation, which warrants further investigation."

For more information on this research see: Allosteric activation of midazolam CYP3A5 hydroxylase activity by icotinib - Enhancement by ketoconazole. Biochemical Pharmacology, 2016;121():67-77. Biochemical Pharmacology can be contacted at: Pergamon-
Investigators at Beijing University of Chinese Medicine Zero in on Metabolic Syndrome [Panax notoginseng saponins ameliorate impaired arterial vasodilation in SHRSP.Z-Lepr(fa) /IzmDmcr rats with metabolic syndrome]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Metabolic Syndrome have been published. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Panax notoginseng saponins (PNS) are major components of Panax notoginseng, a herb with established clinical efficacy against vascular diseases. SHRSP.Z-Lepr(fa) /IzmDmcr (SHRSP.ZF) rats, a new animal model for metabolic syndrome, display an impaired vasorelaxation response in aortas and mesenteric arteries that is mediated by nitric oxide (NO)."

Our news journalists obtained a quote from the research from the Beijing University of Chinese Medicine, "This study investigated whether PNS and its components can ameliorate this vascular dysfunction in SHRSP.ZF rats. In an in vitro study, in the presence or absence of PNS and its components, vasodilation in response to nitroprusside was determined from myographs under isometric tension conditions in aortas and mesenteric arteries from male SHRSP.ZF rats at 18-20 weeks of age. In an in vivo study, PNS (30 mg/kg per day) was orally administered to SHRSP.ZF rats from 8 to 20 weeks of age. In vitro treatment with PNS and Ginsenoside Rb1 increased nitroprusside-induced relaxation of aortas and mesenteric arteries in SHRSP.ZF rats. The PNS-induced increase was not affected by a nitric oxide (NO) synthase inhibitor or endothelium denudation. Relaxation in response to a cell-permeable cGMP analogue was increased by PNS, but cGMP accumulation by nitroprusside was not altered. In vivo treatment with PNS in SHRSP.ZF rats lowered blood pressure and increased relaxation and the expression of soluble guanylyl cyclase protein in arteries, without affecting metabolic abnormalities. These results indicate that PNS causes an increase in vasodilation in response to NO and a decrease in blood pressure, resulting in protection against vascular dysfunction in SHRSP.ZF rats."

According to the news editors, the research concluded: "PNS might be beneficial in alleviating impaired vasodilation in metabolic syndrome."

The news correspondents report that additional information may be obtained from T. Wu, School of Chinese Materia Medica, Beijing University of Chinese Medicine, Beijing, People's Republic of China. Additional authors for this research include J. Sun, S. Kagota, K. Maruyama, H. Wakuda and K. Shinozuka.

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Keywords for this news article include: Asia, Beijing, Chemicals, Healthcare, Nitric Oxide, Metabolic Syndrome, People's Republic of China, Nutritional and Metabolic Diseases and Conditions.

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Inflammation

Investigators at Brigham Young University Describe Findings in Inflammation (Up-Regulation of Claudin-6 in the Distal Lung Impacts Secondhand Smoke-Induced Inflammation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Inflammation. According to news reporting out of Provo, Utah, by NewsRx editors, research stated, "It has long been understood that increased epithelial permeability contributes to inflammation observed in many respiratory diseases. Recently, evidence has revealed that environmental exposure to noxious material such as cigarette smoke reduces tight junction barrier integrity, thus enhancing inflammatory conditions."

Our news journalists obtained a quote from the research from Brigham Young University, "Claudin-6 (Cldn6) is a tetraspanin transmembrane protein found within the tight junctional complex and is implicated in maintaining lung epithelial barriers. To test the hypothesis that increased Cldn6 ameliorates inflammation at the respiratory barrier, we utilized the Tet-On inducible transgenic system to conditionally over-express Cldn6 in the distal lung. Cldn6 transgenic (TG) and control mice were continuously provided doxycycline from postnatal day (PN) 30 until euthanasia date at PN90. A subset of Cldn6 TG and control mice were also subjected to daily secondhand tobacco smoke (SHS) via a nose only inhalation system from PN30-90 and compared to room air (RA) controls. Animals were euthanized on PN90 and lungs were harvested for histological and molecular characterization. Bronchoalveolar lavage fluid (BALF) was procured for the assessment of inflammatory cells and molecules. Quantitative RT-PCR and immunoblotting revealed increased Cldn6 expression in TG vs. control animals and SHS decreased Cldn6 expression regardless of genetic up-regulation. Histological evaluations revealed no adverse pulmonary remodeling via Hematoxylin and Eosin (H&E) staining or any qualitative alterations in the abundance of type II pneumocytes or proximal non-ciliated epithelial cells via staining for cell specific propeptide of Surfactant Protein-C (proSP-C) or Club Cell Secretory Protein (CCSP), respectively. Immunoblotting and qRT-PCR confirmed the
differential expression of Cldn6 and the pro-inflammatory cytokines TNF-alpha and IL-1 beta. As a general theme, inflammation induced by SHS exposure was influenced by the availability of Cldn6. These data reveal captivating information suggesting a role for Cldn6 in lungs exposed to tobacco smoke."

According to the news editors, the research concluded: "Further research is critically necessary in order to fully explain roles for tight junctional components such as Cldn6 and other related molecules in lungs coping with exposure."

For more information on this research see: Up-Regulation of Claudin-6 in the Distal Lung Impacts Secondhand Smoke-Induced Inflammation. *International Journal of Environmental Research and Public Health*, 2016;13(10):1131-1142. *International Journal of Environmental Research and Public Health* can be contacted at: Mdp Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.


Keywords for this news article include: Provo, Utah, United States, North and Central America, Inflammation, Genetics, Brigham Young University.

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**Cardiology**

**Investigators at Bristol-Myers Squibb Detail Findings in Cardiology (Evaluation of microRNAs-208 and 133a/b as differential biomarkers of acute cardiac and skeletal muscle toxicity in rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news reporting originating in New Brunswick, New Jersey, by NewsRx journalists, research stated, "Conventional circulating biomarkers of cardiac and skeletal muscle (SKM) toxicity lack specificity and/or have a short half-life. MicroRNAs (miRNAs) are currently being assessed as biomarkers of tissue injury based on their long half-life in blood and selective expression in certain tissues."

The news reporters obtained a quote from the research from Bristol-Myers Squibb, "To assess the utility of miRNAs as biomarkers of cardiac and SKM injury, male Sprague-Dawley rats received a single dose of isoproterenol (ISO); metaproterenol (MET); allylamine (MM); mitoxantrone (MIT); acetaminophen (APAP) or vehicle. Blood and tissues were collected from rats in each group at 4, 24 and 48 h. ISO, MET, and AAM induced cardiac and SKM lesions and APAP induced liver specific lesions. There was no evidence of tissue injury with MIT by histopathology. Serum levels of candidate miRNAs were compared to conventional serum biomarkers of SHIM/cardiac toxicity. Increases in heart specific miR-208 only occurred in rats with cardiac lesions alone and were increased for a longer duration than cardiac troponin and FABP3 (cardiac biomarkers). ISO, MET and MM induced increases in Myl3 and skeletal muscle troponin (sTnl) (SKM biomarkers). MIT induced large increases in sTnl indicative of SICM toxicity, but sTnl levels were also increased in APAP-treated rats that
lacked SKM toxicity. Serum levels of miR-133a/b (enriched in cardiac and SKM) increased following ISO, MET, AAM and MIT treatments but were absent in APAP-treated rats."

According to the news reporters, the research concluded: "Our results suggest that miR-133a/b are sensitive and specific markers of SKM and cardiac toxicity and that miR-208 used in combination with miR-133a/b can be used to differentiate cardiac from SKM toxicity."

For more information on this research see: Evaluation of microRNAs-208 and 133a/b as differential biomarkers of acute cardiac and skeletal muscle toxicity in rats. Toxicology and Applied Pharmacology, 2016;312(1):53-60. Toxicology and Applied Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Toxicology and Applied Pharmacology - www.journals.elsevier.com/toxicology-and-applied-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting J. Calvano, Bristol Myers Squibb, Drug Safety Evaluat, New Brunswick, NJ 08903, United States. Additional authors for this research include W. Achanzar, B. Murphy, J. DiPiero, C. Hixson, C. Parrula, H. Burr, R. Mangipudy and M. Tirmenstein.

Keywords for this news article include: New Brunswick, New Jersey, United States, North and Central America, Cardiology, Bristol-Myers Squibb.

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Heart Disorders and Diseases - Heart Disease

Investigators at Broad Institute of MIT and Harvard Detail Findings in Heart Disease (Genetic Risk, Adherence to a Healthy Lifestyle, and Coronary Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Disease are discussed in a new report. According to news reporting originating from Cambridge, Massachusetts, by NewsRx correspondents, research stated, "Both genetic and lifestyle factors contribute to individual-level risk of coronary artery disease. The extent to which increased genetic risk can be offset by a healthy lifestyle is unknown."

Our news editors obtained a quote from the research from the Broad Institute of MIT and Harvard, "Using a polygenic score of DNA sequence polymorphisms, we quantified genetic risk for coronary artery disease in three prospective cohorts - 7814 participants in the Atherosclerosis Risk in Communities (ARIC) study, 21,222 in the Women's Genome Health Study (WGHS), and 22,389 in the Malmo Diet and Cancer Study (MDCS) - and in 4260 participants in the cross-sectional BioImage Study for whom genotype and covariate data were available. We also determined adherence to a healthy lifestyle among the participants using a scoring system consisting of four factors: no current smoking, no obesity, regular physical activity, and a healthy diet. The relative risk of incident coronary events was 91% higher among participants at high genetic risk (top quintile of polygenic scores) than among those at low genetic risk (bottom quintile of polygenic scores) (hazard ratio, 1.91; 95% confidence interval [CI], 1.75 to 2.09). A favorable lifestyle (defined as at least three of the four healthy lifestyle factors) was associated with a substantially lower risk of coronary events than an unfavorable lifestyle (defined as no or only one healthy lifestyle factor), regardless of the genetic risk category. Among participants at high genetic risk, a favorable lifestyle was associated with a
46% lower relative risk of coronary events than an unfavorable lifestyle (hazard ratio, 0.54; 95% CI, 0.47 to 0.63). This finding corresponded to a reduction in the standardized 10-year incidence of coronary events from 10.7% for an unfavorable lifestyle to 5.1% for a favorable lifestyle in ARIC, from 4.6% to 2.0% in WGHS, and from 8.2% to 5.3% in MDCS. In the BioImage Study, a favorable lifestyle was associated with significantly less coronary-artery calcification within each genetic risk category. Across four studies involving 55,685 participants, genetic and lifestyle factors were independently associated with susceptibility to coronary artery disease."

According to the news editors, the research concluded: "Among participants at high genetic risk, a favorable lifestyle was associated with a nearly 50% lower relative risk of coronary artery disease than was an unfavorable lifestyle."

For more information on this research see: Genetic Risk, Adherence to a Healthy Lifestyle, and Coronary Disease. New England Journal of Medicine, 2016;375(24):2349-2358. New England Journal of Medicine can be contacted at: Massachusetts Medical Soc, Waltham Woods Center, 860 Winter St, Waltham, MA 02451-1413, USA.


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Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Risk and Prevention, Myocardial Ischemia, Arteriosclerosis, Atherosclerosis, Heart Disease, Cardiology, Angiology, Genetics, Broad Institute of MIT and Harvard.

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of patients. Facial tremors response to acute levodopa challenge showed 92% sensitivity and 93% specificity to predict a final PD diagnosis. In PD patients, facial tremor magnitude of response to levodopa was not different from that of hand rest tremor (p = 0.8). Facial tremors, although infrequent, can be an early sign of PD.

According to the news reporters, the research concluded: "Positive response to acute levodopa challenge predicts long-term PD diagnosis."

For more information on this research see: Facial tremors in patients with and without parkinsonism. *Neurological Sciences*, 2016;37(12):1999-2002. *Neurological Sciences* can be contacted at: Springer-Verlag Italia Srl, Via Decembrio, 28, Milan, 20137, Italy. (Springer - www.springer.com; Neurological Sciences - www.springerlink.com/content/1590-1874/)

Our news correspondents report that additional information may be obtained by contacting M. Merello, Argentine Natl Sci & Technol Res Council CONICET, Buenos Aires, DF, Argentina. Additional authors for this research include M. Wilken, P. Morisset, S. Farina, D. Cerquetti and M. Merello.

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Keywords for this news article include: Buenos Aires, Argentina, South America, Neurodegenerative Diseases and Conditions, Dopaminergic Antiparkinsonism Agents, Central Nervous System Agents, Dihydroxyphenylalanine, Parkinsonian Disorders, Antiparkinson Agents, Drugs and Therapies, Parkinson's Disease, Levodopa Therapy, Pharmaceuticals, Parkinsonism, Amino Acids, CONICET.

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**Drugs and Therapies - Aerosol Medicine and…**

**Investigators at Carleton University Detail Findings in Aerosol Medicine and Pulmonary Drug Delivery (Characterization of Medication Velocity and Size Distribution from Pressurized Metered-Dose Inhalers by Phase Doppler Anemometry)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Aerosol Medicine and Pulmonary Drug Delivery. According to news reporting originating in Ottawa, Canada, by NewsRx journalists, research stated, "Particle size and velocity are two of the most significant factors that impact the deposition of pressurized metered-dose inhaler (pMDI) sprays in the mouth cavity. pMDIs are prominently used around the world in the treatment of patients suffering from a variety of lung diseases such as asthma and chronic obstructive pulmonary disease. Since their introduction in the field, and as a result of their effectiveness and simplicity of usage, pMDIs are considered to be the most widely prescribed medical aerosol delivery system."

The news reporters obtained a quote from the research from Carleton University, "In the current study, particle velocity and size distribution were measured at three different locations along the centerline of a pMDI spray using Phase Doppler Anemometry. pMDIs from four different pharmaceutical companies were tested, each using salbutamol sulfate as the
medication. Measurements along at the pMDI centerline (at 0, 75, and 100mm downstream of the inhaler mouthpiece) showed that the spray velocities were bimodal in time for all four pMDI brands. The first peak occurred as the spray was leaving the mouthpiece, while the second peak (at the same location, 0 mm) occurred at around 60, 95, 95, and 115 milliseconds later, respectively, for the four tested inhalers, with a drop in the velocity between the two peaks. Three probability density functions (PDFs) were tested, and the Rosin-Rammler PDF best fit the empirical data, as determined using a chi-squared test.

According to the news reporters, the research concluded: "These results suggest that there is a difference in the mean particle velocities at the centerline for the tested pMDIs and the diameter of released particles varied statistically for each brand."


Our news correspondents report that additional information may be obtained by contacting E. Matida, Carleton University, Dept. of Mech & Aerosp Engn, Ottawa, ON K1S 5B6, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/jamp.2015.1264. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Aerosol Medicine and Pulmonary Drug Delivery, Drugs and Therapies, Carleton University.

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Oncology - Lymphoma

Investigators at Case Western Reserve University Detail Findings in Lymphoma (Dual institution experience of nodal marginal zone lymphoma reveals excellent long-term outcomes in the rituximab era)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Lymphoma are discussed in a new report. According to news reporting out of Cleveland, Ohio, by NewsRx editors, research stated, "Nodal marginal zone lymphoma (NMZL) is a rare non-Hodgkin lymphoma that arises from mature B-cells. We delineate outcomes, prognostic factors and treatment trends among a large cohort of patients with NMZL in the rituximab era."

Our news journalists obtained a quote from the research from Case Western Reserve University, "We identified 56 such patients treated at our institutions. The majority presented with advanced stage disease (786%). Over a median follow-up of 382months, median progression-free survival (PFS) was 424months and median overall survival (OS) was not reached. Kaplan-Meier estimates of OS at 120months after diagnosis was 719%. High-risk follicular lymphoma international prognostic index (FLIPI) was associated with inferior PFS."
Age >60 years and elevated serum lactate dehydrogenase (LDH) were associated with inferior OS. Transformation to diffuse large B-cell lymphoma occurred in 7 patients, 6 of who presented with advanced disease. OS was comparable to our previously reported extranodal MZL cohort. FLIPI score predicted for inferior PFS and OS when both cohorts were analysed together (n=267). In summary, outcomes in NMZL are favourable with a large majority of patients surviving at 120 months.”

According to the news editors, the research concluded: ”High risk FLIPI, age > 60 years, and elevated serum LDH were associated with inferior outcomes.”


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjh.14228. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hematology, Lymphomas, Oncology, Case Western Reserve University.

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Oncology - Breast Cancer

Investigators at Catholic University of Korea Report New Data on Breast Cancer (Potential therapeutic implications of IL-6/IL-6R/gp130-targeting agents in breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, “Interleukin-6 (IL-6) is a pleiotropic cytokine with known multiple functions in immune regulation, inflammation, and oncogenesis. Binding of IL-6 to the IL-6 receptor (IL-6R) induces homodimerization and recruitment of glycoprotein 130 (gp130), which leads to activation of downstream signaling.”

Our news journalists obtained a quote from the research from the Catholic University of Korea, “Emerging evidence suggests that high levels of IL-6 are correlated with poor prognosis in breast cancer patients. IL-6 appears to play a critical role in the growth and metastasis of breast cancer cells, renewal of breast cancer stem cells (BCSCs), and drug
resistance of BCSCs, making anti-IL-6/IL-6R/gp130 therapies promising options for the treatment and prevention of breast cancers. However, preclinical and clinical studies of the applications of anti-IL-6/IL-6R/gp130 therapy in breast cancers are limited."

According to the news editors, the research concluded: "In this review, we summarize the structures, preclinical and clinical studies, mechanisms of action of chemical and biological blockers that directly bind to IL-6, IL-6R, or gp130, and the potential clinical applications of these pharmacological agents as breast cancer therapies."


The news correspondents report that additional information may be obtained from T.H. Heo, NP512, Laboratory of Pharmacoimmunology, Integrated Research Institute of Pharmaceutical Sciences, College of Pharmacy, The Catholic University of Korea, Seoul, South Korea. Additional authors for this research include J. Wahler and N. Suh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7102. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Therapy, Oncology, South Korea, Breast Cancer, Article Review, Women's Health.

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Clinical Research - Clinical Trials and Studies

Investigators at Cedars-Sinai Medical Center Report Findings in Clinical Trials and Studies (Selecting Patients for Intra-Arterial Therapy in the Context of a Clinical Trial for Neuroprotection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "'The advent of intra-arterial neurothrombectomy (IAT) for acute ischemic stroke opens a potentially transformative opportunity to improve neuroprotection studies. Combining a putative neuroprotectant with recanalization could produce more powerful trials but could introduce heterogeneity and adverse event possibilities.'"

Our news journalists obtained a quote from the research from Cedars-Sinai Medical Center, "'We sought to demonstrate feasibility of IAT in neuroprotectant trials by defining IAT selection criteria for an ongoing neuroprotectant clinical trial. The study drug, 3K3A-APC, is a pleiotropic cytoprotectant and may reduce thrombolysis-associated hemorrhage. The NeuroNEXT trial NN104 (RHAPSODY) is designed to establish a maximally tolerated dose of 3K3A-APC. Each trial site provided their IAT selection criteria. An expert panel reviewed site criteria and published evidence. Finally, the trial leadership designed IAT selection criteria. Derived selection criteria reflected consistency among the sites and comparability to published IAT trials. A protocol amendment allowing IAT (and relaxed age, National Institutes of Health Stroke Scale, and time limits) in the RHAPSODY trial was implemented on June 15, 2015. Recruitment before and after the amendment improved from 8 enrolled patients (601 screened, 1.3%) to 51 patients (821 screened, 6.2%; odds ratio [95% confidence limit] of 4.9 [2.3-10.4]; P <0.001). Gross recruitment was 0.11 patients per site month versus 0.43 patients per site per
month, respectively, before and after the amendment. It is feasible to include IAT in a neuroprotectant trial for acute ischemic stroke."

According to the news editors, the research concluded: "Criteria are presented for including such patients in a manner that is consistent with published evidence for IAT while still preserving the ability to test the role of the putative neuroprotectant."

For more information on this research see: Selecting Patients for Intra-Arterial Therapy in the Context of a Clinical Trial for Neuroprotection. *Stroke*, 2016;47(12):2979-2985. *Stroke* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - [www.lww.com](http://www.lww.com); Stroke - [stroke.ahajournals.org](http://stroke.ahajournals.org/))


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1161/STROKEAHA.116.013881. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Therapy, Diagnostics and Screening, Clinical Trials and Studies, Clinical Research, Stroke, Cedars-Sinai Medical Center.

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**Stem Cell Research - Mesenchymal Stem Cells**

**Investigators at Central Hospital Discuss Findings in Mesenchymal Stem Cells (Combination of butylphthalide with umbilical mesenchymal stem cells for the treatment of delayed encephalopathy after carbon monoxide poisoning)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Stem Cell Research - Mesenchymal Stem Cells. According to news originating from Hebei, People's Republic of China, by NewsRx correspondents, research stated, "Delayed encephalopathy after carbon monoxide (CO) poisoning (DEACMP) is still a clinical challenge. This study aimed to investigate the efficacy of combined therapy of mesenchymal stem cell (MSC) transplantation and butylphthalide in DEACMP patients."

Our news journalists obtained a quote from the research from Central Hospital, "Forty-two DEACMP patients were treated with 1 of the 3 therapies: combined therapy of MSC transplantation and butylphthalide; MSC transplantation alone; or hyperbaric oxygen therapy. The MSCs were alternatively injected into the subarachnoid space and the carotid artery using a self-made high-pressure injector. The Mini-Mental State Examination and the Barthel index of activities of daily living were administered before the treatment, and at 1 month, 3 months, and 6 months after the treatment. Computed tomography and magnetic resonance imaging results before and after the treatment were compared. At 1 month, 3 months, and 6 months after the treatment, the Mini-Mental State Examination scores and the Barthel scores were significantly
higher in patients with the combined therapy of MSC transplantation and butylphthalide than those in patients with MSC transplantation alone or hyperbaric oxygen therapy (all P < 0.0001). No significant adverse events occurred."

According to the news editors, the research concluded: "The combination of MSC transplantation and butylphthalide is safe and effective in treating DEACMP."

For more information on this research see: Combination of butylphthalide with umbilical mesenchymal stem cells for the treatment of delayed encephalopathy after carbon monoxide poisoning. *Medicine*, 2016;95(49):113-117. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from H.J. Wang, Cangzhou Cent Hosp, Dept. of Neurol, Cangzhou 061001, Hebei, People's Republic of China. Additional authors for this research include Y. Li, Q. Wu, C.L. Xu and Q.R. Liu.

Keywords for this news article include: Hebei, People's Republic of China, Asia, Inorganic Carbon Compounds, Carbon Monoxide Poisoning, Mesenchymal Stem Cells, Stem Cell Research, Hyperbaric Oxygen, Chemicals, Therapy, Central Hospital.

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**Transfusion Medicine - Blood Transfusion**

**Investigators at Central South University Report Findings in Blood Transfusion [mTOR Signaling Regulates Protective Activity of Transferred CD4(+)Foxp3(+) T Cells in Repair of Acute Kidney Injury]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transfusion Medicine - Blood Transfusion. According to news reporting originating in Changsha, People's Republic of China, by NewsRx journalists, research stated, "CD4(+)Foxp3(+) regulatory T cells (Tregs) are required for normal immune homeostasis. Recent studies suggested that Treg transfer facilitates recovery from acute kidney injury (AKI), but the molecular events that maintain Treg function after adoptive transfer remain unclear."

The news reporters obtained a quote from the research from Central South University, "This study aimed to investigate the regulation of mammalian target of rapamycin (mTOR) signaling in the Treg-mediated therapeutic effect on ischemic AKI. We noted significant Treg expansion in C57BL/6 mouse kidney, with enhanced immunosuppressive capacity after renal ischemia/reperfusion. mTOR inhibition significantly increased the frequency of Tregs in cultured CD4(+) T cells, with enhanced production of anti-inflammatory cytokines, which, conversely, was reduced by mTOR activation. Rapamycin, an inhibitor of mTOR, was transiently administered to C57BL/6 mice before ischemia/reperfusion surgery. No beneficial effect of rapamycin treatment was seen in the early recovery of AKI as a result of its inhibitory effect on tubular regeneration. However, rapamycin markedly enhanced the expansion of kidney Tregs, with increased mRNA expression of anti-inflammatory cytokines. Adoptive transfer of rapamycin-treated Tregs markedly suppressed conventional T cells, responder myeloid cells, and reactive myofibroblasts; however, it promoted host Tregs and alternative macrophages, leading to better renal function and less kidney fibrosis. Taken together, Treg transfer with mTOR inhibition markedly improves outcomes of ischemic AKI."
According to the news reporters, the research concluded: "These findings reveal an important role for mTOR signaling in maintaining Treg activity after adoptive transfer and highlight the therapeutic potential of targeting Tregs in acute and chronic kidney disease."

For more information on this research see: mTOR Signaling Regulates Protective Activity of Transferred CD4(+)Foxp3(+) T Cells in Repair of Acute Kidney Injury. *Journal of Immunology*, 2016;197(10):3917-3926. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news correspondents report that additional information may be obtained by contacting G.C. Chen, Central South University, Xiangya Hosp 2, Dept. of Nephrol, Changsha 410011, Hunan, People's Republic of China. Additional authors for this research include Z. Dong, H. Liu, Y. Liu, S.B. Duan, Y.H. Liu, F.Y. Liu and H.H. Chen.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Genetics, Immunology, Passive Immunization, Transfusion Medicine, Adoptive Transfer, Blood Transfusion, Immunomodulation, Medical Devices, Immunotherapy, Reperfusion, Central South University.

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**Oncology - Colon Cancer**

**Investigators at Chiba Cancer Center Discuss Findings in Colon Cancer**

[Magnified endoscopic observation of early colorectal cancer by linked color imaging with crystal violet staining (with video)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Colon Cancer. According to news reporting from Chiba, Japan, by NewsRx journalists, research stated, "Many reports have shown the usefulness of magnification endoscopy with crystal violet (CV) staining for delineating the pit pattern in the diagnosis of colorectal carcinoma. However, the diagnostic accuracy of this method is not adequate for assessing the depth of invasion of early stage cancers."

The news correspondents obtained a quote from the research from Chiba Cancer Center, "The novel technology of linked color imaging (LCI) combined with CV staining is expected to improve the accuracy of determining the depth of invasion. We studied 3 patients with early stage colorectal cancer who were referred to our hospital. After CV spraying, high-magnification endoscopy was conducted by using the LCI mode. Efficacy of this modality was evaluated by comparing the preoperative diagnostic endoscopic images with posttreatment histopathologic findings. In 2 cases of rectal cancer, although conventional endoscopic examination could not exclude the possibility of submucosal cancer, use of the LCI mode with CV staining confirmed mucosal cancer. Eventually, EMR was conducted and achieved curative resection. In 1 case of sigmoid colon cancer, both conventional and CV magnification endoscopy suggested submucosal cancer. However, mucosal cancer was diagnosed by the novel method, and EMR achieved curative resection."

According to the news reporters, the research concluded: "LCI high-magnification endoscopy combined with CV staining provides images close to histopathologic findings and is expected to improve the accuracy of endoscopic diagnosis of the depth of invasion for early
stage colorectal cancer."

For more information on this research see: Magnified endoscopic observation of early colorectal cancer by linked color imaging with crystal violet staining (with video). *Gastrointestinal Endoscopy*, 2016;84(4):726-729. *Gastrointestinal Endoscopy* can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; *Gastrointestinal Endoscopy* - www.journals.elsevier.com/gastrointestinal-endoscopy/)

Our news journalists report that additional information may be obtained by contacting T. Suzuki, Chiba Canc Center, Dept. of Endoscopy, Chiba, Japan. Additional authors for this research include T. Hara, Y. Kitagawa and T. Yamaguchi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gie.2016.05.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chiba, Japan, Asia, Cancer, Diagnostics and Screening, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Chiba Cancer Center.

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**Cardiovascular Diseases and Conditions - Vascular...**

**Investigators at Children’s Hospital Report Findings in Vascular Malformations (Spontaneous Cystic Penile Vascular Malformation in an Adolescent and Review of the Literature)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Vascular Malformations have been published. According to news reporting originating from Columbus, Ohio, by NewsRx correspondents, research stated, "Vascular malformations rarely involve the male genitalia, and even fewer appear as cystic lesions on the penile shaft."

Our news editors obtained a quote from the research from Children's Hospital, "We report an uncommon case of spontaneous swelling near the coronal margin of the penis that was found to arise from a vascular malformation."

According to the news editors, the research concluded: "We review the pathologic findings and the literature regarding vascular malformations of the penis and other penile cystic structures that have similar clinical appearance, and discuss treatment options for penile vascular malformations."


The news editors report that additional information may be obtained by contacting J. Preece, Nationwide Childrens Hosp, Sect Pediat Urol, Columbus, OH 43205, United States. Additional authors for this research include V. Prasad, M. Schober and D.G. DaJusta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.04.009. This DOI is a link to an online electronic...
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting from Shenyang, People's Republic of China, by NewsRx journalists, research stated, "Long non-coding RNAs (lncRNAs) occupy the majority of the human genome. Their dysregulation is usually related with the procession of diseases, including tumors."

The news correspondents obtained a quote from the research from China Medical University and Hospital, "Abnormally expressed lncRNAs have been found in colorectal cancer (CRC), but are not fully understood. In the current study, we determined the expression level of a novel lncRNA-RP1-13P20.6 in 99 pairs of CRC tissues compared to their matched normal adjacent tissues, using real time polymerase chain reaction. We further assessed the correlation between their expression levels and their clinicopathological parameters, and determined the potential of RP1-13P20.6 as a biomarker for CRC. The expression of lncRNA-RP1-13P20.6 in CRC tissues and cell lines decreased significantly with an area under the curve (AUC) of 0.755 (p < 0.001). However, there was no significant difference between the expression levels of lncRNA-RP1-13P20.6 and the clinicopathological characteristics."

According to the news reporters, the research concluded: "The abnormal expression level and AUC values suggest that lncRNA-RP1-13P20.6 is a potential biomarker for CRC."


Our news journalists report that additional information may be obtained by contacting Z. Wang, China Med Univ, Hosp 1, Dept. of Surg Oncol & Gen Surg, Shenyang 110001, People's Republic of China. Additional authors for this research include J. Wang, Y. Song, Y. Yang, Y. Hu, P. Gao, J. Sun, X. Chen, Y. Xu and Z. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4149/neo_2016_618. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Cancer, Diagnostics and Screening, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, China Medical University and Hospital.

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Investigators at China Medical University and Hospital Detail Findings in Gastric Cancer (Palliative Gastrectomy Prolongs Survival of Metastatic Gastric Cancer Patients with Normal Preoperative CEA or CA19-9 Values: A Retrospective Cohort Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gastric Cancer. According to news reporting out of Taichung, Taiwan, by NewsRx editors, research stated, "Palliative gastrectomy has been suggested to improve survival of patients with metastatic gastric cancer, but limitations in study design and availability of robust prognostic factors have cast doubt on the overall merit of this procedure. The characteristics and clinical outcomes of 173 patients diagnosed between 2008 and 2012 were analyzed to determine the value of palliative gastrectomy and to identify potential prognostic factors."

Funders for this research include Taiwan Department of Health, China Medical University Hospital Cancer Research of Excellence, Ministry of Science and Technology, Taiwan, China Medical University Hospital.

Our news journalists obtained a quote from the research from China Medical University and Hospital, "Median overall patient survival was 6.5 months. To attenuate potential selection bias, patients with adequate performance and survival time of >= 2months since diagnosis were included for risk factor analysis (n = 137). The median overall survival was longer for patients who were younger than 60 years, had better performance status (8.7 versus 6.4 months, P = 0.015), received systemic chemotherapy, or had palliative gastrectomy in univariate analyses. Gastrectomy (P = 0.002) remained statistically significant in multivariate analyses. Subgroup analysis showed that patients aged < 60 years, CEA < 5 ng/mL or CA19-9 < 35 U/mL, obtained a survival advantage from palliative gastrectomy. In fact, palliative gastrectomy doubled overall survival for patients who had normal CEA and/or normal CA19-9."

According to the news editors, the research concluded: "Palliative gastrectomy prolongs the survival of metastatic gastric cancer patients with normal CEA and/or CA19-9 level at the time of diagnosis."

For more information on this research see: Palliative Gastrectomy Prolongs Survival of Metastatic Gastric Cancer Patients with Normal Preoperative CEA or CA19-9 Values: A Retrospective Cohort Study. Gastroenterology Research and Practice, 2016();1-9. Gastroenterology Research and Practice can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Gastroenterology Research and Practice - www.hindawi.com/journals/grp/)

Our news journalists report that additional information may be obtained by contacting L.Y. Bai, China Med Univ, Sch Med, Coll Med, Taichung 40402, Taiwan. Additional authors for this research include H.R. Yang, M.D. Yang, L.B. Jeng, T.Y. Yang, A.M. Sargeant and L.Y. Bai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/6846027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taichung, Taiwan, Asia, Cancer, Risk and Prevention, Gastroenterology, Gastric Cancer, Gastrectomy, Oncology, China Medical University and Hospital.
Investigators at China Pharmaceutical University Have Reported New Data on Multiple Myeloma (Wogonin inhibits multiple myeloma-stimulated angiogenesis via c-Myc/VHL/HIF-1a signaling axis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Multiple Myeloma are discussed in a new report. According to news reporting originating in Nanjing, People's Republic of China, by NewsRx journalists, research stated, "Angiogenesis is associated with the progression of multiple myeloma (MM). Wogonin is an active mono-flavonoid with remarkable antitumor activity."

The news reporters obtained a quote from the research from China Pharmaceutical University, "However, its impact on MM-stimulated angiogenesis remains largely unknown. Here, we demonstrated that wogonin decreased expression and secretion of pro-angiogenic factors in MM cells via c-Myc/HIF-1a signaling axis, reducing MM-stimulated angiogenesis and MM cell proliferation in vivo. Overexpression of c-Myc in MM cells disrupted the balance between VHL SUMOylation and ubiquitination, and thus inhibited proteasome-mediated HIF-1a degradation. Impaired function of VHL ubiquitination complex in c-Myc-overexpressing cells was fully reversed by wogonin treatment via increasing HIF-1a-VHL interaction and promoting HIF-1a degradation."

According to the news reporters, the research concluded: "Collectively, our in vitro and in vivo studies reveal for the first time that wogonin represses MM-stimulated angiogenesis and tumor progression via c-Myc/VHL/HIF-1a signaling axis."

For more information on this research see: Wogonin inhibits multiple myeloma-stimulated angiogenesis via c-Myc/VHL/HIF-1a signaling axis. Oncotarget, 2016;7(5):5715-27.

Our news correspondents report that additional information may be obtained by contacting R. Fu, Dept. of Physiology, State Key Laboratory of Natural Medicines and Jiangsu Key Laboratory of Carcinogenesis and Intervention, China Pharmaceutical University, Nanjing 210009, People's Republic of China. Additional authors for this research include Y. Chen, X.P. Wang, T. An, L. Tao, Y.X. Zhou, Y.J. Huang, B.A. Chen, Z.Y. Li, Q.D. You, Q.L. Guo and Z.Q Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6796. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nanjing, Oncology, Angiogenesis, Multiple Myeloma, Paraproteinemias, Hemostatic Disorders, Hemorrhagic Disorders, Blood Protein Disorders, People's Republic of China, Vascular Diseases and Conditions, Hematologic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions.
Investigators at China University of Science and Technology Report Findings in Histone Deacetylase Inhibitors (HISTONE DEACETYLASE INHIBITOR-INDUCED EMERGENCE OF SYNAPTIC delta-OPIOID RECEPTORS AND BEHAVIORAL ANTINOCICEPTION IN PERSISTENT ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Histone Deacetylase Inhibitors have been published. According to news originating from Anhui, People's Republic of China, by NewsRx correspondents, research stated, "The efficacy of opioids in patients with chronic neuropathic pain remains controversial. Although activation of delta-opioid receptors (DORs) in the brainstem reduces inflammation-induced persistent hyperalgesia, it is not effective under persistent neuropathic pain conditions and these clinical problems remain largely unknown."

Our news journalists obtained a quote from the research from the China University of Science and Technology, "In this study, by using a chronic constriction injury (CCI) of the sciatic nerve in rats, we found that in the brainstem nucleus raphe magnus (NRM), DORs emerged on the surface membrane of central synaptic terminals on day 3 after CCI surgery and disappeared on day 14. Histone deacetylase (HDAC) inhibitors microinjected into the NRM in vivo increased the level of synaptosomal DOR protein and NRM infusion of DOR agonists producing an antinociceptive effect in a nerve growth factor (NGF) signaling-dependent manner. In vitro, in CCI rat slices incubated with HDAC inhibitors, DOR agonists significantly inhibited EPSCs. This effect was blocked by tyrosine receptor kinase A antagonists. Chromatin immunoprecipitation analysis revealed that NRM infusion of HDAC inhibitors in CCI rats increased the level of histone H4 acetylation at Ngf gene promoter regions. NGF was infused into the NRM or incubated CCI rat slices drove DORs to the surface membrane of synaptic terminals. Taken together, epigenetic upregulation of NGF activity by HDAC inhibitors in the NRM promotes the trafficking of DORs to pain-modulating neuronal synapses under neuropathic pain conditions, leading to delta-opioid analgesia."

According to the news editors, the research concluded: "These findings indicate that therapeutic use of DOR agonists combined with HDAC inhibitors might be effective in chronic neuropathic pain managements."

For more information on this research see: HISTONE DEACETYLASE INHIBITOR-INDUCED EMERGENCE OF SYNAPTIC delta-OPIOID RECEPTORS AND BEHAVIORAL ANTINOCICEPTION IN PERSISTENT NEUROPATHIC PAIN. Neuroscience, 2016;339():54-63. Neuroscience can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Neuroscience - www.journals.elsevier.com/neuroscience/)

The news correspondents report that additional information may be obtained from Z. Zhang, China University of Science & Technology, Chinese Academy Sci, Key Lab Brain Funct & Dis, Hefei 230027, Anhui, People's Republic of China. Additional authors for this research include W.J. Zhou, Y.P. Wang, T.T. Sun, H.T. Wang, Z. Zhang and Y. Jin.

Keywords for this news article include: Anhui, People's Republic of China, Asia, Histone Deacetylase Inhibitors, G-Protein-Coupled Receptors, Chronic Constriction Injury, Neurologic Manifestations, Diseases and Conditions, Neuropeptide Receptors, Enzymes and Coenzymes, Histone Deacetylases, Nerve Growth Factor, Drugs and Therapies, Membrane
Investigators at China University of Science and Technology Report Findings in Shewanella (Extracellular biosynthesis of copper sulfide nanoparticles by Shewanella oneidensis MR-1 as a photothermal agent)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Shewanella are discussed in a new report. According to news reporting out of Hefei, People's Republic of China, by NewsRx editors, research stated, "Photothermal therapy (PTT) is a minimally invasive and effective cancer treatment method and has a great potential for innovating the conventional chemotherapy approaches. Copper sulfide (CuS) exhibits photo stability, low cost, and high absorption in near infrared region, and is recognized as an ideal candidate for PIT."

Financial supporters for this research include Natural Science Foundation of China, Program for Changjiang Scholars and Innovative Research Team, Collaborative Innovation Center of Suzhou Nano Science and Technology of the Ministry of Education of China.

Our news journalists obtained a quote from the research from the China University of Science and Technology, "However, CuS, as a photothermal agent, is usually synthesized with traditional chemical approaches, which require high temperature, additional stabilization and hydrophilic modification. Herein, we report, for the first time, the preparation of CuS nanoparticles as a photothermal agent by a dissimilatory metal reducing bacterium Shewanella oneidensis MR-1. The prepared nanoparticles are homogenously shaped, hydrophilic, small-sized (similar to 5 nm) and highly stable. Furthermore, the biosynthesized CuS nanoparticles display a high photothermal conversion efficiency of 27.2% because of their strong absorption at 1100 nm. The CuS nanoparticles could be effectively used as a PTT agent under the irradiation of 1064 nm."

According to the news editors, the research concluded: "This work provides a simple, eco-friendly and cost-effective approach for fabricating PIT agents."

For more information on this research see: Extracellular biosynthesis of copper sulfide nanoparticles by Shewanella oneidensis MR-1 as a photothermal agent. Enzyme and Microbial Technology, 2016;95():230-235. Enzyme and Microbial Technology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Enzyme and Microbial Technology - www.journals.elsevier.com/enzyme-and-microbial-technology/)

Our news journalists report that additional information may be obtained by contacting H.Q. Yu, China University of Science & Technology, Dept. of Chem, Hefei 230026, People's Republic of China. Additional authors for this research include L.J. Tian, Y.C. Wang, D.B. Li, P.P. Li, X. Zhang and H.Q. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.enzmictec.2016.04.002. This DOI is a link to an online electronic document that is either free or for purchase.
Investigators at Chinese Academy of Medical Sciences Have Reported New Data on Esophageal Cancer (An Interdisciplinary Nutrition Support Team Improves Clinical and Hospitalized Outcomes of Esophageal Cancer Patients with Concurrent ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Esophageal Cancer have been presented. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "The prevalence of malnutrition is very high in patients with cancer. The purpose of this study was to investigate whether or not a nutrition support team (NST) could benefit esophageal cancer patients undergoing chemoradiotherapy (CRT)."

The news correspondents obtained a quote from the research from the Chinese Academy of Medical Sciences, "Between June 2012 and April 2014, 50 esophageal cancer patients undergoing concurrent CRT were randomly assigned into two groups: The NST group and the control group. The nutritional statuses of 25 patients in the NST group were managed by the NST. The other 25 patients in the control group underwent the supervision of radiotherapy practitioners. At the end of the CRT, nutritional status, the incidence of complications, and completion rate of radiotherapy were evaluated. Besides, the length of hospital stay (LOS) and the in-patient cost were also compared between these two groups. At the completion of CRF, the nutritional status in the NST group were much better than those in the control group, as evidenced by prealbumin (ALB), transferrin, and ALB parameters (p=0.001, 0.000, and 0.000, respectively). The complication incidences, including bone marrow suppression (20% vs. 48%, p=0.037) and complications related infections (12% vs. 44%, p=0.012), in the NST group were lower and significantly different from the control group. In addition, only one patient in the NST group did not complete the planned radiotherapy while 6 patients in the control group had interrupted or delayed radiotherapy (96% vs. 76%, p=0.103). Furthermore, the average LOS was decreased by 4.5 days (p=0.001) and in-patient cost was reduced to 1.26 ± 0.75 thousand US dollars person-times (p >0.05) in the NST group. A NST could provide positive effects in esophageal cancer patients during concurrent CRT on maintaining their nutrition status and improving the compliance of CRF."

According to the news reporters, the research concluded: "Moreover, the NST could be helpful on reducing LOS and in-patient costs."

Our news journalists report that additional information may be obtained by contacting L. Yu, Dept. of Comprehensive Oncology, Chinese Academy of Medical Sciences Cancer Hospital, Beijing 100021, People's Republic of China. Additional authors for this research include S.L. Li, G.W. Cheng, J.Y. Liu, C.X. Song, Y.B. Deng, W.H. Shang, D. Yang, X.H. Liu, W.W. Liu, S.Y. Lu and L. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.168963. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Chinese Medical Journal is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Beijing, Oncology, Radiotherapy, Gastroenterology, Esophageal Cancer, Diet and Nutrition, People's Republic of China.

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Oncology - Brain Cancer

Investigators at Chinese Academy of Sciences Describe Findings in Brain Cancer (Dual-Targeting Magnetic PLGA Nanoparticles for Codelivery of Paclitaxel and Curcumin for Brain Tumor Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Brain Cancer have been published. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Chemotherapy is one of the most important strategies for glioma treatment. However, the 'impermeability' of the blood brain barrier (BBB) impedes most chemotherapeutics from entering the brain, thereby rendering very few drugs suitable for glioma therapy, letting alone application of a combination of chemotherapeutics."

Funders for this research include Ministry of Science and Technology of the People's Republic of China, China Postdoctoral Science Foundation, National Natural Science Foundation of China.

Our news editors obtained a quote from the research from the Chinese Academy of Sciences, "Thereby, there is a pressing need to overcome the obstacles. A dual-targeting strategy was developed by a combination of magnetic guidance and transferrin receptor-binding peptide T7-mediated active targeting delivery. The T7-modified magnetic PLGA nanoparticle (NP) system was prepared with co-encapsulation of the hydrophobic magnetic nanoparticles and a combination of drugs (i.e., paclitaxel and curcumin) based on a 'one-pot' process. The combined drugs yielded synergistic effects on inhibition of tumor growth via the mechanisms of apoptosis induction and cell cycle arrest, displaying significantly increased efficacy relative to the single use of each drug. Dual-targeting effects yielded a>10-fold increase in cellular uptake studies and a>5-fold enhancement in brain delivery compared to the nontargeting NPs. For the in vivo studies with an orthotopic glioma model, efficient brain accumulation was observed by using fluorescence imaging, synchrotron radiation X-ray imaging, and MM. Furthermore, the antiglioma treatment efficacy of the delivery system was evaluated. With application of a magnetic field, this system exhibited enhanced treatment efficiency and reduced adverse effects. All mice bearing orthotopic glioma survived, compared to a 62.5% survival rate for the combination group receiving free drugs."
According to the news editors, the research concluded: "This dual-targeting, co-delivery strategy provides a potential method for improving brain drug delivery and antiglioma treatment efficacy."

For more information on this research see: Dual-Targeting Magnetic PLGA Nanoparticles for Codelivery of Paclitaxel and Curcumin for Brain Tumor Therapy. *ACS Applied Materials & Interfaces*, 2016;8(47):32159-32169. ACS Applied Materials & Interfaces can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Applied Materials & Interfaces - www.pubs.acs.org/journal/aamick)

The news editors report that additional information may be obtained by contacting Y.Z. Huang, Chinese Academy Sci, Shanghai Inst Mat Med, Shanghai 201203, People's Republic of China. Additional authors for this research include M. Zhang, F. Zeng, H.Y. Jin, Q. Xu and Y.Z. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b10175. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Emerging Technologies, Drugs and Therapies, Paclitaxel Therapy, Mitotic Inhibitors, Organic Chemicals, Diarylheptanoids, Pharmaceuticals, Antineoplastics, Cycloparaffins, Nanotechnology, Hydrocarbons, Nanoparticle, Brain Cancer, Catechols, Curcumin, Terpenes, Oncology, Alkanes, Taxoids, Gliomas, Chinese Academy of Sciences.

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**Oncology - Breast Cancer**

**Investigators at Chinese Academy of Sciences Describe Findings in Breast Cancer (Dual pH-sensitive micelles with charge-switch for controlling cellular uptake and drug release to treat metastatic breast cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "For successful chemotherapy against metastatic breast cancer, the great efforts are still required for designing drug delivery systems that can be selectively internalized by tumor cells and release the cargo in a controlled manner. In this work, the chemotherapeutic agent paclitaxel (PTX) was loaded with the dual-pH sensitive micelle (DPM), which consisted of a pH-sensitive core, an acid-cleavable anionic shell, and a polyethylene glycol (PEG) corona."

Financial supporters for this research include National Basic Research Program of China, National Natural Science Foundation of China, Youth Innovation Promotion Association of CAS.

Our news journalists obtained a quote from the research from the Chinese Academy of Sciences, "In the slightly acidic environment of tumor tissues, the anionic shell was taken off, inducing the conversion of the surface charge of DPM from negative to positive, which resulted in more efficient cellular uptake, stronger cytotoxicity and higher intra-tumor accumulation of
PTX in the murine breast cancer 4T1 tumor-bearing mice models compared to the micelles with irremovable anionic or non-ionic shell. Meanwhile, the pH-sensitive core endowed DPM with rapid drug release in endo/lysosomes. The inhibitory rates of DPM against tumor growth and lung metastasis achieved 77.7% and 88.3%, respectively, without significant toxicity.

According to the news editors, the research concluded: "Therefore, DPM is a promising nanocarrier for effective therapy of metastatic breast cancer due to satisfying the requirements of both selective uptake by tumor cells and sufficient and fast intracellular drug release."


Our news journalists report that additional information may be obtained by contacting Q. Yin, Chinese Academy Sci, Shanghai Inst Mat Med, Center Pharmaceut, State Key Lab Drug Res, Shanghai 201203, People's Republic of China. Additional authors for this research include Q.S. Meng, H.P. Sun, J.H. Su, Q. Yin, Z.W. Zhang, H.J. Yu, L.L. Chen, W.W. Gu and Y.P. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.06.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Cancer, Drugs and Therapies, Women's Health, Breast Cancer, Oncology, Chinese Academy of Sciences.

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**Proteomics**

**Investigators at Chinese Academy of Sciences Describe Findings in Proteomics [Brain quantitative proteomic responses reveal new insight of benzotriazole neurotoxicity in female Chinese rare minnow (Gobiocypris rarus)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Proteomics is the subject of a report. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Benzotriazole (BT) is a high-production volume chemical which has been ubiquitously detected in aquatic environments. Although adverse effects from acute and chronic exposure to BT have been reported, the neurotoxic effect of BT and the mechanisms of toxicity are not well documented."

Funders for this research include National Natural Science Foundation of China, Key Program of the National Natural Science Foundation of China, Natural Science Foundation of Inner Mongolia Autonomous Region of China, Major International Joint Research Project of the National Natural Science Foundation of China.

The news reporters obtained a quote from the research from the Chinese Academy of Sciences, "In this study, adult female Chinese rare minnow (Gobiocypris rarus) were exposed to
0.05, 0.5, and 5 mg/L BT for 28 days. The brain proteome showed that BT exposure mainly involved in metabolic process, signal transduction, stress response, cytoskeleton, and transport. Pathway analysis revealed that cellular processes affected by BT included cellular respiration, G-protein signal cascades, Ca2+-dependent signaling, cell cycle and apoptosis. Moreover, data on relative mRNA levels demonstrated that genes related to these toxic pathways were also significantly affected by BT. Furthermore, proteins affected by BT such as CKBB, GS, HPCA, VDAC1, and FLOT1A are associated with neurological disorders.

According to the news reporters, the research concluded: "Therefore, our finding suggested that BT induced molecular responses in the brain and could provide new insight into BT neurotoxicity in Chinese rare minnow."

For more information on this research see: Brain quantitative proteomic responses reveal new insight of benzotriazole neurotoxicity in female Chinese rare minnow (Gobiocypris rarus). *Aquatic Toxicology*, 2016;181():67-75. *Aquatic Toxicology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Aquatic Toxicology - www.journals.elsevier.com/aquatic-toxicology/)

Our news correspondents report that additional information may be obtained by contacting J.M. Zha, Chinese Academy Sci, Beijing Key Lab Ind Wastewater Treatment & Reuse, Res Center Ecoenvironm Sci. Beijing 100085, People's Republic of China. Additional authors for this research include C.J. Martyniuk, J.M. Zha and Z.J. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.aquatox.2016.10.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Proteomics, Genetics, Chinese Academy of Sciences.

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**Adenomas**

**Investigators at Chinese People's Liberation Army General Hospital Detail Findings in Adenomas (Clinical characteristics of PRKACA mutations in Chinese patients with adrenal lesions: a single-centre study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Adenomas have been presented. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "ContextRecent studies have identified that the somatic PRKACA L206R mutation can cause cortisol-producing adenomas (CPAs). This study investigated the prevalence and characteristics of PRKACA, GNAS and CTNNB1 mutations in adrenal lesions in patients from a single centre in China."

Financial support for this research came from Natural Science Foundation of Hainan Province.

The news reporters obtained a quote from the research from Chinese People's Liberation Army General Hospital, "Patients and MeasurementsWe sequenced PRKACA, GNAS and CTNNB1 genes in 108 patients, including 60 patients with CPAs (57 with unilateral and three with bilateral adenomas), 13 with nonfunctional adenomas, 12 with adrenocortical..."
carcinomas (ACCs), 15 with primary bilateral macronodular hyperplasia (PBMAH) and eight with aldosterone and cortisol cosecreting adenomas. Mutations in PRKACA, GNAS and CTNNB1 were examined, and clinical characteristics were compared. Results Among the unilateral CPAs, we identified somatic mutations in PRKACA (L206R) in 23 cases (40%), GNAS (R201C and R201H) in six cases (10%), CTNNB1 (S45C, L46P and S45P) in six cases (10%) and CTNNB1 plus GNAS in two cases (3%). PRKACA and GNAS mutations were mutually exclusive. Among the patients with nonfunctional adenoma, two carried CTNNB1 mutations. Among the patients with ACC, two carried GNAS and CTNNB1 mutations but none carried PRKACA mutations. One patient showed bilateral CPA, and one PBMAH patient carried PRKACA mutations. No mutations in PRKACA, GNAS or CTNNB1 were identified in the eight patients with aldosterone and cortisol cosecreting adenomas. PRKACA-mutant adenomas were associated with young age, overt Cushing's syndrome and high cortisol levels compared with non-PRKACA-mutant or CTNNB1-mutant lesions. Conclusions PRKACA mutations are present in CPAs and bilateral adrenal macronodular hyperplasias."

According to the news reporters, the research concluded: "PRKACA mutation is associated with more severe autonomous cortisol secretion."


Our news correspondents report that additional information may be obtained by contacting X. Zhang, Chinese Peoples Liberat Army Gen Hosp, Chinese PLA Med Academy, Dept. of Urol, State Key Lab Kidney Dis, Beijing, People's Republic of China. Additional authors for this research include B.J. Wang, L. Tang, B. Lang, Y. Zhang, F. Zhang, L.Y. Chen, J.Z. Ouyang and X. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cen.13134. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, 11-Hydroxycorticosteroids, Adrenal Cortex Hormones, Endocrinology, Aldosterone, Adenomas, Genetics, Chinese People's Liberation Army General Hospital.

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Cardiovascular Diseases and Conditions - Thrombosis

Investigators at Chinese People's Liberation Army General Hospital Detail Findings in Thrombosis (Impact of acute kidney injury on coagulation in adult minimal change nephropathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Thrombosis is the subject of a report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "A hypercoagulable state exists in patients with nephrotic syndrome (NS), which more easily leads to venous thromboembolism (VTE)."
However, whether acute kidney injury (AKI), a common complication of NS, affects the hypercoagulable state and VTE has rarely been elucidated.

The news correspondents obtained a quote from the research from Chinese People's Liberation Army General Hospital, "In this study, we aimed to explore coagulation changes and analyze relevant influencing factors in NS-AKI patients. A total of 269 consecutive NS patients with minimal change disease (MCD) between 2011 and 2016 were included in this observational study. Ninety-one cases were in the AKI group and 178 cases in the non-AKI group. The 1:1 propensity score matching (PSM) method was applied to match the baseline information. The coagulation biomarkers were compared, and the thrombosis events were recorded. Linear correlation was performed to detect any relation between D-dimer and clinical data. The PSM method gave matched pairs of 88 MCD patients with AKI and non-AKI patients, resulting in no differences in baseline information. The D-dimer, fibrinogen, and thromboelastography parameters maximum amplitude (MA), G values of the MCD-AKI patients were significantly higher than the levels of the MCD patients without AKI (D-dimer: 1.8 [1.0, 3.3] vs 1.1 [0.6, 1.7] mg/L, P< 0.001; fibrinogen: 7.0 +/- 2.0 vs 6.5 +/- 1.4 g/L, P= 0.036; MA: 74.6 +/- 5.0 vs 70.5 +/- 5.3mm, P=0.020; G: 15.7 +/- 5.3 vs 12.5 +/- 3.3, P=0.034). For the MCD patients, the serum creatinine, white blood cell count, and interleukin-6 levels in the patients with D-dimers > 1mg/L were significantly higher than those of patients with D-dimers <= 1mg/L. The correlation analysis showed that the D-dimer level was correlated with serum creatinine, white blood cell count, and interleukin-6 (r=0.410, P= <0.001; r=0.248, P= < 0.001; r=0.306, P= < 0.001, respectively). Five deep vein thrombosis events occurred in the AKI group and 1 pulmonary embolism event occurred in the non-AKI group after adjusting the propensity score value. AKI appeared to have an association with higher incidence of VTE, but the difference was not statistically significant (RR: 4.9, 95% CI: 0.6-42.7, P=0.154)."

According to the news reporters, the research concluded: "The MCD-NS patients complicated with AKI had a more severe hypercoagulable state, which might be associated with the active inflammation of AKI that mediated activation of the coagulation system."

For more information on this research see: Impact of acute kidney injury on coagulation in adult minimal change nephropathy. Medicine, 2016;95(46):254-259. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting R.B. Wei, Chinese Peoples Liberat Army Gen Hosp, Dept. of Nephrol, Chinese PLA Inst Nephrol, State Key Lab Kidney DisNatl Clin Res Center Kidney, Beijing, People's Republic of China. Additional authors for this research include R.B. Wei, T.Y. Su, Y. Wang, Q.P. Li, X. Yang, X.M. Lv and X.M. Chen.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Acute Kidney Injury, Nephropathy, Nephrology, Hematology, Chinese People's Liberation Army General Hospital.

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Investigators at Chinese University of Hong Kong Describe Findings in Thrombolysis (Good collateral circulation predicts favorable outcomes in intravenous thrombolysis: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Thrombolysis. According to news reporting originating from Hong Kong, People's Republic of China, by NewsRx correspondents, research stated, "Background and purpose Baseline collateral status has been correlated with outcomes of acute ischaemic stroke patients receiving intravenous thrombolysis (IVT) in previous studies. We carried out the current systematic review and meta-analysis to synthesize currently available evidence regarding such correlations."

Funders for this research include Chinese University of Hong Kong, Institute of Innovative Medicine.

Our news editors obtained a quote from the research from the Chinese University of Hong Kong, "Methods Full-text articles published since 2000 were retrieved and screened. The overall effect sizes of good versus poor collateral status over a series of outcomes and certain baseline features were estimated by random-effects models and presented in risk ratios (RRs) or mean differences. Results Overall, 28 (3057 patients) and 14 (1584 patients) studies were included in qualitative and quantitative synthesis, respectively. Compared with poor pre-treatment collateral status, good collaterals showed a beneficial effect over the primary outcome of a favorable functional outcome at 3 or 6 months [RR, 2.45; 95% confidence interval, 1.94-3.09; P<0.001] in acute ischaemic stroke patients receiving IVT treatment. However, such an effect tended to be different between studies with prescribed time windows of 3, 4.5 and >4.5h (up to 7h), with the RRs being 2.21, 2.48 and 5.00, respectively (I-2=53%). Good pre-treatment collaterals were also associated with a smaller infarct size at baseline, and a lower rate of symptomatic intracranial hemorrhage and a higher rate of neurological improvement early after IVT treatment."

According to the news editors, the research concluded: "Conclusions The present study has demonstrated the prognostic value of baseline collateral circulation for outcomes of acute ischaemic stroke patients receiving intravenous reperfusion therapies, studied with different time windows of up to 7h after ictus for IVT therapy."


The news editors report that additional information may be obtained by contacting K.S. Wong, Chinese University of Hong Kong, Dept. of Med & Therapeut, Hong Kong, Hong Kong, People's Republic of China. Additional authors for this research include L. Lan, L. Liu, T.W. Leung and K.S. Wong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.13111. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hong Kong, People's Republic of China,
Investigators at Chongqing Medical University Report Findings in Breast Cancer (Association of MTDH immunohistochemical expression with metastasis and prognosis in female reproduction malignancies: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "Various literatures have demonstrated that overexpression of Metadherin (MTDH) is correlated with tumor metastasis and it can predict poor survival outcomes in female reproduction malignancies. In order to enhance the statistical power and reach a recognized conclusion, we conducted a systematic review and meta-analysis to thoroughly investigate the association of MTDH expression with tumor metastasis and survival outcomes following PRISMA guidelines."

Our news editors obtained a quote from the research from Chongqing Medical University, "Odds ratios (ORs) and hazard ratios (HRs) were used to demonstrate the impact of MTDH on tumor metastasis and prognosis respectively. Data were pooled with appropriate effects model on STATA12.0. Our results indicated that high MTDH expression is significantly correlated with higher mortality for breast, ovarian and cervical cancer. High immunohistochemical expression of MTDH is remarkably associated with shorter disease-free survival (DFS) in breast cancer but not in ovarian cancer. The pooled results suggested that high level of MTDH significantly predicted distant metastasis and lymph node metastasis in breast cancer. Strong associations were observed between MTDH expression and lymph node metastasis in ovarian and cervical cancer."

According to the news editors, the research concluded: "MTDH might be a novel biomarker which can effectively reflect metastasis status and prognosis of breast cancer. However, its application in clinical practice needs more prospective studies with large samples."


Keywords for this news article include: Chongqing, People's Republic of China, Asia, Women's Health, Breast Cancer, Oncology, Chongqing Medical University.

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Investigators at Chosun University Describe Findings in Thrombosis (Histologic features of acute thrombi retrieved from stroke patients during mechanical reperfusion therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Thrombosis. According to news reporting originating from Gwangju, South Korea, by NewsRx correspondents, research stated, "The histologic features of thrombus may differ according to the stroke subtypes. However, in acute reperfusion therapy, fibrin-specific thrombolytics are used based on the assumption that all thrombi are alike."

Our news editors obtained a quote from the research from Chosun University, "The histologic characteristics of thrombi were compared between patients with different stroke etiologies. Between April 2010 and March 2012, we analyzed thrombi retrieved from acute stroke patients during mechanical thrombectomy. All thrombi were analyzed using component-specific stains such as Martius scarlet blue for fibrins and immunostaining with CD42b antibody for platelets. The stroke subtypes were determined based on the Trial of ORG 10172 in Acute Stroke Treatment classification. Among 36 patients, 22 were diagnosed with cardioembolism, 8 with atherothrombosis, and 6 with undetermined etiology. In arteriogenic thrombi, red blood cells were most abundant (56.9 +/- 12.2%), and the platelets covered the fibrin layers or were localized at the edge or periphery of the thrombus. In cardiogenic thrombi, fibrin was most abundant (39.5 +/- 13.5%), and platelets were clustered within the rich fibrin. Red blood cells proportion was greater in arteriogenic thrombi than in cardiogenic thrombi (p < 0.001), whereas fibrin proportion was greater in cardiogenic thrombi than in arteriogenic thrombi (p = 0.003). Of six patients with undetermined etiology, the thrombi in five showed histologic features and composition similar to that of cardiogenic thrombi. Acute thrombi showed different histologic features according to the stroke etiology."

According to the news editors, the research concluded: "The distribution of platelets and proportion of red blood cells and fibrin were major distinguishing factors between stroke subtypes."


The news editors report that additional information may be obtained by contacting S.H. Ahn, Chosun Univ, Dept. of Neurol, Sch Med, Gwangju 61453, South Korea. Additional authors for this research include R. Hong, I.S. Choo, J.H. Heo, H.S. Nam, H.G. Kang, H.W. Kim and J.H. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1747493016641965. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gwangju, South Korea, Asia,
Investigators at Chung Ang University Report Findings in Colon Cancer (Choroidal and skin metastases from colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Choroidal and skin metastasis of colon cancer is rare. In women, the frequency of cutaneous metastasis from colon cancer as the primary lesion in is 9% and skin metastasis occurs in 0.81% of all colorectal cancers."

Our news journalists obtained a quote from the research from Chung Ang University, "We report a patient with colonic adenocarcinoma who presented with visual disorder in her right eye and scalp pain as her initial symptoms. Contrast-enhance orbital magnetic resonance imaging with fat suppression revealed an infrabulbar mass, and skin biopsy of the posterior parietal scalp confirmed adenocarcinoma. These symptoms were diagnosed as being caused by choroidal and skin metastases of colonic adenocarcinoma. We started palliative chemotherapy with oral capecitabine (1000 mg/m(2), twice a day, on days 1-14) every 3 wk, which was effective at shrinking the brain masses and improving the visual disorder."

According to the news editors, the research concluded: "This is the first report that capecitabine is effective at reducing a choroidal and cutaneous metastatic lesion from right-sided colorectal cancer."


Our news journalists report that additional information may be obtained by contacting I.G. Hwang, Chung Ang University, Div Hematooncol, Dept. of Internal Med, Coll Med, Seoul 156861, South Korea. Additional authors for this research include E.H. Oh, M.K. Jung, S.E. Park, J.T. Kim and I.G. Hwang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i43.9650. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Colorectal Research, Gastroenterology, Adenocarcinoma, Colon Cancer, Oncology, Chung Ang University.

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Investigators at City of Hope National Medical Center Report Findings in Colon Cancer (Oncolytic herpes simplex virus kills stem-like tumor-initiating colon cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Colon Cancer is the subject of a report. According to news originating from Duarte, California, by NewsRx correspondents, research stated, "Stem-like tumor-initiating cells (TICs) are implicated in cancer progression and recurrence, and can be identified by sphere-formation and tumorigenicity assays. Oncolytic viruses infect, replicate in, and kill a variety of cancer cells."

Our news journalists obtained a quote from the research from the City of Hope National Medical Center, "In this study, we seek proof of principle that TICs are susceptible to viral infection. HCT8 human colon cancer cells were subjected to serum-free culture to generate TIC tumorspheres. Parent cells and TICs were infected with HSV-1 subtype NV1066. Cytotoxicity, viral replication, and Akt1 expression were assessed. TIC tumorigenicity was confirmed and NV1066 efficacy was assessed in vivo. NV1066 infection was highly cytotoxic to both parent HCT8 cells and TICs. In both populations, cell-kill of > 80% was achieved within 3 days of infection at a multiplicity of infection (MOI) of 1.0. However, the parent cells required 2-log greater viral replication to achieve the same cytotoxicity. TICs overexpressed Akt1 in vitro and formed flank tumors from as little as 100 cells, growing earlier, faster, larger, and with greater histologic atypia than tumors from parent cells. Treatment of TIC-induced tumors with NV1066 yielded tumor regression and slowed tumor growth."

According to the news editors, the research concluded: "We conclude that colon TICs are selected for by serum-free culture, overexpress Akt1, and are susceptible to oncolytic viral infection."

For more information on this research see: Oncolytic herpes simplex virus kills stem-like tumor-initiating colon cancer cells. Molecular Therapy-Oncolytics, 2016;3():1-9. Molecular Therapy-Oncolytics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

The news correspondents report that additional information may be obtained from S.G. Warner, City Hope Natl Med Center, Dept. of Surg, Duarte, CA 91010, United States. Additional authors for this research include D. Haddad, J. Au, J.S. Carson, M.P. O'Leary, C. Lewis, S. Monette and Y.M. Fong.

Keywords for this news article include: Duarte, California, United States, North and Central America, Herpesvirus Diseases and Conditions, Viral Skin Diseases and Conditions, Herpes Simplex Virus, Colon Cancer, Oncology, City of Hope National Medical Center.

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Investigators at Cleveland Clinic Describe Findings in Connective Tissue Cells (In vitro chondrocyte toxicity following long-term, high-dose exposure to Gd-DTPA and a novel cartilage-targeted MR contrast agent)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Connective Tissue Cells have been published. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "To determine the concentrations exhibiting toxicity of a cartilage-targeted magnetic resonance imaging contrast agent compared with gadopentetate dimeglumine (Gd-DTPA) in chondrocyte cultures. A long-term Swarm rat chondrosarcoma chondrocyte-like cell line was exposed for 48 h to 1.0-20 mM concentrations of dianinobutyl-linked nitroxide (DAB4-DLN) citrate, 1.0-20 mM Gd-DTPA, 1.0 mu M staurosporine (positive control), or left untreated."

Financial support for this research came from No outside funding source.

The news reporters obtained a quote from the research from Cleveland Clinic, "Cell appearance, 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assays of metabolic activity, quantitative PicoGreen assays of DNA content, and calcein-AM viability assays were compared. At 1.0-7.5 mM, minimal decrease in cell proliferation was found for both agents. At all doses of both agents, cell culture appearances were similar after 24 h of treatment. At the higher doses, differences in cell culture appearance were found after 48 h of treatment, with dose-dependent declines in chondrocyte populations for both agents. Concentration-dependent declines in DNA content and calcein fluorescence were found after 48 h of treatment, but beginning at a lower dose of DAB4-DLN citrate than Gd-DTPA. Dose-dependent decreases in MTT staining (cell metabolism) were apparent for both agents, but larger effects were evident at a lower dose for DAB-DLN citrate. Poor MTT staining of cells exposed for 48 h to 20 mM DAB4-DLN citrate probably indicates dead or dying cells. The minimal effect of the long-term exposure of model chondrocyte cell cultures to DAB4-DLN citrate and Gd-DTPA concentrations up to 7.5 mM (3x typical arthrographic administration) is supporting evidence that these doses are acceptable for MR arthrography."

According to the news reporters, the research concluded: "The findings are reassuring given that the experimental exposure to the contrast agents at sustained concentrations was much longer than when used clinically."

For more information on this research see: In vitro chondrocyte toxicity following long-term, high-dose exposure to Gd-DTPA and a novel cartilage-targeted MR contrast agent. Skeletal Radiology, 2017;46(1):23-33. Skeletal Radiology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Skeletal Radiology - www.springerlink.com/content/0364-2348/)

Our news correspondents report that additional information may be obtained by contacting C.S. Winalski, Cleveland Clinic, Imaging Inst, Cleveland, OH 44195, United States. Additional authors for this research include E. Schneider, G.M. Rosen, C.S. Winalski and R.J. Midura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00256-016-2502-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and
Central America, Connective Tissue Cells, Chondrocytes, Genetics, Cleveland Clinic.

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Heart Disorders and Diseases - Pericarditis

Investigators at Cleveland Clinic Detail Findings in Pericarditis (Complicated Pericarditis Understanding Risk Factors and Pathophysiology to Inform Imaging and Treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Pericarditis. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "Most patients with acute pericarditis have a benign course and a good prognosis. However, a minority of patients develop complicated pericarditis, and the care of these patients is the focus of this review."

The news reporters obtained a quote from the research from Cleveland Clinic, "Specifically, we address risk factors, multimodality imaging, pathophysiology, and novel treatments. The authors conclude that: 1) early high-dose corticosteroids, a lack of colchicine, and an elevated high-sensitivity C-reactive protein are associated with the development of complicated pericarditis; 2) in select cases, cardiovascular magnetic resonance imaging may aid in the assessment of pericardial inflammation and constriction; 3) given phenotypic similarities between recurrent idiopathic pericarditis and periodic fever syndromes, disorders of the inflammasome may contribute to relapsing attacks; and 4) therapies that target the inflammasome may lead to more durable remission and resolution."

According to the news reporters, the research concluded: "Finally, regarding future investigations, the authors discuss the potential of cardiovascular magnetic resonance to inform treatment duration and the need to compare steroid-sparing treatments to pericardiectomy."

For more information on this research see: Complicated Pericarditis Understanding Risk Factors and Pathophysiology to Inform Imaging and Treatment. Journal of the American College of Cardiology, 2016;68(21):2311-2328. Journal of the American College of Cardiology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.

Our news correspondents report that additional information may be obtained by contacting A.L. Klein, Cleveland Clinic, Dept. of Cardiovasc Imaging, Center Diag & Treatment Pericardial Dis, Inst Heart & Vasc, Cleveland, OH 44195, United States. Additional authors for this research include A. Kumar, A. Kontzias, C.D. Tan, E.R. Rodriguez, M. Imazio and A.L. Klein.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiology, Article Review, Risk and Prevention, Heart Disease, Pericarditis, Cleveland Clinic.

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InVESTIGATORS AT CLEVELAND CLINIC REPORT FINDINGS IN CHEMOTHERAPY
(NUSE ADHERENCE TO SAFE-HANDLING PRACTICES: OBSERVATION VERSUS SELF-ASSessment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Chemotherapy have been published. According to news reporting originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Chemotherapy medications place nurses at risk for occupational exposure, a primary nursing safety concern. No literature was available on adherence to following chemotherapy handling practices and nurses' perceptions of safe-handling practices."

Our news editors obtained a quote from the research from Cleveland Clinic, "The aims of the pilot study were to examine actual and subjective ambulatory oncology nurse adherence to chemotherapy safe-handling guideline recommendations that prevent chemotherapy exposure. A prospective, comparative mixed-methods study was used to compare objective and subjective nurse behaviors of expected safe chemotherapy handling-specifically, micro-ethnography and questionnaires. Fisher's exact test was used to assess differences in the rates of observations and questionnaire responses. Twenty-two cases of chemotherapy handling were observed, and 12 of 33 nurses completed self-assessments. Of observed practices, nurses completed three behaviors 100% of the time (disposing of gloves in a chemotherapy-approved container after initiating chemotherapy, discarding the chemotherapy bag and tubing after disconnecting chemotherapy infusions, and washing hands after chemotherapy was administered). When objective and subjective behavior adherence were compared, three behaviors were carried out with greater frequency than what nurses perceived on questionnaires (double gloving and gowning when disconnecting chemotherapy and properly discarding chemotherapy)."

According to the news editors, the research concluded: "Two behaviors were carried out with less frequency than nurses provided on questionnaires (double gloving and protecting work surfaces during administration)."


The news editors report that additional information may be obtained by contacting C.M. Colvin, Cleveland Clinic, Off Educ & Profess Practice, Cleveland, OH 44106, United States. Additional authors for this research include D. Karius and N.M. Albert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1188/16.CJON.617-622. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Drugs and Therapies, Chemotherapy, Cleveland Clinic.

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Cyclohexanes

Investigators at Clinical Neurosciences Division Detail Findings in Cyclohexanes (Ketamine's Mechanism Of Action: A Path To Rapid-acting Antidepressants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cyclohexanes are presented in a new report. According to news originating from West Haven, Connecticut, by NewsRx correspondents, research stated, "Major depressive disorder (MDD) is a common and debilitating psychiatric disorder. Traditional antidepressants are of limited efficacy and take weeks to months to yield full therapeutic effects."

Our news journalists obtained a quote from the research from Clinical Neurosciences Division, "Thus, there is a clear need for effective rapid-acting antidepressant medications. The N-methyl-D-aspartate receptor (NMDA-R) antagonist, ketamine, has received a great deal of attention over the last 20 years due to the discovery that a single subanesthetic dose leads to a rapid antidepressant effect in individuals with treatment-resistant depression. Animal and human research suggest that ketamine's antidepressant effects are mediated by a glutamate surge that leads to a cascade of events that result in synaptogenesis and reversal of the negative effects of chronic stress and depression, particularly within the prefrontal cortex (PFC). Preclinical and clinical data have provided compelling insights into the mechanisms underlying the rapid-acting antidepressant effects of ketamine. This review discusses stress-related neurobiology of depression and the safety, tolerability, and efficacy of ketamine for MDD, along with a review of ketamine's mechanism of action and prospective predictors of treatment response."

According to the news editors, the research concluded: "Research limitations and future clinical prospects are also discussed."


The news correspondents report that additional information may be obtained from C.G. Abdallah, Vet Affairs Connecticut Healthcare Syst, Clin Neurosci Div, Dept. of Vet Affairs, Natl Center Posttraumat Stress Disorder, West Haven, CT, United States. Additional authors for this research include T.G. Adams, B. Kelmendi, I. Esterlis, G. Sanacora and J.H. Krystal.

Keywords for this news article include: West Haven, Connecticut, United States, North and Central America, Drugs and Therapies, Article Review, Central Nervous System Agents, General Anesthetics, Hydrocarbons, Cyclohexanes, Ketamine, Clinical Neurosciences Division.

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Investigators at Clinical Research Institute Report Findings in Abdominal Obesity (Time-dependent Changes of Atherosclerotic LDL Complexes after Smoking Cessation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Abdominal Obesity have been published. According to news originating from Kyoto, Japan, by NewsRx correspondents, research stated, "The alpha-1-antitrypsin-low-density lipoprotein complex (AT-LDL) and serum amyloid A-LDL complex (SAA-LDL) are oxidatively modified LDL complexes that promote atherosclerosis. The serum levels of AT-LDL and SAA-LDL are suggested to be increased by obesity and smoking."

Our news journalists obtained a quote from the research from Clinical Research Institute, "We have previously demonstrated that larger weight gain after smoking cessation (SC) perturbs a decrease in the serum level of AT-LDL at 3 months after SC. However, changes of these atherosclerotic makers > 3 months after SC are unknown. This study investigated post-SC time-dependent changes in two atherogenic lipoproteins, AT-LDL and SAA-LDL, and in the extent of abdominal obesity. In 50 outpatients who had continued SC for 1 year, we measured serum AT-LDL and SAA-LDL levels by the enzyme-linked immunosorbent assay before SC, and at 3 months and 1 year after SC. Both body mass index and waist circumstance significantly increased from pre-SC to 3 months after SC and from 3 months after SC to 1 year after SC. Although the serum levels of AT-LDL and SAA-LDL were unchanged from pre-SC to 3 months after SC, these levels decreased significantly from 3 months after SC to 1 year after SC. The extent of abdominal obesity and levels of two atherogenic lipoproteins time-dependently change after SC."

According to the news editors, the research concluded: "Although abdominal obesity progressively worsened after SC, the beneficial effect of non-smoking overcomes the potential vascular risks by cessation-associated obesity at 1 year after SC."


The news correspondents report that additional information may be obtained from K. Hasegawa, National Hospital Organization, Kyoto Med Center, Clin Res Inst, Kyoto, Japan. Additional authors for this research include S. Shimada, H. Wada, H. Yamakage, N. Satoh-Asahara, A. Shimatsu, M. Akao, T. Morimoto, Y. Takahashi and K. Hasegawa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5551/jat.34280. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kyoto, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Abdominal Obesity, Atherosclerosis, Overnutrition, Lipoproteins, Cardiology, Bariatrics, Lipids, Clinical Research Institute.

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Investigators at Creighton University Report Findings in Proteus mirabilis (IMP-27, a Unique Metallo-beta-Lactamase Identified in Geographically Distinct Isolates of Proteus mirabilis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Proteus mirabilis have been published. According to news reporting out of Omaha, Nebraska, by NewsRx editors, research stated, "A novel metallo-beta-lactamase gene, blaIMP-27, was identified in unrelated Proteus mirabilis isolates from two geographically distinct locations in the United States."

Our news journalists obtained a quote from the research from Creighton University, "Both isolates harbor blaIMP-27 as part of the first gene cassette in a class 2 integron. Antimicrobial susceptibility testing indicated susceptibility to aztreonam, piperacillin-tazobactam, and ceftazidime but resistance to ertapenem."

According to the news editors, the research concluded: "However, hydrolysis assays indicated that ceftazidime was a substrate for IMP-27."


Our news journalists report that additional information may be obtained by contacting N.D. Hanson, Creighton University, Sch Med, Center Res Antiinfect & Biotechnol, Dept. of Med Microbiol & Immunol, Omaha, NE 68102, United States. Additional authors for this research include R.C. Fowler, A. Yoshizumi, T. Horiyama, Y. Ishii, L. Harrison, C.N. Geyer, E.S. Moland, K. Thomson and N.D. Hanson.

Keywords for this news article include: Omaha, Nebraska, United States, North and Central America, Gram-Negative Bacteria, Enzymes and Coenzymes, Enterobacteriaceae, Proteus mirabilis, Sulfur Compounds, beta-Lactamases, Amidohydrolases, Proteobacteria, beta-Lactams, Creighton University.

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Sexually Transmitted Diseases and Conditions…

Investigators at Creighton University School of Medicine Target Syphilis (The continuing threat of syphilis in pregnancy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Sexually Transmitted Diseases and Conditions (STDs) - Syphilis is the subject of a report. According to news originating from Omaha, Nebraska, by NewsRx correspondents, research stated, "Syphilis in pregnancy continues to be a worldwide threat to mothers and their fetuses, and in recent years has been increasing in prevalence. The purpose of this short review is to address current issues in the diagnosis and management of syphilis complicating pregnancies."
Our news journalists obtained a quote from the research from the Creighton University School of Medicine, "Maternal syphilis infections and congenital syphilis appear to be increasing in both high and low resource settings. Treponema pallidum ssp. pallidum, the causative spirochete of syphilis, remains one of the few human infectious pathogens that has not been successfully cultured, making identification difficult and research in targeted antimicrobial therapies challenging. Fortunately, syphilis remains sensitive to penicillin, which remains the foundational therapy for this infection. Patients with syphilis and significant penicillin allergies remain a specific challenge in treatment. Of concern is the emergence of T. pallidum resistant to macrolides such as azithromycin. This will limit options in patients with penicillin allergies, and potentially contribute to suboptimal treatment. During pregnancy, penicillin is the only known effective treatment for congenital syphilis, and pregnant patients with penicillin allergy should be desensitized and treated with penicillin. Research focusing on protein expression of the genome of T. pallidum may lead to more accurate screening and diagnosis and development of novel antibiotic therapies. Obstetric and pediatric providers, public health organizations, and governments should recognize the re-emergence of syphilis globally and in their local healthcare environments."

According to the news editors, the research concluded: "Screening of all pregnant patients with robust treatment and follow-up represents the most effective method to reduce congenital syphilis currently available."

For more information on this research see: The continuing threat of syphilis in pregnancy. Current Opinion In Obstetrics & Gynecology, 2016;28(2):101-4. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Obstetrics & Gynecology - journals.lww.com/co-obgyn/pages/default.aspx)

The news correspondents report that additional information may be obtained from H.R. Moline, Dept. of Obstetrics and Gynecology, Creighton University School of Medicine, Omaha, Nebraska, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/GCO.0000000000000258. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiinfectives, Pharmaceuticals, Omaha, Nebraska, Genetics, beta Lactams, United States, Article Review, Congenital Syphilis, Drugs and Therapies, Natural Penicillins, North and Central America, Penicillin Therapy G Potassium, Congenital Diseases and Conditions, Sexually Transmitted Diseases and Conditions (STDs).

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**Investigators at Dalian University of Technology Target Chemical Biology and Drug Design (Mechanism of Mcl-1 Conformational Regulation Upon Small Molecule Binding Revealed by Molecular Dynamic Simulation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Chemical Biology and Drug Design are discussed in a new report. According to news originating from Dalian, People's Republic of China, by NewsRx correspondents, research stated, "Inhibition of interactions
between Mcl-1 and proapoptotic proteins is considered to be a therapeutic strategy to induce apoptosis in cancer cells. Here, we adopted molecular dynamics simulation with molecular mechanics-Poisson Boltzmann/surface area method (MM-PB/SA) to study the inhibition mechanism of three Mcl-1 inhibitors, compounds 1, 2, and 3.

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from the Dalian University of Technology, "Analysis of energy components shows that the better binding free energy of compound 3 than compounds 1 and 2 is attributable to the van der Waals energy (DEvdw) and non-polar solvation energy (DGnp) upon binding. In addition to the excellent agreement with previous experimentally determined affinities, our simulation results further show a bend of helix 4 on Mcl-1 upon compound 3 binding, which is driven by hydrophobic interaction with residue Val(253), leading to a narrowed BH3-binding groove to impede Puma(BH)(3) binding. The computational result is consistent with our competitive isothermal titration calorimetry (ITC) assays, which shows that the competitive ability of compound 3 toward Mcl-1/Puma(BH)(3) complex is improved beyond its direct binding affinity toward Mcl-1 itself, and compound 3 exhibits much more efficiency to compete with Puma(BH)(3) than compound 2."

According to the news editors, the research concluded: "Our study provides a new strategy to improve inhibitory activity on Mcl-1 based on the conformational dynamic change."


The news correspondents report that additional information may be obtained from A. Wang, State Key Laboratory of Fine Chemicals, School of Chemistry, Dalian University of Technology, Dalian, 116024, People's Republic of China. Additional authors for this research include T. Song, Z. Wang, Y. Liu, Y. Fan, Y. Zhang and Z. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12679. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal Chemical Biology & Drug Design is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Dalian, Drugs and Therapies, People's Republic of China, Chemical Biology and Drug Design.

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**Cardiovascular Diseases and Conditions**

**Investigators at Dandenong Hospital Release New Data on Hypotension (Calcium channel antagonist and beta-blocker overdose: antidotes and adjunct therapies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions -
Hypotension have been published. According to news reporting originating in Dandenong, Australia, by NewsRx journalists, research stated, "Management of cardiovascular instability resulting from calcium channel antagonist (CCB) or beta-adrenergic receptor antagonist (BB) poisoning follows similar principles. Significant myocardial depression, bradycardia and hypotension result in both cases."

The news reporters obtained a quote from the research from Dandenong Hospital, "CCBs can also produce vasodilatory shock. Additionally, CCBs, such as verapamil and diltiazem, are commonly ingested in sustained-release formulations. This can also be the case for some BBs. Peak toxicity can be delayed by several hours. Provision of early gastrointestinal decontamination with activated charcoal and whole-bowel irrigation might mitigate this. Treatment of shock requires a multimodal approach to inotropic therapy that can be guided by echocardiographic or invasive haemodynamic assessment of myocardial function. High-dose insulin euglycaemia is commonly recommended as a first-line treatment in these poisonings, to improve myocardial contractility, and should be instituted early when myocardial dysfunction is suspected. Catecholamine infusions are complementary to this therapy for both inotropic and chronotropic support. Catecholamine vasopressors and vasopressin are used in the treatment of vasodilatory shock. Optimizing serum calcium concentration can confer some benefit to improving myocardial function and vascular tone after CCB poisoning. High-dose glucagon infusions have provided moderate chronotropic and inotropic benefits in BB poisoning. Phosphodiesterase inhibitors and levosimendan have positive inotropic effects but also produce peripheral vasodilation, which can limit blood pressure improvement. In cases of severe cardiogenic shock and/or cardiac arrest post-poisoning, extracorporeal cardiac assist devices have resulted in successful recovery."

According to the news reporters, the research concluded: "Other treatments used in refractory hypotension include intravenous lipid emulsion for lipophilic CCB and BB poisoning and methylene blue for refractory vasodilatory shock."


Our news correspondents report that additional information may be obtained by contacting A. Graudins, Monash Health Clinical Toxology and Addiction Medicine Service, Monash Health, Dandenong Hospital, David Street, Dandenong, VIC, 3175, Australia. Additional authors for this research include H.M. Lee and D. Druda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bcp.12763. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dandenong, Poisoning, Cardiology, Hypotension, Ion Channels, Article Review, Calcium Channels, Carrier Proteins, Membrane Proteins, Australia and New Zealand, Cardiovascular Diseases and Conditions.

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Liver Diseases and Conditions - Hepatitis

Investigators at Dankook University Report Findings in Hepatitis
(Cerbera manghas methanol extract exerts anti-inflammatory activity by targeting c-Jun N-terminal kinase in the AP-1 pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Liver Diseases and Conditions - Hepatitis. According to news reporting originating from Gyeonggi Do, South Korea, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: Cerbera manghas L. (Apocynaceae) is a medicinal plant traditionally used to ameliorate the clinical signs of inflammatory diseases and hypertension. Aim of study: Although C. manghas L has long been used as a traditional remedy for various diseases, the underlying molecular and cellular mechanisms are poorly understood."

Financial support for this research came from Research fund of Dankook University. Our news editors obtained a quote from the research from Dankook University, "A detailed investigation of these mechanisms is necessary to demonstrate the ethnopharmaceutical utility of this plant. The effects of C manghas methanol extract (Cm-ME) on the production of inflammatory mediators and the expression of proinflammatory cytokines and identification of molecular targets were investigated using lipopolysaccharide (LPS)-treated macrophages in vitro. In addition, the inhibitory effects of Cm-ME orally administered were tested by LPS/D-galactosamine (D-GalN)-induced hepatitis and LPS-induced peritonitis mouse models in vivo. Cm-ME downregulated the production of prostaglandin (PG)E-2 and the mRNA expression of cyclooxygenase (COX)-2, tumor necrosis factor (TNF)-alpha, and interleukin (IL)-1 beta in LPS-stimulated RAW264.7 cells under non-toxic concentration of Cm-ME. This extract inhibited the nuclear translocation of c-Jun and p-ATF2, the phosphorylation of JNK and p38, and AP-1 activity. Western blot analysis and in vitro kinase assay confirmed that JNK is a direct pharmacological target of Cm-ME action. In addition, Cm-ME significantly ameliorated the clinical signs of LPS/D-GalN-induced hepatitis and lowered the production of nitric oxide (NO) and the phosphorylation of JNK in LPS-induced peritonitis conditions. Cm-ME exerts anti-inflammatory actions on LPS-stimulated macrophages and in mouse models of acute inflammatory disease."

According to the news editors, the research concluded: "These actions are predominantly mediated by targeting JNK in the AP-1 signaling pathway."


The news editors report that additional information may be obtained by contacting D. Kim, Dankook University, Dept. of Multimedia Engn, Lab Bioinformat, Yongin, Gyeonggi Do, South Korea. Additional authors for this research include J.Y. Cho and D. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.033. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gyeonggi Do, South Korea, Asia, Digestive
Investigators at Department of Cardiology Discuss Findings in Propanolamines (Bailout intravenous esmolol for heart rate control in cardiac computed tomography angiography)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Propanolamines. According to news reporting from Lisbon, Portugal, by NewsRx journalists, research stated, "To evaluate the efficacy and safety of a heart rate (HR) reduction protocol using intravenous esmolol as bailout for failed oral metoprolol regimens in patients undergoing coronary computed tomography angiography (CCTA) with 64-slice multidetector computed tomography (64-MDCT). Patients who underwent cardiac 64-MDCT in a single institution between 2011 and 2014 were analyzed."

The news correspondents obtained a quote from the research from the Department of Cardiology, "Those with HR above 60 beats per minute (bpm) on presentation received oral metoprolol (50-200 mg) at least one hour before CCTA. Intravenous esmolol 1-2 mg/kg was administered as a bolus whenever HR remained over 65 bpm just before imaging. The primary efficacy endpoint was HR <65 bpm during CCTA. The primary safety endpoint was symptomatic hypotension or bradycardia up to hospital discharge. During the study period CCTA was performed in 947 cases. In 86% of these, oral metoprolol was the only medication required to successfully reduce HR <60 bpm. Esmolol was used in the remaining 130 patients (14%). For esmolol-treated patients mean baseline and acquisition HR were 74 +/- 14 bpm and 63 +/- 9 bpm, respectively (p <0.001). The target HR of <65 bpm was achieved in 82 of the 130 esmolol-treated patients (63%). Considering the whole population, esmolol use led to a significant increase in the primary efficacy endpoint from 86% to 95% (p <0.001). Esmolol also resulted in a statistically, but not clinically, significant reduction in systolic blood pressure (144 +/- 22 to 115 +/- 17 mmHg; p<0.001). The combined primary safety endpoint was only observed in two (1.5%) patients. Despite optimal use of oral beta-blockers, 14% of patients needed intravenous esmolol for HR control."

According to the news reporters, the research concluded: "The pre-medication combination of oral metoprolol and on-demand administration of intravenous esmolol was safe and effective and enabled 95% of patients to be imaged with HR below 65 bpm."

For more information on this research see: Bailout intravenous esmolol for heart rate control in cardiac computed tomography angiography. Revista Portuguesa De Cardiologia, 2016;35(12):673-678. Revista Portuguesa De Cardiologia can be contacted at: Elsevier Doyma Sl, Travesera De Garcia, 17-21, Barcelona, 08021, Spain. (Elsevier - www.elsevier.com; Revista Portuguesa De Cardiologia - www.journals.elsevier.com/revista-portuguesa-de-cardiologia/)

Our news journalists report that additional information may be obtained by contacting S.A. Rosa, Santa Marta Hosp, Dept. of Cardiol, Lisbon, Portugal. Additional authors for this research include R. Ramos, H. Marques, R. Santos, C. Leal, H. Casado, M. Saraiva, L.
Investigators at Department of Clinical Laboratory Release New Data on Peptide Hormones (Ghrelin attenuates the growth of HO-8910 ovarian cancer cells through the ERK pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peptide Proteins - Peptide Hormones have been published. According to news originating from Hohhot, People's Republic of China, by NewsRx correspondents, research stated, "Ovarian cancer is one of the most common causes of death from gynecologic tumors and is an important public health issue. Ghrelin is a recently discovered bioactive peptide that acts as a natural endogenous ligand of the growth hormone secretagogue receptor (GHSR)."

Our news journalists obtained a quote from the research from the Department of Clinical Laboratory, "Several studies have identified the protective effects of ghrelin on the mammalian reproductive system. However, little research has been done on the effects of ghrelin on ovarian cancer cells, and the underlying mechanisms of these effects. We sought to understand the potential involvement of mitogen-activated protein kinases (MAPKs) in ghrelin-mediated inhibition of growth of the ovarian line HO-8910. We applied different concentrations of ghrelin and an inhibitor of the ghrelin receptor (D-Lys3-GHRP-6) to HO-8910 cells and observed the growth rate of cells and changes in phosphorylation of the MAPKs ERK1/2, JNK and p38. We discovered that ghrelin-induced apoptosis of HO-8910 cells was though phosphorylated ERK1/2, and that this phosphorylation (as well as p90rsk phosphorylation) was mediated by the GHSR. The ERK1/2 pathway is known to play an essential part in the ghrelin-mediated apoptosis of HO-8910 cells."

According to the news editors, the research concluded: "Hence, our study suggests that ghrelin inhibits the growth of HO-8910 cells primarily through the GHSR/ERK pathway."

For more information on this research see: Ghrelin attenuates the growth of HO-8910 ovarian cancer cells through the ERK pathway. Brazilian Journal of Medical and Biological Research, 2016;49(3):.

The news correspondents report that additional information may be obtained from R.X. Bai, Dept. of Clinical Laboratory, Inner Mongolia People's Hospital, Hohhot, People’s Republic of China. Additional authors for this research include W.P. Wang, P.W. Zhao and C.B Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1590/1414-431X20155043. This DOI is a link to an online electronic
Musculoskeletal Diseases and Conditions - Acromegaly

Investigators at Department of Endocrinology Zero in on Acromegaly (Circadian variation in serum cortisol during hydrocortisone replacement is not attributable to changes in cortisol-binding globulin concentrations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Acromegaly. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Patients taking hydrocortisone (HC) replacement for primary or secondary adrenal failure require individual adjustment of their dose. In addition to modifying the administered doses of HC for each patient, physicians are increasingly interested in variations in the bioavailability of glucocorticoid replacement."

Our news editors obtained a quote from the research from the Department of Endocrinology, "One potential determinant of the bioavailability of replaced HC is a variation in serum cortisol-binding globulin (CBG) concentration, which may, in turn, affect interpretation of cortisol profiles and individual dose selection for patients on hydrocortisone replacement therapy. To investigate the hypothesis that there is a circadian variation in CBG levels. A total of 34 male patients divided into 3 groups (10 patients with non-somatotroph structural pituitary disease on HC replacement, 11 patients with treated acromegaly on HC replacement and 13 patients with treated acromegaly not on HC replacement) and 10 healthy volunteers were included. Cortisol and CBG levels were measured at 6 time points (0800, 1100, 1300, 1500, 1700 and 1900). No significant circadian variation in CBG concentration was found in any of the 4 groups. Circadian variation in serum cortisol during hydrocortisone replacement is not attributable to changes in cortisol-binding globulin concentration."

According to the news editors, the research concluded: "Changes in serum cortisol levels may thus be explained by other factors including 11 b-hydroxysteroid dehydrogenase type 1 activity or circadian changes in the binding properties of CBG."


The news editors report that additional information may be obtained by contacting T.T. Chung, Dept. of Endocrinology, St Bartholomew's Hospital, Barts Health NHS Trust, London, UK. Additional authors for this research include K. Gunganah, J.P. Monson and W.M Drake.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cen.12982. This DOI is a link to an online electronic document that is either free or for purchase.
Investigators at Department of Gynecology Describe Findings in Breast Cancer (Can a pathological complete response of breast cancer after neoadjuvant chemotherapy be diagnosed by minimal invasive biopsy?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting originating from Heidelberg, Germany, by NewsRx correspondents, research stated, "This study aimed to explore the ability of a minimal invasive biopsy to diagnose a pathological complete response (pCR = ypT0) in the breast. Ultrasound-guided, vacuum-assisted, minimal invasive biopsy (VAB) was performed in 50 patients after neoadjuvant chemotherapy and before breast surgery."

Our news editors obtained a quote from the research from the Department of Gynecology, "Negative predictive values (NPV) and false negative rates (FNR) to predict a pCR in surgical specimen were the main outcome measures. To assess the possible sampling error, the representativeness of the sample was evaluated by the biopsy performing physician (subjectively based on the visibility in ultrasound), by radiography of the biopsy specimen, and by the pathologist (based on histopathology). The cohort (n = 50) consisted of 15 (30%) triple negative breast cancers, 13 (26%) human epidermal growth factor receptor 2 (HER2) positive and 22 (44%) hormone receptor positive/HER2 negative cancers. ypT0 was diagnosed in 23 (46%) cases. In the overall cohort (n = 50), VAB yielded an NPV of 76.7% and an FNR of 25.9%. Given a representative VAB sample, according to the histopathological evaluation (n = 38), the NPV was 94.4% (95% CI 87.1-100.0) and the FNR 4.8% (95% CI 0.0-11.6). Non-representative VABs were mainly due to bad visibility of the target lesion in ultrasound."

According to the news editors, the research concluded: "A VAB can accurately diagnose a pCR, given a histopathologically representative sample."


The news editors report that additional information may be obtained by contacting J. Heil, Univ Breast Unit, Dept. of Gynecol, D-69120 Heidelberg, Germany. Additional authors for this research include B. Schaeffgen, P. Sinn, H. Richter, A. Harcos, C. Gomez, A. Stieber, A. Hennigs, G. Rauch, F. Schuetz, C. Sohn, A. Schneeweiss and M. Golatta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejca.2016.09.034. This DOI is a link to an online electronic
Investigators at Department of Medicine Discuss Findings in Paraproteinemias (Paraprotein-Related Kidney Disease: Kidney Injury from Paraproteins-What Determines the Site of Injury?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - Paraproteinemias have been published. According to news reporting originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "Disorders of plasma and B cells leading to paraproteinemias are associated with a variety of renal diseases. Understanding the mechanisms of injury and associated nephropathies provides a framework that aids clinicians in prompt diagnosis and appropriate adjunctive treatment of these disorders."

Our news editors obtained a quote from the research from the Department of Medicine, "Glomerular diseases that may be associated with paraproteinemias include amyloid deposition, monoclonal Ig deposition disease, proliferative GN with monoclonal Ig deposits, C3 glomerulopathy caused by alterations in the complement pathway, immunotactoid glomerulopathy, fibrillary GN, and cryoglobulinemia. Tubular lesions include the classic Fanconi syndrome, light chain proximal tubulopathy, interstitial fibrosis, and cast nephropathy. These paraproteinemic renal diseases are distinct in their pathogenesis as well as their urinary and kidney biopsy findings. Renal pathology is usually initiated by deposition and direct involvement of the intact monoclonal Ig or Ig fragments with resident cells of the nephron."

According to the news editors, the research concluded: "Our review summarizes current insights into the underlying molecular pathogenesis of these interesting kidney lesions."


The news editors report that additional information may be obtained by contacting P.W. Sanders, Vet Affairs Med Center, Dept. of Med, Birmingham, AL, United States. Additional authors for this research include A. Lahoti, F.R. Danesh, V. Batuman and P.W. Sanders.

Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Immune System Diseases and Conditions, Immunoproliferative Disorders, Paraproteinemias, Immunoglobulins, Blood Proteins, Renal Disease, Paraproteins, Nephrology, Immunology, Kidney, Department of Medicine.

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Investigators at Department of Neuroscience Zero in on Carrier Proteins (TDP-43 functions within a network of hnRNP proteins to inhibit the production of a truncated human SORT1 receptor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Proteins - Carrier Proteins have been published. According to news reporting from Jacksonville, Florida, by NewsRx journalists, research stated, "The aggregation and mislocalization of RNA-binding proteins leads to the aberrant regulation of RNA metabolism and is a key feature of many neurodegenerative diseases, including amyotrophic lateral sclerosis and frontotemporal dementia. However, the pathological consequences of abnormal deposition of TDP-43 and other RNA-binding proteins remain unclear, as the specific molecular events that drive neurodegeneration have been difficult to identify and continue to be elusive."

Funders for this research include Thierry Latran Fondation (REHNPALS), National Institutes of Health, National Institute of Neurological Disorders and Stroke, National Institute of Environmental Health Services, The ALS Association.

The news correspondents obtained a quote from the research from the Department of Neuroscience, "Here, we provide novel insight into the complexity of the RNA-binding protein network by demonstrating that the inclusion of exon 17b in the SORT1 mRNA, a pathologically relevant splicing event known to be regulated by TDP-43, is also considerably affected by additional RNA-binding proteins, such as hnRNP L, PTB/nPTB and hnRNP A1/A2. Most importantly, the expression of hnRNP A1/A2 and PTB/nPTB is significantly altered in patients with frontotemporal dementia with TDP-43-positive inclusions (FTLD-TDP), indicating that perturbations in RNA metabolism and processing in FTLD-TDP are not exclusively driven by a loss of TDP-43 function."

According to the news reporters, the research concluded: "These results also suggest that a comprehensive assessment of the RNA-binding protein network will dramatically advance our current understanding of the role of TDP-43 in disease pathogenesis, as well as enhance both diagnostic and therapeutic capabilities."


Our news journalists report that additional information may be obtained by contacting L. Petrucelli, Dept. of Neuroscience, Mayo Clinic, 4500 San Pablo Road S, Jacksonville, FL 32224, United States. Additional authors for this research include M. Prudencio, C. Stuani, C. Cook, K. Jansen-West, D.W. Dickson, L. Petrucelli and E. Buratti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/hmg/ddv491. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Florida, Genetics, Jacksonville, United States, Nucleoproteins, Carrier Proteins, RNA Binding Proteins, North and Central America.

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Investigators at Department of Pharmacology & Toxicology Describe Findings in Skin Cancer (Anandamide-induced Endoplasmic Reticulum Stress and Apoptosis are Mediated by Oxidative Stress in Non-melanoma Skin Cancer: Receptor-independent ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Skin Cancer are presented in a new report. According to news reporting from Greenville, North Carolina, by NewsRx journalists, research stated, "Endocannabinoids are neuromodulatory lipids that regulate central and peripheral physiological functions. Endocannabinoids have emerged as effective antitumor drugs due to their ability to induce apoptosis in various cancer studies."

The news correspondents obtained a quote from the research from the Department of Pharmacology & Toxicology, "The G-protein coupled cannabinoid receptors (CB1 and CB2) and the TRPV1 ion channel were reported to mediate the antiproliferative activity of endocannabinoids. However, receptor-independent effects also account for their activity. Our previous studies showed that the antiproliferative activity of anandamide (AEA) was regulated by cyclooxygenase-2 (COX-2) via induction of endoplasmic reticulum (ER) stress. We also determined that AEA induced oxidative stress. However, the role of oxidative stress, the cannabinoid receptors, and TRPV1 in AEA-induced ER stress-apoptosis was unclear. Therefore, the current study examines the role of oxidative stress in ER stress-apoptosis and investigates whether this effect is modulated by CB1, CB2, or TRPV1. In non-melanoma skin cancer (NMSC) cells, AEA reduced the total intracellular level of glutathione and induced oxidative stress. To evaluate the importance of oxidative stress in AEA-induced cell death, the antioxidants, N-acetylcysteine (NAC) and Trolox, were utilized. Each antioxidant ameliorated the antiproliferative effect of AEA. Furthermore, Trolox inhibited AEA-induced CHOP10 expression and caspase 3 activity, indicating that oxidative stress was required for AEA-induced ER stress-apoptosis. On the other hand, selective blockade of CB1, CB2, and TRPV1 did not inhibit AEA-induced oxidative stress or ER stress-apoptosis. These findings suggest that AEA-induced ER stress-apoptosis in NMSC cells is mediated by oxidative stress through a receptor-independent mechanism."

According to the news reporters, the research concluded: "Hence, receptor-independent AEA signaling pathways may be targeted to eliminate NMSC."


Our news journalists report that additional information may be obtained by contacting R. Van Dross, East Carolina Univ, Brody Sch Med, Dept. of Pharmacol & Toxicol, Greenville, NC, United States.

Keywords for this news article include: Greenville, North Carolina, United States, North and Central America, Non-Melanoma Skin Carcinoma, Non-Melanoma Skin Cancer, Endoplasmic Reticulum, Cellular Structures, Intracellular Space, Drugs and Therapies, Endocannabinoids, Skin Neoplasms, Organelles, Cytoplasm, Apoptosis, Oncology,
Investigators at Department of Pharmacology Report Findings in Heart Attack (Inhibition of RhoA/Rho kinase by ibuprofen exerts cardioprotective effect on isoproterenol induced myocardial infarction in rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Attack. According to news reporting originating in Gujarat, India, by NewsRx journalists, research stated, "Myocardial infarction (MI) and hypertension are the leading cause of death worldwide so protection of heart is focus of intense research. Rho-kinase, a downstream effector of protein involved in MI and hypertension, is inhibited by ibuprofen."

The news reporters obtained a quote from the research from the Department of Pharmacology, "This study aims to elucidate cardioprotective effect of ibuprofen in rats. MI was produced in rats with 85 mg/kg isoproterenol (ISO) administered s.c. twice at an interval of 24 h. The rats were randomized into six groups: (I) Normal; (II) ISO; (III) ISO + ascorbic acid (250 mg/kg p.o.); (IV-VI) ISO + ibuprofen (30, 60 and 90 mg/kg p.o). After the completion of the study period of 21 days, cardiac function and biomarkers were assessed. Pre-treatment with ibuprofen (30, 60 and 90 mg/kg p.o) ameliorated high BP and left ventricular dysfunction, furthermore it prevented the rise in CKMB, LDH and alpha-HBDH, suggesting the effect of ibuprofen in maintenance of cell membrane integrity. In addition, it also prevented alteration in the levels of electrolytes, ATPase activity and antioxidant status. Ibuprofen suppressed ISO-induced ROCK-1 mRNA expression and histological changes."

According to the news reporters, the research concluded: "Ibuprofen provided cardioprotection in a model of myocardial infarction, by restoring most of the altered physical, physiological, biochemical, haemodynamic parameters, antioxidant status, and histological changes and by inhibiting ROCK-1 mRNA expression."

For more information on this research see: Inhibition of RhoA/Rho kinase by ibuprofen exerts cardioprotective effect on isoproterenol induced myocardial infarction in rats. European Journal of Pharmacology, 2016;791():91-98. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting M. Parikh, Anand Pharm College, Dept. of Pharmacol, Anand 388001, Gujarat, India. Additional authors for this research include M. Parikh, H. Shah and T. Gandhi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.08.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gujarat, India, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Enzymes and Coenzymes, Myocardial Infarction, Myocardial Ischemia, Phenylpropionates,
Catecholamines, Isoproterenol, Ethanolamines, Heart Disease, Hypertension, Heart Attack, Ibuprofen, Genetics, Kinase, Department of Pharmacology.

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Clinical Research - Clinical Trials and Studies

Investigators at Department of Radiation Oncology Release New Data on Clinical Trials and Studies (Phase I trial evaluating the antiviral agent Cidofovir in combination with chemoradiation in cervical cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news originating from Villejuif, France, by NewsRx correspondents, research stated, "This phase I trial aimed to assess the safety and determine the recommended Phase II dose (RP2D) of Cidofovir combined with chemoradiotherapy in patients with stage IB2-IVA cervical cancer. Incremental doses (1, 2.5, 5 and 6.5 mg/kg) of IV Cidofovir were administered weekly for two weeks, and then every 2 weeks from the start of chemoradiotherapy to the initiation of utero-vaginal brachytherapy."

Our news journalists obtained a quote from the research from the Department of Radiation Oncology, "Biological expression of HPV was analyzed during treatment and tumor response was assessed according to RECIST v1.0 criteria. A total of 15 patients were treated with Cidofovir. Dose-limiting toxicities occurred in 2/6 patients at the 6.5 mg/kg dose level (G3 proteinuria, and G3 acute pyelonephritis with G3 febrile neutropenia). No toxicity occurred at the 5 mg/kg dose level, but only 3 patients received this dose due to trial interruption because of low accrual. The most frequent G3-4 adverse effects observed during the trial were: abdominal pain (n=3), infection (n=2), leuckoneutropenia (n=2), and others (n=6). No toxic death or major renal side effect occurred. The best response was that 8/9 evaluable patients achieved a complete response (89%). In the intention to treat population, the 2-year overall and progression-free survival rates were 93% and 76%, respectively. Biological monitoring of HPV-related markers (decreased p16 expression, and increased p53 and pRb levels) was possible on sequential tumor biopsy samples. The genomic alterations identified were PIK3CA (n=5; one also had a KRAS mutation), and HRAS (n=1) mutations. Cidofovir at a dose of 5mg/kg combined with chemoradiotherapy appeared tolerable and yielded tumor regressions."

According to the news editors, the research concluded: "Due to early trial interruption, the RP2D was not confirmed."

For more information on this research see: Phase I trial evaluating the antiviral agent Cidofovir in combination with chemoradiation in cervical cancer patients. Oncotarget, 2016;7 (18):25549-57.

The news correspondents report that additional information may be obtained from E. Deutsch, Dept. of Radiation Oncology, Gustave Roussy Cancer Campus, Paris-Sud University, Villejuif, France. Additional authors for this research include C. Haie-Meder, M.A. Bayar, M. Mondini, M. Laporte, R. Mazeron, J. Adam, A. Varga, G. Vassal, N. Magne, C. Chargari, E. Lanoy, P. Pautier, A. Levy and J.C Soria.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8224. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: France, Europe, Cancer, Genetics, Oncology, Villejuif, Clinical Research, Clinical Trials and Studies.

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Cardiovascular Diseases and Conditions - Thrombosis

Investigators at Department of Urology Report Findings in Thrombosis (Late Allograft Renal Vein Thrombosis Treated With Anticoagulation Alone: A Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Thrombosis is now available. According to news reporting originating in Oporto, Portugal, by NewsRx journalists, research stated, "Allograft renal vein thrombosis is a rare complication of kidney transplantation. Most cases occur in the first 2 weeks after transplantation, but there are cases described many years after the transplant surgery."

The news reporters obtained a quote from the research from the Department of Urology, "Allograft loss is the usual outcome. We present a case of a renal transplant recipient with allograft renal vein thrombosis associated with deep venous thrombosis of a lower limb, 9 years after transplantation. He was successfully treated with anticoagulation alone, with recovery of allograft function. The patient was given unfractioned heparin and elastic compression stockings. Five days later, the patient recovered diuresis and hemodialysis treatment was discontinued. Doppler ultrasound was done and revealed partial re-permeabilization of allograft renal vein, with maximal velocity of 15 cm/s. After 30 months of follow-up, the patient was maintained on oral anticoagulation with warfarin, and no thromboembolic or hemorrhagic events were documented. The patient's serum creatinine was stable, between 1.6 and 1.8 mg/dL."

According to the news reporters, the research concluded: "Our patient demonstrated that anticoagulation alone and dialytic support might be able to promote total recovery of allograft function after renal vein thrombosis."


Our news correspondents report that additional information may be obtained by contacting C. Ferreira, Unidade Local Saude Matosinhos, Dept. of Urol, Oporto, Portugal. Additional authors for this research include L. Pereira, P. Pereira, I. Tavares, S. Sampaio, M. Bustorff and M. Pestana.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.09.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oporto, Portugal, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Renal Vein, Nephrology, Hematology, Angiology, Kidney, Department of Urology.
Investigators at Digestive Disease Institute Target Inflammatory Bowel Disease (Links of Autophagy Dysfunction to Inflammatory Bowel Disease Onset)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Digestive System Diseases and Conditions - Inflammatory Bowel Disease is now available. According to news originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Autophagy is a cellular stress response that plays key roles in physiological processes, such as adaptation to starvation, degradation of aberrant proteins or organelles, anti-microbial defense, protein secretion, and innate and adaptive immunity. Dysfunctional autophagy is recognized as a contributing factor in many chronic inflammatory diseases, including inflammatory bowel disease (IBD)."

Our news journalists obtained a quote from the research from Digestive Disease Institute, "Genetic studies have identified multiple IBD-associated risk loci that include genes required for autophagy, and several lines of evidence demonstrate that autophagy is impaired in IBD patients. How dysfunctional autophagy contributes to IBD onset is currently under investigation by researchers. Dysfunctional autophagy has been identified to play a role in IBD pathogenesis by altering processes that include (1) intracellular bacterial killing, (2) anti-microbial peptide secretion by Paneth cells, (3) pro-inflammatory cytokine production by macrophages, (4) antigen presentation by dendritic cells, (5) goblet cell function, and (6) the endoplasmic reticulum stress response in enterocytes. The overall effect of dysregulation of these processes varies by cell type, stimulus, as well as cellular context. Manipulation of the autophagic pathway may provide a new avenue in the search for effective therapies for IBD. Autophagy plays multiple roles in IBD pathogenesis."

According to the news editors, the research concluded: "A better understanding of the role of autophagy in IBD patients may provide better subclassification of IBD phenotypes and novel approaches to disease management."


The news correspondents report that additional information may be obtained from F. El-Khider, Dept. of Gastroenterology and Hepatology, Digestive Disease Institute, Cleveland Clinic, Cleveland, Ohio, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442921. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Genetics, Cleveland, United States, Article Review, Gastroenteritis, North and Central America, Inflammatory Bowel Disease, Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.

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Investigators at Division of Cardiology Describe Findings in Immunoproteins [iMAP (TM) imaging of tumorous lesions surrounding the coronary arteries in a patient with an elevated serum level of immunoglobulin G4]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology - Immunoproteins have been presented. According to news reporting originating from Toyota, Japan, by NewsRx correspondents, research stated, "A 76-year-old woman with multiple coronary risk factors was admitted to our hospital because of episodes of new-onset chest pain that had begun 3 days previously. She underwent percutaneous coronary intervention (PCI) for severe stenoses in the two high lateral (HL) branches."

Our news editors obtained a quote from the research from the Division of Cardiology, "Intravascular ultrasound (IVUS) revealed massive stenotic lesions in the HL branches and tumorous nonstenotic lesions in the left anterior descending coronary artery (LAD) and the left circumflex coronary artery (LCx). iMAP™, optical coherence tomography (OCT), and coronary computed tomography angiography (CCTA) were performed. iMAP depicted fibrosis in the vessel (green areas) and nonfibrotic tissue change suggestive of inflammation outside the vessel (yellow/red areas). OCT revealed high-intensity homogenous intimal hyperplasia with superficial calcification, and CCTA showed massive periarterial soft lesions in the HL, LAD, and LCx. The serum IgG4 level was high at 252-427 mg/dL (8 measurements) (reference range, 4.8-105.0 mg/dL). We suspected IgG4-related coronary periarteritis on the basis of the comprehensive diagnostic criteria as a possible diagnosis. The clinical course was good after initial and subsequent PCIs for both the HL stenoses and the progressing LCx stenosis, and there was no recurrence of angina pectoris thereafter."

According to the news editors, the research concluded: "Steroids were not administered because the massive lesions did not enlarge during the 16 months of follow-up. iMAP was able to evaluate the tissue characteristics of tumorous lesions in the stenosed HL branches and the nonstenotic LAD and LCx in a patient with an elevated level of IgG4."

For more information on this research see: iMAP™ imaging of tumorous lesions surrounding the coronary arteries in a patient with an elevated serum level of immunoglobulin G4. *Heart and Vessels*, 2016;31(12):2061-2067. *Heart and Vessels* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

The news editors report that additional information may be obtained by contacting S. Ito, Sankuro Hosp, Div Cardiol, Toyota, Aichi 4710035, Japan. Additional authors for this research include T. Hasuo and Y. Nimura.

Keywords for this news article include: Toyota, Japan, Asia, Cardiology, Risk and Prevention, Coronary Artery, Immunoglobulins, Serum Globulins, Immunoproteins, Immunology, Proteins, Division of Cardiology.

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Oncology - Acute Lymphoblastic Leukemia

Investigators at Dokkyo Medical University School of Medicine Report New Data on Acute Lymphoblastic Leukemia (Burkitt-Type Acute Lymphoblastic Leukemia With Precursor B-Cell Immunophenotype and Partial Tetrasomy of 1q: A Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Acute Lymphoblastic Leukemia. According to news originating from Tochigi, Japan, by NewsRx correspondents, research stated, "Burkitt-type acute lymphoblastic leukemia (B-ALL) is thought as a variant of Burkitt lymphoma/leukemia and derived from mature B-cell lymphoblast.B-ALL was developed in a 10-year-old girl. Two characteristics were apparent in this case."

Our news journalists obtained a quote from the research from the Dokkyo Medical University School of Medicine, "First, the lymphoblasts were positive for CD10, CD19, CD20, and CD22, but negative for terminal deoxynucleotidyl transferase and surface immunoglobulins, indicating a B-cell immunophenotype. The detection of t(8;14)(q24;q32) with a chromosomal analysis is required for a diagnosis of B-ALL. Second, der(1)(pter → q32.1::q32.1 → q21.1::q11 → qter) was detected, in which 1q21.1 to 1q32.1 was inverted and inserted. Finally, partial tetrasomy of 1q was also present."

According to the news editors, the research concluded: "Because B-ALL with abnormal chromosome 1 has been reported poor outcome, the usual chemotherapy for stage 4 Burkitt lymphoma with added rituximab was administered for our patient. We report B-ALL with precursor B-cell immunophenotype and interesting partial tetrasomy of 1q."

For more information on this research see: Burkitt-Type Acute Lymphoblastic Leukemia With Precursor B-Cell Immunophenotype and Partial Tetrasomy of 1q: A Case Report. Medicine, 2016;95(10):e2904. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from Y. Sato, From the Dept. of Pediatrics, Dokkyo Medical University School of Medicine, Mibu, Tochigi, Japan. Additional authors for this research include H. Kurosawa, K. Fukushima, M. Okuya and O. Arisaka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MD.0000000000002904. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Tochigi, Genetics, Oncology, Hematology, Acute Lymphoblastic Leukemia.

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Ischemia

Investigators at Dokuz Eylul University Have Reported New Data on Ischemia (Renal Ischemia/Reperfusion Injury in Diabetic Rats: The Role of Local Ischemic Preconditioning)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Ischemia are presented in a new report. According to news reporting originating from Izmir, Turkey, by NewsRx correspondents, research stated, "The aim of this study was to evaluate the effects of local ischemic preconditioning using biochemical markers and histopathologically in the diabetic rat renal IR injury model. DM was induced using streptozotocin."

Our news editors obtained a quote from the research from Dokuz Eylul University, "Rats were divided into four groups: Group I, nondiabetic sham group (n=7), Group II, diabetic sham group (n=6), Group III, diabetic IR group (diabetic IR group, n=6), and Group IV, diabetic IR + local ischemic preconditioning group (diabetic IR + LIPC group, n=6). Ischemic renal injury was induced by clamping the bilateral renal artery for 45 min. 4 h following ischemia, clearance protocols were applied to assess biochemical markers and histopathologically in rat kidneys. The histomorphologic total cell injury scores of the nondiabetic sham group were significantly lower than diabetic sham, diabetic IR, and diabetic IR + LIPC groups. Diabetic IR group scores were not significantly different than the diabetic sham group. But diabetic IR + LIPC group scores were significantly higher than the diabetic sham and diabetic IR groups."

According to the news editors, the research concluded: "Local ischemic preconditioning does not reduce the risk of renal injury induced by ischemia/reperfusion in diabetic rat model."

For more information on this research see: Renal Ischemia/Reperfusion Injury in Diabetic Rats: The Role of Local Ischemic Preconditioning. *Biomed Research International*, 2016;2016():8580475.

The news editors report that additional information may be obtained by contacting S. Ozbilgin, Dept. of Anesthesiology and Reanimation, School of Medicine, Dokuz Eylul University, Izmir, Turkey. Additional authors for this research include S. Ozkardesler, M. Akan, N. Boztas, M. Ozbilgin, B.U. Ergur, S. Derici, M.E. Guneli and R. Meseri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/8580475. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Izmir, Turkey, Kidney, Eurasia, Diabetes, Nephrology, Biochemicals, Biochemistry, Endocrinology, Medical Devices, Blood Transfusion, Transfusion Medicine, Ischemia Reperfusion Injury, Cardiovascular Diseases and Conditions.

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Eye Diseases and Conditions - Age-Related Macular...

**Investigators at Duke University Detail Findings in Age-Related Macular Degeneration (Differential Response to Anti-VEGF Regimens in Age-Related Macular Degeneration Patients with Early Persistent Retinal Fluid)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Eye Diseases and Conditions - Age-Related Macular Degeneration is now available. According to news reporting out of Durham, North Carolina, by NewsRx editors, research stated, "To compare the effect of intravitreal aflibercept or ranibizumab drug type and frequency on visual acuity outcomes in eyes with neovascular age-
related macular degeneration (NVAMD) and early persistent retinal fluid after 3 initial monthly injections. A post hoc analysis of eyes enrolled in VIEW 1 and VIEW 2, 2 similarly designed, randomized, phase 3 trials."

Our news journalists obtained a quote from the research from Duke University, "A total of 1815 eyes with NVAMD from VIEW 1 and VIEW 2. Analyses included patients with known fluid status at baseline and weeks 4, 8, and 12 in 3 treatment groups: ranibizumab 0.5 mg every 4 weeks (Rq4) (n = 595), intravitreal aflibercept injection (IAI) 2 mg every 4 weeks (2q4) (n = 613), and IAI 2 mg every 8 weeks (2q8) after 3 monthly injections (n = 607). Mean best-corrected visual acuity (BCVA) change from baseline over weeks 16 to 52 and the proportion of eyes that gained >= 15 letters or lost >= 5 letters were evaluated in eyes with and without persistent fluid (cystic intraretinal or subretinal fluid at all 4 initial visits). Visual outcomes also were assessed in eyes with persistent fluid by fluid type (intraretinal and subretinal fluid). The proportions of eyes with persistent fluid were 29.4%, 18.8%, and 20.3% in the Rq4, 2q4, and 2q8 groups, respectively. In these eyes, mean BCVA gain from baseline to week 52 was greater with 2q4 compared with Rq4 (P < 0.01) and 2q8 (P < 0.05), whereas it was similar with Rq4 and 2q8 (P = 0.294). At week 52, similar proportions of eyes gained >= 15 letters (31.5%-35.2%), whereas fewer eyes lost >= 5 letters with 2q4 compared with Rq4 and 2q8 (6.5% vs. 16.6% and 16.2%). The pattern of visual outcomes was similar regardless of fluid type. In eyes without persistent fluid, BCVA changes were similar across treatment groups."

According to the news editors, the research concluded: "In patients with early persistent fluid, 2q4 may provide additional clinical benefit over 2q8 or Rq4."

For more information on this research see: Differential Response to Anti-VEGF Regimens in Age-Related Macular Degeneration Patients with Early Persistent Retinal Fluid. Ophthalmology, 2016;123(9):1856-1864. Ophthalmology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Springer - www.springer.com; Ophthalmology - www.springerlink.com/content/2193-6528/)

Our news journalists report that additional information may be obtained by contacting G.J. Jaffe, Duke University, Dept. of Ophthalmol, Durham, NC, United States. Additional authors for this research include P.K. Kaiser, D. Thompson, A. Gibson, N. Saroj, R. Vitti, A.J. Berliner and J.S. Heier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ophtha.2016.05.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Age-Related Macular Degeneration, Retinal Diseases and Conditions, Eye Diseases and Conditions, Growth Factor Receptors, Monoclonal Antibodies, Retinal Degeneration, Angiogenic Proteins, Drugs and Therapies, Membrane Proteins, Biotechnology, Immunotherapy, Ranibizumab, VEGF, Duke University.

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**Drugs and Therapies - Central Nervous System Agents**

**Investigators at Duke University Discuss Findings in Central Nervous System Agents (Use of Therapeutic Drug Monitoring, Electronic Health Record Data, and Pharmacokinetic Modeling to Determine the Therapeutic Index of Phenytoin and Lamotrigine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Central Nervous System Agents. According to news reporting originating from Durham, North Carolina, by NewsRx correspondents, research stated, "Defining a drug's therapeutic index (TI) is important for patient safety and regulating the development of generic drugs. For many drugs, the TI is unknown."

Our news editors obtained a quote from the research from Duke University, "A systematic approach was developed to characterize the TI of a drug using therapeutic drug monitoring and electronic health record (EHR) data with pharmacokinetic (PK) modeling. This approach was first tested on phenytoin, which has a known TI, and then applied to lamotrigine, which lacks a defined TI. Retrospective EHR data from patients in a tertiary hospital were used to develop phenytoin and lamotrigine population PK models and to identify adverse events (anemia, thrombocytopenia, and leukopenia) and efficacy outcomes (seizure-free). Phenytoin and lamotrigine concentrations were simulated for each day with an adverse event or seizure. Relationships between simulated concentrations and adverse events and efficacy outcomes were used to calculate the TI for phenytoin and lamotrigine. For phenytoin, 93 patients with 270 total and 174 free concentrations were identified. A de novo 1-compartment PK model with Michaelis-Menten kinetics described the data well. Simulated average total and free concentrations of 10-15 and 1.0-1.5 mcg/mL were associated with both adverse events and efficacy in 50% of patients, resulting in a TI of 0.7-1.5. For lamotrigine, 45 patients with 53 concentrations were identified. A published 1-compartment model was adapted to characterize the PK data. No relationships between simulated lamotrigine concentrations and safety or efficacy endpoints were seen; therefore, the TI could not be calculated. This approach correctly determined the TI of phenytoin but was unable to determine the TI of lamotrigine due to a limited sample size."

According to the news editors, the research concluded: "The use of therapeutic drug monitoring and EHR data to aid in narrow TI drug classification is promising, but it requires an adequate sample size and accurate characterization of concentration-response relationships."

For more information on this research see: Use of Therapeutic Drug Monitoring, Electronic Health Record Data, and Pharmacokinetic Modeling to Determine the Therapeutic Index of Phenytoin and Lamotrigine. *Therapeutic Drug Monitoring*, 2016;38(6):728-737. *Therapeutic Drug Monitoring* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

Oncology - Cancer Biomarkers

Investigators at East China University of Science and Technology Report New Data on Cancer Biomarkers (Near-Infrared Fluorogenic Probes with Polarity-Sensitive Emission for in Vivo Imaging of an Ovarian Cancer Biomarker)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cancer Biomarkers have been presented. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Lysophosphatidic acid (LPA, cutoff values (>=) 1.5 mM) is an effective biomarker for early stage ovarian cancer. The development of selective probes for LPA detection is therefore critical for early clinical diagnosis."

Financial supporters for this research include State Administration of Foreign Experts Affairs, Ministry of Education of the People's Republic of China, Ministry of Science and Technology of the People's Republic of China, National Natural Science Foundation of China.

The news reporters obtained a quote from the research from the East China University of Science and Technology, "Although current methods have been developed for the detection of LPA in solution, they cannot be used for tracking LPA in vivo. Here, we report a near-infrared (NIR) fluorescent probe that can selectively respond to LPA based on polarity-sensitive emission at a very low detection limit of 0.5 mM in situ. This probe exhibits a marked increase of fluorescence at 720 nm upon binding to LPA, allowing the direct visualization of LPA in vitro and in vivo without interference from other biomolecules. Moreover, the probe containing two arginine-glycine-aspartic acid units can be efficiently taken up by cancer cells based on an avb3 integrin receptor targeting mechanism. It also exhibits excellent biocompatibility and high pH stability in live cells and in vivo. Confocal laser scanning microscopy and flow cytometric imaging of SKOV-3 cells have confirmed that our probe can be used to image LPA in live cells. In particular, its NIR turn-on fluorescence can be used to effectively monitor LPA imaging in a SKOV-3 tumor-bearing mouse model."

According to the news reporters, the research concluded: "Our probe may pave the way for the detection of cancer-related biomarkers and even for early stage cancer diagnosis."


Our news correspondents report that additional information may be obtained by contacting D. Yao, Key Laboratory for Advanced Materials & Institute of Fine Chemicals, East
Investigators at Eli Lilly Discuss Findings in Pharmacology
(Pharmacological interrogation of a rodent forced ambulation model:
leveraging gait impairment as a measure of pain behavior pre-clinically)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacology. According to news reporting out of Indianapolis, Indiana, by NewsRx editors, research stated, "The aim of this study was to investigate whether inflammogen-induced temporal and spatial gait changes in a rodent forced-ambulation paradigm were sensitive to pharmacological intervention with both clinically validated and novel analgesics. Using the GaitScan (CleverSys Inc., Reston, VA) treadmill system, we identified four functional endpoints inspired by clinical literature and sensitive to unilateral joint injury induced by intra-articular Complete Freund's Adjuvant (CFA)."

Our news journalists obtained a quote from the research from Eli Lilly, "These endpoints included: range of motion, normalized stance distance, stance/swing ratio, and paw print size as a measure of guarding; collectively, these measures are proposed to serve as a high fidelity index of joint pain. We then examined the ability of known analgesic mechanisms to attenuate gait impairment as measured by this index. Clinically efficacious opioids, Nonsteroidal anti-inflammatory drugs (NSAIDs), and the yet unapproved anti-NGF antibody dose-dependently attenuated the CFA)-induced gait deficits, while a TNF-alpha fusion protein blocker had no effect on gait, but did produce a reduction in swelling. As well, the time course for gait impairment in the model appears to be distinct from the traditional endpoint of tactile hypersensitivity, offering the potential to assess a novel functional pain phenotype. In response to the call for more functional pain measures, we submit this composite gait score as a novel endpoint to interrogate joint pain pre-clinically."

According to the news editors, the research concluded: "As the etiology of human osteoarthritis (OA) remains unclear, this model/endpoint cannot attempt to improve construct validity, but may provide an additional dimension to interrogate pain-induced gait deficits."


Our news journalists report that additional information may be obtained by
Investigators at Emory University Detail Findings in Leukemia (Modulation of Immune Checkpoints and Graft-versus-Leukemia in Allogeneic Transplants by Antagonizing Vasoactive Intestinal Peptide Signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Leukemia are presented in a new report. According to news reporting originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "The goal of allogeneic bone marrow transplantation (alloBMT) is elimination of leukemia cells through the graft-versus-leukemia (GvL) activity of donor cells, while limiting graft-versus-host disease (GvHD). Immune checkpoint pathways regulate GvL and GvHD activities, but blocking antibodies or genetic inactivation of these pathways can cause lethal GVHD."

Our news editors obtained a quote from the research from Emory University, "Vasoactive intestinal peptide (VIP) is an immunosuppressive neuropeptide that regulates co-inhibitory pathways; its role in allo-BMT has not been studied. We found VIP transiently expressed in donor NK, NK-T, dendritic cells, and T cells after allo transplant, as well as host leukocytes. A peptide antagonist of VIP signaling (VIPhyb) increased T-cell proliferation in vitro and reduced IL10 expression in donor T cells. Treatment of allo-BMT recipients with VIPhyb, or transplanting donor grafts lacking VIP (VIP-KO), activated donor T-cells in lymphoid organs, reduced T-cell homing to GvHD target organs, and enhanced GvL without increasing GvHD in multiple allo-BMT models. Genetic or ex vivo depletion of donor NK cells or CD8(+) T cells from allografts abrogated the VIPhyb-enhanced GvL activity. VIPhyb treatment led to down regulation of PD-1 and PD-L1 expression on donor immune cells, increased effector molecule expression, and expanded oligoclonal CD8(+) T cells that protected secondary allo transplant recipients from leukemia."

According to the news editors, the research concluded: "Blocking VIP signaling thus represents a novel pharmacologic approach to separate GvL from GvHD and enhance adaptive T-cell responses to leukemia-associated antigens in allo-BMT."

For more information on this research see: Modulation of Immune Checkpoints and Graft-versus-Leukemia in Allogeneic Transplants by Antagonizing Vasoactive Intestinal Peptide Signaling. *Cancer Research*, 2016;76(23):6802-6815. *Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)
Investigators at Emory University Report Findings in Antigens (Genetic engineering of chimeric antigen receptors using lamprey derived variable lymphocyte receptors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Antigens have been published. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "Chimeric antigen receptors (CARs) are used to redirect effector cell specificity to selected cell surface antigens. Using CARs, antitumor activity can be initiated in patients with no prior tumor specific immunity."

The news correspondents obtained a quote from the research from Emory University, "Although CARs have shown promising clinical results, the technology remains limited by the availability of specific cognate cell target antigens. To increase the repertoire of targetable tumor cell antigens we utilized the immune system of the sea lamprey to generate directed variable lymphocyte receptors (VLRs). VLRs serve as membrane bound and soluble immune effectors analogous but not homologous to immunoglobulins. They have a fundamentally different structure than immunoglobulin (Ig)-based antibodies while still demonstrating high degrees of specificity and affinity. To test the functionality of VLRs as the antigen recognition domain of CARs, two VLR-CARs were created. One contained a VLR specific for a murine B cell leukemia and the other contained a VLR specific for the human T cell surface antigen, CD5. The CAR design consisted of the VLR sequence, myc-epitope tag, CD28 transmembrane domain, and intracellular CD3. signaling domain. We demonstrate proof of concept, including gene transfer, biosynthesis, cell surface localization, and effector cell activation for multiple VLR-CAR designs."

According to the news reporters, the research concluded: "Therefore, VLRs provide an alternative means of CAR-based cancer recognition."

For more information on this research see: Genetic engineering of chimeric antigen receptors using lamprey derived variable lymphocyte receptors. *Molecular Therapy-Oncolytics*, 2016;3():1-7. *Molecular Therapy-Oncolytics* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

Our news journalists report that additional information may be obtained by
contacting H.T. Spencer, Emory University, Dept. of Pediat, Aflac Canc & Blood Disorders Center, Sch Med, Atlanta, GA, United States. Additional authors for this research include S.S. Raikar, L. Fleischer, M. Querrey, D.E. Tylawsky, H. Nakahara, C.B. Doering and H.T. Spencer.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Hemic and Immune Systems, Mononuclear Leukocytes, Immunologic Receptors, Genetic Engineering, Biological Factors, Membrane Proteins, Antigen Receptors, Blood Cells, Lymphocytes, Immunology, Genetics, Antigens, Emory University.

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Stem Cell Research - Hematopoietic Stem Cells

Investigators at Erasmus University Medical Center Report Findings in Hematopoietic Stem Cells [Hematopoietic (stem) cell development - how divergent are the roads taken?]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Stem Cell Research - Hematopoietic Stem Cells have been published. According to news reporting originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "The development of the hematopoietic system during early embryonic stages occurs in spatially and temporally distinct waves. Hematopoietic stem cells (HSC), the most potent and self-renewing cells of this system, are produced in the final 'definitive' wave of hematopoietic cell generation."

Funders for this research include Landsteiner Society for Bloodtransfusion Research, ZonMM - Netherlands Scientific Research Council - TOP, National Institutes of Health, Landsteiner Society for Blood Research.

Our news editors obtained a quote from the research from Erasmus University Medical Center, "In contrast to HSCs in the adult, which differentiate via intermediate progenitor populations to produce functional blood cells, the generation of hematopoietic cells in the embryo prior to HSC generation occurs in the early waves by producing blood cells without intermediate progenitors (such as the 'primitive' hematopoietic cells). The lineage relationship between the early hematopoietic cells and the cells giving rise to HSCs, the genetic networks controlling their emergence, and the precise temporal determination of HSC fate remain topics of intense research and debate."

According to the news editors, the research concluded: "This Review article discusses the current knowledge on the step-wise embryonic establishment of the adult hematopoietic system, examines the roles of pivotal intrinsic regulators in this process, and raises questions concerning the temporal onset of HSC fate determination."

For more information on this research see: Hematopoietic (stem) cell development - how divergent are the roads taken? FEBS Letters, 2016;590(22):3975-3986. FEBS Letters can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Elsevier - www.elsevier.com; FEBS Letters - www.journals.elsevier.com/febs-letters/)

The news editors report that additional information may be obtained by contacting E. Dzierzak, Erasmus MC, Erasmus MC Stem Cell Inst, Dept. of Cell Biol, Rotterdam, Netherlands. Additional authors for this research include C.S. Vink and E. Dzierzak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/1873-3468.12372. This DOI is a link to an online electronic document
Investigators at European Institute of Oncology Report Findings in Stem Cell Research (Molecular mechanisms of asymmetric divisions in mammary stem cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Stem Cell Research is the subject of a report. According to news reporting originating in Milan, Italy, by NewsRx journalists, research stated, "Stem cells have the remarkable ability to undergo proliferative symmetric divisions and self-renewing asymmetric divisions. Balancing of the two modes of division sustains tissue morphogenesis and homeostasis."

Financial supporters for this research include Associazione Italiana per la Ricerca sul Cancro, Ministero della Salute (Ministry of Health, Italy).

The news reporters obtained a quote from the research from the European Institute of Oncology, "Asymmetric divisions of Drosophila neuroblasts (NBs) and sensory organ precursor (SOP) cells served as prototypes to learn what we consider now principles of asymmetric mitoses. They also provide initial evidence supporting the notion that aberrant symmetric divisions of stem cells could correlate with malignancy. However, transferring the molecular knowledge of circuits underlying asymmetry from flies to mammals has proven more challenging than expected. Several experimental approaches have been used to define asymmetry in mammalian systems, based on daughter cell fate, unequal partitioning of determinants and niche contacts, or proliferative potential. In this review, we aim to provide a critical evaluation of the assays used to establish the stem cell mode of division, with a particular focus on the mammary gland system."

According to the news reporters, the research concluded: "In this context, we will discuss the genetic alterations that impinge on the modality of stem cell division and their role in breast cancer development."

For more information on this research see: Molecular mechanisms of asymmetric divisions in mammary stem cells. EMBO Reports, 2016;17(12):1700-1720. EMBO Reports can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; EMBO Reports - www.nature.com/embor/)

Our news correspondents report that additional information may be obtained by contacting P.G. Pelicci, European Inst Oncol, Dept. of Expt Oncol, Milan, Italy. Additional authors for this research include T. Vlachou, M. Carminati, P.G. Pelicci and M. Mapelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.15252/embr.201643021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Stem Cell Research, Hematopoietic System, Article Review, Hemic and Immune Systems, Hematopoietic Stem Cells, Stem Cell Research, Bone Marrow Cells, Hematology, Erasmus University Medical Center.
Biotechnology - Cancer Gene Therapy

Investigators at Faculty of Pharmacy Zero in on Cancer Gene Therapy [Akt inhibitors in cancer treatment: The long journey from drug discovery to clinical use (Review)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biotechnology - Cancer Gene Therapy is the subject of a report. According to news reporting from Bucharest, Romania, by NewsRx journalists, research stated, "Targeted cancer therapies are used to inhibit the growth, progression, and metastasis of the tumor by interfering with specific molecular targets and are currently the focus of anticancer drug development. Protein kinase B, also known as Akt, plays a central role in many types of cancer and has been validated as a therapeutic target nearly two decades ago."

The news correspondents obtained a quote from the research from the Faculty of Pharmacy, "This review summarizes the intracellular functions of Akt as a pivotal point of converging signaling pathways involved in cell growth, proliferation, apoptosis and neoangiogenesis, and focuses on the drug design strategies to develop potent anticancer agents targeting Akt. The discovery process of Akt inhibitors has evolved from adenosine triphosphate (ATP)-competitive agents to alternative approaches employing allosteric sites in order to overcome the high degree of structural similarity between Akt isoforms in the catalytic domain, and considerable structural analogy to the AGC kinase family. This process has led to the discovery of inhibitors with greater specificity, reduced side-effects and lower toxicity. A second generation of Akt has inhibitors emerged by incorporating a chemically reactive Michael acceptor template to target the nucleophile cysteines in the catalytic activation loop. The review outlines the development of several promising drug candidates emphasizing the importance of each chemical scaffold."

According to the news reporters, the research concluded: "We explore the pipeline of Akt inhibitors and their preclinical and clinical examination status, presenting the potential clinical application of these agents as a monotherapy or in combination with ionizing radiation, other targeted therapies, or chemotherapy."


Our news journalists report that additional information may be obtained by contacting G.M. Nitulescu, Faculty of Pharmacy, 'Carol Davila' University of Medicine and Pharmacy, Bucharest 020956, Romania. Additional authors for this research include D. Margina, P. Juzenas, Q. Peng, O.T. Olaru, E. Saloustros, C. Fenga, D.A. Spandidos, M. Libra and A.M. Tsatsakis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2015.3306. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Europe, Kinase, Romania, Oncology, Bucharest, Article Review, Cancer Therapy, Cancer Gene Therapy, Drugs and
Therapies, Enzymes and Coenzymes.

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Nutritional and Metabolic Diseases and Conditions -…

Investigators at Federal University Discuss Findings in Fabry Disease (Characterization and phosphoproteomic analysis of a human immortalized podocyte model of Fabry disease generated using CRISPR/Cas9 technology)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Fabry Disease is the subject of a report. According to news reporting originating in Teresina, Brazil, by NewsRx journalists, research stated, "Fabry nephropathy is a major cause of morbidity and premature death in patients with Fabry disease (FD), a rare X-linked lysosomal storage disorder. Gb3, the main substrate of alpha-galactosidase A (alpha-Gal A), progressively accumulates within cells in a variety of tissues."

The news reporters obtained a quote from the research from Federal University, "Establishment of cell models has been useful as a tool for testing hypotheses of disease pathogenesis. We applied CRISPR/Cas9 genome editing technology to the GLA gene to develop human kidney cell models of FD in human immortalized podocytes, which are the main affected renal cell type. Our podocytes lack detectable alpha-Gal A activity and have increased levels of Gb3. To explore different pathways that could have distinct patterns of activation under conditions of alpha-gal A deficiency, we used a high-throughput antibody array to perform phosphorylation profiling of CRISPR/Cas9-edited and control podocytes. Changes in both total protein levels and in phosphorylation status per site were observed."

According to the news reporters, the research concluded: "Analysis of our candidate proteins suggests that multiple signaling pathways are impaired in FD."


Our news correspondents report that additional information may be obtained by contacting S. Monte, Univ Fed Piaui, Lab Immunogenet & Mol Biol, Teresina, Brazil. Additional authors for this research include A. Labilloy, M.L. Eshbach, A. Roy, A.R. Subramanya, S. Monte, G. Labilloy and O.A. Weisz.

Keywords for this news article include: Teresina, Brazil, South America, Nutritional and Metabolic Diseases and Conditions, Lysosomal Storage Diseases and Conditions, X-Linked Genetic Diseases and Conditions, Brain Diseases and Conditions, Lipid Metabolism Disorders, Sphingolipidoses, Fabry Disease, Technology, Podocytes, Neurology, Genetics, Federal University.

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Heart Disorders and Diseases - Cardiomyopathies

Investigators at First Hospital of Jilin University Report New Data on Cardiomyopathies (Ginsenoside Rg1 ameliorates diabetic cardiomyopathy by inhibiting endoplasmic reticulum stress-induced apoptosis in a streptozotocin-induced diabetes rat ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Cardiomyopathies. According to news reporting out of Changchun, People's Republic of China, by NewsRx editors, research stated, "Ginsenoside Rg1 has been demonstrated to have cardiovascular protective effects. However, whether the cardioprotective effects of ginsenoside Rg1 are mediated by endoplasmic reticulum (ER) stress-induced apoptosis remain unclear."

Our news journalists obtained a quote from the research from the First Hospital of Jilin University, "In this study, among 80 male Wistar rats, 15 rats were randomly selected as controls; the remaining 65 rats received a diet rich in fat and sugar content for 4 weeks, followed by intraperitoneal injection of streptozotocin (STZ, 40 mg/kg) to establish a diabetes model. Seven days after STZ injection, 10 rats were randomly selected as diabetic model (DM) controls, 45 eligible diabetic rats were randomized to three treatment groups and administered ginsenoside Rg1 in a dosage of 10, 15 or 20 mg/kg/day, respectively. After 12 weeks of treatment, rats were killed and serum samples obtained to determine cardiac troponin (cTn)-I. Myocardial tissues were harvested for morphological analysis to detect myocardial cell apoptosis, and to Analyse protein expression of glucose-regulated protein 78 (GRP78), C/EBP homologous protein (CHOP), and Caspase-12. Treatment with ginsenoside Rg1 (10-20 mg/kg) significantly reduced serum cTnI levels compared with DM control group (all p<0.01). Ginsenoside Rg1 (15 and 20 mg/kg) significantly reduced the percentage of apoptotic myocardial cells and improved the parameters of cardiac function. Haematoxylin and eosin and Masson staining indicated that ginsenoside Rg1 could attenuate myocardial lesions and myocardial collagen volume fraction. Additionally, ginsenoside Rg1 significantly reduced GRP78, CHOP, and cleaved Caspase-12 protein expression in a dose-dependent manner."

According to the news editors, the research concluded: "These findings suggest that ginsenoside Rg1 appeared to ameliorate diabetic cardiomyopathy by inhibiting ER stress-induced apoptosis in diabetic rats."


Our news journalists report that additional information may be obtained by contacting H. Yu, Cardiology, The First Hospital of Jilin University, Changchun, Jilin, People's Republic of China. Additional authors for this research include J. Zhen, Y. Yang, J. Gu, S. Wu and Q. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jcmm.12739. This DOI is a link to an online electronic document that is either free or for purchase.
Publisher contact information for the *Journal of Cellular and Molecular Medicine* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Caspase, Diabetes, Changchun, Apoptosis, Cytoplasm, Cardiology, Organelles, Proteomics, Triterpenes, Ginsenosides, Endocrinology, Heart Disease, Cardiomyopathies, Protein Expression, Cellular Structures, Intracellular Space, Endoplasmic Reticulum, Enzymes and Coenzymes, Diabetic Cardiomyopathy.

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**Urogenital Diseases and Conditions - Interstitial Cystitis**

**Investigators at Florida International University Report Findings in Interstitial Cystitis (Therapeutic Potential of Human Chorionic Gonadotropin Against Painful Bladder Syndrome/Interstitial Cystitis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Urogenital Diseases and Conditions - Interstitial Cystitis is now available. According to news originating from Miami, Florida, by NewsRx editors, the research stated, "Painful bladder syndrome/interstitial cystitis is a debilitating chronic bladder disease that primarily affects women. The disease is due to a damage of urothelial cell lining."

Our news journalists obtained a quote from the research from Florida International University, "As a result, potassium particles and other toxic substances in urine can leak into bladder mucosa, causing the symptoms of lower abdominal/pelvic discomfort, pain, increased urination frequency, urgency, nocturia, and so on, all of which can substantially reduce the quality of daily life. There are multiple symptom relieving therapies. Among them, only pentosan polysulfate sodium, sold under the brand name of Elmiron, has been approved for oral use by US Food and Drug Administration. It provides the relief after several months of use."

According to the news editors, the research concluded: "Based on the scientific leads presented in this article, we propose that human chorionic gonadotropin has a therapeutic potential that is worth investigating for the treatment of this disease."


The correspondents report that additional information may be obtained from C.V. Rao, Florida International University, Herbert Wertheim Coll Med, Reprod & Dev Program, Dept. of Obstet & Gynecol, Miami, FL 33199, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1933719116639139. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Female Urinary Bladder Diseases and Conditions, Urogenital Diseases and Conditions, Urologic Diseases and Conditions, Chorionic Gonadotropin Therapy, Therapy, Article Review, Interstitial Cystitis, Drugs and Therapies, Pregnancy Proteins, Placental Hormones, Peptide Proteins, Peptide Hormones, Pharmaceuticals, Women's Health,
Gonadotropins, Therapeutics, Florida International University.

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**Drugs and Therapies - Chemotherapy**

**Investigators at Guangxi Medical University Discuss Findings in Chemotherapy (Serum HE4 superior to CA125 in predicting poorer surgical outcome of epithelial ovarian cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Chemotherapy have been presented. According to news reporting originating in Nanning, People's Republic of China, by NewsRx journalists, research stated, "Epithelial ovarian cancer (EOC) remains the deadliest form of gynecological cancers. Optimal tumor debulking, no matter the primary or the interval, is the most important prognostic factor for EOC, so there is an urgent demand for biomarkers to predict surgical outcome."

Financial support for this research came from Guilin research and technology development project.

The news reporters obtained a quote from the research from Guangxi Medical University, "The aim of this study was to investigate whether serum human epididymis protein 4 (HE4) and cancer antigen 125 (CA125) could predict surgical outcome of EOC. The levels of preoperative serum HE4 and CA125 were determined by electrochemiluminescence (ECLIA) in 82 EOC patients, comprising 39 subjected to primary debulking surgery (PDS) and 43 with extensive stage III or IV disease to neoadjuvant chemotherapy followed by interval debulking surgery (NACT-IDS). Among 39 patients subjected to primary debulking surgery, HE4 was superior to CA125 in predicting surgical outcome (area under curve [AUC] 0.758 vs. 0.633). At a cutoff of 353.22 pmol/L, HE4 reached 77.4% in sensitivity and 75% in specificity. The prediction of surgical outcome of interval debulking surgery based on preoperative HE4 and CA125 values was performed in 43 patients who received NACT-IDS. The difference of AUC between HE4 and CA125 (0.793 vs. 0.663) indicating that HE4 was the better biomarker to predict surgical outcome of IDS. A pre-IDS HE4 value of 154.3 pmol/L is the optimal cutoff to identify patients who would not benefit from IDS with a sensitivity of 92.9% and a specificity of 69%. The change (>70%) of HE4 before and after neoadjuvant chemotherapy could predict optimal interval debulking surgery. Serum HE4 was superior to CA125 in predicting surgical outcome of primary debulking surgery and interval debulking surgery."

According to the news reporters, the research concluded: "The change (absolute value or percentage) of HE4 in neoadjuvant chemotherapy could predict the outcome of interval debulking surgery."


Our news correspondents report that additional information may be obtained by contacting L. Li, Guangxi Med Univ, Affiliated Tumor Hosp, Dept. of Gynecol Oncol, Nanning 530021, The Guangxi Zhu, People's Republic of China.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5335-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nanning, People's Republic of China, Asia, Cancer, Diagnostics and Screening, Drugs and Therapies, Chemotherapy, Oncology, Surgery, Guangxi Medical University.

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Enzymes and Coenzymes - Glycoside Hydrolases

Investigators at Gyeongsang National University Detail Findings in Glycoside Hydrolases (Potent bacterial neuraminidase inhibitors, anthraquinone glucosides from Polygonum cuspidatum and their inhibitory mechanism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Enzymes and Coenzymes - Glycoside Hydrolases. According to news reporting out of Jinju, South Korea, by NewsRx editors, research stated, "Ethnopharmacological relevance: P. cuspidatum is a popular Chinese medicinal herb, having a long history of usage in traditional Chinese medicine for the treatment of several inflammatory diseases in the form of powders and decoctions. Similarly there are many reports that P. cuspidatum has antibacterial and anti-inflammatory effects, both of which are properties associated with compounds having activity against bacterial neuraminidase (BNA)."

Our news journalists obtained a quote from the research from Gyeongsang National University, "Aim of the study: We investigated whether P. cuspidatum's metabolites exhibited BNA inhibition. Consistent with our hypothesis, we found several inhibitors from the methanol extract of this plant, and then fully characterized their inhibitory mechanisms. Activity guided separation of methanol extract led to isolation of individual constituents, and subsequently their structures were elucidated by spectroscopic analysis. Detailed kinetic behaviors of BNA inhibitors were explored by showing the changes of K-m and V-max, the ratios of K-I/K-IS and K-ik/K-iv, and fluorescence quenching effect. This study attempted to isolate the responsible metabolites and elucidate the BNA inhibitory mechanism. The principal BNA inhibitory compounds (2-6) were identified as emodin (2), physcion-8-O-beta-D-glucopyranoside (3), emodin-8-O-beta-D-glucopyranoside (4), emodin-1-O-beta-D-glucopyranoside (5), and 2-methoxy-6-acetyl-7-methyljuglone (6). Unexpectedly, anthraquinone glucosides (3-5) were much more potent than their corresponding aglycones (1 and 2). For example, emodin (2) had an IC50=5.4 μM, whereas its glucosides (4 and 5) had IC50=0.85 μM and 0.43 μM respectively. A similar trend was observed with physcion (1, IC50 > 200 μM) and its glucoside (3, IC50=6.2 μM). The anthraquinone (2) was mixed type I inhibitor, whereas its glucosides (4 and 5) were noncompetitive. In addition, the fluorescence quenching study showed that the affinity constants (K-SV) of inhibitors increased in proportion to their inhibitory potencies. Furthermore, we quantified the major and minor metabolites through UPLC-PDA-Q-TOF/MS, and revealed that the most potent inhibitors were the major constituents."

According to the news editors, the research concluded: "This result contributes to our
understanding of *P. cuspidatum* utility as functional foodstuff and widely used herbal medicine."


Our news journalists report that additional information may be obtained by contacting Z. Uddin, Gyeongsang National University, Div Appl Life Sci Plus BK21, IALS, Jinju 660701, South Korea. Additional authors for this research include Y.H. Song, M.J. Curtis-Long, J.Y. Kim, H.J. Yuk and K.H. Park.

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Keywords for this news article include: Jinju, South Korea, Asia, Enzymes and Coenzymes, Glycoside Hydrolases, Anthraquinones, Neuraminidase, Hydrocarbons, Anthracenes, Cascara, Emodin, Gyeongsang National University.

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**Heart Disorders and Diseases - Heart Disease**

**Investigators at Hamilton Health Science Describe Findings in Heart Disease [A Risk Assessment Tool Incorporating New Biomarkers for Cardiovascular Events in Acute Coronary Syndromes: The Organization to Assess Strategies in Ischemic Syndromes ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Disease have been published. According to news reporting originating from Hamilton, Canada, by NewsRx correspondents, research stated, "Several biomarkers have been shown to improve risk stratification in patients with non-ST-segment elevation acute coronary syndrome (NSTEACS); however, they have not been integrated into risk prediction tools. C-reactive-protein, N-terminal-proebrain natriuretic peptide (NT-proBNP), and haemoglobin A1C were measured in 6447 patients with NSTEACS who were enrolled in the Clopidogrel in Unstable Angina to Prevent Recurrent Events trial."

Our news editors obtained a quote from the research from Hamilton Health Science, "A risk score to predict cardiovascular (CV) death, myocardial infarction (MI), or stroke at 1 year was developed by incorporating biomarkers that were independently predictive of events with traditional variables, electrocardiogram, and troponin-T. Model discrimination was evaluated using c-statistic, integrated discrimination improvement, and net reclassification index, and validated using bootstrap methods. During 1 year of follow-up, 686 patients experienced a CV event. Each biomarker predicted CV death, MI, or stroke; however, only NT-proBNP and haemoglobin A1C improved model discrimination, increasing the c-statistic (0.66-0.71), integrated discrimination improvement to 3.4%, and net reclassification index to 17.5% (P < 0.0001 for all measures). A risk score ranging from 0 to 20 points including variables for
age, prior MI/stroke, sex, ST-segment deviation, troponin-T, NT-proBNP, and haemoglobin A1C classified individuals into low-, intermediate-, and high-risk groups with rates of CV death, MI, stroke of 3.7%, 9.1%, 17.8%, respectively. The absolute benefit of dual antiplatelet therapy vs aspirin alone was 1.0%, 4.7%, and 3.0% in low-, intermediate-, and high-risk groups, respectively."

According to the news editors, the research concluded: "The addition of NT-proBNP and haemoglobin A1C to 5 standard variables creates a 7-variable risk score that improves prediction of CV events at 1 year and aids in risk-based selection of patients with NSTEACS for dual antiplatelet therapy."


The news editors report that additional information may be obtained by contacting S.R. Mehta, Hamilton Hlth Sci, Hamilton, ON, Canada. Additional authors for this research include J.W. Eikelboom, P. Rao-Melacini, J.I. Weitz, S.S. Anand, G. Pare, A. Budaj, J. Pogue, K.A.A. Fox and S. Yusuf.

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Keywords for this news article include: Hamilton, Ontario, Canada, North and Central America, Troponin T, Diagnostics and Screening, Epidemiology, Vascular Diseases and Conditions, Heart Disorders and Diseases, Macromolecular Substances, Acute Coronary Syndrome, Myocardial Infarction, Myocardial Ischemia, Cardiovascular, Heart Disease, Biopolymers, Cardiology, Hamilton Health Science.

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Oncology - Lung Cancer

Investigators at Harvard School of Medicine Describe Findings in Lung Cancer (Programmed Cell Death Ligand 1 Expression in Resected Lung Adenocarcinomas: Association with Immune Microenvironment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Lung Cancer are presented in a new report. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Programmed cell death ligand 1 (PD-L1) expression on tumor cells can be upregulated via activation of CD8(+) cytotoxic T lymphocytes (CTLs) or the T helper cell (Th1) pathway, counterbalancing the CTL/Th1 microenvironment. However, PD-L1 expression in association with subtypes of tumor-associated lymphocytes and molecular alterations has not been well characterized in lung adenocarcinomas."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "PD-L1 expression was evaluated in 261 resected lung adenocarcinomas using tissue
microarrays and various scoring systems, and was correlated with clinicopathologic/molecular features, including the extent/subtype of tumor associated lymphocytes (i.e., CD8, T-bet [Th1 transcription factor], and GATA3 [Th2 transcription factor]), and patient outcomes. PD-L1 expression was present in 129 (49%), 95 (36.5%), and 62 (24%) cases using cutoffs of >= 1%, > = 5%, and >= 50%, respectively, 98 (38%) by H score and 72 (28%) by immune score. PD-L1 expression was associated with abundant CD8(+) and/or T-bet(+) tumor-infiltrating lymphocytes and EGFR wild-type, significant smoking history, and aggressive pathologic features. In addition, concurrent PD-L1 expression and abundant CD8(+) tumor-associated lymphocytes were seen in 25% of KRAS mutants or cases with no alterations by clinical molecular testing as opposed to only 7.4% of EGFR mutants. PD-L1 expression was significantly associated with decreased progression-free and overall survival rates by univariate analysis, but not by multivariate analysis.”

According to the news editors, the research concluded: "PD-L1 expression in resected lung adenocarcinomas is frequently observed in the presence of CTL/Th1 microenvironment, in particular in those with KRAS mutations or no common molecular alterations, suggesting that blockade of the PD-1/PD-L1 axis may be a promising treatment strategy to reinstitute active immune response for at least a subset of such patient populations."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtho.2016.08.134. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Hemic and Immune Systems, Mononuclear Leukocytes, Adenocarcinoma, Blood Cells, Lymphocytes, Lung Cancer, Immunology, Genetics, Oncology, Harvard School of Medicine.

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**Muscle Cells**

**Investigators at Harvard School of Medicine Describe Findings in Muscle Cells (Adventitial MSC-like Cells Are Progenitors of Vascular Smooth Muscle Cells and Drive Vascular Calcification in Chronic Kidney Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Muscle Cells are discussed in a new report.
According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Mesenchymal stem cell (MSC)-like cells reside in the vascular wall, but their role in vascular regeneration and disease is poorly understood. Here, we show that Gli1(+) cells located in the arterial adventitia are progenitors of vascular smooth muscle cells and contribute to neointima formation and repair after acute injury to the femoral artery."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Genetic fate tracing indicates that adventitial Gli1(+) MSC-like cells migrate into the media and neointima during athero- and arteriosclerosis in ApoE(-/-) mice with chronic kidney disease. Our data indicate that Gli1(+) cells are a major source of osteoblast-like cells during calcification in the media and intima. Genetic ablation of Gli1(+) cells before induction of kidney injury dramatically reduced the severity of vascular calcification."

According to the news editors, the research concluded: "These findings implicate Gli1(+) cells as critical adventitial progenitors in vascular remodeling after acute and during chronic injury and suggest that they may be relevant therapeutic targets for mitigation of vascular calcification."

For more information on this research see: Adventitial MSC-like Cells Are Progenitors of Vascular Smooth Muscle Cells and Drive Vascular Calcification in Chronic Kidney Disease. Cell Stem Cell, 2016;19(5):628-642. Cell Stem Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www elsevier com; Cell Stem Cell - www journals elsevier com/cell stem cell/)


The direct object identifier (DOI) for that additional information is: http://dx doi org/10.1016/j.stem.2016.08.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Muscle Cells, Genetics, Harvard School of Medicine.

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Investigators at Harvard School of Medicine Describe Findings in Obesity (Associations of Parent Health Behaviors and Parenting Practices with Sleep Duration in Overweight and Obese Children)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "To examine the extent to which parent health behaviors and parenting practices are associated with school-age children's sleep duration. We surveyed 790 parents of children, aged 6 to 12 y, who had a body mass index (BMI) &gt;= 90th percentile and were participating in a randomized controlled obesity trial."

The news correspondents obtained a quote from the Harvard
School of Medicine, "The main exposures were parent sleep duration, screen time and physical activity, parental limits placed on child TV viewing time and TV content, and parents' confidence regarding their ability to help their child get enough sleep. The primary outcome was child sleep duration. We used linear regression models to examine associations of parent behaviors and parenting practices with child sleep duration. On average, children slept 9.2 h per night, whereas parents slept 6.9 h. Parents reported having an average of 1.9 h of screen time per day and 0.6 h of physical activity. There were 57.3% of parents who reported feeling very/extremely confident that they could help their child get enough sleep. In adjusted multivariate analyses, child sleep duration was 0.09 h/day (95% confidence interval: 0.03, 0.15) longer for each 1-h increment in parent sleep duration. Additionally, children whose parents reported being very/extremely confident they could help their child get age-appropriate sleep duration slept 0.67 h/day longer (95% confidence interval: 0.54, 0.81) than those whose parents were not/somewhat confident."

According to the news reporters, the research concluded: "Educating parents about their own sleep health and enhancing parent confidence to help their children get enough sleep are potential areas of intervention to increase child sleep duration."

For more information on this research see: Associations of Parent Health Behaviors and Parenting Practices with Sleep Duration in Overweight and Obese Children. Journal of Clinical Sleep Medicine, 2016;12(11):1493-1498. Journal of Clinical Sleep Medicine can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.

Our news journalists report that additional information may be obtained by contacting C.J. Rea, Harvard Med Sch, Boston, MA, United States. Additional authors for this research include R.L. Smith and E.M. Taveras.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.6274. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Diagnostics and Screening, Bariatrics, Obesity, Harvard School of Medicine.

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Oncology - Ovarian Cancer

Investigators at Harvard School of Medicine Detail Findings in Ovarian Cancer (The association between reproductive and hormonal factors and ovarian cancer by estrogen-alpha and progesterone receptor status)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Ovarian Cancer is the subject of a report. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "We assessed the association between reproductive and hormonal factors and ovarian cancer incidence characterized by estrogen receptor-alpha (ER alpha) and progesterone receptor (PR) status. Tissue microarrays were used to assess ERa and PR expression among 197 Nurses' Health Study (NHS), 42 NHSII and 76 New England Case-Control Study (NECC) ovarian cancer cases."
Our news journalists obtained a quote from the research from the Harvard School of Medicine, "NHS/NHSII cases were matched to up to 4 controls (n = 954) on diagnosis date and birth year. NECC controls (n = 725) were frequency matched on age. Cases were considered receptor positive if of tumor cells stained positive. Associations by ER alpha and PR status were assessed using polytomous logistic regression. p-Value for heterogeneity was calculated using a likelihood ratio test. 45% of ovarian tumors were PR(+), 78% were ERa (+) and 45% were ER alpha(+)/PR(+), while 22% were ER alpha(-)/PR(-). Postmenopausal status was associated with an increased risk of PR(-) tumors (OR: 2.07; 95%CI: 1.15-3.75; p-heterogeneity = 0.01) and age at natural menopause was inversely associated with PR(-) tumors (OR, per 5 years: 0.77; 95% CI: 0.61-0.96; p-het = 0.01). Increasing duration of postmenopause was differentially associated by PR status (p-het = 0.0009). Number of children and tubal ligation were more strongly associated with ERa(-) versus ER alpha (+) tumors (p-het = 0.002 and 0.05, respectively). No differential associations were observed for oral contraceptive or hormone therapy use. Postmenopausal women have an increased risk of developing PR(-) ovarian tumors compared to premenopausal women."

According to the news editors, the research concluded: "The associations observed for ovarian cancer differ from those seen for breast cancer suggesting that the biology for tumor development through ERa and PR pathways may differ."

For more information on this research see: The association between reproductive and hormonal factors and ovarian cancer by estrogen-alpha and progesterone receptor status. Gynecologic Oncology, 2016;143(3):628-635. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news journalists report that additional information may be obtained by contacting A.L. Shafrir, Harvard Med Sch, Boston, MA, United States. Additional authors for this research include M.S. Rice, M. Gupta, K.L. Terry, B.A. Rosner, R.M. Tamimi, J.L. Hecht and S.S. Tworoger.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Proteins, Risk and Prevention, Progesterone Receptors, Progesterone Congeners, Corpus Luteum Hormones, Transcription Factors, DNA-Binding Proteins, Steroid Receptors, Gonadal Hormones, Women's Health, Ovarian Cancer, Endocrinology, Gynecology, Estrogens, Oncology, Therapy, Harvard School of Medicine.

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The news correspondents obtained a quote from the research from the Harvard School of Medicine, "Prolyl hydroxylase domain proteins hydroxylate substrate proline residues and have been linked to fuel switching. Here, we reveal that PHD3 rapidly triggers repression of FAO in response to nutrient abundance via hydroxylation of acetyl-coA carboxylase 2 (ACC2). We find that PHD3 expression is strongly decreased in subsets of cancer including acute myeloid leukemia (AML) and is linked to a reliance on fat catabolism regardless of external nutrient cues. Overexpressing PHD3 limits FAO via regulation of ACC2 and consequently impedes leukemia cell proliferation."

According to the news reporters, the research concluded: "Thus, loss of PHD3 enables greater utilization of fatty acids but may also serve as a metabolic and therapeutic liability by indicating cancer cell susceptibility to FAO inhibition."

For more information on this research see: PHD3 Loss in Cancer Enables Metabolic Reliance on Fatty Acid Oxidation via Deactivation of ACC2. *Molecular Cell*, 2016;63(6):1006-1020. *Molecular Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)


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Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Molecular and Cellular Biology, Life Science Research, Oncology, Cancer, Harvard School of Medicine.

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**Hematologic Diseases and Conditions --**

**Investigators at Harvard School of Medicine Discuss Findings in Thrombocytopenia (Low-level light treatment ameliorates immune thrombocytopenia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematologic Diseases and Conditions - Thrombocytopenia have been published. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Immune thrombocytopenia (ITP) is an immune-mediated acquired bleeding disorder characterized by abnormally low platelet counts. We reported here the ability of low-level light treatment (LLLT) to alleviate ITP in mice."

The news reporters obtained a quote from the research from the Harvard School of Medicine, "The treatment is based on noninvasive whole body illumination 30 min a day for a few consecutive days by near infrared light (830 nm) transmitted by an array of light-emitting diodes (LEDs). LLLT significantly lifted the nadir of platelet counts and restored tail bleeding
time when applied to two passive ITP models induced by anti-CD41 antibody. The anti-platelet antibody hindered megakaryocyte differentiation from the progenitors, impaired proplatelet and platelet formation, and induced apoptosis of platelets. These adverse effects of anti-CD41 antibody were all mitigated by LLLT to varying degrees, owing to its ability to enhance mitochondrial biogenesis and activity in megakaryocytes and preserve mitochondrial functions in platelets in the presence of the antibody."

According to the news reporters, the research concluded: "The observations argue not only for contribution of mitochondrial stress to the pathology of ITP, but also clinical potentials of LLLT as a safe, simple, and cost-effective modality of ITP."

For more information on this research see: Low-level light treatment ameliorates immune thrombocytopenia. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting Q. Zhang, Harvard Med Sch, Massachusetts General Hospital, Dept. of Dermatol, Wellman Center Photomed, Boston, MA 02114, United States. Additional authors for this research include Q. Zhang, P.Y. Li, T.T. Dong and M.X. Wu.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Hematologic Diseases and Conditions, Blood Platelet Disorders, Thrombocytopenia, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Hematology, Harvard School of Medicine.

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Drugs and Therapies - Pharmacology

Investigators at Hebei University Discuss Findings in Pharmacology
[Selective activation of vascular K(v)7.4/K(v)7.5 K+ channels by fasudil contributes to its vasorelaxant effect]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Pharmacology are presented in a new report. According to news reporting out of Shijiazhuang, People's Republic of China, by NewsRx editors, research stated, "Background and PurposeK(v)7 (K(v)7.1-7.5) channels play an important role in the regulation of neuronal excitability and the cardiac action potential. Growing evidence suggests K(v)7.4/K(v)7.5 channels play a crucial role in regulating vascular smooth muscle contractility."

Our news journalists obtained a quote from the research from Hebei University, "Most of the reported K(v)7 openers have shown poor selectivity across these five subtypes. In this study, fasudil - a drug used for cerebral vasoconstriction - has been found to be a selective opener of K(v)7.4/K(v)7.5 channels. Experimental ApproachA perforated whole-cell patch technique was used to record the currents and membrane potential. Homology modelling and a docking technique were used to investigate the interaction between fasudil and the K(v)7.4 channel. An isometric tension recording technique was used to assess the vascular tension. Key ResultsFasudil selectively and potently enhanced K(v)7.4 and K(v)7.4/K(v)7.5 currents expressed in HEK293 cells, and shifted the voltage-dependent activation curve in a more
negative direction. Fasudil did not affect either K(v)7.2 and K(v)7.2/K(v)7.3 currents expressed in HEK293 cells, the native neuronal M-type K+ currents, or the resting membrane potential in small rat dorsal root ganglia neurons. The Val(248) in S5 and Ile(308) in S6 segment of K(v)7.4 were critical for this activating effect of fasudil. Fasudil relaxed precontracted rat small arteries in a concentration-dependent fashion; this effect was antagonized by the K(v)7 channel blocker XE991.

According to the news editors, the research concluded: "Conclusions and Implications These results suggest that fasudil is a selective K(v)7.4/K(v)7.5 channel opener and provide a new dimension for developing selective K(v)7 modulators and a new perspective for the use, action and mechanism of fasudil."


Keywords for this news article include: Shijiazhuang, People's Republic of China, Asia, Pharmacology, Drugs and Therapies, Hebei University.

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Liver Diseases and Conditions - Hepatitis B Virus

Investigators at Huazhong University of Science and Technology Detail Findings in Hepatitis B Virus (Hepatitis B virus upregulates host expression of alpha-1,2-mannosidases via the PPAR alpha pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Hepatitis B Virus is now available. According to news reporting originating in Hubei, People's Republic of China, by NewsRx journalists, research stated, "To assess the effects of hepatitis B virus (HBV) on the expression of host alpha-1,2-mannosidases and determine the underlying mechanisms. We measured the expression levels of MAN1A1, MAN1A2, MAN1B1, and MAN1C1 in cell lines HepG2.2.15, HepN10, HepAD38 and HepG2 by Western blot."

The news reporters obtained a quote from the research from the Huazhong University of Science and Technology, "Viral antigens (HBsAg and HBeAg) in the culture medium were measured using the chemiluminescence method. HBV DNA quantification assays were performed using a commercial real-time PCR kit. Protein levels of human liver tissue alpha-1,2-mannosidases were also evaluated by Western blot. Plasmids containing seven individual viral genes of HBV (PTT22-HBx, PTT22-HBs, PTT22-preS2, PTT22-preS1, PTT22-HBe, PTT22-HBc, and PTT22-HBp) or control plasmids (PTT22-vector) were transfected into HepG2 cells. MK886 (PPAR alpha) and GW9662 (PPAR.) inhibitors were used to explore the effects of HBV on a-1,2-mannosidase expression after the PPARa and PPAR. pathways were
We showed that the expression of alpha-1,2-mannosidases was higher in stably transfected HBV cells than in controls. The expression levels of alpha-1,2-mannosidase were higher in AD38 cells than those in ND10 cells, which were in turn greater than those in G2.2.15 cells, and positively correlated with the expression of HBsAg in all the cell lines. Levels of alpha-1,2-mannosidase in non-tumorous liver tissues of HBV-related HCC patients were also higher than in the tissues from non-HBV-related HCC patients. Moreover, transfecting HepG2 cells with a component of the HBV viral envelope also increased the expression of alpha-1,2-mannosidases. However, this envelope protein component could not induce MAN1C1 expression in the presence of a PPAR alpha inhibitor, MK886. We also found that MK886 did not affect the expression of MAN1C1 in AD38 cells without tetracycline in the culture medium. This phenomenon was not observed in the case of GW9662."

According to the news reporters, the research concluded: "Our results indicate that HBV increases the expression of alpha-mannosidases both in vitro and in vivo via activation of the PPAR alpha pathway by its envelope protein."


Our news correspondents report that additional information may be obtained by contacting D.Y. Tian, Huazhong University of Science & Technology, Tongji Hosp, Tongji Med College, Wuhan 430030, Hubei, People's Republic of China. Additional authors for this research include L.B. Jiang, X.J. Zou, W. Yi and D.Y. Tian.

Keywords for this news article include: Hubei, People's Republic of China, Asia, Peroxisome Proliferator-Activated Receptors, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Hepadnaviridae Infections, Transcription Factors, Enzymes and Coenzymes, DNA-Binding Proteins, Glycoside Hydrolases, Hepatitis B Virus, Orthohepadnavirus, Gastroenterology, Mannosidases, DNA Viruses, PPAR alpha, Hepatology, Antigens, Genetics, Virology, Viral, HBV, Huazhong University of Science and Technology.

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China, Fundamental Research Funds for the Central Universities, National High Technology Research and Development Program of China, Independent Innovation Foundation of Huazhong University of Science and Technology, Clinical Foundation of Tongji Hospital, National Science Foundation of China.

Our news journalists obtained a quote from the research from the Huazhong University of Science and Technology, "Most HCC overexpress GPC3, whereas little GPC3 can be detected in normal adult liver and benign liver lesions. Therefore, it is important to understand the function of GPC3 in HCC tumor development as the GPC3 ligand may facilitate detection of HCC. In this study, a 12-mer peptide with the sequence of DHLASLWWGTEL (denoted as TJ12P1) was identified by screening a phage display peptide library that demonstrated ideal GPC3 binding affinity. We used TJ12P1 conjugated with near-infrared fluorescent (NIFR) dye Cy5.5 for tumor imaging. After intravenous injection of the imaging agent, TJ12P1, xenografts of high GPC3 expressing hepatocellular carcinoma cell line, HepG2, demonstrated significantly higher tumor accumulation (tumor/muscle ratio: 3.98 ? 0.36) than those of low GPC3 expressing prostate cancer cell line, PC3 (tumor/muscle ratio: 2.03 ? 0.23). More importantly, GPC3 expression in tumor samples of patients could be visualized using TJ12P1, suggesting the potential use of this peptide as a probe for HCC detection."

According to the news editors, the research concluded: "Our study has successfully identified a promising GPC3-binding peptide ligand for detecting the GPC3 expression in HCC not only in vitro but also in vivo by its noninvasive imaging."


Our news journalists report that additional information may be obtained by contacting D. Zhu, Dept. of Nuclear Medicine and PET, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan 430000, People's Republic of China. Additional authors for this research include Y. Qin, J. Wang, L. Zhang, S. Zou, X. Zhu and L. Zhu.

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Keywords for this news article include: Asia, Wuhan, Oncology, Peptides, Glypicans, Carcinomas, Proteomics, Liver Cancer, Membrane Proteins, Membrane Glycoproteins, People's Republic of China, Heparan Sulfate Proteoglycans.

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Chromaffin Cells

Investigators at Hunan University Report Findings in Chromaffin Cells (Bibenzyl compound 20c protects against endoplasmic reticulum stress in tunicamycin-treated PC12 cells in vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Chromaffin Cells are discussed in a new report. According to news reporting out of Changsha, People's Republic of China, by NewsRx editors,
research stated, "Accumulation of alpha-synuclein (alpha-syn) in the brain is a characteristic of Parkinson's disease (PD). In this study, we investigated whether treatment with tunicamycin, an endoplasmic reticulum (ER) stress inducer, led to the accumulation of alpha-syn in PC12 cells, and where alpha-syn protein was accumulated, and finally, whether bibenzyl compound 20c, a novel compound isolated from Gastrodia elata (Tian ma), could alleviate the accumulation of alpha-syn and ER stress activation in tunicamycin-treated PC12 cells."

Our news journalists obtained a quote from the research from Hunan University, "PC12 cells were treated with tunicamycin for different time (6 h, 12 h, 24 h, 48 h). Cell viability was determined by a MTT assay. Subcellular fractions of ER and mitochondria were extracted with the Tissue Endoplasmic reticulum Isolation Kit. The levels of alpha-syn protein and ER-stress-associated downstream chaperones were detected using Western blots and immunofluorescence. Treatment of PC12 cells with tunicamycin (0.5-10 μg/mL) dose-dependently increased the accumulation of alpha-syn monomer (19 kDa) and oligomer (55 kDa), and decreased the cell viability. Accumulation of the two forms of alpha-syn was observed in both the ER and mitochondria with increasing treatment time. Co-treatment with 20c (10(-5) mol/L) significantly increased the viability of tunicamycin-treated cells, reduced the level of alpha-syn protein and suppressed ER stress activation in the cells, evidenced by the reductions in phosphorylation of eIF2 alpha and expression of spliced ATF6 and XBP1. Tunicamycin treatment caused accumulation of alpha-syn monomer and oligomer in PC12 cells."

According to the news editors, the research concluded: "Bibenzyl compound 20c reduces the accumulation of alpha-syn and inhibits the activation of ER stress, which protected PC12 cells against the toxicity induced by tunicamycin."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/aps.2016.75. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Endoplasmic Reticulum, Cellular Structures, Intracellular Space, Chromaffin Cells, Organelles, PC12 Cells, Cytoplasm, Hunan University.

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Drugs and Therapies - Antiretrovirals

Investigators at Indiana University School of Medicine Detail Findings in Antiretrovirals (Inhibition of Cytochrome P450 2B6 Activity by Voriconazole Profiled Using Efavirenz Disposition in Healthy Volunteers)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antiretrovirals are discussed in a new report. According to news reporting out of Indianapolis, Indiana, by NewsRx editors, research stated, "Cytochrome P450 2B6 (CYP2B6) metabolizes clinically important drugs and other compounds. Its expression and activity vary widely among individuals, but quantitative estimation is hampered by the lack of safe and selective in vivo probes of CYP2B6 activity."

Financial support for this research came from HHS | NIH | National Institute of General Medical Sciences (NIGMS).

Our news journalists obtained a quote from the research from the Indiana University School of Medicine, "Efavirenz, a nonnucleoside HIV-1 reverse transcriptase inhibitor, is mainly cleared by CYP2B6, an enzyme strongly inhibited in vitro by voriconazole. To test efavirenz metabolism as an in vivo probe of CYP2B6 activity, we quantified the inhibition of CYP2B6 activity by voriconazole in 61 healthy volunteers administered a single 100-mg oral dose of efavirenz with and without voriconazole administration. The kinetics of efavirenz metabolites demonstrated formation rate-limited elimination. Compared to control, voriconazole prolonged the elimination half-life ((t(1/2)) and increased both the maximum concentration of drug in serum (C-max) and the area under the concentration-time curve from 0 h to t (AUC(0-t)) of efavirenz (mean change of 51%, 36%, and 89%, respectively) (P < 0.0001) with marked intersubject variability (e.g., the percent change in efavirenz AUC(0-t) ranged from 0.4% to similar to 224%). Voriconazole decreased efavirenz 8-hydroxylation by greater than 60% (P < 0.0001), whereas its effect on 7-hydroxylation was marginal. The plasma concentration ratio of efavirenz to 8-hydroxyefavirenz, determined 1 to 6 h after dosing, was significantly increased by voriconazole and correlated with the efavirenz AUC(0-t) (Pearson r = 0.8; P< 0.0001)."

According to the news editors, the research concluded: "This study demonstrates the mechanisms of voriconazole-efavirenz interaction, establishes the use of a low dose of efavirenz as a safe and selective in vivo probe for phenotyping CYP2B6 activity, and identifies several easy-to-use indices that should enhance understanding of the mechanisms of CYP2B6 interindividual variability."

For more information on this research see: Inhibition of Cytochrome P450 2B6 Activity by Voriconazole Profiled Using Efavirenz Disposition in Healthy Volunteers. Antimicrobial Agents and Chemotherapy, 2016;60(11):6813-6822. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting Z. Desta, Indiana Univ Sch Med, Dept. of Med, Div Clin Pharmacol, Indianapolis, IN 46202, United States. Additional authors for this research include I.F. Metzger, N. Thong, J.B.L. Lu, J.T. Callaghan, T.C. Skaar, D.A. Flockhart and R.E. Galinsky.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01000-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Voriconazole Therapy, Drugs and Therapies, Azole Antifungals, Pharmaceuticals, Antiretrovirals, Antiinfectives, Hemepeptides, Cytochromes, Antivirals, Efavirenz, Proteins, NNRTIs, Indiana University School of Medicine.

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Organophosphorus Compounds

Investigators at Institute for Biology Research Report Findings in Organophosphorus Compounds (Propagation of damage in the rat brain following sarin exposure: Differential progression of early processes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Organophosphorus Compounds. According to news reporting from Ness Ziona, Israel, by NewsRx journalists, research stated, "Sarin is an irreversible organophosphate cholinesterase inhibitor and a highly toxic warfare agent. Following the overt, dose-dependent signs (e.g. tremor, hyper secretion, seizures, respiratory depression and eventually death), brain damage is often reported."

The news correspondents obtained a quote from the research from Institute for Biology Research, "The goal of the present study was to characterize the early histopathological and biochemical events leading to this damage. Rats were exposed to 1LD50 of sarin (80 μg/kg, i.m.). Brains were removed at 1, 2, 6, 24 and 48 h and processed for analysis. TSPO (translocator protein) mRNA increased at 6 h post exposure while TSPO receptor density increased only at 24 h. In all brain regions tested, bax mRNA decreased 1 h post exposure followed by an increase 24 h later, with only minor increase in bcl2 mRNA. At this time point a decrease was seen in both anti-apoptotic protein Bcl2 and pro-apoptotic Bax, followed by a time and region specific increase in Bax. An immediate elevation in ERK1/2 activity with no change in JNK may indicate an endogenous 'first response' mechanism used to attenuate the forthcoming apoptosis. The time dependent increase in the severity of brain damage included an early bi-phasic activation of astrocytes, a sharp decrease in intact neuronal cells, a time dependent reduction in MAP2 and up to 15% of apoptosis. Thus, neuronal death is mostly due to necrosis and severe astrocytosis. The data suggests that timing of possible treatments should be determined by early events following exposure."

According to the news reporters, the research concluded: "For example, the biphasic changes in astrocytes activity indicate a possible beneficial effects of delayed anti-inflammatory intervention."


Our news journalists report that additional information may be obtained by contacting E. Grauer, Israel Inst Biol Res, Dept. of PharmacoL, IL-74100 Ness Ziona, Israel. Additional authors for this research include I. Egoz, R. Brandeis, S. Chapman, E. Bloch-Shilderman and E. Grauer.

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Keywords for this news article include: Ness Ziona, Israel, Asia, Organophosphorus Compounds, Genetics, Sarin, Institute for Biology Research.

Our reports deliver fact-based news of research and discoveries from around the
Investigators at Institute for Cancer Research and Treatment (IRCCS) Describe Findings in Clinical Trials and Studies [Prevalence of potential familial hypercholesteremia (FH) in 54,811 statin-treated patients in clinical practice]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "Familial hypercholesterolemia (FH) is a life-threatening disease, characterized by elevated LDL-C levels and a premature, increased risk of coronary heart disease (CHD) that is globally underdiagnosed. The percentage of patients with possible or probable FH in various countries was examined in the Dyslipidemia International Study (DYSIS)."

Our news journalists obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "DYSIS is a multinational, cross-sectional observational study of 54,811 adult outpatients treated with statin therapy. The percentages of patients with high levels of LDL-C, and with possible or probable FH, were assessed using the Dutch scoring method for FH across 29 countries, in age subgroups for the analysis population and among diabetes patients. Despite statin therapy, 16.1% (range 4.4-27.6%) of patients had LDL-C > 3.6 mmol/L (140 mg/dL) across countries and the prevalence of possible FH was 15.0% (range 5.5-27.8%) and 1.1% (range 0.0-5.4%) for probable FH. The highest percentages of probable FH occurred in Egypt (5.4%), the Baltic states (4.2%), Russia (3.2%), and Slovenia (3.1%), with the lowest rates in Israel (0.0%), Canada (0.2%), and Sweden (0.3%). Rates of FH were the highest in younger patients (45-54 years) for secondary prevention, regardless of the presence/absence of diabetes. Despite statin therapy, high LDL-C levels and rates of possible and probable FH were observed in some countries. The prevalence of FH was the highest in younger age patients, and > 60% of patients with probable FH displayed CHD."

According to the news editors, the research concluded: "Earlier diagnosis and treatment of patients with FH are needed to reduce CHD risk in these patients."


The news correspondents report that additional information may be obtained from A.L. Catapano, IRCCS Multimed, I-20133 Milan, Italy. Additional authors for this research include D. Lautsch, L. Tokgozoglu, J. Ferrieres, M. Horack, M. Farnier, P.P. Toth, P. Brudi, J.E. Tomassini, B. Ambegaonkar and A.K. Gitt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Clinical Trials and
Investigators at Institute for Medical Genetics Report New Data on Medical Genetics (A homozygous HOXD13 missense mutation causes a severe form of synpolydactyly with metacarpal to carpal transformation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Genetics - Medical Genetics. According to news reporting from Berlin, Germany, by NewsRx journalists, research stated, "Synpolydactyly (SPD) is a rare congenital limb disorder characterized by syndactyly between the third and fourth fingers and an additional digit in the syndactylous web. In most cases SPD is caused by heterozygous mutations in HOXD13 resulting in the expansion of a N-terminal polyalanine tract."

Financial supporters for this research include Deutsche Forschungsgemeinschaft (DFG), Berlin-Brandenburg School for Regenerative Therapies (BSRT).

The news correspondents obtained a quote from the research from Institute for Medical Genetics, "If homozygous, the mutation results in severe shortening of all metacarpals and phalanges with a morphological transformation of metacarpals to carpals. Here, we describe a novel homozygous missense mutation in a family with unaffected consanguineous parents and severe brachydactyly and metacarpal-to-carpal transformation in the affected child. We performed whole exome sequencing on the index patient, followed by Sanger sequencing of parents and patient to investigate cosegregation. The DNA-binding ability of the mutant protein was tested with electrophoretic mobility shift assays. We demonstrate that the c.938C >G (p.313T >R) mutation in the DNA-binding domain of HOXD13 prevents binding to DNA in vitro. Our results show to our knowledge for the first time that a missense mutation in HOXD13 underlies severe brachydactyly with metacarpal-to-carpal transformation. The mutation is non-penetrant in heterozygous carriers."

According to the news reporters, the research concluded: "In conjunction with the literature we propose the possibility that the metacarpal-to-carpal transformation results from a homozygous loss of functional HOXD13 protein in humans in combination with an accumulation of non-functional HOXD13 that might be able to interact with other transcription factors in the developing limb."


Our news journalists report that additional information may be obtained by contacting D.M. Ibrahim, Institute for Medical Genetics and Human Genetics, Charite Universitatsmedizin Berlin, Berlin, Germany. Additional authors for this research include N. Tayebi, A. Knaus, A.C. Stiege, A. Sahebzamani, J. Hecht, S. Mundlos and M. Spielmann.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37464. This DOI is a link to an online electronic document that
Investigators at Institute of Basic Medicine Zero in on Acute Promyelocytic Leukemia (A novel PAD4/SOX4/PU.1 signaling pathway is involved in the committed differentiation of acute promyelocytic leukemia cells into granulocytic cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Acute Promyelocytic Leukemia. According to news reporting from Shandong, People's Republic of China, by NewsRx journalists, research stated, "All-trans retinoic acid (ATRA) treatment yields cure rates >80% through proteasomal degradation of the PML-RARa fusion protein that typically promotes acute promyelocytic leukemia (APL). However, recent evidence indicates that ATRA can also promote differentiation of leukemia cells that are PML-RARa negative, such as HL-60 cells."

The news correspondents obtained a quote from the research from the Institute of Basic Medicine, "Here, gene expression profiling of HL-60 cells was used to investigate the alternative mechanism of impaired differentiation in APL. The expression of peptidylarginine deiminase 4 (PADI4), encoding PAD4, a protein that post-translationally converts arginine into citrulline, was restored during ATRA-induced differentiation. We further identified that hypermethylation in the PADI4 promoter was associated with its transcriptional repression in HL-60 and NB4 (PML-RARa positive) cells. Functionally, PAD4 translocated into the nucleus upon ATRA exposure and promoted ATRA-mediated differentiation. Mechanistic studies using RNAi knockdown or electroporation-mediated delivery of PADI4, along with chromatin immunoprecipitation, helped identify PU.1 as an indirect target and SOX4 as a direct target of PAD4 regulation. Indeed, PAD4 regulates SOX4-mediated PU.1 expression, and thereby the differentiation process, in a SOX4-dependent manner."

According to the news reporters, the research concluded: "Taken together, our results highlight an association between PAD4 and DNA hypermethylation in APL and demonstrate that targeting PAD4 or regulating its downstream effectors may be a promising strategy to control differentiation in the clinic."


Our news journalists report that additional information may be obtained by contacting G. Song, Dept. of Hemato-Oncology, Institute of Basic Medicine, Shandong Academy of Medical Sciences, Key Medical Laboratory for Tumor Immunology and Traditional Chinese Medicine Immunology of Shandong, Jinan, Shandong, People's Republic of China. Additional authors for this research include L. Shi, Y. Guo, L. Yu, L. Wang, X. Zhang, L. Li, Y. Han, X. Ren, Q. Guo, K. Bi and G. Jiang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6551. This DOI is a link to an online electronic document.
Investigators at Institute of Biomedical Sciences Report New Data on Lung Cancer (Hedgehog pathway maintains cell survival under stress conditions, and drives drug resistance in lung adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news reporting from Taipei, Taiwan, by NewsRx journalists, research stated, "Hedgehog (HH) pathway plays an important role in embryonic development, but is largely inactive in adult except for tissue repair. Aberrant activation of HH pathway has been found in a variety of cancer types."  

The news correspondents obtained a quote from the research from the Institute of Biomedical Sciences, "In non-small cell lung cancer, however, the role and importance of HH pathway remain controversial. In the current study, we found that HH pathway was maintained in low activity in lung adenocarcinoma (LAC) cells under normal culture condition, but was highly induced in response to stress conditions. Activation of HH pathway promoted cell survival, growth, and invasion partially through HGF and MET signaling. Hedgehog-Interacting Protein (HHIP), a cell-surface negative regulator of HH pathway, was epigenetically silenced in LAC. Overexpression of HHIP blocked the activation of HH and HGF/MET pathways, and made cells significantly more susceptible to stress conditions. In LAC cells with acquired resistance to Epidermal Growth Factor Receptor Tyrosin Kinase Inhibitor (EGFR-TKI), we found that a part of tumor cells were much more sensitive to HH or HGF/MET inhibitors, suggesting an oncogenic addiction shift from EGFR to HH and HGF/MET pathways."

According to the news reporters, the research concluded: "This study showed that HH pathway is a survival signaling that drives LAC cell growth under stress conditions, and HHIP is a key regulator to block the induction of HH pathway. Targeting the HH pathway through inhibitors or HHIP thus holds promise to address EGFR-TKI resistance in LAC in clinic."

For more information on this research see: Hedgehog pathway maintains cell survival under stress conditions, and drives drug resistance in lung adenocarcinoma. 


Our news journalists report that additional information may be obtained by contacting E.H. Lin, Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan. Additional authors for this research include Y.R. Kao, C.A. Lin, T.Y. Kuo, S.P. Yang, C.F. Hsu, T.Y. Chou, C.C. Ho and C.W Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8253. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taipei, Taiwan, Oncology, Lung Cancer, Adenocarcinoma, Drug Resistance, Membrane Proteins, Drugs and Therapies,
Investigators at Institute of Cell Biology and Neurobiology Release New Data on Estradiol Congeners (17beta-estradiol counteracts neuropathic pain: a behavioural, immunohistochemical, and proteomic investigation on sex-related differences in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hormones - Estradiol Congeners have been presented. According to news reporting originating from Rome, Italy, by NewsRx correspondents, research stated, "Sex differences play a role in pain sensitivity, efficacy of analgesic drugs and prevalence of neuropathic pain, even if the underlying mechanisms are far from being understood. We demonstrate that male and female mice react differently to structural and functional changes induced by sciatic nerve ligation, used as model of neuropathic pain."

Our news editors obtained a quote from the research from the Institute of Cell Biology and Neurobiology, "Male mice show a gradual decrease of allodynia and a complete recovery while, in females, allodynia and gliosis are still present four months after neuropathy induction. Administration of 17b-estradiol is able to significantly attenuate this difference, reducing allodynia and inducing a complete recovery also in female mice. Parallel to pain attenuation, 17b-estradiol treated-mice show a functional improvement of the injured limb, a faster regenerative process of the peripheral nerve and a decreased neuropathy-induced gliosis."

According to the news editors, the research concluded: "These results indicate beneficial effects of 17b-estradiol on neuropathic pain and neuronal regeneration and focuses on the importance of considering gonadal hormones also in clinical studies."

For more information on this research see: 17beta-estradiol counteracts neuropathic pain: a behavioural, immunohistochemical, and proteomic investigation on sex-related differences in mice. Scientific Reports, 2016;6():18980. (Nature Publishing Group - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting V. Vacca, CNR-National Research Council, Institute of Cell Biology and Neurobiology, 00143 Roma, Italy. Additional authors for this research include S. Marinelli, L. Pieroni, A. Urbani, S. Luvisetto and F. Pavone.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18980. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Pharmaceuticals, Italy, Estrogens, Proteomics, Sex Hormones, Vaginal Agents, Gonadal Hormones, Neuropathic Pain, Estradiol Therapy, Drugs and Therapies, Estradiol Congeners, Vaginal Preparations, Neurologic Manifestations, Hormone Replacement Therapy.

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Investigators at Institute of Gerontology Describe Findings in Muscular Dystrophy (The Muscular Dystrophy Gene TMEM5 Encodes a Ribitol beta 1,4-Xylosyltransferase Required for the Functional Glycosylation of Dystroglycan)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Musculoskeletal Diseases and Conditions - Muscular Dystrophy have been presented. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "A defect in O-mannosyl glycan is the cause of alpha-dystroglycanopathy, a group of congenital muscular dystrophies caused by aberrant alpha-DG glycosylation. Recently, the entire structure of O-mannosyl glycan, \[3\text{GlcA} \beta 1-3\text{Xyl} \alpha 1\]-(n)-3\text{GlcA} \beta 1-4\text{Xyl-Rbo5P-3GalNAc} \beta 1-3\text{GlcNAc} \beta 1-4(\text{phospho-6})\text{Man} \alpha 1-, which is required for the binding of alpha-DG to extracellular matrix ligands, has been proposed."

The news reporters obtained a quote from the research from the Institute of Gerontology, "However, the linkage of the first Xyl residue to ribitol 5-phosphate (Rbo5P) is not clear. TMEM5 is a gene product responsible for alpha-dystroglycanopathy and was reported as a potential enzyme involved in this linkage formation, although the experimental evidence is still incomplete. Here, we report that TMEM5 is a xylosyltransferase that forms the Xyl beta 1-4Rbo5P linkage on O-mannosyl glycan. The anomeric configuration and linkage position of the product (beta 1,4 linkage) was determined by NMR analysis. The introduction of two missense mutations in TMEM5 found in alpha-dystroglycanopathy patients impaired xylosyltransferase activity. Furthermore, the disruption of the TMEM5 gene by CRISPR/Cas9 abrogated the elongation of the (-3\text{GlcA} \beta 1-3\text{Xyl} \alpha 1-) unit on O-mannosyl glycan."

According to the news reporters, the research concluded: "Based on these results, we concluded that TMEM5 acts as a UDP-e-xylose:ribitol-5-phosphate beta 1,4-xylosyltransferase in the biosynthetic pathway of O-mannosyl glycan."


Our news correspondents report that additional information may be obtained by contacting T. Endo, Inst Gerontol, Tokyo 1730015, Japan. Additional authors for this research include Y. Yamaguchi, M. Kanagawa, K. Kobayashi, M. Tajiri, K. Akasaka-Manya, H. Kawakami, M. Mizuno, Y. Wada, T. Toda and T. Endo.

Keywords for this news article include: Tokyo, Japan, Asia, Musculoskeletal Diseases and Conditions, Nervous System Diseases and Conditions, Neuromuscular Diseases and Conditions, Muscular Diseases and Conditions, Xylosyltransferase, Genetics, Atrophic Muscular Disorders, Enzymes and Coenzymes, Muscular Dystrophies, Muscular Dystrophy, Sugar Alcohols, Ribitol, Institute of Gerontology.

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Investigators at Institute of Life Sciences Have Reported New Data on Developmental Biology (Nucleolar protein 4-like has a complex expression pattern in zebrafish embryos)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Life Science Research - Developmental Biology. According to news reporting originating from Bhubaneswar, India, by NewsRx correspondents, research stated, "The nucleolar protein 4-like (NOL4L) gene is present on chromosome 20 (20q11.21) in humans. Parts of this gene have been shown to fuse with RUNX1 and PAX5 in acute myeloid leukemia and acute lymphoblastic leukemia, respectively."

Our news editors obtained a quote from the research from the Institute of Life Sciences, "The normal function of NOL4L in humans and other organisms is not well understood. The expression patterns and functions of NOL4L homologs during vertebrate development have not been reported. We sought to address these questions by studying the expression pattern of zebrafish nol4l during embryogenesis. Our data show that Znol4l mRNA is expressed in multiple organs in zebrafish embryos."

According to the news editors, the research concluded: "The sites of expression include parts of the brain, spinal cord, pronephros, hematopoietic cells and gut."

For more information on this research see: Nucleolar protein 4-like has a complex expression pattern in zebrafish embryos. *The International Journal of Developmental Biology*, 2016;60(1-3):53-6.

The news editors report that additional information may be obtained by contacting S. Borah, Institute of Life Sciences, Nalco Square, Chandrasekhar Pur, Bhubaneswar, Odisha, India. Additional authors for this research include P. Barrodia and R.K Swain.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1387/ijdb.150307rs. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Genetics, Bhubaneswar, Developmental Biology, Life Science Research.

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Investigators at Institute of Oncology Report New Data on Lymphoma (Checkpoint inhibitors in Hodgkin's lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Lymphoma is the subject of a report. According to news reporting originating from Ljubljana, Slovenia, by NewsRx editors, the research stated, "Hodgkin's lymphoma is unusual among cancers in that it consists of a small number of malignant Hodgkin/Reed-Sternberg cells in a sea of immune system cells, including T cells. Most of these T cells are reversibly inactivated in different ways and their reactivation may induce a very strong immune response to cancer cells."
Our news editors obtained a quote from the research from the Institute of Oncology, "One way of reactivation of T cells is with antibodies blocking the CTLA-4 and especially with antibodies directed against PD-1 or the PD-L1 ligand thereby reversing the tumor-induced downregulation of T-cell function and augmenting antitumor immune activity at the priming (CTLA-4) or tissue effector (PD-1) phase. Immune checkpoint inhibitors have been evidenced as an additional treatment option with substantial effectiveness and acceptable toxicity in heavily pretreated patients with Hodgkin's lymphoma."

According to the news editors, the research concluded: "Particularly, PD-1 blockade with nivolumab and pembrolizumab has demonstrated significant single-agent activity in this select population."


The news editors report that additional information may be obtained by contacting B. Jezeršek Novakovic, Division of Medical Oncology, Institute of Oncology Ljubljana, Ljubljana, Slovenia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ehj.12697. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Slovenia, Oncology, Ljubljana, Lymphomas, Hematology, Article Review, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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Gram-Positive Bacteria - Staphylococcus aureus

Investigators at Institute of Surgery Research Discuss Findings in Staphylococcus aureus (Screening a Commercial Library of Pharmacologically Active Small Molecules against Staphylococcus aureus Biofilms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Positive Bacteria - Staphylococcus aureus are presented in a new report. According to news reporting from Fort Sam Houston, Texas, by NewsRx journalists, research stated, "It is now well established that bacterial infections are often associated with biofilm phenotypes that demonstrate increased resistance to common antimicrobials. Further, due to the collective attrition of new antibiotic development programs by the pharmaceutical industries, drug repurposing is an attractive alternative."

Financial supporters for this research include DOE | LDRD | Oak Ridge Institute for Science and Education (ORISE), Naval Medical Research Center (NMRC).

The news correspondents obtained a quote from the research from the Institute of Surgery Research, "In this work, we screened 1,280 existing commercially available drugs in the Prestwick Chemical Library, some with previously unknown antimicrobial activity, against Staphylococcus aureus, one of the commonly encountered causative pathogens of burn and wound infections. From the primary screen of the entire Prestwick Chemical Library at a fixed
Concentration of 10 μM, 104 drugs were found to be effective against planktonic S. aureus strains, and not surprisingly, these were mostly antimicrobials and antiseptics. The activity of 18 selected repurposing candidates, that is, drugs that show antimicrobial activity that are not already considered antimicrobials, observed in the primary screen was confirmed in dose-response experiments. Finally, a subset of nine of these drug candidates was tested against preformed biofilms of S. aureus."

According to the news reporters, the research concluded: "We found that three of these drugs, niclosamide, carmofur, and auranofin, possessed antimicrobial activity against preformed biofilms, making them attractive candidates for repurposing as novel antibiofilm therapies."

For more information on this research see: Screening a Commercial Library of Pharmacologically Active Small Molecules against Staphylococcus aureus Biofilms. Antimicrobial Agents and Chemotherapy, 2016;60(10):5663-5672. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting K.P. Leung, Inst Surg Res, Dental & Craniofacial Trauma Res & Tissue Regenerat, Fort Sam Houston, TX 78234, United States. Additional authors for this research include J.J. Abercrombie, A. Srinivasan, J.L. Lopez-Ribot, A.K. Ramasubramanian and K.P. Leung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00377-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fort Sam Houston, Texas, United States, North and Central America, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Gram-Positive Bacteria, Staphylococcus aureus, Gram-Positive Cocci, Drugs and Therapies, Staphylococcaceae, Antimicrobials, Bacillales, Institute of Surgery Research.

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Cardiovascular Diseases and Conditions - Hereditary...

Investigators at Jikei University Report Findings in Hereditary Hemorrhagic Telangiectasia (Open arterial reconstruction of multiple hepatic artery aneurysms in a patient with hereditary hemorrhagic telangiectasia A case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Hereditary Hemorrhagic Telangiectasia have been presented. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Hereditary hemorrhagic telangiectasia (HHT) is characterized by mucocutaneous telangiectasia and visceral vascular malformations (VMs). Liver involvement with VMs may lead to high-output cardiac failure, portal hypertension, and biliary disease."

Our news journalists obtained a quote from the research from Jikei University, "There is no curative treatment for the disease, and liver transplantation is indicated for life-threatening complications. Herein, we report a case of multiple hepatic artery aneurysms...
(HAAs) in a patient with HHT in which open arterial reconstruction was performed. There have only been a few case reports on HAA occurring with HHT. Thus, this case provides important information for the management of HHT-associated HAAs. Case summary: A 62-year-old female with known HHT was referred to our facility to seek further treatment for a giant HAA. She denied any symptoms except recurrent epistaxis. A computed tomography (CT) scan revealed a right HAA with a diameter of 72mm, in addition to 2 other minor HAAs. The CT scan also revealed the VMs that were scattered in the liver, and a continuously dilated and tortuous artery existing from the celiac trunk to the right and left hepatic arteries. We performed open arterial reconstruction of the HAAs. Her postoperative course was uneventful. When treating HAAs, there are a variety of options. However, hepatic VMs might affect HHT patients in various ways postprocedurally. Ligation and embolization of the hepatic artery may lead to complications, such as massive hepatic necrosis. Hepatectomy should be avoided if possible, because a postoperative hyperperfusion state in the remaining liver can cause adverse events."

According to the news editors, the research concluded: "We believe that arterial reconstruction of HHT-associated HAAs might reduce the risk of postprocedural complications with minimal hemodynamic changes in the liver, thus obviating the need for hepatectomy or liver transplantation."

For more information on this research see: Open arterial reconstruction of multiple hepatic artery aneurysms in a patient with hereditary hemorrhagic telangiectasia A case report. Medicine, 2016;95(46):370-373. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting H. Ozawa, Jikei Univ, Sch Med, Dept. of Surg, Div Vasc Surg, Tokyo, Japan. Additional authors for this research include T. Ohki, Y. Kanaoka, K. Maeda and S. Hagiwara. Keywords for this news article include: Tokyo, Japan, Asia, Cardiovascular Diseases and Conditions, Hereditary Hemorrhagic Telangiectasia, Hepatic Artery, Dermatology, Hematology, Angiology, Aneurysm, Jikei University.

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Investigators at John Radcliffe Hospital Release New Data on Sclerosing Cholangitis (New Therapeutic Strategies for Primary Sclerosing Cholangitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Sclerosing Cholangitis have been published. According to news reporting originating in Oxford, United Kingdom, by NewsRx journalists, research stated, "Primary sclerosing cholangitis (PSC) is a chronic cholestatic liver disease, which in the majority of patients progresses to liver transplantation or death. To date, no medical treatment has been proven to be of benefit, although ursodeoxycholic acid is widely used."

The news reporters obtained a quote from the research from John Radcliffe Hospital, "The etiopathogenesis of PSC is unclear, although it is associated with inflammatory bowel disease. Various hypotheses have been suggested, which have led to different therapeutic
strategies. Recent studies have suggested that the microbiome may play a role in PSC, raising the possibility of efficacy of antibiotics and fecal microbiota transplantation. Gut-homing T cells may be important in the pathogenesis of PSC, and several agents are in development, targeting various receptors, integrins, and ligands on this pathway, including VAP-1, MAdCAM-1, α4β7, and CCR9. Nuclear receptor agonists such as obeticholic acid and fibrates hold promise, as do other therapies that alter bile acid composition such as norUDCA. Antifibrotic agents such as Loxi2 inhibitors are also being assessed.

According to the news reporters, the research concluded: "It is likely that an effective drug therapy for PSC will become available over the next decade."

For more information on this research see: New Therapeutic Strategies for Primary Sclerosing Cholangitis. Seminars In Liver Disease, 2016;36(1):5-14. (Thieme - www.thieme.com)

Our news correspondents report that additional information may be obtained by contacting K.D. Williamson, Translational Gastroenterology Unit, John Radcliffe Hospital, Oxford, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0035-1571274. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, Europe, Therapy, United Kingdom, Article Review, Gastroenterology, Primary Sclerosing Cholangitis, Biliary Diseases and Conditions, Bile Duct Diseases and Conditions, Biliary Tract Diseases and Conditions, Digestive System Diseases and Conditions.

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Herpesvirus Diseases and Conditions -...

Investigators at Johns Hopkins University Describe Findings in Cytomegalovirus [Role of nucleotide-binding oligomerization domain 1 (NOD1) and its variants in human cytomegalovirus control in vitro and in vivo]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Herpesvirus Diseases and Conditions - Cytomegalovirus have been presented. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Induction of nucleotide-binding oligomerization domain 2 (NOD2) and downstream receptor-interacting serine/threonine-protein kinase 2 (RIPK2) by human cytomegalovirus (HCMV) is known to up-regulate antiviral responses and suppress virus replication. We investigated the role of nucleotide-binding oligomerization domain 1 (NOD1), which also signals through RIPK2, in HCMV control."

Financial support for this research came from The National Heart, Lung and Blood Institute.

Our news journalists obtained a quote from the research from Johns Hopkins University, "NOD1 activation by Tri-DAP (NOD1 agonist) suppressed HCMV and induced IFN-beta. Mouse CMV was also inhibited through NOD1 activation. NOD1 knockdown (KD) or inhibition of its activity with small molecule ML130 enhanced HCMV replication in vitro. NOD1 mutations displayed differential effects on HCMV replication and antiviral responses. In
cells overexpressing the E56K mutation in the caspase activation and recruitment domain, virus replication was enhanced, but in cells overexpressing the E266K mutation in the nucleotidebinding domain or the wild-type NOD1, HCMV was inhibited, changes that correlated with IFN-beta expression. The interaction of NOD1 and RIPK2 determined the outcome of virus replication, as evidenced by enhanced virus growth in NOD1 E56K mutant cells (which failed to interact with RIPK2). NOD1 activities were executed through IFN-beta, given that IFN-beta KD reduced the inhibitory effect of Tri-DAP on HCMV. Signaling through NOD1 resulting in HCMV suppression was IKK alpha-dependent and correlated with nuclear translocation and phosphorylation of IRF3. Finally, NOD1 polymorphisms were significantly associated with the risk of HCMV infection in women who were infected with HCMV during participation in a glycoprotein B vaccine trial.

According to the news editors, the research concluded: "Collectively, our data indicate a role for NOD1 in HCMV control via RIPK2-IKK alpha-IRF3 and suggest that its polymorphisms predict the risk of infection."


The news correspondents report that additional information may be obtained from R. Arav-Boger, Johns Hopkins University, Sch Med, Dept. of Pediat, Div Infect Dis, Baltimore, MD 21287, United States. Additional authors for this research include S. Roy, R. Mukhopadhyay, A. Kapoor, P. Duggal, G.L. Wojcik, R.F. Pass and R. Arav-Boger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1611711113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Virus Replication, Risk and Prevention, Herpesvirus Diseases and Conditions, Virus Physiological Phenomena, Virus Physiological Processes, Microbiological Processes, Human Cytomegalovirus, Betaherpesvirinae, Herpesviridae, DNA Viruses, Virology, Genetics, Viral, Johns Hopkins University.

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NewsRx journalists, research stated, "Sickle cell disease (SCD) is an autosomal recessive hemoglobinopathy that causes significant morbidity and mortality related to chronic hemolytic anemia, vaso-occlusion, and resultant end-organ damage. Tobacco smoke exposure (TSE) through secondhand smoke exposure in people with SCD of all ages and through primary smoking in adolescents and adults is associated with significantly increased morbidity, with increased rates of emergency department visits and hospitalizations for painful vaso-occlusive crises and acute chest syndrome (ACS)."

The news correspondents obtained a quote from the research from Johns Hopkins University, "Secondhand smoke is also associated with pulmonary function abnormalities in children with SCD who are already at risk for pulmonary function abnormalities on the basis of SCD. TSE is emerging as one of the few modifiable risk factors of SCD."

According to the news reporters, the research concluded: "This review discusses the current state of the evidence with respect to TSE and SCD morbidity, discusses potential mechanisms, and highlights current gaps in the evidence and future research directions."


Our news journalists report that additional information may be obtained by contacting S.C. Sadreameli, Johns Hopkins Sch Med, Eudowood Div Pediat Resp Sci, Baltimore, MD 21287, United States. Additional authors for this research include B.T. Kopp, S.E. Creary, M.N. Eakin, S. McGrath-Morrow and J.J. Strouse.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Risk and Prevention, Article Review, Hematologic Diseases and Conditions, Sickle Cell Anemia, Hematology, Johns Hopkins University.

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Hematology - Blood Coagulation Factors

Investigators at Johns Hopkins University Report Findings in Blood Coagulation Factors (Immature endothelial cells initiate endothelin-mediated constriction of newborn arteries)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematology - Blood Coagulation Factors. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Endothelial cells lining fetal and newborn arteries have an unusual phenotype, including reduced NO activity, prominent actin stress fibres and poorly developed cellular junctions. Experiments were performed to determine whether the immature endothelium of newborn arteries also expresses and releases endothelin-1 (ET-1) and initiates endothelium-dependent constriction."

Our news journalists obtained a quote from the research from Johns Hopkins University, "Carotid arteries were isolated from newborn (postnatal day 1; P1), postnatal day 7 (P7) and postnatal day 21 (P21) mice and assessed in a pressure myograph system. Endothelial stimulation with A23187 or thrombin caused constriction in P1 arteries, no significant change in
diameter of P7 arteries, and dilatation in P21 arteries. In P1 arteries, constriction to thrombin or A23187 was inhibited by endothelial-denudation, by ET-1 receptor antagonists (BQ123 plus BQ788) or by inhibition of endothelin-converting enzyme (phosphoramidon or SM19712). ET-1 receptor antagonism did not affect responses to thrombin or A23187 in more mature arteries. Exogenous ET-1 caused similar concentration-dependent constrictions of P1, P7 and P21 arteries. Endothelial stimulation with thrombin rapidly increased the endothelial release of ET-1 from P1 but not P21 aortas. Endothelial expression of ET-1 peptides, as assessed by immunofluorescence analysis, was increased in P1 compared to P21 arteries. Therefore, newborn endothelial cells express high levels of ET-1 peptides, rapidly release ET-1 in response to endothelial stimulation, and initiate ET-1-mediated endothelium-dependent constriction. This activity is diminished as the endothelium matures in the immediate postnatal period."

According to the news editors, the research concluded: "Heightened activity of ET-1 in neonatal endothelium probably reflects an early developmental role of the peptide, although this might contribute to inappropriate responses of immature arteries to stress or injury."


The news correspondents report that additional information may be obtained from N.A. Flavahan, Johns Hopkins University, Dept. of Anesthesiol & Crit Care Med, Baltimore, MD, United States. Additional authors for this research include S. Flavahan and N.A. Flavahan.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Blood Coagulation Factors, Serine Endopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Endothelial Cells, Endothelium, Endothelins, Hematology, Angiology, Thrombin, Johns Hopkins University.

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**Intercellular Signaling Peptides and Proteins - TGF-…**

**Investigators at Kanazawa University Zero in on TGF-beta Superfamily Proteins (Novel oral transforming growth factor-b signaling inhibitor EW-7197 eradicates CML-initiating cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Intercellular Signaling Peptides and Proteins - TGF-beta Superfamily Proteins. According to news reporting originating in Kanazawa, Japan, by NewsRx journalists, research stated, "Recent strategies for treating CML patients have focused on investigating new combinations of tyrosine kinase inhibitors (TKIs) as well as identifying novel translational research agents that can eradicate CML leukemia-initiating cells (CML-LICs). However, little is known about the therapeutic benefits such CML-LIC targeting therapies might bring to CML patients."


The news reporters obtained a quote from the research from Kanazawa University,
"In this study, we investigated the therapeutic potential of EW-7197, an orally bioavailable transforming growth factor-b signaling inhibitor which has recently been approved as an Investigational New Drug (NIH, USA), to suppress CML-LICs in vivo. Compared to TKI treatment alone, administration of TKI plus EW-7197 to CML-affected mice significantly delayed disease relapse and prolonged survival. Notably, combined treatment with EW-7197 plus TKI was effective in eliminating CML-LICs even if they expressed the TKI-resistant T315I mutant BCR-ABL1 oncogene."

According to the news reporters, the research concluded: "Collectively, these results indicate that EW-7197 may be a promising candidate for a new therapeutic that can greatly benefit CML patients by working in combination with TKIs to eradicate CML-LICs."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cas.12849. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Therapy, Kanazawa, Genetics, Transforming Growth Factors, TGF beta Superfamily Proteins, TGF-beta Superfamily Proteins, Intercellular Signaling Peptides and Proteins.

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Oncology - Breast Cancer

Investigators at Karolinska Institute Describe Findings in Breast Cancer (Sequencing-based breast cancer diagnostics as an alternative to routine biomarkers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting originating in Stockholm, Sweden, by NewsRx journalists, research stated, "Sequencing-based breast cancer diagnostics have the potential to replace routine biomarkers and provide molecular characterization that enable personalized precision medicine. Here we investigate the concordance between sequencing-based and routine diagnostic biomarkers and to what extent tumor sequencing contributes clinically actionable information."

The news reporters obtained a quote from the research from Karolinska Institute, "We applied DNA-and RNA-sequencing to characterize tumors from 307 breast cancer patients with replication in up to 739 patients. We developed models to predict status of routine biomarkers (ER, HER2, Ki-67, histological grade) from sequencing data. Non-routine
biomarkers, including mutations in BRCA1, BRCA2 and ERBB2(HER2), and additional clinically actionable somatic alterations were also investigated. Concordance with routine diagnostic biomarkers was high for ER status (AUC = 0.95; AUC(replication) = 0.97) and HER2 status (AUC = 0.97; AUC(replication) = 0.92). The transcriptomic grade model enabled classification of histological grade 1 and histological grade 3 tumors with high accuracy (AUC = 0.98; AUC(replication) = 0.94). Clinically actionable mutations in BRCA1, BRCA2 and ERBB2(HER2) were detected in 5.5% of patients, while 53% had genomic alterations matching ongoing or concluded breast cancer studies. Sequencing-based molecular profiling can be applied as an alternative to histopathology to determine ER and HER2 status, in addition to providing improved tumor grading and clinically actionable mutations and molecular subtypes."

According to the news reporters, the research concluded: "Our results suggest that sequencing-based breast cancer diagnostics in a near future can replace routine biomarkers."

For more information on this research see: Sequencing-based breast cancer diagnostics as an alternative to routine biomarkers. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting H. Gronberg, Karolinska Inst, Dept. of Med Epidemiol & Biostat, Stockholm, Sweden. Additional authors for this research include D. Klevebring, J. Lindberg, E. Ivansson, G. Rosin, L. Kis, F. Celebioglu, I. Fredriksson, K. Czene, J. Frisell, J. Hartman, J. Bergh and H. Gronberg.

Keywords for this news article include: Stockholm, Sweden, Europe, Cancer, Diagnostics and Screening, Women's Health, Breast Cancer, Oncology, Genetics, Karolinska Institute.

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Cardiovascular Diseases and Conditions - Thrombosis

Investigators at Karolinska Institute Describe Findings in Thrombosis (Ageing, deep vein thrombosis and male gender predict poor outcome after acute Achilles tendon rupture)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Thrombosis. According to news reporting out of Stockholm, Sweden, by NewsRx editors, research stated, "Patients with an acute Achilles tendon rupture (ATR) take a long time to heal, have a high incidence of deep vein thrombosis (DVT) and widely variable functional outcomes. This variation in outcome may be explained by a lack of knowledge of adverse factors, and a subsequent shortage of appropriate interventions."

Our news journalists obtained a quote from the research from Karolinska Institute, "A total of 111 patients (95 men, 16 women; mean age 40.3, standard deviation 8.4) with an acute total ATR were prospectively assessed. At one year post-operatively a uniform outcome score, Achilles Combined Outcome Score (ACOS), was obtained by combining three validated, independent, outcome measures: Achilles tendon Total Rupture Score, heel rise height test, and limb symmetry heel-rise height. Predictors of ACOS included treatment; gender; age; smoking;
body mass index; time to surgery; physical activity level pre- and post-injury; symptoms; quality of life and incidence of DVT. There were three independent variables that correlated significantly with the dichotomised outcome score (ACOS), while there was no correlation with other factors. An age of less than 40 years old was the strongest independent predictor of a good outcome one year after ATR (odds ratio (OR) 0.20, 95% confidence interval (CI) 0.08 to 0.51), followed by female gender (OR) 4.18, 95% CI 1.01 to 17.24). Notably, patients who did not have a DVT while immobilised post-operatively had a better outcome (OR 0.31, 95% CI 0.12 to 0.80).

According to the news editors, the research concluded: "Over the age of 40 years, male gender and having a DVT while immobilised are independent negative predictors of outcome in patients with an acute ATR."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1302/0301-620X.98B12.BJJ-2016-0008.R1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stockholm, Sweden, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Deep Vein Thrombosis, Hematology, Karolinska Institute.

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Bispectral Index Score. Hypoxic and hypercapnic ventilatory responses were measured at rest, during sedation (OAA/S 2 to 4), and after recovery. Drug exposure was verified with concentration analysis in plasma. Ten subjects completed the study. The OAA/S at the sedation goal was 3 (3 to 4) (median [minimum to maximum]) for both drugs. Bispectral Index Score was 82 +/- 8 and 75 +/- 3, and the drug concentrations in plasma at the sedation target were 0.66 +/- 0.14 and 1.26 +/- 0.36 µg/ml for dexmedetomidine and propofol, respectively. Compared with baseline, sedation reduced hypoxic ventilation to 59 and 53% and the hypercapnic ventilation to 82 and 86% for dexmedetomidine and propofol, respectively. In addition, some volunteers displayed upper airway obstruction and episodes of apnea during sedation. Dexmedetomidine-induced sedation reduces ventilatory responses to hypoxia and hypercapnia to a similar extent as sedation with propofol."

According to the news editors, the research concluded: "This finding implies that sedation with dexmedetomidine interacts with both peripheral and central control of breathing."

For more information on this research see: Sedation with Dexmedetomidine or Propofol Impairs Hypoxic Control of Breathing in Healthy Male Volunteers A Nonblinded, Randomized Crossover Study. Anesthesiology, 2016;125(4):700-715. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)


Keywords for this news article include: Stockholm, Sweden, Europe, Anxiolytics Sedatives and Hypnotics, Central Nervous System Agents, Dexmedetomidine Therapy, Drugs and Therapies, General Anesthetics, Propofol Therapy, Pharmaceuticals, Phenols, Karolinska Institute.

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Herpesvirus Diseases and Conditions -

Investigators at Kashan University of Medical Sciences Report New Data on Cytomegalovirus (ToRCH "co-infections" are associated with increased risk of abortion in pregnant women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Herpesvirus Diseases and Conditions - Cytomegalovirus have been published. According to news originating from Kashan, Iran, by NewsRx correspondents, research stated, "ToRCH infections (toxoplasmosis, rubella, cytomegalovirus and Herpes simplex virus) have long been known to be associated with bad obstetric outcomes. However, little information is available about the impact of ToRCH co-infections on the outcome of pregnancy."

Financial support for this research came from Kashan University of Medical Sciences.

Our news journalists obtained a quote from the research from the Kashan University
of Medical Sciences, "Hence, we tested the IgG and IgM antibodies to *Toxoplasma gondii*, Rubella, Cytomegalovirus and Herpes Simplex Virus among 81 pregnant women with abortion (case group) and 98 pregnant women with normal delivery (control group). In the single-infection model, only CMV-IgM seropositivity was significantly increased in case than control group (25.9% in case and 12.2% in control, OR=2.5, p=0.019). In the co-infection model, 14 patterns were recognized, but two patterns were significantly increased in the case than the control group. Co-infection of *T. gondii* IgG + CMV IgM was 9.1-fold increased in the case than the control group (8.6% in the case and 1% in control, OR=9.1; p=0.024). Also, co-infection of *T. gondii* IgG + HSV IgG + CMV IgM was 7.7-fold increased in case than the control group (7.4% in case and 1% in control, OR=7.7; p=0.04). Although the OR of other co-infections was higher in the case than the control group, the difference was not statistically significant. These findings indicate that ToRCH co-infections are associated with increased risk of abortion than single infection."

According to the news editors, the research concluded: "Hence, the rates of co-infections should be considered in prenatal screening of ToRCH infections."

For more information on this research see: ToRCH "co-infections" are associated with increased risk of abortion in pregnant women. *Congenital Anomalies*, 2016;56(2):73-8. *Congenital Anomalies* can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA. (Wiley-Blackwell - www.wiley.com/; Congenital Anomalies - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1741-4520)

The news correspondents report that additional information may be obtained from S. Rasti, Dept. of Parasitology, Faculty of Medicine, Kashan University of Medical Sciences, Kashan, Iran. Additional authors for this research include F.S. Ghasemi, A. Abdoli, A. Piroozmand, S.G. Mousavi and Z. Fakhr-Aski.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cga.12138. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal *Congenital Anomalies* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Iran, Asia, Kashan, DNA Viruses, Herpesviridae, Toxoplasmosis, Cytomegalovirus, Human Parasites, Betaherpesvirinae, Toxoplasma gondii, Parasitic Pneumonia, Protozoan Parasites, Parasitic Diseases and Conditions, Herpesvirus Diseases and Conditions.

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**Oncology - Cancer Epidemiology**

**Investigators at Kent State University Describe Findings in Cancer Epidemiology (Current depression as a potential barrier to health care utilization in adult cancer survivors)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Cancer Epidemiology are presented in a new report. According to news originating from Kent, Ohio, by NewsRx correspondents, research stated, "Depression in cancer survivors is a major concern and is associated with poor health related quality of life (HRQOL). Delaying or forgoing care due to depression may further
Our news journalists obtained a quote from the research from Kent State University, "Although several studies have documented depression as a barrier to health care utilization in non-cancer populations, the impact of current depression on health care utilization among adult cancer survivors (ACS) has not been fully elucidated. The objective of this study was to examine the association between current depression and health care utilization among ACS. Data from the 2010 Behavioral Risk Factor Surveillance System involving ACS were used in this study. The Patient Health Questionnaire 8 (PHQ-8) item scale was used to measure current depression. Two indicators of health care utilization were examined as outcomes of interest: cost as a barrier to medical care and not having a routine care. Logistic regression models were used to examine the association between current depression and health care utilization. Overall, 13.0% of ACS reported symptoms of current depression. Despite no differences in having access to care, current depression in ACS was a significant barrier to health care utilization: cost as a barrier to medical care (AOR: 5.3 [95% CI: 3.1-9.1]), and not having a routine care (AOR: 2.0 [95% CI: 1.2-3.3]). Our findings have implications for future studies to further understand the association between depression and health care utilization among ACS, its impact on their overall wellbeing, and efforts to detect and treat depression in ACS."

According to the news editors, the research concluded: "Routine assessment of depression in ACS and effective treatment interventions may aid in seeking timely and appropriate medical care."

For more information on this research see: Current depression as a potential barrier to health care utilization in adult cancer survivors. *Cancer Epidemiology*, 2016;44():132-137. *Cancer Epidemiology* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news correspondents report that additional information may be obtained from V.K. Cheruvu, Kent State University, Coll Public Hlth, Dept. of Biostat Environm Hlth Sci & Epidemiol, Kent, OH 44242, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.08.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kent, Ohio, United States, North and Central America, Cancer Epidemiology, Cancer, Epidemiology, Oncology, Kent State University.

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**Developmental Diseases and Conditions - Autism…**

**Investigators at King Saud University Discuss Findings in Autism Spectrum Disorders (High-resolution Snp Genotyping Platform Identified Recurrent And Novel Cnvs In Autism Multiplex Families)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Developmental Diseases and Conditions - Autism Spectrum Disorders is now available. According to news reporting from Riyadh, Saudi Arabia, by NewsRx journalists, research stated, "Single nucleotide polymorphisms (SNPs)-based
genotyping using microarray platform is now frequently used to detect copy number variants (CNVs) in the human genome. Here, we report CNVs identified using Illumina Human Omni 2.5 M oligonucleotide microarrays in 11 multiplex families with autism spectrum disorder (ASD) referred to Autism Research and Treatment Center (ART) and Madinah Maternity and Children Hospital (MMCH).

The news correspondents obtained a quote from the research from King Saud University, "Of the 11 families, 22 patients with ASD (all males) and their parents, were recruited for the present study. In total, 43 individuals were genotyped with high-resolution array. Abnormal microarray results were seen in all 22 patients with ASD. A total of 17 shared CNVs were selected for further analysis. Out of these 17 CNVs, we discovered one novel CNV, previously not described, and 16 recurrent CNVs that overlap with the genomic imbalances defined in the autism database, autism chromosome rearrangement database and database of genomic variants. Recurrent CNVs include 11 common and 5 rare CNVs. All rare CNVs are duplications except a 16-kb deletion on chr2q36.3. Rare gain of copy numbers includes a 2-kb duplication on chr9q21.13, overlapping duplications of 107 kb and 181 kb on chrXp22.33 in 2 different families and a 10-kb duplication on chr18q21.13. A novel loss of copy number on chr3q23 was found in four ASD cases. results in deletion of intron 2 of calsyntenin 2 (CLSTN2) encoding synaptic protein calsyntenin 2. CLSTN2 is expressed exclusively in the brain, with high levels occurring in cortical gamma-aminobutyric acid (GABA)ergic interneurons and in medial temporal lobe regions."

According to the news reporters, the research concluded: "These results verify the diagnostic relevance of genome-wide small common and rare CNVs and provide further evidence of the high diagnostic yield of microarray for genetic testing in children with ASD."


Our news journalists report that additional information may be obtained by contacting L.Y. Alayadhi, King Saud Univ, Fac Med, Dept. of Physiol, KSU Autism Res & Treatment CenterAL Amodi Autism Re, Riyadh, Saudi Arabia. Additional authors for this research include J.A. Hashmi, M. Iqbal, A.M. Albalawi, M.I. Samman, N.E. Elamin, S. Bashir and S. Basit.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neuroscience.2016.10.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Riyadh, Saudi Arabia, Asia, Developmental Diseases and Conditions, Genetics, Diagnostics and Screening, Autism Spectrum Disorders, King Saud University.

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Investigators at King's College Report New Data on Immunology (T-bet as a key regulator of mucosal immunity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immunology is the subject of a report. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Initially understood to be a key regulator of interferon-g-producing helper T cells, our knowledge of T-bet's functional roles has expanded to encompass a growing range of cellular lineages. In addition to regulating other interferon-g-producing adaptive immune cells, it is now clear that T-bet plays a fundamental role in the regulation of innate immune responses across mucosal surfaces."

Funders for this research include Wellcome Trust, Medical Research Council, National Institute for Health Research.

The news correspondents obtained a quote from the research from King's College, "This homeostatic role is demonstrated by the spontaneous colitis that occurs when T-bet is deleted from innate immune cells in RAG(-/-) mice. Using this model as a focal point, we review our understanding of T-bet's regulation of adaptive and innate immune systems, focusing particularly on mucosal populations including innate lymphoid cells, dendritic cells and intraepithelial lymphocytes. With the increasingly diverse effects of T-bet on different lineages, the classical binding-centric paradigm of T-bet's molecular functionality has increasingly struggled to account for the versatility of T-bet's biological effects. Recent recognition of the synergistic interactions between T-bet and other canonical transcription factors has led to a co-operative paradigm that has provided greater explanatory power."

According to the news reporters, the research concluded: "Synthesizing insights from ChIP-seq and comparative biology, we expand the co-operative paradigm further and suggest a network approach as a powerful way to understand and model T-bet's diverse functionality."


Our news journalists report that additional information may be obtained by contacting R. Mohamed, Division of Transplantation Immunology and Mucosal Biology, Dept. of Experimental Immunobiology, King's College London, London, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imm.12575. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, Immunology, United Kingdom, Article Review.

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Investigators at King's College Zero in on Medical Genetics
(Comparative mRNA analysis of behavioral and genetic mouse models of aggression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Genetics - Medical Genetics have been presented. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Mouse models of aggression have traditionally compared strains, most notably BALB/cJ and C57BL/6. However, these strains were not designed to study aggression despite differences in aggression-related traits and distinct reactivity to stress."

Funders for this research include Medical Research Council, National Institutes of Health.

Our news journalists obtained a quote from the research from King's College, "This study evaluated expression of genes differentially regulated in a stress (behavioral) mouse model of aggression with those from a recent genetic mouse model aggression. The study used a discovery-replication design using two independent mRNA studies from mouse brain tissue. The discovery study identified strain (BALB/cJ and C57BL/6J) vs stress (chronic mild stress or control) interactions. Probe sets differentially regulated in the discovery set were intersected with those uncovered in the replication study, which evaluated differences between high and low aggressive animals from three strains specifically bred to study aggression. Network analysis was conducted on overlapping genes uncovered across both studies. A significant overlap was found with the genetic mouse study sharing 1,916 probe sets with the stress model. Fifty-one probe sets were found to be strongly dysregulated across both studies mapping to 50 known genes. Network analysis revealed two plausible pathways including one centered on the UBC gene hub which encodes ubiquitin, a protein well-known for protein degradation, and another on P38 MAPK. Findings from this study support the stress model of aggression, which showed remarkable molecular overlap with a genetic model. The study uncovered a set of candidate genes including the Erg2 gene, which has previously been implicated in different psychopathologies."

According to the news editors, the research concluded: "The gene networks uncovered points at a Redox pathway as potentially being implicated in aggressive related behaviors."


Our news journalists report that additional information may be obtained by contacting K. Malki, King's College London, MRC Social, Genetic and Developmental Psychiatry Centre, Institute of Psychiatry, London, UK. Additional authors for this research include M.G. Tosto, O. Pain, F. Sluyter, Y.S. Meunier, W.E. Crusio, S. de Boer, K.N. Sandnabba, J. Kesserwani, E. Robinson, L.C. Schalkwyk and P. Asherson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.b.32424. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, United Kingdom, Medical
Investigators at Kinki University Discuss Findings in Cell Motility (Different Induction of LPA Receptors by Chemical Liver Carcinogens Regulates Cellular Functions of Liver Epithelial WB-F344 Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cell Motility have been published. According to news reporting originating in Higashiosaka, Japan, by NewsRx journalists, research stated, "Lysophosphatidic acid (LPA) signaling via LPA receptors (LPA1 to LPA6) mediates a variety of cellular functions, including cell motility. In the present study, we investigated the effects of LPA receptors on cell motile activity during multi-stage hepatocarcinogenesis in rat liver epithelial WB-F344 cells treated with chemical liver carcinogens."

The news reporters obtained a quote from the research from Kinki University, "Cells were treated with an initiator (N-nitrosodiethylamine (DEN)) and three promoters (phenobarbital (PB), okadaic acid (OA) and clofibrate) every 24 h for 2 days. Cell motile activity was elevated by DEN, correlating with Lpar3 expression. PB, OA, and clofibrate elevated Lpar1 expression and inhibited cell motile activity. To evaluate the effects of long-term treatment on cell motility, cells were treated with DEN and/or PB for at least 6 months. Lpar3 expression and cell motile activity were significantly elevated by the long-term DEN treatment with or without further PB treatment. In contrast, long-term PB treatment with or without further DEN elevated Lpar1 expression and inhibited cell motility. When the synthesis of extracellular LPA was blocked by a potent ATX inhibitor S32826 before cell motility assay, the cell motility induced by DEN and PB was markedly suppressed."

According to the news reporters, the research concluded: "These results suggest that activation of the different LPA receptors may regulate the biological functions of cells treated with chemical carcinogens."


Our news correspondents report that additional information may be obtained by contacting T. Tsujiuchi, Kinki University, Fac Sci & Engn, Dept. of Life Sci, Div Mol Oncol, Higashiosaka, Osaka 5778502, Japan. Additional authors for this research include S. Ishii, A. Tomimatsu, K. Fukushima, K. Takahashi, N. Fukushima, K. Honoki and T. Tsujiuchi.

Keywords for this news article include: Higashiosaka, Japan, Asia, Cell Motility, Kinki University.

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Investigators at Kirby Institute Discuss Findings in Antiretrovirals (The impact of ribavirin plasma concentration on the efficacy of the interferon-sparing regimen, sofosbuvir and ribavirin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiretrovirals have been published. According to news reporting originating from Sydney, Australia, by NewsRx correspondents, research stated, "Ribavirin augments sustained virological response when administered with pegylated interferon for the treatment of chronic HCV infection. The impact of ribavirin plasma concentration on outcome in individuals receiving interferon-free regimens has not been evaluated."

Our news editors obtained a quote from the research from Kirby Institute, "Stored plasma samples were retrieved for 47 treatment-naive subjects who received sofosbuvir and weight-based ribavirin for 12-24 weeks in the Phase IIb QUANTUM study. Week 1, 4 and 8 ribavirin plasma concentrations (mg/l) were quantified using high-performance liquid chromatography with UV detection. Sustained virological response at 12 weeks post treatment was observed in 55% with all treatment failures due to relapse. The median ribavirin plasma concentration increased from week 1 (1.58 mg/l, IQR 1.44-2.24) to week 4 (2.23 mg/l, IQR 1.69-2.87) and week 8 (2.67 mg/l, IQR 2.10-3.26) with wide variability at steady state. Median week 4 ribavirin plasma concentration was 2.25 mg/l (IQR 1.63-3.05) in those with a sustained virological response as compared to 2.07 mg/l (IQR 1.79-2.86) in those with treatment failure (OR 1.35; 95% CI 0.76, 2.39; P=0.3). No significant association between ribavirin plasma concentration and treatment response was noted at weeks 1 or 8. We found no evidence of an association between ribavirin plasma concentrations and relapse suggesting that, as opposed to interferon-based therapy, suboptimal ribavirin plasma concentrations did not explain the high rate of virological failure with this regimen."

According to the news editors, the research concluded: "Our findings suggest that in interferon-free ribavirin-containing regimens, concerns over ribavirin dosing to achieve previously determined target plasma concentrations are unnecessary."


The news editors report that additional information may be obtained by contacting M. Martinello, UNSW, Kirby Inst, Sydney, NSW, Australia. Additional authors for this research include A. Schteinman, M. Alavi, K. Williams, G.J. Dore, R. Day and G.V. Matthews.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Intercellular Signaling Peptides and Proteins, Respiratory Inhalant Products, Inhaled Antiiinfectives, Drugs and Therapies, Respiratory Agents, Purine Nucleosides, Influenza Therapy, Antiretrovirals, Interferons, Antivirals, Cytokines, Ribavirin, Kirby Institute.

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Investigators at Korea Advanced Institute of Science and Technology (KAIST) Discuss Findings in Breast Cancer (GALNT14 promotes lung-specific breast cancer metastasis by modulating self-renewal and interaction with the lung microenvironment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting originating in Taejon, South Korea, by NewsRx journalists, research stated, "Some polypeptide N-acetyl-galactosaminyltransferases (GALNTs) are associated with cancer, but their function in organ-specific metastasis remains unclear. Here, we report that GALNT14 promotes breast cancer metastasis to the lung by enhancing the initiation of metastatic colonies as well as their subsequent growth into overt metastases."

The news reporters obtained a quote from the research from the Korea Advanced Institute of Science and Technology (KAIST), "Our results suggest that GALNT14 augments the self-renewal properties of breast cancer cells (BCCs). Furthermore, GALNT14 overcomes the inhibitory effect of lung-derived bone morphogenetic proteins (BMPs) on self-renewal and therefore facilitates metastasis initiation within the lung microenvironment. In addition, GALNT14 supports continuous growth of BCCs in the lung by not only inducing macrophage infiltration but also exploiting macrophage-derived fibroblast growth factors (FGFs). Finally, we identify KRAS-PI3K-c-JUN signalling as an upstream pathway that accounts for the elevated expression of GALNT14 in lung-metastatic BCCs."

According to the news reporters, the research concluded: "Collectively, our findings uncover an unprecedented role for GALNT14 in the pulmonary metastasis of breast cancer and elucidate the underlying molecular mechanisms."


Our news correspondents report that additional information may be obtained by contacting M.Y. Kim, Korea Adv Inst Sci & Technol, Inst BioCentury, Canc Metastasis Control Center, Taejon 305701, South Korea. Additional authors for this research include M.S. Park, T.S. Nandu, S. Gadad, S.C. Kim and M.Y. Kim.

Keywords for this news article include: Taejon, South Korea, Asia, Mononuclear Phagocyte System, Women's Health, Breast Cancer, Macrophages, Immunology, Phagocytes, Oncology, Korea Advanced Institute of Science and Technology (KAIST).

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Investigators at Korea Institute of Toxicology Report Findings in Pathology (A subchronic toxicity study of Radix Dipsaci water extract by oral administration in F344 rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pathology have been presented. According to news reporting out of Daejeon, South Korea, by NewsRx editors, research stated, "Radix Dipsaci, the dried root of Dipsacus asperoides C.Y. Cheng & T.M.Ai, has therapeutic effects on various disorders, and in particular, bone and joint disease."

Financial support for this research came from Ministry of Food and Drug Safety.

Our news journalists obtained a quote from the research from the Korea Institute of Toxicology, "Despite such ethnomedicinal benefits, there is very little information regarding its in vivo toxicity or adverse effects. This study was conducted to evaluate the potential toxicity of the Radix Dipsaci water Extract (RD-wE) by using F344 rats. The RD-wE was administered orally to rats at doses of 0, 125, 250, 500,1000, and 2000 mg/kg body weight (bw)/day for 13 weeks. During the treatment period there were no mortalities attributed to RD-wE. Moreover, no toxic effects were observed with regard to body weight, clinical pathology (hematology, clinical biochemistry, and urinalysis), and anatomic pathology (gross findings, organ weight, and microscopic examination). The changes related to the treatment were excessive salivation at the mouth and soft feces, observed in male and female rats at 1000 or 2000 mg/kg bw/day, but these were not accompanied by any microscopic correlate or other pathophysiological changes."

According to the news editors, the research concluded: "Based on these results, the oral no-observed adverse-effect level of the RD-wE was considered to be 2000 mg/kg bw/day in both genders, although the target organs were not determined under the current experimental conditions."

For more information on this research see: A subchronic toxicity study of Radix Dipsaci water extract by oral administration in F344 rats. *Regulatory Toxicology and Pharmacology*, 2016;81():136-145. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting Y.B. Kim, Korea Inst Toxicol, Res Center Toxicol Pathol, Daejeon 305343, South Korea. Additional authors for this research include B.S. Lee, S.R. Han, H.Y. Han, M.K. Chung, B.S. Min, J.H. Seok and Y.B. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.07.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daejeon, South Korea, Asia, Pathology, Korea Institute of Toxicology.

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Investigators at Kyung Hee University Detail Findings in Breast Cancer (Synergistic Effect of SH003 and Doxorubicin in Triple-negative Breast Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Triple-negative breast cancer (TNBC) is highly aggressive, resulting in poor prognosis. Chemotherapy of TNBC relies on anti-cancer agents with strong cytotoxicity, but it causes several side effects with recurrence."

Our news journalists obtained a quote from the research from Kyung Hee University, "While combinational approaches of chemotherapeutics have been highlighted as a new treatment strategy for TNBC to reduce side effects, combinations of anti-cancer agents with herbal medicines have not been reported. We recently reported that newly modified traditional Chinese medicine named SH003 inhibited TNBC growth. Considering a combinational strategy for TNBC treatment, we further studied synergistic effects of SH003 with various anti-cancer drugs in TNBC treatment. Here, we demonstrate that SH003 shows a synergistic effect with doxorubicin on TNBC treatment. Our in vitro cell viability assays revealed that SH003 and doxorubicin showed a synergistic effect in the well-defined TNBC cell line, MDA-MB-231. Moreover, we found that the combinational treatment caused Caspase-dependent apoptotic cell death. Our in vivo mouse xenograft tumor growth assays confirmed that combinational treatment of SH003 with doxorubicin repressed MDA-MB-231 tumor growth with no weight loss."

According to the news editors, the research concluded: "Therefore, we conclude that the combinational treatment of SH003 with doxorubicin shows the synergism in TNBC treatment, and suggest that SH003 can be used together with conventional anticancer drugs in chemotherapeutic approaches."


The news correspondents report that additional information may be obtained from S.G. Ko, Kyung Hee Univ, Coll Korean Med, Dept. of Prevent Med, Seoul 02447, South Korea. Additional authors for this research include A.J. Kim, Y.K. Choi, Y.C. Shin, S.G.C. Seong- and S.G. Ko.

Keywords for this news article include: Seoul, South Korea, Asia, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Drugs and Therapies, Pharmaceuticals, Women's Health, Breast Cancer, Oncology, Kyung Hee University.

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Investigators at Laval University Discuss Findings in Endocarditis (Management of Loeffler's Endocarditis With Bivalvular Involvement and a FIP1L1/PDGFRA-Negative Mutation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Endocarditis. According to news originating from Quebec City, Canada, by NewsRx correspondents, research stated, "Hypereosinophilic syndromes (HESs) are a group of disorders characterized by end-organ damage caused by eosinophilic infiltration."

Our news journalists obtained a quote from the research from Laval University, "We present a patient with idiopathic HES with severe tricuspid and mitral regurgitation secondary to Loeffler's endocarditis. In addition to prednisone, imatinib therapy initially helped control the eosinophil count."

According to the news editors, the research concluded: "However, successful long-term remission was achieved with hydroxyurea therapy."


The news correspondents report that additional information may be obtained from M. Senechal, Laval University, Dept. of Cardiol, Inst Univ Cardiol & Pneumol Quebec, Quebec City, PQ, Canada. Additional authors for this research include P.L. Bernard, S. Cloutier, M.H. Leblanc, E. Larose, A. Cinq-Mars and M. Dubois.

Keywords for this news article include: Quebec City, Quebec, Canada, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Heart Disease, Endocarditis, Cardiology, Laval University.

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Investigators at Lung and Blood Institute Have Reported New Data on Acute Leukemia [Novel immunotherapeutic approaches for the treatment of acute leukemia (myeloid and lymphoblastic)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Acute Leukemia. According to news reporting originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "There have been major advances in our understanding of the multiple interactions between malignant cells and the innate and adaptive immune system. While the attention of immunologists has hitherto focused on solid tumors, the specific immunobiology of acute leukemias is now becoming defined."
Our news editors obtained a quote from the research from Lung and Blood Institute, "These discoveries have pointed the way to immune interventions building on the established graft-versus-leukemia (GVL) effect from hematopoietic stem-cell transplant (HSCT) and extending immunotherapy beyond HSCT to individuals with acute leukemia with a diversity of immune manipulations early in the course of the leukemia. At present, clinical results are in their infancy."

According to the news editors, the research concluded: "In the coming years larger studies will better define the place of immunotherapy in the management of acute leukemias and lead to treatment approaches that combine conventional chemotherapy, immunotherapy and HSCT to achieve durable cures."

For more information on this research see: Novel immunotherapeutic approaches for the treatment of acute leukemia (myeloid and lymphoblastic). Therapeutic Advances In Hematology, 2016;7(1):17-39. (Sage Publications - www.sagepub.com; Therapeutic Advances In Hematology - tah.sagepub.com)

The news editors report that additional information may be obtained by contacting K. Ishii, Hematology Branch, National Heart, Lung and Blood Institute, US National Institutes of Health, Bethesda, MD, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/2040620715616544. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, Oncology, Hematology, United States, Immunotherapy, Acute Leukemia, Article Review, Drugs and Therapies, North and Central America.

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Musculoskeletal Diseases and Conditions - Bone…

Investigators at Mahidol University Report New Data on Bone Resorption (Expression of osteoclastogenic factor transcripts in osteoblast-like UMR-106 cells after exposure to FGF-23 or FGF-23 combined with parathyroid hormone)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Bone Resorption. According to news reporting out of Bangkok, Thailand, by NewsRx editors, research stated, "As a bone-derived hormone, fibroblast growth factor-23 (FGF-23) negatively regulates phosphate and calcium metabolism, while retaining growth-promoting action for mesenchymal cell differentiation. Elevated FGF-23 levels, together with hyperparathyroidism, are often observed in chronic kidney disease, which is associated with impaired bone mineralization and enhanced bone resorption."

Financial supporters for this research include TRF Senior Research Scholar Grant, Faculty of Allied Health Sciences, Burapha University, TRF Research Career Development Grant, Research and Development Fund Burapha University, Faculty of Allied Health Sciences, Burapha University Research Grant of Fiscal Year 2015, Higher Education Research Promotion and National Research University Project of Thailand, Office of the Higher Education Commission, Mahidol University, National Center for Genetic Engineering and Biotechnology
Our news journalists obtained a quote from the research from Mahidol University, "Although overexpression of osteoblast-derived osteoclastogenic cytokines might contribute to this metabolic bone disease, whether FGF-23 alone and FGF-23 plus parathyroid hormone (PTH) directly modulated the expression of osteoblast-derived osteoclastogenic genes remained elusive. Herein, we demonstrated the direct effects of FGF-23 on proliferation and mRNA expression of osteoblast-specific differentiation and osteoclastogenic markers in rat osteoblast-like UMR-106 cells in the presence or absence of PTH. FGF-23 was found to suppress UMR-106 cell proliferation, while increasing FGF-23 expression, the latter of which suggested the presence of positive feedback regulation of FGF-23 expression in osteoblasts. FGF-23 also upregulated the mRNA expression of osteoblast differentiation markers (e.g., Runx2, osterix, AJ18, Dlx5, alkaline phosphatase, and osteopontin), osteoclastogenic factors (e.g., MCSF, MCP-1, IL-6, and TNF-a), and bone resorption regulators (RANKL and osteoprotegerin). However, combined PTH and FGF-23 exposure did not alter the levels of FGF-23-induced transcripts, suggesting that both hormones had no additive effect."

According to the news editors, the research concluded: "FGF-23 directly suppressed osteoblast proliferation, while inducing osteoclastogenic gene expression in UMR-106 cells, and the FGF-23-induced transcripts were not altered by long-standing PTH exposure."


Our news journalists report that additional information may be obtained by contacting J. Teerapornpuntakit, Center of Calcium and Bone Research (COCAB), Faculty of Science, Mahidol University, Bangkok, Thailand. Additional authors for this research include K. Wongdee, N. Krishnamra and N. Charoenphandhu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cbin.10573. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Bangkok, Thailand, Genetics, Osteoblasts, Bone Research, Bone Resorption, Peptide Hormones, Peptide Proteins, Parathyroid Hormone, Connective Tissue Cells, Bone Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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Drugs and Therapies - Human Serum Albumin Therapy

Investigators at Maria Curie-Sklodowska University Detail Findings in Human Serum Albumin Therapy (Determination of binding properties of ampicillin in drug-human serum albumin standard solution using N-vinylpyrrolidone copolymer combined with ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Human Serum Albumin Therapy are presented in a new report. According to news reporting originating in Lublin, Poland, by
NewsRx journalists, research stated, "It is well-known that only the unbound (free) drug fraction can achieve a pharmacological effect. Therefore the determination of free drug concentration is a very important issue in the field of pharmacology."

The news reporters obtained a quote from the research from Maria Curie-Sklodowska University, "In this study poly-1-vinyl-2-pyrrolidone (VP) crosslinked with divinylbenzene (DVB) compared with the micellar liquid chromatography (MLC) with and without pre-made drug adsorption was used for quantitative analysis of free ampicillin concentration in the standard solution of drug-human serum albumin owing to its ability to block protein adsorption. The commonly recognized adsorption method based on drug adsorption on VP-DVB has been compared to the entirely new application of MLC with direct sample injection (DSI) not requiring pre-made adsorption. Micellar aggregates are able to solubilize various compounds therefore micellar environment can be used for direct determination of free drug concentration. The obtained results show that the free drug concentration values obtained in the micellar systems based on cetyltrimethylammonium bromide (CTAB) (93.98 μg L⁻¹, 78.3%) as well as on polyoxyethylene (23) lauril ether (Brij35) (91.15 μg L⁻¹, 75.9%) are similar to those obtained after the drug adsorption on VP-DVB using both RP-HPLC (95.85 μg mL⁻¹, 79.9%) and spectrophotometry (96.47 μg mL⁻¹, 80.4%). However, only %PPB (% plasma protein binding) value calculated on the basis of Brij35 retention factor is similar to the literature data. The obtained results are within the analytical range of % of free drug concentration. Therefore N-vinylpyrrolidone copolymer as well as micellar system based on the non-ionic surfactant can be successfully applied for determination of free drug concentration."

According to the news reporters, the research concluded: "Moreover, the new application of MLC with DSI can be recognized as a promising, fast and simple method for quantitative determination of free drug concentration."

For more information on this research see: Determination of binding properties of ampicillin in drug-human serum albumin standard solution using N-vinylpyrrolidone copolymer combined with the micellar systems. Talanta, 2017;162():241-248. Talanta can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Talanta - www.journals.elsevier.com/talanta/)

Our news correspondents report that additional information may be obtained by contacting K.E. Stepnik, Marie Curie Sklodowska Univ, Dept. of Planar Chromatog, Chair Phys Chem, Fac Chem, PL-20031 Lublin, Poland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.talanta.2016.09.054. This DOI is a link to an online electronic document that is either free or for purchase.

Key words for this news article include: Lublin, Poland, Europe, Human Serum Albumin Therapy, Beta-Lactam Antibiotics, Serum albumin Therapy, Acute-Phase Proteins, Drugs and Therapies, Organic Chemicals, Sulfur Compounds, Aminopenicillins, Blood Proteins, Antiinfectives, Penicillin G, Ampicillin, Albumins, Amides, Maria Curie-Sklodowska University.

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Investigators at Mashhad University of Medical Sciences Report Findings in Pharmacology (Berberis Vulgaris and Berberine: An Update Review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacology have been presented. According to news reporting originating in Mashhad, Iran, by NewsRx journalists, research stated, "Berberine is an isoquinoline alkaloid present in several plants, including Coptis sp. and Berberis sp. Berberine is a customary component in Chinese medicine, and is characterized by a diversity of pharmacological effects."

The news reporters obtained a quote from the research from the Mashhad University of Medical Sciences, "An extensive search in electronic databases (PubMed, Scopus, Ovid, Wiley, ProQuest, ISI, and Science Direct) were used to identify the pharmacological and clinical studies on Berberis vulgaris and berberine, during 2008 to 2015, using 'berberine' and 'Berberis vulgaris' as search words. We found more than 1200 new article studying the properties and clinical uses of berberine and B. vulgaris, for treating tumor, diabetes, cardiovascular disease, hyperlipidemia, inflammation, bacterial and viral infections, cerebral ischemia trauma, mental disease, Alzheimer disease, osteoporosis, and so on."

According to the news reporters, the research concluded: "In this article, we have updated the pharmacological effects of B. vulgaris and its active constituent, berberine."


Our news correspondents report that additional information may be obtained by contacting H. Hosseinzadeh, Mashhad Univ Med Sci, Sch Pharm, Dept. of Pharmacodynam & Toxicol, Mashhad, Iran.

Keywords for this news article include: Mashhad, Iran, Asia, Therapy, Article Review, Pharmacology, Mashhad University of Medical Sciences.

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Cardiovascular Diseases and Conditions - Thrombosis

Investigators at Mayo Clinic Detail Findings in Thrombosis [Non-infectious thrombosis of the melody(R) valve: A tale of two cities]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Thrombosis have been published. According to news reporting originating in Rochester, Minnesota, by NewsRx journalists, research stated, "Bioprosthetic valve thrombosis is an uncommon complication. We report two young women with prior uncomplicated percutaneous pulmonary valve replacement (Melody®, Medtronic, Inc.)"

The news reporters obtained a quote from the research from Mayo Clinic,
"Minneapolis, MN) who later developed symptomatic pulmonary emboli and pulmonary valve dysfunction without evidence of infection. Thrombophilia risk factors included oral contraceptive use and mild thrombophilia. Both experienced recovery of valve function following anticoagulation."

According to the news reporters, the research concluded: "Acute changes in Melody (®) valve function should prompt a thorough investigation for and treatment of potential thrombotic causes."


Our news correspondents report that additional information may be obtained by contacting A.K. Cabalka, Mayo Clinic, Div Cardiovasc Dis, Dept. of Med, Rochester, MN, United States. Additional authors for this research include J.W. Delaney and A.K. Cabalka.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Cardiovascular Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Risk and Prevention, Thrombophilia, Hematology, Mayo Clinic.

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Surgery - Patellectomy

Investigators at Mayo Clinic Discuss Findings in Patellectomy (Increased Risk of Postoperative Complications After Total Knee Arthroplasty in Patients With Previous Patellectomy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Surgery - Patellectomy have been presented. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "Few studies have reported the results of total knee arthroplasty (TKA) in patients with previous patellectomy. The purpose of this study was to assess the risk of complications and survivorship of primary TKA in patients who previously had a patellectomy in comparison to those undergoing TKA with patellar resurfacing."

The news correspondents obtained a quote from the research from Mayo Clinic, "This was a historical cohort study and comprised 134 knees with previous patellectomy in a cohort of 17,946 primary TKA procedures at a single institution between 1985 and 2010. Multivariable Cox regression analyses were used to estimate the risk of complications and revisions in patients with previous patellectomy. When compared to TKA with patellar resurfacing, the risk of complications (hazards ratio: 1.38, 95% confidence interval: 1.05, 1.81) was significantly higher in post-patellectomy knees, but there was no difference in the risk of revisions (hazards ratio: 1.32, 95% confidence interval: 0.80, 2.18). There was no significant difference between the posterior-stabilized and cruciate-retaining designs in terms of both complications and revisions (P > .05). The most common complications in post-patellectomy knees were instability, delayed healing, and infection."
According to the news reporters, the research concluded: "TKA patients with previous patellectomy have a higher risk of complications but not a higher risk of revisions."


Our news journalists report that additional information may be obtained by contacting R.J. Sierra, Mayo Clinic, Dept. of Orthoped Surg, Rochester, MN 55905, United States. Additional authors for this research include H.M. Kremers, W.K. Kremers, D.J. Berry, D.G. Lewallen, R.T. Trousdale and R.J. Sierra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arth.2016.03.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Post-Operative Complications, Risk and Prevention, Knee Arthroplasty, Patellaectomy, Surgery, Mayo Clinic.

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**Proteins - Neuropeptides**

**Investigators at Mayo Clinic Zero in on Neuropeptides (A neurotensin analog blocks cocaine-conditioned place preference and reinstatement)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Proteins - Neuropeptides have been published. According to news reporting out of Jacksonville, Florida, by NewsRx editors, research stated, "Neurotensin (NT) is a neuropeptide that acts as a neurotransmitter and neuromodulator in the central nervous system. Several studies suggest a therapeutic role for NT analogs in nicotine and other psychostimulant addictions."

Our news journalists obtained a quote from the research from Mayo Clinic, "We studied the effects of the nonselective NT receptor agonist NT69L, which has equal affinity for the two major NT receptors, NTS1 and NTS2, on the expression of cocaine-conditioned place preference (cocaine-CPP) and reinstatement after extinction. Robust cocaine-CPP was obtained after 5 days of conditioning. Extinction was induced using eight repeated daily injections of saline. Reinstatement was prompted by priming with one injection of cocaine (12 mg/kg intraperitoneally). On the test day, NT69L (1 mg/kg intraperitoneally) was administered 30 min before assessing cocaine-CPP. Extinction led to the loss of cocaine-CPP. One injection of cocaine (12 mg/kg intraperitoneally) for cocaine priming reinstated cocaine-CPP. NT69L blocked cocaine-CPP reinstatement in cocaine-primed animals. In addition, NT69L blocked cocaine-CPP reinstatement when administered before priming with cocaine. Thus, the NT agonist NT69L blocked both cocaine-CPP and reinstatement to cocaine preference. NT69L may exert this action by modulating the mesocorticolimbic dopamine and glutamatergic pathways involved in addiction and relapse processes."

According to the news editors, the research concluded: "Therefore, NT agonists may represent a novel therapy for the treatment of addiction to cocaine and possibly to other substances."
psychostimulants."

For more information on this research see: A neuropeptide analog blocks cocaine-conditioned place preference and reinstatement. *Behavioural Pharmacology*, 2016;27(2-3 Spec I):236-9. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting M. Boules, a Neuropsychopharmacology Laboratory b Dept. of Psychiatry and Psychology, Mayo Clinic, Jacksonville, Florida, United States. Additional authors for this research include R. Netz, P.A. Fredrickson and E. Richelson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000227. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Florida, Proteins, Neurotensin, Jacksonville, United States, Neuropeptides, North and Central America.

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**Investigators at McGill University Release New Data on Asthma (Local genotype influences DNA methylation at two asthma-associated regions, 5q31 and 17q21, in a founder effect population)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Asthma. According to news reporting from Montreal, Canada, by NewsRx journalists, research stated, "Two asthma-associated regions 17q12-q21 and 5q31.1 harbour genes that show strong effect of genotype on expression levels. DNA methylation has an important role in gene regulation; therefore, we examined DNA methylation at promoters of 12 genes from 5q31 and 17q12-q21 regions."

The news correspondents obtained a quote from the research from McGill University, "Our goal was to determine whether DNA methylation was associated with predisposition to asthma and whether such a relationship was independent from genetic association. Using sodium bisulfite sequencing and pyrosequencing methylation assays, we examined the effect of genotype on DNA methylation in peripheral blood cells from individuals from the Saguenay-Lac-Saint-Jean asthma familial collection and lymphoblastoid cell lines. The local genotype influenced methylation levels of solute carrier family 22 (organic cation/carnitine transporter) member 5 (SLC22A5), zona pellucida binding protein 2 (ZPBP2) and gasdermin A (GSDMA) promoter regions. The genotype had a dominant effect on ZPBP2 and GSDMA methylation with lower methylation levels in individuals that carry the asthma-predisposing alleles. Males also had lower methylation at the ZPBP2 promoter than females. We did not observe an effect of asthma status that would be independent of the genotype and the sex effects in the GSDMA, ZPBP2 and SLC22A5 regions; however, GSDMA and ZPBP2 data were suggestive of interaction between asthma and methylation levels in females and SLC22A5 in males. The local genotype influences methylation levels at SLC22A5 and ZPBP2 promoters independently of the asthma status."

According to the news reporters, the research concluded: "Further studies are
necessary to confirm the relationship between GSDMA-ZPB2 and SLC22A5 methylation and asthma in females and males separately."

For more information on this research see: Local genotype influences DNA methylation at two asthma-associated regions, 5q31 and 17q21, in a founder effect population. *Journal of Medical Genetics*, 2015;53(4):232-41. (BMJ Publishing Group - group.bmj.com/; Journal of Medical Genetics - jmg.bmj.com/)

Our news journalists report that additional information may be obtained by contacting A. Al Tuwaijri, Dept. of Human Genetics, McGill University, Montreal, Quebec, Canada. Additional authors for this research include V. Gagne-Ouellet, A.M. Madore, C. Laprise and A.K Naumova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/jmedgenet-2015-103313. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Quebec, Canada, Asthma, Montreal, Genetics, DNA Research, North and Central America, Respiratory Hypersensitivity, Bronchial Diseases and Conditions, Obstructive Lung Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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**Drugs and Therapies - Genistein Therapy**

**Investigators at Midwestern University Detail Findings in Genistein Therapy (Dietary Genistein Rescues Reduced Basal Chloride Secretion in Diabetic Jejunum via Sex-Dependent Mechanisms)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Genistein Therapy is the subject of a report. According to news reporting from Glendale, Arizona, by NewsRx journalists, research stated, "The goal of this study was to determine the effect of dietary genistein (naturally occurring phytoestrogen) on jejunal secretory function in a clinically relevant model of diabetes and obesity, the leptin-deficient ob/ob mouse. We measured transepithelial short circuit current (I-SC), across freshly isolated segments of jejunum from 12-week old male and female ob/ob and lean C57Bl/6J mice fed a genistein diet (600 mg genistein/kg diet) for 4-weeks."

The news correspondents obtained a quote from the research from Midwestern University, "Separate segments of jejunum were frozen for western blot determination of key proteins involved in secretory transport. Basal I_, was significantly decreased (by 33%, P<0.05) in ob/ob females versus leans, and genistein-diet reversed this. Similarly, in males, basal I_, was decreased (by 47%, P<0.05) in ob/ob mice versus leans, and genistein-diet reversed this. Inhibition with either clotrimazole (100 μM, bilateral) or ouabain (100 μM, basolateral) was significantly reduced in ob/ob mice compared to leans (P <0.05), and genistein-diet reversed clotrimazole-sensitive inhibition in ob/ob females, and reversed the ouabain-sensitive inhibition in males (indicating sex-dependent mechanisms). Our data suggested that PDE3 levels were dysregulated in ob/ob females and genistein reversed this. Expression of total CFTR (normalized to actin) was significantly decreased similar to 80% (P <0.05) in all ob/ob mice compared to leans, and genistein-diet was without effect. Expression of total NKCC1 (normalized to actin) was significantly decreased 80% (P <0.05) in ob/ob male mice versus
leans, and genistein-diet reversed this. Our data suggests that the reduced basal jejunal Is, in ob/ob female mice is a consequence of reduced CFTR expression, decreased activities of the basolateral K-Ca channel and Na+/K+-ATPase, and in male mice reduced basal jejunal Is, is a consequence of reduced CFTR and NKCC1 expression, along with decreased activities of the basolateral K-Ca channel and Na+/K+-ATPase. Genistein-diet has beneficial effects on basal Is, mediated by sex-dependent mechanisms in diabetic mice: in females via increased K-Ca-sensitive I-SC, and in males via increased Na+/K+-ATPase activity and increased NKCC1 expression."

According to the news reporters, the research concluded: "Improved understanding of intestinal dysfunctions in the ob/ob jejunum, may allow for the development of novel drug targets to treat obesity and diabetes, and may also be of benefit in CF-related diabetes."


Our news journalists report that additional information may be obtained by contacting L. Al-Nakkash, Midwestern Univ, Arizona Coll Osteopath Med, Dept. of Physiol, Glendale, AZ, United States. Additional authors for this research include F. Masood, S. Schacht, R. Dolan, D. Stegman, L. Leung and L. Al-Nakkash.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000452549. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Glendale, Arizona, United States, North and Central America, Enzymes and Coenzymes, Drugs and Therapies, Genistein Therapy, Endocrinology, Diabetes, ATPase, Midwestern University.

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**Oncology - Carcinomas**

**Investigators at Milton S. Hershey Medical Center Zero in on Carcinomas (Molecular genetics and targeted therapeutics in biliary tract carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Carcinomas is the subject of a report. According to news originating from Hershey, Pennsylvania, by NewsRx correspondents, research stated, "The primary malignancies of the biliary tract, cholangiocarcinoma and gallbladder cancer, often present at an advanced stage and are marginally sensitive to radiation and chemotherapy. Accumulating evidence indicates that molecularly targeted agents may provide new hope for improving treatment response in biliary tract carcinoma (BTC)."

Our news journalists obtained a quote from the research from Milton S. Hershey Medical Center, "In this article, we provide a critical review of the pathogenesis and genetic abnormalities of biliary tract neoplasms, in addition to discussing the current and emerging targeted therapeutics in BTC. Genetic studies of biliary tumors have identified the growth
factors and receptors as well as their downstream signaling pathways that control the growth and survival of biliary epithelia. Target-specific monoclonal antibodies and small molecules inhibitors directed against the signaling pathways that drive BTC growth and invasion have been developed. Numerous clinical trials designed to test these agents as either monotherapy or in combination with conventional chemotherapy have been completed or are currently underway. Research focusing on understanding the molecular basis of biliary tumorigenesis will continue to identify for targeted therapy the key mutations that drive growth and invasion of biliary neoplasms. Additional strategies that have emerged for treating this malignant disease include targeting the epigenetic alterations of BTC and immunotherapy."

According to the news editors, the research concluded: "By integrating targeted therapy with molecular profiles of biliary tumor, we hope to provide precision treatment for patients with malignant diseases of the biliary tract."


The news correspondents report that additional information may be obtained from E.I. Marks, Eric I Marks, Dept. of Medicine, Penn State Milton S Hershey Medical Center, Hershey, PA 17033, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i4.1335. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hershey, Genetics, Oncology, Carcinomas, Pennsylvania, United States, North and Central America.

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Viral RNA

Investigators at Monsanto Report Findings in Viral RNA (Corn rootworm-active RNA DvSnf7: Repeat dose oral toxicology assessment in support of human and mammalian safety)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Viral RNA are presented in a new report. According to news reporting out of Creve Coeur, Missouri, by NewsRx editors, research stated, "Genetically modified (GM) crops have been developed and commercialized that utilize double stranded RNAs (dsRNA) to suppress a target gene(s), producing virus resistance, nutritional and quality traits. MON 87411 is a GM maize variety that leverages dsRNAs to selectively control corn rootworm through production of a 240 base pair (bp) dsRNA fragment targeting for suppression the western corn rootworm (Diabrotica virgifera virgifera) Snf7 gene (DvSnf7)."

Our news journalists obtained a quote from the research from Monsanto, "A bioinformatics assessment found that endogenous corn small RNAs matched similar to 450 to 2300 unique RNA transcripts that likely code for proteins in rat, mouse, and human, demonstrating safe dsRNA consumption by mammals. Mice were administered DvSnf7 RNA (968 nucleotides, including the 240 bp DvSnf7 dsRNA) at 1, 10, or 100 mg/kg by oral gavage in a 28-day repeat dose toxicity study. No treatment-related effects were observed in body weights,
food consumption, clinical observations, clinical chemistry, hematology, gross pathology, or histopathology endpoints. Therefore, the No Observed Adverse Effect Level (NOAEL) for DvSnf7 RNA was 100 mg/kg, the highest dose tested."

According to the news editors, the research concluded: "These results demonstrate that dsRNA for insect control does not produce adverse health effects in mammals at oral doses millions to billions of times higher than anticipated human exposures and therefore poses negligible risk to mammals."

For more information on this research see: Corn rootworm-active RNA DvSnf7: Repeat dose oral toxicology assessment in support of human and mammalian safety. Regulatory Toxicology and Pharmacology, 2016;81():57-68. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting J.S. Petrick, Monsanto Co, Creve Coeur, MO 63167, United States. Additional authors for this research include G.E. Frierdich, S.M. Carleton, C.R. Kessenich, A. Silvanovich, Y.J. Zhang and M.S. Koch.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.07.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Creve Coeur, Missouri, United States, North and Central America, Viral RNA, Monsanto.

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Drugs and Therapies - Hesperetin Therapy

Investigators at Nanchang University Detail Findings in Hesperetin Therapy (Inhibitory Effect of Hesperetin and Naringenin on Human UDP-Glucuronosyltransferase Enzymes: Implications for Herb-Drug Interactions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Hesperetin Therapy. According to news reporting originating in Nanchang, People's Republic of China, by NewsRx journalists, research stated, "Hesperetin (HET) and naringenin (NGR) are flavanones found in citrus (oranges and grapefruit) and Aurantii Fructus Innnaturus. The present study aims to investigate the inhibition potential of HET and NGR derivatives towards one of the most important phase II drug-metabolizing enzymes-uridine diphosphate (UDP)-glucuronosyltransferases (UGTs)."

The news reporters obtained a quote from the research from Nanchang University, "We used trifluoperazine as a probe substrate to test UGT1A4 activity, and recombinant UGT-catalyzed 4-methylumbelliferone glucuronidation was used as a probe reaction for other UGT isoforms. Data show that HET and NGR displayed broad-spectrum inhibition against human UGTs. Besides, HET exhibited strong inhibitory effects on UGT1A1, 1A3 and 1A9 (both IC50 and K-i values lower than 10 mu M), and the inhibitory effects of NGR against three major UGTs, including UGT1A1, 1A3 and 2B7. In a combination of inhibition parameters (Ki) and in
vivo concentration of HET and NGR, the potential in vivo inhibition magnitude was predicted. Based on the reported maximum plasma concentration of HET and NGR in vivo, these findings indicate the potential herb drug interactions (HDI) between HET or NGR and the drugs mainly undergoing UGT1A3 or UGT2B7 catalyzed metabolic elimination.

According to the news reporters, the research concluded: "Considering the variety of citrus that contains HET and NGR, so caution should be applied when taking drugs that utilize UGTs for metabolism and clearance with citrus fruits."


Our news correspondents report that additional information may be obtained by contacting C.H. Xia, Nanchang University, Clin Pharmacol Inst, Nanchang 330006, People's Republic of China. Additional authors for this research include J. Wu, H.B. Xie, M.Y. Liu, I. Takau, H. Zhang, Y.Q. Xiong and C.H. Xia.

Keywords for this news article include: Nanchang, People's Republic of China, Asia, Glucuronosyltransferase, Enzymes and Coenzymes, Drugs and Therapies, Hesperetin Therapy, Anticholesteremic, Nanchang University.

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Central Nervous System Diseases and Conditions -…

Investigators at Nanjing Medical University Describe Findings in Intracranial Vasospasm (Sulforaphane activates the cerebral vascular Nrf2 ARE pathway and suppresses inflammation to attenuate cerebral vasospasm in rat with subarachnoid ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Intracranial Vasospasm. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "Nrf2 ARE pathway reportedly plays a protective role in several central nervous system diseases. No study has explored the role of the Nrf2 ARE pathway in cerebral vasospasm(CVS) after subarachnoid hemorrhage(SAH)."

Our news journalists obtained a quote from the research from Nanjing Medical University, "The purpose of the present study was to investigate the activation of the cerebral vascular Nrf2 ARE pathway and to determine the potential role of this pathway in the development of CVS following SAH. We investigated whether the administration of sulforaphane (SFN, a specific Nrf2 activator) modulated vascular caliber, Nrf2ARE pathway activity, proinflammatory cytokine expression, and clinical behavior in a rat model of SAH. A two hemorrhage protocol was used to generate an animal model of SAH in male Sprague-Dawley rats. Administration of SFN to these rats following SAH enhanced the activity of the Nrf2-ARE pathway and suppressed the release of proinflammatory cytokines. Vasospasm was markedly attenuated in the basilar arteries after SFN therapy. Additionally, SFN administration significantly ameliorated two behavioral functions disrupted by SAH."

According to the news editors, the research concluded: "These results suggest that
SFN has a therapeutic benefit in post-SAH, and this may be due to elevated Nrf2-ARE pathway activity and inhibition of cerebral vascular proinflammatory cytokine expression."

For more information on this research see: Sulforaphane activates the cerebral vascular Nrf2 ARE pathway and suppresses inflammation to attenuate cerebral vasospasm in rat with subarachnoid hemorrhage. *Brain Research*, 2016;1653():1-7. *Brain Research* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Brain Research - www.journals.elsevier.com/brain-research/)

Our news journalists report that additional information may be obtained by contacting X.J. Lu, Nanjing Medical University, Wuxi Hosp Affiliated 2, Dept. of Neurosurg, Wuxi, Jiangsu, People’s Republic of China. Additional authors for this research include L.T. Wen, M. Dong and X.J. Lu.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Brain Diseases and Conditions, Cerebrovascular Disorders, Intracranial Hemorrhages, Subarachnoid Hemorrhage, Intracranial Vasospasm, Inflammation, Nanjing Medical University.

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**Central Nervous System Diseases and Conditions -…**

**Investigators at Nantong University Detail Findings in Spinal Cord Injury (PRDM5 Expression and Essential Role After Acute Spinal Cord Injury in Adult Rat)***

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Central Nervous System Diseases and Conditions - Spinal Cord Injury is the subject of a report. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "PR (PRDI-BF1 and RIZ) domain proteins (PRDM) are a subfamily of the kruppel-like zinc finger gene products that modulate cellular processes such as differentiation, cell growth and apoptosis. PRDM5 is a recently identified family member that functions as a transcriptional repressor and behaves as a putative tumor suppressor in different types of cancer."

Financial support for this research came from Nantong University Innovation Project.

Our news journalists obtained a quote from the research from Nantong University, "However, the expression and function of PRDM5 in spinal cord injury (SCI) are still unknown. In the present study, we have performed an acute SCI model in adult rats and investigated the dynamic changes of PRDM5 expression in the spinal cord. We found that PRDM5 protein levels gradually increased, reaching a peak at day 5 and then gradually declined to a normal level at day 14 after SCI with Western blot analysis. Double immunofluorescence staining showed that PRDM5 immunoreactivity was found in neurons, astrocytes and microglia. However, the expression of PRDM5 was increased predominantly in neurons. Additionally, colocalization of PRDM5/active caspase-3 was been respectively detected in neurons. In vitro, we found that depletion of PRDM5 by short interfering RNA, obviously decreases neuronal apoptosis. In summary, this is the first description of PRDM5 expression in SCI."

According to the news editors, the research concluded: "Our results suggested that
PRDM5 might play crucial roles in CNS pathophysiology after SCI and this research will provide new drug targets for clinical treatment of SCI."


The news correspondents report that additional information may be obtained from F. Zhang, Nantong University, Dept. of Orthopaed, Ailiated Hosp, Nantong 226001, Jiangsu, People's Republic of China. Additional authors for this research include W.J. Wu, J. Hao, M.C. Yu, J. Liu, X.L. Chen, R. Qian and F. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11064-016-2066-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Nervous System Trauma, Spinal Cord Injuries, Spinal Cord Injury, Genetics, Nantong University.

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**Oncology - Brain Cancer**

**Investigators at National Cancer Institute Have Reported New Data on Brain Cancer (Brain tumors in patients with myotonic dystrophy: a population-based study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Brain Cancer are presented in a new report. According to news reporting from Bethesda, Maryland, by NewsRx journalists, research stated, "Patients with myotonic dystrophy (DM) are at high risk of brain cancer. This study describes the spectrum of brain neoplasms in DM patients."

Funders for this research include Cancerfonden, Stockholms Lans Landsting, Karolinska Institutet Foundations, Intramural Research Program of the National Cancer Institute, USA.

The news correspondents obtained a quote from the research from National Cancer Institute, "Data from 1119 DM patients identified from the National Swedish Patient Register between 1987 and 2007 were linked to the National Cancer and the Cause of Death Registers. Standardized incidence ratios (SIRs) and cumulative incidence to quantify the relative and absolute risks of brain neoplasms were calculated and the Kaplan-Meier estimator was used for survival analysis. Patient follow-up started at birth or the age at the start of Swedish cancer registration (1 January 1958) and ended at the age of brain neoplasm diagnosis, death or on 31 December 2007. Twenty patients developed brain neoplasm during follow-up median age 53, range 2-76 years, accounting for a five-fold excess risk of brain tumors during the patient lifetime [SIR=5.4, 95% confidence interval (CI) 3.4-8.1, p=1 ? 10(-5) ]. Astrocytoma was the most common histological subtype (n=16, 80%), and almost all cases (n=19) developed after age 20. No statistically significant differences in gender-specific risks (SIR in men 6.3 and in women 3.8, P-heterogeneity 0.46) were observed. After accounting for competing mortality..."
related to DM, the cumulative incidence of brain neoplasms reached 2.9% (95% CI 1.8%-4.7%) by age 70. Five-year survival after brain tumor diagnosis was 52% (95%CI 29%-75%) overall (number at risk 8) and 34% (95% CI 26%-47%) for malignant neoplasms (number at risk 5). Despite the high relative risk of DM-related brain tumors, the absolute risk is modest."

According to the news reporters, the research concluded: "Nonetheless, careful evaluation of DM patients with new central nervous system symptoms is warranted."


Our news journalists report that additional information may be obtained by contacting S.M. Gadalla, Clinical Genetics Branch, Division of Cancer Epidemiology and Genetics, National Cancer Institute, National Institutes of Health, Bethesda, MD, United States. Additional authors for this research include R.M. Pfeiffer, S.Y. Kristinsson, M. Bjorkholm, O. Landgren and M.H Greene.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.12886. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, Oncology, Brain Cancer, United States, Brain Neoplasms, Myotonic Disorders, Myotonic Dystrophy, Risk and Prevention, Muscular Dystrophies, North and Central America, Brain Diseases and Conditions, Central Nervous System Neoplasms, Neuromuscular Diseases and Conditions.

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Mosquito-Borne Diseases - Malaria

Investigators at National Institutes of Health Discuss Findings in Malaria (Cross-Regulation of Two Type I Interferon Signaling Pathways in Plasmacytoid Dendritic Cells Controls Anti-malaria Immunity and Host Mortality)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mosquito-Borne Diseases - Malaria. According to news reporting originating in Bethesda, Maryland, by NewsRx journalists, research stated, "Type I interferon (IFN) is critical for controlling pathogen infection; however, its regulatory mechanisms in plasmacytoid cells (pDCs) still remain unclear. Here, we have shown that nucleic acid sensors cGAS-, STING-, MDA5-, MAVS-, or transcription factor IRF3-deficient mice produced high amounts of type I IFN-alpha and IFN-beta (IFN-a/b) in the serum and were resistant to lethal plasmodium yoelii YM infection."

The news reporters obtained a quote from the research from the National Institutes of Health, "Robust IFN-alpha/beta production was abolished when gene encoding nucleic acid sensor TLR7, signaling adaptor MyD88, or transcription factor IRF7 was ablated or pDCs were depleted. Further, we identified SOCS1 as a key negative regulator to inhibit MyD88-dependent type I IFN signaling in pDCs. Finally, we have demonstrated that pDCs, cDCs, and macrophages were required for generating IFN-alpha/beta-induced subsequent protective immunity."
According to the news reporters, the research concluded: "Thus, our findings have identified a critical regulatory mechanism of type I IFN signaling in pDCs and stage-specific function of immune cells in generating potent immunity against lethal YM infection."

For more information on this research see: Cross-Regulation of Two Type I Interferon Signaling Pathways in Plasmacytoid Dendritic Cells Controls Anti-malaria Immunity and Host Mortality. *Immunity*, 2016;45(5):1093-1107. *Immunity* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)

Our news correspondents report that additional information may be obtained by contacting X.Z. Su, NIAID, Lab Malaria & Vector Res, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include B.W. Cai, M.J. Wang, P. Tan, X.L. Ding, J. Wu, J. Li, Q.T. Li, P.H. Liu, C.S. Xing, H.Y. Wang, X.Z. Su and R.F. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.immuni.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Mononuclear Phagocyte System, Antigen-Presenting Cells, Mosquito-Borne Diseases, Protozoan Infections, Dendritic Cells, Interferons, Immunology, Cytokines, Genetics, Malaria, National Institutes of Health.

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**Oncology - Breast Cancer**

**Investigators at National University Health System Report New Data on Breast Cancer (High-Throughput Mutation Profiling Changes before and 3 Weeks after Chemotherapy in Newly Diagnosed Breast Cancer Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting out of Singapore, Singapore, by NewsRx editors, research stated, "Changes in tumor DNA mutation status during chemotherapy can provide insights into tumor biology and drug resistance. The purpose of this study is to analyse the presence or absence of mutations in cancer-related genes using baseline breast tumor samples and those obtained after exposure to one cycle of chemotherapy to determine if any differences exist, and to correlate these differences with clinical and pathological features."

Our news journalists obtained a quote from the research from National University Health System, "Paired breast tumor core biopsies obtained pre-and post-first cycle doxorubicin (n=18) or docetaxel (n=22) in treatment-na?ve breast cancer patients were analysed for 238 mutations in 19 cancer-related genes by the Sequenom Oncocarta assay. Median age of patients was 48 years (range 32-64); 55% had estrogen receptor-positive tumors, and 60% had tumor reduction (>=25%) after cycle 1. Mutations were detected in 10/40 (25%) pre-treatment and 11/40 (28%) post-treatment samples. Four mutation pattern categories were identified based on tumor mutation status pre-→ post-treatment: wildtype (WT)→WT, n=24; mutant (MT) &rarr;MT, n=5; MT&rarr;WT, n=5; WT&rarr;MT, n=6. Overall, the majority of tumors were WT at baseline (30/40, 75%), of which 6/30 (20%) acquired new mutations after chemotherapy.
Pre-treatment mutations were predominantly in PIK3CA (8/10, 80%), while post-treatment mutations were distributed in PIK3CA, EGFR, PDGFRA, ABL1 and MET. All 6 WT->MT cases were treated with docetaxel. Higher mutant allele frequency in baseline MT tumors (n=10; PIK3CA mutations n=8) correlated with less tumor reduction after cycle 1 chemotherapy (R=-0.667, p=0.035). No other associations were observed between mutation pattern category with treatment, clinicopathological features, and tumor response or survival. Tumor mutational profiles can change as quickly as after one cycle of chemotherapy in breast cancer."

According to the news editors, the research concluded: "Understanding of these changes can provide insights on potential therapeutic options in residual resistant tumors."


Our news journalists report that additional information may be obtained by contacting S.H. Tan, Dept. of Haematology-Oncology, National University Cancer Institute Singapore, National University Health System, Singapore, Singapore. Additional authors for this research include N.S. Sapari, H. Miao, M. Hartman, M. Loh, W.J. Chng, P. Iau, S.A. Buhari, R. Soong and S.C Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0142466. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Genetics, Oncology, Chemotherapy, Breast Cancer, Women's Health, Drugs and Therapies.

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**Anesthesia**

**Investigators at National University Report New Data on Anesthesia (The patients' understanding on the status and role of anaesthesiologists)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Anesthesia have been presented. According to news reporting out of Kuala Lumpur, Malaysia, by NewsRx editors, research stated, "To evaluate patients' understanding on the status and role of anaesthesiologists. This was a prospective, questionnaire-based cross-sectional study."

Our news journalists obtained a quote from the research from National University, "The interview had three segments which questioned on (i) patients' knowledge of the qualification, training and role of anaesthesiologists, (ii) attitude of patients towards anaesthesia and anaesthesiologists and (iii) the demographic data of patients. Of 384 patients interviewed, 59.4% had prior anaesthesia experience. Most patients (95.6%) knew that anaesthesiologists were medical doctors, but only 27.1% knew the duration of training required to attain this specialist qualification. Patients' awareness of the various anaesthetic responsibilities was 12.2% in managing labour pain, 25.5% in intensive care units, 49.2% in chronic pain and 99.5% in postoperative pain management. During surgery, 73.7% of patients knew that anaesthesiologists were monitoring their vital signs, but only 42.2% thought anaesthesiologists also treated medical
problems intraoperatively. Most patients (95.1%) would like to meet their anaesthesiologists prior to the operation and 97.7% want them to inform all possible anaesthesia complications. Our patients' understanding and awareness of the status and roles of anaesthesiologists are still limited and variable."

According to the news editors, the research concluded: "This can be further improved with patient interaction and public education."

For more information on this research see: The patients' understanding on the status and role of anaesthesiologists. La Clinica Terapeutica, 2015;166(6):227-35.

Our news journalists report that additional information may be obtained by contacting M. Budiman, Dept. of Anaesthesiology & Intensive Care, Universiti Kebangsaan Malaysia Medical Centre, Kuala Lumpur, Malaysia. Additional authors for this research include A. Izaham, N. Abdul Manap, K. Zainudin, E. Kamaruzaman, A. Masdar and A. Dan.

Keywords for this news article include: Asia, Malaysia, Anesthesia, Kuala Lumpur, Pain Medicine.

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**Oncology - Acute Lymphoblastic Leukemia**

**Investigators at Nihon University Report Findings in Acute Lymphoblastic Leukemia (Adult acute lymphoblastic leukemia with a rare b3a3 type BCR/ABL1 fusion transcript)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Acute Lymphoblastic Leukemia is the subject of a report. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "The Philadelphia chromosome (Ph) is the most frequent chromosomal abnormality detected in adult acute lymphoblastic leukemia (ALL). This chromosome forms the BCR/ABL1 fusion gene; thus, ABL1 exon a2 is generally used as a primer-binding region for the detection of the fusion transcript via reverse transcription polymerase chain reaction (RT-PCR)."

Our news journalists obtained a quote from the research from Nihon University, "We observed a rare case of adult Ph-positive (Ph+) ALL, in which the BCR/ABL1 fusion transcript was not detected using the ABL1 exon a2 region primer. However, we were able to isolate a PCR product by RT-PCR with the BCR exon 13 (b2) and ABL1 exon a3 primers. Analysis of the sequence of the RT-PCR product revealed that the fusion point was between BCR exon 14 (b3) and ABL1 exon a3, and that the transcript lacked ABL1 exon a2. The patient achieved cytogenetic remission through combination chemotherapies, but relapse occurred before hematopoietic stem cell transplantation and the patient died 11 months after the initialization of chemotherapies."

According to the news editors, the research concluded: "If the BCR/ABL1 fusion transcript is undetected with the ABL1 exon a2 region primer in Ph+ ALL cases, an RT-PCR analysis that can detect the b3a3 type BCR/ABL1 fusion transcript should be considered to improve diagnosis."

For more information on this research see: Adult acute lymphoblastic leukemia with a rare b3a3 type BCR/ABL1 fusion transcript. Cancer Genetics, 2016;209(4):161-165. Cancer Genetics can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Cancer Genetics -
www.journals.elsevier.com/cancer-genetics/)

Our news journalists report that additional information may be obtained by contacting D. Kurita, Nihon University, Sch Med, Dept. of Med, Div Hematol & RheumatolTabashi Ku, Tokyo, Japan. Additional authors for this research include Y. Hatta, A. Hojo, Y. Kura, U. Sawada, Y. Kanda and M. Takei.

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Keywords for this news article include: Tokyo, Japan, Asia, Acute Lymphoblastic Leukemia, Genetics, Genetics, Hematology, Oncology, Nihon University.

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Drugs and Therapies - Antimicrobials

Investigators at Northwest University Report Findings in Antimicrobials (Antimicrobial mechanism of theaflavins: They target 1-deoxy-D-xylulose 5-phosphate reductoisomerase, the key enzyme of the MEP terpenoid biosynthetic pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antimicrobials have been published. According to news reporting from Shaanxi, People's Republic of China, by NewsRx journalists, research stated, "1-Deoxy-D-xylulose 5-phosphate reductoisomerase (DXR) is the first committed enzyme in the 2-methyl-D-erythritol 4-phosphate (MEP) terpenoid biosynthetic pathway and is also a validated antimicrobial target. Theaflavins, which are polyphenolic compounds isolated from fermented tea, possess a wide range of pharmacological activities, especially an antibacterial effect, but little has been reported on their modes of antimicrobial action."

The news correspondents obtained a quote from the research from Northwest University, "To uncover the antibacterial mechanism of theaflavins and to seek new DXR inhibitors from natural sources, the DXR inhibitory activity of theaflavins were investigated in this study. The results show that all four theaflavin compounds could specifically suppress the activity of DXR, with theaflavin displaying the lowest effect against DXR (IC50 162.1 µM) and theaflavin-3,3'-digallate exhibiting the highest (IC50 14.9 µM). Moreover, determination of inhibition kinetics of the theaflavins demonstrates that they are non-competitive inhibitors of DXR against 1-deoxy-D-xylulose 5-phosphate (DXP) and un-competitive inhibitors with respect to NADPH."

According to the news reporters, the research concluded: "The possible interactions between DXR and the theaflavins were simulated via docking experiments."

For more information on this research see: Antimicrobial mechanism of theaflavins: They target 1-deoxy-D-xylulose 5-phosphate reductoisomerase, the key enzyme of the MEP terpenoid biosynthetic pathway. Scientific Reports, 2016;6():1-8. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by

Keywords for this news article include: Shaanxi, People's Republic of China, Asia, Enzymes and Coenzymes, Drugs and Therapies, Influenza Therapy, Reductoisomerase, Phosphoric Acids, Antiretrovirals, Antimicrobials, Phosphates, Anions, Northwest University.

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Histopathology

Investigators at Novartis Institute for Biomedical Research Detail Findings in Histopathology (Graphical display of histopathology data from toxicology studies for drug discovery and development: An industry perspective)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Histopathology is the subject of a report. According to news reporting originating in Cambridge, Massachusetts, by NewsRx journalists, research stated, "Histopathology data comprise a critical component of pharmaceutical toxicology studies and are typically presented as finding incidence counts and severity scores per organ, and tabulated on multiple pages which can be challenging for review and aggregation of results. However, the SEND (Standard for Exchange of Nonclinical Data) standard provides a means for collecting and managing histopathology data in a uniform fashion which can allow informatics systems to archive, display and analyze data in novel ways."

The news reporters obtained a quote from the research from Novartis Institute for Biomedical Research, "Various software applications have become available to convert histopathology data into graphical displays for analyses. A subgroup of the FDA-PhUSE Nonclinical Working Group conducted intra-industry surveys regarding the use of graphical displays of histopathology data. Visual cues, use cases, the value of cross-domain and cross-study visualizations, and limitations were topics for discussion in the context of the surveys. The subgroup came to the following conclusions. Graphical displays appear advantageous as a communication tool to both pathologists and non-pathologists, and provide an efficient means for communicating pathology findings to project teams. Graphics can support hypothesis-generation which could include cross-domain interactive visualizations and/or aggregating large datasets from multiple studies to observe and/or display patterns and trends."

According to the news reporters, the research concluded: "Incorporation of the SEND standard will provide a platform by which visualization tools will be able to aggregate, select and display information from complex and disparate datasets."

For more information on this research see: Graphical display of histopathology data from toxicology studies for drug discovery and development: An industry perspective. Regulatory Toxicology and Pharmacology, 2016;82():167-172. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news correspondents report that additional information may be obtained by
Investigating at Novartis Institute for Biomedical Research Report Findings in Colon Cancer (High-Order Drug Combinations Are Required to Effectively Kill Colorectal Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating in Cambridge, Massachusetts, by NewsRx journalists, research stated, "Like classical chemotherapy regimens used to treat cancer, targeted therapies will also rely upon polypharmacology, but tools are still lacking to predict which combinations of molecularly targeted drugs may be most efficacious. In this study, we used image-based proliferation and apoptosis assays in colorectal cancer cell lines to systematically investigate the efficacy of combinations of two to six drugs that target critical oncogenic pathways."

The news reporters obtained a quote from the research from Novartis Institute for Biomedical Research, "Drug pairs targeting key signaling pathways resulted in synergies across a broad spectrum of genetic backgrounds but often yielded only cytostatic responses. Enhanced cytotoxicity was observed when additional processes including apoptosis and cell cycle were targeted as part of the combination. In some cases, where cell lines were resistant to paired and tripled drugs, increased expression of antiapoptotic proteins was observed, requiring a fourth-order combination to induce cytotoxicity."

According to the news reporters, the research concluded: "Our results illustrate how high-order drug combinations are needed to kill drug-resistant cancer cells, and they also show how systematic drug combination screening together with a molecular understanding of drug responses may help define optimal cocktails to overcome aggressive cancers."

For more information on this research see: High-Order Drug Combinations Are Required to Effectively Kill Colorectal Cancer Cells. Cancer Research, 2016;76(23):6950-6963. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

Investigators at Novosibirsk State University Report Findings in Follicular Lymphoma (Activation induced deaminase mutational signature overlaps with CpG methylation sites in follicular lymphoma and other cancers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Follicular Lymphoma. According to news reporting originating from Novosibirsk, Russia, by NewsRx correspondents, research stated, "Follicular lymphoma (FL) is an incurable cancer characterized by progressive severity of relapses. We analyzed sequence context specificity of mutations in the B cells from a large cohort of FL patients."

Our news editors obtained a quote from the research from Novosibirsk State University, "We revealed substantial excess of mutations within a novel hybrid nucleotide motif: the signature of somatic hypermutation (SHM) enzyme, Activation Induced Deaminase (AID), which overlaps the CpG methylation site. This finding implies that in FL the SHM machinery acts at genomic sites containing methylated cytosine."

According to the news editors, the research concluded: "We identified the prevalence of this hybrid mutational signature in many other types of human cancer, suggesting that AID-mediated, CpG-methylation dependent mutagenesis is a common feature of tumorigenesis."

For more information on this research see: Activation induced deaminase mutational signature overlaps with CpG methylation sites in follicular lymphoma and other cancers. Scientific Reports, 2016;6():1-9. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London NI 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting I.B. Rogozin, Novosibirsk State Univ, Novosibirsk, Russia. Additional authors for this research include A.G. Lada, A. Goncearenco, M.R. Green, S. De, G. Nudelman, A.R. Panchenko, E.V. Koonin and Y.I. Pavlov.

Keywords for this news article include: Novosibirsk, Russia, Eurasia, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Enzymes and Coenzymes, Follicular Lymphoma, Hematology, Deaminase, Lymphomas, Oncology, Genetics, Cancer, Novosibirsk State University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Dental Diseases and Conditions - Pulpitis have been published. According to news reporting out of Columbus, Ohio, by NewsRx editors, research stated, "In the treatment of patients With symptomatic irreversible pulpitis, endodontic debridement is a predictable method to relieve pain. However, there are clinical situations in which emergency care cannot be provided immediately."

Our news journalists obtained a quote from the research from Ohio State University, "An unexplored treatment option in these cases may be the use of a long-acting anesthetic to reduce pain in untreated irreversible pulpitis. Some medical studies have shown potential for infusions of liposomal bupivacaine (Exparel; Pacira Pharmaceuticals, San Diego, CA) to prolong pain relief and reduce opioid use postoperatively. The Food and Drug Administration has approved Exparel only for infusions; therefore, the purpose of this study was to compare an infiltration of liposomal bupivacaine versus bupivacaine for pain control in untreated, symptomatic irreversible pulpitis. Ninety-five emergency patients received 2% lidocaine with 1:100,000 epinephrine via infiltration or an inferior alveolar nerve block to relieve their initial presenting pain. Patients then randomly received either 4 mL liposomal bupivacaine (13.3 mg/mL) or 4 mL 0.5% bupivacaine with 1:200,000 epinephrine by infiltration. Patients received a diary for the day of the appointment and 3 days post injection to record soft tissue numbness, pain levels, and analgesic (non-narcotic and narcotic) use. No significant differences (P < .05) were found between the 2 anesthetic formulations for pain or the use of pain medications. A statistically higher level of soft tissue numbness was found on days 1 to 3 for the liposomal bupivacaine group."

According to the news editors, the research concluded: "Although liposomal bupivacaine had some effect on soft tissue anesthesia, it did not reduce pain to manageable clinical levels in patients presenting with untreated, symptomatic irreversible pulpitis."


Our news journalists report that additional information may be obtained by contacting A. Reader, Ohio State University, Div Endodont, Columbus, OH 43210, United States. Additional authors for this research include S. Fowler, M. Drum, A. Reader, J. Nusstein and M. Beck.

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Inflammation

Investigators at Ondokuz Mayis University Discuss Findings in Inflammation (Can subphysiological cold application be utilized in excessive dermal scarring prophylaxis and treatment?: A promising hypothetical perspective)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Inflammation. According to news reporting originating from Samsun, Turkey, by NewsRx correspondents, research stated, "Excessive dermal scarring (EDS) is a wound healing complication, characterized by protruded erythematous and inelastic 'proliferative scar tissue' which is associated with increased and prolonged inflammation process within the wound microenvironment."

Our news editors obtained a quote from the research from Ondokuz Mayis University, "As inflammation plays a key role in this process, methods to contain or attenuate excessive inflammation hold promise in treatment and prophylaxis of EDS conditions. While cold exposure is notorious as the causative agent a wide array of morbidities and fatalities, its tempered use is exploited in medicine for ablative and therapeutic applications. 'Subphysiological cold' has been administered for its antiinflammatory effects which act via decreasing vascular permeability and downregulating proliferation of cells in the wound environment; this knowledge supports our hypothesis that 'subphysiological cold application' can also be utilized in human EDS prophylaxis and treatment."

According to the news editors, the research concluded: "In this study, we are reviewing the mechanisms of its both deleterious and therapeutic actions and suggesting another possible application for prevention and/or treatment of human EDS conditions."

For more information on this research see: Can subphysiological cold application be utilized in excessive dermal scarring prophylaxis and treatment?: A promising hypothetical perspective. Medical Hypotheses, 2016;97():4-6. Medical Hypotheses can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Medical Hypotheses - www.journals.elsevier.com/medical-hypotheses/)

The news editors report that additional information may be obtained by contacting C. Yagmur, Ondokuz Mayis University, Fac Med, Dept. of Plast Reconstruct & Aesthet Surg, Samsun, Turkey. Additional authors for this research include M.S. Engin and R. Ogawa.

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Keywords for this news article include: Samsun, Turkey, Eurasia, Inflammation, Ondokuz Mayis University.
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**Cardiology**

**Investigators at Ondokuz Mayis University Report Findings in Cardiology (Pentraxin 3, ischemia-modified albumin, and myeloperoxidase in predicting a cardiac damage in acute carbon monoxide poisoning)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiology is now available. According to news originating from Kurupelit, Turkey, by NewsRx correspondents, research stated, "Carbon monoxide (CO) poisoning is associated with cardiac injuries or manifestations, frequently attributing to direct hypoxic damage at cellular level. For this, the aims were to evaluate the role of serum pentraxin 3 (PTX 3), ischemia-modified albumin (IMA), and myeloperoxidase (MPO) as an early biomarker for cardiac damage when compared to cardiac troponin I (cTnI) and creatine kinase-MB fraction (CK-MB) in adult patients with acute CO poisoning."

Our news journalists obtained a quote from the research from Ondokuz Mayis University, "Forty patients with acute CO poisoning admitted to the emergency department. The patients were divided into 2 main groups as follows: cardiac injury (group I, n = 19) and nonsuspected cardiac injury (group II, n = 21). Pentraxin 3, IMA, MPO, cTnI, CK-MB, and the other assays in the circulation were measured on admission. Upon measuring the serum PTX 3, IMA, MPO, cTnI, and CK-MB levels as well as large electrocardiography and echocardiography abnormalities of patients with cardiac injury on admission, no statistical difference for PTX 3, IMA, and MPO was found between the groups (P > .05). However, cTnI, CK-MB, and leukocyte count (white blood cell) were higher determined in patients of group I compared to group II (P < .05). Receiver operating characteristic curve was also performed to evaluate the diagnostic performance of these tests in patients with cardiac injury."

According to the news editors, the research concluded: "Our results suggest that PTX, IMA, and MPO assays are not superior to cTnI and CK-MB in predicting a cardiac damage in patients with acute CO intoxication."


The news correspondents report that additional information may be obtained from A. Baydin, Ondokuz Mayis University, Dept. of Emergency Med, Fac Med, TR-55139 Kurupelit, Samsun, Turkey. Additional authors for this research include R. Amanvermez, H.E. Celebi, O.K. Tuncel and S. Demircan.

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Keywords for this news article include: Kurupelit, Turkey, Eurasia, Carbon Monoxide Poisoning, Enzymes and Coenzymes, Myeloperoxidase, Cardiology, Chemicals, Ischemia, Ondokuz Mayis University.

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**Drugs and Therapies - Pharmacology**

**Investigators at Osmania University Discuss Findings in Pharmacology**

**(beta-N-oxalyl-L-alpha, beta-diaminopropionic acid induces HRE expression by inhibiting HIF-prolyl hydroxylase-2 in normoxic conditions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Pharmacology. According to news reporting originating from Hyderabad, India, by NewsRx correspondents, research stated, "Hypoxia inducible factor (HIF)-1 alpha, a subunit of HIF transcription factor, regulates cellular response to hypoxia. In normoxic conditions, it is hydroxylated by prolyl hydroxylase (PHD)-2 and targeted for proteosomal degradation."

Our news editors obtained a quote from the research from Osmania University, "Drugs which inhibit PHD-2 have implications in conditions arising from insufficient blood supply. beta-ODAP (beta-N-oxalyl-L-alpha, beta-diaminopropionic acid), a non-protein excitatory amino acid present in Lathyrus sativus, is an alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid receptor agonist known to activate conventional protein kinase C and stabilize HIF-1 alpha under normoxic conditions. However, the mechanism of HIF-1 alpha stabilization by this compound is unknown. In silica approach was used to understand the mechanism of stabilization of HIF-1 alpha which revealed beta-ODAP interacts with key amino acid residues and Fe2+ at the catalytic site of PHD-2. These results were further corroborated with luciferase HRE (hypoxia response element) reporter system in HeLa cells. Different chemical modulators of PHD-2 activity and HIF-1 alpha levels were included in the study for comparison."

According to the news editors, the research concluded: "Results obtained indicate that beta-ODAP inhibits PHD-2 and facilitates HIF dependent HRE expression and hence, might be helpful in conditions arising from hypoxia."


The news editors report that additional information may be obtained by contacting R.K. Eslavath, Osmania Univ, Univ Coll Sci, Dept. of Biochem, Hyderabad 500007, Telangana State, India. Additional authors for this research include D. Sharma, N.A.M. Bin Omar, R. Chikati, M.K. Teli, G.K. Rajanikant and S.S. Singh.

Keywords for this news article include: Hyderabad, India, Asia, Pharmacology, Drugs and Therapies, Enzymes and Coenzymes, Hydroxylase, Osmania University.

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Investigators at Palo Alto Medical Foundation Research Institute Report Findings in Breast Cancer (Mapping the Decision-Making Process for Adjuvant Endocrine Therapy for Breast Cancer: The Role of Decisional Resolve)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting from Palo Alto, California, by NewsRx journalists, research stated, "Studies show adjuvant endocrine therapy increases survival and decreases risk of breast cancer recurrence for hormone receptor-positive tumors. Yet studies also suggest that adherence rates among women taking this therapy may be as low as 50% owing largely to adverse side effects."

The news correspondents obtained a quote from the research from Palo Alto Medical Foundation Research Institute, "Despite these rates, research on longitudinal patient decision making regarding this therapy is scant. We sought to map the decision-making process for women considering and initiating adjuvant endocrine therapy, paying particular attention to patterns of uncertainty and decisional change over time. A longitudinal series of semistructured interviews conducted at a multispecialty health care organization in Northern California with 35 newly diagnosed patients eligible for adjuvant endocrine therapy were analyzed. Analysis led to the identification and indexing of 3 new decision-making constructs- decisional phase, decisional direction, and decisional resolve-which were then organized using a visual matrix and examined for patterns characterizing the decision-making process. Our data reveal that most patients do not make a single, discrete decision to take or not take hormone therapy but rather traverse multiple decisional states, characterized by 1) phase, 2) direction, and 3) strength of resolve. Our analysis tracks these decisional states longitudinally using a grayscale-coded matrix. Our data show that decisional resolve wavers not just when considering therapy, as the existing concept of decisional conflict suggests, but even after initiating it, which may signal future decisions to forgo therapy. Adjuvant endocrine therapy, like other chronic care decisions, has a longer decision-making process and implementation period."

According to the news reporters, the research concluded: "Thus, theoretical, empirical, and clinical approaches should consider further exploring the new concept and measurement of decisional resolve, as it may help to improve subsequent medication adherence."


Our news journalists report that additional information may be obtained by contacting L.L. Beryl, Palo Alto Med Fdn Res Inst, Palo Alto, CA 94301, United States. Additional authors for this research include K.A.S. Rendle, M.C. Halley, K.A. Gillespie, S.G. May, J. Glover, P. Yu, R. Chattopadhyay and D.L. Frosch.

Keywords for this news article include: Palo Alto, California, United States, North and Central America, Breast Ductal Carcinoma, Risk and Prevention, Endocrine Research,
Investigators at Peking Union Medical College Hospital Zero in on Atherosclerosis (Intestinal Microbiota Metabolism and Atherosclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Atherosclerosis. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "This review aimed to summarize the relationship between intestinal microbiota metabolism and cardiovascular disease (CVD) and to propose a novel CVD therapeutic target. This study was based on data obtained from PubMed and EMBASE up to June 30, 2015."

Our news journalists obtained a quote from the research from Peking Union Medical College Hospital, "Articles were selected using the following search terms: 'Intestinal microbiota', 'trimethylamine N-oxide (TMAO)', 'trimethylamine (TMA)', 'cardiovascular', and 'atherosclerosis'. Studies were eligible if they present information on intestinal microbiota metabolism and atherosclerosis. Studies on TMA-containing nutrients were also included. A new CVD risk factor, TMAO, was recently identified. It has been observed that several TMA-containing compounds may be catabolized by specific intestinal microbiota, resulting in TMA release. TMA is subsequently converted to TMAO in the liver. Several preliminary studies have linked TMAO to CVD, particularly atherosclerosis; however, the details of this relationship remain unclear."

According to the news editors, the research concluded: "Intestinal microbiota metabolism is associated with atherosclerosis and may represent a promising therapeutic target with respect to CVD management."


The news correspondents report that additional information may be obtained from S.Y. Zhang, Dept. of Cardiology, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing 100730, People's Republic of China. Additional authors for this research include H.T. Niu and S.Y Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.167362. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the Chinese Medical Journal is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Beijing, Cardiology, Article Review, Atherosclerosis, Arteriosclerosis, Risk and Prevention, People's Republic of China, Arterial Occlusive Diseases, Cardiovascular Diseases and Conditions.
Investigators at Policinico University Describe Findings in Heart Failure (The Renal Arterial Resistance Index Predicts Worsening Renal Function in Chronic Heart Failure Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting originating from Bari, Italy, by NewsRx correspondents, research stated, "The renal arterial resistance index (RRI) is a Doppler measure, which reflects abnormalities in the renal blood flow. The aim of this study was to verify the value of RRI as a predictor of worsening renal function (WRF) in a group of chronic heart failure (CHF) outpatients."

Our news editors obtained a quote from the research from Policinico University, "We enrolled 266 patients in stable clinical conditions and on conventional therapy. Peak systolic velocity and end diastolic velocity of a segmental renal artery were obtained by pulsed Doppler flow, and RRI was calculated. Creatinine serum levels were evaluated at baseline and at 1 year, and the changes were used to assess WRF occurrence. During follow-up, 34 (13%) patients showed WRF. RRI was associated with WRF at univariate (OR: 1.13; 95% CI: 1.07-1.20) as well as at a forward stepwise multivariate logistic regression analysis (OR: 1.09; 95% CI: 1.03-1.16; p = 0.005) including the other univariate predictors. Quantification of arterial renal perfusion provides a new parameter that independently predicts the WRF in CHF outpatients."

According to the news editors, the research concluded: "Its possible role in current clinical practice to better define the risk of cardiorenal syndrome progression is strengthened."


The news editors report that additional information may be obtained by contacting M. Iacoviello, Policinico Univ Hosp, Cardiothorac Department, Cardiol Unit, IT-70124 Bari, Italy. Additional authors for this research include F. Monitillo, M. Leone, G. Citarelli, A. Doronzo, V. Antonecchi, A. Puzzovivo, C. Rizzo, M.S. Lattarulo, F. Massari, P. Caldarola and M.M. Ciccone.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000448405. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bari, Italy, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Chronic Heart Failure, Gastroenterology, Kidney Function, Renal Function, Heart Disease, Heart Attack, Nephrology, Cardiology, Policinico University.

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Investigators at Prince Songkla University Report Findings in Tuberculosis (Evaluation of Proinflammatory Cytokines and Adverse Events in Healthy Volunteers upon Inhalation of Antituberculosis Drugs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mycobacterium Infections - Tuberculosis. According to news reporting out of Songkhla, Thailand, by NewsRx editors, research stated, "Inhalation therapy is a promising drug delivery approach for tuberculosis treatment. However, there is always concern about the safety of the dosage form by inhalation as it may induce inflammation."

Our news journalists obtained a quote from the research from Prince Songkla University, "Developing a new dosage form for inhalation must include tests for its safety especially for the tumor necrosis factor (TNF)-alpha and interleukine (IL)-1 beta. The safety of four anti-tuberculosis (anti-TB) drugs administered via inhalation was assessed in healthy volunteers. Four anti-TB drugs; isoniazid, rifampicin, pyrazinamide and levofloxacin were prepared as dry powder and evaluated for uniformity of delivered dose and in vitro drug deposition. These four anti-TB dry powder formulations for inhalation met the criteria of uniformity of delivered dose and exhibited suitable size for lung delivery. Forty healthy volunteers were recruited and each was sequentially challenged with isoniazid, rifampicin, pyrazinamide and levofloxacin in different orders. Safety was monitored by measuring the pro-inflammatory cytokines in their sputum, lung function test, blood chemistry and adverse events."

According to the news editors, the research concluded: "This study proves that all four anti-TB dry powders did not provoke inflammatory cytokines and are safe to healthy volunteers."


Our news journalists report that additional information may be obtained by contacting T. Srichana, Prince Songkla University, Fac Pharmaceut Sci, Dept. of Pharmaceut Technol, Hat Yai 90112, Songkhla, Thailand. Additional authors for this research include C. Ratanajamit, S. Juthong, T. Suwandecha, N. Laohapojanart, P. Pungrassami and A.R. Padmavathi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1248/bpb.b16-00354. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Songkhla, Thailand, Asia, Mycobacterium Infections, Adverse Drug Reactions, Drugs and Therapies, Infectious Disease, Tuberculosis, Cytokines, Prince Songkla University.

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Gram-Positive Bacteria - Staphylococcus aureus

Investigators at Pusan National University Hospital Report Findings in Staphylococcus aureus (Association between Type A blaZ Gene Polymorphism and Cefazolin Inoculum Effect in Methicillin-Susceptible Staphylococcus aureus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Positive Bacteria - Staphylococcus aureus are presented in a new report. According to news reporting originating in Busan, South Korea, by NewsRx journalists, research stated, "Some proportion of type A blaZ gene-positive methicillin-susceptible Staphylococcus aureus strains exhibit the cefazolin inoculum effect (CIE)."

Financial support for this research came from National Research Foundation of Korea (NRF).

The news reporters obtained a quote from the research from Pusan National University Hospital, "The type A blaZ gene was divided into two groups by single nucleotide polymorphisms (SNPs) at Ser226Pro and Cys229Tyr. The median cefazolin MICs at a high inoculum concentration were 5.69 μg/ml for the Ser-Cys group and 40.32 μg/ml for the Pro-Tyr group (P = 0.01)."

According to the news reporters, the research concluded: "The SNPs at codons 226 and 229 in the amino acid sequence encoded by the blaZ gene were closely associated with the CIE."

For more information on this research see: Association between Type A blaZ Gene Polymorphism and Cefazolin Inoculum Effect in Methicillin-Susceptible Staphylococcus aureus. Antimicrobial Agents and Chemotherapy, 2016;60(11):6928-6932. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting S. Lee, Pusan Natl Univ Hosp, Medical Res Inst, Busan, South Korea. Additional authors for this research include W.B. Park, S. Lee, S. Park, S.W. Kim, J.M. Lee, H.H. Chang, K.T. Kwon, P.G. Choe, N.J. Kim, H. Bin Kim and M.D. Oh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01517-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Busan, South Korea, Asia, Gram-Positive Endospore-Forming Rods, Drugs and Therapies, Genetics, Endospore-Forming Bacteria, Beta-Lactam Antibiotics, Gram-Positive Bacteria, Staphylococcus aureus, Gram-Positive Cocci, Organic Chemicals, Staphylococcaceae, Cephalosporins, Methicillin, Penicillins, Bacillales, Cefazolin, Amides, Pusan National University Hospital.

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Investigators at Queen Elizabeth Hospital Detail Findings in Aneurysm (Left gastric artery aneurysm rupture: a rare cause of retroperitoneal bleeding: a case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Aneurysm. According to news originating from Gateshead, United Kingdom, by NewsRx correspondents, research stated, "Visceral artery aneurysms are very rare. Patients usually present as emergency secondary to the sudden rupture of the aneurysm or as an incidental finding on ultrasound, MRI or abdominal computed tomography."

Our news journalists obtained a quote from the research from Queen Elizabeth Hospital, "Among these, splenic artery aneurysms are the most common ones accounting for 60% of all splanchnic aneurysms and gastric and gastroepiploic aneurysms account for only about 4%. Case presentation: We present a 61-year-old Caucasian male previously fit and well, presenting with sudden onset epigastric pain due to retroperitoneal haemorrhage secondary to ruptured left gastric artery aneurysm. Apart from a tender epigastrium, there were no other obvious signs elicited on abdominal examination. He had persistent tachycardia and haemoglobin drop from 10 g/dl to 6.7 g/dl. He underwent a contrast computed tomography which identified the ruptured left gastric artery. The aneurysm was controlled successfully with coil embolisation of the left gastric artery aneurysm. At three-month follow-up, there was no evidence of the aneurysm. Clinical presentations that do not correlate with examination finding should prompt immediate extensive investigation."

According to the news editors, the research concluded: "The aid of contrast computed tomography and minimally invasive radiological interventional is the key to a fruitful outcome for this very rare entity."


The news correspondents report that additional information may be obtained from C.E. Ng, Queen Elizabeth Hospital, Dept. of Surg, Gateshead NE9 6SX, United Kingdom. Additional authors for this research include H. Khout, R. Farrell and T. Fasih.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0036933015598122. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gateshead, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Computed Tomography, Left Gastric Artery, Imaging Technology, Angiology, Aneurysm, Queen Elizabeth Hospital.

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Liver Diseases and Conditions - Hepatitis C Virus

Investigators at Queen Mary University Target Hepatitis C Virus (Impact of Safety-Related Dose Reductions or Discontinuations on Sustained Virologic Response in HCV-Infected Patients: Results from the GUARD-C Cohort)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Hepatitis C Virus. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Despite the introduction of direct-acting antiviral agents for chronic hepatitis C virus (HCV) infection, peginterferon alfa/ribavirin remains relevant in many resource-constrained settings. The non-randomized GUARD-C cohort investigated baseline predictors of safety-related dose reductions or discontinuations (sr-RD) and their impact on sustained virologic response (SVR) in patients receiving peginterferon alfa/ribavirin in routine practice."

Our news journalists obtained a quote from the research from Queen Mary University, "A total of 3181 HCV-mono-infected treatment-naive patients were assigned to 24 or 48 weeks of peginterferon alfa/ribavirin by their physician. Patients were categorized by time-to-first sr-RD (Week 4/12). Detailed analyses of the impact of sr-RD on SVR24 (HCV RNA <50 IU/mL) were conducted in 951 Caucasian, noncirrhotic genotype (G)1 patients assigned to peginterferon alfa-2a/ribavirin for 48 weeks. The probability of SVR24 was identified by a baseline scoring system (range: 0-9 points) on which scores of 5 to 9 and <5 represent high and low probability of SVR24, respectively. SVR24 rates were 46.1% (754/1634), 77.1% (279/362), 68.0% (514/756), and 51.3% (203/396), respectively, in G1, 2, 3, and 4 patients. Overall, 16.9% and 21.8% patients experienced (>=)1 sr-RD for peginterferon alfa and ribavirin, respectively. Among Caucasian noncirrhotic G1 patients: female sex, lower body mass index, pre-existing cardiovascular/pulmonary disease, and low hematological indices were prognostic factors of sr-RD; SVR24 was lower in patients with (>=)1 vs. no sr-RD by Week 4 (37.9% vs. 54.4%; p=0.0046) and Week 12 (41.7% vs. 55.3%; p=0.0016); sr-RD by Week 4/12 significantly reduced SVR24 in patients with scores <5 but not (>=)5. In conclusion, sr-RD to peginterferon alfa-2a/ribavirin significantly impacts on SVR24 rates in treatment-naive G1 noncirrhotic Caucasian patients."

According to the news editors, the research concluded: "Baseline characteristics can help select patients with a high probability of SVR24 and a low probability of sr-RD with peginterferon alfa-2a/ribavirin."

For more information on this research see: Impact of Safety-Related Dose Reductions or Discontinuations on Sustained Virologic Response in HCV-Infected Patients: Results from the GUARD-C Cohort. Plos One, 2016;11(3):e0151703. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting G.R. Foster, Institute of Cellular and Molecular Sciences, Queen Mary University of London, London, UK. Additional authors for this research include C. Coppola, M. Derbala, P. Ferenci, A. Orlandini, K.R. Reddy, L. Tallarico, M.L. Shiffman, S. Ahlers, G. Bakalos and T. Hassanein.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0151703. This DOI is a link to an online electronic document that is either free or for purchase.
Investigators at RENORBIO Report Findings in Breast Cancer (Clinical and epidemiological profile of women with breast cancer managed in a public referral hospital in northeastern Brazil)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating from Recife, Brazil, by NewsRx correspondents, research stated, "To evaluate the clinical and epidemiological profile of women with breast cancer, managed in the Breast Service at Hospital Getalio Vargas (HGV). A descriptive, observational cross-sectional study, involving 174 breast cancer patients, managed at the Breast Service at HGV in Teresina, in the northeast of Brazil, from May 2011 to June 2014."

Our news editors obtained a quote from the research from RENORBIO, "Epidemiological variables included age group, age at menarche, age at first childbirth, and menopause. The tumor characteristics studied were histological type, TNM classification, and staging. The results were organized in distribution tables. Breast carcinoma was more common in patients aged 60 and over, in multiparous women, and in women who were menopausal before age 55. The most common histological type was ductal invasive carcinoma T2N1M0 (Stage J1B) in 83 (48%) women."

According to the news editors, the research concluded: "The current study shows that the majority of carcinomas were Stage II or advanced tumors, with clinically positive axillary lymph node status and weak correlation with reproductive risk factors."

For more information on this research see: Clinical and epidemiological profile of women with breast cancer managed in a public referral hospital in northeastern Brazil. European Journal of Gynaecological Oncology, 2016;37(6):814-816. European Journal of Gynaecological Oncology can be contacted at: I R O G Canada, Inc, 4900 Cote St-Luc, Apt# 212, Montreal, Quebec H3W 2H3, Canada.

The news editors report that additional information may be obtained by contacting B.B. da Silva, Northeast Network Biotechnol RENORBIO, Postagrad Program, Recife, PE, Brazil. Additional authors for this research include F.C. Sousa-Esteves, R.S. Martins, C.P. Salha, B.N. Paiva-Melo, C.S. Moura and F.A. Alves-Ribeiro.

Keywords for this news article include: Recife, Brazil, South America, Cancer, Risk and Prevention, Women's Health, Breast Cancer, Epidemiology, Hospital, Oncology, RENORBIO.

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Gram-Positive Bacteria - Lactobacillus

Investigators at Research Center Target LactoBacillius (Development and Validation of a Highly Accurate Quantitative Real-Time PCR Assay for Diagnosis of Bacterial Vaginosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Positive Bacteria - LactoBacillus are discussed in a new report. According to news reporting originating from Hamilton, New Jersey, by NewsRx correspondents, research stated, "Bacterial vaginosis (BV) is the most common gynecological infection in the United States. Diagnosis based on Amsel's criteria can be challenging and can be aided by laboratory-based testing."

Our news editors obtained a quote from the research from Research Center, "A standard method for diagnosis in research studies is enumeration of bacterial morphotypes of a Gram-stained vaginal smear (i.e., Nugent scoring). However, this technique is subjective, requires specialized training, and is not widely available. Therefore, a highly accurate molecular assay for the diagnosis of BV would be of great utility. We analyzed 385 vaginal specimens collected prospectively from subjects who were evaluated for BV by clinical signs and Nugent scoring. We analyzed quantitative real-time PCR (qPCR) assays on DNA extracted from these specimens to quantify nine organisms associated with vaginal health or disease: Gardnerella vaginalis, Atopobium vaginae, BV-associated bacteria 2 (BVAB2, an uncultured member of the order Clostridiales), Megasphaera phyloytype 1 or 2, Lactobacillus iners, Lactobacillus crispatus, Lactobacillus gasseri, and Lactobacillus jensenii. We generated a logistic regression model that identified G. vaginalis, A. vaginae, and Megasphaera phyloytypes 1 and 2 as the organisms for which quantification provided the most accurate diagnosis of symptomatic BV, as defined by Amsel's criteria and Nugent scoring, with 92% sensitivity, 95% specificity, 94% positive predictive value, and 94% negative predictive value. The inclusion of Lactobacillusspp. did not contribute sufficiently to the quantitative model for symptomatic BV detection."

According to the news editors, the research concluded: "This molecular assay is a highly accurate laboratory tool to assist in the diagnosis of symptomatic BV."


The news editors report that additional information may be obtained by contacting D.W. Hilbert, Femeris Women's Health Research Center, Medical Diagnostic Laboratories, a member of Genesis Biotechnology group, Hamilton, New Jersey, United States. Additional authors for this research include W.L. Smith, S.G. Chadwick, G. Toner, E. Mordechai, M.E. Adelson, T.J. Aguin, J.D. Sobel and S.E Gygax.

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Keywords for this news article include: Hamilton, Genetics, New Jersey, United States, Lactobacillus, Lactobacillales, Lactobacillaceae, Gram Positive Rods, Gram Positive Bacteria, Gram-Positive Bacteria, North and Central America, Gram Positive Asporogenous Rods, Bacterial Infections and Mycoses.

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Investigators at Rockefeller University Detail Findings in HIV/AIDS
(Paired quantitative and qualitative assessment of the replication-
competent HIV-1 reservoir and comparison with integrated proviral
DNA)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Immune System Diseases and Conditions -
HIV/AIDS are discussed in a new report. According to news reporting out of New York City,
New York, by NewsRx editors, research stated, "HIV-1-infected individuals harbor a latent
reservoir of infected CD4(+) T cells that is not eradicated by antiretroviral therapy (ART). This
reservoir presents the greatest barrier to an HIV-1 cure and has remained difficult to
characterize, in part, because the vast majority of integrated sequences are defective and
incapable of reactivation."

Financial supporters for this research include HHS | NIH | National Center for
Advancing Translational Sciences (NCATS), HHS | NIH | National Institute of Allergy and
Infectious Diseases (NIAID).

Our news journalists obtained a quote from the research from Rockefeller University,
"To characterize the replication-competent reservoir, we have combined two techniques,
quantitative viral outgrowth and qualitative sequence analysis of clonal outgrowth viruses.
Leukapheresis samples from four fully ART-suppressed, chronically infected individuals were
assayed at two time points separated by a 4-to 6-mo interval. Overall, 54% of the viruses
emerging from the latent reservoir showed gp160 env sequences that were identical to at least
one other virus. Moreover, 43% of the env sequences from viruses emerging from the reservoir
were part of identical groups at the two time points. Groups of identical expanded sequences
made up 54% of proviral DNA, and, as might be expected, the sequences of replication-
competent viruses in the active reservoir showed limited overlap with integrated proviral DNA,
most of which is known to represent defective viruses."

According to the news editors, the research concluded: "Finally, there was an inverse
correlation between proviral DNA clone size and the probability of reactivation, suggesting that
replication-competent viruses are less likely to be found among highly expanded provirus-
containing cell clones."

For more information on this research see: Paired quantitative and qualitative
assessment of the replication-competent HIV-1 reservoir and comparison with integrated
proviral DNA. Proceedings of the National Academy of Sciences of the United States of
America, 2016;113(49):E7908-E7916. Proceedings of the National Academy of Sciences of the
United States of America can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW,
Washington, DC 20418, USA. (National Academy of Sciences - www.nasonline.org/;
Proceedings of the National Academy of Sciences of the United States of America -
www.nasonline.org/publications/pnas/)

Our news journalists report that additional information may be obtained by
contacting M.C. Nussenzweig, Rockefeller University, Howard Hughes Med Inst, New York,
NY 10065, United States. Additional authors for this research include Y.Z. Cohen, L.B. Cohn,
E.F. Kreider, J.P. Barton, G.H. Learn, T. Oliveira, C.L. Lavine, J.A. Horwitz, A. Settler, M.

The direct object identifier (DOI) for that additional information is:
Investigators at Roswell Park Cancer Institute Zero in on Nephrology
(An RNA interference screen identifies new avenues for nephroprotection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nephrology are presented in a new report. According to news reporting from Buffalo, New York, by NewsRx journalists, research stated, "Acute kidney injury is a major public health problem, which is commonly caused by renal ischemia and is associated with a high risk of mortality and long-term disability. Efforts to develop a treatment for this condition have met with very limited success."

The news correspondents obtained a quote from the research from Roswell Park Cancer Institute, "We used an RNA interference screen to identify genes (BCL2L14, BLOC1S2, C2orf42, CPT1A, FBP1, GCNT3, RHOB, SCIN, TACR1, and TNFAIP6) whose suppression improves survival of kidney epithelial cells in in vitro models of oxygen and glucose deprivation. Some of the genes also modulate the toxicity of cisplatin, an anticancer agent whose use is currently limited by nephrotoxicity. Furthermore, pharmacological inhibition of TACR1 product NK1R was protective in a model of mouse renal ischemia, attesting to the in vivo relevance of our findings."

According to the news reporters, the research concluded: "These data shed new light on the mechanisms of stress response in mammalian cells, and open new avenues to reduce the morbidity and mortality associated with renal injury."


Our news journalists report that additional information may be obtained by contacting E.R. Zynda, Dept. of Cell Stress Biology, Roswell Park Cancer Institute, Elm and Carlton Streets, Buffalo, NY 14263, United States. Additional authors for this research include B. Schott, S. Gruener, E. Wernher, G.D. Nguyen, M. Ebeling and E.S Kandel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cdd.2015.128. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kidney, Buffalo, New York, Genetics, Nephrology, United States, Risk and Prevention, North and Central America.

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Investigators at Royal College of Surgeons in Ireland Release New Data on Apoptosis (Endoplasmic reticulum stress-mediated upregulation of miR-29a enhances sensitivity to neuronal apoptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Apoptosis have been published. According to news originating from Dublin, Ireland, by NewsRx correspondents, research stated, "Disturbance of homeostasis within the endoplasmic reticulum (ER) lumen leads to the accumulation of unfolded and misfolded proteins. This results in the activation of an evolutionary conserved stress response termed ER stress that, if unresolved, induces apoptosis."

Financial supporters for this research include Science Foundation Ireland, Health Research Board.

Our news journalists obtained a quote from the research from the Royal College of Surgeons in Ireland, "Previously the Bcl-2 homology domain 3-Only Protein Puma was identified as a mediator of ER stress-induced apoptosis in neurons. In the search of alternative contributors to ER stress-induced apoptosis, a downregulation of the anti-apoptotic Bcl-2 family protein Mcl-1 was noted during ER stress in both mouse cortical neurons and human SH-SY5Y neuroblastoma cells. Downregulation of Mcl-1 was associated with an upregulation of microRNA-29a (miR-29a) expression, and subsequent experiments showed that miR-29a targeted the 3'-untranslated region of the anti-apoptotic Bcl-2 family protein, Mcl-1. Inhibition of miR-29a expression using sequence-specific antagonirs or the overexpression of Mcl-1 decreased cell death following tunicamycin treatment, while gene silencing of Mcl-1 increased cell death. miR-29a did not alter the signalling branches of the ER stress response, rather its expression was controlled by the ER stress-induced transcription factor activating-transcription-factor-4 (ATF4)."

According to the news editors, the research concluded: "The current data demonstrate that the ATF4-mediated upregulation of miR-29a enhances the sensitivity of neurons to ER stress-induced apoptosis."


The news correspondents report that additional information may be obtained from K. Nolan, Centre for the Study of Neurological Disorders and Dept. of Physiology and Medical Physics, Royal College of Surgeons in Ireland, 123 St Stephens Green, Dublin, 2, Ireland. Additional authors for this research include F. Walter, L.P. Tuffy, S. Poeschel, R. Gallagher, S. Haunsberger, I. Bray, R.L. Stallings, C.G. Concannon and J.H Prehn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ejn.13160. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dublin, Europe, Ireland, Genetics, Apoptosis, Cytoplasm, Organelles, Cellular Structures, Intracellular Space, Endoplasmic Reticulum.

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Skin Diseases and Conditions - Urticaria

Investigators at Royal Melbourne Hospital Report Findings in Urticaria
(An unusual urticarial eruption: Familial cold autoinflammatory syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Skin Diseases and Conditions - Urticaria. According to news reporting originating from Melbourne, Australia, by NewsRx correspondents, research stated, "This is a case of a 26-year-old Caucasian woman with a lifelong history of an episodic urticaria associated with arthralgia, precipitated by exposure to cold. She had no other significant past medical history."

Our news editors obtained a quote from the research from Royal Melbourne Hospital, "She reported several family members with a history of very similar episodic eruptions without definitive diagnoses. An examination showed an urticarial eruption over her limbs with no other systemic findings. A baseline full blood examination, serology and autoimmune screen were normal. A skin biopsy was consistent with urticaria, with dermal oedema and a perivascular infiltrate. Following genetic testing, she was found to be heterozygous for a mutation, p.Ala439Val in the NLRP3 gene, known to cause familial cold autoinflammatory syndrome (FCAS), which typically presents with urticaria, conjunctivitis and arthralgia, as described in this patient. FCAS is one subtype of a group of conditions known as cryopyrin-associated periodic syndromes (CAPS)."

According to the news editors, the research concluded: "CAPS are rare, autosomal dominant inherited conditions with a spectrum of phenotypes, characterised by increased interleukin-1 beta release with subsequent local and systemic proinflammatory and pyrogenic effects."


The news editors report that additional information may be obtained by contacting R. Nguyen, Royal Melbourne Hospital, Melbourne, Vic, Australia. Additional authors for this research include A. Robinson, K. Nicholls, G. Varigos and C. Dolianitis.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Musculoskeletal Diseases and Conditions, Vascular Skin Diseases and Conditions, Joint Diseases and Conditions, Dermatology, Arthralgia, Urticaria, Genetics, Royal Melbourne Hospital.

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Investigators at Rush University Report Findings in Syphilis (Risk behaviours of an interrelated syphilis-infected sexual network of men who have sex with men)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Sexually Transmitted Diseases and Conditions (STDs) - Syphilis have been presented. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "Aims and objectives. We examined the risk behaviours in an interrelated sexual network of 33 syphilis-infected men who have sex with men on the use of condoms, substances and websites to meet sexual partners."

Our news journalists obtained a quote from the research from Rush University, "Our study used a descriptive exploratory design to investigate co-occurring high-risk behaviours in this interrelated sexual network to inform future health interventions and research directions. Although the risk behaviours for human immunodeficiency virus transmission in men who have sex with men have been studied, few have studied the high-risk population of men who already have syphilis, and even fewer have studied the risk behaviours in sexual networks of syphilis-infected men who have sex with men who were identified using contact tracing. The data were collected from semi-structured, individual interviews at a not-for-profit lesbian, gay, bisexual and transgender health centre in a large city in the Midwestern USA. Inconsistent condom use was substantial during both insertive (92%) and receptive (88%) anal intercourse. Most participants (97%) reported using one or more substances prior to or during anal intercourse, and Internet websites were the most common place to meet sexual partners (88%). High-risk behaviours were significant within this syphilis-infected sexual network of men who have sex with men. The majority of our 33 participants were non-Hispanic Whites (n = 27, 82%), possessed a baccalaureate degree or higher (n = 23, 70%), and actively sought out unprotected anal intercourse [21 participants (64%) used BareBackRT.com, a website to seek out unprotected anal intercourse]. Relevance to clinical practice. Nurses should be more informed about the risk factors of a high-risk sexual network of syphilis-infected men who have sex with men."

According to the news editors, the research concluded: "Interrelated sexual networks have high levels of similarity among participants' high-risk behaviours; contact tracing may be used to identify individual participants for relevant risk-reduction interventions."


Our news journalists report that additional information may be obtained by contacting M. Shattell, Rush University, Dept. of Community Syst & Mental Hlth Nursing, Chicago, IL 60612, United States. Additional authors for this research include J.P. Brady and M. Shattell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13209. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and...
Central America, Sexually Transmitted Diseases and Conditions (STDs), Risk and Prevention, Bacterial Sexually Transmitted Diseases and Conditions, Men's Health, Syphilis, Rush University.

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Oncology

Investigators at SWOG Statistical Center Report New Data on Oncology (Stepwise development of a cancer care delivery research study to evaluate the prevalence of virus infections in cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology is the subject of a report. According to news reporting originating in Seattle, Washington, by NewsRx journalists, research stated, "SWOG initiated a cancer care delivery research study of virus infection rates among newly diagnosed cancer patients. This study will inform viral screening guidelines in oncology clinics."

The news reporters obtained a quote from the research from SWOG Statistical Center, "In a first step 'vanguard' phase, we evaluated the feasibility of multiple study procedures. Site investigators were surveyed to obtain feedback on study implementation. Much higher enrollment occurred at sites where all physicians participated and viral testing was performed as routine practice. These procedures will be required going forward. Additional protocol changes based on site investigator input were implemented."

According to the news reporters, the research concluded: "This multistep protocol design process illustrates how cancer care delivery research studies can adapt to real-world strategies and procedures that exist at community clinics where the predominance of cancer patients are treated."

For more information on this research see: Stepwise development of a cancer care delivery research study to evaluate the prevalence of virus infections in cancer patients. Future Oncology, 2016;12(10):1219-31.

Our news correspondents report that additional information may be obtained by contacting J.M. Unger, SWOG Statistical Center, Fred Hutchinson Cancer Research Center, Seattle, WA, United States. Additional authors for this research include D.L. Hershman, K.B. Arnold, R. Loomba, R. Chugh, J.P. Hwang, M.A. O'Rourke, N.A. Bhadkamkar, L.X. Wang, A.B. Siegel, T.P. Cooley, J.L. Berenberg, B.B. Bridges and S.D Ramsey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon-2015-0076. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Seattle, Oncology, Washington, United States, North and Central America.

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Investigators at San Bortolo Hospital Have Reported New Data on Open-Angle Glaucoma (Brinzolamide 1%/timolol versus dorzolamide 2%/timolol in the treatment of open-angle glaucoma or ocular hypertension: prospective randomized patient-preference study.)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Eye Diseases and Conditions - Open-Angle Glaucoma is the subject of a report. According to news reporting originating from Vicenza, Italy, by NewsRx correspondents, research stated, "The objective of this study was to assess preference for fixed-combination brinzolamide 1%/timolol 0.5% (BTFC) versus fixed-combination dorzolamide 2%/timolol 0.5% (DTFC) in patients with open-angle glaucoma or ocular hypertension. In this prospective, single-masked crossover study, patients were randomized 1:1 to BTFC-DTFC or DTFC-BTFC treatment sequences."

Our news editors obtained a quote from the research from San Bortolo Hospital, "Patients self-administered each medication for 7 days, with a 48-hour washout period between treatments, and rated ocular discomfort after each treatment period. Medication preferences based on ocular comfort (primary endpoint) and anticipated adherence were assessed. Safety outcomes included adverse events and intraocular pressure. Between-group differences in treatment preference and ocular discomfort scores were analyzed using chi-square and Wilcoxon-Mann-Whitney tests, respectively. Adherence, intraocular pressure, and adverse events were summarized descriptively. In total, 112 patients were enrolled (mean ± SD age, 66 ± 11 years), and 109 patients completed the study. Numerically, more patients in the intent-to-treat dataset preferred BTFC versus DTFC (59.3% versus 40.7%); however, this result was not statistically significant (treatment difference, 18.6%; p=0.0670). Mean ocular discomfort scores (range, 0-9) were statistically significantly lower with BTFC versus DTFC (2.6 versus 3.7; p=0.0002, Wilcoxon-Mann-Whitney test). More patients who preferred BTFC over DTFC were confident that they would adhere to their preferred medication. Treatment-related adverse events included blurred vision with BTFC and eye irritation or eye pain with DTFC. BTFC and DTFC were preferred by approximately 60% and 40% of patients, respectively, and BTFC was associated with less patient-reported ocular discomfort."

According to the news editors, the research concluded: "Greater ocular comfort of glaucoma medications may improve treatment adherence."

For more information on this research see: Brinzolamide 1%/timolol versus dorzolamide 2%/timolol in the treatment of open-angle glaucoma or ocular hypertension: prospective randomized patient-preference study. Clinical Ophthalmology, 2015;9():2263-70.

The news editors report that additional information may be obtained by contacting R. Altafini, Glaucoma Segment Unit, San Bortolo Hospital, Vicenza, Italy. Additional authors for this research include M.L. Scherzer, D.A. Hubatsch and P. Frezzotti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/OPTH.S88891. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, Vicenza, Timolol, Thiadiazoles, Propanolamines, Ocular Hypertension, Open Angle Glaucoma, Open-Angle Glaucoma, Eye Diseases and Conditions, Cardiovascular Diseases and Conditions.

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Investigators at Sansom Institute for Health Research Report Findings in Chemotherapy (2016 Updated MASCC/ESMO Consensus Recommendations: Controlling nausea and vomiting with chemotherapy of low or minimal emetic potential)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Chemotherapy. According to news reporting originating from Adelaide, Australia, by NewsRx correspondents, research stated, "The purpose of this review is to update the MASCC (Multinational Association of Supportive Care in Cancer) guidelines for controlling nausea and vomiting with chemotherapy of low or minimal emetic potential. The antiemetic study group of MASCC met in Copenhagen in 2015 to review the MASCC antiemetic guidelines."

Our news editors obtained a quote from the research from Sansom Institute for Health Research, "A subgroup performed a systematic literature review on antiemetics for low emetogenic chemotherapy (LEC) and chemotherapy of minimal emetic potential and the chair presented the update recommendation to the whole group for discussion. They then voted with an aim of achieving 67% or greater consensus. For patients receiving low emetogenic chemotherapy, a single antiemetic such as dexamethasone, a 5HT3 receptor antagonist, or a dopamine receptor antagonist may be considered for prophylaxis of acute emesis. For patients receiving chemotherapy of minimal emetogenicity, no antiemetic should be routinely administered. If patients vomit, they should be treated as for chemotherapy of low emetic potential. No antiemetic should be administered for prevention of delayed nausea and vomiting induced by low or minimally emetogenic chemotherapy. More research is needed to determine the incidence of emesis, particularly delayed emesis, in the LEC group. Prospective studies are required to evaluate antiemetic strategies. The risk of emesis within LEC may be more accurately determined by adding the patient risk factors for emesis to those of the chemotherapy drugs."

According to the news editors, the research concluded: "Improved strategies for promoting adherence to guidelines are required."

For more information on this research see: 2016 Updated MASCC/ESMO Consensus Recommendations: Controlling nausea and vomiting with chemotherapy of low or minimal emetic potential. Supportive Care in Cancer, 2017;25(1):297-301. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

The news editors report that additional information may be obtained by contacting I. Olver, Univ South Australia, Sansom Inst Hlth Res, Adelaide, SA 5001, Australia. Additional authors for this research include C.H. Ruhlmann, F. Jahn, L. Schwartzberg, B. Rapoport, C.N. Rittenberg and R. Clark-Snow.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3391-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Drugs and Therapies, Risk and Prevention, Central Nervous System Agents,
Investigators at Sapienza-University Detail Findings in Calcinosis (ASIA syndrome, calcinosis cutis and chronic kidney disease following silicone injections. A case-based review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Calcinosis is now available. According to news originating from Rome, Italy, by NewsRx correspondents, research stated, "An immunologic adjuvant is a substance that enhances the antigen-specific immune response preferably without triggering one on its own. Silicone, a synthetic polymer used for reconstructive and cosmetic purposes, can cause, once injected, local and/or systemic reactions and trigger manifestations of autoimmunity, occasionally leading to an overt autoimmune disease."

Our news journalists obtained a quote from the research from Sapienza-University, "Siliconosis, calcinosis cutis with hypercalcemia and chronic kidney disease have all been reported in association with silicone injection. Here, we describe a case of autoimmune/auto-inflammatory syndrome induced by adjuvants, calcinosis cutis and chronic kidney disease after liquid silicone multiple injections in a young man who underwent a sex reassignment surgery, followed by a review of the literature. To our knowledge, this is the first report describing the concomitance of the three clinical conditions in the same patients."

According to the news editors, the research concluded: "The link between silicone and the immune system is not completely understood yet and requires further reports and investigations with long-term data, in order to identify the main individual and genetical risk factors predisposing to the wide spectrum of the adjuvant-induced responses."

For more information on this research see: ASIA syndrome, calcinosis cutis and chronic kidney disease following silicone injections. A case-based review. Immunologic Research, 2016;64(5-6):1142-1149. Immunologic Research can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA. (Springer - www.springer.com; Immunologic Research - www.springerlink.com/content/0257-277x/)

The news correspondents report that additional information may be obtained from G. Barilaro, Sapienza Univ Rome, Dept. of Clin Med, Clin Immunol Unit, I-00161 Rome, Italy. Additional authors for this research include C.S. Testa, A. Cacciani, G. Donato, M. Dimko and A. Mariotti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12026-016-8871-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Silicones, Article Review, Immunology, Risk and Prevention, Nutritional and Metabolic Diseases and Conditions, Calcium Metabolism Disorders, Calcinosis, Siloxanes, Genetics, Sapienza-University.

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Investigators at School of Life Sciences Target Melanoma (TLR-3 stimulation improves anti-tumor immunity elicited by dendritic cell exosome-based vaccines in a murine model of melanoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Melanoma. According to news originating from Lausanne, Switzerland, by NewsRx correspondents, research stated, "Dendritic cell (DC)-derived exosomes (Dexo) contain the machinery necessary to activate potent antigen-specific immune responses. As promising cell-free immunogens, Dexo have been tested in previous clinical trials for cancer vaccine immunotherapy, yet resulted in limited therapeutic benefit."

Our news journalists obtained a quote from the research from the School of Life Sciences, "Here, we explore a novel Dexo vaccine formulation composed of Dexo purified from DCs loaded with antigens and matured with either the TLR-3 ligand poly(I:C), the TLR-4 ligand LPS or the TLR-9 ligand CpG-B. When poly(I:C) was used to produce exosomes together with ovalbumin (OVA), the resulting Dexo vaccine strongly stimulated OVA-specific CD8(+) and CD4(+) T cells to proliferate and acquire effector functions. When a B16F10 melanoma cell lysate was used to load DCs with tumor antigens during exosome production together with poly (I:C), we obtained a Dexo vaccine capable of inducing robust activation of melanoma-specific CD8(+) T cells and the recruitment of cytotoxic CD8(+) T cells, NK and NK-T cells to the tumor site, resulting in significantly reduced tumor growth and enhanced survival as compared to a Dexo vaccine formulation similar to the one previously tested on human patients."

According to the news editors, the research concluded: "Our results indicate that poly (I:C) is a particularly favorable TLR agonist for DC maturation during antigen loading and exosome production for cancer immunotherapy."

For more information on this research see: TLR-3 stimulation improves anti-tumor immunity elicited by dendritic cell exosome-based vaccines in a murine model of melanoma. Scientific Reports, 2015;5():17622. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from M. Damo, Institute of Bioengineering, School of Life Sciences and School of Engineering, Ecole Polytechnique Federale Lausanne, CH-1015 Lausanne, Switzerland. Additional authors for this research include D.S. Wilson, E. Simeoni and J.A Hubbell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep17622. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antigen Presenting Cells, Europe, Lausanne, Exosomes, Melanoma, Oncology, Vaccines, Immunology, Organelles, Switzerland, CD Antigens, CD8 Antigens, Immunization, Immunotherapy, Cancer Therapy, Dendritic Cells, Differentiation, Biological Factors, Transport Vesicles, Biological Products, Drugs and Therapies.

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Investigators at School of Medicine Detail Findings in Myelodysplastic Syndromes (Establishing a murine xenograft-model for long-term analysis of factors inducing chromosomal instability in myelodysplastic syndrome: Pitfalls and successes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematologic Diseases and Conditions - Myelodysplastic Syndromes. According to news reporting from Hannover, Germany, by NewsRx journalists, research stated, "Myelodysplastic syndromes (MDS) are difficult to culture long-term showing the need of a model to study the fate of cells with MDS-abnormalities associated with chromosomal instability (CIN). This approach to establish a xenograft model transplanting human hematopoietic stem cells (HSC) with different independent lentivirally-mediated MDS-related modifications into immunodeficient mice is a long-lasting and tedious experiment with many parameters and every positive as well as non-functioning intermediate step will help the research community."

Financial support for this research came from Deutsche Forschungsgemeinschaft.

The news correspondents obtained a quote from the research from the School of Medicine, "As the establishment of appropriate xenograft models is increasing worldwide we aim to share our experiences to contribute toward minimizing loss of mice and following the 'right' approach. Here, modified HSCs were intrafemorally transplanted into NSG and/or NSGS mice: (1) RPS14-haploinsufficiency, (2) TP53-deficiency, (3) TP53 hotspot mutations (R248W, R175H, R273H, R249S). Engraftment was achieved and cytogenetic analyses showed human cells with normal karyo-types. However, in all experiments with NSG mice, mainly control cells or GFP-negative cells were engrafted, not allowing observation of modified HSCs. In NSGS mice, engraftment rate was higher, but mice developed graft-versus-host disease. In summary, engraftment of HSCs is promising and could be used to analyze the induction of CIN."

According to the news reporters, the research concluded: "However, the analysis of modified HSCs is limited and further experiments are required to improve this model."


Our news journalists report that additional information may be obtained by contacting G. Gohring, Hannover Med Sch, Inst Human Genet, D-30625 Hannover, Germany. Additional authors for this research include K. Thomay, K. Himmler, B. Vajen, A. Schienke, M. Hagedorn, J. Ebersold, H.H. Kreipe, A. Krueger, A. Schambach, B. Schlegelberger and G. Gohring.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.04.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hannover, Germany, Europe, Hematologic Diseases and Conditions, Bone Marrow Diseases and Conditions, Chromosomal Instability, Genetics, Myelodysplastic Syndromes, Xenotransplantion, Biotechnology, Xenografts, Hematology, School of Medicine.
Investigators at School of Medicine Discuss Findings in Hyperaldosteronism (Prevalence Of Primary Aldosteronism In An Urban Hypertensive Population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Adrenal Gland Diseases and Conditions - Hyperaldosteronism have been published. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "To determine the prevalence of primary aldosteronism (PA) in hypertensive patients presenting to the primary care clinic at The Mount Sinai Hospital, regardless of the degree of hypertension and to identify clinical criteria that should prompt screening for PA. An aldosterone:renin ratio (ARR, cutoff >= 20, with plasma aldosterone concentration [PAC] >= 10 and suppressed renin) was used to prospectively screen 296 hypertensive patients (blood pressure >= 140/90) over the age of 18 from August 2012 through May 2013."

The news correspondents obtained a quote from the research from the School of Medicine, "Subjects who screened positive then underwent confirmatory oral salt load testing (OSLT). Of the 296 patients, 14 screened positive for PA, an overall prevalence of 4.7%. Six of the 14 cases underwent confirmatory OSLT, upon which 2 were confirmed positive, for a prevalence of 0.7%. Overall, patients with confirmed PA were more likely to have resistant hypertension (42.9% vs. 18.1% (P = .0334)) and require more anti hypertensive agents (2.8 +/- 1.2 agents vs. 2.1 +/- 1.1 agents, P = .0213). There was a trend toward lower potassium values in the cases. The prevalence of PA in our clinic is much lower than in reports from certain 'at-risk' populations."

According to the news reporters, the research concluded: "PA screening is indicated in patients with resistant hypertension, regardless of serum potassium levels."

For more information on this research see: Prevalence Of Primary Aldosteronism In An Urban Hypertensive Population. Endocrine Practice, 2016;22(11):1296-1302. Endocrine Practice can be contacted at: Amer Assoc Clinical Endocrinologists, 245 Riverside Avenue, Ste 200, Jacksonville, FL 32202, USA.

Our news journalists report that additional information may be obtained by contacting K.C. Cheesman, Icahn Sch Med Mt Sinai, Adrenal Center, Mt Sinai Beth Israel, Div Endocrinol Diabet & Bone Dis, New York, NY 10029, United States. Additional authors for this research include K.C. Cheesman, R. Springer-Miller, S.M. Hopkins, L. Krakoff, E. Bagiella, R.A. Zhuk, T.K. Ying, C. Amer, M.K. Boyajian, W.B. Inabnet and A.C. Levine.

Keywords for this news article include: New York City, New York, United States, North and Central America, Endocrinology, Diagnostics and Screening, Cardiovascular Diseases and Conditions, Adrenal Gland Diseases and Conditions, Primary Aldosteronism, Hyperaldosteronism, Hypertension, School of Medicine.

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Investigators at Science Institute Describe Findings in Clinical Trials and Studies (General practice patients treated for substance use problems: a cross-national observational study in Belgium)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Clinical Research - Clinical Trials and Studies. According to news reporting originating in Brussels, Belgium, by NewsRx journalists, research stated, "General Practitioners (GPs) are well placed to care for patients with (chronic) substance use problems. This pilot was carried out to study the feasibility and usefulness of a continuous surveillance of substance use problems among general practice patients."

The news reporters obtained a quote from the research from Science Institute, "The objectives were (i) to describe variables with missing values exceeding 1% and whether patients were reported without substance-related problems; (ii) the profile and the magnitude of the patient population that is treated for substance use problems. Observational study by the Belgian Network of Sentinel General Practices (SGP) in 2013. Baseline (at the first encounter) and 7-month follow-up data were reported of all patients treated for substance use problems. Two main measurements were type of substance use and patient status at follow-up. Multiple logistic regression analysis was used to examine patient status at follow-up. Of 479 patients, 47.2% had problems with alcohol alone, 20.3% with prescription drugs, 16.7% with illicit drugs other than heroin or methadone and 15.9% with heroin or methadone. Problems with alcohol alone were more prevalent in Flanders (53.0%; 95% confidence interval (CI) 46.8-59.1%) than in Wallonia-Brussels (39.8%; 95% CI 33.1-46.8%), while problems with heroin or methadone were more prevalent in Wallonia-Brussels (27.0%; 95% CI 21.1-33.5%) than in Flanders (7.1%; 95% CI 4.3-10.9%). At follow-up, 32.8% of the patients had dropped out, 29.0% had discontinued GP treatment and 38.2% had continued GP treatment. Overall, 32.4% of 479 patients had continued GP treatment for substance use problems during the study period. In Wallonia-Brussels, this proportion was higher (42.7%; 95% CI 35.9-49.6%) than in Flanders (24.3%; 95% CI 19.2-29.8%). A continuous surveillance of the general practice population treated for substance use problems seems to be feasible and useful. The latter is suggested by the specific profile and the relative magnitude of the population."

According to the news reporters, the research concluded: "Inter-regional health system differences should be taken into account to estimate the epidemiology of substance use problems among general practice patients."


Our news correspondents report that additional information may be obtained by contacting N. Boffin, Sci Inst Public Hlth, OD Public Hlth & Surveillance, Brussels, Belgium. Additional authors for this research include J. Antoine, S. Moreels, S. Wanyama, K. De Ridder, L. Peremans, M. Vanmeerbeek and V. Van Casteren.

Keywords for this news article include: Brussels, Belgium, Europe, Drugs and Therapies, Epidemiology, Central Nervous System Agents, Clinical Trials and Studies,
Essential Amino Acids

Investigators at Scripps Research Institute Target Essential Amino Acids (Protein Arginine Methylation and Citrullination in Epigenetic Regulation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Essential Amino Acids have been published. According to news reporting from Jupiter, Florida, by NewsRx journalists, research stated, "The post-translational modification of arginine residues represents a key mechanism for the epigenetic control of gene expression. Aberrant levels of histone arginine modifications have been linked to the development of several diseases including cancer."

Funders for this research include National Cancer Institute, National Institute of General Medical Sciences.

The news correspondents obtained a quote from the research from Scripps Research Institute, "In recent years, great progress has been made in understanding the physiological role of individual arginine modifications and their effects on chromatin function. The present review aims to summarize the structural and functional aspects of histone arginine modifying enzymes and their impact on gene transcription."

According to the news reporters, the research concluded: "We will discuss the potential for targeting these proteins with small molecules in a variety of disease states."

For more information on this research see: Protein Arginine Methylation and Citrullination in Epigenetic Regulation. Acs Chemical Biology, 2015;11(3):654-68. (American Chemical Society - www.acs.org; Acs Chemical Biology - www.pubs.acs.org/journal/acbcct)

Our news journalists report that additional information may be obtained by contacting J. Fuhrmann, Dept. of Chemistry, The Scripps Research Institute, 130 Scripps Way, Jupiter, Florida 33458, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acscambio.5b00942. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jupiter, Florida, Arginine, Genetics, United States, Basic Amino Acids, Diamino Amino Acids, Essential Amino Acids, North and Central America.

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Oncology - Liver Cancer

Investigators at Second Military Medical University Report Findings in Liver Cancer (Practice guidelines for the pathological diagnosis of primary liver cancer: 2015 update)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Liver Cancer are discussed in a new report. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "In 2010, a panel of Chinese pathologists reported the first expert consensus for the pathological diagnosis of primary liver cancers to address the many contradictions and inconsistencies in the pathological characteristics and diagnostic criteria for PLC. Since then considerable clinicopathological studies have been conducted globally, prompting us to update the practice guidelines for the pathological diagnosis of PLC."

The news reporters obtained a quote from the research from Second Military Medical University, "In April 18, 2014, a Guideline Committee consisting of 40 specialists from seven Chinese Societies (including Chinese Society of Liver Cancer, Chinese Anti-Cancer Association; Liver Cancer Study Group, Chinese Society of Hepatology, Chinese Medical Association; Chinese Society of Pathology, Chinese Anti-Cancer Association; Digestive Disease Group, Chinese Society of Pathology, Chinese Medical Association; Chinese Society of Surgery, Chinese Medical Association; Chinese Society of Clinical Oncology, Chinese Anti-Cancer Association; Pathological Group of Hepatobiliary Tumor and Liver Transplantation, Chinese Society of Pathology, Chinese Medical Association) was created for the formulation of the first guidelines for the standardization of the pathological diagnosis of PLC, mainly focusing on the following topics: gross specimen sampling, concepts and diagnostic criteria of small hepatocellular carcinoma (SHCC), microvascular invasion (MVI), satellite nodules, and immunohistochemical and molecular diagnosis. The present updated guidelines are reflective of current clinicopathological studies, and include a novel 7-point baseline sampling protocol, which stipulate that at least four tissue specimens should be sampled at the junction of the tumor and adjacent liver tissues in a 1:1 ratio at the 12, 3, 6 and 9 o'clock reference positions. For the purposes of molecular pathological examination, at least one specimen should be sampled at the intratumoral zone, but more specimens should be sampled for tumors harboring different textures or colors. Specimens should be sampled at both adjacent and distant peritumoral liver tissues or the tumor margin in order to observe MVI, satellite nodules and dysplastic foci/nodules distributed throughout the background liver tissues. Complete sampling of whole SHCC <= 3 cm should be performed to assess its biological behavior, and in clinical practice, therapeutic borders should be also preserved, even in SHCC. The diagnostic criteria of MVI and satellite nodules, immunohistochemical panels, as well as molecular diagnostic principles, such as clonal typing, for recurrent HCC and multinodule HCC were also proposed and recommended. The standardized process of pathological examination is aimed at ensuring the accuracy of pathological PLC diagnoses as well as providing a valuable frame of reference for the clinical assessment of tumor invasive potential, the risk of postoperative recurrence, long-term survival, and the development of individualized treatment regimens."

According to the news reporters, the research concluded: "The updated guidelines could ensure the accuracy of pathological diagnoses of PLC, and provide a valuable frame of reference for its clinical assessment."


Our news correspondents report that additional information may be obtained by contacting W.M. Cong, Second Military Med Univ, Eastern Hepatobiliary Surg Hosp, Dept. of Pathol, Shanghai 200433, People's Republic of China. Additional authors for this research
investigators at Seoul National University Describe Findings in Melanoma [Inhibition of tyrosinase activity and melanin production by the chalcone derivative 1-(2-cyclohexylmethoxy-6-hydroxy-phenyl)-3(4-hydroxymethyl-phenyl)-propenone]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Melanoma have been presented. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Abnormal accumulation of melanin pigments in the skin can lead to hyperpigmentation disorders and melanoma. Melanin biosynthesis is ultimately regulated by the rate-limiting enzyme tyrosinase."

The news correspondents obtained a quote from the research from Seoul National University, "In the present study, we synthesized chalcone derivatives and identified 1-(2-cyclohexylmethoxy-6-hydroxyphenyl)-3-(4-hydroxymethyl-phenyl)-propenone (chalcone-21) as an anti-melanogenic substance in B16F10 melanoma cells. Chalcone-21 strongly inhibited cellular melanin production and tyrosinase activity in B16F10 melanoma cells stimulated with α-melanocyte stimulating hormone (alpha-MSH) or protoporphyrin IX."

According to the news reporters, the research concluded: "In addition, the compound suppressed not only the expression of tyrosinase, tyrosinase-related protein-1 (TRP-1), TRP-2, and microphthalmia-associated transcription factor (MITF), but also the transcriptional activity of tyrosinase and MITF. Our results demonstrated chalcone-21 to be an effective depigmenting agent."

For more information on this research see: Inhibition of tyrosinase activity and melanin production by the chalcone derivative 1-(2-cyclohexylmethoxy-6-hydroxy-phenyl)-3(4-hydroxymethyl-phenyl)-propenone. Biochemical and Biophysical Research Communications, 2016;480(4):648-654. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting S.K. Ye, Seoul National University, Coll Med, Neuroimmune Informat Storage Network Res Center, Seoul 03080, South Korea. Additional authors for this research include K.C. Park, J.H. Park, C.G. Lee, S.K. Ye and J.Y. Park.

Keywords for this news article include: Seoul, South Korea, Asia, Enzymes and Coenzymes, Propiophenones, Tyrosinase, Chalcones, Oncology, Melanoma, Genetics, Seoul
Heart Disorders and Diseases - Heart Attack

Investigators at Seoul National University Discuss Findings in Heart Attack (The effect of atmosphere temperature on out-of-hospital cardiac arrest outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Attack is now available. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "It is unclear whether the atmosphere temperature is associated with outcomes after out-of-hospital cardiac arrest (OHCA). This is a nationwide observational study using the national OHCA registry merged with a geographical and weather database."

Our news journalists obtained a quote from the research from Seoul National University, "Adult patients with a cardiac etiology that occurred from 2006 to 2013 were included, excluding patients with unknown outcome or unknown weather information. The main exposure was the hourly measured temperature matched to the OHCA event time. The covariates were age, gender, metropolis, place, and weather factors (wind speed and humidity). The primary outcome was good cerebral performance scale (CPC) 1 or 2. Patients were classified with three temperature groups by quartile range: Cold (< 4 degrees C), Intermediate (4-21 degrees C), and Hot (≥ 22 degrees C). We tested the associations between the atmosphere temperature (by 1 C and by temperature group) and outcomes using multivariable logistic regression analysis. Of 17,3051 OHCAs, a total of 115,578 cases were matched to weather database. A total of 78,717 OHCAs were analyzed. The proportion of good CPC 1 or 2 was 1.7% in the Cold group, 1.8% in the Intermediate group, and 2.3% in the Hot group. As the temperature at the event of OHCA increased by 1 degrees C, AORs (95% CIs) were 1.006 (1.002-1.009) for good CPC."

According to the news editors, the research concluded: "The AORs (95% CIs) for good CPC in Cold and Hot group comparing with Intermediate group for good CPC were 0.964 (0.845-1.100) and 1.246 (1.096-1.416), respectively."


Our news journalists report that additional information may be obtained by contacting E.J. Cho, Seoul National University, Coll Med, Seoul, South Korea. Additional authors for this research include S.D. Shin, S. Jeong, Y.H. Kwak and G.J. Suh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.10.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Heart Disorders and Diseases, Clinical Trials and Studies, Clinical Research, Cardiac Arrest, Heart Attack, Cardiology, Seoul National University.
Investigators at Seoul National University Hospital Report New Data on Colon Cancer (Clinical Implication of Anti-Angiogenic Effect of Regorafenib in Metastatic Colorectal Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Regorafenib induces distinct radiological changes that represent its anti-angiogenic effect. However, clinical implication of the changes is unclear."

Our news editors obtained a quote from the research from Seoul National University Hospital, "Tumor attenuation as measured by Hounsfield units (HU) in contrast-enhanced computed tomography (CT) and cavitary changes of lung metastases were analyzed in association with treatment outcome of metastatic colorectal cancer patients (N=80) treated with regorafenib in a prospective study. 141 lesions in 72 patients were analyzed with HU. After 2 cycles of regorafenib, 87.5% of patients showed decrease of HU (Median change -23.9%, range -61.5%-20.7%). Lesional attenuation change was modestly associated with metabolic changes of 18-fluoro-deoxyglucose positron emission tomography-CT (Pearson's r=0.37, p=0.002). Among 53 patients with lung metastases, 17 (32.1%) developed cavitary changes. There were no differences in disease control rate, progression-free survival, or overall survival according to the radiological changes. At the time of progressive disease (PD) according to RECIST 1.1, HU was lower than baseline in 86.0% (43/50) and cavitary change of lung metastasis persisted without refilling in 84.6% (11/13). Regorafenib showed prominent anti-angiogenic effect in colorectal cancer, but the changes were not associated with treatment outcome."

According to the news editors, the research concluded: "However, the anti-angiogenic effects persisted at the time of PD, which suggests that we may need to develop new treatment strategies."

For more information on this research see: Clinical Implication of Anti-Angiogenic Effect of Regorafenib in Metastatic Colorectal Cancer. Plos One, 2015;10(12):e0145004. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news editors report that additional information may be obtained by contacting Y. Lim, Dept. of Internal Medicine, Seoul National University Hospital, Seoul, South Korea. Additional authors for this research include S.W. Han, J.H. Yoon, J.M. Lee, J.M. Lee, J.C. Paeng, J.K. Won, G.H. Kang, S.Y. Jeong, K.J. Park, K.H. Lee, J.H. Kim and T.Y Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0145004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Oncology, South Korea, Angiogenesis, Colon Cancer, Gastroenterology, Colorectal Research.

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Investigators at Shaheed Beheshti University of Medical Sciences Release New Data on Type 2 Diabetes (Oxidative stress, type 2 diabetes and vitamin D: past, present and future)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting out of Tehran, Iran, by NewsRx editors, research stated, "Oxidative stress refers to an imbalance between potentially harmful free radicals and the body's mechanisms to efficiently detoxify them in favor of the free radicals. Consequently, excess free radicals can attack and damage a wide range of biomolecules including proteins, lipids and nucleic acids."

Our news journalists obtained a quote from the research from the Shaheed Beheshti University of Medical Sciences, "Antioxidant mechanisms of the body are under the influence of genetic and environmental (including dietary) factors. Diabetes is one of the most common metabolic disorders around the world. A huge body of evidence indicates a role for oxidative stress in development of many human diseases including diabetes. In this article, the latest information on the possible links of oxidative stress with diabetes development, control and complications as well as the newest results of antioxidant supplementation trials is reviewed. In addition, the possible role of vitamin D, as a newly recognized antioxidant in diabetes is discussed."

According to the news editors, the research concluded: "Finally, concluding remarks on pivotal issues and future studies are presented."


Our news journalists report that additional information may be obtained by contacting B. Nikooyeh, Laboratory of Nutrition Research, National Nutrition and Food Technology Research Institute (NNFTRI) and Faculty of Nutrition Science and Food Technology, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/dmrr.2718. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Iran, Asia, Antioxidants, Tehran, Genetics, Article Review, Type 2 Diabetes, Protective Agents, Risk and Prevention, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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Investigators at Shandong Normal University Report Findings in Ischemia (Fluorescent Nanocomposite for Visualizing Cross-Talk between MicroRNA-21 and Hydrogen Peroxide in Ischemia-Reperfusion Injury in Live Cells and In Vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Ischemia. According to news reporting originating from Jinan, People's Republic of China, by NewsRx correspondents, research stated, "MicroRNAs (miRNAs) and reactive oxygen species (ROS) are concurrently implicated in heart ischemia-reperfusion (IR) injury. There may exist mutual cross-talk between miRNAs and ROS in cardiac IR injury process."

Financial supporters for this research include Ministry of Science and Technology of the People's Republic of China, National Natural Science Foundation of China, Natural Science Foundation of Shandong Province.

Our news editors obtained a quote from the research from Shandong Normal University, "In this study, we developed a novel crown-like silica@polydopamine-DNA-CeO2 nanocomposite by assembly of silica@polydopamine-DNA1 nanoparticles decorated with satellite CeO2-DNA2 nanoparticles for detecting and imaging of microRNA-21 (miR-21) and hydrogen peroxide (H2O2) in simulated IR injury in living cells and in vivo. The miRNA-21 was found to be regulated by H2O2 via PI3K/AKT signaling pathway for the first time in H9C2 cells in simulated ischemia-reperfusion injury. H2O2 and miRNA-21 are overproduced during mimicked heart ischemia-reperfusion injury, suggesting that they are closely related to reperfusion injury. All these results reveal that there is definite cross-talk between miR-21 and H2O2 in IR injury."

According to the news editors, the research concluded: "The current method can provide a promising strategy to further explore the interplaying roles between ROS and miRNAs in other pathological processes."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.analchem.6b03701. This DOI is a link to an online electronic document that is either free for sale.

Keywords for this news article include: Jinan, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Ischemia-Reperfusion Injury, Reactive Oxygen Species, Emerging Technologies, Transfusion Medicine, Inorganic Chemicals, Hydrogen Peroxide, Organic Chemicals, Blood Transfusion, Medical Devices, Nanotechnology,
Investigators at Shandong University Describe Findings in Ethanol
(Corosolic acid protects hepatocytes against ethanol-induced damage by modulating mitogen-activated protein kinases and activating autophagy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Ethanol are discussed in a new report. According to news reporting originating in Shandong, People's Republic of China, by NewsRx journalists, research stated, "The reactive oxygen species (ROS)/mitogen-activated protein kinase (MAPK) destroyed autophagy and the reactive oxygen species/mitogen-activated protein kinase (MAPK) pathway are considered closely related to ethanol-induced hepatocellular injury. Previous work indicated that corosolic acid, the natural extracts of leaves of the banaba tree, Lagerstroemia speciosa L., could protect the liver against ethanol-induced damage, but the underlying mechanism is unclear."

Financial support for this research came from National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Shandong University, "In the study we found that corosolic acid significantly inhibited ethanol induced apoptosis, increased level of tumor necrosis factor-alpha (TNF-alpha) and reactive oxygen species accumulation in vitro. Corosolic acid inhibited ethanol-activated p38 and c-Jun N-terminal kinase MAPK signaling in BRL-3A and HepG2 cells as well as in experimental rats. Corosolic acid restored the ethanol-suppressed expression of autophagy-related genes, including beclin-1 and the ratio of microtubule-associated protein light chain 3II/1 (LC3II/I) via AMP-activated protein kinase (AMPK) activation both in vitro and in vivo. In experimental rats, corosolic acid ameliorated the detrimental histopathological findings. Corosolic acid may protect the liver against ethanol-induced injury by modulation of MAPK signaling and autophagy activation."

According to the news reporters, the research concluded: "These findings suggested that corosolic acid might be a promising agent in treatment of alcoholic liver diseases."

For more information on this research see: Corosolic acid protects hepatocytes against ethanol-induced damage by modulating mitogen-activated protein kinases and activating autophagy. European Journal of Pharmacology, 2016;791():578-588. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting M. Yan, Shandong University, Qilu Hosp, Dept. of Gastroenterol & Hepatol, Jinan 250012, Shandong, People's Republic of China. Additional authors for this research include R.B. Cui, J.J. Zhao, R. Mo, L. Peng and M. Yan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.031. This DOI is a link to an online electronic
Investigators at Shandong University Report Findings in Xenografts (Riccardin D-N induces lysosomal membrane permeabilization by inhibiting acid sphingomyelinase and interfering with sphingomyelin metabolism in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology - Xenografts. According to news originating from Jinan, People's Republic of China, by NewsRx correspondents, research stated, "Lysosomes are important targets for anticancer drug discovery. Our previous study showed that Riccardin D-N (RD-N), a natural macroyclic bisbibenzyl derivative produced by Mannich reaction, induced cell death by accumulating in lysosomes."

Funders for this research include National Natural Science Foundation of China, Shandong Scientific Technology Program.

Our news journalists obtained a quote from the research from Shandong University, "Experiments were performed on human lung squamous cell carcinoma tissue from left inferior lobar bronchus of patient xenografts and H460 cells. RD-N was administrated for 25 days. The specimens of xenografts in Balb/c athymic (nu+/nu+) male mice were removed for immunohistochemistry, subcellular fractionation, enzyme activities and Western blotting analysis. mRFP-GFP-LC3 reporter was used to examine autophagy in H460 cells. Sphingomyelin assay was evaluated by thin-layer chromatography and assay kit. Lysosomal membrane permeabilization (LMP) caused by acid sphingomyelinase (ASM) inhibition and subsequent changes of sphingomyelin (SM) metabolism selectively destabilized the cancer cell lysosomes in RD-N-treated H460 cells in vitro and tumor xenograft model in vivo. The destabilized lysosomes induced the release of cathepsins from the lysosomes into the cytosol and further triggered cell death. These results explain the underlying mechanism of RD-N induced LMP."

According to the news editors, the research concluded: "It can be concluded that a more lysosomotropic derivative was synthesized by introduction of an amine group, which could have more potential applications in cancer therapy."


The news correspondents report that additional information may be obtained from H.X. Lou, Shandong University, Dept. of Nat Prod Chem, Key Lab Chem Biol, MOE, Jinan.
Investigators at Shanghai Jiao-Tong University Report Findings in Cancer Risk (An updated dose-response meta-analysis of coffee consumption and liver cancer risk)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cancer Risk have been presented. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Prospective cohort studies of the relationship between coffee consumption and liver cancer risk have drawn different conclusions. Therefore, a dose-response meta-analysis of prospective cohort studies was performed to disentangle this causal relationship."

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "Prospective cohort studies of the association between coffee consumption and liver cancer risk published prior to Jan 9, 2016 were identified by searching in the PubMed and EMBASE databases. Extracted data were analyzed using a random-effects model. Of the 2892 records identified using the search strategy, a total of twenty cohort studies from ten publications were included in the final meta-analysis. The pooled estimate of relative risk (RR) with 95% confidence interval (CI) for highest vs. non/occasional coffee drinkers was 0.55(0.44-0.67). No evidence of publication bias was observed (p for Egger's test = 0.229). Sensitivity analysis indicated the results were robust. Dose-response analysis revealed a significant linear dose-response relationship between coffee consumption and liver cancer risk (p = 0.36). Subgroup analyses stratified by pre-specified variables (gender, geographic region, and adjusted factors) indicated similar results within individual subgroups."

According to the news editors, the research concluded: "Our meta-analysis suggested that coffee consumption is inversely associated with liver cancer risk."


The news correspondents report that additional information may be obtained from Y.G. Wang, Shanghai Jiao Tong University, Sch Med, Shanghai Tongren Hosp, Dept. of Gastroenterol, Shanghai, People's Republic of China. Additional authors for this research include Q. Cao, P. Chen, S.G. Yang, M. Deng, Y.G. Wang and L.J. Li.

Keywords for this news article include: Shanghai, People's Republic of China, Asia,
Investigators at Sharif University of Technology Have Reported New Data on Drug Delivery Systems (Exploring Cellular Interactions of Liposomes Using Protein Corona Fingerprints and Physicochemical Properties)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Drug Delivery Systems. According to news reporting from Tehran, Iran, by NewsRx journalists, research stated, "To control liposomes fate and transport upon contact with biofluids, it is essential to consider several parameters affecting the synthetic and biological identity of liposomes, as well as liposome-protein corona (PC) aspects. As a powerful tool in this data mining adventure, quantitative structure-activity relationship (QSAR) approach is used to correlate physicochemical properties of liposomes and their PC fingerprints to multiple quantified biological responses."

Financial support for this research came from Tehran University of Medical Sciences and Health Services.

The news correspondents obtained a quote from the research from the Sharif University of Technology, "In the present study, the relationship between cellular interactions of a set of structurally diverse liposomal formulations and their physicochemical and PC properties has been investigated via linear and nonlinear QSAR models. Significant parameters affecting cellular uptake and cell viability of liposomes in two important cancer cell lines (PC3 and HeLa) have been identified."

According to the news reporters, the research concluded: "The developed QSARs have the capacity to be implemented in advanced targeted delivery of liposomal drugs."


Our news journalists report that additional information may be obtained by contacting A. Bigdeli, Dept. of Chemistry, Sharif University of Technology, Tehran 1113658639, Iran. Additional authors for this research include S. Palchetti, D. Pozzi, M.R. Hormozi-Nezhad, F. Baldelli Bombelli, G. Caracciolo and M. Mahmoudi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.6b00261. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Iran, Asia, Biotechnology, Tehran, Liposomes, Drugs and Therapies, Drug Delivery Systems.

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Peptide Proteins - Proinsulin

Investigators at Shiga University of Medical Sciences Discuss Findings in Proinsulin (MicroRNA148b-3p inhibits mTORC1-dependent apoptosis in diabetes by repressing TNFR2 in proximal tubular cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peptide Proteins - Proinsulin.

According to news reporting originating from Shiga, Japan, by NewsRx correspondents, research stated, "Hypoxia causes proximal tubular cell damage in diabetes, even though proximal tubular cells have an adaptive system to combat hypoxia involving induction of hypoxia factor-1 (HIF-1) and inhibition of mechanistic target of rapamycin complex 1 (mTORC1). Here, we examined the interference effect of altered glucose and lipid metabolism on the hypoxia responses in proximal tubular cells."

Our news editors obtained a quote from the research from the Shiga University of Medical Sciences, "In culture, hypoxia alone induced HIF-1 and inhibited mTORC1, preventing death in proximal tubular cells. However, hypoxia with high glucose and palmitate increased mTORC1 activity and promoted apoptosis in proximal tubular cells, which was inhibited by pharmacological and genetic inactivation of mTORC1. Since inhibition of all mTORC1's physiological functions regulated by growth factors including insulin causes various adverse effects, we screened for a microRNA that can inhibit only pro-apoptotic effects of mTORC1 to discover a safe therapeutic target. This screen found microRNA-148b-3p was able to specifically inhibit mTORC1-dependent apoptosis in hypoxic proximal tubular cells exposed to high glucose and palmitate, without affecting insulin-dependent mTORC1 activation. Furthermore, tumor necrosis factor receptor (TNFR) 2 was the target of microRNA-148b-3p and its suppression inhibited apoptosis. Finally, enhanced apoptosis with TNFR2 overexpression was found in hypoxic and mTORC1-activated proximal tubular cells in diabetic rats. Thus, diabetes activated mTORC1 even in hypoxic proximal tubular cells, leading to apoptosis by reducing microRNA-148b-3p expression."

According to the news editors, the research concluded: "Modulating this pathogenic pathway may be a novel therapy for proximal tubular cell damage in diabetes."


The news editors report that additional information may be obtained by contacting S. Kume, Shiga University of Medical Sciences, Dept. of Med, Otsu, Shiga 5202192, Japan. Additional authors for this research include S. Kume, M. Chin-Kanasaki, H. Araki, S. Araki, J. Nakazawa, T. Sugaya, D. Koya, M. Haneda, H. Maegawa and T. Uzu.

Keywords for this news article include: Shiga, Japan, Asia, Diabetes, Diagnostics and Screening, Risk and Prevention, Peptide Proteins, Peptide Hormones, Proinsulin, Apoptosis, Genetics, Shiga University of Medical Sciences.

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Investigators at Sichuan University Release New Data on Type 2 Diabetes (Factors that Affect Pancreatic Islet Cell Autophagy in Adult Rats: Evaluation of a Calorie-Restricted Diet and a High-Fat Diet)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news reporting from Chengdu, People's Republic of China, by NewsRx journalists, research stated, "Aging may be a risk factor for type 2 diabetes in the elderly. Dietary intervention can affect glucose tolerance in adults, which may be due to body composition and islet cell autophagy."

The news correspondents obtained a quote from the research from Sichuan University, "The aim of this study was to determine the effects of various dietary interventions on islet cell autophagy. Pancreatic tissue and blood samples were collected from Sprague Dawley rats (14-16 months old, n=15 for each group) that received a normal diet (ND), a high-fat diet (HFD), or a calorie-restricted diet (CRD). The body weight (BW), visceral fat, serum lipid levels, fasting serum glucose, insulin levels, and b/a cell area were determined in 14-16-(0-w), 16-18-(8-w), and 18-20(16-w)-month-old rats. Pancreatic islet autophagy (LC3B and LAMP2), AP (Acid Phosphatase) and apoptosis (apoptosis index, AI (TUNEL assay) and cleaved caspase-3) were detected using immunohistochemistry, ELISA and western blot. At 16 weeks, the expressions of LC3B, LAMP2 and AP markedly increased in both the HFD (p <0.01) and CRD (p <0.05) groups; however, an increase in the AI (p <0.05), cleaved caspase-3 and Beclin1 expression and a decrease in the expressions of BCL2 and BCLXL (p <0.05) were observed in only the HFD group. FFA, triglyceride levels, HOMA-IR, insulin levels and glucagon levels were significantly increased in the HFD group but decreased in the CRD group at 16 weeks (p <0.05)."

According to the news reporters, the research concluded: "The degree of islet cell autophagy was potentially regulated by the levels of FFA and islet cell insulin and glucagon, which may have been due to the effects of Beclin1/BCL2."

For more information on this research see: Factors that Affect Pancreatic Islet Cell Autophagy in Adult Rats: Evaluation of a Calorie-Restricted Diet and a High-Fat Diet. Plos One, 2016;11(3):e0151104. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting Q. Sun, The Center of Gerontology and Geriatrics, West China Hospital, Sichuan University, Chengdu, Sichuan province, People's Republic of China. Additional authors for this research include S. Nie, L. Wang, F. Yang, Z. Meng, H. Xiao, B. Xiang, X. Li, X. Fu and S. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0151104. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chengdu, Caspase, Glucagon, Pancreas, Proinsulin, Type 2 Diabetes, Gastroenterology, Peptide Hormones, Peptide Proteins, Risk and Prevention, Enzymes and Coenzymes, People's Republic of China, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

Our reports deliver fact-based news of research and discoveries from around the
Investigators at Soochow University Report Findings in Peptide Hydrolases (Cathepsin L upregulation-induced EMT phenotype is associated with the acquisition of cisplatin or paclitaxel resistance in A549 cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Enzymes and Coenzymes - Peptide Hydrolases is the subject of a report. According to news reporting originating in Suzhou, People's Republic of China, by NewsRx journalists, research stated, "Cathepsin L (CTSL), a lysosomal acid cysteine protease, is known to play important roles in tumor metastasis and chemotherapy resistance. In this study we investigated the molecular mechanisms underlying the regulation of chemoresistance by CTSL in human lung cancer cells."

The news reporters obtained a quote from the research from Soochow University, "Human lung cancer A549 cells, A549/PTX (paclitaxel-resistant) cells and A549/DDP (cisplatin-resistant) cells were tested. The resistance to cisplatin or paclitaxel was detected using MTT and the colony-formation assays. Actin remodeling was observed with FITC-Phalloidin fluorescent staining or immunofluorescence. A wound-healing assay or Transwell assay was used to assess the migration or invasion ability. The expression of CTSL and epithelial and mesenchymal markers was analyzed with Western blotting and immunofluorescence. The expression of EMT-associated transcription factors was measured with Western blotting or q-PCR. BALB/c nude mice were implanted subcutaneously with A549 cells overexpressing CTSL, and the mice were administered paclitaxel (10, 15 mg/kg, ip) every 3 d for 5 times. Cisplatin or paclitaxel treatment (10-80 ng/mL) induced CTSL expression in A549 cells. CTSL levels were much higher in A549/PTX and A549/DDP cells than in A549 cells. Silencing of CTSL reversed the chemoresistance in A549/DDP and A549/TAX cells, whereas overexpression of CTSL attenuated the sensitivity of A549 cells to cisplatin or paclitaxel. Furthermore, A549/DDP and A549/TAX cells underwent morphological and cytoskeletal changes with increased cell invasion and migration abilities, accompanied by decreased expression of epithelial markers (E-cadherin and cytokeratin-18) and increased expression of mesenchymal markers (N-cadherin and vimentin), as well as upregulation of EMT-associated transcription factors Snail, Slug, ZEB1 and ZEB2. Silencing of CTSL reversed EMT in A549/DDP and A549/TAX cells; In contrast, overexpression of CTSL induced EMT in A549 cells. In xenograft nude mouse model, the mice implanted with A549 cells overexpressing CTSL exhibited significantly reduced sensitivity to paclitaxel treatment, and increased expression of EMT-associated proteins and transcription factors in tumor tissues. Cisplatin and paclitaxel resistance is associated with CTSL upregulation-induced EMT in A549 cells."

According to the news reporters, the research concluded: "Thus, CTSL-mediated EMT may be exploited as a target to enhance the efficacy of cisplatin or paclitaxel against lung cancer and other types of malignancies."

For more information on this research see: Cathepsin L upregulation-induced EMT phenotype is associated with the acquisition of cisplatin or paclitaxel resistance in A549 cells. *Acta Pharmacologica Sinica*. 2016;37(12):1606-1622. *Acta Pharmacologica Sinica* can be contacted at: Acta Pharmacologica Sinica, 294 Tai-Yuan Rd, Shanghai, 200031, Peoples R

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/aps.2016.93. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Suzhou, People's Republic of China, Asia, Cysteine Endopeptidases, Transcription Factors, Enzymes and Coenzymes, Immunofluorescence, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Peptide Hydrolases, Organic Chemicals, Cycloparaffins, Hydrocarbons, Cathepsin L, Paclitaxel, Cathepsins, Cisplatin, Proteins, Terpenes, Taxoids, Soochow University.

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Our news journalists report that additional information may be obtained by contacting T. Zhang, South China Normal Univ, Coll Biophoton, Inst Laser Life Sci, Guangzhou 510631, Guangdong, People's Republic of China. Additional authors for this research include Q.Q. Zhan, X.M. Zhou, T. Zhang and D. Xing.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201601724. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Drug Delivery Systems, Drugs and Therapies, Chemotherapy, South China Normal University.

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Heart Disorders and Diseases - Atrial Fibrillation

Investigators at St. Louis College of Pharmacy Detail Findings in Atrial Fibrillation (Practical Considerations for the Use of Direct Oral Anticoagulants in Patients With Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting out of St. Louis, Missouri, by NewsRx editors, research stated, "Atrial fibrillation (AF) is a significant risk factor for stroke and peripheral thromboembolic events (TEs). Preventing blood clots in the heart to reduce stroke and TE risk is a key goal of AF therapy."

Our news journalists obtained a quote from the research from the St. Louis College of Pharmacy, "Traditional stroke risk assessment tools for patients with nonvalvular AF include the CHADS2 and CHA(2)DS(2)-VASc scores, while long-term outcome data with the newer direct oral anticoagulants (DOACs) are emerging. The goals of this review were to assess traditional therapies and existing treatment guidelines and to discuss key pharmacologic properties of the DOACS, noting how these may benefit at-risk patients with AF. This narrative review was developed on the basis of the authors' clinical knowledge, extensive reading of the literature, and broad pharmacy experience in the management of patients with AF. Limitations of oral vitamin K antagonists (VKAs) include slow onset of action, the need for regular monitoring of their anticoagulation effect, significant food and drug interactions, and unpredictable dose-response properties. Key clinical trial data led to the approvals of apixaban, dabigatran etexilate, edoxaban, and rivaroxaban in the United States to reduce the risk of stroke and systemic embolism in patients with nonvalvular AF. With predictable pharmacologic properties and limited drug and/or dietary interactions, the DOACs offer several benefits over traditional oral anticoagulation therapy with VKA. However, they have limitations, including the absence of immediate reversal agents and limited options for monitoring their anticoagulation effects in clinical practice."
According to the news editors, the research concluded: "As experience with the use of DOACs grows, optimized treatment regimens and improved patient care are expected."


Our news journalists report that additional information may be obtained by contacting Z. Stacy, St Louis Coll Pharm, St Louis, MO 63110, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1076029616634886. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Heart Disorders and Diseases, Stroke, Article Review, Risk and Prevention, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Hematology, Therapy, St. Louis College of Pharmacy.

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**Cardiovascular Diseases and Conditions - Aneurysm**

**Investigators at St. Michael's Hospital Report Findings in Aneurysm [The wire anchor loop traction (WALT) maneuver]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Aneurysm. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "Crossing the neck of large complex intracranial aneurysms for the purposes of stent deployment can be challenging using standard over the wire techniques."

Our news editors obtained a quote from the research from St. Michael's Hospital, "We describe a novel yet simple technique for straightening out the loop formed within a large intracranial aneurysm, which is often required in order to cross the aneurysm neck into the distal branch. Both the microcatheter and microwire are initially introduced into the distal vasculature, followed by withdrawal of the microwire to a point parallel to the distal exiting branch."

According to the news editors, the research concluded: "The microcatheter and microwire are then gently withdrawn and a series of maneuvers to gradually reduce the loop is performed, obviating the need for distal purchase in the form of a stent, balloon, or coil, which have previously been described to maintain distal purchase."


The news editors report that additional information may be obtained by contacting T.R. Marotta, St. Michael's Hospital, Diagnost & Therapeut Neuroradiol, Toronto, ON M5B 1W8, Canada. Additional authors for this research include R.H. Sacho, F. Belzile and T.R. Marotta.
Investigators at Stanford University Detail Findings in Laboratory Research (Directed evolution using dCas9-targeted somatic hypermutation in mammalian cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Laboratory Research are presented in a new report. According to news reporting originating from Stanford, California, by NewsRx correspondents, research stated, "Engineering and study of protein function by directed evolution has been limited by the technical requirement to use global mutagenesis or introduce DNA libraries. Here, we develop CRISPR-X, a strategy to repurpose the somatic hypermutation machinery for protein engineering in situ."

Our news editors obtained a quote from the research from Stanford University, "Using catalytically inactive dCas9 to recruit variants of cytidine deaminase (AID) with MS2-modified sgRNAs, we can specifically mutagenize endogenous targets with limited off-target damage. This generates diverse libraries of localized point mutations and can target multiple genomic locations simultaneously. We mutagenize GFP and select for spectrum-shifted variants, including EGFP. Additionally, we mutate the target of the cancer therapeutic bortezomib, PSMB5, and identify known and novel mutations that confer bortezomib resistance. Finally, using a hyperactive AID variant, we mutagenize loci both upstream and downstream of transcriptional start sites."

According to the news editors, the research concluded: "These experiments illustrate a powerful approach to create complex libraries of genetic variants in native context, which is broadly applicable to investigate and improve protein function."


The news editors report that additional information may be obtained by contacting M.C. Bassik, Stanford Univ Chem Engn & Med Human Hlth ChEM H, Stanford, CA, United States. Additional authors for this research include L. Fresard, K. Han, C.H. Lee, A. Li, K.A. Cimprich, S.B. Montgomery and M.C. Bassik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nmeth.4038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stanford, California, United States, North and Central America, Laboratory Research, Engineering, Genetics, Stanford University.

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Investigators at Stanford University Discuss Findings in Connective Tissue Cells (Biochemically engineered stromal cell-derived factor 1-alpha analog increases perfusion in the ischemic hind limb)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Connective Tissue Cells. According to news reporting out of Stanford, California, by NewsRx editors, research stated, "Despite promising therapeutic innovation over the last decade, peripheral arterial disease remains a prevalent morbidity, as many patients are still challenged with peripheral ischemia. We hypothesized that delivery of engineered stromal cell-derived factor 1-alpha (ESA) in an ischemic hind limb will yield significant improvement in perfusion."

Our news journalists obtained a quote from the research from Stanford University, "Male rats underwent right femoral artery ligation, and animals were randomized to receive a 100 mu L injection of saline (n = 9) or 6 mu g/kg dosage of equal volume of ESA (n = 12) into the ipsilateral quadriceps muscle. Both groups of animals were also given an intraperitoneal injection of 40 mu g/kg of granulocyte macrophage colony-stimulating factor (GMCSF). Perfusion was quantified using a laser Doppler imaging device preoperatively, and on postoperative days 0, 7, and 14. Immunohistochemistry was performed to quantify angiogenesis on day 14, and an mRNA profile was evaluated for angiogenic and inflammatory markers. Compared with the saline/GMCSF group at day 14, the ESA/GMCSF-injected animals had greater reperfusion ratios (Saline/GMCSF, 0.600 +/- 0.140 vs ESA/GMCSF, 0.900 +/- 0.181; group effect P = .006; time effect P < .0001; group×time effect P < .0001), elevated capillary density (103; Saline/GMCSF, 6.40 +/- 2.01 vs ESA/GMCSF, 18.55 +/- 5.30; P < .01), and increased mRNA levels of vascular endothelial growth factor-A (Saline/GMCSF [n = 6], 0.298 +/- 0.205 vs ESA/GMCSF [n = 8], 0.456 +/- 0.139; P = .03)."

According to the news editors, the research concluded: "Delivery of ESA significantly improves perfusion in a rat model of peripheral arterial disease via improved neovasculogenesis, a finding which may prove beneficial in the treatment strategy for this debilitating disease."


Our news journalists report that additional information may be obtained by contacting J.B. Woo, Stanford University, Sch Med, Dept. of Cardiothorac Surg, Stanford, CA 94305, United States. Additional authors for this research include A.S. Fairman, J.E. Cohen, J.W. MacArthur, A.B. Goldstone, J.B. Woo, W. Hiesinger and Y.J. Woo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2015.06.140. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stanford, California, United States, North and Central America, Connective Tissue Cells, Stromal Cells, Biochemicals, Engineering, Chemicals, Genetics, Stanford University.
Investigators at State University of Campinas Describe Findings in Chemotherapy (Medicinal herbs for cancer patients undergoing chemotherapy in a Brazilian hospital - An exploratory study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Chemotherapy have been published. According to news originating from Campinas, Brazil, by NewsRx correspondents, research stated, "Integrative Oncology when combined with conventional care can be effective and reduce adverse symptoms of cancer and its treatment. The purpose of this exploratory study was to explore whether individualised medicinal herbs given to cancer patients at a Brazilian hospital improved symptoms and wellbeing."

Our news journalists obtained a quote from the research from the State University of Campinas, "This exploratory study was carried out between May 2012 and January 2013. Data from nineteen patients who received medicinal herbs every 21 days for three months were compared before and after their treatment and also with 14 patients who did not receive medicinal herbs who acted as a comparison group. An adapted version of the MYMOP was used to identify patients' self-reported symptoms and perceptions of wellbeing. After completing the medicinal herbs' treatment with the intervention group, 10 patients reported feeling better (p value = 0.24) and nine felt worse. Of the comparison group eight patients reported feeling better (p value = 0.29), four felt worse, and two declared feeling no alterations. The Student T test was used to compare differences between the medicinal herbs' and comparison group. The results for the intervention group didn't achieve statistically significant changes (p value = 0.48), compared to the comparison group. The medicinal herb treatment delivered as part of the integrative care in oncology produced clinically significant effects for over half of the patients while undergoing conventional cancer treatment."

According to the news editors, the research concluded: "However, the wellbeing improvement was not statistically different from a group of cancer patients who did not receive herbs."


The news correspondents report that additional information may be obtained from P. Siegel, Campinas State University, Fac Med Sci, Dept. of Collect Hlth, BR-13083887 Campinas, SP, Brazil. Additional authors for this research include F.O. de Gaspi, V. Salerno, C.S.P. Lima, C. Stephan and N.F. de Barros.

Keywords for this news article include: Campinas, Brazil, South America, Drugs and Therapies, Chemotherapy, Hospital, Oncology, Cancer, State University of Campinas.

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Investigators at Sun Yat Sen University Discuss Findings in Peritonitis
(Risk Factors For Early-onset Peritonitis In Southern Chinese Peritoneal Dialysis Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Digestive System Diseases and Conditions - Peritonitis. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Early peritonitis was confirmed to be associated with a higher risk of early technique failure. However, literature concerning peritonitis within the first 3 months of peritoneal dialysis (PD) initiation is scarce."

Our news editors obtained a quote from the research from Sun Yat Sen University, "The present study was to investigate risk factors associated with early-onset peritonitis in PD patients. In this retrospective observational cohort study, all incident PD patients from January 1, 2006, to December 31, 2013, were recruited and followed up until December 31, 2014. According to time-to-first episode of peritonitis, patients were divided into early-onset (≤ 3 months) peritonitis and late-onset (> 3 months) peritonitis. Baseline demographic, clinical, and laboratory data, as well as episodes of peritonitis, were collected. Risk factors associated with early-onset peritonitis were evaluated using logistic regression model. Of 1,690 patients on PD, 503 (29.8%) developed at least 1 episode of peritonitis and 118 (7.0%) patients presented the first episodes of peritonitis within the first 3 months. A multivariate logistic analysis showed that higher body mass index (BMI) (odds ratio [OR] 1.08, 95% confidence interval [CI] 1.01 - 1.15, p = 0.034), hypoalbuminemia (OR 1.75, 95% CI 1.11 - 2.78, p = 0.017), and catheter exit-site infection (OR 4.14, 95% CI 2.45 - 7.00, p < 0.001) were risk factors independently associated with early-onset peritonitis. Compared to those with late-onset, patients with early-onset peritonitis had a higher overall peritonitis rate (0.76 vs 0.38 per patient-year, p < 0.001) and worse technique survival (p < 0.001), while patient survival did not differ significantly between the 2 groups during the long-term follow-up (p > 0.05)."

According to the news editors, the research concluded: "Higher BMI, hypoalbuminemia, and catheter exit-site infection were the risk factors associated with early-onset peritonitis in PD patients."


The news editors report that additional information may be obtained by contacting X. Yang, Sun Yat Sen UniversityAffiliated Hosp 1, Dept. of Nephrol, Guangzhou 510080, Guangdong, People's Republic of China. Additional authors for this research include R. Huang, C.Y. Yi, J. Wu, Q.Y. Guo, Q. Zhou, X.Q. Yu and X. Yang.

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Keywords for this news article include: Guangdong, People's Republic of China, Asia, Digestive System Diseases and Conditions, Peritoneal Diseases and Conditions, Renal Dialysis, Epidemiology, Peritoneal Dialysis, Risk and Prevention, Peritonitis, Nephrology, Sun Yat Sen University.
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Oncology - Nasopharyngeal Carcinoma

Investigators at Sun Yat-sen University Cancer Center Have Reported New Data on Nasopharyngeal Carcinoma (Morphine, a potential antagonist of cisplatin cytotoxicity, inhibits cisplatin-induced apoptosis and suppression of tumor growth in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Nasopharyngeal Carcinoma have been published. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Morphine is an opioid analgesic drug often used for pain relief in cancer patients. However, there is growing evidence that morphine may modulate tumor growth, progression and metastasis."

Our news editors obtained a quote from the research from Sun Yat-sen University Cancer Center, "In this study, we evaluated whether morphine modulates cisplatin-induced apoptosis in human nasopharyngeal carcinoma CNE-2 cells and whether morphine affects the antitumor activity of cisplatin on tumor growth in human nasopharyngeal carcinoma CNE-2 xenografts in nude mice. We showed that a pretreatment with morphine (1 mg/ml) inhibited the sensitivity of CNE-2 cells to cisplatin by inhibiting cisplatin-induced CNE-2 cell apoptosis, decreasing caspase-3 activity and increasing the Bcl-2/Bax ratio. However, a high dose of morphine (1000 mg/ml) had the opposite effect. We also showed that at a low dose, morphine enhances chemoresistance in an in vivo nasopharyngeal carcinoma (NPC) model by inhibiting cisplatin-induced apoptosis and decreasing neovascularization."

According to the news editors, the research concluded: "Taken together, our results indicate that a low dose of morphine may lead to chemoresistance of cisplatin in NPC models in vitro and in vivo by inhibiting cisplatin-induced apoptosis and decreasing neovascularization."

For more information on this research see: Morphine, a potential antagonist of cisplatin cytotoxicity, inhibits cisplatin-induced apoptosis and suppression of tumor growth in nasopharyngeal carcinoma xenografts. Scientific Reports, 2016;6():18706. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting L.H. Cao, Dept. of Anesthesiology, Sun Yat-sen University Cancer Center, State Key Laboratory of Oncology in Southern China, Collaborative Innovation Center for Cancer Medicine, Guangzhou, Guangdong, 510060, People's Republic of China. Additional authors for this research include H.T. Li, W.Q. Lin, H.Y. Tan, L. Xie, Z.J. Zhong and J.H Zhou.

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Keywords for this news article include: Asia, Antineoplastics, Biotechnology, Pharmaceuticals, Oncology, Guangdong, Apoptosis, Xenografts, Alkylating Agents, Cisplatin Therapy, Xenotransplantation, Chlorine Compounds, Neovascularization, Nitrogen Compounds, Platinum Compounds, Drugs and Therapies, Nasopharyngeal Carcinoma, People's Republic of China.

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Investigators at Sungkyunkwan University Detail Findings in Breast Cancer (Comparative analysis of BRCA1 and BRCA2 variants of uncertain significance in patients with breast cancer: a multifactorial probability-based model versus ACMG standards ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "To investigate variants of uncertain significance (VUS) in BRCA1 and BRCA2, we assessed the multifactorial posterior probability of VUS in BRCA1 and BRCA2 and compared these analyses with interpretations according to the recently released American College of Medical Genetics and Genomics (ACMG) standards and guidelines. The analysis involved 715 Korean patients with breast cancer."

Our news journalists obtained a quote from the research from Sungkyunkwan University, "The multifactorial probability of a VUS was analyzed using the prior probability and combined likelihoods of personal and family history, the pathologic profile of the breast cancer, and co-occurrence with pathogenic variants. Results were compared with those obtained according to the ACMG standards/guidelines. Sixteen VUS from 51 BRCA1 VUS carriers and 28 VUS from 62 BRCA2 VUS carriers were analyzed. There was a slight agreement between the two analyses, with a kappa value of 0.14 (95% confidence interval (CI) = -0.34 to 0.62) for the BRCA1 VUS and a kappa value of 0.17 (95% CI = -0.10 to 0.49) for the BRCA2 VUS. We propose that genetic counseling should be based on the concordant results between these two analyses."

According to the news editors, the research concluded: "When discrepancies are found, those variants are still considered VUS and careful counseling should be provided."

For more information on this research see: Comparative analysis of BRCA1 and BRCA2 variants of uncertain significance in patients with breast cancer: a multifactorial probability-based model versus ACMG standards and guidelines for interpreting sequence variants. Genetics in Medicine, 2016;18(12):1250-1257. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)

The news correspondents report that additional information may be obtained from J.W. Kim, Sungkyunkwan UniversitySch Med, Samsung Med Center, Dept. of Lab Med & Genet, Seoul, South Korea. Additional authors for this research include E.Y. Cho, S.J. Nam, C.S. Ki and J.W. Kim.

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Keywords for this news article include: Seoul, South Korea, Asia, Cancer, Genetics, Women's Health, Breast Cancer, Oncology, BRCA1, BRCA2, Sungkyunkwan University.

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Investigators at Sungkyunkwan University Report Findings in Ebstein Anomaly (Natural Course of Adult Ebstein Anomaly When Treated according to Current Recommendation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Ebstein Anomaly is now available. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "The objectives of this study were to assess the clinical outcomes of adults with Ebstein Anomaly (EA) according to their treatment modalities. All adult EA patients diagnosed between October 1994 and October 2014 were retrospectively evaluated by medical record review."

Our news journalists obtained a quote from the research from Sungkyunkwan University, "Total 60 patients were categorized into 3 groups according to their treatment strategy, i.e. non-operative treatment (Group I, n = 23), immediate operative treatment (Group II, n = 27), and delayed operative treatment (Group III, n = 10). A composite of major adverse cardiac and cerebrovascular events (MACCE) and factors associated with MACCE were assessed in each treatment group. MACCE occurred in 13.0% patients in Group I, 55.6% patients in Group II and 50% in Group III (P = 0.006). Event free survivals at 5 years were 90% in Group I, 52.7% in Group II, 50.0% in Group III (P = 0.036). Post-operatively, most patients showed improvement on clinical symptoms. However, event free survival rate was lower in patients with operation compared to those with non-operative treatment (58.7% vs. 90.9%; P = 0.007). Major arrhythmic event occurred more frequently even after surgical ablation (50.0% vs. 20.0%; P = 0.034). Re-operation was more frequent in patients underwent delayed surgery compared to those with immediate surgery (50.0% vs. 18.5%; P = 0.001). Current guideline to decide patient's treatment strategy appeared to be appropriate in adult patients with EA. However, surgical ablation for arrhythmia was not enough so that concomitant medical treatment should be considered."

According to the news editors, the research concluded: "Therefore, attentive risk stratification and cautious decision of treatment strategy by experienced cardiac surgeon are believed to improve clinical outcome."

For more information on this research see: Natural Course of Adult Ebstein Anomaly When Treated according to Current Recommendation. Journal of Korean Medical Science, 2016;31(11):1749-1754. Journal of Korean Medical Science can be contacted at: Korean Acad Medical Sciences, 302 75 Dong Du Ichon, Dong Yongsan Ku, Seoul 140 031, South Korea.

The news correspondents report that additional information may be obtained from S.W. Park, Sungkyunkwan UniversitySch Med, Samsung Med Center, Heart Vasc Stroke Inst, Seoul, South Korea. Additional authors for this research include S.Y. Jang, J.R. Moon, E.K. Kim, S.A. Chang, J. Song, J. Huh, I.S. Kang, J.H. Yang, T.G. Jun and S.W. Park.

Keywords for this news article include: Seoul, South Korea, Asia, Heart Disorders and Diseases, Cardiovascular Abnormalities, Congenital Abnormalities, Congenital Heart Defects, Ebstein Anomaly, Heart Disease, Cardiology, Surgery, Sungkyunkwan University.

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**Pharmacotherapy**

**Investigators at Sungkyunkwan University School of Medicine Release New Data on Pharmacotherapy (Persistence and compliance with medication management in the treatment of overactive bladder)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacotherapy have been presented. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Overactive bladder (OAB) is a common and chronic condition that impacts patients' daily activities and quality of life. Pharmacotherapy for OAB is a mainstay of treatment."

The news correspondents obtained a quote from the research from the Sungkyunkwan University School of Medicine, "Antimuscarinics and b3-adrenoceptor agonists are the two major classes of oral pharmacotherapy and have similar efficacy for treating the symptoms of OAB. Owing to the chronic nature of OAB, long-term use of medication is essential for OAB symptom control and positive health outcomes. However, many patients elect to stop their medications during the treatment period. Unmet expectations of treatment and side effects seem to be the major factors for discontinuing OAB pharmacotherapy. Furthermore, the short-and long-term persistence and compliance with medication management are markedly worse in OAB than in other chronic medical conditions. Improvement in persistence and compliance with OAB pharmacotherapy is a hot topic in OAB treatment and should be an important goal in the treatment of OAB. Effective strategies should be identified to improve persistence and compliance."

According to the news reporters, the research concluded: "In this review, we outline what is known about persistence and compliance and the factors affecting persistence with pharmacotherapy in patients with OAB."

For more information on this research see: Persistence and compliance with medication management in the treatment of overactive bladder. *Investigative and Clinical Urology*, 2016;57(2):84-93.

Our news journalists report that additional information may be obtained by contacting T.H. Kim, Dept. of Urology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4111/icu.2016.57.2.84. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, South Korea, Article Review, Pharmacotherapy.

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**Cardiovascular Diseases and Conditions – Air…**

**Investigators at Swedish Neuroscience Institute Report Findings in Air Embolism (Venous air embolus during prone cervical spine fusion: case report)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Air Embolism have been published. According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "Venous air embolism (VAE) is a known neurosurgical complication classically and most frequently occurring in patients undergoing posterior cranial fossa or cervical spine surgery in a sitting or semi-sitting position. The authors present a case of VAE that occurred during posterior cervical spine surgery in a patient in the prone position, a rare intraoperative complication."

Our news journalists obtained a quote from the research from Swedish Neuroscience Institute, "The patient was a 65-year-old man who was undergoing a C1-2 fusion for a nonunion of a Type II dens fracture and developed a VAE. While VAE in the prone position is uncommon, it is a neurosurgical complication that may have significant clinical implications both intraoperatively and postoperatively."

According to the news editors, the research concluded: "The aim of this review is 2-fold: 1) to improve the general knowledge of this complication among surgeons and anesthesiologists who may not otherwise suspect air embolism in patients positioned prone for posterior cervical spine operations, and 2) to formulate preventive measures as well as a plan for prompt diagnosis and treatment should this complication occur."

For more information on this research see: Venous air embolus during prone cervical spine fusion: case report. *Journal of Neurosurgery-Spine*, 2016;25(6):681-684. *Journal of Neurosurgery-Spine* can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

The news correspondents report that additional information may be obtained from M. Moisi, Swedish Med Center, Swedish Neurosci Inst, Dept. of Neurol Surg, Seattle, WA, United States. Additional authors for this research include M. Moisi, J. Page, R.S. Tubbs, D. Paulson, M. Zwillman, R. Oskouian, A. Lam and D.W. Newell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3171/2016.5.SPINE16109. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Neurosurgery, Air Embolism, Surgery, Swedish Neuroscience Institute.

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**Algorithms**

**Investigators at Taipei Veterans General Hospital Describe Findings in Algorithms (Diagnostic algorithm for detection of targetable driver mutations in lung adenocarcinomas: Comprehensive analyses of 205 cases with immunohistochemistry, ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Algorithms have been published. According to news reporting originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Analysis of the targetable driver mutations is now recommended in all patients with advanced
lung adenocarcinoma. Molecular-based methods are usually adopted, however, along with the implementation of highly sensitive and/or mutation-specific antibodies, immunohistochemistry (IHC) has been considered an alternative method for identifying driver mutations in lung adenocarcinomas."

Our news editors obtained a quote from the research from Taipei Veterans General Hospital, "A total of 205 lung adenocarcinomas were examined for EGFR mutations and ALK and ROS1 rearrangements using real-time PCR, fluorescence in situ hybridization (FISH) and IHC in parallel. The performance of different commercially available IHC antibody clones toward targetable driver mutations was evaluated. The association between these driver mutations and clinicopathological characteristics was also analyzed. In 205 cases we studied, 58.5% were found to harbor EGFR mutations, 6.3% ALK rearrangements and 1.0% ROS1 rearrangements. Compared to molecular-based methods, IHC of EGFR mutations showed an excellent specificity but the sensitivity is suboptimal, while IHC of ALK and ROS1 rearrangements demonstrated high sensitivity and specificity. No significant difference regarding the performance of different antibody clones toward these driver mutations was observed, except that clone SP125 showed a higher sensitivity than 43B2 in the detection of p.L858R of EGFR. In circumstances such as poor quality of nucleic acids or low content of tumor cells, IHC of EGFR mutation-specific antibodies could be used as an alternative method. Patients negative for EGFR mutations are subjected to further analysis on ALK and ROS1 rearrangements using IHC methods."

According to the news editors, the research concluded: "Herein, we proposed a lung adenocarcinoma testing algorithm for the application of IHC in therapeutic diagnosis."

For more information on this research see: Diagnostic algorithm for detection of targetable driver mutations in lung adenocarcinomas: Comprehensive analyses of 205 cases with immunohistochemistry, real-time PCR and fluorescence in situ hybridization methods. Lung Cancer, 2016;101():40-47. Lung Cancer can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Lung Cancer - www.journals.elsevier.com/lung-cancer/)

The news editors report that additional information may be obtained by contacting H.L. Ho, Taipei Veterans General Hospital, Dept. of Pathol & Lab Med, Div Mol Pathol, Taipei 112, Taiwan. Additional authors for this research include Y.C. Yeh, C.H. Lin, W.F. Hsu, W.Y. Hsieh, H.L. Ho and T.Y. Chou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.lungcan.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Algorithms, Taipei Veterans General Hospital.

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**Health and Medicine - Spinal Research**

**Investigators at Tel Aviv Medical Center & School of Medicine Describe Findings in Spinal Research (Predictors for surgical complications of en bloc resections in the spine: review of 220 cases treated by the same team)**
According to news reporting originating in Tel Aviv, Israel, by NewsRx journalists, research stated, "Identify risk factors, enabling reduction of the rate of complications and improve outcome in en bloc resection surgeries. A retrospective study of prospective collected data of 1681 patients affected by spine tumors treated from 1990 to 2015 by the same team."

The news reporters obtained a quote from the research from the Tel Aviv Medical Center & School of Medicine, "A total of 220 en bloc resections that were performed on 216 patients during that period. Most of the tumors were primary-165 cases (43 benign and 122 malignant), metastases occurred in 55 cases. Median FU was 45 months (0-371). 153 complications were observed in 100 patients (46.2 %). 64 (30 %) suffered one complication, while the rest had two or more. There were 105 major and 48 minor complications. Seven patients (4.6 %) died as a result of complications. The combined approach, neoadjuvant chemotherapy and neoadjuvant radiotherapy were statistically significant independent risk factors for complications occurrence. 33 patients (15.2 %) suffered from local recurrence. Reoperations were mostly due to tumor recurrences, but also to hardware failures, wound dehiscence, hematomas and aortic dissection. The rate of complication is higher in multisegmental resections and when double combined approach is performed. Reoperations display greater morbidity owing to dissection through scar/fibrosis from previous operations and possibly from RT. Careful treatment planning and, in the event of uncertainty, referral to a specialty center must be stressed. The high risk of complications should not discourage surgeons from performing en bloc resection when needed."

According to the news reporters, the research concluded: "Most of the patients who sustain complications benefit from the better local control resulting from en bloc resection."

For more information on this research see: Predictors for surgical complications of en bloc resections in the spine: review of 220 cases treated by the same team. European Spine Journal, 2016;25(12):3932-3941. European Spine Journal can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Spine Journal - www.springerlink.com/content/0940-6719/)

Our news correspondents report that additional information may be obtained by contacting R. Lador, Tel Aviv Med Center & Sch Med, Spine Surg Unit, IL-64239 Tel Aviv, Israel. Additional authors for this research include A. Gasbarrini, S. Bandiera, R. Ghermandi and R. Lador.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00586-016-4463-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tel Aviv, Israel, Asia, Spinal Research, Health and Medicine, Risk and Prevention, Article Review, Tel Aviv Medical Center & School of Medicine.

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Investigators at Tel Aviv University Describe Findings in Inflammatory Bowel Disease (Biosimilars in Inflammatory Bowel Disease: Facts and Fears of Extrapolation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Digestive System Diseases and Conditions - Inflammatory Bowel Disease is now available. According to news reporting originating in Tel Hashomer, Israel, by NewsRx journalists, research stated, "Biologic drugs such as infliximab and other anti-tumor necrosis factor monoclonal antibodies have transformed the treatment of immuno-mediated inflammatory conditions such as Crohn's disease and ulcerative colitis (collectively known as inflammatory bowel disease [IBD]). However, the complex manufacturing processes involved in producing these drugs mean their use in clinical practice is expensive."

The news reporters obtained a quote from the research from Tel Aviv University, "Recent or impending expiration of patents for several biologics has led to development of biosimilar versions of these drugs, with the aim of providing substantial cost savings and increased accessibility to treatment. Biosimilars undergo an expedited regulatory process. This involves proving structural, functional, and biological biosimilarity to the reference product (RP). It is also expected that clinical equivalency/comparability will be demonstrated in a clinical trial in one (or more) sensitive population. Once these requirements are fulfilled, extrapolation of biosimilar approval to other indications for which the RP is approved is permitted without the need for further clinical trials, as long as this is scientifically justifiable. However, such justification requires that the mechanism(s) of action of the RP in question should be similar across indications and also comparable between the RP and the biosimilar in the clinically tested population(s). Likewise, the pharmacokinetics, immunogenicity, and safety of the RP should be similar across indications and comparable between the RP and biosimilar in the clinically tested population(s). To date, most anti-tumor necrosis factor biosimilars have been tested in trials recruiting patients with rheumatoid arthritis. Concerns have been raised regarding extrapolation of clinical data obtained in rheumatologic populations to IBD indications."

According to the news reporters, the research concluded: "In this review, we discuss the issues surrounding indication extrapolation, with a focus on extrapolation to IBD."

For more information on this research see: Biosimilars in Inflammatory Bowel Disease: Facts and Fears of Extrapolation. *Clinical Gastroenterology and Hepatology*, 2016;14 (12):1685-1696. *Clinical Gastroenterology and Hepatology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Clinical Gastroenterology and Hepatology - www.journals.elsevier.com/clinical-gastroenterology-and-hepatology/)

Our news correspondents report that additional information may be obtained by contacting S. Ben-Horin, Tel Aviv University, Sackler Sch Med, Tel Hashomer, Israel. Additional authors for this research include N. Van de Casteele, S. Schreiber and P.L. Lakatos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cgh.2016.05.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tel Hashomer, Israel, Asia, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Bowel Diseases
Investigators at Tokyo Medical and Dental University Discuss Findings in Oral Squamous Cell Carcinoma (Exosomal microRNA miR-1246 induces cell motility and invasion through the regulation of DENND2D in oral squamous cell carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Oral Squamous Cell Carcinoma. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Metastasis is associated with poor prognosis in cancers. Exosomes, which are packed with RNA and proteins and are released in all biological fluids, are emerging as an important mediator of intercellular communication."

Our news journalists obtained a quote from the research from Tokyo Medical and Dental University, "However, the function of exosomes remains poorly understood in cancer metastasis. Here, we demonstrate that exosomes isolated by size-exclusion chromatography from a highly metastatic human oral cancer cell line, HOC313-LM, induced cell growth through the activation of ERK and AKT as well as promoted cell motility of the poorly metastatic cancer cell line HOC313-P. MicroRNA (miRNA) array analysis identified two oncogenic miRNAs, miR-342-3p and miR-1246, that were highly expressed in exosomes. These miRNAs were transferred to poorly metastatic cells by exosomes, which resulted in increased cell motility and invasive ability. Moreover, miR-1246 increased cell motility by directly targeting DENN/MADD Domain Containing 2D (DENND2D)."

According to the news editors, the research concluded: "Taken together, our findings support the metastatic role of exosomes and exosomal miRNAs, which highlights their potential for applications in miRNA-based therapeutics."

For more information on this research see: Exosomal microRNA miR-1246 induces cell motility and invasion through the regulation of DENND2D in oral squamous cell carcinoma. *Scientific Reports, 2016;6():1-11.* *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J. Inazawa, Tokyo Medical & Dental University, Bioresource Res Center, Tokyo, Japan. Additional authors for this research include T. Muramatsu, K. Ueda and J. Inazawa.

Keywords for this news article include: Tokyo, Japan, Asia, Oral Squamous Cell Carcinoma, Cytoplasmic Structures, Transport Vesicles, Cell Motility, Organelles, Carcinomas, Oncology, Genetics, Exosomes, Cancer, Tokyo Medical and Dental University.

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Investigators at Tokyo University of Science Report Findings in Ketoprofen Therapy (Dibucaine inhibits ketoprofen photodegradation via a mechanism different from that of antioxidants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Ketoprofen Therapy. According to news reporting originating in Chiba, Japan, by NewsRx journalists, research stated, "Ketoprofen is one of the non-steroidal anti-inflammatory drugs used for fomentation. It is associated with undesirable photosensitivity caused by UV irradiation."

The news reporters obtained a quote from the research from the Tokyo University of Science, "Moreover, it induces photodegradation, including decarboxylation, when exposed to UV irradiation. In this study, we attempted to identify compounds that can inhibit the photodegradation of ketoprofen. UV irradiation of ketoprofen follows first-order reaction kinetics and yields three photoproducts. Aqueous solutions containing ketoprofen generate free radicals when it was irradiated with UV. We considered that these free radicals react with ketoprofen. Antioxidants inhibit the photodegradation of ketoprofen. On the other hand, a local anesthetic, dibucaine hydrochloride, was also effective in inhibiting the photodegradation of ketoprofen. We evaluated the difference in the mechanism of inhibition between the antioxidants and the local anesthetic."

According to the news reporters, the research concluded: "Both antioxidants and dibucaine hydrochloride are effective inhibitors of the photodegradation of ketoprofen."

For more information on this research see: Dibucaine inhibits ketoprofen photodegradation via a mechanism different from that of antioxidants. Journal of Photochemistry and Photobiology A-Chemistry, 2017;333():208-212. Journal of Photochemistry and Photobiology A-Chemistry can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland.

Our news correspondents report that additional information may be obtained by contacting S. Goto, Tokyo University of Science, Res Inst Sci & Technol, Noda, Chiba 2788510, Japan. Additional authors for this research include K. Kobayashi, S. Watanabe, K. Okuyama, Y. Shimada and S. Goto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jphotochem.2016.10.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chiba, Japan, Asia, Drugs and Therapies, Ketoprofen Therapy, Protective Agents, Phenylpropionates, Dibucaine Therapy, Pharmaceuticals, Antioxidants, Anesthetic, Amides, Tokyo University of Science.

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Investigators at Tottori University School of Medicine Release New Data on Cryptorchidism (Post-fertilization effect of bilateral primary testicular damage induced by unilateral cryptorchidism in the rat model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Urogenital Diseases and Conditions - Cryptorchidism. According to news reporting from Yonago, Japan, by NewsRx journalists, research stated, "Cryptorchidism, a common anomaly of the male genitalia, affects 2-4% of male infants. The post-fertilization effects of unilateral cryptorchidism model in the rat and the effects of antioxidant treatment were investigated."

Financial support for this research came from Japan Society for the Promotion of Science.

The news correspondents obtained a quote from the research from the Tottori University School of Medicine, "Six-week-old male Wistar rats were randomly separated into four groups. Unilateral cryptorchidism was induced in the right testis of three groups. One group was treated with saline intraperitoneally (i.p.) (Crypto), one group was treated with taurine (500 mg/kg, i.p.; Tau), and another group was treated with sivelestat (15 mg/kg i.p.; Siv). The control group was treated with saline i.p. The treatment was daily for 8 weeks. Five days before sacrifice, mating studies were performed. Body, testicular, and epididymal weights were recorded. Malondialdehyde (MDA) levels in the seminal vesicular fluid (SVF) were measured. Testicular levels of MDA and 8-hydroxy-2'-deoxyguanosine (8-OHdG) were determined bilaterally. TUNEL assay was used to examine DNA fragmentation bilaterally. Histological examination and the Johnsen score were used to evaluate morphological testicular alterations. The Crypto group demonstrated significantly lower right testicular and epididymal weights, significantly increased SVF-MDA levels, testicular MDA and 8-OHdG levels, and the apoptotic score bilaterally compared to the controls. Furthermore, histological evaluation revealed significantly reduced spermatogenesis and mild injury to the cryptorchid testes compared to the control. Treatment with both taurine and sivelestat significantly reduced SVF-MDA levels, testicular MDA, 8-OHdG, and apoptosis bilaterally compared to the Crypto group. Antioxidant treatment was unable to ameliorate spermatogenesis. Newborns delivered by females that mated with Crypto-males had significantly lower body weight compared with the respective animals from the control, Tau and Siv groups. The present study demonstrated that unilateral cryptorchidism-induced testicular damage can significantly affect the contralateral testis as well having further deleterious post-fertilization effect on the development of newborns."

According to the news reporters, the research concluded: "Treatment with antioxidants can partially improve the testicular damage bilaterally with beneficial effects for the newborns."

For more information on this research see: Post-fertilization effect of bilateral primary testicular damage induced by unilateral cryptorchidism in the rat model. Andrology, 2016;4(2):297-305.

Our news journalists report that additional information may be obtained by contacting P. Tsounapi, Division of Urology, Dept. of Surgery, Tottori University School of Medicine, Yonago, Japan. Additional authors for this research include M. Honda, F. Dimitriadis, S. Shimizu, K. Hikita, K. Muraoka, T. Sejima, M. Saito, S. Tomita, N. Sofikitis and A. Takenaka.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/andr.12154. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Yonago, Genetics, Cryptorchidism, Gonadal Disorders, Congenital Abnormalities, Urogenital Abnormalities, Testicular Diseases and Conditions, Urogenital Diseases and Conditions.

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Clinical Research - Clinical Research in Anesthesia

Investigators at Trinity College Detail Findings in Clinical Research in Anesthesia (The preoperative use of field tests of exercise tolerance to predict postoperative outcome in intra-abdominal surgery: a systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Clinical Research - Clinical Research in Anesthesia are presented in a new report. According to news originating from Dublin, Ireland, by NewsRx correspondents, research stated, "To assess the ability of field tests of exercise tolerance, such as the 6-minute walk test (6MWT) and incremental shuttle walk test (ISWT), to predict postoperative outcome following intra-abdominal surgery. A systematic review."

Our news journalists obtained a quote from the research from Trinity College, "A hospital-affiliated university. The following databases were searched: AMED, CINAHL, EMBASE, PEDro, PubMed/MEDLINE, and The Cochrane Library. Six full-text articles were included. Data extraction included author, population demographics, surgery type, postoperative outcome measure, and field test results. The risk of bias was performed using the Quality in Prognosis Studies tool. Surgical procedures reviewed were colorectal (n = 3), upper gastrointestinal (n = 1), and intra-abdominal surgery (n = 2). Field tests of exercise tolerance showed little ability to predict postoperative mortality; however, the overall rate of mortality was low. Patients achieving lower distances on the ISWT tended to have longer hospital stays and an increased risk of overall complications. The 6MWT does not appear able to predict postoperative cardiac or pulmonary complications; however, it may be suitable to predict general complications. Field tests may be able to predict postoperative outcome; however, further validation is needed. The ISWT appears to be the superior field test."

According to the news editors, the research concluded: "The 6MWT and stair climb test require further validation to assess their predictive ability."


The news correspondents report that additional information may be obtained from J. Moran, Trinity College Dublin, Trinity Center Hlth Sci, Sch Med, Discipline Physiotherapy, Dublin, Ireland. Additional authors for this research include F. Wilson, E. Guinan, P. McCormick, J. Hussey and J. Moriarty.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.09.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dublin, Ireland, Europe, Clinical Research in Anesthesia, Clinical Research, Surgery, Article Review, Hospital, Trinity College.

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**Heart Disorders and Diseases - Dilated**

**Investigators at University Children's Hospital Report Findings in Dilated Cardiomyopathy [Pitfalls in Echocardiography: Coarctation of the Aorta Presenting as Dilated Cardiomyopathy (DCM)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Dilated Cardiomyopathy is now available. According to news reporting originating from Tubingen, Germany, by NewsRx correspondents, research stated, "The morphologic spectrum of aortic coarctation extends from discrete isthmic obstruction to tubular hypoplasia of the entire aortic arch. Neonates with coarctation frequently present with congestive heart failure and critically reduced perfusion of the descending aorta following ductal closure."

Our news editors obtained a quote from the research from University Children's Hospital, "During the recent years we observed several infants with coarctation who presented beyond the neonatal period with dilated cardiomyopathy (DCM). We reviewed our patients with coarctation to determine whether this presentation represents an exception or is relevant for the differential diagnosis of children with DCM. From 1/2001 to 12/2013 74 babies with isolated coarctation were diagnosed in our institution. 50 patients presented in the neonatal period and 24 patients beyond the first month. 5/74 infants presented after the neonatal period with poorly contractile, dilated left ventricles. Echocardiographic detection of the coarctation was facilitated by application of the ductal view and by Doppler interrogation of the celiac artery revealing a significantly diminished systolic flow velocity. All patients underwent resection of the coarctation and end-to-end anastomosis of the aorta. Postoperative normalization of left ventricular function was observed within a median interval of 2 months. Coarctation of the aorta presenting as DCM accounted for 21 % of our infants with coarctation who presented beyond the neonatal period and 7 % of those in the first year of life. The stenosis was difficult to detect because of its distal location and normal configuration of the aortic arch."

According to the news editors, the research concluded: "Isthmic coarctation should be included in the differential diagnosis of infants with DCM and requires careful examination of the isthmic region in these children."

For more information on this research see: Pitfalls in Echocardiography: Coarctation of the Aorta Presenting as Dilated Cardiomyopathy (DCM). Ultraschall in Der Medizin, 2016;37(5):482-486. Ultraschall in Der Medizin can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany.

The news editors report that additional information may be obtained by contacting G. Wiegand, University Children's Hospital, Pediat Cardiol, D-72074 Tubingen, Germany. Additional authors for this research include C. Schlensak and M. Hofbeck.

Keywords for this news article include: Tubingen, Germany, Europe, Cardiovascular
Investigators at University College Release New Data on Cancer Research (Phase I study of KW-2478, a novel Hsp90 inhibitor, in patients with B-cell malignancies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Research. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "KW-2478 is a novel, non-ansamycin, non-purine heat-shock protein 90 (Hsp90) inhibitor. In this phase I, multicentre study, KW-2478 was administered intravenously over 1 h at doses ranging from 14 to 176 mg m(-2) once daily on days 1-5 of a 14-day cycle in a standard 3+3 design in 27 patients (22 with multiple myeloma and 5 with non-Hodgkin lymphoma)."

Our news journalists obtained a quote from the research from University College, "Patients enrolled had relapsed/refractory disease previously treated with &#10878;2 regimens. There were no dose-limiting toxicities, thus the maximum-tolerated dose was not reached. KW-2478 was well tolerated and did not manifest significant retinal or ocular toxicity. The most common treatment-related adverse events were diarrhoea (33.3%), fatigue (29.6%), headache (25.9%), hypertension (22.2%), nausea (14.8%), vomiting (7.4%), and dizziness (7.4%). Plasma concentrations peaked at the end of infusion and decayed in a biphasic manner with a terminal half-life of &sim;6 h. Target inhibition was inferred from the increase in Hsp70 levels in peripheral blood mononuclear cells at doses &#10878;71 mg m(-2). Twenty-four of 25 (96%) evaluable patients showed stable disease, with five being free of disease progression for &#10878;6 months."

According to the news editors, the research concluded: "Preliminary clinical response data were encouraging and warrant further investigation of KW-2478 in combination regimens for relapsed/refractory B-cell malignancies."


The news correspondents report that additional information may be obtained from K. Yong, UCL Cancer Institute, University College London, Huntley Street, London WC1E 6DD, UK. Additional authors for this research include J. Cavet, P. Johnson, G. Morgan, C. Williams, D. Nakashima, S. Akinaga, H. Oakervee and J. Cavenagh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bjc.2015.422. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Oncology, United
Investigators at University Health Network Describe Findings in Aneurysm (Intra-aneurysmal hemodynamics: evaluation of pCONus and pCANvas bifurcation aneurysm devices using DSA optical flow imaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Aneurysm. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "Implantation of self-expanding stents from the parent artery into the sac of a bifurcation aneurysm is regularly used to facilitate endovascular coil occlusion with the so-called waffle cone technique (WCT). Self-expanding aneurysm bridging stents like Solitaire AB, can be used; however, bifurcation devices like pCONus and pCANvas are especially designed for WCT."

Our news journalists obtained a quote from the research from University Health Network, "These devices provide additional support for coil implantation owing to intraluminal nylon fibers (pCONus) or membranes (pCANvas) covering the intracranial aneurysm neck. Assessment of the intra-aneurysmal hemodynamic impact of these three devices: a regular intracranial stent (Solitaire AB) and two bifurcation devices (pCONus and pCANvas). An in vitro experiment was set up using a silicone model of a basilar tip aneurysm filled with blood mimicking fluid under a pulsatile circulation. Solitaire AB, pCONus, and pCANvas were successively implanted in the model for hemodynamic evaluation. High frame rate DSA series were acquired under various conditions. Intra-aneurysmal flow changes, including mean aneurysm flow amplitude ratio, were subsequently assessed by the optical flow method, measuring the detector velocity field before and after device implantations. Results pCONus and Solitaire minimally reduced the intra-aneurysmal flow (R=0.96, p=0.17 and R=0.91, p=0.01, respectively), whereas pCANvas strongly diminished the intra-aneurysmal flow (R=0.41, p=5x10(-12)). Waffle cone deployment of stents and technique-specific devices had no undesirable effect on the intra-aneurysmal flow. In particular, no increased flow was redirected into the aneurysm sac."

According to the news editors, the research concluded: "The intraluminal membrane of the pCANvas strongly reduced the intra-aneurysmal flow, potentially preventing recanalization problems."


Our news journalists report that additional information may be obtained by contacting V.M. Pereira, Toronto Western Hosp, Univ Hlth Network, Div Neurosurg, Dept. of Surg, Toronto, ON M5T 2S8, Canada. Additional authors for this research include H. Henkes, P. Bouillot, O. Brina, L.A. Slater and V.M. Pereira.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.reval.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montpellier, France, Europe, Anaphylactic Shock, Opioid Analgesics, Pain Medicine, Anaphylaxis, University Hospital.

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Anaphylactic Shock

Investigators at University Hospital Describe Findings in Anaphylactic Shock (Intraoperative anaphylactic shock to nefopam)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Anaphylactic Shock. According to news reporting from Montpellier, France, by NewsRx journalists, research stated, "Diagnosis of IgE dependant intraoperative anaphylaxis is supported by increased serum tryptase levels at the time of reaction."

The news correspondents obtained a quote from the research from University Hospital, "Nefopam is a centrally acting non-opioid analgesic drug widely used for the relief of moderate to severe pain as an alternative to opioid analgesic drugs."

According to the news reporters, the research concluded: "We report a case of an intraoperative IgE-dependent anaphylactic shock to nefopam, diagnosed by skin prick testing."

For more information on this research see: Intraoperative anaphylactic shock to nefopam. Revue Francaise D Allergologie, 2016;56(6):490-491. Revue Francaise D Allergologie can be contacted at: Elsevier Masson, Via Paleocapa 7, 20121 Milano, Italy.

Our news journalists report that additional information may be obtained by contacting O. Nahas, University Hospital Montpellier, Hospital Arnaud de Villeneuve, Div Allergy, Dept. of Pulmonol, Montpellier, France. Additional authors for this research include O. Nahas, H. Belbaali, S. Baali, P. Demoly and A.M. Chiriac.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.reval.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montpellier, France, Europe, Anaphylactic Shock, Opioid Analgesics, Pain Medicine, Anaphylaxis, University Hospital.

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Cardiovascular Diseases and Conditions...

Investigators at University Hospital Discuss Findings in Thromboangiitis Obliterans [Efficacy of bosentan in patients with refractory thromboangiitis obliterans (Buerger disease) A case series and review of the literature]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Thromboangiitis Obliterans. According to news originating from Barcelona, Spain, by NewsRx correspondents, research stated, "The cornerstone of therapy in thromboangiitis obliterans (TAO) is complete abstinence from tobacco. In addition to discontinuation of cigarette smoking, very few pharmacological and surgical options of controversial efficacy are available to date."

Our news journalists obtained a quote from the research from University Hospital, "New therapeutic options with greater efficacy are clearly needed to properly manage these patients. In this preliminary study, we assessed the effectiveness and safety of bosentan in a case series of 8 adults with TAO and severe ischemic ulceronecrotic lesions who were treated with bosentan after inadequate response to platelet inhibitors, vasodilators, and intravenous alprostadil. Additionally, we reviewed 18 well-documented patients with refractory TAO treated with bosentan, which was previously reported (PubMed 1965-2015). These 26 patients formed the basis of our present analysis. All were current smokers. The median duration of bosentan treatment (SD) was 4.5 +/- 4 months (range 3-16). Eleven patients (42%) were unable to completely abstain from smoking during their follow-up. With bosentan treatment, no new ischemic lesions were observed in the target extremities. A complete therapeutic response was achieved in 80% of patients, whereas a partial response was observed in 12%. Two patients (8%) ultimately required amputation despite treatment. After discontinuation of bosentan, patients were followed for a median of 20 +/- 14 months (range 3-60). Two patients whose trophic lesions had healed relapsed. When comparing patients who gave up smoking with those who were unable to completely abstain from smoking during follow-up, no significant differences were found in efficacy outcomes. Four patients (15%) developed adverse events, requiring bosentan discontinuation in 1 case."

According to the news editors, the research concluded: "These preliminary data suggest that bosentan may be considered a therapeutic option for treatment of cases of severe TAO refractory to conventional treatment, and merit further evaluation in larger controlled, randomized clinical studies."

For more information on this research see: Efficacy of bosentan in patients with refractory thromboangiitis obliterans (Buerger disease) A case series and review of the literature. Medicine, 2016;95(48):218-222. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from J. Narvaez, Hosp Univ Bellvitge IDIBELL, Dept. of Rheumatol, Barcelona, Spain. Additional authors for this research include C. Garcia-Gomez, L. Alvarez, P. Santo, M. Aparicio, M. Pascual, M.L. de Recalde, H. Borrell and J.M. Nolla.

Keywords for this news article include: Barcelona, Spain, Europe, Cardiovascular Diseases and Conditions, Agents For Pulmonary Hypertension, Buerger Disease, Article Review, Thromboangiitis Obliterans, Cardiovascular Agents, Drugs and Therapies, Bosentan Therapy, Pharmaceuticals, Hematology, Angiology, Smoking, University Hospital.

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Investigators at University Hospital Report Findings in Epilepsy (Low-grade epilepsy-associated neuroepithelial tumours - the 2016 WHO classification)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Epilepsy are discussed in a new report. According to news reporting from Erlangen, Germany, by NewsRx journalists, research stated, "Rapid developments in molecular genetic technology and research have swiftly advanced our understanding of neuro-oncology. As a consequence, the WHO invited their expert panels to revise the current classification system of brain tumours and to introduce, for the first time, a molecular genetic approach for selected tumour entities, thus setting a new gold standard in histopathology."

The news correspondents obtained a quote from the research from University Hospital, "The revised 5th edition of the 'blue book' was released in May 2016 and will have a major impact in stratifying diagnosis and treatment. However, low-grade neuroepithelial tumours that present with early-onset focal epilepsy and are mostly seen in children and young adults (previously designated as long-term epilepsy-associated neuroepithelial tumours, LEAT) lack such innovative clinicopathological and molecular genetic tools."

According to the news reporters, the research concluded: "The Neuropathology Task Force of the International League against Epilepsy will critically discuss this issue, and will offer perspectives on how to decipher and validate clinically meaningful LEAT entities using the current WHO approach that integrates clinicopathological and genetic classification systems."


Our news journalists report that additional information may be obtained by contacting I. Blumcke, University Hospital Erlangen, Dept. of Neuropathol, D-91054 Erlangen, Germany. Additional authors for this research include E. Aronica, A. Becker, D. Capper, R. Coras, M. Honavar, T.S. Jacques, K. Kobow, H. Miyata, A. Muhlebner, J. Pimentel, F. Soylemezoglu and M. Thom.

Keywords for this news article include: Erlangen, Germany, Europe, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Epilepsy, Genetics, University Hospital.

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Autoimmune Diseases and Conditions - Multiple...

Investigators at University Hospital Report Findings in Multiple Sclerosis (Vestibular and ocular motor function prior to and after therapeutic apheresis with small plasmfilter in multiple sclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Multiple Sclerosis. According to news reporting originating from Sofia, Bulgaria, by NewsRx correspondents, research stated, "Some patients with multiple sclerosis (MS) are resistant to steroid therapy. In them an alternative therapy could be therapeutic apheresis (TA)."

Our news editors obtained a quote from the research from University Hospital, "A woman with relapsing-remitting cerebral MS with dizziness and imbalance, resistant to steroid therapy was treated with low volume plasmapheresis with saline substitution. The first four sessions were performed every other day, 5-th after 30 days, 6-th 3 months later, and 7-th 6 months later. During each session 1000-1500 ml plasma was substituted with saline solution only. Symptoms were reduced. Objective vestibular and ocular-motor tests prior to and after the TA demonstrated improved function."

According to the news editors, the research concluded: "Low volume plasmapheresis with saline substitution might be effective therapeutic option for steroid resistant MS. Objective methods of measuring vestibular and ocular-motor functions are useful in assessing MS treatment. J. Clin. Apheresis 31:470-472, 2016."


The news editors report that additional information may be obtained by contacting O.I. Kolev, Univ Hosp Neurol & Psychiat St Naum, Sofia 1113, Bulgaria.

Keywords for this news article include: Sofia, Bulgaria, Europe, Autoimmune Diseases and Conditions of the Nervous System, Immune System Diseases and Conditions, Demyelinating Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Sorption Detoxification, Multiple Sclerosis, Neuroimmunology, Plasmapheresis, Neurology, Therapy, University Hospital.

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Neuropathy

Investigators at University Hospital Report Findings in Neuropathy (HSMNR belongs to the most frequent types of hereditary neuropathy in the Czech Republic and is twice more frequent than HMSNL)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neuropathy. According to news
reporting out of Prague, Czech Republic, by NewsRx editors, research stated, "Hereditary motor and sensory neuropathy type Russe (HMSNR), also called CMT4G, is an autosomal recessive inherited peripheral neuropathy (IPN) caused by a founder mutation in the HK1 gene. HMSNR affects only patients with Roma origin, similar to the better known HMSN type Lom clarified earlier."

Our news journalists obtained a quote from the research from University Hospital, "By testing IPN patients with Roma origin, we realized that HMSNR affects surprisingly many patients in the Czech Republic. HMSNR is one of the most frequent types of IPN in this country and appears to be twice more frequent than HMSNl. Pronounced lower limb atrophies and severe deformities often lead to walking inability in even young patients, but hands are usually only mildly affected even after many years of disease duration."

According to the news editors, the research concluded: "The group of 20 patients with HMSNR presented here is the first report about the prevalence of HMSNR from central Europe."

For more information on this research see: HSMNR belongs to the most frequent types of hereditary neuropathy in the Czech Republic and is twice more frequent than HMSNL. Clinical Genetics, 2016;90(2):161-165. Clinical Genetics can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Clinical Genetics - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1399-0004)

Our news journalists report that additional information may be obtained by contacting D.S. Brozkova, Motol Univ Hosp, Prague 15006, Czech Republic. Additional authors for this research include J. Haberlova, R. Mazanec, J. Lastuvkova and P. Seeman.

Keywords for this news article include: Prague, Czech Republic, Europe, Genetics, Genetics, Neuropathy, University Hospital.

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Transplant Medicine - Heart Transplants
Investigators at University Hospital Report New Data on Heart Transplants (Design of the DRAGET Study: a multicentre controlled diagnostic study to assess the detection of acute rejection in patients with heart transplant by means of T2 ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Heart Transplants. According to news originating from Strasbourg, France, by NewsRx correspondents, research stated, "Patients with heart transplant are screened for silent graft rejection by recurrent endomyocardial biopsies. MRI can detect the presence of oedema non-invasively by quantitatively measuring changes of the transverse relaxation time T2 in the myocardium."

Our news journalists obtained a quote from the research from University Hospital, "Several monocentric studies have shown that T2 quantification could help detect graft rejection in a less invasive way. DRAGET is a national multicentre diagnostic study designed to prove that T2 quantification by MRI can detect graft rejection. 190 patients from 10 centres will undergo T2 quantification and endomyocardial biopsy, within 24 h, 4 to 6 times during the first
year after transplantation. T2 will be computed by analysing a sequence of 10 images obtained from a short-axis slice. Specific phantoms will be used to calibrate the T2 quantification on each MR scanner to cope with the different equipment (different vendors, magnetic field strength, etc). Specific pads with known T2 will also be used during each examination and provide a quality check to cope with the different experimental conditions (temperature, etc). All MRI and biopsy data will be reinterpreted in our centre and reproducibility will be assessed. The primary outcome will be sensitivity and specificity of MRI. The secondary outcomes will be (1) prognostic values of T2, (2) reproducibility of each techniques, (3) number of adverse events during each procedures and (4) confidence of the physicians in T2. Ethics approval has been obtained. The new MRI method will be disseminated at a national level and its practical usefulness will be assessed in centres not familiar with MRI T2 quantification."

According to the news editors, the research concluded: "The ultimate aim of the DRAGET project is to replace a strategy based solely on biopsy with one based on a first-line MRI (with biopsy only when needed) for a more efficient and less invasive detection of rejection. ANSM 2014-A00848-39, NCT02261870."

For more information on this research see: Design of the DRAGET Study: a multicentre controlled diagnostic study to assess the detection of acute rejection in patients with heart transplant by means of T2 quantification with MRI in comparison to myocardial biopsies. *Bmj Open*, 2015;5(10):e008963. (BMJ Publishing Group - group.bmj.com; Bmj Open - bmjopen.bmj.com/)

The news correspondents report that additional information may be obtained from L. Bonnemains, INSERM U947, IADI, Nancy, France Dept. of Cardiac Surgery, University Hospital of Strasbourg, Strasbourg, France Dept. of Cardiology, University Hospital Of Nancy, Nancy, France. Additional authors for this research include A. Cherifi, N. Girerd, F. Odille and J. Felblinger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bmjopen-2015-008963. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biomedicine, France, Europe, Surgery, Strasbourg, Cardiology, Transplantation, Heart Transplants, Myocardial Biopsy, Organ Transplants, Transplant Medicine.

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**Cytometry**

**Investigators at University Hospital Target Cytometry (Flow cytometry in hematological nonmalignant disorders)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cytometry have been presented. According to news originating from Nantes, France, by NewsRx correspondents, research stated, "Multiparameter flow cytometry (MFC) has become an integral part of the diagnosis and classification of hematological malignancies. However, several nonmalignant or premalignant disorders may benefit from this technology in hematology laboratories."

Our news journalists obtained a quote from the research from University Hospital, "This review provides information on the normal immunophenotypic characteristics of peripheral blood leukocyte subsets and their modifications in several clinical conditions. The
usefulness of MFC and the specific markers that can be investigated in hyperlymphocytosis, infection, hypereosinophilia, paroxysmal nocturnal hemoglobinuria, and large granular lymphocyte disorders is described."

According to the news editors, the research concluded: "Mention is also made of the developments of MFC for analyses of red blood cells or platelets."


The news correspondents report that additional information may be obtained from M.C. Bene, Hematology Biology, University Hospital of Nantes, Nantes, France. Additional authors for this research include Y. Le Bris, N. Robillard, S. Wuilleme, M. Fouassier and M. Eveillard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12438. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the *International Journal of Laboratory Hematology* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Nantes, France, Europe, Cytometry, Article Review.

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**Oncology - Liver Cancer**

**Investigators at University Hospital Zero in on Liver Cancer (Radiofrequency ablation of hepatocellular carcinoma: Mono or multipolar?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Liver Cancer are discussed in a new report. According to news reporting from Angers, France, by NewsRx journalists, research stated, "Thermo-ablation by radiofrequency is recognized as a curative treatment for early-stage hepatocellular carcinoma. However, local recurrence may occur because of incomplete peripheral tumor destruction."

The news correspondents obtained a quote from the research from University Hospital, "Multipolar radiofrequency has been developed to increase the size of the maximal ablation zone. We aimed to compare the efficacy of monopolar and multipolar radiofrequency for the treatment of hepatocellular carcinoma and determine factors predicting failure. A total of 171 consecutive patients with 214 hepatocellular carcinomas were retrospectively included. One hundred fifty-eight tumors were treated with an expandable monopolar electrode and 56 with a multipolar technique using several linear bipolar electrodes. Imaging studies at 6 weeks after treatment, then every 3 months, assessed local effectiveness. Radiofrequency failure was defined as persistent residual tumor after two sessions (primary radiofrequency failure) or local tumor recurrence during follow-up. This study received institutional review board approval (number
2014/77). Imaging showed complete tumor ablation in 207 of 214 lesions after the first session of radiofrequency. After a second session, only two cases of residual viable tumor were observed. During follow-up, there were 46 local tumor recurrences. Thus, radiofrequency failure occurred in 48/214 (22.4%) cases. By multivariate analysis, technique (p <0.001) and tumor size (p=0.023) were independent predictors of radiofrequency failure. Failure rate was lower with the multipolar technique for tumors <25 mm (p=0.023) and for tumors between 25 and 45 mm (p=0.082). There was no difference for tumors (>=) 45 mm (p=0.552)."

According to the news reporters, the research concluded: "Compared to monopolar radiofrequency, multipolar radiofrequency improves tumor ablation with a subsequent lower rate of local tumor recurrence."


Our news journalists report that additional information may be obtained by contacting V. Cartier, Dept. of Radiology, University Hospital, Angers, France. Additional authors for this research include J. Boursier, J. Lebigot, F. Oberti, I. Fouchard-Hubert and C. Aube.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13179. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Angers, France, Europe, Oncology, Carcinomas, Liver Cancer.

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Cardiovascular Diseases and Conditions -...

Investigators at University of Alabama Report New Data on Hypertension (Urinary sodium excretion predicts blood pressure response to spironolactone in patients with resistant hypertension independent of aldosterone status)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news reporting originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "Resistant hypertension (RHTN), blood pressure (BP) at least 140/90 mmHg despite using at least three different medications, including a diuretic, is associated with high dietary sodium and hyperaldosteronism. Mineralocorticoid receptor antagonists are recommended for treatment of RHTN, however, BP response to these agents varies widely."

Our news editors obtained a quote from the research from the University of Alabama, "In the current analysis, we assessed predictors of BP response to spironolactone in patients with RHTN. We retrospectively evaluated the BP response to adding spironolactone 12.5-25 mg to existing medications. A favorable BP response was defined as a reduction in SBP of at least 10 mmHg. Tested variables included baseline characteristics and biochemical parameters. A total of 79 patients with RHTN were included in the analysis. Evaluated patients..."
were more likely women (53.2%) and African-American (55.8%); were generally obese (76%) and were prescribed an average of four antihypertensive medications. Baseline SBP was 153.6 ± 22.3 mmHg; addition of spironolactone resulted in a mean reduction of 15.5 ± 20.7 mmHg. Patients with high urinary sodium excretion (≥200 mEq/24 h) had a significantly greater BP reduction compared with patients with normal excretion (<200 mEq/24 h) (p=0.008). Multivariable analysis identified 24 h urinary sodium excretion as a significant predictor of BP response (p=0.021) after controlling for potential confounders, including primary aldosteronism. The antihypertensive effect of spironolactone is positively related to urinary sodium excretion regardless of aldosterone status."

According to the news editors, the research concluded: "These findings suggest that mineralocorticoid receptor antagonists may be of preferential benefit in counteracting the BP effects of high dietary sodium."

For more information on this research see: Urinary sodium excretion predicts blood pressure response to spironolactone in patients with resistant hypertension independent of aldosterone status. Journal of Hypertension, 2016;34(5):1005-10. (Lippincott Williams and Wilkins - www.lww.com; Journal of Hypertension - journals.lww.com/jhypertension/pages/default.aspx)

The news editors report that additional information may be obtained by contacting L. Ghazi, aDept. of Medicine and Cardiovascular Disease, Vascular Biology and Hypertension Program bCenter for Clinical and Translational Science, University of Alabama at Birmingham, Birmingham, Alabama, United States. Additional authors for this research include T. Dudenbostel, C.P. Lin, S. Oparil and D.A Calhoun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/HJH.0000000000000870. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Alabama, Birmingham, Hypertension, United States, Blood Pressure, Spironolactone, Cardiovascular Agents, North and Central America, Potassium Sparing Diuretics, Cardiovascular Diseases and Conditions.

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samples of grade 5 students (age 10-11 years) from 10 intervention schools in low-
socioeconomic neighbourhoods and 20 comparison schools in middle-socioeconomic
neighbourhoods. Multilevel models assessed differences in step-counts between intervention
and comparison groups over-time by weight (objectively measured) and socioeconomic status
subgroups. In 2009, children from intervention schools were less active on weekends relative to
comparison schools (9212 vs. 11186 steps/day p<0.01). Two years later, daily step-counts on
weekend days among children in low socioeconomic intervention schools increased such that
they approximated those of children from middle socioeconomic comparison schools (12148 vs.
12121 steps/day p=0.96). The relative difference in steps between intervention and comparison
schools on weekends reduced from -21.4% to 0.2% following the intervention. The
normalization of weekend step counts was similar for normal weight (-21.4% to +2.0%) and
overweight (-19.1 to +3.9%) children, and was balanced across socioeconomic subgroups.
These data suggest that school-based health promotion is effective for reducing inequities in
physical activity levels outside school hours."

According to the news editors, the research concluded: "Investments in school-based
health promotion lead to behavior modification beyond the school environment."

For more information on this research see: Does School-Based Health Promotion
Affect Physical Activity on Weekends? And, Does It Reach Those Students Most in Need of
Health Promotion? Plos One, 2015;10(10):e0137987. (Public Library of Science -
www.plos.org; Plos One - www.plosone.org)

The news correspondents report that additional information may be obtained from
K.A. Bastian, Population Health Intervention Research Unit School of Public Health, University
of Alberta, Edmonton, Alberta, Canada. Additional authors for this research include K.
Maximova, J. McGavock and P. Veugelers.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1371/journal.pone.0137987. This DOI is a link to an online electronic
document that is either free or for purchase.
Keywords for this news article include: Canada, Alberta, Edmonton, Life Science
Research, North and Central America.
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**Oncology - Prostate Cancer**

**Investigators at University of Arizona College of Medicine Report New Data on Prostate Cancer (Prostate Cancer-Associated Disseminated Intravascular Coagulation with Excessive Fibrinolysis Treated with Degarelix)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Prostate Cancer. According to news reporting originating from Tucson, Arizona, by NewsRx correspondents, research stated, "Disseminated intravascular coagulation (DIC) with excessive fibrinolysis (XFL) is a rare and acute life-threatening variant of DIC in patients with prostate cancer. Patients present with coagulopathy, hypofibrinogenemia, and systemic bleeding."

Our news editors obtained a quote from the research from the University of Arizona College of Medicine, "We describe a case of DIC XFL caused by prostate cancer (PC)
successfully treated with a single injection of degarelix, a gonadotropin-releasing hormone (GnRH) receptor antagonist. This led to prompt control of the patient's coagulopathy within ten days of treatment.

According to the news editors, the research concluded: "Our case highlights features of this rare and devastating hemorrhagic complication of PC along with a fast-acting and effective therapeutic drug option."

For more information on this research see: Prostate Cancer-Associated Disseminated Intravascular Coagulation with Excessive Fibrinolysis Treated with Degarelix. Case Reports In Oncological Medicine, 2015;2015():212543. (Hindawi Publishing - www.hindawi.com; Case Reports In Oncological Medicine - www.hindawi.com/crim/oncmed/) 

The news editors report that additional information may be obtained by contacting S.Y. Ong, University of Arizona College of Medicine, 1501 N Campbell Avenue, Tucson, AZ 85724, United States. Additional authors for this research include J. Taverna, C. Jokerst, T. Enzler, E. Hammode, E. Rogowitz, M.R. Green and H.M Babiker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/212543. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Tucson, Arizona, Oncology, Angiology, Degarelix, Fibrinolysis, United States, Thrombophilia, Prostate Cancer, Drugs and Therapies, Prostatic Neoplasms, Hemorrhagic Disorders, North and Central America, Blood Coagulation Disorders, Hematologic Diseases and Conditions, Disseminated Intravascular Coagulation.

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was analyzed by immunohistochemistry. LincRNA-p21 was down-regulated in tumor tissue, but no association was observed with TP53 mutational status. High lincRNA-p21 levels were associated with poor CSS in all patients (p = 0.032). When patients were classified according to histological subtypes, the impact of lincRNA-p21 was confined to patients with adenocarcinoma in both time to relapse (p = 0.006) and CSS (p < 0.001). To explain the poor outcome of patients with high lincRNA-p21 expression, we studied the role of lincRNA-p21 in angiogenesis in vitro and observed a global downregulation in the expression of angiogenesis-related genes when lincRNAp21 was inhibited. Moreover, supernatants from lincRNAp21-inhibited cells were significantly less angiogenic and had lower levels of secreted vascular endothelial growth factor A than controls did. Finally, tumor samples with high lincRNA-p21 levels had higher microvascular density."

According to the news editors, the research concluded: "Our findings suggest that lincRNA-p21 affects outcome in patients with NSCLC adenocarcinoma through the regulation of angiogenesis."


The news editors report that additional information may be obtained by contacting A. Navarro, University of Barcelona, Mol Oncol & Embryol Lab, Human Anat Unit, Sch MedIDIBAPS, Barcelona, Spain. Additional authors for this research include A. Navarro, N. Vinolas, R.M. Marrades, J. Moises, A. Cordeiro, A. Saco, C. Munoz, D. Fuster, L. Molins, J. Ramirez and M. Monzo.

Keywords for this news article include: Barcelona, Spain, Europe, Small Cell Lung Cancer, Lung Neoplasms, Angiogenesis, Oncology, Genetics, University of Barcelona.

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**Nutritional and Metabolic Diseases and Conditions**

**Investigators at University of Bielsko Biala Discuss Findings in Type 2 Diabetes (Independent Factors of Changes of Ankle-Brachial Index in Peripheral Arterial Occlusive Disease in Elderly Patients with or without Diabetes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting out of Bielsko Biala, Poland, by NewsRx editors, research stated, "Peripheral arterial disease (PAD) belongs to the commonly-occurring pathologies associated with elderly age. A simple tool for defining the severity of PAD is the ankle-brachial index (ABI)."

Our news journalists obtained a quote from the research from the University of Bielsko Biala, "The purpose of this research was to determine independent factors of changes of ABI in elderly patients with occlusive PAD disease (PAOD) with and without diabetes. The research was carried out on 49 elderly patients with PAOD, including 29 patients with type 2
diabetes, and 20 patients without diabetes. The concentration of interleukin-6 (IL-6), E-selectin, fibrinogen, and C-reactive protein (CRP) in the blood serum was marked. In all patients, the independent factors of changes of ABI were determined with the use of the multiple logistic regression analysis. Our results show that in the group of patients with PAOD suffering from diabetes, it was demonstrated that the ABI was related to age, the duration of the symptoms of PAD, body mass index (BMI), low-density lipoprotein cholesterol, fibrinogen, and sex (determination coefficient R-2 = 0.699). In patients with PAOD without diabetes, the ABI was related to age, the duration of the symptoms of PAD, the levels of CRP, E-selectin, high-density lipoprotein cholesterol, and the glomerular filtration rate (determination coefficient R-2 = 0.844)."

According to the news editors, the research concluded: "We conclude that in elderly patients with PAOD with and without diabetes, the participation of independent factors related to the ABI is diversified; in patients with diabetes, the concentration of IL-6 and fibrinogen is lower, and the concentration of E-selectin is higher than in patients without diabetes."

For more information on this research see: Independent Factors of Changes of Ankle-Brachial Index in Peripheral Arterial Occlusive Disease in Elderly Patients with or without Diabetes. International Journal of Environmental Research and Public Health, 2016;13(11):935-945. International Journal of Environmental Research and Public Health can be contacted at: Mdpia Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. Our news journalists report that additional information may be obtained by contacting E. Bak, Univ Bielsko Biala, Fac Hlth Sci, PL-43309 Bielsko Biala, Poland. Additional authors for this research include C. Marcisz, M. Kadlubowska, A. Michalik, B. Krawczyk, D. Dobrzyn-Matusiak, S. Krzemsinska, T. Fialkowski, E. Gladys and A. Drosdzol-Cop.

Keywords for this news article include: Bielsko Biala, Poland, Europe, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Blood Coagulation Factors, Peripheral Artery Disease, Cell Adhesion Molecules, Membrane Glycoproteins, Acute-Phase Proteins, Risk and Prevention, Biological Factors, Protein Precursors, Membrane Proteins, Type 2 Diabetes, Cell Research, Lipoproteins, CD Antigens, E-Selectin, Immunology, Fibrinogen, Hematology, Selectins, Lectins, Lipids, University of Bielsko Biala.

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Health and Medicine

Investigators at University of Birmingham Report Findings in Health and Medicine [Nominal ISOMERs (Incorrect Spellings Of Medicines Eluding Researchers)-variants in the spellings of drug names in PubMed: a database review]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Health and Medicine is now available. According to news reporting out of Birmingham, United Kingdom, by NewsRx editors, research stated, "To examine how misspellings of drug names could impede searches for published literature. Database review. DATA PubMed. REVIEW The study included 30 drug names that are
commonly misspelt on prescription charts in hospitals in Birmingham, UK (test set), and 30 control names randomly chosen from a hospital formulary (control set)."

Our news journalists obtained a quote from the research from the University of Birmingham, "The following definitions were used: standard names—the international nonproprietary names, variant names—deviations in spelling from standard names that are not themselves standard names in English language nomenclature, and hidden reference variants—variant spellings that identified publications in textword (tw) searches of PubMed or other databases, and which were not identified by textword searches for the standard names. Variant names were generated from standard names by applying letter substitutions, omissions, additions, transpositions, duplications, deduplications, and combinations of these. Searches were carried out in PubMed (30 June 2016) for 'standard name[tw]' and 'variant name[tw] NOT standard name[tw].' The 30 standard names of drugs in the test set gave 325,979 hits in total, and 160 hidden reference variants gave 3,872 hits (1.17%). The standard names of the control set gave 470,064 hits, and 79 hidden reference variants gave 766 hits (0.16%). Letter substitutions (particularly i to y and vice versa) and omissions together accounted for 2,924 (74%) of the variants. Amitriptyline (8,530 hits) yielded 18 hidden reference variants (179 (2.1%) hits). Names ending in 'in,' 'ine,' or 'micin' were commonly misspelt. Failing to search for hidden reference variants of 'gentamicin,' 'amitriptyline,' 'mirtazapine,' and 'trazodone' would miss at least 19 systematic reviews. A hidden reference variant related to Christmas, 'No-el', was rare; variants of 'X-miss' were rarer."

According to the news editors, the research concluded: "When performing searches, researchers should include misspellings of drug names among their search terms."


Our news journalists report that additional information may be obtained by contacting R.E. Ferner, University of Birmingham, Inst Clin Sci, Birmingham, W Midlands, United Kingdom.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Health and Medicine, Article Review, Drugs and Therapies, University of Birmingham.

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Hormones

Investigators at University of Calgary Report Findings in Hormones (Two light-activated neuroendocrine circuits arising in the eye trigger physiological and morphological pigmentation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hormones. According to news reporting out of Calgary, Canada, by NewsRx editors, research stated, 'Two biological processes regulate light-induced skin colour change. A fast physiological pigmentation change' (i.e. circadian variations or camouflage) involves alterations in the distribution of pigment containing granules in the cytoplasm of chromatophores, while a slower morphological pigmentation change' (i.e.
seasonal variations) entails changes in the number of pigment cells or pigment type."

Financial support for this research came from Natural Sciences and Engineering Research Council of Canada.

Our news journalists obtained a quote from the research from the University of Calgary, "Although linked processes, the neuroendocrine coordination triggering each response remains largely obscure. By evaluating both events in Xenopus laevis embryos, we show that morphological pigmentation initiates by inhibiting the activity of the classical retinal ganglion cells. Morphological pigmentation is always accompanied by physiological pigmentation, and a melatonin receptor antagonist prevents both responses. Physiological pigmentation also initiates in the eye, but with repression of melanopsin-expressing retinal ganglion cell activity that leads to secretion of alpha-melanocyte-stimulating hormone (-MSH)."

According to the news editors, the research concluded: "Our findings suggest a model in which eye photoperception links physiological and morphological pigmentation by altering -MSH and melatonin production, respectively."


Our news journalists report that additional information may be obtained by contacting S. McFarlane, University of Calgary, Alberta Childrens Hosp, Res Inst, Hotchkiss Brain InstDept Cell Biol & Anat, Calgary, AB, Canada. Additional authors for this research include C.L. Hehr, H. Munn and S. McFarlane.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/pcmr.12531. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Calgary, Alberta, Canada, North and Central America, Melatonin, Hormones, University of Calgary.

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Oncology - Non-Small Cell Lung Cancer

Investigators at University of California Davis School of Medicine Discuss Findings in Non-Small Cell Lung Cancer (Surgical Management of Advanced Non-Small Cell Lung Cancer Is Decreasing But Is Associated With Improved Survival)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Non-Small Cell Lung Cancer have been presented. According to news originating from Davis, California, by NewsRx correspondents, research stated, "For patients with advanced stage non-small cell lung cancer (NSCLC), chemotherapy and chemoradiation are the principal treatment modalities, and the role of surgical resection remains unclear. Our objective was to evaluate current trends and oncologic outcomes for advanced stage NSCLC."
Financial supporters for this research include National Center for Advancing Translational Sciences, National Institutes of Health.

Our news journalists obtained a quote from the research from the University of California Davis School of Medicine, "We hypothesized that surgery is associated with increased survival and may be an underutilized treatment modality. The California Cancer Registry was queried from 2004 to 2012 for cases of stage IIIA, IIIB, and IV NSCLC, and we identified 34,016 cases. Patients were categorized by treatment group, and linear regression was used to calculate trends in treatment and predictors of treatment group. Kaplan-Meier and Cox regression modeling were used to determine the influence of treatment group on overall survival. Twenty-seven percent of patients (9,223 of 34,016) received no treatment. For the entire cohort, treatment with chemotherapy alone increased (p < 0.001), but treatment with radiotherapy alone, surgery alone, or in any combination decreased (p = 0.011, p< 0.001, p = 0.021, p = 0.007, and p = 0.094). Treatment group, age, sex, race, socioeconomic status, stage, histology, and tumor size were all significant predictors of overall survival. Overall survival was significantly longer for patients who had surgery as part of their treatment regimen (p < 0.001). For patients with advanced stage NSCLC, the use of multimodality regimens that include surgery are decreasing despite longer overall survival."

According to the news editors, the research concluded: "Future studies are needed to identify the demographics and clinical characteristics of patients with advanced stage NSCLC who may benefit from surgery."


The news report states that additional information may be obtained from E.A. David, UC Davis Sch Med, Dept. of Public Hlth Sci, Davis, CA, United States. Additional authors for this research include R.J. Canter, Y.J. Chen, D.T. Cooke and R.D. Cress. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.058. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Davis, California, United States, North and Central America, Non-Small Cell Lung Cancer, Cancer, Epidemiology, Lung Neoplasms, Oncology, Surgery, University of California Davis School of Medicine.

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Immune System Diseases and Conditions - HIV/AIDS

Investigators at University of California Describe Findings in HIV/AIDS (HIV Transmission Risk Behavior in a Cohort of HIV-Infected Treatment-Na<ve Men and Women in the United States)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - HIV/AIDS have been published. According to news reporting originating from Los Angeles,
California, by NewsRx correspondents, research stated, "Antiretroviral therapy (ART) can minimize HIV transmission. Prevention benefits may be compromised by barriers to virologic suppression, and by increased condomless sex among those initiating ART."

Our news editors obtained a quote from the research from the University of California, "We evaluated condomless sex in a cohort of HIV-infected US individuals poised to initiate ART in a clinical trial. We assessed partner and sex act type, condom use, and perception of infectiousness. Six percent of participants reported as not infectious; men who have sex with men were more likely to perceive high infectivity. Prevalence of condomless sex was 44%; 74% of those also reported homosexual acquisition of HIV. Predictors of increased risk of condomless sex included greater numbers of lifetime partners, recent stimulant drug use and an HIV-positive or unknown serostatus partner. In the context of serodifferent partners, lower perception of infectiousness was also associated with a higher risk of condomless sex."

According to the news editors, the research concluded: "Results highlight opportunities for prevention education for HIV infected individuals at ART initiation."

For more information on this research see: HIV Transmission Risk Behavior in a Cohort of HIV-Infected Treatment-Na < ve Men and Women in the United States. AIDS and Behavior, 2016;20(12):2983-2995. AIDS and Behavior can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; AIDS and Behavior - www.springerlink.com/content/1090-7165/)

The news editors report that additional information may be obtained by contacting R.J. Landovitz, University of California, Div Infect Dis, UCLA Center Clin AIDS Res & Educ, Los Angeles, CA 90025, United States. Additional authors for this research include T.T.T. Tran, S.E. Cohn, I. Ofotokun, C. Godfrey, D.R. Kuritzkes, J.L. Lennox, J.S. Currier and H.J. Ribaudo.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Immune System Diseases and Conditions, Epidemiology, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, University of California.

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Pediatrics - Adolescent Medicine

Investigators at University of California Report Findings in Adolescent Medicine (Teen Preferences for Clinic-Based Behavior Screens: Who, Where, When, and How?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Pediatrics - Adolescent Medicine are discussed in a new report. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "Previous research examining computer-based adolescent risk behavior screening was done before widespread adoption of smartphones and merits updating. This is a cross-sectional survey among 115 adolescents seeking primary care age 12-18 years."

Our news editors obtained a quote from the research from the University of California, "It is a diverse sample with 59% female, 51% white, 18% African-American, and 27% Latino. Respondents were asked level of comfort and honesty (1 - strongly disagree, 5 - strongly agree) when answering health behavior questions by paper, interview, or electronic device. Differences in the level of agreement were tested using a Wilcoxon signed rank test. 
Adolescents reported a higher level of comfort and honesty for screening conducted via electronic device versus paper (90% vs. 57%, p< .001; 89% vs. 61%, p<.001). Sixty-two percent adolescents prefer waiting room electronic screening versus at home (4.7%) or by provider in the examination room (11.2%).

According to the news editors, the research concluded: "Electronic same-day risk behavior screening is the preferred method for adolescents and should be incorporated into preventive services."


The news editors report that additional information may be obtained by contacting C.B. Jasik, University of California, Dept. of Pediat, Div Adolescent & Young Adult Med, San Francisco, CA, United States. Additional authors for this research include M. Berna, M. Martin and E.M. Ozer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jadohealth.2016.08.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Adolescent Medicine, Pediatrics, University of California.

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Diseases and Conditions - Basilar Aneurysm

Investigators at University of California Report Findings in Basilar Aneurysm (Treatment of wide-necked basilar tip aneurysm not amenable to Y-stenting using the PulseRider device)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Diseases and Conditions - Basilar Aneurysm is now available. According to news reporting from Los Angeles, California, by NewsRx journalists, research stated, "Endovascular treatment of broad-necked bifurcation aneurysms remains challenging."

The news correspondents obtained a quote from the research from the University of California, "Stent-assisted coiling has been successful but requires catheterization of the branches off the parent vessel. We present the case of a patient who failed primary and stent-assisted coiling of a large basilar tip aneurysm because the morphology of the aneurysm precluded successful distal catheterization of the posterior cerebral artery (PCA) branches."

According to the news reporters, the research concluded: "Using the PulseRider device, which does not require catheterization of bifurcation branches, we were able to treat the aneurysm successfully."

Investigators at University of California Report Findings in Human Genetics (Colocalization of GWAS and eQTL Signals Detects Target Genes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Genetics - Human Genetics have been presented. According to news reporting from Los Angeles, California, by NewsRx journalists, research stated, "The vast majority of genome-wide association study (GWAS) risk loci fall in non-coding regions of the genome. One possible hypothesis is that these GWAS risk loci alter the individual's disease risk through their effect on gene expression in different tissues."

Funders for this research include National Science Foundation, NIH, NIH Big Data to Knowledge, Novo Nordisk, University Of Oxford, Broad Institute, National Institute of Neurological Disorders and Stroke Informatics Center for Neurogenetics and Neurogenomics.

The news correspondents obtained a quote from the research from the University of California, "In order to understand the mechanisms driving a GWAS risk locus, it is helpful to determine which gene is affected in specific tissue types. For example, the relevant gene and tissue could play a role in the disease mechanism if the same variant responsible for a GWAS locus also affects gene expression. Identifying whether or not the same variant is causal in both GWASs and expression quantitative trait locus (eQTL) studies is challenging because of the uncertainty induced by linkage disequilibrium and the fact that some loci harbor multiple causal variants. However, current methods that address this problem assume that each locus contains a single causal variant. In this paper, we present eCAVIAR, a probabilistic method that has several key advantages over existing methods. First, our method can account for more than one causal variant in any given locus. Second, it can leverage summary statistics without accessing the individual genotype data. We use both simulated and real datasets to demonstrate the utility of our method."

According to the news reporters, the research concluded: "Using publicly available eQTL data on 45 different tissues, we demonstrate that eCAVIAR can prioritize likely relevant tissues and target genes for a set of glucose-and insulin-related trait loci."

For more information on this research see: Colocalization of GWAS and eQTL Signals Detects Target Genes. American Journal of Human Genetics, 2016;99(6):1245-1260. American Journal of Human Genetics can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; American Journal of
Human Genetics - www.journals.elsevier.com/american-journal-of-human-genetics/

Our news journalists report that additional information may be obtained by contacting E. Eskin, University of California, Dept. of Human Genet, Los Angeles, CA 90095, United States. Additional authors for this research include M. van de Bunt, A.V. Segre, X. Li, J.W.J. Joo, M. Bilow, J.H. Sul, S. Sankararaman, B. Pasaniuc and E. Eskin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajhg.2016.10.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Human Genetics, Genetics, Risk and Prevention, Genetics, Genetics, University of California.

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Skin Diseases

Investigators at University of California Report Findings in Skin Diseases (Therapeutic RNAi robed with ionic liquid moieties as a simple, scalable prodrug platform for treating skin disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Skin Diseases are presented in a new report. According to news originating from Santa Barbara, California, by NewsRx correspondents, research stated, "The high prevalence of skin diseases and their visible symptoms result in major physical, emotional, and economic burden for which few solutions exist. To address this unmet medical need, topical delivery of RNAi such as siRNA holds many advantages including direct access to the diseased site, potent knockdown of disease symptoms, and limited off-target effects."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from the University of California, "Unfortunately, delivering drugs into skin is extremely difficult. To address these concerns, we present RNAi robed with ionic liquid moieties. Specifically, we show that robed-siRNAs can be synthesized by a simple two-step process from bulk materials. Robing affords tuneability of properties necessary for dermal drug delivery including octanol-water partitioning, skin transport, and cell internalization. The efficacy and safety of robed-siRNA for treating skin disease was confirmed by its ability to limit breakdown of elastin, a major cause of premature aging, following UVB exposure to human reconstructed skin tissue."

According to the news editors, the research concluded: "Together, the data strongly support that therapeutic RNAi robed with ionic liquid moieties are a simple, scalable prodrug platform for treating skin disease."

For more information on this research see: Therapeutic RNAi robed with ionic liquid moieties as a simple, scalable prodrug platform for treating skin disease. Journal of Controlled Release, 2016;242():80-88. Journal of Controlled Release can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

The news correspondents report that additional information may be obtained from S. Mitragotri, University of California, Dept. of Chem Engn, Santa Barbara, CA 93106, United States.
Investigators at University of Chicago Detail Findings in Blood Transfusion (Endothelin Receptor A Antagonism Prevents Damage to Glycogen-Rich Placental Cells Following Uterine Ischemia-Reperfusion in the Rat)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transfusion Medicine - Blood Transfusion have been published. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "Fetal growth restriction (FGR) is a common cause of perinatal morbidity and mortality. Suboptimal uteroplacental perfusion is the most commonly identified cause of FGR, and ischemic lesions are often observed in placentas from pregnancies complicated by FGR."

Our news journalists obtained a quote from the research from the University of Chicago, "Ischemia followed by reperfusion is a strong stimulus to the production of the vasoconstrictor endothelin 1 (ET-1) which has been implicated in several models of FGR. We sought to investigate oxidative stress and placental morphology in a rat model of ischemia-reperfusion (I/R)-induced FGR and to evaluate the role of ET-1 in the observed pathology. Unilateral uterine I/R (30 min) was conducted, with and without simultaneous ET-1 receptor A (ETA) antagonism, on pregnant rats at gestation day 17. Placental tissues collected 24 hours later were evaluated immunohistochemically for oxidative damage. Tissue pathology was studied using quantitative morphometry. Glycogen-rich cellular areas in the placental junctional zone exhibited only 50% intact cells (P < .001) in both uterine horns following unilateral I/R, compared to controls. ETA antagonism prevented damage to the glycogen-rich cellular areas. Oxidative damage in response to I/R was prominent in the labyrinthine layer in both uterine horns and was not affected by ETA antagonism. We conclude that glycogen-rich cellular areas of the placental junctional zone are particularly vulnerable to damage from uterine I/R in the rat. Nucleic acid oxidative damage in the labyrinth is a prominent effect of uterine I/R."

According to the news editors, the research concluded: "ETA antagonism protects placental cellular integrity during I/R challenge but does not prevent nucleic acid oxidative damage."

For more information on this research see: Endothelin Receptor A Antagonism Prevents Damage to Glycogen-Rich Placental Cells Following Uterine Ischemia-Reperfusion in the Rat. Reproductive Sciences, 2016;23(11):1518-1525. Reproductive Sciences can be contacted at: Sage Publications Inc, 2455 Teller Rd, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com; Reproductive Sciences - rsx.sagepub.com)
Our news journalists report that additional information may be obtained by contacting L.G. Thaete, University Chicago, Pritzker Sch Med, Dept. of Obstet & Gynecol, Chicago, IL 60637, United States. Additional authors for this research include S. Khan and M.G. Neerhof.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1933719116645190. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Intercellular Signaling Peptides and Proteins, G-Protein-Coupled Receptors, Endothelin Receptors, Transfusion Medicine, Membrane Proteins, Peptide Receptors, Blood Transfusion, Medical Devices, Endothelins, Reperfusion, Pathology, Ischemia, Genetics, University of Chicago.

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**Oncology - Colon Cancer**

**Investigators at University of Chicago Release New Data on Colon Cancer (TET-catalyzed 5-hydroxymethylcytosine regulates gene expression in differentiating colonocytes and colon cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "The formation of differentiated cell types from pluripotent progenitors involves epigenetic regulation of gene expression. DNA hydroxymethylation results from the enzymatic oxidation of 5-methylcytosine (5-mC) to 5-hydroxymethylcytosine (5-hmC) by the ten-eleven translocation (TET) 5-mC dioxygenase enzymes."

Our news journalists obtained a quote from the research from the University of Chicago, "Previous work has mapped changes in 5-mC during differentiation of intestinal stem cells. However, whether or not 5-hmC regulates colonocyte differentiation is unknown. Here we show that 5-hmC regulates gene expression during colonocyte differentiation and controls gene expression in human colon cancers. Genome-wide profiling of 5-hmC during in vitro colonic differentiation demonstrated that 5-hmC is gained at highly expressed and induced genes and is associated with intestinal transcription factor binding sites, including those for HNF4A and CDX2. TET1 induction occurred during differentiation, and TET1 knockdown altered gene expression and inhibited barrier formation of colonocytes. We find that the 5-hmC distribution in primary human colonocytes parallels the distribution found in differentiated cells in vitro, and that gene-specific 5-hmC changes in human colon cancers are directly correlated with changes in gene expression."

According to the news editors, the research concluded: "Our results support a model in which 5-hmC regulates differentiation of adult human intestine and 5-hmC alterations contribute to the disrupted gene expression in colon cancer."

For more information on this research see: TET-catalyzed 5-hydroxymethylcytosine regulates gene expression in differentiating colonocytes and colon cancer. *Scientific Reports*, 2015;5():17568. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)
Our news journalists report that additional information may be obtained by contacting C.G. Chapman, Section of Gastroenterology, Dept. of Medicine, The University of Chicago, Chicago, IL 60637, United States. Additional authors for this research include C.J. Mariani, F. Wu, K. Meckel, F. Butun, A. Chuang, J. Madzo, M.B. Bissonette, J.H. Kwon and L.A Godley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep17568. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, Genetics, Oncology, Colon Cancer, United States, North and Central America.

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**Drugs and Therapies - Central Nervous System Agents**

**Investigators at University of Coimbra Report Findings in Central Nervous System Agents (A Rapid and Sensitive HPLC-DAD Assay to Quantify Lamotrigine, Phenytoin and Its Main Metabolite in Samples of Cultured HepaRG Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Central Nervous System Agents have been published. According to news originating from Coimbra, Portugal, by NewsRx correspondents, research stated, "A sensitive and fast high-performance liquid chromatography-diode-array detection assay was developed and validated for the simultaneous quantification of 5-(4-hydroxyphenyl)-5-phenylhydantoin (HPPH), phenytoin (PHT) and lamotrigine (LTG) in samples of cultured HepaRG cells. Chromatographic separation of analytes and internal standard (IS) was achieved in similar to 15 min on a C18-column, at 35 degrees C, using acetonitrile (6%), methanol (25%) and a mixture (69%) of water-triethylamine (99.7: 0.3, v/v; pH 6.0), pumped at 1 mL/min."

Our news journalists obtained a quote from the research from the University of Coimbra, "The analytes and IS were detected at 215 or 235 nm. Calibration curves were linear with regression coefficients >0.994 over the concentration ranges of 0.1-15 µg/mL for HPPH; 0.15-30 µg/mL for PHT and 0.2-20 µg/mL for LTG. The method showed to be accurate (bias value of +/- 10.5 or +/- 17.6% in the lower limit of quantification, LLOQ) and precise (coefficient variation <= 8.1 or <= 15.4% in the LLOQ), and the absolute recovery of the analytes ranged from 62.5 to 96.9%.

According to the news editors, the research concluded: "HepaRG cells have emerged as a very promising in vitro model to evaluate metabolic, drug interaction and/or pharmacokinetic studies, and this methodology will be suitable to support subsequent studies involving the antiepileptic drugs PHT and LTG."

The news correspondents report that additional information may be obtained from G. Alves, University of Coimbra, CNC Center Neurosci & Cell Biol, P-3004517 Coimbra, Portugal. Additional authors for this research include M. Rodrigues, A. Falcao and G. Alves.

Keywords for this news article include: Coimbra, Portugal, Europe, Central Nervous System Agents, Hydantoin Anticonvulsants, Triazine Anticonvulsants, Group I Antiarrhythmics, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Lamotrigine Therapy, Phenytoin Therapy, Pharmaceuticals, University of Coimbra.

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**Nutritional and Metabolic Diseases and Conditions -…**

**Investigators at University of Colorado Detail Findings in Obesity (Characterization of Childhood Obesity and Behavioral Factors)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating in Aurora, Colorado, by NewsRx journalists, research stated, "Childhood obesity is a major public health threat in the United States. Recent data indicate that 34.2% of children ages 6 to 11 years are overweight or obese."

The news reporters obtained a quote from the research from the University of Colorado, "The purpose of this study is to describe childhood obesity levels and identify risk behaviors in two school-based health centers in Michigan, one urban and one rural. This study is a secondary data analysis from a multicenter comparative effectiveness trial. Multiple logistic regression was used to examine behavioral factors associated with overweight/obesity in children. In this sample (n = 105), 41.9% were obese and 16.2% were overweight. The duration of sleep per night (p = .04) and the frequency of eating breakfast (p = .04) were significant predictors of being overweight/obese. Health care providers in school-based health centers must be comfortable assessing, preventing, and treating childhood obesity in this high-risk group of patients."

According to the news reporters, the research concluded: "Interventions should encourage children to eat breakfast daily and to get adequate sleep."


Our news correspondents report that additional information may be obtained by contacting B. Gance-Cleveland, University of Colorado, Coll Nursing, Aurora, CO, United States. Additional authors for this research include H. Aldrich, T.J. Callahan, E.E. Matthews and B. Gance-Cleveland.

Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Epidemiology, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of Colorado.

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Oncology - Bladder Cancer

Investigators at University of Connecticut Report Findings in Bladder Cancer (AMPK alpha 2 Regulates Bladder Cancer Growth through SKP2-Mediated Degradation of p27)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Bladder Cancer. According to news reporting from Farmington, Connecticut, by NewsRx journalists, research stated, "AMP-activated protein kinase (AMPK) is the central metabolic regulator of the cell and controls energy consumption based upon nutrient availability. Due to its role in energy regulation, AMPK has been implicated as a barrier for cancer progression and is suppressed in multiple cancers."

The news correspondents obtained a quote from the research from the University of Connecticut, "To examine whether AMPK regulates bladder cancer cell growth, HTB2 and HT1376 bladder cells were treated with an AMPK activator, 5-aminoimidazole-4-carboxamide ribonucleotide (AICAR). AICAR treatment reduced proliferation and induced the expression of p27(Kip1) (CDKN1B), which was mediated through an mTOR-dependent mechanism. Interestingly, AMPK alpha 2 knockdown resulted in reduced p27 levels, whereas AMPK alpha 1 suppression did not. To further determine the exact mechanism by which AMPK alpha 2 regulates p27, HTB2 and HT1376 cells were transduced with an shRNA targeting AMPK alpha 2. Stable knockdown of AMPK alpha 2 resulted in increased proliferation and decreased p27 protein. The reduced p27 protein was determined to be dependent upon SKP2. Additionally, loss of AMPK alpha 2 in a xenograft and a chemical carcinogen model of bladder cancer resulted in larger tumors with less p27 protein and high SKP2 levels."

According to the news reporters, the research concluded: "Consistent with the regulation observed in the bladder cancer model systems, a comprehensive survey of human primary bladder cancer clinical specimens revealed low levels of AMPK alpha 2 and p27 and high levels of SKP2."

For more information on this research see: AMPK alpha 2 Regulates Bladder Cancer Growth through SKP2-Mediated Degradation of p27. Molecular Cancer Research, 2016;14(12):1182-1194. Molecular Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Molecular Cancer Research - mcr.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting K.P. Claffey, University of Connecticut, Center Hlth, Neag Comprehns Canc Center, Farmington, CT, United States. Additional authors for this research include K.L. Sullivan, I. Garg, J.A. Taylor and K.P. Claffey.

Keywords for this news article include: Farmington, Connecticut, United States, North and Central America, Bladder Cancer, Oncology, University of Connecticut.

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Investigators at University of Copenhagen Describe Findings in Atherosclerosis (Marker of Endothelial Dysfunction Asymmetric Dimethylarginine Is Elevated in HIV Infection but Not Associated With Subclinical Atherosclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting out of Copenhagen, Denmark, by NewsRx editors, research stated, "Cardiovascular disease contributes to excess morbidity and mortality in HIV infection, and endothelial dysfunction may contribute to this pattern. We aimed to determine the endothelial function in treated and untreated HIV-infected individuals and investigate potential associations with viral replication, immune activation, coagulation, platelet function, and subclinical atherosclerosis."

Our news journalists obtained a quote from the research from the University of Copenhagen, "Asymmetric dimethylarginine (ADMA, marker of endothelial dysfunction) and soluble CD14 (sCD14, marker of monocyte activation) were measured in plasma from two previously established cross-sectional cohorts: cohort A including 50 untreated and 50 antiretroviral therapy (ART)-treated HIV-infected individuals with previously assessed coagulation and platelet function and cohort B including 105 HIV-infected individuals on ART and 105 uninfected controls with previously assessed coronary artery calcium score, myocardial perfusion defects, and carotid intima-media thickness. Concentrations of ADMA were higher in HIV-infected individuals compared with uninfected controls, and higher ADMA was found in ART-treated compared with untreated HIV-infected individuals. ADMA was associated with viral load, sCD14, D-dimer, and low CD4(+) T-cell count in untreated HIV infection. Only viral load remained significant in multivariate analyses. In ART-treated HIV-infected individuals, ADMA was not associated with coronary artery calcium score, myocardial perfusion defects, or intima-media thickness. Evidence of endothelial dysfunction was found in HIV infection and in untreated compared with treated HIV infection. In untreated HIV infection, the main driver of endothelial dysfunction was viral replication. Importantly, in treated HIV infection, ADMA was not associated with subclinical atherosclerosis."

According to the news editors, the research concluded: "Thus, our data question the potential of ADMA as a useful biomarker of early atherosclerosis in treated HIV infection."


Keywords for this news article include: Copenhagen, Denmark, Europe, Viral Sexually Transmitted Diseases and Conditions, Cardiovascular Diseases and Conditions,
Investigators at University of Copenhagen Discuss Findings in Staphylococcus aureus (The Lantibiotic NAI-107 Efficiently Rescues Drosophila melanogaster from Infection with Methicillin-Resistant Staphylococcus aureus USA300)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Positive Bacteria - Staphylococcus aureus is now available. According to news originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "We used the fruit fly Drosophila melanogaster as a cost-effective in vivo model to evaluate the efficacy of novel antibacterial peptides and peptoids for treatment of methicillin-resistant Staphylococcus aureus (MRSA) infections. A panel of peptides with known antibacterial activity in vitro and/or in vivo was tested in Drosophila."

Financial support for this research came from Det Frie Forskningsrad (DFF).

Our news journalists obtained a quote from the research from the University of Copenhagen, "Although most peptides and peptoids that were effective in vitro failed to rescue lethal effects of S. aureus infections in vivo, we found that two lantibiotics, nisin and NAI-107, rescued adult flies from fatal infections. Furthermore, NAI-107 rescued mortality of infection with the MRSA strain USA300 with an efficacy equivalent to that of vancomycin, a widely applied antibiotic for the treatment of serious MRSA infections."

According to the news editors, the research concluded: "These results establish Drosophila as a useful model for in vivo drug evaluation of antibacterial peptides."

For more information on this research see: The Lantibiotic NAI-107 Efficiently Rescues Drosophila melanogaster from Infection with Methicillin-Resistant Staphylococcus aureus USA300. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5427-5436. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from A. Lobner-Olesen, University of Copenhagen, Dept. of Biol, Copenhagen, Denmark. Additional authors for this research include B. Mojsoska, J.C.S. Cruz, S. Donadio, H. Jenssen, A. Lobner-Olesen and K. Rewitz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.02965-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Methicillin-Resistant Staphylococcus aureus, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Antimicrobial Resistance, Beta-Lactam Antibiotics, Gram-Positive Bacteria, beta-Lactam Resistance, Methicillin Resistance, Penicillin Resistance, Antibacterial
Investigators at University of Copenhagen Have Reported New Data on Multiple Sclerosis (Exploring potential mechanisms of action of natalizumab in secondary progressive multiple sclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Autoimmune Diseases and Conditions - Multiple Sclerosis is the subject of a report. According to news reporting originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "Multiple sclerosis (MS) is a common and chronic central nervous system (CNS) demyelinating disease and a leading cause of permanent disability. Patients most often present with a relapsing-remitting disease course, typically progressing over time to a phase of relentless advancement in secondary progressive MS (SPMS), for which approved disease-modifying therapies are limited."

Our news editors obtained a quote from the research from the University of Copenhagen, "In this review, we summarize the pathophysiological mechanisms involved in the development of SPMS and the rationale and clinical potential for natalizumab, which is currently approved for the treatment of relapsing forms of MS, to exert beneficial effects in reducing disease progression unrelated to relapses in SPMS. In both forms of MS, active brain-tissue injury is associated with inflammation; but in SPMS, the inflammatory response occurs at least partly behind the blood-brain barrier and is followed by a cascade of events, including persistent microglial activation that may lead to chronic demyelination and neurodegeneration associated with irreversible disability. In patients with relapsing forms of MS, natalizumab therapy is known to significantly reduce intrathecal inflammatory responses which results in reductions in brain lesions and brain atrophy as well as beneficial effects on clinical measures, such as reduced frequency and severity of relapse and reduced accumulation of disability. Natalizumab treatment also reduces levels of cerebrospinal fluid chemokines and other biomarkers of intrathecal inflammation, axonal damage and demyelination, and has demonstrated the ability to reduce innate immune activation and intrathecal immunoglobulin synthesis in patients with MS."

According to the news editors, the research concluded: "The efficacy of natalizumab therapy in SPMS is currently being investigated in a randomized, double-blind, placebo-controlled trial."

For more information on this research see: Exploring potential mechanisms of action of natalizumab in secondary progressive multiple sclerosis. Therapeutic Advances In Neurological Disorders, 2016;9(1):31-43. Therapeutic Advances In Neurological Disorders can be contacted at: SAGE Publications, USA , 2455 Teller Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com/; Therapeutic Advances In Neurological Disorders - tan.sagepub.com)

The news editors report that additional information may be obtained by contacting F. Sellebjarjeg, Danish Multiple Sclerosis Center, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark. Additional authors for this research include D. Cadavid, D. Steiner,
Investigators at University of Florence Report Findings in Rheumatoid Arthritis (Acute effect of Capparis spinosa root extracts on rat articular pain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Autoimmune Diseases and Conditions - Rheumatoid Arthritis have been published. According to news reporting out of Florence, Italy, by NewsRx editors, research stated, "Ethnopharmacological relevance: Capparis spinosa L. originates from dry regions of Asia and Mediterranean basin. In traditional medicine of these areas, infusions from caper root are considered to be beneficial for the treatment of rheumatism, gout and against abdominal pains."

Financial supporters for this research include Italian Ministry of Instruction, University and Research, University of Florence.

Our news journalists obtained a quote from the research from the University of Florence, "Aim of the study: To evaluate the pain relieving properties of a Syrian cultivar of Capparis spinosa roots in rat models of osteoarthritis and rheumatoid arthritis. Decoction (DEC) and hydroalcoholic extract (EtH2O) were obtained from powdered roots; the latter was further separated in CH2Cl2 and aqueous (H2O-Res) fractions. The extracts were characterized in terms of spermidine alkaloids by HPLC/DAD/MS and stachydrine by NMR. Different amount of free and glycosilated forms of capparispine and analogues (from 0.5% w/w for DEC up to 7.6% w/w for CH2Cl2 fraction) were detected. Rat models of rheumatoid arthritis and osteoarthritis were induced by the intra-articular administration of Complete Freund's Adjuvant (CFA) or monosodium iodoacetate (MIA), respectively. Fourteenth days after CFA or MIA injection, the different preparations of Capparis spinosa (3, 30, 100 and 300 mg kg(-1)) were acutely administered p.o.. Powdered roots (300 mg kg(-1)), DEC (100 mg kg(-1)), and EtH2O (300 mg kg(-1)) significantly reduced hypersensitivity to mechanical noxious stimuli as well as spontaneous pain evaluated as hind limb bearing alterations in both models. The CH2Cl2 and the H2O-Res (30 mg kg(-1)) were the most potent in reverting pain threshold alterations despite the different content of free alkaloids. Capparis spinosa extracts relieved pain related to rheumatoid arthritis and osteoarthritis after single administration."

According to the news editors, the research concluded: "A synergistic effect due to a
specific 'phytochemical mixture' is suggested."


Our news journalists report that additional information may be obtained by contacting L.D. Mannelli, University of Florence, Dept. of Neurosci Psychol Drug Res & Child Hlth, NEUROFARBA, Pharmacol & Toxicol Sect, Florence, Italy. Additional authors for this research include L. Michell, L.D. Mannelli, B. Tenci, M. Innocenti, M. Khatib, N. Mulinacci and C. Ghelardini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.09.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Florence, Italy, Europe, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Rheumatic Diseases and Conditions, Joint Diseases and Conditions, Rheumatoid Arthritis, Osteoarthritis, University of Florence.

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**Biotechnology - Molecular Therapeutics**

**Investigators at University of Groningen Release New Data on Molecular Therapeutics (Re-expression of Selected Epigenetically Silenced Candidate Tumor Suppressor Genes in Cervical Cancer by TET2-directed Demethylation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Biotechnology - Molecular Therapeutics are presented in a new report. According to news reporting from Groningen, Netherlands, by NewsRx journalists, research stated, "DNA hypermethylation is extensively explored as therapeutic target for gene expression modulation in cancer. Here, we re-activated hypermethylated candidate tumor suppressor genes (TSGs) (C13ORF18, CCNA1, TFPI2, and Maspin) by TET2-induced demethylation in cervical cancer cell lines."

The news correspondents obtained a quote from the research from the University of Groningen, "To redirect TET2 to hypermethylated TSGs, we engineered zinc finger proteins (ZFPs), which were first fused to the transcriptional activator VP64 to validate effective gene re-expression and confirm TSG function. ChIP-Seq not only revealed enriched binding of ZFPs to their intended sequence, but also considerable off-target binding, especially at promoter regions. Nevertheless, results obtained by targeted re-expression using ZFP-VP64 constructs were in line with cDNA overexpression; both revealed strong growth inhibition for C13ORF18 and TFPI2, but not for CCNA1 and Maspin. To explore effectiveness of locus-targeted demethylation, ZFP-TET2 fusions were constructed which efficiently demethylated genes with subsequent gene re-activation. Moreover, targeting TET2 to TFPI2 and C13ORF18, but not CCNA1, significantly decreased cell growth, viability, and colony formation in cervical cancer cells compared to a catalytically inactive mutant of TET2."
According to the news reporters, the research concluded: "These data underline that effective re-activation of hypermethylated genes can be achieved through targeted DNA demethylation by TET2, which can assist in realizing sustained re-expression of genes of interest."

For more information on this research see: Re-expression of Selected Epigenetically Silenced Candidate Tumor Suppressor Genes in Cervical Cancer by TET2-directed Demethylation. *Molecular Therapy*, 2015;24(3):536-47. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news journalists report that additional information may be obtained by contacting C. Huisman, Dept. of Pathology and Medical Biology, University Medical Center Groningen (UMCG), University of Groningen, Groningen, Netherlands. Additional authors for this research include M.G. van der Wijst, M. Schokker, P. Blancafort, M.M. Terpstra, K. Kok, A.G. van der Zee, E. Schuuring, G.B. Wisman and M.G. Rots.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2015.226. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Europe, Cancer, Genetics, Oncology, Groningen, Netherlands, Tumor Suppression, Molecular Therapeutics.

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**Transplant Medicine - Liver Transplants**

**Investigators at University of Hong Kong Release New Data on Liver Transps (Circulating Fibroblast Growth Factor 21 Is A Sensitive Biomarker for Severe Ischemia/reperfusion Injury in Patients with Liver Transplantation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Transplant Medicine - Liver Transplants are presented in a new report. According to news originating from Hong Kong, People's Republic of China, by NewsRx correspondents, research stated, "Hepatic ischemia/reperfusion (I/R) injury is a major cause of morbidity and mortality after liver surgery. Therefore, it is important to identify reliable biomarkers to assist early diagnosis of hepatic I/R injury."

Our news journalists obtained a quote from the research from the University of Hong Kong, "This study aimed to investigate the potential of serum levels of fibroblast growth factor 21 (FGF21) as a biomarker for hepatic I/R injury in patients with liver transplantation. Two independent cohorts of liver transplantation patients were recruited for determination of serum levels of FGF21, ALT, and AST. The results demonstrated that serum FGF21 at 2 hours post-reperfusion in cohort-1 exhibited an approximately 20-fold elevation relative to those in healthy subjects. In blood samples dynamically collected in cohort-2, a dramatic increase in serum FGF21 levels (~25-fold) was observed at two hours after surgery, whereas the peak levels of serum ALT and AST were detected only after 24 hours. Temporal correlation analysis demonstrated a significant association of peak serum levels of FGF21 at 2 hours with the magnitude of the increase in both serum ALT and AST levels at 24 hours post transplantation."

According to the news editors, the research concluded: "Serum FGF21 may represent a sensitive and specific prognostic biomarker for early detection of I/R injury in patients with
liver transplantation."

For more information on this research see: Circulating Fibroblast Growth Factor 21 Is A Sensitive Biomarker for Severe Ischemia/reperfusion Injury in Patients with Liver Transplantation. *Scientific Reports*, 2016;6():19776. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from D. Ye, State Key Laboratory of Pharmaceutical Biotechnology, The University of Hong Kong, Hong Kong, People's Republic of China. Additional authors for this research include H. Li, Y. Wang, W. Jia, J. Zhou, J. Fan, K. Man, C. Lo, C. Wong, Y. Wang, K.S. Lam and A. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19776. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Biomedicine, Surgery, Hong Kong, Fibroblasts, Medical Devices, Blood Transfusion, Organ Transplants, Transplant Medicine, Transfusion Medicine, Liver Transplantation, Diagnostics and Screening, People's Republic of China, Ischemia Reperfusion Injury, Digestive System Surgical Procedures.

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**Drugs and Therapies - Central Nervous System Agents**

**Investigators at University of Illinois Detail Findings in Central Nervous System Agents (Exploring Hallucinogen Pharmacology and Psychedelic Medicine with Zebrafish Models)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Central Nervous System Agents are presented in a new report. According to news reporting originating in Chicago, Illinois, by NewsRx journalists, research stated, "After decades of sociopolitical obstacles, the field of psychiatry is experiencing a revived interest in the use of hallucinogenic agents to treat brain disorders. Along with the use of ketamine for depression, recent pilot studies have highlighted the efficacy of classic serotonergic hallucinogens, such as lysergic acid diethylamide and psilocybin, in treating addiction, post-traumatic stress disorder, and anxiety."

The news reporters obtained a quote from the research from the University of Illinois, "However, many basic pharmacological and toxicological questions remain unanswered with regard to these compounds. In this study, we discuss psychedelic medicine as well as the behavioral and toxicological effects of hallucinogenic drugs in zebrafish. We emphasize this aquatic organism as a model ideally suited to assess both the potential toxic and therapeutic effects of major known classes of hallucinogenic compounds. In addition, novel drugs with hallucinogenic properties can be efficiently screened using zebrafish models."

According to the news reporters, the research concluded: "Well-designed preclinical studies utilizing zebrafish can contribute to the reemerging treatment paradigm of psychedelic medicine, leading to new avenues of clinical exploration for psychiatric disorders."

For more information on this research see: Exploring Hallucinogen Pharmacology and Psychedelic Medicine with Zebrafish Models. *Zebrafish*, 2016;13(5):379-390,112. *Zebrafish* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Zebrafish -
Our news correspondents report that additional information may be obtained by contacting E.J. Kyzar, University of Illinois, Coll Med, Dept. of Psychiat, Chicago, IL 60612, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/zeb.2016.1251. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Central Nervous System Agents, Pharmacology, Article Review, Drugs and Therapies, Psychotropic Drugs, Pharmaceuticals, Hallucinogens, University of Illinois.

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Dicarboxylic Acids

Investigators at University of Illinois Have Reported New Data on Dicarboxylic Acids (Fumarate-Mediated Persistence of Escherichia coli against Antibiotics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Dicarboxylic Acids are presented in a new report. According to news reporting from Urbana, Illinois, by NewsRx journalists, research stated, "Bacterialpersisters are a small fraction of quiescent cells that survive in the presence of lethal concentrations of antibiotics. They can regrow to give rise to a new population that has the same vulnerability to the antibiotics as did the parental population."

Financial support for this research came from National Research Foundation of Korea (NRF).

The news correspondents obtained a quote from the research from the University of Illinois, "Although formation of bacterial persisters in the presence of various antibiotics has been documented, the molecular mechanisms by which these persisters tolerate the antibiotics are still controversial. We found that amplification of the fumarate reductase operon (FRD) in*Escherichia coli*led to a higher frequency of persister formation. The persister frequency of*E. coli*was increased when the cells contained elevated levels of intracellular fumarate. Genetic perturbations of the electron transport chain (ETC), a metabolite supplementation assay, and even the toxin-antitoxin-related*hipA*mutation indicated that surplus fumarate markedly elevated the*E. coli*persister frequency. An*E. coli*strain lacking succinate dehydrogenase (SDH), thereby showing a lower intracellular fumarate concentration, was killed ∼1,000-fold more effectively than the wild-type strain in the stationary phase."

According to the news reporters, the research concluded: "It appears thatSDHandFRDrepresent a paired system that gives rise to and maintains*E. coli*persisters by producing and utilizing fumarate, respectively."

For more information on this research see: Fumarate-Mediated Persistence of Escherichia coli against Antibiotics. *Antimicrobial Agents and Chemotherapy*, 2016;60(4):2232-40. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting Y.S. Jin, Dept. of Food Science and Human Nutrition, University of Illinois at

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01794-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Urbana, Illinois, Fumarates, United States, Dicarboxylic Acids, North and Central America.

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Ischemia

Investigators at University of Ioannina Report New Data on Ischemia (The diagnostic yield of transesophageal echocardiography in patients with cryptogenic cerebral ischaemia: a meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Ischemia have been published. According to news reporting out of Ioannina, Greece, by NewsRx editors, research stated, "The diagnostic utility of transesophageal echocardiography (TEE) in patients with cryptogenic ischaemic stroke (IS) or transient ischaemic attack (TIA) remains controversial. A systematic review and meta-analysis was performed according to PRISMA guidelines to estimate the pooled prevalence of potential cardioembolic causes detected by TEE in prospective observational studies of cryptogenic IS/TIA."

Financial supporters for this research include European Regional Development Fund - Project St Anne's University Hospital, Brno - International Clinical Research Center (FNUSA-ICRC).

Our news journalists obtained a quote from the research from the University of Ioannina, "Cardiac conditions causally associated with cerebral ischaemia were considered to be intramural thrombi and intracardiac tumors according to ASCO phenotyping of IS. Thirty-five eligible studies, comprising 5772 patients (mean age 53.6 years, 56.9% men) were identified. The most common TEE finding was ascending aorta and/or aortic arch atheroma [51.2% (27.4%-74.5%)], followed by patent foramen ovale (PFO) [43.2% (36.3%-50.4%)]. Complex aortic plaques and large PFOs were reported in 14% (10.2%-18.9%) and 19.5% (16.6%-22.8%) of TEE evaluations. The prevalence of atrial septal aneurysm was 12.3% (7.9%-18.7%) and was significantly higher in conjunction with PFO presence (risk ratio 2.04, 95% confidence interval 1.63-2.54, p<0.001). The prevalence of left atrial thrombus [3.0% (1.1%-8.3%)] and spontaneous echo contrast [3.8% (2.3%-6.2%)] was low. The prevalence of intracardiac tumors was extremely uncommon [0.2% (0%-0.7%)]. Significant heterogeneity was identified (I(2) > 60%) in the majority of analyses. Heterogeneity was not affected by cryptogenic stroke definition (TOAST versus alternative criteria). After dichotomizing available studies using a cut-off of 50 years, PFO was significantly (p=0.001) more prevalent in younger than in older patients. Routine TEE in patients with cryptogenic IS/TIA commonly identifies abnormal findings."

According to the news editors, the research concluded: "However, the prevalence of cardiac conditions considered to be causally associated with cerebral ischaemia (intracardiac
thrombi and tumors) is low."


Our news journalists report that additional information may be obtained by contacting A.H. Katsanos, Dept. of Neurology, School of Medicine, University of Ioannina, Ioannina, Greece. Additional authors for this research include S. Giannopoulos, A. Frogoudaki, A.R. Vrettou, I. Ikonomidis, I. Paraskevaidis, C. Zompola, K. Vadikolias, E. Boviatsis, J. Parissis, K. Voumvourakis, A.P. Kyritsis and G. Tsivgoulis.

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Keywords for this news article include: Greece, Europe, Ioannina, Ischemia, Angiology, Diagnosis, Cardiology, Intracardiac, Article Review, Cardiovascular, Imaging Technology, Heart Function Tests, Transesophageal Echocardiography, Diagnostic Techniques and Procedures.

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Central Nervous System Diseases and Conditions –…

Investigators at University of Malaya Detail Findings in Cerebral Infarction (Cerebral infarction pattern in tuberculous meningitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Central Nervous System Diseases and Conditions - Cerebral Infarction is the subject of a report. According to news originating from Kuala Lumpur, Malaysia, by NewsRx correspondents, research stated, "Tuberculous meningitis (TBM) causes significant morbidity and mortality. The primary objective was to re-examine the concept of 'TB zone' and 'ischaemic zone' in cerebral infarction in patients with tuberculous meningitis."

Our news journalists obtained a quote from the research from the University of Malaya, "The secondary objective was to evaluate cerebral infarction, vasculitis and vasospasm in tuberculous meningitis infections. Between 2009 and 2014, TBM patients were recruited. Neuroimaging was performed and findings of cerebral infarction, vasculitis and vasospasm were recorded. Infarcts were classified based on arterial supply and Hsiej's classification. Fifty-one TBM patients were recruited of whom 34 patients (67%) had cerebral infarction. Based on Hsiej's classification, 20 patients (59%) had infarcts in both 'TB zone' and 'ischaemic zones'. 12 patients (35%) had infarcts in 'ischaemic zone' and two (6%) patients had infarcts in 'TB zone'. In terms of vascular supply, almost all patients (35/36) had infarcts involving perforators and cortical branches. 25 patients (73%) and 14 patients (41%) had infarcts supplied by lateral lenticulostrate and medial lenticulostrate arteries respectively. 15 patients (37%) had vasculitis. Vasospasm was present in six patients (15%). 29 patients (85%) with cerebral infarction also had leptomeningeal enhancement (p = 0.002)."

According to the news editors, the research concluded: "In summary, infarcts involved mainly perforators and cortical branches, rather than 'TB zone' versus 'ischaemic zone.'"

For more information on this research see: Cerebral infarction pattern in tuberculous


Keywords for this news article include: Kuala Lumpur, Malaysia, Asia, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Central Nervous System Infections, Brain Diseases and Conditions, Cerebrovascular Disorders, Cerebral Infarction, Brain Infarction, Brain Ischemia, Cardiology, Vasculitis, Meningitis, Angiology, Stroke, University of Malaya.

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**Mycobacterium Infections - Tuberculosis**

**Investigators at University of Manitoba Describe Findings in Tuberculosis [IFN-gamma promoter polymorphisms do not affect QuantiFERON((R)) TB Gold In-Tube test results in a Canadian population]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections - Tuberculosis. According to news reporting originating from Winnipeg, Canada, by NewsRx correspondents, research stated, "Several studies have shown polymorphisms within the interferon-gamma (IFN-gamma) promoter influence cytokine expression. The interferon-gamma release assay (IGRA) relies on the ability to produce IFNy in response to tuberculosis (TB) specific antigens."

Our news editors obtained a quote from the research from the University of Manitoba, "This study determined the relationship between the IFN-gamma+874 A/T promoter polymorphism and the performance of the QuantiFERON-TB Gold In-Tube (QFT-GIT) test in an ethnically diverse Canadian population. A total of 190 participants were categorised into three groups based on history of and exposure to TB: active TB (n = 55), TB exposed (n = 55) and presumably TB unexposed controls (n = 80). All participants underwent QFT-GIT testing, and DNA was extracted from whole blood and probed for polymorphism at position+874 (T/A) of intron 1 of IFN-gamma. Statistical relationships between the QFT-GIT results, polymorphisms and demographic data were evaluated. IFN-gamma+874 genotype frequencies among the entire study population (n= 190) were A/A (45.8%), T/A (39.5%), and T/T (14.7%). Among the three study groups, there was no correlation between QFT-GIT results and the IFN-gamma+874 A/T genotype, and no correlation of genotype with IFN-gamma production in response to either Mycobacterium tuberculosis antigens or mitogenic stimulation."

According to the news editors, the research concluded: "Our results indicate that the IFN-gamma+874 promoter polymorphism does not influence QFT-GIT performance in this study population."

For more information on this research see: IFN-gamma promoter polymorphisms do

*International Journal of Tuberculosis and Lung Disease* can be contacted at: Int Union Against Tuberculosis Lung Disease (I U A T L D), 68 Boulevard Saint-Michel, 75006 Paris, France.

The news editors report that additional information may be obtained by contacting S. Kiazyk, University of Manitoba, Dept. of Med Microbiol, Winnipeg, MB, Canada. Additional authors for this research include L. Larcombe, C. Lopez, S. Matyas, C. Mesa, P. Orr, J. Juno, J. Waruk, M. Sharma and T.B. Ball.

Keywords for this news article include: Winnipeg, Manitoba, Canada, North and Central America, Mycobacterium Infections, Genetics, Epidemiology, Infectious Disease, Tuberculosis, University of Manitoba.

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**Mycobacterium Infections - Tuberculosis**

**Investigators at University of Massachusetts Report Findings in Tuberculosis (Structural and Genetic Analyses of the Mycobacterium tuberculosis Protein Kinase B Sensor Domain Identify a Potential Ligand-binding Site)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mycobacterium Infections - Tuberculosis is the subject of a report. According to news reporting from Worcester, Massachusetts, by NewsRx journalists, research stated, "Monitoring the environment with serine/threonine protein kinases is critical for growth and survival of Mycobacterium tuberculosis, a devastating human pathogen. Protein kinase B (PknB) is a transmembrane serine/threonine protein kinase that acts as an essential regulator of mycobacterial growth and division."

The news correspondents obtained a quote from the research from the University of Massachusetts, "The PknB extracellular domain (ECD) consists of four repeats homologous to penicillin-binding protein and serine/threonine kinase associated (PASTA) domains, and binds fragments of peptidoglycan. These properties suggest that PknB activity is modulated by ECD binding to peptidoglycan substructures, however, the molecular mechanisms underpinning PknB regulation remain unclear. In this study, we report structural and genetic characterization of the PknB ECD. We determined the crystal structures of overlapping ECD fragments at near atomic resolution, built a model of the full ECD, and discovered a region on the C-terminal PASTA domain that has the properties of a ligand-binding site. Hydrophobic interaction between this surface and a bound molecule of citrate was observed in a crystal structure. Our genetic analyses in M. tuberculosis showed that nonfunctional alleles were produced either by deletion of any of single PASTA domain or by mutation of individual conserved residues lining the putative ligand-binding surface of the C-terminal PASTA repeat."

According to the news reporters, the research concluded: "These results define two distinct structural features necessary for PknB signal transduction, a fully extended ECD and a conserved, membrane-distal putative ligand-binding site."

For more information on this research see: Structural and Genetic Analyses of the Mycobacterium tuberculosis Protein Kinase B Sensor Domain Identify a Potential Ligand-binding Site. *Journal of Biological Chemistry*, 2016;291(44):22961-22969. *Journal of*
**Biological Chemistry** can be contacted at: Amer Soc Biochemistry Molecular Biology Inc, 9650 Rockville Pike, Bethesda, MD 20814-3996, USA. (American Society for Biochemistry and Molecular Biology - www.asmbmb.org; Journal of Biological Chemistry - www.jbc.org/)

Our news journalists report that additional information may be obtained by contacting C.M. Sassetti, University of Massachusetts, Sch Med, Dept. of Microbiol & Physiol Syst, Worcester, MA 01655, United States. Additional authors for this research include K.G. Papavinasasundaram, C.E. Baer, K.C. Murphy, A. Moskaleva, T.Y. Chen, T. Alber and C.M. Sassetti.

**Keywords for this news article include: Worcester, Massachusetts, United States, North and Central America, Phosphotransferases (Alcohol Group Acceptor), Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Essential Amino Acids, Enzymes and Coenzymes, Neutral Amino Acids, Gram-Positive Rods, Mycobacteriaceae, Protein Kinases, Actinobacteria, Threonine, Genetics, Serine, University of Massachusetts.**

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**Musculoskeletal Diseases and Conditions - Muscular...**

**Investigators at University of Massachusetts School of Medicine Have Reported New Data on Muscular Dystrophy (CRISPR/dCas9-mediated Transcriptional Inhibition Ameliorates the Epigenetic Dysregulation at D4Z4 and Represses DUX4-fl in FSH ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Musculoskeletal Diseases and Conditions - Muscular Dystrophy. According to news reporting originating in Worcester, Massachusetts, by NewsRx journalists, research stated, "Facioscapulohumeral muscular dystrophy (FSHD) is one of the most prevalent myopathies, affecting males and females of all ages. Both forms of the disease are linked by epigenetic derepression of the D4Z4 macrosatellite repeat array at chromosome 4q35, leading to aberrant expression of D4Z4-encoded RNAs in skeletal muscle."

The news reporters obtained a quote from the research from the University of Massachusetts School of Medicine, "Production of full-length DUX4 (DUX4-fl) mRNA from the derepressed D4Z4 array results in misexpression of DUX4-FL protein and its transcriptional targets, and apoptosis, ultimately leading to accumulated muscle pathology. Returning the chromatin at the FSHD locus to its nonpathogenic, epigenetically repressed state would simultaneously affect all D4Z4 RNAs, inhibiting downstream pathogenic pathways, and is thus an attractive therapeutic strategy. Advances in CRISPR/Cas9-based genome editing make it possible to target epigenetic modifiers to an endogenous disease locus, although reports to date have focused on more typical genomic regions. Here, we demonstrate that a CRISPR/dCas9 transcriptional inhibitor can be specifically targeted to the highly repetitive FSHD macrosatellite array and alter the chromatin to repress expression of DUX4-fl in primary FSHD myocytes."

According to the news reporters, the research concluded: "These results implicate the promoter and exon 1 of DUX4 as potential therapeutic targets and demonstrate the utility of CRISPR technology for correction of the epigenetic dysregulation in FSHD."
For more information on this research see: CRISPR/dCas9-mediated Transcriptional Inhibition Ameliorates the Epigenetic Dysregulation at D4Z4 and Represses DUX4-fl in FSH Muscular Dystrophy. *Molecular Therapy*, 2015;24(3):527-35. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news correspondents report that additional information may be obtained by contacting C.L. Himeda, The Dept. of Cell and Developmental Biology, University of Massachusetts Medical School, Worcester, Massachusetts, United States. Additional authors for this research include T.I. Jones and P.L Jones.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2015.200. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Worcester, Massachusetts, United States, Muscular Dystrophies, North and Central America, Atrophic Muscular Disorders, Neuromuscular Diseases and Conditions, Nervous System Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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**Blood Pressure**

**Investigators at University of Melbourne Zero in on Blood Pressure (Nocturnal indicators of increased cardiovascular risk in depressed adolescent girls)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Blood Pressure. According to news reporting originating in Melbourne, Australia, by NewsRx journalists, research stated, "Depression is an independent risk factor for cardiovascular disease in adults, and recent literature suggests preclinical signs of cardiovascular risk are also present in depressed adolescents. No study has examined the effect of clinical depression on cardiovascular factors during sleep."

Financial support for this research came from Melbourne School of Psychological Sciences PhD Student Research Funding Scheme.

The news reporters obtained a quote from the research from the University of Melbourne, "This study examined the relationship between clinical depression and nocturnal indicators of cardiovascular risk in depressed adolescent girls from the general community (13-18 years old; 11 clinically depressed, eight healthy control). Continuous beat-to-beat finger arterial blood pressure and heart rate were monitored via Portapres and electrocardiogram, respectively. Cardiovascular data were averaged over each hour for the first 6 h of sleep, as well as in 2-min epochs of stable sleep that were then averaged within sleep stages. Data were also averaged across 2-min epochs of pre-sleep wakefulness and the first 5 min of continuous non-rapid eye movement sleep to investigate the blood pressure dipping response over the sleep-onset period. Compared with controls, depressed adolescents displayed a similar but significantly elevated blood pressure profile across sleep. Depressed adolescents had significantly higher systolic and diastolic blood pressure and mean arterial pressures across the entire night (p <0.01), as well as during all sleep stages (p <0.001). Depressed adolescents also had higher blood pressure across the sleep-onset period, but the groups did not differ in the rate
of decline across the period."

According to the news reporters, the research concluded: "Higher blood pressure during sleep in depressed adolescent females suggests that depression has a significant association with cardiovascular functioning during sleep in adolescent females, which may increase risk for future cardiovascular pathology."


Our news correspondents report that additional information may be obtained by contacting J.M. Waloszek, Melbourne School of Psychological Sciences, The University of Melbourne, Melbourne, Vic, Australia. Additional authors for this research include M.J. Woods, M.L. Byrne, C.L. Nicholas, B. Bei, G. Murray, M. Raniti, N.B. Allen and J. Trinder.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jsr.12360. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Cardiology, Hemodynamics, Blood Pressure, Cardiovascular, Women's Health, Adolescent Girls, Risk and Prevention, Australia and New Zealand.

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Oncology - Colon Cancer

**Investigators at University of Michigan Detail Findings in Colon Cancer (Genetic predisposition to colorectal cancer: Implications for treatment and prevention)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "Colorectal cancer (CRC) is the third most common cancer diagnosed in men and women and approximately 5% of cases are associated with identifiable germline mutations associated with hereditary cancer syndromes. Lifetime risks for CRC can approach 50%-80% for mutation carriers in the absence of endoscopic and/or surgical intervention, and early identification of at-risk individuals can guide clinical interventions for cancer prevention and treatment."

Our news journalists obtained a quote from the research from the University of Michigan, "Personal and family history and molecular phenotype of CRC tumors are used in determining which patients should be referred for clinical genetic evaluation. Outcomes of genetic testing performed using next-generation sequencing (NGS) multigene panels suggest there can be significant overlap in clinical features among the various hereditary cancer syndromes."

According to the news editors, the research concluded: "This review summarizes new developments in diagnosis and management of patients with genetic predisposition to CRC."

For more information on this research see: Genetic predisposition to colorectal cancer: Implications for treatment and prevention. *Seminars in Oncology*, 2016;43(5):536-542.
Investigators at University of Michigan Report Findings in Naphthaleneacetic Acids (Mimicking natural systems: Changes in behavior as a result of dynamic exposure to naproxen)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Naphthaleneacetic Acids have been published. According to news reporting from Pellston, Michigan, by NewsRx journalists, research stated, "Animals living in aquatic habitats regularly encounter anthropogenic chemical pollution. Typically, the toxicity of a chemical toxicant is determined by the median lethal concentration (LC50) through a static exposure test."

The news correspondents obtained a quote from the research from the University of Michigan, "However, LC50 values and static tests do not provide an accurate representation of exposure to pollutants within natural stream systems. In their native habitats, animals experience exposure as a fluctuating concentration due to turbulent mixing, temporal variations of contamination (seasonal inputs), and contaminant input type (point vs. non-point). Research has shown that turbulent environments produce exposures with a high degree of fluctuation in frequency, duration, and intensity. In order to more effectively evaluate the effects of pollutants, we created a dynamic exposure paradigm, utilizing both flow and substrate within a small mesocosm. A commonly used pharmaceutical, naproxen, was used as the toxicant and female crayfish (Orconectes virilis) as the target organism to investigate changes in fighting behavior as a result of dynamic exposure. Crayfish underwent either a 23 h long static or a dynamic exposure to naproxen. Following exposure, the target crayfish and an unexposed size matched opponent underwent a 15 min fight trial. These fight trials were recorded and later analyzed using a standard ethogram. Results indicate that exposure to sublethal concentrations of naproxen, in both static and flowing conditions, negatively impact aggressive behavior. Results also indicate that a dynamic exposure paradigm has a greater negative impact on behavior than a static exposure. Turbulence and habitat structure play important roles in shaping chemical exposure. Future research should incorporate features of dynamic chemical exposure in order to form a more comprehensive image of chemical exposure and predict the resulting sublethal effects from exposure. Possible techniques for assessment include utilizing flow through experimental set-ups in tandem with behavioral or physiological endpoints as opposed to acute..."
toxicity."

According to the news reporters, the research concluded: "Other possibilities of assessment could involve utilizing fine-scale chemical measurements of pollutants to determine the actual concentrations animals encounter during an exposure event."

For more information on this research see: Mimicking natural systems: Changes in behavior as a result of dynamic exposure to naproxen. Ecotoxicology and Environmental Safety, 2017;135():347-357. Ecotoxicology and Environmental Safety can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Ecotoxicology and Environmental Safety - www.journals.elsevier.com/ecotoxicology-and-environmental-safety/)

Our news journalists report that additional information may be obtained by contacting P.A. Moore, University of Michigan, Biol Stn, Pellston, MI 49769, United States. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ecoenv.2016.10.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pellston, Michigan, United States, North and Central America, Naphthaleneacetic Acids, Drugs and Therapies, Naproxen Therapy, Pharmaceuticals, University of Michigan.

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**Lung Diseases and Conditions - Asthma**

**Investigators at University of Milan Discuss Findings in Asthma (The lag-time approach improved drug-outcome association estimates in presence of protopathic bias)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Asthma. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "Protopathic bias is a systematic error which occurs when measured exposure status may be affected by the latent onset of the target outcome. In this article, we aimed to discuss the benefits and drawbacks of the lag-time approach to address this type of bias."

Our news journalists obtained a quote from the research from the University of Milan, "The lag-time approach consists in excluding from exposure assessment the period immediately preceding the outcome detection date. With the help of simple causal diagrams, we illustrate the rationale and limitations of such strategy. The lag time approach was illustrated in a case-crossover study, based on the health care utilization databases of the Italian Lombardy Region, on the real-world effectiveness of some respiratory drugs (exposure) in preventing asthma exacerbations (outcome). A total of 7,300 of patients who were admitted to an emergency department (ED) for asthma during 2010-2012 (cases) were included. Use (vs. nonuse) of short-acting beta-agonists (SABAs, an asthma reliever medication) during the 90 days before the ED admission date was associated with an increased risk of the outcome [odds ratio (OR): 1.95; 95% confidence interval (CI): 1.72, 2.22]. This paradoxical finding may be explained by protopathic bias, as SABA use prior the ED admission may be affected by preceding respiratory distress. Indeed, when a 120-day period preceding the ED admission was ignored from drug exposure assessment (lag time), SABAs were found to be associated with a...
reduced risk of the outcome (OR: 0.81; 95% CI: 0.84, 0.92), as expected."

According to the news editors, the research concluded: "The lag-time approach can be a useful strategy to circumvent protopathic bias in observational studies."


The news correspondents report that additional information may be obtained from G. Corrao, Univ Milano Bicocca, Unit Biostat Epidemiol & Public Hlth, Dept. of Stat & Quantitat Methods, I-20126 Milan, Italy.

Keywords for this news article include: Milan, Italy, Europe, Lung Diseases and Conditions, Epidemiology, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Immune System Diseases and Conditions, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Risk and Prevention, Asthma, University of Milan.

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**Medicare and Medicaid**

**Investigators at University of Mississippi Describe Findings in Medicare and Medicaid (Comparison of Pharmacist and Physician Managed Annual Medicare Wellness Services)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Medicare and Medicaid. According to news reporting originating in Jackson, Mississippi, by NewsRx journalists, research stated, "Medicare Annual Wellness Visits (AWV) are a benefit provided for Medicare beneficiaries to increase focus on wellness and preventive measures. Pharmacists can conduct AWVs, which offers a potential avenue for outpatient revenue generation."

The news reporters obtained a quote from the research from the University of Mississippi, "PROGRAM DESCRIPTION: To compare a composite of interventions and screenings and revenue generated by a pharmacist with those made by a physician during a subsequent AWV. A report generated through the electronic health record was used to determine AWVs conducted by a pharmacist or 3 participating physicians from December 2013 to March 2016, including revenue generated. Through electronic chart review, documentation was accessed to quantify and categorize the number and types of referrals, health advice, laboratory tests, procedures, vaccinations, and screenings that were recommended during each patient's AWV. OBSERVATIONS: The pharmacist performed 19 subsequent visits, and the 3 physicians performed 89 subsequent visits. Overall, the composite of interventions and screenings was significantly higher in the pharmacist group than the physician group (P=0.03). More interventions were made in the areas of health advice (P=0.020), vaccine recommendations (P=0.009), and screenings in the pharmacist group (P <0.001). The physicians ordered significantly more laboratory tests per visit (P <0.001). The pharmacist was reimbursed on average $105 per visit versus $99 per visit for the physicians."

According to the news reporters, the research concluded: "Pharmacist-provided
AWVs are at least comparable to those provided by physicians and offer an additional access point for valuable services for Medicare beneficiaries."

For more information on this research see: Comparison of Pharmacist and Physician Managed Annual Medicare Wellness Services. *Journal of Managed Care & Specialty Pharmacy*, 2016;22(12):1412-1416. *Journal of Managed Care & Specialty Pharmacy* can be contacted at: Acad Managed Care Pharmacy, 100 N Pitt St, 400, Alexandria, VA 22314-3134, USA.

Our news correspondents report that additional information may be obtained by contacting D.M. Riche, University of Mississippi, Sch Med, Jackson, MS 39216, United States. Additional authors for this research include D.M. Riche, J.W. Fleming, S.S. Malinowski and R.T. Jackson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18553/jmcp.2016.22.12.1412. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jackson, Mississippi, United States, North and Central America, Medicare and Medicaid, Health Policy, Medicare, Wellness, University of Mississippi.

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**Heart Disorders and Diseases - Heart Failure**

**Investigators at University of Mississippi Report Findings in Heart Failure (Presence and Implication of Temporal Nonuniformity of Early Diastolic Left Ventricular Wall Expansion in Patients With Heart Failure)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Failure are discussed in a new report. According to news originating from Jackson, Mississippi, by NewsRx correspondents, research stated, "Early-diastolic left ventricular (LV) longitudinal expansion is delayed with diastolic dysfunction. We hypothesized that, in patients with heart failure (HF), regardless of LV ejection fraction (EF), there is diastolic temporal nonuniformity with a delay of longitudinal relative to circumferential expansion."

Our news journalists obtained a quote from the research from the University of Mississippi, "Echocardiography was performed in 143 HF patients-50 with preserved EF (HFpEF) and 93 with reduced EF (HFrEF)-as well as 31 normal control subjects. The delay of early-diastolic mitral annular velocity from the mitral Doppler E (TE-e ') was measured as a parameter of the longitudinal expansion delay. The delay of the longitudinal early-diastolic global strain rate (SRE) relative to circumferential SRE (Delay(C-L)) was calculated as a parameter of temporal nonuniformity. Intra-LV pressure difference (IVPD) was estimated with the use of color M-mode Doppler data as a parameter of LV diastolic suction. Although normal control subjects had symmetric LV expansion in early diastole, TE-e ' and Delay(C-L) were significantly prolonged in HF regardless of EF (P <.01 vs control for all). Multivariate analysis revealed that Delay(C-L) was the independent determinant of IVPD among the parameters of LV geometry and contraction (beta = -.21; P< .05)."

According to the news editors, the research concluded: "An abnormal temporal nonuniformity of early-diastolic expansion is present in HF regardless of EF, which was
associated with reduced LV suction."

For more information on this research see: Presence and Implication of Temporal Nonuniformity of Early Diastolic Left Ventricular Wall Expansion in Patients With Heart Failure. *Journal of Cardiac Failure*, 2016;22Q(12):945-953. *Journal of Cardiac Failure* can be contacted at: Churchill Livingstone Inc Medical Publishers, Curtis Center, Independence Square West, Philadelphia, PA 19106-3399, USA. (Elsevier - www.elsevier.com; Journal of Cardiac Failure - www.journals.elsevier.com/journal-of-cardiac-failure/)

The news correspondents report that additional information may be obtained from H. Iwano, University of Mississippi, Medical Center, Div Cardiol, Jackson, MS 39216, United States. Additional authors for this research include D. Kammura, E.R. Fox, M.E. Hall, P. Vlachos and W.C. Little.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cardfail.2016.04.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jackson, Mississippi, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Heart Failure, Heart Disease, Cardiology, University of Mississippi.

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**Nephrology**

**Investigators at University of Montreal Describe Findings in Nephrology**  
**Acute kidney injury induces hallmarks of polycystic kidney disease**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nephrology have been published. According to news reporting from Montreal, Canada, by NewsRx journalists, research stated, "Acute kidney injury (AKI) and autosomal dominant polycystic kidney disease (ADPKD) are considered separate entities that both frequently cause renal failure. Since ADPKD appears to depend on a polycystin-1 (Pc1) or Pc2 dosage mechanism, we investigated whether slow progression of cystogenesis in two Pkd1 transgenic mouse models can be accelerated with moderate ischemia-reperfusion injury (IRI)."

The news correspondents obtained a quote from the research from the University of Montreal, "Transient unilateral left ischemic kidneys in both nontransgenic and transgenic mice reproducibly develop tubular dilatations, cysts, and typical PKD cellular defects within 3 mo post-IRI. Similar onset and severity of IRI induced-cystogenesis independently of genotype revealed that IRI is sufficient to promote renal cyst formation; however, this response was not further amplified by the transgene in Pkd1 mouse models. The IRI nontransgenic and transgenic kidneys showed from 16 days post-IRI strikingly increased and sustained Pkd1/Pc1 (>3-fold) and Pc2 (>8-fold) expression that can individually be cystogenic in mice. In parallel, long-term and important stimulation of hypoxia-inducible factor 1 alpha expression was induced as in polycystic kidney disease. While mammalian target of rapamycin signaling is activated, stimulation of the Wnt pathway, with markedly increased active beta-catenin and c-Myc expression in IRI renal epithelium, uncovered a similar regulatory cystogenic response shared by IRI and ADPKD."

According to the news reporters, the research concluded: "Our study demonstrates that long-term AKI induces cystogenesis and cross talk with ADPKD Pc1/Pc2 pathogenic
signaling."


Our news journalists report that additional information may be obtained by contacting M. Trudel, University of Montreal, Fac Med, Inst Rech Clin Montreal, Mol Genet & Dev, Montreal, PQ H2W 1R7, Canada.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Nephrology, Genetics, Kidney, University of Montreal.

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Chemistry - Biochemistry

**Investigators at University of Nice Hospital Center Detail Findings in Biochemistry (How does metabolism affect cell death in cancer?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Chemistry - Biochemistry. According to news reporting originating in Nice, France, by NewsRx journalists, research stated, "In cancer research, identifying a specificity of tumor cells compared with 'normal' proliferating cells for targeted therapy is often considered the Holy Grail for researchers and clinicians. Although diverse in origin, most cancer cells share characteristics including the ability to escape cell death mechanisms and the utilization of different methods of energy production."

Financial supporters for this research include Fondation ARC pour la Recherche sur le Cancer, Agence Nationale de la Recherche.

The news reporters obtained a quote from the research from the University of Nice Hospital Center, "In the current paradigm, aerobic glycolysis is considered the central metabolic characteristic of cancer cells (Warburg effect). However, recent data indicate that cancer cells also show significant changes in other metabolic pathways. Indeed, it was recently suggested that Kreb's cycle, pentose phosphate pathway intermediates, and essential and nonessential amino acids have key roles. Renewed interest in the fact that cancer cells have to reprogram their metabolism in order to proliferate or resist treatment must take into consideration the ability of tumor cells to adapt their metabolism to the local microenvironment (low oxygen, low nutrients). This variety of metabolic sources might be either a strength, resulting in infinite possibilities for adaptation and increased ability to resist chemotherapy-induced death, or a weakness that could be targeted to kill cancer cells."

According to the news reporters, the research concluded: "Here, we discuss recent insights showing how energetic metabolism may regulate cell death and how this might be relevant for cancer treatment."


Our news correspondents report that additional information may be obtained by contacting J.E. Ricci, University of Nice Hospital Center, Dept. of Anesthesie Reanimat, Nice,
France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/febs.13570. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nice, France, Europe, Biochemistry, Chemistry, Cancer, Article Review, Oncology, University of Nice Hospital Center.

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Clinical Research - Clinical Trials and Studies

Investigators at University of Otago Describe Findings in Clinical Trials and Studies (Combination Nicotine Metered Dose Inhaler and Nicotine Patch for Smoking Cessation: A Randomized Controlled Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Clinical Research - Clinical Trials and Studies have been presented. According to news reporting from Wellington, New Zealand, by NewsRx journalists, research stated, "In order to replicate the rewarding effects of smoking, nicotine replacement therapies must deliver nicotine via the pulmonary route. We aimed to measure the efficacy of a simple pressurized metered dose inhaler containing nicotine combined with a nicotine patch for smoking cessation."

The news correspondents obtained a quote from the research from the University of Otago, "Double-blind randomized placebo-controlled, parallel group trial conducted at the University of Otago, Wellington, New Zealand. Five-hundred two adults (a parts per thousand yen18 years) who smoked at least nine cigarettes per day, with a Fagerstrom Test for Nicotine Dependence a parts per thousand yen3 who wanted to quit, were randomized (1:1). active nicotine pressurized metered dose inhaler (pMDI) plus active nicotine patch, versus placebo pMDI plus active nicotine patch. Subjects were instructed to use the aerosols for 6 months when they felt an urge to smoke and the patches daily for 5 months, reduce their smoking and quit by the end of the fourth week. Subjects were followed for 7 months. The primary outcome was prolonged 6 month not smoked on 7 consecutive days, analyzed by intention-to-treat. For the primary outcome, 78/246 (31.71%) in the active group versus 46/256 (17.97%) in the control group were abstinent (odds ratio 2.12, 95% confidence interval 1.40 to 3.23). Adverse events were reported by 245/246 (99.6%) and 247/256 (96.5%) subjects in the active and control groups, respectively. Mild coughing which decreased with regular use was common with the nicotine aerosols. Inhaled nicotine from a metered dose inhaler combined with a nicotine patch substantially improves abstinence for 6 months amongst adult nicotine dependant smokers wanting to quit. In 2012, we published a systematic review of the use nicotine by inhalation in this journal. At that time we were unable to find any studies that had measured the effects of nicotine delivery by pMDI on smoking cessation, and we are not aware of any since 2012. Our study is the first to look at nicotine by pMDI in smoking cessation."

According to the news reporters, the research concluded: "The present trial demonstrates that a simple nonproprietary nicotine inhaler, using relatively inexpensive standard technology, increases smoking cessation rates over and above nicotine patch therapy, and could usefully enhance nicotine replacement in smoking cessation treatment."

For more information on this research see: Combination Nicotine Metered Dose

Our news journalists report that additional information may be obtained by contacting J. Crane, University of Otago, Dept. of Med, Wellington 6001, New Zealand.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/ntr/ntw093. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wellington, New Zealand, Australia and New Zealand, Clinical Trials and Studies, Clinical Research, University of Otago.

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**Adipogenesis**

**Investigators at University of Ottawa Detail Findings in Adipogenesis**

*(The Anti-Adipogenic Effect of Peripheral Blood Mononuclear Cells is Absent with PCSK9 Loss-of-Function Variants)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Adipogenesis. According to news originating from Ottawa, Canada, by NewsRx correspondents, research stated, "To determine the effect of (1) an oral fat load and (2) pro-protein convertase subtilisin/ kexin type (PCSK) 9 loss-of-function (LOF) variant status on the ability of peripheral blood mononuclear cells (PBMC) to inhibit human adipogenesis. PBMC from subjects with one or more PCSK9 LOF variants versus non-variant controls were compared in the fasting state and after an oral fat load."

Our news journalists obtained a quote from the research from the University of Ottawa, "Fasting triglyceride (TG) levels were lower in the LOF variant versus non-variant group but rose to the same level after the oral fat load. Conditioned medium from PBMC was obtained in fasting (PBMC-CM-F) and 4-h postprandial (PBMC-CM-PP) states. PBMC-CM-PP from non-variant controls inhibited adipogenesis of human preadipocytes more than did PBMC-CM-F. In contrast, PBMC-CM-F or -PP from PCSK9 LOF variant subjects had no effect on adipogenesis. After the oral fat load, PBMC from PCSK9 LOF variant subjects showed significant increases in mRNA levels of interleukin-1 beta, tumor necrosis factor-alpha, sterol regulatory element binding protein-1c, CD36, and monocyte chemoattractant protein-1 (MCP-1), only MCP-1 mRNA levels increased in PBMC from non-variant controls."

According to the news editors, the research concluded: "The absence of anti-adipogenic action of PBMC from PCSK9 LOF variant subjects points to a novel role for PCSK9 in PBMC-adipose cell interactions."


The news correspondents report that additional information may be obtained from A.
Investigators at University of Pardubice Report Findings in Separation Science (Determination of selected fatty acids in dried sweat spot using gas chromatography with flame ionization detection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science - Separation Science. According to news reporting from Pardubice, Czech Republic, by NewsRx journalists, research stated, "A method is described for the determination of fatty acids in dried sweat spot and plasma samples using gas chromatography with flame ionization detection. Plasma and dried sweat spot samples were obtained from a group of blood donors."

The news correspondents obtained a quote from the research from the University of Pardubice, "The sweat was collected from each volunteer during exercise. Sweat was spotted onto collection paper containing butylated hydroxytoluene. Fatty acids were derivatized with acetyl chloride in methanol to form methyl esters of fatty acids. The fatty acids in dried sweat spot samples treated with butylated hydroxytoluene and stored at -20 degrees C were stable for 3 months. Our results indicate that sweat contains, among fatty acids with short chain, also fatty acids with long chain and unsaturated fatty acids."

According to the news reporters, the research concluded: "Linear relationships between percentage content of selected fatty acids in dried sweat spot and plasma were observed."


Our news journalists report that additional information may be obtained by contacting R. Kandar, Univ Pardubice, Fac Chem Technol, Dept. of Biol & Biochem Sci, Pardubice, Czech Republic. Additional authors for this research include P. Drabkova, L. Andrlova, A. Kostelnik and A. Cegan.

Keywords for this news article include: Pardubice, Czech Republic, Europe, Separation Science, Science, University of Pardubice.

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Gram-Negative Bacteria - *Pseudomonas aeruginosa*

Investigators at University of Paris-Sud Report Findings in *Pseudomonas aeruginosa* (Actin activates *Pseudomonas aeruginosa* ExoY nucleotidyl cyclase toxin and ExoY-like effector domains from MARTX toxins)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - *Pseudomonas aeruginosa* are discussed in a new report. According to news reporting from Gif sur Yvette, France, by NewsRx journalists, research stated, "The nucleotidyl cyclase toxin ExoY is one of the virulence factors injected by the *Pseudomonas aeruginosa* type III secretion system into host cells. Inside cells, it is activated by an unknown eukaryotic cofactor to synthesize various cyclic nucleotide monophosphates."

The news correspondents obtained a quote from the research from the University of Paris-Sud, "ExoY-like adenylate cyclases are also found in Multifunctional-Autoprocessing Repeats-in-ToXin (MARTX) toxins produced by various Gram-negative pathogens. Here we demonstrate that filamentous actin (F-actin) is the hitherto unknown cofactor of ExoY. Association with F-actin stimulates ExoY activity more than 10,000 fold in vitro and results in stabilization of actin filaments. ExoY is recruited to actin filaments in transfected cells and alters F-actin turnover. Actin also activates an ExoY-like adenylate cyclase MARTX effector domain from *Vibrio nigripulchritudo*. Finally, using a yeast genetic screen, we identify actin mutants that no longer activate ExoY."

According to the news reporters, the research concluded: "Our results thus reveal a new sub-group within the class II adenylyl cyclase family, namely actin-activated nucleotidyl cyclase (AA-NC) toxins."


Keywords for this news article include: Gif sur Yvette, France, Europe, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Gram-Negative Bacteria, *Pseudomonas aeruginosa*, Enzymes and Coenzymes, Gammaproteobacteria, Pseudomonadaceae, Proteobacteria, Genetics, Cyclase, University of Paris-Sud.

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Investigators at University of Pittsburgh Medical Center Report New Data on Lymphoma (Flow Cytometric Evaluation of Double/Triple Hit Lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lymphoma. According to news originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "Double' or 'triple' hit lymphomas (D/THL) with recurrent translocations involving MYC/8q24 and BCL2/18q21 and/or BCL6/3q27 are characterized by a poor prognosis, but their identification is hampered by the clinicopathologic overlap with other disease categories. Cases with circulating blastic-appearing cells may initially cause concern for lymphoblastic leukemia a diagnostic dilemma, which has not been well studied."

Our news journalists obtained a quote from the research from the University of Pittsburgh Medical Center, "There is only limited literature regarding the flow cytometric (FC) D/THL phenotype and its clinical correlates. The FC features of 20 D/THL (11 BCL2(+)/MYC (+), 5 BCL6(+)/MYC(+), 4 BCL2(+)/BCL6(+)/MYC(+)) were evaluated, compared to 20 B-lymphoblastic leukemias (B-LBL), and correlated with overall survival. Most (89%, 17/19) D/THL were CD10(+), 47% (9/19) lacked surface light chain, and a significant subset underexpressed CD45 (47%, 9/19), CD20 (42% 8/19), and/or CD19 (39%, 7/18), which did not vary by genetic subgroup. Compared to B-LBL, D/THL less frequently underexpressed CD45 (p=0.0001) and CD20 (p=0.0004). Lower levels of BCL2 expression were noted in the BCL6 (+)/MYC(+) and BCL2(+)/BCL6(+)/MYC(+) subgroups versus BCL2(+)/MYC(+) cases (p=0.0014). Of the flow cytometric parameters assessed, dim CD45 expression correlated with inferior survival (p=0.01)."

According to the news editors, the research concluded: "Although there is some overlap with B-LBL, D/THL demonstrates a characteristic immunophenotype which may have prognostic significance and warrants further investigation."

For more information on this research see: Flow Cytometric Evaluation of Double/Triple Hit Lymphoma. Oncology Research, 2016;23(3):137-46.

The news correspondents report that additional information may be obtained from C.G. Roth, Dept. of Pathology, Division of Hematopathology, University of Pittsburgh Medical Center, Pittsburgh, PA, United States. Additional authors for this research include A. Gillespie-Twardy, S. Marks, M. Agha, A. Raptis, J.Z. Hou, R. Farah, Y. Lin, Y. Qian, L. Pantanowitz and M. Boyiadzis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3727/096504015X14500972666761. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Oncology, Lymphomas, Pittsburgh, Hematology, Pennsylvania, United States, North and Central America, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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Investigators at University of Queensland Report Findings in Obesity and Diabetes (Epicardial Adipose Tissue Volume and Left Ventricular Myocardial Function Using 3-Dimensional Speckle Tracking Echocardiography)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity and Diabetes. According to news reporting from Brisbane, Australia, by NewsRx journalists, research stated, "Although epicardial adipose tissue (EAT) volume is associated with increased incidence of coronary artery disease (CAD), its role in myocardial systolic dysfunction is unclear. The present study aimed to identify independent determinants of EAT volume in patients without obstructive CAD, and to evaluate the association between EAT volume (vs other measures of obesity) and myocardial systolic strain analysis."

The news correspondents obtained a quote from the research from the University of Queensland, "We prospectively recruited 130 patients without obstructive CAD on contrast-enhanced cardiac computed tomography imaging and normal left ventricular ejection fraction on 3-dimensional (3D) echocardiography. EAT volume was quantified from cardiac computed tomography imaging, and 3D multidirectional (longitudinal, circumferential, radial, and area) strain were measured. The mean EAT volume was 97.5 +/- 43.7 cm(3). In multivariable analysis, measures of obesity (body mass index [P = 0.007] and waist/hip ratio [P = 0.001]) were independently associated with larger EAT volume. EAT volume was correlated with 3D global longitudinal (r = 0.601; P< 0.001), circumferential (r = 0.375; P< 0.001), radial (r = -0.546; P< 0.001), and area (r = 0.558; P< 0.001) strain. In multivariable analyses, epicardial fat volume was the strongest predictor of 3D global longitudinal (standardized beta = 0.512; P< 0.001), circumferential (standardized beta = 0.242; P = 0.006), radial (standardized beta = -0.422; P< 0.001), and area (standardized beta = 0.428; P< 0.001) strain. In contrast, other measures of obesity including body mass index and waist/hip ratio were not independent determinants of 3D multidirectional global strain (all P> 0.05)."

According to the news reporters, the research concluded: "EAT volume is independently associated with impaired myocardial systolic function despite preserved 3D left ventricular ejection fraction and absence of obstructive CAD, and might play a significant role in the pathophysiology of diabetic, obesity, and metabolic heart disease."


Our news journalists report that additional information may be obtained by contacting A.C.T. Ng, University of Queensland, Princess Alexandra Hospital, Dept. of Cardiol, Brisbane, Qld 4102, Australia. Additional authors for this research include S.Y. Goo, N. Roche, R.J. van der Geest and W.Y.S. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.06.009. This DOI is a link to an online electronic document that is either free or for purchase.
Investigators at University of Regensburg Detail Findings in Colon Cancer (Physical Activity and Risk of Colon Cancer in Diabetic and Nondiabetic US Adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting originating from Regensburg, Germany, by NewsRx correspondents, research stated, "To determine whether moderate to vigorous physical activity is associated with a decreased risk of colon cancer in diabetic patients. We evaluated the association between physical activity and colon cancer in 25,753 patients with a self-reported history of diabetes and in 274,965 nondiabetic individuals from the National Institutes of Health-AARP Diet and Health Study who were aged 50 to 71 years in 1995-1996."

Our news editors obtained a quote from the research from the University of Regensburg, "Moderate to vigorous physical activity was assessed at baseline using a self-administered questionnaire. Follow-up for colon cancer incidence extended to December 31, 2011. During 13.0 years of follow-up, 480 diabetic patients and 4151 nondiabetic individuals had development of colon cancer. Among diabetic patients, compared with never/rarely engaging in physical activity, more than 7 h/wk of physical activity exhibited a reduced risk of colon cancer in the age-and sex-adjusted model (hazard ratio [HR], 0.74; 95% CI, 0.56-0.996; P = .16 for trend). This association was attenuated and no longer statistically significant after additional control for other covariates (HR, 0.78; 95% CI, 0.58-1.05; P = .29 for trend). By comparison, physical activity was inversely related to colon cancer risk in nondiabetic individuals (multivariate-adjusted HR, 0.81; 95% CI, 0.73-0.89; P< .001 for trend). In this investigation of the relationship between physical activity and colon cancer in diabetic patients, we found a statistically significant inverse relationship in the age-and sex-adjusted model, which was no longer statistically significant in the multivariate-adjusted model. A reduced risk was noted among nondiabetic individuals, irrespective of other covariates."

According to the news editors, the research concluded: "Future studies with a larger number of participants are required to explore whether physical activity beneficially affects colon cancer risk among diabetic patients."


The news editors report that additional information may be obtained by contacting D. Schmid, University of Regensburg, Dept. of Epidemiol & Prevent Med, D-93053 Regensburg, Germany. Additional authors for this research include G. Behrens, C.E. Matthews and M.F.
Investigators at University of Rochester School of Medicine and Dentistry Release New Data on Dilated Cardiomyopathy (Cardiac Gab1 deletion leads to dilated cardiomyopathy associated with mitochondrial damage and cardiomyocyte apoptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Dilated Cardiomyopathy. According to news reporting out of Rochester, New York, by NewsRx editors, research stated, "A vital step in the development of heart failure is the transition from compensatory cardiac hypertrophy to decompensated dilated cardiomyopathy (DCM) during cardiac remodeling under mechanical or pathological stress. However, the molecular mechanisms underlying the development of DCM and heart failure remain incompletely understood."

Our news journalists obtained a quote from the research from the University of Rochester School of Medicine and Dentistry, "In the present study, we investigate whether Gab1, a scaffolding adaptor protein, protects against hemodynamic stress-induced DCM and heat failure. We first observed that the protein levels of Gab1 were markedly reduced in hearts from human patients with DCM and from mice with experimental viral myocarditis in which DCM developed. Next, we generated cardiac-specific Gab1 knockout mice (Gab1-cKO) and found that Gab-cKO mice developed DCM in hemodynamic stress-dependent and age-dependent manners. Under transverse aorta constriction (TAC), Gab1-cKO mice rapidly developed decompensated DCM and heart failure, whereas Gab1 wild-type littermates exhibited adaptive left ventricular hypertrophy without changes in cardiac function. Mechanistically, we showed that Gab1-cKO mouse hearts displayed severe mitochondrial damages and increased cardiomyocyte apoptosis. Loss of cardiac Gab1 in mice impaired Gab1 downstream MAPK signaling pathways in the heart under TAC. Gene profiles further revealed that ablation of Gab1 in heart disrupts the balance of anti-and pro-apoptotic genes in cardiomyocytes. These results demonstrate that cardiomyocyte Gab1 is a critical regulator of the compensatory cardiac response to aging and hemodynamic stress."

According to the news editors, the research concluded: "These findings may provide new mechanistic insights and potential therapeutic target for DCM and heart failure."

For more information on this research see: Cardiac Gab1 deletion leads to dilated cardiomyopathy associated with mitochondrial damage and cardiomyocyte apoptosis. Cell Death and Differentiation, 2015;23(4):695-706. (Nature Publishing Group - www.nature.com/cdd/)
Our news journalists report that additional information may be obtained by contacting J. Zhao, Aab Cardiovascular Research Institute, Dept. of Medicine, University of Rochester School of Medicine and Dentistry, Rochester, NY, United States. Additional authors for this research include M. Yin, H. Deng, F.Q. Jin, S. Xu, Y. Lu, M.A. Mastrangelo, H. Luo and Z.G Jin.

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Keywords for this news article include: New York, Genetics, Rochester, Apoptosis, Cardiology, Hemodynamics, United States, Cardiomyocyte, Heart Disease, Heart Failure, Cardiomyopathies, Dilated Cardiomyopathy, North and Central America, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions, Cardiovascular Physiological Phenomena.

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Biotechnology - Genomics

Investigators at University of Sao Paulo Describe Findings in Genomics (Methylation status of homeobox genes in common human cancers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biotechnology - Genomics. According to news reporting originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Approximately 300 homeobox loci were identified in the euchromatic regions of the human genome, of which 235 are probable functional genes and 65 are likely pseudogenes. Many of these genes play important roles in embryonic development and cell differentiation."

Financial support for this research came from FAPESP.

Our news editors obtained a quote from the research from the University of Sao Paulo, "Dysregulation of homeobox gene expression is a frequent occurrence in cancer. Accumulating evidence suggests that as genetics disorders, epigenetic modifications alter the expression of oncogenes and tumor suppressor genes driving tumorigenesis and perhaps play a more central role in the evolution and progression of this disease."

According to the news editors, the research concluded: "Here, we described the current knowledge regarding homeobox gene DNA methylation in human cancer and describe its relevance in the diagnosis, therapeutic response and prognosis of different types of human cancers."


The news editors report that additional information may be obtained by contacting F.D. Nunes, University of Sao Paulo, Sch Dental, Dept. of Oral Pathol, Sao Paulo, Brazil. Additional authors for this research include C.M. Esteves, F.C.A. Xavier and F.D. Nunes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygeno.2016.11.001. This DOI is a link to an online electronic document that is either free or for purchase.
Investigators at University of Sydney Describe Findings in Estradiol Congeners (Progressive Temporal Change in Serum SHBG, But Not in Serum Testosterone or Estradiol, Is Associated With Bone Loss and Incident Fractures in Older Men: The Concord ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hormones - Estradiol Congeners are presented in a new report. According to news reporting from Sydney, Australia, by NewsRx journalists, research stated, "This study aimed to examine progressive temporal relationships between changes in major reproductive hormones across three waves of a cohort study of older men and (1) changes in bone mineral density (BMD) and (2) incident fractures (any, hip or non-vertebral) over an average of 6 years of follow-up. The CHAMP cohort of men aged 70 years and older were assessed at baseline (2005 to 2007, n=1705), 2-year follow-up (n=1367), and 5-year follow-up (n=958)."

The news correspondents obtained a quote from the research from the University of Sydney, "Serum testosterone (T), dihydrotestosterone (DHT), estradiol (E2), and estrone (E1) (by liquid chromatography-tandem mass spectrometry [LC-MS/MS]), and sex hormone-binding globulin (SHBG), luteinizing hormone (LH), and follicle-stimulating hormone (FSH) (by immunoassay) were measured at all time-points, whereas free testosterone (cFT) was calculated using a well-validated formula. Hip BMD was measured by dual-energy X-ray absorptiometry (DXA) at all three time-points, and fracture data were verified radiographically. Statistical modeling was done using general estimating equations (GEEs). For total hip BMD, univariable analyses revealed inverse associations with temporal changes in serum SHBG, FSH, and LH and positive associations for serum E1 and cFT across the three time-points. In models adjusted for multiple covariables, serum SHBG (=0.029), FSH (=0.065), LH (=0.049), E1 (=0.019), and cFT (=0.033) remained significantly associated with hip BMD. However for femoral neck BMD, only FSH (=0.048) and LH (=0.036) remained associated in multivariable-adjusted models. Temporal change in serum SHBG, but not T, E2, or other hormonal variables, was significantly associated with any, nonvertebral or hip fracture incidence in univariable analyses. In multivariable-adjusted models, temporal increase in serum SHBG over time remained associated with any fracture (=0.060) and hip fracture (=0.041) incidence, but not nonvertebral fracture incidence. These data indicate that a progressive increase in circulating SHBG over time predicts bone loss and fracture risk in older men."

According to the news reporters, the research concluded: "Further studies are warranted to further characterize changes in circulating SHBG as a mechanism and/or biomarker of bone health during male ageing."

For more information on this research see: Progressive Temporal Change in Serum SHBG, But Not in Serum Testosterone or Estradiol, Is Associated With Bone Loss and Incident Fractures in Older Men: The Concord Health and Ageing in Men Project. Journal of Bone and...
Investigators at University of Texas Medical Branch Detail Findings in Granulocytes (Cytokine-Induced Glucocorticoid Resistance from Eosinophil Activation: Protein Phosphatase 5 Modulation of Glucocorticoid Receptor Phosphorylation and Signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immunology - Granulocytes are presented in a new report. According to news reporting from Galveston, Texas, by NewsRx journalists, research stated, "The mechanisms contributing to persistent eosinophil activation and poor eosinopenic response to glucocorticoids in severe asthma are poorly defined. We examined the effect of cytokines typically overexpressed in the asthmatic airways on glucocorticoid signaling in in vitro activated eosinophils."

The news correspondents obtained a quote from the research from the University of Texas Medical Branch, "An annexin V assay used to measure eosinophil apoptosis showed that cytokine combinations of IL-2 plus IL-4 as well as TNF-alpha plus IFN-gamma, or IL-3, GM-CSF, and IL-5 alone significantly diminished the proapoptotic response to dexamethasone. We found that IL-2 plus IL-4 resulted in impaired phosphorylation and function of the nuclear glucocorticoid receptor (GCR). Proteomic analysis of steroid sensitive and resistant eosinophils identified several differentially expressed proteins, namely protein phosphatase 5 (PP5), formyl peptide receptor 2, and annexin 1. Furthermore, increased phosphatase activity of PP5 correlated with impaired phosphorylation of the GCR. Importantly, suppression of PP5 expression with small interfering RNA restored proper phosphorylation and the proapoptotic function of the GCR. We also examined the effect of lipoxin A4 on PP5 activation by IL-2 plus IL-4. Similar to PP5 small interfering RNA inhibition, pretreatment of eosinophils with lipoxin A4 restored GCR phosphorylation and the proapoptotic function of GCs."

According to the news reporters, the research concluded: "Taken together, our results showed 1) a critical role for PP5 in cytokine-induced resistance to GC-mediated eosinophil death, 2) supported the dependence of GCR phosphorylation on PP5 activity, and 3) revealed that PP5 is a target of the lipoxin A4-induced pathway countering cytokine-induced resistance to GCs in eosinophils."

For more information on this research see: Cytokine-Induced Glucocorticoid
Resistance from Eosinophil Activation: Protein Phosphatase 5 Modulation of Glucocorticoid Receptor Phosphorylation and Signaling. *Journal of Immunology*, 2016;197(10):3782-3791. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news journalists report that additional information may be obtained by contacting A. Kurosky, Univ Texas Med Branch, Natl Heart Lung & Blood Inst, Proteom Center Program Airway Inflammat, Galveston, TX 77555, United States. Additional authors for this research include C. Straub, R. Maroto, S. Stafford, W.I. White, W.J. Calhoun and A. Kurosky.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1601029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Galveston, Texas, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Glucocorticoid Receptors, Hemic and Immune Systems, Adrenal Cortex Hormones, Transcription Factors, DNA-Binding Proteins, Steroid Receptors, Glucocorticoids, Granulocytes, Blood Cells, Eosinophils, Immunology, Cytokines, Genetics, University of Texas Medical Branch.

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**Oncology - Breast Cancer**

**Investigators at University of Texas Report Findings in Breast Cancer (Interventions to Manage Uncertainty and Fear of Recurrence in Female Breast Cancer Survivors: A Review of the Literature)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Fear of cancer recurrence (FCR) is one of the largest unmet needs in the breast cancer survivor population. This review addresses this unmet need with the question: What available interventions manage uncertainty and FCR in female breast cancer survivors? Objectives: The purpose of this article is to better understand potential interventions to manage FCR when caring for breast cancer survivors."

Our news editors obtained a quote from the research from the University of Texas, "Databases used were PubMed, CINAHL®, Google Scholar, EMBASE, and Scopus. Articles published in English from 2009-2014 with female breast cancer survivors and interventions that address FCR as an endpoint or outcome measure or objectively illustrate an improvement in FCR were included. One hundred ninety-eight articles were initially identified in this literature review search. Upon detailed review of content for relevance, seven articles met criteria to be included in this review. This literature review provided current evidence of published interventions to manage uncertainty in the female breast cancer survivor population, as well as future research recommendations."

According to the news editors, the research concluded: "Interventions surrounding being mindful, managing uncertainty, having more effective patient-provider communication, and handling stress through counseling are options for managing FCR."

For more information on this research see: Interventions to Manage Uncertainty and

The news editors report that additional information may be obtained by contacting G. Dawson, Univ Texas MD Anderson Canc Center, Houston, TX 77030, United States. Additional authors for this research include L.T. Madsen and J.E. Dains.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1188/16.CJON.E155-E161. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Women's Health, Breast Cancer, Oncology, University of Texas.

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**Oncology - Glioblastomas**

**Investigators at University of Texas Report Findings in Glioblastomas (The Cytoskeletal Adapter Protein Spinophilin Regulates Invadopodia Dynamics and Tumor Cell Invasion in Glioblastoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Glioblastomas have been published. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "Glioblastoma is a primary brain cancer that is resistant to all treatment modalities. This resistance is due, in large part, to invasive cancer cells that disperse from the main tumor site, escape surgical resection, and contribute to recurrent secondary lesions."

Our news journalists obtained a quote from the research from the University of Texas, "The adhesion and signaling mechanisms that drive glioblastoma cell invasion remain enigmatic, and as a result there are no effective anti-invasive clinical therapies. Here we have characterized a novel adhesion and signaling pathway comprised of the integrin alpha v beta 8 and its intracellular binding partner, Spinophilin (Spn), which regulates glioblastoma cell invasion in the brain microenvironment. We show for the first time that Spn binds directly to the cytoplasmic domain of beta 8 integrin in glioblastoma cells. Genetically targeting Spn leads to enhanced invasive cell growth in preclinical models of glioblastoma. Spn regulates glioblastoma cell invasion by modulating the formation and dissolution of invadopodia. Spn-regulated invadopodia dynamics are dependent, in part, on proper spatiotemporal activation of the Rac1 GTPase. Glioblastoma cells that lack Spn showed diminished Rac1 activities, increased numbers of invadopodia, and enhanced extracellular matrix degradation. Collectively, these data identify Spn as a critical adhesion and signaling protein that is essential for modulating glioblastoma cell invasion in the brain microenvironment."

According to the news editors, the research concluded: "Tumor cell invasion is a major clinical obstacle in glioblastoma and this study identifies a new signaling pathway regulated by Spinophilin in invasive glioblastoma."

The news correspondents report that additional information may be obtained from J.H. McCarty, Univ Texas MD Anderson Canc Center, Houston, TX 77030, United States. Additional authors for this research include N.G. Avci, P.A. Guerrero, L.K. Tang, J. Popp, J.E. Morales, Z.H. Chen, A. Carnero, F.F. Lang, B.A. Ballif, G.M. Rivera and J.H. McCarty.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1541-7786.MCR-16-0251. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Glioblastomas, Oncology, Genetics, University of Texas.

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**Hearing Diseases and Conditions - Tinnitus**

**Investigators at University of Texas Report Findings in Tinnitus (Acute high-intensity noise induces rapid Arc protein expression but fails to rapidly change GAD expression in amygdala and hippocampus of rats: Effects of treatment with ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hearing Diseases and Conditions - Tinnitus have been published. According to news reporting out of Richardson, Texas, by NewsRx editors, research stated, "Tinnitus is a devastating auditory disorder impacting a growing number of people each year. The aims of the current experiment were to assess neuronal mechanisms involved in the initial plasticity after traumatic noise exposure that could contribute to the emergence of tinnitus and to test a potential pharmacological treatment to alter this early neural plasticity."

Financial support for this research came from American Tinnitus Association.

Our news journalists obtained a quote from the research from the University of Texas, "Specifically, this study addressed rapid effects of acute noise trauma on amygdalo-hippocampal circuitry, characterizing biomarkers of both excitation and inhibition in these limbic regions, and compared them to expression of these same markers in primary auditory cortex shortly after acute noise trauma. To assess excitatory plasticity, activity-regulated cytoskeleton-associated (Arc) protein expression was evaluated in male rats 45 min after bilateral exposure to acute high-intensity noise (16 kHz, 115 dB SPL, for 1 h), sufficient to cause acute cochlear trauma, a common cause of tinnitus in humans and previously shown sufficient to induce tinnitus in rat models of this auditory neuropathology. Western blot analyses confirmed that up regulation of amygdalo-hippocampal Arc expression occurred rapidly post-noise trauma, corroborating several lines of evidence from our own and other laboratories indicating that limbic brain structures, i.e. outside of the classical auditory pathways, exhibit plasticity early in the initiation of tinnitus. Western blot analyses revealed no noise-induced changes in amygdalo-hippocampal expression of glutamate decarboxylase (GAD), the biosynthetic enzyme required for GABAergic inhibition. No changes in either Arc or GAD protein expression were observed in primary auditory cortex in this immediate post-noise exposure period, confirming other reports that auditory cortical plasticity may not occur until
later in the development of tinnitus. As a further control, our experiments compared Arc protein expression between groups exposed to the quiet background of a sound-proof chamber to those exposed not only to the traumatic noise described above, but also to an intermediate, non-traumatic noise level (70 dB SPL) for the same duration in each of these three brain regions. We found that non-traumatic noise did not up-regulate Arc protein expression in these brain regions. To see if changes in Arc expression due to acute traumatic noise exposure were stress-related, we compared circulating serum corticosterone in controls and rats exposed to traumatic noise at the time when changes in Arc were observed, and found no significant differences in this stress hormone in our experimental conditions. Finally, the ability of D-cycloserine (DCS; an NMDA-receptor NR1 partial agonist) to reduce or prevent the noise trauma-related plastic changes in the biomarker, Arc, was tested."

According to the news editors, the research concluded: "D-cycloserine prevented traumatic noise-induced up regulation of Arc protein expression in amygdala but not in hippocampus, suggesting that DCS alone is not fully effective in eliminating regionally-specific early plastic changes after traumatic noise exposure."

For more information on this research see: Acute high-intensity noise induces rapid Arc protein expression but fails to rapidly change GAD expression in amygdala and hippocampus of rats: Effects of treatment with D-cycloserine. Hearing Research. 2016;342 ():69-79. Hearing Research can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Hearing Research - www.journals.elsevier.com/hearing-research/)

Our news journalists report that additional information may be obtained by contacting L.T. Thompson, Univ Texas Dallas, Behav & Brain Sci, Neurosci, Richardson, TX 75080, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.heares.2016.09.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Richardson, Texas, United States, North and Central America, Nervous System Diseases and Conditions, Proteomics, Diagnostics and Screening, Hearing Diseases and Conditions, Ear Diseases and Conditions, Neurologic Manifestations, Streptomyces Derivatives, Antituberculosis Agents, Central Nervous System, Drugs and Therapies, Cycloserine Therapy, Sensation Disorders, Protein Expression, Hearing Disorders, Pharmaceuticals, Brain Research, Prosencephalon, Antiinfectives, Otolaryngology, Limbic System, Telencephalon, Basal Ganglia, Amygdala, Tinnitus, University of Texas.

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"GIDEON (Global Investigation of therapeutic DEcisions in hepatocellular carcinoma and Of its treatment with sorafeNib) is a prospective, observational registry study evaluating the safety of sorafenib and treatment practices in hepatocellular carcinoma patients. This large global database allowed for assessment of the use and tolerability of sorafenib in patients with liver dysfunction."

The news correspondents obtained a quote from the research from the University of Texas Southwestern, "Baseline characteristics and medical/treatment history were collected in patients for whom a decision to treat with sorafenib had been made. Adverse event, dosing, and outcomes data were collected during follow-up. In the overall safety population (n = 3202), 1968 patients (61%) had Child-Pugh A status and 666 (21%) had Child-Pugh B. The majority of Child-Pugh A (72%) and Child-Pugh B (70%) patients received an initial sorafenib dose of 800 mg, consistent with the label, and dose reduction rates were 40% and 29%, respectively. The type and incidence of adverse events were generally consistent across Child-Pugh subgroups. The incidence of drug-related adverse events leading to discontinuation was similar between Child-Pugh A and Child-Pugh B patients (17% and 21%). In the intent-to-treat population (n = 3213), median overall survival (months [95% confidence interval]) was longer in Child-Pugh A patients (13.6 [12.8-14.7]) compared with Child-Pugh B patients (5.2 [4.6-6.3]). In clinical practice, the safety profile of sorafenib appeared to be consistent across Child-Pugh A and Child-Pugh B patients. Findings suggest sorafenib may be safely used in some Child-Pugh B patients and indicate the importance of careful patient evaluation when making treatment decisions. Lay summary: The GIDEON (Global Investigation of therapeutic DEcisions in hepatocellular carcinoma and Of its treatment with sorafeNib) study is a large prospective registry of patients with liver cancer who were treated with sorafenib. The aims were to evaluate the safety and tolerability of sorafenib among those in which the liver was not functioning properly."

According to the news reporters, the research concluded: "The study showed that the safety profile of sorafenib was consistent across patients with preserved liver function and those in which the liver was not functioning properly, and therefore, suggesting that sorafenib may be a valid treatment for some patients with liver impairment."


Our news journalists report that additional information may be obtained by contacting J.A. Marrero, Univ Texas Southwestern Med Center Dallas, Dept. of Internal Med, Div Digest & Liver Dis, Dallas, TX 75390, United States. Additional authors for this research include M. Kudo, A.P. Venook, S.L. Ye, J.P. Bronowicki, X.P. Chen, L. Dagher, J. Furuse, J.F.H. Geschwind, L.L. de Guevara, C. Papandreou, T. Takayama, A.J. Sanyal, S.K. Yoon, K. Nakajima, R. Lehr, S. Heldner and R. Lencioni.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jhep.2016.07.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Tyrosine Kinase Inhibitors, VEGF - VEGFR Inhibitors, Multikinase Inhibitors, Drugs and Therapies, Sorafenib Therapy, VEGFR Inhibitors, Antineoplastics, Liver Cancer, Carcinomas, Oncology, University of Texas Southwestern.

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Investigators at University of Texas Southwestern Medical Center Discuss Findings in Liver Cancer (Predictors of adequate ultrasound quality for hepatocellular carcinoma surveillance in patients with cirrhosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Liver Cancer are discussed in a new report. According to news reporting originating in Dallas, Texas, by NewsRx journalists, research stated, "Abdominal ultrasound fails to detect over one-fourth of hepatocellular carcinoma (HCC) at an early stage in patients with cirrhosis. Identifying patients in whom ultrasound is of inadequate quality can inform interventions to improve surveillance effectiveness."

Funders for this research include Agency for Healthcare Research and Quality, Cancer Prevention and Research Institute of Texas.

The news reporters obtained a quote from the research from the University of Texas Southwestern Medical Center, "To evaluate and identify predictors of ultrasound quality in patients with cirrhosis. We performed a retrospective cohort study among patients who underwent ultrasound examination for a cirrhosis-related indication between April 2015 and October 2015. Three fellowship-trained abdominal radiologists collectively reviewed all ultrasound exams and categorised exam quality as definitely adequate, likely adequate, likely inadequate and definitely inadequate to exclude liver lesions. We performed multivariable logistic regression to determine characteristics associated with inadequate ultrasound quality. Among 941 patients, 191 (20.3%) ultrasounds were inadequate for excluding HCC-134 definitely inadequate and 57 likely inadequate. In multivariable analysis, inadequate quality was associated with male gender (OR 1.68, 95% CI 1.14-2.48), body mass index category (OR 1.67, 95% CI 1.45-1.93), Child-Pugh B or C cirrhosis (OR 1.93, 95% CI 1.32-2.81), alcohol-related cirrhosis (OR 2.11, 95% CI 1.33-3.37), NASH cirrhosis (OR 2.87, 95% CI 1.71-4.80), and in-patient status (OR 1.55, 95% CI 1.01-2.37). Ultrasounds were inadequate in over one-third of patients with Child-Pugh C cirrhosis, BMI >35, or NASH cirrhosis. One in five ultrasounds in patients with cirrhosis are inadequate for exclusion of HCC, which can contribute to surveillance failure."

According to the news reporters, the research concluded: "Alternative surveillance modalities are needed in subgroups prone to inadequate ultrasounds including obese patients, those with Child Pugh B or C cirrhosis, and those with alcohol-or NASH-related cirrhosis."


Our news correspondents report that additional information may be obtained by contacting A.G. Singal, UT Southwestern Med Center, Harold C Simmons Canc Center, Dallas, TX, United States. Additional authors for this research include D.T. Fetzer, T. Yokoo, J.A.
Investigators at University of Tubingen Report Findings in Heparin Therapy (Design of intelligent chitosan/heparin hollow microcapsules for drug delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Heparin Therapy. According to news reporting out of Reutlingen, Germany, by NewsRx editors, research stated, "In this study, a novel strategy has been developed for the assembly of polyelectrolyte multilayer (PEM) on CaCO3 templates in acidic pH solutions, where consecutive polyelectrolyte layers (heparin/poly(allylamine hydrochloride) or heparin/chitosan) were deposited on PEM hollow microcapsules established previously on CaCO3 templates. The PEM build-up, hollow capsule characterization and successful encapsulation of fluorescein 5(6)-isothiocyanate (FITC)-Dextran by coprecipitation with CaCO3 are demonstrated."

Our news journalists obtained a quote from the research from the University of Tubingen, "Improvement by the removal of CaCO3 core was achieved while the depositions. In the course of the release profile, high retardation for encapsulated FITC-Dextran was observed."

According to the news editors, the research concluded: "The combined shell capsules system is a significant trait that has potential use in tailoring functional layer-by-layer capsules as intelligent drug delivery vehicles where the preliminary in vitro tests showed the responsiveness on the enzymes."


Our news journalists report that additional information may be obtained by contacting X. Xiong, University of Tubingen, NMI Nat & Med Sci Inst, Reutlingen, Germany. Additional authors for this research include X. Xiong, Q.G. Zou, P.K. Ouyang, C. Burkhardt and R. Krastev.

Keywords for this news article include: Reutlingen, Germany, Europe, Drug Delivery Systems, Drugs and Therapies, Heparin Therapy, University of Tubingen.
Investigators at University of Turin Release New Data on Prostate Cancer (Retrospective study testing next generation sequencing of selected cancer-associated genes in resected prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to news reporting out of Orbassano, Italy, by NewsRx editors, research stated, "Prostate cancer (PCa) has a highly heterogeneous outcome. Beyond Gleason Score, Prostate Serum Antigen and tumor stage, nowadays there are no biological prognostic factors to discriminate between indolent and aggressive tumors. The most common known genomic alterations are the TMPRSS-ETS translocation and mutations in the PI3K, MAPK pathways and in p53, RB and c-MYC genes. The aim of this retrospective study was to identify by next generation sequencing the most frequent genetic variations (GVs) in localized and locally advanced PCa underwent prostatectomy and to investigate their correlation with clinical-pathological variables and disease progression."

Our news journalists obtained a quote from the research from the University of Turin, "Identified non-synonymous GVs included TP53 p.P72R (78% of tumors), two CSFR1 SNPs, rs2066934 and rs2066933 (70%), KDR p.Q472H (67%), KIT p.M541L (28%), PIK3CA p.I391M (19%), MET p.V378I (10%) and FGFR3 p.F384L/p.F386L (8%). TP53 p.P72R, MET p.V378I and CSFR1 SNPs were significantly associated with the HI risk group, TP53 and MET variations with T (>=)T2c. FGFR3 p.F384L/p.F386L was correlated with T (<)T2b. MET p.V378I mutation, detected in 20% of HI risk patients, was associated with early biochemical recurrence. Nucleic acids were obtained from tissue samples of 30 high (HI) and 30 low-intermediate (LM) risk patients, according to D'Amico criteria. Genomic DNA was explored with the Ion_AmpliSeq_Cancer_Hotspot_Panel_v.2 including 50 cancer-associated genes. GVs with allelic frequency (AF) (>)=10%, affecting protein function or previously associated with cancer, were correlated with clinical-pathological variables."

According to the news editors, the research concluded: "Our results confirm a complex mutational profile in PCa, supporting the involvement of TP53, MET, FGFR3, CSF1R GVs in tumor progression and aggressiveness."

For more information on this research see: Retrospective study testing next generation sequencing of selected cancer-associated genes in resected prostate cancer. Oncotarget, 2016;7(12):14394-404.

Our news journalists report that additional information may be obtained by contacting M. Lo Iacono, University of Turin, Dept. of Oncology, Orbassano, Italy. Additional authors for this research include C. Buttigliero, V. Monica, E. Bollito, D. Garrou, S. Cappia, I. Rapa, F. Vignani, V. Bertaglia, C. Fiori, M. Papotti, M. Volante, G.V. Scagliotti, F. Porpiglia and M. Tucci.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7343. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, Genetics, Oncology, Orbassano, Prostate Cancer, Prostatic Neoplasms.

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Investigators at University of Washington Have Reported New Data on Regenerative Medicine (Silent IL2RG Gene Editing in Human Pluripotent Stem Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biomedical Engineering - Regenerative Medicine is now available. According to news reporting originating from Seattle, Washington, by NewsRx correspondents, research stated, "Many applications of pluripotent stem cells (PSCs) require efficient editing of silent chromosomal genes. Here, we show that a major limitation in isolating edited clones is silencing of the selectable marker cassette after homologous recombination and that this can be overcome by using a ubiquitous chromatin opening element (UCOE) promoter-driven transgene."

Our news editors obtained a quote from the research from the University of Washington, "We use this strategy to edit the silent IL2RG locus in human PSCs with a recombinant adeno-associated virus (rAAV)-targeting vector in the absence of potentially genotoxic, site-specific nucleases and show that IL2RG is required for natural killer and T-cell differentiation of human PSCs. Insertion of an active UCOE promoter into a silent locus altered the histone modification and cytosine methylation pattern of surrounding chromatin, but these changes resolved when the UCOE promoter was removed."

According to the news editors, the research concluded: "This same approach could be used to correct IL2RG mutations in X-linked severe combined immunodeficiency patient-derived induced PSCs (iPSCs), to prevent graft versus host disease in regenerative medicine applications, or to edit other silent genes."

For more information on this research see: Silent IL2RG Gene Editing in Human Pluripotent Stem Cells. Molecular Therapy, 2015;24(3):582-91. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

The news editors report that additional information may be obtained by contacting L.B. Li, Dept. of Medicine, University of Washington, Seattle, Washington, United States. Additional authors for this research include C. Ma, G. Awong, M. Kennedy, G. Gornalusse, G. Keller, D.S. Kaufman and D.W Russell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2015.190. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Biomedical Engineering, Biomedicine, Seattle, Genetics, Washington, United States, Bioengineering, Stem Cell Research, Regenerative Medicine, Pluripotent Stem Cells, North and Central America.

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Health and Medicine - Addiction Research

Investigators at University of Wisconsin School of Medicine and Public Health Release New Data on Addiction Research (Identifying effective intervention components for smoking cessation: a factorial screening experiment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Health and Medicine - Addiction Research are discussed in a new report. According to news reporting originating from Madison, Wisconsin, by NewsRx correspondents, research stated, "To identify promising intervention components intended to help smokers to attain and maintain abstinence in their quit smoking attempts. A fully crossed, six-factor randomized fractional factorial experiment."

Our news editors obtained a quote from the research from the University of Wisconsin School of Medicine and Public Health, "Eleven primary care clinics in southern Wisconsin, USA. A total of 637 adult smokers (55% women, 88% white) motivated to quit smoking who visited primary care clinics. Six intervention components designed to prepare smokers to quit, and achieve and maintain abstinence (i.e. for the preparation, cessation and maintenance phases of smoking treatment): (1) preparation nicotine patch versus none; (2) preparation nicotine gum versus none; (3) preparation counseling versus none; (4) intensive cessation in-person counseling versus minimal; (5) intensive cessation telephone counseling versus minimal; and (6) 16 versus 8 weeks of combination nicotine replacement therapy (nicotine patch + nicotine gum). Seven-day self-reported point-prevalence abstinence at 16 weeks. Preparation counseling significantly improved week 16 abstinence rates (p=.04), while both forms of preparation nicotine replacement therapy interacted synergistically with intensive cessation in-person counseling (p <0.05). Conversely, intensive cessation phone counseling and intensive cessation in-person counseling interacted antagonistically (p <0.05)-these components produced higher abstinence rates by themselves than in combination."

According to the news editors, the research concluded: "Preparation counseling and the combination of intensive cessation in-person counseling with preparation nicotine gum or patch are promising intervention components for smoking and should be evaluated as an integrated treatment package."


The news editors report that additional information may be obtained by contacting M.E. Piper, Center for Tobacco Research and Intervention, University of Wisconsin School of Medicine and Public Health, Madison, WI, United States. Additional authors for this research include M.C. Fiore, S.S. Smith, D. Fraser, D.M. Bolt, L.M. Collins, R. Mermelstein, T.R. Schlam, J.W. Cook, D.E. Jorenby, W.Y. Loh and T.B Baker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/add.13162. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Addiction is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.
Cardiovascular Diseases and Conditions -…

Investigators at University of Yaounde Discuss Findings in Hypertension (Distribution and patterning of noncommunicable disease risk factors in indigenous Mbororo and non-autochthonous populations in Cameroon: cross sectional study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Hypertension. According to news reporting from Yaounde, Cameroon, by NewsRx journalists, research stated, "Data on Non-Communicable Diseases (NCDs) among indigenous populations are needed for interventions to improve health care. We conducted a survey in 2013 among rural indigenous Mbororo, Fulbe and other ethnic groups to determine the distribution of risk factors of NCDs in Cameroon."

The news correspondents obtained a quote from the research from the University of Yaounde, "We selected seven targets of NCD risk factors: tobacco use, alcohol use, diet (salt/sugar intake, vegetable/fruit consumption), raised blood pressure, raised blood glucose, physical inactivity and weight measures. The WHO STEPwise approach was used to collect data from 1921 consenting participants aged >= 20 years. Prevalence of NCD risk factors was summarised by descriptive statistics. Underweight was widespread, Mbororo (50.8%) and Fulbe (37.2%). Increase in prevalence of six risk factors was observed among the Fulbe when compared to Mbororo. Participants aged 20-39 years had low levels of physical activity, poor diet and higher levels of alcohol consumption (except Mbororo) and those aged >= 40 years had higher prevalence of diabetes, hypertension, current smoking and overweight/obesity. Men and women differed in current smoking, occasional/daily alcohol consumption, pre-hypertension and hypertension, continuous walking for at least ten minutes, and weight measures for Fulbe and Mbororo, p< 0.05. Distribution of NCD risk factors was high among settled Fulani (Fulbe) when compared to indigenous nomadic Fulani (Mbororo). Change from nomadic to settled life might be accompanied by higher prevalence of NCDs."

According to the news reporters, the research concluded: "This data should be used to develop intervention programmes to curb the rising burden of NCDs in rural indigenous and non-indigenous populations."


Our news journalists report that additional information may be obtained by contacting N.C. Kufe, Univ Yaounde I, Fac Med & Biomed Sci, Dept. of Med & Special, Hlth Populat Transit HoPiT Res Grp, Yaounde, Cameroon. Additional authors for this research include G. Ngufor, G. Mbeh and J.C. Mbanya.
Investigators at Veterans Affairs Medical Center Describe Findings in Pneumonia (Evaluation of a protocol to optimize duration of pneumonia therapy at hospital discharge)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Pneumonia. According to news originating from Boise, Idaho, by NewsRx correspondents, research stated, "A protocol to optimize the duration of antimicrobial therapy (DAT) for uncomplicated pneumonia at hospital discharge was evaluated. This retrospective quasiexperimental study was conducted at Boise Veterans Affairs Medical Center from March 2013 through June 2015."

Our news journalists obtained a quote from the research from Veterans Affairs Medical Center, "Patients were included in the study if they were diagnosed with pneumonia, were hospitalized for more than 24 hours, received antimicrobial treatment within 48 hours of admission, and survived until hospital discharge. The intervention included development of a pneumonia DAT triage algorithm, a process for assessment of the appropriate DAT by pharmacists, and recommendations to providers to limit excessive discharge DATs prescribed. Interrupted time series analysis was performed to determine the mean monthly DAT per patient and the 30-day readmission rate. Of the 707 patients discharged with a diagnosis of pneumonia, 560 met the criteria for study inclusion (366 in the preimplementation group and 194 in the postimplementation group). Change in slope of monthly mean DAT per patient postimplementation was significantly reduced (p = 0.03) from the preimplementation slope (p = 0.95), indicating an association between the intervention and mean DAT per patient. The intervention was not associated with the 30-day readmission rate. The mean S.D. DAT decreased from 9.5 +/- 2.4 days preimplementation to 8.2 +/- 2.9 days postimplementation, primarily due to the reduction of outpatient DAT from 5.2 +/- 3.0 days preimplementation to 4.2 +/- 3.0 days postimplementation."

According to the news editors, the research concluded: "A pharmacy-based triage algorithm helped to reduce excessive DATs for patients with pneumonia at hospital discharge without negatively affecting 30-day readmission rates."

For more information on this research see: Evaluation of a protocol to optimize duration of pneumonia therapy at hospital discharge. American Journal of Health-System Pharmacy, 2016;73(24):2043-2054. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

The news correspondents report that additional information may be obtained from K. Madaras-Kelly, Vet Affairs Med Center, Boise, ID 83702, United States. Additional authors for this research include K. Crane, M. Wilkin, J. Bohan, R. Remington and K. Madaras-Kelly. The direct object identifier (DOI) for that additional information is:
Investigators at Wake Forest University Discuss Findings in Central Nervous System Depressants ($1.8 Million and counting: how volatile agent education has decreased our spending $1000 per day)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Central Nervous System Depressants are discussed in a new report. According to news originating from Winston Salem, North Carolina, by NewsRx correspondents, research stated, "Study Objective: Volatile anesthetic agents comprise a substantial portion of every hospital's pharmacy budget. Challenged with an initiative to lower anesthetic drug expenditures, we developed an education based intervention focused on reducing volatile anesthetic costs while preserving access to all available volatile anesthetics."

Our news journalists obtained a quote from the research from Wake Forest University, "When postintervention evaluation demonstrated a dramatic year-over-year reduction in volatile agent acquisition costs, we undertook a retrospective analysis of volatile anesthetic purchasing data using time series analysis to determine the impact of our educational initiative. We obtained detailed volatile anesthetic purchasing data from the Central Supply of Wake Forest Baptist Health from 2007 to 2014 and integrated these data with the time course of our educational intervention. Aggregate volatile anesthetic purchasing data were analyzed for 7 consecutive fiscal years. The educational initiative emphasized tissue partition coefficients of volatile anesthetics in adipose tissue and muscle and their impact on case management. We used an interrupted time series analysis of monthly cost per unit data using autoregressive integrated moving average modeling, with the monthly cost per unit being the amount spent per bottle of anesthetic agent per month. The cost per unit decreased significantly after the intervention (t = -6.73, P< .001). The autoregressive integrated moving average model predicted that the average cost per unit decreased $48 after the intervention, with 95% confidence interval of $34 to $62. As evident from the data, the purchasing of desflurane and sevoflurane decreased, whereas that of isoflurane increased. An educational initiative focused solely on the selection of volatile anesthetic agent per case significantly reduced volatile anesthetic expense at a tertiary medical center. This approach appears promising for application in other hospitals in the rapidly evolving, value-added health care environment."

According to the news editors, the research concluded: "We were able to accomplish this with instruction on tissue partition coefficients and each agent's individual cost per MAC-hour delivered."

For more information on this research see: $1.8 Million and counting: how volatile agent education has decreased our spending $1000 per day. *Journal of Clinical Anesthesia*, 2016;35():253-258. *Journal of Clinical Anesthesia* can be contacted at: Elsevier Science Inc,
Women's Health - Obstetrics and Gynecology

Investigators at Washington University Report Findings in Obstetrics and Gynecology (Adult Comorbidity Evaluation 27 score as a predictor of survival in endometrial cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Women's Health - Obstetrics and Gynecology have been published. According to news reporting from St. Louis, Missouri, by NewsRx journalists, research stated, "The incidence of endometrial cancer increases with age and is associated with medical comorbidities such as obesity and diabetes. Although a few cohort studies of <500 patients showed an association between comorbidity and survival in patients with endometrial cancer, the degree of association must be better described."

The news correspondents obtained a quote from the research from Washington University, "The Adult Comorbidity Evaluation 27 is a validated comorbidity instrument that provides a score of 0-3 based on the number of and severity of medical comorbidities. This study was performed to explore the association between medical comorbidities and survival of patients with endometrial cancer. Patients who were diagnosed with endometrial cancer from 2000-2012 were identified from the prospectively maintained Siteman Cancer Center tumor registry. Patients who underwent primary surgical treatment for endometrioid, serous, and clear cell endometrial carcinoma were included. Patients who primarily were treated with radiation, chemotherapy, or hormone therapy were excluded. Patients with uterine sarcomas or neuroendocrine tumors were excluded. Patients with missing Adult Comorbidity Evaluation 27 scores were also excluded from analysis. Information that included patient demographics, Adult Comorbidity Evaluation 27 score, tumor characteristics, adjuvant treatment, and survival data were extracted from the database. The association of Adult Comorbidity Evaluation 27 and overall and recurrence-free survival was explored in a multivariable Cox regression analysis after being controlled for variables that have been found to be associated significantly with survival in univariable analysis. A total of 2073 patients with a median age of 61 years (range, 20-94 years) at diagnosis were identified. The Adult Comorbidity Evaluation 27 score was 0, 1, 2, and 3 in 22%, 38%, 28%, and 12% of patients, respectively. Stage distribution was I (73%), II (5%), III (15%), and IV (7%), and grade distribution was 1 (52%), 2 (23%), and 3 (25%). Most
patients had endometrioid histologic condition (87%) followed by serous (11%) and clear cell (3%) endometrial carcinoma. The median overall survival time for the entire cohort was 54 months (95% confidence interval, 3-154 months), and the median recurrence-free survival was 50 months (95% confidence interval, 2-154 months). On univariable analysis, age, race, marital status, stage, grade, histologic condition, and treatment type were associated significantly with overall survival and recurrence-free survival. After adjustment for these covariates, patients with an Adult Comorbidity Evaluation 27 score of 2 had a 52% higher risk of death (95% confidence interval, 1.16-2.00); patients with an Adult Comorbidity Evaluation 27 score of 3 had a 2.35-fold increased risk of death (95% confidence interval, 1.73-3.21) compared with patients with an Adult Comorbidity Evaluation 27 score of 0. Similarly, patients with an Adult Comorbidity Evaluation 27 score of 2 had a 38% higher risk of recurrence (95% confidence interval, 1.07-1.78); patients with Adult Comorbidity Evaluation 27 score of 3 had a 2.05-fold increased risk of recurrence (95% confidence interval, 1.53-2.75) compared with patients with an Adult Comorbidity Evaluation 27 score of 0. We found no interaction between Adult Comorbidity Evaluation 27 score and age, stage, or treatment type.

According to the news reporters, the research concluded: "Our findings demonstrate the importance of comorbidities in the estimation of the prognosis of patients with endometrial cancer, even after adjustment for age and known tumor-specific prognostic factors such as stage, grade, histologic condition, and adjuvant treatment."


Our news journalists report that additional information may be obtained by contacting P.S. Binder, Washington University, Sch Med, Dept. of Obstet & Gynecol, Div Gynecol Oncol, St Louis, MO 63110, United States. Additional authors for this research include J.F. Peipert, D. Kallogjeri, R.A. Brooks, L.S. Massad, D.G. Mutch, M.A. Powell, P.H. Thaker and C.K. McCourt.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Obstetrics and Gynecology, Women's Health, Cancer, Risk and Prevention, Epidemiology, Oncology, Washington University.

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Epidemiology

Investigators at Wayne State University Discuss Findings in Epidemiology (High-throughput allele-specific expression across 250 environmental conditions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Epidemiology. According to news reporting from Detroit, Michigan, by NewsRx journalists, research stated, "Gene-by-environment (GxE) interactions determine common disease risk factors and biomedically relevant complex traits. However, quantifying how the environment modulates genetic effects
on human quantitative phenotypes presents unique challenges."

Funders for this research include National Institute of General Medical Sciences, American Heart Association.

The news correspondents obtained a quote from the research from Wayne State University, "Environmental covariates are complex and difficult to measure and control at the organismal level, as found in GWAS and epidemiological studies. An alternative approach focuses on the cellular environment using in vitro treatments as a proxy for the organismal environment. These cellular environments simplify the organism-level environmental exposures to provide a tractable influence on subcellular phenotypes, such as gene expression. Expression quantitative trait loci (eQTL) mapping studies identified GxE interactions in response to drug treatment and pathogen exposure. However, eQTL mapping approaches are infeasible for large-scale analysis of multiple cellular environments. Recently, allele-specific expression (ASE) analysis emerged as a powerful tool to identify GxE interactions in gene expression patterns by exploiting naturally occurring environmental exposures. Here we characterized genetic effects on the transcriptional response to 50 treatments in five cell types. We discovered 1455 genes with ASE (FDR <10%) and 215 genes with GxE interactions. We demonstrated a major role for GxE interactions in complex traits. Genes with a transcriptional response to environmental perturbations showed sevenfold higher odds of being found in GWAS. Additionally, 105 genes that indicated GxE interactions (49%) were identified by GWAS as associated with complex traits. Examples include GIPR caffeine interaction and obesity and include LAMP3-selenium interaction and Parkinson disease."

According to the news reporters, the research concluded: "Our results demonstrate that comprehensive catalogs of GxE interactions are indispensable to thoroughly annotate genes and bridge epidemiological and genome-wide association studies."


Our news journalists report that additional information may be obtained by contacting R. Pique-Regi, Wayne State University, Dept. of Obstet & Gynecol, Detroit, MI 48201, United States. Additional authors for this research include A.L. Richards, D. Kurtz, C.A. Kalita, G.O. Davis, C.T. Harvey, A. Alazizi, D. Watza, Y. Sorokin, N. Hauff, X. Zhou, X.Q. Wen, R. Pique-Regi and F. Luca.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1101/gr.209759.116. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Epidemiology, Risk and Prevention, Genetics, Wayne State University.

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**Heart Disorders and Diseases - Heart Failure**

**Investigators at Wayne State University Report Findings in Heart Failure (Results of a Hospital-Based Palliative Care Intervention for Patients With an Acute Exacerbation of Chronic Heart Failure)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Failure is the subject of a report. According to news reporting out of Detroit, Michigan, by NewsRx editors, research stated, "Palliative interventions are an important part of advanced heart failure (HF) care. However, these interventions are historically underutilized, particularly by African Americans."

Our news journalists obtained a quote from the research from Wayne State University, "We performed a prospective randomized intervention trial in patients with advanced HF who were hospitalized for acute decompensation at 3 urban hospitals, comparing the effect of palliative care consultation (PCC) with that of usual care. The primary end point was the proportion choosing comfort-oriented care (hospice and/or 'do not resuscitate' [DNR] order) 3-6 months after randomization. A total of 85 patients (mean age 68 years, 91.8% African American) were enrolled over a 2-year period. Four of the 43 patients (9.3%) randomized to the PCC group chose comfort-oriented care versus 0 of the 42 control group members (risk difference = 9.3%; 95% confidence interval = -11.8% to 30.0%). In this predominantly African-American cohort of hospitalized patients with advanced HF, PCC did not lead to a greater likelihood of comfort care election compared with usual care."

According to the news editors, the research concluded: "More robust palliative interventions should be developed to meet the needs of diverse groups of patients with HF."

For more information on this research see: Results of a Hospital-Based Palliative Care Intervention for Patients With an Acute Exacerbation of Chronic Heart Failure. *Journal of Cardiac Failure*, 2016;22Q(12):1033-1036. *Journal of Cardiac Failure* can be contacted at: Churchill Livingstone Inc Medical Publishers, Curtis Center, Independence Square West, Philadelphia, PA 19106-3399, USA. (Elsevier - www.elsevier.com; Journal of Cardiac Failure - www.journals.elsevier.com/journal-of-cardiac-failure/)

Our news journalists report that additional information may be obtained by contacting F.P. Hopp, Wayne State University, Sch Social Work, Detroit, MI, United States. Additional authors for this research include R.J. Zalenski, D. Waselewsky, J. Burn, J. Camp, R.D. Welch and P. Levy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cardfail.2016.04.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Cardiovascular Diseases and Conditions, Palliative and Supportive Care, Heart Disorders and Diseases, Chronic Heart Failure, Heart Disease, Heart Attack, Cardiology, Wayne State University.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Investigators at Weizmann Institute of Science Detail Findings in HIV/AIDS [Heat Shock Protein 90 Facilitates Latent HIV Reactivation through Maintaining the Function of Positive Transcriptional Elongation Factor b (p-TEFb) under Proteasome ...]**
Research findings on Immune System Diseases and Conditions - HIV/AIDS are discussed in a new report. According to news originating from Rehovot, Israel, by NewsRx correspondents, research stated, "The persistence of HIV in resting memory CD4(+) T cells at a latent state is considered as the major barrier on the path to achieve a cure for HIV. Proteasome inhibitors (PIs) were previously reported as latency reversing agents (LRAs) but the mechanism underlying this function is yet unclear."

Financial supporters for this research include National Natural Science Foundation of China, National S&T Key Foundation, Natural Science Foundation of Guangdong Province.

Our news journalists obtained a quote from the research from the Weizmann Institute of Science, "Here we demonstrate that PIs reactivate latent HIV ex vivo without global T cell activation, and may facilitate host innate immune responses. Mechanistically, latent HIV reactivation induced by PIs is mediated by heat shock factor 1 (HSF1) via the recruitment of the heat shock protein (HSP) 90-positive transcriptional elongation factor b (p-TEFb) complex. Specifically, HSP90 downstream HSF1 gives positive feedback to the reactivation process through binding to cyclin-dependent kinase 9 (CDK9) and preventing it from undergoing degradation by the proteasome. Overall, these findings suggest proteasome inhibitors as potential latency reversing agents."

According to the news editors, the research concluded: "In addition, HSF1/HSP90 involved in HIV transcription elongation, may serve as therapeutic targets in HIV eradication."


The news correspondents report that additional information may be obtained from Y. Shai, Weizmann Inst Sci, Dept. of Biochem, IL-76100 Rehovot, Israel. Additional authors for this research include W. Zhao, C.Y. Wang, J. Lin, X.Y. Zeng, R.X. Ren, K. Wang, T.R. Xun, Y. Shai and S.W. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.743906. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rehovot, Israel, Asia, Viral Sexually Transmitted Diseases and Conditions, Positive Transcriptional Elongation Factor B, Immune System Diseases and Conditions, Transcriptional Elongation Factors, Protein-Serine-Threonine Kinases, Transcription Factors, Enzymes and Coenzymes, Molecular Chaperones, Primate Lentiviruses, Phosphotransferases, Heat-Shock Proteins, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Genetics, Weizmann Institute of Science.

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Adenocarcinomas

Investigators at West China Hospital Target Adenocarcinomas
(Diagnostic value of thyroid transcription factor-1 for pleural or other serous metastases of pulmonary adenocarcinoma: a meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Adenocarcinomas have been published. According to news originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "The role of thyroid transcription factor 1 (TTF-1) in the diagnosis of metastatic pulmonary adenocarcinomas in pleural, pericardial, and peritoneal effusions has not been defined. This study aimed to assess the overall diagnostic accuracy of TTF-1 for metastatic pulmonary adenocarcinomas in pleural or other effusions."

Our news journalists obtained a quote from the research from West China Hospital, "Literature search was conducted in PubMed, EMBASE, and other databases to find eligible publications. Quality was assessed according to standardized QUADAS-2 criteria. Sensitivity, specificity, positive/negative likelihood ratio (PLR/NLR), and diagnostic odds ratio (DOR) were pooled. Summary receiver operating characteristic (SROC) curves were used to assess overall performance of the TTF-1 assay. A systematic search revealed 20 studies comprising a total of 1,213 subjects in this meta-analysis. The summary estimates were listed as follows: sensitivity, 0.74 (95% CI: 0.69-0.79); specificity, 0.99 (95% CI: 0.97-1.00); PLR, 78.16 (95% CI: 27.15-225.05); NLR, 0.26 (95% CI: 0.22-0.32); and diagnostic odds ratio, 297.75 (95% CI: 104.16-851.19). Estimated positive and negative post-probability values for metastatic pulmonary adenocarcinomas prevalence of 20% were 95% and 6%, respectively. The area under the SROC curve was 0.96. TTF-1 shows significant potential as a diagnostic marker to differentiate metastatic pulmonary from non-pulmonary adenocarcinomas in pleural or other effusions."

According to the news editors, the research concluded: "These results justify larger, more rigorous studies to confirm such a diagnostic role."

For more information on this research see: Diagnostic value of thyroid transcription factor-1 for pleural or other serous metastases of pulmonary adenocarcinoma: a meta-analysis. Scientific Reports, 2016;6():19785. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from Y. Shen, Dept. of Respiratory and Critical Care Medicine, West China Hospital of Sichuan University and Division of Pulmonary Diseases, State Key Laboratory of Biotherapy of China, Chengdu 610041, People's Republic of China. Additional authors for this research include C. Pang, K. Shen, Y. Wu, D. Li, C. Wan, Z. Liao, T. Yang, L. Chen and F. Wen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19785. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chengdu, Genetics, Proteins, Transcription Factors, Diagnostics and Screening, People's Republic of China.

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Investigators at Xiamen University Zero in on Iron-Binding Proteins (Biomineralization-Inspired Synthesis of Copper Sulfide-Ferritin Nanocages as Cancer Theranostics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Carrier Proteins - Iron-Binding Proteins have been published. According to news reporting out of Xiamen, People's Republic of China, by NewsRx editors, research stated, "It is essential to control the size and morphology of nanoparticles strictly in nanomedicine. Protein cages offer significant potential for templated synthesis of inorganic nanoparticles."

Funders for this research include Program for New Century Excellent Talents in University, Ministry of Education of the People's Republic of China, Ministry of Science and Technology of the People's Republic of China, National Institute of Biomedical Imaging and Bioengineering, China Scholarship Council, National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Xiamen University, "In this study, we successfully synthesized ultrasmall copper sulfide (CuS) nanoparticles inside the cavity of ferritin (Fn) nanocages by a biomimetic synthesis method. The uniform CuS-Fn nanocages (CuS-Fn NCs) showed strong near-infrared absorbance and high photothermal conversion efficiency. In quantitative ratiometric photoacoustic imaging (PAI), the CuS-Fn NCs exhibited superior photoacoustic tomography improvements for real-time in vivo PAI of entire tumors. With the incorporation of radionuclide (64)Cu, (64)CuS-Fn NCs also served as an excellent PET imaging agent with higher tumor accumulation compared to free copper. Following the guidance of PAI and PET, CuS-Fn NCs were applied in photothermal therapy to achieve superior cancer therapeutic efficiency with good biocompatibility both in vitro and in vivo."

According to the news editors, the research concluded: "The results demonstrate that the bioinspired multifunctional CuS-Fn NCs have potential as clinically translatable cancer theranostics and could provide a noninvasive, highly sensitive, and quantitative in vivo guiding method for cancer photothermal therapies in experimental and clinical settings."

For more information on this research see: Biomineralization-Inspired Synthesis of Copper Sulfide-Ferritin Nanocages as Cancer Theranostics. Acs Nano, 2016;10(3):3453-60. (American Chemical Society - www.acs.org; Acs Nano - www.pubs.acs.org/journal/ancac3)

Our news journalists report that additional information may be obtained by contacting Z. Wang, State Key Laboratory of Molecular Vaccinology and Molecular Diagnostics & Center for Molecular Imaging and Translational Medicine, School of Public Health, Xiamen University, Xiamen 361102, People's Republic of China. Additional authors for this research include P. Huang, O. Jacobson, Z. Wang, Y. Liu, L. Lin, J. Lin, N. Lu, H. Zhang, R. Tian, G. Niu, G. Liu and X. Chen.

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Keywords for this news article include: Asia, Xiamen, Cancer, Oncology, Ferritins, Nanocages, Nanoparticle, Nanotechnology, Carrier Proteins, Emerging Technologies, Iron Binding Proteins, Iron-Binding Proteins, People's Republic of China.

Our reports deliver fact-based news of research and discoveries from around the
Investigators at Yale University Report Findings in One-Carbon Group Transferases (Methyltransferase-like protein 16 binds the 3′-terminal triple helix of MALAT1 long noncoding RNA)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Enzymes and Coenzymes - One-Carbon Group Transferases are presented in a new report. According to news reporting out of New Haven, Connecticut, by NewsRx editors, research stated, "Metastasis-associated lung adenocarcinoma transcript 1 (MALAT1), a cancer-promoting long noncoding RNA, accumulates in cells by using a 3′-triple-helical RNA stability element for nuclear expression (ENE). The ENE, a stem-loop structure containing a U-rich internal loop, interacts with a downstream A-rich tract (ENE+A) to form a blunt-ended triple helix composed of nine U.A-U triples interrupted by a C.G-C triple and C-G doublet."

Our news journalists obtained a quote from the research from Yale University, "This unique structure prompted us to explore the possibility of protein binding. Native gel-shift assays revealed a shift in radiolabeled MALAT1 ENE+A RNA upon addition of HEK293T cell lysate. Competitive gel-shift assays suggested that protein binding depends not only on the triple-helical structure but also its nucleotide composition. Selection from the lysate using a biotinylated-RNA probe followed by mass spectrometry identified methyltransferase-like protein 16 (METTL16), a putative RNA methyltransferase, as an interacting protein of the MALAT1 ENE+A. Gel-shift assays confirmed the METTL16-MALAT1 ENE+A interaction in vitro: Binding was observed with recombinant METTL16, but diminished in lysate depleted of METTL16, and a supershift was detected after adding anti-METTL16 antibody. Importantly, RNA immunoprecipitation after in vivo UV cross-linking and an in situ proximity ligation assay for RNA-protein interactions confirmed an association between METTL16 and MALAT1 in cells. METTL16 is an abundant (similar to 5 x 10(5) molecules per cell) nuclear protein in HeLa cells."

According to the news editors, the research concluded: "Its identification as a triple-stranded RNA binding protein supports the formation of RNA triple helices inside cells and suggests the existence of a class of triple-stranded RNA binding proteins, which may enable the discovery of additional cellular RNA triple helices."


Our news journalists report that additional information may be obtained by contacting J.A. Brown, Yale University, Sch Med, Howard Hughes Med Inst, Dept. of Mol Biophys & Biochem, New Haven, CT 06536, United States. Additional authors for this research include C.G. Kinzig, S.J. DeGregorio and J.A. Steitz.

Keywords for this news article include: New Haven, Connecticut, United States,
Investigators at Yang Ming National University Describe Findings in Basic-Leucine Zipper Transcription Factors (The SHP2-ERK2 signaling pathway regulates branched I antigen formation by controlling the binding of CCAAT/enhancer binding protein ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Proteins - Basic-Leucine Zipper Transcription Factors. According to news reporting originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Phosphorylation status of the transcription factor CCAAT/enhancer binding protein alpha (C/EBP alpha) has been demonstrated in a human hematopoietic cell model to regulate the formation of branched I antigen by affecting its binding affinity to the promoter region of the IGnTC gene during erythroid and granulocytic differentiation. The K-562 cell line was induced to differentiate into red blood cells (RBCs) or granulocytes by sodium butyrate or retinoic acid, respectively, to study the involvement of three MAP kinase pathways in I antigen synthesis."

Our news editors obtained a quote from the research from Yang Ming National University, "The regulatory effects of the extracellular signal-regulated kinase (ERK) 2-Src homology region 2 domain-containing phosphatase 2 (SHP2) pathway on phosphorylation status and binding affinities of C/EBP alpha as well as the subsequent activation of IGnTC and synthesis of surface I formation were studied in wild-type K-562 cells and in mutant cells that overexpress ERK2 and SHP2. We found that SHP2-ERK2 signaling regulates the phosphorylation status of C/EBP alpha to alter its binding affinity onto the IGnTC promoter region, thereby activating the synthesis of cell surface I antigen formation during erythropoiesis. SHP2-ERK2 signaling acts upstream of C/EBP alpha as a regulator of cell surface I antigen synthesis."

According to the news editors, the research concluded: "Such regulation is specific for RBC but not for granulocyte differentiation."


The news editors report that additional information may be obtained by contacting Y.C. Twu, Yang Ming National University, Dept. of Biotechnol & Lab Sci Med, Taipei 11211, Taiwan. Additional authors for this research include Y.H. Lee, F.L. Chang, H. Ho, C.H. Huang and Y.C. Twu.

Keywords for this news article include: Taipei, Taiwan, Asia, Basic-Leucine Zipper Transcription Factors, CCAAT-Enhancer-Binding Protein-alpha, CCAAT-Enhancer-Binding Proteins, Enzymes and Coenzymes, DNA-Binding Proteins, Nuclear Proteins, Genetics, Kinase, Yang Ming National University.
Investigators at Yang Ming National University Detail Findings in Cardiology (Asymmetric dimethylarginine predicts the risk of contrast-induced acute kidney injury in patients undergoing cardiac catheterization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Decreased nitric oxide (NO) bioavailability and increased oxidative stress may be involved in the pathogenesis of contrast-induced acute kidney injury (CI-AKI). The relationship between asymmetric dimethylarginine (ADMA), an endogenous NO synthase inhibitor, and CI-AKI is unknown."

Our news editors obtained a quote from the research from Yang Ming National University, "We measured plasma ADMA levels in 664 consecutive subjects undergoing cardiac catheterization. Mehran score for predicting the risk of CI-AKI was calculated. After cardiac catheterization, 78 (11.7%) patients experienced CI-AKI (defined as increase of serum creatinine levels of >= 0.3 mg/dl or a 25% increase from baseline value at 48 h after the procedure). The plasma ADMA levels of patients with CI-AKI were significantly higher than those of patients without CI-AKI (0.50 +/- 0.09 μmol/l versus 0.46 +/- 0.10 μmol/l, p< 0.001). The c-statistics of plasma ADMA level and Mehran score for the occurrence of CI-AKI were 0.639 (95% CI: 0.601-0.676, p< 0.001) and 0.615 (95% CI: 0.577-0.652, p = 0.001), respectively. By using a cutpoint of plasma ADMA level of 0.42 μmol/l, the analysis would yield 85.9% sensitivity, 37.0% specificity. Adding the plasma ADMA level to the Mehran score system marginally increases the c-statistic from 0.615 to 0.643 (p = 0.03). Furthermore, in patients developing CI-AKI, those with plasma ADMA levels > 0.42 μmol/l (14 events in 52 patients) tended to have a higher 1-year major adverse event rate than those with plasma ADMA level <= 0.42 μmol/l (2 events in 26 patients) (p = 0.055)."

According to the news editors, the research concluded: "In patients undergoing cardiac catheterization, ADMA might be a novel risk factor of CI-AKI."

For more information on this research see: Asymmetric dimethylarginine predicts the risk of contrast-induced acute kidney injury in patients undergoing cardiac catheterization. *Atherosclerosis*, 2016;254():161-166. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news editors report that additional information may be obtained by contacting T.M. Lu, Yang Ming National University, Sch Med, Taipei, Taiwan. Additional authors for this research include C.P. Hsu, C.F. Chang, C.C. Lin, T.S. Lee, S.J. Lin and W.L. Chan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.10.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Heart Catheterization, Risk and Prevention, Cardiology, Yang Ming National University.
Clinical Research - Clinical Trials and Studies

Investigators at Yonsei University Discuss Findings in Clinical Trials and Studies (A retrospective observational study on the treatment outcomes of 26 patients with spinal cord astrocytoma including two cases of malignant transformation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Clinical Research - Clinical Trials and Studies have been presented. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "To determine the biologic behavior and prognostic factors of spinal cord astrocytoma, we reviewed surgical and clinical outcomes. Due to the rarity of spinal cord astrocytoma, there is a lack of research regarding this type of tumor and malignant transformation."

The news correspondents obtained a quote from the research from Yonsei University, "We retrospectively reviewed the data from all patients on whom we performed spinal cord tumor removal between 1983 and 2014. Twenty-six patients were pathologically confirmed to have spinal cord astrocytoma or glioblastoma. Surgical extent and disease progression were confirmed by the surgeon based on operative findings, postoperative MRI, and outpatient department (OPD) follow-up. Pain or neurological deficit was the chief complaint for all patients. With MRI studies, there is a tendency for high-grade astrocytomas to show as enhanced and heterogeneous images. Two of the low-grade astrocytomas showed malignant transformation over the course of 4 and 11 months, respectively. The overall survival (OS) for low-grade astrocytoma was 28-480 months (mean 156.38 months); the OS for high-grade astrocytoma was 1-36 months (mean 12.00 months). Two of 12 low-grade cases showed malignant transformations at 4 and 11 months, respectively, based on pathological confirmation. With spinal cord astrocytomas, enhanced MRI results appeared similar to those of a malignant lesion. We suggest close observation and image correlation of low-grade astrocytomas, even when pathologically confirmed as low-grade."

According to the news reporters, the research concluded: "In this review, we found that histologic grade is the most important prognostic factor, although it is not always concordant with biologic behaviors."

For more information on this research see: A retrospective observational study on the treatment outcomes of 26 patients with spinal cord astrocytoma including two cases of malignant transformation. European Spine Journal, 2016;25(12):4067-4079. European Spine Journal can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Spine Journal - www.springerlink.com/content/0940-6719/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00586-016-4475-7. This DOI is a link to an online electronic
Investigators at Zhejiang Chinese Medical University Detail Findings in Type 2 Diabetes (Urinary Metabolomic Profiling in Zucker Diabetic Fatty Rats with Type 2 Diabetes Mellitus Treated with Glimepiride, Metformin, and Their Combination)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is the subject of a report. According to news reporting originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "Type 2 diabetes mellitus (T2DM) is a high incidence metabolic disease. Glimepiride, metformin, and their combination are the most commonly used therapeutics for T2DM in the clinic, but little is known about the metabolic responses of these therapies."

Our news editors obtained a quote from the research from Zhejiang Chinese Medical University, "In this study, ultrahigh-pressure liquid chromatography/electrospray ionization quadrupole time-of-flight mass spectrometry (UHPLC/ESI-QTOF-MS)-based metabolomics was applied to detect changes in the urinary metabolomic profile of Zucker diabetic fatty (ZDF) rats in response to these treatments. Additionally, standard biochemical parameters (e.g., fasting plasma glucose, glycosylated hemoglobin, oral glucose tolerance, urinary glucose, triglyceride, total cholesterol, and insulin) and liver histopathology were monitored and observed. Six metabolites, including 3-galactosyl lactose, citric acid, sphingosine, phytosphingosine, ribothymidine, and succinoadenosine, were found significantly reverted to the normal level after these therapies."

According to the news editors, the research concluded: "The present study is the first to present citric acid and sphinganine as the potential markers of T2DM, which could be used as indicators to observe the anti-diabetic effects of glimepiride, metformin, and their combination treatments."

For more information on this research see: Urinary Metabolomic Profiling in Zucker Diabetic Fatty Rats with Type 2 Diabetes Mellitus Treated with Glimepiride, Metformin, and Their Combination. *Molecules*, 2016;21(11):447-458. *Molecules* can be contacted at: MdpiaG, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

The news editors report that additional information may be obtained by contacting Y. Dong, Zhejiang Chinese Med Univ, Coll Pharmaceut Sci, Hangzhou 310053, Zhejiang, People's Republic of China. Additional authors for this research include Y.T. Chen, Y.X. Yang, D. Shou and C.Y. Li.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Glucose Metabolism Disorders, Drugs...
Investigators from Aarhus University Have Reported New Data on Neurodegenerative Diseases and Conditions (Current status of treating neurodegenerative disease with induced pluripotent stem cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions have been published. According to news originating from Tjele, Denmark, by NewsRx correspondents, research stated, "Degenerative diseases of the brain have proven challenging to treat, let alone cure. One of the treatment options is the use of stem cell therapy, which has been under investigation for several years."

Our news journalists obtained a quote from the research from Aarhus University, "However, treatment with stem cells comes with a number of drawbacks, for instance the source of these cells. Currently, a number of options are tested to produce stem cells, although the main issues of quantity and ethics remain for most of them. Over recent years, the potential of induced pluripotent stem cells (iPSCs) has been widely investigated and these cells seem promising for production of numerous different tissues both in vitro and in vivo. One of the major advantages of iPSCs is that they can be made autologous and can provide a sufficient quantity of cells by culturing, making the use of other stem cell sources unnecessary. As the first descriptions of iPSC production with the transcription factors Sox2, Klf4, Oct4 and C-Myc, called the Yamanaka factors, a variety of methods has been developed to convert somatic cells from all germ layers to pluripotent stem cells. Improvement of these methods is necessary to increase the efficiency of reprogramming, the quality of pluripotency and the safety of these cells before use in human trials."

According to the news editors, the research concluded: "This review focusses on the current accomplishments and remaining challenges in the production and use of iPSCs for treatment of neurodegenerative diseases of the brain such as Alzheimer's disease and Parkinson's disease."


The news correspondents report that additional information may be obtained from A.E. Pen, Aarhus University, Dept. of Mol Biol & Genet, DK-8830 Tjele, Denmark.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ane.12545. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tjele, Denmark, Europe, Neurodegenerative Diseases and Conditions, Stem Cell Research, Article Review, Induced Pluripotent Stem
Oncology - Pancreatic Cancer

Investigators from Academy of Military Medical Sciences Release New Data on Pancreatic Cancer (Numb/Notch signaling pathway modulation enhances human pancreatic cancer cell radiosensitivity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Pancreatic Cancer are discussed in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "The present study aims to evaluate whether repression of the Numb/Notch signaling pathway affects the radiosensitivity of human pancreatic cancer cell lines. Different doses of X-rays (0, 2, 3, 4, and 5 Gy) were applied to the PANC-1, SW1990, and MIA PaCa-2 human pancreatic cancer cell lines, and the Numb/Notch pathway inhibitor DAPT was added at different doses (0, 1, 3, and 5 mu mol/l)."

Financial support for this research came from Beijing Municipal Science and Technology Commission.

The news correspondents obtained a quote from the research from the Academy of Military Medical Sciences, "MTT assay, colony formation assay, flow cytometry, scratch assay, and Transwell experiments were performed, and qRT-PCR and Western blot were conducted for the detection of Numb expression. Tumorigenicity assay in nude mice was carried out to verify the influence of blocker of the Numb/Notch signaling pathway on the radiosensitivity of xenograft tumors. The MTT assay, colony formation assay and flow cytometry experiments revealed that proliferation decreased as radiation dose increased. The viability of PANC-1 cells at 5 Gy, SW 1990 cells at 4 Gy and 5 Gy, and MIA PaCa-2 cells at 2-5 Gy was significantly lower than that of non-irradiated cells (all P< 0.05). The migration and invasion assays indicated that the PANC-1 cell line was least radiosensitive, while the MIA PaCa-2 cell line was the most radiosensitive. Numb expression significantly increased with increasing radiation dose, whereas the expression of Hes1, Notch1, and Hes5 significantly decreased compared to non-irradiated cells (P < 0.05). Compared to untreated control cells, DAPT dose dependently increased Numb expression and inhibited Notch1, Hes1, and Hes5 expressions at 2 Gy (P < 0.05). Subcutaneous tumorigenicity assay in nude mice demonstrated that DAPT increased the radiosensitivity of PANC-1, SW 1990, and MIA PaCa-2 cells."

According to the news reporters, the research concluded: "These findings suggest that Numb/Notch signaling in pancreatic cancer cells is associated with X-ray radiation and that inhibition of the Numb/Notch signaling pathway can enhance radiosensitivity, suggesting that inhibition of the Numb/Notch signaling pathway may serve as a potential target for clinical improvement of the radiosensitivity of pancreatic cancer."


Our news journalists report that additional information may be obtained by
Personalized Medicine

Investigators from Aetna Release New Data on Personalized Medicine (Payer view of personalized medicine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Personalized Medicine. According to news reporting out of Hartford, Connecticut, by NewsRx editors, the research stated, "The process and methods used by payers when evaluating coverage of personalized medicine testing are described. Personalized medicine encompasses a number of diagnostic tools that measure drug metabolism, genetic risk for disease development, and tumor type or markers that can guide oncology treatments."

Our news journalists obtained a quote from the research from Aetna, "However, whole genome testing, tumor marker testing, and testing for drug metabolism are additional costs to the healthcare system. In order to justify these costs, payers and health technology assessment bodies must evaluate the individual tests or groups of tests on their own merits. In order for a test to be covered by payers, test developers must demonstrate clinical utility as measured by improved outcomes or well-informed decision-making. In the United States, payers generally focus on clinical benefit to individual patients and benefits to the healthcare system. Clinical benefits include improved outcomes. Benefits to the healthcare system are generally considered to be cost offsets, which may be due to reductions in the use of unnecessary interventions or to more efficient use of resources. Provider organizations have been assuming more responsibility and liability for healthcare costs through various risk arrangements, including accountable care organizations and patient-centered medical homes. Diagnostic tests that increase efficiency, reduce unnecessary interventions, and improve outcomes will be chosen by specialists in provider organizations."

According to the news editors, the research concluded: "For personalized medicine approaches to be adopted and covered by health plans, the methods must be shown to be analytically and clinically valid and provide clinical utility at a reasonable level of cost-effectiveness to payers."

For more information on this research see: Payer view of personalized medicine. American Journal of Health-System Pharmacy, 2016;73(23):2007-2012. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting Y. Liu, Academy Military Med Sci, Hosp PLA 307, Dept. of Gastroenterol, Beijing 100071, People's Republic of China. Additional authors for this research include M. Min, W. Shen and Y. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5311-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Pancreatic Neoplasms, Pancreatic Cancer, Gastroenterology, Cytometry, Oncology, Pancreas, Academy of Military Medical Sciences.

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contacting E.J. Pezalla, Aetna, Hartford, CT 06105, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp160038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hartford, Connecticut, United States, North and Central America, Personalized Medicine, Risk and Prevention, Aetna.

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Lipoproteins

Investigators from Aix-Marseille University Zero in on Lipoproteins (A Combination of Single-Nucleotide Polymorphisms Is Associated with Interindividual Variability in Cholecalciferol Bioavailability in Healthy Men)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lipoproteins is now available. According to news reporting originating in Marseille, France, by NewsRx journalists, research stated, "Most people require dietary vitamin D to achieve the recommended concentration of 25-hydroxyvitamin D [25(OH)D] in the blood. However, the response to vitamin D supplementation is highly variable among individuals."

The news reporters obtained a quote from the research from Aix-Marseille University, "We assessed whether the variability in cholecalciferol bioavailability was associated with single-nucleotide polymorphisms (SNPs) in candidate genes. In a single-group design, 39 healthy adult men with a mean +/- SD age of 33 +/- 2 y and mean +/- SD body mass index lid kg/m(2)) of 22.9 +/- 0.3 were genotyped with the use of whole-genome microarrays. After an overnight fast, plasma 25(OH)D status was measured, and the subjects then consumed a meal that provided 5 mg cholecalciferol as a supplement. Plasma chylomicron cholecalciferol concentration was measured over 8 h, and cholecalciferol response was assessed by calculating the postprandial area under the curve. Partial least squares regression was used to test the association of SNPs in or near candidate genes (61 genes representing 3791 SNPs) with the postprandial cholecalciferol response. The postprandial chylomicron cholecalciferol concentration peaked at 5.4 h. The cholecalciferol response was extremely variable among individuals (CV: 47%). It correlated with the chylomicron triglyceride (TG) response (r = 0.60; P< 0.001) but not with the fasting plasma 25(OH)D concentration (r = 0.04; P = 0.83). A significant (P = 1.32 x 10(-4)) partial least squares regression model that included 17 SNPs in 13 genes (including 5 that have been associated with chylomicron TG response) was associated with the variance in the cholecalciferol response. In healthy men, there is a high interindividual variability in cholecalciferol bioavailability that is associated with a combination of SNPs located in or near genes involved in both vitamin D and lipid metabolism."

According to the news reporters, the research concluded: "This trial was registered at clinicaltrials.gov as NCT02100774."

Blood Diseases and Conditions - Sepsis

Investigators from Alice Springs Hospital Report New Data on Sepsis (Total and unbound ceftriaxone pharmacokinetics in critically ill Australian Indigenous patients with severe sepsis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Diseases and Conditions - Sepsis have been published. According to news reporting originating in Alice Springs, Australia, by NewsRx journalists, research stated, "In the absence of specific data to guide optimal dosing, this study aimed to describe the pharmacokinetics of ceftriaxone in severely septic Australian Indigenous patients and to assess achievement of the pharmacodynamic target of the regimens prescribed. A pharmacokinetic study was conducted in a remote hospital intensive care unit in patients receiving ceftriaxone dosing of 1 g every 12 h (q12h)."

Funders for this research include National Health and Medical Research Council of Australia, Australian Academy of Science's, Alice Springs Specialists' Private Practice Trust Fund, Australian National Health and Medical Research Council Fellowship, Australian National Health and Medical Research Council for Centre of Research Excellence.

The news reporters obtained a quote from the research from Alice Springs Hospital, "Serial blood and urine samples were collected over one dosing interval on two consecutive days. Samples were assayed using a validated chromatography method for total and unbound concentrations. Concentration-time data collected were analysed with a non-compartmental approach. A total of 100 plasma samples were collected from five subjects. Ceftriaxone clearance, volume of distribution at steady-state, elimination half-life and elimination rate constant estimates were 0.9 (0.6-1.5) L/h, 11.2 (7.6-13.4) L, 9.5 (3.2-10.2) h and 0.07 (0.07-0.21) h(-1), respectively. The unbound fraction of ceftriaxone ranged between 14% and 43%, with a higher unbound fraction present at higher total concentrations. The unbound concentrations at 720 min from the initiation of infusion for the first and second dosing intervals were 7.2 (4.8-10.7) mg/L and 7.8 (4.7-12.1) mg/L respectively, which exceeds the minimum inhibitory concentration of all typical target pathogens."

According to the news reporters, the research concluded: "The regimen of ceftriaxone 1 g q12h is adequate for critically ill Australian Indigenous patients with severe
sepsis caused by non-resistant pathogens."


Our news correspondents report that additional information may be obtained by contacting D. Tsai, Alice Springs Hosp, Dept. of Pharm, Alice Springs, NT, Australia. Additional authors for this research include P. Stewart, R. Goud, S. Gourley, S. Hewagama, S. Krishnaswamy, S.C. Wallis, J. Lipman and J.A. Roberts.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.09.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Alice Springs, Australia, Australia and New Zealand, Third Generation Cephalosporins, Blood Diseases and Conditions, Beta-Lactam Antibiotics, Bloodstream Infection, Drugs and Therapies, Pharmacokinetics, Sulfur Compounds, Pharmaceuticals, Antiinfectives, Ceftriaxone, Cefotaxime, Septicemia, Thiazines, Sepsis, Alice Springs Hospital.

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**Oncology - Colon Cancer**

**Investigators from Annamalai University Zero in on Colon Cancer**

*(Biochemical and molecular mechanisms underlying the chemopreventive efficacy of rosmarinic acid in a rat colon cancer)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Colon Cancer is the subject of a report. According to news reporting from Tamil Nadu, India, by NewsRx journalists, research stated, "To shed light on colon cancer chemoprevention, natural phytochemicals attract researchers by virtue of their beneficial biological effects. The chemopreventive potential of rosmarinic acid (RA) was tested by using the colon carcinogen, 1,2-dimethylhydrazine (DMH) by evaluating the Aberrant crypt foci (ACF), tumour incidence, lipid peroxidative byproducts, phase I & II drug metabolizing enzymes, cell proliferative and apoptotic proteins."

The news correspondents obtained a quote from the research from Annamalai University, "Rats were divided into six groups and received modified pellet diet. Group 1 served as control rats, group 2 rats received RA (5 mg/kg b.w. p.o.), rats in groups 3-6 received DMH (20 mg/kg b.w., s.c.) for the first fifteen weeks. In addition to DMH, groups 4-6 received RA at the dose of 5 mg/kg b.w. during initiation, post initiation stages and also for the entire study period. DMH treated rats showed an increase in the development of ACF, tumour formation and multiplicity and decrease in lipid peroxidative byproducts. Moreover, it modulates xenobiotic enzymes and reduces the expressions of proapoptotic proteins; increases expressions of anti apoptotic proteins at the end of the study."

According to the news reporters, the research concluded: "Supplementation with RA to carcinogen treated rats protected them from the above deleterious effects caused by DMH and
thus RA may be used as a potent chemopreventive agent."


Our news journalists report that additional information may be obtained by contacting N. Namasivayam, Annamalai Univ, Fac Sci, Dept. of Biochem & Biotechnol, Annamalainagar 608002, Tamil Nadu, India. Additional authors for this research include S. Gunasekaran and N. Namasivayam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.07.051. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tamil Nadu, India, Asia, Biochemicals, Biochemistry, Colon Cancer, Chemicals, Oncology, Annamalai University.

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**Cystic Fibrosis**

**Investigators from Autonomous University Release New Data on Cystic Fibrosis (The+1858 C/T Polymorphism in the PTPN22 Gene Is Associated with Cystic Fibrosis Patients in Northeast Mexico)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cystic Fibrosis are presented in a new report. According to news reporting originating in Nuevo Leon, Mexico, by NewsRx journalists, research stated, "Cystic fibrosis (CF) is the most common autosomal recessive disease in the Caucasian population, but it has also been widely diagnosed in the Mexican population. Production of viscous secretions affects the secretory epithelia and the respiratory condition usually leads to death."

The news reporters obtained a quote from the research from Autonomous University, "The relationship between the CFTR genotype and the disease phenotype is not well understood. Other risk factors such as genetic and autoimmune influence the development of this disease. We analyzed the PTPN22 R620W polymorphism (+1858 C/T, rs2476601) in 78 DNA samples from CF patients and 232 healthy controls from northeast Mexico using the polymerase chain reaction-restriction fragment length (PCR-RFLP) method. The C allele and the CC genotype were the most frequently detected in controls (CC genotype 96.12%; C allele 98.06%) compared with CF patients (CC genotype 88.46%, C allele 93.59%). A statistically significant association for the CT + TT genotypes (p = 0.012, OR = 3.232) as well as for the mutant T allele (p = 0.005, OR = 3.463) was found when comparing CF patients with controls. A significant association was found between the rs2476601 polymorphism of the PTPN22 gene and CF in Mexican patients."

According to the news reporters, the research concluded: "Further studies are necessary to understand the influence of this variant on lung neutrophil function and disease development."
For more information on this research see: The+1858 C/T Polymorphism in the PTPN22 Gene Is Associated with Cystic Fibrosis Patients in Northeast Mexico. *Archives of Medical Research*, 2016;47(5):403-406. *Archives of Medical Research* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Archives of Medical Research - www.journals.elsevier.com/archives-of-medical-research/)

Our news correspondents report that additional information may be obtained by contacting C.N. Sanchez-Dominguez, Univ Autonoma Nuevo Leon, Dept. of Bioquim & Med Mol, Monterrey, Nuevo Leon, Mexico. Additional authors for this research include E. Bazan-Mendoza, M. Espinoza-Ruiz, R. Ortiz-Lopez, A. Bustamante and C.N. Sanchez-Dominguez.

Keywords for this news article include: Nuevo Leon, Mexico, North and Central America, Lung Diseases and Conditions. Risk and Prevention, Genetics, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Cystic Fibrosis, Autonomous University.

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**Heart Disorders and Diseases - Heart Disease**

**Investigators from Baylor University Zero in on Heart Disease (Causes of Death and Heart Weights in Adults at Necropsy in a Tertiary Texas Hospital, 2013-2015)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Disease have been published. According to news originating from Dallas, Texas, by NewsRx correspondents, research stated, "The causes of death and heart weights at death appear to be quite different in the USA today than in the first few decades of the last century. We determined the causes of death and heart weights at necropsy in 231 adults and compared the heart weights to those reported in several studies in the first half of the 20th century. Of the 231."

Our news journalists obtained a quote from the research from Baylor University, "91 (39%) died of a cardiovascular (CV) condition, and 140 (61%), of a non-CV condition. Of the 91 fatal CV disease cases, 48 had fatal coronary artery disease (CAD); of the remaining 183 cases without fatal CAD, 25 had narrowing >75% of 1 or more major epicardial coronary arteries. Thus, 73 of the 231 (32%) patients at necropsy had severe CAD. Comparison between the fatal CV and fatal non-CV cases disclosed variable age (mean 64 years vs mean 57 years) and heart weight (529 g vs 449 g) to be significantly different. Heart weight was found to be the only significantly variable between men and women. Comparison of the heart weights in this study to those recorded as 'normal' hearts 75 to 115 years earlier showed that today's 'average' heart is much larger than those reported earlier. In contrast to the earlier studies, heart weight presently appears to increase with age and with an increase in body mass index. early studies in heart weight did not take into account today's longer survival and therefore a high prevalence of systemic hypertension, diabetes mellitus, obesity (and cardiac adiposity), and the presence of atherosclerotic CAD."

According to the news editors, the research concluded: "Additionally, the cause of death (CV vs non-CV) was rarely considered in the early studies of heart weight."

For more information on this research see: Causes of Death and Heart Weights in

The news correspondents report that additional information may be obtained from W.C. Roberts, Baylor Univ, Medical Center, Dept. of Internal Med, Dallas, TX 75246, United States. Additional authors for this research include V.S. Won, A. Vasudevan and J.M. Guileyardo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjcard.2016.08.059. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Heart Disorders and Diseases, Coronary Artery Disease, Heart Disease, Cardiology, Baylor University.

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**Chromaffin Cells**

**Investigators from Beijing Institute of Radiation Medicine Zero in on Chromaffin Cells (Ferulic acid prevents LPS-induced up-regulation of PDE4B and stimulates the cAMP/CREB signaling pathway in PC12 cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Chromaffin Cells is now available. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Phosphodiesterase 4 (PDE4) isozymes are involved in different functions, depending on their patterns of distribution in the brain. The PDE4 subtypes are distributed in different inflammatory cells, and appear to be important regulators of inflammatory processes."

Our news journalists obtained a quote from the research from the Beijing Institute of Radiation Medicine, "In this study we examined the effects of ferulic acid (FA), a plant component with strong anti-oxidant and anti-inflammatory activities, on lipopolysaccharide (LPS)-induced up-regulation of phosphodiesterase 4B (PDE4B) in PC12 cells, which in turn regulated cellular cAMP levels and the cAMP/cAMP response element binding protein (CREB) pathway in the cells. PC12 cells were treated with LPS (1 mu g/mL) for 8 h, and the changes of F-actin were detected using laser scanning confocal microscopy. The levels of pro-inflammatory cytokines were measured suing ELISA kits, and PDE4B-specific enzymatic activity was assessed with a PDE4B assay kit. The mRNA levels of PDE4B were analyzed with Q-PCR, and the protein levels of CREB and phosphorylated CREB (pCREB) were determined using immunoblotting. Furthermore, molecular docking was used to identify the interaction between PDE4B2 and FA. Treatment of PC12 cells with LPS induced thick bundles of actin filaments appearing in the F-actin cytoskeleton, which were ameliorated by pretreatment with FA (10-40 mu mol/L) or with a PDE4B inhibitor rolipram (30 mu mol/L). Pretreatment with FA dose-dependently inhibited the LPS-induced production of TNF-alpha and IL-1 beta in PC12 cells. Furthermore, pretreatment with FA dose-dependently attenuated the LPS-induced up-regulation of PDE4 activity in PC12 cells. Moreover, pretreatment with FA decreased LPS-induced up-regulation of the PDE4B mRNA, and reversed LPS-induced down-regulation of CREB and
pCREB in PC12 cells. The molecular docking results revealed electrostatic and hydrophobic interactions between FA and PDE4B2. The beneficial effects of FA in PC12 cells might be conferred through inhibition of LPS-induced up-regulation of PDE4B and stimulation of cAMP/CREB signaling pathway."

According to the news editors, the research concluded: "Therefore, FA may be a potential therapeutic intervention for the treatment of neuroinflammatory diseases such as AD."


The news correspondents report that additional information may be obtained from Y. Gao, Beijing Inst Radiat Med, Beijing 100850, People's Republic of China. Additional authors for this research include Q. Hong, H.L. Tan, C.R. Xiao and Y. Gao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/aps.2016.88. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Enzymes and Coenzymes, Phosphodiesterases, Chromaffin Cells, PC12 Cells, Genetics, Beijing Institute of Radiation Medicine.

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Proteins - Carrier Proteins

Investigators from Beijing Normal University Report New Data on Carrier Proteins (Autotaxin Expression Is Regulated at the Post-transcriptional Level by the RNA-binding Proteins HuR and AUF1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Proteins - Carrier Proteins have been presented. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Autotaxin (ATX) is a key enzyme that converts lysophosphatidylcholine (LPC) into lysophosphatidic acid (LPA), a lysophospholipid mediator that regulates cellular activities through its specific G protein-coupled receptors. The ATX-LPA axis plays an important role in various physiological and pathological processes, especially in inflammation and cancer development."

Financial supporters for this research include National Natural Science Foundation of China, Beijing Normal University, Ministry of Education of the People's Republic of China.

The news reporters obtained a quote from the research from Beijing Normal University, "Although the transcriptional regulation of ATX has been widely studied, the post-transcriptional regulation of ATX is largely unknown. In this study, we identified conserved adenylate-uridylate (AU)-rich elements in the ATX mRNA 3'-untranslated region (3'UTR). The RNA-binding proteins HuR and AUF1 directly bound to the ATX mRNA 3'UTR and had antagonistic functions in ATX expression. HuR enhanced ATX expression by increasing ATX mRNA stability, whereas AUF1 suppressed ATX expression by promoting ATX mRNA decay."
HuR and AUF1 were involved in ATX regulation in Colo320 human colon cancer cells and the LPS-stimulated human monocyctic THP-1 cells. HuR knockdown suppressed ATX expression in B16 mouse melanoma cells, leading to inhibition of cell migration. This effect was reversed by AUF1 knockdown to recover ATX expression or by the addition of LPA. These results suggest that the post-transcriptional regulation of ATX expression by HuR and AUF1 modulates cancer cell migration.

According to the news reporters, the research concluded: "In summary, we identified HuR and AUF1 as novel post-transcriptional regulators of ATX expression, thereby elucidating a novel mechanism regulating the ATX-LPA axis."


Our news correspondents report that additional information may be obtained by contacting X.T. Zhang, Beijing Normal University, Coll Life Sci, Inst Cell Biol, Key Lab Cell Proliferat & Regulat BiolMinist Edu, Beijing 100875, People's Republic of China. Additional authors for this research include X.T. Zhang, L. Lyu, X.X. Li, S.L. Yao and J.J. Zhang.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, RNA-Binding Proteins, Carrier Proteins, Nucleoproteins, Oncology, Genetics, Cancer, Beijing Normal University.

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Ischemia

**Investigators from Boston University Have Reported New Data on Ischemia (Recurrent Lower-Extremity Compartment Syndrome after Four-Compartment Fasciotomy Secondary to Acute Limb Ischemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Ischemia have been presented. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Lower-extremity compartment syndrome is a limb-threatening event necessitating emergent treatment using fasciotomy. Recurrent compartment syndrome is rare and has only been reported after trauma and in conjunction with underlying connective tissue disorders."

The news reporters obtained a quote from the research from Boston University, "In this report, we present a case of recurrent lower-extremity compartment syndrome caused by ischemia-reperfusion injury, in a patient previously treated with adequate 4-compartment fasciotomies. As such, this is the first reported case of recurrent compartment syndrome in the setting of ischemia-reperfusion injury that required treatment with 4-compartment fasciotomies on both occasions."

According to the news reporters, the research concluded: "This case demonstrates
that fasciotomy is not protective against the development of recurrent compartment syndrome due to ischemia-reperfusion injury and that patients at high risk require monitoring."


Our news correspondents report that additional information may be obtained by contacting J.J. Siracuse, Boston University, Sch Med, Boston Med Center, Div Vasc & Endovasc Surg, Boston, MA 02118, United States. Additional authors for this research include A. Farber, J.A. Kalish and J.J. Siracuse.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Musculoskeletal Diseases and Conditions, Cardiovascular Diseases and Conditions, Muscular Diseases and Conditions, Ischemia-Reperfusion Injury, Transfusion Medicine, Compartment Syndrome, Blood Transfusion, Medical Devices, Fasciotomy, Surgery, Boston University.

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**Proteins - DNA-Binding Proteins**

**Investigators from Boston University Zero in on DNA-Binding Proteins (MEK and TAK1 Regulate Apoptosis in Colon Cancer Cells with KRAS-Dependent Activation of Proinflammatory Signaling)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Proteins - DNA-Binding Proteins have been presented. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "MEK inhibitors have limited efficacy in treating RAS-RAF-MEK pathway-dependent cancers due to feedback pathway compensation and dose-limiting toxicities. Combining MEK inhibitors with other targeted agents may enhance efficacy."

Our news journalists obtained a quote from the research from Boston University, "Here, codependencies of MEK, TAK1, and KRAS in colon cancer were investigated. Combined inhibition of MEK and TAK1 potentiates apoptosis in KRAS-dependent cells. Pharmacologic studies and cell-cycle analyses on a large panel of colon cancer cell lines demonstrate that MEK/TAK1 inhibition induces cell death, as assessed by sub-G1 accumulation, in a distinct subset of cell lines. Furthermore, TAK1 inhibition causes G2-M cell cycle blockade and polyploidy in many of the cell lines. MEK plus TAK1 inhibition causes reduced G2-M/polyploid cell numbers and additive cytotoxic effects in KRAS/TAK1-dependent cell lines as well as a subset of BRAF-mutant cells. Mechanistically, sensitivity to MEK/TAK1 inhibition can be conferred by KRAS and BMP receptor activation, which promote expression of NF-kappa B-dependent proinflammatory cytokines, driving tumor cell survival and proliferation. MEK/TAK1 inhibition causes reduced mTOR, Wnt, and NF-kappa B signaling in TAK1/MEK-dependent cell lines concomitant with apoptosis. A Wnt/ NF-kappa B transcriptional signature was derived that stratifies primary tumors into three major subtypes: Wnt-high/NF-kappa B-low, Wnt-low/NF-kappa B-high and Wnt-high/NF-kappa B-high, designated W, N, and WN, respectively. These subtypes have distinct characteristics, including
enrichment for BRAF mutations with serrated carcinoma histology in the N subtype. Both N and
WN subtypes bear molecular hallmarks of MEK and TAK1 dependency seen in cell lines."

According to the news editors, the research concluded: "Therefore, N and WN subtype signatures could be utilized to identify tumors that are most sensitive to anti-
MEK/TAK1 therapeutics."

For more information on this research see: MEK and TAK1 Regulate Apoptosis in
Colon Cancer Cells with KRAS-Dependent Activation of Proinflammatory Signaling. Molecular Cancer Research, 2016;14(12):1204-1216. Molecular Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Molecular Cancer Research - mcr.aacrjournals.org/)

The news correspondents report that additional information may be obtained from A. Singh, Boston University, Sch Med, Dept. of Pharmacol & Expt Therapeut, Center Canc Res, Boston, MA 02118, United States. Additional authors for this research include W.J. Whipple, A.K. Mehta, T.J. Grant, L. Ray, C. Kenny and A. Singh.

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Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, NF-kappa B, Cell Line, Boston University.

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RNA Viruses - Respiratory Syncytial Viruses

Investigators from Brigham and Women's Hospital Target Respiratory Syncytial Viruses (Pharmacist-driven respiratory syncytial virus prophylaxis stewardship service in a neonatal intensive care unit)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on RNA Viruses - Respiratory Syncytial Viruses have been published. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "The development and implementation of a pharmacist-driven respiratory syncytial virus (RSV) prophylaxis stewardship program in a neonatal intensive care unit (NICU) are described. An RSV prophylaxis stewardship service was created in the NICU at Brigham and Women's Hospital to align with the newly updated 2014 American Academy of Pediatrics (AAP) recommendations for palivizumab."

The news reporters obtained a quote from the research from Brigham and Women's Hospital, "The service comprised two NICU clinical pharmacists with oversight from the NICU medical director and the chair of the NICU infection control committee. Supervising physicians provided oversight for the identification of qualified patients on a weekly basis and assisted in the evaluation of controversial cases. The goals of the RSV prophylaxis stewardship service were to identify qualifying infants, improve adherence to the current AAP recommendations, educate staff and families on the recently updated MP recommendations, streamline communication between providers regarding qualifying infants, and prepare and deliver palivizumab for administration in an organized and cost-effective manner. Twice-weekly 'RSV
prophylaxis days' were designated, with a set administration time on each day. Workflow was successfully streamlined between members of the healthcare team, including NICU pharmacists, prescribers, off-shift pharmacists, and nurses."

According to the news reporters, the research concluded: "Pharmacists involved in a multidisciplinary RSV prophylaxis stewardship service successfully identified qualifying patients for RSV prophylaxis while adhering to the latest MP recommendations, educated staff and families regarding RSV, streamlined communication among healthcare providers, and ensured preparation of palivizumab in an organized and cost-effective manner."

For more information on this research see: Pharmacist-driven respiratory syncytial virus prophylaxis stewardship service in a neonatal intensive care unit. *American Journal of Health-System Pharmacy*, 2016;73(24):2089-2094. *American Journal of Health-System Pharmacy* can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

Our news correspondents report that additional information may be obtained by contacting S.E. Rostas, Brigham & Women's Hospital, Dept. of Pharm, Boston, MA 02115, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp150989. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Respiratory Syncytial Viruses, Monoclonal Antibodies, Drugs and Therapies, Immunologic Agents, Immune Globulins, Pharmaceuticals, Mononegavirales, Paramyxoviridae, Antiinfectives, Biotechnology, Pneumovirinae, Palivizumab, RNA Viruses, Pneumovirus, Antivirals, Virology, Viral, Brigham and Women's Hospital.

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*Health and Medicine - Emergency Medicine*

**Investigators from Brigham and Women's Hospital Zero in on Emergency Medicine (An ED pilot intervention to facilitate outpatient acute care for cancer patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Health and Medicine - Emergency Medicine. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Unplanned hospitalizations are common in patients with cancer, and most hospitalizations originate in the emergency department (ED). We implemented an ED-based pilot intervention designed to reduce hospitalizations among patients with solid tumors."

The news reporters obtained a quote from the research from Brigham and Women's Hospital, "The intervention, piloted at a single academic medical center, involved a medical oncologist embedded in the ED during evening hours. We used a quasiexperimental preimplementation/postimplementation study design to evaluate the proportion of ED visits that resulted in inpatient hospital admission, before and after pilot implementation. General estimating equations were used to evaluate the association between the intervention and hospital admission. There were 390 ED visits by eligible cancer patients in the preintervention period and 418 visits in the intervention period. During the intervention period, 158 (38%) of 418 ED
visits were identified by the embedded oncologist during the evening intervention shift. The proportion of ED visits leading to hospitalization was 70% vs 69% in the preintervention and intervention periods (odds ratio, 0.93 [95% confidence interval, 0.69-1.24]; P=.62). There were no differences between periods in ED length of stay or subsequent use of acute care. Among patients with initial ED presentation during the operating hours of the intervention, the proportion of ED visits leading to hospitalization was 77% vs 67% in the preintervention and intervention periods (odds ratio, 0.62 [0.36-1.08]; P=.08). Embedding an oncologist in the ED of an academic medical center did not significantly reduce hospital admissions."

According to the news reporters, the research concluded: "Novel approaches are needed to strengthen outpatient acute care for patients with cancer."


Our news correspondents report that additional information may be obtained by contacting G.A. Brooks, Brigham & Women's Hospital, Dept. of Med, Boston, MA 02115, United States. Additional authors for this research include E.J. Chen, M.A. Murakami, M. Giannakis, C.W. Baugh and D. Schrag.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.06.076. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Emergency Medicine, Health and Medicine, Hospital, Oncology, Cancer, Brigham and Women's Hospital.

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**Heart Disorders and Diseases - Heart Disease**

**Investigators from Brigham and Women's Hospital Zero in on Heart Disease (Long-term outcomes after catheter ablation of ventricular tachycardia in patients with and without structural heart disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Disease. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Long-term outcomes after ventricular tachycardia (VT) ablation are sparsely described. The purpose of this study was to describe long-term prognosis after VT ablation in patients with no structural heart disease (no SHD), ischemic cardiomyopathy (ICM), and nonischemic cardiomyopathy (NICM)."

Our news journalists obtained a quote from the research from Brigham and Women's Hospital, "Consecutive patients (N = 695: no SHD, 98; ICM, 358; NICM, 239) ablated for sustained VT were followed for a median of 6 years. Acute procedural parameters (complete success [noninducibility of any VT]) and outcomes after multiple procedures were reported. Compared with patients with no SHD or NICM, patients with ICM were the oldest, were more
likely to be men, lowest left ventricular ejection fraction, highest drug failures, VT storms, and number of inducible VTs. Complete procedure success was highest in patients with no SHD than in patients with ICM and those with NICM (79%, 56%, 60%, respectively; P< .001). At 6 years, ventricular arrhythmia (VA)-free survival was highest in patients with no SHD (77%) than in patients with ICM (54%) and those with NICM (38%) (P < .001), and overall survival was lowest in patients with ICM (48%), followed by patients with NICM (74%) and patients with no SHD (100%) (P < .001). Age, left ventricular ejection fraction, presence of SHD, acute procedural success (noninducibility of any VT), major complications, need for nonradiofrequency ablation modalities, and VA recurrence were independently associated with all-cause mortality. Long-term follow-up after VT ablation shows excellent prognosis in the absence of SHD, highest VA recurrence, and transplantation in patients with NICM and highest mortality in patients with ICM."

According to the news editors, the research concluded: "The extremely low mortality for those without SHD suggests that VT in this population is rarely an initial presentation of a myopathic process."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.07.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Diagnostic Techniques and Procedures, Heart Disorders and Diseases, Ventricular Tachycardia, Heart Catheterization, Cardiac Arrhythmias, Electrocoagulation, Catheter Ablation, Cardiomyopathies, Heart Disease, Cardiology, Diagnosis, Brigham and Women's Hospital.

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Hormones

Investigators from Brown University Release New Data on Hormones (The metabolic sensor Sirt1 and the hypothalamus: Interplay between peptide hormones and pro-hormone convertases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hormones. According to news originating from Providence, Rhode Island, by NewsRx editors, the research stated, "The last decade had witnessed a tremendous progress in our understanding of the causes of metabolic diseases including obesity. Among the contributing factors regulating energy balance are
nutrient sensors such as sirtuins."

Financial support for this research came from National Institute of Diabetes and Digestive and Kidney Diseases.

Our news journalists obtained a quote from the research from Brown University, "Sirtuinl (Sirt1), a NAD+ dependent deacetylase is affected by diet, environmental stress, and also plays a critical role in metabolic health by deacetylating proteins in many tissues, including liver, muscle, adipose tissue, heart, endothelium, and in the complexity of the hypothalamus. Because of its dependence on NAD+, Sirtl also functions as a nutrient/redox sensor, and new novel data show a function of this enzyme in the maturation of hypothalamic peptide hormones controlling energy balance either through regulation of specific nuclear transcription factors or by regulating specific pro hormone convertases (PCs) involved in the post-translational processing of pro-hormones. The post translational processing mechanism of pro-hormones is critical in the pathogenesis of obesity as recently shown that metabolic and physiological triggers affect the biosynthesis and processing of many peptides hormones. Specific regulation of pro-hormone processing is likely another key step where final amounts of bioactive peptides can be tightly regulated. Different factors stimulate or inhibit pro hormones biosynthesis in concert with an increase in the PCs involved in the maturation of bioactive hormones. Adding more complexity to the system, the new studies describe here suggest that Sirtl could also regulate the fate of peptide hormone biosynthesis. The present review summarizes the recent progress in hypothalamic SIRT1 research with a particular emphasis on the tissue-specific control of neuropeptide hormone maturation. The series of studies done in mouse and rat models strongly advocate for the first time that a deacetylating enzyme could be a regulator in the maturation of peptide hormones and their processing enzymes. These discoveries are the culmination of the first in-depth understanding of the metabolic role of Sirtl in the brain."

According to the news editors, the research concluded: "It suggests that Sirt1 behaves differently in the brain than in organs such as the liver and pancreas, where the enzyme has been more commonly studied."


The news correspondents report that additional information may be obtained from E.A. Nillni, Brown University, Warren Alpert Med Sch, Dept. of Mol Biol Cell Biol & Biochem, Providence, RI 02912, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mce.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Providence, Rhode Island, United States, North and Central America, Peptide Hormones, Genetics, Brown University.

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 Investigators from Cancer Research Institute Have Reported New Data on Breast Cancer (Global and gene specific DNA methylation in breast cancer cells was not affected during epithelial-to-mesenchymal transition in vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting from Bratislava, Slovakia, by NewsRx journalists, research stated, "Epithelial-to-mesenchymal transition (EMT) significantly affects the risk of metastasising in breast cancer. Plasticity and reversibility of EMT suggest that epigenetic mechanisms could be the key drivers of these processes, but little is known about the dynamics of EMT-related epigenetic alterations."

The news correspondents obtained a quote from the research from Cancer Research Institute, "We hypothesised that EMT, mediated by autocrine and paracrine signals, will be accompanied by changes in DNA methylation profiles. Therefore, conditioned medium from adipose tissue derived mesenchymal stromal cells was used for induction of EMT in human breast cancer SK-BR-3 cell line. EMT-related morphological alterations and changes in gene expression of EMT-associated markers were assessed. To reverse EMT, 20 nm size gold nanoparticles (AuNPs) synthesized by the citrate reduction method were applied. Finally, DNA methylation of LINE-1 sequences and promoter methylation of TIMP3, ADAM23 and BRMS1 genes were quantitatively evaluated by pyrosequencing. Despite the presence of EMT-associated morphological and gene expression changes in tumour cells, EMT induced by adipose tissue-derived mesenchymal stromal cells had almost no effect on LINE-1 and gene-specific DNA methylation patterns of TIMP3, ADAM23 and BRMS1 genes. Although treatment for 24, 48 or 72 hours with 20 nm AuNPs at a concentration of 3 g/ml slightly decreased gene expression of EMT-associated markers in SK-BR-3 cells, it did not alter global or gene-specific DNA methylation. Our results suggest that changes in DNA methylation are not detectable in vitro in early phases of EMT. Previously published positive findings could represent rather the sustained presence of potent EMT inducing signals or the synergistic effect of various epigenetic mechanisms."

According to the news reporters, the research concluded: "Treatment with AuNPs slightly attenuated EMT, and their therapeutic potential needs to be further investigated."

For more information on this research see: Global and gene specific DNA methylation in breast cancer cells was not affected during epithelial-to-mesenchymal transition in vitro. Neoplasma, 2016;63(6):901-910. Neoplasma can be contacted at: Apress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

Our news journalists report that additional information may be obtained by contacting B. Smolkova, Slovak Academy Sci, Biomed Res Center, Canc Res Inst, Bratislava, Slovakia. Additional authors for this research include S. Miklikova, V.H. Kajabova, A. Babelova, N, El Yamani, M. Zduriencikova, I. Fridrichova, I. Zmetakova, T. Krivulcik, L. Kalinka, M. Matuskova, L. Kucerova and M. Dusinska.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4149/neo_2016_609. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bratislava, Slovakia, Europe, Cancer, Risk
Investigators from Capital Medical University Target Alzheimer Disease (Treatment of epilepsy for people with Alzheimer's disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Any type of seizure can be observed in Alzheimer's disease (AD). Antiepileptic drugs seem to prevent the recurrence of epileptic seizures in most people with AD."

The news reporters obtained a quote from the research from Capital Medical University, "There are pharmacological and non-pharmacological treatments for epilepsy in people with AD. There are no current systematic reviews to evaluate the efficacy and tolerability of the treatment. This review aims to review those different modalities. To assess the efficacy and tolerability of the treatment of epilepsy for people with Alzheimer's disease (AD) (including sporadic AD and dominantly inherited AD). Search methods We searched the Cochrane Epilepsy Group Specialized Register (1 February 2016), the Cochrane Central Register of Controlled Trials (1 February 2016), MEDLINE (Ovid, 1 February 2016) and ClinicalTrials.gov (1 February 2016). In an effort to identify further published, unpublished and ongoing trials, we searched ongoing trials' registers, reference lists and relevant conference proceedings, and contacted authors and pharmaceutical companies. Selection criteria We included randomised and quasi-randomised controlled trials investigating treatment for epilepsy in people with AD, with the outcomes of proportion of seizure freedom or experiencing adverse events. Data collection and analysis Two review authors independently screened the titles and abstracts of identified records, selected studies for inclusion, extracted data, cross-checked the data for accuracy and assessed themethodological quality. We performed nometa-analyses due to the limited available data. We included one randomised controlled trial with 95 participants. Concerning the proportion of participants with seizure freedom, no significant differences were found in levetiracetam (LEV) versus lamotrigine (LTG) (risk ratio (RR) 1.20, 95% confidence interval (CI) 0.53 to 2.71), in levetiracetam versus phenobarbital (PB) (RR 1.01, 95% CI 0.47 to 2.19), or in LTG versus PB (RR 0.84, 95% CI 0.35 to 2.02). It seemed that LEV could improve cognition and LTG could relieve depression; while PB and LTG could worsen cognition, and LEV and PB could worsen mood. We judged the quality of the evidence to be very low. Authors' conclusions This review does not provide sufficient evidence to support LEV, PB and LTG for the treatment of epilepsy in people with AD. Regarding the efficacy and tolerability, no significant differences were found between LEV, PB and LTG."

According to the news reporters, the research concluded: "In the future, large randomised, doubleblind, controlled, parallel-group clinical trials are required to determine the efficacy and tolerability of treatment for epilepsy in people with AD."

For more information on this research see: Treatment of epilepsy for people with Alzheimer's disease. Cochrane Database of Systematic Reviews, 2016;(11):2237-2268. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St,
Investigators from Captain James A. Lovell Federal Health Care Center Have Reported New Data on Ventricular Fibrillation (Adverse postresuscitation myocardial effects elicited by buffer-induced alkalemia ameliorated by NHE-1 inhibition in a rat ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Ventricular Fibrillation. According to news reporting originating in North Chicago, Illinois, by NewsRx journalists, research stated, "Major myocardial abnormalities occur during cardiac arrest and resuscitation including intracellular acidosis-partly caused by CO2 accumulation-and activation of the Na+-H+ exchanger isoform-1 (NHE-1). We hypothesized that a favorable interaction may result from NHE-1 inhibition during cardiac resuscitation followed by administration of a CO2-consuming buffer upon return of spontaneous circulation (ROSC)."

Funders for this research include Friends Medical Research Institute, Veterans Administration, The UCLA Academic Senate, A gift by Ms. Monica Ply, Discretionary Fund from Department of Medicine.

The news reporters obtained a quote from the research from Captain James A. Lovell Federal Health Care Center, "Ventricular fibrillation was electrically induced in 24 male rats and left untreated for 8 min followed by defibrillation after 8 min of cardiopulmonary resuscitation (CPR). Rats were randomized 1:1:1 to the NHE-1 inhibitor zoniporide or vehicle during CPR and disodium carbonate/ sodium bicarbonate buffer or normal saline (30 ml/ kg) after ROSC. Survival at 240 min declined from 100% with Zoniporide/ Saline to 50% with Zoniporide/ Buffer and 25% with Vehicle/ Buffer (P = 0.004), explained by worsening postresuscitation myocardial dysfunction. Marked alkalemia occurred after buffer administration along with lactatemia that was maximal after Vehicle/ Buffer, attenuated by Zoniporide/ Buffer, and minimal with Zoniporide/ Saline [ 13.3 +/- 4.8 (SD), 9.2 +/- 4.6, and 2.7 +/- 1.0 mmol/ l; P<= 0.001]. We attributed the intense postresuscitation lactatemia to enhanced glycolysis consequent to severe buffer-induced alkalemia transmitted intracellularly by an active NHE-1. We attributed the worsened postresuscitation myocardial dysfunction also to severe alkalemia intensifying Na+ entry via NHE-1 with consequent Ca2+ overload injuring mitochondria, evidenced by increased plasma cytochrome c. Both buffer-induced effects were ameliorated by zoniporide. Accordingly, buffer-induced alkalemia after ROSC worsened myocardial function and survival,
likely through enhancing NHE-1 activity."

According to the news reporters, the research concluded: "Zoniporide attenuated these effects and uncovered a complex postresuscitation acid-base physiology whereby blood pH drives NHE-1 activity and compromises mitochondrial function and integrity along with myocardial function and survival."

For more information on this research see: Adverse postresuscitation myocardial effects elicited by buffer-induced alkalemia ameliorated by NHE-1 inhibition in a rat model of ventricular fibrillation. *Journal of Applied Physiology*, 2016;121(5):1160-1168. *Journal of Applied Physiology* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news correspondents report that additional information may be obtained by contacting R.J. Gazmuri, Captain James A Lovell Fed Hlth Care Center, Sect Crit Care Med, North Chicago, IL, United States. Additional authors for this research include J. Radhakrishnan, T.G. Mason, J.A. Kraut and R.J. Gazmuri.

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Keywords for this news article include: North Chicago, Illinois, United States, North and Central America, Heart Disorders and Diseases, Ventricular Fibrillation, Emergency Treatment, Cardiac Arrhythmias, Cardiovascular, Resuscitation, Heart Disease, Cardiology, Captain James A. Lovell Federal Health Care Center.

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**Lung Diseases and Conditions - Asbestosis**

**Investigators from Cardno ChemRisk Release New Data on Asbestosis (Anthophyllite asbestos: state of the science review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Lung Diseases and Conditions - Asbestosis. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated, "Anthophyllite is an amphibole form of asbestos historically used in only a limited number of products. No published resource currently exists that offers a complete overview of anthophyllite toxicity or of its effects on exposed human populations."

The news reporters obtained a quote from the research from Cardno ChemRisk, "We performed a review focusing on how anthophyllite toxicity was understood over time by conducting a comprehensive search of publicly available documents that discussed the use, mining, properties, toxicity, exposure and potential health effects of anthophyllite. Over 200 documents were identified; 114 contained relevant and useful information which we present chronologically in this assessment. Our analysis confirms that anthophyllite toxicity has not been well studied compared to other asbestos types. We found that toxicology studies in animals from the 1970s onward have indicated that, at sufficient doses, anthophyllite can cause asbestosis, lung cancer and mesothelioma. Studies of Finnish anthophyllite miners, conducted in the 1970s, found an increased incidence of asbestosis and lung cancer, but not mesothelioma. Not until the mid-1990s was an epidemiological link with mesothelioma in humans observed. Its presence in talc has been of recent significance in relation to potential asbestos exposure through the use of talc-containing products. Characterizing the health risks of anthophyllite is
difficult, and distinguishing between its asbestiform and non-asbestiform mineral form is essential from both a toxicological and regulatory perspective. Anthophyllite toxicity has generally been assumed to be similar to other amphiboles from a regulatory standpoint, but some notable exceptions exist."

According to the news reporters, the research concluded: "In order to reach a more clear understanding of anthophyllite toxicity, significant additional study is needed."


Our news correspondents report that additional information may be obtained by contacting S.H. Gaffney, Cardno ChemRisk, San Francisco, CA 94105, United States. Additional authors for this research include M. Grespin, L. Garnick, D.A. Drechsel, R. Hazan, D.J. Paustenbach and B.D. Simmons.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Mesotheliomas, Article Review, Epidemiology, Risk and Prevention, Respiratory Tract Diseases and Conditions, Occupational Diseases and Conditions, Lung Diseases and Conditions, Inorganic Chemicals, Silicon Compounds, Silicon Dioxide, Pneumoconiosis, Lung Injury, Asbestosis, Silicates, Cardno ChemRisk.

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Chalcones

Investigators from Central Drug Research Institute Release New Data on Chalcones (Development of Leishmania donovani stably expressing DsRed for flow cytometry-based drug screening using chalcone thiazolyl-hydrazone as a new antileishmanial ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Chalcones have been presented. According to news reporting from Uttar Pradesh, India, by NewsRx journalists, research stated, "Green fluorescent protein produces significant fluorescence and is extremely stable, however its excitation maximum is close to the ultraviolet range and thus can damage living cells. Hence, Leishmania donovani stably expressing DsRed were developed and their suitability for flow cytometry-based antileishmanial screening was assessed by evaluating the efficacies of standard drugs as well as newly synthesised chalcone thiazolyl-hydrazone compounds."

Funders for this research include Central Drug Research Institute of the Council of Scientific and Industrial Research, CSIR, the Indian Council of Medical Research (ICMR), University Grants Commission (UGC).

The news correspondents obtained a quote from the research from Central Drug Research Institute, "The DsRed gene was successfully integrated at the 18S rRNA locus of L. donovani and transfectants (LdDsRed) were selected using hygromycin B. Enhanced expression of DsRed and a high level of infectivity to J774A.1 macrophages were achieved, which was confirmed by fluorescence microscopy and flow cytometry. Furthermore, these LdDsRed transfectants were utilised for development of an in vitro screening assay using the standard
antileishmanial drugs miltefosine, amphotericin B, pentamidine and paromomycin. The response of transfectants to standard drugs correlated well with previous reports. Subsequently, the suitability of this system was further assessed by screening a series of 18 newly synthesised chalcone thiazolyl-hydrazone compounds in vitro for their antileishmanial activity, wherein 8 compounds showed moderate antileishmanial activity. The most active compound 5g, with ca. 73% splenic parasite reduction, exerted its activity via generating nitric oxide and reactive oxygen species and inducing apoptosis in LdDsRed-infected macrophages. Thus, these observations established the applicability of LdDsRed transfectants for flowcytometry-based antileishmanial screening.

According to the news reporters, the research concluded: "Further efforts aimed at establishing a high-throughput screening assay and determining the in vivo screening of potential antileishmanial leads are required."


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Keywords for this news article include: Uttar Pradesh, India, Asia, Hydrazones, Drugs and Therapies, Propiophenones, Hydrazines, Chalcones, Central Drug Research Institute.

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(NPs) induced by coordination bond."

Funders for this research include National Natural Science Foundation of China, Natural Science Foundation of Jiangsu Province, Priority Academic Program Development of Jiangsu Higher Education Institutions, National High Technology Research and Development Program of China.

The news reporters obtained a quote from the research from China Pharmaceutical University, "Tf-inspired NPs were prepared via environment-friendly method, and well redispersed in saline after lyophilization. When internalized into tumor cells by SPARC (secreted protein acidic and rich in cysteine) mediated endocytosis, Tf-inspired NPs bypassed and decreased the P-glycoprotein-mediated drug efflux and led to more effective treatment of multidrug-resistant breast cancer compared with free drugs both in vitro and in vivo due to the enhanced cellular uptake and rapid pH-responsive drug release. Moreover, Tf-inspired NPs exhibited good biocompatibility and low systemic toxicity."

According to the news reporters, the research concluded: "Thus, our results demonstrate that Tf-inspired NPs based on coordination bond represent as a smart drug delivery strategy to combat multidrug-resistant cancer and have great potential for clinical applications in cancer therapy."

For more information on this research see: Transferrin-inspired vehicles based on pH-responsive coordination bond to combat multidrug-resistant breast cancer. Biomaterials, 2017;113():266-278. Biomaterials can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)

Our news correspondents report that additional information may be obtained by contacting N. Lu, China Pharmaceutical University, State Key Lab Nat Med, Nanjing 210009, Jiangsu, People's Republic of China. Additional authors for this research include L. Xing, P.F. Cui, J.L. Zhang, Y. Zhu, J.B. Qiao, J.Y. Lyu, M. Zhang, C.Q. Luo, Y.X. Zhou, N. Lu and H.L. Jiang.

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Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Iron-Binding Proteins, Acute-Phase Proteins, Drugs and Therapies, Carrier Proteins, Drug Resistance, Blood Proteins, Beta-Globulins, Women's Health, Breast Cancer, Transferrin, Oncology, China Pharmaceutical University.

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**Enzymes and Coenzymes - Cholinesterases**

**Investigators from Chinese Academy of Sciences Release New Data on Cholinesterases (New perspectives for multi-level regulations of neuronal acetylcholinesterase by dioxins)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Enzymes and Coenzymes - Cholinesterases are discussed in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Acetylcholinesterase (AChE; EC 3.1.1.7) is a
vital functional enzyme in cholinergic neurotransmission which can rapidly hydrolyze neurotransmitter, acetylcholine, in the central and peripheral nervous systems. Emerging evidence showed that in addition to classical environmental AChE inhibitors, e.g. organophosphate and carbamate pesticides, dioxins are a new type of xenobiotic causing impairment of AChE.”

Financial supporters for this research include National Natural Science Foundation of China, Chinese Academy of Sciences.

The news correspondents obtained a quote from the research from the Chinese Academy of Sciences, "Dioxin can transcriptionally or post-transcriptionally suppress AChE expression in human neuroblastoma cells or mouse immune cells via the aryl hydrocarbon receptor (AhR) pathway, respectively. Dioxins can affect gene expression through other mechanisms, such as cross-talk with other signaling cascades and epigenetic modulations. Therefore, in this review, by summarizing the known mechanisms of AChE regulation and dioxin-induced gene alteration, potential signaling cascades and epigenetic mechanisms are proposed for dioxin-mediated AChE regulation. Mitogen activated protein (MAP) kinase, 30, 50-cyclic adenosine monophosphate (cAMP) and calcium-related singaling pathways, as well as potential epigenetic mechanisms, such as DNA methylation, and post-transcriptional regulation via microRNAs, including hsa-miR-132, hsa-miR-212 and hsa-miR-25-3p are discussed here."

According to the news reporters, the research concluded: "These proposed mechanisms may be invaluable not only to promote comprehensive understanding of the action mechanisms for dioxin, but to illustrate the molecular basis of dioxin-induced health impacts."

For more information on this research see: New perspectives for multi-level regulations of neuronal acetylcholinesterase by dioxins. Chemico-Biological Interactions, 2016;259():286-290. Chemico-Biological Interactions can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Chemico-Biological Interactions - www.journals.elsevier.com/chemico-biological-interactions/)

Our news journalists report that additional information may be obtained by contacting B. Zhao, Univ Chinese Academy Sci, Beijing, People's Republic of China. Additional authors for this research include T. Xu, Y.S. Chen, Y.P. Li, Y.J. Xia, S.L. Xu, L.Y. Wang, K.W.K. Tsim and B. Zhao.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Enzymes and Coenzymes, Acetylcholinesterase, Biogenic Amines, Cholinesterases, Hydrolases, Genetics, Chinese Academy of Sciences.

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Investigators from Chinese Academy of Sciences Zero in on HIV/AIDS
[HIV-1 gp120 Glycoprotein Interacting with Dendritic Cell-specific Intercellular Adhesion Molecule 3-grabbing Non-integrin (DC-SIGN) Down-Regulates Tight Junction Proteins to ...]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Approximately 70% of HIV-1 infected patients acquire ocular opportunistic infections and manifest eye disorders during the course of their illness. The mechanisms by which pathogens invade the ocular site, however, are unclear."

Our news journalists obtained a quote from the research from the Chinese Academy of Sciences, "Under normal circumstances, vascular endothelium and retinal pigment epithelium (RPE), which possess a well developed tight junction complex, form the blood-retinal barrier (BRB) to prevent pathogen invasion. We hypothesize that disruption of the BRB allows pathogen entry into ocular sites. The hypothesis was tested using in vitro models. We discovered that human RPE cells could bind to either HIV-1 gp120 glycoproteins or HIV-1 viral particles. Furthermore, the binding was mediated by dendritic cell-specific intercellular adhesion molecule 3-grabbing non-integrin (DC-SIGN) expressed on RPE cells. Upon gp120 binding to DC-SIGN, cellular NF-kappa B signaling was triggered, leading to the induction of matrix metalloproteinases, which subsequently degraded tight junction proteins and disrupted the BRB integrity. DC-SIGN knockdown or prior blocking with a specific antibody abolished gp120-induced matrix metalloproteinase expression and reduced the degradation of tight junction proteins."

According to the news editors, the research concluded: "This study elucidates a novel mechanism by which HIV, type 1 invades ocular tissues and provides additional insights into the translocation or invasion process of ocular complication-associated pathogens."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.744615. This DOI is a link to an online electronic document that is either free or for purchase.


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Investigators from Chinese University of Hong Kong Have Reported New Data on Sepsis (Regulation of Circulating Hematopoietic Stem/Progenitor Cells in Preterm Infants with Septicemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Blood Diseases and Conditions - Sepsis have been presented. According to news reporting out of Hong Kong, People's Republic of China, by NewsRx editors, research stated, "Preterm infants are at high risk of developing severe sepsis. Circulating hematopoietic stem and progenitor cells (HSPCs; CD45 (+) CD34 (+)) have been suggested to play a vital role in the host immunological defense against invading pathogens."

Our news journalists obtained a quote from the research from the Chinese University of Hong Kong, "The objectives were to investigate the regulation of circulating HSPCs in preterm infants during infection episodes, and to assess the relationship of CD45 (+) CD34 (+) cells with immunological mediators and differential leukocyte populations. First, we conducted a cross-sectional case-control study comparing these parameters among infected infants (n = 23), gestational and postnatal age-matched noninfected infants (n = 46), and "healthy" control (CTL) infants (n = 12). Second, we investigated the longitudinal change of CD45 (+) CD34 (+) cell concentrations in infected infants before, during, and after an infection episode, and compared them with the other two groups. Our cross-sectional results showed that CD45 (+) CD34 (+) cell count and percentage were significantly reduced in infected infants during systemic infection, compared with the noninfected or CTL infants. There were significant positive correlation between levels of CD45 (+) CD34 (+) cells and lymphocytes or monocytes, and significant negative correlation between CD45 (+) CD34 (+) cells and neutrophils or interleukin (IL)6 in infected infants. Longitudinal analysis showed that changes of CD45 (+) CD34 (+) cells at the onset of sepsis relative to levels 1 week prior and 1 week postsepsis in infected infants were significantly different from those changes in the corresponding time points for the other two groups."

According to the news editors, the research concluded: "Our findings suggested that circulating HSPCs were dynamically regulated during septicemia and could play an important role in the defense mechanism, plausibly contributing to replenishment of leukocytes during sepsis in preterm infants."

For more information on this research see: Regulation of Circulating Hematopoietic Stem/Progenitor Cells in Preterm Infants with Septicemia. *Stem Cells and Development*, 2016;25(23):1780-1787. *Stem Cells and Development* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Stem Cells and Development - www.liebertpub.com/overview/stem-cells-and-development/125/)

Our news journalists report that additional information may be obtained by contacting P.C. Ng, Chinese University of Hong Kong, Dept. of Pediat, Shatin, Hong Kong, People's Republic of China. Additional authors for this research include H.S. Lam, K.Y.Y. Chan, T. Sit, R.P.O. Wong, J.W.S. Yu, K. Li and P.C. Ng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/scd.2016.0179. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hong Kong, People's Republic of China,
Investigators from Chinese University of Hong Kong Release New Data on Cervical Cancer (Examining the Cervical Screening Behaviour of Women Aged 50 or above and Its Predicting Factors: A Population-Based Survey)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cervical Cancer have been published. According to news reporting out of Hong Kong, People's Republic of China, by NewsRx editors, research stated, "Under-screening may increase the risk of cervical cancer in middle-aged women. This study aimed to investigate cervical cancer screening behaviour and its predictors among women aged 50 years or above."

Our news journalists obtained a quote from the research from the Chinese University of Hong Kong, "A population-based sample of 959 women was recruited by telephone from domestic households in Hong Kong, using random methods, and a structured questionnaire developed to survey participants. Multivariable logistic regressions were performed to examine the factors independently associated with cervical screening behaviour. Nearly half the sample (48%) had never had a cervical smear test. Multivariable analyses showed that age, educational level, marital status, family history of cancer, smoking status, use of complementary therapy, recommendation from health professionals, and believing that regular visits to a doctor or a Chinese herbalist were good for their health were predictors of cervical screening behaviour. Misconceptions concerned with menopause may reduce women's perceived susceptibility to cervical cancer, especially if they are 50 or above, and exert a negative effect on their screening behaviour."

According to the news editors, the research concluded: "Healthcare professionals should actively approach these high-risk groups-older unmarried women, smokers, those less educated and who are generally not much concerned with their health."

For more information on this research see: Examining the Cervical Screening Behaviour of Women Aged 50 or above and Its Predicting Factors: A Population-Based Survey. *International Journal of Environmental Research and Public Health*, 2016;13(12):340-354. *International Journal of Environmental Research and Public Health* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting C.W.H. Chan, Chinese University of Hong Kong, Nethersole Sch Nursing, Hong Kong, Hong Kong, People's Republic of China. Additional authors for this research include K.C. Choi, R.S. Wong, K.M. Chow, W.K.W. So, D.Y.P. Leung, W.W.T. Lam and W. Goggins.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Cancer, Diagnostics and Screening, Epidemiology, Risk and Prevention, Cervical Cancer, Women's Health, Oncology, Chinese University of Hong Kong.

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Chalcogens

Investigators from Chosun University Zero in on Chalcogens [Isorhamnetin Inhibits Reactive Oxygen Species-Dependent Hypoxia Inducible Factor (HIF)1 alpha a Accumulation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Chalcogens have been presented. According to news reporting out of Gwangju, South Korea, by NewsRx editors, research stated, "Isorhamnetin is a flavonoid metabolite of quercetin and isolated from water dropwort (Oenanthe javanica, Umbelliferae). It has been reported that isorhamnetin exerts beneficial effects including antioxidant, anti-inflammatory, and anti-proliferative activities."

Our news journalists obtained a quote from the research from Chosun University, "The present study investigated whether the antioxidant activity of isorhamnetin is correlated with its anti-cancer effects on colorectal cancer cells. Isorhamnetin significantly repressed cobalt chloride (CoCl2) - or hypoxia-induced hypoxia inducible factor-1 alpha (HIF-1 alpha) accumulation in HCT116 and 11T29 cells. When compared with quercetin, isorhamnetin showed potent inhibition of HIF-1 alpha. Moreover, it inhibited CoCl2-induced activity of hypoxia response element reporter gene and HIF-1 alpha-dependent transcription of genes such as glucose transporter 1, lactate dehydrogenase A, carbonic anhydrase-IX, and pyruvate dehydrogenase kinase 1. Isorhamnetin also blocked hydrogen peroxide (H2O2) induced HIF-1 alpha accumulation. The antioxidant effects of isorhamnetin were confirmed by observation of CoCl2- or H2O2-induced reactive oxygen species (ROS) production. Consistently, overexpressed HIF-1 alpha was decreased by isorhamnetin or N-acetyl-L-cysteine in HEK293 cells. In vitro migration and invasion assay further confirmed the inhibitory effects of isorhamnetin on cancer cells."

According to the news editors, the research concluded: "Collectively, these results demonstrate that isorhamnetin inhibits ROS-mediated HIF-1 alpha accumulation, which contributes to its anti-metastatic efficacy."


Our news journalists report that additional information may be obtained by contacting S.M. Shin, Chosun Univ, Coll Pharm, Gwangju 501759, South Korea. Additional authors for this research include K. Seo, S.H. Kim and S.M. Shin.

Keywords for this news article include: Gwangju, South Korea, Asia, Reactive Oxygen Species, Enzymes and Coenzymes, Protective Agents, Oxygen Compounds, Dehydrogenase, Antioxidants, Chalcogens, Oncology, Genetics, Cancer, Chosun University.

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Lipopolysaccharides

Investigators from Chung Ang University Target Lipopolysaccharides (Apocynin inhibits Toll-like receptor-4-mediated activation of NF-kappa B by suppressing the Akt and mTOR pathways)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Lipopolysaccharides are presented in a new report. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Microbial product lipopolysaccharide has been shown to be involved in the pathogenesis of inflammatory skin diseases. Apocynin has demonstrated to have an anti-inflammatory effect."

The news correspondents obtained a quote from the research from Chung Ang University, "However, the effect of apocynin on the Toll-like receptor-4-dependent activation of Akt, mammalian target of rapamycin (mTOR), and nuclear factor (NF)-kappa B pathway, which is involved in productions of inflammatory mediators in keratinocytes, has not been studied. Using human keratinocytes, we investigated the effect of apocynin on the inflammatory mediator production in relation to the Toll-like receptor-4-mediated-Akt/mTOR and NF-kappa B pathways, which regulates the transcription genes involved in immune and inflammatory responses. Apocynin, Akt inhibitor SH-5, Bay 11-7085 and N-acetylcysteine each attenuated the lipopolysaccharide-induced production of cytokines, PGE(2), and chemokines, changes in the levels of Toll-like receptor-4, p-Akt, mTOR, and NF-kappa B, and production of reactive oxygen species in keratinocytes. The results show that apocynin appears to attenuate the lipopolysaccharide-stimulated production of inflammatory mediators in keratinocytes by suppressing the Toll-like receptor-4-mediated activation of the Akt, mTOR, and NF-kappa B pathways. The effect of apocynin appears to be attributed to its inhibitory effect on the production of reactive oxygen species."

According to the news reporters, the research concluded: "Apocynin appears to attenuate the microbial product-mediated inflammatory skin diseases."

For more information on this research see: Apocynin inhibits Toll-like receptor-4-mediated activation of NF-kappa B by suppressing the Akt and mTOR pathways. Naunyn-Schmiedebergs Archives of Pharmacology, 2016;389(12):1267-1277. Naunyn-Schmiedebergs Archives of Pharmacology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

Our news journalists report that additional information may be obtained by contacting C.S. Lee, Chung Ang University, Plus Skin Barrier Network Human Resources Dev Tea, Seoul 156756, South Korea. Additional authors for this research include A. Kim, D.S. Sohn and C.S. Lee.

Keywords for this news article include: Seoul, South Korea, Asia, Skin and Connective Tissue Diseases and Conditions, Pattern Recognition Receptors, Skin Diseases and Conditions, Bacterial Polysaccharides, Transcription Factors, DNA-Binding Proteins, Toll-Like Receptor 4, Toll-Like Receptors, Lipopolysaccharides, Biological Factors, Membrane Proteins, Nuclear Proteins, Bacterial Toxins, NF-kappa B, Immunology, Endotoxins, Genetics, Chung Ang University.

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**Investigators from City of Hope National Medical Center Report New Data on T-Cell Lymphoma [Long-term follow-up and management of small and medium-sized CD4(+) T cell lymphoma and CD8(+) lymphoid proliferations of acral sites: a multicenter ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - T-Cell Lymphoma is the subject of a report. According to news reporting originating from Duarte, California, by NewsRx correspondents, research stated, "Primary cutaneous CD4(+) small-medium pleomorphic T cell lymphoma (SMPTCL) is a low-grade cutaneous T cell lymphoma. Its clinical and histopathologic features are comparable with those of CD8(+) lymphoid proliferations (LPs) of the ear and acral sites."

Our news editors obtained a quote from the research from the City of Hope National Medical Center, "We performed a retrospective analysis of patients with CD4(+) SMPTCL or CD8(+) LP to elucidate the clinical course, prognosis, and outcomes. Demographic, clinical, and treatment data were reviewed. Histopathologic data based on architectural, cytomorphologic, and immunohistochemical features were assessed. Immunohistochemical staining for T and B cell markers was evaluated. A total of 25 patients including 22 with CD4(+) SMPTCL and three with CD8(+) LP were identified. All patients presented with a single lesion, predominantly on the head, neck, or upper trunk (84%). No patients showed extracutaneous disease at any evaluation. The most common histopathologic changes showed a dense nodular infiltrate of small cells with hyperchromatic nuclei without significant follicular or adnexal involvement. Patients were treated with excision (48%), local radiation (28%), or topical or intralesional steroids (24%). All patients achieved complete resolution of disease. Five patients demonstrated cutaneous relapse at new sites. The CD4(+) SMPTCL/CD8(+) LP subgroup usually presents with solitary lesions and demonstrates an indolent clinical course. Typical presentation, classic histopathology, widespread expression of follicular T helper cell markers, and loss of a T cell antigen are diagnostic features of CD4(+) SMPTCL, whereas monomorphous CD8(+) infiltrate without follicular T helper cell markers is consistent with CD8(+) LP."

According to the news editors, the research concluded: "Local skin-directed therapy is appropriate in these patients."


The news editors report that additional information may be obtained by contacting C. Querfeld, City Hope Natl Med Center, Center Comprehens Canc, Dept. of Pathol, Duarte, CA 91010, United States. Additional authors for this research include S. Jawed, P.L. Myskowski, S. Horwitz, A.S. Lucas, A. Moskowitz, M. Pulitzer, J. Zain, S.T. Rosen and C. Querfeld.

Keywords for this news article include: Duarte, California, United States, North and Central America, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Interleukin-16 Receptors, Lymphomas, Epidemiology, T-Lymphocyte Antigens, Biological Factors, T-Cell Lymphoma, Differentiation, CD4 Antigens, CD8 Antigens, CD Antigens, Hematology, Immunology, Oncology, City of Hope National Medical Center.
Investigators from Cleveland Clinic Release New Data on Hypertension (Impact of Sleep-Disordered Breathing Treatment on Patient Reported Outcomes in a Clinic-Based Cohort of Hypertensive Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Hypertension is now available. According to news reporting out of Cleveland, Ohio, by NewsRx editors, research stated, "We hypothesized that patient reported outcomes (PROs) improve with positive airway pressure (PAP) in patients with sleep-disordered breathing (SDB) and hypertension (HTN). Questionnaire-based PROs (sleepiness [Epworth Sleepiness Scale, (ESS)], depression [Patient Health Questionnaire-9 (PHQ-9)], and fatigue [Fatigue Severity Scale (FSS)]) were retrospectively examined in patients with SDB and HTN at baseline and within a year following PAP initiation."

Our news journalists obtained a quote from the research from Cleveland Clinic, "PRO changes were estimated using multivariable linear mixed-effect models adjusted for baseline age, sex, race, body mass index, resistant hypertension (RHTN) status, cardiac and diabetes history, and correlation between repeated measurements. Age and race by PAP interaction terms (mean change, 95% CI) were examined. 894 patients with HTN and SDB were examined. 130 (15%) had baseline RHTN (age 58 +/- 12 y, 52.9 % male, BMI 36.2 +/- 9.1 kg/m (2)). In multivariable models, a significant improvement in sleepiness ESS (-2.09, 95% CI: -2.37, -1.82), PHQ-9 (-1.91, 95% CI: -2.25, -1.56), and FSS scores (-4.06 95% CI: -4.89, -3.22) was observed. A significant race by PAP effect interaction was observed (p < 0.0001 for all PROs); Caucasians had greater improvements than non-Caucasians. The interaction term of effect of PAP and age was significant for ESS (p = 0.04) and PHQ-9 (p = 0.0003), indicating greater improvement in younger patients."

According to the news editors, the research concluded: "Consistent improvement of broad PRO domains in response to PAP in SDB was observed in this clinic-based hypertensive cohort; Caucasians and younger patients derived greater benefit."

For more information on this research see: Impact of Sleep-Disordered Breathing Treatment on Patient Reported Outcomes in a Clinic-Based Cohort of Hypertensive Patients. Journal of Clinical Sleep Medicine, 2016;12(10):1357-1364. Journal of Clinical Sleep Medicine can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.

Our news journalists report that additional information may be obtained by contacting H.K. Walia, Cleveland Clinic, Neurol Inst, Sleep Disorders Center, Cleveland, OH 44106, United States. Additional authors for this research include S.D. Griffith, N.R. Thompson, D.E. Moul, N. Foldvary-Schaefrer and R. Mehra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.6188. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and
Investigators from Columbia University Have Reported New Data on Thrombosis (Impact of time to treatment on the effects of bivalirudin vs. glycoprotein Ilb/IIa inhibitors and heparin in patients undergoing primary percutaneous coronary ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Thrombosis is the subject of a report. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "In the HORIZONS-AMI trial, bivalirudin compared to unfractionated heparin (UFH) plus a glycoprotein Ilb/IIa inhibitor (GPI) improved net clinical outcomes in patients undergoing primary percutaneous coronary intervention (PCI) at the cost of an increased rate of acute stent thrombosis. We sought to examine whether these effects are dependent on time to treatment."

Our news journalists obtained a quote from the research from Columbia University, "The interaction between anticoagulation regimen and symptom onset to first balloon inflation time (SBT) on the 30-day and three-year rates of major adverse cardiac events (MACE) was examined in 3,199 randomised patients according to SBT <3 hours versus >3 hours. Among patients with an SBT <3 hours, bivalirudin resulted in higher 30-day rates of MACE compared to UFH plus a GPI. Nonsignificant differences were observed in patients with an SBT >3 hours. Similar results were found for MACE at three years and stent thrombosis and reinfarction at 30 days and three years. By multivariable analysis, bivalirudin was an independent predictor of MACE at 30 days and three years in patients with an SBT <3 hours, but not in patients with SBT >3 hours."

According to the news editors, the research concluded: "Bivalirudin compared to UFH plus a GPI is associated with an increased rate of stent thrombosis and MACE in patients with short SBTs, but not in those with longer SBTs."

For more information on this research see: Impact of time to treatment on the effects of bivalirudin vs. glycoprotein Ilb/IIa inhibitors and heparin in patients undergoing primary percutaneous coronary intervention: insights from the HORIZONS-AN trial. Eurointervention, 2016;12(9):1144-1153. Eurointervention can be contacted at: Europa Edition, 19 Allees Jean Jaures B P 61508, Toulouse Cedex 6, 31015, France.

Our news journalists report that additional information may be obtained by contacting G.W. Stone, Columbia University, Medical Center, NewYork Presbyterian Hosp, New York, NY, United States. Additional authors for this research include G. De Luca, G.D. Dangas, P. Clemmensen, G.M. Ayele, R. Mehran and G.W. Stone.

Keywords for this news article include: New York City, New York, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Glycoconjugates, Glycoproteins, Hematology, Columbia University.

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Investigators from Comenius University Report New Data on Cardiovascular Research (Effects of Necrostatin-1, an Inhibitor of Necroptosis, and its Inactive Analogue Nec-1i on Basal Cardiovascular Function)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Research are discussed in a new report. According to news reporting originating from Bratislava, Slovakia, by NewsRx correspondents, research stated, "Inhibition of receptor-interacting serine/threonine-protein kinase 1 (RIP1) by necrostatin-1 (Nec-1) alleviates cardiac injury due to prevention of necroptotic cell death. Its inactive analogue necrostatin-1i (Nec-1i), lacking RIP1 activity, serves as a suitable control."

Our news editors obtained a quote from the research from Comenius University, "It is unknown if these agents influence the heart function in the absence of damaging stimuli. For this purpose, we measured intraarterial blood pressure (systolic - sBP and diastolic - dBP) and ECG parameters after a bolus administration of Nec-1 and Nec-1i in rats during 30 min. Nec-1, unlike Nec-1i, increased sBP and dBP, as well as heart rate reaching the peak at 20 min. The P wave duration tended to be decreased and the duration of the PR interval was shortened by Nec-1 indicating faster conduction of the impulses through atria to the ventricles. The drugs did not influence the QTc interval duration and no episode of ventricular arrhythmia was observed. In summary, Nec-1 temporarily modulates blood pressure and electrical function of the healthy heart."

According to the news editors, the research concluded: "These effects of Nec-1 are likely due to its off-target action or RIP1 has an important role in the regulation of cardiovascular function independently of its action on the necroptotic pathway."

For more information on this research see: Effects of Necrostatin-1, an Inhibitor of Necroptosis, and its Inactive Analogue Nec-1i on Basal Cardiovascular Function. Physiological Research, 2016;65(5):861-865. Physiological Research can be contacted at: Acad Sciences Czech Republic, Inst Physiology, Videnska 1083, Prague 4 142 20, Czech Republic.

The news editors report that additional information may be obtained by contacting A. Adameova, Comenius Univ, Dept. of Pharmacol & Toxicol, Fac Pharm, Bratislava 83232, Slovakia. Additional authors for this research include T. Rajtik and A. Adameova.

Keywords for this news article include: Bratislava, Slovakia, Europe, Cardiovascular Research, Cardiovascular, Blood Pressure, Hemodynamics, Necroptosis, Cardiology, Comenius University.

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Investigators from Council of Scientific and Industrial Research (CSIR) Release New Data on Microtubule Proteins [Synthesis of 3,5-dihydroxy-7,8-dimethoxy-2-(4-methoxyphenyl) benzopyran-4-one derivatives as anticancer agents]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Microtubule Proteins is now available. According to news originating from Uttar Pradesh, India, by NewsRx correspondents, research stated, "Different alkyl amide (15a-I) and alkyl amine (16a-e) derivatives of 7,8-dimethoxy-3-hydroxy-2-(4-methoxyphenyl)benzopyran-4-one were synthesized and evaluated for their anticancer activity against five different cancer cell lines using SRB assay."

Our news journalists obtained a quote from the research from the Council of Scientific and Industrial Research (CSIR), "Compounds 15e, 15i, 15j and 16a-e showed significant anticancer activity within the range of IC50 2.58-34.86 muM. The most promising molecule, 16c, was further analyzed for its effect on cell cycle and apoptosis of estrogen receptor positive cancer cells (MCF-7 cells) which showed that 16c triggered apoptosis in MCF-7 cells and arrested cells population at sub-G(0) (apoptotic) and G(2)M phase."

According to the news editors, the research concluded: "In tubulin polymerization assay, 16c interfered with kinetics of tubulin polymerization."


The news correspondents report that additional information may be obtained from A. Gupta, CSIR, Cent Inst Med & Aromat Plants, Dept. of Med Chem, Lucknow 226015, Uttar Pradesh, India. Additional authors for this research include A. Ahmad, D.S. Raghuvanshi, M. Hasanain, K. Agarwal, V. Dubey, K. Fatima, S. Alam, J. Sarkar, S. Luqman, F. Khan, S. Tandon and A. Gupta.

Keywords for this news article include: Uttar Pradesh, India, Asia, Microtubule Proteins, Tubulin, Council of Scientific and Industrial Research (CSIR).

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Drugs and Therapies - Antibiotics

Investigators from Curtin University Target Antibiotics (Exploiting Interkingdom Interactions for Development of Small-Molecule Inhibitors of Candida albicans Biofilm Formation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a
new report. According to news reporting originating from Perth, Australia, by NewsRx correspondents, research stated, "A rapid decline in the development of new antimicrobial therapeutics has coincided with the emergence of new and more aggressive multidrug-resistant pathogens. Pathogens are protected from antibiotic activity by their ability to enter an aggregative biofilm state."

Funders for this research include Science Foundation Ireland (SFI), European Commission (EC), Health Research Board (HRB), Teagasc, Department of Agriculture, Food and the Marine, Irish Research Council for Science, Engineering and Technology (IRCSET), Marine Institute (Foras Na Mara).

Our news editors obtained a quote from the research from Curtin University, "Therefore, disrupting this process in pathogens is a key strategy for the development of next-generation antimicrobials. Here, we present a suite of compounds, based on the Pseudomonas aeruginosa 2-heptyl-4(1H)-quinolone (HHQ) core quinolone interkingdom signal structure, that exhibit noncytotoxic antibiofilm activity toward the fungal pathogen Candida albicans. In addition to providing new insights into what is a clinically important bacterium-fungus interaction, the capacity to modularize the functionality of the quinolone signals is an important advance in harnessing the therapeutic potential of signaling molecules in general."

According to the news editors, the research concluded: "This provides a platform for the development of potent next-generation small-molecule therapeutics targeting clinically relevant fungal pathogens."

For more information on this research see: Exploiting Interkingdom Interactions for Development of Small-Molecule Inhibitors of Candida albicans Biofilm Formation. Antimicrobial Agents and Chemotherapy, 2016;60(10):5894-5905. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00190-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Perth, Australia, Australia and New Zealand, Small Molecule Inhibitors, Drugs and Therapies, Antibiotics, Curtin University.

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correspondents, research stated, "The clinical management of heart rhythm disorders still constitutes a major challenge. The development of alternatives to current approaches is of significant interest in order to establish more effective therapies that increase quality of life and reduce symptoms and hospitalizations."

Our news editors obtained a quote from the research from DZHK German Center for Cardiovascular Research, "Over the past two decades the mechanistic understanding of pathophysiological pathways underlying cardiac arrhythmias has advanced profoundly, opening up novel avenues for mechanism-based therapeutic approaches. In particular, gene therapy offers greater selectivity than small molecule-based or interventional treatment. The gene of interest is packaged into viral or non-viral carriers and delivered to the target area via direct injection or using catheter-based techniques, providing the advantage of site-restricted action in contrast to systemic application of drugs."

According to the news editors, the research concluded: "This work summarizes the current knowledge on mechanistic background, application strategies, and preclinical outcome of antiarrhythmic gene therapy for atrial fibrillation, ventricular tachycardia, and modulation of sinus node function."


The news editors report that additional information may be obtained by contacting D. Thomas, DZHK German Center Cardiovasc Res, Partner Site Heidelberg Mannheim, D-69120 Heidelberg, Germany. Additional authors for this research include P.A. Schweizer, H.A. Katus and D. Thomas.

Keywords for this news article include: Heidelberg, Germany, Europe, Bioengineering, Article Review, Genetics, Genetically-Engineered Proteins, Antiarrhythmic Agents, Genetic Engineering, Drugs and Therapies, Biotechnology, Gene Therapy, Biologics, DZHK German Center for Cardiovascular Research.

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Gram-Negative Bacteria - Helicobacter pylori

Investigators from DZIF German Center for Infection Research Target Helicobacter pylori (Systematic site-directed mutagenesis of the Helicobacter pylori CagL protein of the Cag type IV secretion system identifies novel functional domains)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Helicobacter pylori is now available. According to news reporting originating in Hannover, Germany, by NewsRx journalists, research stated, "The Cag Type IV secretion system, which contributes to inflammation and cancerogenesis during chronic infection, is one of the major virulence factors of the bacterial gastric pathogen Helicobacter pylori. We have generated and characterized a series of non-marked site-directed chromosomal mutants in H. pylori to define domains of unknown function of the essential tip protein CagL of the Cag secretion system."
The news reporters obtained a quote from the research from DZIF German Center for Infection Research, "Characterizing the CagL mutants, we determined that their function to activate cells and transport the effector CagA was reduced to different extents. We identified three novel regions of the CagL protein, involved in its structural integrity, its possible interaction with the CagPAIT4SS pilus protein CagI, and in its binding to integrins and other host cell ligands. In particular two novel variable CagL motifs were involved in integrin binding, TSPSA, and TASLI, which is located opposite of its integrin binding motif RGD. We thereby defined functionally important subdomains within the CagL structure, which can be used to clarify CagL contributions in the context of other CagPAI proteins or for inhibition of the CagT4SS."

According to the news reporters, the research concluded: "This structure-function correlation of CagL domains can also be instructive for the functional characterization of other potential VirB5 orthologs whose structure is not yet known."


Our news correspondents report that additional information may be obtained by contacting C. Josenhans, DZIF German Center Infect Res, Partner Site Hannover Braunschweig, D-30625 Hannover, Germany. Additional authors for this research include P. Olbermann, S.H. Bats, W. Fischer and C. Josenhans.

Keywords for this news article include: Hannover, Germany, Europe, Parasitic Diseases and Conditions, Gram-Negative Bacteria, Epsilonproteobacteria, Helicobacter pylori, Proteobacteria, Mutagenesis, Genetics, DZIF German Center for Infection Research.

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Gender and Health

**Investigators from Department of Nuclear Medicine Have Reported New Data on Gender and Health (Impact of Gender on the Prognostic Value of Coronary Artery Calcium in Symptomatic Patients With Normal Single-Photon Emission Computed Tomography ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gender and Health are discussed in a new report. According to news originating from Zwolle, Netherlands, by NewsRx correspondents, research stated, "The coronary artery calcium (CAC) score provides independent prognostic value on top of single-photon emission computed tomography (SPECT) myocardial perfusion imaging (MPI). We sought to determine whether the prognostic value of the CAC score in patients with normal SPECT MPI is gender specific."

Our news journalists obtained a quote from the research from the Department of Nuclear Medicine, "We studied 3,705 consecutive symptomatic patients without a history of coronary artery disease with normal SPECT MPI. All patients underwent concomitant CAC scoring, which was categorized as CAC score 0, 1 to 99, 100 to 399, 400 to 999, or >= 1,000. Major adverse cardiac events were defined as revascularization, nonfatal myocardial infarction,
or all-cause mortality. The median CAC score was 9 in women (interquartile range 0 to 113) and 47 in men (interquartile range 1 to 307, p<0.001). The annual event rate was lower in women than in men (1.6% and 2.7%, respectively, p<0.001). When stratified by CAC score, annual event rates were similar (for women and men, respectively: CAC score 0, 0.6% and 0.5%, p = 0.95; CAC score 1 to 99, 0.9% and 1.2%, p = 0.45; CAC score 100 to 399, 2.7% and 3.8%, p = 0.23; CAC score 400 to 999, 3.8% and 5.3%, p = 0.34; CAC score >= 1,000, 8.4% and 8.7%, p = 0.99). The CAC score was an independent predictor of major adverse cardiac events in both genders (CAC score >= 1,000: hazard ratio for women 8.5, 95% confidence interval 4.0 to 18.1; hazard ratio for men 14.8, 95% confidence interval 5.3 to 41.1)."

According to the news editors, the research concluded: "Risk for events is similar for both genders when stratified by CAC score, wherein a high CAC score carries a high risk for events despite normal SPECT MPI. Our findings do not reveal a gender-specific prognostic value of the CAC score."


The news correspondents report that additional information may be obtained from E.M. Engbers, Isala, Dept. of Nucl Med, Zwolle, Netherlands. Additional authors for this research include J.R. Timmer, J.P. Ottervanger, M. Mouden, S. Knollema and P.L. Jager.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjcard.2016.08.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zwolle, Netherlands, Europe, Gender and Health, Computed Tomography, Imaging Technology, Coronary Artery, Women's Health, Gender Health, Cardiology, Angiology, Department of Nuclear Medicine.

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**Oncology - Neuroblastomas**

**Investigators from Department of Pediatrics Target Neuroblastomas (MicroRNA-21 promotes the proliferation and invasion of neuroblastoma cells through targeting CHIA)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Neuroblastomas are discussed in a new report. According to news reporting from Kaifeng, People's Republic of China, by NewsRx journalists, research stated, "Neuroblastoma (NB) is one of the most common solid tumors in infants and children. Numerous reports demonstrated that microRNAs (miRNAs) play important roles in the carcinogenesis of neuroblastoma. miR-21 functions as a tumor oncogene in some malignancies."

The news correspondents obtained a quote from the research from the Department of Pediatrics, "However, its role in NB remains poorly understood. miR-21 expression was
quantified in NB tissues and matched adjacent non-tumor tissues using quantitative real-time PCR (RT-PCR). Cell proliferation, migration, and invasion were measured following overexpression of miR-21 expression by miR-21 mimics. miR-21 targets were scanned using target prediction programs. Following the overexpression of miR-21, target gene expression was detected by western blotting. In addition, cell proliferation, migration, and invasion were measured following inhibition of CHL1 expression by siRNA. In the present study, our results showed that miR-21 was increased in NB tissues compared with matched adjacent non-tumor tissues. Forced overexpression of miR-21 significantly increased NB cell proliferation, migration, and invasion. Close homolog of LI (CHL1) was found to be a target of miR-21. Furthermore, downregulation of CHL1 by siRNA performed similar effects with overexpression of miR-21 in NB cells.

According to the news reporters, the research concluded: "We suggested that miR-21 promoted neuroblastoma cell growth and motility partially by targeting CHL1, indicating the potential utility of miR-21 inhibition as a novel therapeutic strategy against neuroblastoma."

For more information on this research see: MicroRNA-21 promotes the proliferation and invasion of neuroblastoma cells through targeting CHIA. Minerva Medica, 2016;107 (5):287-293. Minerva Medica can be contacted at: Edizioni Minerva Medica, Corso Bramante 83-85 Int Journals Dept., 10126 Turin, Italy.

Our news journalists report that additional information may be obtained by contacting Y. Li, HeNan Univ, Huaihe Hosp, Dept. of Pediat, Kaifeng 475000, Henan Province, People's Republic of China. Additional authors for this research include Y.M. Shang and Q.W. Wang.

Keywords for this news article include: Kaifeng, People's Republic of China, Asia, Cell Proliferation, Neuroblastomas, Hematology, Oncology, Genetics, Department of Pediatrics.

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Nutritional and Metabolic Diseases and Conditions -- Investigators from Dokkyo Medical University Zero in on Protein Deficiency (StarD7 Protein Deficiency Adversely Affects the Phosphatidylcholine Composition, Respiratory Activity, and Cristae Structure of Mitochondria)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Protein Deficiency. According to news reporting out of Tochigi, Japan, by NewsRx editors, research stated, "Phosphatidylcholine (PC) is a major phospholipid of mitochondria, comprising 40-50% of both the outer and the inner membranes. However, PC must be imported from its production organelles because mitochondria lack the enzymes essential for PC biosynthesis."

Our news journalists obtained a quote from the research from Dokkyo Medical University, "In a previous study, we found that StarD7 mediates the intracellular transfer of PC to mitochondria. Therefore, in this study, we analyzed the contribution of StarD7 to the maintenance of mitochondrial phospholipid content and function using siRNA-mediated knockdown and knock-out (KO) of the StarD7 gene in HEPA-1 cells. Real time analysis of
respiratory activity demonstrated that the oxygen consumption rate and activity of mitochondrial complexes were impaired in StarD7-KD cells. To confirm these results, we established StarD7-KO HEPA-1 cells by double nicking using CRISPR/Cas9n. As expected, StarD7-KD and -KO cells showed a significant reduction in mitochondrial PC content. The ATP level and growth rate of KO cells were notably lower compared with wild-type cells when cultured in glucose-free galactose-containing medium to force cells to rely on mitochondrial ATP production. In KO cells, the level of the MTCO1 protein, a primary subunit of complex IV, was reduced without a concomitant decrease in its mRNA, but the level was restored when StarD7-I was overexpressed. StarD7-KO cells showed impaired formation of the mitochondrial supercomplexes and exhibited a disorganized cristae structure, with no changes in optic atrophy 1 protein.

According to the news editors, the research concluded: "These findings indicate that StarD7 plays important roles in maintaining the proper composition of mitochondrial phospholipids as well as mitochondrial function and morphogenesis."


Our news journalists report that additional information may be obtained by contacting H. Sugimoto, Dokkyo Med Univ, Sch Med, Dept. of Biochem, Mibu, Tochigi, Japan. Additional authors for this research include H. Ando, P.X. Zhang, L. Vergnes, C. Aoyama, M. Itoh, K. Reue and H. Sugimoto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.736793. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tochigi, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Hematologic Diseases and Conditions, Deficiency Diseases and Conditions, Subcellular Fractions, Protein S Deficiency, Cellular Structures, Intracellular Space, Nutrition Disorders, Protein Deficiency, Mitochondria, Malnutrition, Organelles, Cytoplasm, Genetics, Dokkyo Medical University.

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Patient Care

**Investigators from Duke University Target Patient Care (Impact of remote monitoring on clinical events and associated health care utilization: A nationwide assessment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Patient Care are discussed in a new report. According to news reporting out of Durham, North Carolina, by NewsRx editors, research stated, "Remote monitoring (RM) of cardiac implantable electronic devices (CIEDs) improves patient survival. However, whether RM reduces health care utilization is unknown."

Our news journalists obtained a quote from the research from Duke University, "The
The purpose of this study was to determine whether RM was associated with reduced hospitalization and costs in clinical practice. We conducted a nationwide cohort study using the Truven Health Analytics MarketScan database. Patients implanted with a CIED between March 31, 2009, and April 1, 2012, were included. All-cause hospitalization events were compared between those using RM and those not using RM by using Cox proportional hazards methods with Andersen-Gill extension and propensity scoring. We also compared health care costs (payments >30 days after CIED implantation). Overall, there were 92,566 patients (mean age 72 +/- 13 years; 58,140 [63%] men) with a mean follow-up of 19 +/- 12 months, including 54,520 (59%) pacemaker, 27,816 (30%) implantable cardioverter-defibrillator, and 10,230 (11%) cardiac resynchronization therapy patients. Only 37% of patients (34,259) used RM. Patients with RM had Charlson Comorbidity Index values similar to those not using RM but had lower adjusted risk of all-cause hospitalization (adjusted hazard ratio 0.82; 95% confidence interval 0.80-0.84; P< .001) and shorter mean length of hospitalization (5.3 days vs 8.1 days; P< .001) during follow-up. RM was associated with a 30% reduction in hospitalization costs ($8720 mean cost per patient-year vs $12,423 mean cost per patient-year). For every 100,000 patient-years of follow-up, RM was associated with 9810 fewer hospitalizations, 119,000 fewer days in hospital, and $370,270,000 lower hospital payments. RM is associated with reductions in hospitalization and health care utilization."

According to the news editors, the research concluded: "Since only about a third of patients with CIEDs routinely use RM, this represents a major opportunity for quality improvement."


Our news journalists report that additional information may be obtained by contacting J.P. Piccini, Duke University, Medical Center, Durham, NC, United States. Additional authors for this research include S. Mittal, J. Snell, J.B. Prillinger, N. Dalal and N. Varma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.08.024. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Hospitalization, Patient Care, Cardiology, Duke University.

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Clinical Trials and Studies - Pre-Trial Research

Investigators from Emory University Zero in on Pre-Trial Research (The CRF System as a Therapeutic Target for Neuropsychiatric Disorders)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Trials and Studies - Pre-Trial Research are discussed in a new report. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "The major neuropsychiatric disorders are devastating illnesses that are only modestly responsive to treatment. Improving the treatment of these conditions will
require innovative new strategies that depart from previously focused-on pharmacological mechanisms."

The news correspondents obtained a quote from the research from Emory University, "Considerable preclinical and clinical data indicate corticotropin-releasing factor (CRF) signaling as a target for new psychotropic drug development. Here we review alterations in the CRF system reported in several psychiatric conditions. We also examine the preclinical work that has dissected the distinctive roles of CRF receptors in specific circuits relevant to these disorders. We further describe the clinical trials of CRF1 receptor antagonists that have been conducted."

According to the news reporters, the research concluded: "Although these clinical trials have thus far met with limited therapeutic success, the unfolding complexity of the CRF system promises many future directions for studying its role in the etiology and treatment of neuropsychiatric conditions."


Our news journalists report that additional information may be obtained by contacting J. Sanders, Emory University, Dept. of Psychiat & Behav Sci, Atlanta, GA 30322, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tips.2016.09.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Clinical Trials and Studies, Neuropsychiatric Disorder, Therapy, Article Review, Pre-Trial Research, Clinical Research, Mental Health, Emory University.

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**Oncology - Pancreatic Cancer**

**Investigators from Erasme University Target Pancreatic Cancer (Intraperitoneal mesh prosthesis metastasis from pancreatic cancer, after laparoscopic hernia repair)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Pancreatic Cancer. According to news reporting out of Brussels, Belgium, by NewsRx editors, research stated, "There are very few case reports of metastasis on a mesh prosthesis following laparoscopic hernia repair in the literature and its incidence is completely unknown. Case report A 76-year-old male patient presented in December 2013 with a suspicious malignant lesion of the pancreatic tail on the MRI."

Our news journalists obtained a quote from the research from Erasme University, "He was also complaining of a painful mass in the right para-rectal area. An exploratory laparoscopy performed in December 2013 revealed microscopic whitish peritoneal implants in the left hypochondrium and a massive metastasis involving a mesh prosthesis placed e years
before in the right para-rectal area. The pathology report of biopsies of the mesh confirmed a metastasis compatible with a pancreatic tumor. Possible modes of metastasis and limited published data to date on mesh prosthesis metastasis are presented. This situation can be assimilated to port-site metastasis after laparoscopy."

According to the news editors, the research concluded: "A mesh prosthesis metastasis after laparoscopic hernia repair is very rare."


Our news journalists report that additional information may be obtained by contacting V. Simonelli, Erasmus University, Medicosurg Dept. of Gastroenterol, B-1070 Brussels, Belgium. Additional authors for this research include C. Boven, P. Loi, I. El Nakadi and J. Closett.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/00015458.2016.1139831. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Pancreatic Neoplasms, Pancreatic Cancer, Gastroenterology, Medical Devices, Prosthetics, Oncology, Pancreas, Hernias, Erasme University.

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**Cardiovascular Diseases**

**Investigators from Erasmus University Release New Data on Cardiovascular Diseases (Von Willebrand Factor, ADAMTS13, and the Risk of Mortality The Rotterdam Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases have been published. According to news reporting from Rotterdam, Netherlands, by NewsRx journalists, research stated, "Von Willebrand Factor (VWF) is a plasma protein that plays a major role in platelet adhesion and aggregation. Large VWF multimers are cleaved into smaller, less coagulant forms by the metalloprotease ADAMTS13 (A Disintegrin And Metalloprotease with ThromboSpondin motif repeats 13)."

The news correspondents obtained a quote from the research from Erasmus University, "Previous studies have shown that high VWF and low ADAMTS13 levels are associated with cardiovascular disease, but whether these factors are associated with mortality is unclear. Our aim is to establish the association between VWF antigen (VWF: Ag) levels, ADAMTS13 activity, and mortality. Approach and Results-We included 6130 participants of the Rotterdam study, a population-based cohort study among individuals aged >= 55 years. We determined the association between ADAMTS13 activity, VWF: Ag levels, and all-cause and cardiovascular mortality by Cox proportional hazard regression analysis. During a median follow-up time of 11.3 years and a total of 90 635 person years, 1868 of the 6130 individuals died (30.5%), of whom 442 (23.7%) died because of cardiovascular disease. In individuals with low ADAMTS13 activity, the risk of cardiovascular mortality (hazard ratio, 1.46; 95%
confidence interval, 1.09-1.96) was higher than that in individuals with high ADAMTS13 activity. The risk of cardiovascular mortality (hazard ratio, 1.29; 95% confidence interval 0.98-1.70) was higher in individuals with the highest VWF: Ag levels than in those with the lowest levels. In individuals with both low ADAMTS13 activity and high VWF: Ag levels, the risk of cardiovascular mortality was even higher (hazard ratio, 1.73 95% confidence interval, 1.28-2.35)."

According to the news reporters, the research concluded: "In this large prospective cohort study, ADAMTS13 activity and VWF: Ag levels are both associated with an increased risk of all-cause and cardiovascular mortality."

For more information on this research see: Von Willebrand Factor, ADAMTS13, and the Risk of Mortality The Rotterdam Study. Arteriosclerosis Thrombosis and Vascular Biology, 2016;36(12):2446-2451. Arteriosclerosis Thrombosis and Vascular Biology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting F.W.G. Leebeek, Erasmus University, Medical Center, Dept. of Hematol, NL-3000 CA Rotterdam, Netherlands. Additional authors for this research include O.H. Franco, M.A. Ikram, A. Hofman, M. Kavousi, M.P.M. de Maat and F.W.G. Leebeek.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Hematology, Risk and Prevention, Epidemiology, Cardiovascular Diseases and Conditions, Blood Coagulation Factors, Von Willebrand Disease, Von Willebrand Factor, Enzymes and Coenzymes, Metalloproteases, Cardiology, Erasmus University.

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Oncology - Cancer Risk

Investigators from Erasmus University Target Cancer Risk (Value of cyclin A immunohistochemistry for cancer risk stratification in Barrett esophagus surveillance A multicenter case-control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Risk have been published. According to news reporting originating in Rotterdam, Netherlands, by NewsRx journalists, research stated, "The value of endoscopic Barrett esophagus (BE) surveillance based on histological diagnosis of low-grade dysplasia (LGD) remains debated given the lack of adequate risk stratification. The aim of this study was to evaluate the predictive value of cyclin A expression and to combine these results with our previously reported immunohistochemical p53, AMACR, and SOX2 data, to identify a panel of biomarkers predicting neoplastic progression in BE."

The news reporters obtained a quote from the research from Erasmus University, "We conducted a case-control study within a prospective cohort of 720 BE patients. BE patients who progressed to high-grade dysplasia (HGD, n=37) or esophageal adenocarcinoma (EAC, n=13), defined as neoplastic progression, were classified as cases and patients without neoplastic progression were classified as controls (n=575). Cyclin A expression was determined by immunohistochemistry in all 625 patients; these results were combined with the histological diagnosis and our previous p53, AMACR, and SOX2 data in loglinear regression models.
Differences in discriminatory ability were quantified as changes in area under the ROC curve (AUC) for predicting neoplastic progression. Cyclin A surface positivity significantly increased throughout the metaplasia-dysplasia-carcinoma sequences and was seen in 10% (107/1050) of biopsy series without dysplasia, 33% (109/335) in LGD, and 69% (34/50) in HGD/EAC. Positive cyclin A expression was associated with an increased risk of neoplastic progression (adjusted relative risk (RRa) 2.4; 95% CI: 1.7-3.4). Increases in AUC were substantial for P53 (+0.05), smaller for SOX2 (+0.014), minor for cyclin A (+0.003), and none for AMARC (0.00). Cyclin A immunopositivity was associated with an increased progression risk in BE patients. However, compared to p53 and SOX2, the incremental value of cyclin A was limited.

According to the news reporters, the research concluded: "The use of biomarkers has the potential to significantly improve risk stratification in BE."

For more information on this research see: Value of cyclin A immunohistochemistry for cancer risk stratification in Barrett esophagus surveillance A multicenter case-control study. Medicine, 2016;95(47):166-172. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting K. Biermann, Erasmus University, Medical Center, Dept. of Pathol, NL-3000 CA Rotterdam, Netherlands. Additional authors for this research include F.J.C. ten Kate, M. Doukas, F. Kastelein, E.W. Steyerberg, H.A. Stoop, M.C. Spaander, L.H.J. Looijenga, M.J. Bruno and K. Biermann.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Genetics, Diagnostics and Screening, Epidemiology, Intracellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Esophageal Diseases and Conditions, Digestive System Abnormalities, Barrett Esophagus, Barrett Syndrome, Dermatology, Cancer Risk, Dysplasia, p53 Gene, Cyclin A, Oncology, Cyclins, Erasmus University.

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Oncology - Carcinomas
Investigators from Erasmus University Target Carcinomas (Survival in Patients With Primary Metastatic Renal Cell Carcinoma Treated With Sunitinib With or Without Previous Cytoreductive Nephrectomy: Results From a Population-based Registry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Carcinomas. According to news reporting out of Rotterdam, Netherlands, by NewsRx editors, research stated, "To evaluate the effect of cytoreductive nephrectomy (CN) on overall survival (OS) in primary metastatic renal cell carcinoma (mRCC) patients treated with first-line sunitinib. Patients with primary mRCC treated with first-line sunitinib were selected from a Dutch population-based registry."

Our news journalists obtained a quote from the research from Erasmus University, "A propensity score was calculated reflecting the probability of a patient undergoing CN prior to sunitinib using a set of known covariates, such as the Memorial Sloan Kettering Cancer Center and International mRCC Database Consortium risk factors. After propensity score matching,
differences in OS were analyzed using the Kaplan-Meier method and a multivariable Cox proportional hazards model was used to evaluate the effect of CN on OS. A total of 227 patients met the selection criteria; 74 patients (33%) underwent CN prior to sunitinib. In the matched population, the median OS of patients who underwent CN was 17.9 months compared to 8.8 months for patients treated with sunitinib only. Multivariable analysis showed that CN was an independent predictor of OS (hazard ratio 0.61, 95% confidence interval: 0.41-0.92). A subgroup analysis of patients with a time to targeted therapy of <1 year showed a median OS of 12.7 months for patients treated with CN compared to 8.0 months for patients treated with sunitinib only. The corresponding hazard ratio was 0.67 (95% confidence interval: 0.46-0.98). This study suggests that CN may be effective. However, the benefit was modest when correcting for time from diagnosis to sunitinib."

According to the news editors, the research concluded: "One important limitation is the use of a registry (with retrospectively collected data), which made it impossible to correct for unmeasured characteristics that could be associated with treatment choices or survival."

For more information on this research see: Survival in Patients With Primary Metastatic Renal Cell Carcinoma Treated With Sunitinib With or Without Previous Cytoreductive Nephrectomy: Results From a Population-based Registry. *Urology*, 2016;95 ():121-127. *Urology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

Our news journalists report that additional information may be obtained by contacting S. de Groot, Erasmus University, Inst Hlth Policy & Management, NL-3000 DR Rotterdam, Netherlands. Additional authors for this research include W.K. Redekop, S. Sleijfer, E. Oosterwijk, A. Bex, L. Kiemeney and C.A. Uyl-de Groot.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.04.042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Kidney, Risk and Prevention, Epidemiology, Tyrosine Kinase Inhibitors, VEGF - VEGFR Inhibitors, Multikinase Inhibitors, Drugs and Therapies, VEGFR Inhibitors, Antineoplastics, Nephrectomy, Nephrology, Carcinomas, Sunitinib, Oncology, Surgery, Erasmus University.

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Vitreomacular traction, including full-thickness macular hole (FTMH). Phase 3b, randomized, sham-controlled, double-masked, multicenter clinical trial."

Our news journalists obtained a quote from the research from Eye Institute, "Sample size was 220 subjects (146 ocriplasmin, 74 sham) randomized in a 2:1 ratio to receive intravitreal ocriplasmin 0.125 mg or sham injection. The trial involved 12 visits over 24-months. Inclusion criteria included presence of VMA and best-corrected visual acuity (BCVA) of 20/32 or worse in the study eye. Exclusion criteria included FTMH > 400 μm, presence of epiretinal membrane (ERM), and aphakia in the study eye. The primary efficacy end point was the proportion of subjects with pharmacologic VMA resolution at day 28. Secondary efficacy end points were assessed at month 24 and included proportion of subjects with BCVA gain from baseline, nonsurgical FTMH closure, vitrectomy, and Visual Function Questionnaire 25 (VFQ-25) outcomes. The OASIS trial met its primary end point with pharmacologic VMA resolution at day 28 being significantly higher in the ocriplasmin group (41.7%) compared with the sham group (6.2%). The treatment effect was maintained until study end. In the ocriplasmin group, pharmacologic VMA resolution at day 28 was higher in subgroups with the following baseline characteristics compared with the complementary subgroups without them: presence of focal VMA, presence of FTMH, absence of ERM, and phakic lens status. In the ocriplasmin group, 50.5% of subjects had a>= 2-line improvement in BCVA from baseline compared with 39.1% of subjects in the sham group. The nonsurgical FTMH closure rate was 30.0% for the ocriplasmin group compared with 15.4% for the sham group. All other secondary end points also favored ocriplasmin over sham. Regarding safety, most adverse events were mild to moderate, had a short onset time, and were transient, with no new safety signals identified."

According to the news editors, the research concluded: "The OASIS trial demonstrates the long-term efficacy and safety of ocriplasmin, providing improved resolution of symptomatic VMA compared with previous phase 3 trials with no additional safety signals identified."


Our news journalists report that additional information may be obtained by contacting P.U. Dugel, Univ Southern Calif, Keck Sch Med, USC Roski Eye Inst, Los Angeles, CA, United States. Additional authors for this research include M. Tolentino, L. Feiner, P. Kozma and A. Leroy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ophtha.2016.06.043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Clinical Trials and Studies, Clinical Research, Eye Institute.

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Researchers from FIOCRUZ Target Atherosclerosis (Chronic LPSF/GQ-02 treatment attenuates inflammation and atherosclerosis development in LDLr−/− mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news reporting from Recife, Brazil, by NewsRx journalists, research stated, "Atherosclerosis is a complex disorder with a multifactorial pathogenesis. We previously indicated that the new TZD LPSF/GQ-02 inhibits hepatic steatosis and inflammation, which are reported as risk factors for atherosclerosis development."

The news correspondents obtained a quote from the research from FIOCRUZ, "Here, we explored the effects of LPSF/GQ-02 on atherosclerosis in LDLr−/− mice comparing two treatment periods. LDLr−/− mice were fed a high-fat diet for 10 and 12 weeks and received oral treatment with LPSF/GQ-02 (30 mg/kg/day) or pioglitazone (20 mg/kg/day) for 15 and 30 days, respectively. Both treatment protocols with LPSF/GQ-02 resulted in lower collagen density in the atherosclerotic lesions. In addition, the treatment for 15 days also decreased mRNA levels of CD40, MCP-1, ABCG1 and upregulated PPAR alpha, whereas the 30-days treatment reduced the protein levels of LOX-1, p-I kappa B alpha and p-NF kappa B. This study provides evidence that LPSF/GQ-02 affects the composition and growth of atherosclerotic lesions in LDLr−/− mice."

According to the news reporters, the research concluded: "Moreover, our data also support previous findings showing anti-inflammatory properties of LPSF/GQ-02 and reinforce the therapeutic potential of this TZD for treating atherosclerosis and inflammation-related disorders."

For more information on this research see: Chronic LPSF/GQ-02 treatment attenuates inflammation and atherosclerosis development in LDLr−/− mice. European Journal of Pharmacology, 2016;791():622-631. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting C.A. Peixoto, Center Pesquisa Aggeu Magalhaes FIOCRUZ, Lab Ultraestrutura, Recife, PE, Brazil. Additional authors for this research include F.O.D. Gomes, B.D. Silva, E.L. Ribeiro, A.C. Oliveira, S.M.D. Araujo, I.T. de Lima, A.G.V. Oliveia, M. Rudnicki, D.S.P. Abdalla, M.D.A. de Lima, I.D. Pitta and C.A. Peixoto.

Keywords for this news article include: Recife, Brazil, South America, Cardiovascular Diseases and Conditions, Inflammation, Risk and Prevention, Arterial Occlusive Diseases, Arteriosclerosis, Atherosclerosis, Cardiology, Genetics, FIOCRUZ.

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Investigators from Federal University Target Chemistry (Analysis of tricyclic antidepressants in human plasma using online restricted access molecularly imprinted solid phase extraction followed by direct mass spectrometry ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Chemistry is now available. According to news reporting from Alfenas, Brazil, by NewsRx journalists, research stated, "The use of a new class of hybrid materials, called restricted access molecularly imprinted polymers (RAMIPs) seems to present a good strategy for the sample preparation of complex matrices, since these materials combine good protein elimination capacity with high degree selectivity. Mass spectrometers (MS) have been successfully used for polar drug identification and quantification."

The news correspondents obtained a quote from the research from Federal University, "In order to combine the advantages of both RAMIPs and mass spectrometry, we proposed a study that joins these properties in a single system, where we could analyse tricyclic antidepressants from human plasma, without offline extraction or chromatographic separation. A RAMIP for amitriptyline was synthesised by the bulk method, using methacrylic acid as a functional monomer and glycidilmethacrylate as a hydrophilic co-monomer. Then, epoxide ring openings were made and the polymer was covered with bovine serum albumin (BSA). A column filled with RAMIP-BSA was coupled to a MS/MS instrument in an online configuration, using water as loading and reconditioning mobile phase and a 0.01% acetic acid aqueous solution: acetonitrile at 30:70 as elution mobile phase. The system was used for on-line extraction and simultaneous quantification of nortriptyline, desipramine, amitriptyline, imipramine, clomipramine and clomipramine-d3 (IS) (from 15.0 to 500.014 μg L-1) from plasma samples. The correlation coefficient was higher than 0.99 for all analytes. The CV (coefficient of variation) values ranged from 1.34% to 19.13% for intra assay precision and 1.32-19.77% for inter assay precision."

According to the news reporters, the research concluded: "The E% (relative error) values ranged from -19.15% to 19.51% for intra assay accuracy and from -9.04% to 16.22% for inter assay accuracy."

For more information on this research see: Analysis of tricyclic antidepressants in human plasma using online restricted access molecularly imprinted solid phase extraction followed by direct mass spectrometry identification/quantification. *Talanta*, 2017;163():8-16. *Talanta* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Talanta - www.journals.elsevier.com/talanta/)

Our news journalists report that additional information may be obtained by contacting M.G. Santos, Fed Univ Affenas Unifal MG, Fac Pharmaceut Sci, Toxicants & Drugs Anal Lab LATF, BR-37130000 Alfenas, MG, Brazil. Additional authors for this research include I.M.C. Tavares, A.F. Barbosa, J. Bettini and E.C. Figueiredo.

Keywords for this news article include: Alfenas, Brazil, South America, Chemistry, Federal University.

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Investigators from Foothills Medical Center Zero in on Clinical Trials and Studies [Infarct in a New Territory After Treatment Administration in the ESCAPE Randomized Controlled Trial (Endovascular Treatment for Small Core and Anterior ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news originating from Calgary, Canada, by NewsRx correspondents, research stated, "Infarct in a new previously unaffected territory (INT) is a potential complication of endovascular treatment. We applied a recently proposed methodology to identify and classify INTs in the ESCAPE randomized controlled trial (Endovascular Treatment for Small Core and Anterior Circulation Proximal Occlusion With Emphasis on Minimizing CT to Recanalization Times)."

Our news journalists obtained a quote from the research from Foothills Medical Center, "The core laboratory identified INTs on 24-hour follow-up imaging, blinded to treatment allocation, after assessing all baseline imaging. INTs were classified into 3 types (I-III) and 2 subtypes (A/ B) based on size and if catheter manipulation was likely performed across the vessel territory ostium. Logistic regression was used to understand the effect of multiple a priori identified variables on INT occurrence. Ordinal logistic regression was used to analyze the effect of INTs on modified Rankin Scale shift at 90 days. From 308 patients included, 14 INTs (4.5% overall; 2.8% on follow-up noncontrast computed tomography, 11.7% on follow-up magnetic resonance imaging) were identified (5.0% in endovascular treatment arm versus 4.0% in control arm [P= 0.7]). The use of intravenous alteplase was associated with a 68% reduction in the odds of INT occurrence (3.0% with versus 9.1% without; odds ratio, 0.32; 95% confidence interval, 0.11-0.96; adjusted for age, sex, and treatment type). No other variables were associated with INTs. INT occurrence was associated with reduced probability of good clinical outcome (common odds ratio, 0.25; 95% confidence interval, 0.09-0.74; adjusted for age, type of treatment, and follow-up scan). INTs are uncommon, detected more frequently on follow-up magnetic resonance imaging, and affect clinical outcome."

According to the news editors, the research concluded: "In experienced centers, endovascular treatment is likely not causal, whereas intravenous alteplase may be therapeutic."

For more information on this research see: Infarct in a New Territory After Treatment Administration in the ESCAPE Randomized Controlled Trial (Endovascular Treatment for Small Core and Anterior Circulation Proximal Occlusion With Emphasis on Minimizing CT to Recanalization Times). Stroke, 2016;47(12):2993-2998. Stroke can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Stroke - stroke.ahajournals.org/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1161/STROKEAHA.116.014852. This DOI is a link to an online electronic
Investigators from Fourth Military Medical University Have Reported New Data on Melanoma (Expression of MicroRNA-301a and its Functional Roles in Malignant Melanoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Melanoma. According to news reporting out of Shaanxi, People's Republic of China, by NewsRx editors, research stated, "Although microRNA-301a has been reported to function as an oncogene in many human cancers, the roles of miR-301a in malignant melanoma (MM) is unclear. The present study aims to investigate the functional roles of miR-301a in MM and its possible molecular mechanisms."

Our news journalists obtained a quote from the research from Fourth Military Medical University, "Quantitative real-time PCR (qRT-PCR) assay was performed to detect the expression of miR-301a in MM tissues, and analyze its correlation with metastasis and prognosis of MM patients. In vitro, miR-301a was ectopically expressed using overexpression and knock-down strategies, and the effects of miR-301a expression on growth, apoptosis, migration, invasion and chemosensitivity of MM cells were further investigated. Furthermore, the potential and functional target gene was identified by luciferase reporter, qRT-PCR, Western blot assays. We showed that the expression of miR-301a was significantly upregulated in MM tissues, and upregulation of miR-301a correlated with metastasis and poor prognosis of MM patients. Transfection of miR-301a/inhibitor significantly inhibited growth, colony formation, migration, invasion and enhanced apoptosis and chemosensitivity in MM cells, while transfection of miR-301a/mimic could induce the inverse effects on phenotypes of MM cells. Luciferase reporter, qRT-PCR and Western blot assays showed that phosphatase and tensin homolog (PTEN) was a direct and functional target of miR-301a. It was also observed that the Aid and FAK signaling pathways were involved in miR-301/PTEN-promoting MM progression."

According to the news editors, the research concluded: "Taken together, our study suggests that miR-301a may be used as a potential therapeutic target in the treatment of human MM."


Our news journalists report that additional information may be obtained by contacting X.Y. Li, Fourth Military Medical University, Tangdu Hosp, Dept. of Plast Surg, Xian 710038, Shaanxi, People's Republic of China. Additional authors for this research include Y.J. Li, X.X. Lv, J.Q. Li, X.L. Wang, Z.J. Lei and X.Y. Li.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1159/000452540. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shaanxi, People's Republic of China, Asia, Enzymes and Coenzymes, Luciferases, Oncology, Melanoma, Genetics, Fourth Military Medical University.

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Oncology - Lymphoma
Investigators from Fred Hutchinson Cancer Research Center Report New Data on Lymphoma (Quality of life results from a phase 3 study of brentuximab vedotin consolidation following autologous haematopoietic stem cell transplant for persons with ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Lymphoma have been presented. According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "Brentuximab vedotin (BV) significantly improved progression-free survival in a phase 3 study in patients with relapsed or refractory Hodgkin lymphoma (RR-HL) post-autologous-haematopoietic stem cell transplant (auto-HSCT); we report the impact of BV on quality of life (QOL) from this trial. The European Quality of Life five dimensions questionnaire was administered at the beginning of each cycle, end of treatment, and every 3 months during follow-up; index value scores were calculated using the time trade-off (TTO) method for UK-weighted value sets."

Our news journalists obtained a quote from the research from Fred Hutchinson Cancer Research Center, "Questionnaire adherence during the trial was 87.5% (N=329). In an intent-to-treat analysis, compared with placebo, TTO scores in the BV arm did not exceed the minimally important difference (MID) of 0.08 except at month 15 (-0.084; 95% confidence interval, -0.143 to -0.025). On-treatment index scores were similar between arms and did not reach the MID at any time point; mixed-effect modelling showed that BV treatment effect was not significant (P=0.2127). BV-associated peripheral neuropathy did not meaningfully impact QOL. Utility scores for patients who progressed declined compared with those who did not; TTO scores between these patients exceeded the MID beginning at month 15."

According to the news editors, the research concluded: "QOL decreased modestly with BV consolidation treatment in patients with RR-HL at high risk of relapse after auto-HSCT."


The news correspondents report that additional information may be obtained from S.D. Ramsey, Fred Hutchinson Canc Res Center, Hutchinson Inst Canc Outcomes Res, Seattle, WA 98104, United States. Additional authors for this research include A. Nademanee, T.
Investigators from Free University Have Reported New Data on Epilepsy [Altered GABA(A) receptor density and unaltered blood-brain barrier [C-11]flumazenil transport in drug-resistant epilepsy patients with mesial temporal sclerosis]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Studies in rodents suggest that flumazenil is a P-glycoprotein substrate at the blood-brain barrier. This study aimed to assess whether [C-11] flumazenil is a P-glycoprotein substrate in humans and to what extent increased P-glycoprotein function in epilepsy may confound interpretation of clinical [C-11]flumazenil studies used to assess gamma-aminobutyric acid A receptors."

Our news editors obtained a quote from the research from Free University, "Nine drug-resistant patients with epilepsy and mesial temporal sclerosis were scanned twice using [C-11]flumazenil before and after partial P-glycoprotein blockade with tariquidar. Volume of distribution, nondisplaceable binding potential, and the ratio of rate constants of [C-11] flumazenil transport across the blood-brain barrier (K-1/k(2)) were derived for whole brain and several regions. All parameters were compared between pre- and post-tariquidar scans. Regional results were compared between mesial temporal sclerosis and contralateral sides. Tariquidar significantly increased global K-1/k(2) (+23%) and volume of distribution (+10%), but not nondisplaceable binding potential. At the mesial temporal sclerosis side volume of distribution and nondisplaceable binding potential were lower in hippocampus (both similar to -19%) and amygdala (both similar to -16%), but K-1/k(2) did not differ, suggesting that only regional gamma-aminobutyric acid A receptor density is altered in epilepsy."

According to the news editors, the research concluded: "Although [C-11]flumazenil appears to be a (weak) P-glycoprotein substrate in humans, this does not seem to affect its role as a tracer for assessing gamma-aminobutyric acid A receptor density."

Investigators from Free University Target Cytomegalovirus (Primary maternal cytomegalovirus infections: accuracy of fetal ultrasound for predicting sequelae in offspring)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Herpesvirus Diseases and Conditions - Cytomegalovirus are discussed in a new report. According to news originating from Brussels, Belgium, by NewsRx correspondents, research stated, "Cytomegalovirus infection is the most common perinatal viral infection that can lead to severe long-term medical conditions. Antenatal identification of maternal cytomegalovirus infections with proven fetal transmission and potential postnatal clinical sequelae remains a major challenge in perinatology."

Our news journalists obtained a quote from the research from Free University, "There is a need to improve the prenatal counseling offered to patients and guide future clinical management decisions in cases of proven primary cytomegalovirus infection. We sought to evaluate the accuracy of fetal ultrasound for predicting sequelae in fetuses infected with congenital cytomegalovirus after maternal primary infection. We conducted a prospective observational study from 1996 through 2012 in pregnant women with serological evidence of primary cytomegalovirus infection and proven vertical transmission to the fetus, based on viral load in the amniotic fluid. Fetal ultrasound was performed in all patients. Pregnancy termination was presented as an option for infected fetuses. Hearing and neurological clinical assessments were performed for all neonates with cytomegalovirus-positive urine samples. A total of 67 patients (69 fetuses) with proven vertical transmission were included in this study, including 64 singleton and 3 twin pregnancies. Eight fetuses were lost to follow-up. Of the remaining 61 fetuses, termination of the pregnancy was performed for 26, including 11 with fetal ultrasound anomalies. Autopsy provided histological evidence of fetal cytomegalovirus infection in all cases. In the 15 terminated fetuses without ultrasound anomalies, histological evidence of damage caused by fetal infection was detected in 13 cases. Among the 35 live-born infants, 12 had fetal ultrasound anomalies suggestive of congenital infection. Of these 12 infants, 6 had..."
normal clinical evaluations, whereas 6 presented with either hearing and/or neurological anomalies, classified as severe in 4 cases. Among the 23 live-born infants with normal prenatal ultrasound, 5 developed hearing impairments and 1 showed mild neurological developmental delay. Fetal ultrasound anomalies were detected in 37.7% of pregnant women with primary cytomegalovirus infection acquired in early pregnancy and proven fetal infection, and were confirmed by autopsy or postnatal clinical evaluation in 73.9%.

According to the news editors, the research concluded: "Autopsy or postnatal clinical evaluation also detected cytomegalovirus-related anomalies in 55% of infants with normal fetal ultrasound evaluations."


The news correspondents report that additional information may be obtained from L. Gucciardo, Vrije Univ Brussel, Univ Ziekenhuis Brussel, Dept. of Obstet & Prenatal Med, Brussels, Belgium. Additional authors for this research include A. Vorsselmans, E. Done, K. Van Berkel, G. Faron, I. Foulon, A. Naessens, A. Jansen, W. Foulon and L. Gucciardo.

Keywords for this news article include: Brussels, Belgium, Europe, Herpesvirus Diseases and Conditions, Betaherpesvirinae, Cytomegalovirus, Herpesviridae, DNA Viruses, Virology, Viral, Free University.

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Heart Disorders and Diseases - Andersen-Tawil...

Investigators from Fudan University Target Andersen-Tawil Syndrome (Clinical Features And Long Exercise Test In Chinese Patients With Andersen-tawil Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Andersen-Tawil Syndrome have been presented. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Andersen-Tawil syndrome (ATS) is a rare multisystem channelopathy characterized by periodic paralysis, ventricular arrhythmias, and developmental dysmorphology. There are few reports concerning ATS in the Chinese population."

Our news journalists obtained a quote from the research from Fudan University, "We analyzed clinical features and evaluated the long exercise test as a tool for diagnosis of periodic paralysis in ATS. Direct sequencing of KCNJ2 was performed in 12 subjects from mainland China with suspected ATS. Clinical features, therapeutic responses, and long exercise tests (LET) were retrospectively analyzed. Twelve patients were genetically confirmed to have ATS. A small mandible and clinodactyly were demonstrated in all patients. Premature ventricular contractions were the most prevalent form of cardiac arrhythmia. The LET revealed an early amplitude decrement. Chinese ATS patients shared some common clinical features with reported subjects in other countries."
According to the news editors, the research concluded: "An early amplitude decrement in LET may be useful for diagnosis of ATS."


The news correspondents report that additional information may be obtained from K. Qiao, Fudan University, Huashan Hosp, Inst Neurol, Dept. of Clin Electrophysioli, Shanghai 200040, People's Republic of China. Additional authors for this research include S.S. Luo, X. Cheng, D.Y. Yue, W.H. Zhu, J. Lin, J. Huang, J.H. Lu, C.B. Zhao and K. Qiao.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Heart Disorders and Diseases, Andersen-Tawil Syndrome, Cardiology, Neurology, Genetics, Fudan University.

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**Oncology - Colon Cancer**

**Investigators from Fudan University Zero in on Colon Cancer (Cullin 3 targets methionine adenosyltransferase II alpha for ubiquitylation-mediated degradation and regulates colorectal cancer cell proliferation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Cullin 3 (CUL3) serves as a scaffold protein and assembles a large number of ubiquitin ligase complexes. It is involved in multiple cellular processes and plays a potential role in tumor development and progression."

Our news editors obtained a quote from the research from Fudan University, "In this study, we demonstrate that CUL3 targets methionine adenosyltransferase II alpha (MAT II alpha) and promotes its proteasomal degradation through the ubiquitylation-mediated pathway. MAT II alpha is a key enzyme in methionine metabolism and is associated with uncontrolled cell proliferation in cancer. We presently found that CUL3 down-regulation could rescue folate deprivation-induced MAT II alpha exhaustion and growth arrest in colorectal cancer (CRC) cells. Further results from human CRC samples display an inverse correlation between CUL3 and MAT II alpha protein levels."

According to the news editors, the research concluded: "Our observations reveal a novel role of CUL3 in regulating cell proliferation by controlling the stability of MAT II alpha."


The news editors report that additional information may be obtained by contacting Y.Y. Xu, Fudan University, Inst Biomed Sci, Canc Metab Lab, Shanghai 200032, People's

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Liver Cancer are discussed in a new report. According to news reporting originating from Fujian, People's Republic of China, by NewsRx correspondents, research stated, "Aberrant expression of lncRNA has been suggested to have an association with tumorigenesis. Our study was designed to reveal the underlying connection between lncRNA SNHG1 and hepatocellular carcinoma (HCC) pathogenesis."

Our news editors obtained a quote from the research from Fujian Medical University, "A total of 122 pairs of HCC tissues (case group) and matched adjacent non-tumor liver tissues (control group) were collected for this study. RT-PCR and in situ hybridization were conducted to investigate differences in IncRNA SNHG1 expression between the case and control group. The expression levels of IncRNA SNHG1 and miR-195 in HepG2 cells transfected with SNHG1-mimic and SNHG1-inhibitor were measured by RT-PCR. The proliferation, invasion, and migration status of HepG2 cells after transfection were assessed through MTT assay, wound healing assay, and Transwell assay, respectively. Whether miR-195 is a direct downstream target of IncRNA SNHG1 was verified by both bioinformatics target gene prediction and dual-luciferase report assay. The expression level of IncRNA SNHG1 was remarkably upregulated in HCC tissues and cell lines compared with normal tissues and cell lines. High expression of IncRNA SNHG1 contributed to the downregulation of miR-195 in HepG2 cells. Also, IncRNA SNHG1 exacerbated HCC cell proliferation, invasion, and migration in vitro through the inhibition of miR-195. This suggests that miR-195 is a direct downstream target of IncRNA SNHG1."

According to the news editors, the research concluded: "LncRNA SNHG1 may contribute to the aggravation of HCC through the inhibition of miR-195."

For more information on this research see: Expression of Long Non-Coding RNA (IncRNA) Small Nucleolar RNA Host Gene 1 (SNHG1) Exacerbates Hepatocellular Carcinoma Through Suppressing miR-195. Medical Science Monitor, 2016;22():4820-4829. Medical Science Monitor can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

The news editors report that additional information may be obtained by contacting H. Zhang, Fujian Med Univ, Teaching Hosp, Fujian Prov Canc Hosp, Dept. of Abdominal Surg, Fuzhou, Fujian, People's Republic of China. Additional authors for this research include D.
Investigators from Fukushima Medical University Zero in on Heart Failure (Associations With Eicosapentaenoic Acid to Arachidonic Acid Ratio and Mortality in Hospitalized Heart Failure Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Failure is now available. According to news originating from Fukushima, Japan, by NewsRx correspondents, research stated, "Intake of n-3 polyunsaturated fatty acids (n-3 PUFAs) lowers the risk of atherosclerotic cardiovascular events, particularly ischemic heart disease. In addition, the ratio of eicosapentaenoic acid (EPA; n-3 PUFA) to arachidonic acid (AA; n-6 PUFA) has recently been recognized as a risk marker of cardiovascular disease."

Our news journalists obtained a quote from the research from Fukushima Medical University, "In contrast, the prognostic impact of the EPA/AA ratio on patients with heart failure (HF) remains unclear. A total of 577 consecutive patients admitted for HF were divided into 2 groups based on median of the EPA/AA ratio: low EPA/AA (EPA/AA <0.32 mg/dl, n = 291) and high EPA/AA (EPA/AA >= 0.32, n = 286) groups. We compared laboratory data and echocardiographic findings and followed cardiac mortality. Although body mass index, blood pressure, B-type natriuretic peptide, hemoglobin, estimated glomerular filtration rate, total protein, albumin, sodium, C-reactive protein, and left ventricular ejection fraction did not differ between the 2 groups, cardiac mortality was significantly higher in the low EPA/AA group than in the high EPA/AA group (12.7 vs 5.9%, log-rank P = .004). Multivariate Cox proportional hazard analysis revealed that the EPA/AA ratio was an independent predictor of cardiac mortality (hazard ratio 0.677, 95% confidence interval 0.453-0.983, P = .041) in patients with HF."

According to the news editors, the research concluded: "The EPA/AA ratio was an independent predictor of cardiac mortality in patients with HF; therefore, the prognosis of patients with HF may be improved by taking appropriate management to control the EPA/AA balance."

For more information on this research see: Associations With Eicosapentaenoic Acid to Arachidonic Acid Ratio and Mortality in Hospitalized Heart Failure Patients. *Journal of Cardiac Failure*, 2016;22Q(12):962-969. *Journal of Cardiac Failure* can be contacted at: Churchill Livingstone Inc Medical Publishers, Curtis Center, Independence Square West, Philadelphia, PA 19106-3399, USA. (Elsevier - www.elsevier.com; Journal of Cardiac Failure - www.journals.elsevier.com/journal-of-cardiac-failure/)

The news correspondents report that additional information may be obtained from A. Yoshihisa, Fukushima Med Univ, Dept. of Adv Cardiac Therapeut, Fukushima, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cardfail.2016.04.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fukushima, Japan, Asia, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Heart Disorders and Diseases, Heart Failure, Heart Disease, Fukushima Medical University.

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Investigators from Geisinger Health System Report New Data on Obesity (Depression, its Comorbidities and Treatment, and Childhood Body Mass Index Trajectories)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting from Danville, Pennsylvania, by NewsRx journalists, research stated, "No prior studies have evaluated depression diagnoses and cumulative antidepressant use in relation to longitudinal body mass index (BMI) trajectories in a population-representative sample. Electronic health record data from 105,163 children ages 8 to 18 years with 314,648 BMI values were used."

The news correspondents obtained a quote from the research from Geisinger Health System, "Depression diagnoses were evaluated as ever versus never, cumulative number of encounters with diagnoses, and total duration of diagnoses. Antidepressants were evaluated as months of use. Associations were evaluated with diagnoses alone, antidepressants alone, and then together, adjusting for covariates. A total of 6,172 (5.9%) and 10,628 (10.1%) children had a diagnosis of depression or received antidepressant treatment, respectively. At all ages, children receiving Medical Assistance (30.9%) were more likely to be treated with antidepressants. Depression diagnosis and antidepressant use were each independently and positively associated with BMI trajectories; associations were stronger with longer durations of diagnosis and treatment. Among children who received 12 or more months of antidepressants (vs. none), the mean (95% CI) weight gain at 18 years associated with antidepressant use (all classes) was 2.10 (1.76-2.45) kg."

According to the news reporters, the research concluded: "Depression and antidepressant use were both independently associated with increasing BMIs over time, suggesting an important unintended consequence of healthcare to the obesity epidemic."

For more information on this research see: Depression, its Comorbidities and Treatment, and Childhood Body Mass Index Trajectories. Obesity, 2016;24(12):2585-2592. Obesity can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news journalists report that additional information may be obtained by contacting B.S. Schwartz, Geisinger Hlth Syst, Center Hlth Res, Dept. of Epidemiol & Hlth
Investigators from General Hospital Have Reported New Data on Cell Proliferation (Inhibitor of DNA-binding 1 promotes endothelial progenitor cell proliferation and migration by suppressing E2-2 through the helix-loop-helix domain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cell Proliferation are discussed in a new report. According to news originating from Kunming, People's Republic of China, by NewsRx correspondents, research stated, "Vascular endothelial damage is the major contributing factor to cardiovascular diseases. Recently, the therapeutic significance of endothelial progenitor cells (EPCs) has drawn increasing attention due to their roles in re-endothelialization following injury."

Our news journalists obtained a quote from the research from General Hospital, "The inhibitor of DNA-binding 1 (ID1) has been proven to promote EPC proliferation and migration, suggesting a critical function of ID1 in re-endothelialization. However, the underlying mechanisms remain undefined. In this study, ID1 was found to interact with E2-2 using immunoprecipitation analysis. Moreover, ID1 overexpression suppressed E2-2 expression and luciferase reporter activity; however, these effects were not observed in cells transfected with ID1 lacking the helix-loop-helix (HLH) domain (ID1HLH). Further functional analysis corroborated that the upregulation of E2-2 markedly attenuated the ID1-mediated increase in EPC proliferation and migration. Furthermore, the HLH domain plays an important role in ID1-induced EPC proliferation and migration, as its deletion suppressed the positive regulatory effects of ID1 on EPC proliferation and migration. Taken together, the findings of our study confirm that ID1 promotes EPC proliferation and migration by suppressing E2-2 through the HLH domain in ID1."

According to the news editors, the research concluded: "Therefore, ID1 may represent a potential therapeutic target for EPC-mediated re-endothelialization following vascular injury."

For more information on this research see: Inhibitor of DNA-binding 1 promotes endothelial progenitor cell proliferation and migration by suppressing E2-2 through the helix-loop-helix domain. *International Journal of Molecular Medicine*, 2016;38(5):1549-1557. *International Journal of Molecular Medicine* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

The news correspondents report that additional information may be obtained from H. Wang, Kunming Gen Hosp Chengdu Military Command, Dept. of Geriatr, Kunming 650032, Yunnan, People's Republic of China. Additional authors for this research include Y. Liang, C.P. Yin, X.L. Liu, Y. Su, L. Zhang and H. Wang.
Investigators from Ghent University Report New Data on Familial Mediterranean Fever (Familial Mediterranean fever mutations lift the obligatory requirement for microtubules in Pyrin inflammasome activation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Autoinflammatory Diseases and Conditions - Familial Mediterranean Fever have been presented. According to news originating from Ghent, Belgium, by NewsRx correspondents, research stated, "Familial Mediterranean fever (FMF) is the most common monogenic autoinflammatory disease worldwide. It is caused by mutations in the inflammasome adaptor Pyrin, but how FMF mutations alter signaling in FMF patients is unknown."

Financial support for this research came from EC | European Research Council (ERC).

Our news journalists obtained a quote from the research from Ghent University, "Herein, we establish Clostridium difficile and its enterotoxin A (TcdA) as Pyrin-activating agents and show that wild-type and FMF Pyrin are differentially controlled by microtubules. Diverse microtubule assembly inhibitors prevented Pyrin-mediated caspase-1 activation and secretion of IL-1 beta and IL-18 from mouse macrophages and human peripheral blood mononuclear cells (PBMCs). Remarkably, Pyrin inflammasome activation persisted upon microtubule disassembly in PBMCs of FMF patients but not in cells of patients afflicted with other autoinflammatory diseases. We further demonstrate that microtubules control Pyrin activation downstream of Pyrin dephosphorylation and that FMF mutations enable microtubule-independent assembly of apoptosis-associated speck-like protein containing a caspase recruitment domain (ASC) micrometer-sized perinuclear structures (specks)."

According to the news editors, the research concluded: "The discovery that Pyrin mutations remove the obligatory requirement for microtubules in inflammasome activation provides a conceptual framework for understanding FMF and enables immunological screening of FMF mutations."


The news correspondents report that additional information may be obtained from M. Lamkanfi, University of Ghent, Dept. of Internal Med, B-9000 Ghent, Belgium. Additional authors for this research include P.H.V. Saavedra, N.M. de Vasconcelos, N. Van Opdenbosch,
Investigators from Gifu University Zero in on Bladder Cancer (A Novel Role of Dickkopf-Related Protein 3 in Macropinocytosis in Human Bladder Cancer T24 Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Bladder Cancer have been published. According to news originating from Gifu, Japan, by NewsRx correspondents, research stated, "Dickkopf-related protein 3 (Dkk-3) is a potential tumor suppressor reported in various cancer entities. However, we found that Dkk-3 was exceptionally upregulated in bladder cancer T24 cells."

Our news journalists obtained a quote from the research from Gifu University, "To validate the biological role of Dkk-3 other than a tumor suppressor, we examined the function of Dkk-3 in T24 cells. Gene silencing of Dkk-3 inhibited cell growth through inducing G(0)/G(1) cell-cycle arrest. Furthermore, Dkk-3 knock-down caused macropinocytosis accompanied by autophagy, which were canceled in part by their inhibitors 5-(N-ethyl-N-isopropyl) amiloride (EIPA) and 3-methyladenine (3-MA). The macropinocytosis was induced by the Dkk-3 knock-down when there were sufficient extracellular nutrients. On the other hand, when the nutritional condition was poor, the autophagy was mainly induced by the Dkk-3 knock-down."

According to the news editors, the research concluded: "These data indicated that Dkk-3 has a role in modulating macropinocytotic and autophagic pathways, a distinct function other than a Wnt antagonist."

For more information on this research see: A Novel Role of Dickkopf-Related Protein 3 in Macropinocytosis in Human Bladder Cancer T24 Cells. International Journal of Molecular Sciences, 2016;17(11):1300-1313. International Journal of Molecular Sciences can be contacted at: Mdpí Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from N. Tsujimura, Gifu University, United Grad Sch Drug Discovery & Med Informat Sci, Gifu, Gifu 5011194, Japan. Additional authors for this research include N.O. Yamada, Y. Kuranaga, M. Kumazaki, H. Shinohara, K. Taniguchi and Y. Akao.

Keywords for this news article include: Gifu, Japan, Asia, Tumor Suppression, Macropinocytosis, Bladder Cancer, Oncology, Gifu University.

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Investigators from Gil Medical Center Report New Data on Nanotechnology (Recent insights into the development of nanotechnology to detect circulating tumor cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nanotechnology are presented in a new report. According to news reporting originating in Inchon, South Korea, by NewsRx journalists, research stated, "Circulating tumor cells (CTCs) produced from primary tumors act as seeds for metastasis, leading to the majority of cancer-related deaths. Currently, in cancer research, these cells have attracted much attention in studying the process of metastasis."

Financial support for this research came from National Research Foundation.

The news reporters obtained a quote from the research from Gil Medical Center, "Various studies in the past decade have enlightened the role of CFCs as potential biomarkers in cancer diagnosis and prognosis. As a result, the analysis of CTCs could act as a substitute for characterizing the nature of primary tumors and provide unique insights into the metastatic process. The detection of CTCs in the blood samples of a cancer patient is technically challenging because of the extremely low abundance of CTCs among a large number of other blood cells. Therefore, novel methods for the detection of CFCs are highly recommended."

According to the news reporters, the research concluded: "In this feature article, we discuss the recent progress in nanotechnology for the detection of CTCs along with perspectives on future opportunities."


Our news correspondents report that additional information may be obtained by contacting S. Kim, Gil Med Center, Grad Gachon Med Res Inst, Inchon 405760, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.trac.2016.05.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Inchon, South Korea, Asia, Emerging Technologies, Nanotechnology, Oncology, Cancer, Gil Medical Center.

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Investigators from Guangxi Medical University Have Reported New Data on Diclofenac Therapy (Protection from diclofenac-induced liver injury by Yulangsan polysaccharide in a mouse model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Diclofenac Therapy have been published. According to news reporting originating from Nanning, People's Republic of
China, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: Millettia pulchra Kurz var-laxior (Dunn) Z. Wei, a wild-growing plant of the family Fabaceae is known to possess multifarious medicinal properties. Yulangsan polysaccharide (YLSPS) is a chief ingredient of its root, which has been used in Chinese traditional medicine with a long history for remedy of acute or chronic hepatitis and jaundice."

Funders for this research include Natural Science Foundation of China, Fok Ying-Tong Education Foundation of China, Guangxi Natural Science Foundation, Science and Technology Research Projects of Guangxi, Science and Technology foundation.

Our news editors obtained a quote from the research from Guangxi Medical University, "Aim of the study: To investigate the ability of the YLSPS to protect against diclofenac-induced hepatotoxicity in mice. Mice were orally treated with YLSPS daily 1 h after the injection of diclofenac for 2 weeks. Dimethyl diphenyl dicarboxylate was used as a reference drug. YLSPS effectively reduced the elevated levels of serum alanine aminotransferase, aspartate aminotransferase, and alkaline phosphatase and enhanced the reduction of superoxide dismutase, catalase, and glutathione peroxidase activities in the liver. Moreover, the content of malondialdehyde was reduced by treatment with YLSPS, and histological findings also confirmed the anti-hepatotoxic activity. In addition, YLSPS significantly inhibited proinflammatory mediators, such as tumor necrosis factor-alpha and interleukin 1 beta. YLSPS also enhanced mitochondrial antioxidants and inhibited cell death by preventing the down-regulation of Bcl-2 and the up-regulation and release of Bax along with caspase 9 and 3 activity; thus, these findings confirm the involvement of mitochondria in diclofenac-induced apoptosis."

According to the news editors, the research concluded: "The results indicate that protective effects of YLSPS against diclofenac-induced acute hepatic injury may rely on its effect on reducing oxidative stress, suppressing inflammatory responses, and improving drug-metabolizing enzyme activity in the liver."


The news editors report that additional information may be obtained by contacting R.B. Huang, Guangxi Med Univ, Dept. of Pharmacol, Nanning 530021, People's Republic of China. Additional authors for this research include V. Nguyen, X.J. Tang, J.B. Wei, X. Lin, Z.F. Lai, V. Doan, Q.Q. Xie and R.B. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nanning, People's Republic of China, Asia, Ophthalmic Antiinflammatory Agents, Cyclooxygenase Inhibitors, Ophthalmic Preparations, Enzymes and Coenzymes, Drugs and Therapies, Diclofenac Therapy, Aminotransferase, Phenylacetates, NSAID, Guangxi Medical University.

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Investigators from Hamamatsu University Release New Data on Chronic Kidney Disease (Impaired endogenous nighttime melatonin secretion relates to intrarenal renin-angiotensin system activation and renal damage in patients with chronic kidney disease...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Kidney Diseases and Conditions - Chronic Kidney Disease. According to news originating from Hamamatsu, Japan, by NewsRx correspondents, research stated, "Activation of the intrarenal renin-angiotensin system (RAS) plays a critical role in the pathophysiology of chronic kidney disease (CKD) and hypertension. The circadian rhythm of intrarenal RAS activation leads to renal damage and hypertension, which are associated with diurnal blood pressure (BP) variation."

Our news journalists obtained a quote from the research from Hamamatsu University, "The activation of intrarenal RAS following reactive oxygen species (ROS) activation, sympathetic hyperactivity and nitric oxide (NO) inhibition leads to the development of renal damage. Melatonin is a hormone regulating the circadian rhythm, and has multiple functions such as anti-oxidant and anti-adrenergic effects and enhancement of NO bioavailability. Nocturnal melatonin concentrations are lower in CKD patients. However, it is not known if impaired endogenous melatonin secretion is related to BP, intrarenal RAS, or renal damage in CKD patients. We recruited 53 CKD patients and conducted 24-h ambulatory BP monitoring. urine was collected during the daytime and nighttime. We investigated the relationship among the melatonin metabolite urinary 6-sulphatoxymelatonin (U-aMT6s), BP, renal function, urinary angiotensinogen (U-AGT), and urinary albumin (U-Alb). Patients' U-aMT6s levels were significantly and negatively correlated with clinical parameters such as renal function, systolic BP, U-AGT, and U-Alb, during both day and night. Multiple regression analyses for U-aMT6s levels were performed using age, gender, renal function, and each parameter (BPs, U-AGT or U-Alb), at daytime and nighttime. U-aMT6s levels were significantly associated with U-AGT (beta = -0.31, p = 0.044) and U-Alb (beta = -0.25, p = 0.025) only at night."

According to the news editors, the research concluded: "Impaired nighttime melatonin secretion may be associated with nighttime intrarenal RAS activation and renal damage in CKD patients."

For more information on this research see: Impaired endogenous nighttime melatonin secretion relates to intrarenal renin-angiotensin system activation and renal damage in patients with chronic kidney disease. Clinical and Experimental Nephrology, 2016;20(6):878-884. Clinical and Experimental Nephrology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Clinical and Experimental Nephrology - www.springerlink.com/content/1342-1751/)

The news correspondents report that additional information may be obtained from N. Ohashi, Hamamatsu University, Sch Med, Internal Med 1, Higashi Ku, Hamamatsu, Shizuoka 4313192, Japan. Additional authors for this research include N. Ohashi, S. Isobe, N. Tsuji, T. Iwakura, M. Ono, Y. Sakao, T. Tsuji, A. Kato, H. Miyajima and H. Yasuda.

Keywords for this news article include: Hamamatsu, Japan, Asia, Cardiovascular Diseases and Conditions, Kidney Diseases and Conditions, Aspartic Acid Endopeptidases, Proprotein Convertases, Chronic Kidney Disease, Enzymes and Coenzymes, Biological
Investigators from Harvard School of Medicine Release New Data on Atherosclerosis (Heterogeneity of Coronary Plaque Morphology and Natural History: Current Understanding and Clinical Significance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Atherosclerosis have been presented. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Purpose of Review Despite the important progress in identifying high-risk atherosclerotic plaques, many key elements are elusive. Advanced imaging modalities provide valuable information about the anatomic and functional plaque characteristics and underscore the presence of multiple plaque morphologies."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "However, how the heterogeneity of atherosclerotic plaque can alter our current understanding of coronary artery disease is not fully understood. Along the length of an individual plaque, the morphology patterns display marked heterogeneity. Contrary to previous beliefs, plaque morphology is also highly dynamic over time, with the vast majority of high-risk plaques becoming quiescent and mild plaques becoming severely obstructive in a short period of time. Endothelial shear stress, a local hemodynamic factor known for its critical effects in plaque initiation and progression, also displays longitudinal heterogeneity contributing to the arterial wall response in all time points. Risk stratification of plaques based on the morphological characteristics at one region of the plaque, usually the minimal lumen diameter, and at one point in time may be misleading."

According to the news editors, the research concluded: "The evaluation of both morphological and hemodynamic characteristics along the length of a plaque will improve the risk assessment of individual plaques."

For more information on this research see: Heterogeneity of Coronary Plaque Morphology and Natural History: Current Understanding and Clinical Significance. Current Atherosclerosis Reports, 2016;18(12):97-105. Current Atherosclerosis Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

Our news journalists report that additional information may be obtained by contacting P.H. Stone, Harvard Med Sch, Brigham & Women's Hospital, Cardiovasc Div, Vasc Profiling Res Lab, Boston, MA 02115, United States. Additional authors for this research include A.P. Antoniadis, G. Siasos, A.U. Coskun, I. Andreou, M.I. Papafaklis, M. Lucier, C.L. Feldman and P.H. Stone.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Article Review, Atherosclerosis, Cardiology, Harvard School of Medicine.
Investigators from Hebrew University Report New Data on Thyroid Cancer (Unemployment Risk and Decreased Income Two and Four Years After Thyroid Cancer Diagnosis: A Population-Based Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Thyroid Cancer is the subject of a report. According to news originating from Jerusalem, Israel, by NewsRx correspondents, research stated, "Thyroid cancer (TC) often occurs in relatively young patients and has a high cure rate. However, decreased psychological and physical well-being may reduce the work capability of patients with TC."

Our news journalists obtained a quote from the research from Hebrew University, "This study aimed to compare the risk for unemployment and decreased income in TC survivors with a matched non-cancer group at two and four years after diagnosis. The study also aimed to predict unemployment and income changes at two and four years after diagnosis. A historical prospective study design was used, with cohort inception and baseline measurements drawn from the Israeli Central Bureau of Statistics 1995 National Census, with follow-up until 2011. Cancer incidence was obtained from the Israel Cancer Registry, and employment status from the Tax Authority. A matched group was sampled from the census population. Binary logistic regression analyses were used to assess odds ratios (OR) for the study outcomes, controlled for age, sex, ethnicity, education years, socioeconomic position, and employment status at two years before diagnosis. In total, 417 cases of TC and 1277 non-cancer matched subjects were included in the study. People who died during the study period were excluded. The mean age at the time of cancer diagnosis was 43.5 years in the TC group and 43.8 years in the control group (p = 0.6). After adjusting for potential confounders, a positive association was found between TC and risk of unemployment two years after diagnosis (OR = 1.46 [confidence interval (CI) 1.09-1.95]), and decreased income two years after diagnosis (OR = 1.61 [CI 1.23-2.01]) and four years after diagnosis (OR = 1.63 [CI 1.25-2.13]). The association between TC and unemployment at four years after diagnosis weakened and lost significance (OR = 1.30 [CI 0.98-1.72]). TC survivorship was associated with unemployment at two years and decreased income at two and four years after diagnosis. Decreased income may be a marker for a shift to part-time work rather than a return to full-time work."

According to the news editors, the research concluded: "The findings suggest that interventions to enhance the return to full-time work are needed in this population."

For more information on this research see: Unemployment Risk and Decreased Income Two and Four Years After Thyroid Cancer Diagnosis: A Population-Based Study. Thyroid, 2016;26(9):1251-1258. Thyroid can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Thyroid - www.liebertpub.com/overview/thyroid/55/)

The news correspondents report that additional information may be obtained from Y. Rottenberg, Hebrew University of Jerusalem, Hadassah Med Sch, IL-91120 Jerusalem, Israel. Additional authors for this research include B. Uziely, A. de Boer and Y. Rottenberg.

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that is either free or for purchase.

Keywords for this news article include: Jerusalem, Israel, Asia, Diagnostics and Screening, Carcinoma Diagnostics, Cancer Diagnostics, Thyroid Neoplasms, Thyroid Cancer, Oncology, Hebrew University.

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Cardiovascular Diseases and Conditions - Thrombosis

Investigators from Hospital Clinic Report New Data on Thrombosis (Surgical Complications in En Bloc Renal Transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Thrombosis. According to news reporting from Madrid, Spain, by NewsRx journalists, research stated, "En bloc pediatric transplantation (EBPT) began with the aim of increasing the donor pool due to the existing high demand for donors. At its inception, it was considered a type of suboptimal transplantation due to its association with a high incidence of vascular, urologic, and immunologic complications."

The news correspondents obtained a quote from the research from Hospital Clinic, "The main objective of this study was to update information on EBPT with the largest case series that exists on a worldwide scale. In a retrospective study, the results obtained from brain-dead donors (BDDs; n = 770) were compared to those of EBPT (n = 100) from January 1990 to December 2012. The median of follow-up was 12.8 years (interquartile range 8.1 to 17.2). The variables collected for analysis were demographic factors (age and sex of recipients, age and weight of donors), renal function, graft survival, recipient survival, surgical complications (thrombosis, lymphocele, urologic complications, and renal artery stenosis and need for revascularization with angioplasty and/or stents). Subsequently in a second analysis, we studied the association between graft survival, thrombosis, angioplasty, stents, and appearance of lymphoceles with the different factors that were considered to be related in accordance with published literature and our own experience. Graft loss due to surgical complications was more frequent in EBPT than in BDD (15% vs 2.2 % in BDD; P< .001), and interstitial fibrosis and tubular atrophy were more frequent in BDD (13% vs 2%; P< .001)."

According to the news reporters, the research concluded: "EBPT offers a good survival rate after overcoming the possible surgical complications that may arise."


Our news journalists report that additional information may be obtained by contacting M. Diaz, Hosp Clin San Carlos, Dept. of Nephrol, Madrid, Spain. Additional authors for this research include N.C. Romero, I. Perez-Flores, M.C. Arevalo, B.R. Cubillo, A. Shabaka, V.L. de la Manzanara, A.G. Vegas, J.B. Izquierdo and A.I. Sanchez-Fructuoso.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.09.014. This DOI is a link to an online electronic document that is either free or for purchase.
Investigators from Huazhong University of Science and Technology Zero in on Immunoglobulins (SPECT and fluorescence imaging of vulnerable atherosclerotic plaque with a vascular cell adhesion molecule 1 single-chain antibody fragment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immunology - Immunoglobulins is the subject of a report. According to news reporting originating in Wuhan, People's Republic of China, by NewsRx journalists, research stated, "Early detection and evaluation of vulnerable atherosclerotic plaque are important for risk stratification and timely intervention, and vascular cell adhesion molecule 1 (VCAM1) assists in adhesion and recruitment of inflammatory cells to vulnerable lesions. We labeled a single-chain variable fragment (scFv) of VCAM1 with (99)mtechnetium ((99)mTc) and fluorescent markers to investigate its potential utility in detecting vulnerable plaques in animal models of atherosclerosis."

The news reporters obtained a quote from the research from the Huazhong University of Science and Technology, "We labeled VCAM1 scFv with (99)mTc and cyanine5 (CY5) and evaluated the probes on apolipoprotein E gene-deficient mice and New Zealand White rabbits with induced atherosclerosis. Histopathology and Western blot examinations confirmed atherosclerotic plaque and VCAM1 expression in the aortas. In vivo biodistribution of (99)mTc-scFv-VCAM1 was studied. Abdominal organs of mice were removed after CY5-scFv-VCAM1 administration for aortic fluorescence imaging. Rabbits SPECT imaging of (99)mTc-scFv-VCAM1 was performed and autoradiography (ARG) of the aortas was checked to confirm the tracer uptake. The radiochemical purity of (99)mTc-scFv-VCAM1 was 98.72 +/- 1.04% (n = 5) and its specific activity was 7.8 MBq/mug. Biodistribution study indicated predominant probe clearance by kidneys. In fluorescence imaging, stronger signal from CY5-scFv-VCAM1 in the aorta was observed in atherosclerotic mice than that in controls. SPECT imaging with (99)mTc-scFv-VCAM1 showed tracer uptake in the abdominal aorta and the aortic arch of atherosclerotic animals. ARG confirmed tracer uptake in the aortas of atherosclerotic rabbits, with higher uptake ratios of aortic arch/descending aorta in experimental animals (4.45 +/- 0.63, n = 5) than controls (1.12 +/- 0.15, n = 5; p< 0.05)."

According to the news reporters, the research concluded: "SPECT and fluorescence imaging results showed the feasibility and effectiveness of detecting vulnerable plaque with scFv of VCAM1, indicating its potential for early diagnosis and evaluation of atherosclerosis."

For more information on this research see: SPECT and fluorescence imaging of vulnerable atherosclerotic plaque with a vascular cell adhesion molecule 1 single-chain antibody fragment. Atherosclerosis, 2016;254():263-270. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)
Our news correspondents report that additional information may be obtained by contacting Y.X. Zhang, Huazhong University of Science & Technology, Tongji Med College, Union Hosp, Hubei Prov Key Lab Mol Imaging, Wuhan 430022, People's Republic of China. Additional authors for this research include X. Zhang, Y.L. Song, Y.C. Wang, F.Z. Zhang, Y.Y. Zhang, Y.X. Zhang and X.L. Lan.

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Keywords for this news article include: Wuhan, People's Republic of China, Asia, Vascular Cell Adhesion Molecule-1, Cell Adhesion Molecules, Membrane Glycoproteins, Biological Factors, Membrane Proteins, Surface Antigens, Immunoglobulins, Blood Proteins, Cell Research, CD Antigens, Immunology, Antibodies, Huazhong University of Science and Technology.

Our news editors obtained a quote from the research from Imperial College, "Intravital imaging reveals that vessel growth in murine long bone involves the extension and anastomotic fusion of endothelial buds. Impaired blood flow leads to defective angiogenesis and osteogenesis, and downregulation of Notch signalling in endothelial cells. In aged mice, skeletal blood flow and endothelial Notch activity are also reduced leading to decreased angiogenesis and osteogenesis, which is reverted by genetic reactivation of Notch. Blood flow and angiogenesis in aged mice are also enhanced on administration of bisphosphonate, a class of drugs frequently used for the treatment of osteoporosis."

According to the news editors, the research concluded: "We propose that blood flow and endothelial Notch signalling are key factors controlling ageing processes in the skeletal system."


W12 0NN, United Kingdom. Additional authors for this research include A.P. Kusumbe, M. Schiller, D. Zeuschner, M.G. Bixel, C. Milia, J. Gamrekelashvili, A. Limbourg, A. Medvinsky, M.M. Santoro, F.P. Limbourg and R.H. Adams.

Keywords for this news article include: London, United Kingdom, Europe, Bone Research, Angiogenesis, Genetics, Imperial College.

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Biological Factors - Biological Toxins

Investigators from Institute of Applied Ecology Report New Data on Biological Toxins (Up-regulation of granzyme B and perforin by staphylococcal enterotoxin C2 mutant induces enhanced cytotoxicity in Hepal-6 cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biological Factors - Biological Toxins. According to news reporting from Liaoning, People's Republic of China, by NewsRx journalists, research stated, "Staphylococcal enterotoxin C2 (SEC2), a member of bacterial superantigen, is one of the most potent known activators of T lymphocytes. With this property, SEC2 has already been used in clinic as a tumor immunotherapy agent in China."

The news correspondents obtained a quote from the research from the Institute of Applied Ecology, "To increase the antitumor activity, a SEC2 mutant named ST-4 (GINTG102-106WWH) with amino acid substitutions in T cell receptor (TCR)-binding domain was generated by site-directed mutagenesis, and the molecular mechanism of the enhanced antitumor activity was investigated. ST-4 could activate much more v beta 8.2 and 83 T cells and NK cells compared with SEC2, and exhibited significantly enhanced immunocyte stimulation and antitumor activity in vitro. The synthetic peptide sequencing the residues of mutant TCR-binding domain could competitively inhibit the immunocyte stimulation activity of ST-4. Most importantly, ST-4 up-regulated granzyme B and perforin at both mRNA and protein levels. We also found that expression of proapoptotic proteins cytochrome c, BAX and activation of caspase-3, 9 was up-regulated, and antiapoptotic protein Bcl-xL was down-regulated in the treatment with either ST-4 or SEC2. When granzyme B inhibitor or perforin inhibitor is presented, tumor cell viability was significantly rescued. Taken together, we demonstrate that increased ST-4-TCR recognition contributed to massive T cells and NK cells activation. These activated cells released up-regulated granzyme B and perforin, which induced the enhanced tumor cells apoptosis by mitochondrial apoptotic pathway, and ultimately led to enhanced tumor cell growth inhibition."

According to the news reporters, the research concluded: "ST-4 may be a promising candidate for antitumor clinic usage in future."


Our news journalists report that additional information may be obtained by

Keywords for this news article include: Liaoning, People's Republic of China, Asia, Pore Forming Cytotoxic Proteins, Serine Endopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Biological Factors, Membrane Proteins, Biological Toxins, Enterotoxins, Granzymes, Perforin, Genetics, Therapy, Institute of Applied Ecology.

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Investigators from Institute of Cytology Have Reported New Data on Genetics (p53 Proteoforms and Intrinsic Disorder: An Illustration of the Protein Structure-Function Continuum Concept)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics. According to news reporting originating from St. Petersburg, Russia, by NewsRx editors, the research stated, "Although it is one of the most studied proteins, p53 continues to be an enigma. This protein has numerous biological functions, possesses intrinsically disordered regions crucial for its functionality, can form both homo-tetramers and isoform-based hetero-tetramers, and is able to interact with many binding partners."

Our news editors obtained a quote from the research from the Institute of Cytology, "It contains numerous posttranslational modifications, has several isoforms generated by alternative splicing, alternative promoter usage or alternative initiation of translation, and is commonly mutated in different cancers. Therefore, p53 serves as an important illustration of the protein structure-function continuum concept, where the generation of multiple proteoforms by various mechanisms defines the ability of this protein to have a multitude of structurally and functionally different states."

According to the news editors, the research concluded: "Considering p53 in the light of a proteoform-based structure-function continuum represents a non-canonical and conceptually new contemplation of structure, regulation, and functionality of this important protein."

For more information on this research see: p53 Proteoforms and Intrinsic Disorder: An Illustration of the Protein Structure-Function Continuum Concept. International Journal of Molecular Sciences, 2016;17(11):1676-1712. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting V.N. Uversky, Russian Academy Sci, Inst Cytol, Lab Struct Dynam Stabil & Folding Prot, St Petersburg 194064, Russia.

Keywords for this news article include: St. Petersburg, Russia, Eurasia, Proteomics, Article Review, Protein Structure, Genetics, p53 Gene, Institute of Cytology.

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Oncology - Brain Cancer

Investigators from Institute of Science Release New Data on Brain Cancer (OCT4 spliced variants are highly expressed in brain cancer tissues and inhibition of OCT4B1 causes G2/M arrest in brain cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Brain Cancer. According to news reporting originating from Kerman, Iran, by NewsRx correspondents, research stated, "The new claim about the origin of cancer known as Cancer Stem Cell theory states that a somatic differentiated cell can dedifferentiated or reprogrammed for regaining the cancer cell features. It has been recently shown that expression of stemness factors such as Oct4, Sox2, Nanog and Klf4, in a variety of somatic cancers can leads to development of tumorogenesis."

Our news editors obtained a quote from the research from the Institute of Science, "Here, the expression of Oct4 variants were evaluated in brain tumor tissues by quantitative RT-PCR and immunohistochemical (IHC) analysis. In next phase of our study, the expression of Oct4B1 was knock-down in brain cancer cell lines and its effect on cell cycle was assessed. Finally, in order to get insights into sequence-structure-function relationships of Oct4 isoforms, their sequences were analysed using bioinformatic tools. Our data revealed that all three variants of Oct4 are expressed in different types of brain cancer. The expression level of Oct4B1, in contrast to Oct4B, was much higher in high-grade brain tumors compared with low-grade ones. In line with qPCR, the expression of Oct4A and B isoforms was confirmed with IHC in different types of brain tumors. Moreover, as a result of the suppression of Oct4B1 expression, the brain cancer cells were arrested in G2/M phase of cell cycle. Bioinformatics data indicated that the predicted Oct4B1 protein have DNA binding properties."

According to the news editors, the research concluded: "All together, our findings suggest that Oct4B1 has a potential role in tumorigenesis of brain cancer and can be considered as a new tumor marker with potential value in diagnosis and treatment of brain cancer."

For more information on this research see: OCT4 spliced variants are highly expressed in brain cancer tissues and inhibition of OCT4B1 causes G2/M arrest in brain cancer cells. Journal of Neuro-Oncology, 2016;130(3):455-463. Journal of Neuro-Oncology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of Neuro-Oncology - www.springerlink.com/content/0167-594x/)

The news editors report that additional information may be obtained by contacting M.H. Asadi, Grad Univ Adv Technol, Inst Sci & High Technol & Environm Sci, Dept. of Biotechnol, Kerman, Iran. Additional authors for this research include K. Khalifeh and S.J. Mowla.

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Keywords for this news article include: Kerman, Iran, Asia, Brain Cancer, Oncology, Genetics, Institute of Science.

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**Amino Acids**

**Investigators from Institute of Science and Technology Austria Report New Data on Amino Acids (Impaired Amino Acid Transport at the Blood Brain Barrier Is a Cause of Autism Spectrum Disorder)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Amino Acids. According to news reporting from Klosterneuburg, Austria, by NewsRx journalists, research stated, "Autism spectrum disorders (ASD) are a group of genetic disorders often overlapping with other neurological conditions. We previously described abnormalities in the branched-chain amino acid (BCAA) catabolic pathway as a cause of ASD."

Funders for this research include CIDR, Broad Institute Center for Mendelian Disorders, Yale Center for Mendelian Disorders, Gregory M. Kiez and Mehmet Kutman Foundation, Italian Ministry of Instruction University and Research, NIH, NICHD, SFARI, FWF.

The news correspondents obtained a quote from the research from the Institute of Science and Technology Austria, "Here, we show that the solute carrier transporter 7a5 (SLC7A5), a large neutral amino acid transporter localized at the bloodbrainbarrier (BBB), has an essential role in maintaining normal levels of brain BCAAs. In mice, deletion of Slc7a5 from the endothelial cells of theBBBleads to atypical brain amino acid profile, abnormal mRNA translation, and severe neurological abnormalities. Furthermore, we identified several patients with autistic traits and motor delay carrying deleterious homozygous mutations in the SLC7A5 gene. Finally, we demonstrate that BCAA intracerebroventricular administration ameliorates abnormal behaviors in adult mutant mice."

According to the news reporters, the research concluded: "Our data elucidate a neurological syndrome defined by SLC7A5 mutations and support an essential role for the BCAA in human brain function."

For more information on this research see: Impaired Amino Acid Transport at the Blood Brain Barrier Is a Cause of Autism Spectrum Disorder. *Cell*, 2016;167(6):1481-1494.88-105. *Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell - www.journals.elsevier.com/cell/)


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Keywords for this news article include: Klosterneuburg, Austria, Europe, Blood Brain Barrier, Blood-Brain Barrier, Amino Acids, Proteins, Peptides, Genetics, Institute of Science and Technology Austria.

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Investigators from Instituto de Salud Carlos III Release New Data on Respiratory Syncytial Viruses (Trivalency of a Nanobody Specific for the Human Respiratory Syncytial Virus Fusion Glycoprotein Drastically Enhances Virus Neutralization and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on RNA Viruses - Respiratory Syncytial Viruses. According to news reporting from Madrid, Spain, by NewsRx journalists, research stated, "ALX-0171 is a trivalent Nanobody derived from monovalent Nb017 that binds to antigenic site II of the human respiratory syncytial virus (hRSV) fusion (F) glycoprotein."

Funders for this research include Ministerio de Economia y Competitividad (MINECO), Agentschap voor Innovatie door Wetenschap en Techniek (IWT).

The news correspondents obtained a quote from the research from Instituto de Salud Carlos III, "ALX-0171 is about 6,000 to 10,000 times more potent than Nb017 in neutralization tests with strains of hRSV antigenic groups A and B. To explore the effect of this enhanced neutralization on escape mutant selection, viruses resistant to either ALX-0171 or Nb017 were isolated after serial passage of the hRSV Long strain in the presence of suboptimal concentrations of the respective Nanobodies. Resistant viruses emerged notably faster with Nb017 than with ALX-0171 and in both cases contained amino acid changes in antigenic site II of hRSV F. Detailed binding and neutralization analyses of these escape mutants as well as previously described mutants resistant to certain monoclonal antibodies (MAbs) offered a comprehensive description of site II mutations which are relevant for neutralization by MAbs and Nanobodies."

According to the news reporters, the research concluded: "Notably, ALX-0171 showed a sizeable neutralization potency with most escape mutants, even with some of those selected with the Nanobody, and these findings make ALX-0171 an attractive antiviral for treatment of hRSV infections."

For more information on this research see: Trivalency of a Nanobody Specific for the Human Respiratory Syncytial Virus Fusion Glycoprotein Drastically Enhances Virus Neutralization and Impacts Escape Mutant Selection. *Antimicrobial Agents and Chemotherapy*, 2016;60(11):6498-6509. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting J.A. Melero, Inst Salud Carlos III, CIBER Enfermedades Resp, Madrid, Spain. Additional authors for this research include V. Mas, L. Detalle, E. Depla, O. Cano, M. Vazquez, C. Stortelers and J.A. Melero.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00842-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Human Respiratory Syncytial Virus, Respiratory Syncytial Viruses, Emerging Technologies, Glycoconjugates, Mononegavirales, Paramyxoviridae, Nanotechnology, Glycoproteins, Pneumovirinae, RNA Viruses, Pneumovirus, Nanobodies, Virology, Genetics, Viral, Instituto de Salud Carlos III.

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Investigators from Iuliu Hatieganu University of Medicine and Pharmacy
Zero in on Heart Failure (Combined use of renin-angiotensin-
aldosterone system-acting agents: a cross-sectional study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting out of Cluj Napoca, Romania, by NewsRx editors, research stated, "Due to recent EU warnings and restrictions on the combined use of renin-angiotensin-aldosterone system (RAAS)-acting agents, and the seriousness of the associated harm, we analyzed the prescription of angiotensin-converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs) as dual therapy or associated with spironolactone. An administrative claims database of a regional hospital in Romania."

Financial support for this research came from European Social Fund.

Our news journalists obtained a quote from the research from the Iuliu Hatieganu University of Medicine and Pharmacy, "We retrospectively included all adult patients hospitalized during 18 months in 2013-2014, discharged with a prescription of a RAAS-acting agent. Counts of ACEIs and ARBs co-prescription, of ACEIs or ARBs combined with spironolactone, co-morbidities, co-medication, creatinine, and electrolytes assessment and values. Out of 1697 patients with a prescription of a RAAS-acting agent, 24 (1.4%) were co-prescribed ACEIs and ARBs, and 416 (24.5%) ACEIs or ARBs with spironolactone. Patients prescribed dual ACEI/ARB therapy and the ones with ACEI or ARB-spironolactone combination had significantly higher prevalence of increased creatinine level before discharge, compared to the ACEI and ARB monotherapy groups (48 and 31% compared to 17 and 27%). Subjects with diabetes, heart failure, ischaemic heart disease, or urea ae >40 mg/dL had higher odds of having ACEI or ARB-spironolactone combination compared to monotherapy, while hypertension and renal disease subjects had lower odds. Similar findings were comparing dual ACEI/ARB therapy to monotherapy except heart failure (not statistically significant). Overall, the prevalence of use of dual therapy was low."

According to the news editors, the research concluded: "The combined use of RAAS-acting agents was higher in patients with known risk factors for further renal function deterioration, compared to the ones without."


Our news journalists report that additional information may be obtained by contacting D. Leucuta, Iuliu Hatieganu University of Medicine & Pharmacy, Dept. of Biostat & Med Informat, Cluj Napoca 400349, Romania. Additional authors for this research include D. Leucuta, C. Bucsra, C. Mogosan and D. Dumitrascu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11096-016-0378-2. This DOI is a link to an online electronic
Investigators from Iwate Medical University Release New Data on Ameloblasts (The Semaphorin 4D-RhoA-Akt Signal Cascade Regulates Enamel Matrix Secretion in Coordination With Cell Polarization During Ameloblast Differentiation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Ameloblasts have been presented. According to news originating from Iwate, Japan, by NewsRx correspondents, research stated, "During tooth development, oral epithelial cells differentiate into ameloblasts in order to form the most mineralized tissue in the vertebrate body: enamel. During this process, ameloblasts directionally secrete enamel matrix proteins and morphologically change from low columnar cells to polarized tall columnar cells, both of which are essential for the proper formation of enamel."

Our news journalists obtained a quote from the research from Iwate Medical University, "In this study, we elucidated the molecular mechanism that integrates ameloblast function and morphology. Immunohistochemistry revealed that the restricted expression of semaphorin 4D (Sema4D) and RhoA activation status are closely associated with ameloblast differentiation in mouse incisors. In addition, in vitro gain-of-function and loss-of-function experiments demonstrated that Sema4D acts upstream of RhoA to regulate cell polarity and amelogenin expression via the Plexin B1/Leukemia-associated RhoGEF (LARG) complex during ameloblast differentiation. Experiments in transgenic mice demonstrated that expression of a dominant-negative form of RhoA in dental epithelium hindered ameloblast differentiation and subsequent enamel formation, as well as perturbing the establishment of polarized cell morphology and vectorial amelogenin expression. Finally, we showed that spatially restricted Akt mediates between Sema4D-RhoA signaling and these downstream cellular events."

According to the news editors, the research concluded: "Collectively, our results reveal a novel signaling network, the Sema4D-RhoA-Akt signal cascade, that coordinates cellular function and morphology and highlights the importance of specific spatiotemporally restricted components of a signaling pathway in the regulation of ameloblast differentiation."


The news correspondents report that additional information may be obtained from H. Harada, Iwate Medical University, Dept. of Anat, Div Dev Biol & Regenerat Med, Yahaba, Iwate 0283694, Japan. Additional authors for this research include H. Ida-Yonemochi, N. Fujiwara and H. Harada.

Keywords for this news article include: Iwate, Japan, Asia, Intercellular Signaling Peptides and Proteins, Semaphorins, Ameloblasts, Genetics, Iwate Medical University.

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Cardiovascular Diseases and Conditions - Aneurysm

Investigators from Jefferson Hospital for Neuroscience Report New Data on Aneurysm (Clipping of previously coiled cerebral aneurysms: efficacy, safety, and predictors in a cohort of 111 patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Aneurysm are presented in a new report. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "With the increasing number of aneurysms treated with endovascular coiling, more recurrences are being encountered. The aim of this study was to evaluate the efficacy and safety of microsurgical clipping in the treatment of recurrent, previously coiled cerebral aneurysms and to identify risk factors that can affect the outcomes of this procedure."

Our news editors obtained a quote from the research from Jefferson Hospital for Neuroscience, "One hundred eleven patients with recurrent aneurysms whose lesions were managed by surgical clipping between January 2002 and October 2014 were identified. The rates of aneurysm occlusion, retreatment, complications, and good clinical outcome were retrospectively determined. Univariate and multivariate logistic regressions were performed to identify factors associated with these outcomes. The mean patient age was 50.5 years, the mean aneurysm size was 7 mm, and 97.3% of aneurysms were located in the anterior circulation. The mean follow-up was 22 months. Complete aneurysm occlusion, as assessed by intraoperative angiography, was achieved in 97.3% of aneurysms (108 of 111 patients). Among patients, 1.8% (2 of 111 patients) had a recurrence after clipping. Retreatment was required in 4.5% of patients (5 of 111) after clipping. Major complications were observed in 8% of patients and mortality in 2.7%. Ninety percent of patients had a good clinical outcome. Aneurysm size (OR 1.4, 95% CI 1.08-1.7; p = 0.009) and location in the posterior circulation were significantly associated with higher complications. All 3 patients who had coil extraction experienced a postoperative stroke. Aneurysm size (OR 1.2, 95% CI 1.02-1.45; p = 0.025) and higher number of interventions prior to clipping (OR 5.3, 95% CI 1.3-21.4; p = 0.019) were significant predictors of poor outcome. An aneurysm size > 7 mm was a significant predictor of incomplete obliteration and retreatment (p = 0.018). Surgical clipping is safe and effective in treating recurrent, previously coiled cerebral aneurysms."

According to the news editors, the research concluded: "Aneurysm size, location, and number of previous coiling procedures are important factors to consider in the management of
these aneurysms."

For more information on this research see: Clipping of previously coiled cerebral aneurysms: efficacy, safety, and predictors in a cohort of 111 patients. *Journal of Neurosurgery*, 2016;125(6):1337-1343. *Journal of Neurosurgery* can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

The news editors report that additional information may be obtained by contacting P. Jabbour, Jefferson Hosp Neurosci, Philadelphia, PA, United States. Additional authors for this research include N. Chalouhi, R.M. Starke, G. Barros, L. Ya'qoub, J. Do, S. Tjoumakaris, R.H. Rosenwasser and P. Jabbour.

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Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Cerebral Aneurysm, Risk and Prevention, Cardiovascular Diseases and Conditions, Intracranial Aneurysm, Jefferson Hospital for Neuroscience.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Investigators from Jilin University Have Reported New Data on HIV/AIDS (Transmission of Multiple HIV-1 Subtype C Transmitted/founder Viruses into the Same Recipients Was not Determined by Modest Phenotypic Differences)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "A severe bottleneck exists during HIV-1 mucosal transmission. However, viral properties that determine HIV-1 transmissibility are not fully elucidated."

Our news journalists obtained a quote from the research from Jilin University, "We identified multiple transmitted/founder (T/F) viruses in six HIV-1-infected subjects by analyzing whole genome sequences. Comparison of biological phenotypes of different T/F viruses from the same individual allowed us to more precisely identify critical determinants for viral transmissibility since they were transmitted under similar conditions. All T/F viruses used coreceptor CCR5, while no T/F viruses used CXCR4 or GPR15. However, the efficiency for different T/F viruses from the same individual to use CCR5 was significantly variable, and the differences were even more significant for usage of coreceptors FPRL1, CCR3 and APJ. Resistance to IFN-alpha was also different between T/F viruses in 2 of 3 individuals. The relative fitness between T/F viruses from the same subject was highly variable (2-6%). Importantly, the levels of coreceptor usage efficiency, resistance to IFN-alpha and viral fitness were not associated with proportions of T/F viruses in each individual during acute infection."

According to the news editors, the research concluded: "Our results show that the modest but significant differences in coreceptor usage efficiency, IFN-alpha sensitivity and viral fitness each alone may not play a critical role in HIV-1 transmission."

For more information on this research see: Transmission of Multiple HIV-1 Subtype

The news correspondents report that additional information may be obtained from F. Gao, Jilin University, Sch Life Sci, Natl Engr Lab AIDS Vaccine, Changchun 130012, People's Republic of China. Additional authors for this research include B. Hora, E.E. Giorgi, A. Kumar, F.P. Cai, T. Bhattacharya, A.S. Perelson and F. Gao.

Keywords for this news article include: Changchun, People's Republic of China, Asia, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, Virology, HIV/AIDS, Genetics, HIV-1, Jilin University.

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**Heart Disorders and Diseases - Acute Coronary…**

**Investigators from Jilin University Target Acute Coronary Syndrome (Negative Association of Circulating MicroRNA-126 with High-sensitive C-reactive Protein and Vascular Cell Adhesion Molecule-1 in Patients with Coronary Artery Disease Following …)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in heart disorders and diseases - acute coronary syndrome. According to news reporting from Changchun, People's Republic of China, by NewsRx journalists, research stated, "Percutaneous coronary intervention (PCI) causes endothelial damage, resulting in an inflammatory response with elevation of markers such as high-sensitive C-reactive protein (hs-CRP) and vascular cell adhesion molecule-1 (VCAM-1), which are associated with restenosis after PCI. Evidence suggests that microRNA-126 (miR-126) plays an important role in vascular inflammation, but its correlation with PCI-mediated inflammation has not been investigated."

The news correspondents obtained a quote from the research from Jilin University, "In this study, we investigated the effect of PCI on circulating miR-126 and inflammation markers such as hs-CRP and VCAM-1. We enrolled 130 patients with coronary artery disease (CAD) in the Second Hospital of Jilin University from October 2015 to December 2015. Among them, 82 patients with CAD, defined as at least one major epicardial vessel with > 70% stenosis who planned to undergo PCI, were divided into acute coronary syndrome (ACS) group (46 patients) and stable angina (SA) group (36 patients). Forty-eight patients confirmed by coronary angiography without PCI were used as controls. The plasmas of all patients were collected prior to PCI and at 30 min, 24 h, and 72 h after PCI. The plasma VCAM-1 and hs-CRP were detected by enzyme-linked immunosorbent assay, and the miR-126 was evaluated by quantitative reverse transcription-polymerase chain reaction. Plasma concentrations of hs-CRP and VCAM-1 in patients with either ACS (n = 46) or SA (n = 36) were significantly higher than in controls (n = 48) (P < 0.01) prior to PCI, and increased further at 24 h and 72 h after PCI, compared with prior PCI. Moreover, VCAM-1 was positively correlated with balloon time and pressure. In contrast, the plasma concentration of miR-126 was significantly lower in patients with CAD than in controls, and further decreased with time post-PCI. A negative correlation was observed
between miR-126 and hs-CRP and VCAM-1 at 72 h after PCI."

According to the news reporters, the research concluded: "There was a negative correlation of miR-126 with the PCI-induced markers of inflammation such as hs-CRP and VCAM-1."


Our news journalists report that additional information may be obtained by contacting B. Liu, Jilin University, Hosp 2, Dept. of Cardiol, Changchun 130041, Jilin, People's Republic of China. Additional authors for this research include Y.Y. Yan, Z.Y. Guo, Y.J. Jiang, L.L. Liu and B. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.194645. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changchun, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Percutaneous Coronary Intervention, Vascular Cell Adhesion Molecule-1, Heart Disorders and Diseases, Arterial Occlusive Diseases, Cell Adhesion Molecules, Coronary Artery Disease, Acute Coronary Syndrome, Membrane Glycoproteins, Acute-Phase Proteins, Myocardial Ischemia, Biological Factors, C-Reactive Protein, C Reactive Protein, Membrane Proteins, Surface Antigens, Arteriosclerosis, Immunoproteins, Cell Research, Heart Disease, Inflammation, CD Antigens, Cardiology, Immunology, Proteomics, Angiology, Albumins, Genetics, Surgery, Jilin University.

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### Parkinson's Disease

**Investigators from Jinzhou Medical University Report New Data on Parkinson's Disease (Involvement of microRNA-135a-5p in the Protective Effects of Hydrogen Sulfide Against Parkinson's Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Parkinson's disease. According to news reporting originating in Jinzhou, People's Republic of China, by NewsRx journalists, research stated, "Development of effective therapeutic drugs for Parkinson's disease is in great need. During the progression of Parkinson's disease, Rho-associated protein kinase 2 (ROCK2) is activated to promote neurodegeneration."

The news reporters obtained a quote from the research from Jinzhou Medical University, "Hydrogen sulfide (H2S) has a neuroprotective effect during the neural injury of Parkinson's disease. However, the mechanisms that underlie the effects of ROCK2 and H2S remain ill-defined. In the current study, we addressed these questions Methods: We used a 1-methyl-4-phenyl-1,2,3,6 tetrahydropyridine (MPTP)-induced mouse subacute model of Parkinson's disease to study the effects of H2S on astrocytic activation in the mouse striatum, on
the levels of tyrosine-hydroxylase (TH)-positive neuron loss, on the apomorphine-induced rotational behavior of the mice, and on the changes in ROCK2 and miR-135a-5p expression. Plasmid transfection was applied to modify miR-135a-5p levels in a neuronal cell line HCN-1A. Bioinformatics analysis was performed to predict the relationship between ROCK2 and miR-135a-5p in neuronal cells, and then was confirmed by luciferase reporter assay. H2S alleviated MPTP-induced astrocytic activation in the mouse striatum, alleviated the increases in TH-positive neuron loss, and improved the apomorphine-induced rotational behavior of the mice. H2S significantly attenuated the increases in ROCK2 and the decreases in miR-135a-5p by MPTP. MiR-135a-5p targeted the 3-UTR of ROCK2 mRNA to inhibit its translation in neuronal cells."

According to the news reporters, the research concluded: "MiR-135a-5p-regulated ROCK2 may play a role in the protective effects of hydrogen sulfide against Parkinson's disease."


Our news correspondents report that additional information may be obtained by contacting Q.S. Yang, Jinzhou Med Univ, Dept. of Radiat Oncol, Affiliated Hosp 1, Jinzhou 121001, People's Republic of China. Additional authors for this research include S.T. Liao, H.Y. Quan, Y.H. Lin, J. Li and Q.S. Yang.

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Keywords for this news article include: Jinzhou, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Basal Ganglia Diseases and Conditions, Brain Diseases and Conditions, Parkinsonian Disorders, Noncarboxylic Acids, Inorganic Chemicals, Parkinson's Disease, Movement Disorders, Hydrogen Sulfide, Sulfur Compounds, Elements, Genetics, Gases, Jinzhou Medical University.

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failure. As sleep disordered breathing may predispose to elevations in pulmonary vascular resistance and associated negative effects on right ventricular function, we sought to assess this in patients with underlying congenital heart disease."

Our news journalists obtained a quote from the research from John Hunter Hospital, "We performed a pilot study to evaluate the incidence of sleep-disordered breathing in a patient population with a history of long standing pulmonary valve incompetence in patients with congenital heart disease using overnight oximetry. Patients with a background of tetralogy of Fallot repair or residual pulmonary incompetence following previous pulmonary valve intervention for congenital pulmonary stenosis were included. Twenty-two patients underwent overnight oximetry. The mean age of the cohort was 34.3 +/- 15.2 years with no patients observed to have severe underlying pulmonary hypertension. Abnormal overnight oximetry was seen in 13/22 patients (59.1%) with 2/22 (9.1%) patients considered to have severe abnormalities. An important proportion of patients with a background of pulmonary incompetence complicating congenital heart disease are prone to the development of sleep-disordered breathing as assessed by overnight oximetry."

According to the news editors, the research concluded: "Further study into the prevalence and mechanisms of sleep-disordered breathing in a larger cohort are warranted."

For more information on this research see: Sleep-Disordered Breathing in Patients with Pulmonary Valve Incompetence Complicating Congenital Heart Disease. Congenital Heart Disease, 2016;11(6):678-682. Congenital Heart Disease can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Congenital Heart Disease - onlinelibrary.wiley.com/journal/10.1111/(ISSN) 1747-0803)

The news correspondents report that additional information may be obtained from N. Collins, John Hunter Hospital, Cardiovasc Department, Newcastle, NSW, Australia. Additional authors for this research include W. Ahmad, A. Bailey, R. Hatton, A. Boyle and N. Collins.

Keywords for this news article include: Newcastle, Australia, Australia and New Zealand, Cardiovascular Diseases and Conditions, Congenital Diseases and Conditions, Heart Disorders and Diseases, Congenital Heart Disease, Cardiology, John Hunter Hospital.

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Oncology - Lung Cancer

Investigators from Kanagawa Cancer Center Release New Data on Lung Cancer (Prognostic Role of Subtype Classification in Small-Sized Pathologic N0 Invasive Lung Adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lung Cancer. According to news reporting out of Kanagawa, Japan, by NewsRx editors, research stated, "The prognosis of patients with small, node-negative lung cancers, which the current indication for adjuvant chemotherapy never includes, is sometimes poor despite complete tumor resection. The present study aimed to identify independent prognostic factors and to clarify possible candidates for adjuvant chemotherapy among patients with small, node-negative invasive adenocarcinoma."

Our news journalists obtained a quote from the research from Kanagawa Cancer Center, "This study involved 153 patients with completely resected small (<= 20 mm)
pathologic N0 invasive adenocarcinomas. Invasive adenocarcinoma was classified as lepidic predominant (LPA), papillary or acinar predominant (PA), or solid or micropapillary predominant (SM), according to the International Association for the Study of Lung Cancer, American Thoracic Society, and European Respiratory Society classification. Overall survival and recurrence-free survival were estimated from Kaplan-Meier curves. Prognostic factors for recurrence-free survival were determined using univariate and multivariate Cox proportional hazards models. Three-year overall survival and recurrence-free survival rates were 98% and 98%, 97% and 88%, and 85% and 64% for LPA, PA, and SM tumors, respectively. Prognosis was the worst for patients with SM tumors (overall survival LPA versus PA, $p = 0.099$; LPA versus SM, $p < 0.001$; and PA versus SM, $p = 0.032$; recurrence-free survival LPA versus PA, $p = 0.014$; LPA versus SM, $p < 0.001$; and PA versus SM, $p < 0.001$). Subtype was a significantly independent prognostic factor for recurrence-free survival in multivariate analysis (SM versus LPA hazard ratio 22, 95% confidence interval: 2.5 to 190, $p = 0.0054$).

According to the news editors, the research concluded: "Patients with small (<= 20 mm) pathologic N0 solid or micropapillary predominant invasive adenocarcinoma might be possible candidates for adjuvant chemotherapy."


Our news journalists report that additional information may be obtained by contacting T. Yoshiya, Kanagawa Canc Center, Dept. of Thorac Oncol, Yokohama, Kanagawa, Japan. Additional authors for this research include T. Mimae, Y. Tsutani, N. Tsubokawa, S. Sasada, Y. Miyata, K. Kushitani, Y. Takeshima, S. Murakami, H. Ito, H. Nakayama and M. Okada.

Keywords for this news article include: Kanagawa, Japan, Asia, Combined Modality Therapy, Adjuvant Chemotherapy, Drugs and Therapies, Adenocarcinoma, Lung Cancer, Oncology, Kanagawa Cancer Center.

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**Blood Pressure**

**Investigators from Karolinska Institute Release New Data on Blood Pressure (Effects of antiseptic mouthwash on resting metabolic rate: A randomized, double-blind, crossover study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Blood Pressure. According to news reporting from Stockholm, Sweden, by NewsRx journalists, research stated, "The nitrate-nitrite-nitric oxide pathway has emerged as a significant source of nitric oxide (NO) bioactivity. Dietary intake of inorganic nitrate has a number of cardiovascular effects as well as a decrease in oxygen cost during exercise and a reduction in resting metabolic rate (RMR)."

The news correspondents obtained a quote from the research from Karolinska Institute, "Oral bacteria have a key role in bioactivation of inorganic nitrate since they catalyse
the conversion of salivary nitrate to the more reactive nitrite anion. Recent studies demonstrate that blood pressure increases with the use of an antiseptic mouthwash, indicating that endogenous, NO-synthase derived nitrate is recycled into nitrite and NO, sufficiently to modulate cardiovascular function. Here we tested if also RMR would be affected by an antiseptic mouthwash. Seventeen healthy normotensive female subjects (23 +/- 4 y) participated in this randomized, double blinded, crossover study. During two 3-day periods separated by 28 days the subjects consumed a diet low in nitrate combined with rinsing their mouth three times daily with a chlorhexidine-containing mouthwash (mouthwash) or placebo mouthwash (placebo) with similar taste but no antiseptic properties. Resting metabolic rate (RMR) was measured by indirect calorimetry and 24 h ambulatory blood pressure recordings were obtained after each intervention together with blood, saliva and urine samples. Treatment with chlorhexidine-containing mouthwash effectively reduced oral conversion of nitrate to nitrite but had no effect on plasma levels of these anions or plasma cGMP. RMR and 24 h ambulatory blood pressure were unaffected by the intervention."

According to the news reporters, the research concluded: "We conclude that in young healthy females an antiseptic mouthwash was effective in disrupting oral bacterial nitrate conversion to nitrite, but this was not associated with changes in plasma nitrite, RMR or blood pressure."

For more information on this research see: Effects of antiseptic mouthwash on resting metabolic rate: A randomized, double-blind, crossover study. Nitric Oxide-Biology and Chemistry, 2016;61():38-44. Nitric Oxide-Biology and Chemistry can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA.

Our news journalists report that additional information may be obtained by contacting E. Weitzberg, Karolinska Inst, Dept. of Physiol & Pharmacol, S-17177 Stockholm, Sweden. Additional authors for this research include J.O. Lundberg and E. Weitzberg.

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Keywords for this news article include: Stockholm, Sweden, Europe, Cardiovascular, Blood Pressure, Nitric Oxide, Hemodynamics, Cardiology, Chemicals, Karolinska Institute.

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**Cardiovascular Diseases and Conditions - Carotid...**

**Investigators from Keimyung University Zero in on Carotid Stenosis (A lotus root-like appearance in carotid stenosis on optical coherence tomographye)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Carotid Stenosis. According to news reporting from Daegu, South Korea, by NewsRx journalists, research stated, "An 82-year-old man visited the outpatient clinic of our stroke centre because of dizziness. He had a previous history of stroke without definite sequelae."

The news correspondents obtained a quote from the research from Keimyung
University, "Severe stenosis in the left proximal internal carotid artery (ICA) was seen on Doppler sonography. Conventional angiography revealed focal severe stenosis with 'string sign' in the left proximal ICA and delayed distal runoff. Optical coherence tomography showed multiple channels surrounding a narrowed central lumen (lotus root-like appearance). Carotid stent placement with a protection device was done without complications."

According to the news reporters, the research concluded: "The patient was discharged in good condition 5 days after the procedure."


Our news journalists report that additional information may be obtained by contacting C.H. Kim, Keimyung University, Dept. of Neurosurg, Sch Med, Daegu, South Korea. Additional authors for this research include H.J. Yoon, J.H. Hong, C.H. Kim, S.I. Sohn and C.Y. Lee.

Keywords for this news article include: Daegu, South Korea, Asia, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Carotid Artery Diseases and Conditions, Vascular Diseases and Conditions, Brain Diseases and Conditions, Arterial Occlusive Diseases, Cerebrovascular Disorders, Carotid Stenosis, Angiology, Keimyung University.

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**Inflammation**

**Investigators from Keio University Target Inflammation (Innate lymphoid cells in allergic and nonallergic inflammation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Inflammation are presented in a new report. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "In the last decade, the full picture of the role of innate lymphoid cells (ILCs) has been gradually revealed. ILCs are classified into 3 groups based on their transcription factors and cytokine production patterns, which mirror helper T-cell subsets."

Our news journalists obtained a quote from the research from Keio University, "Unlike T cells and B cells, ILCs do not have antigen receptors. They promptly respond to multiple tissue-derived factors, such as cytokines and alarmins, and produce multiple proinflammatory and immunoregulatory cytokines. It has been reported that ILC-derived cytokines are important for the induction and regulation of inflammation. Accumulating evidence suggests that ILCs play substantial roles in protection against infection and the pathogenesis of inflammatory diseases, such as allergic diseases and autoimmune diseases. Different ILC subsets localize in distinct tissue/organ niches and receive tissue-derived signals on different types of inflammation, which allows them to acquire diverse phenotypes with specialized effector capacities."

According to the news editors, the research concluded: "In this review we highlight the roles of ILCs in a variety of organs, such as the airway, skin, and gastrointestinal tract, in the
context of allergic and nonallergic inflammation."

For more information on this research see: Innate lymphoid cells in allergic and nonallergic inflammation. *Journal of Allergy and Clinical Immunology*, 2016;138(5):1253-1264. *Journal of Allergy and Clinical Immunology* can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Journal of Allergy and Clinical Immunology - www.journals.elsevier.com/journal-of-allergy-and-clinical-immunology/)

Our news journalists report that additional information may be obtained by contacting S. Koyasu, Keio University, Sch Med, Dept. of Microbiol & Immunol, Tokyo, Japan. Additional authors for this research include K. Moro and S. Koyasu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jaci.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Cytokines, Immunology, Inflammation, Genetics, Keio University.

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**Cardiovascular Diseases and Conditions - Venous...**

**Investigators from King’s College Hospital Have Reported New Data on Venous Thromboembolism (Maternal and pregnancy characteristics affect plasma fibrin monomer complexes and D-dimer reference ranges for venous thromboembolism in pregnancy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Venous Thromboembolism are presented in a new report. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "D-dimers have a high negative predictive value for excluding venous thromboembolism outside of pregnancy but the use in pregnancy remains controversial. A higher cut-off value has been proposed in pregnancy due to a continuous increase across gestation."

The news reporters obtained a quote from the research from King’s College Hospital, "Fibrin monomer complexes have been considered as an alternative diagnostic tool for exclusion of venous thromboembolism in pregnancy due to their different behavior. We sought to establish normal values of fibrin monomer complexes and D-dimer as a diagnostic tool for the exclusion of venous thromboembolism in pregnancy and examine the effect of maternal and obstetric factors on these markers. Plasma D-dimer and fibrin monomer complexes were measured by quantitative immunoturbidimetry in 2870 women with singleton pregnancies attending their routine first-trimester hospital visit in a prospective screening study for adverse obstetric outcome. Multiple regression analysis was used to determine maternal characteristics and obstetric factors affecting the plasma concentrations and converting these into multiple of the median values after adjusting for significant maternal and obstetric characteristics. Plasma fibrin monomer complexes increased with maternal weight and were lower in women with a history of cocaine abuse and chronic hypertension. D-dimers increased with gestational age and maternal weight and were higher in sickle cell carriers and in women of African and South Asian racial origin compared to Caucasians. Fibrin monomer complexes and D-dimers are
affected by maternal and obstetric characteristics rather than only gestational age."

According to the news reporters, the research concluded: "The utility of these fibrin-linked markers as a tool for exclusion of venous thromboembolism in pregnancy might be improved by adjusting for patient-specific characteristics."


Our news correspondents report that additional information may be obtained by contacting R. Arya, Kings Coll Hosp Fdn Trust, Kings Thrombosis Center, Dept. of Med Hematol, London, United Kingdom. Additional authors for this research include R. Arya, A.B. Peixoto, R. Akolekar, I. Staboulidou and K.H. Nicolaides.

Keywords for this news article include: London, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Fibrin, Diagnostics and Screening, Vascular Diseases and Conditions, Embolism and Thrombosis, Venous Thromboembolism, Blood Proteins, Women's Health, Obstetrics, Hematology, King's College Hospital.

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**Digestive System Diseases and Conditions** –

**Investigators from King's College Target Sclerosing Cholangitis [Mutations in DCDC2 (doublecortin domain containing protein 2) in neonatal sclerosing cholangitis]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Digestive System Diseases and Conditions - Sclerosing Cholangitis have been presented. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Neonatal sclerosing cholangitis (NSC) is a severe neonatal-onset cholangiopathy commonly leading to liver transplantation (LT) for end-stage liver disease in childhood. Liver biopsy findings histopathologically resemble those in biliary atresia (BA); however, in NSC extrahepatic bile ducts are patent, whilst in BA their lumina are obliterated."

Our news journalists obtained a quote from the research from King's College, "NSC is commonly seen in consanguineous kindreds, suggesting autosomal recessive inheritance. From 29 NSC patients (24 families) identified, DNA was available in 24 (21 families). Thirteen (7 male) patients (12 families) of consanguineous parentage were selected for whole exome sequencing. Sequence variants were filtered for homozygosity, pathogenicity, minor allele frequency, quality score, and encoded protein expression pattern. Four of 13 patients were homozygous and two were compound heterozygous for mutations in the doublecortin domain containing 2 gene (DCDC2), which encodes DCDC2 protein and is expressed in cholangiocyte cilia. Another 11 patients were sequenced: one (with one sibling pair) was compound heterozygous for DCDC2 mutations. All mutations were protein truncating. In available liver tissue from patients with DCDC2 mutations, immunostaining for human DCDC2 and the ciliary
protein acetylated alpha-tubulin (ACALT) showed no expression (n = 6) and transmission
electron microscopy found that cholangiocytes lacked primary cilia (n = 5). DCDC2 and
ACALT were expressed in NSC patients without DCDC2 mutations (n = 22). Of the patients
carrying DCDC2 mutations, one died awaiting LT; five came to LT, of whom one died 2 years
later. The other 4 are well. Among 24 NSC patients with available DNA, 7 had mutations in
DCDC2 (6 of 19 families). NSC patients in substantial proportion harbour mutations in
DCDC2. Their disease represents a novel liver-based ciliopathy. Lay summary: Neonatal
sclerosing cholangitis (NSC) is a rare genetic form of liver disease presenting in infancy.
Through next generation sequencing we identified mutations in the gene encoding for
doublecortin domain containing 2 (DCDC2) protein in a group of NSC children. DCDC2 is a
signalling and structural protein found in primary cilia of cholangiocytes."

According to the news editors, the research concluded: "Cholangiocytes are the cells
forming the biliary system which is the draining system of the liver."

For more information on this research see: Mutations in DCDC2 (doublecortin
domain containing protein 2) in neonatal sclerosing cholangitis. Journal of Hepatology,
Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of
Hepatology - www.journals.elsevier.com/journal-of-hepatology/)

Our news journalists report that additional information may be obtained by
contacting T. Grammatikopoulos, Kings Coll London, Div Transplantat Immunol & Mucosal
Biol, Inst Liver Studies, London, United Kingdom. Additional authors for this research include
M. Sambrotta, S. Strautnieks, P. Foskett, A.S. Knisely, B. Wagner, M. Deheragoda, C. Starling,

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.jhep.2016.07.017. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe,
Digestive System Diseases and Conditions, Biliary Tract Diseases and Conditions, Bile Duct
Diseases and Conditions, Liver Diseases and Conditions, Cell Surface Extensions, Sclerosing
Cholangitis, Gastroenterology, Genetics, Cilia, King's College.

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Drugs and Therapies - Indomethacin Therapy

Investigators from Kobe Pharmaceutical University Report New Data on
Indomethacin Therapy (Down-regulation of hepatic CYP3A1 expression
in a rat model of indomethacin-induced small intestinal ulcers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Current study results on Drugs and Therapies - Indomethacin Therapy have
been published. According to news reporting from Hyogo, Japan, by NewsRx journalists,
research stated, "The liver and the small intestine are closely related in the processes of drug
absorption, metabolism and excretion via the enterohepatic circulation. Small intestinal ulcers
are a serious adverse effect commonly occurring in patients taking nonsteroidal anti-
inflammatory drugs."

The news correspondents obtained a quote from the research from Kobe
However, the influence of small intestinal ulcers on drug metabolism has not been established. This study examined the expression changes of cytochrome P450 (CYP) in the liver using an indomethacin-induced small intestinal ulcer rat model and in cultured cells. After the administration of indomethacin to rats, ulcers were observed in the small intestine and expression of CYP3A1, the major isoform of hepatic CYP, was significantly down-regulated in the liver, accompanied by increased expression of inducible nitric oxide synthase, tumor necrosis factor, interleukin (IL)-1 and IL-6, in the small intestine and the liver. The indomethacin-induced small intestinal ulceration, the increase in inflammatory mediators in the small intestine and the liver, and the down-regulation of CYP3A1 expression in the liver were inhibited by co-administration of ampicillin, an antibacterial agent. In the human hepatic HepG2 cell line, IL-1, IL-6 and NOC-18, an NO donor, caused down-regulation of CYP3A4, the major isoform of human CYP3A.

According to the news reporters, the research concluded: "Thus, this study suggests that after indomethacin treatment small intestinal ulcers cause the down-regulation of CYP3A1 in the rat liver through an increase in ulcer-derived inflammatory mediators."


Our news journalists report that additional information may be obtained by contacting S. Kawauchi, Kobe Pharmaceutical Univ, Educ Center Clin Pharm, Higashinada Ku, Kobe, Hyogo 6588558, Japan. Additional authors for this research include T. Nakamura, S. Horibe, T. Tanahashi, S. Mizuno, T. Hamaguchi and Y. Rikitake.

Keywords for this news article include: Hyogo, Japan, Asia, Indomethacin Therapy, Drugs and Therapies, Pharmaceuticals, Kobe Pharmaceutical University.

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**Intercellular Signaling Peptides and Proteins**

**Investigators from Konkuk University Report New Data on Cytokines [Intracellular interleukin (IL)-1 family cytokine processing enzyme]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Intercellular Signaling Peptides and Proteins - Cytokines is the subject of a report. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "The interleukin (IL)-1 family is the largest family of interleukins. Eleven members of the IL-1 family of ligands are intracellular molecules, except a single isoform of an IL-1 receptor antagonist (IL-1Ra; also known as IL-1RN), which contains a signal peptide at the N-terminus for effective secretion."

Financial support for this research came from Konkuk University.

The news reporters obtained a quote from the research from Konkuk University, "The inflammasome is a complex of intracellular molecules that is responsible for the processing of IL-1 beta and IL-18, whereas the remaining IL-1 family members, including IL-1 alpha, are processed in an inflammasome caspase-1-independent pathway. Among the eleven members of the IL-1 family ligands, precursor IL-1 alpha, IL-1 beta, and IL-33 have
comparatively long pro-peptides of approximately 110 amino acid residues at the N-terminus. However, the other IL-1 members, except for IL-37 (also known as IL-1F7), have relatively short propeptides with fewer than 40 amino acid residues at the N-terminus. Most cytokines, including interferons and interleukins, possess a hydrophobic signal sequence for secretion. Therefore, soluble cytokines readily act on cell surface receptors immediately after their release from cells. Unlike other cytokine families, IL-1 family ligands exhibit two-step regulation: transcriptional induction at the mRNA level and post-translational modification at the protein level because of the lack of a hydrophobic signal sequence at the N-terminus. Various processing enzymes involved in the activation of intracellular IL-1 family cytokines likely provide effective immune regulation to protect the host from infections.

According to the news reporters, the research concluded: "In this review, we describe all eleven IL-1 family ligand processing enzymes, mature ligand functions, and mode of receptor conformation."

For more information on this research see: Intracellular interleukin (IL)-1 family cytokine processing enzyme. Archives of Pharmacal Research, 2016;39(11):1556-1564. Archives of Pharmacal Research can be contacted at: Pharmaceutical Soc Korea, 1489-3 Suhcho-Dong, Suhcho-Ku, Seoul 137-071, South Korea. (Springer - www.springer.com; Archives of Pharmacal Research - www.springerlink.com/content/0253-6269/)

Our news correspondents report that additional information may be obtained by contacting S. Kim, Konkuk University, Coll Vet Med, Seoul 05029, South Korea. Additional authors for this research include Y. Lee, H. Kim and S. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12272-016-0855-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Intercellular Signaling Peptides and Proteins, Cytokines, Article Review, Interleukins, Konkuk University.

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Gram-Positive Bacteria - Streptococcus pneumoniae

Investigators from Kyungpook National University Release New Data on Streptococcus pneumoniae (Antimicrobial Activity of Zabofloxacin against Clinically Isolated Streptococcus pneumoniae)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Positive Bacteria - Streptococcus pneumoniae are discussed in a new report. According to news reporting originating in Daegu, South Korea, by NewsRx journalists, research stated, "Zabofloxacin is a novel fluoroquinolone agent that has potent activity against gram-positive pathogens."

The news reporters obtained a quote from the research from Kyungpook National University, "In this study, we confirmed that zabofloxacin showed the most potent in vitro and in vivo activities against drug-resistant Streptococcus pneumoniae. Among the fluoroquinolone compounds, zabofloxacin showed the most potent in vitro activity against clinical isolates of penicillin-sensitive S. pneumoniae (minimum inhibitory concentration, MIC90: 0.03 mg/L) and penicillin-resistant S. pneumoniae (MIC90: 0.03 mg/L). Against quinolone-resistant S. pneumoniae, zabofloxacin (MIC90: 1 mg/L) was more active than ciprofloxacin, sparofloxacin,
and moxifloxacin; however, its activity was the same as that of gemifloxacin."

According to the news reporters, the research concluded: "The in vivo activity of zabofloxacin was most potent among the quinolone compounds tested against the systemic infection and respiratory tract infection models in mice."

For more information on this research see: Antimicrobial Activity of Zabofloxacin against Clinically Isolated Streptococcus pneumoniae. *Molecules*, 2016;21(11):2114-2121. *Molecules* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news correspondents report that additional information may be obtained by contacting H.S. Park, Kyungpook National University, Sch Food Sci & Biotechnol, Daegu 41566, South Korea. Additional authors for this research include S.H. Oh, H.S. Kim, D.R. Choi and J.H. Kwak.

Keywords for this news article include: Daegu, South Korea, Asia, Gram-Positive Bacterial Infections, Streptococcal Infections, Streptococcus pneumoniae, Gram-Positive Cocci, Drugs and Therapies, Streptococcaceae, Strep Infection, Antimicrobials, Kyungpook National University.

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**Erythrocytosis**

**Investigators from Laval University Have Reported New Data on Erythrocytosis (Hypercapnic ventilatory response is decreased in a mouse model of excessive erythrocytosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Erythrocytosis have been published. According to news reporting from Quebec City, Canada, by NewsRx journalists, research stated, "The impact of cerebral erythropoietin (Epo) in the regulation of the hypercapnic ventilatory response (HcVR) is controversial. While we reported that cerebral Epo does not affect the central chemosensitivity in C57Bl/6 mice receiving an intracisternal injection of sEpoR (the endogenous antagonist of Epo), a recent study in transgenic mice with constitutive high levels of human Epo in brain and circulation (Tg6) and in brain only (Tg21), showed that Epo blunts the HcVR, maybe by interacting with central and peripheral chemoreceptors."

Financial supporters for this research include Gouvernement du Canada | Canadian Institutes of Health Research (Instituts de recherche en sante du Canada), Fonds de Recherche du Quebec Nature et Technologies (Quebec Fund for Research in Nature and Technology).

The news correspondents obtained a quote from the research from Laval University, "High Epo serum levels in Tg6 mice lead to excessive erythrocytosis (hematocrit similar to 80-90%), the main symptom of chronic mountain sickness (CMS). These latter results support the hypothesis that reduced central chemosensitivity accounts for the hypoventilation observed in CMS patients. To solve this intriguing divergence, we reevaluate HcVR in Tg6 and Tg21 mouse lines, by assessing the metabolic rate [O consumption (V.) and CO production (V.)], a key factor modulating ventilation, the effect of which was not considered in the previous study. Our results showed that the decreased HcVR observed in Tg6 mice (similar to 70% reduction; < 0.01) was due to a significant decrease in the metabolism (similar to 40%; < 0.0001) rather than Epo's effect on CO chemosensitivity. Additional analysis in Tg21 mice did not reveal differences of
HcVR or metabolism. We concluded that cerebral Epo does not modulate the central chemosensitivity system, and that a metabolic effect upon CO inhalation is responsible for decreased HcVR observed in Tg6 animals."

According to the news reporters, the research concluded: "As CMS patients also show decreased HcVR, our findings might help to better understand respiratory disorders at high altitude."

For more information on this research see: Hypercapnic ventilatory response is decreased in a mouse model of excessive erythrocytosis. American Journal of Physiology-Regulatory Integrative and Comparative Physiology, 2016;311(5):R940-R947. American Journal of Physiology-Regulatory Integrative and Comparative Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting J. Soliz, Laval University, Dept. of Pediat, Center Rech CHU Quebec, Fac Med, Quebec City, PQ, Canada. Additional authors for this research include E. Elliot-Portal, S. Revollo, E.M.S. Gasser, V. Joseph, N. Voituron, M. Gassmann and J. Soliz.

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Keywords for this news article include: Quebec City, Quebec, Canada, North and Central America, Erythrocytosis, Genetics, Laval University.

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Oncology - Acute Lymphoblastic Leukemia

Investigators from Ludwig-Maximilians-University Target Acute Lymphoblastic Leukemia (Characterization of Rare, Dormant, and Therapy-Resistant Cells in Acute Lymphoblastic Leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Acute Lymphoblastic Leukemia is now available. According to news reporting from Munich, Germany, by NewsRx journalists, research stated, "Tumor relapse is associated with dismal prognosis, but responsible biological principles remain incompletely understood. To isolate and characterize relapse-inducing cells, we used genetic engineering and proliferation-sensitive dyes in patient-derived xenografts of acute lymphoblastic leukemia (ALL)."

Funders for this research include ERC, Deutsche Jose Carreras Leukamie-Stiftung, Collaborative Research Centers 684, German Consortium for Translational Cancer Research, Bettina Brau-Stiftung, Dr. Helmut Legerlotz Stiftung, Collaborative Research Center 1243, German Federal Ministry of Education and Research, German Research Foundation.

The news correspondents obtained a quote from the research from Ludwig-Maximilians-University, "We identified a rare subpopulation that resembled relapse-inducing cells with combined properties of long-term dormancy, treatment resistance, and stemness. Single-cell and bulk expression profiling revealed their similarity to primary ALL cells isolated from pediatric and adult patients at minimal residual disease (MRD). Therapeutically adverse characteristics were reversible, as resistant, dormant cells became sensitive to treatment and started proliferating when dissociated from the in vivo environment."
According to the news reporters, the research concluded: "Our data suggest that ALL patients might profit from therapeutic strategies that release MRD cells from the niche."

For more information on this research see: Characterization of Rare, Dormant, and Therapy-Resistant Cells in Acute Lymphoblastic Leukemia. Cancer Cell, 2016;30(6):849-862. Cancer Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cancer Cell - www.journals.elsevier.com/cancer-cell/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ccell.2016.11.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munich, Germany, Europe, Acute Lymphoblastic Leukemia, Hematology, Oncology, Genetics, Therapy, Ludwig-Maximilians-University.

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Inflammation

Investigators from Manchester Metropolitan University Release New Data on Inflammation (PI16 is a shear stress and inflammation-regulated inhibitor of MMP2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Inflammation have been published. According to news reporting originating in Manchester, United Kingdom, by NewsRx journalists, research stated, "Raised endothelial shear stress is protective against atherosclerosis but such protection may be lost at sites of inflammation. We found that four splice variants of the peptidase inhibitor 16 (PI16) mRNA are among the most highly shear stress regulated transcripts in human coronary artery endothelial cells (HCAECs), in vitro but that expression is reduced by inflammatory mediators TNF alpha and IL-1 beta."

The news reporters obtained a quote from the research from Manchester Metropolitan University, "Immunohistochemistry demonstrated that PI16 is expressed in human coronary endothelium and in a subset of neointimal cells and medial smooth muscle cells. Adenovirus-mediated PI16 overexpression inhibits HCAEC migration and secreted matrix metalloproteinase (MMP) activity. Moreover, PI16 inhibits MMP2 in part by binding an exposed peptide loop above the active site."

According to the news reporters, the research concluded: "Our results imply that, at high endothelial shear stress, PI16 contributes to inhibition of protease activity; protection that can be reversed during inflammation."

For more information on this research see: PI16 is a shear stress and inflammation-regulated inhibitor of MMP2. Scientific Reports, 2016;6():1-11. Scientific Reports can be
Investigators from Mansoura University Have Reported New Data on Giant Cell Granuloma (Efficacy of Ethanolamine Oleate Sclerotherapy in Treatment of Peripheral Giant Cell Granuloma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Jaw Diseases and Conditions - Giant Cell Granuloma is the subject of a report. According to news reporting originating from Mansoura, Egypt, by NewsRx editors, the research stated, "The aim of this study was to evaluate the efficacy of ethanolamine oleate (EO) sclerotherapy in the treatment of peripheral giant cell granuloma. This study included 24 patients presenting with PGCGs greater than 2 cm in diameter."

Our news editors obtained a quote from the research from Mansoura University, "Definitive diagnosis was confirmed after histopathologic examination of incisional biopsy specimens. EO sclerotherapy at a concentration of 2.5% was injected into each lesion once a week. Repeated injections were performed if needed. The treatment response was recorded as complete remission, moderate response, or no change. This study involved 11 male and 13 female patients, ranging in age from 9 to 70 years; the average age was 45.3 years. The mandible (75%) was involved more than the maxilla. PGCGs occurred posteriorly (62.5%) more than anteriorly. The number of injection sessions was 57, with an average of 2.4 sessions per lesion. Clinical improvement was seen in 23 patients: complete remission in 20 (83.3%) and moderate improvement in 3 (12.5%). No clinical improvement occurred in 1 patient (4.2%). EO injection offers an alternative to conventional methods for the treatment of PGCG." According to the news editors, the research concluded: "The technique is straightforward, safe, and cost-effective with a high success rate."


The news editors report that additional information may be obtained by contacting W.S. Ahmed, Mansoura University, Fac Dental, Dept. of Oral & Maxillofacial Surg, Mansoura, Egypt.

The direct object identifier (DOI) for that additional information is:
Investigators from Marmara University Target Atrial Fibrillation (Effect of intravenous zoledronic acid infusion on electrocardiographic parameters in patients with osteoporosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting originating in Istanbul, Turkey, by NewsRx journalists, research stated, "We evaluated the effects of zoledronic acid (ZA) therapy on electrocardiographic (ECG) parameters for the first time in the literature. Measurements were performed on ECGs obtained before and after ZA infusion on the same day as well as 1 month after the infusion."

The news reporters obtained a quote from the research from Marmara University, "ZA infusion did not have any short- or long-term effect on any parameter that might be associated with the tendency for atrial fibrillation or ventricular arrhythmias. The aim of the present study was to evaluate the early and late effects of ZA therapy on ECG parameters which might be associated with the tendency for atrial and ventricular arrhythmias. Consecutive patients with osteoporosis who were admitted to our clinic between December 2013 and December 2014 and who were scheduled to receive ZA infusion constituted our study population. Twelve-lead surface ECGs were obtained from all patients before and after ZA infusion on the same day as well as 1 month after the infusion. All ECG parameters were measured and compared with each other for each patient. Data of 100 patients were used in the analysis (9 male; 70.5 +/- 11.6 years of age). There were no significant differences between repeated measurements regarding pmax, pmin, and p dispersion values. QT max and QT min values were significantly increased after infusion; however, there were no significant changes in QT dispersion, Tp-e interval, and Tp-e dispersion values. ZA infusion did not affect P wave dispersion both at the immediate post-infusion period and 1 month after infusion. QT values were significantly increased early after ZA infusion; however, there were no significant differences in parameters reflecting disparity of ventricular recovery times and transmural dispersion of ventricular repolarization."

According to the news reporters, the research concluded: "Based on these observations, it may be suggested that ZA infusion did not have any short- or long-term effect on any parameter that might be associated with the tendency for atrial fibrillation or ventricular arrhythmias."

For more information on this research see: Effect of intravenous zoledronic acid infusion on electrocardiographic parameters in patients with osteoporosis. Osteoporosis International, 2016;27(12):3543-3547. Osteoporosis International can be contacted at:
Investigators from Max-Planck-Institute for Biophysics [Zero in on Molecular and Cellular Biology (Molecular Architecture of SF3b and Structural Consequences of Its Cancer-Related Mutations)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Life Science Research - Molecular and Cellular Biology is now available. According to news originating from Gottingen, Germany, by NewsRx correspondents, research stated, "SF3b is a heptameric protein complex of the U2 small nuclear ribonucleoprotein (snRNP) that is essential for pre-mRNA splicing. Mutations in the largest SF3b subunit, SF3B1/SF3b155, are linked to cancer and lead to alternative branch site (BS) selection."

Our news journalists obtained a quote from the research from Max-Planck-Institute for Biophysics, "Here we report the crystal structure of a human SF3b core complex, revealing how the distinctive conformation of SF3b155's HEAT domain is maintained by multiple contacts with SF3b130, SF3b10, and SF3b14b. Protein-protein crosslinking enabled the localization of the BS-binding proteins p14 and U2AF65 within SF3b155's HEAT-repeat superhelix, which together with SF3b14b forms a composite RNA-binding platform. SF3b155 residues, the mutation of which leads to cancer, contribute to the tertiary structure of the HEAT superhelix and its surface properties in the proximity of p14 and U2AF65."

According to the news editors, the research concluded: "The molecular architecture of SF3b reveals the spatial organization of cancer-related SF3b155 mutations and advances our understanding of their effects on SF3b structure and function."

For more information on this research see: Molecular Architecture of SF3b and Structural Consequences of Its Cancer-Related Mutations. Molecular Cell, 2016;64(2):307-319. Molecular Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

The news correspondents report that additional information may be obtained from V.
Investigators from Mayo Clinic Report New Data on Congenital Heart Disease (Postcardiotomy ECMO Support after High-risk Operations in Adult Congenital Heart Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Congenital Diseases and Conditions - Congenital Heart Disease. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Cardiac operations in high-risk adult congenital heart disease (ACHD) patients may require mechanical circulatory support (MCS), such as extracorporeal membrane oxygenation (ECMO) or intraaortic balloon pump (IABP), to allow the cardiopulmonary system to recover. We reviewed records for all ACHD patients who required MCS following cardiotomy at our institution from 1/2001 to 12/2013."

Our news editors obtained a quote from the research from Mayo Clinic, "During the study period, 2264 (mean age 39.1 years, females similar to 54.1%) operations were performed in ACHD patients of whom 24 (1.1%) required postoperative MCS (14 males; median age 41 years, range 22-75). Preoperatively the 24 patients had a mean systemic ventricular ejection fraction of 47% (range 10-66%); 72% of these patients were in NYHA class III/IV heart failure. The common underlying diagnoses included pulmonary atresia with intact ventricular septum (20%), tetralogy of Fallot (16%), Ebstein anomaly (12%), cc-TGA (12%), septal defects (12%), and others (28%). Operations performed were valvular operations with/without maze (58.2%), Fontan conversion (21%), coronary bypass grafting with valvular operations (12.5%), and heart transplant (8.3%). Indications for MCS were left-sided (systemic) heart failure (32%), right-sided (subpulmonary) heart failure (24%), biventricular heart failure (36%), persistent arrhythmia (4%), and hypoxemia (4%). Forty-two percent were placed on ECMO only; in the second group, IABP was attempted and subsequently followed by ECMO initiation. The mean duration of MCS was 8.4 days (range 0.8-35.4). Common morbidities included coagulopathy (60%), renal failure (56%), and arrhythmia (48%). Overall, 46% of patients survived to hospital discharge. Deaths were due to either multi organ failure or the underlying cardiac disease; sepsis was the primary cause of death in one patient. Median follow-up for survivors was 41 months (maximum 106 months), NYHA functional class was I/II in all 8 late survivors. Following complex operations in high-risk ACHD patients, MCS may be required."

According to the news editors, the research concluded: "Despite significant morbidity, nearly half of patients survive to hospital discharge."
For more information on this research see: Postcardiotomy ECMO Support after High-risk Operations in Adult Congenital Heart Disease. Congenital Heart Disease, 2016;11(6):751-755. Congenital Heart Disease can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Congenital Heart Disease - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1747-0803)

The news editors report that additional information may be obtained by contacting J.N. Johnson, Mayo Clinic, Dept. of Pediat & Adolescent Med, Div Pediat Cardiol, Rochester, MN, United States. Additional authors for this research include J.N. Johnson, J.M. Stulak, J.A. Dearani, S.S. Kushwaha, R.C. Daly, D.T. Haile and G.J. Scheers.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cardiovascular Diseases and Conditions, Congenital Diseases and Conditions, Mechanical Circulatory Support, Heart Disorders and Diseases, Congenital Heart Disease, Heart Failure, Cardiology, Hospital, Surgery, Mayo Clinic.

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Nervous System Diseases and Conditions -...

Investigators from Mayo Clinic Report New Data on Neurofibromatosis Type 2 (Gamma Knife radiosurgery for neurofibromatosis type 2-associated meningiomas: a 22-year patient series)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nervous System Diseases and Conditions - Neurofibromatosis Type 2 have been presented. According to news reporting out of Rochester, Minnesota, by NewsRx editors, research stated, "Neurofibromatosis type 2 (NF2) is a debilitating genetic condition with potential development of multiple meningiomas. We report our experience treating a series of NF2-associated intracranial meningiomas with Gamma Knife radiosurgery (GKRS)."

Our news journalists obtained a quote from the research from Mayo Clinic, "Between 1992 and 2013, 15 consecutive patients (age 20-54 years) with 62 intracranial meningiomas were treated with single-fraction GKRS. Fifty-five percent of tumors involved the convexity or parasagittal/falx. The median prescription dose was 16 Gy (range 13-20 Gy). The median tumor diameter was 2.1 cm (range 0.7-4.5 cm). The median radiographic and clinical follow-up periods were 103 and 111 months, respectively. The 5-year and 10-year local controls were both 96 %. The disease specific survival was 93 % at 5 years and 68 % at 10 years. Fifty-three percent of patients had multiple meningiomas and received multiple GKRS treatments (range 1-7) for new or enlarging intracranial meningiomas. 11 (73 %) patients were alive at last follow-up, with 60 (97 %) tumors controlled (smaller or unchanged in size). There were 2 in-field failures, one at 1 year and the other at 3.5 years. There were no marginal failures. Major Complications after GKRS included: 1 case of radiation necrosis, 1 case of post treatment edema, and 1 case of a presumed radiation induced cavernous malformation 5 years after GKRS. GK is an effective treatment for enlarging NF2-associated meningiomas."

According to the news editors, the research concluded: "No cases of malignant transformation or secondary malignancies were seen during the follow-up period."

For more information on this research see: Gamma Knife radiosurgery for neurofibromatosis type 2-associated meningiomas: a 22-year patient series. Journal of Neuro-
Investigators from Mayo Clinic Target Osteomyelitis (Mycoplasma hominis vertebral spine infection: Case report and a review of infections of bone and joints)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Musculoskeletal Diseases and Conditions - Osteomyelitis are presented in a new report. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Mycoplasma hominis (M. hominis) is a common commensal that colonizes the human urogenital tract, wherein it is also known to cause genito-urinary infections. It has rarely been reported to cause spinal infections."

Our news editors obtained a quote from the research from Mayo Clinic, "Case description: We describe the case of a 53-year old diabetic woman who developed spontaneous, culture-negative L3-4 osteomyelitis that progressed clinically and radiographically despite debridement, stabilization, and empiric broad-spectrum antimicrobial therapy. After her third debridement procedure, cultures of the multiple intraoperative specimens yielded M. hominis. Literature review: A PubMed search identified a total of 4 reports of M. hominis causing spinal osteomyelitis and 22 other cases involving bones and joints. Clinical relevance: M. hominis is a rare cause of bone and joint infections. Because of low clinical suspicion for this pathogen, combined with its fastidious nature and the difficult growth characteristics of this organism, M. hominis infections may be unrecognized and untreated, resulting in high morbidity. In addition to bacterial culture, molecular tests are available to detect M. hominis in clinical samples."

According to the news editors, the research concluded: "This case report and review of the literature suggest that, in some cases of purulent culture-negative osteomyelitis, especially if not responding to standard empiric antibacterial therapy, M. hominis should be considered as
a potential pathogen."

For more information on this research see: Mycoplasma hominis vertebral spine infection: Case report and a review of infections of bone and joints. *Journal of Infection and Chemotherapy*, 2016;22(11):755-758. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

The news editors report that additional information may be obtained by contacting H.L. Tyner, Mayo Clinic, Div Infect Dis, Dept. of Med, Rochester, MN, United States. Additional authors for this research include A. Virk, A. Nassr and R. Razonable.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.04.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Musculoskeletal Diseases and Conditions, Infectious Bone Diseases and Conditions, Gram-Negative Bacteria, Mycoplasma hominis, Mycoplasmataceae, Mycoplasmatales, Bone Research, Osteomyelitis, Mollicutes, Mayo Clinic.

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**Oncology - Prostate Cancer**

**Investigators from Mayo Clinic Zero in on Prostate Cancer [Evaluation of polymer shielding for adenovirus serotype 6 (Ad6) for systemic virotherapy against human prostate cancers]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Oncolytic viruses hold promise as 'self-amplifying' cancer therapies wherein a virally killed cell can produce thousands of new viral 'drugs' that can kill more cancer cells. Adenoviruses (Ads) are one family of oncolytic viruses."

Our news editors obtained a quote from the research from Mayo Clinic, "Most human studies have used human Ad serotype 5 (Ad5). Unfortunately, most patients are already immune to Ad5 increasing the likelihood that the agent will be neutralized if used as a cancer therapy. In this work, lower seroprevalence Ad6 was tested as a systemic therapy for prostate cancer. Ad5 and Ad6 were injected intravenously a single time in nude mice bearing human prostate tumors, and toxicity and efficacy were assessed. Ad6 was chemically shielded with polyethylene glycol (PEG) to test if this would further improve its pharmacology. Ad6 produced 30-fold lower liver damage and less toxicity than Ad5. Ad6 significantly repressed the growth of androgen-resistant human DU145 prostate tumors and androgen-sensitive LNCaP tumors after single intravenous injection. PEGylation did not change virus distribution, but blunted liver damage and cytokine production by Ad6. PEGylated Ad6 eradicated LNCaP tumors and maintained body mass, but lost potency against the more challenging DU145 tumors. These and other data suggest that low seroprevalent Ad6 has better efficacy and safety than the benchmark oncolytic virus Ad5 for systemic therapy of prostate cancer."

According to the news editors, the research concluded: "These data also indicate that
PEGylation may improve Ad6 safety, but that this shielding may reduce oncolytic efficacy after intravenous treatment."

For more information on this research see: Evaluation of polymer shielding for adenovirus serotype 6 (Ad6) for systemic virotherapy against human prostate cancers. *Molecular Therapy-Oncolytics*, 2016;3():1-9. *Molecular Therapy-Oncolytics* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

The news editors report that additional information may be obtained by contacting M.A. Barry, Mayo Clinic, Dept. of Mol Med, Rochester, MN 55902, United States. Additional authors for this research include G.J. Heller, M.E. Barry, C.M. Crosby, M.A. Turner and M.A. Barry.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Oncolytic Viruses, Epidemiology, Prostatic Neoplasms, Prostate Cancer, Oncology, Therapy, Mayo Clinic.

Heart Disorders and Diseases - Heart Disease

**Investigators from McMaster University Zero in on Heart Disease (Impact of a Genetic Risk Score on Myocardial Infarction Risk Across Different Ethnic Populations)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Disease are presented in a new report. According to news reporting originating in Hamilton, Canada, by NewsRx journalists, research stated, "Myocardial infarction (MI) risk varies by ethnicity, although the influence of genetic factors remains unclear. Using a genetic risk score (GRS), we examined the association between 25 coronary artery disease (CAD)-related single nucleotide polymorphisms and MI across 6 ethnic groups."

The news reporters obtained a quote from the research from McMaster University, "We studied 8556 participants in the INTERHEART case-control study from 6 ethnic groups: Europeans, South Asians, Southeast Asians, Arabs, Latin Americans, and Africans. Associations between the GRS and MI were tested in each group by logistic regression and overall by meta-analysis. Overall, the GRS increased the odds of MI by 1.07 (95% confidence interval [CI], 1.04-1.09) per risk allele in the unadjusted model, with little change (odds ratio, 1.06; 95% CI, 1.04-1.09) after adjusting for demographic and modifiable factors. In Europeans, South Asians, Southeast Asians, and Arabs, the GRS was significantly associated with MI, with minimal heterogeneity observed. In these groups, a score > 23 risk alleles (highest 4 quintiles) was associated with only a 5% difference in population attributable risk (PAR) (36% to 41%) for MI. The GRS was not significant in Latin Americans or Africans. In the overall cohort, modest changes, beyond clinical factors, in PAR (88% to 91%), concordance statistic (0.73 to 0.74), and continuous net reclassification improvement (12%) were observed with the GRS. A CAD GRS is associated with MI across a multiethnic cohort, with significant and consistent effects across 4 distinct ethnicities."

According to the news reporters, the research concluded: "However, it only modestly improves MI risk prediction beyond clinical factors."

For more information on this research see: Impact of a Genetic Risk Score on

Our news correspondents report that additional information may be obtained by contacting P.G. Joseph, McMaster University, Population Health Res Inst, Hamilton, ON, Canada. Additional authors for this research include G. Pare, S. Asma, J.C. Engert, S. Yusuf and S.S. Anand.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.05.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hamilton, Ontario, Canada, North and Central America, Heart Disorders and Diseases, Risk and Prevention, Epidemiology, Vascular Diseases and Conditions, Coronary Artery Disease, Myocardial Infarction, Myocardial Ischemia, Heart Disease, Heart Attack, Cardiology, Genetics, McMaster University.

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**Papillomas**

**Investigators from Medical College of Wisconsin Target Papillomas (Black Raspberries Demethylate Sfrp4, a WNT Pathway Antagonist, in Rat Esophageal Squamous Cell Papilloma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Papillomas. According to news reporting out of Milwaukee, Wisconsin, by NewsRx editors, research stated, "Aberrant methylation of DNA is a common event in the development of cancers, including squamous cell carcinoma (SCC) of the human esophagus. In the present study, we determined: (a) whether aberrant DNA methylation also occurs in the development of N-nitrosomethylbenzylamine (NMBA)-induced tumorigenesis in the rat esophagus, a model of human esophageal SCC; and (b) if so, whether dietary black raspberries (BRBs) are capable of preventing this aberrant DNA methylation."

Our news journalists obtained a quote from the research from the Medical College of Wisconsin, "A diet containing 5% BRBs inhibited the development of NMBA-induced tumors in the rat esophagus. This inhibition was associated with reduced mRNA levels of the DNA methyltransferases, Dnmt1 and Dnmt3b, in both dysplastic lesions and in papillomas of the esophagus. In addition, promoter methylation of Sfrp4, a WNT pathway antagonist, was significantly reduced by the berry diet, and this was associated with decreased nuclear localization of beta-CATENIN and reduced expression of c-MYC protein in NMBA-treated esophagi. Decreased promoter methylation of Sfrp4 correlated with decreased expression of Dmnt3b and, ultimately, with increased Sfrp4 mRNA expression."

According to the news editors, the research concluded: "This suggests that epigenetic alterations in NMBA-induced rat esophageal tumorigenesis recapitulate epigenetic events in human esophageal SCC, and that BRBs could be useful in preventing the aberrant DNA methylation involved in the development of human esophageal SCC."

For more information on this research see: Black Raspberries Demethylate Sfrp4, a
Our news journalists report that additional information may be obtained by contacting Y.W. Huang, Medical College of Wisconsin, Dept. of Obstet & Gynecol, Milwaukee, WI 53226, United States. Additional authors for this research include F. Gu, A. Dombkowski, L.S. Wang and G.D. Stoner.

Keywords for this news article include: Milwaukee, Wisconsin, United States, North and Central America, Squamous Cell Carcinoma, Squamous Cell Papilloma, DNA Research, Papillomas, Genetics, Medical College of Wisconsin.

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Investigators from Medical Research Institute Report New Data on Mesenchymal Stem Cells (Tyrosine kinase receptor c-ros-oncogene 1 mediates TWIST-1 regulation of human mesenchymal stem cell lineage commitment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Stem Cell Research - Mesenchymal Stem Cells. According to news reporting from Adelaide, Australia, by NewsRx journalists, research stated, "The TWIST-1 gene encodes a basic helix-loop-helix (bHLH) transcription factor important in mediating skeletal and head mesodermal tissue development. Bone marrow-derived mesenchymal stem/stromal cells (BMSC), express high levels of TWIST-1, which is down regulated during ex vivo expansion."

Financial support for this research came from National Health and Medical Research Council.

The news correspondents obtained a quote from the research from Medical Research Institute, "Cultured BMSC over-expressing TWIST-1 display decreased capacity for osteogenic differentiation and an enhanced capacity to undergo adipogenesis, suggesting that TWIST-1 is a mediator of lineage commitment. However, little is known regarding the mechanism(s) by which TWIST-1 mediates cell fate determination. In this study, microarray analysis was used to identify a novel downstream TWIST-1 target, tyrosine kinase receptor c-ros-oncogene 1 (C-ROS-1), which was down regulated in TWIST-1 over-expressing BMSC. Chromatin immunoprecipitation analysis showed that TWIST-1 directly bound to two E-box binding sites on the proximal C-ROS-1 promoter. Knock-down of C-ROS-1 in human BMSC and cranial bone cells resulted in a decreased capacity for osteogenic differentiation in vitro. Conversely, suppression of C-ROS-1 in BMSC resulted in an enhanced capacity to undergo adipogenesis. Furthermore, reduced C-ROS-1 levels led to activation of different components of the PI3K/AKT/mTORC1 signalling pathway during osteogenic and adipogenic differentiation."

According to the news reporters, the research concluded: "Collectively, these data suggest that C-ROS-1 is involved in BMSC fate switching between osteogenesis and adipogenesis, mediated via PI3K/AKT/mTORC1 signalling."
For more information on this research see: Tyrosine kinase receptor c-ros-oncogene 1 mediates TWIST-1 regulation of human mesenchymal stem cell lineage commitment. *Bone*, 2017;94():98-107. *Bone* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Bone - www.journals.elsevier.com/bone/)

Our news journalists report that additional information may be obtained by contacting S. Gronthos, South Australian Hlth & Med Res Inst, Canc Theme, Adelaide, SA, Australia. Additional authors for this research include P.J. Anderson, A.C.W. Zannettino and S. Gronthos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bone.2016.09.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Mesenchymal Stem Cells, Enzymes and Coenzymes, Aromatic Amino Acids, Stem Cell Research, Tyrosine Kinase, Bone Research, Adipogenesis, Proteomics, Cell Line, Proteins, Genetics, Medical Research Institute.

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**Gram-Positive Bacteria - Staphylococcus aureus**

**Investigators from Medicines Co. Have Reported New Data on Staphylococcus aureus (Pooled analysis of single-dose oritavancin in the treatment of acute bacterial skin and skin-structure infections caused by Gram-positive pathogens, including a ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Positive Bacteria - Staphylococcus aureus have been published. According to news originating from St. Laurent, Canada, by NewsRx correspondents, research stated, "Oritavancin is a lipoglycopeptide antibiotic with bactericidal activity against Gram-positive pathogens, including methicillin-resistant Staphylococcus aureus (MRSA). The phase 3 studies SOLO I and SOLO II demonstrated comparable efficacy and safety of a single dose of oritavancin compared with 7-10 days of twicedaily vancomycin in adults with acute bacterial skin and skin-structure infections (ABSSSIs)."

Financial support for this research came from The Medicines Company.

Our news journalists obtained a quote from the research from Medicines Co., "The present analysis assessed clinical responses by pathogen at 48-72 h and at study days 14-24 in SOLO patients within the pooled data set. Of the 1959 patients in the pooled SOLO studies, 1067 had at least one baseline Gram-positive pathogen and 405 had MRSA. Clinical response rates were similar for oritavancin and vancomycin-treated patients by pathogen, including Staphylococcus aureus with or without the Panton-Valentine leukocidin (pvl) gene and from different clonal complexes, and were similar for pathogens within each treatment group. Oritavancin exhibited potent in vitro activity against all baseline pathogens, with MIC90 values (minimum inhibitory concentration required to inhibit 90% of the isolates) of 0.12 μg/mL for Staphylococcus aureus, 0.25 μg/mL for Streptococcus pyogenes and 0.06 μg/mL for Enterococcus faecalis."

According to the news editors, the research concluded: "Whereas both oritavancin
and vancomycin achieved similarly high rates of clinical response by pathogen, including methicillin-susceptible and-resistant Staphylococcus aureus, oritavancin provides a singledose alternative to 7-10 days of twice-daily vancomycin to treat ABSSSIs."


The news correspondents report that additional information may be obtained from G. Moeck, Medicines Co, St Laurent, PQ H4S 2A1, Canada. Additional authors for this research include F.F. Arhin, M.A. Wikler, D.F. Sahm, B.N. Kreiswirth, J.R. Mediavilla, S. Good, C. Fiset, H. Jiang, G. Moeck, H. Kabler, S. Green and W. O'Riordan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.07.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Laurent, Quebec, Canada, North and Central America, Methicillin-Resistant Staphylococcus aureus, Gram-Positive Endospore-Forming Rods, Bacterial Infections and Mycoses, Endospore-Forming Bacteria, Beta-Lactam Antibiotics, Gram-Positive Bacteria, beta-Lactam Resistance, Methicillin Resistance, Penicillin Resistance, Drugs and Therapies, Gram-Positive Cocci, Organic Chemicals, Staphylococcaceae, Drug Resistance, Glycopeptides, Penicillins, Vancomycin, Bacillales, Peptides, Amides, MRSA, Medicines Co.

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**Neuropathy**

**Investigators from Miguel Hernandez University Report New Data on Neuropathy (Roles of NTE protein and encoding gene in development and neurodevelopmental toxicity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neuropathy. According to news originating from Elche, Spain, by NewsRx correspondents, research stated, "Neuropathy Target Esterase (NTE) is a membrane protein codified by gene PNPLA6. NTE was initially discovered as a target of the so-called organophosphorus-induced delayed polyneuropathy triggered by the inhibition of the NTE-associated esterase center by neuropathic organophosphorus compounds (OPs)."

Our news journalists obtained a quote from the research from Miguel Hernandez University, "The physiological role of NTE might be related to membrane lipid homeostasis and seems to be involved in adult organisms in maintaining nervous system integrity. However, NTE is also involved in cell differentiation and embryonic development. NTE is expressed in embryonic and adult stem cells, and the silencing of Pnpla6 by interference RNA in D3 mouse cells causes significant alterations in several genetic pathways related to respiratory tube and
nervous system formation, and in vasculogenesis and angiogenesis. The silencing of gene PNPLA6 in human NT2 cells at the beginning of neurodifferentiation causes severe phenotypic alterations in neuron-like differentiated cells; e.g. reduced electrical activity and the virtual disappearance of markers of neural tissue, synapsis and glia. These phenotypic effects were not reproduced when NTE esterase activity was inhibited by neuropathic OP mipafox instead of being silenced at the genetic level. Neuropathic OP chlorpyrifos seems able to induce neurodevelopmental alterations in animals. However, the effects of chlorpyrifos in the expression of biomarker genes of differentiation in D3 cells differ considerably from the effects induced by Pnpla6 silencing.

According to the news editors, the research concluded: "Available information suggests that PNPLA6 and/or the NTE protein play a role in early neurodifferentiation stages, although this role is not dependent upon the esterase NTE center. Therefore, impairments caused by OPs, such as chlorpyrifos, on neurodevelopment are not due to inhibition of NTE esterase enzymatic activity."

For more information on this research see: Roles of NTE protein and encoding gene in development and neurodevelopmental toxicity. Chemico-Biological Interactions, 2016;259 ():352-357. Chemico-Biological Interactions can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www elsevier.com; Chemico-Biological Interactions - www.journals.elsevier.com/chemico-biological-interactions/)

The news correspondents report that additional information may be obtained from M.A. Sogorb, Miguel Hernandez Univ, Bioengn Inst, Toxicol & Chem Safety Unit, Elche 03202, Spain. Additional authors for this research include D. Pamies, C. Estevan, J. Estevez and E. Vilanova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cbi.2016.07.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Elche, Spain, Europe, Enzymes and Coenzymes, Genetics, Hydrolases, Neuropathy, Esterases, Miguel Hernandez University.

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Drugs and Therapies - Antibiotics

Investigators from Monash University Target Antibiotics (Pharmacokinetics/pharmacodynamics of colistin and polymyxin B: are we there yet?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antibiotics. According to news originating from Melbourne, Australia, by NewsRx correspondents, research stated, "The polymyxin antibiotics [colistin and polymyxin B (PMB)] are increasingly used as a last-line option for the treatment of infections caused by extensively drug-resistant Gram-negative bacteria. Despite having similar structures and antibacterial activity in vitro, the two clinically available polymyxins have very different pharmacological properties, as colistin (polymyxin E) is intravenously administered to patients in the form of an inactive prodrug colistin methanesulphonate (sodium)."
Our news journalists obtained a quote from the research from Monash University, "This review will discuss recent progress in the pharmacokinetics/pharmacodynamics and toxicity of colistin and PMB, the factors that affect their pharmacological profiles, and the challenges for the effective use of both polymyxins. Strategies are proposed for optimising their clinical utility based upon the recent pharmacological studies in vitro, in animals and patients. In the 'Bad Bugs, No Drugs' era, polymyxins are a critically important component of the antibiotic armamentarium against difficult-to-treat Gram-negative 'superbugs'."

According to the news editors, the research concluded: "Rational approaches to the use of polymyxins must be pursued to increase their effectiveness and to minimise resistance and toxicity."


The news correspondents report that additional information may be obtained from J. Li, Monash University, Monash Inst Pharmaceut Sci, Drug Delivery Disposit & Dynam, Melbourne, Vic, Australia. Additional authors for this research include T. Velkov, R.L. Nation, A. Forrest, B.T. Tsuji, P.J. Bergen and J. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.09.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Antimicrobial Cationic Peptides, Pore Forming Cytotoxic Proteins, Drugs and Therapies, Membrane Proteins, Pharmacokinetics, Pharmaceuticals, Cyclic Peptides, Pharmacology, Antibiotics, Polymyxin B, Polymyxins, Colistin, Therapy, Monash University.

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Drugs and Therapies - Toxicology and Pharmacology

Investigators from Monsanto Zero in on Toxicology and Pharmacology (Ecological risk assessment for DvSnf7 RNA: A plant-incorporated protectant with targeted activity against western corn rootworm)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Toxicology and Pharmacology are discussed in a new report. According to news originating from Creve Coeur, Missouri, by NewsRx correspondents, research stated, "MON 87411 maize, which expresses DvSnf7 RNA, was developed to provide an additional mode of action to confer protection against corn rootworm (Diabrotica spp.). A critical step in the registration of a genetically engineered crop with an insecticidal trait is performing an ecological risk assessment to evaluate the potential for adverse ecological effects."

 Financial supporters for this research include Monsanto Company, California Agricultural Research Inc.
Our news journalists obtained a quote from the research from Monsanto, "For MON 87411, an assessment plan was developed that met specific protection goals by characterizing the routes and levels of exposure, and testing representative functional taxa that would be directly or indirectly exposed in the environment. The potential for toxicity of DvSnf7 RNA was evaluated with a harmonized battery of non-target organisms (NTOs) that included invertebrate predators, parasitoids, pollinators, soil biota as well as aquatic and terrestrial vertebrate species. Laboratory tests evaluated ecologically relevant endpoints such as survival, growth, development, and reproduction and were of sufficient duration to assess the potential for adverse effects. No adverse effects were observed with any species tested at, or above, the maximum expected environmental concentration (MEEC). All margins of exposure for NTOs were >10-fold the MEEC."

According to the news editors, the research concluded: "Therefore, it is reasonable to conclude that exposure to DvSnf7 RNA, both directly and indirectly, is safe for NTOs at the expected field exposure levels."

For more information on this research see: Ecological risk assessment for DvSnf7 RNA: A plant-incorporated protectant with targeted activity against western corn rootworm. Regulatory Toxicology and Pharmacology, 2016;81():77-88. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news correspondents report that additional information may be obtained from P.M. Bachman, Monsanto Co, Global Regulatory Sci, Creve Coeur, MO 63167, United States. Additional authors for this research include K.M. Huizinga, P.D. Jensen, G. Mueller, J.G. Tan, J.P. Uffman and S.L. Levine.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.08.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Creve Coeur, Missouri, United States, North and Central America, Toxicology and Pharmacology, Drugs and Therapies, Ecology, Monsanto.

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Liver Diseases and Conditions - Hepatitis B Virus

Investigators from Nagoya City University Target Hepatitis B Virus
[Molecular epidemiology of co-infection with hepatitis B virus and human immunodeficiency virus (HIV) among adult patients in Harare, Zimbabwe]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Liver Diseases and Conditions - Hepatitis B Virus is the subject of a report. According to news originating from Nagoya, Japan, by NewsRx correspondents, research stated, "Core promoter/precore (BCP/PC) and S regions of HBV, as well The objective of this study was to determine the prevalence of co-infection with hepatitis B virus (HBV) and human immunodeficiency virus (HIV) and the genetic characteristics of both viruses among pre-HIV-treatment patients in Harare, Zimbabwe. This cross-sectional survey
involved 176 remnant plasma samples collected from consenting HIV patients (median age 35 [18-74]) between June and September 2014."

Our news journalists obtained a quote from the research from Nagoya City University, "HBV seromarkers were determined by high-sensitivity chemiluminescence assays. Molecular evolutionary analyses were conducted on the basalt as part of the HIV pol region. Of the 176 participants (65.7% female), 19 (10.8%) were positive for HBsAg (median 0.033IU/ml [IQR 0.01-415]. The HBsAg incidence was higher in men than women (P=0.009). HBsAg-positive subjects had lower median CD4 counts (P=0.016). HBV DNA was detectable in 12 HBsAg-positive samples (median 3.36 log cp/ml (2.86-4.51), seven being amplified and sequenced. All isolates were subgenotype A1 without HBV drug resistance mutations but each had at least one BCP/PC mutation. PreS deletion mutants and small S antigen variants M133I/T and D144G were identified. Of the 164 HIV isolates successfully genotyped, 163 (99.4%) were HIV-1 subtype C and only one was HIV-1 subtype F1. Sixteen (9.8%) had at least one drug resistance mutation, predominantly non-nucleoside reverse transcriptase inhibitor-related mutations, observed mostly among female participants."

According to the news editors, the research concluded: "This study shows that co-infection with HBV is present among HIV patients enrolling into HIV care in Zimbabwe, suggesting that HBV screening and monitoring programmes be strengthened in this context. J. Med. Virol. 89:257-266, 2017."


The news correspondents report that additional information may be obtained from Y. Tanaka, Nagoya City University, Grad Sch Med Sci, Liver Unit, Nagoya, Aichi, Japan. Additional authors for this research include S. Iijima, N. Chin’ombe, S. Mtapuri-Zinyowera, S. Murakami, M. Isogawa, A. Hachiya, Y. Iwatani and Y. Tanaka.

Keywords for this news article include: Nagoya, Japan, Asia, Viral Sexually Transmitted Diseases and Conditions, Digestive System Diseases and Conditions, Immune System Diseases and Conditions, Infectious Disease and Conditions, Virus Physiological Phenomena, Liver Diseases and Conditions, Human Immunodeficiency Virus, Hepadnaviridae Infections, Viral Drug Resistance, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Hepatitis B Virus, Orthohepadnavirus, Gastroenterology, HIV Infections, Epidemiology, Retroviridae, RNA Viruses, DNA Viruses, Hepatology, Antigens, Genetics, HIV/AIDS, Virology, HIV-1, HBV, Nagoya City University.

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Molecular Nutrition

Investigators from National Heart Lung and Blood Institute Have Reported New Data on Molecular Nutrition (Long-chain monounsaturated fatty acid-rich fish oil attenuates the development of atherosclerosis in mouse models)
Researchers detail new data in Molecular Nutrition. According to news reporting from Bethesda, Maryland, by NewsRx journalists, research stated, "Scope: Fish oil-derived long-chain monounsaturated fatty acids (LCMUFA) containing chain lengths longer than 18 were previously shown to improve cardiovascular disease risk factors in mice. However, it is not known if LCMUFA also exerts anti-atherogenic effects."

Financial support for this research came from National Institutes of Health.

The news correspondents obtained a quote from the research from National Heart Lung and Blood Institute, "The main objective of the present study was to investigate the effect of LCMUFA on the development of atherosclerosis in mouse models. LDLR-KO mice were fed Western diet supplemented with 2% (w/w) of either LCMUFA concentrate, olive oil, or not (control) for 12 wk. LCMUFA, but not olive oil, significantly suppressed the development of atherosclerotic lesions and several plasma inflammatory cytokine levels, although there were no major differences in plasma lipids between the three groups. At higher doses 5% (w/w) LCMUFA supplementation was observed to reduce pro-atherogenic plasma lipoproteins and to also reduce atherosclerosis in ApoE-KO mice fed a Western diet. RNA sequencing and subsequent qPCR analyses revealed that LCMUFA upregulated PPAR signaling pathways in liver. In cell culture studies, apoB-depleted plasma from LDLR-K mice fed LCMUFA showed greater cholesterol efflux from macrophage-like THP-1 cells and ABCA1-overexpressing BHK cells."

According to the news reporters, the research concluded: "Our research showed for the first time that LCMUFA consumption protects against diet-induced atherosclerosis, possibly by upregulating the PPAR signaling pathway."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/mnfr.201600142. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Molecular Nutrition, Risk and Prevention, National Heart Lung and Blood Institute.

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Subcellular Fractions

Investigators from National Heart Lung and Blood Institute Zero in on Subcellular Fractions (TP53 mutation, mitochondria and cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Subcellular Fractions are presented in a new report. According to news reporting originating in Bethesda, Maryland, by NewsRx journalists, research stated, "Under normal conditions, basal levels of wild-type p53 promote mitochondrial function through multiple mechanisms. Remarkably, some missense mutations of p53, in contrast to the null state, can result in the retention of its metabolic activities."

Funders for this research include National Heart, Lung and Blood Institute (NHLBI), NIH.

The news reporters obtained a quote from the research from National Heart Lung and Blood Institute, "These effects are particularly prominent in the mitochondria and demonstrate a functional role for mutant p53 in cancer metabolism. This review summarizes accumulating data on the mechanisms by which p53 missense mutations can regulate mitochondrial metabolism and promote the viability and survival of both normal and cancer cells, thus acting as a double edged sword for the host."

According to the news reporters, the research concluded: "Greater understanding of these mechanisms may provide insights for developing new treatment or preventive strategies against cancer."


Our news correspondents report that additional information may be obtained by contacting P.M. Hwang, National Heart Lung & Blood Institute, Center Mol Med, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include P.Y. Wang and P.M. Hwang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gde.2016.02.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Subcellular Fractions, Cytoplasm, Genetics, Cellular Structures, Intracellular Space, Mitochondria, Organelles, Oncology, p53 Gene, Cancer, National Heart Lung and Blood Institute.

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Investigators from National Institute for Health Research Zero in on Type 2 Diabetes (Systematic Functional Characterization of Candidate Causal Genes for Type 2 Diabetes Risk Variants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting out of Oxford, United Kingdom, by NewsRx editors, research stated, "Most genetic association signals for type 2 diabetes risk are located in noncoding regions of the genome, hindering translation into molecular mechanisms. Physiological studies have shown a majority of disease-associated variants to exert their effects through pancreatic islet dysfunction."

Funders for this research include Wellcome Trust, Novo Nordisk.

Our news journalists obtained a quote from the research from National Institute for Health Research, "Systematically characterizing the role of regional transcripts in beta-cell function could identify the underlying disease-causing genes, but large-scale studies in human cellular models have previously been impractical. We developed a robust and scalable strategy based on arrayed gene silencing in the human beta-cell line EndoC-beta H1. In a screen of 300 positional candidates selected from 75 type 2 diabetes regions, each gene was assayed for effects on multiple disease-relevant phenotypes, including insulin secretion and cellular proliferation. We identified a total of 45 genes involved in beta-cell function, pointing to possible causal mechanisms at 37 disease associated loci. The results showed a strong enrichment for genes implicated in monogenic diabetes. Selected effects were validated in a follow-up study, including several genes (ARL15, ZM1Z1, and THADA) with previously unknown or poorly described roles in beta-cell biology."

According to the news editors, the research concluded: "We have demonstrated the feasibility of systematic functional screening in a human beta-cell model and successfully prioritized plausible disease-causing genes at more than half of the regions investigated."


Our news journalists report that additional information may be obtained by contacting A.L. Gloyn, Churchill Hospital, Natl Inst Hlth Res, Oxford Biomed Res Center, Oxford, United Kingdom. Additional authors for this research include A. Ceroni, M. Van De Bunt, C. Burrows, A. Barrett, R. Scharfmann, D. Ebner, M.I. McCarthy and A.L. Gloyn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2337/db16-0361. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, United Kingdom, Europe, Risk and Prevention, Diagnostics and Screening, Genetics, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Type 2 Diabetes, National Institute for Health Research.

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Leukocyte Diseases and Conditions - Eosinophilia

Investigators from National Research Institute Release New Data on Eosinophilia (Platelets constitutively express IL-33 protein and modulate eosinophilic airway inflammation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Leukocyte Diseases and Conditions - Eosinophilia have been published. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Although platelets play a key role in allergic inflammation in addition to their well-established role in hemostasis, the precise mechanisms of how platelets modulate allergic inflammation are not fully understood. IL-33 is an essential regulator of innate immune responses and allergic inflammation."

Our news journalists obtained a quote from the research from National Research Institute, "We sought to determine the expression of IL-33 protein by platelets and its functional significance in airway inflammation. IL-33 protein in human platelets, the human megakaryocyte cell line MEG-01, and bone marrow-derived mouse megakaryocytes was detected by using Western blot analysis and fluorescent immunostaining. We examined the functional relevance of IL-33 protein in platelets by comparing platelet-intact and platelet-depleted groups in a murine model of IL-33-dependent airway eosinophilia elicited by intranasal administration of papain. We further compared the additive effect of administration of platelets derived from wild-type versus IL-33-deficient mice on the papain-induced eosinophilia. Platelets and their progenitor cells, megakaryocytes, constitutively expressed IL-33 protein (31 kDa). Papain-induced IL-33-dependent airway eosinophilia in mice was significantly attenuated by platelet depletion. Conversely, concomitant administration of platelets derived from wild-type mice but not IL-33-deficient mice enhanced the papain-induced airway eosinophilia. Our novel findings suggest that platelets might be important cellular sources of IL-33 protein in vivo and that platelet-derived IL-33 might play a role in airway inflammation."

According to the news editors, the research concluded: "Therefore platelets might become an attractive novel therapeutic target for asthma and probably allergic inflammation."

For more information on this research see: Platelets constitutively express IL-33 protein and modulate eosinophilic airway inflammation. Journal of Allergy and Clinical Immunology, 2016;138(5):1395-1403,717-722. Journal of Allergy and Clinical Immunology can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Journal of Allergy and Clinical Immunology - www.journals.elsevier.com/journal-of-allergy-and-clinical-immunology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jaci.2016.01.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Hematologic Diseases and Conditions, Leukocyte Diseases and Conditions, Hemic and Immune Systems, Cysteine Endopeptidases, Enzymes and Coenzymes, Leukocyte Disorders, Peptide Hydrolases,
Inflammation, Granulocytes, Eosinophilia, Blood Cells, Eosinophils, Immunology, Papain, National Research Institute.

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**Drugs and Therapies - Chemotherapy**

**Investigators from National Tsing Hua University Release New Data on Chemotherapy (Tumor Microenvironment-Responsive Nanoparticle Delivery of Chemotherapy for Enhanced Selective Cellular Uptake and Transportation within Tumor)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemotherapy. According to news originating from Hsinchu, Taiwan, by NewsRx correspondents, research stated, "A novel drug delivery strategy featured with enhanced uptake of nanoparticles (NPs) by targeted tumor cells and subsequent intratumoral cellular hitchhiking of chemotherapy to deep tumor regions was described. The NP delivery system was obtained from assembly of poly(lactic acid co-glycolic acid)-grafted hyaluronic acid (HA-g-PLGA) together with an anticancer drug, SN38, in aqueous phase, followed by implementing the NP surface with a layer of methoxypoly(ethylene glycol)-b-poly(histamine methacrylamide) (mPEG-b-PHMA) via hydrophobic association to improve the colloidal stability both in vitro and in vivo."

Funders for this research include National Tsing Hua University, National Taiwan University Hospital, Ministry of Science and Technology, Taiwan.

Our news journalists obtained a quote from the research from National Tsing Hua University, "Upon arrival of these PEGylated NPs at the acidic tumor site through the EPR effect, mPEG-b-PHMA became detached from the NP surface by the charge transition of the PHMA blocks from neutral (hydrophobic) to positively charged (hydrophilic) state via acid-induced protonation of their imidazole groups in tumor microenvironment. The exposure of HA shell on the naked NP thus resulted in enhanced uptake of NPs by CD44-expressed tumor cells, including cancer cells and tumor-associated macrophages (TAMs)."

According to the news editors, the research concluded: "Along with the TAMs being further chemotactically recruited by hypoxia cells, the engulfed nanotherapeutics was thus transported into the avascular area in which the anticancer action of chemotherapy occurred by virtue of the drug release alongside PLGA degradation, similar to those arising in other tumor nonhypoxia regions."

For more information on this research see: Tumor Microenvironment-Responsive Nanoparticle Delivery of Chemotherapy for Enhanced Selective Cellular Uptake and Transportation within Tumor. *Biomacromolecules*, 2016;17(12):3883-3892. *Biomacromolecules* can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Biomacromolecules - www.pubs.acs.org/journal/bomaf6)

The news correspondents report that additional information may be obtained from H.C. Chiu, Natl Tsing Hua Univ, Dept. of Biomed Engn & Environm Sci, Hsinchu 300, Taiwan. Additional authors for this research include S.H. Chen, W.H. Chiang, C.W. Huang, C.L. Lo, C.S. Chern and H.C. Chiu.

The direct object identifier (DOI) for that additional information is:
Investigators from Netherlands Cancer Institute Release New Data on Small Cell Lung Cancer (Ped- and postoperative management of stage I-III Non Small Cell Lung Cancer: Which quality of care indicators are evidence-based?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Small Cell Lung Cancer is now available. According to news originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Quality of care (QoC) has a central role in our health care system. The aim of this review is to present a set of evidence-based quality indicators for the surgical treatment and postoperative management of lung cancer."

Our news journalists obtained a quote from the research from Netherlands Cancer Institute, "A search was performed through PubMed, Embase and the Cochrane library database, including English literature, published between 1980 and 2012. Search terms regarding 'lung neoplasms', 'surgical treatment' and 'quality of care' were used. Potential QoC indicators were divided into structure, process or outcome measures and a final selection was made based upon the level of evidence. High hospital volume and surgery performed by a thoracic surgeon, were identified as important structure indicators. Sleeve resection instead of pneumonectomy and the importance of treatment within a clinical care path setting were identified as evidence-based process indicators. A symptom-based follow-up regime was identified as a new QoC indicator."

According to the news editors, the research concluded: "These indicators can be used for registration, benchmarking and ultimately quality improvement in lung cancer surgery."


The news correspondents report that additional information may be obtained from R.C. Numan, Antoni van Leeuwenhoek Hosp, Netherlands Canc Inst, Dept. of Surg Oncol, NL-1066 CX Amsterdam, Netherlands. Additional authors for this research include M. ten Berge, J.A. Burgers, H.M. Klomp, J.W. van Sandick, P. Baas and M.W. Wouters.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Surgery, Article Review, Small Cell Lung Cancer, Quality of Care, Lung Neoplasms, Oncology, Netherlands Cancer Institute.

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Investigators from Odense University Hospital Zero in on Central Nervous System Agents (2016 updated MASCC/ESMO consensus recommendations: prevention of radiotherapy-induced nausea and vomiting)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Central Nervous System Agents have been presented. According to news originating from Odense, Denmark, by NewsRx correspondents, research stated, "Radiotherapy-induced nausea and vomiting (RINV) are distressing symptoms. Evidence-based guidelines should facilitate the prescription of the best possible antiemetic prophylaxis."

Our news journalists obtained a quote from the research from Odense University Hospital, "As part of the MASCC/ESMO Antiemetic Guidelines Update 2016, a thorough review of the literature concerning RINV since the 2009 update was required. A systematic review of the literature including data published from June 2009 to May 2015 was performed. Committee VII (RINV) under the MASCC/ESMO Antiemetic Guidelines Update Committee assessed the literature. The searches yielded 926 records, 906 records were excluded, leaving 20 records for full text assessment, and 18 publications were finally included. The only fully published randomized studies in prevention of RINV were two negative studies in acupuncture and green tea, respectively. No data to support new recommendations for antiemetic prophylaxis in RINV was available. However, based on expert opinions, the committee agreed on changes in emetic risk level for certain sites of irradiation. The serotonin receptor antagonists are still the cornerstone in antiemetic prophylaxis of nausea and vomiting induced by high and moderate emetic risk radiotherapy. The studies available since the last update did not change recommendations for antiemetic prophylaxis. The emetogenicity of craniospinal radiotherapy was reclassified from low to moderate emetic level along with some other minor changes."

According to the news editors, the research concluded: "In the future, RINV prophylaxis in single fraction, multiple fraction, and in concomitant chemo-radiotherapy still need to be explored with regard to the different classes and combinations of antiemetic drugs."

For more information on this research see: 2016 updated MASCC/ESMO consensus recommendations: prevention of radiotherapy-induced nausea and vomiting. Supportive Care in Cancer, 2017;25(1):309-316. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

The news correspondents report that additional information may be obtained from C.H. Ruhlmann, Odense Univ Hosp, Dept. of Oncol, DK-5000 Odense C, Denmark. Additional authors for this research include F. Jahn, K. Jordan, K. Dennis, E. Maranzano, A. Molassiotis, F. Roila and P. Feyer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3407-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Odense, Denmark, Europe, Central Nervous System Agents, Gastrointestinal Agents, Drugs and Therapies, Radiotherapy, Antiemetics, Therapy, Odense University Hospital.

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Investigators from Ohio State University Report New Data on Magnetic Resonance (DEMARCATE: Density-based magnetic resonance image clustering for assessing tumor heterogeneity in cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Magnetic Resonance are discussed in a new report. According to news reporting out of Columbus, Ohio, by NewsRx editors, research stated, "Tumor heterogeneity is a crucial area of cancer research where in inter-and intra-tumor differences are investigated to assess and monitor disease development and progression, especially in cancer. The proliferation of imaging and linked genomic data has enabled us to evaluate tumor heterogeneity on multiple levels."

Funders for this research include NIH, University of Texas MD Anderson Cancer Center Support Grant (CCSG).

Our news journalists obtained a quote from the research from Ohio State University, "In this work, we examine magnetic resonance imaging (MRI) in patients with brain cancer to assess image-based tumor heterogeneity. Standard approaches to this problem use scalar summary measures (e.g., intensity-based histogram statistics) that do not adequately capture the complete and finer scale information in the voxel-level data. In this paper, we introduce a novel technique, DEMARCATE (DEnsity-based MAgnetic Resona nce image Clustering for Assessing Tumor hEtero-geneity) to explore the entire tumor heterogeneity density profiles (THDPs) obtained from the full tumor voxel space. THDPs are smoothed representations of the probability density function of the tumor images. We develop tools for analyzing such objects under the Fisher-Rao Riemannian framework that allows us to construct metrics for THDP comparisons across patients, which can be used in conjunction with standard clustering approaches. Our analyses of The Cancer Genome Atlas (TCGA) based Glioblastoma dataset reveal two significant clusters of patients with marked differences in tumor morphology, genomic characteristics and prognostic clinical outcomes."

According to the news editors, the research concluded: "In addition, we see enrichment of image-based clusters with known molecular subtypes of glioblastoma multiforme, which further validates our representation of tumor heterogeneity and subsequent clustering techniques."


Our news journalists report that additional information may be obtained by contacting A. Saha, Ohio State University, Dept. of Stat, Columbus, OH 43210, United States. Additional authors for this research include S. Banerjee, S. Kurtek, S. Narang, J. Lee, G. Rao, J. Martinez, K. Bharath, A.U.K. Rao and V. Baladandayuthapani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.05.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbus, Ohio, United States, North and
Investigators from Osaka University Target Clinical Trials and Studies (Intravenous Vitamin B6 Increases Resistance to Erythropoiesis-Stimulating Agents in Hemodialysis Patients: A Randomized Controlled Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Clinical Research - Clinical Trials and Studies is the subject of a report. According to news reporting from Osaka, Japan, by NewsRx journalists, research stated, "Vitamin B6 deficiency is common in hemodialysis patients and may contribute to anemia and abnormal bone metabolism in this population. 6-month, open-label, randomized controlled parallel-group study in hemodialysis centers."

The news correspondents obtained a quote from the research from Osaka University, "Fifty-six maintenance hemodialysis patients with relatively high resistance to erythropoiesis-stimulating agents (ESA). Intravenous vitamin B6 (60 mg of intravenous pyridoxal 5'-phosphate after each thrice-weekly hemodialysis session). The primary and secondary outcomes were changes over time in ESA resistance index and bone turnover markers, respectively. The prevalence of vitamin B6 deficiency was 40% overall. Compared with the control group, the B6 group showed an upward change in ESA resistance index over time (P-interaction = .038). At week 13 (a priori-defined time point), pyridoxal 5'-phosphate administration was associated with higher ESA resistance index by 0.97 (95% confidence interval, 0.02-1.92) x 10(-2) mg/dL.hemoglobin after baseline adjustment, which was not modified by baseline vitamin B6 status. There was a trend toward increase in serum erythropoietin concentrations in the B6 group after adjustment for baseline values, hemoglobin, and weekly ESA dose (P-interaction = .06). The downward changes of bone-specific alkaline phosphatase and tartrate-resistant acid phosphatase 5b in the B6 group relative to the control group were pronounced in patients without vitamin B6 deficiency (P-interaction < .001 and .017, respectively), despite nonsignificant between-group difference in 1-84 parathyroid hormone."

According to the news reporters, the research concluded: "Thrice-weekly intravenous vitamin B6 (60 mg pyridoxal 5'-phosphate hydrate) worsens the response to ESA and may blunt the response of bone to parathyroid hormone in hemodialysis patients."


Our news journalists report that additional information may be obtained by contacting T. Hamano, Osaka University, Grad Sch Med, Dept. of Comprehens Kidney Dis Res, Suita, Osaka 5650871, Japan. Additional authors for this research include S. Mikami, T. Hamano, Y. Obi, H. Tanaka, A. Shimomura, H. Rakugi, T. Inoue and Y. Isaka.

The direct object identifier (DOI) for that additional information is:
Investigators from Paris Diderot University Zero in on Dimethylamines (Mechanisms of tramadol-related neurotoxicity in the rat: Does diazepam/tramadol combination play a worsening role in overdose?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Dimethylamines have been published. According to news reporting from Paris, France, by NewsRx journalists, research stated, "Poisoning with opioid analgesics including tramadol represents a challenge. Tramadol may induce respiratory depression, seizures and serotonin syndrome, possibly worsened when in combination to benzodiazepines."

Financial support for this research came from INSERM.

The news correspondents obtained a quote from the research from Paris Diderot University, "Our objectives were to investigate tramadol-related neurotoxicity, consequences of diazepam/tramadol combination, and mechanisms of drug-drug interactions in rats. Median lethal-doses were determined using Dixon Bruce's up-and-down method. Sedation, seizures, electroencephalography and plethysmography parameters were studied. Concentrations of tramadol and its metabolites were measured using liquid-chromatography high-resolution-mass-spectrometry. Plasma, platelet and brain monoamines were measured using liquid-chromatography coupled to fluorimetry. Median lethal-doses of tramadol and diazepam/tramadol combination did not significantly differ, although time-to-death was longer with combination (P = 0.04). Tramadol induced dose-dependent sedation (P < 0.05), early-onset seizures (P < 0.001) and increase in inspiratory (P < 0.01) and expiratory times (P < 0.05). The diazepam/tramadol combination abolished seizures but significantly enhanced sedation (P < 0.01) and respiratory depression (P < 0.05) by reducing tidal volume (P < 0.05) in addition to tramadol-related increase in respiratory times, suggesting a pharmacodynamic mechanism of interaction. Plasma M1 and M5 metabolites were mildly increased, contributing additionally to tramadol-related respiratory depression. Tramadol-induced early-onset increase in brain concentrations of serotonin and norepinephrine was not significantly altered by the diazepam/tramadol combination. Interestingly neither pretreatment with cyproheptadine (a serotonin-receptor antagonist) nor a benserazide/5-hydroxytryptophane combination (enhancing brain serotonin) reduced tramadol-induced seizures. Our study shows that diazepam/tramadol combination does not worsen tramadol-induced fatality risk but alters its toxicity pattern with enhanced respiratory depression but abolished seizures. Drug-drug interaction is mainly pharmacodynamic but increased plasma M1 and M5 metabolites may also contribute to enhancing respiratory depression."

According to the news reporters, the research concluded: "Tramadol-induced seizures are independent of brain serotonin."

Our news journalists report that additional information may be obtained by contacting C. Lagard, Paris Diderot Univ, UMR S 1144, Paris, France. Additional authors for this research include L. Chevillard, I. Malissin, P. Risede, J. Callebert, L. Labat, J.M. Launay, J.L. Laplanche and B. Megarbane.

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Keywords for this news article include: Paris, France, Europe, Nervous System Diseases and Conditions, Anxiolytics Sedatives and Hypnotics, Benzodiazepine Anticonvulsants, Tramadol Therapy Hydrochloride, Central Nervous System Agents, Neurologic Manifestations, Drugs and Therapies, Biological Factors, Organic Chemicals, Pharmacodynamics, Diazepam Therapy, Pharmaceuticals, Biogenic Amines, Benzodiazepines, Dimethylamines, Cyclohexanols, Tryptamines, Serotonin, Autacoids, Seizures, Paris Diderot University.

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**Enzymes and Coenzymes**

**Investigators from Pasteur Institute Release New Data on Enzymes and Coenzymes (Crystal Structure of the Metallo-beta-Lactamase GOB in the Periplasmic Dizinc Form Reveals an Unusual Metal Site)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Enzymes and Coenzymes. According to news reporting from Paris, France, by NewsRx journalists, research stated, "Metallo-beta-lactamases (MBLs) are broad-spectrum, Zn(II)-dependent lactamases able to confer resistance to virtually every beta-lactam antibiotic currently available. The large diversity of active-site structures and metal content among MBLs from different sources has limited the design of a pan-MBL inhibitor."

The news correspondents obtained a quote from the research from Pasteur Institute, "GOB-18 is a divergent MBL from subclass B3 that is expressed by the opportunist Gram-negative pathogen Elizabethkingia meningoseptica. This MBL is atypical, since several residues conserved in B3 enzymes (such as a metal ligand His) are substituted in GOB enzymes. Here, we report the crystal structure of the periplasmic di-Zn(II) form of GOB-18. This enzyme displays a unique active-site structure, with residue Gln116 coordinating the Zn1 ion through its terminal amide moiety, replacing a ubiquitous His residue. This situation contrasts with that of B2 MBLs, where an equivalent His116Asn substitution leads to a di-Zn(II) inactive species. Instead, both the mono- and di-Zn(II) forms of GOB-18 are active against penicillins, cephalosporins, and carbapenems. In silico docking and molecular dynamics simulations indicate that residue Met221 is not involved in substrate binding, in contrast to Ser221, which otherwise is conserved in most B3 enzymes. These distinctive features are conserved in recently
reported GOB orthologues in environmental bacteria."

According to the news reporters, the research concluded: "These findings provide valuable information for inhibitor design and also posit that GOB enzymes have alternative functions."

For more information on this research see: Crystal Structure of the Metallo-beta-Lactamase GOB in the Periplasmic Dizinc Form Reveals an Unusual Metal Site. *Antimicrobial Agents and Chemotherapy*, 2016;60(10):6013-6022. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting A. Buschiazzo, Inst Pasteur, Dept. of Biol Struct & Chim, Paris, France. Additional authors for this research include M.N. Lisa, N. Larrieux, S.I. Drusin, A.M. Viale, D.M. Moreno, A. Buschiazzo and A.J. Vila.

Keywords for this news article include: Paris, France, Europe, Enzymes and Coenzymes, Lactamase, Pasteur Institute.

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**Heart Disorders and Diseases - Left Ventricular...**

**Investigators from Peking University Release New Data on Left Ventricular Hypertrophy (A novel hydrodynamic approach of drag-reducing polymers to improve left ventricular hypertrophy and aortic remodeling in spontaneously hypertensive rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Left Ventricular Hypertrophy are discussed in a new report. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Drag-reducing polymers (DRPs), when added in minute concentrations, have been shown to decrease peripheral vascular resistance. In this study, the effect of DRPs on the hypertension-induced left ventricular hypertrophy and aortic remodeling was evaluated in spontaneously hypertensive rats (SHR)."

The news reporters obtained a quote from the research from Peking University, "Male SHR and age-matched Wistar rats were divided into four groups and received intravenous injection of normal saline (NS) or DRPs. Body weight (BW), heart rate (HR) and systolic blood pressure (SBP) were measured. Echocardiography was used to evaluate the changes in left ventricle (LV) function and global wall motion. The LV and aorta were stained by hematoxylin and eosin. Cell size of cardiomyocytes and aortic medial thickness were evaluated for each section. The expression of endothelin-1 (ET-1) of LV and aorta was examined by quantitative reverse transcription polymerase chain reaction (qRT-PCR) and immunohistochemistry. There was no significant difference in the increase of SBP among SHR+ NS, SHR+ 10DRP and SHR+ 20DRP groups. SHR+ NS group had markedly smaller left ventricular end-systolic diameter and left ventricular end-diastolic diameter but bigger anterior and posterior systolic wall thicknesses, while there was no significant difference in fractional shortening and ejection fraction. The cross-sectional areas (CSAs) of cardiomyocytes and the medial thickness of the aorta in SHR+ 10 (ppm) DRP and SHR+ 20 (ppm) DRP groups were significantly reduced compared with
SHR+ NS group. The expression of ET-1 in SHR+ 10DRP and SHR+ 20DRP groups was significantly attenuated. These results suggest that chronic treatment with DRPs can protect against left ventricular hypertrophy and aortic remodeling.

According to the news reporters, the research concluded: "DRPs may offer a new approach to the treatment of left ventricular hypertrophy and aortic remodeling caused by hypertension."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/IJN.S119607. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Left Ventricular Hypertrophy, Cardiomyocyte, Hypertension, Cardiology, Angiology, Arteries, Genetics, Aorta, Peking University.

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Investigators from Peking University Report New Data on Tricho-Dento-Osseous Syndrome (Senescence: novel insight into DLX3 mutations leading to enhanced bone formation in Tricho-Dento-Osseous syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Diseases and Conditions - Tricho-Dento-Osseous Syndrome is the subject of a report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "The homeodomain transcription factor distal-less homeobox 3 gene (DLX3) is required for hair, tooth and skeletal development. DLX3 mutations have been found to be responsible for Tricho-Dento-Osseous (TDO) syndrome, characterized by kinky hair, thin-pitted enamel and increased bone density."

Our news journalists obtained a quote from the research from Peking University, "Here we show that the DLX3 mutation (c.533 A>G; Q178R) attenuates osteogenic potential and senescence of bone mesenchymal stem cells (BMCs) isolated from a TDO patient, providing a molecular explanation for abnormal increased bone density. Both DLX3 mutations (c.533 A>G and c.571_574delGGGG) delayed cellular senescence when they were introduced into pre-osteoblastic cells MC3T3-E1. Furthermore, the attenuated skeletal aging and bone loss in DLX3 (Q178R) transgenic mice not only reconfirmed that DLX3 mutation (Q178R) delayed..."
cellular senescence, but also prevented aging-mediated bone loss. Taken together, these results indicate that DLX3 mutations act as a loss of function in senescence. The delayed senescence of BMSCs leads to increased bone formation by compensating decreased osteogenic potentials with more generations and extended functional lifespan."

According to the news editors, the research concluded: "Our findings in the rare human genetic disease unravel a novel mechanism of DLX3 involving the senescence regulation of bone formation."

For more information on this research see: Senescence: novel insight into DLX3 mutations leading to enhanced bone formation in Tricho-Dento-Osseous syndrome. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from Y.X. Wang, Peking University, Sch & Hosp Stomatol, Cent Lab, Beijing, People’s Republic of China. Additional authors for this research include D. Han, H.C. Liu, Y. Li, S.W. Wong, Z.Y. Cao, J. Xu, X.W. Zhang, T. Cai, Y.X. Wang and H.L. Feng.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Tricho-Dento-Osseous Syndrome, Diseases and Conditions, Bone Research, Genetics, Peking University.

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BNP (B-type natriuretic peptide) and CST levels predicted the highest risk for both all-cause and cardiac deaths [HR = 5.18 (95% CI: 1.94-13.87, p = 0.001) and HR = 9.19 (95% CI: 2.75-30.78, p< 0.001), respectively]."

According to the news reporters, the research concluded: "Large-scale studies are needed to further assess the value of plasma CST in predicting heart failure prognosis."

For more information on this research see: The predictive value of plasma catestatin for all-cause and cardiac deaths in chronic heart failure patients. *Peptides*, 2016;86():112-117. *Peptides* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Peptides - www.journals.elsevier.com/peptides/)

Our news correspondents report that additional information may be obtained by contacting W.H. Ding, Peking University, Hosp 1, Dept. of Cardiol, Beijing 100034, People's Republic of China. Additional authors for this research include S.Y. Chu, W.H. Ding, L. Liu, J. Zhao, X.J. Cui, R.X. Li and J. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.peptides.2016.10.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Heart Disorders and Diseases, Risk and Prevention, Cardiovascular Diseases and Conditions, Chronic Heart Failure, Heart Disease, Heart Attack, Cardiology, Peking University.

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**Oncology - Rectal Cancer**

**Investigators from People's Hospital Release New Data on Rectal Cancer (Relationship between serum uric acid and metastatic and nonmetastatic rectal cancer patients with undergoing no chemotherapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Rectal Cancer. According to news reporting originating in Yichang, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to investigate the role of uric acid (UA) in assessing rectal cancer metastasis. There were 475 newly diagnosed patients with complete data in our study, a total of 475 cases were reviewed, and divided into patients with metastasis and without metastasis."

The news reporters obtained a quote from the research from People's Hospital, "There were several statistical differences in age, tumor diameter, carcino-embryonic antigen (CEA), and C-reactive protein (CRP) between the 2 groups. Importantly, serum concentrations of UA in patients with lymphatic metastasis were found to be increased compared with patients without lymphatic metastasis (270.9+/−52.99 vs 215.8+/−43.55; P<0.001). There were positive correlations of serum UA with creatinine (Cr), CRP, and CEA (r=0.281, P=0.023; r=0.312, P=0.001; r=0.294, P=0.017) in rectal cancer patients with metastasis. Multivariate analysis model revealed that elevated serum levels of UA were significant prognostic marker for lymphatic metastasis in patients with rectal cancer, independently of CRP, CEA, and tumor diameter (odds ratio 1.035, 95% CI 1.013-1.057, P=0.002). In receiver-operating characteristic curve analysis, the area under the curve of serum UA in assessing metastatic rectal cancer patients was 0.803,
with sensitivity of 0.864 and specificity of 0.739."

According to the news reporters, the research concluded: "Our results suggest that serum UA may be a novel marker in assessing tumor metastasis in patients with rectal cancer."

For more information on this research see: Relationship between serum uric acid and metastatic and nonmetastatic rectal cancer patients with undergoing no chemotherapy. *Medicine*, 2016;95(47):248-251. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting X.H. Xu, Yichang Cent Peoples Hosp, Yichang, Hubei, People's Republic of China. Additional authors for this research include X.H. Xu, X.L. Wang, L. Xu, Z. Chen and Y.Q. Li.

For more information on this research see: Fibroblast Growth Factor Receptor 1 Gene Amplification in Nonsmall Cell Lung Cancer. *Chinese Medical Journal*, 2016;129

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**Oncology - Lung Cancer**

**Investigators from People's Hospital Report New Data on Lung Cancer (Fibroblast Growth Factor Receptor 1 Gene Amplification in Nonsmall Cell Lung Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Lung Cancer have been presented. According to news originating from Shandong, People's Republic of China, by NewsRx correspondents, research stated, "To review the prevalence and prognostic significance of fibroblast growth factor receptor 1 (FGFR1) amplification and to establish an association between FGFR1 amplification and the clinical characteristics of nonsmall cell lung cancer (NSCLC). We searched PubMed for English-language studies published between January 2010 and May 2016."

Our news journalists obtained a quote from the research from People's Hospital, "We included all relevant articles, with no limitation of study design. FGFR1 amplification was reported in 8.7-20.0% of NSCLC cases and was significantly more frequent in squamous cell carcinomas (SCCs) (9.7-28.3%) than in adenocarcinomas (ADCs) (0-15.0%). The rates of FGFR1 amplification were as follows: males, 13.9-22.1%; females, 0-20.1%; Stage I NSCLC, 9.3-24.1%; Stage II NSCLC, 12.9-25.0%; Stage III NSCLC, 8.2-19.5%; Stage IV NSCLC, 0-12.5%; current smokers, 13.3-29.0%; former smokers, 2.5-23.0%; and nonsmokers, 0-22.2%. Overall survival was 43.9-70.8 months in patients with FGFR1 amplification and 42.4-115.0 months in patients with no FGFR1 amplification; disease-free survival was 22.5-58.5 months and 52.4-94.6 months, respectively. FGFR1 amplification is more frequent in SCCs than in ADCs."

According to the news editors, the research concluded: "The association between FGFR1 amplification and clinical characteristics (gender, smoking status, and disease stage) and the prognostic significance of FGFR1 amplification in NSCLC remain controversial."

For more information on this research see: Fibroblast Growth Factor Receptor 1 Gene Amplification in Nonsmall Cell Lung Cancer. *Chinese Medical Journal*, 2016;129
Investigators from Pontifical Catholic University Release New Data on Lung Diseases (Modulatory potential of resveratrol during lung inflammatory disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases have been published. According to news reporting originating from Porto Alegre, Brazil, by NewsRx correspondents, research stated, "Neutrophils are the first cells to achieve the sites of infection or inflammation in the lungs. The massive accumulation of these cells is associated with acute and chronic lung injury."

Financial support for this research came from CAPES.

Our news editors obtained a quote from the research from Pontifical Catholic University, "Therefore, they have been implicated in the pathogenesis of many lung diseases through the release of reactive oxygen intermediates, proteolytic enzymes and Neutrophil Extracellular Traps (NETs). The excessive and continuous release of NETs, fibers composed by decondensed chromatin coated with neutrophil proteins, are associated to the impairment of lung function in different pathological settings. Flavonoids inhibit the respiratory burst of neutrophils in mammals. However, one of these flavonoids, resveratrol has a particular chemical property. It reduce Cu(II) to Cu(I) form with concomitant formation of reactive oxygen species, which can produce DNA breakage as reported in several in vitro models. We hypothesize that direct resveratrol administration in lungs can cleave DNA in NETs, improving lung function during acute airway infections or chronic inflammatory lung diseases. If the hypothesis is correct, the control of NET formation can be used to reduce the inflammatory environment in lung after neutrophil stimuli. Additionally, the production of proinflammatory cytokines by neutrophils could be also diminished by resveratrol administration."

According to the news editors, the research concluded: "In this sense, this flavonoid provides a multifaceted opportunity for treatment of lung diseases with strong or chronic neutrophil activation."

The news editors report that additional information may be obtained by contacting J.E. Vargas, Pontifical Catholic Univ Rio Grande Sul PUCRS, Center INFANT, Porto Alegre, RS, Brazil. Additional authors for this research include A.A. Souto, P.M.C. Pitrez, R.T. Stein and B.N. Porto.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**Investigators from Pontifical Catholic University Target Atrial Fibrillation (Overcoming global challenges in stroke prophylaxis in atrial fibrillation: The role of non-vitamin K antagonist oral anticoagulants)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting originating from Porto Alegre, Brazil, by NewsRx correspondents, research stated, "Atrial fibrillation is the world's most common sustained cardiac arrhythmia and is associated with a significantly increased risk of stroke. The global burden of atrial fibrillation is rising, commensurate with the ageing population."

Our news editors obtained a quote from the research from Pontifical Catholic University, "Well-controlled vitamin K antagonist-based anticoagulation has been shown to reduce the risk of stroke secondary to atrial fibrillation by two-thirds. However, patients with atrial fibrillation have frequently been denied anticoagulation because of a variety of perceived risks related to bleeding, falls, chronological age, and poor compliance. Even when vitamin K antagonists are used, maximum benefit and safety are only delivered when high quality control of therapy (TTR >70%) is achieved, which has proven remarkably difficult in many health-care systems and amongst many patient groups. The non-vitamin K antagonist oral anticoagulants (NOACs) offer solutions to many of the challenges of achieving widespread, safe, and effective anticoagulation for stroke prophylaxis in atrial fibrillation, yet their uptake into routine clinical practice remains variable."

According to the news editors, the research concluded: "The evidence supporting their more widespread use to overcome the challenges of stroke prophylaxis for atrial fibrillation is reviewed in this article."

For more information on this research see: Overcoming global challenges in stroke
Investigators from Postgraduate Institute of Medical Education and Research Report New Data on Lung Cancer (Endosonography Versus Mediastinoscopy in Mediastinal Staging of Lung Cancer: Systematic Review and Meta-Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lung Cancer. According to news originating from Chandigarh, India, by NewsRx correspondents, research stated, "Whether endosonography can replace mediastinoscopy as the initial procedure for mediastinal staging of non-small cell lung cancer remains controversial. Herein, we perform a systematic review of randomized controlled trials and observational studies (both procedures performed in same subjects) comparing the two procedures."

Our news journalists obtained a quote from the research from the Postgraduate Institute of Medical Education and Research, "Nine studies (960 subjects) were identified. The pooled risk-difference of the sensitivity of endosonography versus mediastinoscopy in observational studies and randomized controlled trials was 0.11 (95% confidence interval, -0.07 to 0.29) and 0.11 (95% confidence interval, -0.03 to 0.25), respectively suggesting equivalence of the two procedures. The complication rate was significantly lower with endosonographic procedures."

According to the news editors, the research concluded: "Endoscopic ultrasound-guided fine needle aspiration/endobronchial ultrasound-guided transbronchial needle aspiration was found to have similar yield but lower complication rate compared to mediastinoscopy in the initial mediastinal staging of non-small cell lung cancer."

Investigators from Purdue University Have Reported New Data on Crystal Research (A Comparison of the Crystallization Inhibition Properties of Bile Salts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Crystal Research are presented in a new report. According to news originating from West Lafayette, Indiana, by NewsRx correspondents, research stated, "Bile salts are natural surfactants present in the human gastrointestinal tract. Therefore, it is essential to consider their effect on the dissolution and crystallization tendency of oral drug formulations."

Financial supporters for this research include Division of Chemistry, American Association of Pharmaceutical Scientists, Division of Materials Research, Merck and Co., Inc.

Our news journalists obtained a quote from the research from Purdue University, "Although a recent study showed that sodium taurocholate delayed nucleation for 11 structurally diverse compounds, there is limited information about the crystallization inhibition properties of other bile salts and whether they are interchangeable in this context. In this study, we evaluated the ability of 13 bile salts to maintain supersaturated aqueous solutions of three compounds: celecoxib, nevirapine, and fibanserin. Most bile salts extended nucleation induction times. However, their inhibitory effects varied depending on the structure and concentration of the bile salt and the drug. The R5 group and hydrophobicity of the bile salt appeared to be essential. Molecular dynamics simulations indicated that van der Waals and hydrogen bonding interactions occurred between nevirapine and bile salts, with variations in different systems."

According to the news editors, the research concluded: "These results are important to better understand the crystallization tendency of orally delivered poorly water-soluble compounds in vivo."

For more information on this research see: A Comparison of the Crystallization Inhibition Properties of Bile Salts. Crystal Growth & Design, 2016;16(12):7286-7300. Crystal Growth & Design can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Crystal Growth & Design -
The news correspondents report that additional information may be obtained from L.S. Taylor, Purdue University, Dept. of Ind & Phys Pharm, West Lafayette, IN 47907, United States. Additional authors for this research include L.I. Mosquera-Giraldo, C.H. Borca, J.D. Ormes, M. Lowinger, J.D. Higgins, L.V. Slipchenko and L.S. Taylor.

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Keywords for this news article include: West Lafayette, Indiana, United States, North and Central America, Crystal Research, Purdue University.

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Parkinson's Disease

Investigators from Queensland University of Technology Release New Data on Parkinson's Disease [Occupancy of pramipexole (Sifrol) at cerebral dopamine D2/3 receptors in Parkinson's disease patients]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Parkinson's disease have been published. According to news reporting out of Brisbane, Australia, by NewsRx editors, research stated, "Whereas positron emission tomography (PET) with the antagonist ligand [F-18] fallypride reveals the composite of dopamine D2 and D3 receptors in brain, treatment of Parkinson's disease (PD) patients with the D3-prefering agonist pramipexole should result in preferential occupancy in the nucleus accumbens, where the D3-subtype is most abundant. To test this prediction we obtained pairs of [18F] fallypride PET recordings in a group of nine PD patients, first in a condition of treatment as usual with pramipexole (ON-Sifrol; 3 x 0.7 mg p.d.), and again at a later date, after withholding pramipexole 48-72 h (OFF-Sifrol); in that condition the serumpramipexole concentration had declined by 90% and prolactin levels had increased four-fold, in conjunction with a small but significant worsening of PD motor symptoms."

Our news journalists obtained a quote from the research from the Queensland University of Technology, "Exploratory comparison with historical control material showed 14% higher dopamine D2/3 availability in the more-affected putamen of patients OFF medication. On-Sifrol there was significant (p. 0.01) occupancy at [F-18] fallypride binding sites in globus pallidus (8%) thalamus (9%) and substantia nigra (19%), as well as marginally significant occupancy in frontal and temporal cortex of patients."

According to the news editors, the research concluded: "Contrary to expectation, comparison of ON-and OFF-Sifrol results did not reveal any discernible occupancy in nucleus accumbens, or elsewhere in the extended striatum; present methods should be sensitive to a 10% change in dopamine D2/3 receptor availability in striatum; the significant findings elsewhere in the basal ganglia and in cerebral cortex are consistent with a predominance of D3 receptors in those structures, especially in substantia nigra, and imply that therapeutic effects of pramipexole may be obtained at sites outside the extended striatum."

For more information on this research see: Occupancy of pramipexole (Sifrol) at cerebral dopamine D2/3 receptors in Parkinson's disease patients. NeuroImage-Clinical, 2016;12():41-46. NeuroImage-Clinical can be contacted at: Elsevier Sci Ltd, The Boulevard,
Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England.

Our news journalists report that additional information may be obtained by contacting P. Cumming, Queensland University of Technology, Inst Hlth & Biomed Innovat, QIMR Berghofer Med Res Inst, Sch Psychol & CounsellingFac Hlth, Brisbane, Qld, Australia. Additional authors for this research include C. la Fougere, K. Boetzel, N.L. Albert, F.J. Gildehaus, P. Bartenstein, G.M. Xiong and P. Cumming.

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Genetics - Assisted Reproduction and Genetics

Investigators from Radboud University Release New Data on Assisted Reproduction and Genetics (Clinically applied procedures for human ovarian tissue cryopreservation result in different levels of efficacy and efficiency)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Genetics - Assisted Reproduction and Genetics are discussed in a new report. According to news reporting originating in Nijmegen, Netherlands, by NewsRx journalists, research stated, "Different protocols are being used worldwide for the cryopreservation of human ovarian tissue for fertility preservation purposes. The efficiency and efficacy of the majority of these protocols has not been extensively evaluated, possibly resulting in sub-optimally cryopreserved ovarian tissue."

Funders for this research include Radboud Institute for Health Sciences, Stichting Kinderen Kankervrij, Merck Serono.

The news reporters obtained a quote from the research from Radboud University, "To address the impact of this issue, we assessed the effects of two clinically successful human ovarian tissue slow-freezing cryopreservation procedures on the quality of the cryopreserved tissue. To differentiate between cryopreservation (C) versus thawing (T) related effects, four combinations of these two (A and B) very different cryopreservation/thawing protocols (A(C)A (T), A(C)B(T), B(C)A(T), BCBT) were studied. Before and after cryopreservation and thawing, the percentage of living and morphologically normal follicles, as well as the overall tissue viability, was assessed. Our experiments revealed that the choice of the cryopreservation protocol noticeably affected the overall tissue viability and percentage of living follicles, with a higher viability after protocol B-C when compared to A(C)."

According to the news reporters, the research concluded: "No statistically significant
differences in tissue viability were observed between the two thawing protocols, but thawing protocol B-T required considerably more human effort and materials than thawing protocol A (T)."


Our news correspondents report that additional information may be obtained by contacting R. Peek, Radboud University, Dept. of Obstet & Gynecol, NL-6500 HB Nijmegen, Netherlands. Additional authors for this research include J.R. Westphal, C.C.M. Beerendonk, R.L.M. Bekkers, P.L.M. Zusterzeel, J.C.M. Hendriks, D.D.M. Braat and R. Peek.

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Keywords for this news article include: Nijmegen, Netherlands, Europe, Assisted Reproduction and Genetics, Genetics, Radboud University.

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Eye Diseases and Conditions - Choroidal...

**Investigators from Rambam Medical Center Have Reported New Data on Choroidal Neovascularization [A SEMA3E mutant resistant to cleavage by furins (UNCL-SEMA3E) inhibits choroidal neovascularization]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Eye Diseases and Conditions - Choroidal Neovascularization is now available. According to news reporting out of Haifa, Israel, by NewsRx editors, research stated, "Abnormal subretinal choroidal neovascularization (CNV) is a major cause of blindness in exudative age related macular degeneration (AMD). Current anti-angiogenic treatments by VEGF sequestering agents have been successful, but a significant proportion of patients do not respond well to these treatments, and the response of others diminishes over time, suggesting that additional anti-angiogenic agents that function by separate mechanisms may be of use to such patients."

Financial supporters for this research include Israel Binational Science Foundation (BSF), Israel Ministry of Commerce, Israel Science Foundation, Rappaport Family Institute for Research in the Medical Sciences.

Our news journalists obtained a quote from the research from Rambam Medical Center, "We have previously found that a point mutated form of semaphorin-3E resistant to cleavage by furin like pro-protein convertases (UNCL-Sema3E) displays potent anti-angiogenic properties. We therefore determined if UNCL-Sema3E has potential as an inhibitor of CNV formation. We chose to study UNCL-Sema3E rather than wild type sema3E because unlike full length sema3E, the major p61-Sema3E peptide that is produced by cleavage of sema3E with furin like pro-protein convertases activates signal transduction mediated by the ErbB2 receptor and can promote tumor metastasis in addition to its anti-angiogenic activity. UNCL-Sema3E
inhibited efficiently vascular endothelial growth factor-A (VEGF), platelet derived growth 
factor (PDGF) and basic fibroblast growth factor (bFGF) signaling in human umbilical vein 
derived endothelial cells (HUVEC) and to a lesser extent hepatocyte growth factor (HGF) signal 
transduction. CNV that was induced in the eyes of C57 black mice by laser photocoagulation 
was inhibited by 65% (P < 0.01) following a single bolus intra-vitreal injection of 5 mu g 
UNCL-Sema3E. This inhibitory effect was similar to the inhibition produced by a single bolus 
 intra-vitreal injection of 5 mu g aflibercept. A similar inhibition of CNV was observed 
following the injection of UNCL-Sema3E into the eyes of Long-Evans rats. However, a higher 
dose of UNCL-Sema3E (125 mu g), partially due to the larger volume of the vitreous cavity of 
rats, was required to achieve maximal inhibition of CNV. Injection of UNCL-Sema3E into eyes 
of healthy mice did not have any adverse effect on retinal function as assessed by optic kinetic 
reflex (OKR) or by electoretinogram (ERG) assays nor did UNCL-Sema3E injection affect the 
structure of the retina as determined using histology.

According to the news editors, the research concluded: "To conclude, our results 
suggest that UNCL-Sema3E may be useful for the treatment of exudative AMD, which does not 
respond well to conventional anti-VEGF therapy."

For more information on this research see: A SEMA3E mutant resistant to cleavage 
by furins (UNCL-SEMA3E) inhibits choroidal neovascularization. Experimental Eye Research, 
2016;153():186-194. Experimental Eye Research can be contacted at: Academic Press Ltd-
Elsevier Science Ltd, 24-28 Oval Rd, London NW1 7DX, England. (Elsevier -
www.elsevier.com; Experimental Eye Research - www.journals.elsevier.com/experimental-eye-
research/)

Our news journalists report that additional information may be obtained by 
contacting Y. Barak, Rambam Med Center, Dept. of Ophthalmol, Haifa, Israel. Additional 
authors for this research include H.Y. Lu, A. Palacio, B. Kigel, O. Kessler, G. Allon, Y. Barak, 
G. Neufeld and S. Schaal.

The direct object identifier (DOI) for that additional information is: 
http://dx.doi.org/10.1016/j.exer.2016.10.004. This DOI is a link to an online electronic 
document that is either free or for purchase.

Keywords for this news article include: Haifa, Israel, Asia, Intercellular Signalin 
Growth Factors, Receptor Protein-Tyrosine 
Kinases, Choroid Diseases and Conditions, Uveal Diseases and Conditions, Choroidal 
Neovascularization, Eye Diseases and Conditions, Growth Factor Receptors, Angiogenic 
Proteins, Membrane Proteins, Angiogenesis, Genetics, VEGF, Rambam Medical Center.

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Atrial Fibrillation

Investigators from Research Hospital Report New Data on Atrial 
Fibrillation (Unanswered Questions in Complex Fractionated Atrial 
Electrogram Ablation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness 
& Wellness Week -- Investigators publish new report on Atrial Fibrillation. According to news 
reporting originating from Kocaeli, Turkey, by NewsRx correspondents, research stated, 
"Pulmonary vein isolation has been accepted as potential target for ablation of paroxysmal atrial
fibrillation (AF) given that the pulmonary veins are the main source of AF triggers. However, ablation strategies for persistent AF are less well defined."

Our news editors obtained a quote from the research from Research Hospital, "Mapping and ablation of complex fractionated atrial electrograms (CFAEs) is one strategy that has been proposed as a strategy for substrate modification although there is no consensus on their definition and procedural end points. Results of clinical studies have been conflicting."

According to the news editors, the research concluded: "In this review, we aimed to discuss yesterday, today, and tomorrow of CFAEs ablation in persistent AF ablation."

For more information on this research see: Unanswered Questions in Complex Fractionated Atrial Electrogram Ablation. PACE-Pacing and Clinical Electrophysiology, 2016;39(11):1269-1278. PACE-Pacing and Clinical Electrophysiology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting T. Aksu, Kocaeli Derince Educ & Res Hosp, Dept. of Cardiol, Kocaeli, Turkey. Additional authors for this research include T.E. Guler, K. Yalin and A. Oto.

Keywords for this news article include: Kocaeli, Turkey, Eurasia, Atrial Fibrillation, Article Review, Heart Disorders and Diseases, Research Hospital.

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Investigations from Royal Devon and Exeter NHS Foundation Trust Have Reported New Data on Charcot-Marie-Tooth Disease (Novel homozygous missense mutation in GAN associated with Charcot-Marie-Tooth disease type 2 in a large consanguineous family ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nervous System Diseases and Conditions - Charcot-Marie-Tooth Disease are discussed in a new report. According to news reporting out of Exeter, United Kingdom, by NewsRx editors, research stated, "CMT-2 is a clinically and genetically heterogeneous group of peripheral axonal neuropathies characterized by slowly progressive weakness and atrophy of distal limb muscles resulting from length-dependent motor and sensory neurodegeneration. Classical giant axonal neuropathy (GAN) is an autosomal recessively inherited progressive neurodegenerative disorder of the peripheral and central nervous systems, typically diagnosed in early childhood and resulting in death by the end of the third decade."

Our news journalists obtained a quote from the research from Royal Devon and Exeter NHS Foundation Trust, "Distinctive phenotypic features are the presence of 'kinky' hair and long eyelashes. The genetic basis of the disease has been well established, with over 40 associated mutations identified in the gene GAN, encoding the BTB-KELCH protein gigaxonin, involved in intermediate filament regulation. An Illumina Human CytoSNP-12 array followed by whole exome sequence analysis was used to identify the disease associated gene mutation in a large consanguineous family diagnosed with Charcot-Marie-Tooth disease type 2 (CMT-2) from which all but one affected member had straight hair. Here we report the identification of a novel GAN missense mutation underlying the CMT-2 phenotype observed in this family. Although milder forms of GAN, with and without the presence of kinky hair have been reported previously, a phenotype distinct from that was investigated in this study. All family members
lacked common features of GAN, including ataxia, nystagmus, intellectual disability, seizures, and central nervous system involvement."

According to the news editors, the research concluded: "Our findings broaden the spectrum of phenotypes associated with GAN mutations and emphasize a need to proceed with caution when providing families with diagnostic or prognostic information based on either clinical or genetic findings alone."

For more information on this research see: Novel homozygous missense mutation in GAN associated with Charcot-Marie-Tooth disease type 2 in a large consanguineous family from Israel. BMC Medical Genetics, 2016;17():1-7. BMC Medical Genetics can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Medical Genetics - www.biomedcentral.com/bmcmedgenet/)

Our news journalists report that additional information may be obtained by contacting A.H. Crosby, Royal Devon & Exeter NHS Fdn Trust, Medical Res, RILD Wellcome Wolfson Center, Exeter EX2 5DW, Devon, United Kingdom. Additional authors for this research include K.E.S. Barwick, R. Straussberg, G.V. Harlalka, Y. Nevo, B.A. Chioza, M.M. McEntagart, A. Mimouni-Bloch, M. Weedon and A.H. Crosby.

Keywords for this news article include: Exeter, United Kingdom, Europe, Dental Diseases and Conditions, Diagnostics and Screening, Genetics, Peripheral Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Hereditary Sensory and Motor Neuropathy, Stomatognathic Diseases and Conditions, Neuromuscular Diseases and Conditions, Tooth Diseases and Conditions, Nervous System Malformations, Charcot-Marie-Tooth Disease, Congenital Abnormalities, Polyneuropathies, Dentistry, Royal Devon and Exeter NHS Foundation Trust.

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**Biomedical Engineering - Tissue Engineering**

**Investigators from Royal University Hospital Report New Data on Tissue Engineering (Regulation of sequential release of growth factors using bilayer polymeric nanoparticles for cardiac tissue engineering)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biomedical Engineering - Tissue Engineering is the subject of a report. According to news originating from Saskatoon, Canada, by NewsRx correspondents, research stated, "Cardiac tissue engineering aims to develop engineered constructs for myocardial infarction repair, where a challenge is the control of growth factor (GF) sequential release. Herein, bilayer polymeric nanoparticles composed of a GF-encapsulating core surrounded by rate-regulating shell were developed for sequential GF release."

Our news journalists obtained a quote from the research from Royal University Hospital, "Single and bilayer polymeric nanoparticles were fabricated, characterized and biologically assessed. A novel 'Geno-Neural model' was developed and validated for rate-programming of the nanoparticles. The bilayer nanoparticles featured low burst effect and time-delayed release, and allowed for sequential release of PDGF following co-release of VEGF and bFGF, which promoted angiogenesis."
According to the news editors, the research concluded: "The nanoparticulate delivery system, along with the Geno-Neural model, offers great potential for spatiotemporal control of GF release for cardiovascular regenerative medicine."


The news correspondents report that additional information may be obtained from M. Izadifar, Royal Univ Hosp, Saskatchewan Cerebrovasc Center, Saskatoon, SK, Canada. Additional authors for this research include M.E. Kelly and X.B. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/nnm-2016-0220. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Saskatoon, Saskatchewan, Canada, North and Central America, Biomedical Engineering, Emerging Technologies, Regenerative Medicine, Tissue Engineering, Bioengineering, Nanotechnology, Biotechnology, Nanoparticle, Biomedicine, Cardiology, Royal University Hospital.

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**Hematology - Plasma**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematology - Plasma is now available. According to news reporting out of Chicago, Illinois, by NewsRx editors, the research stated, "Therapeutic plasma exchange has long been utilized to manage a variety of immune-mediated diseases. The underlying principle is the removal of a circulating pathogenic substance from the plasma and substitution with a replacement fluid."

Our news journalists obtained a quote from the research from Rush University, "Different methodologies of plasma separation include the use of centrifuge, which relies on the variation in the specific gravity of blood components, and membrane-based separation, which relies on particle size. With advancements in technology and clinical insight into disease pathophysiology, membrane technology has become more biocompatible, safer, and more adaptable to conventional hemodialysis and hemofiltration machines. As such, nephrologists, who are familiar with management of extracorporeal blood purification systems, are increasingly involved with membrane-based plasma separation."

According to the news editors, the research concluded: "This review aims to highlight the technical aspects of membrane-based separation, review the prescription for therapy, and draw comparisons with the centrifuge-based technique when applicable."

Investigators from Sapienza-University Zero in on Chronic Venous Disease (Ultrasonography of Skin Changes in Legs with Chronic Venous Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Chronic Venous Disease. According to news reporting originating in Rome, Italy, by NewsRx editors, the research stated, "In daily practice, ultrasonography (US) is used only to designate the location and pattern of venous lesions. Skin US is not performed between routine venous investigations."

The news reporters obtained a quote from the research from Sapienza-University, "Skin morphology is evaluated by the same probes used for routine Duplex evaluation of superficial veins. US findings from evident skin lesions are comparatively evaluated with those from the surrounding apparently normal skin and from the contralateral leg. Inflammation and dermal edema can be found in the apparently normal skin of C2 legs. Swollen legs show thickening of-the subcutaneous layer as a result of diffuse soaking or anechoic cavities, with or without dermal edema. Chronic hypodermitis is characterized by inflammatory edema in initial phases, and by liposclerosis in advanced cases. Recrudescence of inflammation provokes focal rarefactions of the subcutaneous layer, possibly related to ulcer opening. In legs with venous disorders, sonography refines clinical evaluation of the skin and may reveal changes not highlighted by inspection. Some of these changes could require further investigation because they have not yet been explained or described."

According to the news reporters, the research concluded: "Skin sonography should improve knowledge of the natural history of skin changes, as well as contribute to a better grading of venous diseases severity In particular, US evidence of cutaneous and subcutaneous changes in C2 legs should be considered to stratify the treatment in C2 legs, by identifying those in which varicose veins are not simply a cosmetic problem."

Human Herpesvirus Diseases and Conditions –…

Investigators from Sapporo Medical University Release New Data on Epstein-Barr Virus (Virus reactivations after autologous hematopoietic stem cell transplantation detected by multiplex PCR assay)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Human Herpesvirus Diseases and Conditions - Epstein-Barr Virus are discussed in a new report. According to news reporting originating from Hokkaido, Japan, by NewsRx correspondents, research stated, "Several studies have indicated that viral reactivations following allogeneic hematopoietic stem cell transplantation (allo-HSCT) are frequent, but viral reactivations after autologous HSCT (auto-HSCT) have not been investigated in detail. We performed multiplex polymerase chain reaction (PCR) assay to examine multiple viral reactivations simultaneously in 24 patients undergoing auto-HSCT between September 2010 and December 2012."

Our news editors obtained a quote from the research from Sapporo Medical University, "Weekly whole blood samples were collected from pre- to 42 days post-HSCT, and tested for the following 13 viruses; herpes simplex virus 1 (HSV-1), HSV-2, varicella-zoster virus (VZV), Epstein-Barr virus (EBV), cytomegalovirus (CMV), human herpesvirus 6 (HHV-6), HHV-7, HHV-8, adeno virus (ADV), BK virus (BKV), JC virus (JCV), parvovirus B19 (B19V), and hepatitis B virus (HBV). Fifteen (63%) patients had at least one type of viral reactivation. HHV6 (n=10; 41.7%) was most frequently detected followed by EBV (n=7; 29.2%). HHV-6 peaked on day 21 after HSCT and promptly declined. In addition, HBV, CMV, HHV7, and B19V were each detected in one patient. HHV6 reactivation was detected in almost half the auto-HSCT patients, which was similar to the incidence in allo-HSCT patients. The incidence of EBV was unexpectedly high. Viral infections in patients undergoing auto-HSCT were higher than previously reported in other studies."

According to the news editors, the research concluded: "Although there were no particular complications of viral infection, we should pay attention to possible viral reactivations in auto-HSCT patients. J. Med. Virol. 89:358-362, 2017."

For more information on this research see: Virus reactivations after autologous hematopoietic stem cell transplantation detected by multiplex PCR assay. *Journal of Medical Virology*, 2017;89(2):358-362. *Journal of Medical Virology* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell -
Investigators from School of Life Science Release New Data on Prostate Cancer (Ailanthone targets p23 to overcome MDV3100 resistance in castration-resistant prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Androgen receptor (AR) antagonist MDV3100 is the first therapeutic approach in treating castration-resistant prostate cancer (CRPC), but tumours frequently become drug resistant via multiple mechanisms including AR amplification and mutation. Here we identify the small molecule Ailanthone (AIL) as a potent inhibitor of both full-length AR (AR-FL) and constitutively active truncated AR splice variants (AR-Vs)."

Our news journalists obtained a quote from the research from the School of Life Science, "AIL binds to the co-chaperone protein p23 and prevents AR's interaction with HSP90, thus resulting in the disruption of the AR-chaperone complex followed by ubiquitin/proteasome-mediated degradation of AR as well as other p23 clients including AKT and Cdk4, and downregulates AR and its target genes in PCa cell lines and orthotopic animal tumours. In addition, AIL blocks tumour growth and metastasis of CRPC. Finally, AIL possesses favourable drug-like properties such as good bioavailability, high solubility, lack of CYP inhibition and low hepatotoxicity."

According to the news editors, the research concluded: "In general, AIL is a potential candidate for the treatment of CRPC."


The news correspondents report that additional information may be obtained from X. Wang, East China Normal Univ, Sch Life Sci, Shanghai 200241, People's Republic of China.
Investigators from School of Medicine Zero in on Crohn's Disease (A Frameshift in CSF2RB Predominant Among Ashkenazi Jews Increases Risk for Crohn's Disease and Reduces Monocyte Signaling via GM-CSF)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Digestive System Diseases and Conditions - Crohn's Disease is now available. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Crohn's disease (CD) has the highest prevalence in Ashkenazi Jewish populations. We sought to identify rare, CD-associated frameshift variants of high functional and statistical effects."

The news correspondents obtained a quote from the research from the School of Medicine, "We performed exome sequencing and array-based genotype analyses of 1477 Ashkenazi Jewish individuals with CD and 2614 Ashkenazi Jewish individuals without CD (controls). To validate our findings, we performed genotype analyses of an additional 1515 CD cases and 7052 controls for frameshift mutations in the colony-stimulating factor 2-receptor b common subunit gene (CSF2RB). Intestinal tissues and blood samples were collected from patients with CD; lamina propria leukocytes were isolated and expression of CSF2RB and granulocyte-macrophage colony-stimulating factor-responsive cells were defined by adnomatous polyposis coli (APC) time-of-flight mass cytometry (CyTOF analysis). Variants of CSF2RB were transfected into HEK293 cells and the expression and functions of gene products were compared. In the discovery cohort, we associated CD with a frameshift mutation in CSF2RB (P = 8.52 x 10(-4)); the finding was validated in the replication cohort (combined P = 3.42 x 10(-6)). Incubation of intestinal lamina propria leukocytes with granulocyte-macrophage colony-stimulating factor resulted in high levels of phosphorylation of signal transducer and activator of transcription (STAT5) and lesser increases in phosphorylation of extracellular signal-regulated kinase and AK straining transforming (AKT). Cells co-transfected with full-length and mutant forms of CSF2RB had reduced pSTAT5 after stimulation with granulocyte-macrophage colony-stimulating factor, compared with cells transfected with control CSF2RB, indicating a dominant-negative effect of the mutant gene. Monocytes from patients with CD who were heterozygous for the frameshift mutation (6% of CD cases analyzed) had reduced responses to granulocyte-macrophage colony-stimulating factor and markedly decreased activity of aldehyde dehydrogenase; activity of this enzyme has been associated with immune tolerance. In a genetic analysis of Ashkenazi Jewish individuals, we associated CD with a frameshift mutation in CSF2RB."

According to the news reporters, the research concluded: "Intestinal monocytes from carriers of this mutation had reduced responses to granulocyte-macrophage colony-stimulating factor, providing an additional mechanism for alterations to the innate immune response in individuals with CD."

For more information on this research see: A Frameshift in CSF2RB Predominant


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.gastro.2016.06.045. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Granulocyte-Macrophage Colony-Stimulating Factor, Intercellular Signaling Peptides and Proteins, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Hematopoietic Cell Growth Factors, Mononuclear Phagocyte System, Colony Stimulating Factors, Hemic and Immune Systems, Connective Tissue Cells, Mononuclear Leukocytes, Risk and Prevention, Biological Factors, Bone Marrow Cells, Gastroenterology, Crohn's Disease, Gastroenteritis, Glycoproteins, Cell Research, Myeloid Cells, Granulocytes, Blood Cells, Macrophages, Immunology, Phagocytes, Cytokines, Monocytes, Genetics, School of Medicine.

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**Drugs and Therapies - Pharmaceutical Research**

**Investigators from School of Pharmacy Report New Data on Pharmaceutical Research (Nanomedicines for advanced cancer treatments: Transitioning towards responsive systems)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmaceutical Research. According to news reporting originating in Dublin, Ireland, by NewsRx journalists, research stated, "The development of nanomedicines for the treatment of cancer focuses on the local targeted delivery of chemotherapeutic drugs to enhance drug efficacy and reduce adverse effects. The nanomedicines which are currently approved for clinical use are mainly successful in terms of improved bioavailability and tolerability but do not necessarily increase drug performance."

Funders for this research include RCSI Seed funding Scheme, Science Foundation Ireland (SFI).

The news reporters obtained a quote from the research from the School of Pharmacy, "Therefore, there is a need for improved drug carrier systems which are able to deliver high doses of anti-cancer drugs to the tumor. Stimuli responsive carriers are promising candidates since drug release can be triggered locally in the tumor via internal (i.e. pH, redox potential, metabolite or enzyme concentration) or external (i.e. heat, ultrasound, light, magnetic field)"
stimuli. This review summarizes the recent progress in the transition towards stimuli responsive nanomedicines (i.e. liposomes, polymeric micelles, nanogels and mesoporous silica nanoparticles) and other therapy modalities that are currently developed in the fight against cancer like the application of ultrasound, tumor normalization and phototherapy."

According to the news reporters, the research concluded: "Furthermore, the potential role of image guided drug delivery in the development of new nanomedicines and its clinical application is discussed."


Our news correspondents report that additional information may be obtained by contacting E. Ruiz-Hernandez, RCSI, Sch Pharm, Dublin 2, Ireland. Additional authors for this research include B.P. Murphy, T. Eufrasio-da-Silva, D.P. O'Reilly, T. Vermonden, W.E. Hennink, G.P. Duffy and E. Ruiz-Hernandez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dublin, Ireland, Europe, Pharmaceutical Research, Drugs and Therapies, Cancer, Article Review, Oncology, School of Pharmacy.

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Investigators from School of Public Health Target Heme (A novel label-free and signal-on electrochemical aptasensor based on the autonomous assembly of hemin/G-quadruplex and direct electron transfer of hemin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biological Factors - Heme have been presented. According to news reporting originating from Xuzhou, People's Republic of China, by NewsRx correspondents, research stated, "In this study, we developed a signal-on and label-free aptasensor based on the direct electron transfer of hemin and signal amplification by target-catalyzed hairpin assembly followed by a hybridization chain reaction (HCR). Upon the addition of a target protein, it facilitates the opening of the hairpin structure of A1 and thus accelerates the hybridization between A1 and A2; the target protein was displaced from hairpin A1 with hairpin A2 through a process similar to DNA branch migration."

Funders for this research include National Natural Science Foundation of China, Excellent Talents of Xuzhou Medical College, State Key Laboratory of Analytical Chemical for Life Science, Most Foundation of Jiangxi Province.

Our news editors obtained a quote from the research from the School of Public Health, "The released target participates in the next hybridization process with A1. Finally, each target passes through many cycles, confining numerous A1 close to the gold electrode.
Subsequently, the single-strand fragment on the electrode surface initiated HCR, resulting in the hybridization reaction to form double-strand DNA concatemers on the electrode surface. Consequently, hemin stacked into the G-quadruplex-forming region, and the hemin/G-quadruplex was formed, generating an amplified electrochemical signal by differential pulse voltammetry. In our sensing approach, the introduction of HCR significantly enhanced the signal of the sensor response."

According to the news editors, the research concluded: "Moreover, the approach is free of any label conjugation step for signal amplification and simple and thus has great potential for the development of robust aptasensors."

For more information on this research see: A novel label-free and signal-on electrochemical aptasensor based on the autonomous assembly of hemin/G-quadruplex and direct electron transfer of hemin. *Sensors and Actuators B-Chemical*, 2017;238():434-440. *Sensors and Actuators B-Chemical* can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland.

The news editors report that additional information may be obtained by contacting Y.H. Li, Xuzhou Med Univ, Sch Public Hlth, Xuzhou 221004, People's Republic of China. Additional authors for this research include Y. Qian, Y. Zhang, S.Y. Meng, S.Y. Wang, Y.H. Li and F.L. Gao.

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Keywords for this news article include: Xuzhou, People's Republic of China, Asia, Biological Factors, Electrochemicals, Porphyrins, Chemicals, Hemin, Heme, School of Public Health.

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**Drug Development**

**Investigators from Shaheed Beheshti University of Medical Sciences Target Drug Development (PH-sensitive bionanocomposite hydrogel beads based on carboxymethyl cellulose/ZnO nanoparticle as drug carrier)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drug Development have been presented. According to news originating from Tehran, Iran, by NewsRx correspondents, research stated, "The present work explains the preparation of new pH-sensitive bionanocomposite beads based on carboxymethyl cellulose (CMC) and ZnO nanoparticles for use as controlled release drug delivery systems. Fe3+ ion as physical crosslinking agent was used to prepare ionic cross-linked bionanocomposite hydrogel beads."

Our news journalists obtained a quote from the research from the Shaheed Beheshti University of Medical Sciences, "Propranolol hydrochloride (PPN) has been chosen as a model drug. Characterization of the pH-sensitive bionanocomposite beads resulting from incorporation of different content of ZnO nanoparticles into CMC matrix was carried out using different experimental techniques: XRD, FT-IR, TGA, SEM and EDX. Propranolol incorporation efficiency in beads was determined by UV vis spectroscopy and was found to be high."
Moreover, the swelling and drug release properties of the bionanocomposite hydrogels were investigated. The prepared bionanocomposite beads showed a pH sensitive swelling behavior with maximum water absorbing at pH 7.4. Also, it was found that the swelling ratio of ZnO/CMC hydrogels in different aqueous solutions was rather higher in comparison with its neat hydrogel. In vitro drug release test was carried out to prove the effectiveness of this novel type of bionanocomposite hydrogel beads as a controlled drug delivery system."

According to the news editors, the research concluded: "A more sustained and controlled drug releases were observed for ZnONPs containing NaCMC beads, which increased by the increase in ZnONPs content."

For more information on this research see: PH-sensitive bionanocomposite hydrogel beads based on carboxymethyl cellulose/ZnO nanoparticle as drug carrier. _International Journal of Biological Macromolecules_, 2016;93():1317-1327. _International Journal of Biological Macromolecules_ can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; International Journal of Biological Macromolecules - www.journals.elsevier.com/international-journal-of-biological-macromolecules/)

The news correspondents report that additional information may be obtained from H. Farhadnejad, Shahid Beheshti Univ Med Sci, Sch Pharm, Dept. of Pharmaceut & Pharmaceut Nanotechnol, Students Res Comm, Tehran, Iran. Additional authors for this research include H. Farhadnejad, B. Furughi-Nia, S. Abedin, M. Yadollahi and M. Khorsand-Ghayeni.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.09.110. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Zinc Oxide Nanotechnology, Drug Delivery Systems, Emerging Technologies, Polyethylene Glycols, Drugs and Therapies, Organic Chemicals, Nanobiotechnology, Bionanotechnology, Drug Development, Bionanocomposite, Bioengineering, Biotechnology, Nanoparticle, Technology, Alcohols, Hydrogel, Shaheed Beheshti University of Medical Sciences.

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**Investigators from Shandong University Have Reported New Data on Halomonas [Alkaline Response of a Halotolerant Alkaliphilic Halomonas Strain and Functional Diversity of Its Na+ (K+)/H+ Antiporters]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Halomonas is now available. According to news reporting from Jinan, People's Republic of China, by NewsRx journalists, research stated, "Halomonas sp. Y2 is a halotolerant alkaliphilic strain from Na+-rich pulp mill wastewater with high alkalinity (pH > 11.0)."

The news correspondents obtained a quote from the research from Shandong University, "Transcriptome analysis of this isolate revealed this strain may use various transport systems for pH homeostasis. In particular, the genes encoding four putative Na+/H+ antiporters were differentially expressed upon acidic or alkaline conditions. Further evidence, from heterologous expression and mutant studies, suggested that Halomonas sp. Y2 employs its
Na+/H+ antiporters in a labor division way to deal with saline and alkaline environments. Ha-NhaD2 displayed robust Na+(Li+) resistance and high transport activities in Escherichia coli; a Delta Ha-nhaD2 mutant exhibited growth inhibition at high Na+(Li+) concentrations at pH values of 6.2, 8.0, and 10.0, suggesting its physiological role in osmotic homeostasis. In contrast, Ha-NhaD1 showed much weaker activities in ion exporting and pH homeostasis. Ha-Mrp displayed a combination of properties similar to those of Mrp transporters from some Bacillus alkaliphiles and neutrophiles. This conferred obvious Na+(Li+, K+) resistance in E. coli-deficient strains, as those ion transport spectra of some neutrophil Mrp antiporters. Conversely, similar to the Bacillus alkaliphiles, Ha-Mrp showed central roles in the pH homeostasis of Halomonas sp. Y2. An Ha-mrp-disrupted mutant was seriously inhibited by high concentrations of Na+(Li+, K+) but only under alkaline conditions."

According to the news reporters, the research concluded: "Ha-NhaP was determined to be a K+/H+ antiporter and shown to confer strong K+ resistance both at acidic and alkaline stresses."


Our news journalists report that additional information may be obtained by contacting C.Y. Yang, Shandong University, State Key Lab Microbial Technol, Jinan 250100, People's Republic of China. Additional authors for this research include Y.W. Meng, Y.B. Cui, C.F. Li, F. Tao, H.J. Yin, C.Y. Yang and P. Xu.

Keywords for this news article include: Jinan, People's Republic of China, Asia, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Bacteria, Gammaproteobacteria, Halomonadaceae, Proteobacteria, Halomonas, Genetics, Shandong University.

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Proteins - Nerve Tissue Proteins

Investigators from Shandong University Target Nerve Tissue Proteins (Gamma-synuclein binds to AKT and promotes cancer cell survival and proliferation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Proteins - Nerve Tissue Proteins is the subject of a report. According to news reporting originating from Jinan, People's Republic of China, by NewsRx correspondents, research stated, "Hyperactivation of AKT plays a critical role in the survival and proliferation of cancer cells. However, the molecular mechanisms underlying AKT activation remain elusive."

Our news editors obtained a quote from the research from Shandong University, "Here, we tested the effect of gamma-synuclein, a member of the synuclein family of proteins, on the activation of AKT. We show that the expression level of gamma-synuclein is increased in non-small cell lung cancer (NSCLC) tissues. gamma-Synuclein binds to the protein kinase domain of AKT and promotes its phosphorylation. Overexpression of gamma-synuclein in H157
cells enhances cell proliferation and protects the cells from staurosporine-induced cytotoxicity. Knockdown of gamma-synuclein attenuates AKT activation and cell proliferation induced by epidermal growth factor. The effect of gamma-synuclein is abolished when AKT is depleted."

According to the news editors, the research concluded: "Thus, gamma-synuclein promotes cell survival and proliferation via activating AKT and may play a causal role in the pathogenesis of NSCLC."

For more information on this research see: Gamma-synuclein binds to AKT and promotes cancer cell survival and proliferation. Tumor Biology, 2016;37(11):14999-15005. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news editors report that additional information may be obtained by contacting Y.R. Ju, Shandong University, Shandong Prov Hosp, Dept. of Resp, Jinan 250021, People's Republic of China. Additional authors for this research include J.Y. Niu, E.L. Sun, X.D. Rong, X.X. Zhang and Y.R. Ju.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5371-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jinan, People's Republic of China, Asia, Nerve Tissue Proteins, Cell Proliferation, gamma-Synuclein, Synucleins, Oncology, Cancer, Shandong University.

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Heart Disorders and Diseases - Heart Failure

Investigators from Shanghai Jiao-Tong University Report New Data on Heart Failure (IL-34 is associated with the presence and severity of renal dysfunction and coronary artery disease in patients with heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Failure. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Pro-inflammatory mediators are identified in patients with heart failure (HF), some of which may be used as biomarkers with diagnostic or prognostic value. As an additional ligand of Colony Stimulating Factor-1 Receptor (CSF-1R), interleukin-34 (IL-34) has been identified as a pro-inflammatory cytokine participating in chronic heart failure (CHF)."

The news reporters obtained a quote from the research from Shanghai Jiao-Tong University, "However, the potential impact of IL-34 in CHF complications remains unknown. In order to determine the clinical significance of serum IL-34 in CHF patients, especially those with kidney dysfunction and coronary artery disease (CAD) comorbid conditions, serum IL-34 was measured in 510 consecutive patients with CHF in a cross-sectional study. The present study demonstrated that higher serum IL-34 levels were associated with poorer renal function and more severe anemia in patients with CHF. After adjusting for age, gender, conventional risk factors, and other significant covariates, IL-34 positively correlated with the presence and
severity of renal dysfunction (as measured by eGFR and cystatin C) on multivariable linear and logistic regression analysis. IL-34 was also demonstrated to be an independent risk factor for CAD among HF patients."

According to the news reporters, the research concluded: "Elevated serum IL-34 levels were demonstrated to be independently associated with renal insufficiency and CAD in patients with CHF, regardless of the systolic function."

For more information on this research see: IL-34 is associated with the presence and severity of renal dysfunction and coronary artery disease in patients with heart failure. *Scientific Reports*, 2016;6():9-16. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)


Keywords for this news article include: Shanghai, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Arteriosclerosis, Heart Disease, Heart Failure, Nephrology, Angiology, Kidney, Shanghai Jiao-Tong University.

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**Oncology - Bone Cancer**

**Investigators from Shanghai Jiao-Tong University Target Bone Cancer (Osteotropic peptide-mediated bone targeting for photothermal treatment of bone tumors)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Bone Cancer. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "The treatment of bone tumors is a challenging problem due to the inefficient delivery of therapeutics to bone and the bone microenvironment-associated tumor resistance to chemo- and radiotherapy. Here, we developed a bone-targeted nanoparticle, aspartate octapeptide-modified dendritic platinum-copper alloy nanoparticle (Asp-DPCN), for photothermal therapy (PTT) of bone tumors."

Funders for this research include National Key Research and Development Program of China, National Natural Science Foundation of China, Basic Research Program of Science and Technology Commission of Shanghai Municipality, Fok Ying Tong Education Foundation, Shanghai Pujiang Program.

Our news editors obtained a quote from the research from Shanghai Jiao-Tong University, "Asp-DPCN showed much higher affinity toward hydroxyapatite and bone fragments than the non-targeted DPCN in vitro. Furthermore, Asp-DPCN accumulated more efficiently around bone tumors in vivo, and resulted in a higher temperature in bone tumors during PIT. Finally, Asp-DPCN-mediated nu not only efficiently depressed the tumor growth but also significantly reduced the osteoclastic bone destruction."
According to the news editors, the research concluded: "Our study developed a promising therapeutic approach for the treatment of bone tumors."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.11.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Bone Research, Bone Cancer, Bone Tumors, Proteomics, Hematology, Proteins, Peptides, Oncology, Shanghai Jiao-Tong University.

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**Oncology - Breast Cancer**

**Investigators from Shantou University Have Reported New Data on Breast Cancer (Evaluating Breast Cancer Risk under Exposure to Environmental Estrogen-Like Chemicals)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Breast cancer is the most prevalent cancer among women in the world, with a notable increasing prevalence in recent decades. Many environmental compounds with estrogenic activity, called environmental estrogens (EEs), which are especially persistent organic pollutants, may play important roles in the occurrence and development of breast cancer and even treatment and prognosis."

The news reporters obtained a quote from the research from Shantou University, "EE compounds, including bisphenol A, nonylphenol, phthalates, perfluorooctane sulfonate, polybrominated diphenyl ethers, dioxins, and polychlorinated biphenyls, result from industrial manufacturing and exist ubiquitously in the human environment. With the aggravation of environmental pollution, these compounds are residual in all kinds of environmental matrices - especially in industrialized countries. Humans are frequently exposed to them through various pathways, including body contact, inhalation, diet, household products, dust, and cosmetics. They have been detected in many types of human specimens. Their persistence in environmental matrices and humans has aroused global attention because of their effect on public health, especially the occurrence of breast cancer."

According to the news reporters, the research concluded: "In this review, we focus on recent research of these seven familiar EEs in industrial pollutants to provide insight into the
evidence for risk of breast cancer with exposure to environmental estrogen-like chemicals and to provide clues for prevention and control of breast cancer."


Our news correspondents report that additional information may be obtained by contacting K.S. Wu, Shantou University, Coll Med, Dept. of Prevent Med, Shantou 515041, Guangdong, People's Republic of China. Additional authors for this research include X.L. Wang and K.S. Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.15244/pjoes/64282. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Chemicals, Article Review, Breast Ductal Carcinoma, Risk and Prevention, Women's Health, Endocrinology, Breast Cancer, Cancer Risk, Estrogens, Hormones, Oncology, Shantou University.

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Oncology - Cancer Risk

Investigators from Shenzhen University Report New Data on Cancer Risk (Quantitative assessment of human health risk posed by polycyclic aromatic hydrocarbons in urban road dust)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Cancer Risk are presented in a new report. According to news originating from Shenzhen, People's Republic of China, by NewsRx correspondents, research stated, "Among the numerous pollutants present in urban road dust, polycyclic aromatic hydrocarbons (PAHs) are among the most toxic chemical pollutants and can pose cancer risk to humans. The primary aim of the study was to develop a quantitative model to assess the cancer risk from PAHs in urban road dust based on traffic and land use factors and thereby to characterise the risk posed by PAHs in fine (<150 mu m) and coarse (>150 mu m) particles."

Our news journalists obtained a quote from the research from Shenzhen University, "The risk posed by PAHs was quantified as incremental lifetime cancer risk (ILCR), which was modelled as a function of traffic volume and percentages of different urban land uses. The study outcomes highlighted the fact that cancer risk from PAHs in urban road dust is primarily influenced by PAHs associated with fine solids. Heavy PAHs with 5 to 6 benzene rings, especially dibenzo[a,h]anthracene (D[a]A) and benzo[a] pyrene (B[a]P) in the mixture contribute most to the risk." According to the news editors, the research concluded: "The quantitative model developed based on traffic and land use factors will contribute to informed decision making in relation to the management of risk posed by PAHs in urban road dust."

For more information on this research see: Quantitative assessment of human health risk posed by polycyclic aromatic hydrocarbons in urban road dust. Science of the Total
Investigators from Simon Fraser University Have Reported New Data on Nanoparticles (NanoHDA: A nanoparticle-assisted isothermal amplification technique for genotyping assays)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nanotechnology - Nanoparticles are presented in a new report. According to news reporting from Burnaby, Canada, by NewsRx journalists, research stated, "Isothermal methods, such as helicase-dependent amplification (HDA), have an advantage over polymerase chain reaction for DNA amplification owing to their ease of operation. Here, we developed a new HDA method that is nanoparticle-assisted, termed nanoHDA."

The news correspondents obtained a quote from the research from Simon Fraser University, "This method uses gold nanoparticles (AuNPs) to improve the sensitivity and specificity of the isothermal method. In HDA, the denaturation of DNA templates is mediated by helicases, but this method is limited by the low denaturation efficiency of helicases. In this report, AuNPs with preferential affinity for single-stranded DNA (ssDNA) were utilized to improve the denaturation efficiency of helicases. The same affinity property of nanoparticles can also enhance specificity by suppressing primer-dimer formation."

According to the news reporters, the research concluded: "This nanoHDA method was employed to genotype the KRAS gene in genomic DNA samples from colorectal cancer patients, as achieved by the hybridization of nanoHDA amplicons using the NanoBioArray chip."


Our news journalists report that additional information may be obtained by contacting P.C.H. Li, Simon Fraser University, Dept. of Chem, Burnaby, BC V5A 1S6, Canada.
Investigators from Singapore National University Report New Data on Ethnopharmacology (Investigation of uterotonic properties of Ananas comosus extracts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Ethnopharmacology are presented in a new report. According to news originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: In folklore medicine Ananas comosus (pineapple) is reputed to act as an abortifacient and in expectant women as a means of inducing labor. Several reports have claimed abortifacient property of A. comosus fruit (ripe or unripe)."

Our news journalists obtained a quote from the research from Singapore National University, "Ripe fruit has been used orally as traditional medicine in inducing abortion in Kerala state of India while the juice of unripe fruit was used for abortion in Bangladesh. However, scientific evidence supporting the efficacy of pineapple extracts in inducing uterine contractions is clearly lacking. Aim of the study: This study investigated the pharmacological effects of different fractions of pineapple extract with a range of maturities to identify the most potent uterotonic fraction. The ethanolic crude extracts of pineapple (edible part) were prepared and fractionated through a series of liquid-liquid partitions. Fractions were separately tested on isolated uterine muscle from pregnant SD rats and human pregnant myometrium, which were cut into strips along the longitudinal axis of uterus. The strips were mounted vertically in organ baths (37 degrees C) and exposed to cumulative addition of fractions (0.1-10 mg ml(-1)), serotonin (0.05-5 mu M) and different inhibitors to delineate the mechanism of action of the active ingredients of the extract. Aqueous fraction (F4) possesses uterine stimulant property which was blocked by verapamil but unaffected by indomethacin, prazosin and atosiban. Notably, ketanserin (10 mu M) diminished the maximal contractile response induced by both F4 and 5HT by 74.3% and 92.1% respectively."

According to the news editors, the research concluded: "These results may indicate the presence of 5HT or 5HT-like compound(s) and serotonergic pathways may contribute to the uterotonic activity of pineapple extract."

The news correspondents report that additional information may be obtained from P.G. Adaikan, Singapore National University, Yong Loo Lin Sch Med, Dept. of Obstet & Gynaecol, Singapore 119228, Singapore. Additional authors for this research include P.G. Adaikan, L.C. Lau, B. Bin Said, Y.H. Gong, H.M. Tan and M. Choolani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.07.041. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Singapore, Singapore, Asia, Ethnopharmacology, Drugs and Therapies, Singapore National University.

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Heart Disorders and Diseases - Heart Failure

Investigators from Sophiahemmet University Have Reported New Data on Heart Failure (y Patterns and the mediating role of avoidant coping style and illness perception on anxiety and depression in patients with chronic heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting originating in Stockholm, Sweden, by NewsRx journalists, research stated, "Emotional distress in patients with chronic heart failure (CHF) predicts mortality, hospital readmission and quality of life. The patient's avoidant coping style and beliefs about the disease have been linked to emotional distress in CHF."

The news reporters obtained a quote from the research from Sophiahemmet University, "However, the pattern and transmitting effects of these variables are indefinite. This study aimed to examine the links between and the potential mediating role of illness perceptions and avoidant coping style on depression and anxiety in patients with CHF. Self-assessment data from 103 patients with CHF were subjected to path analysis in two hypothesised models. The outcome measures were coping styles, illness perception, anxiety and depression. Avoidant coping had a direct adverse effect on anxiety and depression. The perception of symptom burden and personal control, significantly mediated the effect between avoidant coping and anxiety and depression."

According to the news reporters, the research concluded: "Avoidant coping style appears to influence not only emotional distress, but also a malignant symptom perception and low sense of control over the illness."


Our news correspondents report that additional information may be obtained by contacting C.N. Bose, Sophiahemmet Univ, Stockholm, Sweden. Additional authors for this research include M.L. Elfstrom, G. Bjorling, H. Persson and F. Saboonchi.

Keywords for this news article include: Stockholm, Sweden, Europe, Cardiovascular
Lung Diseases and Conditions - Asthma

Investigators from Southeast University Have Reported New Data on Asthma (Atopy and Specific Cancer Sites: a Review of Epidemiological Studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Asthma are discussed in a new report. According to news originating from Yancheng, People's Republic of China, by NewsRx correspondents, research stated, "Mounting evidence appears to link asthma and atopy to cancer susceptibility. This review presents and discusses published epidemiological studies on the association between site-specific cancers and atopy."

Financial support for this research came from National Sciences Foundation of China.

Our news journalists obtained a quote from the research from Southeast University, "PubMed was searched electronically for publications between 1995 and 2015, and cited references were researched manually. Quantitative studies relating to atopy, allergy, or asthma and cancer were identified and tabulated. Despite many exposure-related limitations, patterns in the studies were observed. Asthma, specifically, has been observed to be a risk factor for lung cancer. A protective effect of atopic diseases against pancreatic cancer has been shown consistently in case-control studies but not in cohort studies. Allergy of any type appears to be protective against glioma and adult acute lymphoblastic leukemia. Most studies on atopic diseases and non-Hodgkin lymphoma or colorectal cancer reported an inverse association. The other sites identified had varying and non-significant outcomes."

According to the news editors, the research concluded: "Further research should be dedicated to carefully defined exposure assessments of 'atopy' as well as the biological plausibility in the association between atopic diseases and cancer."

For more information on this research see: Atopy and Specific Cancer Sites: a Review of Epidemiological Studies. Clinical Reviews in Allergy & Immunology, 2016;51(3):338-352. Clinical Reviews in Allergy & Immunology can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA.

The news correspondents report that additional information may be obtained from Y.B. Cui, Southeast Univ, Sch Med, Affiliated Yancheng Hosp, Dept. of Clin LabPeoples Hosp Yancheng 3, Yancheng 224000, Jiangsu, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12016-016-8559-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yancheng, People's Republic of China, Asia, Epidemiology, Article Review, Risk and Prevention, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Oncology, Cancer, Asthma, Southeast University.

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Investigators from St. Louis University Zero in on Head and Neck Cancer (Palliative Care Considerations for Patients With Head and Neck Cancer With Children at Home)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Head and Neck Cancer have been presented. According to news reporting from St. Louis, Missouri, by NewsRx journalists, research stated, "Adult patients diagnosed with head and neck cancer (HNC) who may have contact with children in the home setting are at risk of experiencing distress because of embarrassing and challenging oral symptoms often associated with an HNC diagnosis and the side effects of required treatments. This article features a case study involving a patient diagnosed with HNC and details how oncology nurses can provide patients with HNC and their caregivers with resources and support."

The news correspondents obtained a quote from the research from St. Louis University, "At a Glance Patients with HNC often experience pain and embarrassment because of oral and body image side effects during and after radiation treatments. Homecare management stress is commonly reported by caregivers of patients with HNC."

According to the news reporters, the research concluded: "Oncology nurses are particularly well positioned to offer psychosocial-focused palliative care support to patients with HNC and their caregivers during radiation treatments."

For more information on this research see: Palliative Care Considerations for Patients With Head and Neck Cancer With Children at Home. Clinical Journal of Oncology Nursing, 2016;20(6):585-587. Clinical Journal of Oncology Nursing can be contacted at: Oncology Nursing Soc, 125 Enterprise Dr, Pittsburgh, PA 15275, USA.

Our news journalists report that additional information may be obtained by contacting V.L. Hendricks-Ferguson, St. Louis University, Sch Nursing, St Louis, MO 63103, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1188/16.CJON.585-587. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Cancer, Diagnostics and Screening, Risk and Prevention, Palliative and Supportive Care, Head and Neck Neoplasms, Head and Neck Cancer, Oncology, St. Louis University.

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Investigators from Sun Yat Sen University Report New Data on Clinical Trials and Studies (Sequential four-drug chemotherapy and intensity-modulated radiotherapy for larynx preservation in resectable advanced larynx and hypopharynx cancer: A ...

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Clinical Research - Clinical Trials and Studies are presented in a new report. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "The value of additional use of cetuximab with the classical cisplatin, docetaxel and 5-fluorouracil regimen in larynx preservation remains unknown. This study was designed to resolve this issue and appraise its toxicity."

Our news journalists obtained a quote from the research from Sun Yat Sen University, "Thirteen untreated patients with stage III-IV larynx or hypopharynx squamous cell carcinoma were recruited and received two cycles of C + TPF regimen (cetuximab plus docetaxel, cisplatin and 5-fluorouracil), followed by one more cycle of C + TPF and intensity-modulated radiotherapy (70 Gy). Primary endpoint was larynx preservation (LP) rate at 3 months. Secondary endpoints were larynx function preservation (LFP) and overall survival (OS) at 12, 36 and 60 months. With a two-cycle induction treatment of C + TPF protocol, four (31%) and nine (69%) patients achieved complete and partial response, respectively. The top three toxicities were dermatitis (9 cases), nausea/vomiting (6 cases), and anemia (4 cases). After the full-course treatment, 12 out of 13 patients (92.3%) obtained LP at 3 months. This strategy demonstrated relatively high LFP rates of 92.3%, 69.2% and 54.5% and satisfactory OS rates of 100%, 84.6% and 54.5% at 12, 36 and 60 months, respectively."

According to the news editors, the research concluded: "These preliminary results suggest induction treatment with C + TPF regimens, followed by intensity-modulated radiotherapy is well-tolerated, which warrants further evaluation."


The news correspondents report that additional information may be obtained from A.K. Yang, Sun Yat Sen UniversityCenter Canc, Dept. of Head & Neck, State Key Lab Oncol South ChinaCollaborat Innova, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include C.Y. He, T. Tang, W.C. Chen, Z.Q. Li, Y. Chen and A.K. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjoto.2016.09.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Intensity-Modulated Radiotherapy, Clinical Trials and Studies, Conformal Radiotherapy, Drugs and Therapies, Clinical Research, Chemotherapy, Oncology, Therapy, Cancer, Sun Yat Sen University.
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Oncology - Colon Cancer

Investigators from Taipei Medical University Release New Data on Colon Cancer (Down-regulation of let-7a-5p predicts lymph node metastasis and prognosis in colorectal cancer: Implications for chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Colorectal cancer (CRC) guidelines recommend adjuvant chemotherapy according to the level of lymph node metastasis. Let-7a-5p is a microRNA, which inhibits migration, invasion, as well as the epithelial-mesenchymal transition by targeting HMGA2."

Financial supporters for this research include National Science Council, Health and welfare surcharge of tobacco products, Ministry of Health and Welfare.

Our news journalists obtained a quote from the research from Taipei Medical University, "The aim of this study was to investigate the role of let 7a-5p in the clinical impact of CRC. In this study, one hundred and ninety-two CRC patients were enrolled. The expression of let-7a-5p and HMGA2 in serum and tumour tissues were analysed by real-time PCR and immunohistochemistry. Kaplan-Meier analysis was used to analyse primary outcomes, including the survival and tumour recurrence. The expression of let-7a-5p in tumour tissues was significantly negative correlated with the tumour size, stage and lymph node metastasis in CRC patients (p = 0.024 for tumour size, p< 0.0001 for stage and p< 0.0001 for lymph node metastasis). There was a negative correlation between the levels of let-7a-5p and the HMGA2 protein (p < 0.0001). The overall survival (OS) and disease-free survival (DFS) rates of patients with let-7a-5p low/HMGA2 high were poorer than those with let-7a-5p high/HMGA2 high, let-7a-5p high/HMGA2 low and let-7a-5p low/HMGA2 low. In addition, the expression levels of let-7a-5p in sera were positively correlated with let 7a-5p in the tumour tissues of the CRC patients. The expression levels of let-7a-5p in sera also could be used as a biomarker to predict clinical outcome. We suggest that down-regulation of let-7a-5p in sera and tumour tissues of CRC patients could be used to predict lymph node metastasis and the disease prognosis."

According to the news editors, the research concluded: "These results could be implicated for chemotherapy suggestion."


The news correspondents report that additional information may be obtained from Y.W. Cheng, Taipei Medical University, Taipei Med Univ Hosp, Center Canc, Taipei, Taiwan. Additional authors for this research include C.C. Huang, K.T. Yeh, T.W. Ke, P.L. Wei, J.R. Yang and Y.W. Cheng.

The direct object identifier (DOI) for that additional information is:
Investigators from Tel Aviv University Have Reported New Data on Nephrology (Can Unenhanced CT Findings Predict Interventional Versus Conservative Treatment in Acute Renal Colic?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nephrology is the subject of a report. According to news originating from Tel Aviv, Israel, by NewsRx correspondents, research stated, "The purpose of this study was to determine the value of clinical parameters and radiologic findings on unenhanced CT to the choice between interventional and conservative management for patients with acute renal colic. Unenhanced CT records of 183 consecutive patients with acute renal colic were retrospectively reviewed."

Our news journalists obtained a quote from the research from Tel Aviv University, "Urolithiasis was confirmed at both unenhanced CT and clinical follow-up findings of 80 patients (study group). Clinical parameters (signs of infection and renal indexes) and unenhanced CT findings (tissue rim sign, hydronephrosis, perinephric and periureteral edema, ureteral dilatation, renal attenuation, and stone characteristics) were graded and correlated with the choice of clinical management. ROC analysis was constructed for the most statistically significant parameters. Forty-two patients (52%) were treated conservatively and 38 (48%) underwent interventional treatments. The relationship between shivering, fever, and leukocytosis and interventional treatment had low sensitivity (29%, 26%, and 16%, respectively) but very high specificity (98%, 95%, and 98%, respectively) (p < 0.05). Stone size and density were statistically significantly different between patients treated conservatively and those treated interventionaly (size, 4.6 vs 6.7 mm; density, 730 vs 910 HU; p< 0.01). Stones larger than 6.5 mm with an attenuation value greater than 1100 HU and that were proximally located were more likely to be treated interventionaly. Larger stone size, higher density, proximal location, and complaints of shivering, fever, and leukocytosis are the most important parameters for predicting invasive management of acute renal colic."

According to the news editors, the research concluded: "Other clinical and radiologic information may be useful as supportive findings but do not predict the choice of patient management."

For more information on this research see: Can Unenhanced CT Findings Predict Interventional Versus Conservative Treatment in Acute Renal Colic? American Journal of Roentgenology, 2016;207(5):1016-1021. American Journal of Roentgenology can be contacted at: Amer Roentgen Ray Soc, 1891 Preston White Dr, Subscription Fulfillment, Reston, VA 22091, USA.

The news correspondents report that additional information may be obtained from O.
Investigators from Third Military Medical University Target Respiratory Tract (Deficiency of LIGHT signaling pathway exacerbates Chlamydia psittaci respiratory tract infection in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Respiratory Tract. According to news reporting from Chongqing, People's Republic of China, by NewsRx journalists, research stated, "LIGHT, a costimulatory member of the immunoglobulin superfamily (Ig SF), can greatly impact T cell activation. The role of the LIGHT signaling pathway in chlamydial infection was evaluated in mice following respiratory tract infection with Chlamydia psittaci."

Financial supporters for this research include National Natural Science Foundation of China, Natural Science Foundation of Hunan Province.

The news correspondents obtained a quote from the research from Third Military Medical University, "Compared with wild type (WT) mice, LIGHT knockout (KO) mice showed significant reduction of body weight, much lower survival rate, higher bacterial burden, prolonged infection time courses and more severe pathological changes in lung tissue. The mRNA levels of IFN-gamma, TNF-alpha, IL-17 and IL-12 in the lung tissue of LIGHT KO mice were significantly lower than those in WT mice. While there was no obvious difference in the percentages of CD4(+) and CD8(+) T cells in the spleens of the two groups of mice, there was a markedly elevated percentage of CD4+ CD25(+) FoxP3(+) Treg cells in LIGHT KO mice."

According to the news reporters, the research concluded: "Together, these results demonstrate that the LIGHT signaling pathway is not only required for inflammatory cytokine production as part of the host response to chlamydial infection, but also influences the differentiation of CD4(+) CD25(+) FoxP3(+) Treg cells, both of which may be essential for control of C. psittaci respiratory tract infection."


Our news journalists report that additional information may be obtained by contacting G.L. Xu, Third Military Medical University, Inst Immunol, Chongqing 400038, People's Republic of China. Additional authors for this research include S.H. Chen, S. Xu, Y.B.
Investigators from Thomas Jefferson University Target Thrombocytopenia [TULA-2 (T-Cell Ubiquitin Ligand-2) Inhibits the Platelet Fc Receptor for IgG IIA (Fc gamma RIIA) Signaling Pathway and Heparin-Induced Thrombocytopenia in Mice]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematologic Diseases and Conditions - Thrombocytopenia is now available. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "The objective of this study is to investigate the role of T-cell ubiquitin ligand-2 (TULA-2) in the platelet Fc receptor for IgG IIA (Fc gamma RIIA) pathway and in the pathogenesis of heparin-induced thrombocytopenia (HIT). Approach and Results-HIT is a life-threatening thrombotic disease in which IgG antibodies against the heparin-platelet factor 4 complex activate platelets via Fc gamma RIIA."

Our news editors obtained a quote from the research from Thomas Jefferson University, "We reported previously differential expression of TULA-2 in human population was linked to Fc gamma RIIA responsiveness. In this study, we investigated the role of TULA-2, a protein phosphatase, in the Fc gamma RIIA pathway and HIT pathogenesis by crossing TULA-2(-/-) mice with transgenic Fc gamma RIIA(+/+) mice. Ablation of TULA-2 resulted in hyperphosphorylation of spleen tyrosine kinase, linker for the activation of T cells, and phospholipase C gamma 2 in platelets via Fc gamma RIIA activation. Platelet integrin activation, granule secretion, phosphatidylserine exposure, and aggregation were also enhanced in TULA-2(-/-) murine platelets. Compared with wild-type mice, TULA-2(-/-) mice showed aggravated antibody-mediated thrombocytopenia, augmented thrombin generation, and shortened tail bleeding time. In contrast, there was no significant difference between TULA-2(-/-) and TULA-2(+/+) platelets in platelet spreading and clot retraction. Of note, heterozygous TULA-2(+/+) mice, whose platelets contained 50% as much protein as the TULA-2(+/+) platelets, showed significantly increased platelet reactivity and more severe thrombocytopenia in vivo compared with TULA-2(+/+) mice. Together, the data demonstrate that not only the absence of TULA-2 but also the relative level of TULA-2 expression modulates Fc gamma RIIA-mediated platelet reactivity and HIT in vivo."

According to the news editors, the research concluded: "TULA-2 expression could be a valuable marker for HIT and inhibiting TULA-2 may serve as a potential therapy to reverse the bleeding adverse effect of anticoagulants."
For more information on this research see: TULA-2 (T-Cell Ubiquitin Ligand-2) Inhibits the Platelet Fc Receptor for IgG IIA (Fc gamma RIIA) Signaling Pathway and Heparin-Induced Thrombocytopenia in Mice. *Arteriosclerosis Thrombosis and Vascular Biology*, 2016;36(12):2315-2323. *Arteriosclerosis Thrombosis and Vascular Biology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news editors report that additional information may be obtained by contacting S.E. McKenzie, Thomas Jefferson University, Cardeza Fdn Hematol Res, Dept. of Med, Philadelphia, PA 19107, United States. Additional authors for this research include S. Abraham, S. Renna, L.C. Edelstein, C.A. Dangelmaier, A.Y. Tsygankov, S.P. Kunapuli, P.F. Bray and S.E. McKenzie.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Hematologic Diseases and Conditions, Blood Platelet Disorders, Immunologic Receptors, Drugs and Therapies, Membrane Proteins, Thrombocytopenia, Heparin Therapy, Fc Receptors, Ubiquitins, Hematology, Genetics, Thomas Jefferson University.

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**Nutritional and Metabolic Diseases and Conditions**

**Investigators from Tokyo Medical and Dental University Zero in on Obesity (Reduced Morning Cortisol Concentration in Saliva Was Associated with Obesity: Evidence from Community-Dwelling Adults in Papua New Guinea)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Obesity are discussed in a new report. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "This study investigated morning salivary cortisol concentration in relation to total body fat composition among community-dwelling Papua New Guinean adults. In addition to demographic and anthropometric measurements, saliva was collected in a single morning from 478 residents in Eastern Highlands Province and Madang Province." Our news editors obtained a quote from the research from Tokyo Medical and Dental University, "After adjusting for age, region, and occupation, the morning salivary cortisol concentration was significantly negatively correlated with body mass index among men (B = -0.01, P< 0.05) and women (B = -0.013, P< 0.05), and waist circumference (B = -0.007, P< 0.05), waist-to-hip-ratio (B = -1.214, P< 0.05), and subscapular-to-triceps skinfold-thickness ratio (B = -0.045, P< 0.05) among men. Men with total or abdominal body fat mass known for elevated risk of non-communicable diseases displayed lower cortisol compared to men without such risk."

According to the news editors, the research concluded: "Papua New Guinean adults with increased accumulation of body fat showed reduced cortisol concentration in morning saliva."

For more information on this research see: Reduced Morning Cortisol Concentration in Saliva Was Associated with Obesity: Evidence from Community-Dwelling Adults in Papua New Guinea.
Investigators from Tufts Medical Center Zero in on Bacteroides (In Vitro Evaluation of the Activity of Imipenem-Relebactam against 451 Recent Clinical Isolates of Bacteroides Group and Related Species)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Bacteroides. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "We evaluated the in vitro activity of imipenem-relebactam (imipenem-MK7655) against 451 recent clinical isolates within the Bacteroides group and related species.

The news correspondents obtained a quote from the research from Tufts Medical Center, "Relebactam did not enhance or inhibit the activity of imipenem against Bacteroides fragilis or other Bacteroides species. No synergistic or antagonistic effect was observed."

According to the news reporters, the research concluded: "The MICs of imipenem-relebactam were equal to or within one dilution of the MICs of these isolates to imipenem."

For more information on this research see: In Vitro Evaluation of the Activity of Imipenem-Relebactam against 451 Recent Clinical Isolates of Bacteroides Group and Related Species. Antimicrobial Agents and Chemotherapy, 2016;60(10):6393-6397. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting D.R. Snydman, Tufts Med Center, Dept. of Med, Boston, MA 02111, United States. Additional authors for this research include N.V. Jacobus and L.A. McDermott.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01125-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Beta-Lactam Antibiotics, Gram-Negative Bacteria, Drugs and Therapies, Bacteroidaceae, Thienamycins, Bacteroides, Imipenem, Amides, Tufts Medical Center.

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Investigators from Tulane University Report New Data on Prostate Cancer (Emerging data on androgen receptor splice variants in prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting out of New Orleans, Louisiana, by NewsRx editors, research stated, "Androgen receptor splice variants are alternatively spliced variants of androgen receptor, which are C-terminally truncated and lack the canonical ligand-binding domain. Accumulating evidence has indicated a significant role of androgen receptor splice variants in mediating resistance of castration-resistant prostate cancer to current therapies and in predicting therapeutic responses."

Our news journalists obtained a quote from the research from Tulane University, "As such, there is an urgent need to target androgen receptor splicing variants for more effective treatment of castration-resistant prostate cancer. Identification of precise and critical targeting points to deactivate androgen receptor splicing variants relies on a deep understanding of how they are generated and the mechanisms of their action."

According to the news editors, the research concluded: "In this review, we will focus on the emerging data on their generation, clinical significance and mechanisms of action as well as the therapeutic influence of these findings."

For more information on this research see: Emerging data on androgen receptor splice variants in prostate cancer. Endocrine-Related Cancer, 2016;23(12):T199-T210. Endocrine-Related Cancer can be contacted at: Bioscientifica Ltd, Euro House, 22 Apex Court Woodlands, Bradley Stoke, Bristol BS32 4JT, England.

Our news journalists report that additional information may be obtained by contacting Y. Dong, Tulane University, Sch Med, Dept. of Struct & Cellular Biol, Tulane Canc Center, New Orleans, LA 70112, United States. Additional authors for this research include Y. Zhan and Y. Dong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1530/ERC-16-0298. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Orleans, Louisiana, United States, North and Central America, Cancer, Article Review, Transcription Factors, DNA-Binding Proteins, Drugs and Therapies, Prostatic Neoplasms, Androgen Receptors, Steroid Receptors, Prostate Cancer, Androgens, Oncology, Tulane University.

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Investigators from United Hospitals Target Tuberculosis and Lung Disease [Pyrazinamide susceptibility testing: proposed new standard with the BAGTEC(TM) MGIT(TM) 960 system]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Tuberculosis and Lung Disease have been published. According to news reporting out of Ancona, Italy, by NewsRx editors, research stated, "The susceptibility of 253 Mycobacterium tuberculosis complex isolates to pyrazinamide (PZA) was assessed using the BACTEC™ MGIT™ 960 (M960) system. Resistant strains underwent paired repeat testing using 1) a critical concentration of 200 µg/mL (PZA-200), and 2) a reduced inoculum of 0.25 ml." Our news journalists obtained a quote from the research from United Hospitals, "They were also examined using the BACTEC 460 (B460) reference method and investigated for pncA mutations. On M960, 37 isolates were resistant. In the PZA-200 assay, 20 of these were resistant and 17 susceptible, while 18 were resistant and 19 susceptible with reduced inoculum."

According to the news editors, the research concluded: "The B460 assay and pncA sequencing confirmed results with reduced inoculum."

For more information on this research see: Pyrazinamide susceptibility testing: proposed new standard with the BAGTEC™ MGIT™ 960 system. International Journal of Tuberculosis and Lung Disease, 2016;20(12):1677-1680. International Journal of Tuberculosis and Lung Disease can be contacted at: Int Union Against Tuberculosis Lung Disease (I U A T L D), 68 Boulevard Saint-Michel, 75006 Paris, France.

Our news journalists report that additional information may be obtained by contacting C. Piersimoni, United Hosp, Reg Reference Mycobacteria Lab, I-60020 Ancona, Italy. Additional authors for this research include A. Mustazzolu, A. Lacobino, F. Giannoni, G. Santoro, G. Gherardi, A. Del Giudice, R. Perna and L. Fattorinit.

Keywords for this news article include: Ancona, Italy, Europe, Tuberculosis and Lung Disease, Lung Diseases and Conditions, Genetics, United Hospitals.

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Drugs and Therapies - Pharmaceutical Design

Investigators from University College Target Pharmaceutical Design (ABC Transporters and Drug Resistance in Patients with Epilepsy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Pharmaceutical Design have been presented. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Resistance to antiepileptic drugs (AED) remains a major problem in clinical epileptology. This pharmacoresistance is independent of the choice of AEDs."

The news correspondents obtained a quote from the research from University College, "Different hypotheses have been proposed to explain the neurobiological basis for pharmacoresistance in epilepsy. The transporter hypothesis is the mostly investigated theory.
Hereby, overexpression of multidrug efflux transporters, such as P-glycoprotein (Pgp), at the blood-brain-barrier (BBB) is thought to be involved in pharmacoresistance in epilepsy by extruding AEDs from their target site. Accumulating evidence supports an overexpression of Pgp in pharmacoresistant epilepsy. Molecular Imaging studies provide unique opportunities for the in-vivo study of the transporter hypothesis in the central nervous system (CNS). Several studies demonstrated that positron emission tomography (PET) with [C-11]-radiolabeled Pgp substrates is a promising tool for in vivo investigation of Pgp function at the rat, monkey and human BBB.

According to the news reporters, the research concluded: "Quantification of Pgp over activity in epilepsy patients by in vivo imaging could be highly useful because altered treatment strategies or novel AED could then be applied."


Our news journalists report that additional information may be obtained by contacting M. Koepp, UCL, Neurol Inst, Dept. of Clin & Expt Epilepsy, London, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1381612822666160810150416. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Pharmaceutical Design, Article Review, Drugs and Therapies, University College.

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**Drugs and Therapies - Chemotherapy**

**Investigators from University Hospital Zero in on Chemotherapy (Preoperative predictors of delay in initiation of adjuvant chemotherapy in patients undergoing primary debulking surgery for ovarian cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Chemotherapy are discussed in a new report. According to news originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "The objective of this study was to identify preoperative characteristics of patients that experience a delay in initiation of adjuvant chemotherapy after primary debulking surgery for ovarian cancer. We performed a retrospective review of patients with Stage II to IV high-grade epithelial ovarian, tubal, and peritoneal carcinoma who underwent primary debulking surgery followed by adjuvant chemotherapy from 2005 to 2013."

Our news journalists obtained a quote from the research from University Hospital, "Patients were divided into 2 groups: Control (those who received their first cycle of chemotherapy within 6 weeks of debulking surgery) vs. chemotherapy delay (those who received their first cycle of chemotherapy at an interval >6 weeks from primary debulking surgery). Relevant clinical variables and survival outcomes were compared between the 2
groups using standard statistical methods. A total of 221 patients were included in the analyses, with 169 (76.5%) in the control group and 52 (23.5%) in the chemo delay group. On multi-variate analysis, risk factors that were significantly associated with a delay in initiation of chemotherapy included: age >65, albumin <3.5, and high age-adjusted Charlson Comorbidity Index score. Delay in chemotherapy initiation was associated with a shorter progression-free (p = 0.014) but not overall survival (p = 0.19). Delay in initiation of chemotherapy affected 23.5% of patients in our study population. Easily identifiable risk factors for chemotherapy delay exist that can help us pre-operatively identify patients for which neoadjuvant chemotherapy may be a better treatment option."

According to the news editors, the research concluded: "Further study into prospective modeling with these identified risk factors is warranted."


The news correspondents report that additional information may be obtained from S. Singh, Univ Hosp Case Med Center, Div Gynecol Oncol, Cleveland, OH, United States. Additional authors for this research include M. Guetzko and K. Resnick.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.09.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Combined Modality Therapy, Adjuvant Chemotherapy, Risk and Prevention, Drugs and Therapies, Oncology, Surgery, Cancer, University Hospital.

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the first cases of AEF described after using CF catheters."


The news editors report that additional information may be obtained by contacting E. Gitenay, Inst Univ Cardiol & Pneumol Quebec, Quebec City, PQ, Canada. Additional authors for this research include G.E. O'Hara, J.F. Sarrazin, I. Nault, F. Philippon, M.S. Blaye-Felice, J. Laaouaj and J. Champagne.

Keywords for this news article include: Quebec City, Quebec, Canada, North and Central America, Heart Disorders and Diseases, Atrial Fibrillation, University Institute of Cardiology and Pneumology Quebec Research Center.

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**Hematopoietic**

**Investigators from University Medical Center Have Reported New Data on Hematopoietic (Bcl-2 proteins in development, health, and disease of the hematopoietic system)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hematopoietic are presented in a new report. According to news reporting from Freiburg, Germany, by NewsRx journalists, research stated, "Members of the Bcl-2 protein family regulate cell fate decisions following a variety of developmental cues or stress signals, with the outcomes of cell death or survival, thus shaping multiple mammalian tissues."

Funders for this research include European Research Council, Wilhelm Sander foundation, Austrian Science Fund, Deutsche Forschungsgemeinschaft.

The news correspondents obtained a quote from the research from University Medical Center, "This review describes in detail how anti-and proapoptotic Bcl-2 proteins contribute to the development and functioning of the fetal and adult hematopoietic systems and how they influence the generation and maintenance of different hematopoietic lineages. An overview on how stress signals such as genotoxic stress or inflammation can compromise blood cell production, partially by engaging the intrinsic apoptosis pathway, is presented."

According to the news reporters, the research concluded: "Finally, the review describes how Bcl-2 protein deregulation-either leading to increased apoptosis resistance or excessive cell death-contributes to many hematological disorders, with specific focus on rare disorders of hematopoeisis and how this knowledge may be used therapeutically."


Our news journalists report that additional information may be obtained by
contacting M. Erlacher, Univ Med Center Freiburg, Div Pediat Hematol & Oncol, Dept. of Pediat & Adolescent Med, D-79106 Freiburg, Germany. Additional authors for this research include A. Muller, A. Egle and M. Erlacher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/febs.13683. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Freiburg, Germany, Europe, Hematopoietic System, Article Review, Hemic and Immune Systems, Hematology, University Medical Center.

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Drugs and Therapies - Antibiotics

Investigators from University Medical Center, Hamburg Eppendorf Report New Data on Antibiotics (Tedizolid susceptibility in linezolid- and vancomycin-resistant Enterococcus faecium isolates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antibiotics. According to news reporting out of Hamburg, Germany, by NewsRx editors, research stated, "Vancomycin-resistant enterococci (VRE) are of ever-increasing importance, most notably in high-risk patient populations. Therapy options are often limited for these isolates, and apart from tigecycline and daptomycin, oxazolidinone linezolid is frequently administered."

Our news journalists obtained a quote from the research from University Medical Center, Hamburg Eppendorf, "The broad usage of linezolid, however, has driven the emergence of linezolid-resistant VRE strains (LR-VRE), further shortening therapeutic options. Second-generation oxazolidinone tedizolid has the advantage of being active against a specific subset of LR-VRE, i.e. isolates expressing the plasmid-encoded chloramphenicol-florfenicol resistance (cfr) gene. Here we tested tedizolid activity in a collection of 30 LR Enterococcus faecium VRE (MIC range 32-256 mg/l) isolated between 2012 and 2015 from clinical and screening specimens. By pulsed field gel electrophoresis (PFGE) isolates were assigned to 16 clonal lineages. In three cases, linezolid-susceptible progenitor isolates of LR-VRE were isolated, thus demonstrating the de-novo emergence of the linezolid-resistant phenotype. PCR did not detect cfr, cfr(B) or novel oxazolidinone resistance gene oprA in LR-VRE. All isolates, however, carried mutations within the 23S rDNA. Compared to linezolid, tedizolid MICs were lower in all isolates (MIC range 2-32 mg/l), but remained above the FDA tedizolid breakpoint for E. faecalis at 0.5 mg/l."

According to the news editors, the research concluded: "Thus, related to the predominant resistance mechanism, tedizolid is of limited value for treatment of most LR-VRE and represents a therapeutic option only for a limited subset of isolates."

For more information on this research see: Tedizolid susceptibility in linezolid- and vancomycin-resistant Enterococcus faecium isolates. European Journal of Clinical Microbiology & Infectious Diseases, 2016;35(12):1957-1961. European Journal of Clinical Microbiology & Infectious Diseases can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Journal of Clinical Microbiology & Infectious Diseases - www.springerlink.com/content/0934-9723/)
Our news journalists report that additional information may be obtained by contacting H. Rohde, Univ Klinikum Hamburg Eppendorf, Inst Med Mikrobiol Virol & Hyg, D-20246 Hamburg, Germany. Additional authors for this research include A. Both, C. Belmar Campos, H. Buttner, C. König, M. Christopeit, M. Christner, M. Aepfelbacher and H. Rohde.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10096-016-2747-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hamburg, Germany, Europe, Bacterial Physiological Phenomena, Bacterial Drug Resistance, Glycopeptide Antibiotics, Gram-Positive Bacteria, Vancomycin Resistance, Enterococcus faecium, Drugs and Therapies, Lactobacillales, Enterococcaceae, Antiinfectives, Glycopeptides, Linezolid, Peptides, University Medical Center, Hamburg Eppendorf.

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Investigators from University Nova of Lisboa Release New Data on Insulin Resistance (Functional abolition of carotid body activity restores insulin action and glucose homeostasis in rats: key roles for visceral adipose tissue and the liver)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Endocrine System Diseases and Conditions - Insulin Resistance. According to news reporting originating from Lisbon, Portugal, by NewsRx correspondents, research stated, "We recently described that carotid body (CB) over-activation is involved in the aetiology of insulin resistance and arterial hypertension in animal models of the metabolic syndrome. Additionally, we have demonstrated that CB activity is increased in animal models of insulin resistance, and that carotid sinus nerve (CSN) resection prevents the development of insulin resistance and arterial hypertension induced by high-energy diets."

Financial supporters for this research include MINECO/FEDER, UE, Institute of Health Carlos III (Spain), Portuguese Foundation for Science and Technology.

Our news editors obtained a quote from the research from the University Nova of Lisboa, "Here, we tested whether the functional abolition of CB by CSN transection would reverse pre-established insulin resistance, dyslipidaemia, obesity, autonomic dysfunction and hypertension in animal models of the metabolic syndrome. The effect of CSN resection on insulin signalling pathways and tissue-specific glucose uptake was evaluated in skeletal muscle, adipose tissue and liver. Experiments were performed in male Wistar rats submitted to two high-energy diets: a high-fat diet, representing a model of insulin resistance, hypertension and obesity, and a high-sucrose diet, representing a lean model of insulin resistance and hypertension. Half of each group was submitted to chronic bilateral resection of the CSN. Age-matched control rats were also used. CSN resection normalised systemic sympathetic nervous system activity and reversed weight gain induced by high-energy diets. It also normalised plasma glucose and insulin levels, insulin sensitivity lipid profile, arterial pressure and endothelial function by improving glucose uptake by the liver and perienteric adipose tissue."

According to the news editors, the research concluded: "We concluded that
functional abolition of CB activity restores insulin sensitivity and glucose homeostasis by positively affecting insulin signalling pathways in visceral adipose tissue and liver.

For more information on this research see: Functional abolition of carotid body activity restores insulin action and glucose homeostasis in rats: key roles for visceral adipose tissue and the liver. *Diabetologia*, 2017;60(1):158-168. *Diabetologia* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Diabetologia - www.springerlink.com/content/0012-186x/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00125-016-4133-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lisbon, Portugal, Europe, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Cardiovascular Diseases and Conditions, Glucose Metabolism Disorders, Metabolic Syndrome, Insulin Resistance, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Hypertension, Proinsulin, Healthcare, Angiology, University Nova of Lisboa.

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Eye Diseases and Conditions - Retinitis Pigmentosa

**Investigators from University of Adelaide Report New Data on Retinitis Pigmentosa (A review of the mechanisms of cone degeneration in retinitis pigmentosa)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Eye Diseases and Conditions - Retinitis Pigmentosa have been published. According to news reporting out of Adelaide, Australia, by NewsRx editors, research stated, "Retinitis pigmentosa (RP) is an inherited condition that features degeneration of rod and cone photoreceptors. In all forms of RP, the genetic mutation is expressed exclusively in rods; however, cones die too."

Our news journalists obtained a quote from the research from the University of Adelaide, "The secondary death of cones in RP remains somewhat mysterious. A better understanding of the mechanisms that cause cone degeneration in RP could lead to novel treatments that preserve cones. There are a number of prevailing theories that attempt to explain cone degeneration in RP. One concept is that cone survival is dependent on trophic factors produced by rods. Another hypothesis is that cones suffer from a nutrient shortage after rods have been lost. Additionally, oxidative stress and pro-inflammatory microglial activation have also been suggested to play a role in cone death."

According to the news editors, the research concluded: "The present review evaluates the evidence supporting these theories and provides an update on the mechanisms of cone degeneration in RP."

For more information on this research see: A review of the mechanisms of cone degeneration in retinitis pigmentosa.
Investigators from University of Athens Zero in on Acinetobacter baumannii (In Vitro Bactericidal Activity of Trimethoprim-Sulfamethoxazole Alone and in Combination with Colistin against Carbapenem-Resistant Acinetobacter baumannii Clinical ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Negative Bacteria - Acinetobacter baumannii. According to news reporting originating from Athens, Greece, by NewsRx correspondents, research stated, "Trimethoprim-sulfamethoxazole alone and combined with colistin was tested in vitro against six carbapenem-resistant Acinetobacter baumannii (CRAB) clinical strains."

Our news editors obtained a quote from the research from the University of Athens, "After 24 h, at achievable serum concentrations, trimethoprim-sulfamethoxazole effectively killed all strains, while colistin killed only one strain."

According to the news editors, the research concluded: "Trimethoprim-sulfamethoxazole plus colistin rapidly killed all strains after 6 h and for up to 24 h. Trimethoprim-sulfamethoxazole, one of the few remaining antimicrobials that still has a degree of activity, particularly combined with colistin, might represent an effective therapy for severe CRAB infections."

For more information on this research see: In Vitro Bactericidal Activity of Trimethoprim-Sulfamethoxazole Alone and in Combination with Colistin against Carbapenem-Resistant Acinetobacter baumannii Clinical Isolates. Antimicrobial Agents and Chemotherapy, 2016;60(11):6903-6906. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting S. Pournaras, University of Athens, Sch Med, Dept. of Microbiol, Athens, Greece.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01082-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Athens, Greece, Europe, Gram-Negative Aerobic Rods and Cocci, Pore Forming Cytotoxic Proteins, Gram-Negative Aerobic Bacteria, Acinetobacter baumannii, Gram-Negative Bacteria, Urinary Antiinfectives, Gammaproteobacteria, Drugs and Therapies, Organic Chemicals, Membrane Proteins, Sulfur Compounds, Sulfamethoxazole, Sulfanilamides, Proteobacteria, Moraxellaceae, beta-Lactams, Trimethoprim, Carbapenems, Polymyxins, Sulfones, Colistin, University of Athens.

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Oncology - Brain Cancer
Investigators from University of Bordeaux Have Reported New Data on Brain Cancer (In Vivo Follow-up of Brain Tumor Growth via Bioluminescence Imaging and Fluorescence Tomography)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Brain Cancer are discussed in a new report. According to news reporting originating in Bordeaux, France, by NewsRx journalists, research stated, "Reporter gene-based strategies are widely used in experimental oncology. Bioluminescence imaging (BLI) using the firefly luciferase (Fluc) as a reporter gene and D-luciferin as a substrate is currently the most widely employed technique."

The news reporters obtained a quote from the research from the University of Bordeaux, "The present paper compares the performances of BLI imaging with fluorescence imaging using the near infrared fluorescent protein (iRFP) to monitor brain tumor growth in mice. Fluorescence imaging includes fluorescence reflectance imaging (FRI), fluorescence diffuse (optical) tomography (fDOT), and fluorescence molecular Imaging (FMT ®). A U87 cell line was genetically modified for constitutive expression of both the encoding Fluc and iRFP reporter genes and assayed for cell, subcutaneous tumor and brain tumor imaging. On cultured cells, BLI was more sensitive than FRI; in vivo, tumors were first detected by BLI."

According to the news reporters, the research concluded: "Fluorescence of iRFP provided convenient tools such as flux cytometry, direct detection of the fluorescent protein on histological slices, and fluorescent tomography that allowed for 3D localization and absolute quantification of the fluorescent signal in brain tumors."

For more information on this research see: In Vivo Follow-up of Brain Tumor Growth via Bioluminescence Imaging and Fluorescence Tomography. International Journal of Molecular Sciences, 2016;17(11):845-854. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting C. Genevois, Univ Bordeaux, Mol Imaging & Innovat Therapy Oncol IMOTION, EA 7435, F-33076 Bordeaux, France. Additional authors for this research include H. Loiseau and F. Couillaud.
Investigators from University of Bristol Zero in on Blood Pressure (Quantifying sympathetic neuro-haemodynamic transduction at rest in humans: insights into sex, ageing and blood pressure control)

2017 JAN 14 (NewsRx) -- New research on Blood Pressure is the subject of a report. According to news reporting from Bristol, United Kingdom, by NewsRx journalists, research stated, "Sex and age differences in the sympathetic control of resting blood pressure (BP) may be due to differences in the transduction of sympathetic nerve activity (SNA) into vascular tone. Current methods for dynamically quantifying transduction focus on the relationship between SNA and vasoconstriction during a pressor stimulus, which increases BP and may be contra-indicated in patients."

The news correspondents obtained a quote from the research from the University of Bristol, "We describe a simple analytical method for quantifying transduction under resting conditions. We performed linear regression analysis of binned muscle SNA burst areas against diastolic BP (DBP). We assessed whether the slope of this relationship reflects the transduction of SNA into DBP. To evaluate this, we investigated whether this measure captures differences in transduction in different populations. Specifically, we (1) quantified transduction in young men (YM), young women (YW), older men (OM) and postmenopausal women (PMW); and (2) measured changes in transduction during beta-blockade using propranolol in YW, YM and PMW. YM had a greater transduction vs. OM (0.10 +/- 0.01 mmHg(%s)(-1), n = 23 vs. 0.06 +/- 0.01 mmHg (% s)(-1), n = 18; P = 0.003). Transduction was lowest in YW (0.02 +/- 0.01 mmHg (% s)(-1), n = 23) and increased during beta-blockade (0.11 +/- 0.01 mmHg(% s)(-1); P<0.001). Transduction in PMW (0.07 +/- 0.01 mmHg(% s)(-1), n = 23) was greater compared to YW (P = 0.001), and was not altered during beta-blockade (0.06 +/- 0.01 mmHg (%s)(-1); P = 0.98). Importantly, transduction increased in women with age, but decreased in men. Transduction in women intersected that in men at 55 +/- 1.5 years. This measure of transduction captures age- and sex-differences in the sympathetic regulation of DBP and may be valuable in quantifying transduction in disease."

According to the news reporters, the research concluded: "In particular, this measure may help target treatment strategies in specific hypertensive subpopulations."


Keywords for this news article in clude: Bristol, United Kingdom, Europe, Blood
Therapeutics

Investigators from University of British Columbia Report New Data on Therapeutics (Effective Translation of Research to Practice: Hospital-Based Rehabilitation Program Improves Health-Related Physical Fitness and Quality of Life of Cancer ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Therapeutics are presented in a new report. According to news reporting originating in Vancouver, Canada, by NewsRx journalists, research stated, "Although exercise has been widely established as an efficacious rehabilitative therapy for cancer survivors in rigorously designed research studies, demonstration of translation of this research into clinical oncology practice is needed. The purpose of this study was to evaluate the effectiveness of a real-world cancer rehabilitation program implemented within a healthcare setting."

The news reporters obtained a quote from the research from the University of British Columbia, "This study involved 299 adult cancer survivors enrolled in a hospital-based, supervised, individualized, cancer rehabilitation program. A retrospective review of the 132 participants who completed the follow-up assessment was performed. Sixty-minute sessions consisting of aerobic, resistance, flexibility, and relaxation exercises were performed twice weekly. Questionnaires and fitness assessments were administered at enrollment and after 24 sessions by exercise physiologists. Change in a number of health-related physical fitness and patient-reported outcomes and the influence of baseline characteristics on program outcomes were assessed. There were no baseline differences between those who completed the follow-up assessment and those who withdrew. Statistically and/or clinically meaningful improvements occurred in functional capacity, blood pressure, muscular endurance, flexibility, health-related quality of life, and fatigue, but not in body composition. Age, marital status, radiation treatment status, exercise frequency before diagnosis, smoking status, and alcohol consumption frequency influenced functional capacity and/or quality-of-life changes."

According to the news reporters, the research concluded: "Adoption of cancer rehabilitation as a standard part of oncology care may improve cancer survivors' health and well-being."

For more information on this research see: Effective Translation of Research to Practice: Hospital-Based Rehabilitation Program Improves Health-Related Physical Fitness and Quality of Life of Cancer Survivors. Journal of the National Comprehensive Cancer Network, 2016;14(12):1555-1562. Journal of the National Comprehensive Cancer Network can be contacted at: Harborside Press, 37 Main St, Cold Spring Harbor, NY 11724, USA.

Our news correspondents report that additional information may be obtained by contacting K.L. Campbell, University of British Columbia, Vancouver, BC, Canada. Additional authors for this research include R.J. Klika, T. Ballard, P. Downey and K.L. Campbell.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Therapeutics, Physical Fitness, Quality of Life, Rehabilitation, Hospital, Exercise, Oncology, Therapy, Cancer, University of British Columbia.
Investigators from University of Cairo Zero in on Pharmacokinetics (UPLC-MS-MS Method for the Determination of Vilazodone in Human Plasma: Application to a Pharmacokinetic Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Pharmacokinetics. According to news reporting out of Cairo, Egypt, by NewsRx editors, research stated, "A sensitive, rapid and simple liquid chromatographic-electrospray ionization tandem mass spectrometric (LC-ESI-MS-MS) method was developed for the quantitative determination of vilazodone in human plasma and for the study of the pharmacokinetic behavior of vilazodone in healthy Egyptian volunteers. With escitalopram as internal standard (IS), liquid-liquid extraction was used for the purification and preconcentration of analytes from human plasma matrix using diethyl ether."

Our news journalists obtained a quote from the research from the University of Cairo, "The separation was performed on an Acquity UPLC BEH shield RP C18 column (1.7 мм, 2.1 x 150 mm). Isocratic elution was applied using methanol-0.2% formic acid (90: 10, v/v). Detection was performed on a triple-quadrupole tandem mass spectrometer with multiple reaction monitoring mode via an electrospray ionization source at m/z 442.21 -> 155.23 for vilazodone and m/z 325.14 -> 109.2 for escitalopram. Linear calibration curves were obtained over the range of 1-200 ng/mL with the lower limit of quantification at 1 ng/mL. The intra-and inter-day precision showed relative standard deviation <= 3.3%. The total run time was 1.5 min."

According to the news editors, the research concluded: "This method was successfully applied for clinical pharmacokinetic investigation, and a preliminary metabolic study was also carried out."


Our news journalists report that additional information may be obtained by contacting M. Fouad, Cairo University, Fac Pharm, Pharmaceut Chem Department, Cairo 11562, Egypt. Additional authors for this research include H. Hashem, M. Fouad and S. Tarek.

Keywords for this news article include: Cairo, Egypt, Africa, Pharmacokinetics, Pharmaceuticals, University of Cairo.

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Investigators from University of California Have Reported New Data on Molecular Biology (GOLPH3 drives cell migration by promoting Golgi reorientation and directional trafficking to the leading edge)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Molecular Biology have been published. According to news reporting out of La Jolla, California, by NewsRx editors, research stated, "The mechanism of directional cell migration remains an important problem, with relevance to cancer invasion and metastasis. GOLPH3 is a common oncogenic driver of human cancers, and is the first oncogene that functions at the Golgi in trafficking to the plasma membrane."

Our news journalists obtained a quote from the research from the University of California, "Overexpression of GOLPH3 is reported to drive enhanced cell migration. Here we show that the phosphatidylinositol-4-phosphate/GOLPH3/myosin 18A/F-actin pathway that is critical for Golgi-to-plasma membrane trafficking is necessary and limiting for directional cell migration. By linking the Golgi to the actin cytoskeleton, GOLPH3 promotes reorientation of the Golgi toward the leading edge. GOLPH3 also promotes reorientation of lysosomes (but not other organelles) toward the leading edge. However, lysosome function is dispensable for migration and the GOLPH3 dependence of lysosome movement is indirect, via GOLPH3's effect on the Golgi. By driving reorientation of the Golgi to the leading edge and driving forward trafficking, particularly to the leading edge, overexpression of GOLPH3 drives trafficking to the leading edge of the cell, which is functionally important for directional cell migration."

According to the news editors, the research concluded: "Our identification of a novel pathway for Golgi reorientation controlled by GOLPH3 provides new insight into the mechanism of directional cell migration with important implications for understanding GOLPH3's role in cancer."

For more information on this research see: GOLPH3 drives cell migration by promoting Golgi reorientation and directional trafficking to the leading edge. Molecular Biology of the Cell, 2016;27(24):3828-3840. Molecular Biology of the Cell can be contacted at: Amer Soc Cell Biology, 8120 Woodmont Ave, Ste 750, Bethesda, MD 20814-2755, USA.

Our news journalists report that additional information may be obtained by contacting S.J. Field, University of California, Dept. of Med, Div Endocrinol & Metab, La Jolla, CA 92093, United States. Additional authors for this research include M.C. Peterman, R.L. Davis, K. Oegema, A.K. Shiau and S.J. Field.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1091/mbc.E16-01-0005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Molecular Biology, Life Science Research, Genetics, University of California.

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Investigators from University of California Release New Data on Hypoventilation (Treatment of ethanol poisoning and associated hypoventilation with doxapram)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Respiratory Tract Diseases and Conditions - Hypoventilation is the subject of a report. According to news reporting originating from Sacramento, California, by NewsRx correspondents, research stated, "Ethanol poisoning often results in profound coma with hypoventilation lasting several hours. Doxapram, a central nervous system respiratory stimulant, was used to safely counter the effects of ethanol, avoid need for intubation, and prevent unnecessary admission to the intensive care unit."

Our news editors obtained a quote from the research from the University of California, "We report a case of ethanol poisoning in a 48-year-old man who presented to the emergency department with altered mental status, hypoventilation, and hypoxemia. Intravenous doxapram was administered, and within seconds, his ventilatory status returned to normal. His altered mental status also improved to the point at which he became alert and conversant. Further dosing of doxapram was not required. Doxapram, an old and rarely used drug in the emergency department, is an analeptic that is advantageous in the treatment of hypoventilation from sedative overdose for which there is no specific antidote."

According to the news editors, the research concluded: "For appropriate cases of ethanol poisoning with hypoventilation, emergency physicians should consider doxapram before proceeding to intubation."


The news editors report that additional information may be obtained by contacting J.R. Richards, University of California, Medical Center, Dept. of Emergency Med, Sacramento, CA 95817, United States. Additional authors for this research include E.G. Laurin, S.W. Bretz, B.R. Traylor and E.A. Panacek.

Keywords for this news article include: Sacramento, California, United States, North and Central America, Respiratory Tract Diseases and Conditions, Central Nervous System Stimulants, Central Nervous System Agents, Respiratory System Agents, Respiratory Insufficiency, Respiration Disorders, Drugs and Therapies, Doxapram Therapy, Medical Devices, Hypoventilation, CNS Stimulants, Critical Care, Ethanolamines, Poisoning, Alcohols, University of California.

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Investigators from University of California Target Glioblastomas (Tissue mechanics promote IDH1-dependent HIF1 alpha-tenascin C feedback to regulate glioblastoma aggression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Glioblastomas is now available. According to news originating from San Francisco, California, by NewsRx correspondents, research stated, "Increased overall survival for patients with glioma brain tumours is associated with mutations in the metabolic regulator isocitrate dehydrogenase 1 (IDH1). Gliomas develop within a mechanically challenged microenvironment that is characterized by a dense extracellular matrix (ECM) that compromises vascular integrity to induce hypoxia and activate HIF1 alpha."

Our news journalists obtained a quote from the research from the University of California, "We found that glioma aggression and patient prognosis correlate with HIF1 alpha levels and the stiffness of a tenascin C (TNC)-enriched ECM. Gain-and loss-of-function xenograft manipulations demonstrated that a mutant IDH1 restricts glioma aggression by reducing HIF1 alpha-dependent TNC expression to decrease ECM stiffness and mechanosignalling. Recurrent IDH1-mutant patient gliomas had a stiffer TNC-enriched ECM that our studies attributed to reduced miR-203 suppression of HIF1 alpha and TNC mediated via a tension-dependent positive feedback loop."

According to the news editors, the research concluded: "Thus, our work suggests that elevated ECM stiffness can independently foster glioblastoma aggression and contribute to glioblastoma recurrence via bypassing the protective activity of IDH1 mutational status."


The news correspondents report that additional information may be obtained from V.M. Weaver, University of California, UCSF Helen Diller Comprehens Canc Center, San Francisco, CA 94143, United States. Additional authors for this research include J.K. Mouw, J.M. Barnes, M.W. Pickup, J.N. Lakins, Y. Kim, K. Lobo, A.I. Persson, G.F. Reis, T.R. McKnight, E.C. Holland, J.J. Phillips and V.M. Weaver.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Extracellular Matrix Proteins, Glioblastomas, Tenascin, Oncology, Genetics, Gliomas, University of California.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Oxaprozin Therapy is the subject of a report. According to news reporting originating in Florence, Italy, by NewsRx journalists, research stated, "The combined strategy of drug-cyclodextrin (CD) complexation and complex loading into nanocarriers (deformable liposomes or nanostructured lipid carriers (NLC)), was exploited to develop effective topical formulations for oxaprozin transdermal administration. Oxaprozin was loaded as ternary complex with randomly-methylated-beta CD and arginine, selected as the best system in improving drug solubility."

The news reporters obtained a quote from the research from the University of Florence, "The colloidal dispersions, characterized for particle size, zeta-potential and entrapment efficiency, were investigated for drug permeation properties in comparison with a plain drug aqueous suspension, a ternary complex aqueous solution and a plain drug liposomal or NLC dispersion. Experiments with artificial membranes showed that the joined use of CD and both liposomes or NLC enabled a marked increase of the drug permeability (16 and 8 times, respectively) and was significantly more effective (P < 0.05) than the drug as ternary complex (3.2 times increase), and the corresponding liposomal or NLC dispersion of plain drug (5.6 and 4.3 times increase, respectively)."

According to the news reporters, the research concluded: "Experiments with excised human skin confirmed the significantly (P < 0.05) better performance of deformable liposomes than NLC in promoting drug permeation; moreover, they evidenced a more marked permeability increase compared to the plain drug (24 and 12 fold, respectively), attributed to a possible enhancer effect of the nanocarriers components and/or of the randomly-methylated-beta CD."


Our news correspondents report that additional information may be obtained by contacting P. Mura, University of Florence, Sch Human Hlth Sci, Dept. of Chem, I-50019 Florence, Italy. Additional authors for this research include M. Cirri, F. Maestrelli and P. Mura. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.11.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Florence, Italy, Europe, Drug Delivery Systems, Emerging Technologies, Transdermal Delivery, Drugs and Therapies, Oxaprozin Therapy, Pharmaceuticals, Nanotechnology, Biotechnology, Nanocarriers, Liposomes, University of Florence.

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**Blood Pressure**

**Investigators from University of Glasgow Report New Data on Blood Pressure (Relationship Between Blood Pressure Values, Depressive Symptoms, and Cardiovascular Outcomes in Patients With Cardiometabolic Disease)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Pressure have been published. According to news reporting originating in Glasgow, United Kingdom, by NewsRx journalists, research stated, "The authors studied the joint effect of blood pressure (BP) and depression on the risk of major adverse cardiovascular outcome in patients with existing cardiometabolic disease. A cohort of 35,537 patients with coronary heart disease, diabetes, or stroke underwent depression screening and BP measurement recorded concurrently."

Financial support for this research came from Chief Scientist Office.

The news reporters obtained a quote from the research from the University of Glasgow, "The authors used Cox’s proportional hazards to calculate risk of major adverse cardiovascular event (MACE; myocardial infarction/heart failure/stroke or cardiovascular death) over 4 years associated with baseline BP and depression. A total of 11% (3939) had experienced a MACE within 4 years. Patients with very high systolic BP (160-240 mm Hg; hazard ratio, 1.28) and depression (hazard ratio, 1.22) at baseline had significantly higher adjusted risk. Depression had a significant interaction with systolic BP in risk prediction (P=.03). Patients with a combination of high systolic BP and depression at baseline had 83% higher adjusted risk of MACE, as compared with patients with reference systolic BP without depression."

According to the news reporters, the research concluded: "Patients with cardiometabolic disease and comorbid depression may benefit from closer monitoring of systolic BP."


Our news correspondents report that additional information may be obtained by contacting F.S. Mair, University of Glasgow, Inst Hlth & Wellbeing, Gen Practice & Primary Care, Coll Med Vet & Life Sci, Glasgow, Lanark, United Kingdom. Additional authors for this research include J. Cavanagh, S.J.E. Barry, G. Der, N. Sattar and F.S. Mair.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12813. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Glasgow, United Kingdom, Europe, Cardiometabolic Disease, Cardiovascular, Blood Pressure, Hemodynamics, Cardiology, University of Glasgow.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Amphetamines. According to news reporting originating in Champaign, Illinois, by NewsRx journalists, research stated, "Non-medical use of amphetamine (AMPH) among adolescents is prevalent, which is problematic given the potential consequences of developmental drug exposure on brain function and behavior. Previously we found in adult male rats that AMPH exposure starting before puberty induces a persistent decrease in dopamine D-1 receptor (D1R) function in the medial prefrontal cortex (mPFC)."

The news reporters obtained a quote from the research from the University of Illinois, "Here we investigated if this dysfunction was associated with changes in D1R expression in the mPFC and nucleus accumbens (NAc). We also determined if starting drug exposure well before or near the onset of puberty would influence AMPH-induced changes in D1R expression and behavior. Male and female Sprague-Dawley rats were treated once every other day (10 injections total) with saline or 3 mg/kg AMPH (i.p.) from either postnatal day (P) 27 to 45 (pre puberty groups; Pre-P) or P37 to 55 (peri-puberty groups; Peri-P). After 1, 7 and 21 days of withdrawal, sucrose preference tests were performed to assess anhedonia. Exploratory behavior was studied in an open-field arena and on an elevated plus maze (EPM). Rats were then sacrificed for Western blot analysis of D1R expression. We found that AMPH withdrawal induced decreases in sucrose preference that persisted in rats with Peri-P onset treatment. Pre-P onset AMPH exposure led to increased open-arm exploration in the EPM test, as well as a decreased D1R level in the mPFC but not NAc."

According to the news reporters, the research concluded: "Our results demonstrated that AMPH exposure starting at different developmental stages resulted in distinct neurobehavioral abnormalities, suggesting an important role of exposure timing in drug-induced plasticity."

For more information on this research see: Timing Of Amphetamine Exposure In Relation To Puberty Onset Determines Its Effects On Anhedonia, Exploratory Behavior, And Dopamine D-1 Receptor Expression In Young Adulthood. Neuroscience, 2016;339():72-84. Neuroscience can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Neuroscience - www.journals.elsevier.com/neuroscience/)

Our news correspondents report that additional information may be obtained by contacting J.M. Gulley, University of Illinois, Beckman Inst Adv Sci, Champaign, IL, United States. Additional authors for this research include M.M. Wu, R. Galvez and J.M. Gulley.

Keywords for this news article include: Champaign, Illinois, United States, North and Central America, Central Nervous System Stimulants, Adrenergic Uptake Inhibitor, Dopamine Hydrochloride, Organic Chemicals, Adrenergic Agent, Pharmaceuticals, Biogenic Amines, Phenethylamines, Catecholamines, Amphetamines, Ethylamines, University of Illinois.

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Investigators from University of Iowa Have Reported New Data on Cancer Genetics (The NAB2-STAT6 gene fusion in solitary fibrous tumor can be reliably detected by anchored multiplexed PCR for targeted next-generation sequencing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Genetics have been published. According to news reporting from Iowa City, Iowa, by NewsRx journalists, research stated, "Solitary fibrous tumor (SFT) is a mesenchymal tumor of fibroblastic origin, which can affect any region of the body. 10-15% of SFTs metastasize and metastatic tumors are uniformly lethal with no effective therapies. The behavior of SFT is difficult to predict based on morphology."

The news correspondents obtained a quote from the research from the University of Iowa, "Recently, an intrachromosomal gene fusion between NAB2 and STAT6 was identified as the defining driving genetic event of SFT and different fusion types correlated with tumor histology and behavior. Due to the proximity of NAB2 and STAT6 on chromosome 12, this fusion may be missed by fluorescence in-situ hybridization. We evaluated 12 SFTs from 10 patients. All tumors showed strong nuclear staining for STAT6 by immunohistochemistry (IHC). The same formalin-fixed, paraffin embedded blocks for IHC were used for gene fusion detection by a next-generation sequencing (NGS)-based assay. Targeted RNA fusion sequencing for gene fusions was performed using the Universal RNA Fusion Detection Kit, the Archer™ FusionPlex™ Sarcoma Panel and the Ion Torrent PGM, and data were analyzed using the Archer Analysis Pipeline 3.3. All tumors were positive for NAB2-STAT6 fusion. Six types of fusions were detected: NAB2ex4-STAT6ex2, NAB2ex2-STAT6ex5, NAB2ex6-STAT6ex16, NAB2ex6-STAT6ex17, NAB2ex3-STAT6ex18 and NAB2intron6-STAT6Ex17. The NGS findings were confirmed by RT-PCR followed by Sanger sequencing. No STAT6 fusion was detected in selected morphologic mimics of SFT."

According to the news reporters, the research concluded: "The assay also allows for detection of novel fusions and can detect NAB2-STAT6 fusions at a single-base resolution."

For more information on this research see: Cancer Genetics, 2016;209(7-8):303-312. Cancer Genetics can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Cancer Genetics - www.journals.elsevier.com/cancer-genetics/)

Our news journalists report that additional information may be obtained by contacting D.Q. Ma, University of Iowa, Dept. of Pathol, Iowa City, IA 52242, United States. Additional authors for this research include M.R. Tanas, A.A. Stence, R. Sompallae, J.C. Schade, A.D. Bossier, A.M. Beilizzi and D.Q. Ma.

Keywords for this news article include: Iowa City, Iowa, United States, North and Central America, Cancer Genetics, Oncology, Genetics, Genetics, Genetics, University of Iowa.

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**Drugs and Therapies - Cancer Therapy**

**Investigators from University of Jinan Report New Data on Cancer Therapy (Polyethylenimine-functionalized silver nanoparticle-based co-delivery of paclitaxel to induce HepG2 cell apoptosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Cancer Therapy. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "Hepatocarcinoma is the third leading cause of cancer-related deaths around the world. Recently, a novel emerging nanosystem as anticancer therapeutic agents with intrinsic therapeutic properties has been widely used in various medical applications."

Our news journalists obtained a quote from the research from the University of Jinan, "In this study, surface decoration of functionalized silver nanoparticles (AgNPs) by polyethylenimine (PEI) and paclitaxel (PTX) was synthesized. The purpose of this study was to evaluate the effect of Ag@PEI@PTX on cytotoxic and anticancer mechanism on HepG2 cells. The transmission electron microscope image and 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay showed that Ag@PEI@PTX had satisfactory size distribution and high stability and selectivity between cancer and normal cells. Ag@PEI@PTX-induced HepG2 cell apoptosis was confirmed by accumulation of the sub-G1 cells population, translocation of phosphatidylserine, depletion of mitochondrial membrane potential, DNA fragmentation, caspase-3 activation, and poly(ADP-ribose) polymerase cleavage. Furthermore, Ag@PEI@PTX enhanced cytotoxic effects on HepG2 cells and triggered intracellular reactive oxygen species; the signaling pathways of AKT, p53, and MAPK were activated to advance cell apoptosis."

According to the news editors, the research concluded: "The results reveal that Ag@PEI@PTX may provide useful information on Ag@PEI@PTX-induced HepG2 cell apoptosis and as appropriate candidate for chemotherapy of cancer."


Our news journalists report that additional information may be obtained by contacting T.F. Chen, Jinan Univ, Dept. of Chem, Guangzhou 510632, Guangdong, People's Republic of China. Additional authors for this research include M. Guo, Z.F. Lin, M.Q. Zhao, M.S. Xiao, C.B. Wang, T.T. Xu, T.F. Chen and B. Zhu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/IJN.S122666. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Drugs and Therapies, Paclitaxel Therapy, Mitotic Inhibitors, Organic Chemicals, Pharmaceuticals, Antineoplastics, Cycloparaffins, Cancer Therapy, Hydrocarbons, Apoptosis, Oncology, Genetics, Terpenes, Taxoids, University of Jinan.

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Investigators from University of Lille Report New Data on Kidney Transplants (Long-term outcome after early cyclosporine withdrawal in kidney transplantation: ten years after)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Transplant Medicine - Kidney Transplants are discussed in a new report. According to news reporting from Lille, France, by NewsRx journalists, research stated, "Despite long-term side effects, calcineurin inhibitors (CNI) remain a cornerstone of immunosuppression in renal transplantation. Few trials assessed the long-term outcome after early CNI withdrawal."

The news correspondents obtained a quote from the research from the University of Lille, "This intention-to-treat study assessed the 10-year outcome of 108 patients randomly converted from a cyclosporine (CsA)-mycophenolate mofetil (MMF)-prednisone regimen to a dual therapy (CsA-prednisone or MMF-prednisone) at 3 months postgraft. At 10 years, 3.7% in the CsA group and 35.2% in the MMF group remained on the protocol regimen (P <.001). eGFR was higher in the MMF group (64.4 +/- 21 vs 49.7 +/- 14.7 mL/min/1.73 m(2), P<.001), although acute rejection (12 vs 4 in the CsA group, P=.03) and Class II DSA incidences were increased. CNI-related toxicity (P=.019) and moderate-to-severe IF/TA (P=.004) were increased in the CsA group. Ten-year graft and patient survivals were not different. In multivariate analysis, acute rejection remained the strongest predictor of graft loss (HR=11.64, 95% CI [5.05-26.79], P<.0001). MMF withdrawal largely failed due to CNI toxicity, while CsA withdrawal led to increased graft failure due to uncontrolled acute rejection without increasing graft survival."

According to the news reporters, the research concluded: "From this study, it remains unclear which patients could benefit from limiting CNI exposure."


Our news journalists report that additional information may be obtained by contacting N. Tabibzadeh, University of Lille, UMR 995, F-59000 Lille, France. Additional authors for this research include F. Glowacki, M. Frimat, V. Elsermans, F. Provot, A. Lionet, V. Gnemmi, A. Hertig, C. Noel and M. Hazzan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12843. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lille, France, Europe, Ophthalmic Antiinflammatory Agents, Adrenal Cortical Steroids, Immunosuppressive Agents, Ophthalmic Preparations, Drugs and Therapies, Transplant Medicine, Prednisone Therapy, Kidney Transplants, Organ Transplants, Cyclic Peptides, Pharmaceuticals, Glucocorticoids, Transplantation, Cyclosporins, Cyclosporine, Biomedicine, Hormones, University of Lille.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Investigators from University of Lisbon Target Immunoglobulins
(Integration of cell harvest with affinity-enhanced purification of monoclonal antibodies using aqueous two-phase systems with a dual tag ligand)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immunology - Immunoglobulins are presented in a new report. According to news reporting out of Lisbon, Portugal, by NewsRx editors, research stated, "Monoclonal antibodies (mAbs) are currently the most important class of recombinant protein therapeutics in the biotechnological and biopharmaceutical industry with more than 250 therapeutic mAbs currently undergoing clinical trials. High titer producing cultures and complex mixtures containing high cell densities, together with an increasing growing demand for highly pure mAbs is making recovery and purification processes hot targets for improvement and opens important technological challenges in mAbs manufacturing platforms."

Funders for this research include European Union 7th framework program, Fundacao para a Ciencia e Tecnologia.

Our news journalists obtained a quote from the research from the University of Lisbon, "This work explores the use of an affinity dual ligand based on a choline binding polypeptide tag (C-LytA) fused to the synthetic antibody binding Z domain (LYTAG-Z) in aqueous two-phase systems (ATPS) composed of phase forming polymers able to bind to the choline binding site of C-LytA (polyethylene glycol -PEG- and thermosensitive polymers -EOPO) for mAbs selective extraction. Integration of harvesting and ATPS affinity extraction steps were evaluated with ATPS proving to be an alternative strategy for integrating the clarification and the primary recovery of mAbs."

According to the news editors, the research concluded: "An extraction yield of 89% and a clarification higher than 95% were achieved using a system composed of 7% PEG 3350 and 6% dextran 500,000."

For more information on this research see: Integration of cell harvest with affinity-enhanced purification of monoclonal antibodies using aqueous two-phase systems with a dual tag ligand. Separation and Purification Technology, 2017;173():129-134. Separation and Purification Technology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Separation and Purification Technology - www.journals.elsevier.com/separation-and-purification-technology/)

Our news journalists report that additional information may be obtained by contacting A.M. Azevedo, University of Lisbon, Inst Super Tecn, IBB, Dept. of Bioengn, P-1049001 Lisbon, Portugal. Additional authors for this research include E. Espitia-Saloma, S. Rosa, M. Rito-Palomares, O. Aguilar, M. Arevalo-Rodriguez, M.R. Aires-Barros and A.M. Azevedo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.seppur.2016.09.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lisbon, Portugal, Europe, Immunoglobulins, Blood Proteins, Immunology, Antibodies, University of Lisbon.

Our reports deliver fact-based news of research and discoveries from around the
Investigators from University of Louisiana Have Reported New Data on Breast Cancer (Role of Rac1/WAVE2 Signaling in Mediating the Inhibitory Effects of gamma-Tocotrienol on Mammary Cancer Cell Migration and Invasion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news originating from Monroe, Louisiana, by NewsRx correspondents, research stated, "The majority of breast cancer deaths result from the progression of this disease to a metastatic phenotype. Rac1 and Cdc42 are Rho family members that together with their downstream effectors, Wiskott Aldrich Syndrome protein-family verprolin-homologous protein 2 (WAVE2) and Arp2/3, play an important role in cytoskeletal reorganization and the formation of membrane protrusions that promote cancer cell migration and invasion. gamma-Tocotrienol, is a natural isoform within the vitamin E family of compounds that inhibits breast cancer cell growth and progression by suppressing various signaling pathways involved in mitogenic signaling and metastatic progression."

Our news journalists obtained a quote from the research from the University of Louisiana, "Studies were conducted to examine the effects of gamma-tocotrienol on Rac1/WAVE2 signaling dependent migration and invasion in highly metastatic mouse +SA and human MDA-MB-231 mammary cancer cells. Exposure to gamma-tocotrienol resulted in a dose-responsive decrease in Rac1/WAVE2 signaling as characterized by a suppression in the levels of Rac1/Cdc42, phospho-Rac1/Cdc42, WAVE2, Arp2, and Arp3 expression. Additional studies also demonstrated that similar treatment with gamma-tocotrienol resulted in a significant reduction in tumor cell migration and invasion."

According to the news editors, the research concluded: "Taken together, these findings indicate that gamma-tocotrienol treatment effectively inhibits Rac1/WAVE2 signaling and reduces metastatic phenotypic expression in mammary cancer cells, suggesting that gamma-tocotrienol may provide some benefit as a novel therapeutic approach in the treatment of metastatic breast cancer."


The news correspondents report that additional information may be obtained from P.W. Sylvester, Univ Louisiana Monroe, Sch Pharm, Monroe, LA 71209, United States. Additional authors for this research include V. Dronamraju and P.W. Sylvester.

Keywords for this news article include: Monroe, Louisiana, United States, North and Central America, Women's Health, Breast Cancer, Oncology, University of Louisiana.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Investigators from University of Louisville Target Gynecologic Cancer
(Optimal epidural analgesia for patients diagnosed as having gynecologic cancer undergoing interstitial brachytherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Gynecologic Cancer is now available. According to news reporting out of Louisville, Kentucky, by NewsRx editors, research stated, "To determine the optimal epidural analgesia for patients receiving interstitial brachytherapy (ISBT) for gynecologic cancers. Retrospective analysis. Operating room and hospital ward."

Our news journalists obtained a quote from the research from the University of Louisville, "Seventy-three patients diagnosed as having gynecologic cancer and undergoing ISBT. Twelve patients received ropivacaine alone, 14 patients received ropivacaine with fentanyl, and 45 patients received ropivacaine with hydromorphone by epidural infusion. Numeric Rating Scale pain scores, amounts of nonnarcotic and narcotic pain medications used in intravenous morphine equivalents (IVMEs), and amount of antiemetic or antipruritic medications used. Patients receiving ropivacaine alone had higher pain scores the morning of day 2 (4.2 vs 1.71 vs 0.6, P = .001), the afternoon of day 2 (4.9 vs 2.5 vs 1.7, P = .005), and the night of day 2 (2.4 vs 2.0 vs 0.6, P< .001). Patients receiving opioids in their epidural had lower pain scores on the night of placement (P = .050), the morning of day 2 (P < .001), the afternoon of day 2 (P = .002), and the night of day 2 (P < .001). Patients receiving ropivacaine alone used more oral narcotics than did those receiving ropivacaine with fentanyl or ropivacaine with hydromorphone on day 3 (5.9 vs 3.8 vs 2.8 mg IVME) and received more intravenous opioids day 1 (5.8 vs 0.0 vs 0.7 mg IVME, P = .004) and day 2 (20.6 vs 4.8 vs 1.0 mg IVME, P = .042). There were no differences in antiemetic or diphenhydramine usage at any time point. No epidural complications occurred. For patients receiving ISBT for gynecologic cancer, epidural analgesia provides safe and effective pain control."

According to the news editors, the research concluded: "Combined modality epidural analgesia improves pain control and lessens oral and intravenous opioid requirements without increased risk of adverse effects compared with epidural analgesia with local anesthetic alone."


Our news journalists report that additional information may be obtained by contacting A.K. Amsbaugh, University of Louisville, Dept. of Anesthesia & Perioperat Med, Louisville, KY 40202, United States. Additional authors for this research include M.J. Amsbaugh, M.N. El-Ghamry and B.M. Derhake.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.08.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Louisville, Kentucky, United States, North and Central America, Cancer, Risk and Prevention, Drugs and Therapies, Gynecologic Cancer, Brachytherapy, Radiotherapy, Gynecology, Oncology, Therapy, University of
Drug Resistance

Investigators from University of Malaga Report New Data on Drug Resistance (Molecular Docking Optimization in the Context of Multi-Drug Resistant and Sensitive EGFR Mutants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drug Resistance. According to news reporting from Malaga, Spain, by NewsRx journalists, research stated, "The human Epidermal Growth Factor (EGFR) plays an important role in signaling pathways, such as cell proliferation and migration. Mutations like G719S, L858R, T790M, G719S/T790M or T790M/L858R can alter its conformation, and, therefore, drug responses from lung cancer patients."

The news correspondents obtained a quote from the research from the University of Malaga, "In this context, candidate drugs are being tested and in silico studies are necessary to know how these mutations affect the ligand binding site. This problem can be tackled by using a multi-objective approach applied to the molecular docking problem. According to the literature, few studies are related to the application of multi-objective approaches by minimizing two or more objectives in drug discovery. In this study, we have used four algorithms (NSGA-II, GDE3, SMPSO and MOEA/D) to minimize two objectives: the ligand-receptor intermolecular energy and the RMSD score. We have prepared a set of instances that includes the wild-type EGFR kinase domain and the same receptor with somatic mutations, and then we assessed the performance of the algorithms by applying a quality indicator to evaluate the convergence and diversity of the reference fronts. The MOEA/D algorithm yields the best solutions to these docking problems."

According to the news reporters, the research concluded: "The obtained solutions were analyzed, showing promising results to predict candidate EGFR inhibitors by using this multi-objective approach."

For more information on this research see: Molecular Docking Optimization in the Context of Multi-Drug Resistant and Sensitive EGFR Mutants. Molecules. 2016;21(11):2311-2324. Molecules can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting M.J. Garcia-Godoy, Univ Malaga UMA, Dept. of Comp Sci, Khaos Res Grp, ETSI Informat, Malaga 29071, Spain. Additional authors for this research include E. Lopez-Camacho, J. Garcia-Nieto, A.J. Nebro and J.F. Aldana-Montes.

Keywords for this news article include: Malaga, Spain, Europe, Drugs and Therapies, Drug Resistance, Genetics, University of Malaga.

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Investigators from University of Manchester Release New Data on Cardiovascular Research (Knowledge gaps in the management of familial hypercholesterolaemia. A UK based survey)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Research is the subject of a report. According to news reporting from Manchester, United Kingdom, by NewsRx journalists, research stated, "Untreated individuals with familial hypercholesterolaemia (FH) are at increased risk of developing premature cardiovascular disease (CVD). Early diagnosis and treatment can result in a normal life expectancy."

Funders for this research include National Institute for Health Research, Central Manchester University Hospitals NHS Foundation Trust, Greater Manchester Comprehensive Local Research Network and Lipid Disease Fund.

The news correspondents obtained a quote from the research from the University of Manchester, "A recent survey commissioned by the European Atherosclerosis Society (EAS) reported a lack of awareness of FH in the general population. We conducted a survey to assess knowledge among healthcare professionals involved in the assessment and management of cardiovascular risk and disease in the United Kingdom. A survey designed to assess knowledge of diagnostic criteria, risk assessment, the role of cascade screening, and management options for patients with FH was distributed to 1000 healthcare professionals (response rate 44.3%). The same survey was redistributed following attendance at an educational session on FH. 151 respondents (40.5%) reported having patients under their care who would meet the diagnostic criteria for FH, but just 61.4% recognized that cardiovascular risk estimation tools cannot be applied in FH, and only 22.3% understood the relative risk of premature CVD compared to the general population. Similarly, just 65.9% were aware of recommendations regarding cascade screening. The prevalence and associated risk of FH continue to be underestimated, and knowledge of diagnostic criteria and treatment options is suboptimal. These results support the recent Consensus Statement of the EAS and production of quality standards by the National Institute for Health and Care Excellence."

According to the news reporters, the research concluded: "Further work is required to formulate interventions to improve FH awareness and knowledge, and to determine the effect these interventions have on patient outcomes."

For more information on this research see: Knowledge gaps in the management of familial hypercholesterolaemia. A UK based survey. Atherosclerosis, 2016;252():161-165. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting H. Soran, University of Manchester, Core Technol Facil, Cardiovasc Res Grp, Manchester, Lancs, United Kingdom. Additional authors for this research include S. Kwok, M. France, N. Capps, R. Eatough, R. Yadav, K. Ray and H. Soran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Manchester, United Kingdom, Europe,
Investigators from University of Manitoba Release New Data on Escherichia coli (Bacteria in drinking water sources of a First Nation reserve in Canada)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Escherichia coli. According to news reporting out of Winnipeg, Canada, by NewsRx editors, research stated, "Approximately 20% of the 600 First Nations reserves across Canada are under a drinking water advisory, often due to unacceptable levels of bacteria. In this study, we detected fecal bacteria at an alarmingly high frequency in drinking water sources in a fly-in First Nations community, most notably in buckets/drums of homes without running water where Escherichia coli levels ranged from 20 to 62,000 CFU/100 mL."

Financial support for this research came from Natural Sciences and Engineering Research Council of Canada.

Our news journalists obtained a quote from the research from the University of Manitoba, "The water leaving the water treatment plant was free of E. coli and its free residual chlorine concentration (0.67 mg/L) was within the range typically observed for treated water in Canada. Water samples from taps in homes served by cisterns, and those sampled from the water truck and community standpipe, always showed unacceptable levels of E. coli (1 to 2100 CFU/100mL) and free residual chlorine concentrations below the 0.2 mg/L required to prevent bacterial regrowth. Samples from taps in homes served by piped water had lower levels of E. coli (0 to 2 CFU/100 mL). DNA-and RNA-based 16S rRNA Illumina sequencing demonstrated that piped and cisterns water distribution systems showed an abundance of viable cells of Alphaproteobacteria indicative of biofilm formation in pipes and cisterns. The alpha diversity, based on observed OTUs and three other indices, was lowest in water truck samples that supplied water to the cistern and the low free residual chlorine concentration (0.07 mg/L) and predominance of Betaproteobacteria (63% of viable cells) that were immediately detected after the truck had filled up at the water treatment plant was indicative of contamination by particulate matter. Given these findings, First Nation residents living without running water and relying on inadequate water distribution systems are at higher risk of contracting water-born illnesses."

According to the news editors, the research concluded: "We urge all governments in Canada to expand their investments in supporting and sustaining water as a human right in Canada's First Nations communities."

For more information on this research see: Bacteria in drinking water sources of a First Nation reserve in Canada. Science of the Total Environment, 2017;575():813-819. Science of the Total Environment can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Science of the Total Environment - www.journals.elsevier.com/science-of-the-total-environment/)

Our news journalists report that additional information may be obtained by
contacting A. Farenhorst, University of Manitoba, Dept. of Soil Sci, Winnipeg, MB R3T 2N2, Canada. Additional authors for this research include R. Li, M. Jahan, H.M. Tun, R.D. Mi, I. Amarakoon, A. Kumar and E. Khafipour.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.scitotenv.2016.09.138. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Winnipeg, Manitoba, Canada, North and Central America, Escherichia coli, Risk and Prevention, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Escherichia Coli, Proteobacteria, Genetics, University of Manitoba.

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**Biological Factors - Eicosanoids**

**Investigators from University of Maryland Target Eicosanoids**

*(Prostaglandin E Receptor EP4 expression, survival and pattern of recurrence in locally advanced NSCLC)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biological Factors - Eicosanoids. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Elevated COX-2 expression has been correlated with inferior outcome in NSCLC. COX-2 catalyzes the transformation of arachidonate to PGE(2)."

Financial support for this research came from P.J. Aldridge Foundation.

Our news journalists obtained a quote from the research from the University of Maryland, "We and others have demonstrated that PGE(2) induces proliferation and metastatic spread and immunosuppression through the G protein-coupled EP4 receptor. We hypothesized that EP4 expression on malignant cells would correlate with outcome and patterns of relapse after treatment of LANSCLC stage IIIA (7th edition, N2+). Tissue specimens from 41 pts treated for LANSC at UMGCC were obtained. A tissue microarray was prepared and examined for EP4 expression. Intensity of staining was scored semi-quantitatively as 0-4 in both the nuclear and cytoplasmic compartments by a pathologist blinded to the clinical data. EP4 nuclear staining 0-1 vs. 2+ was associated with overall survival, (OS) (44.3 vs. 18 mo; HR = 0.41, p = 0.024) and numerically superior progression free survival (PFS) (16.4 vs. 10.2 mo, p =0.16). EP4 cytoplasmic staining did not correlate with OS (0-1 vs. 2+, 23.8 vs. 28.8 mo; HR = 1.2, p= 0.81). Relapse pattern (no relapse or local vs. systemic) did not correlate with EP nuclear staining (p = 1.0, X-2). This is the first clinical study of EP4 expression in lung cancer. There was a significant correlation between OS and nuclear EP4 expression, indicating that this is a potential therapeutic target."

According to the news editors, the research concluded: "Studies with AT-007, a specific inhibitor of EP4, are planned to commence this year."

Investigators from University of Massachusetts Release New Data on Clinical Transplants (Functional status predicts postoperative mortality after liver transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Clinical Transplants have been published. According to news reporting from Worcester, Massachusetts, by NewsRx journalists, research stated, "Frail patients are more vulnerable to perioperative stressors of liver transplantation (LT). Program Specific Reports, used in transplant center auditing, risk-adjust for frailty using the Karnofsky Performance Status (KPS) scale."

Financial support for this research came from University of Massachusetts Medical School.

The news correspondents obtained a quote from the research from the University of Massachusetts, "We evaluate the extent to which functional impairment/disability is associated with increased risk of postoperative death. We included 24 505 first-time LT recipients from the Scientific Registry of Transplant Recipients (2006-2011). We categorized patients as Severe, Moderate, or Normal function/disability using the KPS scale and evaluated risk of 30-and 90-day mortality. Analyses took potential center-specific differences in KPS measurement protocols into account using hierarchal logistic modeling. Over one-quarter of our population was Severely impaired/disabled, and 30.5% had no functional limitations. Severely and Moderately impaired/disabled patients had 2.56 (95% CI 1.91-3.44) and 1.40 (95% CI 1.10-1.78) times the odds of 30-day mortality, respectively, after adjusting for key recipient and donor factors. Estimates remained consistent regardless of Model for End-Stage Liver Disease score, medical condition, or clustering analyses by center. Technical/operative complications and multiorgan failure/hemorrhage were more common causes of death among more Severely disabled patients than in higher functioning groups."

According to the news reporters, the research concluded: "Pre-transplant functional status, assessed using the KPS scale, is a reliable predictor of post-LT mortality in the United States."

**Clinical Transplantation** can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Clinical Transplantation - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1399-0012)

Our news journalists report that additional information may be obtained by contacting N.H. Dolgin, University of Massachusetts, Sch Med, Dept. of Surg, Center Outcomes Res, Worcester, MA, United States. Additional authors for this research include P.N.A. Martins, B. Movahedi, K.L. Lapane, F.A. Anderson and A. Bozorgzadeh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12808. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Worcester, Massachusetts, United States, North and Central America, Clinical Transplants, Transplant Medicine, University of Massachusetts.

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**Drugs and Therapies - Platelet Aggregation Inhibitors**

**Investigators from University of Michigan Target Platelet Aggregation Inhibitors (Significant Improvement of Antithrombotic Responses to Clopidogrel by Use of a Novel Conjugate as Revealed in an Arterial Model of Thrombosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Platelet Aggregation Inhibitors are presented in a new report. According to news reporting out of Ann Arbor, Michigan, by NewsRx editors, research stated, "Clopidogrel is a prodrg that requires bioactivation by cytochrome P450 (P450) enzymes to a pharmacologically active metabolite for antiplatelet action. The clinical limitations of clopidogrel are in large part due to its poor pharmacokinetics resulting from inefficient bioactivation by P450s."

Our news journalists obtained a quote from the research from the University of Michigan, "In this study, we determined the pharmacokinetics and pharmacodynamics of a novel conjugate of clopidogrel, referred to as ClopNPT, in animal models and we evaluated its potential to overcome the limitations of clopidogrel. Results from pharmacokinetic (PK) studies showed that ClopNPT released the active metabolite with a time to maximal plasma concentration of < 5 minutes in C57BL/6 mice after either oral or intravenous administration, and plasma concentrations of the active metabolite reached C-max values of 1242 and 1100 ng/ml after a 10-mg/kg oral dose and a 5-mg/kg intravenous dose, respectively. Furthermore, ClopNPT was highly effective in preventing arterial thrombosis in rabbits and mice after vascular injuries. Formation of occlusive thrombi was prevented by ClopNPT at the 1-mg/kg dose with no significant increase in tongue bleeding time, whereas clopidogrel was ineffective at the same dose."

According to the news editors, the research concluded: "These results suggest that ClopNPT has favorable PK/pharmacodynamic properties that can potentially overcome the attenuated PK properties of clopidogrel and thus significantly improve the efficacy of antiplatelet therapy."

For more information on this research see: Significant Improvement of

Our news journalists report that additional information may be obtained by contacting H.M. Zhang, University of Michigan, Sch Med, Dept. of Pharm, Ann Arbor, MI 48109, United States. Additional authors for this research include D.A. Lauver, H. Wang, D.X. Sun, P.F. Hollenberg, Y.E. Chen, Y. Osawa and D.T. Eitzman.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Drugs and Therapies, Risk and Prevention, Platelet Aggregation Inhibitors, Coagulation Modifiers, Antiplatelet Agents, Clopidogrel, University of Michigan.

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**Gram-Negative Bacteria - Brachyspira**

**Investigators from University of Minnesota Report New Data on Brachyspira (Characterization and Recognition of Brachyspira hampsonii sp nov., a Novel Intestinal Spirochete That Is Pathogenic to Pigs)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Brachyspira are discussed in a new report. According to news reporting out of St. Paul, Minnesota, by NewsRx editors, research stated, "Swine dysentery (SD) is a mucos hemorrhagic colitis of swine classically caused by infection with the intestinal spirochete Brachyspira hyodysenteriae. Since around 2007, cases of SD have occurred in North America associated with a different strongly beta-hemolytic spirochete that has been molecularly and phenotypically characterized and provisionally named 'Brachyspira hampsonii.' Despite increasing international interest, B. hampsonii is currently not recognized as a valid species."

Our news journalists obtained a quote from the research from the University of Minnesota, "To support its recognition, we sequenced the genomes of strains NSH-16(T), NSH-24, and P280/1, representing B. hampsonii genetic groups I, II, and III, respectively, and compared them with genomes of other valid Brachyspira species. The draft genome of strain NSH-16T has a DNA G+C content of 27.4% and an approximate size of 3.2 Mb. Genomic indices, including digital DNA-DNA hybridization (dDDH), average nucleotide identity (ANI), and average amino acid identity (AAI), clearly differentiated B. hampsonii from other recognized Brachyspira species. Although discriminated genotypically, the three genetic groups are phenotypically similar. By electron microscopy, cells of different strains of B. hampsonii measure 5 to 10 μm by 0.28 to 0.34 μm, with one or two flat curves, and have 10 to 14 periplasmic flagella inserted at each cell end. Using a comprehensive evaluation of genotypic (gene comparisons and multilocus sequence typing and analysis), genomic (dDDH, ANI, and AAI) and phenotypic (hemolysis, biochemical profiles, protein spectra, antibiogram, and pathogenicity) properties, we classify Brachyspira hampsonii sp. nov. as a unique species with genetically diverse yet phenotypically similar genovars (I, II, and III)."

According to the news editors, the research concluded: "We designate the type strain
NSH-16 (= ATCC BAA-2463 = NCTC 13792)."

For more information on this research see: Characterization and Recognition of Brachyspira hampsonii sp nov., a Novel Intestinal Spirochete That Is Pathogenic to Pigs. Journal of Clinical Microbiology, 2016;54(12):2942-2949. Journal of Clinical Microbiology can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.

Our news journalists report that additional information may be obtained by contacting C.J. Gebhart, University of Minnesota, Coll Vet Med, Vet Diagnost Lab, St Paul, MN 55108, United States. Additional authors for this research include N.D. Phillips, T. La, D.J. Hampson and C.J. Gebhart.

Keywords for this news article include: St. Paul, Minnesota, United States, North and Central America, Gram-Negative Anaerobic Bacteria, Gram-Negative Bacteria, Brachyspira, Genetics, University of Minnesota.

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Nutritional and Metabolic Diseases and Conditions - …

Investigators from University of Mississippi Target Hyperglycemia (Early development of podocyte injury independently of hyperglycemia and elevations in arterial pressure in nondiabetic obese Dahl SS leptin receptor mutant rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Hyperglycemia. According to news reporting out of Jackson, Mississippi, by NewsRx editors, research stated, "The current study examined the effect of obesity on the development of renal injury within the genetic background of the Dahl salt-sensitive rat with a dysfunctional leptin receptor derived from zinc-finger nucleases (SS(LepR)mutant strain). At 6 wk of age, body weight was 35% higher in the SS(LepR)mutant strain compared with SSWT rats and remained elevated throughout the entire study."

Our news journalists obtained a quote from the research from the University of Mississippi, "The SS(LepR)mutant strain exhibited impaired glucose tolerance and increased plasma insulin levels at 6 wk of age, suggesting insulin resistance while SSWT rats did not. However, blood glucose levels were normal throughout the course of the study. Systolic arterial pressure (SAP) was similar between the two strains from 6 to 10 wk of age. However, by 18 wk of age, the development of hypertension was more severe in the SS(LepR)mutant strain compared with SSWT rats (201 +/- 10 vs. 155 +/- 3 mmHg, respectively). Interestingly, proteinuria was substantially higher at 6 wk of age in the SS(LepR)mutant strain vs. SSWT rats (241 +/- 27 vs. 24 +/- 2 mg/day, respectively) and remained elevated until the end of the study. The kidneys from the SS(LepR)mutant strain displayed significant glomerular injury, including podocyte foot process effacement and lipid droplets compared with SSWT rats as early as 6 wk of age. By 18 wk of age, plasma creatinine levels were twofold higher in the SS(LepR)mutant strain vs. SSWT rats, suggesting the presence of chronic kidney disease (CKD)."

According to the news editors, the research concluded: "Overall, these results indicate that the SS(LepR)mutant strain develops podocyte injury and proteinuria independently of hyperglycemia and elevated arterial pressure that later progresses to CKD."

Our news journalists report that additional information may be obtained by contacting J.M. Williams, University of Mississippi, Medical Center, Dept. of Pharmacol & Toxicol, Jackson, MS 39272, United States. Additional authors for this research include L. Taylor, A.C. Johnson, S.P. Didion, A.M. Geurts, M.R. Garrett and J.M. Williams.

Keywords for this news article include: Jackson, Mississippi, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Glucose Metabolism Disorders, Adipokine Receptors, Membrane Proteins, Leptin Receptors, Peptide Proteins, Peptide Hormones, Hyperglycemia, Adipokines, Proinsulin, Bariatrics, Genetics, Obesity, University of Mississippi.

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**Cardiovascular Diseases and Conditions -…**

**Investigators from University of Mississippi Target Hypertension (Associations Between Inflammation and Physical Function in African Americans and European Americans with Prevalent Cardiovascular Risk Factors)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Hypertension. According to news originating from Jackson, Mississippi, by NewsRx correspondents, research stated, "To examine associations between inflammation and physical function and potential mediation by white matter hyperintensities (WMHs) in African Americans (AAs) and European Americans (EAs). Cross-sectional analysis using linear and logistic models with generalized estimating equations to account for family clustering, reporting results as regression coefficients (beta) and odds ratios (ORs) adjusted for education, alcohol, exercise, body mass index, hypertension, diabetes mellitus, heart disease, cognition, ankle-brachial index, race (site), and supported interactions."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from the University of Mississippi, "Genetic Epidemiology Network of Arteriopathy-Genetics of Microangiopathic Brain Injury Study cohort. AA and EA sibships with two or more siblings with hypertension before age 60 (N = 1,960; 65% female, 51% AA, aged 26-91, 50% obese, 72% hypertensive). Inflammation (C-reactive protein (CRP), interleukin-6 (IL6), soluble tumor necrosis factor receptors (sTNFRs) 1 and 2, WMH volume (cm(3)) according to magnetic resonance imaging), walking speed (cm/s) over 25 feet, and mobility difficulty (any self-reported difficulty walking half a mile). In separate models, inflammatory markers were associated with walking speed (sTNFR1: beta = -2.74, P< .001; sTNFR2: beta = -1.23, P = .03; CRP: beta = -1.95, P = .001; IL6: beta = -1.24, P = .03) and mobility difficulty (sTNFR1: OR = 1.36, P = .001; sTNFR2: OR = 1.25, P = .005; CRP: OR = 1.22, P = .005; IL6: OR = 1.18, P = .02); the association between WMH volume and sTNFR1 in AA (beta = 0.07, P = .06) did not reach typical statistical
thresholds. WMH volume was associated with walking speed in AA (beta = -3.17, P = .02) but not with mobility difficulty (OR = 1.10, P = .54). Adjusting for WMH did not change associations. In young, middle-aged, and older adults with prevalent cardiovascular risk factors, multiple inflammatory biomarkers were associated with slower walking speed independent of microvascular disease in the brain. There was little evidence of mediation by brain WMH volume.

According to the news editors, the research concluded: "Inflammation may contribute to physical function impairments through pathways other than brain microvascular disease, particularly in AAs."


The news correspondents report that additional information may be obtained from B.G. Windham, University of Mississippi, Medical Center, Dept. of Med, Div Geriatr, Jackson, MS 39216, United States. Additional authors for this research include S.R. Wilkening, S.T. Lirette, I.J. Kullo, S.T. Turner, M.E. Griswold and T.H. Mosley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgs.14229. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jackson, Mississippi, United States, North and Central America, Cardiovascular Diseases and Conditions, Microvascular Disease, Epidemiology, Risk and Prevention, Inflammation, Hypertension, Cardiology, Genetics, University of Mississippi.

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**Heart Disorders and Diseases - Cardiomyopathies**

**Investigators from University of Murcia Zero in on Cardiomyopathies (Unclassifiable arrhythmic cardiomyopathy associated with Emery-Dreifuss caused by a mutation in FHL1)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Cardiomyopathies are presented in a new report. According to news originating from Murcia, Spain, by NewsRx correspondents, research stated, "Emery-Dreifuss muscular dystrophy (EDMD) is a heterogeneous genetic disorder characterized by peripheral muscular weakness often associated with dilated cardiomyopathy. We characterize clinically a large family with a mutation in FHL1 gene (p.Cys255Ser)."

Our news journalists obtained a quote from the research from the University of Murcia, "Penetrance was 44%, 100% for males and 18% for females. The heart was the main organ involved. Affected adult males had mild hypertrophy, systolic dysfunction and restriction with non-dilated ventricles. Carriers had significant QTc prolongation. The proband presented with resuscitated cardiac arrest. There were two transplants. Pathological study of explanted..."
heart showed fibrofatty replacement and scarring consistent with arrhythmogenic cardiomyopathy and prominent left ventricular trabeculations. Myopathic involvement was evident in all males. Females had no significant neuromuscular disease. Mutations in FHL1 cause unclassifiable cardiomyopathy with coexisting EDMD. Prognosis is poor and systolic impairment and arrhythmias are frequent.

According to the news editors, the research concluded: "Thrombopenia and raised creatine phosphokinase should raise suspicion of an FHL-1 disorder in X-linked cardiomyopathy."


The news correspondents report that additional information may be obtained from M. Sabater-Molina, University of Murcia, Dept. of Internal Med, Murcia, Spain. Additional authors for this research include M. Navarro, F. Martinez, L. Albert, L. Polo, J. Guardiola, E. Garcia-Molina, C. Munoz-Esparza, J.M. Lopez-Ayala, M. Sabater-Molina and J.R. Gimeno.

Keywords for this news article include: Murcia, Spain, Europe, Heart Disorders and Diseases, Genetics, Cardiovascular Diseases and Conditions, Cardiomyopathies, Heart Disease, University of Murcia.

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Investigators from University of Nebraska Target Medical Genetics (The First Patient with Tandem Duplication of 6q14q16: Molecular and Phenotypic Characterization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Genetics - Medical Genetics. According to news originating from Omaha, Nebraska, by NewsRx correspondents, research stated, "Duplications of the long arm of chromosome 6 have been previously reported in a limited number of patients; however, most reported duplications encompass regions of chromosome 6 distal to band q21. Duplications restricted to the proximal portion of 6q are rare."

Our news journalists obtained a quote from the research from the University of Nebraska, "We report an 8-year-old male with a 16.4 megabase (Mb) tandem duplication of chromosome 6q14.1q16.1 (chr6: 7895019195395865; hg19) who exhibited dysmorphic facial features, seizures, global developmental delay, intellectual disability, autism spectrum disorder, sensorineural hearing loss, and immune deficiency. This patient refines and potentially expands the current, poorly-characterized phenotype associated with duplication of this proximal 6q region."

According to the news editors, the research concluded: "We recommend a low threshold for a hearing evaluation beyond newborn screening and for pursuing an immune work-up in patients with similar 6q duplications."

For more information on this research see: The First Patient with Tandem Duplication of 6q14q16: Molecular and Phenotypic Characterization. American Journal of
Investigators from University of North Carolina Target Wellness
(Strength and Comprehensiveness of School Wellness Policies in
Southeastern US School Districts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators discuss new findings in Wellness. According to news
reporting out of Chapel Hill, North Carolina, by NewsRx editors, research stated, "In 2004,
Congress passed legislation mandating that all public school districts participating in federal
school meal programs develop a school wellness policy (SWP) to direct efforts related to
nutrition and physical activity. We examined the extent to which SWPs varied in
comprehensiveness and strength in a representative sample of school districts in the
southeastern United States, the area of the country with the highest rates of childhood obesity."

Funders for this research include Pacific Institute for Research and Evaluation,
Eunice Kennedy Shriver National Institute of Child Health & Human Development of the
National Institutes of Health.

Our news journalists obtained a quote from the research from the University of North
Carolina, "Policies were assessed using an established 96-item coding tool by 2 raters to
ascertain the comprehensiveness and strength of the policies as a whole, and across distinct
subsections specified by federal legislation. In addition, variability in SWP comprehensiveness
and strength was assessed based on district sociodemographic characteristics. Overall, SWPs in
the southeastern states are weakly written, fragmented, and lack requirements necessary for
healthy school environments. District size, which was the only sociodemographic factor related
to policy characteristics, yielded an inverse association."

According to the news editors, the research concluded: "To encourage continued
promotion of healthy school environments, school districts will require technical support to
improve the quality of their school wellness policies."

For more information on this research see: Strength and Comprehensiveness of
2016;86(9):631-637. *Journal of School Health* can be contacted at: Wiley-Blackwell, 111...
Investigators from University of Oslo Have Reported New Data on Cardiology (The correlation between pulsatile intracranial pressure and indices of intracranial pressure-volume reserve capacity: results from ventricular infusion testing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news originating from Oslo, Norway, by NewsRx editors, the research stated, "The objective of this study was to examine how pulsatile and static intracranial pressure (ICP) scores correlate with indices of intracranial pressure-volume reserve capacity, i.e., intracranial elastance (ICE) and intracranial compliance (ICC), as determined during ventricular infusion testing. All patients undergoing ventricular infusion testing and overnight ICP monitoring during the 6-year period from 2007 to 2012 were included in the study."

Our news journalists obtained a quote from the research from the University of Oslo, "Clinical data were retrieved from a quality registry, and the ventricular infusion pressure data and ICP scores were retrieved from a pressure database. The ICE and ICC (= 1/ICE) were computed during the infusion phase of the infusion test. During the period from 2007 to 2012, 82 patients with possible treatment-dependent hydrocephalus underwent ventricular infusion testing within the department of neurosurgery. The infusion tests revealed a highly significant positive correlation between ICE and the pulsatile ICP scores mean wave amplitude (MWA) and rise-time coefficient (RTC), and the static ICP score mean ICP. The ICE was negatively associated with linear measures of ventricular size. The overnight ICP recordings revealed significantly increased MWA (> 4 mm Hg) and RTC (> 20 mm Hg/sec) values in patients with impaired ICC (< 0.5 ml/mm Hg). In this study cohort, there was a significant positive correlation between pulsatile ICP and ICE measured during ventricular infusion testing. In patients with impaired ICC during infusion testing (ICC < 0.5 ml/mm Hg), overnight ICP recordings showed increased pulsatile ICP (MWA > 4 mm Hg, RTC > 20 mm Hg/sec), but not increased mean ICP (< 10-15 mm Hg)."

According to the news editors, the research concluded: "The present data support the assumption that pulsatile ICP (MWA and RTC) may serve as substitute markers of pressure-volume reserve capacity, i.e., ICE and ICC."
For more information on this research see: The correlation between pulsatile intracranial pressure and indices of intracranial pressure-volume reserve capacity: results from ventricular infusion testing. *Journal of Neurosurgery*, 2016;125(6):1493-1503. *Journal of Neurosurgery* can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

The news correspondents report that additional information may be obtained from P.K. Eide, University of Oslo, Fac Med, N-0316 Oslo, Norway.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3171/2015.11.JNS151529. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Norway, Europe, Cardiology, University of Oslo.

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**Nutritional and Metabolic Diseases and Conditions**

**Investigators from University of Oxford Have Reported New Data on Type 2 Diabetes (Assessment of Metformin-Induced Changes in Cardiac and Hepatic Redox State Using Hyperpolarized [1-C-13]Pyruvate)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "Metformin improves cardiovascular outcomes in type 2 diabetes, but its exact mechanisms of action remain controversial. We used hyperpolarized [1-C-13]pyruvate magnetic resonance spectroscopy to determine the effects of metformin treatment on heart and liver pyruvate metabolism in rats in vivo."

Our news journalists obtained a quote from the research from the University of Oxford, "Both oral treatment for 4 weeks and a single intravenous metformin infusion significantly increased the cardiac [1-C-13]lactate:[1-C-13]pyruvate ratio but had no effect on the [1-C-13]bicarbonate + (CO2)-C-13:[1-C-13]pyruvate ratio, an index of pyruvate dehydrogenase flux. These changes were paralleled by a significant increase in the heart and liver cytosolic redox state, estimated from the [lactate]:[pyruvate] ratio but not the whole-cell [NAD(+)][NADH] ratio. Hyperpolarized MRI localized the increase in cardiac lactate to the left ventricular myocardium, implying a direct myocardial effect, though metformin had no effect on systolic or diastolic cardiac function."

According to the news editors, the research concluded: "These findings demonstrate the ability of hyperpolarized pyruvate magnetic resonance spectroscopy to detect metformin-induced changes in cytosolic redox biology, suggest that metformin has a previously unrecognized effect on cardiac redox state, and help to refine the design of impending hyperpolarized magnetic resonance studies in humans."

Membrane Proteins - Toll Like Receptors

Investigators from University of Oxford Zero in on Toll Like Receptors (TLR Adaptor Protein MYD88 Mediates Sensitivity to HDAC Inhibitors via a Cytokine-Dependent Mechanism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Membrane Proteins - Toll Like Receptors have been published. According to news reporting from Oxford, United Kingdom, by NewsRx journalists, research stated, "Histone deacetylase (HDAC) inhibitors have proven useful therapeutic agents for certain hematologic cancers. However, HDAC inhibition causes diverse cellular outcomes, and identification of cancer-relevant pathways within these outcomes remains unresolved."

The news correspondents obtained a quote from the research from the University of Oxford, "In this study, we utilized an unbiased loss-of-function screen and identified the Toll-like receptor (TLR) adaptor protein MYD88 as a key regulator of the antiproliferative effects of HDAC inhibition. High expression of MYD88 exhibited increased sensitivity to HDAC inhibitors; conversely, low expression coincided with reduced sensitivity. MYD88-dependent TLR signaling controlled cytokine levels, which then acted via an extracellular mechanism to maintain cell proliferation and sensitize cells to HDAC inhibition. MYD88 activity was directly regulated through lysine acetylation and was deacetylated by HDAC6. MYD88 was a component of a wider acetylation signature in the ABC subgroup of diffuse large B-cell lymphoma, and one of the most frequent mutations in MYD88, L265P, conferred increased cell sensitivity to HDAC inhibitors. Our study defines acetylation of MYD88, which, by regulating TLR-dependent signaling to cytokine genes, influences the antiproliferative effects of HDAC inhibitors."

According to the news reporters, the research concluded: "Our results provide a possible explanation for the sensitivity of malignancies of hematologic origin to HDAC inhibitor-based therapy."

For more information on this research see: TLR Adaptor Protein MYD88 Mediates Sensitivity to HDAC Inhibitors via a Cytokine-Dependent Mechanism. Cancer Research, 2016;76(23):6975-6987. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting N.B. La Thangue, University of Oxford, Dept. of Oncol, Oxford, United Kingdom.
Investigators from University of Pennsylvania Release New Data on Beckwith-Wiedemann Syndrome (Tumor Screening in Beckwith-Wiedemann Syndrome-To Screen or Not to Screen?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetic Diseases and Conditions - Beckwith-Wiedemann Syndrome. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Beckwith-Wiedemann syndrome (BWS) is the most common imprinting disorder and consequently, one of the most common cancer predisposition disorders. Over the past 20 years, our understanding of the genetics and epigenetics leading to BWS has evolved and genotype/phenotype correlations have become readily apparent."

Our news editors obtained a quote from the research from the University of Pennsylvania, "Clinical management of these patients is focused on omphaloceles, hypoglycemia, macroglossia, hemihypertrophy, and tumor screening. Until recently, the need for tumor screening has been thought to be largely uniform across all genetic and epigenetic causes of BWS. As tumor risk correlates with genetic and epigenetic causes of BWS, several groups have proposed alterations to tumor screening protocols based on the etiology of BWS. However, there are many challenges inherent in adapting screening protocols."

According to the news editors, the research concluded: "Such protocols must accommodate not only the risk based on genetic and epigenetic causes but also the medical cost-benefit of screening, the psychological impact on families, and the social-legal implications of missing a treatable tumor."


The news editors report that additional information may be obtained by contacting J.M. Kalish, University of Pennsylvania, Dept. of Pediat, Perelman Sch Med, Philadelphia, PA 19104, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37881. This DOI is a link to an online electronic document that
Investigators from University of Pittsburgh Release New Data on Pulmonary Fibrosis (Expression of RXFP1 Is Decreased in Idiopathic Pulmonary Fibrosis Implications for Relaxin-based Therapies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Pulmonary Fibrosis is now available. According to news reporting from Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "Relaxin is a hormone that has been considered as a potential therapy for patients with fibrotic diseases. To gauge the potential efficacy of relaxin-based therapies in idiopathic pulmonary fibrosis (IPF), we studied gene expression for relaxin/insulin-like family peptide receptor 1 (RXFP1) in IPF lungs and controls."

The news correspondents obtained a quote from the research from the University of Pittsburgh, "We analyzed gene expression data obtained from the Lung Tissue Research Consortium and correlated RXFP1 gene expression data with cross-sectional clinical and demographic data. We also employed ex vivo donor and IPF lung fibroblasts to test RXFP1 expression in vitro. We tested CGEN25009, a relaxin-like peptide, in lung fibroblasts and in bleomycin injury. We found that RXFP1 is significantly decreased in IPF. In patients with IPF, the magnitude of RXFP1 gene expression correlated directly with diffusing capacity of the lung for carbon monoxide (P < 0.0001). Significantly less RXFP1 was detected in vitro in IPF fibroblasts than in donor controls. Transforming growth factor-beta decreased RXFP1 in both donor and IPF lung fibroblasts. CGEN25009 was effective at decreasing bleomycin-induced, acid-soluble collagen deposition in vivo. The relaxin-like actions of CGEN25009 were abrogated by RXFP1 silencing in vitro, and, in comparison with donor lung fibroblasts, IPF lung fibroblasts exhibited decreased sensitivity to the relaxin-like effects of CGEN25009. IPF is characterized by the loss of RXFP1 expression. RXFP1 expression is directly associated with pulmonary function in patients with IPF. The relaxin-like effects of CGEN25009 in vitro are dependent on expression of RXFP1."

According to the news reporters, the research concluded: "Our data suggest that patients with IPF with the highest RXFP1 expression would be predicted to be most sensitive to relaxin-based therapies."


Our news journalists report that additional information may be obtained by contacting D.J. Kass, University of Pittsburgh, Div Pulm Allergy & Crit Care Med, Pittsburgh,
Heart Disorders and Diseases - Heart Attack

Investigators from University of Pittsburgh Target Heart Attack (Long-term survival benefit from treatment at a specialty center after cardiac arrest)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Attack. According to news originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "The Institute of Medicine and American Heart Association have called for tiered accreditation standards and regionalization of post-cardiac arrest care, but there is little data to support that regionalization has a durable effect on patient outcomes. We tested the effect of treatment at a high-volume center on long-term outcome after sudden cardiac arrest (SCA)."

Our news journalists obtained a quote from the research from the University of Pittsburgh, "We included patients hospitalized at one of 7 medical centers in Southwestern Pennsylvania after SCA from 2005 to 2013. Centers were one regional referral center with an organized systems for post-SCA care, two moderate volume tertiary care centers and 4 low-volume centers. We abstracted clinical characteristics and outcomes at hospital discharge, and for survivors to discharge we queried the National Death Index for long-term survival data. We used Cox regression to determine the unadjusted associations of baseline predictors and survival, and built an adjusted model controlling for baseline predictors. Overall, 987 patients survived to discharge. During 2196 person-years of follow-up, median survival was 5.3 years and there were 396 deaths. In unadjusted analysis, treating center, age, arrest location, Charlson Comorbidity Index, initial rhythm, cardiac catheterization, defibrillator placement, discharge disposition, and neurological status at discharge were associated with long-term outcome. In adjusted analysis, treatment at the high-volume cardiac arrest center was associated with improved survival compared to treatment at other centers (hazards ratio 1.49, 95% confidence interval 1.19-1.86)."

According to the news editors, the research concluded: "Treatment at a high-volume cardiac arrest center with organized systems for post-arrest care is associated with a substantial long-term survival benefit after hospital discharge."

For more information on this research see: Long-term survival benefit from treatment at a specialty center after cardiac arrest. Resuscitation, 2016;108():48-53. Resuscitation can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Resuscitation -
Respiratory Tract Diseases and Conditions

Investigators from University of Sao Paulo Zero in on Respiratory Tract Diseases and Conditions (Effects of Particulate Matter and Its Chemical Constituents on Elderly Hospital Admissions Due to Circulatory and Respiratory Diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Respiratory Tract Diseases and Conditions. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Various fractions of particulate matter have been associated with increased mortality and morbidity. The purpose of our study is to analyze the associations between concentrations of PM2.5, PM2.5-10, PM10 and their chemical constituents (soluble ions) with hospital admissions due to circulatory and respiratory diseases among the elderly in a medium-sized city in Brazil."

Our news journalists obtained a quote from the research from the University of Sao Paulo, "A time series study was conducted using Poisson regression with generalized additive models adjusted for confounders. Statistically significant associations were identified between PM10 and PM2.5-10 and respiratory diseases. Risks of hospitalization increased by 23.5% (95% CI: 13.5; 34.3) and 12.8% (95% CI: 6.0; 20.0) per 10 μg/m(3) of PM2.5-10 and PM10, respectively. PM2.5 exhibited a significant association with circulatory system diseases, with the risk of hospitalization increasing by 19.6% (95% CI: 6.4; 34.6) per 10 μg/m(3). Regarding the chemical species; SO42-, NO3-, NH4+ and K+ exhibited specific patterns of risk, relative to the investigated outcomes. Overall, SO42- in PM2.5-10 and K+ in PM2.5 were associated with increased risk of hospital admissions due to both types of diseases. The results agree with evidence indicating that the risks for different health outcomes vary in relation to the fractions and chemical composition of PM10."

According to the news editors, the research concluded: "Thus, PM10 speciation studies may contribute to the establishment of more selective pollution control policies."

For more information on this research see: Effects of Particulate Matter and Its Chemical Constituents on Elderly Hospital Admissions Due to Circulatory and Respiratory Diseases. *International Journal of Environmental Research and Public Health*, 2016;13 (10):213-223. *International Journal of Environmental Research and Public Health* can be
Investigators from University of South Carolina Zero in on Escherichia coli (The Escherichia coli BoLA Protein IbaG Forms a Histidine-Ligated [2Fe-2S]-Bridged Complex with Grx4)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Escherichia coli. According to news originating from Columbia, South Carolina, by NewsRx correspondents, research stated, "Two ubiquitous protein families have emerged as key players in iron metabolism, the CGFS-type monothiol glutaredoxins (Grxs) and the BoLA proteins. Monothiol Grxs and BoLA proteins form heterocomplexes that have been implicated in Fe-S cluster assembly and trafficking."

Financial support for this research came from National Institute of General Medical Sciences.

Our news journalists obtained a quote from the research from the University of South Carolina, "The Escherichia coli genome encodes members of both of these proteins families, namely, the monothiol glutaredoxin Grx4 and two BoLA family proteins, BoLA and IbaG. Previous work has demonstrated that E. coli Grx4 and BoLA interact as both apo and [2Fe-2S] bridged heterodimers that are spectroscopically distinct from [2Fe-2S]-bridged Grx4 homodimers. However, the physical and functional interactions between Grx4 and IbaG are uncharacterized. Here we show that co-expression of Grx4 with IbaG yields a [2Fe-2S]-bridged Grx4 IbaG heterodimer. In vitro interaction studies indicate that IbaG binds the [2Fe-2S] Grx4 homodimer to form apo Grx4 IbaG heterodimer as well as the [2Fe-2S] Grx4 IbaG heterodimer, altering the cluster stability and coordination environment. Additionally, spectroscopic and mutagenesis studies provide evidence that IbaG ligates the Fe-S cluster via the conserved histidine that is present in all BoLA proteins and by a second conserved histidine that is present in the H/C loop of two of the four classes of BoLA proteins."

According to the news editors, the research concluded: "These results suggest that IbaG may function in Fe-S cluster assembly and trafficking in E. coli as demonstrated for other BoLA homologues that interact with monothiol Grxs."


The news correspondents report that additional information may be obtained from
Investigators from University of Szeged Target Left Ventricular Hypertrophy (Identification of Two Novel LAMP2 Gene Mutations in Danon Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Left Ventricular Hypertrophy have been presented. According to news reporting from Szeged, Hungary, by NewsRx journalists, research stated, "Danon disease is a rare X-linked inherited disorder characterized by massive left ventricular hypertrophy, skeletal muscle dystrophy, and mental retardation. The disease is caused by mutations in the LAMP2 gene encoding for lysosome-associated membrane protein-2."

The news correspondents obtained a quote from the research from the University of Szeged, "Two young male patients with hypertrophic cardiomyopathy, characterized by marked, concentric left ventricular hypertrophy, elevated levels of creatine kinase, and manifest limb-girdle muscular dystrophy in 1 case, were investigated. Genetic screening included direct sequencing of the whole coding sequence of the LAMP2 gene. Genetic analysis identified 2 novel LAMP2 gene mutations. In Family A, a G-A transition (c. 962G > A) leading to a nonsense mutation at codon 321 (p. Trp321Ter), and in Family B, a one-nucleotide insertion (c. 973insC) leading to a full frame-shift (p. Pro324+24X) was detected in exon 8 of the LAMP2 gene. Family screening identified 8 mutation carriers, with 4 nonpenetrant cases and 3 additional, probably affected family members without DNA diagnosis. The cardiac phenotype was hypertrophic cardiomyopathy in all cases, including female mutation carriers. Five disease-related deaths occurred in the families, at an average age of 33 +/- 16 years, which was clearly lower in male than in female patients (28 +/- 7 vs 42 +/- 25 years). A high prevalence of arrhythmias or conduction abnormalities was also observed."

According to the news reporters, the research concluded: "The reported 2 novel LAMP2 gene mutation carrier families, one of them being one of the largest reported to date, highlight the malignant clinical course of Danon disease, characterized by a high rate of disease-related death at an early age and a high prevalence of arrhythmias or conduction abnormalities."

For more information on this research see: Identification of Two Novel LAMP2 Gene Mutations in Danon Disease. Canadian Journal of Cardiology, 2016;32(11):156-163. Canadian Journal of Cardiology can be contacted at: Elsevier Science Inc, 360 Park Ave
Drugs and Therapies - Chemotherapy

**Investigators from University of Texas Medical Branch Target Chemotherapy (The DNA Polymerase Gamma R953C Mutant Is Associated with Antiretroviral Therapy-Induced Mitochondrial Toxicity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Chemotherapy. According to news reporting originating in Galveston, Texas, by NewsRx journalists, research stated, "We found a heterozygous C2857T mutation (R953C) in polymerase gamma (Pol-gamma) in an HIV-infected patient with mitochondrial toxicity."

Funders for this research include HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID), HHS | NIH | National Institute of General Medical Sciences (NIGMS).

The news reporters obtained a quote from the research from the University of Texas Medical Branch, "The R953C Pol-gamma mutant binding affinity for dCTP is 8-fold less than that of the wild type. The R953C mutant shows a 4-fold decrease in discrimination of analog nucleotides relative to the wild type."

According to the news reporters, the research concluded: "R953 is located on the 'O-helix' that forms the substrate deoxynucleoside triphosphate (dNTP) binding site; the interactions of R953 with E1056 and Y986 may stabilize the O-helix and affect polymerase activity."

For more information on this research see: The DNA Polymerase Gamma R953C Mutant Is Associated with Antiretroviral Therapy-Induced Mitochondrial Toxicity. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5608-5611. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting Y.W. Yin, Univ Texas Med Branch, Dept. of Pharmacol & Toxicol, Galveston, TX 77555, United States. Additional authors for this research include A.C. Mislak, Y. Foli, E. Agbosu, V. Bose, S. Bhandari, M.R. Szymanski, C.K. Shumate, Y.W. Yin, K.S. Anderson and E. Paintsil.

The direct object identifier (DOI) for that additional information is:
Investigators from University of Texas Target Small Cell Lung Cancer (Hsp90 Inhibitor Ganetespib Sensitizes Non-Small Cell Lung Cancer to Radiation but Has Variable Effects with Chemoradiation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Small Cell Lung Cancer. According to news reporting out of Houston, Texas, by NewsRx editors, research stated, "HSP90 inhibition is well known to sensitize cancer cells to radiation. However, it is currently unknown whether additional radiosensitization could occur in the more clinically relevant setting of chemoradiation (CRT)."

Our news journalists obtained a quote from the research from the University of Texas, "We used the potent HSP90 inhibitor ganetespib to determine whether it can enhance CRT effects in NSCLC. We first performed in vitro experiments in various NSCLC cell lines combining radiation with or without ganetespib. Some of these experiments included clonogenic survival assay, DNA damage repair, and cell-cycle analysis, and reverse-phase protein array. We then determined whether chemotherapy affected ganetespib radiosensitization by adding carboplatin-paclitaxel to some of the in vitro and in vivo xenograft experiments. Ganetespib significantly reduced radiation clonogenic survival in a number of lung cancer cell lines, and attenuated DNA damage repair with irradiation. Radiation caused G2-M arrest that was greatly accentuated by ganetespib. Ganetespib with radiation also dose-dependently upregulated p21 and downregulated pRb levels that were not apparent with either drug or radiation alone. However, when carboplatin-paclitaxel was added, ganetespib was only able to radiosensitize some cell lines but not others. This variable in vitro CRT effect was confirmed in vivo using xenograft models. Ganetespib was able to potently sensitize a number of NSCLC cell lines to radiation but has variable effects when added to platinum-based doublet CRT."

According to the news editors, the research concluded: "For optimal clinical translation, our data emphasize the importance of preclinical testing of drugs in the context of clinically relevant therapy combinations."

For more information on this research see: Hsp90 Inhibitor Ganetespib Sensitizes Non-Small Cell Lung Cancer to Radiation but Has Variable Effects with Chemoradiation. *Clinical Cancer Research*, 2016;22(23):5876-5886. *Clinical Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - cincancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting S.H. Lin, Univ Texas MD Anderson Canc Center, Dept. of Radiat Oncol, Houston, TX, United States. Additional authors for this research include H. Liu, L.X. Diao, A. Potter, J.H.
Investigators from University of Toledo Target Vesicular Transport Proteins (Differential roles of caveolin-1 in ouabain-induced Na+/K+-ATPase cardiac signaling and contractility)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Membrane Proteins - Vesicular Transport Proteins are presented in a new report. According to news reporting originating from Toledo, Ohio, by NewsRx correspondents, research stated, "Binding of ouabain to cardiac Na+/K+-ATPase initiates cell signaling and causes contractility in cardiomyocytes. It is widely accepted that caveolins, structural proteins of caveolae, have been implicated in signal transduction."

Our news editors obtained a quote from the research from the University of Toledo, "It is known that caveolae play a role in Na+/K+-ATPase functions. Regulation of caveolin-1 in ouabain-mediated cardiac signaling and contractility has never been reported. The aim of this study is to compare ouabain-induced cardiac signaling and contractility in wild-type (WT) and caveolin-1 knockout (cav-1 KO) mice. In contrast with WT cardiomyocytes, ouabain-induced signaling e.g., activation of phosphoinositide 3-kinase-alpha/Akt and extracellular signal-regulated kinases (ERK) 1/2, and hypertrophic growth were significantly reduced in cav-1 KO cardiomyocytes. Interactions of the Na+/K+-ATPase+1-subunit with caveolin-3 and the Na+/K+-ATPase alpha(1)-subunit with PI3K-alpha were also decreased in cav-1 KO cardiomyocytes. The results from cav-1 KO mouse embryonic fibroblasts also proved that cav-1 significantly attenuated ouabain-induced ERK1/2 activation without alteration in protein and cholesterol distribution in caveolae/lipid rafts. Intriguingly, the effect of ouabain induced positive inotropy in vivo (via transient infusion of ouabain, 0.48 nmol/g body wt) was not attenuated in cav-1 KO mice. Furthermore, ouabain (1-100 mu M) induced dose-dependent contractility in isolated working hearts from WT and cav-1 KO mice. The effects of ouabain on contractility between WT and cav-1 KO mice were not significantly different. These results demonstrated differential roles of cav-1 in the regulation of ouabain signaling and contractility."

According to the news editors, the research concluded: "Signaling by ouabain, in contrast to contractility, may be a redundant property of Na+/K+-ATPase."

For more information on this research see: Differential roles of caveolin-1 in ouabain-induced Na+/K+-ATPase cardiac signaling and contractility. *Physiological Genomics*, 2016;48(10):739-748. *Physiological Genomics* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting L.J. Liu, University of Toledo, Coll Med & Life Sci, Center Hypertens & Personalized Med,
Investigators from University of Toronto Report New Data on Biotherapies and Biologicals (Immune-Related Adverse Events Associated with Immune Checkpoint Inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Biotherapies and Biologicals are presented in a new report. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "Immune checkpoint inhibitors (ICIs), including antibodies targeting cytotoxic T-lymphocyte-associated antigen 4 (CTLA-4) and programmed cell death protein-1 (PD-1), have shown durable treatment responses in multiple tumor types by enhancing antitumor immunity."

Financial support for this research came from Ontario Institute for Cancer Research.

Our news journalists obtained a quote from the research from the University of Toronto, "However, removal of self-tolerance can induce autoimmunity and produce a unique immune-driven toxicity profile, termed immune-related adverse events (irAEs). As ICIs gain approval for a growing number of indications, it is imperative clinicians increase their knowledge of and ability to manage irAEs."

According to the news editors, the research concluded: "This review examines the etiology, presentation, kinetics, and treatment of irAEs and aims to provide practical guidance for clinicians."


The news correspondents report that additional information may be obtained from A.R. Hansen, University of Toronto, Dept. of Med, Toronto, ON, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40259-016-0204-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Biotherapies and Biologicals, Drugs and Therapies, Article Review, University of Toronto.
Histology

Investigators from University of Ulsan Have Reported New Data on Histology (Plaque structural stress assessed by virtual histology-intravascular ultrasound predicts dynamic changes in phenotype and composition of untreated coronary artery ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Histology. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "We aimed to determine whether finite element analysis (FEA)-derived plaque structural stress (PSS) analysis can predict serial changes in atheroma volume, type, and tissue composition within a fibroatheroma-containing target segment. Overall, 210 patients (210 untreated coronary artery lesions) underwent serial (baseline and 12-month follow-up) grayscale- and virtual histology (VH)-intravascular ultrasound (IVUS)."

The news reporters obtained a quote from the research from the University of Ulsan, "Baseline PSS was assessed at the minimal lumen and at the maximum necrotic core (NC) sites. Overall, there was a significant decrease in % NC volume. The highest PSS tertile was associated with a smaller on-statin reduction in % NC volume (-1.55 +/- 1.03% in the highest vs. -5.18 +/- 1.12% in the lowest tertile, p = 0.025). Of the 115 lesions with baseline VH-thin cap fibroatheroma (TCFA), 36 (31%) showed persistent VH-TCFA at follow-up. Five of the 95 lesions with baseline thick-cap fibroatheroma evolved into VH-TCFA. Independent predictors of VH-TCFA at follow-up (including persistent and new VH-TCFA) were diabetes mellitus (odds ratio [ OR] -3.87, 95% CI = 1.58-9.47), a large MLA (OR = 1.39, 95% CI = 1.10-1.75), a greater percent atheroma volume (OR = 1.12, 95% CI = 1.05-1.19), VH-TCFA at baseline (OR = 8.01, 95% CI = 2.73-23.50), and a higher superficial PSS at the maximum NC site (OR = 1.02, 95% CI = 1.00-1.03), (all p < 0.05). Independent determinants of the serial change in % NC volume were high-sensitive C-reactive protein (beta = -2.79, 95% CI = -5.31 to -0.27), baseline % NC volume (beta = -0.70, 95% CI = -0.84 to -0.56), and superficial PSS at the maximum NC site (beta = 0.05, 95% CI = 0.01-0.08), (all p < 0.05). An elevated PSS was more likely associated with an increase in atheroma volume, a smaller on-statin reduction in % NC volumes, and the presence of VH-TCFA at follow-up."

According to the news reporters, the research concluded: "Morphologic and hemodynamic assessment by utilizing VH-IVUS may help understand and predict atherosclerotic progression."

For more information on this research see: Plaque structural stress assessed by virtual histology-intravascular ultrasound predicts dynamic changes in phenotype and composition of untreated coronary artery lesions. Atherosclerosis, 2016;254():85-92. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news correspondents report that additional information may be obtained by contacting Y.H. Kim, University of Ulsan, Coll Med, Asan Med Center, Dept. of Cardiol, Seoul, South Korea. Additional authors for this research include H. Ha, J.G. Lee, S.B. Han, G.S. Mintz, J. Kweon, M. Chang, J.H. Roh, P.H. Lee, S.H. Yoon, J.M. Ahn, D.W. Park, S.W. Lee, C.W.
Investigators from University of Washington Release New Data on Adverse Drug Reactions (Use of hydroxyethyl starch in leukocytapheresis procedures does not increase renal toxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Adverse Drug Reactions have been published. According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "Hydroxyethyl starch (HES) is reportedly associated with an increased risk of renal failure and death when used for fluid resuscitation in critically ill patients. HES can be used during therapeutic leukocytapheresis (TL) procedures to enhance cell separation."

Our news journalists obtained a quote from the research from the University of Washington, "The purpose of this study was to evaluate the occurrence of adverse events associated with HES during TL procedures. We performed a retrospective review of patients who underwent TL with and without HES in the period 2009 to 2013 at six academic medical institutions. A difference-in-difference regression analysis was used to estimate the mean change before and after TL in selected outcomes in the HES group relative to the average change in the non-HES group. Selected outcomes included serum creatinine, estimated glomerular filtration rate (eGFR), and white blood cell (WBC) count. A total of 195 patients who underwent 278 TL procedures were studied. We found no significant differences in serum creatinine levels and eGFR on Days 1 and 7 after TL procedure between patients who received and those who did not receive HES. The rate of adverse events and overall and early mortality were similar in both groups. Patients with acute myeloid leukemia who received HES had greater WBC reduction when HES was used. Additionally, patients who received HES had improvement in pulmonary leukostasis symptoms."

According to the news editors, the research concluded: "HES, used at low doses during TL procedures, was not associated with adverse events previously ascribed to its use as a volume expander."


The news correspondents report that additional information may be obtained from M.B. Pagano, University of Washington, Dept. of Lab Med, Seattle, WA 98195, United States. Additional authors for this research include C. Harmon, L. Cooling, L. Connelly-Smith, S.A.
Investigators from University of Washington Release New Data on Congenital Adrenal Hyperplasia (Disorders of Sexual Development in Adult Women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Congenital Diseases and Conditions - Congenital Adrenal Hyperplasia is now available. According to news reporting originating from Seattle, Washington, by NewsRx correspondents, research stated, "Disorders (differences) of sexual development encompass a variety of conditions with atypical development of chromosomal, gonadal, or anatomic sex. Three of the most common differences of sex development conditions include congenital adrenal hyperplasia, complete androgen insensitivity, and Turner syndrome."

Our news editors obtained a quote from the research from the University of Washington, "Obstetrician-gynecologists who care for affected individuals in their practice must be familiar with the genetic, endocrine, and anatomic considerations of the most common conditions to provide optimal care. As women with these conditions transition to adult care, the gynecologist needs to assess the patient's understanding and educate her regarding her diagnosis and ongoing medical care. All of these conditions may affect self-perception, mental health, fertility, sexual function, and bone and cardiovascular health. Women with congenital adrenal hyperplasia need lifelong endocrine management and require genetic counseling before pregnancy. Women with androgen insensitivity syndrome require counseling regarding gonadectomy and hormone replacement therapy and may require vaginal elongation for intercourse. Most women with Turner syndrome experience premature ovarian insufficiency and require long-term estrogen replacement. Women with Turner syndrome often have congenital anomalies and autoimmune disorders, which require regular monitoring and care during adulthood."

According to the news editors, the research concluded: "The purpose of this review is to provide the obstetrician-gynecologist who cares for adult women with the most common disorders (differences) of sexual development conditions an outline of the current recommendations for screening and ongoing health care with particular emphasis on the underlying genetics, management of subfertility, infertility and sexual concerns, approach to hypogonadism, and understanding of associated comorbidities."

For more information on this research see: Disorders of Sexual Development in Adult Women. Obstetrics and Gynecology, 2016;128(5):1162-1173. Obstetrics and Gynecology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Obstetrics and Gynecology - journals.lww.com/greenjournal/pages/default.aspx)

The news editors report that additional information may be obtained by contacting V.
Investigators from University of Washington Report New Data on HIV/AIDS (Changes in Condomless Sex and Serosorting Among Men Who Have Sex With Men After HIV Diagnosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immune System Diseases and Conditions - HIV/AIDS have been presented. According to news reporting from Seattle, Washington, by NewsRx journalists, research stated, "Among men who have sex with men (MSM) diagnosed with HIV, high-risk sexual behaviors may decline in the year after diagnosis. The sustainability of these changes is unknown."

The news correspondents obtained a quote from the research from the University of Washington, "We created a retrospective cohort (Seroconversion Cohort) of MSM attending an STD clinic in Seattle, Washington who tested HIV positive between 2001 and 2013 and had a negative HIV test,2 years before diagnosis. We randomly selected 1000 HIV-negative controls (men who always tested HIV negative) who were frequency-matched to the Seroconversion Cohort based on HIV diagnosis year. 12-month sexual behavior data were collected at each clinic visit. We examined condomless anal intercourse (CAI) with HIV-negative, HIV-positive, and HIV unknown-status partners before diagnosis and up to 4 years thereafter. Of the 26,144 clinic visits where MSM tested for HIV, there were 655 (2.5%) new HIV diagnoses. Of these, 186 (28%) men had previously tested HIV negative and were included in the Seroconversion Cohort. The proportion (of the 186) reporting CAI with HIV-negative partners declined from 73% at diagnosis to 12% after diagnosis (P <0.001), whereas CAI with HIV-positive partners increased (11%-67%; P<0.001). The proportion who serosorted (ie, CAI only with HIV-concordant partners) did not change before or after diagnosis (34%-40%; P = 0.65). These 3 behaviors remained stable for up to 4 years after diagnosis. Among HIV-negative controls, serosorting and CAI with HIV-positive and HIV-negative partners was constant. MSM substantially modify their sexual behavior after HIV diagnosis."

According to the news reporters, the research concluded: "These changes are sustained for several years and may reduce HIV transmission to HIV-uninfected men."

Our news journalists report that additional information may be obtained by contacting C.M. Khosropour, University of Washington, Dept. of Epidemiol, Seattle, WA 98195, United States. Additional authors for this research include J.C. Dombrowski, R.P. Kerani, D.A. Katz, L.A. Barbee and M.R. Golden.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Immune System Diseases and Conditions, Diagnostics and Screening, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, University of Washington.

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Eye Diseases and Conditions - Retinal Vein Occlusion

Investigators from University of Western Australia Report New Data on Retinal Vein Occlusion (Visual Acuity Is Correlated with the Area of the Foveal Avascular Zone in Diabetic Retinopathy and Retinal Vein Occlusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Eye Diseases and Conditions - Retinal Vein Occlusion. According to news reporting originating in Perth, Australia, by NewsRx journalists, research stated, "To determine if the area of the foveal avascular zone (FAZ) is correlated with visual acuity (VA) in diabetic retinopathy (DR) and retinal vein occlusion (RVO). Cross-sectional study. Ninety-five eyes of 66 subjects with DR (65 eyes), branch retinal vein occlusion (19 eyes), and central retinal vein occlusion (11 eyes)."

The news reporters obtained a quote from the research from the University of Western Australia, "Structural optical coherence tomography (OCT; Spectralis, Heidelberg Engineering) and OCT angiography (OCTA; Avanti, Optovue RTVue XR) data from a single visit were analyzed. FAZ area, point thickness of central fovea, central 1-mm subfield thickness, the occurrence of intraretinal cysts, ellipsoid zone disruption, and disorganization of retinal inner layers (DRIL) length were measured. VA was also recorded. Correlations between FAZ area and VA were explored using regression models. Main outcome measure was VA. Mean age was 62.9 +/- 13.2 years. There was no difference in demographic and OCT-derived anatomic measurements between branch retinal vein occlusion and central retinal vein occlusion groups (all P>= 0.058); therefore, data from the 2 groups were pooled together to a single RVO group for further statistical comparisons. Univariate and multiple regression analysis showed that the area of the FAZ was significantly correlated with VA in DR and RVO (all P<= 0.003). The relationship between FAZ area and VA varied with age (P = 0.026) such that for a constant FAZ area, an increase in patient age was associated with poorer vision (rise in logarithm of the minimum angle of resolution visual acuity). Disruption of the ellipsoid zone was significantly correlated with VA in univariate and multiple regression analysis (both P< 0.001). Occurrence of intraretinal cysts, DRIL length, and lens status were significantly correlated with VA in the univariate regression analysis (P <= 0.018) but not the multiple regression analysis (P >= 0.210). Remaining variables evaluated in this study were not predictive of VA (all P>= 0.225). The area of the FAZ is significantly correlated with VA in DR and RVO and this relationship is modulated by patient age."

According to the news reporters, the research concluded: "Further study about FAZ
area and VA correlations during the natural course of retinal vascular diseases and following treatment is warranted."


Our news correspondents report that additional information may be obtained by contacting C. Balaratnasingam, University of Western Australia, Lions Eye Inst, Center Ophthalmol & Visual Sci, Perth, WA, Australia. Additional authors for this research include M. Inoue, S. Ahn, J. McCann, E. Dhrami-Gavazi, L.A. Yannuzzi and K.B. Freund.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ophtha.2016.07.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Perth, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Diagnostics and Screening, Epidemiology, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Retinal Diseases and Conditions, Optical Coherence Tomography, Eye Diseases and Conditions, Embolism and Thrombosis, Retinal Vein Occlusion, Diabetic Angiopathies, Diabetic Retinopathy, Venous Thrombosis, Endocrinology, Ophthalmology, Diabetes, University of Western Australia.

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Central Nervous System Diseases and Conditions -…

**Investigators from University of Wollongong Zero in on Epilepsy (Development and validation of a seizure initiated drug delivery system for the treatment of epilepsy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Epilepsy have been published. According to news reporting out of Wollongong, Australia, by NewsRx editors, research stated, "Delivery of small dosages of anti-epileptic drug (AED) directly into the brain from implantable degradable polymers has been reported to alleviate epilepsy activity in a GAERS animal model, however this system delivers a continuous dose of AED to the brain. We describe here the development of an active drug delivery system whereby AED delivery is initiated by the onset of an epileptic event and controlled by a custom hardware device."

Our news journalists obtained a quote from the research from the University of Wollongong, "The system is comprised of an electrocortigographic (ECoG) data receiver, computational hardware, and a drug delivery component. The system initiates the release of an AED from an electrically conductive polymer when a seizure biomarker is detected above a preset threshold. Evaluation of the system showed that it is possible to vary the quantity of drug released linearly by varying the amount of charge injected into the drug loaded electroactive polymer. In addition it is possible to induce drug release within 10 s of injecting the charge, highlighting the responsive nature of the system."
According to the news editors, the research concluded: "This work demonstrates a significant advance in the development of a device that combines the electronics capable of monitoring ECoG activity, detecting epileptic seizures and initiating drug delivery."

For more information on this research see: Development and validation of a seizure initiated drug delivery system for the treatment of epilepsy. Sensors and Actuators B-Chemical, 2016;236():732-740. Sensors and Actuators B-Chemical can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland.

Our news journalists report that additional information may be obtained by contacting G.G. Wallace, University of Wollongong, ARC Center Excellence Electromat Sci, AIIM Facil, Wollongong, NSW 2522, Australia. Additional authors for this research include Z.L. Yue, S. Ahmadi, W. Ng, W.M. Grosse, M.J. Cook, G.G. Wallace and S.E. Moulton.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.snb.2016.06.038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wollongong, Australia, Australia and New Zealand, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Drug Delivery Systems, Drugs and Therapies, Epilepsy, University of Wollongong.

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Autoimmune Diseases and Conditions - Multiple...

Investigators from University of Zurich Target Multiple Sclerosis (Cancer co-occurrence patterns in Parkinson's disease and multiple sclerosis-Do they mirror immune system imbalances?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Autoimmune Diseases and Conditions - Multiple Sclerosis. According to news reporting from Zurich, Switzerland, by NewsRx journalists, research stated, "To examine the site-specific cancer mortality among deaths registered with Parkinson's disease (PD) and multiple sclerosis (MS). We focused on the patterns related to the most frequent cancers."

The news correspondents obtained a quote from the research from the University of Zurich, "We analyzed Swiss mortality data over a 39-year period (1969-2007), using a statistical approach applicable to unique databases, i.e. when no linkage with morbidity databases or disease registries is possible. It was based on a case-control design with bootstrapping to derive standardized mortality ratios (SMR). The cases were defined by the cancer-PD or cancer-MS co-registrations, whereas the controls were drawn from the remaining records with cancer deaths (matching criteria: sex, age, language region of Switzerland, subperiods 1969-1981, 1982-1994, 1995-2007). For PD we found lower SMRs in lung and liver cancer and higher SMRs in melanoma/skin cancer, and in cancers of breast and prostate. As for MS, the SMR in lung cancer was lower than expected, whereas SMRs in colorectal, breast and bladder cancer were higher. A common pattern of associations can be observed in PD and MS, with a lower risk of lung cancer and higher risk of breast cancer than expected."

According to the news reporters, the research concluded: "Thus, PD and MS resemble other conditions with similar (schizophrenia) or reversed patterns (rheumatoid arthritis, immunosuppression after organ transplantation)."

Our news journalists report that additional information may be obtained by contacting V. Ajdacic-Gross, University of Zurich, Hosp Psychiat, Zurich, Switzerland. Additional authors for this research include S. Rodgers, A. Aleksandrowicz, M. Mutsch, N. Steinemann, V. Von Wyl, R. von Kanel and M. Boppa.

Keywords for this news article include: Zurich, Switzerland, Europe, Autoimmune Diseases and Conditions of the Nervous System, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Basal Ganglia Diseases and Conditions, Demyelinating Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Brain Diseases and Conditions, Hemic and Immune Systems, Parkinsonian Disorders, Cancer, Epidemiology, Risk and Prevention, Parkinson's Disease, Movement Disorders, Multiple Sclerosis, Lung Cancer, Immunology, Oncology, University of Zurich.

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Hematology - Blood Coagulation Factors

Investigators from Vanderbilt University Have Reported New Data on Blood Coagulation Factors (Contributions of Protease-Activated Receptors PAR1 and PAR4 to Thrombin-Induced GPIIbIIIa Activation in Human Platelets)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematology - Blood Coagulation Factors is the subject of a report. According to news reporting out of Nashville, Tennessee, by NewsRx editors, research stated, "Human platelets display a unique dual receptor system for responding to its primary endogenous activator, alpha-thrombin. Because of the lack of efficacious antagonists, the field has relied on synthetic peptides and pepducins to describe protease-activated receptor PAR1 and PAR4 signaling."

Our news journalists obtained a quote from the research from Vanderbilt University, "The precise contributions of each receptor have not been established in the context of thrombin. We took advantage of newly discovered PAR antagonists to contrast the contribution of PAR1 and PAR4 to thrombin-mediated activation of the platelet fibrin receptor (GPIIbIIIa). PAR1 is required for platelet activation at low but not high concentrations of thrombin, and maximal platelet activation at high concentrations of thrombin requires PAR4. As the concentration of thrombin is increased, PAR1 signaling is quickly overcome by PAR4 signaling, leaving a narrow window of low thrombin concentrations that exclusively engage PAR1. PAR4 antagonism reduces the maximum thrombin response by over 50%. Thus, although the PAR1 response still active at higher concentrations of thrombin, this response is superseded by PAR4. Truncation of a known PAR4 antagonist and identification of the minimum pharmacophore converted the mechanism of inhibition from noncompetitive to competitive, such that the antagonist could be outcompeted by increasing doses of the ligand. Fragments retained efficacy against both soluble and tethered ligands with lower cLogP values and an increased free fraction.
in plasma."

According to the news editors, the research concluded: "These reversible, competitive compounds represent a route toward potentially safer PAR4 antagonists for clinical utility and the development of tools such as radioligands and positron emission tomography tracers that are not currently available to the field for this target."

For more information on this research see: Contributions of Protease-Activated Receptors PAR1 and PAR4 to Thrombin-Induced GPIIbIIIa Activation in Human Platelets. *Molecular Pharmacology*, 2017;91(1):39-47. *Molecular Pharmacology* can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

Our news journalists report that additional information may be obtained by contacting H.E. Hamm, Vanderbilt University, Medical Center, Dept. of Pharmacol, Nashville, TN 37232, United States. Additional authors for this research include K.J. Temple, J.G. Maeng, A.L. Blobaum, S.R. Stauffer, C.W. Lindsley and H.E. Hamm.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Blood Coagulation Factors, Enzymes and Coenzymes, Serine Endopeptidases, Transfusion Medicine, Peptide Hydrolases, Blood Transfusion, Hematology, Protease, Thrombin, Vanderbilt University.

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**Cyclohexanes**

**Investigators from Virginia Commonwealth University Report New Data on Cyclohexanes (Effects of the noncompetitive N-methyl-D-aspartate receptor antagonists ketamine and MK-801 on pain-stimulated and pain-depressed behaviour in rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cyclohexanes are discussed in a new report. According to news reporting originating in Richmond, Virginia, by NewsRx journalists, research stated, "Pain is a significant public health concern, and current pharmacological treatments have problematic side effects and limited effectiveness. N-methyl-D-aspartate (NMDA) glutamate receptor antagonists have emerged as one class of candidate treatments for pain because of the significant contribution of glutamate signalling in nociceptive processing."

The news reporters obtained a quote from the research from Virginia Commonwealth University, "This study compared effects of the NMDA receptor antagonists ketamine and MK-801 in assays of pain-stimulated and pain-depressed behaviour in rats. The nonsteroidal anti-inflammatory drug ketoprofen was examined for comparison as a positive control. Intraperitoneal injection of dilute acid served as an acute visceral noxious stimulus to stimulate a stretching response or depress intracranial self-stimulation (ICSS) in male Sprague-Dawley rats. Ketamine (1.0-10.0 mg/kg) blocked acid-stimulated stretching but failed to block acid-induced depression of ICSS, whereas MK-801 (0.01-0.1 mg/kg) blocked both acid-stimulated stretching and acid-induced depression of ICSS. These doses of ketamine and MK-801 did not alter control ICSS in the absence of the noxious stimulus; however, higher doses of ketamine (10 mg/kg) and MK-801 (0.32 mg/kg) depressed all behaviour. Ketoprofen (1.0 mg/kg) blocked both acid-induced stimulation of stretching and depression of ICSS without altering control
ICSS. These results support further consideration of NMDA receptor antagonists as analgesics; however, some NMDA receptor antagonists are more efficacious at attenuating pain-depressed behaviours. What does this study add? NMDA receptor antagonists produce dissociable effects on pain-depressed behaviour.

According to the news reporters, the research concluded: "Provides evidence that pain-depressed behaviours should be considered and evaluated when determining the antinociceptive effects of NMDA receptor antagonists."


Our news correspondents report that additional information may be obtained by contacting T.M. Hillhouse, Virginia Commonwealth University, Dept. of Pharmacol & Toxicol, Richmond, VA 23284, United States.

Keywords for this news article include: Richmond, Virginia, United States, North and Central America, Central Nervous System Agents, Drugs and Therapies, General Anesthetics, Ketamine Therapy, Hydrocarbons, Cyclohexanes, Analgesics, Virginia Commonwealth University.

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**Oncology - Glioblastomas**

**Investigators from Wake Forest University Report New Data on Glioblastomas (Impact of timing of radiotherapy in patients with newly diagnosed glioblastoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Glioblastomas is the subject of a report. According to news reporting originating in Winston Salem, North Carolina, by NewsRx journalists, research stated, "To further evaluate if a delay in the start of radiation therapy (RT) affects patient outcomes for glioblastoma (GBM). From May 1999 to May 2010, a total of 161 patients underwent surgery followed by RT for GBM."

The news reporters obtained a quote from the research from Wake Forest University, "We assessed overall survival (OS) and progression free survival (PFS), stratified by extent of surgical resection. Included in the analysis were genomic predictors of progression. Median time from surgery to start of RT was 20 days for biopsy alone, 28 days for subtotal resection (STR) and 28 days for gross total resection (GTR). For all patients, a delay >28 days did not result in a difference in PFS when compared to no delay (6.7 vs. 6.9 months, p = 0.07). PFS was improved in biopsy or STR patients with a>28 day delay to start of RT (4.2 vs. 6.7 months, p = 0.006). OS was also improved in patients receiving biopsy or STR with a>28 day delay to start of RT (12.3 vs. 7.8 months, p = 0.005). Multivariable analysis (MVA) demonstrated an improvement in OS and PFS with time to RT >28 days for biopsy or STR patients (HR 0.52 p = 0.008 and HR 0.48 p = 0.02, respectively). In this retrospective review of GBM patients treated at a single institution, OS and PFS were not different between time to RT >28 days compared to <28 days."
According to the news reporters, the research concluded: "There was a modest improvement in both PFS and OS in patients who received biopsy or STR with time to RT >28 days."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clineuro.2016.10.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Winston Salem, North Carolina, United States, North and Central America, Operative Surgical Procedures, Glioblastomas, Radiotherapy, Oncology, Genetics, Therapy, Surgery, Biopsy, Wake Forest University.

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**Lung Diseases and Conditions - Acute Lung Injury**

**Investigators from Wuhan University Release New Data on Acute Lung Injury (Liraglutide attenuates lipopolysaccharide-induced acute lung injury in mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Acute Lung Injury is the subject of a report. According to news reporting out of Hubei, People's Republic of China, by NewsRx editors, research stated, "Liraglutide, an effective drug for the treatment of diabetes, has been proven to demonstrate anti-inflammatory and immunomodulatory effects. Hence, this study explored the effects and mechanism of action of liraglutide on lipopolysaccharide (LPS)-induced acute lung injury (ALI) in mice."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Wuhan University, "Male BALB/c mice were pre-conditioned with liraglutide or saline prior to intraperitoneal LPS or saline administration. Histopathological examination of lung, the wet/dry (W/D)weight ratio, protein content, inflammatory cell numbers and pro-inflammatory cytokine levels in broncho-alveolar lavage fluid (BAL fluid) were conducted. The effects of liraglutide on the nucleotide-binding oligomerization domain-like receptor protein 3 (NLRP3) inflammasome signalling pathway were assessed by Western blot. Pre-treatment with liraglutide decreased the wet-to-dry weight ratio and protein concentrations in BAL fluid and neutrophil infiltration in the lung tissues. Liraglutide also significantly reduced the interleukin-1 beta and interleukin-18 levels in BAL fluid, as well as effectively inhibited the expression of NLRP3 inflammasome."
According to the news editors, the research concluded: "These results indicated that liraglutide pre-treatment attenuated LPS-induced ALI by inhibiting the NLRP3 inflammasome pathway."


Our news journalists report that additional information may be obtained by contacting Y.C. Xu, Wuhan University, Zhongnan Hosp, Dept. of Endocrinol, Wuhan 430071, Hubei, People's Republic of China. Additional authors for this research include Y. Zhang, J. Chen, X.M. Hu and Y.C. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.10.016. This DOI is a link to an online electronic document that is either free or for purchase.

Key words for this news article include: Hubei, People's Republic of China, Asia, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Bacterial Polysaccharides, Lipopolysaccharides, Biological Factors, Acute Lung Injury, Bacterial Toxins, Endotoxins, Wuhan University.

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### Genetics

**Investigators from Xuzhou Medical College Release New Data on Genetics (MDM2 oligomers: antagonizers of the guardian of the genome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Genetics are presented in a new report. According to news reporting out of Xuzhou, People's Republic of China, by NewsRx editors, research stated, "Over two decades of MDM2 research has resulted in the accumulation of a wealth of knowledge of many aspects of MDM2 regulation and function, particularly with respect to its most prominent target, p53. For example, recent knock-in mouse studies have shown that MDM2 heterooligomer formation with its homolog, MDMX, is necessary and sufficient in utero to suppress p53 but is dispensable during adulthood."

Our news journalists obtained a quote from the research from Xuzhou Medical College, "However, despite crucial advances such as these, several aspects regarding basic in vivo functions of MDM2 remain unknown. In one such example, although abundant evidence suggests that MDM2 forms homooligomers and heterooligomers with MDMX, the function and regulation of these homo-and heterooligomers in vivo remain incompletely understood."

According to the news editors, the research concluded: "In this review, we discuss the current state of our knowledge of MDM2 oligomerization as well as current efforts to target the MDM2 oligomer as a broad therapeutic option for cancer treatment."

Investigators from Yale University School of Medicine Release New Data on DNA Research (A Mechanistic Model for Colibactin-Induced Genotoxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on DNA Research are discussed in a new report. According to news reporting originating in New Haven, Connecticut, by NewsRx journalists, research stated, "Precolibactins and colibactins represent a family of natural products that are encoded by the clb gene cluster and are produced by certain commensal, extraintestinal, and probiotic E. coli. clb(+) E. coli induce megalocytosis and DNA double-strand breaks in eukaryotic cells, but paradoxically, this gene cluster is found in the probiotic Nissle 1917. Evidence suggests precolibactins are converted to genotoxic colibactins by colibactin peptidase (ClbP)-mediated cleavage of an N-acyl-D-Asnside chain, and all isolation efforts have employed Delta clbP strains to facilitate accumulation of precolibactins."

Financial supporters for this research include Yale University, National Cancer Institute, National Institute of General Medical Sciences.

The news reporters obtained a quote from the research from the Yale University School of Medicine, "It was hypothesized that colibactins form unsaturated imines that alkylate DNA by cyclopropane ring opening (2 -> 3). However, as no colibactins have been isolated, this hypothesis has not been tested experimentally. Additionally, precolibactins A-C (7-9) contain a pyridone that cannot generate the unsaturated imines that form the basis of this hypothesis. To resolve this, we prepared 13 synthetic colibactin derivatives and evaluated their DNA binding and alkylation activity. We show that unsaturated imines, but not the corresponding pyridone derivatives, potently alkylate DNA. The imine, unsaturated lactam, and cyclopropane are essential for efficient DNA alkylation. A cationic residue enhances activity. These studies suggest that precolibactins containing a pyridone are not responsible for the genotoxicity of the clb cluster. Instead, we propose that these are off-pathway fermentation products produced by a facile double cyclodehydration route that manifests in the absence of viable ClbP."

According to the news reporters, the research concluded: "The results presented herein provide a foundation to begin to connect metabolite structure with the disparate phenotypes associated with clb(+) E. coli."

For more information on this research see: A Mechanistic Model for Colibactin-Induced Genotoxicity. Journal of the American Chemical Society, 2016;138(48):15563-15570.
Investigators from Yeungnam University Have Reported New Data on Lung Cancer (Non-invasive visualization of mast cell recruitment and its effects in lung cancer by optical reporter gene imaging and glucose metabolism monitoring)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news originating from Gyongsan, South Korea, by NewsRx correspondents, research stated, "The inability to monitor the in vivo dynamics of mast cells (MCs) limits the better understanding of its role in cancer progression. Here, we report on noninvasive imaging of MC migration to tumor lesions in mice and evaluation of the effects of migrated MCs on tumor progression through reporter gene-based in vivo optical imaging and glucose metabolism monitoring in cancer with F-18-fluorodeoxyglucose (F-18-FDG) in vitro and in vivo."

Our news journalists obtained a quote from the research from Yeungnam University, "Murine MCs (MC-9) and Lewis lung cancer cells (LLC) expressing an enhanced firefly luciferase (effluc) gene were established, termed MC-9/effluc and LLC/effluc, respectively. MC-9/effluc cell migration to LLC tumor lesions was initially detected within 1 h post-transfer and distinct bioluminescence imaging signals emitted from MC-9/effluc cells were observed at tumor sites until 96 h. In vivo optical imaging as well as a biodistribution study with F-18-FDG demonstrated more rapid tumor growth and upregulated glucose uptake potentially associated with MC migration to tumor lesions."

According to the news editors, the research concluded: "These results suggest that the combination of a reporter gene-based optical imaging approach and glucose metabolism status monitoring with F-18-FDG represents a promising tool to better understand the biological role of MCs in tumor microenvironments and to develop new therapeutic drugs to regulate their involvement in enhanced tumor growth."

Erythromycin

Investigators from Yokohama City University Report New Data on Erythromycin (Clarithromycin Suppresses Chloride Channel Accessory 1 and Inhibits Interleukin-13-Induced Goblet Cell Hyperplasia in Human Bronchial Epithelial Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Erythromycin have been presented. According to news originating from Kanagawa, Japan, by NewsRx correspondents, research stated, "Activation of the interleukin-13 (IL-13) receptor leads to signal transducer and activator of transcription 6 (STAT6) activation and subsequent induction of SAM pointed domain containing ETS transcription factor (SPDEF) and chloride channel accessory 1 (CLCA1), increasing secretion of the gel-forming mucin MUC5AC. Activation of the epidermal growth factor receptor (EGFR) also leads to MUC5AC production via extracellular signal-regulated kinase (ERK1/2)."

Financial support for this research came from Yokohama City University Research Fund.

Our news journalists obtained a quote from the research from Yokohama City University, "We examined the effect of clarithromycin IL-13 signaling leading to production. Normal human bronchial epithelial (NHBE) cells were grown for 14 days at an air-liquid interface (ALI) with IL-13 and/or clarithromycin. Histochemical analysis was performed using hematoxylin and eosin (HE) staining and MUC5AC immunostaining. MUC5AC, SPDEF, and CLCA1 mRNA expression were evaluated by real-time PCR. Western analysis was used to assess phosphorylation of STAT6 and ERK1/2. Clarithromycin decreased IL-13-induced goblet cell hyperplasia and MUC5AC mRNA expression in a dose-dependent manner. Clarithromycin decreased IL-13-stimulated SPDEF and CLCA1 mRNA expression in a dose-dependent manner, and at 32 mu g/ml CLCA1 was profoundly decreased (P < 0.001)."

According to the news editors, the research concluded: "Although clarithromycin had no effect on STAT6 phosphorylation induced by IL-13, it decreased constitutive phosphorylation of ERK1/2 (P < 0.05)."

For more information on this research see: Clarithromycin Suppresses Chloride Channel Accessory 1 and Inhibits Interleukin-13-Induced Goblet Cell Hyperplasia in Human Bronchial Epithelial Cells. Antimicrobial Agents and Chemotherapy, 2016;60(11):6585-6590.
St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from M. Shinkai, Yokohama City University, Medical Center, Resp Dis Center, Yokohama, Kanagawa, Japan. Additional authors for this research include M. Shinkai, M. Shinoda, T. Shimokawaji, Y. Kimura, K. Mishina, T. Sato, M. Toda, Y. Inayama, B.K. Rubin and T. Kaneko.

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Keywords for this news article include: Kanagawa, Japan, Asia, Intercellular Signaling Peptides and Proteins, Intestinal Mucosa, Hydrochloric Acid, Membrane Proteins, Chloride Channels, Epithelial Cells, Carrier Proteins, Interleukin-13, Clarithromycin, Goblet Cells, Ion Channels, Interleukins, Erythromycin, Hyperplasia, Chlorides, Cytokines, Genetics, Anions, Yokohama City University.

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Uterine Diseases and Conditions - Endometriosis

Iran University of Medical Sciences Details Findings in Endometriosis
(1,25-Dihydroxy Vitamin D3 Modulates Endometriosis-Related Features of Human Endometriotic Stromal Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Uterine Diseases and Conditions - Endometriosis is the subject of a report. According to news reporting originating from Tehran, Iran, by NewsRx correspondents, research stated, "We aimed to evaluate modulatory effects of vitamin D3 on endometriosis-related features of endometriotic stromal cells. The effect of vitamin D3 on adhesion, invasion, proliferation, apoptosis, cytokine production, and angiogenesis potential of the eutopic (EuESCs), ectopic (EESCs), and control (CESCs) stromal cells from 25 women with and 20 women without endometriosis was investigated."

Financial supporters for this research include Avicenna Research Institute, Mashhad University of Medical Sciences.

Our news editors obtained a quote from the research from the Iran University of Medical Sciences, "In all groups, vitamin D3 significantly increased cell adhesion (p=0.0013-0.042), while decreased invasion (p=0.026-0.031) and proliferation (p=0.0013-0.039) of EESCs and EuESCs. Such treatment also resulted in a significant decrease in IL-6 production by EESCs (p=0.039), but had no significant effect on the IL-8 production. This vitamin also caused significant decrease in Bcl-2 gene expression by EuESCs (p=0.04) and Bcl-xL by EESCs (p=0.044-0.009). In addition, vitamin D3 treatment reduced VEGF-A gene expression by EESCs (p=0.046-0.009)."

According to the news editors, the research concluded: "Based on substantial favourable in vitro effects of vitamin D3 in endometriosis-related features of human endometriotic stromal cells, further investigations on therapeutic potential of this hormone in endometriosis are warranted."

For more information on this research see: 1,25-Dihydroxy Vitamin D3 Modulates

The news editors report that additional information may be obtained by contacting A.A. Delbandi, Immunology Research Center, Iran University of Medical Sciences, Tehran, Iran. Additional authors for this research include M. Mahmoudi, A. Shervin and A.H Zarnani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/aji.12463. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *American Journal of Reproductive Immunology* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Iran, Asia, Tehran, Genetics, Endometriosis, Stromal Cells, Women's Health, Connective Tissue Cells, Uterine Diseases and Conditions, Female Genital Diseases and Conditions, Female Urogenital Diseases and Conditions.

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**Hearing Diseases and Conditions - Hearing Loss**

**Iron deficiency anemia associated with hearing loss**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- In a study published online by JAMA Otolaryngology-Head & Neck Surgery, Kathleen M. Schieffer, B.S., of the Pennsylvania State University College of Medicine, Hershey, Pa., and colleagues examined the association between sensorineural hearing loss and conductive hearing loss and iron deficiency anemia in adults ages 21 to 90 years in the United States.

In 2014, approximately 15 percent of adults reported difficulty with hearing. Because iron deficiency anemia (IDA) is a common and easily correctable condition, further understanding of the association between IDA and all types of hearing loss may help to open new possibilities for early identification and appropriate treatment. For this study, using data obtained from deidentified electronic medical records from the Penn State Milton S. Hershey Medical Center in Hershey, Pa., iron deficiency anemia was determined by low hemoglobin and ferritin levels for age and sex in 305,339 adults ages 21 to 90 years; associations between hearing loss and IDA were evaluated.

Of the patients in the study population, 43 percent were men; average age was 50 years. There was a 1.6 percent prevalence of combined hearing loss (defined as any combination of conductive hearing loss [hearing loss due to problems with the bones of the middle ear], sensorineural hearing loss, deafness, and unspecified hearing loss) and 0.7 percent prevalence of IDA. Both sensorineural hearing loss (SNHL; when there is damage to the cochlea or to the nerve pathways from the inner ear to the brain) (present in 1.1 percent of individuals with IDA) and combined hearing loss (present in 3.4 percent) were significantly associated with IDA. Analysis confirmed increased odds of SNHL and combined hearing loss among adults with IDA.

"An association exists between IDA in adults and hearing loss. The next steps are to better understand this correlation and whether promptly diagnosing and treating IDA may
positively affect the overall health status of adults with hearing loss," the authors write.

Keywords for this news article include: Audiology, Otolaryngology, Iron Deficiency, Hearing Disorders, Sensation Disorders, Iron-Deficiency Anemia, Neurologic Manifestations, The JAMA Network Journals, Sensorineural Hearing Loss, Ear Diseases and Conditions, Hematologic Diseases and Conditions, Nervous System Diseases and Conditions.

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Therapeutics

Isfahan University of Medical Sciences Describes Findings in Therapeutics (Spiritual Well-Being for Increasing Life Expectancy in Palliative Radiotherapy Patients: A Questionnaire-Based Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Therapeutics are presented in a new report. According to news reporting originating in Isfahan, Iran, by NewsRx journalists, research stated, "Spiritual well-being in patients with an advanced cancer has been found to positively correlate with subjective well-being, lower pain levels, hope and positive mood states, high self-esteem, social competence, purpose in life, and overall quality of life. In this regard, Quran recitation is stated to be an efficient way to increase patient spirituality and also to handle life's everyday challenges."

The news reporters obtained a quote from the research from the Isfahan University of Medical Sciences, "The aim of this study was to investigate the effects of listening, reading, and watching the text of the Holy Quran, called (in this study) Quran recitation, for increasing life expectancy (LE) in palliative radiotherapy patients admitted to Radiotherapy Department of Seyed alshohada Hospital, Isfahan, Iran. A questionnaire-based study was carried out on a total of 89 palliative radiotherapy patients between March 2012 and June 2012. Informed consent was obtained. The patients were requested to complete a standardized questionnaire which was designed based on the European Organization for Research and Treatment of Cancer C30 Scale Quality of Life Questionnaire (EORTC C30 Scale QLQ). A computer program (SPSS version 16.0, Chicago, IL, USA) was used, and data were analyzed by the Wilcoxon test and Spearman's rank correlation. All hypotheses were tested using a criterion level of p=0.05. There was a significant difference for frequency and duration of Quran recitation among patients, before and after the diagnosis of their cancer (p=0.03). Using the Spearman's rank correlation, it was found that there was a correlation between Quran recitation and subjective well-being (r=0.352, p <0.001). Moreover, there was a correlation between Quran recitation and increasing LE (r= 0.311, p<0.003). More than 60% of the patients stated that more frequent recitation would lead to more LE and/or greater reassurance. On the basis of the present work, listening, reading, and watching the text of the Holy Quran are useful for increasing LE in palliative radiotherapy patients admitted to Radiotherapy Department."

According to the news reporters, the research concluded: "In other words, a benefit of Quran recitation on outcome of radiotherapy for palliative radiotherapy patients was found."

Oncology - Colon Cancer

Jimenez Diaz Foundation Reports Findings in Colon Cancer (Prognostic role of tissue transglutaminase 2 in colon carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting out of Madrid, Spain, by NewsRx editors, research stated, "Tissue transglutaminase 2 (TG2) is involved in many biological processes, from wound healing to neurodegeneration. Recently, there has been an increasing interest in this enzyme as a potential prognostic marker or therapy target in human neoplasms."

Funders for this research include Juan de la Cierva programme, Comunidad de Madrid (ES).

Our news journalists obtained a quote from the research from Jimenez Diaz Foundation, "The aim of this study was to analyze expression of TG2 messenger RNA (mRNA) and protein in colon cancer samples and to evaluate the potential value of TG2 as prognostic marker. We investigated not only expression level but also location of the protein in a series of human tumors. In silico analysis using the GSE39582 dataset showed that TG2 mRNA expression is associated with earlier relapse. The results of qPCR in our cohort showed TG2 mRNA to be up-regulated in 25 out of 70 samples (34%). Kaplan-Meier plots and log-rank test showed that patients with high TG2 mRNA expression have significantly worse prognosis in terms of overall survival (OS) and a trend to earlier recurrence. Immunohistochemical staining of tumor sections for TG2 revealed stromal staining in 152 cases (88%) and epithelial cell staining in 105 cases (62%). In stage II patients, stromal expression showed a significant association with disease-free survival (DFS). In patients with metastatic disease, TG2 expression was also associated with poor prognosis. Cox multivariate analysis showed that TG2 expression in epithelial cells is significantly and independently associated with OS, together with node involvement and presence of metastasis. Stromal TG2 expression was associated with DFS."

According to the news editors, the research concluded: "In summary, in non-metastatic colorectal cancer patients, stromal TG2 expression is significantly associated with DFS and epithelial TG2 expression with OS, independently of node involvement and
For more information on this research see: Prognostic role of tissue transglutaminase 2 in colon carcinoma. *Virchows Archiv*, 2016;469(6):611-619. *Virchows Archiv* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; *Virchows Archiv* - www.springerlink.com/content/0945-6317/)

Our news journalists report that additional information may be obtained by contacting M. Fernandez-Acenero, Fdn Jimenez Diaz, Madrid, Spain. Additional authors for this research include S. Torres, I. Garcia-Palmero, C.D. del Arco and J.I. Casal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00428-016-2020-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Enzymes and Coenzymes, Aminoacyltransferases, Prognostic Markers, Transglutaminases, Gastroenterology, Colon Cancer, Carcinomas, Oncology, Genetics, Jimenez Diaz Foundation.

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**Organelles**

**Kagoshima University Reports Findings in Organelles (Lysozyme Mutants Accumulate in Cells while Associated at their N-terminal Alpha-domain with the Endoplasmic Reticulum Chaperone GRP78/BiP)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Organelles. According to news reporting out of Kagoshima, Japan, by NewsRx editors, research stated, "Amyloidogenic human lysozyme variants deposit in cells and cause systemic amyloidosis. We recently observed that such lysozymes accumulate in the endoplasmic reticulum (ER) with the ER chaperone GRP78/BiP, accompanying the ER stress response."

Our news journalists obtained a quote from the research from Kagoshima University, "Here we investigated the region of lysozyme that is critical to its association with GRP78/BiP. In addition to the above-mentioned variants of lysozyme, we constructed lysozyme truncation or substitution mutants. These were co-expressed with GRP78/BiP (tagged with FLAG) in cultured human embryonic kidney cells, which were analyzed by western blotting and immunocytochemistry using anti-lysozyme and anti-FLAG antibodies. The amyloidogenic variants were confirmed to be strongly associated with GRP78/BiP as revealed by the co-immunoprecipitation assay, whereas N-terminal mutants pruned of 1-41 or 1-51 residues were found not to be associated with the chaperone. Single amino acid substitutions for the leucine array along the a-helices in the N-terminal region resulted in wild-type lysozyme remaining attached to GRP78/BiP. These mutations also tended to show lowered secretion ability. We conclude that the N-terminal a-helices region of the lysozyme is pivotal for its strong adhesion to GRP78/BiP."

According to the news editors, the research concluded: "We suspect that wild-type lysozyme interacts with the GRP at this region as a step in the proper folding monitored by the ER chaperone."

For more information on this research see: Lysozyme Mutants Accumulate in Cells while Associated at their N-terminal Alpha-domain with the Endoplasmic Reticulum Chaperone GRP78/BiP.
Atrial Fibrillation

Kanazawa University Details Findings in Atrial Fibrillation (Short-term rapid atrial pacing alters the gene expression profile of rat liver: Cardiohepatic interaction in atrial fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Atrial Fibrillation are presented in a new report. According to news originating from Ishikawa, Japan, by NewsRx correspondents, research stated, "Atrial fibrillation (AF) activates the coagulation system, leading to hypercoagulation of the blood. The liver is a major source of prothrombotic molecules."

Our news journalists obtained a quote from the research from Kanazawa University, "This study aimed to clarify whether cardiohepatic interactions are involved in AF-related hypercoagulation. We compared gene expression profiles of human liver tissue between patients with AF and sinus rhythm. An AF model was created by rapid atrial pacing (RAP) at a frequency of 1200 beats/min in anesthetized 10-week-old Sprague-Dawley rats. Livers, atria, and peripheral blood cells were collected and analyzed after 12 hours of RAP. DNA microarray analysis revealed marked changes in the gene expression profile of human liver of patients with AF. The extrinsic prothrombin activation pathway showed the most prominent change in 354 BioCarta pathways. Twelve hours of RAP also markedly altered the gene expression profile of rat liver. RAP markedly augmented the hepatic messenger RNA expression of fibrinogen chains, prothrombin, coagulation factor X, and antithrombin III. The augmented fibrinogen production by RAP was accompanied by increased of interleukin 6 (IL-6) messenger RNA expression in peripheral blood cells, enhanced monocyte chemoattractant protein-1 expression in the liver, infiltrated duster of differentiation 11b-positive mononuclear cells in the liver, and enhanced signal transducer and activator of transcription 3 (STAT3) phosphorylation in the nuclei of hepatocytes. STAT3 phosphorylation and increased fibrinogen and coagulation factor X production by RAP were suppressed by pretreatment with IL-6 neutralizing antibody. Rapid atrial excitation mimicking paroxysmal AF remotely altered the hepatic gene expression of prothrombotic molecules."

According to the news editors, the research concluded: "Increased fibrinogen expression in the liver by RAP was mediated by activation of the IL-6/STAT3 signaling pathway in the peripheral blood and liver."
For more information on this research see: Short-term rapid atrial pacing alters the gene expression profile of rat liver: Cardiohepatic interaction in atrial fibrillation. *Heart Rhythm*, 2016;13(12):2368-2376. *Heart Rhythm* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Heart Rhythm - www.journals.elsevier.com/heart-rhythm/)

The news correspondents report that additional information may be obtained from T. Kato, Kanazawa University, Grad Sch Med Sci, Dept. of Dis Control & Homeostasis, Kanazawa, Ishikawa, Japan. Additional authors for this research include T. Kato, S. Usui, N. Kanamori, H. Furusho, S.I. Takashima, H. Murai, S. Kaneko and M. Takamura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.08.036. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ishikawa, Japan, Asia, Heart Disorders and Diseases, Blood Coagulation Factors, Hematology, Genetics, Acute-Phase Proteins, Atrial Fibrillation, Cardiac Arrhythmias, Protein Precursors, Heart Disease, Prothrombin, Fibrinogen, Kanazawa University.

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**Musculoskeletal Diseases and Conditions - Bone**

**Kanazawa University Reports Findings in Bone Resorption (The Transcriptional Modulator Interferon-Related Developmental Regulator 1 in Osteoblasts Suppresses Bone Formation and Promotes Bone Resorption)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Musculoskeletal Diseases and Conditions - Bone Resorption are presented in a new report. According to news reporting originating in Ishikawa, Japan, by NewsRx journalists, research stated, "Bone homeostasis is maintained by the synergistic actions of bone-resorbing osteoclasts and bone-forming osteoblasts. Although interferon-related developmental regulator 1 (Ifrd1) has been identified as a transcriptional coactivator/repressor in various cells, little attention has been paid to its role in osteoblastogenesis and bone homeostasis thus far."

Financial support for this research came from Ministry of Education, Culture, Sports, Science, and Technology.

The news reporters obtained a quote from the research from Kanazawa University, "Here, we show that Ifrd1 is a critical mediator of both the cell-autonomous regulation of osteoblastogenesis and osteoblast-dependent regulation of osteoclastogenesis. Osteoblast-specific deletion of murine Ifrd1 increased bone formation and decreased bone resorption, causing high bone mass. Ifrd1 deficiency enhanced osteoblast differentiation and maturation along with increased expression of Runx2 and osterix (Osx). Mechanistically, Ifrd1 deficiency increased the acetylation status of p65, a component of NF-kB, at residues K122 and K123 via the attenuation of the interaction between p65 and histone deacetylase (HDAC). This led to the nuclear export of p65 and a decrease in NF-kB-dependent Smad7 expression and the subsequent enhancement of Smad1/Smad5/Smad8-dependent transcription. Moreover, a high bone mass phenotype in the osteoblast-specific deletion of Ifrd1 was markedly rescued by the introduction
of one Osx-floxed allele but not of Runx2-floxed allele. Coculture experiments revealed that Ifrd1-deficient osteoblasts have a higher osteoprotegerin (OPG) expression and a lower ability to support osteoclastogenesis. Ifrd1 deficiency attenuated the interaction between b-catenin and HDAC, subsequently increasing the acetylation of b-catenin at K49, leading to its nuclear accumulation and the activation of the b-catenin-dependent transcription of OPG. Collectively, the expression of Ifrd1 in osteoblasts repressed osteoblastogenesis and activated osteoclastogenesis through modulating the NF-kB/Smad/Osx and b-catenin/OPG pathways, respectively."

According to the news reporters, the research concluded: "These findings suggest that Ifrd1 has a pivotal role in bone homeostasis through its expression in osteoblasts in vivo and represents a therapeutic target for bone diseases."


Our news correspondents report that additional information may be obtained by contacting T. Iezaki, Laboratory of Molecular Pharmacology, Division of Pharmaceutical Sciences, Kanazawa University Graduate School, Kanazawa, Ishikawa, Japan. Additional authors for this research include Y. Onishi, K. Ozaki, K. Fukasawa, Y. Takahata, Y. Nakamura, K. Fujikawa, T. Takarada, Y. Yoneda, Y. Yamashita, G. Shioi and E. Hinoi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jbmr.2720. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Ishikawa, Genetics, Cytokines, Interferons, Macrophages, Osteoblasts, Osteoclasts, Bone Research, Bone Resorption, Connective Tissue Cells, Bone Diseases and Conditions, Musculoskeletal Diseases and Conditions, Intercellular Signaling Peptides and Proteins.

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Photodynamics

Kaohsiung Medical University Reports Findings in Photodynamics (Plasmon-Enhanced Photodynamic Cancer Therapy by Upconversion Nanoparticles Conjugated with Au Nanorods)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Photodynamics is the subject of a report. According to news reporting from Kaohsiung, Taiwan, by NewsRx journalists, research stated, "Photodynamic therapy (PDT) based on photosensitizers (PSs) constructed with nanomaterials has been widely applied to treat cancer. This therapy is characterized by an improved PS accumulation in tumor regions."

Financial supporters for this research include Academia Sinica, Ministry of Science and Technology, Taiwan.

The news correspondents obtained a quote from the research from Kaohsiung Medical University, "However, challenges, such as short penetration depth of light and low
extinction coefficient of PSs, limit PDT applications. In this study, a nanocomposite consisting of NaYF4:Yb/Er upconversion nanoparticles (UCPs) conjugated with gold nanorods (Au NRs) was developed to improve the therapeutic efficiency of PDT. Methylene blue (MB) was embedded in a silica shell for plasmon-enhanced PDT. UCPs served as a light converter from near-infrared (NIR) to visible light to excite MB to generate reactive oxygen species (ROS). Au NRs could effectively enhance upconversion efficiency and ROS content through a localized surface plasmon resonance (SPR) effect. Silica shell thickness was adjusted to investigate the optimized MB loading amount, ROS production capability, and efficient distance for plasmon-enhanced ROS production. The mechanism of plasmon-enhanced PDT was verified by enhancing UC luminescence intensity through the plasmonic field and by increasing the light-harvesting capability and absorption cross section of the system. This process improved the ROS generation by comparing the exchange of Au NRs to Au nanoparticles with different SPR bands. NIR-triggered nanocomposites of UCP@SiO2:MB-NRs were significantly confirmed by improving ROS generation and further modifying folic acid (FA) to develop an active component targeting OE CM-1 oral cancer cells. Consequently, UCP@SiO2:MB-NRs-FA could highly produce ROS and undergo efficient PDT in vitro and in vivo. The mechanism of PDT treatment by UCP@SiO2:MB-NRs-FA was evaluated via the cell apoptosis pathway."

According to the news reporters, the research concluded: "The proposed process is a promising strategy to enhance ROS production through plasmonic field enhancement and thus achieve high PDT therapeutic efficacy."

For more information on this research see: Plasmon-Enhanced Photodynamic Cancer Therapy by Upconversion Nanoparticles Conjugated with Au Nanorods. ACS Applied Materials & Interfaces, 2016;8(47):32108-32119. ACS Applied Materials & Interfaces can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Applied Materials & Interfaces - www.pubs.acs.org/journal/aamick)

Our news journalists report that additional information may be obtained by contacting M. Hsiao, Kaohsiung Medical University, Dept. of Biochem, Coll Med, Kaohsiung, Taiwan. Additional authors for this research include Y.C. Chan, M. Hsiao and R.S. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b07770. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kaohsiung, Taiwan, Asia, Emerging Technologies, Nanotechnology, Biotechnology, Photodynamics, Nanoparticle, Oncology, Therapy, Nanorod, Cancer, Kaohsiung Medical University.

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Dominican Republic Ministry of Tourism

Kickstart your Healthy New Year's Resolutions on a Dominican Republic Fitness Getaway

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- - Dominican Republic's all-inclusive resorts and world-class, white-sand beaches beckon travelers from all over the globe for rest and relaxation. But with the new year calling - and new fitness resolutions for 2017 - travelers should consider jetting to Dominican Republic for a fitness or wellness getaway. From outdoor activities and wellness retreats to
luxurious hotel gyms, there are exercise options for every type of fitness getaway this winter.

"Dominican Republic's wide range of travel options and activities may surprise travelers. Our country is so versatile, not only are we the premier destination for beach vacations, but we have the natural playground and high-quality service perfect for a fitness trip," said Magaly Toribio, marketing advisor for the Dominican Republic Ministry of Tourism. "There are so many exciting attractions to explore, you will stay active no matter where your trip takes you."

Home to both the highest and lowest points above sea level in the Caribbean, the boundless array of outdoor activities will keep your muscles moving. For travelers looking for something less rigorous, yoga classes can be found in tucked-away bungalows. With so much to keep you moving on a wellness getaway in Dominican Republic, you can save the R&R for home.

Keywords for this news article include: Travel, Wellness, Dominican Republic Ministry of Tourism.

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Neurologic Manifestations - Pain
King's College Reports Findings in Pain (Role of extracellular calcitonin gene-related peptide in spinal cord mechanisms of cancer-induced bone pain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Neurologic Manifestations - Pain is now available. According to news reporting originating from Rome, Italy, by NewsRx correspondents, research stated, "Severe pain is a common and debilitating complication of metastatic bone cancer. Current analgesics provide insufficient pain relief and often lead to significant adverse effects."

Our news editors obtained a quote from the research from King's College, "In models of cancer-induced bone pain, pathological sprouting of sensory fibers at the tumor-bone interface occurs concomitantly with reactive astrocytosis in the dorsal horn of the spinal cord. We observed that calcitonin gene-related peptide (CGRP)-fiber sprouting in the bone was associated with an increase in CGRP content in sensory neuron cell bodies in the dorsal root ganglia (DRG) and increased basal and activity-evoked release of CGRP from their central terminals in the dorsal horn. Intrathecal administration of a peptide antagonist (a-CGRP8-37) attenuated referred allodynia in the hind paw ipsilateral to bone cancer. CGRP receptor components (CLR and RAMP1) were up-regulated in dorsal horn neurons and expressed by reactive astrocytes. In primary cultures of astrocytes, CGRP incubation led to a concentration-dependent increase of forskolin-induced cAMP production, which was attenuated by pretreatment with CGRP8-37. Furthermore, CGRP induced ATP release in astrocytes, which was inhibited by CGRP8-37. We suggest that the peripheral increase in CGRP content observed in cancer-induced bone pain is mirrored by a central increase in the extracellular levels of CGRP."

According to the news editors, the research concluded: "This increase in CGRP not only may facilitate glutamate-driven neuronal nociceptive signaling but also act on astrocytic CGRP receptors and lead to release of ATP."

For more information on this research see: Role of extracellular calcitonin gene-

The news editors report that additional information may be obtained by contacting R.R. Hansen, aWolfson Centre for Age-Related Diseases, King's College London, London, UK bCNR, National Research Council, Cell Biology and Neurobiology Institute, Rome, Italy cIRCCS Santa Lucia Foundation, Rome, Italy. Additional authors for this research include V. Vacca, T. Pitcher, A.K. Clark and M. Malcangio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/j.pain.0000000000000416. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Pain, Italy, Cancer, Oncology, Proteomics, Spinal Cord, Bone Research, Neuropeptides, Peptide Hormones, Peptide Proteins, Central Nervous System, Neurologic Manifestations, Calcitonin Gene Related Peptides.

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**Digestive System Diseases and Conditions - Gastritis**

**Kitasato Institute Hospital Reports Findings in Gastritis (First-line eradication for Helicobacter pylori-positive gastritis by esomeprazole-based triple therapy is influenced by CYP2C19 genotype)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Gastritis have been published. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "To evaluate the effect of first line esomeprazole (EPZ)-based triple therapy on *Helicobacter pylori* (*H. pylori*) eradication. A total of 80 Japanese patients with gastritis who were diagnosed as positive for *H. pylori* infection by endoscopic biopsy-based or (13)C-urea breath tests were included in this study."

Our news journalists obtained a quote from the research from Kitasato Institute Hospital, "The average age of the patients was 57.2 years (male/female, 42/38). These patients were treated by first-line eradication therapy with EPZ 40 mg/d, amoxicillin 1500 mg/d, and clarithromycin 400 mg/d for 7 d. All drugs were given twice per day. Correlations between *H. pylori* eradication, CYP2C19 genotype, and serum pepsinogen (PG) level were analyzed. This study was registered with the UMIN Clinical Trials Registry (UMIN000009642). The *H. pylori* eradication rates by EPZ-based triple therapy evaluated by intention-to-treat and per protocol were 67.5% and 68.4%, respectively, which were similar to triple therapies with other first-generation proton pump inhibitors (PPIs). The eradication rates in three different CYP2C19 genotypes, described as extensive metabolizer (EM), intermediate metabolizer, and poor metabolizer, were 52.2%, 72.1%, and 84.6%, respectively. The *H. pylori* eradication rate was significantly lower in EM than non-EM (p <0.05). The serum PG I level and PG I/II ratio were significantly increased after eradication of *H. pylori* (p <0.01), suggesting that gastric atrophy was improved by *H. pylori* eradication. Thus, first-line eradication by EPZ-based triple therapy for patients with *H. pylori*-positive gastritis was influenced by CYP2C19 genotype, and the eradication rate was on the same level with other first-generation PPIs in the Japanese population."

According to the news editors, the research concluded: "The results from this study
suggest that there is no advantage to EPZ-based triple therapy on *H. pylori* eradication compared to other first-generation PPIs."


Our news journalists report that additional information may be obtained by contacting Y. Saito, Yoshimasa Saito, Hiroshi Serizawa, Yukako Kato, Masaru Nakano, Division of Gastroenterology, Kitasato Institute Hospital, Minato-ku, Tokyo 108-8641, Japan. Additional authors for this research include H. Serizawa, Y. Kato, M. Nakano, M. Nakamura, H. Saito, H. Suzuki and T. Kanai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v21.i48.13548. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antihistamines, Antiulcer Agents, Tokyo, Japan, Gastritis, Gastroenteritis, Gastroenterology, Enzyme Inhibitors, Drugs and Therapies, Helicobacter pylori, Esomeprazole Therapy, Epsilonproteobacteria, Gram Negative Bacteria, Proton Pump Inhibitors, Gastrointestinal Agents, Stomach Diseases and Conditions.

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**Oncology - Breast Cancer**

**Kurdistan University of Medical Sciences Reports Findings in Breast Cancer (Association of XRCC1 Trp194 allele with risk of breast cancer, and Ki67 protein status in breast tumor tissues)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting originating from Sanandaj, Iran, by NewsRx correspondents, research stated, "To evaluate the role of this polymorphism as a risk factor for breast cancer in Kurdish patients and to investigate the possible association between Arg194Trp x-ray repair cross-complementing group 1 (XRCC1) gene polymorphisms with clinical and histopathological outcomes of patients with breast cancer. A total of 100 breast cancer patients and 200 cancer-free controls in Kurdish population of Kurdistan state admitted to Tohid Hospital, Sanandaj, Kurdistan, Iran between January 2012 and May 2015 were enrolled in this cross-sectional study."

Our news editors obtained a quote from the research from the Kurdistan University of Medical Sciences, "Tissue expression of estrogen receptor (ER), progesteron receptor (PR), human epidermal growth factor receptor 2 (Her2/neu), and Ki67 were evaluated by immunohistochemistry (IHC). The Arg194Trp genotypes were determined by polymerase chain reaction-restriction fragment length polymorphism method. Our data showed that the risk for breast cancer increased significantly among the Trp variant of XRCC1. Statistically significant association was found between codon 194 polymorphisms and tissue expression of Ki67. The Trp allele of codon 194 XRCC1 is a potential risk factor for breast cancer in Kurdish ethnicity."

According to the news editors, the research concluded: "Furthermore, effect of this
polymorphism on clinical and histological features of breast cancer was significant."


The news editors report that additional information may be obtained by contacting M. Abdi, Kurdistan Univ Med Sci, Fac Med, Dept. of Clin Biochem, Sanandaj, Iran. Additional authors for this research include B. Ghaderi, S. Amini, M. Abdi and D. Roshani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.15537/smj.2016.6.13540. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sanandaj, Iran, Asia, Breast Ductal Carcinoma, Risk and Prevention, Women's Health, Breast Cancer, Oncology, Genetics, Kurdistan University of Medical Sciences.

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Membrane Proteins - Antimicrobial Cationic Peptides

La Trobe University Reports Findings in Antimicrobial Cationic Peptides
[Human b-defensin 3 contains an oncolytic motif that binds PI(4,5)P2 to mediate tumour cell permeabilisation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Membrane Proteins - Antimicrobial Cationic Peptides. According to news reporting originating in Melbourne, Australia, by NewsRx journalists, research stated, "Cationic antimicrobial peptides (CAPs), including taxonomically diverse defensins, are innate defense molecules that display potent antimicrobial and immunomodulatory activities. Specific CAPs have also been shown to possess anticancer activities; however, their mechanisms of action are not well defined."

The news reporters obtained a quote from the research from La Trobe University, "Recently, the plant defensin NaD1 was shown to induce tumor cell lysis by directly binding to the plasma membrane phosphoinositide, phosphatidylinositol 4,5-bisphosphate (PI(4,5)P2). The NaD1-lipid interaction was structurally defined by X-ray crystallography, with the defensin forming a dimer that binds PI(4,5)P2 via its cationic b2-b3 loops in a 'cationic grip' conformation. In this study, we show that human b-defensin 3 (HBD-3) contains a homologous b2-b3 loop that binds phosphoinositides. The binding of HBD-3 to PI(4,5)P2 was shown to be critical for mediating cytolysis of tumor cells, suggesting a conserved mechanism of action for defensins across diverse species."

According to the news reporters, the research concluded: "These data not only identify an evolutionary conservation of CAP structure and function for lipid binding, but also suggest that PIP-binding CAPs could be exploited for novel multifunction therapeutics."

For more information on this research see: Human b-defensin 3 contains an oncolytic motif that binds PI(4,5)P2 to mediate tumour cell permeabilisation. Oncotarget, 2016;7 (2):2054-69.

Our news correspondents report that additional information may be obtained by contacting T.K. Phan, Dept. of Biochemistry and Genetics, La Trobe Institute for Molecular
Science, La Trobe University, Melbourne, Victoria, 3086, Australia. Additional authors for this research include F.T. Lay, I.K. Poon, M.G. Hinds, M. Kvansakul and M.D Hulett.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6520. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antimicrobial Cationic Peptides, Melbourne, Defensins, Membrane Proteins, Australia and New Zealand.

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Gram-Negative Bacteria - Klebsiella

Laboratory of Clinical Microbiology Reports Findings in Klebsiella (First clinical cases of NDM-1-producing Klebsiella pneumoniae from two hospitals in Bulgaria)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Klebsiella are discussed in a new report. According to news reporting originating in Sofia, Bulgaria, by NewsRx journalists, research stated, "We report the first confirmed cases of NDM-1-producing Klebsiella pneumoniae infections in two hospitals in Bulgaria. The isolates were diverse in terms of plasmid and co-resistance gene content. K. pneumoniae PR2682, causing sepsis in patient with polytrauma due to traffic accident, harbored bla(NDM-1), bla(CMY-4), bla(CTX-M-15), bla(SHV-1), bla(TEM-1b), qnrB, and aac(6')-Ib. bla(NDM-1) was transferable by conjugation and located on an IncA/C plasmid of 176-kb, which also carried bla(CMY-4), bla(CTX-M-15), bla(TEM-1b), and qnrB. K. pneumoniae PR2830, causing urinary tract infection in prostate cancer patient, harbored bla(NDM-1), bla(SHV-1), bla(TEM-1), and aac(6')-Ib. bla(NDM-1) was carried on an 86-kb IncA/C plasmid transferable by conjugation together with bla(TEM-1), and aac(6')-Ib."

The news reporters obtained a quote from the research from the Laboratory of Clinical Microbiology, "Multilocus sequence typing indicated that the two isolates belonged to sequence type ST11. The emergence of NDM-1-producing K. pneumoniae indicates that bla(NDM-1)-mediated resistance is already disseminated among Enterobacteriaceae in Bulgaria."

According to the news reporters, the research concluded: "Our results further confirm the role of the Balkans as a secondary reservoir where NDM-encoding genes originate."

For more information on this research see: First clinical cases of NDM-1-producing Klebsiella pneumoniae from two hospitals in Bulgaria. Journal of Infection and Chemotherapy, 2016;22(12):837-840. Journal of Infection and Chemotherapy can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/) Our news correspondents report that additional information may be obtained by contacting B. Todorova, Natl Oncol Center SHATO, Lab Clin Microbiol, Sofia 1756, Bulgaria. Additional authors for this research include S. Sabtcheva, I.N. Ivanov, M. Lesseva, T. Chalashkanov, M. Ioneva, A. Bachvarova, E. Dobreva and T. Kantardjiev.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.03.014. This DOI is a link to an online electronic document that is either free or for purchase.
Lancaster University Reports Findings in Behavioural Pharmacology
(How cognitive biases can distort environmental statistics: introducing the rough estimation task)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Behavioural Pharmacology have been presented. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "The purpose of this study was to develop a novel behavioural method to explore cognitive biases. The task, called the Rough Estimation Task, simply involves presenting participants with a list of words that can be in one of three categories: appetitive words (e.g. alcohol, food, etc.), neutral related words (e.g. musical instruments) and neutral unrelated words."

Our news editors obtained a quote from the research from Lancaster University, "Participants read the words and are then asked to state estimates for the percentage of words in each category. Individual differences in the propensity to overestimate the proportion of appetitive stimuli (alcohol-related or food-related words) in a word list were associated with behavioural measures (i.e. alcohol consumption, hazardous drinking, BMI, external eating and restrained eating, respectively), thereby providing evidence for the validity of the task. The task was also found to be associated with an eye-tracking attentional bias measure."

According to the news editors, the research concluded: "The Rough Estimation Task is motivated in relation to intuitions with regard to both the behaviour of interest and the theory of cognitive biases in substance use."

For more information on this research see: How cognitive biases can distort environmental statistics: introducing the rough estimation task. Behavioural Pharmacology, 2016;27(2-3 Spec I):165-72. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

The news editors report that additional information may be obtained by contacting T.D. Wilcockson, aDept. of Psychology, Lancaster University, Bailrigg, Lancaster bDept. of Psychology, City University, London, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000214. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, United Kingdom, Drugs and Therapies, Behavioural Pharmacology.

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Leiden University Details Findings in Congenital Heart Defects (Head growth in fetuses with isolated congenital heart defects: lack of influence of aortic arch flow and ascending aorta oxygen saturation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Congenital Diseases and Conditions - Congenital Heart Defects are presented in a new report. According to news reporting originating from Leiden, Netherlands, by NewsRx correspondents, research stated, "Congenital heart defects (CHDs) are associated with a smaller fetal head circumference (HC) and neurodevelopmental delay. Recent studies suggest that altered intrauterine brain hemodynamics may explain these findings."

Our news editors obtained a quote from the research from Leiden University, "Our objectives were to evaluate the pattern of head growth in a large cohort of fetuses with various types of CHD, analyze these patterns according to the type of CHD and estimate the effect of cerebral hemodynamics with advancing gestation in the second and third trimesters. Singleton fetuses with an isolated CHD were selected from three fetal medicine units (n = 436). Cases with placental insufficiency or genetic syndromes were excluded. CHD types were clustered according to the flow and oxygen saturation in the aorta. Z-scores of biometric data were constructed using growth charts of a normal population. HCat different gestational ages was evaluated and univariate and multivariate mixed regression analyses were performed to examine the patterns of prenatal HC growth. Fetuses with severe and less severe types of CHD demonstrated statistically significant HC growth restriction with increasing gestational age (slope of -0.017/day); however, there was no statistically significant effect of fetal hemodynamics on HC growth. Fetuses with CHD but normal brain oxygenation and normal aortic flow showed a significant decrease in HC growth (slope of -0.024/day). Only fetuses with isolated tetralogy of Fallot demonstrated a smaller HC z-score at 20 weeks of gestation (-0.67 (95% CI, -1.16 to -0.18)). Despite the decline in head growth in fetuses with a prenatally detected isolated CHD, HC values were within the normal range, raising the question of its clinical significance. Furthermore, in contrast to other studies, this large cohort did not establish a significant correlation between aortic flow or oxygen saturation and HC growth."

According to the news editors, the research concluded: "Factors other than altered fetal cerebral hemodynamics may contribute to HC growth restriction with increasing gestational age, such as (epi) genetic or placental factors."


The news editors report that additional information may be obtained by contacting F.A.R. Jansen, Leiden University, Medical Center, Dept. of Obstet & Fetal Med, Leiden, Netherlands. Additional authors for this research include E.W. Van Zwet, M.E.B. Rijlaarsdam, E. Pajkrt, C.L. Van Velzen, H.R. Zuurveen, A. Kragt, C.L. Bax, S.A.B. Clur, J.M.M. Van Lith, N.A. Blom and M.C. Haak.

Keywords for this news article include: Leiden, Netherlands, Europe, Congenital Diseases and Conditions, Heart Disorders and Diseases, Congenital Heart Defects,
Lund University Details Findings in Type 2 Diabetes (HDAC7 is overexpressed in human diabetic islets and impairs insulin secretion in rat islets and clonal beta cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news originating from Malmo, Sweden, by NewsRx correspondents, research stated, "Pancreatic beta cell dysfunction is a prerequisite for the development of type 2 diabetes. Histone deacytilyases (HDACs) may affect pancreatic endocrine function and glucose homeostasis through alterations in gene regulation."

Financial supporters for this research include Wallenberg KAW, Swedish Research Council, Strategic Research Area grant.

Our news journalists obtained a quote from the research from Lund University, "Our aim was to investigate the role of HDAC7 in human and rat pancreatic islets and clonal INS-1 beta cells (INS-1 832/13). To explore the role of HDAC7 in pancreatic islets and clonal beta cells, we used RNA sequencing, mitochondrial functional analyses, microarray techniques, and HDAC inhibitors MC1568 and trichostatin A. Using RNA sequencing, we found increased HDAC7 expression in human pancreatic islets from type 2 diabetic compared with non-diabetic donors. HDAC7 expression correlated negatively with insulin secretion in human islets. To mimic the situation in type 2 diabetic islets, we overexpressed Hdad7 in rat islets and clonal beta cells. In both, Hdad7 overexpression resulted in impaired glucose-stimulated insulin secretion. Furthermore, it reduced insulin content, mitochondrial respiration and cellular ATP levels in clonal beta cells. Overexpression of Hdad7 also led to changes in the genome-wide gene expression pattern, including increased expression of Tcf7l2 and decreased expression of gene sets regulating DNA replication and repair as well as nucleotide metabolism. In accordance, Hdad7 overexpression reduced the number of beta cells owing to enhanced apoptosis. Finally, we found that inhibiting HDAC7 activity with pharmacological inhibitors or small interfering RNA-mediated knockdown restored glucose-stimulated insulin secretion in beta cells that were overexpressing Hdad7. Taken together, these results indicate that increased HDAC7 levels caused beta cell dysfunction and may thereby contribute to defects seen in type 2 diabetic islets."

According to the news editors, the research concluded: "Our study supports HDAC7 inhibitors as a therapeutic option for the treatment of type 2 diabetes."

For more information on this research see: HDAC7 is overexpressed in human diabetic islets and impairs insulin secretion in rat islets and clonal beta cells. *Diabetologia*, 2017;60(1):116-125. *Diabetologia* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Diabetologia - www.springerlink.com/content/0012-1866/)

The news correspondents report that additional information may be obtained from C. Ling, Lund University, Center Diabet, Dept. of Clin Sci, Epigenet & Diabet UnitCRC, S-20502 Malmo, Sweden. Additional authors for this research include K. Bacos, M. Bysani, A. Bagge, E.O. Laakso, P. Vikman, L. Eliasson, H. Mulder and C. Ling.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00125-016-4113-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Malmo, Sweden, Europe, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Risk and Prevention, Pancreas, Genetics, Gastroenterology, Peptide Proteins, Peptide Hormones, Type 2 Diabetes, Endocrinology, Proinsulin, Lund University.

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Biomedical Engineering - Tissue Engineering

Magnetic stem cells for gene engineering

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Scientists from the Tomsk Polytechnic University's Laboratory of Novel Dosage are developing a technology to control mesenchymal stem cells of patients. The technology will allow treating cancer more effective. To fight cancer cells the scientists suggest using the patient's own magnet controlled cells. Native body cells won't be rejected by its immune system and can deliver medication directly into the center of the disease.

The development of magnetic cells is jointly carried out by Tomsk Polytechnic University (TPU) and colleagues from Pavlov State Medical University of St. Petersburg and Queen Mary University of London.

The novel technology implies that mesenchymal stem cells (MSCs) of the patient's body with the size of about 10 microns are internationalized with magnetic controlled microcapsules with drug inside. External trigging (magnet) targets cells to tumor; make microcontainers open and release encapsulated compound. Thus, drug is precisely delivered affecting cancer cells and without causing harm to health.

"Mesenchymal stem cells are inherently able to migrate toward tumors. They also can differentiate under control into mesodermal cell types of bone, fat, cartilage, muscle or connective tissue in vivo and in vitro. Therefore, MSCs are very attractive for researchers and practical physicians to apply them in substitute therapy, gene or cell engineering," says one of the development's co-authors Alexander Timin, JRF at the Novel Dosage Laboratory, RASA Center at TPU.

For the first time, the scientists have demonstrated the efficiency of internationalization of magnetic microcapsules by MSCs to functionalize cells and to design magnetic controlled cells and tissue engineering systems.

"It is interesting to note MSCs exhibit a high capability to internationalize (capture) microcapsules without significant toxicity compared to other cell lines described in the literature. As a result of magnetic capsules internalization by MSCs we create a new cell engineering platform which is responsive to external magnetic field to control cell migration. This way magnetization of MSCs enables magnetic sorting of cells and form a cell spheroid out of tens of thousands of MSCs. Also, the obtained results can be further used to create a next generation cell-modified platform for efficient targeted delivery ex vivo," the authors note.

The scientists have published their results in Advanced Healthcare Materials (IF 5.75).

Keywords for this news article include: Biotechnology, Biomedical Engineering - Tissue Engineering, Biomedicine, Cancer, Genetics, Oncology, Bioengineering, Gene
**Massachusetts Institute of Technology Details Findings in Immunotherapy (Eradication of large established tumors in mice by combination immunotherapy that engages innate and adaptive immune responses)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Immunotherapy are discussed in a new report. According to news reporting out of Cambridge, Massachusetts, by NewsRx editors, research stated, "Checkpoint blockade with antibodies specific for cytotoxic T lymphocyte-associated protein (CTLA)-4 or programmed cell death 1 (PDCD1; also known as PD-1) elicits durable tumor regression in metastatic cancer, but these dramatic responses are confined to a minority of patients. This suboptimal outcome is probably due in part to the complex network of immunosuppressive pathways present in advanced tumors, which are unlikely to be overcome by intervention at a single signaling checkpoint."

Our news journalists obtained a quote from the research from the Massachusetts Institute of Technology, "Here we describe a combination immunotherapy that recruits a variety of innate and adaptive immune cells to eliminate large tumor burdens in syngeneic tumor models and a genetically engineered mouse model of melanoma; to our knowledge tumors of this size have not previously been curable by treatments relying on endogenous immunity. Maximal antitumor efficacy required four components: a tumor-antigen-targeting antibody, a recombinant interleukin-2 with an extended half-life, anti-PD-1 and a powerful T cell vaccine. Depletion experiments revealed that CD8(+) T cells, cross-presenting dendritic cells and several other innate immune cell subsets were required for tumor regression. Effective treatment induced infiltration of immune cells and production of inflammatory cytokines in the tumor, enhanced antibody-mediated tumor antigen uptake and promoted antigen spreading."

According to the news editors, the research concluded: "These results demonstrate the capacity of an elicited endogenous immune response to destroy large, established tumors and elucidate essential characteristics of combination immunotherapies that are capable of curing a majority of tumors in experimental settings typically viewed as intractable."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4200. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Drugs and Therapies, Immunotherapy, Genetics, Tumors, Massachusetts Institute of Technology.

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Oncology - Breast Cancer

Medical College Describes Findings in Breast Cancer (Study on knowledge, experiences and barriers to mammography among working women from Delhi)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting out of New Delhi, India, by NewsRx editors, the research stated, "Mammography is not a popular screening tool for detecting breast cancer in India although regular screening is associated with reduced mortality from breast cancer. The objective of this study is to find out knowledge, experiences and barriers to mammography among working women of Delhi."

Our news journalists obtained a quote from the research from Medical College, "Cross-sectional descriptive study was conducted from October 2012 to March 2013 among working women from Delhi, India. The study was conducted as a part of ongoing training workshops organized for women on early detection of breast cancer. Total of eight such programs were organized and were attended by a total of 439 women. Each participant got a self-administered questionnaire to fill. Data was entered in Microsoft Excel and analysis was done using Statistical product and service solutions (SPSS) version 21 (IBM). A total of 439 participants were included in the study. 230 (52.4%) of the women were more than 40 years of age. Only four participants (1%) had not heard about the term mammography before. Less than half (45.1%) of the participants knew correctly the purpose of a mammogram. Only 11.8% of the women knew correctly about the age of getting the first baseline mammogram. Knowledge of frequency of getting the mammogram was also low only 95 (21.6%) correctly knew about it. Only 59 (11.9%) correctly responded that one needs to go to an imaging facility located either in a hospital or elsewhere to get mammogram done. Main experience shared by the women regarding mammography was that 42 (95.45%) did not know anything about the procedure when they went for this investigation. Out of a total of 230 women over 40 years of age only 38 (16.5%) had ever got a mammogram carried out. There is a statistically significant association between education status and practice of mammography (p <0.05). There were 18 women with family history of breast cancer out, of which 10 (55.5%) had got mammography carried out. 192 out of 230 (83.5%) women over 40 years of age had never got a mammogram done. Main reason 74 (38.5%) cited for this was that they did not know/were not aware they were supposed to go for mammography."  

According to the news editors, the research concluded: "As knowledge and utilization of mammography is low among women, there is a need to have a multipronged strategy to inform women about mammography and bring about a behavioral change along with having a formal national level screening guidelines for breast cancer early detection."

For more information on this research see: Study on knowledge, experiences and barriers to mammography among working women from Delhi. Indian Journal of Cancer,
Our news journalists report that additional information may be obtained by contacting A. Khokhar, Dept. of Community Medicine, Vardhman Mahavir Medical College and Safdarjung Hospital, New Delhi, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178401. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Oncology, New Delhi, Mammography, Women's Health, Risk and Prevention, Breast Cancer Screening, Diagnostics and Screening.

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Pathology

Medical University Describes Findings in Pathology (Vitamin D in the skin physiology and pathology)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Pathology is now available. According to news reporting out of Gdansk, Poland, by NewsRx editors, research stated, "Vitamin D plays important, pleiotropic role in the maintenance of global homeostasis. Its influence goes far beyond the regulation of calcium and phosphorus balance, as diverse activities of vitamin D and its natural metabolites assure proper functioning of major human organs, including skin."

Our news journalists obtained a quote from the research from Medical University, "Recently, we reviewed the current understanding of vitamin D impact on human health from historical perspective (Wierzbicka et al. (2014) The renaissance of vitamin D. Acta Biochim Pol 61: 679-686). This article focuses on its functions in the skin. The skin and its appendages, creates a platform connecting and protecting internal organs against, usually harmful, external environment. It uppermost layer -epidermis in order to maintain a protective barrier undergoes a constant exchange of cornified keratinocytes layer. Its disturbance leads to development of serious skin disorders including psoriasis, vitilig o, atopic dermatitis and skin cancer. All of those dermatopathologies have a huge impact on modern societies, affecting not only the physical, but also mental state of patients as well as their social status. Furthermore, multiple human systemic diseases (autoimmune, blood and digestive diseases) have skin manifestation, thus 'condition of the skin' often reflects the condition and pathological changes within the internal organs. In humans, the skin is the natural source of vitamin D, which is produced locally from 7-dehydrocholesterol in photoreaction induced by ultraviolet B (UVB) radiation from the sun. It is also well established, that the process of proliferation and differentiation of keratinocytes is tightly regulated by calcium and the active form of vitamin D (1,25(OH)2D3). Thus, the skin physiology is inseparably connected with vitamin D production and activity. Unfortunately, UVB, which is required for vitamin D production, is also known as the main cause of a skin cancer, including melanoma."

According to the news editors, the research concluded: "Here, we are going to review benefits of vitamin D and its analogues in the maintenance of epidermal barrier and its potential use in the treatment of common skin diseases."

For more information on this research see: Vitamin D in the skin physiology and
Our news journalists report that additional information may be obtained by contacting A. Piotrowska, Dept. of Histology, Medical University of Gdansk, Gdansk, Poland. Additional authors for this research include J. Wierzbicka and M.A Zmijewski.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18388/abp.2015_1104. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gdansk, Poland, Europe, Pathology, Article Review.

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Medical University Details Findings in Melanoma [Parthenolide induces MITF-M downregulation and senescence in patient-derived MITF-M (high) melanoma cell populations]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Melanoma. According to news reporting originating in Lodz, Poland, by NewsRx journalists, research stated, "The activity of the M isoform of microphthalmia-associated transcription factor (MITF-M) has been attributed to regulation of differentiation, proliferation, survival and senescence of melanoma cells. MITF expression was shown to be antagonized by the activation of transcription factor NF-kB."

The news reporters obtained a quote from the research from Medical University, "Parthenolide, an inhibitor of NF-kB, has not been yet reported to affect MITF-M expression. Our results obtained in patient-derived melanoma cell populations indicate that parthenolide efficiently decreases the MITF-M level. This is neither dependent on p65/NF-kB signaling nor RAF/MEK/ERK pathway activity as inhibition of MEK by GSK1120212 (trametinib) and induction of ERK1/2 activity by parthenolide itself do not interfere with parthenolide-triggered depletion of MITF-M in both wild-type BRAF and BRAF(V600E) melanoma populations. Parthenolide activity is not prevented by inhibitors of caspases, proteasomal and lysosomal pathways. As parthenolide reduces MITF-M transcript level and HDAC1 protein level, parthenolide-activated depletion of MITF-M protein may be considered as a result of transcriptional regulation, however, the influence of parthenolide on other elements of a dynamic control over MITF-M cannot be ruled out. Parthenolide induces diverse effects in melanoma cells, from death to senescence. The mode of the response to parthenolide is bound to the molecular characteristics of melanoma cells, particularly to the basal MITF-M expression level but other cell-autonomous differences such as NF-kB activity and MCL-1 level might also contribute."

According to the news reporters, the research concluded: "Our data suggest that parthenolide can be developed as a drug used in combination therapy against melanoma when simultaneous inhibition of MITF-M, NF-kB and HDAC1 is needed."

For more information on this research see: Parthenolide induces MITF-M downregulation and senescence in patient-derived MITF-M(high) melanoma cell populations. Oncotarget, 2016;7(8):9026-40.

Our news correspondents report that additional information may be obtained by
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.18632/oncotarget.7030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lodz, Poland, Europe, Genetics, Melanoma, Oncology.

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**Memorial Sloan-Kettering Cancer Center Reports Findings in Glossectomy (Health-Related Quality of Life following Reconstruction for Common Head and Neck Surgical Defects)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Surgery - Glossectomy. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Improved understanding and management of health-related quality of life represents one of the greatest unmet needs for patients with head and neck malignancies. The purpose of this study was to prospectively measure health-related quality of life associated with different anatomical (head and neck) surgical resections."

Our news editors obtained a quote from the research from Memorial Sloan-Kettering Cancer Center, "A prospective analysis of health-related quality of life was performed in patients undergoing surgical resection with flap reconstruction for stage II or III head and neck malignancies. Patients completed the European Organization for Research and Treatment of Cancer Core Quality-of-Life Questionnaire-30 and the European Organization for Research and Treatment of Cancer Head and Neck Cancer Module-35 preoperatively, and at set postoperative time points. Scores were compared with a paired t test. Seventy-five patients were analyzed. The proportion of the cohort not alive at 2 years was 53 percent. Physical, role, and social functioning scores at 3 months were significantly lower than preoperative values (p < 0.05). At 12 months postoperatively, none of the function or global quality-of-life scores differed from preoperative levels, whereas five of the symptom scales remained below baseline. At 1 year postoperatively, maxillectomy, partial glossectomy, and oral lining defects had better function and fewer symptoms than mandibulectomy, laryngectomy, and total glossectomy. From 6 to 12 months postoperatively, partial glossectomy and oral lining defects had greater global quality of life than laryngectomies (p < 0.05). Postoperative health-related quality of life is associated with the anatomical location of the head and neck surgical resection. Preoperative teaching should be targeted for common ablative defects, with postoperative expectations adjusted appropriately."

According to the news editors, the research concluded: "Because surgery negatively impacts health-related quality of life in the immediate postoperative period, the limited survivorship should be reviewed with patients."

For more information on this research see: Health-Related Quality of Life following Reconstruction for Common Head and Neck Surgical Defects. *Plastic and Reconstructive Surgery*, 2016;138(6):1312-1320. *Plastic and Reconstructive Surgery* can be contacted at:
Mylan N.V.

**Mylan Launches Generic Concerta(R) Tablets**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- - Mylan N.V. (NASDAQ, TASE: MYL), announced the U.S. launch of Methylphenidate Hydrochloride Extended-Release Tablets USP, 18 mg, 27 mg, 36 mg and 54 mg, a generic version of Janssen's Concerta® Tablets. Mylan received final approval from the U.S. Food and Drug Administration (FDA) for its Abbreviated New Drug Application (ANDA) for this product, which is indicated for the treatment of Attention Deficit Hyperactivity Disorder (ADHD). (1)

Mylan CEO Heather Bresch commented, "The launch of generic Concerta® Tablets demonstrates Mylan's leadership in complex development and manufacturing and in bringing to market a broad portfolio of high quality generics. This launch also further strengthens our robust portfolio of central nervous system medications, which is the largest in the U.S. with more than 100 products. We're excited about bringing another generic in this therapeutic area to market and expanding access to help patients."

Methylphenidate Hydrochloride Extended-Release Tablets USP, 18 mg, 27 mg, 36 mg and 54 mg, had U.S. sales of approximately $1.59 billion for the 12 months ending October 31, 2016, according to IMS Health.

Currently, Mylan has more than 240 ANDAs pending FDA approval representing approximately $95.6 billion in annual brand sales, according to IMS Health. Forty-one of these pending ANDAs are potential first-to-file opportunities, representing $32.5 billion in annual brand sales, for the 12 months ending June 30, 2016, according to IMS Health.

Mylan is a global pharmaceutical company committed to setting new standards in healthcare. Working together around the world to provide 7 billion people access to high quality medicine, we innovate to satisfy unmet needs; make reliability and service excellence a habit; do what's right, not what's easy; and impact the future through passionate global leadership. We offer a growing portfolio of more than 2,700 generic and branded pharmaceuticals, including antiretroviral therapies on which approximately 50% of people being treated for HIV/AIDS worldwide depend. We market our products in more than 165 countries and territories. Our global R&D and manufacturing platform includes more than 50 facilities, and we are one of the world's largest producers of active pharmaceutical ingredients. Every member of our more than 35,000-strong workforce is dedicated to creating better health for a better world, one person at a

(1) Methylphenidate HCl ER Tablets USP, 18 mg, 27 mg, 36 mg and 54 mg should be given cautiously to patients with a history of drug dependence or alcoholism. Chronic abusive use can lead to marked tolerance and psychological dependence with varying degrees of abnormal behavior.

Keywords for this news article include: Mylan N.V., CNS Stimulants, Adrenergic Agent, Drugs and Therapies, Dopamine Uptake Inhib, Methylphenidate Therapy, Psychotherapeutic Agents, Adrenergic Uptake Inhibitor, Central Nervous System Agents, Central Nervous System Stimulants, Norepinephrine-Dopamine Reuptake Inhibitors.

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**Drugs and Therapies - Biopharmaceuticals**

**NIPTE is Partner in Newly Announced National Biopharmaceutical Manufacturing Institute**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- The National Institute for Pharmaceutical Technology and Education, Inc. (NIPTE) is part of the newly created public-private partnership called National Institute for Innovation of Manufacturing Biopharmaceuticals (NIIMBL). Its formation was announced by U.S. Secretary of Commerce Penny Pritzker on December 16, 2016. NIIMBL is led by the University of Delaware and includes some 150 private companies, academic institutions, and non-profit organizations across the nation. It is supported by a $70 million grant from U.S. Department of Commerce and an initial investment of $129 million from participating organizations. Its goal is to accelerate biopharmaceutical manufacturing innovation and educate and train a world-leading biopharmaceutical manufacturing workforce, fundamentally advancing U.S. competitiveness in this industry.

The participating NIPTE team, currently comprised of six member institutions (Universities of Connecticut, Kentucky, Kansas, Texas, Iowa, and Wisconsin), is a Tier 1 partner in NIIMBL. It will hold a seat on the Institute's Governance Board and will play a major role in its initiatives primarily focusing on biopharmaceutical formulations and product development, and FDA regulatory science. The team will work in close collaboration with three other NIPTE member institutions, Purdue University, University of Maryland, and the University of Minnesota, which are Tier 1 partners alongside NIPTE.

"We are extremely pleased that advanced pharmaceutical manufacturing is now part of the Manufacturing USA network," said Dr. Vadim J. Gurvich, executive director of NIPTE and research associate professor at the University of Minnesota. "NIIMBL's leadership has put together a very impressive partnership that will make a significant impact on biopharmaceutical manufacturing in this nation. As a key member, we will contribute to both research and education. For example, our Center of Excellence in Pharmaceutical Formulations will be a natural partner in NIIMBL."

NIPTE is a 501©(3) non-profit academic organization with the mission to improve human health through multi-university collaborative research advancing quality, safety, affordability, and speed to market of medicines. It is comprised of 15 top schools of pharmacy, chemical and pharmaceutical engineering, and one medical school. Current members are Duquesne University, Illinois Institute of Technology, Long Island University, Purdue University, Rutgers University, University of Connecticut, University of Iowa, University of
Nanjing Medical University Reports Findings in Non-Small Cell Lung Cancer (Prognostic Significance of EZH2 Expression in Non-Small Cell Lung Cancer: A Meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Non-Small Cell Lung Cancer are presented in a new report. According to news originating from Wuxi, People's Republic of China, by NewsRx correspondents, research stated, "Various studies examined the relationship between EZH2 overexpression with the clinical outcome in patients with non-small cell lung cancer (NSCLC), but yielded inconsistent results. Electronic databases updated to Dec 2014 were searched to find relevant studies."

Our news journalists obtained a quote from the research from Nanjing Medical University, "A meta-analysis was conducted with eligible studies which quantitatively evaluated the relationship between EZH2 overexpression and survival of patients with NSCLC Survival data were aggregated and quantitatively analyzed. We performed a meta-analysis of 10 studies (n=1,695 patients) that evaluated the correlation between EZH2 overexpression and survival in patients with lung cancer. Combined hazard ratios suggested that EZH2 overexpression was associated with poor prognosis of overall survival (OS) (HR=1.68, 95% CI: 1.42-1.93) in patients with lung cancer. In the stratified analysis, significantly risks were found among Asians (HR=1.33, 95% CI: 1.62-1.70), lung adenocarcinoma patients (HR=1.75, 95% CI: 1.38-2.52, in stage I NSCLC patients (HR=2.51, 95% CI: 1.23-3.79), but not among Caucasians."

According to the news editors, the research concluded: "EZH2 overexpression indicates a poor prognosis for patients with NSCLC, this effect appears also significant when the analysis is restricted in Asian population, lung AC and stage I patients, but not among Caucasians."

For more information on this research see: Prognostic Significance of EZH2 Expression in Non-Small Cell Lung Cancer: A Meta-analysis. *Scientific Reports*, 2016;6 ():19239. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from X. Wang, Dept. of Respiratory Medicine, Nanjing Medical University Affiliated Wuxi Second Hospital, Wuxi 214002, Jiangsu Province, People's Republic of China. Additional authors for this research include H. Zhao, L. Lv, L. Bao, X. Wang and S. Han.

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Keywords for this news article include: Wuxi, Asia, Oncology, Lung Neoplasms, People's Republic of China, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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Oncology - Breast Cancer

National Cancer Center Reports Findings in Breast Cancer
(PI3K/Akt/mTOR inhibitors in breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting out of Singapore, Singapore, by NewsRx editors, research stated, "Activation of the phosphoinositide 3 kinase (PI3K)/Akt/mammalian target of rapamycin (mTOR) pathway is common in breast cancer. There is preclinical data to support inhibition of the pathway, and phase I to III trials involving inhibitors of the pathway have been or are being conducted in solid tumors and breast cancer."

Our news journalists obtained a quote from the research from National Cancer Center, "Everolimus, an mTOR inhibitor, is currently approved for the treatment of hormone receptor (HR)-positive, human epidermal growth factor receptor 2 (HER2)-negative breast cancer. In this review, we summarise the efficacy and toxicity findings from the randomised clinical trials, with simplified guidelines on the management of potential adverse effects. Education of healthcare professionals and patients is critical for safety and compliance. While there is some clinical evidence of activity of mTOR inhibition in HR-positive and HER2-positive breast cancers, the benefits may be more pronounced in selected subsets rather than in the overall population."

According to the news editors, the research concluded: "Further development of predictive biomarkers will be useful in the selection of patients who will benefit from inhibition of the PI3K/Akt/mTOR (PAM) pathway."

For more information on this research see: PI3K/Akt/mTOR inhibitors in breast cancer. Cancer Biology & Medicine, 2015;12(4):342-54.

Our news journalists report that additional information may be obtained by contacting J.J. Lee, Dept. of Medical Oncology, National Cancer Center Singapore, Singapore 169610, Singapore. Additional authors for this research include K. Loh and Y.S Yap.

Keywords for this news article include: Asia, Oncology, Breast Cancer, Article Review, Women's Health.

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Neurons

National Center for Nanoscience and Technology Details Findings in Neurons (An on-chip model for investigating the interaction between neurons and cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurons are presented in a new report. According to news
reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Emerging evidence suggests that there is extensive interaction between neurons and cancer cells. However, few model systems have been developed to investigate nerve-cancer cell interaction in vitro."

The news correspondents obtained a quote from the research from National Center for Nanoscience and Technology, "Herein, a high-throughput microfluidic compartmentalized chip is developed to examine the interaction between neurons and cancer cells. The nerve bundles appear to provide a biophysical support for cancer cells and guide their directional migration. The cancers that have high levels of perineural invasion in clinical observations exhibit greater migration along neurites in the on-chip model. The on-chip model allows the screening of compounds which inhibit cancer cell migration along neurites in vitro. The interruption of neurites, the pharmacological blockade of nerve-cancer signaling, effectively attenuates the migration of cancer cells along neurites."

According to the news reporters, the research concluded: "This on-chip model provides a useful platform to investigate the dynamic interaction between cancer cells and neurons and can dramatically broaden the chemical space in screening neuron-related drugs for cancers."

For more information on this research see: An on-chip model for investigating the interaction between neurons and cancer cells. Integrative Biology, 2016;8(3):359-67. (Royal Society of Chemistry - www.rsc.org; Integrative Biology - pubs.rsc.org/en/journals/journalissues/ib)

Our news journalists report that additional information may be obtained by contacting Y. Lei, Beijing Engineering Research Center for BioNanotechnology, CAS Key Laboratory for Biological Effects of Nanomaterials and Nanosafety, National Center for NanoScience and Technology, Beijing 100190, People's Republic of China. Additional authors for this research include J. Li, N. Wang, X. Yang, Y. Hamada, Q. Li, W. Zheng and X. Jiang.

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Keywords for this news article include: Asia, Cancer, Beijing, Neurons, Neurites, Oncology, Cell Surface Extensions, Diagnostics and Screening, People's Republic of China.

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**Macrolides**

**National Institute of Allergy and Infectious Diseases (NIAID) Details Findings in Macrolides (The Role of Signaling via Aqueous Pore Formation in Resistance Responses to Amphotericin B)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Macrolides is now available. According to news reporting originating in Bethesda, Maryland, by NewsRx editors, the research stated, "Drug resistance studies have played an important role in the validation of antibiotic targets. In the case of the polyene antibiotic amphotericin B (AmB), such studies have demonstrated the essential role that depletion of ergosterol plays in the development of AmB-resistant (AmB-R) organisms."

The news reporters obtained a quote from the research from the National Institute of
Allergy and Infectious Diseases (NIAID), "However, AmB-R strains also occur in fungi and parasitic protozoa that maintain a normal level of ergosterol at the plasma membrane. Here, I review evidence that shows not only that there is increased protection against the deleterious consequences of AmB-induced ion leakage across the membrane in these resistant pathogens but also that a set of events are activated that block the cell signaling responses that trigger the oxidative damage produced by the antibiotic. Such signaling events appear to be the consequence of a membrane-thinning effect that is exerted upon lipid-anchored Ras proteins by the aqueous pores formed by AmB. A similar membrane disturbance effect may also explain the activity of AmB on mammalian cells containing Toll-like receptors."

According to the news reporters, the research concluded: "These resistance mechanisms expand our current understanding of the role that the formation of AmB aqueous pores plays in triggering signal transduction responses in both pathogens and host immune cells."

For more information on this research see: The Role of Signaling via Aqueous Pore Formation in Resistance Responses to Amphotericin B. Antimicrobial Agents and Chemotherapy, 2016;60(9):5122-5129. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting B.E. Cohen, NIAID, Div Extramural Act, Bethesda, MD 20892, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00878-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Drugs and Therapies, Article Review, Dermatological Agents, Topical Antifungals, Amphotericin B, Antiinfectives, Macrolides, Polyenes, National Institute of Allergy and Infectious Diseases (NIAID).

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Cardiovascular Diseases and Conditions - ...

National University Hospital Details Findings in Atherosclerosis (Airflow obstruction, atherosclerosis and cardiovascular risk factors in the AGES Reykjavik study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting originating from Reykjavik, Iceland, by NewsRx correspondents, research stated, "Airflow limitation, i.e., reduced forced expiratory volume in 1-second (FEV1), is associated with increased prevalence of atherosclerosis, however, causal mechanisms remain elusive. The objective of the study was to determine if the association between airflow obstruction and markers of atherosclerosis is mediated by systemic inflammation."

Our news editors obtained a quote from the research from National University Hospital, "1154 subjects from the longitudinal AGES Reykjavik study were included.
Population characteristics, systemic inflammation markers from blood (white blood cell counts (WBC) and level of Creactive protein (CRP)) were compared between patients with and without airflow limitation defined by reduced FEV1 on spirometry. Atherosclerosis burden was quantified by measurements of coronary artery calcium, aortic arch and distal aortic calcification in addition to carotid intimal media thickness (CIMT). Subjects were split into four groups according to smoking status and whether airflow limitation was present. There was a higher overall burden of atherosclerosis in ever-smokers compared to neversmokers, and in individuals with airflow obstruction compared to individuals without airflow obstruction. After adjusting for population characteristics, Framingham cardiovascular risk factors and markers of systemic inflammation (WBC and CRP), there was a significantly increased aortic arch and distal aorta calcification and higher CIMT measurement in individuals with airflow obstruction compared to individuals without airflow obstruction. After adjusting for population characteristics, Framingham cardiovascular risk factors and markers of systemic inflammation (WBC and CRP), there was a significantly increased aortic arch and distal aorta calcification and higher CIMT measurement in individuals with airflow obstruction compared to individuals without airflow obstruction. Systemic inflammation (WBC and CRP) does not appear to mediate the association between airflow limitation and atherosclerosis."

According to the news editors, the research concluded: "Only airflow limitation and not systemic inflammation (WBC and CRP) appears to be an independent predictor of atherosclerosis."

For more information on this research see: Airflow obstruction, atherosclerosis and cardiovascular risk factors in the AGES Reykjavik study. *Atherosclerosis*, 2016;252():122-127. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news editors report that additional information may be obtained by contacting G. Gudmundsson, Landspitali Natl Univ Hosp, Dept. of Resp Med & Sleep, Reykjavik, Iceland. Additional authors for this research include O.B. Margretardottir, M.I. Sigurdsson, T.B. Harris, L.J. Launer, S. Sigurdsson, O. Olafsson, T. Aspelund and V. Gudnason.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.919. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Reykjavik, Iceland, Europe, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Risk and Prevention, Atherosclerosis, Inflammation, Cardiology, Angiology, National University Hospital.

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**Oncology - Breast Cancer**

**National University Reports Findings in Breast Cancer (Predicting general and cancer-related distress in women with newly diagnosed breast cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news originating from Galway, Ireland, by NewsRx correspondents, research stated,
"Psychological distress can impact medical outcomes such as recovery from surgery and experience of side effects during treatment. Identifying the factors that explain variability in distress would guide future interventions aimed at decreasing distress."

Our news journalists obtained a quote from the research from National University, "Two factors that have been implicated in distress are illness perceptions and coping, and are part of the Self-Regulatory Model of Illness Behaviour (SRM). The model suggests that coping mediates the relationship between illness perceptions and distress. Despite this; very little research has assessed this relationship with cancer-related distress, and none have examined women with screen-detected breast cancer. This study is the first to examine the relative contribution of illness perceptions and coping on general and cancer-related distress in women with screen-detected breast cancer. Women recently diagnosed with breast cancer (N = 94) who had yet to receive treatment completed measures of illness perceptions (Revised Illness Perception Questionnaire), cancer-specific coping (Mental Adjustment to Cancer Scale), general anxiety and depression (Hospital Anxiety and Depression scale), and cancer-related distress. Hierarchical regression analyses revealed that medical variables, illness perceptions and coping predicted 50% of the variance in depression, 42% in general anxiety, and 40% in cancer-related distress. Believing in more emotional causes to breast cancer (beta = .22, p = .021), more illness identity (beta = .25, p = .004), greater anxious preoccupation (beta = .23, p = .030), and less fighting spirit (beta = -.31, p = .001) predicted greater depression. Greater illness coherence predicted less cancer-related distress (beta = -.20, p = .043). Greater anxious preoccupation also led to greater general anxiety (beta = .44, p < .001) and cancer-related distress (beta = .37, p = .001). Mediation analyses revealed that holding greater beliefs in a chronic timeline, more severe consequences, greater illness identity and less illness coherence increases cancer-specific distress (ps < .001) only if women were also more anxiously preoccupied with their diagnosis."

According to the news editors, the research concluded: "Screening women for anxious preoccupation may help identify women with screen-detected breast cancer at risk of experiencing high levels of cancer-related distress; whilst illness perceptions and coping could be targeted for use in future interventions to reduce distress."

For more information on this research see: Predicting general and cancer-related distress in women with newly diagnosed breast cancer. BMC Cancer. 2016;16():17-25. BMC Cancer can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; BMC Cancer - www.biomedcentral.com/bmccancer/)

The news correspondents report that additional information may be obtained from A. Gibbons, Natl Univ Ireland, Sch Psychol, Galway, Ireland. Additional authors for this research include A. Groarke and K. Sweeney.

Keywords for this news article include: Galway, Ireland, Europe, Cancer, Diagnostics and Screening, Risk and Prevention, Women's Health, Breast Cancer, Oncology, National University.

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National University of Singapore Reports Findings in Squamous Cell Carcinoma (Exome sequencing reveals recurrent REV3L mutations in cisplatin-resistant squamous cell carcinoma of head and neck)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Squamous Cell Carcinoma is the subject of a report. According to news reporting originating in Singapore, Singapore, by NewsRx journalists, research stated, "Dacomitinib, an irreversible pan-HER inhibitor, had shown modest clinical activity in squamous cell carcinoma of head and neck (SCCHN) patients. Therefore, validated predictive biomarkers are required to identify patients most likely to benefit from this therapeutic option."

The news reporters obtained a quote from the research from the National University of Singapore, "To characterize the genetic landscape of cisplatin-treated SCCHN genomes and identify potential predictive biomarkers for dacomitinib sensitivity, we performed whole exome sequencing on 18 cisplatin-resistant metastatic SCCHN tumors and their matched germline DNA. Platinum-based chemotherapy elevated the mutation rates of SCCHN compared to chemotherapy-naïve SCCHNs. Cisplatin-treated SCCHN genomes uniquely exhibited a novel mutational signature characterized by C:G to A:T transversions at CCR sequence contexts that may have arisen due to error-prone translesional synthesis. Somatic mutations in REV3L, the gene encoding the catalytic subunit of DNA polymerase z involved in translesional synthesis, are significantly enriched in a subset of patients who derived extended clinical benefit to dacomitinib (p=0.04). Functional assays showed that loss-of-function of REV3L dramatically enhanced the sensitivity of SCCHN cells to dacomitinib by the loss of both translesion synthesis and homologous recombination pathways."

According to the news reporters, the research concluded: "Our data suggest that the 'platinum' mutational signature and inactivation of REV3L may inform treatment options in patients of recurrent SCCHN."

For more information on this research see: Exome sequencing reveals recurrent REV3L mutations in cisplatin-resistant squamous cell carcinoma of head and neck. Scientific Reports, 2016;6():19552. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19552. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antineoplastics, Pharmaceuticals, Genetics, Oncology, Alkylating Agents, Cisplatin Therapy, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Drugs and Therapies, Squamous Cell Carcinoma, Diagnostics and Screening.

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Naturally occurring mechanism of cancer drug-resistance may itself be a treatment target

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- The use of proteasome inhibitors to treat cancer has been greatly limited by the ability of cancer cells to develop resistance to these drugs. But Whitehead Institute researchers have found a mechanism underlying this resistance—a mechanism that naturally occurs in many diverse cancer types and that may expose vulnerabilities to drugs that spur the natural cell-death process.

This finding—which also identifies a biomarker that can be used to gain a deeper understanding of the proteasome inhibitor-resistant state—is reported in the Proceedings of the National Academy of Sciences (PNAS) in an article entitled, Suppression of 19S proteasome subunits marks emergence of an altered cell state in diverse cancers.

Proteasomes are large protein complexes that mediate protein degradation and play a crucial role in maintaining protein equilibrium within the cell. When cells become cancerous, tremendous stresses are placed on the cellular machinery responsible for maintaining protein equilibrium—and that machinery is the target of anti-cancer drugs called proteasome inhibitors. Although proteasome inhibitors are very efficient in selective killing of cancer tumor cells grown in a dish (in-vitro), their success in the clinic has largely been undermined by the development of resistance—mechanisms of which are poorly understood.

"However, recently, we discovered a counterintuitive mechanism by which cells can acquire resistance to proteasome inhibitors in vitro," explains Peter Tsvetkov, lead author of the PNAS article and a post-doctoral researcher at Whitehead Institute. "Now, in this report, we show that this mechanism is at work in many human cancers. Moreover, we have determined that the mechanism is symptomatic of a broadly altered state in the cell, with a unique gene signature and newly exposed vulnerabilities that can be targeted with existing drugs." Notably, the mechanism was clearly associated with poor outcome in patients with the blood cancer myeloma, where proteasome inhibitors are a mainstay of treatment.

Analyzing data from thousands of cancer lines and tumors, the researchers found that those demonstrating resistance to proteasome inhibitor drugs were marked by suppressed expression of one or more of the cells' proteasome cap subunits (which are a subsets of the larger proteasome). Suppressing the expression of even one of the many subunits making up the cap will impair the assembly of the whole cap, resulting in a proteasome-inhibitor resistant state. "This fact reinforces just how complex the mechanisms of resistance to chemotherapy can be," says Luke Whitesell, a senior author of the PNAS paper and senior scientist at Whitehead Institute.

Nevertheless, this new report reveals a strategy to address such resistance which may have broad utility. The researchers found that, beyond conferring resistance to proteasome inhibitors, the suppressed expression of proteasome subunits reflects a broad remodeling of the cell's gene signature. Furthermore, this can also serve as a biomarker to stratify patients for treatment. "That signature marks a heritably altered and therapeutically relevant state in diverse cancers—a state that may expose vulnerability to specific drugs that are already in use in the clinic," Tsvetkov observes. "Cancers can achieve this resistance by multiple mechanisms, genetic or epigenetic. But these findings point us to new strategies and novel compounds that
can be developed as treatments that will be more effective for an array of cancer types because they are less susceptible to the emergence of resistance."

Keywords for this news article include: Whitehead Institute for Biomedical Research, Cancer, Genetics, Oncology, Drug Resistance, Drugs and Therapies, Diagnostics and Screening.

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**Research and Markets**

**Neurovascular Devices Market 2013 - 2024 - Research and Markets**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research and Markets has announced the addition of the "Neurovascular Devices Market Analysis By Device Type, By Therapeutic Applications And Segment Forecasts, 2013 - 2024" report to their offering.

The global neurovascular device market was valued at USD 1.62 billion in the year 2015 and is expected to reach a value of USD 2.92 billion by 2024, growing at a CAGR of 6.5%.

Key factors driving the market growth include increase in patients suffering from cerebral vascular disorders mandating assistance of neurovascular devices such as cerebral embolization and aneurysm coils, implementation of advanced technological platforms in this field, and the favorable reimbursement policies across established markets such as the U.S., Canada, U.K., Germany, and Japan.

The market is segmented on the basis of device type and respective therapeutic applications. The embolization coils are widely employed in the treatments of strokes and cerebral aneurysms. They are responsible for majority of market share in the device type segment. According to World Health Organization (WHO), strokes are the leading cause of disability and third cause of death across the world. Stroke therapeutic application segment accounts for the largest market as compared to others. In addition, according to the American Heart Association, nearly 5% of the population is currently suffering from the cerebral aneurysms. Aneurysms can cause moderate to severe brain damage depending upon the condition. Therefore, their treatment is contributing to the increased demand of these platforms.

The embolization and aneurysms coiling devices are minimally invasive and are employed in effectively treating the aneurysms. Several diseases can be treated with the help of a single coil however; the unusual cerebral aneurysms require several expensive coils. Due to the efficacy, the volume for these procedures has increased over the years. This trend will continue over the forecast period, thereby rendering the leading position for this segment in terms of revenue share. The stenting systems possess the potential to address complex natured aneurysms, which were untreatable in the past. Hence, the cerebral angioplasty and stenting systems will exhibit an impressive growth pattern during the forecast period.

Moreover, Stryker Corporation is a key leader in the neurovascular device market, owing to the strategic acquisition of complete neurovascular portfolio of Boston Scientific Corporation in the year 2010. The other notable players in this industry include Abbott Laboratories, W.L. Gore & Associates, Inc., Micrport Scientific Corporation, and Terumo Corporation.

Key Topics Covered: 1 Methodology & Scope
2 Executive Summary
New Abdominal Aortic Aneurysm Data Have Been Reported by Researchers at Academic Medical Center (Biomechanical Imaging Markers as Predictors of Abdominal Aortic Aneurysm Growth or Rupture: A Systematic Review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm is the subject of a report. According to news reporting originating in Amsterdam, Netherlands, by NewsRx journalists, research stated, "Biomechanical characteristics, such as wall stress, are important in the pathogenesis of abdominal aortic aneurysms (MA) and can be visualised and quantified using imaging techniques. This systematic review aims to present an overview of all biomechanical imaging markers that have been studied in relation to AAA growth and rupture."

The news reporters obtained a quote from the research from Academic Medical Center, "This systematic review followed the PRISMA guidelines. A search in Medline, Embase, and the Cochrane Library identified 1503 potentially relevant articles. Studies were included if they assessed biomechanical imaging markers and their potential association with growth or rupture. Twenty-seven articles comprising 1730 patients met the inclusion criteria. Eighteen studies performed wall stress analysis using finite element analysis (FEA), 13 of which used peak wall stress (PWS) to quantify wall stress. Ten of 13 case control FEA studies reported a significantly higher PWS for symptomatic or ruptured AAs than for intact AAs. However, in some studies there was confounding bias because of baseline differences in aneurysm diameter between groups. Clinical heterogeneity in methodology obstructed a meaningful meta analysis of PWS. Three of five FEA studies reported a significant positive association between several wall stress markers, such as PWS and 99th percentile stress, and growth. One study reported a significant negative association and one other study reported no significant association. Studies assessing wall compliance, the augmentation index and wall stress analysis using Laplace's law, computational fluid dynamics and fluid structure interaction were also
included in this systematic review. Although PWS is significantly higher in symptomatic or ruptured AAAs in most FEA studies, confounding bias, clinical heterogeneity, and lack of standardisation limit the interpretation and generalisability of the results."

According to the news reporters, the research concluded: "Also, there is conflicting evidence on whether increased wall stress is associated with growth."


Our news correspondents report that additional information may be obtained by contacting R. Balm, Academy Med Center, Dept. of Surg, NL-1105 AZ Amsterdam, Netherlands. Additional authors for this research include H. Jalalzadeh, R.N. Planken, H.A. Marquering, D.A. Legemate, M.J.W. Koelemay and R. Balm.

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Keywords for this news article include: Amsterdam, Netherlands, Europe, Cardiovascular Diseases and Conditions, Article Review, Surgery, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Cardiology, Academic Medical Center.

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Abdominal Aortic Aneurysm

New Abdominal Aortic Aneurysm Findings from Shandong University Described (Silencing of hypoxia inducible factor-1 alpha gene attenuated angiotensin II-induced abdominal aortic aneurysm in apolipoprotein E-deficient mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Abdominal Aortic Aneurysm have been presented. According to news reporting originating from Jinan, People's Republic of China, by NewsRx correspondents, research stated, "We aimed to determine the effect of HIF-1 alpha, the main regulatory subunit of the hypoxia inducible factor 1 (HIF-1), on the development of the abdominal aortic aneurysm (AAA). AAA was induced in ApoE(-/-) mice by angiotensin. (AngII) infusion."

Our news editors obtained a quote from the research from Shandong University, "In vivo silencing of HIF-1 alpha was achieved by transfection of lentivirus expressing HIF-1 alpha shRNA. Time course analysis of the Ang. infusion model revealed that HIF-1 alpha was persistently upregulated during a 28-day period of AAA development. Silencing of the HIF-1 alpha gene reduced the aneurysm size (2.84 +/- 1.96 mm vs. 1.41 +/- 0.85 mm respectively at day 28, p = 0.0002). Silencing of HIF-1 alpha also alleviated infiltration of macrophages (38.8 +/- 14.7 vs. 11.4 +/- 4.4 macrophages/0.1 mm(2), p = 0.0006) and neovascularity (5.56 +/- 2.14
vs. 1.27 +/- 1.05 microvessels/0.1 mm(2), p = 0.0008) in the Ang. infusion model, at day 28. The activity of MMP-2 and MMP-9 was also decreased by knockdown of HIF-1 alpha. The early increased expression of pro-inflammatory factors, angiogenic factors, and MMPs during AAA induction was alleviated by HIF-1 alpha silencing."

According to the news editors, the research concluded: "Activation of HIF-1 signaling pathway participates in the Ang II-induced AAA formation in mice."


The news editors report that additional information may be obtained by contacting X. Jin, Shandong University, Shandong Prov Hosp, Dept. of Vasc Surg, Jinan 250012, People's Republic of China. Additional authors for this research include L. Shen, G. Li, H. Yuan, X. Jin and X.J. Wu.

Keywords for this news article include: Jinan, People's Republic of China, Asia, Basic Helix-Loop-Helix Transcription Factors, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Mononuclear Phagocyte System, Hypoxia-Inducible Factor 1, Abdominal Aortic Aneurysm, Nerve Tissue Proteins, Proteins, Genetics, Biological Factors, Peptide Proteins, Peptide Hormones, Apolipoproteins, Angiotensin II, Oligopeptides, Neuropeptides, Lipoproteins, Angiotensins, Apoproteins, Macrophages, Immunology, Phagocytes, Cardiology, Autacoids, Peptides, Shandong University.

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**New Abdominal Aortic Aneurysm Study Findings Recently Were Reported by Researchers at Odense University Hospital (Animal Models Used to Explore Abdominal Aortic Aneurysms: A Systematic Review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm are presented in a new report. According to news reporting originating from Odense, Denmark, by NewsRx correspondents, research stated, "Experimental animal models have been used to investigate the formation, development, and progression of abdominal aortic aneurysms (AAAs) for decades. New models are constantly being developed to imitate the mechanisms of human AAAs and to identify treatments that are less risky than those used today."

Our news editors obtained a quote from the research from Odense University Hospital, "However, to the authors' knowledge, there is no model identical to the human AAA. The objective of this systematic review was to assess the different types of animal models used to investigate the development, progression, and treatment of AAA and to highlight their advantages and limitations. A search protocol was used to perform a systematic literature search of PubMed and Embase. A total of 2,830 records were identified. After selection of the relevant articles, 564 papers on animal AAA models were included. The most common models in
rodents, including elastase, calcium chloride, angiotensin II, xenograft, and transgenic models, and the most common models in non-rodents, including chemically induced, graft models, and patch models, all have limitations with regard to the pathological interpretation of human AAA."

According to the news editors, the research concluded: "Although findings from animal models of AAAs cannot be directly translated to human AAAs, the identification and awareness of animal models of AAA will provide knowledge for further investigation and insight into human AAA disease."


The news editors report that additional information may be obtained by contacting J.L. Poulsen, Odense Univ Hosp, Dept. of Cardiothorac & Vasc Surg T, DK-5000 Odense C, Denmark. Additional authors for this research include J. Stubbe and J.S. Lindholt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejvs.2016.07.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Odense, Denmark, Europe, Cardiovascular Diseases and Conditions, Article Review, Surgery, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Cardiology, Genetics, Odense University Hospital.

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**Nutritional and Metabolic Diseases and Conditions**

**New Acidosis Findings Reported from Hospices civils de Lyon**

(Hyperchloremic metabolic acidosis following plasma exchange during myasthenia gravis crisis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Acidosis is now available. According to news reporting originating from Lyon, France, by NewsRx correspondents, research stated, "Therapeutic plasma exchanges are increasingly used, notably during myasthenia gravis crisis. Repeated exchanges may induce severe adverse events."

Our news editors obtained a quote from the research from Hospices civils de Lyon, "We reported a case of symptomatic hyperchloremic metabolic acidosis following a therapeutic plasma exchange. Analysis of 4% albumin substitution solution revealed a chloride concentration of 145 mmol/L, which could explain this acidosis. Infusion of high volume of 4% albumin during plasma exchanges may produce hyperchloremic metabolic acidosis."

According to the news editors, the research concluded: "Special attention should be paid when repeated plasma exchanges are performed. J. Clin. Apheresis 31:479-480, 2016."

For more information on this research see: Hyperchloremic metabolic acidosis following plasma exchange during myasthenia gravis crisis. Journal of Clinical Apheresis,
New Acinetobacter baumannii Study Findings Have Been Reported from University of Pittsburgh (Comparison of Minocycline Susceptibility Testing Methods for Carbapenem-Resistant Acinetobacter baumannii)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Acinetobacter baumannii. According to news originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "Treatment options for infections due to carbapenem-resistant Acinetobacter baumannii are extremely limited. Minocycline is a semisynthetic tetracycline derivative with activity against this pathogen."

Financial supporters for this research include The Medicines Company, HHS | National Institutes of Health (NIH), National Natural Science Foundation of China (NSFC).

Our news journalists obtained a quote from the research from the University of Pittsburgh, "This study compared susceptibility testing methods that are used in clinical microbiology laboratories (Etest, disk diffusion, and Sensititre broth microdilution methods) for testing of minocycline, tigecycline, and doxycycline against 107 carbapenem-resistant A. baumannii clinical isolates. Susceptibility rates determined with the standard broth microdilution method using cation-adjusted Mueller-Hinton (MH) broth were 77.6% for minocycline and 29% for doxycycline, and 92.5% of isolates had tigecycline MICs of <= 2 μg/ml. Using MH agar from BD and Oxoid, susceptibility rates determined with the Etest method were 67.3% and 52.3% for minocycline, 21.5% and 18.7% for doxycycline, and 71% and 29.9% for tigecycline, respectively. With the disk diffusion method using MH agar from BD and Oxoid, susceptibility rates were 82.2% and 72.9% for minocycline and 34.6% and 34.6% for doxycycline, respectively, and rates of MICs of <= 2 μg/ml were 46.7% and 23.4% for tigecycline. In comparison with the standard broth microdilution results, very major rates were low (similar to 2.8%) for all three drugs across the methods, but major error rates were higher (similar to 5.6%), especially with the Etest method. For minocycline, minor error rates ranged from 14% to 37.4%. For tigecycline, minor error rates ranged from 6.5% to 69.2%. The majority of minor errors were due to susceptible results being reported as intermediate."

According to the news editors, the research concluded: "For minocycline susceptibility testing of carbapenem-resistant A. baumannii strains, very major errors are rare, but major and minor errors overcalling strains as intermediate or resistant occur frequently with susceptibility testing methods that are feasible in clinical laboratories."
For more information on this research see: Comparison of Minocycline Susceptibility Testing Methods for Carbapenem-Resistant Acinetobacter baumannii. *Journal of Clinical Microbiology*, 2016;54(12):2937-2941. *Journal of Clinical Microbiology* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.

The news correspondents report that additional information may be obtained from Y.H. Doi, University of Pittsburgh, Sch Med, Div Infect Dis, Pittsburgh, PA 15260, United States. Additional authors for this research include S.L. Bowler, S.F. Kantz, R.T. Mettus, Y. Guo, C.L. McElheny and Y.H. Doi.

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Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Acinetobacter baumannii, Gram-Negative Bacteria, Drugs and Therapies, Antimalarial Agents, Gammaproteobacteria, Antiinfectives, Proteobacteria, Glycylcyclines, Tetracyclines, Moraxellaceae, beta-Lactams, Doxycycline, Antibiotics, Carbapenems, Minocycline, Tigecycline, University of Pittsburgh.

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**Lung Diseases and Conditions - Acute Chest Syndrome**

**New Acute Chest Syndrome Study Findings Reported from Research Institute (Inhaled bronchodilators for acute chest syndrome in people with sickle cell disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Acute Chest Syndrome have been published. According to news originating from Kingston, Jamaica, by NewsRx correspondents, research stated, "Bronchodilators are used to treat bronchial hyper-responsiveness in asthma. Bronchial hyper-responsiveness may be a component of acute chest syndrome in people with sickle cell disease."

Our news journalists obtained a quote from the research from Research Institute, "Therefore, bronchodilators may be useful in the treatment of acute chest syndrome. This is an update of a previously published Cochrane Review. To assess the benefits and risks associated with the use of bronchodilators in people with acute chest syndrome. Search methods We searched the Cochrane Cystic Fibrosis and Genetic Disorders Group Trials Register comprising references identified from comprehensive electronic database searches, handsearches of relevant journals and abstract books of conference proceedings. Additional searches were carried out on MEDLINE (1966 to 2002) and Embase (1981 to 2002). Date of the most recent search of the Group's Haemoglobinopathies Trials Register: 11 July 2016. Selection criteria Randomised or quasi-randomised controlled trials. Trials using quasi-randomisation methods will be included in future updates of this review if there is sufficient evidence that the treatment and control groups are similar at baseline. Data collection and analysis We found no trials investigating the use of bronchodilators for acute chest syndrome in people with sickle cell disease. We found no trials investigating the use of bronchodilators for acute chest syndrome in people with sickle cell disease. Authors’ conclusions If bronchial hyper-responsiveness is an important component of some episodes of acute chest syndrome in people with sickle cell disease, the use of inhaled
bronchodilators may be indicated."

According to the news editors, the research concluded: "There is need for a well-designed, adequately-powered randomised controlled trial to assess the benefits and risks of the addition of inhaled bronchodilators to established therapies for acute chest syndrome in people with sickle cell disease."

For more information on this research see: Inhaled bronchodilators for acute chest syndrome in people with sickle cell disease. Cochrane Database of Systematic Reviews, 2016; (9):471-484. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from J.M. Knight-Madden, Res Inst Trop Med, Sickle Cell Unit, Kingston 7, Jamaica.

Keywords for this news article include: Kingston, Jamaica, North and Central America, Hemic and Lymphatic Diseases and Conditions, Respiratory Tract Diseases and Conditions, Hematologic Diseases and Conditions, Lung Diseases and Conditions, Genetics, Article Review, Respiration Disorders, Acute Chest Syndrome, Sickle Cell Anemia, Hemoglobinopathies, Hematology, Research Institute.

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Heart Disorders and Diseases - Acute Coronary...

New Acute Coronary Syndrome Study Findings Have Been Reported by Investigators at Duke University (Treatment After Acute Coronary Syndrome: Analysis Of Patient’s Priorities With Analytic Hierarchy Process)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Acute Coronary Syndrome are presented in a new report. According to news reporting originating from Durham, North Carolina, by NewsRx correspondents, research stated, "Cardiovascular disease is one of the most common causes of death worldwide, with many individuals having experienced acute coronary syndrome (ACS). How patients with a history of ACS value aspects of their medical treatment have been evaluated rarely."

Our news editors obtained a quote from the research from Duke University, "The aim of this study was to determine patient priorities for long-term drug therapy after experiencing ACS. To identify patient-relevant treatment characteristics, a systematic literature review and qualitative patient interviews were conducted. A questionnaire was developed to elicit patient's priorities for different characteristics of ACS treatment using Analytic Hierarchy Process (AHP). To evaluate the patient-relevant outcomes, the eigenvector method was applied. Six-hundred twenty-three patients participated in the computer-assisted personal interviews and were included in the final analysis. Patients showed a clear priority for the attribute 'reduction of mortality risk' (weight: 0.402). The second most preferred attribute was the 'prevention of a new myocardial infarction' (weight: 0.272), followed by 'side effect: dyspnea' (weight: 0.165) and 'side effect: bleeding' (weight: 0.117). The 'frequency of intake' was the least important attribute (weight: 0.044). In conclusion, this study shows that patients strongly value a reduction of the mortality risk in post-ACS treatment."

According to the news editors, the research concluded: "Formal consideration of
patient preferences and priorities can help to inform a patient-centered approach, clinical practice, development of future effective therapies, and health policy for decision makers that best represents the needs and goals of the patient."


The news editors report that additional information may be obtained by contacting A.C. Muhlbacher, Duke University, Durham, NC 27706, United States. Additional authors for this research include S. Bethge and A. Kaczynski.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S0266462316000428. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Heart Disorders and Diseases, Risk and Prevention, Vascular Diseases and Conditions, Acute Coronary Syndrome, Myocardial Ischemia, Heart Disease, Cardiology, Duke University.

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**Heart Disorders and Diseases - Acute Coronary...**

**New Acute Coronary Syndrome Study Findings Have Been Reported by Researchers at First Affiliated Hospital (Platelet-to-Lymphocyte Ratio Improves the Predictive Power of GRACE Risk Score for Long-Term Cardiovascular Events in Patients with Acute ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Acute Coronary Syndrome is the subject of a report. According to news reporting out of Xi’an, People's Republic of China, by NewsRx editors, research stated, "This study aims to evaluate the relationship between platelet-to-lymphocyte ratio (PLR) and GRACE risk score and to examine whether PLR on admission can improve the predictive value of GRACE risk score for cardiovascular disease (CVD) events in patients with acute coronary syndrome (ACS). PLR was calculated from the platelet and lymphocyte counts from the complete blood count of 2,230 ACS patients upon admission."

Our news journalists obtained a quote from the research from First Affiliated Hospital, "The GRACE risk score was also calculated. Spearman's rank correlation demonstrated that GRACE risk score was positively correlated with PLR (r=0.190, p<0.001). After a median follow-up period of 58 months, multivariate Cox analysis showed that both GRACE risk score [hazard ratio (HR) 1.092, 95% confidence interval (CI) 1.067-1.117, p<0.001] and PLR (HR 1.100, 95% CI 1.088-1.112, p<0.001) could independently predict CVD events. Receiver-operating characteristic curve (ROC) analysis proved that using PLR together with GRACE risk score improved the score from 0.70 (95% CI 0.67-0.73, p<0.001) when used
alone to 0.81 (95% CI 0.79-0.83, p<0.001) for CVD events and from 0.73 (95% CI 0.70-0.77, p<0.001) when used alone to 0.80 (95% CI 0.77-0.83, p<0.001) for all-cause mortality."

According to the news editors, the research concluded: "This study proves, for the first time, a positive association between GRACE risk score and PLR, and that a combination of PLR and GRACE risk score is more effective in predicting CVD events in ACS patients."


Our news journalists report that additional information may be obtained by contacting D. Zhou, Dept. of Cardiovascular Medicine, First Affiliated Hospital of Xi’an Jiaotong University, Xi’an, People's Republic of China. Additional authors for this research include Y. Fan, Z. Wan, W. Wen, X. Wang, J. Zhou, T. Chen and Z. Yuan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442939. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Cardiology is: S. Karger AG, Allschwilerstrasse 10, CH-4009 Basel, Switzerland.

Keywords for this news article include: Asia, Xi’an, Cardiology, Immunology, Blood Cells, Lymphocytes, Heart Disease, Myocardial Ischemia, Mononuclear Leukocytes, Acute Coronary Syndrome, Hemic and Immune Systems, People's Republic of China, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Acute Kidney Injury

New Acute Kidney Injury Study Findings Reported from Yale University (Acute Kidney Injury Severity and Long-Term Readmission and Mortality After Cardiac Surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Acute Kidney Injury have been published. According to news reporting originating from New Haven, Connecticut, by NewsRx correspondents, research stated, "Acute kidney injury (AKI) is a common complication after cardiac surgery. While AKI severity is known to be associated with increased risk of short-term outcomes, its long-term impact is less well understood."

Our news editors obtained a quote from the research from Yale University, "Adult patients undergoing isolated coronary artery bypass graft surgery at eight centers were enrolled into the Northern New England biomarker registry (n = 1,610). Patients were excluded if they had renal failure (n = 15) or died during index admission (n = 38). Severity of AKI was defined using the Acute Kidney Injury Network (AKIN). We linked our cohort to national Medicare and state all-payer claims to ascertain readmissions and to the National Death Index to ascertain survival. Kaplan-Meier and multivariate Cox proportional hazards modeling was conducted for time to readmission and death over 5 years. Within 5 years, 513 patients (33.8%) had AKI with
AKIN stage 1 (29.9%) and stage 2 to 3 (3.9%). There were 620 readmissions (39.9%) and 370 deaths (23.8%). After adjustment, stage 1 AKI patients had a 31% increased risk of readmission (95% confidence interval [CI]: 1.10 to 1.57), whereas stage 2 or 3 patients had a 98% increased risk (95% CI: 1.41 to 2.78) compared with patients having no AKI. Relative to patients without AKI, stage 1 patients had a 56% increased risk of mortality (95% CI: 1.14 to 2.13), whereas stage 2 or 3 patients had a 3.5 times higher risk (95% CI: 2.16 to 5.60). Severity of AKI using the AKIN stage criteria is associated with a significantly increased risk of 5-year readmission and mortality."

According to the news editors, the research concluded: "Our findings suggest that efforts to reduce AKI in the perioperative period may have a significant long-term impact on patients and payers in reducing mortality and health care utilization."


The news editors report that additional information may be obtained by contacting J.R. Brown, Yale University, Sch Med, Temple Med Center, Program Appl Translat Res, New Haven, CT, United States. Additional authors for this research include W.M. Hisey, E.J. Marshall, D.S. Likosky, E.L. Nichols, A.D. Everett, S.K. Pasquali, M.L. Jacobs, J.P. Jacobs and C.R. Parikh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Cardiac Surgery, Risk and Prevention, Acute Kidney Injury, Cardiology, Yale University.

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Oncology - Acute Myeloid Leukemia

New Acute Myeloid Leukemia Data Have Been Reported by Investigators at University of Pittsburgh (Leukapheresis in patients newly diagnosed with acute myeloid leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Acute Myeloid Leukemia is the subject of a report. According to news reporting originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "Hyperleukocytosis is present in 5 to 20 percent of patients with newly diagnosed acute myeloid leukemia (AML). The management of hyperleukocytosis, when symptoms of leukostasis occur, includes intensive supportive care and interventions for rapid cytoreduction."

Our news editors obtained a quote from the research from the University of Pittsburgh, "Leukapheresis is a rapid and effective means of cytoreduction and has been used in AML patients. In the current study, we evaluated the outcomes of 68 newly diagnosed AML patients that underwent leukapheresis and the effects of leukapheresis on various laboratory
parameters. A total of 127 leukapheresis cycles were performed. The median number of leukapheresis cycles was 2 (range, 1-8). The overall survival for all patients was 4.2 months (95% CI 1.2-9.7 months). The median overall survival for patients who achieved complete remission after induction chemotherapy was significantly higher (19.1 months [95% CI 12.1-41.8 months]) than patients that did not achieve complete remission (0.46 months [95% CI 0.33-0.99 months]). Stepwise logistic regression demonstrated that elevated number of peripheral blasts, low platelet count and elevated bilirubin at AML diagnosis were predictive of death within a week. Leukapheresis was effective in reducing the peripheral blood leukocytes and leukemia blasts and was a safe procedure with regard to organ function, coagulation parameters, red blood cells and platelet count."

According to the news editors, the research concluded: "The high initial response rates in newly diagnosed AML patients fit to receive intensive chemotherapy suggest that leukapheresis could be beneficial in reducing the complications associated with hyperleukocytosis until systemic intensive chemotherapy commences."


The news editors report that additional information may be obtained by contacting M. Boyiadzis, University of Pittsburgh, Sch Med, Inst Canc, Div Hematol & Oncol, Pittsburgh, PA 15232, United States. Additional authors for this research include M. Agha, A. Raptis, J.Z. Hou, R. Farah, S.H. Lim, R.L. Redner, A. Im, A. Sehgal, K.A. Dorritie, J.E. Kiss, D. Normolle and M. Boyiadzis.

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Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Hyperleukocytosis, Diagnostics and Screening, Leukocyte Reduction Procedures, Acute Myeloid Leukemia, Drugs and Therapies, Leukapheresis, Cytapheresis, Chemotherapy, Hematology, Oncology, University of Pittsburgh.

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Oncology - Acute Myeloid Leukemia

New Acute Myeloid Leukemia Findings from University of Halle Outlined (Azacitidine in combination with intensive induction chemotherapy in older patients with acute myeloid leukemia: The AML-AZA trial of the Study Alliance Leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Acute Myeloid Leukemia have been published. According to news originating from Halle, Germany, by NewsRx correspondents, research stated, "DNA methylation changes are a constant feature of acute myeloid leukemia. Hypomethylating drugs such as azacitidine are active in acute myeloid leukemia (AML) as
monotherapy."

Our news journalists obtained a quote from the research from the University of Halle, "Azacitidine monotherapy is not curative. The AML-AZA trial tested the hypothesis that DNA methyltransferase inhibitors such as azacitidine can improve chemotherapy outcome in AML. This randomized, controlled trial compared the efficacy of azacitidine applied before each cycle of intensive chemotherapy with chemotherapy alone in older patients with untreated AML. Event-free survival (EFS) was the primary end point. In total, 214 patients with a median age of 70 years were randomized to azacitidine/chemotherapy (arm-A) or chemotherapy (arm-B). More arm-A patients (39/105; 37%) than arm-B (25/109; 23%) showed adverse cytogenetics (p=0.057). Adverse events were more frequent in arm-A (15.44) versus 13.52 in arm-B, (p=0.26), but early death rates did not differ significantly (30-day mortality: 6% versus 5%, p=0.76). Median EFS was 6 months in both arms (p=0.96). Median overall survival was 15 months for patients in arm-A compared with 21 months in arm-B (p=0.35)."

According to the news editors, the research concluded: "Azacitidine added to standard chemotherapy increases toxicity in older patients with AML, but provides no additional benefit for unselected patients."

For more information on this research see: Azacitidine in combination with intensive induction chemotherapy in older patients with acute myeloid leukemia: The AML-AZA trial of the Study Alliance Leukemia. Leukemia, 2015;30(3):555-61. (Nature Publishing Group - www.nature.com/; Leukemia - www.nature.com/leu/)

The news correspondents report that additional information may be obtained from C. Muller-Tidow, Dept. of Medicine, Hematology and Oncology, University of Halle, Halle, Germany. Additional authors for this research include P. Tschanter, C. Rollig, C. Thiede, A. Koschmieder, M. Stelljes, S. Koschmieder, M. Dugas, J. Gerss, T. Butterfaß-Bahloul, R. Wagner, M. Eveslage, U. Thiem, S.W. Krause, U. Kaiser, V. Kunzmann and B. Steffen.

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Keywords for this news article include: Antineoplastics, Pharmaceuticals, Halle, Europe, Germany, Genetics, Oncology, Hematology, Chemotherapy, Aza Compounds, Azacitidine Therapy, Drugs and Therapies, Acute Myeloid Leukemia.

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Drugs and Therapies - Acyclovir Therapy

New Acyclovir Therapy Findings from King Faisal University Described (Quantification of uptake and clearance of acyclovir in skin layers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Acyclovir Therapy have been published. According to news reporting out of Al Hasa, Saudi Arabia, by NewsRx editors, the research stated, "Quantification of drug uptake and clearance in the skin layers could provide better insight into the skin kinetics of dermatological formulations aimed for deeper skin tissues. This study assessed the skin kinetics of acyclovir in different skin layers following topical application on the abdominal region of Wistar rats."

Our news journalists obtained a quote from the research from King Faisal University,
"In vivo skin pharmacokinetics parameters were determined by two different protocols such as post drug load assessment and subsequent drug load assessment following topical application of 500 mg of cream formulation containing 5% (w/w) of acyclovir. Topical application of acyclovir exhibited concentration gradient between the skin layers (stratum corneum > viable epidermis > dermis) which were inconsistent over the time-course of the study. The rate and extent of drug reaching target site (basal epidermis) was relatively low. The drug uptake and clearance profiles were found to be distinct in all the three skin layers suggesting no drug concentration correlation (P <0.05) between skin layers. Drug concentration in the viable epidermis continued to increase even after termination of therapy (T-max = 4 h) and then declined rapidly. The availability of acyclovir in the target was comparatively low (approximately 0.4% of the applied dose) although an order of magnitude higher percentage was determined in the stratum corneum. The data observed in this study demonstrates low skin uptake and rapid clearance of acyclovir in the target site."

According to the news editors, the research concluded: "Further, the methodology employed can be useful for studying other topical antiviral agents as well as for optimizing formulations for drugs (such as acyclovir) that may enhance their efficacy."


Our news journalists report that additional information may be obtained by contacting A.B. Nair, King Faisal Univ, Coll Clin Pharm, Dept. of Pharmaceut Sci, Al Hasa, Saudi Arabia.

Keywords for this news article include: Al Hasa, Saudi Arabia, Asia, Dermatological Agents, Drugs and Therapies, Topical Antivirals, Purine Nucleosides, Acyclovir Therapy, Pharmaceuticals, Antiinfectives, King Faisal University.

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Musculoskeletal Diseases and Conditions...

New Adamantinoma Findings Reported from Medical University (Long-term outcome following treatment of Adamantinoma and Osteofibrous dysplasia of long bones)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Adamantinoma have been published. According to news reporting originating in Vienna, Austria, by NewsRx journalists, research stated, "Adamantinoma (AD) is an ultimately rare, low-grade malignant bone tumor. In most cases it occurs in the tibia of young adults."

The news reporters obtained a quote from the research from Medical University, "Osteofibrous dysplasia (OFD) is a rare, benign, lesion that is typically seen in children. Histopathology, ultrastructure, and cytogenetics indicate that these lesions are closely related. Yet, etiology remains a matter of debate. Local recurrence rates are high for both entities as published in literature and long-term outcomes are scarce, due to the rarity of the disease. AD should be treated by En-Bloc resection while ODF can be treated by curettage or by observation. Consequently, the aim of the present study was to answer following questions: Were local recurrence rates of both entities different based on a retrospective review within a tertiary
referral center for orthopedic oncology? Material and methods: In a retrospective cohort study, 10 patients with AD and 5 patients with OFD (including 1 patient with OFD-like-AD) were reviewed. Primary surgeries for patients with AD were: En-bloc resection in 7, curettage in 2 and amputation in 1. In the OFD group, only 2 patients underwent surgery by curettage. Mean follow-up was 16 years (range: 2-47 years). Nine patients had a minimum follow-up of 10 years (mean: 23 years; range: 10-47 years). Four patients with AD (40%) and 2 patients with OFD (40%) - all of them following surgical removal - suffered from local recurrence. In the 'En bloc' resection group of AD, there were 2 LR (29%). All patients of both groups treated with curettage showed LR. One patient with AD had metastasis at time of diagnosis and died of disease. Another patient with AD was diagnosed with metastasis 67 months after surgery and was still alive with disease at latest follow-up (77 month). The overall prognosis of AD and OFD is good, yet local recurrence rates are high, irrespective of surgical strategy.

According to the news reporters, the research concluded: "While an internationally standardized treatment regime is still missing, a more radical surgical approach should be considered, especially when treating AD."

For more information on this research see: Long-term outcome following treatment of Adamantinoma and Osteofibrous dysplasia of long bones. Orthopaedics & Traumatology-Surgery & Research, 2016;102(7):925-932. Orthopaedics & Traumatology-Surgery & Research can be contacted at: Elsevier Masson, Via Paleocapa 7, 20121 Milano, Italy.

Our news correspondents report that additional information may be obtained by contacting S.E. Puchner, Medical University of Vienna, Dept. of Orthoped, A-1090 Vienna, Austria. Additional authors for this research include R. Varga, G.M. Hobusch, M. Kasparek, J. Panotopoulos, S. Lang, R. Windhager and P.T. Funovics.

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Keywords for this news article include: Vienna, Austria, Europe, Musculoskeletal Diseases and Conditions, Operative Surgical Procedures, Bone Diseases and Conditions, Bone Neoplasms, Bone Research, Adamantinoma, Dermatology, Dysplasia, Curettage, Surgery, Medical University.

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Adenocarcinomas

New Adenocarcinomas Findings from Medical College of Wisconsin Described (Expression, Modulation, and Clinical Correlates of the Autophagy Protein Beclin-1 in Esophageal Adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Adenocarcinomas. According to news reporting from Milwaukee, Wisconsin, by NewsRx journalists, research stated, "Esophageal adenocarcinoma (EAC) is characterized by rapidly increasing incidence and mortality rates and poor survival. Efficacious preventive and treatment options are urgently needed."

The news correspondents obtained a quote from the research from the Medical College of Wisconsin, "An increasing number of pharmacologic agents targeting cancer cell
death via autophagy mechanisms are being evaluated in hopes of circumventing apoptotic and therapeutic resistance. We report for the first time, loss of Beclin-1, a key mediator of autophagy, was significantly linked to prognostic factors in EAC. Specifically, Beclin-1 expression loss occurred in 49.0% of EAC patients versus 4.8% of controls. There was a significant inverse correlation between loss of Beclin-1 with histologic grade and tumor stage supporting a tumor suppressive role for Beclin-1. Autophagy modulation linked to cell death was examined in EAC cell lines following treatment with a proanthocyanidin-rich cranberry extract, C-PAC, and the commonly used autophagy inducer, rapamycin. C-PAC induced Beclin-1-independent autophagy in EAC cells characterized by reduced phosphorylation at serine 15 and 93, and significant cell death induction. In contrast, rapamycin-induced autophagy resulted in concomitant, increases in total Beclin-1 levels as well as Beclin-1-phosphorylation in a cell line specific manner, leading to long-term cell survival. Furthermore, autophagic LC3-II was induced by C-PAC following siRNA suppression of Beclin-1 in EAC cells. Together these data support a prognostic role of Beclin-1 in EAC with evidence that Beclin-dependent autophagy induction is agent specific."

According to the news reporters, the research concluded: "Future studies are necessary to fully interrogate the role autophagy plays in the progression of normal tissue to EAC and how specific agents targeting autophagic mechanisms can be efficaciously applied for cancer prevention or treatment."


Our news journalists report that additional information may be obtained by contacting L.A. Kresty, Medical College of Wisconsin, Dept. of Med, Div Hematol & Oncol, Milwaukee, WI 53226, United States. Additional authors for this research include A.B. Howell and L.A. Kresty.

Keywords for this news article include: Milwaukee, Wisconsin, United States, North and Central America, Adenocarcinomas, Adenocarcinoma, Medical College of Wisconsin.

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Adenocarcinomas

New Adenocarcinomas Findings from State University Described

[Antiproliferative activity of monastrol in human adenocarcinoma (MCF-7) and non-tumor (HB4a) breast cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Adenocarcinomas. According to news reporting out of Londrina, Brazil, by NewsRx editors, research stated, "Monastrol is an allosteric inhibitor of the mitotic kinesin Eg5 that exhibits an antiproliferative effect against several cell lines. We investigated the antiproliferative effect of monastrol on human breast adenocarcinoma cells (MCF-7) and mammary epithelial cells (HB4a, non-tumoral)."

Our news journalists obtained a quote from the research from State University,
"Monastrol treatment decreased cell viability only in MCF-7 tumor cells. Real-time cell growth kinetic analysis showed a decrease in the proliferation of MCF-7 cells exposed to monastrol, while in the HB4a cells, only a concentration of 100 𝜇M was able to induce this effect. In a cell cycle analysis, exposure of MCF-7 cells to monastrol led to an increased population of cells in both the G1 and G2/M phases. In HB4a cells, the proportion of cells in the G2/M phase was increased. Monastrol led to an increased mitotic index in both cell lines. Monastrol was not able to induce cell death by apoptosis in any of the cell lines studied. Gene expression analysis was performed to measure the mRNA levels of cell cycle genes, DNA damage indicator gene, and apoptotic related genes. Treatment with monastrol induced in MCF-7 cells a 5-fold increase in the mRNA levels of the CDKN1A gene, an inhibitor of CDKs related with cell cycle arrest in response a stress stimulus, and a 2-fold decrease in CDKN1C mRNA levels in HB4a cells."

According to the news editors, the research concluded: "These results provide evidence that monastrol has a greater antiproliferative effect on MCF-7 tumor cells compared with non-tumor HB4a cells; however, no selective is observed."

For more information on this research see: Antiproliferative activity of monastrol in human adenocarcinoma (MCF-7) and non-tumor (HB4a) breast cells. Naunyn-Schmiedebergs Archives of Pharmacology, 2016;389(12):1279-1288. Naunyn-Schmiedebergs Archives of Pharmacology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

Our news journalists report that additional information may be obtained by contacting L.A. Marques, Univ Estadual Londrina, Dept. of Biol Geral, BR-86057970 Londrina, Parana, Brazil. Additional authors for this research include S.C. Semprebon, A.M. Niwa, G.F.R. D’Epiro, D. Sartori, A. de Fatima, L.R. Ribeiro and M.S. Mantovani.

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Keywords for this news article include: Londrina, Brazil, South America, Adenocarcinomas, Adenocarcinoma, Cell Line, Genetics, State University.

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Membrane Proteins - Adenosine A2 Receptors

New Adenosine A2 Receptors Study Findings Have Been Reported by Researchers at AstraZeneca (Structure-Activity Relationships of the Sustained Effects of Adenosine A2A Receptor Agonists Driven by Slow Dissociation Kinetics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Membrane Proteins - Adenosine A2 Receptors. According to news reporting originating from Cambridge, United Kingdom, by NewsRx correspondents, research stated, "The duration of action of adenosine A(2A) receptor (A2A) agonists is critical for their clinical efficacy, and we sought to better understand how this can be optimized. The in vitro temporal response profiles of a panel of A2A agonists were studied using cAMP assays in recombinantly (CHO) and endogenously (SH-SY5Y) expressing cells."

Our news editors obtained a quote from the research from AstraZeneca, "Some agonists (e.g., 3cd; UK-432,097) but not others (e.g., 3ac; CGS-21680) demonstrated sustained..."
wash-resistant agonism, where residual receptor activation continued after washout. The ability of an antagonist to reverse pre-established agonist responses was used as a surrogate read-out for agonist dissociation kinetics, and together with radioligand binding studies suggested a role for slow off-rate in driving sustained effects. One compound, 3ch, showed particularly marked sustained effects, with a reversal t(1/2) > 6 hours and close to maximal effects that remained for at least 5 hours after washing. Based on the structure-activity relationship of these compounds, we suggest that lipophilic N6 and bulky C2 substituents can promote stable and long-lived binding events leading to sustained agonist responses, although a high compound logD is not necessary.

According to the news editors, the research concluded: "This provides new insight into the binding interactions of these ligands and we anticipate that this information could facilitate the rational design of novel long-acting A2A agonists with improved clinical efficacy."


Keywords for this news article include: Cambridge, United Kingdom, Europe, Adenosine A2A Receptor, Adenosine A2 Receptors, Membrane Proteins, AstraZeneca.

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**Drugs and Therapies - Adriamycin Therapy**

**New Adriamycin Therapy Findings from Istanbul Bilim University Described (The Cooperative Effect of Local Angiotensin-II in Liver with Adriamycin Hepatotoxicity on Mitochondria)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Adriamycin Therapy. According to news reporting from Istanbul, Turkey, by NewsRx journalists, research stated, "Adriamycin (ADR) is a drug used clinically for anticancer treatment; however, it causes adverse effects in the liver. The mechanism by which these adverse effects occur remains unclear, impeding efforts to enhance the therapeutic effects of ADR."

The news correspondents obtained a quote from the research from Istanbul Bilim University, "Its hepatotoxicity might be related to increasing reactive oxygen species (ROS) and mitochondrial dysfunction. The interaction between ADR and the local renin-angiotensin system (RAS) in the liver is unclear. ADR might activate the RAS. Angiotensin-II (Ang-II) leads to ROS production and mitochondrial dysfunction. In the present study we investigated whether ADR’s hepatotoxicity interacts with local RAS in causing oxidative stress resulting from mitochondrial dysfunction in the rat liver. Rats were divided into 5 groups: control, ADR, co-treated ADR with captopril, co-treated ADR with Aliskiren, and co-treated ADR with both captopril and Aliskiren. Mitochondria and cytosol were separated from the liver, then..."
biochemical measurements were made from them. Mitochondrial membrane potential (MMP) and ATP levels were evaluated. ADR remarkably decreased MMP and ATP in liver mitochondria (p <0.05). Co-administration with ADR and Aliskiren and captopril improved the dissipation of MMP (p <0.05). The decreased ATP level was restored by treatment with inhibitors of ACE and renin.

According to the news reporters, the research concluded: "Angiotensin-II may contribute to hepatotoxicity of in the ADR via mitochondrial oxidative production, resulting in the attenuation of MMP and ATP production."

For more information on this research see: The Cooperative Effect of Local Angiotensin-II in Liver with Adriamycin Hepatotoxicity on Mitochondria. *Medical Science Monitor*, 2016;22():1013-21.

Our news journalists report that additional information may be obtained by contacting E. Taskin, Dept. of Physiotherapy and Rehabilitation, School of Health Sciences, Istanbul Bilim University, Istanbul, Turkey. Additional authors for this research include C. Guven, L. Sahin and N. Dursun.

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Keywords for this news article include: Pharmaceuticals, Turkey, Eurasia, Proline, Istanbul, Aliskiren, Autacoids, Amino Acids, Neuropeptides, Oligopeptides, Angiotensin II, Gastroenterology, Peptide Hormones, Peptide Proteins, Renin Inhibitors, Captopril Therapy, Adriamycin Therapy, Biological Factors, Drugs and Therapies, Cardiovascular Agents.

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**Drugs and Therapies - Adverse Drug Reactions**

**New Adverse Drug Reactions Study Findings Have Been Reported by Researchers at China Medical University and Hospital (Clinical Outcomes of Infants With Periorbital Hemangiomas Treated With Oral Propranolol)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Adverse Drug Reactions. According to news reporting out of Shenyang, People's Republic of China, by NewsRx editors, research stated, "Periorbital infantile hemangiomas (IHs) require early intervention because they have the potential risk of causing visual disturbances. In recent years, propranolol has shown promise in the effective management of periorcular and periorbital IHs."

Our news journalists obtained a quote from the research from China Medical University and Hospital, "The objective of our study was to assess the clinical outcomes, efficacy, and safety of propranolol in the management of infants with high-risk periorbital IHs. This retrospective study was conducted at the Stomatological Hospital affiliated with China Medical University. The medical records of infants with periorbital hemangiomas who were treated with systemic propranolol at a dose of 1.0 to 1.5 mg/kg per day between January 2014 and June 2015 were reviewed. We excluded infants who did not qualify for propranolol treatment and infants who received previous therapy or other treatments. The records were reviewed for treatment response, adverse events during treatment, length of treatment, and
recurrences. Treatment response was classified using a 4-point scale system based on reduction in volume as poor (<25%), moderate (25 to 50%), good (50 to 75%), or excellent (>75 to 100%) and change in color, as well as surface texture, by a panel of 3 plastic surgeons using 2-dimensional photographs, clinical examination, and Doppler ultrasonography measurements taken before and after treatment. Of 38 infants with periorbital hemangiomas, 26 were treated with systemic propranolol at a dose of 1.0 to 1.5 mg/kg administered once daily. A total of 11 male and 15 female infants with a mean age of 5.2 months (range, 2 to 12 months) were treated. The mean length of treatment was 22 weeks (range, 4 to 41 weeks). Adverse events of diarrhea (n = 3) and sleep changes (n = 1) were encountered during treatment in 4 patients. The overall treatment response was scored as excellent in 17 patients, good in 7, moderate in 2, and poor in 0. No patients required discontinuation of treatment because of adverse events, and there were no cases of recurrence or tumor regrowth noted during the mean follow-up period of 6.5 months (range, 3 to 10 months). Oral propranolol at a dose of 1.0 to 1.5 mg/kg per day (age <= 3 months, 1.0 mg/kg; age > 3 months, 1.5 mg/kg) was effective and well tolerated for the management of 26 Chinese infants with high-risk periorbital IHs."

According to the news editors, the research concluded: "Early intervention should be considered to reduce risk of visual impairment and improve esthetic outcomes."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.joms.2016.04.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Propranolol Therapy Hydrochloride, Beta-Adrenergic Blocking Agents, Group II Antiarrhythmics, Adverse Drug Reactions, Phenoxypropanolamines, Cardiovascular Agents, Antiarrhythmic Agents, Drugs and Therapies, Organic Chemicals, Pharmaceuticals, Amino Alcohols, Propanolamines, Hydrocarbons, Naphthalenes, Dermatology, Hemangioma, China Medical University and Hospital.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Agricultural and Environmental Medicine. According to news reporting originating from Ourense, Spain, by NewsRx correspondents, research stated, "Powdery mildew caused by Uncinula necator and Downy mildew produced by Plasmopara viticola are the most common diseases in the North-West Spain vineyards. Knowledge of airborne spore concentrations could be a useful tool in the Integrated Pest Management protocols in order to reduce the number of pesticide treatments, applied only when there is a real risk of infection."

Our news editors obtained a quote from the research from the University of Vigo, "The study was carried out in a vineyard of the D. O. Ribeiro, in the North-West Spain, during the grapevine active period 2004-2012. A Hirts-type volumetric spore-trap was used for the aerobiological monitoring. During the study period the annual total U. necator spores amount ranged from the 578 spores registered in 2007 to the 4,145 spores sampled during 2008. The highest annual total P. viticola spores quantity was observed in 2010 (1,548 spores) and the lowest in 2005 (210 spores). In order to forecast the concentration of fungal spores, ARIMA models were elaborated. The most accurate models were an ARIMA (3.1.3) for U. necator and (1.0.3) for P. viticola."

According to the news editors, the research concluded: "The possibility to forecast the spore presence 72 hours in advance open an important horizon for optimizing the organization of the harvest processes in the vineyard."


The news editors report that additional information may be obtained by contacting M. Fernandez-Gonzalez, Dept. of Plant Biology and Soil Sciences, Sciences Faculty of Ourense, University of Vigo, Ourense, Spain. Additional authors for this research include D. Ramos-Valcarcel, M.J. Aira and F.J Rodriguez-Rajo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5604/12321966.1196868. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, Ourense, Risk and Prevention, Life Science Research, Agricultural and Environmental Medicine.

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**Enzymes and Coenzymes - Aldehyde Oxidoreductases**

**New Aldehyde Oxidoreductases Findings Has Been Reported by Investigators at General Hospital (The Alcohol Intolerance Produced by Isoniazid Is Not Due to a Disulfiram-Like Reaction Despite Aldehyde Dehydrogenase Inhibition)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Enzymes and Coenzymes - Aldehyde Oxidoreductases are presented in a new report. According to news reporting out of Patras, Greece, by NewsRx editors, research stated, "Isoniazid (ISO) has been reported to inhibit the hepatic aldehyde dehydrogenase (ALDH) and to cause a disulfiram (DIS)-like reaction, albeit there are no reports
demonstrating increased blood acetaldehyde levels after co-administration of ISO with alcohol. The aim of our study was to clarify whether the alcohol intolerance produced by ISO is indeed due to a typical DIS-like reaction."

Our news journalists obtained a quote from the research from General Hospital, "DIS and ISO were administered to Wistar rats and the hepatic ethanol (ETH) metabolizing enzyme activities along with the levels of brain monoamines were determined. Blood acetaldehyde levels were also evaluated after co-administration of ETH with DIS or ISO. Despite inhibition of the hepatic ALDH, ISO did not result in elevated blood acetaldehyde levels after ETH administration, probably due to the induction of cytochrome P450 2E1 which theoretically leads to an increased elimination rate of acetaldehyde preventing its accumulation. Moreover, ISO produced some minor, but statistically significant, alterations in central monoaminergic neurotransmission. Our results demonstrate for the first time that despite ALDH inhibition ISO does not provoke a typical DIS-like reaction since it does not increase blood acetaldehyde levels after co-administration with ETH."

According to the news editors, the research concluded: "The possibility that the ETH intolerance observed in ISO treatment is a central synergistic effect cannot be excluded."

For more information on this research see: The Alcohol Intolerance Produced by Isoniazid Is Not Due to a Disulfiram-Like Reaction Despite Aldehyde Dehydrogenase Inhibition. Pharmacology, 2016;98(5-6):267-271. Pharmacology can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Pharmacology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224274)

Our news journalists report that additional information may be obtained by contacting P.N. Karamanakos, Olymp Gen Hosp & Rehab Center, Dept. of Neurosurg, GR-26443 Patras, Greece. Additional authors for this research include P. Pappas, V. Boumba, T. Vougiouklakis and M. Marselos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000448759. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Patras, Greece, Europe, Aldehyde Oxidoreductases, Aldehyde Dehydrogenase, Enzymes and Coenzymes, Organic Chemicals, Carboxylic Acids, Acetaldehyde, Disulfiram, Disulfides, Carbamates, Hydrazines, Ditiocarb, Aldehydes, Isoniazid, General Hospital.

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Enzymes and Coenzymes - Aldehyde Oxidoreductases

New Aldehyde Oxidoreductases Findings from University of Graz Reported (Formation of Nitric Oxide by Aldehyde Dehydrogenase-2 Is Necessary and Sufficient for Vascular Bioactivation of Nitroglycerin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Aldehyde Oxidoreductases have been published. According to news reporting originating from Graz, Austria, by NewsRx correspondents, research stated, "Aldehyde dehydrogenase-2 (ALDH2) catalyzes vascular bioactivation of the antianginal drug nitroglycerin (GTN), resulting in
activation of soluble guanylate cyclase (sGC) and cGMP-mediated vasodilation. We have previously shown that a minor reaction of ALDH2-catalyzed GTN bioconversion, accounting for about 5% of the main clearance-based turnover yielding inorganic nitrite, results in direct NO formation and concluded that this minor pathway could provide the link between vascular GTN metabolism and activation of sGC."

Financial support for this research came from Austrian Science Fund.

Our news editors obtained a quote from the research from the University of Graz, "However, lack of detectable NO at therapeutically relevant GTN concentrations (1 μM) in vascular tissue called into question the biological significance of NO formation by purified ALDH2. We addressed this issue and used a novel, highly sensitive genetically encoded fluorescent NO probe (geNOp) to visualize intracellular NO formation at low GTN concentrations (1 μM) in cultured vascular smooth muscle cells (VSMC) expressing an ALDH2 mutant that reduces GTN to NO but lacks clearance-based GTN denitration activity. NO formation was compared with GTN-induced activation of sGC. The addition of 1 μM GTN to VSMC expressing either wild-type or C301S/C303S ALDH2 resulted in pronounced intracellular NO elevation, with maximal concentrations of 7 and 17 nm, respectively. Formation of GTN-derived NO correlated well with activation of purified sGC in VSMC lysates and cGMP accumulation in intact porcine aortic endothelial cells infected with wild-type or mutant ALDH2. Formation of NO and cGMP accumulation were inhibited by ALDH inhibitors chloral hydrate and daidzin."

According to the news editors, the research concluded: "The present study demonstrates that ALDH2-catalyzed NO formation is necessary and sufficient for GTN bioactivation in VSMC."


The news editors report that additional information may be obtained by contacting B. Mayer, Graz University, Inst Pharmaceut Sci, Dept. of Pharmacol & Toxicol, A-8010 Graz, Austria. Additional authors for this research include E. Eroglu, M. Waldeck-Weiermair, M. Russwurm, D. Koesling, R. Malli, W.F. Graier, J.T. Fassett, A. Schrammel and B. Mayer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.752071. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Graz, Austria, Europe, Aldehyde Oxidoreductases, Aldehyde Dehydrogenase, Enzymes and Coenzymes, Nitroglycerin Therapy, Cardiovascular Agents, Drugs and Therapies, Vasodilator Agents, Antianginal Agents, Organic Chemicals, Pharmaceuticals, Nitro Compounds, Nitric Oxide, Aldehydes, Glycerol, University of Graz.

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Algorithms

New Algorithms Findings from University of Perugia Described
(Inherited Platelet Function Disorders: Algorithms for Phenotypic and Genetic Investigation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Algorithms. According to news reporting from Perugia, Italy, by NewsRx journalists, research stated, "Inherited platelet function disorders (IPFDs) manifest with mucocutaneous bleeding and are frequently difficult to diagnose due to their heterogeneity, the complexity of the platelet activation pathways and a lack of standardization of the platelet function laboratory assays and of their use for this purpose. A rational diagnostic approach to IPFDs should follow an algorithm where clinical examination and a stepwise laboratory evaluation play a crucial role."

The news correspondents obtained a quote from the research from the University of Perugia, "A streamlined panel of laboratory tests, with consecutive steps of increasing level of complexity, allows the phenotypic characterization of most IPFDs. A first-line diagnosis of a significant fraction of the IPFD may be made also at nonspecialized centers by using relatively simple tests, including platelet count, peripheral blood smear, light transmission aggregometry, measurement of platelet granule content and release, and the expression of glycoproteins by flow cytometry. Some of the most complex, second-and third-step tests may be performed only in highly specialized laboratories."

According to the news reporters, the research concluded: "Genotyping, including the widespread application of next-generation sequencing, has enabled discovery in the last few years of several novel genes associated with platelet disorders and this method may eventually become a first-line diagnostic approach; however, a preliminary clinical and laboratory phenotypic characterization nowadays still remains crucial for diagnosis of IPFDs."

For more information on this research see: Inherited Platelet Function Disorders: Algorithms for Phenotypic and Genetic Investigation. Seminars In Thrombosis and Hemostasis, 2016;42(3):292-305. (Thieme - www.thieme.com)

Our news journalists report that additional information may be obtained by contacting P. Gresele, Division of Internal and Cardiovascular Medicine, Dept. of Medicine, University of Perugia, Perugia, Italy. Additional authors for this research include L. Bury and E. Falcinelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0035-1570078. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, Perugia, Genetics, Algorithms, Article Review.

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New Allergy Immunology Study Findings Recently Were Reported by Researchers at Copenhagen University Hospital (High alcohol consumption causes high IgE levels but not high risk of allergic disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immunology - Allergy Immunology is now available. According to news reporting originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "High alcohol consumption is associated with high IgE levels in observational studies; however, whether high alcohol consumption leads to high IgE levels and allergic disease is unclear. We tested the hypothesis that high alcohol consumption is associated with high IgE levels and allergic disease both observationally and genetically using a Mendelian randomization design free of reverse causation and largely free of confounding."

Our news editors obtained a quote from the research from Copenhagen University Hospital, "Among 111,408 subjects aged 20 to 100 years from the general population, 50,019 had plasma IgE measurements, and 102,270 were genotyped for the alcohol-metabolizing enzymes alcohol dehydrogenase 1B (ADH-1B; rs1229984) and alcohol dehydrogenase 1c (ADH-1C; rs698). Observationally, we investigated associations between IgE levels and allergic disease (allergic asthma, rhinitis, and eczema) and between alcohol consumption and IgE levels and allergic disease. Genetically, we explored potential causal relationships between alcohol consumption and IgE levels and allergic disease. The multivariable adjusted odds ratio for IgE levels greater than versus less than 150 kU/L and compared with subjects without allergic disease was 2.3 (95% CI, 2.2-2.5) for 1 allergic disease, 3.9 (95% CI, 3.5-4.4) for 2 allergic diseases, and 7.5 (95% CI, 6.2-9.0) for 3 allergic diseases. High alcohol consumption was associated with high IgE levels but not with high risk of allergic disease. The odds ratio for high versus low IgE levels per 1 alcoholic drink per week higher consumption was 1.12 (95% CI, 1.02-1.23) genetically and 1.01 (95% CI, 1.01-1.02) observationally; for allergic disease, the corresponding odds ratios were 0.96 (95% CI, 0.92-1.00) genetically and 1.00 (95% CI, 1.00-1.00) observationally."

According to the news editors, the research concluded: "High alcohol consumption is associated observationally and genetically with high IgE levels but not with high risk of allergic disease."

For more information on this research see: High alcohol consumption causes high IgE levels but not high risk of allergic disease. Journal of Allergy and Clinical Immunology, 2016;138(5):1404-1413,733-745. Journal of Allergy and Clinical Immunology can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Journal of Allergy and Clinical Immunology - www.journals.elsevier.com/journal-of-allergy-and-clinical-immunology/)

The news editors report that additional information may be obtained by contacting B.G. Nordestgaard, Copenhagen Univ Hosp, Frederiksberg Hosp, Copenhagen City Heart Study, Copenhagen, Denmark. Additional authors for this research include S.F. Nielsen and B.G. Nordestgaard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jaci.2016.05.022. This DOI is a link to an online electronic document that is either free or for purchase.
New Alopecia Study Findings Have Been Reported by Researchers at Sheffield Teaching Hospitals NHS Foundation Trust (Risk adapted single-agent dactinomycin or carboplatin for second-line treatment of methotrexate-resistant low-risk gestational trophoblastic neoplasia...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Skin Diseases and Conditions - Alopecia are presented in a new report. According to news originating from Sheffield, United Kingdom, by NewsRx correspondents, research stated, "To evaluate the outcome of patients treated with second-line chemotherapy for methotrexate-resistant low-risk GTN at the Sheffield Centre, UK between 2001 and 2015, including the novel use of single-agent carboplatin as a strategy to reduce exposure to combination chemotherapy. 392 low-risk GTN patients were treated with first-line methotrexate."

Our news journalists obtained a quote from the research from Sheffield Teaching Hospitals NHS Foundation Trust, "The selection of chemotherapy regimen following methotrexate-resistance depended on the volume of residual disease as indicated by the serum hCG value at the time, with patients switching to either single-agent dactinomycin at an hCG level < 150 IU/L from 2001-2010 and <300 IU/L since 2010, or to combination treatment with etoposide/dactinomycin (EA) above these thresholds. In order to reduce exposure to more toxic combination chemotherapy regimens, our treatment policy was revised in 2011, with the recommendation of single-agent carboplatin as an alternative to EA at hCG levels >300 IU/L.

136 (35%) of 392 received second-line chemotherapy following methotrexate-resistance. 59 patients received single-agent dactinomycin with 53 (90%) patients achieving complete hCG response, 3 patients requiring combination chemotherapy or surgery, and 3 patients subsequently spontaneously resolving. 56 patients received EA chemotherapy with hCG complete response in 50 (89%) patients, and the remaining 6 patients were cured with further multi-agent chemotherapy or surgery. With carboplatin, 17/21 (81%) achieved an overall complete hCG response rate, with 4 patients requiring third-line EA. Carboplatin was well tolerated with no significant alopecia; myelosuppression was the most significant toxicity. Overall survival for all patients was 100%. These data show the continued excellent outcomes for methotrexate-resistant low-risk patients treated with single-agent dactinomycin or EA."

According to the news editors, the research concluded: "Our experience with carboplatin is promising and provides an alternative regimen for methotrexate-resistant low-risk disease that avoids alopecia and in-patient treatment."

For more information on this research see: Risk adapted single-agent dactinomycin or carboplatin for second-line treatment of methotrexate resistant low-risk gestational trophoblastic neoplasia. Gynecologic Oncology, 2016;143(3):565-570. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology -
Skin Diseases and Conditions - Alopecia

New Alopecia Study Results Reported from Department of Dermatology (Guidelines on the use of finasteride in androgenetic alopecia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Skin Diseases and Conditions - Alopecia is the subject of a report. According to news originating from Bengaluru, India, by NewsRx correspondents, research stated, "Finasteride is a widely used drug in dermatology for the treatment of androgenetic alopecia. There are many reports of associated sexual side effects."

Our news journalists obtained a quote from the research from the Department of Dermatology, "This article reviews the use of once-daily 1 mg finasteride in androgenetic alopecia and its associated sexual adverse effects. A literature search was performed to collect data on the use of finasteride in male pattern baldness. Relevant literature published till March 2014 was obtained from MEDLINE, EMBASE, CINAHL, Cochrane registers and LILACS. The keywords 'finasteride', 'male pattern baldness' and 'androgenetic alopecia' were used for literature search. Similarly, a search was done for finasteride in female pattern hair loss with keywords 'female pattern baldness', 'finasteride' and 'female pattern alopecia'. All systematic reviews, meta-analyses, national guidelines, randomized controlled trials, prospective open label studies and retrospective case series in the English literature were reviewed. Two hundred sixty two studies were evaluated, twelve of which fulfilled the inclusion criteria. Current evidence on the safety of finasteride indicates that it is safe but there is growing concern about its sexual side effects. In view of this, proper information should be provided to patients prior to starting treatment (Level of recommendation 1+, Grade of recommendation B)."

According to the news editors, the research concluded: "The reported sexual side effects are few and reverse with stoppage of the drug (Grade of recommendation B) but further studies are required."

For more information on this research see: Guidelines on the use of finasteride in androgenetic alopecia. *Indian Journal of Dermatology, Venereology and Leprology*, 2016;82(2):128-34.
The news correspondents report that additional information may be obtained from V. Mysore, Dept. of Dermatology, Venkat Charmalaya, Institute for Advanced Dermatology and Postgraduate Training, Bengaluru, Karnataka, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0378-6323.177432. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Pharmaceuticals, India, Alopecia, Bengaluru, Sex Hormones, Hypotrichosis, Article Review, Drugs and Therapies, Finasteride Therapy, 5 alpha reductase Inhibitors, Hair Diseases and Conditions, Skin Diseases and Conditions, Skin and Connective Tissue Diseases and Conditions.

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**Neurodegenerative Diseases and Conditions**

**New Alzheimer Disease Findings from Central Michigan University Described (Mesenchymal Stem Cells as Treatment for Behavioral Deficits and Neuropathology in the 5xFAD Mouse Model of Alzheimer's Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting from Mountain Pleasant, Michigan, by NewsRx journalists, research stated, "Alzheimer's disease (AD) is characterized by a progressive loss of memory and other cognitive disturbances. The neuropathology of AD includes the major hallmarks of toxic amyloid-b oligomer accumulation and neurofibrillary tangles, as well as increased oxidative stress, cholinergic dysfunction, synapse loss, changes in endogenous neurotrophic factors, and overall degeneration of the brain."

The news correspondents obtained a quote from the research from Central Michigan University, "Adult mesenchymal stem cells (MSCs) offer the potential for a readily available treatment that would be long lasting, have low likelihood of rejection, and could target a variety of pathological deficits. MSCs have been shown to be effective in alleviating symptoms in some transgenic models of AD, but the optimal location for transplanting MSCs has yet to be determined. In the present study, the behavioral effects of transplantation of MSCs into the lateral ventricles, the hippocampus, or both of these regions were compared in the 5xFAD mouse model of AD. The results indicate that MSC transplants effectively reduce learning deficits in the 5xFAD mouse model and demonstrate a clear impact of MSCs on the levels of Ab42 in the brains of 5xFAD mice."

According to the news reporters, the research concluded: "Overall, these findings support the hypothesis that MSCs may be a viable treatment for AD, especially when injected into the lateral ventricles."

For more information on this research see: Mesenchymal Stem Cells as Treatment for Behavioral Deficits and Neuropathology in the 5xFAD Mouse Model of Alzheimer's Disease. *Cell Transplantation*, 2016;25(4):687-703.

Our news journalists report that additional information may be obtained by contacting J.J. Matchynski-Franks, Field Neurosciences Laboratory for Restorative Neurology, Central Michigan University, Mt Pleasant, MI, United States. Additional authors for this

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3727/096368916X690818. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Michigan, Dementia, Genetics, Tauopathies, United States, Neuropathology, Mountain Pleasant, Alzheimer Disease, Stem Cell Research, Mesenchymal Stem Cells, North and Central America, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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Neurodegenerative Diseases and Conditions -...

New Alzheimer Disease Findings from Vrije University Described (Blood-Brain Barrier ABC-transporter P-glycoprotein in Alzheimer's Disease: Still a Suspect?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Alzheimer's disease is a neurodegenerative disorder and the most common form of dementia. One of the pathological hallmarks of the disease is amyloid deposition in the brain."

Our news journalists obtained a quote from the research from Vrije University, "The major cause of amyloid deposition in sporadic Alzheimer's disease is thought to be decreased brain clearance of amyloid. There is compelling preclinical evidence that the blood-brain barrier, a structure that maintains homeostasis in the central nervous system and protects the brain from harmful substances, plays an important role in amyloid clearance. Indeed, several dedicated transporter systems are present at the blood-brain barrier which may have a role in brain amyloid clearance, such as P-glycoprotein (P-gp). In vitro experiments and animal studies indicated increased amyloid deposition when P-gp was eliminated by pharmacological blockade or by genetic modification. And as decreased P-gp expression has been found in AD brains, P-gp became more and more a suspect. Using an imaging technique called positron emission tomography, P-gp transporter function was found to be decreased in Alzheimer's disease patients compared to healthy controls, further establishing the important role of P-gp in the pathogenesis of the disease."

According to the news editors, the research concluded: "In this review, we summarize what is now known about P-gp in Alzheimer's disease pathology, as these transporters may provide a novel target for therapeutic strategies."


The news correspondents report that additional information may be obtained from
New Alzheimer Disease Study Findings Have Been Reported by Researchers at University of Duisburg-Essen (Kallikrein-8 inhibition attenuates Alzheimer's disease pathology in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting originating from Essen, Germany, by NewsRx correspondents, research stated, "Memory loss and increased anxiety are clinical hallmarks of Alzheimer's disease (AD). Kallikrein-8 is a protease implicated in memory acquisition and anxiety, and its mRNA is known to be up-regulated in AD-affected human hippocampus." Funders for this research include German Research Foundation, University Duisburg-Essen.

Our news editors obtained a quote from the research from the University of Duisburg-Essen, "Therefore, an involvement of Kallikrein-8 in Alzheimer's pathogenesis is conceivable but remains to be proved. We determined the cerebral expression of Kallikrein-8 mRNA and protein during the course of AD in patients and in transgenic mice and tested the impact of Kallikrein-8 inhibition on AD-related pathology in mice and in primary glial cells. Kallikrein-8 mRNA and protein were up-regulated in both species at incipient stages of AD. Kallikrein-8 inhibition impeded amyloidogenic amyloid-precursor-protein processing, facilitated amyloid (A beta) clearance across the blood-brain-barrier, boosted autophagy, reduced A beta load and tau pathology, enhanced neuroplasticity, reversed molecular signatures of anxiety, and ultimately improved memory and reduced fear."

According to the news editors, the research concluded: "Kallikrein-8 is a promising new therapeutic target against AD."


The news editors report that additional information may be obtained by contacting A.
Herring, University of Duisburg Essen, Inst Neuropa thol, Essen, Germany. Additional authors
for this research include Y. Munster, T. Akkaya, S. Moghaddam, K. Deinsberger, J. Meyer, J.
and K. Keyvani.

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http://dx.doi.org/10.1016/j.jalz.2016.05.006. This DOI is a link to an online electronic document
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Keywords for this article include: Essen, Germany, Europe, Central Nervous
System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Brain Diseases
and Conditions, Blood Coagulation Factors, Serine Endopeptidases, Enzymes and Coenzymes,
Peptide Hydrolases, Alzheimer Disease, Kallikreins, Tauopathies, Hematology, Pathology,
Dementia, Genetics, University of Duisburg-Essen.

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Neurodegenerative Diseases and Conditions -...

New Alzheimer Disease Study Results from Faculty of Medicine
Described (Knowledge and pharmacological management of
Alzheimer's disease by managing community pharmacists: a
nationwide study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators discuss new findings in Neurodegenerative Diseases and
Conditions - Alzheimer Disease. According to news reporting from Msida, Malta, by NewsRx
journalists, research stated, "Managing community pharmacists can play a leading role in
supporting community dwelling individuals with Alzheimer's disease and their caregivers. The
main purpose of this study was to assess knowledge of managing community pharmacists
towards Alzheimer's disease and its pharmacological management."

The news correspondents obtained a quote from the research from the Faculty of
Medicine, "Community pharmacies in the Maltese islands. A nationwide survey was conducted
with full-time managing community pharmacists in possession of a tertiary education degree in
pharmacy studies. The level of knowledge was investigated using the Alzheimer's Disease
Knowledge Scale and the Alzheimer's Disease Pharmacotherapy Measure. Participants were
also asked to rate a number of statements related to disease management. Maltese managing
community pharmacists (57 % response rate) had inadequate knowledge on risk factors,
caregiving issues and pharmacological management of Alzheimer's disease. Age and number of
years working in a community pharmacy setting were found to be negatively correlated with
increased knowledge."

According to the news reporters, the research concluded: "The findings highlight the
need of providing training and continued educational support to managing community
pharmacists in order to provide quality advice to individuals with dementia and their caregivers
in the community."

For more information on this research see: Knowledge and pharmacological
management of Alzheimer's disease by managing community pharmacists: a nationwide study,
Clinical Pharmacy can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht,
Enzymes and Coenzymes - Amidohydrolases

New Amidohydrolases Findings Has Been Reported by Investigators at University of Washington (Class I Histone Deacetylase HDAC1 and WRN RECQ Helicase Contribute Additively to Protect Replication Forks upon Hydroxyurea-induced Arresel)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Amidohydrolases. According to news reporting originating in Seattle, Washington, by NewsRx journalists, research stated, "The WRN helicase/exonuclease is mutated in Werner syndrome of genomic instability and premature aging. WRN-depleted fibroblasts, although remaining largely viable, have a reduced capacity to maintain replication forks active during a transient hydroxyurea-induced arrest."

The news reporters obtained a quote from the research from the University of Washington, "A strand exchange protein, RAD51, is also required for replication fork maintenance, and here we show that recruitment of RAD51 to stalled forks is reduced in the absence of WRN. We performed a siRNA screen for genes that are required for viability of WRN-depleted cells after hydroxyurea treatment, and identified HDAC1, a member of the class I histone deacetylase family. One of the functions of HDAC1, which it performs together with a close homolog HDAC2, is deacetylation of new histone H4 deposited at replication forks. We show that HDAC1 depletion exacerbates defects in fork reactivation and progression after hydroxyurea treatment observed in WRN- or RAD51-deficient cells. The additive WRN, HDAC1 loss-of-function phenotype is also observed with a catalytic mutant of HDAC1; however, it does not correlate with changes in histone H4 deacetylation at replication forks. On the other hand, inhibition of histone deacetylation by an inhibitor specific to HDACs 1-3, CI-994, correlates with increased processing of newly synthesized DNA strands in hydroxyurea-stalled forks. WRN co-precipitates with HDAC1 and HDAC2."

According to the news reporters, the research concluded: "Taken together, our findings indicate that WRN interacts with HDACs 1 and 2 to facilitate activity of stalled replication forks under conditions of replication stress."

For more information on this research see: Class I Histone Deacetylase HDAC1 and WRN RECQ Helicase Contribute Additively to Protect Replication Forks upon Hydroxyurea-induced Arresel. *Journal of Biological Chemistry*, 2016;291(47):24487-24503,754-765. *Journal of Biological Chemistry* can be contacted at: Amer Soc Biochemistry Molecular
New Amidohydrolases Findings from Chang Gung Memorial Hospital Discussed (Human ATP-Binding Cassette Transporter ABCG2 Confers Resistance to CUDC-907, a Dual Inhibitor of Histone Deacetylase and Phosphatidylinositol 3-Kinase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Enzymes and Coenzymes - Amidohydrolases is the subject of a report. According to news reporting from Taoyuan, Taiwan, by NewsRx journalists, research stated, "CUDC-907 is a novel, dual-acting small molecule compound designed to simultaneously inhibit the activity of histone deacetylase (HDAC) and phosphatidylinositol 3-kinase (PI3K). Treatment with CUDC-907 led to sustained inhibition of HDAC and PI3K activity, inhibition of RAF-MEK-MAPK signaling pathway, and inhibition of cancer cell growth."

Financial supporters for this research include Ministry of Science and Technology, Taiwan, Chang Gung Memorial Hospital, Ministry of Education, Taiwan.

The news correspondents obtained a quote from the research from Chang Gung Memorial Hospital, "CUDC-907 is currently under evaluation in phase I clinical trials in patients with lymphoma or multiple myeloma, and in patients with advanced solid tumors. However, the risk of developing acquired resistance to CUDC-907 can present a significant therapeutic challenge to clinicians in the future and should be investigated. The overexpression of ATP-binding cassette (ABC) drug transporter ABCB1, ABCC1, or ABCG2 is one of the most common mechanisms of developing multidrug resistance (MDR) in cancers and a major obstacle in chemotherapy. In this study, we reveal that ABCG2 reduces the intracellular accumulation of CUDC-907 and confers significant resistance to CUDC-907, which leads to reduced activity of CUDC-907 to inhibit HDAC and PI3K in human cancer cells. Moreover, although CUDC-907 affects the transport function of ABCG2, it was not potent enough to reverse drug resistance mediated by ABCG2 or affect the expression level of ABCG2 in human cancer cells. Taken together, our findings indicate that ABCG2-mediated CUDC-907 resistance can have serious clinical implications and should be further investigated."

According to the news reporters, the research concluded: "More importantly, we demonstrate that the activity of CUDC-907 in ABCG2-overexpressing cancer cells can be
restored by inhibiting the function of ABCG2, which provides support for the rationale of combining CUDC-907 with modulators of ABCG2 to improve the pharmacokinetics and efficacy of CUDC-907 in future treatment trials."


Our news journalists report that additional information may be obtained by contacting C.W. Huang, Center for Advanced Molecular Imaging and Translation, Chang Gung Memorial Hospital, Tao-Yuan, Taiwan. Additional authors for this research include Y.J. Hsieh, S.H. Hsiao, C.Y. Su, Y.Q. Li, Y.H. Huang, C.W. Huang, C.H. Hsieh, J.S. Yu and Y.S Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00687. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiwan, Cancer, Kinase, Taoyuan, Oncology, Nucleoproteins, Amidohydrolases, Carrier Proteins, Membrane Proteins, Risk and Prevention, Histone Deacetylases, Enzymes and Coenzymes, Membrane Glycoproteins, Membrane Transport Proteins, ATP Binding Cassette Transporters.

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Enzymes and Coenzymes - Amidohydrolases

New Amidohydrolases Study Findings Have Been Reported by Investigators at University of Liege (Interaction of Avibactam with Class B Metallo-beta-Lactamases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Enzymes and Coenzymes - Amidohydrolases is the subject of a report. According to news reporting originating from Liege, Belgium, by NewsRx correspondents, research stated, "Beta-Lactamases are the most important mechanisms of resistance to the beta-lactam antibacterials. There are two mechanistic classes of beta-lactamases: the serine beta-lactamases (SBLs) and the zinc-dependent metallo-beta-lactamases (MBLs)."

Our news editors obtained a quote from the research from the University of Liege, "Avibactam, the first clinically useful non-beta-lactam beta-lactamase inhibitor, is a broad-spectrum SBL inhibitor, which is used in combination with a cephalosporin antibiotic (ceftazidime). There are multiple reports on the interaction of avibactam with SBLs but few such studies with MBLs. We report biochemical and biophysical studies on the binding and reactivity of avibactam with representatives from all 3 MBL subfamilies (B1, B2, and B3). Avibactam has only limited or no activity versus MBL-mediated resistance in pathogens. Avibactam does not inhibit MBLs and binds only weakly to most of the MBLs tested; in some cases, avibactam undergoes slow hydrolysis of one of its urea N-CO bonds followed by loss of CO2, in a process different from that observed with the SBLs studied."

According to the news editors, the research concluded: "The results suggest that while the evolution of MBLs that more efficiently catalyze avibactam hydrolysis should be
anticipated, pursuing the development of dual-action SBL and MBL inhibitors based on the diazabicyclooctane core of avibactam may be productive."


The news editors report that additional information may be obtained by contacting J.M. Frere, University of Liege, Center Ingn Prot, Liege, Belgium. Additional authors for this research include C. Damblon, J. Brem, N. Smargiasso, P. Mercuri, B. Gilbert, A.M. Rydzik, T.D.W. Claridge, C.J. Schofield and J.M. Frere.

Keywords for this news article include: Liege, Belgium, Europe, Enzymes and Coenzymes, Sulfur Compounds, beta-Lactamases, Amidohydrolases, beta-Lactams, University of Liege.

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**Drugs and Therapies - Aminoglycosides**

**New Aminoglycosides Findings Reported from Washington University (Perilymph pharmacokinetics of locally-applied gentamicin in the guinea pig)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Aminoglycosides. According to news reporting originating in St. Louis, Missouri, by NewsRx journalists, research stated, "Intratympanic gentamicin therapy is widely used clinically to suppress the vestibular symptoms of Meniere's disease. Dosing in humans was empirically established and we still know remarkably little about where gentamicin enters the inner ear, where it reaches in the inner ear and what time course it follows after local applications."

Financial supporters for this research include National Institute on Deafness and Other Communication Disorders, National Institutes of Health.

The news reporters obtained a quote from the research from Washington University, "In this study, gentamicin was applied to the round window niche as a 20 µL bolus of 40 mg/ml solution. Ten 2 µL samples of perilymph were collected sequentially from the lateral semi-circular canal (LSCC) at times from 1 to 4 h after application. Gentamicin concentration was typically highest in samples originating from the vestibule and was lower in samples originating from scala tympani. To interpret these results, perilymph elimination kinetics for gentamicin was quantified by loading the entire perilymph space by injection at the LSCC with a 500 µg/ml gentamicin solution followed by sequential perilymph sampling from the LSCC after different delay times. This allowed concentration decline in perilymph to be followed with time. Gentamicin was retained well in scala vestibuli and the vestibule but declined rapidly at the base of scala tympani, dominated by interactions of perilymph with CSF, as reported for other substances. Quantitative analysis, taking into account perilymph kinetics for gentamicin, showed that more gentamicin entered at the round window membrane (57%) than at the stapes (35%) but the lower concentrations found in scala tympani were due to greater losses there. The gentamicin levels found in perilymph of the vestibule, which are higher than would be expected
from round window entry alone, undoubtedly contribute to the vestibulotoxic effects of the drug."

According to the news reporters, the research concluded: "Furthermore, calculations of gentamicin distribution following targeted applications to the RW or stapes are more consistent with cochleotoxicity depending on the gentamicin concentration in scala vestibuli rather than that in scala tympani."

For more information on this research see: Perilymph pharmacokinetics of locally-applied gentamicin in the guinea pig. Hearing Research, 2016;342():101-111. Hearing Research can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Hearing Research - www.journals.elsevier.com/hearing-research/)

Our news correspondents report that additional information may be obtained by contacting A.N. Salt, Washington University, Sch Med, Dept. of Otolaryngol, St Louis, MO 63110, United States. Additional authors for this research include J.J. Hartsock, R.M. Gill, E. King, F.B. Kraus and S.K. Plontke.

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Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Ophthalmic Antiinfectives, Ophthalmic Preparations, Drugs and Therapies, Pharmacokinetics, Pharmaceuticals, Aminoglycosides, Antibiotics, Gentamicin, Washington University.

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Drugs and Therapies - Ampicillins

New Ampicillins Study Findings Recently Were Reported by Researchers at University of Paris [Sub-stoichiometric titanium oxide (Ti4O7) as a suitable ceramic anode for electrooxidation of organic pollutants: A case study of kinetics, ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Ampicillins is now available. According to news reporting originating from Marne la Vallee, France, by NewsRx correspondents, research stated, "Electrochemical degradation of aqueous solutions containing antibiotic amoxicillin (AMX) has been extensively studied in an undivided electrolytic cell using a sub-stoichiometric titanium oxide (Ti4O7) anode, elaborated by plasma deposition. Oxidative degradation of AMX by hydroxyl radicals was assessed as a function of applied current and was found to follow pseudo-first order kinetics."

Funders for this research include EU, ANR (French National Research Agency).

Our news editors obtained a quote from the research from the University of Paris, "The use of carbon-felt cathode enhanced oxidation capacity of the process due to the generation of H2O2. Comparative studies at low current intensity using dimensional stable anode (DSA) and Pt anodes led to the lower mineralization efficiencies compared to Ti4O7 anode: 36 and 41% TOC removal for DSA and Pt respectively compared to 69% for Ti4O7 anode. Besides, the use of boron doped diamond (BDD) anode under similar operating conditions allowed reaching
higher mineralization (94%) efficiency. Although Ti4O7 anode provides a lesser mineralization rate compared to BDD, it exhibits better performance compared to the classical anodes Pt and DSA and can constitutes an alternative to BDD anode for a cost effective electro-oxidation process."

According to the news editors, the research concluded: "Moreover several aromatic and aliphatic oxidation reaction intermediates and inorganic end-products were identified and a plausible mineralization pathway of AMX involving these intermediates was proposed."


The news editors report that additional information may be obtained by contacting M.A. Oturan, Univ Paris Est, UPEM, Lab Geomat & Environment EA 4508, F-77454 Marne La Vallee, France. Additional authors for this research include N. Oturan, S. Raffy, M. Cretin, R. Esmilaire, E. van Hullebusch, G. Esposito and M.A. Oturan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.watres.2016.09.056. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Marne la Vallee, France, Europe, Beta-Lactam Antibiotics, Drugs and Therapies, Sulfur Compounds, Light Metals, Ampicillins, Penicillins, Amoxicillin, Titanium, University of Paris.

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Chemistry - Analytical Chemistry

New Analytical Chemistry Study Findings have been Reported from University of Copenhagen (Aspects of Quantitation in Mass Spectrometry Imaging Investigated on Cryo-Sections of Spiked Tissue Homogenates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Chemistry - Analytical Chemistry. According to news reporting originating in Copenhagen, Denmark, by NewsRx journalists, research stated, "Internal standards have been introduced in quantitative mass spectrometry imaging in order to compensate for differences in intensities throughout an image caused by, for example, difference in ion suppression or analyte extraction efficiency. To test how well the internal standards compensate for differences in tissue types in, for example, whole-body imaging, a set of tissue homogenates of different tissue types (lung, liver, kidney, heart, and brain) from rabbit was spiked to the same concentration with the drug amitriptyline and imaged in the same experiment using isotope labeled amitriptyline as internal standard."

Financial supporters for this research include Sundheds og Sygdom, Det Frie Forskningsrad, Carlsbergfondet.

The news reporters obtained a quote from the research from the University of Copenhagen, "The results showed, even after correction with internal standard, significantly
lower intensities from brain and to some extent also lung tissue, differences which may be ascribed to binding of the drug to proteins or lipids as known from traditional bioanalysis. The differences, which for these results range approximately within a factor of 3 (but for other compounds in other tissues could be higher), underscore the importance of preparing the standard curve in the same matrix as the unknown sample whenever possible. In, for example, whole-body imaging where a diversity of tissue types are present, this variation across tissue types will therefore add to the overall uncertainty in quantitation. The tissue homogenates were also used in a characterization of various phenomena in quantitative MSI, such as to study how the signal depends of the thickness of the cryo-section, and to assess the accuracy of calibration by droplet deposition. For experiments on liver tissue, calibration by spiked tissue homogenates and droplet deposition was found to provide highly similar results and in both cases linearity with R-2 values of 0.99."

According to the news reporters, the research concluded: "In the process, a new method was developed for preparation of standard curves of spiked tissue homogenates, based on the drilling of holes in a block of frozen liver homogenate, providing easy cryo-slicing and good quantitative performance."


Our news correspondents report that additional information may be obtained by contacting C. Janfelt, University of Copenhagen, Fac Hlth & Med Sci, Dept. of Pharm, DK-2100 Copenhagen, Denmark.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.analchem.6b02711. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Analytical Chemistry, Chemistry, University of Copenhagen.

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**Oncology - Anaplastic Large Cell Lymphoma**

**New Anaplastic Large Cell Lymphoma Study Results from Department of Hematology Described (Detection of an early adult T-cell leukemia-lymphoma clone in lymph nodes with anaplastic lymphoma kinase-negative anaplastic large cell lymphoma ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Anaplastic Large Cell Lymphoma have been published. According to news originating from Kagoshima, Japan, by NewsRx correspondents, research stated, "A 58-year-old man was admitted to our hospital with systemic lymphadenopathy and was diagnosed with anaplastic lymphoma kinase-negative anaplastic large cell lymphoma (ALCL) by lymph node biopsy. Although he was a human T-cell leukemia virus type I (HTLV-1) carrier, Southern blot analysis of the lymph node did not show monoclonal integration of HTLV-1 provirus deoxyribonucleic acid (DNA)."
Financial support for this research came from Japan Agency for Medical Research and Development.

Our news journalists obtained a quote from the research from the Department of Hematology, "He achieved complete remission after chemotherapy and subsequently, autologous peripheral blood stem cell transplantation (auto-PBSCT) was performed. Fifteen months after the auto-PBSCT, abnormal lymphocytes in the peripheral blood gradually increased. Southern blot analysis revealed monoclonal integration of HTLV-1 provirus DNA and monoclonal rearrangement of TRB. He was diagnosed with chronic type adult T-cell leukemia-lymphoma (ATL), which immediately progressed to the acute type. He died of tumor progression despite intensive chemotherapy. We analyzed genomic alterations of the ALCL and ATL cells using array comparative genomic hybridization. We found that the genomic alteration pattern differed between the two diseases. T-cell receptor clonality analysis using polymerase chain reaction (PCR) showed that the T-cell clone of the ATL was present in the lymph nodes with ALCL involvement, but not in peripheral blood."

According to the news editors, the research concluded: "This finding suggests that lymph nodes can serve as a niche for ATL development."


The news correspondents report that additional information may be obtained from M. Tokunaga, Imamura Bun In Hosp, Dept. of Hematol, Kagoshima, Japan. Additional authors for this research include N. Yoshida, N. Nakano, A. Kubota, S. Takeuchi, Y. Takatsuka, M. Seto and A. Utsunomiya.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.01.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kagoshima, Japan, Asia, Proviruses, Diagnostics and Screening, Genetics, Lymphatic Diseases and Conditions, Adult T-Cell Leukemia-Lymphoma, Anaplastic Large Cell Lymphoma, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hemic and Immune Systems, Enzymes and Coenzymes, Lymphoid Tissue, Lymph Nodes, Immunology, Hematology, Lymphomas, Viral DNA, Oncology, Kinase, Cancer, Department of Hematology.

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Heart Disorders and Diseases - Andersen-Tawil...

New Andersen-Tawil Syndrome Findings from Cleveland Clinic Outlined (The evolution of sports participation guidelines and the influence of genotype-phenotype correlation in long QT syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Andersen-Tawil Syndrome. According to news originating from Cleveland, Ohio, by NewsRx
correspondents, research stated, "Congenital Long QT Syndrome (LQTS) results in abnormal ventricular repolarization in patients with otherwise structurally normal hearts."

Our news journalists obtained a quote from the research from Cleveland Clinic, "Following the initial clinical descriptions of LQTS, there has been a great deal of investigation into the genetic etiology and pathophysiology of these entities, with the goal of improved screening tools and understanding of associated risks. Through this work, heart rhythm experts continue to revise their recommendations regarding sports eligibility."

According to the news editors, the research concluded: "We review the evolution of sports participation recommendations for LQTS."


The news correspondents report that additional information may be obtained from P.F. Aziz, Cleveland Clinic, Cleveland Clin Childrens, Dept. of Pediat Electrophysiol, Cleveland, OH 44195, United States.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Heart Disorders and Diseases, Cardiovascular Abnormalities, Congenital Abnormalities, Congenital Heart Defects, Andersen-Tawil Syndrome, Cardiac Arrhythmias, Long QT Syndrome, Heart Disease, Cardiology, Genetics, Cleveland Clinic.

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**Hematologic Diseases and Conditions - Anemia**

**New Anemia Findings from Peking University Reported (Anemia Among Lactating Mothers In Kokang, Myanmar)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematologic Diseases and Conditions - Anemia is now available. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Anemia is an important public health problem among lactating mothers in the developing countries. The aim of the study was to determine the prevalence of anemia in lactating mothers in Kokang, Myanmar and its associated risk factors."

The news reporters obtained a quote from the research from Peking University, "We conducted a cross sectional study of 65 lactating mothers during June-October 2014. Each participant filled out a questionnaire asking about diet, source of drinking water, health status, socioeconomic and demographic factors. Each participant was also evaluated anthropometrically and had blood taken to determine their hemoglobin and their iron, copper, zinc, calcium, and magnesium levels. The prevalence rate of anemia (hemoglobin 81-120 g/l) in study subjects was 73.8%, and 10.8% had severe anemia (hemoglobin <= 80 g/l). Factors of malnutrition (mid-upper arm circumference < 23.5 cm, p = 0.013), iron deficiency (serum iron concentration < 6.6 mmol/l, p = 0.008), and source of drinking water (p = 0.031) were related to anemia. Fifty-six point three percent of women with anemia had a low serum iron level. Anemia was common among study subjects in Kokang."
According to the news reporters, the research concluded: "Since a large portion of women in our study with anemia had a low serum iron level, we conclude the major cause of anemia in our study was iron deficiency."


Our news correspondents report that additional information may be obtained by contacting Y.M. Zhang, Peking University, Hlth Sci Center, Sch Public Hlth, Dept. of Nutr & Food HygBeijing Key Lab Toxicol Res, Beijing, People's Republic of China. Additional authors for this research include S.J. Cao, H.C. Gao, Q.Y. Xiao, N.N. Win and Y.M. Zhang.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Proteins, Risk and Prevention, Epidemiology, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Blood Proteins, Hemoglobins, Globins, Anemia, Peking University.

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**Pain Medicine - Anesthesiology**

**New Anesthesiology Study Results from University of Manitoba Described (Neurodevelopmental Assessment in Kindergarten in Children Exposed to General Anesthesia before the Age of 4 Years A Retrospective Matched Cohort Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Pain Medicine - Anesthesiology. According to news reporting from Winnipeg, Canada, by NewsRx journalists, research stated, "Animal studies demonstrate general anesthetic (GA) toxicity in the developing brain. Clinical reports raise concern, but the risk of GA exposure to neurodevelopment in children remains uncertain."

The news correspondents obtained a quote from the research from the University of Manitoba, "The authors undertook a retrospective matched cohort study comparing children less than 4 yr of age exposed to GA to those with no GA exposure. The authors used the Early Development Instrument (EDI), a 104-component questionnaire, encompassing five developmental domains, completed in kindergarten as the outcome measure. Mixed-effect logistic regression models generated EDI estimates for single versus multiple GA exposure and compared both single and multiple exposures by the age of 0 to 2 or 2 to 4 yr. Known sociodemographic and physical confounders were incorporated as covariates in the models. A total of 18,056 children were studied: 3,850 exposed to a single GA and 620 exposed to two or more GA, who were matched to 13,586 nonexposed children. In children less than 2 yr of age, there was no independent association between single or multiple GA exposure and EDI results. Paradoxically, single exposure between 2 and 4 yr of age was associated with deficits, most significant for communication/general knowledge (estimate, -0.7; 95% CI, -0.93 to -0.47; P< 0.0001) and language/cognition (estimate, -0.34; 95% CI, -0.52 to -0.16; P< 0.0001) domains. Multiple GA exposure at the age of 2 to 4 yr did not confer greater risk than single GA exposure."
exposure. These findings refute the assumption that the earlier the GA exposure in children, the greater the likelihood of long-term neurocognitive risk."

According to the news reporters, the research concluded: "The authors cannot confirm an association between multiple GA exposure and increased risk of neurocognitive impairment, increasing the probability of confounding to explain the results."

For more information on this research see: Neurodevelopmental Assessment in Kindergarten in Children Exposed to General Anesthesia before the Age of 4 Years A Retrospective Matched Cohort Study. Anesthesiology, 2016;125(4):667-677. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting M.R. Graham, University of Manitoba, Dept. of Anesthesia, Winnipeg, MB R3E 0Z2, Canada. Additional authors for this research include M. Brownell, D.G. Chateau, R.D. Dragan, C. Burchill and R.R. Fransoo.

Keywords for this news article include: Winnipeg, Manitoba, Canada, North and Central America, Anesthesiology, Pain Medicine, Kindergarten, Education, University of Manitoba.

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Cardiovascular Diseases and Conditions - Aneurysm

New Aneurysm Findings from National University Reported [Insights from complex aortic surgery with a Streamliner device for aortic arch repair (STAR)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Aneurysm. According to news originating from Galway, Ireland, by NewsRx correspondents, research stated, "Aortic arch aneurysms and thoracoabdominal aortic arch aneurysms are technically challenging to manage by established surgical and endovascular methods. The Streamliner Multilayer Flow Modulator device (Cardiatis, Isnes, Brussels, Belgium) offers an unorthodox option for these high-risk cases."

Our news journalists obtained a quote from the research from National University, "The Streamliner device for aortic arch repair (STAR) study investigated complex aneurysm cases managed by the Streamliner Multilayer Flow Modulator device and offers an analytic solution for a clinical dilemma. Six cases were included, with a 1-year follow-up, comprising 4 pure arch aneurysms and 2 thoracoabdominal aortic arch aneurysms Crawford type I, from a multicenter database hosted by the Streamliner Multilayer Flow Modulator Global Registry. A total of 50% of cases were performed under instructions for use. All were American Society of Anesthesiology IV and originated from zone 0. All cases were computationally analyzed, which consisted of (1) simulating the treatment on the basis of the postoperative data, (2) repositioning the stents for the failed technical cases, and (3) assessing the effects of overlapping devices on branch patency. Correct device placement induced aneurysm flow streamlining, which reduced the dynamic pressure by 23% to 66%, whereas incorrect placements promoted Failure Mode I with 58% and 16% dynamic pressure increases and aneurysm volume expansion up to 23%."
Overlapped devices improved distal perfusion by increasing arch branch outflows from 5% to 24%. The Streamliner Multilayer Flow Modulator device does not benefit a sac volume greater than 400 cm(3). The Streamliner Multilayer Flow Modulator device is a new technology that can manage complex aortic arch aneurysms and thoracoabdominal aortic arch aneurysms with favorable clinical outcomes if it is performed under instructions for use.

According to the news editors, the research concluded: "Careful procedure planning and perioperative virtual stent placement will avoid foreshortening, prevent inadequate stent overlap lengths, and provide insight into the sufficient numbers of required implanted devices."


The news correspondents report that additional information may be obtained from S. Sultan, Natl Univ Ireland, Galway, Ireland. Additional authors for this research include L. Morris, A. Elhelali, E.P. Kavanagh, V. Lundon, N. Hynes and S. Sultan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtcvs.2016.06.043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Galway, Ireland, Europe, Cardiovascular Diseases and Conditions, Aneurysm, Surgery, National University.

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**Cardiovascular Diseases and Conditions - Aneurysm**

**New Aneurysm Study Findings Have Been Reported by Researchers at Department of Vascular Surgery (Staged Hybrid Repair of an Intrathoracic Subclavian Artery Aneurysm Associated with a Long Segment Dissection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Aneurysm have been published. According to news originating from Gastonia, North Carolina, by NewsRx correspondents, research stated, "Intrathoracic subclavian artery aneurysms (ISAAAs) are infrequently seen in clinical practice. We report the repair of a left ISAA associated with a long segment dissection from the ostia extending to the axillary artery."

Our news journalists obtained a quote from the research from the Department of Vascular Surgery, "A hybrid approach was used. Carotid-to-axillary bypass using a reversed greater saphenous vein was first performed, followed by coverage of the origin of the subclavian artery using a thoracic stent graft."

According to the news editors, the research concluded: "Finally, percutaneous access of the radial artery with coil embolization was performed to successfully thrombose the ISAA."

For more information on this research see: Staged Hybrid Repair of an Intrathoracic

The news correspondents report that additional information may be obtained from P.V. Kochupura, CaroMont Reg Med Center, Dept. of Vasc Surg, Gastonia, NC, United States.

Keywords for this news article include: Gastonia, North Carolina, United States, North and Central America, Cardiovascular Diseases and Conditions, Subclavian Artery, Angiology, Aneurysm, Department of Vascular Surgery.

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**Cardiovascular Diseases and Conditions - Aneurysm**

**New Aneurysm Study Findings Recently Were Reported by Researchers at Eastern Virginia School of Medicine (Anatomic severity grading score for primary descending thoracic aneurysms predicts procedural difficulty and aortic-related ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Aneurysm is now available. According to news reporting from Norfolk, Virginia, by NewsRx journalists, research stated, "An anatomic severity grading (ASG) score for primary descending thoracic aortic aneurysms (DTAs) was developed. The objective of this study was to determine if an ASG score cutoff value for DTAs is predictive of procedural complexity, aortic-related reinterventions, and mortality in patients who undergo thoracic endovascular aortic repair (TEVAR)."

The news correspondents obtained a quote from the research from the Eastern Virginia School of Medicine, "A retrospective review from 2008 to 2013 of patient records was conducted of all consecutive patients who underwent TEVAR for a primary DTA. A comprehensive scoring system of preoperative DTA morphology on the basis of computed tomography angiography images was established to identify and classify anatomic features that might influence outcome after TEVAR. ASG score calculations were achieved using preoperative computed tomography angiography images. Primary outcomes included primary technical success, aortic-related reinterventions, aneurysm-related mortality, and all-cause mortality. Secondary outcomes included procedural complexity (unplanned adjunctive procedures, number of endografts implanted, contrast volume, and procedure time), endoleak formation, endoleak requiring reintervention, stroke and paraplegia, and conversion to open repair. Of 469 patients with a diagnosis of a thoracic aortic aneurysm, 62 patients (13%) underwent TEVAR and had adequate preoperative imaging (mean age, 71 years). Applying the ASG score, we identified 39 patients (63%) with a score $\geq$ 24 (high-score group) and 23 patients (37%) with a score < 24 (low-score group). Mean follow-up was 15.3 months (range, 4 days to 3.7 years; standard deviation, 1 year) for both groups. Freedom from all-cause mortality was significantly different in the high-score (87% at 1 year, 79% at 2 years, and 57% at 3 years) vs the low-score group (100% at 1, 2, and 3-years; log-rank test, P< .021). There was no significant difference between mortality in the high-score (97% at 1 year, 87% at 2 years, and 69% at 3 years) compared with the low-score group (100% at 1, 2, and 3 years; log-rank test, P
Freedom from aortic-related reinterventions was significantly lower in the high-score (82% at 1 year, 68% at 2 years, and 35% at 3 years) compared with the low-score group (100% at 1, 2, and 3 years; log-rank test, P = .002). Operative difficulty in the form of intraoperative adjunct procedures, number of endografts implanted, and procedural time had significant differences between groups (18% vs 0%, P = .038; 79% vs 39%, P = .004; 120 vs 79 minutes, P = .005, respectively). No significant difference in 30-day combined stroke and paraplegia (16%) was present between groups, and no patient had a conversion to open repair during the follow-up period."

According to the news reporters, the research concluded: "Preoperative ASG score for primary DTAs predicted procedure complexity and aortic-related reinterventions after TEVAR."


Our news journalists report that additional information may be obtained by contacting J.M. Panneton, Eastern Virginia Med Sch, Div Vasc Surg, Norfolk, VA, United States. Additional authors for this research include S. Larion, S.S. Ahanchi, K.S. Lavingia, D.J. Dexter and J.M. Panneton.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2016.03.451. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Norfolk, Virginia, United States, North and Central America, Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Neurologic Manifestations, Computed Tomography, Imaging Technology, Cardiology, Angiography, Endografts, Paraplegia, Angioly, Paralysis, Aneurysm, Eastern Virginia School of Medicine.

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**Angiogenesis**

**New Angiogenesis Findings from DZHK German Center for Cardiovascular Research Described (PAFAH1B1 and the IncRNA NONHSAT073641 maintain an angiogenic phenotype in human endothelial cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Angiogenesis are presented in a new report. According to news reporting originating from Frankfurt, Germany, by NewsRx correspondents, research stated, "Platelet-activating factor acetyl hydrolase 1B1 (PAFAH1B1, also known as Lis1) is a protein essentially involved in neurogenesis and mostly studied in the nervous system. As we observed a significant expression of PAFAH1B1 in the vascular system, we hypothesized that PAFAH1B1 is important during angiogenesis of endothelial cells as well as in human vascular diseases."
Our news editors obtained a quote from the research from DZHK German Center for Cardiovascular Research, "The functional relevance of the protein in endothelial cell angiogenic function, its downstream targets and the influence of NON-HSAT073641, a long non-coding RNA (lncRNA) with 92% similarity to PAFAH1B1, were studied by knockdown and overexpression in human umbilical vein endothelial cells (HUVEC). Knockdown of PAFAH1B1 led to impaired tube formation of HUVEC and decreased sprouting in the spheroid assay. Accordingly, the overexpression of PAFAH1B1 increased tube number, sprout length and sprout number. LncRNA NONHSAT073641 behaved similarly. Microarray analysis after PAFAH1B1 knockdown and its overexpression indicated that the protein maintains Matrix Gla Protein (MGP) expression. Chromatin immunoprecipitation experiments revealed that PAFAH1B1 is required for active histone marks and proper binding of RNA Polymerase II to the transcriptional start site of MGP. MGP itself was required for endothelial angiogenic capacity and knockdown of both, PAFAH1B1 and MGP, reduced migration. In vascular samples of patients with chronic thromboembolic pulmonary hypertension (CTEPH), PAFAH1B1 and MGP were upregulated. The function of PAFAH1B1 required the presence of the intact protein as overexpression of NONHSAT073641, which was highly upregulated during CTEPH, did not affect PAFAH1B1 target genes."

According to the news editors, the research concluded: "PAFAH1B1 and NONHSAT073641 are important for endothelial angiogenic function."


The news editors report that additional information may be obtained by contacting M.S. Leisegang, German Center Cardiovasc Res DZHK, Partner Site RheinMain, Frankfurt, Germany. Additional authors for this research include C. Fork, J. Preussner, K.K. Prior, D. Iloska, A.E. Vasconez, S. Labocha, C. Angioni, D. Thomas, N.F. Os, M. Looso, S.S. Pullamsetti, G. Geisslinger, D. Steinhilber, R.P. Brandes and M.S. Leisegang.

Keywords for this news article include: Frankfurt, Germany, Europe, Endothelial Cells, Angiogenesis, Genetics, DZHK German Center for Cardiovascular Research.

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Angiogenesis

New Angiogenesis Study Findings Have Been Reported by Investigators at University of Michigan (Histone Deacetylase 5 Is Overexpressed in Scleroderma Endothelial Cells and Impairs Angiogenesis via Repression of Proangiogenic Factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Angiogenesis. According to news reporting out of Ann Arbor, Michigan, by NewsRx editors, research stated, "Vascular dysfunction represents a disease-initiating event in systemic sclerosis (SSc; scleroderma). Results of recent studies suggest that epigenetic dysregulation impairs normal angiogenesis and can result in abnormal patterns of blood vessel growth."
Our news journalists obtained a quote from the research from the University of Michigan, "Histone deacetylases (HDACs) control endothelial cell (EC) proliferation and regulate EC migration. Specifically, HDAC-5 appears to be antiangiogenic. This study was undertaken to test whether HDAC-5 contributes to impaired angiogenesis in SSc by repressing proangiogenic factors in ECs. Dermal ECs were isolated from patients with diffuse cutaneous SSc and healthy controls. Angiogenesis was assessed using an in vitro Matrigel tube formation assay. An assay for transposase-accessible chromatin using sequencing (ATAC-seq) was performed to assess and localize the genome-wide effects of HDAC5 knockdown on chromatin accessibility. The expression of HDAC5 was significantly increased in ECs from patients with SSc compared to healthy control ECs. Silencing of HDAC5 in SSc ECs restored normal angiogenesis. HDAC5 knockdown followed by ATAC-seq assay in SSc ECs identified key HDAC5-regulated genes involved in angiogenesis and fibrosis, such as CYR61, PVRL2, and FSTL1. Simultaneous knockdown of HDAC5 in conjunction with either CYR61, PVRL2, or FSTL1 inhibited angiogenesis in SSc ECs. Conversely, overexpression of these genes individually led to an increase in tube formation as assessed by Matrigel assay, suggesting that these genes play functional roles in the impairment of angiogenesis in SSc. Several novel HDAC5-regulated target genes associated with impaired angiogenesis were identified in SSc ECs by ATAC-seq."

According to the news editors, the research concluded: "The results of this study provide a potential link between epigenetic regulation and impaired angiogenesis in SSc, and identify a novel mechanism for the dysregulated angiogenesis that characterizes this disease."


Our news journalists report that additional information may be obtained by contacting A.H. Sawalha, University of Michigan, Ann Arbor, MI 48109, United States. Additional authors for this research include J.D. Wren, M.A. Amin, E. Schiopu, D.A. Fox, D. Khanna and A.H. Sawalha.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Deacetylase, Genetics, Enzymes and Coenzymes, Endothelial Cells, Nucleoproteins, Angiogenesis, Proteins, Histones, University of Michigan.

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Angiogenesis

New Angiogenesis Study Findings Have Been Reported from Beijing University of Technology (Silver nanoparticles inhibit the function of hypoxia-inducible factor-1 and target genes: insight into the cytotoxicity and antiangiogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Angiogenesis are presented in a new report. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Hypoxia-inducible factor-1 (HIF-1) is a transcription factor that is activated upon exposure to hypoxic stress. It modulates a number of cellular responses
including proliferation, apoptosis, angiogenesis, and metabolism by activating a panel of target genes in response to hypoxia."

Our news editors obtained a quote from the research from the Beijing University of Technology, "The HIF-1 level is often upregulated in the hypoxic microenvironment of solid tumors, which contributes to cancer treatment failure. Here we report that silver nanoparticles (AgNPs), which are widely used as an antimicrobial agent, are an effective inhibitor of HIF-1. AgNPs inhibited the activation of a HIF-dependent reporter construct after the cells were exposed to hypoxic conditions or treated with cobalt chloride, a hypoxia mimetic agent. The AgNPs also interfered with the accumulation of HIF-1 alpha protein and the induction of the endogenous HIF target genes, VEGF-A and GLUT1. Since both HIF-1 and vascular endothelial growth factor-A play an important role in angiogenesis, AgNPs also inhibited angiogenesis in vitro. Our data reveal a new mechanism of how AgNPs act on cellular function, that is, they disrupt HIF signaling pathway."

According to the news editors, the research concluded: "This finding provides a novel insight into how AgNPs can inhibit cancer cell growth and angiogenesis."

For more information on this research see: Silver nanoparticles inhibit the function of hypoxia-inducible factor-1 and target genes: insight into the cytotoxicity and antiangiogenesis. *International Journal of Nanomedicine, 2016;11():6679-6690,6691-6692. International Journal of Nanomedicine* can be contacted at: Dove Medical Press Ltd, PO Box 300-008, Albany, Auckland 0752, New Zealand.

The news editors report that additional information may be obtained by contacting X.H. Wang, Beijing University of Technology, Inst Laser Engn, Lab Biomed Photon, Beijing 100124, People's Republic of China. Additional authors for this research include Q. Yao, F. Cao, Q.Q. Liu, B.L. Liu and X.H. Wang.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Basic Helix-Loop-Helix Transcription Factors, Hypoxia-Inducible Factor 1, Emerging Technologies, Nanotechnology, Angiogenesis, Nanoparticle, Proteins, Genetics, Beijing University of Technology.

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**Angiogenesis**

**New Angiogenesis Study Findings Recently Were Reported by Researchers at Henan University of Technology (Identification of resveratrol derivative 3,3',4,4',5,5'-hexamethoxy-trans-stilbene as a novel pro-angiogenic small-molecule compound)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Angiogenesis is now available. According to news originating from Zhengzhou, People's Republic of China, by NewsRx correspondents, research stated, "The potential to promote neovascularization in ischemic tissues using exogenous agents is an attractive avenue for therapeutics. To identify novel pro-angiogenic small-molecule compound, we screened a series of resveratrol methylated derivatives and identified 3,3',4,4',
5,5'-hexamethoxy-trans-stilbene (3,3',4,4',5,5'-HMS) potently promotes proliferation, migration, invasion and tube formation of human umbilical vein VECs (HUVECs) in vitro."

Our news journalists obtained a quote from the research from the Henan University of Technology, "Furthermore, 3,3',4,4',5,5'-HMS accelerates neo-vessels sprouting of rat aortic rings ex vivo, and neovascularization of chick chorioallantoic membrane (CAM) and mouse matrigel plugs in vivo. Microarray analyses show that the level of early growth response 1 (EGR-1), an inducible pro-angiogenic gene regulatory factor, was upregulated. The upregulation of EGR-1 was confirmed by semiquantitative RT-PCR, quantitative real-time PCR and western blotting analyses. In addition, the levels of several pro-angiogenic factors including transforming growth factor beta 1 (TGF-beta 1), vascular endothelial growth factor (VEGF), nitric oxide (NO), and the activity of endothelial NO synthase (eNOS) were elevated in 3,3',4,4',5,5'-HMS-treated HUVECs. Inhibition of NO synthase by L-NAME blocked the pro-angiogenic effects of 3,3',4,4',5,5'-HMS."

According to the news editors, the research concluded: "Our research shows that 3,3',4,4',5,5'-HMS dramatically promoted angiogenesis in vitro, ex vivo and in vivo, which might represent a novel potential agent for the development of therapeutic drugs to treat ischemic diseases."


The news correspondents report that additional information may be obtained from L. Zhang, Henan Univ Technol, Coll Bioengn, Zhengzhou 450001, People's Republic of China. Additional authors for this research include L. Zhang, J.T. Yu, L.K. Chen and B. Zhou.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Enzymes and Coenzymes, Benzylidene Compounds, Neovascularization, Nitric Oxide, Hydrocarbons, Angiogenesis, Stilbenes, Synthase, Henan University of Technology.

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Angiography

New Angiography Findings from Chinese People's Liberation Army General Hospital Described (Prognostic Value of Gai's Plaque Score and Agatston Coronary Artery Calcium Score for Functionally Significant Coronary Artery Stenosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Angiography have been published. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "The prognostic values of the coronary computed tomography angiography (CCTA) score for predicting future cardiovascular events have been previously demonstrated in numerous studies. However, few studies have used the rich information available from CCTA to detect functionally significant coronary lesions."

Our news editors obtained a quote from the research from Chinese People's
Liberation Army General Hospital, "We sought to compare the prognostic values of Gai's plaque score and the coronary artery calcium score (CACS) of CCTA for predicting functionally significant coronary lesions, using fractional flow reserve (FFR) as the gold standard. We retrospectively analyzed 107 visually assessed significant coronary lesions in 88 patients (mean age, 59.6 +/- 10.2 years; 76.14% of males) who underwent CCTA, invasive coronary angiography, and invasive FFR measurement. An FFR < 0.80 indicated hemodynamically significant coronary stenosis. Lesions were divided into two groups using an FFR cutoff value of 0.80. We compared Gai's plaque scores and CACS between the two groups and evaluated the correlations of these scores with FFR. The statistical methods included unpaired t-test, Mann-Whitney U-test, and Spearman's correlation coefficients. Coronary lesions with FFR < 0.80 had higher Gai's scores than those with FFR >= 0.80. Gai's score had the strongest correlation with FFR (r = -0.48, P< 0.01) and had a greater area under the curve = 0.72 (95% confidence interval: 0.61-0.82; P< 0.01) than the CACS of whole arteries and a single artery. Both CACS in a single artery and Gai's plaque score demonstrated a good capacity to assess functionally significant coronary artery stenosis when compared to the gold standard FFR. However, Gai's plaque score was more predictive of FFR < 0.80."

According to the news editors, the research concluded: "Gai's score can be easily calculated in daily clinical practice and could be used when considering revascularization."


The news editors report that additional information may be obtained by contacting L.Y. Gai, Chinese Peoples Liberat Army Gen Hosp, Dept. of Cardiol, Beijing 100853, People's Republic of China. Additional authors for this research include S. Yang, L.Y. Gai, Z.Q. Han, Q. Xin, X.B. Yang, J.J. Yang and Q.H. Jin.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Coronary Artery, Cardiology, Angiography, Angiology, Stenosis, Chinese People's Liberation Army General Hospital.

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**Angiology**

**New Angiology Data Have Been Reported by Investigators at Johns Hopkins University (Successful facial artery pseudoaneurysm coiling and pedicle preservation following free tissue transfer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Angiology have been presented. According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "Patients undergoing free tissue reconstruction are at risk for development of an anastomotic pseudoaneurysm, which may present as delayed neck hemorrhage or a pulsatile neck mass. Diagnosis may be achieved by noninvasive imaging, angiography, and exploration."
The news correspondents obtained a quote from the research from Johns Hopkins University. "Management strategies for head and neck pseudoaneurysms have included open vessel ligation, open direct vessel repair, endovascular parent vessel embolization, and, most recently, endovascular pseudoaneurysm embolization. In patients with anastomotic pseudoaneurysms where adequate flap inosculation is doubted, endovascular pseudoaneurysm embolization with pedicle preservation may be an appropriate primary treatment approach."

According to the news reporters, the research concluded: "We discuss the successful endovascular coiling of an external carotid artery branch anastomotic pseudoaneurysm in a patient one month after free tissue reconstruction of a total laryngopharyngectomy and partial glossectomy defect."


Our news journalists report that additional information may be obtained by contacting S.C. Desai, Johns Hopkins University, Sch Med, Dept. of Otolaryngol Head & Neck Surg, Div Facial Plast & Reconstruct Surg, Baltimore, MD 21205, United States. Additional authors for this research include D.J. Genther, F. Hui, W.K. Mydlarz, G. Griffith and S.C. Desai.

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Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Angiology, Risk and Prevention, Facial Artery, Embolization, Johns Hopkins University.

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cGMP contents, significantly and L-NAME (100 mmol/l) inhibited the DMSO-induced increases of cGMP. In fura 2-loaded endothelium-denuded aorta, cumulative application of DMSO (1-3%) inhibited PE-induced muscle tension; however, this application did not affect the [Ca2+]	extsubscript{i} level. In PE-precontracted endothelium-denuded aorta, relaxation responses to fasudil were significantly less in the presence of DMSO compared to the control.

According to the news editors, the research concluded: "These results suggest that DMSO causes relaxation by increasing the cGMP content in correlation with the release of NO from endothelial cells and by decreasing the Ca2+ sensitivity of contractile elements partly via inhibiting Rho-kinase in rat aorta."


The news correspondents report that additional information may be obtained from T. Kaneda, Laboratory of Veterinary Pharmacology, School of Veterinary Medicine, Nippon Veterinary and Life Science University, Musashino, Tokyo, Japan. Additional authors for this research include N. Sasaki, N. Urakawa and K. Shimizu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443894. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Angiology, Endothelium, Sulfur Compounds, Dimethyl Sulfoxide.

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Angiology

New Angiology Findings Reported from Yantai University [Endothelium-independent vasorelaxant effect of 20(S)-protopanaxadiol on isolated rat thoracic aorta]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Angiology. According to news reporting originating from Yantai, People's Republic of China, by NewsRx correspondents, research stated, "Ginsenosides are considered to be the major pharmacologically active ginseng constituents, whereas 20(S)-protopanaxadiol [20(S)-PPD] is the active metabolite of ginsenosides in gut. In this study we investigated the effect of 20(S)-PPD on isolated rat thoracic aortas as well as its vasorelaxant mechanisms."

Our news editors obtained a quote from the research from Yantai University, "Aortic rings with or without endothelium were prepared from Wistar rats and suspended in organ-chambers. The changes in tension of the preparations were recorded through isometric transducers connected to a data acquisition system. The aortic rings were precontracted with phenylephrine (PE, 1 mu mol/L) or high-K+ (80 mmol/L). Application of 20(S)-PPD (21.5-108.5 mu mol/L) caused concentration-dependent vasodilation of endothelium-intact aortic rings precontracted with PE or high-K+, which resulted in the EC50 values of 90.4 or 46.5 mu mol/L, respectively. The removal of endothelium had no effect on 20(S)-PPD-induced relaxation. The vasorelaxant effect of 20(S)-PPD was also not influenced by the preincubation
with beta-adrenergic receptor antagonist propranolol, or with ATP-sensitive K+ channel blocker glibenclamide, voltage-dependent K+ channel blocker 4-AP and inward rectifier K+ channel blocker BaCl2, whereas it was significantly attenuated by the preincubation with Ca2+-activated K+ (BKCa) channel blocker TEA (1 mmol/L). Furthermore, the inhibition of NO synthesis, cGMP and prostacyclin pathways did not affect the vasorelaxant effect of 20(S)-PPD. In Ca2+-free solution, 20(S)-PPD (108.5 μmol/L) markedly decreased the extracellular Ca2+-induced contraction in aortic rings precontracted with PE or high-K+ and reduced PE-induced transient contraction. Voltage-dependent Ca2+ channel antagonist nifedipine inhibited PE-induced contraction; further inhibition was observed after the application of receptor-operated Ca2+ channel inhibitor SK&F 96365 or 20(S)-PPD. 20(S)-PPD induces vasorelaxation via an endothelium-independent pathway.

According to the news editors, the research concluded: "The inhibition of voltage-dependent Ca2+ channels and receptor-operated Ca2+ channels and the activation of Ca2+-activated K+ channels are probably involved in the relaxation."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/aps.2016.74. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yantai, People's Republic of China, Asia, Endothelium, Angiology, Yantai University.

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**Angiology**

**New Angiology Findings from Tongji University Discussed (Combined use of Onyx and coils for transarterial balloon-assisted embolization of traumatic carotid-cavernous fistulas: a report of 16 cases with 17 fistulas)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Angiology have been presented. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "The combination of coils and Onyx for the treatment of carotid-cavernous fistulas (CCFs) is an interesting new development. The purpose of the current study is to evaluate our preliminary experience with the combined use of coils and Onyx for the treatment of traumatic CCFs."

Our news editors obtained a quote from the research from Tongji University, "Between April 2009 and July 2014, 16 patients with 17 traumatic CCFs were embolized with
the so-called 'armored concrete' treatment modality using coils, Onyx-18, and a non-detachable balloon via the transarterial approach. The outcomes were assessed both clinically and radiologically. Digital subtraction angiography (DSA) follow-up was performed 3 or 6 months after endovascular treatment while clinical follow-up was continued until December 2014. Obliteration of the CCFs was obtained with patency of the parent artery in all 16 cases. Follow-up DSA demonstrated stable occlusion of all the fistulas. Symptoms related to the CCFs were either resolved immediately or gradually over 2 months. No worsening of the cranial neuropathies was observed during the follow-up period which averaged 32.6 months."

According to the news editors, the research concluded: "The 'armored concrete' treatment modality using coils, Onyx, and a non-detachable balloon promises to be a safe, economical, and effective alternative in the management of traumatic CCFs."


The news editors report that additional information may be obtained by contacting Z.Q. Chen, Tongji Univ, Sch Med, Shanghai Peoples Hosp 10, Dept. of Neurosurg, Shanghai 200072, People's Republic of China. Additional authors for this research include W. Guo, R. Shen, J.P. Sun, J. Yin, X.Z. Chen, L. Gao, Z.Q. Chen and Q.B. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/neurintsurg-2015-012107. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Embolization, Angiology, Tongji University.

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Angiology

New Angiology Findings from University of Bristol Described (Right internal thoracic artery versus radial artery as the second best arterial conduit: Insights from a meta-analysis of propensity-matched data on long-term survival)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Angiology are discussed in a new report. According to news reporting out of Bristol, United Kingdom, by NewsRx editors, research stated, "Objective(s): We conducted a meta-analysis of propensity score-matching (PSM) studies comparing long-term survival of patients receiving right internal thoracic artery (RITA) versus radial artery (RA) as a second arterial conduit for coronary artery bypass grafting. A literature search was conducted using MEDLINE, EMBASE, and Web of Science to identify relevant articles."

Our news journalists obtained a quote from the research from the University of Bristol, "Primary endpoint was long-term mortality. Secondary endpoints were operative mortality, incidence of sternal wound infection, and repeat revascularization. Binary events were
pooled using the Der-Simonian and Laird method. For time-to-event outcomes, estimates of log hazard ratio (HR) and standard errors obtained were combined using the generic inverse variance method. A total of 8 PSM studies were finally selected including 15,374 patients (RITA, 6739; RA, 8635) with 2992 matched pairs for final comparison. Mean follow-up time ranged from 45 to 168 months. When compared with RA, RITA was associated with a lower risk reduction of late death (HR, 0.75; 95% confidence interval [CI], 0.58-0.97; P = .028) and repeat revascularization (HR, 0.37; 95% CI, 0.16-0.85; P = .03). On the other hand, RITA did not increase operative mortality (odds ratio [OR], 1.53; 95% CI, 0.97-2.39; P = .07). RITA was associated with an increased risk of sternal wound complication when pedicled harvesting was used (OR, 3.18; 95% CI, 1.34-7.57), but not with skeletonized harvesting (OR, 1.07; 95% CI, 0.67-1.71).

According to the news editors, the research concluded: "The present PSM data meta-analysis suggests that the use of RITA compared with RA was associated with superior long-term survival and freedom from repeat revascularization, with similar operative mortality and incidence of sternal wound complication when the skeletonized harvesting technique was used."


Our news journalists report that additional information may be obtained by contacting U. Benedetto, University of Bristol, Sch Clin Sci, Bristol Heart Inst, Bristol, Avon, United Kingdom. Additional authors for this research include M. Gaudino, M. Caputo, R.F. Tranbaugh, C. Lau, A. Di Franco, C. Ng, L.N. Girardi and G.D. Angelini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtcvs.2016.05.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bristol, United Kingdom, Europe, Internal Thoracic Artery, Radial Artery, Angiology, University of Bristol.

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Angiology

New Angiology Study Findings Recently Were Reported by Researchers at Boston University (Cross-Sectional Associations of Flow Reversal, Vascular Function, and Arterial Stiffness in the Framingham Heart Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Angiology have been presented. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Experimental studies link oscillatory flow accompanied by flow reversal to impaired endothelial cell function. The relation of flow reversal with vascular function and arterial stiffness remains incompletely defined."
Our news journalists obtained a quote from the research from Boston University, "Approach and Results-We measured brachial diastolic flow patterns along with vasodilator function in addition to tonometry-based central and peripheral arterial stiffness in 5708 participants (age 47 +/- 13 years, 53% women) in the Framingham Heart Study Offspring and Third Generation cohorts. Brachial artery diastolic flow reversal was present in 35% of the participants. In multivariable regression models, the presence of flow reversal was associated with lower flow-mediated dilation (3.9 +/- 0.2 versus 5.0 +/- 0.2%; P<0.0001) and reactive hyperemic flow velocity (50 +/- 0.99 versus 57 +/- 0.93 cm/s; P<0.0001). The presence of flow reversal (compared with absence) was associated with higher central aortic stiffness (carotid-femoral pulse wave velocity 9.3 +/- 0.1 versus 8.9 +/- 0.1 m/s), lower muscular artery stiffness (carotid-radial pulse wave velocity 9.6 +/- 0.1 versus 9.8 +/- 0.1 m/s), and higher forearm vascular resistance (5.32 +/- 0.03 versus 4.66 +/- 0.02 log dyne/s/cm5; P<0.0001). The relations of diastolic flow velocity with flow-mediated dilation, aortic stiffness, and forearm vascular resistance were nonlinear, with a steeper decline in vascular function associated with increasing magnitude of flow reversal. In our large, community-based sample, brachial artery flow reversal was common and associated with impaired vasodilator function and higher aortic stiffness."

According to the news editors, the research concluded: "Our findings are consistent with the concept that flow reversal may contribute to vascular dysfunction."

For more information on this research see: Cross-Sectional Associations of Flow Reversal, Vascular Function, and Arterial Stiffness in the Framingham Heart Study. Arteriosclerosis Thrombosis and Vascular Biology, 2016;36(12):2452-2459. Arteriosclerosis Thrombosis and Vascular Biology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq. 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting N.M. Hamburg, Boston University, Sch Med, Whitaker Cardiovasc Inst, Boston, MA 02215, United States. Additional authors for this research include N. Wang, J. Palmisano, M.G. Larson, R.S. Vasan, G.F. Mitchell, E.J. Benjamin, J.A. Vita and N.M. Hamburg.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Brachial Artery, Angiology, Boston University.

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Angiology

New Angiology Study Findings Recently Were Reported by Researchers at University College (A systematic review and meta-analysis of donor ischaemic preconditioning in liver transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Angiology is now available. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Ischaemic preconditioning (IPC) is a strategy to reduce ischaemia-reperfusion (IR) injury. Its benefit in human liver transplantation is unclear."

Financial support for this research came from Wellington/HCA Research Fellowship.

Our news journalists obtained a quote from the research from University College,
"The aim of this study was to analyse the current evidence for donor IPC in liver transplantation. Systematic review and meta-analysis of studies involving IPC of liver transplant donors. Ovid Medline, Embase and Cochrane CENTRAL were searched up until January 2015. Data retrieved included the primary outcomes of 1-year mortality, incidence of primary graft nonfunction (PGNF) and retransplantation. Secondary outcomes included aspartate aminotransferase (AST) levels on day 3 post-op. Pooled odds ratios (ORs) were calculated for dichotomous data and mean weighted ratios for continuous data. Ten studies included 593 patients (286 IPC; 307 control). IPC was associated with a reduction in mortality at 1 year (6% vs. 11%) although this was not statistically significant (OR 0.54, 95% C. I. 0.28-1.04, P = 0.06). The IPC group had a significantly lower day 3 AST level (WMD -66.41iU, P = 0.04). This meta-analysis demonstrates that IPC reduces liver injury following transplantation and produces a large reduction in 1-year mortality which was not statistically significant."

According to the news editors, the research concluded: "Confirmation of clinical benefit from IPC requires an adequately powered prospective RCT."


Our news journalists report that additional information may be obtained by contacting F.P. Robertson, UCL, Dept. of Surg & Intervent Sci, London, United Kingdom. Additional authors for this research include L.J. Magill, G.P. Wright, B. Fuller and B.R. Davidson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tri.12849. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Angiology, Article Review, Cardiology, University College.

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Angiology

New Angiology Study Findings Recently Were Reported by Researchers at Wenzhou Medical University (High serum levels of sclerostin and Dickkopf-1 are associated with acute ischaemic stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Angiology is now available. According to news reporting from Zhejiang, People's Republic of China, by NewsRx journalists, research stated, "Sclerostin and Dickkopf-1 (Dkk-1) are potent antagonists of Wnt signalling and might therefore play important roles in cardiovascular disease. We investigated whether serum sclerostin and Dkk-1 levels are associated with acute ischaemic stroke and specific stroke subtypes."

The news correspondents obtained a quote from the research from Wenzhou Medical University, "Serum levels of sclerostin and Dkk-1 were measured by ELISA on day 1 and on day 6 after stroke in 62 patients with large artery atherosclerotic (LAA) stroke, on day 1 after stroke in 62 age-and gender-matched patients with small-artery occlusion (SAO) stroke and on
admission in 62 healthy controls. Stroke severity was determined based on the National Institutes of Health Stroke Scale (NIHSS) and by measuring stroke volume on diffusion-weighted imaging. Outcome was measured by the modified Rankin Scale (mRS) on day 90. Compared with controls, serum sclerostin and Dkk-1 levels were significantly higher in both patients with LAA stroke and with SAO stroke, and no difference was detected between the stroke subtypes. Sclerostin and Dkk-1 levels remained stable between the first and sixth day after stroke in the patients with LAA stroke. Receiver operating characteristic curve analysis was used to evaluate sclerostin and Dkk-1 as markers of a high risk of stroke and produced area under curve values of 0.773 and 0.776. Adjusted logistic regression showed that serum sclerostin and Dkk-1 levels remained as independent markers of stroke. No correlations were found between sclerostin or Dkk-1 levels and stroke severity or stroke outcome.

According to the news reporters, the research concluded: "High serum levels of sclerostin and Dkk-1 are associated with acute ischaemic stroke."

For more information on this research see: High serum levels of sclerostin and Dickkopf-1 are associated with acute ischaemic stroke. Atherosclerosis, 2016;253():22-28. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting X.P. Jin, Wenzhou Med Univ, Taizhou Hosp, Dept. of Neurol, Linhai City, Zhejiang, People's Republic of China. Additional authors for this research include E. Wang, Y.Y. Bao, F. Wang, M. Zhu, X.F. Hu and X.P. Jin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.08.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zhejiang, People's Republic of China, Asia, Risk and Prevention, Cardiology, Angiology, Stroke, Wenzhou Medical University.

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Drugs and Therapies - Angiotensin Converting...

New Angiotensin Converting Enzyme Inhibitors Data Have Been Reported by Investigators at Capital Medical University (Enalapril protects against myocardial ischemia/reperfusion injury in a swine model of cardiac arrest and resuscitation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Angiotensin Converting Enzyme Inhibitors have been published. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "There is strong evidence to suggest that angiotensin-converting enzyme inhibitors (ACEIs) protect against local myocardial ischemia/reperfusion (I/R) injury. This study was designed to explore whether ACEIs exert cardioprotective effects in a swine model of cardiac arrest (CA) and resuscitation."

Our news editors obtained a quote from the research from Capital Medical University, "Male pigs were randomly assigned to three groups: sham-operated group, saline treatment group and enalapril treatment group. Thirty minutes after drug infusion, the animals in
the saline and enalapril groups were subjected to ventricular fibrillation (8 min) followed by cardiopulmonary resuscitation (up to 30 min). Cardiac function was monitored, and myocardial tissue and blood were collected for analysis. Enalapril pre-treatment did not improve cardiac function or the 6-h survival rate after CA and resuscitation; however, this intervention ameliorated myocardial ultrastructural damage, reduced the level of plasma cardiac troponin I and decreased myocardial apoptosis. Plasma angiotensin (Ang) II and Ang-(1-7) levels were enhanced in the model of CA and resuscitation. Enalapril reduced the plasma Ang II level at 4 and 6 h after the return of spontaneous circulation whereas enalapril did not affect the plasma Ang-(1-7) level. Enalapril pre-treatment decreased the myocardial mRNA and protein expression of angiotensin-converting enzyme (ACE). Enalapril treatment also reduced the myocardial ACE/ACE2 ratio, both at the mRNA and the protein level. Enalapril pre-treatment did not affect the upregulation of ACE2, Ang II type 1 receptor (AT1R) and MAS after CA and resuscitation. Taken together, these findings suggest that enalapril protects against ischemic injury through the attenuation of the ACE/Ang II/AT1R axis after CA and resuscitation in pigs."

According to the news editors, the research concluded: "These results suggest the potential therapeutic value of ACEIs in patients with CA."

For more information on this research see: Enalapril protects against myocardial ischemia/reperfusion injury in a swine model of cardiac arrest and resuscitation. *International Journal of Molecular Medicine*, 2016;38(5):1463-1473. *International Journal of Molecular Medicine* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

The news editors report that additional information may be obtained by contacting G.X. Wang, Capital Med Univ, Beijing Friendship Hosp, Dept. of Emergency Med, Beijing 100050, People's Republic of China. Additional authors for this research include Q. Zhang, W. Yuan, J.Y. Wu and C.S. Li.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Angiotensin Converting Enzyme Inhibitors, Cardiovascular Agents, Drugs and Therapies, Biological Factors, Peptide Proteins, Peptide Hormones, Oligopeptides, Neuropeptides, Angiotensins, Dipeptides, Autacoids, Enalapril, Peptides, Capital Medical University.

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**Angiotensins**

**New Angiotensins Findings Has Been Reported by Investigators at Shanghai University (Swertiamarin Attenuates Experimental Rat Hepatic Fibrosis by Suppressing Angiotensin II-Angiotensin Type 1 Receptor-Extracellular Signal-Regulated Kinase ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Angiotensins have been published. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "The rennin-angiotensin system (RAS) is crucial in hepatic fibrosis development, and therapies targeting this system may be a promising treatment for hepatic fibrosis. In this study, we investigated the effects of swertiamarin (Swe), an ethanol extract of Gentiana manshurica Kitag, on hepatic fibrosis and its underlying mechanisms through regulating RAS."

The news correspondents obtained a quote from the research from Shanghai University, "Primary rat hepatic stellate cells (HSCs) were isolated and treated with angiotensin
II (Ang II) with or without Swe and losartan. The proliferation and activation of HSCs were measured. Rat hepatic fibrosis was induced by intraperitoneal dimethylnitrosamine (DMN) injection for 4 weeks. Rats were treated with Swe or losartan from the third week until the end of the experiment. Hydroxyproline content in liver tissue was assayed with Jamall's method, and liver collagen deposition was visualized using Sirius red staining. RAS components were analyzed by Western blot, immunofluorescent staining, and real-time reverse-transcription polymerase chain reaction. The results showed that Swe significantly inhibited Ang II-induced HSC proliferation and activation. Swe also significantly suppressed DMN-induced alpha-smooth muscle actin production in rat livers and improved liver function. Swe partially inhibited Ang II-induced angiotensin type 1 receptor (AT1R) up-regulation and suppressed Ang II-induced extracellular signal-regulated kinase (ERK) and c-jun phosphorylation in HSCs. In the DMN-treated rats, Swe treatment significantly inhibited the plasma Ang II levels. DMN-induced AT1R up-regulation, and phosphorylation of ERK and c-jun in rat liver were also inhibited by Swe.

According to the news reporters, the research concluded: "Swe may attenuate hepatic fibrosis through inhibiting HSC activation by regulating the RAS."


Our news journalists report that additional information may be obtained by contacting Y.Y. Tao, Shanghai Univ Tradit Chinese Med, Shuguang Hosp, Inst Liver Dis, Shanghai, People's Republic of China. Additional authors for this research include Q.L. Wang, Y.Y. Tao and C.H. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.234179. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Enzymes and Coenzymes, Nerve Tissue Proteins, Biological Factors, Hepatic Fibrosis, Peptide Proteins, Peptide Hormones, Angiotensin II, Oligopeptides, Neuropeptides, Angiotensins, Autacoids, Genetics, Peptides, Kinase, Shanghai University.

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Anions

**New Anions Findings from Hartford Hospital Reported (Physical compatibility of tedizolid phosphate with selected i.v. drugs during simulated Y-site administration)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Anions is now available. According to news reporting from Hartford, Connecticut, by NewsRx journalists, research stated, "The physical compatibility of commonly used agents that could be coadministered in the clinical setting with tedizolid phosphate during Y-site administration was evaluated. Tedizolid phosphate vials were
reconstituted to a final concentration of 0.8 mg/mL."

The news correspondents obtained a quote from the research from Hartford Hospital, "All other drugs were prepared according to manufacturers' recommendations and diluted with 0.9% sodium chloride injection (where applicable) to the highest standard concentrations used clinically. Y-site conditions were simulated in culture tubes by mixing 5 mL of tedizolid phosphate solution with 5 mL of the test drug solutions. The physical characteristics, turbidity, and pH of all admixtures were examined immediately after mixing and at 15, 60, and 120 minutes. Incompatibility was defined as gross precipitation, a positive Tyndall beam test, color changes, or increases in turbidity. With simulated Y-site administration, tedizolid phosphate was compatible with 69 of 86 drugs in 0.9% sodium chloride injection, including 24 of 31 antimicrobial agents. Of note, incompatibility was observed immediately after mixing except with ceftaroline and diphenhydramine, whose incompatibility with tedizolid phosphate was apparent after 15 and 60 minutes, respectively. Among the drug classes tested, tedizolid phosphate was compatible only with 1 aminoglycoside (amikacin) and incompatible with 1 echinocandin (caspofungin) and 1 cephalosporin (ceftaroline). In addition, tedizolid phosphate was incompatible with divalent cations (calcium chloride, calcium gluconate, and magnesium sulfate), probably due to precipitation with the phosphate component. A pH change of >1 unit occurred only with epinephrine (at 120 minutes)."

According to the news reporters, the research concluded: "Tedizolid phosphate 0.8 mg/mL in 0.9% sodium chloride injection was physically compatible with 69 of 86 study drugs during simulated Y-site administration."

For more information on this research see: Physical compatibility of tedizolid phosphate with selected i.v. drugs during simulated Y-site administration. American Journal of Health-System Pharmacy, 2016;73(21):1769-1776. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting D.P. Nicolau, Hartford Hospital, Center Antinfect Res & Dev, Hartford, CT 06115, United States. Additional authors for this research include Y. Hamada and D.P. Nicolau.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp150721. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hartford, Connecticut, United States, North and Central America, Nasal Lubricants and Irrigations, Drugs and Therapies, Respiratory Agents, Hydrochloric Acid, Phosphoric Acids, Sodium Chloride, Phosphates, Chemicals, Chlorides, Anions, Hartford Hospital.

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Carrier Proteins - Annexins

New Annexins Findings Reported from Fourth Military Medical University (CD147 regulates cancer migration via direct interaction with Annexin A2 and DOCK3-b-catenin-WAVE2 signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Carrier Proteins - Annexins are presented in a new report.
According to news reporting from Xi'an, People's Republic of China, by NewsRx journalists, research stated, "The acquisition of inappropriate migratory feature is crucial for tumor metastasis. It has been suggested that CD147 and Annexin A2 are involved in regulating tumor cell movement, while the regulatory mechanisms are far from clear."

The news correspondents obtained a quote from the research from Fourth Military Medical University, "In this study, we demonstrated that CD147 physically interacted with the N-terminal domain of Annexin A2 and decreased Annexin A2 phosphorylation on tyrosine 23. In vitro kinase assay showed that the I domain of CD147 was indispensable for CD147-mediated downregulation of Annexin A2 phosphorylation by Src. Furthermore, we determined that p-Annexin A2 promoted the expression of dedicator of cytokinesis 3 (DOCK3) and DOCK3 blocked b-catenin nuclear translocation, resulting in inhibition of b-catenin signaling. In addition, DOCK3 inhibited lamellipodium dynamics and tumor cell movement. Also, we found that b-catenin signaling increased WAVE2 expression. Therefore, DOCK3 was characterized as a negative regulator of WAVE2 expression via inhibiting b-catenin signaling."

According to the news reporters, the research concluded: "Our study provides the first evidence that CD147 promotes tumor cell movement and metastasis via direct interaction with Annexin A2 and DOCK3-b-catenin-WAVE2 signaling axis."

For more information on this research see: CD147 regulates cancer migration via direct interaction with Annexin A2 and DOCK3-b-catenin-WAVE2 signaling. Oncotarget, 2016;7(5):5613-29.

Our news journalists report that additional information may be obtained by contacting H.Y. Cui, Cell Engineering Research Center and Dept. of Cell Biology, State Key Laboratory of Cancer Biology, National Key Discipline of Cell Biology, Fourth Military Medical University, Xi'an, People's Republic of China. Additional authors for this research include S.J. Wang, J.Y. Miao, Z.G. Fu, F. Feng, J. Wu, X.M. Yang, Z.N. Chen and J.L Jiang. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6723. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Xi'an, Cancer, Genetics, Oncology, Annexin A2, Carrier Proteins, People's Republic of China.

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Drugs and Therapies - Antiarrhythmic Agents

New Antiarrhythmic Agents Study Results Reported from Medical University (Comparison of the beta-Adrenergic Receptor Antagonists Landiolol and Esmolol: Receptor Selectivity, Partial Agonism, and Pharmacochaperoning Actions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiarrhythmic Agents have been published. According to news reporting out of Vienna, Austria, by NewsRx editors, research stated, "Blockage of beta(1)-adrenergic receptors is one of the most effective treatments in cardiovascular medicine. Esmolol was introduced some three decades ago as a short-acting beta(1)-selective antagonist."

Our news journalists obtained a quote from the research from Medical University,
"Landiolol is a more recent addition. Here we compared the two compounds for their selectivity for beta(1)-adrenergic receptors over beta(2)-adrenergic receptors, partial agonistic activity, signaling bias, and pharmacochaperoning action by using human embryonic kidney (HEK)293 cell lines, which heterologously express each human receptor subtype. The affinity of landiolol for beta(1)-adrenergic receptors and beta(2)-adrenergic receptors was higher and lower than that of esmolol, respectively, resulting in an improved selectivity (216-fold versus 30-fold). The principal metabolite of landiolol (M1) was also b1-selective, but its affinity was very low. Both landiolol and esmolol caused a very modest rise in cAMP levels but a robust increase in the phosphorylation of extracellular signal regulated kinases 1 and 2, indicating that the two drugs exerted partial agonist activity with a signaling bias. If cells were incubated for \( \geq 24 \) hours in the presence of \( \geq 1 \) mu M esmolol, the levels of beta(1)-adrenergic-but not of beta(2)-adrenergic-receptors increased. This effect was contingent on export of the beta(1)-receptor from endoplasmic reticulum and was not seen in the presence of landiolol."

According to the news editors, the research concluded: "On the basis of these observations, we conclude that landiolol offers the advantage of: 1) improved selectivity and 2) the absence of pharmacochaperoning activity, which sensitizes cells to rebound effects upon drug discontinuation."


Our news journalists report that additional information may be obtained by contacting M. Freissmuth, Medical University of Vienna, Inst Pharmacol, Center Phys & Pharmacol, A-1090 Vienna, Austria. Additional authors for this research include S. Sucic, Q. Yang, M. Freissmuth and C. Nanoff.

Keywords for this news article include: Vienna, Austria, Europe, Beta-Adrenergic Blocking Agents, Adrenergic beta-Antagonist, Adrenergic beta Receptors, Group II Antiarrhythmics, Catecholamine Receptors, Cardiovascular Agents, Antiarrhythmic Agents, Adrenergic Receptors, Drugs and Therapies, Membrane Proteins, beta-2 Receptors, Esmolol Therapy, Medical University.

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phospholipid membrane permeability. The objective of this study is to investigate the loading mechanism and validity of applying electrostatic attraction for the colistin entrapment and delivery in liposomes."

Financial support for this research came from Education Department of Liaoning.

The news correspondents obtained a quote from the research from Shenyang Pharmaceutical University. "Anionic lipids with various structures were used for colistin entrapment, and the properties of resulting liposomes (i.e. zeta-potential, EE and release rate) were highly dependent on the structure of anionic lipids. Based on consideration of intermolecular interactions, the retention of electrostatically entrapped colistin is essentially determined by the balance of interfacial hydrophobic attraction and electrostatic repulsion. The liposomal colistin showed the reduced bacterial killing rate, but did not compromise the in vitro antibacterial activity. Specially, the PEGylated liposomal colistin of sodium cholesteryl sulfate (Chol-SO4(-)) showed the best drug retention, resulting in the significantly increased maximum-tolerated dose, prolonged blood circulation and decreased colistin distribution in kidney after intravenous administration in mice."

According to the news reporters, the research concluded: "These results highlight the potential utility of electrostatically entrapped liposome for polycationic colistin delivery."


Our news journalists report that additional information may be obtained by contacting L. Yang, Shenyang Pharmaceutical University, Sch Pharm, Shenyang, People's Republic of China. Additional authors for this research include C.C. Tang, E.B. Zhang and L. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Pore Forming Cytotoxic Proteins, Drug Delivery Systems, Drugs and Therapies, Membrane Proteins, Biotechnology, Antibiotics, Polymyxins, Liposomes, Colistin, Shenyang Pharmaceutical University.

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**Drugs and Therapies - Antibiotics**

**New Antibiotics Data Have Been Reported by Researchers at University of Melbourne [Novel alpha(1)-adrenoceptor antagonism by the fluoroquinolone antibiotic trovafloxacin]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antibiotics have been published. According to news reporting originating in Melbourne, Australia, by NewsRx journalists, research stated, "Trovafloxacin, a fluoroquinolone antibiotic, was recently found to be
an inhibitor of pannexin-1 channels through which ATP is released as 'find-me' signals in apoptotic Jurkat cells. Our interest in the role of pannexin-1 channels in alpha(1)-adrenoceptor-mediated vasoconstriction led us to the novel finding reported here."

The news reporters obtained a quote from the research from the University of Melbourne, "Concentration-response curves to methoxamine and phenylephrine were competitively antagonised by trovafloxacin (1-30 μM) with a pK(B) of 5.54 and 5.32, respectively, in rat mesenteric small arteries isolated for myography. In comparison, prazosin (1-10 nM) antagonised methoxamine concentration-response curves with a pKB of 9.76. Trovafloxacin (1-30 μM) had no effect on either the thromboxane mimetic (U46619) or endothelin-1 concentration-contraction curves. Interestingly, the concentration range is similar for trovafloxacin antagonising the 3 distinct pharmacological targets: (i) fourth generation fluroquinolone antibiotic, (ii) pannexin-1 channel inhibitor in apoptotic cells, and now (iii) as an alpha(1)-adrenoceptor antagonist. When trovafloxacin was in use clinically, CNS side effects of dizziness, flushing and headache consistent with alpha(1)-adrenoceptor antagonism were common."

According to the news reporters, the research concluded: "We conclude that trovafloxacin with its quinolone moiety is a weak alpha(1)-adrenoceptor competitive antagonist in comparison with prazosin."


Our news correspondents report that additional information may be obtained by contacting J.A. Angus, University of Melbourne, Dept. of Pharmacol & Therapeut, Cardiovasc Therapeut Unit, Melbourne, Vic 3010, Australia.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Fluroquinolone Therapy, Antibacterial Agents, Drugs and Therapies, Antimicrobials, Antiinfectives, Trovafloxacin, Antibiotics, Quinolones, University of Melbourne.

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Drugs and Therapies - Antibiotics

New Antibiotics Findings Has Been Reported by Investigators at Northwestern Memorial Hospital (Evaluation of Vancomycin Exposures Associated with Elevations in Novel Urinary Biomarkers of Acute Kidney Injury in Vancomycin-Treated Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news reporting originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Vancomycin has been associated with acute kidney injury (AKI). However, the pharmacokinetic/toxicodynamic relationship for AKI is not well defined.

Funders for this research include HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID), HHS | NIH | National Institute of General Medical Sciences (NIGMS).
Our news editors obtained a quote from the research from Northwestern Memorial Hospital, "Allometrically scaled vancomycin exposures were used to assess the relationship between vancomycin exposure and AKI. Male Sprague-Dawley rats received clinical-grade vancomycin in normal saline (NS) as intraperitoneal (i.p.) injections for 24- to 72-h durations with doses ranging 0 to 200 mg/kg of body weight divided once or twice daily. Urine was collected over the protocol's final 24 h. Renal histopathology was qualitatively scored. Urinary biomarkers (e.g., cystatin C, clusterin, kidney injury molecule 1 [KIM-1], osteopontin, lipocalin 2/neutrophil gelatinase-associated lipocalin 2) were assayed using a Luminex xMAP system. Plasma vancomycin concentrations were assayed by high-performance liquid chromatography with UV detection. A three-compartment vancomycin pharmacokinetic model was fit to the data with the Pmetrics package for R. The exposure-response in the first 24 h was evaluated using Spearman's nonparametric correlation coefficient (r(s)) values for the area under the concentration-time curve during the first 24 h (AUC(0-24)), the maximum concentration in plasma during the first 24 h (Cmax0-24), and the lowest (minimum) concentration in plasma after the dose closest to 24 h (Cmin0-24). A total of 52 rats received vancomycin (n = 42) or NS (n = 10). The strongest exposure-response correlations were observed between AUC(0-24) and Cmax0-24 and urinary AKI biomarkers. Exposure-response correlations (r(s) values) for AUC (0-24), Cmax0-24, and Cmin0-24 were 0.37, 0.39, and 0.22, respectively, for clusterin; 0.42, 0.45, and 0.26, respectively, for KIM-1; and 0.52, 0.55, and 0.42, respectively, for osteopontin. However, no differences in histopathological scores were observed. Optimal sampling times after administration of the i.p. dose were 0.25, 0.75, 2.75, and 8 h for the once-daily dosing schemes and 0.25, 1.25, 14.5, and 17.25 h for the twice-daily dosing schemes."

According to the news editors, the research concluded: "Our observations suggest that AUC(0-24) or Cmax0-24 correlates with increases in urinary AKI biomarkers."


The news editors report that additional information may be obtained by contacting M.H. Scheetz, Northwestern Mem Hosp, Dept. of Pharm, Chicago, IL 60611, United States. Additional authors for this research include W.C. Prozialeck, T.P. Lodise, N. Venkatesan, J.N. O'Donnell, G. Pais, C. Cluff, P.C. Lamar, M.N. Neely, A. Gulati and M.H. Scheetz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00591-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Pharmaceuticals, Diagnostics and Screening, Glycopeptide Antibiotics, Acute Kidney Injury, Drugs and Therapies, Pharmacokinetics, Antiinfectives, Glycopeptides, Vancomycin, Peptides, Northwestern Memorial Hospital.

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New Antibiotics Findings Has Been Reported by Investigators at Public Hospital System (Determination of Colistin and Colistimethate Levels in Human Plasma and Urine by High-Performance Liquid Chromatography-Tandem Mass Spectrometry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antibiotics is now available. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "Colistin is a polypeptide antibiotic from the polymyxin E group used for the treatment of infections caused by multidrug-resistant gram-negative bacteria. The main constituents, accounting for approximately 85% of this mixture, are colistin A (polymyxin E1) and colistin B (polymyxin E2)."

The news reporters obtained a quote from the research from Public Hospital System, "The aim of this study was to develop and validate new and fast methods of quantification of colistin A and B and its precursors [colistin methanesulfonate sodium (CMS) A and B] by ultraperformance liquid chromatography-tandem mass spectrometry in plasma and urine with short pretreatment and run times. Chromatography was performed on an Acquity UPLC-MS/MS system (WATERS) with a WATERS Acquity UPLC C18 column (4.6 x 150 mm, 3.5 mm particle size). The pretreatment of samples consists of precipitation and extraction into microcolumns plate and HLB 96-well plate 30 mm-30 mg (OASIS) with a Positive Pressure-96 (WATERS). Quantification was performed using a multiple reaction monitoring of the following transitions: m/z 390.9/385.1 for colistin A, m/z 386.2/101.0 for colistin B, and m/z 602.4/241.1 for polymyxin B1 sulfate. In plasma and urine, calibration curves were linear from 30 to 6000 ng/mL for colistin A and from 15 to 3000 ng/mL for colistin B. With an acceptable accuracy and precision, the lower limit of quantification were set at 24.0 ng/mL and 12.0 ng/mL for colistin A and B in plasma, and at 18.0 ng/mL and 9.0 ng/mL for colistin A and B in urine. These LC-MS/MS methods of quantification for colistin A and B and its precursors (CMS A and B) in plasma and urine are fast, simple, specific, sensitive, accurate, precise, and reliable. Furthermore, they are linear and repeatable."

According to the news reporters, the research concluded: "These procedures were successfully applied to a pharmacokinetic study of a critically ill patient suffering from ventilator-associated pneumonia, who was treated with nebulized CMS."

For more information on this research see: Determination of Colistin and Colistimethate Levels in Human Plasma and Urine by High-Performance Liquid Chromatography-Tandem Mass Spectrometry. Therapeutic Drug Monitoring, 2016;38(6):796-803. Therapeutic Drug Monitoring can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting N. Zahr, Hopital La Pitie Salpetriere, AP HP, CIC 1421, Paris, France. Additional authors for this research include Q. Lu, M. Enjalbert, M. Apparuit, O. Langeron, J.J. Rouby, C. Funck-Brentano and N. Zahr.

Keywords for this news article include: Paris, France, Europe, High-Performance Liquid Chromatography, Antimicrobial Cationic Peptides, Pore Forming Cytotoxic Proteins,
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**Drugs and Therapies - Antibiotics**

**New Antibiotics Findings from Baylor University College of Medicine Described (Nonprescription Antimicrobial Use in a Primary Care Population in the United States)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antibiotics is now available. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Community antimicrobial resistance rates are high in communities with frequent use of nonprescription antibiotics. Studies addressing nonprescription antibiotic use in the United States have been restricted to Latin American immigrants."

Our news editors obtained a quote from the research from the Baylor University College of Medicine, "We estimated the prevalence of nonprescription antibiotic use in the previous 12 months as well as intended use (intention to use antibiotics without a prescription) and storage of antibiotics and examined patient characteristics associated with nonprescription use in a random sample of adults. We selected private and public primary care clinics that serve ethnically and socioeconomiclly diverse patients. Within the clinics, we used race/ethnicity-stratified systematic random sampling to choose a random sample of primary care patients. We used a self-administered standardized questionnaire on antibiotic use. Multivariate regression analysis was used to identify independent predictors of nonprescription use. The response rate was 94%. Of 400 respondents, 20 (5%) reported nonprescription use of systemic antibiotics in the last 12 months, 102 (25.4%) reported intended use, and 57 (14.2%) stored antibiotics at home. These rates were similar across race/ethnicity groups. Sources of antibiotics used without prescriptions or stored for future use were stores or pharmacies in the United States, 'leftover' antibiotics from previous prescriptions, antibiotics obtained abroad, or antibiotics obtained from a relative or friend. Respiratory symptoms were common reasons for the use of nonprescription antibiotics. In multivariate analyses, public clinic patients, those with less education, and younger patients were more likely to endorse intended use. The problem of nonprescription use is not confined to Latino communities."

According to the news editors, the research concluded: "Community antimicrobial stewardship must include a focus on nonprescription antibiotics."

For more information on this research see: Nonprescription Antimicrobial Use in a Primary Care Population in the United States. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5527-5532. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting L. Grigoryan, Baylor College of Medicine, Dept. of Family & Community Med, Houston, TX 77030, United States. Additional authors for this research include L. Grigoryan, S. Nash and B.W. Trautner.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1128/AAC.00528-16. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and
Central America, Antibacterial Agents, Drugs and Therapies, Antimicrobials, Antibiotics,
Baylor University College of Medicine.

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Drugs and Therapies - Antibiotics

New Antibiotics Findings from Chinese University of Hong Kong
Reported (Fabrication of doxorubicin nanoparticles by controlled
antisolvent precipitation for enhanced intracellular delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Current study results on Drugs and Therapies - Antibiotics have been
published. According to news reporting out of Hong Kong, People's Republic of China, by
NewsRx editors, research stated, "Over-expression of ATP-binding cassette transporters is one
of the most important mechanisms responsible for multidrug resistance. Here, we aimed to
develop a stable polymeric nanoparticle system by flash nanoprecipitation (FNP) for enhanced
anticancer drug delivery into drug resistant cancer cells."

Financial support for this research came from Chinese University of Hong Kong.

Our news journalists obtained a quote from the research from the Chinese University
of Hong Kong, "As an antisolvent precipitation process, FNP works best for highly lipophilic
solute (log P> 6). Thus we also aimed to evaluate the applicability of FNP to drugs with
relatively low lipophilicity (log P = 1-2). To this end, doxorubicin (DOX), an anthracycline
anticancer agent and a P-gp substrate with a logP of 1.3, was selected as a model drug for the
assessment. DOX was successfully incorporated into the amphiphilic diblock copolymer,
polyethylene glycol-b-polyactic acid (PEG-b-PLA), by FNP using a four stream multi-inlet
vortex mixer. Optimization of key processing parameters and co-formulation with the co-
stabilizer, polyvinylpyrrolidone, yielded highly stable, roughly spherical DOX-loaded PEG-b-
PLA nanoparticles (DOX.NP) with mean particle size below 100 nm, drug loading up to 14%,
and drug encapsulation efficiency up to 49%. DOX.NP exhibited a pH-dependent drug release
profile with higher cumulative release rate at acidic pHs. Surface analysis of DOX.NP by XPS
revealed an absence of DOX on the particle surface, indicative of complete drug encapsulation.
While there were no significant differences in cytotoxic effect on P-gp over-expressing
LCC6/MDR cell line between DOX.NP and free DOX in buffered aqueous media, DOX.NP
exhibited a considerably higher cellular uptake and intracellular retention after efflux."

According to the news editors, the research concluded: "The apparent lack of
cytotoxicity enhancement with DOX.NP may be attributable to its slow DOX release inside the
cells."

For more information on this research see: Fabrication of doxorubicin nanoparticles
by controlled antisolvent precipitation for enhanced intracellular delivery. *Colloids and
Surfaces B-Biointerfaces*, 2016;139():249-258. *Colloids and Surfaces B-Biointerfaces* can be
contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands.

Our news journalists report that additional information may be obtained by
contacting A.H.L. Chow, Chinese University of Hong Kong, Sch Pharm, Shatin, Hong Kong, People's Republic of China. Additional authors for this research include K.K.W. To and A.H.L. Chow.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.colsurfb.2015.12.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Emerging Technologies, Drugs and Therapies, Pharmaceuticals, Cancer Therapy, Nanotechnology, Nanoparticle, Chinese University of Hong Kong.

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Drugs and Therapies - Antibiotics

New Antibiotics Study Findings Have Been Reported by Researchers at University of Lyon (Impact of untreated urban waste on the prevalence and antibiotic resistance profiles of human opportunistic pathogens in agricultural soils from Burkina Faso)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a new report. According to news reporting out of Villeurbanne, France, by NewsRx editors, research stated, "This study examined the long-term effects of the landfill disposal of untreated urban waste for soil fertilization on the prevalence and antibiotic resistance profiles of various human opportunistic pathogens in soils from Burkina Faso. Samples were collected at three sites in the periphery of Ouagadougou during two campaigns in 2008 and 2011."

Our news journalists obtained a quote from the research from the University of Lyon, "At each site, amendment led to changes in physico-chemical characteristics as shown by the increase in pH, CEC, total C, total N, and metal contents. Similarly, the numbers of total heterotrophic bacteria were higher in the amended fields than in the control ones. No sanitation indicators, i.e., coliforms, Staphylococci, and Enterococci, were detected. Pseudomonas aeruginosa and Burkholderia cepacia complex (Bcc) were detected at a low level in one amended field. Stenotrophomonas maltophilia was detected from both campaigns at the three sites in the amended fields and only once in an unamended field. Diversity analysis showed some opportunistic pathogen isolates to be closely related to reference clinical strains responsible for nosocomial- or community-acquired infections in Northern countries. Antibiotic resistance tests showed that P. aeruginosa and Bcc isolates had a wild-type phenotype and that most S. maltophilia isolates had a multi-drug resistance profile with resistance to 7 to 15 antibiotics. Then we were able to show that amendment led to an increase of some human opportunistic pathogens including multi-drug resistant isolates."

According to the news editors, the research concluded: "Although the application of untreated urban waste increases both soil organic matter content and therefore soil fertility, the consequences of this practice on human health should be considered."

For more information on this research see: Impact of untreated urban waste on the prevalence and antibiotic resistance profiles of human opportunistic pathogens in agricultural soils from Burkina Faso. Environmental Science and Pollution Research, 2016;23(24):25299-
New Antibiotics Study Findings Have Been Reported by Researchers at University of Santiago (First Multitarget Chemo-Bioinformatic Model To Enable the Discovery of Antibacterial Peptides against Multiple Gram-Positive Pathogens)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antibiotics. According to news originating from Santiago de Compostela, Spain, by NewsRx correspondents, research stated, "Antimicrobial peptides (AMPs) have emerged as promising therapeutic alternatives to fight against the diverse infections caused by different pathogenic microorganisms. In this context, theoretical approaches in bioinformatics have paved the way toward the creation of several in silico models capable of predicting antimicrobial activities of peptides."

Financial support for this research came from European Regional Development Fund.

Our news journalists obtained a quote from the research from the University of Santiago, "All current models have several significant handicaps, which prevent the efficient search for highly active AMPs. Here, we introduce the first multitarget (mt) chemobioinformatic model devoted to performing alignment-free prediction of antibacterial activity of peptides against multiple Gram-positive bacterial strains. The model was constructed from a data set containing 2488 cases of AMPs sequences assayed against at least 1 out of 50 Gram-positive bacterial strains. This mt-chemo-bioinformatic model displayed percentages of correct classification higher than 90.00% in both training and prediction (test) sets. For the first time, two computational approaches derived from basic concepts in genetics and molecular biology were applied, allowing the calculations of the relative contributions of any amino acid (in a defined position) to the antibacterial activity of an AMP and depending on the bacterial strain used in the biological assay."

According to the news editors, the research concluded: "The present mt-chemo-bioinformatic model constitutes a powerful tool to enable the discovery of potent and versatile AMPs."

For more information on this research see: First Multitarget Chemo-Bioinformatic Model To Enable the Discovery of Antibacterial Peptides against Multiple Gram-Positive

The news correspondents report that additional information may be obtained from A. Speck-Planche, Dept. of Applied Physics, University of Santiago de Compostela (USC), 15782 Santiago de Compostela, Spain. Additional authors for this research include V.V. Kleandrova, J.M. Ruso and M.N Cordeiro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jcim.5b00630. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibacterial Agents, Antibiotics, Antimicrobials, Biotechnology, Spain, Europe, Bioengineering, Drugs and Therapies, Santiago de Compostela, Applied Bioinformatics, Bacterial Infections and Mycoses.

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Drugs and Therapies - Antibiotics

New Antibiotics Study Findings Have Been Reported from Peking University (The Promising Nanocarrier for Doxorubicin and siRNA Co-delivery by PDMAEMA-based Amphiphilic Nanomicelles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antibiotics have been published. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Synergistic effects of anticancer drug and siRNA have displayed superior advantages for cancer therapy. Herein, we deeply analyzed the feasibility that whether doxorubicin (DOX) and siRNA could be co-delivered by mPEG-PCL-graft-PDMAEMA (PECD) micelles, which mediated excellent DNA/siRNA delivery in vitro and in vivo reported in our previous work."

Financial supporters for this research include Ministry of Science and Technology of the People's Republic of China, National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from Peking University, "DOX-loaded NPs (PECD-D) were developed by nanoprecipitation technology and exhibited high drug loading content (DLC, 9.5%). In vitro cytotoxicity study in MDA-MB-231 cells, PECD-D treated groups had lower IC[50] compared to free DOX groups (F-DOX) at different transfection time (24, 48, and 72h), which maybe attribute to its high cellular uptake and endosomal escape properties. The speculation was confirmed with the results of drug release profile in acidic media, flow cytometry analysis and confocal images. Futhermore, Cy5 labeled siRNA was introduced in PECD-D micelles (PECD-D/siRNA) to track the behavior of dual-loaded nanodrug in vitro and in vivo. Flow cytometry analysis presented that DOX and siRNA were successfully co-delivered into cells, the positive cells ratio were 94.6 and 99.5%, respectively. Confocal images showed that not only DOX and siRNA existed in cytoplasm, but DOX traversed endosome/lysosome and entered into cell nucleus. For in vivo tumor-targeting evaluation in BALB/c nude mice, both DOX and Cy5-siRNA could be detected in tumor sites after intravenous injection with PECD-D/siRNA formulation."

According to the news reporters, the research concluded: "Therefore, we believed
that PECD micelles have a potential ability as DOX and siRNA co-delivery carrier for cancer therapy."


Our news journalists report that additional information may be obtained by contacting Q. Cheng, Laboratory of Nucleic Acid Technology, Institute of Molecular Medicine, Peking University, Beijing 100871, People's Republic of China. Additional authors for this research include L. Du, L. Meng, S. Han, T. Wei, X. Wang, Y. Wu, X. Song, J. Zhou, S. Zheng, Y. Huang, X.J. Liang, H. Cao, A. Dong and Z. Liang.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Antibiotics Antineoplastics, Biotechnology, Cytometry, Doxorubicin Therapy Hydrochloride, Drugs and Therapies, Emerging Technologies, Genetics, Nanomicelles, Nanotechnology, Pharmaceuticals, Small Interference RNAs, siRNA.

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Drugs and Therapies - Antibiotics

New Antibiotics Study Findings Recently Were Reported by Researchers at University of Messina (Tunable doxorubicin release from polymer-gated multiwalled carbon nanotubes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antibiotics is now available. According to news originating from Messina, Italy, by NewsRx correspondents, research stated, "Two pH and temperature controlled drug delivery systems for cancer therapy are here reported by using vapour phase and liquid phase functionalized multiwalled carbon nanotubes (MWCNT). Both oxidized MWCNT were functionalized at the carboxyl groups with a short hydrophilic polyethylene glycol (PEG) chain."

Our news journalists obtained a quote from the research from the University of Messina, "The nanosystems were loaded with doxorubicin and covered with the biocompatible polymer polyactide, able to form hydrogen bonding with PEG and to entrap the drug inside the two polymeric chains. The different oxidative reaction conditions of MWCNT have demonstrated to deeply affect their agglomeration ability and the available reactive surface area for drug loading which in turn, affected the drug release abilities of the synthesized polymer-gated drug delivery systems. The in vitro release abilities as well as their antiproliferative effect on three different human cancer cell lines were evaluated and compared, highlighting the possibility to tune the amount of drug released by controlling the functionalization degree of the carbon nanotube based material."

According to the news editors, the research concluded: "Biological tests highlighted the high biocompatibility of both systems and their ability to deliver doxorubicin to cancer cells."

The news correspondents report that additional information may be obtained from D. Iannazzo, University of Messina, Dept. of Engn, I-98166 Messina, Italy. Additional authors for this research include D. Iannazzo, S. Ansari, C. Milone, M. Salamo, S. Galvagno, S. Cirmi and M. Navarra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Messina, Italy, Europe, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Emerging Technologies, Drugs and Therapies, Carbon Nanotubes, Pharmaceuticals, Nanotechnology, Fullerenes, Oncology, Cancer, University of Messina.

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**Drugs and Therapies - Antibiotics**

**New Antibiotics Study Results Reported from Jichi Medical University (Improvement of Predictivity of Teicoplanin Serum Trough Concentrations at Steady State Calculated by Vancomycin Pharmacokinetic Parameter)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antibiotics are presented in a new report. According to news originating from Tochigi, Japan, by NewsRx correspondents, research stated, "According to a recent study and meta-analysis, trough levels of >10 μg/mL teicoplanin (TEIC) may be acceptable for the treatment of uncomplicated infection, but no method of TEIC personalized medicine has been established. Vancomycin (VCM) and TEIC are glycopeptide antibiotic agents effective against methicillin-resistance Staphylococcus aureus."

Our news journalists obtained a quote from the research from Jichi Medical University, "This study aimed to establish TEIC personalized medicine at a steady state calculated by VCM pharmacokinetic parameters. Bayesian forecasting and population mean methods were employed to estimate individual total VCM clearance (CL) using existing population pharmacokinetics (PPK) parameter, and the differences between the CL calculated by these two methods were defined as Delta CL. Serum drug concentration data for patients treated with TEIC were collected at a steady state concentration (>96 h post infusion). There was a significant relationship between the prediction error of TEIC trough level and Delta CL. The relation between Delta CL and TEIC trough concentration at steady state was used to develop the following equation to determine the maintenance dose: TEIC (μg/mL) =1.1119X-6.124 Delta CL+3.9164 (Xis defined as TEIC trough concentration calculated from the PPK parameter)."

According to the news editors, the research concluded: "The results of this study
indicated that it is possible to improve the prediction error of TEIC trough concentration at a steady state for patients who have received VCM therapy."


The news correspondents report that additional information may be obtained from R. Kobayashi, Jichi Med Univ Hosp, Dept. of Pharm, Shimotsuke, Tochigi 3290498, Japan. Additional authors for this research include S. Otomo, Y. Shiba, K. Ebinuma and T. Sudoh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1248/yakushi.16-00025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tochigi, Japan, Asia, Glycopeptide Antibiotics, Personalized Medicine, Drugs and Therapies, Pharmacokinetics, Pharmaceuticals, Antiinfectives, Glycopeptides, Teicoplanin, Vancomycin, Peptides, Jichi Medical University.

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**Drugs and Therapies - Antibiotics**

**New Antibiotics Study Results Reported from McMaster University (A diverse intrinsic antibiotic resistome from a cave bacterium)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news reporting out of Hamilton, Canada, by NewsRx editors, research stated, "Antibiotic resistance is ancient and widespread in environmental bacteria. These are therefore reservoirs of resistance elements and reflective of the natural history of antibiotics and resistance."

Our news journalists obtained a quote from the research from McMaster University, "In a previous study, we discovered that multi-drug resistance is common in bacteria isolated from Lechuguilla Cave, an underground ecosystem that has been isolated from the surface for over 4 Myr. Here we use whole-genome sequencing, functional genomics and biochemical assays to reveal the intrinsic resistome of *Paenibacillus* sp. LC231, a cave bacterial isolate that is resistant to most clinically used antibiotics. We systematically link resistance phenotype to genotype and in doing so, identify 18 chromosomal resistance elements, including five determinants without characterized homologues and three mechanisms not previously shown to be involved in antibiotic resistance."

According to the news editors, the research concluded: "A resistome comparison across related surface *Paenibacillus* affirms the conservation of resistance over millions of years and establishes the longevity of these genes in this genus."

For more information on this research see: A diverse intrinsic antibiotic resistome from a cave bacterium. *Nature Communications*, 2016;7(1):1-10. *Nature Communications* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW,
New Antibiotics Study Results Reported from Princeton University
(Rapid emergence and mechanisms of resistance by U87 glioblastoma cells to doxorubicin in an in vitro tumor microfluidic ecology)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a new report. According to news originating from Princeton, New Jersey, by NewsRx correspondents, research stated, "In vitro prediction of the probable rapid emergence of resistance to a drug in tumors could act to winnow out potential candidates for further costly development. We have developed a microfluidic device consisting of similar to 500 hexagonal microcompartments that provides a complex ecology with wide ranges of drug and nutrient gradients and local populations."

Financial supporters for this research include HHS | NIH | National Cancer Institute (NCI), National Research Foundation Korea, Technology Innovation Program Republic of Korea.

Our news journalists obtained a quote from the research from Princeton University, "This ecology of a fragmented metapopulation induced the drug resistance in stage IV U87 glioblastoma cells to doxorubicin in 7 d. Exome and transcriptome sequencing of the resistant cells identified mutations and differentially expressed genes. Gene ontology and pathway analyses of the genes identified showed that they were functionally relevant to the established mechanisms of doxorubicin action. Specifically, we identified (i) a frame-shift insertion in the filamin-A gene, which regulates the influx and efflux of topoisomerase II poisons; (ii) the overexpression of aldo-keto reductase enzymes, which convert doxorubicin into doxorubicinol; and (iii) activation of NF-kappa B via alterations in the nucleotide-binding oligomerization domain (NOD)-like receptor signaling pathway from mutations in three genes (CARD6, NSD1, and NLRP13) and the overexpression of inflammatory cytokines. Functional experiments support the in silico analyses and, together, demonstrate the effects of these genetic changes."

According to the news editors, the research concluded: "Our findings suggest that, given the rapid evolution of resistance and the focused response, this technology could act as a rapid screening modality for genetic aberrations leading to resistance to chemotherapy as well as counter selection of drugs unlikely to be successful ultimately."

For more information on this research see: Rapid emergence and mechanisms of resistance by U87 glioblastoma cells to doxorubicin in an in vitro tumor microfluidic ecology.
New Anticholinergics Data Have Been Reported by Investigators at Zhejiang University (Benzoate fraction from Gentiana rigescens Franch alleviates scopolamine-induced impaired memory in mice model in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Anticholinergics have been presented. According to news reporting from Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "Ethnopharmacological relevance: G. rigescens Franch (Long Dan Cao in Chinese) is a well-known TCM herb. It is clinically used with other drugs for the treatment of brain diseases such as epilepsy, postherpetic neuralgia in China."

Financial supporters for this research include Science and Technology of Yunnan Province, International Science and Technology Cooperation Program of China, National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from Zhejiang University, "Aim of study: In our previous study, 11 dihydroxybenzoate compounds with NGF mimicking activity from G. rigescens Franch were found. In the present study, the neurogenesis and neuroprotection of a mixture of benzoates (n-GS) were investigated in animal level. The NGF mimicking activity of n-GS from G. rigescens Franch was examined in PC12 cells. The neurogenesis effects of n-GS were investigated in ICR mice with 5-bromo-2-deoxyuridine (BrdU) and neuronal nuclei (NeuN) double immunostaining. Furthermore, the neuroprotection effects of n-GS on the memory in a scopolamine (SCO)-induced mouse model were evaluated with animal behavior tests. The NGF-mimicking function and neurogenesis of n-GS were observed in PC12 cells and in normal mice. Subsequently, we investigated the effects of n-GS on the memory in a SCO-induced mouse model. In Y-maze test, SCO significantly lowered the alternation. This finding was reversed by n-GS and donepezil (DONE). SCO significantly
impaired the mice's performance in novel object recognition (NOR) and Morris water maze (MWM) tests. The time spent to explore the novel object was longer in the n-GS- and DONE treated groups than in the SCO control group. In the MWM test, the escape latency of n-GS- and DONE treated groups was shorter than that of the SCO control group. Mechanism study showed that SCO significantly reduced superoxide dismutase (SOD) but increased the activities of acetylcholinesterase (AChE) and the levels of malondialdehyde (MDA) in the hippocampus and cerebral cortex, which all can be improved by n-GS and DONE. Additionally, the phosphorylation of type 1 insulin-like growth factor (IGF-1) receptor, extracellular signal-regulated kinase (ERK), and CAMP responsive element-binding (CREB) protein in the hippocampus was significantly up-regulated in the treatment group compared with that in the SCO group.

According to the news reporters, the research concluded: "N-GS could alleviate impaired memory of the SCO-induced mouse model by inhibiting AChE activity and oxidative stress, and regulating the IGF-1R/ERK signaling pathway."


Our news journalists report that additional information may be obtained by contacting L. Xiang, Zhejiang University, Coll Pharmaceut Sci, Hangzhou, Zhejiang, People's Republic of China. Additional authors for this research include L.J. Gao, K.Y. Sun, D. Xiao, W.Y. Li, L. Xiang and J.H. Qi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Central Nervous System Agents, Antiemetic-Antivertigo Agents, Anticholinergic Antiemetics, Ophthalmic Preparations, Drugs and Therapies, Anticholinergics, Antispasmodics, Scopolamine, Mydriatics, Tropanes, Zhejiang University.

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**Drugs and Therapies - Antidepressants**

**New Antidepressants Findings from Swiss Federal Institute of Technology Described (Solar photo-Fenton and UV/H2O2 processes against the antidepressant Venlafaxine in urban wastewaters and human urine. Intermediates formation and ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antidepressants have been presented. According to news reporting from Lausanne, Switzerland, by NewsRx journalists, research stated, "In this work, the use of Advanced Oxidation Processes (AOPs) against the degradation of an emerging contaminant has been subjected under systematic investigation. The optimization of treatment of the antidepressant drug Venlafaxine (VFA) was performed, using
UV light, the combined UV/H2O2 process, solar light, Fenton and finally the solar photo-Fenton process in laboratory scale."

Funders for this research include Swiss Agency for Development and Cooperation, Swiss National Foundation for the Research for Development Grant.

The news correspondents obtained a quote from the research from the Swiss Federal Institute of Technology, "The degradation kinetics, the time necessary to remove 90% of the contaminant and the optimal reactants concentration were proposed. The treatment in pure water, (synthetic) wastewater and urine was assessed, in an effort to identify the opportunities and pitfalls the application of process would encounter in a field application. Treatment by the UV-based methods was found sufficiently efficient and the application of the solar photo-Fenton process showed feasibility in a potential field application with appropriate context. Real urban wastewater effluents after biological and physicochemical treatment were tested, as well as human urine, as a proposal for on-site collection and treatment was also treated. Biological treatment before applying the tested AOPs improved their efficiency, and the strategy of diluting urine prior to treatment greatly enhanced the efficacy of the process."

According to the news reporters, the research concluded: "Finally, the identification of the degradation pathway and the biodegradability tests of AOPs treated VFA solutions exhibit promising results concerning the strategy of treatment for similar pollutants of emerging concern."

For more information on this research see: Solar photo-Fenton and UV/H2O2 processes against the antidepressant Venlafaxine in urban wastewaters and human urine. Intermediates formation and biodegradability assessment. Chemical Engineering Journal, 2017;308():492-504. Chemical Engineering Journal can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland. (Elsevier - www.elsevier.com; Chemical Engineering Journal - www.journals.elsevier.com/chemical-engineering-journal/)

Our news journalists report that additional information may be obtained by contacting S. Giannakis, Ecole Polytechnic Fed Lausanne, Grp Adv Oxidat Proc, ISIC, SB, CH-1015 Lausanne, Switzerland. Additional authors for this research include I. Hendaoui, M. Jovic, D. Grandjean, L.F. De Alencastro, H. Girault and C. Pulgarin.

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Keywords for this news article include: Lausanne, Switzerland, Europe, Serotonin-Norepinephrine Reuptake Inhibitors, Psychotherapeutic Agents, Drugs and Therapies, Venlafaxine Therapy, Antidepressants, Analgesics, Swiss Federal Institute of Technology.

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Drugs and Therapies - Antiepileptics

New Antiepileptics Data Have Been Reported by Researchers at University of Helsinki Central Hospital (Evidence for spared attention to faces in 7-month-old infants after prenatal exposure to antiepileptic drugs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antiepileptics have been presented.
According to news reporting out of Helsinki, Finland, by NewsRx editors, research stated, "Prenatal antiepileptic drug (AED) exposure is associated with an increased risk of cognitive impairment and autism spectrum disorders detected mainly at the age of two to six years. We examined whether the developmental aberrations associated with prenatal AED exposure could be detected already in infancy and whether effects on visual attention can be observed at this early age."

Funders for this research include Foundation for Pediatric Research, Arvo and Leo Ylppö Foundation, Lastenlinna Foundation, Juselius Foundation, Marta Donner Foundation, Paivikki and Sakari Sohlberg Foundation, Academy of Finland, Finnish Cultural Foundation.

Our news journalists obtained a quote from the research from the University of Helsinki Central Hospital, "We compared a prospective cohort of infants with in utero exposure to AED (n = 56) with infants without drug exposures (n = 62). The assessments performed at the age of seven months included standardized neurodevelopmental scores (Griffiths Mental Developmental Scale and Hammersmith Infant Neurological Examination) as well as a novel eye-tracking-based test for visual attention and orienting to faces. Background information included prospective collection of AED exposure data, pregnancy outcome, neuropsychological evaluation of the mothers, and information on maternal epilepsy type. Carbamazepine, oxcarbazepine, and valproate, but not lamotrigine or levetiracetam, were associated with impaired early language abilities at the age of seven months. The general speed of visuospatial orienting or attentional bias for faces measured by eye-tracker-based tests did not differ between AED-exposed and control infants. Our findings support the idea that prenatal AED exposure may impair verbal abilities, and this effect may be detected already in infancy."

According to the news editors, the research concluded: "In contrast, the early development of attention to faces was spared after in utero AED exposure."

For more information on this research see: Evidence for spared attention to faces in 7-month-old infants after prenatal exposure to antiepileptic drugs. *Epilepsy & Behavior*, 2016;64();62-68. *Epilepsy & Behavior* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Epilepsy & Behavior - www.journals.elsevier.com/epilepsy-and-behavior/)

Our news journalists report that additional information may be obtained by contacting M. Videman, Helsinki Univ Hosp, Helsinki, Finland. Additional authors for this research include S. Stjerna, R. Roivainen, T. Nybo, S. Vanhatalo, E. Gaily and J.M. Leppanen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yebeh.2016.09.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Helsinki, Finland, Europe, Drugs and Therapies, Antiepileptics, University of Helsinki Central Hospital.

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**Drugs and Therapies - Antifungals**

**New Antifungals Findings Reported from Federal University (Drug utilization study of systemic antifungal agents in a Brazilian tertiary care hospital)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antifungals is now available. According to news reporting originating in Belo Horizonte, Brazil, by NewsRx journalists, research stated, "The inappropriate use of systemic antifungal agents can result in unnecessary exposure, adverse events, increased microbial resistance and increased costs. This study analysed the use of systemic antifungal agents and adherence to treatment guidelines for fungal infections."

The news reporters obtained a quote from the research from Federal University, "A Brazilian tertiary hospital. This cross-sectional study investigated 183 patients who were treated with systemic antifungals. Antifungal drugs were classified according to the fourth level of the Anatomical Therapeutic Chemical classification system. The appropriateness of treatments was analysed with respect to the indication, dose and potential drug-drug interactions. Descriptive and univariate statistical analyses were performed. The main outcome measure was the frequency of adherence to treatment guidelines for fungal infections. The number of established treatments was 320, with 163 (50.9 %) pre-emptive, 63 (19.7 %) targeted, 56 (17.5 %) empirical and 38 (11.9 %) prophylactic treatments. The overall adherence to the treatment guidelines was 29.4 %. The proportion of appropriate treatment considering indication, dosage and drug-drug interactions was 84.1, 67.8 and 47.2 %, respectively. The most commonly prescribed systemic antifungal agents were fluconazole in 170 (53.1 %), voriconazole in 43 (13.4 %) and amphotericin B deoxycholate in 36 (11.3 %) cases. The study showed a low proportion of appropriate antifungal drug use; the dosage and drug-drug interactions criteria were the determining factors for the high percentage of non-adherence to treatment guidelines in the hospital."

According to the news reporters, the research concluded: "The profile of antifungal agents used showed the predominance of fluconazole as well as the use of new antifungal drugs."


Our news correspondents report that additional information may be obtained by contacting A.M.M. Reis, Federal University of Minas Gerais, Fac Farm, Belo Horizonte, MG, Brazil. Additional authors for this research include A.G. dos Santos and A.M.M. Reis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11096-016-0382-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belo Horizonte, Brazil, South America, Drugs and Therapies, Antiinfectives, Antifungals, Hospital, Federal University.

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New Antifungals Findings from University of Liege Discussed
(Continuous production of itraconazole-based solid dispersions by hot melt extrusion: Preformulation, optimization and design space determination)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antifungals. According to news reporting from Liege, Belgium, by NewsRx journalists, research stated, "The purpose of this work was to increase the solubility and the dissolution rate of itraconazole, which was chosen as the model drug, by obtaining an amorphous solid dispersion by hot melt extrusion. Therefore, an initial preformulation study was conducted using differential scanning calorimetry, thermogravimetric analysis and Hansen's solubility parameters in order to find polymers which would have the ability to form amorphous solid dispersions with itraconazole."

Financial support for this research came from WBGreen convention.

The news correspondents obtained a quote from the research from the University of Liege, "Afterwards, the four polymers namely Kollidon ® VA64, Kollidon ® 12PF, Affinisol ® HPMC and Soluplus ®, that met the set criteria were used in hot melt extrusion along with 25 wt.% of itraconazole. Differential scanning confirmed that all four polymers were able to amorphize itraconazole. A stability study was then conducted in order to see which polymer would keep itraconazole amorphous as long as possible. Soluplus ® was chosen and, the formulation was fine-tuned by adding some excipients (AcDiSol ®, sodium bicarbonate and poloxamer) during the hot melt extrusion process in order to increase the release rate of itraconazole. In parallel, the range limits of the hot melt extrusion process parameters were determined. A design of experiment was performed within the previously defined ranges in order to optimize simultaneously the formulation and the process parameters. The optimal formulation was the one containing 2.5 wt.% of AcDiSol ® produced at 155 degrees C and 100 rpm. When tested with a biphasic dissolution test, more than 80% of itraconazole was released in the organic phase after 8 h. Moreover, this formulation showed the desired thermoformability value. From these results, the design space around the optimum was determined. It corresponds to the limits within which the process would give the optimized product."

According to the news reporters, the research concluded: "It was observed that a temperature between 155 and 170 degrees C allowed a high flexibility on the screw speed, from about 75 to 130 rpm."


Our news journalists report that additional information may be obtained by contacting J. Thiry, University of Liege, Dept. of Pharm, CIRM, Lab Pharmaceut Technol & Biopharm, B-4000 Liege, Belgium. Additional authors for this research include P. Lebrun, C. Vinassa, M. Adam, L. Netchacovitch, E. Ziemons, P. Hubert, F. Krier and B. Evrard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.003. This DOI is a link to an online electronic
New Antifungals Study Findings Have Been Reported by Investigators at Consejo Nacl Invest Cient and Tecn (Aspergillus fumigatus Intrinsic Fluconazole Resistance Is Due to the Naturally Occurring T301I Substitution in Cyp51Ap)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antifungals have been published. According to news reporting originating in Santa Fe, Argentina, by NewsRx journalists, research stated, "Aspergillus fumigatus intrinsic fluconazole resistance has been demonstrated to be linked to the CYP51A gene, although the precise molecular mechanism has not been elucidated yet. Comparisons between A. fumigatus Cyp51Ap and Candida albicans Erg11p sequences showed differences in amino acid residues already associated with fluconazole resistance in C. albicans. The aim of this study was to analyze the role of the natural polymorphism I301 in Aspergillus fumigatus Cyp51Ap in the intrinsic fluconazole resistance phenotype of this pathogen."

Financial supporters for this research include Consejo Nacional de Investigaciones Cientificas y Tecnicas (CONICET), Ministerio de Ciencia, Tecnologia e Innovacion Productiva (MINCyT).

The news reporters obtained a quote from the research from Consejo Nacl Invest Cient and Tecn, "The I301 residue in A. fumigatus Cyp51Ap was replaced with a threonine (analogue to T315 at Candida albicans fluconazole-susceptible Erg11p) by changing one single nucleotide in the CYP51A gene. Also, a CYP51A knockout strain was obtained using the same parental strain. Both mutants' antifungal susceptibilities were tested. The I301T mutant exhibited a lower level of resistance to fluconazole (MIC, 20 µg/ml) than the parental strain (MIC, 640 µg/ml), while no changes in MIC were observed for other azole- and non-azole-based drugs."

According to the news reporters, the research concluded: "These data strongly implicate the A. fumigatus Cyp51Ap I301 residue in the intrinsic resistance to fluconazole."


Our news correspondents report that additional information may be obtained by contacting G. Garcia-Effron, Consejo Nacl Invest Cient & Tecn, Santa Fe, Argentina. Additional authors for this research include D. Macedo, C. Dudiuk, M.S. Cabeza, S. Gamarra and G. Garcia-Effron.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00905-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Santa Fe, Argentina, South America, Aspergillus fumigatus, Drugs and Therapies, Fluconazole Therapy, Azole Antifungals, Pharmaceuticals, Antifungives, Genetics, Consejo Nacl Invest Cient and Tecn.

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Drugs and Therapies - Antifungals

New Antifungals Study Findings Have Been Reported from Shujitsu University [Substrate Specificity of Human Cytochrome P450 (CYP) 2C Subfamily and Effect of Azole Antifungal Agents on CYP2C8]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antifungals. According to news reporting from Okayama, Japan, by NewsRx journalists, research stated, "The metabolic activities of aminopyrine N-demethylation and tolbutamide methylhydroxylation by the human hepatic cytochrome P450 (P450 or CYP) 2C subfamily were compared and the effects of azole antifungal agent on the drug-metabolizing activity of CYP2C8 were investigated. Aminopyrine N-demethylation and tolbutamide methylhydroxylation by CYP2C8, CYP2C9, and CYP2C19 were determined by the previous reported methods."

The news correspondents obtained a quote from the research from Shujitsu University, "The effects of five azole antifungal agents, fluconazole, itraconazole, ketoconazole, miconazole, and voriconazole, on the aminopyrine N-demethylation activity by CYP2C8 were investigated. With regard to aminopyrine N-demethylation, CYP2C19 had the lowest Michaelis constant (K-m) and CYP2C8 had the highest maximal velocity (V-max) among the CYP2C subfamily members. The V-max/K-m values for CYP2C8 were the highest, followed by CYP2C19. For tolbutamide methylhydroxylation, the K-m and Vmax for CYP2C19 were three and six times higher than the corresponding values for CYP2C9, and the Vmax/Km value for CYP2C19 was twice that for CYP2C9, whereas hydroxylated tolbutamide formed by CYP2C8 was not detected. Fluconazole, itraconazole, and voriconazole at a concentration of 2 or 10 mu M neither inhibited nor stimulated CYP2C8-mediated aminopyrine N-demethylation activity at substrate concentrations around the K-m (5 mM). However, ketoconazole and miconazole noncompetitively inhibited CYP2C8-mediated aminopyrine N-demethylation with the inhibitory constant values of 1.98 and 0.86 mu M, respectively."

According to the news reporters, the research concluded: "These results suggest that ketoconazole and miconazole might inhibit CYP2C8 clinically."


Our news journalists report that additional information may be obtained by contacting T. Niwa, Shujitsu Univ, Sch Pharm, Naka Ku, Okayama 7038516, Japan.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.18433/J31S53. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Okayama, Japan, Asia, Miconazole Therapy Nitrate, Sulfonylurea Compounds, Dermatological Agents, Ketoconazole Therapy, Drugs and Therapies, Topical Antifungals, Tolbutamide Therapy, Antidiabetic Agents, Azole Antifungals, Pharmaceuticals, Antinfectives, Sulfonylureas, Hemeproteins, Cytochromes, Proteins, Shujitsu University.

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**Drugs and Therapies - Antifungals**

**New Antifungals Study Findings Reported from Duke Clinical Research Institute (Population Pharmacokinetics of Fluconazole in Premature Infants with Birth Weights Less than 750 Grams)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antifungals. According to news reporting originating in Durham, North Carolina, by NewsRx journalists, research stated, "Fluconazole is an effective agent for prophylaxis of invasive candidiasis in premature infants. The objective of this study was to characterize the population pharmacokinetics (PK) and dosing requirements of fluconazole in infants with birth weights of <750 g. As part of a randomized clinical trial, infants born at <750 g birth weight received intravenous (i.v.) or oral fluconazole at 6 mg/kg of body weight twice weekly."

Financial supporters for this research include HHS | National Institutes of Health (NIH), MOHW | Food and Drug Administration (FDA).

The news reporters obtained a quote from the research from Duke Clinical Research Institute, "Fluconazole plasma concentrations from samples obtained by either scheduled or scavenged sampling were measured using a liquid chromatography-tandem mass spectrometry assay. PK analysis was conducted using NONMEM 7.2. Population PK parameters were allometrically scaled by body weight. Covariates were evaluated by univariable screening followed by multivariable assessment. Fluconazole exposures were simulated in premature infants using the final PK model. A population PK model was developed from 141 infants using 604 plasma samples. Plasma fluconazole PK were best described by a one-compartment model with first-order elimination. Only serum creatinine was an independent predictor for clearance in the final model. The typical population parameter estimate for oral bioavailability in the final model was 99.5%. Scavenged samples did not bias the parameter estimates and were as informative as scheduled samples. Simulations indicated that the study dose maintained fluconazole troughs of >2,000 ng/ml in 80% of simulated infants at week 1 and 59% at week 4 of treatment. Developmental changes in fluconazole clearance are best predicted by serum creatinine in this population."

According to the news reporters, the research concluded: "A twice-weekly dose of 6 mg/kg achieves appropriate levels for prevention of invasive candidiasis in extremely premature infants."

For more information on this research see: Population Pharmacokinetics of Fluconazole in Premature Infants with Birth Weights Less than 750 Grams. Antimicrobial Agents and Chemotherapy, 2016;60(9):5539-5545. Antimicrobial Agents and Chemotherapy
Drugs and Therapies - Antihyperlipidemic Agents

New Antihyperlipidemic Agents Data Have Been Reported by Investigators at Bristol-Myers Squibb [Biliary excretion of pravastatin and taurocholate in rats with bile salt export pump (Bsep) impairment]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antihyperlipidemic Agents are presented in a new report. According to news reporting originating from Princeton, New Jersey, by NewsRx correspondents, research stated, "The bile salt export pump (BSEP) is expressed on the canalicular membrane of hepatocytes regulating liver bile salt excretion, and impairment of BSEP function may lead to cholestasis in humans. This study explored drug biliary excretion, as well as serum chemistry, individual bile acid concentrations and liver transporter expressions, in the SAGE Bsep knockout (KO) rat model."

Our news editors obtained a quote from the research from Bristol-Myers Squibb, "It was observed that the Bsep protein in KO rats was decreased to 15% of that in the wild type (WT), as quantified using LC-MS/MS. While the levels of Ntcp and Mrp2 were not significantly altered, Mrp3 expression increased and Oatp1a1 decreased in KO animals. Compared with the WT rats, the KO rats had similar serum chemistry and showed normal liver transaminases. Although the total plasma bile salts and bile flow were not significantly changed in Bsep KO rats, individual bile acids in plasma and liver demonstrated variable changes, indicating the impact of Bsep KO. Following an intravenous dose of deuterium labeled taurocholic acid (D4-TCA, 2 mg/kg), the D4-TCA plasma exposure was higher and bile excretion was delayed by approximately 0.5 h in the KO rats. No differences were observed for the pravastatin plasma concentration-time profile or the biliary excretion after intravenous administration (1 mg/kg). Collectively, the results revealed that these rats have significantly lower Bsep expression, therefore affecting the biliary excretion of endogenous bile acids and Bsep substrates."

According to the news editors, the research concluded: "However, these rats are able to maintain a relatively normal liver function through the remaining Bsep protein and via the..."
regulation of other transporters."


The news editors report that additional information may be obtained by contacting Y.F. Cheng, Bristol Myers Squibb, Res & Dev, Pharmaceut Candidate Optimizat, Princeton, NJ, United States. Additional authors for this research include C. Freeden, Y.P. Zhang, P. Abraham, H. Shen, D. Wescott, W.G. Humphreys, J.P. Gan and Y.R. Lai.

Keywords for this news article include: Princeton, New Jersey, United States, North and Central America, Pravastatin Therapy Sodium, Antihyperlipidemic Agents, Drugs and Therapies, Pharmaceuticals, Hydrocarbons, Naphthalenes, Chemistry, Bristol-Myers Squibb.

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**Drugs and Therapies - Antihyperlipidemic Agents**

**New Antihyperlipidemic Agents Data Have Been Reported by Researchers at Biochemistry Laboratory (A Cross-Reactivity of Fenofibric Acid With MDMA DRI Assay)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antihyperlipidemic Agents. According to news originating from Clamart, France, by NewsRx correspondents, research stated, "Within the framework of routine fitness examinations, French Air Force military crew underwent urine testing for 3,4 methylenedioxymetamphetamine (MDMA [ecstasy]). The cross-reactivity of a dyslipidemic drug, fenofibrate, with an MDMA immunoassay was studied and confirmed on a large population sample."

Our news journalists obtained a quote from the research from Biochemistry Laboratory, "A 3-year retrospective study was performed on the MDMA DRI Ecstasy Assay on the Unicel DXC 600. In the event of positive test result, a confirmatory testing was carried out by gas chromatography/mass spectrometry (GC/MS) to establish the presence of MDMA. When analysis by GC/MS did not confirm the presence of MDMA, a false-positive result was suspected and the samples were analyzed by high-performance liquid chromatography-mass spectrometry to identify a potential interfering substance. A total of 15,169 urine samples, from 7,803 patients, were tested for 3 years. Of the tested samples, 22 (0.15%) were positive by DRI Ecstasy Assay. None of them were positive by GC/MS. A cross-reactivity of fenofibrate's metabolite with MDMA using this assay was systematically found. Fenofibrate's interference with MDMA immunoassay was confirmed."

According to the news editors, the research concluded: "Fenofibrate being widely prescribed, physicians had to be alerted that this treatment could lead to false-positive results."

For more information on this research see: A Cross-Reactivity of Fenofibric Acid With MDMA DRI Assay. *Military Medicine*, 2016;181(9):1013-1015. *Military Medicine* can be contacted at: Assoc Military Surg Us, 9320 Old Georgetown Rd, Bethesda, MD 20814, USA.
The news correspondents report that additional information may be obtained from S. Bugier, Percy French Military Teaching Hosp, Biochem Lab, F-92140 Clamart, France. Additional authors for this research include C. Garcia-Hejl, P. Vest, J.P. Denis, D. Chianea and C. Renard.

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Keywords for this news article include: Clamart, France, Europe, Antihyperlipidemic Agents, Fibric Acid Derivatives, Drugs and Therapies, Fenofibrate Therapy, Fenofibric Acid, Pharmaceuticals, Biochemistry Laboratory.

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**Drugs and Therapies - Antimicrobials**

**New Antimicrobials Findings from D.M. Meng and Co-Authors Described (Recombinant expression, purification and antimicrobial activity of a novel antimicrobial peptide PaDef in Pichia pastoris)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antimicrobials. According to news originating from College Station, Texas, by NewsRx correspondents, research stated, "The antimicrobial peptide PaDef was isolated from Mexican avocado fruit and was reported to inhibit the growth of Escherichia coli and Staphylococcus aureus in 2013. In this study, an N-terminal 6 x His tagged recombinant PaDef (rPaDef) with a molecular weight of 7.5 KDa, for the first time, was expressed as a secreted peptide in Pichia pastoris."

Funders for this research include Natural Science Foundation of Tianjin City, International Center for Genetic Engineering and Biotechnology, National Natural Science Foundation of China, Science and Technology Commissioner Foundation of Tianjin.

Our news journalists obtained a quote from the research, "The optimal culture condition for rPaDef expression was determined to be incubation with 1.5% methanol for 72 h at 28 degrees C under pH 6.0. Under this condition, the amount of the rPaDef accumulation reached as high as 79.6 mu g per 1 ml of culture medium. Once the rPaDef peptide was purified to reach a 95.7% purity using one-step nickel affinity chromatography, its strong and concentration-dependent antimicrobial activity was detected to be against a broad-spectrum of bacteria of both Gram-negative and Gram-positive. The growth of these bacterial pathogens was almost completely inhibited when the rPaDef peptide was at a concentration of as low as 90 mu g/ml. In summary, our data showed that rPaDef derived from Mexican avocado fruit can be expressed and secreted efficiently when P. pastoris was used as a cell factory."

According to the news editors, the research concluded: "This is the first report on heterologous expression of PaDef in P. pastoris and the approach described holds great promise for antibacterial drug development."

For more information on this research see: Recombinant expression, purification and antimicrobial activity of a novel antimicrobial peptide PaDef in Pichia pastoris. *Protein Expression and Purification*, 2017;130():90-99. *Protein Expression and Purification* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Protein Expression and Purification -
www.journals.elsevier.com/protein-expression-and-purification/)

The news correspondents report that additional information may be obtained from Z.C. Fan, Obesita & Algaege LLC, College Stn, TX 77845, United States. Additional authors for this research include J.F. Zhao, X. Ling, H.X. Dai, Y.J. Guo, X.F. Gao, B. Dong, Z.Q. Zhang, X. Meng and Z.C. Fan.

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Keywords for this news article include: College Station, Texas, United States, North and Central America, Drugs and Therapies, Antimicrobials, Antibiotics.

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Drugs and Therapies - Antimicrobials

New Antimicrobials Study Findings Have Been Reported by Researchers at Autonomous University (Antimicrobial Activity of Silver Nanoparticles in Polycaprolactone Nanofibers against Gram-Positive and Gram-Negative Bacteria)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antimicrobials are presented in a new report. According to news reporting out of Ciudad Juarez, Mexico, by NewsRx editors, research stated, "Drug-resistance infections have increased extremely quickly in the past years, emerging as a serious health problem in the world. Novel and better antimicrobial agents are still being developed to control associated microorganisms."

Funders for this research include Secretaria de Educacion Publica, Consejo Nacional de Ciencia y Tecnologia.

Our news journalists obtained a quote from the research from Autonomous University, "However, this still represents a great challenge for antimicrobial agents. The aim of this study was to prepare and characterize polycaprolactone nanofibers containing silver nanoparticles and to evaluate their antimicrobial properties against various Gram-positive and negative microorganisms associated with drug resistance infections. Polycaprolactone-silver fibers (PCL-AgNPs) were prepared by reduction in situ method of Ag+ ions by N,N-dimethylformamide in tetrahydrofuran solution with the simple addition of polycaprolactone in the solution for electrospinning. The results of dynamic light scattering and UV-visible spectroscopy showed the presence of silver nanoparticles with diameters of around 10-15 nm. STEM and energy dispersive X-ray spectroscopy confirmed the presence of silver agglomerates distributed over the surface of nanofibers. All PCL-AgNPs nanofibers samples showed good and specific antibacterial effect despite low silver concentration; therefore, this activity might depend on particular microbiological and cell structure characteristics as well as concentration of silver on the nanofibers."

According to the news editors, the research concluded: "PCL-AgNPs nanofibers might have a high potential for medical applications focused on the control of drug-resistance infections."

For more information on this research see: Antimicrobial Activity of Silver Nanoparticles in Polycaprolactone Nanofibers against Gram-Positive and Gram-Negative

Our news journalists report that additional information may be obtained by contacting S.Y. Reyes-Lopez, Univ Autonoma Ciudad Juarez, Inst Ciencias Biomed, Ciudad Juarez 32300, Chihuahua, Mexico. Additional authors for this research include L.F. Espinosa-Cristobal, A. Donohue-Cornejo and S.Y. Reyes-Lopez.

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Keywords for this news article include: Ciudad Juarez, Mexico, North and Central America, Gram-Negative Bacterial Infections, Emerging Technologies, Drugs and Therapies, Drug Resistance, Antimicrobials, Nanotechnology, Nanoparticle, Nanofiber, Autonomous University.

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**Drugs and Therapies - Antimicrobials**

**New Antimicrobials Study Findings Reported from Federal University [In Vitro Activity of Melaleuca alternifolia (Tea Tree) in Its Free Oil and Nanoemulsion Formulations Against Pythium insidiosum]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antimicrobials are discussed in a new report. According to news reporting originating in Pelotas, Brazil, by NewsRx journalists, research stated, "Pythium insidiosum is an important aquatic oomycete which can cause pythiosis in both animals and humans. This microorganism shows low susceptibility to antifungal drugs available."

Financial support for this research came from National Council for Scientific and Technological Development (CNPq).

The news reporters obtained a quote from the research from Federal University, "This study analyzed the in vitro antimicrobial activity of Melaleuca alternifolia in its free oil (FO) and nanoemulsion (NE) formulations against Brazilian P. insidiosum isolates. The antimicrobial activity evaluation was performed by the broth microdilution method according to CSLI M38-A2 document adapted to phytopharmaceuticals. Twenty-six P. insidiosum isolates were evaluated, and the minimum inhibitory concentration was determined at 100 % growth inhibition. Melaleuca alternifolia essential oil or FO was obtained commercially. The NE containing 1 % M. alternifolia essential oil was prepared by the spontaneous emulsification method. All P. insidiosum isolates evaluated showed minimum inhibitory concentrations (MIC) ranging from 531.5 to 2125 mu g/mL for the FO formulation; MIC50 and MIC90 showed values between 1062.5 and 2125 mu g/mL, respectively. When the NE formulation was evaluated, MIC values ranged from 132.7 to 2125 mu g/mL and both MIC50 and MIC90 corresponded to 1062.5 mu g/mL. FO and NE formulations of M. alternifolia showed antimicrobial activity against P. insidiosum."

According to the news reporters, the research concluded: "This study demonstrated
that M. alternifolia oil can be an additional therapy in pythiosis treatment; however, further
studies are needed to evaluate the applicability of the plant essential oils in the treatment of
clinical pythiosis."

For more information on this research see: In Vitro Activity of Melaleuca
alternifolia (Tea Tree) in Its Free Oil and Nanoemulsion Formulations Against Pythium
insidiosum. Mycopathologia, 2016;181(11-12):865-869. Mycopathologia can be contacted at:
Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer -
www.springer.com; Mycopathologia - www.springerlink.com/content/0301-486x/)

Our news correspondents report that additional information may be obtained by
contacting D.I.B. Pereira, Univ Fed Pelotas, Dept. of Microbiol & Parasitol, Lab Micol, BR-
96010900 Pelotas, RS, Brazil. Additional authors for this research include A.D.D. Fonseca, C.L.
Botton and D.I.B. Pereira.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1007/s11046-016-0051-2. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Pelotas, Brazil, South America, Drugs and
Therapies, Antimicrobials, Federal University.

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Drugs and Therapies - Antineoplastic Monoclonal

New Antineoplastic Monoclonal Antibodies Study Results from R.L.
Dillon et al Described (Trastuzumab-deBouganin Conjugate Overcomes
Multiple Mechanisms of T-DM1 Drug Resistance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Researchers detail new data in Drugs and Therapies - Antineoplastic
Monoclonal Antibodies. According to news originating from Winnipeg, Canada, by NewsRx
correspondents, research stated, "The development of antibody drug conjugates has provided
enhanced potency to tumor-targeting antibodies by the addition of highly potent payloads. In the
case of trastuzumab-DM1 (T-DM1), approved for the treatment of metastatic breast cancer, the
addition of mertansine (DM1) to trastuzumab substantially increased progression-free survival."

Our news journalists obtained a quote from the research, "Despite these
improvements, most patients eventually relapse due to complex mechanisms of resistance often
associated with small molecule chemotherapeutics. Therefore, identifying payloads with
different mechanisms of action (MOA) is critical for increasing the efficacy of targeted
therapeutics and ultimately improving patient outcomes. To evaluate payloads with different
MOA, deBouganin, a deimmunized plant toxin that inhibits protein synthesis, was conjugated to
trastuzumab and compared with T-DM1 both in vitro and in vivo. The trastuzumab-deBouganin
conjugate (T-deB) demonstrated greater potency in vitro against most cells lines with high levels
of Her2 expression. In addition, T-deB, unlike T-DM1, was unaffected by inhibitors of
multidrug resistance, Bcl-2-mediated resistance, or Her2-Her3 dimerization. Contrary to T-DM1
that showed only minimal cytotoxicity, T-deB was highly potent in vitro against tumor cells
with cancer stem cell properties. Overall, the results demonstrate the potency and efficacy of
deBouganin and emphasize the importance of using payloads with different MOAs."
According to the news editors, the research concluded: "The data suggest that deBouganin could be a highly effective against tumor cell phenotypes not being addressed by current antibody drug conjugate formats and thereby provide prolonged clinical benefit."


The news correspondents report that additional information may be obtained from R.L. Dillon, Viventia Bio Inc, Winnipeg, Manitoba, Canada. Additional authors for this research include S. Chooniedass, A. Premsukh, G.P. Adams, J. Entwistle, G.C. MacDonald and J. Cizeau.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/CJI.0000000000000115. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastic Monoclonal Antibodies, Biotechnology, Canada, Winnipeg, Manitoba, Immunology, Trastuzumab, Drug Resistance, HER2 Inhibitors, Medical Devices, Drugs and Therapies, North and Central America, Tyrosine Kinase Inhibitors.

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Drugs and Therapies - Antineoplastics

New Antineoplastics Findings from Kyoto Pharmaceutical University Described (Population Pharmacodynamic Model for Bayesian Prediction of Myelosuppression Profiles Based on Routine Clinical Data after Gemcitabine and Carboplatin Treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antineoplastics are discussed in a new report. According to news reporting from Kyoto, Japan, by NewsRx journalists, research stated, "Hematological toxicity is a serious adverse event and is often a dose-limiting factor in anticancer drugs. The objective of the present study was to develop a modeling and simulation (M&S) procedure for predictions of time course profiles of blood cell counts that reflect myelosuppression profiles."

The news correspondents obtained a quote from the research from Kyoto Pharmaceutical University, "A method for Bayesian prediction of myelosuppression profiles during chemotherapy using a population pharmacodynamic model is proposed, and predictabilities of nadir values and times to nadir (T-nadir) after gemcitabine and carboplatin treatment were evaluated. The model is based on an equation for Erlang distribution, which we previously proposed, and it explains time course profiles of platelet (PLT), red blood cell (RBC) and white blood cell (WBC). PLT, RBC and WBC counts were retrospectively collected from 61 time courses (a total of 472 points) of 27 cancer patients. Predictive performance by a one-point Bayesian prediction was evaluated using data from day 8 in consideration of applicability to outpatients. Some good predictability was obtained for nadir values with some exceptions for PLT and RBC, whereas the predictability of T-nadir was insufficient."

According to the news reporters, the research concluded: "Although the
predictability was not acceptable enough, this M&S approach could be used for supportive care during cancer chemotherapy."

For more information on this research see: Population Pharmacodynamic Model for Bayesian Prediction of Myelosuppression Profiles Based on Routine Clinical Data after Gemcitabine and Carboplatin Treatment. Pharmacology, 2016;98(5-6):284-293.

Pharmacology can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting Y. Yano, Kyoto Pharmaceutical University, Educ & Res Center Clin Pharm, Kyoto, Japan. Additional authors for this research include T. Terada and Y. Yano.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000449228. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kyoto, Japan, Asia, Radiation-Sensitizing Agents, Organopotassium Compounds, Immunosuppressive Agents, Drugs and Therapies, Carboplatin Therapy, Gemcitabine Therapy, Alkylating Agents, Pharmacodynamics, Pharmaceuticals, Antineoplastics, Antimetabolites, Blood Cells, Antivirals, Kyoto Pharmaceutical University.

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Drugs and Therapies - Antineoplastics

New Antineoplastics Findings from University of Calabria Outlined
[Novel microspheres based on triterpene saponins from the roots of Physospermum verticillatum (Waldst & Kit) (Apiaceae) for the improvement of gemcitabine release]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antineoplastics are discussed in a new report. According to news originating from Cosenza, Italy, by NewsRx correspondents, research stated, "This study concerns the preparation and characterization of microspheres based on a mixture of triterpene saponins, from Physospermum verticillatum (Waldst & Kit), as a carrier for the specific release of gemcitabine. Triterpene saponins were derivatized with acrylic acid."

Our news journalists obtained a quote from the research from the University of Calabria, "The obtained polymerizable product was characterized by Fourier transform infrared to confirm the ester linkage. Then, spherical microparticles were prepared by suspension radical copolymerization and impregnated with gemcitabine. Microspheres exhibited a mean diameter of 2.7 m. The swelling studies showed that particles swell most at pH 6.2, typical of the tumor pathology, than at pH 7.4, miming physiological conditions. The microspheres were loaded with gemcitabine (LE 72.2%). Their release profile showed an initial dot of around 24% and a further release for 24 h."

According to the news editors, the research concluded: "This carrier could be potentially release the drug in the lung, as a function of different pHs between tumor cells and healthy, reducing the systemic drug toxicity, allowing the reduction of the doses number,
increasing the drug half-life and eliminating the problems related to the fast clearance of gemcitabine administration."

For more information on this research see: Novel microspheres based on triterpene saponins from the roots of Physospermum verticillatum (Waldst & Kit) (Apiaceae) for the improvement of gemcitabine release. The Journal of Pharmacy and Pharmacology, 2016;68 (2):275-81.

The news correspondents report that additional information may be obtained from S. Trombino, Dept. of Pharmacy, Health and Nutritional Sciences, University of Calabria, Arcavacata di Rende, Cosenza, Italy. Additional authors for this research include R. Cassano, S. Mellace, N. Picci, M.R. Loizzo, F. Menichini and R. Tundis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jphp.12509. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antimetabolites, Antineoplastics, Antivirals, Italy, Europe, Cosenza, Triterpenes, Drugs and Therapies, Gemcitabine Therapy, Immunosuppressive Agents, Radiation Sensitizing Agents.

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Drugs and Therapies - Antineoplastics

New Antineoplastics Study Findings Have Been Reported by Researchers at Duke University Medical Center (Lapatinib Plasma and Tumor Concentrations and Effects on HER Receptor Phosphorylation in Tumor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antineoplastics have been presented. According to news reporting originating in Durham, North Carolina, by NewsRx journalists, research stated, "The paradigm shift in cancer treatment from cytotoxic drugs to tumor targeted therapies poses new challenges, including optimization of dose and schedule based on a biologically effective dose, rather than the historical maximum tolerated dose. Optimal dosing is currently determined using concentrations of tyrosine kinase inhibitors in plasma as a surrogate for tumor concentrations."

The news reporters obtained a quote from the research from Duke University Medical Center, "To examine this plasma-tumor relationship, we explored the association between lapatinib levels in tumor and plasma in mice and humans, and those effects on phosphorylation of human epidermal growth factor receptors (HER) in human tumors. Mice bearing BT474 HER2+ human breast cancer xenografts were dosed once or twice daily (BID) with lapatinib. Drug concentrations were measured in blood, tumor, liver, and kidney. In a randomized phase I clinical trial, 28 treatment-na?ve female patients with early stage HER2+ breast cancer received lapatinib 1000 or 1500 mg once daily (QD) or 500 mg BID before evaluating steady-state lapatinib levels in plasma and tumor. In mice, lapatinib levels were 4-fold higher in tumor than blood with a 4-fold longer half-life. Tumor concentrations exceeded the in vitro IC90 (~ 900 nM or 500 ng/mL) for inhibition of HER2 phosphorylation throughout the 12-hour dosing interval. In patients, tumor levels were 6-and 10-fold higher with QD and BID dosing, respectively, compared to plasma trough levels. The relationship between tumor
and plasma concentration was complex, indicating multiple determinants. HER receptor phosphorylation varied depending upon lapatinib tumor concentrations, suggestive of changes in the repertoire of HER homo-and heterodimers. Plasma lapatinib concentrations underestimated tumor drug levels, suggesting that optimal dosing should be focused on the site of action to avoid inappropriate dose escalation."

According to the news reporters, the research concluded: "Larger clinical trials are required to determine optimal dose and schedule to achieve tumor concentrations that maximally inhibit HER receptors."

For more information on this research see: Lapatinib Plasma and Tumor Concentrations and Effects on HER Receptor Phosphorylation in Tumor. Plos One, 2015;10 (11):e0142845. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news correspondents report that additional information may be obtained by contacting N.L. Spector, Dept. of Medicine, Duke Cancer Center, Duke University Medical Center, Durham, North Carolina, United States. Additional authors for this research include F.C. Robertson, S. Bacus, K. Blackwell, D.A. Smith, K. Glenn, L. Cartee, J. Harris, C.L. Kimbrough, M. Gittelman, E. Avisar, P. Beitsch and K.M Koch.

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Keywords for this news article include: Antineoplastics, Blood, Durham, Cancer, Plasma, Oncology, Lapatinib, Hematology, United States, North Carolina, EGFR Inhibitors, HER2 Inhibitors, Drugs and Therapies, North and Central America, Tyrosine Kinase Inhibitors.

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Drugs and Therapies - Antineoplastics

New Antineoplastics Study Findings Recently Were Reported by Researchers at University of Montreal (Pharmacokinetics and the effect of heat on intraperitoneal pemetrexed using a murine model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antineoplastics. According to news reporting out of Montreal, Canada, by NewsRx editors, research stated, "Pemetrexed is a systemic chemotherapeutic agent used in the treatment of malignant mesothelioma. This drug represents a potentially promising intraperitoneal (IP) agent to use for hyperthermic intraperitoneal chemotherapy (HIPEC) in the treatment of peritoneal mesothelioma."

Our news journalists obtained a quote from the research from the University of Montreal, "However, this has yet to be supported by preclinical studies. Therefore, we aimed to study the effect of pemetrexed dose and perfusion temperature on the resultant pemetrexed concentration in 3 different compartments (systemic circulation, portal circulation and peritoneal tissues) using a murine model. Under general anesthesia, 29 Sprague-Dawley rats were submitted to 3 different doses of IP pemetrexed (500, 1000 and 1500 mg/m(2)) combined with 3 different perfusion temperatures (37, 40 and 43 degrees C) for a total duration of 25 min. At the end of perfusion, samples in different compartments (systemic circulation, portal circulation and peritoneum) were harvested and concentrations of pemetrexed were measured..."
using high performance liquid chromatography. With increasing dose of IP pemetrexed, higher concentrations were measured in the 3 compartments tested. In peritoneal cells, the difference between IP doses of 500 and 1000 mg/m(2) (2.03 vs. 19.17 μg/g, p < 0.001) was greater than the difference between 1000 and 1500 mg/m(2) (19.17 vs. 22.80 μg/g, p = 0.027). When the perfusion temperature increased, we observed a proportional rise of pemetrexed concentration in both the portal and systemic compartments; while in the peritoneal cells, the pemetrexed concentration increased up to 40 degrees C, after which it plateaued. Both heat and increasing doses of IP pemetrexed enhance peritoneal cell concentration of pemetrexed. However, for temperatures above 40 degrees C, pemetrexed concentration reached a plateau in peritoneal cells. Systemic and portal concentrations increased proportionally with both increasing temperatures and IP doses."

According to the news editors, the research concluded: "We believe these results should be taken into consideration for the design of an eventual clinical study in humans." 


Our news journalists report that additional information may be obtained by contacting P. Dube, University of Montreal, Maisonneuve Rosemont Hosp, Maisonneuve Rosemont Res Center, Montreal, PQ, Canada. Additional authors for this research include C. Perrault-Mercier, A. Bouchard-Fortier, J. Hubert, F.A. Leblond, L. Sideris and P. Dube.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.suronc.2016.05.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Folic Acid Antagonists, Drugs and Therapies, Pemetrexed Therapy, Enzyme Inhibitors, Pharmacokinetics, Pharmaceuticals, Antineoplastics, Antimetabolites, University of Montreal.

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Drugs and Therapies - Antipsychotics

New Antipsychotics Study Findings Recently Were Reported by P. Ravenstijn and Co-Researchers (Pharmacokinetics, safety, and tolerability of paliperidone palmitate 3-month formulation in patients with schizophrenia: A phase-1, single-dose, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antipsychotics. According to news originating from Beerse, Belgium, by NewsRx correspondents, research stated, "This multicenter, randomized, open-label, parallel-group, phase-1 study assessed the pharmacokinetics (PK), safety, and tolerability of the investigational intramuscular paliperidone palmitate 3-month (PP3M) formulation in patients with schizophrenia or schizoaffective disorder. A total of 328 patients (men or women, aged 18-65 years) were enrolled in 1 of 4 separately conducted panels (A to D)."

Financial support for this research came from Janssen Research & Development.
Our news journalists obtained a quote from the research, "Each panel had 2 single-dose treatment periods (period 1, 1 mg intramuscular paliperidone immediate release [IR]; period 2, intramuscular PP3M 75-525 mg eq) separated by a washout of 7-21 days. Overall, 245 of 308 (79.5%) PP3M-dosed patients completed the study. Because the PK studies of panels A and C were compromised by incomplete injection in some patients, PK data from only panels B and D are presented. Safety data from all panels are presented. Peak paliperidone plasma concentration was achieved between 23 and 34 days, and apparent half-life was &sim;2-4 months. Mean plasma AUC&infin; and Cmax of paliperidone appeared to be dose-proportional. Relative bioavailability in comparison with paliperidone was &sim;100% independent of the dose and injection site. Headache and nasopharyngitis were the most common (>7%) treatment-emergent adverse events. Overall, safety and tolerability were similar to those of the 1-month formulation."

According to the news editors, the research concluded: "Results support a once-every-3-months dosing interval in patients with schizophrenia or schizoaffective disorder."


The news correspondents report that additional information may be obtained from P. Ravenstijn, Janssen Research & Development, a Division of Janssen Pharmaceutica NV, Beerse, Belgium. Additional authors for this research include B. Remmerie, A. Savitz, M.N. Samtani, I. Nuamah, C.T. Chang, M. De Meulder, D. Hough and S. Gopal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcph.597. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the *Journal of Clinical Pharmacology* is: SAGE Publications, USA , 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Pharmaceuticals, Beerse, Europe, Belgium, Psychiatry, Paliperidone, Schizophrenia, Pharmacokinetics, Drugs and Therapies, Atypical Antipsychotics, Psychotherapeutic Agents, Mental Health Diseases and Conditions.

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**Drugs and Therapies - Antiretrovirals**

**New Antiretrovirals Findings from Catholic University of Leuven Reported [Distinct Effects of T-705 (Favipiravir) and Ribavirin on Influenza Virus Replication and Viral RNA Synthesis]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiretrovirals have been published. According to news reporting originating in Leuven, Belgium, by NewsRx journalists, research stated, "T-705 (favipiravir) is a new antiviral agent in advanced clinical development for influenza therapy. It is supposed to act as an alternative substrate for the viral polymerase, causing inhibition of viral RNA synthesis or virus mutagenesis."
The news reporters obtained a quote from the research from the Catholic University of Leuven, "These mechanisms were also proposed for ribavirin, an established and broad antiviral drug that shares structural similarity with T-705. We here performed a comparative analysis of the effects of T-705 and ribavirin on influenza virus and host cell functions. Influenza virus-infected cell cultures were exposed to T-705 or ribavirin during single or serial virus passaging. The effects on viral RNA synthesis and infectious virus yield were determined and mutations appearing in the viral genome were detected by whole-genome virus sequencing. In addition, the cellular nucleotide pools as well as direct inhibition of the viral polymerase enzyme were quantified. We demonstrate that the anti-influenza virus effect of ribavirin is based on IMP dehydrogenase inhibition, which results in fast and profound GTP depletion and an imbalance in the nucleotide pools. In contrast, T-705 acts as a potent and GTP-competitive inhibitor of the viral polymerase. In infected cells, viral RNA synthesis is completely inhibited by T-705 or ribavirin at >= 50 μM, whereas exposure to lower drug concentrations induces formation of noninfectious particles and accumulation of random point mutations in the viral genome. This mutagenic effect is 2-fold higher for T-705 than for ribavirin."

According to the news reporters, the research concluded: "Hence, T-705 and ribavirin both act as purine pseudobases but profoundly differ with regard to the mechanism behind their antiviral and mutagenic effects on influenza virus."

For more information on this research see: Distinct Effects of T-705 (Favipiravir) and Ribavirin on Influenza Virus Replication and Viral RNA Synthesis. Antimicrobial Agents and Chemotherapy, 2016;60(11):6679-6691. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


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Keywords for this news article include: Leuven, Belgium, Europe, Virus Physiological Phenomena, Virus Physiological Processes, Respiratory Inhalant Products, Microbiological Processes, Inhaled Antiinfectives, Enzymes and Coenzymes, Drugs and Therapies, Respiratory Agents, Purine Nucleosides, Virus Replication, Influenza Therapy, Antiretrovirals, Viral Genome, Polymerase, Antivirals, Viral RNA, Ribavirin, Virology, Viruses, Catholic University of Leuven.

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**Drugs and Therapies - Antiretrovirals**

**New Antiretrovirals Study Findings Have Been Reported by Investigators at Center for Disease Control and Prevention (Trends in Racial and Ethnic Disparities in Antiretroviral Therapy Prescription and Viral Suppression in the United States, ...)**
Researchers detail new data in Drugs and Therapies - Antiretrovirals.

According to news originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "To examine trends in racial/ethnic disparities in antiretroviral therapy (ART) prescription and viral suppression among HIV-infected persons in care, overall and among men who have sex with men (MSM), from 2009 to 2013. The Medical Monitoring Project (MMP) is a complex sample survey of HIV-infected adults receiving medical care in the United States."

Our news journalists obtained a quote from the research from Center for Disease Control and Prevention, "We used weighted interview and medical record data collected June 2009-May 2014 to estimate the prevalence of ART prescription and viral suppression among racial/ethnic groups overall and among MSM. We found significant increases in ART prescription and viral suppression among all racial/ethnic groups from 2009 to 2013, both overall and among MSM. By 2013, overall and among MSM, the Hispanic-white disparity in ART prescription was nonexistent, and the black-white disparity was not significant after accounting for differences between blacks and whites in age and length of HIV diagnosis. Despite reductions in racial/ethnic disparities in viral suppression over the time period, significant disparities remained among the total population, even after adjusting for differences in racial/ethnic group characteristics. Encouragingly, however, there was no significant Hispanic-white disparity in viral suppression among MSM by 2013. Despite significant improvements in ART prescription and viral suppression in recent years, racial and ethnic disparities persist, particularly for black persons."

According to the news editors, the research concluded: "If the United States is to achieve the National HIV/AIDS Strategy goal of reducing HIV-related health disparities, continued efforts to accelerate the rate of improvement in ART prescription and viral suppression among Hispanic and black persons may need to be prioritized."


The news correspondents report that additional information may be obtained from L. Beer, Center Dis Control & Prevent, Div HIV AIDS Prevent, Atlanta, GA 30329, United States. Additional authors for this research include H. Bradley, C.L. Mattson, C.H. Johnson, B. Hoots and R.L. Shouse.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Antiretrovirals, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Therapy, Center for Disease Control and Prevention.

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New Antiretrovirals Study Findings Have Been Reported by Researchers at University of British Columbia (Factors associated with initiation of antiretroviral therapy among HIV-positive people who use injection drugs in a Canadian setting)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antiretrovirals are presented in a new report. According to news originating from Vancouver, Canada, by NewsRx correspondents, research stated, "To identify behavioral, social, and structural factors associated with time from HIV seroconversion to antiretroviral therapy (ART) initiation among people who use injection drugs (PWID). Two complementary prospective cohorts of PWID linked to comprehensive ART dispensation records in a setting of universal no-cost HIV/AIDS treatment and care."

Our news journalists obtained a quote from the research from the University of British Columbia, "Multivariable extended Cox models of time to ART initiation among baseline HIV-seronegative PWID who seroconverted after recruitment adjusted with a time-updated measure of clinical eligibility for ART. We included 133 individuals of whom 98 (74%) initiated ART during follow-up at a rate of 12.4 per 100 person-years. In a multivariable model adjusted for ART eligibility, methadone maintenance therapy [adjusted hazard ratio (AHR)=2.37, 95% confidence interval (95% CI): 1.56-3.60] and a more recent calendar year of observation (AHR=1.06, 95% CI: 1.00-1.12) were associated with more rapid ART initiation, whereas informal income generation (AHR=0.51, 95% CI: 0.32-0.79) and incarceration (AHR=0.52, 95% CI: 0.28-0.97) were negatively associated with ART initiation. In this sample of community-recruited HIV-positive PWID with well defined dates of HIV seroconversion, we found that two measures related to the criminalization of illicit drug use each independently delayed ART initiation regardless of clinical eligibility. Engagement in methadone promoted ART initiation."

According to the news editors, the research concluded: "Programs to scale-up HIV treatment among PWID should consider decreased criminalization of PWID and increased access to opioid substitution therapy to optimize the impact of ART on HIV/AIDS-associated morbidity, mortality, and HIV transmission."

For more information on this research see: Factors associated with initiation of antiretroviral therapy among HIV-positive people who use injection drugs in a Canadian setting. *Aids*, 2016;30(6):925-32. (Lippincott Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx)

The news correspondents report that additional information may be obtained from B. Joseph, aBritish Columbia Centre for Excellence in HIV, AIDS bDept. of Medicine cDept. of Sociology, St Paul's Hospital, University of British Columbia, Vancouver, British Columbia, Canada. Additional authors for this research include E. Wood, K. Hayashi, T. Kerr, R. Barrios, S. Parashar, L. Richardson, S. Dobrer, S. Guillemi, J. Montaner and M.J Milloy.

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Keywords for this news article include: Antiretrovirals, Canada, HIV/AIDS, Vancouver, RNA Viruses, Legal Issues, Retroviridae, HIV Infections, British Columbia, Vertebrate Viruses, Drugs and Therapies, Primate Lentiviruses, North and Central America,
New Antiretrovirals Study Findings Have Been Reported by Researchers at University of Washington [Intimate Partner Violence and Adherence to HIV Pre-exposure Prophylaxis (PrEP) in African Women in HIV Serodiscordant Relationships: A Prospective ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiretrovirals have been published. According to news reporting originating in Seattle, Washington, by NewsRx journalists, research stated, "Intimate partner violence (IPV) is associated with higher HIV incidence, reduced condom use, and poor adherence to antiretroviral therapy and other medications. IPV may also affect adherence to pre-exposure prophylaxis (PrEP)."

The news reporters obtained a quote from the research from the University of Washington, "We analyzed data from 1785 HIV-uninfected women enrolled in a clinical trial of PrEP among African HIV serodiscordant couples. Experience of verbal, physical, or economic IPV was assessed at monthly visits by face-to-face interviews. Low PrEP adherence was defined as clinic-based pill count coverage <80% or plasma tenofovir levels <40 ng/mL. The association between IPV and low adherence was analyzed using generalized estimating equations, adjusting for potential confounders. In-depth interview transcripts were examined to explain how IPV could impact adherence. Sixteen percent of women reported IPV during a median of 34.8 months of follow-up (interquartile range 27.0-35.0). Overall, 7% of visits had pill count coverage <80%, and 32% had plasma tenofovir <40 ng/mL. Women reporting IPV in the past 3 months had increased risk of low adherence by pill count (adjusted risk ratio 1.49, 95% confidence interval: 1.17 to 1.89) and by plasma tenofovir (adjusted risk ratio 1.51, 95% confidence interval: 1.06 to 2.15). Verbal, economic, and physical IPV were all associated with low adherence. However, the impact of IPV diminished and was not statistically significant 3 months after the reported exposure. In qualitative interviews, women identified several ways in which IPV affected adherence, including stress and forgetting, leaving home without pills, and partners throwing pills away. Women who reported recent IPV in the Partners PrEP Study were at increased risk of low PrEP adherence."

According to the news reporters, the research concluded: "Strategies to mitigate PrEP nonadherence in the context of IPV should be evaluated."


Our news correspondents report that additional information may be obtained by contacting S.T. Roberts, University of Washington, Dept. of Epidemiol, Seattle, WA 98104, United States. Additional authors for this research include J. Haberer, C. Celum, N. Mugo, N.C. Ware, C.R. Cohen, J.W. Tappero, J. Kiari, A. Ronald, A. Mujugira, E. Tumwesigye, E. Were,
E. Irungu and J.M. Baeten.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Antiretrovirals, HIV Infections, Antifungal Endemics, Retroviridae, RNA Viruses, Antivirals, Tenofovir, HIV/AIDS, University of Washington.

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**Antithrombins**

**New Antithrombins Data Have Been Reported by A. Bouchnita and Co-Authors (Influence of Antithrombin on the Regimes of Blood Coagulation: Insights from the Mathematical Model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Antithrombins is the subject of a report. According to news reporting originating from Rabat, Morocco, by NewsRx correspondents, research stated, "Blood coagulation is regulated through a complex network of biochemical reactions of blood factors."

Funders for this research include Russian Science Support Foundation, PICS CNRS. Our news editors obtained a quote from the research, "The main acting enzyme is thrombin whose propagation in blood plasma leads to fibrin clot formation. Spontaneous clot formation is normally controlled through the action of different plasma inhibitors, in particular, through the thrombin binding by antithrombin."

According to the news editors, the research concluded: "In the current study we develop a mathematical model of clot formation both in quiescent plasma and in blood flow and determine the analytical conditions on the antithrombin concentration corresponding to different regimes of blood coagulation."


The news editors report that additional information may be obtained by contacting A. Bouchnita, Mohamed V Univ, Mohammadia Sch Engineers, Lab Study & Res Appl Math, Rabat, Morocco. Additional authors for this research include T. Galochkina and V. Volpert. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10441-016-9291-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rabat, Morocco, Africa, Enzymes and Coenzymes, Antithrombins, Angiology, Proteins, Thrombin, Serpins.

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**Drugs and Therapies - Antivirals**

**New Antivirals Study Findings Recently Were Reported by Researchers at Los Alamos National Laboratory (Modelling the interaction between danoprevir and mericitabine in the treatment of chronic HCV infection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antivirals. According to news reporting originating from Los Alamos, New Mexico, by NewsRx correspondents, research stated, "Modelling HCV RNA decline kinetics under therapy has proven useful for characterizing treatment effectiveness. Here we model HCV viral kinetics (VK) in 72 patients given a combination of danoprevir, a protease inhibitor, and mericitabine, a nucleoside polymerase inhibitor, for 14 days in the INFORM-1 trial."

Our news editors obtained a quote from the research from Los Alamos National Laboratory, "A biphasic VK model with time-varying danoprevir and mericitabine effectiveness and Bliss independence for characterizing the interaction between both drugs provided the best fit to the VK data. The average final antiviral effectiveness of the drug combination varied between 0.998 for 100 mg three times daily of danoprevir and 500 mg twice daily of mericitabine and 0.9998 for 600 mg twice daily of danoprevir and 1,000 mg twice daily of mericitabine. Using the individual parameters estimated from the VK data collected over 2 weeks, we were not able to reproduce the low sustained virological response rates obtained in a more recent study where patients were treated with a combination of mericitabine and ritonavir-boosted danoprevir for 24 weeks."

According to the news editors, the research concluded: "This suggests that drug-resistant viruses emerge after 2 weeks of treatment and that longer studies are necessary to provide accurate predictions of longer treatment outcomes."


The news editors report that additional information may be obtained by contacting A.S. Perelson, Los Alamos Natl Lab, Theoret Biol & Biophys, Los Alamos, NM 87544, United States. Additional authors for this research include J. Guedj, A. Chatterjee, A. Lemenuel-Diot, P.F. Smith and A.S. Perelson.

Keywords for this news article include: Los Alamos, New Mexico, United States, North and Central America, Antivirals, Drugs and Therapies, Los Alamos National Laboratory.

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**Drugs and Therapies - Anxiolytics Sedatives and…**

**New Anxiolytics Sedatives and Hypnotics Study Findings Have Been Reported by A.O. James and Colleagues (Something old, something new: a successful case of meprobamate withdrawal)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Drugs and Therapies - Anxiolytics Sedatives and Hypnotics are discussed in a new report. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "Meprobamate, a benzodiazepine-like drug, was commonly prescribed for anxiety in the 1960s and 1970s, but fell out of favour, at least in part, due to the risk of dependence, for which there is little published evidence to guide clinical management. We discuss a 70-year-old man with a 45-year history of meprobamate dependency and multiple failed previous withdrawal attempts who was successfully withdrawn from meprobamate using diazepam during a 2-week inpatient stay on a specialist Addictions ward."

The news reporters obtained a quote from the research, "An appropriate diazepam dose was established using the Clinical Institute Withdrawal Assessment scale for benzodiazepines (CIWA-B). This dose was then slowly reduced over 12 days."

According to the news reporters, the research concluded: "Multidisciplinary input, especially psychological therapy tackling his underlying anxiety disorder during his admission, was thought to be particularly helpful."

For more information on this research see: Something old, something new: a successful case of meprobamate withdrawal. Bmj Case Reports, 2016;2016():. (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting A.O. James, South London and Maudsley NHS Trust, London, UK. Additional authors for this research include T.R. Nicholson, R. Hill and J. Bearn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2015-213606. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, London, Europe, Carbamates, United Kingdom, Drugs and Therapies, Meprobamate Therapy, Central Nervous System Agents, Anxiolytics Sedatives and Hypnotics.

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Apoptosis

New Apoptosis Data Have Been Reported by Investigators at Chongqing University (PEG-b-PCL polymeric nano-micelle inhibits vascular angiogenesis by activating p53-dependent apoptosis in zebrafish)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Apoptosis. According to news reporting from Chongqing, People's Republic of China, by NewsRx journalists, research stated, "Micro/nanoparticles could cause adverse effects on cardiovascular system and increase the risk for cardiovascular disease-related events. Nanoparticles prepared from poly(ethylene glycol) (PEG)-b-poly(e-caprolactone) (PCL), namely PEG-b-PCL, a widely studied biodegradable copolymer, are promising carriers for the drug delivery systems."

The news correspondents obtained a quote from the research from Chongqing University, "However, it is unknown whether polymeric PEG-b-PCL nano-micelles give rise to potential complications of the cardiovascular system. Zebrafish were used as an in vivo model to evaluate the effects of PEG-b-PCL nano-micelle on cardiovascular development. The results
showed that PEG-b-PCL nano-micelle caused embryo mortality as well as embryonic and larval malformations in a dose-dependent manner. To determine PEG-b-PCL nano-micelle effects on embryonic angiogenesis, a critical process in zebrafish cardiovascular development, growth of intersegmental vessels (ISVs) and caudal vessels (CVs) in flk1-GFP transgenic zebrafish embryos using fluorescent stereomicroscopy were examined. The expression of fetal liver kinase 1 (flk1), an angiogenic factor, by real-time quantitative polymerase chain reaction (qPCR) and in situ whole-mount hybridization were also analyzed. PEG-b-PCL nano-micelle decreased growth of ISVs and CVs, as well as reduced flk1 expression in a concentration-dependent manner. Parallel to the inhibitory effects on angiogenesis, PEG-b-PCL nano-micelle exposure upregulated p53 pro-apoptotic pathway and induced cellular apoptosis in angiogenic regions by qPCR and terminal deoxynucleotidyl transferase dUTP nick end labeling (TUNEL) apoptosis assay. This study further showed that inhibiting p53 activity, either by pharmacological inhibitor or RNA interference, could abrogate the apoptosis and angiogenic defects caused by PEG-b-PCL nano-micelles, indicating that PEG-b-PCL nano-micelle inhibits angiogenesis by activating p53-mediated apoptosis.

According to the news reporters, the research concluded: "This study indicates that polymeric PEG-b-PCL nano-micelle could pose potential hazards to cardiovascular development."


Keywords for this news article include: Chongqing, People's Republic of China, Asia, Cardiovascular System, Risk and Prevention, Emerging Technologies, Nanotechnology, Angiogenesis, Nanoparticle, Cardiology, Apoptosis, Genetics, p53 Gene, Chongqing University.

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**Apoptosis**

**New Apoptosis Findings from Biomedical Center Reported**

(Retrotransposon derepression leads to activation of the unfolded protein response and apoptosis in pro-B cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Apoptosis. According to news reporting originating from Planegg Martinsried, Germany, by NewsRx correspondents, research stated, "The H3K9me3-specific histone methyltransferase Setdb1 impacts on transcriptional regulation by repressing both developmental genes and retrotransposons. How impaired retrotransposon silencing may lead to developmental phenotypes is currently unclear."
Financial support for this research came from Deutsche Forschungsgemeinschaft.

Our news editors obtained a quote from the research from Biomedical Center, "Here, we show that loss of Setdb1 in pro-B cells completely abrogates B cell development. In pro-B cells, Setdb1 is dispensable for silencing of lineage-inappropriate developmental genes. Instead, we detect strong derepression of endogenous murine leukemia virus (MLV) copies. This activation coincides with an unusual change in chromatin structure, with only partial loss of H3K9me3 and unchanged DNA methylation, but strongly increased H3K4me3. Production of MLV proteins leads to activation of the unfolded protein response pathway and apoptosis."

According to the news editors, the research concluded: "Thus, our data demonstrate that B cell development depends on the proper repression of retrotransposon sequences through Setdb1."


The news editors report that additional information may be obtained by contacting G. Schotta, Munich Center Integrated Prot Sci CiPSM, Biomed Center, D-82152 Planegg Martinsried, Germany. Additional authors for this research include A. Ebert, G.P. de Almeida, M. Hinterberger, M. Kazeneri, A. Nuber, J. Ellwart, L. Klein, M. Busslinger and G. Schotta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/dev.130203. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Planegg Martinsried, Germany, Europe, Post-Translational Protein Processing, Unfolded Protein Response, Biochemical Processes, Peptide Biosynthesis, Protein Biosynthesis, Metabolism, Apoptosis, Genetics, Biomedical Center.

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Apoptosis

New Apoptosis Findings from Brown University Discussed (Silencer-of-Death Domain Mediates Acid-Induced Decrease in Cell Apoptosis in Barrett's Associated Esophageal Adenocarcinoma Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Apoptosis. According to news originating from Providence, Rhode Island, by NewsRx correspondents, research stated, "We have shown that NADPH oxidase (NOX) 5-S may mediate the acid-induced decrease in cell apoptosis. However, mechanisms of NOX5-S-dependent decrease in cell apoptosis are not fully understood."

Our news journalists obtained a quote from the research from Brown University, "In this study, we found that silencer-of-death domain (SODD) was significantly increased in esophageal adenocarcinoma (EA) tissues, EA cell lines FLO and OE33, and a dysplastic cell line CP-B. Strong SODD immunostaining was significantly higher in low-grade dysplasia..."
(66.7%), high-grade dysplasia (81.2%), and EA (71.2%) than in Barrett's mucosa (10.5%). Acid treatment significantly increased SODD protein and mRNA expression and promoter activity in FLO cells, an increase that was significantly decreased by the knockdown of NOX5-S and nuclear factor kappa B (NF-kappa B) 1 p50 with their small interfering RNAs. Similarly, acid-induced increase of SODD mRNA was blocked by knockdown of NOX5-S and p50 in a BE cell line CP-A. Overexpression of NOX5-S significantly increased SODD protein expression in FLO cells. Moreover, overexpression of NOX5-S or p50 significantly increased the SODD promoter activity and decreased the caspase 9 activity or apoptosis. NOX5-S overexpression-induced increase in SODD promoter activity was significantly decreased by knockdown of p50. In addition, acid treatment significantly decreased the caspase 9 activity, a decrease that was significantly inhibited by knockdown of SODD. Furthermore, chromatin immunoprecipitation assay showed that NF-kappa B1 p50 bound to SODD genomic DNA containing a NF-kappa B-binding element GGGGACACCCT. This binding element was further confirmed by a gel mobility shift assay.

According to the news editors, the research concluded: "We conclude that acid-induced increase in SODD expression and decrease in cell apoptosis may depend on the activation of NOX5-S and NF-kappa B1 p50 in FLO cells."


The news correspondents report that additional information may be obtained from W.B. Cao, Brown University, Rhode Island Hospital, Dept. of Pathol, Providence, RI 02903, United States. Additional authors for this research include J. Hong and W.B. Cao.

Keywords for this news article include: Providence, Rhode Island, United States, North and Central America, Enzymes and Coenzymes, Adenocarcinoma, Dermatology, Dysplasia, Apoptosis, Genetics, Caspase, Brown University.

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Apoptosis

New Apoptosis Findings from H. Xiao and Co-Researchers Reported (N-Acetyl-L-cysteine Protects the Enterocyte against Oxidative Damage by Modulation of Mitochondrial Function)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Apoptosis is now available. According to news reporting from Changsha, People's Republic of China, by NewsRx journalists, research stated, "The neonatal small intestine is susceptible to damage caused by oxidative stress. This study aimed to evaluate the protective role of antioxidant N-acetylcysteine (NAC) in intestinal epithelial cells against oxidative damage induced by H2O2."

Funders for this research include 973 National Projects Subject, National Natural Science Foundation of China, Open Project Program of State Key Laboratory of Food Science and Technology, Nanchang University, National Science and Technology Ministry.

The news correspondents obtained a quote from the research, "IPEC-J2 cells were
cultured in DMEM-H with NAC and H2O2. After 2-day incubation, IPEC-J2 cells were collected for analysis of DNA synthesis, antioxidation capacity, mitochondrial respiration, and cell apoptosis. The results showed that H2O2 significantly decreased (P < 0.05) proliferation rate, mitochondrial respiration, and antioxidation capacity and increased cell apoptosis and the abundance of associated proteins, including cytochrome C, Bcl-XL, cleaved caspase-3, and total caspase-3. NAC supplementation remarkably increased (P < 0.05) proliferation rate, antioxidation capacity, and mitochondrial bioenergetics but decreased cell apoptosis.

According to the news reporters, the research concluded: "These findings indicate that NAC might rescue the intestinal injury induced by H2O2."

For more information on this research see: N-Acetyl-L-cysteine Protects the Enterocyte against Oxidative Damage by Modulation of Mitochondrial Function. *Mediators of Inflammation*, 2016;():1-9. *Mediators of Inflammation* can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Mediators of Inflammation - www.hindawi.com/journals/mi/)

Our news journalists report that additional information may be obtained by contacting B. Tan, Hunan Collaborat Innovat Center Utilizat Bot Funct I, Changsha 410000, Hunan, People's Republic of China. Additional authors for this research include M.M. Wu, F.Y. Shao, G.P. Guan, B. Huang, B. Tan and Y.L. Yin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/8364279. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Enzymes and Coenzymes, Neutral Amino Acids, Sulfur Amino Acids, Enterocytes, Apoptosis, Cysteine, Genetics, Caspase.

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**Apoptosis**

**New Apoptosis Study Findings Have Been Reported from Central South University (MicroRNA-142-3p inhibits hypoxia/reoxygenation-induced apoptosis and fibrosis of cardiomyocytes by targeting high mobility group box 1)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Apoptosis. According to news originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "Myocardial ischemia/reperfusion (I/R) injury may cause the apoptosis of cardiomyocytes as well as cardiac fibrosis, which is characterized as the transdifferentiation of fibroblasts to myofibroblasts and collagen deposition. MicroRNAs (miRNAs or miRs) have been demonstrated to be involved in myocardial I/R injury."

Our news journalists obtained a quote from the research from Central South University, "However, the underlying molecular mechanism remains largely unclear. In the present study, mouse cardiomyocyte M6200 cells were treated with hypoxia/reoxygenation (H/R). Our data indicated that H/R treatment led to cell apoptosis, the increased expression of fibrosis-related proteins, namely collagen I, II, III, and fibronectin, as well as the downregulation of miR-142-3p in M6200 cells. Overexpression of miR-142-3p suppressed the H/R-induced..."
apoptosis and fibrosis of M6200 cells. Bioinformatics analysis and a Dual-Luciferase reporter assay further identified high mobility group box 1 (HMGB1) as a direct target gene of miR-142-3p, and miR-142-3p negatively regulated the protein level of HMGB1 in M6200 cells. Furthermore, knockdown of HMGB1 enhanced cell proliferation whereas it inhibited the apoptosis and fibrosis of M6200 cells. In addition, TGF-1/Smad3 signaling was suggested to be involved in the miR-142-3p/HMGB1-mediated apoptosis and fibrosis of M6200 cells treated with H/R. Taken together, the findings of the present study demonstrate that miR-142-3p inhibits H/R-induced apoptosis and fibrosis of cardiomyocytes, partly at least, by the direct inhibition of HMGB1 expression."

According to the news editors, the research concluded: "Therefore, these findings have increased our understanding of the pathogenesis of H/R-induced myocardial injury."

For more information on this research see: MicroRNA-142-3p inhibits hypoxia/reoxygenation-induced apoptosis and fibrosis of cardiomyocytes by targeting high mobility group box 1. International Journal of Molecular Medicine, 2016;38(5):1377-1386. International Journal of Molecular Medicine can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

The news correspondents report that additional information may be obtained from Z.J. Jian, Central South University, Inst Aging & Age Related Dis Res, Changsha 410011, Hunan, People's Republic of China. Additional authors for this research include M. Ouyang, Q. Wang and Z.J. Jian.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Cardiomyocyte, Cardiology, Apoptosis, Central South University.

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Applied Bioinformatics

New Applied Bioinformatics Findings from S. Pirro and Colleagues Discussed (Bioinformatics Prediction and Experimental Validation of MicroRNAs Involved in Cross-Kingdom Interaction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Applied Bioinformatics have been published. According to news reporting originating from Rome, Italy, by NewsRx correspondents, research stated, "MicroRNAs (miRNAs) are a class of small non-coding RNAs that act as efficient post-transcriptional regulators of gene expression. In 2012, the first cross-kingdom miRNA-based interaction had been evidenced, demonstrating that exogenous miRNAs act in a manner of mammalian functional miRNAs."

Our news editors obtained a quote from the research, "Starting from this evidence, we defined the concept of cross-kingdom functional homology between plant and mammalian miRNAs as a needful requirement for vegetal miRNA to explicit a regulation mechanism into the host mammalian cell, comparable to the endogenous one. Then, we proposed a new dedicated algorithm to compare plant and mammalian miRNAs, searching for functional sequence homologies between them, and we developed a web software called MirCompare. We also predicted human genes regulated by the selected plant miRNAs, and we determined the role of exogenous miRNAs in the perturbation of intracellular interaction networks. Finally, as already performed by Pirro and coworkers, the ability of MirCompare to select plant miRNAs..."
with functional homologies with mammalian ones has been experimentally confirmed by evaluating the ability of mol-miR168a to downregulate the protein expression of SIRT1, when its mimic is transfected into human hepatoma cell line G2 (HEPG2) cells."

According to the news editors, the research concluded: "This tool is implemented into a user-friendly web interface, and the access is free to public through the website http://160.80.35.140/MirCompare."

For more information on this research see: Bioinformatics Prediction and Experimental Validation of MicroRNAs Involved in Cross-Kingdom Interaction. *Journal of Computational Biology*, 2016;23(12):976-989. *Journal of Computational Biology* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Journal of Computational Biology - www.liebertpub.com/overview/journal-of-computational-biology/31/)

The news editors report that additional information may be obtained by contacting S. Pirro, Mir Nat Srl, Rome, Italy. Additional authors for this research include A. Minutolo, A. Galgani, M. Potesta, V. Colizzi and C. Montesano.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/cmb.2016.0059. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Applied Bioinformatics, Genetics.

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**New Aquatic Toxicology Findings from Dalian Ocean University Described (Ocean acidification stimulates alkali signal pathway: A bicarbonate sensing soluble adenyl cyclase from oyster Crassostrea gigas mediates physiological changes induced by ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Life Science Research - Aquatic Toxicology. According to news reporting from Dalian, People's Republic of China, by NewsRx journalists, research stated, "Ocean acidification (OA) has been demonstrated to have severe effects on marine organisms, especially marine calcifiers. However, the impacts of OA on the physiology of marine calcifiers and the underlying mechanisms remain unclear."

Financial supporters for this research include National Science Foundation of China, Dalian high level talent innovation.

The news correspondents obtained a quote from the research from Dalian Ocean University, "Soluble adenyl cyclase (sAC) is an acid-base sensor in response to [HCO3-] and an intracellular source of cyclic AMP (cAMP). In the present study, an ortholog of sAC was identified from Pacific oyster Crassostrea gigas (designated as CgsAC) and the catalytic region of CgsAC was cloned and expressed. Similar to the native CgsAC from gill tissues, the recombinant CgsAC protein (rCgsAC) exhibited [HCO3-] mediated cAMP-forming activity, which could be inhibited by a small molecule KH7. After 16 days of CO2 exposure (pH = 7.50), the mRNA transcripts of CgsAC increased in muscle, mantle, hepatopancreas, gill, male gonad and haemocytes, and two truncated CgsAC forms of 45 kD and 20 kD were produced. Cytosolic
CgsAC could be translocated from the cytoplasm and nuclei to the membrane in response to CO2 exposure. Besides, CO2 exposure could increase the production of cAMP and intracellular pH of haemocytes, which was regulated by CgsAC (p < 0.05), suggesting the existence of a [HCO3-]/CgsAC/cAMP signal pathway in oyster. The elevated CO2 could induce an increase of ROS level (p < 0.05) and a decrease of phagocytic rate of haemocytes (p < 0.05), which could be inhibited by KH7. The results collectively suggest that CgsAC is an important acid-base sensor in oyster and the [HCO3-]/CgsAC/cAMP signal pathway might be responsible for intracellular alkalization effects on oxidative phosphorylation and innate immunity under CO2 exposure."

According to the news reporters, the research concluded: "The changes of intracellular pH, ROS, and phagocytosis mediated by CgsAC might help us to further understand the effects of ocean acidification on marine calcifiers."

For more information on this research see: Ocean acidification stimulates alkali signal pathway: A bicarbonate sensing soluble adenylyl cyclase from oyster Crassostrea gigas mediates physiological changes induced by CO2 exposure. *Aquatic Toxicology*, 2016;181 ():124-135. *Aquatic Toxicology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Aquatic Toxicology - www.journals.elsevier.com/aquatic-toxicology/)

Our news journalists report that additional information may be obtained by contacting L.S. Song, Dalian Ocean Univ, Key Lab Mariculture & Stock Enhancement North Chi, Minist Agr, Dalian 116023, People's Republic of China. Additional authors for this research include M.Q. Wang, Z.H. Jia, H. Wang, S. Jiang, H. Chen, L.L. Wang and L.S. Song. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.aquatox.2016.11.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dalian, People's Republic of China, Asia, Aquatic Toxicology, Life Science Research, Enzymes and Coenzymes, Genetics, Cyclase, Dalian Ocean University. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

Membrane Proteins - Arrestins

**New Arrestins Findings from Duke University Described (Distinct cortical and striatal actions of a beta-arrestin-biased dopamine D2 receptor ligand reveal unique antipsychotic-like properties)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Membrane Proteins - Arrestins is now available. According to news reporting out of Durham, North Carolina, by NewsRx editors, research stated, "The current dopamine (DA) hypothesis of schizophrenia postulates striatal hyperdopaminergia and cortical hypodopaminergia. Although partial agonists at DA D2 receptors (D2Rs), like aripiprazole, were developed to simultaneously target both phenomena, they do not effectively improve cortical dysfunction."

Our news journalists obtained a quote from the research from Duke University, "In this study, we investigate the potential for newly developed beta-arrestin2 (beta arr2)-biased D2R partial agonists to simultaneously target hyper-and hypodopaminergia. Using neuron-
specific beta arr2-KO mice, we show that the antipsychotic-like effects of a beta arr2-biased D2R ligand are driven through both striatal antagonism and cortical agonism of D2R-beta arr2 signaling. Furthermore, beta arr2-biased D2R agonism enhances firing of cortical fast-spiking interneurons. This enhanced cortical agonism of the biased ligand can be attributed to a lack of G-protein signaling and elevated expression of beta arr2 and G protein-coupled receptor (GPCR) kinase 2 in the cortex versus the striatum."

According to the news editors, the research concluded: "Therefore, we propose that beta arr2-biased D2R ligands that exert region-selective actions could provide a path to develop more effective antipsychotic therapies."


Our news journalists report that additional information may be obtained by contacting M.G. Caron, Duke University, Medical Center, Dept. of Med & Neurobiol, Durham, NC 27710, United States. Additional authors for this research include S.M. Gee, T.F. Pack, J.D. McCorry, T. Evron, J.C. Snyder, X.B. Yang, R.M. Rodriguez, E. Borrelli, W.C. Wetsel, J. Jin, B.L. Roth, P. O'Donnell and M.G. Caron.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Dopamine Hydrochloride, Organic Chemicals, Membrane Proteins, Surface Antigens, Pharmaceuticals, Biogenic Amines, Catecholamines, Antipsychotics, Mental Health, Eye Proteins, Immunology, Arrestins, Duke University.

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**Arrhythmia**

**New Arrhythmia Study Results Reported from Yang Ming National University (Pleiotropic Effects of Myocardial MMP-9 Inhibition to Prevent Ventricular Arrhythmia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Arrhythmia is the subject of a report. According to news originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Observational studies have established a strong association between matrix metalloproteinase-9 (MMP-9) and ventricular arrhythmia. However, whether MMP-9 has a causal link to ventricular arrhythmia, as well as the underlying mechanism, remains unclear."

Our news journalists obtained a quote from the research from Yang Ming National University, "Here, we investigated the mechanistic involvement of myocardial MMP-9 in the pathophysiology of ventricular arrhythmia. Increased levels of myocardial MMP-9 are linked to ventricular arrhythmia attacks after angiotensin II (Ang II) treatment. MMP-9-deficient mice were protected from ventricular arrhythmia. Increased expressions of protein kinase A (PKA) and ryanodine receptor phosphorylation at serine 2808 (pS2808) were correlated with inducible..."
ventricular arrhythmia. MMP-9 deficiency consistently prevented PKA and pS2808 increases after Ang II treatment and reduced ventricular arrhythmia. Calcium dynamics were examined via confocal imaging in isolated murine cardiomyocytes. MMP-9 inhibition prevents calcium leakage from the sarcoplasmic reticulum and reduces arrhythmia-like irregular calcium transients via protein kinase A and ryanodine receptor phosphorylation. Human induced pluripotent stem cell-derived cardiomyocytes similarly show that MMP-9 inhibition prevents abnormal calcium leakage.

According to the news editors, the research concluded: "Myocardial MMP-9 inhibition prevents ventricular arrhythmia through pleiotropic effects, including the modulation of calcium homeostasis and reduced calcium leakage."

For more information on this research see: Pleiotropic Effects of Myocardial MMP-9 Inhibition to Prevent Ventricular Arrhythmia. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)


Keywords for this news article include: Taipei, Taiwan, Asia, Enzymes and Coenzymes, Cardiomyocyte, Cardiology, Arrhythmia, Kinase, Yang Ming National University.

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Heart Disorders and Diseases - Arrhythmogenic...

New Arrhythmogenic Right Ventricular Dysplasia Findings Reported from University of British Columbia (Long-term right ventricular implantable cardioverter-defibrillator lead performance in arrhythmogenic right ventricular cardiomyopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Arrhythmogenic Right Ventricular Dysplasia are discussed in a new report. According to news reporting from Vancouver, Canada, by NewsRx journalists, research stated, "Arrhythmogenic right ventricular cardiomyopathy (ARVC) is a progressive disease characterized by replacement of normal myocardium by fibrofatty tissue. The right ventricular (RV) apex is the typical target for implantable cardioverter-defibrillator (ICD) lead placement, raising concerns for suboptimal lead performance in medium- to long-term follow-up."

The news correspondents obtained a quote from the research from the University of British Columbia, "The purpose of this study was to determine whether placement of ICD leads at the RV apex was associated with performance deterioration of medium-term leads in ARVC patients compared to non-ARVC patients. In this multicenter, retrospective, case-control study, ICD lead performance measures of R-wave, impedance, and pacing thresholds were compared at baseline and between 1-year and 5-year postimplantation follow-up using mixed-effect models.
adjusted for age and sex. One hundred one ARVC patients (49 women, age 50.6 +/- 14.5 years) were compared to 56 control patients (37 women, age 48.2 +/- 14.2 years). The mean difference in R wave between years 1 and 2 was -0.85 mV (P = .16) compared to a mean difference at years 5 and 6 of -1.85 mV (P = .02). There was no difference in impedance or pacing threshold or in lead lifetime between the 2 groups over 6-year follow-up (5.91 +/- 3.89 years vs 5.48 +/- 3.70 years, P = .239). In ARVC patients with ICD leads implanted in the RV apex, ventricular sensing deteriorates significantly during medium term follow-up.

According to the news reporters, the research concluded: "Septal RV lead placement should be explored as the first choice at implantation."


Our news journalists report that additional information may be obtained by contacting S. Chakrabarti, University of British Columbia, Vancouver, BC, Canada. Additional authors for this research include M. Gardner, C. Steinberg, J.A. Yeung-Lai-Wah, J.S. Healey, P. Leong-Sit, A.D. Krahn and S. Chakrabarti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.06.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Arrhythmogenic Right Ventricular Dysplasia, Implantable Cardioverter Defibrillator, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Ventricular Cardiomyopathy, Cardiomyopathies, Medical Devices, Defibrillators, Heart Disease, Cardiology, Surgery, University of British Columbia.

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**Arsenic**

**New Arsenic Study Findings Recently Were Reported by Researchers at Jilin Agricultural University (Determination and pharmacokinetic properties of arsenic speciation in Xiao-Er-Zhi-Bao-Wan by high-performance liquid chromatography with ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Arsenic is now available. According to news originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "A method of high performance liquid chromatography with a Hamilton PRP-X100 ion-exchange column (250 x 4.1 mm id, 10 mu m) coupled to inductively coupled plasma mass spectrometry was employed to generate a full concentration-time profile of arsenic speciation after oral administration. The results exhibited good linearity and revealed that, in the pills, the average arsenic concentration was 10105.4 +/- 380.7 mg/kg, and in the water extraction solution, the inorganic As(III) and As(V) concentrations were 220.1 +/- 12.6 and 45.5 +/- 2.3 mg/kg, respectively."

Our news journalists obtained a quote from the research from Jilin Agricultural
University, "No trace of monomethyl arsenic acid was detected in any of the plasma samples. We then successfully applied the established methodology to examine the pharmacokinetics of arsenic speciation. The resulting data revealed that, after oral administration in rats, the plasma concentration of each arsenic species reached C-max shortly after initial dosing, and that the distribution and elimination of As(V) was faster than that of As(III) and dimethyl arsenic acid. Additionally, the t1/2 values of As(V), As(III), and dimethyl arsenic acid were 3.4 +/- 1.6, 14.3 +/- 4.0, and 19.9 +/- 1.6 h, respectively."

According to the news editors, the research concluded: "This study provides references for the determination of arsenic speciation in mineral-containing medicines and could serve as a useful tool in measuring the true toxicity in traditional medicines that contain them."


The news correspondents report that additional information may be obtained from S.H. Yang, Jilin Agr Univ, Coll Tradit Chinese Med, Changchun 130118, People's Republic of China. Additional authors for this research include J.Y. Luo, W.J. Zhou, S.H. Yang and M.H. Yang.

Keywords for this news article include: Changchun, People's Republic of China, Asia, High-Performance Liquid Chromatography, Imaging Technology, Pharmacokinetics, Pharmaceuticals, Arsenic, Jilin Agricultural University.

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Arsenicals

New Arsenicals Study Findings Recently Were Reported by Researchers at Nanjing Medical University (A MALAT1/HIF-2a feedback loop contributes to arsenite carcinogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Arsenicals. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Arsenic is well established as a human carcinogen, but the molecular mechanisms leading to arsenic-induced carcinogenesis are complex and elusive. It is also not known if IncRNAs are involved in arsenic-induced liver carcinogenesis."

Our news editors obtained a quote from the research from Nanjing Medical University, "We have found that MALAT1, a non-coding RNA, is over-expressed in the sera of people exposed to arsenite and in hepatocellular carcinomas (HCCs), and MALAT1 has a close relation with the clinicopathological characteristics of HCC. In addition, hypoxia-inducible factor (HIF)-2a is up-regulated in HCCs, and MALAT1 and HIF-2a have a positive correlation in HCC tissues. During the malignant transformation of human hepatic epithelial (L-02) cells induced by a low concentration (2.0 mM) of arsenite, MALAT1 and HIF-2a are increased. In addition, arsenite-induced MALAT1 causes disassociation of the von Hippel-Lindau (VHL)
protein from HIF-2α, therefore, alleviating VHL-mediated HIF-2α ubiquitination, which causes HIF-2α accumulation. In turn, HIF-2α transcriptionally regulates MALAT1, thus forming a positive feedback loop to ensure expression of arsenite-induced MALAT1 and HIF-2α, which are involved in malignant transformation. Moreover, MALAT1 and HIF-2α promote the invasive and metastatic capacities of arsenite-induced transformed L-02 cells and in HCC-LM3 cells. The capacities of MALAT1 and HIF-2α to promote tumor growth are validated in mouse xenograft models. In mice, arsenite induces an inflammatory response, and MALAT1 and HIF-2α are over-expressed. Together, these findings suggest that the MALAT1/HIF-2α feedback loop is involved in regulation of arsenite-induced malignant transformation.

According to the news editors, the research concluded: "Our results not only confirm a novel mechanism involving reciprocal regulation between MALAT1 and HIF-2α, but also expand the understanding of the carcinogenic potential of arsenite."

For more information on this research see: A MALAT1/HIF-2α feedback loop contributes to arsenite carcinogenesis. Oncotarget, 2016;7(5):5769-87.

The news editors report that additional information may be obtained by contacting F. Luo, Institute of Toxicology, School of Public Health, Nanjing Medical University, Nanjing 211166, Jiangsu, People's Republic of China. Additional authors for this research include B. Sun, H. Li, Y. Xu, Y. Liu, X. Liu, L. Lu, J. Li, Q. Wang, S. Wei, L. Shi, X. Lu, Q. Liu and A. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6806. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Anions, Jiangsu, Genetics, Arsenites, Arsenicals, Carcinogenesis, People's Republic of China.

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Arsenicals

New Arsenicals Study Findings Recently Were Reported by Researchers at Sichuan University (Arsenite-induced endoplasmic reticulum-dependent apoptosis through disturbance of calcium homeostasis in HBE cell line)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Arsenicals is now available. According to news reporting originating in Chengdu, People's Republic of China, by NewsRx journalists, research stated, "Calcium (Ca) is a ubiquitous cell signal responsible for multiple fundamental cellular functions, including apoptosis. Whether the homeostasis of Ca is involved in arsenite-induced apoptosis remains unclear."

Financial support for this research came from National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Sichuan University, "In this study, we observed that arsenite significantly elevated the intracellular Ca concentration in a dose-and time-dependent manner. By using the CaATPase inhibitor, thapsigargin, and the inositol 1,4,5-trisphosphate receptors (IP3Rs) inhibitor, heparin, we further confirmed that the disturbance of endoplasmic reticulum (ER) Ca homeostasis caused Ca overload in the cells."
Moreover, loss of ER Ca homeostasis also led to ER stress, mitochondrial dysfunction, and NF-kB activation. Importantly, pretreatment of cells with heparin remarkably attenuated the elevated cell apoptosis induced by arsenite, but inhibition of ER Ca uptake with thapsigargin exacerbated arsenite-induced cell damage significantly. Together, we demonstrated for the first time that arsenite disturbed the Ca homeostasis in ER, which subsequently led to ER stress, mitochondrial dysfunction, and NF-kB nuclear translocation, and thus consequently triggering cell apoptosis.

According to the news reporters, the research concluded: "Our findings indicate regulation of disrupted Ca homeostasis in ER may be a potential strategy for prevention of arsenite toxicity. ? 2015 Wiley Periodicals, Inc. Environ Toxicol 32:197-216."


Our news correspondents report that additional information may be obtained by contacting C. Chen, Dept. of Occupational and Environmental Health, West China School of Public Health, Sichuan University, Chengdu, Sichuan, People's Republic of China. Additional authors for this research include S. Gu, X. Jiang and Z. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/tox.22226. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Anions, Chengdu, Genetics, Apoptosis, Arsenites, Cell Line, Cytoplasm, Arsenicals, Organelles, Cellular Structures, Intracellular Space, Endoplasmic Reticulum, People's Republic of China.

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**Arteriovenous Malformation**

**New Arteriovenous Malformation Findings from Careggi University Hospital Outlined (Curative Transvenous Onyx Embolization of a Maxillary Arteriovenous Malformation in a Child: Report of a New Technique)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Arteriovenous Malformation is now available. According to news reporting originating from Florence, Italy, by NewsRx correspondents, research stated, "Endovascular management of maxillary arteriovenous malformation (AVMs) can be complex. Transarterial, transvenous, and direct puncture embolization has been described."

Our news editors obtained a quote from the research from Careggi University Hospital, "The authors report the case of a 9-year-old girl with a hemorrhagic maxillary AVM, which has been treated by transvenous embolization after failure of transarterial embolization. The venous pouch was catheterized with a detachable tip microcatheter and occluded by slow Onyx injection. Onyx filled the pouch and retrogradely reached some arterial feeders, achieving complete occlusion. Bleeding episode ceased and at 6 months follow-up no recurrence was found."

According to the news editors, the research concluded: "Maxillary AVMs can be
successfully treated by transvenous Onyx embolization."


The news editors report that additional information may be obtained by contacting N. Limbucci, *Dept. of Interventional Neuroradiology †Maxillofacial Surgery Unit, Careggi University Hospital, Florence, Italy. Additional authors for this research include G. Spinelli, S. Nappini, L. Renieri, A. Consoli, A. Rosi and S. Mangiafico.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/SCS.0000000000002489. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Florence, Angiology, Embolization, Vascular Malformations, Congenital Abnormalities, Arteriovenous Malformations, Cardiovascular Abnormalities, Cardiovascular Diseases and Conditions.

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**Musculoskeletal Diseases and Conditions - Arthritis**

**New Arthritis Findings from University of Edinburgh Described (PTPN22 Is a Critical Regulator of Fc gamma Receptor-Mediated Neutrophil Activation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Musculoskeletal Diseases and Conditions - Arthritis. According to news originating from Edinburgh, United Kingdom, by NewsRx correspondents, research stated, "Neutrophils act as a first line of defense against bacterial and fungal infections, but they are also important effectors of acute and chronic inflammation. Genome-wide association studies have established that the gene encoding the protein tyrosine phosphatase nonreceptor 22 (PTPN22) makes an important contribution to susceptibility to autoimmune disease, notably rheumatoid arthritis."

Our news journalists obtained a quote from the research from the University of Edinburgh, "Although PTPN22 is most highly expressed in neutrophils, its function in these cells remains poorly characterized. We show in this article that neutrophil effector functions, including adhesion, production of reactive oxygen species, and degranulation induced by immobilized immune complexes, were reduced in Ptpn22(-/-) neutrophils. Tyrosine phosphorylation of Lyn and Syk was altered in Ptpn22(-/-) neutrophils. On stimulation with immobilized immune complexes, Ptpn22(-/-) neutrophils manifested reduced activation of key signaling intermediates. Ptpn22(-/-) mice were protected from immune complex-mediated arthritis, induced by the transfer of arthritogenic serum. In contrast, in vivo neutrophil recruitment following thioglycollate-induced peritonitis and in vitro chemotaxis were not affected by lack of PTPN22."

According to the news editors, the research concluded: "Our data suggest an important role for PTPN22-dependent dephosphorylation events, which are required to enable full Fc gamma R-induced activation, pointing to an important role for this molecule in neutrophil function."

For more information on this research see: PTPN22 Is a Critical Regulator of Fc
gamma Receptor-Mediated Neutrophil Activation. *Journal of Immunology*, 2016;197(12):4771-4779. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news correspondents report that additional information may be obtained from S. Vermeren, University of Edinburgh, Medical Res Council, Center Inflammat Res, Queens Med Res Inst, Edinburgh EH16 4TJ, Midlothian, United Kingdom. Additional authors for this research include K. Miles, J.Y. Chu, D. Salter, R. Zamoyska and M. Gray.

Keywords for this news article include: Edinburgh, United Kingdom, Europe, Musculoskeletal Diseases and Conditions, Joint Diseases and Conditions, Hemic and Immune Systems, Granulocytes, Blood Cells, Neutrophils, Immunology, Phagocytes, Arthritis, Genetics, University of Edinburgh.

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**Biomedical Engineering - Artificial Cartilage**

**New Artificial Cartilage Study Findings Reported from University of Copenhagen (Role of Electrostatic Interactions on the Transport of Druglike Molecules in Hydrogel-Based Articular Cartilage Mimics: Implications for Drug Delivery)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biomedical Engineering - Artificial Cartilage have been published. According to news reporting from Copenhagen, Denmark, by NewsRx journalists, research stated, "In the field of drug delivery to the articular cartilage, it is advantageous to apply artificial tissue models as surrogates of cartilage for investigating drug transport and release properties. In this study, artificial cartilage models consisting of 0.5% (w/v) agarose gel containing 0.5% (w/v) chondroitin sulfate or 0.5% (w/v) hyaluronic acid were developed, and their rheological and morphological properties were characterized."

The news correspondents obtained a quote from the research from the University of Copenhagen, "UV imaging was utilized to quantify the transport properties of the following four model compounds in the agarose gel and in the developed artificial cartilage models: H-Ala-b-naphthylamide, H-Lys-Lys-b-naphthylamide, lysozyme, and a-lactalbumin. The obtained results showed that the incorporation of the polyelectrolytes chondroitin sulfate or hyaluronic acid into agarose gel induced a significant reduction in the apparent diffusivities of the cationic model compounds as compared to the pure agarose gel. The decrease in apparent diffusivity of the cationic compounds was not caused by a change in the gel structure since a similar reduction in apparent diffusivity was not observed for the net negatively charged protein a-lactalbumin. The apparent diffusivity of the cationic compounds in the negatively charged hydrogels was highly dependent on the ionic strength, pointing out the importance of electrostatic interactions between the diffusant and the polyelectrolytes. Solution based affinity studies between the model compounds and the two investigated polyelectrolytes further confirmed the electrostatic nature of their interactions. The results obtained from the UV imaging diffusion studies are important for understanding the effect of drug physicochemical properties on the transport in articular cartilage."

According to the news reporters, the research concluded: "The extracted information
may be useful in the development of hydrogels for in vitro release testing having features resembling the articular cartilage."


Our news journalists report that additional information may be obtained by contacting F. Ye, Dept. of Pharmacy, Faculty of Health and Medical Sciences, University of Copenhagen, Universitetsparken 2, DK-2100 Copenhagen, Denmark. Additional authors for this research include S. Baldursdottir, S. Hvidt, H. Jensen, S.W. Larsen, A. Yaghmur, C. Larsen and J. Østergaard.

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Keywords for this news article include: Biotechnology, Biomedical Engineering, Biomedicine, Europe, Denmark, Copenhagen, Bioengineering, Drugs and Therapies, Artificial Cartilage, Drug Delivery Systems.

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*Lung Diseases and Conditions - Aspiration Pneumonia*

**New Aspiration Pneumonia Findings from University of New Mexico Outlined (Rare complication of a common obesity procedure)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Aspiration Pneumonia. According to news reporting originating from Albuquerque, New Mexico, by NewsRx correspondents, research stated, "Laparoscopic gastric banding has been widely used to treat obesity. Aspiration pneumonia has not been reported as a complication of bariatric surgery."

Our news editors obtained a quote from the research from the University of New Mexico, "We present a patient who had bariatric surgery and presented with aspiration pneumonia. A 64-year-old woman with a medical history of obesity and laparoscopic gastric banding presented to urgent care with 1 month of dry, continuous cough. A chest CT scan demonstrated a large opacity in the left upper lobe peripherally containing an air bronchogram, and the oesophagus was significantly enlarged and fluid filled. The patient was diagnosed with aspiration pneumonia. She received antibiotics and the gastric band was deflated. A repeat CT scan showed resolution of the pneumonia. To our knowledge, aspiration pneumonia is an unreported complication of gastric banding."

According to the news editors, the research concluded: "Not recognising this complication may cause delay in the correct diagnosis and leads to invasive procedures with increased morbidity."

For more information on this research see: Rare complication of a common obesity procedure. *Bmj Case Reports*, 2016;2016():. (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

The news editors report that additional information may be obtained by contacting
New Assisted Reproduction and Genetics Data Have Been Reported by Investigators at Department of Medical Genetics (Reanalysis of human blastocysts with different molecular genetic screening platforms reveals significant discordance in ploidy ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics - Assisted Reproduction and Genetics. According to news reporting out of Bursa, Turkey, by NewsRx editors, research stated, "The objective of this study is to determine mosaicism and its effect on blastocysts; abnormal blastocysts determined by molecular testing were sequentially biopsied and retested. We re-biopsied 37 blastocyst-stage abnormal embryos from eight patients, which were reanalyzed to determine the level of concordance between biopsies and inter-laboratory congruence between reputable commercial PGS laboratories."

Our news journalists obtained a quote from the research from the Department of Medical Genetics, "The main outcome measures were intra-embryo variation between sequential embryo biopsies and inter-laboratory variation between two PGS laboratories. The compatibility between both aCGH and NGS was found to be 11 % (3/27). Importantly, 9/27 (33 %) of embryos originally reported to be aneuploid, upon repeat assessment, were found to be euploid. The concurrence for SNP array and NGS was 50 % (3/6), and 17 % (1/6) of these abnormal embryos tested normal upon re-evaluation with NGS. NGS resulted 41 % (11/27) normal results when 27 of CGH abnormal embryos were retested. Concordance between aCGH and NGS was 4 % (1/27) whereas in three instances, gender discrepancy was observed with NGS when aCGH abnormal embryos were reanalyzed."

According to the news editors, the research concluded: "The results of these studies reinforce the prevalence of inconsistencies during PGS evaluation of trophectoderm biopsies possibly due to variations in platform sensitivity and heightening concerns over the clinical tractability of such technology in human ARTs.."

Our news journalists report that additional information may be obtained by contacting L. Keskintepe, Univ Bursa, Dept. of Med Genet, Bursa, Turkey. Additional authors for this research include M. Dayal, Z. Beyhan, T. Yakut and L. Keskintepe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0766-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bursa, Turkey, Eurasia, Assisted Reproduction and Genetics, Genetics, Department of Medical Genetics.

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Genetics - Assisted Reproduction and Genetics

New Assisted Reproduction and Genetics Findings from Lanzhou University Reported (The effect of chromosomal polymorphisms on the outcomes of fresh IVF/ICSI-ET cycles in a Chinese population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Genetics - Assisted Reproduction and Genetics are presented in a new report. According to news reporting out of Lanzhou, People's Republic of China, by NewsRx editors, research stated, "Chromosomal polymorphisms (CPs) have been reported to be associated with infertility; however, their effects on the outcomes of in vitro fertilization/intracytoplasmic sperm injection-embryo transfer (IVF/ICSI-ET) are still controversial. In this retrospective study, we aimed to evaluate the effect of CPs on IVF/ICSI-ET outcomes."

Our news journalists obtained a quote from the research from Lanzhou University, "To investigate whether CPs affected the outcomes of fresh IVF/ICSI-ET cycles in a Chinese population, we evaluated infertile couples with male carriers of CPs (n = 348), infertile couples with female carriers (n = 99), and unaffected couples (n = 400) who had received their first treatment cycles in our hospital between January 2013 and March 2015. CPs in either male or female carriers seemed to have adverse effects on IVF/ICSI-ET outcomes. CPs in male carriers affected outcomes mainly by decreasing the rates of fertilization, embryo cleavage, good quality embryos, clinical pregnancies, ongoing pregnancies, and deliveries as well as increasing the biochemical pregnancy rate (P < 0.05); CPs in female carriers affected outcomes only by lowering the embryo cleavage rate (P < 0.05). The mean fertilization rate of couples with male CP carriers undergoing IVF was significantly lower than that in those undergoing ICSI (61.1 versus 66.5 %, respectively; P = 0.0004). Our data provide evidence for the involvement of CPs in the poor outcomes of fresh IVF/ICSI-ET cycles in a Chinese population."

According to the news editors, the research concluded: "The use of ICSI might improve outcomes by increasing the fertilization rate for men with CPs."


Our news journalists report that additional information may be obtained by

Keywords for this news article include: Lanzhou, People's Republic of China, Asia, Assisted Reproduction and Genetics, Genetics, China, Asia, Lanzhou University.

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Genetics - Assisted Reproduction and Genetics

New Assisted Reproduction and Genetics Study Findings Have Been Reported by Researchers at University of Akdeniz (Differential expression pattern of Twist1 in mouse preimplantation embryos suggests its multiple roles during early development)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics - Assisted Reproduction and Genetics have been published. According to news reporting out of Antalya, Turkey, by NewsRx editors, research stated, "The purpose of the present study is to understand Twist-related protein 1 (Twist1) spatiotemporal expression patterns and functions during early embryo development. We performed whole-mount double immunofluorescence staining and reverse transcription (RT)-PCR analysis of the Twist1 protein and gene throughout the preimplantation development in mice."

Our news journalists obtained a quote from the research from the University of Akdeniz, "We determined that after compaction, the expression of Twist1 becomes developmentally differentiated and targeted in the inner cells of embryos. In blastocysts at E4.5, uniform staining of the inner cell mass was apparent, and it had been gradually translocated to the nucleus of hatched embryonic cells at E4.75. Furthermore, the effect of potential regulators of Twist on its expression level during blastocyst development was also sought. Accordingly, Twist1 expression appeared to be upregulated in both mRNA and protein level following culture of embryos in the presence of high glucose. Our study revealed the dynamic Twist localization within the early stage of embryo."

According to the news editors, the research concluded: "The results are discussed in terms of potential roles of Twist1 in the processes of lineage segregation, hatching, and implantation in post-compaction embryos and in blastocysts."


Our news journalists report that additional information may be obtained by contacting N. Demir, Akdeniz Univ Campus, Sch Med, Dept. of Histol & Embryol, TR-07070 Antalya, Turkey. Additional authors for this research include S. Pehlivanoglu and N. Demir.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0794-1. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Antalya, Turkey, Eurasia, Assisted Reproduction and Genetics, Genetics, University of Akdeniz.

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Lung Diseases and Conditions - Asthma

New Asthma Findings from Wannan Medical College Described (An updated meta-analysis of transforming growth factor-beta 1 gene: Three well-characterized polymorphisms with asthma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Asthma is the subject of a report. According to news reporting out of Anhui, People's Republic of China, by NewsRx editors, research stated, "The association between TGF-1 beta polymorphisms and asthma risk has been widely reported, but results were controversial. We performed this meta-analysis based on the Preferred Reporting Items for Systematic Reviews and meta-analyses statement (PRISMA)."

Our news journalists obtained a quote from the research from Wannan Medical College, "Electronic database of Pub Med, Web of Science, CBM, and CNKI were searched for eligible articles published up to September, 2013. The effect summary odds ratio (OR) and 95% confidence intervals were obtained. Finally, a total of 20 articles were identified, 17 studies with 3694 cases and 5613 controls for C-509T polymorphism, 7 studies with 1109 cases and 1098 controls for T869C polymorphism and 5 studies with 849 cases and 829 controls for G915C polymorphism. For C-509T, significant associations with asthma were found in Asians (IT + TC vs. CC: P = 0.004, OR = 1.43, 95%CI = 1.12-1.81, P-heterogeneity = 0.001) and in Caucasians (P= 0.05, OR = 1.16, 95%CI = 1.00-1.34, Pheterogeneity = 0.36). With respect to T869C, a small significant association was observed in overall analysis of allele contrasts(C vs. T: OR = 1.14, 95%CI: 1.01-1.29, P = 0.03) and homozygote comparison (CC vs. TT: OR 1.29, 95%CI: 1.00-1.65, P= 0.05), but no significant risks were found among Caucasian population and Asian population. For G915C polymorphism, no significant association with asthma risk was demonstrated in overall analysis and subgroup analyses according to ethnicity for all genetic models."

According to the news editors, the research concluded: "This meta-analysis suggested that TGF-beta 1 C-509T and T869C polymorphisms may be risk factors for asthma."

For more information on this research see: An updated meta-analysis of transforming growth factor-beta 1 gene: Three well-characterized polymorphisms with asthma. Human Immunology, 2016;77(12):1291-1299. Human Immunology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

Our news journalists report that additional information may be obtained by contacting C.P. Li, Wannan Med College, Dept. of Med Parasitol, Wuhu 241002, Anhui, People's Republic of China. Additional authors for this research include W.W. Chang, L.P. He, Y.L. Jin and C.P. Li.

Keywords for this news article include: Anhui, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Immunology, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Bronchial Diseases and Conditions,
Transforming Growth Factor beta, TGF-beta Superfamily Proteins, Respiratory Hypersensitivity, Transforming Growth Factors, Risk and Prevention, Cytokines, Genetics, Asthma, Wannan Medical College.

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Lung Diseases and Conditions - Asthma

New Asthma Study Findings Have Been Reported from Tarbiat Modares University (Conjugated Alpha-Alumina nanoparticle with vasoactive intestinal peptide as a Nano-drug in treatment of allergic asthma in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lung Diseases and Conditions - Asthma have been presented. According to news originating from Tehran, Iran, by NewsRx correspondents, research stated, "Asthma is a chronic respiratory disease characterized by airway inflammation, bronchoconstriction, airway hyperresponsiveness and recurring attacks of impaired breathing. Vasoactive intestinal peptide (VIP) has been proposed as a novel anti-asthma drug due to its effects on airway smooth muscle relaxation, bronchodilation and vasodilation along with its immunomodulatory and anti-inflammatory properties."

Our news journalists obtained a quote from the research from Tarbiat Modares University, "In the current study, we investigated the therapeutic effects of VIP when conjugated with alpha-alumina nanoparticle (alpha-AN) to prevent enzymatic degradation of VIP in the respiratory tract. VIP was conjugated with alpha-AN. Balb/c mice were sensitized and challenged with ovalbumin (OVA) or PBS and were divided in four groups; VIP-treated, alpha-AN-treated, alpha-AN-VIP-treated and beclomethasone-treated as a positive control group. Specific and total IgE level, airway hyperresponsiveness (AHR), bronchial cytokine expression and lung histology were measured. alpha-AN-VIP significantly reduced the number of eosinophils (Eos), serum IgE level, Th2 cytokines and AHR. These effects of a-AN-VIP were more pronounced than that seen with beclomethasone or VIP alone (P <0.05)."

According to the news editors, the research concluded: "The current data indicate that a-AN-VIP can be considered as an effective nano-drug for the treatment of asthma."

For more information on this research see: Conjugated Alpha-Alumina nanoparticle with vasoactive intestinal peptide as a Nano-drug in treatment of allergic asthma in mice. European Journal of Pharmacology, 2016;791():811-820. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news correspondents report that additional information may be obtained from S.M. Moazzeni, Tarbiat Modares Univ, Dept. of Immunol, Fac Med Sci, Tehran, Iran. Additional authors for this research include Z. Pourpak, G. Folkerts, J. Garssen, M. Moin, I.M. Adcock, M. Movassaghi, M.S. Ardestani, S.M. Moazzeni and E. Mortaz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.10.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Respiratory Tract
New Asthma Study Findings Recently Were Reported by Researchers at German Center Lung Research [IL-27 Is Essential for Suppression of Experimental Allergic Asthma by the TLR7/8 Agonist R848 (Resiquimod)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lung Diseases and Conditions - Asthma have been presented. According to news reporting originating from Hannover, Germany, by NewsRx correspondents, research stated, "Different models of experimental allergic asthma have shown that the TLR7/8 agonist resiquimod (R848) is a potential inhibitor of type 2 helper cell driven inflammatory responses. However, the mechanisms mediating its therapeutic effects are not fully understood."

Our news editors obtained a quote from the research from German Center Lung Research, "Using a model of experimental allergic asthma, we show that induction of IL-27 by R848 is critical for the observed ameliorative effects. R848 significantly inhibited all hallmarks of experimental allergic asthma, including airway hyperreactivity, eosinophilic airway inflammation, mucus hypersecretion, and Ag-specific Ig production. Whereas R848 significantly reduced IL-5, IL-13, and IL-17, it induced IFN-gamma and IL-27. Neutralization of IL-27 completely reversed the therapeutic effect of R848 in the experimental asthma model, demonstrating dependence of R848-mediated suppression on IL-27. In vitro, R848 induced production of IL-27 by murine alveolar macrophages and dendritic cells and enhanced expression of programmed death ligand 1, whose expression on monocytes and dendritic cells has been shown to regulate peripheral tolerance in both murine and human studies. Moreover, in vitro IL-27 enhanced secretion of IFN-gamma whereas it inhibited IL-5 and IL-13, demonstrating its direct effect on attenuating Th2 responses. Taken together, our study proves that R848-mediated suppression of experimental asthma is dependent on IL-27."

According to the news editors, the research concluded: "These data provide evidence of a central role of IL-27 for the control of Th2-mediated allergic diseases."

For more information on this research see: IL-27 Is Essential for Suppression of Experimental Allergic Asthma by the TLR7/8 Agonist R848 (Resiquimod). *Journal of Immunology*, 2016;197(11):4219-4227. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news editors report that additional information may be obtained by contacting G. Hansen, German Center Lung Res, Biomed Res Endstage & Obstruct Lung Dis Hannover, D-30625 Hannover, Germany. Additional authors for this research include K. Daluege, C. Happle, M. Albrecht, A.M. Dittrich, M. Busse, A. Habener, J. Skuljegi and G. Hansen.

The direct object identifier (DOI) for that additional information is:
Lung Diseases and Conditions - Asthma

New Asthma Study Results Reported from Norwegian Institute of Public Health (Maternal plasma total neopterin and kynurenine/tryptophan levels during pregnancy in relation to asthma development in the offspring)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Asthma have been published. According to news reporting out of Oslo, Norway, by NewsRx editors, research stated, "Neopterin levels and kynurenine/tryptophan ratios (KTRs) increase with IFN-gamma stimulation, indicating T(H)1 immunity, and thus might be inversely associated with asthma. We sought to examine the association of maternal neopterin levels and KTRs during pregnancy with asthma in the offspring."

Our news journalists obtained a quote from the research from the Norwegian Institute of Public Health, "We analyzed the associations of maternal plasma total neopterin levels and KTRs in midpregnancy with asthma at age 7 years among 2883 children in the Norwegian Mother and Child Cohort Study. Asthma was classified either based on registered dispensed asthma medications in the Norwegian Prescription Database or maternal report. We calculated adjusted relative risks using log-binomial regression. The median gestational week of blood sampling was 18 weeks (interquartile range, 17-19 weeks). The risk of dispensed asthma medications at age 7 years was highest among children of mothers in the highest quartile of neopterin levels, whereas the risk was similar in the 3 lowest quartiles. The adjusted relative risk of dispensed asthma medications was 1.66 (95% CI, 1.16-2.38) when comparing children of mothers in the highest quartile with those in the 3 lowest quartiles. A similar association was observed for maternal report of asthma at age 7 years. When we evaluated allergic versus nonallergic asthma, neopterin levels tended to be associated with nonallergic asthma. Maternal KTR was not associated with asthma development. Our findings indicate that high maternal levels of neopterin, a marker of cellular immune activation, during pregnancy were positively associated with asthma in the offspring."

According to the news editors, the research concluded: "Experimental studies would be needed to further elucidate underlying mechanisms."

For more information on this research see: Maternal plasma total neopterin and kynurenine/tryptophan levels during pregnancy in relation to asthma development in the offspring. *Journal of Allergy and Clinical Immunology*, 2016;138(5):1319-1325,624-627. *Journal of Allergy and Clinical Immunology* can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Journal of Allergy and Clinical Immunology - www.journals.elsevier.com/journal-of-allergy-and-clinical-
immunology/

Our news journalists report that additional information may be obtained by contacting M.C. Magnus, Norwegian Inst Public Hlth, Div Mental & Phys Hlth, Oslo, Norway. Additional authors for this research include O. Karlstad, O. Midtun, S.E. Haberg, G. Tunheim, C.L. Parr, P. Nafstad, S.J. London, R.M. Nilsen, P.M. Ueland and W. Nysted.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jaci.2016.02.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Norway, Europe, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Tryptophan, Immunology, Essential Amino Acids, Enzymes and Coenzymes, Aromatic Amino Acids, Kynurenine, Hematology, Neopterin, Biopterin, Plasma, Asthma, Blood, Norwegian Institute of Public Health.

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Lung Diseases and Conditions - Asthma

New Asthma Study Results from University of Texas Health Science Center Described (b-Blockers have differential effects on the murine asthma phenotype)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Asthma have been published. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "Our previous studies have shown the b2-adrenoceptor and its endogenous ligand, adrenaline, are required for development of the asthma phenotype in murine asthma models. Chronic administration of some, but not other, b-blockers attenuated the asthma phenotype and led us to hypothesize that biased signalling was the basis of their differential effects, experimentally and clinically."

Financial support for this research came from National Institutes of Health.

The news reporters obtained a quote from the research from the University of Texas Health Science Center, "We used mice with no detectable systemic adrenaline (PNMT(-/-)) and wild-type (WT) mice to study the effects of four b-blockers, alprenolol, carvedilol, propranolol and nadolol, in an ovalbumin sensitization and challenge (Ova S/C) murine model of asthma. The parameters measured were inflammatory cell infiltration, mucous metaplasia and airway hyperresponsiveness. To interpret the pharmacological action of these ligands quantitatively, we conducted computer simulations of three-state models of receptor activation. Ova S/C PNMT(-/-) mice do not develop an asthma phenotype. Here, we showed that administration of alprenolol, carvedilol or propranolol in the absence of interference from adrenaline using Ova S/C PNMT(-/-) mice resulted in the development of an asthma phenotype, whereas nadolol had no effect. Ova S/C WT mice did develop an asthma phenotype, and administration of alprenolol, propranolol and carvedilol had no effect on the asthma phenotype. However, nadolol prevented development of the asthma phenotype in Ova S/C WT mice."

According to the news reporters, the research concluded: "Computer simulations of these four ligands were consistent with the isolated three-state receptor model. b-Blockers have different effects on the murine asthma phenotype that correlate with reported differences in
activation or inhibition of downstream b2-adrenoceptor signalling pathways."


Our news correspondents report that additional information may be obtained by contacting V.J. Thanawala, Dept. of Integrative and Biology Pharmacology, University of Texas Health Science Center, Houston, TX, United States. Additional authors for this research include D.J. Valdez, R. Joshi, G.S. Forkuo, S. Parra, B.J. Knoll, M. Bouvier, P. Leff and R.A Bond.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13253. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the *British Journal of Pharmacology* can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Antiarrhythmic Agents, Antihypertensive, Pharmaceuticals, Texas, Asthma, Houston, United States, Sympatholytic, Nadolol Therapy, Alprenolol Therapy, Carvedilol Therapy, Drugs and Therapies, Cardiovascular Agents, Group II Antiarrhythmics, North and Central America, Respiratory Hypersensitivity.

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**Nervous System Diseases and Conditions - Ataxia**

**New Ataxia Study Findings Have Been Reported by Investigators at Institute for Cancer Research and Treatment (IRCCS) (Episodic ataxia and SCA6 within the same family due to the D302N CACNA1A gene mutation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nervous System Diseases and Conditions - Ataxia. According to news reporting out of Milan, Italy, by NewsRx editors, research stated, "Several dominant mutations of CACNA1A gene were associated with at least three different allelic disorders: spino-cerebellar ataxia type 6 (SCA6), episodic ataxia type 2 (EA2), and familial hemiplegic migraine-1 (FHM1). It is generally thought that loss-of-function mutations are associated with EA2, gain-of-function missense mutations with FHM1, and abnormal CAG expansions with SCAB."

Our news journalists obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "But, overlapping features, atypical symptoms and co-occurrence of distinct phenotypes within the same family were reported. We describe a four generation family showing different phenotypes ranging from EA2 to SCA6 and carrying the p.D302N CACNA1A gene mutation."

According to the news editors, the research concluded: "In our family the phenotypes maintained separate and gender differences corresponding to different phenotypes were observed."

For more information on this research see: Episodic ataxia and SCA6 within the
same family due to the D302N CACNA1A gene mutation. *Journal of the Neurological Sciences*, 2016;371():81-84. *Journal of the Neurological Sciences* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of the Neurological Sciences - www.journals.elsevier.com/journal-of-the-neurological-sciences/)

Our news journalists report that additional information may be obtained by contacting L. Pradotto, IRCCS Ist Auxol Italiano, Div Neurol & Neurorehabil, Milan, Italy. Additional authors for this research include M. Mencarelli, M. Bigoni, A. Milesi, A. Di Blasio and A. Mauro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jns.2016.10.029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Nervous System Diseases and Conditions, Genetics, Neurologic Manifestations, Dyskinesias, Neurology, Ataxia, Institute for Cancer Research and Treatment (IRCCS).

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**Cardiovascular Diseases and Conditions -**

**New Atherosclerosis Findings Has Been Reported by Investigators at Fox Chase Cancer Center (The role of cytokines in the development of atherosclerosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Atherosclerosis contributes to the development of many cardiovascular diseases, which remain the leading cause of death in developed countries. Atherosclerosis is a chronic inflammatory disease of large and medium-sized arteries."

Our news editors obtained a quote from the research from Fox Chase Cancer Center, "It is caused by dyslipidemia and mediated by both innate and adaptive immune responses. Inflammation is a key factor at all stages of atherosclerosis progression. Cells involved in pathogenesis of atherosclerosis were shown to be activated by soluble factors, cytokines, that strongly influence the disease development. Pro-inflammatory cytokines accelerate atherosclerosis progression, while anti-inflammatory cytokines ameliorate the disease."

According to the news editors, the research concluded: "In this review, we discuss the latest findings on the role of cytokines in the development and progression of atherosclerosis."


The news editors report that additional information may be obtained by contacting E.K. Koltsova, Fox Chase Canc Center, Philadelphia, PA 19111, United States. Additional authors for this research include I.O. Peshkova and E.K. Koltsova.

The direct object identifier (DOI) for that additional information is:
New Atherosclerosis Findings from Gifu University Reported (Different Susceptibilities between Apoe- and Ldlr-Deficient Mice to Inflammation-Associated Colorectal Carcinogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting out of Gifu, Japan, by NewsRx editors, research stated, "Hypercholesterolemia resulting in atherosclerosis is associated with an increased risk of ischemic heart disease and colorectal cancer (CRC). However, the roles of apoliprotein (Apo) E (Apoe) and low-density lipoprotein (Ldl) receptor (Ldlr) in colorectal carcinogenesis have not yet been investigated."

Our news journalists obtained a quote from the research from Gifu University, "In this study, we examined the susceptibility of Apoe-deficient and Ldlr-deficient mice, which are genetic animal models of atherosclerosis to azoxymethane (AOM)/dextran sodium sulfate (DSS)-induced colorectal carcinogenesis. In Experiment 1, male Apoe-deficient (n = 20) and wild type (WT) mice (C57BL/6J, n = 21) were treated with a single intraperitoneal (i.p.) injection of AOM (10 mg/kg body weight) and then given 1.5% DSS in drinking water for seven days. They were maintained up to week 20 and sacrificed for the histopathological examination of colorectal tumors. The mRNA expression of cyclooxygenase (Cox)-2, inducible nitric oxide synthase (Nos2), tumor necrosis factor (Tnf)-alpha interleukin (Il)-1 beta, and Il-6 was assayed in the colorectal mucosa. In Experiment 2, male Ldlr-deficient (n = 14) and WT mice (C57BL/6J, n = 10) were given a single i. p. injection of AOM (10 mg/kg body weight) and then given 2% DSS in drinking water for seven days. They were sacrificed at week 20 to evaluate their colorectum histopathologically. In Experiment 1, the multiplicity of CRCs was significantly higher in the Apoe-deficient mice (2.75 +/- 1.48) than in the WT mice (0.62 +/- 0.67). The serum lipoprotein levels in the Apoe-deficient mice were also significantly higher than in the WT mice. In Experiment 2, the incidence (29%) and multiplicity (0.50 +/- 0.94) of CRCs in the Ldlr mice were significantly lower than in the WT mice (80% incidence and 3.10 +/- 2.38 multiplicity). The mRNA expression of two inducible enzymes and certain pro-inflammatory cytokines in the colorectum of each genotype was greater than in the respective WT mice. The values in the Apoe-deficient mice were much greater than in the Ldlr mice."

According to the news editors, the research concluded: "These findings suggest that Apoe-deficient mice showed increased susceptibility to inflammation-associated colorectal carcinogenesis due to their high reactivity to inflammatory stimuli."

For more information on this research see: Different Susceptibilities between Apoe- and Ldlr-Deficient Mice to Inflammation-Associated Colorectal Carcinogenesis. International Journal of Molecular Sciences, 2016;17(11):710-723. International Journal of Molecular
New Atherosclerosis Findings from P.S. Timashev and Colleagues Discussed (Atomic Force Microscopy Study of Atherosclerosis Progression in Arterial Walls)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting originating from Troitsk, Russia, by NewsRx correspondents, research stated, "Cardiovascular disease remains the leading cause of mortality worldwide. Here we suggest a novel approach for tracking atherosclerosis progression based on the use of atomic force microscopy (AFM)."

Our news editors obtained a quote from the research, "Using AFM, we studied cross-sections of coronary arteries with the following types of lesions: Type II-thickened intima; Type III-thickened intima with a lipid streak; Type IV-fibrotic layer over a lipid core; Type Va-unstable fibrotic layer over a lipid core; Type Vc-very thick fibrotic layer. AFM imaging revealed that the fibrotic layer of an atherosclerotic plaque is represented by a basket-weave network of collagen fibers and a subscale network of fibrils that become looser with atherosclerosis progression. In an unstable plaque (Type Va), packing of the collagen fibers and fibrils becomes even less uniform than that at the previous stages, while a stable fibrotic plaque (Vc) has significantly tighter packing. Such alterations of the collagen network morphology apparently, led to deterioration of the Type Va plaque mechanical properties, that, in turn, resulted in its instability and propensity to rupture."

According to the news editors, the research concluded: "Thus, AFM may serve as a useful tool for tracking atherosclerosis progression in the arterial wall tissue."


The news editors report that additional information may be obtained by contacting P.S. Timashev, 1Institute of Laser and Information Technologies, 2 Pionerskaya St, 142092 Troitsk, Moscow, Russia. Additional authors for this research include S.L. Kotova, G.V. Belkova, E.V. Gubar'kova, L.B. Timofeeva, N.D. Gladkova and A.B Solovieva.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S1431927616000039. This DOI is a link to an online electronic
New Atherosclerosis Study Findings Recently Were Reported by Researchers at Affiliated Hospital (Trimethylamine N-oxide induces inflammation and endothelial dysfunction in human umbilical vein endothelial cells via activating ROS-TXNIP-NLRP3 ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Atherosclerosis is the subject of a report. According to news originating from Sichuan, People's Republic of China, by NewsRx correspondents, research stated, "Recent research demonstrates that the choline-derived metabolite trimethylamine-N-oxide (TMAO) levels are strongly associated with atherosclerosis and cardiovascular risks. The NLRP3 inflammasome responds to exogenous and endogenous danger signals involved in the development of atherosclerosis."

Financial support for this research came from Sichuan Medical Association Fund of China.

Our news journalists obtained a quote from the research from Affiliated Hospital, "Moreover, thioredoxin-interactive protein (TXNIP) activation is a key event linked to NLRP3 inflammasome via reactive oxygen species (ROS). Whether TMAO prime NLRP3 inflammasome via ROS-TXNIP pathway remains unclear. This study observed the expression of TXNIP-NLRP3 inflammasome stimulated by TMAO in human umbilical vein endothelial cells (HUVECs), aiming to elucidate the mechanism by which the TMAO may contribute to inflammation and endothelial dysfunction. Our data showed that TMAO significantly triggered oxidative stress and activated TXNIP-NLRP3 inflammasome whereat inflammatory cytokines interleukin (IL)-1 beta and IL-18 were released in a dose- and time-dependent manner, but endothelial nitric oxide synthase (eNOS) and production of nitric oxide (NO) were inhibited. Moreover, TMAO-mediated effects were observably reversed by ROS inhibitor N-acetylcysteine (NAC) treatment or siRNA-mediated knockdown TXPIN and NLRP3."

According to the news editors, the research concluded: "Taken together, our results firstly reveal that TMAO induces inflammation and endothelial dysfunction via activating ROS-TXNIP-NLRP3 inflammasome, suggest a likely mechanism for TMAO-dependent enhancement in atherosclerosis and cardiovascular risks."

For more information on this research see: Trimethylamine N-oxide induces inflammation and endothelial dysfunction in human umbilical vein endothelial cells via activating ROS-TXNIP-NLRP3 inflammasome. Biochemical and Biophysical Research Communications, 2016;481(1-2):63-70. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)
Cardiovascular Diseases and Conditions...

New Atherosclerosis Study Findings Recently Were Reported by Researchers at University of Antwerp (NecroX-7 reduces necrotic core formation in atherosclerotic plaques of Apoe knockout mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Atherosclerosis are presented in a new report. According to news reporting out of Antwerp, Belgium, by NewsRx editors, research stated, "A large necrotic core is a key feature of atherosclerotic plaque instability. Necrotic cellular debris accumulates in the lipid-rich core and promotes inflammation, destabilization and ultimately rupture of the plaque."

Our news journalists obtained a quote from the research from the University of Antwerp, "Although the role of necrosis in atherosclerosis is rather clear-cut, not many strategies have been performed up till now to specifically target plaque necrosis. In the present study, we tested the plaque stabilizing potential of NecroX-7, a novel compound with antioxidative and anti-necrotic properties. Male apolipoprotein E (Apoe) knockout mice were treated with NecroX-7 (30 mg/kg) or vehicle, 3 times per week, via intraperitoneal injections for 16 weeks. Meanwhile, mice were fed a western-type diet to induce plaque formation. NecroX-7 reduced total plaque burden in the thoracic aorta as compared to vehicle-treated mice, without affecting total plasma cholesterol. Plaques in the aortic root of NecroX-7-treated mice showed a significant decrease in necrotic core area, 8-oxodG, iNOS and MMP13 expression, while collagen content and minimum fibrous cap thickness were increased. Moreover, NecroX-7 treatment reduced the expression of multiple inflammation markers such as TNF alpha, IL1 beta, iNOS, HMGB1 and RAGE in a NF-kappa beta-dependent manner. In vitro, NecroX-7 prevented tert-butyl hydroperoxide (tBHP)-induced mitochondrial ROS formation, necrosis, iNOS expression and HMGB1 release in primary macrophages. NecroX-7 improves features of plaque stability in Apoe knockout mice by reducing necrotic core formation, oxidative stress and inflammation, and by increasing collagen deposition and fibrous cap thickness."

According to the news editors, the research concluded: "Therefore, NecroX-7 could be a promising pleiotropic drug for the treatment of atherosclerosis."

For more information on this research see: NecroX-7 reduces necrotic core formation in atherosclerotic plaques of Apoe knockout mice. Atherosclerosis, 2016;252():166-
174. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting M.O.J. Grootaert, University of Antwerp, Lab Physiopharmacol, B-2610 Antwerp, Belgium. Additional authors for this research include D.M. Schrijvers, H. Van Spaendonk, A. Breynaert, N. Hermans, V.O. Van Hoof, N. Takahashi, P. Vandenabeele, S.H. Kim, G.R.Y. De Meyer and W. Martinet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.06.045. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antwerp, Belgium, Europe, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Arteriosclerosis, Atherosclerosis, Inflammation, Cardiology, University of Antwerp.

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**Skin Diseases and Conditions - Atopic Dermatitis**

**New Atopic Dermatitis Study Findings Have Been Reported by Researchers at Department of Pediatrics (Bacterial and Viral Infections in Atopic Dermatitis: a Comprehensive Review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Skin Diseases and Conditions - Atopic Dermatitis. According to news reporting originating in Los Angeles, California, by NewsRx journalists, research stated, "Atopic dermatitis (AD) is the most common allergic skin disease in the general population. It is a chronic inflammatory skin disease complicated by recurrent bacterial and viral infections that, when left untreated, can lead to significant complications."

The news reporters obtained a quote from the research from the Department of Pediatrics, "The current article will review immunologic and molecular mechanisms underlying the propensity of AD patients to microbial infections. These infections include Staphylococcus aureus (S. aureus) skin infections, eczema herpeticum, eczema vaccinatum, and eczema coxsackium. Previous studies have shown that skin barrier defects, a decrease in antimicrobial peptides, increased skin pH, or Th2 cytokines such as IL-4 and IL-13 are potential contributing factors for the increased risk of skin infections in AD. In addition, bacterial virulence such as methicillin-resistant S. aureus (MRSA) produces significantly higher number of superantigens that increase their potential in causing infection and more severe cutaneous inflammation in AD patients. More recent studies suggest that skin microbiome including Staphylococcus epidermidis or other coagulase-negative staphylococci may play an important role in controlling S. aureus skin infections in AD. Other studies also suggest that genetic variants in the innate immune response may predispose AD patients to increased risk of viral skin infections. These genetic variants include thymic stromal lymphopoietin (TSLP), type I interferon (alpha, omega), type II interferon (gamma), and molecular pathways that lead to the production of interferons (interferon regulatory factor 2). A common staphylococcal toxin, alpha-toxin, may also play a role in enhancing herpes simplex virus skin infections in AD."

According to the news reporters, the research concluded: "Further understanding of
these disease processes may have important clinical implications for the prevention and treatment of skin infections in this common skin disease."

For more information on this research see: Bacterial and Viral Infections in Atopic Dermatitis: a Comprehensive Review. Clinical Reviews in Allergy & Immunology, 2016;51(3):329-337. Clinical Reviews in Allergy & Immunology can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA.

Our news correspondents report that additional information may be obtained by contacting P.Y. Ong, Univ Southern Calif, Keck Sch Med, Dept. of Pediat, Los Angeles, CA, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12016-016-8548-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Interferons, Article Review, Immunology, Risk and Prevention, Skin and Connective Tissue Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Viral Skin Diseases and Conditions, Bacterial Infections and Mycoses, Eczematous Skin Disease, Gram-Positive Bacteria, Staphylococcus aureus, Atopic Dermatitis, Dermatology, Cytokines, Genetics, Department of Pediatrics.

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Heart Disorders and Diseases - Atrial Fibrillation

New Atrial Fibrillation Data Have Been Reported by R.A. Winkle and Co-Authors (Predicting atrial fibrillation ablation outcome: The CAAP-AF score)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting out of Redwood City, California, by NewsRx editors, research stated, "Patients with a variety of clinical presentations undergo atrial fibrillation (AF) ablation. Long-term ablation success rates can vary considerably."

Our news journalists obtained a quote from the research, "The purpose of this study was to develop a clinical scoring system to predict long-term freedom from AF after ablation. We retrospectively derived the scoring system on a development cohort (DC) of 1125 patients undergoing AF ablation and tested it prospectively in a test cohort (TC) of 937 patients undergoing AF ablation. The demographics of the DC patients were as follows: age 62.3 +/- 10.3 years, male sex 801 (71.2%), left atrial size 4.30 +/- 0.69 cm, paroxysmal AF 348 (30.9%), number of drugs failed 1.3 +/- 1.1, hypertension 525 (46.7%), diabetes 100 (8.9%), prior stroke/transient ischemic attack 78 (6.9%), prior cardioversion 528 (46.9%), and CHADS2 score 0.87 +/- 0.97. Multivariate analysis showed 6 independent variables predicting freedom from AF after final ablation: coronary artery disease (P = .021), atrial diameter (P = .0003), age (P = .004), persistent or long-standing AF (P < .0001), number of antiarrhythmic drugs failed (P < .0001), and female sex (P = .0001). We created a scoring system (CAAP-AF) using these 6 variables, with scores ranging from 0 to 13 points. The 2-year AF-free rates by CAAP-AF scores were as follows: 0 = 1000/0, 1 = 95.70/0, 2 = 96.3%, 3 = 83.1%, 4 = 85.5%, 5 = 79.9%, 6 = 76.1%, 7 = 63.4%, 8 = 51.1%, 9 = 53.6%, and >= 10 = 29.1%. Ablation success decreased as
CAAP-AF scores increased (P < .0001). The CAAP-AF score also predicted freedom from AF in the TC. The 2-year Kaplan-Meier AF-free rates by CAAP-AF scores were as follows: 0 = 1000/0, 1 = 87.0%, 2 = 89.0%, 3 = 91.6%, 4 = 90.5%, 5 = 84.4%, 6 = 70.1%, 7 = 71.0%, 8 = 60.7%, 9 = 68.9%, and >= 10 = 51.3%. As CAAP-AF scores increased, 2-year freedom from AF in the TC decreased (P < .0001). An easily determined clinical scoring system was derived retrospectively and applied prospectively. The CAAP-AF score predicted freedom from AF after ablation in both a DC and a TC of patients undergoing AF ablation."

According to the news editors, the research concluded: "The CAAP-AF score provides a realistic AF ablation outcome expectation for individual patients."

For more information on this research see: Predicting atrial fibrillation ablation outcome: The CAAP-AF score. Heart Rhythm, 2016;13(11):2119-2125. Heart Rhythm can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Heart Rhythm - www.journals.elsevier.com/heart-rhythm/)

Our news journalists report that additional information may be obtained by contacting R.A. Winkle, Sequoia Hosp, Redwood City, CA 94062, United States. Additional authors for this research include J.W.E. Jarman, R.H. Mead, G. Engel, M.H. Kong, W. Fleming and R.A. Patrawala.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.07.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Redwood City, California, United States, North and Central America, Atrial Fibrillation, Epidemiology, Heart Disorders and Diseases, Cardiac Arrhythmias, Heart Disease.

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Heart Disorders and Diseases - Atrial Fibrillation

New Atrial Fibrillation Findings Has Been Reported by Researchers at Research Hospital (Predictors of Future Atrial Fibrillation Development in Patients with Hypertrophic Cardiomyopathy: A Prospective Follow-Up Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Atrial Fibrillation are presented in a new report. According to news originating from Izmir, Turkey, by NewsRx correspondents, research stated, "We evaluated whether left atrial (LA) phasic functions, P-wave dispersion (PWD), and plasma NT-proBNP levels could predict future development of atrial fibrillation (AF) in patients with hypertrophic cardiomyopathy (HCM). Seventy patients with HCM were evaluated."

Our news journalists obtained a quote from the research from Research Hospital, "The LA phasic functions including the LA total emptying volume (LATEV), LA total emptying fraction (LATEF), LA active emptying volume (LAAEV), LA active emptying fraction (LAAEF), LA passive emptying volume (LAPEV), and LA passive emptying fraction (LAPEF) were evaluated. P-wave dispersion was calculated. Plasma NT-proBNP levels were measured on the same day with echocardiographic study. Patients were followed up 53.09 ? 1.87 months. Patients who developed AF (n=18) had significantly higher PWD values, NT-proBNP levels,
LAVI, E/E' av, and resting LVOT gradients and significantly lower LATEF and LAAEF. In multivariate analysis, LATEF (p=0.002), LAAEF (p=0.007), logNT-proBNP level (p=0.022), and PWD (p=0.018) were associated with AF development. The results of receiver operating characteristic analysis revealed that a LATEF cutoff value 49% with 72% sensitivity and 81% specificity, a LAAEF cutoff value of 36% with 72% sensitivity and 71% specificity, and an NT-proBNP cutoff value of 720 pg/mL predicted future AF development with 72% sensitivity and 60% specificity. A PWD cutoff value of 47.5 ms predicted future AF development with 78% sensitivity and 72% specificity. In patients with HCM, LA phasic functions, PWD, and NT-proBNP levels predict future development of AF.

According to the news editors, the research concluded: "Assessment of LA phasic functions during routine echocardiographic evaluation and measuring NT-proBNP levels and PWD values of patients with HCM during daily practice may provide important data in predicting those at high risk of AF occurrence."


The news correspondents report that additional information may be obtained from K. Tuluce, Dept. of Cardiology, Tepecik Training and Research Hospital, Izmir, Turkey. Additional authors for this research include S. Yakar Tuluce, N. Kahya Eren, U. Kocabas, F. Akyildiz Akçay, R. Gunduz, Z.I. Akyildiz and O. Ergene.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/echo.13093. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal Echocardiography is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Izmir, Turkey, Eurasia, Cardiology, Heart Disease, Cardiomyopathies, Atrial Fibrillation, Cardiac Arrhythmias, Hypertrophic Cardiomyopathy, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Heart Disorders and Diseases - Atrial Fibrillation

New Atrial Fibrillation Findings from Cleveland Clinic Described (Evolving strategies to prevent stroke and thromboembolism in nonvalvular atrial fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Stroke prevention in patients with nonvalvular atrial fibrillation relies on an assessment of the individual risks for stroke and bleeding. Patients at high risk for stroke are candidates for anticoagulant therapy."

Our news editors obtained a quote from the research from Cleveland Clinic, "Anticoagulants, however, have substantial bleeding risks that must be weighed in the
therapeutic decision. Warfarin has been the traditional choice, but the recently introduced novel oral anticoagulants offer similar efficacy with less bleeding risk. Additionally, they do not require monitoring and have fewer drug interactions and dietary restrictions than warfarin."

According to the news editors, the research concluded: "Several devices, which isolate the left atrial appendage, have become available as treatment options for patients with elevated risks of both thromboembolism and bleeding complications."


The news editors report that additional information may be obtained by contacting A. Hussein, Cardiac Electrophysiology and Pacing, Cleveland Clinic, Cleveland, OH, United States. Additional authors for this research include W. Saliba and O.M Wazni.

Keywords for this news article include: Ohio, Stroke, Cleveland, Hematology, United States, Heart Disease, Article Review, Thromboembolism, Atrial Fibrillation, Cardiac Arrhythmias, Risk and Prevention, Embolism and Thrombosis, North and Central America, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**New Atrial Fibrillation Findings from Guangdong Cardiovascular Institute Reported (Association of Serum Omentin-1 Concentrations with the Presence of Atrial Fibrillation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Omentin-1 is one of the adipokines associated with obesity, diabetes, and coronary heart disease development. We determined to investigate whether serum omentin-1 concentrations were correlated with the presence of atrial fibrillation (AF)."

The news correspondents obtained a quote from the research from Guangdong Cardiovascular Institute, "Serum omentin-1 concentrations were examined in a cross-sectional population that included 220 patients with AF (70 with paroxysmal AF, 78 with persistent AF, and 72 with permanent AF) and 115 healthy controls. Reduced serum omentin-1 concentrations were found in AF patients compared to the controls. In addition, patients with permanent AF had lower serum omentin-1 concentrations compared to patients with persistent AF and patients with paroxysmal AF. Significantly decreased serum omentin-1 concentrations were observed in persistent AF patients compared to paroxysmal AF patients. Spearman correlation analysis suggested that serum omentin-1 concentrations were negatively correlated with left atrial diameter in AF patients."

According to the news reporters, the research concluded: "Serum omentin-1 concentrations were correlated with the presence of AF and atrial remodeling."

For more information on this research see: Association of Serum Omentin-1 Concentrations with the Presence of Atrial Fibrillation. *Medical Science Monitor*, 2016;22():4749-4754. *Medical Science Monitor* can be contacted at: Int Scientific Literature, Inc, 361
New Atrial Fibrillation Findings from Mayo Clinic Outlined (Left Atrial Appendage Closure for Stroke Prevention in Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting originating in Rochester, Minnesota, by NewsRx journalists, research stated, "Purpose of Review Anticoagulant therapy effectively reduces the incidence of stroke in patients with atrial fibrillation (AF) but is underutilized and frequently contraindicated. The left atrial appendage (LAA) is the primary site of thrombus formation in AF patients."

The news reporters obtained a quote from the research from Mayo Clinic, "Surgical and percutaneous appendage closure has been evaluated as a site-specific therapy to reduce systemic thromboembolism. We will review LAA closure techniques, examine recent outcome data, and discuss the indications for, and potential complications of, each approach. Randomized data examining surgical LAA closure and epicardial closure with the LARIAT device are lacking."

According to the news reporters, the research concluded: "High quality, randomized data supports the efficacy of the WATCHMAN device for stroke prevention in patients with AF."


Our news correspondents report that additional information may be obtained by contacting D.R. Holmes, Mayo Clinic, Dept. of Cardiovasc Dis, Rochester, MN 55905, United States. Additional authors for this research include J.G. Kiani and D.R. Holmes.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Heart Disorders and Diseases, Stroke, Article Review, Risk and Prevention, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Mayo Clinic.
New Atrial Fibrillation Findings from R.J. Piers et al Outlined

(Association between atrial fibrillation and volumetric magnetic resonance imaging brain measures: Framingham Offspring Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news originating from Framingham, Massachusetts, by NewsRx correspondents, research stated, "The increased risk of stroke and cognitive impairment associated with atrial fibrillation (AF) is well documented. However, there is a paucity of research investigating the relations between AF and brain morphology."

Our news journalists obtained a quote from the research, "The purpose of this study was to investigate the association between AF and brain volume measures on magnetic resonance imaging (MRI). The study sample included stroke- and dementia-free participants who attended the Framingham Heart Study offspring cohort 7th examination cycle (1999-2005) and underwent contemporaneous MRI. We examined the association between prevalent AF and brain volume measures (total cerebral volume, frontal lobe volume, temporal lobe volume, temporal horn volume, hippocampal volume, and white matter hyperintensity volume) with linear regression. We first adjusted models for age and sex, and then for vascular risk factors and APOE4. We studied 2144 individuals (mean age 61.8 +/- 9.3 years; 54% women); 73 participants (3.4%) had prevalent AF at the time of MRI. In age- and sex-adjusted models, AF was inversely associated with total cerebral brain volume, frontal brain volume, and temporal brain volume. After further adjustment for vascular risk factors and APOE4, AF remained associated with frontal brain volume."

According to the news editors, the research concluded: "After accounting for vascular risk factor burden, prevalent AF was associated with lobar indexes of vascular brain aging but not with expected white matter changes."


The news correspondents report that additional information may be obtained from R. Au, Framingham Heart Dis Epidemiol Study, Framingham, MA, United States. Additional authors for this research include A. Nishtala, S.R. Preis, C. DeCarli, P.A. Wolf, E.J. Benjamin and R. Au.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.07.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Framingham, Massachusetts, United States, North and Central America, Heart Disorders and Diseases, Magnetic Resonance Imaging, Risk and Prevention, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Stroke.

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Heart Disorders and Diseases - Atrial Fibrillation

New Atrial Fibrillation Findings from University of British Columbia Described (Cost-Effectiveness of Left Atrial Appendage Closure for Stroke Prevention in Atrial Fibrillation Patients With Contraindications to Anticoagulation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting out of Vancouver, Canada, by NewsRx editors, research stated, "Percutaneous left atrial appendage closure (LAAC) is increasingly performed as an alternative to oral anticoagulation (OAC) in patients with nonvalvular atrial fibrillation (AF). We sought to evaluate the cost-effectiveness of treating OAC contraindicated patients with LAAC compared with aspirin alone."

Our news journalists obtained a quote from the research from the University of British Columbia, "A probabilistic patient-level Markov microsimulation model with a lifetime horizon was performed to assess the discounted lifetime costs, quality-adjusted life years, and incremental cost-effectiveness ratio of LAAC compared with aspirin for patients with AF with contraindications to OAC. Baseline characteristics were based on a published multicenter Canadian LAAC experience. Clinical events included stroke, bleeding, myocardial infarction, and procedure-related complications. Event rates for stroke and bleeding were based on the CHA2DS2-VASc and HAS-BLED scores. The relative efficacies of LAAC and aspirin, as well as utility scores, were obtained from the published literature. Canadian procedural and long-term costs were obtained from the Ontario Case Costing Initiative and the Ontario Ministry of Health and Long Term Care. Aspirin was less effective than LAAC (4.25 +/- 0.53 vs 4.66 +/- 0.34 quality-adjusted life years, respectively). The average discounted lifetime cost was CAD$ 30,748 +/- 11,600 for LAAC and $ 38,974 +/- 18,783 for aspirin. Thus, LAAC was dominant, being more effective and less expensive. Our results were robust with a relatively low degree of uncertainty, as LAAC was the preferred option in more than 90% of simulations at a willingness-to-pay threshold of $ 50,000."

According to the news editors, the research concluded: "LAAC is a novel stroke preventative therapy for non-valvular AF and is a cost-effective alternative to aspirin in patients with contraindications to OAC."


Our news journalists report that additional information may be obtained by contacting J. Saw, University of British Columbia, Vancouver Gen Hosp, Div Cardiol, Vancouver, BC, Canada. Additional authors for this research include M.C. Bennell, S.M. Singh and H.C. Wijeysundera.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Platelet Aggregation Inhibitors, Heart Disorders and Diseases,
New Atrial Fibrillation Findings from University of Witten Described
(Impact of Cryoballoon Ablation in Hypertrophic Cardiomyopathy-related Heart Failure due to Paroxysmal Atrial Fibrillation. A Comparative Case Series)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Atrial Fibrillation have been presented. According to news reporting originating in Cologne, Germany, by NewsRx journalists, research stated, "Atrial fibrillation (AF) represents a turning point in hypertrophic cardiomyopathy (HCM). Pulmonary Vein Isolation (PVI) with Radiofrequency Catheter Ablation (RFCA) is accepted to be successful in restoring sinus rhythm (SR) in HCM patients."

The news reporters obtained a quote from the research from the University of Witten, "The efficacy of cryoballoon (CB) therapy in HCM patients has not been studied so far. 166 patients with AF underwent PVI with CB technology in our single center between 1/2012 and 12/2015. To evaluate the efficacy of the CB therapy in HCM patients, we compared their clinical outcome with those in 'Non-HCM' AF patients in a 3 and 6 months follow-up. Out of 166 AF patients (65.7% paroxysmal AF, PAF), 4 patients had HCM and PAF (young males < 50 years). During the blanking period, 26 patients (15.8%) suffered from AF recurrence (11.0% PAF), including all HCM patients. The 6 months follow up of ‘Non-HCM’ AF patients showed acceptable results (80% stable SR), whereas the HCM patients remained AF. In Conclusion: Even if the CB provides advantages, the single device cannot be recommended in HCM patients because of early AF recurrences."

According to the news reporters, the research concluded: "Anyway, because of the specific hemodynamic changes in HCM patients with AF, ablation should be sought in an early state of its occurrence, then, however, preferably with RFCA."

For more information on this research see: Impact of Cryoballoon Ablation in Hypertrophic Cardiomyopathy-related Heart Failure due to Paroxysmal Atrial Fibrillation. A Comparative Case Series. International Journal of Medical Sciences, 2016;13(9):664-672. International Journal of Medical Sciences can be contacted at: Ivyspring Int Publ, PO Box 4546, Lake Haven, Nsw 2263, Australia.

Our news correspondents report that additional information may be obtained by contacting P. Maagh, University of Witten Herdecke, Klinikum Koln Merheim, Dept. of Cardiol Rhythmol & Internal Intens Care, D-51109 Cologne, Germany. Additional authors for this research include G. Plehn, A. Christoph, A. Oernek and A. Meissner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7150/ijms.16181. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cologne, Germany, Europe, Cardiovascular...
Diseases and Conditions, Heart Disorders and Diseases, Hypertrophic Cardiomyopathy, Atrial Fibrillation, Cardiac Arrhythmias, Cardiomyopathies, Heart Disease, Heart Failure, Cardiology, University of Witten.

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Heart Disorders and Diseases - Atrial Fibrillation

New Atrial Fibrillation Study Findings Have Been Reported by Investigators at Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV) (Chronic atrial ionic remodeling by aldosterone: potentiation of L-type ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting out of Mexico City, Mexico, by NewsRx editors, research stated, "It is widely accepted that aldosterone induces atrial fibrillation (AF) by promoting structural changes, but its effects on the function of primary atrial myocytes remain unknown. We have investigated this point in adult rat atrial myocytes, chronically exposed to the hormone."

Financial support for this research came from Consejo Nacional de Ciencia y Tecnologia.

Our news journalists obtained a quote from the research from the Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV), "This treatment produced larger amplitude of Ca2+ transients, longer action potential (AP) duration, and higher incidence of unsynchronized Ca2+ oscillations. Moreover, it also gave rise to increases in both cell membrane capacitance (C-m, 30 %) and activity of L-type Ca2+ channels (LTCCs, 100 %). Concerning K+ currents, a twofold increase was also observed, but only in a delayed rectifier component (I-Ksus). Interestingly, the maximal conductance (G(max)) of Na+ channels was also enhanced, but it occurred in the face of a negative shift in the voltage dependence of inactivation. Thus, at physiological potentials, a decreased fraction of available channels neutralized the effect on G(Na-max). With regard to the effects on both C-m and LTCCs, they involved activation of mineralocorticoid receptors (MRs), were dose-dependent (EC50 similar to 20-130 nM), and developed and recovered in days. Neither gating currents nor protein levels of LTCCs were altered. Instead, the effect on LTCCs was mimicked by cAMP, reverted by a PKA inhibitor, and attenuated by a nitric oxide donor (short-term exposures). Both EGTA and the antioxidant NAC prevented the increase in C-m, without significantly interfering with the upregulation of LTCCs."

According to the news editors, the research concluded: "Overall, these results show that chronic exposures to aldosterone result in dire functional changes at the single myocyte level, which may explain the link between aldosteronism and AF."

For more information on this research see: Chronic atrial ionic remodeling by aldosterone: potentiation of L-type Ca2+ channels and its arrhythmogenic significance. Pflugers Archiv-European Journal of Physiology, 2016;468(11-12):1823-1835. Pflugers Archiv-European Journal of Physiology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

Our news journalists report that additional information may be obtained by
contacting G. Avila, CINVESTAV, IPN, Dept. of Biochem, Mexico City 07000, DF, Mexico. Additional authors for this research include M. Garcia-Castaneda, A. Monsalvo-Villegas and G. Avila.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00424-016-1876-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mexico City, Mexico, North and Central America, Heart Disorders and Diseases, 11-Hydroxycorticosteroids, Adrenal Cortex Hormones, Atrial Fibrillation, Aldosterone, Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV).

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Heart Disorders and Diseases - Atrial Fibrillation

New Atrial Fibrillation Study Findings Have Been Reported by Investigators at Wenzhou Medical University (Direct His-Bundle Pacing Improved Left Ventricular Function and Remodelling in a Biventricular Pacing Nonresponder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting originating from Wenzhou, People's Republic of China, by NewsRx correspondents, research stated, "The optimal pacing modality after atrioventricular junction (AVJ) ablation remains unclear."

Our news editors obtained a quote from the research from Wenzhou Medical University, "Herein, we describe the case of a heart failure patient who had AVJ ablation for chronic atrial fibrillation and received a cardiac resynchronization therapy defibrillator device. Because of the lack of clinical response to biventricular pacing, the device was revised with the addition of direct His bundle pacing, which resulted in significant improvement in functional status and left ventricular indices."

According to the news editors, the research concluded: "This case illustrated direct His bundle pacing as an alternative for conventional biventricular pacing in some cardiac resynchronization therapy nonresponders who undergo AVJ ablation for atrial fibrillation and have an intact distal conduction system."


The news editors report that additional information may be obtained by contacting W.J. Huang, Wenzhou Med Univ, Affiliated Hosp 1, Dept. of Cardiol, Key Lab Cardiovasc Dis Wenzhou, Wenzhou, People's Republic of China. Additional authors for this research include L. Su, X. Chen, L. Xu, X.D. Ni and W.J. Huang.

Keywords for this news article include: Wenzhou, People's Republic of China, Asia, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease,
New Atrial Fibrillation Study Findings Recently Were Reported by Researchers at University of Leipzig (Successful Repeat Catheter Ablation of Recurrent Longstanding Persistent Atrial Fibrillation With Rotor Elimination as the Procedural ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting out of Leipzig, Germany, by NewsRx editors, research stated, "There remains a lack of consensus regarding the ideal ablation strategy for atrial fibrillation (AF), particularly in patients with persistent or longstanding persistent AF. Given increasing evidence from clinical imaging studies that rotors sustain AF, rotor elimination may be a desirable procedural endpoint."

Our news journalists obtained a quote from the research from the University of Leipzig, "However, there is no description to date of the clinical outcomes using rotor elimination during ablation as the procedural endpoint. Moreover, a series of studies question whether procedural AF termination is a desirable endpoint for ablation after many forms of AF ablation. We report a single-center experience of rotor elimination during AF ablation using Focal Impulse and Rotor Mapping (FIRM), describing 20 consecutive patients with case descriptions of 3 patients with recurrent longstanding persistent AF after prior ablation. In all cases, endocardial mapping using a 64-electrode basket catheter was performed to identify rotors, which were eliminated using radiofrequency catheter ablation. After it was verified that all identified rotors were eliminated, standard ablation consisting of PV isolation was performed. Notably, persistent AF terminated in only 1/20 (5%) patients. However, after a follow-up of 6 months, single-procedure freedom from AF was 80% (16/20 patients) with only 1 patient on antiarrhythmic drugs. All three patients in the highlighted series are AF free despite the lack of acute procedural AF termination."

According to the news editors, the research concluded: "Patients with persistent AF including those with unsuccessful prior ablation can be treated successfully by rotor targeted ablation, using the elimination of all rotors rather than acute AF termination as the procedural endpoint."

New Atrial Fibrillation Study Findings Reported from Brigham and Women's Hospital (Hospital-level variation and predictors of admission after ED visits for atrial fibrillation: 2006 to 2011)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Outpatient management of atrial fibrillation can be a safe alternative to inpatient admission after emergency department (ED) visits. We aim to describe trends and predictors of hospital admission for atrial fibrillation and determine the variation in admission among US hospitals."

Our news editors obtained a quote from the research from Brigham and Women's Hospital, "We analyzed ED visits and hospital admissions for adult patients with a principal diagnosis of atrial fibrillation or atrial flutter in the Nationwide Emergency Department Sample 2006 to 2011. We identified patient and hospital characteristics associated with admission using hierarchical multivariate logistic regression. We analyzed admission rates overall and for patients at low risk of thromboembolic complications (CHA(2)DS(2)-VASc score 0). We compared hospital-level variance with residual variance to estimate the intraclass correlation in models with and without hospital characteristics. From 2006 to 2011, annual ED visits for atrial fibrillation and atrial flutter increased by 30.9% and admission rates decreased from 69.7% to 67.4% (P=.02). Admission was associated with setting (metropolitan teaching vs nonmetropolitan, odds ratio = 1.93 [1.62-2.29]) and region (Northeast vs West, odds ratio = 2.09 [1.67-2.60]). Among patients with 0 CHA(2)DS(2)-VASc score, the national average admission rate was 46.4%. The intraclass correlation was 20.7% adjusting for patient characteristics and hospital clustering, and 19.2% after additionally adjusting for hospital variables. From 2006 to 2011, ED visits for atrial fibrillation in the United States increased by almost a third, with a minimal change in ED admission rates. One-fifth of variation in admission rates is due to hospital site and not explained by hospital characteristics."

According to the news editors, the research concluded: "Hospital-specific practice patterns may identify opportunities to increase outpatient management."

Medicine - www.journals.elsevier.com/american-journal-of-emergency-medicine/

The news editors report that additional information may be obtained by contacting M.P. Lin, Brigham & Women's Hospital, Dept. of Emergency Med, Boston, MA 02115, United States. Additional authors for this research include J.M. Ma, J.S. Weissman, K.R. Bernard and J.D. Schuur.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.07.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Heart Disorders and Diseases, Cardiac Arrhythmias, Atrial Fibrillation, Atrial Flutter, Heart Disease, Hospital, Brigham and Women's Hospital.

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Heart Disorders and Diseases - Atrial Fibrillation

New Atrial Fibrillation Study Findings Reported from University of Palermo (Relationship between HRV measurements and demographic and clinical variables in a population of patients with atrial fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Atrial Fibrillation are discussed in a new report. According to news reporting from Palermo, Italy, by NewsRx journalists, research stated, "Little is known about the role of HRV in atrial fibrillation (AF) patients. Aim of our study was to assess the relationship between HRV measurements and demographic and clinical variables in a population of 274 AF patients."

The news correspondents obtained a quote from the research from the University of Palermo, "We selected all consecutive patients with persistent/permanent AF among whom had performed a Holter ECG in our Department from April 2010 to April 2015. Time-domain analysis of HRV was evaluated. Demographic and clinical variables were collected for each patient. At multivariable logistic regression, a higher pNN50 was associated with ACE inhibitors/ARBs (p = 0.016) and a lower pNN50 with obesity (p = 0.037) and higher heart rate (HR) (p < 0.0005). A higher RMSSD was associated with ACE inhibitors/ARBs (p = 0.001), digoxin (p < 0.0005) and beta-blockers (p = 0.002) and a lower RMSSD with a higher HR (p < 0.0005). A higher SDNNi was associated with ACE inhibitors/ARBs (p < 0.0005), digoxin (p < 0.0005) and beta-blockers (p = 0.002) and a lower SDNNi with dysthyroidism (p = 0.048) and higher HR (p < 0.0005). A higher SDANN was associated with non-dihydropyridine calcium-channel-blockers (p = 0.002) and ACE inhibitors/ARBs (p = 0.002) and a lower SDANN with hypertension (p = 0.034), obesity (p = 0.011), stroke (p = 0.031), pneumonia (p = 0.005) and higher HR (p < 0.0005). A higher SDNN was associated with ACE inhibitors/ARBs (p < 0.0005), digoxin (p < 0.0005) and beta-blockers (p = 0.022) and a lower SDNN with obesity (p = 0.012), pneumonia (p = 0.049) and higher HR (p < 0.0005)."

According to the news reporters, the research concluded: "Our study showed that, in AF patients, there is a direct relationship between some clinical variables and HRV measurements; as for patients with sinus rhythm, even in AF patients this relationship seemed to reflect the autonomic nervous system activity."

For more information on this research see: Relationship between HRV
measurements and demographic and clinical variables in a population of patients with atrial fibrillation. Heart and Vessels, 2016;31(12):2004-2013. Heart and Vessels can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

Our news journalists report that additional information may be obtained by contacting C. Butta, University of Palermo, UOC Med Interna & Cardioangiol, Dipartimento Biomed Med Interna & Specialist, I-90127 Palermo, Italy. Additional authors for this research include A. Tuttolomondo, A. Casuccio, R. Petrantoni, G. Miceli, F. Cuttitta and A. Pinto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00380-016-0826-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Palermo, Italy, Europe, Nutritional and Metabolic Diseases and Conditions, Respiratory Tract Diseases and Conditions, Atrial Fibrillation, Epidemiology, Heart Disorders and Diseases, Lung Diseases and Conditions, Respiratory Tract Infections, Nutrition Disorders, Cardiac Arrhythmias, Infectious Disease, Diet and Nutrition, Overnutrition, Heart Disease, Pulmonology, Bariatries, Pneumonia, Obesity, University of Palermo.

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Heart Disorders and Diseases - Atrial Fibrillation

New Atrial Fibrillation Study Results Reported from Medical College of Georgia (Is It Time to Incorporate the Left Atrial Size to the Current Stroke Risk Scoring Systems for Atrial Fibrillation?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Atrial Fibrillation is now available. According to news reporting out of Augusta, Georgia, by NewsRx editors, research stated, "Primary care physicians and cardiologists rely on risk scoring systems, which consist of a number of clinical variables used together, to predict stroke risk in patients with atrial fibrillation (AF). Ultimately, this helps in determining the need for anticoagulation."

Our news journalists obtained a quote from the research from the Medical College of Georgia, "Left atrial size is not used in any stroke risk scoring system to stratify patients at risk for cardioembolic stroke. Throughout the literature, there is much debate surrounding the use of left atrial size as an additional risk factor for stroke in patients with and without AF. This review summarizes the stroke risk scoring systems in the currently available literature and the increasing risk of stroke associated with left atrial size."

According to the news editors, the research concluded: "The authors propose the consideration of a tool to incorporate both the best available stroke risk scoring systems and the left atrial size, for a better risk assessment and management of AF."

Our news journalists report that additional information may be obtained by contacting J.D. Gardner, Medical College of Georgia, Augusta, GA 30912, United States. Additional authors for this research include W.P. Skelton and R.N. Khouzam.

Keywords for this news article include: Augusta, Georgia, United States, North and Central America, Atrial Fibrillation, Article Review, Heart Disorders and Diseases, Risk and Prevention, Cardiac Arrhythmias, Heart Disease, Stroke, Medical College of Georgia.

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Heart Disorders and Diseases - Atrial Fibrillation

New Atrial Fibrillation Study Results Reported from University of Massachusetts (Association of Left Atrial Function IndexWith Late Atrial Fibrillation Recurrence after Catheter Ablation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Atrial Fibrillation have been presented. According to news originating from Worcester, Massachusetts, by NewsRx correspondents, research stated, "LAFI and AF Recurrence. Although catheter ablation (CA) for atrial fibrillation (AF) is commonly used to improve symptoms, AF recurrence is common and new tools are needed to better inform patient selection for CA."

Our news journalists obtained a quote from the research from the University of Massachusetts, "Left atrial function index (LAFI), an echocardiographic measure of atrial mechanical function, has shown promise as a noninvasive predictor of AF. We hypothesized that LAFI would relate to AF recurrence after CA. All AF patients undergoing index CA were enrolled in a prospective institutional AF Treatment Registry between 2011 and 2014. LAFI was measured post hoc from pre-ablation clinical echocardiographic images in 168 participants. Participants were mostly male (33% female), middle-aged (60 +/- 10 years), obese and had paroxysmal AF (64%). Mean LAFI was 25.9 +/- 17.6. Over 12 months of follow-up, 78 participants (46%) experienced a late AF recurrence. In logistic regression analyses adjusting for factors known to be associated with AF, lower LAFI remained associated with AF recurrence after CA [OR 0.04 (0.01-0.67), P = 0.02]. LAFI discriminated AF recurrence after CA slightly better than CHADS2 (C-statistic 0.60 LAFI, 0.57 CHADS2). For participants with persistent AF, LAFI performed significantly better than CHADS2 score (C statistic = 0.79 LAFI, 0.56 CHADS2, P = 0.02). LAFI, an echocardiographic measure of atrial function, is associated with AF recurrence after CA and has improved ability to discriminate AF recurrence as compared to the CHADS-2 score, especially among persistent AF patients."

According to the news editors, the research concluded: "Since LAFI can be calculated using standard 2D echocardiographic images, it may be a helpful tool for predicting AF recurrence."


The news correspondents report that additional information may be obtained from

Keywords for this news article include: Worcester, Massachusetts, United States, North and Central America, Heart Disorders and Diseases, Heart Catheterization, Atrial Fibrillation, Cardiac Arrhythmias, Electrocoagulation, Catheter Ablation, Heart Disease, University of Massachusetts.

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Heart Disorders and Diseases - Atrial Flutter

New Atrial Flutter Study Findings Have Been Reported from Intermountain Medical Center (A Comparison of Remote Magnetic Irrigated Tip Ablation versus Manual Catheter Irrigated Tip Catheter Ablation With and Without Force Sensing Feedback)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Atrial Flutter have been presented. According to news reporting originating from Murray, Utah, by NewsRx correspondents, research stated, "Remote magnetic navigation (RMN) and contact force (CF) sensing technologies have been utilized in an effort to improve safety and efficacy of catheter ablation. A comparative analysis of the relative short-and long-term outcomes of AF patients has not been performed."

Our news editors obtained a quote from the research from Intermountain Medical Center, "As such, we comparatively evaluated the safety and efficacy of these technologies. A total of 627 patients who underwent catheter ablation with either a manual irrigated tip catheter: (312, 49.8%) or by RMN: (315, 50.2%) were included in this single-center cohort study. Patients treated with CF (59) were analyzed separately as well. One-and 3-year endpoints included death, HF hospitalization, stroke, TIA, and atrial flutter or AF recurrence. Age averaged 65.1 ? 10.7 years and 64.1% male. One-and 3-year endpoints of death, HF hospitalization, stroke, TIA, and atrial flutter or AF recurrence were statistically similar between manual and RMN treated groups. Fluoroscopy times were significantly lower in the RMN group compared to the manual ablation group (8.47 ? 0.45 vs. 9.63 ? 4.06 minutes, p<0.0001). CF guided patients had 1-year recurrence rate of AF/atrial flutter statistically identical to patients treated with RMN (36.8% vs. 38.6%; p=1.00). RMN results in outcomes similar to manual navigation."

According to the news editors, the research concluded: "The addition of CF sensing catheters did not improve relative procedural outcome or safety profile in comparison to RMN guided ablation in this large observational study of AF ablation."

The news editors report that additional information may be obtained by contacting J.P. Weiss, Intermountain Medical Center, Intermountain Medical Center Heart Institute, Murray, Utah, United States. Additional authors for this research include H.T. May, T.L. Bair, B.G. Crandall, M.J. Cutler, J.D. Day, J.S. Osborn, C. Mallender and T.J. Bunch.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jce.12901. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Cardiovascular Electrophysiology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Utah, Murray, Technology, United States, Heart Disease, Atrial Flutter, Catheter Ablation, Electrocoagulation, Cardiac Arrhythmias, Heart Catheterization, North and Central America, Heart Disorders and Diseases.

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Atrial Septal Defects

New Atrial Septal Defects Study Findings Recently Were Reported by Researchers at Bordeaux Segalen University (Long-term Complications After Transcatheter Atrial Septal Defect Closure: A Review of the Medical Literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Atrial Septal Defects. According to news reporting originating from Bordeaux, France, by NewsRx correspondents, research stated, "Percutaneous closure has evolved to become the first-line treatment strategy for most cases of secundum atrial septal defect (ASD) in both adults and children. Its safety and efficacy have been proved; percutaneous ASD occlusion offers many advantages over surgical closure, including avoidance of cardiopulmonary bypass, avoidance of sternotomy scar, shorter hospitalization, and a potentially lower incidence of postprocedural complications."

Our news editors obtained a quote from the research from Bordeaux Segalen University, "Periprocedural course and short-term outcome have been widely described, with low mortality and morbidity rates. However, the wide use of ASD closure devices and the growing experience worldwide brought some delayed and rare complications to light. Device thrombosis and cardiac erosion are the most severe late complications of device closure, whereas atrial arrhythmias are the most common. Other delayed complications include nickel allergy, cardiac conduction abnormalities, valvular damage, and device endocarditis. The long-term complication rate is not null and, although rare, some of these complications may be sudden and potentially life-threatening. Moreover, the occurrence and rate of these complications vary with the different devices used currently or in the past. Therefore, both operators and patients need to be aware of these issues to assist them in the choice of intervention or device, or both, and to adapt follow-up modalities."

According to the news editors, the research concluded: "In this review, we sought to describe the type, incidence, and outcome of these rare but potentially serious device closure delayed complications."

For more information on this research see: Long-term Complications After

The news editors report that additional information may be obtained by contacting Z. Jalal, Univ Victor Segalen, Bordeaux, France. Additional authors for this research include S. Hascoet, A.E. Baruteau, X. Iriart, B. Kreitmann, Y. Boudjemline and J.B. Thambo.

Keywords for this news article include: Bordeaux, France, Europe, Atrial Septal Defects, Cardio Device, Article Review, Atrial Septal Defect, Medical Devices, Cardiology, Bordeaux Segalen University.

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Developmental Diseases and Conditions - Autism…

New Autism Spectrum Disorders Data Have Been Reported by Investigators at University of California (If genetic variation could talk: What genomic data may teach us about the importance of gene expression regulation in the genetics of autism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Developmental Diseases and Conditions - Autism Spectrum Disorders have been presented. According to news reporting out of San Francisco, California, by NewsRx editors, research stated, "Autism spectrum disorder (ASD) has been long known to have substantial genetic etiology. Much research has attempted to identify specific genes contributing to ASD risk with the goal of tying gene function to a molecular pathological explanation for ASD."

Our news journalists obtained a quote from the research from the University of California, "A unifying molecular pathology would potentially increase understanding of what is going wrong during development, and could lead to diagnostic biomarkers or targeted preventative or therapeutic directions. We review past and current genetic mapping approaches and discuss major results, leading to the hypothesis that global dysregulation of gene or protein expression may be implicated in ASD rather than disturbance of brain-specific functions."

According to the news editors, the research concluded: "If substantiated, this hypothesis might indicate the need for novel experimental and analytical approaches in order to understand this neurodevelopmental disorder, develop biomarkers, or consider treatment approaches."


Our news journalists report that additional information may be obtained by contacting L.A. Weiss, University of California, Inst Human Genet, San Francisco, CA 94143, United States.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mcp.2016.10.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Genetics, Article Review, Diagnostics and Screening, Genetics, Developmental Diseases and Conditions, Autism Spectrum Disorders, University of California.

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Oncology - B-Cell Leukemia

New B-Cell Leukemia Findings from University Medical Center Described (Hepatic B cell leukemia-3 promotes hepatic steatosis and inflammation through insulin-sensitive metabolic transcription factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - B-Cell Leukemia. According to news reporting from Mainz, Germany, by NewsRx journalists, research stated, "The pathomechanisms underlying nonalcoholic fatty liver disease (NAFLD) and the involved molecular regulators are incompletely explored. The nuclear factor-kappa B (NF-kappa B)-cofactor gene B cell leukemia-3 (Bcl-3) plays a critical role in altering the transcriptional capacity of NF-kappa B a key inducer of inflammation but also of genes involved in cellular energy metabolism."

The news correspondents obtained a quote from the research from University Medical Center, "To define the role of Bcl-3 in non-alcoholic steatohepatitis (NASH), we developed a novel transgenic mouse model with hepatocyte-specific overexpression of Bcl-3 (Bcl-3(HeP)) and employed a high-fat, high-carbohydrate dietary feeding model. To characterize the transgenic model, deep RNA sequencing was performed. The relevance of the findings was confirmed in human liver samples. Hepatocyte-specific overexpression of Bcl-3 led to pronounced metabolic derangement, characterized by enhanced hepatic steatosis from increased de novo lipogenesis and uptake, as well as decreased hydrolysis and export of fatty acids. Steatosis in Bcl-3(HeP) mice was accompanied by an augmented inflammatory milieu and liver cell injury. Moreover, Bcl-3 expression decreased insulin sensitivity and resulted in compensatory regulation of insulin-signaling pathways. Based on in vivo and in vitro studies we identified the transcription factors PPAR alpha, PPAR gamma and PGC-1 alpha as critical regulators of hepatic metabolism and inflammation downstream of Bcl-3. Metformin treatment improved the metabolic and inflammatory phenotype in Bcl-3(HeP) mice through modulation of PPARa and PGC-1a. Remarkably, these findings were recapitulated in human NASH, which exhibited increased expression and nuclear localization of Bcl-3. In summary, Bcl-3 emerges as a novel regulator of hepatic steatosis, insulin sensitivity and inflammation in NASH. Lay summary: Non-alcoholic fatty liver disease (NAFLD) is considered the most prevalent liver disease worldwide. Patients can develop end-stage liver disease resulting in liver cirrhosis or hepatocellular carcinoma, but also develop complications unrelated to liver disease, e.g., cardiovascular disease. Still there is no full understanding of the mechanisms that cause NAFLD. In this study, genetically engineered mice were employed to examine the role of a specific protein in the liver that is involved in inflammation and the metabolism, namely Bcl-3. By this approach, a better understanding of the mechanisms contributing to disease progression was established."
According to the news reporters, the research concluded: "This can help to develop novel therapeutic and diagnostic options for patients with NAFLD."

For more information on this research see: Hepatic B cell leukemia-3 promotes hepatic steatosis and inflammation through insulin-sensitive metabolic transcription factors. *Journal of Hepatology, 2016;65(6):1188-1197. Journal of Hepatology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Hepatology - www.journals.elsevier.com/journal-of-hepatology/)

Our news journalists report that additional information may be obtained by contacting J.M. Schattenberg, Univ Med Center Mainz, Dept. of Med 1, Mainz, Germany. Additional authors for this research include M.A. Worns, Y. Huber, M. Hess, B.K. Straub, N. Hovelmeyer, A. Waisman, Y.O. Kim, D. Schuppan, P.R. Galle and J.M. Schattenberg. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jhep.2016.06.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mainz, Germany, Europe, Digestive System Diseases and Conditions, Liver Diseases and Conditions, Lymphoproliferative Disorders, Transcription Factors, Fatty Liver Disease, Gastroenterology, Peptide Proteins, Peptide Hormones, B-Cell Leukemia, Inflammation, Healthcare, Proinsulin, Hematology, Steatosis, Genetics, Oncology, University Medical Center.

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Oncology - B-Cell Lymphoma

**New B-Cell Lymphoma Data Have Been Reported by Investigators at National Institutes of Health [Molecular Determinants of Scaffold-induced Linear Ubiquitylation of B Cell Lymphoma/Leukemia 10 (Bcl10) during T Cell Receptor and Oncogenic Caspase ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - B-Cell Lymphoma. According to news reporting from Bethesda, Maryland, by NewsRx journalists, research stated, "The activation of NF-kappa B downstream of T cell receptor (TCR) engagement is a key signaling step required for normal lymphocyte function during the adaptive immune response. During TCR signaling, the adaptor protein Bcl10 is inducibly recruited to the CARD11 scaffold protein as part of a multicomponent complex that induces I kappa B kinase (IKK) activity and NF-kappa B activation."

Financial supporters for this research include National Institutes of Health, Leukemia and Lymphoma Society.

The news correspondents obtained a quote from the research from the National Institutes of Health, "Here, we show that a consequence of this recruitment is the TCR-induced conjugation of Bcl10 with linear-linked polyubiquitin chains to generate the signaling intermediate Lin(Ub)(n)-Bcl10, which is required for the association of Bcl10 with the NEMO subunit of the IKK complex. The TCR-induced generation of Lin(Ub)(n)-Bcl10 requires Bcl10 lysines 17, 31, and 63, CARD11, MALT1, and the HOIP subunit of the linear ubiquitin chain assembly complex (LUBAC) but not the HOIP accessory protein SHARPIN. CARD11 promotes signal-induced Lin(Ub)(n)-Bcl10 generation by co-recruiting Bcl10 with HOIP,
thereby bringing substrate to enzyme. The CARD11-HOIP interaction is rendered TCR-inducible by the four autoinhibitory repressive elements in the CARD11 inhibitory domain and involves the CARD11 coiled-coil domain and two independent regions of HOIP. Interestingly, oncogenic CARD11 variants associated with diffuse large B cell lymphoma spontaneously induce Lin(Ub)(n)-Bcl10 production to extents that correlate with their abilities to activate NF-kappa B and with their enhanced abilities to bind HOIP and Bcl10.

According to the news reporters, the research concluded: "Our results define molecular determinants that control the production of Lin(Ub)(n)-Bcl10, an important signaling intermediate in TCR and oncogenic CARD11 signaling."


Our news journalists report that additional information may be obtained by contacting W.P. Chan, NIAID, National Institutes of Health, Lab Syst Biol, Lymphocyte Biol Sect, Bethesda, MD 20892, United States. Additional authors for this research include C. Yang, W.P. Chan, Z.Q. Wang, K.E. Deibel and J.L. Pomerantz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.754028. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Enzymes and Coenzymes, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, B-Cell Lymphoma, Ubiquitins, NF-kappa B, Hematology, Lymphomas, Oncology, Caspase, National Institutes of Health.

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**Oncology - B-Cell Lymphoma**

**New B-Cell Lymphoma Study Findings Recently Were Reported by Researchers at Fujita Health University (Influence of R-CHOP Therapy on Immune System Restoration in Patients with B-Cell Lymphoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - B-Cell Lymphoma. According to news reporting originating from Aichi, Japan, by NewsRx correspondents, research stated, "To assess the immunosuppressive effect of R CHOP in patients with B-cell lymphoma at 2 years. Parameters of humoral and cell-mediated immunity were assessed in 89 patients with diffuse large B-cell lymphoma or follicular lymphoma before and after 6-8 cycles of R-CHOP-14 or R-CHOP-21 regimen."

Our news editors obtained a quote from the research from Fujita Health University, "Data on pre- and posttreatment serum IgG (sIgG) levels were available for all 89 patients, while the corresponding data on serum CD20+, CD3+, CD4+, and CD8+ lymphocyte counts were
available in only 43. Median slgG levels significantly decreased from 1,221 mg/dl (baseline) to 733 mg/dl (after chemotherapy) (p < 0.001). Although CD20+ and CD4+ cell counts decreased (p < 0.001), no significant effect of chemotherapy on CD3+ and CD8+ cell counts was observed. CD20+ cell counts were restored to baseline levels at the 12-month follow-up. slgG levels and CD4+ cell counts were not completely restored at 24 months, indicating a sustained immunosuppressive effect of R-CHOP in these patients. The incidence of infections over the 2-year period was 16.3-23.6%.

According to the news editors, the research concluded: "The immuno-suppressive effect of R-CHOP in newly diagnosed cases of B-cell lymphoma tends to persist for >2 years, although slgG levels were restored more quickly than CD4+ cell counts."

For more information on this research see: Influence of R-CHOP Therapy on Immune System Restoration in Patients with B-Cell Lymphoma. Oncology, 2016;91(6):302-310. Oncology can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting K. Ito, Fujita Hlth Univ, Sch Med, Dept. of Hematol, Toyoake, Aichi, Japan. Additional authors for this research include M. Okamoto, Y. Inaguma, A. Okamoto, M. Ando, Y. Ando, M. Tsuge, A. Tomono, Y. Kakumae, T. Hayashi, S. Yamada and N. Emi.

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Keywords for this news article include: Aichi, Japan, Asia, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hemic and Immune Systems, B-Cell Lymphoma, Immunology, Hematology, Lymphomas, Oncology, Therapy, Fujita Health University.

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Oncology - B-Cell Lymphoma

New B-Cell Lymphoma Study Results from Xinjiang Medical University Described (Immunological subtypes analysis of Uygur diffuse large B-cell lymphoma in Xinjiang and their prognostic significance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - B-Cell Lymphoma is now available. According to news originating from Urumqi, People's Republic of China, by NewsRx correspondents, research stated, "This study aims to explore the application of Choi's typing method in the immunological typing of diffuse large B-cell lymphoma (DLBCL) in Xinjiang Autonomous Region and its prognostic significance. Seventy-eight cases of DLBCL tumor tissues from Xinjiang were collected to detect the expression of germinal center B (GCB) cell-expressed transcript-1, FOXP1, CD10, bcl-6, and MUM1 using an immunohistochemical method."

Our news journalists obtained a quote from the research from Xinjiang Medical University, "Then, immunological typing was carried out using Choi's typing method, and the survival analysis was performed using Kaplan-Meier method. Cox proportional hazard model was used to analyze the prognostic factors. GCB-cell-like-DLBCL and non-GCB-DLBCL
accounting for 29.5% (23/78) and 70.5% (55/78), respectively. The 3-year overall survival of GCB-DLBCL was 58%, significantly higher than that of non-GCB-DLBCL (39%, p<0.05).

Multivariate analysis showed that International Prognostic Index and immunological typing were two independent prognostic factors for Uygur patients with DLBCL.

According to the news editors, the research concluded: "Non-GCB-DLBCL is the main type of DLBCL in Xinjiang and Choi's typing method can be a helpful indicator to determine the prognosis of the Uygur DLBCL in Xinjiang."


The news correspondents report that additional information may be obtained from J.P. Bai, Dept. of Bone Oncology, Affiliated Tumor Hospital, Xinjiang Medical University, Urumqi 830011, People's Republic of China. Additional authors for this research include L.P. Liang, LL. Yang, N. Yue, F. Zhao and J.P Bai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.144357. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Urumqi, Oncology, Hematology, B-Cell Lymphoma, Large B Cell Lymphoma, People's Republic of China, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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**Gram-Positive Bacteria - Bacillus anthracis**

**New Bacillus anthracis Study Findings Have Been Reported by Researchers at Georgia State University (Loss of sl affects heat-shock response and virulence gene expression in Bacillus anthracis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - Bacillus anthracis. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "The pathogenesis of *Bacillus anthracis* depends on several virulence factors, including the anthrax toxin. Loss of the alternative sigma factor sl results in a coordinate decrease in expression of all three toxin subunits."

The news correspondents obtained a quote from the research from Georgia State University, "Our observations suggest that loss of sl alters the activity of the master virulence regulator AtxA, but atxA transcription is unaffected by loss of sl. sl-containing RNA polymerase does not appear to directly transcribe either atxA or the toxin gene pagA. As in *Bacillus subtilis*, loss of sl in *B. anthracis* results in increased sensitivity to heat shock and transcription of sigI, encoding sl, is induced by elevated temperature. Encoded immediately downstream of and part of a bicistronic message with sigI is an anti-sigma factor, RsgI, which controls sl activity. Loss of RsgI has no direct effect on virulence gene expression. sigI appears to be expressed from both the sl and sA promoters, and transcription from the sA promoter is likely more significant to virulence regulation."

According to the news reporters, the research concluded: "We propose a model in which sl can be induced in response to heat shock, whilst, independently, sl is produced under
non-heat-shock, toxin-inducing conditions to indirectly regulate virulence gene expression."


Our news journalists report that additional information may be obtained by contacting J.G. Kim, Dept. of Biology, Georgia State University, Atlanta, GA 30302, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1099/mic.0.000236. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, Genetics, Bacillaceae, United States, Bacillus anthracis, Gram Positive Rods, Gram Positive Bacteria, Gram-Positive Bacteria, North and Central America, Endospore Forming Bacteria, Gram Positive Endospore Forming Rods.

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Surgery - Bariatric Surgery

New Bariatric Surgery Findings from University of Malaga Reported (Metabolomics-Guided Insights on Bariatric Surgery Versus Behavioral Interventions for Weight Loss)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Surgery - Bariatric Surgery. According to news originating from Malaga, Spain, by NewsRx correspondents, research stated, "To review the metabolomic studies carried out so far to identify metabolic markers associated with surgical and dietary treatments for weight loss in subjects with obesity. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed."

Our news journalists obtained a quote from the research from the University of Malaga, "Thirty-two studies successfully met the eligibility criteria. The metabolic adaptations shared by surgical and dietary interventions mirrored a state of starvation ketoacidosis (increase of circulating ketone bodies), an increase of acylcarnitines and fatty acid beta-oxidation, a decrease of specific amino acids including branched-chain amino acids (BCAA) and (lyso) glycerophospholipids previously associated with obesity, and adipose tissue expansion. The metabolic footprint of bariatric procedures was specifically characterized by an increase of bile acid circulating pools and a decrease of ceramide levels, a greater perioperative decline in BCAA, and the rise of circulating serine and glycine, mirroring glycemic control and inflammation improvement. In one study, 3-hydroxybutyrate was particularly identified as an early metabolic marker of long-term prognosis after surgery and proposed to increase current prognostic modalities and contribute to personalized treatment. Metabolomics helped in deciphering the metabolic response to weight loss treatments."

According to the news editors, the research concluded: "Moving from association to causation is the next challenge to move to a further level of clinical application."

For more information on this research see: Metabolomics-Guided Insights on Bariatric Surgery Versus Behavioral Interventions for Weight Loss. Obesity, 2016;24(12):2451-
New Bee Venoms Study Findings Recently Were Reported by Researchers at Department of Pharmacology (Characterization of relaxant mechanism of H2 S in mouse corpus cavernosum)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biological Factors - Bee Venoms. According to news reporting from Adana, Turkey, by NewsRx journalists, research stated, "The aim of this study was to investigate the mechanism of H2 S-induced relaxation in mouse corpus cavernosal tissue. L-cysteine (10(-6) ? 10(-3) mol/L) and exogenous H2 S (NaHS; 10(-6) to 10(-3) mol/L) induced concentration-dependent relaxation. L-cysteine-induced relaxations was reduced by d,l-propargylglycine, a cystathionine gamma lyase (CSE) inhibitor but not influenced by aminooxyacetic acid, a cystathionine beta synthase (CBS) inhibitor. L-cysteine induced relaxations, but not of those of H2 S diminished in endothelium-denuded tissues. N(o) -nitro-l-arginine (l-NA; 10(-4) mol/L), a nitric oxide synthase inhibitor, and ODQ (10(-4) mol/L), a guanylyl cyclase inhibitor, increased the H2 S-induced relaxation."

Financial support for this research came from Cukurova University Research Foundation.

The news correspondents obtained a quote from the research from the Department of Pharmacology, "Zaprinast (5 ? 10(-6) mol/L) and sildenafil (10(-6) mol/L), phosphodiesterase inhibitors, inhibited H2 S-induced relaxation. Adenyl cyclase inhibitors N-ethylmaleimide (2.5 ? 10(-5) mol/L) and SQ22536 (10(-4) mol/L) reduced relaxation to H2 S. Also, H2 S-induced relaxation was reduced by KCl (50 mmol/L), 4-aminopyridine (10(-4) mol/L), a Kv inhibitor, glibenclamide (10(-5) mol/L), a KATP inhibitor or barium chloride (10(-5) mol/L), a KIR inhibitor. However, H2 S-induced relaxation was not influenced by apamin (10(-6) mol/L), a SKC a (2+) inhibitor, charybdotoxin (10(-7) mol/L), an IKCa a (2+) and BKCa a (2+) inhibitor or combination of apamin and charybdotoxin. Nifedipine (10(-6) mol/L), an L-type calcium channel blocker and atropine (10(-6) mol/L), a muscarinic receptor blocker, inhibited H2 S-induced relaxation. However, H2 S-induced relaxation was not influenced by ouabain (10(-4) mol/L), a Na(+)/K(+) -ATPase inhibitor."

According to the news reporters, the research concluded: "This study suggests that H2 S endogenously synthesizes from l-cysteine by CSE endothelium-dependent in mouse corpus cavernosum tissue, and exogenous H2 S may cause endothelium-independent relaxations via activation of K channels (KATP channel, KV channels, KIR channels), L-type voltage-gated Ca(2+) channels, adenyl cyclase/cAMP pathway and muscarinic receptor, and there is the
interaction between H2S and NO/cGMP."


Our news journalists report that additional information may be obtained by contacting F. Aydinoglu, Dept. of Pharmacology, Pharmacy Faculty, Cukurova University, Adana, Turkey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1440-1681.12554. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Adana, Turkey, Apamin, Eurasia, Cyclase, Cysteine, Synthase, Angiology, Bee Venoms, Endothelium, Charybotoxin, Scorpion Venoms, Biological Factors, Sulfur Amino Acids, Neutral Amino Acids, Sulfhydryl Compounds, Enzymes and Coenzymes.

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*Autoimmune Diseases and Conditions - Behcet...*

**New Behcet Disease Findings from Department of Ophthalmology Reported (INTRAVITREAL INFlixIMAB IN REFRACTORY UVEITIS IN BEHCET'S DISEASE A Safety and Efficacy Clinical Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Autoimmune Diseases and Conditions - Behcet Disease have been published. According to news reporting from Cairo, Egypt, by NewsRx journalists, research stated, "To assess the safety and efficacy of intravitreal infliximab (1 mg/0.05 mL) in patients with refractory posterior uveitis in Behcet's disease. Twenty patients were included in this study."

The news correspondents obtained a quote from the research from the Department of Ophthalmology, "Best corrected visual acuity (BCVA), vitreous haze (graded 0-4), vasculitis, retinitis, and papillopathy (presence or absence) were assessed at baseline, Day 1 and Week 2, 4, 6, 8, 12, and 18. Optical coherence tomography (OCT) central foveal thickness, fluorescein angiography, and flash electroretinogram were done at baseline and 4, 12, and 18 weeks. Mean baseline logMAR BCVA was 0.94 (20/160), had improved significantly by Week 2 to 0.6 (20/80) (P < 0.0001), and reached 0.36 (20/40) by Weeks 18 with three injections (P < 0.0001). Mean central foveal thickness OCT decreased significantly from baseline 361 mm to 180 mm at the end of follow-up (P < 0.0001). Profound decrease in mean vitreous haze gradings from two to 0.2 by the end follow-up (P < 0.05). There was a significant reduction in the number of patients with vasculitis (15 at baseline to 1 weeks at 18 weeks), retinitis (nine at baseline to none at 4 weeks), and papillitis (two at baseline to none at 4 weeks) (P < 0.05). No significant electrophysiological changes or ocular adverse inflammatory reactions were observed during the study period."

According to the news reporters, the research concluded: "Intravitreal infliximab appeared to be safe and effective in treating uveitis in Behcet's disease and should be considered
as an alternative to systemic therapies."

For more information on this research see: INTRAVITREAL INFLIXIMAB IN REFRACTORY UVEITIS IN BEHCET'S DISEASE A Safety and Efficacy Clinical Study. *Retina-The Journal of Retinal and Vitreous Diseases*, 2016;36(12):2399-2408. *Retina-The Journal of Retinal and Vitreous Diseases* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting T.A. Macky, Kasr El Aini Hosp, Dept. of Ophthalmol, Cairo, Egypt. Additional authors for this research include T.A. Macky, M.K. Sidky, G. Ragab and M.M. Soliman.

Keywords for this news article include: Cairo, Egypt, Africa, Tumor Necrosis Factor (TNF) Inhibitors, Cardiovascular Diseases and Conditions, Autoimmune Diseases and Conditions, Retinal Diseases and Conditions, Uveal Diseases and Conditions, Eye Diseases and Conditions, Monoclonal Antibodies, Drugs and Therapies, Immunologic Agents, Pharmaceuticals, Antirheumatics, Behcet Disease, Biotechnology, Ophthalmology, Rheumatology, Infliximab, Vasculitis, Retinitis, Uveitis, Department of Ophthalmology.

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**Biguanides**

**New Biguanides Study Findings Have Been Reported from Lanzhou University (Metoprolol decreases the plasma exposure of metformin via the induction of liver, kidney and muscle uptake in rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Biguanides are discussed in a new report. According to news reporting originating from Lanzhou, People's Republic of China, by NewsRx correspondents, research stated, "Drug interactions are one of the commonest causes of side effects, particularly in long-term therapy. The aim of the current study was to investigate the possible effects of metoprolol on the pharmacokinetics of metformin in rats and to clarify the mechanism of drug interaction."

Our news editors obtained a quote from the research from Lanzhou University, "In this study, rats were treated with metformin alone or in combination with metoprolol. Plasma, urine and tissue concentrations of metformin were determined by HPLC. Western blotting and real-time qPCR were used to evaluate the expression of rOCTs and rMATE1. The results showed that, after single or 7-day repeated administration, the plasma concentrations of metformin in the co-administration group were significantly decreased compared with that in the metformin group. However, the parameter V/F of metformin in the co-administration group was markedly increased compared with that in the metformin group. The hepatic, renal and muscular K-p of metformin were markedly elevated after co-administration with metoprolol. Consistently, metformin uptake in rat kidney slices was significantly induced by metoprolol. In addition, multiple administrations of metoprolol significantly reduced the expression of rMATE1 in rat kidney as well as the urinary excretion of metformin. Importantly, after long-term administration, lactic acid and uric acid levels in the co-administration group were increased by 25% and 26%, respectively, compared with that in the metformin group."

According to the news editors, the research concluded: "These results indicate that metoprolol can decrease the plasma concentration of metformin via the induction of hepatic,
renal and muscular uptake, and long-term co-administration of metformin and metoprolol can cause elevated lactic acid and uric acid levels."


The news editors report that additional information may be obtained by contacting X.A. Wu, Lanzhou University, Dept. of Pharm, Hosp 1, Lanzhou 730000, People's Republic of China. Additional authors for this research include A.X. Shi, H.Y. Qin, T. Zhang, Y.F. Wu, G.Q. Zhang and X.A. Wu.

Keywords for this news article include: Lanzhou, People's Republic of China, Asia, Beta-Adrenergic Blocking Agents, Phenoxypropanolamines, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Hypoglycemic Agents, Antidiabetic Agents, Metoprolol Therapy, Organic Chemicals, Metformin Therapy, Non-Sulfonylureas, Antihypertensive, Adrenergic Agent, Amino Alcohols, Propanolamines, Sympatholytic, Biguanides, Lanzhou University.

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**Chemistry - Biochemistry**

**New Biochemistry Data Have Been Reported by Investigators at McGill University (Crystal Structure of the Acid Sphingomyelinase-like Phosphodiesterase SMPDL3B Provides Insights into Determinants of Substrate Specificity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Chemistry - Biochemistry. According to news reporting originating from Montreal, Canada, by NewsRx correspondents, research stated, "The enzyme acid sphingomyelinase-like phosphodiesterase 3B (SMPDL3B) was shown to act as a negative regulator of innate immune signaling, affecting cellular lipid composition and membrane fluidity. Furthermore, several reports identified this enzyme as an off target of the therapeutic antibody rituximab, with implications in kidney disorders."

Financial support for this research came from Canadian Institutes of Health Research.

Our news editors obtained a quote from the research from McGill University, "However, structural information for this protein is lacking. Here we present the high resolution crystal structure of murine SMPDL3B, which reveals a substrate binding site strikingly different from its paralogs. The active site is located in a narrow boot-shaped cavity. We identify a unique loop near the active site that appears to impose size constraints on incoming substrates. A structure in complex with phosphocholine indicates that the protein recognizes this head group via an aromatic box, a typical choline-binding motif. Although a potential substrate for SMPDL3B is sphingomyelin, we identify other possible substrates such as CDP-choline, ATP, and ADP. Functional experiments employing structure-guided mutagenesis in macrophages highlight amino acid residues potentially involved in recognition of endogenous substrates."
According to the news editors, the research concluded: "Our study is an important step toward elucidating the specific function of this poorly characterized enzyme."


The news editors report that additional information may be obtained by contacting B. Nagar, McGill University, Grp Rech Axe Struct Prot, Montreal, PQ H3G 0B1, Canada. Additional authors for this research include L.X. Heinz, K. Illes, G. Superti-Furga and B. Nagar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.755801. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Biochemistry, Chemistry, Enzymes and Coenzymes, Phosphodiesterases, McGill University.

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**Life Science Research - Biochemistry and Biophysics**

**New Biochemistry and Biophysics Study Findings Have Been Reported by Investigators at University of Wisconsin (Ligand binding phenomena that pertain to the metabolic function of renalase)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Life Science Research - Biochemistry and Biophysics. According to news reporting out of Milwaukee, Wisconsin, by NewsRx editors, research stated, "Renalase catalyzes the oxidation of isomers of beta-NAD(P)H that carry the hydride in the 2 or 6 positions of the nicotinamide base to form beta-NAD(P)(+). This activity is thought to alleviate inhibition of multiple beta-NAD(P)-dependent enzymes of primary and secondary metabolism by these isomers."

Funders for this research include National Science Foundation, National Institutes of Health, National Institute for Allergy and Infectious Disease, UWM Research Growth Initiative Grant.

Our news journalists obtained a quote from the research from the University of Wisconsin, "Here we present evidence for a variety of ligand binding phenomena relevant to the function of renalase. We offer evidence of the potential for primary metabolism inhibition with structures of malate dehydrogenase and lactate dehydrogenase bound to the 6-dihydroNAD isomer. The previously observed preference of renalase from Pseudomonas for NAD-derived substrates over those derived from NADP is accounted for by the structure of the enzyme in complex with NADPH. We also show that nicotinamide nucleosides and mononucleotides reduced in the 2- and 6-positions are renalase substrates, but bind weakly. A seven-fold enhancement of acquisition (k(red)/K-d) for 6-dihydronicotinamide riboside was observed for human renalase in the presence of ADP. However, generally the addition of complement ligands, AMP for mononucleotide or ADP for nucleoside substrates, did not enhance the
reductive half-reaction."

According to the news editors, the research concluded: "Non substrate nicotinamide nucleosides or nucleotides bind weakly suggesting that only beta-NADH and beta-NADPH compete with dinucleotide substrates for access to the active site."

For more information on this research see: Ligand binding phenomena that pertain to the metabolic function of renalase. *Archives of Biochemistry and Biophysics*, 2016;612():46-56. *Archives of Biochemistry and Biophysics* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Archives of Biochemistry and Biophysics - www.journals.elsevier.com/archives-of-biochemistry-and-biophysics/)

Our news journalists report that additional information may be obtained by contacting G.R. Moran, Univ Wisconsin Milwaukee, Dept. of Chem & Biochem, Milwaukee, WI 53211, United States. Additional authors for this research include J.V. Roman, M.R. Hoag, K.M. Meneely, N.R. Silvaggi, A.L. Lamb and G.R. Moran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.abb.2016.10.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milwaukee, Wisconsin, United States, North and Central America, Biochemistry and Biophysics, Life Science Research, Enzymes and Coenzymes, Dehydrogenase, Genetics, University of Wisconsin.

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**Biological Factors - Biological Pigments**

**New Biological Pigments Findings from University of Yaounde Described [Simultaneous determination of acetaminophen and tyrosine using a glassy carbon electrode modified with a tetraruthenated cobalt (II) porphyrin intercalated into a smectite ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biological Factors - Biological Pigments. According to news reporting originating from Yaounde, Cameroon, by NewsRx correspondents, research stated, "A new hybrid material has been prepared by intercalating the supramolecular cationic complex [mu-meso-tetra(4-pyridyl)porphyrinatecobalt(II) tetrakis[bis(bipyridine)(chlorido)ruthenium(II)]], referred to as [CoTPyPRu(bipy)(2)Cl(4)](4+) into a Cameroonian smectite clay (from Bagba hill, denoted Ba). The intercalated material (named CoTPyPRu(bipy)(2)-Ba) was used to modify glassy carbon electrodes (GCE), which were successfully applied to the simultaneous determination of acetaminophen (AC) and tyrosine (Tyr)."

Funders for this research include CNPq, Third World Academy of Sciences.

Our news editors obtained a quote from the research from the University of Yaounde, "The CoTPyPRu(bipy)(2)-Ba material was characterized by UV/Vis absorption spectroscopy, X-ray diffractometry and FT-IR spectroscopy. The intercalation of [CoTPyPRu(bipy)(2)Cl(4)](4+) into the Ba interlayer endowed large surface area to the material. Electrodes modified with CoTPyPRu(bipy)(2)-Ba display good compatibility and stability, high selectivity and sensitivity, even with real samples. Working at pH 7.0, AC was oxidized at +0.42 V and
Tyr at 0.72 V (vs Ag/AgCl). Linear calibration plots for AC and Tyr were obtained in the 1 to 50 μM and 1 to 24 μM range, with detection limits of 0.1 μM and 0.5 μM, respectively."

According to the news editors, the research concluded: "The modified electrode was successfully applied to the determination of tyrosine in urine, and of acetaminophen in a pharmaceutical product."

For more information on this research see: Simultaneous determination of acetaminophen and tyrosine using a glassy carbon electrode modified with a tetraruthenated cobalt(II) porphyrin intercalated into a smectite clay. Microchimica Acta, 2016;183(12):3243-3253. Microchimica Acta can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria. (Springer - www.springer.com; Microchimica Acta - www.springerlink.com/content/0026-3672/)

The news editors report that additional information may be obtained by contacting J.C. Kemmegne-Mbouguen, Univ Yaounde I, Fac Sci, Lab Chim Analyt, Yaounde, Cameroon. Additional authors for this research include H.E. Toma, K. Araki, V.R.L. Constantino, E. Ngameni and L. Angnes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00604-016-1985-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yaounde, Cameroon, Africa, Acetaminophen Therapy, Aromatic Amino Acids, Drugs and Therapies, Biological Pigments, Biological Factors, Pharmaceuticals, Acetanilides, Porphyrins, Tyrosine, University of Yaounde.

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used to predict molecular modeling, the hierarchical nature of protein structure and backbone, and sub-cellular localization. The results showed that Omp100 is most similar to thiamine-phosphate pyrophosphorylase [Haemophilus influenzae PittGG], with a 74% similarity. The predicted structure of Omp100 displayed that it is a protein with positive charge (10.4) in pH 7 and alpha helix dominates other secondary structures located outside the cell. Protein-protein interaction network showed that Omp100 interacted with extra cellular matrix protein adhesion, glycoside hydrolase, Omp 64, phospholipase D/Transphosphatidylase, Flp pilus assembly protein, and heme acquisition system receptor."

According to the news editors, the research concluded: "According to the results, anionic indocyanine green tends to interact with Omp100 during PDT as a major target."

For more information on this research see: Outer membrane protein 100 of Aggregatibacter actinomycetemcomitans act as a biopharmaceutical target for photodynamic therapy: An in silico analysis. Photodiagnosis and Photodynamic Therapy, 2016;16():154-160. Photodiagnosis and Photodynamic Therapy can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Photodiagnosis and Photodynamic Therapy - www.journals.elsevier.com/photodiagnosis-and-photodynamic-therapy/)

The news correspondents report that additional information may be obtained from A. Bahador, Univ Tehran Med Sci, Dental Res Inst, Laser Res Center, Tehran, Iran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pdpdt.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Drugs and Therapies, Biopharmaceuticals, Membrane Proteins, Biotechnology, Photodynamics, Therapy, University of Tehran.

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assessments were performed. Intended copies were differentiated as commercially available agents without evidence of rigorous comparative biosimilarity evaluations. Proposed biosimilars for adalimumab, etanercept, infliximab, and rituximab are reported in the published literature. Across indications, approved biosimilars infliximab CT-P13, SB2, and etanercept SB4 have published studies involving the largest number of patients or healthy subjects (n = 1405, 743, and 734, respectively), mostly in rheumatoid arthritis. At data cut-off, only CT-P13 had published data in ankylosing spondylitis (n = 250; randomized control trial) and ulcerative colitis/Crohn’s disease (n = 336; observational studies). Published data were not available for ongoing studies in psoriasis patients. Four intended copies were identified in published studies (total: n = 1430; n = 1372 in observational studies). Thematic analysis of non-empirical publications showed that indication extrapolation remains an issue, particularly for gastroenterologists. While most agents display a moderate to high degree of similarity to their originator in the published studies identified, large discrepancies persist in the overall amount and type of data available in the public domain."

According to the news editors, the research concluded: "Significant gaps exist particularly for intended copies, reinforcing the need to maintain a clear differentiation between these molecules and true biosimilars."


The news editors report that additional information may be obtained by contacting I. Jacobs, Pfizer Inc, Pfizer Essential Hlth, New York, NY 10017, United States. Additional authors for this research include D. Petersel, L. Isakov, S. Lula and K.L. Sewell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40259-016-0201-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Biotherapies and Biologicals, Drugs and Therapies, Article Review, Pfizer.

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**Oncology - Bladder Cancer**

**New Bladder Cancer Data Have Been Reported by Investigators at Okayama University (Dynamin2 GTPase contributes to invadopodia formation in invasive bladder cancer cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Bladder Cancer. According to news reporting out of Okayama, Japan, by NewsRx editors, research stated, "Cancer cell invasion is mediated by actin-based membrane protrusions termed invadopodia. Invadopodia consist of 'core' F-actin bundles associated with adhesive and proteolytic machineries promoting cell invasion by degrading extracellular matrix (ECM)."

Funders for this research include JSPS Grant-in-Aid for Scientific Research, Okayama Medical foundation, Ryobi Teien Memory Foundation, CREST, JST, O-NECUS
program, EPOK program of Okayama University.

Our news journalists obtained a quote from the research from Okayama University, "Formation of the F-actin core in invadopodia is regulated by various actin-binding proteins including Arp2/3 complex and cortactin. Dynamin GTPase localizes to the invadopodia and is implicated in cancer cell invasion, but its precise role at the invadopodia remained elusive. In this study, we examined the roles of dynamin at the invadopodia of bladder cancer cells. Although all three dynamin isoforms (dynamin1, 2 and 3) are expressed in human bladder cancer cell line T24, only dynamin2 localizes to the invadopodia. Inhibition of dynamin2 function, using either RNA interference (RNAi) or the dynamin specific inhibitor Dynasore, caused defects in invadopodia formation and suppressed invasive activity of 124 bladder cancer cells. Structure-function analysis using dynamin2 deletion fragments identified the proline/arginine-rich domain (PRD) of dynamin2 as indispensable for invadopodia formation and invasiveness of 124 cells."

According to the news editors, the research concluded: "Thus, dynamin2 contributes to bladder cancer invasion by controlling invadopodia formation in bladder cancer cells and may prove a valuable therapeutic target."

For more information on this research see: Dynamin2 GTPase contributes to invadopodia formation in invasive bladder cancer cells. Biochemical and Biophysical Research Communications, 2016;480(3):409-414. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting K. Takei, Okayama University, Grad Sch Med Dental & Pharmaceut Sci, Dept. of Neurosci, Kita Ku, Okayama 7008558, Japan. Additional authors for this research include M. Nolan, H. Yamada, M. Watanabe, Y. Nasu, K. Takei and T. Takeda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.063. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Okayama, Japan, Asia, Enzymes and Coenzymes, Bladder Cancer, Oncology, Genetics, GTPase, Okayama University.

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Oncology - Bladder Cancer

New Bladder Cancer Findings Has Been Reported by Investigators at Division of Cancer Surgery (A Systematic Review of Ileal Conduit and Neobladder Outcomes in Primary Bladder Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Bladder Cancer. According to news originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Treatment for muscle invasive bladder cancer with curative intent includes radical cystectomy and urinary diversion. Using PRISMA guidelines, we conducted a systematic review assessing differences in patient selection, operative parameters, complications, and quality of life between
ileal conduit and neobladder cohorts."

Our news journalists obtained a quote from the research from the Division of Cancer Surgery, "Ileal conduit cohorts have more advanced age and disease, more comorbidities and complications, and poorer quality of life. Ileal conduit surgery is associated with adverse patient selection that inhibits reasonable comparison of outcomes with neobladder cohorts."

According to the news editors, the research concluded: "Despite this, we observe longer operative times and hospital stays in neobladder cohorts, perhaps reflecting greater technical difficulty and the need for postoperative bladder training."

For more information on this research see: A Systematic Review of Ileal Conduit and Neobladder Outcomes in Primary Bladder Cancer. Urology, 2016;96():74-79. Urology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

The news correspondents report that additional information may be obtained from J. Crozier, Peter MacCallum Canc Center, Div Canc Surg, Melbourne, Vic, Australia. Additional authors for this research include D. Hennessey, S. Sengupta, D. Bolton and N. Lawrentschuk.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.06.034. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Cancer, Article Review, Bladder Cancer, Oncology, Division of Cancer Surgery. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

Cell Research - Blood Cells

New Blood Cells Data Have Been Reported by Investigators at Duke University (Sevuparin binds to multiple adhesive ligands and reduces sickle red blood cell-induced vaso-occlusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cell Research - Blood Cells. According to news reporting from Durham, North Carolina, by NewsRx journalists, research stated, "Sevuparin is a novel drug candidate in phase II development as a treatment for vaso-occlusive crises (VOC) in patients with sickle cell disease (SCD). As a heparin-derived polysaccharide, sevuparin has been designed to retain anti-adhesive properties, while the antithrombin-binding domains have been eliminated, substantially diminishing its anticoagulant activity."

Funders for this research include Duke University, Radboud Universitair Medisch Centrum, National Institutes of Health, Doris Duke Charitable Foundation, Pfizer.

The news correspondents obtained a quote from the research from Duke University, "Here, we demonstrate that sevuparin inhibits the adhesion of human sickle red blood cells (SS-RBCs) to stimulated cultured endothelial cells invitro. Importantly, sevuparin prevents vaso-occlusion and normalizes blood flow in an in vivo mouse model of SCD vaso-occlusion. Analyses by surface plasmon resonance (SPR) and fluorescence correlation spectroscopy (FCS) demonstrate that sevuparin binds to P- and L-selectins, thrombospondin, fibronectin and von Willebrand factor, all of which are thought to contribute to vaso-occlusion in SCD. Despite low anticoagulation activity, sevuparin has anti-adhesive efficacy similar to the low molecular weight heparin tinzaparin both invitro and in vivo. These results suggest that the anti-adhesive
properties rather than the anticoagulant effects of heparinoids are critical for the treatment of vaso-occlusion in SCD."

According to the news reporters, the research concluded: "Therefore, sevuparin is now being evaluated in SCD patients hospitalized for treatment of VOC."


Our news journalists report that additional information may be obtained by contacting M.J. Telen, Duke University, Sch Med, Duke Comprehens Sickle Cell Center, Dept. of MedDiv Hematol, Durham, NC, United States. Additional authors for this research include M. Batchvarova, S. Shan, P.H. Bovee-Geurts, R. Zennadi, A. Leitgeb, R. Brock and M. Lindgren.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjh.14303. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Cell Research, Blood Cells, Duke University.

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**Cell Research - Blood Cells**

**New Blood Cells Findings from Technical University Reported**

**(Multifractal characterization of morphology of human red blood cells membrane skeleton)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cell Research - Blood Cells is now available. According to news reporting originating in Cluj Napoca, Romania, by NewsRx journalists, research stated, "The purpose of this paper is to show applicability of multifractal analysis in investigations of the morphological changes of ultra-structures of red blood cells (RBCs) membrane skeleton measured using atomic force microscopy (AFM). Human RBCs obtained from healthy and hypertensive donors as well as healthy erythrocytes irradiated with neutrons (45 mGy) were studied."

The news reporters obtained a quote from the research from Technical University, "The membrane skeleton of the cells was imaged using AFM in a contact mode. Morphological characterization of the three-dimensional RBC surfaces was realized by a multifractal method. The nanometre scale study of human RBCs surface morphology revealed a multifractal geometry. The generalized dimensions Dq and the singularity spectrum f(a) provided quantitative values that characterize the local scale properties of their membrane skeleton organization. Surface characterization was made using areal ISO 25178-2: 2012 topography parameters in combination with AFM topography measurement. The surface structure of human RBCs is complex with hierarchical substructures resulting from the organization of the erythrocyte membrane skeleton. The analysed AFM images confirm a multifractal nature of the
surface that could be useful in histology to quantify human RBC architectural changes associated with different disease states."

According to the news reporters, the research concluded: "In case of very precise measurements when the red cell surface is not wrinkled even very fine differences can be uncovered as was shown for the erythrocytes treated with a very low dose of ionizing radiation."


Our news correspondents report that additional information may be obtained by contacting S. Talu, Technical University of Cluj-Napoca, Faculty of Mechanical Engineering, Dept. of AET, Discipline of Descriptive Geometry and Engineering Graphics, Cluj-Napoca, Cluj, Romania. Additional authors for this research include S. Stach, M. Kaczmarska, M. Fornal, T. Grodzicki, W. Pohorecki and K. Burda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jmi.12342. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Romania, Cluj Napoca, Blood Cells, Cell Research.

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**Hematology - Blood Coagulation Factors**

**New Blood Coagulation Factors Findings Has Been Reported by Researchers at Institute of Biotechnology and Antibiotics (The factor VIII protein and its function)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Blood Coagulation Factors. According to news reporting originating from Warszawa, Poland, by NewsRx correspondents, research stated, "Factor VIII (FVIII), an essential blood coagulation protein, is a key component of the fluid phase blood coagulation system. Human factor VIII is a single chain of about 300 kDa consisting of domains described as A1-A2-B-A3-C1-C2."

Our news editors obtained a quote from the research from the Institute of Biotechnology and Antibiotics, "The protein undergoes processing prior to secretion into blood resulting in a heavy chain of 200 kDa (A1-A2-B) and a light chain of 80 kDa (A3-C1-C2) linked by metal ions. The role of factor VIII is to increase the catalytic efficiency of factor IXa in the activation of factor X."

According to the news editors, the research concluded: "Variants of these factors lead frequently also to severe bleeding disorders."


The news editors report that additional information may be obtained by contacting A. Mazurkiewicz-Pisarek, Institute of Biotechnology and Antibiotics, Bioengineering Department, Warszawa, Poland. Additional authors for this research include G. Plucienniczak, T. Ciach and
A. Plucienniczak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18388/abp.2015_1056. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Poland, Europe, Warszawa, Hematology, Factor VIII, Article Review, Blood Coagulation Factors.

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Hematology - Blood Coagulation Factors

**New Blood Coagulation Factors Study Findings Have Been Reported from S. Klapoetke et al (Disulfide bond characterization of human factor Xa by mass spectrometry through protein-level partial reduction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Blood Coagulation Factors. According to news reporting out of Durham, North Carolina, by NewsRx editors, research stated, "Protein-level partial reduction was investigated as a novel sample preparation technique to characterize proteins with cystine knots or complex disulfide linkages. Human Factor Xa containing twelve disulfide bonds was selected as a model protein to demonstrate this methodology."

Our news journalists obtained a quote from the research, "Five in twelve disulfide linkages were characterized through conventional non-reduced samples while the other seven disulfide linkages containing cystine knots were successfully characterized though partially reduced samples. Each disulfide linkage was confirmed through product ions generated by an UPLC-ESI QTOF MS system equipped with data independent collision-induced dissociation (CID) acquisition."

According to the news editors, the research concluded: "Free cysteines in the sample were also determined in this study."

For more information on this research see: Disulfide bond characterization of human factor Xa by mass spectrometry through protein-level partial reduction. *Journal of Pharmaceutical and Biomedical Analysis*, 2017;132():238-246. *Journal of Pharmaceutical and Biomedical Analysis* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Pharmaceutical and Biomedical Analysis - www.journals.elsevier.com/journal-of-pharmaceutical-and-biomedical-analysis/)

Our news journalists report that additional information may be obtained by contacting S. Klapoetke, KBI Biopharma, Mass Spectrometry Core Facil, Durham, NC 27704, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jpba.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Blood Coagulation Factors, Serine Endopeptidases, Enzymes and Coenzymes, Inorganic Chemicals, Peptide Hydrolases, Blood Proteins, Electrolytes, Disulfides, Hematology, Factor Xa, Ions.
New Blood Pressure Data Have Been Reported by Researchers at Tohoku University Graduate School of Medicine (Maternal clinic and home blood pressure measurements during pregnancy and infant birth weight: the BOSHI study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Pressure have been published. According to news reporting originating from Sendai, Japan, by NewsRx correspondents, research stated, "This prospective cohort study compared measurements of maternal home blood pressure (HBP) with clinic blood pressure (CBP) before 20 weeks' gestation to determine associations with the risk of delivering a lower birth weight infant. A total of 605 Japanese women were included."

Our news editors obtained a quote from the research from the Tohoku University Graduate School of Medicine, "Exposures were initial CBP, made between 10 weeks 0 days and 19 weeks 0 days, and HBP for comparison made within 1 week of CBP. Outcome was infant's birth weight, categorized and ranked as follows: &gt;3500 g, 3000-3499 g, 2500-2999 g and &lt;2500 g. The proportional odds model with possible confounding factors was applied to compare the associations between CBP and HBP on infant birth weight. When both CBP and HBP were included simultaneously, the adjusted odds ratios (ORs) per 1 standard deviation (1s.d.) increase in clinic and home diastolic BP (DBP) were 1.06 (95% confidence interval (CI): 0.87-1.30) and 1.28 (95% CI: 1.04-1.58), respectively. The adjusted ORs per 1s.d. increase in clinic and home mean arterial pressure (MAP) were 1.02 (95% CI: 0.83-1.24) and 1.29 (95% CI: 1.04-1.59), respectively. Systolic BP measurement was not associated with infant birth weight."

According to the news editors, the research concluded: "High maternal home DBP and MAP before 20 weeks' gestation was associated with a higher risk of lower infant birth weight than clinic DBP and MAP. Therefore, in addition to CBP, it may be worth having pregnant women measure HBP to determine the risk of lower infant birth weight."

For more information on this research see: Maternal clinic and home blood pressure measurements during pregnancy and infant birth weight: the BOSHI study. Hypertension Research, 2015;39(3):151-7. (Nature Publishing Group - www.nature.com/hr; Hypertension Research - www.nature.com/hr/)

The news editors report that additional information may be obtained by contacting N. Iwama, Tohoku University Graduate School of Medicine, Sendai, Japan. Additional authors for this research include H. Metoki, T. Ohkubo, M. Ishikuro, T. Obara, M. Kikuya, K. Yagihashi, H. Nishigori, T. Sugiyama, J. Sugawara, N. Yaegashi, K. Hoshi, M. Suzuki, S. Kuriyama and Y. Imai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/hr.2015.108. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Sendai, Blood Pressure.

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New Blood Pressure Findings from Federal University Outlined (Power spectrum analysis of cardiovascular variability during passive heating in conscious rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Blood Pressure. According to news reporting originating in Vicosa, Brazil, by NewsRx journalists, research stated, "The cardiovascular system plays a direct role in the maintenance of body temperature. Whether passive heating alters cardiovascular autonomic modulation in conscious rats is still unknown."

Financial supporters for this research include CNPq, CAPES, FAPEMIG.

The news reporters obtained a quote from the research from Federal University, "This study investigated the effects of passive heating on systolic blood pressure variability (SBPV) and heart rate variability (HRV) in conscious rats and the involvement of the renin-angiotensin system in the passive heating effects on SBPV and HRV. Fourteen male Wistar rats were randomly assigned to the control group or the losartan treatment group. A catheter was implanted in the left carotid artery to record pulsatile arterial pressure (PAP), and a telemetry sensor was implanted in the abdominal cavity to measure body temperature (T-body). After recovering from surgery, the animals were subjected to a passive heating protocol (35 degrees C; 30 min) in resting conditions, during which T-body, tail skin temperature and PAP were measured. The mean arterial pressure, systolic and diastolic blood pressure, heart rate, double product (i.e., the product of systolic blood pressure by heart rate), SBPV and HRV were calculated from the PAP. SBPV and HRV were analyzed in terms of both time and frequency domains. Increases in the thermoregulatory and cardiovascular parameters were observed during passive heating in both groups, and those increases were reflected in the higher time and frequency domains of the SBPV. However, passive heating was not effective in altering HRV."

According to the news reporters, the research concluded: "Passive heating altered SBPV but not HRV in conscious rats when they were treated with losartan."


Our news correspondents report that additional information may be obtained by contacting T.N. Primola-Gomes, Federal University of Vicosa, Dept. of Educ Fis, Lab Biol Exercicio, Vicosa, MG, Brazil. Additional authors for this research include W. Pires, L.H.R. Leite, D.N.Q. da Cunha, T. Pecanha, J.R.P. de Lima, A.J. Natali and T.N. Primola-Gomes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtherbio.2016.08.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vicosa, Brazil, South America, Cardiovascular, Blood Pressure, Hemodynamics, Heart Rate, Cardiology, Federal University.

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New Blood Pressure Findings from University of Brasilia Reported
(Carotid baroreflex function at the onset of cycling in men)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Blood Pressure. According to news reporting originating from Brasilia, Brazil, by NewsRx correspondents, research stated, "Arterial baroreflex function is important for blood pressure control during exercise, but its contribution to cardiovascular adjustments at the onset of cycling exercise remains unclear. Fifteen healthy male subjects (24 +/- 1 yr) performed 45-s trials of low- and moderate-intensity cycling, with carotid baroreceptor stimulation by neck suction at -60 Torr applied 0-5, 10-15, and 30-35 s after the onset of exercise."

Financial support for this research came from Grosserer Jakob Ehrenreich og hustru Grete Ehrenreich Fond.

Our news editors obtained a quote from the research from the University of Brasilia, "Cardiovascular responses to neck suction during cycling were compared with those obtained at rest. An attenuated reflex decrease in heart rate following neck suction was detected during moderate-intensity exercise, compared with the response at rest (P < 0.05). Furthermore, compared with the reflex decrease in blood pressure elicited at rest, neck suction elicited an augmented decrease in blood pressure at 0-5 and 10-15 s during low-intensity exercise and in all periods during moderate-intensity exercise (P < 0.05). The reflex depressor response at the onset of cycling was primarily mediated by an increase in the total vascular conductance."

According to the news editors, the research concluded: "These findings evidence altered carotid baroreflex function during the first 35 s of cycling compared with rest, with attenuated bradycardic response, and augmented depressor response to carotid baroreceptor stimulation."

For more information on this research see: Carotid baroreflex function at the onset of cycling in men. American Journal of Physiology-Regulatory Integrative and Comparative Physiology, 2016;311(5):R870-R878. American Journal of Physiology-Regulatory Integrative and Comparative Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting L.C. Vianna, University of Brasilia, Fac Phys Educ, Brasilia, DF, Brazil. Additional authors for this research include L.C. Vianna, T. Hashimoto, L.G. Petersen, N.D. Olesen, H. Tsukamoto, H. Sorensen, S. Ogoh, A.C.L. Nobrega and N.H. Secher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajpregu.00173.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brasilia, Brazil, South America, Cardiovascular Physiological Phenomena, Blood Pressure, Hemodynamics, Cardiology, Baroreflex, Angiology, University of Brasilia.

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New Blood Pressure Study Findings Recently Were Reported by Researchers at Queensland University of Technology (Outdoor Temperature, Heart Rate and Blood Pressure in Chinese Adults: Effect Modification by Individual Characteristics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Pressure have been published. According to news reporting out of Brisbane, Australia, by NewsRx editors, research stated, "We collected data from Kailuan cohort study from 2006 to 2011 to examine whether short-term effects of ambient temperature on heart rate (HR) and blood pressure (BP) are non-linear or linear, and their potential modifying factors. The HR, BP and individual information, including basic characteristics, life style, socio-economic characteristics and other characteristics, were collected for each participant."

Our news journalists obtained a quote from the research from the Queensland University of Technology, "Daily mean temperature and relative humidity were collected. A regression model was used to evaluate associations of temperature with HR and BP, with a non-linear function for temperature. We also stratified the analyses in different groups divided by individual characteristics. 47,591 residents were recruited. The relationships of temperature with HR and BP were 'V' shaped with thresholds ranging from 22 °C to 28 °C. Both cold and hot effects were observed on HR and BP. The differences of effect estimates were observed among the strata of individual characteristics. The effect estimate of temperature was higher among older people. The cold effect estimate was higher among people with lower Body Mass Index. However, the differences of effect estimates among other groups were inconsistent. These findings suggest both cold and hot temperatures may have short-term impacts on HR and BP."

According to the news editors, the research concluded: "The individual characteristics could modify these relationships."

For more information on this research see: Outdoor Temperature, Heart Rate and Blood Pressure in Chinese Adults: Effect Modification by Individual Characteristics. Scientific Reports, 2016;6():21003. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting L. Madaniyazi, School of Public Health and Social Work, Queensland University of Technology, Brisbane, Australia. Additional authors for this research include Y. Zhou, S. Li, G. Williams, J.J. Jaakkola, X. Liang, Y. Liu, S. Wu and Y. Guo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep21003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brisbane, Blood Pressure, Australia and New Zealand.

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New Blood Pressure Study Results Reported from Duke University
[Influence of Kidney Function on Blood Pressure Response to Lifestyle Modifications: Secondary Analysis From the Exercise and Nutritional Interventions for Cardiovascular Health ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Blood Pressure. According to news originating from Durham, North Carolina, by NewsRx correspondents, research stated, "The kidney is an important regulator of blood pressure (BP). To determine whether BP response to lifestyle modification varies across normal ranges of kidney function, the authors examined the moderating role of estimated glomerular filtration rate (eGFR) on clinic and ambulatory systolic BP (SBP) response in overweight and obese adults with unmedicated high BP."

Financial supporters for this research include National Heart, Lung, and Blood Institute, General Clinical Research Center, National Institutes of Health.

Our news journalists obtained a quote from the research from Duke University, "Among 144 participants of the Exercise and Nutritional Interventions for Cardiovascular Health (ENCORE) trial, mean age was 52.0 +/- 9.6 years and median eGFR was 89.1 (53-146) mL/min/1.73m(2). After multivariable regression, the interaction between eGFR and weight loss was significant for clinic (P=.023) and ambulatory SBP (P=.041). Similarly, the interaction between eGFR and improved fitness was significant for clinic (P=.041) and ambulatory SBP (P=.044). The relationship between reduced dietary sodium and SBP was not moderated by eGFR. SBP findings were inconsistent for adherence to the Dietary Approaches to Stop Hypertension (DASH) diet."

According to the news editors, the research concluded: "These findings suggest that the effects of lifestyle modifications on SBP may be influenced by eGFR, even when kidney function is preserved."


The news correspondents report that additional information may be obtained from C.C. Tyson, Duke University, Medical Center, Dept. of Med, Durham, NC 27710, United States. Additional authors for this research include P.J. Smith, A. Sherwood, S. Mabe, A.L. Hinderliter and J.A. Blumenthal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12853. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Cardiovascular, Blood Pressure, Hemodynamics, Cardiology, Duke University.

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Blood Pressure

New Blood Pressure Study Results Reported from Federal University (Sedentary Behavior and Light Physical Activity Are Associated with Brachial and Central Blood Pressure in Hypertensive Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Blood Pressure are presented in a new report. According to news reporting out of Florianopolis, Brazil, by NewsRx editors, research stated, "Physical activity is recommended as a part of a comprehensive lifestyle approach in the treatment of hypertension, but there is a lack of data about the relationship between different intensities of physical activity and cardiovascular parameters in hypertensive patients. The purpose of this study was to investigate the association between the time spent in physical activities of different intensities and blood pressure levels, arterial stiffness and autonomic modulation in hypertensive patients."

Our news journalists obtained a quote from the research from Federal University, "In this cross-sectional study, 87 hypertensive patients (57.5 ± 9.9 years of age) had their physical activity assessed over a 7 day period using an accelerometer and the time spent in sedentary activities, light physical activities, moderate physical activities and moderate-to-vigorous physical activities was obtained. The primary outcomes were brachial and central blood pressure. Arterial stiffness parameters (augmentation index and pulse wave velocity) and cardiac autonomic modulation (sympathetic and parasympathetic modulation in the heart) were also obtained as secondary outcomes. Sedentary activities and light physical activities were positively and inversely associated, respectively, with brachial systolic (r=0.56; p<0.01), central systolic (r=0.51; p<0.05), brachial diastolic (r=0.45; p<0.01) and central diastolic (r=0.42; p <0.05) blood pressures, after adjustment for sex, age, trunk fat, number of antihypertensive drugs, accelerometer wear time and moderate-to-vigorous physical activities. Arterial stiffness parameters and cardiac autonomic modulation were not associated with the time spent in sedentary activities and in light physical activities (p >0.05)."

According to the news editors, the research concluded: "Lower time spent in sedentary activities and higher time spent in light physical activities are associated with lower blood pressure, without affecting arterial stiffness and cardiac autonomic modulation in hypertensive patients."


Our news journalists report that additional information may be obtained by contacting A.M. Gerage, Dept. of Physical Education, Federal University of Santa Catarina, Florianopolis, Santa Catarina, Brazil. Additional authors for this research include T.R. Benedetti, B.Q. Farah, F.da S. Santana, D. Ohara, L.B. Andersen and R.M Ritti-Dias. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0146078. This DOI is a link to an online electronic document that is either free or for purchase. Keywords for this news article include: Brazil, Cardiology, Hemodynamics,
New Blood Pressure Study Results from Osaka Medical College Described (Improvement of cardiovascular remodelling by chymase inhibitor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Blood Pressure are presented in a new report. According to news originating from Takatsuki, Japan, by NewsRx correspondents, research stated, "Chymase has been identified as an angiotensin II-forming enzyme found in cardiovascular tissues. Angiotensin II is involved not only in the regulation of blood pressure, but also in the progression of cardiovascular remodelling."

Our news journalists obtained a quote from the research from Osaka Medical College, "Interestingly, chymase inhibitors prevent cardiovascular remodelling without lowering blood pressure. The reason why chymase inhibitors do not affect blood pressure may depend on the localization of chymase in?vivo. In normal tissues, chymase is stored in mast cell granules and has no enzymatic function; whereas, in damaged tissues, chymase exhibits enzymatic activity immediately following its release from the granules. Chymase also activates transforming growth factor-b and matrix metalloproteinase-9, both of which are involved in cardiovascular remodelling, and their enzymatic functions are also observed only in damaged tissues. In animal models of hypertension, diabetes and hypercholesterolaemia, chymase inhibitors improve cardiovascular remodelling without a general circulatory effect, including blood pressure."

According to the news editors, the research concluded: "Thus, it is proposed that chymase is a potentially important target for preventing cardiovascular diseases."


The news correspondents report that additional information may be obtained from S. Takai, Dept. of Innovative Medicine, Graduate School of Medicine, Osaka Medical College, Takatsuki, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1440-1681.12549. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Chymes, Takatsuki, Autacoids, Cardiology, Hemodynamics, Angiotensin II, Article Review, Blood Pressure, Cardiovascular, Biological Factors, Peptide Hydrolases, Enzymes and Coenzymes, Serine Endopeptidases.

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Proteins - Blood Proteins

New Blood Proteins Findings from Ben-Gurion University of the Negev Described (T Helper Subsets, Peripheral Plasticity, and the Acute Phase Protein, a1-Antitrypsin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Proteins - Blood Proteins is the subject of a report. According to news reporting originating in Be'er Sheva, Israel, by NewsRx journalists, research stated, "The traditional model of T helper differentiation describes the na?ve T cell as choosing one of several subsets upon stimulation and an added reciprocal inhibition aimed at maintaining the chosen subset. However, to date, evidence is mounting to support the presence of subset plasticity."

The news reporters obtained a quote from the research from the Ben-Gurion University of the Negev, "This is, presumably, aimed at fine-tuning adaptive immune responses according to local signals. Reprograming of cell phenotype is made possible by changes in activation of master transcription factors, employing epigenetic modifications that preserve a flexible mode, permitting a shift between activation and silencing of genes. The acute phase response represents an example of peripheral changes that are critical in modulating T cell responses. a1-antitrypsin (AAT) belongs to the acute phase responses and has recently surfaced as a tolerogenic agent in the context of adaptive immune responses. Nonetheless, AAT does not inhibit T cell responses, nor does it shutdown inflammation per se; rather, it appears that AAT targets non-T cell immunocytes towards changing the cytokine environment of T cells, thus promoting a regulatory T cell profile."

According to the news reporters, the research concluded: "The present review focuses on this intriguing two-way communication between innate and adaptive entities, a crosstalk that holds important implications on potential therapies for a multitude of immune disorders."


Our news correspondents report that additional information may be obtained by contacting B.M. Baranovski, Dept. of Clinical Biochemistry & Pharmacology, Faculty of Health Sciences, Ben-Gurion University of the Negev, 84101 Be'er Sheva, Israel. Additional authors for this research include G.S. Freixo-Lima, E.C. Lewis and P. Rider.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/184574. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Israel, Genetics, Be'er Sheva, Article Review, Blood Proteins, Acute Phase Proteins.

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New Blood Transfusion Data Have Been Reported by Investigators at Radboud University (Effects of a human recombinant alkaline phosphatase on renal hemodynamics, oxygenation and inflammation in two models of acute kidney injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transfusion Medicine - Blood Transfusion have been published. According to news originating from Nijmegen, Netherlands, by NewsRx correspondents, research stated, "Two small clinical trials indicated that administration of bovine intestinal alkaline phosphatase (AP) improves renal function in critically ill patients with sepsis-associated acute kidney injury (AKI), for which the mechanism of action is not completely understood. Here, we investigated the effects of a newly developed human recombinant AP (recAP) on renal oxygenation and hemodynamics and prevention of kidney damage and inflammation in two in vivo AKI models."

Our news journalists obtained a quote from the research from Radboud University, "To induce AKI, male Wistar rats (n = 18) were subjected to renal ischemia (30 min) and reperfusion (I/R), or sham-operated. In a second model, rats (n = 18) received a 30 min infusion of lipopolysaccharide (LPS; 2.5 mg/kg), or saline, and fluid resuscitation. In both models, recAP (1000 U/kg) was administered intravenously (15 min before reperfusion, or 90 min after LPS). Following recAP treatment I/R-induced changes in renal blood flow, renal vascular resistance and oxygen delivery at early, and cortical microvascular oxygen tension at late reperfusion were no longer significantly affected. RecAP did not influence I/R-induced effects on mean arterial pressure. During endotoxemia, recAP treatment did not modulate the LPS-induced changes in systemic hemodynamics and renal oxygenation. In both models, recAP did exert a clear renal protective anti-inflammatory effect, demonstrated by attenuated immunostaining of inflammatory, tubular injury and pro-apoptosis markers."

According to the news editors, the research concluded: "Whether this renal protective effect is sufficient to improve outcome of patients suffering from sepsis-associated AKI is being investigated in a large clinical trial."


The news correspondents report that additional information may be obtained from E. Peters, Radboud University, Medical Center, Dept. of Pharmacol & Toxicol, NL-6500 HB Nijmegen, Netherlands. Additional authors for this research include B. Ergin, A. Kandil, E. Gurel-Gurevin, A. van Elsas, R. Masereeuw, P. Pickkers and C. Ince.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.10.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Phosphoric Monoester Hydrolases, Enzymes and Coenzymes, Alkaline Phosphatase, Transfusion Medicine, Acute Kidney Injury, Blood Transfusion, Medical Devices, Inflammation,
Reperfusion, Nephrology, Radboud University.

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Transfusion Medicine - Blood Transfusion

New Blood Transfusion Findings Has Been Reported by E.H. Tischler et al (Are Preoperative Serologic Type and Screen Tests Necessary for Primary Total Joint Arthroplasty Patients in Specialty Surgical Hospitals?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transfusion Medicine - Blood Transfusion. According to news reporting from Media, Pennsylvania, by NewsRx journalists, research stated, "Blood loss during total joint arthroplasty (TJA) has been a major concern requiring routine preoperative patient type and screen (T & however, with the implementation of blood conserving therapy, a marked decrease for perioperative transfusions has been observed. Many TJAs are now being performed in T&S mandated specialty surgical hospitals (SSHs) that lack on-site blood banks; therefore, the purpose of our study was to determine whether T&S (1) is necessary in SSH for TJA patients and (2) identifies patient risk factors associated with perioperative blood transfusion in SSH."

The news correspondents obtained a quote from the research, "A retrospective study was conducted on 1034 consecutive primary TJAs performed between 2013 and 2014 at a 12-bed SSH who all received T&S. Patients were matched (1:1) to 964 inpatient TJA patients performed at a university hospital without routine T&S. Data on surgery type, patient demographics, hemoglobin and hematocrit results, and transfusion rates were collected. Multivariate logistic regression identified perioperative transfusion risk factors. Overall transfusion rates for the matched SSH (1.8% [17/964]) and university hospital populations (2.9% [28/964]) were similar (P = .13), with no emergent transfusions. SSH transfusion rates for simultaneous bilateral THA, simultaneous bilateral TKA, unilateral THA, and unilateral TKA were 21.1% (4/19), 3.1% (4/128), 2.7% (12/439), and 0.0% (0/448), respectively. Multivariate logistic regression identified unilateral THA (P <= .001), simultaneous bilateral TJA (P = .001), age (P = .05), and abnormal preoperative hemoglobin (P = .02) as significant transfusion risk factors at SSH."

According to the news reporters, the research concluded: "Due to low transfusion rates and lack of emergency transfusions, we recommend routinely ordering T&S for bilateral THA but not for unilateral TJA patients, at SSHs."


Our news journalists report that additional information may be obtained by contacting E.B. Smith, Phys Care Surg Hosp, Media, PA, United States. Additional authors for this research include A.F. Chen, C.N. Matthews, W.V. Arnold and E.B. Smith.

The direct object identifier (DOI) for that additional information is:
Transfusion Medicine - Blood Transfusion

New Blood Transfusion Study Findings Have Been Reported by Investigators at Shanghai Jiao-Tong University (Inhibition of PKR protects against H2O2-induced injury on neonatal cardiac myocytes by attenuating apoptosis and inflammation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Transfusion Medicine - Blood Transfusion. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Reactive oxygenation species (ROS) generated from reperfusion results in cardiac injury through apoptosis and inflammation, while PKR has the ability to promote apoptosis and inflammation. The aim of the study was to investigate whether PKR is involved in hydrogen peroxide (H2O2) induced neonatal cardiac myocytes (NCM) injury."

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "In our study, NCM, when exposed to H2O2, resulted in persistent activation of PKR due to NCM endogenous RNA. Inhibition of PKR by 2-aminopurine (2-AP) or siRNA protected against H2O2 induced apoptosis and injury. To elucidate the mechanism, we revealed that inhibition of PKR alleviated H2O2 induced apoptosis companied by decreased caspase3/7 activity, BAX and caspase-3 expression. We also revealed that inhibition of PKR suppressed H2O2 induced NF kappa B pathway and NLRP3 activation. Finally, we found ADAR1 mRNA and protein expression were both induced after H2O2 treatment through STAT-2 dependent pathway. By gain and loss of ADAR1 expression, we confirmed ADAR1 modulated PKR activity. Therefore, we concluded inhibition of PKR protected against H2O2-induced injury by attenuating apoptosis and inflammation. A self-preservation mechanism existed in NCM that ADAR1 expression is induced by H2O2 to limit PKR activation simultaneously."

According to the news editors, the research concluded: "These findings identify a novel role for PKR/ADAR1 in myocardial reperfusion injury."

For more information on this research see: Inhibition of PKR protects against H2O2-induced injury on neonatal cardiac myocytes by attenuating apoptosis and inflammation. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting S. Xue, Shanghai Jiao Tong University, Sch Med, Ren Ji Hosp, Dept. of Cardiovasc Surg, Shanghai, People's Republic of China. Additional authors for this research include M. Men, B. Xie, J.G. Shan, C.X. Wang, J.D. Liu, H. Zheng, W.G. Yang, S. Xue and C.F. Guo.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Transfusion Medicine, Blood Transfusion, Medical Devices, Inflammation, Reperfusion,
New Blood Transfusion Study Findings Have Been Reported from University of Rochester (ABO-immune complex formation and impact on platelet function, red cell structural integrity and haemostasis: an in vitro model of ABO non-identical transfusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transfusion Medicine - Blood Transfusion. According to news reporting originating from Rochester, New York, by NewsRx correspondents, research stated, "Transfusion of ABO non-identical platelets has been associated with fatal haemolytic reactions, increased red cell transfusion needs and other adverse effects, but the practice of ABO matching in platelet transfusion is controversial. Immune complexes can be formed from the anti-A and/or anti-B antibodies and ABO soluble antigen(s) present in donor and recipient plasma after ABO non-identical transfusions."

Our news editors obtained a quote from the research from the University of Rochester, "We hypothesized that these immune complexes affect recipient red cell structural integrity, platelet function and haemostasis. Haemolysis, platelet function and haemostatic function were assessed before and after incubation of recipient red cells, platelets and whole blood with normal saline controls, ABO-identical plasma controls or in vitro-generated ABO-immune complexes. ABO-immune complexes caused significantly increased haemolysis (p <0?001), inhibition of platelet function (p=0?001) and disruption of clot formation kinetics (p <0?005) in both group A and O recipient samples. Substantial changes in platelet function, red cell integrity and haemostasis occur after in vitro exposure to immune complexes."

According to the news editors, the research concluded: "These in vitro findings may explain, in part, previously observed associations of ABO non-identical platelet transfusions with adverse effects including increased red cell transfusion needs, organ failure and mortality."


The news editors report that additional information may be obtained by contacting B.J. Zaffuto, James P Wilmot Cancer Center, University of Rochester Medicine, Rochester, NY, United States. Additional authors for this research include G.W. Conley, G.C. Connolly, K.F. Henrichs, C.W. Francis, J.M. Heal, N. Blumberg and M.A Refaai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/vox.12354. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York, Rochester, Angiology, Hemostasis, United States, Medical Devices, Blood Transfusion, Transfusion Medicine, North and Central America.

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New Blood Transfusion Study Findings Recently Were Reported by C. L'Acqua and Co-Researchers (Red blood cell transfusion is associated with increased hemolysis and an acute phase response in a subset of critically ill children)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Transfusion Medicine - Blood Transfusion have been presented. According to news reporting originating in Milan, Italy, by NewsRx journalists, research stated, "In healthy adults, transfusion of older stored red blood cells (RBCs) produces extravascular hemolysis and circulating non-transferrin-bound iron. In a prospective, observational study of critically ill children, we examined the effect of RBC storage duration on the extent of hemolysis by comparing laboratory measurements obtained before, and 4 hr after, RBC transfusion (N=100) or saline/albumin infusion (N=20)."

Financial support for this research came from NIH grants.

The news reporters obtained a quote from the research, "Transfusion of RBCs stored for longer than 4 weeks significantly increased plasma free hemoglobin (p <0.05), indirect bilirubin (p <0.05), serum iron (p <0.001), and non-transferrin-bound iron (p <0.01). However, days of storage duration poorly correlated (R(2) <0.10) with all measured indicators of hemolysis and inflammation. These results suggest that, in critically ill children, most effects of RBC storage duration on post-transfusion hemolysis are overwhelmed by recipient and/or donor factors. Nonetheless, we identified a subset of patients (N=21) with evidence of considerable extravascular hemolysis (i.e., increased indirect bilirubin (>=)0.4 mg/dL). In these patients, transfusion-associated hemolysis was accompanied by increases in circulating non-transferrin-bound iron and free hemoglobin and by an acute phase response, as assessed by an increase in median C-reactive protein levels of 21.2 mg/L (p <0.05). In summary, RBC transfusions were associated with an acute phase response and both extravascular and intravascular hemolysis, which were independent of RBC storage duration."

According to the news reporters, the research concluded: "The 21% of transfusions that were associated with substantial hemolysis conferred an increased risk of inducing an acute phase response."


Our news correspondents report that additional information may be obtained by contacting C. L'Acqua, Dept. of Medical Surgical Pathophysiology and Organ Transplantation, Universita' Degli Studi Di Milano, Milan, Italy. Additional authors for this research include S. Bandypadhyay, R.O. Francis, D.J. McMahon, M. Nellis, S. Sheth, S.G. Kernie, G.M. Brittenham, S.L. Spitalnik and E.A Hod.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajh.24119. This DOI is a link to an online electronic document that is either free or for purchase.
New Blood Vessels Findings from Florida International University Described (Echocardiographic and Surgical Correlation of Coronary Artery Patterns in Transposition of the Great Arteries)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Blood Vessels are presented in a new report. According to news reporting out of Miami, Florida, by NewsRx editors, research stated, "Determine the accuracy of echocardiography to diagnose coronary anatomy in transposition of the great arteries and to evaluate the effect of accuracy on surgical outcomes and changes in accuracy over time. Retrospective chart review of neonates admitted February 1999 to March 2013 with transposition."

Our news journalists obtained a quote from the research from Florida International University, "Coronary pattern from the preoperative echocardiogram and operative reports were collected and compared with determine diagnostic accuracy. Coronary patterns were further confirmed by intraoperative images taken during surgery. Tertiary care children's hospital. Neonates with transposition of the great arteries and planned arterial switch operation with an echo and operative report or image describing the coronaries. Not applicable. Accuracy of echocardiography to diagnose coronary anatomy in transposition, and to identify factors related to correct diagnosis. One hundred forty-two patients met inclusion criteria with 122 correctly diagnosed, 16 incorrect, and 4 inconclusive. Accuracy was 86%, with 95% accuracy in patients with typical coronary patterns, 85% with the most common variant (left coronary from the leftward sinus and right and circumflex from the rightward sinus), and 61% with less common patterns. Typical and common variants were more likely to be correct than atypical patterns (P <.001). Cases with ventricular septal defect were more likely to have correctly diagnosed coronaries than with an intact ventricular septum (94% vs. 79%, P = .01). There was no change in accuracy over time (P >.05). There was no difference in duration of cardiopulmonary bypass, cross-clamp times, length of stay, or postoperative stay between the correct and incorrectly diagnosed groups (P >.05). In our center, accuracy of echocardiographic imaging of the coronary arteries in transposition was 86% without improvement over time, and perioperative outcomes were not affected by diagnostic accuracy."

According to the news editors, the research concluded: "Further invasive imaging may not be necessary to determine the coronary pattern in this lesion."

For more information on this research see: Echocardiographic and Surgical Correlation of Coronary Artery Patterns in Transposition of the Great Arteries. *Congenital Heart Disease*, 2016;11(6):570-577. *Congenital Heart Disease* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Congenital Heart Disease - onlinelibrary.wiley.com/journal/10.1111/(ISSN) 1747-0803)

Our news journalists report that additional information may be obtained by contacting M.P. Fundora, Florida International University, Herbert Wertheim Coll Med, Miami

Keywords for this news article include: Miami, Florida, United States, North and Central America, Echocardiography, Coronary Artery, Cardiovascular, Blood Vessels, Cardiology, Arteries, Florida International University.

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Cell Research - Bone Marrow Cells

New Bone Marrow Cells Study Findings Recently Were Reported by Researchers at State University of New York (Identification of a potent small molecule capable of regulating polyploidization, megakaryocyte maturation, and platelet production)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cell Research - Bone Marrow Cells have been presented. According to news reporting originating from Stony Brook, New York, by NewsRx correspondents, research stated, "Megakaryocytic cell maturation involves polyploidization, and megakaryocyte (MK) ploidy correlates with their maturation and platelet production. Retardation of MK maturation is closely associated with poor MK engraftment after cord blood transplantation and neonatal thrombocytopenia."

Our news editors obtained a quote from the research from the State University of New York, "Despite the high prevalence of thrombocytopenia in a range of settings that affect infants to adults, there are still very limited modalities of treatment. Human CD34(+) cells were isolated from cord blood or bone marrow samples acquired from consenting patients. Cells were cultured and induced using 616452 and compared to current drugs on the market such as rominplostim or TPO. Ploidy analysis was completed using propidium iodide staining and flow cytometry analysis. Animal studies consisted of transplanting human CD34(+) cells into NOD.Cg-Prkdc(scid)Il2rg(tm1Wjl)/SzJ mice followed by daily injections of 15 mg/kg of 616452. Within one week of culture, the chemical was able to induce polyploidization, the process required for megakaryocyte maturation with the accumulation of DNA content, to 64 N or greater to achieve a relative adult size. We observed fold increases as high as 200-fold in cells of 16 N or greater compared to un-induced cells with a dose-dependent manner. In addition, MK differentiated in the presence of 616452 demonstrated a more robust capacity of MK differentiation than that of MKs cultured with rominplostim used for adult idiopathic thrombocytopenic purpura (ITP) patients. In mice transplanted with human cord blood, 616452 strikingly enhanced MK reconstitution in the marrow and human peripheral platelet production. The molecular therapeutic actions for this chemical may be through TPO-independent pathways."

According to the news editors, the research concluded: "Our studies may have an important impact on our fundamental understanding of fetal MK biology, the clinical management of thrombocytopenic neonates and leukemic differentiation therapy."

For more information on this research see: Identification of a potent small molecule capable of regulating polyploidization, megakaryocyte maturation, and platelet production. Journal of Hematology & Oncology, 2016;9();1-11. Journal of Hematology & Oncology can be
New Bone Research Data Have Been Reported by Investigators at Azienda Ospedaliera University (The Use of Integra Dermal Regeneration Template Versus Flaps for Reconstruction of Full-Thickness Scalp Defects Involving the Calvaria: A Cost-Benefit ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Bone Research are presented in a new report. According to news reporting out of Udine, Italy, by NewsRx editors, research stated, "INTEGRA(A ®) Dermal Regeneration Template is a well-known and widely used acellular dermal matrix. Although it helps to solve many challenging problems in reconstructive surgery, the product cost may make it an expensive alternative compared to other reconstruction procedures."

Our news journalists obtained a quote from the research from Azienda Ospedaliera University, "This retrospective study aims at comparing INTEGRA-based treatment to flap surgery in terms of cost and benefit. We considered only patients treated for scalp defects with bone exposure in order to obtain two groups as homogeneous as possible. We identified two groups of patients: 17 patients treated with INTEGRA and 18 patients treated with flaps. All patients were admitted in our institution between 2004 and 2010, and presented a defect of the scalp following trauma or surgery for cancer, causing a loss of the soft tissues of the scalp with bone exposure without pericranium. To calculate the cost in constant euros of each treatment, three parameters were evaluated for each patient: cost of the surgical procedure (number of doctors and nurses involved, surgery duration, anesthesia, material used for surgery), hospitalization cost (hospitalization duration, dressings, drugs, topical agents), and outpatient cost (number of dressing changes, personnel cost, dressings type, anti-infective agents). The statistical test used in this study was the Wilcoxon Mann-Whitney (alpha = 0.05). No significant difference was characterized between the two groups for gender, age, presence of diabetes, mean defect size, and number of surgical procedures. All patients healed with good quality and durable closure. The median total cost per patient was a,notsign11,121 (interquartile range (IQR) 8327-15,571) for the INTEGRA group and a,notsign7259 (IQR 1852-24,443) for the flap group (p = 0.34). A subgroup of patients (six patients in the INTEGRA group and five patients in the flap group) showing defects larger than 100 cm(2) were considered in a second analysis. Median total cost was a,notsign11,825 (IQR 10,695-15,751) for the INTEGRA group and a,notsign23,244 (IQR 17,348-26,942) for the flap group. Both treatments led to a good healing
of the lesions with formation of soft and resistant tissue. No significant difference was characterized between the two groups for days of hospitalization and costs. In cases of patients with defects larger than 100 cm(2) for whom major surgery is needed, the treatment with INTEGRA seemed to be less expensive than the treatment with free flaps or pedicle flaps. This journal requires that authors assign a level of evidence to each article."

According to the news editors, the research concluded: "For a full description of these Evidence-Based Medicine ratings, please refer to the Table of Contents or the A5 online Instructions to Authors. www.springer.com/00266."


Our news journalists report that additional information may be obtained by contacting M. Schiavon, Azienda Osped Univ S Maria Misericordia, Struttura Operat Complessa Chirurg Plast & Center Us, Udine, Italy. Additional authors for this research include M. Francescon, D. Drigo, G. Salloum, R. Baraziol, J. Tesei, E. Fraccalanza and F. Barbone. Keywords for this news article include: Udine, Italy, Europe, Bone Research, Surgery, Azienda Ospedaliera University.

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New Bone Research

New Bone Research Study Findings Reported from University of Tokushima (The Nuclear Receptor AhR Controls Bone Homeostasis by Regulating Osteoclast Differentiation via the RANK/c-Fos Signaling Axis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Bone Research is now available. According to news reporting from Tokushima, Japan, by NewsRx journalists, research stated, "The aryl hydrocarbon receptor (AhR) pathway plays a key role in receptor activator of NF-kappa B ligand (RANKL)-mediated osteoclastogenesis. However, the mechanism underlying the regulation of AhR expression in osteoclasts and the signaling pathway through which AhR controls osteoclastogenesis remain unclear."

The news correspondents obtained a quote from the research from the University of Tokushima, "We found that the expression of AhR in bone marrow-derived osteoclasts was upregulated by RANKL at an earlier stage than was the expression of signature osteoclast genes such as those encoding cathepsin K and NFAT, cytoplasmic, calcineurin-dependent 1. In response to RANKL, bone marrow macrophages isolated from AhR(-/-) mice exhibited impaired phosphorylation of Akt and MAPK as well as NF-kappa B, whereas their response to M-CSF remained unchanged. Osteoclast differentiation mediated by the AhR signaling pathway was also regulated in an RANKL/c-Fos-dependent manner. Furthermore, ligand activation of AhR by the smoke toxin benzo[a]pyrene accelerated osteoclast differentiation in a receptor-dependent manner, and AhR-dependent regulation of mitochondrial biogenesis in osteoclasts.
was observed. Moreover, AhR(-/-) mice exhibited impaired bone healing with delayed endochondral ossification."

According to the news reporters, the research concluded: "Taken together, the present results suggest that the RANKL/AhR/c-Fos signaling axis plays a critical role in osteoclastogenesis, thereby identifying the potential of AhR in treating pathological, inflammatory, or metabolic disorders of the bone."

For more information on this research see: The Nuclear Receptor AhR Controls Bone Homeostasis by Regulating Osteoclast Differentiation via the RANK/c-Fos Signaling Axis. *Journal of Immunology*, 2016;197(12):4639-4650. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news journalists report that additional information may be obtained by contacting N. Ishimaru, University of Tokushima, Grad Sch Biomed Sci, Dept. of Oral Mol Pathol, Tokushima 7708504, Japan. Additional authors for this research include R. Arakaki, H. Mori, T. Tsunematsu, Y. Kudo, E. Tanaka and N. Ishimaru.

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Keywords for this news article include: Tokushima, Japan, Asia, Immune System, Bone Research, Bone Marrow, Genetics, University of Tokushima.

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coactivator (SRC) family members were shown to interact with and upregulate BMAL1: CLOCK transcriptional activity."

According to the news reporters, the research concluded: "Collectively, these data suggest that bone resorption is controlled by osteoclastic BMAL1 through interactions with the SRC family and binding to the Nfatc1 promoter."


Our news correspondents report that additional information may be obtained by contacting S. Takeda, Japan Sci & Technol Agcy, Core Res Evolut Sci & Technol, Tokyo, Japan. Additional authors for this research include H. Ochi, T. Fukuda, S. Sato, S. Sunamura, T. Takarada, E. Hinoi, A. Okawa and S. Takeda.

Keywords for this news article include: Tokyo, Japan, Asia, Musculoskeletal Diseases and Conditions, Bone Research, Risk and Prevention, Bone Diseases and Conditions, Bone Resorption, Genetics, Japan Science and Technology Agency.

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**Drugs and Therapies - Botulinum Toxin Therapy**

**New Botulinum Toxin Therapy Study Findings Have Been Reported by Researchers at University Hospital (Sensorimotor modulation by botulinum toxin A in post-stroke arm spasticity: Passive hand movement)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Botulinum Toxin Therapy is the subject of a report. According to news reporting originating in Olomouc, Czech Republic, by NewsRx journalists, research stated, "In post-stroke spasticity, functional imaging may uncover modulation in the central sensorimotor networks associated with botulinum toxin type A (BoNT) therapy. Investigations were performed to localize brain activation changes in stroke patients treated with BoNT for upper limb spasticity using functional magnetic resonance imaging (fMRI)."

Funders for this research include Internal Grant Agency of Ministry of Health of the Czech Republic, Agency for Healthcare Research of Ministry of Health of the Czech Republic, Institutional Support RVO FNOL.

The news reporters obtained a quote from the research from University Hospital, "Seven ischemic stroke patients (4 females; mean age 58.86) with severe hand paralysis and notable spasticity were studied. Spasticity was scored according to the modified Ashworth scale (MAS). fMRI examination was performed 3 times: before (W0) and 4 (W4) and 11weeks (W11) after BoNT. The whole-brain fMRI data were acquired during paced repetitive passive movements of the plegic hand (flexion/extension at the wrist) alternating with rest. Voxel-by-voxel statistical analysis using the General Linear Model (GLM) implemented in FSL (v6.00)/FEAT yielded group session-wise statistical maps and paired between-session contrasts, thresholded at the corrected cluster-wise significance level of p<0.05. As expected, BoNT
transiently lowered MAS scores at W4. Across all the sessions, fMRI activation of the ipsilesional sensorimotor cortex (M1, S1, and SMA) dominated. At W4, additional clusters transiently emerged bilaterally in the cerebellum, in the contralesional sensorimotor cortex, and in the contralesional occipital cortex. Paired contrasts demonstrated significant differences W4 >W0 (bilateral cerebellum and contralesional occipital cortex) and W4 >W11 (ipsilesional cerebellum and SMA). The remaining paired contrast (W0 >W11) showed activation decreases mainly in the ipsilesional sensorimotor cortex (M1, S1, and SMA).

According to the news reporters, the research concluded: "The present study confirms the feasibility of using passive hand movements to map the cerebral sensorimotor networks in patients with post-stroke arm spasticity and demonstrates that BoNT-induced spasticity relief is associated with changes in task-induced central sensorimotor activation, likely mediated by an altered afferent drive from the spasticity-affected muscles."


Our news correspondents report that additional information may be obtained by contacting T. Veverka, Dept. of Neurology, Faculty of Medicine and Dentistry, Palacky University and University Hospital, Olomouc, Czech Republic. Additional authors for this research include P. Hlušťik, P. Hok, P. Otruba, J. Zapletalova, Z. Tudos, A. Krobot and P. Kanovsky.

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Keywords for this news article include: Antidystonic, Antiwrinkle, Europe, Stroke, Olomouc, Neurology, Brain Stem, Cerebellum, Spasticity, Metencephalon, Czech Republic, Bacterial Toxins, Biological Factors, Drugs and Therapies, Central Nervous System, Botulinum Toxin Therapy.

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Proteins - Bovine Serum Albumin

New Bovine Serum Albumin Findings from Kingston University Outlined (Efficient approach to enhance drug solubility by particle engineering of bovine serum albumin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Proteins - Bovine Serum Albumin.

According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "The aim of this study was to investigate the use of bovine serum albumin (BSA) as a solubility enhancer for indometacin (IND) as a model drug. IND-BSA solid dispersions were prepared by both spray drying and freeze drying techniques using IND: BSA solution (20:1 Molar Ratio (MR)) and IND: BSA suspension (100:1 MR)."

The news correspondents obtained a quote from the research from Kingston University. "The solid state of IND in solid dispersions was characterised by SEM, DSC and XRD. The aqueous solubility of IND in the presence of increased amounts of BSA was
evaluated. Additionally, IND dissolution and release profiles were evaluated. IND in solid dispersions with BSA showed significantly higher solubility in water than that of the physical mixture of both. Enhancement factors of 24,000 and 100,000 were obtained for the solid dispersion formulated in 20:1 MR and 100:1 MR, respectively. Dissolution studies in-vitro indicated a significant increase in the dissolution rate of IND from solid dispersions compared to that of the free drug, with almost 95% of the drug dissolved in the first 5 min. Furthermore, an immediate release of IND from BSA solid dispersions was shown.

According to the news reporters, the research concluded: "The potential use of albumin as solubility enhancer for poorly soluble drugs, particularly, for immediate release volume-limited dosage forms is reported."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.11.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Serum albumin Therapy, Particle Engineering, Acute-Phase Proteins, Bovine Serum Albumin, Drugs and Therapies, Blood Proteins, Albumins, Kingston University.

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**Heart Disorders and Diseases - Bradycardia**

**New Bradycardia Findings from C.M. Harris and Co-Researchers Described [Sphingosine-1-Phosphate (S1P) Lyase Inhibition Causes Increased Cardiac S1P Levels and Bradycardia in Rats]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Bradycardia have been published. According to news reporting out of Worcester, Massachusetts, by NewsRx editors, research stated, "Inhibition of the sphingosine-1-phosphate (S1P)-catabolizing enzyme S1P lyase (S1PL) elevates the native ligand of S1P receptors and provides an alternative mechanism for immune suppression to synthetic S1P receptor agonists. S1PL inhibition is reported to preferentially elevate S1P in lymphoid organs."

Our news journalists obtained a quote from the research, "Tissue selectivity could potentially differentiate S1PL inhibitors from S1P receptor agonists, the use of which also results in bradycardia, atrioventricular block, and hypertension. But it is unknown if S1PL inhibition would also modulate cardiac S1P levels or cardiovascular function. The S1PL inhibitor 6-[(2R)-4-(4benzyl-7-chlorophthalazin-1-yl)-2-methylpiperazin-1-yl] pyridine-3-
carbonitrile was used to determine the relationship in rats between drug concentration, S1P levels in select tissues, and circulating lymphocytes. Repeated oral doses of the S1PL inhibitor fully depleted circulating lymphocytes after 3 to 4 days of treatment in rats. Full lymphopenia corresponded to increased levels of S1P of 100- to 1000-fold in lymph nodes, 3-fold in blood (but with no change in plasma), and 9-fold in cardiac tissue. Repeated oral dosing of the S1PL inhibitor in telemeterized, conscious rats resulted in significant bradycardia within 48 hours of drug treatment, comparable in magnitude to the bradycardia induced by 3 mg/kg fingolimod."

According to the news editors, the research concluded: "These results suggest that S1PL inhibition modulates cardiac function and does not provide immune suppression with an improved cardiovascular safety profile over fingolimod in rats."

For more information on this research see: Sphingosine-1-Phosphate (S1P) Lyase Inhibition Causes Increased Cardiac S1P Levels and Bradycardia in Rats. Journal of Pharmacology and Experimental Therapeutics, 2016;359(1):151-158. Journal of Pharmacology and Experimental Therapeutics can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

Our news journalists report that additional information may be obtained by contacting C.M. Harris, AbbVie Biorese Center, Dept. of Immunol Pharmacol, Worcester, MA, United States. Additional authors for this research include S. Mittelstadt, P. Banfor, P. Bousquet, D.B. Duignan, G. Gintant, M. Hart, Y. Kim and J. Segreti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.235002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Worcester, Massachusetts, United States, North and Central America, Heart Disorders and Diseases, Enzymes and Coenzymes, Cardiac Arrhythmias, Phosphoric Acids, Cardiovascular, Amino Alcohols, Heart Disease, Sphingosine, Bradycardia, Cardiology, Phosphates, Glycols, Anions, Lyases.

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Heart Disorders and Diseases - Bradycardia

New Bradycardia Study Findings Recently Were Reported by Researchers at Inje University (Anticholinergic premedication to prevent bradycardia in combined spinal anesthesia and dexametomidine sedation: a randomized, double-blind, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Bradycardia. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "When dexametomidine is used in patients undergoing spinal anesthesia, high incidence of bradycardia in response to parasympathetic activation is reported. Therefore, we aimed to evaluate the effectiveness of atropine premedication for preventing the incidence of bradycardia and the hemodynamic effect on patients undergoing spinal anesthesia with sedation by dexametomidine."

The news correspondents obtained a quote from the research from Inje University, "Randomized, double-blind, placebo-controlled study. Operating room. One hundred fourteen patients (age range, 2-65 years; American Society of Anesthesiology class I-II) participated in
this study, willing to be sedated and to undergo spinal anesthesia. The patients were divided into 2 groups: group A and group C. After performing spinal anesthesia, dexmedetomidine was infused at a loading dose of 0.6 μg/kg for 10 minutes, followed by an infusion at 0.25 μg/kg (kg h). Simultaneously with the loading dose of dexmedetomidine, patients in group A received an intravenous bolus of 0.5 mg atropine, whereas patients in group C received an intravenous normal saline bolus. Data on administration of atropine and ephedrine were collected. Hemodynamic data including heart rate, systolic blood pressure, diastolic blood pressure (DBP), and mean blood pressure (MBP) were also recorded. Main results: The incidence of bradycardia requiring atropine treatment was significantly higher in group C than group A (P = .035). However, the incidence of hypotension needing ephedrine treatment showed no significant difference between the 2 groups (P = .7). Systolic blood pressure and heart rate showed no significant differences between the 2 groups (P = .138 and .464, respectively). However, group A showed significant increases in DBP and MBP, and group C did not (P = .014 and .008, respectively). Prophylactic atropine reduces the incidence of bradycardia in patients undergoing spinal anesthesia with dexmedetomidine sedation. However, DBP and MBP showed significant increases in patients when prophylactic atropine was administrated."

According to the news reporters, the research concluded: "Therefore, atropine premedication should be administered cautiously."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Heart Disorders and Diseases, Clinical Trials and Studies, Diagnostics and Screening, Diastolic Blood Pressure, Drugs and Therapies, Risk and Prevention, Cardiac Arrhythmias, Clinical Research, Premedication, Pain Medicine, Heart Disease, Bradycardia, Anesthesia, Cardiology, Atropine, Tropanes, Inje University.

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Neuropeptides - Bradykinin

New Bradykinin Study Findings Have Been Reported by Investigators at University of Texas (Constitutive Desensitization of Opioid Receptors in Peripheral Sensory Neurons)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Neuropeptides - Bradykinin have been presented.
According to news reporting from San Antonio, Texas, by NewsRx journalists, research stated, "Opioid receptors expressed by peripheral pain-sensing neurons are functionally inactive for antinociceptive signaling under most basal conditions; however, tissue damage or exposure to inflammatory mediators (e.g., bradykinin) converts these receptors from a nonresponsive state to a functionally competent state. Here we tested the hypothesis that the basal, nonresponsive state of the mu-and delta-opioid receptors (MOR and DOR, respectively) is the result of constitutive receptor activity that activates desensitization mechanisms, resulting in wMOR and DOR receptor systems that are constitutively desensitized."

The news correspondents obtained a quote from the research from the University of Texas, "Consistent with our previous findings, under basal conditions, neither the MOR agonist [D-Ala(2), N-MePhe(4), Gly-ol(5)]-enkephalin nor the DOR agonist [D-Pen(2,5)]enkephalin, inhibited prostaglandin E-2 (PGE(2))-stimulated cAMP accumulation in peripheral sensory neurons in culture (ex vivo) or inhibited PGE(2)-stimulated thermal allodynia in the rat hind paw in vivo. Prolonged treatment with naloxone induced MOR and DOR responsiveness both in vivo and ex vivo to a similar magnitude as that produced by bradykinin. Also similar to bradykinin, the effect of naloxone persisted for 60 minutes after washout of the ligand. By contrast, prolonged treatment with 6 beta-naltrexol, did not induce functional competence of MOR or DOR but blocked the effect of naloxone. Treatment with siRNA for beta-arrestin2, but not beta-arrestin-1, also induced MOR and DOR functional competence in cultured peripheral sensory neurons."

According to the news reporters, the research concluded: "These data suggest that the lack of responsiveness of MOR and DOR to agonist for antinociceptive signaling in peripheral sensory neurons is due to constitutive desensitization that is likely mediated by beta-arrestin-2."


Our news journalists report that additional information may be obtained by contacting K.A. Berg, Univ Texas Hlth Sci Center San Antonio, Dept. of Pharmacol, San Antonio, TX 78229, United States. Additional authors for this research include T.S. Chavera, R.J. Jamshidi, K.A. Berg and W.P. Clarke.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.232835. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Antonio, Texas, United States, North and Central America, Intercellular Signaling Peptides and Proteins, G-Protein-Coupled Receptors, Neuropeptide Receptors, Membrane Proteins, Opioid Receptors, Opiate Receptors, delta Receptors, Oligopeptides, Neuropeptides, mu Receptors, Bradykinin, Neurology, Kinins, University of Texas.

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New Brain Cancer Study Findings Recently Were Reported by Researchers at University of Western Ontario (Topiramate induces acute intracellular acidification in glioblastoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Brain Cancer is the subject of a report. According to news originating from London, Canada, by NewsRx correspondents, research stated, "Reversal of the intracellular/extracellular pH gradient is a hallmark of malignant tumors and is an important consideration in evaluating tumor growth potential and the effectiveness of anticancer therapies. Glioblastoma multiforme (GBM) brain tumors have increased expression of the carbonic anhydrase (CA) isozymes CAII, CAIX and CAXII that contribute to the altered regulation of intracellular pH (pH(i))."

Financial supporters for this research include Ontario Institute for Cancer Research, Natural Sciences and Engineering Research Council of Canada.

Our news journalists obtained a quote from the research from the University of Western Ontario, "The anti-epileptic drug topiramate (TPM) inhibits CA action and may acidify the tumor intracellular compartment. In-vivo detection of acute tumor acidification could aid in cancer diagnosis and monitoring treatment response. Chemical exchange saturation transfer (CEST) magnetic resonance imaging (MRI) has been used to measure tissue pH. Using a recently developed CEST-MRI method called amine/amide concentration independent detection (AACID), we have previously shown intracellular acidification caused by single dose of lonidamine. The current study aims to evaluate the intracellular acidification induced by a single dose of the clinically approved drug TPM. Brain tumors were induced in NU/NU mice by injecting 10(5) U87 human glioblastoma multiforme cells into the right frontal lobe. Using a 9.4T MRI scanner AACID measurements were acquired, before and after administration of TPM (dose: 120 mg/kg, intraperitoneal), 15 +/- 2 days after tumor cell implantation. TPM administration induced acute intracellular acidification (average +/- SD: baseline AACID = 1.14 +/- 0.05; post AACID = 1.19 +/- 0.05, paired ttest p = 0.02) in implanted brain tumors. In contrast, contralateral tissue showed no change in AACID value. These results suggest that topiramate can rapidly induce a tumor specific physiological change detectable by AACID CEST."

According to the news editors, the research concluded: "This pH challenge paradigm could be exploited to aid in tumor detection and monitoring treatment response."


The news correspondents report that additional information may be obtained from R. Bartha, University of Western Ontario, Robarts Res Inst, London, ON N6A 5B7, Canada. Additional authors for this research include N. McVicar, A. Li, M. Bellyou, S. Meakin and R. Bartha.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11060-016-2258-y. This DOI is a link to an online electronic document that is either free or for purchase.
New Brain Injuries Findings Has Been Reported by Investigators at Tel Aviv University (Novel pharmaceutical treatments for minimal traumatic brain injury and evaluation of animal models and methodologies supporting their development)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Brain Injuries. According to news originating from Tel Aviv, Israel, by NewsRx correspondents, research stated, "The need for effective pharmaceuticals within animal models of traumatic brain injury (TBI) continues to be paramount, as TBI remains the major cause of brain damage for children and young adults. While preventative measures may act to reduce the incidence of initial blunt trauma, well-tolerated drugs are needed to target the neurologically damaging internal cascade of molecular mechanisms that follow."

Financial supporters for this research include Ari and Regine Aprijaskis Fund, Israel Science Foundation.

Our news journalists obtained a quote from the research from Tel Aviv University, "Such processes, known collectively as the secondary injury phase, include inflammation, excitotoxicity, and apoptosis among other changes still subject to research. In this article positive treatment findings to mitigate this secondary injury in rodent TBI models will be overviewed, and include recent studies on Exendin-4, N-Acetyl-L-cysteine, Salubrinal and Thrombin. These studies provide representative examples of methodologies that can be combined with widely available in vivo rodent models to evaluate therapeutic approaches of translational relevance, as well as drug targets and biochemical cascades that may slow or accelerate the degenerative processes induced by TBI. They employ well-characterized tests such as the novel object recognition task for assessing cognitive deficits."

According to the news editors, the research concluded: "The application of such methodologies provides both decision points and a gateway for implementation of further translational studies to establish the feasibility of clinical efficacy of potential therapeutic interventions."

For more information on this research see: Novel pharmaceutical treatments for minimal traumatic brain injury and evaluation of animal models and methodologies supporting their development. *Journal of Neuroscience Methods*, 2016;272():69-76. *Journal of Neuroscience Methods* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Neuroscience Methods - www.journals.elsevier.com/journal-of-neuroscience-methods/)

The news correspondents report that additional information may be obtained from C.G. Pick, Tel Aviv University, Dept. of Anat & Anthropol, Sackler Sch Med, Tel Aviv, Israel. Additional authors for this research include N. Maggio, V. Rubovitch, J. Chapman, S.
New Brain Injuries Study Findings Have Been Reported by Researchers at University of Michigan (Early resuscitation with lyophilized plasma provides equal neuroprotection compared with fresh frozen plasma in a large animal survival model of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Brain Injuries are discussed in a new report. According to news reporting originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "Combined traumatic brain injury (TBI) and hemorrhagic shock (HS) is highly lethal. In previous models of combined TBI + HS, we showed that early resuscitation with fresh frozen plasma (FFP) improves neurologic outcomes."

Our news editors obtained a quote from the research from the University of Michigan, "Delivering FFP, however, in austere environments is difficult. Lyophilized plasma (LP) is a logistically superior alternative to FFP, but data are limited regarding its efficacy for treatment of TBI. We conducted this study to determine the safety and long-term outcomes of early treatment with LP in a large animal model of TBI + HS. Adult anesthetized swine underwent TBI and volume-controlled hemorrhage (40% blood volume) concurrently. After 2 hours of shock, animals were randomized (n = 5 per /group) to FFP or LP (1x shed blood) treatment. Serial blood gases were drawn, and thromboelastography was performed on citrated, kaolin-activated whole-blood samples. Five hours after treatment, packed red blood cells were administered, and animals recovered. A 32-point Neurologic Severity Score was assessed daily for 30 days (0 = normal, 32 = most severe injury). Cognitive functions were tested by training animals to retrieve food from color-coded boxes. Brain lesion size was measured on serial magnetic resonance imaging, and an autopsy was performed at 30 days. The severity of shock and the degree of resuscitation were similar in both groups. Administration of FFP and LP was well tolerated with no differences in reversal of shock or thromboelastography parameters. Animals in both groups displayed the worst Neurologic Severity Score on postoperative Day 1 with rapid recovery and return to baseline within 7 days of injury. Lesion size on Day 3 in FFP-treated animals was 645 +/- 85 versus 219 +/- 20 mm(3) in LP-treated animals (p < 0.05). There were no differences in cognitive functions or delayed treatment-related complications."

According to the news editors, the research concluded: "Early treatment with LP in TBI + HS is safe and provides neuroprotection that is comparable to FFP."

For more information on this research see: Early resuscitation with lyophilized plasma provides equal neuroprotection compared with fresh frozen plasma in a large animal...
survival model of traumatic brain injury and hemorrhagic shock. *Journal of Trauma and Acute Care Surgery*, 2016;81(6):1080-1087. *Journal of Trauma and Acute Care Surgery* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/trauma/pages/default.aspx)

The news editors report that additional information may be obtained by contacting H.B. Alam, University of Michigan, Dept. of Surg, Ann Arbor, MI 48109, United States. Additional authors for this research include T. Bambakidis, V.C. Nikolian, P. Georgoff, P. Bruhn, P. Piascik, L. Buckley, A. Srinivasan, B.L. Liu, Y.Q. Li and H.B. Alam.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Central Nervous System Diseases and Conditions, Traumatic Brain Injury, Craniocerebral Trauma, Emergency Treatment, Hemorrhagic Shock, Brain Injuries, Resuscitation, Hematology, Plasma, Blood, University of Michigan.

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**Central Nervous System - Brain Research**

**New Brain Research Study Findings Have Been Reported by Researchers at University of Georgia (Dorsomedial hypothalamic NPY affects cholecystokinin-induced satiety via modulation of brain stem catecholamine neuronal signaling)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System - Brain Research are discussed in a new report. According to news reporting originating in Athens, Georgia, by NewsRx journalists, research stated, "Increased neuropeptide Y (NPY) gene expression in the dorsomedial hypothalamus (DMH) has been shown to cause hyperphagia, but the pathway underlying this effect remains less clear. Hypothalamic neural systems play a key role in the control of food intake, in part, by modulating the effects of meal-related signals, such as cholecystokinin (CCK)."

Financial support for this research came from HHS | NIH | National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).

The news reporters obtained a quote from the research from the University of Georgia, "An increase in DMH NPY gene expression decreases CCK-induced satiety. Since activation of catecholaminergic neurons within the nucleus of solitary tract (NTS) contributes to the feeding effects of CCK, we hypothesized that DMH NPY modulates NTS neural catecholaminergic signaling to affect food intake. We used an adeno-associated virus system to manipulate DMH NPY gene expression in rats to examine this pathway. Viral-mediated hrGFP anterograde tracing revealed that DMH NPY neurons project to the NTS; the projections were in close proximity to catecholaminergic neurons, and some contained NPY. Viral-mediated DMH NPY overexpression resulted in an increase in NPY content in the NTS, a decrease in NTS tyrosine hydroxylase (TH) expression, and reduced exogenous CCK-induced satiety. Knockdown of DMH NPY produced the opposite effects. Direct NPY administration into the fourth ventricle of intact rats limited CCK-induced satiety and overall TH phosphorylation."

According to the news reporters, the research concluded: "Taken together, these results demonstrate that DMH NPY descending signals affect CCK-induced satiety, at least in
part, via modulation of NTS catecholaminergic neuronal signaling."


Our news correspondents report that additional information may be obtained by contacting C.B. de La Serre, University of Georgia, Dept. of Food & Nutr, Athens, GA 30602, United States. Additional authors for this research include Y.J. Kim, T.H. Moran and S. Bi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajpregu.00184.2015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Athens, Georgia, United States, North and Central America, Gastrointestinal Hormones, Central Nervous System, Biogenic Monoamines, Peptides, Genetics, Gastroenterology, Cholecystokinin, Catecholamines, Brain Research, Neuropeptides, Brain Stem, Proteins, University of Georgia.

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**Oncology - Breast Cancer**

**New Breast Cancer Data Have Been Reported by Investigators at China Academy of Chinese Medical Sciences (Low doses of paclitaxel enhance liver metastasis of breast cancer cells in the mouse model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Paclitaxel is the most commonly used chemotherapeutic agent in breast cancer treatment. In addition to its well-known cytotoxic effects, recent studies have shown that paclitaxel has tumor-supportive activities."

Financial support for this research came from National Natural Science Foundation of China.

The news reporters obtained a quote from the research from the China Academy of Chinese Medical Sciences, "Importantly, paclitaxel levels are not maintained at the effective concentration through one treatment cycle; rather, the concentration decreases during the cycle as a result of drug metabolism. Therefore, a comprehensive understanding of paclitaxel's effects requires insight into the dose-specific activities of paclitaxel and their influence on cancer cells and the host microenvironment. Here we report that a low dose of paclitaxel enhances metastasis of breast cancer cells to the liver in mouse models. We used microarray analysis to investigate gene expression patterns in invasive breast cancer cells treated with low or clinically relevant high doses of paclitaxel. We also investigated the effects of low doses of paclitaxel on cell migration, invasion and metastasis in vitro and in vivo. The results showed that low doses of paclitaxel promoted inflammation and initiated the epithelial-mesenchymal transition, which enhanced tumor cell migration and invasion in vitro. These effects could be reversed by inhibiting NF-kappa B. Furthermore, low doses of paclitaxel promoted liver metastasis in mouse
xenografts, which correlated with changes in estrogen metabolism in the host liver. Collectively, these findings reveal the paradoxical and dose-dependent effects of paclitaxel on breast cancer cell activity, and suggest that increased consideration be given to potential adverse effects associated with low concentrations of paclitaxel during treatment."

According to the news reporters, the research concluded: "Database Gene expression microarray data are available in the GEO database under accession number GSE82048."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/febs.13767. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Drugs and Therapies, Paclitaxel Therapy, Mitotic Inhibitors, Organic Chemicals, Gastroenterology, Liver Metastasis, Pharmaceuticals, Antineoplastics, Cycloparaffins, Women's Health, Breast Cancer, Hydrocarbons, Hepatology, Oncology, Genetics, Terpenes, Taxoids, China Academy of Chinese Medical Sciences.

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**Oncology - Breast Cancer**

**New Breast Cancer Data Have Been Reported by Investigators at University of Athens (Current Evidence and Future Perspectives on HuR and Breast Cancer Development, Prognosis, and Treatment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting originating from Athens, Greece, by NewsRx correspondents, research stated, "Hu-antigen R (HuR) is an RNA-binding posttranscriptional regulator that belongs to the Hu/ELAV family. HuR expression levels are modulated by a variety of proteins, microRNAs, chemical compounds, or the microenvironment, and in turn, HuR affects mRNA stability and translation of various genes implicated in breast cancer formation, progression, metastasis, and treatment."

Our news editors obtained a quote from the research from the University of Athens, "The aim of the present review is to critically summarize the role of HuR in breast cancer development and its potential as a prognosticator and a therapeutic target. In this aspect, all the existing English literature concerning HuR expression and function in breast cancer cell lines, in vivo animal models, and clinical studies is critically presented and summarized. HuR modulates many genes implicated in biological processes crucial for breast cancer formation, growth, and
metastasis, whereas the link between HuR and these processes has been demonstrated directly in vitro and in vivo. Additionally, clinical studies reveal that HuR is associated with more aggressive forms of breast cancer and is a putative prognosticator for patients' survival."

According to the news editors, the research concluded: "All the above indicate HuR as a promising drug target for cancer therapy; nevertheless, additional studies are required to fully understand its potential and determine against which types of breast cancer and at which stage of the disease a therapeutic agent targeting HuR would be more effective."


The news editors report that additional information may be obtained by contacting I. Kotta-Loizou, University of Athens, Dept. of Pathol 1, Sch Med, Athens 11527, Greece. Additional authors for this research include S.N. Vasilopoulos, R.H.A. Coutts and S. Theocharis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neo.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Athens, Greece, Europe, Women's Health, Breast Cancer, Oncology, Genetics, University of Athens.

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Oncology - Breast Cancer

New Breast Cancer Data Have Been Reported by Researchers at University of Gothenburg (Lipid Heterogeneity Resulting from Fatty Acid Processing in the Human Breast Cancer Microenvironment Identified by GCIB-ToF-SIMS Imaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting from Gothenburg, Sweden, by NewsRx journalists, research stated, "Breast cancer is an umbrella term used to describe a collection of different diseases with broad inter- and intratumor heterogeneity. Understanding this variation is critical in order to develop, and precisely prescribe, new treatments."

Financial supporters for this research include Vetenskapsradet, Goteborgs Universitet.

The news correspondents obtained a quote from the research from the University of Gothenburg, "Changes in the lipid metabolism of cancerous cells can provide important indications as to the metabolic state of the cells but are difficult to investigate with conventional histological methods. Due to the introduction of new higher energy (40 kV) gas cluster ion beams (GCIBs), time-of-flight secondary ion mass spectrometry (ToF-SIMS) imaging is now capable of providing information on the distribution of hundreds of molecular species simultaneously on a cellular to subcellular scale. GCIB-ToF-SIMS was used to elucidate changes in lipid composition in nine breast cancer biopsy samples. Improved molecular signal generation by the GCIB produced location-specific information that revealed elevated levels of
essential lipids to be related to inflammatory cells in the stroma, while cancerous areas were
dominated by nonessential fatty acids and a variety of phosphatidylinositol species with further
in-tumor variety arising from decreased desaturase activity."

According to the news reporters, the research concluded: "These changes in lipid
composition due to different enzyme activity are seemingly independent of oxygen availability
and can be linked to favorable cell membrane properties for either proliferation/invasion or drug
resistance/survival."

For more information on this research see: Lipid Heterogeneity Resulting from Fatty
Acid Processing in the Human Breast Cancer Microenvironment Identified by GCIB-ToF-SIMS
Imaging. *Analytical Chemistry*, 2016;88(23):11946-11954. *Analytical Chemistry* can be
contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA.
(American Chemical Society - www.acs.org; Analytical Chemistry -
www.pubs.acs.org/journal/ancham)

Our news journalists report that additional information may be obtained by
contacting G. Landberg, University of Gothenburg, Sahlgrenska Cance Center, S-40530
Gothenburg, Sweden. Additional authors for this research include Y. Magnusson, G. Landberg
and J.S. Fletcher.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1021/acs.analchem.6b03884. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Gothenburg, Sweden, Europe, Women's
Health, Breast Cancer, Oncology, University of Gothenburg.

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**Oncology - Breast Cancer**

**New Breast Cancer Findings Has Been Reported by Investigators at Wake Forest University (Irreversible electroporation inhibits pro-cancer inflammatory signaling in triple negative breast cancer cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new
report. According to news reporting from Winston Salem, North Carolina, by NewsRx
journalists, research stated, "Low-level electric fields have been demonstrated to induce spatial
re-distribution of cell membrane receptors when applied for minutes or hours. However, there is
limited literature on the influence on cell signaling with short transient high-amplitude pulses
typically used in irreversible electroporation (IRE) for cancer treatment."

Funders for this research include National Cancer Institute, National Institutes of
Health.

The news correspondents obtained a quote from the research from Wake Forest
University, "Moreover, literature on signaling pertaining to immune cell trafficking after IRE is
conflicting. We hypothesized that pulse parameters (field strength and exposure time) influence
cell signaling and subsequently impact immune -cell trafficking. This hypothesis was tested in-
vitro on triple negative breast cancer cells treated with IRE, where the effects of pulse
parameters on key cell signaling factors were investigated. Importantly, real time PCR mRNA
measurements and ELISA protein analyses revealed that thymic stromal lymphopoietin (TSLP)
signaling was down regulated by electric field strengths above a critical threshold, irrespective of exposure times spanning those typically used clinically. Comparison with other treatments (thermal shock, chemical poration, kinase inhibitors) revealed that IRE has a unique effect on TSLP."

According to the news reporters, the research concluded: "Because TSLP signaling has been demonstrated to drive pro-cancerous immune cell phenotypes in breast and pancreatic cancers, our finding motivates further investigation into the potential use of IRE for induction of an anti-tumor immune response in vivo."

For more information on this research see: Irreversible electroporation inhibits pro-cancer inflammatory signaling in triple negative breast cancer cells. Bioelectrochemistry, 2017;113():42-50. Bioelectrochemistry can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland. (Elsevier - www.elsevier.com; Bioelectrochemistry - www.journals.elsevier.com/bioelectrochemistry/)

Our news journalists report that additional information may be obtained by contacting S.S. Verbridge, Wake Forest University, Sch Med, Center Comprehens Canc, Winston Salem, NC 27109, United States. Additional authors for this research include S. Coutermarsh-Ott, R.G. Morrison, I.C. Allen, R.V. Davalos, S.S. Verbridge and L.R. Bickford.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bioelechem.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Winston Salem, North Carolina, United States, North and Central America, Women's Health, Breast Cancer, Oncology, Genetics, Wake Forest University.

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Oncology - Breast Cancer

New Breast Cancer Findings Reported from European Institute of Oncology (Aspirin and atenolol enhance metformin activity against breast cancer by targeting both neoplastic and microenvironment cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "Metformin can induce breast cancer (BC) cell apoptosis and reduce BC local and metastatic growth in preclinical models. Since Metformin is frequently used along with Aspirin or beta-blockers, we investigated the effect of Metformin, Aspirin and the beta-blocker Atenolol in several BC models."

Our news editors obtained a quote from the research from the European Institute of Oncology, "In vitro, Aspirin synergized with Metformin in inducing apoptosis of triple negative and endocrine-sensitive BC cells, and in activating AMPK in BC and in white adipose tissue (WAT) progenitors known to cooperate to BC progression. Both Aspirin and Atenolol added to the inhibitory effect of Metformin against complex I of the respiratory chain. In both immune-deficient and immune-competent preclinical models, Atenolol increased Metformin activity against angiogenesis, local and metastatic growth of HER2+ and triple negative BC. Aspirin increased the activity of Metformin only in immune-competent HER2+ BC models. Both
Aspirin and Atenolol, when added to Metformin, significantly reduced the endothelial cell component of tumor vessels, whereas pericytes were reduced by the addition of Atenolol but not by the addition of Aspirin."

According to the news editors, the research concluded: "Our data indicate that the addition of Aspirin or of Atenolol to Metformin might be beneficial for BC control, and that this activity is likely due to effects on both BC and microenvironment cells."

For more information on this research see: Aspirin and atenolol enhance metformin activity against breast cancer by targeting both neoplastic and microenvironment cells. Scientific Reports, 2016;6():18673. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting G. Talarico, Laboratory of Hematology-Oncology, European Institute of Oncology, Milan, Italy. Additional authors for this research include S. Orecchioni, K. Dallaglio, F. Reggiani, P. Mancuso, A. Calleri, G. Gregato, V. Labanca, T. Rossi, D.M. Noonan, A. Albini and F. Bertolini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18673. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Aspirin, Atenolol, Oncology, Metformin, Biguanides, Benzoic Acids, Breast Cancer, Hydroxy Acids, Amino Alcohols, Women's Health, Salicylic Acids, Carboxylic Acids, Organic Chemicals, Phenoxypropanolamines.

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Oncology - Breast Cancer

New Breast Cancer Findings Reported from General Hospital (Correlation Of Breast Ultrasound Classifications With Breast Cancer In Chinese Women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to identify potential links between ultrasonographic breast parenchymal patterns and the risk of breast cancer in Chinese women. The population of Chinese women at high risk for breast cancer was explored using the ultrasonographic classification."

The news reporters obtained a quote from the research from General Hospital, "Ultrasonographic parenchymal patterns were classified into four types: heterogeneous type, ductal type, mixed type and fibrous type. A total of 5879 Chinese women underwent breast ultrasound examination from May 2010 to April 2014. Of the 5879 women, 256 women had pathology-confirmed breast cancer. Among the remaining 5623 women, 512 randomly selected, age-matched women were recruited into the present study. The correlation between ultrasonographic type and breast cancer revealed that the odds ratio (OR) was highest for the heterogeneous type (odds ratio = 4.11, 95% confidence interval: 2.01-8.41, p< 0.001), followed by the fibrous type (odds ratio = 2.05, 95% confidence interval: 1.51-2.78, p< 0.001). The odds
ratios of the ductal and mixed types were both less than 1 (p < 0.05)."

According to the news reporters, the research concluded: "This study indicates that the heterogeneous and fibrous types in the ultrasonographic classification are associated with an increased risk of breast cancer and, therefore, can be used as a marker of breast cancer risk in the female population of China."


Our news correspondents report that additional information may be obtained by contacting X.Y. Hou, PLA Beijing Military Gen Hosp, Dept. of Ultrasound, Beijing 100700, People's Republic of China. Additional authors for this research include H.Y. Niu, X.L. Huang and Y. Gao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ultrasmedbio.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Breast Ductal Carcinoma, Risk and Prevention, Women's Health, Breast Cancer, Cancer Risk, Oncology, General Hospital.

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Oncology - Breast Cancer

New Breast Cancer Findings Reported from Indira Gandhi Medical College [Lymphatic vessel assessment by podoplanin (D2-40) immunohistochemistry in breast cancer]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting from Shimla, India, by NewsRx journalists, research stated, "Lymph node metastasis has an important bearing on the staging of breast cancer. Lymph node metastasis occurs by hematogenous and lymphatic spread."

The news correspondents obtained a quote from the research from Indira Gandhi Medical College, "The hematogenous and lymphatic spread can be quantified by the blood vessel and lymphatic vessel density in the intra-tumoral and peri-tumoral zone by specific markers for blood vessels and lymph vessels. In this study, we are trying to study the localization of podoplanin in lymph vessels of invasive breast carcinoma, to quantify lymphangiogenesis in tissue sections of invasive breast carcinomas by podoplanin immunohistochemistry (IHC) by D2-40 antibody, and compare it with blood microvessel count using CD-31 antibody and correlating clinicopathologic parameters with the results of IHC. IHC for biomarkers D2-40 and CD-31 were performed on sections from 30 mastectomy specimens to assess blood vessel and lymphatic vessel density in intra-tumoral and peri-tumoral zone. The data were analyzed using Statistical Package for Social Sciences (SPSS) version 15.0 statistical analysis software. The results showed that both lymph vessel density and blood vessel density
increased with the increase in lymph node ratio. Lymph node ratio is the ratio of positive lymph nodes to the total number of lymph nodes removed. Taking into account our small sample size, we conclude that a further large-sized study should be carried out to further prove the role of lymphatics in tumor dissemination."

According to the news reporters, the research concluded: "New therapeutic options can be developed targeting the lymphatic channels to arrest the lymphatic spread of the breast cancer."

For more information on this research see: Lymphatic vessel assessment by podoplanin (D2-40) immunohistochemistry in breast cancer. *Journal of Cancer Research and Therapeutics*, 2015;11(4):798-804.

Our news journalists report that additional information may be obtained by contacting S.P. Wahal, Dept. of Pathology, Indira Gandhi Medical College, Shimla, Himachal Pradesh, India. Additional authors for this research include M.M. Goel and R. Mehrotra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.146123. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Shimla, Oncology, Immunology, Lymph Nodes, Breast Cancer, Women's Health, Lymphoid Tissue, Lymphatic System, Lymphatic Vessels, Hemic and Immune Systems.

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**Oncology - Breast Cancer**

**New Breast Cancer Findings from Academy of Sciences Described (Targeted Smart pH and Thermoresponsive N,O-Carboxymethyl Chitosan Conjugated Nanogels for Enhanced Therapeutic Efficacy of Doxorubicin in MCF-7 Breast Cancer Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting originating in Uttar Pradesh, India, by NewsRx journalists, research stated, "In cancer treatment, developing ideal anticancer drug venting various physiological barriers still remains a daunting challenge. Here, in our work, a series of pH- and temperature responsive nanogels based on poly(N-isopropylacrylamide-co-1-propene-2-3-dicarb oxylate-co-2-acrylamido-2-methyl-1-prop anesulfonate [poly(NIPAAm-IA-AMPS)] cross-linked by ethylene glycol dimethacrylate (EGDMA) were synthesized by random copolymerization."

Financial support for this research came from Council of Scientific and Industrial Research.

The news reporters obtained a quote from the research from the Academy of Sciences, "The molar ratio between monomer comonomers cross-linker was varied to fine-tune the optimum responsiveness of the nanogels. These optimized nanogels were further coupled to N,O-carboxymethyl chitosan (NOCC) stoichiometrically using EDC NHS coupling chemistry to enhance the swelling behavior at lower pH. Interestingly, these NOCC-g-nanogels, when dispersed in aqueous media under sonication, attain nanosize and retain their high water-retention capacity with conspicuous pH and temperature responsiveness (viz. nanogel shrinkage..."
in size beyond 35 degrees C and swelled at acidic pH) in vitro, as reflected by dynamic light scattering data. Doxorubicin (DOX), a potent anticancer drug, was loaded into these nanogels using the physical entrapment method. These drug-loaded nanogels exhibited a slow and sustained DOX release profile at physiological temperature and cytosolic pH. Furthermore, confocal and TEM results demonstrate that these nanogels were swiftly internalized by MCF-7 cells, and cell viability data showed preferential heightened cytotoxicity toward cancer cells (MCF-7 and MDA-MB231) compared to the MCF10A cells (human breast epithelial cell). Furthermore, intracellular DNA damage and cell cycle arrest assays suggest a mitochondrial mediated apoptosis in MCF-7 cells."

According to the news reporters, the research concluded: "This study substantiates our NOCC-g-nanogel platform as an excellent modality for passive diffusive loading and targeted release of entrapped drug(s) at physiological conditions in a controlled way for the improved therapeutic efficacy of the drug in anticancer treatment."


Our news correspondents report that additional information may be obtained by contacting S. Patnaik, Academy Sci & Innovat Res AcSIR, Lucknow 226001, Uttar Pradesh, India. Additional authors for this research include M.P. Purohit, D. Equbal, N. Dhiman, A. Singh, A.K. Kar, J. Shankar, S. Tehlan and S. Patnaik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.bioconjchem.6b00366. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uttar Pradesh, India, Asia, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Emerging Technologies, Drugs and Therapies, Pharmaceuticals, Cancer Therapy, Nanotechnology, Women's Health, Breast Cancer, Therapeutics, Oncology, Genetics, Nanogels, Academy of Sciences.

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Oncology - Breast Cancer

New Breast Cancer Findings from Chongqing Medical University Described (Chemosensitization role of fulvestrant in combination with chemotherapy in postmenopausal hormone receptor positive and human epidermal growth factor negative metastatic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "In metastatic breast cancer (MBC), hormone receptor positive (HR+), human epidermal growth factor negative (HER2-) subtype accounts for the majority. With various new modalities available to prolong life span in this group of patients, the effect is distant from optimum."
Our news journalists obtained a quote from the research from Chongqing Medical University, "Prevalent strategy of treating postmenopausal HR+ HER2- MBC is application of chemotherapy (CT) after progression of disease on endocrine therapy (ET) of several lines. Generally, ET targets HR+ ingredients and CT works better with HR- tumor cells. HR+ MBC, though hormone-sensitive, has HR- portion which reacts poorly to ET. Thus, sequential use of ET and CT neglects its insensitive part and gives rise to drug resistance, while alleviation of tumor burden is the top priority in metastatic setting. Chemohormonal therapy (i.e. concomitant use of ET and chemotherapy) complements for the shortcoming of current therapy strategy targeting both HR+ and HR- ingredients theoretically. Fulvestrant, a pure estrogen receptor antagonist and down regulator, could be a promising agent using concurrently with CT based on chemosensitizing character shown in preclinical and pilot clinical studies. It is hypothesized in this article that chemohormonal therapy with concurrent fulvestrant and CT would be a promising strategy in postmenopausal HR+ HER2- MBC patients."

According to the news editors, the research concluded: "Proof of this hypothesis would help control evolvement of tumor burden and acquisition of drug resistance over a short period of time."

For more information on this research see: Chemosensitization role of fulvestrant in combination with chemotherapy in postmenopausal hormone receptor positive and human epidermal growth factor negative metastatic breast cancer. Medical Hypotheses, 2016;97():59-63. Medical Hypotheses can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Medical Hypotheses - www.journals.elsevier.com/medical-hypotheses/)

The news correspondents report that additional information may be obtained from L.Q. Kong, Chongqing Med Univ, Affiliated Hosp 1, Dept. of Endocrine & Breast Surg, Chongqing 400016, People's Republic of China. Additional authors for this research include V.P. Adhikari, C.X. Zhao, H. Wu, W. Dai, X. Li, Y.T. Wu, K.N. Wu and L.Q. Kong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mehy.2016.10.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chongqing, People's Republic of China, Asia, Estrogen Receptor Antagonists, Metastatic Breast Cancer, Drugs and Therapies, Fulvestrant Therapy, Drug Resistance, Pharmaceuticals, Antineoplastics, Women's Health, Chemotherapy, Oncology, Hormones, Chongqing Medical University.

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Oncology - Breast Cancer

New Breast Cancer Findings from Columbia University Described (Effect of curcumin and paclitaxel on breast carcinogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Global cancer burden increased to 14.1 million new cases in 2012; and breast cancer is the most common cancer in women worldwide, with nearly 1.7 million new cases diagnosed in 2012. Curcumin is the major bioactive ingredient extracted from the rhizome of the plant"
Curcuma longa (turmeric).

Our news journalists obtained a quote from the research from Columbia University, "Paclitaxel is a microtubule-stabilizing agent originally isolated from the bark of Taxus brevifolia. Curcumin and paclitaxel were evaluated with two human breast cancer cell lines as the luminal MCF-7 and the basal-like MDA-MB-231 that are either positive or negative for hormonal receptors estrogen receptor, progesterone receptor and HER2, respectively. Results indicated that curcumin combined with paclitaxel decreased c-Ha-Ras, Rho-A, p53 and Bcl-xL gene expression in comparison to control and substances alone in MCF-7 cell line. These two substances alone and combined decreased gene expression of Bcl-2 and NF-kappa B. However, CCND1 increased when both substances were combined in MCF-7 cells. Such substances decreased Bcl-2 and increased Bax protein expression. However, curcumin alone decreased I kappa B alpha and Stat-3 gene expression. Paclitaxel alone and combined increased I kappa B alpha and Stat-3. Curcumin alone and combined with paclitaxel increased p53, Bid, caspase-3, caspase-8 and Bax gene expression in MDA-MB-231, whereas Bcl-xL decreased such expression in MDA-MB-231 cells. When paclitaxel and curcumin were combined the expression of Bcl-2 protein was decreased. However, either substance alone and combined increased Bax protein expression corroborating the apoptotic effect of these substances."

According to the news editors, the research concluded: "It can be concluded that curcumin may be of considerable value in synergistic therapy of breast cancer reducing the associated toxicity with use of drugs."


The news correspondents report that additional information may be obtained from G.M. Calaf, Columbia University, Medical Center, Center Radiol Res, New York, NY 10032, United States.

Keywords for this news article include: New York City, New York, United States, North and Central America, Enzymes and Coenzymes, Drugs and Therapies, Paclitaxel Therapy, Mitotic Inhibitors, Organic Chemicals, Cancer, Genetics, Diaryleptanoids, Pharmaceuticals, Antineoplastics, Cycloparaffins, Women's Health, Breast Cancer, Hydrocarbons, Catechols, Oncology, Terpenes, Curcumin, p53 Gene, Taxoids, Alkanes, Caspase, Columbia University.

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care. We examined factors associated with delays in chemotherapy initiation at an NCI-Designated Comprehensive Cancer Center."

The news reporters obtained a quote from the research from Dana-Farber Cancer Institute, "We identified 523 patients who received postoperative adjuvant chemotherapy between January 2011 and December 2013 at our center. We defined 28 days from last definitive surgery (LDS) to chemotherapy as the target time frame, and an unacceptable delay in chemotherapy initiation (UCD) as greater than 42 days from LDS. Multivariate regression models were used to identify factors associated with UCD and the impact of Oncotype DX testing in patients with hormone receptor (HR) positive breast cancer. Median days between LDS and chemotherapy initiation was 34 (interquartile range, 15), with 30% of patients starting within 28 days of LDS and 26.9% having UCD. Tumor characteristics such as subtype and stage affected UCD; patients with HR-positive or HER2-positive tumors were more likely to be delayed compared with those with triple-negative breast cancer. Patients with stage I disease, those undergoing mastectomy with or without immediate reconstruction, and those whose pathology sign-out was greater than 10 days postoperatively were more likely to be delayed. A higher proportion of UCD was found in HR-positive patients (31%) for whom Oncotype DX testing was ordered compared with those in whom it was not ordered (20%)."

According to the news reporters, the research concluded: "This study provides insight into subpopulations that may be at risk to experience delays in chemotherapy initiation, directing interventions to improve the timeliness of care."


Journal of the National Comprehensive Cancer Network can be contacted at: Harborside Press, 37 Main St, Cold Spring Harbor, NY 11724, USA.

Our news correspondents report that additional information may be obtained by contacting C.A. Bunnell, Dana Farber Canc Inst, Dept. of Med Oncol, Boston, MA 02115, United States. Additional authors for this research include I. Vaz-Luis, K. Camuso, R. Batista, M. Lloyd, M. Tukenmez, M. Golshan, N.U. Lin and C.A. Bunnell.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cancer, Diagnostics and Screening, Drugs and Therapies, Women's Health, Breast Cancer, Chemotherapy, Oncology, Dana-Farber Cancer Institute.

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Oncology - Breast Cancer

New Breast Cancer Findings from Department of Microbiology & Immunology Described (The therapeutic potential of mTOR inhibitors in breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting originating in Greenville, North Carolina, by NewsRx journalists, research stated, "Rapamycin and modified rapamycins (rapalogs) have been used to prevent allograft rejection after organ transplant for over 15 years. The mechanistic target of rapamycin (mTOR) has been determined to be a key component of the mTORC1 complex which consists of the
serine/threonine kinase TOR and at least five other proteins which are involved in regulating its activity.

The news reporters obtained a quote from the research from the Department of Microbiology & Immunology, "Some of the best characterized substrates of mTORC1 are proteins which are key kinases involved in the regulation of cell growth (e.g., p70S6K) and protein translation (e.g., 4E-BP1). These proteins may in some cases serve as indicators to sensitivity to rapamycin-related therapies. Dysregulation of mTORC1 activity frequently occurs due to mutations at, or amplifications of, upstream growth factor receptors (e.g., human epidermal growth factor receptor-2, HER2) as well as kinases (e.g., PI3K) and phosphatases (e.g., PTEN) critical in the regulation of cell growth. More recently, it has been shown that certain rapalogs may enhance the effectiveness of hormonal-based therapies for breast cancer patients who have become resistant to endocrine therapy. The combined treatment of certain rapalogs (e.g., everolimus) and aromatase inhibitors (e.g., exemestane) has been approved by the United States Food and Drug Administration (US FDA) and other drug regulatory agencies to treat estrogen receptor positive (ER+) breast cancer patients who have become resistant to hormonal-based therapies and have progressed."

According to the news reporters, the research concluded: "This review will summarize recent basic and clinical research in the area and evaluate potential novel therapeutic approaches."


Our news correspondents report that additional information may be obtained by contacting J.A. McCubrey, East Carolina Univ, Brody Sch Med, Dept. of Microbiol & Immunol, Greenville, NC 27858, United States. Additional authors for this research include A.M. Martelli, L. Cocco, M. Libra, F. Nicoletti, S.L. Abrams and J.A. McCubrey.

Keywords for this news article include: Greenville, North Carolina, United States, North and Central America, Cancer, Article Review, Women's Health, Breast Cancer, Therapeutics, Oncology, Genetics, Therapy, Department of Microbiology & Immunology.

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**Oncology - Breast Cancer**

**New Breast Cancer Findings from Indiana University Reported (Long intergenic non-coding RNA expression signature in human breast cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting originating in Indianapolis, Indiana, by NewsRx journalists, research stated, "Breast cancer is a complex disease, characterized by gene deregulation. There is less systematic investigation of the capacity of long intergenic non-coding RNAs (lincRNAs) as biomarkers associated with breast cancer pathogenesis or several clinicopathological variables including receptor status and patient survival."
The news reporters obtained a quote from the research from Indiana University, "We designed a two-stage study, including 1,000 breast tumor RNA-seq data from The Cancer Genome Atlas (TCGA) as the discovery stage, and RNA-seq data of matched tumor and adjacent normal tissue from 50 breast cancer patients as well as 23 normal breast tissue from healthy women as the replication stage. We identified 83 lincRNAs showing the significant expression changes in breast tumors with a false discovery rate (FDR) < 1% in the discovery dataset. Thirty-seven out of the 83 were validated in the replication dataset. Integrative genomic analyses suggested that the aberrant expression of these 37 lincRNAs was probably related with the expression alteration of several transcription factors (TFs). We observed a differential co-expression pattern between lincRNAs and their neighboring genes. We found that the expression levels of one lincRNA (RP5-1198O20 with Ensembl ID ENSG00000230615) were associated with breast cancer survival with P< 0.05."

According to the news reporters, the research concluded: "Our study identifies a set of aberrantly expressed lincRNAs in breast cancer."


Our news correspondents report that additional information may be obtained by contacting C.Y. He, Indiana University, Melvin & Bren Simon Canc Center, Indianapolis, IN 46202, United States. Additional authors for this research include E.K. Wagner, X.Y. Guo, I. May, Q.Y. Cai, W. Zheng, C.Y. He and J.R. Long.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Women's Health, Breast Cancer, Oncology, Genetics, Indiana University.

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oral rucaparib were assessed, using a range of dosing schedules, to determine the safety, tolerability, dose-limiting toxic effects and pharmacodynamic (PD) and pharmacokinetic (PK) profiles. Rucaparib was well tolerated in patients up to doses of 480 mg per day and is a potent inhibitor of PARP, with sustained inhibition &#1087;24 h after single doses. The i.v. rucaparib (intermittent dosing schedule) resulted in an objective response rate (ORR) of only 2% but with 41% (18 out of 44) patients achieved stable disease for &#1087;12 weeks and 3 patients maintaining disease stabilisation for >52 weeks. The ORR for oral rucaparib (across all six dose levels) was 15%. In the oral cohorts, 81% (22 out of 27) of the patients had ovarian cancer and 12 out of 13, who were dosed continuously, achieved RECIST complete response/partial response (CR/PR) or stable disease (SD) &#1087;12 weeks, with a median duration of response of 179 days (range 84-567 days). Rucaparib is well tolerated and results in high levels of PARP inhibition in surrogate tissues even at the lowest dose levels. Rucaparib is active in gBRCA-mutant ovarian cancer and this activity correlates with platinum-free interval."

According to the news reporters, the research concluded: "The key lessons learned from this study is that continuous rucaparib dosing is required for optimal response, the recommended phase 2 dose (RP2D) for continuous oral scheduling has not been established and requires further exploration and, thirdly, the use of a PD biomarker to evaluate dose-response has its limitations."

For more information on this research see: Phase 2 multicentre trial investigating intermittent and continuous dosing schedules of the poly(ADP-ribose) polymerase inhibitor rucaparib in germline BRCA mutation carriers with advanced ovarian and breast cancer. *British Journal of Cancer*, 2016;114(7):723-30. (Nature Publishing Group - www.nature.com/bjc/)

Our news journalists report that additional information may be obtained by contacting Y. Drew, Northern Institute for Cancer Research and the Northern Centre for Cancer Care, Newcastle Freeman Hospital Newcastle, Newcastle 0191 2139386, UK. Additional authors for this research include J. Ledermann, G. Hall, D. Rea, R. Glasspool, M. Highley, G. Jayson, J. Sludden, J. Murray, D. Jamieson, S. Halford, G. Acton, Z. Backholer, R. Mangano, A. Boddy, N. Curtin and R. Plummer.

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Keywords for this news article include: Europe, Genetics, Oncology, Newcastle, Breast Cancer, United Kingdom, Women's Health, Glycosyltransferases, Enzymes and Coenzymes, ADP Ribose Transf erases, Poly(ADP ribose) Polymerases.

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**Oncology - Breast Cancer**

**New Breast Cancer Findings from National Cancer Institute Described (Androgen deprivation therapy sensitizes triple negative breast cancer cells to immune-mediated lysis through androgen receptor independent modulation of osteoprotegerin)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new
According to news originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "Among breast cancer types, triple-negative breast cancer (TNBC) has the fewest treatment options and the lowest 5-year survival rate. Androgen receptor (AR) inhibition has displayed efficacy against breast cancer preclinically and is currently being examined clinically in AR positive TNBC patients."

Our news journalists obtained a quote from the research from National Cancer Institute, "Androgen deprivation has been shown to induce immunogenic modulation; the alteration of tumor cell phenotype resulting in increased sensitivity to immune-mediated killing. We evaluated the ability of AR inhibition to reduce the growth and improve the immune-mediated killing of breast cancer cells with differing expression of the estrogen receptor and AR. While AR expression was required for the growth inhibitory effects of enzalutamide on breast cancer cells, both enzalutamide and abiraterone improved the sensitivity of breast cancer cells to immune-mediated lysis independent of detectable AR expression. This increase in sensitivity was linked to an increase in cell surface tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) receptor expression as well as a significant reduction in the expression of osteoprotegerin (OPG). The reduction in OPG was further examined and found to be critical for the increase in sensitivity of AR-TNBC cells to immune-mediated killing. The data presented herein further support the use of AR inhibition therapy in the AR+ TNBC setting."

According to the news editors, the research concluded: "These data, however, also support the consideration of AR inhibition therapy for the treatment of AR-TNBC, especially in combination with cancer immunotherapy, providing a potential novel therapeutic option for select patients."

For more information on this research see: Androgen deprivation therapy sensitizes triple negative breast cancer cells to immune-mediated lysis through androgen receptor independent modulation of osteoprotegerin. Oncotarget, 2016;7(17):23498-511.

The news correspondents report that additional information may be obtained from A.R. Kwilas, Laboratory of Tumor Immunology and Biology, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD, United States. Additional authors for this research include A. Ardiani, S.R. Gameiro, J. Richards, A.B. Hall and J.W Hodge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8274. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, Oncology, Immunology, United States, Breast Cancer, Women's Health, Osteoprotegerin, Steroid Receptors, Androgen Receptors, Drugs and Therapies, DNA Binding Proteins, Transcription Factors, North and Central America, Tumor Necrosis Factor Decoy Receptors.

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**Oncology - Breast Cancer**

**New Breast Cancer Findings from Sun Yat-Sen University Outlined (27-Hydroxycholesterol increases Myc protein stability via suppressing PP2A, SCP1 and FBW7 transcription in MCF-7 breast cancer cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "27-hydroxycholesterol (27-HC), the most abundant metabolite of cholesterol, is a risk factor for breast cancer. It can increase the proliferation of breast cancer cells and promote the metastasis of breast tumours in mouse models."

Funders for this research include National Natural Science Foundation of China, National Basic Research Program of China, China Postdoctoral Science Foundation.

Our news journalists obtained a quote from the research from Sun Yat-Sen University, "Myc is a critical oncoprotein overexpressed in breast cancer. However, whether 27-HC affects Myc expression has not been reported. In the current study, we aimed to investigate the effects of 27-HC on Myc and the underlying mechanisms in MCF-7 breast cancer cells. Our data demonstrated that 27-HC activated Myc via increasing its protein stability. Three key negative modulators of Myc protein stability, PP2A, SCP1 and FBW7, were suppressed by 27-HC at the transcriptional level. We performed a data-mining analysis of the chromatin immunoprecipitation with next-generation DNA sequencing (ChIP-Seq) data in the ChIPBase, and discovered that a number of putative transcription factors (TFs), including Myc itself, were involved in the transcriptional regulation of PP2A, SCP1 and FBW7."

According to the news editors, the research concluded: "Our results provide a novel mechanistic insight into the activation of Myc by 27-HC via transcriptional repression of PP2A, SCP1 and FBW7 to increase Myc protein stability in breast cancer cells."

For more information on this research see: 27-Hydroxycholesterol increases Myc protein stability via suppressing PP2A, SCP1 and FBW7 transcription in MCF-7 breast cancer cells. Biochemical and Biophysical Research Communications, 2016;480(3):328-333. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting L.M. Ma, Sun Yat Sen University Sch Life Sci, State Key Lab Biocontrol, Key Lab Gene Engn Minisist Educ, Guangzhou 510275, Guangdong, People's Republic of China. Additional authors for this research include Z.R. Liang, K.R. Zhou, H. Zhou and L.H. Qu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Cancer, Risk and Prevention, Women's Health, Breast Cancer, Oncology, Genetics, Sun Yat-Sen University.

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Oncology - Breast Cancer

New Breast Cancer Findings from T. Reinert and Co-Authors Described (Optimal management of hormone receptor positive metastatic breast cancer in 2016)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating from Porto Alegre, Brazil, by NewsRx correspondents, research stated, "Hormone receptor positive tumors represent the most common form of breast cancer and account for most of the deaths from the disease. Endocrine therapy represents the main initial therapeutic strategy for these patients and has been associated with significant clinical benefits in a majority of patients."

Our news editors obtained a quote from the research, "While in early stages endocrine therapy is administered as part of a curative approach once clinical metastases develop, the disease is considered incurable and the main management objectives are tumor control and quality of life. The two major clinical paradigms of always indicating endocrine therapy in the absence of visceral crises and sequencing endocrine treatments have been guiding our therapeutic approach to these patients. However, for many decades, we have delivered endocrine therapy with a 'one size fits all' approach by applying agents that interfere with hormone receptor signaling equally in every clinical patient scenario. We have been unable to incorporate the well-known biologic principle of different degrees of hormone receptor dependency in our therapeutic recommendations. Recent developments in the understanding of molecular interactions of hormone signaling with other important growth factor, metabolic and cell division pathways have opened the possibility of improving results by modulating hormone signaling and interfering with resistance mechanisms yet to be fully understood. Unfortunately, limitations in the design of trials conducted in this area have made it difficult to develop predictive biomarkers and most of the new combinations with targeted agents, even though showing improvements in clinical endpoints, have been directed to an unselected population of patients."

According to the news editors, the research concluded: "In this review we explore some of the current and most relevant literature in the management of hormone receptor positive advance breast cancer."

For more information on this research see: Optimal management of hormone receptor positive metastatic breast cancer in 2016. Therapeutic Advances In Medical Oncology, 2015;7(6):304-20. (Sage Publications - www.sagepub.com; Therapeutic Advances In Medical Oncology - tam.sagepub.com)

The news editors report that additional information may be obtained by contacting T. Reinert, Instituto do Cancer, Sistema de Saude Mae de Deus, Porto Alegre, RS, Brazil.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1758834015608993. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Therapy, Hormones, Oncology, Porto Alegre, South America, Breast Cancer, Article Review, Women's Health, Endocrine Research.

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Oncology - Breast Cancer

New Breast Cancer Findings from University of AlbertaOutlined
(Terpolymer Micelles for the Delivery of Arsenic to Breast Cancer Cells: The Effect of Chain Sequence on Polymeric Micellar Characteristics and Cancer Cell Uptake)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting from Edmonton, Canada, by NewsRx journalists, research stated, "In this study, we developed a micellar platform composed of terpolymers for the encapsulation of inorganic arsenite or arsenous acid (As-III). For this purpose, a series of terpolymers composed of poly(ethylene oxide) (PEO, block A), poly(alpha-carboxylate-epsilon-carprolactone) (PCCL, block B), and poly(epsilon-caprolactone) (PCL, block C) with either a blocked, i.e., BC or CB, or random, i.e., (B/C)(ran) block copolymer sequence in the polyester segment was synthesized."

Financial supporters for this research include Canadian Institutes of Health Research, Canada Research Chairs, Alberta Health, Natural Sciences and Engineering Research Council of Canada.

The news correspondents obtained a quote from the research from the University of Alberta, "The COOH groups on block B were further modified with mercaptohexylamine for As-III encapsulation. We then investigated how sequence of terpolymers can affect the stability and surface charge of micelles as well as the cellular uptake of their cargo, i.e., As-III, by MDA-MB-435 cancer cells. H-1 NMR spectroscopy in D2O and CDCl3 was also used to study the structure of different terpolymer micelles. Our results showed micelles with ABC sequence to have better stability over those of ACB and A(B/C)(ran) as reflected by a lower critical micellar concentration. The As-III- loaded ABC micelles were less negatively charged on the surface than the other two types of terpolymer micelles. In line with this observation, ABC micelles showed a substantially enhanced uptake of As-III by MDA-MB-435 cancer cells. Stability and surface charge are key parameters that can influence the performance of polymeric micelles as nanodrug carriers."

According to the news reporters, the research concluded: "Based on these results, we suggest ABC micelles to have improved characteristics for As-III delivery compared to ACB and A(B/C)(ran) micelles."


Our news journalists report that additional information may be obtained by contacting A. Lavasanifar, University of Alberta, Fac Pharm & Pharmaceut Sci, Edmonton, AB T6G 2E1, Canada. Additional authors for this research include M.R. Vakili, X.F. Li, A. Lavasanifar and X.C. Le.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.6b00362. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Edmonton, Alberta, Canada, North and Central America, Women's Health, Breast Cancer, Oncology, University of Alberta.

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New Breast Cancer Findings from University of Basel Hospital Reported
(Contraception counseling for young breast cancer patients: A practical needs assessment and a survey among medical oncologists)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news originating from Basel, Switzerland, by NewsRx correspondents, research stated, "We analyzed an unselected, consecutive cohort of young breast cancer (BC) patients (<= 40 years, n = 100) with regard to the contraceptive methods used at the time of diagnosis. Based on this data, we assessed the individual need for contraceptive counseling before cancer therapy."

Our news journalists obtained a quote from the research from the University of Basel Hospital, "Secondly, in a study-specific self-report questionnaire, we surveyed 101 medical oncologists with the aim of evaluating attitudes towards contraception and how young patients are being counseled in the practical clinical setting. In 62% of our cohort of young BC patients, we identified situations in which contraceptive counseling was necessary at the time of BC diagnosis. The patients did not use contraception or used an ineffective method (TIER III/IV, 42%), or were using hormonal methods (12%) or IUDs (8%). Almost all respondents of the survey (99%) stated that contraception is an important aspect in the surveillance of young BC patients and the vast majority (90%) discussed this item before starting therapy. Only 20% of the respondents reported that they a) inform the patients that reliable contraception is necessary before starting therapy, b) ask whether contraceptive methods are used during ongoing therapy, and c) regularly refer their patients to specialist counseling by a gynecologist. A large proportion of young women require contraceptive counseling after newly diagnosed BC. Oncologists should be aware that the use of reliable contraceptive methods should not only be discussed before starting therapy, but also during ongoing therapy."

According to the news editors, the research concluded: "Oncologists should consider actively referring their young patients to gynecologists to ensure proper contraceptive counseling."


The news correspondents report that additional information may be obtained from U. Guth, University of Basel Hospital, Womens Hosp, Div Gynecol & Gynecol Oncol, CH-4031 Basel, Switzerland. Additional authors for this research include D.J. Huang, J. Bitzer, B.F. Tirri and R. Moffat.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.breast.2015.10.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Basel, Switzerland, Europe, Reproductive Techniques, Cancer, Epidemiology, Contraceptives, Women's Health, Contraception, Breast Cancer, Oncology, Therapy, University of Basel Hospital.
New Breast Cancer Findings from University of Salamanca Described
(Antitumoral activity of the mithralog EC-8042 in triple negative breast cancer linked to cell cycle arrest in G2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting from Salamanca, Spain, by NewsRx journalists, research stated, "Triple negative breast cancer (TNBC) is an aggressive form of breast cancer. Despite response to chemotherapy, relapses are frequent and resistance to available treatments is often observed in the metastatic setting."

The news correspondents obtained a quote from the research from the University of Salamanca, "Therefore, identification of new therapeutic strategies is required. Here we have investigated the effect of the mithramycin analog EC-8042 (demycarosil-3D-b-D-digitoxosyl mithramycin SK) on TNBC. The drug caused a dose-dependent inhibition of proliferation of a set of TNBC cell lines in vitro, and decreased tumor growth in mice xenografted with TNBC cells. Mechanistically, EC-8042 caused an arrest in the G2 phase of the cell cycle, coincident with an increase in pCDK1 and Wee1 levels in cells treated with the drug. In addition, prolonged treatment with the drug also causes apoptosis, mainly through caspase-independent routes. Importantly, EC-8042 synergized with drugs commonly used in the therapy of TNBC in vitro, and potentiated the antitumoral effect of docetaxel in vivo. Together, these data suggest that the mithralog EC-8042 exerts an antitumoral action on TNBC cells and reinforces the action of standard of care drugs used in the therapy of this disease."

According to the news reporters, the research concluded: "These characteristics, together with a better toxicology profile of EC-8042 with respect to mithramycin, open the possibility of its clinical evaluation."

For more information on this research see: Antitumoral activity of the mithralog EC-8042 in triple negative breast cancer linked to cell cycle arrest in G2. Oncotarget, 2015;6 (32):32856-67.

Our news journalists report that additional information may be obtained by contacting A. Pandiella, Instituto de Biologia Molecular y Celular del Cancer, CSIC-Universidad de Salamanca, Salamanca, Spain. Additional authors for this research include F. Moris, A. Ocana, L.E. Nunez and J.C Montero.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5942. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, Oncology, Salamanca, Breast Cancer, Women's Health.

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Diagnostics and Screening - Breast Cancer Screening

New Breast Cancer Screening Findings from Duke University Described (Focal Breast Pain: Does Breast Density Affect the Need for Ultrasound?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Diagnostics and Screening - Breast Cancer Screening have been published. According to news originating from Durham, North Carolina, by NewsRx correspondents, research stated, "This study aimed to determine the utility of directed ultrasound and digital mammogram for evaluating focal breast pain in women with different mammographic breast densities. This institutional review board-approved and Health Insurance Portability and Accountability Act-compliant retrospective study included 413 cases of focal breast pain in 369 women (mean age 53 years)."

Our news journalists obtained a quote from the research from Duke University, "All cases were evaluated with both mammogram and ultrasound and had at least 2 years of imaging follow-up. Exclusion criteria were non-focal, axillary, or radiating pain; palpable or skin changes; pregnancy or lactation; and history of trauma or infection. Breast density, imaging findings, and biopsy results were recorded. Specificity, positive predictive values, and negative predictive values were calculated. Eighteen percent (76 of 413) of cases demonstrated an imaging correlate. Of these, 74% (56 of 76) occurred in dense breasts and 26% (20 of 76) in nondense breasts. Seventy percent (14 of 20) of lesions in nondense breasts were seen with mammography and ultrasound, whereas 30% (6 of 20) were detected only with ultrasound. Of lesions detected in dense breasts, 29% (16 of 56) were seen with mammography and ultrasound, whereas 71% (40 of 56) were detected only with ultrasound. Thirty-one percent (24 of 76) of cases were biopsied, 42% (10 of 24) of which were detected by ultrasound only. No cancer was detected in initial workup. At 2-year follow-up, three women, all with dense breasts, developed cancer in the same quadrant as the initial pain."

According to the news editors, the research concluded: "Directed ultrasound, when performed in conjunction with digital mammography for the evaluation of focal breast pain in women with nondense breasts, is of low utility and may contribute to unnecessary intervention as a result of incidental findings."


The news correspondents report that additional information may be obtained from M.W. Cho, Duke University, Div Breast Imaging, Dept. of Radiol, Medical Center, Durham, NC 27710, United States. Additional authors for this research include L.J. Grimm and K.S. Johnson.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Diagnostics and Screening, Breast Cancer Screening, Risk and Prevention, Women's Health, Breast Pain, Mammography, Mammogram, Oncology, Duke University.

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New Breast Cancer Study Findings Have Been Reported by Investigators at Harbin Medical University (Transcriptome sequencing of HER2-positive breast cancer stem cells identifies potential prognostic marker)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating from Harbin, People's Republic of China, by NewsRx correspondents, research stated, "In cancer stem cell theory, breast cancer stem cells (BCSCs) are postulated to be the root cause of recurrence and metastasis in breast cancer. Discovery of new biomarkers and development of BCSC-targeted therapy are practical issues that urgently need to be addressed in the clinic."

Financial support for this research came from National Key Technology Support Program of China.

Our news editors obtained a quote from the research from Harbin Medical University, "However, few breast cancer stem cell targets are known. Given that there are few BCSCs, performing transcriptome sequencing on them thus far has not been possible. With the emergence of single-cell sequencing technology, we have now undertaken such a study. We prepared single-cell suspensions, which were sorted using flow cytometry from breast tumor tissue and adjacent normal breast tissue from two HER2-positive patients. We obtained BCSCs, breast cancer cells, mammary cells, and CD44(+) mammary cells. Transcriptome sequencing was then performed on these four cell types. Using bioinformatics, we identified 404 differentially expressed BCSC genes from the HER2-positive tumors and preliminary explored transcriptome characteristics of BCSCs. Finally, by querying a public database, we found that CA12 was a novel prognostic biomarker in HER2-positive breast cancer, which also had prognostic value in all breast cancer types."

According to the news editors, the research concluded: "Our results suggest that CA12 may be associated with BCSCs, especially HER2-positive BCSCs, and is a potential novel therapeutic target and biomarker."

For more information on this research see: Transcriptome sequencing of HER2-positive breast cancer stem cells identifies potential prognostic marker. Tumor Biology, 2016;37(11):14757-14764. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news editors report that additional information may be obtained by contacting D. Pang, Harbin Med Univ, Canc Hosp, Dept. of Breast Surg, Harbin 150040, People's Republic of China. Additional authors for this research include X.Y. Zhang, J.P. Zhou, G.N. Mu, Y.W. Li, Y.X. Zhang and D. Pang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5351-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Harbin, People's Republic of China, Asia, Prognostic Markers, Diagnostics and Screening, Stem Cell Research, Women's Health, Breast Cancer, Oncology, Genetics, Harbin Medical University.

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New Breast Cancer Study Findings Have Been Reported by Investigators at Kathmandu University [Synthesis, Characterization, and Study of In Vitro Cytotoxicity of ZnO-Fe3O4 Magnetic Composite Nanoparticles in Human Breast Cancer Cell Line ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting originating in Kathmandu, Nepal, by NewsRx journalists, research stated, "Novel magnetic composite nanoparticles (MCPs) were successfully synthesized by ex situ conjugation of synthesized ZnO nanoparticles (ZnO NPs) and Fe3O4 NPs using trisodium citrate as linker with an aim to retain key properties of both NPs viz. inherent selectivity towards cancerous cell and superparamagnetic nature, respectively, on a single system. Successful characterization of synthesized nanoparticles was done by XRD, TEM, FTIR, and VSM analyses."

The news reporters obtained a quote from the research from Kathmandu University, "VSM analysis showed similar magnetic profile of thus obtained MCPs as that of naked Fe3O4 NPs with reduction in saturation magnetization to 16.63 emu/g. Also, cell viability inferred from MTT assay showed that MCPs have no significant toxicity towards noncancerous NIH 3T3 cells but impart significant toxicity at similar concentration to breast cancer cell MDA-MB-231. The EC50 value of MCPs on MDA-MB-231 is less than that of naked ZnO NPs on MDA-MB-231, but its toxicity on NIH 3T3 was significantly reduced compared to ZnO NPs. Our hypothesis for this prominent difference in cytotoxicity imparted by MCPs is the synergy of selective cytotoxicity of ZnO nanoparticles via reactive oxygen species (ROS) and exhausting scavenging activity of cancerous cells, which further enhance the cytotoxicity of Fe3O4 NPs on cancer cells."

According to the news reporters, the research concluded: "This dramatic difference in cytotoxicity shown by the conjugation of magnetic Fe3O4 NPs with ZnO NPs should be further studied that might hold great promise for the development of selective and site-specific nanoparticles."


Our news correspondents report that additional information may be obtained by contacting G. Bisht, Kathmandu Univ, Dept. of Chem Sci & Engn, Kathmandu, Nepal. Additional authors for this research include S. Rayamajhi, K.C. Biplab, S.N. Paudel, D. Karna and B.G. Shrestha.

Keywords for this news article include: Kathmandu, Nepal, Asia, Zinc Oxide Nanotechnology, Connective Tissue Cells, Emerging Technologies, Women's Health, Breast Cancer, Nanoparticle, Fibroblasts, Technology, Cell Line, Oncology, Kathmandu University.

Our reports deliver fact-based news of research and discoveries from around the
New Breast Cancer Study Findings Have Been Reported by Investigators at Queensland University of Technology (The Impact of Rurality and Disadvantage on the Diagnostic Interval for Breast Cancer in a Large Population-Based Study of 3202 Women in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting from Kelvin Grove, Australia, by NewsRx journalists, research stated, "Delays in diagnosing breast cancer (BC) can lead to poorer outcomes. We investigated factors related to the diagnostic interval in a population-based cohort of 3202 women diagnosed with BC in Queensland, Australia."

The news correspondents obtained a quote from the research from the Queensland University of Technology, "Interviews ascertained method of detection and dates of medical/procedural appointments, and clinical information was obtained from medical records. Time intervals were calculated from self-recognition of symptoms (symptom-detected) or mammogram (screen-detected) to diagnosis (diagnostic interval (DI)). The cohort included 1560 women with symptom-detected and 1642 with screen-detected BC. Symptom-detected women had higher odds of DI of >60 days if they were Indigenous (OR = 3.12, 95% CI = 1.40, 6.98); lived in outer regional (OR = 1.50, 95% CI = 1.09, 2.06) or remote locations (OR = 2.46, 95% CI = 1.39, 4.38); or presented with a 'non-lump' symptom (OR = 1.84, 95% CI = 1.43, 2.36). For screen-detected BC, women who were Indigenous (OR = 2.36, 95% CI = 1.03, 5.80); lived in remote locations (OR = 2.35, 95% CI = 1.24, 4.44); or disadvantaged areas (OR = 1.69, 95% CI = 1.17, 2.43) and attended a public screening facility (OR = 2.10, 95% CI = 1.40, 3.17) had higher odds of DI > 30 days. Our study indicates a disadvantage in terms of DI for rural, disadvantaged and Indigenous women. Difficulties in accessing primary care and diagnostic services are evident."

According to the news reporters, the research concluded: "There is a need to identify and implement an efficient and effective model of care to minimize avoidable longer diagnostic intervals."


Our news journalists report that additional information may be obtained by contacting P.H. Youl, Queensland University of Technology, Sch Public Hlth & Social Work, Kelvin Grove, Qld 4059, Australia. Additional authors for this research include J.F. Aitken, G. Turrell, S.K. Chambers, J. Dunn, C. Pyke and P.D. Baade.

Keywords for this news article include: Kelvin Grove, Australia, Australia and New Zealand, Cancer, Diagnostics and Screening, Epidemiology, Women's Health, Breast Cancer, Oncology, Queensland University of Technology.

Our reports deliver fact-based news of research and discoveries from around the
New Breast Cancer Study Findings Have Been Reported by Investigators at Roswell Park Cancer Institute (Comprehensive Histologic Scoring to Maximize the Predictability of Pathology-generated Equation of Breast Cancer Oncotype DX Recurrence Score)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting originating from Buffalo, New York, by NewsRx correspondents, research stated, "Pathology-generated equations have been introduced to predict Oncotype DX recurrence score (ORS) in breast cancer. The purpose of the study is to improve these equations."

Our news editors obtained a quote from the research from Roswell Park Cancer Institute, "Slides from 416 (test set) consecutive breast cancers with available Oncotype DX were reviewed. A validation set (n=91) was prospectively scored using the generated formulas from the test set. The following histopathologic features were graded: Nottingham grade (designated as current Nottingham grade), necrosis, and degree of tumor-infiltrating lymphocytes. The following data were extracted from the pathology report: Nottingham grade (designated as reported Nottingham grade), tumor size, ER/PR Allred scores, HER2 status, and ORS. Equations were calculated, one included the reported Nottingham grade, one included the current Nottingham grade, and one included the current Nottingham grade with the other significant histopathologic variables. In the equation that included the reported Nottingham grade, ER, PR, and HER2, the overall concordance with the ORS was 64.86%. After excluding the intermediate category detected by the formula, the concordance rate was 95.28%. When the current Nottingham grade was included, the concordance rate became 69.61% and 98.62%, respectively. When necrosis and the degree of tumor-infiltrating lymphocytes were added to the previous equation, these rates became 70.1% and 98.63%, respectively."

According to the news editors, the research concluded: "Our equation has better correlation with ORS than previously published results."

For more information on this research see: Comprehensive Histologic Scoring to Maximize the Predictability of Pathology-generated Equation of Breast Cancer Oncotype DX Recurrence Score. Applied Immunohistochemistry & Molecular Morphology, 2016;24(10):703-711. Applied Immunohistochemistry & Molecular Morphology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

The news editors report that additional information may be obtained by contacting T. Khoury, Roswell Pk Canc Inst, Dept. of Pathol, Buffalo, NY 14263, United States. Additional authors for this research include X. Huang, X.W. Chen, D. Wang, S. Liu and M. Opyrchal.

Keywords for this news article include: Buffalo, New York, United States, North and Central America, Women's Health, Breast Cancer, Pathology, Oncology, Roswell Park Cancer Institute.

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New Breast Cancer Study Findings Have Been Reported by Investigators at Royal Devon and Exeter NHS Foundation Trust (The significance of sentinel lymph node micrometastasis in breast cancer: Comparing outcomes with and without axillary clearance)

According to news reporting from Exeter, United Kingdom, by NewsRx journalists, research stated, "Management of micrometastasis in the sentinel node is a controversial topic. Most of the guidelines don't recommend further axillary treatment if micrometastasis are the only finding in the sentinel node."

The news correspondents obtained a quote from the research from Royal Devon and Exeter NHS Foundation Trust, "However, some evidence suggests that micrometastasis have significant effect on long term outcomes and therefore indicate systemic treatment. Retrospective cohort study reviewing the management of patients with micrometastasis in the sentinel nodes. Two groups were compared, those who had further axillary clearance and those who had not. The primary endpoints were loco-regional recurrence and lymphedema rate. The secondary endpoints were distant metastasis rate, OS and DFS. 95 patients were found to have micrometastasis or ITC in the axillary SNB over a period of 10 years. Of those, 38 patients had axillary clearance after SNB, while 57 did not. Lymphedema rate was 18.4% in the axillary clearance group versus 0% in the no axillary clearance group (p < 0.001). The LRR event was rare therefore not compared. Distant metastasis rate was 7.01% in the SNB group versus 2.6% in the axillary clearance group. This compares to 7.01% among the patients who didn't have axillary clearance. All the patients who died had developed distant metastasis as a cause of death. There was a difference in OS between the two groups in favor of the axillary clearance group (p = 0.004). Although not an indication for axillary clearance recent guidelines, micrometastasis and ITC found in the SNB are a sign of a biologically different disease."

According to the news reporters, the research concluded: "This important information should be taken in consideration when planning the adjuvant treatment in those patients among other factors considered."


Our news journalists report that additional information may be obtained by contacting M.M.G. Youssef, Royal Devon & Exeter NHS Fdn Trust, Dept. of Breast Surg, Exeter EX2 5DW, Devon, United Kingdom. Additional authors for this research include D. Cameron, P.H. Pucher, S. Olsen and D. Ferguson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.breast.2016.09.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Exeter, United Kingdom, Europe, Hemic
New Breast Cancer Study Findings Have Been Reported by Investigators at University of Sheffield (The endocrine influence on the bone microenvironment in early breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting originating in Sheffield, United Kingdom, by NewsRx journalists, research stated, "Multiple factors influence the survival of disseminated breast tumour cells (DTCs) in bone. Whereas gene signature studies have identified genes that predict a propensity of tumours to metastasise to bone, the bone environment is key in determining the fate of these tumour cells."

The news reporters obtained a quote from the research from the University of Sheffield, "Breast cancer cells locate to specific niches within the bone that support their survival, regulated by host factors within the bone microenvironment including bone cells, cells of the bone microvasculature, immune cells and the extracellular matrix. Reproductive endocrine hormones that affect bone and clinical studies across the menopausal transition have provided comprehensive understanding of the changes in the bone microenvironment during this time. Menopause is characterized by a decrease in ovarian oestradiol and inhibins, with an increase in pituitary follicle-stimulating hormone and this review will focus on the role of these three hormones in determining the fate of DTCs in bone. Both in vivo and clinical data suggest that premenopausal bone is a conducive environment for growth of breast cancer cells in bone. Adjuvant cancer treatment aims to reduce the risk of tumour recurrence by affecting DTCs. Drugs targeting the bone resorbing osteoclasts, such as bisphosphonates, have therefore been evaluated in this setting. Both preclinical and adjuvant clinical studies have shown that bisphosphonates' ability to decrease tumour growth in bone is influenced by the levels of endocrine hormones, with enhanced effects in a postmenopausal bone microenvironment."

According to the news reporters, the research concluded: "The challenge is to understand the molecular mechanisms behind this phenomenon and to evaluate if alternative adjuvant bone-targeted therapies may be effective in premenopausal women."

For more information on this research see: Endocrine-Related Cancer, 2016;23(12):R567-R576. Endocrine-Related Cancer can be contacted at: Bioscientifica Ltd, Euro House, 22 Apex Court Woodlands, Bradley Stoke, Bristol BS32 4JT, England.

Our news correspondents report that additional information may be obtained by contacting C. Wilson, University of Sheffield, Academy Unit Clin Oncol, Weston Pk Hosp, Sheffield, S Yorkshire, United Kingdom. Additional authors for this research include H. Brown and I. Holen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1530/ERC-16-0238. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include: Sheffield, United Kingdom, Europe, Hormones, Article Review, Endocrine Research, Women's Health, Bone Research, Breast Cancer, Oncology, Genetics, University of Sheffield.

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Oncology - Breast Cancer

New Breast Cancer Study Findings Have Been Reported by Researchers at Georgia Institute of Technology (Bacterial Effector Nanoparticles as Breast Cancer Therapeutics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "Bacterial pathogens trigger cell death by a variety of mechanisms, including injection of effector proteins. Effector proteins have great potential as anticancer agents because they efficiently subvert a variety of eukaryotic signaling pathways involved in cancer development, drug resistance, and metastasis."

Financial support for this research came from Division of Materials Research.

Our news editors obtained a quote from the research from the Georgia Institute of Technology, "In breast cancer, MAPK and NF-kB pathways are known to be dysregulated. YopJ, an effector from Yersinia pestis, downregulates MAPK and NF-kB pathways to induce cell death in specific cell types. We expressed YopJ in Escherichia coli as a fusion protein with glutathione S-transferase (GST), forming self-assembled protein nanoparticles with diameters of 100 nm. YopJ-GST nanoparticles efficiently delivered protein to cells, replacing the need for the pathogen secretion mechanism for effector delivery to cells. These nanoparticles induced dose and time dependent death in SKBR-3 breast cancer cells. After 72 h, 97% of cells died, significantly more than with the same molar dose of doxorubicin. Treatment with sublethal doses of nanoparticles decreased cell migration in vitro and downregulated the MAPK ERK 1/2 pathway, which has been correlated to metastasis. Exposure to a panel of breast cancer cell lines showed that YopJ-GST nanoparticles are cytotoxic to different subtypes, including doxorubicin resistant cells. However, they were not cytotoxic to NIH/3T3 fibroblasts or HeLa cells."

According to the news editors, the research concluded: "Thus, YopJ-GST nanoparticles demonstrate the potential of effector proteins as breast cancer therapeutics with selective cytotoxicity and the capacity to decrease metastatic predictive behaviors."

For more information on this research see: Bacterial Effector Nanoparticles as Breast Cancer Therapeutics. Molecular Pharmaceutics, 2016;13(3):710-9. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news editors report that additional information may be obtained by contacting L. Herrera Estrada, Dept. of Chemical & Biomolecular Engineering, Georgia Institute of Technology, 950 Atlantic Drive NW, Atlanta, Georgia 30332, United States. Additional authors for this research include T.J. Padmore and J.A Champion.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00377. This DOI is a link to an online electronic document that is either free or for purchase.
New Breast Cancer Study Findings Have Been Reported by Researchers at University of Tehran (Enterolactone: A novel radiosensitizer for human breast cancer cell lines through impaired DNA repair and increased apoptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating from Tehran, Iran, by NewsRx correspondents, research stated, "Radiotherapy is a potent treatment against breast cancer, which is the most commonly diagnosed cancer among women. However, the emergence of radioresistance due to increased DNA repair leads to radiotherapeutic failure."

Our news editors obtained a quote from the research from the University of Tehran, "Applying polyphenols combined with radiation is a more promising method to better survival. Enterolactone, a phytoestrogenic polyphenol, has been reported to inhibit an radioresistance signaling pathway, therefore we conjectured that enterolactone could enhance radiosensitivity in breast cancer. To assess this hypothesis, radiation response of enterolactone treated MDA-MB-231 and T47D cell lines and corresponding cellular mechanisms were investigated. Cytotoxicity of enterolactone was measured via MFT assay. Cells were treated with enterolactone before X-irradiation, and clonogenic assay was used to evaluate radiosensitivity. Cell cycle distribution and apoptosis were measured by flow cytometric analysis. In addition, DNA damages and corresponding repair, chromosomal damages, and aberrations were assessed by comet, micronucleus, and cytogenetic assays, respectively. Enterolactone decreased the viability of cells in a concentration- and time dependent manner. Enterolactone significantly enhanced radiosensitivity of cells by abrogating G2/M arrest, impairing DNA repair, and increasing radiation-induced apoptosis. Furthermore, increased chromosomal damages and aberrations were detected in cells treated with enterolactone combined with X-rays than X-ray alone. These effects were more prominent in T47D than MDA-MB-231 cells. To our knowledge, this is the first report that enterolactone is a novel radiosensitizer for breast irrespective of estrogen receptor status."

According to the news editors, the research concluded: "Authors propose enterolactone as a candidate for combined therapy to decrease the radiation dose delivered to patients and subsequent side effects."


The news editors report that additional information may be obtained by contacting B.
New Breast Cancer Study Findings Have Been Reported from Sungkyunkwan University (Goserelin plus tamoxifen compared to chemotherapy followed by tamoxifen in premenopausal patients with early stage-, lymph node-negative breast cancer of luminal ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "To study the outcomes of adjuvant goserelin combined with tamoxifen (GosTam) compared to chemotherapy followed by tamoxifen (ChemTam) in premenopausal patients with early stage, luminal A breast cancer. From 2008 until 2013, data were retrospectively collected for premenopausal patients who underwent surgery for invasive tumors that were <= 2.0 cm, node-negative, strongly positive for estrogen and progesterone receptors, HER-2-negative, and Ki-67 <= 25%.

Financial supporters for this research include Ministry of Education, Ministry of Health & Welfare, Republic of Korea.

The news reporters obtained a quote from the research from Sungkyunkwan University, "The patients were divided into two groups according to adjuvant regimen, either GosTam or ChemTam. All patients who underwent different adjuvant regimens were excluded. In total, 235 patients underwent GosTam and 171 patients underwent ChemTam. There were significantly more patients younger than 40 years in the GosTam group (32% GosTam vs. 22% ChemTam, p = 0.031). Mean tumor size was significantly smaller (1.19 cm vs. 1.48 cm, p< 0.001), Ki-67 significantly lower (p = 0.049), and nuclear grade was low in a significant number of patients in the GosTam group (2% vs. 13%, p< 0.001). After a median follow-up of 51.3 months, there was no mortality in either group. There was no significant difference in 5-year disease-free survival (DFS) between the two groups even after univariate analysis considering age, tumor size, nuclear grade, and P53% (GosTam = 98.9% vs. ChemTam = 95.7%, HR = 0.404, 95% CI = [0.073, 2.222], p = 0.248). There was no difference between treatment groups, and neither chemotherapy nor ovarian suppression seemed to improve the outcome."

According to the news reporters, the research concluded: "Thus, tamoxifen alone might be a sufficient option for this low-risk patient population."

For more information on this research see: Goserelin plus tamoxifen compared to chemotherapy followed by tamoxifen in premenopausal patients with early stage-, lymph node-


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.breast.2016.08.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Gonadotropin Releasing Hormones, Hemic and Immune Systems, Nerve Tissue Proteins, Hypothalamic Hormones, Benzene Derivatives, Drugs and Therapies, Peptide Hormones, Lymphoid Tissue, Women's Health, Neuropeptides, Breast Cancer, Chemotherapy, Lymph Nodes, Immunology, Goserelin, Tamoxifen, Stilbenes, Oncology, Sungkyunkwan University.

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**Oncology - Breast Cancer**

**New Breast Cancer Study Findings Have Been Reported from University of Kentucky College of Medicine (Chronic ethanol exposure enhances the aggressiveness of breast cancer: the role of p38g)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting originating from Lexington, Kentucky, by NewsRx correspondents, research stated, "Both epidemiological and experimental studies suggest that ethanol may enhance aggressiveness of breast cancer. We have previously demonstrated that short term exposure to ethanol (12-48 hours) increased migration/invasion in breast cancer cells overexpressing ErbB2, but not in breast cancer cells with low expression of ErbB2, such as MCF7, BT20 and T47D breast cancer cells."

Our news editors obtained a quote from the research from the University of Kentucky College of Medicine, "In this study, we showed that chronic ethanol exposure transformed breast cancer cells that were not responsive to short term ethanol treatment to a more aggressive phenotype. Chronic ethanol exposure (10 days -2 months) at 100 (22 mM) or 200 mg/dl (44 mM) caused the scattering of MCF7, BT20 and T47D cell colonies in a 3-dimension culture system. Chronic ethanol exposure also increased colony formation in an anchorage-independent condition and stimulated cell invasion/migration. Chronic ethanol exposure increased cancer stem-like cell (CSC) population by more than 20 folds. Breast cancer cells exposed to ethanol in vitro displayed a much higher growth rate and metastasis in mice. Ethanol selectively activated p38g MAPK and RhoC but not p38a/b in a concentration-dependent manner. SP-MCF7 cells, a derivative of MCF7 cells which compose mainly CSC expressed high levels of phosphorylated p38g MAPK. Knocking-down p38g MAPK blocked ethanol-induced RhoC activation, cell scattering, invasion/migration and ethanol-increased CSC population. Furthermore, knocking-down p38g MAPK mitigated ethanol-induced tumor growth
and metastasis in mice."

According to the news editors, the research concluded: "These results suggest that chronic ethanol exposure can enhance the aggressiveness of breast cancer by activating p38g MAPK/RhoC pathway."

For more information on this research see: Chronic ethanol exposure enhances the aggressiveness of breast cancer: the role of p38g. Oncotarget, 2016;7(3):3489-505.

The news editors report that additional information may be obtained by contacting M. Xu, Dept. of Pharmacology and Nutritional Sciences, University of Kentucky College of Medicine, Lexington, KY 40536, United States. Additional authors for this research include S. Wang, Z. Ren, J.A. Frank, X.H. Yang, Z. Zhang, Z.J. Ke, X. Shi and J. Luo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6508. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kentucky, Alcohols, Oncology, Lexington, Epidemiology, United States, Breast Cancer, Ethanolamines, Women's Health, North and Central America.

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Oncology - Breast Cancer

New Breast Cancer Study Findings Have Been Reported from University of Oviedo (Fibulin-5 downregulates Ki-67 and inhibits proliferation and invasion of breast cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting out of Oviedo, Spain, by NewsRx editors, research stated, "Fibulins not only function as molecular bridges within the cellular microenvironment but also influence cell behavior. Thus, fibulins may contribute to create a permissive microenvironment for tumor growth but can also stimulate different mechanisms that may impede tumor progression."

Our news journalists obtained a quote from the research from the University of Oviedo, "This is the case with Fibulin-5, which has been shown to display both tumor-promoting and tumor-protective functions by mechanisms that are not totally defined. We show new evidence on the tumor-protective functions displayed by Fibulin-5 in MCF-7, T47D and MDA-MB-231 breast cancer cells including the inhibition of invasion and proliferation capacity and hampering the ability to form mammospheres. Reduction in the level of phosphorylation of Ser residues involved in the nuclear translocation of b-catenin may underlie these antitumor effects. We also found that Fibulin-5 reduces the level of expression of Ki-67, a nuclear protein associated with cell proliferation. Moreover, reduction in Fibulin-5 expression corresponds to an increase of Ki-67 detection in breast tissue samples."

According to the news editors, the research concluded: "Overall, our data provide new insights into the influence of Fibulin-5 to modify breast cancer cell behavior and contribute to better understand the connections between fibulins and cancer."

For more information on this research see: Fibulin-5 downregulates Ki-67 and inhibits proliferation and invasion of breast cancer cells. International Journal of Oncology,

Our news journalists report that additional information may be obtained by contacting Y. Mohamedi, Dept. of Biochemistry and Molecular Biology, Faculty of Medicine, University of Oviedo, Oviedo, Spain. Additional authors for this research include T. Fontanil, L. Solares, O. Garcia-Suarez, J. Garcia-Piqueras, J.A. Vega, S. Cal and A.J Obaya.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3394. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Oviedo, Europe, Genetics, Oncology, Breast Cancer, Women's Health.

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**Oncology - Breast Cancer**

**New Breast Cancer Study Findings Recently Were Reported by Researchers at Netherlands Cancer Institute (Integration of genomic, transcriptomic and proteomic data identifies two biologically distinct subtypes of invasive lobular breast cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting from Amsterdam, Netherlands, by NewsRx journalists, research stated, "Invasive lobular carcinoma (ILC) is the second most frequently occurring histological breast cancer subtype after invasive ductal carcinoma (IDC), accounting for around 10% of all breast cancers. The molecular processes that drive the development of ILC are still largely unknown."

The news correspondents obtained a quote from the research from Netherlands Cancer Institute, "We have performed a comprehensive genomic, transcriptomic and proteomic analysis of a large ILC patient cohort and present here an integrated molecular portrait of ILC. Mutations in CDH1 and in the PI3K pathway are the most frequent molecular alterations in ILC. We identified two main subtypes of ILCs: (i) an immune related subtype with mRNA up-regulation of PD-L1, PD-1 and CTLA-4 and greater sensitivity to DNA-damaging agents in representative cell line models; (ii) a hormone related subtype, associated with Epithelial to Mesenchymal Transition (EMT), and gain of chromosomes 1q and 8q and loss of chromosome 11q. Using the somatic mutation rate and eIF4B protein level, we identified three groups with different clinical outcomes, including a group with extremely good prognosis. We provide a comprehensive overview of the molecular alterations driving ILC and have explored links with therapy response."

According to the news reporters, the research concluded: "This molecular characterization may help to tailor treatment of ILC through the application of specific targeted, chemo-and/or immune-therapies."

For more information on this research see: Integration of genomic, transcriptomic and proteomic data identifies two biologically distinct subtypes of invasive lobular breast cancer. *Scientific Reports*, 2016;6():18517. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting M. Michaut, Division of Molecular Carcinogenesis, Netherlands Cancer Institute,
Plesmanlaan 121, 1066 CX Amsterdam, Netherlands. Additional authors for this research include S.F. Chin, I. Majewski, T.M. Severson, T. Bismeyer, L. de Koning, J.K. Peeters, P.C. Schouten, O.M. Rueda, A.J. Bosma, F. Tarrant, Y. Fan, B. He, Z. Xue, L. Mittempergher, R.J. Kluin, J. Heijmans, M. Snel and Pereir.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18517. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Genetics, Oncology, Amsterdam, Proteomics, Netherlands, Breast Cancer, Women's Health.

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Oncology - Breast Cancer

**New Breast Cancer Study Findings Reported from China Medical University and Hospital (Combination of shear wave elastography and Ki-67 index as a novel predictive modality for the pathological response to neoadjuvant chemotherapy in patients ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting originating in Liaoning, People's Republic of China, by NewsRx journalists, research stated, "This study evaluated shear wave elastography (SWE) and SWE combined with the Ki-67 index as novel predictive modalities for the pathological response of invasive breast cancer to neoadjuvant chemotherapy (NAC). The prospective study recruited 66 eligible patients from July 2014 to November 2015."

Financial supporters for this research include Education Department of Liaoning Province, Shengjing Hospital, China Medical University.

The news reporters obtained a quote from the research from China Medical University and Hospital, "Tumour stiffness, which corresponds with tumour progression and invasiveness, was assessed by quantitative SWE 1 d before biopsy (time point t0, elasticity E0), 1 d before next NAC cycle (t1 - t5, E1 - E5), and 1 d before surgery (t6, E6). The relative changes in SWE parameters after the first and second NAC cycles were considered as the variables [Delta E (t1), Delta E (t2)]. The pathological response was classified according to the residual cancer burden (RCB) protocol. Correlations between RCB scores and variables were evaluated. The predictive diagnostic performances of SWE parameters, Ki-67 index, and the predictive RCB (predRCB) score determined by a linear regression model were compared. Some immunohistochemical and molecular factors and SWE parameters were significantly different among the three RCB groups. The Delta E-mean (t2) and Ki-67 had significantly better diagnostic performance than other parameters regarding predicting the pathological response (the RCB-I response and RCB-III resistance). However, the correlation between Delta E-mean (t2) and Ki-67 index was significantly weaker as a diagnostic predictor (r = 0.29). We generated a new predictive modality, predRCB, which is a multivariable linear regression model that combines Delta E-mean (t2) and the Ki-67 index. The predRCB modality showed better diagnostic performance than SWE parameters and Ki-67 index alone. Our findings highlight the potential utility for adding the Ki-67 index to the SWE results, which may improve the predictive power of SWE and facilitate personalising the treatment regimens of patients with
According to the news reporters, the research concluded: "These results should be validated in the future by performing a multicentre prospective study with a larger cohort."


Our news correspondents report that additional information may be obtained by contacting W. Ren, China Med Univ, Shengjing Hosp, Dept. of Ultrasound, Shenyang 110004, Liaoning, People's Republic of China. Additional authors for this research include S. Zhang, L. Zang, J. Li, J. Li, Y. Kang and W. Ren.

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Keywords for this news article include: Liaoning, People's Republic of China, Asia, Cancer, Diagnostics and Screening, Clinical Trials and Studies, Drugs and Therapies, Clinical Research, Women's Health, Breast Cancer, Chemotherapy, Oncology, China Medical University and Hospital.

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**Oncology - Breast Cancer**

**New Breast Cancer Study Results Reported from Bharati Vidyapeeth University (Evaluating the anticancer activity and nanoparticulate nature of homeopathic preparations of Terminalia chebula)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating from Maharashtra, India, by NewsRx correspondents, research stated, "Breast cancer is the most common cancer diagnosed among women and is the second leading cause of cancer death. Homeopathic medicines are part of the alternative medicines that are given as a supportive therapy in breast cancer."

Financial support for this research came from Bharati Vidyapeeth Deemed University (BVDU).

Our news editors obtained a quote from the research from Bharati Vidyapeeth University. "The objective of this study was to investigate the anticancer activity of commercially available homeopathic preparations of Terminalia chebula (TC) and evaluate their nanoparticulate nature. Mother tincture (MT) and other homeopathic preparations (3X, 6C and 30C) of TC were tested for their effect on the viability of breast cancer (MDAMB231 and MCF7) and non-cancerous (HEK 293) cell lines by 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay. Cell growth assay was performed to analyze the effect of the different potencies on the growth kinetics of breast cancer cells. MT and 6C were evaluated for the presence of nanoparticles by using scanning electron microscopy (SEM) and transmission electron microscopy (TEM). MT decreased the viability of breast cancer
(MDAMB231 and MCF7) and non-cancerous (HEK 293) cells. However, the other potencies (3X, 6C and 30C) decreased the viability of only breast cancer cells without affecting the viability of the non-cancerous cells. All the potencies, MT, 3X, 6C and 30C, reduced growth kinetics of breast cancer cells, more specifically at 1:10 dilution at 24, 48 and 72 h. Under SEM, MT appeared as a mesh-like structure whereas under TEM, it showed presence of nanoclusters. On the other hand, 6C potency contained 20 nm sized nanoparticles. The current study reports the anticancer activity of homeopathic preparations of TC against breast cancer and reveals their nanoparticulate nature."

According to the news editors, the research concluded: "These preliminary results warrant further mechanistic studies at both in vitro and in vivo levels to evaluate the potential of TC as nanomedicine in breast cancer."


The news editors report that additional information may be obtained by contacting R. Kaul-Ghanekar, Bharati Vidyapeeth Univ, Interact Res Sch Hlth Affairs, Pune 411043, Maharashtra, India. Additional authors for this research include N. Shah, A. Prabhune, A. Jadhav, P. Ranjekar and R. Kaul-Ghanekar.

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Keywords for this news article include: Maharashtra, India, Asia, Complementary and Alternative Medicine, Complementary Therapy, Emerging Technologies, Drugs and Therapies, Spiritual Therapy, Cancer Therapy, Nanotechnology, Women's Health, Breast Cancer, Nanoparticle, Homeopathy, Oncology, Bharati Vidyapeeth University.

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**Oncology - Breast Cancer**

**New Breast Cancer Study Results Reported from Complutense University (Therapeutic attitude towards internal mammary chain drainage in patients with breast cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting out of Madrid, Spain, by NewsRx editors, research stated, "Internal mammary chain (IMC) is one of the main local lymph drainages in breast cancer. However, internal mammary chain sentinel lymph node biopsy (IMC-SLNB) is not always performed."

Our news journalists obtained a quote from the research from Complutense University, "The purpose of this research is to evaluate the outcomes of IMC-SLNB in our institution from 2008 to 2014. We analyzed 1346 women with breast cancer. Six-hundred twenty-two sentinel node biopsies were carried out, one out of ten in IMC territory. Adjuvant radiotherapy in this area was added when positive."

According to the news editors, the research concluded: "IMC-SLNB is feasible, it
may change tumour stage, modify adjuvant therapy and change prognosis in selected patients."


Our news journalists report that additional information may be obtained by contacting K.F. Garcia, Complutense University Madrid, Univ Gen Hosp Gregorio Maranon, Dept. of Gynecol & Obstet, Madrid, Spain. Additional authors for this research include J.S. Riduejo, P.R. Olbes, M.S.L. Molina and M.I.A. Arias.

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Keywords for this news article include: Madrid, Spain, Europe, Women's Health, Breast Cancer, Oncology, Complutense University.

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Oncology - Breast Cancer

New Breast Cancer Study Results from Mayo Clinic Described (Genetic Polymorphisms in the Long Noncoding RNA MIR2052HG Offer a Pharmacogenomic Basis for the Response of Breast Cancer Patients to Aromatase Inhibitor Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "Genetic risks in breast cancer remain only partly understood. Here, we report the results of a genome-wide association study of germline DNA from 4,658 women, including 252 women experiencing a breast cancer recurrence, who were entered on the MA. 27 adjuvant trial comparing the aromatase inhibitors (AI) anastrozole and exemestane."

The news correspondents obtained a quote from the research from Mayo Clinic, "Single-nucleotide polymorphisms (SNP) of top significance were identified in the gene encoding MIR2052HG, a long noncoding RNA of unknown function. Heterozygous or homozygous individuals for variant alleles exhibited a similar to 40% or similar to 63% decrease, respectively, in the hazard of breast cancer recurrence relative to homozygous wild-type individuals. Functional genomic studies in lymphoblastoid cell lines and ER alpha-positive breast cancer cell lines showed that expression from MIR2052HG and the ESR1 gene encoding estrogen receptor-alpha (ER alpha) was induced by estrogen and AI in a SNP-dependent manner. Variant SNP genotypes exhibited increased ER alpha binding to estrogen response elements, relative to wild-type genotypes, a pattern that was reversed by AI treatment. Further, variant SNPs were associated with lower expression of MIR2052HG and ER alpha. RNAi-mediated silencing of MIR2052HG in breast cancer cell lines decreased ER alpha expression, cell proliferation, and anchor-age-independent colony formation. Mechanistic investigations revealed that MIR2052HG sustained ER alpha levels both by promoting AKT/FOXO3-mediated ESR1 transcription and by limiting ubiquitin-mediated, proteasome-dependent degradation of
ER alpha. Taken together, our results define MIR2052HS as a functionally polymorphic gene that affects risks of breast cancer recurrence in women treated with AI.

According to the news reporters, the research concluded: "More broadly, our results offer a pharmacogenomic basis to understand differences in the response of breast cancer patients to AI therapy."

For more information on this research see: Genetic Polymorphisms in the Long Noncoding RNA MIR2052HG Offer a Pharmacogenomic Basis for the Response of Breast Cancer Patients to Aromatase Inhibitor Therapy. *Cancer Research*, 2016;76(23):7012-7023. *Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/0008-5472.CAN-16-1371. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Mixed Function Oxygenases, Enzymes and Coenzymes, Steroid Hydroxylases, Aromatase Inhibitors, Drugs and Therapies, Therapy, Genetics, Enzyme Inhibitors, Pharmacogenomics, Oxidoreductases, Women's Health, Biotechnology, Endocrinology, Breast Cancer, Hemeproteins, Pharmacology, Cytochromes, Cell Line, Estrogens, Oncology, Hormones, Mayo Clinic.

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**Heart Disorders and Diseases - Brugada Syndrome**

**New Brugada Syndrome Findings from Tohoku University Described (Prognostic Significance of Late Potentials in Outpatients with Type 2 Brugada Electrocardiogram)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Brugada Syndrome are discussed in a new report. According to news reporting from Miyagi, Japan, by NewsRx journalists, research stated, "Brugada syndrome is characterized by distinguishing electrocardiogram (ECG) patterns (coved and saddleback types with day-to-day variation) and occurrence of lethal tachy-arrhythmias. The appearance of coved type ECG (type 1) is required for the diagnosis of Brugada syndrome, whereas the significance of saddleback type ECG (type 2), which is inadequate for the diagnosis, has not been fully established."

The news correspondents obtained a quote from the research from Tohoku University, "We enrolled 34 consecutive patients with type 2 ECG on outpatient-clinic. Among them, 7 patients were ventricular fibrillation (VF) survivors who were diagnosed as Brugada syndrome with transient appearance of type 1 ECG, and showed type 2 ECG on their first outpatient-clinic visit after the VF event (VF group). The remaining 27 were asymptomatic and..."
never showed type 1 ECG on repeated ECG examinations (control group). The VF group showed significantly longer RJ intervals in leads V1 and V2 and QTc intervals in lead V2 compared with the control group (P < 0.030, P < 0.017, and P < 0.030, respectively). Late potentials, detected on the signal-averaged ECG (SA-ECG), reflect conduction abnormalities and are known as one of the risk markers of arrhythmic events. Among the 34 patients, late potentials were negative in 12 patients belonging to the control group."

According to the news reporters, the research concluded: "The SA-ECG could be helpful to identify high-risk patients for its high negative predictive value as the first step, and ECG parameters, including RJ intervals in leads V1 and V2 and QTc interval in lead V2, could be useful for further risk stratification in patients with type 2 Brugada ECG."


Our news journalists report that additional information may be obtained by contacting M. Nakano, Tohoku University, Grad Sch Med, Dept. of Cardiovasc Med, Sendai, Miyagi, Japan. Additional authors for this research include K. Fukuda, M. Kondo, M. Segawa, M. Hirano, T. Chiba, K. Fukasawa, K. Miki, S. Morosawa and H. Shimokawa.

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Keywords for this news article include: Miyagi, Japan, Asia, Heart Disorders and Diseases, Cardiac Arrhythmias, Brugada Syndrome, Heart Disease, Cardiology, Tohoku University.

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**Gram-Negative Bacteria - Burkholderia cepacia**

**New Burkholderia cepacia Study Findings Have Been Reported by Researchers at Aberdeen Royal Infirmary (Combination antimicrobial susceptibility testing of Burkholderia cepacia complex: significance of species)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Burkholderia cepacia are discussed in a new report. According to news reporting from Aberdeen, United Kingdom, by NewsRx journalists, research stated, "The Burkholderia cepacia complex (Bcc) is notorious for the life-threatening pulmonary infections it causes in patients with cystic fibrosis. The multidrug-resistant nature of Bcc and differing infective Bcc species make the design of appropriate treatment regimens challenging."

The news correspondents obtained a quote from the research from Aberdeen Royal Infirmary, "Previous synergy studies have failed to take account of the species of Bcc isolates. Etest methodology was used to facilitate minimum inhibitory concentration (MIC) and antimicrobial combination testing on 258 isolates of Bcc, identified to species level by matrix-assisted laser desorption/ionisation time-of-flight mass spectrometry (MALDI-TOF/MS). The
Most active antimicrobials were trimethoprim/sulphamethoxazole, doxycycline and minocycline (52.5%, 46.4% and 45.9% of isolates susceptible, respectively). Synergy was observed in 9.2% of the 1799 combinations tested; the most common synergistic combinations were tobramycin + ceftazidime, meropenem + tobramycin and levofloxacin + piperacillin/tazobactam (35.4%, 32.3% and 22.2% synergy, respectively). Antimicrobial susceptibility analysis revealed differences between Burkholderia cenocepacia and Burkholderia multivorans.

According to the news reporters, the research concluded: "Disparity in clinical outcome during infection with these two microorganisms necessitates further investigation into the clinical outcomes of treatment regimens in light of species identification and in vitro antimicrobial susceptibility studies."


Our news journalists report that additional information may be obtained by contacting F.K. Abbott, Aberdeen Royal Infirmary, Dept. of Med Microbiol, Aberdeen, United Kingdom. Additional authors for this research include K.E.N. Milne, D.A. Stead and I.M. Gould.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.07.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aberdeen, United Kingdom, Europe, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Burkholderia cepacia complex, Gram-Negative Bacteria, Betaproteobacteria, Burkholderiaceae, Proteobacteria, Aberdeen Royal Infirmary.

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**Oncology - Cancer Care**

**New Cancer Care Study Findings Recently Were Reported by N. Garcia-Rueda and Co-Researchers (The experience of living with advanced-stage cancer: a thematic synthesis of the literature)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cancer Care is the subject of a report. According to news reporting originating from Navarra, Spain, by NewsRx correspondents, research stated, "The aim of the study was to understand the experience of people living with advanced-stage cancer through literature. The search included The Cochrane Library, PubMed, PsycInfo, CINAHL and Cuiden."

Funders for this research include Universidad de Navarra, Innovation for person-centered care.

Our news editors obtained a quote from the research, "Thirteen studies were included. A qualitative meta-synthesis was conducted. One thread emerged from the thematic synthesis: the desire to live as normally as possible, despite being aware of the proximity of..."
death. Three themes also emerged: 'a process that is unique' with its four sub-themes; 'support network' and 'health context,' each of them having two sub-themes. This study concludes that living with advanced-stage cancer is a unique and complex process which has both positive and negative aspects. The review provides a comprehensive view of the experience, which considers the importance of the support network and the health context in which the person lives. In this study, 'normalcy' is the adjustment to the new reality and living as closely as possible to the way one lived before the disease, while developing a new relationship with being finite and death."

According to the news editors, the research concluded: "A better understanding of the experience of living with advanced-stage cancer will help health professionals to identify the needs of the patients in order to plan individual, high-quality care."


The news editors report that additional information may be obtained by contacting N. Garcia-Rueda, Inst Invest Sanitaria Navarra, IdiSNA, Navarra, Spain. Additional authors for this research include A.C. Valcarcel, M. Saracibar-Razquin and M.A. Solabarrieta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ecc.12523. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Navarra, Spain, Europe, Cancer Care, Cancer, Article Review, Oncology.

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**Oncology - Cancer Epidemiology**

**New Cancer Epidemiology Findings from London School of Hygiene and Tropical Medicine Discussed (The burden of HPV associated cancers in two regions in Nigeria 2012-2014)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cancer Epidemiology is the subject of a report. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "HPV attributable cancers are the second most common infection-related cancers worldwide, with much higher burden in less developed regions. There are currently no country-specific estimates of the burden of these cancers in Nigeria just like many other low and middle income countries."

Our news editors obtained a quote from the research from the London School of Hygiene and Tropical Medicine, "In this study, we quantified the proportion of the cancer burden in Nigeria that is attributable to HPV infection from 2012 to 2014 using HPV prevalence estimated from previous studies and data from two population based cancer registries (PBCR) in Nigeria. We considered cancer sites for which there is strong evidence of an association with HPV infection based on the International Agency for Research on Cancer (IARC) classification. We obtained age and sex-specific estimates of incident cancers and using the World Standard Population, we derived age standardized incidence (ASR) rates for each cancer type by
categories of sex, and estimated the population attributable fractions (PAF). The two PBCR reported 4336 new cancer cases from 2012 to 2014. Of these, 1627 (37.5%) were in males and 2709 (62.5%) in females. Some 11% (488/4336) of these cancers were HPV associated; 2% (38/1627) in men and 17% (450/2709) in women. Of the HPV associated cancers, 7.8% occurred in men and 92.2% in women. The ASRs for HPV associated cancers was 33.5 per 100,000; 2.3 and 31.2 per 100,000 in men and women respectively. The proportion of all cancers attributable to HPV infection ranged from 10.2 to 10.4% (442-453 of 4336) while the proportion of HPV associated cancers attributable to HPV infection ranged from 90.6% to 92.8% (442-453 of the 488 cases). In men, 55.3% to 68.4% of HPV associated cancers were attributable to HPV infection compared to 93.6% to 94.8% in women. The combined ASR for HPV attributable cancers ranged from 31.0 to 31.7 per 100,000. This was 1.4 to 1.7 per 100,000 in men and 29.6 to 30.0 per 100,000 in women. In women, cervical cancer (n = 392, ASR 28.3 per 100,000) was the commonest HPV attributable cancer, while anal cancer (n = 21, ASR 1.2 per 100,000) was the commonest in men. HPV attributable cancers constitute a substantial cancer burden in Nigerian women, much less so in men."

According to the news editors, the research concluded: "A significant proportion of cancers in Nigerian women would be prevented if strategies such as HPV DNA based screening and HPV vaccination are implemented." For more information on this research see: The burden of HPV associated cancers in two regions in Nigeria 2012-2014. Cancer Epidemiology, 2016;45():91-97. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)


Keywords for this news article include: London, United Kingdom, Europe, Cancer Epidemiology, Cancer, Epidemiology, Oncology, Genetics, London School of Hygiene and Tropical Medicine.

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Oncology - Cancer Epidemiology

New Cancer Epidemiology Findings from University of Toronto Described (Estimation of screening sensitivity and sojourn time from an organized screening program)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Epidemiology. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "Regular screening with mammography is widely recommended to reduce breast cancer mortality. However, whether breast screening does more harm than good has long been debated."

Our news editors obtained a quote from the research from the University of Toronto,
"Since a full evaluation of the effect on mortality could take 10-15 years in order to provide a reliable estimate of the eventual benefits and harms, it is unrealistic to expect each new modification of a screening technique to be evaluated in this way. Therefore, one needs to rapidly estimate suitable measures of the screening effect. In this paper, two measures of interest, the length of the pre-clinical state and the screening false negative rate, are discussed. A procedure is proposed to model the pre-clinical disease state duration, the false negative rate of the screening exam, and the underlying incidence rate in the screened population. We applied the model to data from the Ontario Breast Screening Program in Canada. Our results suggest that the mean preclinical duration is longer than 2 years. We also find only small marginal gains by screening every two instead of three years."

According to the news editors, the research concluded: "The most important objective of a screening program should be to encourage first-time screening attendance."

For more information on this research see: Estimation of screening sensitivity and sojourn time from an organized screening program. Cancer Epidemiology, 2016;44():178-185. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news editors report that additional information may be obtained by contacting H. Jiang, University of Toronto, Dalla Lana Sch Public Hlth, Toronto, ON M5T 3M7, Canada. Additional authors for this research include S.D. Walter, P.E. Brown and A.M. Chiarelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.08.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Cancer Epidemiology, Oncology, Epidemiology, University of Toronto.

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**Oncology - Cancer Epidemiology**

**New Cancer Epidemiology Study Findings Recently Were Reported by Researchers at International Agency for Research on Cancer (Cancer in Central and South America: Introduction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cancer Epidemiology. According to news originating from Lyon, France, by NewsRx correspondents, research stated, "Central and South American countries (including Cuba) are experiencing rapid socio-demographic and epidemiologic changes and the nature of health problems are undergoing transition from infectious to chronic diseases, including cancer. Countries are poorly prepared to respond effectively to the subsequent challenges posed by the new patterns of disease."

Our news journalists obtained a quote from the research from International Agency for Research on Cancer, "Existing data delineating the number of cancer cases and the distribution of cancer types from each country in the region are sparse due to limitations on health information systems for recording incidence and mortality despite improvements made in recent years. There is an urgent need for reliable statistics on cancer to inform governmental entities responsible for cancer control in the region."
According to the news editors, the research concluded: "We attempted to obtain the best available cancer data from each country located in the region to provide an overview of current geographic patterns of cancer incidence and mortality in the 21st century."

For more information on this research see: Cancer in Central and South America: Introduction. *Cancer Epidemiology*, 2016;44():S3-S10. *Cancer Epidemiology* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news correspondents report that additional information may be obtained from D. Forman, Int Agcy Res Canc, Lyon 08, France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.04.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Cancer Epidemiology, Cancer, Epidemiology, Oncology, International Agency for Research on Cancer.

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**Biotechnology - Cancer Gene Therapy**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Biotechnology - Cancer Gene Therapy are presented in a new report. According to news reporting from Santa Clara, California, by NewsRx journalists, research stated, "Cancer cells release high levels of lactate that has been correlated to increased metastasis and tumor recurrence. Single-cell measurements of lactate release can identify malignant cells and help decipher metabolic cancer pathways."

Financial support for this research came from National Cancer Institute.

The news correspondents obtained a quote from the research from Santa Clara University, "We present here a novel droplet microfluidic method that allows the fast and quantitative determination of lactate release in many single cells. Using passive forces, droplets encapsulated cells are positioned in an array. The single-cell lactate release rate is determined from the increase in droplet fluorescence as the lactate is enzymatically converted to a fluorescent product. The method is used to measure the cell-to-cell variance of lactate release in K562 leukemia and U87 glioblastoma cancer cell lines and under the chemical inhibition of lactate efflux."

According to the news reporters, the research concluded: "The technique can be used in the study of cancer biology, but more broadly in cell biology, to capture the full range of stochastic variations in glycolysis activity in heterogeneous cell populations in a repeatable and high-throughput manner."

For more information on this research see: Droplet Microfluidic Platform for the Determination of Single-Cell Lactate Release. *Analytical Chemistry*, 2016;88(6):3257-63. (American Chemical Society - www.acs.org; Analytical Chemistry -
New Cancer Genetics Study Findings Recently Were Reported by Researchers at University of New Mexico [Chronic myelogenous leukemia with acquired t(11;14)(q13;q32) CCND1-IGH: A case report and literature review]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cancer Genetics. According to news reporting originating in Albuquerque, New Mexico, by NewsRx journalists, research stated, "Approximately 5-10% of chronic myeloid leukemia (CML) patients are found to have structural or numerical additional chromosomal abnormality (ACAs) in addition to the characteristic t(9;22)(q34;q11.2) BCR/ABL1 at the time of diagnosis. The prognostic significance of such additional chromosomal abnormalities has been controversial."

The news reporters obtained a quote from the research from the University of New Mexico, "Translocation t(11;14)(q13;q32) CCND1-IGH is typically associated with mantle cell lymphoma or a subset of plasma cell myeloma and is exceedingly rare in myeloid neoplasm. Here we report a unique case describing a patient found at diagnosis of chronic phase CML to have both the Philadelphia chromosome as well as t(11;14) a rare cytogenetic combination. The patient was treated with imatinib with appropriate hematologic response but persistent disease by FISH and RT-PCR. She was switched to dasatinib and eventually achieved cytogenetic remission in both translocations, but still with persistent RTPCR evidence of BCR-ABL1 fusion. As cyclin D1 is a regulatory subunit of cyclin-dependent kinases CDK4 and CDK6 and is required for the cells to progress through the G1 phase of the cell cycle, overexpression of cyclin D1 will likely promote cells into cell cycle. This may further augment proliferation in addition to upregulated ABL1 kinase activity in the index case. It may also contribute to the resistance to imatinib, as imatinib only targets on BCR-ABL fusion."

According to the news reporters, the research concluded: "Therefore, the addition of t(11;14)(q13;q32) may have significant implication in patient management."

Our news correspondents report that additional information may be obtained by contacting Q.Y. Zhang, University of New Mexico, Dept. of Pathol, Albuquerque, NM 87131, United States. Additional authors for this research include P. Khalili, D. Quintana, I. Rabinowitz and Q.Y. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Albuquerque, New Mexico, United States, North and Central America, Cancer Genetics, Oncology, Article Review, Genetics, Genetics, University of New Mexico.

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Cancer Research

New Cancer Research Data Have Been Reported by Investigators at Cleveland Clinic [Recommendations for clinical staging (cTNM) of cancer of the esophagus and esophagogastric junction for the 8th edition AJCC/UICC staging manuals]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cancer Research are discussed in a new report. According to news reporting out of Cleveland, Ohio, by NewsRx editors, research stated, "We report analytic and consensus processes that produced recommendations for clinical stage groups (cTNM) of esophageal and esophagogastric junction cancer for the AJCC/UICC cancer staging manuals, 8th edition. The Worldwide Esophageal Cancer Collaboration (WECC) provided data on 22,123 clinically staged patients with epithelial esophageal cancers."

Our news journalists obtained a quote from the research from Cleveland Clinic, "Risk-adjusted survival for each patient was developed using random survival forest analysis from which (1) data-driven clinical stage groups were identified wherein survival decreased monotonically and was distinctive between and homogeneous within groups and (2) data-driven anatomic clinical stage groups based only on cTNM. The AJCC Upper GI Task Force, by smoothing, simplifying, expanding, and assessing clinical applicability, produced (3) consensus clinical stage groups. Compared with pTNM, cTNM survival was pinched, with poorer survival for early cStage groups and better survival for advanced ones. Histologic grade was distinctive for data-driven grouping of cT2N0M0 squamous cell carcinoma (SCC) and cT1-2N0M0 adenocarcinoma, but consensus removed it. Grouping was different by histopathologic cell type. For SCC, cN0-1 was distinctive for cT3 but not cT1-2, and consensus removed cT4 subclassification and added subgroups 0, IVA, and IVB. For adenocarcinoma, N0-1 was distinctive for cT1-2 but not cT3-4a, cStage II subgrouping was necessary (T1N1M0 [IIA] and T2N0M0 [IIB]), advanced cancers cT3-4aN0-1M0 plus cT2N1M0 comprised cStage III, and consensus added subgroups 0, IVA, and IVB. Treatment decisions require accurate cStage, which differs from pStage."

According to the news editors, the research concluded: "Understaging and overstaging are problematic, and additional factors, such as grade, may facilitate treatment decisions and prognostication until clinical staging techniques are uniformly applied and improved."

Our news journalists report that additional information may be obtained by contacting T.W. Rice, Cleveland Clinic, Cleveland, OH 44195, United States. Additional authors for this research include H. Ishwaran, E.H. Blackstone, W.L. Hofstetter, D.P. Kelsen and C. Apperson-Hansen.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Cancer Research, Oncology, Cancer, Cleveland Clinic.

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Cancer Research

New Cancer Research Study Findings Recently Were Reported by Researchers at National University (Glycosylation-Based Serum Biomarkers for Cancer Diagnostics and Prognostics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cancer Research is now available. According to news reporting originating from Galway, Ireland, by NewsRx correspondents, research stated, "Cancer is the second most common cause of death in developed countries with approximately 14 million newly diagnosed individuals and over 6 million cancer-related deaths in 2012. Many cancers are discovered at a more advanced stage but better survival rates are correlated with earlier detection."

Financial support for this research came from Science Foundation Ireland.

Our news editors obtained a quote from the research from National University, "Current clinically approved cancer biomarkers are most effective when applied to patients with widespread cancer. Single biomarkers with satisfactory sensitivity and specificity have not been identified for the most common cancers and some biomarkers are ineffective for the detection of early stage cancers. Thus, novel biomarkers with better diagnostic and prognostic performance are required. Aberrant protein glycosylation is well known hallmark of cancer and represents a promising source of potential biomarkers. Glycoproteins enter circulation from tissues or blood cells through active secretion or leakage and patient serum is an attractive option as a source for biomarkers from a clinical and diagnostic perspective. A plethora of technical approaches have been developed to address the challenges of glycosylation structure detection and determination."

According to the news editors, the research concluded: "This review summarises currently utilised glycoprotein biomarkers and novel glycosylation-based biomarkers from the serum glycoproteome under investigation as cancer diagnostics and for monitoring and prognostics and includes details of recent high throughput and other emerging glycoanalytical techniques."

For more information on this research see: Glycosylation-Based Serum Biomarkers for Cancer Diagnostics and Prognostics. Biomed Research International, 2015;2015():490531.
The news editors report that additional information may be obtained by contacting A. Kirwan, Glycoscience Group, National Centre for Biomedical Engineering Science, National University of Ireland Galway, Galway, Ireland. Additional authors for this research include M. Utratna, M.E. O'Dwyer, L. Joshi and M. Kilcoyne.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/490531. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Galway, Europe, Ireland, Oncology, Article Review, Cancer Research, Diagnostics and Screening.

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Oncology - Cancer Research

New Cancer Research Study Findings Reported from University of Ljubljana (Analysing population-based cancer survival - settling the controversies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Cancer Research is now available. According to news reporting originating in Ljubljana, Slovenia, by NewsRx journalists, research stated, "The relative survival field has seen a lot of development in the last decade, resulting in many different and even opposing suggestions on how to approach the analysis. We carefully define and explain the differences between the various measures of survival (overall survival, crude mortality, net survival and relative survival ratio) and study their differences using colon and prostate cancer data extracted from the national population-based cancer registry of Slovenia as well as simulated data."

The news reporters obtained a quote from the research from the University of Ljubljana, "The colon and prostate cancer data demonstrate clearly that when analysing population-based data, it is useful to split the overall mortality in crude probabilities of dying from cancer and from other causes. Complemented by net survival, it provides a complete picture of cancer survival in a given population. But when comparisons of different populations as defined for example by place or time are of interest, our simulated data demonstrate that net survival is the only measure to be used."

According to the news reporters, the research concluded: "The choice of the method should be done in two steps: first, one should determine the measure of interest and second, one should choose among the methods that estimate that measure consistently."

For more information on this research see: Analysing population-based cancer survival - settling the controversies. BMC Cancer, 2016;16():1-8. BMC Cancer can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Cancer - www.biomedcentral.com/bmccancer/)

Our news correspondents report that additional information may be obtained by contacting M.P. Perme, Univ Ljubljana, Fac Med, Inst Biostat & Med Informat, Ljubljana 1000, Slovenia. Additional authors for this research include J. Esteve and B. Rachet.

Keywords for this news article include: Ljubljana, Slovenia, Europe, Cancer Research, Cancer, Epidemiology, Oncology, University of Ljubljana.
New Cancer Risk Data Have Been Reported by X. Fang and Co-Authors (Polymorphisms in GEMIN4 and AGO1 Genes Are Associated with the Risk of Lung Cancer: A Case-Control Study in Chinese Female Non-Smokers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cancer Risk is the subject of a report. According to news reporting originating from Shenyang, People's Republic of China, by NewsRx correspondents, research stated, "MicroRNA biosynthesis genes can affect the regulatory effect of global microRNAs to target mRNA and hence influence the genesis and development of human cancer. Here, we selected five single nucleotide polymorphisms (SNPs) (rs7813, rs2740349, rs2291778, rs910924, rs595961) in two key microRNA biosynthesis genes (GEMIN4 and AGO1) and systematically evaluated the association between these SNPs, the gene-environment interaction and lung cancer risk."

Our news editors obtained a quote from the research, "To control the impact of cigarette smoking on lung cancer, we recruited Chinese female non-smokers for the study. The total number of lung cancer cases and cancer-free controls were 473 and 395 in the case-control study. Four SNPs showed statistically significant associations with lung cancer risk. After Bonferroni correction, rs7813 and rs595961 were evidently still associated with lung cancer risk. In the stratified analysis, our results revealed that all five SNPs were associated with the risk of lung adenocarcinoma; after Bonferroni correction, significant association was maintained for rs7813, rs910924 and rs595961. Haplotype analysis showed GEMIN4 haplotype C-A-G-T was a protective haplotype for lung cancer. In the combined unfavorable genotype analysis, with the increasing number of unfavorable genotypes, a progressively increased gene-dose effect was observed in lung adenocarcinoma. We also found that individuals exposed to cooking oil fumes showed a relatively high risk of lung cancer, but no interactions were found between cooking oil fume exposure or passive smoking exposure with these SNPs, either on an additive scale or a multiplicative scale."

According to the news editors, the research concluded: "Overall, this is the first study showing that rs7813 and rs595961 could be meaningful as genetic markers for lung cancer risk."

For more information on this research see: Polymorphisms in GEMIN4 and AGO1 Genes Are Associated with the Risk of Lung Cancer: A Case-Control Study in Chinese Female Non-Smokers. International Journal of Environmental Research and Public Health, 2016;13 (10):130-142. International Journal of Environmental Research and Public Health can be contacted at: Mdpil Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting X. Fang, Univ Liaoning Prov, Key Lab Canc Etiol & Intervent, Shenyang 110122, People's Republic of China. Additional authors for this research include Z.H. Yin, X.L. Li, L.Z. Xia and B.S. Zhou.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Risk and Prevention, Cancer, Genetics, Lung Neoplasms, Lung Cancer, Cancer Risk, Oncology.
New Cancer Risk Study Findings Have Been Reported by Investigators at Texas A&M University (Comprehensive site-specific whole genome profiling of stromal and epithelial colonic gene signatures in human sigmoid colon and rectal tissue)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cancer Risk have been presented. According to news reporting out of College Station, Texas, by NewsRx editors, research stated, "The strength of associations between various exposures (e.g., diet, tobacco, chemopreventive agents) and colorectal cancer risk may partially depend on the complex interaction between epithelium and stroma across anatomic subsites. Currently, baseline data describing genome-wide coding and long noncoding gene expression profiles in the healthy colon specific to tissue type and location are lacking."

Financial support for this research came from HHS | National Institutes of Health (NIH).

Our news journalists obtained a quote from the research from Texas A&M University, "Therefore, colonic mucosal biopsies from 10 healthy participants who were enrolled in a clinical study to evaluate effects of lignan supplementation on gut resiliency were used to characterize the site-specific global gene expression signatures associated with stromal vs. epithelial cells in the sigmoid colon and rectum. Using RNA-seq, we demonstrate that tissue type and location patterns of gene expression and upstream regulatory pathways are distinct. For example, consistent with a key role of stroma in the crypt niche, mRNAs associated with immunoregulatory and inflammatory processes (i.e., CXCL14, ANTXR1), smooth muscle contraction (CALD1), proliferation and apoptosis (GLP2R, IGFBP3), and modulation of extracellular matrix (MMP2, COL3A1, MFAP4) were all highly expressed in the stroma. In comparison, HOX genes (HOXA3, HOXD9, HOXD10, HOXD11, and HOXD-AS2, a HOXD cluster antisense RNA 2), and WNT5B expression were also significantly higher in sigmoid colon compared with the rectum."

According to the news editors, the research concluded: "These findings provide strong impetus for considering colorectal tissue subtypes and location in future observational studies and clinical trials designed to evaluate the effects of exposures on colonic health."

For more information on this research see: Comprehensive site-specific whole genome profiling of stromal and epithelial colonic gene signatures in human sigmoid colon and rectal tissue. *Physiological Genomics*, 2016;48(9):651-659. *Physiological Genomics* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting R.S. Chapkin, Texas A&M University, Center Translat Environm Hlth Res, College Stn, TX, United States. Additional authors for this research include E. Kim, I. Ivanov, E.A. Davidson, J.S. Goldsby, M.A.J. Hullar, T.W. Randolph, A.M. Kaz, L. Levy, J.W. Lampe and R.S. Chapkin.

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electronic document that is either free or for purchase.

Keywords for this news article include: College Station, Texas, United States, North and Central America, Colorectal Research, Genetics, Risk and Prevention, Colorectal Cancer, Gastroenterology, Cancer Risk, Oncology, Texas A&M University.

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Oncology - Cancer Risk

New Cancer Risk Study Results from Peking Union Medical College Described (Polymorphism of HSD17B1 Ser312Gly with Cancer Risk: Evidence from 66,147 Subjects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Risk. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Hydroxysteroid (17-beta)dehydrogenase 1 (HSD17B1) plays a central role in sex steroid hormone metabolism. HSD17B1 polymorphic variants may contribute to cancer susceptibility."

The news reporters obtained a quote from the research from Peking Union Medical College, "Numerous investigations have been conducted to assess the association between HSD17B1 Ser312Gly polymorphism and cancer risk in multiple ethnicities, yet these have produced inconsistent results. We therefore performed this comprehensive meta-analysis to attempt to provide a quality assessment of the association of interest. Odds ratios (ORs) with 95% confidence intervals (CIs) were used to evaluate the strength of associations. After a systematic literature search of several major public databases, 20 studies involving 29,460 cases and 36,687 controls were included in this meta-analysis. No significant association was found between HSD17B1 Ser312Gly polymorphism and cancer risk. However, Ser312Gly polymorphism showed a significantly decreased risk for Caucasians (there were 44,284 Caucasians for analysis, comprising 19,889 cases and 24,395 controls) in the subgroup analysis by ethnicity (dominant: OR=0.958, 95% CI=0.919-0.998; and allele comparing: OR=0.973, 95% CI=0.947-0.999). And there was the same trend towards risk in the population-based (PB) controls (homozygous: OR=0.951, 95% CI=0.908-0.997 and allele comparing: OR=0.976, 95% CI=0.954-0.999), but not among Asians or hospital-based (HB) controls. In addition, no association was observed in the stratified analysis for breast cancer studies by source of control, ethnicity and quality score. These findings suggested that the HSD17B1 Ser312Gly polymorphism might confer genetic cancer susceptibility in an ethnic-dependent manner, especially among Caucasians."

According to the news reporters, the research concluded: "Well-designed, large-scale studies are warranted to validate these findings."


Our news correspondents report that additional information may be obtained by contacting L. Shi, State Key Laboratory of Molecular Oncology, Dept. of Étiologie and Carcinogenesis, Cancer Institute (Hospital), Peking Union Medical College & Chinese
Academy of Medical Sciences, Beijing, People's Republic of China. Additional authors for this research include X. Yang, X. Dong and B. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/thg.2016.6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Genetics, Oncology, Cancer Risk, Epidemiology, Risk and Prevention, People's Republic of China.

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**Drugs and Therapies - Cancer Therapy**

**New Cancer Therapy Study Findings Have Been Reported by Investigators at Gachon University (New arylated benzo[h]quinolines induce anti-cancer activity by oxidative stress-mediated DNA damage)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cancer Therapy have been published. According to news reporting originating from Inchon, South Korea, by NewsRx correspondents, research stated, "The anti-cancer activity of the benzo[h]quinolines was evaluated on cultured human skin cancer (G361), lung cancer (H460), breast cancer (MCF7) and colon cancer (HCT116) cell lines. The inhibitory effect of these compounds on the cell growth was determined by the MTT assay."

Our news editors obtained a quote from the research from Gachon University, "The compounds 3e, 3f, 3h and 3j showed potential cytotoxicity against these human cancer cell lines. Effect of active compounds on DNA oxidation and expression of apoptosis related gene was studied. We also developed a quantitative method to measure the activity of cyclin-dependent kinases-2 (CDK2) by western blotting in the presence of active compound. In addition, molecular docking revealed that benzo[h]quinolines can correctly dock into the hydrophobic pocket of the targets receptor protein aromatase and CDK2, while their bioavailability/drug-likeness was predicted to be acceptable but requires future optimization."

According to the news editors, the research concluded: "These findings reveal that benzo[h]quinolines act as anti-cancer agents by inducing oxidative stress-mediated DNA damage."


The news editors report that additional information may be obtained by contacting D.K. Yadav, Gachon Univ, Dept. of Pharm, Coll Pharm, Inchon, South Korea. Additional authors for this research include R. Rai, N. Kumar, S. Singh, S. Misra, P. Sharma, P. Shaw, H. Perez-Sanchez, R.L. Mancera, E.H. Choi, M.H. Kim and R. Pratap.

Keywords for this news article include: Inchon, South Korea, Asia, Deoxyribonucleic Acid, Drugs and Therapies, Cancer Therapy, DNA Research, Proteomics, DNA Damage, Oncology, Genetics, Gachon University.

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Drugs and Therapies - Cancer Therapy

New Cancer Therapy Study Findings Have Been Reported by Investigators at Sun Yat Sen University [Ester-Modified Cyclometalated Iridium(III) Complexes as Mitochondria-Targeting Anticancer Agents]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cancer Therapy have been published. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Organometallic iridium complexes are potent anticancer candidates which act through different mechanisms from cisplatin-based chemotherapy regimens. Here, ten phosphorescent cyclometalated iridium(III) complexes containing 2,2'-bipyridine-4,4'-dicarboxylic acid and its diester derivatives as ligands are designed and synthesized."

The news reporters obtained a quote from the research from Sun Yat Sen University, "The modification by ester group, which can be hydrolysed by esterase, facilitates the adjustment of drug-like properties. The quantum yields and emission lifetimes are influenced by variation of the ester substituents on the Ir(III) complexes. The cytotoxicity of these Ir(III) complexes is correlated with the length of their ester groups. Among them, 4a and 4b are found to be highly active against a panel of cancer cells screened, including cisplatin-resistant cancer cells. Mechanism studies in vitro indicate that they undergo hydrolysis of ester bonds, accumulate in mitochondria, and induce a series of cell-death related events mediated by mitochondria. Furthermore, 4a and 4b can induce pro-death autophagy and apoptosis simultaneously."

According to the news reporters, the research concluded: "Our study indicates that ester modification is a simple and feasible strategy to enhance the anticancer potency of Ir(III) complexes."


Our news correspondents report that additional information may be obtained by contacting C.P. Tan, Sun Yat Sen University Sch Chem, MOE Key Lab Bioinorgan & Synthet Chem, Guangzhou 510275, Guangdong, People's Republic of China. Additional authors for this research include M.H. Chen, X.Y. Hu, R.R. Ye, C.P. Tan, L.N. Ji and Z.W. Mao.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Subcellular Fractions, Transition Elements, Cellular Structures, Intracellular Space, Drugs and Therapies, Cancer Therapy, Mitochondria, Organelles, Cytoplasm, Iridium, Sun Yat Sen University.

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Drugs and Therapies - Cancer Therapy

New Cancer Therapy Study Findings Have Been Reported by Researchers at National Institute of Pharmaceutical Education and Research (An improved approach for predicting drug-target interaction: proteochemometrics to molecular docking)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cancer Therapy have been published. According to news reporting originating from Punjab, India, by NewsRx correspondents, research stated, "Proteochemometric (PCM) methods, which use descriptors of both the interacting species, i.e. drug and the target, are being successfully employed for the prediction of drug-target interactions (DTI). However, unavailability of non-interacting dataset and determining the applicability domain (AD) of model are a main concern in PCM modeling."

Our news editors obtained a quote from the research from the National Institute of Pharmaceutical Education and Research, "In the present study, traditional PCM modeling was improved by devising novel methodologies for reliable negative dataset generation and fingerprint based AD analysis. In addition, various types of descriptors and classifiers were evaluated for their performance. The Random Forest and Support Vector Machine models outperformed the other classifiers (accuracies >98% and >89% for 10-fold cross validation and external validation, respectively). The type of protein descriptors had negligible effect on the developed models, encouraging the use of sequence-based descriptors over the structure-based descriptors. To establish the practical utility of built models, targets were predicted for approved anticancer drugs of natural origin. The molecular recognition interactions between the predicted drug-target pair were quantified with the help of a reverse molecular docking approach. The majority of predicted targets are known for anticancer therapy. These results thus correlate well with anticancer potential of the selected drugs. Interestingly, out of all predicted DTIs, thirty were found to be reported in the ChEMBL database, further validating the adopted methodology."

According to the news editors, the research concluded: "The outcome of this study suggests that the proposed approach, involving use of the improved PCM methodology and molecular docking, can be successfully employed to elucidate the intricate mode of action for drug molecules as well as repositioning them for new therapeutic applications."

For more information on this research see: An improved approach for predicting drug-target interaction: proteochemometrics to molecular docking. Molecular Biosystems, 2016;12(3):1006-14. (Royal Society of Chemistry - www.rsc.org/; Molecular Biosystems - pubs.rsc.org/en/journals/journalissues/mb)

The news editors report that additional information may be obtained by contacting N. Shaikh, Dept. of Pharmacoinformatics, National Institute of Pharmaceutical Education and Research (NIPER), S A S Nagar, Punjab 160062, India. Additional authors for this research include M. Sharma and P. Garg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1039/C5MB00650C. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Punjab, Cancer Therapy, Drug Development, Drugs and Therapies.

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New Cancer Therapy Study Findings Recently Were Reported by Researchers at National Cancer Institute (Phenanthriplatin Acts As a Covalent Poison of Topoisomerase II Cleavage Complexes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Cancer Therapy. According to news reporting out of Bethesda, Maryland, by NewsRx editors, research stated, "Drugs capable of trapping topoisomerase II (Top2), an essential enzyme that cleaves DNA to remove naturally occurring knots and tangles, can serve as potent anticancer agents. The monofunctional platinum agent phenanthriplatin, cis-[Pt(NH3)(2)(phenanthridine)Cl] (NO3), is shown here to trap Top2 in addition to its known modes of inhibition of DNA and RNA polymerases."

Financial support for this research came from National Cancer Institute.

Our news journalists obtained a quote from the research from National Cancer Institute, "Its potency therefore combines diverse modes of action by which phenanthriplatin kills cancer cells. The observation that phenanthriplatin can act as a Top2 poison highlights opportunities to design nonclassical platinum anticancer agents with this novel mechanism of action. Such complexes have the potential to overcome current limitations with chemotherapy, such as resistance, and to provide treatment options for cancers that do not respond well to classical agents."

According to the news editors, the research concluded: "Covalent DNA-platinum lesions implicated in Top2 poisoning are distinctive from those generated by known therapeutic topoisomerase poisons, which typically exert their action by reversible binding at the interface of Top2-DNA cleavage complexes."

For more information on this research see: Phenanthriplatin Acts As a Covalent Poison of Topoisomerase II Cleavage Complexes. ACS Chemical Biology, 2016;11(11):2996-3001. ACS Chemical Biology can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Chemical Biology - www.pubs.acs.org/journal/acbcct)

Our news journalists report that additional information may be obtained by contacting Y. Pommier, National Cancer Institute, Mol Pharmacol Lab, Center Canc Res, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include K. Agama, G.Y. Park, Y. Pommier and S.J. Lippard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschembio.6b00565. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Enzymes and Coenzymes, Drugs and Therapies, Cancer Therapy, Topoisomerase, Genetics, National Cancer Institute.

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Drugs and Therapies - Cancer Therapy

New Cancer Therapy Study Findings Recently Were Reported by Researchers at Uppsala University (Characterizing and Controlling the Loading and Release of Cationic Amphiphilic Peptides onto and from PEG-Stabilized Lipodisks)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Cancer Therapy have been presented. According to news reporting originating in Uppsala, Sweden, by NewsRx journalists, research stated, "Recent studies have identified PEG-stabilized lipid nanodisks (lipodisks) as promising carriers for cationic amphiphilic peptides with antimicrobial and anticancer activity. Using fluorimetric and nanogravimetric methods, we have in; this work characterized the parameters describing and controlling the binding of three selected peptides (melittin, LL37, and magainin 2) onto lipodisks."

Financial support for this research came from Cancerfonden.

The news reporters obtained a quote from the research from Uppsala University, "It was found that the affinity of melittin for lipodisks is independent of the disk size and rim charge. On the other hand, the number of binding sites is strongly dependent on both parameters, with the highest loading being obtained for small disks with a negatively charged rim. An optimized composition of the lipodisks was utilized to study the loading of antimicrobial peptides magainin 2 and human LL37. It was observed that although magainin 2 can be loaded in large amounts, it is released very fast upon dilution, which limits future therapeutic applications. In contrast, LL37 can be loaded at relevant concentrations and the formulation is stable."

According to the news reporters, the research concluded: "This opens up for applications of LL37-loaded lipodisks as antibiotics and in anticancer treatments."


Our news correspondents report that additional information may be obtained by contacting V.A. Hernandez, Uppsala University, Dept. of Chem BMC, SE-75123 Uppsala, Sweden. Additional authors for this research include K. Edwards, K. Andersson and V.A. Hernandez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.langmuir.6b03012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uppsala, Sweden, Europe, Antimicrobial Cationic Peptides, Drugs and Therapies, Membrane Proteins, Cancer Therapy, Magainins, Uppsala University.

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Drugs and Therapies - Cancer Therapy

New Cancer Therapy Study Results from Emory University Described (Metabolism, Biochemical Actions, and Chemical Synthesis of Anticancer Nucleosides, Nucleotides, and Base Analogs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Cancer Therapy is now available. According to news originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "Nucleoside, nucleotide, and base analogs have been in the clinic for decades to treat both viral pathogens and neoplasms. More than 20% of patients on anticancer chemotherapy have been treated with one or more of these analogs."

Financial support for this research came from U.S. Department of Health and Human Services.

Our news journalists obtained a quote from the research from Emory University, "This review focuses on the chemical synthesis and biology of anticancer nucleoside, nucleotide, and base analogs that are FDA-approved and in clinical development since 2000. We highlight the cellular biology and clinical biology of analogs, drug resistance mechanisms, and compound specificity towards different cancer types. Furthermore, we explore analog syntheses as well as improved and scale-up syntheses."

According to the news editors, the research concluded: "We conclude with a discussion on what might lie ahead for medicinal chemists, biologists, and physicians as they try to improve analog efficacy through prodrug strategies and drug combinations."


The news correspondents report that additional information may be obtained from R.F. Schinazi, Emory University, Sch Med, Dept. of Pediat, Center AIDS ResLab Biochem Pharmacol, Atlanta, GA 30322, United States. Additional authors for this research include X. Lu, J.A. Hollenbaugh, J.H. Cho, F. Amblard and R.F. Schinazi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.chemrev.6b00209. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Chemicals, Article Review, Drugs and Therapies, Cancer Therapy, Biochemicals, Biochemistry, Genetics, Emory University.

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New Carcinogenesis Study Findings Reported from Health Sciences Center (Withaferin A Suppresses the Up-Regulation of Acetyl-CoA Carboxylase 1 and Skin Tumor Formation in a Skin Carcinogenesis Mouse Model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Carcinogenesis. According to news reporting out of Shreveport, Louisiana, by NewsRx editors, research stated, "Withaferin A (WA), a natural product derived from Withania somnifera, has been used in traditional oriental medicines to treat neurological disorders. Recent studies have demonstrated that this compound may have a potential for cancer treatment and a clinical trial has been launched to test WA in treating melanoma."

Our news journalists obtained a quote from the research from Health Sciences Center, "Herein, WA's chemopreventive potential was tested in a chemically-induced skin carcinogenesis mouse model. Pathological examinations revealed that WA significantly suppressed skin tumor formation. Morphological observations of the skin tissues suggest that WA suppressed cell proliferation rather than inducing apoptosis during skin carcinogenesis. Antibody Micro array analysis demonstrated that WA blocked carcinogen-induced up-regulation of acetyl-CoA carboxylase 1 (ACC1), which was further confirmed in a skin cell transformation model. Overexpression of ACC1 promoted whereas knockdown of ACC1 suppressed anchorage-independent growth and oncogene activation of transformable skin cells. Further studies demonstrated that WA inhibited tumor promoter-induced ACC1 gene transcription by suppressing the activation of activator protein 1. In melanoma cells, WA was also able to suppress the expression levels of ACC1. Finally, results using human skin cancer tissues confirmed the up-regulation of ACC1 in tumors than adjacent normal tissues."

According to the news editors, the research concluded: "In summary, our results suggest that withaferin A may have a potential in chemoprevention and ACC1 may serve as a critical target of WA."


Our news journalists report that additional information may be obtained by contacting Y.F. Zhao, LSU Hlth Sci Center Shreveport, Dept. of Pharmacol Toxicol & Neurosci, Shreveport, LA 71130, United States. Additional authors for this research include C.J. Zhang, H.Y. Du, V. Huang, B. Sun, J.P. Harris, Q. Richardson, X.G. Shen, R. Jin, G.H. Li, C.G. Kevil, X. Gu, R.H. Shi and Y.F. Zhao.

Keywords for this news article include: Shreveport, Louisiana, United States, North and Central America, Acetyl-CoA Carboxylase, Enzymes and Coenzymes, Carbon-Carbon Ligases, Carcinogenesis, Genetics, Health Sciences Center.

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Oncology - Carcinomas

New Carcinomas Findings Has Been Reported by Investigators at Guangxi Medical University (CCL18 From Tumor-Cells Promotes Epithelial Ovarian Cancer Metastasis via mTOR Signaling Pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Carcinomas. According to news reporting originating from Nanning, People's Republic of China, by NewsRx correspondents, research stated, "CCL18 is a chemotactic cytokine involved in the pathogenesis and progression of various disorders, including cancer. Previously, our results showed high levels of CCL18 in the serum of epithelial ovarian carcinoma patients suggesting its potential as a circulating biomarker."

Our news editors obtained a quote from the research from Guangxi Medical University, "In this study, we determined that CCL18 expression was up-regulated in ovarian carcinoma compared with adjacent tissue and was expressed in carcinoma cells in the tumor and not in normal ovarian epithelial cells by laser capture microdissection coupled with real-time RT-PCR. Moreover, correlation analysis showed that the CCL18 level was positively correlated with the metastasis of patients with ovarian cancer. Survival analysis also revealed that an increased level of CCL18 was associated with worse survival time in ovarian cancer patients. Over-expression of CCL18 led to enhanced migration and invasion of the Skov3 ovarian cancer cell line in vitro and in vivo. Finally, proteomics analysis demonstrated that CCL18-mediated ovarian cancer invasiveness was strongly correlated with the mTORC2 pathway."

According to the news editors, the research concluded: "These findings suggest that the CCL18 chemokine has an important role in chemokine-mediated tumor metastasis, and may serve as a potential predictor for poor survival outcomes for ovarian cancer."


The news editors report that additional information may be obtained by contacting L. Li, Guangxi Med Univ, Affiliated Canc Hosp, Res Department, Nanning 530021, Gaungxi, People's Republic of China. Additional authors for this research include Y. Tang, H.J. Yu, Q.Y. Yin, M.D. Li, L.J. Shi, W. Zhang, D.R. Li and L. Li.

Keywords for this news article include: Nanning, People's Republic of China, Asia, Inflammation Mediators, Biological Factors, Chemokines, Carcinomas, Oncology, Cancer, Guangxi Medical University.

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New Carcinomas Findings Reported from University Hospital
(Pazopanib in Renal Cell Carcinoma Dialysis Patients: A Mini-Review and a Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Carcinomas have been presented. According to news originating from Parma, Italy, by NewsRx correspondents, research stated, "Sporadic data are available about pazopanib use in patients with metastatic renal cell carcinoma (mRCC) undergoing dialysis and no systematic review has been previously performed about this issue. The objective of the present mini-review is to provide an overview of clinical outcomes of pazopanib in this population, in order to support the clinical oncologist for the treatment choice and management."

Our news journalists obtained a quote from the research from University Hospital, "All the literature ever published about mRCC dialysis patients receiving pazopanib, until August 2015, was evaluated: only two case series emerged from our search and one more patient from our department was also included, with a total of 11 mRCC dialysis patients overall. Moreover, we described our case of intrapatient dose titration of pazopanib during dialysis. The continued treatment schedule, the short half-life, the predominantly hepatic metabolism, the wide possibility of dose modulation, the favorable tolerability profile and the similar efficacy respect to sunitinib represent factors in favor of pazopanib as first line mRCC treatment in dialysis patients. The knowledge and the good management of toxicity during pazopanib treatment can lead, also in dialysis patients, to the best and longest application of the drug, taking into account the concept of a dose escalation guided by toxicity as a marker of efficacy."

According to the news editors, the research concluded: "The review, together with our single case report, confirmed the efficacy, the good tolerability and the maneuverability of pazopanib treatment in mRCC patients undergoing dialysis."


The news correspondents report that additional information may be obtained from M. Bersanelli, University Hospital of Parma, Via Gramsci 14, 43126, Parma, Italy. Additional authors for this research include F. Facchinetti, M. Tiseo, M. Maiorana and S. Buti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1389450117666160112114756. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Parma, Italy, Europe, Kidney, Oncology, Pazopanib, Carcinomas, Nephrology, Drugs and Therapies, Tyrosine Kinase Inhibitors.

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New Carcinomas Findings from Henan University Outlined (Abnormal expressed long non-coding RNA IRAIN inhibits tumor progression in human renal cell carcinoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Carcinomas is now available. According to news reporting originating from Kaifeng, People's Republic of China, by NewsRx correspondents, research stated, "The long non-coding RNA (lncRNA) IRAIN has been verified to have key roles in tumor biology. The aim of this study was to explore its expression and biological functions in human renal cell carcinoma (RCC) cells."

Our news editors obtained a quote from the research from Henan University, "Quantitative RT-PCR was applied to detect the RNA expression of IRAIN in RCC tissues and cell lines when compared with respective controls. MTT and flow cytometry methods were respectively used to monitor the cell proliferation and apoptosis of 786-O cells after IRAIN was overexpressed. Altered expression of cyclin D1 and Bax was determined by immunoblotting. Xenograft models were finally carried out to confirm the roles of IRAIN in RCC in vivo. IRAIN expression was found to be remarkably decreased in RCC tissues and cell lines. Its overexpression in 786-O cells significantly inhibited cell proliferation and promoted apoptosis. We further demonstrated that cyclin D1 was reduced while apoptosis promoting protein Bax was elevated in IRAIN-overexpressed 786-O cells. Importantly, we found that IRAIN overexpression could suppress in vivo tumorigenesis of RCC, reflected by tumor volume and tumor weight measurement."

According to the news editors, the research concluded: "IRAIN might serve as a novel tumor suppressing lncRNA and a potential therapeutic target in RCC treatment."

For more information on this research see: Abnormal expressed long non-coding RNA IRAIN inhibits tumor progression in human renal cell carcinoma cells. Open Life Sciences, 2016;11(1):200-205. Open Life Sciences can be contacted at: De Gruyter Open Ltd, Bogumila Zuga 32A St, 01-811 Warsaw, Poland.

The news editors report that additional information may be obtained by contacting C.Y. Zhu, Henan Univ, Huaie Hosp, Dept. of Urol Surg, Kaifeng 475000, Henan Province, People's Republic of China. Additional authors for this research include Q. Liu, T.Q. Li, X.D. Li, G.W. Zhang, Y. Li, H. Zi and C.Y. Zhu.

Keywords for this news article include: Kaifeng, People's Republic of China, Asia, Renal Cell Carcinoma, Cell Proliferation, Nephrology, Carcinomas, Apoptosis, Genetics, Oncology, Kidney, Henan University.

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New Carcinomas Study Findings Have Been Reported by Investigators at Central South University (Autophagy prevents sensitizes AKTi-1/2-induced antihepatocellular carcinoma cell activity in vitro and in vivo)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Carcinomas. According to news reporting from Changsha, People's Republic of China, by NewsRx journalists, research stated, "Molecule-targeted therapy has become the research focus for hepatocellular carcinoma (HCC). Persistent PI3K-AKT activation is often detected in HCC, representing a valuable oncotarget for treatment."

The news correspondents obtained a quote from the research from Central South University, "Here, we tested the anti-HCC activity by a potent AKT inhibitor: AKT inhibitor 1/2 (AKTi-1/2). In both established (HepG2 and Huh-7) and primary human HCC cells, treatment with AKTi-1/2 inhibited cell survival and proliferation, but induced cell apoptosis. AKII-1/2 blocked AI T-mTOR activation, yet simultaneously provoked cytoprotective autophagy in HCC cells.-The latter was evidenced by ATG-5 and Beclin-1 upregulation, p62 downregulation as well as LC3B-GFP puncta formation. Autophagy inhibition, via pharmacological inhibitors (3-methyladenine, ammonium chloride, and bafilomycin A1) or Beclin-1 siRNA knockdown, significantly potentiated AKTi-1/2-induced HepG2 cell death and apoptosis. In nude mice, AKTi-1/2 intraperitoneal injection inhibited HepG2 tumor growth. Significantly, its antitumor activity in vivo was further sensitized when combined with Beclin-1 shRNA knockdown in HepG2 tumors. Together, these results demonstrate that autophagy activation serves as a main resistance factor of AKTi-1/2 in HCC cells."

According to the news reporters, the research concluded: "Autophagy prevention therefore sensitizes AKTi-1/2-induced anti-HCC activity in vitro and in vivo."

For more information on this research see: Autophagy prevention sensitizes AKTi-1/2-induced antihepatocellular carcinoma cell activity in vitro and in vivo. *Biochemical and Biophysical Research Communications*, 2016;480(3):334-340. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting Q. Jiang, Central South University, Xiangya Hosp, Dept. of Ultrasonog, Changsha, Hunan, People's Republic of China. Additional authors for this research include M.Y. Yang, Z. Qu, J.X. Zhou and Q. Jiang.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Carcinomas, Oncology, Central South University.

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**Oncology - Carcinomas**

New Carcinomas Study Findings Have Been Reported by Researchers at Research Institute and Hospital (A Prospective Multicenter Trial of the Efficacy and Tolerability of Neoadjuvant Sunitinib for Inoperable Metastatic Renal Cell Carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Carcinomas is now available. According to news reporting from Goyang, South Korea, by NewsRx journalists, research stated, "This study..."
aimed to evaluate the efficacy, safety, and tolerability of 2-cycled neoadjuvant sunitinib therapy (NST) in patients with inoperable metastatic renal cell carcinoma (mRCC). Between 2009 and 2012, 14 patients with inoperable mRCC from 5 Korean academic centers were prospectively enrolled after collecting their clinicopathological data and completing health-related questionnaires."

Financial supporters for this research include Pfizer, Korean Urological Oncology Society, National Cancer Center.

The news correspondents obtained a quote from the research from Research Institute and Hospital, "The best overall response (BOR), safety profile, and changes in quality of life during NST were assessed using the RECIST criteria (version 1.0), CTCAE criteria (version 4.0), and the Cancer Quality of Life Questionnaire (QLQ-C30). Among the 14 patients, 9 patients (64.3%) experienced partial response or stable disease state, and 5 patients (35.7%) did not complete treatment, with 1 case of disease progression (7.1%), 3 grade 3 adverse events (21.4%), and 1 voluntary withdrawal (7.1%). Four patients (28.6%) were successfully converted to an operable state and underwent surgery after NST. The BOR for the primary renal lesions was 22.2%, with a median 1.3-cm diameter reduction (range: 0-2.8 cm) from a baseline diameter of 10.3 cm (range: 6.6-15.8 cm). The other 18 measurable metastatic lesions exhibited a BOR of 55.6%. The QLQ-C30 questionnaire results revealed significant improvements in the quality of life domain, although we observed significant increases in the scores for fatigue, nausea and vomiting, and the financial effects of NST (P < 0.05)."

According to the news reporters, the research concluded: "Two-cycle NST provided limited efficacy for resectability of inoperable mRCC, despite mild improvements in the BOR of the primary lesion and quality of life."

For more information on this research see: A Prospective Multicenter Trial of the Efficacy and Tolerability of Neoadjuvant Sunitinib for Inoperable Metastatic Renal Cell Carcinoma. *Journal of Korean Medical Science*, 2016;31(12):1983-1988. *Journal of Korean Medical Science* can be contacted at: Korean Acad Medical Sciences, 302 75 Dong Du Ichon, Dong Yongsan Ku, Seoul 140 031, South Korea.

Our news journalists report that additional information may be obtained by contacting J. Chung, Natl Canc Center, Res Inst & Hosp, Center Prostate Canc, Dept. of Urol, Goyang 10408, South Korea. Additional authors for this research include S. Il Seo, H.M. Lee, H.Y. Choi, S.H. Jeon, H.L. Lee, T.G. Kwon, Y.J. Kim, W.J. Kim and J. Chung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3346/jkms.2016.31.12.1983. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Goyang, South Korea, Asia, Tyrosine Kinase Inhibitors, VEGF - VEGFR Inhibitors, Multikinase Inhibitors, Drugs and Therapies, VEGFR Inhibitors, Quality of Life, Antineoplastics, Nephrology, Carcinomas, Sunitinib, Oncology, Kidney, Research Institute and Hospital.

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New Carcinomas Study Findings Have Been Reported from Midwestern University (Tocotrienol Nanoemulsion Platform of Curcumin Elicit Elevated Apoptosis and Augmentation of Anticancer Efficacy against Breast and Ovarian Carcinomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Carcinomas. According to news reporting originating in Glendale, Arizona, by NewsRx journalists, research stated, "Vitamin E (VE) tocotrienols (T3), recognized for their cancer-specific anti-proliferative and pro-apoptotic activities, have been previously fabricated into bio-active nanoemulsion (NE) formulations. Here, our viscosity-adapted delta-T3 NE platform was developed to additionally incorporate curcumin (CUR), which is known for its potent suppression of signaling pathways involved in malignant cell growth, survival and metastasis."

The news reporters obtained a quote from the research from Midwestern University, "Thanks to efficient 70:30 wt % surfactant mix of Lutrol F-127: VE-TPGS, in conjunction with optimal CUR loading, a prototype CUR in delta-T3 NE was successfully prepared. Model CUR/delta-T3 NE demonstrated excellent nano-scale aspects (mean particle size = 261 nm, PDI = 0.27, and zeta-potential = 35 mV), pharmaceutical stability, and controlled release properties. Suitability for systemic administration was also verified via standardized in vitro biocompatibility and hemocompatibility assays. In two human cancer cells (MCF-7 and OVCAR-8), our CUR/delta-T3 NE prominently suppressed constitutive NF-kappa B activation, and significantly induced apoptosis. Finally, the combined CUR/delta-T3 NE produced superior cytotoxicity profiles, in concentration-and time-dependent manners (p <= 0.05), at least three to four folds lower IC50 than in closest CUR control."

According to the news reporters, the research concluded: "The strong synergism, estimated in both cultured carcinomas, revealed the augmented therapeutic efficacy of our CUR/delta-T3 NE combined platform, supporting its strong potential towards pharmaceutical development for cancer therapy."

For more information on this research see: Tocotrienol Nanoemulsion Platform of Curcumin Elicit Elevated Apoptosis and Augmentation of Anticancer Efficacy against Breast and Ovarian Carcinomas. *International Journal of Molecular Sciences*, 2016;17(11):522-538. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting N. Steuber, Midwestern Univ, Nanomed Center Excellence Translat Canc Res Nanomed, Coll Pharm Glendale, Dept. of Pharmaceut Sci, Glendale, AZ 85308, United States. Additional authors for this research include K. Vo, R. Wadhwa, J. Birch, P. Iacoban, P. Chavez and T.A. Elbayoumi.

Keywords for this news article include: Glendale, Arizona, United States, North and Central America, Drugs and Therapies, Organic Chemicals, Diarylheptanoids, Cancer Therapy, Hydrocarbons, Carcinomas, Apoptosis, Catechols, Curcumin, Oncology, Alkanes, Midwestern University.

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Oncology - Carcinomas

New Carcinomas Study Findings Recently Were Reported by Researchers at Emory University (Onodera's Prognostic Nutritional Index as an Independent Prognostic Factor in Clear Cell Renal Cell Carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Carcinomas are discussed in a new report. According to news reporting originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "To evaluate the relationship between the Onodera Prognostic Nutritional Index (OPNI) and overall survival, as well as recurrence-free survival, in clear cell renal cell carcinoma (ccRCC) patients following nephrectomy. Three hundred forty-one patients who underwent nephrectomy for ccRCC were analyzed."

Our news editors obtained a quote from the research from Emory University, "The optimum OPNI cutoff score of 44.7 was determined by receiver operating characteristic analysis and patients were placed in either the low or high OPNI group, with OPNI values of \( \leq 44.7 \) and \( \geq 44.8 \), respectively. Kaplan-Meier analysis was performed to evaluate the univariate impact of the OPNI groups on overall survival and recurrence-free survival. OPNI's association with overall survival and recurrence-free survival, with adjustments for other patient and tumor qualities, was assessed with univariate and multivariate Cox regression analysis. Median (95% CI) overall survival times for the low and high OPNI groups were 21.1 months and 37.9 months, respectively. OPNI was determined to be an independent prognostic factor in multivariate analysis, and after controlling for patient and tumor characteristics, the low OPNI group experienced a 1.67-fold (hazard ratio: 1.67, 95% confidence interval: 1.05-2.68) increased risk of overall mortality."

According to the news editors, the research concluded: "Preoperative OPNI is a valuable independent prognostic indicator of overall survival and recurrence-free survival in patients with ccRCC following nephrectomy."


The news editors report that additional information may be obtained by contacting V.A. Master, Emory University, Dept. of Urol, Emory Winship Canc Inst, Atlanta, GA 30322, United States. Additional authors for this research include D. Patil, Y. Baum, P.T. Nieh, M. Alemozaffar, J.G. Pattaras, K. Ogan and V.A. Master.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.05.064. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Nephrectomy, Nephrology, Carcinomas, Oncology, Surgery, Kidney, Emory University.

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New Carcinomas Study Findings Recently Were Reported by Researchers at People's Liberation Army (Association of Vasculogenic Mimicry Formation and CD133 Expression with Poor Prognosis in Ovarian Cancer)

According to news reporting originating from Shijiazhuang, People's Republic of China, by NewsRx correspondents, research stated, "This study was conducted to investigate the association of vasculogenic mimicry (VM) formation and CD133 expression with the clinical outcomes of patients with ovarian cancer. This retrospective study was performed in 120 ovarian carcinoma samples."

Our news editors obtained a quote from the research from People's Liberation Army, "VM formation and CD133 expression was identified with CD31/periodic acid-Schiff double-staining and CD133 immunohistochemical staining. Collected clinical and pathological data included age at diagnosis, histologic type, tumor grade, tumor stage, lymph node metastases and response to chemotherapy. The overall survival time was calculated. VM was identified in 52 (43%) of 120 ovarian carcinoma tissues and CD133 expression was found in 56 (47%) cases. Both VM formation and CD133 expression were associated with advanced tumor stage, high-grade carcinoma and non-response to chemotherapy (p < 0.05). They were also associated with shorter overall survival time (p < 0.05) by log-rank test. Combined marker of VM formation and CD133 expression was associated with high-grade ovarian carcinoma, late-stage disease, non-response to chemotherapy and shorter overall survival time (p < 0.05). VM formation and CD133 expression can provide additional prognostic information for patients with ovarian cancer."

According to the news editors, the research concluded: "Combined marker of VM formation and CD133 expression may be a potent predictor for poor prognosis for patients with ovarian cancer."

For more information on this research see: Association of Vasculogenic Mimicry Formation and CD133 Expression with Poor Prognosis in Ovarian Cancer. Gynecologic and Obstetric Investigation, 2016;81(6):529-536. Gynecologic and Obstetric Investigation can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Gynecologic and Obstetric Investigation - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=223845)

The news editors report that additional information may be obtained by contacting X.H. Wu, Peoples Liberat Army, Bethune Int Peace Hosp, Shijiazhuang, Hebei, People's Republic of China. Additional authors for this research include B. Yang, Q.Y. Cao and X.H. Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000445747. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shijiazhuang, People's Republic of China, Asia, Drugs and Therapies, Chemotherapy, Carcinomas, Oncology, Cancer, People's Liberation Army.

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Oncology - Carcinomas

New Carcinomas Study Findings Reported from Capital Medical University (miR-19a correlates with poor prognosis of clear cell renal cell carcinoma patients via promoting cell proliferation and suppressing PTEN/SMAD4 expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Carcinomas are presented in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "MicroRNAs (miRNAs) were reported to be involved in the development of clear cell renal cell carcinoma (ccRCC). However, the study on miRNAs in ccRCC is far from complete."

The news correspondents obtained a quote from the research from Capital Medical University, "The present study identified miRNAs which could act as potential novel prognostic markers for ccRCC, and analyzed its possible mechanism. We found that miR-19a correlated with poor prognosis of ccRCC patients via promoting cell proliferation and suppressing PTEN/SMAD4 expression. Both the microarray screening result and TCGA KIRC dataset analysis showed that miR-19a was significantly upregulated in ccRCC tissues, and further analysis of TCGA data revealed that the upregulated level of miR-19a was strongly associated with advanced T stage and poor prognosis of ccRCC patients. Consistent with clinical observations, miR-19a overexpression significantly promoted ccRCC cell proliferation in vitro. To further explore the mechanism by which miR-19a correlated with cell proliferation and poor prognosis of ccRCC, we performed gene set enrichment analysis (GSEA) for target genes of miR-19a in ccRCC patients. Result indicated that the key target genes of miR-19a included SMAD4 and PTEN. In ccRCC tissues, expression levels of SMAD4 and PTEN were negatively correlated with expression level of miR-19a, revealing that miR-19a suppressed the expression of SMAD4 and PTEN in ccRCC patients. miR-19a overexpression significantly suppressed the expression of SMAD4 and PTEN in vitro, further verifying that SMAD4 and PTEN were the target genes of miR-19a in ccRCC cells."

According to the news reporters, the research concluded: "Our results elucidated the tumor promoting role of miR-19a and established miR-19a as a potential novel prognostic marker for ccRCC."


Keywords for this news article include: Beijing, People's Republic of China, Asia, Cell Proliferation, Kidney, Genetics, Nephrology, Carcinomas, Oncology, Capital Medical University.
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**Oncology - Carcinomas**

**New Carcinomas Study Results Reported from H.B. Hu et al (Three Circulating LncRNA Predict Early Progress of Esophageal Squamous eNN Carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Carcinomas are discussed in a new report. According to news originating from Huaian, People's Republic of China, by NewsRx correspondents, research stated, "Previous studies revealed that circulating (either from plasma or serum) long non-coding RNA may predict the occurrence or prognosis of multiple human malignant tumors. In this study, we mainly explored whether circulating IncRNAs can be utilized as biomarkers predicting the development of human esophageal squamous cell carcinoma (ESCC)."

Our news journalists obtained a quote from the research, "LncRNA microarray was applied to screen the potential biomarkers for ESCC. Each group contained three individual plasma samples. A multi-stage validation and risk score formula detection were used for validation. Eleven dysregulated IncRNAs were obtained after Venny analysis. Further validation in a larger cohort including 205 ESCC patients, 82 patients suffering from esophagus dysplasia and 210 healthy controls confirmed that increased Linc00152, CFLAR-AS1 and POU3F3 might be potential biomarkers for predicting the early progress with an area under curve (AUC) of 0.698, 0.651 and 0.584, respectively. The merged AUC of the three factors and merged with CEA was 0.765 and 0.955, respectively. We also revealed that circulating levels of three IncRNAs were associated with poor post surgery prognosis of ESCC patients."

According to the news editors, the research concluded: "The three circulating IncRNAs might serve as potential biomarkers for predicting the early occurrence of ESCC."


The news correspondents report that additional information may be obtained from H.B. Hu, Xuzhou Med Univ, Affiliated Huaian Hosp, Dept. of Cardiothorac Surg, Huaian, People's Republic of China. Additional authors for this research include H.Y. Jie and X.X. Zheng.

Keywords for this news article include: Huaian, People's Republic of China, Asia, Oncology, Diagnostics and Screening, Carcinomas, Genetics.

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New Carcinomas Study Results from Division of Gynecology Oncology Described (The effect of adjuvant radiation on survival in early stage clear cell ovarian carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Carcinomas. According to news reporting originating in Toronto, Canada, by NewsRx journalists, research stated, "To assess the impact of adjuvant radiotherapy (RT) on survival in patients with stage I and II ovarian clear cell carcinoma (OCCC). Data collection and analysis of stage I and II OCCC patients treated at two tertiary centers in Toronto, between 1995 and 2014, was performed."

The news reporters obtained a quote from the research from the Division of Gynecology Oncology, "Descriptive statistics and Kaplan-Meier survival probability estimates were completed. The log-rank test was used to compare survival curves. 163 patients were eligible. 44 (27%) patients were treated with adjuvant RT: 37 of them received adjuvant chemotherapy (CT), and 7 had RT only. In the no-RT group, there were 119 patients: 83 patients received adjuvant CT and 36 had no adjuvant treatment. The 10 year progression free survival (PFS) was 65% for patients treated with RT, and 59% no-RT patients. There were a total of 41 (25%) recurrences in the cohort: 12 (27.2%) patients in RT group and 29 (243%) in the no-RT group. On multivariable analysis, adjuvant RT was not significantly associated with an increased PFS (0.85 (0.44-1.63) p = 0.63) or overall survival (OS) (0.84 (0.39-1.82) p = 0.66). In the subset of 59 patients defined as high-risk: stage IC with positive cytology and/or surface involvement and stage II: RT was not found to be associated with a better PFS (HR 1.18 (95% CI: 0.55-2.54) or O S(HR 1.04 (95% CI: 0.40-2.69))."

According to the news reporters, the research concluded: "Adjuvant RT was not found to be associated with a survival benefit in patients with stage I and II ovarian clear cell carcinoma or in a high risk subset of patients including stage IC cytology positive/surface involvement and stage II patients."

For more information on this research see: The effect of adjuvant radiation on survival in early stage clear cell ovarian carcinoma. Gynecologic Oncology, 2016;143(2):258-263. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news correspondents report that additional information may be obtained by contacting D. Vicus, Odette Canc Center, Div Gynecol Oncol, Toronto, ON, Canada. Additional authors for this research include G. Thomas, M. Bernardini, D. Bassiouny, H. Brar, L.T. Gien, B. Rosen, L. Le and D. Vicus.

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Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Carcinomas, Cytology, Oncology, Division of Gynecology Oncology.

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New Cardiology Data Have Been Reported by Investigators at University of Colorado (Clinical and biophysical evaluation of variable bipolar configurations during radiofrequency ablation for treatment of ventricular arrhythmias)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news originating from Aurora, Colorado, by NewsRx correspondents, research stated, "Bipolar radiofrequency ablation (bRFA) has been used to create larger ablation lesions and to treat refractory arrhythmias. However, little is known about optimal bRFA settings."

Our news journalists obtained a quote from the research from the University of Colorado, "The purpose of this study was to evaluate various bRFA settings, including active and ground catheter tip orientation and use of variable active and ground catheters during bRFA. Two ablation catheters, 1 active and 1 ground, were oriented across from each other, with viable bovine myocardium in between. The catheter tips were placed in various combinations perpendicular or parallel to the myocardium. The active catheter was either a 3.5-mm externally irrigated or 8-mm tip, and the ground catheter was either a 4-mm, 3.5-mm irrigated, or 8-mm tip. Retrospective analysis was undertaken for all bRFA performed at University of Colorado. The largest and deepest lesions were produced using irrigated active and ground tips, oriented perpendicularly. In 14 cases (10 patients) of bRFA for ventricular tachycardia and premature ventricular complexes, acute success was achieved in 13 of 14 procedures. Long-term success was achieved in 7 of 10 patients, but 3 patients required multiple bRFA ablations. Active and ground catheter tip orientation and type are important determinants of lesion sizes during bRFA. The largest and deepest lesions, without a higher incidence of steam pops, were achieved using 2 irrigated catheters. As the largest published series to date, bRFA ablation can be performed safely and effectively in humans."

According to the news editors, the research concluded: "Larger studies are necessary to better evaluate bRFA efficacy and safety."


The news correspondents report that additional information may be obtained from W.H. Sauer, University of Colorado, Div Cardiol, Sect Cardiac Elect, Aurora, CO 80045, United States. Additional authors for this research include W.S. Tzou, M. Brunnquell, M. Zipse, J.L. Schuller, L.J. Zheng, R.A. Aleong and W.H. Sauer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.07.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Arrhythmia, Cardiology, University of Colorado.

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New Cardiology Data Have Been Reported by Researchers at LUMC (Heritability of heart rate recovery and vagal rebound after exercise)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news reporting originating from Leiden, Netherlands, by NewsRx correspondents, research stated, "The prognostic power of heart rate recovery (HRR) after exercise has been well established but the exact origin of individual differences in HRR remains unclear. This study aims to estimate the heritability of HRR and vagal rebound after maximal exercise in adolescents."

Financial support for this research came from VU-AMS Revolving Research Fund.

Our news editors obtained a quote from the research from LUMC, "Furthermore, the role of voluntary regular exercise behavior (EB) in HRR and vagal rebound is tested. 491 healthy adolescent twins and their siblings were recruited for maximal exercise testing, followed by a standardized cooldown with measurement of the electrocardiogram and respiratory frequency. Immediate and long-term HRR (HRR60 and HRR180) and vagal rebound (heart rate variability in the respiratory frequency range) were assessed 1 and 3 min after exercise. Multivariate twin modeling was used to estimate heritability of all measured variables and to compute the genetic contribution to their covariance. Heritability of HRR60, HRR180 and immediate and long-term vagal rebound is 60 % (95 % CI: 48-67), 65 % (95 % CI: 54-73), 23 % (95 % CI: 11-35) and 3 % (95 % CI: 0-11), respectively. We find evidence for two separate genetic factors with one factor influencing overall cardiac vagal control, including resting heart rate and respiratory sinus arrhythmia, and a specific factor for cardiac vagal exercise recovery. EB was only modestly associated with resting heart rate (r = -0.27) and HRR (rHRR60 = 0.10; rHRR180 = 0.19) with very high genetic contribution to these associations (88-91 %). Individual differences in HRR and immediate vagal rebound can to a large extent be explained by genetic factors."

According to the news editors, the research concluded: "These innate cardiac vagal exercise recovery factors partly reflect the effects of heritable differences in EB."

For more information on this research see: Heritability of heart rate recovery and vagal rebound after exercise. European Journal of Applied Physiology, 2016;116(11-12):2167-2176. European Journal of Applied Physiology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Journal of Applied Physiology - www.springerlink.com/content/1439-6319/)

The news editors report that additional information may be obtained by contacting I. Nederend, LUMC Univ, Medical Center, Dept. of Pediat Cardiol, NL-2333 Leiden, Netherlands. Additional authors for this research include N.M. Schutte, M. Bartels, A.D.J. ten Harkel and E.J.C. de Geus.

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Keywords for this news article include: Leiden, Netherlands, Europe, Cardiology, Genetics, LUMC.

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New Cardiology Data Have Been Reported by Researchers at Veterans Affairs Medical Center [Selective Assembly of Na,K-ATPase alpha(2) beta(2) Heterodimers in the Heart DISTINCT FUNCTIONAL PROPERTIES AND ISOFORM-SELECTIVE INHIBITORS]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiology. According to news reporting originating from Los Angeles, California, by NewsRx correspondents, research stated, "The Na, K-ATPase alpha(2) subunit plays a key role in cardiac muscle contraction by regulating intracellular Ca2+, whereas alpha(1) has a more conventional role of maintaining ion homeostasis. The beta subunit differentially regulates maturation, trafficking, and activity of alpha-beta heterodimers."

Our news editors obtained a quote from the research from Veterans Affairs Medical Center, "It is not known whether the distinct role of alpha(2) in the heart is related to selective assembly with a particular one of the three beta isoforms. We show here by immunofluorescence and co-immunoprecipitation that alpha(2) is preferentially expressed with beta(2) in T-tubules of cardiac myocytes, forming alpha(2)beta(2) heterodimers. We have expressed human alpha(1)beta(1), alpha(2)beta(1), alpha(2)beta(2), and alpha(2)beta(3) in Pichia pastoris, purified the complexes, and compared their functional properties. alpha(2)beta(2) and alpha(2)beta(3) differ significantly from both alpha(2)beta(1) and alpha(1)beta(1) in having a higher K0.5K+ and lower K0.5Na+ for activating Na, K-ATPase. These features are the result of a large reduction in binding affinity for extracellular K+ and shift of the E1P-E2P conformational equilibrium toward E1P. A screen of perhydro-1,4-oxazepine derivatives of digoxin identified several derivatives (e.g. cyclobutyl) with strongly increased selectivity for inhibition of alpha(2)beta(2) and alpha(2)beta(3) over alpha(1)beta(1) (range 22-33-fold). Molecular modeling suggests a possible basis for isoform selectivity. The preferential assembly, specific T-tubular localization, and low K+ affinity of alpha(2)beta(2) could allow an acute response to raised ambient K+ concentrations in physiological conditions and explain the importance of alpha(2)beta(2) for cardiac muscle contractility."

According to the news editors, the research concluded: "The high sensitivity of alpha(2)beta(2) to digoxin derivatives explains beneficial effects of cardiac glycosides for treatment of heart failure and potential of alpha(2)beta(2)-selective digoxin derivatives for reducing cardiotoxicity."


New Cardiology Findings Reported from Group Health Research Institute (Exploring Provider Reactions to Decision Aid Distribution and Shared Decision Making: Lessons from Two Specialties)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiology is now available. According to news reporting from Seattle, Washington, by NewsRx journalists, research stated, "A critical component of shared decision making (SDM) is the role played by health care providers in distributing decision aids (DAs) and initiating SDM conversations. Existing literature indicates that decisions about designing and implementing DAs must take provider perspectives into account."

The news correspondents obtained a quote from the research from Group Health Research Institute, "However, little is known about how differences in provider attitudes across specialties may impact DA implementation and how provider attitudes may shift after DA implementation. Group Health's Decision Aid Implementation project was carried out in six specialties using 12 video-based DAs for preference-sensitive conditions; this study focused on two of the six specialties. In-depth, qualitative interviews with specialty care providers in two specialties-orthopedics and cardiology-at two time points during DA implementation. Data were analyzed using a thematic analysis approach. We interviewed 19 care providers in orthopedics and cardiology. All respondents believed that providing patients with accurate information on their health conditions and treatment options was important and that most patients wanted an active role in decision making. However, respondents diverged in decision-making styles and views on the practicality and appropriateness of using the DAs and SDM. For example, cardiology specialists were ambivalent about DAs for coronary artery disease because many viewed DAs and SDM as unnecessary or inappropriate for this clinical condition. Provider attitudes towards DAs and SDM were generally stable over two years. Limitations. Limitations include a lack of patient perspectives, social desirability bias, and possible selection bias. Successfully implementing DAs in clinical practice to promote SDM requires addressing individual provider attitudes, beliefs, and knowledge of SDM by specialty."

According to the news reporters, the research concluded: "During DA development and implementation, providers should be asked for input about the specific conditions and care processes that are most appropriate for SDM."


Our news journalists report that additional information may be obtained by contacting C. Hsu, Grp Hlth Res Inst, Seattle, WA 98103, United States. Additional authors for this research include D.T. Liss, D.L. Frosch, E.O. Westbrook and D. Arterburn.
New Cardiology Findings from Baylor University College of Medicine Discussed (Cardiac Lesions in the Critical Care Setting)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiology are discussed in a new report. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "The long-held belief that pregnancy is absolutely contraindicated in maternal cardiovascular disease is no longer justifiable using evidence base medicine."

Our news editors obtained a quote from the research from the Baylor University College of Medicine, "There are some conditions in which pregnancy is contraindicated, and high maternal risk and poor fetal outcome can be predicted. However, in many women with heart disease, a more favorable maternal and fetal outcome is expected."

According to the news editors, the research concluded: "This article focusses on the cardiac conditions that require more attention and have the potential to require observation in the intensive care unit setting."


The news editors report that additional information may be obtained by contacting A.A. Shamshirsaz, Baylor College of Medicine, Div Maternal Fetal Med, Dept. of Obstet & Gynecol, Texas Childrens Pavil Women, Houston, TX 77030, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ogc.2016.07.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Critical Care Medicine, Cardiology, Baylor University College of Medicine.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting originating in Skovde, Sweden, by NewsRx journalists, research stated, "Regenerative therapies hold great potential to change the treatment paradigm for cardiac diseases. Human cardiac progenitor cells can be used for drug discovery in this area and also provide a renewable source of cardiomyocytes."

Financial support for this research came from The Swedish Knowledge Foundation.

The news reporters obtained a quote from the research from the University of Skovde, "However, a better understanding of their characteristics is critical for interpreting data obtained from drug screening using these cells. In the present study, we performed global transcriptional analysis of two important sources of cardiac progenitors, i.e., patient epicardium-derived cells (EPDCs) and cardiac progenitor cells (CPCs) derived from human induced pluripotent stem cells. In addition, we also compared the gene expression profiles of these cells when they were cultured under normoxic and hypoxic conditions. We identified 3,289 mRNAs that were differentially expressed between EPDCs and CPCs. Gene ontology annotation and pathway enrichment analyses further revealed possible unique functions of these two cell populations. Notably, the impact of hypoxia vs normoxia on gene expression was modest and only a few genes (e.g., AK4, ALDOC, BNIP3P1, PGK1, and SLC2A1) were upregulated in EPDCs and CPCs after the cells were exposed to low oxygen for 24 h. Finally, we also performed a focused analysis of the gene expression patterns of a predefined set of 92 paracrine factors. We identified 30 of these genes as differentially expressed, and 29 were expressed at higher levels in EPDCs compared with CPCs."

According to the news reporters, the research concluded: "Taken together, the results of the present study advance our understanding of the transcriptional programs in EPDCs and CPCs and highlights important differences and similarities between these cell populations."

For more information on this research see: Comparative transcriptomic analysis identifies genes differentially expressed in human epicardial progenitors and hiPSC-derived cardiac progenitors. *Physiological Genomics*, 2016;48(11):771-784. *Physiological Genomics* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news correspondents report that additional information may be obtained by contacting J. Synergren, University of Skovde, Sch Biosci, Syst Biol Res Center, Skovde, Sweden. Additional authors for this research include L. Drowley, A.T. Plowright, G. Brolen, M.J. Goumans, A.C. Gittenberger-de Groot, P. Sartipy and Q.D. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/physiolgenomics.00064.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Skovde, Sweden, Europe, Cardiology, Genetics, University of Skovde.

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**Cardiology**

**New Cardiology Study Findings Have Been Reported by Researchers at Erasmus University Medical Center (Effects of body position on exercise capacity and pulmonary vascular pressure-flow relationships)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiology is now available. According to news reporting out of Brussels, Belgium, by NewsRx editors, research stated, "There has been revival of interest in exercise testing of the pulmonary circulation for the diagnosis of pulmonary vascular disease, but there still is uncertainty about body position and the most relevant measurements. Doppler echocardiography pulmonary hemodynamic measurements were performed at progressively increased workloads in 26 healthy adult volunteers in supine, semirecumbent, and upright positions that were randomly assigned at 24-h intervals."

Our news journalists obtained a quote from the research from Erasmus University Medical Center, "Mean pulmonary artery pressure (mPAP) was estimated from the maximum tricuspid regurgitation jet velocity. Cardiac output was calculated from the left ventricular outflow velocity-time integral. Pulmonary vascular distensibility alpha-index, the percent change of vessel diameter per millimeter mercury of mPAP, was calculated from multipoint mPAP-cardiac output plots. Body position did not affect maximum oxygen uptake (V-O2max), maximum respiratory exchange ratio, ventilatory equivalent for carbon dioxide, or slope of mPAP-cardiac output relationships, which was on average of 1.5 +/- 0.4 mmHg.l(-1).min(-1). Maximum mPAP, cardiac output, and total pulmonary vascular resistance were, respectively, 34 +/- 4 mmHg, 18 +/- 3 l/min, and 1.9 +/- 0.3 Wood units. However, the semirecumbent position was associated with a 10% decrease in maximum workload. Furthermore, cardiac output-workload or cardiac output-V-O2 relationships were nonlinear and variable. These results suggest that body position does not affect maximum exercise testing of the pulmonary circulation when results are expressed as mPAP-cardiac output or maximum total pulmonary vascular resistance. Maximum workload is decreased in semirecumbent compared with upright exercise."

According to the news editors, the research concluded: "Workload or VO2 cannot reliably be used as surrogates for cardiac output."

For more information on this research see: Effects of body position on exercise capacity and pulmonary pressure-flow relationships. *Journal of Applied Physiology*, 2016;121(5):1145-1150. *Journal of Applied Physiology* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting R. Naeije, Erasmus Univ Hosp, Dept. of Cardiol, Brussels, Belgium. Additional authors for this research include Y. Motoji, G. Deboeck, V. Faoro and R. Naeije.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/japplphysiol.00372.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Cardiology, Erasmus University Medical Center.

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**Cardiology**

**New Cardiology Study Findings Have Been Reported by Researchers at University Hospital Leicester NHS Trust (Radiation protection training for cardiologists in the era of multiple imaging techniques and complex interventions)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiology is the subject of a report. According to news reporting from Leicester, United Kingdom, by NewsRx journalists, research stated, "Cardiologists are among the heaviest medical users of ionising radiation. This usage is growing in proportion to the expanding range of cardiac diagnostic tests and interventional treatments."

The news correspondents obtained a quote from the research from University Hospital Leicester NHS Trust, "The primary focus of cardiologists is achieving clear diagnoses as well as technically and clinically successful treatments. That has to be set alongside strong awareness of the properties of ionising radiation and associated safety issues."

According to the news reporters, the research concluded: "This article illustrates some of the interplay between contemporary cardiology, radiological techniques, cardiology training and ionising radiation regulations and aims to set context for training and accreditation of cardiologists who use ionising radiation."


Our news journalists report that additional information may be obtained by contacting E.B. Roberts, Univ Hosp Leicester NHS Trust, Dept. of Cardiol, Leicester, Leics, United Kingdom.

Keywords for this news article include: Leicester, United Kingdom, Europe, Cardiology, University Hospital Leicester NHS Trust.

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### Cardiology

**New Cardiology Study Findings Have Been Reported from P.J. Yu et al (Outcomes of Patients With Prolonged Intensive Care Unit Length of Stay After Cardiac Surgery)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting originating in Bay Shore, New York, by NewsRx journalists, research stated, "To determine in-hospital and post-discharge long-term survival in patients with prolonged intensive care unit (ICU) stays after cardiac surgery. Retrospective, cohort study of cardiac surgery patients from May 2007 to June 2012."

The news reporters obtained a quote from the research, "Single-center cardiac surgery ICU. Patients were grouped according to length of ICU stay: between 1 and 2 weeks, between 2 and 4 weeks, and >4 weeks. None. Of 4,963 patients, 3.3%, 1.6%, and 2.9% of patients stayed 1 to 2 weeks, 2 to 4 weeks, and >4 weeks in the ICU, respectively. In-hospital mortality was 11.1%, 26.6%, and 31.0% for patients with 1 to 2 weeks, 2 to 4 weeks, and >4 weeks ICU stay, respectively. Patients with ICU stays between 1 and 2 weeks had 6 months, 1 year, and 2 year survival rates of 84.4%, 80.0%, and 75.3% after discharge, respectively. Patients with ICU stay between 2 and 4 weeks had similar 6 months, 1 year, and 2 year survival rates of 84.7%, 79.9%, and 74.1%, respectively. In contrast, patients with >4 week ICU stays had significantly lower postdischarge survival rates of 63.3%, 56.4%, and 41.1% at 6 months, 1..."
year, and 2 years, respectively. Postoperative stroke conferred the greatest risk of death within 1 year after discharge (odds ratio 7.6, p = 0.0140). In-hospital mortality rates post-cardiac surgery correlate with length of ICU stay but appear to plateau after 4 weeks."

According to the news reporters, the research concluded: "However, a>4 week ICU length of stay confers a worse long-term outcome post-hospital discharge, especially in patients with postoperative stroke."


Our news correspondents report that additional information may be obtained by contacting P.J. Yu, Hofstra Northwell Sch Med, Dept. of Cardiovasc & Thorac Surg, Bay Shore, NY, United States. Additional authors for this research include H.A. Cassiere, J. Fishbein, R.A. Esposito and A.R. Hartman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.jvca.2016.03.145. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bay Shore, New York, United States, North and Central America, Cardiac Surgery, Risk and Prevention, Cardiology, Hospital.

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**Cardiology**

**New Cardiology Study Findings Have Been Reported from Queen Mary University (Single-Cell Expression Profiling Reveals a Dynamic State of Cardiac Precursor Cells in the Early Mouse Embryo)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiology. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "In the early vertebrate embryo, cardiac progenitor/precursor cells (CPs) give rise to cardiac structures. Better understanding their biological character is critical to understand the heart development and to apply CPs for the clinical arena."

Our news journalists obtained a quote from the research from Queen Mary University, "However, our knowledge remains incomplete. With the use of single-cell expression profiling, we have now revealed rapid and dynamic changes in gene expression profiles of the embryonic CPs during the early phase after their segregation from the cardiac mesoderm. Progressively, the nascent mesodermal gene Mesp1 terminated, and Nkx2-5+/Tbx5+ population rapidly replaced the Tbx5low+ population as the expression of the cardiac genes Tbx5 and Nkx2-5 increased. At the Early Headfold stage, Tbx5-expressing CPs gradually showed a unique molecular signature with signs of cardiomyocyte differentiation. Lineage-tracing revealed a developmentally distinct characteristic of this population. They underwent progressive differentiation only towards the cardiomyocyte lineage corresponding to the first
heart field rather than being maintained as a progenitor pool. More importantly, Tbx5 likely plays an important role in a transcriptional network to regulate the distinct character of the FHF via a positive feedback loop to activate the robust expression of Tbx5 in CPs."

According to the news editors, the research concluded: "These data expands our knowledge on the behavior of CPs during the early phase of cardiac development, subsequently providing a platform for further study."


The news correspondents report that additional information may be obtained from I. Kokkinopoulos, Translational Medicine and Therapeutics, William Harvey Research Institute, Barts and The London School of Medicine and Dentistry, Queen Mary University of London, London, UK. Additional authors for this research include H. Ishida, R. Saba, P. Ruchaya, C. Cabrera, M. Struebig, M. Barnes, A. Terry, M. Kaneko, Y. Shintani, S. Coppen, H. Shiratori, T. Ameen, C. Mein, H. Hamada, K. Suzuki and K. Yashiro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0140831. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Cardiology, Cardiomyocyte, United Kingdom.

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**Cardiology**

**New Cardiology Study Findings Recently Were Reported by Researchers at Beth Israel Deaconess Medical Center (A novel algorithm to predict the QT interval during intrinsic atrioventricular conduction from an electrocardiogram obtained during ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiology. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "QT interval prolongation is a major arrhythmia risk factor. Standard QT interval limits are defined for preserved intrinsic atrioventricular and interventricular conduction."

The news correspondents obtained a quote from the research from Beth Israel Deaconess Medical Center, "However, ventricular pacing (VP) prolongs the QRS duration, induces electrical remodeling, and therefore obscures the intrinsic QT interval. No consensus exists on QT interval monitoring during VP. The aim of this study was to develop an algorithm to predict the QT interval during intrinsic conduction (IC) from the VP electrocardiogram. We measured electrocardiographic intervals QRS, QT, QT(peak), JT(peak), and TpeakTend in 38 participants with cardiac devices and preserved atrioventricular and interventricular conduction. We performed paired measurements in AAI (IC) and DDD (VP) pacing modes at equal heart rates at baseline and after 1 week of VP. We fit linear mixed models to predict IC QT intervals from VP intervals and compared their fit with other proposed methods of IC QT interval estimation. After 1 week of VP, the IC QT interval prolonged while the VP QT interval shortened from their respective baseline values. VP QT interval shortening was due to..."
TpeakTend interval shortening. JT(peak) and QT(peak) intervals prolonged in both pacing modes at 1 week. A formula using VP QT(peak) interval and heart rate closely predicted the IC QT interval (r = 0.94), outperforming other methods, including subtraction of excess QRS duration from the actual QT interval (r = 0.64) and subtraction of fixed values from heart rate corrected QT interval (r = 0.58 and r = 0.69). Validation in 2000 bootstrapped data sets confirmed the models performance (r = 0.93) compared to others (r = 0.430.58).

According to the news reporters, the research concluded: "In patients with VP, a formula using the QT(peak) interval accurately predicts the intrinsic QT interval."

For more information on this research see: A novel algorithm to predict the QT interval during intrinsic atrioventricular conduction from an electrocardiogram obtained during ventricular pacing. Heart Rhythm, 2016;13(10):2076-2082. Heart Rhythm can be contacted at: Elsevier Science Inc. 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Heart Rhythm - www.journals.elsevier.com/heart-rhythm/)

Our news journalists report that additional information may be obtained by contacting R. Sriwattanakomen, Beth Israel Deaconess Med Center, Div Cardiovasc, Dept. of Med, Boston, MA 02215, United States. Additional authors for this research include K.J. Mukamal and A. Shvilkin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.06.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Risk and Prevention, Arrhythmia, Cardiology, Algorithms, Beth Israel Deaconess Medical Center.

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Cardiology

New Cardiology Study Findings Recently Were Reported by Researchers at Intermountain Medical Center (Reasons for, and outcomes of patients who were referred for a ventricular assist device but were declined: the recent era forgotten ones)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiology. According to news reporting originating in Murray, Utah, by NewsRx journalists, research stated, "Ventricular assist devices (VADs) have a proven survival benefit in select patients with advanced heart failure, yet many patients considered for implantation are declined for various reasons. The outcome of these patients is obscure owing to their exclusion from recent VAD studies."

The news reporters obtained a quote from the research from Intermountain Medical Center, "We aim to compare the outcomes of patients who received a VAD to those who did not. For this study, the Artificial Heart Program's database at Intermountain Medical Center was queried from 2006 to 2012 for patients referred for a VAD. Kaplan-Meier survival analysis was performed with log-rank test determining significance. Of 232 patients included, 118 patients received a VAD and 114 patients did not. The prevailing reason for VAD decline in eligible and willing patients was due to pre-existing illness (39%). Mortality was higher in non-VAD vs. VAD patients (58.8% vs. 35.6%, p<0.001) with a median time-to-death of 67 (IQR:12-314) and
301 (IQR:136-694) d, respectively (p=0.007). In the current era of non-pulsatile VADs, mortality of patients who are considered but not implanted remains high. Additionally, mortality of these patients occurred much sooner."

According to the news reporters, the research concluded: "Educational efforts ensuring timely referral for VAD therapy are important to maximize the number of patients who may benefit."

For more information on this research see: Reasons for, and outcomes of patients who were referred for a ventricular assist device but were declined: the recent era forgotten ones. Clinical Transplantation, 2016;30(3):195-201. (Wiley-Blackwell - www.wiley.com; Clinical Transplantation - onlineibrary.wiley.com/journal/10.1111/(ISSN)1399-0012)

Our news correspondents report that additional information may be obtained by contacting A.K. Johnson, Intermountain Medical Center, Mechanical Circulatory Support, Utah Artificial Heart Program, Murray, UT, United States. Additional authors for this research include S.P. McCandless, R. Alharethi, W.T. Caine, D. Budge, G.A. Wright, A. Rauf, A. Miller, S. Stoker, H. Smith, K. Afshar, B.B. Reid, B.Y. Rasmusson and A.G Kfoury.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12670. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Utah, Murray, Cardiology, United States, Medical Devices, North and Central America, Ventricular Assist Device.

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Cardiology

New Cardiology Study Results from A.W. Welsh et al Described (Evaluation of an automated fetal myocardial performance index)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiology. According to news originating from Sydney, Australia, by NewsRx correspondents, research stated, "To compare automated measurements of the fetal left myocardial performance index (MPI) with manual measurements for absolute value, repeatability and waveform acceptability. This was a multicenter international online study using images from uncomplicated, morphologically normal singleton pregnancies (16-38 weeks' gestation)."

Our news journalists obtained a quote from the research, "Single Doppler ultrasound cardiac cycle images of 25 cases were selected, triplicated and randomized (n=75). Six senior observers, unaware of the repetition of images, manually calculated MPI for each waveform and the results were compared with automation. Intraobserver repeatability and interobserver reproducibility were assessed using intraclass correlation coefficients (ICCs) and 95% CI. The agreement between each observer's manualMPI measurements and corresponding automated measurements was evaluated using Bland-Altman plots and ICCs with 95% CI. The degree of variation between experts in the classification of fetal MPI waveform quality was assessed using individual cardiac cycle left MPI images previously classified by two authors as 'optimal', 'suboptimal' or 'unacceptable', with 30 images selected for each quality group. Ten images in each category were duplicated and the resulting 120 images were randomized and then classified online by five observers. The kappa statistic (kappa) was used to demonstrate interobserver and intraobserver agreement and agreement of classifications by the five observers. The automated
measurement software returned the same value for any given image, resulting in an ICC of 1.00. Manual measurements had intraobserver repeatability ICC values ranging from 0.69 to 0.97, and the interobserver reproducibility ICC was 0.78. Comparison of automated vs manual MPI absolute measurements for each observer gave ICCs ranging from 0.77 to 0.96. Interobserver image quality classification agreement gave k=0.69 (P <0.001), and the intraobserver agreement was variable (kappa ranging from 0.40 to 0.81). Automated fetal MPI provides superior repeatability and reproducibility to manual methodology. Additionally, experts vary significantly when classifying suitability of fetal MPI waveforms.

According to the news editors, the research concluded: "Automated MPI may facilitate clinical translation by removing human subjectivity."


The news correspondents report that additional information may be obtained from A.W. Welsh, Univ New South Wales, Sch Womens & Childrens Hlth, Sydney, NSW, Australia. Additional authors for this research include P. Maheshwari, J. Wang, A. Henry, D. Chang, F. Crisi, H.M. Gardiner, E. Hernandez-Andrade, N. Meriki, S. Redmond and S. Yagel.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Cardiology.

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**Cardiology**

**New Cardiology Study Results from Q. Xing et al Described (Cardiac performance: a thermal tolerance indicator in scallops)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiology have been presented. According to news reporting from Qingdao, People's Republic of China, by NewsRx journalists, research stated, "Thermal tolerance has become an active research area in marine poikilotherms due to the influence of increased sea temperature caused by global warming. Previous indicators of thermal tolerance in bivalves are generally laborious and time-consuming and even require killing the specimens."

The news correspondents obtained a quote from the research, "In this study, we demonstrated that heart rate (HR) was a stable and reliable indicator for scallop physiological status by applying an infrared-based cardiac performance monitoring system. The feasibility of HR-based Arrhenius break temperatures (ABTs) as a scallop thermal tolerance indicator was evaluated by investigating ABTs of four species with different thermal limits, including the Yesso scallop (Patinopecten yessoensis), the Zhikong scallop (Chlamys farreri), the bay scallop (Argopecten irradians), and the Catarina scallop (Argopecten ventricosus). In accordance with the thermal limits, ABTs of the Yesso scallop, Zhikong scallop, bay scallop, and Catarina scallop were 22.03 +/- 0.19, 29.10 +/- 0.25, 32.20 +/- 0.25, and 34.09 +/- 0.19 degrees C, respectively, suggesting that the ABT could indicate thermal limits in interspecific scallops. Variations in the ABTs were observed among intraspecific scallops with different sizes, weights, and ages, suggesting that smaller and younger scallops tend to have higher thermal
limits. Significant differences in ABT were also observed between pre- and post-spawning individuals, implying that spawning behavior could decrease scallop thermal limits. The above results suggest that HR-based ABT can detect not only interspecific but also intraspecific thermal tolerance in scallops.

According to the news reporters, the research concluded: "This study reports the feasibility of infra-red-based cardiac performance as a rapid, efficient, and noninvasive indicator for bivalve thermal tolerance."


Our news journalists report that additional information may be obtained by contacting L.L. Zhang, Qingdao Natl Lab Marine Sci & Technol, Lab Marine Fisheries Sci & Food Prod Proc, Qingdao, People's Republic of China. Additional authors for this research include Y.P. Li, H.B. Guo, Q. Yu, X.T. Huang, S. Wang, X.L. Hu, L.L. Zhang and Z.M. Bao. Keywords for this news article include: Qingdao, People's Republic of China, Asia, Cardiology.

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Cardiology

**New Cardiology Study Results from University of Alberta Described**

(Effect of resveratrol on metabolic and cardiovascular function in male and female adult offspring exposed to prenatal hypoxia and a high-fat diet)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiology. According to news originating from Edmonton, Canada, by NewsRx correspondents, research stated, "Prenatal hypoxia, a common outcome of pregnancy complications, predisposes offspring to the development of metabolic and cardiovascular disorders in later life. We have previously observed that resveratrol improved cardiovascular and metabolic health in adult male rat offspring exposed to prenatal hypoxia and a postnatal high-fat (HF) diet; however, the effects of resveratrol in female rat offspring are not known."

Our news journalists obtained a quote from the research from the University of Alberta, "Our aim was to identify the mechanism(s) by which resveratrol may prevent metabolic and cardiac dysfunction in both male and female rat offspring exposed to prenatal hypoxia and a postnatal HF diet. Offspring that experienced normoxia or hypoxia in utero were fed a HF diet or a HF diet supplemented with resveratrol for 9 weeks following weaning. Body composition, metabolic function, in vivo cardiac function and ex vivo cardiac susceptibility to ischaemia-reperfusion (I/R) injury were assessed at 12 weeks of age. Prenatal hypoxia impaired metabolic function in male, but not female, rat offspring fed a HF diet and this was improved by resveratrol supplementation. Prenatal hypoxia also led to reduced recovery from cardiac I/R injury in male, and to a lesser extent in female, rat offspring fed a HF diet. Indices of cardiac oxidative stress after I/R were enhanced in both male and female rat offspring exposed to prenatal hypoxia. Resveratrol improved cardiac recovery from I/R injury and attenuated
superoxide levels in both male and female rat offspring."

According to the news editors, the research concluded: "Prenatal hypoxia impaired metabolic and cardiac function in a sex-specific manner. Resveratrol supplementation may improve metabolic and cardiovascular health in adult male and female rat offspring exposed to prenatal hypoxia."


The news correspondents report that additional information may be obtained from A. Shah, Dept. of Obstetrics and Gynecology, University of Alberta, Edmonton, Alberta, Canada. Additional authors for this research include L.M. Reyes, J.S. Morton, D. Fung, J. Schneider and S.T Davidge.

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Keywords for this news article include: Canada, Alberta, Edmonton, Cardiology, Cardiovascular, North and Central America.

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Cardiology

New Cardiology Study Results from Walter Reed National Military Medical Center Described (A Quadricuspid Aortic Valve as Seen by Cardiac Magnetic Resonance Imaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiology have been presented. According to news reporting originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "We report a case of a 35-year-old active duty male with a rare quadricuspid aortic valve identified via transthoracic echocardiography following the detection of an incidental grade I/VI diastolic murmur."

Our news editors obtained a quote from the research from Walter Reed National Military Medical Center, "Further characterization of the anatomical findings and aortic valve flow dynamics were evaluated with cardiac magnetic resonance imaging. Accurate assessment of the various valve morphologies is essential, as it guides surgical treatment options to correct the defect."

According to the news editors, the research concluded: "Our case highlights the complimentary role of cardiac magnetic resonance imaging in defining the anatomy and functional consequences of a quadricuspid aortic valve."

For more information on this research see: A Quadricuspid Aortic Valve as Seen by Cardiac Magnetic Resonance Imaging. Military Medicine, 2016;181(9):E1177-E1179. Military Medicine can be contacted at: Assoc Military Surg Us, 9320 Old Georgetown Rd, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting J.
New Cardiomegaly Findings from Huazhong University of Science and Technology Described (Tanshinone IIA inhibits myocardial remodeling induced by pressure overload via suppressing oxidative stress and inflammation: Possible role of silent ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Cardiomegaly have been presented. According to news reporting originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "Tanshinone IIA (Tan) exerts potential protective effects against cardiovascular diseases. Oxidative stress and inflammation are involved in cardiac hypertrophy."

Financial support for this research came from National Natural Science Foundation of China.

Our news editors obtained a quote from the research from the Huazhong University of Science and Technology, "Activation of silent information regulator 1 (SIRT1) signaling has been suggested to attenuate cardiac hypertrophy. This study aims to evaluate the antioxidative and antiinflammatory effects of Tan treatment in pressure overload-induced myocardial remodeling and elucidate its potential mechanisms. Sprague-Dawley rats were treated with Tan in the absence or presence of the SIRT1 inhibitor sirtinol (SnI) and then subjected to transverse aortic constriction (TAC). Tan conferred cardioprotective effects by improving cardiac function, reducing apoptosis and myocardial remodeling, upregulating SIRT1, Bcl-2 expressions, and downregulating Bax and caspase-3 expressions. Snl attenuated these effects by inhibiting SIRT1 signaling. Tan treatment also reduced myocardium malondialdehyde (MDA) content, and cardiac inflammatory cytokines (TNF-alpha and IL-6) and increased myocardium superoxide dismutase (SOD) level. However, these effects were also abolished by Snl."

According to the news editors, the research concluded: "These results indicate that Tan significantly attenuates TAC-induced myocardial remodeling possibly due to its strong anti-oxidative and anti-inflammatory activity. Importantly, SIRT1 signaling activation is involved in this process."

The news editors report that additional information may be obtained by contacting H.W. Chen, Huazhong University of Science & Technology, Tongji Hosp, Dept. of Emergency Med, Wuhan, People's Republic of China. Additional authors for this research include S.S. Li and H.W. Chen.

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Keywords for this news article include: Wuhan, People's Republic of China, Asia, Heart Disorders and Diseases, Inflammation, Cardiomegaly, Myocardium, Cardiology, Huazhong University of Science and Technology.

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Heart Disorders and Diseases - Cardiomegaly

New Cardiomegaly Findings from Jikei University Discussed (Impact of alcohol intake on the relationships of uric acid with blood pressure and cardiac hypertrophy in essential hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Cardiomegaly is the subject of a report. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Hyperuricemia, which is frequently associated with hypertension, can be caused by alcohol intake. To date, limited data have shown the link between alcohol intake and hyperuricemic hypertension."

Our news editors obtained a quote from the research from Jikei University, "We retrospectively examined the influence of alcohol intake on the relationship between the uric acid level and blood pressure or cardio-metabolic parameters in 171 untreated non-failing hypertensive patients (mean 59.3 +/- 10.7 years). Cross-sectional analysis was separately performed in regular alcohol drinkers (more than 25 g/day ethanol, n = 74, 82.4% men) and non-drinkers (n = 97, 33.0% men). Diastolic blood pressure was significantly higher in drinkers than in non-drinkers (101.6 +/- 11.5 mmHg vs. 96.8 +/- 8.2 mmHg, p< 0.01). Estimated glomerular filtration rate (80.4 +/- 14.7 mL/min/1.73 m(2) vs. 80.0 +/- 17.8 mL/min/1.73 m(2)) and body mass index (BMI, 24.7 +/- 4.4 kg/m(2) vs. 24.8 +/- 4.2 kg/m(2)) were similar in the two groups. In the drinker group, the uric acid level (mean 6.3 +/- 1.7 mg/dL) was positively correlated with both systolic and diastolic blood pressures (r = 0.270/p = 0.020 and r = 0.354/p = 0.0020, respectively), and with the markers of cardiac hypertrophy, including electrocardiographic voltage (V1S + V5R, r = 0.244/p = 0.042) and echocardiographic left ventricular mass index (r = 0.270/p = 0.026). These correlations were also observed in the male drinker sub-group. In the nondrinkers, the uric acid level (mean 5.0 +/- 1.4 mg/dL) was positively correlated with BMI (r = 0.369/p = 0.0002) but not with blood pressure or the markers of cardiac hypertrophy. The results suggest that the role of uric acid in blood pressure might differ between hypertensive drinkers and non-drinkers. In regular alcohol drinkers, there was a positive association of uric acid level with blood pressure and the severity of cardiac hypertrophy."

According to the news editors, the research concluded: "In non-regular drinkers, an increased uric acid level is likely to be closely associated with increased BMI."

For more information on this research see: Impact of alcohol intake on the
relationships of uric acid with blood pressure and cardiac hypertrophy in essential hypertension. *Journal of Cardiology*, 2016;68(5-6):447-454. *Journal of Cardiology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

The news editors report that additional information may be obtained by contacting S. Seki, Jikei Univ, Sch Med, Katsushika Med Center, Dept. of Cardiovasc Med, Tokyo, Japan. Additional authors for this research include Y. Oki, S. Tsunoda, T. Takemoto, T. Koyama and M. Yoshimura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2015.11.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Essential Hypertension, Blood Pressure, Hemodynamics, Cardiomegaly, Hypertrophy, Nephrology, Cardiology, Jikei University.

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Heart Disorders and Diseases - Cardiomegaly

**New Cardiomegaly Study Findings Recently Were Reported by Researchers at State University of Campinas (Increased Circulating Tissue Inhibitor of Metalloproteinase-2 Is Associated With Resistant Hypertension)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Cardiomegaly. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, research stated, "Resistant hypertension (RH) is associated with organ damage and cardiovascular risk. Evidence suggests the involvement of matrix metalloproteinase 2 (MMP-2) and tissue inhibitor of metalloproteinase 2 (TIMP-2) in hypertension and in cardiovascular remodeling."

Funders for this research include Fundacao de Amparo a Pesquisa do Estado de Sao Paulo, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico, Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior.

Our news journalists obtained a quote from the research from the State University of Campinas, "The aim of this study was to assess the levels of MMP-2 and TIMP-2 in RH and its relation with organ damage, including arterial stiffness and cardiac hypertrophy. MMP-2 and TIMP-2 levels were compared among 19 patients with normotension (NT), 116 with nonresistant hypertension (HTN) and 116 patients with resistant HTN (RH). MMP-2 levels showed no differences among NT, HTN, and RH groups, while TIMP-2 levels were higher in RH compared with HTN and NT groups (90.0 [76.1-107.3] vs 70.1 [57.7-88.3] vs 54.7 [40.9-58.1] ng/mL, P<.01), respectively. MMP-2/TIMP-2 ratio was reduced in the RH group compared with the HTN and NT groups (2.7 [1.9-3.4] vs 3.3 [2.6-4.2] vs 4.9 [4.5-5.3], P<.01), respectively. No associations were found between MMP-2 levels, TIMP-2, and MMP-2/TIMP-2 ratio with cardiac hypertrophy and arterial stiffness in the RH and HTN groups. Finally, in a regression analysis, reduced MMP-2/TIMP-2 ratio and increased TIMP-2 levels were
independently associated with RH."

According to the news editors, the research concluded: "The present findings provide evidence that TIMP-2 is associated with RH and might be a possible biomarker for screening RH patients."


Our news journalists report that additional information may be obtained by contacting H. Moreno, Univ Campinas Unicamp, Teaching Hosp, Sao Paulo, Brazil. Additional authors for this research include N.R. Barbaro, A.P. de Faria, R. Modolo, A.M.V. Ritter, C. Pinho, R.F.B. Amorim, V. Fontana and H. Moreno.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12865. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, Tissue Inhibitor of Metalloproteinase-2, Tissue Inhibitor of Metalloproteinases, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Enzymes and Coenzymes, Hypertension, Cardiomegaly, Cardiology, Proteins, State University of Campinas.

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Heart Disorders and Diseases - Cardiomyopathies

**New Cardiomyopathies Study Findings Have Been Reported by Researchers at University of Melbourne (Diabetic Cardiomyopathy: The Case for a Role of Fructose in Disease Etiology)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Cardiomyopathies is now available. According to news reporting originating in Melbourne, Australia, by NewsRx journalists, research stated, "A link between excess dietary sugar and cardiac disease is clearly evident and has been largely attributed to systemic metabolic dysregulation. Now a new paradigm is emerging, and a compelling case can be made that fructose-associated heart injury may be attributed to the direct actions of fructose on cardiomyocytes."

Financial support for this research came from Diabetes Australia Research Trust. The news reporters obtained a quote from the research from the University of Melbourne, "Plasma and cardiac fructose levels are elevated in patients with diabetes, and evidence suggests that some unique properties of fructose (vs. glucose) have specific cardiomyocyte consequences. Investigations to date have demonstrated that cardiomyocytes have the capacity to transport and utilize fructose and express all of the necessary proteins for fructose metabolism. When dietary fructose intake is elevated and myocardial glucose uptake compromised by insulin resistance, increased cardiomyocyte fructose flux represents a hazard involving unregulated glycolysis and oxidative stress. The high reactivity of fructose supports the contention that fructose accelerates subcellular hexose sugar-related protein modifications,
such as O-GlcNAcylation and advanced glycation end product formation. Exciting recent discoveries link heart failure to induction of the specific high-affinity fructose-metabolizing enzyme, fructokinase, in an experimental setting."

According to the news reporters, the research concluded: "In this Perspective, we review key recent findings to synthesize a novel view of fructose as a cardiopathogenic agent in diabetes and to identify important knowledge gaps for urgent research focus."

For more information on this research see: Diabetic Cardiomyopathy: The Case for a Role of Fructose in Disease Etiology. Diabetes, 2016;65(12):3521-3528. Diabetes can be contacted at: Amer Diabetes Assoc, 1701 N Beauregard St, Alexandria, VA 22311-1717, USA. (Elsevier - www.elsevier.com; Diabetes - www.journals.elsevier.com/diabetes-and-metabolic-syndrome-clinical-research-and-reviews/)

Our news correspondents report that additional information may be obtained by contacting L.M.D. Delbridge, University of Melbourne, Dept. of Physiol, Melbourne, Vic, Australia. Additional authors for this research include V.L. Benson, R.H. Ritchie and K.M. Mellor.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2337/db16-0682. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Diabetic Cardiomyopathy, Cardiomyopathies, Cardiomyocyte, Endocrinology, Heart Disease, Cardiology, Diabetes, University of Melbourne.

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restrictive cardiomyopathies. Truncating FLNC mutations were absent in patients with other phenotypes, including 1,078 patients with hypertrophic cardiomyopathy. Fifty-four mutation carriers were identified among 121 screened relatives. The phenotype consisted of left ventricular dilation (68%), systolic dysfunction (46%), and myocardial fibrosis (67%); inferolateral negative T waves and low QRS voltages on electrocardiography (33%); ventricular arrhythmias (82%); and frequent sudden cardiac death (40 cases in 21 of 28 families). Clinical skeletal myopathy was not observed. Penetrance was >97% in carriers older than 40 years. Truncating mutations in FLNC cosegregated with this phenotype with a dominant inheritance pattern (combined logarithm of the odds score: 9.5). Immunohistochemical staining of myocardial tissue showed no abnormal filamin C aggregates in patients with truncating FLNC mutations. Truncating mutations in FLNC caused an overlapping phenotype of dilated and left-dominant arrhythmogenic cardiomyopathies complicated by frequent premature sudden death.

According to the news editors, the research concluded: "Prompt implantation of a cardiac defibrillator should be considered in affected patients harboring truncating mutations in FLNC."

For more information on this research see: Truncating FLNC Mutations Are Associated With High-Risk Dilated and Arrhythmogenic Cardiomyopathies. Journal of the American College of Cardiology, 2016;68(22):2440-2451. Journal of the American College of Cardiology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jacc.2016.09.927. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Coruna, Spain, Europe, Cardiovascular Diseases and Conditions, Cardiology, Diagnostics and Screening, Heart Disorders and Diseases, Cardiomyopathies, Heart Disease, Genetics.

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Heart Disorders and Diseases - Cardiomyopathies

New Cardiomyopathies Study Results from General Hospital Described [Mangiferin suppressed advanced glycation end products (AGEs) through NF-kB deactivation and displayed anti-inflammatory effects in streptozotocin and high fat diet-diabetic ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Cardiomyopathies. According to news reporting out of Chengdu, People's Republic of China, by NewsRx editors, research stated, "Given the importance of the aggregation of advanced glycation end products (AGEs) and cardiac inflammation in the onset and progression of diabetic cardiomyopathy (DCM), our objective in this study was to demonstrate the
cardioprotective effect of mangiferin, an antidiabetic and anti-inflammatory agent, on diabetic rat model. The DCM model was established by a high-fat diet and a low dose of streptozotocin."

Our news journalists obtained a quote from the research from General Hospital, "DCM rats were treated orally with mangiferin (20 mg/kg) for 16 weeks. Serum and left ventricular myocardium were collected for determination of inflammatory cytokines. AGEs mRNA and protein expression of nuclear factor kappa B (NF-kB) and receptor for AGEs (RAGE) in myocardium were assayed by real-time PCR and Western blot. ROS levels were measured by dihydroethidium fluorescence staining. NF-kB binding activity was assayed by TransAM NF-kB p65 ELISA kit. Chronic treatment with mangiferin decreased the levels of myocardial enzymes (CK-MB, LDH) and inflammatory mediators (TNF-a, IL-1b). Meanwhile, NF-kB is inhibited by the reduction of nuclear translocation of p65 subunit, and mangiferin reduced AGE production and decreased the mRNA and protein expression of RAGE in DCM rats."

According to the news editors, the research concluded: "Our data indicated that mangiferin could significantly ameliorate DCM by preventing the release of inflammatory cytokines, and inhibiting ROS accumulation, AGE/RAGE production, and NF-kB nuclear translocation, suggesting that mangiferin treatment might be beneficial in DCM."


Our news journalists report that additional information may be obtained by contacting J. Hou, a Dept. of Pharmacy, Chengdu Military General Hospital, Chengdu, People's Republic of China. Additional authors for this research include D. Zheng, G. Fung, H. Deng, L. Chen, J. Liang, Y. Jiang and Y. Hu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1139/cjpp-2015-0073. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Canadian Journal of Physiology and Pharmacology is: National Research Council of Canada, NRC Communications & Corporate Relations, 1200 Montreal Road, Bldg. M-58, Ottawa, Ontario, Canada K1A 0R6.

Keywords for this news article include: Asia, Chengdu, Diabetes, Genetics, Myocardium, Proteomics, Endocrinology, Heart Disease, Cardiomyopathies, Protein Expression, Diabetic Cardiomyopathy, People's Republic of China, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Heart Disorders and Diseases - Cardiomyopathies

New Cardiomyopathies Study Results from Washington University Described (Mitochondrial fission/fusion and cardiomyopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Cardiomyopathies have been published. According to news reporting from St. Louis, Missouri, by NewsRx editors, the research stated, "Mitochondria are highly abundant in and essential to the beat-to-beat contractile performance of hearts. However, relatively few cardiac diseases have been attributed to primary mitochondrial dysfunction."

Financial support for this research came from National Institutes of Health.

The news correspondents obtained a quote from the research from Washington University, "The paucity of evidence for 'primary mitochondrial cardiac diseases' may be because such an entity does not exist. Alternately, the consequences of mitochondrial dysfunction on hearts may be so severe that long-term viability is severely impaired and affected individuals are therefore not included in standard genetic screens of adult heart disease subjects."

According to the news reporters, the research concluded: "Here, I review accumulating experimental evidence that impairing mitochondrial fission or fusion causes cardiomyopathy in otherwise normal mice, and consider how these data could motivate screening of perinatal cardiomyopathy subjects for damaging mutations of mitochondrial fission and fusion factors."


Our news journalists report that additional information may be obtained by contacting G.W. Dorn, Washington University, Sch Med, Dept. of Internal Med, Center Pharmacogen, St Louis, MO 63110, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gde.2016.03.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Cardiology, Diagnostics and Screening, Genetics, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiomyopathies, Heart Disease, Washington University.

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New Cardiovascular Agents Study Findings Have Been Reported from University of Copenhagen [Antiarrhythmic effect of the Ca2+-activated K+ (SK) channel inhibitor ICA combined with either amiodarone or dofetilide in an isolated heart model of ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Cardiovascular Agents. According to news reporting from Copenhagen, Denmark, by NewsRx journalists, research stated, "Dose is an important parameter in terms of both efficacy and adverse effects in pharmacological treatment of atrial fibrillation (AF). Both of the class III antiarrhythmics dofetilide and amiodarone have documented anti-AF effects."

Financial support for this research came from Sundhed og Sygdom, Det Frie Forskningsrad (DK).

The news correspondents obtained a quote from the research from the University of Copenhagen, "While dofetilide has dose-related ventricular side effects, amiodarone primarily has adverse non-cardiac effects. Pharmacological inhibition of small conductance Ca2+-activated K+ (SK) channels has recently been reported to be antiarrhythmic in a number of animal AF models. In a Langendorff model of acutely induced AF on guinea pig hearts, it was investigated whether a combination of the SK channel blocker N-(pyridin-2-yl)-4-(pyridin-2-yl)thiazol-2-amine (ICA) together with either dofetilide or amiodarone provided a synergistic effect. The duration of AF was reduced with otherwise subefficacious concentrations of either dofetilide or amiodarone when combined with ICA, also at a subefficacious concentration. At a concentration level effective as monotherapy, dofetilide produced a marked increase in the QT interval. This QT prolonging effect was absent when combined with ICA at non-efficacious monotherapy concentrations."

According to the news reporters, the research concluded: "The results thereby reveal that combination of subefficacious concentrations of an SK channel blocker and either dofetilide or amiodarone can maintain anti-AF properties, while the risk of ventricular arrhythmias is reduced."

For more information on this research see: Antiarrhythmic effect of the Ca2+-activated K+ (SK) channel inhibitor ICA combined with either amiodarone or dofetilide in an isolated heart model of atrial fibrillation. Pflugers Archiv-European Journal of Physiology, 2016;468(11-12):1853-1863. Pflugers Archiv-European Journal of Physiology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

Our news journalists report that additional information may be obtained by contacting T. Jespersen, University of Copenhagen, Dept. of Biomed Sci, Danish Natl Res Fdn Center Cardiac Arrhythmia, DK-2200 Copenhagen N, Denmark. Additional authors for this research include J.G. Diness, L. Abildgaard, M. Sheykhzade, M. Grunnet and T. Jespersen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00424-016-1883-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Amiodarone, Dofetilide, University of Copenhagen.

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New Cardiovascular Diseases Data Have Been Reported by Researchers at University of Liverpool (Unstructured treatment interruption: an important risk factor for arterial stiffness in adult Malawian patients with antiretroviral treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases is now available. According to news reporting out of Blantyre, Malawi, by NewsRx editors, research stated, "The aim of the study was to evaluate the impact of unstructured antiretroviral treatment (ART) interruption on arterial stiffness in adult Malawians who are on ART for at least 35 years. The number of treatment interruption events for at least 60 days during ART treatment was quantified in patients for at least 35 years using retrospective routinely collected clinic data."

Our news journalists obtained a quote from the research from the University of Liverpool, "Treatment interruption data were linked to patient carotid-femoral pulse wave velocity (PWV); PWV more than 10 m/s was set as the threshold for clinically significant cardiovascular disease risk. PWV was measured in patients (on ART >= 18 months), during routine ART clinic visits in Blantyre, Malawi, between November 2014 and July 2015. Multivariable linear regression was used to estimate the change in PWV m/s associated with treatment interruption. Multivariable logistic regression was used to estimate risk of PWV more than 10 m/s. All models were controlled for demographic and cardiometabolic risk factors. In 220 patients (median age 45 years, range 37-80 years), 86 (37.4%) patients had at least one treatment interruption event. Median length of treatment interruption events was 75 days (range 31 days to 8 years). Overall, 31 (14%) patients had a PWV more than 10 m/s. In multivariable analysis, we found a 0.2 increase in PWV m/s per treatment interruption event (0.2, 95% confidence interval 0.1-0.4) and a two-fold increased risk of PWV more than 10 m/s per treatment interruption event (adjusted odds ratio 2.2, 95% confidence interval 1.2-4.0). Treatment interruption in patients with ART for at least 35 years is a common and important risk factor for arterial stiffness."

According to the news editors, the research concluded: "Therefore, the link between treatment interruption and cardiovascular disease in this setting in which traditional risks factors are less prevalent needs to be explored further."

For more information on this research see: Unstructured treatment interruption: an important risk factor for arterial stiffness in adult Malawian patients with antiretroviral treatment. Aids, 2016;30(15):2373-2378. Aids can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting I. Peterson, University of Liverpool, Blantyre, Malawi. Additional authors for this research include D.M. Ming, C. Kelly, K. Malisita, J. Mallewa, H.C. Mwandumba, D.G. Laloo and R.S. Heyderman.

Keywords for this news article include: Blantyre, Malawi, Africa, Cardiovascular Diseases and Conditions, Cardiology, Epidemiology, Risk and Prevention, University of Liverpool.
New Cardiovascular Diseases Study Findings Have Been Reported by Investigators at University of Barcelona (Role of New Antiplatelet Drugs on Cardiovascular Disease: Update on Cangrelor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases is now available. According to news reporting out of Barcelona, Spain, by NewsRx editors, research stated, "Dual therapy with a P2Y(12) receptor antagonist in addition to aspirin is the antiplatelet treatment of choice in patients with acute coronary syndromes or undergoing percutaneous coronary intervention (PCI). However, available oral P2Y(12) antagonists have several limitations, mostly due to their pharmacological profile, which can affect outcomes in certain clinical settings."

Our news journalists obtained a quote from the research from the University of Barcelona, "Cangrelor is an intravenous, direct-acting, potent P2Y(12) inhibitor with rapid onset and offset of action, which has been recently approved for clinical use in patients undergoing PCI. In clinical trials, cangrelor has demonstrated greater efficacy than clopidogrel with a favorable safety profile among PCI patients not receiving pretreatment with oral P2Y(12) antagonists. However, its definitive role in contemporary practice is yet to be determined."

According to the news editors, the research concluded: "This review aims to provide a comprehensive overview of the current status of knowledge on cangrelor, focusing on its pharmacological properties, clinical development, and the potential applications of this newly available agent."

For more information on this research see: Role of New Antiplatelet Drugs on Cardiovascular Disease: Update on Cangrelor. Current Atherosclerosis Reports, 2016;18 (11):28-37. Current Atherosclerosis Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

Our news journalists report that additional information may be obtained by contacting J.L. Ferreiro, University of Barcelona, Bellvitge Univ Hosp IDIBELL, Heart Dis Inst, Barcelona 08907, Spain.

Keywords for this news article include: Barcelona, Spain, Europe, Therapy, Article Review, Drugs and Therapies, Cardiovascular Diseases and Conditions, Percutaneous Coronary Intervention, Pharmacology, Cardiology, Surgery, University of Barcelona.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Health and Medicine - Cardiovascular Electrophysiology are presented in a new report. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "The incidence of unscheduled encounters and problem occurrence between ICD implant and first in-person evaluation (IPE) recommended at 12 weeks is unknown. Automatic remote home monitoring (HM) may be useful in this potentially unstable period."

The news reporters obtained a quote from the research from Heart and Vascular Institute, "ICD patients were randomized 2:1 to HM enabled post-implant (n=908) or to conventional monitoring (CM; n=431). Groups were compared between implant and prior to first scheduled IPE for IPE incidence, causes, and actionability (reprogramming, system revision, medication changes) and event detection time. HM and CM patients were similar (mean age 63 years, 72% male, LVEF 29%, primary prevention 73%, DDD 57%). In the post-implant interval assessed (HM 100 ? 21.3 days vs. CM 101 ? 20.8 days, p=0.54), 85.4% (776/908) HM patients and 87.7% CM (378/431) patients had no cause for IPE (p=0.31). When IPE occurred, actionability in HM (64/177 [36.2%]) was greater versus CM (15/62 [24.2%], p=0.12). Actionable items were discovered sooner with HM (p=0.025). Device reprogramming or lead revision was triggered following 53/177 (29.9%) IPEs in HM versus 9/62 (14.5%) in CM (p=0.018). Arrhythmia detection was enhanced by HM: 276 atrial and ventricular episodes were detected in 135 follow-ups in contrast to CM (65 episodes at 17 IPEs). More silent arrhythmic episodes were discovered by HM (7.2% vs. 1.5% [p=0.15]). Since 27/42 (64.3%) IPEs driven by HM alerts were actionable, event notification was a valuable method for problem detection. Importantly, HM did not increase incidence of non-actionable IPEs (p=0.72).

According to the news reporters, the research concluded: "Activation of automatic remote monitoring should be encouraged soon post-ICD implant."


Our news correspondents report that additional information may be obtained by contacting N. Varma, Heart and Vascular Institute, Cleveland Clinic, Cleveland, Ohio, United States. Additional authors for this research include A.E. Epstein, R. Schweikert, J. Michalski and C.J Love.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jce.12895. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the Journal of Cardiovascular Electrophysiology can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Ohio, Cleveland, United States, Health and Medicine, North and Central America, Cardiovascular Electrophysiology.

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Cardiovascular Research

New Cardiovascular Research Data Have Been Reported by Researchers at Sungkyunkwan University (Novel approach to study the cardiovascular effects and mechanism of action of urban particulate matter using lung epithelial-endothelial ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Research have been published. According to news reporting originating from Gyeonggi Do, South Korea, by NewsRx correspondents, research stated, "In vitro models have become increasingly sophisticated, and their usefulness in supporting toxicity testing is well established. The present study was designed to establish a novel in vitro model that mimics the cellular network surrounding airways and pulmonary blood vessels, to study the cardiovascular toxic effects of particulate matter (PM)."

Financial supporters for this research include Ministry of Science, ICT and Future Planning, National Research Foundation of Korea.

Our news editors obtained a quote from the research from Sungkyunkwan University, "Transwell culture method was used to develop a novel tetra-culture system consisting of tri-cultures (one lung epithelial and two immune cell lines) in the apical chamber and endothelial cells in the basolateral chamber. Tri-cultures were exposed to standard reference material (SRM) 1648a, an urban PM. SRM 1648a did not show cytotoxic effects; however, it increased IL-6 level in apical and basolateral chambers. The cells in the basolateral chamber showed increased monocyte adhesion. Furthermore, exposure of tri-cultured cells to SRM 1648a in the apical chamber induced ICAM-1 expression-in endothelial cells in the basolateral chamber by activating the IL-6/STAT3 pathway."

According to the news editors, the research concluded: "A tetra-culture system was established to facilitate the identification of cellular adhesion molecule expression induced by the interaction between pulmonary epithelial and endothelial cells. The tetra-culture system will contribute to elucidation of the relationships between inhalable PM and cardiovascular diseases."


The news editors report that additional information may be obtained by contacting K.H. Chung, Sungkyunkwan University Sch Pharm, Suwon 16419, Gyeonggi Do, South Korea. Additional authors for this research include H.S. Cho, D.Y. Shin and K.H. Chung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tiv.2016.11.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gyeonggi Do, South Korea, Asia, Cardiovascular Research, Endothelial Cells, Cardiovascular, Cardiology, Sungkyunkwan University.

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New Cardiovascular Research Study Findings Have Been Reported by M. Cruz-Lemini and Colleagues (Fetal cardiovascular remodeling persists at 6 months in infants with intrauterine growth restriction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Research is the subject of a report. According to news originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Intrauterine growth restriction is associated with increased cardiovascular risk later in life but the link between fetal disease and postnatal risk is not well-documented. We evaluated longitudinally the association between cardiovascular remodeling in small-for-gestational-age (SGA) fetuses and at 6 months of age."

Our news journalists obtained a quote from the research, "A cohort of 80 SGA fetuses (defined by estimated fetal and birth weights <10th centile) delivered >34 weeks' gestation was compared with 80 normally grown age-matched control fetuses, with follow-up at 6 months of corrected age (i.e. 6 months from estimated date of delivery according to first-trimester crown-rump length). Cardiovascular evaluation included a comprehensive echocardiographic assessment in both fetuses and infants and blood pressure and aortic intima-media thickness (aIMT) measurement in infants. Parameters were adjusted by linear regression analysis for gender, gestational age at delivery, pre-eclampsia, prenatal glucocorticoid exposure, Cesarean delivery, admission to neonatal intensive care unit and body surface area. Both pre- and postnatally, when compared with controls, the SGA group showed a more globular cardiac shape (left sphericity index: controls 2.06 vs SGA 1.87 (P = 0.022) prenatally and 1.92 vs 1.67 (P=0.007) postnatally), as well as signs of systolic longitudinal dysfunction (systolic annular peak velocity (S'): 7.2 vs 6.3 cm/s (P=0.003) prenatally and 7.9 vs 6.4 cm/s (P <0.001) postnatally; tricuspid annular plane systolic excursion: 7.2 vs 6.8mm (P=0.015) prenatally and 16.0 vs 14.2mm (P <0.001) postnatally) and diastolic dysfunction (left isovolumetric relaxation time: 46 vs 52 ms (P < 0.001) prenatally and 50 vs 57 ms (P=0.034) postnatally). In addition, infants in the SGA group had increased mean blood pressure (mean: 61 vs 70 mmHg, P<0.001) and maximum aIMT (0.57 vs 0.66 mm; P< 0.001). Primary cardiovascular changes are already present in the SGA fetus and persist at 6 months of age."

According to the news editors, the research concluded: "These data support prenatal cardiovascular remodeling as a mechanistic pathway of increased risk later in life in cases of SGA, regardless of Doppler abnormalities."


The news correspondents report that additional information may be obtained from E. Gratacos, Center Biomed Res Rare Dis CIBER ER, Barcelona, Spain. Additional authors for this research include F. Crispi, B. Valenzuela-Alcaraz, F. Figueras, M. Sitges, B. Bijnens and E. Gratacos.
New Cardiovascular Research Study Findings Recently Were Reported by Researchers at Anjo-Kosei Hospital (Efficacy of Tolvaptan on Fluid Management After Cardiovascular Surgery Using Cardiopulmonary Bypass)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Research. According to news originating from Aichi, Japan, by NewsRx correspondents, research stated, "To investigate the efficacy of the selective vasopressin V-2-receptor antagonist tolvaptan in postoperative fluid management after cardiovascular surgery using cardiopulmonary bypass. A retrospective cohort study."

Our news journalists obtained a quote from the research from Anjo-Kosei Hospital, "A tertiary care center. The study comprised 99 patients undergoing cardiovascular surgery using cardiopulmonary bypass. Oral tolvaptan was administered after surgery. Fifty-one patients treated with tolvaptan were compared with 48 patients treated with intravenous diuretics. Urine volume, the time interval until the patients' body weight returned to the preoperative value, and the length of oxygen dependency after extubation were assessed as surrogate markers for resolution of fluid overload. Urine output on postoperative days 1 and 2 was significantly higher in the tolvaptan-treated patients (29.2 v 20.1 mL/kg/day, p = 0.001; 43.0 v 27.4 mL/kg/day, p< 0.001, respectively). Postoperative body weight returned to baseline in 49 tolvaptan-treated patients compared with 33 patients treated with intravenous diuretics (96.1% v 68.8%, p< 0.001). Among those with successful body weight reduction, the time interval was shorter in the tolvaptan-treated patients (5 v 7 days, p = 0.006). The length of oxygen dependency after extubation also was shorter in the tolvaptan-treated patients (2 v 3 days, p = 0.006). The urine osmolarity reduction rate before and 4 hours after the first dose of tolvaptan emerged as a significant predictor of its efficacy with a cutoff point of 33.7%, sensitivity of 0.73, and specificity of 0.67 (p = 0.030)."

According to the news editors, the research concluded: "Tolvaptan facilitated early improvement of postoperative fluid overload after cardiovascular surgery."


The news correspondents report that additional information may be obtained from H. Ito, Anjo Kosei Hosp, Dept. of Cardiothorac Surg, Anjo City, Aichi, Japan. Additional authors for this research include T. Mizumoto, H. Tempaku, K. Fujinaga, Y. Sawada and H. Shimpo.

The direct object identifier (DOI) for that additional information is:
New Cardiovascular Research Study Results from University of Copenhagen Described (SuPAR Predicts Cardiovascular Events and Mortality in Patients With Asymptomatic Aortic Stenosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Research have been published. According to news originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "Soluble urokinase plasminogen activator receptor (suPAR) is an inflammatory marker associated with subclinical cardiovascular damage and cardiovascular events. Whether suPAR is of prognostic value in asymptomatic patients with aortic stenosis (AS) remains unknown."

Our news journalists obtained a quote from the research from the University of Copenhagen, "Plasma suPAR levels were measured in 1503 patients with a mean age of 68 years who were recruited in the Simvastatin and Ezetimibe in Aortic Stenosis (SEAS) study. Cox regression analysis was performed to evaluate associations between suPAR and the composite end points of ischemic cardiovascular events (ICEs), aortic valve events (AVEs), cardiovascular and all-cause mortality after adjusting for traditional cardiovascular risk factors, and allocation to treatment. The multivariate adjusted hazard ratio (HR) (95% confidence interval [CI]) per unit log2 ng/mL increase in suPAR was HR, 1.5; 95% CI, 1.2-1.9; P = 0.002 for ICEs; HR, 1.2; 95% CI, 0.9-1.5; P = 0.071) for AVEs; HR, 2.0; 95% CI, 1.2-3.3; P = 0.007) for cardiovascular mortality, and HR, 2.0; 95% CI, 1.4-2.9; P< 0.001 for all-cause mortality."

According to the news editors, the research concluded: "In patients with mild-moderate AS, suPAR is independently associated with the incidence of ICEs, cardiovascular mortality, and all-cause mortality."


The news correspondents report that additional information may be obtained from G.W. Hodges, University of Copenhagen, Dept. of Med, Glostrup Amager & Hvidovre Hosp, Copenhagen, Denmark. Additional authors for this research include C.N. Bang, J. Eugen-Olsen, M.H. Olsen, K. Boman, S. Ray, C. Gohlke-Barwolf, Y.A. Kesaniemi, J.L. Jeppesen and K. Wachtell.

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document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Cardiovascular Research, Stenosis, Risk and Prevention, Aortic Valve Stenosis, Aortic Stenosis, Cardiovascular, Cardiology, Angiology, University of Copenhagen.

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**Surgery - Cardiovascular and Thoracic Surgery**

**New Cardiovascular and Thoracic Surgery Study Findings Recently Were Reported by Researchers at University of Ottawa (Identifying Patients at Higher Risk of Prolonged Air Leak After Lung Resection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Surgery - Cardiovascular and Thoracic Surgery have been published. According to news reporting originating from Ottawa, Canada, by NewsRx correspondents, research stated, "Predictive models of prolonged air leak have relied on information not always available preoperatively (eg, extent of resection, pleural adhesions). Our objective was to construct a model to identify patients at increased risk of prolonged air leak using preoperative factors exclusively."

Our news editors obtained a quote from the research from the University of Ottawa, "From 2012 to 2014, data on consecutive patients undergoing pulmonary resection were collected prospectively. Prolonged air leak was defined as lasting longer than 7 days and requiring hospitalization. Factors associated with the primary outcome (p < 0.2) were included in a multivariate model. Regression coefficients were used to develop a weighted risk score for prolonged air leak. Of 225 patients, 8% (18/225) experienced a prolonged air leak. Male gender (p = 0.08), smoking history (p = 0.03), body mass index (BMI) 25 or below (p < 0.01), Medical Research Council (MRC) dyspnea score above 1 (p = 0.06), and diffusion capacity for carbon monoxide below 80% (DLCO) (p = 0.01) were selected for inclusion in the final model. Weighted scores were male gender (1 point), BMI 25 or below (0.5 point), smoker (2 points), DLCO% below 80% (2 points), and MRCdyspnea score above 1 (1 point). The area under the receiver operating characteristic curve was 0.8 (95% confidence interval [CI] = 0.7 to 0.9). An air leak score above 4 points offered the best combination of sensitivity (83% [95% CI = 58 to 96]) and specificity (65% [95% CI = 58 to 71]). A subgroup of lung resection patients at higher risk for a prolonged air leak can be effectively identified with the use of widely available, preoperative factors."

According to the news editors, the research concluded: "The proposed scoring system is simple, is clinically relevant to the informed consent, and allows preoperative patient selection for interventions to reduce the risk of prolonged air leak."


The news editors report that additional information may be obtained by contacting S. Gilbert, University of Ottawa, Fac Med, Ottawa, ON, Canada. Additional authors for this research include S. Maghera, A.J. Seely, D.E. Maziak, F.M. Shamji, S.R. Sundaresan and P.J.
New Carotid Stenosis Findings from Jena University Hospital Discussed (Autonomic outcome is better after endarterectomy than after stenting in patients with asymptomatic carotid stenosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Carotid Stenosis. According to news reporting originating in Jena, Germany, by NewsRx journalists, research stated, "Carotid endarterectomy and stenting have comparable efficacy in stroke prevention in asymptomatic carotid stenosis. In patients with carotid stenosis, cardiac events have a more than threefold higher incidence than cerebrovascular events."

The news reporters obtained a quote from the research from Jena University Hospital, "Autonomic dysfunction predicts cardiovascular morbidity and mortality, and carotid stenosis interferes with baroreceptor and chemoreceptor function. We assessed the effect of elective carotid revascularization (endarterectomy vs stenting) on autonomic function as a major prognostic factor of cardiovascular health. In 42 patients with >= 70% asymptomatic extracranial carotid stenosis, autonomic function was determined by analysis of heart rate variability (total band power [TP], high frequency band power [HF], low-frequency band power [LF], very low frequency band power [VLF]), baroreflex sensitivity (alpha HF, alpha LF), respiratory chemoreflex sensitivity (central apnea-hypopnea index), and cardiac chemoreflex sensitivity (hyperoxic TP, HF, LF, and VLF ratios) before and 30 days after revascularization. Patients with endarterectomy were older than patients with stenting (69 +/- 7 vs 62 +/- 7 years; P <= .008) but did not differ in gender distribution and preintervention autonomic function. Compared with stenting, postintervention heart rate variability was higher (ln TP, 6.7 [95% confidence interval (CI), 6.3-7.0] vs 6.1 [95% CI, 5.8-6.5; P<= .009]; ln HF, 4.5 [95% CI, 4.1-5.0] vs 4.0 [95% CI, 3.4-4.5; P<= .05]; ln VLF, 6.0 [95% CI, 5.7-6.4] vs 5.5 [95% CI, 5.2-5.9; P <= .02]); respiratory chemoreflex sensitivity (central apnea-hypopnea index, 5.5 [95% CI, 2.8-8.2] vs 10.0 [95% CI, 6.9-13.1; P<= .01]) and cardiac chemoreflex sensitivity (TP ratio, 1.2 [95% CI, 1.1-1.3] vs 1.0 [95% CI, 0.9-1.0; P<= .0001]; HF ratio, 1.4 [95% CI, 1.2-1.5] vs 0.9 [95% CI, 0.8-1.1; P<= .001]; LF ratio, 1.5 [95% CI, 1.3-1.6] vs 1.0 [95% CI, 0.8-1.1; P<= .0001]; VLF ratio, 1.2 [95% CI, 1.1-1.3] vs 1.0 [95% CI, 0.9-1.1; P<= .002]) were lower after endarterectomy. Postintervention baroreflex sensitivity did not differ after endarterectomy and stenting. Autonomic function was better after endarterectomy than after stenting."

According to the news reporters, the research concluded: "Better autonomic function after endarterectomy was based on restoration of chemoreceptor but not baroreceptor function and may improve cardiovascular long-term outcome."

For more information on this research see: Autonomic outcome is better after endarterectomy than after stenting in patients with asymptomatic carotid stenosis. *Journal of Vascular Surgery*, 2016;64(4):975-984. *Journal of Vascular Surgery* can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier -
New Carotid Stenosis Study Results Reported from Ningxia Medical University (The association between ankle-brachial index and asymptomatic cranial-carotid stenosis: a population-based, cross-sectional study of 5440 Han Chinese)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Carotid Stenosis. According to news reporting originating from Yinchuan, People's Republic of China, by NewsRx correspondents, research stated, "Routine screening for asymptomatic cranial-carotid stenosis (ACCS) is controversial and recommendation in clinical practice is vague. The ankle-brachial index (ABI) is reported as a predictor for cardiovascular disease."

Financial supporters for this research include Ministry of Science and Technology, National Natural Science Foundation of China, Edith Cowan University Industry Collaboration Scheme 2013, Edith Cowan University Strategic Research Fund, Importation and Development of High-Calibre Talents Project of Beijing Municipal Institutions.

Our news editors obtained a quote from the research from Ningxia Medical University, "However, there is a scarcity of data about the association between abnormal ABI and ACCS. A population-based cross-sectional study was conducted to explore the relationship between ABI and ACCS. A sample of 5440 Chinese adults aged 40-94 years old was recruited from 2010 to 2011. The ABI was measured using a portable Doppler device and ACCS was evaluated by bilateral carotid duplex ultrasound and portable examination devices. A logistic regression model was used to analyse the association between ABI and ACCS after adjusting for potential confounding factors. A low ABI was associated with ACCS [odds ratio (OR) 1.95, 95% confidence interval (CI) 1.42-2.67] after adjusting for potential confounders. When the data were stratified by age and sex, the correlation remained statistically significant in the male
(OR 2.32, 95% CI 1.60-3.37) and elderly (OR 3.07, 95% CI 1.97-4.78) subgroups compared to the female (OR 1.26, 95% CI 0.67-2.39) and middle-aged groups (OR 1.27, 95% CI 0.77-2.12), respectively."

According to the news editors, the research concluded: "This study demonstrated that low ABI is a significant risk factor for ACCS in male and elderly Chinese adults."


The news editors report that additional information may be obtained by contacting J. Qiu, School of Public Health, Ningxia Medical University, Yinchuan, People's Republic of China. Additional authors for this research include Y. Zhou, X. Yang, Y. Zhang, Z. Li, N. Yan, Y. Wang, S. Ge, S. Wu, X. Zhao and W. Wang.

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Keywords for this news article include: Asia, Yinchuan, Angiology, Diagnosis, Epidemiology, Blood Pressure, Carotid Stenosis, Risk and Prevention, Ankle Brachial Index, Cerebrovascular Disorders, People's Republic of China, Arterial Occlusive Diseases, Brain Diseases and Conditions, Diagnostic Techniques and Procedures, Cardiovascular Diseases and Conditions.

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Catecholamines

New Catecholamines Findings from University of Wollongong Described (Early Antipsychotic Treatment in Juvenile Rats Elicits Long-Term Alterations to the Dopamine Neurotransmitter System)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Catecholamines. According to news originating from Wollongong, Australia, by NewsRx correspondents, research stated, "Prescription of antipsychotic drugs (APDs) to children has substantially increased in recent years. Whilst current investigations into potential long-term effects have uncovered some alterations to adult behaviours, further investigations into potential changes to neurotransmitter systems are required."

Our news journalists obtained a quote from the research from the University of Wollongong, "The current study investigated potential long-term changes to the adult dopamine (DA) system following aripiprazole, olanzapine and risperidone treatment in female and male juvenile rats. Levels of tyrosine hydroxylase (TH), phosphorylated-TH (p-TH), dopamine active transporter (DAT), and D-1 and D-2 receptors were measured via Western blot and/or receptor autoradiography. Aripiprazole decreased TH and D-1 receptor levels in the ventral tegmental area (VTA) and p-TH levels in the prefrontal cortex (PFC) of females, whilst TH levels decreased in the PFC of males. Olanzapine decreased PFC p-TH levels and increased D-2 receptor expression in the PFC and nucleus accumbens (NAc) in females only. Additionally,
risperidone treatment increased D1 receptor levels in the hippocampus of females, whilst, in males, p-TH levels increased in the PFC and hippocampus, D-1 receptor expression decreased in the NAc, and DAT levels decreased in the caudate putamen (CPu), and elevated in the VTA."

According to the news editors, the research concluded: "These results suggest that early treatment with various APDs can cause different long-term alterations in the adult brain, across both treatment groups and genders."

For more information on this research see: Early Antipsychotic Treatment in Juvenile Rats Elicits Long-Term Alterations to the Dopamine Neurotransmitter System. *International Journal of Molecular Sciences*, 2016;17(11):2538-2557. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from M. De Santis, University of Wollongong, Sch Med, Wollongong, NSW 2522, Australia. Additional authors for this research include J.M. Lian, X.F. Huang and C. Deng.

Keywords for this news article include: Wollongong, Australia, Australia and New Zealand, Dopamine Hydrochloride, Organic Chemicals, Pharmaceuticals, Biogenic Amines, Antipsychotics, Catecholamines, Mental Health, University of Wollongong.

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**Drugs and Therapies - Celecoxib Therapy**

**New Celecoxib Therapy Study Findings Have Been Reported by Researchers at University of Antioquia (Chitosan/OA nanoparticle as delivery system for celecoxib: Parameters affecting the particle size, encapsulation, and release)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Celecoxib Therapy is now available. According to news reporting originating from Medellin, Colombia, by NewsRx correspondents, research stated, "Self-assembled nanoparticles prepared from amphiphilic chitosan/oleic acid (Ch/OA) have shown antibacterial activity and potential application as a carrier for hydrophobic anticancer drugs. In this study, a low molecular weight chitosan was modified with oleic acid obtaining a degree of substitution (DS) of 12%."

Our news editors obtained a quote from the research from the University of Antioquia, "The critical aggregation concentration (CAC) of the Ch/OA polymer obtained (0.025 mgmL(-1)) is lower in comparison with some systems of chitosan-fatty acids. The self-assembled Ch/OA nanoparticle size was optimized by changing polymer concentration, solvent, method, and time of homogenization to obtain particles with sizes around 300 nm and positive zeta potential. The drug loading about 7 gmL(-1) and encapsulation efficiency of 75.8 +/- 3.6% for Celecoxib was affected by the drug concentration. In vitro release behavior performed in (PBS, pH 7.4) and MES buffer (pH 6) indicated a pH-dependent drug release behavior."

According to the news editors, the research concluded: "The self-assembled systems show stability during 4 weeks after the encapsulation of the hydrophobic drug."

For more information on this research see: Chitosan/OA nanoparticle as delivery system for celecoxib: Parameters affecting the particle size, encapsulation, and release. *Journal of Applied Polymer Science*, 2017;134(7):143-153. *Journal of Applied Polymer Science* can be
New Cell Adhesion Molecules Study Results from Peking Union Medical College Described (Honokiol inhibits EMT-mediated motility and migration of human non-small cell lung cancer cells in vitro by targeting c-FLIP)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cell Research - Cell Adhesion Molecules have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Honokiol (HNK) is a natural compound isolated from the magnolia plant with numerous pharmacological activities, including inhibiting epithelial-mesenchymal transition (EMT), which has been proposed as an attractive target for anti-tumor drugs to prevent tumor migration. In this study we investigated the effects of HNK on EMT in human NSCLC cells in vitro and the related signaling mechanisms."

The news reporters obtained a quote from the research from Peking Union Medical College, "TNF-alpha (25 ng/mL) in combination with TGF-beta 1 (5 ng/mL) was used to stimulate EMT of human NSCLC A549 and H460 cells. Cell proliferation was analyzed using a sulforhodamine B assay. A wound-healing assay and a transwell assay were performed to examine cell motility. Western blotting was used to detect the expression levels of relevant proteins. siRNAs were used to knock down the gene expression of c-FLIP and N-cadherin. Stable overexpression of c-FLIP L (H157-FLIP L) or Lac Z (H157-Lac Z) was also performed. Treatment with TNF-alpha+TGF-beta 1 significantly enhanced the migration of A549 and H460 cells, increased c-FLIP, N-cadherin (a mesenchymal marker), snail (a transcriptional modulator) and p-Smad2/3 expression, and decreased I kappa B levels in the cells; these changes were abrogated by co-treatment with HNK (30 μmol/L). Further studies demonstrated that expression level of c-FLIP was highly correlated with the movement and migration of NSCLC cells, and the downstream effectors of c-FLIP signaling were NF-kappa B signaling and N-cadherin/snail signaling, while Smad signaling might lie upstream of c-FLIP."

According to the news reporters, the research concluded: "HNK inhibits EMT-mediated motility and migration of human NSCLC cells in vitro by targeting c-FLIP, which can be utilized as a promising target for cancer therapy, while HNK may become a potential anti-metastasis drug or lead compound."

For more information on this research see: Honokiol inhibits EMT-mediated

Our news correspondents report that additional information may be obtained by contacting S.Z. Chen, Peking Union Med College, Beijing 100050, People's Republic of China. Additional authors for this research include X.R. Qiao, L. Su and S.Z. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/aps.2016.81. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cell Adhesion Molecules, Membrane Proteins, Cell Research, Glycoproteins, Cadherins, Peking Union Medical College.

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**Life Science Research - Cell Biology**

**New Cell Biology Findings from Karolinska Institute Described (Lgr6 labels a rare population of mammary gland progenitor cells that are able to originate luminal mammary tumours)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Life Science Research - Cell Biology. According to news reporting from Huddinge, Sweden, by NewsRx journalists, research stated, "The mammary gland is composed of a complex cellular hierarchy with unusual postnatal plasticity. The identities of stem/progenitor cell populations, as well as tumour-initiating cells that give rise to breast cancer, are incompletely understood."

The news correspondents obtained a quote from the research from Karolinska Institute, "Here we show that Lgr6 marks rare populations of cells in both basal and luminal mammary gland compartments in mice. Lineage tracing analysis showed that Lgr6(+) cells are unipotent progenitors, which expand clonally during puberty but diminish in adulthood. In pregnancy or following stimulation with ovarian hormones, adult Lgr6(+) cells regained proliferative potency and their progeny formed alveoli over repeated pregnancies. Oncogenic mutations in Lgr6(+) cells resulted in expansion of luminal cells, culminating in mammary gland tumours. Conversely, depletion of Lgr6(+) cells in the MMTV-PyMT model of mammary tumorigenesis significantly impaired tumour growth."

According to the news reporters, the research concluded: "Thus, Lgr6 marks mammary gland progenitor cells that can initiate tumours, and cells of luminal breast tumours required for efficient tumour maintenance."


Our news journalists report that additional information may be obtained by
New Cell Science Study Findings Reported from Osaka University (ARHGEF10 directs the localization of Rab8 to Rab6-positive executive vesicles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Science - Cell Science have been presented. According to news reporting from Osaka, Japan, by NewsRx journalists, research stated, "The function of ARHGEF10, a known guanine nucleotide exchange factor (GEF) for RhoA with proposed roles in various diseases, is poorly understood. To understand the precise function of this protein, we raised a monoclonal antibody against ARHGEF10 and determined its localization in HeLa cells."

The news correspondents obtained a quote from the research from Osaka University, "ARHGEF10 was found to localize to vesicles containing Rab6 (of which there are three isoforms, Rab6a, Rab6b and Rab6c), Rab8 (of which there are two isoforms, Rab8a and Rab8b), and/or the secretion marker neuropeptide Y (NPY)-Venus in a Rab6-dependent manner. These vesicles were known to originate from the Golgi and contain secreted or membrane proteins. Ectopic expression of an N-terminal-truncated ARHGEF10 mutant led to the generation of large vesicle-like structures containing both Rab6 and Rab8. Additionally, small interfering (si) RNA-mediated knockdown of ARHGEF10 impaired the localization of Rab8 to these exocytotic vesicles. Furthermore, the invasiveness of MDA-MB231 cells was markedly decreased by knockdown of ARHGEF10, as well as of Rab8."

According to the news reporters, the research concluded: "From these results, we propose that ARHGEF10 acts in exocytosis and tumor invasion in a Rab8-dependent manner."


Our news journalists report that additional information may be obtained by contacting S. Shibata, Osaka University, Grad Sch Med, Div Hlth Sci, Neurobiol Grp, Osaka 5650871, Japan. Additional authors for this research include T. Kawanai, T. Hara, A. Yamamoto, T. Chaya, Y. Tokuhara, C. Tsuji, M. Sakai, T. Tachibana and S. Inagaki.

The direct object identifier (DOI) for that additional information is:
Transplant Medicine - Cell Transplants

New Cell Transplants Findings from D. Planelles and Co-Researchers Reported (Report From the First and Second Spanish Killer Immunoglobulin-Like Receptor Genotyping Workshops: External Quality Control for Natural Killer Alloreactive Donor Selection in Haploidentical Stem Cell Transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Cell Transplants have been published. According to news reporting out of Valencia, Spain, by NewsRx editors, research stated, "An important factor affecting the success in the setting of related haploidentical hematopoietic stem cell transplantation (HSCT) is the graft-versus-leukemia effect mediated by natural killer (NK) cells when the donor displays NK alloreactivity versus the recipient. NK cell function is regulated by killer immunoglobulin-like receptors (KIR) and it has been described that donor KIR genotype influences transplantation outcome."

Our news journalists obtained a quote from the research, "This has led to a requirement of laboratories to have a quality assurance program for validation and control of their KIR genotyping methods. The goal of the 1st and 2nd Spanish KIR Genotyping Workshops was to provide an external proficiency testing program in KIR genotyping for Spanish immunology and transplant laboratories. These workshops were conducted during the years 2014-2016 and consisted of 17 participating laboratories typing a set of 20 samples. The presence/absence of 16 mandatory KIR loci (2DL1, 2DL2, 2DL3, 2DL4, 2DL5, 2DS1, 2DS2, 2DS3, 2DS4, 2DS5, 2DP1, 3DL1, 3DL2, 3DL3, 3DS1, and 3DP1) was evaluated per sample. Methods for KIR genotyping included polymerase chain reaction with the use of sequence-specific primers and sequence-specific oligoprobes. Consensus typing was reached in all samples, and the performance of laboratories in external proficiency testing was satisfactory in all cases."

According to the news editors, the research concluded: "The polymorphism detected in the small sample studied in both workshops is indicative of an ample variety of KIR gene profiles in the Spanish population."


Our news journalists report that additional information may be obtained by contacting D. Planelles, Center Transfus Comunidad Valenciana, Histocompatibil, Valencia, Spain. Additional authors for this research include C. Vilches, F. Gonzalez-Escribano, M. Muro,

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.07.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Valencia, Spain, Europe, Cell Transplantation, Transplant Medicine, Stem Cell Research, Cell Transplants, Immunoglobulins, Serum Globulins, Immunoproteins, Biomedicine, Immunology, Proteins, Genetics, Surgery.

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Transplant Medicine - Cell Transplants

New Cell Transplants Study Findings Have Been Reported by Investigators at University Hospital (ABO blood group antigen mismatch has an impact on outcome after allogeneic peripheral blood stem cell transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Transplant Medicine - Cell Transplants is the subject of a report. According to news reporting from Regensburg, Germany, by NewsRx journalists, research stated, "ABO blood group antigen incompatibility (ABO mismatch) is not an obstacle to allogeneic stem cell transplantation (allo-SCT). However, the impact on clinical outcome after allo-SCT remains controversial."

The news correspondents obtained a quote from the research from University Hospital, "We analyzed 512 patients after allogeneic peripheral blood SCT (allo-PBSCT) for an association of ABO mismatch with transfusion requirements, myeloid and platelet engraftment, the incidence of GvHD, relapse, transplant-related mortality (TRM), and overall survival (OS). A total of 260 patients underwent ABO-mismatched transplantation and the control group consisted of 252 patients with ABO-matched allo-PBSCT. We found a significant association between major-0 ABO mismatch (group 0 recipient/group A, B, or AB donor) and increased red blood cell (RBC) and platelet transfusion requirements (both P<.001) as well as delayed platelet engraftment (P <.001). Minor-A (group A recipient/group 0 donor) and minor-AB (group AB recipient/group 0, A, or B donor) ABO mismatch was significantly associated with an increased TRM after allo-PBSCT (P=.001 and P=.02). In multivariate analysis performed using Cox regression, minor ABO mismatch appeared as independent risk factor for TRM after allo-PBSCT. No association was found for ABO mismatch with the incidence of GvHD, relapse, and OS."

According to the news reporters, the research concluded: "Our results suggest that ABO blood group mismatch has a significant impact on the outcome and that minor-A and minor-AB ABO mismatch represents a risk factor for increased TRM after allo-PBSCT."

Our news journalists report that additional information may be obtained by contacting M. Grube, Univ Hosp Regensburg, Dept. of Internal Med Hematol & Oncol 3, Regensburg, Germany. Additional authors for this research include D. Wolff, N. Ahrens, P.Y. Herzberg, W. Herr and E. Holler.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12840. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Regensburg, Germany, Europe, ABO Blood-Group System, Blood Group Antigens, Cell Transplantation, Risk and Prevention, Transplant Medicine, Stem Cell Research, Surface Antigens, Cell Transplants, Isoantigens, Biomedicine, Immunology, Hematology, Surgery, University Hospital.

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Transplant Medicine - Cell Transplants

New Cell Transplants Study Findings Recently Were Reported by Researchers at University of Edinburgh (Re-implantation of cryopreserved ovarian cortex resulting in restoration of ovarian function, natural conception and successful pregnancy ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Cell Transplants have been published. According to news originating from Edinburgh, United Kingdom, by NewsRx correspondents, research stated, "With the improvement of long-term cancer survival rates, growing numbers of female survivors are suffering from treatment-related premature ovarian insufficiency (POI). Although pre-treatment embryo and oocyte storage are effective fertility preservation strategies, they are not possible for pre-pubertal girls or women who cannot delay treatment."

Financial support for this research came from Medical Research Council. Our news journalists obtained a quote from the research from the University of Edinburgh, "In these cases, the only available treatment option is ovarian cortex cryopreservation and subsequent re-implantation. A 32-year-old woman had ovarian cortex cryopreserved 10 years previously before commencing high-dose chemotherapy and undergoing a haematopoietic stem cell transplant for recurrent adult Wilms tumour, which resulted in POI. She underwent laparoscopic orthotopic transplantation of cryopreserved ovarian cortex to the original site of biopsy on the left ovary. She ovulated at 15 and 29 weeks post-re-implantation with AMH detectable, then rising, from 21 weeks, and conceived naturally following the second ovulation. The pregnancy was uncomplicated and a healthy male infant was born by elective Caesarean section at 36(+4) weeks gestation. This is the first report of ovarian cortex re-implantation in the UK."

According to the news editors, the research concluded: "Despite the patient receiving low-risk chemotherapy prior to cryopreservation and the prolonged tissue storage duration, the re-implantation resulted in rapid restoration of ovarian function and natural conception with successful pregnancy."

For more information on this research see: Re-implantation of cryopreserved

The news correspondents report that additional information may be obtained from C.E. Dunlop, University of Edinburgh, MRC Center Reprod Hlth, Edinburgh EH16 4TJ, Midlothian, United Kingdom. Additional authors for this research include B.M. Brady, M. McLaughlin, E.E. Telfer, J. White, F. Cowie, S. Zahra, W.H.B. Wallace and R.A. Anderson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0805-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Edinburgh, United Kingdom, Europe, Cell Transplantation, Transplant Medicine, Stem Cell Research, Cell Transplants, Women's Health, Biomedicine, Gynecology, Surgery, University of Edinburgh.

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**Cellular Structures**

### New Cellular Structures Study Findings Recently Were Reported by Researchers at University of North Carolina (Dual Targeting of Cell Wall Precursors by Teixobactin Leads to Cell Lysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cellular Structures is the subject of a report. According to news reporting originating from Chapel Hill, North Carolina, by NewsRx correspondents, research stated, "Teixobactin represents the first member of a newly discovered class of antibiotics that act through inhibition of cell wall synthesis. Teixobactin binds multiple bactoprenol-coupled cell wall precursors, inhibiting both peptidoglycan and teichoic acid synthesis."

Financial supporters for this research include HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID), Charles A. King Trust.

Our news editors obtained a quote from the research from the University of North Carolina, "Here, we show that the impressive bactericidal activity of teixobactin is due to the synergistic inhibition of both targets, resulting in cell wall damage, delocalization of autolysins, and subsequent cell lysis. We also find that teixobactin does not bind mature peptidoglycan, further increasing its activity at high cell densities and against vancomycin-intermediate Staphylococcus aureus (VISA) isolates with thickened peptidoglycan layers."

According to the news editors, the research concluded: "These findings add to the attractiveness of teixobactin as a potential therapeutic agent for the treatment of infection caused by antibiotic-resistant Gram-positive pathogens."

For more information on this research see: Dual Targeting of Cell Wall Precursors by Teixobactin Leads to Cell Lysis. *Antimicrobial Agents and Chemotherapy*, 2016;60 (11):6510-6517. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for
New Central Nervous System Agents Data Have Been Reported by Investigators at Macquarie University (The neurocircuitry involved in oxytocin modulation of methamphetamine addiction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Central Nervous System Agents is now available. According to news originating from North Ryde, Australia, by NewsRx correspondents, research stated, "The role of oxytocin in attenuating the abuse of licit and illicit drugs, including the psychostimulant methamphetamine, has been examined with increased ferocity in recent years. This is largely driven by the potential application of oxytocin as a pharmacotherapy."

Our news journalists obtained a quote from the research from Macquarie University, "However, the neural mechanisms by which oxytocin modulates methamphetamine abuse are not well understood. Recent research identified an important role for the accumbens core and subthalamic nucleus in this process, which likely involves an interaction with dopamine, glutamate, GABA, and vasopressin. In addition to providing an overview of methamphetamine, the endogenous oxytocin system, and the effects of exogenous oxytocin on drug abuse, we propose a neural circuit through which exogenous oxytocin modulates methamphetamine abuse, focusing on its interaction with neurochemicals within the accumbens core and subthalamic nucleus."

According to the news editors, the research concluded: "A growing understanding of exogenous oxytocin effects at a neurochemical and neurobiological level will assist in its evaluation as a pharmacotherapy for drug addiction."


The news correspondents report that additional information may be obtained from S.J. Baracz, Macquarie University, Dept. of Psychol, N Ryde, NSW 2109, Australia.

The direct object identifier (DOI) for that additional information is:
New Central Nervous System Agents Findings from University of California Described (Prefrontal glutamate correlates of methamphetamine sensitization and preference)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Central Nervous System Agents. According to news reporting from Santa Barbara, California, by NewsRx journalists, research stated, "Methamphetamine (MA) is a widely misused, highly addictive psychostimulant that elicits pronounced deficits in neurocognitive function related to hypo-functioning of the prefrontal cortex (PFC). Our understanding of how repeated MA impacts excitatory glutamatergic transmission within the PFC is limited, as is information about the relationship between PFC glutamate and addiction vulnerability/resiliency."

Financial supporters for this research include National Institutes of Health, Department of Veterans Affairs and NIDA.

The news correspondents obtained a quote from the research from the University of California, "In vivo microdialysis and immunoblotting studies characterized the effects of MA (ten injections of 2 mg/kg, i.p.) upon extracellular glutamate in C57BL/6J mice and upon glutamate receptor and transporter expression, within the medial PFC. Glutamatergic correlates of both genetic and idiopathic variance in MA preference/intake were determined through studies of high vs. low MA-drinking selectively bred mouse lines (MAHDR vs. MALDR, respectively) and inbred C57BL/6J mice exhibiting spontaneously divergent place-conditioning phenotypes. Repeated MA sensitized drug-induced glutamate release and lowered indices of N-methyl-d-aspartate receptor expression in C57BL/6J mice, but did not alter basal extracellular glutamate content or total protein expression of Homer proteins, or metabotropic or a-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid glutamate receptors. Elevated basal glutamate, blunted MA-induced glutamate release and ERK activation, as well as reduced protein expression of mGlu2/3 and Homer2a/b were all correlated biochemical traits of selection for high vs. low MA drinking, and Homer2a/b levels were inversely correlated with the motivational valence of MA in C57BL/6J mice."

According to the news reporters, the research concluded: "These data provide novel evidence that repeated, low-dose MA is sufficient to perturb pre- and post-synaptic aspects of glutamate transmission within the medial PFC and that glutamate anomalies within this region may contribute to both genetic and idiopathic variance in MA addiction vulnerability/resiliency."

Our news journalists report that additional information may be obtained by contacting K.D. Lominac, Dept. of Psychological and Brain Sciences and the Neuroscience Research Institute, University of California at Santa Barbara, Santa Barbara, CA, 93106-9660, United States. Additional authors for this research include S.G. Quadir, H.M. Barrett, C.L. McKenna, L.M. Schwartz, P.N. Ruiz, M.G. Wroten, R.R. Campbell, B.W. Miller, J.J. Holloway, K.O. Travis, G. Rajasekar, D. Maliniak, A.B. Thompson, L.E. Urman, T.E. Kippin, T.J. Phillips and Szu.

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Keywords for this news article include: Genetics, California, Glutamates, Proteomics, Anorexiants, Ethylamines, Santa Barbara, United States, Glutamic Acid, CNS Stimulants, Methamphetamine, Organic Chemicals, Protein Expression, Drugs and Therapies, North and Central America, Central Nervous System Agents.

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Drugs and Therapies - Central Nervous System Agents

**New Central Nervous System Agents Study Results from University College Described (2016 Updated MASCC/ESMO consensus recommendations: Management of nausea and vomiting in advanced cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Central Nervous System Agents are presented in a new report. According to news reporting originating from Dublin, Ireland, by NewsRx correspondents, research stated, "The aim of this paper is to review the existing literature related to the management of nausea and vomiting (N & V) in advanced cancer and derive clinical evidence-based recommendations for its management. Available systematic reviews on antiemetic drug effectiveness were used."

Our news editors obtained a quote from the research from University College, "One generic systematic review of antiemetics in advanced cancer (to 2009) was updated to February 2016. Agreement on recommendations was reached between panel members, and these were voted in favor unanimously by the larger antiemetic committee membership (n = 37). The evidence base in this field is minimal with largely poor quality trials or uncontrolled trials and case studies. The level of evidence in most studies is low. The drug of choice for managing N & V in advanced cancer is metoclopramide titrated to effect. Alternative options include haloperidol, levomepromazine, or olanzapine. For bowel obstruction, the recommendation is to use octreotide given alongside an antiemetic (haloperidol) and where octreotide is not an option to use an anticholinergic antisecretory agent. For opioid-induced N & V, no recommendation could be made."

According to the news editors, the research concluded: "These new guidelines, based
on the existing (but poor) evidence, could help clinicians manage more effectively the complex and challenging symptoms of N & V in advanced cancer.

For more information on this research see: 2016 Updated MASCC/ESMO consensus recommendations: Management of nausea and vomiting in advanced cancer. Supportive Care in Cancer, 2017;25(1):333-340. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

The news editors report that additional information may be obtained by contacting D. Walsh, University College Dublin, Sch Med & Med Sci, Dublin, Ireland. Additional authors for this research include M. Davis, C. Ripamonti, E. Bruera, A. Davies and A. Molassiotis. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3371-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dublin, Ireland, Europe, Central Nervous System Agents, Gastrointestinal Agents, Drugs and Therapies, Antiemetics, Octreotide, Oncology, Hormones, Cancer, University College.

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Central Nervous System

New Central Nervous System Data Have Been Reported by Investigators at University of Porto (Flavonoids in Neurodegeneration: Limitations and Strategies to Cross CNS Barriers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System are presented in a new report. According to news reporting originating from Oporto, Portugal, by NewsRx correspondents, research stated, "The central nervous system (CNS) is a mythical target for drug delivery. There is an ongoing debate over the brain accessibility of flavonoids, a group of plant-derived secondary metabolites widely known by their multifarious bioactivities achieved by distinct mechanisms."

Our news editors obtained a quote from the research from the University of Porto, "Recently, their applicability in the management of neurologic and psychiatric disorders, such as Alzheimer's and Parkinson's diseases, and major depression, has received particular attention. To reach their target, flavonoids must cross over the ultimate obstacle the blood-brain barrier - at pharmacologically effective concentrations. This review addresses the low brain-bioavailability issue, based on in vitro and in vivo evidences. Besides the lipophilic character of the flavonoids, their permeability will depend upon the role of membrane transporters, especially those from the ABC superfamily. The enzymatic elements, namely beta-glucuronidase, can induce a transient deconjugation process and affect permeability, as well. Novel drug delivery systems are successful strategies to overcome the low bioavailability issue, and redirect the native forms to CNS-targets."

According to the news editors, the research concluded: "This work bridges a solid opinion over this hot topic of medicinal chemistry and natural products research."

For more information on this research see: Flavonoids in Neurodegeneration: Limitations and Strategies to Cross CNS Barriers. Current Medicinal Chemistry, 2016;23
New Central Nervous System Depressants Findings from Mayo Clinic Described (Anesthetic implications for patients with Segawa syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Central Nervous System Depressants are discussed in a new report. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "To characterize the perioperative course of patients with Segawa syndrome undergoing anesthetic management. Retrospective observational case study."

Our news editors obtained a quote from the research from Mayo Clinic, "Large tertiary medical center. Patients with Segawa syndrome who underwent procedures requiring anesthetic management at our institution from January 1, 2004, through July 31, 2015. The health records of patients with Segawa syndrome. Twelve patients with Segawa syndrome underwent 25 procedures requiring anesthetic management, including 20 operations with general anesthesia. Succinylcholine was administered in 6 cases and nondepolarizing neuromuscular blockers in 5 cases, all without adverse effects. Perioperative complications were unrelated to anesthetic management or underlying neurologic condition. In 16 operations, the patients were receiving levodopa therapy at the time of the procedure. In this cohort, patients with Segawa syndrome tolerated the anesthetic management, including neuromuscular blocker administration."

According to the news editors, the research concluded: "Although these patients are frequently receiving levodopa therapy, no associated complications were noted."


The news editors report that additional information may be obtained by contacting T.N. Weingarten, Mayo Clinic, Dept. of Anesthesiol, Rochester, MN 55905, United States. Additional authors for this research include N.D. Will, B.T. Klassen, J. Sprung and T.N.
New Central Sleep Apnea Study Findings Have Been Reported by Researchers at Vanderbilt Eye Institute (Congenital Tonic Pupils Associated With Congenital Central Hypoventilation Syndrome and Hirschsprung Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Respiratory Tract Diseases and Conditions - Central Sleep Apnea have been published. According to news originating from Nashville, Tennessee, by NewsRx correspondents, research stated, "Autonomic dysfunction can be associated with pupillary abnormalities. We describe a rare association of tonic pupils, congenital central hypoventilation syndrome, and Hirschsprung disease in a newborn with a mutation in the PHOX2B gene, a key regulator of neural crest cells."

Our news journalists obtained a quote from the research from Vanderbilt Eye Institute, "Hirschsprung disease is characterized by the congenital absence of neural crest-derived intrinsic ganglion cells. Tonic pupils may result from an abnormality of the ciliary ganglion, another structure of neural crest origin."

According to the news editors, the research concluded: "The close association of these conditions in this child suggests a common abnormality in neural crest migration and differentiation."


The news correspondents report that additional information may be obtained from S.P. Donahue, Vanderbilt Eye Inst, Dept. of Ophthalmol, Nashville, TN 37232, United States. Additional authors for this research include J.J. Ling, E.G. Martinez, A.C. Reddy and S.P. Donahue.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Congenital Central Hypoventilation Syndrome, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Digestive System Abnormalities, Respiratory Insufficiency, Congenital Abnormalities, Respiration Disorders, Hirschsprung Disease, Central Sleep Apnea, Gastroenterology, Sleep Disorders, Megacolon, Genetics,
New Cerebral Infarction Findings from University Medical Center Described (Diagnostic performance of peroxiredoxin 1 to determine time-of-onset of acute cerebral infarction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Cerebral Infarction are discussed in a new report. According to news reporting originating from Geneva, Switzerland, by NewsRx correspondents, research stated, "Accurately determining time-of-onset of cerebral infarction is important to clearly identify patients who could benefit from reperfusion therapies. We assessed the kinetics of peroxiredoxin 1 (PRDX1), a protein involved in oxidative stress during the acute phase of ischemia, and its ability to determine stroke onset in a population of patients with known onset of less than 24 hours and in a control group."

Our news editors obtained a quote from the research from University Medical Center, "Median PRDX1 levels were significantly higher in stroke patients compared to controls. PRDX1 levels were also higher from blood samples withdrawn before vs. after 3 hours following stroke onset, and before vs. after 6 hours. ROC analysis with area under the curve (AUC), sensitivity (Se) and specificity (Sp) determined from the Youden index was performed to assess the ability of PRDX1 levels to determine onset. Diagnostic performances of PRDX1 levels were defined by an AUC of 69%, Se of 53% and Sp of 86% for identifying cerebral infarction occurring <3 hours, and an AUC of 68%, Se of 49% and Sp of 88% for cerebral infarction occurring <6 hours."

According to the news editors, the research concluded: "These first results suggest that PRDX1 levels could be the basis of a new method using biomarkers for determining cerebral infarction onset."

For more information on this research see: Diagnostic performance of peroxiredoxin 1 to determine time-of-onset of acute cerebral infarction. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting S. Richard, University Medical Center, Dept. of Human Prot Sci. CH-1206 Geneva, Switzerland. Additional authors for this research include V. Lapiere, N. Girerd, M. Bonnerot, P.R. Burkhard, L. Lagerstedt, S. Bracard, M. Debouverie, N. Turck and J.C. Sanchez.

Keywords for this news article include: Geneva, Switzerland, Europe, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Brain Diseases and Conditions, Cerebrovascular Disorders, Enzymes and Coenzymes, Cerebral Infarction, Brain Infarction, Peroxiredoxins, Brain Ischemia, Peroxidases, Stroke, University Medical Center.

Vanderbilt Eye Institute.
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New Cervical Cancer Findings Reported from University of Nevada (Quantitative and mixed analyses to identify factors that affect cervical cancer screening uptake among lesbian and bisexual women and transgender men)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Cervical Cancer are presented in a new report. According to news reporting originating from Las Vegas, Nevada, by NewsRx correspondents, research stated, "Aims and objectives. The purposes of this study were to measure the prevalence of, and identify factors associated with, cervical cancer screening among a sample of lesbian, bisexual and queer women, and transgender men."

Our news editors obtained a quote from the research from the University of Nevada, "Past research has found that lesbian, bisexual and queer women underuse cervical screening service. Because deficient screening remains the most significant risk factor for cervical cancer, it is essential to understand the differences between routine and nonroutine screeners. A convergent-parallel mixed methods design. A convenience sample of 21- to 65-year-old lesbian and bisexual women and transgender men were recruited in the USA from August-December 2014. Quantitative data were collected via a 48-item Internet questionnaire (N = 226), and qualitative data were collected through in-depth telephone interviews (N = 20) and open-ended questions on the Internet questionnaire. Seventy-three per cent of the sample was routine cervical screeners. The results showed that a constellation of factors influence the use of cervical cancer screening among lesbian, bisexual and queer women. Some of those factors overlap with the general female population, whereas others are specific to the lesbian, bisexual or queer identity. Routine screeners reported feeling more welcome in the health care setting, while nonroutine screeners reported more discrimination related to their sexual orientation and gender expression. Routine screeners were also more likely to 'out' to their provider. The quantitative and qualitative factors were also compared and contrasted. Many of the factors identified in this study to influence cervical cancer screening relate to the health care environment and to interactions between the patient and provider. Relevance to clinical practice. Nurses should be involved with creating welcoming environments for lesbian, bisexual and queer women and their partners."

According to the news editors, the research concluded: "Moreover, nurses play a large role in patient education and should promote self-care behaviours among lesbian women and transgender men."


The news editors report that additional information may be obtained by contacting M.J. Johnson, Univ Nevada Las Vegas, Sch Nursing, Las Vegas, NV 89154, United States. Additional authors for this research include M. Mueller, M.J. Eliason, G. Stuart and L.S. Nemeth.

The direct object identifier (DOI) for that additional information is:
New Chagas Disease Data Have Been Reported by Researchers at Federal University (Efficacy of Lychnopholide Polymeric Nanocapsules after Oral and Intravenous Administration in Murine Experimental Chagas Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Chagas disease are discussed in a new report. According to news reporting originating in Ouro Preto, Brazil, by NewsRx journalists, research stated, "The etiological treatment of Chagas disease remains neglected. The compounds available show several limitations, mainly during the chronic phase."

The news reporters obtained a quote from the research from Federal University, "Lychnopholide encapsulated in polymeric nanocapsules (LYC-NC) was efficacious in mice infected with Trypanosoma cruzi and treated by intravenous administration during the acute phase (AP). As the oral route is preferred for treatment of chronic infections, such as Chagas disease, this study evaluated the use of oral LYC-NC in the AP and also compared it with LYC-NC administered to mice by the oral and intravenous routes during the chronic phase (CP). The therapeutic efficacy was evaluated by fresh blood examination, hemoculture, PCR, and enzyme-linked immunosorbent assay (ELISA). The cure rates in the AP and CP were 62.5% and 55.6%, respectively, upon oral administration of LYC-poly(D, L-lactide)-polyethylene glycol nanocapsules (LYC-PLA-PEG-NC) and 57.0% and 30.0%, respectively, with LYC-poly-epsilon-caprolactone nanocapsules (LYC-PCL-NC). These cure rates were significantly higher than that of free LYC, which did not cure any animals. LYC-NC formulations administered orally during the AP showed cure rates similar to that of benznidazole, but only LYC-NC cured mice in the CP. Similar results were achieved with intravenous treatment during the CP. The higher cure rates obtained with LYC loaded in PLA-PEG-NC may be due to the smaller particle size of these NC and the presence of PEG, which influence tissue diffusion and the controlled release of LYC. Furthermore, PLA-PEG-NC may improve the stability of the drug in the gastrointestinal tract. This work is the first report of cure of experimental Chagas disease via oral administration during the CP."

According to the news reporters, the research concluded: "These findings represent a new and important perspective for oral treatment of Chagas disease."

For more information on this research see: Efficacy of Lychnopholide Polymeric Nanocapsules after Oral and Intravenous Administration in Murine Experimental Chagas Disease. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5215-5222. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)
Our news correspondents report that additional information may be obtained by contacting M. de Lana, Federal University of Ouro Preto, Escola Farm, Dept. of Anal Clin, Ouro Preto, MG, Brazil. Additional authors for this research include R.T. Branquinho, M.T. Oliveira, M.M. Milagre, D.A. Saude-Guimaraes, V.C.F. Mosqueira and M. de Lana.

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Keywords for this news article include: Ouro Preto, Brazil, South America, Parasitic Diseases and Conditions, Experimental Chagas Disease, Emerging Technologies, Drug Delivery Systems, Euglenozoa Infections, Drugs and Therapies, Protozoan Parasites, Trypanosoma cruzi, Trypanosomiasis, Human Parasites, Nanotechnology, Nanocapsules, Federal University.

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Parasitic Diseases and Conditions - Chagas Disease

New Chagas Disease Study Findings Recently Were Reported by Researchers at Federal University (Nelfinavir and lopinavir impair Trypanosoma cruzi trypomastigote infection in mammalian host cells and show anti-amastigote activity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Parasitic Diseases and Conditions - Chagas Disease. According to news reporting out of Rio de Janeiro, Brazil, by NewsRx editors, research stated, "There is an urgent need to implement new strategies and to search for new chemotherapeutic targets to combat Chagas' disease. In this context, repositioning of clinically approved drugs appears as a viable tool to combat this and several other neglected pathologies."

Funders for this research include Fundacao Carlos Chagas Filho de Amparo a Pesquisa do Estado do Rio de Janeiro (FAPERJ), Conselho Nacional de Desenvolvimento Cientifico e Tecnologico (CNPq), Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior (CAPES), Fundacao Oswaldo Cruz (FIOCRUZ).

Our news journalists obtained a quote from the research from Federal University, "An example is the use of aspartic peptidase inhibitors (PIs) currently applied in human immunodeficiency virus (HIV) treatment against different infectious agents. Therefore, the main objective of this work was to verify the effects of the HIV-PIs nelfinavir and lopinavir against Trypanosoma cruzi using in vitro models of infection. Cytotoxicity assays with LLC-MK2 epithelial cells and RAWmacrophages allowed an evaluation of the effects of HIV-PIs on the interaction between trypomastigotes and these cells as well as the survival of intracellular amastigotes. Pretreatment of trypomastigotes with nelfinavir and lopinavir inhibited the association index with LLC-MK2 cells and RAWmacrophages in a dose-and time-dependent manner. In addition, nelfinavir and lopinavir also significantly reduced the number of intracellular amastigotes in both mammalian cell lineages, particularly when administered in daily doses. Both compounds had no effect on nitric oxide production in infected RAW macrophages. These results open the possibility for the use of HIV-PIs as a tangible alternative in the treatment of Chagas' disease."

According to the news editors, the research concluded: "However, the main
mechanism of action of nelfinavir and lopinavir has yet to be elucidated, and more studies using in vivo models must be conducted."


Our news journalists report that additional information may be obtained by contacting M.H. Branquinha, Univ Fed Rio de Janeiro UFRJ, Inst Microbiol Paulo de Goes IMPG, Lab Invest Peptidases, Dept. of Microbiol Geral, Rio De Janeiro, Brazil. Additional authors for this research include C.M. d'Avila-Levy, M.H. Branquinha and A.L.S. Santos.

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Keywords for this news article include: Rio de Janeiro, Brazil, South America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Parasitic Diseases and Conditions, Human Immunodeficiency Virus, Euglenozoa Infections, Primate Lentiviruses, Protozoan Parasites, Drugs and Therapies, Protease Inhibitors, Vertebrate Viruses, Trypanosoma cruzi, Human Parasites, Antiretrovirals, Trypanosomiasis, Chagas Disease, HIV Infections, Antinfectives, Retroviridae, RNA Viruses, Antivirals, Nelfinavir, HIV/AIDS, Federal University.

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Computation - Chemical Theory and Computation

New Chemical Theory and Computation Study Results Reported from National Center for Scientific Research (CNRS) (Coarse-Grained Simulations Complemented by Atomistic Molecular Dynamics Provide New Insights into Folding and Unfolding of Human ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Computation - Chemical Theory and Computation. According to news originating from Paris, France, by NewsRx correspondents, research stated, "G-quadruplexes are the most important non canonical DNA architectures. Many quadruplex-forming sequences, including the human telomeric sequence d(GGGTTA)(n), have been investigated due to their implications in cancer and other diseases, and because of their potential in DNA-based nanotechnology."

Financial supporters for this research include Agence Nationale de la Recherche, Ministerstvo školstvi, Mladež ř telovýchovy, Grantova Agentura Ceske Republiky, Akademie Ved Ceske Republiky, Institut Universitaire de France.

Our news journalists obtained a quote from the research from National Center for Scientific Research (CNRS), "Despite the availability of atomistic structural studies of folded G-quadruplexes, their folding pathways remain mysterious, and mutually contradictory models of folding coexist in the literature. Recent experiments convincingly demonstrated that G-
quadruplex folding often takes days to reach thermodynamic equilibrium. Based on atomistic simulations of diverse classes of intermediates in G-quadruplex folding, we have suggested that the folding is an extremely multipathway process combining a kinetic partitioning mechanism with conformational diffusion. However, complete G-quadruplex folding is far beyond the time scale of atomistic simulations. Here we use high-resolution coarse-grained simulations to investigate potential unfolding intermediates, whose structural dynamics are then further explored with all-atom simulations. This multiscale approach indicates how various pathways are interconnected in a complex network. Spontaneous conversions between different folds are observed. We demonstrate the inability of simple order parameters, such as radius of gyration or the number of native H-bonds, to describe the folding landscape of the G-quadruplexes.

According to the news editors, the research concluded: "Our study also provides information relevant to further development of the coarse grained force field."


The news correspondents report that additional information may be obtained from S. Pasquali, Univ Sorbonne Paris Cite, CNRS UPR9080, IBPC, Lab Biochim Theor, F-75005 Paris, France. Additional authors for this research include L. Mazzanti, T. Cragnolini, D.J. Wales, P. Derreumaux, S. Pasquali and J. Sponer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jctc.6b00667. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Chemical Theory and Computation, Computation, Molecular Dynamics, Genetics, Physics, National Center for Scientific Research (CNRS).

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Chemical Research - Chemical and Biological... New Chemical and Biological Interactions Findings from Kazan Federal University Outlined (Emergence of catalytic bioscavengers against organophosphorus agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Chemical Research - Chemical and Biological Interactions have been presented. According to news reporting out of Kazan, Russia, by NewsRx editors, research stated, "Bioscavengers are an effective alternative approach for pre- and post-exposure treatments of nerve agent (NA) poisoning. Bioscavengers are natural or recombinant enzymes, reactive proteins, and antibodies that neutralize NAs before they reach their physiological targets."

Funders for this research include Kazan Federal University, Russian Science Foundation.
Our news journalists obtained a quote from the research from Kazan Federal University. "They are administered by injection (protein or gene delivery vector) and react with NAs in the bloodstream. Other ways of delivery can be used: inhalation for pulmonary delivery, topical creams for skin protection, etc. Operational bioscavengers must be producible at low cost, not susceptible to induce immune response and adverse effects, and stable in the bloodstream, upon storage, and under field conditions. First generation bioscavengers, cholinesterases and carboxylesterases, are stoichiometric bioscavengers. However, stoichiometric neutralization of NAs needs administration of huge doses of costly biopharmaceuticals. Second generation bioscavengers are catalytic bioscavengers. These are capable of detoxifying organophosphates regeneratively. By virtue of high turnover, much lower doses are needed for rapid neutralization of toxicants. The most promising catalytic bioscavengers are evolved mutants of phosphotriesterases (bacterial enzymes, mammalian paraoxonases), displaying enantiomeric preference for toxic NA isomers. However, engineering of cholinesterases, carboxylesterases, prolidases and other enzymes, e.g. phosphotriesterases-lactonases from extremophiles is of interest. In particular, association of cholinesterase mutants (not susceptible to age after phosphorylation) with fast-reactivating oximes leads to pseudocatalytic bioscavengers."

According to the news editors, the research concluded: "Thus, catalytic and pseudocatalytic bioscavengers are an improvement of bioscavenger-based medical countermeasures in terms of efficacy and cost."

For more information on this research see: Emergence of catalytic bioscavengers against organophosphorus agents. Chemico-Biological Interactions, 2016;259():319-326. Chemico-Biological Interactions can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Chemico-Biological Interactions - www.journals.elsevier.com/chemico-biological-interactions/)

Our news journalists report that additional information may be obtained by contacting P. Masson, Kazan Fed Univ, Neuropharmacol Lab, Kazan 48000, Russia.

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http://dx.doi.org/10.1016/j.cbi.2016.02.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kazan, Russia, Eurasia, Chemical and Biological Interactions, Chemical Research, Kazan Federal University.

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**Drugs and Therapies - Chemotherapy**

**New Chemotherapy Data Have Been Reported by Investigators at Changchun Institute of Applied Chemistry (Self-Assembly of Amphiphilic Drug-Dye Conjugates into Nanoparticles for Imaging and Chemotherapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Chemotherapy is the subject of a report. According to news reporting from Changchun, People's Republic of China, by NewsRx journalists, research stated, "An amphiphilic drug-dye conjugate (PTX-Pt-BDP) was designed and synthesized with a platinum compound as the hydrophilic head. The precursor of PTX-Pt-
BDP was obtained under mild conditions by means of a three-component Passerini reaction."

The news correspondents obtained a quote from the research from the Changchun Institute of Applied Chemistry, "PTX-Pt-BDP could self-assemble into nanoparticles (PTX-Pt-BDP NPs) in aqueous solution via a nanoprecipitation method. The obtained nanoparticles exhibited favorable structural stability in both water and physiological environment. PTX-Pt-BDP NPs could be endocytosed by cancer cells as revealed by confocal laser scanning microscopy and exert potent cytotoxicity."

According to the news reporters, the research concluded: "This work highlights the potential of nanomedicines from amphiphilic drug-dye conjugates for cancer cell imaging and chemotherapy."


Our news journalists report that additional information may be obtained by contacting Z.G. Xie, Chinese Academy Sci, State Key Lab Polymer Phys & Chem, Changchun Inst Appl Chem, Changchun 130022, People's Republic of China. Additional authors for this research include W.H. Lin, W. Zhang and Z.G. Xie.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/asia.201601206. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changchun, People's Republic of China, Asia, Emerging Technologies, Drugs and Therapies, Nanotechnology, Chemotherapy, Nanoparticle, Changchun Institute of Applied Chemistry.

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Drugs and Therapies - Chemotherapy

New Chemotherapy Findings Reported from Barbara Ann Karmanos Cancer Institute (Managing Chemotherapy Side Effects: Achieving Reliable and Equitable Outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemotherapy. According to news reporting out of Detroit, Michigan, by NewsRx editors, research stated, "Receiving information about treatment-related side effects is a high priority for patients receiving chemotherapy. Infusion nurses typically assume responsibility for teaching patients how to manage treatment-related side effects, but providing reliable and equitable information across visits and across different infusion centers can present a problem."

Our news journalists obtained a quote from the research from Barbara Ann Karmanos Cancer Institute, "Implementing a standardized, patient-centered, departure encounter checklist can help ensure that nurses consistently provide patients with targeted, timely, and regimen-specific information about treatment-related side effects. At a Glance A structured discharge and departure process can help nurses in delivering high-quality patient-centered care. Providing nurses with a checklist with cues reinforces a standardized encounter with each patient."
According to the news editors, the research concluded: "Developing interventions that the nursing staff 'own' allows for easier adoption."


Our news journalists report that additional information may be obtained by contacting C.C. Beaver, Barbara Ann Karmanos Canc Inst, Ambulatory Operat, Detroit, MI 48201, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1188/16.CJON.589-591. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Drugs and Therapies, Chemotherapy, Barbara Ann Karmanos Cancer Institute.

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**Drugs and Therapies - Chemotherapy**

**New Chemotherapy Findings from Hasselt University Described** *(Outcome after PORT in ypN2 or R1/R2 versus no PORT in ypNO Stage III-N2 NSCLC after Induction Chemotherapy and Resection)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Chemotherapy. According to news reporting originating in Hasselt, Belgium, by NewsRx journalists, research stated, "We investigated patients with contemporarily staged and treated stage III-N2 NSCLC treated with induction chemotherapy and surgery with or without postoperative radiotherapy (PORT). We focused on survival and toxicity and investigated what additional PORT may offer in patients with ypN2 status or incomplete resection."

The news reporters obtained a quote from the research from Hasselt University, "We identified 161 patients with pathologically proven, resectable stage III-N2 NSCLC from our prospective database who were treated between 1998 and 2012. Of these patients, 150 without progressive disease after chemotherapy underwent resection. Patients with ypN2 status or R1/2 resection received three-dimensional PORT (n = 70) to a dose of 50 to 66 Gy in 2-Gy fractions. The mean follow-up time was 49 months. The 5-year overall survival (OS) rate was 35.1% in intention to -treat analysis; relapse-free survival was 31.8%, the cumulative local recurrence (LR) rate was 50.9%, and the distant metastasis rate was 63.4%. The 5-year OS, relapse free survival, and cumulative LR and distant metastasis rates were 32.0%, 32.9%, 47.0%, and 63.9% in the PORT group versus 38.1%, 30.7%, 54.1%, and 63.2% in the non-PORT group. These results were not significantly different, even though patients in the PORT group had worse prognostic features. Cardiac toxicity was higher in the non PORT group (p = 0.02), but pulmonary toxicity was similar (p = 0.15). There was no difference between the two groups regarding dyspnea (p = 0.32), cough (p = 0.37), forced expiratory volume in 1 second (p = 0.30), and diffusing capacity of the lung for carbon monoxide (p = 0.61). A similar outcome (OS, LR, and toxicity) was seen in both patient groups (PORT versus non-PORT group)."
According to the news reporters, the research concluded: "Despite the limitations of this retrospective study, PORT can be both effective and safe for patients with stage III-N2 NSCLC with an R1/R2 resection or yN2 after induction chemotherapy and surgery."

For more information on this research see: Outcome after PORT in ypN2 or R1/R2 versus no PORT in ypNO Stage III-N2 NSCLC after Induction Chemotherapy and Resection. Journal of Thoracic Oncology, 2016;11(11):1940-1953. Journal of Thoracic Oncology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Thoracic Oncology - journals.lww.com/jto/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting C. Billiet, Hasselt Univ, Fac Med & Life Sci, Hasselt, Belgium. Additional authors for this research include S. Peeters, H. Decaluwe, J. Vansteenkiste, C. Dooms, C.M. Deroose, M. Hendrix, P. De Leyn, P. Bulens, R. Karim, C. Le Pechoux, J. Mebis and D. De Ruyscher.

Keywords for this news article include: Hasselt, Belgium, Europe, Drugs and Therapies, Chemotherapy, Surgery, Hasselt University.

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Drugs and Therapies - Chemotherapy

New Chemotherapy Findings from Inje University Outlined (Inhibitory Interaction Potential of 22 Antituberculosis Drugs on Organic Anion and Cation Transporters of the SLC22A Family)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Chemotherapy is now available. According to news reporting out of Busan, South Korea, by NewsRx editors, research stated, "Twenty-two currently marketed antituberculosis drugs were comprehensively evaluated for their inhibitory effect on organic anionic transporter (OAT)-and organic cation transporter (OCT)-mediated uptake using stably transfected HEK293 cells in vitro. We observed moderate to strong inhibitory effects on OAT1-and OAT3-mediated para-aminohippurate (PAH) uptake and OCT1- and OCT2-mediated N-methyl-4-phenylpyridinium acetate (MPP+) uptake."

Our news journalists obtained a quote from the research from Inje University, "Ciprofloxacin, linezolid, para-aminosalicylic acid (PAS), and rifampin were observed to have strong inhibitory effects, with the concentrations for a 50% inhibitory effect (IC50s) being 35.1, 31.1, 37.6, and 48.1 μM, respectively, for OAT1 and > 100, 21.9, 24.6, and 30.2 μM, respectively, for OAT3. Similarly, pyrazinamide, rifabutin, and levofloxacin were observed to have inhibitory effects, with IC50 values being 36.5, 42.7, and 30.3 μM, respectively, for OCT1 and with the IC50 value for PAS being 94.2 μM for OCT2. In addition, we used zidovudine and metformin as clinically prescribed substrates of OATs and OCTs, respectively, and zidovudine and metformin uptake was also strongly inhibited by the antituberculosis drugs. Among the tested drugs, the highest drug-drug interaction (DDI) indexes were found for PAS, which were 9.3 to 13.9 for OAT1 and 12.0 to 17.7 for OAT3, and linezolid, which were 1.18 to 2.15 for OAT1 and 1.7 to 3.01 for OAT3. Similarly, the DDI indexes of pyrazinamide and levofloxacin were 0.57 and 0.30, respectively, for OCT1, and the DDI index of PAS was 3.8 for OCT2, suggesting a stronger possibility (DDI index value cutoff, >0.1) of in vivo DDIs."

According to the news editors, the research concluded: "This is the first
comprehensive report of the inhibitory potential of anti-TB drugs on OAT- and OCT-mediated uptake of prototype and clinically prescribed substrate drugs in vitro, providing an ability to predict DDIs between anti-TB drugs and other coprescribed drugs in clinical studies in vivo."

For more information on this research see: Inhibitory Interaction Potential of 22 Antituberculosis Drugs on Organic Anion and Cation Transporters of the SLC22A Family. Antimicrobial Agents and Chemotherapy, 2016;60(11):6558-6567. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting J.G. Shin, Inje Univ, Busan Paik Hosp, Dept. of Clin Pharmacol, Busan, South Korea. Additional authors for this research include N. Kaisar, H.J. Shin, J.A. Jung and J.G. Shin.

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Keywords for this news article include: Busan, South Korea, Asia, Chemotherapy, Drugs and Therapies, Inje University.

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Drugs and Therapies - Chemotherapy

New Chemotherapy Study Findings Have Been Reported by Investigators at University Hospital (Effectiveness and failures of a fast track protocol after cytoreduction and hyperthermic intraoperative intraperitoneal chemotherapy in patients with ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Chemotherapy is now available. According to news reporting from Murcia, Spain, by NewsRx journalists, research stated, "The aim of this study was to analyze the results short term perioperative of patients with peritoneal surface malignancies undergoing cytoreduction with peritonectomy and HIPEC under a controlled fast track protocol and evaluate the factors related to the failure of implementation of the protocol. Patients and method: We prospectively analyzed a consecutive series of patients (N = 156) with peritoneal surface malignancies treated by cytoreductive surgery with peritonectomy procedures and HIPEC from September 2008 until December 2014, in whom a fast track protocol was implemented."

The news correspondents obtained a quote from the research from University Hospital, "We limited the protocol to patients who had optimal cytoreduction, HIPEC administration, and not more than one digestive anastomosis. All patients signed informed consent for surgery and the perioperative multi-modal recovery program. A total of 156 consecutive patients, with a median age of 57 years were included in the study. Median PCI was 8 (IQR: 0-32). Morbidity rate (Clavien-Dindo) was 25.6%, with a major morbidity rate (Clavien-Dindo III-IV) of 11.5%. One hundred and three patients (66%) completed the protocol."

According to the news reporters, the research concluded: "Multivariate analysis
identified the following independent factors, which were related to failure of the protocol: age over 57 years (OR = 3.159, 95% CI: 1.286-7.758, p<0.05), the realization of a digestive anastomosis (OR = 3.834, 95% CI: 1.562-9.414, p<0.005) and occurrence of postoperative complications (OR = 18.704, 95% CI: 6.888-50.790, p<0.001). Conclusions: Our data support the idea that in selected patients undergoing cytoreductive surgery and HIPEC, with a low PCI and especially no necessity to perform a digestive anastomosis, the implementation of a fast track program is feasible."


Our news journalists report that additional information may be obtained by contacting P.A. Cascales-Campos, Hosp Clin Univ Virgen de la Arrixaca, IMIB Arrixaca, Peritoneal Carcinomatosis Unit, Dept. of Surg, Murcia, Spain. Additional authors for this research include P.A. Sanchez-Fuentes, J. Gil, E. Gil, V. Lopez-Lopez, N.R. Gomez-Hidalgo, D. Fuentes and P. Parrilla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.suronc.2016.08.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Murcia, Spain, Europe, Surgery, Article Review, Drugs and Therapies, Chemotherapy, University Hospital.

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**Drugs and Therapies - Chemotherapy**

**New Chemotherapy Study Findings Have Been Reported by Researchers at Tianjin University (A Protein-Polymer Bioconjugate-Coated Upconversion Nanosystem for Simultaneous Tumor Cell Imaging, Photodynamic Therapy, and Chemotherapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemotherapy. According to news reporting from Tianjin, People's Republic of China, by NewsRx journalists, research stated, "Combined cancer therapy possesses many advantages including improved tumoricidal efficacy, reduced side effects, and retarded drug resistance. Herein, a protein-polymer bioconjugate-coated multifunctional upconversion nanosystem, consisting of upconversion nanoparticles (UCNs) core, tailored amphiphilic protein-polymer bioconjugate shell, and photosensitizer zinc phthalocyanine (ZnPc) and antitumor drug doxorubicin coloaded inside, was elaborately developed for combined photodynamic therapy (PDT) and chemotherapy."

The news correspondents obtained a quote from the research from Tianjin University, "In this system, UCNs core could convert deep penetrating near infrared light to visible light for simultaneous cell fluorescence imaging and photodynamic therapy by activating ZnPc to generate cytotoxic ROS, while the protective shell of bovine serum albumin-poly(e-caprolactone) (BSA-PCL) offered excellent water solubility, good stability, and low
The ROS production test showed that this nanosystem could successfully generate singlet oxygen under NIR irradiation. A cellular uptake study demonstrated that intense fluorescence emission of the UCNs could be observed in HeLa cells, indicating their outstanding real-time imaging capability. More importantly, compared with single PDT or chemotherapy systems, the constructed combined therapy UCNs system demonstrated significantly enhanced tumor cell killing efficiency.

According to the news reporters, the research concluded: "On the basis of our findings, this multifunctional UCNs nanosystem could be a promising versatile theranostic nanoplatform for image-guided combined cancer therapy."


Keywords for this news article include: Tianjin, People's Republic of China, Asia, Drugs and Therapies, Biotechnology, Photodynamics, Chemotherapy, Therapy, Tianjin University.
significant related to the control group. However, older adults undergoing cyto-reductive surgery and HIPEC consistently had lower survival rates across all study settings and procedure types than younger individuals. In studies that stratified for elderly patients, PCI, completeness of cytoreduction, tumor histology and albumin levels were predictive factors of survival. None of these studies examined quality of life, which precludes including functional outcomes in this review."

According to the news reporters, the research concluded: "Differences in exposures, outcomes, and data presented in the studies did not allow for quantification of association using a meta analysis."


Our news journalists report that additional information may be obtained by contacting P.A. Cascales-Campos, Univ Clin Hosp Virgen de la Arrixaca, Dept. of Surg, Peritoneal Carcinomatosis Unit, IMIB, Murcia, Arrixaca, Spain. Additional authors for this research include P.A. Cascales-Campos, M.A. Schneider, J. Gil, E. Gil, N.R. Gomez-Hidalgo and P. Parrilla.

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Keywords for this news article include: Murcia, Spain, Europe, Surgery, Article Review, Drugs and Therapies, Chemotherapy, University Hospital.

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**Drugs and Therapies - Chemotherapy**

New Chemotherapy Study Findings Recently Were Reported by M. Chasen and Co-Researchers (Rolapitant improves quality of life of patients receiving highly or moderately emetogenic chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Chemotherapy is now available. According to news originating from Brampton, Canada, by NewsRx correspondents, research stated, "Addition of rolapitant to standard antiemetic therapy improved protection against chemotherapy-induced nausea and vomiting (CINV) in phase 3 trials of patients receiving highly emetogenic chemotherapy (HEC) or moderately emetogenic chemotherapy (MEC). Here, we assessed the impact of CINV on the daily lives of patients receiving HEC or MEC using the Functional Living Index-Emesis (FLIE)."

Our news journalists obtained a quote from the research, "In three double-blind phase 3 studies, patients receiving HEC or MEC were randomized 1:1 to receive oral rolapitant 180 mg or placebo prior to chemotherapy plus 5-hydroxytryptamine type 3 receptor antagonist and dexamethasone therapy. Patients completed the FLIE questionnaire on day 6 of cycle 1. Endpoints included FLIE total score, nausea and vomiting domain scores, and the proportion of patients with no impact on daily life (total score > 108 [range 18-126]). We performed a
prespecified analysis of the MEC/anthracycline-cyclophosphamide (AC) study and a post hoc analysis of two pooled cisplatin-based HEC studies. In the pooled HEC studies, rolapitant significantly improved the FLIE total score (114.5 vs 109.3, p< 0.001), nausea score (55.3 vs 53.5, p< 0.05), and vomiting score (59.2 vs 55.8, p< 0.001) versus control; similar results were observed in the MEC/AC study for FLIE total score (112.7 vs 108.6, p< 0.001), nausea score (54.1 vs 52.3, p< 0.05), and vomiting score (58.6 vs 56.3, p< 0.001). A higher proportion of patients reported no impact on daily life with rolapitant than with control in the MEC/AC study (73.2 vs 67.4, p = 0.027).

According to the news editors, the research concluded: "Compared with control, rolapitant improved quality of life in patients receiving HEC or MEC."

For more information on this research see: Rolapitant improves quality of life of patients receiving highly or moderately emetogenic chemotherapy. *Supportive Care in Cancer*, 2017;25(1):85-92. *Supportive Care in Cancer* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

The news correspondents report that additional information may be obtained from M. Chasen, William Osler Hlth Serv, Palliat Care, Brampton, ON L6R 3J7, Canada. Additional authors for this research include L. Urban, I. Schnadig, B. Rapoport, D. Powers, S. Arora, R. Navari, L. Schwartzberg and C. Gridelli.

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Keywords for this news article include: Brampton, Ontario, Canada, North and Central America, Drugs and Therapies, Quality of Life, Chemotherapy.

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**Drugs and Therapies - Chemotherapy**

**New Chemotherapy Study Findings Reported from Kovai Medical Center (Post chemotherapy extravasation injuries: Hypogastric flap for reconstruction of wounds over dorsum of hand)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemotherapy. According to news originating from Coimbatore, India, by NewsRx correspondents, research stated, "Management of extravasation injuries over the dorsum of hand after administration of chemotherapeutic agents. To study the results of hypogastric flap reconstruction in chemotherapy extravasation wounds over dorsum of hand. Retrospective study."

Our news journalists obtained a quote from the research from Kovai Medical Center, "At our center over 3-years period, 32 patients were treated for chemotherapy extravasation wounds. Out of these 32 patients, seven had wound over dorsum of hand. There were five males and two females, and their mean age was 45 years (range, 19 -64 years). These patients with wound over the dorsum of hand were treated with multiple debridements and hypogastric flap reconstruction. The mean interval between extravasation wound and surgical treatment was 6.28 days (range, 4 -10). The mean size of extravasation wound defect was 14 ? 8 (range, 12 ? 7 to 18 ? 8). Non-dominant hand was involved in six patients and dominant hand in one patient. In four
patients, the hypogastric flap was supplemented with skin graft. The hypogastric flap settled well in all patients and enabled a good wound cover. Complete division of the flap and final insetting was done under local anesthesia after 3 weeks; this was followed by limb mobilization exercises. Contour difference over the dorsum of hand was present in all the cases. The range of movement of the hand was functionally restricted in one patient. No patient in current series developed wound infection."

According to the news editors, the research concluded: "Hypogastric flap is a reliable flap to cover wound over dorsum of hand after extravasation of chemotherapeutic agents."


The news correspondents report that additional information may be obtained from G.I. Nambi, Plastic and Reconstructive Microvascular Services, Kovai Medical Center and Hospital, Coimbatore, Tamil Nadu, India. Additional authors for this research include G.I. Nambi and N. Sudhakar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.144589. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Coimbatore, Chemotherapy, Drugs and Therapies.

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**Chlorinated Hydrocarbons**

**New Chlorinated Hydrocarbons Study Findings Have Been Reported by Investigators at Texas A&M University (Target Organ Metabolism, Toxicity, and Mechanisms of Trichloroethylene and Perchloroethylene: Key Similarities, Differences, and Data Gaps)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Chlorinated Hydrocarbons is the subject of a report. According to news reporting originating in College Station, Texas, by NewsRx journalists, research stated, "Trichloroethylene (TCE) and perchloroethylene or tetrachloroethylene (PCE) are high-production volume chemicals with numerous industrial applications. As a consequence of their widespread use, these chemicals are ubiquitous environmental contaminants to which the general population is commonly exposed."

The news reporters obtained a quote from the research from Texas A&M University, "It is widely assumed that TCE and PCE are toxicologically similar; both are simple olefins with three (TCE) or four (PCE) chlorines. Nonetheless, despite decades of research on the adverse health effects of TCE or PCE, few studies have directly compared these two toxicants. Although the metabolic pathways are qualitatively similar, quantitative differences in the flux and yield of metabolites exist. Recent human health assessments have uncovered some overlap in target organs that are affected by exposure to TCE or PCE, and divergent species and sex-specificity with regard to cancer and noncancer hazards. The objective of this minireview is to highlight key similarities, differences, and data gaps in target organ metabolism and mechanism of toxicity."

According to the news reporters, the research concluded: "The main anticipated outcome of this review is to encourage research to 1) directly compare the responses to TCE and PCE using more sensitive biochemical techniques and robust statistical comparisons; 2) more closely examine interindividual variability in the relationship between toxicokinetics and toxicodynamics for TCE and PCE; 3) elucidate the effect of coexposure to these two toxicants; and 4) explore new mechanisms for target organ toxicity associated with TCE and/or PCE exposure."

For more information on this research see: Target Organ Metabolism, Toxicity, and Mechanisms of Trichloroethylene and Perchloroethylene: Key Similarities, Differences, and Data Gaps. *Journal of Pharmacology and Experimental Therapeutics*, 2016;359(1):110-123. *Journal of Pharmacology and Experimental Therapeutics* can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

Our news correspondents report that additional information may be obtained by contacting I. Rusyn, Texas A&M University, Coll Vet Med & Biomed Sci, Dept. of Vet Integrat Biosci, College Stn, TX, United States. Additional authors for this research include K.Z. Guyton, N. Guha, W.A. Chiu, I. Rusyn and L.H. Lash.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.232629. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: College Station, Texas, United States, North and Central America, Chemicals, Article Review, Chlorinated Hydrocarbons, Trichloroethylene, Texas A&M University.

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**Oncology - Cholangiocarcinoma**

**New Cholangiocarcinoma Findings from China Medical University and Hospital Outlined (The anticancer effects of Resina Draconis extract on cholangiocarcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cholangiocarcinoma have been presented. According to news reporting out of Shenyang, People's Republic of China, by NewsRx editors, research stated, "Cholangiocarcinoma (CCA) is a relatively rare, heterogeneous malignant tumor with poor clinical outcomes. Because of high insensitivity to chemotherapy and radiotherapy, there are no effective treatment options."

Our news journalists obtained a quote from the research from China Medical University and Hospital, "Efforts to identify and develop new agents for prevention and treatment of this deadly disease are urgent. Here, we assessed the apoptotic cytotoxicity of Resina Draconis extract (RDE) using in vitro and in vivo assays and identified the mechanisms underlying antitumor effects of RDE. RDE was obtained via vacuum distillation of Resina Draconis with 75% ethanol. The ethanol extract could inhibit CCA cell proliferation and trigger apoptotic cell death in both QBC939 and HCCC9810 cell lines in a time-and concentration-dependent manner. RDE treatment resulted in intracellular caspase-8 and poly (ADP-ribose) polymerase protease activation. RDE significantly downregulated antiapoptotic protein survivin
expression and upregulated proapoptotic protein Bak expression. RDE also inhibited CCA tumor growth in vivo. We observed that human CCA tissues had much higher survivin expression than did paired adjacent normal tissue."

According to the news editors, the research concluded: "Taken together, the current data suggested that RDE has anticancer effects on CCA, and that RDE could function as a novel anticancer agent to benefit patients with CCA."

For more information on this research see: The anticancer effects of Resina Draconis extract on cholangiocarcinoma. Tumor Biology, 2016;37(11):15203-15210. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting X.X. Zhao, China Med Univ, Dept. of Radiol, Shengjing Hosp, Shenyang 110004, Liaoning Prov, People's Republic of China. Additional authors for this research include X.X. Zhao, Y. Zhao, Z.M. Lu and Q.Y. Guo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5393-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Cholangiocarcinoma, Oncology, China Medical University and Hospital.

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Oncology - Cholangiocarcinoma

New Cholangiocarcinoma Findings from Taishan Medical University Reported [Identification of transcription factors (TFs) and targets involved in the cholangiocarcinoma (CCA) by integrated analysis]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Cholangiocarcinoma. According to news originating from Shandong, People's Republic of China, by NewsRx correspondents, research stated, "The present study was designed to investigate the upstream transcription factors (TFs) and the signature genes in cholangiocarcinoma (CCA), providing better clues on the regulatory mechanisms and therapeutic applications. Gene expression data sets of CCA were searched in the Gene Expression Omnibus database for integrated analysis."

Our news journalists obtained a quote from the research from Taishan Medical University, "Functional annotation of differently expressed genes (DEGs) was then conducted and the TFs were identified. Moreover, a global transcriptional regulatory network of TFs targets was constructed. Integrated analysis of five eligible Gene Expression Omnibus data sets led to a set of 993 DEGs and 48 TFs in CCA. The constructed TFs targets regulatory network consisted of 697 TF target interactions between 41 TFs and 436 DEGs. The top 10 TFs covering the most downstream DEGs were NFATC2, SOX10, ARID3A, ZNF263, NR4A2, GATA3, EGR1, PLAG1, STAT3 and FOSL1, which may have important roles in the tumorigenesis of CCA. Supporting the fact that defects of cell-cycle surveillance mechanism were closely related to various cancers, we found that cell cycle was the most significantly enriched pathway. KCNN2 and ADCY6 were involved in the bile secretion. Thus, their aberrant expression may be
closely related to the pathogenesis of CCA."

According to the news editors, the research concluded: "Particularly, we found that upregulation of EZH2 in CCA is a powerful potential marker for CCA."


The news correspondents report that additional information may be obtained from L. Yang, Taishan Med Univ, Affiliated Hosp, Dept. of Gen Surg, Tai An 271000, Shandong, People's Republic of China. Additional authors for this research include S. Feng and Y. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cgt.2016.64. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Proteins, Gene Therapy, Epidemiology, Transcription Factors, Cholangiocarcinoma, Oncology, Genetics, Taishan Medical University.

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**Oncology - Cholangiocarcinoma**

**New Cholangiocarcinoma Study Results from University of Nebraska Medical Center Described [Delivery of miR-200c Mimic with Poly(amido amine) CXCR4 Antagonists for Combined Inhibition of Cholangiocarcinoma Cell Invasiveness]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cholangiocarcinoma have been presented. According to news reporting originating from Omaha, Nebraska, by NewsRx correspondents, research stated, "Cholangiocarcinoma is the second most common primary liver malignancy with extremely poor prognosis due to early invasion and widespread metastasis. The invasion and metastasis are regulated by multiple factors including CXCR4 chemokine receptor and multiple microRNAs."

Funders for this research include National Institute of Biomedical Imaging and Bioengineering, University of Nebraska Medical Center, National Institute of General Medical Sciences.

Our news editors obtained a quote from the research from the University of Nebraska Medical Center, "The goal of this study was to test the hypothesis that inhibition of CXCR4 combined with the action of miR-200c mimic will cooperatively enhance the inhibition of the invasion of human cholangiocarcinoma cells. The results show that CXCR4-inhibition polycation PCX can effectively deliver miR-200c mimic and that the combination treatment consisting of PCX and miR-200c results in cooperative antimigration activity, most likely by coupling the CXCR4 axis blockade with epithelial-to-mesenchymal transition inhibition in the cholangiocarcinoma cells."

According to the news editors, the research concluded: "The ability of the combined
PCX/miR-200c treatment to obstruct two migratory pathways represents a promising antimetastatic strategy in cholangiocarcinoma."

For more information on this research see: Delivery of miR-200c Mimic with Poly (amido amine) CXCR4 Antagonists for Combined Inhibition of Cholangiocarcinoma Cell Invasiveness. Molecular Pharmaceutics, 2016;13(3):1073-80. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news editors report that additional information may be obtained by contacting Y. Xie, Center for Drug Delivery and Nanomedicine, Dept. of Pharmaceutical Sciences and ‡Dept. of Biochemistry and Molecular Biology, University of Nebraska Medical Center, Omaha, Nebraska 68198, United States. Additional authors for this research include C.J. Wehrkamp, J. Li, Y. Wang, Y. Wang, J.L. Mott and D. Oupicky.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00894. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Omaha, Nebraska, Oncology, United States, Cholangiocarcinoma, North and Central America.

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New Cholera Study Findings Recently Were Reported by Researchers at Yonsei University College of Medicine (Cholera Toxin Production Induced upon Anaerobic Respiration is Suppressed by Glucose Fermentation in Vibrio cholerae)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Digestive System Diseases and Conditions - Cholera. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "The causative agent of pandemic cholera, Vibrio cholerae, infects the anaerobic environment of the human intestine. Production of cholera toxin (CT), a major virulence factor of V. cholerae, is highly induced during anaerobic respiration with trimethylamine N-oxide (TMAO) as an alternative electron acceptor."

Our news journalists obtained a quote from the research from the Yonsei University College of Medicine, "However, the molecular mechanism of TMAO-stimulated CT production is not fully understood. Herein, we reveal that CT production during anaerobic TMAO respiration is affected by glucose fermentation. When the seventh pandemic V. cholerae O1 strain N16961 was grown with TMAO and additional glucose, CT production was markedly reduced. Furthermore, an N16961 Dcrp mutant, devoid of cyclic AMP receptor protein (CRP), was defective in CT production during growth by anaerobic TMAO respiration, further suggesting a role of glucose metabolism in regulating TMAO-mediated CT production. TMAO reductase activity was noticeably decreased when grown together with glucose or by mutation of the crp gene. A CRP binding region was identified in the promoter region of the torD gene, which encodes a structural subunit of the TMAO reductase. Gel shift assays further confirmed the binding of purified CRP to the torD promoter sequence. Together, our results suggest that the bacterial ability to respire using TMAO is controlled by CRP, whose activity is dependent on glucose availability."
According to the news editors, the research concluded: "Our results reveal a novel mechanism for the regulation of major virulence factor production by _V. cholerae_ under anaerobic growth conditions."

For more information on this research see: Cholera Toxin Production Induced upon Anaerobic Respiration is Suppressed by Glucose Fermentation in _Vibrio cholerae_. *Journal of Microbiology and Biotechnology*, 2016;26(3):627-36.

Our news journalists report that additional information may be obtained by contacting Y.T. Oh, Dept. of Microbiology and Immunology, Yonsei University College of Medicine, Seoul 03722, South Korea. Additional authors for this research include K.M. Lee, W. Bari, H.Y. Kim, H.J. Kim and S.S Yoon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4014/jmb.1512.12039. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Genetics, Pandemics, South Korea, Epidemiology, Vibrionaceae, Cholera Toxin, Vibrio cholerae, Biological Toxins, Vibrio Infections, Virulence Factors, Biological Factors, Gammaproteobacteria, Glycosyltransferases, Enzymes and Coenzymes, ADP Ribose Transferases, Gram Negative Bacterial Infections.

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**Chromosome Structures**

**New Chromosome Structures Findings from Harvard School of Medicine Outlined (EPOP Interacts with Elongin BC and USP7 to Modulate the Chromatin Landscape)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Chromosome Structures have been published. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Gene regulatory networks are pivotal for many biological processes. In mouse embryonic stem cells (mESCs), the transcriptional network can be divided into three functionally distinct modules: Polycomb, Core, and Myc."

Funders for this research include National Cancer Institute, German Research Foundation.

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "The Polycomb module represses developmental genes, while the Myc module is associated with proliferative functions, and its mis-regulation is linked to cancer development. Here, we show that, in mESCs, the Polycomb repressive complex 2 (PRC2)-associated protein EPOP (Elongin BC and Polycomb RepressiveComplex 2-associated protein; a. k. a. C17orf96, esPRC2p48, and E130012A19Rik) co-localizes at chromatin with members of the Myc and Polycomb module. EPOP interacts with the transcription elongation factor Elongin BC and the H2B deubiquitinase USP7 to modulate transcriptional processes in mESCs similar to MYC. EPOP is commonly upregulated in human cancer, and its loss impairs the proliferation of several human cancer cell lines."

According to the news editors, the research concluded: "Our findings establish EPOP as a transcriptional modulator, which impacts both Polycomb and active gene transcription in mammalian cells."
For more information on this research see: EPOP Interacts with Elongin BC and USP7 to Modulate the Chromatin Landscape. *Molecular Cell*, 2016;64(4):659-672. *Molecular Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

The news correspondents report that additional information may be obtained from Y. Shi, Harvard Med Sch, Dept. of Cell Biol, Boston, MA 02115, United States. Additional authors for this research include V. Karwacki-Neisius and Y. Shi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.10.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cell Nucleus Structures, Chromosome Structures, Intranuclear Space, Nucleoproteins, Chromatin, Oncology, Genetics, Proteins, Cancer, Harvard School of Medicine.

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**New Chromosome Structures Study Findings Recently Were Reported by Researchers at Drexel University College of Medicine (Swi1Timeless Prevents Repeat Instability at Fission Yeast Telomeres)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Chromosome Structures have been published. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "Genomic instability associated with DNA replication stress is linked to cancer and genetic pathologies in humans. If not properly regulated, replication stress, such as fork stalling and collapse, can be induced at natural replication impediments present throughout the genome."

Our news journalists obtained a quote from the research from the Drexel University College of Medicine, "The fork protection complex (FPC) is thought to play a critical role in stabilizing stalled replication forks at several known replication barriers including eukaryotic rDNA genes and the fission yeast mating-type locus. However, little is known about the role of the FPC at other natural impediments including telomeres. Telomeres are considered to be difficult to replicate due to the presence of repetitive GT-rich sequences and telomere-binding proteins. However, the regulatory mechanism that ensures telomere replication is not fully understood. Here, we report the role of the fission yeast Swi1(Timeless), a subunit of the FPC, in telomere replication. Loss of Swi1 causes telomere shortening in a telomerase-independent manner. Our epistasis analyses suggest that heterochromatin and telomere-binding proteins are not major impediments for telomere replication in the absence of Swi1. Instead, repetitive DNA sequences impair telomere integrity in swi1D mutant cells, leading to the loss of repeat DNA. In the absence of Swi1, telomere shortening is accompanied with an increased recruitment of Rad52 recombinase and more frequent amplification of telomere/subtelomeres, reminiscent of tumor cells that utilize the alternative lengthening of telomeres pathway (ALT) to maintain telomeres. These results suggest that Swi1 ensures telomere replication by suppressing
recombination and repeat instability at telomeres."

According to the news editors, the research concluded: "Our studies may also be relevant in understanding the potential role of Swi1(Timeless) in regulation of telomere stability in cancer cells."


Our news journalists report that additional information may be obtained by contacting M.C. Gadaleta, Dept. of Biochemistry and Molecular Biology, Drexel University College of Medicine, Philadelphia, Pennsylvania, United States. Additional authors for this research include M.M. Das, H. Tanizawa, Y.T. Chang, K. Noma, T.M. Nakamura and E. Noguchi.

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Keywords for this news article include: Genetics, Telomere, Philadelphia, Pennsylvania, United States, Intranuclear Space, Chromosome Structures, Cell Nucleus Structures, North and Central America.

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**Disease Attributes - Chronic Disease**

**New Chronic Disease Findings from Kansas State University Discussed (Summation of blood glucose and TAG to characterise the 'metabolic load index')**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Disease Attributes - Chronic Disease have been published. According to news reporting originating in Manhattan, Kansas, by NewsRx journalists, research stated, "Research points to postprandial glucose and TAG measures as preferable assessments of cardiovascular risk as compared with fasting values. Although elevated postprandial glycaemic and lipaemic responses are thought to substantially increase chronic disease risk, postprandial glycaemia and lipaemia have historically only been considered separately."

The news reporters obtained a quote from the research from Kansas State University, "However, carbohydrates and fats can generally 'compete' for clearance from the stomach, small intestine, bloodstream and within the peripheral cell. Further, there are previous data demonstrating that the addition of carbohydrate to a high-fat meal blunts the postprandial lipaemic response, and the addition of fat to a high-carbohydrate meal blunts the postprandial glycaemic response. Thus, postprandial glycaemia and lipaemia are interrelated. The purpose of this brief review is 2-fold: first, to review the current evidence implicating postprandial glycaemia and lipaemia in chronic disease risk, and, second, to examine the possible utility of a single postprandial glycaemic and lipaemic summative value, which will be referred to as the metabolic load index."

According to the news reporters, the research concluded: "The potential benefits of the metabolic load index extend to the clinician, patient and researcher."
For more information on this research see: Summation of blood glucose and TAG to characterise the 'metabolic load index'. *British Journal of Nutrition*, 2016;116(9):1553-1563. *British Journal of Nutrition* can be contacted at: Cambridge Univ Press, Edinburgh Bldg, Shaftesbury Rd, CB2 8RU Cambridge, England. (Cambridge University Press - www.cambridge.org; British Journal of Nutrition - journals.cambridge.org/action/displayJournal?jid=BJN)

Our news correspondents report that additional information may be obtained by contacting S.K. Rosenkranz, Kansas State University, Dept. of Food Nutr Dietet & Hlth, Manhattan, KS 66506, United States. Additional authors for this research include M.D. Haub, C.S. Teeman, S.P. Kurti and S.K. Rosenkranz.

Keywords for this news article include: Manhattan, Kansas, United States, North and Central America, Pathologic Processes, Risk and Prevention, Disease Attributes, Chronic Disease, Kansas State University.

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**Disease Attributes - Chronic Disease**

**New Chronic Disease Study Findings Recently Were Reported by Researchers at Robert Koch-Institute (Changes in physical functioning among men and women aged 50-79 years in Germany: an analysis of National Health Interview and Examination ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Disease Attributes - Chronic Disease have been presented. According to news reporting out of Berlin, Germany, by NewsRx editors, research stated, "This study examines changes in physical functioning among adults aged 50-79 years in Germany based on data from two German National Health Interview and Examination Surveys conducted in 1997-1999 (GNHIES98) and 2008-2011 (DEGS1). Using cross-sectional data from the two surveys (GNHIES98, n = 2884 and DEGS1, n = 3732), we examined changes in self-reported physical functioning scores (Short Form-36 physical functioning subscale (SF-36 PF)) by sex and age groups (50-64 and 65-79 years)."

Our news journalists obtained a quote from the research from Robert Koch-Institute, "Covariables included educational level, living alone, nine chronic diseases, polypharmacy (>= 5 prescribed medicines), body mass index, sports activity, smoking and alcohol consumption. Multimorbidity was defined as >= 2 chronic diseases. Multivariable models were fitted to examine consistency of changes in physical functioning among certain subgroups and to assess changes in mean SF-36 PF scores, adjusting for changes in covariables between surveys. Mean physical functioning increased among adults aged 50-79 years between surveys in unadjusted analyses, but this change was not as marked among men aged 65-79 years who experienced rising obesity (20.6 to 31.5%, p = 0.004) and diabetes (13.0 to 20.0%, p = 0.014). Prevalence of multimorbidity and polypharmacy use increased among men and women aged 65-79 years. In sex and age specific multivariable analyses, changes in physical functioning over time were consistent across subgroups. Gains in physical functioning were explained by improved education, lower body mass index and improved health-related behaviours (smoking, alcohol consumption, sports activity) in women, but less so among men. Physical functioning improved in Germany among adults aged 50-79 years. Improvements in the population 65-79 years were
less evident among men than women, despite increases in multimorbidity prevalence among both sexes. Changes in health behaviours over time differed between sexes and help explain variations in physical functioning."

According to the news editors, the research concluded: "Targeted health behaviour interventions are indicated from this study."

For more information on this research see: Changes in physical functioning among men and women aged 50-79 years in Germany: an analysis of National Health Interview and Examination Surveys, 1997-1999 and 2008-2011. BMC Geriatrics, 2016;16():24-34. BMC Geriatrics can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; BMC Geriatrics - www.biomedcentral.com/bmcgeriatr/)

Our news journalists report that additional information may be obtained by contacting C. Scheidt-Nave, Robert Koch Inst, Dept. of Epidemiol & Hlth Monitoring, D-12101 Berlin, Germany. Additional authors for this research include Y. Du, M.A. Busch, J. Fuchs, B. Gaertner, H. Knopf and C. Scheidt-Nave.

Keywords for this news article include: Berlin, Germany, Europe, Pathologic Processes, Drugs and Therapies, Disease Attributes, Chronic Disease, Polypharmacy, Robert Koch-Institute.

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Disease Attributes - Chronic Disease

New Chronic Disease Study Findings Reported from Barwon Health (Non-medical prescribing versus medical prescribing for acute and chronic disease management in primary and secondary care)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Disease Attributes - Chronic Disease have been published. According to news reporting originating from Geelong, Australia, by NewsRx correspondents, research stated, "A range of health workforce strategies are needed to address health service demands in low-, middle- and high-income countries. Non-medical prescribing involves nurses, pharmacists, allied health professionals, and physician assistants substituting for doctors in a prescribing role, and this is one approach to improve access to medicines."

Our news editors obtained a quote from the research from Barwon Health, "To assess clinical, patient-reported, and resource use outcomes of non-medical prescribing for managing acute and chronic health conditions in primary and secondary care settings compared with medical prescribing (usual care). Search methods We searched databases including CENTRAL, MEDLINE, Embase, and five other databases on 19 July 2016. We also searched the grey literature and handsearched bibliographies of relevant papers and publications. Selection criteria Randomised controlled trials (RCTs), cluster-RCTs, controlled before-and-after (CBA) studies (with at least two intervention and two control sites) and interrupted time series analysis (with at least three observations before and after the intervention) comparing: 1. nonmedical prescribing versus medical prescribing in acute care; 2. non-medical prescribing versus medical prescribing in chronic care; 3. non-medical prescribing versus medical prescribing in secondary care; 4 non-medical prescribing versus medical prescribing in primary care; 5. comparisons between different non-medical prescriber groups; and 6. non-medical healthcare providers with formal
prescribing training versus those without formal prescribing training. Data collection and analysis We used standard methodological procedures expected by Cochrane. Two review authors independently reviewed studies for inclusion, extracted data, and assessed study quality with discrepancies resolved by discussion. Two review authors independently assessed risk of bias for the included studies according to EPOC criteria. We undertook meta-analyses using the fixed-effect model where studies were examining the same treatment effect and to account for small sample sizes. We compared outcomes to a random-effects model where clinical or statistical heterogeneity existed. We included 46 studies (37,337 participants); non-medical prescribing was undertaken by nurses in 26 studies and pharmacists in 20 studies. In 45 studies non-medical prescribing as a component of care was compared with usual care medical prescribing. A further study compared nurse prescribing supported by guidelines with usual nurse prescribing care. No studies were found with non-medical prescribing being undertaken by other health professionals.

The education requirement for non-medical prescribing varied with country and location. A meta-analysis of surrogate markers of chronic disease (systolic blood pressure, glycated haemoglobin, and low-density lipoprotein) showed positive intervention group effects. There was a moderate-certainty of evidence for studies of blood pressure at 12 months (mean difference (MD) -5.31 mmHg, 95% confidence interval (CI) -6.46 to -4.16; 12 studies, 4229 participants) and low-density lipoprotein (MD -0.21, 95% CI -0.29 to -0.14; 7 studies, 1469 participants); we downgraded the certainty of evidence from high due to considerations of serious inconsistency (considerable heterogeneity), multifaceted interventions, and variable prescribing autonomy. A high-certainty of evidence existed for comparative studies of glycated haemoglobin management at 12 months (MD -0.62, 95% CI 0.85 to -0.38; 6 studies, 775 participants). While there appeared little difference in medication adherence across studies, a meta-analysis of continuous outcome data from four studies showed an effect favouring patient adherence in the non-medical prescribing group (MD 0.15, 95% CI 0.00 to 0.30; 4 studies, 700 participants). We downgraded the certainty of evidence for adherence to moderate due to the serious risk of performance bias. While little difference was seen in patient-related adverse events between treatment groups, we downgraded the certainty of evidence to low due to indirectness, as the range of adverse events may not be related to the intervention and selective reporting failed to adequately report adverse events in many studies. Patients were generally satisfied with non-medical prescriber care (14 studies, 7514 participants). We downgraded the certainty of evidence from high to moderate due to indirectness, in that satisfaction with the prescribing component of care was only addressed in one study, and there was variability of satisfaction measures with little use of validated tools. A meta-analysis of health-related quality of life scores (SF-12 and SF-36) found a difference favouring usual care for the physical component score (MD 1.17, 95% CI 0.16 to 2.17), but not the mental component score (MD 0.58, 95% CI -0.40 to 1.55). However, the quality of life measurement may more appropriately reflect composite care rather than the prescribing component of care, and for this reason we downgraded the certainty of evidence to moderate due to indirectness of the measure of effect. A wide variety of resource use measures were reported across studies with little difference between groups for hospitalisations, emergency department visits, and outpatient visits. In the majority of studies reporting medication use, non-medical prescribers prescribed more drugs, intensified drug doses, and used a greater variety of drugs compared to usual care medical prescribers. The risk of bias across studies was generally low for selection bias (random sequence generation), detection bias (blinding of outcome assessment), attrition bias (incomplete outcome data), and reporting bias (selective reporting). There was an unclear risk of selection bias (allocation concealment) and for other biases. A high risk of performance bias (blinding of participants and personnel) existed. Authors’ conclusions The findings suggest that non-medical prescribers, practising with varying but high levels of prescribing autonomy, in a range of settings, were as effective as usual care medical prescribers. Non-medical prescribers
can deliver comparable outcomes for systolic blood pressure, glycated haemoglobin, low-density lipoprotein, medication adherence, patient satisfaction, and health-related quality of life. It was difficult to determine the impact of non-medical prescribing compared to medical prescribing for adverse events and resource use outcomes due to the inconsistency and variability in reporting across studies."

According to the news editors, the research concluded: "Future efforts should be directed towards more rigorous studies that can clearly identify the clinical, patient-reported, resource use, and economic outcomes of non-medical prescribing, in both high-income and low-income countries."

For more information on this research see: Non-medical prescribing versus medical prescribing for acute and chronic disease management in primary and secondary care. Cochrane Database of Systematic Reviews, 2016;(11):1577-1736. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting G. Weeks, Barwon Hlth, Dept. of Pharm, Geelong, Vic, Australia. Additional authors for this research include J. George, K. Maclure and D. Stewart.

Keywords for this news article include: Geelong, Australia, Australia and New Zealand, Lipoproteins, Article Review, Adverse Drug Reactions, Pathologic Processes, Drugs and Therapies, Disease Attributes, Quality of Life, Chronic Disease, Blood Pressure, Lipids, Barwon Health.

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**Liver Diseases and Conditions - Chronic Hepatitis B...**

**New Chronic Hepatitis B Virus Findings from G. Kockaya and Co-Authors Described (Cost-effectiveness analysis of oral anti-viral drugs used for treatment of chronic hepatitis B in Turkey)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Chronic Hepatitis B Virus. According to news reporting out of Ankara, Turkey, by NewsRx editors, research stated, "All international guidelines suggested that Tenofovir and Entecavir are the primary drugs at the first line therapy for the treatment of chronic hepatitis B (CHB). However, in Turkey these medications reimbursed at the second line therapy according to the Healthcare Implementation Notification."

Our news journalists obtained a quote from the research, "The aim of this study is to compare the cost effectiveness of oral anti-viral treatment strategies in CHB for Turkey using lamivudine, telbuvidine, entecavir, and tenofovir as medications. The analysis was conducted using Markov models. The analysis scenarios based on first line treatment options with Lamivudine, Telbuvidine, Entecavir, and Tenofovir as the medications. In the analysis, inadequate response or resistance after receiving 12 months of the treatment with Entecavir and Telbivudine were compared to the results found from switching from Entecavir to Tenofovir or from switching from Telbivudine to Tenofovir. In additional, inadequate response or resistance after receiving 6 months of the treatment for Lamivudine was compared to the results found from switching from Lamivudine to Tenofovir. The study population included men and women,"
who were 40 years of age. The patients compliance was estimated 100 % for all of the therapy options. The model duration was constructed to evaluate, treatment strategy duration of 40 years. The cost of medications, examinations/follow-ups and complications were included in the model. Years of Potential Life Lost was used as the health outcome. An incremental cost-effectiveness ratio analysis has been conducted. While the minimum years of life lost was found as 0.22 with tenofovir treatment in 5 years, treatment cost was calculated as 12,169 TL. These values were detected as 0.56 years and 7727 TL, 0.37 years and 12,770 TL, respectively for lamuvudine and telbuvidine treatments. The maximum years of life lost and treatment cost was with lamuvudine treatment were detected as 1.60 years and 18,813 TL and, secondly 0.89 years and 24,007 TL for lamuvudine-tenofovir treatment during 10 years. The minimum years of life lost and cost are 0.54 year and 35,821 TL for tenofovir treatment during 10 years. The minimum years of life lost and cost were determined as 1.21 years and 52,839 TL for tenofovir treatment strategy during 20 years. During 30 years period, tenofovir treatment was found to have the minimum years of life lost (1.73 years) and minimum cost (84,149 TL). When the results of 40 years period were analyzed, years of life lost and costs are 2.06 years and 119,604 TL, 2.13 years and 162,115 TL, 2.13 years and 161,642 TL, 6.52 years and 147,245 TL, 3.20 years and 132,157 TL, 4.10 years and 151,059 TL and 3.05 years and 138,182 TL for tenofovir, entecavir, entecavir-tenofovir, lamuvudine, lamuvudine-tenofovir, teltbudine and teltbudine-tenofovir. In the model presented in this study, in cost effectiveness analysis about CHB treatments, Tenofovir was found to be one of the cost effective methods in comparison with other treatment strategies different time intervals.

According to the news editors, the research concluded: "Beyond this achievement Tenofovir has shown to reduce cumulative treatment cost in first line CHB treatment when compared with regard to 40 year cumulative treatment cost." For more information on this research see: Cost-effectiveness analysis of oral anti-viral drugs used for treatment of chronic hepatitis B in Turkey. Cost Effectiveness and Resource Allocation, 2015;13():1-10. Cost Effectiveness and Resource Allocation can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; Cost Effectiveness and Resource Allocation - www.resource-allocation.com)

Our news journalists report that additional information may be obtained by contacting F.B. Yenilmez, Akil Consultancy, Ankara, Turkey. Additional authors for this research include A. Kose, F.B. Yenilmez, O. Ozdemir and E. Kucuksayrac.

Keywords for this news article include: Ankara, Turkey, Eurasia, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Liver Diseases and Conditions, Chronic Hepatitis B Virus, Therapy, Epidemiology, Drugs and Therapies, Antiinfectives, Teltbudine, Antivirals, Entecavir, Tenofovir.

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Liver Diseases and Conditions - Chronic Hepatitis B…

New Chronic Hepatitis B Virus Findings from Istanbul University Described (Predictors of treatment requirement in HBeAg-negative chronic hepatitis B patients with persistently normal alanine aminotransferase and high serum HBV DNA levels)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Chronic Hepatitis B Virus. According to news originating from Istanbul, Turkey, by NewsRx correspondents, research stated, "Serum alanine aminotransferase (ALT) is a controversial marker for disease monitoring in hepatitis B e antigen (HBeAg)-negative chronic hepatitis B (CHB) patients. The aim of this study was to determine the fibrosis stage and histological activity index (HAI) in HBeAg-negative CHB patients with persistently normal ALT (PNALT) and high serum HBV DNA (>= 2000 IU/ml) and to investigate clinical risk factors for the requirement of treatment through the examination of liver biopsy specimens."

Our news journalists obtained a quote from the research from Istanbul University, "HBeAg-negative CHB patients with PNALT (<= 40 IU/l) and high serum HBV DNA (>= 2000 IU/ml) were included. HBV fibrosis stage and HAI were scored according to the Ishak system. Multivariate logistic regression analysis was used to estimate the independent risk factors for fibrosis stage >= 2 and/or HAI >= 6. Receiver operating characteristic curve analysis was used to determine an optimal age cut-off for liver biopsy. A total 120 patients were enrolled. These patients had a mean HBV DNA level of 123 680 +/- 49 450 IU/ml; the HBV DNA load was 2000-20 000 IU/ml in 68 patients (56.6%) and >= 20 000 IU/ml in 52 (43.4%). Eighteen patients (15%) had moderate-to-severe histological activity (HAI >= 6). Forty-three patients (35.9%) had a fibrosis stage >= 2, Forty-eight patients (40%) had a fibrosis stage >= 2 and/or HAI >= 6. On multivariate logistic regression analysis, independent variables associated with fibrosis stage >= 2 and/or HAI >= 6 included age and HBV DNA viral load. Patients with HBV DNA 2000-20 000 IU/ml were more likely to require treatment compared to those with a viral load >= 20 000 IU/ml. The optimal age cut-off to predict fibrosis stage >= 2 and/or HAI >= 6 was 46 years. Significant liver damage was detected in 40% of CHB patients with PNALT and high HBV DNA upon biopsy. Age and HBV DNA viral load were independent predictors of significant liver damage."

According to the news editors, the research concluded: "A biopsy to determine the degree of liver damage is advisable for CHB patients older than 46 years."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijid.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Virus Physiological Phenomena, Liver Diseases and Conditions, Microbiological Techniques, Chronic Hepatitis B Virus, Enzymes and Coenzymes, Risk and Prevention, Aminotransferase, Gastroenterology, DNA Research, Amino Acids, Viral Load, Genetics, Alanine, Istanbul University.
New Chronic Hepatitis B Virus Study Findings Have Been Reported by Investigators at Military Hospital (Comparison of relationship between histopathological, serological and biochemical parameters in patients with chronic hepatitis B infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Chronic Hepatitis B Virus have been published. According to news reporting originating from Bitlis, Turkey, by NewsRx correspondents, research stated, "To demonstrate the relationship between liver histology, alanine aminotransferase (ALT)/aspartate aminotransferase (AST) and hepatitis B virus (HBV) DNA levels based on hepatitis B e antigen (HBeAg) seropositivity status in naive patients with chronic hepatitis B (CHB). Materials and method Naive patients with CHB admitted to our hospital between January 2012 and April 2014 were evaluated retrospectively."

Our news editors obtained a quote from the research from Military Hospital, "The patients were allocated into one of two groups based on HBeAg-seropositivity status. Two hundred and fourteen patients were enrolled in the study. Of these 214 patients, 103 (48.1%) were HBeAg-positive and 111 (51.9%) were HBeAg-negative. In the HBeAg-positive group, positive correlations were found between histologic activity index (HAI) scores and ALT (t=3.3, r=0.31, p=0.001), AST (t=2.8, r=0.27, p=0.005) and HBV DNA load (t=2.5, r=0.24, p=0.014). Additionally, in this group, fibrosis scores had positive correlations with ALT (t=3.3, r=0.32, p=0.001) and AST (t=2.7, r=0.26, p=0.008). In the HBeAg-negative group, positive correlations were found between HAI scores and ALT (t=3, r=0.28, p=0.003), AST (t=3, r=0.28, p=0.003) and HBV DNA (t=5.3, r=0.45, p=0). In this same group, fibrosis scores had a positive correlation with HBV DNA (t=2.2, r=0.21, p=0.024). Multivariate logistic regression analysis showed a positive relationship between fibrosis and ALT in the HBeAg-positive group and a positive relationship between fibrosis and HBV DNA load in the HBeAg-negative group. This study showed that HBV DNA load is an independent predictive factor for evaluating HAI and fibrosis in the HBeAg-negative group."

According to the news editors, the research concluded: "Also, ALT is an independent predictive factor for evaluating fibrosis in the HBeAg-positive group."


The news editors report that additional information may be obtained by contacting H. Diktas, Tatvan Military Hosp, Dept. of Infect Dis & Clin Microbiol, Bitlis, Turkey. Additional authors for this research include Z. Karacaer, I.I. Ozturk and H. Cicek.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/postgradmedj-2016-134069. This DOI is a link to an online electronic document that is either free or for purchase.
New Chronic Hepatitis B Virus Study Findings Have Been Reported by Researchers at Yonsei University College of Medicine (A 96-week randomized trial of switching to entecavir in patients who achieved virological suppression on lamivudine therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Chronic Hepatitis B Virus. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "There are limited data assessing whether patients who achieved virological suppression on lamivudine but remain hepatitis B 'e' antigen-positive should be switched to a more potent antiviral with a high genetic barrier to resistance or continue with lamivudine. We compared the safety and efficacy of switching with entecavir versus continuing lamivudine."

Financial support for this research came from Korean Health Technology Research and Development Project; Ministry of Health and Welfare, Republic of Korea.

Our news journalists obtained a quote from the research from the Yonsei University College of Medicine, "This was a Phase IV, randomized, open-label, prospective study in a tertiary care setting. Seventy-three chronic hepatitis B patients who achieved virological suppression on lamivudine (serum hepatitis B virus DNA <60 International Unit (IU)/mL) were enrolled. Entecavir or lamivudine were administered orally for up to 96 weeks. Virologic and serologic responses were measured throughout the study. A significantly higher proportion of patients in the entecavir group achieved hepatitis B virus DNA <60 IU/mL at Weeks 48 (100% [38/38] vs 62.8% [22/35]; p<0.001) and 96 (97.4% [37/38] vs 57.1% [20/35]; p<0.001). A greater number of patients had virologic breakthrough (Week 96 cumulative incidence 42.9% vs 2.6%; p<0.001) and genotypic lamivudine resistance (28.6% [10/35] vs 0% [0/38]; p<0.001) in the lamivudine group. No serious adverse events or laboratory abnormalities were reported. Even after achieving virological suppression on lamivudine therapy, the risk of emergent lamivudine resistance increases over time. Switching to entecavir resulted in a maintained virologic response and superior serologic responses versus continued lamivudine therapy."

According to the news editors, the research concluded: "This study supports a rationale for switching to entecavir in chronic hepatitis B patients with virological suppression on lamivudine."

Our news journalists report that additional information may be obtained by contacting S.H. Ahn, Dept. of Internal Medicine, Yonsei University College of Medicine, Seoul, South Korea. Additional authors for this research include J. Heo, J.Y. Park, H.Y. Woo, H.J. Lee, W.Y. Tak, S.H. Um, K.T. Yoon, S.Y. Park, C.W. Kim, H.H. Kim, K.H. Han and M. Cho.

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Keywords for this news article include: HBV, Asia, Antiinfectives, Antiretrovirals, Antivirals, Seoul, Genetics, Virology, Entecavir, Viral DNA, Hepatology, Lamivudine, South Korea, DNA Viruses, Hepadnaviridae, Gastroenterology, Clinical Research, Orthohepadnavirus, Drugs and Therapies, Chronic Hepatitis B Virus, Clinical Trials and Studies.

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Liver Diseases and Conditions - Chronic Hepatitis C...

**New Chronic Hepatitis C Virus Study Results Reported from Department of Gastroenterology & Hepatology (Safety and Effectiveness of Direct-Acting Antiviral Agents for Treatment of Patients With Chronic Hepatitis C Virus Infection and Cirrhosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Chronic Hepatitis C Virus. According to news reporting out of Rotterdam, Netherlands, by NewsRx editors, research stated, "Direct-acting antivirals (DAAs) have revolutionized treatment for patients with chronic hepatitis C virus (HCV) infection, leading to a high rates of sustained virologic response. This study assessed the real-world safety and effectiveness of DAA-based antiviral therapy for the treatment of cirrhotic patients with chronic HCV infection."

Our news journalists obtained a quote from the research from the Department of Gastroenterology & Hepatology, "This international, multicenter cohort study included all consecutive patients with chronic HCV infection and cirrhosis who underwent antiviral therapy with second-generation DAAs. Data on all patients were analyzed to assess treatment response. Predictors of hepatic decompensation during antiviral therapy were assessed using Cox proportional hazards regression analyses. Until June 2015, 433 cirrhotic patients with chronic HCV infection started DAA-based treatment. Their mean age was 57.8 (+/- 8.7) years, 277 (64.0%) patients were male, and 114 (26.3%) had a Child-Pugh (CP) score of B/C cirrhosis. The sustained virologic response rate at 12 weeks was similar among patients with a CP score of A (261 of 304 [85.9%]) and a CP score of B/C (83 of 101 [82.2%]; P = .37). A baseline albumin level less than 35 g/L (hazard ratio [HR], 3.11; 95% confidence interval [CI], 1.23-7.84; P = .005), baseline MELD score of 14 or higher (HR, 1.63; 95% CI, 1.03-2.61; P = .037), and HCV genotype 3 (HR, 2.05; 95% CI, 1.09-3.88; P = .033) were associated independently with hepatic decompensation during antiviral treatment among patients with a CP score of B/C. This large cohort study showed that therapy is safe and effective in patients with compensated (CP score of A) cirrhosis. For patients with decompensated (CP score of B/C) cirrhosis, albumin level less than 35 g/L, MELD score of 14 or greater, and HCV genotype 3 are important risk factors for hepatic decompensation during DAA-based treatment."

According to the news editors, the research concluded: "Therefore, these patients
require close monitoring during antiviral therapy or treatment should be deferred until after transplantation."


Our news journalists report that additional information may be obtained by contacting R. Maan, Erasmus MC Univ, Medical Center Rotterdam, Dept. of Gastroenterol & Hepatol, Rotterdam, Netherlands. Additional authors for this research include M. van Tilborg, K. Deterding, A. Ramji, A.J. van der Meer, F. Wong, S. Fung, M. Sherman, M.P. Manns, M. Cornberg, B.E. Hansen, H. Wedemeyer, H.L.A. Janssen, R.J. de Knekt and J.J. Feld.

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Keywords for this news article include: Rotterdam, Netherlands, Europe, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Therapy, Risk and Prevention, Chronic Hepatitis C Virus, Flaviviridae Infections, Drugs and Therapies, Gastroenterology, Antiinfectives, RNA Viruses, Antivirals, Hepatology, Cirrhosis, Fibrosis, Virology, Viral, HCV, Department of Gastroenterology & Hepatology.

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Kidney Diseases and Conditions - Chronic Kidney…

New Chronic Kidney Disease Data Have Been Reported by Investigators at Chang Gung University (Acute Kidney Injury in Asians With Atrial Fibrillation Treated With Dabigatran or Warfarin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Kidney Diseases and Conditions - Chronic Kidney Disease have been presented. According to news originating from Taoyuan, Taiwan, by NewsRx correspondents, research stated, "Whether dabigatran is associated with a lower risk of acute kidney injury (AKI) in patients with nonvalvular atrial fibrillation (NVAF) remains unknown. The authors compared the risk of AKI in Asians with NVAF who were prescribed dabigatran versus warfarin."

Our news journalists obtained a quote from the research from Chang Gung University, "The authors analyzed patients enrolled in the Taiwan nationwide retrospective cohort study from June 1, 2012, to December 31, 2013. Dabigatran and warfarin were taken by 7,702 and 7,885 NVAF patients without a history of chronic kidney disease (CKD) and 2,256 and 2,089 NVAF patients with a history of CKD, respectively. A propensity-score weighted method was used to balance covariates across study groups. A total of 6,762 (88%) and 940 (12%) CKD-free patients and 2,025 (90%) and 231 (10%) CKD patients took dabigatran 110 mg and 150 mg twice daily, respectively. Dabigatran was associated with a lower risk of AKI
than warfarin for either the CKD-free (hazard ratio [HR]: 0.62; 95% confidence interval [CI]: 0.49 to 0.77; p < 0.001) or CKD (HR: 0.56; 95% CI: 0.46 to 0.69; p < 0.001) cohort. As the increment in CHA(2)DS(2)-VASc score (a risk score based on congestive heart failure, hypertension, age 75 years or older, diabetes mellitus, previous stroke/transient ischemic attack, vascular disease, aged 65 to 74 years, and female sex) increased from 0/1 to 6+ points, the incidence of AKI for the dabigatran group was relatively stable (1.87% to 2.91% per year for the CKD-free cohort; 7.31% to 13.15% per year for the CKD cohort) but increased obviously for patients taking warfarin for either CKD-free (2.00% to 6.16% per year) or CKD cohorts (6.82 to 26.03% per year). The warfarin group had a significantly higher annual risk of AKI than the dabigatran group for those with a high CHA2DS2-VASc score (>= 4 for the CKD-free cohort and >= 3 for the CKD cohort). Subgroup analysis revealed that among dabigatran users, those taking either low-dose or standard-dose dabigatran, those with a warfarin-naive warfarin-experienced history, those with or without diabetes, and those with CHA(2)DS(2)-VASc >= 4 or HAS-BLED >= 3 (risk score based on hypertension, abnormal renal and liver function, stroke, prior major bleeding, labile international normalized ratios, age 65 years or older, drugs or alcohol usage history) all had a lower risk of AKI than those taking warfarin."

According to the news editors, the research concluded: "Among Asians with NVAF, dabigatran is associated with a lower risk of AKI than warfarin."

For more information on this research see: Acute Kidney Injury in Asians With Atrial Fibrillation Treated With Dabigatran or Warfarin. Journal of the American College of Cardiology, 2016;68(21):2272-2283. Journal of the American College of Cardiology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.

The news correspondents report that additional information may be obtained from C.T. Kuo, Chang Gung University, Coll Med, Taoyuan, Taiwan. Additional authors for this research include Y.H. Yeh, L.C. See, C.L. Wang, S.H. Chang, H.F. Lee, L.S. Wu, H.T. Tu and C.T. Kuo.

Keywords for this news article include: Taoyuan, Taiwan, Asia, Acute Kidney Injury, Risk and Prevention, Cardiovascular Diseases and Conditions, Coumarin and Indandione Derivative, Kidney Diseases and Conditions, Heart Disorders and Diseases, Coumarins and Indandiones, Chronic Kidney Disease, Coagulation Modifiers, Drugs and Therapies, Thrombin Inhibitors, Atrial Fibrillation, Cardiac Arrhythmias, Warfarin Therapy, Anticoagulants, Heart Disease, Hypertension, Rodenticide, Dabigatran, Chang Gung University.

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Kidney Diseases and Conditions - Chronic Kidney...

New Chronic Kidney Disease Data Have Been Reported by Researchers at School of Medicine (The prognostic impact of uric acid in patients with severely decompensated acute heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Kidney Diseases and Conditions - Chronic Kidney Disease. According to news reporting from Chiba, Japan, by NewsRx journalists, research stated, "The serum level of uric acid (UA) is a well-known prognostic factor for heart failure (HF) patients. However, the prognostic impact of hyperuricemia and the
factors that induce hyperuricemia in acute I-IF (AHF) patients are not well understood."

The news correspondents obtained a quote from the research from the School of Medicine, "Eight hundred eighty-nine AHF patients were enrolled in this study. The patients were assigned into a low UA group (UA <= 7.0 mg/dl, n = 495) or a high UA group (UA > 7.0 mg/dl, n = 394) according to their UA level on admission. A Kaplan-Meier curve showed that the survival rate of the low UA group was significantly higher than that of the high UA group. A multivariate Cox regression model identified that a high UA level (HR: 1.192, 95%CI 1.112-1.277) was an independent predictor of 180-day mortality. A multivariate logistic regression model for a high serum UA level on admission indicated that chronic kidney disease (CKD) (OR: 2.030, 95%CI: 1.298-3.176, p = 0.002) and the administration of loop diuretics before admission (OR: 1.556, 95%CI: 1.010-2.397, p = 0.045) were independent factors. The prognosis, including all-cause death and HF events, was significantly poorer among patients who had a high UA level who had previously used loop diuretics and among CKD patients with a high UA level than among other patients. The serum UA level was an independent predictor in patients who were hospitalized during an emergent situation for AHF. An elevated serum UA level on admission was associated with the presence of CKD and the use of loop diuretics."

According to the news reporters, the research concluded: "These factors were also associated with adverse outcomes in hyperuricemic patients with AHF."

For more information on this research see: The prognostic impact of uric acid in patients with severely decompensated acute heart failure. Journal of Cardiology, 2016;68(5-6):384-391. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

Our news journalists report that additional information may be obtained by contacting A. Shirakabe, Chiba Hokusoh Hosp, Nippon Med Sch, Div Intens Care Unit, Chiba, Japan. Additional authors for this research include A. Shirakabe, N. Kobayashi, N. Hata, T. Shinada, M. Matsushita, Y. Yamamoto, J. Shibuya, R. Shiomura, S. Nishigoori, K. Asai and W. Shimizu.

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Keywords for this news article include: Chiba, Japan, Asia, Cardiovascular Diseases and Conditions, Kidney Diseases and Conditions, Heart Disorders and Diseases, Chronic Kidney Disease, Heart Failure, Heart Disease, Cardiology, School of Medicine.

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Kidney Diseases and Conditions - Chronic Kidney Disease - 2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Kidney Diseases and Conditions - Chronic Kidney Disease have been published. According to news reporting originating from Hannover,
Germany, by NewsRx correspondents, research stated, "The quest for the ideal therapeutic target in chronic kidney disease (CKD) has been riddled with many obstacles stemming from the molecular complexity of the disease and its co-morbidities. Recent advances in omics technologies and the resulting amount of available data encompassing genomics, proteomics, peptidomics, transcriptomics and metabolomics has created an opportunity for integrating omics datasets to build a comprehensive and dynamic model of the molecular changes in CKD for the purpose of biomarker and drug discovery."

Our news editors obtained a quote from the research, "This article reviews relevant concepts in omics data integration using systems biology, a mathematical modelling method that globally describes a biological system on the basis of its modules and the functional connections that govern their behaviour. The review describes key databases and bioinformatics tools, as well as the challenges and limitations of the current state of the art, along with practical application to CKD therapeutic target discovery."

According to the news editors, the research concluded: "Moreover, it describes how systems biology and visualization tools can be used to generate clinically relevant molecular models with the capability to identify specific disease pathways, recognize key events in disease development and track disease progression."


The news editors report that additional information may be obtained by contacting K. Cisek, Mosaiques Diagnostics GmbH, Hannover, Germany. Additional authors for this research include M. Krochmal, J. Klein and H. Mischak.

Keywords for this news article include: Europe, Germany, Therapy, Hannover, Genetics, Article Review, Chronic Kidney Disease, Kidney Diseases and Conditions.

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New Chronic Kidney Disease Study Findings Recently Were Reported by Researchers at Chugai Pharmaceutical (A prospective observational study of early intervention with erythropoietin therapy and renal survival in non-dialysis chronic kidney ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Kidney Diseases and Conditions - Chronic Kidney Disease. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "There is limited data showing that early treatment for anemia could prolong renal survival in non-dialysis chronic kidney disease (CKD) patients. We therefore investigated the relationship between hemoglobin (Hb) levels at initiation of epoetin beta therapy and renal outcome in non-dialysis CKD patients with anemia."

Our news journalists obtained a quote from the research from Chugai Pharmaceutical, "In this prospective, multi-center, observational study, non-dialysis CKD patients with anemia who were naïve to erythropoiesis-stimulating agents (ESAs) were divided into three groups based on their Hb levels at initiation of epoetin beta therapy (Group I:
10 currency Hb < 11 g/dL, Group II: 9 currency Hb < 10 g/dL, and Group III: Hb < 9 g/dL). The primary endpoint was time to first occurrence of any renal event. For the primary analysis, an inverse probability weighted Cox regression model was used to adjust time-dependent selection bias in the artificially censored data. A total of 1113 patients were eligible for primary endpoint analysis. Risk of renal events was significantly higher in Group III compared with Group I (HR, 2.52; 95 % CI, 1.98-3.21; P< 0.0001); although not significant, the risk was also higher in Group II compared with Group I (HR, 1.48; 95 % CI, 0.91-2.40; P = 0.11)."

According to the news editors, the research concluded: "Initiation of ESA therapy when Hb levels decreased below 11 g/dL but not below 10 g/dL could be more effective at reducing the risk of renal events in non-dialysis CKD patients with anemia compared with initiation of ESA therapy at below 9 g/dL or even 10 g/dL."


Our news journalists report that additional information may be obtained by contacting M. Kumagai, Chugai Pharmaceut Co Ltd, Pharmacovigilance Department, Chuo Ku, Tokyo 1038324, Japan. Additional authors for this research include Y. Tsubakihara, H. Hirakata, Y. Watanabe, H. Hase, S. Nishi, T. Babazono, M. Kumagai, S. Katakura, Y. Uemura and Y. Ohashi.

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Keywords for this news article include: Tokyo, Japan, Asia, Intercellular Signaling Peptides and Proteins, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Kidney Diseases and Conditions, Clinical Trials and Studies, Colony Stimulating Factors, Chronic Kidney Disease, Biological Factors, Clinical Research, Erythropoietin, Nephrology, Cytokines, Therapy, Anemia, Chugai Pharmaceutical.

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Kidney Diseases and Conditions - Chronic Kidney...

New Chronic Kidney Disease Study Findings Recently Were Reported by Researchers at School of Medicine (Illness Perceptions, Medication Beliefs, and Adherence to Antiretrovirals and Medications for Comorbidities in Adults With HIV Infection and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Kidney Diseases and Conditions - Chronic Kidney Disease is the subject of a report. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Mortality in patients with HIV infection is increasingly due to comorbid medical conditions. Research on how adherence to medications for comorbidities relates to antiretroviral (ARV) medication adherence and how interrelations
between illness perceptions and medication beliefs about HIV and comorbidities affect medication adherence is needed to inform adherence interventions."

The news reporters obtained a quote from the research from the School of Medicine, "HIV-infected adults with hypertension (HTN) (n = 151) or chronic kidney disease (CKD; n = 41) were recruited from ambulatory practices at an academic medical center. Illness perceptions and medication beliefs about HIV and HTN or CKD were assessed and adherence to one ARV medication and one medication for either HTN or CKD was electronically monitored for 10 weeks. Rates of taking, dosing, and timing adherence to ARV medication did not differ from adherence to medication for HTN or CKD, with the exception that patients were more adherent to the timing of their ARV (78%) than to the timing of their antihypertensive (68%; P = 0.01). Patients viewed HIV as better understood, more chronic, having more negative consequences, and eliciting more emotions, compared with HTN. Patients viewed ARVs as more necessary than medication for HTN or CKD. Having a realistic view of the efficacy of ARVs (r = 0.20; P <0.05) and a high level of perceived HIV understanding (r = 0.21; P<0.05) correlated with better ARV adherence. Patients with HIV showed similar rates of adherence to ARVs as to medications for comorbidities, despite perceiving HIV as more threatening and ARVs as more important."

According to the news reporters, the research concluded: "This can be used in adapting existing interventions for ARV adherence to encompass adherence to medications for comorbid conditions."

For more information on this research see: Illness Perceptions, Medication Beliefs, and Adherence to Antiretrovirals and Medications for Comorbidities in Adults With HIV Infection and Hypertension or Chronic Kidney Disease. *Jaids-Journal of Acquired Immune Deficiency Syndromes*, 2016;73(4):403-410. *Jaids-Journal of Acquired Immune Deficiency Syndromes* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.


Keywords for this news article include: New York City, New York, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Cardiovascular Diseases and Conditions, Immune System Diseases and Conditions, Kidney Diseases and Conditions, Chronic Kidney Disease, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Hypertension, Retroviridae, RNA Viruses, HIV/AIDS, School of Medicine.

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Kidney Diseases and Conditions - Chronic Kidney...

New Chronic Kidney Disease Study Findings Reported from University of Paris-Sud (Neurological complications in chronic kidney disease patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Kidney Diseases and Conditions - Chronic Kidney
Disease have been published. According to news reporting originating from Villejuif, France, by NewsRx correspondents, research stated, "Chronic kidney disease (CKD) is associated with a high prevalence of cerebrovascular disorders such as stroke, white matter diseases, intracerebral microbleeds and cognitive impairment. This situation has been observed not only in end-stage renal disease patients but also in patients with mild or moderate CKD."

Our news editors obtained a quote from the research from the University of Paris-Sud, "The occurrence of cerebrovascular disorders may be linked to the presence of traditional and non-traditional cardiovascular risk factors in CKD. Here, we review current knowledge on the epidemiological aspects of CKD-associated neurological and cognitive disorders and discuss putative causes and potential treatment. CKD is associated with traditional (hypertension, hypercholesterolaemia, diabetes etc.) and non-traditional cardiovascular risk factors such as elevated levels of oxidative stress, chronic inflammation, endothelial dysfunction, vascular calcification, anaemia and uraemic toxins. Clinical and animal studies indicate that these factors may modify the incidence and/or outcomes of stroke and are associated with white matter diseases and cognitive impairment. However, direct evidence in CKD patients is still lacking. A better understanding of the factors responsible for the elevated prevalence of cerebrovascular diseases in CKD patients may facilitate the development of novel treatments. Very few clinical trials have actually been performed in CKD patients, and the impact of certain treatments is subject to debate. Treatments that lower LDL cholesterol or blood pressure may reduce the incidence of cerebrovascular diseases in CKD patients, whereas treatment with erythropoiesis-stimulating agents may be associated with an increased risk of stroke but a decreased risk of cognitive disorders."

According to the news editors, the research concluded: "The impact of therapeutic approaches that reduce levels of uraemic toxins has yet to be evaluated."


The news editors report that additional information may be obtained by contacting B. Stengel, Univ Paris Sud, UMRS 1018, Villejuif, France. Additional authors for this research include Z.A. Massy and B. Stengel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/ndt/gfv315. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Villejuif, France, Europe, Central Nervous System Diseases and Conditions, Cerebrovascular Diseases and Conditions, Cardiovascular Diseases and Conditions, Stroke, Article Review, Epidemiology, Cognitive Communication Disorders, Kidney Diseases and Conditions, Brain Diseases and Conditions, Cerebrovascular Disorders, Chronic Kidney Disease, White-Matter Disease, Risk and Prevention, Speech Pathology, Cardiology, University of Paris-Sud.

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Oncology - Chronic Lymphocytic Leukemia

New Chronic Lymphocytic Leukemia Findings from University Hospital Outlined (Concepts of Chronic Lymphocytic Leukemia Pathogenesis: DNA Damage Response and Tumor Microenvironment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Chronic Lymphocytic Leukemia. According to news reporting originating from Cologne, Germany, by NewsRx correspondents, research stated, "Pathogenesis of chronic lymphocytic leukemia (CLL) is characterized by specific genetic aberrations and alterations of cellular signaling pathways. In particular, a disturbed DNA damage response (DDR) and an activated B-cell receptor signaling pathway play a major role in promoting CLL cell survival."

Our news editors obtained a quote from the research from University Hospital, "External stimuli are similarly essential for CLL cell survival and lead to activation of the PI3K/AKT and MAPK pathways. Activation of nuclear factor-kappa B (NF-kB) influences the disturbed anti-apoptotic balance of CLL cells. Losses or disabling mutations in TP53 and ATM are frequent events in chemotherapy-na?ve patients and are further enriched in chemotherapy-resistant patients. As these lesions define key regulatory elements of the DDR pathway, they also determine treatment response to genotoxic therapy. Novel therapeutic strategies therefore try to circumvent defective DDR signaling and to suppress the pro-survival stimuli received from the tumor microenvironment."

According to the news editors, the research concluded: "With increasing knowledge on specific genetic alterations of CLL, we may be able to target CLL cells more efficiently even in the situation of mutated DDR pathways or protection by microenvironmental stimuli."

For more information on this research see: Concepts of Chronic Lymphocytic Leukemia Pathogenesis: DNA Damage Response and Tumor Microenvironment. Oncology Research and Treatment, 2016;39(1-2):9-16.

The news editors report that additional information may be obtained by contacting L.P. Frenzel, Dept. of I of Internal Medicine, University Hospital of Cologne, Cologne, Germany. Additional authors for this research include H.C. Reinhardt and C.P Pallasch. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443820. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Cologne, Germany, Genetics, Oncology, DNA Damage, Hematology, Proteomics, DNA Research, Article Review, Deoxyribonucleic Acid, Chronic Lymphocytic Leukemia.

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Oncology - Chronic Myeloid Leukemia

New Chronic Myeloid Leukemia Findings from A. Hochhaus et al Outlined (Frontline nilotinib in patients with chronic myeloid leukemia in chronic phase: results from the European ENEST1st study)
The Evaluating Nilotinib Efficacy and Safety in Clinical Trials as First-Line Treatment (ENEST1st) study included 1089 patients with newly diagnosed chronic myeloid leukemia in chronic phase. The rate of deep molecular response (MR(4) (BCR-ABL1 \(\leq 0.01\%\) on the International Scale or undetectable BCR-ABL1 with \(\leq 10,000\) ABL1 transcripts)) at 18 months was evaluated as the primary end point, with molecular responses monitored by the European Treatment and Outcome Study network of standardized laboratories.

The news reporters obtained a quote from the research, "This analysis was conducted after all patients had completed 24 months of study treatment (80.9\% of patients) or discontinued early. In patients with typical BCR-ABL1 transcripts and \(\leq 3\) months of prior imatinib therapy, 38.4\% (404/1052) achieved MR(4) at 18 months. Six patients (0.6\%) developed accelerated or blastic phase, and 13 (1.2\%) died. The safety profile of nilotinib was consistent with that of previous studies, although the frequencies of some nilotinib-associated adverse events were lower (for example, rash, 21.4\%). Ischemic cardiovascular events occurred in 6.0\% of patients. Routine monitoring of lipid and glucose levels was not mandated in the protocol."

According to the news reporters, the research concluded: "These results support the use of frontline nilotinib, particularly when achievement of a deep molecular response (a prerequisite for attempting treatment-free remission in clinical trials) is a treatment goal."

For more information on this research see: Frontline nilotinib in patients with chronic myeloid leukemia in chronic phase: results from the European ENEST1st study. *Leukemia*, 2015;30(1):57-64. (Nature Publishing Group - www.nature.com/; Leukemia - www.nature.com/leu/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/leu.2015.270. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jena, Antineoplastics, Europe, Germany, Oncology, Nilotinib, Hematology, Clinical Research, Drugs and Therapies, Chronic Myeloid Leukemia, Clinical Trials and Studies, BCR ABL Tyrosine Kinase Inhibitors.

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& Wellness Week -- A new study on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease is now available. According to news originating from Kharagpur, India, by NewsRx correspondents, research stated, "Serum metabolic profiling can identify the metabolites responsible for discrimination between doxycycline treated and untreated chronic obstructive pulmonary disease (COPD) and explain the possible effect of doxycycline in improving the disease conditions. H-1 nuclear magnetic resonance (NMR)-based metabolomics was used to obtain serum metabolic profiles of 60 add-on doxycycline treated COPD patients and 40 patients receiving standard therapy."

Financial support for this research came from Government of India.

Our news journalists obtained a quote from the research from the School of Medicine, "The acquired data were analyzed using multivariate principal component analysis (PCA), partial least-squares-discriminant analysis (PLS-DA), and orthogonal projection to latent structure with discriminant analysis (OPLS-DA). A clear metabolic differentiation was apparent between the pre and post doxycycline treated group. The distinguishing metabolites lactate and fatty acids were significantly down-regulated and formate, citrate, imidazole and L-arginine upregulated. Lactate and folate are further validated biochemically. Metabolic changes, such as decreased lactate level, inhibited arginase activity and lowered fatty acid level observed in COPD patients in response to add-on doxycycline treatment, reflect the anti-inflammatory action of the drug."

According to the news editors, the research concluded: "Doxycycline as a possible therapeutic option for COPD seems promising."

For more information on this research see: Metabolomic profiling of doxycycline treatment in chronic obstructive pulmonary disease. Journal of Pharmaceutical and Biomedical Analysis, 2017;132():103-108. Journal of Pharmaceutical and Biomedical Analysis can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Pharmaceutical and Biomedical Analysis - www.journals.elsevier.com/journal-of-pharmaceutical-and-biomedical-analysis/)

The news correspondents report that additional information may be obtained from K. Chaudhury, Indian Inst Technol, Sch Med Sci & Technol, Kharagpur 721302, W Bengal, India. Additional authors for this research include S.K. Jana, N. Ghosh, S.K. Das, M. Joshi, P. Bhattacharyya and K. Chaudhury.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jpba.2016.09.034. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kharagpur, India, Asia, Chronic Obstructive Pulmonary Disease, Lung Diseases and Conditions, Drugs and Therapies, Antimalarial Agents, Antiinfectives, Tetracyclines, Doxycycline, Antibiotics, School of Medicine.

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New Chronic Obstructive Pulmonary Disease Findings from W.H. van Geffen and Co-Authors Described (Bronchodilators delivered by nebuliser versus pMDI with spacer or DPI for exacerabtions of COPD)
A new study on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease is now available. According to news reporting from Leeuwarden, Netherlands, by NewsRx journalists, research stated, "Bronchodilators are a central component for treating exacerbations of chronic obstructive pulmonary disease (COPD) all over the world. Clinicians often use nebulisers as a mode of delivery, especially in the acute setting, and many patients seem to benefit from them."

The news correspondents obtained a quote from the research, "However, evidence supporting this choice from systematic analysis is sparse, and available data are frequently biased by the inclusion of asthma patients. Therefore, there is little or no formal guidance regarding the mode of delivery, which has led to a wide variation in practice between and within countries and even among doctors in the same hospital. We assessed the available randomised controlled trials (RCTs) to help guide practice in a more uniform way. To compare the effects of nebulisers versus pressurised metered dose inhalers (pMDI) plus spacer or dry powder inhalers (DPI) in bronchodilator therapy for exacerbations of COPD. Search methods We searched the Cochrane Airways Group Trial Register and reference lists of articles up to 1 July 2016. Selection criteria RCTs of both parallel and cross-over designs. We included RCTs during COPD exacerbations, whether measured during hospitalisation or in an outpatient setting. We excluded RCTs involving mechanically ventilated patients due to the different condition of both patients and airways in this setting. Data collection and analysis Two review authors independently assessed studies for inclusion, extracted data and assessed the risk of bias. We report results with 95% confidence intervals (CIs). This review includes eight studies with a total of 250 participants comparing nebuliser versus pMDI plus spacer treatment. We identified no studies comparing DPI with nebulisers. We found two studies assessing the primary outcome of 'change in forced expiratory volume in one second (FEV1) one hour after dosing'. We could not pool these studies, but both showed a non-significant difference in favour of the nebuliser group, with similar frequencies of serious adverse events. For the secondary outcome, 'change in FEV1 closest to one hour after dosing': we found a significant difference of 83 ml (95% CI 10 to 156, P = 0.03) in favour of nebuliser treatment. For the secondary outcome of adverse events, we found a non-significant odds ratio of 1.65 (95% CI 0.42 to 6.48) in favour of the pMDI plus spacer group. Authors’ conclusions There is a lack of evidence in favour of one mode of delivery over another for bronchodilators during exacerbations of COPD. We found no difference between nebulisers versus pMDI plus spacer regarding the primary outcomes of FEV1 at one hour and safety. For the secondary outcome 'change in FEV1 closest to one hour after dosing' during an exacerbation of COPD, we found a greater improvement in FEV1 when treating with nebulisers than with pMDI plus spacers. A limited amount of data are available (eight studies involving 250 participants). These studies were difficult to pool, of low quality and did not provide enough evidence to favour one mode of delivery over another. No data of sufficient quality have been published comparing nebulisers versus DPIs in this setting."

According to the news reporters, the research concluded: "More studies are required to assess the optimal mode of delivery during exacerbations of COPD."

For more information on this research see: Bronchodilators delivered by nebuliser versus pMDI with spacer or DPI for exacerbations of COPD. *Cochrane Database of Systematic Reviews*, 2016;(8):2578-2624. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting W.H. van Geffen, Medical Center Leeuwarden, Dept. of Pulm Dis, Leeuwarden, Netherlands. Additional authors for this research include W.R. Douma, D.J. Slebos and H.A.M. Kerstjens.
Keywords for this news article include: Leeuwarden, Netherlands, Europe, Lung Diseases and Conditions, Article Review, Chronic Obstructive Pulmonary Disease.

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**Lung Diseases and Conditions - Chronic Obstructive...**

**New Chronic Obstructive Pulmonary Disease Study Findings Recently Were Reported by Researchers at Asan Medical Center (Gene Profiles in a Smoke-Induced COPD Mouse Lung Model Following Treatment with Mesenchymal Stem Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Mesenchymal stem cells (MSCs) effectively reduce airway inflammation and regenerate the alveolus in cigarette-and elastase-induced chronic obstructive pulmonary disease (COPD) animal models. The effects of stem cells are thought to be paracrine and immune-modulatory because very few stem cells remain in the lung one day after their systemic injection, which has been demonstrated previously."

The news correspondents obtained a quote from the research from Asan Medical Center, "In this report, we analyzed the gene expression profiles to compare mouse lungs with chronic exposure to cigarette smoke with non-exposed lungs. Gene expression profiling was also conducted in a mouse lung tissue with chronic exposure to cigarette smoke following the systemic injection of human cord blood-derived mesenchymal stem cells (hCB-MSCs). Globally, 834 genes were differentially expressed after systemic injection of hCB-MSCs. Seven and 21 genes, respectively, were up-and down-regulated on days 1, 4, and 14 after HCB-MSC injection. The Hbb and Hba, genes with oxygen transport and antioxidant functions, were increased on days 1 and 14. A serine protease inhibitor was also increased at a similar time point after injection of hCB-MSCs. Gene Ontology analysis indicated that the levels of genes related to immune responses, metabolic processes, and blood vessel development were altered, indicating host responses after hCB-MSC injection. These gene expression changes suggest that MSCs induce a regeneration mechanism against COPD induced by cigarette smoke."

According to the news reporters, the research concluded: "These analyses provide basic data for understanding the regeneration mechanisms promoted by hCB-MSCs in cigarette smoke-induced COPD."

For more information on this research see: Gene Profiles in a Smoke-Induced COPD Mouse Lung Model Following Treatment with Mesenchymal Stem Cells. *Molecules and Cells*, 2016;39(10):728-733. *Molecules and Cells* can be contacted at: Korean Soc Molecular & Cellular Biology, 635-4, Yucksam-Dong, Gangnam-Gu, Seoul 135-703, South Korea. (Springer - www.springer.com; Molecules and Cells - www.springerlink.com/content/1016-8478/)

Our news journalists report that additional information may be obtained by contacting Y.M. Oh, Asan Med Center, Dept. of Pulm & Crit Care Med, Seoul 05505, South Korea. Additional authors for this research include N. Kokturk, J.Y. Kim, S.W. Lee, J. Lim, S.J. Choi, W. Oh and Y.M. Oh.

The direct object identifier (DOI) for that additional information is:
New Cleft Lip and Palate Study Findings Have Been Reported by Investigators at University of Groningen (Prevalence, diagnosis and outcome of cleft lip with or without cleft palate in The Netherlands)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mouth Disease and Conditions - Cleft Lip and Palate is the subject of a report. According to news reporting originating in Groningen, Netherlands, by NewsRx journalists, research stated, "To examine the accuracy and timing of diagnosis of fetal cleft lip with or without cleft palate (CL +/- P) in the years following the introduction of a national screening program, and to assess the completeness and accuracy of information in The Netherlands Perinatal Registry. A list was obtained of cases with a prenatal or postnatal diagnosis of CL +/- P from two fetal medicine units between 2008 and 2012."

The news reporters obtained a quote from the research from the University of Groningen, "All cases of CL +/- P were included irrespective of the presence or absence of additional anomalies. Cases were included if the estimated date of delivery was between 1 January 2008 and 31 December 2012. During the study period, 330 cases of CL +/- P were identified, with a prevalence of 15 per 10 000 pregnancies. The number of cases that were detected before 24 weeks' gestation increased during the study period, while the rate of termination of pregnancy did not change significantly (P=0.511). CL +/- P was isolated in 217 (66%) cases and karyotype was abnormal in 69 (21%) cases. In 5% of the cases in which CL +/- P seemed to be isolated during the 18-23-week anomaly scan, postnatal array comparative genomic hybridization (array-CGH) revealed an abnormal karyotype and 50% of these cases had major additional anomalies. Examination of data from The Netherlands Perinatal Registry demonstrated that in 37% of cases CL +/- P was not recorded in the pregnancy records. CL +/- P is increasingly being diagnosed prenatally, without a significant effect on the rate of pregnancy termination. Further improvement in the diagnostic accuracy may be achieved by advocating prenatal array-CGH to reduce the frequency of unexpected anomalies being diagnosed after birth."

According to the news reporters, the research concluded: "It is important that healthcare providers register accurately the presence or absence of anomalies in the birth records to ensure that, in the future, data from The Netherlands Perinatal Registry can be relied upon to monitor prevalence."

For more information on this research see: Prevalence, diagnosis and outcome of cleft lip with or without cleft palate in The Netherlands. Ultrasound in Obstetrics & Gynecology, 2016;48(4):458-463. Ultrasound in Obstetrics & Gynecology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Ultrasound in Obstetrics & Gynecology -
Our news correspondents report that additional information may be obtained by contacting J.H. Fleurke-Rozema, University of Groningen, Groningen University Medical Center, Dept. of Obstet, NL-9700 RB Groningen, Netherlands. Additional authors for this research include K.V. De Kamp, M.K. Bakker, E. Pajkrt, C.M. Bilardo and R.J.M. Snijders.

Keywords for this news article include: Groningen, Netherlands, Europe, Mouth Disease and Conditions, Diagnostics and Screening, Musculoskeletal Diseases and Conditions, Stomatognathic Diseases and Conditions, Stomatognathic System Abnormalities, Musculoskeletal Abnormalities, Mouth Diseases and Conditions, Maxillofacial Abnormalities, Jaw Diseases and Conditions, Lip Diseases and Conditions, Craniofacial Abnormalities, Congenital Abnormalities, Cleft Lip and Palate, Mouth Abnormalities, Jaw Abnormalities, Genetics, University of Groningen.

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Nursing - Clinical Nursing

New Clinical Nursing Data Have Been Reported by Investigators at Gachon University (Middle East respiratory syndrome-related knowledge, preventive behaviours and risk perception among nursing students during outbreak)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nursing - Clinical Nursing. According to news reporting originating from Inchon, South Korea, by NewsRx correspondents, research stated, "Aims and objectives. The aim of this study was to survey nursing students' Middle East respiratory syndrome-related knowledge, preventive behaviours and risk perception to examine the correlations among the variables during a Middle East respiratory syndrome outbreak."

Our news editors obtained a quote from the research from Gachon University, "Middle East respiratory syndrome is a new viral respiratory illness. Nursing students who engage in clinical practice at hospitals may have been exposed to Middle East respiratory syndrome infection during the Middle East respiratory syndrome outbreak. This study was a descriptive cross-sectional survey. Participants (n = 249) were nursing students in their third or fourth year of the programme who were engaged in clinical practice for eight hours per day at the tertiary hospitals with Middle East respiratory syndrome patients. Knowledge, preventive behaviours and risk perception related to Middle East respiratory syndrome were measured using scales developed through a preliminary survey and validity testing. The subjects' knowledge level of Middle East respiratory syndrome was 84.4%; their practice of preventive behaviours was rated at 44.5%; and their risk perception rating was 2.4 out of 5. Middle East respiratory syndrome-related risk perception was significantly different according to gender and Middle East respiratory syndrome education. Middle East respiratory syndrome-related knowledge was significantly correlated with preventive behaviours and risk perception. Considering the low scores for items regarding knowledge and preventive behaviours, it is necessary to develop effective and systematic publicity and education programmes for nursing students. Enhancing Middle East respiratory syndrome-related knowledge by considering cooperation between hospitals and universities will sharpen nursing students' risk perception of..."
the disease and effectively increase their preventive behaviours. Relevance to clinical practice. Similar to other emerging infectious diseases, Middle East respiratory syndrome outbreaks may occur in other countries."

According to the news editors, the research concluded: "The results of this study can be used to develop and apply efficient and feasible Middle East respiratory syndrome education programmes for nursing students during Middle East respiratory syndrome outbreaks."


The news editors report that additional information may be obtained by contacting J.S. Choi, Gachon Univ, Coll Nursing, Inchon 406799, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13295. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Inchon, South Korea, Asia, Clinical Nursing, Nursing, Hospital, Gachon University.

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**Clinical Oncology**

**New Clinical Oncology Findings Has Been Reported by Researchers at University of Barcelona (The evolving role of biosimilars in haematology-oncology: a practical perspective)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Oncology. According to news reporting from Barcelona, Spain, by NewsRx editors, the research stated, "The loss of patents covering many biopharmaceutical/biological agents in the mid 1990s led to the introduction of a new generation of drugs: biosimilars. These new agents, produced by living cells just as the originator drugs, are chemically highly similar to endogenous human proteins; characterized by three-dimensionally complex, high molecular weight compounds."

The news correspondents obtained a quote from the research from the University of Barcelona, "Among the first biosimilars used in haematology-oncology were erythropoietin and granulocyte colony-stimulating factor. After five years of use in clinical practice, the efficacy and safety profile of biosimilars approved by the European Medicines Agency is excellent. Over the next year or two, biosimilar monoclonal antibodies (MoAbs) will become available; the first will be rituximab and trastuzumab. Not only are MoAbs more complex in terms of molecular weight and number of amino acids than the first biosimilars, but they are also anticancer drugs, not merely supportive treatments like their predecessors. This opens up important questions. How are regulatory agencies to assess their clinical efficacy, immunogenicity and safety? Is the neoadjuvant clinical setting the best to evaluate them? What will regulatory agencies decide in terms of switching an originator molecule for a biosimilar or extrapolating efficacy results from one pathology to another? Once biosimilars of rituximab and trastuzumab are approved, several
challenging issues will need to be addressed such as how to maintain appropriate pharmacovigilance, how to extrapolate across indications, and issues concerning automatic substitution. There is currently no consensus in any of these areas."

According to the news reporters, the research concluded: "This review addresses all these issues: new challenges that the oncology community will face in the near future."

For more information on this research see: The evolving role of biosimilars in haematology-oncology: a practical perspective. Therapeutic Advances In Hematology, 2015;6 (6):267-81. (Sage Publications - www.sagepub.com/; Therapeutic Advances In Hematology - tah.sagepub.com)

Our news journalists report that additional information may be obtained by contacting P. Gascon, Hospital Clinic, Dept. of Haematology-Oncology, Institut d'Investigacions Biomediques Agusti Pi i Sunyer (IDIBAPS), University of Barcelona, Villarroel 170, esc2, planta 5, Barcelona 08036, Spain.

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Keywords for this news article include: Spain, Europe, Barcelona, Clinical Oncology.

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Clinical Research - Clinical Trials and Studies

New Clinical Trials and Studies Findings from Buddhist Tzu Chi General Hospital Reported (OnabotulinumtoxinA Urethral Sphincter Injection as Treatment for Non-neurogenic Voiding Dysfunction - A Randomized, Double-Blind, Placebo-Controlled Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Clinical Research - Clinical Trials and Studies is now available. According to news reporting from Hualien, Taiwan, by NewsRx journalists, research stated, "Non-neurogenic voiding dysfunction including dysfunctional voiding and detrusor underactivity caused by a spastic or non-relaxing external urethral sphincter can theoretically be treated by injections of botulinum A toxin into the external urethral sphincter. This randomized, double-blind, placebo-controlled trial was designed to determine the clinical efficacy of onabotulinumtoxinA urethral sphincter injections in patients with dysfunctional voiding or detrusor underactivity."

The news correspondents obtained a quote from the research from Buddhist Tzu Chi General Hospital, "Patients with medically refractory dysfunctional voiding (n = 31) or detrusor underactivity (n = 31) were randomly allocated in a 2:1 ratio to receive either onabotulinumtoxinA (100 U) (n = 38) or placebo (normal saline) (n = 24). There were no significant differences in subjective or objective parameters between patients who received onabotulinumtoxinA and those who received saline injection therapy, and the overall success rate was 43.5% (reduction in Patient perception of Bladder Condition by >= 2: onabotulinumtoxinA 36.8% vs placebo 54.2%, p = 0.114). The results were similar between the dysfunctional voiding and detrusor underactivity subgroups; however, a significant reduction in detrusor voiding pressure was only observed in dysfunctional voiding patients who received
onabotulinumtoxinA. Repeat urethral sphincter onabotulinumtoxinA injections offered greater therapeutic effects in both dysfunctional voiding and detrusor underactivity patients."

According to the news reporters, the research concluded: "For patients with non-neurogenic voiding dysfunction, the success rate of onabotulinumtoxinA urethral sphincter injection was not superior to placebo."

For more information on this research see: OnabotulinumtoxinA Urethral Sphincter Injection as Treatment for Non-neurogenic Voiding Dysfunction - A Randomized, Double-Blind, Placebo-Controlled Study. Scientific Reports, 2016;6():1-9. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting H.C. Kuo, Buddhist Tzu Chi Gen Hosp, Dept. of Urol, Hualien, Taiwan. Additional authors for this research include C.C. Wang and H.C. Kuo.

Keywords for this news article include: Hualien, Taiwan, Asia, Central Nervous System Agents, Clinical Trials and Studies, Skeletal Muscle Relaxants, Drugs and Therapies, Onabotulinumtoxina, Clinical Research, Placebos, Therapy, Buddhist Tzu Chi General Hospital.

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Clinical Research - Clinical Trials and Studies

New Clinical Trials and Studies Findings from Burnet Institute Discussed [Polymorphisms in the CD14 and TLR4 genes independently predict CD4(+) T-cell recovery in HIV-infected individuals on antiretroviral therapy]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news reporting from Melbourne, Australia, by NewsRx journalists, research stated, "Chronic HIV infection leads to marked depletion of CD4(+) T cells in the gastrointestinal tract and increased microbial translocation measured by an increase in circulating lipopolysaccharide (LPS) levels. Here, we hypothesized that single-nucleotide polymorphisms (SNPs) in genes encoding the Toll-like receptor 4 (TLR4) and CD14, the principal receptors for LPS, were associated with CD4(+) T-cell recovery postantiretroviral therapy (ART)."

The news correspondents obtained a quote from the research from Burnet Institute, "Prospective study of predominantly white HIV-infected participants receiving suppressive ART for at least 12 months. We analysed the CD14 SNPs C-260T and the TLR4 SNPs A+896G, C+1196T. We also determined the levels of LPS and soluble CD14 in plasma samples collected pre-ART and post-ART initiation. CD4(+) T-cell recovery was assessed by linear mixed models. Following ART, individuals with a TT genotype compared with a CT or CC genotype for CD14 C-260T SNP showed higher levels of soluble CD14 (P = 0.008 and 0.003, respectively). The CC genotype for the CD14 C-260T SNP, compared with CT or TT, and the TLR4 SNP (AC/GT), compared with the homozygous genotype (AA/CC), were both independently associated with enhanced long-term CD4(+) T-cell recovery (>3 months; P<
According to the news reporters, the research concluded: "Polymorphisms in CD14 and TLR4 are independently associated with long-term CD4(+) T-cell recovery in HIV-infected individuals post-ART."

For more information on this research see: Polymorphisms in the CD14 and TLR4 genes independently predict CD4(+) T-cell recovery in HIV-infected individuals on antiretroviral therapy. *Aids*, 2016;30(14):2159-2168. *Aids* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx)


Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Drugs and Therapies, Genetics, Clinical Trials and Studies, Primate Lentiviruses, Vertebrate Viruses, Clinical Research, Antiretrovirals, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Therapy, Burnet Institute.

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**New Clinical Trials and Studies Findings from Peking University Reported (Low-dose Dexmedetomidine Improves Sleep Quality Pattern in Elderly Patients after Noncardiac Surgery in the Intensive Care Unit A Pilot Randomized Controlled Trial)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Research - Clinical Trials and Studies. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Patients admitted to the intensive care unit (ICU) after surgery often develop sleep disturbances. The authors tested the hypothesis that low-dose dexmedetomidine infusion could improve sleep architecture in nonmechanically ventilated elderly patients in the ICU after surgery."

Our news editors obtained a quote from the research from Peking University, "This was a pilot, randomized controlled trial. Seventy-six patients age 65 yr or older who were admitted to the ICU after noncardiac surgery and did not require mechanical ventilation were randomized to receive dexmedetomidine (continuous infusion at a rate of 0.1 mu g kg(-1) h(-1); n = 38) or placebo (n = 38) for 15 h, i.e., from 5:00 pm on the day of surgery until 8:00 am on the first day after surgery. Polysomnogram was monitored during the period of study-drug infusion. The primary endpoint was the percentage of stage 2 non-rapid eye movement (stage N2) sleep. Complete polysomnogram recordings were obtained in 61 patients (30 in the placebo group and 31 in the dexmedetomidine group). Dexmedetomidine infusion increased the percentage of stage N2 sleep from median 15.8% (interquartile range, 1.3 to 62.8) with placebo to 43.5% (16.6 to 80.2) with dexmedetomidine (difference, 14.7%; 95% CI, 0.0 to 31.9; P =
0.048); it also prolonged the total sleep time, decreased the percentage of stage N1 sleep, increased the sleep efficiency, and improved the subjective sleep quality. Dexmedetomidine increased the incidence of hypotension without significant intervention."

According to the news editors, the research concluded: "In nonmechanically ventilated elderly patients who were admitted to the ICU after noncardiac surgery, the prophylactic low-dose dexmedetomidine infusion may improve overall sleep quality."

For more information on this research see: Low-dose Dexmedetomidine Improves Sleep Quality Pattern in Elderly Patients after Noncardiac Surgery in the Intensive Care Unit A Pilot Randomized Controlled Trial. Anesthesiology, 2016;125(5):979-991. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

The news editors report that additional information may be obtained by contacting D.X. Wang, Peking University, Hosp 1, Dept. of Anesthesiol & Crit Care Med, Beijing 100034, People's Republic of China. Additional authors for this research include F. Cui, C. Zhang, Z.T. Meng, D.X. Wang, J. Ma, G.F. Wang, S.N. Zhu and D.Q. Ma.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Anxiolytics Sedatives and Hypnotics, Central Nervous System Agents, Clinical Trials and Studies, Dexmedetomidine Therapy, Drugs and Therapies, Clinical Research, Pharmaceuticals, Surgery, Peking University.

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0.0786 for single dose and 0.0532 for multiple dose administration. On Day 28, pre-dose and maximum inhibition of Lp-PLA2 activity was approximately 70% and 75% relative to the baseline value, respectively and was dependent of darapladib concentration. The most common adverse events (>=21% subjects) were abnormal faeces, abnormal urine odour, diarrhoea and nasopharyngitis. Darapladib 160 mg single and repeat doses were profiled in healthy Chinese subjects. Single dose systemic exposure to darapladib in healthy Chinese subjects was consistent with that observed previously in Western subjects whereas steady-state systemic exposure was approximately 65% higher in Chinese than Western subjects. The Lp-PLA2 activity and adverse event profile were similar in healthy Chinese and previous reports in Western subjects.

According to the news editors, the research concluded: "Ethnic-specific dose adjustment of darapladib is not considered necessary for the Chinese population."


Our news journalists report that additional information may be obtained by contacting C. Hu, Phase I Clinical Research Unit, Shanghai Xuhui Central Hospital, Shanghai, People's Republic of China. Additional authors for this research include D. Tompson, M. Magee, Q. Chen, Y.M. Liu, W. Zhu, H. Zhao, A.S. Gross and Y. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0139862. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Pharmaceuticals, Lipids, Shanghai, Lipoproteins, Phospholipases, Pharmacokinetics, Clinical Research, Enzymes and Coenzymes, People's Republic of China, Carboxylic Ester Hydrolases, Clinical Trials and Studies, Phosphoric Diester Hydrolases.

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**Clinical Research - Clinical Trials and Studies**

**New Clinical Trials and Studies Findings from University College Outlined (Effect of Remote Ischaemic Conditioning in Oncology Patients Undergoing Chemotherapy: Rationale and Design of the ERIC-ONC Study--A Single-Center, Blinded, Randomized ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Cancer survival continues to improve, and thus cardiovascular consequences of chemotherapy are increasingly important determinants of long-term morbidity and mortality. Conventional strategies to protect the heart from chemotherapy have important hemodynamic or myelosuppressive side effects."

Financial support for this research came from National Institute of Health Research, Biomedical Research Centre.

Our news editors obtained a quote from the research from University College,
Remote ischemic conditioning (RIC) using intermittent limb ischemia-reperfusion reduces myocardial injury in the setting of percutaneous coronary intervention. Anthracycline cardiotoxicity and ischemia-reperfusion injury share common biochemical pathways in cardiomyocytes. The potential for RIC as a novel treatment to reduce subclinical myocyte injury in chemotherapy has never been explored and will be investigated in the Effect of Remote Ischaemic Conditioning in Oncology (ERIC-ONC) trial (clinicaltrials.gov NCT 02471885). The ERIC-ONC trial is a single-center, blinded, randomized, sham-controlled study. We aim to recruit 128 adult oncology patients undergoing anthracycline-based chemotherapy treatment, randomized in a 1:1 ratio into 2 groups: (1) sham procedure or (2) RIC, comprising 4, 5-minute cycles of upper arm blood pressure cuff inflations and deflations, immediately before each cycle of chemotherapy. The primary outcome measure, defining cardiac injury, will be high-sensitivity troponin-T over 6 cycles of chemotherapy and 12 months follow-up. Secondary outcome measures will include clinical, electrical, structural, and biochemical endpoints comprising major adverse cardiovascular clinical events, incidence of cardiac arrhythmia over 14 days at cycle 5/6, echocardiographic ventricular function, N-terminal pro-brain natriuretic peptide levels at 3 months follow-up, and changes in mitochondrial DNA, micro-RNA, and proteomics after chemotherapy.

According to the news editors, the research concluded: "The ERIC-ONC trial will determine the efficacy of RIC as a novel, noninvasive, nonpharmacological, low-cost cardioprotectant in cancer patients undergoing anthracycline-based chemotherapy."


The news editors report that additional information may be obtained by contacting R. Chung, The Hatter Cardiovascular Institute, University College London, London, UK. Additional authors for this research include A. Maulik, A. Hamarneh, D. Hochhauser, D.J. Hausenloy, J.M. Walker and D.M Yellon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/clc.22507. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, Oncology, Angiology, Cardiology, Reperfusion, Biochemicals, Biochemistry, Chemotherapy, United Kingdom, Cardiovascular, Medical Devices, Blood Transfusion, Clinical Research, Drugs and Therapies, Transfusion Medicine, Clinical Trials and Studies.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "The prevalence of left ventricular diastolic dysfunction (LVDD) sharply increases in women after their 50s and may contribute to the high prevalence of diastolic heart failure in elderly women. A decrease in estrogen levels after menopause is postulated to be one of the mechanisms responsible for this phenomenon."

Our news journalists obtained a quote from the research from Tokyo University Hospital, "However, there is a paucity of data on the relationship between the timing of menopause and the progression of LVDD in the clinical setting; thus, we investigated this relationship in healthy postmenopausal women. We enrolled 115 women and divided them into two groups according to median menopause age: 61 who experienced menopause at <= 50 years (early menopause group), and 54 who experienced menopause at >50 years (late menopause group). We compared the echocardiographic and clinical characteristics between the two groups. There were no significant differences in LV diastolic parameters (mitral E/A, p= 0.561; e', p= 0.052; Ele', p = 0.081; DCT, p= 0.082; prevalence of LVDD class, p = 0.801), as well as other echocardiographic parameters and clinical characteristics between the two groups. Multivariate linear regression analysis showed that the independent determinants of LVDD were age and body mass index, but not the timing of menopause. Early menopause did not influence the progression of LVDD in postmenopausal women."

According to the news editors, the research concluded: "The sharp progression of LVDD in elderly women is complex and probably influenced by multiple factors."

For more information on this research see: Early menopause does not influence left ventricular diastolic dysfunction: A clinical observational study in healthy subjects. Journal of Cardiology, 2016;68(5-6):548-553. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

The news correspondents report that additional information may be obtained from M. Daimon, Tokyo Univ Hosp, Dept. of Clin Lab, Tokyo, Japan. Additional authors for this research include M. Daimon, S.L. Lee, T. Nakao, T. Kawata, K. Kimura, T.S. Kato, Y. Mizuno, M. Watanabe, Y. Yatomi, T. Yamazaki and I. Komuro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2015.11.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Clinical Trials and Studies, Clinical Research, Women's Health, Cardiology, Menopause, Tokyo University Hospital.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Clinical Research - Clinical Trials and Studies is the subject of a report. According to news reporting originating in Kenilworth, New Jersey, by NewsRx journalists, research stated, "Relebactam (REL [MK-7655]) is a novel class A/C beta-lactamase inhibitor intended for use with imipenem for the treatment of Gram-negative bacterial infections. REL restores imipenem activity against some resistant strains of Klebsiella and Pseudomonas."

The news reporters obtained a quote from the research from Merck & Company, "In this multicenter, double-blind, controlled trial (NCT01506271), subjects who were >= 18 years of age with complicated intra-abdominal infection were randomly assigned (1: 1: 1) to receive 250 mg REL, 125 mg REL, or placebo, each given intravenously (i.v.) with 500 mg imipenem-cilastatin (IMI) every 6 h (q6h) for 4 to 14 days. The primary efficacy endpoint was the proportion of microbiologically evaluable (ME) subjects with a favorable clinical response at discontinuation of i.v. therapy (DCIV). A total of 351 subjects were randomized, 347 (99%) were treated, and 255 (73%) were ME at DCIV (55% male; mean age, 49 years). The most common diagnoses were complicated appendicitis (53%) and complicated cholecystitis (17%). Thirty-six subjects (13%) had imipenem-resistant Gram-negative infections at baseline. Both REL doses plus IMI were generally well tolerated and demonstrated safety profiles similar to that of IMI alone. Clinical response rates at DCIV were similar in subjects who received 250 mg REL plus IMI (96.3%) or 125 mg REL plus IMI (98.8%), and both were noninferior to IMI alone (95.2%; one-sided P< 0.001). The treatment groups were also similar with respect to clinical response at early and late follow-up and microbiological response at all visits."

According to the news reporters, the research concluded: "Pharmacokinetic/pharmacodynamic simulations show that imipenem exposure at the proposed dose of 500 mg IMI with 250 mg REL q6h provides coverage of > 90% of carbapenem-resistant bacterial strains."

For more information on this research see: Phase 2, Dose-Ranging Study of Relebactam with Imipenem-Cilastatin in Subjects with Complicated Intra-abdominal Infection. Antimicrobial Agents and Chemotherapy, 2016;60(10):6234-6243. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00633-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kenilworth, New Jersey, United States, North and Central America, Clinical Trials and Studies, Beta-Lactam Antibiotics, Drugs and Therapies, Clinical Research, Cyclopropanes, Hydrocarbons, Thienamycins, Cilastatin, Imipenem, Amides, Merck & Company.

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New Clinical Trials and Studies Study Findings Have Been Reported by Researchers at University of Calgary (Preoperative single-dose methylprednisolone versus placebo after major liver resection in adults: protocol for a randomised controlled ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Research - Clinical Trials and Studies. According to news reporting out of Calgary, Canada, by NewsRx editors, research stated, "Although randomised controlled trials have demonstrated that preoperative glucocorticoids may improve postoperative surrogate outcomes among patients undergoing major liver resection, evidence supporting improved patient-important outcomes is lacking. This superiority trial aims to evaluate the effect of administration of a bolus of the glucocorticoid methylprednisolone versus placebo during induction of anaesthesia on postoperative morbidity among adults undergoing elective major liver resection."

Our news journalists obtained a quote from the research from the University of Calgary, "This will be a randomised, dual-arm, parallel-group, superiority trial. All consecutive adults presenting to a large Canadian tertiary care hospital who consent to undergo major liver resection will be included. Patients aged <18 years and those currently receiving systemic corticosteroid therapy will be excluded. We will randomly allocate participants to a preoperative 500 mg intravenous bolus of methylprednisolone versus placebo. Surgical team members and outcome assessors will be blinded to treatment allocation status. The primary outcome measure will be postoperative complications. Secondary outcome measures will include mortality, the incidence of several specific postoperative complications, and blood levels of select proinflammatory cytokines, acute-phase proteins, and laboratory liver enzymes or function tests on postoperative days 0, 1, 2 and 5. The incidence of postoperative complications and mortality will be compared using Fisher's exact test, while the above laboratory measures will be compared using mixed-effects models with a subject-specific random intercept. This trial will evaluate the protective effect of a single preoperative dose of methylprednisolone on the hazard of postoperative complications."

According to the news editors, the research concluded: "A report releasing study results will be submitted for publication in an appropriate journal, approximately 3 months after finishing the data collection."

For more information on this research see: Preoperative single-dose methylprednisolone versus placebo after major liver resection in adults: protocol for a randomised controlled trial. Bmj Open, 2015;5(10):e008948. (BMJ Publishing Group - group.bmj.com/; Bmj Open - bmjopen.bmj.com/)

Our news journalists report that additional information may be obtained by contacting A.K. Bressan, Dept. of Surgery, University of Calgary and the Foothills Medical Centre, Calgary, Alberta, Canada. Additional authors for this research include D.J. Roberts, S.U. Bhatti, E. Dixon, F.R. Sutherland, O.F. Bathe and C.G Ball.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bmjopen-2015-008948. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Canada, Calgary, Alberta, Surgery, Hormones, Placebos, Hepatology, Glucocorticoids, Liver Resection, Gastroenterology,
Clinical Research, Drugs and Therapies, North and Central America, Adrenal Cortical Steroids, Methylprednisolone Therapy, Clinical Trials and Studies.

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**Clinical Research - Clinical Trials and Studies**

**New Clinical Trials and Studies Study Findings Have Been Reported by Researchers at University of Padua (Efficacy and safety of sugammadex compared to neostigmine for reversal of neuromuscular blockade: a meta-analysis of randomized controlled ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news originating from Padua, Italy, by NewsRx correspondents, research stated, "Sugammadex has been introduced for reversal of rocuronium (or vecuronium) induced neuromuscular blockade (NMB). Although its efficacy has been established, data are conflicting whether it is safer than neostigmine traditionally used for reversing NMB."

Our news journalists obtained a quote from the research from the University of Padua, "Meta-analysis of data about effectiveness and safety of sugammadex compared to neostigmine for reversing NMB in adults was performed using the PRISMA methodology. University medical hospital. A comprehensive search was conducted using PubMed, Web of Science, and Cochrane Library electronic databases to identify English-language randomized controlled trials. Two reviewers independently selected the trials; extracted data on reversal times, incomplete reversals of NMB, and adverse events (AEs); and assessed the trials' methodological quality and evidence level. Only AEs that were related to study drug by a blinded safety assessor were considered for meta-analysis. A total of 1384 patients from 13 articles were included in this meta-analysis. Compared to neostigmine, sugammadex was faster in reversing NMB (P < .0001) and more likely to be associated with higher train-of-four ratio values at extubation (mean difference, 0.18; 95% confidence interval [CI], 0.14-0.22; P < .0001) and lower risk of postoperative residual curarization after extubation (odds ratio [OR], 0.05; 95% CI, 0.01-0.43; P = .0068). Compared to neostigmine, sugammadex was associated with a significantly lower likelihood of global AEs (OR, 0.47; 95% CI, 0.34-0.66; P < .0001), respiratory AEs (OR, 0.36; 95% CI, 0.14-0.95; P = .0386), cardiovascular AEs (OR, 0.23; 95% CI, 0.08-0.61; P = .0036), and postoperative weakness (OR, 0.45; 95% CI, 0.21-0.97; P = .0409). Sugammadex and neostigmine were associated with a similar likelihood of postoperative nausea and vomiting (OR, 1.23; 95% CI, 0.70-2.15; P = .4719), pain (OR, 1.06; 95% CI, 0.15-7.36; P = .9559), neurologic AEs (OR, 1.47; 95% CI, 0.52-4.17; P = .4699), general AEs (OR, 0.75; 95% CI, 0.47-1.21; P = .2448), and changes in laboratory tests' values (OR, 0.57; 95% CI, 0.18-1.78; P = .3368)."

According to the news editors, the research concluded: "Results from this meta-analysis suggest that sugammadex is superior to neostigmine, as it reverses NMB faster and more reliably, with a lower risk of AEs."

For more information on this research see: Efficacy and safety of sugammadex compared to neostigmine for reversal of neuromuscular blockade: a meta-analysis of randomized controlled trials. *Journal of Clinical Anesthesia, 2016;35():1-12. Journal of Clinical Anesthesia* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York,
New Clinical Trials and Studies Study Findings Have Been Reported from Poznan University of Medical Sciences (New Molecular Targets of Anticancer Therapy - Current Status and Perspectives)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news originating from Poznan, Poland, by NewsRx correspondents, research stated, "Molecularly targeted anticancer therapy involves the use of drugs or other substances affecting specific molecular targets that play a part in the development, progression and spread of a given neoplasm. By contrast, the majority of classical chemotherapeutics act on all rapidly proliferating cells, both healthy and cancerous ones."

Our news journalists obtained a quote from the research from the Poznan University of Medical Sciences, "Target anticancer drugs are designed to achieve a particular aim and they usually act cytostatically, not cytotoxically like classical chemotherapeutics. At present, more than 300 biological molecular targets have been identified. The proteins involved in cellular metabolism include (among others) receptor proteins, signal transduction proteins, mRNA thread matrix synthesis proteins participating in neoplastic transformation, cell cycle control proteins, functional and structural proteins. The receptor proteins that are targeted by currently used anticancer drugs comprise the epithelial growth factor receptor (EGFR), platelet-derived growth factor receptor (PDGFR) and vascular endothelial growth factor receptor (VEGFR). Target anticancer drugs may affect extracellular receptor domains (antibodies) or intracellular receptor domains (tyrosine kinase inhibitors). The blocking of the mRNA thread containing information about the structure of oncogenes (signal transduction proteins) is another molecular target of anticancer drugs. That type of treatment, referred to as antisense therapy, is in clinical trials. When the synthesis of genetic material is disturbed, in most cases the passage to the next cycle phase is blocked. The key proteins responsible for the blockage are cyclines and cycline-dependent kinases (CDK). Clinical trials are focused on natural and synthetic substances capable of blocking various CDKs."

According to the news editors, the research concluded: "The paper discusses the molecular targets and chemical structure of target anticancer drugs that have been approved for
and currently applied in antineoplastic therapy together with indications and contraindications for their application."

For more information on this research see: New Molecular Targets of Anticancer Therapy - Current Status and Perspectives. Current Medicinal Chemistry, 2016;23(37):4176-4220. Current Medicinal Chemistry can be contacted at: Bentham Science Publ Ltd, Executive Ste Y-2, PO Box 7917, Saif Zone, 1200 Br Sharjah, U Arab Emirates. (Bentham Science Publishers - www.benthamscience.com; Current Medicinal Chemistry - www.benthamscience.com/cmc/index.htm)

The news correspondents report that additional information may be obtained from A. Jelinska, Poznan Univ Med Sci, Fac Pharm, Dept. of Pharmaceut Chem, PL-60780 Poznan, Poland. Additional authors for this research include I. Muszalska and A. Jelinska.

Keywords for this news article include: Poznan, Poland, Europe, Membrane Proteins, Article Review, Clinical Trials and Studies, Growth Factor Receptors, Drugs and Therapies, Peptide Receptors, Clinical Research, Cancer Therapy, Amino Acids, Peptides, Genetics, Poznan University of Medical Sciences.

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Clinical Research - Clinical Trials and Studies

New Clinical Trials and Studies Study Findings Recently Were Reported by Researchers at Brown University (A Randomized Trial of an Acceptance-Based Behavioral Intervention for Weight Loss in People with High Internal Disinhibition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting originating from Providence, Rhode Island, by NewsRx correspondents, research stated, "To determine whether an acceptance-based behavioral intervention (ABBI) produces better weight losses than standard behavioral treatment (SBT) among individuals reporting high internal disinhibition. Participants were 162 adults with overweight or obesity (mean BMI 37.6 kg/m(2)) randomly assigned to ABBI or SBT."

Our news editors obtained a quote from the research from Brown University, "Both interventions provided the same calorie intake target, exercise goal, and self-monitoring skills training. SBT incorporated current best practice interventions for addressing problematic thoughts and emotions. ABBI utilized acceptance-based techniques based on Acceptance and Commitment Therapy. ABBI and SBT were compared on weight change and internal disinhibition change over 24 months. Mixed models analysis showed mean weight loss at 24 months was -4.1% (SE = 0.88) for ABBI and -2.4% (SE = 0.87) for SBT (P = 0.204). Secondary analyses showed that the ABBI group regained less weight from the end of treatment to the final follow-up (4.6 vs. 7.1 kg; P = 0.005), and that a significantly higher proportion of ABBI participants achieved a 5% weight loss (38% vs. 25%; P = 0.038) at 24 months."

According to the news editors, the research concluded: "Results suggest that ABBI could be helpful for improving the maintenance of weight loss for individuals who report high internal disinhibition."

For more information on this research see: A Randomized Trial of an Acceptance-Based Behavioral Intervention for Weight Loss in People with High Internal Disinhibition.
New Cockayne Syndrome Study Findings Have Been Reported from Kyushu University Hospital (Discrepancy between electroencephalography and hemodynamics in a patient with Cockayne syndrome during general anesthesia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neurodegenerative Diseases and Conditions - Cockayne Syndrome. According to news reporting originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "Cockayne syndrome is a kind of progeria with autosomal chromosome recessiveness described first by Cockayne in 1936. Patients with this syndrome were characterized by retarded growth, cerebral atrophy, and mental retardation."

Our news editors obtained a quote from the research from Kyushu University Hospital, "We experienced an anesthetic management of a patient with Cockayne syndrome, who underwent dental treatment twice. The primary concern was discrepancy between electroencephalography and hemodynamics. The values of bispectral index showed a sharp fall to 1 digit and suppression ratio more than 40, while hemodynamics was stable during induction of anesthesia with sevoflurane 8%. We should pay attention to anesthetic depth in the central nervous system in patients with Cockayne syndrome."

According to the news editors, the research concluded: "Titration of anesthetics should be performed by the information from electroencephalography."

document that is either free or for purchase.

Keywords for this news article include: Fukuoka, Japan, Asia, Nervous System Heredodegenerative Disorders, Neurodegenerative Diseases and Conditions, Musculoskeletal Diseases and Conditions, Metabolic Diseases and Conditions, DNA Repair-Deficiency Disorders, Bone Diseases and Conditions, Cockayne Syndrome, Pain Medicine, Anesthesia, Neurology, Dwarfism, Genetics, Kyushu University Hospital.

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Surgery - Colectomy

**New Colectomy Study Findings Reported from Department of Gastroenterology (Lanreotide Autogel in the Treatment of Persistent Diarrhea following a Total Colectomy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Surgery - Colectomy have been published. According to news reporting from Herentals, Belgium, by NewsRx journalists, research stated, "Diarrhea is one of the most common complications following colectomy in patients with slow transit constipation (STC). Early postoperative diarrhea is usually treated with opioid agonists; however, to date, published data on the management of persistent diarrhea after colectomy for STC are scarce."

Financial support for this research came from Ipsen NV.

The news correspondents obtained a quote from the research from the Department of Gastroenterology, "Here, we report a case of severe diarrhea after a total colectomy with ileorectal anastomosis. One year after the surgery, the patient presented with persistent diarrhea. Treatment with a long-acting somatostatin analogue, lanreotide Autogel, was initiated. One month after the first injection of lanreotide Autogel the diarrhea was resolved. The patient's stool transit was markedly improved (type 4 or type 5 according to the Bristol Stool Chart compared to type 7 before the treatment), positively affecting the patient's quality of life (mean score of 2.1 on the Irritable Bowel Syndrome Quality of Life questionnaire compared to 3.9 before the treatment)."

According to the news reporters, the research concluded: "This case report describes a successful use of lanreotide Autogel in a patient with persistent diarrhea after a total colectomy."

For more information on this research see: Lanreotide Autogel in the Treatment of Persistent Diarrhea following a Total Colectomy. *Case Reports In Gastrointestinal Medicine*, 2015;2015():686120. (Hindawi Publishing - www.hindawi.com; Case Reports In Gastrointestinal Medicine - www.hindawi.com/crim/gm/)

Our news journalists report that additional information may be obtained by contacting P. Schoeters, Dept. of Gastroenterology, AZ Herentals, 2200 Herentals, Belgium.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/686120. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Belgium, Surgery, Diarrhea, Hormones, Herentals, Colectomy, Lanreotide, Digestive System Surgical Procedures.

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New Colitis Study Results Reported from Portuguese Institute of Oncology (Eosinophilic colitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Digestive System Diseases and Conditions - Colitis. According to news reporting originating from Coimbra, Portugal, by NewsRx correspondents, research stated, "A 57-year-old man, diagnosed with colon cancer stage III in July/2010, underwent surgery and received adjuvant chemotherapy with FOLFOX 4 (5-fluorouracil; calcium folinate and oxaliplatin), which ended in March/2011 after 12-cycles. It was then decided to maintain periodical surveillance."

Our news editors obtained a quote from the research from the Portuguese Institute of Oncology, "About 1 year later, the patient developed several episodes of diarrhoea, mainly during the night, and presented persistent peripheral eosinophilia in the blood count (range 585-1300 eosinophils/?L). Colonoscopy was performed, with the histological result showing eosinophilic infiltration of the colon, compatible with eosinophilic colitis."

According to the news editors, the research concluded: "The patient was treated with a short course of budesonide, achieving resolution of symptoms, and has remained asymptomatic."

For more information on this research see: Eosinophilic colitis. *Bmj Case Reports*, 2016;2016():. (BMJ Publishing Group - group.bmj.com; Bmj Case Reports - casereports.bmj.com/)

The news editors report that additional information may be obtained by contacting I.J. Dionisio de Sousa, Dept. of Medical Oncology, Portuguese Institute of Oncology Francisco Gentil, Coimbra, Portugal. Additional authors for this research include N. Bonito, A. Pais and H. Gervasio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2016-214496. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Coimbra, Colitis, Portugal, Immunology, Blood Cells, Eosinophils, Epidemiology, Granulocytes, Gastroenteritis, Gastroenterology, Hemic and Immune Systems, Colonic Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.

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New Colon Cancer Data Have Been Reported by Researchers at University of Burgundy (Folfirinox in elderly patients with pancreatic or colorectal cancer-tolerance and efficacy)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Colon Cancer are presented in a new report. According to news originating from Dijon, France, by NewsRx correspondents, research stated, "To study the tolerance and the efficiency of FOLFIRINOX in elderly patients diagnosed with colorectal or pancreatic cancer. This retrospective study included elderly patients aged over 70 years of age treated at Georges-Francois Leclerc Center by FOLFIRINOX for histological proved colorectal or pancreatic cancer between January 2009 and January 2015."

Our news journalists obtained a quote from the research from the University of Burgundy, "Chemotherapies regimen consisted of oxaliplatin (85 mg/m2 in over 120 min) followed by leucovorin (400 mg/m2 in over 120 min), with the addition, after 30 min of irinotecan (180 mg/m2 in over 90 min) then 5 fluorouracil (5FU) (400 mg/m2 administrated intravenous bolus), followed by 5FU (2400 mg/m2 intravenous infusion over 46 h) repeated every 2 wk. Geriatric parameters were recorded at the beginning. Toxicities were evaluated with the Common Terminology Criteria for Adverse Events 4.03. Tumor response was evaluated by CT scan. Treatment continued until disease progression, unacceptable toxicities or patient refusal. Fifty-two patients aged from 70 to 87 years were treated by FOLFIRINOX, 34 had colorectal cancer and 18 had pancreatic cancer. Most of them were in good general condition, 82.7% had a 0-1 performance status and 61.5% had a Charlson Comorbidity Index < 10. The most frequent severe toxicities were neutropenia (17 patients, n = 32.7%) and diarrhea (35 patients n = 67.3%); 10 of the case of neutropenia and 5 of diarrhea registered a grade 4 toxicity. Thirty-nine patients (75%) initially received an adapted dose of chemotherapy. The dosage was adjusted for 26% of patients during the course of treatment. Tumor response evaluated by RECIST criteria showed a controlled disease for 25 patients (48.1%), a stable disease for 13 and a partial response for 12 patients. Time under treatment was higher for colorectal cancer with a median time of 2.44 mo (95% CI: 1.61-3.25). Overall survival was 43.88 mo for colorectal cancer and 12.51 mo for pancreatic cancer. In univariate or multivariate analysis, none of geriatric parameters were linked to overall survival. Only the type of tumor (pancreatic/colorectal) was linked in both analysis."

According to the news editors, the research concluded: "For people over 70 years old, FOLFIRINOX regimen seems to induce manageable toxicities but similar, even higher, median survival rates compared to younger people."


The news correspondents report that additional information may be obtained from F. Ghiringhelli, Univ Burgundy, Inst Natl Sante & Rech Med, F-21078 Dijon, France. Additional authors for this research include A. Bertaut, F. Ghiringhelli, J. Vincent, V. Quipourt, S. Marilier, Z. Tharin and L. Bengrine-Lefevre.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i42.9378. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dijon, France, Europe, Pancreatic Neoplasms, Colorectal Research, Pancreatic Cancer, Gastroenterology, Colon Cancer, Pancreas, Oncology, University of Burgundy.

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New Colon Cancer Findings Has Been Reported by Investigators at Research Institute (Somatostatin signaling via SSTR1 contributes to the quiescence of colon cancer stem cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Colon Cancer are presented in a new report. According to news reporting from Newark, Delaware, by NewsRx journalists, research stated, "Neuroendocrine cells (NECs) reside adjacent to colonic stem cells (SCs) in the crypt stem cell (SC) niche, but how NECs are involved in regulation of SCs is unclear. We investigated NECs expressing somatostatin (SST) and somatostatin receptor type 1 (SSTR1) because SST inhibits intestinal proliferation."

The news correspondents obtained a quote from the research from Research Institute, "SSTR1 cells maintain SCs in a quiescent state, and aberrant SST signaling contributes to SC overpopulation in colorectal cancer (CRC). The proportion of SCs to NECs cells was quantified, by flow cytometry, in CRC cell lines and primary normal/tumor tissues based on cellular ALDH and SSTR1 levels, respectively. Doubling time and sphere-formation was used to evaluate cell proliferation and stemness. CRC cell lines were treated with exogenous SST and SST inhibitor cyclosomatostatin (cycloSST) and analyzed for changes in SCs and growth rate. Paracrine signaling between NECs and SCs was ascertained using transwell cultures of ALDH+ and SSTR1+ cells. In CRC cell lines, the proportion of ALDH+ cells inversely correlates with proportion of SSTR1+ cells and with rate of proliferation and sphere-formation. While primary normal tissue shows SST and SSTR1 expression, CRC shows only SSTR1 expression. Moreover, ALDH+ cells did not show SST or SSTR1 expression. Exogenous SST suppressed proliferation but not ALDH+ population size or viability. Inhibition of SSTR1 signaling, via cycloSST treatment, decreased cell proliferation, ALDH+ cell population size and sphere-formation. When co-cultured with SSTR1+ cells, sphere-formation and cell proliferation of ALDH+ cells was inhibited. That each CRC cell line has a unique ALDH+/SSTR1+ ratio which correlates with its growth dynamics, suggests feedback mechanisms exist between SCs and NECs that contribute to regulation of SCs. The growth suppression by both SST and cycloSST treatments suggests that SST signaling modulates this feedback mechanism. The ability of SSTR1+ cells to decrease sphere formation and proliferation of ALDH+ cells in transwell cultures indicates that the ALDH subpopulation is regulated by SSTR1 via a paracrine mechanism."

According to the news reporters, the research concluded: "Since ALDH+ cells lack SST and SSTR1 expression, we conjecture that SST signaling controls the rate of NEC maturation as SCs mature along the NEC lineage, which contributes to quiescence of SCs and inhibition of proliferation."

For more information on this research see: Somatostatin signaling via SSTR1 contributes to the quiescence of colon cancer stem cells. *BMC Cancer*, 2016;16():25-36. *BMC Cancer* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; BMC Cancer - www.biomedcentral.com/bmccancer/)

Our news journalists report that additional information may be obtained by
New Colon Cancer Findings Reported from Prince of Wales Clinical School (Integrated Genetic, Epigenetic, and Transcriptional Profiling Identifies Molecular Pathways in the Development of Laterally Spreading Tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "Laterally spreading tumors (LST) are colorectal adenomas that develop into extremely large lesions with predominantly slow progression to cancer, depending on lesion subtype. Comparing and contrasting the molecular profiles of LSTs and colorectal cancers offers an opportunity to delineate key molecular alterations that drive malignant transformation in the colorectum."

The news reporters obtained a quote from the research from the Prince of Wales Clinical School, "In a discovery cohort of 11 LSTs and paired normal mucosa, we performed a comprehensive and unbiased screen of the genome, epigenome, and transcriptome followed by bioinformatics integration of these data and validation in an additional 84 large, benign colorectal lesions. Mutation rates in LSTs were comparable with microsatellite-stable colorectal cancers (2.4 vs. 2.6 mutations per megabase); however, copy number alterations were infrequent (averaging only 1.5 per LST). Frequent genetic, epigenetic, and transcriptional alterations were identified in genes not previously implicated in colorectal neoplasia (ANO5, MED12L, EPB41L4A, RGMB, SLITRK1, SLITRK5, NRXN1, ANK2). Alterations to pathways commonly mutated in colorectal cancers, namely, the p53, PI3K, and TGFβ pathways, were rare. Instead, LST-altered genes converged on axonal guidance, Wnt, and actin cytoskeleton signaling."

According to the news reporters, the research concluded: "These integrated omics data identify molecular features associated with noncancerous LSTs and highlight that mutation load, which is relatively high in LSTs, is a poor predictor of invasive potential."

For more information on this research see: Integrated Genetic, Epigenetic, and Transcriptional Profiling Identifies Molecular Pathways in the Development of Laterally Spreading Tumors. *Molecular Cancer Research*, 2016;14(12):1217-1228. *Molecular Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Molecular Cancer Research - mcr.aacrjournals.org/)

Our news correspondents report that additional information may be obtained by contacting B.M. Boman, Helen F Graham Canc Center & Res Inst, Center Translat Canc Res, Newark, DE 19713, United States. Additional authors for this research include L.M. Opdenaker, V. Viswanathan, J.Z. Fields and B.M. Boman.

Keywords for this news article include: Newark, Delaware, United States, North and Central America, Pituitary Hormone Release Inhibiting Hormones, Nerve Tissue Proteins, Pancreatic Hormones, Cell Proliferation, Stem Cell Research, Peptide Proteins, Peptide Hormones, Neuropeptides, Somatostatin, Colon Cancer, Cell Line, Oncology, Research Institute.

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Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, Prince of Wales Clinical School.

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Oncology - Colon Cancer

**New Colon Cancer Findings Reported from University Hospital (Ovarian metastases from colorectal cancer: prognostic role of prophylactic oophorectomy. A single center experience)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting originating from Parma, Italy, by NewsRx correspondents, research stated, "The incidence of ovarian metastases (OM) from colorectal cancer (CRC) is uncommon but women with OM from CRC had poorer quality of life and decreased survival. The authors retrospectively categorized women submitted to surgery for CRC from January 2004 to December 2012 considering previous mono-or bilateral-oophorectomy, oophorectomy performed during colorectal resection, and oophorectomy performed after surgery for CRC and its cause."

Our news editors obtained a quote from the research from University Hospital, "The analysis focused on two groups: women who underwent surgery for CRC before menopause and after menopause. Survival outcome in terms of overall survival (OS) and disease free survival (DFS) were assessed and appearance of OM was also evaluated. In postmenopausal women with CRC who underwent left hemicolectomy or anterior resection of the rectum the incidence of OM was 4 % with a statistical significance (p < 0.05). The mean OS of patients with metachronous OM was 26 months and the patients' age ranged from 60 to 70 years."

According to the news editors, the research concluded: "The authors suggest prophylactic oophorectomy in postmenopausal women with an age between 60 and 70 years with cancer of left colon or rectum; in these patients there was an increased risk of metachronous OM with related decrease of OS."


The news editors report that additional information may be obtained by contacting E. Bertocchi, University Hospital Parma, Dept. of Surg Sci, OU Gen Surg & Organ Transplantat, I-43100 Parma, Italy. Additional authors for this research include E. Bertocchi, M. Rossini, P. Del
Oncology - Colon Cancer

New Colon Cancer Findings Reported from University of Sannio (The miR-27a-calreticulin axis affects drug-induced immunogenic cell death in human colorectal cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting out of Benevento, Italy, by NewsRx editors, research stated, "Immunogenic cell death (ICD) evoked by chemotherapeutic agents implies emission of selected damage-associated molecular patterns (DAMP) such as cell surface exposure of calreticulin, secretion of ATP and HMGB1. We sought to verify whether miR-27a is implicated in ICD, having demonstrated that it directly targets calreticulin."

Our news journalists obtained a quote from the research from the University of Sannio, "To this goal, we exposed colorectal cancer cell lines, genetically modified to express high or low miR-27a levels, to two bona fide ICD inducers (mitoxantrone and oxaliplatin). Low miR-27a-expressing cells displayed more ecto-calreticulin on the cell surface and increased ATP and HMGB1 secretion than high miR-27a-expressing ones in time-course experiments upon drug exposure. A calreticulin target protector counteracted the miR-27a effects while specific siRNAs mimicked them, confirming the results reported. In addition, miR-27a negatively influenced the PERK-mediated route and the late PI3K-dependent secretory step of the unfolded protein response to endoplasmic reticulum stress, suggesting that miR-27a modulates the entire ICD program. Interestingly, upon chemotherapeutic exposure, low miR-27a levels associated with an earlier and stronger induction of apoptosis and with morphological and molecular features of autophagy. Remarkably, in ex vivo setting, under the same chemotherapeutic induction, the conditioned media from high miR-27a-expressing cells impeded dendritic cell maturation while increased the secretion of specific cytokines (interleukin (IL)-4, IL-6, IL-8) and negatively influenced CD4(+) T-cell interferon g production and proliferation, all markers of a tumor immunoevasion strategy."

According to the news editors, the research concluded: "We provide the first evidence that miR-27a impairs the cell response to drug-induced ICD through the regulatory axis with calreticulin."

For more information on this research see: The miR-27a-calreticulin axis affects drug-induced immunogenic cell death in human colorectal cancer cells. *Cell Death & Disease*, 2016;7(7):e2108. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

Our news journalists report that additional information may be obtained by contacting T. Colangelo, Dept. of Sciences and Technologies, University of Sannio, Benevento 82100, Italy. Additional authors for this research include G. Polcaro, P. Ziccardi, L. Muccillo, M. Galgani, B. Pucci, M.R. Milone, A. Budillon, M. Santopaolo, G. Mazzoccoli, G. Matarese,
L. Sabatino and V. Colantuoni.

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Keywords for this news article include: Italy, Europe, Lectins, Genetics, Oncology, Benevento, Calreticulin, Colon Cancer, Carrier Proteins, Gastroenterology, Colorectal Research, Intracellular Calcium Sensing Proteins, Intracellular Signaling Peptides and Proteins.

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**Oncology - Colon Cancer**

**New Colon Cancer Findings from Department of Gastroenterology & Hepatology Described (Effects of Increasing Screening Age and Fecal Hemoglobin Cutoff Concentrations in a Colorectal Cancer Screening Program)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Colon Cancer is the subject of a report.

According to news reporting out of Rotterdam, Netherlands, by NewsRx editors, research stated, "Several countries have implemented programs to screen for colorectal cancer (CRC) by using the fecal immunochemical test (FIT). These programs vary considerably in age of the population screened and the cutoff concentration of fecal hemoglobin (Hb) used to identify candidates for further evaluation; these variations are usually based on a country's colonoscopy resources."

Our news journalists obtained a quote from the research from the Department of Gastroenterology & Hepatology, "We calculated how increasing the Hb cutoff concentration and screening age affects colonoscopy yield, missed lesions, and demand. We collected data from 10,008 average-risk individuals in The Netherlands, 50-74 years old, who were invited for an FIT in the first round of a population-based CRC screening program from November 2006 through December 2008. Fecal samples were collected, and levels of Hb were measured by using the OC-sensor Micro analyzer; concentrations >= 10 mu g Hb/g feces were considered positive. Subjects with a positive FIT were scheduled for colonoscopy within 4 weeks. Logistic regression analysis was performed to evaluate the association between age and detection of advanced neoplasia. In total, 5986 individuals (62%) participated in the study; 503 (8.4%) had a positive test result. Attendance, positive test results, detection of advanced neoplasia, and the FIT's positive predictive value all increased significantly with age (P <.001). Detection of advanced neoplasia ranged from 1.3% in the youngest age group to 6.2% in the oldest group; the positive predictive value of the FIT was 26% in the youngest group and 47% in the oldest group. Increasing the starting age of invitees from 50-74 years to 55-74 years reduced the proportion of subjects who underwent colonoscopy evaluation by 14% and resulted in 9% more subjects with advanced neoplasia being missed. Increasing the cutoff concentration from 10 to 15 mu g Hb/g feces reduced the proportion of subjects who underwent colonoscopy evaluation by 11% and resulted in 6% of advanced neoplasia being missed. In an analysis of an average-risk screening population in The Netherlands, we found that detection of advanced neoplasia by FIT increases significantly with age and fecal Hb cutoff concentration. Increasing the cutoff concentration or screening age reduces the numbers of patients who undergo colonoscopy evaluation in FIT-based CRC screening programs."
According to the news editors, the research concluded: "Our findings provide insight in these effects per age category and cutoff concentration and the consequences in terms of missed lesions."

For more information on this research see: Effects of Increasing Screening Age and Fecal Hemoglobin Cutoff Concentrations in a Colorectal Cancer Screening Program. *Clinical Gastroenterology and Hepatology, 2016;14(12):1771-1777. Clinical Gastroenterology and Hepatology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Clinical Gastroenterology and Hepatology - www.journals.elsevier.com/clinical-gastroenterology-and-hepatology/)

Our news journalists report that additional information may be obtained by contacting M.C.W. Spaander, Erasmus MC Univ, Medical Center, Dept. of Gastroenterol & Hepatol, NL-3015 CE Rotterdam, Netherlands. Additional authors for this research include E.H. Schreuders, S.A.V. Nieuwenburg, B.E. Hansen, I. Lansdorp-Vogelaar, E.J. Kuipers, M.J. Bruno and M.C.W. Spaander.

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Keywords for this news article include: Rotterdam, Netherlands, Europe, Cancer, Diagnostics and Screening, Epidemiology, Colorectal Research, Gastroenterology, Blood Proteins, Colon Cancer, Hemoglobins, Neoplasia, Oncology, Globins, Department of Gastroenterology & Hepatology.

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**Oncology - Colon Cancer**

**New Colon Cancer Findings from Hebrew University Hadassah Medical School and Hospital Described (Unemployment risk at 2 and 4 years following colorectal cancer diagnosis: a population based study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news originating from Jerusalem, Israel, by NewsRx correspondents, research stated, "About half of colorectal patients are diagnosed less than 65 years of age and they have a relatively high cure rate. However, little is known about their employment and related risk factors."

Our news journalists obtained a quote from the research from Hebrew University Hadassah Medical School and Hospital, "The aim of the current study was to clarify the association between colorectal cancer (CRC) and subsequent risk of being unemployed. A historical prospective cohort study included baseline socio-demographic measurements of age, sex, ethnicity, residential socio-economic position and education from the 1995 Israeli National Census, cancer incidence between 2000 and 2007 and employment data between 1998 and 2011. Binary logistic regression analyses were used to assess odds ratios for unemployment, while controlling for socio-economic measurements and employment status at 2 years prior to diagnosis. The final study population included 885 colorectal patients and 2646 healthy controls. After controlling for confounders, positive associations were found between stages II (odds ratio [OR] = 1.91, 95% confidence interval [CI]: 1.31-2.76 or III (OR=1.70, 95% CI: 1.13-2.54) and
increased risk for unemployment at 2 years. At 4 years follow-up, stages I (OR=1.56, 95% CI: 1.11-2.19), II (OR=1.57, 95% CI: 1.09-2.26) and III (OR=2.28, 95% CI: 1.55-3.37) were associated with increased risk for unemployment. Higher risk was seen among rectal cancer patients and among patients aged <= 50 years old at the time of cancer diagnosis. CRC patients are at increased long-term risk for unemployment, especially among rectal cancer and younger patients.

According to the news editors, the research concluded: "The clinical ramifications of our findings emphasise the importance of an accurate evaluation and attention to unemployment status during the care of these patients."


The news correspondents report that additional information may be obtained from Y. Rottenberg, Hebrew Univ Jerusalem Hadassah Hosp & Med Sch, Sch Med, Jerusalem, Israel. Additional authors for this research include N.Z. Ratzon, M. Cohen, A. Hubert, B. Uziely and A. de Boer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejca.2016.09.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jerusalem, Israel, Asia, Cancer, Risk and Prevention, Epidemiology, Diagnostics and Screening, Carcinoma Diagnostics, Colorectal Research, Cancer Diagnostics, Gastroenterology, Colon Cancer, Oncology, Hebrew University Hadassah Medical School and Hospital.

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either DerSimonian-Laird method or Mantel-Haenszel method according to the heterogeneity of included articles. The risk of mortality, therapeutic efficacy, and adverse effect were meta-analyzed. In total, 6 RCTs including 2165 participants (1109 in the treatment group, 1056 in the control group) were included in this metaanalysis. Compared with FOLFIRI-panitumumab/cetuximab, the bevacizumab addition significantly reduced the complete response (CR) rate (RR [95% CI]=0.31[0.11, 0.89], P=0.03) and the risk of grade 3/4 adverse event (RR [95% CI]=0.89[0.80, 0.98], P=0.01). Compared with FOLFIRI and IFL alone, the addition of bevacizumab significantly increased the partial response (PR) and objective response (OR) rates. Compared with IFL alone, the addition of bevacizumab significantly reduced the mortality risk of PFS (RR [95% CI]=0.53[0.42, 0.66], P<0.00001) and OS (RR[95% CI]=0.70[0.60, 0.82], P <0.00001), but increased the risk of adverse events (RR[95% CI]=1.14[1.06, 1.21], P=0.0002).

According to the news editors, the research concluded: "Combination chemotherapy of bevacizumab plus FOLFIRI or IFL had a relative high efficacy and acceptable safety for treatment of mCRC."

For more information on this research see: Efficacy and safety of addition of bevacizumab to FOLFIRI or irinotecan/bolus 5-FU/LV (IFL) in patients with metastatic colorectal cancer A meta-analysis. Medicine, 2016;95(46):102-108. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting K. Chen, Ningbo Univ, Sch Med, Yinzhou Hosp, Dept. of Radiochemotherapy, Ningbo, Zhejiang, People's Republic of China. Additional authors for this research include Y.Y. Gong, Q. Zhang, Y.P. Shen and T.Q. Zhou.

Keywords for this news article include: Zhejiang, People's Republic of China, Asia, Antineoplastic Monoclonal Antibodies, Radiation-Sensitizing Agents, Cancer, Risk and Prevention, Tyrosine Kinase Inhibitors, VEGF - VEGFR Inhibitors, Colorectal Research, Drugs and Therapies, Parasympathomimetic, Irinotecan Therapy, Enzyme Inhibitors, Gastroenterology, VEGFR Inhibitors, Antineoplastics, Colon Cancer, Bevacizumab, Oncology, Prodrug, Ningbo University.

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Oncology - Colon Cancer

New Colon Cancer Findings from S. Lonardi et al Outlined (Phase III trial comparing 3-6 months of adjuvant FOLFOX4/XELOX in stage II-III colon cancer: safety and compliance in the TOSCA trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating in Bergamo, Italy, by NewsRx journalists, research stated, "Six months of oxaliplatin-based adjuvant chemotherapy is standard of care for radically resected stage III colon cancer and an accepted option for high-risk stage II. A shorter duration of therapy, if equally efficacious, would be advantageous for patients and Health-Care Systems."

The news reporters obtained a quote from the research, "TOSCA ['Randomized trial investigating the role of FOLFOX-4 or XELOX (3 versus 6 months) regimen duration and bevacizumab as adjuvant therapy for patients with stage II/III colon cancer] is an open-label,
phase III, multicenter, noninferiority trial randomizing patients with high-risk stage II or stage III radically resected colon cancer to receive 3 months (arm 3 m) versus 6 months (arm 6 m) of FOLFOX4/XELOX. Primary end-point was relapse-free survival. We present here safety and compliance data. From June 2007 to March 2013, 3759 patients were accrued from 130 Italian sites, 64% receiving FOLFOX4 and 36% XELOX in either arm. Treatment completion rate without any modification was 35% versus 12% and with delays or dose reduction 52% versus 44% in arm 3 and 6 m. Treatment was permanently discontinued in 8% (arm 3 m) and 33% (arm 6 m). In arm 6 m, 50% of patients discontinuing treatment did so after completing 80% of planned program. Grade 3+ toxicities were higher in arm 6 m than that in 3 m. Grade 2+ neuropathy was 31.2% versus 8.8% (P < 0.0001) while grade 3+ was 8.4 versus 1.3 (P < 0.0001), in arm 3 and 6 m. Seven deaths within 30 days from last treatment administration in arm 6 m and three deaths in arm 3 m were observed (0.3% versus 0.1%, P = 0.34). TOSCA is the first trial comparing 3 versus 6 months of adjuvant chemotherapy completing accrual within the international initiative of treatment duration evaluation (International Duration Evaluation of Adjuvant, IDEA)."

According to the news reporters, the research concluded: "High compliance to treatment in control arm will allow a correct assessment of potential differences between the two treatment durations. NCT00646607."


Our news correspondents report that additional information may be obtained by contacting R. Labianca, ASST Papa Giovanni XXIII, Medical Oncol Unit, Bergamo, Italy. Additional authors for this research include A. Sobrero, G. Rosati, M. Di Bartolomeo, M. Ronzoni, G. Aprile, M. Scartozzi, M. Banzi, M.G. Zampino, F. Pasini, P. Marchetti, M. Cantore, A. Zaniboni, L. Rimassa, L. Ciuffreda, D. Ferrari, S. Barni, V. Zagonel, E. Maiello and .

Keywords for this news article include: Bergamo, Italy, Europe, Clinical Trials and Studies, Clinical Research, Colon Cancer, Oncology.

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Oncology - Colon Cancer

New Colon Cancer Findings from University of Bologna Described (Inflammation increases NOTCH1 activity via MMP9 and is counteracted by Eicosapentaenoic Acid-free fatty acid in colon cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news reporting originating in Bologna, Italy, by NewsRx journalists, research stated, "Aberrant NOTCH1 signalling is critically involved in multiple models of colorectal cancer (CRC) and a prominent role of NOTCH1 activity during inflammation has emerged. Epithelial to Mesenchymal Transition (EMT), a crucial event promoting malignant transformation, is regulated by inflammation and Metalloproteinase-9 (MMP9) plays an important role in this
The news reporters obtained a quote from the research from the University of Bologna, "Eicosapentaenoic Acid (EPA), an omega-3 polyunsaturated fatty acid, was shown to prevent colonic tumors in different settings. We recently found that an extra-pure formulation of EPA as Free Fatty Acid (EPA-FFA) protects from colon cancer development in a mouse model of Colitis-Associated Cancer (CAC) through modulation of NOTCH1 signalling. In this study, we exposed colon cancer cells to an inflammatory stimulus represented by a cytokine-enriched Conditioned Medium (CM), obtained from THP1-differentiated macrophages. We found, for the first time, that CM strongly up-regulated NOTCH1 signalling and EMT markers, leading to increased invasiveness. Importantly, NOTCH1 signalling was dependent on MMP9 activity, upon CM exposure. We show that a non-cytotoxic pre-treatment with EPA-FFA antagonizes the effect of inflammation on NOTCH1 signalling, with reduction of MMP9 activity and invasiveness."

According to the news reporters, the research concluded: "Our data suggest that, in CRC cells, inflammation induces NOTCH1 activity through MMP9 up-regulation and that this mechanism can be counteracted by EPA-FFA."

For more information on this research see: Inflammation increases NOTCH1 activity via MMP9 and is counteracted by Eicosapentaenoic Acid-free fatty acid in colon cancer cells. Scientific Reports, 2016;6():20670. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting C. Fazio, Dept. of Surgical and Medical Sciences, University of Bologna, Bologna, Italy. Additional authors for this research include G. Piazzi, P. Vitaglione, V. Fogliano, A. Munarini, A. Prossomariti, M. Milazzo, L. D'Angelo, M. Napolitano, P. Chieco, A. Belluzzi, F. Bazzoli and L. Ricciardiello.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep20670. This DOI is a link to an online electronic document that is either free or for purchase. Keywords for this news article include: Italy, Europe, Bologna, Oncology, Colon Cancer, Inflammation.

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population-based cancer registries in 13 countries, as well as cancer deaths from the WHO mortality database for 18 countries. We estimated world population age-standardized incidence (ASR) and mortality (ASMR) rates per 100,000 person-years for 2003-2007 and the estimated annual percentage change for 1997-2008. The CRC rate in males was 1-2 times higher than that in females. In 2003-2007, the highest ASRs were seen in Uruguayan, Brazilian and Argentinian males (25.2-34.2) and Uruguayan and Brazilian females (21.5-24.7), while El Salvador had the lowest ASR in both sexes (males: 1.5, females: 1.3). ASMRs were < 10 for both sexes, except in Uruguay, Cuba and Argentina (10.0-17.7 and 11.3-12.0). CRC incidence is increasing in Chilean males. Most countries have national screening guidelines. Uruguay and Argentina have implemented national screening programs. Geographic variation in CRC and sex gaps may be explained by differences in the prevalence of obesity, physical inactivity, diet, smoking and alcohol consumption, early detection, and cancer registration practices. Establishing optimal CRC screening programs is challenging due to lack of healthcare access and coverage, funding, regional differences and inadequate infrastructure, and may not be feasible."

According to the news editors, the research concluded: "Given the current status of CRC in the region, data generated by population-based cancer registries is crucial for cancer control planning."

For more information on this research see: Burden of colorectal cancer in Central and South America. *Cancer Epidemiology*, 2016;44():S74-S81. *Cancer Epidemiology* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news editors report that additional information may be obtained by contacting M.S. Sierra, Int Agcy Res Canc, Lyon, Rhone, France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.03.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Cancer, Diagnostics and Screening, Epidemiology, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, International Agency for Research on Cancer.

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Oncology - Colon Cancer

**New Colon Cancer Study Findings Have Been Reported by Investigators at University of Rome (Overcoming dynamic molecular heterogeneity in metastatic colorectal cancer: Multikinase inhibition with regorafenib and the case of rechallenge with ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news reporting originating from Rome, Italy, by NewsRx correspondents, research stated, "In metastatic colorectal cancer (mCRC), fluorouracil-based combination therapy with oxaliplatin or irinotecan is the mainstay of first-line treatment. Patient survival has been significantly improved with the introduction of monoclonal antibodies against VEGF (bevacizumab), VEGFR2 (ramucirumab) or EGFR (cetuximab or panitumumab) in first- and second-line..."
therapies."

Our news editors obtained a quote from the research from the University of Rome, "However, all patients treated with chemotherapy and targeted therapies will eventually relapse, and recently the emergence of alterations in EGFR, RAS, BRAF, ERB-B2, MET and possibly in other genes has been shown to jeopardize response to EGFR blockade. In chemorefractory patients, multikinase inhibition with regorafenib has proved to be effective and rechallenge with chemotherapy or anti-EGFR agents is empirically pursued."

According to the news editors, the research concluded: "This review will critically discuss how the evolving knowledge of mechanisms of resistance driven by intratumoural dynamic molecular heterogeneity can impact on rational choice of treatments in this setting."


The news editors report that additional information may be obtained by contacting D. Santini, Campus Biomed Univ Rome, Dept. of Med Oncol, I-00128 Rome, Italy. Additional authors for this research include S. Siena, G. Tonini, A. Bardelli and D. Santini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ctrv.2016.10.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Cancer, Article Review, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, University of Rome.

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Oncology - Colon Cancer

New Colon Cancer Study Findings Have Been Reported by Researchers at University of Malaya (Chemopreventive effect of Phaleria macrocarpa on colorectal cancer aberrant crypt foci in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Colon Cancer. According to news reporting from Kuala Lumpur, Malaysia, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Natural products are important ingredients for pharmaceutical applications specifically new entities for treating cancer and other diseases. Phaleria macrocarpa is native of Indonesia and considered as a prolific source of bioactive substances useful for chemoprevention."

The news correspondents obtained a quote from the research from the University of Malaya, "Aim of the study: To investigate the chemopreventive properties of Phaleria macrocarpa on azoxymethane (AOM)-induced aberrant crypt foci (ACF) in rats. The biological activities of the ethanol extract of P. macrocarpa fruits were evaluated both in vitro and in vivo. First the extract was investigated for its in vitro antioxidant activity by the total phenolic content and ferric reducing antioxidant power assay. Then the chemopreventive effect of P. macrocarpa
was performed on AOM-induced aberrant crypt foci as colorectal carcinoma model in rats. The crude ethanolic extract of P. macrocarpa has high antioxidant activity and modulated the oxidative stress as proved by the up-regulation of glutathione-s-transferase and superoxide dismutase. Immunohistochemical staining of the treated sections showed overexpression of PCNA and Bax, reduced crypt sizes and numbers, indicating the characteristic feature of apoptotic cancer cells. PCNA is a landmark of cell damage and turn-over and can be associated with clinical cancer mutation. The most potent doses were 250 mg/kg and 500 mg/kg as compared to 35 mg/kg 5-fluorouracil.

According to the news reporters, the research concluded: "In this sense, the potential modulation of the colorectal pathophysiological pathway by P. macrocarpa natural compounds mostly flavonoids offer a great possibility for the discovery of new leads towards the colorectal cancer."


Our news journalists report that additional information may be obtained by contacting A.N. Shwter, Univ Malaya, Dept. of Biomed Sci, Fac Med, Kuala Lumpur 50603, Malaysia. Additional authors for this research include N.A. Abdullah, M.A. Alshawsh, H.R. El-Seedi, N.A. Al-Henhena, S.A.M. Khalifa and M.A. Abdulla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kuala Lumpur, Malaysia, Asia, Colorectal Research, Protective Agents, Gastroenterology, Antioxidants, Colon Cancer, Oncology, Genetics, University of Malaya.

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**Oncology - Colon Cancer**

**New Colon Cancer Study Findings Have Been Reported from Queen's University (Delivery of Adjuvant Oxaliplatin for Colon Cancer: Insights From Routine Clinical Practice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Colon Cancer is the subject of a report. According to news reporting originating from Kingston, Canada, by NewsRx correspondents, research stated, "Adjuvant oxaliplatin is now a standard treatment option for patients with early-stage colon cancer. However, treatment delivery and outcomes achieved in routine practice are not well described."

Our news editors obtained a quote from the research from Queen's University, "All cases of colon cancer diagnosed in Ontario from 2002 to 2008 were identified using the Ontario Cancer Registry. Pathology reports were obtained for a 25% random sample to identify stage II and III cases; patients treated with adjuvant oxaliplatin were included in this analysis. Treatment
records were reviewed to identify oxaliplatin dose reductions or omissions. Modified Poisson regression was used to evaluate factors associated with dose reduction/omission. Cox proportional hazards model was used to explore factors associated with cancer-specific survival (CSS) and overall survival (OS). The study population included 532 patients; 88% (469/532) had stage III disease. The mean/median number of oxaliplatin cycles delivered was 10/12. A dose reduction/omission of oxaliplatin occurred in 54% of cases (288/532), and the dose was subsequently escalated in 34% of these (97/288). Women were more likely than men to have dose reduction/omission (relative risk, 1.29; 95% CI, 1.10-1.51). Dose reduction/omission was not associated with inferior CSS (hazard ratio [HR], 0.76; 95% CI, 0.51-1.14) or OS (HR, 0.81; 95% CI, 0.59-1.13). Five-year CSS and OS of all cases were 77% (95% CI, 72-81) and 72% (95% CI, 68-76), respectively. On-treatment mortality rates were 1% and 3% within 30 and 90 days of oxaliplatin, respectively. Dose reductions of adjuvant oxaliplatin are common in routine practice but are not associated with inferior survival.

According to the news editors, the research concluded: "Long-term survival achieved in the general population is comparable to the results of clinical trials."

For more information on this research see: Delivery of Adjuvant Oxaliplatin for Colon Cancer: Insights From Routine Clinical Practice. Journal of the National Comprehensive Cancer Network, 2016;14(12):1548-1554. Journal of the National Comprehensive Cancer Network can be contacted at: Harborside Press, 37 Main St, Cold Spring Harbor, NY 11724, USA.

The news editors report that additional information may be obtained by contacting C.M. Booth, Queen's University, Dept. of Public Hlt H, Kingston, ON, Canada. Additional authors for this research include X.J. Wei, J.J. Biagi, S. Nanji and C.M. Booth.

Keywords for this news article include: Kingston, Ontario, Canada, North and Central America, Colon Cancer, Oncology, Queen's University.

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mice. In addition, altered levels of CD8(+) cells, and changes in CD8(+) production of IFN- and granzyme B were observed. These T-cell alterations did modify tumor immunosurveillance, as the adoptive transfer of splenocytes from Apc(Min/+ ) animals into a chemically induced CRC model resulted in the inability to prevent epithelial dysplasia."

According to the news editors, the research concluded: "These results suggest an altered T-cell balance in Apc(Min/+ ) mice may disrupt intestinal homeostasis, consequently limiting intestinal tumor immunosurveillance."


Our news journalists report that additional information may be obtained by contacting R.G. Lorenz, Univ Alabama Birmingham, Dept. of Surg, Div Pediat Surg, Birmingham, AL 35294, United States. Additional authors for this research include J.G. Daft, S.A. Hill, C.A. Martin and R.G. Lorenz.

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Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Cancer, Epidemiology, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, University of Alabama.

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**Oncology - Colon Cancer**

**New Colon Cancer Study Findings Recently Were Reported by Researchers at Coventry University (Diagnostic accuracy of faecal biomarkers in detecting colorectal cancer and adenoma in symptomatic patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting from Coventry, United Kingdom, by NewsRx journalists, research stated, "The diagnosis of colorectal cancer (CRC) can be difficult as symptoms are variable with poor specificity. Thus, there is a quest for simple, non-invasive testing that can help streamline those with significant colonic pathology."

Funders for this research include Bowel Disease Research Foundation, Alpha Laboratories Ltd.

The news correspondents obtained a quote from the research from Coventry University. "To assess using faecal immunochemical test for haemoglobin (FIT) or faecal calprotectin (FCP) to detect CRC and adenoma in symptomatic patients referred from primary care. A total of 799 referred for urgent lower gastrointestinal investigations were prospectively recruited. Of these, 430 completed colonic investigations and returned stool samples, and were included in the final statistical analysis. Faecal immunochemical test for haemoglobin was
performed on HM-JACKarc analyser (Kyowa Medex, Tokyo, Japan), and FCP by the EliA Calprotectin immunoassay (Thermo Fisher Scientific, Waltham, United States). The negative predictive value (NPV) using FIT alone or both markers (FIT and FCP) in combination was similar at 99% for CRC, with a sensitivity and specificity of 84% and 93%, respectively. FIT measurements were significantly higher in left-sided colonic lesions compared with the right side; 713 vs. 94; P = 0.0203). For adenoma, the NPV using FIT alone, or both markers (FIT and FCP) in combination, was similar at 94% with a sensitivity and specificity of 69% and 56%, respectively. Undetectable faecal immunochemical test for haemoglobin is sufficiently sensitive to exclude colorectal cancer, with higher values in left-sided lesions. FCP in combination does not appear to provide additional diagnostic information."

According to the news reporters, the research concluded: "Further studies to determine the health economic benefits of implementing faecal immunochemical test for haemoglobin in primary care are required."


Our news journalists report that additional information may be obtained by contacting R.P. Arasaradnam, Coventry University, Appl Biol & Expt Sci, Coventry, W Midlands, United Kingdom. Additional authors for this research include C.L. Thomas, M.G. Thomas, C. Tomkins, S. Smith, N. O'Connell, S. Wurie, L. Burns, C. Harmston, C. Evans, C.U. Nwokolo, B. Singh and R.P. Arasaradnam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13865. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Coventry, United Kingdom, Europe, Colorectal Research, Gastroenterology, Endocrinology, Colon Cancer, Oncology, Adenomas, Coventry University.

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**Oncology - Colon Cancer**

**New Colon Cancer Study Findings Recently Were Reported by Researchers at Paris-Descartes University (A Study of Hypermethylated Circulating Tumor DNA as a Universal Colorectal Cancer Biomarker)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "Circulating tumor DNA (ctDNA) has emerged as a good candidate for tracking tumor dynamics in different cancer types, potentially avoiding repeated tumor biopsies. Many different genes can be mutated within a tumor, complicating procedures for tumor monitoring, even with highly sensitive next-generation sequencing (NGS) strategies."

Our news editors obtained a quote from the research from Paris-Descartes
University, "Droplet-based digital PCR (dPCR) is a highly sensitive and quantitative procedure, allowing detection of very low amounts of circulating tumor genetic material, but can be limited in the total number of target loci monitored. We analyzed hypermethylation of 3 genes, by use of droplet-based dPCR in different stages of colorectal cancer (CRC), to identify universal markers for tumor follow-up. Hypermethylation of WIF1 (WNT inhibitory factor 1) and NPY (neuropeptide Y) genes was significantly higher in tumor tissue compared to normal tissue, independently of tumor stage. All tumor tissues appeared positive for one of the 2 markers. Methylated ctDNA (MetctDNA) was detected in 80% of metastatic CRC and 45% of localized CRC. For samples with detectable mutations in ctDNA, MetctDNA and mutant ctDNA (MutctDNA) fractions were correlated. During follow-up of different stage CRC patients, MetctDNA changes allowed monitoring of tumor evolution."

According to the news editors, the research concluded: "These results indicate that MetctDNA could be used as a universal surrogate marker for tumor follow-up in CRC patients, and monitoring MetctDNA by droplet-based dPCR could avoid the need for monitoring mutations."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1373/clinchem.2015.253609. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Carcinoma Biomarkers, Colorectal Research, Cancer Biomarkers, Gastroenterology, Colon Cancer, Oncology, Genetics, Paris-Descartes University.

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Oncology - Colon Cancer

New Colon Cancer Study Findings Recently Were Reported by Researchers at Southeast University (FAS rs2234767 and rs1800682 polymorphisms jointly contributed to risk of colorectal cancer by affecting SP1/STAT1 complex recruitment to chromatin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news originating from Nanjing, People's Republic of China, by NewsRx correspondents, research stated, "FAS rs2234767 (-1377 G>A), rs1800682 (-670 A>G) and FASLG rs763110 (-844 C>T) promoter polymorphisms can influence transcriptional activities of the genes and thus multiple tumors susceptibility. To investigate their association with risk of colorectal cancer
(CRC), the three SNPs were genotyped in 878 cases and 884 controls and the results showed that the FAS rs2234767 and rs1800682 were in a high linkage disequilibrium (LD) with each other (D' = 0.994) and jointly contributed to an increased risk of CRC (without vs. with rs2234767 GG/rs1800682 AA genotypes, adjusted OR = 1.30, 95% CI = 1.05 - 1.61).

Our news journalists obtained a quote from the research from Southeast University, "In vivo ChIP assays evaluated the effect of rs2234767 and rs1800682 on recruitment of SP1 and STAT1, respectively, to chromatin. The results showed SP1 interacting specifically with STAT1 recruited to their respective motifs for transcriptional activation. The mutant alleles rs2234767 A and rs1800682 G jointly affected coupled SP1 and STAT1 recruitment to chromatin. The interplay between SP1 and STAT1 was critical for the functional outcome of rs2234767 and rs1800682 in view of their high LD."

According to the news editors, the research concluded: "The FAS rs2234767 and rs1800682 polymorphisms were in high LD with each other, and they jointly contributed to an increased risk of CRC by altering recruitment of SP1/STAT1 complex to the FAS promoter for transcriptional activation."

For more information on this research see: FAS rs2234767 and rs1800682 polymorphisms jointly contributed to risk of colorectal cancer by affecting SP1/STAT1 complex recruitment to chromatin. Scientific Reports, 2016;6():19229. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from S. Wang, Key Laboratory of Environmental Medicine Engineering, Ministry of Education, School of Public Health, Southeast University, Nanjing, People's Republic of China. Additional authors for this research include S. Wu, Q. Meng, X. Li, J. Zhang, R. Chen and M. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19229. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nanjing, Genetics, Oncology, Chromatin, Colon Cancer, Nucleoproteins, Gastroenterology, Colorectal Cancer, Colorectal Research, Risk and Prevention, People's Republic of China.

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Oncology - Colon Cancer

New Colon Cancer Study Findings Recently Were Reported by Researchers at University of Tokushima (Propensity score-matched study of laparoscopic and open surgery for colorectal cancer in rural hospitals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news reporting originating in Tokushima, Japan, by NewsRx journalists, research stated, "Various randomized clinical studies have suggested that short-and long-term outcomes of laparoscopic surgery (LAP) for colorectal cancer are comparable with those of open surgery (OP). However, these studies were performed in high-volume hospitals."

The news reporters obtained a quote from the research from the University of Tokushima, "The aim of the present study was to compare the outcomes of LAP versus OP for
colorectal cancer in rural hospitals. This was a multicenter retrospective propensity score-matched case-control study of patients who underwent colorectal surgery from January 2004 to April 2009 in 10 hospitals in Japan. All patients underwent curative surgery for pathologically diagnosed stage II or III colorectal cancer. The primary end point was 5-year overall survival (OS). The secondary end points were disease-free survival (DFS) and postoperative complications. In total, 319 patients who underwent LAP and 1020 patients who underwent OP were balanced to 261 pairs. There was no significant difference in the OS and DFS between two groups. The operation time was significantly shorter for OP than for LAP. Blood loss was significantly lower in LAP than in OP. There was no difference in intraoperative morbidity between the two groups. The postoperative morbidity was significantly lower in LAP than in OP. The hospital stay was significantly shorter in LAP than in OP. There was no significant difference in 90-day postoperative mortality."

According to the news reporters, the research concluded: "Laparoscopic surgery may be a feasible option for colorectal cancer in rural hospitals."


Our news correspondents report that additional information may be obtained by contacting T. Nakao, University of Tokushima, Dept. of Surg, Tokushima 7708503, Japan. Additional authors for this research include M. Shimada, K. Yoshikawa, J. Higashijima, T. Tokunaga, M. Nishi, C. Takasu, H. Kashihara, I. Suzuka, T. Nishizaki, H. Okitsu, T. Yagi, H. Miyake, M. Miura, M. Fukuyama, D. Wada and Y. Bando.

Keywords for this news article include: Tokushima, Japan, Asia, Colorectal Research, Gastroenterology, Colon Cancer, Hospital, Oncology, Surgery, University of Tokushima.

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in vivo conditions and, thereby, predict effective drugs in vivo. This study aimed to perform drug selection using our recently developed 3D culture system in a human colon cancer HCT116 cell line stably expressing red fluorescent protein (HCT116-RFP), to determine the most effective agent in a selection of clinically used antitumor agents for colon cancer. In addition, we confirmed the efficacy of the selected drug regorafenib, in vivo using a mouse model of disseminated small tumors. HCT116-RFP cells were cultured using a nanoimprinting 3D culture and in vitro drug selection was performed with 8 clinically used drugs [bevacizumab, capecitabine, cetuximab, 5-fluorouracil (5-FU), irinotecan, oxaliplatin, panitumumab and regorafenib]. An in vivo study was performed in mice bearing HCT116-RFP intraperitoneally disseminated small tumors using 3’-[18F]-fluoro-3’-deoxythymidine-positron emission tomography and fluorescence microscopy imaging to evaluate the therapeutic effects. Regorafenib was determined to be the most effective drug in the 3D culture, and significantly inhibited tumor growth in vivo, compared to the untreated control and 5-FU-treated group. The drug 5-FU is commonly used in colon cancer treatment and was used as a reference."

According to the news reporters, the research concluded: "Our results demonstrate that regorafenib is a potentially efficacious adjuvant chemotherapeutic agent for the treatment of disseminated small colon cancer and, therefore, warrants further preclinical and clinical studies."

For more information on this research see: Regorafenib as a potential adjuvant chemotherapy agent in disseminated small colon cancer: Drug selection outcome of a novel screening system using nanoimprinting 3-dimensional culture with HCT116-RFP cells. *International Journal of Oncology*, 2016;48(4):1477-84.

Our news journalists report that additional information may be obtained by contacting Y. Yoshii, Molecular Imaging Center, National Institute of Radiological Sciences, Chiba 263-8555, Japan. Additional authors for this research include T. Furukawa, H. Aoyama, N. Adachi, M.R. Zhang, H. Wakizaka, Y. Fujibayashi and T. Saga.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3361. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chiba, Japan, Oncology, Colon Cancer, Nanoimprinting, Nanotechnology, Drugs and Therapies, Adjuvant Chemotherapy, Emerging Technologies, Combined Modality Therapy.

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Oncology - Colon Cancer

New Colon Cancer Study Findings Reported from Xinxiang Medical University (Treating Colon Cancer Cells with FK228 Reveals a Link between Histone Lysine Acetylation and Extensive Changes in the Cellular Proteome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news reporting originating in Xinxiang, People's Republic of China, by NewsRx journalists, research stated, "The therapeutic value of FK228 as a cancer treatment option is well known, and various types of cancer have been shown to respond to this drug. However, the complete
mechanism of FK228 and the affect it has on histone lysine acetylation and the colon cancer cell proteome are largely unknown.

The news reporters obtained a quote from the research from Xinxiang Medical University, "In the present study, we used stable isotope labeling by amino acids in cell culture (SILAC) and affinity enrichment followed by high-resolution liquid chromatograph-mass spectrometer (LC-MS)/MS analysis to quantitate the changes in the lysine acetylome in HCT-8 cells after FK228 treatment. A total of 1,194 lysine acetylation sites in 751 proteins were quantified, with 115 of the sites in 85 proteins being significantly upregulated and 38 of the sites in 32 proteins being significantly downregulated in response to FK228 treatment. Interestingly, 47 histone lysine acetylation sites were identified in the core histone proteins. We also found a novel lysine acetylation site on H2BK121. These significantly altered proteins are involved in multiple biological functions as well as a myriad of metabolic and enzyme-regulated pathways."

According to the news reporters, the research concluded: "Taken together, the link between FK228 function and the downstream changes in the HCT-8 cell proteome observed in response to FK228 treatment is established."

For more information on this research see: Treating Colon Cancer Cells with FK228 Reveals a Link between Histone Lysine Acetylation and Extensive Changes in the Cellular Proteome. Scientific Reports, 2015;5():18443. (Nature Publishing Group - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting T.Y. Wang, Dept. of Biochemistry and Molecular Biology, Xinxiang Medical University, Xinxiang 453003, Henan, People's Republic of China. Additional authors for this research include Y.L. Jia, X. Zhang, Q.L. Sun, Y.C. Li, J.H. Zhang, C.P. Zhao, X.Y. Wang and L. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18443. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Lysine, Xinxiang, Histones, Oncology, Proteome, Colon Cancer, Nucleoproteins, Basic Amino Acids, Diamino Amino Acids, Essential Amino Acids, People's Republic of China.

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Oncology - Colon Cancer

New Colon Cancer Study Results Reported from Institute for Cancer Research and Treatment (IRCCS) (CT colonography for population screening of colorectal cancer: hints from European trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating in Turin, Italy, by NewsRx journalists, research stated, "CT colonography (CTC) is a minimally invasive radiological investigation of the colon. Robust evidence indicates that CTC is safe, well tolerated and highly accurate for the detection of colorectal cancer (CRC) and large polyps, which are the targets of screening."

The news reporters obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Randomized controlled trials were carried out in Europe to
evaluate CTC as the primary test for population screening of CRC in comparison with faecal immunochemical test (FIT), sigmoidoscopy and colonoscopy. Main outcomes were participation rate and detection rate. Participation rate for screening CTC was in the range of 25-34%, whereas the detection rate of CTC for CRC and advanced adenoma was in the range of 5.1-6.1%. Participation for CTC screening was lower than that for FIT, similar to that for sigmoidoscopy and higher than that for colonoscopy. The detection rate of CTC was higher than that of one FIT round, similar to that of sigmoidoscopy and lower than that of colonoscopy. However, owing to the higher participation rate in CTC screening with respect to colonoscopy screening, the detection rates per invitee of CTC and colonoscopy would be comparable. These results justify consideration of CTC in organized screening programmes for CRC."

According to the news reporters, the research concluded: "However, assessment of other factors such as polyp size threshold for colonoscopy referral, management of extracolonic findings and, most importantly, the forthcoming results of cost-effectiveness analyses are crucial to define the role of CTC in primary screening."


Our news correspondents report that additional information may be obtained by contacting D. Regge, IRCCS, Candiolo Canc Inst FPO, Turin, Italy.

Keywords for this news article include: Turin, Italy, Europe, Cancer, Article Review, Diagnostics and Screening, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Institute for Cancer Research and Treatment (IRCCS).

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**Oncology - Colon Cancer**

**New Colon Cancer Study Results Reported from Mercy Medical Center**

*Prognosis of patients with peritoneal metastatic colorectal cancer given systemic therapy: an analysis of individual patient data from prospective randomised trials from the ...]*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news reporting originating from Des Moines, Iowa, by NewsRx correspondents, research stated, "Patients with peritoneal metastatic colorectal cancer have reduced overall survival compared with patients with metastatic colorectal cancer without peritoneal involvement. Here we further investigated the effect of the number and location of metastases in patients receiving first-line systemic chemotherapy."

Our news editors obtained a quote from the research from Mercy Medical Center, "We analysed individual patient data for previously untreated patients enrolled in 14 phase 3 randomised trials done between 1997 and 2008. Trials were included if protocols explicitly pre-specified and solicited for patients with peritoneal involvement in the trial data collection process or had done a formal peritoneum-focused review of individual pre-treatment scans. We used stratified multivariable Cox models to assess the prognostic associations of peritoneal metastatic colorectal cancer with overall survival and progression-free survival, adjusting for
other key clinical-pathological factors (age, sex, Eastern Cooperative Oncology Group (ECOG) performance score, primary tumour location [colon vs rectum], previous treatment, and baseline BMI). The primary endpoint was difference in overall survival between populations with and without peritoneal metastases. Individual patient data were available for 10,553 patients. 9,178 (87%) of 10,553 patients had non-peritoneal metastatic colorectal cancer (4,385 with one site of metastasis, 4,793 with two or more sites of metastasis), 194 (2%) patients had isolated peritoneal metastatic colorectal cancer, and 1,181 (11%) had peritoneal metastatic colorectal cancer and other organ involvement. These groups were similar in age, ethnic origin, and use of targeted treatment. Patients with peritoneal metastatic colorectal cancer were more likely than those with non-peritoneal metastatic colorectal cancer to be women (565 [41%] of 1,371 vs 3,312 [36%] of 9,169 patients; p = 0.0003), have colon primary tumours (1,116 [84%] of 1,334 patients vs 5,603 [66%]; p < 0.0001), and have performance status of 2 (136 [10%] vs 521 [6%]; p < 0.0001). We recorded a higher proportion of patients with mutated BRAF in patients with peritoneal-only (eight [18%] of 44 patients with available data) and peritoneal metastatic colorectal cancer with other sites of metastasis (34 [12%] of 289), compared with patients with non-peritoneal metastatic colorectal cancer (194 [9%] of 2,230; p = 0.028 comparing the three groups). Overall survival (adjusted HR 0.75, 95% CI 0.63-0.91; p = 0.003) was better in patients with isolated non-peritoneal sites than in those with isolated peritoneal metastatic colorectal cancer. Overall survival of patients with two of more non-peritoneal sites of metastasis (adjusted HR 1.04, 95% CI 0.86-1.25, p = 0.69) and those with peritoneal metastatic colorectal cancer plus one other site of metastasis (adjusted HR 1.10, 95% CI 0.89-1.37, p = 0.37) was similar to those with isolated peritoneal metastases. Compared with patients with isolated peritoneal metastases, those with peritoneal metastases and two or more additional sites of metastasis had the shortest survival (adjusted HR 1.40; CI 1.14-1.71; p = 0.0011). Patients with peritoneal metastatic colorectal cancer have significantly shorter overall survival than those with other isolated sites of metastases. In patients with several sites of metastasis, poor survival is a function of both increased number of metastatic sites and peritoneal involvement."

According to the news editors, the research concluded: "The pattern of metastasis and in particular, peritoneal involvement, results in prognostic heterogeneity of metastatic colorectal cancer."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045%2816%2930500-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Des Moines, Iowa, United States, North and Central America, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, Therapy, Mercy Medical Center.

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New Colorectal Research Findings from Yonsei University Reported (Molecular characteristics of colorectal serrated polyps and hyperplastic polyps A STROBE compliant article)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gastroenterology - Colorectal Research have been presented. According to news reporting originating from Wonju, South Korea, by NewsRx correspondents, research stated, "The serrated neoplasia pathway of colorectal carcinogenesis is characterized by BRAF mutation and aberrant DNA methylation, which have not been reported on Korean patients. The aim of this study was to investigate BRAF mutation and DNA methylation in colorectal serrated polyps and the right colon."

Our news editors obtained a quote from the research from Yonsei University, "Between 2005 and 2013, 146 colon polyps (47 tubular adenomas [TAs], 53 traditional serrated adenomas [TSAs], 17 sessile serrated adenomas/polyps [SSAs], and 29 hyperplastic polyps in the proximal colon [PHPs]) were collected from patients. Paraffin-embedded colon polyp tissue was used for DNA extraction. BRAF V600E mutation was identified through polymerase chain reaction (PCR) and pyrosequencing assay. The methylation status of the long interspersed nucleotide element-1, insulin-like growth factor binding protein 7 (IGFBP7), mutL homolog 1 (hMLH1), and CD133 genes were evaluated through disulfite conversion, PCR, and pyrosequencing assay. BRAF V600E mutation was found in 2.1% of TAs, 47.2% of TSAs, 41.2% of SSAs, and 20.7% of PHPs. TSA and SSA had higher BRAF mutation rates than did TA (P <0.0001). TSA had higher BRAF mutation rates than did PHP (P=0.018). IGFBP7 hypermethylation was found in 17% of TAs, 37.7% of TSAs, 88.2% of SSAs, and 37.5% of PHPs. TSA and SSA had higher hypermethylation of IGFBP7 than did TA (P=0.021 and P <0.0001, respectively). SSA had higher hypermethylation of IGFBP7 than did PHP (P=0.002). hMLH1 hypermethylation was found in 2.1% of TAs, 5.7% of TSAs, 0% of SSAs, and 0% of PHPs. CD133 hypermethylation was found in 21.3% of TAs, 9.4% of TSAs, 35.3% of SSAs, and 17.4% of PHPs. BRAF mutation and methylation in TSA and SSA are different from those in PHP in Koreans."

According to the news editors, the research concluded: "These findings suggested that PHP may have different molecular characteristics compared with other serrated polyps."

For more information on this research see: Molecular characteristics of colorectal serrated polyps and hyperplastic polyps A STROBE compliant article. Medicine, 2016;95 (49):521-526. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting H.S. Kim, Yonsei University, Wonju Coll Med, Div Gastroenterol & Hepatol, Dept. of Internal Med, Wonju, South Korea. Additional authors for this research include H.M. Kim, H. Jo, H.S. Kim, K.J. Lee, H.J. Park, J.W. Kim, M.Y. Cho and H.S. Kim.

Keywords for this news article include: Wonju, South Korea, Asia, Colorectal Research, Gastroenterology, Endocrinology, Adenomas, Genetics, Yonsei University.

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New Colorectal Research Study Results Reported from National Institutes of Health (The B-cell tumor promoter Bcl-3 suppresses inflammation associated colon tumorigenesis in epithelial cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gastroenterology - Colorectal Research is now available. According to news reporting from Bethesda, Maryland, by NewsRx journalists, research stated, "Bcl-3 is an atypical member of the inhibitor of kappa light polypeptide gene enhancer in B-cells (I.B) family. It associates with p50/nuclear factor-kappa B1 (NF-kappa B1) and p52/NF-kappa B2 homodimers in nuclei where it modulates transcription in a context-dependent manner."

The news correspondents obtained a quote from the research from the National Institutes of Health, "A subset of B-cell tumors exhibits recurrent translocations of Bcl-3, resulting in overexpression. Elevated expression without translocations is also observed in various B-cell lymphomas and even some solid tumors. Here we investigated the role of Bcl-3 in azoxymethane/dextran sulfate sodium (AOM/DSS)-induced colon tumors, a mouse model for colitis-associated colorectal cancers in humans. Contrary to expectations, Bcl-3 suppressed colorectal tumor formation: Bcl-3-deficient mice were relatively protected from DSS-induced epithelial damage and developed more polyps after AOM/DSS treatment, although polyp size was unaffected. DSSchallenged mutant mice exhibited increased recruitment of myeloid-derived suppressor cells, consistent with protection of the epithelium. Loss of Bcl-3 in intestinal epithelial cells was sufficient to increase tumorigenesis. The added tumor burden in mutant mice was dependent on tumor necrosis factor-a (TNF alpha), a tumorigenic, NF-kappa B-mediated signaling pathway that was dampened by Bcl-3. These findings reveal a tumor-suppressive role for Bcl-3 in this inflammation-associated cancer model."

According to the news reporters, the research concluded: "Bcl-3 thus functions as a tumor promoter or suppressor, depending on the cellular and environmental context."


Our news journalists report that additional information may be obtained by contacting U. Siebenlist, NIAID, Lab Mol Immunol, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include H. Wang, H.L. Ha, I. Tassi, R. Bhardwaj, E. Claudio and U. Siebenlist.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Colorectal Research, Epithelial Cells, Gastroenterology, Inflammation, Genetics, National Institutes of Health.

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New Congenital Heart Defects Data Have Been Reported by Researchers at Center for Disease Control and Prevention (Proportion of selected congenital heart defects attributable to recognized risk factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Congenital Diseases and Conditions - Congenital Heart Defects have been published. According to news reporting out of Atlanta, Georgia, by NewsRx editors, research stated, "To assess the contribution of multiple risk factors for two congenital heart defects hypoplastic left heart syndrome (HLHS) and tetralogy of Fallot (TOF). We used data from the National Birth Defects Prevention Study (1997-2011) to estimate average adjusted population attributable fractions for several recognized risk factors, including maternal prepregnancy overweight-obesity, pregestational diabetes, age, and infant sex."

Our news journalists obtained a quote from the research from Center for Disease Control and Prevention, "There were 594 cases of isolated simple HLHS, 971 cases of isolated simple TOF, and 11,829 controls in the analysis. Overall, 57.0% of HLHS cases and 37.0% of TOF cases were estimated to be attributable to risk factors included in our model. Among modifiable HLHS risk factors, maternal pre-pregnancy overweight-obesity accounted for the largest proportion of cases (6.5%). Among modifiable TOF risk factors, maternal prepregnancy overweight-obesity and maternal age of 35 years or older accounted for the largest proportions of cases (8.3% and 4.3%, respectively). Approximately half of HLHS cases and one-third of TOF cases were estimated to be attributable to risk factors included in our models. Interventions targeting factors that can be modified may help reduce the risk of HLHS and TOF development."

According to the news editors, the research concluded: "Additional research into the etiology of HLHS and TOF may reveal other modifiable risk factors that might contribute to primary prevention efforts."


Our news journalists report that additional information may be obtained by contacting R.M. Simeone, Center Dis Control & Prevent, Div Congenital & Dev Disorders, Natl Center Birth Defects & Dev Disabil, Atlanta, GA, United States. Additional authors for this research include S.C. Tinker, S.M. Gilboa, A.J. Agopian, M.E. Oster, O.J. Devine and M.A. Honein.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.annepidem.2016.10.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Congenital Diseases and Conditions, Risk and Prevention, Epidemiology, Heart Disorders and Diseases, Congenital Heart Defects, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Cardiology, Obesity, Center for Disease Control and Prevention.
New Congenital Heart Defects Findings from Institute for Cancer Research and Treatment (IRCCS) Discussed (Serum NT-proBNP Levels Are Not Related to Vitamin D Status in Young Patients with Congenital Heart Defects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Congenital Diseases and Conditions - Congenital Heart Defects. According to news reporting from San Donato Milanese, Italy, by NewsRx journalists, research stated, "Hypovitaminosis D frequently occurs in early life and increases with age. Vitamin D has been suggested to influence cardiac performance and N-terminal-pro-type B natriuretic peptide (NT-proBNP) release in adults with heart failure."

Financial support for this research came from IRCCS Policlinico San Donato Ricerca Corrente Fund.

The news correspondents obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "To assess the vitamin D status and the impact of hypovitaminosis D on circulating NT-proBNP levels in young patients with congenital heart defects (CHD). This cross-sectional study included the assessment of serum 25-hydroxyvitamin D (25OHD), parathyroid function markers, and NT-proBNP levels in a series of 230 young in-patients (117 females, 113 males; 6.4 (4.0-9.1) years (median, interquartile range)) with CHD. Serum 25OHD levels <20 ng/mL were detected in 55.3% of patients. Optimal 25OHD levels (>30 ng/mL) occurred in 25% of patients. Serum 25OHD levels inversely correlated with age (r=-0.169, p=0.013) and height standard deviation score (r=-0.269, p=0.001). After correction for age, 25OHD negatively correlated with serum PTH levels (b=-0.200, p=0.002). PTH levels above the upper quartile (44 pg/mL) occurred in 32% of hypovitaminosis D patients. Serum NT-proBNP levels were not correlated with 25OHD and PTH levels. Half of the young CHD patients were diagnosed with 25OHD deficiency and a third of hypovitaminosis D patients experienced hyperparathyroidism."

According to the news reporters, the research concluded: "Nonetheless, serum NT-proBNP levels were not associated with hypovitaminosis D as well as hyperparathyroidism."

For more information on this research see: Serum NT-proBNP Levels Are Not Related to Vitamin D Status in Young Patients with Congenital Heart Defects. Disease Markers, 2016;2016():3970284. Disease Markers can be contacted at: IOS Press, Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands.

Our news journalists report that additional information may be obtained by contacting E. Passeri, Endocrinology Unit, IRCCS Policlinico San Donato, 20097 San Donato Milanese, Italy. Additional authors for this research include R. Rigolini, E. Costa, C. Verdelli, C. Arcidiacono, M. Carminati and S. Corbetta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/3970284. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Disease Markers is: IOS Press, Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands.
New Congenital Heart Disease Data Have Been Reported by Researchers at National Taiwan University (Postnatal cumulative incidence of supraventricular tachycardia in a general pediatric population: A national birth cohort database study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Congenital Diseases and Conditions - Congenital Heart Disease. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "Supraventricular tachycardia (SVT) is a common pediatric tachycardia, but the true incidence is unknown. We sought to investigate the true postnatal incidence and its medical needs."

The news reporters obtained a quote from the research from National Taiwan University, "We derived a birth cohort comprised children born between 2000 and 2008 who had complete postnatal medical data in the Taiwan National Health Insurance Database for the period from 2000 to 2014. From 1,967,911 live births, we identified 2021 patients with SVT (51.6% men), accounting for an overall incidence of 1.03 per 1000 patient-years (Wolff-Parkinson-White syndrome accounted for 16.2%). The cumulative incidence was 0.06, 0.25, 0.45, 0.88, and 1.39 per 1000 patient-years by the age of 1 month, 1 year, 5 years, 10 years, and 15 years, respectively. Major congenital heart disease (5.3%; hazard ratio 6.66; 95% confidence interval 2.98-14.87) and cardiomyopathy (0.9%; hazard ratio 8.78; 95% confidence interval 3.39-22.78) were associated with mortality. In patients without major congenital heart disease, the cumulative incidence of SVT was 0.05, 0.22, 0.41, 0.84, and 1.33 per 1000 patient-years by the age of 1 month, 1 year, 5 years, 10 years, and 15 years, respectively. By the age of 15 years, the annual risk of death and sudden death was 0.13% and 0.010/0 per patient-year, respectively. Radiofrequency catheter ablation was performed in 173 patients at the median age of 11 years: 1.7% during infancy, 5.8% by the age of 5 years, and 31.8% by the age of 10 years. The probability of being free from receiving ablation by the age of 15 years was 83.4%.

According to the news reporters, the research concluded: "This birth cohort study provides the true incidence of pediatric SVT and indicates that almost one-fifth of the patients with SVT have already received ablation in the pediatric ages."


Our news correspondents report that additional information may be obtained by contacting M.H. Wu, National Taiwan University, Academy Sinica, Genom Res Center, Taiwan Adm Natl Hlth InsuranceMed College, Taipei, Taiwan. Additional authors for this research.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.hrthm.2016.06.006. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Pediatrics, Risk and
Prevention, Epidemiology, Cardiovascular Diseases and Conditions, Congenital Diseases and
Conditions, Heart Disorders and Diseases, Supraventricular Tachycardia, Congenital Heart
Disease, Cardiac Arrhythmias, Cardiology, National Taiwan University.

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Congenital Diseases and Conditions - Congenital...

New Congenital Heart Disease Findings Has Been Reported by
Investigators at Children's Hospital (Combined blood pool and
extracellular contrast agents for pediatric and young adult
cardiovascular magnetic resonance imaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Congenital Diseases and Conditions -
Congenital Heart Disease. According to news reporting originating in Chicago, Illinois, by
NewsRx journalists, research stated, "A comprehensive cardiac magnetic resonance (cardiac
MR) study including both late gadolinium enhancement (LGE) and MR angiography may be
indicated for patients with a history of acquired or congenital heart disease. To study the novel
use of an extracellular agent for assessment of LGE combined with a blood pool contrast agent
for detailed MR angiography evaluation to yield a comprehensive cardiac MR study in these
patients."

The news reporters obtained a quote from the research from Children's Hospital,
"We reviewed clinical cardiac MR studies utilizing extracellular and blood pool contrast agents
and noted demographics, clinical data and adverse events. We rated LGE image quality and MR
angiography image quality for each vascular segment and calculated inter-rater variability. We
also quantified contrast-to-noise ratio (CNR). Thirty-three patients (mean age 13.9 +/- 3 years)
received an extracellular contrast agent (10 gadobenate dimeglumine, 23 gadopentetate
dimeglumine) and blood pool contrast agent (33 gadofosveset trisodium). No adverse events
were reported. MRI indications included Kawasaki disease (8), cardiomyopathy and coronary
anatomy (15), repaired congenital heart disease (8), and other (2). Mean LGE quality was 2.6 +/-
0.6 with 97% diagnostic imaging. LGE quality did not vary by type of contrast agent given (P =
0.07). Mean MR angiography quality score was 4.7 +/- 0.6, with high inter-rater agreement (k =
0.6-0.8, P< 0.002). MR angiography quality did not vary by type of contrast agent used (P =
0.6). Cardiac MR studies utilizing both extracellular and blood pool contrast agents are feasible
and safe and provide excellent-quality LGE and MR angiography images."

According to the news reporters, the research concluded: "The use of two contrast
agents allows for a comprehensive assessment of both myocardial viability and vascular
anatomy during the same exam."

For more information on this research see: Combined blood pool and extracellular
contrast agents for pediatric and young adult cardiovascular magnetic resonance imaging.
Pediatric Radiology, 2016;46(13):1822-1830. Pediatric Radiology can be contacted at:
Congenital Diseases and Conditions - Congenital...

New Congenital Hypothyroidism Study Findings Have Been Reported by Investigators at Turku University Hospital (Detection of Novel Gene Variants Associated with Congenital Hypothyroidism in a Finnish Patient Cohort)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Congenital Diseases and Conditions - Congenital Hypothyroidism have been published. According to news reporting out of Turku, Finland, by NewsRx editors, research stated, "Congenital hypothyroidism (CH) is defined as the lack of thyroid hormones at birth. Mutations in at least 15 different genes have been associated with this disease."

Our news journalists obtained a quote from the research from Turku University Hospital, "While up to 20% of CH cases are hereditary, the majority of cases are sporadic with unknown etiology. Apart from a monogenic pattern of inheritance, multigenic mechanisms have been suggested to play a role in CH. The genetics of CH has not been studied in Finland so far. Therefore, multigenic sequencing of CH candidate genes was performed in a Finnish patient cohort with both familial and sporadic CH. A targeted next-generation sequencing (NGS) panel, covering all exons of the major CH genes, was applied for 15 patients with sporadic and 11 index cases with familial CH. Among the familial cases, six pathogenic mutations were found in the TPO, PAX8, and TSHR genes. Furthermore, pathogenic NKX2.1 and TG mutations were identified from sporadic cases, together with likely pathogenic variants in the TG, NKX2.5, SLC26A4, and DUOX2 genes. All identified novel pathogenic mutations were confirmed by Sanger-sequencing and characterized in silico and/or in vitro. In summary, the CH panel provides an efficient, cost-effective, and multigenic screening tool for both known and novel CH gene mutations."

According to the news editors, the research concluded: "Hence, it may be a useful method to identify accurately the genetic etiology for dyshormogenic, familial, or syndromic forms of CH."
For more information on this research see: Detection of Novel Gene Variants Associated with Congenital Hypothyroidism in a Finnish Patient Cohort. *Thyroid*, 2016;26(9):1215-1224. *Thyroid* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Thyroid - www.liebertpub.com/overview/thyroid/55/)

Our news journalists report that additional information may be obtained by contacting J. Kero, Turku University Hospital, Dept. of Pediat, Turku, Finland. Additional authors for this research include K. Patyra, T. Kuulasmaa, J. Vangipurapu, H. Undeutsch, H. Jaenschke, T. Pajunen, A. Kero, H. Krude, H. Biebermann, G. Kleinau, P. Kuhnen, K. Rantakari, P. Miettinen, T. Kirjavainen, J.P. Pursiheimo, T. Mustila, J. Jaaskelainen and O.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/thy.2016.0016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turku, Finland, Europe, Thyroid Diseases and Conditions, Genetics, Endocrine System Diseases and Conditions, Musculoskeletal Diseases and Conditions, Endocrine Bone Diseases and Conditions, Congenital Diseases and Conditions, Congenital Hypothyroidism, Endocrinology, Dwarfism, Turku University Hospital.

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**Immunization and Public Health - Conjugate Vaccines**

**New Conjugate Vaccines Data Have Been Reported by Investigators at Federal University (Streptococcus pneumoniae Serotypes 9 and 14 Circulating in Brazil over a 23-Year Period Prior to Introduction of the 10-Valent Pneumococcal Conjugate ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immunization and Public Health - Conjugate Vaccines. According to news reporting originating in Rio de Janeiro, Brazil, by NewsRx journalists, research stated, "Antimicrobial-resistant pneumococcal strains have been detected worldwide since the 1960s. In Brazil, the first penicillin-nonsusceptible pneumococci (PNSP) were reported in the 1980s, and their emergence and dissemination have been mainly attributed to serogroup 9 and serotype 14 strains, especially those highly related to recognized international clones."

The news reporters obtained a quote from the research from Federal University, "In the present study, antimicrobial susceptibility testing and multilocus sequence typing were performed on 315 pneumococcal isolates belonging to serogroup 9 (n = 99) or serotype 14 (n = 216), recovered from patients or asymptomatic carriers between 1988 and 2011 in Brazil, in order to trace changes in antimicrobial resistance and genotypes prior to the full introduction of the pneumococcal conjugate vaccine in the country. Over the 23-year study period, the PNSP levels increased, and four clonal complexes (CC156, CC66, CC15, and CC5401) have played important roles in the evolution and dissemination of pneumococcal isolates belonging to serogroup 9 and serotype 14, as well as in the emergence of antimicrobial resistance, in the pre-pneumococcal-vaccination era. The earliest PNSP strains detected in this study belonged to serotype 9N/ ST66 and were single locus variants of the international clone Tennessee(14)- 18
ST67 (CC66). The first serotype 14 PNSP isolates were identified in 1990 and were related to the England(14)-9 ST9 (CC15) clone. Serotype 14 PNSP variants of the Spain(9V)-3 ST156 clone with elevated penicillin MICs and nonsusceptibility to other beta-lactams were detected in 1995 and showed an increasing trend over the years. The results also indicated that introduction of ST156 in our region was preceded by the emergence of trimethoprim-sulfamethoxazole resistance and by the dissemination of ST162.

According to the news reporters, the research concluded: "In addition to the presence of successful international clones, a novel regional serotype 14 genotype (CC5401) has emerged in 1996."


Keywords for this news article include: Rio de Janeiro, Brazil, South America, Gram-Positive Bacterial Infections, Immunization and Public Health, Streptococcal Infections, Streptococcus pneumoniae, Pneumococcal Disease, Gram-Positive Cocci, Biological Products, Conjugate Vaccines, Synthetic Vaccines, Streptococcaceae, Strep Infection, Federal University.

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Connective Tissue Cells

New Connective Tissue Cells Findings from Wuhan University Reported (Autophagy regulates odontoblast differentiation by suppressing NF-kB activation in an inflammatory environment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Connective Tissue Cells are discussed in a new report. According to news reporting from Wuhan, People's Republic of China, by NewsRx journalists, research stated, "Odontoblasts are derived from dental papilla mesenchymal cells and have an important role in defense against bacterial infection, whereas autophagy can recycle long-lived proteins and damaged organelles to sustain cellular homeostasis. Thus, this study explores the role of autophagy in odontoblast differentiation with lipopolysaccharide (LPS) stimulation in vitro and the colocalization of p-NF-kB and LC3 in caries teeth."

The news correspondents obtained a quote from the research from Wuhan University, "The odontoblasts differentiation was enhanced through LPS stimulation, and this outcome was reflected in the increased number of mineralized nodules and alkaline phosphatase (ALP) activity. The expression levels of the autophagy markers LC3, Atg5, Beclin1 and TFE3..."
increased time dependently, as well along with the amount of autophagosomes and autophagy fluxes. This result suggests that autophagy was enhanced in odontoblasts cultured with mineralized-induced media containing LPS. To confirm the role of autophagy in differentiated odontoblasts with LPS stimulation, chloroquine (CQ) or rapamycin were used to either block or enhance autophagy. The number of mineralized nodules decreased when autophagy was inhibited, but this number increased with rapamycin treatment. Phosphorylated nuclear factor-kB (NF-kB) expression was negatively related to autophagy and could inhibit odontoblast differentiation. Furthermore, p-NF-kB and LC3 colocalization could be detected in cells stimulated with LPS. The nucleus translocation of p-NF-kB in odontoblasts was enhanced when autophagy was inhibited by Atg5 small interfering RNA. In addition, the colocalization of p-NF-kB and LC3 in odontoblasts and sub-odontoblastic layers was observed in caries teeth with reactionary dentin."

According to the news reporters, the research concluded: "Therefore, our findings provide a novel insight into the role of autophagy in regulating odontoblast differentiation by suppressing NF-kB activation in inflammatory environments."

For more information on this research see: Autophagy regulates odontoblast differentiation by suppressing NF-kB activation in an inflammatory environment. Cell Death & Disease, 2016;7():e2122. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

Our news journalists report that additional information may be obtained by contacting F. Pei, The State Key Laboratory Breeding Base of Basic Science of Stomatolgy (Hubei-MOST) and Key Laboratory for Oral Biomedicine of Ministry of Education (KLOBM), School and Hospital of Stomatolgy, Wuhan University, Wuhan, People's Republic of China. Additional authors for this research include H.S. Wang, Z. Chen and L. Zhang.

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Keywords for this news article include: Asia, Wuhan, Genetics, Odontoblasts, Connective Tissue Cells, People's Republic of China.

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Corneal Dystrophies

New Corneal Dystrophies Study Findings Reported from Hanyang University (Sensitive Surface Enhanced Raman Scattering-Based Detection of a BIGH3 Point Mutation Associated with Avellino Corneal Dystrophy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Corneal Dystrophies is now available. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Surface enhanced Raman scattering (SERS) is highly useful for sensitive analytical sensing; however, its practical availability for detecting a point mutation associated with disease in clinical sample was rarely proved. Herein, we present a toehold-mediated, DNA displacement-based, SERS sensor for detecting point mutations in the BIGH3 gene associated with the most common corneal dystrophies (CDs) in a clinical setting."
Financial supporters for this research include Ministry of Health and Welfare, National Research Foundation of Korea.

The news correspondents obtained a quote from the research from Hanyang University, "To diagnose Avellino corneal dystrophy (ACD), selectivity was ensured by exploring optimal DNA displacement conditions such as length of toehold and hybridization temperature. A SERS-efficient Ag@Au bimetallic nano dendrite was employed to ensure sensitivity. Optimization for a clinical setting showed that discrimination was maximized when toehold length was 6-mer (T6), and hybridization temperature was 36 degrees C. On the basis of tests that used clinical homozygous and heterozygous CD samples, a single-base mismatched DNA sequence was identifiable within 30 min with a limit of detection (LOD) of 400 fM."

According to the news reporters, the research concluded: "From the results, we conclude that our toehold-mediated, DNA displacement-based, SERS sensor allows a rapid and sensitive detection of a BIGH3 gene point mutation associated with Avellino corneal dystrophy, indicating the practical ability of the method to diagnose genetic diseases caused by point mutations."

For more information on this research see: Sensitive Surface Enhanced Raman Scattering-Based Detection of a BIGH3 Point Mutation Associated with Avellino Corneal Dystrophy. Analytical Chemistry, 2016;88(23):11288-11292. Analytical Chemistry can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Analytical Chemistry - www.pubs.acs.org/journal/ancham)

Our news journalists report that additional information may be obtained by contacting H. Chung, Hanyang University, Res Inst Convergence Basic Sci, Seoul 04763, South Korea. Additional authors for this research include S.N. Jeong, S. Bae, H. Chung and S.Y. Yoo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.analchem.6b03320. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Corneal Dystrophies, Diagnostics and Screening, Genetics, Hanyang University.

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Digestive System Diseases and Conditions - Crohn's

New Crohn's Disease Findings Reported from University of Pittsburgh (A Pleiotropic Missense Variant in SLC39A8 Is Associated With Crohn's Disease and Human Gut Microbiome Composition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Digestive System Diseases and Conditions - Crohn's Disease. According to news originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "Genome-wide association studies have identified 200 inflammatory bowel disease (IBD) loci, but the genetic architecture of Crohn's disease (CD) and ulcerative colitis remain incompletely defined. Here, we aimed to identify novel associations between IBD and functional genetic variants using the Illumina ExomeChip (San Diego, CA)."

Our news journalists obtained a quote from the research from the University of Pittsburgh, "Genotyping was performed in 10,523 IBD cases and 5726 non-IBD controls. There
were 91,713 functional single-nucleotide polymorphism loci in coding regions analyzed. A novel identified association was replicated further in 2 independent cohorts. We further examined the association of the identified single-nucleotide polymorphism with microbiota from 338 mucosal lavage samples in the Mucosal Luminal Interface cohort measured using 16S sequencing. We identified an association between CD and a missense variant encoding alanine or threonine at position 391 in the zinc transporter solute carrier family 39, member 8 protein (SLC39A8 alanine 391 threonine, rs13107325) and replicated the association with CD in 2 replication cohorts (combined meta-analysis P = 5.55 x 10(-13)). This variant has been associated previously with distinct phenotypes including obesity, lipid levels, blood pressure, and schizophrenia. We subsequently determined that the CD risk allele was associated with altered colonic mucosal microbiome composition in both healthy controls (P =.009) and CD cases (P =.0009). Moreover, microbes depleted in healthy carriers strongly overlap with those reduced in CD patients (P = 9.24 x 10(-16)) and overweight individuals (P = 6.73 x 10(-16)).

According to the news editors, the research concluded: "Our results suggest that an SLC39A8-dependent shift in the gut microbiome could explain its pleiotropic effects on multiple complex diseases including CD."


The news correspondents report that additional information may be obtained from R.H. Duerr, University of Pittsburgh, Grad Sch Public Hlth, Dept. of Human Genet, Pittsburgh, PA 15261, United States. Additional authors for this research include J.P. Achkar, T. Haritunians, J.P. Jacobs, K.Y. Hui, M. D'Amato, S. Brand, G. Radford-Smith, J. Halfvarson, J.H. Niess, S. Kugathasan, C. Buning, L.P. Schumm, L. Klei, A. Ananthakrishnan, G. Aumais, L. Baidoo, M. Dubinsky and Fiocc.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Genetics, Risk and Prevention, Gastroenterology, Crohn's Disease, Gastroenteritis, University of Pittsburgh.

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New Crohn's Disease Study Findings Reported from Catholic University of Korea (The importance of the Crohn's disease activity index in surgery for small bowel Crohn's disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Crohn's Disease. According to news originating from Suwon, South Korea, by NewsRx correspondents, research stated, "Aim of the study: Compared with patients with other benign intestinal conditions, patients with CD are at increased risk of developing postoperative complications following intestinal resection. We searched for useful tools for predicting postoperative complication in patients with CD by comparing the relationship between
postoperative morbidity in these patients as measured by three different scoring tools: general surgical risk (POSSUM score), disease activity (CDAI), and nutritional screening (nutritional prognostic index)."

Our news journalists obtained a quote from the research from the Catholic University of Korea, "We performed a retrospective review of 50 patients with small bowel CD who underwent surgical resection and primary anastomosis between 1999 and 2014. This study enrolled 34 men and 16 women. The mean age was 38.4 years (range: 20-81 years). There was no postoperative mortality. The overall postoperative morbidity rate (33.7%) predicted by POSSUM was similar to the rate in the study patients (36.0%). Although POSSUM score predicted higher postoperative morbidity rates in patients who underwent emergency surgery (estimated morbidity: 52.8%), the actual postoperative morbidity rate in the emergency surgery group (26.7%) was smaller than in the elective surgery group (40.0%). In addition, neither preoperative nutritional status nor POSSUM score was related to the severity of postoperative complications. CDAI score was significantly related to the severity of postoperative complications (P = 0.032). Based on the above results, a high preoperative CDAI score can predict negative postoperative outcomes."

According to the news editors, the research concluded: "We believe that disease activity should be controlled using various treatment modalities, such as enteral or total parenteral nutrition as well as medication, before performing surgery in patients with CD." For more information on this research see: The importance of the Crohn's disease activity index in surgery for small bowel Crohn's disease. Journal of Visceral Surgery, 2016;153(5):339-345. Journal of Visceral Surgery can be contacted at: Elsevier Masson, Via Paleocapa 7, 20121 Milano, Italy. (Elsevier - www.elsevier.com; Journal of Visceral Surgery - www.journals.elsevier.com/journal-of-visceral-surgery/)

The news correspondents report that additional information may be obtained from B.H. Kye, Catholic University of Korea, Dept. of Surg, St. Vincent's Hospital, Coll Med, Suwon, South Korea. Additional authors for this research include H.J. Kim, H.M. Cho, K.M. Lee and B.H. Kye.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jviscsurg.2016.04.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Suwon, South Korea, Asia, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Surgery, Risk and Prevention, Gastroenterology, Crohn's Disease, Gastroenteritis, Catholic University of Korea.

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New Cushing Syndrome Study Results Reported from Corpect Therapeutics (Mifepristone Improves Octreotide Efficacy in Resistant Ectopic Cushing's Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Adrenal Gland Diseases and Conditions - Cushing Syndrome have been published. According to news reporting out of Menlo Park, California, by
NewsRx editors, research stated, "A 30-year-old Caucasian man presented with severe Cushing's syndrome (CS) resulting from ectopic adrenocorticotropic syndrome (EAS) from a metastatic pancreatic neuroendocrine tumor. The patient remained hypercortisolemic despite treatment with steroidogenesis inhibitors, chemotherapy, and octreotide long-acting release (LAR) and was enrolled in a 24-week, phase 3 clinical trial of mifepristone for inoperable hypercortisolism."

Funders for this research include MedVal Scientific Information Services, LLC, Corcept Therapeutics.

Our news journalists obtained a quote from the research from Corcept Therapeutics, "After mifepristone was added to ongoing octreotide LAR treatment, EAS symptoms essentially resolved. Cortisol decreased dramatically, despite mifepristone's competitive glucocorticoid receptor antagonist effects. The clinical and biochemical effects reversed upon mifepristone discontinuation despite the continued use of octreotide LAR therapy."

According to the news editors, the research concluded: "Substantial improvement in octreotide LAR efficacy with mifepristone use was noted in this patient with ectopic CS, consistent with upregulation of somatostatin receptors previously downregulated by hypercortisolism."

For more information on this research see: Mifepristone Improves Octreotide Efficacy in Resistant Ectopic Cushing's Syndrome. Case Reports In Endocrinology, 2016;2016 ():8453801. (Hindawi Publishing - www.hindawi.com; Case Reports In Endocrinology - www.hindawi.com/crim/endocrinology/)

Our news journalists report that additional information may be obtained by contacting A.G. Moraitis, Corcept Therapeutics, 149 Commonwealth Drive, Menlo Park, CA 94025, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/8453801. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Hormones, Menlo Park, California, United States, Cyclic Peptides, Cushing Syndrome, Uterotonic Agents, Octreotide Therapy, Drugs and Therapies, Mifepristone Therapy, North and Central America, Genitourinary Tract Agents, Adrenocortical Hyperfunction, Progesterone Receptor Modulators.

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Intracellular Signaling Peptides and Proteins - Cyclin D

New Cyclin D Study Results Reported from Ajou University
(Cannabinoids Regulate Bcl-2 and Cyclin D2 Expression in Pancreatic b Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Intracellular Signaling Peptides and Proteins - Cyclin D. According to news originating from Suwon, South Korea, by NewsRx correspondents, research stated, "Recent reports have shown that cannabinoid 1 receptors (CB1Rs) are expressed in pancreatic b cells, where they induce cell death and cell cycle arrest by directly inhibiting insulin receptor activation. Here, we report that CB1Rs regulate the expression of the anti-apoptotic protein Bcl-2 and cell cycle regulator cyclin D2 in pancreatic b
Our news journalists obtained a quote from the research from Ajou University, "Treatment of MIN6 and bTC6 cells with a synthetic CB1R agonist, WIN55,212-2, led to a decrease in the expression of Bcl-2 and cyclin D2, in turn inducing cell cycle arrest in G0/G1 phase and caspase-3-dependent apoptosis. Additionally, genetic deletion and pharmacological blockade of CB1Rs after injury in mice led to increased levels of Bcl-2 and cyclin D2 in pancreatic b cells."

According to the news editors, the research concluded: "These findings provide evidence for the involvement of Bcl-2 and cyclin D2 mediated by CB1Rs in the regulation of b-cell survival and growth, and will serve as a basis for developing new therapeutic interventions to enhance b-cell function and growth in diabetes."

For more information on this research see: Cannabinoids Regulate Bcl-2 and Cyclin D2 Expression in Pancreatic b Cells. Plos One, 2016;11(3):e0150981. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news correspondents report that additional information may be obtained from J. Kim, Dept. of Molecular Science and Technology, Ajou University, Suwon, 16499, South Korea. Additional authors for this research include K.J. Lee, J.S. Kim, J.G. Rho, J.J. Shin, W.K. Song, E.K. Lee, J.M. Egan and W. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0150981. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Suwon, Genetics, Pancreas, Terpenes, Cyclin D2, South Korea, Cannabinoids, Gastroenterology, Cell Cycle Proteins, Intracellular Signaling Peptides and Proteins.

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**Cyclohexanes**

**New Cyclohexanes Study Findings Recently Were Reported by Researchers at University of Maryland (Effects of Ketamine and Ketamine Metabolites on Evoked Striatal Dopamine Release, Dopamine Receptors, and Monoamine Transporters)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cyclohexanes is now available. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Following administration at subanesthetic doses, (R,S)-ketamine (ketamine) induces rapid and robust relief from symptoms of depression in treatment-refractory depressed patients. Previous studies suggest that ketamine's antidepressant properties involve enhancement of dopamine (DA) neurotransmission."

The news reporters obtained a quote from the research from the University of Maryland, "Ketamine is rapidly metabolized to (2S,6S)- and (2R,6R)-hydroxynorketamine (HNK), which have antidepressant actions independent of N-methyl-D-aspartate glutamate receptor inhibition. These antidepressant actions of (2S, 6S; 2R, 6R)- HNK, or other metabolites, as well as ketamine's side effects, including abuse potential, may be related to direct effects on components of the dopaminergic (DAergic) system. Here, brain and blood
distribution/clearance and pharmacodynamic analyses at DA receptors (D1-D5) and the DA, norepinephrine, and serotonin transporters were assessed for ketamine and its major metabolites (norketamine, dehydronortketamine, and HNKs). Additionally, we measured electrically evoked mesolimbic DA release and decay using fast-scan cyclic voltammetry following acute administration of subanesthetic doses of ketamine (2, 10, and 50 mg/kg, i.p.). Following ketamine injection, ketamine, norketamine, and multiple hydroxynorketamines were detected in the plasma and brain of mice. Dehydronortketamine was detectable in plasma, but concentrations were below detectable limits in the brain. Ketamine did not alter the magnitude or kinetics of evoked DA release in the nucleus accumbens in anesthetized mice. Neither ketamine's enantiomers nor its metabolites had affinity for DA receptors or the DA, noradrenaline, and serotonin transporters (up to 10 μM). These results suggest that neither the side effects nor antidepressant actions of ketamine or ketamine metabolites are associated with direct effects on mesolimbic DAergic neurotransmission."

According to the news reporters, the research concluded: "Previously observed in vivo changes in DAergic neurotransmission following ketamine administration are likely indirect."

For more information on this research see: Effects of Ketamine and Ketamine Metabolites on Evoked Striatal Dopamine Release, Dopamine Receptors, and Monoamine Transporters. *Journal of Pharmacology and Experimental Therapeutics*, 2016;359(1):159-170. *Journal of Pharmacology and Experimental Therapeutics* can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.235838. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Central Nervous System Agents, Catecholamine Receptors, Dopamine Hydrochloride, Drugs and Therapies, General Anesthetics, Dopamine Receptors, Biological Factors, Membrane Proteins, Organic Chemicals, Ketamine Therapy, Pharmaceuticals, Biogenic Amines, Antidepressants, Catecholamines, Hydrocarbons, Cyclohexanes, Analgesics, Serotonin, Autacoids, University of Maryland.

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**Lung Diseases and Conditions - Cystic Fibrosis**

**New Cystic Fibrosis Study Findings Have Been Reported by Researchers at Catholic University of Louvain (Antimicrobial Susceptibility of Pseudomonas aeruginosa Isolated from Cystic Fibrosis Patients in Northern Europe)**
"Pseudomonas aeruginosa is a major cause of morbidity and mortality in cystic fibrosis patients. This study compared the antimicrobial susceptibilities of 153 P. aeruginosa isolates from the United Kingdom (UK) (n = 58), Belgium (n = 44), and Germany (n = 51) collected from 118 patients during routine visits over the period from 2006 to 2012."

Funders for this research include Region Wallonne, Innoviris (Institut Bruxellois pour la Recherche et l’Innovation/Brussels Instituu t voor Onderzoek en Innovatie).

The news correspondents obtained a quote from the research from the Catholic University of Louvain, "MICs were measured by broth microdilution. Genes encoding extended-spectrum beta-lactamases (ESBL), metallo- beta-lactamases, and carbapenemases were detected by PCR. Pulsed-field gel electrophoresis and multilocus sequence typing were performed on isolates resistant to >= 3 antibiotic classes among the penicillins/cephalosporins, carbapenems, fluoroquinolones, aminoglycosides, and polymyxins. Based on EUCAST/ CLSI breakpoints, susceptibility rates were < 30%/ < 40% (penicillins, ceftazidime, amikacin, and ciprofloxacin), 44 to 48%/ 48 to 63% (carbapenems), 72%/ 72% (tobramycin), and 92%/ 78% (colistin) independent of patient age. Sixty percent of strains were multidrug resistant (MDR; European Centre for Disease Prevention and Control criteria). Genes encoding the most prevalent ESBL (BEL, PER, GES, VEB, CTX-M, TEM, SHV, and OXA), metallo- beta-lactamases (VIM, IMP, and NDM), or carbapenemases (OXA-48 and KPC) were not detected. The Liverpool epidemic strain (LES) was prevalent in UK isolates only (75% of MDR isolates). Four MDR sequence type 958 (ST958) isolates were found to be spread over the three countries. The other MDR clones were evidenced in <= 3 isolates and localized in a single country. A new sequence type (ST2254) was discovered in one MDR isolate in Germany. Clonal and nonclonal isolates with different susceptibility profiles were found in 20 patients."

According to the news reporters, the research concluded: "Thus, resistance and MDR are highly prevalent in routine isolates from 3 countries, with meropenem, tobramycin, and colistin remaining the most active drugs."

For more information on this research see: Antimicrobial Susceptibility of Pseudomonas aeruginosa Isolated from Cystic Fibrosis Patients in Northern Europe. Antimicrobial Agents and Chemotherapy, 2016;60(11):6735-6741. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


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Keywords for this news article include: Brussels, Belgium, Europe, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Gram-Negative Aerobic Rods and Cocci, Pancreatic Diseases and Conditions, Pseudomonadaceae, Epidemiology, Gram-Negative Aerobic Bacteria, Lung Diseases and Conditions, Gram-
New Cystic Fibrosis Study Results Reported from Griffith University
(Singing as an adjunct therapy for children and adults with cystic fibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Cystic Fibrosis have been published. According to news originating from Brisbane, Australia, by NewsRx correspondents, research stated, "Cystic fibrosis is a genetically inherited, life-threatening condition that affects major organs. The management of cystic fibrosis involves a multi-faceted daily treatment regimen that includes airway clearance techniques, pancreatic enzymes and other medications."

Our news journalists obtained a quote from the research from Griffith University, "Previous studies have found that compliance with this intensive treatment is poor, especially among adolescents. Because of both the nature and consequences of the illness and the relentless demands of the treatment, many individuals with cystic fibrosis have a poor quality of life. Anecdotal reports suggest that singing may provide both appropriate exercise for the whole respiratory system and a means of emotional expression which may enhance quality of life. This is an update of a previously published review. To evaluate the effects of singing as an adjunct therapy to standard treatment on the quality of life, morbidity, respiratory muscle strength and pulmonary function of children and adults with cystic fibrosis. Search methods We searched the Group's Cystic Fibrosis Trials Register and the Cochrane Central Register of Controlled Trials. Date of latest search: 18 February 2016. We also searched major allied complementary data bases, and clinical trial registers. Additionally, we handsearched relevant conference proceedings and journals. Date of latest search: 18 February 2016. Selection criteria Randomised controlled trials in which singing (as an adjunct intervention) is compared with either a control intervention (for example, playing computer games or doing craft activities) or no singing in people with cystic fibrosis. Data collection and analysis Results of searches were reviewed against pre-determined criteria for inclusion. Only one eligible trial was available for analysis. Since only one small study (n = 40) was included, no meta-analysis could be performed. The included randomised controlled study was of parallel design and undertaken at two paediatric hospitals in Australia. The study evaluated the effects of a singing program on the quality of life and respiratory muscle strength of hospitalised children with cystic fibrosis (mean age 11.6 years, 35% male). While the singing group received eight individual singing sessions, the control group participated in preferred recreational activities, such as playing computer games or watching movies. This study was limited by a small sample size (51 participants) and a high drop-out rate (21%). There were no significant differences between the groups at either post-intervention or follow up; although by the end of treatment there were some within-group statistically significant increases for both singing and control groups in some of the domains of the quality of life questionnaire Cystic Fibrosis Questionnaire-Revised (e.g. emotional, social and vitality domains). For the respiratory muscle strength indices, maximal expiratory pressure at follow up (six to eight weeks post-intervention) was higher in the singing group, mean
difference 25.80 (95% confidence interval 5.94 to 45.66). There was no significant difference between groups for any of the other respiratory function parameters (maximal inspiratory pressure, spirometry) at either post-intervention or follow up. Authors' conclusions There is insufficient evidence to determine the effects of singing on quality of life or on the respiratory parameters in people with cystic fibrosis."

According to the news editors, the research concluded: "However, there is growing interest in non-medical treatments for cystic fibrosis and researchers may wish to investigate the impact of this inexpensive therapy on respiratory function and psychosocial well-being further in the future."

For more information on this research see: Singing as an adjunct therapy for children and adults with cystic fibrosis. *Cochrane Database of Systematic Reviews*, 2016; (9):2502-2535. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from J.Y. Irons, Griffith University, Queensland Conservatorium Res Center, Brisbane, Qld 4101, Australia. Additional authors for this research include P. Petocz, D.T. Kenny and A.B. Chang.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Quality of Life, Article Review, Lung Diseases and Conditions, Clinical Trials and Studies, Clinical Research, Cystic Fibrosis, Genetics, Therapy, Griffith University.

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**Intercellular Signaling Peptides and Proteins -...**

**New Cytokines Findings Reported from University of Auckland (Plasmin and regulators of plasmin activity control the migratory capacity and adhesion of human T cells and dendritic cells by regulating cleavage of the chemokine CCL21)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Intercellular Signaling Peptides and Proteins - Cytokines have been presented. According to news reporting out of Auckland, New Zealand, by NewsRx editors, research stated, "The homeostatic chemokine CCL21 has a pivotal role in lymphocyte homing and compartment localisation within the lymph node, and also affects adhesion between immune cells. The effects of CCL21 are modulated by its mode of presentation, with different cellular responses seen for surface-bound and soluble forms."

Our news journalists obtained a quote from the research from the University of Auckland, "Here we show that plasmin cleaves surface-bound CCL21 to release the C-terminal peptide responsible for CCL21 binding to glycosaminoglycans on the extracellular matrix and cell surfaces, thereby generating the soluble form. Loss of this anchoring peptide enabled the chemotactic activity of CCL21 and reduced cell tethering. Tissue plasminogen activator did not cleave CCL21 directly but enhanced CCL21 processing through generation of plasmin from plasminogen. The tissue plasminogen activator inhibitor neuroserpin prevented processing of CCL21 and blocked the effects of soluble CCL21 on cell migration. Similarly, the plasmin-specific inhibitor alpha(2)-antiplasmin inhibited CCL21-mediated migration of human T cells..."
and dendritic cells and tethering of T cells to APCs."

According to the news editors, the research concluded: "We conclude that the plasmin system proteins plasmin, tissue plasminogen activator and neuroserpin regulate CCL21 function in the immune system by controlling the balance of matrix-and cell-bound CCL21."

For more information on this research see: Plasmin and regulators of plasmin activity control the migratory capacity and adhesion of human T cells and dendritic cells by regulating cleavage of the chemokine CCL21. *Immunology and Cell Biology*, 2016;94(10):955-963. *Immunology and Cell Biology* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Immunology and Cell Biology - www.nature.com/icb/)

Our news journalists report that additional information may be obtained by contacting P.R. Dunbar, University of Auckland, Maurice Wilkins Center Mol Biodiscovery, Auckland, New Zealand. Additional authors for this research include E.J. Loef, I.D. Kelch, D.J. Verdon, M.M. Black, M.J. Middleditch, D.R. Greenwood, E.S. Graham, A.E.S. Brooks, P.R. Dunbar and N.P. Birch.

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Keywords for this news article include: Auckland, New Zealand, Australia and New Zealand, Intercellular Signaling Peptides and Proteins, Tissue Plasminogen Activator, Mononuclear Phagocyte System, G-Protein-Coupled Receptors, Blood Coagulation Factors, Antigen-Presenting Cells, Plasminogen Activators, Inflammation Mediators, Enzymes and Coenzymes, Chemokine Receptors, Chemotactic Factors, Biological Factors, Cytokine Receptors, Enzyme Precursors, Membrane Proteins, Dendritic Cells, Blood Proteins, Beta-Globulins, Hematology, Immunology, Chemokines, Cytokines, University of Auckland.

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*Intercellular Signaling Peptides and Proteins -...*

**New Cytokines Findings from University of California Described (Gestational food restriction decreases placental interleukin-10 expression and markers of autophagy and endoplasmic reticulum stress in murine intrauterine growth restriction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Intercellular Signaling Peptides and Proteins - Cytokines have been published. According to news reporting originating from Los Angeles, California, by NewsRx correspondents, research stated, "Intrauterine growth restriction (IUGR) affects up to 10% of pregnancies and often results in short- and long-term sequelae for offspring. The mechanisms underlying IUGR are poorly understood, but it is known that healthy placenta is essential for nutrient provision to fuel fetal growth, and is regulated by immunologic inputs."

Our news editors obtained a quote from the research from the University of California, "We hypothesized that in pregnancy, maternal food restriction (FR) resulting in IUGR would decrease the overall immunotolerant milieu in the placenta, leading to increased cellular stress and death. Our specific objectives were to evaluate (1) key cytokines (eg, IL-10)
that regulate maternal-fetal tolerance, (2) cellular processes (autophagy and endoplasmic reticulum [ER] stress) that are immunologically mediated and important for cellular survival and functioning, and (3) the resulting IUGR phenotype and placental histopathology in this animal model. After subjecting pregnant mice to mild and moderate FR from gestational day 10 to 19, we collected placentas and embryos at gestational day 19. We examined RNA sequencing data to identify immunologic pathways affected in IUGR-associated placentas and validated messenger RNA expression changes of genes important in cellular integrity. We also evaluated histopathologic changes in vascular and trophoblastic structures as well as protein expression changes in autophagy, ER stress, and apoptosis in the mouse placentas. Several differentially expressed genes were identified in FR compared with control mice, including a considerable subset that regulates immune tolerance, inflammation, and cellular integrity.

According to the news editors, the research concluded: "In summary, maternal FR decreases the anti-inflammatory effect of IL-10 and suppresses placental autophagic and ER stress responses, despite evidence of dysregulated vascular and trophoblast structures leading to IUGR."


The news editors report that additional information may be obtained by contacting A. Chu, University of California, David Geffen Sch Med, Neonatal Res Center Div Neonatol & Dev Biol, UCLA Childrens Discovery & Innovat Inst Dept Pedi, Los Angeles, CA, United States. Additional authors for this research include S. Thamotharan, A. Ganguly, M. Wadehra, M. Pellegrini and S.U. Devaskar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nutres.2016.08.001. This DOI is a link to an online electronic document that is either free or for purchase.

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**Intercellular Signaling Peptides and Proteins -...**

**New Cytokines Study Findings Have Been Reported from Sookmyung Women's University [Essential role of interferon regulatory factor 4 (IRF4) in immune cell development]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Intercellular Signaling Peptides and Proteins - Cytokines. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "The family of interferon regulatory factors, which includes nine mammalian members (IRF1-IRF9), acts as transcription factors for interferons and thus
exerts regulatory functions in the immune system and in oncogenesis. Among these members, IRF4 expression is restricted to immune cells such as T and B lymphocytes, macrophages, and dendritic cells where it is a key factor in the regulation of differentiation and is required during the immune response for lymphocyte activation and the generation of immunoglobulin-secreting plasma cells."

Financial support for this research came from National Research Foundation of Korea.

Our news journalists obtained a quote from the research from Sookmyung Women's University, "Consequently, dysregulation of IRF4 is associated with many lymphoid malignancies. Recent studies have demonstrated that depending on the context and stage of hematopoietic cell differentiation in which its expression is dysregulated, IRF4 may act as either an oncogene or a tumor-suppressor-like factor. In addition, it has been shown that IRF4 plays a pivotal role in the development and function of several autoimmun-associated cells. Various genetic and functional studies have also pointed to IRF4 as a master regulator for autoimmunity."

According to the news editors, the research concluded: "In this review, the roles of IRF4 in the immune response are briefly summarized and discussed, with particular focus on its essential and distinct functions in immune cell development."

For more information on this research see: Essential role of interferon regulatory factor 4 (IRF4) in immune cell development. Archives of Pharmacal Research, 2016;39 (11):1548-1555. Archives of Pharmacal Research can be contacted at: Pharmaceutical Soc Korea, 1489-3 Suhcho-Dong, Suhcho-Ku, Seoul 137-071, South Korea. (Springer - www.springer.com; Archives of Pharmacal Research - www.springerlink.com/content/0253-6269/)

The news correspondents report that additional information may be obtained from J.S. Lim, Sookmyung Womens Univ, Dept. of Biol Sci, Seoul 04310, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12272-016-0854-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Intracellular Signaling Peptides and Proteins, Intercellular Signaling Peptides and Proteins, Signal Transducing Adaptor Proteins, Interferon Regulatory Factors, Proteins, Article Review, Transcription Factors, DNA-Binding Proteins, Interferons, Cytokines, Genetics, Sookmyung Women's University.

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Herpesvirus Diseases and Conditions --

New Cytomegalovirus Data Have Been Reported by Researchers at University College (Cytomegalovirus latency and reactivation: recent insights into an age old problem)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Herpesvirus Diseases and Conditions - Cytomegalovirus are presented in a new report. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Human cytomegalovirus (HCMV) infection remains a major
cause of morbidity in patient populations. In certain clinical settings, it is the reactivation of the pre-existing latent infection in the host that poses the health risk.”

Funders for this research include Royal Free Charity Bursary, MRC CDA Fellowship.

Our news journalists obtained a quote from the research from University College, "The prevailing view of HCMV latency was that the virus was essentially quiescent in myeloid progenitor cells and that terminal differentiation resulted in the initiation of the lytic lifecycle and reactivation of infectious virus. However, our understanding of HCMV latency and reactivation at the molecular level has been greatly enhanced through recent advancements in systems biology approaches to perform global analyses of both experimental and natural latency. These approaches, in concert with more classical reductionist experimentation, are furnishing researchers with new concepts in cytomegalovirus latency and suggest that latent infection is far more active than first thought. In this review, we will focus on new studies that suggest that distinct sites of cellular latency could exist in the human host, which, when coupled with recent observations that report different transcriptional programmes within cells of the myeloid lineage, argues for multiple latent phenotypes that could impact differently on the biology of this virus in vivo."

According to the news editors, the research concluded: "Finally, we will also consider how the biology of the host cell where the latent infection persists further contributes to the concept of a spectrum of latent phenotypes in multiple cell types that can be exploited by the virus."


Our news journalists report that additional information may be obtained by contacting L. Dupont, Institute of Immunity and Transplantation, University College London, London, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/rmv.1862. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Viral, London, Europe, Virology, DNA Viruses, Herpesviridae, United Kingdom, Article Review, Cytomegalovirus, Betaherpesvirinae, Risk and Prevention, Herpesvirus Diseases and Conditions.

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DNA Research

New DNA Research Data Have Been Reported by Researchers at Center for Molecular Discovery (Characterization of Cardiac Glycoside Natural Products as Potent Inhibitors of DNA Double-Strand Break Repair by a Whole-Cell Double Immunofluorescence ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on DNA Research have been published. According to news reporting originating in West Haven, Connecticut, by NewsRx journalists, research stated,
Small-molecule inhibitors of DNA repair pathways are being intensively investigated as primary and adjuvant chemotherapies. We report the discovery that cardiac glycosides, natural products in clinical use for the treatment of heart failure and atrial arrhythmia, are potent inhibitors of DNA double-strand break (DSB) repair.

Financial supporters for this research include CureSearch for Children's Cancer, National Institutes of Health, Yale Center for Molecular Discovery.

The news reporters obtained a quote from the research from Center for Molecular Discovery, "Our data suggest that cardiac glycosides interact with phosphorylated mediator of DNA damage checkpoint protein 1 (phospho-MDC1) or E3 ubiquitin-protein ligase ring finger protein 8 (RNF8), two factors involved in DSB repair, and inhibit the retention of p53 binding protein 1 (53BP1) at the site of DSBs. These observations provide an explanation for the anticancer activity of this class of compounds, which has remained poorly understood for decades, and provide guidance for their clinical applications. This discovery was enabled by the development of the first high-throughput unbiased cellular assay to identify new small-molecule inhibitors of DSB repair. Our assay is based on the fully automated, time-resolved quantification of phospho-SER139-H2AX (gH2AX) and 53BP1 foci, two factors involved in the DNA damage response network, in cells treated with small molecules and ionizing radiation (IR). This primary assay is supplemented by robust secondary assays that establish lead compound potencies and provide further insights into their mechanisms of action. Although the cardiac glycosides were identified in an evaluation of 2366 small molecules, the assay is envisioned to be adaptable to larger compound libraries."

According to the news reporters, the research concluded: "The assay is shown to be compatible with small-molecule DNA cleaving agents, such as bleomycin, neocarzinostatin chromophore, and lomaiviticin A, in place of IR."


Our news correspondents report that additional information may be obtained by contacting Y.V. Surovtseva, Yale Center for Molecular Discovery, West Haven, Connecticut 06516, United States. Additional authors for this research include V. Jairam, A.F. Salem, R.K. Sundaram, R.S. Bindra and S.B Herzon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/jacs.6b00162. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, West Haven, Cardiology, Connecticut, DNA Research, United States, North and Central America.

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Missense Mutations in MECP2

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on DNA Research is now available. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "Mutations in the MECP2 gene cause Rett syndrome (RTT). MeCP2 binds to chromocentric DNA through its methyl CpG-binding domain (MBD) to regulate gene expression."

Our news editors obtained a quote from the research from the University of Toronto, "In heterozygous females the variable phenotypic severity is modulated by non-random X-inactivation, thus making genotype-phenotype comparisons unreliable. However, genotype-phenotype correlations in males with hemizygous MECP2 mutations can provide more accurate insights into the true biological effect of specific mutations. Here, we compared chromatin organization and binding dynamics for twelve MeCP2 missense mutations (including two novel and the five most common MBD missense RTT mutations) and identified a correlation with phenotype in hemizygous males. We observed impaired interaction of MeCP2-DNA for mutations around the MBD-DNA binding interface, and defective chromatin clustering for distal MBD mutations. Furthermore, binding and mobility dynamics show a gradient of impairment depending on the amino acid properties and tertiary structure within the MBD. Interestingly, a wide range of phenotypic/clinical severity, ranging from neonatal encephalopathy to mild psychiatric abnormalities were observed and all are consistent with our functional/molecular results. Overall, clinical severity showed a direct correlation with the functional impairment of MeCP2."

According to the news editors, the research concluded: "These mechanistic and phenotypic correlations of MeCP2 mutations will enable improved and individualized diagnostics, and may lead to personalized therapeutic interventions."

For more information on this research see: From Function to Phenotype: Impaired DNA Binding and Clustering Correlates with Clinical Severity in Males with Missense Mutations in MECP2. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting J.B. Vincent, University of Toronto, Dept. of Psychiat, Toronto, ON, Canada. Additional authors for this research include J. Ausio, H. Faghfoury, J. Silver, J.B. Lane, J.H. Eubanks, P. MacLeod, A.K. Percy and J.B. Vincent.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, DNA Research, Genetics, University of Toronto.

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New DNA Research Findings Reported from School of Medicine
(Intracellular mitochondrial DNA transfers to the nucleus in human cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on DNA Research. According to news originating from Daejeon, South Korea, by NewsRx editors, the research stated, "Genome
instability is a well-known hallmark of cancer cells. With the revolution of high-throughput sequencing technologies, our knowledge of somatically acquired genome structural variation (SV) has greatly improved over the last decade."

Financial support for this research came from KAIST.

Our news journalists obtained a quote from the research from the School of Medicine, "Remarkably, surveys of thousands of human whole cancer genomes have shown that chromosomal rearrangements are frequently combined with mitochondrial DNA (mtDNA) fragments somatically transferred to the nucleus. The high transfer rate and features of integration breakpoints provide clues for understanding the potential mechanisms underlying these events and provide insights into the role of mtDNA segments transferred into the nucleus."

According to the news editors, the research concluded: "In this review, I discuss our current understanding of somatic nuclear transfer of mitochondrial DNA into the nuclear genome of human cancer cells."


The news correspondents report that additional information may be obtained from Y.S. Ju, Korea Adv Inst Sci & Technol, Grad Sch Med Sci & Engn, Daejeon 34141, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gde.2016.02.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daejeon, South Korea, Asia, Cancer, Genetics, DNA Research, Oncology, School of Medicine.

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DNA Research

New DNA Research Findings from Saha Institute of Nuclear Physics Described (Spectroscopic studies on the interaction of DNA with the copper complexes of NSAIDs lornoxicam and isoxicam)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on DNA Research is the subject of a report. According to news reporting from Kolkata, India, by NewsRx journalists, research stated, "Non Steroidal Anti-inflammatory Drugs (NSAIDs) form the most common class of anti-inflammatory and analgesic agents. They also show anticancer properties for which they exert their effects by interacting at the protein but not at the genomic level."

Financial support for this research came from Department of Atomic Energy.

The news correspondents obtained a quote from the research from the Saha Institute of Nuclear Physics, "This is because most NSAIDs are anions at physiological pH, which prohibit their approach to the polyanionic DNA backbone. Complexing NSAIDs with bioactive metal like copper obliterates this disadvantage. Here, copper complexes of two oxicam NSAIDs,
Lornoxicam (Lx) and Isoxicam (Isx) have been chosen to study their interaction with calf thymus (ct) DNA and have been synthesized as per reported protocols. UV-vis absorption showed that DNA binding to Cu(II)-Lx complex alters the absorption spectra indicating changes in the electronic environment of the complex, whereas, for Cu(II)-Isx there was only small changes. Hence, UV-vis absorption was used to determine the binding constant, stoichiometry and thermodynamic parameters of Cu(II)-Lx. However, UV-melting studies and CD difference spectra showed that both Cu(II)-Lx and Cu(II)-Isx can interact with the DNA backbone albeit with different binding modes. The probable binding mode was determined by kinetics of EtBr displacement and viscosity measurements.

According to the news reporters, the research concluded: "Our results point to an intercalative mode of binding for Cu(II)-Lx and external groove binding for Cu(II)-Isx."

For more information on this research see: Spectroscopic studies on the interaction of DNA with the copper complexes of NSAIDs lornoxicam and isoxicam. *International Journal of Biological Macromolecules*, 2016;93():47-56. *International Journal of Biological Macromolecules* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; International Journal of Biological Macromolecules - www.journals.elsevier.com/international-journal-of-biological-macromolecules/)

Our news journalists report that additional information may be obtained by contacting M. Sarkar, Saha Inst Nucl Phys, Div Chem Sci, Kolkata 700064, India. Additional authors for this research include S. Ray and M. Sarkar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.08.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kolkata, India, Asia, Non-Steroidal Antiinflammatory Agents, DNA Research, Saha Institute of Nuclear Physics.

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**DNA Research**

**New DNA Research Study Findings Have Been Reported by Investigators at Harvard School of Medicine (A high-throughput small molecule screen identifies synergism between DNA methylation and Aurora kinase pathways for X reactivation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in DNA Research. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "X-chromosome inactivation is a mechanism of dosage compensation in which one of the two X chromosomes in female mammals is transcriptionally silenced. Once established, silencing of the inactive X (Xi) is robust and difficult to reverse pharmacologically."

Funders for this research include HHS | National Institutes of Health (NIH), Howard Hughes Medical Institute (HHMI).

The news reporters obtained a quote from the research from the Harvard School of Medicine, "However, the Xi is a reservoir of > 1,000 functional genes that could be potentially tapped to treat X-linked disease. To identify compounds that could reactivate the Xi, here we..."
screened similar to 367,000 small molecules in an automated high-content screen using an Xi-linked GFP reporter in mouse fibroblasts. Given the robust nature of silencing, we sensitized the screen by 'priming' cells with the DNA methyltransferase inhibitor, 5-aza-2'-deoxycytidine (5azadC). Compounds that elicited GFP activity include VX680, MLN8237, and 5azadC, which are known to target the Aurora kinase and DNA methylation pathways. We demonstrate that the combinations of VX680 and 5azadC, as well as MLN8237 and 5azadC, synergistically up-regulate genes on the Xi."

According to the news reporters, the research concluded: "Thus, our work identifies a synergism between the DNA methylation and Aurora kinase pathways as being one of interest for possible pharmacological reactivation of the Xi."

For more information on this research see: A high-throughput small molecule screen identifies synergism between DNA methylation and Aurora kinase pathways for X reactivation. Proceedings of the National Academy of Sciences of the United States of America, 2016;113 (50):14366-14371. Proceedings of the National Academy of Sciences of the United States of America can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC 20418, USA. (National Academy of Sciences - www.nasonline.org; Proceedings of the National Academy of Sciences of the United States of America - www.nasonline.org/publications/pnas/)

Our news correspondents report that additional information may be obtained by contacting J.T. Lee, Harvard Med Sch, Dept. of Genet, Boston, MA 02115, United States. Additional authors for this research include T.O. Dial, C.Y. Wei, B. Payer, L.L.G. Carrette, B. Kesner, A. Szanto, A. Jadhav, D.J. Maloney, A. Simeonov, J. Theriault, T. Hasaka, A. Bedalov, M.S. Bartolomei and J.T. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1617597113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Enzymes and Coenzymes, DNA Research, Genetics, Kinase, Harvard School of Medicine.

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Genetics - DNA Research

New DNA Research Study Findings Have Been Reported by Researchers at University of Geneva (Alternative lengthening of human telomeres is a conservative DNA replication process with features of break-induced replication)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Genetics - DNA Research is the subject of a report. According to news reporting from Geneva, Switzerland, by NewsRx journalists, research stated, "Human malignancies overcome replicative senescence either by activating the reverse-transcriptase telomerase or by utilizing a homologous recombination-based mechanism, referred to as alternative lengthening of telomeres (ALT). In budding yeast, ALT exhibits features of break-induced replication (BIR), a repair pathway for one-ended DNA double-strand breaks (DSBs) that requires the non-essential subunit Pol32 of DNA polymerase delta and leads to
conservative DNA replication."

The news correspondents obtained a quote from the research from the University of Geneva, "Here, we examined whether ALT in human cancers also exhibits features of BIR. A telomeric fluorescence in situ hybridization protocol involving three consecutive staining steps revealed the presence of conservatively replicated telomeric DNA in telomerase-negative cancer cells. Furthermore, depletion of PolD3 or PolD4, two subunits of human DNA polymerase delta that are essential for BIR, reduced the frequency of conservatively replicated telomeric DNA ends and led to shorter telomeres and chromosome end-to-end fusions."

According to the news reporters, the research concluded: "Taken together, these results suggest that BIR is associated with conservative DNA replication in human cells and mediates ALT in cancer."

For more information on this research see: Alternative lengthening of human telomeres is a conservative DNA replication process with features of break-induced replication. *EMBO Reports*, 2016;17(12):1731-1737. *EMBO Reports* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; EMBO Reports - www.nature.com/embo_r/)

Our news journalists report that additional information may be obtained by contacting T.D. Halazonetis, University of Geneva, Dept. of Mol Biol, Geneva, Switzerland. Additional authors for this research include S.K. Sotiriou, V. Katsini, M. Chiourea, T.D. Halazonetis and S. Gagos.

Keywords for this news article include: Geneva, Switzerland, Europe, Cell Nucleus Structures, Enzymes and Coenzymes, Chromosome Structures, Intranuclear Space, DNA Replication, Medical Devices, DNA Research, Polymerase, Telomere, Genetics, University of Geneva.

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**DNA Research**

**New DNA Research Study Findings Recently Were Reported by Researchers at School of Medicine (Aldo-keto reductase 1B10 protects human colon cells from DNA damage induced by electrophilic carbonyl compounds)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on DNA Research are discussed in a new report. According to news reporting from Springfield, Illinois, by NewsRx journalists, research stated, "Electrophilic carbonyl compounds are highly cytotoxic and genotoxic. Aldo-keto reductase 1B10 (AKR1B10) is an enzyme catalyzing reduction of carbonyl compounds to less toxic alcoholic forms."

The news correspondents obtained a quote from the research from the School of Medicine, "This study presents novel evidence that AKR1B10 protects colon cells from DNA damage induced by electrophilic carbonyl compounds. AKR1B10 is specifically expressed in epithelial cells of the human colon, but this study found that AKR1B10 expression was lost or markedly diminished in colorectal cancer, precancerous tissues, and a notable portion of normal adjacent tissues (NAT). SiRNA-mediated silencing of AKR1B10 in colon cancer cells HCT-8 enhanced cytotoxicity of acrolein and HNE, whereas ectopic expression of AKR1B10 in colon
cancer cells RKO prevented the host cells against carbonyl cytotoxicity. Furthermore, siRNA-mediated AKR1B10 silencing led to DNA breaks and activation of -H2AX protein, a marker of DNA double strand breaks, particularly in the exposure of HNE (10M). In the AKR1B10 silenced HCT-8 cells, hypoxanthine-guanine phosphoribosyl transferase (HPRT) mutant frequency increased by 26.8 times at basal level and by 33.5 times in the presence of 10M HNE when compared to vector control cells. In these cells, the cyclic acrolein-deoxyguanosine adducts levels were increased by over 10 times. These findings were confirmed by pharmacological inhibition of AKR1B10 activity by Epalrestat. Taken together, these data suggest that AKR1B10 is a critical protein that protects host cells from DNA damage induced by electrophilic carbonyl compounds.

According to the news reporters, the research concluded: "AKR1B10 deficiency in the colon may be an important pathogenic factor in disease progression and carcinogenesis."


Keywords for this news article include: Springfield, Illinois, United States, North and Central America, Enzymes and Coenzymes, Deoxyribonucleic Acid, DNA Research, Proteomics, DNA Damage, Reductase, Oncology, Genetics, Cancer, School of Medicine.

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**Proteins - DNA-Binding Proteins**

**New DNA-Binding Proteins Data Have Been Reported by Researchers at Zhejiang Chinese Medical University (Bufalin inhibits pancreatic cancer by inducing cell cycle arrest via the c-Myc/NF-kappa B pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - DNA-Binding Proteins. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Bufalin, a cardiotonic steroid isolated from toad venom (bufo garnarizans Cantor or B. melanoticus Schneider), has widely demonstrated antitumor effects and exhibits potential antitumor activity in various human cancer cells lines. Aims of the study: The main characteristic of cancers including pancreatic cancer is the ability of uncontrolled proliferation."

The news reporters obtained a quote from the research from Zhejiang Chinese Medical University, "The aim of this study is to clarify the underlying mechanism by which bufalin inhibits pancreatic cancer cell proliferation. The effect of bufalin on the suppression of tumor growth in vivo was studied in a bioluminescent mouse model generated using the
pancreatic cancer cell line BxPC3-luc2 and the cytotoxicity was evaluated in BcPc3 and Sw1990 cells with MTT. Flow cytometry and western blotting analyses were utilized to detect the effect of bufalin on the cell cycle and to detect the cell cycle-related proteins, respectively. Then, a luciferase reporter assay was applied to screen the activity of potent transcription factors following bufalin exposure and their expression was detected by western blotting. Bufalin suppressed tumor growth in a bioluminescence mouse model generated using BxPC3-luc2 cells and inhibited cell proliferation in vitro through inducing cell cycle arrest at S phase. Bufalin treatment inhibited cyclin D1 and cyclin E1 expression and therefore increased expression of p27, a regulatory molecular that controls cell cycle transition from S to G2 phase. Furthermore, luciferase reporter screening studies revealed that bufalin inhibited the expression and activity of the transcription factors c-Myc and NF-kappa B, which might cause cell cycle arrest at S phase and the inhibition of cell proliferation."

According to the news reporters, the research concluded: "Taken together, our results indicate that bufalin can inhibit pancreatic cancer by targeting c-Myc, thus suggesting that the mechanism of c-Myc regulation by bufalin might be worthy of further study regarding its potential as a therapeutic target for pancreatic cancer treatment." For more information on this research see: Bufalin inhibits pancreatic cancer by inducing cell cycle arrest via the c-Myc/NF-kappa B pathway. *Journal of Ethnopharmacology*, 2016;193():538-545. *Journal of Ethnopharmacology* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; *Journal of Ethnopharmacology* - www.journals.elsevier.com/journal-of-ethnopharmacology/)


Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Enzymes and Coenzymes, Transcription Factors, DNA-Binding Proteins, Cell Proliferation, Nuclear Proteins, Luciferases, NF-kappa B, Zhejiang Chinese Medical University.

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*Drugs and Therapies - Toxicology and Pharmacology*

**New Data from A. Aigner et al Illuminate Findings in Toxicology and Pharmacology (Advancing the use of noncoding RNA in regulatory toxicology: Report of an ECETOC workshop)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Toxicology and Pharmacology are discussed in a new report. According to news originating from Brussels, Belgium, by NewsRx correspondents, research stated, "The European Centre for the Ecotoxicology and Toxicology of Chemicals (ECETOC) organised a workshop to discuss the state-of-the-art research on noncoding RNAs (ncRNAs) as biomarkers in regulatory toxicology and as analytical and therapeutic agents. There was agreement that ncRNA expression profiling data requires careful evaluation to determine the utility of specific ncRNAs as biomarkers."
Financial supporters for this research include European Centre for Ecotoxicology and Toxicology of Chemicals, Long-range Research Initiative of the European Chemical Industry Council.

Our news journalists obtained a quote from the research, "To advance the use of ncRNA in regulatory toxicology, the following research priorities were identified: (1) Conduct comprehensive literature reviews to identify possibly suitable ncRNAs and areas of toxicology where ncRNA expression profiling could address prevailing scientific deficiencies. (2) Develop consensus on how to conduct ncRNA expression profiling in a toxicological context. (3) Conduct experimental projects, including, e.g., rat (90-day) oral toxicity studies, to evaluate the toxicological relevance of the expression profiles of selected ncRNAs. Thereby, physiological ncRNA expression profiles should be established, including the biological variability of healthy individuals. To substantiate the relevance of key ncRNAs for cell homeostasis or pathogenesis, molecular events should be dose-dependently linked with substance induced apical effects."

According to the news editors, the research concluded: "Applying a holistic approach, knowledge on ncRNAs, 'omics and epigenetics technologies should be integrated into adverse outcome pathways to improve the understanding of the functional roles of ncRNAs within a regulatory context."

For more information on this research see: Advancing the use of noncoding RNA in regulatory toxicology: Report of an ECETOC workshop. Regulatory Toxicology and Pharmacology, 2016;82():127-139. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news correspondents report that additional information may be obtained from A. Poole, European Center Ecotoxicol & Toxicol Chem ECETOC, B-1160 Brussels, Belgium. Additional authors for this research include R. Buesen, T. Gant, N. Gooderham, H. Greim, J. Hackermuller, B. Hubesch, M. Laffont, E. Marczylo, G. Meister, J.S. Petrick, R.J. Rasoulpour, U.G. Sauer, K. Schmidt, H. Seitz, F. Slack, T. Sukata, S.M. van der Vies and Verhaert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.09.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Toxicology and Pharmacology, Drugs and Therapies.

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Musculoskeletal Diseases and Conditions –...

New Data from Aarhus University Illuminate Findings in Osteogenesis Imperfecta (Skeletal phenotypes in adult patients with osteogenesis imperfecta-correlations with COL1A1/COL1A2 genotype and collagen structure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Musculoskeletal Diseases and Conditions - Osteogenesis Imperfecta. According to news reporting from Aarhus, Denmark, by NewsRx journalists, research stated, "Osteogenesis imperfecta (OI) is characterized by a high fracture
rate and great heterogeneity. This cross-sectional study presents skeletal investigations and protein analyses in 85 adult OI patients."

The news correspondents obtained a quote from the research from Aarhus University, "We find significant differences in bone mass, architecture, and fracture rate that correlate well with the underlying biochemical and molecular abnormalities. OI is a hereditary disease characterized by compromised connective tissue predominantly caused by mutations in collagen type 1 (COL-1) encoding genes. Widespread symptoms reflect the ubiquity of COL-1 throughout the body. The purpose of this study was to improve our understanding of clinical manifestations by investigating anthropometry and skeletal phenotypes (DXA, HRpQCT) in an adult OI population and compare the findings to underlying COL-1 genotype and structure. The study comprised 85 OI patients aged 45 (1978) years, Sillence type I (n = 58), III (n = 12), and IV (n = 15). All patients underwent DXA, HRpQCT, spine X-ray, biochemical testing, and anthropometry. COL1A1 and COL1A2 were sequenced and 68 OI causing mutations identified (46 in COL1A1, 22 in COL1A2). Analysis of COL-1 structure (quantitative/qualitative defect) by SDS-PAGE was performed in a subset (n = 67). A qualitative collagen defect predisposed to a more severe phenotype with reduced aBMD, more fractures, and affected anthropometry compared to patients with a quantitative COL-1 defect (p < 0.05). HRpQCT revealed significant differences between patients with OI type I and IV. Patients with type I had lower vBMD (p < 0.005), thinner cortexes (p < 0.001), and reduced trabecular number (p < 0.005) compared to patients with type IV indicating that HRpQCT may distinguish type I from type IV better than DXA. The defective collagen in patients with OI has pronounced effects on the skeleton."

According to the news reporters, the research concluded: "The classical OI types based on the clinical classification show profound differences in bone mass and architecture and the differences correlate well with the underlying biochemical and molecular collagen abnormalities."

For more information on this research see: Skeletal phenotypes in adult patients with osteogenesis imperfecta-correlations with COL1A1/COL1A2 genotype and collagen structure. Osteoporosis International, 2016;27(11):3331-3341. Osteoporosis International can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - www.springer.com; Osteoporosis International - www.springerlink.com/content/0937-941x/)

Our news journalists report that additional information may be obtained by contacting J.D. Hald, Aarhus University, Dept. of Endocrinol & Metab, Aarhus C, Denmark. Additional authors for this research include L. Folkestad, T. Harslof, A.M. Lund, M. Duno, J.B. Jensen, S. Neghabat, K. Brixen and B. Langdahl.

Keywords for this new article include: Aarhus, Denmark, Europe, Connective Tissue Diseases and Conditions, Musculoskeletal Diseases and Conditions, Collagen Diseases and Conditions, Extracellular Matrix Proteins, Bone Diseases and Conditions, Osteogenesis Imperfecta, Osteochondrodysplasias, Bone Research, Biochemicals, Biochemistry, Chemicals, Genetics, Aarhus University.

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New Data from Ain Shams University Illuminate Findings in Non-Small Cell Lung Cancer (S-1-based regimens for locally advanced/metastatic non-small-cell lung cancer: a meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Non-Small Cell Lung Cancer is now available. According to news reporting originating from Cairo, Egypt, by NewsRx correspondents, research stated, "We performed a meta-analysis of S-1-containing regimens versus control in the management of locally advanced/metastatic non-small-cell lung cancer. Eligible studies included randomized studies evaluating S-1-containing regimens in the settings of locally advanced, first-line metastatic or second-line metastatic non-small-cell lung cancer."

Our news editors obtained a quote from the research from Ain Shams University, "Pooled odds ratio for overall response rate was 1.09 (95% CI: 0.85-1.38; p=0.2), the pooled hazard ratio for progression-free survival was 0.98 (95% CI: 0.88-1.09; p=0.69) and the pooled hazard ratio for overall survival was 0.98 (95% CI: 0.88-1.10; p=0.75) for S-1-based regimens versus control. Moreover, the relative risk of febrile neutropenia was 0.34 (95% CI: 0.20-0.59; p=0.0001)."

According to the news editors, the research concluded: "Our meta-analysis has demonstrated that S-1-based regimens are associated with similar efficacy outcomes and better hematological tolerability."


The news editors report that additional information may be obtained by contacting O. Abdel-Rahman, Clinical Oncology Department, Faculty of Medicine, Ain Shams University, Cairo, Egypt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.15.338. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cairo, Egypt, Africa, Oncology, Article Review, Lung Neoplasms, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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New Data from Ataturk Teaching and Research Hospital Illuminate Findings in Antipsychotics (A Case of Ileus in a Patient with Schizophrenia Under Paliperidone Palmitate Treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antipsychotics have been published. According to news reporting out of Ankara, Turkey, by NewsRx editors, research stated, "Constipation is a side effect of antipsychotic drugs that have high affinity for muscarinic..."
Our news journalists obtained a quote from the research from Ataturk Teaching and Research Hospital, "In addition, ileus is an important side effect of antipsychotic treatment, with potentially morbid and mortal consequences if early detection fails. In this report, a colonic ileus case is described in a patient with schizophrenia under the treatment of paliperidone palmitate."

According to the news editors, the research concluded: "Consequently, complete physical examination and dose screening of side effects are recommended when antipsychotics are prescribed."

For more information on this research see: A Case of Ileus in a Patient with Schizophrenia Under Paliperidone Palmitate Treatment. Psychiatry Investigation, 2016;13 (6):665-667. Psychiatry Investigation can be contacted at: Korean Neuropsychiatric Assoc, Rn 522, G-Five Central Plaza 1685-8 Seocho 4-Dong, Seocho-Gu, Seoul, 137-882, South Korea.

Our news journalists report that additional information may be obtained by contacting S.S. Can, Ankara Ataturk Training & Res Hosp, Dept. of Psychiat, TR-06800 Ankara, Turkey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4306/pi.2016.13.6.665. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ankara, Turkey, Eurasia, Mental Health Diseases and Conditions, Psychotherapeutic Agents, Atypical Antipsychotics, Drugs and Therapies, Schizophrenia, Paliperidone, Psychiatry, Ataturk Teaching and Research Hospital.

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Cardiovascular Diseases and Conditions - Fat Embolism (Cerebral Fat Embolism After Video-Assisted Thoracic Surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Fat Embolism. According to news originating from Florence, Italy, by NewsRx correspondents, research stated, "Cerebral fat embolism (CFE) is an uncommon disease occurring mainly after traumatic lower limb long bone fractures. A 64-year-old woman with pneumonia and bilateral pleural effusion underwent video-assisted thoracic surgery (VATS)."

Our news journalists obtained a quote from the research from Azienda Ospedaliera University, "After 3 days, the patient had an acute decrease in consciousness level followed by the onset of seizures and right hemiparesis. Brain computed tomography and magnetic resonance imaging showed findings suggestive of CFE. CFE occurring after an uncommon nontraumatic cause of fat embolism, such as VATS, is a rare clinical event whose diagnosis could be challenging."

According to the news editors, the research concluded: "Neuroimaging can hasten diagnosis and prevent other unnecessary investigations and treatments."

Inflammation

New Data from Bar-Ilan University Illuminate Findings in Inflammation (Differentiating Between Cancer and Inflammation: A Metabolic-Based Method for Functional Computed Tomography Imaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Inflammation. According to news reporting out of Ramat Gan, Israel, by NewsRx editors, research stated, "One of the main limitations of the highly used cancer imaging technique, PET-CT, is its inability to distinguish between cancerous lesions and post treatment inflammatory conditions. The reason for this lack of specificity is that [(18)F]FDG-PET is based on increased glucose metabolic activity, which characterizes both cancerous tissues and inflammatory cells."

Financial supporters for this research include Israel Science Foundation, Ministry of Science, Technology and Space, Israel Cancer Research Fund.

Our news journalists obtained a quote from the research from Bar-Ilan University, "To overcome this limitation, we developed a nanoparticle-based approach, utilizing glucose-functionalized gold nanoparticles (GF-GNPs) as a metabolically targeted CT contrast agent. Our approach demonstrates specific tumor targeting and has successfully distinguished between cancer and inflammatory processes in a combined tumor-inflammation mouse model, due to dissimilarities in angiogenesis occurring under different pathologic conditions."

According to the news editors, the research concluded: "This study provides a set of capabilities in cancer detection, staging and follow-up, and can be applicable to a wide range of cancers that exhibit high metabolic activity."


Our news journalists report that additional information may be obtained by contacting M. Motiei, Faculty of Engineering and the Institutes of Nanotechnology & Advanced Materials, Bar-Ilan University, Ramat-Gan 5290002, Israel. Additional authors for this research include T. Dreifuss, O. Betzer, H. Panet, A. Popovtzer, J. Santana, G. Abourbeh, E. Mishani and...
Gram-Negative Bacteria - Enterobacteriaceae

New Data from Brown University Illuminate Findings in Enterobacteriaceae (Colonisation with extended-spectrum beta-lactamase-producing Enterobacteriaceae and risk for infection among patients with solid or haematological malignancy: a ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Enterobacteriaceae have been published. According to news originating from Providence, Rhode Island, by NewsRx correspondents, research stated, "Cancer patients are vulnerable to infections, including those with extended-spectrum beta-lactamase-producing Enterobacteriaceae (ESBL-PE), and most of these infections are associated with colonisation of the gastrointestinal tract. The aim of this study was to estimate the prevalence of gastrointestinal colonisation with ESBL-PE cancer populations and to determine the risk for subsequent bloodstream infection (BSI) with these pathogens."

Our news journalists obtained a quote from the research from Brown University, "PubMed and EMBASE databases were searched from 1 January 1991 to 1 March 2016 to identify studies regarding ESBL-PE colonisation among patients with malignancies. Ten studies (out of 561 non-duplicate articles) were included, providing data on 2211 patients. The pooled prevalence of ESBL-PE colonisation was 19% [95% confidence interval (CI) 8-32%]. Stratifying per region, the pooled prevalence in Europe was 15% (95% CI 10-21%), whereas in Asia the pooled prevalence was 31% (95% CI 4-69%). In addition, the pooled prevalence was 15% (95% CI 7-24%) among patients with haematological malignancy, whereas no studies were identified that included solely patients with solid tumours. Notably, cancer patients with ESBL-PE colonisation were 12.98 times (95% CI 3.91-43.06) more likely to develop a BSI with ESBL-PE during their hospitalisation compared with non-colonised patients. We found that, overall, one in five patients with cancer is colonised with ESBL-PE and the incidence can be as high as one in three in Asia. This is important because colonisation was associated with an almost 13 times higher risk for developing BSI with ESBL-PE."

According to the news editors, the research concluded: "Screening measures should be evaluated to identify their clinical benefit in patients with malignancy."

For more information on this research see: Colonisation with extended-spectrum beta-lactamase-producing Enterobacteriaceae and risk for infection among patients with solid or haematological malignancy: a systematic review and meta-analysis. International Journal of Antimicrobial Agents, 2016;48(6):647-654. International Journal of Antimicrobial Agents can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; International Journal of Antimicrobial Agents -
The news correspondents report that additional information may be obtained from E. Mylonakis, Brown University, Rhode Island Hospital, Warren Alpert Med Sch, Div Infect Dis, Providence, RI 02903, United States. Additional authors for this research include S. Karanika, M. Detsis and E. Mylonakis.

Keywords for this news article include: Providence, Rhode Island, United States, North and Central America, Gastroenterology, Article Review, Risk and Prevention, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Bacteria, Enzymes and Coenzymes, Gammaproteobacteria, Enterobacteriaceae, Sulfur Compounds, beta-Lactamases, Amidohydrolases, Proteobacteria, beta-Lactams, Oncology, Cancer, Brown University.

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**Uterine Diseases and Conditions - Endometriosis**

**New Data from Capital Medical University Illuminate Findings in Endometriosis (Prognostic value of endometriosis in patients with stage I ovarian clear cell carcinoma: Experiences at three academic institutions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Uterine Diseases and Conditions - Endometriosis. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "To investigate the prognostic value of endometriosis in patients with stage I ovarian clear cell carcinoma (OCCC). The medical records of patients with stage I OCCC who had undergone complete staging surgery followed by systemic chemotherapy were retrospectively reviewed."

Funders for this research include Foreign Cooperation Projects of China Science and Technology Ministry, China Postdoctoral Science Foundation, Beijing Postdoctoral Research Foundation.

The news reporters obtained a quote from the research from Capital Medical University, "A total of 237 women were included in this study. Univariate analysis revealed that the patients with endometriosis-associated ovarian carcinoma (EAOC) had significantly improved recurrence-free survival (RFS) and overall survival (OS) than those without EAOC (5-year RFS: 91.4% vs. 73.0%, respectively, and 5-year OS: 97.5% vs. 89.9%). However, EAOC was not identified as a significant prognostic predictor in multivariate analysis. The potential risk factors determined to be associated with EAOC included the pretreatment CA-125 level, FIGO stage, lymphovascular space invasion (LVS1), and menopausal status (P < 0.001, P = 0.0031, P = 0.020, and P = 0.038, respectively)."

According to the news reporters, the research concluded: "Endometriosis was not independently associated with the prognosis of the OCCC patients, even when the tumor was confined to stage I. However, the intrinsic relationship between endometriosis and OCCC warrants further investigation."

For more information on this research see: Prognostic value of endometriosis in patients with stage I ovarian clear cell carcinoma: Experiences at three academic institutions. *Gynecologic Oncology*, 2016;143(3):526-531. *Gynecologic Oncology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA.
Our news correspondents report that additional information may be obtained by contacting Z.Y. Zhang, Capital Med Univ, Beijing Chao Yang Hosp, Dept. of Obstet & Gynecol, Beijing 100020, People's Republic of China. Additional authors for this research include D.Y. Cao, F. Yuan, G.H. Sha, J.X. Yang, J. Chen, Y. Wang, Z.Y. Zhang and K. Shen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jygyno.2016.10.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Female Urogenital Diseases and Conditions, Female Genital Diseases and Conditions, Gynecology, Risk and Prevention, Uterine Diseases and Conditions, Women's Health, Endometriosis, Carcinomas, Oncology, Capital Medical University.

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Bone Marrow Diseases and Conditions - Aplastic…

New Data from Catholic University of Korea Illuminate Findings in Aplastic Anemia (Impact of pretransplant red cell transfusion on outcome after allogeneic stem cell transplantation in adult patients with severe aplastic anemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Bone Marrow Diseases and Conditions - Aplastic Anemia. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "The aim of this study was to evaluate the impact of pretransplant transfusion of packed red cells (PRCs) on outcome after allogeneic stem cell transplantation (SCT) in severe aplastic anemia (SAA). A total of 221 adult SAA patients receiving allogeneic SCT were analyzed."

Our news journalists obtained a quote from the research from the Catholic University of Korea, "The patients were divided into two groups according to the amount of pretransplant transfusion before SCT: the low transfusion group (> 32 PRCunits, n = 164) and the high transfusion group (432 PRC units, n = 57). The incidence of engraftment failure was not different between the two groups. The incidence of acute GvHD (grades II-IV) was higher in the high transfusion group than in the low transfusion group (P = 0.04), and the incidences of chronic extensive GVHD were not significantly different (P = 0.136). The high transfusion group had higher 5-year transplant-related mortality (TRM) (24.8% vs 6.8%, P<0.001) and lower overall survival (OS) (72.3% vs 91.9%, P<0.001) than those in the low transfusion group. Multivariate analysis revealed that the high transfusion group and unrelated donor type were independent prognostic factors affecting OS."

According to the news editors, the research concluded: "These results indicate that a history of higher pretransplant transfusion of PRCs was associated with increased TRM and decreased OS, suggesting that iron overload had a negative impact on outcome after SCT in SAA."

For more information on this research see: Impact of pretransplant red cell transfusion on outcome after allogeneic stem cell transplantation in adult patients with severe
aplastic anemia. *Bone Marrow Transplantation*, 2016;51(10):1323-1329. *Bone Marrow Transplantation* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)


Keywords for this news article include: Seoul, South Korea, Asia, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Bone Marrow Diseases and Conditions, Cell Transplantation, Transplant Medicine, Stem Cell Research, Cell Transplants, Aplastic Anemia, Biomedicine, Hematology, Surgery, Catholic University of Korea.

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**Mosquito-Borne Diseases - Dengue Hemorrhagic Fever**

**New Data from Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV) Illuminate Findings in Dengue Hemorrhagic Fever (No Evidence of Dengue Virus Infections in Several Species of Bats Captured in Central and ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mosquito-Borne Diseases - Dengue Hemorrhagic Fever. According to news originating from Mexico City, Mexico, by NewsRx correspondents, research stated, "Bats are reservoirs for viruses with zoonotic potential in the Americas, and scattered evidence exists suggesting that bats may act as reservoirs for dengue virus (DENV). To explore further the role of bats as part of DENV sylvatic cycles, 240 bats of 18 species were captured in 2 states of Mexico with contrasting ecological characteristics but concurrent DENV activity in humans."

Funders for this research include Miguel Aleman Foundation (Mexico), DGAPA-PAPIIT, Consejo Nacional de Ciencia y Tecnologia.

Our news journalists obtained a quote from the research from the Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV), "RT-PCR analysis of RNA extracted from liver or spleen tissue from de bats failed to show evidence for the presence of DENV nucleic acids in these organs. In addition, plasma assayed by plaque reduction neutralization test showed no evidence of neutralizing anti-DENV antibodies."

According to the news editors, the research concluded: "These results suggest that American bats may not be reservoirs or amplification host for DENV infection."

The news correspondents report that additional information may be obtained from J.E. Ludert, Center Res & Adv Studies CINVESTAV IPN, Dept. of Infect & Mol Pathogenesis, Mexico City, DF, Mexico. Additional authors for this research include C.M. Ramirez, B. Recio-Totoro, J. Tolentino-Chi, H. Lanz, R.M. del Angel, V. Sanchez-Cordero, A. Rodriguez- Moreno and J.E. Ludert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/zph.12276. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mexico City, Mexico, North and Central America, Dengue Hemorrhagic Fever, Viral Hemorrhagic Fevers, Mosquito-Borne Diseases, Flaviviridae Infections, Flavivirus Infections, Arbovirus Infections, Dengue Virus, Dengue Fever, RNA Viruses, Virology, Genetics, Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV).

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Oncology - Gliomas

New Data from Central South University Illuminate Findings in Gliomas (PPIC, EMP3 and CHI3L1 Are Novel Prognostic Markers for High Grade Glioma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Gliomas. According to news reporting from Changsha, People's Republic of China, by NewsRx journalists, research stated, "Current treatment methods for patients diagnosed with gliomas have shown limited success. This is partly due to the lack of prognostic genes available to accurately predict disease outcomes."

The news correspondents obtained a quote from the research from Central South University, "The aim of this study was to investigate novel prognostic genes based on the molecular profile of tumor samples and their correlation with clinical parameters. In the current study, microarray data (GSE4412 and GSE7696) downloaded from Gene Expression Omnibus were used to identify differentially expressed prognostic genes (DEPGs) by significant analysis of microarray (SAM) between long-term survivors (>2 years) and short-term survivors (<= 2 years). DEPGs generated from these two datasets were intersected to obtain a list of common DEPGs. The expression of a subset of common DEPGs was then independently validated by real-time reverse transcription quantitative PCR (qPCR). Survival value of the common DEPGs was validated using known survival data from the GSE4412 and TCGA dataset. After intersecting DEPGs generated from the above two datasets, three genes were identified which may potentially be used to determine glioma patient prognosis. Independent validation with glioma patients tissue (n = 70) and normal brain tissue (n = 19) found PPIC, EMP3 and CHI3L1 were up-regulated in glioma tissue."

According to the news reporters, the research concluded: "Survival value validation showed that the three genes correlated with patient survival by Kaplan-Meir analysis, including grades, age and therapy."

For more information on this research see: PPIC, EMP3 and CHI3L1 Are Novel Prognostic Markers for High Grade Glioma. International Journal of Molecular Sciences,
2016;17(11):739-751. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.


Keywords for this news article include: Changsha, People's Republic of China, Asia, Gliomas, Genetics, Oncology, Central South University.

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**Oncology - Liver Cancer**

**New Data from Chinese Academy of Sciences Illuminate Findings in Liver Cancer (LncBRM initiates YAP1 signalling activation to drive self-renewal of liver cancer stem cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Liver cancer stem cells (CSCs) may contribute to the high rate of recurrence and heterogeneity of hepatocellular carcinoma (HCC). However, the biology of hepatic CSCs remains largely undefined."

The news correspondents obtained a quote from the research from the Chinese Academy of Sciences, "Through analysis of transcriptome microarray data, we identify a long noncoding RNA (lncRNA) called LncBRM, which is highly expressed in liver CSCs and HCC tumours. LncBRM is required for the self-renewal maintenance of liver CSCs and tumour initiation. In liver CSCs, LncBRM associates with BRM to initiate the BRG1/BRM switch and the BRG1-embedded BAF complex triggers activation of YAP1 signalling. Moreover, expression levels of LncBRM together with YAP1 signalling targets are positively correlated with tumour severity of HCC patients."

According to the news reporters, the research concluded: "Therefore, LncBRM and YAP1 signalling may serve as biomarkers for diagnosis and potential drug targets for HCC."


Our news journalists report that additional information may be obtained by contacting Z.S. Fan, Univ Chinese Academy Sci, Beijing 100049, People's Republic of China. Additional authors for this research include Y.Y. Wang, J.Y. Wu, G.L. Huang, B.Y. Liu, B.Q. Ye, Y. Du, G.X. Gao, Y. Tian, L. He and Z.S. Fan.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Stem Cell Research, Liver Cancer, Oncology, Genetics, Chinese Academy of Sciences.

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**New Data from Copenhagen University Hospital Illuminate Findings in Immunosuppressive Agents (Early safety and efficacy of fingolimod treatment in Denmark)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Immunosuppressive Agents are presented in a new report. According to news reporting from Copenhagen, Denmark, by NewsRx journalists, research stated, "Initiation of fingolimod treatment is associated with a transient decrease of heart rate, and atrioventricular (AV) conduction block may occur. To evaluate the therapeutic effect and safety of fingolimod treatment in MS patients in Denmark with focus on cardiac and pulmonary side effects at treatment onset."

The news correspondents obtained a quote from the research from Copenhagen University Hospital, "We analysed data from the first 496 fingolimod-treated Danish patients, observed for at least 3 months. In a subset of 204 patients, we monitored cardiac and pulmonary adverse effects following treatment initiation. The overall annualized relapse rate (ARR) was 0.37 (95% CI 0.31-0.44); 0.22 (95% CI 0.03-0.81) in de novo-treated patients, 0.29 (95% CI; 0.23-0.37) in patients switching from IFN-beta or GA and 0.46 (95% CI 0.34-0.60) after natalizumab. In the subset of 204 patients, 8 (3.9%) required prolonged cardiac monitoring due to bradycardia and/or second-degree AV block type I. All patients recovered spontaneously. Two patients discontinued fingolimod. Eleven (5.4%) patients reported respiratory complaints and two of these patients discontinued treatment. Fingolimod appears to be safe and effective in MS patients in a clinical setting."

According to the news reporters, the research concluded: "Mild cardiac adverse effects occurred at a similar rate as in clinical trials."


Our news journalists report that additional information may be obtained by contacting A. Voldsgaard, Rigshospitalet, Copenhagen Univ Hosp, Dept. of Neurol, Danish Multiple Sclerosis Center, Copenhagen, Denmark. Additional authors for this research include N. Koch-Henriksen, M. Magyari, F. Sellebjerg, P.S. Sorensen and A.B. Oturai.

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Keywords for this news article include: Copenhagen, Denmark, Europe, Immunosuppressive Agents, Drugs and Therapies, Cardiology, Fingolimod, Copenhagen University Hospital.

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New Data from Department of Nursing Illuminate Findings in Oncology Nursing (Opioid-taking self-efficacy as influencing emotional status in patients with cancer pain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nursing - Oncology Nursing is the subject of a report. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "The purpose of this study was to evaluate how much of the variance in emotional status amongst Taiwanese cancer patients could be accounted for by opioid-taking self-efficacy. This cross-sectional study included 109 cancer patients who had taken prescribed opioid analgesics for cancer related pain in the past week and completed the Opioid-Taking Self-Efficacy Scale-CA (OTSES-CA) and Hospital Anxiety and Depression Scale."

The news reporters obtained a quote from the research from the Department of Nursing, "There was a significant and negative correlation between scores on anxiety and self-efficacy total scale (r = 0.29, p< 0.01), self-efficacy communication subscale (r = 0.37, p< 0.01), self efficacy acquiring help subscale (r = 0.22, p< 0.05) and self-efficacy managing treatment related concerns subscale (r = 0.32, p< 0.01). However, the correlation between scores on depression and the self-efficacy total scale was not significant (r = 0.18, p> 0.05); only the self-efficacy communication subscale was significantly and negatively associated with depression (r = 0.27, p< 0.01). The opioid-taking self-efficacy total scale accounted for 8% of predicting the patients' anxiety. Opioid-taking self efficacy subscales accounted for 20% (R-2 = 0.20, p = 0.000) of the variance in predicting anxiety and 10% (R-2 = 0.10, p = 0.02) of the variance in predicting depression."

According to the news reporters, the research concluded: "This study highlights the potential importance of a patient's opioid-talking self-efficacy beliefs in their emotional status, which is relevant to cancer pain."


Our news correspondents report that additional information may be obtained by contacting S.A. Ding, Koo Founding Sun Yat Sen Canc Center, Dept. of Nursing, Taipei 112, Taiwan. Additional authors for this research include S.Y. Liang, W.W. Wu, C.Y. Liu and S.F. Cheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejon.2016.10.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Oncology Nursing, Nursing, Oncology, Cancer, Department of Nursing.

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Health and Medicine - Medical Science

New Data from Ewha Woman’s University Illuminate Findings in Medical Science (The Radiation Problem and Its Solution from a Health Communication Perspective)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Health and Medicine - Medical Science are discussed in a new report. According to news reporting out of Seoul, South Korea, by NewsRx editors, the research stated, "This paper observes both foreign and national discussions on preexisting radiation communication and attempts to find out what it takes to ensure that discussion concerning radiation leads to participation of and trust-building with members of society while considering cultural aspects. When analyzing Korean studies on health risk communication concerning radiation which utilize the frame of foreign literature, Korean studies can be categorized into one of the following themes: different risk perceptions between experts and the general public, discussion on the effects of the framing of radiation messages and media coverage, and research discussing the social implications of the dangers of radiation and the need for effective communication."

Our news journalists obtained a quote from the research from Ewha Woman's University, "These study results can be better explained when integrated with Korean social cultural dimensions. The 'boiling pot effect' towards risk issues, egalitarian perceptions, escalation of ideological opposition and biased reasoning, and so on are especially major influences. Communication addressing radiological risks must foremost be open and able to mitigate distrust, must give the general public a chance to judge for themselves to prevent stigmatization, and, through the use of media and public education, must make efforts to prevent the proliferation of needless anxiety."

According to the news editors, the research concluded: "Using literature research, this paper discusses possible ways to improve the effect of future health risk communication concerning radiation."

For more information on this research see: The Radiation Problem and Its Solution from a Health Communication Perspective. Journal of Korean Medical Science, 2016;31 Suppl 1():S88-98.

Our news journalists report that additional information may be obtained by contacting Y. Kim, School of Communication and Media, Ewha Womans University, Seoul, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3346/jkms.2016.31.S1.S88. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Article Review, Medical Science, Health and Medicine, Risk and Prevention.

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New Data from First Affiliated Hospital Illuminate Findings in Angiology (A Giant Right Coronary Artery of Diffuse Ectasia Induced by a Right Ventricular Fistula)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Angiology is now available. According to news originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "Coronary artery fistula (CAF) is a rare entity. Sometimes it may associate with mild diffuse or segmental coronary ectasia."

Our news journalists obtained a quote from the research from First Affiliated Hospital, "CAF with giant coronary artery is exceptionally rare. We present a unique case of a 49-year-old female patient with a giant right coronary artery of diffuse ectasia coexisting with a fistula draining into the right ventricle. To our best knowledge, CAF with diffuse coronary ectasia of such giant size has never been reported."

According to the news editors, the research concluded: "The patient was treated successfully by resection of the dilated right coronary artery, fistula closure, and coronary artery bypass grafting."

For more information on this research see: A Giant Right Coronary Artery of Diffuse Ectasia Induced by a Right Ventricular Fistula. The Heart Surgery Forum, 2015;18(6):E253-4.

The news correspondents report that additional information may be obtained from R. Li, Dept. of Cardiothoracic Surgery, First Affiliated Hospital of Zhejiang University, Hangzhou, People's Republic of China. Additional authors for this research include Y. Ni, P. Teng and W. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1532/hsf.1349. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Hangzhou, Angiology, Cardiology, Right Coronary Artery, People's Republic of China.

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New Data from Georgetown University Illuminate Findings in Biological and Medical Science (INDEED: Integrated differential expression and differential network analysis of omic data for biomarker discovery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Biological and Medical Science. According to news reporting out of Washington, District of Columbia, by NewsRx editors, research stated, "Differential expression (DE) analysis is commonly used to identify biomarker candidates that have significant changes in their expression levels between distinct biological groups. One drawback of DE analysis is that it only considers the changes on single biomolecule level."
Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from Georgetown University, "Recently, differential network (DN) analysis has become popular due to its capability to measure the changes on biomolecular pair level. In DN analysis, network is typically built based on correlation and biomarker candidates are selected by investigating the network topology. However, correlation tends to generate over-complicated networks and the selection of biomarker candidates purely based on network topology ignores the changes on single biomolecule level. In this paper, we propose a novel approach, INDEED, that builds sparse differential network based on partial correlation and integrates DE and DN analyses for biomarker discovery. We applied this approach on real proteomic and glycomic data generated by liquid chromatography coupled with mass spectrometry for hepatocellular carcinoma (HCC) biomarker discovery study. For each omic data, we used one dataset to select biomarker candidates, built a disease classifier and evaluated the performance of the classifier on an independent dataset. The biomarker candidates, selected by INDEED, were more reproducible across independent datasets, and led to a higher classification accuracy in predicting HCC cases and cirrhotic controls compared with those selected by separate DE and DN analyses. INDEED also identified some candidates previously reported to be relevant to HCC, such as intercellular adhesion molecule 2 (ICAM2) and c4b-binding protein alpha chain (C4BPA), which were missed by both DE and DN analyses. In addition, we applied INDEED for survival time prediction based on transcriptomic data acquired by analysis of samples from breast cancer patients. We selected biomarker candidates and built a regression model for survival time prediction based on a gene expression dataset and patients' survival records. We evaluated the performance of the regression model on an independent dataset."

According to the news editors, the research concluded: "Compared with the biomarker candidates selected by DE and DN analyses, those selected through INDEED led to more accurate survival time prediction."


Our news journalists report that additional information may be obtained by contacting Y.M. Zuo, Georgetown University, Lombardi Comprehens Canc Center, Washington, DC 20007, United States. Additional authors for this research include Y. Cui, C. Di Poto, R.S. Varghese, G.Q. Yu, R.J. Li and H.W. Ressom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jmeth.2016.08.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Biological and Medical Science, Health and Medicine, Genetics, Georgetown University.

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New Data from Georgia Institute of Technology Illuminate Findings in Pancreatic Cancer (Acquired resistance of pancreatic cancer cells to cisplatin is multifactorial with cell context-dependent involvement of resistance genes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Pancreatic Cancer.

According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "Pancreatic ductal adenocarcinoma (PDAC) is one of the most lethal of malignancies, in large measure, due to the propensity of PDAC cells to acquire resistance to chemotherapeutic agents. A better understanding of the molecular basis of acquired resistance is a Major focus of contemporary PDAC research."

The news correspondents obtained a quote from the research from the Georgia Institute of Technology, "We report here the results of a study to independently develop cisplatin resistance in two distinct parental PDAC cell lines, AsPC1 and BxPC3, and to subsequently examine the molecular mechanisms associated with the acquired resistance. Cisplatin resistance in both resistant cell lines was found to be multifactorial and to be associated with mechanisms related to drug transport, drug inactivation, DNA damage response, DNA repair and the modulation of apoptosis. Our results demonstrate that the two resistant cell lines employed alternative molecular strategies in acquiring resistance dictated, in part, by pre-existing molecular differences between the parental cell lines."

According to the news reporters, the research concluded: "Collectively, our findings, indicate that strategies to inhibit or reverse acquired resistance of PDAC cells to cisplatin, and perhaps other chemotherapeutic agents, may not be generalized but will require individual molecular profiling and analysis to be effective."


Our news journalists report that additional information may be obtained by contacting R. Mezencev, Georgia Inst Technol, Parker H Petit Inst Bioengn & Biosci, 315 Ferst Dr, Atlanta, GA 30332, United States. Additional authors for this research include L.V. Matyunina, G.T. Wagner and J.F. McDonald.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cgt.2016.71. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Cancer, Gene Therapy, Genetics, Pancreatic Neoplasms, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin Therapy, Alkylating Agents, Pancreatic Cancer, Gastroenterology, Pharmaceuticals, Antineoplastics, Cell Line, Oncology, Pancreas, Georgia Institute of Technology.

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New Data from Giannina Gaslini Institute Illuminate Findings in Poland Syndrome (Assessment of copy number variations in 120 patients with Poland syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Musculoskeletal Diseases and Conditions - Poland Syndrome. According to news reporting from Genoa, Italy, by NewsRx journalists, research stated, "Poland Syndrome (PS) is a rare congenital disorder presenting with agenesis/hypoplasia of the pectoralis major muscle variably associated with thoracic and/or upper limb anomalies. Most cases are sporadic, but familial recurrence, with different inheritance patterns, has been observed."

The news correspondents obtained a quote from the research from Giannina Gaslini Institute, "The genetic etiology of PS remains unknown. Karyotyping and array-comparative genomic hybridization (CGH) analyses can identify genomic imbalances that can clarify the genetic etiology of congenital and neurodevelopmental disorders. We previously reported a chromosome 11 deletion in twin girls with pectoralis muscle hypoplasia and skeletal anomalies, and a chromosome six deletion in a patient presenting a complex phenotype that included pectoralis muscle hypoplasia. However, the contribution of genomic imbalances to PS remains largely unknown. To investigate the prevalence of chromosomal imbalances in PS, standard cytogenetic and array-CGH analyses were performed in 120 PS patients. Following the application of stringent filter criteria, 14 rare copy number variations (CNVs) were identified in 14 PS patients in different regions outside known common copy number variations: seven genomic duplications and seven genomic deletions, enclosing the two previously reported PS associated chromosomal deletions. These CNVs ranged from 0.04 to 4.71 Mb in size. Bioinformatic analysis of array-CGH data indicated gene enrichment in pathways involved in cell-cell adhesion, DNA binding and apoptosis processes. The analysis also provided a number of candidate genes possibly causing the developmental defects observed in PS patients, among others REV3L, a gene coding for an error-prone DNA polymerase previously associated with Mobius Syndrome with variable phenotypes including pectoralis muscle agenesis. A number of rare CNVs were identified in PS patients, and these involve genes that represent candidates for further evaluation."

According to the news reporters, the research concluded: "Rare inherited CNVs may contribute to, or represent risk factors of PS in a multifactorial mode of inheritance."

For more information on this research see: Assessment of copy number variations in 120 patients with Poland syndrome. *BMC Medical Genetics*, 2016;17():1-8. *BMC Medical Genetics* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Medical Genetics - www.biomedcentral.com/bmcmedgenet/)

Our news journalists report that additional information may be obtained by contacting A. Puliti, Ist Giannina Gaslini, Medical Genet Unit, Genoa, Italy. Additional authors for this research include E. Tassano, M. Torre, S. Gimelli, M.T. Divizia, M.V. Romanini, S. Bossi, I. Musante, M. Valle, F. Senes, N. Catena, M.F. Bedeschi, A. Baban, M.G. Calevo, M. Acquaviva, M. Lerone, R. Ravazzolo and A. Puliti.

Keywords for this news article include: Genoa, Italy, Europe, Synostosis, Risk and Prevention, Genetics, Musculoskeletal Diseases and Conditions, Musculoskeletal Abnormalities, Bone Diseases and Conditions, Congenital Abnormalities, Poland Syndrome,
Syndactyly, Dysostoses, Giannina Gaslini Institute.

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Gram-Negative Bacteria - Salmonella enterica

New Data from Graduate School of Agriculture Illuminate Findings in Salmonella enterica (In vivo cloning of large chromosomal segments into a BAC derivative by generalized transduction and recombineering in Salmonella enterica)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Salmonella enterica have been published. According to news reporting out of Nara, Japan, by NewsRx editors, the research stated, "Recombineering has been used to facilitate the development of in vivo cloning methods. However, the method relies heavily on PCR, which still generates a much higher error rate than DNA replication in vivo, even when amplifying large DNA inserts."

Our news journalists obtained a quote from the research from the Graduate School of Agriculture, "Here, a precise technique is reported in Salmonella enterica that enables the cloning of up to at least 19 kb target chromosomal DNA segments that had been marked by FRTs, which were derived from two consecutive lambda Red-mediated recombination events. P22 phage was utilized to transduce the target DNA segments from donor strains to recipient strains harboring a derivative of bacterial artificial chromosome (BAC) containing a FRT and a plasmid expressing Flp recombinase. This method was successful in cloning a gene cluster responsible for lipopolysaccharide (LPS) modifications that confer polymyxin B resistance and in complementing its mutant."

According to the news editors, the research concluded: "Further optimized procedures should be widely applicable because large insert fragments are precise clones of the wildtype genome."


Our news journalists report that additional information may be obtained by contacting A. Kato, Kindai Univ, Grad Sch Agr, Dept. of Adv Biosci, Nara, Nara 6318505, Japan.

Keywords for this news article include: Nara, Japan, Asia, Gram-Negative Facultatively Anaerobic Rods, Bacterial Artificial Chromosome, Artificial Chromosomes, Gram-Negative Bacteria, Gammaproteobacteria, Salmonella enterica, Enterobacteriaceae, Proteobacteria, Biotechnology, Salmonellosis, Genetics, Cloning, Graduate School of Agriculture.

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Liver Diseases and Conditions - Chronic Hepatitis B…

New Data from Guangzhou University Illuminate Findings in Chronic Hepatitis B Virus (Identification of UQCRB as an oxymatrine recognizing protein using a T7 phage display screen)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Chronic Hepatitis B Virus are presented in a new report. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: Sophora flavescens Aiton (Radix Sophorae Flavescentis, Kushen) is used in traditional Chinese medicine to treat chronic hepatitis B (CHB), and has the ability to clear heat and dampness from the body. Oxymatrine is one of the major bioactive compounds extracted from Sophora flavescens Aiton and constitutes more than 90% of the oxymatrine injection commonly used for CHB treatment in clinics in China."

Financial supporters for this research include National Natural Science Foundation of China, Youth Elite Project of GUCM.

Our news editors obtained a quote from the research from Guangzhou University, "Aim of the study: We aim to analyze the protein binding target of oxymatrine in treating CHB by screening a T7 phage display cDNA library of human CHB and examine the biochemistry of protein-ligand binding between oxymatrine and its ligands. A T7 phage cDNA library of human CHB was biopanned by affinity selection using oxymatrine as bait. The interaction of oxymatrine with its candidate binding protein was investigated by affinity assay, molecular docking, Isothermal Titration Calorimetry (ITC) and Surface Plasmon Resonance (SPR). A library of potential oxymatrine binding peptides was generated. Ubiquinol-cytochrome c reductase binding protein (UQCRB) was one of the candidate binding proteins of oxymatrine. UQCRB-displaying T7 phage binding numbers in the oxymatrine group were significantly higher than that in the control group, biotin group, and matrine group (p < 0.05 or p< 0.01). Three-dimensional structure modeling of the UQCRB with oxymatrine showed that their binding interfaces matched and oxymatrine inserted into a deeper pocket of UQCRB, which mainly involved amino acid residues Tyr21, Arg33, Tyr83, Glu84, Asp86, Pro88, and G1u91. The binding affinity constant (Kb) from SPR was 4.2 mM. The Kb from ITC experiment was 3.9 mM and stoichiometry was fixed as 1, which fit very well with the result of SPR The binding of oxymatrine to UQCRB was driven by strong enthalpy forces such as hydrogen bonds and polar interactions as the heat released was about 157 kcal/mol and Delta G was less than zero. In this study, using the 17 phage display system, we have identified UQCRB as a direct binding protein of oxymatrine. Furthermore, the specificity and molecular interaction of oxymatrine with UQCRB were also determined. The binding of UQCRB to oxymatrine suggests that UQCRB is a potential target of oxymatrine in treating CHB."

According to the news editors, the research concluded: "These results provide new understanding into the mechanism of oxymatrine and insights into the strategy on the treatment of CHB."

Lung Diseases and Conditions - Acute Respiratory...

New Data from Harvard School of Medicine Illuminate Findings in Acute Respiratory Distress Syndrome (Lung Metabolic Activation as an Early Biomarker of Acute Respiratory Distress Syndrome and Local Gene Expression Heterogeneity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Lung Diseases and Conditions - Acute Respiratory Distress Syndrome. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Acute respiratory distress syndrome (ARDS) is an inflammatory condition comprising diffuse lung edema and alveolar damage. ARDS frequently results from regional injury mechanisms."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "However, it is unknown whether detectable inflammation precedes lung edema and opacification and whether topographically differential gene expression consistent with heterogeneous injury occurs in early ARDS. The authors aimed to determine the temporal relationship between pulmonary metabolic activation and density in a large animal model of early ARDS and to assess gene expression in differentially activated regions. The authors produced ARDS in sheep with intravenous lipopolysaccharide (10 ng. kg(-1). h(-1)) and mechanical ventilation for 20 h. Using positron emission tomography, the authors assessed regional cellular metabolic activation with 2-deoxy-2-[(18)F]fluoro-D-glucose, perfusion and ventilation with (NN)-N-13-saline, and aeration using transmission scans. Species-specific microarray technology was used to assess regional gene expression. Metabolic activation preceded detectable increases in lung density (as required for clinical diagnosis) and correlated with subsequent histologic injury, suggesting its predictive value for severity of disease progression. Local time courses of metabolic activation varied, with highly perfused and less aerated dependent lung regions activated earlier than nondependent regions. These regions of distinct metabolic trajectories demonstrated differential gene expression for known and potential novel candidates for ARDS pathogenesis. Heterogeneous lung metabolic activation precedes increases in lung density in the development of ARDS due to endotoxemia and mechanical ventilation."

According to the news editors, the research concluded: "Local differential gene
expression occurs in these early stages and reveals molecular pathways relevant to ARDS biology and of potential use as treatment targets."

For more information on this research see: Lung Metabolic Activation as an Early Biomarker of Acute Respiratory Distress Syndrome and Local Gene Expression Heterogeneity. *Anesthesiology*, 2016;125(5):992-1004. *Anesthesiology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

The news correspondents report that additional information may be obtained from M.F.V. Melo, Harvard Med Sch, Massachusetts General Hospital, Dept. of Anesthesia Crit Care & Pain Med, Boston, MA, United States. Additional authors for this research include N. de Prost, M. Tucci, T. Winkler, R.M. Baron, P. Filipczak, B. Raby, J.H. Chu, R.S. Harris, G. Musch, L.F.D. Falcao, V. Capelozzi, J.G. Venegas and M.F.V. Melo.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Acute Respiratory Distress Syndrome, Lung Diseases and Conditions, Genetics, Genetics, Harvard School of Medicine.

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Suicide

**New Data from Health Science Center Illuminate Findings in Suicide (Comorbidity Correlates of Death Among New Veterans of Iraq and Afghanistan Deployment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Suicide. According to news reporting originating in San Antonio, Texas, by NewsRx journalists, research stated, "Veterans of the wars in Iraq and Afghanistan who receive care in the Veterans Health Administration (VA) have high disease burden. Distinct comorbidity patterns have been shown to be differentially associated with adverse outcomes, including death."

The news reporters obtained a quote from the research from Health Science Center, "This study determined correlates of 5-year mortality. VA demographic, military, homelessness, and clinical measures informed this retrospective analysis. Previously constructed comorbidity classifications over 3 years of care were entered into a Cox proportional hazards model of death. There were 164,933 veterans in the cohort, including African Americans (16%), Hispanics (11%), and whites (65%). Most were in their 20s at baseline (60%); 12% were women; 4% had attempted suicide; 4% had been homeless. Having clustered disorders of pain, posttraumatic stress disorder, and traumatic brain injury was associated with death [hazard ratio (HR)=2.0]. Mental disorders including substance abuse were similarly associated (HR=2.1). Prior suicide attempt (HR=2.2) or drug overdose (HR=3.0) considerably increased risk of death over 5 years."

According to the news reporters, the research concluded: "As congressional actions such as Veterans Choice Act offer more avenues to seek care outside of VA, coordination of care, and suicide prevention outreach for recent veterans may require innovative approaches to preserve life."

For more information on this research see: Comorbidity Correlates of Death Among New Veterans of Iraq and Afghanistan Deployment. *Medical Care*, 2016;55(12):1078-1081.
New Data from Huazhong Agricultural University Illuminate Findings in Escherichia coli (Differential transcription profiles of long non-coding RNAs in primary human brain microvascular endothelial cells in response to meningitic Escherichia coli)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Negative Bacteria - Escherichia coli. According to news reporting originating from Hunan, People's Republic of China, by NewsRx correspondents, research stated, "Accumulating studies have indicated the influence of long non-coding RNAs (lncRNAs) on various biological processes as well as disease development and progression. However, the lncRNAs involved in bacterial meningitis and their regulatory effects are largely unknown."

Our news editors obtained a quote from the research from Huazhong Agricultural University, "By RNA-sequencing, the transcriptional profiles of host lncRNAs in primary human brain microvascular endothelial cells (hBMECs) in response to meningitic Escherichia coli were demonstrated. Here, 25,257 lncRNAs were identified, including 24,645 annotated lncRNAs and 612 newly found ones. A total of 895 lncRNAs exhibited significant differences upon infection, among which 382 were upregulated and 513 were downregulated (≥ 2-fold, p < 0.05). Via bioinformatic analysis, the features of these lncRNAs, their possible functions, and the potential regulatory relationships between lncRNAs and mRNAs were predicted. Moreover, we compared the transcriptional specificity of these differential lncRNAs among hBMECs, human astrocyte cell U251, and human umbilical vein endothelial cells, and demonstrated the novel regulatory effects of proinflammatory cytokines on these differential lncRNAs."

According to the news editors, the research concluded: "To our knowledge, this is the first time the transcriptional profiles of host lncRNAs involved in E. coli-induced meningitis have been reported, which shall provide novel insight into the regulatory mechanisms behind bacterial meningitis involving lncRNAs, and contribute to better prevention and therapy of CNS infection."

For more information on this research see: Differential transcription profiles of long non-coding RNAs in primary human brain microvascular endothelial cells in response to meningitic Escherichia coli. Scientific Reports, 2016;6():1-15. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports -
The news editors report that additional information may be obtained by contacting X.R. Wang, Huazhong Agricultural University, Cooperat Innovat Center Sustainable Pig Prod, Wuhan 430070, Hunan, People's Republic of China. Additional authors for this research include F. Huang, J.Y. Fu, B.B. Dou, B.J. Xu, L. Miao, W.T. Liu, X.P. Yang, C. Tan, H.C. Chen and X.R. Wang.

Keywords for this news article include: Hunan, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Gram-Negative Bacterial Infections, Central Nervous System Infections, Bacterial Infections and Mycoses, Escherichia coli Meningitis, Escherichia coli Infections, Bacterial Meningitis, Enterobacteriaceae, Endothelial Cells, Proteobacteria, Genetics, Huazhong Agricultural University.

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Lung Diseases and Conditions - Pneumonia

New Data from Idaho State University Illuminate Findings in Pneumonia (Total Duration of Antimicrobial Therapy in Veterans Hospitalized With Uncomplicated Pneumonia: Results of a National Medication Utilization Evaluation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Lung Diseases and Conditions - Pneumonia. According to news reporting originating from Meridian, Idaho, by NewsRx correspondents, research stated, "Practice guidelines recommend the shortest duration of antimicrobial therapy appropriate to treat uncomplicated pneumonia be prescribed to reduce the emergence of resistant pathogens. A national evaluation was conducted to assess the duration of therapy for pneumonia."

Our news editors obtained a quote from the research from Idaho State University, "Retrospective medication utilization evaluation. Thirty Veterans Affairs medical centers. Inpatients discharged with a diagnosis of pneumonia. A manual review of electronic medical records of inpatients discharged with uncomplicated community-acquired pneumonia (CAP) or healthcare-associated pneumonia (HCAP) was conducted. Appropriate CAP therapy duration was defined as at least 5 days, and up to 3 additional days beginning the first day the patient achieved clinical stability criteria; the appropriate HCAP therapy duration was defined as 8 days. The duration of antimicrobial therapy for intravenous (IV) and oral (PO) inpatient administration, PO therapy dispensed upon discharge, Clostridium difficile infection (CDI), hospital readmission, and death rates were measured. Of 3881 pneumonia admissions, 1739 met inclusion criteria (CAP [n = 1195]; HCAP [n = 544]). Overall, 13.9% of patients (CAP [6.9%], HCAP [29.0%]) received therapy duration consistent with guideline recommendations. The median (interquartile range) days of therapy were 4 days (3-6 days), 1 day (0-3 days), and 6 days (4-8 days) for inpatient IV, inpatient PO, and outpatient PO antimicrobials, respectively. CDI was rare but more common in patients who received therapy duration consistent with guidelines. Therapy duration was not associated with the readmission or mortality rate. Antimicrobials were commonly prescribed for a longer duration than guidelines recommend."

According to the news editors, the research concluded: "The majority of excessive therapy was completed upon discharge, identifying the need for strategies to curtail unnecessary
use postdischarge."


The news editors report that additional information may be obtained by contacting K.J. Madaras-Kelly, Idaho State University, Coll Pharm, Dept. of Pharm Practice, Meridian, ID, United States. Additional authors for this research include M. Burk, C. Caplinger, J.G. Bohan, M.M. Neuhauser, M.B. Goetz, R. Zhang and F.E. Cunningham.

Keywords for this news article include: Meridian, Idaho, United States, North and Central America, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Respiratory Tract Infections, Drugs and Therapies, Infectious Disease, Antimicrobials, Pulmonology, Pneumonia, Hospital, Therapy, Idaho State University.

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**Oncology - Breast Cancer**

**New Data from Indian Institute of Science Illuminate Findings in Breast Cancer (Triple Block Nanocarrier Platform for Synergistic Cancer Therapy of Antagonistic Drugs)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting from Maharashtra, India, by NewsRx journalists, research stated, "A unique biodegradable triple block nanocarrier (TBN) is designed and developed for synergistic combination therapy of antagonistic drugs for cancer treatment. The TBN was built with hydrophilic polyethylene glycol (PEG) outer shell; a middle hydrophobic and biodegradable polycaprolactone (PCL) block for encapsulating anthracycline anticancer drug like doxorubicin (DOX), and an inner carboxylic-functionalized polycapro lactone (CPCL) core for cisplatin (CP) drug conjugation."

Financial support for this research came from Department of Science and Technology, Ministry of Science and Technology.

The news correspondents obtained a quote from the research from the Indian Institute of Science, "TBN-cisplatin drug conjugate self assembled as stable nanoparticles in saline (also in PBS) wherein the hydrophobic PCL block functions as a shield for Pt-drug stability against GSH detoxification. Enzymatic-biodegradation of TBN exclusively occurred at the intracellular environment to deliver both cisplatin (CP) and doxorubicin (DOX) simultaneously to the nucleus. As a result, the TBN-cisplatin conjugate and its DOX-loaded nanoparticles accomplished 100% cell growth inhibition in GSH overexpressed breast cancer cells. Combination therapy revealed that free drugs were antagonistic to each other, whereas the dual drug-loaded TBN exhibited excellent synergistic cell killing at much lower drug concentrations in breast cancer cells. Confocal microscopic analysis confirmed the localization of drugs in the cytoplasm and at peri-nuclear site. Flow cytometry analysis revealed that the drugs were taken up 4-fold better while delivering them from TBN platform compared to free
According to the news reporters, the research concluded: "The TBNs approach is a perfect platform to overcome the GSH detoxification in Pt-drugs and enable the codelivery of antagonistic drugs like cisplatin and DOX from single polymer dose to accomplish synergistic killing in breast cancer cells."

For more information on this research see: Triple Block Nanocarrier Platform for Synergistic Cancer Therapy of Antagonistic Drugs. Biomacromolecules, 2016;17(12):4075-4085. Biomacromolecules can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Biomacromolecules - www.pubs.acs.org/journal/bomaf6)

Our news journalists report that additional information may be obtained by contacting M. Jayakannan, Indian Inst Sci Educ & Res IISER Pune, Dept. of Chem, Pune 411008, Maharashtra, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.biomac.6b01608. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maharashtra, India, Asia, Emerging Technologies, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin Therapy, Alkylating Agents, Pharmaceuticals, Antineoplastics, Nanotechnology, Women's Health, Breast Cancer, Nanoparticle, Oncology, Indian Institute of Science.

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Oncology - Multiple Myeloma

New Data from Institute of Cancer Research Illuminate Findings in Multiple Myeloma (Genetic factors influencing the risk of multiple myeloma bone disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Multiple Myeloma are discussed in a new report. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "A major complication of multiple myeloma (MM) is the development of osteolytic lesions, fractures and bone pain. To identify genetic variants influencing the development of MM bone disease (MBD), we analyzed MM patients of European ancestry (totaling 3774), which had been radiologically surveyed for MBD."

Our news editors obtained a quote from the research from the Institute of Cancer Research, "Each patient had been genotyped for ~6 00 000 single-nucleotide polymorphisms with genotypes for six million common variants imputed using 1000 Genomes Project and UK10K as reference. We identified a locus at 8q24.12 for MBD (rs4407910, OPG/TNFRSF11B, odds ratio=1.38, p=4.09 × 10(-9)) and a promising association at 19q13.43 (rs74676832, odds ratio=1.97, p=9.33 × 10(-7)). Our findings demonstrate that germline variation influences MBD and highlights the importance of RANK/RANKL/OPG pathway in MBD development."

According to the news editors, the research concluded: "These findings will contribute to the development of future strategies for prevention of MBD in the early
precancerous phases of MM."

For more information on this research see: Genetic factors influencing the risk of multiple myeloma bone disease. *Leukemia*, 2015;30(4):883-8. (Nature Publishing Group - www.nature.com/; Leukemia - www.nature.com/leu/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/leu.2015.342. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, Oncology, Bone Research, United Kingdom, Multiple Myeloma, Paraproteinemias, Risk and Prevention, Hemostatic Disorders, Hemorrhagic Disorders, Blood Protein Disorders, Bone Diseases and Conditions, Vascular Diseases and Conditions, Hematologic Diseases and Conditions.

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**Oncology - Colon Cancer**

**New Data from Institute of Oncology Illuminate Findings in Colon Cancer (Post-Operative Infection Is an Independent Risk Factor for Worse Long-Term Survival after Colorectal Cancer Surgery)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news reporting from Ljubljana, Slovenia, by NewsRx journalists, research stated, "Colorectal cancer surgery is associated with a high incidence of post-operative infections, the outcome of which may be improved if diagnosed and treated early enough. We compared white blood cell (WBC) count, C-reactive protein (CRP), and procalcitonin (PCT) as predictors of post-operative infections and analyzed their impact on long-term survival."

The news correspondents obtained a quote from the research from the Institute of Oncology, "This retrospective study included 186 patients undergoing colorectal surgery. Post-operative values of WBC, CRP, and PCT were analyzed by the receiver operating characteristic (ROC) analysis. We followed infections 30 d after the surgery. A five-year survival was analyzed by Kaplan-Meier method and prognostic factors by Cox regression model. Fifty-five patients (29.5%) developed post-operative infection, the most frequent of which was surgical site infection (SSI). C-reactive protein on post-operative day three and PCT on post-operative day two demonstrated the highest diagnostic accuracy for infection (area under the curve [AUC] 0.739 and 0.735). C-reactive protein on post-operative day three was an independent predictor of infection. Five-year survival was higher in the non-infected group (70.8%), compared with the infected group (52.1%). The worst survival (40.9%) was identified in patients with organ/space SSI. Post-operative infection and tumor stage III-IV were independent predictors of a worse five-year survival. C-reactive protein on post-operative day three and PCT on post-operative day two may be early predictors of infection after colorectal cancer surgery."

According to the news reporters, the research concluded: "Post-operative infections
in particular organ/space SSI have a negative impact on long-term survival."

For more information on this research see: Post-Operative Infection Is an Independent Risk Factor for Worse Long-Term Survival after Colorectal Cancer Surgery. *Surgical Infections*, 2016;17(6):700-712. *Surgical Infections* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Surgical Infections - www.liebertpub.com/overview/surgical-infections/53/)

Our news journalists report that additional information may be obtained by contacting M.K. Povsic, Inst Oncol, Ljubljana 1000, Slovenia. Additional authors for this research include A. Ihan and B. Beovic.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/sur.2015.187. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ljubljana, Slovenia, Europe, Acute-Phase Proteins, Risk and Prevention, Colorectal Research, C-Reactive Protein, C Reactive Protein, Gastroenterology, Immunoproteins, Colon Cancer, Immunology, Proteomics, Oncology, Albumins, Surgery, Institute of Oncology.

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**Proteomics**

**New Data from Institute of Radiology Illuminate Findings in Proteomics**

(2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Proteomics. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Since checkpoint kinase 1 (Chk1) is an essential factor for cell viability following DNA damage, the inhibition of Chk1 has been a major focus of pharmaceutical development to enhance the sensitivity of tumor cells to chemo- and radiotherapy that damage DNA. However, due to the off-target effects of conventional Chk1-targeting strategies and the toxicity of Chk1 inhibitors, alternative strategies are required to target Chk1."

Our news journalists obtained a quote from the research from the Institute of Radiology, "To facilitate such efforts, in this study, we identified a specific Chk1-binding 12-mer peptide from the screening of a phage display library and characterized the peptide in terms of cellular cytotoxicity, and in terms of its effect on Chk1 activity and sensitivity to genotoxic agents. This peptide, named N-terminal Chk1-binding peptide (Chk1-NP), bound the kinase domain of Chk1. Simulation of the binding revealed that the very N-terminus of the Chk1 kinase domain is the potential peptide binding site. Of note, the polyarginine-mediated internalization of Chk1-NP redistributed nuclear Chk1 with a prominent decrease in the nucleus in the absence of DNA damage. Treatment with Chk1-NP peptide alone decreased the viability of p53-defective HeLa cells, but not that of p53-functional NCI-H460 cells under normal conditions. The treatment of HeLa or NCI-H460 cells with the peptide significantly enhanced radiation sensitivity following ionizing radiation (IR) with a greater enhancement observed in HeLa cells. Moreover, the IR-induced destabilization of Chk1 was aggravated by treatment with..."
Chk1-NP. Therefore, the decreased nuclear localization and protein levels of Chk1 seem to be responsible for the enhanced cancer cell killing following combined treatment with IR and Chk1-NP."

According to the news editors, the research concluded: "The approach using the specific Chk1-binding peptide may facilitate the mechanistic understanding and potential modulation of Chk1 activities and may provide a novel rationale for the development of specific Chk1-targeting agents."

For more information on this research see: A novel Chk1-binding peptide that enhances genotoxic sensitivity through the cellular redistribution of nuclear Chk1. *International Journal of Molecular Medicine*, 2016;38(5):1490-1498. *International Journal of Molecular Medicine* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

The news correspondents report that additional information may be obtained from S. Bae, Korea Inst Radiol & Med Sci, Div Radiat Effects, Seoul 139706, South Korea. Additional authors for this research include K.J. Choi and S. Bae.

Keywords for this news article include: Seoul, South Korea, Asia, Enzymes and Coenzymes, Proteomics, Genetics, p53 Gene, Proteins, Peptides, Kinase, Institute of Radiology.

Oncology - Breast Cancer

**New Data from K. Froehlich et al Illuminate Findings in Breast Cancer (Generation of Multicellular Breast Cancer Tumor Spheroids: Comparison of Different Protocols)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news originating from Jena, Germany, by NewsRx correspondents, research stated, "Multicellular tumor spheroids are widely used models in tumor research. Because of their three dimensional organization they can simulate avascular tumor areas comprising proliferative and necrotic cells."

Financial supporters for this research include Wilhelm Sander-Stiftung (DE), Evangelisches Studienwerk Villigst (DE), German Academic Exchange Service (DE), Thuringer Ministerium fur Bildung, Wissenschaft und Kultur (DE).

Our news journalists obtained a quote from the research, "Nonetheless, protocols for spheroid generation are still inconsistent. Therefore, in this study the breast cancer cell lines MCF-7, MDA-MB-231 and SK-BR-3 have been used to compare different spheroid generation models including hanging drop, liquid overlay and suspension culture techniques, each under several conditions. Experimental approaches differed in cell numbers (400-10,000), media and additives (25 % methocel, 25 % methocel plus 1 % Matrigel, 3.5 % Matrigel). In total, 42 different experimental setups have been tested. Generation of spheroids was evaluated by light microscopy and the structural composition was assessed immunohistochemically by means of Ki-67, cleaved poly (ADP-ribose) polymerase (cPARP) and mucin-1 (MUC-1) expression. Although the tested cell lines diverged widely in their capacity of forming spheroids we recommend hanging drops supplemented with 25 % methocel as the most reliable and efficient
method with regard to success of generation of uniform spheroids, costs, experimental complexity and time expenditure in the different cell lines. MCF-7 cells formed spheroids under almost all analyzed conditions, and MDA-MB-231 cells under only one protocol (liquid overlay technique, 3.5 % Matrigel), while SK-BR-3 did not under neither condition."

According to the news editors, the research concluded: "Therefore, we outline specific methods and recommend the use of adapted and standardized spheroid generation protocols for each cell line."


The news correspondents report that additional information may be obtained from U.R. Markert, Placenta Lab, Dept. of Obstet, D-07743 Jena, Germany. Additional authors for this research include J.D. Haeger, J. Heger, J. Pastuschek, S.M. Photini, Y. Yan, A. Lupp, C. Pfarrer, R. Mrowka, E. Schleussner, U.R. Markert and A. Schmidt.

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Keywords for this news article include: Jena, Germany, Europe, Cancer, Article Review, Women's Health, Breast Cancer, Cell Line, Oncology.

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Lymphocytes

**New Data from Karolinska Institute Illuminate Findings in Lymphocytes**

[S-2-hydroxyglutarate regulates CD8(+) T-lymphocyte fate]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lymphocytes is the subject of a report. According to news reporting from Stockholm, Sweden, by NewsRx journalists, research stated, "R-2-hydroxyglutarate accumulates to millimolar levels in cancer cells with gain-of-function isocitrate dehydrogenase 1/2 mutations. These levels of R-2-hydroxyglutarate affect 2-oxoglutarate-dependent dioxygenases."

The news correspondents obtained a quote from the research from Karolinska Institute, "Both metabolite enantiomers, R- and S-2-hydroxyglutarate, are detectible in healthy individuals, yet their physiological function remains elusive. Here we show that 2-hydroxyglutarate accumulates in mouse CD8(+) T cells in response to T-cell receptor triggering, and accumulates to millimolar levels in physiological oxygen conditions through a hypoxia-inducible factor 1-alpha (HIF-1 alpha)-dependent mechanism. S-2-hydroxyglutarate predominates over R-2-hydroxyglutarate in activated T cells, and we demonstrate alterations in markers of CD8(+) T-cell differentiation in response to this metabolite. Modulation of histone and DNA demethylation, as well as HIF-1 alpha stability, mediate these effects. S-2-hydroxyglutarate treatment greatly enhances the in vivo proliferation, persistence and anti-tumour capacity of adoptively transferred CD8(+) T cells."
According to the news reporters, the research concluded: "Thus, S-2-hydroxyglutarate acts as an immunometabolite that links environmental context, through a metabolic-epigenetic axis, to immune fate and function."


Keywords for this news article include: Stockholm, Sweden, Europe, Hemic and Immune Systems, Mononuclear Leukocytes, T-Lymphocytes, Blood Cells, Immunology, Genetics, Karolinska Institute.

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**Eye Diseases and Conditions - Retinal...**

**New Data from Kyushu University Illuminate Findings in Retinal Neovascularization (Different roles played by periostin splice variants in retinal neovascularization)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Eye Diseases and Conditions - Retinal Neovascularization have been presented. According to news originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "Retinal neovascularization (NV) due to retinal ischemia is one of the major causes of vision reduction in patients with different types of retinal diseases although anti-vascular endothelial growth factor (anti-VEGF) therapy can partially reduce the size of the retinal NV. We recently reported that periostin plays an important role in the development of NV and the formation of preretinal fibrovascular membranes, but the role of the splice variants of periostin on retinal NV has not been determined."

Financial supporters for this research include JSPS KAKENHI, Takeda Science Foundation, Japan Society for the Promotion of Science.

Our news journalists obtained a quote from the research from Kyushu University, "We examined the expressions of periostin splice variants in the ischemic retinas of a mouse model of oxygen-induced retinal NV. We also studied the function of periostin splice variants on retinal NV using periostin knock out mice, and the effects of anti-periostin antibodies on retinal NV. Our results showed that the expressions of the periostin splice variants were increased in ischemic retinas. The degree of increase of periostin lacking exon 17 was the highest among the periostin splice variants examined. Both genetic ablation of periostin exons 17 and 21 and antibodies for periostin exons 17 and 21 affected preretinal pathological NV. Inhibition of exon 17 of periostin had the greatest effect in reducing preretinal pathological NV."

According to the news editors, the research concluded: "These findings suggest a causal link between periostin splice variants and retinal NV, and an intravitreal injection of
antibody for exon 17 and exon 21 of periostin should be considered to inhibit preretinal pathological NV."


The news correspondents report that additional information may be obtained from S. Yoshida, Kyushu University, Grad Sch Med Sci, Dept. of Ophthalmol, Fukuoka 8128582, Japan. Additional authors for this research include S. Yoshida, K. Ishikawa, Y. Kobayashi, T. Abe, H. Kiyonari, G. Shioi, N. Katsuragi, T. Ishibashi, R. Morishita and Y. Taniyama.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.exer.2016.10.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fukuoka, Japan, Asia, Retinal Diseases and Conditions, Eye Diseases and Conditions, Retinal Neovascularization, Genetics, Kyushu University.

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Oncology - Prostate Cancer

New Data from La Trobe University Illuminate Findings in Prostate Cancer (Which coping strategies can predict beneficial feelings associated with prostate cancer?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting from Melbourne, Australia, by NewsRx journalists, research stated, "Aims and objectives. This study aimed to identify the extent to which different coping strategies can predict benefit finding in prostate cancer experiences."

The news correspondents obtained a quote from the research from La Trobe University, "Although beginning evidence suggests that the capacity to find positives in adversity and find some benefit from cancer-associated experiences may be influenced by coping, little is known about which coping strategies can predict benefit finding in prostate cancer. Cross-sectional. Data from men (n = 209) diagnosed with prostate cancer receiving hormone suppression therapy were analysed using descriptive statistics, bivariate correlations and backward stepwise multiple linear regression. Sociodemographic and clinical data, and self-report scales (17-item Benefit Finding Scale and Brief COPE) were used. Bivariate analyses showed significant correlations between 14 coping strategies and benefit finding in prostate cancer. Multiple linear regression modelling showed that the predictor variables 'acceptance', 'positive reframing' and 'turning to religion' explained 35% of the variance in dependant variable benefit finding when the other variables were controlled for. Of the three predictor variables, acceptance and positive reinterpretation were most strongly related to benefit finding. The self-reported coping strategies 'acceptance' and 'positive reframing' emerged as being most significantly predictive of benefit finding in this sample. 'Turning to religion' was also significant, but to a somewhat lesser extent in predicting benefit finding in the disruptive
experience of prostate cancer. Relevance to clinical practice. The use of positively oriented emotional coping strategies of 'acceptance', 'positive reframing' and 'turning to religion' are influential to benefit finding in prostate cancer."

According to the news reporters, the research concluded: "An understanding of the coping strategies that are predictive to benefit finding can assist clinicians to discern and target men who are more or less likely to find benefit, and to develop person-centred support strategies and interventions with an aim to optimising positive emotional states throughout the cancer journey."


Our news journalists report that additional information may be obtained by contacting E.C. Pascoe, La Trobe University, Sch Nursing & Midwifery, Postgraduate Canc Courses, Melbourne, Vic 3085, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13300. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Cancer, Epidemiology, Prostatic Neoplasms, Prostate Cancer, Oncology, La Trobe University.

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**Gram-Positive Bacteria - Streptomyces**

**New Data from Louisiana State University Illuminate Findings in Streptomyces (Genome Content and Phylogenomics Reveal both Ancestral and Lateral Evolutionary Pathways in Plant-Pathogenic Streptomyces Species)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - Streptomyces. According to news reporting originating from Baton Rouge, Louisiana, by NewsRx correspondents, research stated, "Streptomyces spp. are highly differentiated actinomycetes with large, linear chromosomes that encode an arsenal of biologically active molecules and catalytic enzymes. Members of this genus are well equipped for life in nutrient-limited environments and are common soil saprophytes."

Our news editors obtained a quote from the research from Louisiana State University, "Out of the hundreds of species in the genus Streptomyces, a small group has evolved the ability to infect plants. The recent availability of Streptomyces genome sequences, including four genomes of pathogenic species, provided an opportunity to characterize the gene content specific to these pathogens and to study phylogenetic relationships among them. Genome sequencing, comparative genomics, and phylogenetic analysis enabled us to discriminate pathogenic from saprophytic Streptomyces strains; moreover, we calculated that the pathogen-specific genome contains 4,662 orthologs."
According to the news editors, the research concluded: "Phylogenetic reconstruction suggested that Streptomyces scabies and S. ipomoeae share an ancestor but that their biosynthetic clusters encoding the required virulence factor thaxtomin have diverged. In contrast, S. turgidiscabies and S. acidiscabies, two relatively unrelated pathogens, possess highly similar thaxtomin biosynthesis clusters, which suggests that the acquisition of these genes was through lateral gene transfer."

For more information on this research see: Genome Content and Phylogenomics Reveal both Ancestral and Lateral Evolutionary Pathways in Plant-Pathogenic Streptomyces Species. Applied and Environmental Microbiology, 2016;82(7):2146-55. (American Society for Microbiology - www.asm.org; Applied and Environmental Microbiology - aem.asm.org)

The news editors report that additional information may be obtained by contacting G.S. Pettis, Dept. of Biological Sciences, Louisiana State University, Baton Rouge, Louisiana USA. Dept. of Plant Pathology and Crop Physiology, Louisiana State University Agricultural Center, Baton Rouge, Louisiana, United States. Additional authors for this research include T. Lefebure, J.H. Badger, D. Guan, G.S. Pettis, M.J. Stanhope and R. Loria.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AEM.03504-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Louisiana, Baton Rouge, United States, Actinomycetales, Streptomycetaceae, Gram Positive Bacteria, Gram-Positive Bacteria, North and Central America, Gram Positive Endospore Forming Rods.

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Heart Disorders and Diseases - Heart Attack

New Data from Lund University Illuminate Findings in Heart Attack (Critical Care Management after Cardiac Arrest)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting originating in Lund, Sweden, by NewsRx journalists, research stated, "Sudden cardiac arrest is a devastating event with high mortality and, substantial morbidity among survivors. Early recognition and intervention to restore circulation is the primary goal; once that is achieved, the path toward a meaningful recovery starts."

The news reporters obtained a quote from the research from Lund University, "Initial in-hospital care is focused on emergency cardiac care, but soon there is a change to a more brain-oriented critical care including targeted temperature management, brain monitoring, sedation, and repeated neurologic assessments. In patients who show early signs of awakening from coma once sedation has been stopped, the prognosis is generally good. In patients with early seizures and prolonged coma after sedation has been weaned, the prognosis is often poor. A structured model for neuroprognostication using several prognostication tools such as imaging, neurophysiology, biomarkers, and above all repeated clinical investigations is fundamental for the ability to properly assess the comatose cardiac arrest patient and to enable accurate and trustworthy decisions on level of care."

According to the news reporters, the research concluded: "The authors present a model for critical care management after cardiac arrest and a neuroprognostication algorithm,
both in use at their institution."

For more information on this research see: Critical Care Management after Cardiac Arrest. Seminars in Neurology, 2016;36(6):542-549. Seminars in Neurology can be contacted at: Thieme Medical Publ Inc, 333 Seventh Ave, New York, NY 10001, USA. (Thieme - www.thieme.com)

Our news correspondents report that additional information may be obtained by contacting H. Friberg, Lund University, Div Anesthesiol & Intens Care, Dept. of Clin Sci, Lund, Sweden.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0036-1592168. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lund, Sweden, Europe, Central Nervous System Diseases and Conditions, Neurobehavioral Manifestations, Heart Disorders and Diseases, Neurologic Manifestations, Consciousness Disorders, Critical Care Medicine, Unconsciousness, Cardiac Arrest, Heart Attack, Cardiology, Coma, Lund University.

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Nutritional and Metabolic Diseases and Conditions - …

New Data from Mahidol University Illuminate Findings in Type 2 Diabetes (Adipoq Polymorphisms Among Thais With Pre-diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting from Bangkok, Thailand, by NewsRx journalists, research stated, "Studies have shown that polymorphisms of adiponectin gene (ADIPOQ) are associated with risk of developing type 2 diabetes mellitus (T2DM). However, no studies have investigated the association between genetic variants of ADIPOQ and pre-diabetes, a group at higher risk for developing T2DM."

The news correspondents obtained a quote from the research from Mahidol University, "A total of 75 pre-diabetes and 130 normal subjects were recruited from volunteers in Bangkok, Thailand. Individuals with pre-diabetes were selected based on American Diabetes Association diagnostic criteria. Six ADIPOQ polymorphisms were genotyped using polymerase chain reaction-restriction fragment length polymorphism technique. ADIPOQ polymorphism rs266729 C>G is significantly associated with pre-diabetes (p = 0.006). CG/GG genotypes were found among 60% and 40% of pre-diabetes and normal subjects, respectively. SNP rs266729 C>G was associated with increased pre-diabetes risk (OR = 2.64; 95% CI: 1.18-5.89, p = 0.018). No significant differences were found between pre-diabetes and normal subjects for other ADIPOQ polymorphisms. However, haplotype analysis revealed that haplotype GGTAAT is significantly associated with pre-diabetes when compared with GCGAAC reference haplotype (OR = 22.31; 95% CI: 1.37-361.93, p = 0.03).

According to the news reporters, the research concluded: "Our data indicate that ADIPOQ rs266729 C>G polymorphism may contribute to the genetic risk of pre-diabetes and provide preliminary data useful in genetic screening for pre-diabetes among Thais."

For more information on this research see: Adipoq Polymorphisms Among Thais With Pre-diabetes. Southeast Asian Journal of Tropical Medicine and Public Health, 2016;47
New Data from Ministry of Health Illuminate Findings in Genitourinary Tract Agents (Effects of chronic restraint stress on social behaviors and the number of hypothalamic oxytocin neurons in male rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Genitourinary Tract Agents. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Oxytocin (OXT) and vasopressin (AVP) are considered to be related to mammalian social behavior and the regulation of stress responses. The present study investigated the effects of chronic homotypic restraint stress (CHRS) on social behaviors and anxiety, as well as its repercussions on OXT-and AVP-positive neurons in the paraventricular nucleus (PVN) and supraoptic nucleus (SON) nuclei in rat."

Financial support for this research came from Department of Health.

The news reporters obtained a quote from the research from the Ministry of Health, "Male Sprague-Dawley rats receiving CHRS were exposed to repeated restraint stress of 30 min per day for 10 days. Changes in social approach behaviors were evaluated with the three-chambered social approach task. Changes in anxiety-like behaviors were evaluated in the light-dark box test. The number of neurons expressing oxytocin and/or vasopressin in PVN and SON were examined by immunohistochemistry techniques. The results demonstrated that social approach was increased and anxiety was decreased following 10-day exposure to CHRS. Furthermore, the number of OXT-immunoreactive cells in PVN was increased significantly, whereas no change in SON was seen. The number of AVP immunoreactive cells either in PVN or SON was unaffected. The results of this study suggest that certain types of stress could be effective in the treatment of social dysfunction in persons with mental disorders such as autism, social anxiety disorder."

According to the news reporters, the research concluded: "The therapeutic effects may be mediated by changes in the function of OXT neurons in PVN."

For more information on this research see: Effects of chronic restraint stress on social behaviors and the number of hypothalamic oxytocin neurons in male rats. *Neuropeptides*, 2016;60(6):21-28. *Neuropeptides* can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Neuropeptides -
New Data from National Research Center Illuminate Findings in Down Syndrome (Genotype/phenotype correlation in a female patient with 21q22.3 and 12p13.33 duplications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Genetic Diseases and Conditions - Down Syndrome are presented in a new report. According to news originating from Cairo, Egypt, by NewsRx correspondents, research stated, "Many chromosomal rearrangements that lead to copy-number gains or losses have been shown to cause distinctive and recognizable clinical phenotypes. Conventional cytogenetic analysis can detect many, but not all, rearrangements depending on its power of resolution."

Our news journalists obtained a quote from the research from National Research Center, "The wide use of whole-genome array-based comparative genomic hybridization (array CGH) techniques has allowed the detection of novel syndromes and to establish genotype-phenotype correlations by delineating at high resolution the regions involved in specific chromosomal aberrations. We report on a two and half-year-old female patient with intellectual disability and distinctive phenotypic features resulting from a de novo duplication of about 0.3 Mb in 21q22.3 associated with duplication of about 0.3 Mb in 12p13.33. The patient's chromosomal abnormalities were identified at the cytogenetic molecular level, using SNP array analysis, while GTG banding technique revealed a normal karyotype. Clinical findings of the patient were compared with Down syndrome and 12p duplication syndrome."

According to the news editors, the research concluded: "This study suggests that an area of contiguous genes on the distal part of chromosome 21 (21q22.3) contribute to the Down syndrome phenotype and indicates that genes in the distal region of 12p (12p13.33) account for many facial characteristics and hypotonia of trisomy 12p syndrome."

New Data from Nippon School of Medicine Illuminate Findings in Endoscopy (Retrieval of Retained Capsule Endoscopy at Small Bowel Stricture by Double-Balloon Endoscopy Significantly Decreases Surgical Treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Surgical Procedures - Endoscopy. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "The aim is to elucidate the efficacy and safety of double-balloon endoscopy (DBE) for small bowel capsule endoscopy (SBCE) retrieval from small bowel stricture and to follow the outcome of the stricture where the SBCE was entraped. The retention of SBCE is a serious adverse event and most retained capsules are retrieved by surgery."

Our news journalists obtained a quote from the research from the Nippon School of Medicine, "There is still no report analyzing the follow-up of patients with stricture after retrieval of entrapped SBCEs by DBE. This study was designed a retrospective cohort study. Subjects were 12 consecutive patients with small bowel stricture where retrieval of entrapped SBCE was attempted using DBE. Success rate of the SBCE retrieval by DBE, surgical rate of the small bowel stricture, adverse events of DBE, and outcomes in the follow-up period were evaluated. Diagnoses were Crohn's disease, nonsteroidal anti-inflammatory drugs-induced enteropathy, ischemic enteritis, and carcinoma in 8, 2, 1, and 1 patients, respectively. SBCE was successfully retrieved in 11 of the 12 patients (92%). No adverse events were encountered in all endoscopic procedures such as retrieval of SBCEs and dilation of the strictures. Nine of the 12 patients (75%) did not undergo surgical treatment for the stricture where SBCE was entrapped through the follow-up period (mean, 1675±847 d). Retrieval of SBCEs using DBE was safe, had a high success rate, and was useful to evaluate the need for surgery."

According to the news editors, the research concluded: "Seventy-five percent of patients with small bowel stricture where the SBCE was entrapped did not require surgery through approximately 5 years."

For more information on this research see: Retrieval of Retained Capsule Endoscopy at Small Bowel Stricture by Double-Balloon Endoscopy Significantly Decreases Surgical Treatment. Journal of Clinical Gastroenterology, 2016;50(2):141-6. (Lippincott Williams and Wilkins - www.lww.com; Journal of Clinical Gastroenterology -
Our news journalists report that additional information may be obtained by contacting K. Mitsui, Dept. of Gastroenterology, Nippon Medical School, Graduate School of Medicine, Tokyo, Japan. Additional authors for this research include S. Fujimori, S. Tanaka, A. Ehara, J. Omori, N. Akimoto, K. Maki, M. Suzuki, Y. Kosugi, Y. Ensaka, Y. Matsuura, T. Kobayashi, M. Yonezawa, A. Tatsuguchi and C. Sakamoto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MCG.0000000000000335. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Surgery, Endoscopy, Gastroenterology, Minimally Invasive Surgical Procedures.

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New Data from Oregon Health and Science University Illuminate Findings in Mycotoxins (DNA polymerase zeta limits chromosomal damage and promotes cell survival following aflatoxin exposure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biological Factors - Mycotoxins is now available. According to news reporting originating in Portland, Oregon, by NewsRx journalists, research stated, "Routine dietary consumption of foods that contain aflatoxins is the second leading cause of environmental carcinogenesis worldwide. Aflatoxin-driven mutagenesis is initiated through metabolic activation of aflatoxin B-1 (AFB(1)) to its epoxide form that reacts with N7 guanine in DNA."

The news reporters obtained a quote from the research from Oregon Health and Science University, "The resulting AFB(1)-N7-dG adduct undergoes either spontaneous depurination or imidazole-ring opening yielding formamidopyrimidine AFB(1) (AFB(1)-Fapy-dG). Because this latter adduct is known to persist in human tissues and contributes to the high frequency G-to-T mutation signature associated with many hepatocellular carcinomas, we sought to establish the identity of the polymerase(s) involved in processing this lesion. Although our previous biochemical analyses demonstrated the ability of polymerase zeta (pol zeta) to incorporate an A opposite AFB(1)-Fapy-dG and extend from this mismatch, biological evidence supporting a unique role for this polymerase in cellular tolerance following aflatoxin exposure has not been established. Following challenge with AFB1, survival of mouse cells deficient in pol zeta (Rev3L(-/-)) was significantly reduced relative to Rev3L(+/-) cells or Rev3L(-/-) cells complemented through expression of the wild-type human REV3L. Furthermore, cell-cycle progression of Rev3L(-/-) mouse embryo fibroblasts was arrested in late S/G2 following AFB(1) exposure. These Rev3L(-/-) cells showed an increase in replication-dependent formation of gamma-H2AX foci, micronuclei, and chromosomal aberrations (chromatid breaks and radials) relative to Rev3L(+/-) cells."

According to the news reporters, the research concluded: "These data suggest that pol zeta is essential for processing AFB(1)-induced DNA adducts and that, in its absence, cells do not have an efficient backup polymerase or a repair/tolerance mechanism facilitating survival."

Our news correspondents report that additional information may be obtained by contacting R.S. Lloyd, Oregon Health Sciences University, Dept. of Physiol & Pharmacol, Portland, OR 97239, United States. Additional authors for this research include N. Owen, I.G. Minko, S.S. Lange, L. Li, M.P. Stone, R.D. Wood, A.K. McCullough and R.S. Lloyd.

Keywords for this news article include: Portland, Oregon, United States, North and Central America, Enzymes and Coenzymes, Biological Factors, DNA Research, Polymerase, Aflatoxins, Mycotoxins, Genetics, Oregon Health and Science University.

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**Pelvic Organ Prolapse**

**New Data from Peking Union Medical College Hospital Illuminate Findings in Pelvic Organ Prolapse (Proteomic Analysis of the Uterosacral Ligament in Postmenopausal Women with and without Pelvic Organ Prolapse)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Pelvic Organ Prolapse are presented in a new report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Pelvic organ prolapse (POP) is a major health problem in adult women that involves many factors. No proteomic analysis has been conducted exclusively in POP patients."

Our news journalists obtained a quote from the research from Peking Union Medical College Hospital, "This study aimed to identify the differential expression of proteins that may be involved in POP by proteomic analysis. Samples of the uterosacral ligament (USL) were collected from five POP patients and five non-POP patients matched according to age, parity, and menopausal status and analyzed using two-dimensional electrophoresis and matrix-assisted laser desorption/ionization time-of-flight mass spectrometry (MALDI-TOF-MS). Quantitative real-time polymerase chain reaction (qRT-PCR) was used to verify the mRNA expression of proteins that showed differential expression in the proteomic analyses. Proteins differentially expressed between POP and non-POP patients were detected. Eight proteins that were down-regulated in the POP group were identified by MALDI-TOF-MS. These proteins included electron transfer flavoprotein, apolipoprotein A-I, actin, transgelin, coflin-1, cyclophilin A, myosin, and galectin-1, and their expression was verified by qRT-PCR."

According to the news editors, the research concluded: "Using comparative proteomics, we identified eight differentially expressed proteins (including four cytoskeleton proteins and three proteins related to apoptosis) in the USL that may be involved in apoptosis associated with the tissue effects in POP pathophysiology."

For more information on this research see: Proteomic Analysis of the Uterosacral

The news correspondents report that additional information may be obtained from L. Zhu, Dept. of Obstetrics and Gynecology, Peking Union Medical College Hospital, Peking Union Medical College, Chinese Academy of Medical Sciences, Beijing 100730, People's Republic of China. Additional authors for this research include L. Zhu, J.H. Lang, Z. Wang and S. Liang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.170262. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the *Chinese Medical Journal* is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Beijing, Genetics, Peptides, Proteins, Proteomics, Amino Acids, Women's Health, Pelvic Organ Prolapse, People's Republic of China. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

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**New Data from Pennsylvania State University Illuminate Findings in Obesity (Effects of Canola and High-Oleic-Acid Canola Oils on Abdominal Fat Mass in Individuals with Central Obesity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting from University Park, Pennsylvania, by NewsRx journalists, research stated, "To determine the effect of diets low in saturated fatty acids and high in monounsaturated fatty acids (MUFA) or polyunsaturated fatty acids on body composition in participants at risk for metabolic syndrome (MetS). This study was a randomized, crossover, controlled feeding study."

The news correspondents obtained a quote from the research from Pennsylvania State University, "Participants (n=101, ages 49.5+/−1.2, BMI 29.4+/−0.4 kg/m(2)) were randomized to five isocaloric diets containing treatment oils: Canola, CanolaOleic, CanolaDHA, Corn/Safflower, and Flax/Safflower. Each diet period was 4 weeks followed by a 2- to 4-week washout period. Canola (3.1 kg, P = 0.026) and CanolaOleic oil diets (3.09 kg, P = 0.03) reduced android fat mass compared with the Flax/Safflower oil diet (3.2 kg), particularly in men. The decrease in abdominal fat mass was correlated with the reduction in blood pressure after the Canola (systolic blood pressure: r = 0.26, P = 0.062; diastolic blood pressure: r = 0.38, P = 0.0049) and CanolaOleic oil diets (systolic blood pressure: r = 0.39 P = 0.004; diastolic blood pressure: r = 0.45, P = 0.0006). The decrease in abdominal fat mass also was associated with a reduction in triglyceride levels after the CanolaOleic oil diet (r = 0.42, P = 0.002). Diets high in MUFA (compared with PUFA) reduced central obesity with an accompanying improvement in MetS risk factors."

According to the news reporters, the research concluded: "Diets high in MUFA may
be beneficial for treating and perhaps preventing MetS."

For more information on this research see: Effects of Canola and High-Oleic-Acid Canola Oils on Abdominal Fat Mass in Individuals with Central Obesity. *Obesity*, 2016;24 (11):2261-2268. *Obesity* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news journalists report that additional information may be obtained by contacting P.M. Kris-Etherton, Pennsylvania State University, Dept. of Nutr Sci, University Park, PA 16802, United States. Additional authors for this research include P.M. Kris-Etherton, S.G. West, B. Lamarche, D.J.A. Jenkins, J.A. Fleming, C.E. McCrea, S. Pu, P. Couture, P.W. Connelly and P.J.H. Jones.

Keywords for this news article include: University Park, Pennsylvania, United States, North and Central America, Obesity, Nutritional and Metabolic Diseases and Conditions, Risk and Prevention, Pennsylvania State University.

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**Digestive System Diseases and Conditions** - …

**New Data from R.B. Pinto et al Illuminate Findings in Hirschsprung Disease (Hirschsprung disease and hepatoblastoma: case report of a rare association)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Hirschsprung Disease have been published. According to news reporting originating in Porto Alegre, Brazil, by NewsRx journalists, research stated, "Hirschsprung disease is a developmental disorder of the enteric nervous system that is characterized by absence of ganglion cells in the distal intestine, and it occurs in approximately 1 in every 500,000 live births. Hepatoblastoma is a malignant liver neoplasm that usually occurs in children aged 6 months to 3 years, with a prevalence of 0.54 cases per 100,000."

The news reporters obtained a quote from the research, "A boy diagnosed with intestinal atresia in the first week of life progressed to a diagnosis of comorbid Hirschsprung disease. Congenital cataracts and sensorineural deafness were diagnosed. A liver mass developed and was subsequently confirmed to be a hepatoblastoma, which was treated by means of surgical resection of 70% of the liver volume and neoadjuvant chemotherapy (ifosfamide, cisplatin and doxorubicin). It is known that Hirschsprung disease may be associated with syndromes predisposing towards cancer, and that hepatoblastoma may also be associated with certain congenital syndromes. However, co-occurrence of hepatoblastoma and Hirschsprung disease has not been previously described."

According to the news reporters, the research concluded: "We have reported a case of a male patient born with ileal atresia, Hirschsprung disease and bilateral congenital cataract who was later diagnosed with hepatoblastoma."


Our news correspondents report that additional information may be obtained by

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1590/1516-3180.2014.9200311. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Oncology, Megacolon, Porto Alegre, South America, Hepatoblastomas, Gastroenterology, Hirschsprung Disease, Congenital Abnormalities, Diagnostics and Screening, Digestive System Abnormalities, Colonic Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.

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Skin Diseases and Conditions - Atopic Dermatitis

New Data from Ruhr University Illuminate Findings in Atopic Dermatitis (Trying to understand the genetics of atopic dermatitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Skin Diseases and Conditions - Atopic Dermatitis are presented in a new report. According to news reporting out of Bochum, Germany, by NewsRx editors, research stated, "Atopic dermatitis (AD) is a common and complex skin disease associated with both genetic and environmental factors. Loss-of-function mutations in the filaggrin gene, encoding a structural protein with an important role in epidermal barrier function, constitutes a well recognised susceptibility locus for AD."

Our news journalists obtained a quote from the research from Ruhr University, "Further, genome-wide association studies (GWAS), including large meta-analyses, have discovered 38 additional susceptibility loci with genome-wide significance. However, the reported variations only explain a fraction of the overall heritability of AD. Here, we summarize the current knowledge of the role of filaggrin and the epidermal differentiation complex as well as the results of GWAS, with an emphasis on novel findings and observations made in the past two years."

According to the news editors, the research concluded: "Additionally, we present first results of exome sequencing for AD and discuss novel therapeutic strategies."


Our news journalists report that additional information may be obtained by contacting S. Stemmler, Ruhr Univ, Dept. of Human Genet, Bochum, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mcp.2016.10.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bochum, Germany, Europe, Skin Diseases
New Data from Sapienza-University Illuminate Findings in Mesotheliomas (Mesothelioma families without inheritance of a BAP1 predisposing mutation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mesotheliomas have been published. According to news reporting originating in Rome, Italy, by NewsRx journalists, research stated, "Familial malignant mesothelioma clusters are ideal candidates to explore BAP1 genomic status as a predisposing risk factor. We report data on BAP1 analysis in four families with multiple mesothelioma cases to investigate possible BAP1 alterations associated with an inherited cancer syndrome."

Financial supporters for this research include Lazio Region, University of Turin, Ministry of Health to the Piemonte Region.

The news reporters obtained a quote from the research from Sapienza-University, "We also recorded family history of cancer and assessed asbestos exposure. By genomic direct sequencing, we found no evidence of a BAP1 germline mutation in tumor DNA samples (one mesothelioma per family: n = 3 epithelioid; n = 1 biphasic). On the other hand, we identified a novel BAP1 somatic alteration (c.329_335delinsTC) in exon 5 (n = 1 biphasic), and we hypothesized the occurrence of somatic inactivating events not identifiable by sequencing in the other cases (n = 3 epithelioid), as demonstrated by the loss of nuclear BAP1 immunostaining. History of other cancers was in sites not typical of the BAP1 cancer syndrome. Asbestos exposure was occupational (n = 2 clusters), household (n = 1), and unknown (n = 1). These family units without inheritance of a BAP1 predisposing mutation expand the number of unmutated germline BAP1 families with multiple mesothelioma cases."

According to the news reporters, the research concluded: "This suggests that besides the exposure to asbestos other currently unknown genetic or epigenetic factors may be responsible for the high incidence of mesothelioma in BAP1-unmutated families."

For more information on this research see: Mesothelioma families without inheritance of a BAP1 predisposing mutation. Cancer Genetics, 2016;209(9):381-387. Cancer Genetics can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Cancer Genetics - www.journals.elsevier.com/cancer-genetics/)

Our news correspondents report that additional information may be obtained by contacting V. Ascoli, Sapienza Univ, Dept. of Radiol Oncol & Anatomopathol Sci, I-00161 Rome, Italy. Additional authors for this research include I. Cozzi, S. Vatrano, S. Izzo, J. Giorcelli, E. Romeo, C. Carnovale-Scalzo, L.R. Grillo, F. Facciolo, P. Visca, M. Papotti and L. Righi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.07.002. This DOI is a link to an online electronic document that is either free or for purchase.
New Data from Scripps Research Institute Illuminate Findings in Small Molecule Inhibitors [Identification of Neutrophil Exocytosis Inhibitors (Nexinhibs), Small Molecule Inhibitors of Neutrophil Exocytosis and Inflammation DRUGGABILITY OF THE ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Small Molecule Inhibitors have been presented. According to news reporting from La Jolla, California, by NewsRx journalists, research stated, "Neutrophils constitute the first line of cellular defense in response to bacterial and fungal infections and rely on granular proteins to kill microorganisms, but uncontrolled secretion of neutrophil cargos is injurious to the host and should be closely regulated. Thus, increased plasma levels of neutrophil secretory proteins, including myeloperoxidase and elastase, are associated with tissue damage and are hallmarks of systemic inflammation."

The news correspondents obtained a quote from the research from Scripps Research Institute, "Here, we describe a novel high-throughput screening approach to identify small molecule inhibitors of the interaction between the small GTPase Rab27a and its effector JFC1, two central regulators of neutrophil exocytosis. Using this assay, we have identified small molecule inhibitors of Rab27a-JFC1 binding that were also active in cell-based neutrophil-specific exocytosis assays, demonstrating the druggability of Rab GTPases and their effectors. These compounds, named Nexinhibs (neutrophil exocytosis inhibitors), inhibit exocytosis of azurophilic granules in human neutrophils without affecting other important innate immune responses, including phagocytosis and neutrophil extracellular trap production. Furthermore, the compounds are reversible and potent inhibitors of the extracellular production of superoxide anion by preventing the up-regulation of the granule membrane-associated subunit of the NADPH oxidase at the plasma membrane. Nexinhibs also inhibit the upregulation of activation signature molecules, including the adhesion molecules CD11b and CD66b. Importantly, by using a mouse model of endotoxin-induced systemic inflammation, we show that these inhibitors have significant activity in vivo manifested by decreased plasma levels of neutrophil secretory proteins and significantly decreased tissue infiltration by inflammatory neutrophils."

According to the news reporters, the research concluded: "Altogether, our data present the first neutrophil exocytosis-specific inhibitor with in vivo anti-inflammatory activity, supporting its potential use as an inhibitor of systemic inflammation."


Our news journalists report that additional information may be obtained by

Keywords for this news article include: La Jolla, California, United States, North and Central America, Small Molecule Inhibitors, Hemic and Immune Systems, Enzymes and Coenzymes, Drugs and Therapies, Inflammation, Granulocytes, Blood Cells, Neutrophils, Exocytosis, Immunology, Phagocytes, GTPase, Scripps Research Institute.

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New Data from Second Military Medical University Illuminate Findings in Embryonic Stem Cells (Induction of site-specific chromosomal translocations in embryonic stem cells by CRISPR/Cas9)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Stem Cell Research - Embryonic Stem Cells have been published. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Chromosomal translocation is the most common form of chromosomal abnormality and is often associated with congenital genetic disorders, infertility, and cancers. The lack of cellular and animal models for chromosomal translocations, however, has hampered our ability to understand the underlying disease mechanisms and to develop new therapies."

Our news editors obtained a quote from the research from Second Military Medical University, "Here, we show that site-specific chromosomal translocations can be generated in mouse embryonic stem cells (mESCs) via CRISPR/Cas9. Mouse ESCs carrying translocated chromosomes can be isolated and expanded to establish stable cell lines. Furthermore, chimeric mice can be generated by injecting these mESCs into host blastocysts."

According to the news editors, the research concluded: "The establishment of ESC-based cellular and animal models of chromosomal translocation by CRISPR/Cas9 provides a powerful platform for understanding the effect of chromosomal translocation and for the development of new therapeutic strategies."

For more information on this research see: Induction of site-specific chromosomal translocations in embryonic stem cells by CRISPR/Cas9. Scientific Reports, 2016;6():21918. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting J. Jiang, Research Center of Developmental Biology, Histology and Embryology Department, Second Military Medical University, Shanghai, 200433, People's Republic of China. Additional authors for this research include L. Zhang, X. Zhou, X. Chen, G. Huang, F. Li, R. Wang, N. Wu, Y. Yan, C. Tong, S. Srivastava, Y. Wang, H. Liu and Q.L Ying.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep21918. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shanghai, Genetics, Stem Cell Research, Embryonic Stem Cells, People's Republic of China.

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New Data from Second Military Medical University Illuminate Findings in Osteosarcomas (Parthenolide Induces Reactive Oxygen Species-Mediated Autophagic Cell Death in Human Osteosarcoma Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Osteosarcomas. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Osteosarcoma is a devastating tumor of bone, primarily affecting adolescents. Parthenolide, a naturally occurring small molecule that interferes with NF-kappa B signaling, has recently attracted considerable attention because of its pharmacological action involving anti-cancer effects."

Our news editors obtained a quote from the research from Second Military Medical University, "However, the mechanism of the cytotoxic effect exerted by parthenolide on tumor cells is not clearly defined today. In this study, the effects of parthenolide were evaluated and characterized in human osteosarcoma cancer cell. Cell viability was assessed by CCK-8. Apoptosis was assessed by Annexin V-FITC/PI Flow cytometry assay. Relative quantitative real-time PCR and western blot were used to determine the expressions of genes and proteins. Our results suggest that parthenolide did not cause caspase-dependent cell death in osteosarcoma cancer cells, as indicated by the absence of significant early apoptosis as well as caspase-3 cleavage. Instead, parthenolide increased the autophagy and mitophagy, as characterized by increased PINK1 and Parkin translocation to mitochondria and enhanced autophagy proteins. The induction of autophagy by parthenolide was associated with the increase of reactive oxygen species (ROS). ROS antioxidants N-acetylcysteine (NAC) attenuated parthenolide-induced autophagy activity."

According to the news editors, the research concluded: "Our findings unveil a novel mechanism of drug action by parthenolide in osteosarcoma cancer cells and suggest a potential value of treating osteosarcoma cancer through a caspase-independent autophagic cell death by ROS activation."


The news editors report that additional information may be obtained by contacting W. Yuan, Second Military Med Univ, Changzheng Hosp, Dept. of Orthoped Surg, Shanghai 200003, People's Republic of China. Additional authors for this research include Q.O. Yang, Q.J. Kong, W. Yuan and Y.P.O. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000452532. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Reactive Oxygen Species, Enzymes and Coenzymes, Oxygen Compounds, Osteosarcomas,
Cardiovascular Diseases and Conditions - Hyperemia

New Data from Sichuan University Illuminate Findings in Hyperemia (Short-Term Efficacy of Pudilan Keyanning Toothpaste in Treatment of Minor Recurrent Aphthous Ulcers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Hyperemia. According to news reporting from Chengdu, People's Republic of China, by NewsRx journalists, research stated, "To examine the potential of Pudilan Keyanning toothpaste (PKT) to treat minor aphthous ulcers (MiAU). A doubleblind clinical trial was conducted in which 80 volunteers were randomly assigned to the PKT group (N = 40) or the control group (N = 40)."

The news correspondents obtained a quote from the research from Sichuan University, "The control group used a placebo toothpaste containing no Pudilan extract. At baseline, after 3 days, and after 6 days the following parameters were recorded for the target ulcers: healing rate, healing period, pain (visual analogue scale, VAS), areas of the target ulcerated lesions, degree of exudation, and hyperemia. At the end of the study, the healing rate in the PKT group was 80%, compared to 50% in the control group (p < 0.05). At day 6, the VAS scores, ulcer area, degree of exudation, and hyperemia were significantly different between the two groups, with better performance observed in the PKT group (p < 0.05)."

According to the news reporters, the research concluded: "PKT toothpaste appears to promote effective healing of MiAU."

For more information on this research see: Short-Term Efficacy of Pudilan Keyanning Toothpaste in Treatment of Minor Recurrent Aphthous Ulcers. Evidence-Based Complementary and Alternative Medicine, 2016();1-7. Evidence-Based Complementary and Alternative Medicine can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Evidence-Based Complementary and Alternative Medicine - www.hindawi.com/journals/ecam/)

Our news journalists report that additional information may be obtained by contacting X. Hong, Sichuan University, Hosp Stomatol, Chengdu 610041, People's Republic of China. Additional authors for this research include T. Zhang, Z.B. Dong, Y. Wu, X. Hong and T. Hu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/9125327. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Dentifrices, Toothpaste, Hyperemia, Sichuan University.

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Heart Disorders and Diseases - Endocarditis

New Data from State University of New York Illuminate Findings in Endocarditis (Neisseria elongata endocarditis of a native aortic valve)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Endocarditis have been presented. According to news reporting from Buffalo, New York, by NewsRx journalists, research stated, "Neisseria elongata is a part of the common bacterial flora of the oropharynx but has caused sepsis, osteomyelitis and infective endocarditis on rare occasions. We report the case of a 56-year-old Caucasian woman who was admitted to hospital with a 5-week history of fever, malaise and fatigue."

The news correspondents obtained a quote from the research from the State University of New York, "Two blood cultures grew Gram-negative rods which were confirmed to be N. elongata subspecies nitroreducens via bacterial DNA sequence analysis. An echocardiogram showed a large mobile vegetation on the right and non-coronary cusps of the aortic valve. The patient underwent aortic valve replacement and antibiotic therapy for 6 weeks."

According to the news reporters, the research concluded: "We suggest that clinicians should consider extended antibiotic treatment and early surgical evaluation based on the nature and aggressiveness of N."

For more information on this research see: Neisseria elongata endocarditis of a native aortic valve. Bmj Case Reports, 2016:2016():. (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

Our news journalists report that additional information may be obtained by contacting M. Samannodi, Dept. of Medicine, University at Buffalo, Buffalo, New York, United States. Additional authors for this research include S. Vakkalanka, A. Zhao and M. Hocko.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2015-213311. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Buffalo, New York, Genetics, Cardiology, Endocarditis, United States, Heart Disease, Neisseriaceae, Betaproteobacteria, Neisseria elongata, Gram Negative Bacteria, North and Central America, Heart Disorders and Diseases, Gram Negative Aerobic Bacteria, Gram Negative Aerobic Rods and Cocci.

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Science

New Data from Technical University Illuminate Findings in Science (Recognition of the 3' splice site RNA by the U2AF heterodimer involves a dynamic population shift)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Science are presented in a new report. According to news reporting originating from Garching, Germany, by NewsRx correspondents, research stated, "An essential early step in the assembly of human spliceosomes onto pre-mRNA involves the
recognition of regulatory RNA cis elements in the 3' splice site by the U2 auxiliary factor (U2AF). The large (U2AF65) and small (U2AF35) subunits of the U2AF heterodimer contact the polypyrimidine tract (Py-tract) and the AG-dinucleotide, respectively."

Our news editors obtained a quote from the research from Technical University, "The tandem RNA recognition motif domains (RRM1,2) of U2AF65 adopt closed/inactive and open/active conformations in the free form and when bound to bona fide Py-tract RNA ligands. To investigate the molecular mechanism and dynamics of 3' splice site recognition by U2AF65 and the role of U2AF35 in the U2AF heterodimer, we have combined single-pair FRET and NMR experiments. In the absence of RNA, the RRM1,2 domain arrangement is highly dynamic on a submillisecond time scale, switching between closed and open conformations. The addition of Py-tract RNA ligands with increasing binding affinity (strength) gradually shifts the equilibrium toward an open conformation. Notably, the protein-RNA complex is rigid in the presence of a strong Py-tract but exhibits internal motion with weak Py-tracts. Surprisingly, the presence of U2AF35, whose UHM domain interacts with U2AF65 RRM1, increases the population of the open arrangement of U2AF65 RRM1,2 in the absence and presence of a weak Py-tract. These data indicate that the U2AF heterodimer promotes spliceosome assembly by a dynamic population shift toward the open conformation of U2AF65 to facilitate the recognition of weak Py-tracts at the 3' splice site."

According to the news editors, the research concluded: "The structure and RNA binding of the heterodimer was unaffected by cancer-linked myelodysplastic syndrome mutants."

For more information on this research see: Recognition of the 3' splice site RNA by the U2AF heterodimer involves a dynamic population shift. *Proceedings of the National Academy of Sciences of the United States of America*, 2016;113(46):E7169-E7175.

*Proceedings of the National Academy of Sciences of the United States of America* can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC 20418, USA.

The news editors report that additional information may be obtained by contacting M. Sattler, Technical University of Munich, Munich Fak Chem, Center Integrated Prot Sci, D-85748 Garching, Germany. Additional authors for this research include C. Sanchez-Rico, H.S. Kang, T. Madl, K. Zanier, A. Barth, L.R. Warner, M. Sattler and D.C. Lamb.

Keywords for this news article include: Garching, Germany, Europe, Science, Genetics, Technical University.

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**Peptides and Proteins**

**New Data from Tokai University Illuminate Findings in Peptides and Proteins [The Bromodomain and Extra-Terminal Domain (BET) Family: Functional Anatomy of BET Paralogous Proteins]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Peptides and Proteins are discussed in a new report. According to news reporting originating from Kanagawa, Japan, by NewsRx editors, the research stated, "The Bromodomain and Extra-Terminal Domain (BET) family of proteins is
characterized by the presence of two tandem bromodomains and an extra-terminal domain. The mammalian BET family of proteins comprises BRD2, BRD3, BRD4, and BRDT, which are encoded by paralogous genes that may have been generated by repeated duplication of an ancestral gene during evolution."

Our news editors obtained a quote from the research from Tokai University, "Bromodomains that can specifically bind acetylated lysine residues in histones serve as chromatin-targeting modules that decipher the histone acetylation code. BET proteins play a crucial role in regulating gene transcription through epigenetic interactions between bromodomains and acetylated histones during cellular proliferation and differentiation processes. On the other hand, BET proteins have been reported to mediate latent viral infection in host cells and be involved in oncogenesis. Human BRD4 is involved in multiple processes of the DNA virus life cycle, including viral replication, genome maintenance, and gene transcription through interaction with viral proteins. Aberrant BRD4 expression contributes to carcinogenesis by mediating hyperacetylation of the chromatin containing the cell proliferation-promoting genes. BET bromodomain blockade using small-molecule inhibitors gives rise to selective repression of the transcriptional network driven by c-MYC These inhibitors are expected to be potential therapeutic drugs for a wide range of cancers."

According to the news editors, the research concluded: "This review presents an overview of the basic roles of BET proteins and highlights the pathological functions of BET and the recent developments in cancer therapy targeting BET proteins in animal models."


The news editors report that additional information may be obtained by contacting Y. Taniguchi, Tokai University, Sch Med, Div Basic Mol Sci & Mol Med, Isehara, Kanagawa 2591193, Japan.

Keywords for this news article include: Kanagawa, Japan, Asia, Peptides and Proteins, Genetics, Article Review, Genetics, Amino Acids, Proteins, Peptides, Viral, Virus, Tokai University.

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Cardiology

New Data from UC Davis Medical Center Illuminate Findings in Cardiology (Getting a better look: Outcomes of laparoscopic versus transdiaphragmatic pericardial window for penetrating thoracoabdominal trauma at a Level I trauma center)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news originating from Sacramento, California, by NewsRx correspondents, research stated, "In penetrating thoracoabdominal trauma, it is necessary to evaluate both the pericardial fluid and the diaphragm directly. Transdiaphragmatic pericardial windows (TDWs) provide direct access to the pericardium and diaphragm but expose the patient to the risks of laparotomy."

Our news journalists obtained a quote from the research from UC Davis Medical
Center, "We hypothesize that transabdominal laparoscopic pericardial windows (LPWs) are a safe and effective alternative to TDWs in stable patients. This is a retrospective observational study of stable patients with thoracoabdominal penetrating trauma at a level I trauma center between January 2007 and June 2015, comparing outcomes after TDW versus LPW. A total of 99 patients with penetrating trauma had a diagnostic pericardial window, 33 of which were laparoscopic. Stab wounds were most common (80, 80.8%) compared with gunshot wounds (19, 19.2%). Of 11 patients who had a positive pericardial window, 10 (90.9%) were associated with a cardiac injury. There was no difference in the ratio of positive pericardial windows for patients who had TDW versus LPW (8/66, 12.1% vs. 3/33, 9.1%; p = 0.651). One patient had a complication related to a negative pericardial window in the laparoscopic group. There was no difference in complication rates between TDW and LPW (p = 0.155). Mean length of stay was longer in TDW compared with LPW (12 vs. 5 days, p = 0.046). One patient died during index admission in the TDW group, but there was no difference in mortality rates between TDW and LPW during the index admission (p = 0.477). Median length of follow-up was 29 days (range, 0-2,709). On long-term follow-up, there was also no difference in mortality rates between TDW and LPW (2/66, 3.0% vs. 2/33, 6.1%; p = 0.470). In hemodynamically stable patients with thoracoabdominal injuries, LPW is a safe and effective technique in evaluating both pericardial fluid and the diaphragm."

According to the news editors, the research concluded: "LPW is a viable alternative to exploratory laparotomy and TDWs."

For more information on this research see: Getting a better look: Outcomes of laparoscopic versus transdiaphragmatic pericardial window for penetrating thoracoabdominal trauma at a Level I trauma center. Journal of Trauma and Acute Care Surgery, 2016;81 (6):1035-1038. Journal of Trauma and Acute Care Surgery can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

The news correspondents report that additional information may be obtained from J.E. Anderson, UC Davis Med Center, Dept. of Surg, Sacramento, CA 95817, United States. Additional authors for this research include E.S. Salcedo, K.M. Rounds and J.M. Galante. Keywords for this news article include: Sacramento, California, United States, North and Central America, Pericardial, Cardiology, UC Davis Medical Center.

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Oncology - Solid Cancer

New Data from University College Illuminate Findings in Solid Cancer (ADD-ASPIRIN: A phase III, double-blind, placebo controlled, randomised trial assessing the effects of aspirin on disease recurrence and survival after primary therapy in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Solid Cancer. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "There is a considerable body of pre-clinical, epidemiological and randomised data to support the hypothesis that aspirin has the potential to be an effective adjuvant cancer therapy. Add-
Aspirin is a phase III, multi-centre, double-blind, placebo-controlled randomised trial with four parallel cohorts."

Our news journalists obtained a quote from the research from University College, "Patients who have undergone potentially curative treatment for breast (n = 3100), colorectal (n = 2600), gastro-oesophageal (n = 2100) or prostate cancer (n = 2120) are registered into four tumour specific cohorts. All cohorts recruit in the United Kingdom, with the breast and gastro-oesophageal cohort also recruiting in India. Eligible participants first undertake an active run-in period where 100 mg aspirin is taken daily for approximately eight weeks. Participants who are able to adhere and tolerate aspirin then undergo a double-blind randomisation and are allocated in a 1:1:1 ratio to either 100 mg aspirin, 300 mg aspirin or a matched placebo to be taken daily for at least five years. Those participants 75 years old are only randomised to 100 mg aspirin or placebo due to increased toxicity risk. The primary outcome measures are invasive disease-free survival for the breast cohort, disease-free survival for the colorectal cohort, overall survival for the gastro-oesophageal cohort, and biochemical recurrence-free survival for the prostate cohort, with a co-primary outcome of overall survival across all cohorts. Secondary outcomes include adherence, toxicity including serious haemorrhage, cardiovascular events and some cohort specific measures."

According to the news editors, the research concluded: "The Add-Aspirin trial investigates whether regular aspirin use after standard therapy prevents recurrence and prolongs survival in participants with four non-metastatic common solid tumours."

For more information on this research see: ADD-ASPIRIN: A phase III, double-blind, placebo controlled, randomised trial assessing the effects of aspirin on disease recurrence and survival after primary therapy in common non-metastatic solid tumours. Contemporary Clinical Trials, 2016;51():56-64. Contemporary Clinical Trials can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Contemporary Clinical Trials - www.journals.elsevier.com/contemporary-clinical-trials/)

The news correspondents report that additional information may be obtained from R.E. Langley, UCL, MRC Clin Trials Unit, London WC2B 6NH, United Kingdom. Additional authors for this research include F.H. Cafferty, S. Rowley, M. MacKenzie, L. Berkman, S. Gupta, C.S. Pramesh, D. Gilbert, H. Kynaston, D. Cameron, R.H. Wilson, A. Ring and R.E. Langley.

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Keywords for this news article include: London, United Kingdom, Europe, Platelet Aggregation Inhibitors, Environment and Public Health, Coagulation Modifiers, Disease-Free Survival, Colorectal Research, Drugs and Therapies, Antiplatelet Agents, Statistics as Topic, Organic Chemicals, Survival Analysis, Gastroenterology, Carboxylic Acids, Aspirin Therapy, Pharmaceuticals, Salicylic Acids, Benzoic Acids, Hydroxy Acids, Epidemiology, Solid Cancer, Placebos, Oncology, University College.

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Oncology - Liver Cancer

New Data from University Hospital Illuminate Findings in Liver Cancer (Recurrent Hepatocellular Carcinoma After Liver Transplantation: Analysis of Risk Factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting originating in Seville, Spain, by NewsRx journalists, research stated, "Survival after orthotopic liver transplantation (LT) for hepatocellular carcinoma (HCC) is influenced by tumor recurrence. This study examines the survival of patients who underwent LT for HCC and developed recurrence of tumor after transplantation."

The news reporters obtained a quote from the research from University Hospital, "A retrospective analysis was performed of the 200 patients who underwent LT secondary to HCC from 1990 to 2014. We excluded 19 patients from the study owing to early postoperative deaths in the 1st month. We divided our sample into 2 groups according to the presence of recurrence. We performed a univariate analysis to identify variables that are significantly associated with the risk of recurrence. Afterward we use multivariate analysis regression analysis to find independent significance. Univariate analysis shows significant relationship between high Edmondson-Steiner grades (G3-G4) and the development of tumor recurrence. Tumor size, vascular invasion, and capsular invasion were found to be independent risk factors of tumor recurrence in the multivariate analysis. Tumor recurrence defines survival of patients who underwent LT for HCC."

According to the news reporters, the research concluded: "In this study we discuss which histologic factor are associated with higher risk of tumor recurrence, and therefore a negative the impact on patient's survival."

For more information on this research see: Recurrent Hepatocellular Carcinoma After Liver Transplantation: Analysis of Risk Factors. Transplantation Proceedings, 2016;48 (9):2990-2993. Transplantation Proceedings can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www elsevier com; Transplantation Proceedings - www journals elsevier com transplantations proceedings/)


The direct object identifier (DOI) for that additional information is: http://dx doi org/10 1016/j transplant proceed 2016 09 020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seville, Spain, Europe, Risk and Prevention, Liver Cancer, Carcinomas, Oncology, University Hospital.

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Pharmacokinetics

New Data from University of Alexandria Illuminate Findings in Pharmacokinetics (A Validated HPLC Method for the Determination of Linagliptin in Rat Plasma. Application to a Pharmacokinetic Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacokinetics have been presented. According to news originating from Alexandria, Egypt, by NewsRx correspondents, research stated, "A sensitive and reproducible HPLC method for the determination of linagliptin (LNG) in rat plasma was developed and validated using pinodolol (PIN) as the internal standard. Both LNG and PIN were separated on a Zorbax Eclipse XDB C-18 column kept at ambient temperature using as mobile phase a combination of 75% methanol: 25% formic acid 0.1% pH 4.1 at a flow rate of 1.0 mL min(-1)."

Our news journalists obtained a quote from the research from the University of Alexandria, "UV detection was performed at 254 nm. The method was validated in compliance with ICH guidelines and found to be linear in the range of 5-1,000 ng mL(-1). The limit of quantification (LOQ) was found to be 5 ng mL(-1) based on 100 µL of plasma. The variations for intra-and inter-assay precision were <10%, and the accuracy values were ranged between 93.3 and 102.5%. The extraction recovery (R%) was >83%. The assay was successfully applied to an in vivo pharmacokinetic study of LNG in rats that were administered a single oral dose of 10 mg kg(-1) LNG."

According to the news editors, the research concluded: "The maximum concentration (C-max) and the area under the plasma concentration-time curve (AUC(0-72)) were 927.5 +/- 23.9 and 18,285.02 +/- 605.76 ng mL(-1), respectively."


The news correspondents report that additional information may be obtained from H. Mahgoub, University of Alexandria, Fac Pharm, Dept. of Pharmaceut Analty Chem, Alexandria 21521, Egypt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/chromsci/bmw106. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Alexandria, Egypt, Africa, Pharmacokinetics, Pharmaceuticals, University of Alexandria.

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New Data from University of G. d'Annunzio Illuminate Findings in Clinical Trials and Studies (How Technology Can Impact Surgeon Performance: A Randomized Trial Comparing 3-Dimensional versus 2-Dimensional Laparoscopy in Gynecology Oncology)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting originating from Chieti, Italy, by NewsRx correspondents, research stated, "This randomized clinical trial (Canadian Task Force classification I) aimed to compare 2-dimension (2-D) versus 3 dimensional (3-D) laparoscopic hysterectomy and pelvic lymphadenectomy in endometrial and cervical cancer patients. Between December 2014 and March 2015, 90 patients were enrolled: 29 (32.2%) with early or locally advanced cervical cancer after neoadjuvant treatment and 61 (67.8%) with early-stage endometrial cancer."

Our news editors obtained a quote from the research from the University of G. d'Annunzio, "Patients were randomly assigned to undergo 2-D (Group A, n = 48 [53.3%]) or 3-D (Group B, n = 42 [46.7%]) laparoscopy. Baseline characteristics were superimposable in the 2 groups. Median operative time was similar in the 2 groups. Median estimated blood loss during lymphadenectomy was significantly lower in Group B than in Group A (38 mL [range, 0-450] vs 65 mL [range, 0-200]; p = 3.033). In cervical cancer patients operative time of pelvic lymphadenectomy performed by 'novice' surgeons (those with <10 procedures performed) was statistically significantly lower in Group B (p =.047). No differences in perioperative outcomes and postoperative complications were observed between the 2 groups. The 2-D and 3-D systems can be used safely in laparoscopic hysterectomy."

According to the news editors, the research concluded: "However, the 3-D system could provide key benefits to intraoperative techniques and postoperative outcomes in reducing operative time for 'expert' surgeons and in enhancing surgical precision for 'novice' surgeons."


The news editors report that additional information may be obtained by contacting F. Fanfani, Univ G dAnnunzio, Dept. of Med & Aging Sci, Chieti, Italy. Additional authors for this research include C. Rossitto, S. Restaino, A. Ercoli, V. Chiantera, G. Monterossi, G. Barbati and G. Scambia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jmig.2016.03.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chieti, Italy, Europe, Clinical Trials and Studies, Clinical Research, Lymphadenectomy, Technology, Oncology, Surgery, Cancer, University of G. d'Annunzio.

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New Data from University of Kashmir Illuminate Findings in Squamous Cell Carcinoma (Genotypes of CYP1A1,SULT1A1 and SULT1A2 and risk of squamous cell carcinoma of esophagus: outcome of a case-control study from Kashmir, India)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Squamous Cell Carcinoma. According to news reporting originating in Jammu Kashmir, India, by NewsRx journalists, research stated, "Studies on associations of various polymorphism in xenobiotic metabolizing genes with different cancers including esophageal squamous cell carcinoma (ESCC) are mixed and inconclusive. To evaluate the association of CYP1A1*4,SULT1A1*2 and SULT1A2*2 genotypes with ESCC risk and their modifying effects on different risk factors of ESCC, we conducted a case-control study in Kashmir, India, an area with relative high incidence of ESCC."

The news reporters obtained a quote from the research from the University of Kashmir, "We recruited 404 histopathologically confirmed ESCC cases, and equal number of controls, individually matched for sex, age and district of residence to respective case. Information was obtained on various dietary, lifestyle and environmental factors in face-to-face interviews, using a structured questionnaire, from each subject. Genotypes were analyzed by polymerase chain reaction, restriction fragment length polymorphism and direct sequencing. Conditional logistic regression models were used to calculate odds ratios (ORs) and 95% confidence intervals (95% CIs). A higher risk was observed in the subjects who harbored variant genotype of CYP1A1*4 (OR = 2.06; 95% CI: 1.28-3.32); and the risk was further enhanced in ever smokers (OR = 3.47; 95% CI: 1.62-7.42), adobe dwellers (OR = 6.71; 95% CI: 3.02-14.89), and biomass fuel users (OR = 5.11; 95% CI: 1.34-19.50). We did not find any significant differences in the polymorphic variants of SULT1A1*2 and SULT1A2*2 between cases and controls. The study indicates that, unlike SULT1A1*2 and SULT1A2*2, the polymorphism of CYP1A1*4 is associated with ESCC risk."

According to the news reporters, the research concluded: "However, replicative studies with larger sample size are needed to substantiate our findings."


Our news correspondents report that additional information may be obtained by contacting N.A. Dar, University of Kashmir, Dept. of Biochem, Srinagar 190006, Jammu & Kashmir, India. Additional authors for this research include G.A. Bhat, P. Mehta, M.M. Lone and N.A. Dar.

Keywords for this news article include: Jammu Kashmir, India, Asia, Oncology, Risk and Prevention, Epidemiology, Squamous Cell Carcinoma, Carcinomas, Genetics, University of Kashmir.

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Drugs and Therapies - Angiotensin II Inhibitors

New Data from University of Lincoln Illuminate Findings in Angiotensin II Inhibitors (Comparative biodistribution and safety profiling of olmesartan medoxomil oil-in-water oral nanoemulsion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Angiotensin II Inhibitors. According to news reporting from Kuala Lumpur, Malaysia, by NewsRx journalists, research stated, "Poor aqueous solubility and unfavourable de-esterification of olmesartan medoxomil (a selective angiotensin II receptor blocker), results in low oral bioavailability of less than 26%. Improvement of oral bioavailability with prolonged pharmacodynamics activity of olmesartan in Wistar rats had been approached by nanoemulsification strategy in our previous article [Colloid Surface B, 115, 2014: 286]."

Financial support for this research came from Indian Council of Medical Research, New Delhi, India.

The news correspondents obtained a quote from the research from the University of Lincoln, "In continuation to that work, we herewith report the biodistribution behaviour and 28-day repeated dose sub-chronic toxicity of olmesartan medoxomil nanoemulsion in Wistar rats following oral administration. The levels of olmesartan in collected biological samples were estimated using our validated LC-MS/MS technique. Our biodistribution study showed significantly higher brain concentrations of olmesartan (0.290 +/- 0.089 μg/mL, 0.333 +/- 0.071 μg/mL and 0.217 +/- 0.062 μg/mL at 0.5, 2.0 and 8.0 h post dosing, respectively) when administered orally as nanoemulsion formulation as compared to the aqueous suspension. In addition, the olmesartan nanoemulsion was found to be safe and non-toxic, as it neither produced any lethality nor remarkable haematological, biochemical and structural adverse effects as observed during the 28-days sub-chronic toxicity studies in experimental Wistar rats."

According to the news reporters, the research concluded: "It is herewith envisaged that the developed nanoemulsion formulation approach for the delivery of olmesartan medoxomil via oral route can further be explored in memory dysfunction and brain ischemia, for better brain penetration and improved clinical application in stroke patients."

For more information on this research see: Comparative biodistribution and safety profiling of olmesartan medoxomil oil-in-water oral nanoemulsion. Regulatory Toxicology and Pharmacology, 2016;82():20-31. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting B. Gorain, Lincoln Univ College, Fac Pharm, Kuala Lumpur, Malaysia. Additional authors for this research include H. Choudhury, R.K. Tekade, S. Karan, P. Jaisankar and T.K. Pal.

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Keywords for this news article include: Kuala Lumpur, Malaysia, Asia, Olmesartan Medoxomil Therapy, Angiotensin II Inhibitors, Cardiovascular Agents, Drugs and Therapies, Pharmaceuticals, University of Lincoln.
New Data from University of Paris Illuminate Findings in Enterococcus
(First nosocomial outbreak of vanA-type vancomycin-resistant Enterococcus raffinosus in France)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Gram-Positive Bacteria - Enterococcus is the subject of a report. According to news reporting out of Creteil, France, by NewsRx editors, research stated, "Vancomycin-resistant Enterococcus raffinosus has rarely been associated with nosocomial infection and outbreaks. To report the successful control of a nosocomial outbreak of vanA-type vancomycin-resistant E. raffinosus in a surgical intensive care unit."

Our news journalists obtained a quote from the research from the University of Paris, "The investigation of the outbreak is reported with control measures taken. Molecular typing of vancomycin-resistant E. raffinosus isolates was performed by repetitive sequence-based polymerase chain reaction (PCR). Between September and October 2014, vancomycin-resistant E. raffinosus isolates were isolated from four patients. The index patient had been hospitalized previously in Portugal, and was not found to be colonized by vancomycin-resistant enterococci on screening cultures obtained at admission. However, vancomycin-resistant E. raffinosus was isolated from a bile sample 19 days after hospital admission. All four isolates were resistant to both vancomycin and teicoplanin due to the presence of the vanA gene, while remaining susceptible to daptomycin and linezolid. Repetitive sequence-based PCR confirmed the spread of a single vanA-positive E. raffinosus clone. Infection control measures including direct PCR screening on rectal specimens, contact precautions, and cohorting of patients and personnel led to successful control of the outbreak. This is the first reported outbreak of vanA-type vancomycin-resistant E. raffinosus in France in both clinical and screening specimens among hospitalized patients."

According to the news editors, the research concluded: "The inability of routine selective screening media to detect the vancomycin-resistant E. raffinosus in the index case likely contributed to the outbreak."


Our news journalists report that additional information may be obtained by contacting S. Jolivet, UPEC Univ Paris Est Creteil Val Marne, Creteil, France. Additional authors for this research include M. Fines-Guyon, B. Nebbad, J.C. Merle, D. Le Pluart, C. Brun-Buisson, J.W. Decousser and V. Cattoir.

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Keywords for this news article include: Creteil, France, Europe, Nosocomial Diseases and Conditions, Diagnostics and Screening, Epidemiology, Bacterial Physiological

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Drugs and Therapies - Immunotherapy

New Data from University of Paris Illuminate Findings in Immunotherapy (Co-stimulation Blockade Plus T-Cell Depletion in Transplant Patients: Towards a Steroid- and Calcineurin Inhibitor-Free Future?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Immunotherapy. According to news originating from Paris, France, by NewsRx correspondents, research stated, "Long-term survival of solid allografts depends on both immunosuppressive efficacy and reducing the side effects associated with these therapies. Immunotherapies developed over the past 15 years to prevent organ rejection have greatly improved cardiovascular and renal function compared with classical therapies, such as calcineurin inhibitors and corticosteroids."

Our news journalists obtained a quote from the research from the University of Paris, "Immunotherapies that target T cells through the co-stimulation blockade (CTLA-4-Ig) improve renal function and the survival of grafts and patients, but are associated with higher rates of T-cell-mediated acute rejection. Improvements to safe and efficacious therapeutic options could combine a co-stimulation blockade with a depleting immunotherapy. Herein, we describe the clinical outcomes and the likely causes of defects in the co-stimulation blockade, and comment on new therapeutic strategies to overcome these."

According to the news editors, the research concluded: "Great progress has been made to optimize immunotherapy using the co-stimulation blockade, but the therapeutic combinations should be assessed further."


The news correspondents report that additional information may be obtained from A. Durrbach, University of Paris, Le Kremlin Bicetre Hosp, IFRNT, Dept. of Nephrol, Paris, France. Additional authors for this research include M. Brunel, N. Roders and A. Durrbach. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40265-016-0656-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Intracellular Signaling Peptides and Proteins, Phosphoprotein Phosphatases, Enzymes and Coenzymes, Drugs and Therapies, Gastroenterology, Kidney Function, Renal Function, Immunotherapy, Calcineurin, Hydrolases, Nephrology, Esterases, University of Paris.

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Oncology - Breast Cancer

New Data from University of Sheffield Illuminate Findings in Breast Cancer [Goserelin, as an ovarian protector during (neo)adjuvant breast cancer chemotherapy, prevents long term altered bone turnover]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting out of Sheffield, United Kingdom, by NewsRx editors, research stated, "The Ovarian Protection Trial In Premenopausal Breast Cancer Patients 'OPTION' trial (NCT00427245) was a prospective, multicenter, randomised, open label study evaluating the frequency of primary ovarian insufficiency (POI) at 12 months in women randomised to 6-8 cycles of (neo)adjuvant chemotherapy (CT) (plusminus)goserelin (G). Here we report the results of a secondary endpoint analysis of the effects of CT(plusminus)G on markers of bone turnover."

Our news journalists obtained a quote from the research from the University of Sheffield, "Serum for bone alkaline phosphatase (BALP) and urine for N-terminal telopeptide (NTX) were collected at baseline, 6, 12, 18, 24 and 36 months. Changes in median levels of bone turnover markers were evaluated for the overall population, according to age stratification at randomisation ( (<=)40 vs >40 years) and with exploratory analysis according to POI rates at 12 months. In the overall population, there was a significant increase in NTX at 6 months compared to baseline in patients treated with CT+G (40.81 vs 57.82 p=0.0074) with normalisation of levels thereafter. BALP was significantly increased compared to baseline at 6 months and 12 months in those receiving CT+G, but normalised thereafter. BALP remained significantly higher compared to baseline at 12, 24 and 36 months in patients receiving CT, resulting in a significant difference between treatment groups at 36 months (CT+G 5.845 vs CT 8.5 p=0.0006). These changes were predominantly seen in women >40 years. Women with POI at 12 months showed altered bone formation compared to baseline levels for a longer duration than women who maintained menses."

According to the news editors, the research concluded: "Addition of G to CT increases bone turnover during treatment with normalisation after cessation of treatment suggesting G may offer sufficient ovarian protection against CT induced POI to negate longstanding altered bone turnover associated with POI."


Our news journalists report that additional information may be obtained by contacting C. Wilson, Academic Unit of Clinical Oncology, Weston Park Hospital, University of Sheffield, Sheffield, UK. Additional authors for this research include F. Gossiel, R. Leonard, R.A. Anderson, D.J. Adamson, G. Thomas and R.E Coleman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jbo.2016.02.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oncology, Sheffield, Goserelin, Gynecology,
New Data from University of Tokyo Illuminate Findings in Estrogen
(Protective effects of estrogen against vascular calcification via estrogen receptor alpha-dependent growth arrest-specific gene 6 transactivation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hormones - Estrogen is now available. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "Vascular calcification is one of the major complications of cardiovascular disease and is an independent risk factor for myocardial infarction and cardiac death. Postmenopausal women have a higher prevalence of vascular calcification compared with premenopausal women, suggesting protective effects of estrogen (E2)."

The news reporters obtained a quote from the research from the University of Tokyo, "However, the underlying mechanisms of its beneficial effects remain unclear. In the present study, we examined the inhibitory effects of E2 on vascular smooth muscle cell (VSMC) calcification, and found that growth arrest-specific gene 6 (Gas6), a crucial molecule in vascular calcification, is transactivated by estrogen receptor a (ER alpha) in response to E2. In human aortic smooth muscle cells, physiological levels of E2 inhibited inorganic phosphate (Pi)-induced calcification in a concentration-dependent manner. This inhibitory effect was significantly abolished by MPP, an ERa-selective antagonist, and ER alpha siRNA, but not by PHTPP, an ER beta-selective antagonist, and ER beta siRNA, implicating an ER alpha-dependent action. Apoptosis, an essential process for Pi-induced VSMC calcification, was inhibited by E2 in a concentration-dependent manner and further, MPP abolished this inhibition. Mechanistically, E2 restored the inhibited expression of Gas6 and phospho-Akt in Pi-induced apoptosis through ERa. Furthermore, E2 significantly activated Gas6 transcription, and MPP abrogated this E2-dependent Gas6 transactivation. E2-BSA failed to activate Gas6 transcription and to inhibit Ca deposition in VSMC, suggesting beneficial actions of genomic signaling by E2/nuclear ERa. Taken together, these results indicate that E2 exerts inhibitory effects on VSMC apoptosis and calcification through ER alpha-mediated Gas6 transactivation."

According to the news reporters, the research concluded: "These findings indicate a potential therapeutic strategy for the prevention of vascular calcification, especially in postmenopausal women."

For more information on this research see: Protective effects of estrogen against vascular calcification via estrogen receptor alpha-dependent growth arrest-specific gene 6 transactivation. Biochemical and Biophysical Research Communications, 2016;480(3):429-435. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)
Our news correspondents report that additional information may be obtained by contacting M. Akishita, University of Tokyo, Grad Sch Med, Dept. of Geriatr Med, Tokyo, Japan. Additional authors for this research include B.K. Son, T. Hashizume, S. Ogawa and M. Akishita.

Keywords for this news article include: Tokyo, Japan, Asia, Estrogen Receptors, Risk and Prevention, Genetics, Estrogen Receptor alpha, Transcription Factors, DNA-Binding Proteins, Steroid Receptors, Women's Health, Endocrinology, Apoptosis, Estrogens, Hormones, University of Tokyo.

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Chemistry - Biochemistry

New Data from University of Victoria Illuminate Findings in Biochemistry [Molecular Basis for Recognition of the Cancer Glycobiomarker, LacdiNAc (GalNAc[14]GlcNAc), by Wisteria floribunda Agglutinin]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Chemistry - Biochemistry is now available. According to news reporting out of Victoria, Canada, by NewsRx editors, research stated, "Aberrant glycosylation and the overexpression of specific carbohydrate epitopes is a hallmark of many cancers, and tumor-associated oligosaccharides are actively investigated as targets for immunotherapy and diagnostics. Wisteria floribunda agglutinin (WFA) is a legume lectin that recognizes terminal N-acetylgalactosaminides with high affinity."

Our news journalists obtained a quote from the research from the University of Victoria, "WFA preferentially binds the disaccharide LacdiNAc (-d-GalNAc-[14]-d-GlcNAc), which is associated with tumor malignancy in leukemia, prostate, pancreatic, ovarian, and liver cancers and has shown promise in cancer glycobiomarker detection. The mechanism of specificity for WFA recognition of LacdiNAc is not fully understood. To address this problem, we have determined affinities and structure of WFA in complex with GalNAc and LacdiNAc. Affinities toward Gal, GalNAc, and LacdiNAc were measured via surface plasmon resonance, yielding K-D values of 4.67 x 10(-4) m, 9.24 x 10(-5) m, and 5.45 x 10(-6) m, respectively. Structures of WFA in complex with LacdiNAc and GalNAc have been determined to 1.80-2.32 angstrom resolution. These high resolution structures revealed a hydrophobic groove complementary to the GalNAc and, to a minor extent, to the back-face of the GlcNAc sugar ring. Remarkably, the contribution of this small hydrophobic surface significantly increases the observed affinity for LacdiNAc over GalNAc. Tandem MS sequencing confirmed the presence of two isolectin forms in commercially available WFA differing only in the identities of two amino acids."

According to the news editors, the research concluded: "Finally, the WFA carbohydrate binding site is similar to a homologous lectin isolated from Vatairea macrocarpa in complex with GalNAc, which, unlike WFA, binds not only GalNAc but also terminal Ser/Thr O-linked GalNAc (Tn antigen)."

Musculoskeletal Diseases and Conditions —

New Data from University of the Western Cape Illuminate Findings in Tendinopathy (Semantic interrogation of a multi knowledge domain ontological model of tendinopathy identifies four strong candidate risk genes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Musculoskeletal Diseases and Conditions - Tendinopathy have been presented. According to news reporting originating in Bellville, South Africa, by NewsRx journalists, research stated, "Tendinopathy is a multifactorial syndrome characterised by tendon pain and thickening, and impaired performance during activity. Candidate gene association studies have identified genetic factors that contribute to intrinsic risk of developing tendinopathy upon exposure to extrinsic factors."

The news reporters obtained a quote from the research from the University of the Western Cape, "Bioinformatics approaches that data-mine existing knowledge for biological relationships may assist with the identification of candidate genes. The aim of this study was to data-mine functional annotation of human genes and identify candidate genes by ontology-seeded queries capturing the features of tendinopathy. Our BioOntological Relationship Graph database (BORG) integrates multiple sources of genomic and biomedical knowledge into an on-disk semantic network where human genes and their orthologs in mouse and rat are central concepts mapped to ontology terms. The BORG was used to screen all human genes for potential links to tendinopathy. Following further prioritisation, four strong candidate genes (COL11A2, ELN, ITGB3, LOX) were identified. These genes are differentially expressed in tendinopathy, functionally linked to features of tendinopathy and previously implicated in other connective tissue diseases."

According to the news reporters, the research concluded: "Cross-domain semantic integration of multiple sources of biomedical knowledge, and interrogation of phenotypes and gene functions associated with disease, may significantly increase the probability of identifying strong and unobvious candidate genes in genetic association studies."

For more information on this research see: Semantic interrogation of a multi knowledge domain ontological model of tendinopathy identifies four strong candidate risk genes. *Scientific Reports*, 2016;6():19820. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by
Optic Nerve Diseases

New Data from Wenzhou Medical University Illuminate Findings in Optic Nerve Diseases (Three-dimensional Characteristics Of Four Macular Intraretinal Layer Thicknesses In Symptomatic And Asymptomatic Carriers Of G11778a Mutation With Leber's ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Optic Nerve Diseases have been presented. According to news originating from Zhejiang, People's Republic of China, by NewsRx correspondents, research stated, "To characterize by spectral domain optical coherence tomography the three-dimensional thicknesses of four macular intraretinal layers in symptomatic and asymptomatic carriers of G11778A mutation with Leber's hereditary optic neuropathy. Twenty-five eyes (7 symptomatic eyes and 18 asymptomatic eyes) of patients with Leber's hereditary optic neuropathy from one Chinese family and 16 normal eyes were enrolled."

Our news journalists obtained a quote from the research from Wenzhou Medical University, "Macular radial scans by spectral domain optical coherence tomography and custom software produced intraretinal three-dimensional thickness maps. The macula was divided into nine regions, and each region included four intraretinal layers: nerve fiber layer, ganglion cell layer and inner plexiform layer, inner nuclear layer and outer plexiform layer, and the outer retinal layer. Nerve fiber layer in the symptomatic eyes was significantly thinner than in normal eyes for most of the macular regions; however in the asymptomatic eyes, it was increased in three regions. Ganglion cell layer and inner plexiform layers in all regions of symptomatic eyes were significant thinner than in asymptomatic eyes and controls. Inner nuclear layer and outer plexiform layers in six regions of symptomatic and asymptomatic eyes were significantly thicker than in controls. The outer retinal layer of asymptomatic eyes was thicker than in most control regions."

According to the news editors, the research concluded: "Intraretinal thickness changes in asymptomatic patients could be prodromal events that indicate the imminent conversion to symptomatic patients with Leber's hereditary optic neuropathy."

For more information on this research see: Three-dimensional Characteristics Of Four Macular Intraretinal Layer Thicknesses In Symptomatic And Asymptomatic Carriers Of G11778a Mutation With Leber's Hereditary Optic Neuropathy. Retina-The Journal of Retinal and Vitreous Diseases, 2016;36(12):2409-2418. Retina-The Journal of Retinal and Vitreous Diseases can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market...
St, Philadelphia, PA 19103, USA.

The news correspondents report that additional information may be obtained from F. Lu, Wenzhou Med Univ, Sch Ophthalmol & Optometry, Wenzhou 325027, Zhejiang, People's Republic of China. Additional authors for this research include Q. Chen, Q.K. Ma, X.T. Liu, F. Lu and M.X. Shen.

Keywords for this news article include: Zhejiang, People's Republic of China, Asia, Optic Nerve Diseases and Conditions, Optical Coherence Tomography, Imaging Technology, Neuropathy, Genetics, Wenzhou Medical University.

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Cardiovascular Diseases and Conditions - Deep Vein...

New Deep Vein Thrombosis Study Findings Have Been Reported by B. Du Pont and Colleagues (Right-sided Cockett's syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Deep Vein Thrombosis have been published. According to news reporting from Bonheiden, Belgium, by NewsRx journalists, research stated, "Cockett and Thomas described and named Cockett's syndrome in 1965, commonly referred to as iliac vein compression syndrome (IVCS). It is often found as underlying cause in iliofemoral deep venous thrombosis (DVT)."

The news correspondents obtained a quote from the research, "They described the syndrome mostly seen on the left side and predominantly in women during the second to the fourth decade of life. In this article, we present a patient with a Cockett's syndrome on the right side. Case presentation Our patient is a 52-year old female with edema of the right leg since 4 months. She had no signs of a DVT and did not benefit from a 3-month compression therapy. She was diagnosed using a CT-scan. Endovascular treatment was performed with a venous stent in the right common iliac vein (CIV). No postoperative complications were seen. After a 6-month follow-up, patient was free of pain and had no residual edema of the right leg. Our patient presented with a non-complicated right-sided Cockett's syndrome. She was successfully treated with balloon dilatation and additional stenting of the right common iliac vein."

According to the news reporters, the research concluded: "Because of the clinical improvement of the patient together with the excellent long-term results and good patency results of the stenting, guidelines nowadays advise more and more venous stenting to prevent DVT and to relieve symptoms in case of vein compression syndromes."


Our news journalists report that additional information may be obtained by contacting B. Du Pont, Imelda Hosp Bonheiden, Dept. of Cardiovasc & Thorac Surg, Bonheiden, Belgium. Additional authors for this research include J. Verbist, W. Van den Eynde and P. Peeters.

Keywords for this news article include: Bonheiden, Belgium, Europe, Cardiovascular Diseases and Conditions, Deep Vein Thrombosis, Common Iliac Vein, Hematology, Angiology.

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New Delayed Hypersensitivity Findings from Rambam Health Care Campus Outlined (The use of patch tests in the diagnosis of delayed hypersensitivity drug eruptions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immune System Diseases and Conditions - Delayed Hypersensitivity. According to news reporting from Haifa, Israel, by NewsRx journalists, research stated, "Adverse drug reactions (ADRs) are common. In the absence of a sufficiently sensitive and specific laboratory test, identification of the culprit drug remains a diagnostic challenge."

The news correspondents obtained a quote from the research from Rambam Health Care Campus, "Patch tests have recently been advocated as a means of detecting drug sensitivity. To further elucidate the usefulness of patch tests in revealing the causative drugs of cutaneous ADRs (CADRs). We conducted a non-blinded, prospective, controlled clinical trial. Twenty-five patients with a history of CADRs were patch tested, and 25 healthy subjects who had never experienced CADRs served as controls. A morbilliform eruption was the most frequent skin reaction. Patch tests were positive in eight of the 25 patients with CADR (32%). Specifically, five of the 13 patients with morbilliform drug eruption (38.4%) tested positive, as did one of the four patients with erythema multiforme/Stevens-Johnson syndrome (25%), and one of the two patients with the drug reaction with eosinophilia and systemic symptoms syndrome. Antibiotics and anticonvulsants resulted in positive patch tests most often. Patch test sensitivity was 32%, specificity was 92%, and negative and positive predictive values were 57.5% and 80%, respectively. Significant correlation was found between the patch test result and the clinical probability of a CADR according to the imputability score of the drug. Patch testing for drugs causing ADRs shows high specificity rates even though the sensitivity is low."

According to the news reporters, the research concluded: "Such tests may therefore be useful in supporting the diagnosis of delayed-type CADRs, particularly when antibiotics or anticonvulsants are involved and the cutaneous reaction is a morbilliform rash."


Our news journalists report that additional information may be obtained by contacting S. Weltfriend, Rambam Hlth Care Campus, Dept. of Dermatol, Haifa, Israel. Additional authors for this research include R. Bergman and S. Weltfriend.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijd.13306. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Haifa, Israel, Asia, Immune System Diseases and Conditions, Diagnostics and Screening, Drugs and Therapies, Delayed Hypersensitivity, Rambam Health Care Campus.
New Dementia Study Findings Have Been Reported by Researchers at School of Medicine (Aberrant Spontaneous Brain Activity in Patients with Mild Cognitive Impairment and concomitant Lacunar Infarction: A Resting-State Functional MRI Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Dementia have been published. According to news originating from Nanjing, People's Republic of China, by NewsRx correspondents, research stated, "Lacunar infarctions (LI) have been associated with a cognitive decline and an increased risk of dementia. Whether and how the pattern of spontaneous brain activity in patients with mild cognitive impairment (MCI) differs in subjects with and without concomitant LI remains unclear."

Our news journalists obtained a quote from the research from the School of Medicine, "To compare the pattern of spontaneous brain activity in MCI patients with versus those without LI using resting-state functional magnetic resonance imaging (rs-fMRI). Forty-eight MCI patients, including 22 with LI [MCI-LI] and 26 without LI [MCI-no LI], and 28 cognitive normal subjects underwent rs-fMRI post-processed using regional homogeneity (ReHo) and the amplitude of low-frequency fluctuation (ALFF) methods. Compared with cognitively normal subjects, the MCI-LI patients had decreased ReHo in the precuneus/cuneus (Pcu/CU) and insula; decreased ALFF in the Pcu/CU and frontal lobe; and increased ALFF and ReHo in the temporal lobe. While the MCI-no LI group had increased ReHo and ALFF in the bilateral hippocampus and parahippocampal gyrus, frontal lobe, and decreased ALFF and ReHo in the temporal lobe. Compared with the MCI-no LI patients, those with MCI-LI had decreased ALFF in the frontal lobe; decreased ReHo in the Pcu/CU and insula; and increased ALFF and ReHo in the temporal lobe (p <0.05, AlphaSim corrected). In MCI-LI patients, the MOCA scores showed a relatively weak correlation with ALFF values in the medial frontal gyrus (r=0.432, p=0.045) (of borderline significance after Bonferroni correction). The spontaneous brain activities in MCI-LI were distinct from MCI-no LI."

According to the news editors, the research concluded: "The probable compensatory mechanism observed in MCI-no LI might be disrupted in MCI with LI due to vascular damage."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3233/JAD-150622. This DOI is a link to an online electronic document that
is either free or for purchase.

The publisher's contact information for the Journal of Alzheimer's Disease is: IOS Press, Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands.

Keywords for this news article include: Asia, Nanjing, Dementia, Frontal Lobe, Telencephalon, Temporal Lobe, Brain Research, Prosencephalon, Cerebral Cortex, Risk and Prevention, Central Nervous System, People's Republic of China, Neurodegenerative Diseases and Conditions.

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Mosquito-Borne Diseases - Dengue Hemorrhagic Fever

New Dengue Hemorrhagic Fever Study Findings Have Been Reported by Investigators at University of Rhode Island (Dengue virus induces mitochondrial elongation through impairment of Drp1-triggered mitochondrial fission)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mosquito-Borne Diseases - Dengue Hemorrhagic Fever are presented in a new report. According to news reporting originating from Providence, Rhode Island, by NewsRx correspondents, research stated, "Mitochondria are highly dynamic organelles that undergo continuous cycles of fission and fusion to maintain essential cellular functions. An imbalance between these two processes can result in many pathophysiological outcomes."

Our news editors obtained a quote from the research from the University of Rhode Island, "Dengue virus (DENV) interacts with cellular organelles, including mitochondria, to successfully replicate in cells. This study used live-cell imaging and found an increase in mitochondrial length and respiration during DENV infection. The level of mitochondrial fission protein, Dynamin-related protein 1 (Drp1), was decreased on mitochondria during DENV infection, as well as Drp1 phosphorylated on serine 616, which is important for mitochondrial fission. DENV proteins NS4b and NS3 were also associated with subcellular fractions of mitochondria. Induction of fission through uncoupling of mitochondria or over expression of Drp1 wild-type and Drp1 with a phosphomimetic mutation (S616D) significantly reduced viral replication."

According to the news editors, the research concluded: "These results demonstrate that DENV infection causes an imbalance in mitochondrial dynamics by inhibiting Drp1-triggered mitochondrial fission, which promotes viral replication."

For more information on this research see: Dengue virus induces mitochondrial elongation through impairment of Drp1-triggered mitochondrial fission. Virology, 2017;500 ():149-160. Virology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Virology - www.journals.elsevier.com/virology/)

The news editors report that additional information may be obtained by contacting C.L. Medin, University of Rhode Island, Inst Immunol & Informat, Dept. of Cell & Mol Biol, Providence, RI 02903, United States. Additional authors for this research include D. Lang, S. Valois, A.L. Rothman and C.L. Medin.

The direct object identifier (DOI) for that additional information is:
New Dental Fluorosis Study Findings Recently Were Reported by Researchers at Paris Diderot University (Chronic Exposure to Bisphenol A Exacerbates Dental Fluorosis in Growing Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Dental Diseases and Conditions - Dental Fluorosis. According to news reporting out of Paris, France, by NewsRx editors, research stated, "Enamel defects resulting from environmental conditions and way of life are public health concerns because of their high prevalence. Because their etiology is unclear, the aim of this study was to analyze the various forms of enamel hypomineralization, and to characterize the genes involved in this process to determine the mechanisms involved in disruptions of amelogenesis."

Our news journalists obtained a quote from the research from Paris Diderot University, "We used bisphenol A (BPA) and fluoride as models; both are commonly encountered in human populations and utilized in dentistry. Wistar rats were chronically exposed to 5 μg/kg/day BPA from day 1 of gestation to day 65 after birth (P65) and 5 mM fluoride from P21 to P65. Resulting enamel defects were comparable to the human enamel pathologies molar incisor hypomineralization (MIH) and dental fluorosis (DF) respectively, and were more severe in rats exposed to both agents than to each agent alone. Large-scale transcriptomic analysis of dental epithelium showed a small group of genes the expression of which was affected by exposure to BPA or NaF. Among the most modulated, many are directly involved in amelogenesis (Amelx, Enam, Klk4, Mmp12, Slc26a4, and Slc5a8), and can be regrouped as forming the 'hypomineralization enameloma.' Each of these gene expression perturbations may contribute to enamel defects. Exposure to BPA weakens enamel, making it more prone to generate frequent mineralization defects MIH and DF."

According to the news editors, the research concluded: "Our study identifies hypomineralization genes that may enable the use of dental enamel as an early marker of exposure to environmental toxins because of its unique ability to retrospectively record ameloblast pathophysiology."

New Depression Study Results Reported from National Institute for Health and Welfare [PRKCDBP (CAVIN3) and CRY2 associate with major depressive disorder]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mental Health Diseases and Conditions - Depression are presented in a new report. According to news reporting originating from Helsinki, Finland, by NewsRx correspondents, research stated, "Dysfunctions in the intrinsic clocks are suggested in patients with depressive disorders. The cryptochrome circadian clocks 1 and 2 (CRY1 and CRY2) proteins modulate circadian rhythms in a cell and influence emotional reactions and mood in an individual."

Our news editors obtained a quote from the research from National Institute for Health and Welfare, "The protein kinase C delta binding protein (PRKCDBP, or CAVIN3), similar to the serum deprivation response protein (SDPR, or CAVIN2), reduce metabolic stability of the PER2-CRY2 transcription factor complex that plays a role in the circadian rhythm synchronization. Our aim was to study SDPR, PRKCDBP, CRY1 and CRY2 genetic variants in depressive disorders. The sample included 5910 Finnish individuals assessed with the Munich-Composite International Diagnostic Interview (M-CIDI) in year 2000. In year 2011, 3424 individuals were assessed again. After genotype quality control, there were 383 subjects with major depressive disorder, 166 with dysthymia, and 479 with depressive disorders (major depressive disorder, dysthymia or both), and 4154 healthy controls. A total of 48 single-nucleotide polymorphisms from SDPR, PRKCDBP, CRY1 and CRY2 genes were analyzed using logistic regression models controlling for age and gender. The earlier reported association of CRY2 variants with dysthymia was confirmed and extended to major depressive disorder (q < 0.05). In addition, novel associations of PRKCDBP rs1488864 with depressive disorders (q=0.02) and with major depressive disorder in specific (q=0.007) were found. Limitations: The number of cases was moderate and coverage of PRKCDB was limited."

According to the news editors, the research concluded: "CRY2 and PRKCDBP variants may be risk factors of major depressive disorder and provide information for diagnosis."

For more information on this research see: PRKCDBP (CAVIN3) and CRY2 associate with major depressive disorder. *Journal of Affective Disorders*, 2017:207():136-140. *Journal of Affective Disorders* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Affective Disorders - www.journals.elsevier.com/journal-of-affective-disorders/)

The news editors report that additional information may be obtained by contacting L.
Kovanen, Natl Inst Hlth & Welf THL, Dept. of Hlth, Helsinki, Finland. Additional authors for this research include K. Donner, M. Kaunisto and T. Partonen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jad.2016.09.034. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Helsinki, Finland, Europe, Mental Health Diseases and Conditions, Genetics, Risk and Prevention, Major Depressive Disorders, Depression, National Institute for Health and Welfare.

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Drugs and Therapies - Dexrazoxane Therapy

New Dexrazoxane Therapy Study Findings Have Been Reported by Researchers at Ohio State University (Quantifying Drug-Induced Nanomechanics and Mechanical Effects to Single Cardiomyocytes for Optimal Drug Administration To Minimize Cardiotoxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Dexrazoxane Therapy are presented in a new report. According to news reporting out of Columbus, Ohio, by NewsRx editors, research stated, "Contrary to the well-studied dynamics and mechanics at organ and tissue levels, there is still a lack of good understanding for single cell dynamics and mechanics. Single cell dynamics and mechanics may act as an interface to provide unique information reflecting activities at the organ and tissue levels."

Financial support for this research came from College of Engineering, Ohio State University.

Our news journalists obtained a quote from the research from Ohio State University, "This research was aimed at quantifying doxorubicin-and dexrazoxane-induced nanomechanics and mechanical effects to single cardiomyocytes, to reveal the therapeutic effectiveness of drugs at the single cell level and to optimize drug administration for reducing cardiotoxicity. This work employed a nanoinstrumentation platform, including a digital holographic microscope combined with an atomic force microscope, which can characterize cell stiffness and beating dynamics in response to drug exposures in real time and obtain time-dose-dependent effects of cardiotoxicity and protection. Through this research, an acute increase and a delayed decrease of surface beating force induced by doxorubicin was characterized. Dexrazoxane treated cells maintained better beating force and mechanical functions than cells without any treatment, which demonstrated cardioprotective effects of dexrazoxane. In addition, combined drug effects were quantitatively evaluated following various drug administration protocols. Preadministration of dexrazoxane was demonstrated to have protective effects against doxorubicin, which could lead to better strategies for cardiotoxicity prevention and anticancer drug administration."

According to the news editors, the research concluded: "This study concluded that quantification of nanomechanics and mechanical effects at the single cell level could offer unique insights of molecular mechanisms involved in cellular activities influencing organ and tissue level responses to drug exposure, providing a new opportunity for the development of effective and time-dose-dependent strategies of drug administration."

Our news journalists report that additional information may be obtained by contacting T. Yue, Dept. of Biomedical Engineering, The Ohio State University, Columbus, Ohio 43210, United States. Additional authors for this research include K.H. Park, B.E. Reese, H. Zhu, S. Lyon, J. Ma, P.J. Mohler and M. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.langmuir.5b04314. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Antibiotics Antineoplastics, Dexrazoxane Therapy Hydrochloride, Doxorubicin Therapy Hydrochloride, Drugs and Therapies, Pharmaceuticals.

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**Diabetes**

**New Diabetes Study Findings Have Been Reported by Investigators at Second Military Medical University (Reintervention after endovascular repair for aortic dissection: A systematic review and meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Diabetes. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Thoracic endovascular aortic repair has been chosen as a less-invasive alternative to open surgery for the treatment of aortic dissections; however, the advantages have been challenged by the postoperative reintervention during the follow-up period. This study aimed at evaluating the incidence, reasons, and potential risk factors for reintervention."

Our news journalists obtained a quote from the research from Second Military Medical University, "Studies reporting reintervention after endovascular repair were identified by searching PubMed and Embase in accordance with preferred reporting items for systematic reviews and meta-analyses guidelines, and by reviewing the reference lists of retrieved articles. Sensitivity analysis and subgroup analyses were performed to determine the sources of heterogeneity. Funnel plot and Egger's test were used to determine the publication bias. A total of 27 studies encompassing 2403 patients with aortic dissection were identified. The pooled incidence of reintervention after endovascular repair was 15% (95% confidence interval, 12-19) during 33.7 months of follow-up. The 3 most common reasons for reintervention were endoleak (33.2%), false lumen perfusion and aortic dilation (19.8%), and new dissection (6.9%). The potential factors for reintervention were the mean age of onset and diabetes mellitus determined by performing a single meta-regression analysis (P <.001 and .044, respectively). Current data suggest that the incidence of reintervention after endovascular therapy is relatively high during midterm follow-up. Advanced age of onset is a risk factor and diabetes mellitus is a protective factor of reintervention after endovascular therapy."

According to the news editors, the research concluded: "The possible mechanism that diabetes mellitus protects patients from reintervention should be explored further."

Our news journalists report that additional information may be obtained by contacting Z.P. Jing, Second Military Med Univ, Changhai Hosp, Dept. of Vasc Surg, Shanghai, People's Republic of China. Additional authors for this research include Z.Q. Zhao, Y.Q. Chen, Y.D. Sun, J.M. Bao, Z.P. Jing and J. Zhou.

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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Endovascular Therapy, Article Review, Surgery, Risk and Prevention, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Aortic Dissection, Diabetes Mellitus, Endocrinology, Cardiology, Angiology, Second Military Medical University.

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Diabetes

**New Diabetes Study Findings Recently Were Reported by Researchers at Research Hospital (The Emerging Role of Sirtuin 1 in Cellular Metabolism, Diabetes Mellitus, Diabetic Kidney Disease and Hypertension)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Diabetes. According to news reporting out of Kirsehir, Turkey, by NewsRx editors, research stated, 'Despite diagnostic and therapeutic approaches, diabetic kidney disease (DKD) is the most common cause of end-stage renal disease worldwide. Sirtuins, a group of nicotinamid adenine dinucleotide (NAD) dependent enzymes, can deacetylase target enzymes that regulate a wide variety of cellular processes regarding protein, carbohydrate and lipid metabolism, mitochondrial homeostasis and programmed cell death mechanisms including autophagy and apoptosis.'

Our news journalists obtained a quote from the research from Research Hospital, "Among sirtuins, sirtuin 1 (SIRT1) has been the most studied one in the pathogenesis and progression of DKD. In recent years, the relation between SIRT1 and hypertension was also evaluated. In the present review, we aimed to represent the mechanisms of SIRT1 in glucose and lipid metabolism and in the pathogenesis of diabetes mellitus."

According to the news editors, the research concluded: "We also sought to highlight the emerging role of SIRT1 in the pathogenesis and treatment of DKD and hypertension."

For more information on this research see: The Emerging Role of Sirtuin 1 in Cellular Metabolism, Diabetes Mellitus, Diabetic Kidney Disease and Hypertension. *Experimental and Clinical Endocrinology & Diabetes*, 2015;124(3):131-9. (Thieme -
www.thieme.com)

Our news journalists report that additional information may be obtained by contacting A. Guclu, Division of Nephrology, Kirsehir Training and Research Hospital, Kirsehir, Turkey. Additional authors for this research include F.M. Erdur and K. Turkmen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0035-1565067. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turkey, Eurasia, Kirsehir, Sirtuin 1, Hypertension, Endocrinology, Article Review, Amidohydrolases, Diabetes Mellitus, Histone Deacetylases, Enzymes and Coenzymes, Glucose Metabolism Disorders, Cardiovascular Diseases and Conditions, Endocrine System Diseases and Conditions, Intracellular Signaling Peptides and Proteins.

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Diabetes

New Diabetes Study Results Reported from Second Military Medical University (Topical administration of cryopreserved living micronized amnion accelerates wound healing in diabetic mice by modulating local micro environment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Diabetes. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Approximately 25% of diabetic patients suffer from diabetic lower-extremity ulcer throughout their lives and 7%-20% of patients will eventually need an amputation despite standard care treatment. The development of new therapies to treat diabetic wounds is urgent."

Our news journalists obtained a quote from the research from Second Military Medical University, "In this study, we used cryopreserved living micronized amnion (300-600 μm) to treat wounds in diabetic mice. Post-thaw micronized amnion retained high cell viability, as well as intact cell morphology and membrane structure. When transplanted onto the wounds of db/db mice, the cryopreserved living micronized amnion greatly promoted wound healing in diabetic mice mainly by secreting growth, inflammation, and chemotaxis-related factors that regulated macrophage migration and phenotype switch, recruited CD34(+) progenitor cells, and increased neovascularization. In addition, the micronized amnion matrix can exist in the dermis and serve as a long-term dermal scaffold."

According to the news editors, the research concluded: "These results demonstrated the potential of the cryopreserved living micronized amnion as a ready-to-use living dermal substitute that addresses multiple defective physiological processes of impaired wounds to treat diabetic ulcers and other chronic wounds in clinics."

For more information on this research see: Topical administration of cryopreserved living micronized amnion accelerates wound healing in diabetic mice by modulating local micro environment. Biomaterials, 2017;113():56-67. Biomaterials can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)

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**Diabetes**

**New Diabetes Study Results Reported from University of Iowa (P66Shc-Induced MicroRNA-34a Causes Diabetic Endothelial Dysfunction by Downregulating Sirtuin1)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Diabetes are presented in a new report. According to news reporting originating in Iowa City, Iowa, by NewsRx journalists, research stated, "Diabetes mellitus causes vascular endothelial dysfunction and alters vascular microRNA expression. We investigated whether endothelial microRNA-34a (miR-34a) leads to diabetic vascular dysfunction by targeting endothelial sirtuin1 (Sirt1) and asked whether the oxidative stress protein p66Shc governs miR-34a expression in the diabetic endothelium."

The news reporters obtained a quote from the research from the University of Iowa, "Approach and Results-MiR-34a is upregulated, and Sirt1 downregulated, in aortic endothelium of db/db and streptozotocin-induced diabetic mice. Systemic administration of miR-34a inhibitor, or endothelium-specific knockout of miR-34a, prevents downregulation of aortic Sirt1 and rescues impaired endothelium-dependent aortic vasorelaxation induced by diabetes mellitus. Moreover, overexpression of Sirt1 mitigates impaired endothelium-dependent vasorelaxation caused by miR-34a mimic ex vivo. Systemic infusion of miR-34a inhibitor or genetic ablation of endothelial miR-34a prevents downregulation of endothelial Sirt1 by high glucose. MiR-34a is upregulated, Sirt1 is downregulated, and oxidative stress (hydrogen peroxide) is induced in endothelial cells incubated with high glucose or the free fatty acid palmitate in vitro. Increase of hydrogen peroxide and induction of endothelial miR-34a by high glucose or palmitate in vitro is suppressed by knockdown of p66shc. In addition, overexpression of wild-type but not redox-deficient p66Shc upregulates miR-34a in endothelial cells. P66Shc-stimulated upregulation of endothelial miR-34a is suppressed by cell-permeable antioxidants. Finally, mice with global knockdown of p66Shc are protected from diabetes mellitus-induced upregulation of miR-34a and downregulation of Sirt1 in the endothelium."

According to the news reporters, the research concluded: "These data show that hyperglycemia and elevated free fatty acids in the diabetic milieu recruit p66Shc to upregulate endothelial miR-34a via an oxidant-sensitive mechanism, which leads to endothelial dysfunction by targeting Sirt1."

For more information on this research see: P66Shc-Induced MicroRNA-34a Causes Diabetic Endothelial Dysfunction by Downregulating Sirtuin1. *Arteriosclerosis Thrombosis and Vascular Biology*, 2016;36(12):2394-2403. *Arteriosclerosis Thrombosis and Vascular Biology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.
Our news correspondents report that additional information may be obtained by contacting Q.X. Li, University of Iowa, Dept. of Internal Med, Abboud Cardiovasc Res Center, Div CardiovascCarver Coll Med, Iowa City, IA 52242, United States. Additional authors for this research include Y.R. Kim, A. Vikram, S. Kumar, M. Kassan, M. Gabani, S.K. Lee, J.S. Jacobs and K. Irani.

Keywords for this news article include: Iowa City, Iowa, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Hydrogen Peroxide, Diabetes Mellitus, Endocrinology, Endothelium, Chemicals, Angiology, Genetics, University of Iowa.

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**New Diabetic Foot Findings from Tufts University Discussed** (Altered ECM deposition by diabetic foot ulcer-derived fibroblasts implicates fibronectin in chronic wound repair)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Diabetic Foot. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Current chronic wound treatments often fail to promote healing of diabetic foot ulcers (DFU), leading to amputation and increased patient morbidity. A critical mediator of proper wound healing is the production, assembly, and remodeling of the extracellular matrix (ECM) by fibroblasts."

The news correspondents obtained a quote from the research from Tufts University, "However, little is known about how these processes are altered in fibroblasts within the DFU microenvironment. Thus, we investigated the capacity of multiple, primary DFU-derived fibroblast strains to express, produce, and assemble ECM proteins compared to diabetic patient-derived fibroblasts and healthy donor-derived fibroblasts. Gene expression microarray analysis showed differential expression of ECM and ECM-regulatory genes by DFU-derived fibroblasts which translated to functional differences in a 3D in vitro ECM tissue model. DFU-derived fibroblasts produced thin, fibronectin-rich matrices, and responded abnormally when challenged with transforming growth factor-beta, a key regulator of matrix production during healing."

According to the news reporters, the research concluded: "These results provide novel evidence that DFU-derived fibroblasts contribute to the defective matrices of DFUs and chronic wound pathogenesis."


Our news journalists report that additional information may be obtained by contacting J.A. Garlick, Tufts University, Sch Dental Med, Dept. of Oral & Maxillofacial Pathol Oral Med & Crani, Boston, MA 02111, United States. Additional authors for this research include A. Smith, O. Kashpur, V. Yanez, E. Knight, D.J. Mooney, A.V. Md, M. Tomic-Canic
New Diabetic Nephropathy Study Results from Nanjing University Described (Terpene glycoside component from Moutan Cortex ameliorates diabetic nephropathy by regulating endoplasmic reticulum stress-related inflammatory responses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Diabetic Nephropathy are presented in a new report. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Multiple lines of evidences have suggested that endoplasmic reticulum (ER) stress-related inflammatory responses play a critical role in the pathogenesis of diabetic nephropathy (DN). Moutan Cortex (MC), the root bark of Paeonia suffruticosa Andr., is a well-known traditional Chinese medicine (TCM), which has been used clinically for treating inflammatory diseases in China."

Financial supporters for this research include National Natural Science Foundation of China, Jiangsu Province.

The news correspondents obtained a quote from the research from Nanjing University, "The findings from our previous research suggested that terpene glycoside (TG) component of MC possessed favorable anti-inflammatory properties in curing DN. However, the underlying mechanisms of MC-TG for treating DN are still unknown. Aim of the study: To explore the role of ER stress-related inflammatory responses in the progression of DN, and to investigate the underlying protective mechanisms of MC-TG in kidney damage. DN rats and advanced glycation end-products (AGEs) induced HBZY-1 cell dysfunction were established to evaluate the protective effect of MC-TG on ameliorating renal injury. Evaluation of pathological lesions was performed by Masson staining and transmission electron microscopy (TEM). Interleukin-6 (IL-6), monocyte chemoattractant protein-1 (MCP-1), glucose regulated protein 78 (GRP78/Bip), as well as spliced X box binding protein 1(XBP-1(s)) levels in rat serum were detected by an enzyme-linked immunosorbent assay (ELISA). Furthermore, western blotting (WB) was applied to detect the protein expressions including IL-6, MCP-1, intercellular cell adhesion molecule-1 (ICAM-1), GRP78/Bip, XBP-1 (s), phosphorylated inositol-requiring enzyme-1 alpha (p-IRE1 alpha), cleaved activating transcription factor 6 (ATF6), phosphorylated PKR-like endoplasmic reticulum kinase (p-PERK), and phosphorylated nuclear factor kappa B p65 (p-NF-kappa B p65) in vivo and in vitro. Immunohistochemistry (IHC) was
carried out to determine the phosphorylation of IRE1 alpha and NF-kappa B p65 in kidney tissues. Pretreatment with MC-TG could markedly improve renal insufficiency and pathologic changes. It could down-regulate ER stress-related factors GRP78/Bip, XBP-1(s) levels, and also reduce the pro-inflammatory molecules IL-6, MCP-1, and ICAM-1 expressions. Furthermore, a significant decrease in phosphorylation of IRE1 alpha and NF-kappa B p65 by the treatment of MC-TG. These findings indicated that MC-TG ameliorated ER stress-related inflammation in the pathogenesis of DN, wherein the protective mechanism might be associated with the inhibition of IRE1/NF-kappa B activation."

According to the news reporters, the research concluded: "Thus, MC-TG might be a potential therapeutic candidate for the prevention and treatment of DN."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.09.043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Diabetes Complications, Transcription Factors, Endoplasmic Reticulum, DNA-Binding Proteins, Diabetic Nephropathy, Cellular Structures, Intracellular Space, Diabetes Mellitus, Nuclear Proteins, Endocrinology, NF-kappa B, Nephropathy, Organelles, Cytoplasm, Genetics, Nanjing University.

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**Heart Disorders and Diseases - Dilated...**

**New Dilated Cardiomyopathy Findings from Soonchunhyang University Discussed (Genetic Variations Leading to Familial Dilated Cardiomyopathy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Dilated Cardiomyopathy are discussed in a new report. According to news originating from Cheonan, South Korea, by NewsRx correspondents, research stated, "Cardiomyopathy is a major cause of death worldwide. Based on pathohistological abnormalities and clinical manifestation, cardiomyopathies are categorized into several groups: hypertrophic, dilated, restricted, arrhythmogenic right ventricular, and unclassified."

Our news journalists obtained a quote from the research from Soonchunhyang University, "Dilated cardiomyopathy, which is characterized by dilation of the left ventricle and
systolic dysfunction, is the most severe and prevalent form of cardiomyopathy and usually requires heart transplantation. Its etiology remains unclear. Recent genetic studies of single gene mutations have provided significant insights into the complex processes of cardiac dysfunction. To date, over 40 genes have been demonstrated to contribute to dilated cardiomyopathy. With advances in genetic screening techniques, novel genes associated with this disease are continuously being identified. The respective gene products can be classified into several functional groups such as sarcomere proteins, structural proteins, ion channels, and nuclear envelope proteins. Nuclear envelope proteins are emerging as potential molecular targets in dilated cardiomyopathy. Because they are not directly associated with contractile force generation and transmission, the molecular pathways through which these proteins cause cardiac muscle disorder remain unclear. However, nuclear envelope proteins are involved in many essential cellular processes. Therefore, integrating apparently distinct cellular processes is of great interest in elucidating the etiology of dilated cardiomyopathy.

According to the news editors, the research concluded: "In this mini review, we summarize the genetic factors associated with dilated cardiomyopathy and discuss their cellular functions."


The news correspondents report that additional information may be obtained from Y. Kim, Soonchunhyang Univ, Soonchunhyang Inst Medibio Sci, Cheonan 31151, South Korea. Additional authors for this research include J. Lee and Y. Kim.

Keywords for this news article include: Cheonan, South Korea, Asia, Cardiovascular Diseases and Conditions, Nuclear Envelope, Article Review, Heart Disorders and Diseases, Cell Membrane Structures, Cell Nucleus Structures, Intracellular Membranes, Dilated Cardiomyopathy, Cellular Structures, Intracellular Space, Cardiomyopathies, Heart Disease, Cardiology, Genetics, Soonchunhyang University.

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**Heart Disorders and Diseases - Dilated...**

**New Dilated Cardiomyopathy Findings from University of Leipzig Discussed (Endomyocardial miR-133a levels correlate with myocardial inflammation, improved left ventricular function, and clinical outcome in patients with inflammatory ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Dilated Cardiomyopathy. According to news originating from Leipzig, Germany, by NewsRx correspondents, research stated, "Inflammatory heart disease represents an important cause of chronic dilated cardiomyopathy (DCM). Predicting the clinical course of patients with inflammatory cardiomyopathy (iCMP) is difficult, and the prognostic value of current biological markers remains controversial."

Our news journalists obtained a quote from the research from the University of
Leipzig, "We tested whether expression of selected microRNAs in endomyocardial biopsies (EMBs) is related to LV functional recovery and clinical events in iCMP patients. EMBs were obtained from patients with iCMP (n = 76) and non-inflammatory DCM (n = 22). A set of six microRNAs implicated in inflammation (miR-155 and miR-146b), heart failure (miR-21 and miR-133a), and endothelial cell (miR-126) and skeletal muscle function (miR-206) was predefined. Endomyocardial expression of miR-155 and miR-133a, as quantified by reverse transcription-PCR (RT-PCR), was up-regulated in patients with iCMP as compared with patients with DCM. Levels of miR-133a (R = 0.73, P<0.01) and miR-155 (R = 0.63, P<0.01) correlated with inflammatory cell count on EMBs from patients with iCMP. Patients with iCMP and preserved LV function at study entry demonstrated higher expression of miR-133a than patients with reduced LV function. Also, increased expression of miR-133a was associated with less fibrosis and myocyte necrosis on EMB, and LV functional recovery during a mean follow-up of 3.1 years. Importantly, patients with iCMP and miR-133a levels in the upper tertile showed longer survival free of death, malignant arrhythmias, and hospitalizations for heart failure."

According to the news editors, the research concluded: "The present study demonstrates that miR-133a levels correlate with macrophage infiltration, cardiac injury, improved LV function, and clinical outcome in patients with iCMP. miR-133a may serve as a potential novel biomarker and therapeutic target in human iCMP."

For more information on this research see: Endomyocardial miR-133a levels correlate with myocardial inflammation, improved left ventricular function, and clinical outcome in patients with inflammatory cardiomyopathy. European Journal of Heart Failure, 2016;18(12):1442-1451. European Journal of Heart Failure can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Oxford University Press - www.oup.com; European Journal of Heart Failure - eurjhf.oxfordjournals.org)

The news correspondents report that additional information may be obtained from P. Lurz, University of Leipzig, Center Heart, Dept. of Internal Med Cardiol, D-04289 Leipzig, Germany. Additional authors for this research include D. Urban, S. Watzka, D. Lang, K.P. Rommel, R. Kandolf, K. Klingel, H. Thiele, A. Linke, G. Schuler, V. Adams and P. Lurz.

Keywords for this news article include: Leipzig, Germany, Europe, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Left Ventricular Function, Dilated Cardiomyopathy, Cardiomyopathies, Heart Disease, Heart Failure, Inflammation, Cardiology, Genetics, University of Leipzig.

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autofluorescence and spectral-domain optical coherence tomography (OCT). Methods A single-centre retrospective cohort study was carried out on 42 eyes of 21 patients with birdshot disease, using a multimodal imaging approach including fundus autofluorescence, OCT, fluorescein angiography and indocyanine green angiography in combination with a patient chart review.

Financial supporters for this research include Foundation Fighting Blindness, Columbia, Maryland, Gelderse Blindenstichting, Velp, the Netherlands.

Our news editors obtained a quote from the research from Radboud University, "The patients' overall clinical activity of retinal vasculitis during the follow-up period was determined by periods of clinical activity as indicated by fluorescein angiography and associated treatment decisions. Image analysis was performed to examine the spatial correspondence between autofluorescence changes and disruption of the photoreceptor inner segment ellipsoid zone on OCT. Results Three common types of outer retinal lesions were observed in fovea-centred images of 43% of patients: circular patches of chorioretinal atrophy, ellipsoid zone disruption on OCT, and outer retinal atrophy on autofluorescence and OCT. There was good spatial correspondence between ellipsoid zone disruption and areas of diffuse hyper-autofluorescence outside the fovea. Interestingly, the ellipsoid zone disruption recovered in four out of seven patients upon intensified therapeutic immunosuppression. Conclusion Most patients only developed peripapillary atrophy and occasional perivascular hypo-autofluorescence. A multimodal imaging approach with autofluorescence imaging and OCT may help to detect ellipsoid zone disruption in the central retina of patients with birdshot disease."

According to the news editors, the research concluded: "Our results suggest that ellipsoid zone disruption may be related to both the activity and duration of retinal vasculitis, and could help to determine therapeutic success in birdshot disease."


The news editors report that additional information may be obtained by contacting T. Theelen, Radboud University, Medical Center, Dept. of Ophthmol, NL-6525 EX Nijmegen, Netherlands. Additional authors for this research include P. Veld, L.A.M. de Vries, C.B. Hoyng, B.J. Klevering and T. Theelen.

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Keywords for this news article include: Nijmegen, Netherlands, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Retinal Diseases and Conditions, Optical Coherence Tomography, Eye Diseases and Conditions, Diagnostics and Screening, Pathologic Processes, Disease Progression, Retinal Vasculitis, Disease Attributes, Cardiology, Angiography, Radboud University.

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Disease Attributes - Disease Progression

New Disease Progression Study Findings Recently Were Reported by Researchers at Medical College of Wisconsin (Protease-activated receptors in kidney disease progression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Disease Attributes - Disease Progression. According to news originating from Milwaukee, Wisconsin, by NewsRx correspondents, research stated, "Protease-activated receptors (PARs) are members of a well-known family of transmembrane G protein-coupled receptors (GPCRs). Four PARs have been identified to date, of which PAR1 and PAR2 are the most abundant receptors, and have been shown to be expressed in the kidney vascular and tubular cells."

Our news journalists obtained a quote from the research from the Medical College of Wisconsin, "PAR signaling is mediated by an N-terminus tethered ligand that can be unmasked by serine protease cleavage. The receptors are activated by endogenous serine proteases, such as thrombin (acts on PARs 1, 3, and 4) and trypsin (PAR2). PARs can be involved in glomerular, microvascular, and inflammatory regulation of renal function in both normal and pathological conditions. As an example, it was shown that human glomerular epithelial and mesangial cells express PARs, and these receptors are involved in the pathogenesis of crescentic glomerulonephritis, glomerular fibrin deposition, and macrophage infiltration. Activation of these receptors in the kidney also modulates renal hemodynamics and glomerular filtration rate. Clinical studies further demonstrated that the concentration of urinary thrombin is associated with glomerulonephritis and type 2 diabetic nephropathy; thus, molecular and functional mechanisms of PARs activation can be directly involved in renal disease progression."

According to the news editors, the research concluded: "We briefly discuss here the recent literature related to activation of PAR signaling in glomeruli and the kidney in general and provide some examples of PAR1 signaling in glomeruli podocytes."


The news correspondents report that additional information may be obtained from O. Palygin, Medical College of Wisconsin, Dept. of Physiol, Milwaukee, WI 53226, United States. Additional authors for this research include D.V. Ilatovskaya and A. Staruschenko.

Keywords for this news article include: Milwaukee, Wisconsin, United States, North and Central America, Protease, Article Review, Enzymes and Coenzymes, Pathologic Processes, Disease Progression, Disease Attributes, Nephrology, Kidney, Medical College of Wisconsin.

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**Disease Attributes - Disease Progression**

**New Disease Progression Study Findings Reported from Yang Ming National University (Erlotinib Salvage Therapy in Pulmonary Adenocarcinoma Patients With Disease Progression After Previous EGFR-TKI Treatment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Disease Attributes - Disease Progression are presented in a new report. According to news reporting out of Taipei, Taiwan, by NewsRx editors, research stated. "Erlotinib is an epidermal growth factor receptor (EGFR) tyrosine kinase inhibitor (TKI) with promising efficacy in treating pulmonary adenocarcinoma. Treatment choices are few when patients with pulmonary adenocarcinoma have failed both EGFR-TKI and chemotherapy."

Our news journalists obtained a quote from the research from Yang Ming National University. "The purpose of this study was to demonstrate the efficacy of erlotinib as salvage treatment for these nonresponsive patients. We retrospectively reviewed the chart records of our stage IV pulmonary adenocarcinoma patients who were diagnosed and treated between July 2004 and June 2013. Clinical data, including type of response to treatment, time to disease progression, duration between the end of first-line EGFR-TKI treatment and starting erlotinib treatment, and overall survival time, were collected. A total of 98 patients were enrolled, and all had been treated with EGFR-TKI, either as a first-line therapy or following platinum based chemotherapy; of them, 60 patients had a response to initial EGFR-TKI treatment. All received erlotinib as salvage treatment after their disease had progressed following EGFR-TKI treatment. Ninety-three (93.3%) patients had also received previous platinum-based chemotherapy. The median progression-free survival with erlotinib as salvage treatment for patients with and without a response to front-line EGFR-TKI was 4.9 and 3.4 months (P = 0.869), respectively. The progression-free survival with erlotinib treatment in the sensitizing EGFR mutation group was 4.3 months, and in the EGFR wild-type group it was 2.6 months (P=0.22)."

According to the news editors, the research concluded: "In pulmonary adenocarcinoma patients who had been heavily treated, erlotinib could still be a choice, regardless of the EGFR mutation status, or whether the patients had responded to previous EGFR-TKI treatment."

For more information on this research see: Erlotinib Salvage Therapy in Pulmonary Adenocarcinoma Patients With Disease Progression After Previous EGFR-TKI Treatment. *American Journal of Clinical Oncology-Cancer Clinical Trials*, 2016;39(6):556-562. *American Journal of Clinical Oncology-Cancer Clinical Trials* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting Y.M. Chen, Yang Ming National University, Taipei Veterans General Hospital, Sch Med, Dept. of Chest Med, Taipei 112, Taiwan. Additional authors for this research include C.H. Wu, S.L. Lai, C.H. Chiu, J.F. Shih, Y.C. Lee and Y.M. Chen.

Keywords for this news article include: Taipei, Taiwan, Asia, Intercellular Signaling Peptides and Proteins, Gastrointestinal Hormone Receptors, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor, Tyrosine Kinase Inhibitors, Gastrointestinal Hormones, Protein Kinase Inhibitors, Epidermal Growth Factors, Growth Factor Receptors, Pathologic Processes, Phosphotransferases, Drugs and Therapies, Disease Progression, Disease Attributes, Membrane Proteins, Erlotinib Therapy, Salvage Therapy, Protein Kinases,
New Disease Progression Study Results Reported from University of Turin (Pembrolizumab Cutaneous Adverse Events and Their Association With Disease Progression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Disease Attributes - Disease Progression have been published. According to news reporting originating in Turin, Italy, by NewsRx journalists, research stated, "Immunomodulatory anticancer drugs, such as the anti-programmed death-1 drug pembrolizumab, have shown promising results in trials, and more patients will receive such treatments. Little is known about cutaneous adverse events (AEs) caused by these drugs and their possible correlation with treatment response."

The news reporters obtained a quote from the research from the University of Turin, "To describe the frequency and spectrum of cutaneous AEs linked with pembrolizumab and their possible correlation with treatment response. A single-institution, retrospective medical record review was conducted of patients with cancer who were treated with pembrolizumab from March 1, 2011, to May 28, 2014. The review comprised 83 consecutive patients who were enrolled in 2 clinical trials, received at least 1 dose of pembrolizumab, and had at least 1 follow-up visit. Patients were grouped according to the following therapeutic regimen for pembrolizumab: 43 received 10 mg/kg every 3 weeks, 24 received 10 mg/kg every 2 weeks, and 16 received 2 mg/kg every 3 weeks. Sixty-six patients were treated for melanoma, 15 patients for lung cancer, 1 patient for prostate cancer, and 1 patient for Merkel cell carcinoma. Median follow-up was 15 weeks (range, 2-105 weeks). The analysis was conducted from March 1 to September 30, 2014. Occurrence, severity, and type of cutaneous AEs, as well as disease progression and response to pembrolizumab treatment. Thirty-five patients (42%) developed cutaneous AEs attributed to pembrolizumab. The most common cutaneous AEs were macular papular eruption (24 [29%]), pruritus (10 [12%]), and hypopigmentation (7 [8%]). All 7 patients who developed hypopigmentation were treated for melanoma. Survival analyses showed that patients who developed cutaneous AEs had significantly longer progression-free intervals in all 3 groups (pembrolizumab, 10 mg/kg, every 3 weeks, p=.001; pembrolizumab, 10 mg/kg, every 2 weeks, p=.003; pembrolizumab, 2 mg/kg, every 3 weeks, p=.009) compared with patients who did not develop cutaneous AEs. Pembrolizumab therapy was associated with cutaneous AEs in 42% of patients."

According to the news reporters, the research concluded: "The development of cutaneous AEs, especially of hypopigmentation in patients with melanoma, could point toward better treatment response."

For more information on this research see: Pembrolizumab Cutaneous Adverse Events and Their Association With Disease Progression. *Jama Dermatology*, 2015;151 (11):1206-12.

Our news correspondents report that additional information may be obtained by contacting M. Sanlorenzo, Mt Zion Cancer Research Center, Dept. of Dermatology, University of California-San Francisco2Section of Dermatology, Dept. of Medical Sciences, University of
Turin, Turin, Italy. Additional authors for this research include I. Vujic, A. Daud, A. Algazi, M. Gubens, S.A. Luna, K. Lin, P. Quaglino, K. Rappersberger and S. Ortiz-Urda.

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Keywords for this news article include: Turin, Italy, Europe, Cancer, Melanoma, Oncology, Hypopigmentation, Disease Attributes, Disease Progression, Drugs and Therapies, Pathologic Processes, Adverse Drug Reactions, Pigmentation Disorders, Skin Diseases and Conditions.

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**Hematologic Diseases and Conditions -...**

**New Disseminated Intravascular Coagulation Study Results Reported from Nanjing Medical University (Efficacy evaluation of D-dimer and modified criteria in overt and nonovert disseminated intravascular coagulation diagnosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hematologic Diseases and Conditions - Disseminated Intravascular Coagulation are presented in a new report. According to news originating from Suzhou, People's Republic of China, by NewsRx correspondents, research stated, "D-dimer (D-D) was shown to be an important indicator for the diagnosis of overt disseminated intravascular coagulation (DIC) and nonovert DIC. However, its diagnostic cutoff value in the clinic is not clearly defined."

Our news journalists obtained a quote from the research from Nanjing Medical University, "D-D, fibrinogen degradation products (FDP), prothrombin time (PT), activated partial thromboplastin time (APTT), fibrinogen (Fg), thrombin time (TT), antithrombin (AT), and blood platelet count (PLT) of 360 cases were used to assess the diagnostic efficacy of D-D (InnovanceR reagent) for the diagnosis of DIC and nonovert DIC, compared to, or combined with, other DIC coagulation indicators. When D-D >3.0 mg/mL was used as the cutoff, the sum of diagnostic sensitivity and specificity reached maximum values for DIC and nonovert DIC, whereas the sum of misdiagnoses and missed diagnosis rate was minimal. Excluding D-D, AT, or Fg, but not TT, from the test combination reduced the diagnostic sensitivity of DIC or nonovert DIC by various degrees. The area under the receiver-operating characteristic curve of D-D for diagnosing DIC and nonovert DIC was 0.97 and 0.98, respectively. Combining two factors, D-D >3.0 mg/mL and FDP >10 mg/L, increased the sensitivity and specificity for the diagnosis of DIC and nonovert DIC."

According to the news editors, the research concluded: "The cutoff value of D-D is >3.0 mg/mL; combined testing of D-D and FDP could be used as primary screening for diagnosing DIC and nonovert DIC in clinical practice."

Hematology - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1751-553X

The news correspondents report that additional information may be obtained from W.J. Li, Dept. of Clinical Laboratory, Suzhou Municipal Hospital affiliated to Nanjing Medical University, Suzhou, People's Republic of China. Additional authors for this research include M. Sha, W. Ma, Z.P. Zhang, Y.J. Wu and D.M Shi.

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Keywords for this news article include: Asia, Suzhou, Angiology, Thrombophilia, Hemorrhagic Disorders, Diagnostics and Screening, People's Republic of China, Blood Coagulation Disorders, Hematologic Diseases and Conditions, Disseminated Intravascular Coagulation.

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Drugs and Therapies - Drug Delivery Systems

New Drug Delivery Systems Findings Reported from Max-Planck-Institute for Polymer Research (The pro-active payload strategy significantly increases selective release from mesoporous nanocapsules)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Delivery Systems have been published. According to news reporting originating in Mainz, Germany, by NewsRx journalists, research stated, "The controlled release of payloads from mesoporous silica nanocapsules (SiNCs) consisting of stimulus-responsive shells is of considerable interest in applications such as self-healing materials and drug delivery. However, the release of payloads from SiNCs before application of external triggers (i.e. non-selective release) remains a formidable challenge."

The news reporters obtained a quote from the research from Max-Planck-Institute for Polymer Research, "In fact, the non-selective release of payloads from SiNCs occurs because of the mesoporous nature of the silica shell that cannot trap payloads in the core of SiNCs perfectly. We establish an efficient and straightforward strategy based on the encapsulation of a pro-active payload to hinder the non-selective release of small payloads from mesoporous capsules. A pro-active payload is defined as a compound that is converted to an active functional molecule in the environment where it is needed. In this sense, it is a generalization of a prodrug. Encapsulating a pro-active payload instead of a payload allowed hindering the non-selective release of the payload from SiNCs. A selective release of the payload could be achieved upon reduction of the encapsulated pro-active payload. Furthermore, the total amount of released substance is significantly enhanced by introducing responsive groups in the silica shell."

According to the news reporters, the research concluded: "These results show that the pro-active payload strategy combined with the use of stimulus-responsive materials can be successfully exploited to achieve selective release of cargo from mesoporous nanocapsules."
For more information on this research see: The pro-active payload strategy significantly increases selective release from mesoporous nanocapsules. *Journal of Controlled Release, 2016;242():119-125.* *Journal of Controlled Release* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news correspondents report that additional information may be obtained by contacting K. Landfester, Max Planck Inst Polymer Res, D-55128 Mainz, Germany. Additional authors for this research include M. Steinmann, D. Estupinan, K. Landfester and D. Crespy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jconrel.2016.08.040. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mainz, Germany, Europe, Emerging Technologies, Drug Delivery Systems, Drugs and Therapies, Nanotechnology, Nanocapsules, Max-Planck-Institute for Polymer Research.

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**Drugs and Therapies - Drug Delivery Systems**

**New Drug Delivery Systems Findings from Hong Kong University of Science and Technology Outlined (Theranostic hyaluronic acid prodrug micelles with aggregation-induced emission characteristics for targeted drug delivery)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Delivery Systems have been published. According to news reporting from Hong Kong, People's Republic of China, by NewsRx journalists, research stated, "Theranostic hyaluronic acid (HA) prodrug micelles with pH-responsive drug release and aggregation-induced emission (AIE) properties were prepared by chemical graft of biomimetic phosphorylcholine (PC), anticancer drug doxorubicin (DOX) and AIE fluorogen tetraphenylene (TPE) to the HA backbone. DOX was conjugated to the HA backbone by a hydrazone bond which can be hydrolyzed under acidic environment and result in pH-triggered smart release of DOX."

The news correspondents obtained a quote from the research from the Hong Kong University of Science and Technology, "The TPE units with typical AIE characteristics were applied for real time drug tracking in cancer cells. The HA-based prodrugs could self-assemble into micelles in aqueous solution as confirmed by the dynamic light scattering (DLS) and transmission electron microscopy (TEM). The intracellular distribution of HA prodrug micelles could be clearly observed by fluorescence microscopy based on the strong fluorescence of TPE. Moreover, after treated with the micelles, stronger fluorescence of TPE in CD44 overexpressed MDA-MB-231 cancer cells was observed, compared to the CD44 negative cell line, NIH3T3 cells, suggesting efficient cell uptake of HA prodrug micelles by receptor-mediated endocytosis. The cell viability results indicated that the prodrug micelles could inhibit the proliferation of the cancer cells effectively."

According to the news reporters, the research concluded: "Such pH-triggered theranostic drug delivery system with AIE features can provide a new platform for targeted and image-guided cancer therapy."
For more information on this research see: Theranostic hyaluronic acid prodrug micelles with aggregation-induced emission characteristics for targeted drug delivery. Science China-Chemistry. 2016;59(12):1609-1615. Science China-Chemistry can be contacted at: Science Press, 16 Donghuangchenggen North St, Beijing 100717, Peoples R China.

Our news journalists report that additional information may be obtained by contacting B.Z. Tang, Hong Kong University of Science & Technology, Dept. of Chem, Kowloon, Hong Kong, People's Republic of China. Additional authors for this research include H.K. Zhang, A.J. Qin, Q. Jin, B.Z. Tang and J. Ji.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11426-016-0246-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Drug Delivery Systems, Drugs and Therapies, Oncology, Cancer, Hong Kong University of Science and Technology.

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Drugs and Therapies - Drug Delivery Systems

New Drug Delivery Systems Findings from University of Twente Described (Targeting distinct myeloid cell populations in vivo using polymers, liposomes and microbubbles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Drug Delivery Systems. According to news reporting from Enschede, Netherlands, by NewsRx journalists, research stated, "Identifying intended or accidental cellular targets for drug delivery systems is highly relevant for evaluating therapeutic and toxic effects. However, limited knowledge exists on the distribution of nano- and micrometer-sized carrier systems at the cellular level in different organs."

The news correspondents obtained a quote from the research from the University of Twente, "We hypothesized that clinically relevant carrier materials, differing in composition and size, are able to target distinct myeloid cell subsets that control inflammatory processes, such as macrophages, neutrophils, monocytes and dendritic cells. Therefore, we analyzed the biodistribution and in vivo cellular uptake of intravenously injected poly(N-(2-hydroxypropyl) methacrylamide) polymers, PEGylated liposomes and poly(butyl cyanoacrylate) microbubbles in mice, using whole-body imaging (computed tomography - fluorescence-mediated tomography), intra-organ imaging (intravital multi-photon microscopy) and cellular analysis (flow cytometry of blood, liver, spleen, lung and kidney). While the three carrier materials shared accumulation in tissue macrophages in liver and spleen, they notably differed in uptake by other myeloid subsets. Kupffer cells and splenic red pulp macrophages rapidly take up microbubbles. Liposomes efficiently reach dendritic cells in liver, lung and kidney. Polymers exhibit the longest circulation half-life and target endothelial cells in the liver, neutrophils and alveolar macrophages."

According to the news reporters, the research concluded: "The identification of such previously unrecognized target cell populations might open up new avenues for more efficient drug delivery."

Our news journalists report that additional information may be obtained by contacting T. Lammers, University of Twente, Dept. of Targeted Therapeut, MIRA Inst Biomed Technol & Technical Med, Enschede, Netherlands. Additional authors for this research include F. Heymann, W. Al Rawashdeh, F. Gremse, M. Bartneck, U. Panzer, R. Pola, M. Pechar, G. Storm, N. Mohr, M. Barz, R. Zentel, F. Kiessling, C. Trautwein, T. Lammers and F. Tacke.

Keywords for this news article include: Enschede, Netherlands, Europe, Mononuclear Phagocyte System, Hemic and Immune Systems, Connective Tissue Cells, Drug Delivery Systems, Drugs and Therapies, Myeloid Cells, Biotechnology, Granulocytes, Neutrophils, Macrophages, Immunology, Phagocytes, Liposomes, University of Twente.

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**Drugs and Therapies - Drug Delivery Systems**

**New Drug Delivery Systems Findings from University of Valencia Reported (Aptamers as smart ligands for nano-carriers targeting)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Drug Delivery Systems is the subject of a report. According to news originating from Burjassot, Spain, by NewsRx correspondents, research stated, "The development of enhanced drug delivery systems is one of the most attractive fields of pharmaceutical sciences, as some of the highly effective chemo/biotherapeutics for cancer treatment can not be administrated due to their high toxicities for normal cells or low stability in physiological media. However, drugs that are currently not administrable will become valuable if specific cell-targeted drug carriers can protect the normal cells from adverse effects and also improve drug pharmacokinetics."

Our news journalists obtained a quote from the research from the University of Valencia, "Aptamers are attractive and promising biomaterials developed with high affinity and specificity against numerous valuable targets. They could act similar to monoclonal antibodies (mAbs), and offer significant advantages. Combined with aptamers, nanostructures are smart veicles with remarkable properties for drug delivery. Combination of aptamer and nanotechnology has resulted in the production of various targeted drug delivery systems which are highly efficient in therapeutic and diagnostic applications."

According to the news editors, the research concluded: "In this review, some of the efforts related to design and development of aptamer-targeted nanocarriers have been summarized considering: i) Aptamer importance as smart ligands and the aptamer development methods ii) Types of nanostructures combined with aptamers as targeting agent proposed in the literature iii) Cancer specific aptamers evaluated in combination with nanocarriers for diagnostic and therapeutic applications and iv) Discussion of aptamers-based smart nanocarriers according to the trend of related research works."

For more information on this research see: Aptamers as smart ligands for nanocarriers targeting. *Trac-Trends in Analytical Chemistry*, 2016;82():316-327. *Trac-Trends in Analytical Chemistry* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane,
Kidlington, Oxford OX5 1GB, Oxon, England.

The news correspondents report that additional information may be obtained from M. de la Guardia, University of Valencia, Dept. of Analyt Chem, E-46100 Burjassot, Spain. Additional authors for this research include M. Tabarzad, J. Ranjbari, M. de la Guardia, M. Hejazi and M. Ramezani.

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Keywords for this news article include: Burjassot, Spain, Europe, Drug Delivery Systems, Emerging Technologies, Drugs and Therapies, Nanotechnology, Nanostructures, Nanostructural, Nanocarriers, University of Valencia.

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Drugs and Therapies - Drug Delivery Systems

New Drug Delivery Systems Study Findings Have Been Reported by Researchers at Tianjin University (Zwitterionic-Modified Starch-Based Stealth Micelles for Prolonging Circulation Time and Reducing Macrophage Response)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Drug Delivery Systems is the subject of a report. According to news reporting originating from Tianjin, People's Republic of China, by NewsRx correspondents, research stated, "Over the last few decades, nanoparticles have been emerging as useful means to improve the therapeutic efficacy of drug delivery and medical diagnoses. However, the heterogeneity and complexity of blood as a medium is a fundamental problem; large amounts of protein can be adsorbed onto the surface of nanoparticles and cause their rapid clearance before reaching their target sites, resulting in the failure of drug delivery."

Our news editors obtained a quote from the research from Tianjin University, "To overcome this challenge, we present a rationally designed starch derivative (SB-ST-OC) with both a superhydrophilic moiety of zwitterionic sulfobetaine (SB) and a hydrophobic segment of octane (OC) as functional groups, which can self-assemble into 'stealth' micelles (SSO micelles). The superhydrophilic SB kept the micelles stable against aggregation in complex media and imbued them with 'stealth' properties, eventually extending their circulation time in blood. In stability and hemolysis tests the SSO micelles showed excellent protein resistance properties and hemocompatibility. Moreover, a phagocytosis test and cytokine secretion assay confirmed that the SSO micelles had less potential to trigger the activation of macrophages and were more suitable as a drug delivery candidate in vivo. On the basis of these results, doxorubicin (DOX), a hydrophobic drug, was used to investigate the potential application of this novel starch derivative in vivo. The results of the pharmacokinetic study showed that the values of the plasma area under the concentration curve (AUC) and elimination half-life (T1/2) of the SSO micelles were higher than those of micelles without SB modifications."

According to the news editors, the research concluded: "The combination of excellent protein resistance, lower macrophage activation, and longer circulation time in vivo makes this synthesized novel starch derivative a promising candidate as a hydrophobic drug
carrier for long-term circulation in vivo."


The news editors report that additional information may be obtained by contacting L. Ye, School of Chemical Engineering and Technology, Tianjin University, Tianjin 300072, People's Republic of China. Additional authors for this research include Y. Zhang, B. Yang, X. Zhou, J. Li, Z. Qin, D. Dong, Y. Cui and F. Yao.

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Keywords for this news article include: Asia, Tianjin, Immunology, Macrophages, Nanoparticle, Nanotechnology, Drugs and Therapies, Drug Delivery Systems, Emerging Technologies, People's Republic of China, Mononuclear Phagocyte System.

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Drugs and Therapies - Drug Delivery Systems

New Drug Delivery Systems Study Findings Reported from University of Sassari (Immune cell impact of three differently coated lipid nanocapsules: pluronic, chitosan and polyethylene glycol)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Drug Delivery Systems is the subject of a report. According to news reporting originating from Sassari, Italy, by NewsRx correspondents, research stated, "Lipid nanocapsules (NCs) represent promising tools in clinical practice for diagnosis and therapy applications. However, the NC appropriate functionalization is essential to guarantee high biocompatibility and molecule loading ability."

Our news editors obtained a quote from the research from the University of Sassari, "In any medical application, the immune system-impact of differently functionalized NCs still remains to be fully understood. A comprehensive study on the action exerted on human peripheral blood mononuclear cells (PBMCs) and major immune subpopulations by three different NC coatings: pluronic, chitosan and polyethylene glycol-polyactic acid (PEG) is reported. After a deep particle characterization, the uptake was assessed by flow-cytometry and confocal microscopy, focusing then on apoptosis, necrosis and proliferation impact in T cells and monocytes. Cell functionality by cell diameter variations, different activation marker analysis and cytokine assays were performed. We demonstrated that the NCs impact on the immune cell response is strongly correlated to their coating. Pluronic-NCs were able to induce immunomodulation of innate immunity inducing monocyte activations. Immunomodulation was observed in monocytes and T lymphocytes treated with Chitosan-NCs. Conversely, PEG-NCs were completely inert."

According to the news editors, the research concluded: "These findings are of particular value towards a pre-selection of specific NC coatings depending on biomedical purposes for pre-clinical investigations; i.e. the immune-specific action of particular NC coating can be excellent for immunotherapy applications."
For more information on this research see: Immune cell impact of three differently coated lipid nanocapsules: pluronic, chitosan and polyethylene glycol. *Scientific Reports*, 2016;6 ():18423. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting C. Farace, Dept. of Biomedical Science, University of Sassari, 07100 Sassari, Italy. Additional authors for this research include P. Sanchez-Moreno, M. Orecchioni, R. Manetti, F. Sgarrella, Y. Asara, J.M. Peula-Garcia, J.A. Marchal, R. Madeddu and L.G Delogu.

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Keywords for this news article include: Italy, Europe, Sassari, Alkenes, Polyenes, Monocytes, Immunology, Blood Cells, Hydrocarbons, Nanocapsules, Cell Research, Myeloid Cells, Nanotechnology, Immunomodulation, Bone Marrow Cells, Organic Chemicals, Drugs and Therapies, Polyethylene Glycols, Drug Delivery Systems, Emerging Technologies, Mononuclear Leukocytes.

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**Drug Resistance**

**New Drug Resistance Findings from Roswell Park Cancer Institute Outlined (The Challenges of Modeling Drug Resistance to Antiangiogenic Therapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drug Resistance. According to news reporting from Buffalo, New York, by NewsRx journalists, research stated, "Drug resistance remains an ongoing challenge for the majority of patients treated with inhibitors of the vascular endothelial growth factor (VEGF) pathway, a key regulator of tumor angiogenesis. Preclinical models have played a significant role in identifying multiple complex mechanisms of antiangiogenic treatment failure."

The news correspondents obtained a quote from the research from Roswell Park Cancer Institute, “Yet questions remain about the optimal methodology to study resistance that may assist in making clinically relevant choices about alternative or combination treatment strategies. The origins of antiangiogenic treatment failure may stem from the tumor vasculature, the tumor itself, or both together, and preclinical methods that define resistance are diverse and rarely compared. We performed a literature search of the preclinical methodologies used to examine resistance to VEGF pathway inhibitors and identified 109 papers from more than 400 that use treatment failure as the starting point for mechanistic study. We found that definitions of resistance are broad and inconsistent, involve only a small number of reagents, and derive mostly from in vitro and in vivo methodologies that often do not represent clinically relevant disease stages or progression."

According to the news reporters, the research concluded: "Together, this literature analysis highlights the challenges of studying inhibitors of the tumor microenvironment in the preclinical setting and the need for improved methodology to assist in qualifying (and quantifying) treatment failure to identify mechanisms that will help predict alternative strategies
in patients."


Our news journalists report that additional information may be obtained by contacting J.M. Ebos, Dept. of Cancer Genetics and Medicine, Roswell Park Cancer Institute, Elm & Carlton Streets, Buffalo, NY 142631, United States. Additional authors for this research include S. Rosario, A. Tracz, R.E. Frink, R.A. Brekken and J.M. Ebos.

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Keywords for this news article include: Buffalo, New York, United States, Drug Resistance, Drugs and Therapies, North and Central America.

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**Drug Resistance**

**New Drug Resistance Study Findings Reported from Okayama University (Low frequency of drug-resistant virus did not affect the therapeutic efficacy in daclatasvir plus asunaprevir therapy in patients with chronic HCV genotype-1 infection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drug Resistance. According to news reporting out of Okayama, Japan, by NewsRx editors, research stated, "The efficacy of a direct-acting antiviral agent (DAA) is compromised by the development of drug resistance. The associations between resistance-associated virus (RAV) and therapeutic outcomes have not been well-understood."

Our news journalists obtained a quote from the research from Okayama University, "A total of 30 patients with HCV genotype-1b were enrolled and treated for 24 weeks with asunaprevir (ASV) and daclatasvir (DCV). Viral sequences in non-structural (NS) regions 3 and 5A in serum and liver tissue before treatment were examined with direct sequencing, next-generation sequencing (NGS) and the PCR-invader method to evaluate the importance of drug-resistance in the prediction of the outcomes of ASV plus DCV therapy. Of 30 patients (22 treatment-naive patients, 2 interferon-intolerant patients and 6 non-responders), 25 patients (83.3%) achieved sustained virological response (SVR) 24 weeks after the treatment. Viral breakthrough occurred in three treatment-naive patients and one non-responder. One treatment-naive patient experienced viral relapse. Among 25 patients without RAV, 24 obtained SVR, whereas 5 patients had RAV with a 1.3 to 88% frequency, resulting in various therapeutic outcomes. As for HCV compartments, similar RAVs were detected in serum and liver tissue for a patient obtaining SVR despite HCV NS5A Y93H and another developed viral breakthrough although no RAV was detected. Direct sequencing could not detect RAVs in low frequency (1.3 to 12%) for three of four patients. Low frequency of RAVs might not affect the outcomes of ASV plus DCV therapy."

According to the news editors, the research concluded: "Deep sequencing and PCR-
invader methods can detect clinically significant RAVs for ASV plus DCV therapy.”

For more information on this research see: Low frequency of drug-resistant virus did not affect the therapeutic efficacy in daclatasvir plus asunaprevir therapy in patients with chronic HCV genotype-1 infection. *Antiviral Therapy*, 2016;21(1):37-44. *Antiviral Therapy* can be contacted at: Int Medical Press Ltd, 2-4 Idol Lane, London EC3R 5DD, England.

Our news journalists report that additional information may be obtained by contacting F. Ikeda, Okayama University, Grad Sch Med Dental & Pharmaceut Sci, Dept. of Gastroenterol & Hepatol, Okayama, Japan. Additional authors for this research include F. Ikeda, K. Takaguchi, C. Mori, T. Matsubara, H. Shiraha, A. Takaki, Y. Iwasaki, S. Toyooka and K. Yamamoto.

Keywords for this news article include: Okayama, Japan, Asia, Virus Physiological Phenomena, Viral Drug Resistance, Drugs and Therapies, Therapy, Okayama University.

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**New Dyslipidemias Study Findings Recently Were Reported by Researchers at General University Hospital (Statin-Induced Changes in Mitochondrial Respiration in Blood Platelets in Rats and Human With Dyslipidemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Dyslipidemias is now available. According to news reporting from Prague, Czech Republic, by NewsRx journalists, research stated, "3-hydroxy-3-methylglutaryl-coenzyme A (HMG-CoA) reductase inhibitors (statins) are widely used drugs for lowering blood lipid levels and preventing cardiovascular diseases. However, statins can have serious adverse effects, which may be related to development of mitochondrial dysfunctions."

The news correspondents obtained a quote from the research from General University Hospital, "The aim of study was to demonstrate the in vivo effect of high and therapeutic doses of statins on mitochondrial respiration in blood platelets. Model approach was used in the study. Simvastatin was administered to rats at a high dose for 4 weeks. Humans were treated with therapeutic doses of rosvastatin or atorvastatin for 6 weeks. Platelet mitochondrial respiration was measured using highresolution respirometry. In rats, a significantly lower physiological respiratory rate was found in intact platelets of simvastatin-treated rats compared to controls. In humans, no significant changes in mitochondrial respiration were detected in intact platelets; however, decreased complex I-linked respiration was observed after statin treatment in permeabilized platelets. We propose that the small in vivo effect of statins on platelet energy metabolism can be attributed to drug effects on complex I of the electron transport system."

According to the news reporters, the research concluded: "Both intact and permeabilized platelets can be used as a readily available biological model to study changes in cellular energy metabolism in patients treated with statins."

For more information on this research see: Statin-Induced Changes in Mitochondrial Respiration in Blood Platelets in Rats and Human With Dyslipidemia. *Physiological Research*, 2016;65(5):777-788. *Physiological Research* can be contacted at: Acad Sciences Czech Republic, Inst Physiology, Videnska 1083, Prague 4 142 20, Czech Republic.
Our news journalists report that additional information may be obtained by contacting Z. Fisar, Gen Univ Hosp, Prague 12008, Czech Republic. Additional authors for this research include Z. Fisar, T. Nekovarova, M. Vrablik, L. Zlatohlavek, J. Hroudova, N. Singh, J. Raboch and K. Vales.

Keywords for this news article include: Prague, Czech Republic, Europe, Nutritional and Metabolic Diseases and Conditions, Dyslipidemias, General University Hospital.

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Diseases of the Esophagus and Conditions - Dysphagia

New Dysphagia Study Findings Have Been Reported by Researchers at Vanderbilt University (Randomized controlled trial comparing esophageal dilation to no dilation among adults with esophageal eosinophilia and dysphagia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Digestive System Diseases and Conditions - Dysphagia are presented in a new report. According to news reporting originating from Nashville, Tennessee, by NewsRx correspondents, research stated, "The role of esophageal dilation in patients with esophageal eosinophilia with dysphagia remains unknown. The practice of dilation is currently based on center preferences and expert opinion."

Our news editors obtained a quote from the research from Vanderbilt University, "The aim of this study is to determine if, and to what extent, dysphagia improves in response to initial esophageal dilation followed by standard medical therapies. We conducted a randomized, blinded, controlled trial evaluating adult patients with dysphagia and newly diagnosed esophageal eosinophilia from 2008 to 2013. Patients were randomized to dilation or no dilation at time of endoscopy and blinded to dilation status. Endoscopic features were graded as major and minor. Subsequent to randomization and endoscopy, all patients received fluticasone and dexlansoprazole for 2 months. The primary study outcome was reduction in overall dysphagia score, assessed at 30 and 60 days post-intervention. Patients with severe strictures (less than 7-mm esophageal diameter) were excluded from the study. Thirty-one patients were randomized and completed the protocol: 17 randomized to dilation and 14 to no dilation. Both groups were similar with regard to gender, age, eosinophil density, endoscopic score, and baseline dysphagia score. The population exhibited moderate to severe dysphagia and moderate esophageal stricturing at baseline. Overall, there was a significant (P <0.001) but similar reduction in mean dysphagia score at 30 and 60 days post-randomization compared with baseline in both groups. No significant difference in dysphagia scores between treatment groups after 30 (P=0.93) or 60 (P=0.21) days post-intervention was observed. Esophageal dilation did not result in additional improvement in dysphagia score compared with treatment with proton pump inhibitor and fluticasone alone."

According to the news editors, the research concluded: "In patients with symptomatic esophageal eosinophilia without severe stricture, dilation does not appear to be a necessary initial treatment strategy."

For more information on this research see: Randomized controlled trial comparing esophageal dilation to no dilation among adults with esophageal eosinophilia and dysphagia. Diseases of the Esophagus, 2016;29(8):983-991. Diseases of the Esophagus can be contacted
New Ebola Virus Study Findings Have Been Reported from J.W. Benzine et al (Molecular Diagnostic Field Test for Point-of-Care Detection of Ebola Virus Directly From Blood)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Ebola Virus is now available. According to news originating from Middleton, Wisconsin, by NewsRx correspondents, research stated, "A molecular diagnostic method for robust detection of Ebola virus (EBOV) at the point of care (POC) directly from blood samples is described. This assay is based on reverse transcriptase loop-mediated isothermal amplification (RT-LAMP) of the glycoprotein gene of EBOV."

Funders for this research include National Institutes of Health, National Institute of Allergy And Infectious Diseases, Galveston National Laboratory.

Our news journalists obtained a quote from the research, "Complete reaction formulations were lyophilized in 0.2-mL polymerase chain reaction tubes. RT-LAMP reactions were performed on a battery-operated isothermal instrument. Limit of detection of this RT-LAMP assay was 2.8 x 10(2) plaque-forming units (PFU)/test and 1 x 10(3) PFU/test within 40 minutes for EBOV-Kikwit and EBOV-Makona, respectively. This assay was found to be specific for the detection of EBOV, as no nonspecific amplification was detected in blood samples spiked with closely related viruses and other pathogens."

According to the news editors, the research concluded: "These results showed that this diagnostic test can be used at the point of care for rapid and specific detection of EBOV directly from blood with high sensitivity within 40 minutes."


The news correspondents report that additional information may be obtained from Y. Chander, Lucigen Corp, Middleton, WI 53562, United States. Additional authors for this

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Ebola Virus

New Ebola Virus Study Findings Have Been Reported from University of Manitoba (Inactivation of Zaire ebolavirus Variant Makona in Human Serum Samples Analyzed by Enzyme-Linked Immunosorbent Assay)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Ebola Virus. According to news reporting out of Winnipeg, Canada, by NewsRx editors, research stated, "Personnel deployed to remote areas during infectious disease outbreaks have limited access to mechanical and chemical inactivation resources. The inactivation of infectious agents present in diagnostic samples is critical to ensure the safety of personnel and the containment of the disease."

Our news journalists obtained a quote from the research from the University of Manitoba, "We evaluated the efficacy of thermal inactivation (exposure to 56A degrees C for 1 hour) and chemical inactivation with 0.5% Tween-20 against a high titer of Ebola virus (species Zaire ebolavirus) variant Makona in spiked human serum samples. No surviving virus was revealed by a 50% tissue culture infective dose assay after the combined treatment under laboratory conditions."

According to the news editors, the research concluded: "In-field use of this inactivation protocol during the 2013-2016 West Africa Ebola outbreaks demonstrated readily detectable levels of immunoglobulin G and/or immunoglobulin M in human plasma samples after treatment."


Our news journalists report that additional information may be obtained by contacting S.S. Theriault, University of Manitoba, Dept. of Microbiol, Winnipeg, MB. Canada. Additional authors for this research include A. Grolla, S. Jones, B.W.M. Cook, X.G. Qiu and S.S. Theriault.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/infdis/jiw289. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Winnipeg, Manitoba, Canada, North and
Ebola Virus

New Ebola Virus Study Findings Recently Were Reported by Researchers at Harvard School of Medicine (Strengthening Health Systems While Responding to a Health Crisis: Lessons Learned by a Nongovernmental Organization During the Ebola Virus ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Ebola Virus is now available. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "An epidemic of Ebola virus disease (EVD) beginning in 2013 has claimed an estimated 11,310 lives in West Africa. As the EVD epidemic subsides, it is important for all who participated in the emergency Ebola response to reflect on strengths and weaknesses of the response."

Financial supporters for this research include United Kingdom Department for International Development, US Office of Foreign Disaster Assistance, Open Society Foundations, Abundance Foundation, Paul Allen Family Foundation.

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Such reflections should take into account perspectives not usually included in peer-reviewed publications and after-action reports, including those from the public sector, nongovernmental organizations (NGOs), survivors of Ebola, and Ebola-affected households and communities. In this article, we first describe how the international NGO Partners In Health (PIH) partnered with the Government of Sierra Leone and Wellbody Alliance (a local NGO) to respond to the EVD epidemic in 4 of the country's most Ebola-affected districts. We then describe how, in the aftermath of the epidemic, PIH is partnering with the public sector to strengthen the health system and resume delivery of regular health services. PIH's experience in Sierra Leone is one of multiple partnerships with different stakeholders. It is also one of rapid deployment of expatriate clinicians and logistics personnel in health facilities largely deprived of health professionals, medical supplies, and physical infrastructure required to deliver health services effectively and safely."

According to the news editors, the research concluded: "Lessons learned by PIH and its partners in Sierra Leone can contribute to the ongoing discussion within the international community on how to ensure emergency preparedness and build resilient health systems in settings without either."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/infdis/jiw345. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Viral Hemorrhagic Diseases and Conditions, Virus Diseases and Conditions, Viral Disease, Epidemiology, Mononegavirales, RNA Viruses, Filoviridae, Ebola Virus, Virology, Harvard School of Medicine.

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**Eye Diseases and Conditions - Ectopia Lentis**

**New Ectopia Lentis Study Findings Have Been Reported from University of Utah (Capsular bag stabilization during lens extraction and intraocular lens implantation in cases of Marfan syndrome with ectopia lentis using ultra-high-viscosity ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Eye Diseases and Conditions - Ectopia Lentis are discussed in a new report. According to news reporting originating from Salt Lake City, Utah, by NewsRx correspondents, research stated, "Capsule-sparing lens surgery in the setting of compromised zonular support presents several surgical challenges. One challenge has been achieving early stabilization of the capsular bag prior to cataract removal."

Our news editors obtained a quote from the research from the University of Utah, "We developed a technique that uses a high-molecular-weight viscoadaptive substance to distend and stabilize the capsular bag from within,. with or without early insertion of a capsular tension ring, during lens extraction and intraocular lens (IOL) implantation in cases of zonular insufficiency. The technique obviates the use of capsule hooks or similar devices that have been used traditionally for early stabilization of the capsular bag."

According to the news editors, the research concluded: "It has also resulted in immediate and long-term stability of the IOL-zonule-capsular bag complex, with excellent visual outcomes in both pediatric and adult patients."


The news editors report that additional information may be obtained by contacting K.J. Rosenthal, University of Utah, Sch Med, John A Moran Eye Center, Salt Lake City, UT,
New Embolism Study Findings Have Been Reported from Second Military Medical University [Usefulness of CHA(2)DS(2)-VASc Scoring Systems for Predicting Risk of Perioperative Embolism in Patients of Cardiac Myxomas Underwent Surgical Treatment]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Embolism have been presented. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Cardiac myxomas are rare but manifested with risk of embolism and often cause unexpected symptoms or sudden death. We retrospectively collected the medical records of patients diagnosed of cardiac myxomas at the cardiac center of our university."

Our news journalists obtained a quote from the research from Second Military Medical University, "Overall 465 patients were included in this study, patients in the embolism group had significantly higher CHA(2)DS(2)-VASc scores (P = 0.005). In embolic group, stroke was recorded in 110 (77.14%) patients, while embolic events in the limbs were observed in 10 (2.15%) and 9 (1.93%) developed splenic infarction. Patients in embolism group had older age (P = 0.021) and higher BMI (P < 0.001) than those in non-embolism group. There was no significant difference between two groups in terms of time of mechanical ventilation (P = 0.065), ICU stay (P = 0.053), hospital stay (P = 0.071) and volume of drainage (P = 0.083), blood transfusions (P = 0.060) except that patients with embolic events had significantly higher incidence of postoperative atrial fibrillation (P = 0.032) and lower survival rate (P < 0.001). Furthermore, the CHA2DS2-VASc score was a significant predictor of embolism in patients with cardiac myxomas (P = 0.015; P = 0.003) and the Kaplan-Meier analysis obtained a higher rate of embolism in patients with higher stratification of CHA(2)DS(2)-VASc scores (P = 0.002)."

According to the news editors, the research concluded: "CHA(2)DS(2)-VASc scoring scheme was strongly predictive of stroke and embolic events in patients with cardiac myxomas."

For more information on this research see: Usefulness of CHA(2)DS(2)-VASc Scoring Systems for Predicting Risk of Perioperative Embolism in Patients of Cardiac Myxomas Underwent Surgical Treatment. *Scientific Reports*, 2016;6():1-8. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)
The news correspondents report that additional information may be obtained from Y.F. Zhang, Second Military Med Univ, Changzheng Hosp, Dept. of Cardiothorac Surg, Shanghai, People's Republic of China. Additional authors for this research include J. Wang, W. Li, X.Y. Ling, Q. Xue, Y.F. Zhang and Z.N. Wang.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Cardiology, Myxomas, Second Military Medical University.

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Health and Medicine - Emergency Medicine

New Emergency Medicine Findings from Beth Israel Deaconess Medical Center Discussed (Platypnea-orthodeoxia syndrome: a simple clinical observation that heralds critical but treatable disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Health and Medicine - Emergency Medicine have been presented. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Platypnea-orthodeoxia syndrome is a rare clinical diagnosis characterized by dyspnea which is improved by the supine position (platypnea) and oxygenation which is worsened with upright posture (orthodeoxia). Platypnea-orthodeoxia syndrome has several possible causes."

The news reporters obtained a quote from the research from Beth Israel Deaconess Medical Center, "It may result from right to left intra-cardiac shunting, an atypical pulmonary ventilation-perfusion mismatch or vascular shunting that might occur with pulmonary AV malformations. We present a case of a 52-year-old female with the platypnea-orthodeoxia syndrome possibly due to an atrial septal defect with right to left shunting worsened by pulmonary hypertension. It is most likely that she also exhibited concurrent vascular shunting and ventilation perfusion mismatch due to the hepatopulmonary syndrome. Our patient demonstrates the complexity of determining the etiology of platypnea-orthodeoxia syndrome when more than one well established cause (atrial septal defect and advanced hepatic disease) are both present."

According to the news reporters, the research concluded: "Emergency clinicians must be aware of the platypnea-orthodeoxia syndrome as this simple clinical observation will almost invariably suggest at least one important and potentially treatable condition."


Our news correspondents report that additional information may be obtained by contacting M. Heller, Icahn Sch Med Mt Sinai, Emergency Med, Beth Israel Med Center, New York, NY 10003, United States. Additional authors for this research include N. Zapolsky, N. Nembhard, J. Rose, M. Heller and C. Hsu.

Keywords for this news article include: New York City, New York, United States,
Endocytosis

New Endocytosis Data Have Been Reported by Investigators at University of Southern Denmark (AQP2 Plasma Membrane Diffusion Is Altered by the Degree of AQP2-S256 Phosphorylation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Endocytosis have been published. According to news reporting originating from Odense, Denmark, by NewsRx correspondents, research stated, "Fine tuning of urine concentration occurs in the renal collecting duct in response to circulating levels of arginine vasopressin (AVP). AVP stimulates intracellular cAMP production, which mediates exocytosis of sub-apical vesicles containing the water channel aquaporin-2 (AQP2)."

Our news editors obtained a quote from the research from the University of Southern Denmark, "Protein Kinase A (PKA) phosphorylates AQP2 on serine-256 (S256), which triggers plasma membrane accumulation of AQP2. This mediates insertion of AQP2 into the apical plasma membrane, increasing water permeability of the collecting duct. AQP2 is a homotetramer. When S256 on all four monomers is changed to the phosphomimic aspartic acid (S256D), AQP2-S256D localizes to the plasma membrane and internalization is decreased. In contrast, when S256 is mutated to alanine (S256A) to mimic non-phosphorylated AQP2, AQP2-S256A localizes to intracellular vesicles as well as the plasma membrane, with increased internalization from the plasma membrane. S256 phosphorylation is not necessary for exocytosis and dephosphorylation is not necessary for endocytosis, however, the degree of S256 phosphorylation is hypothesized to regulate the kinetics of AQP2 endocytosis and thus, retention time in the plasma membrane. Using k-space Image Correlation Spectroscopy (kICS), we determined how the number of phosphorylated to non-phosphorylated S256 monomers in the AQP2 tetramer affects diffusion speed of AQP2 in the plasma membrane. When all four monomers mimicked constitutive phosphorylation (AQP2-S256D), diffusion was faster than when all four were non-phosphorylated (AQP2-S256A). AQP2-WT diffused at a speed similar to that of AQP2-S256D. When an average of two or three monomers in the tetramer were constitutively phosphorylated, the average diffusion coefficients were not significantly different to that of AQP2-S256D. However, when only one monomer was phosphorylated, diffusion was slower and similar to AQP2-S256A. Thus, AQP2 with two to four phosphorylated monomers has faster plasma membrane kinetics, than the tetramer which contains just one or no phosphorylated monomers."

According to the news editors, the research concluded: "This difference in diffusion rate may reflect behavior of AQP2 tetramers destined for either plasma membrane retention or endocytosis."

For more information on this research see: AQP2 Plasma Membrane Diffusion Is Altered by the Degree of AQP2-S256 Phosphorylation. *International Journal of Molecular Sciences*, 2016;17(11):684-695. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Albam-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting E.C. Arnspang, Univ Southern Denmark, Dept. of Chem Engn Biotechnol & Environm
New Endometrial Cancer Findings Has Been Reported by Investigators at University of Southern Denmark (The nature of early-stage endometrial cancer recurrence-A national cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Endometrial Cancer are presented in a new report. According to news reporting out of Odense, Denmark, by NewsRx editors, research stated, "The aim of the study was to present a comprehensive analysis of disease recurrence in a large Danish cohort of women with early-stage endometrial cancer treated according to national guidelines. All women diagnosed with stage I or II endometrial cancer in 2005-2009 were included in a population-based historical cohort derived from the Danish Gynaecological Cancer Database."

Our news journalists obtained a quote from the research from the University of Southern Denmark, "Disease recurrence up to 3 years after the primary diagnosis was identified using national registers and hospital charts. Follow-up on survival ended on 31st December 2014. We evaluated the predictive value of clinico-pathological and sociodemographic variables using multivariate logistic regression. Recurrence within 3 years of the primary treatment was diagnosed in 183 (7%) of the included 2612 women. Site of recurrence significantly impacted on overall survival as the 5-year survival rate was 64.8% for women with vaginal recurrence and 17.5% in women with distant recurrence. Factors predictive of recurrence included the International Federation of Gynaecology and Obstetrics (FIGO) stage (OR: IB = 1.91, stage II = 3.91), Charlson comorbidity index of 3 (OR 1.86), non-endometrioid histology (OR 1.81) and being outside of the workforce (OR 1.81). Vaginal recurrence was predicted by FIGO stage only (OR: IB = 1.88, II = 2.79), while extra-vaginal recurrence was predicted by FIGO stage (OR: IB=2.12, II = 3.31), Charlson comorbidity index of 3 (OR 1.88) and non-endometrioid histology (OR 2.51)."

According to the news editors, the research concluded: "Future research should seek to understand the underlying mechanisms of the identified predictive factors to improve recurrence prediction and to reduce morbidity and mortality."


Our news journalists report that additional information may be obtained by contacting M.M. Jeppesen, Univ Southern Denmark, Dept. of Obstet & Gynaecol, Fac Hlth Sci, Odense Univ HospClin Inst, DK-5000 Odense C, Denmark. Additional authors for this research include P.T. Jensen, D.G. Hansen, M. Iachina and O. Mogensen.
New Endometrial Cancer Study Findings Recently Were Reported by Researchers at Radboud University (Atypical Endometrial Polyps and Concurrent Endometrial Cancer A Systematic Review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Endometrial Cancer. According to news reporting originating from Nijmegen, Netherlands, by NewsRx correspondents, research stated, "To estimate the risk of concurrent endometrial cancer in nonpolypoid endometrium when atypia was diagnosed within an endometrial polyp. MEDLINE, EMBASE, Web of Science, and ClinicalTrials.gov were searched for studies published between 1990 and January 2015 in which 1) women with atypical hyperplastic endometrial polyps underwent a consecutive hysterectomy; or 2) the natural behavior of endometrium with concurrent atypical endometrial polyps underwent a consecutive hysterectomy; or 2) the natural behavior of endometrium with concurrent atypical endometrial polyps was evaluated."

Our news editors obtained a quote from the research from Radboud University, "OF SELECTION: Studies were selected when at least one patient within each study was initially diagnosed with an atypical endometrial polyp for which follow-up pathology was available. Broad searches yielded 2,922 authentic citations, 307 met criteria for full-text evaluation, and 10 met inclusion criteria. Two authors independently reviewed articles and consensus was reached. The final selection included eight retrospective studies reporting on concurrent endometrial cancer in case of atypical endometrial polyps and two follow-up studies on patients conserving their uterus after hysteroscopic resection of atypical endometrial polyps. In total, 127 patients were included with an initial diagnosis of atypical endometrial hyperplasia within polyps. Meta-analysis showed a pooled risk estimate of 5.6% (95% confidence interval [CI] 0.2-17.6%) on concurrent endometrial cancer after resection of an atypical endometrial polyp. The pooled risk estimate of 5.6% (95% CI 0.2-17.6%) on endometrial cancer when atypia is found within an endometrial polyp differs from the well-established risk of nonpolypoid atypical endometrial hyperplasia on endometrial cancer of up to 42%." According to the news editors, the research concluded: "This risk of endometrial cancer is important in the process of shared decision-making regarding follow-up and further treatment."

For more information on this research see: Atypical Endometrial Polyps and Concurrent Endometrial Cancer A Systematic Review. Obstetrics and Gynecology, 2016;128 (3):519-525. Obstetrics and Gynecology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Obstetrics and Gynecology - journals.lww.com/greenjournal/pages/default.aspx)

The news editors report that additional information may be obtained by contacting S.R. de Rijk, Radboud University, Medical Center, Dept. of Obstet & Gynecol, NL-6500 HB Nijmegen, Netherlands. Additional authors for this research include M.E. Steenbergen, T.E.
Nieboer and S.F. Coppus.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Cancer, Article Review, Diagnostics and Screening, Uterine Diseases and Conditions, Endometrial Hyperplasia, Risk and Prevention, Endometrial Cancer, Women's Health, Gynecology, Oncology, Radboud University.

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Bacterial Infections and Mycoses - Endotoxemia

New Endotoxemia Study Findings Have Been Reported by Investigators at Istanbul University (Amelioration of Energy Metabolism by Melatonin in Skeletal Muscle of Rats With LPS Induced Endotoxemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Bacterial Infections and Mycoses - Endotoxemia is the subject of a report. According to news reporting out of Istanbul, Turkey, by NewsRx editors, research stated, "In the literature, few studies have investigated the effects of melatonin on energy metabolism in skeletal muscle in endotoxemia. We investigated the effects of melatonin on tissue structure, energy metabolism in skeletal muscle, and antioxidant level of rats with endotoxemia."

Our news journalists obtained a quote from the research from Istanbul University, "We divided rats into 4 groups, control, lipopolysaccharide (LPS) (20 mg/kg, i.p., single dose), melatonin (10 mg/kg, i.p., three times), and melatonin + LPS. Melatonin was injected i.p. 30 min before and after the 2nd and 4th hours of LPS injection. Antioxidant status was determined by glutathione (GSH) measurement in the blood. Muscle tissue was stained using modified Gomori trichrome (MGT), succinic dehydrogenase (SDH), and cytochrome oxidase (COX) and histological scored. Also the sections were then stained with hematoxylin and eosin. The stained sections were visualized and photographed. Creatine, creatine phosphate, adenosine triphosphate (ATP), adenosine diphosphate (ADP), and adenosine monophosphate (AMP) levels were investigated using high performance liquid chromatography (HPLC) in muscle tissue. In the Melatonin + LPS group, blood GSH levels were increased compared with the LPS group (P <0.01). Melatonin reduced myopathic changes in the LPS group according to the histopathologic findings. In addition, ATP values were increased compared with the LPS group (P <0.05)."

According to the news editors, the research concluded: "Our findings showed melatonin treatment prevented muscle damage by increasing ATP and GSH levels in rats with LPS induced endotoxemia."

For more information on this research see: Amelioration of Energy Metabolism by Melatonin in Skeletal Muscle of Rats With LPS Induced Endotoxemia. *Physiological Research*, 2016;65(5):833-842. *Physiological Research* can be contacted at: Acad Sciences Czech Republic, Inst Physiology, Videnska 1083, Prague 4 142 20, Czech Republic.

Our news journalists report that additional information may be obtained by contacting E. Ozkok, Istanbul University, Inst Expt Med, Dept. of Neurosci, TR-34280 Istanbul, Turkey. Additional authors for this research include H. Yorulmaz, G. Ates, A. Aksu, N. Balkis, O. Sahin and S. Tamer.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Bacterial
New Enterobacter aerogenes Findings from B.B. Flury and Co-Researchers Described (The differential importance of mutations within AmpD in cephalosporin resistance of Enterobacter aerogenes and Enterobacter cloacae)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Enterobacter aerogenes have been presented. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Mechanisms leading to carbapenem and cephalosporin resistance were sought in Enterobacter aerogenes isolates that were highly resistant to carbapenems but had no known carbapenemase. Results were compared with recent work examining carbapenem-resistant Enterobacter cloacae. Eighteen carbapenem-resistant E. aerogenes were screened for known beta-lactamase and carbapenemase genes, and novel carbapenemases were sought in whole-genome sequencing (WGS) data of the three most resistant isolates."

Financial supporters for this research include Prof. Dr Max Cloetta and Uniscienta Foundation, Margarete and Walter Lichtenstein Foundation, University of Basel.

The news correspondents obtained a quote from the research, "For all isolates, ampC, ampR, ampD and the porin genes omp35 and omp36 were investigated by Sanger sequencing or from available WGS data. Expression of ampC and porin genes was measured in comparison with cephalosporin-and carbapenem-susceptible control strains by reverse transcriptase PCR, with porin translation also detected by SDS-PAGE. Loss of Omp35, primarily due to decreased transcription (up to 250x), was observed in ertapenem-resistant isolates (MICs >= 2 mg/L), whereas meropenem resistance (MICs >= 4 mg/L) was observed in those isolates also showing decreased or no production of Omp36. Loss of Omp36 was due to combinations of premature translation termination or reduced transcription. In contrast to E. cloacae, cephalosporin resistance in E. aerogenes was not associated with lesions in AmpD. High-level cefepime resistance (MIC = 32 mg/L) was caused by a novel modification in the H-10 helix of AmpC in one isolate. The differential importance of AmpD lesions in cephalosporin resistance in E. cloacae and E. aerogenes underlines the differences between these contrasting members of the Enterobacter genus."

According to the news reporters, the research concluded: "Porin loss resulted in high-level carbapenem resistance with gradual loss of Omp36, which led to high-level meropenem resistance."


Our news journalists report that additional information may be obtained by

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.07.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Gram-Negative Facultatively Anaerobic Rods, Cephalosporin Resistance, beta-Lactam Resistance, Gram-Negative Bacteria, Enterobacter aerogenes, Enterobacter cloacae, Gammaproteobacteria, Enterobacteriaceae, Membrane Proteins, Drug Resistance, Cephalosporins, Proteobacteria, beta-Lactams, Ion Channels, Carbapenems, Thiazines, Porins.

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**Gram-Positive Bacteria - Enterococcus faecalis**

**New Enterococcus faecalis Findings from CSIR Reported (Assessment of virulence potential of uncharacterized Enterococcus faecalis strains using pan genomic approach - Identification of pathogen-specific and habitat-specific genes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - Enterococcus faecalis. According to news originating from Kolkata, India, by NewsRx correspondents, research stated, "Enterococcus faecalis, a leading nosocomial pathogen and yet a prominent member of gut microbiome, lacks clear demarcation between pathogenic and non-pathogenic strains at genome level. Here we present the comparative genome analysis of 36 E. faecalis strains with different pathogenic features and from different body-habitats."

Our news journalists obtained a quote from the research from CSIR, "This study begins by addressing the genome dynamics, which shows that the pan-genome of E. faecalis is still open, though the core genome is nearly saturated. We identified eight uncharacterized strains as potential pathogens on the basis of their co-segregation with reported pathogens in gene presence-absence matrix and Pathogenicity Island (PAI) distribution. A similar to 7.4 kb genomic-cassette, which is itself a part of PAI, is found to exist in all reported and potential pathogens, but not in commensals and other uncharacterized strains. This region encodes four genes and among them, products of two hypothetical genes are predicted to be intrinsically disordered that may serve as novel targets for therapeutic measures."

According to the news editors, the research concluded: "Exclusive existence of 215, 129, 4 and 1 genes in the blood, gastrointestinal tract, urogenital tract, oral cavity and lymph node derived E. faecalis genomes respectively suggests possible employment of distinct habitat-specific genetic strategies in the adaptation of E. faecalis in human host."

For more information on this research see: Assessment of virulence potential of uncharacterized Enterococcus faecalis strains using pan genomic approach - Identification of pathogen-specific and habitat-specific genes. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports -
The news correspondents report that additional information may be obtained from C. Dutta, CSIR Indian Inst Chem Biol, Academy Sci & Innovat Res AcSIR, Kolkata 700032, India. Additional authors for this research include M. Sarkar, S. Paul and C. Dutta.

Keywords for this news article include: Kolkata, India, Asia, Enterococcus, Genetics, Gram-Positive Bacteria, Enterococcus faecalis, Lactobacillales, Enterococcaceae, CSIR.

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**New Enterovirus Study Findings Reported from University of Thessaly**

(Enterovirus Study Findings Reported from University of Thessaly)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enterovirus. According to news reporting originating in Larisa, Greece, by NewsRx journalists, research stated, "Mutations and recombination events have been identified in enteroviruses. Point mutations accumulate with a frequency of 6.3 x 10(-4) per base pair per replication cycle affecting the fitness, the circulation, and the infectivity of enteroviral strains."

The news reporters obtained a quote from the research from the University of Thessaly, "In the present report, the serological status of the Central and Western Greek population (Larissa and Ioannina, respectively) in the 1-10-year, 11-20-year, 21-30-year, and 31-40-year age groups against six non-polio enterovirus strains, their respective echovirus prototypes, and Sabin 1, 2, and 3 vaccine strains was evaluated, through serum-neutralization assay. In the Western Greek population, antibody levels were detected only for clinical isolates of E30 serotype in all age groups, and for environmental isolate LR61G3 (E6 serotype) only in the 31-40 age group, whereas an immunity level was observed in the Central Greek population, against all strains, except for ELS6B (E3 serotype). Amino acid substitutions were encountered across the structural region of the capsid, between the prototypes and the respective isolates. These substitutions may alter the antigenicity of each strain and may explain the variations observed in the neutralization titers of the different strains. As a consequence, these substitutions severely affect antibody binding and increase the ability of the virus to escape the immune response. It is tempting to assume that changes in the antigenic properties observed in circulating echoviruses represent a selection of viral variants that are less prone to be neutralized by human antibodies."

According to the news reporters, the research concluded: "These facts argue for the need of immunological studies to the population to avoid epidemics due to the circulation of highly evolved derivatives."

For more information on this research see: Serum Neutralization Assay for the Determination of Antibody Levels Against Non-Polio Enterovirus Strains in Central and Western Greece. *Viral Immunology*, 2016;29(7):444-450. *Viral Immunology* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Viral Immunology - www.liebertpub.com/overview/viral-immunology/57/)
Our news correspondents report that additional information may be obtained by contacting P. Markoulatos, University of Thessaly, Sch Hlth Sci, Dept. of Biochem & Biotechnol, Microbiol Virol Lab, Lariza, Greece. Additional authors for this research include T.G. Dimitriou, Z. Kyriakopoulou, O. Tsachouridou, C. Gartzonika, S. Levidiotou-Stefanou, G.D. Amoutzias and P. Markoulatos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/vim.2016.0049. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Larisa, Greece, Europe, Immunology, Epidemiology, Immunoglobulins, Blood Proteins, Picornaviridae, Poliomyelitis, RNA Viruses, Enterovirus, Antibodies, Poliovirus, Genetics, Virology, Viral, University of Thessaly.

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Enterovirus

New Enterovirus Study Results from French National Institute of Health and Medical Research (INSERM) Described (Exchanges of genomic domains between poliovirus and other cocirculating species C enteroviruses reveal a high degree of plasticity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Enterovirus. According to news reporting from Paris, France, by NewsRx journalists, research stated, "The attenuated Sabin strains contained in the oral poliomyelitis vaccine are genetically unstable, and their circulation in poorly immunized populations can lead to the emergence of pathogenic circulating vaccine-derived polioviruses (cVDPVs). The recombinant nature of most cVDPV genomes and the preferential presence of genomic sequences from certain cocirculating non-polio enteroviruses of species C (EV-Cs) raise questions about the permissiveness of genetic exchanges between EV-Cs and the phenotypic impact of such exchanges."

The news correspondents obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "We investigated whether functional constraints limited genetic exchanges between Sabin strains and other EV-Cs. We bypassed the natural recombination events by constructing 29 genomes containing a Sabin 2 capsid-encoding sequence and other sequences from Sabin 2 or from non-polio EV-Cs. Most genomes were functional. All recombinant viruses replicated similarly in vitro, but recombination modulated plaque size and temperature sensitivity. All viruses with a 5'UTR from Sabin 2 were attenuated in mice, whereas almost all viruses with a non-polio 5'UTR caused disease. These data highlight the striking conservation of functional compatibility between different genetic domains of cocirculating EV-Cs."

According to the news reporters, the research concluded: "This aspect is only one of the requirements for the generation of recombinant cVDPVs in natural conditions, but it may facilitate the generation of viable intertypic recombinants with diverse phenotypic features, including pathogenicity."

For more information on this research see: Exchanges of genomic domains between poliovirus and other cocirculating species C enteroviruses reveal a high degree of plasticity.
New Environmental Research Findings from School of Medicine Outlined (Identifying sensitive windows for prenatal particulate air pollution exposure and mitochondrial DNA content in cord blood)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Environmental Research are presented in a new report. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Changes in mitochondrial DNA (mtDNA) can serve as a marker of cumulative oxidative stress (OS) due to the mitochondria's unique genome and relative lack of repair systems. In utero particulate matter <= 2.5 µm (PM2.5) exposure can enhance oxidative stress."

Financial support for this research came from Ministry of Health.

The news correspondents obtained a quote from the research from the School of Medicine, "Our objective was to identify sensitive windows to predict mtDNA damage experienced in the prenatal period due to PM2.5 exposure using mtDNA content measured in cord blood. Material and methods: Women affiliated with the Mexican social security system were recruited during pregnancy in the Programming Research in Obesity, Growth, Environment and Social Stressors (PROGRESS) study. Mothers with cord blood collected at delivery and complete covariate data were included (n = 456). Mothers' prenatal daily exposure to PM2.5 was estimated using a satellite-based spatio-temporally resolved prediction model and place of residence during pregnancy. DNA was extracted from umbilical cord leukocytes. Quantitative real-time polymerase chain reaction (qPCR) was used to determine mtDNA content. A distributive lag regression model (DLM) incorporating weekly averages of daily PM2.5 predictions was constructed to plot the association between exposure and OS over the length of pregnancy. In models that included child's sex, mother's age at delivery, prenatal environmental tobacco smoke exposure, birth year, maternal education, and assay batch, we found significant associations between higher PM2.5 exposure during late pregnancy (35-40 weeks) and lower mtDNA content in cord blood."

According to the news reporters, the research concluded: "Increased PM2.5 during a specific prenatal window in the third trimester was associated with decreased mtDNA content suggesting heightened sensitivity to PM-induced OS during this life stage."

For more information on this research see: Identifying sensitive windows for prenatal particulate air pollution exposure and mitochondrial DNA content in cord blood.
New Environmental Research and Public Health Findings from Sylvester Comprehensive Cancer Center Described (Racial/Ethnic Differences in Electronic Cigarette Use and Reasons for Use among Current and Former Smokers: Findings from a ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Environmental Health - Environmental Research and Public Health. According to news originating from Miami, Florida, by NewsRx correspondents, research stated, "The prevalence of e-cigarette use is increasing, yet few studies have focused on its use in racial/ethnic minority populations. We examined associations between race/ethnicity and e-cigarette use, plans to continue using e-cigarettes, and reasons for use among current/former smokers."

Our news journalists obtained a quote from the research from Sylvester Comprehensive Cancer Center, "Participants (285 in total; 29% non-Hispanic White, 42% African American/Black, and 29% Hispanic) were recruited between June and November 2014. Telephone-administered surveys assessed demographics, cigarette smoking, e-cigarette use, plans to continue using, and reasons for use. Analyses of covariance (ANCOVAs) and multivariable logistic regressions were conducted. African Americans/Blacks were significantly less likely to report ever-use compared to Whites and Hispanics (50% vs. 71% and 71%, respectively; p < 0.001). However, African American/Black ever users were more likely to report plans to continue using e-cigarettes compared to Whites and Hispanics (72% vs. 53% and 47%, respectively, p = 0.01). African American/Black participants were more likely to use e-cigarettes as a cessation aid compared to both Whites (p = 0.03) and Hispanics (p = 0.48). White participants were more likely to use e-cigarettes to save money compared to Hispanics (p = 0.02)."

According to the news editors, the research concluded: "Racial/ethnic differences in e-cigarette use, intentions, and reasons for use emerged in our study. African American ever
users may be particularly vulnerable to maintaining their use, particularly to try to quit smoking. These findings have implications for cigarette smoking and e-cigarette dual use, continued e-cigarette use, and potentially for smoking-related disparities."


The news correspondents report that additional information may be obtained from M.W. Hooper, Sylvester Comprehensive Cancer Center, Miami, FL 33136, United States.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Environmental Research and Public Health, Environmental Health, Sylvester Comprehensive Cancer Center.

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**Enzymes and Coenzymes**

**New Enzymes and Coenzymes Findings from Brandeis University Outlined (Enzyme-Instructed Self-Assembly of Small D-Peptides as a Multiple-Step Process for Selectively Killing Cancer Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes have been published. According to news originating from Waltham, Massachusetts, by NewsRx correspondents, research stated, "Selective inhibition of cancer cells remains a challenge in chemotherapy. Here we report the molecular and cellular validation of enzyme-instructed self-assembly (EISA) as a multiple step process for selectively killing cancer cells that overexpress alkaline phosphatases (ALPs)."

Funders for this research include U.S. Department of Health and Human Services, W.M. Keck Foundation, National Science Foundation.

Our news journalists obtained a quote from the research from Brandeis University, "We design and synthesize two kinds of D-tetrapeptide containing one or two phosphotyrosine residues and with the N-terminal capped by a naphthyl group. Upon enzymatic dephosphorylation, these D-tetrapeptides turn into self-assembling molecules to form nanofibers in water. Incubating these D-tetrapeptides with several cancer cell lines and one normal cell line, the unphosphorylated D-tetrapeptides are innocuous to all the cell lines, the monophosphorylated D-tetrapeptides selectively inhibit the cancer cells, but not the normal cell. The monophosphorylated D-tetrapeptides exhibit more potent inhibitory activity than the diphosphorylated D-tetrapeptides do; the cancer cell lines express higher level of ALPs are more susceptible to inhibition by the phosphorylated D-tetrapeptides; the precursors of D-tetrapeptides that possess higher self-assembling abilities exhibit higher inhibitory activities. These results confirm the important role of enzymatic reaction and self-assembly. Using uncompetitive inhibitors of ALPs and fluorescent D-tetrapeptides, we delineate that the enzyme catalyzed dephosphorylation and the self-assembly steps, together, result in the localization of the nanofibers of D-tetrapeptides for killing the cancer cells. We find that the cell death modality likely associates with the cell type and prove the interactions between nanofibers and..."
the death receptors."

According to the news editors, the research concluded: "This work illustrates a paradigm-shifting and biomimetic approach and contributes useful molecular insights for the development of spatiotemporal defined supramolecular processes/assemblies as potential anticancer therapeutics."


The news correspondents report that additional information may be obtained from J. Zhou, Dept. of Chemistry, Brandeis University, 415 South Street, Waltham, Massachusetts 02453, United States. Additional authors for this research include X. Du, N. Yamagata and B. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/jacs.5b13541. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Waltham, Oncology, Peptides, Proteins, Cell Line, Nanofiber, Proteomics, Massachusetts, United States, Nanotechnology, Emerging Technologies, Enzymes and Coenzymes, North and Central America.

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**Enzymes and Coenzymes**

**New Enzymes and Coenzymes Findings from Leibniz University Outlined (PvdN Enzyme Catalyzes a Periplasmic Pyoverdine Modification)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Enzymes and Coenzymes are presented in a new report. According to news reporting from Hannover, Germany, by NewsRx journalists, research stated, "Pyoverdines are high affinity siderophores produced by a broad range of pseudomonads to enhance growth under iron deficiency. They are especially relevant for pathogenic and mutualistic strains that inhabit iron-limited environments."

The news correspondents obtained a quote from the research from Leibniz University, "Pyoverdines are generated from non-ribosomally synthesized highly modified peptides. They all contain an aromatic chromophore that is formed in the periplasm by intramolecular cyclization steps. Although the cytoplasmic peptide synthesis and side-chain modifications are well characterized, the periplasmic maturation steps are far from understood. Out of five periplasmic enzymes, PvdM, PvdN, PvdO, PvdP, and PvdQ, functions have been attributed only to PvdP and PvdQ. The other three enzymes are also regarded as essential for siderophore biosynthesis. The structure of PvdN has been solved recently, but no function could be assigned. Here we present the first in-frame deletion of the PvdN-encoding gene. Unexpectedly, PvdN turned out to be required for a specific modification of pyoverdine, whereas the overall amount of fluorescent pyoverdines was not altered by the mutation. The mutant strain grew normally under iron-limiting conditions. Mass spectrometry identified the PvdN-dependent modification as a transformation of the N-terminal glutamic acid to a
succinamide."

According to the news reporters, the research concluded: "We postulate a pathway for this transformation catalyzed by the enzyme PvdN, which is most likely functional in the case of all pyoverdines."


Our news journalists report that additional information may be obtained by contacting T. Bruser, Leibniz Univ Hannover, Inst Microbiol, Herrenhauser Str 2, D-30419 Hannover, Germany. Additional authors for this research include G. Drager and T. Bruser.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.755611. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hannover, Germany, Europe, Enzymes and Coenzymes, Genetics, Leibniz University.

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**New Epilepsy Data Have Been Reported by Researchers at McGill University (Epileptic Encephalopathy Caused by Mutations in the Guanine Nucleotide Exchange Factor DENND5A)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting originating from Montreal, Canada, by NewsRx correspondents, research stated, "Epileptic encephalopathies are a catastrophic group of epilepsies characterized by refractory seizures and cognitive arrest, often resulting from abnormal brain development. Here, we have identified an epileptic encephalopathy additionally featuring cerebral calcifications and coarse facial features caused by recessive loss-of-function mutations in DENND5A."

Funders for this research include Canadian Institutes for Health Research, German Academic Exchange Service, German-Arab Transformation Program Line4, Ontario Brain Institute and Genome Canada, Fonds de Recherche du Quebec - Sante.

Our news editors obtained a quote from the research from McGill University. "DENND5A contains a DENN domain, an evolutionarily ancient enzymatic module conferring guanine nucleotide exchange factor (GEF) activity to multiple proteins serving as GEFs for Rabs, which are key regulators of membrane trafficking. DENND5A is detected predominantly in neuronal tissues, and its highest levels occur during development. Knockdown of DENND5A leads to striking alterations in neuronal development. Mechanistically, these changes appear to result from upregulation of neurotrophin receptors, leading to enhanced downstream signaling."

According to the news editors, the research concluded: "Thus, we have identified a link between a DENN domain protein and neuronal development, dysfunction of which is
responsible for a form of epileptic encephalopathy."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajhg.2016.10.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Intracellular Signaling Peptides and Proteins, Genetics, Central Nervous System Diseases and Conditions, Guanine Nucleotide Exchange Factors, GTP-Binding Protein Regulators, Epileptic Encephalopathy, Epilepsy, McGill University.

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Central Nervous System Diseases and Conditions -…

New Epilepsy Findings from All India Institute of Medical Sciences Discussed (A case of recurrent status epilepticus and successful management with progesterone)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting originating in New Delhi, India, by NewsRx journalists, research stated, "Catamenial epilepsy (CE) is a commonly observed phenomenon among women with epilepsy, the management of which is both hormonal and non-hormonal. Progesterone therapy has been tried in these patients, as the possible mechanism of CE is withdrawal of progesterone and a higher oestrogen/progesterone ratio in the perimenstrual and periovulatory periods."

The news reporters obtained a quote from the research from the All India Institute of Medical Sciences, "Here, we describe a 24-year-old lady with multiple seizure types since childhood, which were refractory to adequate antiepileptic drug therapy after menarche with catamenial clustering of seizures. She went on to have several episodes of non-convulsive status epilepticus also with similar periodicity, which would abate only with midazolam infusion, without the need for ventilatory support."

According to the news reporters, the research concluded: "She was tried on acetazolamide, progesterone vaginal pessaries, and maximum tolerated doses of antiepileptic medications, but finally responded to intramuscular and oral progesterone, and has been seizure-free for more than a year."
For more information on this research see: A case of recurrent status epilepticus and successful management with progesterone. *Epileptic Disorders*, 2016;18(1):101-5. (Springer - www.springer.com; Epileptic Disorders - www.springerlink.com/content/1950-6945/)

Our news correspondents report that additional information may be obtained by contacting B. Ramanujam, All India Institute of Medical Sciences, New Delhi, India. Additional authors for this research include A. Arora, V. Malhotra, D. Dash, S. Mehta and M. Tripathi.

Keywords for this news article include: Asia, Antiepileptics, India, Epilepsy, New Delhi, Women’s Health, Gonadal Hormones, Status Epilepticus, Drugs and Therapies, Corpus Luteum Hormones, Progesterone Congeners, Brain Diseases and Conditions, Central Nervous System Diseases and Conditions.

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*Central Nervous System Diseases and Conditions* - …

**New Epilepsy Findings from Institute of Neurology Discussed**

**(Brivaracetam: review of its pharmacology and potential use as adjunctive therapy in patients with partial onset seizures)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting originating from Catanzaro, Italy, by NewsRx correspondents, research stated, "Brivaracetam (BRV), a high-affinity synaptic vesicle protein 2A ligand, reported to be 10-30-fold more potent than levetiracetam (LEV), is highly effective in a wide range of experimental models of focal and generalized seizures. BRV and LEV similarly bind to synaptic vesicle protein 2A, while differentiating for other pharmacological effects; in fact, BRV does not inhibit high voltage Ca(2+) channels and AMPA receptors as LEV."

Our news editors obtained a quote from the research from the Institute of Neurology, "Furthermore, BRV apparently exhibits inhibitory activity on neuronal voltage-gated sodium channels playing a role as a partial antagonist. BRV is currently waiting for approval both in the United States and the European Union as adjunctive therapy for patients with partial seizures. In patients with photosensitive epilepsy, BRV showed a dose-dependent effect in suppressing or attenuating the photoparoxysmal response. In well-controlled trials conducted to date, adjunctive BRV demonstrated efficacy and good tolerability in patients with focal epilepsy. BRV has a linear pharmacokinetic profile. BRV is extensively metabolized and excreted by urine (only 8%-11% unchanged). The metabolites of BRV are inactive, and hydrolysis of the acetamide group is the mainly involved metabolic pathway; hepatic impairment probably requires dose adjustment. BRV does not seem to influence other antiepileptic drug plasma levels. Six clinical trials have so far been completed indicating that BRV is effective in controlling seizures when used at doses between 50 and 200 mg/d. The drug is generally well-tolerated with only mild-to-moderate side effects; this is confirmed by the low discontinuation rate observed in these clinical studies. The most common side effects are related to central nervous system and include fatigue, dizziness, and somnolence; these apparently disappear during treatment. In this review, we analyzed BRV, focusing on the current evidences from experimental animal models to clinical studies with particular interest on potential use in clinical practice."

According to the news editors, the research concluded: "Finally, pharmacological
properties of BRV are summarized with a description of its pharmacokinetics, safety, and potential/known drug-drug interactions."

For more information on this research see: Brivaracetam: review of its pharmacology and potential use as adjunctive therapy in patients with partial onset seizures. Drug Design, Development and Therapy, 2015;9():5719-25.

The news editors report that additional information may be obtained by contacting L. Mumoli, Institute of Neurology, University Magna Gracia, Catanzaro, Italy. Additional authors for this research include C. Palleria, S. Gasparini, R. Citraro, A. Labate, E. Ferlazzo, A. Gambardella, G. De Sarro and E. Russo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/DDDT.S81474. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Italy, Europe, Epilepsy, Seizures, Catanzaro, Pharmacology, Article Review, Drugs and Therapies, Neurologic Manifestations, Brain Diseases and Conditions, Central Nervous System Diseases and Conditions.

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Central Nervous System Diseases and Conditions -

New Epilepsy Findings from Research Institute Described (MED23-Associated Refractory Epilepsy Successfully Treated with the Ketogenic Diet)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Epilepsy have been published. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "We report a new patient with refractory epilepsy associated with a novel pathogenic homozygous MED23 variant. This 7.5-year-old boy from consanguineous parents had infantile onset global developmental delay and refractory epilepsy."

Our news journalists obtained a quote from the research from Research Institute, "He was treated with the ketogenic diet at 2.5 years of age and became seizure free on the first day. He had microcephaly and truncal hypotonia. His brain MRI showed delayed myelination and thin corpus callosum. He was enrolled in a whole exome sequencing research study, which identified a novel, homozygous, likely pathogenic (c.1937A >G; p.Gln646Arg) variant in MED23. MED23 is a regulator of energy homeostasis and glucose production. Liver-specific Med23-knockout mice showed reduced liver gluconeogenesis and lower blood glucose levels compared to control mice. This is the first patient with documented refractory epilepsy caused by a novel homozygous pathogenic variant in MED23 expanding the phenotypic spectrum."

According to the news editors, the research concluded: "Identification of the underlying genetic defect in MED23 sheds light on the possible mechanism of complete response to the ketogenic diet in this child."

For more information on this research see: MED23-Associated Refractory Epilepsy Successfully Treated with the Ketogenic Diet. American Journal of Medical Genetics Part A, 2016;170(9):2421-2425. American Journal of Medical Genetics Part A can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell -
New Epistaxis Data Have Been Reported by Investigators at University of Maryland (Role of topical tranexamic acid in the management of idiopathic anterior epistaxis in adult patients in the emergency department)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nose Diseases and Conditions - Epistaxis are discussed in a new report. According to news reporting originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "The role of topical tranexamic acid in the management of anterior epistaxis in adult patients in the emergency department (ED) is examined. The use of alternative agents for the treatment of epistaxis before the use of nasal packing may be reasonable due to patient discomfort, potential complications, and the need for follow-up with a healthcare provider for packing removal."

Our news editors obtained a quote from the research from the University of Maryland, "One such agent is tranexamic acid. Two published studies evaluated the off-label use of topical tranexamic acid for the treatment of epistaxis. The first trial compared the efficacy of a topical gel containing 10% tranexamic acid with a placebo gel containing glycerin for the treatment of epistaxis. The percentage of patients whose bleeding ceased within 30 minutes of the intervention did not significantly differ between the tranexamic acid and placebo groups (p = 0.16). The second trial compared the efficacy of cotton pledgets soaked in the i.v. formulation of tranexamic acid inserted into the bleeding naris with standard nasal packing therapy. Bleeding cessation occurred within 10 minutes in 71% of the tranexamic acid group versus 31.2% of the standard treatment group (odds ratio, 2.28; 95% confidence interval, 1.68-3.09; p< 0.001). Additional information is necessary to fully evaluate the role of topical tranexamic acid in treatment algorithms; however, the use of topical tranexamic acid may be beneficial in select populations."

According to the news editors, the research concluded: "Topical tranexamic acid may have a role in the treatment of anterior epistaxis in select ED patients, though additional studies are needed to confirm its role in treatment algorithms."

For more information on this research see: Role of topical tranexamic acid in the management of idiopathic anterior epistaxis in adult patients in the emergency department. *American Journal of Health-System Pharmacy*, 2016;73(21):1755-1759. *American Journal of Health-System Pharmacy* can be contacted at: Amer Soc Health-System Pharmacists, 7272
Wisconsin Ave, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting J.K. Logan, University of Maryland, Medical Center, Dept. of Pharm, Baltimore, MD 21201, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp150829. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Otorhinolaryngologic Diseases and Conditions, Respiratory Tract Diseases and Conditions, Nose Diseases and Conditions, Cyclohexanecarboxylic Acids, Coagulation Modifiers, Drugs and Therapies, Tranexamic Acid, Pharmaceuticals, Epistaxis, University of Maryland.

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Human Herpesvirus Diseases and Conditions -…

New Epstein-Barr Virus Findings from Harvard School of Medicine Discussed (Epstein-Barr virus super-enhancer eRNAs are essential for MYC oncogene expression and lymphoblast proliferation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Human Herpesvirus Diseases and Conditions - Epstein-Barr Virus have been published. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Epstein-Barr virus (EBV) super-enhancers (ESEs) are essential for lymphoblastoid cell (LCL) growth and survival. Reanalyses of LCL global run-on sequencing (Gro-seq) data found abundant enhancer RNAs (eRNAs) being transcribed at ESEs."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "Inactivation of ESE components, EBV nuclear antigen 2 (EBNA2) and bromodomain-containing protein 4 (BRD4), significantly decreased eRNAs at ESEs -428 and -525 kb upstream of the MYC oncogene transcription start site (TSS). shRNA knockdown of the MYC -428 and -525 ESE eRNA caused LCL growth arrest and reduced cell growth. Furthermore, MYC ESE eRNA knockdown also significantly reduced MYC expression, ESE H3K27ac signals, and MYC ESEs looping to MYC TSS."

According to the news reporters, the research concluded: "These data indicate that ESE eRNAs strongly affect cell gene expression and enable LCL growth."


Our news journalists report that additional information may be obtained by contacting E. Kieff, Harvard Med Sch, Dept. of Microbiol & Immunobiol, Program Virol,
New Epstein-Barr Virus Study Findings Recently Were Reported by Researchers at Midwestern University [Epstein-Barr Virus Latent Membrane Protein 2A (LMP2A) enhances IL-10 production through the activation of Bruton's tyrosine kinase and STAT3]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Human Herpesvirus Diseases and Conditions - Epstein-Barr Virus. According to news reporting out of Downers Grove, Illinois, by NewsRx editors, research stated, "Previous data demonstrate that Epstein-Barr Virus Latent Membrane Protein 2A (LMP2A) enhances IL-10 to promote the survival of LMP2A-expressing B cell lymphomas. Since STAT3 is an important regulator of IL-10 production, we hypothesized that LMP2A activates a signal transduction cascade that increases STAT3 phosphorylation to enhance IL-10."

Financial supporters for this research include NIH, United States, College of Health Sciences, Midwestern University.

Our news journalists obtained a quote from the research from Midwestern University, "Using LMP2A-negative and -positive B cell lines, the data indicate that LMP2A requires the early signaling molecules of the Syk/RAS/PI3K pathway to increase IL-10. Additional studies indicate that the PI3K-regulated kinase, BTK, is responsible for phosphorylating STAT3, which ultimately mediates the LMP2A-dependent increase in IL-10. These data are the first to show that LMP2A signaling results in STAT3 phosphorylation in B cells through a PI3K/BTK-dependent pathway."

According to the news editors, the research concluded: "With the use of BTK and STAT3 inhibitors to treat B cell lymphomas in clinical trials, these findings highlight the possibility of using new pharmaceutical approaches to treat EBV-associated lymphomas that express LMP2A."

For more information on this research see: Epstein-Barr Virus Latent Membrane Protein 2A (LMP2A) enhances IL-10 production through the activation of Bruton's tyrosine kinase and STAT3. Virology, 2017;500():96-102. Virology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Virology - www.journals.elsevier.com/virology/)

Our news journalists report that additional information may be obtained by contacting M. Swanson-Mungerson, Midwestern Univ, Chicago Coll Osteopath Med, Dept. of Microbiol & Immunol, Downers Grove, IL 60515, United States. Additional authors for this research include L. Barse, A. Stone, S. Vagvala, M. Montesano, V. Subramaniam and M. Swanson-Mungerson.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.virol.2016.10.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Downers Grove, Illinois, United States, North and Central America, Human Herpesvirus Diseases and Conditions, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Tumor Virus Infections, Enzymes and Coenzymes, Aromatic Amino Acids, Human Herpesvirus 4, Epstein-Barr Virus, Membrane Proteins, Tyrosine Kinase, Tumor Viruses, Proteomics, Hematology, Lymphomas, Oncology, Virology, HHV-4, Viral, HHV4, Midwestern University.

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Nutritional and Metabolic Diseases and Conditions - …

New Erythropoietic Protoporphyrinia Study Findings Have Been Reported by Researchers at University of Toyama (Incomplete erythropoietic protoporphyria caused by a splice site modulator homozygous IVS3-48C polymorphism in the ferrochelatase gene)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Erythropoietic Protoporphyrinia is the subject of a report. According to news reporting from Toyama, Japan, by NewsRx journalists, research stated, "Erythropoietic protoporphyria (EPP) is an inherited cutaneous porphyria caused by both the partial deficiency of ferrochelatase (FECH) and the existence of cytosine at IVS3-48 in trans to a mutated FECH allele. However, physicians occasionally encounter patients with EPP with a mild phenotype associated with a slight increase in the erythrocyte-free protoporphyrin concentration and no FECH gene mutations."

The news correspondents obtained a quote from the research from the University of Toyama, "In this study, genetic analyses were performed on three patients with a mild phenotype of EPP, with photosensitivity, slightly increased erythrocyte-free protoporphyrin concentrations and only a few fluorocytes in the peripheral blood. After obtaining the patients' and their parents' informed consent, a direct sequence analysis of the FECH gene and a restriction fragment length polymorphism analysis were performed on samples from the patients. The FECH gene mutation was not detected in the direct sequence analyses in any of the patients. However, all three patients had the homozygous IVS3-48C polymorphism."

According to the news reporters, the research concluded: "These findings suggest that homozygous IVS3-48C polymorphism of the FECH gene is associated with a slight elevation of the protoporphyrin level in erythrocytes, resulting in a mild EPP phenotype."


Our news journalists report that additional information may be obtained by contacting M. Mizawa, Dept. of Dermatology, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Sugitani, Toyama, 930-0194, Japan. Additional authors for this
research include T. Makino, H. Nakano, D. Sawamura and T. Shimizu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjd.14078. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Toyama, Lyases, Genetics, Ferrochelatase, Protoporphyrins, Biological Factors, Enzymes and Coenzymes, Erythropoietic Protoporphyria, Nutritional and Metabolic Diseases and Conditions.

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Gram-Negative Bacteria - Escherichia coli

New Escherichia coli Data Have Been Reported by Investigators at University of California (Mutational Consequences of Ciprofloxacin in Escherichia coli)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Escherichia coli. According to news originating from Los Angeles, California, by NewsRx correspondents, research stated, "We examined the mutagenic specificity of the widely used antibiotic ciprofloxacin (CPR), which displays weak to moderate mutagenic activity in several bacteria and generates short in-frame deletions in rpoB in Staphylococcus aureus. To determine the spectrum of mutations in a system where any gene knockout would result in a recovered mutant, including frameshifts and both short and long deletions, we examined CPR-induced mutations in the thymidylate synthase-encoding thyA gene."

Financial support for this research came from UCLA Faculty Research Grant.

Our news journalists obtained a quote from the research from the University of California, "Here, any mutation resulting in loss of thymidylate synthase activity generates trimethoprim (Trm) resistance. We found that deletions and insertions in all three reading frames predominated in the spectrum. They tend to be short deletions and cluster in two regions, one being a GC-rich region with potential extensive secondary structures. We also exploited the well-characterized rpoB-Rifr system in Escherichia coli to determine that cells grown in the presence of sublethal doses of CPR not only induced short in-frame deletions in rpoB, but also generated base substitution mutations resulting from induction of the SOS system. Some of the specific point mutations prominent in the spectrum of a strain that overproduces the dinB-encoded Pol IV were also present after growth in CPR. However, these mutations disappeared in CPR-treated dinB mutants, whereas the deletions remained. Moreover, CPR-induced deletions also occurred in a strain lacking all three SOS-induced polymerases."

According to the news editors, the research concluded: "We discuss the implications of these findings for the consequences of overuse of CPR and other antibiotics."

For more information on this research see: Mutational Consequences of Ciprofloxacin in Escherichia coli. Antimicrobial Agents and Chemotherapy, 2016;60(10):6165-6172. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from J.H. Miller, University of California, Inst Mol Biol, Dept. of Microbiol Immunol & Mol Genet,
Los Angeles, CA 90024, United States. Additional authors for this research include M. Goff, C. Davidian, Z.Y. Mao, M. London, K. Lam, M. Yung and J.H. Miller.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01415-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Gram-Negative Bacteria, Enzymes and Coenzymes, Enterobacteriaceae, Escherichia coli, Proteobacteria, Synthase, Genetics, University of California.

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**Gram-Negative Bacteria - *Escherichia coli***

**New Escherichia coli Data Have Been Reported by Researchers at Nara Women's University (Natural Escherichia coli strains undergo cell-to-cell plasmid transformation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - *Escherichia coli*. According to news reporting out of Nara, Japan, by NewsRx editors, research stated, "Horizontal gene transfer is a strong tool that allows bacteria to adapt to various environments. Although three conventional mechanisms of horizontal gene transfer (transformation, transduction, and conjugation) are well known, new variations of these mechanisms have also been observed."

Financial support for this research came from JSPS KAKENHI.

Our news journalists obtained a quote from the research from Nara Women's University, "We recently reported that DNase-sensitive cell-to-cell transfer of nonconjugative plasmids occurs between laboratory strains of *Escherichia coli* in co-culture. We termed this phenomenon 'cell-to-cell transformation.' In this report, we found that several combinations of *Escherichia coli* collection of reference (ECOR) strains, which were co-cultured in liquid media, resulted in DNase-sensitive cell-to-cell transfer of antibiotic resistance genes. Plasmid isolation of these new transformants demonstrated cell-to-cell plasmid transfer between the ECOR strains. Natural transformation experiments, using a combination of purified plasmid DNA and the same ECOR strains, revealed that cell-to-cell transformation occurs much more frequently than natural transformation under the same culture conditions. Thus, cell-to-cell transformation is both unique and effective."

According to the news editors, the research concluded: "This study is the first to demonstrate cell-to-cell plasmid transformation in natural *E. coli* strains."

For more information on this research see: Natural Escherichia coli strains undergo cell-to-cell plasmid transformation. *Biochemical and Biophysical Research Communications*, 2016;481(1-2):59-62. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by
contacting S. Maeda, Nara Women's University, Fac Human Life & Environment, Kitauoya Nishimachi, Nara 6308506, Japan. Additional authors for this research include A. Sekoguchi, J. Imai, K. Kondo, Y. Shibata and S. Maeda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.11.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nara, Japan, Asia, Gram-Negative Bacteria, Enzymes and Coenzymes, Enterobacteriaceae, Escherichia coli, Proteobacteria, Genetics, DNase, Nara Women's University.

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Gram-Negative Bacteria - Escherichia coli

New Escherichia coli Study Findings Have Been Reported from University of Bourgogne (Trends of extended-spectrum beta-lactamase-producing Escherichia coli sequence type 131 and its H30 subclone in a French hospital over a 15-year period)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gram-Negative Bacteria - Escherichia coli. According to news originating from Besancon, France, by NewsRx correspondents, research stated, "Sequence type 131 (ST131) is a predominant lineage among extraintestinal pathogenic Escherichia coli. It plays a major role in the worldwide dissemination of E. coli producing extended-spectrum beta-lactamases (ESBLs)."

Our news journalists obtained a quote from the research from the University of Bourgogne, "Here we describe the long-term epidemiology of this clonal group in a French university hospital, where the incidence of ESBL-producing E. coli has increased from 0.018 case per 1000 patient-days in the year 2000 to 0.50 case per 1000 patient-days in 2014. The first of the 141 ST131 isolates was recovered in 2006, and the ST131 clonal group accounted for 18.1% of total ESBL-producing E. coli over the whole period (2000-2014). Subclonal typing showed that 75.9% (107/141) of ST131 isolates were H30, of which 81.3% (87/107) were H30-Rx. The large majority (137/141) of ESBLs produced were of the CTX-M group, with 94 CTX-M-15, 19 CTX-M-1, 10 CTX-M-27, 8 CTX-M-14 and four other CTX-M types (n = 6). Pulsed-field gel electrophoresis (PFGE) analysis showed high diversity, which increased during the course of the study. The 141 ST131 isolates clustered in 53 pulsotypes (PTs), with 2 dominant PTs (PT14 and PT13) with 36 and 17 isolates, respectively. These findings showed that ST131 was a predominant clone among ESBL-producing E. coli in our hospital, even though it only accounted for <20%.

According to the news editors, the research concluded: "Moreover, ST131 should be regarded not as a unified entity but as a cluster of distinct clonal subsets even if the increase in resistance within ST131 has a strong clonal basis, being attributable mainly to the spread of C1/H30-R and C2/H30-Rx clades."

PO Box 211, 1000 AE Amsterdam, Netherlands.  (Elsevier - www.elsevier.com; International Journal of Antimicrobial Agents - www.journals.elsevier.com/international-journal-of-antimicrobial-agents/)

The news correspondents report that additional information may be obtained from X. Bertrand, Univ Bourgogne Franche Comte, Lab Chrono Environm, UMR 6249, Besancon, France. Additional authors for this research include P. Cholley, A. Vannier, M. Thouverez, M.H. Nicolas-Chanoine, D. Hocquet and X. Bertrand.

Keywords for this news article include: Besancon, France, Europe, Lactamase, Epidemiology, Gram-Negative Bacteria, Enzymes and Coenzymes, Gammaproteobacteria, Enterobacteriaceae, Escherichia coli, Escherichia Coli, Proteobacteria, Hospital, University of Bourgogne.

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Gram-Negative Bacteria - Escherichia coli

New Escherichia coli Study Findings Recently Were Reported by Researchers at King Abdullah University of Science and Technology (Isolation and Characterization of NDM-Positive Escherichia coli from Municipal Wastewater in Jeddah, Saudi Arabia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Escherichia coli have been published. According to news reporting from Thuwal, Saudi Arabia, by NewsRx journalists, research stated, "The emergence of resistance to last-resort antibiotics is a public health concern of global scale. Besides direct person-to-person propagation, environmental pathways might contribute to the dissemination of antibiotic-resistant bacteria and antibiotic resistance genes (ARGs)."

The news correspondents obtained a quote from the research from the King Abdullah University of Science and Technology, "Here, we describe the incidence of bla(NDM-1), a gene conferring resistance to carbapenems, in the wastewater of the city of Jeddah, Saudi Arabia, over a 1-year period. bla(NDM-1) was detected at concentrations ranging from 10(4) to 10(5) copies/ m(3) of untreated wastewater during the entire monitoring period. These results indicate the ubiquity and high incidence of bla(NDM-1) in the local wastewater. To track the bacteria carrying bla(NDM-1), we isolated Escherichia coli PI7, a strain of sequence type 101 (ST101), from wastewater around the Hajj event in October 2013. Genome sequencing of this strain revealed an extensive repertoire of ARGs as well as virulence and invasive traits. These traits were further confirmed by antibiotic resistance profiling and in vitro cell internalization in HeLa cell cultures. Given that this strain remains viable even after a certain duration in the sewerage, and that Jeddah lacks a robust sanitary infrastructure to fully capture all generated sewage, the presence of this bacterium in the untreated wastewater represents a potential hazard to the local public health."

According to the news reporters, the research concluded: "To the best of our knowledge, this is the first report of a bla(NDM-1)-positive E. coli strain isolated from a nonnosocomial environment in Saudi Arabia and may set a priority concern for the need to establish improved surveillance for carbapenem-resistant E. coli in the country and nearby regions."

Our news journalists report that additional information may be obtained by contacting P.Y. Hong, King Abdullah Univ Sci & Technol, Water Desalinat & Reuse Center, Biol & Environm Sci & Engn Div BESE, Thuwal, Saudi Arabia. Additional authors for this research include M.R. Jumat, T. Wang, P. Ganesan, N. Al-Jassim and P.Y. Hong.

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Keywords for this news article include: Thuwal, Saudi Arabia, Asia, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Escherichia coli, Escherichia Coli, Proteobacteria, Public Health, Genetics, King Abdullah University of Science and Technology.

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**Gram-Negative Bacteria - Escherichia coli**

**New Escherichia coli Study Findings Recently Were Reported by Researchers at University Hospital (Real-Time Genome Sequencing of Resistant Bacteria Provides Precision Infection Control in an Institutional Setting)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Escherichia coli is now available. According to news reporting originating in Munster, Germany, by NewsRx journalists, research stated, "The increasing prevalence of multidrug-resistant (MDR) bacteria is a serious global challenge. Here, we studied prospectively whether bacterial whole-genome sequencing (WGS) for real-time MDR surveillance is technical feasible, returns actionable results, and is cost-beneficial."

Financial supporters for this research include Medical Faculty of the University of Muenster, Germany, Deutsche Forschungsgemeinschaft (DFG), Bundesministerium fur Bildung und Forschung (BMBF), EC | Seventh Framework Programme (FP7).

The news reporters obtained a quote from the research from University Hospital, "WGS was applied to all MDR isolates of four species (methicillin-resistant Staphylococcus aureus [MRSA], vancomycin-resistant Enterococcus faecium, MDR Escherichia coli, and MDR Pseudomonas aeruginosa) at the University Hospital Muenster, Muenster, Germany, a tertiary care hospital with 1,450 beds, during two 6-month intervals. Turnaround times (TAT) were measured, and total costs for sequencing per isolate were calculated. After cancelling prior policies of preemptive isolation of patients harboring certain Gram-negative MDR bacteria in risk areas, the second interval was conducted. During interval I, 645 bacterial isolates were sequenced. From culture, TATs ranged from 4.4 to 5.3 days, and costs were (sic) 202.49 per isolate. During interval II, 550 bacterial isolates were sequenced. Hospital-wide transmission rates of the two most common species (MRSA and MDR E. coli) were low during interval I.
(5.8% and 2.3%, respectively) and interval II (4.3% and 5.0%, respectively). Cancellation of isolation of patients infected with non-pan-resistant MDR E. coli in risk wards did not increase transmission. Comparing sequencing costs with avoided costs mostly due to fewer blocked beds during interval II, we saved in excess of (sic) 200,000.

According to the news reporters, the research concluded: "Real-time microbial WGS in our institution was feasible, produced precise actionable results, helped us to monitor transmission rates that remained low following a modification in isolation procedures, and ultimately saved costs."

For more information on this research see: Real-Time Genome Sequencing of Resistant Bacteria Provides Precision Infection Control in an Institutional Setting. *Journal of Clinical Microbiology*, 2016;54(12):2874-2881. *Journal of Clinical Microbiology* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.

Our news correspondents report that additional information may be obtained by contacting A. Mellmann, Univ Hosp Muenster, Inst Hyg, Munster, Germany. Additional authors for this research include S. Bletz, T. Boking, F. Kipp, K. Becker, A. Schultes, K. Prior and D. Harmsen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/JCM.00790-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munster, Germany, Europe, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Escherichia coli, Escherichia Coli, Proteobacteria, Hospital, Genetics, University Hospital.

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**Oncology - Esophageal Cancer**

**New Esophageal Cancer Findings Reported from Shandong University**

**(Predictive Effects of Lung function test on Postoperative Pneumonia in Squamous Esophageal Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Esophageal Cancer are discussed in a new report. According to news reporting out of Jinan, People’s Republic of China, by NewsRx editors, research stated, "Pulmonary function tests had prospective implications for postoperative pneumonia, which occurred frequently after esophagectomy. Understanding factors that were associated with pulmonary infection may help in patient selection and postoperative management."

Our news journalists obtained a quote from the research from Shandong University, "We performed a retrospective review of 2 independent cohorts including 216 patients who underwent esophagectomy between November 2011 and May 2014, aiming at identifying predictors of primary pneumonia. Univariate analysis was used to identify potential covariates for the development of primary pneumonia. Adjustments for multiple comparisons were made using False Discovery Rate (FDR) (Holm-Bonferroni method). Multivariable logistic regression analysis was used to identify independent predictors and construct a regression model based on a training cohort (n=166) and then the regression model was validated using an independent cohort (n=50). It showed that low PEF (hazard ratio 0.97, p=0.009) was independent risk factors..."
for the development of primary pneumonia in multivariate analyses and had a predictive effect for primary pneumonia (AUC=0.691 and 0.851 for training and validation data set, respectively)."

According to the news editors, the research concluded: "Therefore, PEF has clinical value in predicting postoperative pneumonia after esophagectomy and it may serve as an indicator of preoperative lung function training."

For more information on this research see: Predictive Effects of Lung function test on Postoperative Pneumonia in Squamous Esophageal Cancer. Scientific Reports, 2016;6 ():23636. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting R. Wei, Dept. of Thoracic Surgery, Shandong Provincial Hospital Affiliated to Shandong University, Shandong University, Jinan, 250021, People's Republic of China. Additional authors for this research include W. Dong, H. Shen, Y. Ni, T. Zhang, Y. Wang and J. Du.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep23636. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Jinan, Surgery, Oncology, Pneumonia, Pulmonology, Esophagectomy, Gastroenterology, Esophageal Cancer, Infectious Disease, Risk and Prevention, People's Republic of China, Lung Diseases and Conditions, Respiratory Tract Infections, Respiratory Tract Diseases and Conditions.

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Oncology - Esophageal Cancer

New Esophageal Cancer Findings from First Hospital Described (Hormonal and reproductive factors and risk of esophageal cancer in women: a meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Esophageal Cancer have been presented. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Currently published studies on the relationship between hormonal and reproductive factors and esophageal cancer (EC) risk in women have yielded contradictory findings. For a better understanding of this relationship, we first performed this meta-analysis by pooling all available publications."

The news correspondents obtained a quote from the research from First Hospital, "Sixteen independent studies were retrieved after a comprehensive search in PubMed and Embase databases. The pooled relative risks (RRs) with 95% confidence intervals (95% CIs) were calculated. The pooled RRs implicated that hormone replacement therapy was negatively associated with the risk of EC (RR = 0.72, 95% CI 0.60-0.86, P< 0.001) and esophageal squamous cell carcinoma (RR = 0.68, 95% CI 0.48-0.97, P = 0.031). Menopausal women were at an increased risk of EC (RR = 1.47, 95% CI 1.07-2.03, P = 0.018), particularly esophageal squamous cell carcinoma (RR = 1.66, 95% CI 1.12-2.48, P = 0.012). Additionally, decreased risk of EC (RR = 0.79, 95% CI 0.68-0.92, P = 0.003) and esophageal adenocarcinoma (RR =
0.66, 95% CI 0.53-0.82, P< 0.001) was demonstrated among women with breast-feeding history. Moreover, such associations were more significant among Caucasians, but not Asians. Our study suggests that menopause is an independent risk factor for EC, while hormone replacement therapy and breast-feeding history play a protective role against EC, particularly among Caucasians."

According to the news reporters, the research concluded: "All results are consistent with the hypothesis that effects of estrogen may lower the risk of EC in women."


Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Risk and Prevention, Esophageal Cancer, Gastroenterology, Hormones, Oncology, First Hospital.

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**Oncology - Esophageal Cancer**

**New Esophageal Cancer Findings from Mie University Hospital Reported (Preliminary treatment results of proton beam therapy with chemoradiotherapy for stage I-III esophageal cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Esophageal Cancer. According to news reporting out of Mie, Japan, by NewsRx editors, research stated, "The effect of proton beam therapy (PBT) on various cancers is controversial. We aimed to evaluate the efficacy and safety of PBT with alternating chemoradiotherapy (ACRT) for patients with stage I-III esophageal cancer."

Our news journalists obtained a quote from the research from Mie University Hospital, "Two cycles of systemic chemotherapy with a continuous infusion of 5-fluorouracil (5-FU) on days 1-5 and a 5h infusion of nedaplatin (NDP) on day 6 were accompanied by thoracic irradiation using X-ray therapy and PBT. During the first half of the treatment, X-rays were delivered to the prophylactic area. During the second half of the treatment, proton beams were used to irradiate the involved field. To reduce the dose of cardiac irradiation, proton beams were delivered with posterior and posterior oblique angles. Between January 2009 and December 2012, 47 patients were enrolled in this study. The median follow-up duration was 29 months for all patients and 40 months for survivors. The 3 year overall survival rate, progression-free survival rate, and local control rate were 59.2%, 56.3%, and 69.8%, respectively. With respect to grade 3-4 late toxicities, there were no pleural or pericardial effusions, but two patients (4.3%) had esophageal stenosis, one patient (2.1%) had fistula, and
two patients (4.3%) developed radiation pneumonitis."

According to the news editors, the research concluded: "PBT with ACRT might have the potential to reduce the risk of cardiac damage and might become one of the primary methods of esophageal cancer treatment."


Our news journalists report that additional information may be obtained by contacting A. Takada, Dept. of Radiation Oncology, Mie University Hospital, Tsu, Mie, Japan. Additional authors for this research include T. Nakamura, K. Takayama, C. Makita, M. Suzuki, Y. Azami, T. Kato, I. Tsukiyama, M. Hareyama, Y. Kikuchi, T. Daimon, Y. Toyomasu, N. Ii, Y. Nomoto, H. Sakuma and N. Fuwa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.607. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mie, Asia, Japan, Therapy, Oncology, Cardiology, Gastroenterology, Esophageal Cancer.

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Oncology - Esophageal Cancer

New Esophageal Cancer Findings from Tianjin Medical University Reported (Clinical significance of preoperative and postoperative cytokeratin 19 messenger RNA level in peripheral blood of esophageal cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Esophageal Cancer is now available. According to news reporting originating from Tianjin, People's Republic of China, by NewsRx correspondents, research stated, "The purpose of this study is to analyze the correlation between preoperative/postoperative Cytokeratin 19 (CK19) messenger RNA (mRNA) level in peripheral blood (PB) and the clinical significance in esophageal cancer patients with different clinicopathological factors. We detected the preoperative and postoperative CK19mRNA level in the PB of 139 esophageal cancer patients who underwent complete resection and evaluated its clinical significance."

Our news editors obtained a quote from the research from Tianjin Medical University, "We found that both the preoperative and postoperative CK19mRNA level increased in the esophageal cancer patients with lymph node metastasis, relapse or distant metastasis compared with that in cancers without lymph node metastasis, relapse or distant metastasis. High postoperative CK19mRNA levels indicate a short disease-free survival (DFS) for the whole cohort esophageal cancer patients, whereas the high preoperative CK19mRNA levels only indicate a short DFS for the esophageal cancer patients with squamous cell carcinoma, TNM III stage, and lymph node metastasis. The dynamic change of CK19mRNA levels could indicate the prognosis of esophageal cancer patients. The patients with decreasing CK19mRNA level after surgery had good prognosis, and the patients with changeless CK19mRNA level had
poor prognosis."

According to the news editors, the research concluded: "Taken together, CK19mRNA levels could be a promising marker in assessing prognosis or assigning treatment for the esophageal cancer patients according to different clinicopathological factors."


The news editors report that additional information may be obtained by contacting Z.T. Yu, Tianjin Med Univ, Key Lab Canc Prevent & Therapy Tianjin, Natl Clin Res Center Canc, Dept. of Esophageal Canc Inst & Hosp, Tianjin 300060, People's Republic of China. Additional authors for this research include C.G. Chen, J. Yue, Z. Ma and Z.T. Yu.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Hemic and Immune Systems, Esophageal Cancer, Gastroenterology, Lymphoid Tissue, Lymph Nodes, Immunology, Oncology, Genetics, Tianjin Medical University.

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Oncology - Esophageal Cancer

New Esophageal Cancer Study Findings Have Been Reported by Researchers at Cancer Hospital (Radiation dose escalation by simultaneous modulated accelerated radiotherapy combined with chemotherapy for esophageal cancer: a phase II study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Esophageal Cancer. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "The outcomes for patients with esophageal cancer (EC) underwent standard-dose radical radiotherapy were still disappointing. This phase II study investigated the feasibility, safety and efficacy of radiation dose escalation using simultaneous modulated accelerated radiotherapy (SMART) combined with chemotherapy in 60 EC patients."

Our news journalists obtained a quote from the research from Cancer Hospital, "Radiotherapy consisted of 66Gy at 2.2 Gy/fraction to the gross tumor and 54Gy at 1.8 Gy/fraction to subclinical diseases simultaneously. Chemotherapy including cisplatin and 5fluorouracil were administered to all patients during and after radiotherapy. The data showed that the majority of patients (98.3%) completed the whole course of radiotherapy and concurrent chemotherapy. The most common (>=) grade 3 acute toxicities were neutropenia (16.7%), followed by esophagitis (6.7%) and thrombopenia (5.0%). With a median follow-up of 24 months (5-38) for all patients and 30 months (18-38) for those still alive, 11 patients (18.3%) developed (>=) Grade 3 late toxicities and 2 (3.3%) of them died subsequently due to esophageal hemorrhage. The 1-and 2-year local-regional control, distant metastasis-free survival, disease-free survival and overall survival rates were 87.6% and 78.6%, 86.0% and 80.5%, 75.6% and 64.4%, 86.7% and 72.7%, respectively. SMART combined with concurrent chemotherapy is feasible in EC patients with tolerable acute toxicities. They showed a trend of
significant improvements in local-regional control and overall survival."

According to the news editors, the research concluded: "Further follow-up is needed to evaluate the late toxicities."


The news correspondents report that additional information may be obtained from J. Chen, Dept. of Radiation Oncology, Cancer Hospital of Shantou University Medical College, Shantou, Guangdong, People's Republic of China. Additional authors for this research include H. Guo, T. Zhai, D. Chang, Z. Chen, R. Huang, W. Zhang, K. Lin, L. Guo, M. Zhou, D. Li, D. Li and C. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8050. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Oncology, Guangdong, Chemotherapy, Radiotherapy, Gastroenterology, Clinical Research, Esophageal Cancer, Drugs and Therapies, People's Republic of China, Clinical Trials and Studies.

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**Oncology - Esophageal Cancer**

**New Esophageal Cancer Study Findings Have Been Reported from Stanford University (Dynamic Microenvironment Induces Phenotypic Plasticity of Esophageal Cancer Cells Under Flow)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Esophageal Cancer. According to news reporting out of Palo Alto, California, by NewsRx editors, research stated, "Cancer microenvironment is a remarkably heterogeneous composition of cellular and noncellular components, regulated by both external and intrinsic physical and chemical stimuli. Physical alterations driven by increased proliferation of neoplastic cells and angiogenesis in the cancer microenvironment result in the exposure of the cancer cells to elevated levels of flow-based shear stress."

Our news journalists obtained a quote from the research from Stanford University, "We developed a dynamic microfluidic cell culture platform utilizing esophagael cancer cells as model cells to investigate the phenotypic changes of cancer cells upon exposure to fluid shear stress. We report the epithelial to hybrid epithelial/mesenchymal transition as a result of decreasing E-Cadherin and increasing N-Cadherin and vimentin expressions, higher clonogenicity and ALDH positive expression of cancer cells cultured in a dynamic microfluidic chip under laminar flow compared to the static culture condition. We also sought regulation of chemotherapeutics in cancer microenvironment towards phenotypic control of cancer cells."

According to the news editors, the research concluded: "Such in vitro microfluidic system could potentially be used to monitor how the interstitial fluid dynamics affect cancer microenvironment and plasticity on a simple, highly controllable and inexpensive bioengineered platform."

For more information on this research see: Dynamic Microenvironment Induces

Our news journalists report that additional information may be obtained by contacting U. Demirci, Stanford Sch Med, Bioacoust MEMS Med Lab, Canary Center Stanford Early Canc Detect, Dept. of RadiolDept Elect Engn, Palo Alto, CA 94304, United States. Additional authors for this research include S. Guven, K. Foygel, A. Goldman, P. Chen, S. Sengupta, R. Paulmurugan, Y. Baskin and U. Demirci.

Keywords for this news article include: Palo Alto, California, United States, North and Central America, Esophageal Cancer, Gastroenterology, Oncology, Stanford University.

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**Hormones - Estradiol Congeners**

**New Estradiol Congeners Data Have Been Reported by Investigators at Ocean University of China (An in vivo assay performed using multiple biomarkers related to testosterone synthesis and conversion for assessing the androgenic potency of refuse ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hormones - Estradiol Congeners. According to news reporting originating in Qingdao, People's Republic of China, by NewsRx journalists, research stated, "Refuse leachate is likely an important source of androgens. However, common in vitro bioassays underestimate the potential androgenic activity of leachate, owing to non-receptor-mediated mechanisms that modify the balance of sex hormones and promote the accumulation of endogenous androgens."

Funders for this research include Natural Science Foundation of Shandong Province, National Natural Science Foundation of China.

The news reporters obtained a quote from the research from the Ocean University of China, "This study aimed to develop an in vivo assay by using multiple biomarkers related to testosterone synthesis and conversion for assessing the potential androgenic activity of refuse leachate sampled from a municipal solid waste treatment plant in Qingdao, China. The results indicated that exposure to leachate increased the levels of testosterone and luteinizing hormone, but decreased those of 17 beta-estradiol in both male and female goldfish (Carassius auratus), suggesting a potential androgenic activity. Further, Leydig cell hyperplasia and decreased gonadal P450 aromatase mRNA levels were observed; these alterations might promote the biosynthesis of testosterone and hinder the conversion of testosterone to 17 beta-estradiol, which in turn enhance testosterone accumulation. Exposure to leachate also resulted in reproductive impairments, including decreased gonadosomatic index and plasma vitellogenin levels of female goldfish, as well as decreased testicular enzyme activities in male goldfish. The integrated use of biochemical, molecular, and histological markers not only improved our understanding of the androgenic effects of leachate but also verified the reliability and validity of the results."

According to the news reporters, the research concluded: "Therefore, the in vivo bioassay described in this study might allow the investigation of the androgenic effects of other complex contaminant mixtures in the future."
For more information on this research see: An in vivo assay performed using multiple biomarkers related to testosterone synthesis and conversion for assessing the androgenic potency of refuse leachate. *Ecotoxicology and Environmental Safety*, 2017;135 ():82-89. Ecotoxicology and Environmental Safety can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Ecotoxicology and Environmental Safety - www.journals.elsevier.com/ecotoxicology-and-environmental-safety/)

Our news correspondents report that additional information may be obtained by contacting W. Wang, Ocean University of China, Marine Life Sci College, Qingdao 266003, People's Republic of China. Additional authors for this research include H. Tian, Y.F. Dong, X.N. Zhang, W. Wang and S.G. Ru.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ecoenv.2016.09.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Qingdao, People's Republic of China, Asia, Estradiol Congeners, Gonadal Hormones, Genetics, Ocean University of China.

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**Hormones - Estradiol Congeners**

**New Estradiol Congeners Findings Has Been Reported by Researchers at University of Gothenburg (High Serum SHBG Predicts Incident Vertebral Fractures in Elderly Men)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hormones - Estradiol Congeners. According to news reporting from Gothenburg, Sweden, by NewsRx journalists, research stated, "Previous prospective cohort studies have shown that serum levels of sex steroids and sex hormone-binding globulin (SHBG) associate with nonvertebral fracture risk in men. The predictive value of sex hormones and SHBG for vertebral fracture risk specifically is, however, less studied."

Financial support for this research came from Swedish Research Council Formas.

The news correspondents obtained a quote from the research from the University of Gothenburg, "Elderly men (aged (>=) 65 years) from Sweden and Hong Kong participating in the Osteoporotic Fractures in Men (MrOS) study had baseline estradiol and testosterone analyzed by gas chromatography-mass spectrometry (GC-MS) and SHBG by immunoradiometric assay (IRMA). Incident clinical vertebral fractures (n=242 cases) were evaluated in 4324 men during an average follow-up of 9.1 years. In a subsample of these men (n=2256), spine X-rays were obtained at baseline and after an average follow-up of 4.3 years to identify incident radiographic vertebral fractures (n=157 cases). The likelihood of incident clinical and radiographic vertebral fractures was estimated by Cox proportional hazards models and logistic regression models, respectively. Neither serum estradiol (hazard ratio [HR] per SD increase=0.93, 95% confidence interval [CI] 0.80-1.08) nor testosterone (1.05, 0.91-1.21) predicted incident clinical vertebral fractures in age-adjusted models in the combined data set. High serum SHBG, however, associated with increased clinical vertebral fracture risk (1.24, 1.12-1.37). This association remained significant after further adjustment for FRAX with or
without bone mineral density (BMD). SHBG also associated with increased incident radiographic vertebral fracture risk (combined data set; odds ratio [OR] per SD increase=1.23, 95% CI 1.05-1.44). This association remained significant after adjustment for FRAX with or without BMD."

According to the news reporters, the research concluded: "High SHBG predicts incident clinical and radiographic vertebral fractures in elderly men and adds moderate information beyond FRAX with BMD for vertebral fracture risk prediction."


Our news journalists report that additional information may be obtained by contacting L. Vandenput, Centre for Bone and Arthritis Research, Dept. of Internal Medicine and Clinical Nutrition, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden. Additional authors for this research include D. Mellstrom, A. Kindmark, H. Johansson, M. Lorentzon, J. Leung, I. Redlund-Johnell, B.E. Rosengren, M.K. Karlsson, Y.X. Wang, T. Kwok and C. Ohlsson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jbmr.2718. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Gothenburg, Gonadal Hormones, Estradiol Congeners, Risk and Prevention.

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**Hormones - Estradiol Congeners**

**New Estradiol Congeners Findings from G.A. Partsinevelos and Colleagues Discussed (Addition of low-dose hCG to rFSH during ovarian stimulation for IVF/ICSI: is it beneficial?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hormones - Estradiol Congeners is now available. According to news reporting originating from Athens, Greece, by NewsRx correspondents, research stated, "The aim of the study was to assess the effect of the addition of low-dose human chorionic gonadotropin (hCG) to ovarian stimulation with recombinant follicle stimulating hormone (rFSH) on in vitro fertilization/intracytoplasmic sperm injection (IVF/ICSI) outcome. This retrospective clinical study was conducted on 141 women undergoing ICSI through a short GnRH-agonist protocol with rFSH and the addition of low-dose (100 IU/day) hCG."

Our news editors obtained a quote from the research, "The control group consisted of 124 women undergoing ovarian stimulation with a similar protocol devoid of hCG. Statistical analysis in the study population along with a subgroup analysis for age >= 35 years and >= 36 years was performed. Women in hCG group were statistically significant older and with higher basal FSH compared to control group. This can be attributed to the Centre's latent tendency to add hCG in the stimulation protocol in poor prognosis patients. Despite this fact and the fact that several ovarian stimulation parameters, such as peak estradiol levels, number of oocytes retrieved, number of mature oocytes, and fertilization rates were in favor of the control group,
the quality of transferred embryos and pregnancy rates were in favor of hCG group. Similar results were obtained in the subgroup analyses apart from peak estradiol levels, which did not differ among the study groups."

According to the news editors, the research concluded: "The addition of hCG to rFSH may be associated with better quality embryos and higher pregnancy rates, even in women of advanced reproductive age with higher basal FSH levels, which are often considered to have poorer ovarian reserve."


The news editors report that additional information may be obtained by contacting D. Loutradis, Diagnost & Therapeut Center SA, Fertil Inst, Athens, Greece. Additional authors for this research include N. Antonakopoulos, K. Kallianidis, P. Drakakis, E. Anagnostou, R. Bletsa and D. Loutradis.

Keywords for this news article include: Athens, Greece, Europe, Estradiol Congeners, Gonadal Hormones, Women's Health, Gynecology.

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**Hormones - Estradiol Congeners**

**New Estradiol Congeners Findings from Zhejiang University Described**

(Chloramines in a pilot-scale water distribution system: Transformation of 17 beta-estradiol and formation of disinfection byproducts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hormones - Estradiol Congeners. According to news reporting from Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "The degradation and transformation products of 17 beta-estradiol (E2) by chloramines in a pilot-scale water distribution system (1A/DS) were investigated using varying conditions including multiple mass ratios of chlorine to nitrogen (Cl/N), changing concentrations of chloramines, and different pH and pipe materials. The degradation of E2 was complete in <= 9 h in both deionized water (DW) and in the WDS under studied conditions."

The news correspondents obtained a quote from the research from Zhejiang University, "When the degradation rate of E2 was compared in WDS and DW, the degradation rate was appreciably greater in the WDS than in the DW at Cl/N mass ratios of 3, 4 and 6. However, at Cl/N mass ratios of 8 and 9, degradation was faster in the DW than in the WDS. The degradation rate of E2 was greatly affected by the initial total chloramine concentration, and the degradation of E2 in DW was consistent with second-order kinetics. The degradation rate of E2 in both the DW and the WDS increased with increasing pH. The order of degradation rate of E2 in different pipes was: ductile iron loop (loop A) > polyethylene (PE) loop (loop B) > stainless steel loop (loop C). Ten specific degradation products of E2, produced by chloramination, were identified. Most of the degradation products of E2 chloramination were stable for more than 10 h. The degradation pathways of E2 in the WDS are proposed and briefly discussed."
According to the news reporters, the research concluded: "The concentrations of trihalomethanes (THMs), haloacetic acids (HAAs), and halogenated nitromethane (HNMs) during the degradation E2 in WDS were also determined."


Our news journalists report that additional information may be obtained by contacting C. Li, Zhejiang University, Coll Civil Engn & Architecture, Hangzhou 310027, Zhejiang, People's Republic of China. Additional authors for this research include C. Li, F.L. Dong, T.Q. Zhang, L. Chen, L. Cizmas and V.K. Sharma.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Estradiol Congeners, Gonadal Hormones, Sulfonamides, Chloramines, Zhejiang University.

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Drugs and Therapies - Ethnopharmacology

New Ethnopharmacology Findings Reported from University of Nairobi
[Freeze dried extracts of Bidens biternata (Lour.) Men. and Sheriff. show significant anti diarrheal activity in in-vivo models of diarrhea]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Ethnopharmacology. According to news originating from Nairobi, Kenya, by NewsRx correspondents, research stated, "Ethnopharmacological relevance of the study: Diarrhea remains one of the main killers of children aged below five years. Traditional antidiarrheal remedies form a potentially viable source of novel low cost efficacious treatments in low resource settings."

Our news journalists obtained a quote from the research from the University of Nairobi, "There is therefore a pressing need to scientifically evaluate these remedies. Aim of the study: This study aimed to investigate the in vivo and in vitro antidiarrheal activity of freeze dried Bidens biternata, a herb used in traditional Ayurvedic medicine in the management of diarrhea. In the castor oil test, twenty (20) adult Sprague-Dawley rats were randomized to a negative control (normal saline, n=5), a positive control (5 mg/kg loperamide, n=5), and two test groups. The low dose test group received 200 mg/kg Bidens biternata extract (n=5) while the high dose test group received 400 mg/kg B. biternata extract (n=5). Castor oil (4 ml/kg) was then administered to the animals one hour after administration of the respective treatments after which the total mass of fecal output excreted after four (4) hours was determined. In the charcoal meal test fifteen (15) Sprague Dawley rats were randomized to a control group (normal saline 5 ml/kg orally, n=5), a positive control group (atropine sulfate 0.1 mg/kg i.p., n=5) and a test group (400 mg/kg B. biternata extract, n=5). Charcoal meal was then administered via oral gavage to each rat thirty (30) minutes after the administration of the various treatments. The distance covered by the charcoal meal from the pylorus was then determined after sacrifice of the animals thirty minutes after the meal. In the enteropooling test twenty (20) Sprague-Dawley
rats were randomized to a control group (5% v/v ethanol in normal saline, n=5), a positive control group (5 mg/kg loperamide, n=5) and a test group (400 mg/kg B. biternata extract, n=5). For each group prostaglandin E2 (PGE2) (100 µg/kg) was administered immediately after the treatments. The animals were then sacrificed half an hour later and the volume of the small intestine contents determined. The effects of different concentrations of B. biternata extract (0.5, 1.0, 2.0, 3.0 and 5.0 mg/ml) on jejunal contraction were investigated and a dose-response curve constructed using the experimental data after which The ED50 dose was determined. The effect of tamsulosin (alpha 1 adrenergic blocker), yohimbine (alpha 2 adrenergic blocker), propranolol (beta adrenergic blocker) and naloxone (mu opioid blocker) on the contractile activity of the extract were also investigated. The experimental data were expressed as mean +/- standard error of mean (SEM) and then analyzed using one-way ANOVA followed by Tukey's post hoc test in cases of significance (set at p< 0.05). The freeze dried extracts of B. biternata had significant antidiarrheal effects in the castor oil induced diarrhea model (p < 0.01) with the highest activity being observed at the 400 mg/kg dosage level (1.66 +/- 0.81 g vs. 4.54 +/- 0.51 g control, p= 0.01). B. biternata extract had significant effects on intestinal motility in the charcoal meal test compared to the control group (43.61 +/- 4.42% vs. 60.54 +/- 3.33%; p< 0.05). B. biternata extract had a significant effect on PGE2 induced enteropooling (3.06 +/- 0.07 ml vs. 4.74 +/- 0.10 ml; p< 0.001). The freeze dried extracts of B. biternata had a significant negative effect on the contractility of the isolated rabbit jejunum (p < 0.001). The effects of the extract were significantly attenuated by tamsulosin (53.94 +/- 4.20% vs. 80.57 +/- 4.09%; p< 0.01) and naloxone (53.94 +/- 4.20% vs. 73.89 +/- 7.26%; p< 0.05). Yohimbine (p > 0.05) and propranolol (p > 0.05) however did not have any significant effect on the contractile activity of the extract. The freeze dried extract of B. biternata possess significant antidiarrheal activity in both in vitro and in vivo models which appears to be mediated by modulating both the intestinal motility as well as the secretory activity."

According to the news editors, the research concluded: "The results of this study also validate its traditional use as an antidiarrheal remedy."


The news correspondents report that additional information may be obtained from D.G. Kinuthia, Univ Nairobi, Dept. of Med Physiol, Sch Med, Nairobi, Kenya. Additional authors for this research include A.W. Muriithi and P.W. Mwangi.

Keywords for this news article include: Nairobi, Kenya, Africa, Ethnopharmacology, Drugs and Therapies, Charcoal, Carbon, University of Nairobi.

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**Drugs and Therapies - Ethnopharmacology**

**New Ethnopharmacology Findings from University of Kragujevac Discussed [In vitro and in vivo assessment of meadowsweet (Filipendula ulmaria) as anti-inflammatory agent]**
Ethnopharmacological relevance: Meadowsweet (Filipendula ulmaria (L.) Maxim, Rosaceae) has been traditionally used in most European countries for the treatment of inflammatory diseases due to its antipyretic, analgesic, astringent, and anti-rheumatic properties. However, there is little scientific evidence on F. ulmaria anti-inflammatory effects regarding its impact on cyclooxygenases enzymatic activity and in vivo assessment of anti-inflammatory potential.

Funders for this research include Ministry of Education, Science and Technological Development of the Republic of Serbia, World University Service.

Our news editors obtained a quote from the research from the University of Kragujevac, "This study aims to reveal the anti-inflammatory activity of methanolic extracts from the aerial parts (FUA) and roots (FUR) of F. ulmaria, both in in vitro and in vivo conditions. The characteristic phenolic compounds in F. ulmaria extracts were monitored via high performance thin layer chromatography (HPTLC). The in vitro anti-inflammatory activity of F. ulmaria extracts was evaluated using cyclooxygenase-1 (COX-1) and cyclooxygenase-2 (COX-2) enzyme assays, and an assay for determining COX-2 gene expression. The in vivo anti-inflammatory effect of F. ulmaria extracts was determined in two doses (100 and 200 mg/kg b.w.) with hot plate test and carrageenan-induced paw edema test in rats. Inflammation was also evaluated by histopathological and immunohistochemical analysis. FUA extract showed the presence of rutoside, spiraeoside, and isoquercitrin. Both F. ulmaria extracts at a concentration of 50 μg/mL were able to inhibit COX-1 and -2 enzyme activities, whereby FUA extract (62.84% and 46.43% inhibition, respectively) was double as effective as the root extract (32.11% and 20.20%, respectively). Extracts hardly inhibited the level of COX-2 gene expression in THP-1 cells at a concentration of 25 μg/mL (10.19% inhibition by FUA and 8.54% by FUR). In the hot plate test, both extracts in two doses (100 and 200 mg/kg b.w.), exhibited an increase in latency time when compared with the control group (p < 0.05). In the carrageenan-induced acute inflammation test, FUA at doses of 100 and 200 mg/kg b.w., and FUR at 200 mg/kg, were able to significantly reduce the mean maximal swelling of rat paw until 6 h of treatment. Indomethacin, FUA, and FUR extracts significantly decreased inflammation score and this effect was more pronounced after 24 h, compared to the control group (p < 0.05). The observed results of in vitro and, for the first time, in vivo anti-inflammatory activity of meadowsweet extracts, provide support of the traditional use of this plant in the treatment of different inflammatory conditions."

According to the news editors, the research concluded: "Further investigation of the anti-inflammatory compounds could reveal the mechanism of anti-inflammatory action of these extracts."


The news editors report that additional information may be obtained by contacting J. Katanic, University of Kragujevac, Fac Sci, Dept. of Chem, Kragujevac 34000, Serbia. Additional authors for this research include T. Boroja, V. Mihailovic, S. Nikles, S.P. Pan, G. Rosic, D. Selakovic, J. Joksimovic, S. Mitrovic and R. Bauer.
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Keywords for this news article include: Kragujevac, Serbia, Europe, Ethnopharmacology, Drugs and Therapies, Enzymes and Coenzymes, Cyclooxygenase, Genetics, University of Kragujevac.

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Drugs and Therapies - Ethnopharmacology

New Ethnopharmacology Study Findings Recently Were Reported by Researchers at University of Technology (Phytochemical and ethnomedicinal study of Huperzia species used in the traditional medicine of Saraguros in Southern Ecuador; AChE and MAO ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Ethnopharmacology are discussed in a new report. According to news reporting from Loja, Ecuador, by NewsRx journalists, research stated, "Ethnobotanical and ethnomedicinal relevance: This study concerns seven Huperzia species (Lycopodiaceae), namely H. brevifolia, H. columnaris, H. compacta, H. crassa, H. espinosana, H. tetragona, H. weberbaueri, which are considered sacred plants by the Saraguro community, living in the Southern Andes of Ecuador; these plants are widely used in traditional medicine and ritual ceremonies. The plants were selected on the basis of written interviews with 10 visionary healers (yachak) (2 women, 8 men), indicated as the most credible by the Saraguro Healers Council."

Funders for this research include SENESCYT, Universidad Tecnica Particular de Loja, University of Pavia, CISTRE, Republica del Ecuador.

The news correspondents obtained a quote from the research from the University of Technology, "The Informant Consensus Factor (Fie) was determined. The first phytochemical study of the plants was performed by standard procedures, while the AChE and MAO-A inhibition by fractions enriched in high MW alkaloids, was measured in vitro. Aims of the study: i) to investigate the uses of some Huperzia plants in healing and magical-religious practices of Saraguros; ii) to identify the main components of plant hydromethanolic extracts; iii) to test the effects of alkaloidal fractions on the activity of two enzymes linked to mental health. All the interviewed Saraguro yachak showed a high consensus about the uses of the seven Huperzia plants as purgatives and against supernatural diseases, such as the 'espanto' (startle). In admixtures with other plants, some species also induce a state of trance or hallucinations in participants in magical-religious rituals. GC MS of the volatile alkaloid fractions allowed the identification of some Ýcodyine-type and lycopodine-type alkaloids (1-5) in H. compacta, H. columnaris, and H. tetragona. The flavones selgin) (6) and tricin (7) were isolated from H. brevifolia and H. espinosana. Tricin (7) was also detected in the other five species. The rare serratene triterpenes serratenediol (8) serratenediol-3-O-acetate (9), 21-episerratenediol (10), and 21-episerratenediol-3-O-acetate (11) were isolated from H. crassa. In addition, the presence of an unprecedented group of high molecular weight alkaloids has been determined. Alkaloid fractions of H. brevifolia, H. compacta, H. espinosana, and H. tetragona significantly inhibited AChE and MAO-A activities in vitro. The first phytochemical and
ethnopharmacological study of seven Huperzia plants, widely used by Saraguro healers, led to
the identification of several alkaloids and triterpenoids with different remarkable biological
activities. In addition, alkaloid fractions exhibited a significant AChE and MAO-A inhibitory
activity. These results may support the use of these plants in brews prepared for inducing
psychoactive effects in participants in magical-religious ceremonies."

According to the news reporters, the research concluded: "This study confirms the
rich traditional medical knowledge of Saraguro healers which must be documented and
preserved for future generations."

For more information on this research see: Phytochemical and ethnomedicinal study
of Huperzia species used in the traditional medicine of Saraguros in Southern Ecuador; AChE
Ethnopharmacology can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza,
East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Journal of
Ethnopharmacology - www.journals.elsevier.com/journal-of-ethnopharmacology/)

Our news journalists report that additional information may be obtained by
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Ramirez, N. Bec, C. Larroque, P.V. Finzi and G. Vidari.

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Keywords for this news article include: Loja, Ecuador, South America,
Ethnopharmacology, Drugs and Therapies, University of Technology.

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Evolution

New Evolution Findings from Alfred-Wegener Institute for Polar and
Marine Research Reported (Transgenerational effects persist down the
maternal line in marine sticklebacks: gene expression matches
physiology in a warming ocean)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Researchers detail new data in Evolution. According to news originating
from List Auf Sylt, Germany, by NewsRx correspondents, research stated, "Transgenerational
effects can buffer populations against environmental change, yet little is known about
underlying mechanisms, their persistence or the influence of environmental cue timing. We
investigated mitochondrial respiratory capacity (MRC) and gene expression of marine
sticklebacks that experienced acute or developmental acclimation to simulated ocean warming
(21 degrees C) across three generations."

Funders for this research include California Department of Fish and Game,
Bundesministerium fur Bildung und Forschung, Schweizerischer Nationalfonds zur Forderung
der Wissenschaftlichen Forschung, PACES Research Programme, Alfred-Wegener-Institute
Helmholtz-Zentrum fur Polar- und Meeresforschung, European Nucleotide Archive.

Our news journalists obtained a quote from the research from Alfred-Wegener
Institute for Polar and Marine Research, "Previous work showed that acute acclimation of
grandmothers to 21 degrees C led to lower (optimized) offspring MRCs. Here, developmental acclimation of mothers to 21 degrees C led to higher, but more efficient offspring MRCs. Offspring with a 21 degrees C x 17 degrees C grandmother-mother environment mismatch showed metabolic compensation: their MRCs were as low as offspring with a 17 degrees C thermal history across generations. Transcriptional analyses showed primarily maternal but also grandmaternal environment effects: genes involved in metabolism and mitochondrial protein biosynthesis were differentially expressed when mothers developed at 21 degrees C, whereas 21 degrees C grandmothers influenced genes involved in hemostasis and apoptosis. Genes involved in mitochondrial respiration all showed higher expression when mothers developed at 21 degrees and lower expression in the 21 degrees C x 17 degrees C group, matching the phenotypic pattern for MRCs."

According to the news editors, the research concluded: "Our study links transcriptomics to physiology under climate change, and demonstrates that mechanisms underlying transgenerational effects persist across multiple generations with specific outcomes depending on acclimation type and environmental mismatch between generations."


The news correspondents report that additional information may be obtained from L.N.S. Shama, Alfred Wegener Inst Helmholtz Zentrum Polar & Mee, Wadden Sea Stn Sylt, Coastal Ecol Sect, List Auf Sylt, Germany. Additional authors for this research include F.C. Mark, A. Strobel, A. Lokmer, U. John and K.M. Wegner.

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Keywords for this news article include: List Auf Sylt, Germany, Europe, Evolution, Genetics, Alfred-Wegener Institute for Polar and Marine Research.

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Autoinflammatory Diseases and Conditions - Familial...

New Familial Mediterranean Fever Data Have Been Reported by Investigators at Istanbul University (Approach to the patients with inadequate response to colchicine in familial Mediterranean fever)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Autoinflammatory Diseases and Conditions - Familial Mediterranean Fever. According to news reporting out of Istanbul, Turkey, by NewsRx editors, the research stated, "Familial Mediterranean fever (FMF) is the most common form of monogenic autoinflammatory conditions, and response to colchicine has been considered as one of its distinctive features among other hereditary periodic fever disorders. Prophylactic colchicine has been shown to be effective in the prevention of inflammatory attacks and development of amyloidosis."
Our news journalists obtained a quote from the research from Istanbul University, "However, the highest tolerable doses of colchicine may not be adequate enough to manage these goals in approximately 5% of FMF patients. Inadequate response to colchicine in fully compliant FMF patients may be associated with genetic and/or environmental factors affecting disease severity and colchicine bioavailability. Clarification of the molecular pathogenic mechanisms of FMF has revealed that interleukin-1 beta (IL-1 beta) cytokine is the most likely target to attack, and several case reports and case series have already documented the efficacy and safety of available anti-IL-1 agents, such as analdnra, rilonacept, and canakinumab in those patients inadequately responding to colchicine."

According to the news editors, the research concluded: "Characterization and early identification of those FMF patients with uncontrolled inflammatory activity have become more important after the availability of new treatment options for the prevention of disease-associated complications and permanent damages."


Our news journalists report that additional information may be obtained by contacting A. Gul, Istanbul University, Istanbul Fac Med, Dept. of Internal Med, Div Rheumatol, TR-34093 Istanbul, Turkey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.berh.2016.09.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Hereditary Autoinflammatory Diseases and Conditions, Familial Mediterranean Fever, Epidemiology, Genetics, Istanbul University.

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Liver Diseases and Conditions - Fatty Liver

New Fatty Liver Data Have Been Reported by Researchers at Samsung Medical Center (Non-alcoholic fatty liver diseases and risk of colorectal neoplasia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Fatty Liver are presented in a new report. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "Non-alcoholic fatty liver disease (NAFLD) is associated with colorectal neoplasia. Yet, NAFLD ranges from simple steatosis to steatohepatitis with advanced fibrosis."

The news reporters obtained a quote from the research from Samsung Medical Center, "To investigate the risk of colorectal neoplasia according to the presence and severity of NAFLD. A total of 26 540 asymptomatic adults who underwent same day first-time colonoscopy and abdominal ultrasonography as a health check-up programme were analysed. NAFLD was diagnosed by ultrasonography. Advanced colorectal neoplasia was defined as an
invasive cancer or adenoma that was at least 10 mm in diameter, had high-grade dysplasia, or had villous histological characteristics or any combination thereof. NAFLD patients had a higher prevalence of any colorectal neoplasia (38.0% vs. 28.9%) and advanced colorectal neoplasia (2.8% vs. 1.9%) compared to those without NAFLD. In a multivariable model adjusted for age, sex, smoking, alcohol, body mass index, first-degree family history of colorectal cancer, aspirin use and metabolic factors, the odd ratios comparing patients with NAFLD to those without were 1.10 [95% confidence interval (CI): 1.03-1.17] for any colorectal neoplasia and 1.21 (95% CI: 0.99-1.47) for advanced colorectal neoplasia. When NAFLD patients were further stratified according to the non-invasive parameters of liver disease severity, the risk of any colorectal neoplasia or advanced colorectal neoplasia was higher for those with severe liver diseases than those with mild liver diseases."

According to the news reporters, the research concluded: "The presence and severity of NAFLD were closely associated with any colorectal neoplasia and advanced colorectal neoplasia, suggesting that clinicians should be aware of the increased risk of colorectal neoplasia in patients with NAFLD."

For more information on this research see: Non-alcoholic fatty liver diseases and risk of colorectal neoplasia. *Alimentary Pharmacology & Therapeutics*, 2017;45(2):345-353. *Alimentary Pharmacology & Therapeutics* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Alimentary Pharmacology & Therapeutics - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2036)

Our news correspondents report that additional information may be obtained by contacting H.J. Son, Samsung Med Center, Center Hlth Promot, Seoul 06351, South Korea. Additional authors for this research include D.H. Sinn, Y.W. Min, S.N. Hong, H.S. Kim, S.H. Jung, S. Gu, P.L. Rhee, S.W. Paik, H.J. Son and G.Y. Gwak.

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Keywords for this news article include: Seoul, South Korea, Asia, Digestive System Diseases and Conditions, Liver Diseases and Conditions, Fatty Liver Disease, Colorectal Research, Gastroenterology, Neoplasia, Samsung Medical Center.

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Liver Diseases and Conditions - Fatty Liver

**New Fatty Liver Findings from Medical University Reported (Nuclear Receptor Modulation for the Treatment of Nonalcoholic Fatty Liver Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Fatty Liver is now available. According to news reporting out of Vienna, Austria, by NewsRx editors, research stated, "Nuclear receptors (NRs) are ligand-activated transcriptional regulators of several key metabolic processes including hepatic lipid and glucose metabolism, bile acid homeostasis, and energy expenditure as well as inflammation, fibrosis, and cellular proliferation in the liver. Dysregulation of these processes contributes to the pathogenesis and progression of nonalcoholic fatty liver disease (NAFLD)."
Our news journalists obtained a quote from the research from Medical University, "This places NRs at the forefront of novel therapeutic approaches for NAFLD. Some NRs are already pharmacologically targeted in metabolic disorders such as hyperlipidemia (peroxisomal proliferator-activated receptor a [PPARa], fibrates) and diabetes (PPARg, glitazones) with potential applications for NAFLD. Other NRs with potential therapeutic implications are the vitamin D receptor (VDR) and xenobiotic sensors such as constitutive androstane receptor (CAR) and pregnane X receptor (PXR). Further new perspectives include combined ligands for NR isoforms such as PPARa/d ligands. Other novel key players represent the nuclear bile acid receptor farnesoid X receptor (FXR; targeted by synthetic FXR ligands such as obeticholic acid) and RAR-related orphan receptor gamma two (RORgt)."

According to the news editors, the research concluded: "In this review the authors provide an overview of the preclinical and clinical evidence of current and future treatment strategies targeting NRs in metabolism, inflammation, and fibrogenesis of NAFLD."

For more information on this research see: Nuclear Receptor Modulation for the Treatment of Nonalcoholic Fatty Liver Disease. Seminars In Liver Disease, 2016;36(1):69-86. (Thieme - www.thieme.com)

Our news journalists report that additional information may be obtained by contacting C.D. Fuchs, Hans Popper Laboratory of Molecular Hepatology, Division of Gastroenterology and Hepatology, Dept. of Internal Medicine III, Medical University of Vienna, Vienna, Austria. Additional authors for this research include S.A. Trauernigg and M. Trauner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0036-1571296. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vienna, Europe, Austria, Inflammation, Article Review, Fatty Liver Disease, Liver Diseases and Conditions, Digestive System Diseases and Conditions.

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Liver Diseases and Conditions - Fatty Liver

New Fatty Liver Findings from University of Toledo Discussed
[Biliverdin Reductase A Attenuates Hepatic Steatosis by Inhibition of Glycogen Synthase Kinase (GSK) 3 beta Phosphorylation of Serine 73 of Peroxisome Proliferator-activated Receptor ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Fatty Liver have been published. According to news reporting out of Toledo, Ohio, by NewsRx editors, research stated, "Non-alcoholic fatty liver disease is the most rapidly growing form of liver disease and if left untreated can result in non-alcoholic steatohepatitis, ultimately resulting in liver cirrhosis and failure. Biliverdin reductase A (BVRA) is a multifunctioning protein primarily responsible for the reduction of biliverdin to bilirubin."

Our news journalists obtained a quote from the research from the University of Toledo, "Also, BVRA functions as a kinase and transcription factor, regulating several cellular functions. We report here that liver BVRA protects against hepatic steatosis by inhibiting glycogen synthase kinase 3 beta (GSK3 beta) by enhancing serine 9 phosphorylation, which
inhibits its activity. We show that GSK3 beta phosphorylates serine 73 (Ser(P)(73)) of the peroxisome proliferator-activated receptor alpha (PPAR alpha), which in turn increased ubiquitination and protein turnover, as well as decreased activity. Interestingly, liver-specific BVRA KO mice had increased GSK3 beta activity and Ser(P)(73) of PPAR alpha, which resulted in decreased PPAR alpha protein and activity. Furthermore, the liver-specific BVRA KO mice exhibited increased plasma glucose and insulin levels and decreased glycogen storage, which may be due to the manifestation of hepatic steatosis observed in the mice.

According to the news editors, the research concluded: "These findings reveal a novel BVRA-GSK beta-PPAR alpha axis that regulates hepatic lipid metabolism and may provide unique targets for the treatment of non-alcoholic fatty liver disease."


Our news journalists report that additional information may be obtained by contacting T.D. Hinds, University of Toledo, Coll Med & Life Sci, Dept. of Physiol & Pharmacol, Center Hypertens & Personalized Med, Toledo, OH 43614, United States. Additional authors for this research include K.A. Burns, P.A. Hosick, L. McBeth, A. Nestor-Kalinoski, H.A. Drummond, A.A. AlAmodi, M.W. Hankins, J.P.V. Heuvel and D.E. Stec.

Keywords for this news article include: Toledo, Ohio, United States, North and Central America, Intracellular Signaling Peptides and Proteins, Peroxisome Proliferator-Activated Receptors, Digestive System Diseases and Conditions, Cytoplasmic and Nuclear Receptors, Protein-Serine-Threonine Kinases, Liver Diseases and Conditions, Glycogen Synthase Kinases, Cytoplasmic Structures, Enzymes and Coenzymes, Transcription Factors, Cytoplasmic Vesicles, DNA-Binding Proteins, Glycosyltransferases, Glucosyltransferases, Fatty Liver Disease, Intracellular Space, Phosphotransferases, Neutral Amino Acids, Peroxisomes, Microbodies, Organelles, Healthcare, PPAR alpha, Reductase, Steatosis, Genetics, University of Toledo.

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Liver Diseases and Conditions - Fatty Liver

**New Fatty Liver Study Findings Recently Were Reported by Researchers at University of Malaya (Phosphatidylethanolamine N-methyltransferase gene rs7946 polymorphism plays a role in risk of nonalcoholic fatty liver disease: evidence from ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Liver Diseases and Conditions - Fatty Liver are discussed in a new report. According to news reporting from Kuala Lumpur, Malaysia, by NewsRx journalists, research stated, "Phosphatidylethanolamine N-methyltransferase (PEMT) governs the secretion of hepatic triglycerides in the form of very low-density lipoprotein and has been implicated in nonalcoholic fatty liver disease (NAFLD). Studies on the role of the PEMT
rs7946 polymorphism as a genetic modifier of NAFLD have reported inconsistent results."

The news correspondents obtained a quote from the research from the University of Malaya, "This meta-analysis was carried out to evaluate and summarize the association of PEMT rs7946 with susceptibility to NAFLD. A comprehensive literature search in Scopus, PubMed, Embase, Science Direct and Google Scholar was performed up to 31 August 2015, followed by data extraction and examination of summary estimates. Six independent studies with a total of 792 NAFLD cases and 2722 controls fulfilled the inclusion criteria. Pooled results indicated that the rs7946 A-allele was associated significantly with an increased risk of NAFLD [odds ratio (OR) 1.55, 95% confidence interval (CI) 1.14-2.11, p=0.005]. A significant association was also found in alternative genetic models of inheritance: dominant, recessive and homozygote (OR 1.62, 95% CI 1.10-2.39, p=0.01; OR 1.42, 95% CI 1.12-1.81, p=0.003; and OR 1.64, 95% CI 1.18-2.29, p=0.004, respectively). Subgroup analysis by ethnicity indicated a significant association only in the East-Asians in the additive (OR=2.08, 95% CI 1.12-3.86, p=0.02), recessive (OR=2.94, 95% CI 1.60-5.37, p=0.0005) and homozygote (OR=1.86, 95% CI 1.15-3.01, p=0.01) models."

According to the news reporters, the research concluded: "This study provides evidence of a significant association between the PEMT rs7946 A-allele and a risk of NAFLD, with the effect being more prominent in East-Asians, but not in non-Asians."

For more information on this research see: Phosphatidylethanolamine N-methyltransferase gene rs7946 polymorphism plays a role in risk of nonalcoholic fatty liver disease: evidence from meta-analysis. Pharmacogenetics and Genomics, 2016;26(2):88-95. (Lippincott Williams and Wilkins - www.lww.com; Pharmacogenetics and Genomics - journals.lww.com/jpharmacogenetics/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting H.L. Tan, aThe Pharmacogenomics Laboratory, Dept. of Pharmacology, Faculty of Medicine, University of Malaya bDept. of Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia. Additional authors for this research include R. Mohamed, Z. Mohamed and S.M Zain.

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Keywords for this news article include: Asia, Malaysia, Genetics, Kuala Lumpur, Fatty Liver Disease, Enzymes and Coenzymes, Liver Diseases and Conditions, One Carbon Group Transferases, Digestive System Diseases and Conditions, Phosphatidylethanolamine N Methyltransferase.

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Fertilization in Vitro

New Fertilization in Vitro Study Findings Have Been Reported by Investigators at Kagoshima University (Developmental ability of embryos produced from oocytes with fragile oolemma by intracytoplasmic sperm injection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Fertilization in Vitro. According to
news reporting originating from Kagoshima, Japan, by NewsRx correspondents, research stated, "In intracytoplasmic sperm injection (ICSI) of oocytes with a fragile oolemma (fragile oocytes), breakage can occur at injection. In this study, we produced embryos from oocytes with a fragile and normal oolemma (normal oocytes) by ICSI and compared their ability to be fertilized and develop in vitro."

Our news editors obtained a quote from the research from Kagoshima University, "We also investigated whether fragile oocyte-derived embryos could implant after blastocyst transfer to determine whether fragile oocytes should be used for assisted reproductive technology treatment. Oocytes were divided into three groups-normal oocytes from cycles containing no fragile oocytes (group A), normal oocytes from cycles containing at least one fragile oocyte (group B), and fragile oocytes (group C), and their fertilization abilities after ICSI and the developmental abilities of resultant embryos were compared. The fertilization rate in group C (65.3 %) was significantly (P < 0.01) lower than those in groups A (84.6 %) and B (86.9 %), and the degeneration rate in group C (24.2 %) was significantly (P < 0.01) higher than those in groups A (0.71 %) and B (0.28 %). However, there were no significant differences in the blastocyst formation rates (59.7-67.5 %) of embryos among the different groups. In addition, the pregnancy rate after transfer of blastocysts in group C (50.0 %) was not significantly different from those in groups A (35.6 %) and B (45.8 %)."

According to the news editors, the research concluded: "The fertilization ability after ICSI of fragile oocytes is lower than that of normal oocytes but the resultant embryos have the same developmental ability as those of normal oocyte-derived embryos."


The news editors report that additional information may be obtained by contacting Y. Mizobe, Kagoshima University, United Grad Sch Agr Sci, Kagoshima 8900065, Japan. Additional authors for this research include N. Oya, R. Iwakiri, N. Yoshida, Y. Sato, N. Onoue, K. Miyoshi, M. Tokunaga and Y. Ezono.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0811-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kagoshima, Japan, Asia, Intracytoplasmic Sperm Injections, Reproductive Techniques, Fertilization in Vitro, Therapy, Kagoshima University.

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& Wellness Week -- Investigators discuss new findings in Fibrous Dysplasia. According to news reporting out of Lyon, France, by NewsRx editors, research stated, "Fibrous dysplasia of bone (FD) is a rare genetic but sporadic bone disease that can be responsible for bone pain, fracture, and bone deformity. The prognosis may be difficult to establish because of the wide spectrum of disease severity."

Our news journalists obtained a quote from the research from Edouard Herriot Hospital, "We have analyzed the data from the French National Reference center for FD. We have established a database from standardized medical records. We have made descriptive statistics of the various forms of FD and examined the prognostic factors by multivariable logistic regression analysis, with a parsimonious stepwise method. The primary outcome was a clinically relevant composite index combining bone pain (visual analogic scale >3) and/or incident fracture. In our modern cohort of 372 patients, the median age at diagnosis was 23 years. The revealing symptom (at a median age of 18 years) was bone pain in 44% of patients and a fracture in 9%, but the diagnosis was fortuitous in 25% of cases. Monostotic forms represented 58% of patients and polyostotic forms 42%. The femur was the most commonly affected bone (44% of patients), followed by the skull (38%). Twelve percent of patients had McCune-Albright syndrome (MAS). With a median duration of follow-up of 7 years among 211 patients, we observed an incidence of fracture of 17% and 51% of patients had no bone pain at the end of follow-up (with or without bisphosphonate therapy). In univariate analysis, younger age at diagnosis, renal phosphate wasting, a polyostotic form, prevalent fracture, and bisphosphonate use were significant predictors. In the multivariate model, the polyostotic form and bisphosphonate use remained significant predictors."

According to the news editors, the research concluded: "In a national referral center for FD, one patient on follow-up out of six had incident fracture. A polyostotic form was the main risk factor of a poorer outcome."


Our news journalists report that additional information may be obtained by contacting J. Benhamou, Hospital Edouard Herriot, Dept. of Rheumatol, Lyon, France. Additional authors for this research include D. Gensburger, C. Messiaen and R. Chapurlat.

Keywords for this news article include: Lyon, France, Europe, Musculoskeletal Diseases and Conditions, Dysplasia, Risk and Prevention, Bone Diseases and Conditions, Fibrous Dysplasia of Bone, Osteochondrodysplasias, Bone Research, Dermatology, Genetics, Edouard Herriot Hospital.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Genetics - Medical Genetics. According to news reporting originating in Chicago, Illinois, by NewsRx journalists, research stated, "The Center for Jewish Genetics provides genetic education and carrier screening to individuals of Jewish descent. Carrier screening has traditionally been performed by targeted mutation analysis for founder mutations with an enzyme assay for Tay-Sachs carrier detection."

The news reporters obtained a quote from the research, "The development of next-generation sequencing (NGS) allows for higher detection rates regardless of ethnicity. Here, we explore differences in carrier detection rates between genotyping and NGS in a primarily Jewish population. Peripheral blood samples or saliva samples were obtained from 506 individuals. All samples were analyzed by sequencing; targeted genotyping, triplet-repeat detection, and copy-number analysis; the analyses were carried out at Counsyl. Of 506 individuals screened, 288 were identified as carriers of at least 1 condition and 8 couples were carriers for the same disorder. A total of 434 pathogenic variants were identified. Three hundred twelve variants would have been detected via genotyping alone. Although no additional mutations were detected by NGS in diseases routinely screened for in the Ashkenazi Jewish population, 26.5% of carrier results and 2 carrier couples would have been missed without NGS in the larger panel."

According to the news reporters, the research concluded: "In a primarily Jewish population, NGS reveals a larger number of pathogenic variants and provides individuals with valuable information for family planning."

For more information on this research see: Carrier screening in the era of expanding genetic technology. Genetics in Medicine, 2016;18(12):1214-1217. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)

Our news correspondents report that additional information may be obtained by contacting A. Arjunan, Center Jewish Genet, Chicago, IL 60606, United States. Additional authors for this research include K. Litwack, N. Collins and J. Charrow.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gim.2016.30. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Medical Genetics, Technology, Genetics.

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**Drugs and Therapies - Transdermal Delivery**

**New Findings Reported from A. Shah and Co-Authors Describe Advances in Transdermal Delivery (Support vector regression to estimate the permeability enhancement of potential transdermal enhancers)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Transdermal Delivery is the subject of a report. According to news originating from Montreal, Canada, by NewsRx correspondents, research stated, "Searching for chemicals that will safely enhance transdermal
drug delivery is a significant challenge. This study applies support vector regression (SVR) for the first time to estimating the optimal formulation design of transdermal hydrocortisone formulations.

Our news journalists obtained a quote from the research, "The aim of this study was to apply SVR methods with two different kernels in order to estimate the enhancement ratio of chemical enhancers of permeability. A statistically significant regression SVR model was developed. It was found that SVR with a nonlinear kernel provided the best estimate of the enhancement ratio for a chemical enhancer. Support vector regression is a viable method to develop predictive models of biological processes, demonstrating improvements over other methods."

According to the news editors, the research concluded: "In addition, the results of this study suggest that a global approach to modelling a biological process may not necessarily be the best method and that a 'mixed-methods' approach may be best in optimising predictive models."

For more information on this research see: Support vector regression to estimate the permeability enhancement of potential transdermal enhancers. The Journal of Pharmacy and Pharmacology, 2016;68(2):170-84.

The news correspondents report that additional information may be obtained from A. Shah, Dept. of Software Engineering and IT, Ecole de Technologie Superieure, Montreal, QC, Canada. Additional authors for this research include Y. Sun, R.G. Adams, N. Davey, S.C. Wilkinson and G.P Moss.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jphp.12508. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Quebec, Canada, Montreal, Machine Learning, Drugs and Therapies, Transdermal Delivery, Emerging Technologies, North and Central America, Support Vector Regression.

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Drugs and Therapies - Cancer Therapy

New Findings Reported from Al Quds University Describe Advances in Cancer Therapy (Anticancer Activity, Antioxidant Activity, and Phenolic and Flavonoids Content of Wild Tragopogon porrifolius Plant Extracts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Cancer Therapy is now available. According to news reporting originating in Jerusalem, Israel, by NewsRx journalists, research stated, "Tragopogon porrifolius, commonly referred to as white salsify, is an edible herb used in folk medicine to treat cancer. Samples of Tragopogon porrifolius plant grown wild in Palestine were extracted with different solvents: water, 80% ethanol, and 100% ethanol."

The news reporters obtained a quote from the research from Al Quds University, "The extracts were analyzed for their total phenolic content (TPC), total flavonoid content (TFC), and antioxidant activity (AA). Four different antioxidant assays were used to evaluate AA of the extracts: two measures the reducing power of the extracts (ferric reducing antioxidant power (FRAP) and cupric reducing antioxidant power (CUPRAC)), while two other assays
measure the scavenging ability of the extracts (2,2-azino-di-(3-ethylbenzothialozine-sulphonic acid (ABTS)) and 2,2-diphenyl-1-pircylhydrazyl (DPPH)). Anticancer activity of the plant extracts were also tested on HOS and KHOS osteosarcoma cell lines. The results revealed that the polarity of the extraction solvent affects the TPC, TFC, and AA. It was found that both TPC and AA are highest for plant extracted with 80% ethanol, followed by water, and finally with 100% ethanol. TFC however was the highest in the following order: 80% ethanol > 100% ethanol > water.

According to the news reporters, the research concluded: "The plant extracts showed anticancer activities against KHOS cancer cell lines; they reduced total cell count and induced cell death in a drastic manner."

For more information on this research see: Anticancer Activity, Antioxidant Activity, and Phenolic and Flavonoids Content of Wild Tragopogon porrifolius Plant Extracts. Evidence-Based Complementary and Alternative Medicine, 2016;():1-7. Evidence-Based Complementary and Alternative Medicine can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Evidence-Based Complementary and Alternative Medicine - www.hindawi.com/journals/ecam/)

Our news correspondents report that additional information may be obtained by contacting F. Al-Rimawi, Al Quds Univ, Fac Sci & Technol, Chem Department, Jerusalem, Israel. Additional authors for this research include S. Rishmawi, S.H. Ariqat, M.F. Khalid, I. Warad and Z. Salah.

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Keywords for this news article include: Jerusalem, Israel, Asia, Drugs and Therapies, Protective Agents, Cancer Therapy, Ethanolamines, Antioxidants, Alcohols, Al Quds University.

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Eye Diseases and Conditions - Miosis

New Findings Reported from AstraZeneca Describe Advances in Miosis (The effect of quinidine, a strong P-glycoprotein inhibitor, on the pharmacokinetics and central nervous system distribution of naloxegol)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Eye Diseases and Conditions - Miosis. According to news originating from Waltham, Massachusetts, by NewsRx correspondents, research stated, "Naloxegol is a PEGylated, oral, peripherally acting m-opioid receptor antagonist approved in the United States for treatment of opioid-induced constipation in patients with noncancer pain. Naloxegol is metabolized by CYP3A, and its properties as a substrate for the P-glycoprotein (PGP) transporter limit its central nervous system (CNS) permeability."

Financial support for this research came from AstraZeneca Pharmaceuticals LP.

Our news journalists obtained a quote from the research from AstraZeneca, "This double-blind, randomized, 2-part, crossover study in healthy volunteers evaluated the effect of
quinidine (600 mg PO), a CYP3A/PGP transporter inhibitor, on the pharmacokinetics and CNS distribution of naloxegol (25 mg PO). In addition, the effects of quinidine on morphine (5 mg/70 kg IV)-induced miosis and exposure to naloxegol were assessed. Coadministration of quinidine and naloxegol increased naloxegol's AUC 1.4-fold and Cmax 2.5-fold but did not antagonize morphine-induced miosis, suggesting that PGP inhibition does not increase the CNS penetration of naloxegol. Naloxegol pharmacokinetics was unaltered by coadministration of morphine and either quinidine or placebo; conversely, pharmacokinetics of morphine and its metabolites (in the presence of quinidine) were unaltered by coadministration of naloxegol. Naloxegol was safe and well tolerated, alone or in combination with quinidine, morphine, or both."

According to the news editors, the research concluded: "The observed increase in exposure to naloxegol in the presence of quinidine is primarily attributed to quinidine's properties as a weak CYP3A inhibitor."

For more information on this research see: The effect of quinidine, a strong P-glycoprotein inhibitor, on the pharmacokinetics and central nervous system distribution of naloxegol. Journal of Clinical Pharmacology, 2015;56(4):497-505. Journal of Clinical Pharmacology can be contacted at: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com/; Journal of Clinical Pharmacology - jcp.sagepub.com)

The news correspondents report that additional information may be obtained from K. Bui, AstraZeneca Pharmaceuticals, Waltham, MA, United States. Additional authors for this research include F. She, D. Zhou, K. Butler, N. Al-Huniti and M. Sostek.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcph.613. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the Journal of Clinical Pharmacology is: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Antiarrhythmic Agents, Antimalarial Agents, Pharmaceuticals, Miosis, Waltham, Ion Pumps, Massachusetts, United States, Glycoconjugates, P Glycoproteins, Pupil Disorders, Carrier Proteins, Pharmacokinetics, Membrane Proteins, Quinidine Therapy, Drugs and Therapies, Cardiovascular Agents, Central Nervous System.

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Oncology - Gastric Cancer

New Findings Reported from Azienda Ospedaliera University Describe Advances in Gastric Cancer (Third-Line Chemotherapy with irinotecan plus 5-Fluorouracil in Caucasian Metastatic Gastric Cancer Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Gastric Cancer are discussed in a new report. According to news reporting out of Pisa, Italy, by NewsRx editors, research stated, "The aim of this study was to evaluate the activity of the combination of 5-fluorouracil/folinic acid and irinotecan (FOLFIRI) as third-line chemotherapy (CT) in metastatic gastric cancer (mGC) patients pretreated with platinum derivatives, fluoropyrimidines, and taxanes. We prospectively collected data of mGC patients treated with third-line FOLFIRI at our institution from 2009 to 2014."
Our news journalists obtained a quote from the research from Azienda Ospedaliera University. "Eligible patients should be treated with a fluoropyrimidine-platinum first-line CT and a subsequent taxane-based second-line CT. FOLFIRI consisted of irinotecan 180 mg/m2 and leucovorin 200 mg/m2, followed by 5-fluorouracil 2,800 mg/m2 (administered as 48-hour i.v. continuous infusion from day 1 to 3), with cycles repeated every 2 weeks. Response rate (RR) was evaluated according to RECIST version 1.0, while progression-free (PFS) and overall survival (OS) were estimated using the Kaplan Meier method. A total of 33 patients were included. The majority (97%) had good performance status (0-1 according to ECOG), while median PFS after first-line and second-line CT was 5.2 and 4.4 months, respectively. Two patients experienced an objective response (RR: 6%), while 14 patients achieved disease stabilization (disease control rate: 42%). Median PFS and OS from the start of third-line CT were 3.3 and 7.5 months, respectively. Hematological and nonhematological grade 3-4 toxicities were uncommon and included neutropenia (6.1%), diarrhea (9.1%), vomiting (3%), and asthenia (3%). Febrile neutropenia was not reported. Third-line CT with FOLFIRI may be an option in heavily pretreated mGC patients with preserved performance status and organ function."

According to the news editors, the research concluded: "This regimen has a favorable safety profile, and signs of activity have been observed after standard first- and second-line CT."

For more information on this research see: Third-Line Chemotherapy with irinotecan plus 5-Fluorouracil in Caucasian Metastatic Gastric Cancer Patients. Oncology, 2016;91(6):311-316. Oncology can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com/; Oncology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=223857)

Our news journalists report that additional information may be obtained by contacting E. Vasile, Azienda Ospedaliera Universitaria Pisana, Polo Oncol, IT-56126 Pisa, Italy. Additional authors for this research include E. Vasile, C. Caparello, C. Vivaldi, G. Musettini, M. Lencioni, L. Petrini, L. Fornaro and A. Falcone.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443962. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pisa, Italy, Europe, Drugs and Therapies, Gastroenterology, Gastric Cancer, Chemotherapy, Oncology, Azienda Ospedaliera University.

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Oncology - Lung Cancer

New Findings Reported from B.J. Page and Co-Authors Describe Advances in Lung Cancer (A survey of lung cancer in rural and remote Aboriginal and Torres Strait Islander communities in Queensland: health views that impact on early diagnosis and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting out of Brisbane, Australia, by NewsRx editors, research stated, "Lung cancer incidence, mortality and hospitalisation rates are higher for Indigenous Australians compared with non-Indigenous Australians and increase again when living in more remote areas. If Indigenous Australians are made more aware of lung cancer through better access to
health services and programmes, lung cancer outcomes might improve."

Our news journalists obtained a quote from the research, "We aimed to survey the level of lung cancer awareness in rural and remote Aboriginal and Torres Strait Islander communities and discover perceived barriers to timely diagnosis and treatment of lung cancer. Interviews were conducted in three discrete outer regional and remote Aboriginal communities and one urban setting in Queensland. Participants included Aboriginal and Torres Strait Islander peoples from three target population groups: patients referred for medical treatment with symptoms suspicious of lung cancer or confirmed lung cancer; Indigenous health workers; community members aged 18 years and over. Participants gave written, informed consent. Of 51 community members and 14 Indigenous health workers, 32 reflected they knew very little about lung cancer, 60 cited smoking as the cause of lung cancer and 54 recognised warning symptoms as a prompt to seek healthcare. Indigenous health workers were not able to describe a healthcare pathway that would apply to a patient with suspected lung cancer. The two main barriers identified as impacting on quality healthcare were communication and follow-up processes."

According to the news editors, the research concluded: "These could be addressed by service improvement activities."


Our news journalists report that additional information may be obtained by contacting B.J. Page, Central Integrated Regional Cancer Service, Queensland Health, Brisbane, Queensland, Australia. Additional authors for this research include R.V. Bowman, I.A. Yang and K.M Fong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imj.12948. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brisbane, Oncology, Lung Cancer, Lung Neoplasms, Australia and New Zealand.

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**New Findings Reported from Beckman Research Institute Describe Advances in Diabetic Nephropathy (Inhibition of the processing of miR-25 by HIPK2-Phosphorylated-MeCP2 induces NOX4 in early diabetic nephropathy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Diabetic Nephropathy is now available. According to news reporting originating from Duarte, California, by NewsRx correspondents, research stated, "Phosphorylated methyl-CpG binding protein2 (p-MeCP2) suppresses the processing of several microRNAs (miRNAs). Homeodomain interacting protein kinase2 (HIPK2) phosphorylates MeCP2, a known transcriptional repressor."
Our news editors obtained a quote from the research from Beckman Research Institute, "However, it is not known if MeCP2 and HIPK2 are involved in processing of miRNAs implicated in diabetic nephropathy. p-MeCP2 and HIPK2 levels were significantly increased, but Seven in Absentia Homolog1 (SIAH1), which mediates proteasomal degradation of HIPK2, was decreased in the glomeruli of streptozotocin injected diabetic mice. Among several miRNAs, miR-25 and its precursor were significantly decreased in diabetic mice, whereas primary miR-25 levels were significantly increased. NADPH oxidase4 (NOX4), a target of miR-25, was significantly increased in diabetic mice. Protein levels of p-MeCP2, HIPK2, and NOX4 were increased in high glucose (HG)- or TGF-beta-treated mouse glomerular mesangial cells (MMCs). miR-25 (primary, precursor, and mature) and mRNA levels of genes indicated in the in vivo study showed similar trends of regulation in MMCs treated with HG or TGF-beta. The HG- or TGF-beta-induced upregulation of p-MeCP2, NOX4 and primary miR-25, but downregulation of precursor and mature miR-25, were attenuated by Hipk2 siRNA."

According to the news editors, the research concluded: "These results demonstrate a novel role for the SIAH1/HIPK2/MeCP2 axis in suppressing miR-25 processing and thereby upregulating NOX4 in early diabetic nephropathy."

For more information on this research see: Inhibition of the processing of miR-25 by HIPK2-Phosphorylated-MeCP2 induces NOX4 in early diabetic nephropathy. Scientific Reports, 2016;6():1-14. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting M. Kato, City Hope Natl Med Center, Beckman Res Inst, Dept. of Diabet Complicat & Metab, Duarte, CA 91010, United States. Additional authors for this research include M. Kato, S. Deshpande, E.L. Zhang, D. Sadhan, L. Lanting, M. Wang and R. Natarajan.

Keywords for this news article include: Duarte, California, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Diabetes Complications, Diabetic Nephropathy, Diabetes Mellitus, Endocrinology, Nephrology, Genetics, Beckman Research Institute.

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Liver Diseases and Conditions - Hepatitis E Virus

New Findings Reported from Blood Center Describe Advances in Hepatitis E Virus (Hepatitis E virus infection in the Irish blood donor population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Hepatitis E Virus. According to news originating from Dublin, Ireland, by NewsRx correspondents, research stated, "Hepatitis E virus (HEV) Genotype 3 (G3) infection is a zoonosis that may be transmitted during the acute phase by transfusion. The aim of this study was to determine the incidence of HEV and seroprevalence among Irish blood donors."

Our news journalists obtained a quote from the research from Blood Center, "Anonymized samples from 1076 donations collected in 2012 were tested for HEV immunoglobulin (Ig)G using the Wantai enzyme-linked immunosorbent assay. A total of 24,985"
anonymized donations collected between December 2013 and June 2014 were individually tested for HEV RNA using the Procleix HEV assay; reactive donations were confirmed by an in-house real-time polymerase chain reaction (PCR) test. Seroprevalence for anti-IgG was 5.3% (95% confidence interval [CI], 4.0%-6.8%), ranging from 1.1% in the 18- to 29-years age group to 33.3% in males over 60 years. HEV RNA screening of 24,985 samples yielded five PCR-confirmed donations (1: 4997, 0.02%; 95% CI, 0.0065%-0.0467%), only one of which was serologically reactive (HEV IgM reactive only). Viral loads ranged from 10 to 44,550 IU/mL. Genotype analysis on three samples identified HEV G3 virus. Four of the five viremic donations were from donors in the 18-to 29-years age group (p = 0.01). Seroprevalence for anti-HEV IgG was low compared to some European countries, but 1 in 5000 donations was viremic. Viremia was predominantly in younger Irish donors.

According to the news editors, the research concluded: "After Department of Health approval the Irish Blood Transfusion Service implemented individual blood donation HEV RNA screening initially for a 3-year period from January 2016."


The news correspondents report that additional information may be obtained from J. O'Riordan, Natl Blood Center, Irish Blood Transfus Serv, Dublin 8, Ireland. Additional authors for this research include F. Boland, P. Williams, J. Donnellan, B.M. Hogema, S. Ijaz and W.G. Murphy.

For more information on this news article include: Dublin, Ireland, Europe, Viral RNA, Diagnostics and Screening, Epidemiology, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Hepatitis E Virus, Hepatitis Viruses, Gastroenterology, RNA Viruses, Hepatology, Hepevirus, Genetics, Virology, HEV, Blood Center.

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**Oncology - Liver Cancer**

**New Findings Reported from Chinese Academy of Medical Sciences Describe Advances in Liver Cancer (A novel anti-cancer agent Icaritin suppresses hepatocellular carcinoma initiation and malignant growth through the IL-6/Jak2/Stat3 pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Tumor-initiating cell (TIC) is a subpopulation of cells in tumors that are responsible for tumor initiation and progression. Recent studies indicate that hepatocellular carcinoma-initiating cells (HCICs) confer the high malignancy, recurrence and multi-drug resistance in hepatocellular carcinoma (HCC)."

The news correspondents obtained a quote from the research from the Chinese Academy of Medical Sciences, "In this study, we found that Icaritin, a prenylflavonoid derivative from Epimedium Genus, inhibited malignant growth of HCICs. Icaritin decreased the
proportion of EpCAM-positive (a HCICs marker) cells, suppressed tumorsphere formation in vitro and tumor formation in vivo. We also found that Icaritin reduced expression of Interleukin-6 Receptors (IL-6Rs), attenuated both constitutive and IL-6-induced phosphorylation of Janus-activated kinases 2 (Jak2) and Signal transducer and activator of transcription 3 (Stat3), and inhibited Stat3 downstream genes, such as Bmi-1 and Oct4."

According to the news reporters, the research concluded: "The inhibitory activity of Icaritin in HCICs was augmented by siRNA-mediated silencing of Stat3 but attenuated by constitutive activation of Stat3. Taken together, our results indicate that Icaritin is able to inhibit malignant growth of HCICs and suggest that Icaritin may be developed into a novel therapeutic agent for effective treatment of HCC."

For more information on this research see: A novel anti-cancer agent Icaritin suppresses hepatocellular carcinoma initiation and malignant growth through the IL-6/Jak2/Stat3 pathway. Oncotarget, 2015;6(31):31927-43.

Our news journalists report that additional information may be obtained by contacting H. Zhao, Dept. of Abdominal Surgical Oncology, Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, People's Republic of China. Additional authors for this research include Y. Guo, S. Li, R. Han, J. Ying, H. Zhu, Y. Wang, L. Yin, Y. Han, L. Sun, Z. Wang, Q. Lin, X. Bi, Y. Jiao, H. Jia, J. Zhao, Z. Huang, Z. Li, J. Zhou, W. Song, K. Meng and J. Cai.

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Keywords for this news article include: Asia, Beijing, Genetics, Oncology, Carcinomas, Liver Cancer, People's Republic of China.

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Science

New Findings Reported from Chinese Academy of Sciences Describe Advances in Science (Antiproliferative activities of Amaryllidaceae alkaloids from Lycoris radiata targeting DNA topoisomerase I)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news reporting originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "Crude Amaryllidaceae alkaloids (AAs) extracted from Lycoris radiata are reported to exhibit significant anti-cancer activity. However, the specific alkaloids responsible for the pharmacodynamic activity and their targets still remain elusive."

Our news editors obtained a quote from the research from the Chinese Academy of Sciences, "In this context, we strived to combine affinity ultrafiltration with topoisomerase I (Top I) as a target enzyme aiming to fish out specific bioactive AAs from Lycoris radiata. 11 AAs from Lycoris radiata were thus screened out, among which hippeastrine (peak 5) with the highest Enrichment factor (EF) against Top I exhibited good dose-dependent inhibition with IC50 at 7.25 +/- 0.20 mu g/mL comparable to camptothecin (positive control) at 6.72 +/- 0.23 mu g/mL. The molecular docking simulation further indicated the inhibitory mechanism between Top I and hippeastrine. The in vitro antiproliferation assays finally revealed that
hippeastrine strongly inhibited the proliferation of HT-29 and Hep G2 cells in an intuitive dose-dependent manner with the IC50 values at 3.98 +/- 0.29 μg/mL and 11.85 +/- 0.20 μg/mL, respectively, and also induced significant cellular morphological changes, which further validated our screening method and the potent antineoplastic effects."

According to the news editors, the research concluded: "Collectively, these results suggested that hippeastrine could be a very promising anticancer candidate for the therapy of cancer in the near future."

For more information on this research see: Antiproliferative activities of Amaryllidaceae alkaloids from Lycoris radiata targeting DNA topoisomerase I. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting M.Q. Guo, Chinese Academy Sci, Sino Africa Joint Res Center, Wuhan 430074, People's Republic of China. Additional authors for this research include Y.Q. Tian, J.L. Wu, N. Li and M.Q. Guo.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Science, Enzymes and Coenzymes, Topoisomerase, Chinese Academy of Sciences.

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New Findings Reported from Chongqing Medical University Describe Advances in Liver Cancer (The prognostic value of a classification system for centrally located liver tumors in the setting of hepatocellular carcinoma after mesohepatectomy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Liver Cancer is the subject of a report. According to news reporting originating in Chongqing, People's Republic of China, by NewsRx journalists, research stated, "A classification system of centrally located liver tumors (CLLTs) was proposed by our group in 2013, which divided CLLTs into four subtypes by focusing on the involvement of resected segments and the anatomical location of lesions relative to the principal hepatic vascular structures. The current study aimed to analyze the clinical characteristics and compare the surgical outcomes of the different CLLTs classification system for patients with hepatocellular carcinoma (HCC) underwent mesohepatectomy (MH)."

The news reporters obtained a quote from the research from Chongqing Medical University, "Moreover, we sought to validate the prognostic value of the new classification system. Data from 353 consecutive patients with centrally located HCC who were treated with MH between 2005 and 2013 were prospectively collected and retrospectively reviewed. The 1-, 3-, and 5-y overall recurrence rates were 21.4%, 41.3%, and 55.6%, respectively. The 1-, 3-, and 5-y overall (OS) and corresponding recurrence-free survival rates (RFS) were 82.5%, 61.6%, 40.2%, and 68.8%, 42.5%, 30.7%, respectively. According the CLLTs classification system, 106 patients were classified as type I, 68 as type II, 94 as type III and 85 as type IV. There were no significant differences in RFS rate among the CLLTs groups, however, a significant decrease in OS rates was observed in the type IV classification, respectively. Multivariate analysis reveal
that patients with microvascular invasion, portal vein thrombosis, the largest tumor size $\geq 5$ cm, tumor number $\geq 3$, liver cirrhosis, hepatic inflow occlusion $\geq 60$ min, intraoperative blood loss $\geq 1500$ ml, pTNM staging and CLLTs classification of Type IV to be independent adverse factors for long-term survivals. The classification system of CLLTs is meant to help clinicians in defining the extent of resection, providing a risk assessment and predicting prognosis."

According to the news reporters, the research concluded: "However, it is need to be validated in more HCC patients and medical centers."


Our news correspondents report that additional information may be obtained by contacting J.G. Qiu, Chongqing Med Univ, Affiliated Hosp 1, Dept. of Hepatobiliary Surg, Chongqing 400016, People's Republic of China. Additional authors for this research include S.T. Chen, H. Wu and C.Y. Du.

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Keywords for this news article include: Chongqing, People's Republic of China, Asia, Oncology, Surgery, Liver Cancer, Carcinomas, Chongqing Medical University.

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**Oncology - Colon Cancer**

**New Findings Reported from Christchurch Hospital Describe Advances in Colon Cancer (Follow-up strategies for patients treated for non-metastatic colorectal cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news originating from Christchurch, New Zealand, by NewsRx correspondents, research stated, "It is common clinical practice to follow patients with colorectal cancer (CRC) for several years following their curative surgery or adjuvant therapy, or both. Despite this widespread practice, there is considerable controversy about how often patients should be seen, what tests should be performed, and whether these varying strategies have any significant impact on patient outcomes."

Our news journalists obtained a quote from the research from Christchurch Hospital, "This is the second update of a Cochrane Review first published in 2002 and first updated in 2007. To assess the effects of intensive follow-up for patients with non-metastatic colorectal cancer treated with curative intent. Search methods For this update, we searched CENTRAL (2016, Issue 3), MEDLINE (1950 to May 20th, 2016), Embase (1974 to May 20th, 2016), CINAHL (1981 to May 20th, 2016), and Science Citation Index (1900 to May 20th, 2016). We also searched reference lists of articles, and handsearched the Proceedings of the American Society for Radiation Oncology (2011 to 2014). In addition, we searched the following trials
registries (May 20th, 2016): ClinicalTrials.gov and the World Health Organization International Clinical Trials Registry Platform. We further contacted study authors. No language or publication restrictions were applied to the search strategies. Selection criteria We included only randomised controlled trials comparing different follow-up strategies for participants with non-metastatic CRC treated with curative intent. Data collection and analysis Two authors independently determined trial eligibility, performed data extraction, and assessed methodological quality. We studied 5403 participants enrolled in 15 studies. (We included two new studies in this second update.) Although the studies varied in setting (general practitioner (GP)-led, nurse-led, or surgeon-led) and 'intensity' of follow-up, there was very little inconsistency in the results. Overall survival: we found no evidence of a statistical effect with intensive follow-up (hazard ratio (HR) 0.90, 95% confidence interval (CI) 0.78 to 1.02; I-2 = 4%; P = 0.41; high-quality evidence). There were 1098 deaths among 4786 participants enrolled in 12 studies. Colorectal cancer-specific survival: this did not differ with intensive follow-up (HR 0.93, 95% CI 0.78 to 1.12; I-2 = 0%; P = 0.45; moderate-quality evidence). There were 432 colorectal cancer deaths among 3769 participants enrolled in seven studies. Relapse-free survival: we found no statistical evidence of effect with intensive follow-up (HR 1.03, 95% CI 0.90 to 1.18; I-2 = 5%; P = 0.39; moderate-quality evidence). There were 1416 relapses among 5253 participants enrolled in 14 studies. Salvage surgery with curative intent: this was more frequent with intensive follow-up (risk ratio (RR) 1.98, 95% CI 1.53 to 2.56; I-2 = 31%; P = 0.14; high-quality evidence). There were 457 episodes of salvage surgery in 5157 participants enrolled in 13 studies. Interval (symptomatic) recurrences: these were less frequent with intensive follow-up (RR 0.59, 95% CI 0.41 to 0.86; I-2 = 66%; P = 0.007; moderate-quality evidence). Three hundred and seventy-six interval recurrences were reported in 3933 participants enrolled in seven studies. Intensive follow-up did not appear to affect quality of life, anxiety, nor depression (reported in three studies). Harms from colonoscopies did not differ with intensive follow-up (RR 2.08, 95% CI 0.11 to 40.17; moderate-quality evidence). In two studies, there were seven colonoscopic complications in 2112 colonoscopies. Authors' conclusions The results of our review suggest that there is no overall survival benefit for intensifying the follow-up of patients after curative surgery for colorectal cancer. Although more participants were treated with salvage surgery with curative intent in the intensive follow-up group, this was not associated with improved survival.

According to the news editors, the research concluded: "Harms related to intensive follow-up and salvage therapy were not well reported."

For more information on this research see: Follow-up strategies for patients treated for non-metastatic colorectal cancer. Cochrane Database of Systematic Reviews, 2016; (11):384-480. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from M. Jeffery, Christchurch Hospital, Canterbury Reg Canc & Haematol Serv, Christchurch 8140, New Zealand. Additional authors for this research include B.E. Hickey, P.N. Hider and A.M. See.

Keywords for this news article include: Christchurch, New Zealand, Australia and New Zealand, Surgery, Article Review, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Christchurch Hospital.

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Heart Disorders and Diseases - Heart Attack

New Findings Reported from Cleveland Clinic Describe Advances in Heart Attack (Therapeutic hypothermia after cardiac arrest: A systematic review/meta-analysis exploring the impact of expanded criteria and targeted temperature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Attack are presented in a new report. According to news reporting originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Aims of the study: We aimed to determine the benefit of an expanded use of TH. We also described the impact of a targeted temperature management on outcomes at discharge."

Our news editors obtained a quote from the research from Cleveland Clinic, "We identified studies by searching MEDLINE, EMBASE and Cochrane Library databases. We included RCTs and observational studies restricted to those reporting achieved temperature during TH after OHCA. No other patient, cardiac arrest or hypothermia protocol restrictions were applied. Outcomes of interest were hospital mortality and neurological outcome at discharge. Appropriate risk of bias assessment for meta-analyzed studies was conducted. Studies contrasting hypothermia and normothermia outcomes were meta-analyzed using a random-effect model. Outcomes of cooling arms, obtained from enrolled studies, were pooled and compared across achieved temperatures. Search strategy yielded 32,275 citations of which 24 articles met inclusion criteria. Eleven studies were meta-analyzed. The use of TH after OHCA, even within an expanded use, decreased the mortality (OR 0.51, 95% CI [0.41-0.64]) and improved the odds of good neurological outcome (OR 2.48, 95% CI [1.91-3.22]). No statistical heterogeneity was found for either mortality (I-2 = 4.0%) or neurological outcome (I-2 = 0.0%). No differences in hospital mortality (p = 0.86) or neurological outcomes at discharge (p = 0.32) were found when pooled outcomes of 34 hypothermia arms grouped by cooling temperature were compared. The use of TH after OHCA is associated with a survival and neuroprotective benefit, even when including patients with non-shockable rhythms, more lenient downtimes, unwitnessed arrest and/or persistent shock."

According to the news editors, the research concluded: "We found no evidence to support one specific temperature over another during hypothermia."

For more information on this research see: Therapeutic hypothermia after cardiac arrest: A systematic review/meta-analysis exploring the impact of expanded criteria and targeted temperature. Resuscitation, 2016;108():102-110. Resuscitation can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Resuscitation - www.journals.elsevier.com/resuscitation/)

The news editors report that additional information may be obtained by contacting A.L. Schenone, Cleveland Clinic, Internal Med, Cleveland, OH 44106, United States. Additional authors for this research include A. Cohen, G. Patarroyo, L. Harper, X.F. Wang, M.H. Shishehbor, V. Menon and A. Duggal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.07.238. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Heart Disorders and Diseases, Hypothermia, Article Review, Cardiac Arrest,
Heart Disorders and Diseases - Heart Disease

New Findings Reported from Copenhagen University Hospital Describe Advances in Heart Disease (Short Telomere Length and Ischemic Heart Disease: Observational and Genetic Studies in 290 022 Individuals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Disease. According to news reporting out of Copenhagen, Denmark, by NewsRx editors, research stated, "Short telomeres are associated with aging and have been associated with a high risk of ischemic heart disease in observational studies; however, the latter association could be due to residual confounding and/or reverse causation. We wanted to test the hypothesis that short telomeres are associated with high risk of ischemic heart disease using a Mendelian randomization approach free of reverse causation and of most confounding."

Our news journalists obtained a quote from the research from Copenhagen University Hospital, "We genotyped 3 genetic variants in OBFC1 (oligonucleotide/oligosaccharide binding fold containing 1), TERT (telomerase reverse transcriptase), and TERC (telomerase RNA component), which code for proteins and RNA involved in telomere maintenance. We studied 105 055 individuals from Copenhagen; 17 235 of these individuals were diagnosed with ischemic heart disease between 1977 and 2013, and 66 618 had telomere length measured. For genetic studies, we further included the Coronary Artery Disease Genome wide Replication and Meta-analysis (CARDIoGRAM) consortium dataset, which included up to 184 967 participants and 60 837 cases of ischemic heart disease. We conducted multivariable adjusted Cox proportional hazard models for observational estimates, using logistic and instrumental variable analysis for genetic estimates. Observationally, a 200-bp-shorter telomere length was associated with a multivariable adjusted hazard ratio for ischemic heart disease of 1.02 (95% CI, 1.01-1.03). Per allele, telomeres were shorter by 67 bp (73-60). In meta-analyses of all 4 studies combined, odds ratios for ischemic heart disease were 1.05 (1.03-1.08) for OBFC1, 1.04 (1.02-1.06) for TERT, and 1.01 (0.99 - 1.03) for TERC. A genetically determined 200-bp-shorter telomere length was associated with an odds ratio for ischemic heart disease of 1.10 (1.06 -1.14)."

According to the news editors, the research concluded: "Shorter telomeres were associated with a higher risk of ischemic heart disease, both observationally and genetically."

For more information on this research see: Short Telomere Length and Ischemic Heart Disease: Observational and Genetic Studies in 290 022 Individuals. Clinical Chemistry, 2016;62(8):1140-1149. Clinical Chemistry can be contacted at: Amer Assoc Clinical Chemistry, 2101 L Street NW, Suite 202, Washington, DC 20037-1526, USA.

Our news journalists report that additional information may be obtained by contacting S.E. Bojesen, Copenhagen Univ Hosp, Copenhagen City Heart Study, Frederiksberg Hosp, Copenhagen, Denmark. Additional authors for this research include L. Rode, B.G. Nordestgaard and S.E. Bojesen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1373/clinchem.2016.258566. This DOI is a link to an online electronic
New Findings Reported from Department of Neurochemistry Describe Advances in Alzheimer Disease (Tau and neurodegenerative disease: the story so far)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been published. According to news originating from Staten Island, New York, by NewsRx correspondents, research stated, "In 1975, tau protein was isolated as a microtubule-associated factor from the porcine brain. In the previous year, a paired helical filament (PHF) protein had been identified in neurofibrillary tangles in the brains of individuals with Alzheimer disease (AD), but it was not until 1986 that the PHF protein and tau were discovered to be one and the same."

Our news journalists obtained a quote from the research from the Department of Neurochemistry, "In the AD brain, tau was found to be abnormally hyperphosphorylated, and it inhibited rather than promoted in vitro microtubule assembly. Almost 80 disease-causing exonic missense and intronic silent mutations in the tau gene have been found in familial cases of frontotemporal dementia but, to date, no such mutation has been found in AD. The first phase I clinical trial of an active tau immunization vaccine in patients with AD was recently completed. Assays for tau levels in cerebrospinal fluid and plasma are now available, and tau radiotracers for PET are under development. In this article, we provide an overview of the pivotal discoveries in the tau research field over the past 40 years."

According to the news editors, the research concluded: "We also review the current status of the field, including disease mechanisms and therapeutic approaches."


The news correspondents report that additional information may be obtained from K. Iqbal, Dept. of Neurochemistry, New York State Institute for Basic Research in Developmental Disabilities, Inge Grundke-Iqbal Research Floor, 1050 Forest Hill Road, Staten Island, New York 10314, United States. Additional authors for this research include F. Liu and C.X Gong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrneurol.2015.225. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York, Genetics, Staten Island, United States, Article Review, Alzheimer Disease, North and Central America, Neurodegenerative Diseases and Conditions.

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Oncology - Ovarian Cancer

New Findings Reported from Department of Obstetrics & Gynecology Describe Advances in Ovarian Cancer (Synergistic effect of piperine and paclitaxel on cell fate via cyt-c, Bax/Bcl-2-caspase-3 pathway in ovarian adenocarcinomas SKOV-3 cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Ovarian Cancer. According to news reporting out of Uttar Pradesh, India, by NewsRx editors, research stated, "Ovarian cancer is fourth most common and lethal among all gynecologic malignancies. The chemotherapy usually requires in all stages of ovarian cancer but drugs have several side effects."

Financial support for this research came from Council of Scientific & Industrial Research and ICMR.

Our news journalists obtained a quote from the research from the Department of Obstetrics & Gynecology, "We hypothesized that use of combination therapy of paclitaxel (PTX) and phytochemical piperine (PIP) may reduce the PTX dose as well as toxicity. The human ovarian adenocarcinomas SKOV3 cell treated with PTX-5 nM and PIP-10 mu m after determination of IC50 by MTT assay. Reactive oxygen species generation, mitochondrial membrane potential (MMP), DNA damage, cell death pathway markers as release of cyt-c, Bax/Bcl2-caspase-3 and cell cycle arrest were analyzed. The dose dependent treatment of SKOV-3 cells showed IC50 and synergism at combination of 5 nM-PTX and 10 mu m-PIP in cell viability assay. PTX and PIP increases the accumulation of reactive oxygen species which subsequently leading to increase in JC-1 and fragmented nuclei in mitotracker/DAPI staining. Comet assay showed 4.4-fold increase of tail formation in combined treated cells as compared to control. PTX-PIP arrests the cell cycle in sub-G1 phase. Immunocytochemistry of Bax showed increase in red fluorescence intensity whereas decrease in green fluorescence i.e Bax/Bcl-2 ratio increased. Moreover morphological EB/AO and Hoechst staining confirmed the enhanced apoptosis in combined treatment. Significant upregulation of apoptotic genes, cyt-c (3.4 fold) Bax (2.8 fold), caspase-3 (3.6 fold) whereas no change occurred in Bcl2 mRNA expression and protein expressions."

According to the news editors, the research concluded: "The combination of PTX with PIP produces synergistic effects in SKOV-3 cells via the modulation of pro and anti-apoptotic gene and may compensate the toxicity and side effects of PTX."

For more information on this research see: Synergistic effect of piperine and paclitaxel on cell fate via cyt-c, Bax/Bcl-2-caspase-3 pathway in ovarian adenocarcinomas SKOV-3 cells. *European Journal of Pharmacology, 2016;791():751-762. European Journal of Pharmacology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.10.019. This DOI is a link to an online electronic
New Findings Reported from Federal University Describe Advances in Thyroid Cancer (M918V RET mutation causes familial medullary thyroid carcinoma: study of 8 affected kindreds)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Thyroid Cancer have been published. According to news reporting originating in Sao Paulo, Brazil, by NewsRx journalists, research stated, "Germline mutations in codon 918 of exon 16 of the RET gene (M918T) are classically associated with multiple endocrine neoplasia type 2B (MEN 2B) with highly aggressive medullary thyroid cancer (MTC), pheochromocytoma and a unique phenotype. The objectives of this study are to describe the rare M918V RET mutation discovered in 8 MTC kindreds from Brazil lacking the MEN 2B phenotype classically observed in M918T patients and to investigate the presence of a founder effect for this germline mutation."

The news reporters obtained a quote from the research from Federal University, "Eight apparently sporadic MTC cases were diagnosed with the germline M918V RET mutation. Subsequently, their relatives underwent clinical and genetic assessment (n = 113), and M918V was found in 42 of them. Until today, 20/50 M918V carriers underwent thyroidectomy and all presented MTC/C-cell hyperplasia; the remainder carriers are on clinical follow-up. None of the M918V carriers presented clinical features of MEN 2B. Their clinical presentation was heterogeneous, and the age at tumor diagnosis ranged from 24 to 59 years. Lymph node metastases were present in 12/20 patients, and presumable distant metastases in 2/20; in contrast, we observed a carrier of up to 87 years of age without evidence of MTC. Ethnographic fieldwork and haplotype analyses suggested that the founder mutation first settled in that area fifteen generations ago and originated from Portugal. Our study is the first to demonstrate the RET M918V mutation co-segregating in 8 familial MTC kindreds with validated evidence of a founder effect."

According to the news reporters, the research concluded: "We suggest that M918V MTC should be clinically considered an American Thyroid Association (ATA) moderate-risk category."

For more information on this research see: M918V RET mutation causes familial medullary thyroid carcinoma: study of 8 affected kindreds. Endocrine-Related Cancer, 2016;23 (12):909-920. Endocrine-Related Cancer can be contacted at: Bioscientifica Ltd, Euro House, 22 Apex Court Woodlands, Bradley Stoke, Bristol BS32 4JT, England.

Our news correspondents report that additional information may be obtained by contacting M.R. Dias-Da-Silva, Federal University of Sao Paulo, Escola Paulista Med, Div

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1530/ERC-16-0141. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, Medullary Thyroid Cancer, Endocrinology, Carcinomas, Oncology, Genetics, Federal University.

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DNA Research

New Findings Reported from First Affiliated Hospital Describe Advances in DNA Research (Direct ultrasensitive electrochemical biosensing of pathogenic DNA using homogeneous target-initiated transcription amplification)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in DNA Research. According to news reporting originating in Chongqing, People's Republic of China, by NewsRx journalists, research stated, "Sensitive and specific methodologies for detection of pathogenic gene at the point-of-care are still urgent demands in rapid diagnosis of infectious diseases. This work develops a simple and pragmatic electrochemical biosensing strategy for ultrasensitive and specific detection of pathogenic nucleic acids directly by integrating homogeneous target-initiated transcription amplification (HTITA) with interfacial sensing process in single analysis system."

The news reporters obtained a quote from the research from First Affiliated Hospital, "The homogeneous recognition and specific binding of target DNA with the designed hairpin probe triggered circular primer extension reaction to form DNA double-strands which contained T7 RNA polymerase promoter and served as templates for in vitro transcription amplification. The HTITA protocol resulted in numerous single-stranded RNA products which could synchronously hybridized with the detection probes and immobilized capture probes for enzyme-amplified electrochemical detection on the biosensor surface. The proposed electrochemical biosensing strategy showed very high sensitivity and selectivity for target DNA with a dynamic response range from 1 fM to 100 pM. Using salmonella as a model, the established strategy was successfully applied to directly detect invA gene from genomic DNA extract."

According to the news reporters, the research concluded: "This proposed strategy presented a simple, pragmatic platform toward ultrasensitive nucleic acids detection and would become a versatile and powerful tool for point-of-care pathogen identification."

For more information on this research see: Direct ultrasensitive electrochemical biosensing of pathogenic DNA using homogeneous target-initiated transcription amplification. Scientific Reports, 2016;6():18810. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)
Our news correspondents report that additional information may be obtained by contacting Y. Yan, The center for Clinical Molecular Medical detection, The First Affiliated Hospital of Chongqing Medical University, Chongqing 400016, People's Republic of China. Additional authors for this research include S. Ding, D. Zhao, R. Yuan, Y. Zhang and W. Cheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18810. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Genetics, Chongqing, DNA Research, Electrochemicals, People's Republic of China.

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Heart Disorders and Diseases - Atrial Fibrillation

New Findings Reported from Gangnam Severance Hospital Describe Advances in Atrial Fibrillation (The safety and efficacy of vitamin K antagonist in atrial fibrillation patients with previous ulcer bleeding Long-term results from a multicenter ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Atrial Fibrillation have been presented. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "This study aimed to evaluate the safety and efficacy of vitamin K antagonist (VKA) in atrial fibrillation (AF) patients with previous ulcer bleeding. In this multicenter, retrospective analysis, clinical outcomes of 754 AF patients with a history of ulcer bleeding were evaluated."

Our news journalists obtained a quote from the research from Gangnam Severance Hospital, "After ulcer treatment, 458 patients (61%) were treated with VKA, and the outcomes were compared to 296 patients (39%) without VKA. VKA treatment significantly increased major bleeding (7.3%/year vs 3.2%/year, P<0.001), and reduced major adverse cardiac events (MACE) (5.4%/year vs 10.0%/year, P<0.001). Specifically, risk of gastrointestinal bleeding was significantly higher in the VKA group than no-VKA group (5.7%/year vs 2.6%/year, P<0.001). Consequently, there was no difference in the incidence of composite of a MACE and major bleeding, between the 2 groups. In patients with time in the therapeutic range (TTR) >= 65%, VKA significantly decreased MACE (2.8%/year vs 10.0%/year, P<0.001) without increasing major bleeding. Net clinical benefit model showed beneficial effects of VKA in patients with TTR >= 65%, and harmful effects in those with TTR <55%.

According to the news editors, the research concluded: "In AF patients with previous ulcer bleeding, VKA treatment did not improve clinical outcomes unless the international normalized ratio level was constantly maintained (TTR >= 65%), as the gastrointestinal bleeding (GIB) risk significantly increased."

For more information on this research see: The safety and efficacy of vitamin K antagonist in atrial fibrillation patients with previous ulcer bleeding Long-term results from a multicenter study. Medicine, 2016;95(47):255-261. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Keywords for this news article include: Seoul, South Korea, Asia, Digestive System Diseases and Conditions, Heart Disorders and Diseases, Gastrointestinal Bleeding, Atrial Fibrillation, Risk and Prevention, Cardiac Arrhythmias, Gastroenterology, Heart Disease, Ulcers, Gangnam Severance Hospital.

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Cardiology

New Findings Reported from Hiroshima University Describe Advances in Cardiology (Coronary CT angiography in patients with implanted cardiac devices: initial experience with the metal artefact reduction technique)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting originating from Hiroshima, Japan, by NewsRx correspondents, research stated, "Single-energy metal artefact reduction (SEMAR), a new technique that can now be used in routine CT examinations, has recently become applicable to volume data acquired with electrocardiography gating. We evaluated the effect of this technique on the visualization of the coronary arteries in patients harboring cardiac devices."

Our news editors obtained a quote from the research from Hiroshima University, "We subjected 8 patients (7 males, 1 female; mean age 65.5 +/- 11.3 years) with implanted cardiac devices to coronary CT angiography on a 320-slice CT scanner (Aquilion ONE Vision™; Toshiba Medical Systems Corp., Tokyo, Japan). Image data sets were reconstructed with and without SEMAR. Two radiologists visually evaluated the image quality based on metal artefacts from the electronic device leads using a four-point scale (1=vessel not visible to 4 =minimal or no metal artefacts). Images with a score of 3 or 4 were considered diagnostic. In both SEMAR and non-SEMAR data sets, 94 coronary artery segments were available for evaluation. Without SEMAR, 11 segments (11.7%) were rated as non-diagnostic; SEMAR improved the image quality of 9 of the 11 segments (81.8%), and the images became diagnostic. SEMAR reduced metal artefacts from the electronic device leads and improved the image quality of the coronary arteries in patients with cardiac devices. Advances in knowledge: SEMAR has recently become applicable to volume data acquired with electrocardiography gating."

According to the news editors, the research concluded: "SEMAR reduces metal artefacts elicited by electronic device leads and improves the image quality of the coronary arteries in patients with cardiac devices."


The news editors report that additional information may be obtained by contacting F.
New Findings Reported from Indian Institute of Technology Describe Advances in Salicylic Acid (Carbon Bead-Supported Ethylene Diamine-Functionalized Carbon Nanofibers: An Efficient Adsorbent for Salicylic Acid)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Salicylic Acid are discussed in a new report. According to news reporting out of Uttar Pradesh, India, by NewsRx editors, research stated, "The present study describes the removal of salicylic acid (SA) from water by adsorption using ethylene diamine (EDA)-functionalized carbon nanofibers (CNFs)-containing porous carbon beads (similar to 0.5 mm). Briefly, the phenolic beads, separately synthesized using suspension polymerization, were carbonized and activated."

Our news journalists obtained a quote from the research from the Indian Institute of Technology, "The CNFs were grown on the carbon beads, using chemical vapor deposition, and the prepared fibrous beads functionalized with EDA were used as an adsorbent for SA. The prepared materials were characterized by their physico-chemical properties, including specific surface area, surface morphology, and surface functional groups. The adsorption tests performed over the initial SA concentration range of 100-1500 mg/L revealed the adsorption capacity of the materials to be similar to 682 mg/g, which was considerably larger than that of the adsorbents discussed in the literature for SA. The zeta-potential analysis attributed enhanced adsorption to the electrostatic interaction and hydrogen bonding between the solute molecules and the EDA-functionalized surface of the CNFs."

According to the news editors, the research concluded: "The material and method developed in this study for the remediation of the SA-laden wastewater may be extended to other acidic pollutants present in pharmaceutical effluents."

For more information on this research see: Carbon Bead-Supported Ethylene Diamine-Functionalized Carbon Nanofibers: An Efficient Adsorbent for Salicylic Acid. Clean-Soil Air Water, 2016;44(11):37-46. Clean-Soil Air Water can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting N. Verma, Indian Inst Technol Kanpur, Dept. of Chem Engn, Kanpur, Uttar Pradesh, India. Additional authors for this research include N. Verma and D. Kumar.

Keywords for this news article include: Uttar Pradesh, India, Asia, Dermatological Agents, Emerging Technologies, Hydroxybenzoic Acids, Drugs and Therapies, Topical Acne Agents, Organic Chemicals, Carboxylic Acids, Salicylic Acids, Topical Agents, Nanotechnology, Benzoic Acids, Hydroxy Acids, Ethylenes, Nanofiber, Alkenes, Indian Institute of Technology.
Musculoskeletal Diseases and Conditions - …

New Findings Reported from Indiana University School of Medicine Describe Advances in Osteopetrosis [Phenotypic severity of autosomal dominant osteopetrosis type II (ADO2) mice on different genetic backgrounds recapitulates the features of human ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Musculoskeletal Diseases and Conditions - Osteopetrosis have been presented. According to news originating from Indianapolis, Indiana, by NewsRx correspondents, research stated, "Autosomal dominant osteopetrosis type II (ADO2) is a heritable osteosclerotic bone disorder due to dysfunctional osteoclast activity. ADO2 is caused by missense mutations in the chloride channel 7 (CLCN7) gene characterized by osteosclerosis with multiple fractures."

Financial support for this research came from Valley of Indianapolis foundation.

Our news journalists obtained a quote from the research from the Indiana University School of Medicine, "ADO2 can result in osteomyelitis, visual loss and bone marrow failure. Currently, there is no cure for ADO2, and until recently no appropriate animal model of ADO2 existed to understand better the pathogenesis of this disease and to test new therapies. Therefore, we created ADO2 knock-in mouse model with a G213R (human homolog of G215R) missense mutation in the Clcn7 gene on 129S1 background, and demonstrated that this mouse model phenocopies human ADO2. As ADO2 gives rise to incomplete penetrance (66%) in human and marked phenotypic variability is observed among patients with the same mutation, we hypothesized that the severity and penetrance of ADO2 will also vary in mouse models on different genetic backgrounds. To test this, we created ADO2 mouse models in DBA/D2, C57BL/6J/B6 and Balb/c strains, and compared bone phenotypes and performed serum biochemical analysis between strain- and age-matched wild type (WT) and ADO2 mice. At 3 months of age, whole body aBMD was higher (4-7% in male; 1-5% in female) in the ADO2 mice compared to their wild-type littermates. In addition, ADO2 male mice on 129 background displayed highest percent increase of BV/TV (106%), followed by D2 (92%), B6 (46%), and Balb/c (33%) compared to strain-matched wild-type mice. We observed similar differences for BV/TV between ADO2 and wild-type mice on different genetic backgrounds in female: 129 (96%) > D2 (73%) > Balb/c (39%) and B6 (36%). Serum calcium, phosphorus, alkaline phosphatase and P1NP levels were similar in the WT and ADO2 mice on all genetic backgrounds but TRAP was higher (76% to 220% in male; 33-95% in female) and CTX/TRAP ratio was lower (39-65% in male and 3-41% in female) in the ADO2 mice compared to their strain-matched wild-type littermates. We also found that young (3 months) ADO2 mice on 129S1 background exhibited 200% higher trabecular BV/TV whereas old (18 months) ADO2 mice displayed 400-700% higher BV/TV compared to their age-matched wild-type controls. In summary, phenotypic severity in ADO2 mice varied markedly on different genetic backgrounds (129 > D2 > Balb/c > B6) and became more pronounced with age, which resembles the wide variations in phenotype observed in ADO2 patients."

According to the news editors, the research concluded: "These mouse models will help us to identify genes/factors that influence severity and penetrance of ADO2, and test
innovative therapies to treat this disease."

For more information on this research see: Phenotypic severity of autosomal dominant osteopetrosis type II (ADO2) mice on different genetic backgrounds recapitulates the features of human disease. Bone, 2017;94():34-41. Bone can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Bone - www.journals.elsevier.com/bone/)

The news correspondents report that additional information may be obtained from I. Alam, Indiana Univ Sch Med, Med, Indianapolis, IN 46202, United States. Additional authors for this research include A.K. McQueen, D. Acton, A.M. Reilly, R.L. Gerard-O'Riley, D.K. Oakes, C. Kasipathi, A. Huffer, W.B. Wright and M.J. Econs.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bone.2016.10.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Musculoskeletal Diseases and Conditions, Bone Diseases and Conditions, Osteochondrodysplasias, Osteosclerosis, Bone Research, Osteopetrosis, Genetics, Indiana University School of Medicine.

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Oncology - Colon Cancer

New Findings Reported from Institute of General Surgery Describe Advances in Colon Cancer (Arsenic trioxide inhibits lung metastasis of mouse colon cancer via reducing the infiltration of regulatory T cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "The purpose of this study was to investigate the effects of arsenic trioxide (As2O3) on the infiltration of regulatory T cells (Tregs) in the local lung metastasis of mouse colon cancer in vivo and the regulation of Tregs in cytokine-induced killer cells (CIKs) in vitro. A high Tregs infiltration mouse colon cancer lung metastasis model was established by intravenous injection of CT26 murine colon carcinoma cells."

Financial supporters for this research include Dalian Municipal Science and Technology project, Liaoning Provincial Department of Education Science Research general project, Natural Science Fund Project of the Department of Science and Technology of Liaoning Province.

The news correspondents obtained a quote from the research from the Institute of General Surgery, "Tumor-bearing mice were randomly divided into three groups: control group, low-dose As2O3 group, and high-dose As2O3 group. For in vitro studies, CIKs were treated with vehicle control or 0.1, 1, or 5 µM As2O3. The level of Tregs was detected via flow cytometry, Foxp3 expression was assessed by immunohistochemistry and reverse transcription-polymerase chain reaction (RT-PCR), the level of interferon gamma (IFN-gamma) was evaluated by enzyme-linked immunoassay (ELISA), and the cytotoxic activity of As2O3 treated CIKs was assessed through a lactate dehydrogenase (LDH) release assay. Obvious lung metastasis was observed 3 days after CT26 murine colon carcinoma cell injection. The numbers
of Tregs in the lungs and spleens of tumor-bearing mice were significantly higher than those of the normal group (p < 0.01). As2O3 treatment increased the mouse weight as well as reduced the number of metastatic lung nodules and the lung/body weight ratio (p < 0.01). Moreover, As2O3 treatment significantly reduced the Tregs proportion and the Foxp3 messenger RNA (mRNA) levels in metastatic lung tissues (p < 0.01). In vitro, As2O3 significantly reduced the Tregs proportion and the Foxp3 mRNA levels (p < 0.01) and significantly increased the cytotoxic activity of CIKs and the IFN-gamma levels in the supernatant of cultured CIKs (p < 0.01).

According to the news reporters, the research concluded: "As2O3 might inhibit lung metastasis of colon cancer by reducing the local infiltration of Tregs and increase the cytotoxic activity of CIKs by suppressing Tregs."


Our news journalists report that additional information may be obtained by contacting Y.X. Xu, Chinese Peoples Liberat Army Gen Hosp, Inst Gen Surg, Beijing 100853, People's Republic of China. Additional authors for this research include X. Hu, Y.X. Xu and Z. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5377-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Arsenic Trioxide, Colon Cancer, Chemicals, Oncology, Genetics, Institute of General Surgery.

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**Central Nervous System Diseases and Conditions** -

**New Findings Reported from Institute of Oncology Describe Advances in Meningeal Neoplasms (Aberrant DNA methylation of alternative promoter of DLC1 isoform 1 in meningiomas)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System Diseases and Conditions - Meningeal Neoplasms are presented in a new report. According to news reporting originating from Warsaw, Poland, by NewsRx correspondents, research stated, "DLC1 encodes GTPase-activating protein with a well-documented tumor suppressor activity. This gene is downregulated in various tumors through aberrant promoter hypermethylation."

Financial support for this research came from Narodowe Centrum Nauki.

Our news editors obtained a quote from the research from the Institute of Oncology, "Five different DLC1 isoforms can be transcribed from alternative promoters. Tumor-related DNA methylation of the DLC1 isoform 1 alternative promoter was identified as being hypermethylated in meningiomas in genome-wide DNA methylation profiling. We determined the methylation pattern of this region in 50 meningioma FFPE samples and sections of 6 normal
meninges, with targeted bisulfite sequencing. All histopathological subtypes of meningiomas showed similar and significant increase of DNA methylation levels. High DNA methylation was associated with lack of DLC1 protein expression in meningiomas as determined by immunohistochemistry. mRNA expression levels of 5 isoforms of DLC1 transcript were measured in an additional series of meningiomas and normal meninges. The DLC1 isoform 1 was found as the most expressed in normal control tissue and was significantly downregulated in meningiomas. Transfection of KT21 meningioma cell line with shRNA targeting DLC1 isoform 1 resulted in increased activation of RHO-GTPases assessed with pull-down assay, enhanced cell migration observed in scratch assay as well as slight increase of cell metabolism determined by MTT test. Results indicate that isoform 1 represents the main pool of DLC1 protein in meninges and its downregulation in meningiomas is associated with hypermethylation of CpG dinucleotides within the corresponding promoter region."

According to the news editors, the research concluded: "This isoform is functional GAP protein and tumor suppressor and targeting of its expression results in the increase of DLC1 related cell processes: RHO activation and cell migration."

For more information on this research see: Aberrant DNA methylation of alternative promoter of DLC1 isoform 1 in meningiomas. *Journal of Neuro-Oncology*, 2016;130(3):473-484. *Journal of Neuro-Oncology* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of Neuro-Oncology - www.springerlink.com/content/0167-594x/)

The news editors report that additional information may be obtained by contacting M. Bujko, Maria Sklodowska Curie Mem Canc Ctr & Inst Oncol, Dept. of Mol & Translat Oncol, PL-02781 Warsaw, Poland. Additional authors for this research include P. Kober, N. Rusetska, M. Wakua, K. Goryca, E. Grecka, E. Matyja, J. Neska, T. Mandat, W. Bonicki and J.A. Siedlecki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11060-016-2261-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Warsaw, Poland, Europe, Central Nervous System Diseases and Conditions, Central Nervous System Neoplasms, Meningeal Neoplasms, Tumor Suppression, DNA Research, Meningioma, Oncology, Genetics, Institute of Oncology.

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made to improve coverage in the last decade.

Our news editors obtained a quote from the research from International Agency for Research on Cancer, "The aim of this study is to describe geographical patterns and trends in cancer incidence and mortality in Central and South America in the 21st century. The primary objective was to obtain the best quality cancer data available from each country within the region. Cancer incidence data were obtained from population-based cancer registries within the region and, in countries where these did not exist, from hospital-based registries; national mortality data were obtained from the World Health Organization mortality database. Given the variability in data quality - mainly due to the age and development in maturity of the registries, an exhaustive review of the data was necessary in order to appropriately analyze, describe and interpret patterns of cancer incidence and mortality between countries and within cancer-specific sites."

According to the news editors, the research concluded: "This paper presents the methods employed in the collection, quality control and analysis of the datasets received for the project."

For more information on this research see: Cancer in Central and South America: Methodology. Cancer Epidemiology, 2016;44():S11-S22. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news editors report that additional information may be obtained by contacting M.S. Sierra, Int Agcy Res Canc, Sect Canc Surveillance, Lyon, France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.07.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Cancer Epidemiology, Cancer, Epidemiology, Oncology, International Agency for Research on Cancer.

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Oncology - Breast Cancer

New Findings Reported from J. Taradaj and Co-Authors Describe Advances in Breast Cancer (The influence of Kinesiology Taping on the volume of lymphoedema and manual dexterity of the upper limb in women after breast cancer treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news originating from Katowice, Poland, by NewsRx correspondents, research stated, "The aim of our study was to evaluate the effect of Kinesiology Taping (KT) on the size of lymphoedema and manual dexterity of the upper limb in women after breast cancer treatment. We also examined whether the application of KT can replace the traditional and standard multilayered bandaging in the treatment of upper extremity lymphoedema."

Financial supporters for this research include Polish Society of Lymphology,
European Pressure Ulcer Advisory Panel (EPUAP).

Our news journalists obtained a quote from the research, "Group A comprised of 22 patients who underwent KT as well as pneumatic and manual lymphatic drainage. Then, group B comprised of 23 patients who were treated with quasi-KT as well as pneumatic and manual lymphatic drainage. In contrast, group C had 25 patients subjected only to the standard procedure - pneumatic and manual lymphatic drainage and multilayered bandaging. Patient evaluation items included limb size, grip strength and range of motion. After 4-week therapy, we observed that KT is not an effective method of reducing lymphoedema II and III0 in women after breast cancer treatment."

According to the news editors, the research concluded: "At this moment, the taping cannot replace the traditional and standard multilayered bandaging in the treatment of upper extremity lymphoedema."


The news correspondents report that additional information may be obtained from J. Taradaj, Academy Sch Phys Educ Katowice, Dept. of Physiotherapy Basics, PL-40065 Katowice, Poland. Additional authors for this research include T. Halski, J. Rosinczuk, R. Dymarek, A. Laurowski and A. Smykla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ecc.12331. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Katowice, Poland, Europe, Women's Health, Breast Cancer, Kinesiology, Oncology.

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**Drugs and Therapies - Pharmacoepidemiology**

**New Findings Reported from K. Kubota and Co-Authors Describe Advances in Pharmacoepidemiology (Symmetry analysis for monitoring safety of newly marketed drugs)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmacoepidemiology. According to news reporting from Tokyo, Japan, by NewsRx editors, the research stated, "A postmarketing study without a comparator group has been recognized as a problem as it provides no measure of association. Nevertheless, the design is sometimes used in company postmarketing studies particularly when the study involves the primary data collection."

The news correspondents obtained a quote from the research, "In this report, the 'Symmetry Analysis Cohort Design' without a comparator group but with a control period is proposed. In the proposed design, the rate ratio is estimated using the method of prescription sequence symmetry analysis with slight modification so that the rate ratio can be estimated using..."
data on subjects who have started the drug during the study period but no data on other subjects. The proposed design has an advantage that it can provide the measure of association. Another advantage common to all self-controlled methods is that the effect of the measured and unmeasured confounders is automatically canceled out when the effect is stable over the study period. Compared with the standard design with a comparator group, the proposed design also has weaknesses. For example, adjustment of confounding by the indication may be difficult when the indication is an acute condition. In addition, the rate ratio is not valid when the probability of the prescription of the drug is dependent on the occurrence of the outcome in the unexposed (pre-dose) period.

According to the news reporters, the research concluded: "The design may be used to evaluate the need for further studies although its real usefulness is to be determined in the future."


Our news journalists report that additional information may be obtained by contacting K. Kubota, NPO Drug Safety Research Unit, Tokyo, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pds.3886. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Drugs and Therapies, Pharmacoepidemiology.

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Immune System Diseases and Conditions - Chediak-

New Findings Reported from Kuwait University Describe Advances in Chediak-Higashi Syndrome (Oral rehabilitation of patients with Chediak-Higashi syndrome using zygoma and root form implant-supported fixed prostheses: A report of two patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - Chediak-Higashi Syndrome. According to news originating from Kuwait, Kuwait, by NewsRx correspondents, research stated, "Chediak-Higashi syndrome (CH-S) is a rare genetic immunodeficiency disorder. Fewer than 500 individuals with CH-S have been reported worldwide in the past 20 years."

Our news journalists obtained a quote from the research from Kuwait University, "The dental management of patients in whom CH-S has been diagnosed has been rarely reported and only in the form of a case report. All reports addressed the severe periodontal disease found in those patients, and most studies concluded that periodontal treatment had an unfavorable prognosis. As a result, complete edentulism at an early age because of severe periodontal disease is expected. The purpose of this report was to present 2 patients with CH-S seeking oral rehabilitation after early tooth loss and severe bone resorption as a manifestation of severe periodontal disease. The treatment used bilateral zygoma implants and an all-on-4 concept."
According to the news editors, the research concluded: "The complications encountered and management with a 5-year post-surgery follow-up are also presented."


The news correspondents report that additional information may be obtained from F. Alzoubi, Kuwait University, Dept. of Gen Dental Practice, Fac Dental, Kuwait, Kuwait. Additional authors for this research include E. Bedrossian and A. Wong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.prosdent.2016.07.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kuwait, Kuwait, Asia, Hemic and Lymphatic Diseases and Conditions, Stomatognathic Diseases and Conditions, Immune System Diseases and Conditions, Periodontal Diseases and Conditions, Hematologic Diseases and Conditions, Phagocyte Bactericidal Dysfunction, Mouth Diseases and Conditions, Chediak-Higashi Syndrome, Oral Rehabilitation, Leukocyte Disorders, Genetics, Kuwait University.

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Oncology - Liver Cancer

New Findings Reported from Madurai Kamaraj University Describe Advances in Liver Cancer (NF kappa B activation demarcates a subset of hepatocellular carcinoma patients for targeted therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Liver Cancer have been presented. According to news reporting originating from Tamil Nadu, India, by NewsRx correspondents, research stated, "Hepatocellular carcinoma (HCC) is the fifth most common cancer and the third leading cause of cancer death worldwide. It is a heterogeneous disorder and > 80 % of the tumors develop in patients with liver cirrhosis, resulting from chronic inflammation and/or fibrosis."

Our news editors obtained a quote from the research from Madurai Kamaraj University, "Here, we set out to identify novel targets for HCC therapy and to define a subgroup of patients that might benefit most from it. Cellular pathway activation profiling of 45 transcription factors in a HCC-derived cell line (HEP3B), in vitro analysis of NF kappa B reporter activity in additional HCC-derived cell lines and pathway-focused integrative analyses of publicly available primary HCC-derived expression profiling data (GSE6764, GSE9843, E-TABM-36 and E-TABM-292) were employed to reveal a role of NF kappa B in HCC development. In order to identify potential targeting agents, a luciferase-based NF kappa B reporter screening assay was established in HEP3B cells. After screening of a drug library through this assay, a potent NF kappa B pathway inhibitor was identified and characterized using an array of additional in vitro assays. Using cellular pathway activation profiling, we found a high activation of NF kappa B-mediated signaling in HCC-derived cell lines and in
primary HCC tumors. Through NF kappa B inhibitor screening we observed a highly efficacious NF kappa B pathway inhibitory potential of ornithogalum in HCC-derived HEP3B cells. Although its active component still remains to be defined, ornithogalum has been found to inhibit endoplasmic reticulum (ER) and oxidative stress responses. ER stress, oxidative stress and NF kappa B signaling were found to be enhanced in a subset of HCCs, as well as in (precancerous) liver cirrhosis tissues. From our data we conclude that NF kappa B signaling is activated in precancerous cirrhosis tissues and in a subset of HCCs. We found that ornithogalum exhibits NF kappa B targeting and stress relieving activities. NF kappa B inhibitors, including the active component of ornithogalum, may serve as putative preventive and targeted therapeutic agents for at least a subset of HCCs in which the NF kappa B pathway is activated.

According to the news editors, the research concluded: "These latter notions require further investigation in a translational context."

For more information on this research see: NF kappa B activation demarcates a subset of hepatocellular carcinoma patients for targeted therapy. *Cellular Oncology*, 2016;39 (6):523-536. *Cellular Oncology* can be contacted at: Springer, Van Godewijkstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Cellular Oncology - www.springerlink.com/content/2211-3428/)

The news editors report that additional information may be obtained by contacting K. Ganesan, Madurai Kamaraj Univ, Center Excellence Genom Sci, Unit Excellence Canc Genet, Sch Biol SciDept Genet, Madurai 625021, Tamil Nadu, India. Additional authors for this research include K. Selvarasu, J. Pandian, S. Myilsamy, C. Shamugasundaram and K. Ganesan.

Keywords for this news article include: Tamil Nadu, India, Asia, Digestive System Diseases and Conditions, Therapy, Diagnostics and Screening, Liver Diseases and Conditions, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, Liver Cirrhosis, Liver Cancer, NF-kappa B, Carcinomas, Genetics, Oncology, Madurai Kamaraj University.

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**Autoimmune Diseases and Conditions - Multiple...**

**New Findings Reported from McGill University Describe Advances in Multiple Sclerosis (Geographic associations between lactase phenotype, multiple sclerosis, and inflammatory bowel diseases; Does obesity trump geography?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Autoimmune Diseases and Conditions - Multiple Sclerosis. According to news reporting originating in Montreal, Canada, by NewsRx journalists, research stated, "Geographic patterns with diminishing rates from north to south toward the equator have been described for a number of diseases, putatively related largely to 'western' lifestyle. Among these the inflammatory bowel diseases; Crohn's (CD) and Ulcerative colitis (UC) have been prominent in sharing distributions with a number of autoimmune diseases."

The news reporters obtained a quote from the research from McGill University, "One of the interesting associations is the epidemiologic similarity with multiple sclerosis (MS). However, in addition, at least some of these diseases also correlated inversely with lactase non persistent population (LNP) distributions. It is hypothesized that MS should also have an inverse
relationship with LNP. We provide support for this by comparing published MS, CD, UC and LNP national rates to the beginning of the new millennium. Possible links among these diseases may be an evolutionary signature of new genes which may have accompanied emergence of lactase persistence millennia ago. The emergent phenotypic dichotomy also forced different assimilation responses to lactase digestion. While intestinal retention of lactase results in direct host enzymatic digestion, in LNP persons intestinal bacterial metabolism of lactose impacts on the host micro-flora. These microbial changes may play some role in altering rates of diseases including IBD and MS. However, since the late 20th century previously observed patterns are changing."

According to the news reporters, the research concluded: "Although industrialization is considered to play an important modifying role, the rising rates of obesity with an emphasis on diet, and microfloral pathogenesis, but with an independent geographic pattern may also facilitate altering rates and geographic distributions of both of these and other diseases."

For more information on this research see: Geographic associations between lactase phenotype, multiple sclerosis, and inflammatory bowel diseases; Does obesity trump geography? Medical Hypotheses, 2016;96():68-72. Medical Hypotheses can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Medical Hypotheses - www.journals.elsevier.com/medical-hypotheses/)

Our news correspondents report that additional information may be obtained by contacting A. Szilagyi, McGill University, Sch Med, Jewish Gen Hosp, Dept. of MedDiv Gastroenterol, Montreal, PQ H3T 1E2, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mehy.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Autoimmune Diseases and Conditions of the Nervous System, Nutritional and Metabolic Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Demyelinating Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Bowel Diseases and Conditions, Inflammatory Bowel Disease, Lactase, Epidemiology, Enzymes and Coenzymes, Glycoside Hydrolases, Nutrition Disorders, beta-Galactosidase, Diet and Nutrition, Multiple Sclerosis, Gastroenteritis, Overnutrition, Bariatrics, Genetics, Obesity, McGill University.

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Lung Diseases and Conditions - Chronic Obstructive...

New Findings Reported from National Heart and Lung Institute Describe Advances in Chronic Obstructive Pulmonary Disease (The MIF Antagonist ISO-1 Attenuates Corticosteroid-Insensitive Inflammation and Airways Hyperresponsiveness in an ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Macrophage migration inhibitory factor..."
(MIF) is an inflammatory cytokine associated with acute and chronic inflammatory disorders and corticosteroid insensitivity. Its expression in the airways of patients with chronic obstructive pulmonary disease (COPD), a relatively steroid insensitive inflammatory disease is unclear, however.

The news correspondents obtained a quote from the research from National Heart and Lung Institute, "Sputum, bronchoalveolar lavage (BAL) macrophages and serum were obtained from non-smokers, smokers and COPD patients. To mimic oxidative stress-induced COPD, mice were exposed to ozone for six-weeks and treated with ISO-1, a MIF inhibitor, and/or dexamethasone before each exposure. BAL fluid and lung tissue were collected after the final exposure. Airway hyperresponsiveness (AHR) and lung function were measured using whole body plethysmography. HIF-1a binding to the Mif promoter was determined by Chromatin Immunoprecipitation assays. MIF levels in sputum and BAL macrophages from COPD patients were higher than those from non-smokers, with healthy smokers having intermediate levels. MIF expression correlated with that of HIF-1a in all patients groups and in ozone-exposed mice. BAL cell counts, cytokine mRNA and protein expression in lungs and BAL, including MIF, were elevated in ozone-exposed mice and had increased AHR. Dexamethasone had no effect on these parameters in the mouse but ISO-1 attenuated cell recruitment, cytokine release and AHR. MIF and HIF-1a levels are elevated in COPD BAL macrophages and inhibition of MIF function blocks corticosteroid-insensitive lung inflammation and AHR."

According to the news reporters, the research concluded: "Inhibition of MIF may provide a novel anti-inflammatory approach in COPD."

For more information on this research see: The MIF Antagonist ISO-1 Attenuates Corticosteroid-Insensitive Inflammation and Airways Hyperresponsiveness in an Ozone-Induced Model of COPD. *Plos One*, 2016;11(1):e0146102. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting K.E. Russell, Airway Disease Section, National Heart & Lung Institute, NIHR Respiratory Biomedical Research Unit at the Royal Brompton NHS Foundation Trust and Imperial College London, London, UK. Additional authors for this research include K.F. Chung, C.J. Clarke, A.L. Durham, P. Mallia, J. Footitt, S.L. Johnston, P.J. Barnes, S.R. Hall, K.D. Simpson, M.R. Starkey, P.M. Hansbro, I.M. Adcock and C.H Wiegman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0146102. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ozone, London, Europe, Genetics, Cytokines, Immunology, Macrophages, Inflammation, Myeloid Cells, United Kingdom, Connective Tissue Cells, Lung Diseases and Conditions, Mononuclear Phagocyte System, Chronic Obstructive Pulmonary Disease, Intercellular Signaling Peptides and Proteins.

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Kidney Diseases and Conditions - Chronic Kidney...

New Findings Reported from O. Akchurin and Co-Authors Describe Advances in Chronic Kidney Disease (Lack of hepcidin ameliorates anemia and improves growth in an adenine-induced mouse model of chronic kidney disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Kidney Diseases and Conditions - Chronic Kidney Disease. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Growth delay is common in children with chronic kidney disease (CKD), often associated with poor quality of life. The role of anemia in uremic growth delay is poorly understood."

Our news journalists obtained a quote from the research, "Here we describe an induction of uremic growth retardation by a 0.2% adenine diet in wild-type (WT) and hepcidin gene (Hamp) knockout (KO) mice, compared with their respective littermates fed a regular diet. Experiments were started at weaning (3 wk). After 8 wk, blood was collected and mice were euthanized. Adenine-fed WT mice developed CKD (blood urea nitrogen 82.8 +/- 11.6 mg/dl and creatinine 0.57 +/- 0.07 mg/dl) and were 2.1 cm shorter compared with WT controls. WT adenine-fed mice were anemic and had low serum iron, elevated Hamp, and elevated IL6 and TNF-alpha. WT adenine-fed mice had advanced mineral bone disease (serum phosphorus 16.9 +/- 3.1 mg/dl and FGF23 204.0 +/- 115.0 ng/ml) with loss of cortical and trabecular bone volume seen on microcomputed tomography. Hamp disruption rescued the anemia phenotype resulting in improved growth rate in mice with CKD, thus providing direct experimental evidence of the relationship between Hamp pathway and growth impairment in CKD. Hamp disruption ameliorated CKD-induced growth hormone-insulin-like growth factor 1 axis derangements and growth plate alterations. Disruption of Hamp did not mitigate the development of uremia, inflammation, and mineral and bone disease in this model. Taken together, these results indicate that an adenine diet can be successfully used to study growth in mice with CKD."

According to the news editors, the research concluded: "Hepcidin appears to be related to pathways of growth retardation in CKD suggesting that investigation of hepcidin-lowering therapies in juvenile CKD is warranted."


The news correspondents report that additional information may be obtained from O. Akchurin, Weill Cornell Med, New York, NY, United States. Additional authors for this research include A. Sureshbabu, S.B. Doty, Y.S. Zhu, E. Patino, S. Cunningham-Rundles, M.E. Choi, A. Boskey and S. Rivella.

Keywords for this news article include: New York City, New York, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Musculoskeletal Diseases and Conditions, Hematologic Diseases and Conditions, Kidney Diseases and Conditions, Bone Diseases and Conditions, Chronic Kidney Disease, Bone Research, Anemia.
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Mycobacterium Infections - Tuberculosis

New Findings Reported from Oswaldo Cruz Foundation Describe Advances in Tuberculosis (Occult hepatitis B virus infection: clinical implications in tuberculosis treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections - Tuberculosis. According to news reporting originating from Rio de Janeiro, Brazil, by NewsRx correspondents, research stated, "Occult hepatitis B virus infection (OBI) is characterized by the absence of HBsAg and persistence of the virus genome (HBV-DNA) in liver tissue and/or blood. OBI has been reported in several clinical contexts."

Financial support for this research came from Fundacao Carlos Chagas Filho de Amparo a Pesquisa do Estado do Rio de Janeiro.

Our news editors obtained a quote from the research from Oswaldo Cruz Foundation, "However, the clinical significance of OBI in tuberculosis (TB) treatment is unknown. We investigated the OBI prevalence and its impact on the risk of drug-induced liver injury (DILI) during TB treatment. This was a prospective cohort study with one hundred patients who were treated for TB from 2008 to 2015. Laboratory, clinical and demographic data of TB patients were extracted from medical records. Based on HBV-DNA testing of serum samples, an OBI prevalence of 12% was established: almost half of these patients had both anti-HBc and anti-HBs serological markers. Low CD4(+) cell counts have been shown to be a risk factor for OBI among TB patients co-infected with HIV (P=.036). High DILI incidence was observed in this study. A multivariable Cox proportional hazard model was conducted and identified OBI (HR 2.98, 95% CI 1.30-6.86) as the strongest predictor for DILI when adjusted to CD4(+) cell count (HR 0.38, 95% CI 0.17-0.90), ALT before TB treatment (HR 1.37, 95% CI 0.81-2.32) and TB extrapulmonary clinical form (HR 2.91, 95% CI 1.75-7.21). The main aim of this study was to highlight DILI as a clinical outcome during treatment of TB patients with OBI."

According to the news editors, the research concluded: "Therefore, HBV-DNA testing should be considered routinely in monitoring DILI, and also in other clinical implications associated with OBI, reduce morbidity and mortality."


The news editors report that additional information may be obtained by contacting L. de Castro, Oswaldo Cruz Fdn FIOCRUZ, Pharmacogenet Res Lab, Evandro Chagas Nat Inst Infect Dis, Rio De Janeiro, Brazil. Additional authors for this research include P. do Brasil, M.J.M. Costa and L. de Castro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jvh.12583. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rio de Janeiro, Brazil, South America, Liver
Ebola Virus

New Findings Reported from Public Health Agency of Canada Describe Advances in Ebola Virus (Laboratory Response to 2014 Ebola Virus Outbreak in Mali)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Ebola Virus. According to news reporting out of Winnipeg, Canada, by NewsRx editors, research stated, "Aware of the rapid spread of Ebola virus (EBOV) during the current West African epidemic, Mali took several proactive steps to rapidly identify cases within its borders. Under the Mali International Center for Excellence in Research program, a collaboration between the National Institute of Allergy and Infectious Diseases and the Malian Ministry of Higher Education and Scientific Research established a national EBOV diagnostic site at the University of Sciences, Techniques and Technologies of Bamako in the SEREFO Laboratory."

Financial supporters for this research include National Institute of Allergy and Infectious Diseases [NIAID], National Institutes of Health, NIH, NIAID, Intramural Research Program of the NIAID, Mali International Center of Excellence in Research Program.

Our news journalists obtained a quote from the research from the Public Health Agency of Canada, "Two separate introductions of EBOV occurred in Mali from neighboring Guinea, but both chains of transmission were quickly halted, and Mali was declared 'Ebola free' on 18 January 2015 and has remained so since. The SEREFO Laboratory was instrumental in the success of Mali's Ebola response by providing timely and accurate diagnostics. As of today, the SEREFO Laboratory has tested 103 samples from 88 suspected cases, 10 of which were EBOV positive, since the Ebola diagnostics unit started in April 2014."

According to the news editors, the research concluded: "The establishment of Ebola diagnostics in the SEREFO Laboratory, safety precautions, and diagnostics are described."


The direct object identifier (DOI) for that additional information is:
New Findings Reported from Pusan National University Hospital Describe Advances in Breast Cancer (Tumor Heterogeneity Assessed by 18F-FDG PET/CT Is Not Significantly Associated with Nodal Metastasis in Breast Cancer Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news originating from Busan, South Korea, by NewsRx correspondents, research stated, "The purpose of this study was to evaluate the association of tumor heterogeneity as assessed by positron emission tomography/computed tomography (PET/CT) with pathological factors of breast cancer, and the prediction of nodal metastasis through tumor heterogeneity. From January 2013 to December 2013, 102 patients with invasive ductal carcinoma of the breast were enrolled into this study."

Our news journalists obtained a quote from the research from Pusan National University Hospital, "[18F]Fluorodeoxyglucose PET/CT was performed before surgery. The metabolic tumor volume (MTV) of each lesion was calculated and a series of standardized uptake value (SUV) thresholds (e.g. 40%, 50%, 60%, 70%, and 80% of SUVmax) was obtained. A threshold-volume (dV/dT) curve was acquired by plotting thresholds to MTV values automatically calculated with these thresholds. Tumor heterogeneity was calculated from the slope of the threshold-volume curve and defined as heterogeneity factor (HF). HF differed significantly according to T stage (p <0.0001), N stage (p=0.0131) and American Joint Committee on Cancer (AJCC) stage (p=0.0006). Among the pathological parameters, dermal lymphatic involvement (p=0.0039) showed the significant correlations with HF. Lymphovascular invasion (p=0.0005) was the only independent factor for predicting nodal metastasis. Tumor heterogeneity measured by 18F-FDG PET/CT is significantly associated with dermal lymphatic involvement."

According to the news editors, the research concluded: "However, PET might not be able to predict nodal metastasis in breast cancer."

For more information on this research see: Tumor Heterogeneity Assessed by 18F-FDG PET/CT Is Not Significantly Associated with Nodal Metastasis in Breast Cancer Patients. Oncology Research and Treatment, 2015;39(1-2):61-6.

The news correspondents report that additional information may be obtained from S. Shin, Dept. of Nuclear Medicine, Pusan National University Hospital, Busan, South Korea. Additional authors for this research include K. Pak, do Y. Park and S.J Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442760. This DOI is a link to an online electronic document that is...
Heart Disorders and Diseases - Hypertrophic…

New Findings Reported from R. Mormile and Co-Authors Describe Advances in Hypertrophic Cardiomyopathy (Neonates of diabetic mothers: The starting point for developing novel therapeutic approaches to ischemic heart and brain?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Hypertrophic Cardiomyopathy have been published. According to news reporting originating from Aversa, Italy, by NewsRx editors, the research stated, "Diabetes mellitus represents the most common medical condition causing complications during pregnancy. However, there is still some controversy surrounding complications."

Our news editors obtained a quote from the research, "Maternal hyperglycemia leads to fetal hyperglycemia. Offspring of diabetic mothers compensate excess glucose concentrations by producing higher levels of insulin causing transient hyperinsulinemia. Infants of diabetic mothers are at risk for congenital cardiac malformations, of which 40% are with hypertrophic cardiomyopathy. However, regardless of severity, cardiac hypertrophy is transient with echocardiographic resolution within the first months after birth. Neonates of diabetic mothers are more likely to suffer from macrosomia that predisposes the infant to birth asphyxia brain damage. However, there is no evidence for an increase in the incidence of brain injury from perinatal asphyxia in macrosomic babies of diabetic mothers in comparison to macrosomic newborns of non-diabetic mothers."

According to the news editors, the research concluded: "We hypothesize that infants of diabetic mother may represent the starting point for developing novel approaches to the treatment and prevention of obstructive hypertrophic cardiomyopathy, AMI and stroke at every age."

For more information on this research see: Neonates of diabetic mothers: The starting point for developing novel therapeutic approaches to ischemic heart and brain? Medical Hypotheses, 2016;96():75-77. Medical Hypotheses can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Medical Hypotheses - www.journals.elsevier.com/medical-hypotheses/)

The news editors report that additional information may be obtained by contacting R. Mormile, Moscati Hosp, Div Pediat & Neonatol, I-81031 Aversa, Italy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mehy.2016.09.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aversa, Italy, Europe, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Glucose Metabolism Disorders, Hypertrophic Cardiomyopathy,
Cardiomyopathies, Endocrinology, Heart Disease, Hyperglycemia, Cardiology, Diabetes, Therapy.

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Heart Disorders and Diseases - Heart Failure

New Findings Reported from Sao Paulo State University Describe Advances in Heart Failure (Beneficial Effects of Physical Exercise on Functional Capacity and Skeletal Muscle Oxidative Stress in Rats with Aortic Stenosis-Induced Heart Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Failure have been presented. According to news reporting originating in Botucatu, Brazil, by NewsRx journalists, research stated, "We evaluated the influence of exercise on functional capacity, cardiac remodeling, and skeletal muscle oxidative stress, MAPK, and NF-kB pathway in rats with aortic stenosis-(AS-) induced heart failure (HF). Eighteen weeks after AS induction, rats were assigned into sedentary control (C-Sed), exercised control (C-Ex), sedentary AS (AS-Sed), and exercised AS (AS-Ex) groups."

Funders for this research include Conselho Nacional de Desenvolvimento Cientifico e Tecnologico, Fundacao de Amparo a Pesquisa do Estado de Sao Paulo, Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior, Sao Paulo State University.

The news reporters obtained a quote from the research from Sao Paulo State University, "Exercise was performed on treadmill for eight weeks. Statistical analyses were performed with Goodman and ANOVA or Mann-Whitney. HF features frequency and mortality did not differ between AS groups. Exercise improved functional capacity, assessed by maximal exercise test on treadmill, without changing echocardiographic parameters. Soleus cross-sectional areas did not differ between groups. Lipid hydroperoxide concentration was higher in AS-Sed than C-Sed and AS-Ex. Activity of antioxidant enzymes superoxide dismutase and glutathione peroxidase was changed in AS-Sed and restored in AS-Ex. NADPH oxidase activity and gene expression of its subunits did not differ between AS groups. Total ROS generation was lower in AS-Ex than C-Ex. Exercise modulated MAPK in AS-Ex and did not change NF-kB pathway proteins. Exercise improves functional capacity in rats with AS-induced HF regardless of echocardiographic parameter changes."

According to the news reporters, the research concluded: "In soleus, exercise reduces oxidative stress, preserves antioxidant enzyme activity, and modulates MAPK expression."

For more information on this research see: Beneficial Effects of Physical Exercise on Functional Capacity and Skeletal Muscle Oxidative Stress in Rats with Aortic Stenosis-Induced Heart Failure. Oxidative Medicine and Cellular Longevity, 2016;2016():8695716. (Hindawi Publishing - www.hindawi.com; Oxidative Medicine and Cellular Longevity - www.hindawi.com/journals/oximed/)

Our news correspondents report that additional information may be obtained by contacting M.J. Gomes, Botucatu Medical School, Internal Medicine Department, Sao Paulo State University (UNESP), Botucatu, SP, Brazil. Additional authors for this research include P.F. Martinez, D.H. Campos, L.U. Pagan, C. Bonomo, A.R. Lima, R.L. Damatto, M.D. Cezar, F.C. Damatto, C.M. Rosa, C.M. Garcia, D.R. Reyes, A.A. Fernandes, D.C. Fernandes, F.R.
New Findings Reported from School of Medicine Describe Advances in Type 2 Diabetes (Serum Irisin Level is Higher and Related with Insulin in Acanthosis Nigricans-related Obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are presented in a new report. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Acanthosis nigricans (AN) is proved to be a skin phenotype of hyperinsulinemia especially in obese patients. Irisin is a new myokine which plays an important role in metabolic disorders, such as obesity, insulin resistance, and type 2 diabetes."

The news correspondents obtained a quote from the research from the School of Medicine, "The role of irisin in the development of AN-related obesity is not yet understood. In this study, we aimed to investigate the relationship between irisin and AN-related obesity. 30 obese patients without AN (OB group), 30 obese patients with AN (AN group), and 20 age-matched healthy volunteers (control group, CON) were included in this study. Weight, BMI, lipid profile, FFA, UA, and CRP were measured in all participants. Oral Glucose Tolerance tests (OGTT) were performed and serum glucose and plasma insulin were measured at 0, 30, 60, 120 and 180 min. The AUC (area under curve) of glucose and insulin was calculated. Serum irisin was measured by ELISA. Hyperinsulinemia is found in both AN and OB groups. The AN group had higher levels of insulin but better blood glucose tolerance and insulin response. The difference in irisin levels between the 3 groups was statistically significant, with the AN group showing the highest serum level of irisin. Serum irisin levels were positively correlated with BMI, and fasting insulin. AN is a state of hyperinsulinemia and has better insulin response and glucose tolerance compared to obese patients without AN."

According to the news reporters, the research concluded: "Serum irisin may be a protective factor against impaired beta cell function in obesity with AN."


Our news journalists report that additional information may be obtained by contacting J.Q. Chen, Dept. of Endocrinology and Metabolism, Shanghai Tenth People's Hospital, School of Medicine Tongji University, Shanghai, People's Republic of China. Additional authors for this research include L.J. Fang, K.X. Song, X.C. Wang, Y.Y. Huang, S.Y. Chai, L. Bu and S. Qu.
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Keywords for this news article include: Asia, Shanghai, Melanosis, Bariatrics, Proinsulin, Overnutrition, Type 2 Diabetes, Peptide Hormones, Peptide Proteins, Hyperpigmentation, Diet and Nutrition, Nutrition Disorders, Risk and Prevention, Acanthosis Nigricans, Obesity and Diabetes, Pigmentation Disorders, People's Republic of China, Skin Diseases and Conditions.

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Drugs and Therapies - Pharmacology and...

New Findings Reported from Semmelweis University Describe Advances in Pharmacology and Experimental Therapeutics (New Morphine Analogs Produce Peripheral Antinociception within a Certain Dose Range of Their Systemic Administration)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Pharmacology and Experimental Therapeutics. According to news reporting originating from Budapest, Hungary, by NewsRx correspondents, research stated, "Growing data support peripheral opioid antinociceptive effects, particularly in inflammatory pain models. Here, we examined the antinociceptive effects of subcutaneously administered, recently synthesized 14-O-methylmorphine-6-O-sulfate (14-O-MeM6SU) compared with morphine-6-O-sulfate (M6SU) in a rat model of inflammatory pain induced by an injection of complete Freund's adjuvant and in a mouse model of visceral pain evoked by an injection of complete Freund's adjuvant and in a mouse model of visceral pain evoked by acetic acid."

Our news editors obtained a quote from the research from Semmelweis University, "Subcutaneous doses of 14-O-MeM6SU and M6SU up to 126 and 547 nmol/kg, respectively, produced significant and subcutaneous or intraplantar naloxone methiodide (NAL-M)-reversible antinociception in inflamed paws compared with noninflamed paws. Neither of these doses significantly affected thiobutabarbital-induced sleeping time or rat pulmonary parameters. However, the antinociceptive effects of higher doses were only partially reversed by NAL-M, indicating contribution of the central nervous system. In the mouse writhing test, 14-O-MeM6SU was more potent than M6SU after subcutaneous or intracerebroventricular injections. Both displayed high subcutaneous/intracerebroventricular ED50 ratios. The antinociceptive effects of subcutaneous 14-O-MeM6SU and M6SU up to 136 and 3043 nmol/kg, respectively, were fully antagonized by subcutaneous NAL-M. In addition, the test compounds inhibited mouse gastrointestinal transit in antinociceptive doses. Taken together, these findings suggest that systemic administration of the novel compound 14-O-MeM6SU similar to M6SU in specific dose ranges shows peripheral antinociception in rat and mouse inflammatory pain models without central adverse effects. These findings apply to male animals and must be confirmed in female animals."

According to the news editors, the research concluded: "Therefore, titration of systemic doses of opioid compounds with limited access to the brain might offer peripheral antinociception of clinical importance."

For more information on this research see: New Morphine Analogs Produce


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.233551. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Budapest, Hungary, Europe, Pharmacology and Experimental Therapeutics, Drugs and Therapies, Semmelweis University.

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**Musculoskeletal Diseases and Conditions - Chronic...**

**New Findings Reported from Shaanxi Normal University Describe Advances in Chronic Fatigue Syndrome (Metabolic mechanism of a polysaccharide from Schisandra chinensis to relieve chronic fatigue syndrome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Musculoskeletal Diseases and Conditions - Chronic Fatigue Syndrome. According to news reporting originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "Schisandra chinensis fruits are a famous traditional Chinese medicine to treat all kinds of fatigue. This study aimed to investigate the therapeutic effect and metabolic mechanism of a polysaccharide (SCP) from Schisandra chinensis fruits on chronic fatigue syndrome (CFS)."

Financial supporters for this research include Graduate student innovation funds, Fundamental Research Funds for the Central Universities.

Our news editors obtained a quote from the research from Shaanxi Normal University, "SCP was isolated and the physicochemical properties were analyzed. A CFS model of rats was established and the urinary metabolomic studies were performed using gas chromatography time-of-flight mass spectrometry (GC-TOF-MS) in combination with multivariate statistical analysis. The results showed that SCP is a protein-bound polysaccharide. The amino acid composition of SCP consisted of 12 amino acids. The growth and the behaviors of the rats in the CFS model group were worse than those in the control group and improved after SCP treatment. Analysis of the GC-TOF-MS revealed that twelve metabolites were significantly changed, and six metabolites were oppositely and significantly changed after the SCP treatment. The TCA cycle metabolic pathways and the alanine, aspartate and glutamate metabolism were identified as significant metabolic pathways involved with SCP."

According to the news editors, the research concluded: "The therapeutic mechanism of SCP against CFS was partially due to the restoration of these disturbed pathways."

For more information on this research see: Metabolic mechanism of a

The news editors report that additional information may be obtained by contacting A.P. Chi, Shaanxi Normal Univ, Lab Nutr & Hyg, Xian 710119, People's Republic of China. Additional authors for this research include Y. Zhang, Y.J. Kang and Z.M. Shen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.08.042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Nervous System Diseases and Conditions, Chronic Fatigue Syndrome, Shaanxi Normal University.

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**Genetics - Assisted Reproduction and Genetics**

**New Findings Reported from Smithsonian Describe Advances in Assisted Reproduction and Genetics [Carbonyl cyanide 4-(trifluoromethoxy)phenylhydrazone (FCCP) pre-exposure ensures follicle integrity during in vitro culture of ovarian tissue but not ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics - Assisted Reproduction and Genetics is now available. According to news reporting originating in Washington, District of Columbia, by NewsRx journalists, research stated, "Temporary and reversible downregulation of metabolism may improve the survival of tissues exposed to non-physiological conditions during transport, in vitro culture, and cryopreservation. The objectives of the study were to (1) optimize the concentration and duration of carbonyl cyanide 4-(trifluoromethoxy)phenylhydrazone (FCCP-a mitochondrial uncoupling agent) exposures for biopsies of domestic cat ovarian tissue and (2) examine the effects of FCCP pre-exposures on follicle integrity after tissue culture and/or cryopreservation."

The news reporters obtained a quote from the research from Smithsonian, "Biopsies of cat ovarian tissue were first treated with various concentrations of FCCP (0, 10, 40, or 200 nM) for 10 or 120 min to determine the most suitable pre-exposure conditions. Based on these results, tissues were pre-exposed to 200 nM FCCP for 120 min for the subsequent studies on culture and cryopreservation. In all experiments and for each treatment group, tissue activity and integrity were measured by mitochondrial membrane potential (relative optical density of rhodamine 123 fluorescence), follicular viability (calcein assay), follicular morphology (histology), granulosa cell proliferation (Ki-67 immunostaining), and follicular density. Ovarian tissues incubated with 200 nM FCCP for 120 min led to the lowest mitochondrial activity (1.17 +/- 0.09; P< 0.05) compared to control group (0 nM; 1.30 +/- 0.12) while maintaining a constant percentage of viable follicles (75.3 +/- 7.8 %) similar to the control group (71.8 +/- 11.7 %; P> 0.05). After 2 days of in vitro culture, percentage of viable follicles (78.8 +/- 8.9 %) in similar
pre-exposure conditions was higher (P < 0.05) than in the absence of FCCP (61.2 +/- 12.0 %) with percentages of morphologically normal follicles (57.6 +/- 17.3 %) not different from the fresh tissue (70.2 +/- 7.1 %; P> 0.05). Interestingly, percentages of cellular proliferation and follicular density were unaltered by the FCCP exposures. Based on the indicators mentioned above, the FCCP-treated tissue fragments did not have a better follicle integrity after freezing and thawing. Pre-exposure to 200 nM FCCP during 120 min protects and enhances the follicle integrity in cat ovarian tissue during short-term in vitro culture."

According to the news reporters, the research concluded: "However, FCCP does not appear to exert a beneficial or detrimental effect during ovarian tissue cryopreservation."


Our news correspondents report that additional information may be obtained by contacting P. Comizzoli, Smithsonian Conservat Biol Inst, Natl Zool Pk, Washington, DC 20008, United States. Additional authors for this research include K. Chatdarong and P. Comizzoli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0810-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Assisted Reproduction and Genetics, Genetics, Smithsonian.

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**Oncology - Gastric Cancer**

**New Findings Reported from Sungkyunkwan University Describe Advances in Gastric Cancer (Diabetic biomarkers and the risk of proximal or distal gastric cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Gastric Cancer. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "The role of diabetes mellitus as a risk factor for gastric cancer has been controversial. We studied the association between diabetic biomarkers and the risk of gastric cancer and whether these associations depend on cancer location."

The news correspondents obtained a quote from the research from Sungkyunkwan University, "In this retrospective cohort study with subjects with negative initial esophagogastroduodenoscopy findings (n = 23 218) during a routine health checkup, we measured fasting glucose and insulin levels, calculated the homeostatic model assessment insulin resistance (HOMA-IR) values, and analyzed the risk of gastric cancer in relation to diabetic biomarker tertiles and the presence of diabetes mellitus. The incidence rate of gastric
cancer was 9.7 per 10,000 person-years during the mean 6.8-year follow-up. Patients with diabetes, higher fasting glucose levels, or higher HOMA-IR levels were older; men, current smokers, and heavy alcohol consumers represented larger proportions of these groups. They also had high body mass index and hemoglobin A1c more often. In the multivariate-adjusted Cox regression analyses, the incidence of gastric cancer was not significantly associated with diabetes mellitus or higher diabetic biomarker levels. Compared with normal glucose levels, lower glucose levels were significantly associated with an increased risk of distal gastric cancer. The hazard ratio for fasting glucose level tertile 1 was 2.39 (95% confidence interval, 1.48-3.85) (reference, tertile 2). Lower glucose levels were not associated with a risk of proximal gastric cancer, compared with a normal glucose level.

According to the news reporters, the research concluded: "Our findings suggest that fasting glucose levels have a different effect on distal and proximal gastric cancers."


Keywords for this news article include: Seoul, South Korea, Asia, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Diabetes, Diagnostics and Screening, Glucose Metabolism Disorders, Risk and Prevention, Diabetes Mellitus, Peptide Proteins, Peptide Hormones, Gastroenterology, Gastric Cancer, Endocrinology, Proinsulin, Oncology, Sungkyunkwan University.

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**Oncology - Lymphoma**

**New Findings Reported from Tongji University Describe Advances in Lymphoma (The role of HGF/c-MET signaling pathway in lymphoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lymphoma. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Inappropriate activation of c-mesenchymal-epithelial transition (MET), the receptor tyrosine kinase (RTK) for hepatocyte growth factor (HGF), has been implicated in tumorigenesis and represented a promising therapeutic target for developing anticancer agents."

Our news journalists obtained a quote from the research from Tongji University, "In contrast to other solid tumors, there are limited data describing the functional role of HGF/c-MET signaling pathway in lymphoma. In the current review, we summarize recent findings about the expression, cellular mechanisms/functions, and therapeutic application of HGF/c-MET in different types of lymphoma, especially B cell lymphoma, T and NK cell lymphoma, and Hodgkin lymphoma."

According to the news editors, the research concluded: "We also discuss the existing
problems and future directions about studying the HGF/c-MET pathway in lymphoma cells."


Our news journalists report that additional information may be obtained by contacting Z.Q. Qin, Tongji Univ, Sch Med, Key Lab Arrhythmias, East Hosp, Shanghai 200120, People's Republic of China. Additional authors for this research include L. Dai and Z.Q. Qin.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Article Review, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hepatocyte Growth Factor, Hematology, Lymphomas, Oncology, Tongji University.

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**Hereditary Angioedema**

**New Findings Reported from University Medical Center Describe Advances in Hereditary Angioedema (Plasmin is a natural trigger for bradykinin production in patients with hereditary angioedema with factor XII mutations)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hereditary Angioedema. According to news reporting from Utrecht, Netherlands, by NewsRx journalists, research stated, "Patients with angioedema experience unpredictable attacks of tissue swelling in which bradykinin is implicated. Several distinct mutations in Factor XII (FXII) are associated with hereditary angioedema (HAE) in the presence of normal C1 esterase inhibitor activity (FXII-HAE)."

The news correspondents obtained a quote from the research from University Medical Center, "The underlying disease mechanisms are unclear, which complicates diagnosis and treatment. We sought to identify the natural trigger for FXII activation, which causes uncontrolled bradykinin production in patients with FXII-HAE. We generated recombinant variants of FXII, representing health and disease, and studied their behavior in functional studies. We investigated bradykinin-forming pathways in blood plasma with newly developed nanobody-based analytic methods. We here report that FXII-HAE mutations collectively introduce new sites that are sensitive to enzymatic cleavage by plasmin. These FXII mutants rapidly activate after cleavage by plasmin, escape from inhibition through C1 esterase inhibitor, and elicit excessive bradykinin formation. Furthermore, our findings indicate that plasmin modulates disease activity in patients with FXII-HAE. Finally, we show that soluble lysine analogs attenuate this mechanism, explaining their therapeutic value in patients with HAE. Our findings indicate a new pathway for bradykinin formation in patients with HAE, in which FXII is cleaved and activated by plasmin."

According to the news reporters, the research concluded: "This should lead to the identification of new markers for diagnosis and targets for treatment."

For more information on this research see: Plasmin is a natural trigger for...

Our news journalists report that additional information may be obtained by contacting C. Maas, Univ Med Center Utrecht, Dept. of Clin Chem & Haematol, NL-3584 CX Utrecht, Netherlands. Additional authors for this research include J. Bjorkqvist, C. Suffritti, C.P. Wiesenekker, W. Nagtegaal, A. Koekman, S. van Dooremalen, G. Pasterkamp, P.G. de Groot, M. Cicardi, T. Renne and C. Maas.

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Keywords for this news article include: Utrecht, Netherlands, Europe, Skin and Connective Tissue Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Vascular Skin Diseases and Conditions, Genetic Diseases and Conditions, Blood Coagulation Factors, Hereditary Angioedemas, Enzymes and Coenzymes, Angioneurotic Edema, Oligopeptides, Neuropeptides, Hematology, Factor XII, Bradykinin, Esterases, Urticaria, Genetics, Kinins, University Medical Center.

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**Analgesics**

New Findings Reported from University of Alberta Describe Advances in Analgesics (Interventions for the Treatment of Pain in Nursing Home Residents: A Systematic Review and Meta-Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Analgesics have been published. According to news reporting from Edmonton, Canada, by NewsRx journalists, research stated, "More than one-half of nursing home residents experience a complex mix of pain. Despite this, assessment and treatment of pain remain inadequate."

The news correspondents obtained a quote from the research from the University of Alberta, "Using techniques of the Cochrane Collaboration and Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, we assessed efficacy of interventions aimed at reducing chronic pain in nursing home residents > 65 years of age. We searched for controlled trials comparing and measuring pain interventions using standardized pain scales. Two reviewers independently selected included studies, abstracted data, and assessed risk of bias. We performed meta-analyses calculating standardized mean differences (SMDs) using random effect models. Fourteen trials (n = 2293) were included in the meta-analysis: 7 reported nonanalgesic treatments, 4 reported analgesic treatments, 5 reported system modifications, and 2 reported educational interventions. A variety of pain scales were used, reporting outcome measures from 1 week to 1 year. Pooled results at trial completion revealed a statistically significant small treatment effect [SMD -0.33, 95% confidence interval (CI) -0.51, -0.14]. Further subgroup analysis revealed that residents receiving analgesic interventions benefited most (SMD -0.65, 95% CI -1.07, -0.23), followed by those receiving educational..."
interventions (SMD -0.40, 95% CI -0.59, -0.21), and those receiving system modification interventions (SMD -0.26, 95% CI -0.51, -0.02). Nonanalgesic treatment and control groups showed no statistical differences. Our findings suggest that analgesics are the most effective pain intervention and should be considered first-line therapy."

According to the news reporters, the research concluded: "Caution should be used in interpreting findings as few trials were included, risk of bias was variable, sample sizes were small, and pooled treatment effects were small to moderate."


Our news journalists report that additional information may be obtained by contacting J.A. Knopp-Sihota, University of Alberta, Fac Nursing, Edmonton, AB, Canada. Additional authors for this research include P. Patel and C.A. Estabrooks.

Keywords for this news article include: Edmonton, Alberta, Canada, North and Central America, Analgesics, Article Review, Pain Medicine, University of Alberta.

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**Lung Diseases and Conditions - Pulmonary Fibrosis**

**New Findings Reported from University of Colorado Describe Advances in Pulmonary Fibrosis (Pulmonary fibrosis in the era of stratified medicine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Pulmonary Fibrosis are discussed in a new report. According to news reporting out of Denver, Colorado, by NewsRx editors, research stated, "Both common and rare variants contribute to the genetic architecture of pulmonary fibrosis. Genome-wide association studies have identified common variants, or those with a minor allele frequency of >5%, that are linked to pulmonary fibrosis."

Financial supporters for this research include U.S. Department of Veterans Affairs, National Institutes of Health.

Our news journalists obtained a quote from the research from the University of Colorado, "The most widely replicated variant (rs35705950) is located in the promoter region of the MUC5B gene and has been strongly associated with idiopathic pulmonary fibrosis (IPF) and familial interstitial pneumonia (FIP) across multiple different cohorts. However, many more common variants have been identified with disease risk and in aggregate account for approximately one-third of the risk of IPF. Moreover, several of these common variants appear to have prognostic potential. Next generation sequencing technologies have facilitated the identification of rare variants. Recent whole exome sequencing studies have linked pathogenic rare variants in multiple new genes to FIP. Compared with common variants, rare variants have lower population allele frequencies and higher effect sizes. Pulmonary fibrosis rare variants genes can be subdivided into two pathways: telomere maintenance and surfactant metabolism."
Heterozygous rare variants in telomere-related genes co-segregate with adult-onset pulmonary fibrosis with incomplete penetrance, lead to reduced protein function, and are associated with short telomere lengths. Despite poor genotype-phenotype correlations, lung fibrosis associated with pathogenic rare variants in different telomere genes is progressive and displays similar survival characteristics. In contrast, many of the heterozygous rare variants in the surfactant genes predict a gain of toxic function from protein misfolding and increased endoplasmic reticulum (ER) stress. Evidence of both telomere shortening and increased ER stress have been found in sporadic IPF patients, suggesting that the mechanisms identified from rare variant genetic studies in unique individuals and families are applicable to a wider spectrum of patients. The ability to sequence large cohorts of individuals rapidly has the potential to further our understanding of the relative contributions of common and rare variants in the pathogenesis of pulmonary fibrosis.

According to the news editors, the research concluded: "The UK 100,000 Genomes Project will provide opportunities to interrogate both common and rare variants and to investigate how these biological signals provide diagnostic and prognostic information in the era of stratified medicine."

For more information on this research see: Pulmonary fibrosis in the era of stratified medicine. Thorax, 2016;71(12):1154-1160. Thorax can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Thorax - thorax.bmj.com/)

Our news journalists report that additional information may be obtained by contacting S.K. Mathai, University of Colorado, Dept. of Med, Div Pulm Sci & Crit Care Med, Denver, CO, United States. Additional authors for this research include C.A. Newton, D.A. Schwartz and C.K. Garcia.

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Keywords for this news article include: Denver, Colorado, United States, North and Central America, Lung Diseases and Conditions, Article Review, Risk and Prevention, Genetics, Respiratory Tract Diseases and Conditions, Pulmonary Fibrosis, University of Colorado.

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Gram-Positive Bacteria - Bacillus subtilis

New Findings Reported from University of Groningen Describe Advances in Bacillus subtilis (Regulatory RNAs in Bacillus subtilis: a Gram-Positive Perspective on Bacterial RNA-Mediated Regulation of Gene Expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Positive Bacteria - Bacillus subtilis are presented in a new report. According to news reporting originating in Groningen, Netherlands, by NewsRx journalists, research stated, "Bacteria can employ widely diverse RNA molecules to regulate their gene expression. Such molecules include trans-acting small regulatory RNAs, antisense RNAs, and a variety of transcriptional attenuation mechanisms in the 5′= untranslated region."
The news reporters obtained a quote from the research from the University of Groningen. "Thus far, most regulatory RNA research has focused on Gram-negative bacteria, such as Escherichia coli and Salmonella. Hence, there is uncertainty about whether the resulting insights can be extrapolated directly to other bacteria, such as the Gram-positive soil bacterium Bacillus subtilis. A recent study identified 1,583 putative regulatory RNAs in B. subtilis, whose expression was assessed across 104 conditions. Here, we review the current understanding of RNA-based regulation in B. subtilis, and we categorize the newly identified putative regulatory RNAs on the basis of their conservation in other bacilli and the stability of their predicted secondary structures. Our present evaluation of the publicly available data indicates that RNA-mediated gene regulation in B. subtilis mostly involves elements at the 5' ends of mRNA molecules. These can include 5' secondary structure elements and metabolite-, tRNA-, or protein-binding sites. Importantly, sense-independent segments are identified as the most conserved and structured potential regulatory RNAs in B. subtilis."

According to the news reporters, the research concluded: "Altogether, the present survey provides many leads for the identification of new regulatory RNA functions in B. subtilis."


*Microbiology and Molecular Biology Reviews* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Microbiology and Molecular Biology Reviews - mmbr.asm.org)

Our news correspondents report that additional information may be obtained by contacting J.M. van Dijl, University of Groningen, Groningen University Medical Center, Dept. of Med Microbiol, Groningen, Netherlands. Additional authors for this research include P. Nicolas, E.L. Denham and J.M. van Dijl.

Keywords for this news article include: Groningen, Netherlands, Europe, Bacterial RNA, Article Review, Genetics, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Gram-Positive Bacteria, Gram-Positive Rods, Bacillus Subtilis, Bacillus subtilis, Bacillaceae, University of Groningen.

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**Immune System Diseases and Conditions - HIV/AIDS**

**New Findings Reported from University of Louisville Describe Advances in HIV/AIDS (Griffithsin-Modified Electrospun Fibers as a Delivery Scaffold To Prevent HIV Infection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting out of Owensboro, Kentucky, by NewsRx editors, research stated, "Despite current prophylactic strategies, sexually transmitted infections (STIs) remain significant contributors to global health challenges, spurring the development of new multipurpose delivery technologies to protect individuals from and treat virus infections. However, there are few methods currently available to prevent and no method to date that cures human immunodeficiency virus (HIV) infection or combinations of STIs."
Financial support for this research came from HHS | National Institutes of Health (NIH).

Our news journalists obtained a quote from the research from the University of Louisville, "While current oral and topical preexposure prophylaxes have protected against HIV infection, they have primarily relied on antiretrovirals (ARVs) to inhibit infection. Yet continued challenges with ARVs include user adherence to daily treatment regimens and the potential toxicity and antiviral resistance associated with chronic use. The integration of new biological agents may avert some of these adverse effects while also providing new mechanisms to prevent infection. Of the biologic-based antivirals, griffithsin (GRFT) has demonstrated potent inhibition of HIV-1 (and a multitude of other viruses) by adhering to and inactivating HIV-1 immediately upon contact. In parallel with the development of GRFT, electrospun fibers (EFs) have emerged as a promising platform for the delivery of agents active against HIV infection. In the study described here, our goal was to extend the mechanistic diversity of active agents and electrospun fibers by in-corporating the biologic GRFT on the EF surface rather than within the EFs to inactivate HIV prior to cellular entry. We fabricated and characterized GRFT-modified EFs (GRFT-EFs) with different surface modification densities of GRFT and demonstrated their safety and efficacy against HIV-1 infection in vitro."

According to the news editors, the research concluded: "We believe that EFs are a unique platform that may be enhanced by incorporation of additional antiviral agents to prevent STIs via multiple mechanisms."

For more information on this research see: Griffithsin-Modified Electrospun Fibers as a Delivery Scaffold To Prevent HIV Infection. Antimicrobial Agents and Chemotherapy, 2016;60(11):6518-6531. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting N. Matoba, University of Louisville, Owensboro Canc Res Program, James Graham Brown Canc Center, Owensboro, KY, United States. Additional authors for this research include H.R. Vuong, K.M. Tyo, D.A. Malik, L.B. Sims, C.P. Whittington, K.E. Palmer, N. Matoba and J.M. Steinbach-Rankins.

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Keywords for this news article include: Owensboro, Kentucky, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Human Immuno deficiency Virus, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, HIV-1, University of Louisville.

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Drugs and Therapies - Antiinfectives

New Findings Reported from University of Melbourne Describe Advances in Antiinfectives (Divergent Transcriptional Responses to Physiological and Xenobiotic Stress in Giardia duodenalis)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiinfectives have been published. According to news reporting from Melbourne, Australia, by NewsRx journalists, research stated, "Understanding how parasites respond to stress can help to identify essential biological processes. Giardia duodenalis is a parasitic protist that infects the human gastrointestinal tract and causes 200 to 300 million cases of diarrhea annually."

Financial support for this research came from Australian Research Council (ARC).

The news correspondents obtained a quote from the research from the University of Melbourne, "Metronidazole, a major anti- giardial drug, is thought to cause oxidative damage within the infective trophozoite form. However, treatment efficacy is suboptimal, due partly to metronidazole-resistant infections. To elucidate conserved and stress-specific responses, we calibrated sublethal metronidazole, hydrogen peroxide, and thermal stresses to exert approximately equal pressure on trophozoite growth and compared transcriptional responses after 24 h of exposure. We identified 252 genes that were differentially transcribed in response to all three stressors, including glycolytic and DNA repair enzymes, a mitogen-activated protein (MAP) kinase, high-cysteine membrane proteins, flavin adenine dinucleotide (FAD) synthetase, and histone modification enzymes. Transcriptional responses appeared to diverge according to physiological or xenobiotic stress. Downregulation of the antioxidant system and alpha-giardins was observed only under metronidazole-induced stress, whereas upregulation of GARP-like transcription factors and their subordinate genes was observed in response to hydrogen peroxide and thermal stressors."

According to the news reporters, the research concluded: "Limited evidence was found in support of stress-specific response elements upstream of differentially transcribed genes; however, antisense derepression and differential regulation of RNA interference machinery suggest multiple epigenetic mechanisms of transcriptional control."

For more information on this research see: Divergent Transcriptional Responses to Physiological and Xenobiotic Stress in Giardia duodenalis. Antimicrobial Agents and Chemotherapy, 2016;60(10):6034-6045. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


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Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Dermatological Agents, Drugs and Therapies, Topical Acne Agents, Hydrogen Peroxide, Nitroimidazoles, Antinfectives, Metronidazole, Xenobiotics, Antibiotics, Amebicides, Chemicals, University of Melbourne.

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New Findings Reported from University of Oregon Describe Advances in Blood Transfusion (Acute hot water immersion is protective against impaired vascular function following forearm ischemia-reperfusion in young healthy humans)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Transfusion Medicine - Blood Transfusion is the subject of a report. According to news originating from Eugene, Oregon, by NewsRx correspondents, research stated, "Ischemia-reperfusion (I/R) injury is a primary cause of poor outcomes following ischemic cardiovascular events. We tested whether acute hot water immersion protects against forearm vascular I/R."

Financial support for this research came from American Heart Association (AHA).

Our news journalists obtained a quote from the research from the University of Oregon, "Ten (5 male, 5 female) young (23 +/- 2 yr), healthy subjects participated in two trials in random order 7-21 days apart, involving: 1) 60 min of seated rest (control), or 2) 60 min of immersion in 40.5 degrees C water (peak rectal temperature: 38.9 +/- 0.2 degrees C). I/R was achieved 70 min following each intervention by inflating an upper arm cuff to 250 mmHg for 20 min followed by 20 min of reperfusion. Brachial artery flow-mediated dilation (FMD) and forearm postocclusive reactive hyperemia (RH) were measured as markers of macrovascular and microvascular function at three time points: 1) pre intervention, 2) 60 min postintervention, and 3) post-I/R. Neither time control nor hot water immersion alone affected FMD (both, P> 0.99). I/R reduced FMD from 7.4 +/- 0.7 to 5.4 +/- 0.6% (P = 0.03), and this reduction was prevented following hot water immersion (7.0 +/- 0.7 to 7.7 +/- 1.0%; P< 0.99). I/R also impaired RH (peak vascular conductance: 2.6 +/- 0.5 to 2.0 +/- 0.4 ml.min(-1).mmHg(-1), P = 0.003), resulting in a reduced shear stimulus (SRAUC .10(-3): 22.5 +/- 2.4 to 16.9 +/- 2.4, P = 0.04). The post-I/R reduction in peak RH was prevented by hot water immersion (2.5 +/- 0.4 to 2.3 +/- 0.4 ml.min(-1).mmHg(-1); P = 0.33). We observed a decline in brachial artery dilator function post-I/R, which may be (partly) related to damage incurred downstream in the microvasculature, as indicated by impaired RH and shear stimulus."

According to the news editors, the research concluded: "Hot water immersion was protective against reductions in FMD and RH post-I/R, suggesting heat stress induces vascular changes consistent with reducing I/R injury following ischemic events."

For more information on this research see: Acute hot water immersion is protective against impaired vascular function following forearm ischemia-reperfusion in young healthy humans. American Journal of Physiology-Regulatory Integrative and Comparative Physiology, 2016;311(6):R1060-R1067. American Journal of Physiology-Regulatory Integrative and Comparative Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news correspondents report that additional information may be obtained from C.T. Minson, University of Oregon, Dept. of Human Physiol, Eugene, OR 97403, United States. Additional authors for this research include A.T. Jeckell, B.R. Ely, M.J. Howard, D.H.J. Thijssen and C.T. Minson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajpregu.00301.2016. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Eugene, Oregon, United States, North and Central America, Cardiovascular Surgical Procedures, Transfusion Medicine, Blood Transfusion, Brachial Artery, Medical Devices, Reperfusion, Angiology, Ischemia, Surgery, University of Oregon.

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Campylobacter

New Findings Reported from University of Oxford Describe Advances in Campylobacter (Exploiting Bacterial Whole-Genome Sequencing Data for Evaluation of Diagnostic Assays: Campylobacter Species Identification as a Case Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Campylobacter. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "The application of whole-genome sequencing (WGS) to problems in clinical microbiology has had a major impact on the field. Clinical laboratories are now using WGS for pathogen identification, antimicrobial susceptibility testing, and epidemiological typing."

Financial supporters for this research include Merton College Oxford, Clarendon Fund, Funds for Women Graduates, Wellcome Trust, DH | National Institute for Health Research (NIHR).

Our news journalists obtained a quote from the research from the University of Oxford, "WGS data also represent a valuable resource for the development and evaluation of molecular diagnostic assays, which continue to play an important role in clinical microbiology. To demonstrate this application of WGS, this study used publicly available genomic data to evaluate a duplex real-time PCR (RT-PCR) assay that targets mapA and ceuE for the detection of Campylobacter jejuni and Campylobacter coli, leading global causes of bacterial gastroenteritis. In silico analyses of mapA and ceuE primer and probe sequences from 1,713 genetically diverse C. jejuni and C. coli genomes, supported by RT-PCR testing, indicated that the assay was robust, with 1,707 (99.7%) isolates correctly identified. The high specificity of the mapA-ceuE assay was the result of interspecies diversity and intraspecies conservation of the target genes in C. jejuni and C. coli. Rare instances of a lack of specificity among C. coli isolates were due to introgression in mapA or sequence diversity in ceuE."

According to the news editors, the research concluded: "The results of this study illustrate how WGS can be exploited to evaluate molecular diagnostic assays by using publicly available data, online databases, and open-source software."

For more information on this research see: Exploiting Bacterial Whole-Genome Sequencing Data for Evaluation of Diagnostic Assays: Campylobacter Species Identification as a Case Study. *Journal of Clinical Microbiology*, 2016;54(12):2882-2890. *Journal of Clinical Microbiology* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.

The news correspondents report that additional information may be obtained from M.C.J. Maiden, University of Oxford, NIHR Hlth Protect Res Unit Gastrointestinal Infec, Oxford, United Kingdom. Additional authors for this research include C. Swift, A.J. Cody, C. Jenkins and M.C.J. Maiden.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/JCM.01522-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, United Kingdom, Europe, Clinical Microbiology, Diagnostics and Screening, Epidemiology, Gram-Negative Bacteria, Epsilonproteobacteria, Proteobacteria, Campylobacter, Genetics, University of Oxford.

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Heart Research

New Findings Reported from University of Queensland Describe Advances in Heart Research (Crim1 has cell-autonomous and paracrine roles during embryonic heart development)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Research is now available. According to news reporting from Brisbane, Australia, by NewsRx journalists, research stated, "The epicardium has a critical role during embryonic development, contributing epicardium-derived lineages to the heart, as well as providing regulatory and trophic signals necessary for myocardial development. Crim1 is a unique trans-membrane protein expressed by epicardial and epicardially-derived cells but its role in cardiogenesis is unknown."

The news correspondents obtained a quote from the research from the University of Queensland, "Using knockout mouse models, we observe that loss of Crim1 leads to congenital heart defects including epicardial defects and hypoplastic ventricular compact myocardium. Epicardium-restricted deletion of Crim1 results in increased epithelial-to-mesenchymal transition and invasion of the myocardium in vivo, and an increased migration of primary epicardial cells. Furthermore, Crim1 appears to be necessary for the proliferation of epicardium-derived cells (EPDCs) and for their subsequent differentiation into cardiac fibroblasts. It is also required for normal levels of cardiomyocyte proliferation and apoptosis, consistent with a role in regulating epicardium-derived trophic factors that act on the myocardium. Mechanistically, Crim1 may also modulate key developmentally expressed growth factors such as TGFbs, as changes in the downstream effectors phospho-SMAD2 and phospho-ERK1/2 are observed in the absence of Crim1."

According to the news reporters, the research concluded: "Collectively, our data demonstrates that Crim1 is essential for cell-autonomous and paracrine aspects of heart development."

For more information on this research see: Crim1 has cell-autonomous and paracrine roles during embryonic heart development. Scientific Reports, 2016;6():19832. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting S. Iyer, School of Biomedical Sciences, The University of Queensland, Brisbane, 4072, Australia. Additional authors for this research include F.Y. Chou, R. Wang, H.S. Chiu, V.K. Raju, M.H. Little, W.G. Thomas, M. Piper and D.J Pennisi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19832. This DOI is a link to an online electronic document that is either free or for purchase.
New Findings Reported from University of Rijeka Describe Advances in Peripheral T-Cell Lymphoma (Rapid Fatal Acute Peripheral T-Cell Lymphoma Associated With IgG Plasma Cell Leukemia and IgA Hypergammaglobulinemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Peripheral T-Cell Lymphoma is the subject of a report. According to news reporting originating in Rijeka, Croatia, by NewsRx journalists, research stated, "Simultaneous occurrence of T-cell and B-cell neoplasms is rare, and etiologic relationships between these 2 malignancies are poorly understood. We describe the case of a 66-year-old woman who was admitted to the hospital because of fever, hemoptysis, lymphadenopathy, and skin rash."

The news reporters obtained a quote from the research from the University of Rijeka, "Enlarged lymph nodes in axillary, pectoral, paratracheal, and periportal regions as well as slight hepatomegaly and splenomegaly were confirmed. A peripheral blood smear revealed rouleaux formation and numerous circulating plasma cells, with plasmacytoid lymphocytes. Immunofixation-electrophoresis detected a monoclonal band defined as immunoglobulin (IgG)-lambda light chains with broad-band polyclonal IgA. The patient died from abrupt splenic rupture before diagnostic work-up was finished. Postmortem examination revealed infiltration of atypical lymphoid cells exhibiting high proliferative activity admixed with typical and atypical plasma cells in several organs."

According to the news reporters, the research concluded: "Thus, plasma cell leukemia (IgG-lambda) as a rare and aggressive variant of plasma cell myeloma in the present case was associated with aggressive peripheral T-cell lymphoma and polyclonal (IgA) plasmacytosis."

For more information on this research see: Rapid Fatal Acute Peripheral T-Cell Lymphoma Associated With IgG Plasma Cell Leukemia and IgA Hypergammaglobulinemia. Applied Immunohistochemistry & Molecular Morphology, 2016;24(10):E89-E93. Applied Immunohistochemistry & Molecular Morphology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting K. Lucin, University of Rijeka, Fac Med, Dept. of Pathol, Rijeka 51000, Croatia. Additional authors for this research include I.S. Bekafigo, D.F. Cupic, K. Lucin, A.D. Nacinovic and T. Valkovic.

Keywords for this news article include: Rijeka, Croatia, Europe, Immune System Diseases and Conditions, Hematologic Diseases and Conditions, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Peripheral T-Cell Lymphoma, Hemic and Immune Systems, Blood Protein Disorders,
New Findings Reported from University of Rostock Describe Advances in Algorithms (On generalized Borgen plots II: The line-moving algorithm and its numerical implementation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Algorithms are presented in a new report. According to news reporting originating from Rostock, Germany, by NewsRx correspondents, research stated, "Borgen plots are geometric constructions that represent the set of all nonnegative factorizations of spectral data matrices for three-component systems. The classical construction by Borgen and Kowalski (Anal. Chim.)" Our news editors obtained a quote from the research from the University of Rostock, "Acta 174, 1-26 (1985)) is limited to nonnegative data and results in nonnegative factorizations. The new approach of generalized Borgen plots allows factors with small negative entries. This makes it possible to construct Borgen plots for perturbed or noisy spectral data and stabilizes the computation. In the first part of this paper, the mathematical theory of generalized Borgen plots has been introduced. This second part presents the line-moving algorithm for the construction of generalized Borgen plots."

According to the news editors, the research concluded: "The algorithm is justified, and the implementation in the FACPACK software is validated."


The news editors report that additional information may be obtained by contacting K. Neymeyr, University of Rostock, Leibniz Inst Katalyse eV, Rostock, Germany. Additional authors for this research include M. Sawall and K. Neymeyr.

Keywords for this news article include: Rostock, Germany, Europe, Algorithms, University of Rostock.

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New Findings Reported from University of Rouen Describe Advances in Nasal Lubricants and Irrigations (Impact of sodium chloride on the expansion of a liquid-liquid miscibility gap in an API/water system. Case study of Brivaracetam)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Nasal Lubricants and Irrigations. According to news reporting from Mont St. Aignan, France, by NewsRx journalists, research stated, "Brivaracetam, or (2S)-2-[(4R)-2-oxo-4-propyl-pyrrolidin-1-yl] butanamide, is an active pharmaceutical ingredient designed for the treatment of epilepsy."

The news correspondents obtained a quote from the research from the University of Rouen, "During the development of the IV administration mode, a liquid-liquid miscibility gap has been observed with pure water, isotonic and hypertonic solutions (vehicle at 0.9% w/w and 5% w/w NaCl respectively). The study reveals that the NaCl concentration has a direct impact on the extent of the demixing domain; from a sub-micronic demixing in pure water towards a macroscopic miscibility gap in hypertonic aqueous solutions."

According to the news reporters, the research concluded: "The thorough exploration of these heterogeneous equilibria led to define experimental parameters for safe IV injections without risk of liquid - liquid miscibility gap at 37 degrees C."


Our news journalists report that additional information may be obtained by contacting N. Couvrat, University of Rouen, Normandie Univ, Lab SMS EA3233, F-76821 Mont St Aignan, France. Additional authors for this research include J. Mahieux, B. Fours, Y. Cartigny, E. Schenkel, L. Aerts, L. Quere and G. Coquerel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.11.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mont St. Aignan, France, Europe, Nasal Lubricants and Irrigations, Drugs and Therapies, Respiratory Agents, Sodium Chloride, Chemicals, University of Rouen.

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Nutritional and Metabolic Diseases and Conditions -...

New Findings Reported from University of Saskatchewan Describe Advances in Dyslipidemias (The Different Facets of Dyslipidemia and Hypertension in Atherosclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Dyslipidemias is the subject of a report. According to news originating from Saskatoon, Canada, by NewsRx correspondents, research stated, "Atherosclerosis is the narrowing of arteries due to the accumulation of macrophages overloaded with lipids resulting in foam cell formation, and these events occur preferentially at the branching points of arteries which are particularly susceptible to hyperlipidemic stress-induced inflammation and oxidative stress. The different stages of atherogenesis rely on oxidative stress, endothelial dysfunction, and inflammation, and
hypertension or dyslipidemia can independently trigger these stages."

Our news journalists obtained a quote from the research from the University of Saskatchewan, "Dyslipidemia and hypertension are pathological conditions that damage the endothelium, triggering cell proliferation, vascular remodeling, apoptosis, and increased cellular permeability with increased adhesion molecules that bind monocytes and T lymphocytes to create a vicious cocktail of pathophysiological factors. Correspondingly, the factors are redirected by chemo-attractants and pro-inflammatory cytokines into the intima of the vasculature, where monocytes differentiate into macrophages taking up oxidized LDL uncontrollably to form foam cells and atherosclerotic lesions. Moreover, endothelial damage also causes loss of vasomotor activity, disproportionate vascular contractility, and elevation of blood pressure in dyslipidemic patients, while in hypertensive patients, further elevation of blood pressure occurs, creating a self-perpetuating vicious cycle that aggravates the development and progression of atherosclerotic lesions."

According to the news editors, the research concluded: "This review offers an in-depth analysis of atherosclerosis and the related interplay between dyslipidemia/hypertension and critically appraises the current diagnosis, etiology, and therapeutic options."

For more information on this research see: The Different Facets of Dyslipidemia and Hypertension in Atherosclerosis. Current Atherosclerosis Reports, 2016;18(12):114-125. Current Atherosclerosis Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

The news correspondents report that additional information may be obtained from J.F. Ndisang, University of Saskatchewan, Coll Med, Dept. of Physiol, Saskatoon, SK S7N 5E5, Canada. Additional authors for this research include K. McLellan, K. Durr, O. Onasanya, D. Nwabuko and J.F. Ndisang.

Keywords for this news article include: Saskatoon, Saskatchewan, Canada, North and Central America, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Inflammation, Article Review, Mononuclear Phagocyte System, Arterial Occlusive Diseases, Arteriosclerosis, Atherosclerosis, Dyslipidemias, Hypertension, Macrophages, Immunology, Phagocytes, Cardiology, Monocytes, University of Saskatchewan.

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Drugs and Therapies - Thioredoxin Therapy

New Findings Reported from University of Science and Technology Describe Advances in Thioredoxin Therapy (Thioredoxin-interacting protein regulates haematopoietic stem cell ageing and rejuvenation by inhibiting p38 kinase activity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Thioredoxin Therapy is the subject of a report. According to news reporting from Daejeon, South Korea, by NewsRx journalists, research stated, "Ageing is a natural process in living organisms throughout their lifetime, and most elderly people suffer from ageing-associated diseases. One suggested way to tackle such diseases is to rejuvenate stem cells, which also undergo ageing."
The news correspondents obtained a quote from the research from the University of Science and Technology, "Here we report that the thioredoxin-interacting protein (TXNIP)-p38 mitogen-activated protein kinase (p38) axis regulates the ageing of haematopoietic stem cells (HSCs), by causing a higher frequency of long-term HSCs, lineage skewing, a decrease in engraftment, an increase in reactive oxygen species and loss of Cdc42 polarity. TXNIP inhibits p38 activity via direct interaction in HSCs. Furthermore, cell-penetrating peptide (CPP)-conjugated peptide derived from the TXNIP-p38 interaction motif inhibits p38 activity via this docking interaction. This peptide dramatically rejuvenates aged HSCs in vitro and in vivo."

According to the news reporters, the research concluded: "Our findings suggest that the TXNIP-p38 axis acts as a regulatory mechanism in HSC ageing and indicate the potent therapeutic potential of using CPP-conjugated peptide to rejuvenate aged HSCs."


Keywords for this news article include: Daejeon, South Korea, Asia, Enzymes and Coenzymes, Drugs and Therapies, Thioredoxin Therapy, Stem Cell Research, Rejuvenation, Thioredoxins, Proteins, Kinase, University of Science and Technology.

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Cardiology

**New Findings Reported from University of Toronto Describe Advances in Cardiology (Sex Differences in Cardiac Rehabilitation Adherence: A Meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiology are discussed in a new report. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "Cardiac rehabilitation (CR) participation is associated with significantly lower mortality, and this benefit has been established as dose-dependent. Because it has been suggested that women are adherent to CR programs less than men, the objective of this study was to review CR adherence among women and men, and to determine whether a sex difference exists."

Our news journalists obtained a quote from the research from the University of Toronto, "MedLine, CINAHL, EMBASE, PsycINFO, and the Cochrane databases were systematically searched. Titles and abstracts were screened, and selected full-text articles were independently considered on the basis of predefined inclusion/exclusion criteria. Data from included articles were extracted by 2 authors independently and assessed for quality. The meta-analysis was undertaken with predefined subgroup analyses. The search identified 5148 articles, of which 149 were fully examined for inclusion consideration. Fourteen studies reporting data
on 8176 participants (2234 [27.3%] women) were included. Overall, CR adherence ranged from 36.7% to 84.6% of sessions, with a mean of 66.5 +/- 18.2% (median, 72.5%). Men and women enrolled in CR adhered to 68.6% and 64.2% of prescribed sessions, respectively (mean difference = -3.6; 95% confidence interval, -6.9 to -0.3). The sex difference persisted in studies of high quality, that were undertaken in Canada, published since 2010, and where programs were longer than 12 weeks' duration and offered fewer than 3 sessions per week. To our knowledge, this is the first meta-analysis to systematically report CR adherence rates, and results suggest that patients adhere to more than two-thirds of prescribed sessions. CR adherence is significantly lower among women than men."

According to the news editors, the research concluded: "Identified strategies to promote adherence need to be tested among women."


Our news journalists report that additional information may be obtained by contacting S.L. Grace, University of Toronto, Toronto, ON, Canada. Additional authors for this research include R.P. Marinho, J. Zhang, S. Marzolini, T.J.F. Colella, M. Pakosh and S.L. Grace.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.01.036. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Cardiology, Article Review, University of Toronto.

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The news correspondents report that additional information may be obtained from C. Fontanella, Dept. of Biological & Medical Sciences, University of Udine, Piazzale Kolbe, 4 - 33100 Udine, Italy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon-2016-0021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Udine, Italy, Europe, Oncology, Breast Cancer, Women's Health, Clinical Research.

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**Arteriovenous Malformation**

**New FindingsReported from University of Virginia Describe Advances in Arteriovenous Malformation (Dosimetric effects of Onyx embolization on Gamma Knife arteriovenous malformation dose distributions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Arteriovenous Malformation have been published. According to news reporting out of Charlottesville, Virginia, by NewsRx editors, research stated, "Patients with arteriovenous malformations (AVMs) treated with Gamma Knife radiosurgery (GKRS) subsequent to embolization suffer from elevated local failure rates and differences in adverse radiation effects. Onyx is a common embolic material for AVMs."

Our news journalists obtained a quote from the research from the University of Virginia, "Onyx is formulated with tantalum, a high atomic number (Z = 73) element that has been investigated as a source of dosimetric uncertainty contributing to the less favorable clinical results. However, prior studies have not modeled the complicated anatomical and beam geometries characteristic of GKRS. This study investigated the magnitude of dose perturbation that can occur due to Onyx embolization using clinically realistic anatomical and Gamma Knife beam models. Leksell GammaPlan (LGP) was used to segment the AVM nidus and areas of Onyx from postcontrast stereotactic MRI for 7 patients treated with GKRS postembolization. The resulting contours, skull surface, and clinically selected dose distributions were exported from LGP in DICOM-RT (Digital Imaging and Communications in Medicine -radiotherapy) format. Isocenter locations and dwell times were recorded from the LGP database. Contours were converted into 3D mesh representations using commercial and in-house mesh-editing software. The resulting data were imported into a Monte Carlo (MC) dose calculation engine (Pegasos, Elekta Instruments AB) with a beam geometry for the Gamma Knife Perfexion. The MC-predicted dose distributions were calculated with Onyx assigned manufacturer reported physical constants (MC-Onyx), and then compared with corresponding distributions in which Onyx was reassigned constants for water (MC-water). Differences in dose metrics were determined, including minimum, maximum, and mean dose to the AVM nidus; selectivity index; and target coverage. Combined differences in dose magnitude and distance to agreement were calculated as 3D Gamma analysis passing rates using tolerance criteria of 0.5%/0.5 mm, 1.0%/1.0 mm, and 3.0%/3.0 mm. Overall, the mean percentage differences in dose metrics for MC-Onyx relative to MC-water were as follows; all data are reported as mean (SD): minimum...
dose to AVM = -0.7% (1.4%), mean dose to AVM = 0.1% (0.2%), maximum dose to AVM = 2.9% (5.0%), selectivity = 0.1% (0.2%), and coverage = -0.0% (0.2%). The mean percentage of voxels passing at each Gamma tolerance were as follows: 99.7% (0.1%) for 3.0%/3.0 mm, 98.2% (0.7%) for 1.0%/1.0 mm, and 52.1% (4.4%) for 0.5%/0.5 mm. Onyx embolization appears to have a detectable effect on the delivered dose distribution. However, the small changes in dose metrics and high Gamma passing rates at 1.0%/1.0 mm tolerance suggest that these changes are unlikely to be clinically significant."

According to the news editors, the research concluded: "Additional sources of delivery and biological uncertainty should be investigated to determine the root cause of the observed less favorable postembolization GKRS outcomes."

For more information on this research see: Dosimetric effects of Onyx embolization on Gamma Knife arteriovenous malformation dose distributions. Journal of Neurosurgery, 2016;125():114-122. Journal of Neurosurgery can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

Our news journalists report that additional information may be obtained by contacting D.J. Schlesinger, University of Virginia, Dept. of Neurol Surg, Charlottesville, VA 22908, United States. Additional authors for this research include H. Nordstrom, A. Lundin, Z.Y. Xu and J.P. Sheehan.

Keywords for this news article include: Charlottesville, Virginia, United States, North and Central America, Cardiovascular Diseases and Conditions, Cardiovascular Abnormalities, Arteriovenous Malformations, Congenital Abnormalities, Vascular Malformations, Embolization, Angiology, University of Virginia.

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Mycobacterium Infections - Tuberculosis

New Findings Reported from Vanderbilt University Describe Advances in Tuberculosis (Fluoroquinolones for the treatment and prevention of multidrug-resistant tuberculosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Mycobacterium Infections - Tuberculosis have been presented. According to news reporting originating from Nashville, Tennessee, by NewsRx editors, the research stated, "Although fluoroquinolones (FQs) play an important role in the treatment of multidrug-resistant tuberculosis (MDR-TB), there are several issues that need to be addressed to optimize their effectiveness and minimize toxicity."

Our news editors obtained a quote from the research from Vanderbilt University, "This includes identification of the optimal dose of FQs such as levofloxacin (LVX) and moxifloxacin, and the optimal role of FQs in combination with other anti-tuberculosis drugs, particularly those with overlapping toxicity, such as QT prolongation. While the ability of FQs to penetrate into cavities and granulomas is likely beneficial, suboptimal sensitivity of genotypic tests to detect FQ resistance could negatively affect treatment outcomes of FQ-containing regimens."

According to the news editors, the research concluded: "Several trials are underway to evaluate the safety and effectiveness of FQs as part of combination MDR-TB therapy; there are also two planned studies of LVX to prevent tuberculosis among close contacts of MDR-TB."

The news editors report that additional information may be obtained by contacting T.R. Sterling, Vanderbilt University, Sch Med, Vanderbilt TB Center, Nashville, TN 37212, United States.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Gram-Positive Bacterial Infections, Multidrug Resistant Tuberculosis, Multidrug-Resistant Tuberculosis, Actinomycetales Infections, Mycobacterium Tuberculosis, Mycobacterium Infections, Multidrug Resistance, Drugs and Therapies, Risk and Prevention, Infectious Disease, Drug Resistance, Antibiotics, MDR-TB, Vanderbilt University.

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**Heart Disorders and Diseases - Heart Attack**

**New Findings Reported from Wakayama Medical University Describe Advances in Heart Attack (Local Matrix Metalloproteinase 9 Level Determines Early Clinical Presentation of ST-Segment-Elevation Myocardial Infarction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting from Wakayama, Japan, by NewsRx journalists, research stated, "Early clinical presentation of ST-segment-elevation myocardial infarction (STEMI) and non-ST-segment-elevation myocardial infarction affects patient management. Although local inflammatory activities are involved in the onset of MI, little is known about their impact on early clinical presentation."

The news correspondents obtained a quote from the research from Wakayama Medical University, "This study aimed to investigate whether local inflammatory activities affect early clinical presentation. Approach and Results-This study comprised 94 and 17 patients with MI (STEMI, 69; non-STEMI, 25) and stable angina pectoris, respectively. We simultaneously investigated the culprit lesion morphologies using optical coherence tomography and inflammatory activities assessed by shedding matrix metalloproteinase 9 (MMP-9) and myeloperoxidase into the coronary circulation before and after stenting. Prevalence of plaque rupture, thin-cap fibroatheroma, and lipid arc or macrophage count was higher in patients with STEMI and non-STEMI than in those with stable angina pectoris. Red thrombus was frequently observed in STEMI compared with others. Local MMP-9 levels were significantly higher than systemic levels (systemic, 42.0 [27.9-73.2] ng/mL versus prestenst local, 69.1 [32.2-152.3] ng/mL versus poststenst local, 68.0 [35.6-133.3] ng/mL; P<0.01). Poststenst local MMP-9 level was significantly elevated in patients with STEMI (STEMI, 109.9 [54.5-197.8] ng/mL versus non-STEMI: 52.9 [33.0-79.5] ng/mL; stable angina pectoris, 28.3 [14.2-40.0] ng/mL; P<0.01), whereas no difference was observed in the myeloperoxidase level. Poststenst local MMP-9 and the presence of red thrombus are the independent determinants for STEMI in multivariate analysis. Local MMP-9 level could determine the early clinical presentation in patients with...
According to the news reporters, the research concluded: "Local inflammatory activity for atherosclerosis needs increased attention."

For more information on this research see: Local Matrix Metalloproteinase 9 Level Determines Early Clinical Presentation of ST-Segment-Elevation Myocardial Infarction. *Arteriosclerosis Thrombosis and Vascular Biology*, 2016;36(12):2460-2467. *Arteriosclerosis Thrombosis and Vascular Biology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting A. Tanaka, Wakayama Med Univ, Dept. of Cardiovasc Med, Wakayama, Japan.

Additional authors for this research include A. Tanaka, A. Taruya, H. Emori, Y. Ozaki, M. Orii, Y. Shiono, K. Shimamura, T. Kameyama, T. Yamano, T. Yamaguchi, Y. Matsuo, Y. Ino, T. Kubo, T. Hozumi, Y. Hayashi and T. Akasaka.

Keywords for this news article include: Wakayama, Japan, Asia, Cardiovascular Diseases and Conditions, Secreted Matrix Metalloproteinases, Vascular Diseases and Conditions, Heart Disorders and Diseases, Matrix Metalloproteinase 9, Enzymes and Coenzymes, Metalloendopeptidases, Myocardial Infarction, Myocardial Ischemia, Peptide Hydrolases, Metallopeptinases, Myeloperoxidase, Metalloproteins, Angina Pectoris, Endopeptidases, Heart Disease, Collagenases, Heart Attack, Gelatinases, Proteomics, Thrombosis, Wakayama Medical University.

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**Cytokines**

**New Findings Reported from Wright State University Describe Advances in Cytokines (Hydroxyurea Induces Cytokinesis Arrest in Cells Expressing a Mutated Sterol-14 alpha-Demethylase in the Ergosterol Biosynthesis Pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cytokines. According to news reporting originating in Dayton, Ohio, by NewsRx journalists, research stated, "Hydroxyurea (HU) has been used for the treatment of multiple diseases, such as cancer. The therapeutic effect is generally believed to be due to the suppression of ribonucleotide reductase (RNR), which slows DNA polymerase movement at replication forks and induces an S phase cell cycle arrest in proliferating cells."

The news reporters obtained a quote from the research from Wright State University, "Although aberrant mitosis and DNA damage generated at collapsed forks are the likely causes of cell death in the mutants with defects in replication stress response, the mechanism underlying the cytotoxicity of HU in wild-type cells remains poorly understood. While screening for new fission yeast mutants that are sensitive to replication stress, we identified a novel mutation in the erg11 gene encoding the enzyme sterol-14 alpha-demethylase in the ergosterol biosynthesis pathway that dramatically sensitizes the cells to chronic HU treatment. Surprisingly, HU mainly arrests the erg11 mutant cells in cytokinesis, not in S phase. Unlike the reversible S phase arrest in wild-type cells, the cytokinesis arrest induced by HU is relatively stable and occurs at low doses of the drug, which likely explains the remarkable sensitivity of
the mutant to HU. We also show that the mutation causes sterol deficiency, which may predispose the cells to the cytokinesis arrest and lead to cell death. We hypothesize that in addition to the RNR, HU may have a secondary unknown target(s) inside cells.

According to the news reporters, the research concluded: "Identification of such a target(s) may greatly improve the chemotherapies that employ HU or help to expand the clinical usage of this drug for additional pathological conditions."

For more information on this research see: Hydroxyurea Induces Cytokinesis Arrest in Cells Expressing a Mutated Sterol-14 alpha-Demethylase in the Ergosterol Biosynthesis Pathway. Genetics, 2016;204(3):959-973,169-183. Genetics can be contacted at: Genetics Society America, 9650 Rockville Ave, Bethesda, MD 20814, USA. (Cell Press - www.cell.com; Genetics - www.cell.com/trends/genetics/home)

Our news correspondents report that additional information may be obtained by contacting Y.J. Xu, Wright State University, Boonshoft Sch Med, Dept. of Pharmacol & Toxicol, Dayton, OH 45435, United States. Additional authors for this research include A. Singh and G.M. Alter.

Keywords for this news article include: Dayton, Ohio, United States, North and Central America, Enzymes and Coenzymes, Drugs and Therapies, Hydroxyurea Therapy, Genetics, Genetics, Pharmaceuticals, Antimetabolites, Antineoplastics, Demethylase, Cytokines, Wright State University.

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Gram-Positive Bacteria - Clostridium beijerinckii

New Findings Reported from Xi'an Jiao Tong University Describe Advances in Clostridium beijerinckii [Transcriptional analysis of degenerate strain Clostridium beijerinckii DG-8052 reveals a pleiotropic response to CaCO(3)associated recovery of ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Positive Bacteria - Clostridium beijerinckii have been presented. According to news originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "Degenerate Clostridium beijerinckii strain (DG-8052) can be partially recovered by supplementing CaCO3 to fermentation media. Genome resequencing of DG-8052 showed no general regulator mutated."

Our news journalists obtained a quote from the research from Xi'an Jiao Tong University, "This study focused on transcriptional analysis of DG-8052 and its response to CaCO3 treatment via microarray. The expressions of 5168 genes capturing 98.6% of C. beijerinckii NCIMB 8052 genome were examined. The results revealed that with addition of CaCO3 565 and 916 genes were significantly upregulated, and 704 and 1044 genes significantly down-regulated at acidogenic and solventogenic phase of DG-8052, respectively. These genes are primarily responsible for glycolysis to solvent/acid production (poR, pfo), solventogenesis (buk, ctf, adh, bcd) and sporulation (spo0A, sigE, sigma-70, bofA), cell motility and division (ftsA, ftsK, ftsY, ftsH, ftsE, mreB, mreC, mreD, rodA), and molecular chaperones (grpE, dnaK, dnaJ, hsp20, hsp90), etc. The functions of some altered genes in DG-8052, totalling 5.7% at acidogenisis and 8.0% at sovlento genisis, remain unknown. The response of the degenerate strain to CaCO3 was suggested significantly pleiotropic. This study reveals the
multitude of regulatory function that CaCO3 has in clostridia and provides detailed insights into
degeneration mechanisms at gene regulation level."

According to the news editors, the research concluded: "It also enables us to develop
effective strategies to prevent strain degeneration in future."

For more information on this research see: Transcriptional analysis of degenerate
strain Clostridium beijerinckii DG-8052 reveals a pleiotropic response to CaCO(3)associated
recovery of solvent production. Scientific Reports, 2016;6():1-14. Scientific Reports can be
contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW,
England. (Nature Publishing Group - www.nature.com/; Scientific Reports -
www.nature.com/srep/)

The news correspondents report that additional information may be obtained from B.
Han, Xi An Jiao Tong Univ, Sch Public Hlth, Hlth Sci Center, Xian, People's Republic of
China. Additional authors for this research include Y. Zhang, C.X. Wan, J. Lv, R.J. Du, R.J.
Zhang and B. Han.

Keywords for this news article include: Xi'an, People's Republic of China, Asia,
Gram-Positive Endospore-Forming Bacteria, Gram-Positive Endospore-Forming Rods,
Clostridium beijerinckii, Gram-Positive Bacteria, Clostridium, Genetics, Xi'an Jiao Tong
University.

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Oncology - Breast Cancer

New Findings Reported from Zhejiang University Describe Advances in
Breast Cancer (MicroRNA-200c delivered by solid lipid nanoparticles
enhances the effect of paclitaxel on breast cancer stem cell)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to
news reporting originating from Hangzhou, People's Republic of China, by NewsRx
 correspondents, research stated, "One of the major obstacles in the treatment of breast cancer is
breast cancer stem cells (BCSC) which are resistant to standard chemotherapeutic drugs. It has
been proven that microRNA-200c (miR-200c) can restore sensitivity to microtubule-targeting
chemothera-peutic drugs by reducing the expression of class III beta-tubulin."

Our news editors obtained a quote from the research from Zhejiang University, "In
this study, combination therapy with miR-200c and paclitaxel (PTX) mediated by lipid
nanoparticles was investigated as an alternative strategy against BCSC. A cationic lipid 1,2-
dioleoyl-3-trimethylammonium-propane was strategically selected to formulate solid lipid
nanoparticles (SLN) for miR-200c delivery. Nanostructured lipid carriers (NLC) with 20 wt%
oleic acid were prepared for PTX delivery. Mammospheres, which gained the characteristics of
BCSC, were used as a cell model to evaluate the efficiency of combination therapy. The cationic
SLN could condense anionic miRNA to form SLN/miRNA complexes via charge interactions
and could protect miRNA from degradation by ribonuclease. SLN/miR-200c complexes
achieved 11.6-fold expression of miR-200c after incubation for 24 hours, compared with that of
Lipofectamine T 2000/miR-200c complexes (*P <0.05). Intracellular drug release assay proved
that miRNA can be released from SLN/miRNA complexes efficiently in 12 hours after cellular
uptake. After BCSC were transfected with SLN/miR-200c, the expression of class III beta-
tubulin was effectively downregulated and the cellular cytotoxicity of PTX-loaded NLC (NLC/PTX) against BCSC was enhanced significantly (*P <0.01). The results indicated that the cationic SLN could serve as a promising carrier for miRNA delivery.

According to the news editors, the research concluded: "In addition, the combination therapy of miR-200c and PTX revealed a novel therapeutic strategy for the treatment of BCSC."

For more information on this research see: MicroRNA-200c delivered by solid lipid nanoparticles enhances the effect of paclitaxel on breast cancer stem cell. International Journal of Nanomedicine, 2016;11():6713-6725. International Journal of Nanomedicine can be contacted at: Dove Medical Press Ltd, PO Box 300-008, Albany, Auckland 0752, New Zealand.

The news editors report that additional information may be obtained by contacting F.Q. Hu, Zhejiang University, Coll Pharmaceut Sci, Dept. of Pharmaceut, Hangzhou 310058, Zhejiang, People's Republic of China. Additional authors for this research include T.T. Meng, M. Yuan, L.J. Wen, B.L. Cheng, N. Liu, X. Huang, Y. Hong, H. Yuan and F.Q. Hu.

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Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Emerging Technologies, Microtubule Proteins, Drugs and Therapies, Combination Therapy, Stem Cell Research, Paclitaxel Therapy, Mitotic Inhibitors, Organic Chemicals, Pharmaceuticals, Antineoplastics, Cycloparaffins, Nanotechnology, Women's Health, Breast Cancer, Hydrocarbons, Nanoparticle, Oncology, Terpenes, Tubulin, Taxoids, Zhejiang University.

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Oncology - Lung Cancer

New Findings from A. Sayar and Co-Researchers in the Area of Lung Cancer Described (The incidence of hoarseness after mediastinoscopy and outcome of video-assisted versus conventional mediastinoscopy in lung cancer staging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting originating from Istanbul, Turkey, by NewsRx correspondents, research stated, "Theoretically, video-assisted mediastinoscopy (VM) should provide a decrease in the incidence of hoarseness in comparison with conventional mediastinoscopy (CM). An investigation of 448 patients with the NSCLC who underwent mediastinoscopy (n = 261 VM, n = 187 CM) between 2006 and 2010."

Our news editors obtained a quote from the research, "With VM, the mean number of sampled LNs and of stations per case were both significantly higher (n = 7.91 +/- 1.97 and n = 4.296 +/- 0.81) than they were for CM (n = 6.65 +/- 1.79 and n = 4.14 +/- 0.84) (p < 0.001 and p = 0.06). Hoarseness was reported in 24 patients (5.4%) with VM procedures resulting in a higher incidence of hoarseness than did CM procedures (6.9% and 3.2%) (p = 0.08). The incidence of hoarseness was observed to be more frequent in patients with left- lung carcinoma who had undergone a mediastinoscopy (p = 0.03). Hoarseness developed in 6% of the patients sampled at station 4L, whereas this ratio was 0% in patients who were not sampled at 4L (p =
A multivariate analysis showed that the presence of a tumor in the left lung is the only independent risk factor indicating hoarseness (p = 0.09). The sensitivity, NPV, and accuracy of VM were calculated as to be 0.87, 0.95, and 0.96, respectively. The same staging values for CM were 0.83, 0.94, and 0.95, respectively. VM, the presence of a tumor in the left-lung, and 4L sampling via mediastinoscopy are risk factors for subsequent hoarseness.

According to the news editors, the research concluded: "Probably due to a wider area of dissection, VM can lead to more frequent hoarseness."


The news editors report that additional information may be obtained by contacting N. Citak, Res & Educ Hosp, Yedikule Thorac Surg & Chest Dis, Istanbul, Turkey. Additional authors for this research include N. Citak, S. Buyukkale, M. Metin, A. Kok, A. Celikten and A. Gurses.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Respiratory Tract Diseases and Conditions, Laryngeal Diseases and Conditions, Cancer, Risk and Prevention, Neurologic Manifestations, Respiration Disorders, Voice Disorders, Lung Neoplasms, Lung Cancer, Hoarseness, Oncology.

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Oncology - Prostate Cancer

New Findings from A.J. Lomax and Co-Authors in the Area of Prostate Cancer Reported ('First, do no harm': managing the metabolic impacts of androgen deprivation in men with advanced prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Prostate Cancer. According to news reporting originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Androgen deprivation therapy (ADT) is a standard systemic treatment for men with prostate cancer. Men on ADT may be elderly and have comorbidities that are exacerbated by ADT, such as cardiovascular disease, diabetes, obesity, sedentary lifestyle and osteoporosis."

Our news editors obtained a quote from the research, "Studies on managing the impacts of ADT have focused on men with non-metastatic disease, where ADT is given for a limited duration. However, some men with advanced or metastatic prostate cancer will achieve long-term survival with palliative ADT and therefore also risk morbidity from prolonged ADT. Furthermore, ADT is continued during the use of other survival-prolonging therapies for men with advanced disease, and there is a general trend to use ADT earlier in the disease course. As survival improves, management of the metabolic effects of ADT becomes important for maintaining both quality and quantity of life."

According to the news editors, the research concluded: "This review will outline the current data, offer perspectives for management of ADT complications in men with advanced prostate cancer and discuss avenues for further research."

For more information on this research see: 'First, do no harm': managing the

The news editors report that additional information may be obtained by contacting A.J. Lomax, Oncology Unit, Eastern Health, Melbourne, Victoria, Australia. Additional authors for this research include P. Parente, C. Gilfillan, P.M. Livingston, I.D. Davis and C. Pezaro.

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Keywords for this news article include: Oncology, Melbourne, Androgens, Article Review, Prostate Cancer, Drugs and Therapies, Prostatic Neoplasms, Australia and New Zealand.

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Blood Diseases and Conditions - Sepsis

New Findings from A.J. Rahbar and Co-Authors in the Area of Sepsis Reported (Pharmacokinetic and Pharmacodynamic Evaluation of Doripenem in Critically Ill Trauma Patients with Sepsis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Blood Diseases and Conditions - Sepsis. According to news reporting from Las Vegas, Nevada, by NewsRx journalists, research stated, "Doripenem is approved by the Food and Drug Administration for the treatment of patients with complicated intra-abdominal infections and complicated urinary tract infections. While studies have described the pharmacokinetics/pharmacodynamics (PK/PD) of doripenem in the critically ill, no study has described the probability of target attainment profile among trauma patients with sepsis."

The news correspondents obtained a quote from the research, "This study was a prospective, open-label, pharmacokinetic study in the surgical intensive care unit (SICU) at Grady Health System. Thirty trauma patients with sepsis admitted to the SICU received doripenem 1g infused over 4hours every 8hours for three doses. Blood samples were taken just before and after the third dose. A two-compartment model was fit to the data using non-parametric population PK modeling software. Embedded with the final PK model, a Monte Carlo Simulations (MCS) was performed to determine the PK/PD profile of doripenem 1g, infused over 4hours, every 8hours after administration of the first and fourth doses. Overall, the model fit the data well, and mean (standard deviation) clearance and volume of the central compartment were 16.9 (11.4) L/h and 28.5 (16.0) L, respectively. In the MCS analyses, doripenem 1g, infused over 4hours, administered every 8hours, conferred >90% probabilities of achieving 30-50% time greater than the minimum inhibitory concentration (30-50% T>MIC) for MICs 2mg/L after infusion of both the first and fourth doses. The MCS indicated that more intensive doripenem dosing schemes should be considered for organisms with MIC values in excess of 2mg/L. This is the first study to describe the doripenem PK/PD in critically ill patients with trauma."

According to the news reporters, the research concluded: "Among these patients, the MCS analyses suggest that current dosing strategies may be ineffective when the MIC value for
the infecting pathogen is expected to be above 2mg/L."

For more information on this research see: Pharmacokinetic and Pharmacodynamic Evaluation of Doripenem in Critically Ill Trauma Patients with Sepsis. Surgical Infections, 2016;17(6):675-682. Surgical Infections can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Surgical Infections - www.liebertpub.com/overview/surgical-infections/53/)

Our news journalists report that additional information may be obtained by contacting A.J. Rahbar, Univ Med Center Southern Nevada, Las Vegas, NV, United States. Additional authors for this research include T.P. Lodise, P. Abraham, A. Lockwood, M.P. Pai, J. Patka, M. Rabinovich, K. Curzio, K. Chester, B. Williams, B. Morse, M. Chaar, V. Huang and J. Salomone.

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Keywords for this news article include: Las Vegas, Nevada, United States, North and Central America, Blood Diseases and Conditions, Pharmaceuticals, Surgery, Bloodstream Infection, Drugs and Therapies, Pharmacodynamics, Pharmacokinetics, Antiinfectives, Carbapenems, Antibiotics, Septicemia, Doripenem, Sepsis.

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significant predictor for MACE-free survival (p=0.010). CCTA revealed obstructive CAD in 11.7% of patients, with no significant difference between patients with a low and intermediate/high HEART score, respectively 10.7% and 13.2% (p=0.29). The ability of the HEART score to identify obstructive CAD was poor with an AUC of the receiver operating characteristics curve of 0.53. The HEART score does not adequately identify patients with obstructive CAD at CCTA. It does however predict occurrence of MACE in medium-term follow-up. Excluding patients from additional testing based solely on a low HEART score may lead to suboptimal patient management.”

According to the news editors, the research concluded: "CCTA had important implications on patient management and may be a more appropriate tool to further stratify risk in ED chest pain patients.”

For more information on this research see: Discriminative Power of the HEART Score for Obstructive Coronary Artery Disease in Acute Chest Pain Patients Referred for CCTA. Critical Pathways In Cardiology, 2016;15(1):6-10. (Lippincott Williams and Wilkins - www.lww.com; Critical Pathways In Cardiology - journals.lww.com/critpathcardio/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting A.Q. Kolff, From the *Dept. of Cardiology and †Dept. of Nuclear Medicine, Medical Center Alkmaar, Alkmaar, Netherlands. Additional authors for this research include M.J. Bom, R.J. Knol, F.M. van de Zant, P.M. van der Zee and J.H Cornel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/HPC.0000000000000062. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Alkmaar, Angiology, Cardiology, Chest Pain, Netherlands, Heart Attack, Heart Disease, Arteriosclerosis, Myocardial Ischemia, Myocardial Infarction, Coronary Artery Disease, Arterial Occlusive Diseases, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Angiology

New Findings from Academic Medical Center in Angiology Provides New Insights (Carotid plaque fissure: An underestimated source of intraplaque hemorrhage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Angiology are presented in a new report. According to news reporting from Amsterdam, Netherlands, by NewsRx journalists, research stated, "Plaque fissuring, a phenomenon morphologically distinct from the classical rupture of a thinned fibrous cap, has not been well characterized in carotid atherosclerosis. The aim of this study was to establish the prevalence of plaque fissures in advanced carotid plaques with an otherwise intact luminal surface, and to determine whether they might be a source of intraplaque hemorrhage (IPH).”

The news correspondents obtained a quote from the research from Academic Medical Center, "We evaluated 244 surgically intact, 'en bloc' embedded, serially sectioned carotid endarterectomy specimens and included only those plaques with a grossly intact luminal
surface. Among the 67 plaques with grossly intact luminal surface, cap fissure was present in 39 (58%) plaques. A total of 60 individual fissures were present, and longitudinally mean fissure length was 1.3 mm. Most fissures were found distal to the bifurcation (63%), proximal to the stenosis (88%), and in the posterior (opposite the flow divider) or lateral quadrants (80%). 36% of the fissures remained in the superficial third of the plaque. 52% extended from the lumen surface to the middle third of the plaque and 12% reached the outer third of the plaque on cross section. Fissures often occurred between two tissue planes and were connected to IPH (fresh: 63%; any type: 92%) and calcifications (43%). No correlation was found with patient characteristics such as symptom status, carotid stenosis, hypertension, diabetes, smoking and medications (statins or antiplatelet agents). Plaque fissures are common in advanced carotid plaques with an otherwise grossly intact luminal surface and are associated with fresh intraplaque hemorrhage.

According to the news reporters, the research concluded: "As they occur on the interface between plaque components with different mechanical properties, further biomechanical studies are needed to unravel the underlying failure mechanisms."


Our news journalists report that additional information may be obtained by contacting M.J. Daemen, Academy Med Center, Dept. of Pathol, NL-1105 AZ Amsterdam, Netherlands. Additional authors for this research include M.S. Ferguson, F.J. Gijsen, D.S. Hippe, M.E. Kooi, K. Demarco, A.C. van der Wal, C. Yuan and T.S. Hatsukami.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.09.069. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Hemorrhage, Angiology, Stenosis, Academic Medical Center.

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Drugs and Therapies - Anxiolytics Sedatives and…

**New Findings from Affiliated Hospital Update Understanding of Anxiolytics Sedatives and Hypnotics (Chloral Hydrate Treatment Induced Apoptosis of Macrophages via Fas Signaling Pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Anxiolytics Sedatives and Hypnotics have been published. According to news reporting originating in Guangdong, People’s Republic of China, by NewsRx journalists, research stated, "There are recent reports on several anesthetics that have anti-inflammatory and anti-infective effects apart from their uses for pain relief and muscle relaxation. Chloral hydrate is a clinical anesthetic drug and sedative that has also been reported to attenuate inflammatory response, but the mechanisms are not clearly understood."

The news reporters obtained a quote from the research from Affiliated Hospital,
"This study investigated the effect of chloral hydrate treatment on the apoptosis of macrophages and explored the underlying mechanisms. RAW264.7 macrophages were treated with various concentrations of chloral hydrate for various lengths of time. Morphological changes were observed under a light microscope and apoptosis was detected with annexin-V-FITC/PI double-staining assay, Hoechst 33258 and DNA ladder assay, the expression of Fas/FasL was detected with a flow cytometer, and the Fas signaling pathway was assessed by Western blotting. The results showed that chloral hydrate treatment induced the morphology of RAW264.7 macrophages to change shape from typical fusiform to round in a concentration-and time-dependent manner, and was finally suspended in the supernatant. For the induction of apoptosis, chloral hydrate treatment induced the apoptosis of RAW264.7 macrophages from early-to-late stage apoptosis in a concentration-and time-dependent manner. For the mechanism, chloral hydrate treatment induced higher expression of Fas on RAW264.7 macrophages, and was also associated with changes in the expression of proteins involved in Fas signaling pathways."

According to the news reporters, the research concluded: "Chloral hydrate treatment can induce the apoptosis of RAW264.7 macrophages through the Fas signaling pathway, which may provide new options for adjunctive treatment of acute inflammation."

For more information on this research see: Chloral Hydrate Treatment Induced Apoptosis of Macrophages via Fas Signaling Pathway. *Medical Science Monitor*, 2016;22 ():4836-4843. *Medical Science Monitor* can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.


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b-catenin to participate in these pro-metastatic protein/protein interactions has been proposed in this work."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from the Affiliated Hospital of Nanjing University School of Medicine, "This method employs cost-effective peptide-based protein targeting ligands, while the electrochemical catalytic cross-linking in this method also 'finalize' the noncovalent molecular recognition, so that the robustness can be improved to enable detection of relatively more complex biosamples. In studying clinical samples with the proposed method, the cellular distribution and overall expression of b-catenin show a parallel with the pathological grade of the sample, particularly, nuclear translocation. The pro-metastatic activation of b-catenin can also be observed as evidently correlated with higher-grade cases, suggesting the active role of b-catenin in promoting metastasis."

According to the news editors, the research concluded: "According to these results, the proposed method may have the prospective use as a prognostic tool for evaluating the potential of invasion and metastasis in cancer."

For more information on this research see: Electrochemical Detection and Distribution Analysis of b-Catenin for the Evaluation of Invasion and Metastasis in Hepatocellular Carcinoma. *Analytical Chemistry*, 2016;88(7):3879-84. (American Chemical Society - www.acs.org; Analytical Chemistry - www.pubs.acs.org/journal/ancham)

Our news journalists report that additional information may be obtained by contacting Y. Yu, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing 210008, People's Republic of China. Additional authors for this research include H. Li, L. Wei, L. Li, Y. Ding and G. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.analchem.6b00037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nanjing, Genetics, Oncology, Carcinomas, Liver Cancer, Electrochemicals, People's Republic of China.

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*Digestive System Diseases and Conditions - Crohn's. . .

**New Findings from Ain Shams University in the Area of Crohn's Disease Reported (Does Helicobacter pylori eradication therapy trigger or protect against Crohn's disease?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Crohn's Disease. According to news reporting out of Cairo, Egypt, by NewsRx editors, the research stated, "Helicobacter pylori (H. pylori) infection is involved in multiple gastrointestinal and extra-gastrointestinal disorders. This review focuses on possible link between H. pylori eradication and Crohn's disease (CD) which is a chronic inflammatory bowel disease (IBD)."

Our news journalists obtained a quote from the research from Ain Shams University, "Fecal calprotectin and; to lesser extent; fecal lactoferrin are sensitive and specific markers for
monitoring CD activity. Data about link between H. pylori eradication and CD are limited and inconclusive. The infection likely shifts equilibrium between T helper 1 (Th1) and Th2 immune responses to the Th2 pattern. In subjects genetically predisposed to CD (a Th1-related disease), H. pylori eradication increases Th1 proinflammatory cytokines causing development of CD. In contrast, clarithromycin and/or proton pump inhibitors that are used to eradicate H. pylori can suppress Th1 factors, and theoretically can protect against CD, but there are no data to support this supposition. This Th1/Th2 approach seems very simplistic. Another theory is that alterations in gut microbiota form 'continuous antigenic stimulation' predisposing to IBD. H. pylori infection can inhibit such stimulation through activation of regulatory T cells, and thus eradication may predispose to CD. Probiotics weren't found useful in treatment of CD. The reported data about link between H. pylori eradication and CD are currently limited."

According to the news editors, the research concluded: "Case reports, suggesting a positive association between both conditions, provide a very little evidence. On eradicating H. pylori in CD patients and/or patients with high risk for CD, patient counseling and follow-up in addition to measuring fecal calprotectin may help monitor CD activity."


Our news journalists report that additional information may be obtained by contacting H.A. Murad, Ain Shams University, Cairo, Egypt.

Keywords for this news article include: Cairo, Egypt, Africa, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Parasitic Diseases and Conditions, Therapy, Article Review, Gram-Negative Bacteria, Epsilonproteobacteria, Helicobacter pylori, Gastroenterology, Crohn's Disease, Gastroenteritis, Proteobacteria, Genetics, Ain Shams University.

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Oncology - Ovarian Cancer

New Findings from Ajou University Update Understanding of Ovarian Cancer (Total parietal peritonectomy with en bloc pelvic resection for advanced ovarian cancer with peritoneal carcinomatosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Ovarian Cancer. According to news reporting from Suwon, South Korea, by NewsRx journalists, research stated, "The majority of advanced ovarian cancer patients have peritoneal carcinomatosis involving from the pelvis to upper abdomen, which is a major obstacle to optimal cytoreduction. Since total parietal peritonectomy was introduced for treating peritoneal carcinomatosis from colorectal cancer [3], similar surgical techniques including pelvic peritonectomy have been applied in advanced ovarian cancer with peritoneal carcinomatosis [1], and these can increase the rate of complete cytoreduction up to 60% [2]."

The news correspondents obtained a quote from the research from Ajou University, "However, there are few reports on total parietal peritonectomy for ovarian cancer patients. In this surgical film, we showed total parietal peritonectomy with en bloc pelvic resection for
treating advanced ovarian cancer with peritoneal carcinomatosis. A 43 years-old woman was diagnosed with high-grade serous carcinoma of the ovary after right adnexectomy. Computed tomography demonstrated subdiaphragmatic involvements, omental cake, lymph node metastases and huge pelvic mass infiltrating the uterus, cul-de-sac, and pelvic peritoneum. Primary debulking surgery was considered because of a high likelihood for complete cytoreduction. First, the whole abdomen and pelvis were adequately exposed and the visceral organs thoroughly mobilized. Then, the parietal peritoneum was dissected from the subdiaphragmatic, paracolic and pelvic areas. Tumor-infiltrated visceral organs such as the uterus, adnexae, rectosigmoid colon and cul-de-sac were resected en bloc with the parietal peritoneum (Fig. 1)."

According to the news reporters, the research concluded: "Total parietal peritoneectomy with en bloc pelvic resection is a feasible procedure for removing peritoneal metastasis in advanced ovarian cancer patients, which contributes to optimal cytoreduction improving prognosis."

For more information on this research see: Total parietal peritoneectomy with en bloc pelvic resection for advanced ovarian cancer with peritoneal carcinomatosis. *Gynecologic Oncology*, 2016;143(3):688-689. *Gynecologic Oncology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news journalists report that additional information may be obtained by contacting S.J. Chang, Ajou University, Dept. of Obstet & Gynecol, Gynecol Canc Center, Sch Med, Suwon 16499, South Korea. Additional authors for this research include R.E. Bristow and S.J. Chang.

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Keywords for this news article include: Suwon, South Korea, Asia, Women's Health, Ovarian Cancer, Gynecology, Carcinomas, Oncology, Ajou University.

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Oncology - Breast Cancer

**New Findings from Alexandra Hospital in Breast Cancer Provides New Insights (Adding the power of iodinated contrast media to the credibility of mammography in breast cancer diagnosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting from Athens, Greece, by NewsRx journalists, research stated, "Dual-energy contrast-enhanced spectral mammography (CESM) represents a relatively new diagnostic tool adjunct to mammography. The aim of this study was to strengthen the breast imaging-reporting and data system (BIRADS) classification score in order to improve early breast cancer diagnosis."

The news correspondents obtained a quote from the research from Alexandra Hospital, "For this reason, we propose a sum score, termed malignancy potential score (MPS),
incorporating the standard BIRADS score and our proposed CESM score. From September 2014 to September 2015, 216 females (age range, 26-85 years; mean age 54.6 years) underwent CESM evaluation of mammographic findings that were primarily assessed as BIRADS 2-5. 10 of these patients had bilateral findings; a total of 226 lesions were examined. High-energy image evaluation was based on the intensity of contrast enhancement of the lesion compared with background enhancement, categorized as Type -1, 0, 1 or 2 enhancement. Histopathology reports were compared with imaging assessment. 98 of 226 lesions were malignant and 128 of 226 lesions were benign. The area under the curve was 0.843, 0.888 and 0.917 for mammographic BIRADS score, CESM score and MPS, respectively, with p-value < 0.05. The sensitivity, specificity and accuracy rates were 91.83, 80.47 and 85.40%, respectively, when a best MPS cut-off point of 4 was used. The malignancy potential score (MPS) has higher diagnostic performance than digital mammography or CESM alone."

According to the news reporters, the research concluded: "MPS empowers the credibility of the digital mammography BIRADS score and our proposed type of enhancement in dual-energy CESM and is a diagnostic tool that increases the accuracy rate in early breast cancer diagnosis."


Our news journalists report that additional information may be obtained by contacting C. Gkali, Alexandra Hosp, Dept. of Radiol, Athens, Greece. Additional authors for this research include C. Gkali, A. Chalazonitis, E. Feida, D.E. Vlachos, F. Zagouri, I. Rellias and C. Dimitrakakis.

Keywords for this news article include: Athens, Greece, Europe, Contrast Media, Article Review, Diagnostics and Screening, Breast Cancer Screening, Carcinoma Diagnostics, Risk and Prevention, Cancer Diagnostics, Women's Health, Mammography, Mammogram, Oncology, Alexandra Hospital.

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Blood Diseases and Conditions - Sepsis

New Findings from Alice Springs Hospital in Sepsis Provides New Insights (Optimising meropenem dosing in critically ill Australian Indigenous patients with severe sepsis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Blood Diseases and Conditions - Sepsis. According to news reporting out of Alice Springs, Australia, by NewsRx editors, research stated, "Currently there are no pharmacokinetic (PK) data to guide antibiotic dosing in critically ill Australian Indigenous patients with severe sepsis. This study aimed to determine whether the population pharmacokinetics of meropenem were different between critically ill Australian Indigenous and critically ill Caucasian patients."

Funders for this research include National Health and Medical Research Council of Australia, Australian Academy of Science's Douglas and Lola Douglas Scholarship, Alice Springs Specialists' Private Practice Trust Fund, Australian National Health and Medical...
Research Council Fellowship, Australian National Health and Medical Research Council for the Centres of Research Excellence.

Our news journalists obtained a quote from the research from Alice Springs Hospital, "Serial plasma and urine samples as well as clinical and demographic data were collected over two dosing intervals from critically ill Australian Indigenous patients. Plasma meropenem concentrations were assayed by validated chromatography. Concentration-time data were analysed with data from a previous PK study in critically ill Caucasian patients using Pmetrics. The population PK model was subsequently used for Monte Carlo dosing simulations to describe optimal doses for these patients. Six Indigenous and five Caucasian subjects were included. A two-compartment model described the data adequately, with meropenem clearance and volume of distribution of the central compartment described by creatinine clearance (CLCr) and patient weight, respectively. Patient ethnicity was not supported as a covariate in the final model. Significant differences were observed for meropenem clearance between the Indigenous and Caucasian groups [median 11.0 (range 3.0-14.1) L/h vs. 17.4 (4.3-30.3) L/h, respectively; \( P < 0.01 \)]. Standard dosing regimens (1 g intravenous every 8 h as a 30-min infusion) consistently achieved target exposures at the minimum inhibitory concentration breakpoint in the absence of augmented renal clearance."

According to the news editors, the research concluded: "No significant interethnic differences in meropenem pharmacokinetics between the Indigenous and Caucasian groups were detected and CLCr was found to be the strongest determinant of appropriate dosing regimens."


Our news journalists report that additional information may be obtained by contacting D. Tsai, Alice Springs Hosp, Dept. of Pharm, Alice Springs, NT, Australia. Additional authors for this research include P. Stewart, R. Goud, S. Gourley, S. Hewagama, S. Krishnaswamy, S.C. Wallis, J. Lipman and J.A. Roberts.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.08.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Alice Springs, Australia, Australia and New Zealand, Pharmaceuticals, Epidemiology, Blood Diseases and Conditions, Bloodstream Infection, Drugs and Therapies, Pharmacokinetics, Antiinfectives, Carbapenems, Antibiotics, Septicemia, Meropenem, Sepsis, Alice Springs Hospital.

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**Central Nervous System Diseases and Conditions**

**New Findings from All India Institute of Medical Sciences Describe Advances in Epilepsy (Behavioral effects and somnolence due to levetiracetam versus oxcarbazepine - a retrospective comparison study of North Indian patients with refractory ...)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions - Epilepsy have been presented. According to news reporting from New Delhi, India, by NewsRx journalists, research stated, "Levetiracetam (LEV) is often chosen early in the treatment of refractory epilepsy; however, its adverse effects have largely been studied as part of clinical trials. Oxcarbazepine and valproate (VPA) are the other commonly used AEDs and, hence, serve as good comparators."

The news correspondents obtained a quote from the research from the All India Institute of Medical Sciences, "This study was conducted to evaluate behavioral abnormalities and somnolence among patients with epilepsy being treated with LEV and/or OXC compared with those receiving VPA. Data of consecutive patients attending our intractable epilepsy clinic over a 2 1/2-year period were reviewed, and patients with at least one seizure a month, who had been initiated on either or a combination of LEV, VPA, or OXC, were included for analysis. Data regarding behavioral adverse effects, daytime somnolence (EDS), and weight changes were collected apart from those regarding any major effect necessitating dose reduction or discontinuation of the AED. Among a total of 445 patients screened, 292 (93 F, median age: 21 years [range: 8-54]; 237 focal and 55 generalized epilepsy) fulfilled inclusion criteria. Median epilepsy duration was 11 years. Levetiracetam had been introduced in 114 patients, VPA in 134, and OXC in 151 during the study period. Twenty-three were on LEV + OXC, 27 on LEV + VPA, and 33 on VPA + OXC. Behavioral disturbances (irritability, obsessive manifestations, aggressiveness, and frank psychosis) were observed in 43 patients; 23 on introduction of LEV (20.2%); LEV was discontinued in 10 (9%). Daytime somnolence was reported by 28 patients, 15 on OXC (10%); 8 received oral modafinil for the same, while none discontinued this AED. Only one patient on LEV and 3 on VPA reported EDS. Menstrual disturbances were reported by 9, weight gain by 3, and severe hair loss by 2 females on VPA. Behavioral disturbances with levetiracetam are common among patients with refractory epilepsy while somnolence is common with oxcarbazepine."

According to the news reporters, the research concluded: "Antiepileptic drugs should be selected with this in perspective."

For more information on this research see: Behavioral effects and somnolence due to levetiracetam versus oxcarbazepine - a retrospective comparison study of North Indian patients with refractory epilepsy. *Epilepsy & Behavior*, 2016;64():216-218. *Epilepsy & Behavior* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Epilepsy & Behavior - www.journals.elsevier.com/epilepsy-and-behavior/)

Our news journalists report that additional information may be obtained by contacting G. Shukla, All India Inst Med Sci, Dept. of Neurol, New Delhi, India. Additional authors for this research include A. Gupta, P. Agarwal and S. Poornima.

Keywords for this news article include: New Delhi, India, Asia, Central Nervous System Diseases and Conditions, Dibenzazepine Anticonvulsants, Central Nervous System Agents, Brain Diseases and Conditions, Pyrrolidine Anticonvulsants, Oxcarbazepine Therapy, Levetiracetam Therapy, Drugs and Therapies, Pharmaceuticals, Epilepsy, All India Institute of Medical Sciences.

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Eye Diseases and Conditions - Retinoblastoma

New Findings from All India Institute of Medical Sciences in Retinoblastoma Provides New Insights (Epigenetic regulation of human retinoblastoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Eye Diseases and Conditions - Retinoblastoma is the subject of a report. According to news reporting originating in New Delhi, India, by NewsRx journalists, research stated, "Retinoblastoma is a rare type of eye cancer of the retina that commonly occurs in early childhood and mostly affects the children before the age of 5. It occurs due to the mutations in the retinoblastoma gene (RB1) which inactivates both alleles of the RB1. RB1 was first identified as a tumor suppressor gene, which regulates cell cycle components and associated with retinoblastoma."

The news reporters obtained a quote from the research from the All India Institute of Medical Sciences, "Previously, genetic alteration was known as the major cause of its occurrence, but later, it is revealed that besides genetic changes, epigenetic changes also play a significant role in the disease. Initiation and progression of retinoblastoma could be due to independent or combined genetic and epigenetic events. Remarkable work has been done in understanding retinoblastoma pathogenesis in terms of genetic alterations, but not much in the context of epigenetic modification. Epigenetic modifications that silence tumor suppressor genes and activate oncogenes include DNA methylation, chromatin remodeling, histone modification and noncoding RNA-mediated gene silencing. Epigenetic changes can lead to altered gene function and transform normal cell into tumor cells. This review focuses on important epigenetic alteration which occurs in retinoblastoma and its current state of knowledge."

According to the news reporters, the research concluded: "The critical role of epigenetic regulation in retinoblastoma is now an emerging area, and better understanding of epigenetic changes in retinoblastoma will open the door for future therapy and diagnosis."

For more information on this research see: Epigenetic regulation of human retinoblastoma. Tumor Biology, 2016;37(11):14427-14441. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news correspondents report that additional information may be obtained by contacting J. Kaur, All India Inst Med Sci, Dept. of Ocular Biochem, Dr Rajendra Prasad Center Ophthalm Sci, New Delhi, India. Additional authors for this research include M.A. Malik, S. Goswami, S. Shukla and J. Kaur.

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Keywords for this news article include: New Delhi, India, Asia, Oncology, Article Review, Genetics, Retinal Diseases and Conditions, Eye Diseases and Conditions, Tumor Suppression, Retinal Neoplasms, Retinoblastoma, Ophthalmology, Eye Neoplasms, All India Institute of Medical Sciences.

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New Findings from Almirall S.A. in the Area of Structural Biology Reported
(Biphenyl Pyridazinone Derivatives as Inhaled PDE4 Inhibitors: Structural Biology and Structure-Activity Relationships)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Structural Biology are discussed in a new report. According to news reporting from Barcelona, Spain, by NewsRx journalists, research stated, "Cyclic nucleotide cAMP is a ubiquitous secondary messenger involved in a plethora of cellular responses to biological agents involving activation of adenylyl cyclase. Its intracellular levels are tightly controlled by a family of cyclic nucleotide degrading enzymes, the PDEs."

The news correspondents obtained a quote from the research from Almirall S.A., "In recent years, cyclic nucleotide phosphodiesterase type 4 (PDE4) has aroused scientific attention as a suitable target for anti-inflammatory therapy in respiratory diseases, particularly in the management of asthma and COPD. Here we describe our efforts to discover novel, highly potent inhaled inhibitors of PDE4. Through structure based design, with the inclusion of a variety of functional groups and physicochemical profiles in order to occupy the solvent filled pocket of the PDE4 enzyme, we modified the structure of our oral PDE4 inhibitors to reach compounds down to picomolar enzymatic potencies while at the same time tackling successfully an uncovered selectivity issue with the adenosine receptors."

According to the news reporters, the research concluded: "In vitro potencies were demonstrated in a rat lung neutrophilia model by administration of a suspension with a Penn-Century Micro Sprayer Aerosolizer."


Our news journalists report that additional information may be obtained by contacting J. Gracia, Almirall SA, Center Invest & Desarrollo, Medical Chem & Screening, Barcelona 08980, Spain. Additional authors for this research include M.A. Buil, J. Castro, P. Eichhorn, M. Ferrer, A. Gavalda, B. Hernandez, V. Segarra, M.D. Lehner, I. Moreno, L. Pages, R.S. Roberts, J. Serrat, S. Sevilla, J. Taltavull, M. Andres, J. Cabedo, D. Vilella, E. Calama and Carcasona.

Keywords for this news article include: Barcelona, Spain, Europe, Cyclic Nucleotide Research, Structural Biology, Genetics, Almirall S.A.

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New Findings from Amiens University Hospital Update Understanding of Antibiotics (Tolerability and Plasma Drug Level Monitoring of Prolonged Subcutaneous Teicoplanin Treatment for Bone and Joint Infections)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antibiotics.

According to news reporting out of Amiens, France, by NewsRx editors, research stated, "Teicoplanin is a key drug for the treatment of multiresistant staphylococcal bone and joint infections (BJI), yet can only be administered via a parenteral route. The objective of this study was to evaluate the safety and tolerability of subcutaneous (s.c.) teicoplanin for that indication over 42 days."

Our news journalists obtained a quote from the research from Amiens University Hospital, "Thirty patients with Gram-positive cocci BJI were included. Once the target of 25 to 40 mg/liter trough serum concentration was achieved, treatment was switched from an intravenous to an s.c. route. No discontinuation of teicoplanin related to injection site reaction and no severe local adverse event were observed."

According to the news editors, the research concluded: "On multivariate analysis, better tolerability was observed at the beginning of treatment, in patients over 70 years old, and for dosages less than 600 mg. we recommend s.c. administration of teicoplanin when needed."

For more information on this research see: Tolerability and Plasma Drug Level Monitoring of Prolonged Subcutaneous Teicoplanin Treatment for Bone and Joint Infections. Antimicrobial Agents and Chemotherapy, 2016;60(10):6365-6368. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting Y. El Samad, Amiens Univ Hosp, Dept. of Infect Dis, Amiens, France. Additional authors for this research include J.P. Lanoix, Y. Bennis, M. Diouf, C. Saroufim, B. Brunschweiler, F. Rousseau, C. Joseph, F. Hamdad, M.A.A. Meziane, S. Routier and J.L. Schmit.

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Keywords for this news article include: Amiens, France, Europe, Bone and Joint Infections, Drugs and Therapies, Infectious Disease, Bone Research, Glycopeptides, Orthopedics, Teicoplanin, Antibiotics, Peptides, Amiens University Hospital.

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New Findings from Anna University in Plethysmography Provides New Insights (An adaptive delineator for photoplethysmography waveforms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Plethysmography. According to news originating from Tamil Nadu, India, by NewsRx correspondents, research stated, "Photoplethysmography (PPG) waveforms are rich in cardiovascular information, and hence, their analysis is significant in the diagnosis and prevention of cardiovascular diseases (CVDs). The second derivative of photoplethysmography (SDPPG) analysis for the accurate detection of significant points in characterising the PPG waveform is challenging."

Our news journalists obtained a quote from the research from Anna University, "In this paper, a SDPPG analysis algorithm is proposed based on a resampling technique which normalises the signal and ensures the presence of all significant points of interest in all its recurrences. The proposed delineator detects a, b and e waves in SDPPG, which are based on the combined analysis of PPG waveforms and their second derivatives, characterising them beat-by-beat by electrocardiogram (ECG) signals. Experiments have been conducted on 46 PPG signal records, each of 10-s duration with low and varying amplitudes, and regular and irregular heart rhythms for healthy adults, as well as unhealthy and aged patients obtained from the large-scale openly available database PhysioNet."

According to the news editors, the research concluded: "Based on the experiments conducted, it is found that the proposed algorithm performs better than existing methods in terms of sensitivity and positive predictivity with a highest sensitivity of 99.84% with respect to a (onset) and b waves, 99.67% for e waves (dicrotic notch), and 100% of positive predictivity for a and b waves and 99.82% in case of e waves."


The news correspondents report that additional information may be obtained from M. Soundararajan, Anna University, Chennai, Tamil Nadu, India. Additional authors for this research include S. Arunagiri and S. Alagala.

Keywords for this news article include: Tamil Nadu, India, Asia, Diagnostic Techniques and Procedures, Photoplethysmography, Cardiovascular, Cardiology, Diagnosis, Anna University.

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New Findings from Aristotle University in the Area of Skin Cancer Reported (Skin cancer risk in outdoor workers: a European multicenter case-control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Skin Cancer are presented in a new report.
According to news reporting originating from Thessaloniki, Greece, by NewsRx correspondents, research stated, "Exposure to ultraviolet radiation (UVR) is the most important external risk factor for skin cancer. Outdoor workers, who are exposed to high ambient UVR levels are at increased risk."

Financial supporters for this research include European Commission, Leo Pharma, European Public Health Agency.

Our news editors obtained a quote from the research from Aristotle University, "To compare outdoor with indoor workers in terms of: (i) skin cancer risk factors, and (ii) risk of developing skin cancer. Using descriptive methods and a large multicenter European case-control study, we compared risk factor patterns between outdoor (N=1416) and indoor workers (N=1863). Risk of developing basal cell carcinoma (BCC), squamous cell carcinoma (SCC), melanoma and actinic keratosis (AK) were analysed by type of work using multivariate logistic regression models, for three categories of work: indoor; farming/construction; other outdoor work. Although skin phototype was equally distributed by type of work, significantly less outdoor than indoor workers used sunscreen in their own country (44.3% vs. 60.2%), but had more outdoor hobbies (66.2% vs. 58.2%). Outdoor workers had lower educational levels, and felt less confident in understanding medical information and filling medical forms (all p<0.001). Outdoor workers had more signs of photodamage (78.1% vs. 65.5%) and among the skin cancer patients, 37.7% of outdoor workers vs. 28.6% of indoor workers had (>=)2 skin cancers diagnosed during their lifetime. Multivariate logistic regression models showed significantly increased risk of outdoor vs. indoor work for AK (ORother outdoor=1.55, ORfarming/construction=2.58), SCC (ORother outdoor=1.32, ORfarming/construction=2.77) and BCC (ORother outdoor=1.53, ORfarming/construction=1.83). No significant associations were found for melanoma. The risk of all types of skin cancer and AK was significantly increased for workers with (>=)5 years of outdoor work. Outdoor workers had more risk behaviour with similar constitutional skin cancer risk factors: more UV exposure (both occupational and leisure) and less sunscreen use and lower health literacy."

According to the news editors, the research concluded: "This results in higher exposure, more photodamage and an increased risk of developing AK, BCC and SCC."


The news editors report that additional information may be obtained by contacting M. Trakatelli, Dept. of Dermatology, Papageorgiou Hospital, Aristotle University of Thessaloniki, Thessaloniki, Greece. Additional authors for this research include K. Barkitzi, C. Apap, S. Majewski and E. De Vries.

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Keywords for this news article include: Greece, Europe, Oncology, Cancer Risk, Skin Cancer, Thessaloniki, Skin Neoplasms, Basal Cell Cancer, Risk and Prevention, Basal Cell Carcinoma, Squamous Cell Carcinoma, Diagnostics and Screening.

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Immune System Diseases and Conditions - HIV/AIDS

New Findings from Autonomous University Describe Advances in HIV/AIDS (Vulvar intraepithelial neoplasia: clinical presentation, management and outcomes in women infected with HIV)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immune System Diseases and Conditions - HIV/AIDS is the subject of a report. According to news reporting originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Immunocompromised patients are at increased risk of developing preinvasive lesions of the lower genital tract. There are a limited number of studies on vulvar intraepithelial neoplasia (VIN) in HIV-positive women."

Our news editors obtained a quote from the research from Autonomous University, "We aimed to review the clinical presentation of VIN, management and survival outcomes in this group of patients. Observational cohort study. Data was collected from women diagnosed with VIN at the Hospital Vall d'Hebron between September 1994 and October 2011. The main outcome measures were recurrence-free survival (RFS) and progression-free survival (PFS). Risk factors for recurrence and progression were assessed using univariate and multivariate analyses. Thirty-seven out of 107 women were HIV positive (34.6%). The median follow-up time was 32 (range 12-179) months. Compared with the HIV-negative group, HIV-positive women were younger (median age 37 vs. 44 years, p=0.003) and presented with multifocal and multicentric disease more frequently (63.6 vs. 22.2% and 84.8 vs. 43.3%, respectively, p <0.0001). RFS and PFS were lower in the HIV-positive group (42.4 vs. 71.4% p=0.043 and 69.7 vs. 95.2% p=0.006, respectively). RFS was significantly associated to multicentric and multifocal disease on multivariate analysis. PFS was associated to HIV infection on univariate analysis. HIV-positive women are at increased risk of developing VIN and frequently present at a younger age with multifocal and multicentric disease. They have shorter RFS and PFS compared with HIV-negative women. Close surveillance of the lower genital tract is mandatory to enable early recognition and treatment of any suspicious lesions."

According to the news editors, the research concluded: "Close follow-up after treatment of VIN is essential to exclude early recurrence or progression."

For more information on this research see: Vulvar intraepithelial neoplasia: clinical presentation, management and outcomes in women infected with HIV. Aids, 2016;30(6):859-68. (Lippincott Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx)

The news editors report that additional information may be obtained by contacting M. Bradbury, aDept. of Gynecological Oncology bDept. of Pathology, Hospital Vall d'Hebron, Universitat Autonoma de Barcelona, Barcelona, Spain. Additional authors for this research include S. Cabrera, A. Garcia-Jimenez, S. Franco-Camps, J.L. Sanchez-Iglesias, B. Diaz-Feijoo, A. Perez-Benavente, A. Gil-Moreno and C. Centeno-Mediavilla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/QAD.0000000000000984. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, HIV/AIDS, Barcelona, Neoplasia, RNA Viruses, Epidemiology, Retroviridae, HIV Infections, Vertebrate Viruses, Risk and Prevention, Primate Lentiviruses, Immune System Diseases and Conditions, Viral Sexually Transmitted Diseases and Conditions.
Liver Diseases and Conditions - Hepatitis C Virus

New Findings from Autonomous University Update Understanding of Hepatitis C Virus (New real-time-PCR method to identify single point mutations in hepatitis C virus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis C Virus are presented in a new report. According to news reporting originating from Barcelona, Spain, by NewsRx correspondents, research stated, "To develop a fast, low-cost diagnostic strategy to identify single point mutations in highly variable genomes such as hepatitis C virus (HCV). In patients with HCV infection, resistance-associated amino acid substitutions within the viral quasispecies prior to therapy can confer decreased susceptibility to direct-acting antiviral agents and lead to treatment failure and virological relapse."

Our news editors obtained a quote from the research from Autonomous University, "One such naturally occurring mutation is the Q80K substitution in the HCV-NS3 protease gene, which confers resistance to PI inhibitors, particularly simeprevir. Low-cost, highly sensitive techniques enabling routine detection of these single point mutations would be useful to identify patients at a risk of treatment failure. LightCycler methods, based on real-time PCR with sequence-specific probe hybridization, have been implemented in most diagnostic laboratories. However, this technique cannot identify single point mutations in highly variable genetic environments, such as the HCV genome. To circumvent this problem, we developed a new method to homogenize all nucleotides present in a region except the point mutation of interest. Using nucleotide-specific probes Q, K, and R substitutions at position 80 were clearly identified at a sensitivity of 10% (mutations present at a frequency of at least 10% were detected). The technique was successfully applied to identify the Q80K substitution in 240 HCV G1 serum samples, with performance comparable to that of direct Sanger sequencing, the current standard procedure for this purpose. The new method was then validated in a Catalanian population of 202 HCV G1-infected individuals. Q80K was detected in 14.6% of G1a patients and 0% of G1b in our setting. A fast, low-cost diagnostic strategy based on real-time PCR and fluorescence resonance energy transfer probe melting curve analysis has been successfully developed to identify single point mutations in highly variable genomes such as hepatitis C virus."

According to the news editors, the research concluded: "This technique can be adapted to detect any single point mutation in highly variable genomes."


The news editors report that additional information may be obtained by contacting F. Rodriguez-Frias, Autonomous University of Barcelona, E-08193 Barcelona, Spain. Additional authors for this research include I. Belmonte, M. Buti, L. Nieto, D. Garcia-Cechic, J. Gregori, C. Perales, L. Ordeig, M. Llorens, M.E. Soria, R. Esteban, J.I. Esteban, F. Rodriguez-Frias and J.
New Findings from B. Montaruli et al Broadens Understanding of Immunoglobulins (Analytical and clinical comparison of different immunoassay systems for the detection of antiphospholipid antibodies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Immunoglobulins have been published. According to news reporting originating from Torino, Italy, by NewsRx correspondents, research stated, "We evaluated analytical and clinical performances of IgG and IgM anticardiolipin (aCL) antibodies and anti-b2-glycoprotein I (a-b2GpI) antibodies and upper limit reference ranges (99th percentiles) in comparison with manufacturer's cutoff values with different commercial methods. We assayed aCL and a-b2GpI in serum samples from 30 healthy individuals, 77 patients with antiphospholipid syndrome (APS) diagnosed according to the Sydney criteria, 51 patients with autoimmune diseases, eight patients with previous thrombotic events, six patients with other diseases, and 18 patients with infectious diseases, using ELISA Inova Diagnostics; EliA Phadia Laboratory Systems; CliA Zenit-RA; and CliA Bio-Flash."

Our news editors obtained a quote from the research, "Anticardiolipin and a-b2GpI IgG and IgM immunoassays showed good analytic performances with both 99th percentile and manufacturer's cutoff reference values. Our results showed fair to moderate agreement among assays. In-house cutoff values gave significantly better performances only for a-b2GpI IgG with all the immunoassays analyzed with the exception of Inova CliA Bio-Flash where we obtained the same performances with in-house and manufacturer's cutoffs. By guidelines, all laboratories are strongly advised to validate/verify the manufacturer's cutoff values."

According to the news editors, the research concluded: "We recommend establishing low-positive, medium-/high-positive, and high-positive CliA IgG aCL and a-b2GpI ranges in order to help clinicians in the diagnosis and treatment of APS."


The news editors report that additional information may be obtained by contacting B. Montaruli, Laboratory Analysis, AO Ordine Mauriziano, Torino, Italy. Additional authors for
this research include E. De Luna, L. Erroi, C. Marchese, G. Mengozzi, P. Napoli, C. Nicolo', A. Romito, M.T. Bertero, P. Sivera and M. Migliardi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12466. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the International Journal of Laboratory Hematology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Antibodies, Italy, Torino, Europe, Immunology, Blood Proteins, Immunoglobulins.

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Immune System Diseases and Conditions - Graft-…

New Findings from B. Van Aelst and Co-Authors in the Area of Graft-Versus-Host Disease Reported (Psoralen and Ultraviolet A Light Treatment Directly Affects Phosphatidylinositol 3-Kinase Signal Transduction by Altering Plasma Membrane Packing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - Graft-Versus-Host Disease are presented in a new report. According to news originating from Ghent, Belgium, by NewsRx correspondents, research stated, "Psoralen and ultraviolet A light (PUNTA) are used to kill pathogens in blood products and as a treatment of aberrant cell proliferation in dermatitis, cutaneous T-cell lymphoma, and graft versus-host disease. DNA damage is well described, but the direct effects of PUVA on cell signal transduction are poorly understood."

Our news journalists obtained a quote from the research, "Because platelets are anucleate and contain archetypal signal transduction machinery, they are ideally suited to address this. Lipidomics on platelet membrane extracts showed that psoralen forms adducts with unsaturated carbon bonds of fatty acyls in all major phospholipid classes after PUVA. Such adducts increased lipid packing as measured by a blue shift of an environment-sensitive fluorescent probe in model liposomes. Furthermore, the interaction of these liposomes with lipid order-sensitive proteins like amphipathic lipid-packing sensor and a-synuclein was inhibited by PUVA. In platelets, PUVA caused poor membrane binding of Akt and Bruton's tyrosine kinase effectors following activation of the collagen glycoprotein VI and thrombin protease-activated receptor (PAR) 1. This resulted in defective Akt phosphorylation despite unaltered phosphatidylinositol 3,4,5-trisphosphate levels. Downstream integrin activation was furthermore affected similarly by PUVA following PAR1 (effective half-maximal concentration (EC), 8.4 +/- 1.1 versus 4.3 +/- 1.1 mu M) and glycoprotein VI (EC50, 1.61 +/- 0.85 versus 0.26 +/- 0.21 mu g/ml) but not PAR4 (EC50, 50 +/- 1 versus 58 +/- 1 mu m) signal transduction. Our findings were confirmed in T-cells from graft-versus-host disease patients treated with extracorporeal photopheresis, a form of systemic PUVA."

According to the news editors, the research concluded: "PUVA increases the order of lipid phases by covalent modification of phospholipids, thereby inhibiting membrane recruitment of effector kinases."

For more information on this research see: Psoralen and Ultraviolet A Light

The news correspondents report that additional information may be obtained from H.B. Feys, Belgian Red Cross Flanders, Transfus Res Center, B-9000 Ghent, Belgium. Additional authors for this research include R. Devloo, P. Zachee, R. t'Kindt, K. Sandra, P. Vandekerckhove, V. Compernolle and H.B. Feys.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.735126. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ghent, Belgium, Europe, Immune System Diseases and Conditions, Graft-Versus-Host Disease, Enzymes and Coenzymes, Glycoconjugates, Glycoproteins, Biotechnology, Liposomes, Genetics, Kinase.

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**Drugs and Therapies - Androgens**

**New Findings from Baylor University College of Medicine Describe Advances in Androgens (Non-Cell-Autonomous Regulation of Prostate Epithelial Homeostasis by Androgen Receptor)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Androgens have been presented. According to news reporting out of Houston, Texas, by NewsRx editors, research stated, "Prostate inflammation has been suggested as an etiology for benign prostatic hyperplasia (BPH). We show that decreased expression of the androgen receptor (AR) in luminal cells of human BPH specimens correlates with a higher degree of regional prostatic inflammation."

Our news journalists obtained a quote from the research from the Baylor University College of Medicine, "However, the cause-and-effect relationship between the two events remains unclear. We investigated specifically whether attenuating AR activity in prostate luminal cells induces inflammation. Disrupting luminal cell AR signaling in mouse models promotes cytokine production cell-autonomously, impairs epithelial barrier function, and induces immune cell infiltration, which further augments local production of cytokines and chemokines including IL-1 and Ccl2. This inflammatory microenvironment promotes AR-independent prostatic epithelial proliferation, which can be abolished by ablating IL-1 signaling or depleting its major cellular source, the macrophages."

According to the news editors, the research concluded: "This study demonstrates that disrupting luminal AR signaling promotes prostate inflammation, which may serve as a mechanism for resistance to androgen-targeted therapy for prostate-related diseases."

For more information on this research see: Non-Cell-Autonomous Regulation of Prostate Epithelial Homeostasis by Androgen Receptor. *Molecular Cell*, 2016;63(6):976-989. *Molecular Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell -

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.07.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Transcription Factors, DNA-Binding Proteins, Drugs and Therapies, Androgen Receptors, Steroid Receptors, Inflammation, Androgens, Baylor University College of Medicine.

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Nutritional and Metabolic Diseases and Conditions - …

New Findings from Baylor University College of Medicine in the Area of Type 2 Diabetes Reported (A Plethora of GLP-1 Agonists: Decisions About What to Use and When)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been presented. According to news reporting out of Houston, Texas, by NewsRx editors, research stated, "Incretin-based therapies are important addition to our armamentarium for the treatment of type 2 diabetes (T2DM). There are six Glucagon-like peptide-1 receptor agonists (GLP-1RAs) which have received regulatory approval for clinical use."

Our news journalists obtained a quote from the research from the Baylor University College of Medicine, "The short-acting GLP-1RAs include exenatide twice daily, liraglutide once daily, and lixisenatide once daily. The approved long-acting GLP-1RAs are administered weekly and are exenatide, albiglutide, and dulaglutide. Although all of these therapies lower hemoglobin A1C (HbA1C), there also are unique features of GLP-1RAs that have been made manifest from clinical trial data with regard to weight-loss efficacy, fasting and post-prandial glucose control, cardiovascular safety and protection, and gastrointestinal and injection adverse effects."

According to the news editors, the research concluded: "It is imperative to consider these features when tailoring the choice of a GLP-1RA to patient specific characteristics."

For more information on this research see: A Plethora of GLP-1 Agonists: Decisions About What to Use and When. Current Diabetes Reports, 2016;16(12):16-28. Current Diabetes Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Diabetes Reports - www.springerlink.com/content/1534-4827/)

Our news journalists report that additional information may be obtained by contacting S.L. Samson, Baylor College of Medicine, Dept. of Med, Houston, TX 77030,
New Findings from Beijing Academy of Agriculture and Forestry Science Update Understanding of Circovirus (Induction of a Cellular DNA Damage Response by Porcine Circovirus Type 2 Facilitates Viral Replication and Mediates Apoptotic Responses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on DNA Viruses - Circovirus is the subject of a report. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Cellular DNA damage response (DDR) triggered by infection of DNA viruses mediate cell cycle checkpoint activation, DNA repair, or apoptosis induction. In the present study, infection of porcine circovirus type 2 (PCV2), which serves as a major etiological agent of PCV2-associated diseases (PCVAD), was found to elicit a DNA damage response (DDR) as observed by the phosphorylation of H2AX and RPA32 following infection."

Our news editors obtained a quote from the research from the Beijing Academy of Agriculture and Forestry Science, "The response requires active viral replication, and all the ATM (ataxia telangiectasia-mutated kinase), ATR (ATM-and Rad3-related kinase), and DNA-PK (DNA-dependent protein kinase) are the transducers of the DDR signaling events in the PCV2-infected cells as demonstrated by the phosphorylation of ATM, ATR, and DNA-PK signalings as well as reductions in their activations after treatment with specific kinase inhibitors. Inhibitions of ATM, ATR, and DNA-PK activations block viral replication and prevent apoptotic responses as observed by decreases in cleaved poly-ADP ribose polymerase (PARP) and caspase-3 as well as fragmented DNA following PCV2 infection."

According to the news editors, the research concluded: "These results reveal that PCV2 is able to exploit the cellular DNA damage response machinery for its own efficient replication and for apoptosis induction, further extending our understanding for the molecular mechanism of PCV2 infection."

For more information on this research see: Induction of a Cellular DNA Damage Response by Porcine Circovirus Type 2 Facilitates Viral Replication and Mediates Apoptotic Responses. Scientific Reports, 2016;6():1-12. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)


Keywords for this news article include: Beijing, People's Republic of China, Asia,
Enzymes and Coenzymes, Deoxyribonucleic Acid, DNA Research, Circoviridae, DNA Viruses, Proteomics, DNA Damage, Circovirus, Genetics, Kinase, Beijing Academy of Agriculture and Forestry Science.

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Drugs and Therapies - Drug Delivery Systems

New Findings from Beijing University of Chemical Technology Describe Advances in Drug Delivery Systems (Microneedles with Controlled Bubble Sizes and Drug Distributions for Efficient Transdermal Drug Delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Drug Delivery Systems is now available. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Drug loaded dissolving microneedles (DMNs) fabricated with water soluble polymers have received increasing attentions as a safe and efficient transdermal drug delivery system. Usually, to reach a high drug delivery efficiency, an ideal drug distribution is gathering more drugs in the tip or the top part of DMNs."

Our news journalists obtained a quote from the research from the Beijing University of Chemical Technology, "In this work, we introduce an easy and new method to introduce a bubble with controlled size into the body of DMNs. The introduction of bubbles can prevent the drug diffusion into the whole body of the MNs. The heights of the bubbles are well controlled from 75 μm to 400 μm just by changing the mass concentrations of polymer casting solution from 30 wt% to 10 wt%. The drug-loaded bubble MNs show reliable mechanical properties and successful insertion into the skins. For the MNs prepared from 15 wt% PVA solution, bubble MNs achieve over 80% of drug delivery efficiency in 20 seconds, which is only 10% for the traditional solid MNs. Additionally, the bubble microstructures in the MNs are also demonstrated to be consistent and identical regardless the extension of MN arrays."

According to the news editors, the research concluded: "These scalable bubble MNs may be a promising carrier for the transdermal delivery of various pharmaceuticals."

For more information on this research see: Microneedles with Controlled Bubble Sizes and Drug Distributions for Efficient Transdermal Drug Delivery. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from X.D. Guo, Beijing University of Chemical Technology, Coll Mat Sci & Engn, Beijing Lab Biomed Mat, Beijing, People's Republic of China. Additional authors for this research include D.D. Zhu, X.B. Liu, B.Z. Chen and X.D. Guo.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Drug Delivery Systems, Transdermal Delivery, Drugs and Therapies, Biotechnology, Beijing University of Chemical Technology.

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New Findings from Boehringer Ingelheim Pharmaceuticals Update Understanding of Coagulation Modifiers (Idarucizumab, a specific reversal agent for dabigatran: mode of action, pharmacokinetics and pharmacodynamics, and safety and efficacy in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Coagulation Modifiers is the subject of a report. According to news reporting originating in Ridgefield, Connecticut, by NewsRx journalists, research stated, "The direct oral anticoagulants (DOACs) provide a number of clinical advantages over vitamin K antagonists for the treatment of thromboembolism, including improved efficacy and safety, as well as no need for regular monitoring of anticoagulant effect. However, as with all anticoagulants, bleeding complications may occur, and anticoagulant reversal may be required in specific clinical situations, such as in patients experiencing spontaneous or traumatic bleeds, or in anticoagulated patients requiring emergency surgery or other invasive procedures."

The news reporters obtained a quote from the research from Boehringer Ingelheim Pharmaceuticals, "Therefore, several reversal agents for the DOACs are in development. This includes the specific reversal agent idarucizumab, which has been approved by the U.S. Food and Drug Administration and the European Medicines Agency for use in patients treated with dabigatran when urgent reversal of its anticoagulant effects is needed. Idarucizumab is a humanized monoclonal antibody fragment that binds with high affinity to free and thrombin-bound dabigatran, resulting in an almost irreversibly bound idarucizumab-dabigatran complex and thereby neutralizing dabigatran's anticoagulant activity. The reversal of the anticoagulant effects of dabigatran by idarucizumab has been demonstrated in animal bleeding models, in healthy volunteers with a range of ages and renal function, and in anticoagulated patients. In the phase 1 trials, at doses of 2 g or greater, idarucizumab resulted in immediate and complete reversal of the dabigatran anticoagulant effects and was well tolerated. In the absence of dabigatran, idarucizumab showed no effect on coagulation parameters or thrombin formation."

According to the news reporters, the research concluded: "These findings provide initial evidence that idarucizumab could provide a safe and effective means of reversing anticoagulant activity in patients treated with dabigatran in need of emergency surgery or in emergency bleeding situations."


Our news correspondents report that additional information may be obtained by contacting P.A. Reilly, Boehringer Ingelheim Pharmaceuticals Inc, Clin Dev, Cardiol, Ridgefield, CT 06877, United States. Additional authors for this research include J. van Ryn, O. Grottke, S. Glund and J. Stangier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.09.050. This DOI is a link to an online electronic
Bone Research

New Findings from Brussels Free University Describe Advances in Bone Research (Bone health in the elderly cancer patient: A SIOG position paper)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Bone Research have been published. According to news reporting originating in Brussels, Belgium, by NewsRx journalists, research stated, "More than a third of cancers are diagnosed in people over the age of 75. Androgen deprivation for prostate cancer and aromatase inhibitors in breast cancer accelerate age-related bone loss and increase fracture rates."

The news reporters obtained a quote from the research from Brussels Free University, "BMD should be checked by dual energy X-ray absorptiometry at baseline and, dependent on risk, every 12-24 months. Sufficient calcium, vitamin D and exercise are part of primary fracture prevention. Resistance exercise in particular may improve functional activity and bone density. In men at increased fracture risk and women with postmenopausal early breast cancer, antiresorptive treatment is warranted to reduce fracture rate and to increase overall survival in breast cancer. Bone metastases (BM) are common in breast and prostate cancer ancytic bone lesions typical of multiple myeloma. They can cause fractures, pain and spinal cord compression, require surgery or radiation for symptom relief, and lead to hypercalcaemia. Multidisciplinary working with patients and carers can improve quality of life for elderly patients with BM and mitigate the adverse consequences of therapy. Bisphosphonates and other osteoclast inhibitors such as denosumab reduce this morbidity, improve quality of life and reduce pain. Especially in the elderly, attention should be paid to renal function and to risk factors for osteonecrosis with bone-modifying agents. Attention should also be paid to hypocalcaemia risk, which can be considerable in elderly men with metastatic prostate cancer and vitamin.D deficiency."

According to the news reporters, the research concluded: "We urgently need further research specifically directed at assessing risks and benefits of bone targeted treatments in the growing population of elderly cancer patients."


Our news correspondents report that additional information may be obtained by contacting J.J. Body, Brussels Free University, CHU Brugmann, Brussels, Belgium. Additional authors for this research include E. Terpos, B. Tombal, P. Hadji, A. Arif, A. Young, M. Aapro and R. Coleman.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ctrv.2016.10.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Cancer, Article Review, Risk and Prevention, Bone Research, Oncology, Brussels Free University.

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Aldehydes

New Findings from C. Van Landingham and Colleagues Has Provided New Data on Aldehydes (The need for transparency and reproducibility in documenting values for regulatory decision making and evaluating causality: The example of formaldehyde)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Aldehydes have been published. According to news reporting originating in Monroe, Louisiana, by NewsRx journalists, research stated, "Reproducibility and transparency in scientific reporting is paramount to advancing science and providing the foundation required for sound regulation. Recent examples demonstrate that pivotal scientific findings cannot be replicated, due to poor documentation or methodological bias, sparking debate across scientific and regulatory communities."

Financial support for this research came from Research Foundation for Health and Environmental Effects.

The news reporters obtained a quote from the research, "However, there is general agreement that improvements in communicating and documenting research and risk assessment methods are needed. In the case of formaldehyde, the peer-review conducted by a National Academy of Sciences (NAS) Committee questioned the approaches used by the Integrated Risk Information System (IRIS) in developing draft unit risk values. Using the original data from the key study (Beane Freeman et al., 2009) and documentation provided in the draft IRIS profile, we attempted to duplicate the reported inhalation unit risk values and address the NAS Committee's questions regarding application of the appropriate dose-response model. Overall, documentation of the methods lacked sufficient detail to allow for replication of the unit risk estimates, specifically for Hodgkin lymphoma and leukemias, the key systemic endpoints selected by IRIS."

According to the news reporters, the research concluded: "The lack of apparent exposure-response relationships for selected endpoints raises the question whether quantitative analyses are appropriate for these endpoints, and if so, how results are to be interpreted."


Our news correspondents report that additional information may be obtained by contacting P.R. Gentry, Ramboll Environ US Corp, Monroe, LA 71201, United States.
Additional authors for this research include K.A. Mundt, B.C. Allen and P.R. Gentry.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.10.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Monroe, Louisiana, United States, North and Central America, Aldehydes, Formaldehyde.

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Hormones

New Findings from CHA University Describe Advances in Hormones (Melatonin prevents cisplatin-induced primordial follicle loss via suppression of PTEN/AKT/FOXO3a pathway activation in the mouse ovary)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hormones. According to news reporting originating from Gyeonggi Do, South Korea, by NewsRx correspondents, research stated, "Premature ovarian failure (POF) is a major side effect of chemotherapy in young cancer patients. To develop pharmaceutical agents for preserving fertility, it is necessary to understand the mechanisms responsible for chemotherapy-induced follicle loss."

Financial supporters for this research include Korean Healthcare Technology R&D Project, Basic Science Research and Priority Research Centers Program, National Research Foundation of Korea, Ministry of Education, Bio & Medical Technology Development Program of NRF, Ministry of Education, Science and Technology.

Our news editors obtained a quote from the research from CHA University, "Here, we show that treatment with cisplatin, a widely used anticancer drug, depleted the dormant follicle pool in mouse ovaries by excessive activation of the primordial follicles, without inducing follicular apoptosis. Moreover, we show that co-treatment with the antioxidant melatonin prevented cisplatin-induced disruption of the follicle reserve. We quantified the various stages of growing follicles, including primordial, primary, secondary, and antral, to demonstrate that cisplatin treatment alone significantly decreased, whereas melatonin co-treatment preserved, the number of primordial follicles in the ovary. Importantly, analysis of the PTEN/AKT/FOXO3a pathway demonstrated that melatonin significantly decreased the cisplatin-mediated inhibitory phosphorylation of PTEN, a key negative regulator of dormant follicle activation. Moreover, melatonin prevented the cisplatin-induced activating phosphorylation of AKT, GSK3b, and FOXO3a, all of which trigger follicle activation. Additionally, we show that melatonin inhibited the cisplatin-induced inhibitory phosphorylation and nuclear export of FOXO3a, which is required in the nucleus to maintain dormancy of the primordial follicles."

According to the news editors, the research concluded: "These findings demonstrate that melatonin attenuates cisplatin-induced follicle loss by preventing the phosphorylation of PTEN/AKT/FOXO3a pathway members; thus, melatonin is a potential therapeutic agent for ovarian protection and fertility preservation during chemotherapy in female cancer patients."

For more information on this research see: Melatonin prevents cisplatin-induced primordial follicle loss via suppression of PTEN/AKT/FOXO3a pathway activation in the
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**Clinical Research - Clinical Trials and Studies**

**New Findings from CIBERESP Describe Advances in Clinical Trials and Studies (Chronotherapy versus conventional statins therapy for the treatment of hyperlipidaemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Clinical Research - Clinical Trials and Studies is the subject of a report. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "Elevated levels of total cholesterol and low-density lipoprotein play an important role in the development of atheromas and, therefore, in cardiovascular diseases. Cholesterol biosynthesis follows a circadian rhythm and is principally produced at night (between 12:00 am and 6:00 am)."

Our news journalists obtained a quote from the research from CIBERESP, "The adjustment of hypolipaemic therapy to biologic rhythms is known as chronotherapy. Chronotherapy is based on the idea that medication can have different effects depending on the hour at which it is taken. Statins are one of the most widely used drugs for the prevention of cardiovascular events. In usual clinical practice, statins are administered once per day without specifying the time when they should be taken. It is unknown whether the timing of statin administration is important for clinical outcomes. To critically evaluate and analyse the evidence available from randomised controlled trials regarding the effects of chronotherapy on the effectiveness and safety of treating hyperlipidaemia with statins. Search methods We searched the CENTRAL, MEDLINE, Embase, LILACS, ProQuest Health & Medical Complete, OpenSIGLE, Web of Science Conference Proceedings, and various other resources including clinical trials registers up to November 2015. We also searched the reference lists of relevant reviews for eligible studies. Selection criteria We included randomised controlled trials (RCTs), enrolling people with primary or secondary hyperlipidaemia. To be included, trials must have compared any chronotherapeutic lipid-lowering regimen with statins and any other statin lipid-lowering regimen not based on chronotherapy. We considered any type and dosage of statin as eligible, as long as the control and experimental arms differed only in the timing of the..."
administration of the same statin. Quasi-randomised studies were excluded. Data collection and analysis We used the standard methodological procedures expected by Cochrane. We extracted the key data from studies in relation to participants, interventions, and outcomes for safety and efficacy. We calculated odds ratios (OR) for dichotomous data and mean differences (MD) for continuous data with 95% confidence intervals (CI). Using the GRADE approach, we assessed the quality of the evidence and we used the GRADEproGuideline Development Tool to import data from Review Manager to create 'Summary of findings' tables. This review includes eight RCTs (767 participants analysed in morning and evening arms). The trials used different lipid-lowering regimens with statins (lovastatin: two trials; simvastatin: three trials; fluvastatin: two trials; pravastatin: one trial). All trials compared the effects between morning and evening statin administration. Trial length ranged from four to 14 weeks. We found a high risk of bias in the domain of selective reporting in three trials and in the domain of incomplete outcome data in one trial of the eight trials included. None of the studies included were judged to be at low risk of bias. None of the included RCTs reported data on cardiovascular mortality, cardiovascular morbidity, incidence of cardiovascular events, or deaths from any cause. Pooled results showed no evidence of a difference in total cholesterol (MD 4.33, 95% CI -1.36 to 10.01), 514 participants, five trials, mean follow-up 9 weeks, low-quality evidence), low-density lipoprotein cholesterol (LDL-C) levels (MD 4.85 mg/dL, 95% CI -0.87 to 10.57, 473 participants, five trials, mean follow-up 9 weeks, low-quality evidence), high-density lipoprotein cholesterol (HDL-C) (MD 0.54, 95% CI -1.08 to 2.17, 514 participants, five trials, mean follow-up 9 weeks, low-quality evidence) or triglycerides (MD -8.91, 95% CI -22 to 4.17, 510 participants, five trials, mean follow-up 9 weeks, low-quality evidence) between morning and evening statin administration. With regard to safety outcomes, five trials (556 participants) reported adverse events. Pooled analysis found no differences in statins adverse events between morning and evening intake (OR 0.71, 95% CI 0.44 to 1.15, 556 participants, five trials, mean follow-up 9 weeks, low-quality evidence). Authors’ conclusions Limited and low-quality evidence suggested that there were no differences between chronomodulated treatment with statins in people with hyperlipidaemia as compared to conventional treatment with statins, in terms of clinically relevant outcomes. Studies were short term and therefore did not report on our primary outcomes, cardiovascular clinical events or death. The review did not find differences in adverse events associated with statins between both regimens. Taking statins in the evening does not have an effect on the improvement of lipid levels with respect to morning administration."

According to the news editors, the research concluded: "Further high-quality trials with longer-term follow-up are needed to confirm the results of this review."

For more information on this research see: Chronotherapy versus conventional statins therapy for the treatment of hyperlipidaemia. *Cochrane Database of Systematic Reviews*, 2016;(11):389-467. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.


Keywords for this news article include: Madrid, Spain, Europe, Lipoproteins, Article Review, Clinical Trials and Studies, Adverse Drug Reactions, Drugs and Therapies, Clinical Research, Cardiovascular, Chronotherapy, Cholesterol, Cardiology, Therapy, Lipids, CIBERESP.

Our reports deliver fact-based news of research and discoveries from around the
Oncology - Ring Cell Cancer

New Findings from Cancer Hospital Update Understanding of Ring Cell Cancer (A nomogram for predicting the likelihood of lymph node metastasis in early gastric signet ring cell carcinoma A single center retrospective analysis with external ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Ring Cell Cancer. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Treatment algorithm has not been established for early gastric cancer with signet ring cell carcinoma (SRC), which has a reported low rate of lymph node metastasis (LNM) similar to differentiated cancer. A cohort of 256 patients with early gastric SRC at our center between January 2002 and December 2015 were retrospectively reviewed."

The news correspondents obtained a quote from the research from Cancer Hospital, "Multivariate logistic regression analysis was used to determine the independent factors of LNM. A nomogram for predicting LNM was constructed and internally validated. Additional external validation was performed using the database from Cancer Institute Ariake Hospital in Tokyo (n = 1273). Clinical performance of the model was assessed by decision analysis of curve. The overall LNM incidence was 12.9% (33/256). The multivariate logistic model identified sex, tumor size, and LVI as covariates associated with LNM. Subsequently, a nomogram consisting of sex, tumor size, and depth of invasion was established. The model showed qualified discrimination ability both in internal validation (area under curve, 0.801; 95% confidence interval [CI], 0.729-0.873) and in external dataset (area under curve, 0.707; 95% CI, 0.657-0.758). Based on the nomogram, treatment algorithm for early gastric SRC was proposed to assist clinicians in making better decisions."

According to the news reporters, the research concluded: "We developed a nomogram predicting risk of LNM for early gastric SRC, which should be helpful for patient counseling and surgical decision-making."

For more information on this research see: A nomogram for predicting the likelihood of lymph node metastasis in early gastric signet ring cell carcinoma A single center retrospective analysis with external validation. Medicine, 2016;95(46):295-300. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)


Keywords for this news article include: Beijing, People's Republic of China, Asia, Signet-Ring Cell Carcinoma, Hemic and Immune Systems, Ring Cell Cancer, Lymphoid Tissue, Lymph Nodes, Immunology, Carcinomas, Oncology, Cancer Hospital.

Our reports deliver fact-based news of research and discoveries from around the
New Findings from Cancer Institute Hospital in the Area of Gastric Cancer Reported (Prognostic impact of KRAS mutant type and MET amplification in metastatic and recurrent gastric cancer patients treated with first-line S-1 plus cisplatin ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gastric Cancer. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Receptor tyrosine kinase (RTK)-related genes, including HER2, EGFR, MET, FGFR2 and KRAS, are target molecules that are clinically beneficial in gastric cancer (GC). We investigated the correlation between RTK-related genes and the curative effect of first-line S-1 plus cisplatin (SP) combination chemotherapy in metastatic and recurrent GC."

The news correspondents obtained a quote from the research from Cancer Institute Hospital, "We enrolled 150 patients with histopathologically confirmed metastatic and recurrent GC treated with SP. KRAS mutation was detected using direct sequencing. DNA copy number was measured by real-time PCR. Formalin-fixed paraffin-embedded specimens were examined immunohistochemically for HER2, EGFR, FGFR2 and MET. Among 144 patients, KRAS mutation was detected in five (3.5%) at codon 12 and one (0.7%) at codon 13. FGFR2, EGFR, HER2, MET and KRAS gene amplification was suggested in 4.4%, 5.9%, 9%, 3.7% and 10.3% of patients, respectively. KRAS mutation, but not KRAS amplification, was associated with significantly shorter overall and progression-free survival. MET membranous overexpression was associated with a significantly higher tumor response. MET amplification was associated with significantly shorter overall survival. We show for the first time that KRAS mutation and MET amplification are promising predictive markers in metastatic and recurrent GC patients treated with SP."

According to the news reporters, the research concluded: "KRAS status may be a useful prognostic marker in patients treated with SP."

For more information on this research see: Prognostic impact of KRAS mutant type and MET amplification in metastatic and recurrent gastric cancer patients treated with first-line S-1 plus cisplatin chemotherapy. Genes & Cancer, 2016;7(1-2):27-35. (Sage Publications - www.sagepub.com/; Genes & Cancer - gan.sagepub.com)

Our news journalists report that additional information may be obtained by contacting S. Matsusaka, Dept. of Gastroenterology, Cancer Institute Hospital of the Japanese Foundation for Cancer Research, Tokyo, Japan. Additional authors for this research include T. Kobunai, N. Yamamoto, K. Chin, M. Ogura, G. Tanaka, K. Matsuoka, Y. Ishikawa, N. Mizunuma and T. Yamaguchi.

Keywords for this news article include: Asia, Tokyo, Japan, Genetics, Oncology, Cisplatin, Chemotherapy, Gastric Cancer, Gastroenterology, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Drugs and Therapies.

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Connective Tissue Cells

New Findings from Capital Medical University in the Area of Connective Tissue Cells Described (Brown adipogenic potential of brown adipocytes and peri-renal adipocytes from human embryo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Connective Tissue Cells is now available. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Both brown adipocytes (BAC) and beige cells hold therapeutic potential for the treatment of metabolic disorders. Unfortunately, the amount and activity of these cells are limited in adults."

The news reporters obtained a quote from the research from Capital Medical University, "Although BAC marker expression has been shown in peri-renal adipose tissues in children and adults, functional assessment is lacking. Furthermore, it is entirely unknown whether adipose progenitors are present in human embryo and able to give rise to BAC in situ during evolution. Therefore, adipose tissues in the interscapular and peri-renal regions were dissected from human embryo and subcutaneous white adipose tissues (sWAT) were obtained from an adult. After subjected to differentiation in vitro, adipocyte progenitors were detected present in all these adipose tissues. When stimulated for adipogenesis, differentiated adipocytes in the intercapular and peri-renal regions showed similar features: (1) induced BAC and beige cell marker expression including UCP1 and PRDM16 and comparable mitochondrion copy number; (2) similar gene expression patterns by RNA-Seq analysis; and (3) similar maximal oxygen consumption rates examined by respirometry. Nevertheless, stimulation of adipocyte progenitors in sWAT induces neither BAC and beige cell marker expression nor any change of oxygen consumption."

According to the news reporters, the research concluded: "Peri-renal adipocyte progenitors in human embryo hold browning potential for BAC production."

For more information on this research see: Brown adipogenic potential of brown adipocytes and peri-renal adipocytes from human embryo. Scientific Reports, 2016;6():12-23. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting D. Zhao, Capital Med Univ, Lu He Hosp, Dept. of Endocrinol, Beijing 101149, People's Republic of China. Additional authors for this research include C.H. Zhang, H.J. Lee, Y. Ma, X. Wang, X.J. Ma, W. Ma, D. Zhao and Y.M. Feng.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Connective Tissue Cells, Nephrology, Adipocytes, Genetics, Kidney, Capital Medical University.

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New Findings from Careggi Hospital Describe Advances in Cardiovascular Research (Which is the main molecular target responsible for the cardiovascular benefits in the EMPA-REG OUTCOME trial? A journey through the kidney, the heart and other ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Research. According to news originating from Florence, Italy, by NewsRx correspondents, research stated, "The results of the EMPA-REG-trial on type 2 diabetic patients at high risk for prior cardiovascular events showed that empagliflozin produces a remarkable reduction in the rates of hospitalization for heart failure (35%), cardiovascular death (38%), and all-cause death (32%). This unexpected cardio-protective action cannot be accounted for by the improvement of 'classical' cardiovascular risk factors."

Our news journalists obtained a quote from the research from Careggi Hospital, "This review aims at summarizing current knowledge on the cardiovascular action of SGLT2 inhibitors and discuss the different hypotheses formulated to explain the results of the EMPA-REG-OUTCOME-study. Data synthesis: We discuss in detail the major cardiovascular outcomes of the study in the light of the potential systemic and myocardial mechanisms of action of the drug. In addition, we propose and speculate on a direct effect of empagliflozin on cardiomyocytes. The available evidence is insufficient to establish any of the proposed mechanisms of cardiovascular action of empagliflozin."

According to the news editors, the research concluded: "While awaiting for the results of ongoing clinical studies with other SGLT2 inhibitors, the most promising putative mechanisms still deserve to be confirmed with specifically designed, yet unavailable, pre-clinical studies."

For more information on this research see: Which is the main molecular target responsible for the cardiovascular benefits in the EMPA-REG OUTCOME trial? A journey through the kidney, the heart and other interesting places. Nutrition Metabolism and Cardiovascular Diseases, 2016;26(12):1071-1078. Nutrition Metabolism and Cardiovascular Diseases can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England.

The news correspondents report that additional information may be obtained from E. Mannucci, Careggi Hosp, Diabetol, Florence, Italy. Additional authors for this research include L. Raimondi, A. Di Franco and E. Mannucci.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.numecd.2016.09.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Florence, Italy, Europe, Cardiovascular Research, Cardiology, Article Review, Risk and Prevention, Cardiovascular, Careggi Hospital.

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New Findings from Catholic University in Prostate Cancer Provides New Insights (MALAT1 and HOTAIR Long Non-Coding RNAs Play Opposite Role in Estrogen-Mediated Transcriptional Regulation in Prostate Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to news originating from Rome, Italy, by NewsRx correspondents, research stated, "In the complex network of nuclear hormone receptors, the long non-coding RNAs (lncRNAs) are emerging as critical determinants of hormone action. Here we investigated the involvement of selected cancer-associated lncRNAs in Estrogen Receptor (ER) signaling."

Our news journalists obtained a quote from the research from Catholic University, "Prior studies by Chromatin Immunoprecipitation (ChIP) Sequencing showed that in prostate cancer cells ERs form a complex with the endothelial nitric oxide synthase (eNOS) and that in turn these complexes associate with chromatin in an estrogen-dependent fashion. Among these associations (peaks) we focused our attention on those proximal to the regulatory region of HOTAIR and MALAT1. These transcripts appeared regulated by estrogens and able to control ERs function by interacting with ER alpha/ER beta as indicated by RNA-ChIP. Further studies performed by ChIRP revealed that in unstimulated condition, HOTAIR and MALAT1 were present on pS2, hTERT and HOTAIR promoters at the ERE/ eNOS peaks. Interestingly, upon treatment with 17 beta-estradiol HOTAIR recruitment to chromatin increased significantly while that of MALAT1 was reduced, suggesting an opposite regulation and function for these lncRNAs. Similar results were obtained in cells and in an ex vivo prostate organotypic slice cultures."

According to the news editors, the research concluded: "Overall, our data provide evidence of a crosstalk between lncRNAs, estrogens and estrogen receptors in prostate cancer with important consequences on gene expression regulation."

For more information on this research see: MALAT1 and HOTAIR Long Non-Coding RNAs Play Opposite Role in Estrogen-Mediated Transcriptional Regulation in Prostate Cancer Cells. *Scientific Reports, 2016;6():1-11. Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from S. Nanni, Univ Cattolica, Inst Med Pathol, I-00168 Rome, Italy. Additional authors for this research include L. Bacci, A. Re, C. Ripoli, F. Pierconti, F. Pinto, R. Masetti, C. Grassi, C. Gaetano, P.F. Bassi, A. Pontecorvi, S. Nanni and A. Farsetti.

Keywords for this news article include: Rome, Italy, Europe, Cell Nucleus Structures, Chromosome Structures, Prostatic Neoplasms, Intracellular Space, Prostate Cancer, Nucleoproteins, Chromatin, Hormones, Proteins, Oncology, Genetics, Catholic University.

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Autoimmune Diseases and Conditions

New Findings from Catholic University of Korea in the Area of Autoimmune Diseases and Conditions Reported (Gut microbiota in autoimmunity: potential for clinical applications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Autoimmune Diseases and Conditions are presented in a new report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Microbial habitation in the human body begins immediately after birth, and adults are colonized by microbes outnumbering human cells by a factor of ten. Especially, intestinal track is a living space for diverse microbial species that have coevolved symbiotically."

Financial support for this research came from National Research Foundation of Korea.

Our news editors obtained a quote from the research from the Catholic University of Korea, "A principal function of the gut microbiota is to protect the host from harmful bacteria and to provide benefits for the host through several mechanisms, including direct competition for limited nutrients, training of host immune systems to recognize specifically foreign materials and conversion of otherwise indigestible food into energy and absorbable nutrients. Therefore, gut dysbiosis, a bacterial imbalance state, is related with the pathogenesis of various host diseases including autoimmune diseases. In the current review, we highlight the importance of gut microbiota in the normal health and autoimmune diseases."

According to the news editors, the research concluded: "We also discuss regulation of gut dysbiosis and future direction for potential clinical applications, including treatment and diagnostics of autoimmune diseases."

For more information on this research see: Gut microbiota in autoimmunity: potential for clinical applications. Archives of Pharmacal Research, 2016;39(11):1565-1576. Archives of Pharmacal Research can be contacted at: Pharmaceutical Soc Korea, 1489-3 Suhcho-Dong, Suhcho-Ku, Seoul 137-071, South Korea. (Springer - www.springer.com; Archives of Pharmacal Research - www.springerlink.com/content/0253-6269/)

The news editors report that additional information may be obtained by contacting W.U. Kim, Catholic University of Korea, Div Rheumatol, Dept. of Internal Med, Coll Med, Seoul, South Korea. Additional authors for this research include S.A. Yoo and W.U. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12272-016-0796-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Autoimmune Diseases and Conditions, Article Review, Catholic University of Korea.

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New Findings from Catholic University of Korea in the Area of Rheumatoid Arthritis Described (MIF allele-dependent regulation of the MIF coreceptor CD44 and role in rheumatoid arthritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Autoimmune Diseases and Conditions - Rheumatoid Arthritis have been published. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Fibroblast-like synoviocytes mediate joint destruction in rheumatoid arthritis and exhibit sustained proinflammatory and invasive properties. CD44 is a polymorphic transmembrane protein with defined roles in matrix interaction and tumor invasion that is also a signaling coreceptor for macrophage migration inhibitory factor (MIF), which engages cell surface CD74."

Our news editors obtained a quote from the research from the Catholic University of Korea, "High-expression MIF alleles (rs5844572) are associated with rheumatoid joint erosion, but whether MIF signaling through the CD74/CD44 receptor complex promotes upstream autoimmune responses or contributes directly to synovial joint destruction is unknown. We report here the functional regulation of CD44 by an autocrine pathway in synovial fibroblasts that is driven by high-expression MIF alleles to up-regulate an inflammatory and invasive phenotype. MIF increases CD44 expression, promotes its recruitment into a functional signal transduction complex, and stimulates alternative exon splicing, leading to expression of the CD44v3-v6 isoforms associated with oncogenic invasion. CD44 recruitment into the MIF receptor complex, downstream MAPK and RhoA signaling, and invasive phenotype require MIF and CD74 and are reduced by MIF pathway antagonists."

According to the news editors, the research concluded: "These data support a functional role for high-MIF expression alleles and the two-component CD74/CD44 MIF receptor in rheumatoid arthritis and suggest that pharmacologic inhibition of this pathway may offer a specific means to interfere with progressive joint destruction."


Keywords for this news article include: Seoul, South Korea, Asia, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Rheumatoid Arthritis, Genetics, Catholic University of Korea.

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Vascular Endothelial Growth Factor

New Findings from Central Hospital in Vascular Endothelial Growth Factor Provides New Insights (Correlation Analysis of the STAT3 Polymorphism and Transcription of Survivin and VEGF in Missed Abortion Experience Among Women of the Chinese Han ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Vascular Endothelial Growth Factor is the subject of a report. According to news reporting out of Tianjin, People's Republic of China, by NewsRx editors, research stated, "To investigate the relationship between STAT3 gene polymorphism and missed abortion (MA), and the influence of STAT3 gene polymorphism on the expression of VEGF and survivin. The missed abortion group included 188 cases of MA."

Our news journalists obtained a quote from the research from Central Hospital, "The control group consisted of 200 cases of surgically induced abortion in normal pregnancy. All patients were of Han ethnicity from P.R. China. STAT3 gene from patients' peripheral blood was detected using fluorescent probe real-time quantitative polymerase chain reaction (PCR), which was further analyzed to clarify genotype frequency. Survivin and VEGF mRNA levels in particular genotypes were also detected using qPCR. The STAT3 rs1053004 C/C genotype incidence in the MA group was significantly higher than that in the control group (p < 0.05), while the STAT3 rs1053004 T/T and T/C genotypes showed no significant difference between the 2 groups (p > 0.05). The STAT3 gene locus rs1053023 genotypes of the 2 groups were not significantly different, either (p >0.05). Furthermore, survivin and VEGF mRNA levels in the peripheral blood of the patients with STAT3 gene loci rs1053004 C/C were significantly decreased as compared to the control group (p < 0.05)."

According to the news editors, the research concluded: "Our study identified, the STAT3 rs1053004 C/C as a high-risk genotype in MA with lower survivin and VEGF transcription levels in the peripheral blood."

For more information on this research see: Correlation Analysis of the STAT3 Polymorphism and Transcription of Survivin and VEGF in Missed Abortion Experience Among Women of the Chinese Han Population. Journal of Reproductive Medicine, 2016;61(11-12):552-556. Journal of Reproductive Medicine can be contacted at: Sci Printers & Publ Inc, Po Drawer 12425 8342 Olive Blvd, St Louis, MO 63132, USA.

Our news journalists report that additional information may be obtained by contacting H. Yang, Tianjin Cent Hosp Gynecol & Obstet, Tianjin 300100, People's Republic of China.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Emerging Technologies, Genetics, Growth Factor Receptors, Correlation Analysis, Phosphotransferases, Angiogenic Proteins, Membrane Proteins, Machine Learning, Protein Kinases, VEGF, Central Hospital.

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New Findings from Central University in the Area of Oral Cancer Reported (Reversion-inducing cysteine-rich protein with Kazal motifs and its regulation by glycogen synthase kinase 3 signaling in oral cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Oral Cancer are discussed in a new report. According to news reporting from Jharkhand, India, by NewsRx journalists, research stated, "The reversion-inducing cysteine-rich protein with Kazal motifs (RECK) and glycogen synthase kinase (GSK3) are novel tumor suppressors, and emerging evidence has suggested their active role in oral cancer pathogenesis. In the present study, 112 human samples, including 55 fresh samples of 14 adjacent normal tissues, 25 noninvasive oral tumors, and 18 invasive tumors, were included."

Financial supporters for this research include Department of Biotechnology, Govt. of India, Department of Biotechnology, Govt of India.

The news correspondents obtained a quote from the research from Central University, "The messenger RNA (mRNA) expression, protein expression, and promoter methylation of the RECK gene, as well as the expression of GSK3 beta, phospho/total beta-catenin, and c-myc, were measured by RT-PCR, bisulphate modification-PCR, immunohistochemistry, and Western blot analysis. Additionally, ectopic expression of in/active GSK3 beta was performed in cell culture experiments. This study provided information on the progressive silencing of RECK gene expression at the protein and mRNA levels paralleled with promoter hypermethylation at various stages of oral tumor invasion. RECK expression and the hypermethylation of the RECK gene promoter were negatively and positively correlated with pS(9)GSK3 beta/c-myc expression, respectively. Further, a negative trend of RECK protein expression with nuclear beta-catenin expression was observed. Induced expression of active GSK3 beta reversed the RECK silencing in SCC9 cells."

According to the news reporters, the research concluded: "Collectively, our results demonstrated that the silencing of the RECK gene, possibly regulated by the GSK3 beta pathway, is an important event in oral cancer invasion and this pathway could be exploited for therapeutic interventions."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5362-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jharkhand, India, Asia, Intracellular Signaling Peptides and Proteins, Protein-Serine-Threonine Kinases, Glycogen Synthase Kinase
New Findings from Charite University Hospital and School of Medicine Describe Advances in Hypertension (Long-Term Donor Outcomes after Pure Laparoscopic versus Open Living Donor Nephrectomy: Focus on Pregnancy Rates, Hypertension and Quality of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating from Berlin, Germany, by NewsRx correspondents, research stated, "The aim of the present study was to compare long-term donor outcomes after open and laparoscopic living donor nephrectomy. The focus was on pregnancy rates, hypertension and quality of life parameters."

Our news editors obtained a quote from the research from the Charite University Hospital and School of Medicine, "Data were retrospectively collected using our institution's electronic database and a structured questionnaire. The study included 30 donors after open donor nephrectomy (ODN) and 131 donors after laparoscopic donor nephrectomy (LDN). Demographic data did not differ between groups. When asked for their preference, significantly more donors in the LDN group would choose the same surgical approach again. The overall frequency of postoperative complications was significantly lower in the LDN group. The incidence of grade III complications was 2% after LDN and 10% after ODN (p = 0.79). Only 2 out of 15 female donors aged between 18 and 45 years delivered a healthy child after DN. On interview, only 4 out of 15 female donors declared the desire to have children after DN. From the donor perspective, long-term outcomes after LDN are more favorable than after ODN."

According to the news editors, the research concluded: "To ensure favorable functional outcomes, strict preoperative donor selection and diligent long-term donor follow-up are required."


The news editors report that additional information may be obtained by contacting F. Friedersdorff, Charite, Dept. of Urol, DE-10117 Berlin, Germany. Additional authors for this research include L. Kothmann, P. Manus, J. Roigas, C. Kempkensteffen, A. Magheli, J. Busch, L. Liefeldt, M. Giessing, S. Deger, M. Schostak, K. Miller and T.F. Fuller.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000447064. This DOI is a link to an online electronic document that is either free or for purchase.
Heart Disorders and Diseases - Heart Failure

New Findings from Charles University in the Area of Heart Failure Reported (Beneficial Effect of Continuous Normobaric Hypoxia on Ventricular Dilatation in Rats With Post-Infarction Heart Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting from Prague, Czech Republic, by NewsRx journalists, research stated, "Adaptation to continuous normobaric hypoxia (CNH) protects the heart against ischemia/reperfusion injury but much less is known about its potential therapeutic effects. The aim of this study was to find out whether post-infarction exposure to CNH can attenuate the progression of heart failure."

The news correspondents obtained a quote from the research from Charles University, "Ten-week-old male rats underwent myocardial infarction (MI) or sham operation. MI was induced by 60-min coronary artery occlusion. Seven days post-MI, the rats were randomly assigned to two groups: i) sedentary controls kept at room air and ii) rats exposed to CNH (12 % O-2, 3 weeks). Echocardiographic examination of the left ventricle (LV) was performed 3 days before surgery and 7, 14 and 28 days post-MI. MI resulted in a gradual increase in LV end-diastolic diameter (LVDd) compared to sham-operated animals. Fractional shortening (FS) decreased from 42.8 % before MI to 15.1 % on day 28 post-MI. CNH significantly attenuated ventricular dilatation without affecting scar area and FS."

According to the news reporters, the research concluded: "Our data suggest that prolonged exposure to CNH has certain potential to attenuate the progression of unfavorable changes in ventricular geometry induced by MI in rats."

For more information on this research see: Beneficial Effect of Continuous Normobaric Hypoxia on Ventricular Dilatation in Rats With Post-Infarction Heart Failure. Physiological Research, 2016;65(5):867-870. Physiological Research can be contacted at: Acad Sciences Czech Republic, Inst Physiology, Videntska 1083, Prague 4 142 20, Czech Republic.

Our news journalists report that additional information may be obtained by contacting J. Hrdlicka, Charles Univ Prague, Dept. of Physiol, Fac Sci, Prague, Czech Republic. Additional authors for this research include J. Neckar, F. Papousek, J. Vasinova, P. Alanova and F. Kolar.

Keywords for this news article include: Prague, Czech Republic, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Heart Failure, Heart Disease, Cardiology, Charles University.

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Heart Disorders and Diseases - Bundle-Branch Block

New Findings from Children's Mercy Hospital in the Area of Bundle-Branch Block Described (Frequent Activation Delay-Induced Mechanical Dyssynchrony and Dysfunction in the Systemic Right Ventricle)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Bundle-Branch Block. According to news reporting originating in Kansas City, Missouri, by NewsRx journalists, research stated, "Patients with systemic right ventricles frequently experience progressive heart failure and conduction abnormalities leading to abnormal ventricular activation. Activation delay-induced mechanical dyssynchrony can contribute to ventricular failure and is identified by a classic strain pattern of paradoxical opposing wall motion that is an excellent predictor of response to cardiac resynchronization therapy in adults with left bundle branch block."

The news reporters obtained a quote from the research from Children's Mercy Hospital, "The specific aims of this study were to compare right ventricular (RV) mechanics in an adult systemic right ventricle population versus control subjects, evaluate the feasibility of this RV strain pattern analysis, and determine the frequency of the classic pattern. Young adults (n = 25) with d-transposition of the great arteries, status post Mustard or Senning palliation (TGA-MS), were ambispectively enrolled and compared with healthy young adults (n = 30) who were prospectively enrolled. All subjects were imaged using novel three-apical view (18-segment) RV longitudinal speckle-tracking strain analysis (EchoPAC) and electrocardiographic data. Patients with TGA-MS had diminished RV global peak systolic strain compared with control subjects (-12.0 +/- 4.0% vs -23.3 +/- 2.3%, P< .001). Most patients with TGA-MS had intrinsic or left ventricular paced right bundle branch block. A classic pattern was present in 11 of 25 subjects (44%), but this pattern would have been missed in four of 11 based only on the RV four-chamber (six-segment) model. Only three subjects underwent cardiac resynchronization therapy. Both subjects who had the classic pattern responded to cardiac resynchronization therapy, whereas the one nonresponder did not have the classic pattern. Systemic right ventricles demonstrated decreased function and increased mechanical dyssynchrony. The classic pattern of activation delay-induced mechanical dyssynchrony was frequently seen in this TGA-MS population and associated with activation delays."

According to the news reporters, the research concluded: "This comprehensive RV approach demonstrated incremental value."


Our news correspondents report that additional information may be obtained by contacting D. Forsha, Childrens Mercy Hosp, Ward Family Heart Center, Kansas City, MO 64108, United States. Additional authors for this research include N. Risum, B. Smith, R.J. Kanter, Z. Samad, P. Barker and J. Kisslo.

Keywords for this news article include: Kansas City, Missouri, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases,
Heart Disorders and Diseases - Atrial Fibrillation

New Findings from China Medical University and Hospital Update Understanding of Atrial Fibrillation (Chronic Osteomyelitis Is Associated With Increased Risk of New-Onset Atrial Fibrillation: Evidence From a Nationwide Cohort of 23 Million People)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Atrial Fibrillation is now available. According to news reporting from Taichung, Taiwan, by NewsRx journalists, research stated, "The objective of the study was to determine whether chronic osteomyelitis (COM) is associated with increased risk of newonset atrial fibrillation (AF). A national insurance claim data set of 23 million enrollees was used to identify 19,002 patients with newly-diagnosed COM and 76,008 randomly selected age-and sex-matched control subjects between January 1, 2000 and December 31, 2009 for comparing the risk and incidence of AF."

The news correspondents obtained a quote from the research from China Medical University and Hospital, "The study end point was defined as the first diagnosis of AF, death, withdrawal from the insurance program, or the end of 2010. During a follow-up period of 91,927 person-years, the incidence of new-onset AF in COM cohort was 1.42-fold higher than for the non-COM cohort (4.54 vs 3.19 per 1000 person-years). After adjusting for age, sex, and classical AF risk factors such as hypertension, diabetes, heart failure, coronary artery disease, and valvular heart disease, the risk of newonset AF remained significantly higher in the COM cohort (hazard ratio [HR], 1.33; 95% confidence interval [CI], 1.18-1.49; P< 0.0001). In age-stratified analysis, the younger population carried a higher risk for incident AF than the elderly population (from HR 2.05; 95% CI, 1.12-3.74 in age younger than 50 years to HR 1.19; 95% CI, 0.95-1.49 in age 80 years and older). The adjusted Kaplan-Meier analysis showed a lower AF-free survival rate in the COM group compared with the control group (log-rank P< 0.0001) during the follow-up period. This study showed that patients with COM carry an increased risk for developing new-onset AF, particularly in the younger population."

According to the news reporters, the research concluded: "Further studies are required to explore the underlying mechanisms that link COM and AF."


Our news journalists report that additional information may be obtained by contacting C.H. Tseng, China Med Univ Hosp, Dept. of Neurol, Taichung 40402, Taiwan. Additional authors for this research include C.H. Muo, C.Y. Chou, C.H. Tseng, M.F. Chen and K.C. Chang.

The direct object identifier (DOI) for that additional information is:
New Findings from Chinese People's Liberation Army General Hospital in Tissue Engineering Provides New Insights (Suppression of MicroRNA-219-5p Activates Keratinocyte Growth Factor to Mitigate Severity of Experimental Cirrhosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biomedical Engineering - Tissue Engineering have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Keratinocyte growth factor (KGF) plays a critical role in prevention of cirrhosis and enhancement of liver regeneration. However, the molecular regulation of KGF in liver is unknown."

The news reporters obtained a quote from the research from Chinese People's Liberation Army General Hospital, "MicroRNAs (miRNAs) control the pathogenesis of cirrhosis, whereas the exact involved miRNAs and molecular signaling pathways remain ill-defined. Here we addressed these questions. We examined the correlation of the levels of miR-219-5p and KGF in the liver biopsies from patients with liver diseases. The effects of overexpression or suppression of miR-219-5p on KGF were examined in both human and mouse hepatic stellate cells (HSCs). Bioinformatics analysis was applied to examine the binding of human/mouse miR-219-5p to the 3'-UTR of human/mouse KGF mRNA, respectively. Finally, adenoviruses carrying antisense of miR-219-5p were infused into the liver from the mice that had developed cirrhosis by carbon tetrachloride (CCI4), and the effects on KGF levels and liver damage and function were examined. The levels of miR-219-5p and KGF in the liver biopsies were inversely correlated. MiR-219-5p inhibited KGF expression in both human and mouse HSCs, through directly binding the 3'-UTR of KGF mRNA. Expression of antisense of miR-219-5p significantly attenuated the levels of liver fibrosis, portal hypertension and sodium retention caused by CCI4."

According to the news reporters, the research concluded: "Suppression of miR-219-5p may benefit the liver regeneration and prevent cirrhosis through increasing KGF."


Our news correspondents report that additional information may be obtained by contacting T.S. Li, Chinese Peoples Liberation Army Gen Hosp, Emergency Department, Beijing.
100853, People's Republic of China. Additional authors for this research include X. Cui, P. Li, C. Feng, L.L. Wang, H. Wang, X. Zhou, B. Yang, F.Q. Lv and T.S. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000452542. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Experimental Cirrhosis, Biomedical Engineering, Tissue Engineering, Liver Regeneration, Bioengineering, Keratinocytes, Biotechnology, Biomedicine, Hepatology, Fibrosis, Genetics, Chinese People's Liberation Army General Hospital.

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Tryptamines

New Findings from Chungnam National University in the Area of Tryptamines Reported (Anti-Inflammatory and Antioxidant Actions of N-Arachidonoyl Serotonin in RAW264.7 Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Tryptamines. According to news reporting originating in Daejeon, South Korea, by NewsRx journalists, research stated, "The purpose of this study is to evaluate the effect of N-arachidonoyl serotonin (NA-5HT) on inflammatory response or oxidative stress in RAW264.7 cells exposed to lipopolysaccharide (LPS). When RAW264.7 cells were pre-incubated with NA-5HT before LPS treatment, NA-5HT was found to suppress LPS-induced formation of nitric oxide (NO), tumor necrosis factor-a or interleukins as well as expression of inducible NO synthase and cyclooxygenase-2 at non-cytotoxic concentrations."

The news reporters obtained a quote from the research from Chungnam National University, "Consistent with this, NA-5HT efficiently reversed LPS-induced phosphorylative activation of nuclear factor-kB pathway probably through the suppression of mitogen-activated protein kinases (MAPKs) pathway or phosphatidylinositol 3-kinase (PI3K)/protein kinase B (Akt) pathway. Separately, NA-5HT enhanced the antioxidant capacity accompanied by nuclear translocation of nuclear factor-E2-related factor-2 (Nrf2) in RAW264.7 cells. Additionally, NA-5HT-induced nuclear translocation of Nrf2 was suppressed significantly by the inhibition of c-Jun N-terminal kinase1/2 or PI3K/Akt pathways, although NA-5HT phosphorylated signal molecules in MAPKs and PI3K/Akt pathways."

According to the news reporters, the research concluded: "Taken together, NA-5HT is proposed to exert anti-inflammatory and antioxidant actions in RAW264." For more information on this research see: Anti-Inflammatory and Antioxidant Actions of N-Arachidonoyl Serotonin in RAW264.7 Cells. Pharmacology, 2016;97(3-4):195-206. (Karger - www.karger.com/; Pharmacology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224274)

Our news correspondents report that additional information may be obtained by contacting H.L. Jeon, Dept. of Food and Nutrition, Chungnam National University, Daejeon, South Korea. Additional authors for this research include J.M. Yoo, B.D. Lee, S.J. Lee, E.J. Sohn and M.R Kim.

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Keywords for this news article include: Asia, Antioxidants, Kinase, Daejeon, Autacoids, Serotonin, South Korea, Tryptamines, Biogenic Amines, Organic Chemicals, Protective Agents, Biological Factors, Enzymes and Coenzymes.

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**Heart Disorders and Diseases - Heart Attack**

**New Findings from Complejo Hospital Describe Advances in Heart Attack (Mortality benefit of long-term angiotensin-converting enzyme inhibitors or angiotensin receptor blockers after successful percutaneous coronary intervention in non-ST ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Attack is the subject of a report. According to news reporting originating in Pontevedra, Spain, by NewsRx journalists, research stated, "Introduction and objectives: Angiotensin-converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs) have been shown to reduce mortality after myocardial infarction (MI). Current guidelines recommend their prescription in all patients after MI."

The news reporters obtained a quote from the research from Complejo Hospital, "Limited data are available on whether ACEIs/ARBs still improve prognosis in the contemporary era of non-ST elevation MI (NSTEMI) management. We aimed to evaluate the mortality benefit of ACEIs/ARBs in NSTEMI patients treated successfully with percutaneous coronary intervention (PCI). We analyzed 2784 patients with NSTEMI treated successfully with in-hospital PCI. Two groups were formed based on ACEI/ARB prescription at discharge. Two propensity score (PS) analyses were performed to control for differences in covariates: one with adjustment among the entire cohort, and the other with PS matching (n=1626). The outcome variable was all-cause mortality at four-year follow-up. There were 1902 (68.3%) patients prescribed ACEIs/ARBs at discharge. When adjusted by PS, ACEI/ARB use was associated with a hazard ratio (HR) for mortality of 0.75 (0.60-0.94; absolute risk reduction [ARR] 4.0%) in the whole cohort (p=0.01). After one-to-one PS matching (n=813 in each group), the mortality rate was significantly lower in patients prescribed ACEIs/ARBs, with HR of 0.77 (0.63-0.94; ARR 3.8%) (p=0.03)."

According to the news reporters, the research concluded: "In this observational study of patients with NSTEMI, all of them treated successfully by PCI, the use of ACEIs/ARBs was significantly associated with a lower risk of four-year all-cause mortality."


Our news correspondents report that additional information may be obtained by
contacting M.C. Gonzalez-Cambeiro, Complejo Hosp Pontevedra, Coronary Care Unit, Pontevedra, Spain. Additional authors for this research include A. Lopez-Lopez, E. Abu-Assi, S. Raposeiras-Roubin, C. Pena-Gil, J. Garcia-Acuna and R. Gonzalez-Juanatey.

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Keywords for this news article include: Pontevedra, Spain, Europe, Percutaneous Coronary Intervention, Vascular Diseases and Conditions, Heart Disorders and Diseases, G-Protein-Coupled Receptors, Neuropeptide Receptors, Enzymes and Coenzymes, Angiotensin Receptors, Myocardial Infarction, Myocardial Ischemia, Biological Factors, Membrane Proteins, Peptide Receptors, Peptide Proteins, Peptide Hormones, Oligopeptides, Neuropeptides, Heart Disease, Angiotensins, Heart Attack, Autacoids, Peptides, Surgery, Complejo Hospital.

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Breast Diseases and Conditions - Mastitis

New Findings from Council of Scientific and Industrial Research (CSIR) in Mastitis Provides New Insights (Isolation and characterization of three benzylisoquinoline alkaloids from Thalictrum minus L. and their antibacterial activity against ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Breast Diseases and Conditions - Mastitis. According to news originating from Jammu Kashmir, India, by NewsRx correspondents, research stated, "Ethno-pharmacological relevance: The roots of Thalictrum minus are traditionally used in the treatment of inflammation and infectious diseases such as bovine mastitis. However, there are no reports available in literature till date regarding the antibacterial studies of T. minus against bovine mastitis."

Financial supporters for this research include University Grants Commission, UGC. Our news journalists obtained a quote from the research from the Council of Scientific and Industrial Research (CSIR), "Aim of the study: The present study was undertaken to evaluate the antibacterial potential of crude extract of T. minus (root) and some of its isolated constituents against bovine mastitis in order to scientifically validate its traditional use. A total of three alkaloid compounds were isolated from the DCM: MeOH extract of roots of T minus using silica gel column chromatography. Structural elucidation of the isolated compounds was done by using spectroscopic techniques like mass spectrometry and NMR spectroscopy. Pathogens were isolated from cases of bovine mastitis and identified by using 16S rRNA gene sequencing. The broth micro-dilution method was used to evaluate the antibacterial activities of DCM: MeOH extract and isolated compounds against mastitis pathogens. The three isolated compounds were identified as benzylisoquinoline alkaloids (1) 5'-Hydroxythalidasine, (2) Thalrugosaminine and (3) O-Methylthalicberine. Compounds (2) and (3) are reported for the first time from the roots of T minus. Five mastitis pathogens viz., Staphylococcus xylosus, Staphylococcus lentus, Staphylococcus equorum, Enterococcus faecalis and Pantoea agglomerans were identified on the basis of sequence analysis of isolates using the nucleotide BLAST algorithm. This study reports for the first time the isolation and molecular
characterization of mastitis pathogens from Kashmir valley, India. The DCM: MeOH extract exhibited broad spectrum antibacterial activities that varied between the bacterial species (MIC=250-500 μg/ml). 5'-Hydroxythalidasine and Thalrugosaminine showed promising antibacterial activity with MIC values of 64-128 μg/ml while Staphylococcus species were found to be the most sensitive strains.

According to the news editors, the research concluded: "The antibacterial activities of the DCM: MeOH extract and isolated compounds support the traditional use of T minus in the treatment of bovine mastitis."


The news correspondents report that additional information may be obtained from P.H. Qazi, CSIR, Indian Inst Integrat Med, Div Biotechnol, Srinagar 190005, Jammu & Kashmir, India. Additional authors for this research include M.A. Rather, P.H. Qazi, M.A. Aga, A.M. Shah, A. Shah and M.N. Ali.

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Keywords for this news article include: Jammu Kashmir, India, Asia, Gram-Positive Endospore-Forming Rods, Breast Diseases and Conditions, Skin Diseases and Conditions, Gram-Positive Bacteria, Antibacterial Agents, Gram-Positive Cocci, Drugs and Therapies, Staphylococcaceae, Bovine Mastitis, Staphylococcus, Antimicrobials, Antibiotics, Bacillales, Genetics, Council of Scientific and Industrial Research (CSIR).

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**Nanotechnology - Nanoparticles**

**New Findings from Dalian University of Technology Update Understanding of Nanoparticles (Construction of A Triple-Stimuli-Responsive System Based on Cerium Oxide Coated Mesoporous Silica Nanoparticles)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nanotechnology - Nanoparticles are discussed in a new report. According to news originating from Dalian, People's Republic of China, by NewsRx correspondents, research stated, "In this work, a triple-stimuli (GSH, pH and light irradiation) responsive system were designed based on CeO2 nanoparticles (CeO2 NPs) coated doxorubicin (DOX) and photosensitizer hematoporphyrin (HP) dual-loaded mesoporous silica nanoparticles (MSN). Upon entering into cancer cells, both high concentration of intracellular GSH and low pH environment would reduce CeO2 NPs to cerium ions, accompanied with the degradation of CeO2 NPs and the conformational change of HP under light irradiation, the preloaded DOX are thus released from the nanocarrier, resulting in a contrast fluorescence enhancement."

Our news journalists obtained a quote from the research from the Dalian University
of Technology, "Meanwhile, O-1(2) generated from HP for potential photodynamic therapy (PDT) upon light irradiation. In comparison, not much influence can be observed for normal cells."

According to the news editors, the research concluded: "This nanosystem not only has a significantly enhanced efficacy for cancer cells but also broad the scope for the future design and applications of multifunctional platforms for synergetic chemotherapy and PDT."

For more information on this research see: Construction of A Triple-Stimuli-Responsive System Based on Cerium Oxide Coated Mesoporous Silica Nanoparticles. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from F.Y. Liu, Dalian University of Technology, Sch Chem, State Key Lab Fine Chem, Dalian 116023, People's Republic of China. Additional authors for this research include K. Yang, Y.Q. Xu, H.J. Li, F.Y. Liu and S.G. Sun.

Keywords for this news article include: Dalian, People's Republic of China, Asia, Nanoparticles, Lanthanoid Series Elements, Emerging Technologies, Nanotechnology, Nanoparticle, Cerium, Dalian University of Technology.

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Oncology - Astroblastomas

New Findings from Dana-Farber Cancer Institute in Astroblastomas Provides New Insights (Genomic characterization of recurrent high-grade astroblastoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Astroblastomas. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Astroblastomas are rare primary brain tumors, diagnosed based on histologic features. Not currently assigned a WHO grade, they typically display indolent behavior, with occasional variants taking a more aggressive course."

Financial support for this research came from King Abdulaziz City for Science and Technology.

Our news journalists obtained a quote from the research from Dana-Farber Cancer Institute, "We characterized the immunohistochemical characteristics, copy number (high-resolution array comparative genomic hybridization, OncoCopy) and mutational profile (targeted next-generation exome sequencing, OncoPanel) of a cohort of seven biopsies from four patients to identify recurrent genomic events that may help distinguish astroblastomas from other more common high-grade gliomas. We found that tumor histology was variable across patients and between primary and recurrent tumor samples. No common molecular features were identified among the four tumors. Mutations commonly observed in astrocytic tumors (IDH1/2, TP53, ATRX, and PTEN) or ependymoma were, not identified. However one case with rapid clinical progression displayed mutations more commonly associated with GBM (NF1 (N1054H/K63 star), PIK3CA(R38H) and ERG(A403T)). Conversely, another case, originally classified as glioblastoma with nine-year survival before recurrence, lacked a GBM mutational
profile. Other mutations frequently seen in lower grade gliomas (BCOR, BCORL1, ERBB3, MYB, ATM) were also present in several tumors. Copy number changes were variable across tumors. Our findings indicate that astroblastomas have variable growth patterns and morphologic features, posing significant challenges to accurate classification in the absence of diagnostically specific copy number alterations and molecular features. Their histopathologic overlap with glioblastoma will likely confound the observation of long-term GBM "survivors."

According to the news editors, the research concluded: "Further genomic profiling is needed to determine whether these tumors represent a distinct entity and to guide management strategies."


The news correspondents report that additional information may be obtained from K.L. Ligon, Dana Farber Canc Inst, Center Mol Oncol Pathol, Boston, MA 02115, United States. Additional authors for this research include M. Abedalthagafi, W.L. Bi, Y.J. Kang, P. Merrill, I.F. Dunn, A. Dubuc, S.K. Charbonneau, L. Brown, A.H. Ligon, S.H. Ramkissoon and K.L. Ligon.

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Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cancer, Genetics, Astroblastomas, Oncology, Dana-Farber Cancer Institute.

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Drugs and Therapies - Antibiotics

New Findings from Danube University Describe Advances in Antibiotics (Adsorption of Selected Antibiotics to Resins in Extracorporeal Blood Purification)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antibiotics have been presented. According to news reporting originating in Krems, Austria, by NewsRx journalists, research stated, "Extracorporeal blood purification systems (EBS) use specific adsorbents for the elimination of toxins and cytokines. The aim of this study was to test different adsorbents for their ability to reduce antibiotics in parallel to extracorporeal blood purification therapy."

The news reporters obtained a quote from the research from Danube University, "The in vitro adsorption experiments were carried out in human plasma with a newly established hydrophobic resin (Amberchrom CG161c) and adsorbents commercially available and approved in the clinics. The concentration of antibiotic was chosen equivalent to the recommended therapeutic dosage applied intravenously and was measured in plasma using ELISA test kits and high-performance liquid chromatography methods. The adsorbent that reduced all tested antibiotics in plasma close to the detection limit was the dia MARS AC250, which is an activated charcoal involved in the Molecular Adsorbents Recirculation System."
According to the news reporters, the research concluded: "For better antibiotic monitoring in sepsis treatment, further investigations have to be performed to determine the clearance rate of antibiotics by different EBS devices."


Our news correspondents report that additional information may be obtained by contacting S. Harm, Dept. of for Health Sciences and Biomedicine, Danube University Krems, Krems, Austria. Additional authors for this research include A. Gruber, F. Gabor and J. Hartmann.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000440973. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibacterial Agents, Antibiotics, Antimicrobials, Krems, Europe, Austria, Hematology, Blood Purification, Drugs and Therapies.

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**Cardiology**

**New Findings from Department of Biomedical Sciences and Public Health Describe Advances in Cardiology (The role of cardiac dysfunction in multiorgan dysfunction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news originating from Ancona, Italy, by NewsRx correspondents, research stated, "The aim of this review was to examine the main determinants of cardiac dysfunction in critically ill patients, as well as how a reduction in cardiac performance influences other organ function. Cardiac dysfunction is a frequent complication in critically ill patients and contributes to organ hypoperfusion and poor outcome."

Our news journalists obtained a quote from the research from the Department of Biomedical Sciences and Public Health, "Pathophysiological determinants may include a primary ischaemia/reperfusion injury of the heart, effects of systemic inflammatory and adrenergic responses of the body to a variety of acute insults, as well as cardiovascular effects of commonly applied intensive respiratory or haemodynamic treatments. A strict connection exists between cardiac and other organ function, mediated by haemodynamic, humoral, and immune mechanisms. Heart, lungs, kidneys, and other splanchnic organs such as gut and liver influence each other function in a bidirectional way: this organ crosstalk must be regarded as a key aspect in multiorgan dysfunction. The heart should never be regarded as an isolated organ."

According to the news editors, the research concluded: "When dealing with cardiac dysfunction, clinicians must consider the underlying pathophysiology, potential myocardial depressant effects of intensive treatments, and the complex interaction with other organ function."

For more information on this research see: The role of cardiac dysfunction in multiorgan dysfunction. *Current Opinion In Anaesthesiology*, 2016;29(2):172-7.
New Findings from Department of Orthopedics in the Area of Atrial Fibrillation Reported (Impact of atrial fibrillation on postoperative outcomes after total knee arthroplasty-A retrospective study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Atrial Fibrillation are presented in a new report. According to news reporting originating from Baoding, People's Republic of China, by NewsRx correspondents, research stated, "Total knee arthroplasty (TKA) is primarily preformed among the elderly population who is commonly affected by cardiovascular and cerebrovascular diseases. Atrial fibrillation (AF) is a very common heart disease and its prevalence increases significantly with age."

Our news editors obtained a quote from the research from the Department of Orthopedics, "Therefore, we decided to evaluate the outcomes of patients with AF following TKA and analyze the risk factors of AF patients who underwent postoperative complication. We designed a retrospective cohort study using data from three institutions in China. We evaluated a total of 453 AF patients who received primary TKA and 453 matched control patients. Comparisons of specific parameters between AF and non-AF cohorts were performed. Our results demonstrated that AF patients had significantly higher odds of more intraoperative bleeding, periprosthetic joint infection (PJI), post-operative cerebral stroke (POCS), post-operative cardiovascular events (POCE) and worse SF-36 physical component score and mental score at mean 24-month after surgery, but had no increased incidence of post-operative gastrointestinal events, DVT and PE in comparison to patients without AF than those without AF disease. Additionally, multivariate logistic regression analysis was used to identify risk factors of patients who underwent severe complication. Smoking, diabetes mellitus and persistent AF were common risk factors of PJI, POCS, and POCE. Heart rate > 70/min and absence of Beta blocker use were common risk factors of POCS and POCE. Absence of LMWH bridging was risk factor of POCS. BMI > 25 kg/m2 and hypertension were risk factors of POCE. These findings should be taken into consideration when discussing the expected outcomes of AF patients after TKA."

According to the news editors, the research concluded: "AF disease impaired SF-36 physical component score (PCS) and mental component score (MCS) of patient after TKA."

For more information on this research see: Impact of atrial fibrillation on postoperative outcomes after total knee arthroplasty-A retrospective study. Journal of...

The news editors report that additional information may be obtained by contacting L. Gong, 252 Hosp Chinese PLA, Dept. of Orthoped, Baoding 071000, Hebei, People's Republic of China. Additional authors for this research include S.Q. Sun, L. Geng, W.H. Yang and Z.H. Wang.

Keywords for this news article include: Baoding, People's Republic of China, Asia, Heart Disorders and Diseases, Orthopedic Procedures, Risk and Prevention, Atrial Fibrillation, Cardiac Arrhythmias, Knee Arthroplasty, Cardiovascular, Heart Disease, Cardiology, Surgery, Department of Orthopedics.

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Drugs and Therapies - Chemotherapy

New Findings from Department of Pharmacy in the Area of Chemotherapy Described (Infusion reactions are common after high-dose carmustine in BEAM chemotherapy and are not reduced by lengthening the time of administration)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Chemotherapy. According to news originating from New Haven, Connecticut, by NewsRx correspondents, research stated, "Carmustine (BCNU) is used in the conditioning regimens BEAM and CBV for autologous stem cell transplantation. Carmustine-related infusion reactions, while not described in the BEAM literature, occurred in 95 % of patients who received CBV."

Our news journalists obtained a quote from the research from the Department of Pharmacy, "The most common symptoms include flushing, facial pain, headache, and hypotension. These reactions have been attributed to the absolute ethanol that is used in the reconstitution process or alternatively by a direct effect of carmustine. It is currently recommended that carmustine 300 mg/m² be infused over at least 100 min (3-5 mg/m²/min). Prior to October 2014, carmustine infusions were given over 90 min but were changed to 120 min based on the above recommendation. We compared the two infusion rates in patients receiving BEAM to see if lengthening the infusion decreased the frequency of reactions. Overall, 100 patients received BCNU as part of BEAM or Zevalin BEAM and were equally divided between 90 and 120 min infusion times. The primary outcome was the incidence of infusion-related reactions which were graded based on CTCAE 4.03 descriptions of flushing and infusion-related reactions. We also evaluated the impact of premedication as well as the efficacy of medications used to treat infusion reactions. Between the years 2013-2016, there were 50 patients who received BCNU over 90 min and 50 patients over 120 min. There were no significant differences observed for diagnosis, age and gender between the two groups. Twenty-eight (56 %) in the 90-min and 26 (52 %) in the 120-min infusion intervals developed a reaction (p = 0.6882). Of the patients that developed a reaction, 19 patients (67 %) in the 90-min and all 26 patients (100 %) in the 120-min infusion were given premedications predominately
acetaminophen, in addition to dexamethasone. Among reacting patients, 57% of the 90-min and 65% of the 120-min groups received additional intervention (p = 0.53)."

According to the news editors, the research concluded: "Infusion reactions during high-dose BCNU are common and are not clearly reduced by modestly extending the duration of infusion or giving premedications."

For more information on this research see: Infusion reactions are common after high-dose carmustine in BEAM chemotherapy and are not reduced by lengthening the time of administration. Supportive Care in Cancer, 2017;25(1):205-208. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

The news correspondents report that additional information may be obtained from S. Perreault, Yale New Haven Med Center, Dept. of Pharm, New Haven, CT 06504, United States. Additional authors for this research include J. Baker, E. Medoff, K. Pratt, F. Foss, I. Isufi, S. Seropian and D.L. Cooper.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1007/s00520-016-3399-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Nitrosourea Compounds, Drugs and Therapies, Chemotherapy, Carmustine, Department of Pharmacy.

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New Findings from Department of Surgery in the Area of Aortic Rupture Described (Plug the Hole-A Bailout Option for Acute Focal Aortic Rupture)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Aortic Rupture have been published. According to news originating from St. Louis, Missouri, by NewsRx correspondents, research stated, "Focal aortic rupture may result from expanding aneurysms, penetrating aortic wall ulcerations, or virulent infections. An urgent repair of paravisceral focal aortic rupture is associated with high morbidity."

Our news journalists obtained a quote from the research from the Department of Surgery, "A staged repair approach may provide an alternative option. A 64-year-old woman presented with acute focal rupture of the posterior paravisceral aortic wall and was progressing to hemorrhagic shock and mesenteric ischemia. Given the patient's dire condition, an endovascular approach was used to plug her focal aortic wall defect using a ventricular septal defect occluder device. Subsequently, the patient underwent resuscitation, stabilization, and operative exploration. Postoperatively, she recovered well from this staged approach. This case provides an example of a staged endovascular plugging of an acute paravisceral focal aortic rupture."

According to the news editors, the research concluded: "In select cases, this type of repair strategy is feasible, until off-the-shelf endovascular repair options become a reality."

For more information on this research see: Plug the Hole-A Bailout Option for
New Findings from Division of Surgery and Oncology in the Area of Colon Cancer Reported (Management of para-aortic lymph node metastasis in colorectal patients: A systemic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Para-aortic lymph node (PALN) involvement occurs in up to 2% of colorectal cancer (CRC) patients. While resection for isolated hepatic and pulmonary metastases in colorectal cancer is standard practice, the role of PALN dissection (PALND) in CRC has not been established and remains a controversy."

Our news editors obtained a quote from the research from the Division of Surgery and Oncology, "We aim to perform a systematic review of the literature to determine if extensive lymphadenectomy improves survival, and is an acceptable strategy for PALN metastasis (PALNM). A systematic search of PubMed and Embase databases for studies reporting on patients with isolated PALNM in CRC was performed. Studies including patients with synchronous and metachronous PALN were included, and studies including patients with other metastases were excluded. Eighteen retrospective, single-centre studies were included in the final analysis. The reported incidence of isolated PALNM ranged from 1.3 to 1.7%. A total of 370 patients with PALNM were evaluated, of which 145 had synchronous, and 225 had metachronous PALNM. For synchronous PALNM, the 5-year overall survival (OS) after metastatectomy, ranged from 22.7% to 33.9%. For metachronous PALNM, the 5-year OS ranged from 15 to 60%; median OS was 34-40 months in the PALND versus 3-14 months for patients who did not undergo PALND. There were no reported surgery related mortalities, and overall surgical morbidity was 7.8-33%.

According to the news editors, the research concluded: "PALND for isolated PALNM from colorectal cancer can be performed with minimal morbidity and confers a survival advantage, in comparison with conventional palliative chemotherapy or chemoradiation therapy."

New Findings from Duke University in the Area of Cardiology Reported (Multicolor mapping of the cardiomyocyte proliferation dynamics that construct the atrium)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting from Durham, North Carolina, by NewsRx journalists, research stated, "The orchestrated division of cardiomyocytes assembles heart chambers of distinct morphology. To understand the structural divergence of the cardiac chambers, we determined the contributions of individual embryonic cardiomyocytes to the atrium in zebrafish by multicolor fate-mapping and we compare our analysis to the established proliferation dynamics of ventricular cardiomyocytes."

Funders for this research include National Heart, Lung, and Blood Institute, American Heart Association, March of Dimes Foundation, National Science Foundation, National Institutes of Health.

The news correspondents obtained a quote from the research from Duke University, "We find that most atrial cardiomyocytes become rod-shaped in the second week of life, generating a single-musclecell-thick myocardial wall with a striking webbed morphology. Inner pectinate myofibers form mainly by direct branching, unlike delamination events that create ventricular trabeculae. Thus, muscle clones assembling the atrial chamber can extend from wall to lumen. As zebrafish mature, atrial wall cardiomyocytes proliferate laterally to generate cohesive patches of diverse shapes and sizes, frequently with dominant clones that comprise 20-30% of the wall area. A subpopulation of cardiomyocytes that transiently express atrial myosin heavy chain (amhc) contributes substantially to specific regions of the ventricle, suggesting an unappreciated level of plasticity during chamber formation."

According to the news reporters, the research concluded: "Our findings reveal proliferation dynamics and fate decisions of cardiomyocytes that produce the distinct architecture of the atrium."

For more information on this research see: Multicolor mapping of the cardiomyocyte proliferation dynamics that construct the atrium. Development, 2016;143 (10):1688-1696. Development can be contacted at: Company Of Biologists Ltd, Bidder
New Findings from Duke University in the Area of Endocarditis
Described (Antistaphylococcal beta-Lactams versus Vancomycin for Treatment of Infective Endocarditis Due to Methicillin-Susceptible Coagulase-Negative Staphylococci: a Prospective ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Endocarditis is the subject of a report. According to news originating from Durham, North Carolina, by NewsRx correspondents, research stated, "The phenotypic expression of methicillin resistance among coagulase-negative staphylococci (CoNS) is heterogeneous regardless of the presence of the meca gene. The potential discordance between phenotypic and genotypic results has led to the use of vancomycin for the treatment of CoNS infective endocarditis (IE) regardless of methicillin MIC values."

Our news journalists obtained a quote from the research from Duke University, "In this study, we assessed the outcome of methicillin-susceptible CoNS IE among patients treated with antistaphylococcal beta-lactams (ASB) versus vancomycin (VAN) in a multicenter cohort study based on data from the International Collaboration on Endocarditis (ICE) Prospective Cohort Study (PCS) and the ICE-Plus databases. The ICE-PCS database contains prospective data on 5,568 patients with IE collected between 2000 and 2006, while the ICE-Plus database contains prospective data on 2,019 patients with IE collected between 2008 and 2012. The primary endpoint was in-hospital mortality. Secondary endpoints were 6-month mortality and survival time. Of the 7,587 patients in the two databases, there were 280 patients with methicillin-susceptible CoNS IE. Detailed treatment and outcome data were available for 180 patients. Eighty-eight patients received ASB, while 36 were treated with VAN. In-hospital mortality (19.3% versus 11.1%; P = 0.27), 6-month mortality (31.6% versus 25.9%; P = 0.58), and survival time after discharge (P = 0.26) did not significantly differ between the two cohorts. Cox regression analysis did not show any significant association between ASB use and the survival time (hazard ratio, 1.7; P = 0.22); this result was not affected by adjustment for confounders."

According to the news editors, the research concluded: "This study provides no
evidence for a difference in outcome with the use of VAN versus ASB for methicillin-susceptible CoNS IE."

For more information on this research see: Antistaphylococcal beta-Lactams versus Vancomycin for Treatment of Infective Endocarditis Due to Methicillin-Susceptible Coagulase-Negative Staphylococci: a Prospective Cohort Study from the International Collaboration on Endocarditis. Antimicrobial Agents and Chemotherapy, 2016;60(10):6341-6349. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from M. Carugati, Duke University, Medical Center, Div Infect Dis, Durham, NC, United States. Additional authors for this research include C.A. Petti, C. Arnold, M. Miro, J.M. Pericas, C.G. de la Maria, Z. Kanafani, E. Durante-Mangoni, J. Baddley, D. Wray, J.L. Klein, F. Delahaye, N. Fernandez-Hidalgo, M.M. Hannan, D. Murdoch, A. Bayer and V.H. Chu.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Beta-Lactam Antibiotics, Infective Endocarditis, Enzymes and Coenzymes, Drugs and Therapies, Organic Chemicals, Sulfur Compounds, Endopeptidases, Glycopeptides, Heart Disease, beta-Lactams, Methicillin, Penicillins, Cardiology, Hydrolases, Vancomycin, Coagulase, Hospital, Peptides, Amides, Duke University.

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New Findings from Eunice Kennedy Shriver National Institute of Child Health and Human Development in the Area of Pediatric Obesity Described (Cortisol response to an induction of negative affect among adolescents with and without loss of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Pediatric Obesity is now available. According to news reporting originating in Bethesda, Maryland, by NewsRx journalists, research stated, "Adults with binge eating disorder may have an exaggerated or blunted cortisol response to stress. Yet, limited data exist among youth who report loss of control (LOC) eating, a developmental precursor to binge eating disorder."

Financial supporters for this research include NIH National Research Service Award, Pathway to Independence Award, NIH Intramural Research Program.

The news reporters obtained a quote from the research from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, "We studied cortisol reactivity among 178 healthy adolescents with and without LOC eating. Following a buffet lunch meal adolescents were randomly assigned to watch a neutral or sad film clip. After, they were offered snacks from a multi-item array to assess eating in the absence of hunger. Salivary cortisol was collected at -80, 0, 30 and 50 min relative to film administration, and state mood ratings were reported before and after the film. Adolescents with LOC had greater increases in negative affect during the experimental paradigm in both conditions (ps >0.05). Depressive symptoms, but not LOC, related to a greater cortisol response in the sad film condition (ps >
Depressive symptoms and state LOC were related to different aspects of eating behaviour, independent of film condition or cortisol response (ps > 0.05). A film clip that induced depressed state affect increased salivary cortisol only in adolescents with more elevated depressive symptoms. Adolescents with and without LOC were differentiated by greater increases in state depressed affect during laboratory test meals but had no difference in cortisol reactivity. According to the news reporters, the research concluded: "Future studies are required to determine if adolescents with LOC manifest alterations in stress reactivity to alternative stress-inducing situations."


Our news correspondents report that additional information may be obtained by contacting R.M. Radin, Section on Growth and Obesity, Program in Developmental Endocrinology and Genetics, Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), National Institutes of Health (NIH), DHHS, Bethesda, MD, 20892, United States. Additional authors for this research include L.B. Shomaker, N.R. Kelly, C.K. Pickworth, K.A. Thompson, S.M. Brady, A. Demidowich, O. Galescu, A.M. Altschul, L.M. Shank, S.Z. Yanovski, M. Tanofsky-Kraff and J.A Yanovski.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijpo.12095. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, Pediatric Obesity, North and Central America, Nutritional and Metabolic Diseases and Conditions.

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Nephrology

New Findings from Faculty of Medicine Yields New Data on Nephrology (Angio-embolization of a renal pseudoaneurysm complicating a percutaneous renal biopsy: a case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nephrology are presented in a new report. According to news reporting out of Rabat, Morocco, by NewsRx editors, research stated, "We report the treatment of a bleeding renal pseudoaneurysm by angio-embolization. A 21 years old woman developed macroscopic haematuria following renal biopsy."

Our news journalists obtained a quote from the research from the Faculty of Medicine, "Renal angio-scan showed a 1.4 cm renal pseudoaneurysm in the left kidney. The presence of pseudoaneurysm was confirmed by selective renal angiography."

According to the news editors, the research concluded: "Successful embolization was performed using gelatine sponge particles."


Our news journalists report that additional information may be obtained by
contacting H. Rafik, Dept. of Nephrology, Mohammed V Military Hospital, Faculty of Medicine and Pharmacy University Mohammed V-Souissi, Rabat, Morocco. Additional authors for this research include M. Azizi, D. El Kabbaj and M. Benyahia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.11604/pamj.2015.22.278.7976. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rabat, Africa, Kidney, Morocco, Angiology, Nephrology, Embolization.

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Skin Diseases and Conditions - Acne Vulgaris

New Findings from Federal University in the Area of Acne Vulgaris Reported (Observational retrospective study evaluating the effects of oral isotretinoin in keloids and hypertrophic scars)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Skin Diseases and Conditions - Acne Vulgaris are presented in a new report. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Acne vulgaris is a chronic inflammatory disease characterized by noninflammatory and inflammatory lesions that can cause scarring. Oral isotretinoin is the current recommended treatment for moderate and severe cases; however, there are reports of possible influences on the healing process of the skin, leading to an increase in the risk for hypertrophic scars and keloids."

Our news journalists obtained a quote from the research from Federal University, "This hypothesis, although unproven, represents a contraindication to the treatment of acne scars during the 6-12 months after the cessation of isotretinoin. The aim of this study was to investigate the prevalences of hypertrophic scars and keloids in acne patients treated with oral isotretinoin. Three data collection strategies were used: (i) clinical examination of patients with acne vulgaris, exposed or unexposed to oral isotretinoin, focusing on the occurrence of hypertrophic scars and/or keloids; (ii) telephone interviews of patients using oral isotretinoin to treat acne vulgaris on the occurrence or worsening of keloids; and (iii) clinical examination of patients with previous use of oral isotretinoin followed at a specific keloid treatment clinic. The resulting data showed no differences in wound healing."

According to the news editors, the research concluded: "These findings may indicate that the occurrence of hypertrophic scars or keloids in patients using oral isotretinoin is an undesirable event arising from an individual response and may be related to inflammatory acne evolution."


The news correspondents report that additional information may be obtained from L.R.S. Guadanhim, Federal University of Sao Paulo, Sao Paulo, SP, Brazil. Additional authors
for this research include R.G. Goncalves and E. Bagatin. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijd.13317. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, Skin and Connective Tissue Diseases and Conditions, Sebaceous Gland Diseases and Conditions, Skin Diseases and Conditions, Acneiform Eruptions, Biological Factors, Organic Chemicals, Facial Dermatoses, Cycloparaffins, Acne Vulgaris, Isotretinoin, Cyclohexanes, Cyclohexenes, Hydrocarbons, Retinoids, Polyenes, Terpenes, Alkenes, Federal University.

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**Drugs and Therapies - Antimicrobials**

**New Findings from Federal University in the Area of Antimicrobials Described (Adverse events caused by potential drug-drug interactions in an intensive care unit of a teaching hospital)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antimicrobials have been published. According to news originating from Juiz de Fora, Brazil, by NewsRx correspondents, research stated, "To evaluate the incidence of potential drug-drug interactions in an intensive care unit of a hospital, focusing on antimicrobial drugs. This cross-sectional study analyzed electronic prescriptions of patients admitted to the intensive care unit of a teaching hospital between January 1 and March 31, 2014 and assessed potential drug-drug interactions associated with antimicrobial drugs."

Our news journalists obtained a quote from the research from Federal University, "Antimicrobial drug consumption levels were expressed in daily doses per 100 patient-days. The search and classification of the interactions were based on the Micromedex? system. The daily prescriptions of 82 patients were analyzed, totaling 656 prescriptions. Antimicrobial drugs represented 25% of all prescription drugs, with meropenem, vancomycin and ceftriaxone being the most prescribed medications. According to the approach of daily dose per 100 patient-days, the most commonly used antimicrobial drugs were cefepime, meropenem, sulfamethoxazole + trimethoprim and ciprofloxacin. The mean number of interactions per patient was 2.6. Among the interactions, 51% were classified as contraindicated or significantly severe. Highly significant interactions (clinical value 1 and 2) were observed with a prevalence of 98%.

According to the news editors, the research concluded: "The current study demonstrated that antimicrobial drugs are frequently prescribed in intensive care units and present a very high number of potential drug-drug interactions, with most of them being considered highly significant."


The news correspondents report that additional information may be obtained from M.M. Alvim, Universidade Federal de Juiz de Fora, Juiz de Fora, MG, Brazil. Additional authors for this research include L.A. Silva, I.C. Leite and M.S Silverio.

The direct object identifier (DOI) for that additional information is:
New Findings from Federal University in the Area of Type 2 Diabetes Reported (The contribution of protein intrinsic disorder to understand the role of genetic variants uncovered by autism spectrum disorders exome studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting out of Porto Alegre, Brazil, by NewsRx editors, research stated, "Several autism spectrum disorders (ASD) exome studies suggest that coding single nucleotide variants (SNVs) play an important role on ASD etiology. Usually, the pathogenic effect of missense mutations is estimated through predictors that lose accuracy for those SNVs placed in intrinsically disordered regions of protein."

Financial support for this research came from Conselho Nacional de Desenvolvimento Cientifico e Tecnologico (CNPq, Brazil).

Our news journalists obtained a quote from the research from Federal University, "Here, we used bioinformatics tools to investigate the effect of mutations described in ASD published exome studies (549 mutations) in protein disorder, considering post-translational modification, PEST and Molecular Recognition Features (MoRFs) motifs. Schizophrenia and type 2 diabetes (T2D) datasets were created for comparison purposes. The frequency of mutations predicted as disordered was comparable among the three datasets (38.1% in ASD, 35.7% in schizophrenia, 46.4% in T2D). However, the frequency of SNVs predicted to lead a gain or loss of functional sites or change intrinsic disorder tendencies was higher in ASD and schizophrenia than T2D (46.9%, 36.4%, and 23.1%, respectively). The results obtained by SIFT and PolyPhen-2 indicated that 38.9% and 34.4% of the mutations predicted, respectively, as tolerated and benign showed functional alterations in disorder properties. Given the frequency of mutations placed in IDRs and their functional impact, this study suggests that alterations in intrinsic disorder properties might play a role in ASD and schizophrenia etiologies. They should be taken into consideration when researching the pathogenicity of mutations in neurodevelopmental and psychiatric diseases."

According to the news editors, the research concluded: "Finally, mutations with functional alterations in disorder properties must be potential targets for in vitro and in vivo functional studies."

Our news journalists report that additional information may be obtained by contacting J.B. Schuch, Dept. of Genetics, Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, Rio Grande do Sul, Brazil. Additional authors for this research include V.R. Paixao-Cortes, D.C. Friedrich and L. Tovo-Rodrigues.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.b.32431. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Genetics, Psychiatry, Porto Alegre, South America, Schizophrenia, Type 2 Diabetes, Risk and Prevention, Mental Health Diseases and Conditions, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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Atrial Fibrillation

New Findings from First Affiliated Hospital in the Area of Atrial Fibrillation Reported (One-Year Clinical Outcome of Pulmonary Vein Isolation Using the Second-Generation Cryoballoon: A Meta-Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Atrial Fibrillation. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "The second-generation cryoballoon (CB-2G) is a promising technique to treat atrial fibrillation (AF). It is necessary to summarize and analyze the available data on 1-year clinical outcome of pulmonary vein isolation (PVI) with CB-2G."

The news correspondents obtained a quote from the research from First Affiliated Hospital, "PubMed and the Web of Science were searched in May 2015. Studies that reported the 1-year clinical success rates after PVI using CB-2G were included. The 1-year clinical success rates were pooled using the random-effect model. Complication rates and acute success rates were also analyzed. Subgroup analyses were conducted based on AF type and ablation strategy. Fifteen studies involving 2,363 AF patients met the inclusion criteria. The overall clinical success rate of PVI using CB-2G was 81%. A total of 82% of paroxysmal AF patients and 70% of persistent AF patients were in stable sinus rhythm 1 year after the procedure. The clinical success rates of the 'no-bonus' strategy were 81% in all patients, 82% in paroxysmal AF patients, and 73% in persistent AF patients. The corresponding success rates of the 'bonus' strategy were 81%, 83%, and 63%. Acute success rate was high. The overall rates of phrenic nerve palsy (PNP) and other procedure-related complications were 5.8% and 1.5%, respectively. Compared with 'bonus' strategy, there was a trend of fewer PNPs in 'no-bonus' strategy (4.6% vs 6.5%). CB-2G is highly effective in the treatment of both paroxysmal AF and persistent AF."

According to the news reporters, the research concluded: "The 'no-bonus' strategy is as effective as the 'bonus' strategy in terms of 1-year clinical outcome."


Our news journalists report that additional information may be obtained by
contacting X. He, Dept. of Cardiology, The First Affiliated Hospital of Sun Yat-sen University, Yuexiu District, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include Y. Chen, Y. Zhou, Y. Huang and J. He.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/pace.12787. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Guangdong, Angiology, Pulmonary Veins, Atrial Fibrillation, People's Republic of China, Heart Disorders and Diseases.

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U.S. Food and Drug Administration

New Findings from Food and Drug Administration in the Area of U.S. Food and Drug Administration Reported (Advancing pharmaceutical quality: An overview of science and research in the US FDA's Office of Pharmaceutical Quality)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on U.S. Food and Drug Administration is the subject of a report. According to news reporting from Silver Spring, Maryland, by NewsRx journalists, research stated, "Failures surrounding pharmaceutical quality, particularly with respect to product manufacturing issues and facility remediation, account for the majority of drug shortages and product recalls in the United States. Major scientific advancements pressure established regulatory paradigms, especially in the areas of biosimilars, precision medicine, combination products, emerging manufacturing technologies, and the use of real-world data."

The news correspondents obtained a quote from the research from Food and Drug Administration, "Pharmaceutical manufacturing is increasingly globalized, prompting the need for more efficient surveillance systems for monitoring product quality. Furthermore, increasing scrutiny and accelerated approval pathways provide a driving force to be even more efficient with limited regulatory resources. To address these regulatory challenges, the Office of Pharmaceutical Quality (OPQ) in the Center for Drug Evaluation and Research (CDER) at the U.S. Food and Drug Administration (FDA) harbors a rigorous science and research program in core areas that support drug quality review, inspection, surveillance, standards, and policy development. Science and research is the foundation of risk-based quality assessment of new drugs, generic drugs, over-the-counter drugs, and biotechnology products including biosimilars."

According to the news reporters, the research concluded: "This is an overview of the science and research activities in OPQ that support the mission of ensuring that safe, effective, and high-quality drugs are available to the American public."


Our news journalists report that additional information may be obtained by contacting S.L. Lee, Food & Drug Administration, Center Drug Evaluat & Res, Off Pharmacut
New Findings from Fourth Military Medical University Describe Advances in Immunoglobulins (Expression and purification of mouse Ttyh1 fragments as antigens to generate Ttyh1-specific monoclonal antibodies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology - Immunoglobulins have been presented. According to news reporting originating in Xi'an, People's Republic of China, by NewsRx journalists, research stated, "Ttyh1 is a murine homolog of the Drosophila Tweety and is predicted as a five-pass transmembrane protein. The Ttyh1 mRNA is expressed in mouse brain tissues with a restricted pattern and in human glioma cells."

Funders for this research include Ministry of Science and Technology of China, National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Fourth Military Medical University, "Ttyh1 protein may function as a large-conductance chloride channel, however, the role of Ttyh1 in normal neural development and tumorigenesis has been largely unknown, at least partially due to the lack of effective antibodies. Here we report the expression in E. coli and purification of two recombinant Ttyh1 protein fragments corresponding to one of the predicted extracellular domains and the carboxyl terminus of the mouse Ttyh1. With these Ttyh1 protein products, a set of monoclonal antibodies (mAbs) against the mouse Ttyh1 protein was established by using conventional hybridoma techniques. The specificity of the anti-Ttyh1 mAbs was determined based on their activities in Western blotting and immunofluorescent analysis using embryonic brain tissues and cultured mouse neural stem cells (NSCs). We also show that the mouse Ttyh1 protein was expressed in cultured NSCs, most likely in membrane and cytoplasm. In mouse embryonic brains, it appeared that the Ttyh1 protein was specifically expressed in the apical edge of the ventricular zone as puncta-like structures, as determined by using immunofluorescence."

According to the news reporters, the research concluded: "Taken together, our study provided a useful tool for further exploration of the biological functions and pathological significance of Ttyh1 in mice."

For more information on this research see: Expression and purification of mouse Ttyh1 fragments as antigens to generate Ttyh1-specific monoclonal antibodies. Protein Expression and Purification, 2017;130():81-89. Protein Expression and Purification can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Protein Expression and Purification - www.journals.elsevier.com/protein-expression-and-purification/)

Our news correspondents report that additional information may be obtained by

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Keywords for this news article include: Xi'an, People's Republic of China, Asia, Biological Factors, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Antigens, Genetics, Fourth Military Medical University.

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Immune System Diseases and Conditions - HIV/AIDS

New Findings from Free University Update Understanding of HIV/AIDS (Top-down and bottom-up modeling in system pharmacology to understand clinical efficacy: An example with NRTIs of HIV-1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - HIV/AIDS have been published. According to news reporting out of Berlin, Germany, by NewsRx editors, research stated, "A major aim of Systems Pharmacology is to understand clinically relevant mechanisms of action (MOA) of drugs and to use this knowledge in order to optimize therapy. To enable this mission it is necessary to obtain knowledge on how in vitro testable insights translate into clinical efficacy."

Financial support for this research came from BMBF e:Bio junior research group ‘Systems Pharmacology & Disease Control’.

Our news journalists obtained a quote from the research from Free University, "Mathematical modeling and data integration are essential components to achieve this goal. Two modeling philosophies are prevalent, each of which in isolation is not sufficient to achieve the above described: In a 'top-down' approach, a minimal pharmacokinetic-pharmacodynamic (PK-PD) model is derived from- and fitted to available clinical data. This model may lack interpretability in terms of mechanisms and may only be predictive for scenarios already covered by the data used to derive it. A 'bottom-up' approach builds on mechanistic insights derived from in vitro/ex vivo experiments, which can be conducted under controlled conditions, but may not be fully representative for the in vivo/clinical situation. In this work, we employ both approaches side-by-side to predict the clinical potency (IC50 values) of the nucleoside reverse transcriptase inhibitors (NRTIs) lamivudine, emtricitabine and tenofovir. In the 'top-down' approach, this requires to establish the dynamic link between the intracellularly active NRTI-triphosphates (which exert the effect) and plasma prodrug PK and to subsequently link this composite PK model to viral kinetics. The 'bottom-up' approach assesses inhibition of reverse transcriptase-mediated viral DNA polymerization by the intracellular, active NRTI-triphosphates, which has to be brought into the context of target cell infection. By using entirely disparate sets of data to derive and parameterize the respective models, our approach serves as a means to assess the clinical relevance of the 'bottom-up' approach. We obtain very good qualitative and quantitative agreement between 'top-down' vs. 'bottom-up' predicted IC50 values, arguing for the validity of the 'bottom-up' approach. We noted, however, that the 'top-
down' approach is strongly dependent on the sparse and noisy intracellular pharmacokinetic data. All in all, our work provides confidence that we can translate in vitro parameters into measures of clinical efficacy using the 'bottom-up' approach."

According to the news editors, the research concluded: "This may allow to infer the potency of various NRTIs in inhibiting e.g. mutant viruses, to distinguish sources of interaction of NRTI combinations and to assess the efficacy of different NRTIs for repurposing, e.g. for pre-exposure prophylaxis."

For more information on this research see: Top-down and bottom-up modeling in system pharmacology to understand clinical efficacy: An example with NRTIs of HIV-1. European Journal of Pharmaceutical Sciences, 2016;94():72-83. European Journal of Pharmaceutical Sciences can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmaceutical Sciences - www.journals.elsevier.com/european-journal-of-pharmaceutical-sciences/)

Our news journalists report that additional information may be obtained by contacting S. Duwal, Free University of Berlin, Syst Pharmacol & Dis Control Grp, Dept. of Math & Comp Sci, D-14195 Berlin, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejps.2016.01.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berlin, Germany, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Reverse Transcriptase, Enzymes and Coenzymes, Primate Lentiviruses, Vertebrate Viruses, Pharmacokinetics, Pharmaceuticals, HIV Infections, Pharmacology, Retroviridae, RNA Viruses, Proteomics, Proteins, HIV/AIDS, Genetics, HIV-1, Free University.

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Drugs and Therapies - Toxicology and Pharmacology

New Findings from Free University Update Understanding of Toxicology and Pharmacology (Printed paper and board food contact materials as a potential source of food contamination)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Toxicology and Pharmacology. According to news originating from Brussels, Belgium, by NewsRx correspondents, research stated, "Food contact materials (FCM) are estimated to be the largest source of food contamination. Apart from plastics, the most commonly used FCM are made of printed paper and board."

Financial support for this research came from Belgian Scientific Institute of Public Health.

Our news journalists obtained a quote from the research from Free University, "Unlike their plastic counterparts, these are not covered by a specific European regulation. Several contamination issues have raised concerns towards potential adverse health effects caused by exposure to substances migrating from printed paper and board FCM. In the current study, an inventory combining the substances which may be used in printed paper and board FCM, was created. More than 6000 unique compounds were identified, the majority (77%)


considered non-evaluated in terms of potential toxicity. Based on a preliminary study of their physicochemical properties, it is estimated that most of the non-evaluated single substances have the potential to migrate into the food and become bioavailable after oral intake. Almost all are included in the FACET tool, indicating that their use in primary food packaging has been confirmed by industry. Importantly, 19 substances are also present in one of the lists with substances of concern compiled by the European Chemicals Agency (ECHA)."

According to the news editors, the research concluded: "To ensure consumer safety, the actual use of these substances in printed paper and board FCM should be investigated urgently."

For more information on this research see: Printed paper and board food contact materials as a potential source of food contamination. Regulatory Toxicology and Pharmacology. 2016;81():10-19. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news correspondents report that additional information may be obtained from M. Van Bossuyt, Vrije Univ Brussel, Dept. of Vitro Toxicol & Dermato Cosmetol, Brussels, Belgium. Additional authors for this research include E. Van Hoeck, T. Vanhaecke, V. Rogiers and B. Mertens.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.06.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Toxicology and Pharmacology, Drugs and Therapies, Free University.

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Oncology - Colon Cancer

New Findings from French National Institute of Health and Medical Research (INSERM) in the Area of Colon Cancer Reported (Does bevacizumab impact anti-EGFR therapy efficacy in metastatic colorectal cancer?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating in Dijon, France, by NewsRx journalists, research stated, "Anti-EGFR therapy and antiangiogenic therapies are used alone or in combination with chemotherapies to improve survival in metastatic colorectal cancer. However, it is unknown whether pretreatment with antiangiogenic therapy could impact on the efficacy of anti-EGFR therapy."

The news reporters obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "We selected one hundred and twenty eight patients diagnosed with advanced colorectal cancer with a KRAS and NRAS unmutated tumor. These patients were treated with cetuximab or panitumumab alone or with chemotherapy as second or third-line. Univariate and multivariate Cox model analysis were performed to estimate the effect of a previous bevacizumab regimen on progression free survival and on
overall survival during anti-EGFR therapy. In vitro studies using wild type KRAS and NRAS colon cancer cells were performed to evaluate the impact of VEGF-A on cetuximab-induced cell death. The median progression free survival (PFS) during anti-EGFR treatment was significantly different between the bevacizumab group and the non-bevacizumab group (2.8 and 4 months respectively; \( p=0.003 \)). The median overall survival from the beginning of the metastatic disease was similar in the two groups (41.3 and 42 months respectively; \( p=0.7 \)). In vitro, VEGF-A induced a resistance toward cetuximab cytotoxicity on three KRAS and NRAS wild type colon cancer cell lines in a VEGFR2 and Stat-3-dependent manner. All in all, our clinical data, supported by in vitro procedures, suggest that a previous anti-VEGF therapy decreases anti-EGFR efficacy."

According to the news reporters, the research concluded: "Although these results are observed in a limited cohort, they could be taken into consideration for a better strategy of care for patient suffering from metastatic colorectal cancer."

For more information on this research see: "Does bevacizumab impact anti-EGFR therapy efficacy in metastatic colorectal cancer?" *Oncotarget*, 2016;7(8):9309-21.

Our news correspondents report that additional information may be obtained by contacting V. Derangere, INSERM, U866, Faculté de Médecine, Université de Bourgogne, Dijon, France. Additional authors for this research include J.D. Fumet, R. Boidot, L. Bengrine, E. Limagne, A. Chevriaux, J. Vincent, S. Ladoire, L. Apetoh, C. Rebe and F. Ghiringhelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dijon, France, Europe, Angiogenic Proteins, Antineoplastic Monoclonal Antibodies, Antineoplastics, Bevacizumab, Biotechnology, Cetuximab, Colon Cancer, Colorectal Research, Drugs and Therapies, Gastroenterology, Growth Factor Receptors, Intercellular Signaling Peptides and Proteins, Membrane Proteins, Oncology, Pharmaceuticals, Receptor Protein Tyrosine Kinases, Therapy, Tyrosine Kinase Inhibitors, VEGF VEGFR Inhibitors, VEGFR Inhibitors, Vascular Endothelial Growth Factors.

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**Eye Diseases and Conditions - Glaucoma**

**New Findings from Friedrich-Alexander-University in the Area of Glaucoma Described (Ensemble Pruning for Glaucoma Detection in an Unbalanced Data Set)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Eye Diseases and Conditions - Glaucoma have been published. According to news reporting originating in Erlangen, Germany, by NewsRx journalists, research stated, "Random forests are successful classifier ensemble methods consisting of typically 100 to 1000 classification trees. Ensemble pruning techniques reduce the computational cost, especially the memory demand, of random forests by reducing the number of trees without relevant loss of performance or even with increased performance of the sub-ensemble."

The news reporters obtained a quote from the research from Friedrich-Alexander-University, "The application to the problem of an early detection of glaucoma, a severe eye
disease with low prevalence, based on topographical measurements of the eye background faces specific challenges. We examine the performance of ensemble pruning strategies for glaucoma detection in an unbalanced data situation. The data set consists of 102 topographical features of the eye background of 254 healthy controls and 55 glaucoma patients. We compare the area under the receiver operating characteristic curve (AUC), and the Brier score on the total data set, in the majority class, and in the minority class of pruned random forest ensembles obtained with strategies based on the prediction accuracy of greedily grown sub-ensembles, the uncertainty weighted accuracy, and the similarity between single trees. To validate the findings and to examine the influence of the prevalence of glaucoma in the data set, we additionally perform a simulation study with lower prevalences of glaucoma. In glaucoma classification all three pruning strategies lead to improved AUC and smaller Brier scores on the total data set with sub-ensembles as small as 30 to 80 trees compared to the classification results obtained with the full ensemble consisting of 1000 trees. In the simulation study, we were able to show that the prevalence of glaucoma is a critical factor and lower prevalence decreases the performance of our pruning strategies."

According to the news reporters, the research concluded: "The memory demand for glaucoma classification in an unbalanced data situation based on random forests could effectively be reduced by the application of pruning strategies without loss of performance in a population with increased risk of glaucoma."


Our news correspondents report that additional information may be obtained by contacting W. Adler, Friedrich Alexander Univ Erlangen Nuremberg, Inst Med Informat Biometry & Epidemiol, D-91054 Erlangen, Germany. Additional authors for this research include O. Gefeller, A. Gul, F.K. Horn, Z. Khan and B. Lausen.

Keywords for this news article include: Erlangen, Germany, Europe, Eye Diseases and Conditions, Risk and Prevention, Glaucoma, Friedrich-Alexander-University.

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**Drugs and Therapies - Ethnopharmacology**

**New Findings from Fudan University Update Understanding of Ethnopharmacology (Structure characterization of two novel polysaccharides isolated from the spikes of Prunella vulgaris and their anticomplement activities)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Ethnopharmacology. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Ethnopharmacological relevance: The spikes of Prunella vulgaris have long been used as a traditional Chinese medicine to treat various inflammation-related diseases. The aim of this study was to isolate and characterize homogenous polysaccharides from this herb and to evaluate their anticomplement activity."

Funders for this research include National Natural Science Foundation of China,
Ministry of Education of China, Ministry of Science and Technology of China.

The news correspondents obtained a quote from the research from Fudan University, "Anticomplement activity-guided fractionation of the hot water extract of P. vulgaris was performed by DEAE-cellulose and size-exclusion chromatography, yielding two homogeneous polysaccharides PW-PS1 and PW-PS2. The homogeneity, molecular weight, monosaccharide composition and linkage of the two polysaccharides were determined in addition to other chemical characterizations. The anticomplement activity of the polysaccharides was evaluated and expressed as 50% hemolytic inhibition concentration through the classical pathway (CH50 value) and alternative pathway (AP(50) value). The preliminary mechanism for the complement activation cascade was also assessed. PW-PS1 and PW-PS2 were both branched acidic polysaccharides. PW-PS1 was composed of Ara, Xyl, and 4-methoxy-Glc A in a ratio of 1.0:2.6:0.8. The main linkages of the sugar residues of PW-PS1 included terminal beta-D-Xylp, 1,4-linked beta-D-Xylp, 1,3-linked alpha-D-Arap, 1,3,5-linked alpha-D-Arap, and terminal 4-methoxy-alpha-D-Glcp A. PW-PS2 was composed of Rha, Ara, Xyl, Gal, and Gal A in a ratio of 0.6:1.0:1.3:1.8:3.4. The main linkages between the sugar residues of PW-PS2 included terminal Araf, 1,4-linked beta-D-Xylp, 1,3-linked alpha-D-Rhap, terminal alpha-D-Galp, and 1,4,6-linked alpha-D-Galp. PW-PS1 and PW-PS2 inhibited complement activation through both the classical and alternative pathways with CH50 values of 0.28 and 0.13 mg/mL, respectively, and AP(50) values of 0.40 and 0.35 mg/mL, respectively. Preliminary mechanism studies using complement component-depleted sera showed that PW-PS1 acted on the C1q, C3, and C9 components and that PW-PS2 acted on the C1q, C2, C3, C5, and C9 components."

According to the news reporters, the research concluded: "Our study suggested that PW-PS1 and PW-PS2 could be valuable for the treatment of diseases associated with the excessive activation of the complement system."

According to the news reporters, the research concluded: "Our study suggested that PW-PS1 and PW-PS2 could be valuable for the treatment of diseases associated with the excessive activation of the complement system."


Our news journalists report that additional information may be obtained by contacting Z.H. Cheng, Fudan University, Sch Pharm, Dept. of Pharmacognosy, Shanghai 201203, People's Republic of China. Additional authors for this research include Y. Lu, Z.H. Cheng and D.F. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.034. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Ethnopharmacology, Drugs and Therapies, Fudan University.

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New Findings from Fudan University Update Understanding of Uropathogenic Escherichia coli (Disruption of Membrane by Colistin Kills Uropathogenic Escherichia coli Persisters and Enhances Killing of Other Antibiotics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Uropathogenic Escherichia coli. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Persisters are small populations of quiescent bacterial cells that survive exposure to bactericidal antibiotics and are responsible for many persistent infections and posttreatment relapses. However, little is known about how to effectively kill persister bacteria."

Our news editors obtained a quote from the research from Fudan University, "In the work presented here, we found that colistin, a membrane-active antibiotic, was highly active against Escherichia coli persisters at high concentrations (25 or 50 μg/ml). At a clinically relevant lower concentration (10 μg/ml), colistin alone had no apparent effect on E. coli persisters. In combination with other drugs, this concentration of colistin enhanced the antipersister activity of gentamicin and ofloxacin but not that of ampicillin, nitrofurans, and sulfadiazine in vitro. The colistin enhancement effect was most likely due to increased uptake of the other antibiotics, as demonstrated by increased accumulation of fluorescence-labeled gentamicin. Interestingly, colistin significantly enhanced the activity of ofloxacin and nitrofurantoin but not that of gentamicin or sulfadiazine in the murine model of urinary tract infection."

According to the news editors, the research concluded: "Our findings suggest that targeting bacterial membranes is a valuable approach to eradicating persisters and should have implications for more effective treatment of persistent bacterial infections."

For more information on this research see: Disruption of Membrane by Colistin Kills Uropathogenic Escherichia coli Persisters and Enhances Killing of Other Antibiotics. Antimicrobial Agents and Chemotherapy, 2016;60(11):6867-6871. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Bacterial Infections and Mycoses, Pore Forming Cytotoxic Proteins, Uropathogenic Escherichia coli, Ophthalmic Antiinfectives, Ophthalmic Preparations, Gram-Negative Bacteria, Antibacterial Agents, Drugs and Therapies, Gammaproteobacteria, Enterobacteriaceae, Membrane Proteins, Aminoglycosides, Proteobacteria, Antimicrobials, Antibiotics, Polymyxins, Gentamicin, Colistin, Fudan University.
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Oncology - Pancreatic Cancer

New Findings from Fudan University Yields New Data on Pancreatic Cancer (HEATR1 Negatively Regulates Akt to Help Sensitize Pancreatic Cancer Cells to Chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Pancreatic Cancer. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Elucidating mechanisms of chemoresistance is critical to improve cancer therapy, especially for the treatment of pancreatic ductal adenocarcinoma (PDAC). Genome-wide association studies have suggested the less studied gene HEAT repeat-containing protein 1 (HEATR1) as a possible determinant of cellular sensitivity to different chemotherapeutic drugs."

Our news journalists obtained a quote from the research from Fudan University, "In this study, we assessed this hypothesized link in PDAC, where HEATR1 expression is downregulated significantly. HEATR1 silencing in PDAC cells increased resistance to gemcitabine and other chemotherapeutics, where this effect was associated with increased AKT kinase phosphorylation at the Thr308 regulatory site. Mechanistically, HEATR1 enhanced cell responsiveness to gemcitabine by acting as a scaffold to facilitate interactions between AKT and the protein phosphatase PP2A, thereby promoting Thr308 dephosphorylation. Consistent with these findings, treatment with the AKT inhibitor triciribine sensitized HEATR1-depleted PDAC cells to gemcitabine, suggesting that this therapeutic combination may overcome gemcitabine resistance in patients with low HEATR1 expression. Clinically, we found that HEATR1 downregulation in PDAC patients was associated with increased AKT phosphorylation, poor response to tumor resection plus gemcitabine standard-of-care treatment, and shorter overall survival."

According to the news editors, the research concluded: "Collectively, our findings establish HEATR1 as a novel regulator of AKT and a candidate predictive and prognostic indicator of drug responsiveness and outcome in PDAC patients."

For more information on this research see: HEATR1 Negatively Regulates Akt to Help Sensitize Pancreatic Cancer Cells to Chemotherapy. Cancer Research, 2015;76(3):572-81. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

The news correspondents report that additional information may be obtained from W. Lou, Dept. of Pancreatic Surgery, Zhongshan Hospital, Fudan University, Shanghai, People's Republic of China. Additional authors for this research include Y. Fang, H. Zhang, M. Deng, B. Gao, N. Niu, J. Yu, S. Lee, J. Kim, B. Qin, F. Xie, D. Evans, L. Wang, W. Lou and Z. Lou.

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Keywords for this news article include: Asia, Antimetabolites, Antineoplastics, Antivirals, Shanghai, Genetics, Oncology, Chemotherapy, Gastroenterology, Pancreatic Cancer, Drugs and Therapies, Gemcitabine Therapy, Pancreatic Neoplasms, Immunosuppressive Agents,
New Findings from General Hospital in the Area of Colon Cancer Described (Is estimated intra-operative blood loss a reliable predictor of surgical outcomes in laparoscopic colorectal cancer surgery?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news reporting from Northampton, United Kingdom, by NewsRx journalists, research stated, "Studies have shown that laparoscopic surgery for colorectal cancer is often associated with significantly reduced intra-operative blood loss compared to the corresponding open procedures. Increased intra-operative blood loss can be associated with increased risk of post-operative morbidity and mortality."

The news correspondents obtained a quote from the research from General Hospital, "We sought to determine whether estimated intra-operative blood loss was a reliable predictor of post-operative surgical outcomes. Prospective data were collected for patients undergoing elective laparoscopic colorectal cancer resections from July 2011 to November 2013. Weighing swabs and measuring blood volume in suction devices calculated the estimated intra-operative blood loss. The operative outcome data including post-operative 30 day morbidity and mortality, length of hospital stay, re-admission and re-operation within 30 days were collected. The operative blood loss was grouped into Group 1 (less than 50 ml, Group 2 (50-150 ml) and Group 3 (over 150 ml). Patients who underwent open operations and laparoscopic conversions were excluded. The median age, length of hospital stay, male to female ratio and body mass index were similar in the three groups. There was no 30-day mortality in any of the groups. The number of re-admissions within 30 days was similar in all groups. The re-operation rates within 30 days were higher in Groups 2 and 3 at 11% and 8.6%, respectively. The postoperative complications were 12.5%, 16.7%, and 26% in groups 1, 2 and 3, respectively. There were no anastomotic leaks requiring re-operation noted in Group 3. This study has shown that intra-operative blood loss was not associated with increased median length of stay nor did it increase the 30 day re-admission rate."

According to the news reporters, the research concluded: "However, increased intra-operative blood loss was associated with increased incidence of post-operative morbidity and risk of re-operation within 30 days."


Our news journalists report that additional information may be obtained by contacting U. Ihedioha, Northampton Gen Hosp NHS Trust, Dept. of Gen Surg, Northampton, United Kingdom. Additional authors for this research include U. Ihedioha, B. Babu, J. Evans and P. Kang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0036933015597174. This DOI is a link to an online electronic
Drugs and Therapies - Cardiovascular Agents

New Findings from George Washington University in the Area of Cardiovascular Agents Described (Tamsulosin for urolithiasis: a review of the recent literature and current controversies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Cardiovascular Agents is now available. According to news reporting originating from Washington, District of Columbia, by NewsRx correspondents, research stated, "In the United States, urolithiasis affects approximately 1 in 11 people, and there is evidence that the prevalence is increasing. A relatively recent treatment strategy for urolithiasis involves using medical expulsive therapy (MET) to increase the likelihood of spontaneous passage of ureteral stones."

Our news editors obtained a quote from the research from George Washington University, "The 2 leading drug classes for MET are alpha-1-andrenergic receptor blockers and calcium channel blockers. Tamsulosin, an alpha-1-adrenoceptor blocking agent, is thought to induce spontaneous stone passage by relaxing ureteral smooth muscle tone. However, tamsulosin has not been proven effective for increasing ureteral stone passage and is not approved by the Food and Drug Administration for this indication. There is a relative paucity of data on the efficacy of tamsulosin for urolithiasis, and of the published results, there are conflicting conclusions from the data. Because of the acute and often severe nature of symptoms from urolithiasis, emergency medicine physicians are frequently the first to diagnose and treat this condition. This has led to tamsulosin being frequently prescribed from the emergency department (ED) for off-label use without the support of high-quality evidence. If tamsulosin is proven effective, its use in the treatment of urolithiasis could offer several important advantages. The number of procedures, length of hospital stay, and health care costs after the initial ED visit could potentially be reduced. Tamsulosin may also increase patient satisfaction by reducing the invasive treatment and decreasing the time to stone passage."

According to the news editors, the research concluded: "This review focuses on the efficacy of tamsulosin based on stone location, after shock wave lithotripsy, compared with other MET drugs and in the acute setting of the ED."


The news editors report that additional information may be obtained by contacting A. Pourmand, George Washington University, Dept. of Emergency Med, Washington, DC, United States. Additional authors for this research include R. Nadendla, M. Mazer-Amirshahi and F.
Membrane Proteins - G-Protein-Coupled Receptors

New Findings from George Washington University in the Area of G-Protein-Coupled Receptors Reported (Bonobo personality traits are heritable and associated with vasopressin receptor gene 1a variation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Membrane Proteins - G-Protein-Coupled Receptors have been published. According to news reporting out of Washington, District of Columbia, by NewsRx editors, research stated, "Despite being closely related, bonobos and chimpanzees show remarkable behavioral differences, the proximate origins of which remain unknown. This study examined the link between behavioral variation and variation in the vasopressin 1a receptor gene (Avpr1a) in bonobos."

Our news journalists obtained a quote from the research from George Washington University, "Chimpanzees are polymorphic for a similar to 360 bp deletion (DupB), which includes a microsatellite (RS3) in the 5' promoter region of Avpr1a. In chimpanzees, the DupB deletion has been linked to lower sociability, lower social sensitivity, and higher anxiety. Chimpanzees and bonobos differ on these traits, leading some to believe that the absence of the DupB deletion in bonobos may be partly responsible for these differences, and to the prediction that similar associations between Avpr1a genotypes and personality traits should be present in bonobos. We identified bonobo personality dimensions using behavioral measures (Sociability (B), Boldness(B), Openness(B), Activity(B)) and trait ratings (Assertiveness®, Conscientiousness®, Openness®, Agreeableness®, Attentiveness®, Extraversion®). In the present study we found that all 10 dimensions have nonzero heritabilities, indicating there is a genetic basis to personality, and that bonobos homozygous for shorter RS3 alleles were lower in AttentivenessR and higher in OpennessB."

According to the news editors, the research concluded: "These results suggest that variations in Avpr1a genotypes explain both within and between species differences in personality traits of bonobos and chimpanzees."

For more information on this research see: Bonobo personality traits are heritable and associated with vasopressin receptor gene 1a variation. Scientific Reports, 2016:6():1-8. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting N. Staes, George Washington University, Dept. of Anthropol, Center Adv Study
Human Paleobiol, Washington, DC 20052, United States. Additional authors for this research include A. Weiss, P. Helsen, M. Korody, M. Eens and J.M.G. Stevens.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Posterior Pituitary Hormones, Pituitary Hormone Receptors, G-Protein-Coupled Receptors, Neuropeptide Receptors, Vasopressin Receptors, Hormones, Genetics, Membrane Proteins, Peptide Proteins, Peptide Hormones, Neuropeptides, Oligopeptides, Vasopressins, Peptides, George Washington University.

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Central Nervous System Diseases and Conditions -

New Findings from Gifu Pharmaceutical University in Intracranial Hemorrhages Provides New Insights (Cilostazol ameliorates collagenase-induced cerebral hemorrhage by protecting the blood-brain barrier)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions - Intracranial Hemorrhages have been presented. According to news reporting from Gifu, Japan, by NewsRx journalists, research stated, "Intracranial hemorrhage remains a devastating disease. Among antiplatelet drugs, cilostazol, a phosphodiesterase 3 inhibitor, was recently reported to prevent secondary hemorrhagic stroke in patients in a clinical trial."

The news correspondents obtained a quote from the research from Gifu Pharmaceutical University, "The aim of this study was to evaluate whether pre-treatment with cilostazol could decrease the intracranial hemorrhage volume and examine the protective mechanisms of cilostazol. We evaluated the pre-treatment effects of the antiplatelet drug cilostazol on the collagenase-induced intracranial hemorrhage volume and neurological outcomes in mice. To estimate the mechanism of collagenase injury, we evaluated various vascular components in vitro, including endothelial cells, vascular smooth muscle cells, pericytes, and a blood-brain barrier model. Cilostazol pre-treatment reduced the intracranial hemorrhage volume with sufficient inhibition of platelet aggregation, and motor function was improved by cilostazol treatment. Blood-brain barrier permeability was increased by collagenase-induced intracranial hemorrhage, and cilostazol attenuated blood-brain barrier leakage. Terminal deoxynucleotidyl transferase dUTP nick-end labeling and western blot analysis showed that cilostazol prevented pericyte cell death by inducing cyclic adenosine monophosphate-responsive element-binding protein phosphorylation. Cilostazol also prevented endothelial cell death and protected collagen type 4, laminin, and vascular endothelial-and N-cadherins from collagenase injury."

According to the news reporters, the research concluded: "Cilostazol reduced collagenase-induced intracranial hemorrhage volume by protecting the blood-brain barrier."

Neuroticism

New Findings from Graduate Institute of Medical Science in Neuroticism Provides New Insights [Gender-specific association between serotonin transporter polymorphisms (5-HTTLPR and rs25531) and neuroticism, anxiety and depression in well-defined ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Neuroticism is now available. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "A tri-allelic serotonin transporter promoter polymorphism (5-HTTLPR/rs25531) more effectively determines the levels of transcriptional efficacy than that with the bi-allelic 5-HTTLPR polymorphism in vitro. Both are reportedly associated with personality traits of negative emotionality, but with conflicting findings."

The news reporters obtained a quote from the research from the Graduate Institute of Medical Science, "One explanation for this is that a gender difference may play a role in genetic contribution. Here, we hypothesized that the tri-allelic genotype of the serotonin transporter is more closely linked to neuroticism, an anxiety- and depression-related trait, than the bi-allelic variation, particularly in a gender-dependent way. The genotypes of the 5-HTTLPR and rs25531 loci were determined in 1139 well-defined physically and mentally healthy Han Chinese (550 men, 589 women; mean age 38.3 +/- 10.3 years). All participants completed the neuroticism measure of the short-form Maudsley Personality Inventory (MPI). The levels of anxiety and depression were assessed by the Beck Anxiety Inventory (BAI) and the Beck Depression Inventory (BDI), respectively. A significant tri-allelic genotype-by-gender interaction effect was found in the MPI-neuroticism measure. S’S’ homozygotes were associated with higher neuroticism than L’ allele carriers in men. Also, both the BAI and BDI scores were higher in the S’S’ homozygotic men. In the bi-allelic analyses, however, there was only an association between SS genotype and MPI-neuroticism in men. Limitations: Sub-analyses by gender-stratification may reduce the statistical power. Our findings confirm that gender differences exist in the genetic contributions of the serotonin transporter in human neuroticism, and anxiety/depression."
According to the news reporters, the research concluded: "Our data provide further support for rs25531 strengthening the effects of 5-HTTLPR."

For more information on this research see: Gender-specific association between serotonin transporter polymorphisms (5-HTTLPR and rs25531) and neuroticism, anxiety and depression in well-defined healthy Han Chinese. *Journal of Affective Disorders*, 2017;207 ():422-428. *Journal of Affective Disorders* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Affective Disorders - www.journals.elsevier.com/journal-of-affective-disorders/)

Our news correspondents report that additional information may be obtained by contacting S.Y. Huang, Natl Def Med Center, Grad Inst Med Sci, Taipei, Taiwan. Additional authors for this research include H.A. Chang, W.H. Fang, T.C. Chang and S.Y. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jad.2016.08.055. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Biological Factors, Organic Chemicals, Biogenic Amines, Mental Health, Tryptamines, Neuroticism, Serotonin, Autacoids, Genetics, Graduate Institute of Medical Science.

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**Oncology - Bowel Cancer**

**New Findings from Griffith University in the Area of Bowel Cancer Reported (Modulatory roles of microRNAs in the regulation of different signalling pathways in large bowel cancer stem cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Bowel Cancer is now available. According to news reporting originating in Gold Coast, Australia, by NewsRx journalists, research stated, "There are emerging data to suggest that microRNAs (miRNAs) have significant roles in regulating the function of normal cells and cancer stem cells (CSCs). This review aims to analyse the roles of miRNAs in the regulation of colon CSCs through their interaction with various signalling pathways."

The news reporters obtained a quote from the research from Griffith University, "Studies showed a large number of miRNAs that are reported to be deregulated in colon CSCs. However, few of the studies available were able to outline the function of miRNAs in colon CSCs and uncover their signalling pathways. From those miRNAs, which are better described, miR-21 followed by miR-34, miR-200 and miR-215 are the most reported miRNAs to have roles in colon CSC regulation. In particular, miRNAs have been reported to regulate the stemness features of colon CSCs mainly via Wnt/B-catenin and Notch signalling pathways. Additionally, miRNAs have been reported to act on processes involving CSCs through cell cycle regulation genes and epithelial-mesenchymal transition. The relative paucity of data available on the significance of miRNAs in CSCs means that new studies will be of great importance to determine their roles and to identify the signalling pathways through which they operate."

According to the news reporters, the research concluded: "Such studies may in future guide further research to target these genes for more effective cancer treatment. miRNAs were
shown to regulate the function of cancer stem cells in large bowel cancer by targeting a few key signalling pathways in cells."


Our news correspondents report that additional information may be obtained by contacting A. Mamoori, Cancer Molecular Pathology, School of Medicine, Menzies Health Institute Queensland, Griffith University, Gold Coast, Queensland, Australia. Additional authors for this research include V. Gopalan, R.A. Smith and A.K. Lam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/boc.201500062. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Oncology, Gold Coast, Article Review, Gastroenterology, Large Bowel Cancer, Stem Cell Research, Australia and New Zealand.

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New Findings from Gyeongsang National University in the Area of Neurodegenerative Diseases and Conditions Described (Flavonoids Isolated from Flowers of Lonicera japonica Thunb. Inhibit Inflammatory Responses in BV2 Microglial Cells by ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Neurodegenerative Diseases and Conditions have been presented. According to news reporting out of Jinju, South Korea, by NewsRx editors, research stated, "Decoctions of the dried flowers of Lonicera japonica Thunb. (Indongcho) have been utilized in folk remedies against various inflammatory diseases, and it is reported neuroprotective effects. The cytokines release from microglia is closely linked to various chronic neurodegenerative diseases like Alzheimer's disease and Parkinson's disease."

Our news journalists obtained a quote from the research from Gyeongsang National University, "It is still unknown whether the neuroprotective effects are associated with the antinflammatory effects. Here, we determined whether polyphenols extracted from lyophilized Lonicera japonica Thunb. (PELJ) would inhibit inflammatory cytokines and mediators. We stimulated microglia with lipopolysaccharide (LPS) to produce inflammatory cytokines, and then assessed the effects of PELJ on these cytokines. PELJ significantly inhibited LPS-induced interleukin-1 beta and tumor necrosis factor-alpha expressions and LPS-induced nitric oxide (NO) and prostaglandin E-2 expressions by down-regulating inducible enzyme NO synthase and cyclooxygenase-2 at the protein and mRNA levels. All the suppression of these mediators did not cause any significant cytotoxicity. PELJ also inhibited the nuclear translocation of nuclear factor-kappa B and phosphorylated Akt."

According to the news editors, the research concluded: "These findings suggest that PELJ may offer substantial therapeutic potential for treating inflammatory and neurodegenerative diseases by inhibiting pro-inflammatory cytokines through inhibiting
phosphoinositol 3-kinase /Akt/nuclear factor-kappa B signaling pathway."


Keywords for this news article include: Jinju, South Korea, Asia, Neurodegenerative Diseases and Conditions, Cytokines, Genetics, Gyeongsang National University.

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DNA Research

New Findings from Hainan University Update Understanding of DNA Research (DNA methylation patterns of banana leaves in response to Fusarium oxysporum f. sp. cubense tropical race 4)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on DNA Research. According to news reporting out of Haikou, People's Republic of China, by NewsRx editors, research stated, "Fusarium wilt of banana, which is caused by Fusarium oxysporum f. sp. cubense tropical race 4 (Foc TR4), is a serious soil-borne fungal disease. Now, the epigenetic molecular pathogenic basis is elusive."

Our news journalists obtained a quote from the research from Hainan University, "In this study, with methylation-sensitive amplification polymorphism (MSAP) technique, DNA methylation was compared between the leaves inoculated with Foc TR4 and the mock-inoculated leaves at different pathogenic stages. With 25 pairs of primers, 1 144 and 1255 fragments were amplified from the infected and mock-inoculated leaves, respectively. DNA methylation was both changed and the average methylated CCGG sequences were 34.81 and 29.26% for the infected and the mock-inoculated leaves. And DNA hypermethylation and hypomethylation were induced by pathogen infection during all pathogenic stages. Further, 69 polymorphic fragments were sequenced and 29 of them showed sequence similarity to genes with known functions. And RT-PCR results of four genes indicated that their expression patterns were consistent with their methylation patterns."

According to the news editors, the research concluded: "Our results suggest that DNA methylation plays important roles in pathogenic response to Foc TR4 for banana."

New Findings from Hamad Medical Corporation Describe Advances in Kidney Function (Do directly acting antiviral agents for HCV increase the risk of hepatic decompensation and decline in renal function? Results from ERCHIVES)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gastroenterology - Kidney Function are presented in a new report. According to news reporting from Doha, Qatar, by NewsRx journalists, research stated, "Directly acting antiviral agents (DAA) have been associated with hepatic decompensation, especially in patients with pre-treatment cirrhosis, but this risk is not well defined. To determine the incidence of hepatic decompensation, liver transplantation, death and worsening renal function in patients treated with a Paritaprevir/ritonavir, Ombitasvir, Dasabuvir (PrOD), sofosbuvir/simeprevir or sofosbuvir/ledipasvir regimen."

Funders for this research include AbbVie, Gilead Sciences, Anadys, Genentech, Merck, Novartis, Vertex.

The news correspondents obtained a quote from the research from Hamad Medical Corporation, "We followed ERCHIVES participants treated with the above regimens for up to 12 weeks post-treatment. We excluded those with HIV, HBsAg+ and pre-existing diagnosis of hepatic decompensation and hepatocellular carcinoma. Of 3728 persons on PrOD, 1578 on sofosbuvir/simeprevir and 10 440 on sofosbuvir/ledipasvir, incidence rates (95% CI) of hepatic decompensation/1000 patient-years were 10.6 (5.89-17.36) for the PrOD, 32.4 (20.74-48.16) for the sofosbuvir/simeprevir and 13.0 (9.74-17.10) for the sofosbuvir/ledipasvir. Among those with baseline cirrhosis, these rates were 36.9 (19.1-64.5), 61.8 (38.2-94.5) and 41.1 (29.9-55.2) respectively, while among those without cirrhosis at baseline, these rates were 2.7 (0.6-8.0), 7.5 (1.5-21.8) and 2.7 (1.2-5.4). Advanced fibrosis was associated with increased risk of hepatic decompensation in all groups [HR (95% CI) per 0.5 unit increase in FIB-4 score: PrOD 1.11 (1.07-1.16); sofosbuvir/simeprevir 1.03 (1.01-1.05); sofosbuvir/ledipasvir 1.02 (1.01-1.03)]. There were no deaths. Proportion of persons with eGFR decrease >30 ml/min/1.73 m(2) was higher among the PrOD group, but presence of cirrhosis did not appear to affect this. The incidence of hepatic decompensation in persons treated with PrOD, up to 12 weeks after completion of treatment, was comparable to those treated with sofosbuvir/ledipasvir regimen, and was lower than among those treated with a sofosbuvir/simeprevir regimen."

According to the news reporters, the research concluded: "Such risk was predominantly observed in those with pre-treatment cirrhosis."
For more information on this research see: Do directly acting antiviral agents for HCV increase the risk of hepatic decompensation and decline in renal function? Results from ERCHIVES. *Alimentary Pharmacology & Therapeutics*, 2017;45(1):150-159. *Alimentary Pharmacology & Therapeutics* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Alimentary Pharmacology & Therapeutics - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2036)

Our news journalists report that additional information may be obtained by contacting A.A. Butt, Hamad Med Corp, Hamad Healthcare Qual Inst, Doha, Qatar. Additional authors for this research include Y. Ren, K. Marks, O.S. Shaikh and K.E. Sherman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13837. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Doha, Qatar, Asia, Gastroenterology, Kidney Function, Renal Function, Nephrology, Cirrhosis, Fibrosis, Hamad Medical Corporation.

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Autoimmune Diseases and Conditions - Rheumatoid...

**New Findings from Hanyang University Hospital in the Area of Rheumatoid Arthritis Described (A phase III, multicentre, randomised, double-blind, active-controlled, parallel-group trial comparing safety and efficacy of HD203, with innovator ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Autoimmune Diseases and Conditions - Rheumatoid Arthritis is now available. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "To evaluate equivalence in efficacy for rheumatoid arthritis (RA) and compare the safety of the biosimilar HD203 with innovator etanercept (ETN) plus methotrexate (MTX) (ClinicalTrials.gov NCT01270997). Patients with active RA received 25 mg HD203 or ETN subcutaneously twice-weekly with MTX for 48 weeks in a phase III, multicentre, randomised, double-blind, parallel-group design."

Our news editors obtained a quote from the research from Hanyang University Hospital, "The primary end point was the proportion of patients achieving the American College of Rheumatology 20% response (ACR20) at week 24 for per-protocol study completer set (PPS). Secondary end points included ACR response criteria, ACRn, European League against Rheumatism (EULAR) response, change in Disease Activity Score 28 (DAS28), patient-reported outcomes, safety and immunogenicity. Of the 294 randomised patients (HD203, n=147; ETN, n=147), 233 comprised the 24-week PPS (n=115 and 118, respectively). ACR20 at week 24 was achieved by 83.48% and 81.36% of PPS patients, respectively, demonstrating equivalent efficacy within predefined margins of ?20% (treatment difference 2.12%, 95% CI -7.65% to 11.89%). Outcomes for secondary end points were consistent with the primary efficacy findings. Groups were comparable for overall incidences of treatment-emergent (all-causality) adverse events (AEs) (HD203 113 (76.9%) vs ETN 114 (78.1%) (p=0.804), adverse drug reactions, serious AEs and discontinuations due to AEs. Few patients (HD203, n=8; ETN, n=3) tested positive for anti-drug antibodies. The study met the primary objective of demonstrating..."
equivalent efficacy of HD203 and ETN."

According to the news editors, the research concluded: "HD203 was well tolerated, with safety comparable with ETN in this population of patients with RA."


The news editors report that additional information may be obtained by contacting S.C. Bae, Hanyang University Hospital for Rheumatic Diseases, Seoul, South Korea. Additional authors for this research include J. Kim, J.Y. Choe, W. Park, S.H. Lee, Y.B. Park, S.C. Shim, S.S. Lee, Y.K. Sung, C.B. Choi, S.R. Lee, H. Park and Y. Ahn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/annrheumdis-2015-207613. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antimetabolites, Antineoplastics, Antipsoriatics, Antirheumatics, Pharmaceuticals, Seoul, South Korea, Etanercept Therapy, Immunologic Agents, Drugs and Therapies, Rheumatoid Arthritis, Methotrexate Therapy Sodium, Joint Diseases and Conditions, Autoimmune Diseases and Conditions.

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Drugs and Therapies - Antibiotics

New Findings from Harvard School of Medicine Describe Advances in Antibiotics (An Autotaxin/Lysophosphatidic Acid/Interleukin-6 Amplification Loop Drives Scleroderma Fibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antibiotics have been presented. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "We previously implicated the lipid mediator lysophosphatidic acid (LPA) as having a role in dermal fibrosis in systemic sclerosis (SSc). The aim of this study was to identify the role of the LPA-producing enzyme autotaxin (ATX), and to connect the ATX/LPA and interleukin-6 (IL-6) pathways in SSc."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "We evaluated the effect of a novel ATX inhibitor, PAT-048, on fibrosis and IL-6 expression in the mouse model of bleomycin-induced dermal fibrosis. We used dermal fibroblasts from SSc patients and control subjects to evaluate LPA-induced expression of IL-6, and IL-6-induced expression of ATX. We next evaluated whether LPA-induced ATX expression is dependent on IL-6, and whether baseline IL-6 expression in fibroblasts from SSc patients is dependent on ATX. Finally, we compared ATX and IL-6 expression in the skin of patients with SSc and healthy control subjects. PAT-048 markedly attenuated bleomycin-induced dermal fibrosis when treatment was initiated before or after the development of fibrosis. LPA stimulated expression of IL-6 in human dermal fibroblasts, and IL-6 stimulated fibroblast expression of ATX, connecting the ATX/LPA and IL-6 pathways in an amplification loop. IL-6 knockdown abrogated LPA-induced ATX expression in fibroblasts, and ATX inhibition
attenuated IL-6 expression in fibroblasts and the skin of bleomycin-challenged mice. Expression of both ATX and IL-6 was increased in SSc skin, and LPA-induced IL-6 levels and IL-6-induced ATX levels were increased in fibroblasts from SSc patients compared with controls. ATX is required for the development and maintenance of dermal fibrosis in a mouse model of bleomycin-induced SSc and enables 2 major mediators of SSc fibrogenesis, LPA and IL-6, to amplify the production of each other."

According to the news reporters, the research concluded: "Our results suggest that concurrent inhibition of these 2 pathways may be an effective therapeutic strategy for dermal fibrosis in SSc."

For more information on this research see: An Autotaxin/Lysophosphatidic Acid/Interleukin-6 Amplification Loop Drives Scleroderma Fibrosis. Arthritis & Rheumatology, 2016;68(12):2964-2974. Arthritis & Rheumatology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting F.V. Castelino, Harvard Med Sch, Boston, MA, United States. Additional authors for this research include G. Bain, V.A. Pace, K.E. Black, L. George, C.K. Probst, L. Goulet, R. Lafyatis and A.M. Tager.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Antibiotics - Antineoplastics, Drugs and Therapies, Interleukin-6, Glycopeptides, Interleukins, Fibroblasts, Cytokines, Bleomycin, Harvard School of Medicine.

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Essential Amino Acids

New Findings from Harvard School of Medicine in the Area of Essential Amino Acids Reported [Tryptophan-rich basic protein (WRB) mediates insertion of the tail-anchored protein otoferlin and is required for hair cell exocytosis and hearing]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Essential Amino Acids. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "The transmembrane recognition complex (TRC40) pathway mediates the insertion of tail-anchored (TA) proteins into membranes. Here, we demonstrate that otoferlin, a TA protein essential for hair cell exocytosis, is inserted into the endoplasmic reticulum (ER) via the TRC40 pathway."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "We mutated the TRC40 receptor tryptophan-rich basic protein (Wrb) in hair cells of zebrafish and mice and studied the impact of defective TA protein insertion. Wrb disruption reduced otoferlin levels in hair cells and impaired hearing, which could be restored in zebrafish by transgenic Wrb rescue and otoferlin overexpression. Wrb-deficient mouse inner hair cells (IHCs) displayed normal numbers of afferent synapses, Ca2+ channels, and membrane-proximal vesicles, but contained fewer ribbon-associated vesicles. Patch-clamp of IHCs revealed impaired synaptic vesicle replenishment. In vivo recordings from postsynaptic spiral ganglion neurons showed a use-dependent reduction in sound-evoked spiking, corroborating the notion of impaired IHC vesicle replenishment. A human mutation affecting the transmembrane domain of
otoferlin impaired its ER targeting and caused an auditory synaptopathy."

According to the news editors, the research concluded: "We conclude that the TRC40 pathway is critical for hearing and propose that otoferlin is an essential substrate of this pathway in hair cells."


Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Essential Amino Acids, Aromatic Amino Acids, Exocytosis, Tryptophan, Genetics, Harvard School of Medicine.

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**Stem Cell Research**

**New Findings from Harvard School of Medicine in the Area of Stem Cell Research Reported** [Alteration in cellular turnover and progenitor cell population in lacrimal glands from thrombospondin 1(-/-) mice, a model of dry eye]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Stem Cell Research. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "The purpose of this study was to investigate the changes that occur in the lacrimal glands (LGs) in female thrombospondin 1 knockout (TSP1(-/-)) mice, a mouse model of the autoimmune disease Sjogren's syndrome. The LGs of 4, 12, and 24 week-old female TSP1(-/-) and C57BL/6J (wild type, WT) mice were used. qPCR was performed to measure cytokine expression."

Our news editors obtained a quote from the research from the Harvard School of Medicine, "To study the architecture, LG sections were stained with hematoxylin and eosin. Cell proliferation was measured using bromo-deoxyuridine and immunohistochemistry. Amount of CD47 and stem cell markers was analyzed by western blot analysis and location by immunofluorescence microscopy. Expression of stem cell transcription factors was performed using Mouse Stem Cell Transcription Factors RT2 Profiler PCR Array. Cytokine levels significantly increased in LGs of 24 week-old TSP1(-/-) mice while morphological changes were detected at 12 weeks. Proliferation was decreased in 12 week-old TSP1(-/-) mice. Three transcription factors were overexpressed and eleven underexpressed in TSP1(-/-) compared to WT LGs. The amount of CD47, Musashi1, and Sox2 was decreased while the amount of ABCG2 was increased in 12 week-old TSP1(-/-)mice."

According to the news editors, the research concluded: "TSP1 is necessary for
maintaining normal LG homeostasis. Absence of TSP1 alters cytokine levels and stem cell transcription factors, LG cellular architecture, decreases cell proliferation, and alters amount of stem cell markers."


Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Membrane Glycoproteins, Transcription Factors, Cell Proliferation, Stem Cell Research, Membrane Proteins, Thrombospondin 1, Thrombospondins, Cytokines, Genetics, Harvard School of Medicine.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**New Findings from Heart Center in the Area of Atrial Fibrillation Reported (Renal sympathetic denervation for treatment of patients with atrial fibrillation: Reappraisal of the available evidence)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting out of Pori, Finland, by NewsRx editors, research stated, "Afferent renal sympathetic nerve signaling regulates central sympathetic outflow. In this regard, renal sympathetic denervation has emerged as a novel interventional strategy for treatment of patients with resistant hypertension."

Our news journalists obtained a quote from the research from Heart Center, "Despite the disappointing results of the Simplicity HTN-3 randomized controlled trial, promoters of renal denervation argue that the negative results were due to ineffective denervation technique and poor patient selection. Yet, long-term 'pathologic' increase of efferent sympathetic nerve activity is observed in many chronic disease states characterized by sympathetic overactivity, such as arrhythmia, heart failure, insulin resistance, and chronic kidney disease."

According to the news editors, the research concluded: "In this review, we highlight the contemporary evidence on the safety/efficacy of renal denervation in the treatment of patients with atrial fibrillation."

Our news journalists report that additional information may be obtained by contacting P.P. Karjalainen, Satakunta Cent Hosp, Center Heart, F1N-28500 Pori, Finland. Additional authors for this research include J.K.E. Airaksinen, T. Paana and P.P. Karjalainen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.08.043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pori, Finland, Europe, Heart Disorders and Diseases, Kidney, Article Review, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Nephrology, Heart Center.

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**Immunology - Antigen-Presenting Cells**

**New Findings from Hospital Clinic in the Area of Antigen-Presenting Cells Reported (GATA1-Deficient Dendritic Cells Display Impaired CCL21-Dependent Migration toward Lymph Nodes Due to Reduced Levels of Polysialic Acid)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Antigen-Presenting Cells have been published. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "Dendritic cells (DCs) play a pivotal role in the regulation of the immune response. DC development and activation is finely orchestrated through transcriptional programs."

Our news journalists obtained a quote from the research from Hospital Clinic, "GATA1 transcription factor is required for murine DC development, and data suggest that it might be involved in the fine-tuning of the life span and function of activated DCs. We generated DC-specific Gatal knockout mice (Gatal-KODc), which presented a 20% reduction of splenic DCs, partially explained by enhanced apoptosis. RNA sequencing analysis revealed a number of deregulated genes involved in cell survival, migration, and function. DC migration toward peripheral lymph nodes was impaired in Gatal-KODc mice. Migration assays performed in vitro showed that this defect was selective for CCL21, but not CCL19."

According to the news editors, the research concluded: "Interestingly, we show that Gatal-KODc DCs have reduced polysialic acid levels on their surface, which is a known determinant for the proper migration of DCs toward CCL21."

For more information on this research see: GATA1-Deficient Dendritic Cells Display Impaired CCL21-Dependent Migration toward Lymph Nodes Due to Reduced Levels of Polysialic Acid. *Journal of Immunology*, 2016;197(11):4312-4324. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aaai.org; Journal of Immunology - www.jimmunol.org)

The news correspondents report that additional information may be obtained from L. Gutierrez, Hosp Clin San Carlos, Inst Invest Sanitaria San Carlos, Dept. of Hematol, Madrid 28040, Spain. Additional authors for this research include I.M. De Cuyper, F. Branco-Madeira, P. de Bleser, M. Kool, M. Meinders, M. Hoogenboezem, E. Mu, M.C. Wolkers, F. Salerno, B. Nota, Y. Saeys, S. Klarenbeek, W.F.J. van IJcken, H. Hammad, S. Philipsen, T.K. van den Berg.
Apoptosis

New Findings from Howard Hughes Medical Institute in Apoptosis Provides New Insights (Cyclin F-Mediated Degradation of SLBP Limits H2A.X Accumulation and Apoptosis upon Genotoxic Stress in G2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Apoptosis. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "SLBP (stem-loop binding protein) is a highly conserved factor necessary for the processing, translation, and degradation of H2AFX and canonical histone mRNAs. We identified the F-box protein cyclin F, a substrate recognition subunit of an SCF (Skp1-Cul1-F-box protein) complex, as the G2 ubiquitin ligase for SLBP."

The news reporters obtained a quote from the research from Howard Hughes Medical Institute, "SLBP interacts with cyclin F via an atypical CY motif, and mutation of this motif prevents SLBP degradation in G2. Expression of an SLBP stable mutant results in increased loading of H2AFX mRNA onto polyribosomes, resulting in increased expression of H2A.X (encoded by H2AFX). Upon genotoxic stress in G2, high levels of H2A.X lead to persistent gamma H2A.X signaling, high levels of H2A.X phosphorylated on Tyr142, high levels of p53, and induction of apoptosis."

According to the news reporters, the research concluded: "We propose that cyclin F co-evolved with the appearance of stem-loops in vertebrate H2AFX mRNA to mediate SLBP degradation, thereby limiting H2A.X synthesis and cell death upon genotoxic stress."

For more information on this research see: Cyclin F-Mediated Degradation of SLBP Limits H2A.X Accumulation and Apoptosis upon Genotoxic Stress in G2. Molecular Cell, 2016;64(3):507-519. Molecular Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

Our news correspondents report that additional information may be obtained by contacting M. Pagano, Howard Hughes Med Inst, New York, NY 10016, United States. Additional authors for this research include G. Rona, L. Clijsters, P. Geter, J.R. Skaar, K. Bermudez-Hernandez, E. Sassani, D. Fenyo, B. Ueberheide, R. Schneider and M. Pagano.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.09.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Apoptosis, Genetics, Howard Hughes Medical Institute.
New Findings from Huazhong University of Science and Technology Describe Advances in Cancer Therapy (Geldanamycin, an inhibitor of Hsp90, increases paclitaxel-mediated toxicity in ovarian cancer cells through sustained activation of the ...)
New Findings from Huazhong University of Science and Technology

Describe Advances in Liver Cancer (Notch and Wnt/b-catenin signaling pathway play important roles in activating liver cancer stem cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Liver Cancer. According to news originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "Human hepatocellular carcinoma (HCC) is driven and maintained by liver cancer stem cells (LCSCs) that display stem cell properties. These LCSCs are promoted by the intersecting of Notch and Wnt/b-Catenin signaling pathways."

Our news journalists obtained a quote from the research from the Huazhong University of Science and Technology, "In this study, we demonstrate that LCSCs with markers CD90, CD24, CD13, and CD133 possess stem properties of self-renewal and tumorigenicity in NOD/SCID mice. The increased expression of these markers was correlated with advanced disease stage, larger tumors, and worse overall survival in 61 HCC cases. We also found that both Notch and Wnt/b-catenin signaling pathways played important roles in increasing the stemness characteristics of LCSCs. Our data suggested that Notch1 was downstream of Wnt/b-catenin. The active form of Notch1 intracellular domain (NICD) expression depended on Wnt/b-catenin pathway activation. Moreover, Notch1 negatively contributed to Wnt/b-catenin signaling modulation. Knock down of Notch1 with lentivirus N1ShRNA up-regulated the active form of b-catenin. Ectopic expression of NICD with LV-Notch1 in LCSCs attenuated b-catenin/TCF dependent luciferase activity significantly. In addition, there was a non-proteasome mediated feedback loop between Notch1 and Wnt/b-catenin signaling in LCSCs."

According to the news editors, the research concluded: "The central role of Notch and the Wnt/b-catenin signaling pathway in LCSCs may provide an attractive therapeutic strategy against HCC."

For more information on this research see: Notch and Wnt/b-catenin signaling pathway play important roles in activating liver cancer stem cells. Oncotarget, 2016;7(5):5754-68.

The news correspondents report that additional information may be obtained from R. Wang, Dept. of Gastroenterology and Hepatology, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, People's Republic of China. Additional authors for this research include Q. Sun, P. Wang, M. Liu, S. Xiong, J. Luo, H. Huang, Q. Du, D.A. Geller and B. Cheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6805. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Wuhan, Oncology, Liver Cancer, Stem
Stem Cell Research - Mesenchymal Stem Cells

New Findings from Huazhong University of Science and Technology in Mesenchymal Stem Cells Provides New Insights (Role of the ER/NO/cGMP Signaling Pathway in the Promotion of Osteogenic Differentiation of Rat Bone Marrow Mesenchymal Stem Cells ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Stem Cell Research - Mesenchymal Stem Cells is the subject of a report. According to news reporting from Hubei, People's Republic of China, by NewsRx journalists, research stated, "To investigate the effect of Actaea racemosa (AR) extract on in vitro osteogenic differentiation of rat bone marrow mesenchymal stem cells (BMSCs) via the ER/NO/cGMP signaling pathway. Rat BMSCs were treated with osteogenic differentiation-inducing medium containing AR; estrogen receptor antagonist, ICI 182,780 (10(-6) mol/L); and nitric oxide synthase inhibitor, L-nitro arginine methyl ester (L-NAME, 6 x 10(-3) mol/L)."

Financial support for this research came from National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from the Huazhong University of Science and Technology, "Markers of osteogenic differentiation (alkaline phosphatase [ALP] activity, osteocalcin secretion, and calcium ion deposit levels) and the levels of key signaling molecules (nitric oxide synthase [NOS], nitric oxide [NO], and cyclic guanosinemonophosphate [cGMP]) were assessed. AR (10(-1) - 10(-6) g/L) increased ALP activity in a dose-dependent manner, and the highest ALP, osteocalcin, and osteoprotegerin activities were achieved at an AR concentration of 10(-4) g/L. Therefore, the concentration of 10(-4) g/L was used for promoting osteogenic differentiation of BMSCs in subsequent analyses. At this concentration, AR increased the levels of NO and cGMP, and such effects could be blocked by the estrogen receptor antagonist (ICI 182,780) and nitric oxide synthase inhibitor (L-NAME). AR induced osteogenic differentiation of rat BMSCs through the ER/NO/cGMP signaling pathway."

According to the news reporters, the research concluded: "This finding provides the theoretical foundation for the mechanism of AR in the treatment of postmenopausal osteoporosis."

For more information on this research see: Role of the ER/NO/cGMP Signaling Pathway in the Promotion of Osteogenic Differentiation of Rat Bone Marrow Mesenchymal Stem Cells by Actaea racemosa Extract. Evidence-Based Complementary and Alternative Medicine, 2016;():1-10. Evidence-Based Complementary and Alternative Medicine can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Evidence-Based Complementary and Alternative Medicine - www.hindawi.com/journals/ecam/)

Our news journalists report that additional information may be obtained by contacting B. Shuai, Huazhong University of Science & Technology, Tongji Med College, Union Hosp, Dept. of Integrated Tradit Chinese & Western Med, Wuhan 430022, Hubei, People's Republic of China. Additional authors for this research include Y.P. Zhou, B. Shuai, R.
New Findings from Humboldt University Update Understanding of Drug Delivery Systems (Intradermal drug delivery by nanogel-peptide conjugates; specific and efficient transport of temoporfin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Drug Delivery Systems. According to news reporting originating in Berlin, Germany, by NewsRx journalists, research stated, "Nanogels offer many unique features rendering them as very attractive candidates for drug delivery. However, for their applications the loading capacity and specific encapsulation, in particular for hydrophobic drugs, in a complex media are two critical factors."

Funders for this research include German Science Foundation, European Union Seventh Framework Programme, ERC.

The news reporters obtained a quote from the research from Humboldt University, "In this work, we report for the first time on the preparation of nanogel-peptide conjugates with the ability of specific encapsulation of temoporfin (m-THPC). The peptide was selected based on combinatorial means and it was conjugated to polyglycerol as the nanogel precursor. We observed that the loading capacity of nanogels improved 16 times upon peptide conjugation. Skin penetrations tests in barrier deficient skins showed that nanogel-peptide conjugates enhance the penetration of m-THPC in the viable skin layers efficiently."

According to the news reporters, the research concluded: "This study indicates that nanogel-peptide conjugates could be used as unique carriers with high loading capacity for hydrophobic compounds, which provides the basis for the design of advanced topical drug delivery systems."

For more information on this research see: Intradermal drug delivery by nanogel-peptide conjugates; specific and efficient transport of temoporfin. Journal of Controlled Release, 2016;242():35-41. Journal of Controlled Release can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news correspondents report that additional information may be obtained by contacting H.G. Borner, Humboldt University, Lab Organ Synth Funct Syst, Dept. of Chem, D-12489 Berlin, Germany. Additional authors for this research include S. Wieczorek, M. Dimde, S. Hedtrich, H.G. Borner and R. Haag.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jconrel.2016.07.033. This DOI is a link to an online electronic
Peptides - Cyclic Peptides

New Findings from Hunan Normal University in the Area of Cyclic Peptides Described [Hepatoprotective Effects and Mechanisms of Action of Triterpenoids from Lingzhi or Reishi Medicinal Mushroom Ganoderma lucidum (Agaricomycetes) on ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Peptides - Cyclic Peptides. According to news reporting from Changsha, People's Republic of China, by NewsRx journalists, research stated, "Most fatal mushroom poisonings are caused by species of the genus Amanita; the amatoxins are responsible for acute liver failure and death in humans. Ganoderma lucidum is a well-known traditional medicinal mushroom that has been shown to have obvious hepatoprotective effects."

The news correspondents obtained a quote from the research from Hunan Normal University, "This study evaluated the hepatoprotective effects of triterpenoids from G. lucidum on liver injury induced by a-amanitin (alpha-AMA) in mice and the mechanisms of action of these triterpenoids, including radical scavenging and antiapoptosis activities. Mice were treated with a-AMA, followed by G. lucidum total triterpenoids or individual triterpenoids, and their hepatoprotective effects were compared with those of the reference drug silibinin (SIL). Treatment with SIL, G. lucidum total triterpenoids, and each of the 5 individual triterpenoids significantly reduced serum alanine aminotransaminase and aspartate aminotransaminase concentrations and reduced mortality rates 20 L.10%. Moreover, triterpenoids and SIL significantly enhanced superoxide dismutase and catalase activity and reduced malondialdehyde content in livers. Treatment with ganoderic acid C2 significantly inhibited DNA fragmentation and decreased caspase-3, -8, and -9 activities."

According to the news reporters, the research concluded: "The results demonstrated that triterpenoids have hepatoprotective effects on alpha-AMA-induced liver injury and that their hepatoprotective mechanisms may be the result of their antioxidative and radical scavenging activities and their inhibition of apoptosis."

For more information on this research see: Hepatoprotective Effects and Mechanisms of Action of Triterpenoids from Lingzhi or Reishi Medicinal Mushroom Ganoderma lucidum (Agaricomycetes) on alpha-Amanitin-Induced Liver Injury in Mice. International Journal of Medicinal Mushrooms, 2016;18(9):841-850. International Journal of Medicinal Mushrooms can be contacted at: Begell House Inc, 50 North St, Danbury, CT 06810, USA.

New Findings from Institute for Cancer Research and Treatment (IRCCS) Describe Advances in Liver Cancer (Molecular alterations in hepatocellular carcinoma associated with hepatitis B and hepatitis C infections)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Liver Cancer is now available. According to news reporting originating in Naples, Italy, by NewsRx journalists, research stated, "Chronic infections with hepatitis B (HBV) and hepatitis C viruses (HCV) are the leading cause of cirrhosis and hepatocellular carcinoma (HCC) worldwide. Both viruses encode multifunctional regulatory proteins activating several oncogenic pathways, which induce accumulation of multiple genetic alterations in the infected hepatocytes."

The news reporters obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Gene mutations in HBV-and HCV-induced HCCs frequently impair the TP53, Wnt/b-catenin, RAS/RAF/MAPK kinase and AKT/mTOR pathways, which represent important anti-cancer targets. In this review, we highlight the molecular mechanisms underlying the pathogenesis of primary liver cancer, with particular emphasis on the host genetic variations identified by high-throughput technologies."

According to the news reporters, the research concluded: "In addition, we discuss the importance of genetic alterations, such as mutations in the telomerase reverse transcriptase (TERT) promoter, for the diagnosis, prognosis, and tumor stratification for development of more effective treatment approaches."


Our news correspondents report that additional information may be obtained by contacting M.L. Tornesello, Molecular Biology and Viral Oncology Unit, Dept. of Research, Istituto Nazionale Tumori Fondazione G Pascale - IRCCS, Napoli, Italy. Additional authors for this research include L. Buonaguro, F. Izzo and F.M Buonaguro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7837. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Naples, Europe, Genetics, Oncology, Hepatitis, Carcinomas, Liver Cancer, Gastroenterology, Liver Diseases and Conditions, Infectious Disease and Conditions, Digestive System Diseases and Conditions.

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Clinical Research - Clinical Trials and Studies

New Findings from Institute for Cancer Research and Treatment (IRCCS) in the Area of Clinical Trials and Studies Reported

(Antiretroviral therapy affects the z-score index of deviant cortical EEG rhythms in naive HIV individuals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news reporting originating in Rome, Italy, by NewsRx journalists, research stated, "Here we tested the effect of combined antiretroviral therapy (cART) on deviant electroencephalo-graphic (EEG) source activity in treatment-naive HIV individuals. Resting state eyes-closed EEG data were recorded before and after 5 months of cART in 48 male HIV subjects, who were naive at the study start."

Funders for this research include Fondazione SDN of Naples (Italy), ViiV Healthcare (Italy).

The news reporters obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "The EEG data were also recorded in 59 age-and sex-matched healthy subjects as a control group. Frequency bands of interest included delta, theta, alpha1, alpha2 and alpha3, based on alpha frequency peak specific to each individual. They also included beta1 (13-20 Hz) and beta2 (20-30 Hz). Low-resolution brain electromagnetic tomography (LORETA) estimated EEG cortical source activity in frontal, central, temporal, parietal, and occipital regions. Before the therapy, the HIV group showed greater parietal delta source activity and lower spatially diffuse alpha source activity compared to the control group. Thus, the ratio of parietal delta and alpha3 source activity served as an EEG marker. The z-score showed a statistically deviant EEG marker (EEG+) in 50% of the HIV individuals before therapy (p < 0.05). After 5 months of cART, delta source activity decreased, and alpha3 source activity increased in the HIV subjects with EEG+ (about 50% of them showed a normalized EEG marker). This procedure detected a deviant EEG marker before therapy and its post-therapy normalization in naive HIV single individuals."

According to the news reporters, the research concluded: "The parietal delta/alpha3 EEG marker may be used to monitor cART effects on brain function in such individuals."

For more information on this research see: Antiretroviral therapy affects the z-score index of deviant cortical EEG rhythms in naive HIV individuals. Neuroimage-Clinical, 2016;12 ():144-156. Neuroimage-Clinical can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England.

Our news correspondents report that additional information may be obtained by contacting C. Babiloni, IRCCS S Raffaele Pisana, Rome, Italy. Additional authors for this research include A. Pennica, C. Del Percio, G. Noce, S. Cordone, S. Lopez, K. Berry, C. Muratori, S. Ferracuti, P. Roma, V. Correr, F. Di Campli, L. Gianserra, L. Ciullini, A. Aceti, A. Soricelli, E. Teti, M. Viscione, C. Limatola and Onorati.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.06.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Clinical Trials and Studies, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Clinical...

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Life Science Research - Cell Biology

New Findings from Institute for Health Update Understanding of Cell Biology (A Dietary Fiber-Deprived Gut Microbiota Degrades the Colonic Mucus Barrier and Enhances Pathogen Susceptibility)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Life Science Research - Cell Biology is the subject of a report. According to news reporting originating in Esch sur Alzette, Luxembourg, by NewsRx journalists, research stated, "Despite the accepted health benefits of consuming dietary fiber, little is known about the mechanisms by which fiber deprivation impacts the gut microbiota and alters disease risk. Using a gnotobiotic mouse model, in which animals were colonized with a synthetic human gut microbiota composed of fully sequenced commensal bacteria, we elucidated the functional interactions between dietary fiber, the gut microbiota, and the colonic mucus barrier, which serves as a primary defense against enteric pathogens."

Financial supporters for this research include Luxembourg National Research Fund (FNR) INTER Mobility, CORE, Luxembourg Ministry of Higher Education and Research, FNR ATTRACT, European Union Joint Programming in Neurodegenerative Diseases, NIH R01, University of Michigan Host Microbiome Initiative and Center for Gastrointestinal Research.

The news reporters obtained a quote from the research from Institute for Health, "We show that during chronic or intermittent dietary fiber deficiency, the gut microbiota resorts to host-secreted mucus glycoproteins as a nutrient source, leading to erosion of the colonic mucus barrier. Dietary fiber deprivation, together with a fiber-deprived, mucus-eroding microbiota, promotes greater epithelial access and lethal colitis by the mucosal pathogen, Citrobacter rodentium."

According to the news reporters, the research concluded: "Our work reveals intricate pathways linking diet, the gut microbiome, and intestinal barrier dysfunction, which could be exploited to improve health using dietary therapeutics."

For more information on this research see: A Dietary Fiber-Deprived Gut Microbiota Degrades the Colonic Mucus Barrier and Enhances Pathogen Susceptibility. Cell, 2016;167(5):1339-1353,391-411. Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell - www.journals.elsevier.com/cell/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cell.2016.10.043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Esch sur Alzette, Luxembourg, Europe, Cell
New Findings from Institute for Health Update Understanding of Neuropeptides (Vasopressin lowers renal epoxyeicosatrienoic acid levels by activating soluble epoxide hydrolase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Proteins - Neuropeptides have been presented. According to news reporting originating from Berlin, Germany, by NewsRx correspondents, research stated, "Activation of the thick ascending limb (TAL) Na+-K+-2Cl(-) cotransporter (NKCC2) by the antidiuretic hormone arginine vasopressin (AVP) is an essential mechanism of renal urine concentration and contributes to extracellular fluid and electrolyte homeostasis. AVP effects in the kidney are modulated by locally and/or by systemically produced epoxyeicosatrienoic acid derivates (EET)."

Our news editors obtained a quote from the research from Institute for Health, "The relation between AVP and EET metabolism has not been determined. Here, we show that chronic treatment of AVP-deficient Brattleboro rats with the AVP V2 receptor analog desmopressin (dDAVP; 5 ng/h, 3 days) significantly lowered renal EET levels (-56 +/- 3% for 5,6-EET, -50 +/- 3.4% for 11,12-EET, and -60 +/- 3.7% for 14,15-EET). The abundance of the principal EET-degrading enzyme soluble epoxide hydrolase (sEH) was increased at the mRNA (+160 +/- 37%) and protein levels (+120 +/- 26%). Immunohistochemistry revealed dDAVP-mediated induction of sEH in connecting tubules and cortical and medullary collecting ducts, suggesting a role of these segments in the regulation of local interstitial EET signals. Incubation of murine kidney cell suspensions with 1 mu M 14,15-EET for 30 min reduced phosphorylation of NKCC2 at the AVP-sensitive threonine residues T96 and T101 (-66 +/- 5%; P< 0.05), while 14,15-DHET had no effect. Concomitantly, isolated perfused cortical thick ascending limb pretreated with 14,15-EET showed a 30% lower transport current under high and a 70% lower transport current under low symmetric chloride concentrations. In summary, we have shown that activation of AVP signaling stimulates renal sEH biosynthesis and enzyme activity."

According to the news editors, the research concluded: "The resulting reduction of EET tissue levels may be instrumental for increased NKCC2 transport activity during AVP-induced antidiuresis."

For more information on this research see: Vasopressin lowers renal epoxyeicosatrienoic acid levels by activating soluble epoxide hydrolase. American Journal of Physiology-Renal Physiology, 2016;311(6):F1198-F1210. American Journal of Physiology-Renal Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting A. Paliege, Berlin Inst Hlth, Berlin, Germany. Additional authors for this research include T. Roschel, N. Himmerkus, A. Plain, M. Bleich, R. Labes, M. Blum, H. Krause, A. Magheli, T. Giesecke, K. Mutig, M. Rothe, S.M. Weldon, D. Dragun, W.H. Schunck, S. Bachmann and A. Paliege.

Keywords for this news article include: Berlin, Germany, Europe, Posterior Pituitary
New Findings from Institute for Neuroscience in the Area of Glaucoma Described (Clinical Characteristics and Risk Factors of Extensive Macular Atrophy with Pseudodrusen The EMAP Case-Control National Clinical Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Eye Diseases and Conditions - Glaucoma. According to news reporting originating from Montpellier, France, by NewsRx correspondents, research stated, "To assess the association of clinical and biological factors with extensive macular atrophy with pseudodrusen (EMAP) characterized by bilateral macular atrophy occurring in patients aged 50 to 60 years and a rapid progression to legal blindness within 5 to 10 years. A national matched case-control study."

Our news editors obtained a quote from the research from Institute for Neuroscience, "Participants were recruited in 10 French Departments of Ophthalmology and their associated clinical investigation centers. All 115 patients with EMAP had symptoms before the age of 55 years due to bilateral extensive macular atrophy with a larger vertical axis and diffuse pseudodrusen. Three controls without age-related macular degeneration (AMD) or retinal disease at fundus examination were matched for each patient with EMAP by gender, age, and geographic area (in total 415). Subjects and controls underwent an eye examination including color, red-free autofluorescent fundus photographs and spectral-domain optical coherence tomography with macular analysis. The interviews collected demographic, lifestyle, family and personal medical history, medications, and biological data. Associations of risk factors were estimated using conditional logistic regression. Extensive macular atrophy with pseudodrusen status (cases vs. controls). Extensive macular atrophy with pseudodrusen most frequently affected women (70 women, 45 men). After multivariate adjustment, family history of glaucoma or AMD was strongly associated with EMAP (odds ratio [OR], 2.3, P = 0.008 and OR, 1.5, P = 0.01, respectively). No association was found with cardiac diseases or their risk factors. Mild and moderate kidney disease and higher neutrophil rate were associated with a reduced risk of EMAP (OR, 0.58, P = 0.04; OR, 0.34, P = 0.01; and OR, 0.59, P = 0.003, respectively). On the contrary, eosinophilia (OR, 1.6; P = 0.0002), lymphocytosis (OR, 1.84; P = 0.0002), increased erythrocyte sedimentation rate (OR, 6.5; P = 0.0005), decreased CH50 (P = 0.001), and high plasma C3 level (P = 0.023) were significantly associated with a higher risk of EMAP. This study documents an association between EMAP and family history of AMD and glaucoma, a clear female predominance, and a systemic inflammatory profile. The reduced CH50 and increased C3 plasma values could reflect a more severe complement pathway dysfunction than in AMD, leading to early pseudodrusen and rapid development of geographic atrophy."

According to the news editors, the research concluded: "There is no association of EMAP with AMD cardiac diseases or cardiac risks, including cigarette smoking."

For more information on this research see: Clinical Characteristics and Risk Factors

The news editors report that additional information may be obtained by contacting I. Meunier, INSERM, U1051, Inst Neurosci Montpellier, Montpellier, France. Additional authors for this research include M.C. Picot, C. Delcourt, A. Lacroux, X. Zanlonghi, B. Puech, S. Defoort-Dhelemmes, I. Drumare, E. Jozefowicz, B. Bocquet, C. Baudoin, N.A.D. Marzouka, S. Perez-Roustit, S. Arsene, V. Gissot, F. Devin, C. Arndt, B. Wolff and M.

Keywords for this news article include: Montpellier, France, Europe, Age-Related Macular Degeneration, Ophthalmology, Epidemiology, Clinical Trials and Studies, Eye Diseases and Conditions, Risk and Prevention, Clinical Research, Cardiology, Glaucoma, Institute for Neuroscience.

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Environmental Pollution

**New Findings from Institute of Applied Ecology in the Area of Environmental Pollution Reported (The accumulation and health risk of heavy metals in vegetables around a zinc smelter in northeastern China)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Environmental Pollution have been presented. According to news reporting originating from Shenyang, People's Republic of China, by NewsRx correspondents, research stated, "Mining and smelting activities engender soil contamination by metals severely. A field survey was conducted to investigate the present situation and health risk of heavy metals (Cd, Pb, Zn, Cu, Cr, As, and Hg) in soils and vegetables in the surrounding area of an 80-year-old zinc smelter in northeastern China."

Our news editors obtained a quote from the research from the Institute of Applied Ecology, "Soil pH, organic matter (SOM), and cation exchange capacity (CEC) were determined, and their relations with heavy metal contents in edible parts of vegetables were analyzed. Results showed that the smelting had led to the significant contamination of the local soils by Cd and Zn, with average concentrations of 3.88 and 403.89 mg kg(-1), respectively. Concentrations of Cd and Zn in greenhouse soils were much lower than those in open farmland soils. Cd concentrations in vegetable edible parts exceeded the permissible limits severely, while other metal concentrations were much lower than the corresponding standards. Leaf and root vegetables had higher concentrations and bioaccumulation factors (BCFs) of Cd than fruit vegetables. Hazard quotient and hazard index showed that cadmium is imposing a health risk to local residents via vegetable consumption. Cd uptake of some vegetables can be predicted by empirical models with the following parameters: soil pH, SOM, CEC, Zn concentrations, and Cd concentrations."

According to the news editors, the research concluded: "Vegetables such as cabbage, Chinese cabbage, tomato, cucumber, and green bean were screened out as being suitable to grow in the studied area."

For more information on this research see: The accumulation and health risk of


Keywords for this news article include: Shenyang, People's Republic of China, Asia, Environmental Pollution, Asia, Risk and Prevention, China, Institute of Applied Ecology.

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**Oncology - Prostate Cancer**

**New Findings from Institute of Cancer Research in the Area of Prostate Cancer Reported (Castration-Resistant Prostate Cancer Tissue Acquisition From Bone Metastases for Molecular Analyses)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news originating from Surrey, United Kingdom, by NewsRx correspondents, research stated, "We analyzed 115 iliac crest bone marrow biopsy specimens from 101 patients with metastatic castration resistant prostate cancer, divided into a test (n = 57) and a validation (n = 58) set. We developed a score based on computed tomography Hounsfield units and lactate dehydrogenase levels, which were associated with a positive biopsy result."

Our news journalists obtained a quote from the research from the Institute of Cancer Research, "The score can be used to select patients for whom a bone marrow biopsy will provide tissue for molecular characterization. The urgent need for castration-resistant prostate cancer molecular characterization to guide treatment has been constrained by the disease's predilection to metastasize primarily to bone. We hypothesized that the use of clinical and imaging criteria could maximize tissue acquisition from bone marrow biopsies (BMBs). We aimed to develop a score for the selection of patients undergoing BMB. A total of 115 BMBs were performed in 101 patients: 57 were included in a derivation set and 58 were used as the validation set. The clinical and laboratory data and prebiopsy computed tomography parameters (Hounsfield units [HU]) were determined. A score for the prediction of biopsy positivity was developed from logistic regression analysis of the derivation set and tested in the validation set. Of the 115 biopsy specimens, 75 (62.5%) were positive; 35 (61.4%) in the test set and 40 (69%) in the validation set. On univariable analysis, hemoglobin (P = .019), lactate dehydrogenase (P = .003), prostate specific antigen (P = .005), and mean HUs (P = .004) were selected. A score based on the LDH level (>= 225 IU/L) and mean HUs (>= 125) was developed in multivariate analysis and was associated with BMB positivity in the validation set (odds ratio, 5.1; 95% confidence interval, 1.9%-13.4%; P = .001). The area under the curve of the score was 0.79 in the test set and 0.77 in the validation set. BMB of the iliac crest is a feasible technique for obtaining tumor tissue for genomic analysis in patients with castration-resistant prostate cancer metastatic to the bone. A signature based on the mean HUs and LDH level can predict a positive yield with acceptable internal validity."
According to the news editors, the research concluded: "Prospective studies of independent cohorts are needed to establish the external validity of the score."

For more information on this research see: Castration-Resistant Prostate Cancer Tissue Acquisition From Bone Metastases for Molecular Analyses. Clinical Genitourinary Cancer, 2016;14(6):485-493. Clinical Genitourinary Cancer can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA. (Elsevier - www.elsevier.com; Clinical Genitourinary Cancer - www.journals.elsevier.com/clinical-genitourinary-cancer/)


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Keywords for this news article include: Surrey, United Kingdom, Europe, Enzymes and Coenzymes, Computed Tomography, Prostatic Neoplasms, Imaging Technology, Prostate Cancer, Dehydrogenase, Immune System, Bone Research, Bone Marrow, Oncology, Genetics, Institute of Cancer Research.

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Cardiovascular Diseases and Conditions -...

New Findings from Institute of Chemistry in the Area of Atherosclerosis Described (MRI/optical dual-modality imaging of vulnerable atherosclerotic plaque with an osteopontin-targeted probe based on Fe3O4 nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Atherosclerosis are discussed in a new report. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Rupture of vulnerable atherosclerotic plaque is the major pathological cause of luminal thrombosis in acute coronary syndromes. Since foamy macrophages have been identified as a prominent component in vulnerable atherosclerotic lesions and osteopontin (OPN) is reported to be highly expressed in foamy macrophages, OPN could be a potential target for vulnerable atherosclerotic plaque imaging."

Funders for this research include National Key Research Program of China, National Funds for Distinguished Young Scientists of China, National Nature Science Foundation of China, Beijing Nature Science Foundation, China Postdoctoral Science Foundation.

Our news journalists obtained a quote from the research from the Institute of Chemistry. "The current study designed an OPN-specific MRI/optical dual-modality probe to detect vulnerable plaques. Fluorescence imaging revealed that 24 h after injection of the Cy5.5-OPN-DMSA-MNPs (COD-MNPs), the atherosclerotic plaques in carotid artery exhibited significant higher signals in high fat diet (HFD) fed mice in comparison to the group injected
with Cy5.5-IgG-DMSA-MNPs (CID-MNPs) or normal diet fed group injected with COD-MNPs (1.87 +/- 0.19 x 10(10) vs. 0.74 +/- 0.04 x 10(10), 0.73 +/- 0.03 x 10(10) p/sec/cm(2)/sr, P< 0.05). Meanwhile, MRI displayed stronger T-2 contrast enhancement 24 h post-injection at the area of atherosclerotic plaques in the carotid of HFD fed group injected with COD-MNPs than group injected with CID-MNPs or normal diet fed group injected with COD-MNPs (post/pre signal ratio: 0.64 +/- 0.04 vs. 0.95 +/- 0.02, 0.98 +/- 0.01, P< 0.05)."

According to the news editors, the research concluded: "As a dual-modality molecular probe, the resulting COD-MNPs conjugates exhibit promising potentials for noninvasive detection of vulnerable atherosclerotic plaque in vivo."

For more information on this research see: MRI/optical dual-modality imaging of vulnerable atherosclerotic plaque with an osteopontin-targeted probe based on Fe3O4 nanoparticles. *Biomaterials*, 2017;112():336-345. *Biomaterials* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.10.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Extracellular Matrix Proteins, Mononuclear Phagocyte System, Emerging Technologies, Atherosclerosis, Nanotechnology, Nanoparticle, Osteopontin, Macrophages, Immunology, Phagocytes, Cardiology, Angiology, Cytokines, Institute of Chemistry.

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**Oncology - Breast Cancer**

**New Findings from International Agency for Research on Cancer in the Area of Breast Cancer Reported (Female breast cancer in Central and South America)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting originating in Lyon, France, by NewsRx journalists, research stated, "Rationale and objective: The burden of breast cancer has increased worldwide. Breast cancer mortality has been increasing in Central and South America (CSA) in the last few decades."

The news reporters obtained a quote from the research from International Agency for Research on Cancer, "We describe the current burden of breast cancer in CSA and review the current status of disease control. We obtained regional-and national-level incidence data from 48 population-based cancer registries in 13 countries and cancer deaths from the WHO mortality database for 18 countries. We estimated world population age-standardized incidence and mortality rates per 100,000 person-years for 2003-2007 and the estimated annual percentage change to describe time trends. In the most recent 5-year period, Argentina, Brazil, and Uruguay
had the highest incidence rates (67.7-71.9) and Bolivia and El Salvador had the lowest (7.9-12.7). For most countries, mortality rates were <= 12.3, except in Uruguay, Argentina and Cuba (14.9-20.5). Age-specific rates increased after the age of 40-50 years and reached a maximum after age 65 years (mean age at diagnosis 56-62 years). Most countries have developed national screening guidelines; however, there is limited capacity for screening. The geographic variation of breast cancer rates may be explained by differences in the prevalence of reproductive patterns, lifestyle factors, early detection, and healthcare access. Extending early-detection programs is challenging because of inequalities in healthcare access and coverage, limited funding, and inadequate infrastructure, and thus it may not be feasible."

According to the news reporters, the research concluded: "Given the current status of breast cancer in CSA, data generated by population-based cancer registries is urgently needed for effective planning for cancer control."

For more information on this research see: Female breast cancer in Central and South America. Cancer Epidemiology, 2016;44():S110-S120. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news correspondents report that additional information may be obtained by contacting M.S. Sierra, Int Agcy Res Canc, Sect Canc Surveillance, Lyon, France. Additional authors for this research include G. Abriata, D. Forman and M.S. Sierra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.08.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Cancer, Diagnostics and Screening, Epidemiology, Women's Health, Breast Cancer, Oncology, International Agency for Research on Cancer.

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**Biological Factors - Mycotoxins**

**New Findings from International Crops Research Institute for the Semi-Arid Tropics in the Area of Mycotoxins Reported (Oxidative stress and carbon metabolism influence Aspergillus flavus transcriptome composition and secondary metabolite ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Biological Factors - Mycotoxins are discussed in a new report. According to news originating from Hyderabad, India, by NewsRx correspondents, research stated, "Contamination of crops with aflatoxin is a serious global threat to food safety. Aflatoxin production by Aspergillus flavus is exacerbated by drought stress in the field and by oxidative stress in vitro."

Our news journalists obtained a quote from the research from International Crops Research Institute for the Semi-Arid Tropics, "We examined transcriptomes of three toxigenic and three atoxigenic isolates of A. flavus in aflatoxin conducive and non-conducive media with varying levels of H2O2 to investigate the relationship of secondary metabolite production, carbon source, and oxidative stress. We found that toxigenic and atoxigenic isolates employ
distinct mechanisms to remediate oxidative damage, and that carbon source affected the isolates' expression profiles. Iron metabolism, monooxygenases, and secondary metabolism appeared to participate in isolate oxidative responses. The results suggest that aflatoxin and aflatrem biosynthesis may remediate oxidative stress by consuming excess oxygen and that kojic acid production may limit iron-mediated, non-enzymatic generation of reactive oxygen species.

According to the news editors, the research concluded: "Together, secondary metabolite production may enhance A. flavus stress tolerance, and may be reduced by enhancing host plant tissue antioxidant capacity though genetic improvement by breeding selection."


Keywords for this news article include: Hyderabad, India, Asia, Biological Factors, Aflatoxins, Mycotoxins, Genetics, International Crops Research Institute for the Semi-Arid Tropics.

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**Heart Disorders and Diseases - Heart Disease**

**New Findings from Iran University of Medical Sciences in the Area of Heart Disease Reported (Nanotechnology in diagnosis and treatment of coronary artery disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Disease are discussed in a new report. According to news reporting out of Tehran, Iran, by NewsRx editors, research stated, "Nanotechnology could provide a new complementary approach to treat coronary artery disease (CAD) which is now one of the biggest killers in the Western world. The course of events, which leads to atherosclerosis and CAD, involves many biological factors and cellular disease processes which may be mitigated by therapeutic methods enhanced by nanotechnology."

Our news journalists obtained a quote from the research from the Iran University of Medical Sciences, "Nanoparticles can provide a variety of delivery systems for cargoes such as drugs and genes that can address many problems within the arteries. In order to improve the performance of current stents, nanotechnology provides different nanomaterial coatings, in addition to controlled-release nanocarriers, to prevent in-stent restenosis. Nanotechnology can increase the efficiency of drugs, improve local and systematic delivery to atherosclerotic plaques and reduce the inflammatory or angiogenic response after intravascular intervention. Nanocarriers have potential for delivery of imaging and diagnostic agents to precisely targeted destinations."
According to the news editors, the research concluded: "This review paper will cover the current applications and future outlook of nanotechnology, as well as the main diagnostic methods, in the treatment of CAD."


Our news journalists report that additional information may be obtained by contacting M. Karimi, Dept. of Medical Nanotechnology, Faculty of Advanced Technologies in Medicine, Iran University of Medical Sciences, Tehran, Iran. Additional authors for this research include H. Zare, A. Bakhshian Nik, N. Yazdani, M. Hamrang, E. Mohamed, P. Sahandi Zangabad, S.M. Moosavi Basri, L. Bakhtiari and M.R Hamblin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/nnm.16.3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Iran, Asia, Tehran, Genetics, Angiology, Cardiology, Nanocarriers, Heart Disease, Article Review, Nanotechnology, Arteriosclerosis, Myocardial Ischemia, Emerging Technologies, Coronary Artery Disease, Diagnostics and Screening, Arterial Occlusive Diseases, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Musculoskeletal Diseases and Conditions - …

New Findings from J.E. Compston and Co-Authors Describe Advances in Osteoporosis (Increase in Fracture Risk Following Unintentional Weight Loss in Postmenopausal Women: The Global Longitudinal Study of Osteoporosis in Women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Musculoskeletal Diseases and Conditions - Osteoporosis are discussed in a new report. According to news originating from Cambridge, United Kingdom, by NewsRx correspondents, research stated, "Increased fracture risk has been associated with weight loss in postmenopausal women, but the time course over which this occurs has not been established. The aim of this study was to examine the effects of unintentional weight loss of >= 10 lb (4.5 kg) in postmenopausal women on fracture risk at multiple sites up to 5 years after weight loss."

Our news journalists obtained a quote from the research, "Using data from the Global Longitudinal Study of Osteoporosis in Women (GLOW), we analyzed the relationships between self-reported unintentional weight loss of >= 10 lb at baseline, year 2, or year 3 and incident clinical fracture in the years after weight loss. Complete data were available in 40,179 women (mean age +/- SD 68 +/- 8.3 years). Five-year cumulative fracture rate was estimated using the Kaplan-Meier method, and adjusted hazard ratios for weight loss as a time-varying covariate were calculated from Cox multiple regression models. Unintentional weight loss at baseline was associated with a significantly increased risk of fracture of the clavicle, wrist, spine, rib, hip, and pelvis for up to 5 years after weight loss. Adjusted hazard ratios showed a
significant association between unintentional weight loss and fracture of the hip, spine, and clavicle within 1 year of weight loss, and these associations were still present at 5 years. These findings demonstrate increased fracture risk at several sites after unintentional weight loss in postmenopausal women."

According to the news editors, the research concluded: "This increase is found as early as 1 year after weight loss, emphasizing the need for prompt fracture risk assessment and appropriate management to reduce fracture risk in this population."


Keywords for this news article include: Cambridge, United Kingdom, Europe, Musculoskeletal Diseases and Conditions, Risk and Prevention, Metabolic Bone Diseases and Conditions, Women's Health, Osteoporosis.

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standard deviation of day-by-day home systolic BP and the maximum home systolic BP were also significantly reduced, and these effects were similar regardless of the treatment timing. The N-terminal pro-brain natriuretic peptide level was significantly decreased only in the bedtime administration group."

According to the news editors, the research concluded: "A larger study will demonstrate whether the bedtime administration of telmisartan/amlodipine combination tablets maximizes the risk-lowering effect against AF recurrence in paroxysmal AF hypertensive patients."


The news correspondents report that additional information may be obtained from K. Kario, Jichi Med Univ, Sch Med, Dept. of Sleep & Circadian Cardiol, Shimotsuke, Tochigi, Japan. Additional authors for this research include S. Hoshide, K. Uchiyama, T. Yoshida, O. Okazaki, T. Noshiro, H. Aoki, H. Mizuno and Y. Matsumoto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12814. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tochigi, Japan, Asia, Calcium Channel Blocking Agents, Heart Disorders and Diseases, Nerve Tissue Proteins, Cardiovascular Agents, Atrial Fibrillation, Drugs and Therapies, Cardiac Arrhythmias, Biological Factors, Membrane Proteins, Calcium Channels, Carrier Proteins, Peptide Proteins, Peptide Hormones, Angiotensin II, Oligopeptides, Neuropeptides, Heart Disease, Ion Channels, Angiotensins, Autacoids, Peptides, Jichi Medical University.

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Eye Diseases and Conditions - Retinitis Pigmentosa

New Findings from Johns Hopkins University in the Area of Retinitis Pigmentosa Described [Safety and Proof-of-Concept Study of Oral QLT091001 in Retinitis Pigmentosa Due to Inherited Deficiencies of Retinal Pigment Epithelial 65 Protein (RPE65) ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Eye Diseases and Conditions - Retinitis Pigmentosa. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Restoring vision in inherited retinal degenerations remains an unmet medical need. In mice exhibiting a genetically engineered block of the visual cycle, vision was recently successfully restored by oral administration of 9-cis-retinyl acetate (QLT091001)."

The news reporters obtained a quote from the research from Johns Hopkins University, "Safety and visual outcomes of a once-daily oral dose of 40 mg/m2/day QLT091001 for 7 consecutive days was investigated in an international, multi-center, open-label, proof-of-
concept study in 18 patients with RPE65-or LRAT-related retinitis pigmentosa. Eight of 18 patients (44%) showed a (>=)20% increase and 4 of 18 (22%) showed a (>=)40% increase in functional retinal area determined from Goldmann visual fields; 12 (67%) and 5 (28%) of 18 patients showed a (>=)5 and (>=)10 ETDRS letter score increase of visual acuity, respectively, in one or both eyes at two or more visits within 2 months of treatment. In two patients who underwent fMRI, a significant positive response was measured to stimuli of medium contrast, moving, pattern targets in both left and right hemispheres of the occipital cortex. There were no serious adverse events. Treatment-related adverse events were transient and the most common included headache, photophobia, nausea, vomiting, and minor biochemical abnormalities. Measuring the outer segment length of the photoreceptor layer with high-definition optical coherence tomography was highly predictive of treatment responses with responders having a significantly larger baseline outer segment thickness (11.7 ? 4.8 mm, mean ? 95% CI) than non-responders (3.5 ? 1.2 mm)."

According to the news reporters, the research concluded: "This structure-function relationship suggests that treatment with QLT091001 is more likely to be efficacious if there is sufficient photoreceptor integrity."

For more information on this research see: Safety and Proof-of-Concept Study of Oral QLT091001 in Retinitis Pigmentosa Due to Inherited Deficiencies of Retinal Pigment Epithelial 65 Protein (RPE65) or Lecithin:Retinol Acyltransferase (LRAT). Plos One, 2015;10 (12):e0143846. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news correspondents report that additional information may be obtained by contacting H.P. Scholl, Wilmer Eye Institute, Johns Hopkins University, Baltimore, MD, United States. Additional authors for this research include A.T. Moore, R.K. Koenekoop, Y. Wen, G.A. Fishman, L.I. van den Born, A. Bittner, K. Bowles, E.C. Fletcher, F.T. Collison, G. Dagnelie, S. Degli Eposti, M. Michaelides, D.A. Saperstein, R.A. Schuchard, C. Barnes and Zein.

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Keywords for this news article include: Maryland, Genetics, Baltimore, United States, Acyltransferases, Retinal Pigments, Biological Factors, Biological Pigments, Retinal Degeneration, Retinitis Pigmentosa, Enzymes and Coenzymes, North and Central America, Retinal Diseases and Conditions, Hereditary Eye Diseases and Conditions.

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Pharmacology

New Findings from Josai University in Pharmacology Provides New Insights (Fatty Acid beta-Oxidation Plays a Key Role in Regulating cis-Palmitoleic Acid Levels in the Liver)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacology. According to news originating from Saitama, Japan, by NewsRx correspondents, research stated, "Different monounsaturated fatty acid (MUFA) species have distinct pathophysiological activities. cis-Palmitoleic acid (16:1n-7) was previously reported to improve insulin sensitivity in animal studies. The proportions of hepatic MUFAs are generally considered to reflect changes in the
activities of fatty acid modifications (Delta 9 desaturation and fatty acid elongation)."

Our news journalists obtained a quote from the research from Josai University, "However, hepatic levels of 16:1n-7 are markedly lower than those of oleic acid (18:1n-9). Nevertheless, no convincing explanation has yet been provided for the low level of 16:1n-7. We hypothesized that fatty acid degradation plays a key role in maintaining a low 16:1n-7 proportion in the liver. In order to corroborate the link between beta-oxidation and the proportion of 16:1n-7, rats were fed a control diet, fed a fat-free diet to up-regulate fatty acid modifications, but not beta-oxidation, or treated with clofibric acid to up-regulate fatty acid modifications and beta-oxidation. The nutritional manipulation markedly increased the proportions of 16:1n-7, 18:1n-9, and cis-vaccenic acid (18:1n-7). Although the pharmacological manipulation enhanced fatty acid modifications to largely the same extent as the nutritional manipulation and markedly elevated the proportion of 18:1n-9, those of 16:1n-7 and 18:1n-7 remained largely unchanged. The oxidation rates of 16:1n-7, 18:1n-9, and 18:1n-7 in liver slices were in the following order: 16:1n-7 > 18:1n-7 (sic) 18:1n-9 in control livers, and were increased by the pharmacological manipulation and decreased by the nutritional manipulation."

According to the news editors, the research concluded: "These results strongly suggest that beta-oxidation, in concert with fatty acid modifications, plays a key role in regulating the MUFA profile and is crucially involved in maintaining low 16:1n-7 levels in the liver."


The news correspondents report that additional information may be obtained from N. Kudo, Josai Univ, Sch Pharmaceut Sci, Sakado, Saitama 3500295, Japan. Additional authors for this research include M. Karahashi, T. Sakamoto, Y. Tsuji, T. Yamazaki, M. Okazaki, A. Mitsumoto, N. Kudo and Y. Kawashima.

Keywords for this news article include: Saitama, Japan, Asia, Pharmacology, Therapy, Josai University.

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Oncology - Glioblastomas

New Findings from Justus-Liebig-University in the Area of Glioblastomas Described (High-mobility group AT-hook protein 2 expression and its prognostic significance in MGMT methylated and unmethylated glioblastoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Glioblastomas. According to news reporting out of Giessen, Germany, by NewsRx editors, research stated, "High-mobility group AT-hook protein 2 (HMGA 2) is a transcription factor associated with malignancy and poor prognosis in a variety of human cancers. We correlated HMGA 2 expression with clinical parameters, survival, and O-6-methylguanine-DNA methyltransferase methylation status (MGMT) in glioblastoma patients."

Our news journalists obtained a quote from the research from Justus-Liebig-
University, "HMGA 2 expression was determined by performing quantitative real-time polymerase chain reaction (qPCR) and immunohistochemistry (IHC) in 44 glioblastoma patients and 5 non-tumorous brain specimens as controls. Gene expression levels of MGMT methylated vs. unmethylated patients, and gene expression levels between patient groups, both for qPCR and IHC data were compared using the Mann-Whitney U test. The relationship between HMGA 2 expression, progression-free survival and overall survival was analyzed using the Kaplan-Meier method and the log-rank test. P-values of <0.05 were considered statistically significant throughout the analyses. The mean age of patients at diagnosis was 57.4 ± 15.7 years, and the median survival was 16 months (SE 2.8; 95% CI, 10.6-21.4). HMGA 2 gene expression was significantly higher in glioblastoma compared to normal brain tissue on qPCR (mean, 0.35; SD, 0.27 vs. 0.03, SD, 0.05) and IHC levels (IRS mean, 17.21; SD, 7.43 vs. 3.20; SD, 1.68) (p=0.001). Survival analysis revealed that HMGA 2 overexpression was associated with a shorter progression-free and overall survival time in patients with methylation (n=24). The present study shows a tendency that HMGA 2 overexpression correlates with a poor prognosis of glioblastoma patients independent of MGMT methylation status."

According to the news editors, the research concluded: "The results suggest that HMGA 2 could play an important role in the treatment of glioblastoma and could have a function in prognosis of this type of cancer."

For more information on this research see: High-mobility group AT-hook protein 2 expression and its prognostic significance in MGMT methylated and unmethylated glioblastoma. *International Journal of Oncology*, 2016;48(4):1485-92. Our news journalists report that additional information may be obtained by contacting F.P. Schwarm, Dept. of Neurosurgery, Justus-Liebig University Giessen, Giessen, Germany. Additional authors for this research include F. Uhle, A. Schanzer, T. Acker, M. Stein, M.H. Reinges, C. Weischer, M.A. Weigand, E. Uhl and M.A Kolodziej. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3397. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Giessen, Germany, Genetics, Oncology, Glioblastomas.

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**Immune System Diseases and Conditions - IgA...**

**New Findings from Kagoshima University Describe Advances in IgA Deficiency (Immunoglobulin A deficiency following treatment with lamotrigine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immune System Diseases and Conditions - IgA Deficiency. According to news reporting originating in Kagoshima, Japan, by NewsRx journalists, research stated, "Lamotrigine (LTG) is an anti-epileptic drug and mood-stabilizing agent, whose adverse effects include skin rash and dizziness. Interactions with the immune system are rare, and only a few cases linking hypogammaglobulinemia to LTG treatment have been previously described."

The news reporters obtained a quote from the research from Kagoshima University,
"In this report, we describe a case in which a patient developed hypogammaglobulinemia, and a subsequent immunoglobulin A (IgA) deficiency, following LTG treatment. As a result of her immunodeficiency, the patient presented with a severe urinary tract infection and required intravenous immunoglobulin. Serum levels of immunoglobulin G and M had recovered by seven months and one month after the discontinuation of LTG, respectively; however, IgA levels remained low (less than 4 mg/dL) two years post-treatment."

According to the news reporters, the research concluded: "While previous reports have demonstrated IgA deficiencies in patients prescribed other antiepileptic drugs, this is the first case of an IgA deficiency following LTG administration."

For more information on this research see: Immunoglobulin A deficiency following treatment with lamotrigine. *Brain & Development*, 2016;38(10):947-949. *Brain & Development* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Brain & Development - www.journals.elsevier.com/brain-and-development/)

Our news correspondents report that additional information may be obtained by contacting S. Maruyama, Kagoshima Univ Hosp, Epilepsy Center, Kagoshima, Japan. Additional authors for this research include Y. Okamoto, M. Toyoshima, R. Hanaya and Y. Kawano.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.braindev.2016.06.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kagoshima, Japan, Asia, Immune System Diseases and Conditions, Immunologic Deficiency Syndromes, Central Nervous System Agents, Triazine Anticonvulsants, Immunoglobulin Isotypes, Dysgammaglobulinemia, Drugs and Therapies, Lamotrigine Therapy, Agammaglobulinemia, Immunoglobulin A, Serum Globulins, Immunoglobulins, Pharmaceuticals, Blood Proteins, Immunoproteins, IgA Deficiency, Immunology, Kagoshima University.

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**Genetics - Medical Genetics**

**New Findings from Kaiser Permanente in the Area of Medical Genetics Described (A standardized, evidence-based protocol to assess clinical actionability of genetic disorders associated with genomic variation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics - Medical Genetics. According to news reporting from Portland, Oregon, by NewsRx journalists, research stated, "Genome and exome sequencing can identify variants unrelated to the primary goal of sequencing. Detecting pathogenic variants associated with an increased risk of a medical disorder enables clinical interventions to improve future health outcomes in patients and their at-risk relatives."

The news correspondents obtained a quote from the research from Kaiser Permanente, "The Clinical Genome Resource, or ClinGen, aims to assess clinical actionability of genes and associated disorders as part of a larger effort to build a central resource of information regarding the clinical relevance of genomic variation for use in precision medicine."
and research. We developed a practical, standardized protocol to identify available evidence and
generate qualitative summary reports of actionability for disorders and associated genes. We
applied a semi-quantitative metric to score actionability. We generated summary reports and
actionability scores for the 56 genes and associated disorders recommended by the American
College of Medical Genetics and Genomics for return as secondary findings from clinical
genome-scale sequencing. We also describe the challenges that arose during the development of
the protocol that highlight important issues in characterizing actionability across a range of
disorders."

According to the news reporters, the research concluded: "The ClinGen framework
for actionability assessment will assist research and clinical communities in making clear,
efficient, and consistent determinations of actionability based on transparent criteria to guide
analysis and reporting of findings from clinical genome-scale sequencing."

For more information on this research see: A standardized, evidence-based protocol
to assess clinical actionability of genetic disorders associated with genomic variation. Genetics
in Medicine, 2016;18(12):1258-1268. Genetics in Medicine can be contacted at: Nature
Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature
Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)

Our news journalists report that additional information may be obtained by
contacting J.E. Hunter, Kaiser Permanente Northwest, Center Hlth Res, Portland, OR 97232,
United States. Additional authors for this research include S.A. Irving, L.G. Biesecker, A.
Buchanan, B. Jensen, K. Lee, C.L. Martin, L. Milko, K. Muessig, A.D. Niehaus, J. O'Daniel,
M.A. Piper, E.M. Ramos, S.D. Schully, A.F. Scott, A. Slavotinek, N. Sobreira, N. Strande and
M. Weaver.

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is either free or for purchase.

Keywords for this news article include: Portland, Oregon, United States, North and
Central America, Medical Genetics, Genetics, Kaiser Permanente.

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Drugs and Therapies - Antifungals

New Findings from Keio University Yields New Data on Antifungals
(Impact of cytochrome P450 2C19 polymorphisms on the
pharmacokinetics of tacrolimus when coadministered with
voriconazole)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Drugs and Therapies - Antifungals.
According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "This
study evaluated the effects of cytochrome P450 (CYP) 2C19 polymorphisms on tacrolimus
pharmacokinetics when coadministered with voriconazole. Eighteen healthy volunteers,
including 6 individuals in each CYP2C19 genotype (extensive metabolizers [EMs], intermediate
metabolizers [IMs], and poor metabolizers [PMs]), received a single oral dose of 3 mg
tacrolimus alone or in combination with 200 mg voriconazole twice daily at steady state."

Our news journalists obtained a quote from the research from Keio University,
"When tacrolimus was coadministered with voriconazole, a significant increase in area under its concentration-time curve (AUC0-24) was observed for all genotypes. AUC0-12 of voriconazole in IMs and PMs were significantly higher than that in EMs (p < .05 and p<.01, respectively). Consequently, AUC0-24 of tacrolimus in combination with voriconazole in IMs and PMs were also significantly higher than that in EMs (p <.05)."

According to the news editors, the research concluded: "These results demonstrate that CYP2C19 genotypes influenced the exposure of tacrolimus when coadministered with voriconazole, although tacrolimus is mainly metabolized by CYP3A."


Our news journalists report that additional information may be obtained by contacting C.K. Imamura, Dept. of Clinical Pharmacokinetics and Pharmacodynamics, School of Medicine, Keio University, Tokyo, Japan. Additional authors for this research include K. Furihata, S. Okamoto and Y. Tanigawara.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcph.605. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Clinical Pharmacology is: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Asia, Antiinfectives, Pharmaceuticals, Tokyo, Japan, Macrolides, Cytochromes, Heme proteins, Pharmacokinetics, Azole Antifungals, Tacrolimus Therapy, Drugs and Therapies, Voriconazole Therapy, Immunosuppressive Agents.

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Oncology - Non-Small Cell Lung Cancer

New Findings from Keio University in Non-Small Cell Lung Cancer Provides New Insights (Prognostic value of tumor-infiltrating lymphocytes differs depending on histological type and smoking habit in completely resected non-small-cell lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "T-cell infiltration in tumors has been used as a prognostic tool in non-small-cell lung cancer (NSCLC). However, the influence of smoking habit and histological type on tumor-infiltrating lymphocytes (TILs) in NSCLC remains unclear."

The news correspondents obtained a quote from the research from Keio University, "We evaluated the prognostic significance of TILs (CD4(+), CD8(+), CD20(+), and FOXP3(+)) according to histological type and smoking habit using automatic immunohistochemical staining and cell counting in 218 patients with NSCLC. In multivariate survival analyses of clinical, pathological, and immunological factors, a high ratio of FOXP3(+) to CD4(+) T cells
(FOXP3/CD4) [hazard ratio (HR): 4.46, P< 0.01 for overall survival (OS); HR: 1.96, P< 0.05 for recurrence-free survival (RFS)] and a low accumulation of CD20(+) B cells (HR: 2.45, P = 0.09 for OS; HR: 2.86, P< 0.01 for RFS) were identified as worse prognostic factors in patients with adenocarcinoma (AD). In non-AD, a low number of CD8(+) T cells were correlated with an unfavorable outcome (HR: 7.69, P< 0.01 for OS; HR: 3.57, P< 0.02 for RFS). Regarding smoking habit in AD, a high FOXP3/CD4 ratio was poorly prognostic with a smoking history (HR: 5.21, P< 0.01 for OS; HR: 2.38, P< 0.03 for RFS), whereas a low accumulation of CD20 (+) B cells (HR: 4.54, P = 0.03 for OS; HR: 2.94, P< 0.01 for RFS) was confirmed as an unfavorable factor in non-smokers with AD. A low number of CD20(+) B cells in non-AD, a high FOXP3/CD4 ratio in smokers with AD, and a low number of CD20(+) B cells in non-smokers with AD were identified as independent unfavorable prognostic factors in resected NSCLC."

According to the news reporters, the research concluded: "Evaluating the influence of histological type and smoking habit on the immunological environment may lead to the establishment of immunological diagnosis and appropriate individualized immunotherapy for NSCLC."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/annonc/mdw319. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Non-Small Cell Lung Cancer, Hemic and Immune Systems, Mononuclear Leukocytes, Lung Neoplasms, Blood Cells, Lymphocytes, Immunology, Oncology, Keio University.

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Fibrosarcomas

New Findings from Kinki University Describe Advances in Fibrosarcomas (Negative Effects of G-Protein-Coupled Free Fatty Acid Receptor GPR40 on Cell Migration and Invasion in Fibrosarcoma HT1080 Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Fibrosarcomas. According to news reporting originating in Higashiosaka, Japan, by NewsRx journalists, research stated, "G-protein-coupled receptor 40 (GPR40) and GPR120 mediate a variety of biological functions by the binding of long and medium chain free fatty acids. In the present study, we investigated a
The role of GPR40 in the pathogenesis of fibrosarcoma HT1080 cells."

The news reporters obtained a quote from the research from Kinki University, "The GPR40 gene expression was detected in HT1080 cells, but not the GPR120 gene. The cell motile and invasive activities were markedly enhanced by GPR40 knockdown, compared with control cells. To evaluate whether GPR40 is involved in the cellular functions of HT1080 cells during anticancer drug treatment, HT1080 cells were maintained in condition medium containing cisplatin (CDDP) (0.01-1.0 µM) for 6 mo. The expression levels of the GPR40 gene was elevated by the long-term CDDP treatment in HT1080 cells, while the GPR120 gene expression remained unchanged. The cell motile and invasive activities of HT1080 cells treated with CDDP were significantly lower than those of untreated cells. In gelatin zymography, the activities of matrix metalloproteinase-2 (MMP-2) and MMP-9 of HT1080 cells were enhanced by the long-term CDDP treatment. In addition, GW9508 which is an agonist of GPR40 and GPR120 suppressed the cell motile and invasive activities of HT1080 cells treated with CDDP as well as the MMP activation."

According to the news reporters, the research concluded: "These results suggest that GPR40 negatively regulates the tumor progression of fibrosarcoma cells."


Our news correspondents report that additional information may be obtained by contacting T. Tsujiuchi, Kinki University, Fac Sci & Engn, Dept. of Life Sci, Div Mol Oncol, Higashiosaka, Osaka 5778502, Japan. Additional authors for this research include Y. Kitamura, M. Hirane, A. Tomimatsu, K. Fukushima, K. Takahashi, N. Fukushima, K. Honoki and T. Tsujiuchi.

Keywords for this news article include: Higashiosaka, Japan, Asia, Fibrosarcomas, Dermatology, Genetics, Fibrosarcoma, Kinki University.

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Science

New Findings from Konkuk University Describe Advances in Science (Identification of disease comorbidity through hidden molecular mechanisms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science have been published. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Despite multiple diseases co-occur, their underlying common molecular mechanisms remain elusive. Identification of comorbid diseases by considering the interactions between molecular components is a key to understand the underlying disease mechanisms."

Our news journalists obtained a quote from the research from Konkuk University, "Here, we developed a novel approach utilizing both common disease-causing genes and underlying molecular pathways to identify comorbid diseases. Our approach enables the analysis..."
of common pathologies shared by comorbid diseases through molecular interaction networks. We found that the integration of direct genetic sharing and indirect high-level molecular associations revealed significantly strong consistency with known comorbid diseases. In addition, neoplasm-related diseases showed high comorbidity patterns within themselves as well as with other diseases, indicating severe complications."

According to the news editors, the research concluded: "This study demonstrated that molecular pathway information could be used to discover disease comorbidity and hidden biological mechanism to understand pathogenesis and provide new insight on disease pathology."

For more information on this research see: Identification of disease comorbidity through hidden molecular mechanisms. *Scientific Reports*, 2016;6():1-8. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J. Kim, Konkuk University, Dept. of Stem Cell & Regenerative Biol, Seoul 05029, South Korea. Additional authors for this research include M. Cho, J.S. Lee and J. Kim.

Keywords for this news article include: Seoul, South Korea, Asia, Science, Genetics, Konkuk University.

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**Oncology - Breast Cancer**

**New Findings from Korea University School of Medicine Describe Advances in Breast Cancer (Resistin, a fat-derived secretory factor, promotes metastasis of MDA-MB-231 human breast cancer cells through ERM activation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Resistin, an adipocyte-secreted factor, is known to be elevated in breast cancer patients. However, the molecular mechanism by which resistin acts is not fully understood."

The news correspondents obtained a quote from the research from the Korea University School of Medicine, "The aim of this study was to investigate whether resistin could stimulate invasion and migration of breast cancer cells. Here, we report that resistin stimulated invasion and migration of breast cancer cells as well as phosphorylation of c-Src. Inhibition of c-Src blocked resistin-induced breast cancer cell invasion. Resistin increased intracellular calcium concentration, and chelation of intracellular calcium blocked resistin-mediated activation of Src. Resistin also induced phosphorylation of protein phosphatase 2A (PP2A). Inhibition of c-Src blocked resistin-mediated PP2A phosphorylation. In addition, resistin increased phosphorylation of PKCa. Inhibition of PP2A enhanced resistin-induced PKCa phosphorylation, demonstrating that PP2A activity is critical for PKCa phosphorylation. Resistin also increased phosphorylation of ezrin, radixin, and moesin (ERM). Additionally, ezrin interacted with PKCa, and resistin promoted co-localization of ezrin and PKCa. Either inhibition of c-Src and PKCa or knock-down of ezrin blocked resistin-induced breast cancer
cells invasion. Moreover, resistin increased expression of vimentin, a key molecule for cancer cell invasion. Knock-down of ezrin abrogated resistin-induced vimentin expression."

According to the news reporters, the research concluded: "These results suggest that resistin play as a critical regulator of breast cancer metastasis."

For more information on this research see: Resistin, a fat-derived secretory factor, promotes metastasis of MDA-MB-231 human breast cancer cells through ERM activation. *Scientific Reports*, 2016;6():18923. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting J.O. Lee, Dept. of Anatomy, Korea University College of Medicine, Seoul, South Korea. Additional authors for this research include N. Kim, H.J. Lee, Y.W. Lee, S.J. Kim, S.H. Park and H.S. Kim.

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Keywords for this news article include: Asia, Seoul, Oncology, Resistin, Vimentin, Adipokines, South Korea, Breast Cancer, Women's Health, Intermediate Filament Proteins, Intercellular Signaling Peptides and Proteins.

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**Clinical Research - Clinical Trials and Studies**

**New Findings from Kyoto Pharmaceutical University in the Area of Clinical Trials and Studies Described (Transport of Azithromycin into Extravascular Space in Rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news reporting from Kyoto, Japan, by NewsRx journalists, research stated, "Recent clinical trials showed a prolonged retention of subinhibitory concentrations of unbound azithromycin in the interstitial fluid of soft tissues despite the fact that azithromycin is extensively distributed in tissues. In these clinical trials, interstitial fluid samples were obtained by using the microdialysis method, and it was established that drug concentrations represent protein-unbound drug concentrations."

The news correspondents obtained a quote from the research from Kyoto Pharmaceutical University, "The present study was designed to measure total azithromycin concentrations in the interstitial fluid of the skin of rats by directly collecting interstitial fluid samples from a pore formed on the skin by a dissolving microneedle array. The total azithromycin concentrations in interstitial fluid of the skin were about 4 to 5 times higher than those in plasma throughout the experimental period, and stasis of the azithromycin concentration in interstitial fluid was observed when the concentration of azithromycin in plasma was at the lower limit of quantification. In addition, the skin/plasma concentration ratio transiently increased after dosing (from 4.3 to 83.1). Our results suggest that azithromycin was trapped inside white blood cells and/or phagocytic cells in not only blood but also interstitial fluid, resulting in a high total azithromycin concentration and the retention of its antimicrobial activity at the primary infection site."
According to the news reporters, the research concluded: "The stasis of azithromycin in interstitial fluid and skin would lead to long-lasting pharmacological effects (including those against skin infection) at concentrations exceeding the MIC."

For more information on this research see: Transport of Azithromycin into Extravascular Space in Rats. *Antimicrobial Agents and Chemotherapy*, 2016;60(11):6823-6827. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting T. Sakaeda, Kyoto Pharmaceutical University, Dept. of Pharmacokinet, Kyoto 607, Japan. Additional authors for this research include M. Aoki, C. Inoue, H. Murakami, A. Kuwahara, T. Nakamura, H. Yasui, Y. Ito, K. Takada and T. Sakaeda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01570-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kyoto, Japan, Asia, Clinical Trials and Studies, Ophthalmic Antiinfectives, Ophthalmic Preparations, Macrolide Derivatives, Drugs and Therapies, Clinical Research, Azithromycin, Erythromycin, Antibiotics, Kyoto Pharmaceutical University.

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**Enzymes and Coenzymes - Amidohydrolases**

**New Findings from Kyoto University Describe Advances in Amidohydrolases [Interspecies Dissemination of a Mobilizable Plasmid Harboring bla(IMP-19) and the Possibility of Horizontal Gene Transfer in a Single Patient]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Enzymes and Coenzymes - Amidohydrolases are discussed in a new report. According to news reporting out of Kyoto, Japan, by NewsRx editors, research stated, "Carbapenemase-producing Gram-negative bacilli have been a global concern over the past 2 decades because these organisms can cause severe infections with high mortality rates. Carbapenemase genes are often carried by mobile genetic elements, and resistance plasmids can be transferred through conjugation."

Our news journalists obtained a quote from the research from Kyoto University, "We conducted whole-genome sequencing (WGS) to demonstrate that the same plasmid harboring a metallo-beta-lactamase gene was detected in two different species isolated from a single patient. Metallo-beta-lactamase-producing Achromobacter xylosoxidans (KUN4507), non-metallo-beta-lactamase-producing Klebsiella pneumoniae (KUN4843), and metallo-beta-lactamase-producing K. pneumoniae (KUN5033) were sequentially isolated from a single patient and then analyzed in this study. Antimicrobial susceptibility testing, molecular typing (pulsed-field gel electrophoresis and multilocus sequence typing), and conjugation analyses were performed by conventional methods. Phylogenetic and molecular clock analysis of K. pneumoniae isolates were performed with WGS, and the nucleotide sequences of plasmids detected from these isolates were determined using WGS. Conventional molecular typing revealed that KUN4843
and KUN5033 were identical, whereas the phylogenetic tree analysis revealed a slight difference. These two isolates were separated from the most recent common ancestor 0.74 years before they were isolated. The same resistance plasmid harboring bla(IMP-19) was detected in metallo-beta-lactamase-producing A. xylosoxidans and K. pneumoniae. Although this plasmid was not self-transferable, the conjugation of this plasmid from A. xylosoxidans to non-metallo-beta-lactamase-producing K. pneumoniae was successfully performed. The susceptibility patterns for metallo-beta-lactamase-producing K. pneumoniae and the transconjugant were similar.

According to the news editors, the research concluded: "These findings supported the possibility of the horizontal transfer of plasmid-borne bla(IMP-19) from A. xylosoxidans to K. pneumoniae in a single patient."

For more information on this research see: Interspecies Dissemination of a Mobilizable Plasmid Harboring bla(IMP-19) and the Possibility of Horizontal Gene Transfer in a Single Patient. Antimicrobial Agents and Chemotherapy, 2016;60(9):5412-5419. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting M. Yamamoto, Kyoto University, Grad Sch Med, Dept. of Clin Lab Med, Kyoto, Japan. Additional authors for this research include Y. Matsumura, R. Gomi, T. Matsuda, M. Tanaka, M. Nagao, S. Takakura, S. Uemoto and S. Ichiyama.

Keywords for this news article include: Kyoto, Japan, Asia, Enzymes and Coenzymes, Lactamase, Genetics, Sulfur Compounds, beta-Lactamases, Amidohydrolases, beta-Lactams, Kyoto University.

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Environmental Research

New Findings from Kyoto University in Environmental Research Provides New Insights (Assessing the population equivalent and performance of wastewater treatment through the ratios of pharmaceuticals and personal care products present in a river ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Environmental Research. According to news originating from Shiga, Japan, by NewsRx correspondents, research stated, "The quality of surface waters in lowland rivers is largely dependent on the efficiency of wastewater treatment. Even in the developed countries, there have been difficulties in evaluating the effectiveness of wastewater management and the proportion of wastewater content (WWC) in the river, as well as in estimating the contributing human population."

Financial supporters for this research include Japanese Ministry of the Environment and DEFRA-supported UK/Japan Cooperation, Japan Society for the Promotion of Science, Natural Environment Research Council.

Our news journalists obtained a quote from the research from Kyoto University, "This study aimed to develop a wastewater quality and quantity assessment based on the occurrence of pharmaceuticals in the receiving waters. A survey of 53 pharmaceuticals in 324
samples (river water and influent and effluent of sewage (wastewater) treatment plants) was carried out in southern England in the River Thames catchment over four years. Carbamazepine was selected as a stable marker and from its concentration WWC in the rivers and cumulative human populations along the catchment were estimated. The estimated population had a strong relationship (R^2 = 0.94) with that reported by the local water company. The concentration ratio of the labile marker caffeine to carbamazepine indicated the efficiency of wastewater treatment in the different treatment systems (i.e. trickling filter or activated sludge) and in the receiving waters. The ratio in some river samples revealed unexpected discharges of untreated or poorly treated wastewater, with a total concentration of the analytes (up to 20 μg/L) five times higher than that in treated wastewater.

According to the news editors, the research concluded: "Such information could be valuable to estimate the discharge or occurrence of not only non-targeted chemicals, but also pathogens within the basin."

For more information on this research see: Assessing the population equivalent and performance of wastewater treatment through the ratios of pharmaceuticals and personal care products present in a river basin: Application to the River Thames basin, UK. *Science of the Total Environment*, 2017;575():1100-1108. *Science of the Total Environment* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Science of the Total Environment - www.journals.elsevier.com/science-of-the-total-environment/)

The news correspondents report that additional information may be obtained from N. Nakada, Kyoto University, Res Center Environm Qual Management, Otsu, Shiga 5200811, Japan. Additional authors for this research include S. Hanamoto, M.D. Jurgens, A.C. Johnson, M.J. Bowes and H. Tanaka.

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Keywords for this news article include: Shiga, Japan, Asia, Environmental Research, Kyoto University.

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**Cardiovascular Diseases and Conditions - Abdominal…**

**New Findings from Leicester Royal Infirmary Update Understanding of Abdominal Aortic Aneurysm (Late Survival in Nonoperated Patients with Infrarenal Abdominal Aneurysm)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm is the subject of a report. According to news reporting out of Leicester, United Kingdom, by NewsRx editors, research stated, "Objective/Background: Historical studies report high rupture rates in patients with nonoperated abdominal aortic aneurysms (AAAs) of > 5.5 cm diameter, although a recent audit has questioned this. This was a retrospective review of 138/764 (18%) patients with AAAs evaluated in a preassessment anaesthetic clinic (PAC) between 2006 and 2012, who either did not undergo elective AAA repair or who underwent deferred repair."
Our news journalists obtained a quote from the research from Leicester Royal Infirmary, "The remaining 626 underwent repair. Patients with severe comorbidities (dementia, advanced malignancy, life-expectancy < 1 year) and not referred to PAC were excluded. At a median of 27 months, 71 (52%) died, 36 (51%) following rupture. Cumulative survival, free from rupture or surgery for acute symptoms, was 96% at 1 year, 84% at 3 years, and 64% at 5 years, where baseline AAA diameters were 5.5-6.9 cm. For diameters > 7 cm, survival, free from rupture, was 65% at 1 year, 29% at 3 years, and 0% at 5 years. Median interval to rupture was 47 months (AAA diameter 5.5-6.9 cm) and 21 months where baseline diameters were > 7 cm. Rupture accounted for 32% of late deaths in patients with AAAs of 5.55.9 cm diameter, 46% in those with AAAs measuring 6.0-6.9 cm in diameter, and 71% in patients with AAA measuring > 7 cm in diameter. Approximately half of all late deaths in this nonoperated cohort were not AAA related, suggesting that even had repair been undertaken, it would not have prolonged patient survival. The incidence of rupture in 'high-risk' patients with an AAA < 7 cm diameter was < 5% at 1 year, thereby giving ample time to optimise risk factors and improve pre-existing medical conditions prior to undertaking a deferred intervention. Even if these patients did not undergo surgical repair, the risk of late rupture was relatively low."

According to the news editors, the research concluded: "By contrast, nonoperated patients with AAAs > 7 cm in diameter face a very high risk of rupture and will probably benefit from elective surgery, with the caveat that a higher procedural risk might have to be incurred."


Our news journalists report that additional information may be obtained by contacting A.J. Batchelder, Leicester Royal Infirmary, Dept. of Vasc Anaesthesia & Vasc Surg, Leicester, Leics, United Kingdom. Additional authors for this research include A.J. Batchelder, D. Kirkbride, A.R. Naylor and J.P. Thompson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejvs.2016.05.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leicester, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Surgery, Risk and Prevention, Abdominal Aortic Aneurysm, Cardiology, Leicester Royal Infirmary.

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Disease Attributes - Disease Progression

New Findings from Leiden University in the Area of Disease Progression Described (Systems pharmacology - Towards the modeling of network interactions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Disease Attributes - Disease Progression have been
presented. According to news reporting from Leiden, Netherlands, by NewsRx editors, the research stated, "Mechanism-based pharmacokinetic and pharmacodynamics (PKPD) and disease system (DS) models have been introduced in drug discovery and development research, to predict in a quantitative manner the effect of drug treatment in vivo in health and disease. This requires consideration of several fundamental properties of biological systems behavior including: hysteresis, non-linearity, variability, interdependency, convergence, resilience, and multi-stationarity."

The news correspondents obtained a quote from the research from Leiden University, "Classical physiology-based PKPD models consider linear transduction pathways, connecting processes on the causal path between drug administration and effect, as the basis of drug action. Depending on the drug and its biological target, such models may contain expressions to characterize i) the disposition and the target site distribution kinetics of the drug under investigation, ii) the kinetics of target binding and activation and iii) the kinetics of transduction. When connected to physiology-based DS models, PKPD models can characterize the effect on disease progression in a mechanistic manner. These models have been found useful to characterize hysteresis and non-linearity, yet they fail to explain the effects of the other fundamental properties of biological systems behavior. Recently systems pharmacology has been introduced as novel approach to predict in vivo drug effects, in which biological networks rather than single transduction pathways are considered as the basis of drug action and disease progression. These models contain expressions to characterize the functional interactions within a biological network. Such interactions are relevant when drugs act at multiple targets in the network or when homeostatic feedback mechanisms are operative. As a result systems pharmacology models are particularly useful to describe complex patterns of drug action (i.e. synergy, oscillatory behavior) and disease progression (i.e. episodic disorders). In this contribution it is shown how physiology-based PKPD and disease models can be extended to account for internal systems interactions. It is demonstrated how SP models can be used to predict the effects of multi-target interactions and of homeostatic feedback on the pharmacological response. In addition it is shown how DS models may be used to distinguish symptomatic from disease modifying effects and to predict the long term effects on disease progression, from short term biomarker responses."

According to the news reporters, the research concluded: "It is concluded that incorporation of expressions to describe the interactions in biological network analysis opens new avenues to the understanding of the effects of drug treatment on the fundamental aspects of biological systems behavior."


Our news journalists report that additional information may be obtained by contacting M. Danhof, Leiden University, Syst Pharmacol, Leiden Academy Center Drug Res, NL-2300 RA Leiden, Netherlands.

Keywords for this news article include: Leiden, Netherlands, Europe, Pathologic Processes, Disease Progression, Disease Attributes, Pharmaceuticals, Pharmacology, Therapy, Leiden University.

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Mycobacterium Infections - Tuberculosis

New Findings from Leiden University in the Area of Tuberculosis
Reported (Mechanisms of Phenotypic Rifampicin Tolerance in
Mycobacterium tuberculosis Beijing Genotype Strain B0/W148 Revealed
by Proteomics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Mycobacterium Infections -
Tuberculosis. According to news originating from Leiden, Netherlands, by NewsRx
correspondents, research stated, "The 'successful' Russian clone B0/W148 of Mycobacterium
tuberculosis Beijing is well-known for its capacity to develop antibiotic resistance. During
treatment, resistant mutants can occur that have inheritable resistance to specific antibiotics."

Financial support for this research came from Rijksinstituut voor Volksgezondheid
en Milieu.

Our news journalists obtained a quote from the research from Leiden University,
"Next to mutations, M. tuberculosis has several mechanisms that increase their tolerance to a
variety of antibiotics. Insights in the phenotypic mechanisms that contribute to drug tolerance
will increase our understanding of how antibiotic resistance develops in M. tuberculosis. In this
study, we examined the (phospho)proteome dynamics in M. tuberculosis Beijing strain
B0/W148 when exposed to a high dose of rifampicin; one of the most potent first-line
antibiotics. A total of 2,534 proteins and 191 phosphorylation sites were identified, and revealed
the differential regulation of DosR regulon proteins, which are necessary for the development of
a dormant phenotype that is less susceptible to antibiotics. By examining independent
phenotypic markers of dormancy, we show that persisters of in vitro rifampicin exposure
entered a metabolically hypoactive state, which yields rifampicin and other antibiotics largely
ineffective."

According to the news editors, the research concluded: "These new insights in the
role of protein regulation and post-translational modifications during the initial phase of
rifampicin treatment reveal a shortcoming in the antituberculosis regimen that is administered to
8-9 million individuals annually."

For more information on this research see: Mechanisms of Phenotypic Rifampicin
Tolerance in Mycobacterium tuberculosis Beijing Genotype Strain B0/W148 Revealed by
- www.acs.org; Journal of Proteome Research - www.pubs.acs.org/journal/jprobs)

The news correspondents report that additional information may be obtained from J.
de Keijzer, Dept. of Immunohematology and Blood Transfusion, Leiden University Medical
Center (LUMC) , Leiden 2300 RC, Netherlands. Additional authors for this research include A.
Mulder, J. de Beer, A.H. de Ru, P.A. van Veelen and D. van Soolingen.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1021/acs.jproteome.5b01073. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Antibacterial Agents, Antibiotics,
Antimicrobials, Leiden, Europe, Genetics, Proteomics, Netherlands, Actinobacteria,
Mycobacteriaceae, Gram Positive Rods, Drugs and Therapies, Gram Positive Bacteria,
Mycobacterium Infections, Actinomycetales Infections, Mycobacterium Tuberculosis, Gram
Positive Asporogenous Rods.
New Findings from Linkoping University Describe Advances in Cardiology (Patient-Specific Simulation of Cardiac Blood Flow From High-Resolution Computed Tomography)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiology. According to news reporting out of Linkoping, Sweden, by NewsRx editors, research stated, "Cardiac hemodynamics can be computed from medical imaging data, and results could potentially aid in cardiac diagnosis and treatment optimization. However, simulations are often based on simplified geometries, ignoring features such as papillary muscles and trabeculae due to their complex shape, limitations in image acquisitions, and challenges in computational modeling."

Our news journalists obtained a quote from the research from Linkoping University, "This severely hampers the use of computational fluid dynamics in clinical practice. The overall aim of this study was to develop a novel numerical framework that incorporated these geometrical features. The model included the left atrium, ventricle, ascending aorta, and heart valves. The framework used image registration to obtain patient-specific wall motion, automatic remeshing to handle topological changes due to the complex trabeculae motion, and a fast interpolation routine to obtain intermediate meshes during the simulations. Velocity fields and residence time were evaluated, and they indicated that papillary muscles and trabeculae strongly interacted with the blood, which could not be observed in a simplified model."

According to the news editors, the research concluded: "The framework resulted in a model with outstanding geometrical detail, demonstrating the feasibility as well as the importance of a framework that is capable of simulating blood flow in physiologically realistic hearts."


Our news journalists report that additional information may be obtained by contacting J. Lantz, Linkoping University, Dept. of Med & Hlth Sci, Center Med Image Sci & Visualizat CMIV, SE-58183 Linkoping, Sweden. Additional authors for this research include L. Henriksson, A. Persson, M. Karlsson and T. Ebbers.

Keywords for this news article include: Linkoping, Sweden, Europe, Computed Tomography, Imaging Technology, Cardiology, Linkoping University.

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Diabetes

New Findings from M. Rizzi and Co-Authors Describe Advances in Diabetes (Genitourinary infections in diabetic patients in the new era of diabetes therapy with sodium-glucose cotransporter-2 inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Diabetes are presented in a new report. According to news reporting out of Bergamo, Italy, by NewsRx editors, research stated, "To review prevalence and significance of urinary tract (UTI) and genital infections (GI) in diabetes and the effects of sodium glucose cotransporter 2 (SGLT-2) inhibitors on these complications. Data synthesis: The prevalence of asymptomatic bacteriuria (ASB) is 2-3 times higher in diabetic than in non-diabetic women."

Financial support for this research came from Eli Lilly Italia SpA.

Our news journalists obtained a quote from the research, "The treatment of ASB has no impact on the development of UTIs and/or a decline in renal function. Therefore, there is no indication for screening for and/or treatment of ASB. The incidence of UTI is higher and frequently complicated in diabetic patients, particularly in those with longer duration of disease and of older age. There is no consistent evidence of an association between A1c levels, glycosuria and the risk of ASB and/or UTIs. Diabetes is a known risk factor for Candida colonization and GI, and a poor glycemic control is associated with a higher risk. While patients treated with SGLT-2 inhibitors may have a non-significant increased risk of UTI, they have a clearly increased risk of GI; most of these infections are mild, easy to treat, and the rate of recurrence is low. Diabetic patients are at high risk of UTIs and of GI. Only GI are associated with poor glycemic control."

According to the news editors, the research concluded: "Although patients treated with SGLT-2 inhibitors have an increased 3-5 fold risk of GI, proper medical education can reduce this risk."


Our news journalists report that additional information may be obtained by contacting R. Trevisan, ASST Papa Giovanni XXIII, Endocrinol & Diabet Unit, I-24127 Bergamo, Italy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.numecd.2016.07.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bergamo, Italy, Europe, Therapy, Article Review, Risk and Prevention, Endocrinology, Diabetes.

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New Findings from M.D. Anderson Cancer Center in the Area of Hereditary Nonpolyposis Colorectal Cancer Described (Genetic predisposition in gynecologic cancers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Hereditary Nonpolyposis Colorectal Cancer. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "This review article discusses the diagnosis and management of hereditary ovarian cancer and hereditary uterine cancer. The key recommendations highlighted are: All women with high grade non-mucinous epithelial ovarian cancer should be offered at least BRCA1 and BRCA2 genetic testing."

Our news editors obtained a quote from the research from M.D. Anderson Cancer Center, "The care of women with BRCA-associated ovarian cancer should be tailored to their mutation status. Risk-reducing bilateral salpingo-oophorectomy is recommended for women with BRCA1/2 mutations. Women with endometrial cancer should be assessed for the possibility of Lynch syndrome. Individuals with Lynch syndrome should undergo screening colonoscopy every 1-2 years."

According to the news editors, the research concluded: "Lynch syndrome causes a high risk of endometrial cancer, and women with Lynch syndrome should consult with a gynecologic specialist to formulate a plan for managing this risk."

For more information on this research see: Genetic predisposition in gynecologic cancers. Seminars in Oncology, 2016;43(5):543-547. Seminars in Oncology can be contacted at: W B Saunders Co-Elsevier Inc, 1600 John F Kennedy Boulevard, Ste 1800, Philadelphia, PA 19103-2899, USA. (Elsevier - www.elsevier.com; Seminars in Oncology - www.journals.elsevier.com/seminars-in-oncology/)

The news editors report that additional information may be obtained by contacting K.H. Lu, MD Anderson Canc Center, Dept. of Gynecol Oncol & Reprod Med, Houston, TX 77030, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.seminoncol.2016.08.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Hereditary Nonpolyposis Colorectal Cancer, Gynecology, Article Review, Risk and Prevention, Endometrial Cancer, Gynecologic Cancer, Women's Health, Lynch Syndrome, Ovarian Cancer, Oncology, Genetics, BRCA1, M.D. Anderson Cancer Center.

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New Findings from M.S. Duh and Co-Researchers in the Area of Central Nervous System Agents Described (Can social media data lead to earlier detection of drug-related adverse events?)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Central Nervous System Agents is now available. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "To compare the patient characteristics and the inter-temporal reporting patterns of adverse events (AEs) for atorvastatin (Lipitor ®) and sibutramine (Meridia ®) in social media (AskaPatient.com) versus the FDA Adverse Event Reporting System (FAERS). We identified clinically important AEs associated with atorvastatin (muscle pain) and sibutramine (cardiovascular AEs), compared their patterns in social media postings versus FAERS and used Granger causality tests to assess whether social media postings were useful in forecasting FAERS reports."

Our news journalists obtained a quote from the research, "We analyzed 998 and 270 social media postings between 2001 and 2014, 69 003 and 7383 FAERS reports between 1997 and 2014 for atorvastatin and sibutramine, respectively. Social media reporters were younger (atorvastatin: 53.9 vs. 64.0 years, p< 0.001; sibutramine: 36.8 vs. 43.8 years, p< 0.001). Social media reviews contained fewer serious AEs (atorvastatin, pain: 2.5% vs. 38.2%; sibutramine, cardiovascular issues: 7.9% vs. 63.0%; p< 0.001 for both) and concentrated on fewer types of AEs (proportion comprising the top 20 AEs: atorvastatin, 88.7% vs. 55.4%; sibutramine, 86.3% vs. 65.4%) compared with FAERS. While social media sibutramine reviews mentioning cardiac issues helped predict those in FAERS 11 months later (p < 0.001), social media atorvastatin reviews did not help predict FAERS reports. Social media AE reporters were younger and focused on less-serious and fewer types of AEs than FAERS reporters. The potential for social media to provide earlier indications of AEs compared with FAERS is uncertain."

According to the news editors, the research concluded: "Our findings highlight some of the promises and limitations of online social media versus conventional pharmacovigilance sources and the need for careful interpretation of the results."


The news correspondents report that additional information may be obtained from M.S. Duh, Anal Grp Inc, Boston, MA 02199, United States. Additional authors for this research include P. Cremieux, M. Van Audenrode, F. Vekeman, P. Karner, H.M. Zhang and P. Greenberg.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Central Nervous System Agents, Antihyperlipidemic Agents, Cardiology, Epidemiology, Adverse Drug Reactions, Appetite Depressants, Drugs and Therapies, Sibutramine Therapy, Anorexigenic Agent, Antidepressants, Cardiovascular, Atorvastatin, Anorexiants, Stimulants, Angiology.

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New Findings from Maastricht University in the Area of Breast Cancer Described (Routine use of standard breast MRI compared to axillary ultrasound for differentiating between no, limited and advanced axillary nodal disease in newly diagnosed ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting from Maastricht, Netherlands, by NewsRx journalists, research stated, "To compare standard breast MRI to dedicated axillary ultrasound (with or without tissue sampling) for differentiating between no, limited and advanced axillary nodal disease in breast cancer patients. All patients who underwent breast MRI and dedicated axillary ultrasound between 2009 and 2014 were eligible."

The news correspondents obtained a quote from the research from Maastricht University, "Exclusion criteria were recurrent disease, neoadjuvant systemic therapy and not receiving completion axillary lymph node dissection after positive sentinel lymph node biopsy (SLNB). Two radiologists independently reassessed all MRI exams. Axillary ultrasound findings were retrospectively collected. Probability of advanced axillary nodal disease (pN2-3) given clinically node negative (cN0) or limited (cN1) findings was calculated, with corresponding negative predictive value (NPV) to exclude pN2-3 and positive predictive value (PPV) to identify axillary nodal disease. Histopathology served as gold standard. A total of 377 cases resulted in 81.4% no, 14.4% limited and 4.2% advanced axillary nodal disease at final histopathology. Probability of pN2-3 given cN0 for breast MRI and axillary ultrasound was 0.7-0.9% versus 1.5% and probability of pN2-3 given cN1 was 11.6-15.4% versus 29.0%. When cN1 on breast MRI was observed, PPV to identify positive axillary nodal disease was 50.7% and 59.0%. Evaluation of axillary nodal status on standard breast MRI is comparable to dedicated axillary ultrasound in breast cancer patients."

According to the news reporters, the research concluded: "In patients who underwent preoperative standard breast MRI, axillary ultrasound is only required in case of suspicious nodal findings on MRI."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejrad.2016.10.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maastricht, Netherlands, Europe,
New Findings from Mashhad University of Medical Sciences Update Understanding of Blood Transfusion (RISK pathway is involved in oxytocin postconditioning in isolated rat heart)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transfusion Medicine - Blood Transfusion is now available. According to news reporting originating from Mashhad, Iran, by NewsRx correspondents, research stated, "The reperfusion injury salvage kinase (RISK) pathway is a fundamental signal transduction cascade in the cardioprotective mechanism of ischemic postconditioning. In the present study, we examined the cardioprotective role of oxytocin as a postconditioning agent via activation of the RISK pathway (PI3K/Akt and ERK1/2)."

Financial support for this research came from Mashhad University of Medical Sciences and Golestan University of Medical Sciences.

Our news editors obtained a quote from the research from the Mashhad University of Medical Sciences, "Animals were randomly divided into 6 groups. The hearts were subjected under 30 minutes (min) ischemia and 100 min reperfusion. OT was perfused 15 min at the early phase of reperfusion. RISK pathway inhibitors (Wortmannin; an Akt inhibitor, PD98059; an ERK1/2 inhibitor) and Atosiban (an OT receptor antagonist) were applied either alone 10 min before the onset of the ischemia or in the combination with OT during early reperfusion phase. Myocardial infarct size, hemodynamic factors, ventricular arrhythmia, coronary flow and cardiac biochemical marker were measured at the end of reperfusion. OT postconditioning (OTpost), significantly decreased the infarct size, arrhythmia score, incidence of ventricular fibrillation, Lactate dehydrogenase and it increased coronary flow. The cardioprotective effect of OTpos was abrogated by PI3K/Akt, ERK1/2 inhibitors and Atosiban."

According to the news editors, the research concluded: "Our data have shown that OTPost can activate RISK pathway mostly via the PI3K/Akt and ERK1/2 signaling cascades during the early phase of reperfusion."


The news editors report that additional information may be obtained by contacting V. Khor, Mashhad Univ Med Sci, Biotechnol Res Center, Mashhad, Iran. Additional authors for this research include K. Jamialahmadi, V. Khor, A.M. Alizadeh, M. Saeidi, M. Ghayour-Mobarhan, Y. Jand, M.H. Ghaahremani and Y. Yazdani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.peptides.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mashhad, Iran, Asia, Cardiovascular Surgical Procedures, Posterior Pituitary Hormones, Transfusion Medicine, Blood Transfusion, Peptide Proteins, Peptide Hormones, Medical Devices, Reperfusion, Cardiology, Oxytocin,
Surgery, Mashhad University of Medical Sciences.

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Oncology - B-Cell Lymphoma

New Findings from Mayo Clinic Describe Advances in B-Cell Lymphoma (T-Cell/Histiocyte-Rich Large B-Cell Lymphoma Presenting as a Primary Central Nervous System Lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - B-Cell Lymphoma are discussed in a new report. According to news reporting originating from Jacksonville, Florida, by NewsRx correspondents, research stated, "Primary central nervous system (PCNSL) lymphoma is an aggressive extranodal non-Hodgkin lymphoma, and most cases are classified as diffuse large B-cell lymphoma (DLBCL) by histology. T-cell/histiocyte-rich large B-cell lymphoma (TCRLBCL) represents a distinct subtype of diffuse large B-cell lymphoma and is characterized by the presence of scattered large neoplastic B-cells in a background of abundant T-cells and histiocytes."

Our news editors obtained a quote from the research from Mayo Clinic, "This is in contrast to the dense perivascular cuffing of neoplastic B-cells in classic DLBCL. T-cell/histiocyte-rich large B-cell lymphoma should be considered in PCNSL cases in which neoplastic B-cells are sparse and scattered. Immunohistochemistry will help identify the B-cells and surrounding infiltrate rich in T lymphocytes and histiocytes."

According to the news editors, the research concluded: "Future studies exploring the biology of TCRLBCL and the crosstalk between the neoplastic cells and the surrounding inflammatory infiltrate may provide exciting prospects for future therapies for TCRLBCL."

For more information on this research see: T-Cell/Histiocyte-Rich Large B-Cell Lymphoma Presenting as a Primary Central Nervous System Lymphoma. Rare Tumors, 2015;7 (4):6084.

The news editors report that additional information may be obtained by contacting P. Advani, Division of Hematology and Oncology, Dept. of Internal Medicine, Mayo Clinic, Jacksonville, FL, United States. Additional authors for this research include J. Starr, A. Swaika, L. Jiang, Y. Qiu, Z. Li and H.W Tun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4081/rt.2015.6084. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Florida, Oncology, Hematology, Immunology, Histiocytes, Macrophages, Jacksonville, United States, B-Cell Lymphoma, Large B Cell Lymphoma, Central Nervous System, Hemic and Immune Systems, North and Central America, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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**New Findings from Mayo Clinic Describe Advances in Sepsis (Pre- and Postoperative Predictors of Infection-Related Complications in Patients Undergoing Percutaneous Nephrolithotomy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Blood Diseases and Conditions - Sepsis. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "We aim to describe pre- and postoperative predictors of infection-related complications in individuals undergoing percutaneous nephrolithotomy (PCNL). Patients treated with PCNL from 2009 to 2013 were reviewed."

The news correspondents obtained a quote from the research from Mayo Clinic, "Patients with positive urine or stone cultures received extended antimicrobial treatment. All others received 7 days of empirical therapy preoperatively and postoperatively. Pre- and postoperative predictors of infectious complication were identified. We identified 227 patients who underwent primary PCNL with infectious complications occurring in 37 (16%): 11 (5%) urinary tract infection/pyelonephritis, 21 (9%) systemic inflammatory response syndrome (SIRS), and 2 (0.9%) sepsis. There were no significant differences between those with and without infectious complication with regard to age, gender, stone size, presence of diabetes, or procedure duration. Those with infectious complication were more likely to have a positive intraoperative stone culture (p = 0.01), struvite stone composition (p < 0.01), staghorn calculi (p < 0.001), and multiple stones (p = 0.02). Preoperatively, on multivariable analysis, only the presence of a staghorn calculus remained independently associated with increased risks of fever/SIRS/sepsis (odds ratio [OR] 3.14; p = 0.02) and total infectious complications (OR 2.53; p = 0.02) following PCNL. After controlling for pre- and post-PCNL risk factors, again, only staghorn calculi remained significantly associated with fever/SIRS/sepsis (OR 3.41; p = 0.01) and total infectious complications (OR 2.91; p = 0.01), with presence of multiple stones approaching significance (OR 4.2, confidence interval [CI]: 0.96, 18.6; p = 0.06). In individuals undergoing PCNL on preoperative antibiotics, risk of SIRS/sepsis was low. The presence of a staghorn calculus confers a greater than threefold increased risk of postoperative infection with multiple stones approaching a significant risk."

According to the news reporters, the research concluded: "Patients with large stone burdens should be counseled appropriately regarding these risks."


Our news journalists report that additional information may be obtained by contacting M. Rivera, Mayo Clinic, Dept. of Urol, Rochester, MN 55905, United States. Additional authors for this research include B. Viers, P. Cockerill, D. Agarwal, R. Mehta and A. Krambeck.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/end.2016.0191. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Calculus, Risk and Prevention, Blood Diseases and Conditions, Bloodstream Infection, Nephrolithotomy, Mathematics, Septicemia, Calculi, Surgery, Sepsis, Mayo Clinic.

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**Nervous System Diseases and Conditions - Dystonia**

**New Findings from Mayo Clinic in Dystonia Provides New Insights (A novel ANO3 variant identified in a 53-year-old woman presenting with hyperkinetic dysarthria, blepharospasm, hyperkinesias, and complex motor tics)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nervous System Diseases and Conditions - Dystonia is now available. According to news originating from Jacksonville, Florida, by NewsRx correspondents, research stated, "Cervical dystonias have a variable presentation and underlying etiology, but collectively represent the most common form of focal dystonia. There are a number of known genetic forms of dystonia (DYT1-27); however the heterogeneity of disease presentation does not always make it easy to categorize the disease by phenotype-genotype comparison."

Our news journalists obtained a quote from the research from Mayo Clinic, "Case presentation: In this report, we describe a 53-year-old female who presented initially with hand tremor following a total hip arthroplasty. The patient developed a mixed hyperkinetic disorder consisting of chorea, dystonia affecting the upper extremities, dysarthria, and blepharospasm. Whole exome sequencing of the patient revealed a novel heterozygous missense variant (Chr11 (GRCh38): g.26525644C > G; NM_031418.2(ANO3): c.702 C > G; NP_113606.2. p.C234W) in exon 7 in the ANO3 gene. ANO3 encodes anoctamin-3, a Ca2+-dependent phospholipid scramblase expressed in striatal-neurons, that has been implicated in autosomal dominant cranio cervical dystonia (Dystonia-24, DYT24, MIM# 615034). To date, only a handful of cases of DYT-24 have been described in the literature. The complex clinical presentation of the patient described includes hyperkinesias, complex motor movements, and vocal tics, which have not been reported in other patients with DYT24."

According to the news editors, the research concluded: "This report highlights the utility of using clinical whole exome sequencing in patients with complex neurological phenotypes that would not normally fit a classical presentation of a defined genetic disease."


The news correspondents report that additional information may be obtained from P.S. Atwal, Mayo Clinic, Dept. of Clin Genom, Jacksonville, FL 32224, United States. Additional authors for this research include M.T. Zimmermann, J.M. Gass, K.G. Harris, M.A. Cousin, N.J. Boczek, O.A. Ross, E.W. Klee, P.W. Brazis, J.A. Van Gerpen and P.S. Atwal.
New Findings from Mayo Clinic in the Area of Heart Failure Described (Differentiation of Constriction and Restriction Complex Cardiovascular Hemodynamics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Failure. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "Differentiation of constrictive pericarditis (CP) from restrictive cardiomyopathy (RCM) is a complex and often challenging process. Because CP is a potentially curable cause of heart failure and therapeutic options for RCM are limited, distinction of these 2 conditions is critical."

The news correspondents obtained a quote from the research from Mayo Clinic, "Although different in regard to etiology, prognosis, and treatment, CP and RCM share a common clinical presentation of predominantly right-sided heart failure, in the absence of significant left ventricular systolic dysfunction or valve disease, due to impaired ventricular diastolic filling. Fundamental to the diagnosis of either condition is a clear understanding of the underlying hemodynamic principles and pathophysiology."

According to the news reporters, the research concluded: "We present a contemporary review of the pathophysiology, hemodynamics, diagnostic assessment, and therapeutic approach to patients presenting with CP and RCM."

For more information on this research see: Differentiation of Constriction and Restriction Complex Cardiovascular Hemodynamics. Journal of the American College of Cardiology, 2016;68(21):2329-2347. Journal of the American College of Cardiology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.

Our news journalists report that additional information may be obtained by contacting J.B. Geske, Mayo Clinic, Dept. of Cardiovasc Dis, Rochester, MN 55905, United States. Additional authors for this research include N.S. Anavekar, R.A. Nishimura, J.K. Oh and B.J. Gersh.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cardiovascular Physiological Processes, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiology, Article Review, Heart Failure, Heart Disease, Hemodynamics, Mayo Clinic.
New Findings from Mazandaran University of Medical Sciences Update Understanding of Radiation Therapy (The paradox role of caspase cascade in ionizing radiation therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Radiation Therapy. According to news reporting originating from Sari, Iran, by NewsRx correspondents, research stated, "Radiotherapy alone or in combination with chemotherapy/surgery is widely used for treatment of cancers."

Our news editors obtained a quote from the research from the Mazandaran University of Medical Sciences, "It reduces tumor growth and prevents metastasis. While ionizing radiation activates caspase cascade resulted in apoptosis in cancer cells, it also stimulates tumor cell re-population that leads to reduce the effectiveness of the radiation therapy."

According to the news editors, the research concluded: "This review describes the mechanisms for paradox role of caspase cascade in cancer therapy and discusses the logical and practical strategies for improvement the therapeutic index of radiotherapy through enhancement of radiosensitivity and decreasing the rate of tumor recurrence."


The news editors report that additional information may be obtained by contacting S.J. Hosseinimehr, Mazandaran Univ Med Sci, Fac Pharm, Dept. of Radiopharm, Sari, Iran. Additional authors for this research include S.J. Hosseinimehr and A. Khalaj.

Keywords for this news article include: Sari, Iran, Asia, Therapy, Article Review, Cysteine Endopeptidases, Enzymes and Coenzymes, Drugs and Therapies, Peptide Hydrolases, Radiation Therapy, Radiotherapy, Caspases, Mazandaran University of Medical Sciences.

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New Findings from Medical University of South Carolina Describe Advances in Clinical Trials and Studies (Effects Of Liraglutide 3.0 Mg On Weight And Risk Factors In Hispanic Versus Non-hispanic Populations: Subgroup Analysis From Scale ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Research - Clinical Trials and Studies. According to news reporting from Charleston, South Carolina, by NewsRx journalists, research stated, "Scarce data exist on pharmacotherapy for obesity in Hispanic individuals. This
post hoc analysis of pooled data from 4 phase 3a trials compared the efficacy and safety of liraglutide 3.0 mg versus placebo, as adjunct to a reduced-calorie diet and physical activity, in Hispanic versus non-Hispanic subgroups."

The news correspondents obtained a quote from the research from the Medical University of South Carolina, "We conducted the double-blind randomized, placebo-controlled trials in adults with a minimum body mass index (BMI) of 27 kg/m(2) with at least 1 comorbidity, or a minimum BMI of 30 kg/m(2), at clinical research sites worldwide. In this analysis, we investigated possible differences in treatment effects between 534 Hispanics (10.4% of the population) and 4,597 non-Hispanics (89.6%) through statistical tests of interaction between subgroups and treatment. Variables examined included mean and categorical weight change, cardiovascular risk markers, and safety data. Both subgroups achieved clinically significant mean weight loss at end-of-treatment with liraglutide 3.0 mg versus placebo: Hispanics 7.0% versus 1.5%, treatment difference -5.1% (95% CI, -6.2 to -4.0); non-Hispanics 7.5% versus 2.3%, -5.2% (95% CI, -5.5 to -4.8). More individuals in both subgroups lost >= 5%, >10%, and >15% of their baseline weight with liraglutide 3.0 mg than with placebo. Efficacy endpoints generally did not vary with ethnicity (P >.05). Adverse events were comparable between ethnic subgroups, with more gastrointestinal disorders reported with liraglutide 3.0 mg than placebo. Efficacy and safety were largely similar between Hispanic and non-Hispanic subgroups."

According to the news reporters, the research concluded: "Results support that liraglutide 3.0 mg, used with a reduced-calorie diet and physical activity, can facilitate weight loss in Hispanic individuals."

For more information on this research see: Effects Of Liraglutide 3.0 Mg On Weight And Risk Factors In Hispanic Versus Non-hispanic Populations: Subgroup Analysis From Scale Randomized Trials. Endocrine Practice, 2016;22(11):1277-1287. Endocrine Practice can be contacted at: Amer Assoc Clinical Endocrinologists, 245 Riverside Avenue, Ste 200, Jacksonville, FL 32202, USA.

Our news journalists report that additional information may be obtained by contacting P.M. O'Neil, Medical University of South Carolina, Charleston, SC 29425, United States. Additional authors for this research include W.T. Garvey, J.M. Gonzalez-Campoy, P. Mora, R.V. Ortiz, G. Guerrero, B. Claudius and X. Pi-Sunyer.

Keywords for this news article include: Charleston, South Carolina, United States, North and Central America, Clinical Trials and Studies, Risk and Prevention, Clinical Research, Medical University of South Carolina.

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Hematopoietic

New Findings from Medical University of South Carolina in the Area of Hematopoietic Described (Contributions of Mouse and Human Hematopoietic Cells to Remodeling of the Adult Auditory Nerve After Neuron Loss)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematopoietic. According to news reporting originating from Charleston, South Carolina, by NewsRx correspondents, research
stated, "The peripheral auditory nerve (AN) carries sound information from sensory hair cells to the brain. The present study investigated the contribution of mouse and human hematopoietic stem cells (HSCs) to cellular diversity in the AN following the destruction of neuron cell bodies, also known as spiral ganglion neurons (SGNs)."

Our news editors obtained a quote from the research from the Medical University of South Carolina, "Exposure of the adult mouse cochlea to ouabain selectively killed type I SGNs and disrupted the blood-labyrinth barrier. This procedure also resulted in the upregulation of genes associated with hematopoietic cell homing and differentiation, and provided an environment conducive to the tissue engraftment of circulating stem/progenitor cells into the AN. Experiments were performed using both a mouse-mouse bone marrow transplantation model and a severely immune-incompetent mouse model transplanted with human CD34(+) cord blood cells. Quantitative immunohistochemical analysis of recipient mice demonstrated that ouabain injury promoted an increase in the number of both HSC-derived macrophages and HSC-derived nonmacrophages in the AN. Although rare, a few HSC-derived cells in the injured AN exhibited glial-like qualities."

According to the news editors, the research concluded: "These results suggest that human hematopoietic cells participate in remodeling of the AN after neuron cell body loss and that hematopoietic cells can be an important resource for promoting AN repair/regeneration in the adult inner ear."

For more information on this research see: Contributions of Mouse and Human Hematopoietic Cells to Remodeling of the Adult Auditory Nerve After Neuron Loss. Molecular Therapy, 2016;24(11):2000-2011. Molecular Therapy can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

The news editors report that additional information may be obtained by contacting H.N. Lang, Medical University of South Carolina, Dept. of Pathol & Lab Med, Charleston, SC 29425, United States. Additional authors for this research include E. Nishimoto, Y.Z. Xing, L.N. Brown, K.V. Noble, J.L. Barth, A.C. LaRue, K. Ando and B.A. Schulte.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2016.174. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Charleston, South Carolina, United States, North and Central America, Hematopoietic, Hematology, Neurons, Cells, Medical University of South Carolina.

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**Oncology**

**New Findings from Memorial Hospital Yields New Data on Oncology (Double autophagy modulators reduce 2-deoxyglucose uptake in sarcoma patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology have been published. According to news originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "According to the metabolic symbiosis model, cancer stromal fibroblasts could be hijacked by surrounding cancer
cells into a state of autophagy with aerobic glycolysis to help provide recycled nutrients. The purpose of this study was to investigate whether combined treatment with the autophagy inhibitor: hydroxychloroquine (HCQ) and the autophagy inducer: sirolimus (rapamycin, Rapa) would reduce glucose utilization in sarcoma patients."

Our news journalists obtained a quote from the research from Memorial Hospital, "Ten sarcoma patients who failed first-line treatment were enrolled in this study. They were treated with 1 mg of Rapa and 200 mg of HCQ twice daily for two weeks. The standardized uptake values (SUV) from pretreatment and posttreatment [18F]-fluorodeoxyglucose positron emission tomography (FDG PET) scans were reviewed, and changes from the baseline SUVmax were evaluated. Based on FDG PET response criteria, six patients had a partial response; three had stable disease, and one had progressive disease. Nevertheless, none of them showed a reduction in tumor volume. The mean SUVmax reduction in the 34 lesions evaluated was -19.6% (95% CI=-30.1% to -9.1%), while the mean volume change was +16.4% (95% CI=+5.8% to +27%). Only grade 1 toxicities were observed. Elevated serum levels of lactate dehydrogenase were detected after treatment in most metabolic responders."

According to the news editors, the research concluded: "The results of reduced SUVmax without tumor volume reduction after two weeks of Rapa and HCQ treatment may indicate that non-proliferative glycolysis occurred mainly in the cancer associated fibroblast compartment, and decreased glycolytic activity was evident from Rapa + HCQ double autophagy modulator treatment."

For more information on this research see: Double autophagy modulators reduce 2-deoxyglucose uptake in sarcoma patients. Oncotarget, 2015;6(30):29808-17.

The news correspondents report that additional information may be obtained from M.S. Chi, Dept. of Radiation Therapy and Oncology, Shin Kong Wu Ho-Su Memorial Hospital, Taipei, Taiwan. Additional authors for this research include C.Y. Lee, S.C. Huang, K.L. Yang, H.L. Ko, Y.K. Chen, C.H. Chung, K.W. Liao and K.H Chi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5060. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taipei, Taiwan, Cancer, Sarcoma, Oncology.

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Pharmacology

New Findings from Merck Research Labs Describe Advances in Pharmacology [Discovery of highly potent and selective orexin 1 receptor antagonists (1-SORAs) suitable for in vivo interrogation of orexin 1 receptor pharmacology]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacology have been presented. According to news originating from West Point, Pennsylvania, by NewsRx correspondents, research stated, "While a correlation between blockade of the orexin 2 receptor (OX2R) with either a dual orexin receptor antagonist (DORA) or a selective orexin 2 receptor antagonist (2-SORA) and a decrease of wakefulness is well established, less is known about selective blockade of the orexin
1 receptor (OX1R). Therefore, a highly selective orexin 1 antagonist (1-SORA) with suitable properties to allow in vivo interrogation of OX1R specific pharmacology in preclinical species remains an attractive target."

Our news journalists obtained a quote from the research from Merck Research Labs, "Herein, we describe the discovery of an optimized 1-SORA series in the piperidine ether class. Notably, a 4,4-difluoropiperidine core coupled with a 2-quinoline ether linkage provides OX1R selective compounds. The combination with an azabenzimidazole or imidazopyridine amide substituent leads to analogs 47 and 51 with > 625-fold functional selectivity for OX1R over OX2R in rat."

According to the news editors, the research concluded: "Compounds 47 and 51 possess clean off-target profiles and the required pharmacokinetic and physical properties to be useful as 1-SORA tool compounds."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bmcl.2016.10.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: West Point, Pennsylvania, United States, North and Central America, Pharmaceuticals, Pharmacology, Merck Research Labs.

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**Drugs and Therapies - Antiretrovirals**

New Findings from Merck Research Labs in the Area of Antiretrovirals Reported (Atazanavir increases the plasma concentrations of 1200 mg raltegravir dose)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antiretrovirals is now available. According to news reporting out of Kenilworth, New Jersey, by NewsRx editors, research stated, "Raltegravir is a human immunodeficiency virus (HIV)-1 integrase strand transfer inhibitor currently marketed at a dose of 400 mg twice-daily (b.i.d.). Raltegravir 1200 mg once-daily (q.d.) (investigational q.d. formulation of 2 x 600 mg tablets; q.d."

Our news journalists obtained a quote from the research from Merck Research Labs, "RAL) was found to be generally well tolerated and non-inferior to the marketed 400 mg b.i.d. dose at 48 weeks in a phase 3 trial. Since raltegravir is eliminated mainly by metabolism via a
uridine diphosphate glucuronosyltransferase (UGT) 1A1-mediated glucuronidation pathway, co-administration of UGT1A1 inhibitors may increase the plasma levels of q.d. RAL. To assess this potential, the drug interaction of 1200 mg raltegravir using atazanavir, a known UGT1A1 inhibitor, was studied. An open-label, randomized, 2-period, fixed-sequence phase 1 study was performed in adult healthy male and female (non-childbearing potential) subjects 19 and 55 years of age, with a body mass index (BMI) 18.5 and 32.0 kg/m(2). Subjects (n = 14) received a single oral dose of 1200 mg raltegravir in period 1. After a washout period of at least 7 days, the subjects received oral doses of 400 mg atazanavir q.d. for 9 consecutive days, with a single oral dose of 1200 mg raltegravir co-administered on day 7 of period 2. Serial blood samples were collected for 72 h following raltegravir dosing and analysed using a validated bioanalytical method to quantify raltegravir plasma concentrations. Co-administration with atazanavir yielded GMRs (90% CIs) for raltegravir AUC(0-), C-max and C-24 of 1.67 (1.34, 2.10), 1.16 (1.01, 1.33) and 1.26 (1.08, 1.46), respectively. There was no effect of raltegravir on serum total bilirubin. In contrast, atazanavir increased the mean bilirubin by up to 200%, an effect that was preserved in the atazanavir/raltegravir treatment group. Administration of single q.d. RAL alone and co-administered with multiple oral doses of atazanavir were generally well tolerated in healthy subjects."

According to the news editors, the research concluded: "The results show that atazanavir increased the PK exposure of raltegravir; therefore, co-administration of atazanavir with raltegravir q.d. is not recommended."


Our news journalists report that additional information may be obtained by contacting R. Krishna, Merck & Co Inc, Merck Res Labs, Kenilworth, NJ, United States. Additional authors for this research include L. East, P. Larson, C. Valiathan, K. Deschamps, J.A. Luk, C. Bethel-Brown, H. Manthos, J. Brejda and M. Gartner.

Keywords for this news article include: Kenilworth, New Jersey, United States, North and Central America, Integrase Strand Transfer Inhibitor, Drugs and Therapies, Protease Inhibitors, Antiretrovirals, Antiinfectives, Raltegravir, Hematology, Atazanavir, Antivirals, Plasma, Blood, Merck Research Labs.

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**Hematology - Blood Coagulation Factors**

**New Findings from Mie University in Blood Coagulation Factors Provides New Insights (Hypofibrinogenemia and the -Fibrinogen Thr312Ala Polymorphism may be Risk Factors for Early Pregnancy Loss)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematology - Blood Coagulation Factors. According to news reporting originating from Mie, Japan, by NewsRx correspondents, research
stated, "We analyzed a cohort of 36 females with pregnancy loss."

Our news editors obtained a quote from the research from Mie University, "In addition to 11 patients with antiphospholipid antibody syndrome and 2 patients with congenital antithrombin (AT) or protein C deficiency, we identified 5 patients with low fibrinogen levels (median 110 mg/dL) prior to 10 weeks of gestation. Four of these 5 patients underwent a fibrinogen gene analysis, and all 4 were found to be heterozygotes for the -fibrinogen (FGA) Thr321Ala polymorphism. One female without hypofibrinogenemia with a history of 8 pregnancy losses was found to be homozygous for the same polymorphism, and she also showed hypercoagulability without thrombosis."

According to the news editors, the research concluded: "There was a relatively high frequency of pregnancy loss in the setting of hypofibrinogenemia and/or the FGA Thr312Ala polymorphism, and this may be an important risk factor for pregnancy loss and a hypercoagulable state in later pregnancy."


The news editors report that additional information may be obtained by contacting H. Wada, Mie Univ, Dept. of Mol & Lab Med, Grad Sch Med, Tsu, Mie 5148507, Japan. Additional authors for this research include H. Wada, M. Ikejiri, K. Nakatani, T. Sugiyama, K. Osato, N. Murabayashi, K. Habe, H. Mizutani, T. Matsumoto, K. Ohishi and T. Ikeda.

Keywords for this news article include: Mie, Japan, Asia, Blood Coagulation Factors, Acute-Phase Proteins, Risk and Prevention, Protein Precursors, Fibrinogen, Hematology, Genetics, Mie University.

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Transplant Medicine - Liver Transplants

New Findings from Misericordia University in the Area of Liver Transplants Reported (Impact of new treatment options for hepatitis C virus infection in liver transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Transplant Medicine - Liver Transplants have been presented. According to news reporting originating in Udine, Italy, by NewsRx journalists, research stated, "Liver transplant candidates and recipients with hepatitis C virus (HCV)-related liver disease greatly benefit from an effective antiviral therapy. The achievement of a sustained virological response before transplantation can prevent the recurrence of post-transplant HCV disease that occurs universally and correlates with enhanced progression to graft cirrhosis."

The news reporters obtained a quote from the research from Misericordia University, "Previous standard-of-care regimens (e.g., pegylated-interferon plus ribavirin with or without first generation protease inhibitors, boceprevir and telaprevir) displayed suboptimal results and poor tolerance in liver transplant recipients. A new class of potent direct-acting antiviral agents (DAA) characterized by all-oral regimens with minimal side effects has been approved and included in the recent guidelines for the treatment of liver transplant recipients with recurrent HCV disease. Association of sofosbuvir with ribavirin and/or ledipasvir is recommended in
liver transplant recipients and patients with decompensated cirrhosis. Other regimens include simeprevir, daclatasvir, and combination of other DAA."

According to the news reporters, the research concluded: "Possible interactions should be monitored, especially in coinfected human immunodeficiency virus/HCV patients receiving antiretrovirals."


Our news correspondents report that additional information may be obtained by contacting E. Righi, Elda Righi, Angela Londero, Alessia Carnelutti, Matteo Bassetti, Infectious Diseases Division, Santa Maria della Misericordia University Hospital, 33100 Udine, Italy. Additional authors for this research include A. Londero, A. Carnelutti, U. Baccarani and M. Bassetti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v21.i38.10760. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HCV, Biomedicine, Udine, Italy, Viral, Europe, Virology, Hepatology, RNA Viruses, Article Review, Gastroenterology, Hepatitis C Virus, Organ Transplants, Transplant Medicine, Liver Transplantation, Flaviviridae Infections, Liver Diseases and Conditions, Infectious Disease and Conditions.

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Genetics - Medical Genetics

New Findings from Murdoch Children's Research Institute in Medical Genetics Provides New Insights (Parents' experiences with requesting carrier testing for their unaffected children)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics - Medical Genetics is now available. According to news originating from Parkville, Australia, by NewsRx correspondents, research stated, "International guidelines generally recommend delaying genetic carrier testing in children until the child reaches the age of majority or is mature enough to be involved in the decision. Several studies have shown that carrier testing of children does occur in some instances, particularly in siblings of a child affected with a genetic condition."

Our news journalists obtained a quote from the research from Murdoch Children's Research Institute, "However, little research has explored parents' experiences with the testing process, the impact of knowing a child's carrier status, and whether parents communicate carrier information to their children. Semistructured interviews were conducted with 33 parents of children who had one of three genetic conditions (cystic fibrosis, hemophilia, and Duchenne muscular dystrophy). Inductive content analysis was used to analyze the data. Eight distinct pathways to carrier testing were distinguishable. While some parents had requested testing, others had been offered testing and some had received carrier results incidentally following testing to exclude affected status. Some patents were discouraged from testing, which led to frustration. Overall, 67% of the parents had received carrier results for at least one child, and
parents were happy to have results, even if their children were carriers."

According to the news editors, the research concluded: "Despite recommendations against carrier testing, this study provides evidence of varying practices and highlights a need to review the guidelines."

For more information on this research see: Parents' experiences with requesting carrier testing for their unaffected children. Genetics in Medicine, 2016;18(12):1199-1205. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)

The news correspondents report that additional information may be obtained from D.F. Vears, Murdoch Childrens Res Inst, Parkville, Vic, Australia. Additional authors for this research include C. Delany, J. Massie and L. Gillam.

Keywords for this news article include: Parkville, Australia, Australia and New Zealand, Medical Genetics, Genetics, Genetics, Murdoch Children's Research Institute.

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### Ebola Virus

**New Findings from Nagasaki University in the Area of Ebola Virus Reported (Deployment of a Reverse Transcription Loop-Mediated Isothermal Amplification Test for Ebola Virus Surveillance in Remote Areas in Guinea)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Ebola Virus have been published. According to news reporting originating in Nagasaki, Japan, by NewsRx journalists, research stated, "To strengthen the laboratory diagnostic capacity for Ebola virus disease (EVD) in the remote areas of Guinea, we deployed a mobile field laboratory and implemented reverse transcription loop-mediated isothermal amplification (RT-LAMP) for postmortem testing. We tested 896 oral swab specimens and 21 serum samples, using both RT-LAMP and reverse transcription-polymerase chain reaction (RT-PCR)."

Financial support for this research came from Japan Agency for Medical Research and Development.

The news reporters obtained a quote from the research from Nagasaki University, "Neither test yielded a positive result, and the results from RT-LAMP and RT-PCR were consistent. More than 95% of the samples were tested within 2 days of sample collection."

According to the news reporters, the research concluded: "These results highlight the usefulness of the RT-LAMP assay as an EVD diagnostic testing method in the field or remote areas."

Our news correspondents report that additional information may be obtained by contacting J. Yasuda, Nagasaki University, Grad Sch Biomed Sci, Nagasaki, Japan. Additional authors for this research include N. Magassouba, H.A. Bah, B. Soropogui, A. Dore, F. Kourouma, M.S. Cherif, S. Keita and J. Yasuda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/infdis/jiw255. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nagasaki, Japan, Asia, Viral Hemorrhagic Diseases and Conditions, Diagnostics and Screening, Mononegavirales, RNA Viruses, Filoviridae, Ebola Virus, Virology, Genetics, Nagasaki University.

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Chemistry - Cell Biochemistry

New Findings from Nanjing University Update Understanding of Cell Biochemistry [The Emerging Roles of Long Noncoding RNA ROR (lincRNA-ROR) and its Possible Mechanisms in Human Cancers]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Chemistry - Cell Biochemistry. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "To date, there is only up to 2% of protein-coding genes that are stably transcribed, whereas the vast majority are non-coding RNAs (ncRNAs). These ncRNAs, also known as non messenger RNAs (nmRNAs) or functional RNAs (fRNAs), include transfer RNAs, ribosomal RNAs, microRNAs and long non-coding RNAs (IncRNAs)."

Our news journalists obtained a quote from the research from Nanjing University, "With the advance of high-resolution microarrays and massively parallel sequencing technology, IncRNAs have gained extended attentions nowadays and are found to play important roles in tumorigenesis and progression of human cancers. Long intergenic non-protein coding RNA, regulator of reprogramming (linc-ROR), was first discovered in induced pluripotent stem cells (iPSCs), where it was controlled by the key pluripotency factors Oct4, Sox2 and Nanog. Linc-ROR has been shown to be dysregulated in many types of cancers, including breast cancer (BC), pancreatic cancer (PC), hepatocellular cancer (HCC), endometrial cancer (EC), and nasopharyngeal carcinoma (NPC). Also, linc-ROR functions as regulatory molecule in a large amount of biological processes. However, the underlying mechanisms of its contribution to carcinogenesis remain to be elucidated."

According to the news editors, the research concluded: "In this review, we will emphasize on the characteristics of linc-ROR and their roles in different types of human cancers."


The news correspondents report that additional information may be obtained from R.
Central Nervous System Diseases and Conditions…

New Findings from Nanjing University Update Understanding of Subarachnoid Hemorrhage (Increased Expression of Caspase-12 After Experimental Subarachnoid Hemorrhage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Central Nervous System Diseases and Conditions - Subarachnoid Hemorrhage. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Convincing evidences have proved that apoptosis plays a vital role in the pathogenesis of early and delayed brain injury following subarachnoid hemorrhage (SAH). Recently, a novel caspase-12-mediated apoptotic pathway has been reported to be induced by excess endoplasmic reticulum (ER) stress."

Financial supporters for this research include National Natural Science Foundation of China, Natural Science Foundation of Jiangsu Province.

The news reporters obtained a quote from the research from Nanjing University, "Extensive protein damage occurs after SAH, which may trigger ER stress-associated apoptotic pathway. Thus, we hypothesized that caspase-12, as the major molecular marker of this novel apoptotic pathway, may be activated and involved in the pathogenesis of apoptotic injury after SAH. This study sought to investigate the changes of caspase-12 expressions in both in vitro and in vivo SAH models. Western blot analysis found significantly increased protein expressions of both pro- and active forms of caspase-12 after SAH. Quantitative real-time PCR and immunohistochemistry assays confirmed elevated caspase-12 level after SAH in vivo. Further, double immunofluorescence staining revealed obvious caspase-12 over-expression in both cortical neurons and astrocytes. Moreover, immunofluorescent co-staining in vivo demonstrated that neural cells with high immunoreactivity of caspase-12 also expressed caspase-3, and dual-immunofluorescent staining for caspase-12 and TUNEL in vitro showed that TUNEL-positive cells were more likely to exhibit higher caspase-12 immunoreactivity, indicating a potential contribution of caspase-12 activation to apoptosis in SAH. Collectively, our results showed significant upregulation of caspase-12 expression after experimental SAH."

According to the news reporters, the research concluded: "These findings also offer important implications for further investigations of the therapeutic potential of caspase-12 associated apoptosis in SAH."

For more information on this research see: Increased Expression of Caspase-12


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11064-016-2076-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Intracellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Experimental Subarachnoid Hemorrhage, Apoptosis Regulatory Proteins, Brain Diseases and Conditions, Cerebrovascular Disorders, Intracranial Hemorrhages, Cysteine Endopeptidases, Enzymes and Coenzymes, Initiator Caspases, Peptide Hydrolases, Cysteine Proteases, Caspase 12, Nanjing University.

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**Eye Diseases and Conditions - Glaucoma**

**New Findings from Nanyang Technological University Describe Advances in Glaucoma (Progress in anterior chamber angle imaging for glaucoma risk prediction - A review on clinical equipment, practice and research)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Eye Diseases and Conditions - Glaucoma have been published. According to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "The visualization capabilities of various ocular imaging instruments can generally be categorized into photographic (e.g. gonioscopy, Pentacam, RetCam) and optical tomographic (e.g. optical coherence tomography (OCT), photoacoustic (PA) imaging, ultrasound biomicroscopy (UBM)) methods."

Our news editors obtained a quote from the research from Nanyang Technological University, "These imaging instruments allow vision researchers and clinicians to visualize the iridocorneal angle, and are essential in the diagnosis and management of glaucoma. Each of these imaging modalities has particular benefits and associated drawbacks in obtaining repeatable and reliable measurement in the evaluation of the angle."

According to the news editors, the research concluded: "This review article in this context summarized recent progresses in anterior chamber imaging techniques in glaucoma diagnosis and follow-up procedures."

For more information on this research see: Progress in anterior chamber angle imaging for glaucoma risk prediction - A review on clinical equipment, practice and research. *Medical Engineering & Physics*, 2016;38(12):1383-1391. *Medical Engineering & Physics* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Medical Engineering & Physics -
New Findings from National Cancer Center Hospital in the Area of Colon Cancer Described (Biomarkers of skin toxicity induced by anti-epidermal growth factor receptor antibody treatment in colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "Skin toxicity is a common symptom of anti-epidermal growth factor receptor (EGFR) antibody treatment and is also a predictive marker of its efficacy in colorectal cancer patients. However, severe skin disorders induced by such antibodies negatively impact on the quality of life of patients and decreases drug compliance during treatment."

The news reporters obtained a quote from the research from National Cancer Center Hospital, "If we can predict the high-risk group susceptible to severe skin toxicity before treatment, we can undertake the early management of any arising skin disorders and formulate a more accurate prognosis for anti-EGFR antibody treatment. Previous studies have identified molecular markers of skin toxicity induced by anti-EGFR antibody, such as EGFR polymorphisms, the expression of inflammatory chemokines and serum levels of EGFR ligands. A clinical trial was undertaken involving the escalation of cetuximab doses, guided by the grade of skin toxicity observed, such as no or low-grade, in metastatic colorectal cancer (the EVEREST study). The dose escalation of cetuximab was confirmed by a safety profile and had the tendency to achieve a higher response rate in KRAS wild-type patients."

According to the news reporters, the research concluded: "A large, prospective randomized trial is now ongoing (EVEREST 2) and the results of this trial may contribute to personalized medicine in KRAS wild-type colorectal cancer patients."


Our news correspondents report that additional information may be obtained by contacting A. Kubo, Akiko Kubo, Hironobu Hashimoto, Division of Pharmacy, National Cancer Center Hospital, Tokyo 104-0045, Japan. Additional authors for this research include H. Hashimoto, N. Takahashi and Y. Yamada.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.3748/wjg.v22.i2.887. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antibodies, Tokyo, Japan, Oncology, Immunology, Colon Cancer, Epidemiology, Article Review, Blood Proteins, Immunoglobulins, Protein Kinases, Gastroenterology, Membrane Proteins, Peptide Receptors, Colorectal Research, Phosphotransferases, Epidermal Growth Factor Receptor, Receptor Protein Tyrosine Kinases.

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Oncology - Cancer Research

New Findings from National Chung Hsing University Update Understanding of Cancer Research [Cdk5 Directly Targets Nuclear p21 (CIP1) and Promotes Cancer Cell Growth]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Research have been published. According to news reporting out of Taichung, Taiwan, by NewsRx editors, research stated, "The significance of Cdk5 in cell-cycle control and cancer biology has gained increased attention. Here we report the inverse correlation between the protein levels of Cdk5 and p21(CIP1) from cell-based and clinical analysis."

Our news journalists obtained a quote from the research from National Chung Hsing University, "Mechanistically, we identify that Cdk5 overexpression triggers the proteasome-dependent degradation of p21(CIP1) through a S130 phosphorylation in a Cdk2-independent manner. Besides, the evidence from cell-based and clinical analysis shows that Cdk5 primarily regulates nuclear p21(CIP1) protein degradation. S130A-p21(CIP1) mutant enables to block either its protein degradation or the increase of cancer cell growth caused by Cdk5. Notably, Cdk5-triggered p21(CIP1) targeting primarily appears in S-phase, while Cdk5 overexpression increases the activation of Cdk2 and its interaction with DNA polymerase delta. The in vivo results show that Cdk2 might play an important role in the downstream signaling to Cdk5."

According to the news editors, the research concluded: "In summary, these findings suggest that Cdk5 in a high expression status promotes cancer growth by directly and rapidly releasing p21(CIP1)-dependent cell-cycle inhibition and subsequent Cdk2 activation, which illustrates an oncogenic role of Cdk5 potentially applied for future diagnosis and therapy."

For more information on this research see: Cdk5 Directly Targets Nuclear p21 (CIP1) and Promotes Cancer Cell Growth. Cancer Research, 2016;76(23):6888-6900. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)


Keywords for this news article include: Taichung, Taiwan, Asia, Cancer Research, Oncology, Genetics, Cancer, National Chung Hsing University.

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New Findings from National Hospital Organization Describe Advances in Hypertension (Rapid and high-dose titration of epoprostenol improves pulmonary hemodynamics and clinical outcomes in patients with idiopathic and heritable pulmonary arterial hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating from Okayama, Japan, by NewsRx correspondents, research stated, "Intravenous epoprostenol is an effective treatment for idiopathic and heritable pulmonary arterial hypertension. We aimed to clarify factors that determine the survival of patients with severe pulmonary hypertension who received epoprostenol treatment."

Our news editors obtained a quote from the research from National Hospital Organization, "This is a retrospective observational study consisting of 46 patients with idiopathic and heritable pulmonary arterial hypertension in World Health Organization (WHO) functional class III or IV and undergoing intravenous epoprostenol treatment. We compared the following factors between survivors and non-survivors: clinical characteristics, exercise capacity, hemodynamics, interval between diagnosis and treatment initiation, concomitant pulmonary arterial hypertension-targeted drugs, maximum dose of epoprostenol, and the speed of up-titration. We defined a rapid increase group as those receiving epoprostenol >= 20 ng/kg/min at 3 months and >= 45 ng/kg/min at 1 year of treatment. Thirty-two patients (70%) survived and 14 patients died during an average follow-up period of 2100 days. Mean pulmonary artery pressure, concomitant pulmonary arterial hypertension-targeted drugs, and the maximum epoprostenol dose were comparable between the two subsets of patients. WHO functional class III was more common than class IV, and the 6-min walking distance was longer in the survivor than the non-survivor group. The survivors typically showed a rapid increase in epoprostenol dose during the first year of treatment. This rapid increase group was associated with a continuous reduction in mean pulmonary artery pressure during the follow-up period, whereas the slow increase group showed no reduction in mean pulmonary artery pressure after 6 months of treatment. The 9.5-year survival rate was also significantly better in the rapid increase group compared with the slow increase group (100% vs. 64%, p = 0.022)."

According to the news editors, the research concluded: "In idiopathic and heritable pulmonary arterial hypertension patients, a rapid increase in epoprostenol dose soon after the initiation of treatment seems to be important to achieve a continuous reduction in mean pulmonary artery pressure and to improve survival."

For more information on this research see: Rapid and high-dose titration of epoprostenol improves pulmonary hemodynamics and clinical outcomes in patients with idiopathic and heritable pulmonary arterial hypertension. *Journal of Cardiology*, 2016;68(5-6):542-547. *Journal of Cardiology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

The news editors report that additional information may be obtained by contacting H. Matsubara, National Hospital Organization, Dept. of Clin Sci, Okayama Med Center, Okayama,
Japan. Additional authors for this research include A. Ogawa, H. Ito and H. Matsubara.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.jjcc.2015.11.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Okayama, Japan, Asia, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Cardiovascular Diseases and Conditions, Agents For Pulmonary Hypertension, Platelet Aggregation Inhibitors, World Health Organization, Inflammation Mediators, Cardiovascular Agents, Epoprostenol Therapy, Drugs and Therapies, Biological Factors, Pulmonary Artery, Prostaglandins I, Antihypertensive, Hemodynamics, Eicosanoids, Angiology, Autacoids, Arteries, National Hospital Organization.

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Hormones - Gonadal Hormones

New Findings from National Institutes of Health Describe Advances in Gonadal Hormones (Immunoregulation by members of the TGF beta superfamily)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hormones - Gonadal Hormones have been published. According to news reporting originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "The transforming growth factor-beta (TGF beta) superfamily is encoded by 33 genes and includes TGF beta, bone morphogenetic proteins (BMPs) and activins."

Our news editors obtained a quote from the research from the National Institutes of Health, "Although TGF beta is well recognized as a crucial regulator of immune responses, the immunoregulatory functions of other TGF beta family members are less clear. However, recent evidence suggests that BMPs and activins have important roles in regulating immune responses."

According to the news editors, the research concluded: "In this Review, we briefly outline the signalling pathways of the TGF beta superfamily and discuss new insights into the immunoregulatory functions of BMPs and activins in the context of infection, inflammation and cancer."


The news editors report that additional information may be obtained by contacting W.J. Chen, Natl Inst Dental & Craniofacial Res, Mucosal Immunol Sect, National Institutes of Health, Bethesda, MD 20892, United States.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Genetics, Article Review, Immunology, Peptide Proteins, Peptide Hormones, Gonadal Hormones, Glycoproteins, Activins, National Institutes of Health.

Our reports deliver fact-based news of research and discoveries from around the
New Findings from National Institutes of Health Update Understanding of Pharmacogenomics (Pharmacogenomic incidental findings in 308 families: The NIH Undiagnosed Diseases Program experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biotechnology - Pharmacogenomics have been published. According to news reporting out of Bethesda, Maryland, by NewsRx editors, research stated, "Using single-nucleotide polymorphism (SNP) chip and exome sequence data from individuals participating in the National Institutes of Health (NIH) Undiagnosed Diseases Program (UDP), we evaluated the number and therapeutic informativeness of incidental pharmacogenetic variants. Pharmacogenomics Knowledgebase (PharmGKB) annotated sequence variants were identified in 1,101 individuals."

Our news journalists obtained a quote from the research from the National Institutes of Health, "Medication records of participants were used to identify individuals prescribed medications with a genetic variant that might alter efficacy. A total of 395 sequence variants, including 19 PharmGKB 1A and 1B variants, were identified in SNP chip sequence data, and 388 variants, including 21 PharmGKB 1A and 1B variants, were identified in the exome sequence data. Nine participants had incidental pharmacogenetic variants associated with altered efficacy of a prescribed medication. Despite the small size of the NIH UDP patient cohort, we identified pharmacogenetic incidental findings potentially useful for guiding therapy."

According to the news editors, the research concluded: "Consequently, groups conducting clinical genomic studies might consider reporting of pharmacogenetic incidental findings."

For more information on this research see: Pharmacogenomic incidental findings in 308 families: The NIH Undiagnosed Diseases Program experience. Genetics in Medicine, 2016;18(12):1303-1307. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com; Genetics in Medicine - www.nature.com/gim/)

Our news journalists report that additional information may be obtained by contacting M. Sincan, NHGRI, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include K. Xu, E. Mosbrook, A. Links, J. Guzman, D.R. Adams, E. Flynn, E. Valkanas, C. Toro, C.J. Tifft, C.F. Boerkoel, W.A. Gahl and M. Sincan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gim.2016.47. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Government Agencies Offices and Entities, Pharmaceuticals, Genetics, Genetics, Pharmacogenetics, Pharmacogenomics, Biotechnology, Pharmacology, National Institutes of Health.

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**Mouth Diseases and Conditions - Stomatitis**

**New Findings from National Institutes of Health in Stomatitis Provides New Insights (Efficacy of Vesicular Stomatitis Virus-Ebola Virus Postexposure Treatment in Rhesus Macaques Infected With Ebola Virus Makona)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mouth Diseases and Conditions - Stomatitis are presented in a new report. According to news reporting originating in Hamilton, Montana, by NewsRx journalists, research stated, "The Ebola virus (EBOV) epidemic in West Africa increased the focus on vaccine development against this hemorrhagic fever-causing pathogen, and as a consequence human clinical trials for a few selected platforms were accelerated. One of these vaccines is vesicular stomatitis virus (VSV)-EBOV, also known as rVSV-ZEBOV, a fast-acting vaccine against EBOV and so far the only vaccine with reported efficacy against EBOV infections in humans in phase III clinical trials."

The news reporters obtained a quote from the research from the National Institutes of Health, "In this study, we analyzed the potential of VSV-EBOV for postexposure treatment of rhesus macaques infected with EBOV-Makona. We treated groups of animals with 1 dose of VSV-EBOV either in a single injection at 1 or 24 hours after EBOV exposure or with 2 injections, half the dose at each time point; 1 control group received the same dose of the VSV-based Marburg virus vaccine at both time points; another group remained untreated. Although all untreated animals succumbed to EBOV infection, 33%-67% of the animals in each treatment group survived the infection, including the group treated with the VSV-based Marburg virus vaccine. This result suggests that protection from postexposure vaccination may be antigen unspecific and due rather to an early activation of the innate immune system."

According to the news reporters, the research concluded: "VSV-EBOV remains a potent and fast-acting prophylactic vaccine but demonstrates only limited efficacy in postexposure treatment."


Our news correspondents report that additional information may be obtained by contacting A. Marzi, NIAID, Lab Virol, Rocky Mt Labs, National Institutes of Health, Hamilton, MT, United States. Additional authors for this research include P.W. Hanley, E. Haddock, C. Martellaro, G. Kobinger and H. Feldmann.

Keywords for this news article include: Hamilton, Montana, United States, North and Central America, Viral Hemorrhagic Diseases and Conditions, Stomatognathic Diseases and Conditions, Animal Diseases and Conditions, Mouth Diseases and Conditions, Clinical Trials and Studies, Viruses, Epidemiology, Vesicular Stomatitis, Biological Products, Clinical Research, Mononegavirales, Immunization, RNA Viruses, Filoviridae, Ebola Virus, Virology, Vaccines, National Institutes of Health.

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**Gram-Positive Bacteria - Enterococcus faecium**

**New Findings from National Taiwan University in the Area of Enterococcus faecium Reported (Novel Structure of Enterococcus faecium-Originated ermB-Positive Tn1546-Like Element in Staphylococcus aureus)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Positive Bacteria - Enterococcus faecium. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "We determined the resistance determinants in 274 erythromycin-resistant methicillin-susceptible Staphylococcus aureus (MSSA) isolates during a 13-year period, 2000 to 2012. The resistance phenotypes, inducible macrolide-lincosamide-streptogramin (iMLS), constitutive MLS (cMLS), and macrolide-streptogramin (MS) resistance phenotypes, were examined by a double-disk diffusion D test."

The news reporters obtained a quote from the research from National Taiwan University, "The ermB gene was more frequent (35%; 97/274) than ermC (27%; 75/274) or ermA (21%; 58/274). All 97 ermB-positive isolates harbored Tn551 and IS1216V. The majority (89/97) of ermB-positive isolates displayed the cMLS phenotype and carried mobile element structure (MES)-like structures, which has been previously reported in sequence type 59 (ST59) methicillin-resistant S. aureus (MRSA). The remaining 8 ermB-carrying isolates, belonging to ST7 (n = 4), ST5 (n = 3), and ST59 (n = 1), were sasK intact and did not carry MES-like structures. Unlike a MES-like structure that was located on the chromosome, the ermB elements on sasK-intact isolates were located on plasmids by S1 nuclease pulsed-field gel electrophoresis (PFGE) analysis and conjugation tests. Sequence data for the ermB-containing region (14,566 bp) from ST59 NTUH_3874 revealed that the best match was a Tn1546-like element in plasmid pMCCL2 DNA (GenBank accession number AP009486) of Macrococcus caseolyticus. Tn1546 is recognized as an enterococcal transposon and was known from the vancomycin resistance gene cluster in vancomycin-resistant Enterococcus (VRE). So far, acquisitions of Tn1546 in S. aureus have occurred in clonal complex 5 (CC5) MRSA, but not in MSSA."

According to the news reporters, the research concluded: "This is the first report that MSSA harbors an Enterococcus faecium-originated ermB-positive Tn1546-like element located on a plasmid."


Our news correspondents report that additional information may be obtained by contacting L.J. Teng, National Taiwan University, Dept. of Lab Med, Taipei, Taiwan. Additional authors for this research include W.C. Hung, J.C. Tsai, Y.T. Lin, H. Lee, P.R. Hsueh, T.F. Lee and L.J. Teng.

Keywords for this news article include: Taipei, Taiwan, Asia, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Gram-Positive Bacteria, Staphylococcus aureus, Enterococcus faecium, Gram-Positive Cocci, Staphylococcaceae, Lactobacillales, Enterococcaceae, Bacillales, National Taiwan University.
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Hormones - Estradiol Congeners

New Findings from National University in the Area of Estradiol Congeners Described (Role of Estradiol in the Regulation of Prolactin Secretion During Late Pregnancy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hormones - Estradiol Congeners are presented in a new report. According to news reporting out of Mendoza, Argentina, by NewsRx editors, research stated, "Estrogen action is necessary for evidencing the stimulatory action of mifepristone and naloxone on prolactin (PRL) secretion during late pregnancy. Our aim is to determine the mechanism mediating this facilitator action of estrogens."

Funders for this research include Universidad Nacional de Cuyo, CONICET.

Our news journalists obtained a quote from the research from National University, "To investigate the hypothalamic mechanisms involved in estrogen actions in PRL secretion at the end of pregnancy, we measured the effect of pretreatment with the estrogen antagonist tamoxifen on the expression of tyrosine hydroxylase (TH), hormone receptors (ER alpha and beta, PRs, PRLR(long)), and mu- and kappa- opioid receptors (ORs) at mRNA (by semiquantitative RT-PCR) and protein (by western blot for TH, PRLR(long), ER alpha, PRs, mu- and ORs) levels in extracts of medial basal hypothalamus (MBH) and serum PRL, E-2 and P-4 levels (by RIA) in mifepristone- and naloxone-treated rats. Tamoxifen administration partially prevented PRL release induced by the combined treatment. TH expression diminished and ER alpha expression increased in mifepristone-treated rats at mRNA and protein levels and tamoxifen partially prevented these changes with no effect on PRs expression. Mifepristone increased PRLR(long) mRNA levels; this increase was blocked by tamoxifen. Combined tamoxifen and mifepristone treatment decreased mu- and k-ORs mRNA but not protein levels."

According to the news editors, the research concluded: "E-2 induces neuroadaptive mechanisms necessary to facilitate PRL release preceding delivery. Acting through ER alpha, E-2 modulates hypothalamic dopaminergic neurons activity, regulating TH, mu- and kappa-ORs and PRLR(long) expression, and is necessary for evidencing the effects of P-4 withdrawal. Its presence on days 14 and 15 of pregnancy is crucial to facilitate the opioid system modulation of PRL secretion at the end of pregnancy in the rat."

For more information on this research see: Role of Estradiol in the Regulation of Prolactin Secretion During Late Pregnancy. *Neurochemical Research*, 2016;41(12):3344-3355. *Neurochemical Research* can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; *Neurochemical Research* - www.springerlink.com/content/0364-3190/)

Our news journalists report that additional information may be obtained by contacting M. Soaje, Univ Nacl Cuyo, Inst Fisiol, Fac Ciencias Med, Mendoza, Argentina. Additional authors for this research include G.E. Pennacchio, G.A. Jahn and M. Soaje.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11064-016-2067-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mendoza, Argentina, South America,
Musculoskeletal Diseases and Conditions …

New Findings from Ningxia Medical University in the Area of Osteoarthritis Reported (Sclerostin expression in the subchondral bone of patients with knee osteoarthritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Osteoarthritis have been published. According to news reporting originating in Ningxia, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to assess the expression of -catenin, transcription factor-4 (TCF-4) and sclerostin in the subchondral bone of patients with primary knee osteoarthritis (OA). Tibial plateau specimens from patients with OA who underwent total knee arthroplasty were classified into the early stage (n=15), intermediate stage (n=13) and late stage (n=17) groups using the Mankin score."

The news reporters obtained a quote from the research from Ningxia Medical University, "Structural parameters, including total articular cartilage (TAC), subchondral bone plate (SCP) thickness and trabecular bone volume (BV/TV), were assessed using Image-Pro Plus 6.0 analysis software. Subsequently, -catenin and sclerostin expression levels in subchondral bone were determined by immunohistochemistry. In addition, the mRNA and protein levels of -catenin, TCF-4 and sclerostin were evaluated by RT-qPCR and western blot analysis, respectively. As regards the cartilage and subchondral bone structural parameters, TAC was reduced, while SCP thickness and BV/TV were increased due to OA, with significant differences observed among the different stages (all P<0.05). The results of immunohistochemistry revealed that the -catenin levels in the intermediate- and late-stage samples were significantly increased, while the levels of sclerostin were markedly decreased compared with the values in the early-stage samples (all P<0.05). Compared with the intermediate-stage samples, the sclerostin levels were decreased, and SCP thickness and the -catenin levels were increased in the late-stage samples (all P<0.05). The results of RT-qPCR and western blot analysis revealed that the -catenin and TCF-4 mRNA and protein levels in the intermediate- and late-stage samples were significantly increased, while sclerostin expression was significantly decreased compared with the early-stage samples; a similar trend was observed between the intermediate- and late-stage samples (all P<0.05). Finally, the -catenin and TCF-4 levels positively correlated with the Mankin scores, while there was a negative correlation with sclerostin expression."

According to the news reporters, the research concluded: "Our findings demonstrate that sclerostin expression is closely associated with the degree of joint damage in patients with OA, confirming its involvement in the development of OA."

For more information on this research see: Sclerostin expression in the subchondral bone of patients with knee osteoarthritis. International Journal of Molecular Medicine, 2016;38 (5):1395-1402. International Journal of Molecular Medicine can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

Our news correspondents report that additional information may be obtained by
contacting Q.H. Jin, Ningxia Med Univ, Dept. of Orthoped, General Hospital, Ningxia 750004, People's Republic of China. Additional authors for this research include H.H. Guo, K.N. Sun, X. Zhao, T. Ma and Q.H. Jin.

Keywords for this news article include: Ningxia, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Rheumatic Diseases and Conditions, Joint Diseases and Conditions, Knee Osteoarthritis, Bone Research, Arthritis, Genetics, Ningxia Medical University.

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Oncology - Mullerian Adenosarcoma

New Findings from Northwestern University in the Area of Mullerian Adenosarcoma Described (Survival of women with Mullerian adenosarcoma: A National Cancer Data Base study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Mullerian Adenosarcoma are presented in a new report. According to news originating from Chicago, Illinois, by NewsRx correspondents, research stated, "To determine overall survival (OS) and factors associated with OS of women with Mullerian adenosarcoma. Women with adenosarcoma of the uterus, cervix or ovary (n = 2205) were identified from the 1998-2011 National Cancer Data Base."

Financial support for this research came from Northwestern University.

Our news journalists obtained a quote from the research from Northwestern University, "Kaplan-Meier and multivariate Cox proportional-hazards survival analyses were performed to test for associations of potential explanatory variables with OS. A subset analysis of women with uterine adenosarcoma was also performed. Analyzed confounders included age, insurance status, income, race, surgical margin status, nodal and distant metastasis, surgical procedure type, and treatment with radiation and/or chemotherapy. Primary sites were uterus (n = 1884), cervix (n = 229) and ovary (n = 92), representing 0.43% of uterine, 0.16% of cervical, and 0.04% of ovarian cancers in the NCDB. Only 36/1176 (3.1%) and 2.5% (33/1,342) had nodal and/or distant metastasis, respectively, at diagnosis. Distant metastasis, positive surgical margin, increased age, higher composite comorbidity score and adjuvant radiotherapy were independently associated with decreased OS. Primary site, lymph node status, surgical procedure, chemotherapy use, race, insurance status and income quartiles were not significantly associated with OS. Each 1 cm increase in tumor size was associated with increased hazard for death (HR (95% CI) 1.06 (1.01-1.12), p = 0.018) among women with uterine adenosarcoma. Complete surgical resection remains the only treatment with well-evidenced OS benefit among women with Mullerian adenosarcoma."

According to the news editors, the research concluded: "Early surgical resection may increase survival of Mullerian adenosarcoma."

For more information on this research see: Survival of women with Mullerian adenosarcoma: A National Cancer Data Base study. Gynecologic Oncology, 2016;143(3):636-641. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

The news correspondents report that additional information may be obtained from
New Findings from Norwegian University of Science and Technology (NTNU) in the Area of Atopic Dermatitis Reported (Human Breast Milk miRNA, Maternal Probiotic Supplementation and Atopic Dermatitis in Offspring)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Skin Diseases and Conditions - Atopic Dermatitis have been published. According to news reporting originating in Trondheim, Norway, by NewsRx journalists, research stated, "Perinatal probiotic ingestion has been shown to prevent atopic dermatitis (AD) in infancy in a number of randomised trials. The Probiotics in the Prevention of Allergy among Children in Trondheim (ProPACT) trial involved a probiotic supplementation regime given solely to mothers in the perinatal period and demonstrated a ~40% relative risk reduction in the cumulative incidence of AD at 2 years of age."

The news reporters obtained a quote from the research from the Norwegian University of Science and Technology (NTNU), "However, the mechanisms behind this effect are incompletely understood. Micro-RNAs (miRNA) are abundant in mammalian milk and may influence the developing gastrointestinal and immune systems of newborn infants. The objectives of this study were to describe the miRNA profile of human breast milk, and to investigate breast milk miRNAs as possible mediators of the observed preventative effect of probiotics. Small RNA sequencing was conducted on samples collected 3 months postpartum from 54 women participating in the ProPACT trial. Differential expression of miRNA was assessed for the probiotic vs placebo and AD vs non-AD groups. The results were further analysed using functional prediction techniques. Human breast milk samples contain a relatively stable core group of highly expressed miRNAs, including miR-148a-3p, miR-22-3p, miR-30d-5p, let-7b-5p and miR-200a-3p. Functional analysis of these miRNAs revealed enrichment in a broad range of biological processes and molecular functions. Although several miRNAs were found to be differentially expressed on comparison of the probiotic vs placebo and AD vs non-AD groups, none had an acceptable false discovery rate and their biological significance in the development of AD is not immediately apparent from their predicted functional consequences."

According to the news reporters, the research concluded: "Whilst breast milk miRNAs have the potential to be active in a diverse range of tissues and biological process, individual miRNAs in breast milk 3 months postpartum are unlikely to play a major role in the prevention of atopic dermatitis in infancy by probiotics ingestion in the perinatal period."

Our news correspondents report that additional information may be obtained by contacting M.R. Simpson, Dept. of Public Health and General Practice, Norwegian University of Science and Technology, Trondheim, Norway. Additional authors for this research include G. Brede, J. Johansen, R. Johnsen, O. Storro, P. Satrom and T. 0ien.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0143496. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Norway, Europe, Genetics, Trondheim, Dermatology, Atopic Dermatitis, Risk and Prevention, Skin Diseases and Conditions, Skin and Connective Tissue Diseases and Conditions.

Our news correspondents report that additional information may be obtained by contacting M.R. Simpson, Dept. of Public Health and General Practice, Norwegian University of Science and Technology, Trondheim, Norway. Additional authors for this research include G. Brede, J. Johansen, R. Johnsen, O. Storro, P. Satrom and T. 0ien.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0143496. This DOI is a link to an online electronic document that is either free or for purchase.

Mosquito-Borne Diseases - Zika Virus

**New Findings from Novartis Institute for Biomedical Research Describe Advances in Zika Virus (Genetic Ablation of AXL Does Not Protect Human Neural Progenitor Cells and Cerebral Organoids from Zika Virus Infection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mosquito-Borne Diseases - Zika Virus have been published. According to news reporting out of Cambridge, Massachusetts, by NewsRx editors, research stated, "Zika virus (ZIKV) can cross the placental barrier, resulting in infection of the fetal brain and neurological defects including microcephaly. The cellular tropism of ZIKV and the identity of attachment factors used by the virus to gain access to key cell types involved in pathogenesis are under intense investigation."

Funders for this research include Stanley Center for Psychiatric Research, Harvard Stem Cell Institute.

Our news journalists obtained a quote from the research from Novartis Institute for Biomedical Research, "Initial studies suggested that ZIKV preferentially targets neural progenitor cells (NPCs), providing an explanation for the developmental phenotypes observed in some pregnancies. The AXL protein has been nominated as a key attachment factor for ZIKV in several cell types including NPCs. However, here we show that genetic ablation of AXL has no effect on ZIKV entry or ZIKV-mediated cell death in human induced pluripotent stem cell (iPSC)-derived NPCs or cerebral organoids."

According to the news editors, the research concluded: "These findings call into question the utility of AXL inhibitors for preventing birth defects after infection and suggest that further studies of viral attachment factors in NPCs are needed."

New Findings from Obafemi Awolowo University in the Area of Malaria Reported [Evaluation of the combination of Uvaria chamae (P. Beauv.) and amodiaquine in murine malaria]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mosquito-Borne Diseases - Malaria. According to news reporting out of Ife, Nigeria, by NewsRx editors, research stated, "Ethnopharmacological relevance: The leaf and fruit of Uvaria chamae P. Beauv (Annonaceae) are used in antimalarial ethnomedical preparations. Therefore, they were investigated for antimalarial activities as well as possible herb-drug interaction with amodiaquine (AQ)."

Financial support for this research came from University of Ibadan.

Our news journalists obtained a quote from the research from Obafemi Awolowo University. "The methanol extracts of the leaf (UCL) and fruit (UCF) were administered orally at 100-800 mg/kg/day in mice infected with chloroquine (CQ)-sensitive Plasmodium berghei NK65 using the four-day, curative and prophylactic antimalarial test models. The UCL was further evaluated at 100-800 mg/kg as twice-daily doses and combinations of UCL+AQ using the four-day test. Mice infected with CQ-resistant P. berghei ANKA were treated with UCL at 400 mg/kg and AQ at 10 mg/kg [UCL400+AQ10] mg/kg in the four-day and curative test models. At 800 mg/kg/day, UCL, UCF gave chemosuppression of 42, 28% (four-day test), parasite clearance of 36.3, 49.5% on day 5 (curative test) and 64.3, 82.6% (prophylactic test), respectively. The twice-daily dose of UCL at 800 mg/kg showed activity of 51.50% while the combination of [UCL200-FAQ5] mg/kg exhibited chemosuppression of 91.66%, which was not significantly different (p > 0.05) from AQ at 10 mg/kg (85.41%). In the CQ-resistant P. berghei experiment, the combination gave a chemosuppression of 45.80%, significantly lower (p < 0.05) than AQ (78.40%) while the parasite clearance was not significantly different from AQ (curative test). The leaf extract showed moderate chemosuppressive activity. The lower-dose combination of the leaf extract and amodiaquine had better antimalarial activity in CQ-sensitive murine malaria."

According to the news editors, the research concluded: "However, the tested combination had no beneficial antimalarial effect in CQ-resistant murine malaria."

Our news journalists report that additional information may be obtained by contacting A.O. Adepiti, Obafemi Awolowo University, Dept. of Pharmacognosy, Ife, Nigeria.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.07.035. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ife, Nigeria, Africa, Mosquito-Borne Illness, Mosquito-Borne Diseases, Protozoan Infections, Drugs and Therapies, Antimalarial Agents, Malaria, Obafemi Awolowo University.

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**New Findings from Okayama University Graduate School of Medicine Yields New Data on Diabetic Nephropathy (Innate immunity in diabetes and diabetic nephropathy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Diabetic Nephropathy are presented in a new report. According to news reporting originating from Okayama, Japan, by NewsRx correspondents, research stated, "The innate immune system includes several classes of pattern recognition receptors (PRRs), including membrane-bound Toll-like receptors (TLRs) and nucleotide-binding oligomerization domain (NOD)-like receptors (NLRs). These receptors detect pathogen-associated molecular patterns (PAMPs) and danger-associated molecular patterns (DAMPs) in the extracellular and intracellular space."

Our news editors obtained a quote from the research from the Okayama University Graduate School of Medicine, "Intracellular NLRs constitute inflammasomes, which activate and release caspase-1, IL-1b, and IL-18 thereby initiating an inflammatory response. Systemic and local low-grade inflammation and release of proinflammatory cytokines are implicated in the development and progression of diabetes mellitus and diabetic nephropathy. TLR2, TLR4, and the NLRP3 inflammasome can induce the production of various proinflammatory cytokines and are critically involved in inflammatory responses in pancreatic islets, and in adipose, liver and kidney tissues. This Review describes how innate immune system-driven inflammatory processes can lead to apoptosis, tissue fibrosis, and organ dysfunction resulting in insulin resistance, impaired insulin secretion, and renal failure."

According to the news editors, the research concluded: "We propose that careful targeting of TLR2, TLR4, and NLRP3 signalling pathways could be beneficial for the treatment of diabetes mellitus and diabetic nephropathy."

The news editors report that additional information may be obtained by contacting J. Wada, Dept. of Nephrology, Rheumatology, Endocrinology and Metabolism, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, 2-5-1 Shikata-cho, Kita-ku, Okayama 700-8558, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrneph.2015.175. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Okayama, Genetics, Immunology, Nephrology, Proinsulin, Endocrinology, Article Review, Peptide Hormones, Peptide Proteins, Diabetes Mellitus, Diabetic Nephropathy, Diabetes Complications, Hemic and Immune Systems, Glucose Metabolism Disorders, Endocrine System Diseases and Conditions.

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**Musculoskeletal Diseases and Conditions - Hand-and-Foot Syndrome**

**New Findings from Osaka University Hospital in Hand-and-Foot Syndrome Provides New Insights (Hemoglobin Value Is the Most Important Factor in the Development of Hand-Foot Syndrome under the Capecitabine Regimen)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Musculoskeletal Diseases and Conditions - Hand-and-Foot Syndrome is the subject of a report. According to news reporting from Osaka, Japan, by NewsRx journalists, research stated, "Hand-foot syndrome (HFS) is a common side effect that has a high occurrence rate with capecitabine (Cape) chemotherapy. However, little is known about the risk factors of developing HFS under the Cape regimen."

The news correspondents obtained a quote from the research from Osaka University Hospital, "Our aim was to examine these risk factors. A univariate analysis was used to determine the risk factors associated with developing HFS, and we calculated the effect sizes between the patients who developed HFS compared to those who did not. Of the 52 patients enrolled in our research, 24 (46.2%) developed HFS. This group was significantly associated with hemoglobin (Hb) values (p < 0.001), and the effect size (1.21) was more than moderate. The receiver operating characteristic curve analysis confirmed 12 mg/dl Hb as the best diagnostic cut-off value for developing HFS. The sensitivity and specificity were 75.5 and 88.2%, respectively. Patients who had Hb values of 12 or below who developed HFS had longer median times without HFS compared to patients with high Hb values (115 vs. 75 days, p = 0.30, hazard ratio = 1.42, 95% CI 0.73-2.76) and a greater area under the Kaplan-Meier curves (p < 0.05)."

According to the news reporters, the research concluded: "This research suggests that the Hb value is an important factor for developing HFS."

New Findings from P. Adamson and Co-Authors Describe Advances in Angiogenic Proteins (Single ocular injection of a sustained-release anti-VEGF delivers 6 months pharmacokinetics and efficacy in a primate laser CNV model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Intercellular Signaling Peptides and Proteins - Angiogenic Proteins. According to news reporting out of Herts, United Kingdom, by NewsRx editors, research stated, "A potent anti-vascular endothelial growth factor (VEGF) biologic and a compatible delivery system were co-evaluated for protection against wet age-related macular degeneration (AMD) over a 6 month period following a single intravitreal (IVT) injection. The anti-VEGF molecule is dimeric, containing two different anti-VEGF domain antibodies (dAb) attached to a human IgG1 Fc region: a dual dAb."

Our news journalists obtained a quote from the research, "The delivery system is based on microparticles of PolyActive™ hydrogel co-polymer. The molecule was evaluated both in vitro for potency against VEGF and in ocular VEGF-driven efficacy models in vivo. The dual dAb is highly potent, showing a lower IC50 than aflibercept in VEGF receptor binding assays (RBAs) and retaining activity upon release from microparticles over 12 months in vitro. Microparticles released functional dual dAb in rabbit and primate eyes over 6 months at sufficient levels to protect Cynomolgus against laser-induced grade IV choroidal neovascularisation (CNV). This demonstrates proof of concept for delivery of an anti-VEGF molecule within a sustained-release system, showing protection in a preclinical primate model of wet AMD over 6 months."

According to the news editors, the research concluded: "Polymer breakdown and movement of microparticles in the eye may limit development of particle-based approaches for sustained release after IVT injection."

For more information on this research see: Single ocular injection of a sustained-release anti-VEGF delivers 6 months pharmacokinetics and efficacy in a primate laser CNV model. Journal of Controlled Release, 2016;244():1-13. Journal of Controlled Release can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news journalists report that additional information may be obtained by contacting M. Naito, Osaka Univ Hosp, Dept. of Pharm, Suita, Osaka, Japan. Additional authors for this research include T. Yamamoto, S. Hara, C. Shimamoto and Y. Miwa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000445866. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Musculoskeletal Diseases and Conditions, Hand-and-Foot Syndrome, Risk and Prevention, Blood Proteins, Hemoglobins, Globins, Osaka University Hospital.

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Keywords for this news article include: Herts, United Kingdom, Europe, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Growth Factor Receptors, Phosphotransferases, Angiogenic Proteins, Membrane Proteins, Protein Kinases.

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Oncology - Cancer Research

New Findings from P. Soubeyran and Co-Researchers in the Area of Cancer Research Described (Role of geriatric intervention in the treatment of older patients with cancer: rationale and design of a phase III multicenter trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Cancer Research are presented in a new report. According to news reporting originating from Bordeaux, France, by NewsRx correspondents, research stated, "In the general geriatric population, programs linking geriatric evaluation with interventions are effective for improving functional status and survival of the patients. Whether or not these interventions improve health related quality of life (HRQoL) or overall survival (OS) in older patients with cancer is not yet clear."

Our news editors obtained a quote from the research, "Indeed, randomized data on the effect of such interventions on survival and HRQoL are rare and conflicting. We describe the rationale and design of a phase III multicenter trial aimed at assessing the efficacy of geriatric intervention in the management of elderly patients with cancer. Approximately 1200 patients, 70 years and older, considered in need of a geriatric intervention based on the G8 screening tool will be randomized into two intervention arms. The 'Usual-care' arm involves standard oncological care based on pre-defined oncological protocols. In addition to the standard oncological care, the management' arm involves a multidimensional geriatric assessment and interventions tailored for the patient. Efficacy will be assessed using a co-primary endpoint encompassing OS and HRQoL."

According to the news editors, the research concluded: "This trial has been designed to assess whether focused geriatric case management can either improve OS or HRQoL in elderly cancer patients considered in need of geriatric assessment."

For more information on this research see: Role of geriatric intervention in the treatment of older patients with cancer: rationale and design of a phase III multicenter trial. *BMC Cancer*, 2016;16():34-44. *BMC Cancer* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Cancer - www.biomedcentral.com/bmcancer/)

The news editors report that additional information may be obtained by contacting P. Soubeyran, Inst Bergonie, Center Comprehens Canc, Medical Oncol, F-33076 Bordeaux, France. Additional authors for this research include C. Terret, C. Bellera, F. Bonnetain, O. Saint Jean, A. Galvin, C. Chakiba, M.D. Zwolakowski, S. Mathoulin-Pelissier and M. Rainfray.
New Findings from Palmer College of Chiropractic in the Area of Complementary and Alternative Medicine Reported (Antinociceptive Effects of Spinal Manipulative Therapy on Nociceptive Behavior of Adult Rats during the Formalin Test)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Complementary and Alternative Medicine. According to news reporting originating in Davenport, Iowa, by NewsRx journalists, research stated, "Optimizing pain relief resulting from spinal manipulative therapies, including low velocity variable amplitude spinal manipulation (LVVA-SM), requires determining their mechanisms. Pain models that incorporate simulated spinal manipulative therapy treatments are needed for these studies."

Financial support for this research came from National Center for Research Resources.

The news reporters obtained a quote from the research from the Palmer College of Chiropractic, "The antinociceptive effects of a single LVVA-SM treatment on rat nociceptive behavior during the commonly used formalin test were investigated. Dilute formalin was injected subcutaneously into a plantar hindpaw. Licking behavior was video-recorded for 5 minutes. Ten minutes of LVVA-SM at 20° flexion was administered with a custom-made device at the lumbar (L5) vertebra of isoflurane-anesthetized experimental rats (n=12) beginning 10 minutes after formalin injection. Hindpaw licking was video-recorded for 60 minutes beginning 5 minutes after LVVA-SM. Control rats (n=12) underwent the same methods except for LVVA-SM. The mean times spent licking the formalin-injected hindpaw of both groups 1-5 minutes after injection were not different. The mean licking time during the first 20 minutes post-LVVA-SM of experimental rats was significantly less than that of control rats (p <0.001). The mean licking times of both groups during the second and third 20 minutes post-LVVA-SM were not different. Administration of LVVA-SM had a short-term, remote antinociceptive effect similar to clinical findings."

According to the news reporters, the research concluded: "Therefore, mechanistic investigations using this experimental approach are warranted."


Our news correspondents report that additional information may be obtained by contacting S.M. Onifer, Palmer Center for Chiropractic Research, Palmer College of Chiropractic, 741 Brady Street, Davenport, IA 52803-5214, United States. Additional authors for this research include W.R. Reed, R.S. Sozio and C.R Long.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/520454. This DOI is a link to an online electronic document that is either free or for purchase.


Keywords for this news article include: Iowa, Antinociceptive, Therapy, Davenport, United States, Pain Medicine, Health and Medicine, North and Central America, Complementary and Alternative Medicine.

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**Oncology - Carcinoma Ex Pleomorphic Adenoma**

**New Findings from Peking University Describe Advances in Carcinoma Ex Pleomorphic Adenoma (Carcinoma Ex Pleomorphic Adenoma: Is It a High-Grade Malignancy?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Carcinoma Ex Pleomorphic Adenoma is now available. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "The objective of this study was to investigate the clinicopathologic features of carcinoma ex pleomorphic adenoma (CXPA) and comprehensively improve an understanding of this disease. This retrospective study investigated 151 cases of histologically confirmed CXPA."

Our news editors obtained a quote from the research from Peking University, "Disease-specific survival, local recurrence, and regional and distant metastases were analyzed. Most cases were classed as frankly invasive CXPA (135 of 151). More than half these cases (73 of 135; 54.1%) developed local recurrence; 25 (18.5%) developed cervical metastasis; 21 (15.6%) developed distant metastasis; and 60 patients (55.6%) died during follow-up. In contrast, only 1 patient in the noninvasive CXPA group (n = 10) died after treatment for lung metastasis and 1 patient developed cervical metastasis. Similarly, only 1 patient in the minimally invasive CXPA group (n = 6) died of lung metastasis and the remaining 5 patients had an uneventful recovery after treatment. Frankly invasive CXPA was a high-grade malignancy with an unfavorable prognosis. Elective neck dissection should be performed in cases of frankly invasive CXPA that originate in the submandibular gland."

According to the news editors, the research concluded: "Patients with minimally invasive and noninvasive CXPA should be followed closely after primary treatment because regional or distant metastasis can occur."


The news editors report that additional information may be obtained by contacting X. Peng, Peking University, Sch & Hosp Stomatol, Dept. of Oral & Maxillofacial Surg, Beijing,

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.joms.2016.03.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Carcinoma Ex Pleomorphic Adenoma, Endocrinology, Carcinomas, Adenomas, Oncology, Cancer, Peking University.

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Restenosis

New Findings from Peking University People's Hospital Describe Advances in Restenosis (Open and Endovascular Treatment of Trans-Atlantic Inter-Society Consensus II D Aortoiliac Occlusive Lesions: What Determines the Rate of Restenosis?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Restenosis are presented in a new report. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Open surgery is the preferred approach for the treatment of type D lesions according to the Trans-Atlantic Inter-Society Consensus (TASC) II guideline, but endovascular solutions also appear to be a valid option in selected patients. The study aimed to identify the risk factors of restenosis after open and endovascular reconstruction of symptomatic TASC II D aortoiliac occlusive lesions (AIOLs)."

Our news editors obtained a quote from the research from Peking University People's Hospital, "Fifty-six patients (82 limbs) who underwent open repair and endovascular treatment (ET) for symptomatic TASC II D AIOLs between March 2005 and December 2012 were retrospectively reviewed. Baseline characteristics, preoperative and postoperative imaging, and operation procedure reports were reviewed and analyzed. Restenosis after revascularization was assessed by duplex ultrasound or computed tomography angiogram. Kaplan-Meier survival analysis, Log-rank test, and multivariate Cox regression were used to evaluate the relevance between risk factors and patency. The mean duration of follow-up was 42.8 ± 23.5 months (ranging from 3 to 90 months). Primary patency rates at 1-, 3-, 5-, and 7-year were 93.6%, 89.3%, 87.0%, and 70.3%, respectively. Restenosis after revascularization occurred in 11 limbs. Kaplan-Meier survival analysis and the Log-rank test revealed that diabetes, Rutherford classification (≥5 th) and concurrent femoropopliteal TASC II type C/D lesions were significantly related to the duration of primary patency. According to the result of Cox regression, diabetes and femoropopliteal TASC II type C/D lesions were identified as the risk factors for restenosis after revascularization."

According to the news editors, the research concluded: "This study demonstrated that diabetes and femoropopliteal TASC II type C/D lesions are risk factors associated with restenosis after open and ET of TASC II D AIOLs."

For more information on this research see: Open and Endovascular Treatment of Trans-Atlantic Inter-Society Consensus II D Aortoiliac Occlusive Lesions: What Determines the Rate of Restenosis? Chinese Medical Journal, 2015;128(22):3035-42. Chinese Medical Journal
Physiology - Applied Physiology

New Findings from Penn State Heart and Vascular Institute in Applied Physiology Provides New Insights (Whole body heat stress attenuates the pressure response to muscle metaboreceptor stimulation in humans)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Physiology - Applied Physiology have been published. According to news reporting out of Hershey, Pennsylvania, by NewsRx editors, research stated, "The effects of whole body heat stress on sympathetic and cardiovascular responses to stimulation of muscle metaboreceptors and mechanoreceptors remains unclear. We examined the muscle sympathetic nerve activity (MSNA), blood pressure, and heart rate in 14 young healthy subjects during fatiguing isometric handgrip exercise, postexercise circulatory occlusion (PECO), and passive muscle stretch during PECO."

Funders for this research include American Heart Association (AHA), HHS | NIH | National Heart, Lung, and Blood Institute (NHBLI), HHS | NIH | National Center for Advancing Translational Sciences (NCATS).

Our news journalists obtained a quote from the research from Penn State Heart and Vascular Institute, "The protocol was performed under normothermic and whole body heat stress (increase internal temperature similar to 0.6 degrees C via a heating suit) conditions. Heat stress increased the resting MSNA and heart rate. Heat stress did not alter the mean blood pressure (MAP), heart rate, and MSNA responses (i.e., changes) to fatiguing exercise. During PECO, whole body heat stress accentuated the heart rate response [change (Delta) of 5.8 +/- 1.5 to Delta 10.0 +/- 2.1 beats/min, P = 0.03], did not alter the MSNA response (Delta 16.4 +/- 2.8 to Delta 17.3 +/- 3.8 bursts/min, P = 0.74), and lowered the MAP response (Delta 20 +/- 2 to Delta 12 +/- 1 mmHg, P< 0.001). Under normothermic conditions, passive stretch during PECO evoked significant increases in MAP and MSNA (both P< 0.001). Of note, heat stress prevented the MAP and MSNA responses to stretch during PECO (both P> 0.05)."
According to the news editors, the research concluded: "These data suggest that whole body heat stress attenuates the pressor response due to metaboreceptor stimulation, and the sympathetic nerve response due to mechanoreceptor stimulation."

For more information on this research see: Whole body heat stress attenuates the pressor response to muscle metaboreceptor stimulation in humans. *Journal of Applied Physiology*, 2016;121(5):1178-1186. *Journal of Applied Physiology* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting L.I. Sinoway, Penn State Heart & Vasc Inst, Penn State Hlth, Hershey, PA, United States. Additional authors for this research include C. Blaha and L.I. Sinoway.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/japplphysiol.00212.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hershey, Pennsylvania, United States, North and Central America, Applied Physiology, Physiology, Blood Pressure, Hemodynamics, Heart Rate, Penn State Heart and Vascular Institute.

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Nutritional and Metabolic Diseases and Conditions -...

New Findings from Pennington Biomedical Research Center in the Area of Type 2 Diabetes Reported (Effect of serial cell passaging in the retention of fiber type and mitochondrial content in primary human myotubes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news originating from Baton Rouge, Louisiana, by NewsRx correspondents, research stated, "The purpose of the study was to determine the effects of passaging on retention of donor phenotypic characteristics in primary human myotubes. Primary muscle cultures and serial passaged myotubes from physically active, sedentary lean, and individuals with type 2 diabetes were established."

Financial supporters for this research include Novartis, Novartis Clinical Innovation Fund, Takeda Pharmaceuticals North America, NIH, NORC Center, NIDDK and COBRE, COBRE, NORC.

Our news journalists obtained a quote from the research from Pennington Biomedical Research Center, "Maximal ATP synthesis capacity (ATPmax) and resting ATP flux (ATPase) in vivo were measured by (31) P magnetic resonance spectroscopy, type-I fibers and intramyocellular lipid (IMCL) in vastus lateralis tissue were determined using immunohistochemistry techniques, and oxidative phosphorylation complexes (OXPHOS) were measured by Western immunoblotting. Similar in vitro measures for lipid and type-I fibers were made in myotubes, along with mitochondrial content measured by MitoTracker. Passage 4 and 5 measures for myotubes correlated positively with in vivo measurements for percent type-I fibers (P4: R(2)=0.39, p=0.02; P5: R(2)=0.48, p=0.01), ATPmax (P4: R(2)=0.30, p=0.03; P5: R(2)=0.22, p=0.05), and OXPHOS (P4: R(2)=0.44, p=0.04; P5: R(2)=0.59, p=0.006). No correlations were observed for IMCL. However, passage 4 measures for myotubes correlated with passage 5
measures for percent type-I fibers \( R(2)=0.49, p=0.01 \), IMCL \( R(2)=0.80, p<0.001 \), and mitochondrial content \( R(2)=0.26, p=0.03 \)."

According to the news editors, the research concluded: "Myotubes through the first two passages following immunopurification (referred to as passage 4 and 5) reflect the mitochondrial and type-I fiber content in vivo phenotype of the donor."

For more information on this research see: Effect of serial cell passaging in the retention of fiber type and mitochondrial content in primary human myotubes. *Obesity*, 2015;23(12):2414-20. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

The news correspondents report that additional information may be obtained from J.D. Covington, Laboratory of Skeletal Muscle Physiology, Pennington Biomedical Research Center, Baton Rouge, Louisiana, United States. Additional authors for this research include C.K. Myland, A.C. Rustan, E. Ravussin, S.R. Smith and S. Bajpeyi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21192. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Louisiana, Baton Rouge, United States, Type 2 Diabetes, Risk and Prevention, North and Central America, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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**Biological Factors - Autacoids**

**New Findings from Pennsylvania State University Update**

**Understanding of Autacoids (Calcium Signaling Is Dispensable for Receptor Regulation of Endothelial Barrier Function)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Biological Factors - Autacoids. According to news reporting from Hershey, Pennsylvania, by NewsRx journalists, research stated, "Endothelial barrier function is tightly regulated by plasma membrane receptors and is crucial for tissue fluid homeostasis; its dysfunction causes disease, including sepsis and inflammation. The ubiquitous activation of Ca2+ signaling upon phospholipase C-coupled receptor ligation leads quite naturally to the assumption that Ca2+ signaling is required for receptor-regulated endothelial barrier function."

Financial support for this research came from American Heart Association.

The news correspondents obtained a quote from the research from Pennsylvania State University, "This widespread hypothesis draws analogy from smooth muscle and proposes the requirement of G protein-coupled receptor (GPCR)-generated Ca2+ signaling in activating the endothelial contractile apparatus and generating interendothelial gaps. Notwithstanding endothelia being non-excitable in nature, the hypothesis of Ca2+-induced endothelial contraction has been invoked to explain actions of GPCR agonists that either disrupt or stabilize endothelial barrier function. Here, we challenge this correlative hypothesis by showing a lack of causal link between GPCR-generated Ca2+ signaling and changes in human microvascular endothelial barrier function. We used three endogenous GPCR agonists: thrombin and histamine, which disrupt endothelial barrier function, and sphingosine-1-phosphate, which stabilizes barrier function. The qualitatively different effects of these three agonists on
endothelial barrier function occur independently of Ca2+ entry through the ubiquitous store-operated Ca2+ entry channel Orai1, global Ca2+ entry across the plasma membrane, and Ca2+ release from internal stores. However, disruption of endothelial barrier function by thrombin and histamine requires the Ca2+ sensor stromal interacting molecule-1 (STIM1), whereas sphingosine-1-phosphate-mediated enhancement of endothelial barrier function occurs independently of STIM1. We conclude that although STIM1 is required for GPCR-mediated disruption of barrier function, a causal link between GPCR-induced cytoplasmic Ca2+ increases and acute changes in barrier function is missing.

According to the news reporters, the research concluded: "Thus, the cytosolic Ca2+ induced endothelial contraction is a cum hoc fallacy that should be abandoned."

For more information on this research see: Calcium Signaling Is Dispensable for Receptor Regulation of Endothelial Barrier Function. Journal of Biological Chemistry, 2016;291(44):22894-22912. Journal of Biological Chemistry can be contacted at: Amer Soc Biochemistry Molecular Biology Inc, 9650 Rockville Pike, Bethesda, MD 20814-3996, USA.

Our news journalists report that additional information may be obtained by contacting M. Trebak, Pennsylvania State University, Coll Med, Dept. of Cellular & Mol Physiol, Hershey, PA 17033, United States. Additional authors for this research include X.X. Zhang, M. Gueguinou, W. Zhang, K. Matrougui, C. Renken and M. Trebak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.756114. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hershey, Pennsylvania, United States, North and Central America, Biological Factors, Histamine, Autacoids, Pennsylvania State University.

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Medical Imaging - Neuroimaging

New Findings from People's Hospital Describe Advances in Neuroimaging (Effects of outcome on the covariance between risk level and brain activity in adolescents with internet gaming disorder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Medical Imaging - Neuroimaging have been published. According to news originating from Shandong, People's Republic of China, by NewsRx correspondents, research stated, "Individuals with internet gaming disorder (IGD) often have impaired risky decision-making abilities, and IGD-related functional changes have been observed during neuroimaging studies of decision-making tasks. However, it is still unclear how feedback (outcomes of decision-making) affects the subsequent risky decision-making in individuals with IGD."

Our news journalists obtained a quote from the research from People's Hospital, "In this study, twenty-four adolescents with IGD and 24 healthy controls (HCs) were recruited and underwent functional magnetic resonance imaging while performing the balloon analog risk task (BART) to evaluate the effects of prior outcomes on brain activity during subsequent risky decision-making in adolescents with IGD. The covariance between risk level and activation of..."
the bilateral ventral medial prefrontal cortex, left inferior frontal cortex, right ventral striatum (VS), left hippocampus/parahippocampus, right inferior occipital gyrus/fusiform gyrus and right inferior temporal gyrus demonstrated interaction effects of group by outcome (P < 0.05, AlphaSim correction). The regions with interactive effects were defined as ROI, and ROI-based inter-group comparisons showed that the covariance between risk level and brain activation was significantly greater in adolescents with IGD compared with HCs after a negative outcome occurred (P < 0.05)."

According to the news editors, the research concluded: "Our results indicated that negative outcomes affected the covariance between risk level and activation of the brain regions related to value estimation (prefrontal cortex), anticipation of rewards (VS), and emotional-related learning (hippocampus/parahippocampus), which may be one of the underlying neural mechanisms of disadvantageous risky decision-making in adolescents with IGD."


The news correspondents report that additional information may be obtained from X.D. Li, Linyi Peoples Hosp, Dept. of Radiol, Linyi 276003, Shandong, People's Republic of China. Additional authors for this research include Y.X. Yang, S.P. Dai, P.H. Gao, X. Du, Y. Zhang, G.J. Du, X.D. Li and Q. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.10.024. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Neuroimaging, Medical Imaging, People's Hospital.

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Intracellular Signaling Peptides and Proteins - RHOβ...

New Findings from Polytechnic Institute Update Understanding of RHO-Associated Kinases (TGF beta 2-induced outflow alterations in a bioengineered trabecular meshwork are offset by a rho-associated kinase inhibitor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Intracellular Signaling Peptides and Proteins - RHO-Associated Kinases are presented in a new report. According to news reporting originating from Albany, New York, by NewsRx correspondents, research stated, "Members of the transforming growth factor beta (TGF beta) cytokine family have long been associated with affecting several cellular functions, including cell proliferation, differentiation and extracellular matrix (ECM) turnover. Of particular interest to this work, TGF beta 2 has been linked to most types of glaucomas as a potential fibrotic agent that can cause elevation of intraocular pressure (IOP)."

Our news editors obtained a quote from the research from Polytechnic Institute, "Given that the trabecular meshwork ™ provides most of aqueous humor outflow resistance in the eye, an in vitro bioengineered human TM (HTM) model has been created and validated by analyzing effects of TGF beta 2 on transcellular pressure changes and outflow facility. These
changes were correlated with several biological alterations induced by this cytokine, including ECM production and overexpression of HTM-marker myocillin. Furthermore, this TM model has been used to extend current knowledge of gene expression of cytokines involved in TGF beta-induced ECM turnover over time. In particular, the ability for a ROCK-inhibitor to diminish the effect of TGF beta on TM was demonstrated."

According to the news editors, the research concluded: "This work supports the notion that anti-fibrotic activities of ROCK-inhibitors could counteract the elevation of IOP and increased strain observed in glaucomatous TM."

For more information on this research see: TGF beta 2-induced outflow alterations in a bioengineered trabecular meshwork are offset by a rho-associated kinase inhibitor. Scientific Reports, 2016;6():1-12. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting Y.B. Xie, SUNY Albany, Polytechnic Inst, Coll Nanoscale Sci & Engn, Albany, NY 12203, United States. Additional authors for this research include E.L. Papke, J.R. Halman, M. Bergkvist, J. Danias, S.T. Sharfstein and Y.B. Xie.

Keywords for this news article include: Albany, New York, United States, North and Central America, Intracellular Signaling Peptides and Proteins, RHO-Associated Kinases, Enzymes and Coenzymes, Bioengineered, Genetics, Polytechnic Institute.

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Liver Diseases and Conditions - Hepatitis C Virus

New Findings from Queen Mary University in the Area of Hepatitis C Virus Described (Open-label study of faldaprevir plus peginterferon and ribavirin in hepatitis C virus genotype 1-infected patients who failed placebo plus peginterferon and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Hepatitis C Virus. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Faldaprevir, a hepatitis C virus (HCV) NS3/4A protease inhibitor, was evaluated in HCV genotype 1-infected patients who failed peginterferon and ribavirin (PegIFN/RBV) treatment during one of three prior faldaprevir trials. Patients who received placebo plus PegIFN/RBV and had virological failure during a prior trial were enrolled and treated in two cohorts: prior relapsers (n=43) and prior nonresponders (null responders, partial responders and patients with breakthrough; n=75)."

Financial supporters for this research include Jennifer Tobin of Choice Healthcare Solutions, Boehringer Ingelheim, Roche, Gilead Sciences.

Our news editors obtained a quote from the research from Queen Mary University, "Both cohorts received faldaprevir 240 mg once daily plus PegIFN/RBV for 24 weeks. Prior relapers with early treatment success (ETS; HCV RNA <25 IU/mL detectable or undetectable at week 4 and <25 IU/mL undetectable at week 8) stopped treatment at week 24. Others received PegIFN/RBV through week 48. The primary efficacy endpoint was sustained virological response (HCV RNA <25 IU/mL undetectable) 12 weeks post treatment (SVR12)."
More prior nonresponders than prior relapsers had baseline HCV RNA (>=) 800,000 IU/mL (80% vs 58%) and a non-CC IL28B genotype (91% vs 70%). Rates of SVR12 (95% CI) were 95.3% (89.1, 100.0) among prior relapsers and 54.7% (43.4, 65.9) among prior nonresponders; corresponding ETS rates were 97.7% and 65.3%. Adverse events led to faldaprevir discontinuations in 3% of patients. The most common Division of AIDS Grade (>=) 2 adverse events were anaemia (13%), nausea (10%) and hyperbilirubinaemia (9%)."

According to the news editors, the research concluded: "Faldaprevir plus PegIFN/RBV achieved clinically meaningful SVR12 rates in patients who failed PegIFN/RBV in a prior trial, with response rates higher among prior relapsers than among prior nonresponders. The adverse event profile was consistent with the known safety profile of faldaprevir."


The news editors report that additional information may be obtained by contacting G.R. Foster, Dept. of Hepatology, Barts and the London School of Medicine and Dentistry, Queen Mary University of London, London, UK. Additional authors for this research include P. Ferenci, T. Asselah, P. Mantry, J.F. Dufour, M. Bourliere, D. Forton, M. Maevskaya, D. Wright, E.M. Yoshida, J. Garcia-Samaniego, C. Oliveira, M. Wright, N. Warner, N. Sha, A.M. Quinson and J.O Stern. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jvh.12485. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HCV, London, Europe, Genetics, Virology, Viral RNA, Hepatology, RNA Viruses, United Kingdom, Gastroenterology, Hepatitis C Virus, Flaviviridae Infections, Liver Diseases and Conditions, Infectious Disease and Conditions, Digestive System Diseases and Conditions.

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**Neoplasms**

**New Findings from Queen's University Describe Advances in Neoplasms (Minor allele frequency of myeloproliferative neoplasm mutations in the Irish blood donor population)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neoplasms. According to news reporting from Belfast, United Kingdom, by NewsRx journalists, research stated, "Myeloproliferative neoplasms (MPNs) are rare diseases that include classic entities; polycythaemia vera, essential thrombocythaemia and primary myelofibrosis."

The news correspondents obtained a quote from the research from Queen's University, "In this short report, minor allele frequencies of common MPN mutations are compared between the Irish blood donor population and other populations of European descent using data from the Haploptype Map project. The Affymetrix array 6.0 platform was utilised"
identifying nine single nucleotide polymorphisms (SNPs) and six proxy SNPs."

According to the news reporters, the research concluded: "The variability of allele frequencies for MPN mutations could account for the different incidence rates seen between populations of European ancestry, giving a better understanding of the genetic predisposition to MPNs."


Our news journalists report that additional information may be obtained by contacting M.F. McMullin, Queen's University Belfast, Center Canc Res & Cell Biol, Belfast BT9 7AE, Antrim, United Kingdom. Additional authors for this research include G.J. Mcckay, M. Lawler, L.A. Anderson and M.F. McMullin.

Keywords for this news article include: Belfast, United Kingdom, Europe, Neoplasms, Genetics, Queen's University.

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development of self-assembling peptides are paving the way for sustained release peptide formulations and already two such licensed examples exist, lanreotide and octreotide. The versatility and tunability of peptide-based products is resulting in increased translation of peptide therapies, however significant challenges remain with regard to their wider implementation."

According to the news editors, the research concluded: "This review highlights some of the notable peptide therapeutics discovered to date and the difficulties encountered by the pharmaceutical industry in translating these molecules to the clinical setting for patient benefit, providing some possible solutions to the most challenging barriers."

For more information on this research see: Peptide Therapeutics and the Pharmaceutical Industry: Barriers Encountered Translating from the Laboratory to Patients. Current Medicinal Chemistry. 2016;23(37):4231-4259. Current Medicinal Chemistry can be contacted at: Bentham Science Publ Ltd, Executive Ste Y-2, PO Box 7917, Saif Zone, 1200 Br Sharjah, U Arab Emirates. (Bentham Science Publishers - www.benthamscience.com; Current Medicinal Chemistry - www.benthamscience.com/cmc/index.htm)

The news correspondents report that additional information may be obtained from G. Laverty, Queen's University Belfast, Sch Pharm, Belfast, Antrim, United Kingdom. Additional authors for this research include H. Nagaraj, A.P. McCloskey, R. Huwaitat, S. Porter, A. Albadr and G. Laverty.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/0929867323666160909155222. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belfast, United Kingdom, Europe, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Hormones, Article Review, Risk and Prevention, Type 2 Diabetes, Octreotide, Proteomics, Lanreotide, Proteins, Peptides, Queen's University.

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Oncology - Breast Cancer

New Findings from R. Singh and Co-Authors in the Area of Breast Cancer Reported (MicroRNA-195 inhibits proliferation, invasion and metastasis in breast cancer cells by targeting FASN, HMGCR, ACACA and CYP27B1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news originating from Delhi, India, by NewsRx correspondents, research stated, "De novo lipogenesis, a hallmark for cancers is required for cellular transformation. Further it is believed that resistance to apoptosis and epithelial-to-mesenchymal-transition(EMT) facilitates metastasis via over-expression of anti-apoptotic Bcl-2."

Our news journalists obtained a quote from the research, "Previously we demonstrated that hsa-miR-195 targets BCL2, induces apoptosis and augmented the effect of etoposide in breast cancer cells. However, the mechanism behind its function remains elusive. Herein gene expression profiling was done in presence/absence of hsa-miR-195 in Breast cancer cells. IPA revealed mitochondrial dysfunction, fatty acid metabolism and xenobiotic metabolism
signalling among the top processes being affected. For the first time we herein identified ACACA, FASN (the key enzymes of de novo fatty acid synthesis), HMGCR (the key enzyme of de novo cholesterol synthesis) and CYP27B1 as direct targets of hsa-miR-195. We further showed that ectopic expression of hsa-miR-195 in MCF-7 and MDA-MB-231 cells not only altered cellular cholesterol and triglyceride levels significantly but also resulted in reduced proliferation, invasion and migration. We further demonstrated that over expression of hsa-miR-195 decreased the Mesenchymal markers expression and enhanced Epithelial markers.

According to the news editors, the research concluded: "In conclusion we say that hsa-miR-195 targets the genes of de novo lipogenesis, inhibits cell proliferation, migration, and invasion which potentially opens new avenues for the treatment of breast cancer."

For more information on this research see: MicroRNA-195 inhibits proliferation, invasion and metastasis in breast cancer cells by targeting FASN, HMGCR, ACACA and CYP27B1. Scientific Reports, 2015;5():17454. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from R. Singh, Functional Genomics Unit, CSIR-Institute of Genomics and Integrative Biology (IGIB) Council of Scientific &Industrial Research (CSIR), Delhi, India. Additional authors for this research include V. Yadav, S. Kumar and N. Saini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep17454. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Delhi, India, Genetics, Oncology, Breast Cancer, Women's Health.

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Central Nervous System Diseases and Conditions –…

New Findings from R. Surges and Co-Authors in the Area of Epilepsy Reported (Changes in serum miRNAs following generalized convulsive seizures in human mesial temporal lobe epilepsy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Epilepsy are discussed in a new report. According to news reporting originating from Monheim, Germany, by NewsRx correspondents, research stated, "MicroRNAs (miRNAs) are key regulators of gene expression and are involved in the pathomechanisms of epilepsy. MiRNAs may also serve as peripheral biomarkers of epilepsy."

Financial support for this research came from Federal Ministry of Education and Research (Neuroallianz Consortium, project D9).

Our news editors obtained a quote from the research, "We investigated the miRNA profile in the blood serum of patients suffering from mesial temporal lobe epilepsy (mTLE) following a single focal seizure evolving to a bilateral convulsive seizure (BCS) during video-EEG monitoring. Data of 15 patients were included in the final analysis. MiRNA expression was determined using Real Time-PCR followed by thorough bioinformatical analysis of expression levels. We found that more than 200 miRNAs were differentially expressed in the serum of patients within 30 min after a single seizure. Validation of the 20 top miRNA
candidates confirmed that 4 miRNAs (miR-143, miR-145, miR-532, miR-365a) were significantly deregulated. Interestingly, in a sub-group of patients with seizures occurring during sleep, we found 10 miRNAs to be deregulated up to 20-28 h after the seizure. In this group of patients, miR-663b was significantly deregulated. We conclude that single seizures are associated with detectable transient miRNA alterations in blood serum in the early postictal phase.

According to the news editors, the research concluded: "The significant upregulation of miR-663b following BCS arising during sleep indicates potential suitability of this miRNA as a potential biomarker for seizure diagnostics."

For more information on this research see: Changes in serum miRNAs following generalized convulsive seizures in human mesial temporal lobe epilepsy. Biochemical and Biophysical Research Communications, 2016;481(1-2):13-18. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news editors report that additional information may be obtained by contacting F. Weinsberg, UCB Pharma GmbH, D-40789 Monheim, Germany. Additional authors for this research include A. Kretschmann, K. Abnaof, M. van Rikxoort, K. Ridder, H. Frohlich, B. Danis, R.M. Kaminski, P. Foerch, C.E. Elger, F. Weinsberg and A. Pfeifer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.11.029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Monheim, Germany, Europe, Central Nervous System, Diagnostics and Screening, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Temporal Lobe Epilepsy, Cerebral Cortex, Brain Research, Prosencephalon, Telencephalon, Seizures, Genetics.

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Our news journalists obtained a quote from the research, "How the activity of the START domain is regulated remains unknown for most of these proteins. The Plasmodium falciparum START protein PFA0210c (PF3D7_0104200) is a broad-spectrum phospholipid transfer protein that is conserved in all sequenced Plasmodium species and is most closely related to the mammalian START proteins STARD2 and STARD7. PFA0210c is unusual in that it contains a signal sequence and a PEXEL export motif that together mediate transfer of the protein from the parasite to the host erythrocyte. The protein also contains a C-terminal extension, which is very uncommon among mammalian START proteins. Whereas the biochemical properties of PFA0210c have been characterized, the function of the protein remains unknown. Here, we provide evidence that the unusual C-terminal extension negatively regulates phospholipid transfer activity. Furthermore, we use the genetically tractable Plasmodium knowlesi model and recently developed genetic technology in P. falciparum to show that the protein is essential for growth of the parasite during the clinically relevant asexual blood stage life cycle. Finally, we show that the regulation of phospholipid transfer by PFA0210c is required in vivo, and we identify a potential second regulatory domain."

According to the news editors, the research concluded: "These findings provide insight into a novel mechanism of regulation of phospholipid transfer in vivo and may have important implications for the interaction of the malaria parasite with its host cell."


Our news journalists report that additional information may be obtained by contacting C. van Ooij, Francis Crick Inst, Mill Hill Lab, London NW7 1AA, United Kingdom. Additional authors for this research include A. Ringel, E. Knuepfer, R.W. Moon, M.J. Blackman and C. van Ooij.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.740506. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Phospholipid Transfer Proteins, Mosquito-Borne Diseases, Plasmodium falciparum, Protozoan Infections, Membrane Proteins, Carrier Proteins, Tropical Disease, Genetics, Malaria.

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**Digestive System Diseases and Conditions - …**

**New Findings from RIKEN in Inflammatory Bowel Disease Provides New Insights (Tranexamic Acid and Supportive Measures to Treat Wasting Marmoset Syndrome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Digestive System Diseases and Conditions - Inflammatory Bowel Disease. According to news reporting originating in Saitama,
Japan, by NewsRx journalists, research stated, "Wasting marmoset syndrome (WMS) has high incidence and mortality rates and is one of the most important problems in captive common marmoset (Callithrix jacchus) colonies. Despite several reports on WMS, little information is available regarding its reliable treatment."

The news reporters obtained a quote from the research from RIKEN, "We previously reported that marmosets with WMS had high serum levels of matrix metalloproteinase 9 (MMP9). MMP9 is thought to be a key enzyme in the pathogenesis of inflammatory bowel disease, the main disease state of WMS, and is activated by plasmin, a fibrinolytic factor. In a previous study, treating mice with an antibody to inhibit plasmin prevented the progression of inflammatory bowel disease. Here we examined the efficacy of tranexamic acid, a commonly used plasmin inhibitor, for the treatment of WMS, with supportive measures including amino acid and iron formulations. Six colony marmosets with WMS received tranexamic acid therapy with supportive measures for 8 wk. The body weight, Hct, and serum albumin levels of these 6 marmosets were increased and serum MMP9 levels decreased after this regimen."

According to the news reporters, the research concluded: "Therefore, tranexamic acid therapy may be a new and useful treatment for WMS."

For more information on this research see: Tranexamic Acid and Supportive Measures to Treat Wasting Marmoset Syndrome. Comparative Medicine, 2016;66(6):468-473. Comparative Medicine can be contacted at: Amer Assoc Laboratory Animal Science, 9190 Crestwyn Hills Dr, Memphis, TN 38125, USA.

Our news correspondents report that additional information may be obtained by contacting K. Niimi, RIKEN Brain Sci Inst, Res Resources Center, Saitama, Japan. Additional authors for this research include K. Niimi and E. Takahashi.

Keywords for this news article include: Saitama, Japan, Asia, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Bowel Diseases and Conditions, Cyclohexanecarboxylic Acids, Inflammatory Bowel Disease, Enzymes and Coenzymes, Coagulation Modifiers, Drugs and Therapies, Tranexamic Acid, Pharmaceuticals, Gastroenteritis, Plasmin, RIKEN.

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Cytoskeleton
New Findings from RWTH Aachen University in Cytoskeleton Provides New Insights (A novel function for the MAP kinase SMA-5 in intestinal tube stability)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cytoskeleton. According to news reporting originating from Aachen, Germany, by NewsRx correspondents, research stated, "Intermediate filaments are major cytoskeletal components whose assembly into complex networks and isotype-specific functions are still largely unknown. Caenorhabditis elegans provides an excellent model system to study intermediate filament organization and function in vivo."

Our news editors obtained a quote from the research from RWTH Aachen University. "Its intestinal intermediate filaments localize exclusively to the endotube, a circumferential sheet just below the actin-based terminal web. A genetic screen for defects in
the organization of intermediate filaments identified a mutation in the catalytic domain of the MAP kinase 7 orthologue sma-5(kc1). In sma-5(kc1) mutants, pockets of lumen penetrate the cytoplasm of the intestinal cells. These membrane hernias increase over time without affecting epithelial integrity and polarity. A more pronounced phenotype was observed in the deletion allele sma-5(n678) and in intestine-specific sma-5(RNAi). Besides reduced body length, an increased time of development, reduced brood size, and reduced life span were observed in the mutants, indicating compromised food uptake. Ultrastructural analyses revealed that the luminal pockets include the subapical cytoskeleton and coincide with local thinning and gaps in the endotube that are often enlarged in other regions.

According to the news editors, the research concluded: "Increased intermediate filament phosphorylation was detected by two-dimensional immunoblotting, suggesting that loss of SMA-5 function leads to reduced intestinal tube stability due to altered intermediate filament network phosphorylation."


The news editors report that additional information may be obtained by contacting O. Bossinger, Rhein Westfal TH Aachen, Inst Mol & Cellular Anat, D-52074 Aachen, Germany. Additional authors for this research include H. Gerhardus, K. Carberry, W. Davis, E. Jorgensen, C. Richardson, O. Bossinger and R.E. Leube.

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Keywords for this news article include: Aachen, Germany, Europe, Intermediate Filaments, Enzymes and Coenzymes, Cellular Structures, Intracellular Space, Cytoskeleton, Cytoplasm, Genetics, Kinase, RWTH Aachen University.

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**RNA Viruses - Rotavirus**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on RNA Viruses - Rotavirus have been presented. According to news reporting out of Leuven, Belgium, by NewsRx editors, research stated, "P[6] rotaviruses have been circulating with a high prevalence in African and, to a more limited extent, Asian countries, but they have not been highly prevalent in other parts of the world. To investigate the genomic relationship between African and Asian human P[6] rotaviruses and P[4] and P[8] rotaviruses circulating worldwide, we sequenced 39 P[6] strains, collected in Ghana, Mali, Kenya and Bangladesh, providing the largest data set of P[6] rotavirus genomes isolated in low-income countries or anywhere else in the world that has been published thus far."

Financial support for this research came from Promotion of Innovation through
Science and Technology in Flanders.

Our news journalists obtained a quote from the research from Rega Institute for Medical Research, "Overall, the data indicate that the genetic backbone of human P[6] strains from the low-income countries are similar to those of P[4] or P[8] strains circulating worldwide. The observation that gene segment 4 is the main differentiator between human P[6] and non-P[6] strains suggests that the VP4 spike protein is most likely one of the main reasons preventing the rapid spread of P[6] strains to the rest of the world despite multiple introductions."

According to the news editors, the research concluded: "These observations reinforce previous findings about the receptor specificity of P[6] rotavirus strains."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/infdis/jiw247. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leuven, Belgium, Europe, RNA Viruses, Reoviridae, Rotavirus, Genetics, Virology, Viral, Rega Institute for Medical Research.

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**Oncology - Prostate Cancer**

**New Findings from Research Center in the Area of Prostate Cancer Reported (Novel Bispecific PSMA/GRPr Targeting Radioligands with Optimized Pharmacokinetics for Improved PET Imaging of Prostate Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Prostate Cancer is the subject of a report. According to news reporting out of Heidelberg, Germany, by NewsRx editors, research stated, "A new series of bispecific radioligands (BRLs) targeting prostate-specific membrane antigen (PSMA) and gastrin releasing peptide receptor (GRPr), both expressed on prostate cancer cells, was developed. Their design was based on the bombesin (BN) analogue, H2N-PEG2-[D-Tyr (6),b-Ala(11),Thi(13),Nle(14)]BN(6-14), which binds to GRPr with high affinity and specificity, and the peptidomimetic urea-based pseudoirreversible inhibitor of PSMA, Glu-ureido-Lys."

Our news journalists obtained a quote from the research from Research Center, "The two pharmacophores were coupled through copper(I)-catalyzed azide-alkyne cycloaddition to the bis(tetrafluorophenyl) ester of the chelating agent HBED-CC via amino acid linkers made of positively charged His (H) and negatively charged Glu (E): -(HE)n-(n=0-3). The BRLs were
labeled with (68)Ga, and their preliminary pharmacological properties were evaluated in vitro (competitive and time kinetic binding assays) on prostate cancer (PC-3, LNCaP) and rat pancreatic (AR42J) cell lines and in vivo by biodistribution and small animal PET imaging studies in both normal and tumor-bearing mice. The IC[50]/Ki values determined for all BRLs essentially matched those of the respective monomers. The maximal cellular uptake of the BLRs was observed between 20 and 30 min. The BRLs showed a synergistic ability in vivo by targeting both PSMA (LNCaP) and GRPr (PC-3) positive tumors, whereas the charged -(HE)n-(n=1-3) linkers significantly reduced the kidney and spleen uptake.

According to the news editors, the research concluded: "The bispecific (PSMA and GRPr) targeting ability and optimized pharmacokinetics of the compounds developed in this study could lead to their future application in clinical practice as more sensitive radiotracers for noninvasive imaging of prostate cancer (PCa) by PET/CT and PET/MRI."


Our news journalists report that additional information may be obtained by contacting C. Liolios, Division of Radiopharmaceutical Chemistry, German Cancer Research Center (DKFZ), 69120 Heidelberg, Germany. Additional authors for this research include M. Schafer, U. Haberkorn, M. Eder and K. Kopka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.bioconjchem.5b00687. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Oncology, Heidelberg, Prostate Cancer, Prostatic Neoplasms.

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Nutritional and Metabolic Diseases and Conditions - …

New Findings from Research Hospital in the Area of Type 2 Diabetes Reported (Exenatide Treatment Causes Suppression of Serum Ghrelin Levels following Mixed Meal Test in Obese Diabetic Women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting originating from Bursa, Turkey, by NewsRx correspondents, research stated, "To investigate the effect of exenatide treatment on serum ghrelin levels in obese female patients with type 2 diabetes mellitus. Fourteen female patients with type 2 diabetes mellitus being treated with metformin and exenatide were enrolled."

Our news editors obtained a quote from the research from Research Hospital, "A mixed meal test was applied to the patients while continuing with their daily medications. Blood samples were taken before and at 60, 120, and 180 minutes following mixed meal test to measure serum total ghrelin, glucose, and insulin levels. The following week, exenatide treatment of the patients was paused for 24 hours and the same experimental procedures were repeated. Serum ghrelin levels were suppressed significantly at 180 minutes with exenatide
treatment compared with baseline (294.4 ± 57.5 versus 234.5 ± 59.4 pg/mL) (p <0.001). Serum ghrelin levels at 180 minutes were statistically different when percentage change in serum ghrelin levels after mixed meal tests with and without exenatide usage were compared (p=0.001). Estimated total area under the curve values for serum ghrelin concentrations was also significantly lower with exenatide compared with omitted treatment (p=0.035).

According to the news editors, the research concluded: "These results suggest that the effect of exenatide on weight loss may be related with the suppression of serum ghrelin levels, which is an orexigenic peptide."

For more information on this research see: Exenatide Treatment Causes Suppression of Serum Ghrelin Levels following Mixed Meal Test in Obese Diabetic Women. Journal of Diabetes Research, 2016;2016():1309502.

The news editors report that additional information may be obtained by contacting F. Topyildiz, Bursa Yuksek Ihtisas Education and Research Hospital, Dept. of Internal Medicine, 16330 Bursa, Turkey. Additional authors for this research include S. Kiyici, Z. Gul, D. Sigirli, M. Guclu, G. Kisakol and S. Cavun.

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Keywords for this news article include: Bursa, Turkey, Eurasia, Ghrelin, Bariatrics, Endocrinology, Type 2 Diabetes, Peptide Hormones, Peptide Proteins, Risk and Prevention, Obesity and Diabetes, Glucose Metabolism Disorders, Non Insulin Dependent Diabetes Mellitus, Endocrine System Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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Oncology - Lymphoma

New Findings from Roma Tor Vergata University Describe Advances in Lymphoma (Technical solutions to reduce mediastinal irradiation in young patients undergoing treatment for lymphomas: Preliminary experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Lymphoma are presented in a new report. According to news reporting from Rome, Italy, by NewsRx journalists, research stated, "This study aims at optimizing treatment planning in young patients affected by lymphoma (Stage II to III) by using an inclined board (IB) that allows reducing doses to the organs at risk. We evaluated 19 young patients affected by stage I to III lymphomas, referred to our Department for consolidation radiotherapy (RT) treatment on the mediastinum."

The news correspondents obtained a quote from the research from Roma Tor Vergata University, "Patients underwent 2 planning computed tomography (CT) scans performed in different positions: flat standard position and inclined position. A direct comparison between the different treatment plans was carried out analyzing dosimetric parameters obtained from dose-volume histograms generated for each plan. Comparison was performed to evaluate the sparing obtained on breast and heart. Dosimetric evaluation was performed for the following organs at risk (OARs): mammary glands, lungs, and heart. A statistically significant advantage was
reported for V-5, V-20, and V-30 for the breast when using the inclined board. A similar result was obtained for V-5 and V-10 on the heart. No advantage was observed in lung doses."

According to the news reporters, the research concluded: "The use of a simple device, such as an inclined board, allows the optimization of treatment plan, especially in young female patients, by ensuring a significant reduction of the dose delivered to breast and heart."


Our news journalists report that additional information may be obtained by contacting B. Tolu, Roma Tor Vergata University, Radiat Therapy Unit, Dept. of Diagnost Imaging Mol Imaging Intervent Radio, Rome, Italy. Additional authors for this research include L. Di Murro, B. Tolu, E. Ponti, M.D. Falco, C. Rossi, P. Bagala, D. di Cristino, A. Murgia, S. Cicchetti, C. Bruni, P. Morelli, A. Lancia and R. Santoni.

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http://dx.doi.org/10.1016/j.meddos.2016.06.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hematology, Lymphomas, Oncology, Roma Tor Vergata University.

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Oncology - Glioblastomas

New Findings from Roma Tor Vergata University in the Area of Glioblastomas Described (Resetting cancer stem cell regulatory nodes upon MYC inhibition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Glioblastomas is the subject of a report. According to news reporting originating in Rome, Italy, by NewsRx journalists, research stated, "MYC deregulation is common in human cancer and has a role in sustaining the aggressive cancer stem cell populations. MYC mediates a broad transcriptional response controlling normal biological programmes, but its activity is not clearly understood."

Funders for this research include Consiglio Nazionale delle Ricerche, Fondazione Umberto Veronesi, Associazione Italiana per la Ricerca sul Cancro, Ministero dell'Istruzione, dell'Universita e della Ricerca.

The news reporters obtained a quote from the research from Roma Tor Vergata University, "We address MYC function in cancer stem cells through the inducible expression of Omomyca MYC-derived polypeptide interfering with MYC activitytaking as model the most lethal brain tumour, glioblastoma. Omomyc bridges the key cancer stemlike cell features and affects the tumour microenvironment, inhibiting angiogenesis. This occurs because Omomyc interferes with proper MYC localization and itself associates with the genome, with a preference for sites occupied by MYC. This is accompanied by selective repression of master transcription factors for glioblastoma stemlike cell identity such as OLIG2, POU3F2, SOX2, upregulation of
effectors of tumour suppression and differentiation such as ID4, MIAT, PTEN, and modulation of the expression of microRNAs that target molecules implicated in glioblastoma growth and invasion such as EGFR and ZEB1."

According to the news reporters, the research concluded: "Data support a novel view of MYC as a network stabilizer that strengthens the regulatory nodes of gene expression networks controlling cell phenotype and highlight Omomyc as model molecule for targeting cancer stem cells."


Our news correspondents report that additional information may be obtained by contacting S.A. Ciafre, Roma Tor Vergata University, Biomed & Prevent Department, Rome, Italy. Additional authors for this research include M. Savino, F. Scagnoli, S. Pellegatta, F. Pisati, F. Zambelli, B. Illi, D. Annibali, S. Beji, E. Orecchini, M.A. Alberelli, C. Apicella, R.A. Fontanella, A. Michienzi, G. Finocchiaro, M.G. Farace, G. Pavesi, S.A. Ciafre and Nas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.15252/embr.201541489. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Stem Cell Research, Glioblastomas, Oncology, Genetics, Cancer, Roma Tor Vergata University.

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**Oncology - Colon Cancer**

**New Findings from Royal College of Surgeons in Ireland Yields New Data on Colon Cancer (Low levels of Caspase-3 predict favourable response to 5FU-based chemotherapy in advanced colorectal cancer: Caspase-3 inhibition as a therapeutic approach)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Colon Cancer are presented in a new report. According to news reporting originating from Dublin, Ireland, by NewsRx correspondents, research stated, "Colorectal cancer (CRC) is one of the most common cancers in the Western world. 5-Fluorouracil (5FU)-based chemotherapy (CT) remains the mainstay treatment of CRC in the advanced setting, and activates executioner caspases in target cells. Executioner caspases are key proteins involved in cell disassembly during apoptosis."

Our news editors obtained a quote from the research from the Royal College of Surgeons in Ireland, "Activation of executioner caspases also has a role in tissue regeneration and repopulation by stimulating signal transduction and cell proliferation in neighbouring, non-apoptotic cells as reported recently. Tissue microarrays (TMAs) consisting of tumor tissue from 93 stage II and III colon cancer patients were analysed by immunohistochemistry. Surprisingly, patients with low levels of active Caspase-3 had an increased disease-free survival time. This was particularly pronounced in patients who received 5FU-based adjuvant CT. In line with this observation, lower serum levels of active Caspase-3 were found in patients with metastasised CRC who revealed stable disease or tumor regression compared with those with disease..."
progression. The role of Caspase-3 in treatment responses was explored further in primary human tumor explant cultures from fresh patient tumor tissue. Exposure of explant cultures to 5FU-based CT increased the percentage of cells positive for active Caspase-3 and Terminal Deoxynucleotidyl Transferase dUTP Nick end Labelling (TUNEL), but also the expression of regeneration and proliferation markers b-Catenin and Ki-67, as well as cyclooxygenase-2 (COX-2). Of note, selective inhibition of Caspase-3 with Ac-DNLD-CHO, a selective, reversible inhibitor of Caspase-3, significantly reduced the expression of proliferation markers as well as COX-2. Inhibition of COX-2 with aspirin or celecoxib did not affect Caspase-3 levels but also reduced Ki-67 and b-Catenin levels, suggesting that Caspase-3 acted via COX-2 to stimulate cell proliferation and tissue regeneration.

According to the news editors, the research concluded: "This indicates that low levels of active Caspase-3 may represent a new predictor of CT responsiveness, and inhibition of Caspase-3, or antagonising downstream effectors of Caspase-3 paracrine signalling, such as COX-2 may improve patient outcomes following CT in advanced CRC."

For more information on this research see: Low levels of Caspase-3 predict favourable response to 5FU-based chemotherapy in advanced colorectal cancer: Caspase-3 inhibition as a therapeutic approach. Cell Death & Disease, 2016;7():e2087. (Nature Publishing Group - www.nature.com/cddis/)

The news editors report that additional information may be obtained by contacting L. Flanagan, Dept. of Physiology and Medical Physics, Royal College of Surgeons in Ireland, Dublin, Ireland. Additional authors for this research include M. Meyer, J. Fay, S. Curry, O. Bacon, H. Duessmann, K. John, K.C. Boland, D.A. McNamara, E.W. Kay, H. Bantel, H. Schulze-Bergkamen and J.H Prehn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2016.7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Tissue Engineering, Biomedical Engineering, Biomedicine, Dublin, Europe, Ireland, Oncology, Chemotherapy, Colon Cancer, Therapeutics, Bioengineering, Gastroenterology, Effector Caspases, Cell Proliferation, Cysteine Proteases, Peptide Hydrolases, Colorectal Research, Drugs and Therapies, Tissue Regeneration.

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Genetics - Assisted Reproduction and Genetics

New Findings from Royal Women's Hospital in Assisted Reproduction and Genetics Provides New Insights (What is the contribution of embryo-endometrial asynchrony to implantation failure?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Genetics - Assisted Reproduction and Genetics is the subject of a report. According to news reporting originating from Parkville, Australia, by NewsRx correspondents, research stated, "The synchronized development of a viable embryo and a receptive endometrium is critical for successful implantation to take place. The aim of this paper is to review current thinking about the importance of embryo-endometrial synchrony in in vitro fertilization (IVF)."
Financial support for this research came from National Health and Medical Research Council.

Our news editors obtained a quote from the research from Royal Women's Hospital, "Detailed review of the literature on embryo-endometrial synchrony. By convention, the time when the blastocyst first attaches and starts to invade into the endometrium has been defined as the 'window of implantation'. The term window of implantation can be misleading when it is used to imply that there is a single critical window in time that determines whether implantation will be successful or not. Embryo maturation and endometrial development are two independent continuous processes. Implantation occurs when the two tissues fuse and pregnancy is established. A key concept in understanding this event is developmental 'synchrony', defined as when the early embryo and the uterus are both developing at the same rate such that they will be ready to commence and successfully continue implantation at the same time. Many different events, including controlled ovarian hyperstimulation as routinely used in IVF, can potentially disrupt embryo-endometrial synchrony. There is some evidence in humans that implantation rates are significantly reduced when embryo-endometrial development asynchrony is greater than 3 days (+/- 1.5 days). Embryo-endometrial synchrony is critical for successful implantation."

According to the news editors, the research concluded: "There is an unmet need for improved precision in the evaluation of endometrial development to permit better synchronization of the embryo and the endometrium prior to implantation."


The news editors report that additional information may be obtained by contacting W.T. Teh, Royal Womens Hosp, Reprod Serv, Parkville, Vic, Australia. Additional authors for this research include J. McBain and P. Rogers.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0773-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Parkville, Australia, Australia and New Zealand, Assisted Reproduction and Genetics, Genetics, Article Review, Royal Women's Hospital.

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**Oncology - Lobular Cancer**

**New Findings from Rush University in the Area of Lobular Cancer Reported (Prognostic Value of Coexisting Lobular Carcinoma In Situ With Invasive Lobular Carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Lobular Cancer have been presented. According to news originating from Chicago, Illinois, by NewsRx correspondents, research
stated, "Recent studies show that lobular carcinoma in situ (LCIS) and invasive lobular carcinoma (ILC) share similar genetic molecular biology. There are increasing concerns regarding the biological significance of LCIS."

Our news journalists obtained a quote from the research from Rush University, "The aim of this study is to investigate whether the presence of coexisting LCIS in ILC affects tumor biology and behavior and to correlate it with other clinicopathologic parameters. In this study, 254 cases of ILC were included. Clinicopathologic parameters and immunohistochemical stains for estrogen receptor (ER), progesterone receptor (PR), E-cadherin, human epidermal growth factor receptor (HER2), and MIB-1 of 254 ILC cases were retrieved. The patient with ILC and coexisting LCIS were compared with pure ILC cases with respect to different clinicopathologic parameters. Of the 254 cases, 107 cases were pure ILC and 147 cases were ILC with coexisting LCIS. Seventy-six (76/184, 41.32%) cases showed axillary lymph node metastases. Lymph node metastasis was absent in 108 cases, micrometastasis was present in 5 cases, and stage N1, N2, N3 in 51, 5, and 15 cases, respectively. Nodal involvement, locoregional and distant recurrence of ILC with LCIS were less frequent compared with ILC without LCIS with P-value of 0.034 and 0.007, respectively. The presence of coexisting LCIS in ILC predicted higher disease-free survival (DFS) compared with pure ILC (P=0.034, log-rank test). When divided into different strata, ER-positive ILC cases with associated LCIS cases showed better DFS than ER-positive pure ILC cases (P=0.021, log-rank test). Similarly, ILC cases with LCIS in patient less than 50 years showed better DFS than the patient less than 50 years with pure ILC (P=0.045, log-rank test). In conclusion, ILC coexisting with lobular carcinoma in situ (ILC+LCIS) is characterized by less nodal involvement, lower locoregional, and distant recurrence and better DFS than pure ILC. When divided into different strata, ER-positive and less than 50-year groups with ILC+LCIS show even significant better DFS than pure ILC."

According to the news editors, the research concluded: "These findings suggest that there is biological significance of coexisting LCIS in ILC and that this may have more effect on tumor aggressiveness in certain strata of ILC."

For more information on this research see: Prognostic Value of Coexisting Lobular Carcinoma In Situ With Invasive Lobular Carcinoma. Applied Immunohistochemistry & Molecular Morphology, 2016;24(10):738-743. Applied Immunohistochemistry & Molecular Morphology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

The news correspondents report that additional information may be obtained from A. Harbhajanka, Rush University, Medical Center, Dept. of Pathol, Chicago, IL 60612, United States. Additional authors for this research include I. Lamzabi, S. Syed, R. Jain, R. Ghai, V.B. Reddy, P. Bitterman and P. Gattuso.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Carcinoma in Situ, Immunology, Lobular Cancer, Carcinomas, Genetics, Oncology, Rush University.

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New Findings from Russian Academy of Science Update Understanding of Microtubule-Organizing Center (Nuclear alignment in myotubes requires centrosome proteins recruited by nesprin-1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Microtubule-Organizing Center is now available. According to news reporting out of Vladivostok, Russia, by NewsRx editors, research stated, "Myotubes are syncytial cells generated by fusion of myoblasts. Among the numerous nuclei in myotubes of skeletal muscle fibres, the majority are equidistantly positioned at the periphery, except for clusters of multiple nuclei underneath the motor endplate."

Financial support for this research came from Association Francaise contre les Myopathies.

Our news journalists obtained a quote from the research from the Russian Academy of Science, "The correct positioning of nuclei is thought to be important for muscle function and requires nesprin-1 (also known as SYNE1), a protein of the nuclear envelope. Consistent with this, mice lacking functional nesprin-1 show defective nuclear positioning and present aspects of Emery-Dreifuss muscular dystrophy. In this study, we perform small interfering RNA (siRNA) experiments in C2C12 myoblasts undergoing differentiation, demonstrating that the positioning of nuclei requires PCM-1, a protein of the centrosome that relocates to the nuclear envelope at the onset of differentiation in a manner that is dependent on the presence of nesprin-1. PCM-1 itself is required for recruiting proteins of the dynein-dynactin complex and of kinesin motor complexes."

According to the news editors, the research concluded: "This suggests that microtubule motors that are attached to the nuclear envelope support the movement of nuclei along microtubules, to ensure their correct positioning in the myotube."


Our news journalists report that additional information may be obtained by contacting A. Merdes, Russian Academy Sci, Far Eastern Branch, Natl Sci Center Marine Biol, Vladivostok 690041, Russia. Additional authors for this research include V. Dyachuk, C. Chemin, L. Emorine and A. Merdes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/jcs.191767. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vladivostok, Russia, Eurasia, Microtubule-Organizing Center, Cell Membrane Structures, Cell Nucleus Structures, Intracellular Membranes, Cytoplasmic Structures, Cellular Structures, Intracellular Space, Nuclear Envelope, Centrosome, Genetics, Russian Academy of Science.

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Lung Diseases and Conditions - Chronic Obstructive...

New Findings from S. Roversi and Co-Authors in the Area of Chronic Obstructive Pulmonary Disease Reported (Chronic Obstructive Pulmonary Disease and Cardiac Diseases An Urgent Need for Integrated Care)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease. According to news reporting originating in Modena, Italy, by NewsRx journalists, research stated, "Chronic obstructive pulmonary disease (COPD) is a global health issue with high social and economic costs. Concomitant chronic cardiac disorders are frequent in patients with COPD, likely owing to shared riskfactors (e.g., aging, cigarette smoke, inactivity, persistent low-grade pulmonary and systemic inflammation) and add to the overall morbidity and mortality of patients with COPD."

The news reporters obtained a quote from the research, "The prevalence and incidence of cardiac comorbidities are higher in patients with COPD than in matched control subjects, although estimates of prevalence vary widely. Furthermore, cardiac diseases contribute to disease severity in patients with COPD, being a common cause of hospitalization and a frequent cause of death. The differential diagnosis may be challenging, especially in older and smoking subjects complaining of unspecific symptoms, such as dyspnea and fatigue. The therapeutic management of patients with cardiac and pulmonary comorbidities maybe similarly challenging: bronchodilators may have cardiac side effects, and, vice versa, some cardiac medications should be used with caution in patients with lung disease. The aim of this review is to summarize the evidence of the relationship between COPD and the three most frequent and important cardiac comorbidities in patients with COPD: ischemic heart disease, heart failure, and atrial fibrillation."

According to the news reporters, the research concluded: "We have chosen a practical approach, first summarizing relevant epidemiological and clinical data, then discussing the diagnostic and screening procedures, and finally evaluating the impact of lung-heart comorbidities on the therapeutic management of patients with COPD and heart diseases."

For more information on this research see: Chronic Obstructive Pulmonary Disease and Cardiac Diseases An Urgent Need for Integrated Care. American Journal of Respiratory and Critical Care Medicine, 2016;194(11):1319-1336. American Journal of Respiratory and Critical Care Medicine can be contacted at: Amer Thoracic Soc, 25 Broadway, 18 Fl, New York, NY 10004, USA.

Our news correspondents report that additional information may be obtained by contacting L.M. Fabbri, StAgostino Estense Hosp, I-41126 Modena, Italy. Additional authors for this research include L.M. Fabbri, D.D. Sin, N.M. Hawkins and A. Agusti.

Keywords for this news article include: Modena, Italy, Europe, Chronic Obstructive Pulmonary Disease, Pulmonary Disease, Epidemiology, Lung Diseases and Conditions, Cardiology.

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New Findings from S.E. Al-Batran et al Broadens Understanding of Chemotherapy [Histopathological regression after neoadjuvant docetaxel, oxaliplatin, fluorouracil, and leucovorin versus epirubicin, cisplatin, and fluorouracil or capecitabine in ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemotherapy. According to news reporting out of Frankfurt, Germany, by NewsRx editors, research stated, "Docetaxel-based chemotherapy is effective in metastatic gastric and gastro-oesophageal junction adenocarcinoma, but has not yet been evaluated in the context of resectable patients. Here we report findings from the phase 2 part of the phase 2/3 FLOT4 trial, which compared histopathological regression in patients treated with a docetaxel-based triplet chemotherapy versus an anthracycline-based triplet chemotherapy before surgical resection."

Our news journalists obtained a quote from the research, "In this randomised, open-label, phase 2/3 study, eligible participants were recruited from 28 German oncology centres. Patients with resectable gastric or gastro-oesophageal junction cancer who had clinical stage cT2 or higher, nodal positive (cN+) disease, or both were randomly assigned (1:1) to either three preoperative and three postoperative 3-week cycles of intravenous epirubicin 50 mg/m(2) on day 1, intravenous cisplatin 60 mg/m(2) on day 1, and either fluorouracil 200 mg/m(2) as continuous intravenous infusion or capecitabine 1250 mg/m(2) orally (two doses of 625 mg/m(2) per day) on days 1 to 21 (ECF/ECX group) or four preoperative and four postoperative 2-week cycles of docetaxel 50 mg/m(2), intravenous oxaliplatin 85 mg/m(2), intravenous leucovorin 200 mg/m(2), and fluorouracil 2600 mg/m(2) as a 24 h infusion, all on day 1 (FLOT group). Randomisation was done centrally with an interactive web-response system based on a sequence generated with blocks (block size 2) stratified by Eastern Cooperative Oncology Group performance status, location of primary tumour, age, and nodal status. No masking was done. Central assessment of pathological regression was done according to the Becker criteria. The primary endpoint was pathological complete regression (tumour regression grade TRG1a) and was analysed in the modified intention-to-treat population, defined as all patients who were randomly assigned to treatment excluding patients who had surgery but did not provide resection specimens for central evaluation. The study (including the phase 3 part) has completed enrolment, but follow-up is ongoing and this is an interim analysis. The trial is registered with ClinicalTrials.gov, number NCT01216644. Between Aug 18, 2010, and Aug 10, 2012, 300 patients (152 patients in the ECF/ECX group; 148 patients in the FLOT group) were enrolled into the phase 2 part of the study, 265 of whom (137 in the ECF/ECX group; 128 in the FLOT group) were assessable on a modified intention-to-treat basis. 119 (93%) of 128 patients in the FLOT group and 126 (92%) of 137 patients in the ECF/ECX group were given all planned preoperative cycles of treatment. FLOT was associated with significantly higher proportions of patients achieving pathological complete regression than was ECF/ECX (20 [16%; 95% CI 10-23] of 128 patients vs eight [6%; 3-11] of 137 patients; p=0.02). 44 (40%) of 111 patients in the ECF/ECX group and 30 (25%) of 119 patients in the FLOT group had at least one serious adverse event involving a perioperative medical or surgical complication. The most common non-surgical grade 3-4 adverse events were neutropenia (52 [38%] of 137 patients in the ECF/ECX group vs 67 [52%] of 128 patients in the FLOT group), leucopenia (28 [20%] vs 36 [28%]), nausea (23 [17%] vs 12 [9%]), infection (16 [12%] vs 15 [12%]), fatigue (19 [14%] vs 11 [9%]), and vomiting (13 [10%] vs four [3%])."
According to the news editors, the research concluded: "Perioperative FLOT was active and feasible to administer, and might represent an option for patients with locally advanced, resectable gastric or gastro-oesophageal junction adenocarcinoma."

For more information on this research see: Histopathological regression after neoadjuvant docetaxel, oxaliplatin, fluorouracil, and leucovorin versus epirubicin, cisplatin, and fluorouracil or capecitabine in patients with resectable gastric or gastro-oesophageal junction adenocarcinoma (FLOT. \textit{Lancet Oncology}. 2016;17(12):1697-1708. \textit{Lancet Oncology} can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; \textit{Lancet Oncology} - www.journals.elsevier.com/lancet-oncology/)


Keywords for this news article include: Frankfurt, Germany, Europe, Formyltetrahydrofolates, Enzymes and Coenzymes, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Anthracyclines, Adenocarcinoma, Naphthacenes, Chemotherapy, Doxorubicin, Epirubicin, Leucovorin, Cisplatin, Oncology.

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\textbf{Oncology - Lymphoblastic Lymphoma}

\textbf{New Findings from Saitama Medical University in the Area of Lymphoblastic Lymphoma Described [Lineage switch with t(6;11)(q27;q23) from T-cell lymphoblastic lymphoma to acute monoblastic leukemia at relapse]}

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Lymphoblastic Lymphoma are discussed in a new report. According to news reporting originating from Saitama, Japan, by NewsRx correspondents, research stated, "We present a patient with T-cell lymphoblastic lymphoma (T-LBL) harboring t(6;11)(q27;q23) that converted to acute monoblastic leukemia at relapse. A 27-year-old man developed T-LBL with a mediastinal mass."

Our news editors obtained a quote from the research from Saitama Medical University, "He exhibited several recurrences in the central nervous system and marrow. A fifth relapse occurred in the marrow, with 42.8% blasts with CD4, CD5, CD7, CD10, CD33, CD34, HLA-DR and cytoplasmic (cy) CD3. While achieving complete remission with nelarabine, sixth relapse occurred in the marrow with 6.8% blasts, which had characteristics of monoblastic features, 2 months later. Marrow blasts were positive for myeloperoxidase, CD4, CD33, CD56, CD64, and HLA-DR, but were negative for cyCD3, CD5, CD7, CD10, and CD34. Marrow cells at both the 5th lymphoid and 6th myeloid relapses had t(6;11)(q27;q23) and the same MLL-MLLT4 fusion transcript. In addition, the MLL-MLLT4 fusion sequences documented in the initial mediastinal cells were the same as seen in peripheral blood cells at the 6th relapse. The patient continues 7th remission after one course of gemtuzumab ozogamicin therapy followed by cord blood transplantation for more than 3 years."
According to the news editors, the research concluded: "Sequential phenotypic and cytogenetic studies may yield valuable insights into the mechanism of leukemic recurrence and possible implications for treatment selection."


The news editors report that additional information may be obtained by contacting N. Asou, Saitama Med Univ, Int Med Center, Dept. of Hematol, Saitama, Japan. Additional authors for this research include K. Tokunaga, Y. Watanabe, T. Kawakita, N. Harada, S. Yamaguchi, K. Nosaka, H. Mitsuya and N. Asou.

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Keywords for this news article include: Saitama, Japan, Asia, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Leukemia, Genetics, Genetics, Lymphoblastic Lymphoma, Hematology, Lymphomas, Oncology, Saitama Medical University.

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**Oncology - Prostate Cancer**

**New Findings from Sansom Institute for Health Research in the Area of Prostate Cancer Reported (Targeting CDK9: a promising therapeutic opportunity in prostate cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting originating in Adelaide, Australia, by NewsRx journalists, research stated, "Cyclin-dependent kinase 9 (CDK9) is a key transcriptional regulator and a lucrative target for cancer treatment. Targeting CDK9 can effectively confine the hyperactivity of androgen receptor and the constitutive expression of anti-apoptotic proteins; both being main causes of prostate cancer (PCa) development and progression."

The news reporters obtained a quote from the research from Sansom Institute for Health Research, "In castrate-resistant PCa, traditional therapies that only target androgen receptor (AR) have become obsolete due to reprogramming in AR activity to make the cells independent of androgen. CDK9 inhibitors may provide a new and better therapeutic opportunity over traditional treatment options by targeting both androgen receptor activity and antiapoptotic proteins, improving the chances of positive outcomes, especially in patients with the advanced disease."

According to the news reporters, the research concluded: "This review focuses on biological functions of CDK9, its involvement with AR and the potential for therapeutic opportunities in PCa treatment."

For more information on this research see: Targeting CDK9: a promising therapeutic opportunity in prostate cancer. *Endocrine-Related Cancer*, 2016;23(12):T211-T226.
**Endocrine-Related Cancer** can be contacted at: Bioscientifica Ltd, Euro House, 22 Apex Court Woodlands, Bradley Stoke, Bristol BS32 4JT, England.

Our news correspondents report that additional information may be obtained by contacting S.D. Wang, Univ South Australia, Sansom Inst Hlth Res, Center Drug Discovery & Dev, Adelaide, SA, Australia. Additional authors for this research include M. Kumarasiri, L.B. Mekonnen, M.F. Yu, S. Diab, H. Albrecht, R.W. Milne and S.D. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1530/ERC-16-0299. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Proteins, Article Review, Transcription Factors, DNA-Binding Proteins, Drugs and Therapies, Prostatic Neoplasms, Androgen Receptors, Steroid Receptors, Prostate Cancer, Androgens, Oncology, Sansom Institute for Health Research.

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**Human Herpesvirus Diseases and Conditions --**

**New Findings from School of Medicine Describe Advances in Epstein-Barr Virus [Diagnostic dilemma: Epstein-Barr virus (EBV) infectious mononucleosis with lung involvement or co-infection with Legionnaire's disease?]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Human Herpesvirus Diseases and Conditions - Epstein-Barr Virus. According to news reporting out of Stony Brook, New York, by NewsRx editors, research stated, "Hospitalized adults with fever and 'pneumonia' can be a difficult diagnostic challenge particularly when the clinical findings may be due to different infectious diseases. We recently had an elderly female who presented with fever, fatigue and dry cough with elevated serum transaminases and lung infiltrates."

Our news journalists obtained a quote from the research from the School of Medicine, "The diagnosis of Epstein Barr virus (EBV) infectious mononucleosis (IM) was made based on a positive Monospot test, elevated EBV VCA IgM titer, and highly elevated EBV viral load. Her chest infiltrates were not accompanied by hilar adenopathy which may occur with EBV IM. Her dry cough persisted and she developed abdominal pain. Legionnaire's disease was considered because she had extra-pulmonary findings characteristic of Legionnaire's disease, e.g., relative bradycardia, abdominal pain, hyponatremia, hypophosphatemia, elevated ferritin levels, microscopic hematuria. Legionella titers were negative, but Legionella (serogroup 1) urinary antigen was positive."

According to the news editors, the research concluded: "We present a diagnostic dilemma in an elderly female with both Legionnaire's disease and Epstein Barr virus infectious mononucleosis with pulmonary involvement."

For more information on this research see: Diagnostic dilemma: Epstein-Barr virus (EBV) infectious mononucleosis with lung involvement or co-infection with Legionnaire's disease? *Heart & Lung*, 2016;45(6):563-566. *Heart & Lung* can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Heart & Lung - www.journals.elsevier.com/heart-and-lung-the-journal-of-
Our news journalists report that additional information may be obtained by contacting B.A. Cunha, SUNY Stony Brook, Sch Med, Stony Brook, NY 11794, United States.

Keywords for this news article include: Stony Brook, New York, United States, North and Central America, Lymphoproliferative Diseases and Conditions, Human Herpesvirus Diseases and Conditions, Mononucleosis, Diagnostics and Screening, Hematologic Diseases and Conditions, Gram-Negative Bacterial Infections, Lymphatic Diseases and Conditions, Epstein-Barr Virus Infections, Lymphoproliferative Disorders, Lung Diseases and Conditions, Herpesviridae Infections, Infectious Mononucleosis, Tumor Virus Infections, Legionnaires' Disease, Leukocyte Disorders, Human Herpesvirus 4, Infectious Disease, Legionellosis, Tumor Viruses, DNA Viruses, Virology, HHV-4, Viral, HHV4, School of Medicine.

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Oncology - Lung Cancer

New Findings from School of Medicine Update Understanding of Lung Cancer (The potential utility of re-mining results of somatic mutation testing: KRAS status in lung adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Lung Cancer have been presented. According to news reporting originating in Hanover, New Hampshire, by NewsRx journalists, research stated, "KRAS mutant non-small cell lung cancers (NSCLCs) vary in clinical outcome depending on which specific KRAS mutation is present. Shorter progression free survival has been associated with KRAS variants G12C and G12V."

The news reporters obtained a quote from the research from the School of Medicine, "Cell lines with these variants depend to a greater extent on the RAS/RAF/MEK/ERK signaling pathway and become more susceptible to MEK inhibition. Because different KRAS mutations may lead to altered drug sensitivity, we aimed to determine specific KRAS mutation status in a NSCLC patient cohort at our institution. A total of 502 NSCLC samples were screened for somatic mutations using the 50 gene AmpliSeg™ Cancer Hotspot Panel v2 (CHPv2). However only samples positive for variants in the KRAS gene were included in this study. Variants identified in the KRAS genes were curated using publicly available databases. The overall mutation rate in the KRAS gene was 32.7% (164/502). The most common KRAS mutations were G12C (41%), G12V (19%), and G12D (14%) along with less frequent variants. After re-mining our sequencing data, we found that more than a half of our KRAS mutant NSCLC patients could potentially benefit from the addition of a MEK inhibitor such as selumetinib to standard chemotherapeutic agents."

According to the news reporters, the research concluded: "Due to mutated KRAS, these patients will likely fail traditional anti-EGFR therapies but be eligible for newer combination therapies."

Our news correspondents report that additional information may be obtained by contacting G.J. Tsongalis, Geisel Sch Med Dartmouth, Hanover, NH 03755, United States. Additional authors for this research include P.D. Tsongalis, J.D. Peterson, F.B. de Abreu, C.C. Black, E.J. Gutmann, X.Y. Liu, L.J. Tafe, C.I. Amos and G.J. Tsongalis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.03.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hanover, New Hampshire, United States, North and Central America, Adenocarcinoma, Genetics, Genetics, Lung Cancer, Oncology, School of Medicine.

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Biotechnology - Molecular Pharmaceutics

New Findings from School of Pharmacy in the Area of Molecular Pharmaceutics Reported (Role of Molecular Interactions for Synergistic Precipitation Inhibition of Poorly Soluble Drug in Supersaturated Drug-Polymer-Polymer Ternary Solution)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Biotechnology - Molecular Pharmaceutics are presented in a new report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "We are reporting a synergistic effect of combined Eudragit E100 and PVP K90 in precipitation inhibition of indomethacin (IND) in solutions at low polymer concentration, a phenomenon that has significant implications on the usefulness of developing novel ternary solid dispersion of poorly soluble drugs. The IND supersaturation was created by cosolvent technique, and the precipitation studies were performed in the absence and the presence of individual and combined PVP K90 and Eudragit E100."

Our news journalists obtained a quote from the research from the School of Pharmacy, "The studies were also done with PEG 8000 as a noninteracting control polymer. A continuous UV recording of the IND absorption was used to observe changes in the drug concentration over time. The polymorphic form and morphology of precipitated IND were characterized by Raman spectroscopy and scanning electron microscopy. The change in the chemical shift in solution (1)H NMR was used as novel approach to probe IND-polymer interactions. Molecular modeling was used for calculating binding energy between IND-polymer as another indication of IND-polymer interaction. Spontaneous IND precipitation was observed in the absence of polymers. Eudragit E100 showed significant inhibitory effect on nuclei formation due to stronger interaction as reflected in higher binding energy and greater change in chemical shift by NMR. PVP K90 led to significant crystal growth inhibition due to adsorption on growing IND crystals as confirmed by modified crystal habit of precipitate in the presence of PVP K90. Combination of polymers resulted in a synergistic precipitation inhibition and extended supersaturation. The NMR confirmed interaction between IND-Eudragit E100 and IND-PVP K90 in solution. The combination of polymers showed similar peak shift albeit using lower polymer concentration indicating stronger interactions."

According to the news editors, the research concluded: "The results established the significant synergistic precipitation inhibition effect upon combining Eudragit E100 and PVP
K90 due to drug-polymer interaction."

For more information on this research see: Role of Molecular Interactions for Synergistic Precipitation Inhibition of Poorly Soluble Drug in Supersaturated Drug-Polymer-Polymer Ternary Solution. *Molecular Pharmaceutics*, 2016;13(3):756-65. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news correspondents report that additional information may be obtained from D. Prasad, School of Pharmacy, MCPHS University-Boston 179 Longwood Avenue, Boston Massachusetts 02115, United States. Additional authors for this research include H. Chauhan and E. Atef.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00655. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Boston, Massachusetts, United States, Drugs and Therapies, Molecular Pharmaceutics, North and Central America.

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**Lung Diseases**

**New Findings from School of Public Health in the Area of Lung Diseases Reported (High risks of lung disease associated with early-life and moderate lifetime arsenic exposure in northern Chile)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases have been published. According to news originating from Berkeley, California, by NewsRx correspondents, research stated, "Arsenic in drinking water has been associated with increases in lung disease, but information on the long-term impacts of early-life exposure or moderate exposure levels are limited. We investigated pulmonary disease and lung function in 795 subjects from three socio-demographically similar areas in northern Chile: Antofagasta, which had a well-described period of high arsenic water concentrations (860 μg/L) from 1958 to 1970; Iquique, which had long-term water concentrations near 60 μg/L; and Arica, with long-term water concentrations <= 10 μg/L."

Our news journalists obtained a quote from the research from the School of Public Health, "Compared to adults never exposed >10 μg/g/L, adults born in Antofagasta during the high exposure period had elevated odds ratios (OR) of respiratory symptoms (e.g., OR for shortness of breath = 5.56, 90% confidence interval (CI): 2.68-11.5), and decreases in pulmonary function (e.g., 224 mL decrease in forced vital capacity in nonsmokers, 90% CI: 97-351 mL). Subjects with long-term exposure to arsenic water concentrations near 60 μg/g/L also had increases in some pulmonary symptoms and reduced lung function. Overall, these findings provide new evidence that in utero or childhood arsenic exposure is associated with non-malignant pulmonary disease in adults."

According to the news editors, the research concluded: "They also provide preliminary new evidence that longterm exposures to moderate levels of arsenic may be associated with lung toxicity, although the magnitude of these latter findings were greater than expected and should be confirmed."

For more information on this research see: High risks of lung disease associated

The news correspondents report that additional information may be obtained from C. Steinmaus, UC Berkeley Sch Public Hlth, Arsen Hlth Effects Res Program, Berkeley, CA, United States. Additional authors for this research include C. Ferreccio, J. Acevedo, J.R. Balmes, J. Liaw, P. Troncoso, D.C. Dauphine, A. Nardone and A.H. Smith.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.10.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berkeley, California, United States, North and Central America, Respiratory Tract Diseases and Conditions, Pulmonary Disease, Epidemiology, Lung Diseases and Conditions, Arsenic, School of Public Health.

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Drugs and Therapies - Ethnopharmacology

New Findings from Second Military Medical University Describe Advances in Ethnopharmacology [Toxic polyacetylenes in the genus Bupleurum (Apiaceae) - Distribution, toxicity, molecular mechanism and analysis]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Ethnopharmacology. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Ethnopharmacological relevance: The genus Bupleurum includes approximately 200 species that are widely distributed in the Northern Hemisphere, Eurasia and North Africa. Certain species of this genus have long been used as antiphlogistic, antipyretic and analgesic agents in traditional folk medicine."

The news correspondents obtained a quote from the research from Second Military Medical University, "As described in the Chinese Pharmacopoeia, the roots of Bupleurum chinense DC. and B. scorzonerifolium Willd. are the herbal materials that compose Chaihu (Radix Bupleuri), a well-known TCM herb. Aim of the review: This review aims to provide up-to-date and comprehensive information regarding the distribution, toxicity, molecular mechanism and relatively new methods for the qualitative and quantitative determination of polyacetylenes in different Bupleurum species. The information needed for this paper were sourced from publishing sites such as Elsevier, science Direct, PubMed; electronic search engines such as Scopus and Web of Science, Google scholar; other scientific database sites for chemicals such as ChemSpider, PubChem, SciFinder, and also from on line books.

Polyacetylenes, which are widely distributed in genus Bupleurum of the Apiaceae family, have high toxicity. Among polyacetylenes, bupleurotoxin, acetylbupleurotoxin and oenanthotoxin have strong neurotoxicity. Through previous research, it was found that the toxicity of Bupleurum polyacetylenes manifested as epileptic seizures, with the target of toxicity being the brain. The neurotoxicity of polyacetylenes exhibits a relationship with the gamma-aminobutyric
acid (GABA) receptor pathway, and polyacetylenes have been shown to inhibit GABA-induced currents (I-GABA) in a competitive manner. The plants of genus Bupleurum have been used in traditional medicine for thousands of years. However, certain species of this genus are poisonous, and it was attributed to the high content of polyacetylenes. The present review indicates that certain polyacetylenes in the genus Bupleurum have highly neurotoxic effects. The major challenge with regard to toxic polyacetylenes is to test their neurotoxic effects in vivo as well as in further preclinical studies, which will require large amounts of purified polyacetylenes. More reference substances should be prepared, and sophisticated analytical technologies should be developed to comprehensively assess the quality of Radix Bupleuri herbs."

According to the news reporters, the research concluded: "These investigations will be helpful for further utilization of the plants of genus Bupleurum."


Our news journalists report that additional information may be obtained by contacting J. Su, Second Military Med Univ, Sch Pharm, Shanghai 200433, People's Republic of China. Additional authors for this research include W.D. Zhang and J. Su.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Ethnopharmacology, Drugs and Therapies, Article Review, Second Military Medical University.

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**Drugs and Therapies - Adverse Drug Reactions**

**New Findings from Seoul National University Update Understanding of Adverse Drug Reactions (Risk Factors for the Adverse Events after Conversion from Twice-Daily to Once-Daily Tacrolimus in Stable Liver Transplantation Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Adverse Drug Reactions is the subject of a report. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Despite the therapeutic equivalence between twice-daily and once-daily tacrolimus, patient safety after conversion is still a concern. We reviewed 218 liver transplantation (LT) patients who converted twice-daily to once-daily tacrolimus between May 2011 and January 2014."

The news correspondents obtained a quote from the research from Seoul National University, "Thirty (13.8%) patients had adverse events after conversion, with a liver function test (LFT) abnormality being the most common adverse event (n = 17). Despite the decrease in serum tacrolimus of > 30% after conversion, none of the patients who were converted to a dosage ratio (once-daily tacrolimus dosage: twice-daily tacrolimus dosage) > 1 had an LFT abnormality. Most patients with an LFT abnormality improved after increasing the once-daily
tacrolimus dosage (n = 2), returned to a previous medication, and/or added another immunosuppressant (n = 15). One patient had acute cellular rejection, which improved after steroid pulse treatment, and another patient had graft failure. In patients with a dosage ratio <= 1, the conversion time within 5 years after LT was the only significant risk factor for an LFT abnormality after conversion (odds ratio: 11.850, 95% confidence interval: 1.321-106.325, P = 0.027)."

According to the news reporters, the research concluded: "The dosage ratio and time after LT should be carefully considered during conversion from twice-daily to once-daily tacrolimus."

For more information on this research see: Risk Factors for the Adverse Events after Conversion from Twice-Daily to Once-Daily Tacrolimus in Stable Liver Transplantation Patients. Journal of Korean Medical Science, 2016;31(11):1711-1716. Journal of Korean Medical Science can be contacted at: Korean Acad Medical Sciences, 302 75 Dong Du Ichon, Dong Yongsan Ku, Seoul 140 031, South Korea.

Our news journalists report that additional information may be obtained by contacting K.W. Lee, Seoul National University, Dept. of Surg, Coll Med, Seoul 03080, South Korea. Additional authors for this research include K.W. Lee, J. Jeong, H. Kim, N.J. Yi and K.S. Suh.

Keywords for this news article include: Seoul, South Korea, Asia, Immunosuppressive Agents, Adverse Drug Reactions, Risk and Prevention, Drugs and Therapies, Tacrolimus Therapy, Pharmaceuticals, Macrolides, Seoul National University.

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**Oncology - Thyroid Cancer**

**New Findings from Seoul National University in the Area of Thyroid Cancer Reported (Recurrence and Survival After Gross Total Removal of Resectable Undifferentiated or Poorly Differentiated Thyroid Carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Thyroid Cancer are presented in a new report. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "This study aimed to evaluate the recurrence and survival after initial curative-intent surgery of resectable anaplastic thyroid cancer (ATC) and poorly differentiated thyroid cancer (PDTC). A retrospective analysis was conducted on patients with ATC and PDTC who had been treated between 1985 and 2013."

The news reporters obtained a quote from the research from Seoul National University, "Among them, 119 patients who had undergone surgery with curative intent were included in this study. The outcome measures included the clinical response to treatment and the recurrence rates of three separate thyroid cancer groups: ATC, differentiated thyroid cancer (DTC) with anaplastic foci, and PDTC. Initial remission was achieved in 100 (84.0%) patients, with higher percentages in patients with DTC with anaplastic foci (97.8%) and PDTC (96.7%) compared with ATC (60.5%). The overall recurrence rate after initial remission was 30.8% in ATC, 25.9% in PDTC, and 6.7% in DTC with anaplastic foci. Pathologic diagnosis, preexisting goiter or tumors, along with tracheal and lymphatic/vascular invasion were correlated with
recurrence ($p < 0.001$; $p = 0.001, 0.006, 0.003,$ and $0.016,$ respectively). All patients without initial remission died due to local failure, and most patients with recurrence, apart from two PDTC patients, had distant metastasis. Overall mortality after initial curative-intent surgery was $58.1\%$ in ATC, $8.7\%$ in DTC with anaplastic foci, and $20\%$ in PDTC. The initial remission of resectable tumors was higher and the recurrence rate was lower in DTC with anaplastic foci and PDTC compared with ATC."

According to the news reporters, the research concluded: "Careful monitoring of the development of distant metastasis is necessary, especially in patients with aggressive pathology with tracheal and lymphovascular invasion."

For more information on this research see: Recurrence and Survival After Gross Total Removal of Resectable Undifferentiated or Poorly Differentiated Thyroid Carcinoma. *Thyroid, 2016;26(9):1259-1268.* *Thyroid* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA.  (Mary Ann Liebert, Inc. - www.liebertpub.com; Thyroid - www.liebertpub.com/overview/thyroid/55/)


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Keywords for this news article include: Seoul, South Korea, Asia, Thyroid Neoplasms, Thyroid Cancer, Carcinomas, Oncology, Surgery, Seoul National University.

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**Drugs and Therapies - Drug Delivery Systems**

**New Findings from Shandong University Describe Advances in Drug Delivery Systems (Redox-sensitive mPEG-SS-PTX/TPGS mixed micelles: An efficient drug delivery system for overcoming multidrug resistance)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Delivery Systems have been published. According to news reporting originating in Shandong, People's Republic of China, by NewsRx journalists, research stated, "The main cause of multidrug resistance (MDR) is overexpression of active efflux transporters, such as P-glycoprotein (P-gp). To reverse MDR and improve the chemotherapy effect of paclitaxel (PTX), we propose a new drug delivery system based on mixed micelles constructed with D-a-tocopheryl poly (ethylene glycol) 1000 succinate (TPGS) and the mPEG-SS-PTX conjugate with consideration that TPGS is a P-gp inhibitor that can block the cancer cell action of pumping drugs outside of cells and can enhance the anticancer effect. mPEG-SS-PTX is synthesized by conjugating hydrophilic mPEG with a hydrophobic drug, PTX, via a redox-sensitive disulfide bond."

Financial support for this research came from National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Shandong University,
"The mPEG-SS-PTX conjugate is amphiphilic and can self-assemble in water. Mixed micelles formed by the mPEG-SS-PTX conjugate and TPGS have a low critical micelle concentration (CMC, similar to 1.05 x 10 (3) mg/mL) and high drug loading content (similar to 19.6%). The disulfide bond in the mPEG-SS-PTX conjugate can be broken in cancer cells (a reductive environment) and release PTX to kill cancer cells. In vitro cytotoxicity and cell uptake suggest that mixed micelles can effectively improve the accumulation of PTX in multidrug-resistant MCF-7 cells."

According to the news reporters, the research concluded: "Therefore, the present as-prepared mixed micelles very effectively reverse the MDR and enhance the therapeutic effect."

For more information on this research see: Redox-sensitive mPEG-SS-PTX/TPGS mixed micelles: An efficient drug delivery system for overcoming multidrug resistance. 


Our news correspondents report that additional information may be obtained by contacting Y.X. Luan, Shandong University, Sch Pharmaceut Sci, Jinan 250012, Shandong, People's Republic of China. Additional authors for this research include H.Y. Zhang, S.F. Yang, W.X. He and Y.X. Luan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Drug Delivery Systems, Multidrug Resistance, Drugs and Therapies, Drug Resistance, Oncology, Cancer, Shandong University.

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Heart Disorders and Diseases - Heart Failure

New Findings from Shanghai Jiao-Tong University School of Medicine in the Area of Heart Failure Described (Sildenafil ameliorates left ventricular T-tubule remodeling in a pressure overload-induced murine heart failure model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Sildenafil, a phosphodiesterase 5 (PDE5) inhibitor, has been shown to exert beneficial effects in heart failure. The purpose of this study was to test whether sildenafil suppressed transverse-tubule (T-tubule) remodeling in left ventricular (LV) failure and thereby providing the therapeutic benefits."

The news reporters obtained a quote from the research from the Shanghai Jiao-Tong University School of Medicine, "A pressure overload-induced murine heart failure model was established in mice by thoracic aortic banding (TAB). One day after TAB, the mice received sildenafil (100 mg?kg(-1)?d(-1), sc) or saline for 5 weeks. At the end of treatment, echocardiography was used to examine LV function. Then the intact hearts were dissected out
and placed in Langendorff-perfusion chamber for in situ confocal imaging of T-tubule ultrastructure from epicardial myocytes. TAB surgery resulted in heart failure accompanied by remarkable T-tubule remodeling. Sildenafil treatment significantly attenuated TAB-induced cardiac hypertrophy and congestive heart failure, improved LV contractile function, and preserved T-tubule integrity in LV cardiomyocytes. But sildenafil treatment did not significantly affect the chamber dilation. The integrity of LV T-tubule structure was correlated with cardiac hypertrophy ($R^2=0.74$, $p<0.01$) and global LV function ($R^2=0.47$, $p<0.01$).

According to the news reporters, the research concluded: "Sildenafil effectively ameliorates LV T-tubule remodeling in TAB mice, revealing a novel mechanism underlying the therapeutic benefits of sildenafil in heart failure."


Our news correspondents report that additional information may be obtained by contacting C.K. Huang, Shanghai General Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai 200080, People's Republic of China. Additional authors for this research include B.Y. Chen, A. Guo, R. Chen, Y.Q. Zhu, W. Kutschke, J. Hong and L.S Song.

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Keywords for this news article include: Asia, Shanghai, Cardiology, Cardiomegaly, Heart Disease, Heart Failure, Impotence Agents, Sildenafil Therapy, Vasodilator Agents, Drugs and Therapies, Cardiovascular Agents, People's Republic of China, Genitourinary Tract Agents, Heart Disorders and Diseases, Phosphodiesterase Inhibitors, Agents For Pulmonary Hypertension.

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**Cell Research - Blood Cells**

**New Findings from Shanghai Ocean University Update Understanding of Blood Cells (Characterization of allograft inflammatory factor-1 in Hyriopsis cumingii and its expression in response to immune challenge and pearl sac formation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cell Research - Blood Cells have been published. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "The allograft inflammatory factor-1 (AIF-1) is one of the key factors associated with inflammatory response and immune defense. In the present study, we report the identification and characterization of AIF-1 from triangle sail mussel Hyriopsis cumingii (HcAIF-1)."

Financial supporters for this research include National Natural Science Foundation of China, National Science and Technology Support Program, Shanghai Collaborative Innovation Center for Aquatic Animal Genetics and Breeding, Project of Shanghai Engineering and Technology Center for Promoting Ability.
Our news editors obtained a quote from the research from Shanghai Ocean University. "The full-length cDNA of HcAIF-1 consisted of a 5'-terminal untranslated region (UTR) of 80 bp, a 3'-UTR of 420 bp with a poly (A) tail, and an open reading frame of 444 bp encoding a polypeptide of 147 amino acids with two conserved EF-hand Ca2+-binding motifs. HcAIF-1 mRNA and protein were expressed in all examined tissues and showed higher mRNA expression levels were observed in immune tissues, especially hemocytes and mantle, and the highest protein expression level was in mantle. The expression level of HcAIF-1 mRNA was significantly upregulated in hemocytes 12-48 h after lipopolysaccharide challenge. After mantle tissue implantation, the expression level of this gene in pearl sac decreased significantly at 3-48 h (P < 0.01), and then was significantly upregulated at 96 h (P < 0.05) and recovered to the control level at 21-28 d. There was significant increase HcAIF-1 transcript abundance in hemocytes 96 h (P < 0.05) after mantle tissue implantation. The phagocytosis rate was significantly enhanced in hemocytes 3-24 h (P < 0.01) after the injection of recombinant HcAIF-1 protein."

According to the news editors, the research concluded: "These findings suggest that HcAIF-1 is important in the underlying mechanism of the innate immune responses and pearl sac formation of H. cumingii."


The news editors report that additional information may be obtained by contacting J.L. Li, Shanghai Ocean Univ, Shanghai Engn Res Center Aquaculture, Shanghai 201306, People's Republic of China. Additional authors for this research include Z.Y. Bai, L.T. Zhao and J.L. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.fsi.2016.10.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Cell Research, Blood Cells, Immunology, Hemocytes, Genetics, Shanghai Ocean University.

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Lymphatic Diseases and Conditions - Lymphedema

**New Findings from Shanghai University in the Area of Lymphedema Described (Total saponins of panaxnotoginseng promotes lymphangiogenesis by activation VEGF-C expression of lymphatic endothelial cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Lymphatic Diseases and Conditions - Lymphedema. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Lymphatic system plays an important role in maintaining the fluid homeostasis and normal immune responses,
anatomic or functional obstruction of which leads to lymphedema, and treatments for therapeutic lymphangiogenesis are efficiency for secondary lymphedema. Total saponins of panaxnotoginseng (PNS) are a mixture isolated from Panaxnotoginseng (Burkill) F.H.Chen, which has been used as traditional Chinese medicine in China for treatment of cardio- and cerebro-vascular diseases.

Financial supporters for this research include National Natural Science Foundation, National Outstanding Doctoral Dissertation, NIH.

The news reporters obtained a quote from the research from Shanghai University, "The aim of this study was to determine the effect and mechanism of PNS on lymphangiogenesis. The Tg (fli1: egfp; gata1: dsred) transgenic zebrafish embryos were treated with different concentrations of PNS (10, 50, 100 mu M) for 48 h with or without the 6 h pretreatment of the 30 ISM Vascular endothelial growth factors receptor (VEGFR)-3 kinase inhibitor, followed with morphological observation and lymphangiogenesis of thoracic duct assessment. The effect of PNS on cell viability, migration, tube formation and Vascular endothelial growth factors (VEGF)-C mRNA and protein expression of lymphatic endothelial cells (LECs) were determined. The role of phosphatidylinositol-3 (PI-3)-kinase (PI3K), extracellular signal-regulated kinase (ERK)1/2 pathways, c-Jun N-terminal kinase (JNK) and P38 mitogen activated protein kinases (MAPK) signaling in PNS-induced VEGF-C expression of LECs by using pharmacological agents to block each signal. PNS promotes lymphangiogenesis of thoracic duct in zebrafish with or without VEGFR3 Kinase inhibitor pre-impairment. PNS promotes proliferation, migration and tube formation of LECs. The tube formation induced by PNS could be blocked by VEGFR3 Kinase inhibitor. PNS induce VEGF-C expression of LEC, which could be blocked by ERK1/2, PI3K and P38MAPK signaling inhibitors. PNS activates lymphangiogenesis both in vivo and in vitro by up-regulating VEGF-C expression and activation of ERK1/2, PI3K and P38MAPK signaling."

According to the news reporters, the research concluded: "These findings provide a novel insight into the role of PNS in lymphangiogenesis and suggest that it might be an attractive and suitable therapeutic agent for treating secondary lymphedema or other lymphatic system impairment related disease."


Our news correspondents report that additional information may be obtained by contacting J.L. Li, Shanghai Univ Tradit Chinese Med, Longhua Hosp, Dept. of Orthopaed, Shanghai 200032, People's Republic of China. Additional authors for this research include Y. Chen, L. Zhang, L.P. Xing, H. Xu, Y.J. Wang, Q. Shi and Q.Q. Liang.

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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Hemic and Lymphatic Diseases and Conditions, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Growth Factor Receptors, Enzymes and Coenzymes, Phosphotransferases, Angiogenic Proteins, Endothelial Cells, Membrane Proteins, Protein Kinases, Lymphedema, Genetics, VEGF, Shanghai University.
New Findings from ShanghaiTech University in the Area of Controlled Release Research Described (Delivery methods for site-specific nucleases: Achieving the full potential of therapeutic gene editing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Controlled Release Research are presented in a new report. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "The advent of site-specific nucleases, particularly CRISPR/Cas9, provides researchers with the unprecedented ability to manipulate genomic sequences. These nucleases are used to create model cell lines, engineer metabolic pathways, produce transgenic animals and plants, perform genome-wide functional screen and, most importantly, treat human diseases that are difficult to tackle by traditional medications."

Financial supporters for this research include Natural Science Foundation of China, ShanghaiTech University.

Our news journalists obtained a quote from the research from ShanghaiTech University, "Considerable efforts have been devoted to improving the efficiency and specificity of nucleases for clinical applications. However, safe and efficient delivery methods remain the major obstacle for therapeutic gene editing."

According to the news editors, the research concluded: "In this review, we summarize the recent progress on nuclease delivery methods, highlight their impact on the outcomes of gene editing and discuss the potential of different delivery approaches for therapeutic gene editing."

For more information on this research see: Delivery methods for site-specific nucleases: Achieving the full potential of therapeutic gene editing. Journal of Controlled Release, 2016;244():83-97. Journal of Controlled Release can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

The news correspondents report that additional information may be obtained from J. Liu, ShanghaiTech Univ, Shanghai Inst Adv Immunochem Studies, Shanghai 201210, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jconrel.2016.11.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Controlled Release Research, Drugs and Therapies, Article Review, Genetics, ShanghaiTech University.
New Findings from Sichuan University Describe Advances in Atherosclerosis (Liver function may play an uneven role in haemorrhagic transformation for stroke subtypes after acute ischaemic stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting out of Chengdu, People's Republic of China, by NewsRx editors, research stated, "Haemorrhagic transformation (HT) is common after acute ischaemic stroke. Whether liver function plays a role in HT remains an open question."

Financial supporters for this research include National Natural Science Foundation of China, National Key Technology R&D Program for the 12th Five-Year Plan of the People's Republic of China.

Our news journalists obtained a quote from the research from Sichuan University, "Acute ischaemic stroke patients within 7 days from stroke onset were included. Baseline data including liver function tests were collected. An independent association between liver function and HT was identified by multivariate regression analysis for stroke overall and stroke subtypes. A total of 2788 patients were included. HT occurred in 277 patients (9.9%), with 32 patients (1.1%) with symptomatic HT and 245 patients (8.8%) with asymptomatic HT. On multivariate regression analysis, aspartate aminotransferase (AST) and bilirubin (BILI) were independently associated with HT for stroke overall. In different stroke subtypes, AST was independently associated with HT for cardioembolic stroke, BILI for stroke of undetermined aetiology, and no liver function indicators for stroke of large-artery atherosclerosis and small-artery occlusion. Liver function played an uneven role in HT for different stroke subtypes."

According to the news editors, the research concluded: "Indicators of liver function independently associated with HT were AST for cardioembolic stroke, BILI for stroke of undetermined aetiology and none for stroke of large-artery atherosclerosis and small-artery occlusion."


Our news journalists report that additional information may be obtained by contacting G. Tan, Stroke Clinical Research Unit, Dept. of Neurology, West China Hospital, Sichuan University, Chengdu, People's Republic of China. Additional authors for this research include C. Lei, Z. Hao, Y. Chen, R. Yuan and M. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.12904. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chengdu, Angiology, Cardiology, Hepatology, Liver Function, Atherosclerosis, Arteriosclerosis, Gastroenterology, People's Republic of China, Arterial Occlusive Diseases, Liver Diseases and Conditions, Cardiovascular Diseases and Conditions.

Our reports deliver fact-based news of research and discoveries from around the
New Findings from Southeast University Describe Advances in Nanotechnology (Biosynthesized Gold Nanoclusters and Iron Complexes as Scaffolds for Multimodal Cancer Bioimaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nanotechnology have been published. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "Cancer treatment has a far greater chance of success if the neoplasm is diagnosed before the onset of metastasis to vital organs. Hence, cancer early diagnosis is extremely important and remains a major challenge in modern therapeutics."

Funders for this research include National High Technology Research & Development Program of China, National Natural Science Foundation of China, Fundamental Research Funds.

Our news journalists obtained a quote from the research from Southeast University, "In this contribution, facile and new method for rapid multimodal tumor bioimaging is reported by using biosynthesized iron complexes and gold nanoclusters via simple introduction of AuCl4- and Fe2+ ions. The observations demonstrate that the biosynthesized Au nanoclusters may act as fluorescent and computed tomography probes for cancer bioimaging while the iron complexes behave as effective contrast agent for magnetic resonance imaging. The biosynthesized iron complexes and gold nanoclusters are found biocompatible in vitro (MTT (3-(4, 5-dimethylthiazol-2-yl)-2, 5-diphenyltetrazolium bromide) assay) and in vivo for all the vital organs of circulatory and excretory system."

According to the news editors, the research concluded: "These observations raise the possibility that the biosynthesized probes may find applications in future clinical diagnosis for deep seated early neoplasms by multimodal imaging."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201602526. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Emerging Technologies, Nanotechnology, Nanoclusters, Oncology, Cancer, Southeast University.

Our reports deliver fact-based news of research and discoveries from around the
New Findings from Southern Medical University in Nanoparticles Provides New Insights (Recent Advances on Inorganic Nanoparticle-Based Cancer Therapeutic Agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nanotechnology - Nanoparticles are presented in a new report. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Inorganic nanoparticles have been widely investigated as therapeutic agents for cancer treatments in biomedical fields due to their unique physical/chemical properties, versatile synthetic strategies, easy surface functionalization and excellent biocompatibility. This review focuses on the discussion of several types of inorganic nanoparticle-based cancer therapeutic agents, including gold nanoparticles, magnetic nanoparticles, upconversion nanoparticles and mesoporous silica nanoparticles."

Our news journalists obtained a quote from the research from Southern Medical University, "Several cancer therapy techniques are briefly introduced at the beginning. Emphasis is placed on how these inorganic nanoparticles can provide enhanced therapeutic efficacy in cancer treatment through site-specific accumulation, targeted drug delivery and stimulated drug release, with elaborations on several examples to highlight the respective strategies adopted."

According to the news editors, the research concluded: "Finally, a brief summary and future challenges are included."

For more information on this research see: Recent Advances on Inorganic Nanoparticle-Based Cancer Therapeutic Agents. *International Journal of Environmental Research and Public Health*, 2016;13(12):163-177. *International Journal of Environmental Research and Public Health* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from F.L. Wang, Southern Med Univ, Sch Lab Med & Biotechnol, Guangzhou 510515, Guangdong, People's Republic of China. Additional authors for this research include C.Y. Li, J. Cheng and Z.Q. Yuan.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Nanoparticles, Therapy, Article Review, Emerging Technologies, Nanotechnology, Nanoparticle, Oncology, Cancer, Southern Medical University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Health and Medicine - Urology are discussed in a new report. According to news reporting originating in Bristol, United Kingdom, by NewsRx journalists, research stated, "Mirabegron is a b3 adrenoceptor agonist licensed for the treatment of overactive bladder symptoms, such as urinary urgency or urgency incontinence. b3 adrenoceptor activation causes detrusor muscle relaxation, but mirabegron may also act by binding other targets in the bladder, and it may also reduce activity in sensory nerves. Phase III clinical trials (SCORPIO, ARIES, and CAPRICORN) evaluated mirabegron at various doses, demonstrating reduction from baseline to endpoint in mean incontinence episodes and mean number of micturitions per 24 h (coprimary endpoints), along with health-related quality of life and a range of secondary measures."

The news reporters obtained a quote from the research from Southmead Hospital, "Efficacy was seen in many patients who had previously discontinued antimuscarinic therapy on the grounds of lack of efficacy or poor tolerability. Treatment emergent adverse effects were documented in a long-term study (TAURUS), mostly being of mild or moderate severity. The most frequent adverse effects were hypertension, dry mouth, constipation, and headache, with a lower incidence of dry mouth than for the antimuscarinic active comparator. Efficacy and safety are not substantially different in older patients. A urodynamic safety study in men showed no consistent effect on voiding function, but a small increase in postvoid residual. Use of mirabegron in combination with a-adrenergic blockers does not appear to increase adverse effects. Dose reduction is needed in people with severe renal failure, or moderate hepatic failure. Dose adjustment is not needed in relation to food intake."

According to the news reporters, the research concluded: "Ongoing research is evaluating the potential for combination therapy with antimuscarinics."

For more information on this research see: Clinical use of the b3 adrenoceptor agonist mirabegron in patients with overactive bladder syndrome. Therapeutic Advances In Urology, 2015;7(5):241-8. (Sage Publications - www.sagepub.com/; Therapeutic Advances In Urology - tau.sagepub.com)

Our news correspondents report that additional information may be obtained by contacting M. Vij, Southmead Hospital, Bristol, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1756287215591763. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Bristol, Urology, United Kingdom, Article Review, Health and Medicine.

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Chemistry - Biochemistry

New Findings from St. Jude Children's Research Hospital in the Area of Biochemistry Described (Attacking cancer's Achilles heel: antagonism of antiapoptotic BCL-2 family members)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Chemistry - Biochemistry is the subject of a report. According to news reporting out of Memphis, Tennessee, by NewsRx editors, the research
stated, "Malignant cells routinely violate cellular checkpoints that should initiate cell death in normal cells by triggering pro-apoptotic members of the BCL2 family of proteins. To escape such death inducing signals, cancer cells often select for upregulation of anti-apoptotic BCL-2 family members including BCL-2, BCL-XL, BFL-1, BCL-W and MCL-1."

Our news journalists obtained a quote from the research from St. Jude Children's Research Hospital, "These family members prevent death by sequestering pro-apoptotic molecules. To counter this resistance mechanism, small molecule inhibitors of anti-apoptotic BCL-2 family members have been under development. These molecules have shown promise in pre-clinical and clinical testing to overcome apoptotic resistance, prompting cancer cells to undergo apoptosis. Alternatively, other strategies have taken advantage of the normal regulatory machinery controlling anti-apoptotic molecules and have used inhibitors of signaling pathways to down-modulate the expression of anti-apoptotic molecules, thus tilting the balance in cancer cells to cell death."

According to the news editors, the research concluded: "This review explores recent developments and strategies aimed at antagonizing anti-apoptotic BCL-2 family member action to promote the induction of cell death in cancer therapy."


Our news journalists report that additional information may be obtained by contacting J.T. Opferman, St Jude Childrens Res Hosp, Dept. of Cell & Mol Biol, Memphis, TN 38105, United States.

Keywords for this news article include: Memphis, Tennessee, United States, North and Central America, Biochemistry, Chemistry, Cancer, Article Review, Oncology, St. Jude Children's Research Hospital.

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Cardiology

**New Findings from St. Thomas' Hospital Yields New Data on Cardiology**  
(In vitro evaluation of valve-in-valve combinations using a SAPIEN XT valve implanted within PERIMOUNT and Magna Ease pericardial bioprostheses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "Implantation of a transcatheter heart valve to treat valve failure is an attractive option which is being used more frequently. Despite large clinical experience there is a paucity of in vitro data to support this treatment."

Our news journalists obtained a quote from the research from St. Thomas' Hospital, "Our aim was to provide in vitro performance data on the SAPIEN XT transcatheter heart valve implanted within two types of pericardial surgical heart valve. A SAPIEN XT was implanted within multiple sizes, i.e., 21, 23, 25 of Magna Ease and explanted calcified PERIMOUNT
valves. Each combination underwent in vitro testing according to the ISO 5840 guidance. Combinations were evaluated for embolisation and acute and long-term haemodynamic performance. All combinations met the ISO 5840 minimum requirements for effective orifice area (EOA) and regurgitant fraction at the initiation of the study, after 20 million and 200 million cycles. EOA was above 1.4 cm² for all valve combinations with Magna Ease and above 1.22 cm² with PERIMOUNT combinations. Regurgitant fraction was (<=)7% for SAPIEN XT-Magna Ease combinations and was (<=)10% for SAPIEN XT-PERIMOUNT combinations, which also met the ISO requirements. No embolisation was observed. The largest migration was 1.2 mm.

According to the news editors, the research concluded: "In vitro tests demonstrate excellent haemodynamic performance and durability in the six VIV combinations which are commonly seen in clinical practice."

For more information on this research see: In vitro evaluation of valve-in-valve combinations using a SAPIEN XT valve implanted within PERIMOUNT and Magna Ease pericardial bioprostheses. Eurointervention, 2016;11(11):e1291-301.

The news correspondents report that additional information may be obtained from V. Bapat, Dept. of Cardiothoracic Surgery, Guy’s and St Thomas’ Hospital, London, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4244/EIJV11I11A251. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Angiology, Cardiology, Pericardial, Embolization, United Kingdom.

Our news editors obtained a quote from the research from Stanford University, "Human ulcerative colitis (UC), UC-associated CRC, and sporadic CRC specimens have similar alterations in atRA metabolic enzymes, consistent with reduced colonic atRA. Inhibition of atRA signaling promoted tumorigenesis, whereas atRA supplementation reduced tumor burden. The benefit of atRA treatment was mediated by cytotoxic CD8(+) T cells, which were activated due to MHCI upregulation on tumor cells. Consistent with these findings, increased colonic expression of the atRA-catabolizing enzyme, CYP26A1, correlated with reduced frequencies of tumoral cytotoxic CD8(+) T cells and with worse disease prognosis in human CRC."

Oncology - Colon Cancer

New Findings from Stanford University in the Area of Colon Cancer Reported [Normalizing Microbiota-Induced Retinoic Acid Deficiency Stimulates Protective CD8(+) T Cell-Mediated Immunity in Colorectal Cancer]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Colon Cancer are presented in a new report. According to news reporting originating from Palo Alto, California, by NewsRx correspondents, research stated, "Although all-trans-retinoic acid (atRA) is a key regulator of intestinal immunity, its role in colorectal cancer (CRC) is unknown. We found that mice with colitis-associated CRC had a marked deficiency in colonic atRA due to alterations in atRA metabolism mediated by microbiota-induced intestinal inflammation."

Our news editors obtained a quote from the research from Stanford University, "Human ulcerative colitis (UC), UC-associated CRC, and sporadic CRC specimens have similar alterations in atRA metabolic enzymes, consistent with reduced colonic atRA. Inhibition of atRA signaling promoted tumorigenesis, whereas atRA supplementation reduced tumor burden. The benefit of atRA treatment was mediated by cytotoxic CD8(+) T cells, which were activated due to MHCI upregulation on tumor cells. Consistent with these findings, increased colonic expression of the atRA-catabolizing enzyme, CYP26A1, correlated with reduced frequencies of tumoral cytotoxic CD8(+) T cells and with worse disease prognosis in human CRC."
According to the news editors, the research concluded: "These results reveal a mechanism by which microbiota drive colon carcinogenesis and highlight atRA metabolism as a therapeutic target for CRC."

For more information on this research see: Normalizing Microbiota-Induced Retinoic Acid Deficiency Stimulates Protective CD8(+) T Cell-Mediated Immunity in Colorectal Cancer. *Immunity*, 2016;45(3):641-655. *Immunity* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)


Keywords for this news article include: Palo Alto, California, United States, North and Central America, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Therapy, Immunology, Colorectal Research, Gastroenterology, Gastroenteritis, Retinoic Acid, Colon Cancer, Oncology, Colitis, Stanford University.

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**Dimethylamines**

**New Findings from State University in the Area of Dimethylamines Reported (Impact of fraction unbound, CYP3A, and CYP2D6 in vivo activities, and other potential covariates to the clearance of tramadol enantiomers in patients with neuropathic ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Dimethylamines is now available. According to news reporting out of Araraquara, Brazil, by NewsRx editors, research stated, "The pharmacokinetics of tramadol is characterized by a large interindividual variability, which is partially attributed to polymorphic CYP2D6 metabolism. The contribution of CYP3A, CYP2B6, fraction unbound, and other potential covariates remains unknown."

Financial supporters for this research include Financiadora de Estudos e Projetos, Fundacao de Apoio ao Ensino e Assistencia do HCFMRP-USP (FAEPA), Conselho Nacional de Desenvolvimento Cientifico e Tecnologico.

Our news journalists obtained a quote from the research from State University, "This study aimed to investigate the contribution of in vivo activities of cytochrome P450 (CYP) 2D6 and 3A as well as other potential covariates (CYP2B6 genotype to the SNP g.15631G >T, fraction unbound, age, body weight, creatinine clearance) to the enantiomeric pharmacokinetics of tramadol. Thirty patients with neuropathic pain and phenotyped as CYP2D6 extensive metabolizers were treated with a single oral dose of 100 mg tramadol. Multiple linear regressions were performed to determine the contribution of CYP activities and other potential covariates to the clearance of tramadol enantiomers. The apparent total clearances were 44.9 (19.1-102.2) L/h and 55.2 (14.8-126.0) L/h for (+)- and (-)-tramadol, respectively [data presented as median (minimum-maximum)]. Between 79 and 83% of the
overall variation in apparent clearance of tramadol enantiomers was explained by fraction unbound, CYP2D6, and CYP3A in vivo activities and body weight. Fraction unbound explained 47 and 41% of the variation in clearance of (+)-tramadol and (-)-tramadol, respectively. Individually, CYP2D6 and CYP3A activities were shown to have moderate contribution on clearance of tramadol enantiomers (11-16% and 11-18%, respectively).

According to the news editors, the research concluded: "Factors affecting fraction unbound of drugs (such as hyperglycemia or co-administration of drugs highly bound to plasma proteins) should be monitored, because this parameter dominates the elimination of tramadol enantiomers."


Our news journalists report that additional information may be obtained by contacting N.V. de Moraes, Faculdade de Ciencias Farmaceuticas, Universidade Estadual Paulista, ZIP 14801-902, Araraquara, SP, Brazil. Additional authors for this research include G.R. Lauretti, E.B. Coelho, A.L. Godoy, D.V. Neves and V.L Lanchote.

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Keywords for this news article include: Pharmaceuticals, Brazil, Araraquara, South America, Cyclohexanols, Dimethylamines, Neuropathic Pain, Pharmacokinetics, Drugs and Therapies, Neurologic Manifestations, Tramadol Therapy Hydrochloride.

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Diarylheptanoids

New Findings from State University of New Jersey Describe Advances in Diarylheptanoids (Epigenetics Reactivation of Nrf2 in Prostate TRAMP C1 Cells by Curcumin Analogue FN1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Diarylheptanoids are presented in a new report. According to news reporting from Piscataway, New Jersey, by NewsRx journalists, research stated, "It has previously been shown that curcumin can effectively inhibit prostate cancer proliferation and progression in TRAMP mice, potentially acting through the hypomethylation of the Nrf2 gene promoter and hence activation of the Nrf2 pathway to enhance cell antioxidative defense. FN1 is a synthetic curcumin analogue that shows stronger anticancer activity than curcumin in other reports."

Financial supporters for this research include National Center for Complementary and Alternative Medicine, Office of Dietary Supplements.

The news correspondents obtained a quote from the research from the State University of New Jersey, "We aimed to explore the epigenetic modification of FN1 that restores Nrf2 expression in TRAMP-C1 cells. Stably transfected HepG2-C8 cells were used to investigate the effect of FN1 on the Nrf2-antioxidant response element (ARE) pathway. Real-
time quantitative PCR and Western blotting were applied to study the influence of FN1 on endogenous Nrf2 and its downstream genes. Bisulfite genomic sequencing (BGS) and methylated DNA immunoprecipitation (MeDIP) were then performed to examine the methylation profile of the Nrf2 promoter. An anchorage-independent colony-formation analysis was conducted to examine the tumor inhibition activity of FN1. Epigenetic modification enzymes, including DNMTs and HDACs, were investigated by Western blotting. The luciferase reporter assay indicated that FN1 was more potent than curcumin in activating the Nrf2-ARE pathway. FN1 increased the expression of Nrf2 and its downstream detoxifying enzymes. FN1 significantly inhibited the colony formation of TRAMP-C1 cells. BGS and MeDIP assays revealed that FN1 treatment (250 nM for 3 days) reduced the percentage of CpG methylation of the Nrf2 promoter. FN1 also downregulated epigenetic modification enzymes.

According to the news reporters, the research concluded: "Our results suggest that FN1 is a novel anticancer agent for prostate cancer. In the TRAMP-C1 cell line, FN1 can increase the level of Nrf2 and downstream genes via activating the Nrf2-ARE pathway and inhibit the colony formation potentially through the decreased expression of keap1 coupled with CpG demethylation of the Nrf2 promoter. This CpG demethylation effect may come from decreased epigenetic modification enzymes, such as DNMT1, DNMT3a, DNMT3b, and HDAC4."

For more information on this research see: Epigenetics Reactivation of Nrf2 in Prostate TRAMP C1 Cells by Curcumin Analogue FN1. *Chemical Research In Toxicology*, 2016;29(4):694-703. (American Chemical Society - www.acs.org; Chemical Research In Toxicology - www.pubs.acs.org/journal/crtoec)

Our news journalists report that additional information may be obtained by contacting W. Li, Center for Phytochemical Epigenome Studies, Ernest Mario School of Pharmacy, Rutgers, The State University of New Jersey, Piscataway, New Jersey 08854, United States. Additional authors for this research include D. Pung, Z.Y. Su, Y. Guo, C. Zhang, A.Y. Yang, X. Zheng, Z.Y. Du, K. Zhang and A.N Kong.

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Keywords for this news article include: Alkanes, Curcumin, Genetics, Catechols, Piscataway, New Jersey, Hydrocarbons, United States, Diarylheptanoids, Organic Chemicals, Enzymes and Coenzymes, North and Central America.

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**Oncology - Breast Cancer**

**New Findings from Sun Yat Sen University Describe Advances in Breast Cancer (RING1 and YY1 binding protein suppresses breast cancer growth and metastasis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Evidence suggests that RING1 and YY1 binding protein (RYBP) functions as a tumor suppressor. However, its role in breast cancer remains unclear."
The news correspondents obtained a quote from the research from Sun Yat Sen University. "In the present study, the expression of RYBP was assessed in breast cancer patients and cell lines. Disease-free survival durations of breast cancer patients with high RYBP expression were determined based on the ATCG dataset. The effects of RYBP overexpression on cell growth, migration and invasive potency were also assessed. Nude mouse xenograft and lung metastasis models were also used to confirm the role of RYBP. The involvement of SRRM3 in RYBP-mediated breast cancer suppression was explored using SRRM3 siRNA. The potential relationship between RYBP, SRRM3, and REST-003 was examined by qPCR. The results showed that RYBP was downregulated in breast cancer patients and in several breast cancer cell lines. Breast cancer patients with high expression levels of RYBP displayed better disease-free survival. Overexpression of RYBP in MDA-MB-231 and SK-BR-3 cells significantly decreased cell proliferation, migration, and invasion ability, and increased the proportion of cells arrested in S-phase compared with the negative control cells. Additionally, upregulation of proliferation-related cell cycle proteins (cyclin A and cyclin B1) and E-cadherin, and downregulation of snail were observed in RYBP-overexpressing cells. Overexpression of RYBP reduced tumor volume and weight as well as metastatic foci in the lungs of nude mice. SRRM3 knockdown by siRNA, which is downregulated after RYBP overexpression, suppressed cell growth and metastasis in MDA-MB-231 and SK-BR-3 cells. Furthermore, qPCR analysis revealed that REST-003 ncRNA was downregulated in cells overexpressing RYBP and in SRRM3-inhibited cells. Moreover, cell invasion ability and growth were increased after SRRM3 upregulation in RYBP-overexpressing cells, but they were decreased following si-REST-003 transfection."

According to the news reporters, the research concluded: "Overexpression of RYBP suppresses breast cancer growth and metastasis both in vitro and in vivo. SRRM3 and REST-003, which are down regulated in cells overexpressing RYBP, may be involved in RYBP-mediated breast cancer progression."


Our news journalists report that additional information may be obtained by contacting T.Y. Cheang, Sun Yat Sen University Affiliated Hosp 1, Lab Gen Surg, Guangzhou 510080, Guangdong, People's Republic of China. Additional authors for this research include J. Li, Z.Q. Zhang, R.Y. Ye, N. Shao, T.Y. Cheang and S.M. Wang.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Women's Health, Breast Cancer, Oncology, Sun Yat Sen University.

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**Hormones**

**New Findings from Sun Yat-sen University Cancer Center Describe Advances in Hormones (Melatonin overcomes gemcitabine resistance in pancreatic ductal adenocarcinoma by abrogating nuclear factor-kB activation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Current study results on Hormones have been published. According to news reporting out of Guangzhou, People's Republic of China, by NewsRx editors, research stated, "Constitutive activation and gemcitabine induction of nuclear factor-kB (NF-kB) contribute to the aggressive behavior and chemotherapeutic resistance of pancreatic ductal adenocarcinoma (PDAC). Thus, targeting the NF-kB pathway has proven an insurmountable challenge for PDAC therapy."

Funders for this research include National High Technology Research and Development Program of China, National Natural Science Foundation of China, China Postdoctoral Science Foundation.

Our news journalists obtained a quote from the research from Sun Yat-sen University Cancer Center, "In this study, we investigated whether the inhibition of NF-kB signaling pathway by melatonin might lead to tumor suppression and overcome gemcitabine resistance in pancreatic tumors. Our results showed that melatonin inhibited activities of NF-kB by suppressing IkBa phosphorylation and decreased the expression of NF-kB response genes in MiaPaCa-2, AsPc-1, Panc-28 cells and gemcitabine resistance MiaPaCa-2/GR cells. Moreover, melatonin not only inhibited cell proliferation and invasion in a receptor-independent manner, but also enhanced gemcitabine cytotoxicity at pharmacologic concentrations in these PDAC cells. In vivo, the mice treated with both agents experienced a larger reduction in tumor burden than the single drug-treated groups in an orthotopic xenograft mouse model. Taken together, these results indicate that melatonin inhibits proliferation and invasion of PDAC cells and overcomes gemcitabine resistance of pancreatic tumors through NF-kB inhibition."

According to the news editors, the research concluded: "Our findings therefore provide novel preclinical knowledge about melatonin inhibition of NF-kB in PDAC and suggest that melatonin should be investigated clinically, alone or in combination with gemcitabine for PDAC treatment."


Our news journalists report that additional information may be obtained by contacting H.Q. Ju, Sun Yat-sen University Cancer Center, State Key Laboratory of Oncology in South China, Collaborative Innovation Center for Cancer Medicine, Guangzhou, People's Republic of China. Additional authors for this research include H. Li, T. Tian, Y.X. Lu, L. Bai, L.Z. Chen, H. Sheng, H.Y. Mo, J.B. Zeng, W. Deng, P.J. Chiao and R.H Xu.

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Keywords for this news article include: Asia, Anticonvulsants, Antimetabolites, Antineoplastics, Antioxidants, Antivirals, Adjuvant, Genetics, Hormones, Pancreas, Guangzhou, Adenocarcinoma, Gastroenterology, Melatonin Therapy, Drugs and Therapies, Gemcitabine Therapy, Free Radical Scavenger, Immunosuppressive Agents, People's Republic of China.

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Mental Health Diseases and Conditions - Schizophrenia

New Findings from Sungkyunkwan University School of Medicine in the Area of Schizophrenia Described (Association Study of 60 Candidate Genes with Antipsychotic-induced Weight Gain in Schizophrenia Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health Diseases and Conditions - Schizophrenia. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "This study aimed to investigate the association of multiple candidate genes with weight gain and appetite change during antipsychotic treatment. A total of 233 single nucleotide polymorphisms (SNPs) within 60 candidate genes were genotyped."

Our news editors obtained a quote from the research from the Sungkyunkwan University School of Medicine, "BMI changes for up to 8 weeks in 84 schizophrenia patients receiving antipsychotic medication were analyzed using a linear mixed model. In addition, we assessed appetite change during antipsychotic treatment in a different group of 46 schizophrenia patients using the Drug-Related Eating Behavior Questionnaire. No SNP showed a statistically significant association with BMI or appetite change after correction for multiple testing. We observed trends of association (p <0.05) between 19 SNPs of 11 genes and weight gain, and between 7 SNPs of 5 genes and appetite change. In particular, rs696217 in GHRL showed suggestive evidence of association with not only weight gain (p=0.001) but also appetite change (p=0.042). Patients carrying the GG genotype of rs696217 exhibited higher increase in both BMI and appetite compared to patients carrying the GT/TT genotype."

According to the news editors, the research concluded: "Our findings suggested the involvement of a GHRL polymorphism in weight gain, which was specifically mediated by appetite change, during antipsychotic treatment in schizophrenia patients."

For more information on this research see: Association Study of 60 Candidate Genes with Antipsychotic-induced Weight Gain in Schizophrenia Patients. Pharmacopsychiatry, 2016;49(2):51-6. (Thieme - www.thieme.com)

The news editors report that additional information may be obtained by contacting S. Ryu, Dept. of Psychiatry, Sungkyunkwan University School of Medicine, Samsung Medical Center, Seoul, South Korea. Additional authors for this research include I.S. Huh, E.Y. Cho, Y. Cho, T. Park, S.C. Yoon, Y.H. Joo and K.S Hong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0035-1569267. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antipsychotics, Seoul, Genetics, Psychiatry, South Korea, Schizophrenia, Mental Health Diseases and Conditions.

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New Findings from Sungkyunkwan University in Lung Diseases Provides New Insights (Clinical Characteristics, Treatment Outcomes, and Resistance Mutations Associated with Macrolide-Resistant Mycobacterium avium Complex Lung Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Lung Diseases. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Macrolide antibiotics are key components of the multidrug treatment regimen for treating lung disease (LD) due to Mycobacterium avium complex (MAC). Despite the emergence of macrolide resistance, limited data are available on macrolide-resistant MAC-LD."

Financial supporters for this research include National Research Foundation of Korea (NRF), Korea Health Industry Development Institute (KHIDI).

The news correspondents obtained a quote from the research from Sungkyunkwan University, "This study evaluated the clinical features and treatment outcomes of patients with macrolide-resistant MAC-LD and the molecular characteristics of the macrolide-resistant isolates. A retrospective review of the medical records of 34 patients with macrolide-resistant MAC-LD who were diagnosed between January 2002 and December 2014 was performed, along with genetic analysis of 28 clinical isolates. Nineteen (56%) patients had the fibrocavitary form of MAC-LD, and 15 (44%) had the nodular bronchiectatic form. M. intracellulare was the etiologic organism in 21 (62%) patients. Approximately two-thirds (22/34 [65%]) of the patients had been treated with currently recommended multidrug regimens that included macrolide, ethambutol, and rifamycin prior to the emergence of macrolide resistance, and none had been treated with macrolide monotherapy. The median duration of treatment after the detection of macrolide resistance was 23.0 months (interquartile range, 16.8 to 45.3 months). Treatment outcomes were poor after the development of macrolide resistance, with favorable treatment outcomes achieved in only five (15%) patients, including two patients who underwent surgical resection. One-, 3-, and 5-year mortality rates were 9, 24, and 47%, respectively. Molecular analysis of 28 clinical isolates revealed that 96% (27/28) had point mutations at position 2058 or 2059 of the 23S rRNA gene."

According to the news reporters, the research concluded: "Our analyses indicate that more effective therapy is needed to treat macrolide-resistant MAC-LD and prevent its development."

For more information on this research see: Clinical Characteristics, Treatment Outcomes, and Resistance Mutations Associated with Macrolide-Resistant Mycobacterium avium Complex Lung Disease. Antimicrobial Agents and Chemotherapy, 2016;60(11):6758-6765. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is:
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Cardiovascular Research

New Findings from Sungkyunkwan University Kangbuk Samsung Hospital in the Area of Cardiovascular Research Described (Association of Physical Activity and Inflammation With All-Cause, Cardiovascular-Related, and Cancer-Related Mortality)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Research. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "To investigate the association between physical activity (PA) and risk of mortality in a large middle-aged cohort stratified by inflammatory status. A total of 336,560 individuals (mean age, 39.7 years; 58% male) who underwent comprehensive health screenings were enrolled in this prospective cohort study."

The news correspondents obtained a quote from the research from Sungkyunkwan University Kangbuk Samsung Hospital, "They were grouped according to self-reported PA level using a questionnaire: no regular PA with a sedentary lifestyle, regular but insufficient PA (below the guidelines), sufficient PA (concordant with the guidelines), and health-enhancing PA. Inflammation was assessed via high-sensitivity C-reactive protein (hsCRP) level. Study end points were all-cause, cardiovascular-related, and cancer-related mortality. During the 1,976,882 person-years of follow-up (median follow-up duration, 6.17 years), 2062 deaths occurred. Compared with a sedentary lifestyle, the hazard ratios (95% CIs) on the multivariable Cox proportional hazards regression analyses for all-cause mortality by PA level were 0.95 (0.84-1.07), 0.85 (0.72-0.99), and 0.75 (0.60-0.93) (P for trend =.003), and those for cardiovascular- and cancer-related mortality were 0.95, 0.80, and 0.55 (P for trend =.05) and 0.82, 0.83, and 0.78 (P for trend =.01), respectively. Compared with participants with low hsCRP levels and any regular PA, those with high hsCRP levels and no regular PA had a significantly higher risk of mortality (1.59 [1.38-1.84]). Higher PA levels were associated with a dose-dependent reduced risk of cardiovascular-related, cancer-related, and all-cause mortality."

According to the news reporters, the research concluded: "Individuals with high hsCRP levels and no regular PA had the highest risk of mortality."

Our news journalists report that additional information may be obtained by contacting K.C. Sung, Sungkyunkwan University Kangbuk Samsung Hosp, Dept. of Med, Div Cardiol, Seoul, South Korea. Additional authors for this research include S. Ryu, E. Cheong and K.C. Sung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mayocp.2016.08.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Cardiovascular Research, Inflammation, Risk and Prevention, Cardiovascular, Cardiology, Oncology, Cancer, Sungkyunkwan University Kangbuk Samsung Hospital.

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Central Nervous System - Telencephalon

New Findings from Tel Aviv University Describe Advances in Telencephalon (Thick corpus callosum in the second trimester can be transient and is of uncertain significance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System - Telencephalon. According to news reporting from Tel Aviv, Israel, by NewsRx journalists, research stated, "Depiction of a thick corpus callosum (CC) in utero is rare, and is generally associated with severe brain anomalies. Our aim was to describe a group of fetuses diagnosed during second-trimester ultrasound examination as having an apparently isolated thick CC, which normalized subsequently in the cases followed to term."

The news correspondents obtained a quote from the research from Tel Aviv University, "Among 59 fetuses referred to the Ob-Gyn Ultrasound Division of Lis Maternity Hospital with suspected callosal anomalies between January 2013 and June 2014, we identified nine cases with an apparently isolated thick CC for inclusion in this retrospective cohort study. Length and body thickness of the CC were compared with previously published nomograms. Fetuses with a suspected isolated thick CC were identified and followed until delivery or termination of pregnancy (TOP). Evaluation consisted of chromosomal analysis, at least one magnetic resonance imaging (MRI) examination and repeat ultrasound examinations. Postnatal evaluation included brain ultrasound examination, MRI when indicated and neurodevelopmental assessment through validated pediatric questionnaires. The nine fetuses were diagnosed with an apparently isolated thick CC at a mean gestational age of 23+5 (range, 21-29) weeks. Eight exhibited a CC body thickness >= 2SD above the mean for gestational age and one exhibited only a thickened genu. Six also exhibited a relatively short CC. Two patients opted for TOP but declined autopsy. In five of the seven remaining fetuses, the CC thickness normalized during follow-up. In the remaining two, the increased CC thickness was a variant of the cingulate sulcus. The CC length remained <= 2SD in five of the six fetuses with a short CC. Fetal MRI was performed and confirmed the diagnosis in six fetuses. The karyotype was normal in all fetuses. Short-term neurodevelopmental outcome was reported as normal in all six children with complete follow-up. Although the number of fetuses in our study is relatively small, it seems that an apparently isolated thick CC is not necessarily associated with poor prognosis."

According to the news reporters, the research concluded: "In such cases, a definitive diagnosis should not be reached based on a single measurement and repeat follow-up.
examinations during the third trimester are recommended."


Our news journalists report that additional information may be obtained by contacting G. Malinger, Tel Aviv University, Sackler Sch Med, Tel Aviv, Israel. Additional authors for this research include J. Har-Toov, T. Lerman-Sagie and G. Malinger.

Keywords for this news article include: Tel Aviv, Israel, Asia, Central Nervous System, Corpus Callosum, Telencephalon, Genetics, Brain, Tel Aviv University.

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Drugs and Therapies - Phytotherapy

**New Findings from Tianjin Medical University Update Understanding of Phytotherapy [The Inhibition of UDP-Glucuronosyltransferase (UGT) Isoforms by Praeruptorin A and B]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Phytotherapy have been published. According to news reporting from Tianjin, People's Republic of China, by NewsRx journalists, research stated, "Praeruptorin A (PA) and B (PB) are two important compounds isolated from Bai-hua Qian-hu and have been reported to exert multiple biochemical and pharmacological activities. The present study aims to determine the inhibition of PA and PB on the activity of important phase II drug-metabolizing enzymes uridine 5'-diphosphoglucuronosyltransferase (UGTs) isoforms."

The news correspondents obtained a quote from the research from Tianjin Medical University. "In vitro UGT incubation system was used to determine the inhibition potential of PA and PB on the activity of various UGT isoforms. In silico docking was performed to explain the inhibition difference between PA and PB towards the activity of UGT1A6. Inhibition behaviour was determined, and in vitro-in vivo extrapolation was performed by using the combination of in vitro inhibition kinetic parameter (K-i) and in vivo exposure level of PA. Praeruptorin A (100 mu M) exhibited the strongest inhibition on the activity of UGT1A6 and UGT2B7, with 97.8% and 90.1% activity inhibited by 100 mu M of PA, respectively. In silico docking study indicates the significant contribution of hydrogen bond interaction towards the stronger inhibition of PA than PB towards UGT1A6. Praeruptorin A noncompetitively inhibited the activity of UGT1A6 and competitively inhibited the activity of UGT2B7. The inhibition kinetic parameter (K-i) of PA towards UGT1A6 and UGT2B7 was calculated to be 1.2 and 3.3 mu M, respectively. The [I]/K-i value was calculated to be 15.8 and 5.8 for the inhibition of PA on UGT1A6 and UGT2B7, indicating high inhibition potential of PA towards these two UGT isoforms in vivo."

According to the news reporters, the research concluded: "Therefore, closely monitoring the interaction between PA and drugs mainly undergoing UGT1A6 or UGT2B7-catalyzed metabolism is very necessary."


Keywords for this news article include: Tianjin, People's Republic of China, Asia, Phytotherapy, Drugs and Therapies, Glucuronosyltransferase, Enzymes and Coenzymes, Tianjin Medical University.

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**Oncology - Lung Cancer**

**New Findings from Tisch Cancer Institute Describe Advances in Lung Cancer (A mortality study of beryllium workers)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Lung Cancer have been presented. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "We aimed at investigating mortality among beryllium-exposed workers, according to solubility of beryllium and beryllium compounds. We conducted an historical cohort study of 16,115 workers employed during 1925-2008 in 15 facilities, including eight entailing exposure to insoluble beryllium and seven entailing exposure to soluble/mixed beryllium compounds, who were followed up for mortality until 2011."

Financial support for this research came from Materion Brush Inc.

Our news journalists obtained a quote from the research from Tisch Cancer Institute, "Data were analyzed using indirect standardization and Cox regression modeling. Lung cancer standardized mortality ratio (SMR, national reference rates) was 1.02 (95% confidence interval [CI]: 0.94-1.10) in the whole cohort, 0.88 (95% CI: 0.75-1.03) in the insoluble beryllium subcohort, and 1.09 (95% CI: 0.99-1.09) in the soluble/mixed beryllium subcohort. For lung cancer, there was an association with period of hire in soluble/mixed beryllium plants but not in insoluble plants, and, conversely, employment in soluble/mixed plants was associated with increased mortality only among workers hired before 1955. There was no trend with duration of employment. Mortality from chronic beryllium disease increased, in particular, among workers hired before 1955 in soluble/mixed beryllium facilities."

According to the news editors, the research concluded: "There was no increase in lung cancer mortality in the entire cohort and lung cancer mortality was not increased among beryllium workers hired in 1955 or later in soluble/mixed beryllium facilities, or at any time among those employed in insoluble beryllium facilities."

Clinical Research - Clinical Trials and Studies

New Findings from Tokyo Medical and Dental University Describe Advances in Clinical Trials and Studies (Effects of Miconazole Oral Gel on Blood Concentrations of Tacrolimus and Cyclosporine: A Retrospective Observational Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Clinical Research - Clinical Trials and Studies is now available. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Although azole antifungal agents have been shown to affect the pharmacokinetics of calcineurin inhibitors such as tacrolimus (TAC) and cyclosporine (CyA) by inhibiting drug metabolism, there are few clinical reports on drug interactions between miconazole (MCZ) oral gel and calcineurin inhibitors. In this study, the effects of MCZ oral gel on the blood concentrations of TAC and CyA were investigated."

Our news journalists obtained a quote from the research from Tokyo Medical and Dental University, "In this retrospective study, 18 patients concomitantly administered MCZ oral gel and TAC (9 for dermatomyositis, 3 for myasthenia gravis, 2 for systemic lupus erythematosus, 2 for rheumatoid arthritis, 1 for polymyositis, 1 for prevention of graft-versus-host disease after bone marrow transplantation), and 15 patients concomitantly administered MCZ oral gel and CyA (11 for interstitial pneumonia, 2 for pemphigus, 1 for eosinophilic granulomatosis with polyangiitis, 1 for systemic lupus erythematosus) were evaluated. The dose-adjusted blood concentrations of TAC or CyA were compared before and after the initiation of MCZ oral gel. The trough blood concentration/dose (C/D) ratios of TAC and CyA increased significantly with the administration of MCZ oral gel. The median C/D ratios of TAC and CyA increased by 108% (range: -44% to 216%) and 44% (range: -34% to 195%), respectively. These results suggest that MCZ oral gel affects the pharmacokinetics of TAC and CyA."

According to the news editors, the research concluded: "Detailed monitoring of the blood concentrations of these drugs, followed by dose adjustments, is needed for each patient because of the difficulties associated with accurately predicting the degree of the effects of MCZ oral gel."

For more information on this research see: Effects of Miconazole Oral Gel on Blood Concentrations of Tacrolimus and Cyclosporine: A Retrospective Observational Study.
**Therapeutic Drug Monitoring, 2016;38(6):717-721.** *Therapeutic Drug Monitoring* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting M. Nagata, Tokyo Medical & Dental University, Hosp Med, Dept. of Pharm, Tokyo, Japan. Additional authors for this research include M. Nagata, T. Arai, M. Makiishi, M. Yoshikawa, H. Takehashi, H. Kohsaka and M. Yasuhara.

Keywords for this news article include: Tokyo, Japan, Asia, Ophthalmic Antiinflammatory Agents, Clinical Trials and Studies, Miconazole Therapy Nitrate, Immunosuppressive Agents, Ophthalmic Preparations, Dermatological Agents, Drugs and Therapies, Topical Antifungals, Tacrolimus Therapy, Azole Antifungals, Clinical Research, Pharmacokinetics, Pharmaceuticals, Cyclic Peptides, Antiinfectives, Cyclosporins, Cyclosporine, Macrolides, Tokyo Medical and Dental University.

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**Clinical Research - Clinical Trials and Studies**

**New Findings from UCL Hospitals in the Area of Clinical Trials and Studies Described (Overall survival in patients with platinum-sensitive recurrent serous ovarian cancer receiving olaparib maintenance monotherapy: an updated analysis from a ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "In patients with platinum-sensitive recurrent serous ovarian cancer, maintenance monotherapy with the PARP inhibitor olaparib significantly improves progression-free survival versus placebo. We assessed the effect of maintenance olaparib on overall survival in patients with platinum-sensitive recurrent serous ovarian cancer, including those with BRCA1 and BRCA2 mutations (BRCAm)."

Our news journalists obtained a quote from the research from UCL Hospitals, "In this randomised, placebo-controlled, double-blind, phase 2 trial involving 82 sites across 16 countries, patients with platinum-sensitive recurrent serous ovarian cancer who had received two or more courses of platinum-based chemotherapy and had responded to their latest regimen were randomly assigned (1:1) using a computer-generated sequence to receive oral maintenance olaparib (as capsules; 400 mg twice a day) or a matching placebo by an interactive voice response system. Patients were stratified by ancestry, time to progression on penultimate platinum, and response to most recent platinum. Patients and investigators were masked to treatment assignment by the use of unique identifiers generated during randomisation. The primary endpoint of the trial was progression-free survival. In this updated analysis, we present data for overall survival, a secondary endpoint, from the third data analysis after more than 5 years' follow-up (intention-to-treat population). We did the updated overall survival analysis, described in this Article at 77% data maturity, using a two-sided a of 0.95%. As the study was not powered to assess overall survival, this analysis should be regarded as descriptive and the p values are nominal. We analysed randomly assigned patients for overall survival and all patients
who received at least one dose of treatment for safety. This trial is ongoing and is registered with ClinicalTrials.gov, number NCT00753545. Between Aug 28, 2008, and Feb 9, 2010, 265 patients were randomly assigned to olaparib (n=136) or placebo (n=129). 136 patients had deleterious BRCAm. The data cutoff for this analysis was Sept 30, 2015. An overall survival advantage was seen with maintenance olaparib versus placebo in all patients (hazard ratio [HR] 0.73 [95% CI 0.55-0.96]; nominal p=0.025, which did not meet the required threshold for statistical significance [p <0.0095]; median overall survival was 29.8 months [95% CI 26.9-35.7] for those treated with olaparib vs 27.8 months [24.9-33.7] for those treated with placebo), and in patients with BRCAm (HR 0.62 [95% CI 0.41-0.94] nominal p=0.025; 34.9 months [95% CI 29.2-54.6] vs 30.2 months [23.1-40.7]). The overall survival data in patients with BRCA wild-type were HR 0.83 (95% CI 0.55-1.24, nominal p=0.37; 24.5 months [19.8-35.0] for those treated with olaparib vs 26.6 months [23.1-32.5] for those treated with placebo). 11 (15%) of 74 patients with BRCAm received maintenance olaparib for 5 years or more. Overall, common grade 3 or worse adverse events in the olaparib and placebo groups were fatigue (11 [8%] of 136 patients vs four [3%] of 128) and anaemia (eight [6%] vs one [1%]). 30 (22%) of 136 patients in the olaparib group and 11 (9%) of 128 patients in the placebo group reported serious adverse events. In patients treated for 2 years or more, adverse events in the olaparib and placebo groups included low-grade nausea (24 [75%] of 32 patients vs two [40%] of five), fatigue (18 [56%] of 32 vs two [40%] of five), vomiting (12 [38%] of 32 vs zero), and anaemia (eight [25%] of 32 vs one [20%] of five); generally, events were initially reported during the first 2 years of treatment. Despite not reaching statistical significance, patients with BRCA-mutated platinum-sensitive recurrent serous ovarian cancer receiving olaparib maintenance monotherapy after platinum-based chemotherapy appeared to have longer overall survival, supporting the reported progression-free survival benefit. Clinically useful long-term exposure to olaparib was seen with no new safety signals.

According to the news editors, the research concluded: "Taken together, these data support both the long-term clinical benefit and tolerability of maintenance olaparib in patients with BRCA-mutated platinum-sensitive recurrent serous ovarian cancer."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045%2816%2930376-X. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Clinical Trials and Studies, Clinical Research, Oncology, Genetics, Cancer, UCL Hospitals.

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Immunology - Lymphoid Tissue

New Findings from Uniformed Services University of the Health Sciences Describe Advances in Lymphoid Tissue (An algorithm for expanding the TNM staging system)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immunology - Lymphoid Tissue are discussed in a new report. According to news reporting originating in Bethesda, Maryland, by NewsRx journalists, research stated, "We describe a new method to expand the tumor, lymph node, metastasis (TNM) staging system using a clustering algorithm. Cases of breast cancer were used for demonstration."

The news reporters obtained a quote from the research from the Uniformed Services University of the Health Sciences, "An unsupervised ensemble-learning algorithm was used to create dendrograms. Cutting the dendrograms produced prognostic systems. Prognostic systems contained groups of patients with similar outcomes. The prognostic systems based on tumor size and lymph node status recapitulated the general structure of the TNM for breast cancer. The prognostic systems based on tumor size, lymph node status, histologic grade and estrogen receptor status revealed a more detailed stratification of patients when grade and estrogen receptor status were added."

According to the news reporters, the research concluded: "Prognostic systems from cutting the dendrogram have the potential to improve and expand the TNM."

For more information on this research see: An algorithm for expanding the TNM staging system. Future Oncology, 2016;12(8):1015-24.

Our news correspondents report that additional information may be obtained by contacting D. Chen, Dept. of Preventive Medicine & Biostatistics, The Uniformed Services University of the Health Sciences, 4301 Jones Bridge Rd, Bethesda, MD 20814, United States. Additional authors for this research include M.T. Hueman, D.E. Henson and A.M Schwartz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.16.5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, Algorithms, Immunology, Lymph Nodes, United States, Lymphoid Tissue, Hemic and Immune Systems, North and Central America.

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Myeloid Cells

New Findings from University College in the Area of Myeloid Cells Described (Cell-type-specific modulation of innate immune signalling by vitamin D in human mononuclear phagocytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Myeloid Cells. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Vitamin D is widely
reported to inhibit innate immune signalling and dendritic cell (DC) maturation as a potential immunoregulatory mechanism. It is not known whether vitamin D has global or gene-specific effects on transcriptional responses downstream of innate immune stimulation, or whether vitamin D inhibition of innate immune signalling is common to different cells."

Funders for this research include Rosetrees Trust, UK NIHR Biomedical Research Centre, UK Medical Research Council, British Heart Foundation.

Our news journalists obtained a quote from the research from University College, "We confirmed vitamin D inhibition of nuclear factor-jB (NF-kappa B) and p38 mitogen-activated protein kinase (MAPK) signalling in monocyte-derived DC (MDDC) stimulated with lipopolysaccharide (LPS). This was associated with global but modest attenuation of LPS-induced transcriptional changes at genome-wide level. Surprisingly, vitamin D did not inhibit innate immune NF-kappa B activation in monocyte-derived macrophages. Consistent with our findings in MDDC, ex vivo vitamin D treatment of primary peripheral blood myeloid DC also led to significant inhibition of LPS-inducible NF-kappa B activation. Unexpectedly, in the same samples, vitamin D enhanced activation of both NF-kappa B and MAPK signalling in primary peripheral blood monocytes. In a cross-sectional clinical cohort, we found no relationship between peripheral blood vitamin D levels and LPS-inducible activation of NF-kappa B and MAPK pathways in monocytes of myeloid DC. Remarkably, however, in vivo supplementation of people with vitamin D deficiency in this clinical cohort also enhanced LPS-inducible MAPK signalling in peripheral blood monocytes. Therefore, we report that vitamin D differentially modulates the molecular response to innate immune stimulation in monocytes, macrophages and dendritic cells."

According to the news editors, the research concluded: "These results are of importance in the design of studies on vitamin D supplementation in infectious and immunological diseases."

For more information on this research see: Cell-type-specific modulation of innate immune signalling by vitamin D in human mononuclear phagocytes. Immunology, 2017;150 (1):55-63. Immunology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Immunology - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2567)

Our news journalists report that additional information may be obtained by contacting M. Noursadeghi, UCL, Div Infect & Immun, London WC1E 6BT, United Kingdom. Additional authors for this research include A. Theodoraki, C.T. Haas, Y.J. Zhang, B. Chain, J. Kriston-Vizi, M. Noursadeghi and B. Khoo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imm.12669. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Mononuclear Phagocyte System, Hemic and Immune Systems, Mononuclear Leukocytes, Transcription Factors, DNA-Binding Proteins, Bone Marrow Cells, Nuclear Proteins, Dendritic Cells, Cell Research, Myeloid Cells, Macrophages, Blood Cells, NF-kappa B, Immunology, Phagocytes, Monocytes, Genetics, University College.

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Heart Disorders and Diseases - Dilated...

New Findings from University Hospital Describe Advances in Dilated Cardiomyopathy (Reversible Dilated Cardiomyopathy Caused by a High Burden of Ventricular Arrhythmias in Andersen-Tawil Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Dilated Cardiomyopathy is now available. According to news originating from Wurzburg, Germany, by NewsRx correspondents, research stated, "Andersen-Tawil syndrome (ATS) is caused by mutations in KCNJ2 (Kir2.1). It remains unclear whether dilated cardiomyopathy (DCM) is a primary feature of ATS."

Our news journalists obtained a quote from the research from University Hospital, "We studied a proband with typical physical features of ATS plus DCM and moderate to severe left ventricular dysfunction (left ventricular ejection fraction = 30.5%). Genetic screening revealed a novel mutation in Kir2.1 (c.665T >C, p.L222S). Functional studies showed that this mutation reduced ionic currents in a dominant-negative manner. Suppression of ventricular arrhythmias with bisoprolol led to normalization of left ventricular size and function."

According to the news editors, the research concluded: "DCM is likely a secondary phenotype in ATS and is caused by high ventricular arrhythmia burden."


The news correspondents report that additional information may be obtained from B. Gerull, Univ Hosp Wurzburg, Dept. of Med 1, Wurzburg, Germany. Additional authors for this research include J.Q. Guo, H.J. Duff, R.A. Ferrier and B. Gerull.

Keywords for this news article include: Wurzburg, Germany, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Andersen-Tawil Syndrome, Dilated Cardiomyopathy, Cardiomyopathies, Heart Disease, Arrhythmia, Cardiology, Neurology, Genetics, University Hospital.

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Oncology - Lung Cancer

New Findings from University Hospital Describe Advances in Lung Cancer (Evaluation of the relevance of surgery in a retrospective case series of patients who underwent the surgical treatment of a symptomatic spine metastasis from lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lung Cancer. According to news reporting originating in Lille, France, by NewsRx journalists, research stated, "The
management of spine metastases is an increasing concern for spine surgeons. When considering surgery, it is crucial to ensure that its iatrogenic effects will not exceed its potential benefits, particularly in frail patients with short life expectancy."

The news reporters obtained a quote from the research from University Hospital, "Among all prognostic factors, the primary site of cancer is the most important, lung cancer being the poorest. Although surgery has shown its effectiveness in the management of spine metastases, there is a lack of studies focusing on lung cancer alone. To assess the effectiveness and safety of surgery in the management of symptomatic spine metastases from lung cancer. We retrospectively reviewed all patients (n = 53) who underwent surgery for spine metastasis from lung cancer at the Lille University Hospital between January 2005 and December 2011. Patients for whom surgery was effective to restore or preserve ambulation, to relieve pain, and to ensure stability without severe complication were considered 'surgical success'. No patient was lost to follow-up and vital status data were available for all patients. The median survival was 2.1 months and was not influenced by the surgical success (p = 0.1766). We reported seven major complications in seven patients, including three epidural haematoma, two massive pulmonary embolisms and two deaths from cardiopulmonary failure. The surgical success rate was 49 % and on univariate analysis, the factors that have influenced the postoperative outcome were the KPS (p < 0.001), the Frankel grade (p = 0.0217) and the delay between the cancer diagnosis and the occurrence of spine metastases (p = 0.0216)."

According to the news reporters, the research concluded: "A strict patient selection is required to limit the iatrogenic effect of surgery, which may alter the quality of life of these frail patients with limited life expectancy."

For more information on this research see: Evaluation of the relevance of surgery in a retrospective case series of patients who underwent the surgical treatment of a symptomatic spine metastasis from lung cancer. European Spine Journal, 2016;25(12):4052-4059. European Spine Journal can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Spine Journal - www.springerlink.com/content/0940-6719/)

Our news correspondents report that additional information may be obtained by contacting F. Zairi, CHRU Lille, Dept. of Neurosurg, F-59000 Lille, France. Additional authors for this research include M.A. Karnoub, M.H. Vieillard, A. Bouras, P. Marinho, M. Allaoui, P. Devos and R. Assaker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00586-016-4397-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lille, France, Europe, Lung Neoplasms, Lung Cancer, Oncology, Surgery, University Hospital.

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Cardiovascular Diseases and Conditions - Aneurysm

New Findings from University Hospital Yields New Data on Aneurysm (A rare case of a giant saphenous vein graft aneurysm with right atrial fistula formation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Aneurysm have been published. According to news reporting originating in Cardiff, United Kingdom, by NewsRx journalists, research stated, "A 57-year-old hypertensive and dyslipidaemic man with a history of coronary artery bypass graft 19 years previously, presented with severe exertional angina and dyspnoea despite optimal anti-ischaemic pharmacological therapy and previous percutaneous coronary intervention to the left circumflex artery. CT revealed an aneurysm of the saphenous vein graft to the posterior left ventricular branch of the right coronary artery."

The news reporters obtained a quote from the research from University Hospital, "The aneurysm had formed a fistulous connection with the right atrium. Initially, luminal reconstruction with serial stents was deemed the most appropriate treatment strategy. However, the procedure was abandoned due to the inability to visualise the graft distal to the aneurysm and the significant shunt to the right atrium."

According to the news reporters, the research concluded: "Surgical correction of the right atrial wall defect and replacement of the diseased grafts led to complete resolution of the patient's symptoms."

For more information on this research see: A rare case of a giant saphenous vein graft aneurysm with right atrial fistula formation. Bmj Case Reports, 2016:2016():. (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting K. Moschonas, University Hospital of Wales, Cardiff University School of Medicine, Cardiff, UK. Additional authors for this research include T. Patterson, R. Rajani and C. Young.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2015-213955. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Tissue Engineering, Biomedical Engineering, Biomedicine, Europe, Cardiff, Aneurysm, Angiology, Cardiology, Vein Graft, United Kingdom, Bioengineering, Saphenous Vein, Coronary Artery, Cardiovascular Diseases and Conditions.

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Drugs and Therapies - Antimicrobial Agents and …

New Findings from University Hospital in the Area of Antimicrobial Agents and Chemotherapy Reported (Preventing Implant-Associated Infections by Silver Coating)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antimicrobial Agents and Chemotherapy. According to news reporting out of Basel, Switzerland, by NewsRx editors, research stated, "Implant-associated infections (IAIs) are a dreaded complication mainly caused by biofilm-forming staphylococci. Implant surfaces preventing microbial colonization would be desirable."

Financial supporters for this research include Swiss National Foundation, Commission for Technology and Innovation.

Our news journalists obtained a quote from the research from University Hospital,
"We examined the preventive effect of a silver-coated titanium-aluminum-niobium (TiAlNb) alloy. The surface elicited a strong, inoculum-dependent activity against *Staphylococcus epidermidis* and *Staphylococcus aureus* in an agar inhibition assay. Gamma sterilization and alcohol disinfection did not alter the effect. In a tissue cage mouse model, silver coating of TiAlNb cages prevented perioperative infections in an inoculum-dependent manner and led to a 100% prevention rate after challenge with $2 \times 10^6$ CFU of *S. epidermidis* per cage. In *S. aureus* infections, silver coating had only limited effect. Similarly, daptomycin or vancomycin prophylaxis alone did not prevent *S. aureus* infections. However, silver coating combined with daptomycin or vancomycin prophylaxis thwarted methicillin-resistant *S. aureus* infections at a prevention rate of 100% or 33%, respectively. Moreover, silver release from the surface was independent of infection and occurred rapidly after implantation. On day 2, a peak of 82 mg Ag/ml was reached in the cage fluid, corresponding to almost 6? the MIC of the staphylococci. Cytotoxicity toward leukocytes in the cage was low and temporary. Surrounding tissue did not reveal histological signs of silver toxicity. In vitro, no emergence of silver resistance was observed in several clinical strains of staphylococci upon serial subinhibitory silver exposures."

According to the news editors, the research concluded: "Our data demonstrate that silver-coated TiAlNb is potent for prevention of IAIs and thus can be considered for clinical application."

For more information on this research see: Preventing Implant-Associated Infections by Silver Coating. *Antimicrobial Agents and Chemotherapy*, 2016;60(4):2467-75. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting R. Kuehl, Infection Biology Laboratory, Dept. of Biomedicine, University and University Hospital of Basel, Basel, Switzerland Division of Infectious Diseases and Hospital Epidemiology, University Hospital of Basel, Basel, Switzerland. Additional authors for this research include P.S. Brunetto, A.K. Woischnig, M. Varisco, Z. Rajacic, J. Vosbeck, L. Terracciano, K.M. Fromm and N. Khanna.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.02934-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antimicrobial Agents and Chemotherapy, Basel, Europe, Switzerland, Drugs and Therapies.

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Cardiovascular Diseases

**New Findings from University Hospital in the Area of Cardiovascular Diseases Described (New concepts in the management of dyslipidaemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases are discussed in a new report. According to news reporting originating from Geneva, Switzerland, by NewsRx correspondents, research stated, "Recently, the European Society of Cardiology (ESC) and the European Atherosclerosis Society (EAS) published a consensus paper giving guidance on the
definition and management of statin-associated muscle symptoms (SAMS), as well as the use of proprotein convertase subtilisin kexin 9 (PCSK9) inhibitors in very high-risk patients. The occurrence of SAMS can have a major negative impact on treatment adherence and, consequently, on the prognosis of cardiovascular diseases."

Our news editors obtained a quote from the research from University Hospital, "In addition, both the ESC guidelines on the prevention of cardiovascular disease (CVD) in clinical practice with sections addressing global strategies to minimise the burden of CVD at population and individual levels, and the 2016 ESC/EAS guideline for the management of dyslipidaemias, focus on evaluation and treatment of SAMS. The release of these guidelines was a source of great interest to clinicians, as new emergent therapies, such as the PCSK9 inhibitors, have been approved for the treatment of dyslipidaemias: recently, both the US Food and Drugs Administration (FDA) and the European Medicines Agency (EMA) approved the use of PCSK9 inhibitors as add-ons for the treatment of hypercholesterolaemia in cases where low-density lipoprotein cholesterol (LDL-C) target levels could not be reached with maximum tolerated statin doses alone, or instead of statins in the event of SAMS. Because of the relatively high cost of these new therapies, physicians need to justify the use of PCSK9 inhibitors by demonstrating that their high-risk patients' LDL-C levels have remained high (1) despite a well-conducted, but insufficiently effective high-intensity statin therapy (e.g. rosuvastatin 10-20 mg or atorvastatin 40-80 mg), or (2) in the event of the patient developing side effects, in particular severe SAMS, during treatment with at least three statins."

According to the news editors, the research concluded: "In addition to SAMS, the use of PCSK9 inhibitors may be considered in patients with documented atherosclerotic cardiovascular disease or in patients with familial hypercholesterolaemia and poorly controlled LDL-C under the combination of maximum tolerated statin and ezetimibe."

For more information on this research see: New concepts in the management of dyslipidaemia. Swiss Medical Weekly, 2016;146():54-61. Swiss Medical Weekly can be contacted at: E M H Swiss Medical Publishers Ltd, Farnburgerstr 8, Ch-4132 Muttenz, Switzerland.

The news editors report that additional information may be obtained by contacting B. Gencer, University Hospital Geneva, Div Cardiol, Dept. of Med, Geneva, Switzerland. Additional authors for this research include N. Rodondi and F. Mach.

Keywords for this news article include: Geneva, Switzerland, Europe, Cardiovascular Diseases and Conditions, Cardiology, University Hospital.

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Oncology - Gastric Cancer

New Findings from University Hospital in the Area of Gastric Cancer Reported (Advanced gastric cancer: Current treatment landscape and future perspectives)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Gastric Cancer is now available. According to news reporting out of Lausanne, Switzerland, by NewsRx editors, research stated, "Gastric cancer currently ranks fourth in cancer-related mortality worldwide. In the western world, it is most often diagnosed at an advanced stage, after becoming metastatic at distant sites."
Our news journalists obtained a quote from the research from University Hospital, "Patients with advanced disease (locally advanced or metastatic) have a somber prognosis, with a median overall survival of 10-12 mo, and palliative chemotherapy is the mainstay of treatment. In recent years, novel approaches using inhibition of human epidermal growth factor receptor 2 (HER2) have demonstrated significant improvements in progression-free and overall survival, compared with chemotherapy alone, in first-line treatment of patients with overexpression of HER2. In addition, both second-line chemotherapy and treatment with the vascular endothelial growth factor receptor-inhibitor ramucirumab demonstrated significant benefits in terms of overall survival, compared with best supportive care, in randomized studies. Moreover, ramucirumab in combination with chemotherapy demonstrated further significant benefits in terms of progression-free and overall survival, compared with chemotherapy alone, in second-line treatment for patients with metastatic gastric cancer. A recently published molecular classification of gastric cancer is expected to improve patient stratification and selection for clinical trials and provide a roadmap for future drug development. Nevertheless, despite these developments the prognosis of patients with advanced gastric cancer remains poor."

According to the news editors, the research concluded: "In this review we discuss current standards of care and outline major topics of drug development in gastric cancer."


Our news journalists report that additional information may be obtained by contacting A. Digklia, Antonia Digklia, Anna Dorothea Wagner, Departement d'Oncologie, Centre Hospitalier Universitaire Vaudois, 1011 Lausanne, Switzerland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i8.2403. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Lausanne, Oncology, Switzerland, Chemotherapy, Article Review, Gastric Cancer, Gastroenterology, Drugs and Therapies.

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Mycobacterium Infections - Tuberculosis

New Findings from University Hospital in the Area of Tuberculosis Reported (Early Bactericidal Activity of AZD5847 in Patients with Pulmonary Tuberculosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections - Tuberculosis. According to news reporting out of Cleveland, Ohio, by NewsRx editors, research stated, "AZD5847 is an oxazolidinone antibiotic with in vitro activity against Mycobacterium tuberculosis. The objective of this study was to evaluate the antimycobacterial activity, safety, and pharmacokinetics of AZD5847 in patients with pulmonary tuberculosis."

Financial support for this research came from HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID).
Our news journalists obtained a quote from the research from University Hospital, "Groups of 15 treatment-naive, sputum smear-positive adults with pulmonary tuberculosis were randomly assigned to receive AZD5847 at one of four doses (500 mg once daily, 500 mg twice daily, 1,200 mg once daily, and 800 mg twice daily) or daily standard chemotherapy. The primary efficacy endpoint was the mean daily rate of change in the log(10) number of CFU of M. tuberculosis per milliliter of sputum, expressed as the change in log(10) number of CFU per milliliter of sputum per day. The mean 14-day activity of the combination of isoniazid, rifampin, ethambutol, and pyrazinamide (-0.163 log(10) CFU/ml sputum/day; 95% confidence interval [CI], -0.193,-0.133 log(10) CFU/ml sputum/day) was consistent with that found in previous studies. AZD5847 at 500 mg twice daily significantly decreased the number of CFU on solid medium (-0.039; 95% CI, -0.069,-0.009; P = 0.0048). No bactericidal activity was detected at doses of AZD5847 of 500 mg once daily (mean early bactericidal activity [EBA], 0.02 [95% CI, -0.01, 0.05]), 1,200 mg once daily (mean EBA, 0.02 [95% CI, -0.01, 0.05]), and 800 mg twice daily (mean EBA, 0.02 [95% CI, -0.01, 0.05]). AZD5847 at doses of both 500 mg and 800 mg twice daily also showed an increase in the time to a positive culture in MGIT liquid culture medium. Two serious adverse events (grade 4 thrombocytopenia and grade 4 hyperbilirubinemia) occurred in patients receiving AZD5847 at higher doses."

According to the news editors, the research concluded: "AZD5847 dosed twice daily kills tubercle bacilli in the sputum of patients with pulmonary tuberculosis and has modest early bactericidal activity."

For more information on this research see: Early Bactericidal Activity of AZD5847 in Patients with Pulmonary Tuberculosis. *Antimicrobial Agents and Chemotherapy*, 2016;60 (11):6591-6599. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting J.J. Furin, Univ Hosp Case Med Center, Cleveland, OH 44106, United States. Additional authors for this research include J. Du Bois, E. van Brakel, P. Chheng, A. Venter, C.A. Peloquin, A. Alsultan, B.A. Thiel, S.M. Debanne, W.H. Boom, A.H. Diacon and J.L. Johnson.

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Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Gram-Positive Bacterial Infections, Lung Diseases and Conditions, Actinomycetales Infections, Mycobacterium Tuberculosis, Mycobacterium Infections, Pulmonary Tuberculosis, University Hospital.

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**Oncology - Breast Cancer**

**New Findings from University of Adelaide in Breast Cancer Provides New Insights (The safety and effectiveness of liver resection for breast cancer liver metastases: A systematic review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting from Adelaide, Australia, by NewsRx journalists, research stated, "Breast cancer liver metastases have traditionally been considered incurable and any treatment given therefore palliative. Liver resections for breast cancer metastases are being performed, despite there being no robust evidence for which patients benefit."

The news correspondents obtained a quote from the research from the University of Adelaide, "This review aims to determine the safety and effectiveness of liver resection for breast cancer metastases. A systematic literature review was performed and resulted in 33 papers being assembled for analysis. All papers were case series and data extracted was heterogeneous so a meta-analysis was not possible. Safety outcomes were mortality and morbidity (in hospital and 30-day). Effectiveness outcomes were local recurrence, re-hepatectomy, survival (months), 1-, 2-, 3-, 5- year overall survival rate (%), disease free survival (months) and 1-, 2-, 3-, 5- year disease free survival rate (%). Overall median figures were calculated using unweighted median data given in each paper. Results demonstrated that mortality was low across all studies with a median of 0% and a maximum of 5.9%. The median morbidity rate was 15%. Overall survival was a median of 35.1 months and a median 1-, 2-, 3- and 5-year survival of 84.55%, 71.4%, 52.85% and 33% respectively. Median disease free survival was 21.5 months with a 3- and 5-year median disease free survival of 36% and 18%. Whilst the results demonstrate seemingly satisfactory levels of overall survival and disease free survival, the data are of poor quality with multiple confounding variables and small study populations."

According to the news reporters, the research concluded: "Recommendations are for extensive pilot and feasibility work with the ultimate aim of conducting a large pragmatic randomised control trial to accurately determine which patients benefit from liver resection for breast cancer liver metastases."


Our news journalists report that additional information may be obtained by contacting K. Fairhurst, University of Adelaide, Discipline Surg, Queen Elizabeth Hospital, Adelaide, SA 5011, Australia. Additional authors for this research include L. Leopardi, T. Satyadas and G. Maddern.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.breast.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Environment and Public Health, Cancer, Article Review, Disease-Free Survival, Statistics as Topic, Survival Analysis, Gastroenterology, Liver Resection, Women's Health, Breast Cancer, Epidemiology, Hepatology, Oncology, Surgery, University of Adelaide.

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Mosquito-Borne Diseases - Zika Virus

New Findings from University of Alberta in Zika Virus Provides New Insights (Zika virus inhibits type-I interferon production and downstream signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Mosquito-Borne Diseases - Zika Virus are discussed in a new report. According to news reporting originating in Edmonton, Canada, by NewsRx journalists, research stated, "Zika virus is an emerging mosquito-borne pathogen that is associated with Guillain-Barre syndrome in adults and microcephaly and other neurological defects in newborns. Despite being declared an international emergency by the World Health Organization, comparatively little is known about its biology."

The news reporters obtained a quote from the research from the University of Alberta, "Here, we investigate the strategies employed by the virus to suppress the host antiviral response. We observe that once established, Zika virus infection is impervious to interferon treatment suggesting that the virus deploys effective countermeasures to host cell defences. This is confirmed by experiments showing that Zika virus infection impairs the induction of type-I interferon as well as downstream interferon-stimulated genes. Multiple viral proteins affect these processes. Virus-mediated degradation of STAT2 acts to reduce type-I and type-III interferon-mediated signaling. Further, the NS5 of Zika virus binds to STAT2, and its expression is correlated with STAT2 degradation by the proteasome. Together, our findings provide key insights into how Zika virus blocks cellular defense systems."

According to the news reporters, the research concluded: "This in turn is important for understanding pathogenesis and may aid in designing antiviral therapies."

For more information on this research see: Zika virus inhibits type-I interferon production and downstream signaling. *EMBO Reports*, 2016;17(12):1766-1775. *EMBO Reports* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; EMBO Reports - www.nature.com/embor/)

Our news correspondents report that additional information may be obtained by contacting T.C. Hobman, University of Alberta, Women & Childrens Hlth Res Inst, Edmonton, AB, Canada. Additional authors for this research include S.M. Hou, A.M. Airo, D. Limonta, V. Mancinelli, W. Branton, C. Power and T.C. Hobman.

Keywords for this news article include: Edmonton, Alberta, Canada, North and Central America, Intercellular Signaling Peptides and Proteins, Mosquito-Borne Diseases, Interferons, RNA Viruses, Zika Virus, Flavivirus, Cytokines, Virology, Genetics, University of Alberta.

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Nervous System Diseases and Conditions -...

New Findings from University of Belgrade Update Understanding of Hyperalgesia (Participation Of Peripheral Trpv1, Trpv4, Trpa1 And Asic In A Magnesium Sulfate-induced Local Pain Model In Rat)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nervous System Diseases and Conditions - Hyperalgesia are discussed in a new report. According to news reporting originating from Belgrade, Serbia, by NewsRx correspondents, research stated, "We previously showed that magnesium sulfate (MS) has systemic antinociceptive and local peripheral pronociceptive effects. The role of transient receptor potential (TRP) channels and acid-sensing ion channels (ASICs) in the mechanism of action of MS has not been investigated in detail."

Financial support for this research came from Ministry of Education, Science and Technological Development.

Our news editors obtained a quote from the research from the University of Belgrade, "The aim of this study was to explore the participation of TRP channels in the pronociceptive action of MS in rats after its intraplantar injection. The paw withdrawal threshold (PWT) to mechanical stimuli was measured by the electronic von Frey test. Drugs that were tested were either co-administered with an isotonic pH-unadjusted or pH-adjusted solution of MS intraplantarily, or to the contralateral paw to exclude systemic effects. We found that the subcutaneous administration of both pH-adjusted (7.4) and pH-unadjusted (about 6.0) isotonic (6.2% w/v in water) solutions of MS induce the pain at the injection site. The pH-unadjusted MS solution-induced mechanical hyperalgesia decreased in a dose-dependent manner as a consequence of co-injection of capsazepine, a selective TRPV1 antagonist (20, 100 and 500 pmol/paw), RN-1734, a selective TRPV4 antagonist (1.55, 3.1 and 6.2 timol/paw), HC-030031, a selective TRPA1 antagonist (5.6, 28.1 and 140 nmol/paw), and amiloride hydrochloride, a non-selective ASIC inhibitor (0.83, 2.5 and 7.55 mol/paw). In pH-adjusted MS-induced hyperalgesia, the highest doses of TRPV1, TRPV4 and TRPA1 antagonists displayed effects that were, respectively, either similar, less pronounced or delayed in comparison to the effect induced by administration of the pH-unadjusted MS solution; the ASIC antagonist did not have any effect. These results suggest that the MS induced local peripheral mechanical hyperalgesia is mediated via modulation of the activity of peripheral TRPV1, TRPV4, TRPA1 and ASICs."

According to the news editors, the research concluded: "Specific local inhibition of TRP channels represents a novel approach to treating local injection-related pain."

For more information on this research see: Participation Of Peripheral Trpv1, Trpv4, Trpa1 And Asic In A Magnesium Sulfate-induced Local Pain Model In Rat. Neuroscience, 2016;339():1-11. Neuroscience can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Neuroscience - www.journals.elsevier.com/neuroscience/)

The news editors report that additional information may be obtained by contacting D. Srebro, University of Belgrade, Fac Med, Dept. of Pharmacol Clin Pharmacol & Toxicol, Belgrade 11129, Serbia. Additional authors for this research include S. Vuckovic and M. Prostran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neuroscience.2016.09.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belgrade, Serbia, Europe, Nervous System Diseases and Conditions, Central Nervous System Agents, Transient Receptor Potential, Magnesium Sulfate Therapy, Neurologic Manifestations, Gastrointestinal Agents, Somatosensory Disorders, Magnesium Compounds, Inorganic Chemicals, Drugs and Therapies, Sensation Disorders, Sulfur Compounds, Carrier Proteins, Pharmaceuticals, Anticonvulsants, Sulfur Acids, Light Metals, Hyperalgesia, Laxatives, University of Belgrade. Our reports deliver fact-based news of research and discoveries from around the
New Findings from University of Brescia in the Area of Dementia Described (Looking for Neuroimaging Markers in Frontotemporal Lobar Degeneration Clinical Trials: A Multi-Voxel Pattern Analysis Study in Granulin Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurodegenerative Diseases and Conditions - Dementia. According to news reporting from Brescia, Italy, by NewsRx journalists, research stated, "In light of future pharmacological interventions, neuroimaging markers able to assess the response to treatment would be crucial. In Granulin (GRN) disease, preclinical data will prompt pharmacological trials in the future."

The news correspondents obtained a quote from the research from the University of Brescia, "Two main points need to be assessed: (1) to identify target regions in different disease stages and (2) to determine the most accurate functional and structural neuroimaging index to be used. To this aim, we have taken advantage of the multivariate approach of multi-voxel pattern analysis (MVPA) to explore the information of brain activity patterns in a cohort of GRN Thr272fs carriers at different disease stages (14 frontotemporal dementia (FTD) patients and 17 asymptomatic carriers) and a group of 33 healthy controls. We studied structural changes by voxel-based morphometry (VBM), functional connectivity by assessing salience, default mode, fronto-parietal, dorsal attentional, executive networks, and local connectivity by regional homogeneity, amplitude of low frequency fluctuations (ALFF), fractional ALFF (fALFF), degree centrality, and voxel-mirrored homotopic connectivity. In FTD patients with GRN mutation, the most predictive measure was VBM structural analysis, while in asymptomatic carriers the best predictor marker was the local connectivity measure (fALFF). Altogether, all indexes demonstrated fronto-temporo-parietal damage in GRN pathology, with widespread structural damage of fronto-parietal and temporal regions when disease is overt. MVPA could be of aid in identifying the most accurate neuroimaging marker for clinical trials. This approach was able to identify both the target region and the best neuroimaging approach, which would be specific in the different disease stages."

According to the news reporters, the research concluded: "Further studies are needed to simultaneously integrate multimodal indexes in a classifier able to trace the disease progression moving from preclinical to clinical stage of the disease."


Our news journalists report that additional information may be obtained by contacting E. Premi, Centre for Ageing Brain and Neurodegenerative Disorders, Neurology Unit, Dept. of Clinical and Experimental Sciences, University of Brescia, Brescia, Italy. Additional authors for this research include F. Cauda, T. Costa, M. Diano, S. Gazzina, V. Gualeni, A. Alberici, S. Archetti, M. Magoni, R. Gasparotti, A. Padovani and B. Borroni.

The direct object identifier (DOI) for that additional information is:
Understanding of Cerebral Infarction (Dissociation of Early and Delayed Cerebral Infarction After Aneurysmal Subarachnoid Hemorrhage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Cerebral Infarction are discussed in a new report. According to news originating from Vancouver, Canada, by NewsRx correspondents, research stated, "Cerebral infarction after aneurysmal subarachnoid hemorrhage is a significant cause of substantial morbidity and mortality. Because early and delayed cerebral infarction after aneurysmal subarachnoid hemorrhage may be mediated by different processes, we evaluated whether aneurysm-securing methods contributed to infarcts and whether long-term outcomes differ between early and delayed infarcts."

Our news journalists obtained a quote from the research from the University of British Columbia, "A post hoc analysis of the CONSCIOUS-1 study (Clazosentan to Overcome Neurological Ischemia and Infarction Occurring After Subarachnoid Hemorrhage) was performed. Using multivariate logistic regression analysis and propensity matching, independent clinical risk factors associated with infarctions were identified, and the contribution of cerebral infarcts to long-term outcomes was evaluated. Within the cohort of 413 subjects, early infarcts were present in 76 subjects (18%), whereas delayed infarcts occurred in 79 subjects (19%), and 36 subjects (9%) had new infarctions that were present on both early and delayed imaging. Propensity score matching revealed a significantly higher proportion of early infarcts after clipping (odds ratio, 4.62; 95% confidence interval, 1.99-11.57; P=0.00012). Multivariate logistic regressions identified clipping as an independent risk factor for early cerebral infarction (odds ratio, 0.26; 95% confidence interval, 0.15-0.48; P<0.001), and angiographic vasospasm was an independent risk factor for delayed cerebral infarction (odds ratio, 1.79; 95% confidence interval, 1.03-3.13; P=0.039). Early infarcts were a significant independent risk factor for poor long-term outcomes at 3 months (odds ratio, 2.34; 95% confidence interval, 1.18-4.67; P=0.015). Clipping is an independent risk factor for the development of early cerebral infarcts, whereas delayed cerebral infarcts are associated with angiographic vasospasm."

According to the news editors, the research concluded: "Early cerebral infarcts are stronger predictors of worse outcome than delayed infarction."

For more information on this research see: Dissociation of Early and Delayed
Cerebral Infarction After Aneurysmal Subarachnoid Hemorrhage. *Stroke*, 2016;47(12):2945-2951. *Stroke* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Stroke - stroke.ahajournals.org/)

The news correspondents report that additional information may be obtained from O.G.S. Ayling, University of British Columbia, Dept. of Surg, Div Neurosurg, Vancouver, BC V5Z 1M9, Canada. Additional authors for this research include G.M. Ibrahim, N.M. Alotaibi, P.A. Gooderham and R.L. Macdonald.

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Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Brain Diseases and Conditions, Cerebrovascular Disorders, Intracranial Hemorrhages, Subarachnoid Hemorrhage, Risk and Prevention, Cerebral Infarction, Brain Infarction, Brain Ischemia, Stroke, University of British Columbia.

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Hematologic Diseases and Conditions - Anemia

**New Findings from University of British Columbia in the Area of Anemia Reported (Spine tumor resection among patients who refuse blood product transfusion: a retrospective case series)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematologic Diseases and Conditions - Anemia have been published. According to news reporting out of Vancouver, Canada, by NewsRx editors, research stated, "To describe the perioperative blood conservation strategies and postoperative outcomes in patients who undergo complex spinal surgery for tumor resection and who also refuse blood product transfusion. A retrospective case series."

Our news journalists obtained a quote from the research from the University of British Columbia, "A single-center, tertiary care and academic teaching hospital in Canada. All adult patients undergoing elective major spine tumor resection and refusing blood product transfusion who were referred to our institutional Blood Utilization Program between June 1, 2004, and May 9, 2014. Data on the use of iron, erythropoietin, preoperative autologous blood donation, acute normovolemic hemodilution, antifibrinolytic therapy, cell salvage, intraoperative hypotension, and active warming techniques were collected. Data on perioperative hemoglobin nadir, adverse outcomes, and hospital length of stay were also collected. Four patients who refused blood transfusion (self-identified as Jehovah's Witnesses) underwent non-emergent complex spine surgery for recurrent chondrosarcoma, meningioma, metastatic adenocarcinoma, and metastatic malignant melanoma. All patients received 1 or more perioperative blood conservation strategy including preoperative iron and/or erythropoietin, intraoperative antifibrinolytic therapy, and cell salvage. No patients experienced severe perioperative anemia (average hemoglobin nadir, 124 g/L) or anemia-related postoperative complications. Patients who decline blood product transfusion can successfully undergo major spine tumor resection."
According to the news editors, the research concluded: "Careful patient selection and timely referral for perioperative optimization such that the risk of severe anemia is minimized are important for success."


Our news journalists report that additional information may be obtained by contacting A.E. Kisilevsky, University of British Columbia, Dept. of Anesthesiol Pharmacol & Therapeut, Vancouver, BC, Canada. Additional authors for this research include L. Stobart, K. Roland and A.M. Flexman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.08.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Surgery, Risk and Prevention, Transfusion Medicine, Blood Transfusion, Medical Devices, Blood Products, Hospital, Anemia, University of British Columbia.

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**Toxicology - Ecotoxicology**

**New Findings from University of Buenos Aires Update Understanding of Ecotoxicology [Toxicity and genotoxicity assessment in sediments from the Matanza-Riachuelo river basin (Argentina) under the influence of heavy metals and organic contaminants]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Toxicology - Ecotoxicology. According to news originating from Buenos Aires, Argentina, by NewsRx correspondents, research stated, "The aim of this study was to investigate the parameters of chemical extraction associated with the detection of toxicity and genotoxicity in sediment sample extracts. Quantitative analysis of metals and polycyclic aromatic hydrocarbons (PAHs), together with a battery of four bioassays, was performed in order to evaluate the extraction efficiency of inorganic and organic toxicants."

Financial support for this research came from Buenos Aires University.

Our news journalists obtained a quote from the research from the University of Buenos Aires, "The extracts were carried out using two inorganic solvents, two organic solvents and two extraction methodologies, making a total of five extracts. Two toxicity tests, the algal growth inhibition of Pseudokirchneriella subcapitata and the root elongation inhibition of Lactuca sativa, and two genotoxicity tests, the analysis of revertants of Salmonella typhimurium and the analysis of micronuclei and chromosomal aberrations in Allium cepa, were performed. According to the chemical analysis, the acidic solution extracted more heavy metal
concentrations than distilled water, and dichloromethane extracted more but fewer concentrations of PAH compounds than methanol. Shaker extracts with distilled water were non-toxic to P. subcapitata, but were toxic to L. saliva. The acidic extracts were more toxic to P. subcapitata than to L. sativa. The methanolic organic extracts were more toxic to the alga than those obtained with dichloromethane. None of these extracts resulted toxic to L. saliva. Mutagenic effects were only detected in the organic dichloromethane extracts in the presence of metabolic activation. All the inorganic and organic extracts were genotoxic to A. cepa."

According to the news editors, the research concluded: "This study showed that the implementation of different extraction methods together with a battery of bioassays could be suitable tools for detecting toxicity and genotoxicity in sediment samples."

For more information on this research see: Toxicity and genotoxicity assessment in sediments from the Matanza-Riachuelo river basin (Argentina) under the influence of heavy metals and organic contaminants. *Ecotoxicology and Environmental Safety*, 2017;135():302-311. *Ecotoxicology and Environmental Safety* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Ecotoxicology and Environmental Safety - www.journals.elsevier.com/ecotoxicology-and-environmental-safety/)

The news correspondents report that additional information may be obtained from A. Magdaleno, University of Buenos Aires, Fac Farm & Bioquim, Catedra Salud Public & Higiene Ambiental, Buenos Aires, DF, Argentina. Additional authors for this research include J. Moretton, A.F. de Iorio, C. Weigandt, J. Etcheverry, J. Filippetto and A. Magdaleno.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ecoenv.2016.09.024. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Buenos Aires, Argentina, South America, Ecotoxicology, Toxicology, Genetics, University of Buenos Aires.

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**New Findings from University of Cairo Update Understanding of Gastric Ulcers (Combined effect of bone marrow derived mesenchymal stem cells and nitric oxide inducer on injured gastric mucosa in a rat model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Digestive System Diseases and Conditions - Gastric Ulcers are presented in a new report. According to news reporting originating in Cairo, Egypt, by NewsRx journalists, research stated, "To study the effect of intravenous injection of bone marrow mesenchymal stem cells (BMMSCs), alone and combined with NO inducer in gastric ulcer healing in a rat model. Rats were divided into controls, gastric ulcer, gastric ulcer receiving mesenchymal stem cells (MSCs), gastric ulcer receiving NO inducer (L-Arginine), gastric ulcer receiving MSCs plus NO inducer (L-Arginine) groups."

Financial support for this research came from Faculty of Medicine, Cairo University. The news reporters obtained a quote from the research from the University of Cairo, "MSCs were given in a dose of (10(6)cells) by intravenous injection. L-Arginine was given 300 mg/kg body weight intraperitoneally. 24 h and 7 days after BMMSCs and NO inducer injection,
VEGF, PGE, TNF-alpha were assessed by ELISA. Gene expression of HGF, caspase-3, eNOS and BAX/Bcl-2 in gastric tissues were studied by real time PCR. Histopathology staining of gastric tissues was performed. Injection of MSCs or NO inducer or both to the gastric ulcer group significantly decreased caspase-3 and BAX genes expression (apoptotic factors) and increased Bcl-2 gene expression (anti-apoptotic factor) compared to that of the gastric ulcer group after both 24 h and 7 days with more significant results in the gastric group received both MSCs and NO inducer. HGF gene expression was significantly increased in the groups injected with MSCs or NO inducer or both compared with the corresponding gastric ulcer group (p < 0.05, p< 0.05 & p< 0.001 respectively). There was a significant decrease in the mean PGE2 and TNF-alpha levels in the gastric ulcer group receiving MSCs, the gastric ulcer group receiving NO and the gastric ulcer group receiving both MSCs and NO compared to the gastric ulcer group after both 24 h and 7 days. Histopathological examination of gastric tissue of groups that received stem cells or NO alone, showed mucosal regenerative changes with increased thickness together with reduced inflammatory cellular infiltrate in the submucosa and decreased congestion. There was complete restoration in gastric mucosa in the group that received both stem cells and NO."

According to the news reporters, the research concluded: "Administration of MSCs, NO, or MSCs plus NO may exert a therapeutic effect on the mucosal lesion in gastric ulcer through their anti-inflammatory, angiogenic and antiapoptotic actions."


Our news correspondents report that additional information may be obtained by contacting D.M. Gharib, Cairo University, Fac Med, Dept. of Med Biochem & Mol Biol, Cairo 11562, Egypt. Additional authors for this research include D.M. Gharib, R.E. Hussein, O. Tork and A. Abusree.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tice.2016.09.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cairo, Egypt, Africa, Digestive System Diseases and Conditions. In Vivo Diagnostic Biologicals, Chemicals, Article Review, Intravenous Injections, Mesenchymal Stem Cells, Essential Amino Acids, Enzymes and Coenzymes, Diamino Amino Acids, Drugs and Therapies, Stem Cell Research, Basic Amino Acids, Gastrointestinal, Gastroenterology, Pharmaceuticals, Gastric Ulcers, Immune System, Bone Research, Nitric Oxide, Bone Marrow, L-Arginine, Hormones, Genetics, Caspase, University of Cairo.

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New Findings from University of California Describe Advances in Lung Cancer (Dacomitinib in lung cancer: a "lost generation" EGFR tyrosine-kinase inhibitor from a bygone era?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting from Orange, California, by NewsRx journalists, research stated, "EGFR tyrosine-kinase inhibitors (TKIs) have now been firmly established as the first-line treatment for non-small-cell lung cancer (NSCLC) patients harboring activating EGFR mutations, based on seven prospective randomized Phase III trials. However, despite significantly improved overall response rate and improved median progression-free survival when compared to platinum-doublet chemotherapy, EGFR-mutant NSCLC patients treated with EGFR TKIs invariably progress due to the emergence of acquired resistances, with the gatekeeper T790M mutation accounting for up to 60% of the resistance mechanisms."

The news correspondents obtained a quote from the research from the University of California, "Second-generation irreversible EGFR TKIs were developed in part to inhibit the T790M mutation, in addition to the common activating EGFR mutations. Dacomitinib is one such second-generation EGFR TKI designed to inhibit both the wild-type (WT) EGFR and EGFR T790M. Afatinib is another second-generation EGR TKI that has been now been approved for the first-line treatment of EGFR-mutant NSCLC patients, while dacomitinib continues to undergo clinical evaluation. We will review the clinical development of dacomitinib from Phase I to Phase III trials, including the two recently published negative large-scale randomized Phase III trials (ARCHER 1009, NCIC-BR-26). Results from another large-scale randomized trial (ARCHER 1050) comparing dacomitinib to gefitinib as first-line treatment of advanced treatment-naïve EGFR-mutant NSCLC patients will soon be available and will serve as the lynchpin trial for the potential approval of dacomitinib in NSCLC. Meanwhile, third-generation EGFR TKIs (eg, CO-1686 [rociletinib], AZ9291, HM61713, EGF816, and ASP8273) that preferentially and potently inhibit EGFR T790M but not WT EGFR are in full-scale clinical development, and some of these EGFR TKIs have received 'breakthrough' designation by the US Food and Drug Administration and will likely be approved in late 2015."

According to the news reporters, the research concluded: "Given the rapid development of third-generation EGFR TKIs and the approval of gefitinib, erlotinib, and afatinib as first-line treatment of EGFR-mutant NSCLC patients, the future role of dacomitinib in the treatment of NSCLC seems to be limited."

For more information on this research see: Dacomitinib in lung cancer: a "lost generation" EGFR tyrosine-kinase inhibitor from a bygone era? Drug Design, Development and Therapy, 2015;9():5641-53.

Our news journalists report that additional information may be obtained by contacting S.H. Ou, Chao Family Comprehensive Cancer Center, Division of Hematology, Oncology, Dept. of Medicine, University of California, Irvine School of Medicine, Orange, CA, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/DDDT.S52787. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Orange, Genetics, Oncology, Proteins, California, Proteomics, Lung Cancer, United States, Article Review, Lung Neoplasms, Tyrosine Kinase, Clinical Research, Drugs and Therapies, Aromatic Amino Acids, Enzymes and Coenzymes, North and Central America, Clinical Trials and Studies.

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Nanotechnology

New Findings from University of California Yields New Data on Nanotechnology (Single Cell "Glucose Nanosensor" Verifies Elevated Glucose Levels in Individual Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nanotechnology have been published. According to news originating from Santa Cruz, California, by NewsRx correspondents, research stated, "Because the transition from oxidative phosphorylation to anaerobic glycolytic metabolism is a hallmark of cancer progression, approaches to identify single living cancer cells by their unique glucose metabolic signature would be useful. Here, we present nanopipettes specifically developed to measure glucose levels in single cells with temporal and spatial resolution, and we use this technology to verify the hypothesis that individual cancer cells can indeed display higher intracellular glucose levels."

Financial supporters for this research include National Institute of Neurological Disorders and Stroke, National Human Genome Research Institute.

Our news journalists obtained a quote from the research from the University of California, "The nanopipettes were functionalized as glucose nanosensors by immobilizing glucose oxidase (GOx) covalently to the tip so that the interaction of glucose with GOx resulted in a catalytic oxidation of b-d-glucose to d-gluconic acid, which was measured as a change in impedance due to drop in pH of the medium at the nanopipette tip. Calibration studies showed a direct relationship between impedance changes at the tip and glucose concentration in solution. The glucose nanosensor quantified single cell intracellular glucose levels in human fibroblasts and the metastatic breast cancer lines MDA-MB-231 and MCF7 and revealed that the cancer cells expressed reproducible and reliable increases in glucose levels compared to the nonmalignant cells. Nanopipettes allow repeated sampling of the same cell, as cells remain viable during and after measurements. Therefore, nanopipette-based glucose sensors provide an approach to compare changes in glucose levels with changes in proliferative or metastatic state."

According to the news editors, the research concluded: "The platform has great promise for mechanistic investigations, as a diagnostic tool to distinguish cancer cells from nonmalignant cells in heterogeneous tissue biopsies, as well as a tool for monitoring cancer progression in situ."


The news correspondents report that additional information may be obtained from R.A. Nascimento, Biomolecular Engineering Department, University of California Santa Cruz, 1156 High Street, Santa Cruz, California 95064, United States. Additional authors for this
New Findings from University of California in Neoplasms Provides New Insights (Role of serial EUS-guided FNA on pancreatic cystic neoplasms: a retrospective analysis of repeat carcinoembryonic antigen measurements)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neoplasms. According to news reporting out of Orange, California, by NewsRx editors, research stated, "Pancreatic cystic neoplasms (PCNs) often need interval surveillance, including repeat EUS, but the role of repeat FNA with fluid analysis is poorly defined. The aim of this analysis is to evaluate the potential clinical significance of serial carcinoembryonic antigen (CEA) measurements by EUS-guided FNA (EUS-FNA) in the surveillance for PCNs."

Our news journalists obtained a quote from the research from the University of California, "Patients who underwent EUS-FNA for PCNs were studied retrospectively. EUS-FNA findings were compared between index and prior procedures among patients who underwent repeat EUS-FNA. A total of 400 patients with PCNs underwent EUS-FNA. Eighty-seven of those patients had prior EUS-FNA with cyst fluid analysis. Patients with repeat FNA were significantly more likely to have multiple cysts (57% vs 41%; P = .008), multilocular cysts (75% vs 62%; P = .042), connection to pancreatic duct (33% vs 18%; P = .005), and higher initial CEA levels (94.8 vs 25.6 ng/mL; P = .003) compared with patients who had only a single FNA. A comparison of prior and index FNAs did not show significant differences in EUS or cyst fluid analysis findings. After log transformation, the association between CEA level at prior and index FNA was moderate (R-2 = 0.626; P< .001), but cystic fluid CEA classification with a cutoff value of 192 ng/mL changed in 17 patients (20%), without significant changes in EUS findings. Repeat surveillance EUS-FNA resulted in stable CEA levels in the majority of patients, with spurious fluctuations of CEA in approximately 20% of patients."

According to the news editors, the research concluded: "These data call into question any clinical significance attributed to an isolated interval rise in CEA level, especially in light of a stable EUS examination."


Our news journalists report that additional information may be obtained by
Oncology - Acute Lymphoblastic Leukemia

New Findings from University of California in the Area of Acute Lymphoblastic Leukemia Reported (PTEN opposes negative selection and enables oncogenic transformation of pre-B cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Acute Lymphoblastic Leukemia. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "Phosphatase and tensin homolog (PTEN) is a negative regulator of the phosphatidylinositol 3-kinase (PI3K) and protein kinase B (AKT) signaling pathway and a potent tumor suppressor in many types of cancer. To test a tumor suppressive role for PTEN in pre-B acute lymphoblastic leukemia (ALL), we induced Cre-mediated deletion of Pten in mouse models of pre-B ALL."

Our news editors obtained a quote from the research from the University of California, "In contrast to its role as a tumor suppressor in other cancers, loss of one or both alleles of Pten caused rapid cell death of pre-B ALL cells and was sufficient to clear transplant recipient mice of leukemia. Small-molecule inhibition of PTEN in human pre-B ALL cells resulted in hyperactivation of AKT, activation of the p53 tumor suppressor cell cycle checkpoint and cell death. Loss of PTEN function in pre-B ALL cells was functionally equivalent to acute activation of autoreactive pre-B cell receptor signaling, which engaged a deletional checkpoint for the removal of autoreactive B cells."

According to the news editors, the research concluded: "We propose that targeted inhibition of PTEN and hyperactivation of AKT triggers a checkpoint for the elimination of autoreactive B cells and represents a new strategy to overcome drug resistance in human ALL."

For more information on this research see: PTEN opposes negative selection and enables oncogenic transformation of pre-B cells. Nature Medicine, 2016;22(4):379-87. (Nature Publishing Group - www.nature.com/nm/)

The news editors report that additional information may be obtained by contacting S. Shojaee, Dept. of Laboratory Medicine, University of California, San Francisco, San Francisco, California, United States. Additional authors for this research include L.N. Chan, M. Buchner, V. Cazzaniga, K.N. Cosgun, H. Geng, Y.H. Qiu, M.D. von Minden, T. Ernst, A. Hochhaus, G. Cazzaniga, A. Melnick, S.M. Kornblau, T.G. Graeber, H. Wu, H. Jumaa and M. Muschen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4062. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Kinase, Oncology, California, San Francisco, United States, Tumor Suppression, Enzymes and Coenzymes, North and Central America, Acute Lymphoblastic Leukemia.

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Stem Cell Research - Mesenchymal Stem Cells

New Findings from University of Cincinnati Medical Center in the Area of Mesenchymal Stem Cells Reported (Abrogation of Age-Induced MicroRNA-195 Rejuvenates the Senescent Mesenchymal Stem Cells by Reactivating Telomerase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Stem Cell Research - Mesenchymal Stem Cells. According to news reporting out of Cincinnati, Ohio, by NewsRx editors, research stated, "Previously, we reported that a novel subpopulation of young mesenchymal stem cells (YMSCs) existed in old bone marrow, which possessed high antiaging properties as well as excellent efficacy for cardiac repair. MicroRNAs (miRNAs) have emerged as key regulators in post-transcriptional gene expression programs, and however, it is unknown whether miRNAs directly control stem cell senescence."

Financial support for this research came from National Heart, Lung and Blood Institute.

Our news journalists obtained a quote from the research from the University of Cincinnati Medical Center, "Here we present the first evidence that miR-195 overexpressed in old MSCs (OMSCs) induces stem cell senescence deteriorating their regenerative ability by directly deactivating telomerase reverse transcriptase (Tert), and abrogation of miR-195 can reverse stem cell aging. MiRNAs profiling analysis in YMSCs and OMSCs by microarray showed that miR-140, miR-146a/b, and miR-195 were significantly upregulated in OMSCs, which led us to hypothesize that these are age-induced miRNAs involved in stem cell senescence. Of these miRNAs, we found miR-195 directly targeted 3'-untranslated region of Tert gene by computational target prediction analysis and luciferase assay, and knockdown of miR-195 significantly increased Tert expression in OMSCs. Strikingly, miR-195 inhibition significantly induced telomere relengthening in OMSCs along with reduced expression of senescence-associated b-galactosidase. Moreover, silencing miR-195 in OMSCs by transfection of miR-195 inhibitor significantly restored antiaging factors expression including Tert and Sirt1 as well as phosphorylation of Akt and FOXO1. Notably, abrogation of miR-195 markedly restored proliferative abilities in OMSCs. Transplantation of OMSCs with knocked out miR-195 reduced infarction size and improved LV function."

According to the news editors, the research concluded: "Rejuvenation of aged stem cells by miR-195 inhibition would be a promising autologous therapeutic strategy for cardiac repair in the elderly patients."


Our news journalists report that additional information may be obtained by
contacting M. Okada, Dept. of Pathology and Lab of Medicine, University of Cincinnati Medical Center, Cincinnati, Ohio, 45267, United States. Additional authors for this research include H.W. Kim, K. Matsu-ura, Y.G. Wang, M. Xu and M. Ashraf.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2211. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Cincinnati, Cardiology, Telomerase, United States, Carrier Proteins, Ribonucleoproteins, Stem Cell Research, Phosphotransferases, Enzymes and Coenzymes, Mesenchymal Stem Cells, North and Central America, DNA Nucleotidyltransferases, RNA Directed DNA Polymerase.

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Heart Disorders and Diseases - Endocarditis

New Findings from University of Cologne in the Area of Endocarditis Described (Three-dimensional compared to two-dimensional transesophageal echocardiography for diagnosis of infective endocarditis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Endocarditis is the subject of a report. According to news reporting out of Cologne, Germany, by NewsRx editors, research stated, "Transesophageal echocardiography is crucial for the diagnosis of infective endocarditis (IE). Use of three-dimensional transesophageal echocardiography (3D-TEE) could improve the reliability of echocardiographic findings."

Our news journalists obtained a quote from the research from the University of Cologne, "This study sought to determine the value of 3D-TEE in the diagnosis of IE in comparison to two-dimensional (2D)-TEE and 2D transthoracic echocardiography (2D-TTE). In this prospective cohort study in a tertiary care university hospital 144 consecutive patients with clinically suspected IE were included. The patients were subjected to clinical, microbiological and echocardiographic evaluation (2D-TTE, 2D-TEE and 3D-TEE) and their clinical history evaluated retrospectively to establish a reference diagnosis of IE in accordance to current guideline recommendations. In 48 (33 %) patients the diagnosis of IE was established. 2D-TEE and 3D-TEE showed a sensitivity, specificity, positive and negative predictive value for diagnosis of IE of 94 % and 63, 90 and 95 %, 82 and 86 % and 97 and 83 %, respectively, with similar results in patients with native and prosthetic valves. Vegetations and abscess were detected in 43 and 5 patients with final diagnosis of IE by any of the assessed echocardiographic modalities, with only one case of vegetation detected by 3D-TEE only and not by 2D-TEE."

According to the news editors, the research concluded: "In this cohort of patients with suspected IE, 3D-TEE showed substantial lower sensitivity and negative predictive value for diagnosis of IE when compared to 2D-TEE. 3D-TEE might provide additive diagnostic information with impact on clinical decisions only in individual cases."

For more information on this research see: Three-dimensional compared to two-dimensional transesophageal echocardiography for diagnosis of infective endocarditis. Infection, 2016;44(6):725-731. Infection can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Infection -
www.springerlink.com/content/0300-8126/)

Our news journalists report that additional information may be obtained by contacting R. Pfister, University of Cologne, Center Heart, Dept. of Internal Med 3, D-50937 Cologne, Germany. Additional authors for this research include Y. Betton, H. ten Freyhaus, N. Jung, S. Baldus and G. Michels.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s15010-016-0908-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cologne, Germany, Europe, Cardiovascular Diseases and Conditions, Transesophageal Echocardiography, Heart Disorders and Diseases, Infective Endocarditis, Imaging Technology, Heart Disease, Cardiology, University of Cologne.

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Oncology - Hereditary Nonpolyposis Colorectal Cancer

New Findings from University of Colorado Describe Advances in Hereditary Nonpolyposis Colorectal Cancer (Knowledge and Uptake of Genetic Counseling and Colonoscopic Screening Among Individuals at Increased Risk for Lynch Syndrome and their ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Hereditary Nonpolyposis Colorectal Cancer. According to news reporting out of Aurora, Colorado, by NewsRx editors, research stated, "Individuals whose families meet the Amsterdam II clinical criteria for hereditary non-polyposis colorectal cancer are recommended to be referred for genetic counseling and to have colonoscopic screening every 1-2 years. To assess the uptake and knowledge of guideline-based genetic counseling and colonoscopic screening in unaffected members of families who meet Amsterdam II criteria and their treating endoscopists."

Our news journalists obtained a quote from the research from the University of Colorado, "Participants in the Family Health Promotion Project who met the Amsterdam II criteria were surveyed regarding their knowledge of risk-appropriate guidelines for genetic counseling and colonoscopy screening. Endoscopy/pathology reports were obtained from patients screened during the study to determine the follow-up recommendations made by their endoscopists. Survey responses were compared using Fisher's Exact and the ch(2) test. Concordance in participant/provider-reported surveillance interval was assessed using the kappa statistic. Of the 165 participants, the majority (98%) agreed that genetics and family history are important predictors of CRC, and 63% had heard of genetic testing for CRC, although only 31% reported being advised to undergo genetic counseling by their doctor, and only 7% had undergone genetic testing. Only 26% of participants reported that they thought they should have colonoscopy every 1-2 years and 30% of endoscopists for these participants recommended 1-2-year follow-up colonoscopy. There was a 65% concordance (weighted kappa 0.42, 95% CI 0.24-0.61) between endoscopist recommendations and participant reports regarding screening intervals. A minority of individuals meeting Amsterdam II criteria in this series have had genetic testing and reported accurate knowledge of risk-appropriate screening, and only a small percentage of their endoscopists provided them with the appropriate screening."
recommendations."

According to the news editors, the research concluded: "There was moderate concordance between endoscopist recommendations and participant knowledge suggesting that future educational interventions need to target both health-care providers and their patients."

For more information on this research see: Knowledge and Uptake of Genetic Counseling and Colonoscopic Screening Among Individuals at Increased Risk for Lynch Syndrome and their Endoscopists from the Family Health Promotion Project. *The American Journal of Gastroenterology*, 2016;111(2):285-93.

Our news journalists report that additional information may be obtained by contacting S.G. Patel, Dept. of Medicine, Division of Gastroenterology & Hepatology, University of Colorado Anschutz Medical Center, Aurora, Colorado, United States. Additional authors for this research include D.J. Ahnen, A.Y. Kinney, N. Horick, D.M. Finkelstein, D.A. Hill, N.M. Lindor, F. MaCrae and J.T Lowery.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/ajg.2015.397. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aurora, Colorado, Oncology, Epidemiology, United States, Lynch Syndrome, Genetic Counseling, North and Central America, Diagnostics and Screening, Hereditary Nonpolyposis Colorectal Cancer.

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Membrane Proteins - Ion Channels

New Findings from University of Copenhagen in the Area of Ion Channels Reported (The Volume Activated Potassium Channel KCNK5 is Up-Regulated in Activated Human T Cells, but Volume Regulation is Impaired)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Membrane Proteins - Ion Channels have been presented. According to news reporting originating in Copenhagen, Denmark, by NewsRx journalists, research stated, "The potential role of the two-pore domain potassium channel KCNK5 (also known as TASK-2 and K(2P)5.1) in activated T cell physiology has only recently been described. So far KCNK5 has been described to be up-regulated in T cells in multiple sclerosis patients and to be implicated in the volume regulatory mechanism regulatory volume decrease (RVD) in T cells."

The news reporters obtained a quote from the research from the University of Copenhagen, "We investigated the time-dependent expression pattern of KCNK5 in CD3/CD28 activated human T cells using qPCR and Western blotting and its role in RVD using a Coulter Counter. KCNK5 is highly up-regulated in CD3/CD28 activated T cells both at mRNA (after 24 h) and protein level (72 and 144 h), but despite this up-regulation the RVD response is inhibited. Furthermore, the swelling-activated Cl-permeability in activated T cells is strongly decreased, and the RVD inhibition is predominantly due to the decreased Cl-permeability. The up-regulated KCNK5 in activated human T cells does not play a volume regulatory role, due to decreased Cl-permeability."

According to the news reporters, the research concluded: "We speculate that the
KCNK5 up-regulation might play a role in hyperpolarization of the cell membrane leading to increased Ca2+ influx and proliferation of T cells."

For more information on this research see: The Volume Activated Potassium Channel KCNK5 is Up-Regulated in Activated Human T Cells, but Volume Regulation is Impaired. *Cellular Physiology and Biochemistry*, 2016;38(3):883-92. (Karger - www.karger.com; Cellular Physiology and Biochemistry - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224332)

Our news correspondents report that additional information may be obtained by contacting S.S. Kirkegaard, Section for Cell and Developmental Biology, University of Copenhagen, Copenhagen, Denmark. Additional authors for this research include P.D. Strom, S. Gammeltoft, A.J. Hansen and E.K Hoffmann.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Denmark, Genetics, Copenhagen, Ion Channels, Carrier Proteins, Membrane Proteins, Potassium Channels.

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**Neuropeptides**

**New Findings from University of G. d'Annunzio Describe Advances in Neuropeptides (Central inhibitory effects on feeding induced by the adipo-myokine irisin)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neuropeptides have been published. According to news reporting from Chieti, Italy, by NewsRx journalists, research stated, "Irinin, the soluble secreted form of fibronectin type III domain containing 5 (FNDC5)-cleaved product, is a recently identified adipo-myokine that has been indicated as a possible link between physical exercise and energetic homeostasis. The co-localization of irisin with neuropeptide Y in hypothalamic sections of paraventricular nucleus, which receives NPY/AgRP projections from the arcuate nucleus, suggests a possible role of irisin in the central regulation of energy balance."

Financial support for this research came from Italian Ministry of University (far 2015).

The news correspondents obtained a quote from the research from the University of G. d'Annunzio, "In this context, in the present work we studied the effects of intra-hypothalamic irisin (1 μl, 50-200 nmol/l) administration on feeding and orexigenic [agouti-related peptide (AgRP), neuropeptide Y (NPY) and orexin-A] and anorexigenic [cocaine and amphetamine-regulated transcript (CART) and proopiomelanocortin (POMC)] peptides in male Sprague-Dawley rats. Furthermore, we evaluated the effects of irisin on hypothalamic dopamine (DA), norepinephrine (NE) and serotonin (5-hydroxytryptamine, 5-HT) concentrations and plasma NE levels. Compared to vehicle, irisin injected rats showed decreased food intake, possibly mediated by stimulated CART and POMC and inhibited DA, NE and orexin-A, in the hypothalamus."

According to the news reporters, the research concluded: "We also found increased plasma NE levels, supporting a role for sympathetic nervous system stimulation in mediating..."
increased oxygen consumption by irisin."

For more information on this research see: Central inhibitory effects on feeding induced by the adipo-myokine irisin. European Journal of Pharmacology, 2016;791():389-394. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting C. Ferrante, University of G D'Annunzio, Dept. of Pharm, I-66013 Chieti, Italy. Additional authors for this research include G. Orlando, L. Recinella, S. Leone, A. Chiavaroli, C. Di Nisio, R. Shohreh, F. Manippa, A. Ricciuti, M. Vacca and L. Brunetti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chieti, Italy, Europe, Neuropeptides, University of G. d'Annunzio.

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Autoimmune Diseases and Conditions - Rheumatoid...

New Findings from University of Glasgow in the Area of Rheumatoid Arthritis Described (Effect of IL-6 receptor blockade on high-sensitivity troponin T and NT-proBNP in rheumatoid arthritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Autoimmune Diseases and Conditions - Rheumatoid Arthritis have been presented. According to news reporting out of Glasgow, United Kingdom, by NewsRx editors, research stated, "Observational associations between inflammation and cardiovascular disease are interesting, but randomised experimental data are lacking. We investigated the effect of the IL-6 receptor blocker tocilizumab on N terminal pro B type natriuretic peptide (NT-proBNP) and high sensitivity troponin T (hsTnT) in rheumatoid arthritis (RA) patients."

Our news journalists obtained a quote from the research from the University of Glasgow, "A post-hoc study was performed in a subset of patients with moderate to severe RA participating in a randomised controlled trial. The effect of tocilizumab on cardiac biomarkers was determined using stored serum (baseline and 24 weeks) in recipients of tocilizumab (8 mg/kg every 4 weeks plus DMARDs; n = 225) or placebo (every 4 weeks plus DMARDs; n = 132). Median NT-proBNP and hsTnT concentrations at baseline were 100 pg/ml and 5.7 pg/ml, respectively. NT-proBNP decreased in both study arms (median at 24 weeks 77 pg/ml in the placebo arm, 79 pg/ml in the tocilizumab arm; p< 0.001 for the decrease in both arms), and decreased to a similar extent comparing study arms (tocilizumab effect: -5.5%, p = 0.55). hsTnT also decreased in both study arms (median at 24 weeks 3.1 pg/ml in the placebo arm, 4.4 pg/ml in the tocilizumab arm; p< 0.001 for the decrease in both arms). The extent of the reduction in hsTnT was greater in the placebo group (tocilizumab effect: +23.3%, p = 0.002). Change in NT-proBNP, but not hsTnT, correlated modestly with change in CRP (r = 0.17, p = 0.013)."

According to the news editors, the research concluded: "These data argue against a rapid preferential benefit of IL-6 blockade on these specific surrogate markers of cardiovascular
risk, but may be consistent with a general cardiovascular benefit of improved RA treatment."

For more information on this research see: Effect of IL-6 receptor blockade on high-sensitivity troponin T and NT-proBNP in rheumatoid arthritis. *Atherosclerosis*, 2016;254 ():167-171. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; *Atherosclerosis* - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting P. Welsh, University of Glasgow, Inst Cardiovasc & Med Sci, Glasgow, Lanark, United Kingdom. Additional authors for this research include K. Tuckwell, I.B. McInnes and N. Sattar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.10.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Glasgow, United Kingdom, Europe, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Macromolecular Substances, Microfilament Proteins, Cytoskeletal Proteins, Contractile Proteins, Rheumatoid Arthritis, Muscle Proteins, Cardiovascular, Biopolymers, Cardiology, Troponin T, University of Glasgow.

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**Oncology - Lymphoma**

New Findings from University of Groningen in the Area of Lymphoma Reported (Biomarkers for evaluation of treatment response in classical Hodgkin lymphoma: comparison of sGalectin-1, sCD163 and sCD30 with TARC)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lymphoma. According to news reporting originating from Groningen, Netherlands, by NewsRx correspondents, research stated, "Soluble Galectin-1 (sGal-1, also termed LGALS1), soluble CD163 (sCD163) and soluble CD30 (sCD30) have been reported to be elevated in plasma or serum of patients with classical Hodgkin lymphoma (cHL). We aimed to determine the clinical utility of these biomarkers for evaluation of treatment response compared to thymus and activation regulated chemokine (TARC, also termed CCL17)."

Funders for this research include Dutch Organization of Scientific Research, KWF Kankerbestrijding.

Our news editors obtained a quote from the research from the University of Groningen, "Plasma or serum samples were prospectively collected among 103 newly diagnosed cHL patients before and after treatment. Levels of sGal-1, sCD163, sCD30 and TARC were correlated with disease characteristics and clinical treatment response. Elevated plasma levels of sGal-1, sCD163, sCD30 and TARC were found in 67%, 21%, 91% and 93% of cHL patients respectively. Mean plasma levels of sGal-1 and sCD30 decreased after treatment but sCD163 did not decrease after treatment. There was no correlation with change of these markers and clinical treatment response in individual patients. TARC levels strongly correlated with disease characteristics and metabolic volume. TARC remained high in 6 out of 7 non-responsive
patients and dramatically decreased in 95 out of 96 responsive patients. In summary, elevated pre-treatment levels of sGal-1, sCD163, sCD30 and TARC can be found in patients with cHL."

According to the news editors, the research concluded: "However, only plasma TARC accurately reflects disease activity and correlates with clinical treatment response."


The news editors report that additional information may be obtained by contacting W.J. Plattel, University of Groningen, Groningen University Medical Center, Dept. of Haematol, Groningen, Netherlands. Additional authors for this research include Z.N.D. Alsada, G.W. van Imhoff, A. Diepstra, A. van den Berg and L. Visser.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjh.14317. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Groningen, Netherlands, Europe, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hematology, Lymphomas, Oncology, University of Groningen.

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Nutritional and Metabolic Diseases and Conditions -…

New Findings from University of Guelph in the Area of Obesity Reported (Randomized trial of a prevention intervention that embeds weight-related messages within a general parenting program)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Guelph, Canada, by NewsRx editors, research stated, "To assess the extent to which an obesity prevention intervention that embeds obesity-related messages within a parenting program, compared with controls who received weekly mailings, resulted in a smaller increase in children's BMI (primary outcome) and improvements in weight-related behaviors from baseline to 9-month follow-up. Fifty-six families were randomly assigned to the intervention and 56 to control."

Our news journalists obtained a quote from the research from the University of Guelph, "Children were primarily Hispanic (58%) or Black/African American (23%). Intervention included nine weekly: group parenting sessions, children's sessions, and homework assignments. At baseline, post-intervention, and 9-month follow-up, staff assessed children's weight and height. Parents completed surveys assessing parenting skills, feeding behaviors, and children's weight-related behaviors. From baseline to 9-month follow-up, BMI decreased by a mean of 0.13 kg m(-2) among children in the intervention and increased by 0.21 kg m(-2) among children in the control, resulting in a nonsignificant difference (multivariate adjusted difference=-0.36; 95% confidence interval [CI] -1.23, 0.51; p=0.41). Parents in the intervention decreased restrictive feeding practices relative to control (-0.30; 95% CI -0.53, -0.07; p=0.01)."
Intervention and control arms showed similar changes in children's weight-related behaviors."

According to the news editors, the research concluded: "The intervention improved restrictive feeding but did not influence children's BMI or weight-related behaviors compared to controls who received weekly mailings."

For more information on this research see: Randomized trial of a prevention intervention that embeds weight-related messages within a general parenting program. Obesity, 2015;24(1):191-9. (Nature Publishing Group - www.nature.com/oby/)

Our news journalists report that additional information may be obtained by contacting J. Haines, Dept. of Family Relations and Applied Nutrition, University of Guelph, Guelph, Ontario, Canada. Additional authors for this research include S.L. Rifas-Shiman, D. Gross, J. McDonald, K. Kleinman and M.W Gillman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21314. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guelph, Canada, Ontario, Obesity, Bariatrics, Clinical Research, Risk and Prevention, North and Central America, Clinical Trials and Studies, Nutritional and Metabolic Diseases and Conditions.

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Digestive System Diseases and Conditions -…

New Findings from University of Hong Kong in the Area of Hemoperitoneum Described (Successful Treatment of a Pararenal Pregnancy Using High-Dose Methotrexate Regimen A Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Hemoperitoneum have been published. According to news reporting from Hong Kong, People's Republic of China, by NewsRx journalists, research stated, "Upper abdominal pregnancy is rare. Most patients present with hemoperitoneum, requiring emergency laparotomy."

The news correspondents obtained a quote from the research from the University of Hong Kong, "A 32-year-old woman presented with acute abdominal pain and an elevated beta human chorionic gonadotropin (beta-hCG) level. Ultrasound, computerized tomography (CT) scans, and laparoscopy failed to locate the source of elevated hCG. Subsequent positron emission tomography (PET) CT demonstrated a cystic mass in the left pararenal region with no increased uptake. Repeated ultrasound scan revealed a live fetus implanted laterally to the abdominal aorta. After failing to respond to methotrexate at the usual dosage, a regimen used in gestational trophoblastic neoplasia was given. The pregnancy underwent miscarriage afterwards, and the hCG level gradually returned to normal. The site of an ectopic pregnancy should be sought thoroughly to avoid missing an abdominal pregnancy and hence disastrous hemoperitoneum."

According to the news reporters, the research concluded: "While medical therapy with high-dose methotrexate is not a standard treatment, it can be considered after failing traditional therapy, provided that there is adequate treatment monitoring and expertise in handling the side effects of the medication."

Our news journalists report that additional information may be obtained by contacting K.Y. Tse, University of Hong Kong, Queen Mary Hospital, Dept. of Radiol, Pokfulam, Hong Kong, People's Republic of China. Additional authors for this research include V.Y.T. Cheung, C. Lam, E.Y.P. Lee, P.L. Khong and H.Y.S. Ngan.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Digestive System Diseases and Conditions, Peritoneal Diseases and Conditions, Methotrexate Therapy Sodium, Drugs and Therapies, Pharmaceuticals, Antimetabolites, Antineoplastics, Antirheumatics, Antipsoriatics, Hemoperitoneum, University of Hong Kong.

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**Science - Materials Science**

**New Findings from University of Illinois in Materials Science Provides New Insights (Cancer Cell Hyperactivity and Membrane Dipolarity Monitoring via Raman Mapping of Interfaced Graphene: Toward Non-Invasive Cancer Diagnostics)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science - Materials Science. According to news originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Ultrasensitive detection, mapping, and monitoring of the activity of cancer cells is critical for treatment evaluation and patient care. Here, we demonstrate that a cancer cell's glycolysis-induced hyperactivity and enhanced electronegative membrane (from sialic acid) can sensitively modify the second-order overtone of in-plane phonon vibration energies (2D) of interfaced graphene via a hole doping mechanism."

Financial support for this research came from University of Illinois at Chicago.

Our news journalists obtained a quote from the research from the University of Illinois, "By leveraging ultrathin graphene's high quantum capacitance and responsive phononics, we sensitively differentiated the activity of interfaced Glioblastoma Multi forme (GBM) cells, a malignant brain tumor, from that of human astrocytes at a single-cell resolution. GBM cell's high surface electronegativity (potential similar to 310 mV) and hyperacidic-release induces hole-doping in graphene with a 3-fold higher 2D vibration energy shift of approximately 6 +/- 0.5 cm(-1) than astrocytes. From molecular dipole-induced quantum coupling, we estimate that the sialic acid density on the cell membrane increases from one molecule per similar to 17 nm(2) to one molecule per similar to 7 nm(2). Furthermore, graphene phononic response also identified enhanced acidity of cancer cell's growth medium."

According to the news editors, the research concluded: "Graphene's phonon-sensitive platform to determine interfaced cell's activity/chemistry will potentially open avenues for studying activity of other cancer cell types, including metastatic tumors, and characterizing different grades of their malignancy."

For more information on this research see: Cancer Cell Hyperactivity and Membrane Dipolarity Monitoring via Raman Mapping of Interfaced Graphene: Toward Non-

The news correspondents report that additional information may be obtained from A. Mehta, University of Illinois, Dept. of Neurosurg, Chicago, IL 60612, United States. Additional authors for this research include A. Cole, P. Nguyen, A. Mehta and V. Berry.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b12307. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Materials Science, Science, Oncology, Cancer, University of Illinois.

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Musculoskeletal Diseases and Conditions - Myotonic...

**New Findings from University of Iowa Update Understanding of Myotonic Dystrophy (Myotonic Dystrophy Type 1 Management and Therapeutics)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Musculoskeletal Diseases and Conditions - Myotonic Dystrophy have been presented. According to news reporting originating in Iowa City, Iowa, by NewsRx journalists, research stated, "Myotonic dystrophy (DM1) is the most common form of adult muscular dystrophy. It is a multisystem disorder with a complex pathophysiology."

The news reporters obtained a quote from the research from the University of Iowa, "Although inheritance is autosomal dominant, disease variability is attributed to anticipation, a maternal expansion bias, variable penetrance, somatic mosaicism, and a multitude of aberrant pre-mRNA splicing events. Patient presentations range from asymptomatic or mild late onset adult to severe congenital forms. Multiple organ systems may be affected. Patients may experience early cataracts, myotonia, muscle weakness/atrophy, fatigue, excessive daytime sleepiness, central/obstructive apnea, respiratory failure, cardiac arrhythmia, insulin resistance, dysphagia, GI dysmotility, cognitive impairment, Cluster C personality traits, and/or mood disorders. At present, there is no curative or disease-modifying treatment, although clinical treatment trials have become more promising. Management focuses on genetic counseling, preserving function and independence, preventing cardiopulmonary complications, and symptomatic treatment (e.g., pain, myotonia, hypersomnolence, etc.)."

According to the news reporters, the research concluded: "Currently, there is an increasing international consensus on monitoring and treatment options for these patients which necessitates a multidisciplinary team to provide comprehensive, coordinated clinical care."

For more information on this research see: Myotonic Dystrophy Type 1 Management and Therapeutics. *Current Treatment Options in Neurology*, 2016;18(12):11-25. *Current Treatment Options in Neurology* can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Treatment Options in Neurology - www.springerlink.com/content/1092-8480/)

Our news correspondents report that additional information may be obtained by
Public Health

New Findings from University of Jordan in the Area of Public Health Described (Integrating the Principles of Evidence Based Medicine and Evidence Based Public Health: Impact on the Quality of Patient Care and Hospital Readmission Rates in Jordan)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Public Health are presented in a new report. According to news reporting out of Irbid, Jordan, by NewsRx editors, research stated, "Hospital readmissions impose not only an extra burden on health care systems but impact patient health outcomes. Identifying modifiable behavioural risk factors that are possible causes of potentially avoidable readmissions can lower readmission rates and healthcare costs."

Our news journalists obtained a quote from the research from the University of Jordan, "Using the core principles of evidence based medicine and public health, the purpose of this study was to develop a heuristic guide that could identify what behavioural risk factors influence hospital readmissions through adopting various methods of analysis including regression models, t-tests, data mining, and logistic regression. This study was a retrospective cohort review of internal medicine patients admitted between December 1, 2012 and December 31, 2013 at King Abdullah University Hospital, in Jordan. 29% of all hospitalized patients were readmitted during the study period. Among all readmissions, 44% were identified as potentially avoidable. Behavioural factors including smoking, unclear follow-up and discharge planning, and being non-compliant with treatment regimen as well as discharge against medical advice were all associated with increased risk of avoidable readmissions."

According to the news editors, the research concluded: "Implementing evidence based health programs that focus on modifiable behavioural risk factors for both patients and clinicians would yield a higher response in terms of reducing potentially avoidable readmissions, and could reduce direct medical costs."


Our news journalists report that additional information may be obtained by contacting M.S. Alyahya, Jordan University of Science & Technology, Fac Med, Dept. of Hlth Management & Policy, Irbid 22110, Jordan. Additional authors for this research include H.H.
New Findings from University of Kentucky in Alzheimer Disease Provides New Insights (Genomics and CSF analyses implicate thyroid hormone in hippocampal sclerosis of aging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting originating in Lexington, Kentucky, by NewsRx journalists, research stated, "We report evidence of a novel pathogenetic mechanism in which thyroid hormone dysregulation contributes to dementia in elderly persons. Two single nucleotide polymorphisms (SNPs) on chromosome 12p12 were the initial foci of our study: rs704180 and rs73069071."

Funders for this research include National Institutes of Health (US), NIH, National Institute on Aging.

The news reporters obtained a quote from the research from the University of Kentucky, "These SNPs were identified by separate research groups as risk alleles for non-Alzheimer's neurodegeneration. We found that the rs73069071 risk genotype was associated with hippocampal sclerosis (HS) pathology among people with the rs704180 risk genotype (National Alzheimer's Coordinating Center/Alzheimer's Disease Genetic Consortium data; n = 2113, including 241 autopsy-confirmed HS cases). Furthermore, both rs704180 and rs73069071 risk genotypes were associated with widespread brain atrophy visualized by MRI (Alzheimer's Disease Neuroimaging Initiative data; n = 1239). In human brain samples from the Braineac database, both rs704180 and rs73069071 risk genotypes were associated with variation in expression of ABCC9, a gene which encodes a metabolic sensor protein in astrocytes. The rs73069071 risk genotype was also associated with altered expression of a nearby astrocyte-expressed gene, SLCO1C1. Analyses of human brain gene expression databases indicated that the chromosome 12p12 locus may regulate particular astrocyte-expressed genes induced by the active form of thyroid hormone, triiodothyronine (T3). This is informative biologically, because the SLCO1C1 protein transports thyroid hormone into astrocytes from blood. Guided by the genomic data, we tested the hypothesis that altered thyroid hormone levels could be detected in cerebrospinal fluid (CSF) obtained from persons with HS pathology. Total T3 levels in CSF were elevated in HS cases (p < 0.04 in two separately analyzed groups), but not in Alzheimer's disease cases, relative to controls. No change was detected in the serum levels of thyroid hormone (T3 or T4) in a subsample of HS cases prior to death."

According to the news reporters, the research concluded: "We conclude that brain thyroid hormone perturbation is a potential pathogenetic factor in HS that may also provide the basis for a novel CSF-based clinical biomarker."

For more information on this research see: Genomics and CSF analyses implicate thyroid hormone in hippocampal sclerosis of aging. *Acta Neuropathologica*, 2016;132(6):841-858. *Acta Neuropathologica* can be contacted at: Springer, 233 Spring St, New York, NY
10013, USA. (Springer - www.springer.com; Acta Neuropathologica - www.springerlink.com/content/0001-6322/)


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Keywords for this news article include: Lexington, Kentucky, United States, North and Central America, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Brain Diseases and Conditions, Alzheimer Disease, Thyroid Hormones, Tauopathies, Pathology, Dementia, Genetics, University of Kentucky.

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Drugs and Therapies - Hormone Replacement Therapy

New Findings from University of Kragujevac in the Area of Hormone Replacement Therapy Reported (Cytogenetic biomarkers in detection of genotoxic effects of gestagens in peripheral blood lymphocytes in vitro and in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Hormone Replacement Therapy are presented in a new report. According to news originating from Kragujevac, Serbia, by NewsRx correspondents, research stated, "Gestagens are the most frequently used steroid hormones in hormone-replacement therapy in the treatment of threatened miscarriage during the first trimester of pregnancy. This therapy has been applied in a large number of women with threatened abortion, despite various degrees of success of its efficacy."

Our news journalists obtained a quote from the research from the University of Kragujevac, "Genetic factors play a key role in miscarriages, especially in the initial stages. Cytogenetic biomarkers such as micronucleus (MN) test, chromosomal aberrations (CAs), and sister chromatid exchanges (SCEs) provide information on DNA damage. Cytogenetic markers detecting DNA damage have become very popular and useful in analysing genetic risk associated with hormone-replacement therapy. Cytogenetic studies presented heterogenous information. In many in vitro studies synthetic gestagens have been shown to induce genotoxic effects, and it was evaluated using three cytogenetic biomarkers. Genotoxic effects of gestagens have also been confirmed in in vivo studies that were conducted involving patients who received gestagen therapy during pregnancy and their newborns. However, some studies have shown that hormone-replacement therapy does not have genotoxic effects. In this paper, we summarize the results from previous studies."

According to the news editors, the research concluded: "We also describe the usefulness of these biomarkers in the detection of genotoxic effects of hormone-replacement therapy."

For more information on this research see: Cytogenetic biomarkers in detection of genotoxic effects of gestagens in peripheral blood lymphocytes in vitro and in vivo. European
Journal of Medical Genetics, 2016;59(12):624-633. European Journal of Medical Genetics can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Medical Genetics - www.journals.elsevier.com/european-journal-of-medical-genetics/)

The news correspondents report that additional information may be obtained from D. Grujicic, University of Kragujevac, Fac Sci, Kragujevac 34000, Serbia. Additional authors for this research include M. Radovic, S. Arsenijevic and O. Milosevic-Djordjevic.

Keywords for this news article include: Kragujevac, Serbia, Europe, Genetics, Article Review, Risk and Prevention, Genetics, Hormone Replacement Therapy, Hemic and Immune Systems, Mononuclear Leukocytes, Drugs and Therapies, Blood Cells, Lymphocytes, Immunology, Hormones, University of Kragujevac.

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Cardiovascular Diseases and Conditions -...

New Findings from University of KwaZulu-Natal in the Area of Atherosclerosis Described (Linkage and Association Analysis Identifies TRAF1 Influencing Common Carotid Intima-Media Thickness)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news originating from Pietermaritzburg, South Africa, by NewsRx correspondents, research stated, "Carotid intima-media thickness is a marker for subclinical atherosclerosis that predicts subsequent clinical cardiovascular events. The aim of this study was to identify chromosomal loci with linkage or association to common carotid intima-media thickness."

Our news journalists obtained a quote from the research from the University of KwaZulu-Natal, "Nuclear families were recruited using the single parental proband sib-pair design. Genotype data were available for 546 individuals from 132 nuclear families of the Bonn IMT Family Study using the Affymetrix GeneChip Human Mapping 250K Sty chip. Multipoint logarithm of the odds (LOD) scores were determined with the quantitative trait locus statistic implemented in multipoint engine for rapid likelihood. Linkage analysis and family-based association tests were conducted. Data from 2471 German participants from the HNR (Heinz Nixdorf Recall) Study were used for subsequent replication. Two new genomic regions with suggestive linkage (LOD >2) were identified on chromosome 4 (LOD=2.26) and on chromosome 17 (LOD=2.01). Previously reported linkage findings were replicated on chromosomes 13 and 14. Fifteen single nucleotide polymorphisms, located on chromosomes 4, 6, and 9, revealed P<10(-4) in the family-based association analyses. One of these signals was replicated in HNR (rs2416804, 1-sided P=1.60x10(-3), located in the gene TRAF1). This study presents the first genome-wide linkage and association study of common carotid intima-media thickness in the German population. Alleles of rs2416804 in TRAF1 were identified as being linked and associated with carotid intima-media thickness."

According to the news editors, the research concluded: "Further studies are needed to evaluate the contribution of this locus to the development of atherosclerosis."

For more information on this research see: Linkage and Association Analysis Identifies TRAF1 Influencing Common Carotid Intima-Media Thickness. Stroke, 2016;47
New Findings from University of Leipzig Update Understanding of Cardiology (Neuroprotective Strategies during Cardiac Surgery with Cardiopulmonary Bypass)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news originating from Leipzig, Germany, by NewsRx correspondents, research stated, "Aortocoronary bypass or valve surgery usually require cardiac arrest using cardioplegic solutions. Although, in principle, in a number of cases beating heart surgery (so-called off-pump technique) is possible, aortic or valve surgery or correction of congenital heart diseases mostly require cardiopulmonary arrest."

Our news journalists obtained a quote from the research from the University of Leipzig, "During this condition, the heart-lung machine also named cardiopulmonary bypass (CPB) has to take over the circulation. It is noteworthy that the invention of a machine bypassing the heart and lungs enabled complex cardiac operations, but possible negative effects of the CPB on other organs, especially the brain, cannot be neglected. Thus, neuroprotection during CPB is still a matter of great interest."

According to the news editors, the research concluded: "In this review, we will describe the impact of CPB on the brain and focus on pharmacological and non-pharmacological strategies to protect the brain."

For more information on this research see: Neuroprotective Strategies during Cardiac Surgery with Cardiopulmonary Bypass. *International Journal of Molecular Sciences*, 2016;17(11):2558-2573. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from A. Salameh, University of Leipzig, Clin Paediat Cardiol, Center Heart, D-04289 Leipzig, Germany. Additional authors for this research include S. Dhein, I. Dahnt and N. Klein.

Keywords for this news article include: Leipzig, Germany, Europe, Therapy, Article Review, Cardiopulmonary Bypass, Cardiac Surgery, Pharmacology, Cardiology, University of Leipzig.

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New Findings from University of Lille in Polycystic Ovary Syndrome Provides New Insights (Interactions between androgens, FSH, anti-Mullerian hormone and estradiol during folliculogenesis in the human normal and polycystic ovary)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Endocrine System Diseases and Conditions - Polycystic Ovary Syndrome. According to news originating from Lille, France, by NewsRx correspondents, research stated, "Androgens, FSH, anti-Mullerian hormone (AMH) and estradiol (E2) are essential in human ovarian folliculogenesis. However, the interactions between these four players is not fully understood."

Our news journalists obtained a quote from the research from the University of Lille, "The purpose of this review is to highlight the chronological sequence of the appearance and function of androgens, FSH, AMH and E2 and to discuss controversies in the relationship between FSH and AMH. A better understanding of this interaction could supplement our current knowledge about the pathophysiology of the polycystic ovary syndrome (PCOS). A literature review was performed using the following search terms: androgens, FSH, FSH receptor, anti-Mullerian hormone, AMHRII, estradiol, follicle, ovary, PCOS, aromatase, granulosa cell, oocyte. The time period searched was 1980-2015 and the databases interrogated were PubMed and Web of Science. During the pre-antral ('gonadotropin-independent') follicle growth, FSH is already active and promotes follicle growth in synergy with theca cell-derived androgens. Conversely, AMH is inhibitory by counteracting FSH. We challenge the hypothesis that AMH is regulated by androgens and propose rather an indirect effect through an androgen-dependent amplification of FSH action on granulosa cells (GCs) from small growing follicles. This hypothesis implies that FSH stimulates AMH expression. During the antral ('gonadotropin-dependent') follicle growth, E2 production results from FSH-dependent activation of aromatase. Conversely, AMH is inhibitory but the decline of its expression, amplified by E2, allows full expression of aromatase, characteristic of the large antral follicles. We propose a theoretical scheme made up of two triangles that follow each other chronologically. In PCOS, pre-antral follicle growth is excessive (triangle 1) because of intrinsic androgen excess that renders GCs hypersensitive to FSH, with consequently excessive AMH expression. Antral follicle growth and differentiation are disturbed (triangle 2) because of the abnormally persisting inhibition of FSH effects by AMH that blocks aromatase. Beside anovulation, this scenario may also serve to explain the higher receptiveness to gonadotropin therapy and the increased risk of ovarian hyperstimulation syndrome (OHSS) in patients with PCOS. Within GCs, the balance between FSH and AMH effects is pivotal in the shift from androgen- to oestrogen-driven follicles. Our two triangles hypothesis, based on updated data from the literature, offers a pedagogic template for the understanding of folliculogenesis in the normal and polycystic ovary."

According to the news editors, the research concluded: "It opens new avenues for the treatment of anovulation due to PCOS."

For more information on this research see: Interactions between androgens, FSH, anti-Mullerian hormone and estradiol during folliculogenesis in the human normal and polycystic ovary. Human Reproduction Update, 2016;22(6):709-724. Human Reproduction

The news correspondents report that additional information may be obtained from D. Dewailly, Univ Lille Nord France, Fac Med, F-59000 Lille, France. Additional authors for this research include G. Robin, M. Peigne, C. Decanter, P. Pigny and S. Catteau-Jonard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/humupd/dmw027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lille, France, Europe, Endocrine System Diseases and Conditions, Hormone Replacement Therapy, Mixed Function Oxygenases, Polycystic Ovary Syndrome, Anti-Mullerian Hormone, Enzymes and Coenzymes, Gonadotropin Therapy, Steroid Hydroxylases, Vaginal Preparations, Drugs and Therapies, Testicular Hormones, Estradiol Congeners, Estradiol Therapy, Peptide Proteins, Peptide Hormones, Gonadotropins, Hemeproteins, Sex Hormones, Cytochromes, Aromatase, Androgens, Estrogens, University of Lille.

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Proteins - DNA-Binding Proteins

New Findings from University of Magdeburg Update Understanding of DNA-Binding Proteins (GSK-3 beta controls NF-kappaB activity via IKK gamma/NEMO)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Proteins - DNA-Binding Proteins is now available. According to news reporting originating in Magdeburg, Germany, by NewsRx journalists, research stated, "The NF-kappa B signaling pathway is central for the innate immune response and its deregulation is found in multiple disorders such as autoimmune, chronic inflammatory and metabolic diseases. IKK gamma/NEMO is essential for NF-kappa B activation and NEMO dysfunction in humans has been linked to so-called progeria syndromes, which are characterized by advanced ageing due to age-dependent inflammatory diseases."

The news reporters obtained a quote from the research from the University of Magdeburg, "It has been suggested that glycogen synthase kinase-3 beta (GSK-3 beta) participates in NF-kappa B regulation but the exact mechanism remained incompletely understood. In this study, we identified NEMO as a GSK-3 beta substrate that is phosphorylated at serine 8, 17, 31 and 43 located within its N-terminal domain. The kinase forms a complex with wild-type NEMO while point mutations of NEMO at the specific serines abrogated GSK-3 beta binding and subsequent phosphorylation of NEMO resulting in its destabilization. However, K63-linked polyubiquitination was augmented in mutated NEMO explaining an increased binding to IKK alpha and IKK beta. Even I kappa B alpha was found degraded. Still, TNF alpha-stimulated NF-kappa B activation was impaired pointing towards an un-controlled signalling process."

According to the news reporters, the research concluded: "Our data suggest that GSK-3 beta is critically important for ordered NF-kappa B signalling through modulation of
NEMO phosphorylation."

For more information on this research see: GSK-3 beta controls NF-kappaB activity via IKK gamma/NEMO. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England.

Our news correspondents report that additional information may be obtained by contacting S. Medunjanin, Univ Magdeburg, Internal Med Cardiol & Angiol, Magdeburg, Germany. Additional authors for this research include L. Schleithoff, C. Fiegehenn, S. Weinert, W. Zuschratter and R.C. Braun-Dullaeus.

Keywords for this news article include: Magdeburg, Germany, Europe, Enzymes and Coenzymes, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, NF-kappa B, Genetics, Kinase, University of Magdeburg.

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Peripheral Neuropathy

New Findings from University of Malaya Update Understanding of Peripheral Neuropathy (Mutation analysis of genes within the dynactin complex in a cohort of hereditary peripheral neuropathies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Peripheral Neuropathy is now available. According to news reporting from Kuala Lumpur, Malaysia, by NewsRx journalists, research stated, "The cytoplasmic dynein-dynactin genes are attractive candidates for neurodegenerative disorders given their functional role in retrograde transport along neurons. The cytoplasmic dynein heavy chain (DYNC1H1) gene has been implicated in various neurodegenerative disorders, and dynactin 1 (DCTN1) genes have been implicated in a wide spectrum of disorders including motor neuron disease, Parkinson's disease, spinobulbar muscular atrophy and hereditary spastic paraplegia."

The news correspondents obtained a quote from the research from the University of Malaya, "However, the involvement of other dynactin genes with inherited peripheral neuropathies (IPN) namely, hereditary sensory neuropathy, hereditary motor neuropathy and Charcot-Marie-Tooth disease is under reported. We screened eight genes; DCTN1-6 and ACTR1A and ACTR1B in 136 IPN patients using whole-exome sequencing and high-resolution melt (HRM) analysis. Eight non-synonymous variants (including one novel variant) and three synonymous variants were identified. Four variants have been reported previously in other studies, however segregation analysis within family members excluded them from causing IPN in these families. No variants of disease significance were identified in this study suggesting the dynactin genes are unlikely to be a common cause of IPNs."

According to the news reporters, the research concluded: "However, with the ease of querying gene variants from exome data, these genes remain worthwhile candidates to assess unsolved IPN families for variants that may affect the function of the proteins."

For more information on this research see: Mutation analysis of genes within the dynactin complex in a cohort of hereditary peripheral neuropathies. Clinical Genetics, 2016;90 (2):127-133. Clinical Genetics can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Clinical Genetics -
onlinelibrary.wiley.com/journal/10.1111/(ISSN)1399-0004)

Our news journalists report that additional information may be obtained by contacting A. Ahmad-Annuar, Univ Malaya, Fac Med, Dept. of Biomed Sci, Kuala Lumpur 50603, Malaysia. Additional authors for this research include A. Ahmad-Annuar, A.P. Drew, N. Shahrizaila, G.A. Nicholson and M.L. Kennerson.

Keywords for this news article include: Kuala Lumpur, Malaysia, Asia, Genetics, Genetics, Genetics, Peripheral Neuropathy, University of Malaya.

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Oncology - Small Cell Lung Cancer

New Findings from University of Manitoba Describe Advances in Small Cell Lung Cancer (A 10-Gene Yin Yang Expression Ratio Signature for Stage IA and IB Non-Small Cell Lung Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Small Cell Lung Cancer. According to news reporting originating in Winnipeg, Canada, by NewsRx journalists, research stated, "Lung cancer is the leading killer cancer worldwide. There is an urgent need for easy-to-use and robust clinical gene signatures for improved prognosis and treatment prediction."

The news reporters obtained a quote from the research from the University of Manitoba, "We used a gene expression signature termed the Yin and Yang mean ratio (YMR), which is based on two groups of genes with opposing function, to determine lung cancer prognosis. The YMR signature represents the relative state of an individual tumor on a gene expression spectrum ranging from malignancy to the normal healthy lung. The genes in the YMR signature have therefore been determined independently of survival time, which is different from previous regression models. We then leveraged the cross platform utility of the YMR signature to optimize the signature into a smaller set of genes that validated the robustness of the signature in many independent lung cancer expression data sets. Four Yin and six Yang genes were optimized using 741 NSCLC cases from diverse platforms, including micro array and RNA sequencing. The 10-gene signature demonstrated significant differences in survival in eight individual independent data sets and a larger combined 1346-patient data set. When multivariate analysis taking into account other common predictors of survival was used, the 5-year recurrence-free rate of YMR (p = 6.4 x 10(-6), HR =1.71 [1.36-2.16]) was secondary only to stage. The YMR signature significantly separated high- and low-risk patients with stage IA or IB adenocarcinoma and squamous cell carcinomas of all stages. The YMR signature can also predict the benefit of adjuvant chemotherapy in high-risk patients with stage I NSCLC. The YMR signature has great potential for guiding clinical management for NSCLC, particularly early stage disease."

According to the news reporters, the research concluded: "The signature appears more reproducible than older signatures and functions using a variety of common gene expression platforms."

New Findings from University of Massachusetts Describe Advances in Obesity (Economic preferences and obesity among a low-income African American community)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Obesity are discussed in a new report. According to news reporting from Amherst, Massachusetts, by NewsRx journalists, research stated, "Obesity has reached epidemic proportions in the US, with a significantly higher fraction of African Americans who are obese than whites. Yet there is little understanding of why some individuals become obese while others do not."

Financial support for this research came from National Science Foundation.

The news correspondents obtained a quote from the research from the University of Massachusetts, "We conduct a lab-in-field experiment in a low-income African American community to investigate whether risk and time preferences play a role in the tendency to become obese. We examine the relationship between incentivized measures of risk and time preferences and weight status (BMI), and find that individuals who are more tolerant of risk are more likely to have a higher BMI. This result is driven by the most risk tolerant individuals."

According to the news reporters, the research concluded: "Patience is not independently statistically related to BMI in this sample, but those who are more risk averse and patient are less likely to be obese."


Our news journalists report that additional information may be obtained by contacting A.C.M. de Oliveira, University of Massachusetts, Dept. of Resource Econ, Amherst, MA 01003, United States. Additional authors for this research include T.C.M. Leonard, K. Shuval, C.S. Skinner, C. Eckel and J.C. Murdoch.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jebo.2015.11.002. This DOI is a link to an online electronic document that is either free or for purchase.
New Findings from University of Massachusetts in the Area of Sickle Cell Anemia Reported (Exploring Transition to Self-Management Within the Culture of Sickle Cell Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hematologic Diseases and Conditions - Sickle Cell Anemia have been presented. According to news reporting originating in Lowell, Massachusetts, by NewsRx journalists, research stated, "The aim of this study was to explore the meaning of transition to self-management in sickle cell disease. Design/Method: Twelve audio-recorded semistructured interviews were conducted with a sample of 21- to 25-year-olds recruited from a comprehensive sickle cell center in the northeast region of the United States."

The news reporters obtained a quote from the research from the University of Massachusetts, "Data were analyzed using an existential framework according to van Manen's phenomenological method. The meaning of transition to self-management was found in lived time, space, body, and human relationship. The emerging themes highlighted in this article include: Best Mother Ever, Growing up in the Hospital, I'm Not Trying that Again, Doing it on My Own, Living Day-by-Day, and Not a Kid any Longer. The themes reflected meaning and insight into this unique experience."

According to the news reporters, the research concluded: "Conclusion/Practice Implications: Study results emphasize the culturally constructed meaning of transition to sickle cell disease self-management and need to integrate transcultural perspectives into nursing practice to support this emerging phenomenon."


Our news correspondents report that additional information may be obtained by contacting N. Labore, Univ Massachusetts Lowell, Lowell, MA, United States. Additional authors for this research include B. Mawn, J. Dixon and B. Andemariam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1043659615609404. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lowell, Massachusetts, United States, North and Central America, Hematologic Diseases and Conditions, Sickle Cell Anemia, Hematology, University of Massachusetts.

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Oncology - Prostate Cancer

New Findings from University of Medicine and Pharmacy Describe Advances in Prostate Cancer (Replication study of 34 common SNPs associated with prostate cancer in the Romanian population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting originating from Bucharest, Romania, by NewsRx correspondents, research stated, "Prostate cancer is the third-most common form of cancer in men in Romania. The Romanian unscreened population represents a good sample to study common genetic risk variants."

Financial supporters for this research include Seventh Framework Programme, Executive Office of Energy and Environmental Affairs.

Our news editors obtained a quote from the research from the University of Medicine and Pharmacy, "However, a comprehensive analysis has not been conducted yet. Here, we report our replication efforts in a Romanian population of 979 cases and 1027 controls, for potential association of 34 literature-reported single nucleotide polymorphisms (SNPs) with prostate cancer. We also examined whether any SNP was differentially associated with tumor grade or stage at diagnosis, with disease aggressiveness, and with the levels of PSA (prostate specific antigen). In the allelic analysis, we replicated the previously reported risk for 19 loci on 4q24, 6q25.3, 7p15.2, 8q24.21, 10q11.23, 10q26.13, 11p15.5, 11q13.2, 11q13.3. Statistically significant associations were replicated for other six SNPs only with a particular disease phenotype: low-grade tumor and low PSA levels (rs1512268), high PSA levels (rs401681 and rs11649743), less aggressive cancers (rs1465618, rs721048, rs17021918). The strongest association of our tested SNP's with PSA in controls was for rs2735839, with 29% increase for each copy of the major allele G, consistent with previous results. Our results suggest that rs4962416, previously associated only with prostate cancer, is also associated with PSA levels, with 12% increase for each copy of the minor allele C. The study enabled the replication of the effect for the majority of previously reported genetic variants in a set of clinically relevant prostate cancers."

According to the news editors, the research concluded: "This is the first replication study on these loci, known to associate with prostate cancer, in a Romanian population."

For more information on this research see: Replication study of 34 common SNPs associated with prostate cancer in the Romanian population. Journal of Cellular and Molecular Medicine, 2016;20(4):594-600. Journal of Cellular and Molecular Medicine can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA. (Wiley-Blackwell - www.wiley.com; Journal of Cellular and Molecular Medicine - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1582-4934)

The news editors report that additional information may be obtained by contacting V. Jinga, Prof Dr Th Burghele Clinical Hospital, Urology Department, University of Medicine and Pharmacy Carol Davila, Bucharest, Romania. Additional authors for this research include I.E. Csiki, A. Manolescu, P. Iordache, I.N. Mates, D. Radavoi, S. Rascu, D. Badescu, P. Badea and D. Mates.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jcmm.12729. This DOI is a link to an online electronic document that is either free or for purchase.
New Findings from University of Melbourne Describe Advances in Antigens (Lack of Heterologous Cross-reactivity toward HLA-A*02:01 Restricted Viral Epitopes Is Underpinned by Distinct alpha beta T Cell Receptor Signatures)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Antigens. According to news originating from Parkville, Australia, by NewsRx correspondents, research stated, "Alpha beta T cell receptor (TCR) genetic diversity is outnumbered by the quantity of pathogenic epitopes to be recognized. To provide efficient protective anti-viral immunity, a single TCR ideally needs to cross-react with a multitude of pathogenic epitopes."

Our news journalists obtained a quote from the research from the University of Melbourne, "However, the frequency, extent, and mechanisms of TCR cross reactivity remain unclear, with conflicting results on anti-viral T cell cross-reactivity observed in humans. Namely, both the presence and lack of T cell cross-reactivity have been reported with HLA-A*02:01-restricted epitopes from the Epstein-Barr and influenza viruses (BMIT-1 and M1(58), respectively) or with the hepatitis C and influenza viruses (NS3(1073) and NA(231), respectively). Given the high sequence similarity of these paired viral epitopes (56 and 88%, respectively), the ubiquitous nature of the three viruses, and the high frequency of the HLA-A*02:01 allele, we selected these epitopes to establish the extent of T cell cross reactivity. We combined ex vivo and in vitro functional assays, single-cell alpha beta TCR repertoire sequencing, and structural analysis of these four epitopes in complex with HLA-A*02:01 to determine whether they could lead to heterologous T cell cross-reactivity. Our data show that sequence similarity does not translate to structural mimicry of the paired epitopes in complexes with HLA-A*02:01, resulting in induction of distinct alpha beta TCR repertoires. The differences in epitope architecture might be an obstacle for TCR recognition, explaining the lack of T cell cross-reactivity observed."

According to the news editors, the research concluded: "Sequence similarity does not necessarily result in structural mimicry, and despite the need for cross-reactivity, antigen-specific TCR repertoires can remain highly specific."


The news correspondents report that additional information may be obtained from K. Kedzierska, University of Melbourne, Dept. of Microbiol & Immunol, Peter Doherty Inst Infect
Oncology - Colon Cancer

New Findings from University of Melbourne in the Area of Colon Cancer Reported (Regulation of colorectal cancer cell epithelial to mesenchymal transition by the renin angiotensin system)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting from Melbourne, Australia, by NewsRx journalists, research stated, "Epithelial to mesenchymal transition (EMT) is implicated in tumor progression. We aimed to determine if the renin angiotensin system has a role in colorectal cancer (CRC) cell EMT."

The news correspondents obtained a quote from the research from the University of Melbourne, "Human CRC cell lines DLD-1 and LIM2405 were used in wound scratch migration assays where they were treated with renin angiotensin system peptide ANG II alone or with blockers of ANG II type 1 or 2 receptors (AT1R and AT2R). Levels of epithelial (E-cadherin), mesenchymal (ZEB1, Vimentin) markers, inducible nitric oxide synthase (iNOS), and MMP9 were determined by flow cytometry. Mice bearing CRC liver metastases and treated with blockers for AT1R or AT2R were examined for ZEB1 and iNOS by immunohistochemistry. ANG II increased in-vitro CRC cell migration in both cell lines, this was inhibited by AT1R (IRB) or AT2R blockade (PD123319). DLD-1 cells treated with AT1R blocker resulted in increased E-cadherin, reduced ZEB1, and Vimentin expression compared with ANG II-treated cells. Treatment with AT2R blocker decreased E-cadherin, no change in ZEB1 or Vimentin expression. AT1R blockade increased iNOS and decreased MMP9 expression in DLD-1 and LIM2405 cells. AT2R blockade decreased iNOS and MMP9 expression in both cell lines. In vivo, ZEB1 staining was higher in ANG II-treated animals compared with control and AT1R blockade treated animals, while activation of the AT2R led to an increase in iNOS compared with control and AT1R blockade."

According to the news reporters, the research concluded: "ANG II-induced migration of CRC cells via both AT1 and AT2 receptors; the AT1R-mediated effects were associated with changes typical of EMT."


Our news journalists report that additional information may be obtained by contacting L. Nguyen, University of Melbourne, Dept. of Surg, Austin Hlth, Melbourne, Vic, Australia. Additional authors for this research include E.I. Ager, J. Neo and C. Christophi.
Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Intermediate Filament Proteins, Aspartic Acid Endopeptidases, Cell Adhesion Molecules, Proprotein Convertases, Enzymes and Coenzymes, ColoRECTal Research, Biological Factors, Peptide Hydrolases, Membrane Proteins, Peptide Proteins, Peptide Hormones, Gastroenterology, Cell Research, Glycoproteins, Oligopeptides, Neuropeptides, Angiotensins, Colon Cancer, Cadherins, Cell Line, Autacoids, Vimentin, Oncology, Peptides, Renin, University of Melbourne.

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Cardiovascular Diseases and Conditions - Venous...

New Findings from University of Miami in Venous Thromboembolism Provides New Insights (Anti-Xa-guided enoxaparin thromboprophylaxis reduces rate of deep venous thromboembolism in high-risk trauma patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Venous Thromboembolism. According to news reporting from Miami, Florida, by NewsRx journalists, research stated, "Appropriate prophylaxis against venous thromboembolism (VTE) remains undefined. This study evaluated an anti-Xa-guided enoxaparin thromboprophylaxis (TPX) protocol on the incidence of VTE in high-risk trauma patients based on Greenfield's Risk Assessment Profile (RAP) score."

The news correspondents obtained a quote from the research from the University of Miami, "This is a retrospective observational study of patients admitted to a trauma intensive care unit over a 12-month period. Patients were included if they received anti-Xa-guided enoxaparin TPX. Dosage was adjusted to a prophylactic peak anti-Xa level of 0.2 to 0.4 IU/mL. Subgroup analysis was performed on high-risk patients (RAP score >= 10) who received lower-extremity duplex ultrasound surveillance for deep vein thrombosis (DVT). Data are expressed as mean +/- SD. Significance was assessed at p < 0.05. One hundred thirty-one patients received anti-Xa-guided enoxaparin TPX. Four patients were excluded for age or acute VTE on admission. Fifty-six patients with RAP score of >= 10 and surveillance duplex evaluations were included in the subgroup analysis with mean age 43 +/- 20 years, Injury Severity Score of 25 +/- 10, and RAP score of 16 +/- 4. Prophylactic anti-Xa levels were initially achieved in 34.6% of patients. An additional 25.2% required 40 to 60 mg twice daily to reach prophylactic levels; 39.4% never reached prophylactic levels. Weight, body mass index, ISS, and RAP score were significantly higher with subprophylactic anti-Xa levels. One patient developed bleeding complications (0.8%). No patient developed intracerebral bleeding or heparin-induced thrombocytopenia. Nine VTE events occurred in the high-risk subgroup, including four DVT (7.1%), all asymptomatic, and five pulmonary emboli (8.9%). The historical rate of DVT in similar patients (ISS 31 +/- 12 and RAP score 16 +/- 5) was 20.5%, a significant decrease (p = 0.031). Mean chest Abbreviated Injury Scale scores were significantly higher for patients developing pulmonary emboli than DVT, 3.0 +/- 1.1 vs. 0.0 (p < 0.001). Mean chest Abbreviated Injury Scale score was higher in patients developing pulmonary embolism. Increased weight, body mass index, ISS, and RAP score are associated with subprophylactic anti-Xa levels."

According to the news reporters, the research concluded: "Anti-Xa-guided
enoxaparin dosing reduced the rate of DVT from 20.5% to 7.1% in high-risk trauma patients."

For more information on this research see: Anti-Xa-guided enoxaparin thromboprophylaxis reduces rate of deep venous thromboembolism in high-risk trauma patients. *Journal of Trauma and Acute Care Surgery*, 2016;81(6):1101-1108. *Journal of Trauma and Acute Care Surgery* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting G.A. Singer, University of Miami, Miller Sch Med, Dewitt Daughtry Dept. of Surg, Div Surg Crit Care, Miami, FL 33136, United States. Additional authors for this research include G. Riggi, C.A. Karcutskie, T.M. Vaghaiwalla, H.M. Lieberman, E. Ginzburg, N. Namias and E.B. Lineen.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Angiology, Epidemiology, Embolism and Thrombosis, Venous Thromboembolism, Hematology, University of Miami.

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**New Findings from University of Michigan Update Understanding of Pneumonia (Electroporation-mediated delivery of the FER gene in the resolution of trauma-related fatal pneumonia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Lung Diseases and Conditions - Pneumonia are presented in a new report. According to news reporting originating in Ann Arbor, Michigan, by NewsRx journalists, research stated, "Injured patients with lung contusion (LC) are at risk of developing bacterial pneumonia (PNA) followed by sepsis and death. A recent genome-wide association study (GWAS) showed FER gene expression positively correlating with survival rates among individuals with above conditions."

The news reporters obtained a quote from the research from the University of Michigan, "We sought to determine whether electroporation (EP)-mediated delivery of FER gene could indeed improve survival, in a lethal model of combined LC and PNA. C57BL/6 mice sustained unilateral LC, which preceded a 500 Klebsiella colony forming unit (CFU) inoculation by 6 h. In-between these insults, human FER plasmid (pFER) was introduced into the lungs followed by eight EP pulses applied externally (10 ms at 200 V cm(-1)). Control groups included EP of empty vector (pcDNA3) or Na+/ K+-ATPase genes (pPump) and no treatment (LC+PNA). We recorded survival, histology, lung mechanics, bronchial alveolar lavage (BAL) fluid, FER and inflammatory gene expression and bacteriology. The data show that 7-day survival was significantly improved by pFER compared with control groups. pFER increased BAL monocytes and activated antibacterial response genes (nitric oxide synthase (NOS), Fizz). pFER treatment showed decreased lung and blood Klebsiella counts reaching, in some cases, complete sterilization."

According to the news reporters, the research concluded: "FER gene delivery
promoted survival in LC+ PNA mice via recruitment of activated immune cells, improving efficiency of bacterial clearance within contused lung."


Our news correspondents report that additional information may be obtained by contacting D. Machado-Aranda, University of Michigan, Dept. of Surg, Div Acute Care Surg, Ann Arbor, MI 48109, United States. Additional authors for this research include R. Goldberg, M.V. Suresh, B. Thomas, N. Talarico, M.R. Hemmila, K. Raghavendran and D. Machado-Aranda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gt.2016.58. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Lung Diseases and Conditions, Gene Therapy, Risk and Prevention, Genetics, Respiratory Tract Diseases and Conditions, Respiratory Tract Infections, Infectious Disease, Pulmonology, Pneumonia, University of Michigan.

Our news correspondents report that additional information may be obtained by contacting D. Machado-Aranda, University of Michigan, Dept. of Surg, Div Acute Care Surg, Ann Arbor, MI 48109, United States. Additional authors for this research include R. Goldberg, M.V. Suresh, B. Thomas, N. Talarico, M.R. Hemmila, K. Raghavendran and D. Machado-Aranda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gt.2016.58. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Lung Diseases and Conditions, Gene Therapy, Risk and Prevention, Genetics, Respiratory Tract Diseases and Conditions, Respiratory Tract Infections, Infectious Disease, Pulmonology, Pneumonia, University of Michigan.

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Cardiovascular Diseases and Conditions - Thrombosis

New Findings from University of Milan Describe Advances in Thrombosis (Resistance to thrombomodulin is associated with de novo portal vein thrombosis and low survival in patients with cirrhosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Thrombosis have been presented. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "Portal vein thrombosis (PVT) is frequently observed in cirrhosis and may be a clinically important complication. In vitro assays for endogenous thrombin potential (ETP) demonstrated that in cirrhosis plasma has intrinsic resistance to the anticoagulant action of thrombomodulin (TM-R)."

Financial support for this research came from Italian Ministry of Health.

Our news journalists obtained a quote from the research from the University of Milan, "This study retrospectively explores the association of TM-R with de novo PVT and its clinical impact on cirrhosis. Fifty-three patients with cirrhosis were tested for ETP-ratio with/without thrombomodulin. Clinical, endoscopic variables, presence/absence of PVT by Doppler-US and/or CT examination were collected at baseline and up to 4 years from baseline. The de novo PVT was the primary clinical end-point. Portal hypertension (PHT)-related complications and transplantation free survival were secondary end-points. ETP-ratio higher than the 95 degrees percentile of the distribution in 173 healthy controls defined TM-R. During 48 months of follow-up, 11 patients developed de novo PVT, with preference for the 36 patients with TM-R after adjusting for Child-Pugh class (HR: 8.354; 90% CI: 1.475 -47.305; P = 0.009). Seventeen patients experienced PHT-related complications, 23 either died or underwent liver
transplantation. PHT complications and transplantation free survival were associated with TM-R, but were independently predicted by Child-Pugh class, only. Same results were obtained by considering the MELD score.

According to the news editors, the research concluded: "Owing to PVT results from the pro-coagulant imbalance occurring in patients with advanced cirrhosis, TM-R might serve as a predictor and could possibly be a biological mediator of adverse outcome in patients with advanced cirrhosis."


The news correspondents report that additional information may be obtained from V. La Mura, University of Milan, Internal Med, IRCCS San Donato, Dept. of Biomed Sci Hlth, Milan, Italy. Additional authors for this research include A. Tripodi, G. Tosetti, F. Cavallaro, V. Chantarangkul, M. Colombo and M. Primignani.

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Keywords for this news article include: Milan, Italy, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Membrane Glycoproteins, Thrombin Receptors, Membrane Proteins, Thrombomodulin, Portal Vein, Hematology, Angiology, Cirrhosis, Fibrosis, University of Milan.

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Duchenne Muscular Dystrophy

New Findings from University of Milan in Duchenne Muscular Dystrophy Provides New Insights (Therapeutic Potential of Immunoproteasome Inhibition in Duchenne Muscular Dystrophy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Duchenne Muscular Dystrophy. According to news reporting from Milan, Italy, by NewsRx journalists, research stated, "Duchenne muscular dystrophy is an inherited fatal genetic disease characterized by mutations in dystrophin gene, causing membrane fragility leading to myofiber necrosis and inflammatory cell recruitment in dystrophic muscles. The resulting environment enriched in proinflammatory cytokines, like IFN-gamma and TNF-alpha, determines the transformation of myofiber constitutive proteasome into the immunoproteasome, a multisubunit complex involved in the activation of cell-mediate immunity."

The news correspondents obtained a quote from the research from the University of Milan, "This event has a fundamental role in producing peptides for antigen presentation by MHC class I, for the immune response and also for cytokine production and T-cell differentiation. Here, we characterized for the first time the presence of T-lymphocytes activated against revertant dystrophin epitopes, in the animal model of Duchenne muscular dystrophy, the
mdx mice. Moreover, we specifically blocked i-proteasome subunit LMP7, which was up-regulated in dystrophic skeletal muscles, and we demonstrated the rescue of the dystrophin expression and the amelioration of the dystrophic phenotype. The i-proteasome blocking lowered myofiber MHC class I expression and self-antigen presentation to T cells, thus reducing the specific antidystrophin T cell response, the muscular cell infiltrate, and proinflammatory cytokine production, together with muscle force recovery.

According to the news reporters, the research concluded: "We suggest that i-proteasome inhibition should be considered as new promising therapeutic approach for Duchenne muscular dystrophy pathology."

For more information on this research see: Therapeutic Potential of Immunoproteasome Inhibition in Duchenne Muscular Dystrophy. Molecular Therapy, 2016;24 (11):1898-1912. Molecular Therapy can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news journalists report that additional information may be obtained by contacting Y. Torrente, University of Milan, Fdn IRCCS Ca Granda Osped Maggiore Policlinico, Dept. of Pathophysiol & Transplantat, Stem Cell LabUnit NeurolCenter Dino Ferrari, Milan, Italy. Additional authors for this research include C. Sitzia, B. Cassani, L. Cassinelli, R. Rigoni, F. Colleoni, N. Fusco, S. Gatti, P. Bella, C. Villa, F. Napolitano, R. Maiavacca, S. Bosari, A. Villa and Y. Torrente.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2016.162. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Musculoskeletal Diseases and Conditions, Nervous System Diseases and Conditions, Neuromuscular Diseases and Conditions, Muscular Diseases and Conditions, Atrophic Muscular Disorders, Duchenne Muscular Dystrophy, Cytoskeletal Proteins, Muscular Dystrophies, Membrane Proteins, Muscle Proteins, Dystrophin, Neurology, Genetics, University of Milan.

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**Pregnancy Complications - Spontaneous Abortion**

**New Findings from University of Milan in the Area of Spontaneous Abortion Described (The impact of thyroid autoimmunity on IVF/ICSI outcome: a systematic review and meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pregnancy Complications - Spontaneous Abortion. According to news reporting originating in Milan, Italy, by NewsRx journalists, research stated, "Thyroid autoimmunity (TAI) is the most frequent autoimmune condition and the first cause of thyroid dysfunction among women of reproductive age. Notably, it has been associated with adverse obstetric outcomes during all trimesters of pregnancy."

The news reporters obtained a quote from the research from the University of Milan, "Furthermore, since most studies show an increased prevalence of TAI among women attending infertility clinics, a detrimental impact of this condition on natural fertility and on the rate of success of assisted reproductive techniques has been suggested. However, to date, the results
have been inconsistent. The objective of this study was to define the relation between TAI per se and the outcome of in vitro fertilisation (IVF)/intracytoplasmic sperm injection (ICSI) cycles. A systematic literature review and meta-analysis were conducted. A Medline search was performed to identify all the comparative studies published from January 1990 to November 2015 in the English language literature on IVF/ICSI outcome in women with and without TAI, using combinations of the medical subject heading terms 'thyroid autoimmunity', 'thyroid autoantibodies', TVF, 'ICSI', 'pregnancy', 'miscarriage' and 'delivery'. The primary outcome was live birth rate (LBR). Our secondary outcomes were number of oocytes retrieved (NOR), fertilisation rate (FR), implantation rate (IR), clinical pregnancy rate (CPR) and miscarriage rate (MR). We also extracted data on mean age and basal serum concentrations of thyroid stimulating hormone (TSH) and performed a meta-regression analysis to assess the effect of these two covariates on CPR and MR. We selected 12 studies for the meta-analysis. Six of the included studies were prospective cohort studies, and six were retrospective cohort studies. Compared with women with negative TAI, women with positive TAI had a lower LBR (odds ratio (OR) 0.73; 95% confidence interval (CI) [0.54-0.99]; P = 0.04; 9 studies; 4396 women; I² = 41%), a higher MR (OR 1.44; 95% CI [1.06-1.95]; P = 0.02; 12 studies; 4876 women; I² = 35%), a similar CPR (OR 0.90; 95% CI [0.77-1.06]; P = 0.22; 12 studies; 4876 women; I² = 7%), a similar number of oocytes (standardized mean difference [SMD] 0.10; 95% CI [-0.09 to 0.29]; P = 0.28; 5 studies; 1506 women; I² = 47%), a similar FR (OR 1.11; 95% CI [0.97-1.27]; P = 0.13; 3 studies; 1082 women; I² = 0%) and a similar IR (OR 0.98; 95% CI [0.73-1.32]; P = 0.91; 2 studies; 918 women; I² = 0%). Both mean age (SMD 0.96; 95% CI [0.66-1.27]; P< 0.00001; 9 studies; 3256 women; I² = 85%) and serum TSH (SMD 0.24; 95% CI [0.15-0.34]; P< 0.00001; 6 studies; 2098 women; I² = 59%) were higher in women with TAI. However, neither of these two covariates were significantly associated with CPR or MR. TAI does not impact on IVF/ICSI outcome in terms of NOR and likelihood of fertilisation, implantation and clinical pregnancy. On the contrary, the presence of thyroid autoantibodies may have a detrimental effect on the course of a pregnancy, determining an increased risk of miscarriage and a decreased chance of live birth."

According to the news reporters, the research concluded: "However, given the possible modifying effects of age and serum TSH, further evidence is warranted prior to drawing inferences on causality."


Our news correspondents report that additional information may be obtained by contacting A. Busnelli, University of Milan, I-20122 Milan, Italy. Additional authors for this research include A. Paffoni, L. Fedele and E. Somigliana.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/humupd/dmw019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Pregnancy Complications, Article Review, Epidemiology, Spontaneous Abortion, Women's Health, University of Milan.

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New Findings from University of Montreal Update Understanding of Prostate Cancer (Lessons learned using an MRI-only workflow during high-dose-rate brachytherapy for prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Prostate Cancer. According to news reporting from Montreal, Canada, by NewsRx journalists, research stated, "We report clinical observations of a technique using an MRI-only workflow for catheter insertion and treatment planning in patients receiving standard-care high-dose-rate brachytherapy before external beam radiotherapy for prostate cancer. Forty patients with intermediate or high-risk prostate cancer were enrolled on a prospective clinical trial approved by our institution's research ethics board."

The news correspondents obtained a quote from the research from the University of Montreal, "Multiparametric MRI with stereotactic navigation was used to guide insertion of brachytherapy catheters, followed by MRI-based treatment planning. Sixty-two implants were performed. Median catheter insertion + imaging time was 100 minutes, and overall anesthesia time was 4.0 hours (range, 2.1-6.9 hours). MRI at the time of brachytherapy restaged 14 patients (35%) who were found to have a higher stage of disease. In 6 patients, this translated in directed insertion of brachytherapy catheters outside the prostate boundary (extracapsular disease [n = 2] or seminal vesicle invasion [n = 4]). Most patients (80%) had gross tumor visible on MRI, which influenced catheter insertion and treatment planning. MRI depicted post implant anatomic boundaries clearly, with the exception of the apical prostate which was blurred by trauma after catheter insertion. Conventional dose-planning objectives for the rectum (V-75 < 1.0 cc) were difficult to achieve, but toxicities were low (acute grade >= 2 genitourinary = 20%, late grade >= 2 genitourinary = 15%, and late grade >= 2 gastrointestinal = 7%). Urethral trauma visualized on MRI led to two transient Grade 3 events. Despite a standard-care approach, MRI acquired throughout the procedure altered catheter insertion and dose-planning strategies."

According to the news reporters, the research concluded: "An MRI-only workflow is feasible but must be streamlined for broader acceptance."


Our news journalists report that additional information may be obtained by contacting C. Menard, Center Hosp Univ Montreal CHUM, Dept. of Radiooncol, Montreal, PQ H2L 4M1, Canada. Additional authors for this research include P. Chung, A. Berlin, A. Bayley, P. Warde, C. Catton, A. Simeonov, J. Abed, G. O'Leary, A. Rink and C. Menard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.brachy.2015.12.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Drugs and Therapies, Prostatic Neoplasms, Prostate Cancer, Brachytherapy, Radiotherapy, Oncology, Therapy, University of Montreal.

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New Findings from University of Munster in Atomic Force Microscopy Provides New Insights (AFM visualization of sub-50 nm polyplex disposition to the nuclear pore complex without compromising the integrity of the nuclear envelope)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Atomic Force Microscopy have been published. According to news reporting from Munster, Germany, by NewsRx journalists, research stated, "It has been questioned as to whether polyplexes in the cytoplasm can reach the nuclear compartment and if so in what form. By applying atomic force microscopy (AFM) to the nuclear envelope and the nuclear pore complexes, we demonstrate that disposition of polyethylenimine (PEI)/DNA polyplexes that were microinjected into the oocytes of Xenopus laevis, as an example of a non-dividing cell, is exclusive to the nuclear pore complex (NPC)."

The news correspondents obtained a quote from the research from the University of Munster, "AFM images show NPCs clogged only with sub-50 nm polyplexes. This mode of disposition neither altered the morphology/integrity of the nuclear membrane nor the NPC. AFM images further show polyplexes on the nucleoplasmic side of the envelope, presumably indicating species in transit."

According to the news reporters, the research concluded: "Transmission electron microscopy studies of ruptured nuclei from transfected human cell lines demonstrate the presence of sub-50 nm particles resembling polyplexes in morphology compared with control preparations."

For more information on this research see: AFM visualization of sub-50 nm polyplex disposition to the nuclear pore complex without compromising the integrity of the nuclear envelope. *Journal of Controlled Release*, 2016;244():24-29. *Journal of Controlled Release* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news journalists report that additional information may be obtained by contacting V. Shahin, University of Munster, Inst Physiol 2, D-48149 Munster, Germany. Additional authors for this research include L. Parhamifar, A.C. Hunter, V. Shahin and S.M. Moghimii.

Keywords for this news article include: Munster, Germany, Europe, Cell Membrane Structures, Cell Nucleus Structures, Intracellular Membranes, Atomic Force Microscopy, Cellular Structures, Intracellular Space, Nuclear Envelope, Nuclear Pore, University of Munster.

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**Oncology - Lung Cancer**

**New Findings from University of Naples Federico II in the Area of Lung Cancer Described (rpL3 promotes the apoptosis of p53 mutated lung cancer cells by down-regulating CBS and NF kappa B upon 5-FU treatment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lung Cancer. According to news reporting originating from Naples, Italy, by NewsRx correspondents, research stated, "5-FU is a chemotherapy drug commonly used for the treatment of human cancers; however drug resistance represents a major challenge for its clinical application. In the present study, we report that rpL3 induced by 5-FU treatment in Calu-6 cells represses CBS transcription and reduces CBS protein stability leading to a decrease of CBS protein levels. rpL3 also regulates negatively the activation of NF kappa B by preventing NF kappa B nuclear translocation through I kappa B-alpha up-regulation."

Our news editors obtained a quote from the research from the University of Naples Federico II, "Furthermore, we demonstrate that rpL3 significantly enhances the apoptosis of 5-FU treated Calu-6 cells promoting the overexpression of the pro-apoptotic proteins Bax and the inhibition of the anti-apoptotic protein Bcl-2. We finally demonstrate that rpL3 potentiates 5-FU efficacy inhibiting cell migration and invasion."

According to the news editors, the research concluded: "Our results suggest that combination of rpL3 and 5-FU is a promising strategy for chemotherapy of lung cancers lacking functional p53 that are resistant to 5-FU."


The news editors report that additional information may be obtained by contacting A. Russo, University of Naples Federico II, Dept. of Pharm, I-80131 Naples, Italy. Additional authors for this research include A. Saide, R. Cagliani, M. Cantile, G. Botti and G. Russo.

Keywords for this news article include: Naples, Italy, Europe, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, Lung Neoplasms, Lung Cancer, NF-kappa B, Apoptosis, Oncology, Genetics, p53 Gene, University of Naples Federico II.

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**Pediatrics**

**New Findings from University of New Mexico Describe Advances in Pediatrics (Proteinuria and hematuria in the neonate)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Pediatrics is the subject of a report. According to news reporting originating in Albuquerque, New Mexico, by NewsRx journalists, research stated,
"Neonatal proteinuria and hematuria while not common can have potentially devastating consequences if left undiagnosed and untreated. It is important to distinguish between inherited and acquired causes of proteinuria to initiate appropriate and timely treatment."

The news reporters obtained a quote from the research from the University of New Mexico, "With regards to hematuria, it is critical to identify true hematuria from pseudo-hematuria to balance between thorough investigation and unnecessary laboratory work up. This review provides an overview of the common causes of hematuria and proteinuria in a neonate. The identification of genetic mutations in nephrotic syndrome has improved our understanding of the role of various proteins that play an important role in maintaining the glomerular filtration barrier. With the advancement in our ability to provide care for extreme premature neonates, the incidence of acute kidney injury has increased in these neonates along with proteinuria and hematuria."

According to the news reporters, the research concluded: "Persistent proteinuria after neonatal acute kidney injury would be of interest in regards to the risk of developing future chronic kidney disease and hypertension."

For more information on this research see: Proteinuria and hematuria in the neonate. Current Opinion In Pediatrics, 2016;28(2):202-8. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Pediatrics - journals.lww.com/co-pediatrics/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting C. Joseph, aDept. of Pediatrics, University of New Mexico, Albuquerque, New Mexico bDept. of Pediatrics, University of Texas Southwestern Medical Center, Dallas, Texas, United States.

Our news correspondents report that additional information may be obtained by contacting C. Joseph, aDept. of Pediatrics, University of New Mexico, Albuquerque, New Mexico bDept. of Pediatrics, University of Texas Southwestern Medical Center, Dallas, Texas, United States.

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Keywords for this news article include: Genetics, New Mexico, Pediatrics, Albuquerque, United States, Article Review, Risk and Prevention, North and Central America.

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Kidney Diseases and Conditions - Chronic Kidney…

New Findings from University of North Carolina Describe Advances in Chronic Kidney Disease (Smoking patterns and chronic kidney disease in US Hispanics: Hispanic Community Health Study/Study of Latinos)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Kidney Diseases and Conditions - Chronic Kidney Disease is the subject of a report. According to news reporting originating from Chapel Hill, North Carolina, by NewsRx correspondents, research stated, "Intermittent smoking is prevalent among Hispanics, but little is known about whether this smoking pattern associates with increased chronic kidney disease (CKD) risk in this population. The objective of the present study is to identify patterns of exposure associated with CKD in US Hispanics."

Funders for this research include National Heart, Lung, and Blood Institute (NHLBI), University of North Carolina, University of Miami, Albert Einstein College of Medicine, Northwestern University, San Diego State University, National Center on Minority Health and
Our news editors obtained a quote from the research from the University of North Carolina, "We used cross-sectional data on 15,410 participants of the Hispanics Community Health Study/the Study of Latinos, a population-based study of individuals aged 18-74 years, recruited in 2008 to 2011 from four US field centers (Bronx, NY; Chicago, IL; Miami, FL; San Diego, CA). Smoking exposure was obtained through a questionnaire. CKD was defined by an estimated glomerular filtration rate of < 60 mL/min/1.73 m(2) or a urine albumin-to-creatinine ratio of a parts per thousand yen30 mg/g. Approximately 14% of individuals were daily and 7% were intermittent smokers, and 16% were past smokers. There was a significant interaction between smoking status and pack-years of exposure (\(P = 0.0003\)). In adjusted models, there was an increased odds of CKD among daily, intermittent and past smokers by pack-years compared with never smokers. The association of intermittent smokers was significant at 10 pack-years [odds ratio (OR) = 1.38, 95% confidence intervals (CI) 1.06, 1.81], whereas for daily smokers this association was observed at 40 pack-years (OR = 1.43, 95% CI 1.09, 1.89). Our findings of increased risk of CKD among Hispanics who are intermittent smokers support screening and smoking cessation interventions targeted to this population for the prevention of CKD."

According to the news editors, the research concluded: "It also suggests novel mechanistic pathways for kidney toxicity that should be further explored in future studies."


The news editors report that additional information may be obtained by contacting N. Franceschini, University of North Carolina, Dept. of Epidemiol, Chapel Hill, NC 27514, United States. Additional authors for this research include Y. Deng, M.F. Flessner, J.H. Eckfeldt, H.J. Kramer, J.P. Lash, D.J. Lee, M.L. Melamed, A.E. Moncrieff, A.C. Ricardo, S.E. Rosas, R.C. Kaplan, L. Raij and J.W. Cai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/ndt/gfw210. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Community Health, Epidemiology, Kidney Diseases and Conditions, Chronic Kidney Disease, University of North Carolina.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Failure are presented in a new report. According to news reporting originating in Chapel Hill, North Carolina, by NewsRx journalists, research stated, "Factors that precipitate hospitalization for exacerbation of heart failure provide targets for intervention to prevent hospitalizations. To describe demographic, clinical, behavioral, and psychosocial factors that precipitate admission for exacerbation of heart failure and assess the relationships between precipitating factors and delay before hospitalization, and between delay time and length of hospital stay."

The news reporters obtained a quote from the research from the University of North Carolina, "All admissions in 12 full months to a tertiary medical center were reviewed if the patient had a discharge code related to heart failure. Data on confirmed admissions for exacerbation of heart failure were included in the study. Electronic and paper medical records were reviewed to identify how long it took patients to seek care after they became aware of signs and symptoms, factors that precipitated exacerbation, and discharge details. Exacerbation of heart failure was confirmed in 482 patients. Dyspnea was the most common symptom (92.5% of patients), and 20.3% of patients waited until they were severely dyspneic before seeking treatment. The most common precipitating factor was poor medication adherence. Delay times from symptom awareness to seeking treatment were shorter in patients who had a recent change in medicine for heart failure, renal failure, or poor medication adherence and longer in patients with depressive symptoms and hypertension."

According to the news reporters, the research concluded: "Depressive symptoms, recent change in heart failure medicine, renal failure, poor medication adherence, and hypertension are risk factors for hospitalizations for exacerbation of heart failure."


Our news correspondents report that additional information may be obtained by contacting J.R. Wu, University of North Carolina, Sch Nursing, Chapel Hill, NC 27599, United States. Additional authors for this research include K.S. Lee, R.D. Dekker, J.D. Welsh, E.K. Song, D.A. Abshire, T.A. Lennie and D.K. Moser.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Cardiovascular Diseases and Conditions, Risk and Prevention, Epidemiology, Heart Disorders and Diseases, Heart Failure, Heart Disease, Hypertension, Cardiology, University of North Carolina.

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**Proteins - Transcription Factors**

**New Findings from University of North Carolina in the Area of Transcription Factors Described (Environmental contaminants and microRNA regulation: Transcription factors as regulators of toxicant-altered microRNA expression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Transcription Factors.
According to news reporting from Chapel Hill, North Carolina, by NewsRx journalists, research stated, "MicroRNAs (miRNAs) regulate gene expression by binding mRNA and inhibiting translation and/or inducing degradation of the associated transcripts. Expression levels of miRNAs have been shown to be altered in response to environmental toxicants, thus impacting cellular function and influencing disease risk."

Financial support for this research came from National Institute of Environmental Health Sciences.

The news correspondents obtained a quote from the research from the University of North Carolina, "Transcription factors (TFs) are known to be altered in response to environmental toxicants and play a critical role in the regulation of miRNA expression. To date, environmentally-responsive TFs that are important for regulating miRNAs remain understudied. In a state-of-the-art analysis, we utilized an in silico bioinformatic approach to characterize potential transcriptional regulators of environmentally-responsive miRNAs. Using the miRStart database, genomic sequences of promoter regions for all available human miRNAs (n = 847) were identified and promoter regions were defined as -1000/+500 base pairs from the transcription start site. Subsequently, the promoter region sequences of environmentally-responsive miRNAs (n = 128) were analyzed using enrichment analysis to determine overrepresented TF binding sites (TFBS). While most (56/73) TFs differed across environmental contaminants, a set of 17 TFs was enriched for promoter binding among miRNAs responsive to numerous environmental contaminants. Of these, one TF was common to miRNAs altered by the majority of environmental contaminants, namely SWI/SNF-related, matrix-associated, actin-dependent regulator of chromatin, subfamily A, member 3 (SMARCA3)."

According to the news reporters, the research concluded: "These identified TFs represent candidate common transcriptional regulators of miRNAs perturbed by environmental toxicants."


Our news journalists report that additional information may be obtained by contacting R.C. Fry, University of North Carolina, Sch Med, Curriculum Toxicol, Chapel Hill, NC, United States. Additional authors for this research include E. Martin, P. Sethupathy and R.C. Fry.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.06.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Proteins, Risk and Prevention, Transcription Factors, University of North Carolina.

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Pharmacology

New Findings from University of Nottingham School of Medicine Yields New Data on Pharmacology (The Concise Guide to PHARMACOLOGY 2015/16: Overview)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacology have been presented. According to news reporting originating from Nottingham, United Kingdom, by NewsRx correspondents, research stated, "The Concise Guide to PHARMACOLOGY 2015/16 provides concise overviews of the key properties of over 1750 human drug targets with their pharmacology, plus links to an open access knowledgebase of drug targets and their ligands (www.guidetopharmacology.org), which provides more detailed views of target and ligand properties. The full contents can be found at http://onlinelibrary.wiley.com/doi/10.1111/bph.13347/full."

Our news editors obtained a quote from the research from the University of Nottingham School of Medicine, "This compilation of the major pharmacological targets is divided into eight areas of focus: G protein-coupled receptors, ligand-gated ion channels, voltage-gated ion channels, other ion channels, nuclear hormone receptors, catalytic receptors, enzymes and transporters. These are presented with nomenclature guidance and summary information on the best available pharmacological tools, alongside key references and suggestions for further reading. The Concise Guide is published in landscape format in order to facilitate comparison of related targets. It is a condensed version of material contemporary to late 2015, which is presented in greater detail and constantly updated on the website www.guidetopharmacology.org, superseding data presented in the previous Guides to Receptors & Channels and the Concise Guide to PHARMACOLOGY 2013/14. It is produced in conjunction with NC-IUPHAR and provides the official IUPHAR classification and nomenclature for human drug targets, where appropriate."

According to the news editors, the research concluded: "It consolidates information previously curated and displayed separately in IUPHAR-DB and GRAC and provides a permanent, citable, point-in-time record that will survive database updates."


The news editors report that additional information may be obtained by contacting S.P. Alexander, School of Biomedical Sciences, University of Nottingham Medical School, Nottingham, NG7 2UH, UK. Additional authors for this research include E. Kelly, N. Marrion, J.A. Peters, H.E. Benson, E. Faccenda, A.J. Pawson, J.L. Sharman, C. Southan, O.P. Buneman, W.A. Catterall, J.A. Cidlowski, A.P. Davenport, D. Fabbro, G. Fan, J.C. McGrath, M. Spedding and Davies.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13347. This DOI is a link to an online electronic document that is either free or for purchase.

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Keywords for this news article include: Pharmaceuticals, Europe, Therapy, Nottingham, Pharmacology, United Kingdom.

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**Drugs and Therapies - Viscosupplementation Agents**

**New Findings from University of Occupational and Environmental Health Yields New Data on Viscosupplementation Agents (Targeting hyaluronan for the treatment of pancreatic ductal adenocarcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Viscosupplementation Agents have been published. According to news originating from Kitakyushu, Japan, by NewsRx correspondents, research stated, "Progression of cancer is often associated with interactions between cancer cells and extracellular matrix (ECM) surrounding them. Increasing evidence has suggested that accumulation of hyaluronan (HA), a major component of ECM, provides a favorable microenvironment for cancer progression."

Our news journalists obtained a quote from the research from the University of Occupational and Environmental Health, "Pancreatic ductal adenocarcinoma (PDAC) is characterized typically by a dense desmoplastic stroma with a large amount of HA, making this molecule an attractive target for therapy. Several studies have shown efficacy of inhibitors of HA synthesis or signaling for the treatment of PDAC. Recent studies have also demonstrated substantial improvements in the effects of chemotherapy by a targeted depletion of stromal HA in PDAC using an enzymatic agent. Thus, targeting HA has been recognized as a promising therapeutic strategy to treat this highly aggressive neoplasm."

According to the news editors, the research concluded: "In this review article, we summarize our current understanding of the role of HA in the progression of PDAC and discuss possible therapeutic approaches targeting HA."


The news correspondents report that additional information may be obtained from N. Sato, Dept. of Surgery 1, School of Medicine, University of Occupational and Environmental Health, Kitakyushu 807-8555, Japan. Additional authors for this research include X.B. Cheng, S. Kohi, A. Koga and K. Hirata.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.apsb.2016.01.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Cancer, Oncology, Pancreas, Kitakyushu, Hyaluronan, Adenocarcinoma, Article Review, Gastroenterology, Drugs and Therapies, Viscosupplementation Agents.

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New Findings from University of Oklahoma Update Understanding of Type 2 Diabetes (Interaction of PPAR alpha With the Canonic Wnt Pathway in the Regulation of Renal Fibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is the subject of a report. According to news reporting originating in Oklahoma City, Oklahoma, by NewsRx journalists, research stated, "Peroxisome proliferator-activated receptor-alpha (PPAR alpha) displays renoprotective effects with an unclear mechanism. Aberrant activation of the canonical Wnt pathway plays a key role in renal fibrosis."

The news reporters obtained a quote from the research from the University of Oklahoma, "Renal levels of PPAR alpha were downregulated in both type 1 and type 2 diabetes models. The PPAR alpha agonist fenofibrate and overexpression of PPAR alpha both attenuated the expression of fibrotic factors, and suppressed high glucose-induced or Wnt3a-induced Wnt signaling in renal cells. Fenofibrate inhibited Wnt signaling in the kidney of diabetic rats. A more renal prominent activation of Wnt signaling was detected both in PPAR alpha(-/-) mice with diabetes or obstructive nephropathy and in PPAR alpha(-/-) tubular cells treated with Wnt3a. PPAR alpha did not block the transcriptional activity of beta-catenin induced by a constitutively active mutant of lipoprotein receptor-related protein 6 (LRP6) or beta-catenin. LRP6 stability was decreased by overexpression of PPAR alpha and increased in PPAR alpha (-/-) tubular cells, suggesting that PPAR alpha interacts with Wnt signaling at the Wnt coreceptor level. 4-Hydroxynonenal-induced reactive oxygen species production, which resulted in LRP6 stability, was suppressed by overexpression of PPAR alpha and dramatically enhanced in PPAR alpha(-/-) tubular cells. Diabetic PPAR alpha(-/-) mice showed more prominent NADPH oxidase-4 overexpression compared with diabetic wild-type mice, suggesting that the inhibitory effect of PPAR on Wnt signaling may be ascribed to its antioxidant activity."

According to the news reporters, the research concluded: "These observations identified a novel interaction between PPAR alpha and the Wnt pathway, which is responsible, at least partially, for the therapeutic effects of fenofibrate on diabetic nephropathy."

For more information on this research see: Interaction of PPAR alpha With the Canonic Wnt Pathway in the Regulation of Renal Fibrosis. Diabetes, 2016;65(12):3730-3743. Diabetes can be contacted at: Amer Diabetes Assoc, 1701 N Beauregard St, Alexandria, VA 22311-1717, USA. (Elsevier - www.elsevier.com; Diabetes - www.journals.elsevier.com/diabetes-and-metabolic-syndrome-clinical-research-and-reviews/)

Our news correspondents report that additional information may be obtained by contacting J.X. Ma, University of Oklahoma, Hlth Sci Center, Harold Hamm Diabet Center, Oklahoma City, OK 73104, United States. Additional authors for this research include L.X. Ding, X.M. He, Y. Takahashi and J.X. Ma.

Keywords for this news article include: Oklahoma City, Oklahoma, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Peroxisome Proliferator-Activated Receptors, Non-Insulin Dependent Diabetes Mellitus, Antihyperlipidemic Agents, Fibric Acid Derivatives, Transcription Factors, DNA-Binding Proteins, Drugs and Therapies, Fenofibrate Therapy, Risk and Prevention, Pharmaceuticals, Type 2 Diabetes, Endocrinology, Nephropathy, Nephrology, PPAR alpha, Kidney, University of Oklahoma.
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**Oncology - Non-Small Cell Lung Cancer**

**New Findings from University of Paris-Sud Update Understanding of Non-Small Cell Lung Cancer (Predictors of chemotherapy efficacy in non-small-cell lung cancer: a challenging landscape)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Non-Small Cell Lung Cancer is the subject of a report. According to news reporting originating from Le Kremlin Bicetre, France, by NewsRx correspondents, research stated, "Conventional cytotoxic chemotherapy (CCC) is the backbone of non-small-cell lung cancer (NSCLC) treatment since decades and still represents a key element of the therapeutic armamentarium. Contrary to molecularly targeted therapies and immune therapies, for which predictive biomarkers of activity have been actively looked for and developed in parallel to the drug development process ('companion biomarkers'), no patient selection biomarker is currently available for CCC, precluding customizing treatment."

Funders for this research include 'Etablissement Public Chancellerie des Universites de Paris (Legs Poix)', Fondation de France, Fondation ARC pour la Recherche sur le Cancer, Agence National de la Recherche, Institut National du Cancer.

Our news editors obtained a quote from the research from the University of Paris-Sud, "We reviewed preclinical and clinical studies that assessed potential predictive biomarkers of CCC used in NSCLC (platinum, antimetabolites, topoisomerase inhibitors, and spindle poisons). Biomarker evaluation method, analytical validity, and robustness are described and challenged for each biomarker. The best-validated predictive biomarkers for efficacy are currently ERCC1, RRM1, and TS for platinum agents, gemcitabine and pemetrexed, respectively. Other potential biomarkers include hENT1 for gemcitabine, class III beta-tubulin for spindle poisons, TOP2A expression and CEP17 duplication (mostly studied for predicting anthracyclines efficacy) whose applicability concerning etoposide would deserve further evaluation. However, none of these biomarkers has till now been validated prospectively in an appropriately designed and powered randomised trial, and none of them is currently ready for implementation in routine clinical practice. The search for predictive biomarkers to CCC has been proven challenging. If a plethora of biomarkers have been evaluated either in the preclinical or in the clinical setting, none of them is ready for clinical implementation yet."

According to the news editors, the research concluded: "Considering that most mechanisms of resistance or sensitivity to CCC are multifactorial, a combinatorial approach might be relevant and further efforts are required."


The news editors report that additional information may be obtained by contacting K.A. Olaussen, Univ Paris Saclay, Univ Paris Sud, Fac Med, Le Kremlin Bicetre, France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/annonc/mdw321. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include:  Le Kremlin Bicetre, France, Europe, Cancer, Article Review, Diagnostics and Screening, Clinical Trials and Studies, Non-Small Cell Lung Cancer, Drugs and Therapies, Pre-Trial Research, Lung Neoplasms, Chemotherapy, Oncology, University of Paris-Sud.

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Life Science Research - Plant Physiology

New Findings from University of Pennsylvania in Plant Physiology Provides New Insights (Codon Optimization to Enhance Expression Yields Insights into Chloroplast Translation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Plant Physiology have been published. According to news reporting originating in Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Codon optimization based on psbA genes from 133 plant species eliminated 105 (human clotting factor VIII heavy chain [FVIII HC]) and 59 (polio VIRAL CAPSID PROTEIN1 [VP1]) rare codons; replacement with only the most highly preferred codons decreased transgene expression (77-to 111-fold) when compared with the codon usage hierarchy of the psbA genes. Targeted proteomic quantification by parallel reaction monitoring analysis showed 4.9- to 7.1-fold or 22.5- to 28.1-fold increase in FVIII or VP1 codon-optimized genes when normalized with stable isotope-labeled standard peptides (or housekeeping protein peptides), but quantitation using western blots showed 6.3- to 8-fold or 91- to 125-fold increase of transgene expression from the same batch of materials, due to limitations in quantitative protein transfer, denaturation, solubility, or stability."

Funders for this research include National Institute of Health, National Institutes of Health, Bill and Melinda Gates Foundation.

The news reporters obtained a quote from the research from the University of Pennsylvania, "Parallel reaction monitoring, to our knowledge validated here for the first time for in planta quantitation of biopharmaceuticals, is especially useful for insoluble or multimeric proteins required for oral drug delivery. Northern blots confirmed that the increase of codon-optimized protein synthesis is at the translational level rather than any impact on transcript abundance. Ribosome footprints did not increase proportionately with VP1 translation or even decreased after FVIII codon optimization but is useful in diagnosing additional rate-limiting steps. A major ribosome pause at CTC leucine codons in the native gene of FVIII HC was eliminated upon codon optimization. Ribosome stalls observed at clusters of serine codons in the codon-optimized VP1 gene provide an opportunity for further optimization."

According to the news reporters, the research concluded: "In addition to increasing our understanding of chloroplast translation, these new tools should help to advance this concept toward human clinical studies."

For more information on this research see: Codon Optimization to Enhance Expression Yields Insights into Chloroplast Translation. Plant Physiology, 2016;172(1):62-77. Plant Physiology can be contacted at: Amer Soc Plant Biologists, 15501 Monona Drive, Rockville, MD 20855, USA. (Elsevier - www.elsevier.com; Plant Physiology - www.journals.elsevier.com/plant-physiology-and-biochemistry/)
New Findings from University of Pittsburgh in the Area of Acetaminophen Therapy Reported (An acetaminophen icon helps reduce medication decision errors in an experimental setting)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Acetaminophen Therapy is now available. According to news reporting originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "To assess the effect of adding an acetaminophen ingredient icon to acetaminophen medication labels on consumer decision making about concomitant use of acetaminophen medications to avoid overdose, which is associated with liver injury. Parallel-group randomized study."

Our news editors obtained a quote from the research from the University of Pittsburgh, "Consumer research facilities in Indianapolis, Baltimore, and Los Angeles. A total of 517 adults (30% with limited health literacy) recruited at 3 consumer research sites. Participants were randomized to a non-icon condition in which medications carried current labeling or an icon condition in which all acetaminophen medications were additionally marked with an icon. Participants were presented with a medicine cabinet containing 12 diverse prescription and non-prescription medications, one-half containing acetaminophen, and made decisions about which medications were appropriate to take after an acetaminophen medication had already been taken. Outcome measures were errors in medication decisions and response time. The icon reduced the odds of participants making medication-decision errors by 53% (CI 31%-68%), with effects evident across medication categories. The icon eliminated a trend for those with lower health literacy or less education to have a greater likelihood of making errors. The icon also reduced response times, indicating reduced cognitive load for decisions."

According to the news editors, the research concluded: "An icon can improve decision making regarding acetaminophen-containing medications, particularly among individuals with limited health literacy or education."

The news editors report that additional information may be obtained by contacting S. Shiffman, University of Pittsburgh, Pittsburgh, PA, United States. Additional authors for this research include H. Cotton, C. Jessurun, J.M. Rohay and M.A. Sembower.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.japh.2016.04.560. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Acetaminophen Therapy, Drugs and Therapies, Pharmaceuticals, Acetanilides, University of Pittsburgh.

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Oncology - Breast Cancer

New Findings from University of Queensland in the Area of Breast Cancer Described (The Biodistribution and Immune Suppressive Effects of Breast Cancer-Derived Exosomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating in Brisbane, Australia, by NewsRx journalists, research stated, "Small membranous secretions from tumor cells, termed exosomes, contribute significantly to intercellular communication and subsequent reprogramming of the tumor microenvironment. Here, we use optical imaging to determine that exogenously administered fluorescently labeled exosomes derived from highly metastatic murine breast cancer cells distributed predominantly to the lung of syngeneic mice, a frequent site of breast cancer metastasis."

The news reporters obtained a quote from the research from the University of Queensland, "At the sites of accumulation, exosomes were taken up by CD45(+) bone marrow-derived cells. Subsequent long-term conditioning of naïve mice with exosomes from highly metastatic breast cancer cells revealed the accumulation of myeloid-derived suppressor cells in the lung and liver. This favorable immune suppressive microenvironment was capable of promoting metastatic colonization in the lung and liver, an effect not observed from exosomes derived from nonmetastatic cells and liposome control vesicles. Furthermore, we determined that breast cancer exosomes directly suppressed T-cell proliferation and inhibited NK cell cytotoxicity, and hence likely suppressed the anticancer immune response in premetastatic organs."

According to the news reporters, the research concluded: "Together, our findings provide novel insight into the tissue-specific outcomes of breast cancer-derived exosome accumulation and their contribution to immune suppression and promotion of metastases."

For more information on this research see: The Biodistribution and Immune Suppressive Effects of Breast Cancer-Derived Exosomes. Cancer Research, 2016;76(23):6816-6827. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

Our news correspondents report that additional information may be obtained by contacting A. Moller, University of Queensland, Sch Med, Brisbane, Qld, Australia. Additional authors for this research include J. Sceneay, L.G. Lima, C.S.F. Wong, M. Becker, S. Krumreich,
Gram-Negative Bacteria - Pseudomonas aeruginosa

New Findings from University of Rome in the Area of Pseudomonas aeruginosa Reported (Novel genetic tools to tackle c-di-GMP-dependent signalling in Pseudomonas aeruginosa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Pseudomonas aeruginosa have been published. According to news originating from Rome, Italy, by NewsRx correspondents, research stated, "To develop new genetic tools for studying 3',5'-cyclic diguanylic acid (c-di-GMP) signalling in Pseudomonas aeruginosa. Plasmid pPcdrA::lux, carrying a transcriptional fusion between the c-di-GMP responsive promoter PcdrA and the luxCDABE reporter genes, has been generated and validated in purpose-built P.?aeruginosa strains in which c-di-GMP levels can be increased or reduced upon arabinose-dependent induction of c-di-GMP synthetizing or degrading enzymes."

Financial supporters for this research include Italian Cystic Fibrosis Research Foundation, Ministero dell’Istruzione, dell’ Universita e della Ricerca.

Our news journalists obtained a quote from the research from the University of Rome, "The reporter systems described so far were able to detect a decrease in the c-di-GMP levels only in engineered strains overproducing c-di-GMP. Conversely, pPcdrA::lux could be used for studying any process or chemical compound expected to cause both an increase or a decrease with respect to the c-di-GMP levels produced by wild type P.?aeruginosa. Another relevant aspect of this study has been the development of novel and improved genetic devices for the fine arabinose-dependent control of c-di-GMP levels in P.?aeruginosa."

According to the news editors, the research concluded: "The genetic tools developed and validated in this study could facilitate investigations tackling the c-di-GMP signalling process on different fields, from cellular physiology to drug-discovery research."


The news correspondents report that additional information may be obtained from S.V. Pawar, Dept. of Science, University Roma Tre, Rome, Italy. Additional authors for this research include M. Messina, S. Rinaldo, F. Cutruzzola, V. Kaever, G. Rampioni and L. Leoni.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jam.12984. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Rome, Italy, Europe, Genetics, Pseudomonadaceae, Gammaproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria, Pseudomonas aeruginosa, Gram Negative Aerobic Bacteria, Gram Negative Aerobic Rods and Cocci.

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Nutritional and Metabolic Diseases and Conditions - …

New Findings from University of South Carolina in Obesity Provides New Insights (Do Individual, Online Motivational Interviewing Chat Sessions Enhance Weight Loss in a Group-Based, Online Weight Control Program?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news originating from Columbia, South Carolina, by NewsRx correspondents, research stated, "To examine whether the addition of online motivational interviewing (MI) chats to a Web-based, group behavioral obesity treatment program augments weight loss outcomes relative to the Web-based weight control program alone. Healthy individuals (N = 398, 24% minority) with overweight/obesity were randomized to a 36-session group Internet behavioral weight control treatment (BT) or the same group Internet treatment plus six individual MI chat sessions (BT + MI)."

Our news journalists obtained a quote from the research from the University of South Carolina, "Both conditions received weekly synchronous online chat group sessions for 6 months followed by 12 monthly group chats. Participants in both groups received identical behavioral lessons and individualized therapist feedback on progress toward meeting exercise and calorie goals. BT + MI also received six individual MI sessions delivered by a separate MI counselor via Web chat. Weight loss was measured at 6 and 18 months. There were no significant differences in weight loss between BT (-5.5+/−6.0 kg) and BT + MI (-5.1+/−6.3 kg) at 6 months or at 18 months (-3.3+/−7.1 kg vs. -3.5+/−7.7 kg for BT and BT+MI, respectively). Attendance at group chats did not differ between groups, nor did self-monitoring patterns, suggesting comparable engagement in the weight control program in both conditions."

According to the news editors, the research concluded: "Online MI chat sessions were not a viable strategy to enhance Web-based weight control treatment outcomes."

For more information on this research see: Do Individual, Online Motivational Interviewing Chat Sessions Enhance Weight Loss in a Group-Based, Online Weight Control Program? Obesity, 2016;24(11):2334-2340. Obesity can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

The news correspondents report that additional information may be obtained from D.S. West, University of South Carolina, Arnold Sch Public Hlth, Dept. of Exercise Sci, Columbia, SC 29208, United States. Additional authors for this research include J.R. Harvey, R.A. Krukowski, T.E. Prewitt, J. Priest and T. Ashikaga.

Keywords for this news article include: Columbia, South Carolina, United States, North and Central America, Obesity, Nutritional and Metabolic Diseases and Conditions, University of South Carolina.
New Findings from University of Southern California Yields New Data on Bipolar Disorders (Mechanisms underlying the benefits of anticonvulsants over lithium in the treatment of bipolar disorder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mental Health Diseases and Conditions - Bipolar Disorders is the subject of a report. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "Close to 3% of the world's population suffers from bipolar disease (I and II). Of this 3%, bipolar disease affects largely women (∼ 3:2 compared with men)." Our news journalists obtained a quote from the research from the University of Southern California, "The median age of diagnosis is 25 in women and even lower in men. A diagnosis of bipolar disease is an expensive psychiatric diagnosis, costing patients more than twice as much money as a diagnosis of unipolar depression. Bipolar I is characterized by one or more manic or mixed episodes, with both mania and depression occurring each day for at least 1 week, whereas bipolar II is characterized by one or more major depressive episode and at least one episode of hypomania. Bipolar I is the more severe diagnosis. A wide range of medications are available to help patients maintain a healthy lifestyle, including lithium, antidepressants, and anticonvulsants. Improved methods for identifying bipolar disease, including a more structured approach and a more complete use of medical records, have increased the rate of diagnosis, especially in children, which underscores the need for innovation in development and in practice of new treatment options for treating bipolar disease. Although lithium has been the 'gold standard' for treating bipolar disorder for decades, new research into other forms of treatment has shown anticonvulsants to be a particularly useful therapy for treating bipolar disease. Anticonvulsants have remarkable mood-stabilization abilities and they do not lead to serious side effects, which increases the tolerability, and consequently, patient adherence to this form of treatment."

According to the news editors, the research concluded: "Recent studies have shown that anticonvulsants improve behavior in bipolar disease by modulating the balance of excitatory and inhibitory synapses through a number of complementary molecular cascades that affect gene expression and cell survival."

For more information on this research see: Mechanisms underlying the benefits of anticonvulsants over lithium in the treatment of bipolar disorder. *Neuroreport*, 2016;27(3):131-5. (Lippincott Williams and Wilkins - www.lww.com; Neuroreport - journals.lww.com/neuroreport/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting A.C. Corrado, Davis School of Gerontology, Division of Biogerontology, University of Southern California, Los Angeles, California, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/WNR.0000000000000510. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, California, Psychiatry, Los
New Findings from University of Sydney in the Area of Lung Injury Described (Atomized Human Amniotic Mesenchymal Stromal Cells for Direct Delivery to the Airway for Treatment of Lung Injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Lung Diseases and Conditions - Lung Injury. According to news reporting out of Sydney, Australia, by NewsRx editors, research stated, "Current treatment regimens for inhalation injury are mainly supportive and rely on self-regeneration processes for recovery. Cell therapy with mesenchymal stromal cells (MSCs) is increasingly being investigated for the treatment of inhalation injury."

Our news journalists obtained a quote from the research from the University of Sydney, "Human amniotic MSCs (hAMSCs) were used in this study due to their potential use in inflammatory and fibrotic conditions of the lung. This study aimed at demonstrating that hAMSCs can be atomized with high viability, for the purpose of achieving a more uniform distribution of cells throughout the lung. Another aim of this study was to set ground for future application to healthy and diseased lungs by demonstrating that hAMSCs were able to survive after being sprayed onto substrates with different stiffness. Two methods of atomization were evaluated, and the LMA MAD780 device was selected for atomizing hAMSCs for optimized delivery. To mimic the stiffness of healthy and diseased lungs, gelatin gel (10% w/v) and tissue culture plastic were used as preliminary models. Poly-l-lysine (PLL) and collagen I coatings were used as substrates on which the hAMSCs were cultured after being sprayed. The feasibility of atomizing hAMSCs was demonstrated with high cell viability (81 +/- 3.1% and 79 +/- 11.6% for cells sprayed onto plastic and gelatin, respectively, compared with 85 +/- 4.8% for control/non-sprayed cells) that was unaffected by the different stiffness of substrates. The presence of the collagen I coating on which the sprayed cells were cultured yielded higher cell proliferation compared with both PLL and no coating. The morphology of sprayed cells was minimally compromised in the presence of the collagen I coating."

According to the news editors, the research concluded: "This study demonstrated that hAMSCs are able to survive after being sprayed onto substrates with different stiffness, especially in the presence of collagen I. Further studies may advance the effectiveness of cell therapy for lung regeneration."


Our news journalists report that additional information may be obtained by contacting W. Chrzanowski, University of Sydney, Australian Inst Nanoscale Sci & Technol, Sydney, NSW 2006, Australia. Additional authors for this research include J.K. Burgess, Y.W.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/jamp.2016.1289. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Respiratory Tract Diseases and Conditions, Stromal Cells, Drugs and Therapies, Extracellular Matrix Proteins, Lung Diseases and Conditions, Connective Tissue Cells, Lung Injury, Collagen, University of Sydney.

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**Drugs and Therapies - Drug Delivery Systems**

**New Findings from University of Tennessee Update Understanding of Drug Delivery Systems (Current Advances of Tubulin Inhibitors in Nanoparticle Drug Delivery and Vascular Disruption/Angiogenesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Drug Delivery Systems are discussed in a new report. According to news reporting from Memphis, Tennessee, by NewsRx journalists, research stated, "Extensive research over the last decade has resulted in a number of highly potent tubulin polymerization inhibitors acting either as microtubule stabilizing agents (MSAs) or microtubule destabilizing agents (MDAs). These inhibitors have potent cytotoxicity against a broad spectrum of human tumor cell lines."

The news correspondents obtained a quote from the research from the University of Tennessee, "In addition to cytotoxicity, a number of these tubulin inhibitors have exhibited abilities to inhibit formation of new blood vessels as well as disrupt existing blood vessels. Tubulin inhibitors as a vascular disrupting agents (VDAs), mainly from the MDA family, induce rapid tumor vessel occlusion and massive tumor necrosis. Thus, tubulin inhibitors have become increasingly popular in the field of tumor vasculature. However, their pharmaceutical application is halted by a number of limitations including poor solubility and toxicity. Thus, recently, there has been considerable interests in the nanoparticle drug delivery of tubulin inhibitors to circumvent those limitations."

According to the news reporters, the research concluded: "This article reviews recent advances in nanoparticle based drug delivery for tubulin inhibitors as well as their tumor vasculature disruption properties."

For more information on this research see: Current Advances of Tubulin Inhibitors in Nanoparticle Drug Delivery and Vascular Disruption/Angiogenesis. *Molecules*, 2016;21(11):717-735. *Molecules* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting S. Banerjee, University of Tennessee, Hlth Sci Center, Dept. of Pharmaceut Sci, Memphis, TN 38163, United States. Additional authors for this research include D.J. Hwang, W. Li and D.D. Miller.

Keywords for this news article include: Memphis, Tennessee, United States, North and Central America, Tubulin, Article Review, Nerve Tissue Proteins, Drug Delivery
Cardiology

New Findings from University of Tennessee in the Area of Cardiology Described (Ventricular catheter development: past, present, and future)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiology. According to news originating from Knoxville, Tennessee, by NewsRx correspondents, research stated, "Cerebrospinal fluid diversion via ventricular shunting is the prevailing contemporary treatment for hydrocephalus."

Our news journalists obtained a quote from the research from the University of Tennessee, "The CSF shunt appeared in its current form in the 1950s, and modern CSF shunts are the result of 6 decades of significant progress in neurosurgery and biomedical engineering. However, despite revolutionary advances in material science, computational design optimization, manufacturing, and sensors, the ventricular catheter (VC) component of CSF shunts today remains largely unchanged in its functionality and capabilities from its original design, even though VC obstruction remains a primary cause of shunt failure."

According to the news editors, the research concluded: "The objective of this paper is to investigate the history of VCs, including successful and failed alterations in mechanical design and material composition, to better understand the challenges that hinder development of a more effective design."

For more information on this research see: Ventricular catheter development: past, present, and future. Journal of Neurosurgery, 2016;125(6):1504-1512. Journal of Neurosurgery can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

The news correspondents report that additional information may be obtained from S.H. Weisenberg, University of Tennessee, Inst Biomed Engn, Knoxville, TN 37996, United States. Additional authors for this research include S.C. TerMaath, C.E. Seaver and J.A. Killeffer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3171/2015.12.JNS151181. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Knoxville, Tennessee, United States, North and Central America, Cardiology, University of Tennessee.

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**Immunology - Immunoglobulins**

**New Findings from University of Texas Describe Advances in Immunoglobulins (Paraprotein-Related Kidney Disease: Evaluation and Treatment of Myeloma Cast Nephropathy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Immunoglobulins. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "Nearly 50% of patients with multiple myeloma develop renal disease, most commonly from AKI caused by cast nephropathy. Development of AKI is associated with poor 1-year survival and reduces the therapeutic options available to patients."

The news reporters obtained a quote from the research from the University of Texas, "There is a great need for more effective therapies. Cast nephropathy is caused by the interaction and aggregation of filtered free light chains and Tamm Horsfall protein causing intratubular obstruction and damage. The key to treating cast nephropathy is rapid lowering of free light chains, because this correlates with renal recovery. Newer chemotherapy agents rapidly lower free light chains and have been referred to as renoprotective. There is additional great interest in using extracorporeal therapies to remove serum free light chains. Small trials initially showed benefit of therapeutic plasma exchange to improve renal outcomes in cast nephropathy, but a large randomized trial of therapeutic plasma exchange failed to show benefit. A newer technique is extended high cutoff hemodialysis. This modality uses a high molecular weight cutoff filter to remove free light chains. To date, trials of high cutoff hemodialysis use in patients with cast nephropathy have been encouraging. However, there are no randomized trials showing the benefit of high-cutoff hemodialysis when used in addition to newer chemotherapeutic regimens."

According to the news reporters, the research concluded: "Until these studies are available, high-cutoff hemodialysis cannot be recommended as standard of care."


Our news correspondents report that additional information may be obtained by contacting K.W. Finkel, Univ Texas MD Anderson Canc Center, Dept. of Gen Internal Med, Nephrol Sect, Houston, TX 77030, United States. Additional authors for this research include E.P. Cohen, A. Shirali and A. Abudayyeh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2215/CJN.01640216. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Blood Transfusion, Plasma Exchange, Immunoglobulins, Renal Dialysis, Plasmapheresis, Blood Proteins, Hemodialysis, Paraproteins, Nephropathy, Nephrology, Hematology, Immunology, Myeloma, Kidney, University of Texas.

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New Findings from University of Texas Describe Advances in Smoking Cessation Agents (Attenuated nicotine-like effects of varenicline but not other nicotinic ACh receptor agonists in monkeys receiving nicotine daily)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Smoking Cessation Agents. According to news reporting originating from San Antonio, Texas, by NewsRx correspondents, research stated, "Background and PurposeChronic treatment can differentially impact the effects of pharmacologically related drugs that differ in receptor selectivity and efficacy. Experimental ApproachThe impact of daily nicotine treatment on the effects of nicotinic ACh receptor (nAChR) agonists was examined in two groups of rhesus monkeys discriminating nicotine (1.78mgkg(-1) base weight) from saline."

Our news editors obtained a quote from the research from the University of Texas, "One group received additional nicotine treatment post-session (1.78mgkg(-1) administered five times daily, each dose 2h apart; i.e. Daily group), and the second group did not (Intermittent group). Key ResultsDaily repeated nicotine treatment produced a time-related increase in saliva cotinine. There was no significant difference in the ED50 values of the nicotine discriminative stimulus between the Daily and Intermittent group. Mecamylamine antagonized the effects of nicotine, whereas dihydro--erythroidine did not. Midazolam produced 0% nicotine-lever responding. The nAChR agonists epibatidine, RTI-36, cytisine and varenicline produced >96% nicotine-lever responding in the Intermittent group. The respective maximum effects in the Daily group were 100, 72, 59 and 28%, which shows that the ability of varenicline to produce nicotine-like responding was selectively decreased in the Daily as compared with the Intermittent group. When combined with nicotine, both varenicline and cytisine increased the potency of nicotine to produce discriminative stimulus effects. Conclusion and ImplicationsNicotine treatment has a greater impact on the sensitivity to the effects of varenicline as compared with some other nAChR agonists."

According to the news editors, the research concluded: "Collectively, these results strongly suggest that varenicline differs from nicotine in its selectivity for multiple nAChR subtypes."


The news editors report that additional information may be obtained by contacting L.R. McMahon, Univ Texas Hlth Sci Center San Antonio, Dept. of Pharmacol, San Antonio, TX 78229, United States. Additional authors for this research include M.J. Moerke, M.A. Javors, F.I. Carroll and L.R. McMahon.

Keywords for this news article include: San Antonio, Texas, United States, North and Central America, Smoking Cessation Agents, Drugs and Therapies, Varenicline, University of Texas.

Our reports deliver fact-based news of research and discoveries from around the
New Findings from University of Texas Health Science Center in the Area of Prostate Cancer Reported (Histone deacetylase inhibitors in castration-resistant prostate cancer: molecular mechanism of action and recent clinical trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Prostate Cancer. According to news originating from San Antonio, Texas, by NewsRx correspondents, research stated, "Historically, androgen-deprivation therapy has been the cornerstone for treatment of metastatic prostate cancer. Unfortunately, nearly majority patients with prostate cancer transition to the refractory state of castration-resistant prostate cancer (CRPC)."

Our news journalists obtained a quote from the research from the University of Texas Health Science Center, "Newer therapeutic agents are needed for treating these CRPC patients that are unresponsive to androgen deprivation and/or chemotherapy. The histone deacetylase (HDAC) family of enzymes limits the expression of genomic regions by improving binding between histones and the DNA backbone. Modulating the role of HDAC enzymes can alter the cell's regulation of proto-oncogenes and tumor suppressor genes, thereby regulating potential neoplastic proliferation. As a result, histone deacetylase inhibitors (HDACi) are now being evaluated for CRPC or chemotherapy-resistant prostate cancer due to their effects on the expression of the androgen receptor gene. In this paper, we review the molecular mechanism and functional target molecules of different HDACi as applicable to CRPC as well as describe recent and current clinical trials involving HDACi in prostate cancer. To date, four HDAC classes comprising 18 isoenzymes have been identified. Recent clinical trials of vorinostat, romidepsin, and panobinostat have provided cautious optimism towards improved outcomes using these novel therapeutic agents for CPRC patients. Nevertheless, no phase III trial has been conducted to cement one of these drugs as an adjunct to androgen-deprivation therapy."

According to the news editors, the research concluded: "Consequently, further investigation is necessary to delineate the benefits and drawbacks of these medications."

For more information on this research see: Histone deacetylase inhibitors in castration-resistant prostate cancer: molecular mechanism of action and recent clinical trials. Therapeutic Advances In Urology, 2015;7(6):388-95. (Sage Publications - www.sagepub.com; Therapeutic Advances In Urology - tau.sagepub.com)

The news correspondents report that additional information may be obtained from D. Kaushik, Dept. of Urology, University of Texas Health Science Center and Cancer Therapy and Research Center, 7703 Floyd Curl Drive, San Antonio, TX 78229-3900, United States. Additional authors for this research include V. Vashistha, S. Isharwal, S.A. Sedique and M.F Lin.

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Keywords for this news article include: Texas, Genetics, Oncology, Androgens, San Antonio, United States, Article Review, Nucleoproteins, Amidohydrolases, Prostate Cancer, Clinical Research, Drugs and Therapies, Prostatic Neoplasms, Histone Deacetylases, Enzymes.
New Findings from University of Texas in the Area of Endometrial Cancer Reported (Prospective evaluation of the molecular effects of metformin on the endometrium in women with newly diagnosed endometrial cancer: A window of opportunity study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Endometrial Cancer.

According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Metformin reduces cancer incidence and improves overall survival in diabetic patients. In preclinical studies, metformin decreases endometrial cancer (EC) cell growth by activation of AMPK/mTOR inhibition."

The news correspondents obtained a quote from the research from the University of Texas, "We sought to determine the effects of metformin on serum/tumor biomarkers in women with EC. In this prospective trial, newly diagnosed EC patients underwent pre-treatment blood draw/endometrial biopsy, were administered oral metformin 850 mg daily for >= 7 days, and underwent post-treatment blood draw/definitive surgery. Pre- and post- serum analyses were performed. Tumor samples were evaluated for changes in AMPK, PI3K/AKT pathway, proliferation, and apoptosis by immunohistochemistry. Twenty patients completed the trial. Median age and BMI were 57 years (range: 27-67) and 34.5 kg/m(2) (range: 21.9-50.0). Median duration of metformin was 9.5 days (range: 7-24). A majority of women had endometrioid adenocarcinomas (90%) and were early stage (85%). After metformin, there were significant decreases in serum IGF-1 (p = 0.046), omentin (p = 0.007), insulin (p = 0.012), C-peptide (p = 0.018), and leptin (p = 0.0035). Compared to baseline, post-treatment tissue showed decreased phospho-AKT in 18/20 patients (90%, p = 0.0002), decreased phospho-S6rp in 14/20 patients (70%, p = 0.057), and decreased phospho-p44/42MAPK in 15/18 patients (833%, p = 0.0038). There was no difference in Ki67, phospho-ACC, or caspase 3. Changes did not correlate with BMI, grade, or KRAS mutation."

According to the news reporters, the research concluded: "In this prospective window of opportunity study, we demonstrated that relevant serum and molecular changes occur in patients with newly diagnosed EC after a short course of metformin."

For more information on this research see: Prospective evaluation of the molecular effects of metformin on the endometrium in women with newly diagnosed endometrial cancer: A window of opportunity study. Gynecologic Oncology, 2016;143(3):466-471. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news journalists report that additional information may be obtained by contacting P.T. Soliman, Univ Texas MD Anderson Canc Center, Dept. of Gynecol Oncol & Reprod Med, Houston, TX 77030, United States. Additional authors for this research include Q. Zhang, R.R. Broaddus, S.N. Westin, D. Iglesias, M.F. Munsell, R. Schmandt, M. Yates, L. Ramondetta and K.H. Lu.
New Findings from University of Texas in the Area of School Health Reported (Health Promotion Efforts as Predictors of Physical Activity in Schools: An Application of the Diffusion of Innovations Model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Education - School Health. According to news reporting out of Austin, Texas, by NewsRx editors, research stated, "Implementing a comprehensive school physical activity program (CSPAP) effectively addresses public health issues by providing opportunities for physical activity (PA). Grounded in the Diffusion of Innovations model, the purpose of this study was to identify how health promotion efforts facilitate opportunities for PA."

Financial support for this research came from SHAPE America. Our news journalists obtained a quote from the research from the University of Texas, "Physical and health education teachers (N = 256) nationwide were surveyed using a CSPAP Index to identify teacher's efforts for providing opportunities for PA within a school setting. A hierarchical regression analysis revealed total number of PA opportunities was significantly predicted by teachers' health promotion efforts, p< .001. Sex and years of experience were not significant covariates, p = .35, in the final step of the model. Accounting for teaching environments, the model was significant, p< .001. The strongest predictors were the promotional efforts of PA for family and community, p< .001, PA for staff members, p< .01, PA during the school day, p< .05, and PA before school, p< .05. To increase PA opportunities for children in schools, emphasis should be placed on health promotion."

According to the news editors, the research concluded: "This study confirms the importance of teachers involving family, community, and staff members as co-health promoters when trying to increase PA engagement surrounding schools."


Our news journalists report that additional information may be obtained by contacting E.M. Glowacki, Univ Texas Austin, Center Hlth Commun, Dept. of Commun Studies, Austin, TX 78712, United States. Additional authors for this research include E.E. Centeio, D.J. Van Dongen, R.L. Carson and D.M. Castelli.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/josh.12390. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Austin, Texas, United States, North and Central America, School Health, Education, University of Texas.

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Enzymes and Coenzymes - One-Carbon Group ...

New Findings from University of Toronto in the Area of One-Carbon Group Transferases Reported (A Potent, Selective, and Cell-Active Inhibitor of Human Type I Protein Arginine Methyltransferases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Enzymes and Coenzymes - One-Carbon Group Transferases are presented in a new report. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "Protein arginine methyltransferases (PRMTs) play a crucial role in a variety of biological processes. Overexpression of PRMTs has been implicated in various human diseases including cancer."

Financial supporters for this research include European Commission, Wellcome Trust, American Cancer Society, National Institute of General Medical Sciences, Structural Genomics Consortium, European Federation of Pharmaceutical Industries and Associations.

Our news journalists obtained a quote from the research from the University of Toronto, "Consequently, selective small-molecule inhibitors of PRMTs have been pursued by both academia and the pharmaceutical industry as chemical tools for testing biological and therapeutic hypotheses. PRMTs are divided into three categories: type I PRMTs which catalyze mono- and asymmetric dimethylation of arginine residues, type II PRMTs which catalyze mono- and symmetric dimethylation of arginine residues, and type III PRMT which catalyzes only monomethylation of arginine residues. Here, we report the discovery of a potent, selective, and cell-active inhibitor of human type I PRMTs, MS023, and characterization of this inhibitor in a battery of biochemical, biophysical, and cellular assays. MS023 displayed high potency for type I PRMTs including PRMT1, -3, -4, -6, and -8 but was completely inactive against type II and type III PRMTs, protein lysine methyltransferases and DNA methyltransferases. A crystal structure of PRMT6 in complex with MS023 revealed that MS023 binds the substrate binding site. MS023 potently decreased cellular levels of histone arginine asymmetric dimethylation. It also reduced global levels of arginine asymmetric dimethylation and concurrently increased levels of arginine monomethylation and symmetric dimethylation in cells. We also developed MS094, a close analog of MS023, which was inactive in biochemical and cellular assays, as a negative control for chemical biology studies."

According to the news editors, the research concluded: "MS023 and MS094 are useful chemical tools for investigating the role of type I PRMTs in health and disease."

For more information on this research see: A Potent, Selective, and Cell-Active Inhibitor of Human Type I Protein Arginine Methyltransferases. Acs Chemical Biology, 2015;11 (3):772-81. (American Chemical Society - www.acs.org; Acs Chemical Biology - www.pubs.acs.org/journal/acbcct)

The news correspondents report that additional information may be obtained from M.S. Eram, Structural Genomics Consortium, University of Toronto, Toronto, Ontario M5G
New Findings from University of Toronto in the Area of Subarachnoid Hemorrhage Reported (Clinical characteristics and outcome of aneurysmal subarachnoid hemorrhage with intracerebral hematoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Subarachnoid Hemorrhage. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "Intracerebral hematoma (ICH) with subarachnoid hemorrhage (SAH) indicates a unique feature of intracranial aneurysm rupture since the aneurysm is in the subarachnoid space and separated from the brain by pia mater. Broad consensus is lacking regarding the concept that ultra-early treatment improves outcome."

Our news journalists obtained a quote from the research from the University of Toronto, "The aim of this study is to determine the associative factors for ICH, ascertain the prognostic value of ICH, and investigate how the timing of treatment relates to the outcome of SAH with concurrent ICH. The study data were pooled from the SAH International Trialists repository. Logistic regression was applied to study the associations of clinical and aneurysm characteristics with ICH. Proportional odds models and dominance analysis were applied to study the effect of ICH on 3-month outcome (Glasgow Outcome Scale) and investigate the effect of time from ictus to treatment on outcome. Of the 5362 SAH patients analyzed, 1120 (21%) had concurrent ICH. In order of importance, neurological status, aneurysm location, aneurysm size, and patient ethnicity were significantly associated with ICH. Patients with ICH experienced poorer outcome than those without ICH (OR 1.58; 95% CI 1.37-1.82). Treatment within 6 hours of SAH was associated with poorer outcome than treatment thereafter (adjusted OR 1.67; 95% CI 1.04-2.69). Subgroup analysis with adjustment for ICH volume, location, and midline shift resulted in no association between time from ictus to treatment and outcome (OR 0.99; 95% CI 0.94-1.07). The most important associative factor for ICH is neurological status on admission."

According to the news editors, the research concluded: "The finding regarding the value of ultra-early treatment suggests the need to more robustly reevaluate the concept that hematoma evacuation of an ICH and repair of a ruptured aneurysm within 6 hours of ictus is the most optimal treatment path."

For more information on this research see: Clinical characteristics and outcome of aneurysmal subarachnoid hemorrhage with intracerebral hematoma. Journal of Neurosurgery,
Phenypropionates

New Findings from University of Turku Update Understanding of Phenypropionates (Influence of Surface Chemistry on Ibuprofen Adsorption and Confinement in Mesoporous Silicon Microparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Phenypropionates are presented in a new report. According to news originating from Turku, Finland, by NewsRx correspondents, research stated, "The effect of adsorption and confinement on ibuprofen was studied by immersion loading the molecules into porous silicon (PSi) microparticles. The PSi micro particles were modified into thermally oxidized PSi (TOPSi) and thermally hydrocarbonized PSi (THCPSi) to evaluate the effects of the loading solvent and the surface chemistry on the obtainable drug payloads."

Financial supporters for this research include European Commission, Suomen Akatemia.

Our news journalists obtained a quote from the research from the University of Turku, "The payloads, location, and the molecular state of the adsorbed drug were evaluated using thermal analysis. The results showed that after the adsorption of similar to 800 mg/cm(3) (w(drug)/v(pores)) of drug into the mesopores, depending on the solvent used in the immersion, the drug began to rapidly recrystallize on the external surface of the particles. Moderate concentrations, however, enabled payloads of 800-850 mg/cm(3) without excessive surface crystallization, and thus, there was no need for rinsing the samples to remove the externally crystallized portion. The results showed that the confined ibuprofen forms nanocrystals inside of the mesopores after approximately 200 mg/cm(3) payloads were obtained, accounting for half of the adsorbed drug amount. The presence of both crystalline and noncrystalline phases was further characterized using variable temperature solid-state nuclear magnetic resonance (NMR) measurements. The interactions between the drug molecules and the pore walls of TOPSi and THCPSi were observed using Fourier transform infrared and H-1 NMR spectroscopies, and the hydrogen bonding between the silanol groups of TOPSi and the adsorbed ibuprofen was confirmed, but having only limited effect on the overall state of the confined drug."

According to the news editors, the research concluded: "In vitro drug permeation studies in Caco-2 and Caco-2/HT29 cocultures showed that the adsorption onto hydrophilic or
hydrophobic PSi microparticles had no significant effects on the ibuprofen permeation, whether the drug was partially nanocrystalline or completely in a liquidlike state."


The news correspondents report that additional information may be obtained from J. Salonen, University of Turku, Dept. of Phys & Astron, Lab Ind Phys, FI-20014 Turku, Finland. Additional authors for this research include H. Kivela, N. Shrestha, A. Correia, M. Kaasalainen, E. Kukk, J. Hirvonen, H.A. Santos and J. Salonen.

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Keywords for this news article include: Turku, Finland, Europe, Drugs and Therapies, Ibuprofen Therapy, Phenylpropionates, Pharmaceuticals, Chemistry, Silicon, University of Turku.

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**Oncology - Breast Cancer**

**New Findings from University of Ulsan College of Medicine Describe Advances in Breast Cancer (Docetaxel-based adjuvant therapy for breast cancer patients in Asia-Pacific region: Results from 5 years follow-up on Asia-Pacific Breast Initiative-I)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "To acquire patient characteristics, safety, relapse and survival outcomes of early-stage breast cancer patients receiving docetaxel (Taxotere®)-based regimen in adjuvant setting from the Asia-Pacific region. This was an open-label, international, longitudinal, multicenter, observational, prospective cohort of consecutive early breast cancer (EBC) patients with a high risk of recurrence being treated with various docetaxel-containing anthracycline and non-anthracycline adjuvant regimens during 2006-2013."

Financial support for this research came from Sanofi Aventis.

Our news journalists obtained a quote from the research from the University of Ulsan College of Medicine, "In this study, 1542 patients were enrolled. Anthracycline-containing regimens were administered in 92% of patients, while 8% of patients received non-anthracycline-containing docetaxel-based regimens. The mean dose intensity of docetaxel was 25.8, 22.4 and 25.4 mg/m(2) /week among patients receiving docetaxel-based monotherapy, combination and sequential therapy, respectively. Adverse events were reported in 94.9% of patients (anthracycline vs non-anthracycline regimen; 95.1% vs 93.5%). Serious adverse events were reported in 12.6% of patients (12.4% vs 14.6%). Grade 4 neutropenia was reported in 25.2% of patients (24.7% vs 30.9%) and febrile neutropenia in 1.9% of patients (2% vs 0.8%). Only 7% of patients had a relapse or a second primary malignancy. At 5-year follow-up, there
were 127 (8.3%) deaths (8.4% vs 6.5%)."

According to the news editors, the research concluded: "The Asia-Pacific Breast Initiative-I registry highlights the important patient and treatment characteristics of EBC patients treated with adjuvant docetaxel chemotherapy from the Asia-Pacific region that will help physicians to understand the impact of different docetaxel treatments on the clinical outcomes in this population."


Our news journalists report that additional information may be obtained by contacting S.B. Kim, Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea. Additional authors for this research include A. Sayeed, A.H. Villalon, Z.Z. Shen, M.A. Shah, M.F. Hou and D. Nguyen Ba.

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Publisher contact information for the Asia-pacific Journal of Clinical Oncology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Antineoplastics, Pharmaceuticals, Seoul, Oncology, South Korea, Hydrocarbons, Naphthalenes, Breast Cancer, Anthracyclines, Women's Health, Docetaxel Therapy, Mitotic Inhibitors, Drugs and Therapies, Risk and Prevention.

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Mouth Diseases and Conditions - Cheilitis

New Findings from University of Vale do Paraiba in the Area of Cheilitis Described (Optical diagnosis of actinic cheilitis by infrared spectroscopy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Mouth Diseases and Conditions - Cheilitis. According to news reporting originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Actinic cheilitis (AC) is considered a potentially malignant disorder of the lip. Biomolecular markers study is important to understand malignant transformation into squamous cell carcinoma."

Financial supporters for this research include Brazilian agencies FAPESP, CAPES, CNPq.

Our news editors obtained a quote from the research from the University of Vale do Paraiba, "Fourier transform infra red (FT-IR) spectroscopy was used to analyze AC in this study. The aim of the study was to evaluate if FT-IR spectral regions of nucleic acids and collagen can help in early diagnosis of malignant transformation. Tissues biopsies of 14 patients diagnosed with AC and 14 normal tissues were obtained. FTIR spectra were measured at five different
points resulting in 70 spectra of each. Analysis of Principal components analysis (PCA) and linear discrimination analysis (LDA) model were also used. In order to verify the statistical difference in the spectra, Mann-Whitney U test was performed in each variable (wavenumber) with p-value <0.05. After the Mann-Whitney U test the vibrational modes of CO (Collagen 1), PO2 (Nucleic Acids) and C=0 asymmetric (Triglycerides/Lipids) were observed as a possible spectral biomarker. These bands were chosen because they represent the vibrational modes related to collagen and DNA, which are supposed to be changed in AC samples. Based on the PCA-LDA results, the predictive model corresponding to the area under the curve was 0.91 for the fingerprint region and 0.83 for the high wavenumber region, showing the greater accuracy of the test."

According to the news editors, the research concluded: "FT-IR changes in collagen and nucelic acids could be used as molecular biomarkers for malignant transformation."

For more information on this research see: Optical diagnosis of actinic cheilitis by infrared spectroscopy. Photodiagnosis and Photodynamic Therapy, 2016;16():27-34. Photodiagnosis and Photodynamic Therapy can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Photodiagnosis and Photodynamic Therapy - www.journals.elsevier.com/photodiagnosis-and-photodynamic-therapy/)

The news editors report that additional information may be obtained by contacting L. de Carvalho, Univ Vale do Paraiba, Lab Biomed Vibrat Spect, Sao Paulo, Brazil. Additional authors for this research include T.M. Pereira, T.D. Magrini, A.S.R. Cavalcante, H.D. Martinho and J.D. Almeida.

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Keywords for this news article include: Sao Paulo, Brazil, South America, Collagen, Diagnostics and Screening, Extracellular Matrix Proteins, Mouth Diseases and Conditions, Lip Diseases and Conditions, Cheilitis, Genetics, University of Vale do Paraiba.

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Heart Disorders and Diseases - Heart Failure

New Findings from University of Washington Update Understanding of Heart Failure [Loss of beta-adrenergic-stimulated phosphorylation of Ca(V)1.2 channels on Ser1700 leads to heart failure]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Failure. According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "L-type Ca2+ currents conducted by voltage-gated calcium channel 1.2 (Ca(V) 1.2) initiate excitation-contraction coupling in the heart, and altered expression of Ca(V)1.2 causes heart failure in mice. Here we show unexpectedly that reducing beta-adrenergic regulation of Ca(V)1.2 channels by mutation of a single PKA site, Ser1700, in the proximal C-terminal domain causes reduced contractile function, cardiac hypertrophy, and heart failure without changes in expression, localization, or function of the Ca(V)1.2 protein in the mutant mice (SA mice)."
Our news journalists obtained a quote from the research from the University of Washington, "These deficits were aggravated with aging. Dual mutation of Ser1700 and a nearby casein-kinase II site (Thr1704) caused accelerated hypertrophy, heart failure, and death in mice with these mutations (STAA mice). Cardiac hypertrophy was increased by voluntary exercise and by persistent beta-adrenergic stimulation. PKA expression was increased, and PKA sites Ser2808 in ryanodine receptor type-2, Ser16 in phospholamban, and Ser23/24 in troponin-I were hyperphosphorylated in SA mice, whereas phosphorylation of substrates for calcium/calmodulin-dependent protein kinase II was unchanged. The Ca2+ pool in the sarcoplasmic reticulum was increased, the activity of calcineurin was elevated, and calcineurin inhibitors improved contractility and ameliorated cardiac hypertrophy. Cardio-specific expression of the SA mutation also caused reduced contractility and hypertrophy. These results suggest engagement of compensatory mechanisms, which initially may enhance the contractility of individual myocytes but eventually contribute to an increased sensitivity to cardiovascular stress and to heart failure in vivo."

According to the news editors, the research concluded: "Our results demonstrate that normal regulation of Ca(V)1.2 channels by phosphorylation of Ser1700 in cardiomyocytes is required for cardiovascular homeostasis and normal physiological regulation in vivo.”

For more information on this research see: *Loss of beta-adrenergic-stimulated phosphorylation of Ca(V)1.2 channels on Ser1700 leads to heart failure*. Proceedings of the National Academy of Sciences of the United States of America, 2016;113(49):E7976-E7985.

The news correspondents report that additional information may be obtained from W.A. Catterall, University of Washington, Dept. of Pharmacol, Seattle, WA 98195, United States. Additional authors for this research include D.F. Dai, C. Yuan, R.E. Westenbroek, H.J. Yu, N. West, H.O. de la Iglesia and W.A. Catterall.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Enzymes and Coenzymes, Heart Failure, Heart Disease, Cardiomegaly, Hypertrophy, Cardiology, Genetics, Kinase, University of Washington.

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New Findings from University of Washington in the Area of Dyspnea

**New Findings from University of Washington in the Area of Dyspnea Reported (Emergent radiation therapy as definite airway management for dyspnea with mediastinal mass)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Respiratory Tract Diseases and Conditions - Dyspnea is the subject of a report. According to news reporting originating from Seattle, Washington, by NewsRx correspondents, research stated, "A previously healthy 21-year-old woman presented with an a large mediastinal mass in respiratory distress, maximally extracting oxygen by arterial venous blood gas differential, but without hypoxia or airway obstruction in the upright posture with supplemental oxygen. Computed tomographic scan showed near total compression..."
of long sections of her primary bronchi bilaterally."

Our news editors obtained a quote from the research from the University of Washington, "The patient was not intubated secondary to high risk to total airway occlusion. As the computed tomography suggested lymphoma as the most likely etiology of the mass, she was started on steroids and transferred for emergent radiation."

According to the news editors, the research concluded: "She remained in intensive care for with daily treatments, avoiding intubation, and was discharged 17 days later markedly improved."


The news editors report that additional information may be obtained by contacting E.M. Dorn, University of Washington, Dept. of Emergency Med, Harborview Med Center, Seattle, WA 98104, United States.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Respiratory Tract Diseases and Conditions, Respiration Disorders, Drugs and Therapies, Radiation Therapy, Dyspnea, University of Washington.

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**Liver Diseases and Conditions - Hepatitis C Virus**

**New Findings from University of Washington in the Area of Hepatitis C Virus Reported (Hepatitis-C-virus-induced microRNAs dampen interferon-mediated antiviral signaling)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Hepatitis C Virus have been published. According to news reporting originating in Seattle, Washington, by NewsRx journalists, research stated, "Hepatitis C virus (HCV) infects 200 million people globally, and 60-80% of cases persist as a chronic infection that will progress to cirrhosis and liver cancer in 2-10% of patients(1-3). We recently demonstrated that HCV induces aberrant expression of two host microRNAs (miRNAs), miR-208b and miR-499a-5p, encoded by myosin genes in infected hepatocytes(4)."

The news reporters obtained a quote from the research from the University of Washington, "These miRNAs, along with AU-rich-element-mediated decay, suppress IFNL2 and IFNL3, members of the type III interferon (IFN) gene family, to support viral persistence. In this study, we show that miR-208b and miR-499a-5p also dampen type I IFN signaling in HCV-infected hepatocytes by directly down-regulating expression of the type I IFN receptor chain, IFNAR1. Inhibition of these miRNAs by using miRNA inhibitors during HCV infection increased expression of IFNAR1. Additionally, inhibition rescued the antiviral response to exogenous type I IFN, as measured by a marked increase in IFN-stimulated genes and a decrease in HCV load. Treatment of HCV-infected hepatocytes with type I IFN increased expression of myosins over HCV infection alone."
According to the news reporters, the research concluded: "Since these miRNAs can suppress type III IFN family members, these data collectively define a novel cross-regulation between type I and III IFNs during HCV infection."

For more information on this research see: Hepatitis-C-virus-induced microRNAs dampen interferon-mediated antiviral signaling. Nature Medicine, 2016;22(12):1475-1481,151. Nature Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/nm/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4211. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Flaviviridae Infections, Hepatitis C Virus, Gastroenterology, Interferons, RNA Viruses, Hepatology, Cytokines, Genetics, Virology, Viral, HCV, University of Washington.

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Transfusion Medicine - Blood Transfusion

New Findings from University of Western Australia in the Area of Blood Transfusion Reported (The potential for nanotechnology to improve delivery of therapy to the acute ischemic heart)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Transfusion Medicine - Blood Transfusion are presented in a new report. According to news reporting originating in Crawley, Australia, by NewsRx journalists, research stated, "Treatment of acute cardiac ischemia remains an area in which there are opportunities for therapeutic improvement. Despite significant advances, many patients still progress to cardiac hypertrophy and heart failure."

The news reporters obtained a quote from the research from the University of Western Australia, "Timely reperfusion is critical in rescuing vulnerable ischemic tissue and is directly related to patient outcome, but reperfusion of the ischemic myocardium also contributes to damage. Overproduction of reactive oxygen species, initiation of an inflammatory response and deregulation of calcium homeostasis all contribute to injury, and difficulties in delivering a sufficient quantity of drug to the affected tissue in a controlled manner is a limitation of current therapies. Nanotechnology may offer significant improvements in this respect."

According to the news reporters, the research concluded: "Here, we review recent examples of how nanoparticles can be used to improve delivery to the ischemic myocardium, and suggest some approaches that may lead to improved therapies for acute cardiac ischemia."

For more information on this research see: The potential for nanotechnology to

Our news correspondents report that additional information may be obtained by contacting C.W. Evans, School of Chemistry & Biochemistry, The University of Western Australia, 35 Stirling Hwy, Crawley, WA 6009, Australia. Additional authors for this research include K.S. Iyer and L.C Hool.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/nnm.16.7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Crawley, Therapy, Cardiology, Reperfusion, Article Review, Nanotechnology, Medical Devices, Blood Transfusion, Transfusion Medicine, Emerging Technologies, Australia and New Zealand.

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Drugs and Therapies - Toxicology and Pharmacology

New Findings from University of Wurzburg in the Area of Toxicology and Pharmacology Described (A quantitative weight of evidence methodology for the assessment of reproductive and developmental toxicity and its application for classification ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Toxicology and Pharmacology are presented in a new report. According to news reporting from Wurzburg, Germany, by NewsRx journalists, research stated, "Hazard assessment of chemicals usually applies narrative assessments with a number of weaknesses. Therefore, application of weight of evidence (WoE) approaches are often mandated but guidance to perform a WoE assessment is lacking."

The news correspondents obtained a quote from the research from the University of Wurzburg, "This manuscript describes a quantitative WoE (QWoE) assessment for reproductive toxicity data and its application for classification and labeling (C&L). Because C&L criteria are based on animal studies, the scope is restricted to animal toxicity data. The QWoE methodology utilizes numerical scoring sheets to assess reliability of a publication and the toxicological relevance of reported effects. Scores are given for fourteen quality aspects, best practice receives the highest score. The relevance/effects scores (0 to four) are adjusted to the key elements of the toxic response for the endpoint and include weighting factors for effects on different levels of the biological organization. The relevance/effects scores are then assessed against the criteria dose-response, magnitude and persistence of effects, consistency of observations with the hypothesis, and relation of effects to human disease. The quality/reliability scores and the relevance/effect scores are then multiplied to give a numerical strength of evidence for adverse effects."

According to the news reporters, the research concluded: "This total score is then used to assign the chemical to the different classes employed in classification.

For more information on this research see: A quantitative weight of evidence methodology for the assessment of reproductive and developmental toxicity and its application for classification and labeling of chemicals. Regulatory Toxicology and Pharmacology,
New Findings from University of Ziekenhuis Update Understanding of Angiology (Anomalous right coronary artery in a middle-aged patient A case report and review of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Angiology is the subject of a report. According to news reporting originating in Jette, Belgium, by NewsRx journalists, research stated, "An anomalous right coronary artery originating from the left sinus of Valsalva is a rare, but often incidental, finding in middle-aged to elderly people. Prevalence is difficult to define, as well as determining potential harmful hemodynamic consequences."

The news reporters obtained a quote from the research from the University of Ziekenhuis, "Moreover, the optimal treatment remains debatable. Case summary: The authors present a case of a middle-aged patient diagnosed with an anomalous right coronary artery causing ischemia, who was treated surgically. By reviewing literature, the authors conclude that choice of treatment depends on age, symptoms, and certain anatomic features of this anomaly."

According to the news reporters, the research concluded: "However, there are no randomized trials available in this field."

For more information on this research see: Anomalous right coronary artery in a middle-aged patient A case report and review of the literature. Medicine, 2016;95(49):247-251. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting L. Rosseel, Univ Ziekenhuis Brussel, Dept. of Cardiol, B-1090 Jette, Belgium. Additional authors for this research include H. Bonnier and J. Sonck.

Keywords for this news article include: Jette, Belgium, Europe, Cardiology, Article Review, Right Coronary Artery, Angiology, University of Ziekenhuis.

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New Findings from V. Catalan et al Broadens Understanding of Type 2 Diabetes (Increased Interleukin-32 Levels in Obesity Promote Adipose Tissue Inflammation and Extracellular Matrix Remodeling: Effect of Weight Loss)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news originating from Pamplona, Spain, by NewsRx correspondents, research stated, "Interleukin (IL)-32 is a recently described cytokine involved in the regulation of inflammation. We aimed to explore whether IL-32 could function as an inflammatory and angiogenic factor in human obesity and obesity-associated type 2 diabetes."

Funders for this research include Fondo de Investigacion Sanitaria-Fondo Europeo de Desarrollo Regional, Fundacion Caja Navarra.

Our news journalists obtained a quote from the research, "Samples obtained from 90 subjects were used in the study. Obese patients exhibited higher expression levels of IL-32 in visceral adipose tissue (AT) as well as in subcutaneous AT and peripheral blood mononuclear cells. IL32 was mainly expressed by stromovascular fraction cells, and its expression was significantly enhanced by inflammatory stimuli and hypoxia, whereas no changes were found after the incubation with anti-inflammatory cytokines. The addition of exogenous IL-32 induced the expression of inflammation and extracellular matrix-related genes in human adipocyte cultures, and IL32-silenced adipocytes showed a downregulation of inflammatory genes. Furthermore, adipocyte-conditioned media obtained from obese patients increased IL32 gene expression in human monocyte cultures, whereas the adipocyte-conditioned media from lean volunteers had no effect on IL32 mRNA levels."

According to the news editors, the research concluded: "These findings provide evidence, for the first time, about the inflammatory and remodeling properties of IL-32 in AT, implicating this cytokine in obesity-associated comorbidities."


The news correspondents report that additional information may be obtained from V. Catalan, IdiSNA, Inst Invest Sanitaria Navarra, Obes & Adipobiol Grp, Pamplona, Spain. Additional authors for this research include J. Gomez-Ambrosi, A. Rodriguez, B. Ramirez, V. Valenti, R. Moncada, M.F. Landecho, C. Silva, J. Salvador and G. Fruhbeck.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2337/db16-0287. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pamplona, Spain, Europe, Nutritional and Metabolic Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Non-Insulin Dependent Diabetes Mellitus, Connective Tissue Cells, Extracellular Matrix, Obesity and Diabetes, Extracellular Space, Nutrition Disorders, Risk and Prevention, Diet and Nutrition,
New Findings from V.J. Savage and Co-Authors Describe Advances in Neisseria gonorrhoeae (Efficacy of a Novel Tricyclic Topoisomerase Inhibitor in a Murine Model of Neisseria gonorrhoeae Infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Neisseria gonorrhoeae are discussed in a new report. According to news reporting out of Cheshire, United Kingdom, by NewsRx editors, research stated, "There is an urgent need for new antibiotics to treat multidrug-resistant Neisseria gonorrhoeae."

Our news journalists obtained a quote from the research, "In this report, the microbiology, in vivo pharmacokinetics, and efficacy of REDX05931, a representative novel tricyclic topoisomerase inhibitor, were evaluated. REDX05931 demonstrated high oral bioavailability in mice and reduced N. gonorrhoeae infection after a single dose in a mouse model of gonorrhea."

According to the news editors, the research concluded: "These data support the potential of this series of small molecules as a new treatment for drug-resistant gonorrheal infections."

For more information on this research see: Efficacy of a Novel Tricyclic Topoisomerase Inhibitor in a Murine Model of Neisseria gonorrhoeae Infection. Antimicrobial Agents and Chemotherapy, 2016;60(9):5592-5594. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting N.R. Stokes, Redx Pharma, Alderley Pk, Cheshire, United Kingdom. Additional authors for this research include C. Charrier, A.M. Salisbury, H. Box, N. Chaffer-Malam, A. Huxley, R. Kirk, G.M. Noonan, S. Mohmed, M.W. Craighead, A.J. Ratcliffe, S.A. Best and N.R. Stokes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00913-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cheshire, United Kingdom, Europe, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Gram-Negative Bacteria, Enzymes and Coenzymes, Neisseria gonorrhoeae, Betaproteobacteria, Proteobacteria, Topoisomerase, Neisseriaceae.

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New Findings from Vanderbilt University Describe Advances in Venous Thrombosis (Elevated D-Dimer Is Not Predictive of Symptomatic Deep Venous Thrombosis After Total Joint Arthroplasty)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Venous Thrombosis. According to news reporting originating from Nashville, Tennessee, by NewsRx correspondents, research stated, "Serum D-dimer is a common screening test for symptomatic deep venous thrombosis (DVT) after total joint arthroplasty. This study characterized the longitudinal resolution of D-dimer measurements after total hip and knee arthroplasty (THA/TKA) over a 6-week period."

Our news editors obtained a quote from the research from Vanderbilt University, "The authors hypothesized that serum D-dimer would not return to baseline or be below the institutional threshold for a positive test at 6 weeks after uncomplicated total joint arthroplasty, suggesting that quantitative D-dimer has limited clinical utility for postoperative DVT screening. An institutional review board-approved retrospective cohort study was conducted with consecutive patients between January 2013 and June 2015. A total of 177 adult patients aged 40-88 years who underwent a primary hip or knee arthroplasty with a Charlson Comorbidity Index <3 were included in the study. Serum D-dimer was measured at preoperative, perioperative, and postoperative 2- and 6-week time points. D-dimer measurements peaked 2 weeks postoperatively for both TKA and THA. At the 6-week time point, the peak serum D-dimer measurement resolved by 54.3% and 76.6% for TKA and THA, respectively. At 6 weeks after operation, 92% of THA patient and 100% of TKA patients had serum D-dimer measurements higher than the institutional threshold (0.40 µg/mL) for a 'positive' quantitative test. No symptomatic DVTs were reported for the THA and TKA cohorts during the study period. The results suggest that serum D-dimer is an ineffective screening test for the diagnosis of symptomatic DVT in the acute postoperative period."

According to the news editors, the research concluded: "The authors propose that extravascular fibrinolysis, a process essential for wound healing, has a crucial role in the prolonged elevation of serum D-dimer in the postoperative period."


The news editors report that additional information may be obtained by contacting J.G. Schoenecker, Vanderbilt University, Dept. of Pharmacol, Nashville, TN, United States. Additional authors for this research include S.M. Engstrom, W.K. Oelsner, M.A. Benvenuti, G.G. Polkowski and J.G. Schoenecker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arth.2016.02.059. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Cardiovascular Diseases and Conditions, Diagnostics and Screening,
Oncology - Head and Neck Cancer

New Findings from Vanderbilt University in the Area of Head and Neck Cancer Described (Perceived Symptom Experience in Head and Neck Cancer Patients with Lymphedema)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Head and Neck Cancer. According to news reporting out of Nashville, Tennessee, by NewsRx editors, research stated, "Lymphedema frequently develops as a long-term effect from cancer and/or its treatment, including head and neck cancer (HNC). There is a substantial lack of understanding regarding the symptoms and experiences related to head and neck lymphedema."

Our news journalists obtained a quote from the research from Vanderbilt University, "The objective of this study was to explore HNC patients' experiences of lymphedema, with emphasis on physical findings and associated symptom burden. This was a qualitative, descriptive study. A purposive sample of 20 HNC patients who completed lymphedema therapy participated in semistructured, face-to-face interviews. Thematic content analysis was utilized to assess data. Participants delineated the time when lymphedema onset presented and the sites of involvement. Most participants first noticed external or internal lymphedema/swelling within three months following either surgery or radiation therapy. Participants described a broad array of concurrent symptoms and functional deficits, including altered sensations, altered functions, neck-shoulder musculoskeletal/skin impairments, and psychosocial symptoms. HNC patients experienced multiple physical and psychosocial symptoms during the time they experienced lymphedema."

According to the news editors, the research concluded: "Clinicians need to inquire about tissue swelling and associated symptoms early in the post-treatment period to initiate lymphedema management strategies in a timely manner and facilitate reduction of long-term symptom burden and functional deficits."


Our news journalists report that additional information may be obtained by contacting J. Deng, Vanderbilt University, Sch Nursing, Nashville, TN 37240, United States. Additional authors for this research include S. Ridner, R. Rothman, B. Murphy, K. Sherman, L. Moore, K. Hall and B. Weiner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/jpm.2016.0174. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nashville, Tennessee, United States, North
New Findings from Veterans Affairs Medical Center in the Area of Antibiotics Reported (Clinical Utility of On-Demand Multiplex Respiratory Pathogen Testing among Adult Outpatients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antibiotics have been published. According to news reporting from West Haven, Connecticut, by NewsRx journalists, research stated, "Multiplex tests for respiratory tract infections include up to 20 targets for common pathogens, predominantly viruses. A specific therapeutic intervention is available for individuals testing positive for influenza viruses (oseltamivir), and it is potentially beneficial to identify non-influenza viruses to avoid unnecessary antibiotic use."

The news correspondents obtained a quote from the research from Veterans Affairs Medical Center, "We evaluated antimicrobial prescriptions following respiratory pathogen testing among outpatients at a large Veterans Administration (VA) medical center. Results of the Film-Array respiratory panel (BioFire, Salt Lake City, UT) from 15 December 2014 to 15 April 2015 were evaluated among 408 outpatients, and patient medical records were reviewed. Differences in antibiotic and oseltamivir prescription rates were analyzed. Among 408 patients tested in outpatient centers (emergency departments, urgent care clinics, and outpatient clinics), 295 (72.3%) were managed as outpatients. Among these 295 outpatients, 105 (35.6%) tested positive for influenza virus, 109 (36.9%) tested positive for a non-influenza virus pathogen, and 81 (27.5%) had no respiratory pathogen detected. Rates of oseltamivir and antibiotic prescriptions were significantly different among the three test groups (chi-squared values of 167.6 [P < 0.0001] and 10.48 [P = 0.005], respectively), but there was no significant difference in antibiotic prescription rates between the non-influenza virus pathogen group and those who tested negative (chi-square value, 0; P = 1.0). Among adult outpatients, testing positive for influenza virus was associated with receiving fewer antibiotic prescriptions, but no such effect was seen for those who tested positive for a non-influenza virus."

According to the news reporters, the research concluded: "These data suggest that testing for influenza viruses alone may be sufficient and more cost-effective than multiplex pathogen testing for outpatients."

For more information on this research see: Clinical Utility of On-Demand Multiplex Respiratory Pathogen Testing among Adult Outpatients. *Journal of Clinical Microbiology*, 2016;54(12):2950-2955. *Journal of Clinical Microbiology* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.

Our news journalists report that additional information may be obtained by contacting D.R. Peaper, West Haven Vet Adm Hosp, Pathol & Lab Med Serv, West Haven, CT 06516, United States. Additional authors for this research include L. Hitoaliaj, B. Kotansky, S.M. Campbell and D.R. Peaper.

The direct object identifier (DOI) for that additional information is:
New Findings from Veterans Affairs Medical Center in the Area of Hypertension Described (Targeting cytokine signaling in salt-sensitive hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Hypertension are discussed in a new report. According to news reporting out of Durham, North Carolina, by NewsRx editors, research stated, "Activated immune cell populations contribute to hypertension in part through inciting damage to the kidney and by provoking inappropriate sodium reabsorption in the nephron. Inflammatory mediators called cytokines produced by T lymphocytes and macrophages act on specific sodium transporters in the kidney, augmenting their activity or expression, with consequent expansion of intravascular fluid volume and cardiac output."

Our news journalists obtained a quote from the research from Veterans Affairs Medical Center, "The overlapping functions of these cytokines, each of which may activate multiple receptors, present challenges in precisely targeting inflammatory signaling cascades in hypertension. Moreover, broad immune suppression could expose the hypertensive patient to disproportional risks of infection or malignancy."

According to the news editors, the research concluded: "Nevertheless, the possibility that incisive immunomodulatory therapies could provide cardiovascular and renal protection through both blood pressure-dependent and - independent mechanisms justifies comprehensive investigation into the relevant signaling pathways and tissue sites in which inflammatory cytokines function to exaggerate blood pressure elevation and target organ damage in hypertension."


Our news journalists report that additional information may be obtained by contacting S.D. Crowley, Durham Vet Affairs Med Center, Durham, NC, United States.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Blood Pressure, Hemodynamics, Hypertension, Cytokines, Veterans Affairs Medical Center.

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New Findings from Vrije University in the Area of Human Genetics
Described (The Genetic Overlap Between Hair and Eye Color)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics - Human Genetics have been published. According to news reporting originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "We identified the genetic variants for eye color by Genome-Wide Association Study (GWAS) in a Dutch Caucasian family-based population sample and examined the genetic correlation between hair and eye color using data from unrelated participants from the Netherlands Twin Register. With the Genome-wide Complex Trait Analysis software package, we found strong genetic correlations between various combinations of hair and eye colors."

Our news editors obtained a quote from the research from Vrije University, "The strongest positive correlations were found for blue eyes with blond hair (0.87) and brown eyes with dark hair (0.71), whereas blue eyes with dark hair and brown eyes with blond hair showed the strongest negative correlations (-0.64 and -0.94, respectively). Red hair with green/hazel eyes showed the weakest correlation (-0.14). All analyses were corrected for age and sex, and we explored the effects of correcting for principal components (PCs) that represent ancestry and describe the genetic stratification of the Netherlands. When including the first three PCs as covariates, the genetic correlations between the phenotypes disappeared. This is not unexpected since hair and eye colors strongly indicate the ancestry of an individual."

According to the news editors, the research concluded: "This makes it difficult to separate the effects of population stratification and the true genetic effects of variants on these particular phenotypes."

For more information on this research see: The Genetic Overlap Between Hair and Eye Color. Twin Research and Human Genetics, 2016;19(6):595-599. Twin Research and Human Genetics can be contacted at: Cambridge Univ Press, 32 Avenue Of The Americas, New York, NY 10013-2473, USA. (Cambridge University Press - www.cambridge.org; Twin Research and Human Genetics - journals.cambridge.org/action/displayJournal?jid=THG)

The news editors report that additional information may be obtained by contacting D.I. Boomsma, Vrije Universiteit Amsterdam, Dept. of Biol Psychol, Netherlands Twin Register, NL-1081 BT Amsterdam, Netherlands. Additional authors for this research include G. Willemsen, A. Abdellaoui, M. Bartels, E.A. Ehli, G.E. Davies, D.I. Boomsma and J.J. Hottenga. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/thg.2016.85. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Human Genetics, Genetics, Genetics, Vrije University.

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New Findings from Washington University Update Understanding of Antimalarial Agents (Whole-Genome Sequencing to Evaluate the Resistance Landscape Following Antimalarial Treatment Failure With Fosmidomycin-Clindamycin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antimalarial Agents have been published. According to news reporting originating in St. Louis, Missouri, by NewsRx journalists, research stated, "Novel antimalarial therapies are needed in the face of emerging resistance to artemisinin combination therapies. A previous study found a high cure rate in Mozambican children with uncomplicated Plasmodium falciparum malaria 7 days after combination treatment with fosmidomycin-clindamycin."

Funders for this research include Children's Discovery Institute of Washington University and St. Louis Children's Hospital, National Institute of Allergy and Infectious Diseases, National Institutes of Health, The March of Dimes, National Institute of General Medical Sciences, Washington University Monsanto Excellence Fund, National Cancer Institute, National Institutes of Health National Center for Research Resources, NIH Roadmap for Medical Research.

The news reporters obtained a quote from the research from Washington University, "However, 28-day cure rates were low (45.9%), owing to parasite recrudescence. We sought to identify any genetic changes underlying parasite recrudescence. To this end, we used a selective whole-genome amplification method to amplify parasite genomes from blood spot DNA samples. Parasite genomes from pretreatment and postrecrudescence samples were subjected to whole-genome sequencing to identify nucleotide variants. Our data did not support the existence of a genetic change responsible for recrudescence following fosmidomycin-clindamycin treatment. Additionally, we found that previously described resistance alleles for these drugs do not represent biomarkers of recrudescence."

According to the news reporters, the research concluded: "Future studies should continue to optimize fosmidomycin combinations for use as antimalarial therapies."


Our news correspondents report that additional information may be obtained by contacting A.R. Odom, Washington University, Sch Med, Dept. of Mol Microbiol, St Louis, MO 63110, United States. Additional authors for this research include S.A. Sundararaman, M. Lanaspa, C. Moraleda, R. Gonzalez, A. Mayor, P. Cistero, D. Hutchinson, P.G. Kremsner, B.H. Hahn, Q. Bassat and A.R. Odom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/infdis/jiw304. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Mosquito-Bornes Illness, Lincomycin Derivatives, Dermatological
New Findings from Wayne State University Update Understanding of Central Nervous System Agents (Drug Toxicities of Common Analgesic Medications in the Emergency Department)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Central Nervous System Agents have been published. According to news reporting originating from Detroit, Michigan, by NewsRx correspondents, research stated, "About 75% of patients present to the emergency department with a complaint of pain."

Our news editors obtained a quote from the research from Wayne State University, "There are multiple prescribed and over-the-counter medications that are available for the treatment of pain. Acetaminophen, opioids, and aspirin are commonly used agents that are available as single agents or in combination with other medications."

According to the news editors, the research concluded: "However, all of these agents are susceptible to toxic overdose, which requires prompt recognition through clinical and laboratory assessment modalities and initiation of therapy to reduce the risk of morbidity and mortality."


The news editors report that additional information may be obtained by contacting E. Dubey, Wayne State University, Sch Med, Dept. of Emergency Med, Detroit, MI 48201, United States. Additional authors for this research include K. Nguyen, M.H. Bluth and E. Dubey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cll.2016.07.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Analgesics, Risk and Prevention, Central Nervous System Agents, Drugs and Therapies, Pain Medicine, Wayne State University.

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Life Science Research - Cell Biology

New Findings from Weizmann Institute of Science in the Area of Cell Biology Reported (Microbiota Diurnal Rhythmicity Programs Host Transcriptome Oscillations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Life Science Research - Cell Biology is the subject of a report. According to news reporting out of Rehovot, Israel, by NewsRx editors, research stated, "The intestinal microbiota undergoes diurnal compositional and functional oscillations that affect metabolic homeostasis, but the mechanisms by which the rhythmic microbiota influences host circadian activity remain elusive. Using integrated multi-omics and imaging approaches, we demonstrate that the gut microbiota features oscillating biogeographical localization and metabolome patterns that determine the rhythmic exposure of the intestinal epithelium to different bacterial species and their metabolites over the course of a day."

Our news journalists obtained a quote from the research from the Weizmann Institute of Science, "This diurnal microbial behavior drives, in turn, the global programming of the host circadian transcriptional, epigenetic, and metabolite oscillations. Surprisingly, disruption of homeostatic microbiome rhythmicity not only abrogates normal chromatin and transcriptional oscillations of the host, but also incites genome-wide de novo oscillations in both intestine and liver, thereby impacting diurnal fluctuations of host physiology and disease susceptibility."

According to the news editors, the research concluded: "As such, the rhythmic biogeography and metabolome of the intestinal microbiota regulates the temporal organization and functional outcome of host transcriptional and epigenetic programs."

For more information on this research see: Microbiota Diurnal Rhythmicity Programs Host Transcriptome Oscillations. Cell, 2016;167(6):1495-1510,123-134. Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell - www.journals.elsevier.com/cell/)


Keywords for this news article include: Rehovot, Israel, Asia, Cell Biology, Life Science Research, Genetics, Weizmann Institute of Science.

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Clinical Research - Clinical Trials and Studies

New Findings from William Paterson University in the Area of Clinical Trials and Studies Described (The Special Supplemental Nutrition Program for Women, Infants, and Children Fresh Start Randomized Controlled Trial: Baseline Participant ...)

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Clinical Research - Clinical Trials and Studies is the subject of a report. According to news reporting from Wayne, New Jersey, by NewsRx journalists, research stated, "The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Fresh Start (WFS) is a randomized controlled trial of nutrition education to promote farmers' market fruit and vegetable (F/V) purchases and consumption among women enrolled in WIC. To describe the baseline characteristics (demographics and F/V intake [including F/V juice]) of WFS participants, compare the characteristics with those of WIC participants in New Jersey and nationwide, and examine the baseline reliability of study measures. Cross-sectional."

The news correspondents obtained a quote from the research from William Paterson University, "Seven hundred forty-four women served by a New Jersey-based WIC agency located in a densely populated, urban area. Demographic characteristics; newly developed measures of farmers' market-related knowledge, attitudes, and skills; and validated measures of F/V intake. Statistical analyses Descriptive statistics to characterize the sample. One-sample t and one-sample sign tests to compare the characteristics with reference values. For dietary behaviors, comparisons were with state and national estimates of the frequency and quantity of F/V intake. Participants had a mean age of 28.9 +/- 6.8 years and were predominantly Hispanic (59%), US-born (60%), never married (41%), unemployed (62%), receiving assistance other than WIC (70%), and food insecure (55%). Half reported a high school education or less. Higher proportions of WFS participants than WIC participants nationwide were represented among demographic groups at increased risk of inadequate F/V intake. WFS participants consumed more fruit (2.7 cups/day) but less vegetables (1.4 cups/day) than did women nationwide (1.1 and 1.4 cups/day, respectively; P<0.01). Although participants consumed recommended amounts of fruit, their vegetable intake was below recommended levels. All but two of the measures developed for the study had reliability coefficients at or above 0.60. Intervention is warranted to improve participants' vegetable intake."

According to the news reporters, the research concluded: "Registered dietitian nutritionists should be aware of F/V intake differences that may require differential intervention strategies."


Our news journalists report that additional information may be obtained by contacting J. Di Noia, William Paterson Univ, Dept. of Sociol, Wayne, NJ 07470, United States. Additional authors for this research include D. Monica, H.L. Gray and K.W. Cullen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jand.2016.07.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wayne, New Jersey, United States, North and Central America, Clinical Trials and Studies, Diet and Nutrition, Clinical Research, William Paterson University.

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New Findings from Wingate University in Pharmaceutical Education Provides New Insights (Evidence of Criterion Validity for One Pharmacy School's Progress Examination Program)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Education - Pharmaceutical Education. According to news originating from Wingate, North Carolina, by NewsRx correspondents, research stated, "To provide evidence that the progress examination program accurately assesses student failure to demonstrate competence. A progress examination program aligned with each grade level was locally developed and administered annually to 289 PharmD students in the spring of their first year - fourth year."

Our news journalists obtained a quote from the research from Wingate University, "Correlations and linear regressions were performed to compare the examination scores to performance on national licensing examinations and cumulative didactic grade point average (GPA). Odds ratio analysis was run to determine the ability of the passing scores of the progress examination to identify students at increased risk of failing to graduate on time, earn a GPA below 3.0, and fail the licensing examinations on their first attempt. Progress examination scores were strongly correlated to GPA and national licensing examination scores and weakly correlated to jurisprudence examination scores. Regression analysis indicated a significant linear relationship between examination scores and both GPA and the licensing examinations. Students who performed poorly on the progress examinations were more likely fail the national licensing examination, more likely to fail to graduate on time, and more likely to earn a cumulative didactic GPA below 3.0."

According to the news editors, the research concluded: "The second-year examination program strongly predicts students at risk for failure to graduate on time or achieve a GPA below 3.0, while all four examinations identify students at risk of failing the national licensing examination on their first attempt."

For more information on this research see: Evidence of Criterion Validity for One Pharmacy School's Progress Examination Program. American Journal of Pharmaceutical Education, 2016;80(8):131-144. American Journal of Pharmaceutical Education can be contacted at: Amer Assoc Coll Pharmacy, 1426 Prince Street, Alexandria, VA 22314-2815, USA.

The news correspondents report that additional information may be obtained from G.L. Alston, Wingate Univ, Sch Pharm, Wingate, NC 28174, United States.

Keywords for this news article include: Wingate, North Carolina, United States, North and Central America, Pharmaceutical Education, Education, Risk and Prevention, Legal Issues, Wingate University.

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New Findings from Wuhan University in the Area of Type 1 Diabetes Mellitus Described (Biopatterned CTLA4/Fc Matrices Facilitate Local Immunomodulation, Engraftment, and Glucose Homeostasis After Pancreatic Islet Transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus is now available. According to news originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "Pancreatic islet transplantation (PIT) represents a potential therapy to circumvent the need for exogenous insulin in type 1 diabetes. However, PIT remains limited by lack of donor islets and the need for long-term multidrug immunosuppression to prevent alloimmune islet rejection."

Funders for this research include JDRF, Plastic Surgery Foundation and Musculoskeletal Transplant Foundation.

Our news journalists obtained a quote from the research from Wuhan University, "Our goal was to evaluate a local immunoregulatory strategy that sustains islet allograft survival and restores glucose homeostasis in the absence of systemic immunosuppression. Nanogram quantities of murine CTLA4/Fc fusion protein were controllably delivered within human acellular dermal matrix scaffolds using an inkjet-based biopatterning technology and cotransplanted with allogeneic islets under the renal capsule to create an immunoregulatory microenvironment around the islet allograft. We achieved long-term engraftment of small loads of allogeneic islet cells with 40% of MHC-mismatched mouse recipients maintaining sustained normoglycemia following pancreatic beta-cell ablation by streptozotocin. Biopatterned CTLA4/Fc local therapy was associated with expansion of Foxpr regulatory T cells and shifts in cytokine production and gene expression from proinflammatory to regulatory profiles, thus substantially benefiting islet allografts survival and function."

According to the news editors, the research concluded: "This study is a new paradigm for targeted therapies in PIT that demonstrates the favorable effects of immune alterations in the transplant milieu and suggests a unique strategy for minimizing systemic immunosuppression and promoting islet allograft survival."

For more information on this research see: Biopatterned CTLA4/Fc Matrices Facilitate Local Immunomodulation, Engraftment, and Glucose Homeostasis After Pancreatic Islet Transplantation. Diabetes, 2016;65(12):3660-3666. Diabetes can be contacted at: Amer Diabetes Assoc, 1701 N Beauregard St, Alexandria, VA 22311-1717, USA. (Elsevier - www.elsevier.com; Diabetes - www.journals.elsevier.com/diabetes-and-metabolic-syndrome-clinical-research-and-reviews/)

The news correspondents report that additional information may be obtained from X.X. Zheng, Wuhan University, Zhongnan Hosp, Transplantat Med Center, Wuhan, People's Republic of China. Additional authors for this research include V.S. Gorantla, P.G. Campbell, Y. Li, Y. Yang, C. Komatsu, L.E. Weiss, X.X. Zheng and M.G. Solari.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2337/db16-0320. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Type 1 Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions, Insulin
Musculoskeletal Diseases and Conditions —

New Findings from X. Zhang and Co-Authors in the Area of Osteoarthritis Reported (Chondromodulin-1 ameliorates osteoarthritis progression by inhibiting HIF-2 alpha activity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Musculoskeletal Diseases and Conditions - Osteoarthritis. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Hypoxia is known to stabilize hypoxia-inducible factor (HIF) and initiate angiogenic signaling cascade. However, cartilage living in hypoxia environment can maintain vascularity."

The news reporters obtained a quote from the research, "It is well known that abrogation of avascularity is related to cartilage degradation in osteoarthritis (OA). The aims of present study were to investigate the role of chondromodulin-1 (ChM-1), an endogenously antiangiogenic protein in cartilage, during chondrocyte maturation and OA progression, as well as to explore the molecular mechanisms underlying the function of ChM-1 with a focus on HIF-2 alpha pathway. Angiogenic-related markers were evaluated in OA cartilage and different stages of chondrocyte differentiation. Chondrocytes transfected with ChM-1 lentivirus or siRNA was treated with tumor necrosis factor (TNF-alpha) to investigate the role of ChM-1 in chondrocyte hypertrophic changes. In vivo study was conducted by using a surgical induced OA rat model with intra-articular injection of lentivirus ChM-1 (LV-ChM-1) or mock lentivirus (LV-GFP) control. Transcriptional activity of HIF-2 alpha was determined by chromatin immunoprecipitation (ChIP) assay to unveil the mechanisms of ChM-1. Majority angiogenic factors increased in severe OA cartilage, while anti-angiogenic factors including ChM-1 decreased. ChM-1 expression was strongly related with chondrocyte differentiation and chondrogenesis in vitro. ChM-1 overexpression protected chondrocytes from TNF-alpha induced hypertrophy, and intra-articular injection of LV-ChM-1 delayed OA progression. ChM-1 delayed HIF-2 alpha nuclear translocation at early time-points and decreased transcriptional activity of HIF-2 alpha on collagen type. alpha 1 (COL10A1), vascular endothelial growth factor A (VEGFA) and matrix metallopeptidase-13 (MMP-13)."

According to the news reporters, the research concluded: "ChM-1 maintains cartilage homeostasis by inhibiting HIF-2 alpha induced catabolic activity and regulation of ChM-1 in cartilage may be a promising therapeutic strategy for OA."


Our news correspondents report that additional information may be obtained by contacting X. Zhang, Sun Yat Sen UniversityGuangdong Prov Key Lab Stomatol, Guanghua Sch Stomatol, Dept. of Operat Dental & Endodont, Guangzhou 510055, Guangdong, People's
Republic of China. Additional authors for this research include I. Prasadam, W. Fang, R. Crawford and Y. Xiao.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Rheumatic Diseases and Conditions, Joint Diseases and Conditions, Intra-Articular Injections, Osteoarthritis, Angiogenesis, Retroviridae, RNA Viruses, Lentivirus, Arthritis, Genetics, Virology, Viral.

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Musculoskeletal Diseases and Conditions - …

New Findings from Xi'an Jiao Tong University Describe Advances in Osteonecrosis (Single-nucleotide polymorphisms of MMP2 in MMP/TIMP pathways associated with the risk of alcohol-induced osteonecrosis of the femoral head in Chinese males A …)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Osteonecrosis have been published. According to news reporting from Shaanxi, People's Republic of China, by NewsRx journalists, research stated, "The proportion of alcohol-induced osteonecrosis of the femoral head (ONFH) in all ONFH patients was 30.7%, with males prevailing among the ONFH patients in mainland China (70.1%). Matrix metalloproteinase 2 (MMP2), a member of the MMP gene family, encodes the enzyme MMP2, which can promote osteoclast migration, attachment, and bone matrix degradation."

The news correspondents obtained a quote from the research from Xi'an Jiao Tong University, "In this case-control study, we aimed to investigate the association between MMP2 and the alcohol-induced ONFH in Chinese males. In total, 299 patients with alcohol-induced ONFH and 396 healthy controls were recruited for a case-control association study. Five single-nucleotide polymorphisms within the MMP2 locus were genotyped and examined for their correlation with the risk of alcohol-induced ONFH and treatment response using Pearson chi(2) test and unconditional logistic regression analysis. We identified 3 risk alleles for carriers: the allele 'T' of rs243849 increased the risk of alcohol-induced ONFH in the allele model, the log-additive model without adjustment, and the log-additive model with adjustment for age. Conversely, the genotypes 'CC' in rs7201 and 'CC' in rs243832 decreased the risk of alcohol-induced ONFH, as revealed by the recessive model. After the Bonferroni multiple adjustment, no significant association was found. Furthermore, the haplotype analysis showed that the 'TT' haplotype of MMP2 was more frequent among patients with alcohol-induced ONFH by unconditional logistic regression analysis adjusted for age."

According to the news reporters, the research concluded: "There may be an association between MMP2 and the risk of alcohol-induced ONFH in North-Chinese males. However, studies on larger populations are needed to confirm this hypothesis; these data may provide a theoretical foundation for future studies."

For more information on this research see: Single-nucleotide polymorphisms of MMP2 in MMP/TIMP pathways associated with the risk of alcohol-induced osteonecrosis of the femoral head in Chinese males A case-control study. Medicine, 2016;95(49):100-105. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine -
Kidney Diseases and Conditions - Hemolytic Uremic Syndrome

New Findings from Xi'an Jiao Tong University in the Area of Hemolytic Uremic Syndrome Reported (Association among Complement Factor H Autoantibodies, Deletions of CFHR, and the Risk of Atypical Hemolytic Uremic Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Kidney Diseases and Conditions - Hemolytic Uremic Syndrome have been published. According to news reporting originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "To evaluate the association among complement factor H-related (CFHRs) gene deficiency, complement factor H (CFH) autoantibodies, and atypical hemolytic uremic syndrome (aHUS) susceptibility. EMBASE, PubMed, and the ISI Web of Science databases were searched for all eligible studies on the relationship among CFHRs deficiency, anti-FH autoantibodies, and aHUS risk."

Our news editors obtained a quote from the research from Xi'an Jiao Tong University, "Eight case-control studies with 927 cases and 1182 controls were included in this study. CFHR1 deficiency was significantly associated with an increased risk of aHUS (odds ratio (OR) = 3.61, 95% confidence interval (95% CI), 1.96, 6.63, p < 0.001), while no association was demonstrated in individuals with only CFHR1/R3 deficiency (OR = 1.32, 95% CI, 0.50, 3.50, p = 0.56). Moreover, a more significant correlation was observed in people with both FH-anti autoantibodies and CFHR1 deficiency (OR = 11.75, 95% CI, 4.53, 30.44, p< 0.001 in contrast to those with only CFHR1 deficiency. In addition, the results were essentially consistent among subgroups stratified by study quality, ethnicity, and gene detection methods."

According to the news editors, the research concluded: "The present meta-analysis indicated that CFHR1 deletion was significantly associated with the risk of aHUS, particularly when combined with anti-FH autoantibodies, indicating that potential interactions among CFHR1 deficiency and anti-FH autoantibodies might impact the risk of aHUS."


The news editors report that additional information may be obtained by contacting H. Jiang, Xi An Jiao Tong Univ, Sch Public Hlth, Hlth Sci Center, Xian 710061, People's Republic of China. Additional authors for this research include M.N. Fan, M. Yang, C. Lu, M. Zhang.
New Findings from Y. Shiraishi and Co-Researchers in the Area of Heart Failure Described (Correlation of Pre- and In-Hospital Systolic Blood Pressure in Acute Heart Failure Patients and the Prognostic Implications - Report From the Tokyo ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Systolic blood pressure (SBP) is an important prognostic indicator for patients with acute heart failure (AHF). However, its changes and the effects in the different phases of the acute management process are not well known."

Our news journalists obtained a quote from the research, "The Tokyo CCU Network prospectively collects on-site information about AHF from emergency medical services (EMS) and the emergency room (ER). The association between in-hospital death and SBP at 2 different time points (on-site SBP [measured by EMS] and in-hospital SBP [measured at the ER; ER-SBP]) was analyzed. From 2010 to 2012, a total of 5,669 patients were registered and stratified into groups according to both their on-site SBP and ER-SBP: >160 mmHg; 100-160 mmHg; and <100 mmHg. In-hospital mortality rates increased when both on-site SBP and ER-SBP were low. After multivariate adjustment, both SBPs were inversely associated with in-hospital death. Notably, the risk for patients with ER-SBP of 100-160 mmHg (intermediate risk) differed according to their on-site SBP; those with on-site SBP <100 or 100-160 mmHg were at higher risk (OR, 7.39; 95% CI, 4.00-13.6 and OR, 2.73; 95% CI, 1.83-4.08, respectively [P <0.001 for both]) than patients with on-site SBP >160 mmHg."

According to the news editors, the research concluded: "Monitoring changes in SBP assisted risk stratification of AHF patients, particularly patients with intermediate ER-SBP measurements."

For more information on this research see: Correlation of Pre- and In-Hospital Systolic Blood Pressure in Acute Heart Failure Patients and the Prognostic Implications - Report From the Tokyo Cardiac Care Unit Network Emergency Medical Service Database. Circulation Journal, 2016;80(12):2473-2481,89-91. Circulation Journal can be contacted at: Japanese Circulation Soc, 18TH Floor Imperial Hotel Tower, 1-1-1 Uchisaiwai-Cho Chiyoda-Ku, Toyko, 100-0011, Japan.

Our news journalists report that additional information may be obtained by contacting S. Kohsaka, Tokyo CCU Network Sci Comm, Tokyo, Japan. Additional authors for

Keywords for this news article in clude: Tokyo, Japan, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Diagnostics and Screening, Systolic Blood Pressure, Heart Failure, Heart Disease, Cardiology, Hospital.

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Choline

New Findings from Yale University in the Area of Choline Reported (Secretagogue-dependent and -independent transport of zinc hydration forms in rat parietal cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Choline are presented in a new report. According to news reporting out of New Haven, Connecticut, by NewsRx editors, research stated, "Prolonged exposure to gastric acid is a leading cause of gastroesophageal reflux disease (GERD) and esophagitis. With the ever increasing number of patients showing insensitivity to proton-pump-inhibitor (PPI) therapy with recurrence of symptoms over time, alternative treatment options remain an important issue."

Financial support for this research came from Charles Ohse.

Our news journalists obtained a quote from the research from Yale University, "Previous studies from our laboratory have shown that a zinc sulfate salt can inhibit HCl generation at the cellular level of the parietal cell. In this paper, we examine the difference between two hydration forms of ZnSO4 (monohydrate H2O and heptahydrate 7H(2)O) in their entry characteristics into the parietal cell under several physiological conditions associated with acid secretion. Using the Zn sensitive fluorochrome Newport Green, we examined the rate of Zn entry in Delta fluorescent units/second (Delta FU/second), at two different concentrations for both hydration states on both fasted and non-fasted animals. In a separate series of studies, we examined the effects of secretagogues on the entry rates and transport mechanisms. Exposure of the secretagogue carbachol transformed the resting parietal cell to an activated state and represents a stimulated condition through the neuronal pathway. The hormonal activation of the parietal cell was achieved by using histamine. Non-fasted conditions were considered to be a state between hormonal and neuronal activation. To demonstrate that ZnSO4 enters the parietal cell through the NKCC1 co-transporter, the inhibitor bumetanide was applied during secretagogue-stimulated acid secretion. Both salts, monohydrate and heptahydrate ZnSO4, show a concentration-dependent cell entry under all conditions studied. During stimulated acid secretion, induced through either the neuronal or the hormonal pathway, heptahydrate ZnSO4 enters the parietal cell significantly faster than monohydrate ZnSO4, whereas monohydrate ZnSO4 exhibits faster entry during resting conditions in fasted animals. At 30 mu M following stimulation with histamine, heptahydrate ZnSO4 enters the cell faster than monohydrate ZnSO4 (Delta FU/second 30 mu M (ZnSO4*7H2O + histamine) = 1.782, Delta FU/second 30 mu M (ZnSO4*H2O+histamine) = 1.038, respectively). Three hundred micromolar, heptahydrate ZnSO4 shows a faster entry into the cells (Delta FU/second (ZnSO4*7H2O300)mu M + carbachol = 4.02407) compared to monohydrate ZnSO4 (Delta FU/second (ZnSO4*H2O300 mu M + carbachol) = 3.225) following exposure to carbachol."
According to the news editors, the research concluded: "The mechanism of entry of both salts was found to be predominantly via the basolateral NKCC1 transporter with the rate of zinc entry decreasing to minimal values (ΔFU/second = 0.275) after application of bumetanide during stimulated conditions."


Our news journalists report that additional information may be obtained by contacting J.P. Geibel, Yale University, Sch Med, Dept. of Cellular & Mol Physiol, New Haven, CT 06510, United States. Additional authors for this research include A.M. Kitay, R.M. Trattning, A. Alsaihat and J.P. Geibel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00424-016-1889-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Quaternary Ammonium Compounds, Ophthalmic Glaucoma Agents, Ophthalmic Preparations, Biogenic Monoamines, Drugs and Therapies, Biological Factors, Carbachol Therapy, Organic Chemicals, Pharmaceuticals, Ethylamines, Histamine, Autacoids, Choline, Amines, Yale University.

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**Cardiovascular Diseases and Conditions -...**

**New Findings from Yale University in the Area of Hypertension Described (Incarceration History and Uncontrolled Blood Pressure in a Multi-Site Cohort)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating from New Haven, Connecticut, by NewsRx correspondents, research stated, "Incarceration is associated with increased risk of hypertension and cardiovascular disease mortality. We used data from the Veterans Aging Cohort Study (VACS) to explore the impact of incarceration on blood pressure (BP) control."

Our news editors obtained a quote from the research from Yale University, "Among hypertensive VACS participants, we measured the association between self-reported recent incarceration or past (not recent) history of incarceration and BP control in the year following the survey. To analyze the association between incarceration and BP control, we used logistic regression models adjusted for sociodemographic characteristics, clinical factors (HIV status and body mass index), and behavioral factors (history of smoking, unhealthy alcohol use, illicit drug use). We explored potential mediators including post-traumatic stress disorder (PTSD), depression, primary care engagement, and adherence to antihypertensive medications. Among the 3515 eligible VACS participants, 2304 participants met the inclusion criteria. Of these, 163 (7 %) reported recent incarceration, and 904 (39 %) reported a past history of incarceration. Participants with recent or past history of incarceration were more likely to have uncontrolled
BP than those without a history of incarceration (67% vs. 56% vs. 51%, p<0.001). In multivariable analysis, recent incarceration (adjusted odds ratio [AOR] = 1.57 95% confidence interval [CI]: 1.09-2.26), but not a past history of incarceration (AOR = 1.08 95% CI: 0.90-1.30), was associated with uncontrolled BP compared with those who were never incarcerated. Among patients with a history of hypertension, recent incarceration is associated with having uncontrolled BP following release.”

According to the news editors, the research concluded: "Interventions are needed for recently released individuals to improve hypertension outcomes."


The news editors report that additional information may be obtained by contacting B.A. Howell, Yale University, Sch Med, Dept. of Internal Med, New Haven, CT 06520, United States. Additional authors for this research include J.B. Long, J. Edelman, K.A. McGinnis, D. Rimland, D.A. Fiellin, A.C. Justice and E.A. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11606-016-3857-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Cardiovascular Diseases and Conditions, Blood Pressure, Epidemiology, Systolic Hypertension, Risk and Prevention, Legal Issues, Hemodynamics, Angiology, Yale University.

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**Cardiovascular Research**

**New Findings from Yeungnam University in the Area of Cardiovascular Research Reported (CHOP deficiency inhibits methylglyoxal-induced endothelial dysfunction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Research. According to news reporting originating from Daegu, South Korea, by NewsRx correspondents, research stated, "Epidemiological studies suggested that diabetic patients are susceptible to develop cardiovascular complications along with having endothelial dysfunction. It has been suggested that methylglyoxal (MGO), a glycolytic metabolite, has more detrimental effects on endothelial dysfunction rather than glucose itself."

Financial supporters for this research include Basic Science Research Program, Ministry of Science, ICT, and Future Planning.

Our news editors obtained a quote from the research from Yeungnam University, "Here, we investigated the molecular mechanism by which MGO induces endothelial dysfunction via the regulation of ER stress. Biochemical data showed that 4-PBA significantly inhibited MGO-induced protein cleavages of PARP-1 and caspase-3. In addition, it was found that high glucose induced endothelial apoptosis was enhanced in the presence of GLO1"
inhibitor, suggesting the role of endogenous MGO in high glucose-induced endothelial dysfunction. MGO-induced endothelial apoptosis was significantly diminished by the depletion of CHOP with si-RNA against human CHOP, but not by SP600125, a specific inhibitor of JNK. The physiological relevance of this signaling pathway was demonstrated in CHOP deficiency mouse model, in which instillation of osmotic pump containing MGO led to aortic endothelial dysfunction. Notably, the aortic endothelial dysfunction response to MGO infusion was significantly improved in CHOP deficiency mice compared to littermate control."

According to the news editors, the research concluded: "Taken together, these findings indicate that MGO specifically induces endothelial dysfunction in a CHOP dependent manner, suggesting the therapeutic potential of CHOP inhibition in diabetic cardiovascular complications."

For more information on this research see: CHOP deficiency inhibits methylglyoxal-induced endothelial dysfunction. Biochemical and Biophysical Research Communications, 2016;480(3):362-368. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news editors report that additional information may be obtained by contacting C.H. Woo, Yeungnam University, Coll Med, Smart Aging Convergence Res Center, Daegu, South Korea. Additional authors for this research include S. Kim, J.H. Han, D.H. Nam, K.M. Park, S.Y. Kim and C.H. Woo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.051. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daegu, South Korea, Asia, Cardiovascular Research, Cardiology, Epidemiology, Cardiovascular, Genetics, Yeungnam University.

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Skin Diseases and Conditions - Alopecia

New Findings from Yonsei University in the Area of Alopecia Described (Relationship between androgenetic alopecia and cardiovascular risk factors according to BASP classification in Koreans)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Skin Diseases and Conditions - Alopecia have been published. According to news reporting out of Wonju, South Korea, by NewsRx editors, research stated, "There have been many studies on the relationship between androgenetic alopecia (AGA) and cardiovascular risk factors, but the study results were inconsistent and research on AGA in Asians remains insufficient. This study investigated the relationship between Korean AGA and various cardiovascular risk factors, considering life habits, type of hair loss and sex."

Our news journalists obtained a quote from the research from Yonsei University, "We investigated subjects who visited a hospital for public or industrial health medical examinations between October 2012 and December 2014. A questionnaire as well as
anthropometric measurements and a blood test were performed. Among the 1884 total subjects, 52.6% had AGA. AGA patients displayed a significantly higher prevalence rate of cardiovascular diseases, smoking rate, fasting glucose and triglyceride, and a significantly lower high-density lipoprotein cholesterol level than did the non-AGA group. The results of the subgroup analysis showed higher prevalence rates of hypertension, stroke, metabolic syndrome and smoking in male AGA patients. The more severe the AGA, the higher the incidences of hypertension, diabetes and smoking were observed. According to the analysis results by BASP classification, the F-type AGA patients displayed a higher body mass index, waist circumference and diastolic blood pressure, and had a significantly higher prevalence rate of hypertension.

According to the news editors, the research concluded: "As a result of the large population-based study, modifications in lifestyle and early screening for cardiovascular disease, as well as hypertension and diabetes, are suggested."


Our news journalists report that additional information may be obtained by contacting W.S. Lee, Yonsei University, Wonju Coll Med, Inst Hair & Cosmet Med, Wonju, South Korea. Additional authors for this research include S.S. Oh and W.S. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1346-8138.13355. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wonju, South Korea, Asia, Skin and Connective Tissue Diseases and Conditions, Cardiovascular Diseases and Conditions, Risk and Prevention, Epidemiology, Skin Diseases and Conditions, Hair Diseases and Conditions, Hypotrichosis, Hypertension, Cardiology, Alopecia, Yonsei University.

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Nephrology

New Findings from Zhejiang University in Nephrology Provides New Insights (Multiple Drug Transporters Are Involved in Renal Secretion of Entecavir)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nephrology are discussed in a new report. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "Entecavir (ETV) is a first-line antiviral agent for the treatment of chronic hepatitis B virus infection. Renal excretion is the major elimination path of ETV, in which tubular secretion plays the key role."

Funders for this research include Zhejiang Provincial Science and Technology Foundation of China, International Science and Technology Cooperation Program of China, National Natural Science Foundation of China (NSFC).

The news reporters obtained a quote from the research from Zhejiang University,
"However, the secretion mechanism has not been clarified. We speculated that renal transporters mediated the secretion of ETV. Therefore, the aim of our study was to elucidate which transporters contribute to the renal disposition of ETV. Our results revealed that ETV (50 μM) remarkably reduced the accumulation of probe substrates in MDCK cells stably expressing human multidrug and toxin efflux extrusion proteins (hMATE1/2-K), organic cation transporter 2 (hOCT2), and carnitine/organic cation transporters (hOCTNs) and increased the substrate accumulation in cells transfected with multidrug resistance-associated protein 2 (hMRP2) or multidrug resistance protein 1 (hMDR1). Moreover, ETV was proved to be a substrate of the above-described transporters. In transwell studies, the transport of ETV in MDCK-hOCT2-hMATE1 showed a distinct directionality from BL (hOCT2) to AP (hMATE1), and the cellular accumulation of ETV in cells expressing hMATE1 was dramatically lower than that of the mock-treated cells. The accumulation of ETV in mouse primary renal tubular cells was obviously affected by inhibitors of organic anion transporter 1/3 (Oat1/3), Oct2, Octn1/2, and Mrp2."

According to the news reporters, the research concluded: "Therefore, the renal uptake of ETV is likely mediated by OAT1/3 and OCT2 while the efflux is mediated by MATEs, MDR1, and MRP2, and OCTN1/2 may participate in both renal secretion and reabsorption."

For more information on this research see: Multiple Drug Transporters Are Involved in Renal Secretion of Entecavir. Antimicrobial Agents and Chemotherapy, 2016;60(10):6260-6270. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting L.P. Li, Zhejiang University, Coll Pharmaceut Sci, Zhejiang Prok Key Lab Anticanc Drug Res, Lab Pharmaceut Anal & Drug Metab, Hangzhou, Zhejiang, People's Republic of China. Additional authors for this research include Z.Y. Ma, S.S. Zhou, Y.Y. Weng, H.M. Lei, S. Zeng, L.P. Li and H.D. Jiang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00986-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Kidney, Drugs and Therapies, Nephrology, Zhejiang University.

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Oncology - Bladder Cancer

New Findings from Zhengzhou University in the Area of Bladder Cancer Described (Association of thymosin beta 4 expression with clinicopathological parameters and clinical outcomes of bladder cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Bladder Cancer is now available. According to news originating from Zhengzhou, People's Republic of China, by NewsRx correspondents, research stated, "The clinical significance of thymosin beta 4 (T beta 4) expression in bladder
transitional cell carcinoma (BTCC) remains unclear. The present study assessed the relationship between the expression of T beta 4 protein and the clinicopathological features, as well as the prognosis of bladder cancer patients."

Our news journalists obtained a quote from the research from Zhengzhou University, "T beta 4 protein expression in 24 normal bladder and 138 primary BTCC tissue specimens was detected by immunohistochemistry, and the association of this expression with BTCC clinicopathological features and recurrence as well as patient survival was analyzed. T beta 4 expression was significantly stronger in BTCC patients than in normal volunteers. The expression of T beta 4 was significantly associated with differentiation capability, tumor stage and lymph node metastasis (P = 0.025, 0.043, and 0.039, respectively). Moreover, T beta 4 expression was positively correlated with integrin-linked kinase (ILK) and (beta-catenin expression (P = 0.042, 0.031, respectively) and inversely correlated with E-cadherin expression (P = 0.022). In the present cohort of bladder cancer patients, T beta 4 expression was found to be a predictor of poor survival (P < 0.05); however, high T beta 4 expression exhibited unfavorable prognostic value for recurrence. These data suggested that T beta 4 is correlated with the pathogenesis of BTCC."

According to the news editors, the research concluded: "In addition, the patients with higher T beta 4 expression had a shorter survival."

For more information on this research see: Association of thymosin beta 4 expression with clinicopathological parameters and clinical outcomes of bladder cancer patients. Neoplasma, 2016;63(6):991-998. Neoplasma can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

The news correspondents report that additional information may be obtained from Z.Y. Wang, Zhengzhou Univ, Affiliated Hosp 1, Dept. of Urol, Zhengzhou, Henan Province, People's Republic of China. Additional authors for this research include W. Zhang, J.J. Yang, D.K. Song, J.X. Wei and S. Gao.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Peptide Proteins, Peptide Hormones, Thymus Hormones, Bladder Cancer, Thymosin, Oncology, Zhengzhou University.

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Cardiovascular Diseases and Conditions - Abdominal...

New Findings in Abdominal Aortic Aneurysm Described from Department of Vascular Surgery (Management of a dislocated endovascular aneurysm repair in a challenging giant abdominal aortic aneurysm)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm. According to news reporting originating in Turnhout, Belgium, by NewsRx journalists, research stated, "A case report of a contained rupture of an abdominal aneurysm, treated by endovascular technique (EVAR), but complicated by perioperative endoprosthesis limb dislocation. Case report An 81-year old male presented at the emergency department with a contained rupture of an infrarenal aortic aneurysm and bilateral extensive iliac aneurysmatic disease."
The news reporters obtained a quote from the research from the Department of Vascular Surgery, "Open repair was no option, due to the pulmonary condition. The patient was prepped for an emergency EVAR. After placing a bifurcated endoprosthesis, angiography revealed a type IIIa endoleak, due to a dislocation between two left iliac extensions. We converted to a right-sided aorto-uni-iliac endoprosthesis with a femorofemoral bypass. A postoperative CT-scan showed a complete exclusion of the aneurysm, a patent aorto-uni-iliac endoprosthesis and a femorofemoral bypass without an endoleak. EVAR is feasible with a hostile neck AAA, even in a ruptured AAA."

According to the news reporters, the research concluded: "In large AAA, one should consider an overlap larger than suggested in the instructions for use."


Our news correspondents report that additional information may be obtained by contacting J. Geers, Dept. of Vasc Surg, B-2300 Turnhout, Belgium. Additional authors for this research include G. Daenen and P. Stabel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/00015458.2015.1136487. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turnhout, Belgium, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Endoprosthesis, Cardiology, Angiology, Department of Vascular Surgery.

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**Drugs and Therapies - Antibiotics**

**New Findings in Antibiotics Described from Zagazig University**

[Phenolic extracts of clove (Syzygium aromaticum) with novel antioxidant and antibacterial activities]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antibiotics. According to news reporting originating in Zagazig, Egypt, by NewsRx journalists, research stated, "Clove (Syzygium aromaticum) is a rich source of bioactive compounds. The goal of this study was to test different extracts of clove in terms of their phenolic contents, their antioxidant potential and their antibacterial action against pathogenic bacteria."

The news reporters obtained a quote from the research from Zagazig University, "Ethyl acetate, ethanol (80%) and water were used to extract bioactive phytochemicals from clove. Recovered extracts were studied in terms of total phenolic compounds, total flavonoids, antioxidant properties and antibacterial activity. Scanning and transmission electron microscopy was applied to study the effect of ethanol extracts on the morphology and membranes of tested bacterial cells. Ethanol and water were the best solvents for extracting phenolics (ca. 230 mg GAE g(1) extract) but water was the best solvent for extracting flavonoids (17.5 mg QE g (1) extract). Antioxidant potential of clove extracts was estimated using DPPH center dot (1,1-
diphenyl-2 picrylhydrazyl), ABTS(center dot) + 2, 2'azino bis-(3-ethylbenzthiazoline-6-sulfonic acid), beta-carotene-linoleic bleaching assay and ferric reducing antioxidant power (FRAP). Ethanol and water extracts showed comparable antioxidant activity to the synthetic antioxidant tert-butylhydroquinone (TBHQ). The DPPH center dot radical quenching activity varied from 25.3 to 91.4%, while clove extracts showed ABTS(center dot)+ scavenging activities from 49.4 to 99.4%. Clove extracts inhibited the bleaching of beta-carotene wherein the order of decreasing activity was water > ethanol > ethyl acetate extracts as compared with TBHQ. Extracts showed strong antibacterial activities against Staphylococcus aureus ATCC 6538, Listeria monocytogenes Scott A, Salmonella enteritidis PT4, Serratia marcescens and Escherichia coli ATCC 8739. Clove extracts exhibited antibacterial activities against the growth of S. aureus and E. coli in concentration range from 50 to 100 μg/mL. The results indicated that the extracts with stronger antibacterial capacity also had higher phenolic content. Scanning and transmission electron microscopy showed that ethanol extract damaged the morphology and membranes of tested bacterial cells. Using cloves and their extracts in food or pharmaceutical products may be an effective antioxidant and antimicrobial control strategy."

According to the news reporters, the research concluded: "Data from this study might be used for developing natural preservatives and bioactive agents with health promoting activities."


Our news correspondents report that additional information may be obtained by contacting M.F. Ramadan, Zagazig Univ, Fac Agr, Dept. of Agr Biochem, Zagazig 44519, Egypt. Additional authors for this research include S.A. Mahgoub, S.M. Labib, A.M.A. Al-Gaby and M.F. Ramadan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.eujim.2016.02.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zagazig, Egypt, Africa, Antibacterial Agents, Drugs and Therapies, Biological Factors, Protective Agents, Antimicrobials, Ethanolamines, beta Carotene, Antioxidants, Carotenoids, Antibiotics, Alcohols, Zagazig University.

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Drugs and Therapies - Antihyperlipidemic Agents

New Findings in Antihyperlipidemic Agents Described from University of Arkansas [The Vitamin E Analog Gamma-Tocotrienol (GT3) and Statins Synergistically Up-Regulate Endothelial Thrombomodulin (TM)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antihyperlipidemic Agents have been presented. According to news reporting originating in Little Rock, Arkansas, by NewsRx
Journalists, research stated, "Statins; a class of routinely prescribed cholesterol-lowering drugs; inhibit 3-hydroxy-3-methylglutaryl-coenzymeA reductase (HMGCR) and strongly induce endothelial thrombomodulin™; which is known to have anti-inflammatory; anti-coagulation; anti-oxidant; and radioprotective properties. However; high-dose toxicity limits the clinical use of statins."

The news reporters obtained a quote from the research from the University of Arkansas, "The vitamin E family member gamma-tocotrienol (GT3) also suppresses HMGCR activity and induces TM expression without causing significant adverse side effects; even at high concentrations. To investigate the synergistic effect of statins and GT3 on TM; a low dose of atorvastatin and GT3 was used to treat human primary endothelial cells. Protein-level TM expression was measured by flow cytometry. TM functional activity was determined by activated protein C (APC) generation assay. Expression of Kruppel-like factor 2 (KLF2), one of the key transcription factors of TM, was measured by quantitative reverse transcription polymerase chain reaction (qRT-PCR). TM expression increased in a dose-dependent manner after both atorvastatin and GT3 treatment. A combined treatment of a low-dose of atorvastatin and GT3 synergistically up-regulated TM expression and functional activity. Finally; atorvastatin and GT3 synergistically increased KLF2 expression."

According to the news reporters, the research concluded: "These findings suggest that combined treatment of statins with GT3 may provide significant health benefits in treating a number of pathophysiological conditions; including inflammatory and cardiovascular diseases."

For more information on this research see: The Vitamin E Analog Gamma-Tocotrienol (GT3) and Statins Synergistically Up-Regulate Endothelial Thrombomodulin™, International Journal of Molecular Sciences. 2016;17(11):2445-2454. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting R. Pathak, University of Arkansas, Coll Pharm, Div Radiat Hlth, Little Rock, AR 72205, United States. Additional authors for this research include S.P. Ghosh, D. Zhou and M. Hauer-Jensen.

Keywords for this news article include: Little Rock, Arkansas, United States, North and Central America, Antihyperlipidemic Agents, Membrane Glycoproteins, Drugs and Therapies, Thrombin Receptors, Membrane Proteins, Thrombomodulin, Atorvastatin, Vitamin E, Angiology, Genetics, University of Arkansas.

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**Drugs and Therapies - Antimicrobial Agents and…**

**New Findings in Antimicrobial Agents and Chemotherapy Described from University of California (Fluconazole Susceptibility in Cryptococcus gattii Is Dependent on the ABC Transporter Pdr11)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antimicrobial Agents and Chemotherapy have been published. According to news reporting originating in Davis, California, by NewsRx journalists, research stated, "Cryptococcus gattii isolates from the Pacific Northwest have exhibited higher fluconazole MICs than isolates from other sites. The
The mechanism of fluconazole resistance in C. gattii is unknown.

The news reporters obtained a quote from the research from the University of California, "We sought to determine the role of the efflux pumps Mdr1 and Pdr11 in fluconazole susceptibility. Using biolistic transformation of the parent isolate, we created a strain lacking Mdr1 (mdr1D) and another strain lacking Pdr11 (pdr11D). Phenotypic virulence factors were assessed by standard methods (capsule size, melanin production, growth at 30 and 37 °C). Survival was assessed in an intranasal murine model of cryptococcosis. Antifungal MICs were determined by the M27-A3 methodology. No differences in key virulence phenotypic components were identified. Fluconazole susceptibility was unchanged in the Mdr1 knockout or reconstituted isolates. However, fluconazole MICs decreased from 32 mg/ml for the wild-type isolate to <0.03 mg/ml for the pdr11D strain and reverted to 32 mg/ml for the reconstituted strain. In murine models, no difference in virulence was observed between wild-type, knockout, or reconstituted isolates."

According to the news reporters, the research concluded: "Pdr11 plays an essential role in fluconazole susceptibility in C. gattii. Genomic and expression differences between resistant and susceptible C. gattii clinical isolates should be assessed further in order to identify other potential mechanisms of resistance."

For more information on this research see: Fluconazole Susceptibility in Cryptococcus gattii Is Dependent on the ABC Transporter Pdr11. Antimicrobial Agents and Chemotherapy, 2015;60(3):1202-7. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting A. Gelli, Dept. of Pharmacology, School of Medicine, University of California, Genome and Biomedical Sciences Facility, Davis, California, United States. Additional authors for this research include J. Uhrig, K. Vu, A. Singapur, M. Dennis, A. Gelli and G.R Thompson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01777-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antimicrobial Agents and Chemotherapy, Davis, Genetics, California, United States, Drugs and Therapies, North and Central America.

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Apoptosis

New Findings in Apoptosis Described from Medical University (Pax8 plays a pivotal role in regulation of cardiomyocyte growth and senescence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Apoptosis. According to news reporting originating from Wenzhou, People's Republic of China, by NewsRx correspondents, research stated, "Congenital heart disease (CHD) is a worldwide health problem, particularly in young populations. In spite of the advancement and progress in medical research and technology, the underlying causative factors and mechanisms of CHD still remain unclear."

Financial supporters for this research include National Natural Science Foundation of China, Wenzhou Science and Technology Project.
Our news editors obtained a quote from the research from Medical University, "Bone morphogenetic protein receptor IA (ALK3) mediates the development of ventricular septal defect (VSD). We have recently found that paired box gene 8 (Pax8) may be the downstream molecule of ALK3. Paired box gene 8 plays an essential role in VSD, and apoptosis and proliferation imbalance leads to septal dysplasia. Recent studies have also disclosed that cellular senescence also participates in embryonic development. Whether programmed senescence exists in cardiac organogenesis has not ever been reported. We hypothesized that together with various biological processes, such as apoptosis, enhanced cellular senescence may occur actively in the development of Pax8 null mice murine hearts. In H9C2 myogenic cells, Pax8 overexpression can rescue caspase-dependent apoptosis induced by ALK3 silencing. Senescent cells and senescence-associated mediators in Pax8 knockout hearts increased compared with the wild-type ones in an age-dependent manner."

According to the news editors, the research concluded: "These results suggest that Pax8 maybe the downstream molecule of ALK3, it mediates the murine heart development perhaps via cellular senescence, which may serve as a mechanism that compensates for the cell loss via apoptosis in heart development."


The news editors report that additional information may be obtained by contacting Y. Wu, Division of Cardiology, The First Affiliated Hospital of Wenzhou Medical University, Wenzhou, People's Republic of China. Additional authors for this research include X. Zhou, X. Huang, Q. Xia, Z. Chen, X. Zhang, D. Yang and Y.J Geng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jcmm.12779. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *Journal of Cellular and Molecular Medicine* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Wenzhou, Apoptosis, Cardiology, Cardiomyocyte, People's Republic of China.

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Cardiovascular Diseases and Conditions -...

New Findings in Atherosclerosis Described from Free University (The relationship between vitamin K and peripheral arterial disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Atherosclerosis is now available. According to news originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "A high dietary intake of vitamin K1 (phylloquinone) and vitamin K2 (menaquinones) is thought to decrease cardiovascular disease risk by reducing vascular calcification. The objective of this study is to explore if there is a relationship between
phyllloquinone and menaquinones intake and risk of PAD."

Our news journalists obtained a quote from the research from Free University, "We investigated the association between intake of phylloquinone and menaquinones with PAD in a prospective cohort with 36,629 participants. Occurrence of PAD was obtained by linkage to national registries. Baseline intake of phylloquinone and menaquinones was estimated using a validated food-frequency questionnaire. Multivariate Cox regression was used to estimate adjusted hazard ratio's for the association. During 12.1 years (standard deviation 2.1 years) of follow-up, 489 incident cases of PAD were documented. Menaquinones intake was associated with a reduced risk of PAD with a hazard ratio (HR) of 0.71, 95% CI; 0.53-0.95 for the highest versus lowest quartile. A stronger association was observed (p interaction 0.0001) in participants with hypertension (HRQ4 versus (Q1) 0.59; 95% CI 0.39-0.87) or diabetes (HRQ4 versus (Q1) 0.56; 95% CI 0.18-1.91), though confidence intervals were wide in the small (n = 530) diabetes stratum. Phylloquinone intake was not associated with PAD risk. High intake of menaquinones was associated with a reduced risk of PAD, at least in hypertensive participants."

According to the news editors, the research concluded: "High intake of phylloquinone was not associated with a reduced risk of PAD."

For more information on this research see: The relationship between vitamin K and peripheral arterial disease. Atherosclerosis, 2016;252():15-20. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news correspondents report that additional information may be obtained from J.W.J. Beulens, Vrije Univ Amsterdam Med Center, Dept. of Epidemiol & Biostat, Amsterdam, Netherlands. Additional authors for this research include G.W. Dalmeijer, J.M.A. Boer, W.M.M. Verschuren, Y.T. van der Schouw and J.W.J. Beulens.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.915. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Atherosclerosis, Cardiovascular Diseases and Conditions, Risk and Prevention, Free University.

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Heart Disorders and Diseases - Atrial Fibrillation

New Findings in Atrial Fibrillation Described from Southlake Regional Health Center (Predictors for Progression of Atrial Fibrillation in Patients Awaiting Atrial Fibrillation Ablation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting originating from Newmarket, Canada, by NewsRx correspondents, research stated, "Success rates of atrial fibrillation (AF) ablation have been shown to be significantly lower for patients with persistent AF. However, little is known about the risk factors predicting progression to persistent AF in patients awaiting AF ablation."

Our news editors obtained a quote from the research from Southlake Regional Health Center.

According to the news editors, the research concluded: "High intake of phylloquinone was not associated with a reduced risk of PAD."

For more information on this research see: The relationship between vitamin K and peripheral arterial disease. Atherosclerosis, 2016;252():15-20. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news correspondents report that additional information may be obtained from J.W.J. Beulens, Vrije Univ Amsterdam Med Center, Dept. of Epidemiol & Biostat, Amsterdam, Netherlands. Additional authors for this research include G.W. Dalmeijer, J.M.A. Boer, W.M.M. Verschuren, Y.T. van der Schouw and J.W.J. Beulens.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.915. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Atherosclerosis, Cardiovascular Diseases and Conditions, Risk and Prevention, Free University.

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Center, "We performed a retrospective, single-centre investigation of patients with paroxysmal AF at the time of placement on the ablation waiting list. Patients were defined as having progressed if they had developed self-reported or electrocardiogram-recorded AF durations more than 7 days while awaiting ablation. After ablation, clinical visits at 3, 6, 9, 12, and 18 months were performed with a minimum of a 48-hour-Holter and electrocardiogram. Baseline characteristics including left atrial diameter (LA) and the HATCH score were analyzed by univariable and multivariable analysis for predicting progression to persistent AF. During a median waiting time of 9.7 (6.1, 14.2) months, 60 of 564 patients (11%) progressed to persistent AF. In patients who progressed, ablation took longer (180 [150, 249] minutes vs 157 [125, 210] minutes; P = 0.009) and was associated with a higher rate of recurrence after a median of 12 months (53.3% vs 39.1%; P< 0.001). The HATCH score was a poor predictor of AF progression (area under the curve 0.54), whereas an LA diameter of more than 45 mm (odds ratio 3.46, P< 0.001) and heart failure (odds ratio 3.11, P = 0.036) were strong and independent predictors of AF progression in multivariable analysis. Patients with an increased LA diameter or heart failure have a significantly increased risk of progression to persistent AF."

According to the news editors, the research concluded: "These characteristics may define patients who should undergo earlier catheter ablation to optimize outcome."


The news editors report that additional information may be obtained by contacting A. Verma, Southlake Reg Hlth Center, Newmarket, ON L3Y 2P6, Canada. Additional authors for this research include D.G. Dechering, K. Trought, P. Hache, T. Haig-Carter, Y. Khaykin, Z. Wulffhart, A. Pantano, B. Tsang, L. Eckardt and A. Verma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.02.031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Newmarket, Ontario, Canada, North and Central America, Atrial Fibrillation, Risk and Prevention, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiac Arrhythmias, Heart Failure, Heart Disease, Cardiology, Southlake Regional Health Center.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**New Findings in Atrial Fibrillation Described from University of Maryland (Diltiazem versus metoprolol for rate control in atrial fibrillation with rapid ventricular response in the emergency department)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Atrial Fibrillation are presented in a new report. According to news reporting originating from Baltimore, Maryland,
by NewsRx correspondents, research stated, "The impact of patient-specific factors on the choice of beta-blocker versus calcium channel blocker therapy for rate control in emergency department (ED) patients treated for atrial fibrillation (AF) was investigated. A retrospective cohort study was conducted to evaluate the influence of demographics, prior medication use, hemodynamic and clinical characteristics, and other variables on selection of first-line therapy for AF among patients admitted to the ED of an academic medical center over a 22-month period (October 2012-July 2014) who received i.v. treatment with either the beta-blocker metoprolol (n = 45) or the calcium channel blocker diltiazem (n = 55) for rate control."

Our news editors obtained a quote from the research from the University of Maryland, "Significant predictors of the selection of metoprolol versus diltiazem included a past history of AF (odds ratio [OR], 8.3; 95% confidence interval [CI], 1.396-72.713; p = 0.032) or diabetes mellitus (OR, 7.2; 95% CI, 1.208-58.490; p = 0.042) and being prescribed a beta-blocker prior to presentation (OR, 27.8; 95% CI, 4.704-272.894; p = 0.001); a history of calcium channel blocker use prior to ED presentation was a negative predictor of beta-blocker use for initial rate control (OR, 0.1; 95% CI, 0.005-0.265; p = 0.002). No differences in the effectiveness or safety of diltiazem and metoprolol were identified. Indicators of hemodynamic and clinical response to ED management were not predictive of discharge medication selection."

According to the news editors, the research concluded: "The drug class used for rate control prior to ED admission was the most significant predictor of medication selection for rate control in the ED setting."

For more information on this research see: Diltiazem versus metoprolol for rate control in atrial fibrillation with rapid ventricular response in the emergency department. American Journal of Health-System Pharmacy, 2016;73(24):2068-2076. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting M.C. Hines, University of Maryland, Medical Center, Dept. of Pharm Serv, Baltimore, MD 21201, United States. Additional authors for this research include B.N. Reed, V. Ivaturi, L.J. Bontempo, M.C. Bond and B.D. Hayes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp160126. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Beta-Adrenergic Blocking Agents, Calcium Channel Blocking Agents, Heart Disorders and Diseases, Cardiology, Epidemiology, Group IV Antiarrhythmics, Phenoxypropanolamines, Antiarrhythmic Agents, Cardiovascular Agents, Atrial Fibrillation, Drugs and Therapies, Cardiac Arrhythmias, Metoprolol Therapy, Vasodilator Agents, Membrane Proteins, Organic Chemicals, Diltiazem Therapy, Calcium Channels, Carrier Proteins, Antihypertensive, Adrenergic Agent, Amino Alcohols, Propanolamines, Sympatholytic, Heart Disease, Ion Channels, University of Maryland.

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New Findings in Biotherapies and Biologicals Described by M. Beck and Co-Researchers (Rheumatologists' Perceptions of Biosimilar Medicines Prescription: Findings from a French Web-Based Survey)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Biotherapies and Biologicals have been published. According to news originating from Strasbourg, France, by NewsRx correspondents, research stated, "Healthcare cost savings are closely linked to prescribers' confidence in and acceptance of the prescription of biosimilar drugs. The aim of this study was to assess the knowledge, experience and opinions of hospital-based and office-based French rheumatologists with regard to biosimilar medicines and to identify the barriers to and possible options to promote their prescription."

Our news journalists obtained a quote from the research, "A web-based, self-administered survey was conducted among French rheumatologists from June 8 to August 2, 2015. A total of 116 rheumatologists responded to the survey. Many reported having little knowledge and a lack of available information about biosimilar drugs, especially office-based rheumatologists. 98.3% of the respondents had at least one question about biosimilars, and seven in ten raised issues regarding substitution, iatrogenic effects or cost savings that might be achievable. Only eight rheumatologists had already prescribed a biosimilar drug. The most common barriers reported were indication extrapolation and a lack of data about tolerability. Nine out of ten physicians thought that starting a treatment with a biosimilar drug in biologic treatment-naïve patients was possible. The rheumatologists' opinions were rather favorable towards the implementation of biosimilars, but a majority expressed a negative opinion about substitution by the pharmacist. Our survey gave a better appreciation of the concerns associated with biosimilar prescriptions."

According to the news editors, the research concluded: "Targeted communication initiatives, deeper experience and availability of new clinical data may help to address the outstanding questions and should overcome the misunderstandings surrounding biosimilar drugs among rheumatologists."


The news correspondents report that additional information may be obtained from M. Beck, OMEDIT Alsace, Agence Reg Sante Alsace Champagne Ardenne, F-67084 Strasbourg, France. Additional authors for this research include B. Michel, M.C. Rybarczyk-Vigouret, D. Leveque, C. Sordet, J. Sibilia and M. Velten.

Keywords for this news article include: Strasbourg, France, Europe, Biotherapies and Biologicals, Drugs and Therapies.

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New Findings in Bisphosphonates Described from Keio University (Ibandronate concomitantly blocks immobilization-induced bone and muscle atrophy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Bisphosphonates is the subject of a report. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Both bone and muscle volume is concomitantly reduced under immobilization conditions; however, no single drug is currently available to block these outcomes simultaneously. Bisphosphonates are utilized clinically to inhibit osteoclast-dependent bone resorption, but their effects on muscle are largely unknown."

Financial supporters for this research include Japan Agency for Medical Research and Development, Grant-in-aid for Scientific Research, Translational Research Network Program, Chugai pharmaceutical company.

The news correspondents obtained a quote from the research from Keio University, "Here we show that skeletal muscle is a direct target of the bisphosphonate ibandronate (IBN) and that reduced muscle volume and induction of Atrogin-1 and MuRF1, both atrogienes, are significantly inhibited by IBN administration in vivo using a mouse model of muscle atrophy. IBN treatment also significantly blocked immobilization-induced bone loss in vivo. We also report that expression of Atrogin-1 and MuRF1 and accumulation of Smad2/3 proteins, which are upstream of atrogienes, occurred following serum starvation of myogenic C2C12 cells in vitro, effects significantly inhibited by IBN treatment. Interestingly, IBN effects on C2C12 cells were abrogated by MG132, an ubiquitin/proteasome inhibitor, suggesting that IBN functions via the ubiquitin-proteasome system."

According to the news reporters, the research concluded: "Our findings lend new insight into the role of IBN in preventing muscle atrophy."

For more information on this research see: Ibandronate concomitantly blocks immobilization-induced bone and muscle atrophy. Biochemical and Biophysical Research Communications, 2016;480(4):662-668. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting T. Miyamoto, Keio University, Sch Med, Dept. of Adv Therapy Musculoskeletal Disorders, Shinjuku Ku, Tokyo 1608582, Japan. Additional authors for this research include N. Fujita, S. Takeda, Y. Sato, T. Kobayashi, M. Morita, T. Oike, K. Miyamoto, Y. Matsumoto, M. Matsumoto, M. Nakamura and T. Miyamoto.

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Keywords for this news article include: Tokyo, Japan, Asia, Drugs and Therapies, Ibandronate Therapy, Antihypocalcemic, Bisphosphonates, Antiresorptive, Bone Research, Hormones, Keio University.

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New Findings in Bladder Cancer Described from University of Turin (H2AX Phosphorylation Level in Peripheral Blood Mononuclear Cells as an Event-Free Survival Predictor for Bladder Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Bladder Cancer are discussed in a new report. According to news reporting originating in Turin, Italy, by NewsRx journalists, research stated, "Bladder cancer (BC) has a typical aetiology characterized by a multistep carcinogenesis due to environmental exposures, genetic susceptibility, and their interaction. Several lines of evidence suggest that DNA repair plays a role in the development and progression of BC."

The news reporters obtained a quote from the research from the University of Turin, "In particular, the study of individual susceptibility to DNA double strand breaks (DSBs) may provide valuable information on BC risk, and help to identify those patients at high-risk of either recurrence or progression of the disease, possibly personalizing both surveillance and treatment. Among the different DSB markers, the most well characterized is phosphorylation of the histone H2AX (gamma-H2AX). We assessed any potential role of gamma-H2AX as a molecular biomarker in a case-control study (146 cases and 146 controls) to identify individuals with increased BC risk and at high-risk of disease recurrence or progression. We investigated gamma-H2AX levels in peripheral blood mononuclear cells before and after their exposure to ionizing radiation (IR). We did not find any significant difference among cases and controls. However, we observed a significant association between gamma-H2AX basal levels and risk of disease recurrence or progression. In particular, both BC patients as a whole and the subgroup of non-muscle invasive BC (NMIBC) with high basal H2AX phosphorylation levels had a decreased risk of recurrence or progression (for all BC HR 0.70, 95% CI 0.52-0.94, P = 0.02; for NMIBC HR 0.68, 95% CI 0.50-0.92, P = 0.01), suggesting a protective effect of basal DSB signaling."

According to the news reporters, the research concluded: "Our data suggest that gamma-H2AX can be considered as a potential molecular biomarker to identify patients with a higher risk of BC recurrence."


Our news correspondents report that additional information may be obtained by contacting V. Turinetto, University of Turin, Dept. of Clin & Biol Sci, Turin, Italy. Additional authors for this research include B. Pardini, A. Allione, G. Fiorito, C. Viberti, S. Guarrera, A. Russo, S. Anglesio, M.G.R. Redda, G. Casetta, G. Cucchiarale, P. Destefanis, M. Oderda, P. Gontero, L. Rolle, B. Frea, P. Vineis, C. Sacerdote, C. Giachino and .

Keywords for this news article include: Turin, Italy, Europe, Cancer, Diagnostics and Screening, Risk and Prevention, Epidemiology, Bladder Cancer, Oncology, Genetics, University of Turin.
New Findings in Blood Transfusion Described from University of Newcastle (Association of Cortical Vein Filling with Clot Location and Clinical Outcomes in Acute Ischaemic Stroke Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Transfusion Medicine - Blood Transfusion have been presented. According to news originating from Callaghan, Australia, by NewsRx correspondents, research stated, "Delay in cortical vein filling during the late-venous phase (delayed-LCVF) is characterized by opacification of cerebral veins despite contrast clearance from contralateral veins on dynamic computed tomography angiography (dCTA) in acute ischemic stroke (AIS) patients. The aim of the study was to investigate the associations of delayed-LCVF with clot location, reperfusion status at 24 hours, and 90-days functional outcome in AIS patients who received reperfusion therapy."

Our news journalists obtained a quote from the research from the University of Newcastle, "A prospective cohort of AIS patients treated with intravenous thrombolysis was studied. Groupwise comparison, univariate, and multivariate regression analyses were used to study the association of delayed-LCVF with clot location and clinical outcomes. Of 93 patients (mean age = 72 +/- 12 years) with hemispheric AIS included in the study, 46 (49%) demonstrated delayed-LCVF. Patients with delayed-LCVF demonstrated a significantly higher proportion of proximal occlusion (72% vs 13%, P =<0.0001), and poor reperfusion at 24 hours (41% vs 11%, P = 0.001). The proportion of poor functional outcome at 90 days was not significantly different (22/56 (48%) vs 17/61 (36%), P = 0.297)."

According to the news editors, the research concluded: "The appearance of delayed-LCVF on baseline dCTA may be a surrogate for large vessel occlusion, and an early marker for poor 24-hour angiographic reperfusion."


The news correspondents report that additional information may be obtained from S. Bhaskar, University of Newcastle, Hunter Med Res Inst, Callaghan, NSW, Australia. Additional authors for this research include A. Bivard, P. Stanwell, J.R. Attia, M. Parsons, M. Nilsson and C. Levi.

Keywords for this news article include: Callaghan, Australia, Australia and New Zealand, Transfusion Medicine, Blood Transfusion, Medical Devices, Reperfusion, Cardiology, Angiology, University of Newcastle.

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New Findings in Bradycardia Described from Shanghai Jiao-Tong University (Potential Role of Regulator of G-Protein Signaling 5 in the Protection of Vagal-Related Bradycardia and Atrial Tachyarrhythmia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Bradycardia. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "The regulator of G-protein signaling 5 (Rgs5), which functions as the regulator of G-protein-coupled receptor (GPCR) including muscarinic receptors, has a potential effect on atrial muscarinic receptor-activated IKACH current. In the present study, hearts of Rgs5 knockout (KO) mice had decreased low-frequency/high-frequency ratio in spectral measures of heart rate variability."

The news reporters obtained a quote from the research from Shanghai Jiao-Tong University, "Loss of Rgs5 provoked dramatically exaggerated bradycardia and significantly (p <0.05) prolonged sinus nodal recovery time in response to carbachol (0.1?mg/kg, intraperitoneally). Compared to those from wild-type (WT) mice, Langendorff perfused hearts from Rgs5 KO mice had significantly (p <0.01) abbreviated atrial effective refractory periods and increased dominant frequency after administration of acetylcholine (ACh; 1?mmol/L). In addition, whole patch clamp analyses of single atrial myocytes revealed that the ACh-regulated potassium current (IKACH) was significant increased in the time course of activation and deactivation (p <0.01) in Rgs5 KO, compared to those in WT, mice. To further determine the effect of Rgs5, transgenic mice with cardiac-specific overexpression of human Rgs5 were found to be resistant to ACh-related effects in bradycardia, atrial electrophysiology, and atrial tachyarrhythmia (AT)."

According to the news reporters, the research concluded: "The results of this study indicate that, as a critical regulator of parasympathetic activation in the heart, Rgs5 prevents vagal-related bradycardia and AT through negatively regulating the IKACH current."


Our news correspondents report that additional information may be obtained by contacting M. Qin, Dept. of Cardiology, Shanghai Chest Hospital Affiliated to Shanghai Jiaotong University, Shanghai, People's Republic of China. Additional authors for this research include X. Liu, T. Liu, T. Wang and C. Huang.

Keywords for this news article include: Asia, Shanghai, Genetics, Cardiology, Bradycardia, Tachycardia, Heart Disease, Cardiac Arrhythmias, People's Republic of China, Heart Disorders and Diseases.

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Oncology - Breast Cancer

New Findings in Breast Cancer Described from University of Kentucky (An approach for deciphering patient-specific variations with application to breast cancer molecular expression profiles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting out of Lexington, Kentucky, by NewsRx editors, research stated, "Several studies have successfully used molecular expression profiling in conjunction with classification techniques for discerning distinct disease groups. However, a majority of these studies do not provide sufficient insights into potential patient-specific variations within the disease groups."

Our news journalists obtained a quote from the research from the University of Kentucky, "Such variations are ubiquitous and manifests across multiple scales with varying resolution. There is an urgent need for novel approaches that falls within the objective of precision medicine and provide novel insights into patient-specific variations and sub-populations within disease groups while discerning the disease groups of interest so as to enable timely and targeted intervention of select subjects. This study presents a selective-voting ensemble classification approach (SVA) for discerning good and poor-prognosis breast cancer samples from their 70-gene molecular expression profile revealing patient-specific variations within the poor-prognosis group. In contrast to traditional classification, SVA adapts the feature sets in a sample-specific manner capturing the proclivity of the samples to each of the disease groups. Correlation between normalized vote counts from SVA and clinical outcomes of the subjects is elucidated. Performance of Support Vector Machine and Naive Bayes classifier is investigated within the WA framework and compared to established clinical criteria (Nottingham Prognostic Index, Adjuvant Online, St. Gallen) and Mammaprint approach. Weighted undirected graph abstractions of the ensemble sets of the poor-prognosis test samples is also shown to exhibit markedly different topologies with varying proclivities."

According to the news editors, the research concluded: "These patient-specific networks may reflect inherent variations in underlying signaling mechanisms in the poor-prognosis subjects and reveal potential targets for personalized therapeutic intervention."


Our news journalists report that additional information may be obtained by contacting R. Nagarajan, University of Kentucky, Coll Med, Div Biomed Informat, Lexington, KY 40536, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jbi.2016.07.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lexington, Kentucky, United States, North and Central America, Women's Health, Breast Cancer, Oncology, University of Kentucky.

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New Findings in Carcinomas Described from Institute for Cancer Research and Treatment (IRCCS) (A phase II study of sorafenib in recurrent and/or metastatic salivary gland carcinomas: Translational analyses and clinical impact)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Carcinomas. According to news reporting out of Milan, Italy, by NewsRx editors, research stated, "Pre-clinical and clinical evidence suggests a rationale for the use of anti-angiogenic agents, including sorafenib, in recurrent and/or metastatic salivary gland carcinomas (RMSGCs). This study evaluates the activity of sorafenib in patients with RMSGCs and also investigates whether the activity of sorafenib could be related to its main tailored targets (i.e."

Our news journalists obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "BRAF, vascular endothelial growth factor receptor 2 [VEGFR2], platelet-derived growth factor receptor a [PDGFR alpha] and beta, RET, KIT). Patients received sorafenib at 400 mg BID. The primary end-point was response rate (RR) including complete response or partial response (PR); secondary endpoints included RR according to Choi criteria, disease control rate (DCR), overall survival (OS), and progression-free survival (PFS). Thirty-seven patients (19 adenoid cystic cancers, ACC) were enrolled. Six PRs were recorded. RR was 16% (95% confidence interval [CI]: 6-32; 11% in ACC and 22% in non-ACC). Choi criteria could be applied in 30 out of 37 cases with a RR of 50% (95% CI: 31-69%); DCR was 76% (95% CI: 59-88%). Incidence of >= G3 adverse events was 29.7%. Median PFS and OS for the entire population were 5.9 months and 23.4 months, respectively. Median PFS and OS were 8.9 and 26.4 months for ACC versus 4.2 and 12.3 months for non-ACC patients. All the cases showed expression of PDGFR beta in the stroma and VEGFR2 in endothelial cells; PDGFR alpha positivity was found in the stroma of four (27%) cases. All except for two cases showed no PDGFR beta, VEGFR2 and PDGFR alpha expression in the tumour cells. KIT expression was restricted to ACC and a weak RET expression was limited to one adenocarcinoma, not otherwise specified (NOS). No BRAF mutation was found. No correlation was observed between the sorafenib activity and the expression of its markers although all six responders (two ACC, one adenocarcinoma, NOS, one salivary duct cancer [SDC], one high-grade mucoepidermoid [HG-MEC] and one poorly-differentiated cancer) are enriched in the stromal component showing a PDGFR beta immunodecoration. In ACCs, immunohistochemistry revealed MYB protein expression in 15/16 cases (94%) and the MYB-NFIB fusion oncogene was observed in 9/14 (64%). Sorafenib is the first anti-angiogenic agent to demonstrate activity in RMSGC patients, particularly in some histotypes such as HG-MEC, SDC and adenocarcinoma, NOS."

According to the news editors, the research concluded: "The PDGFRb-positive rich stromal component characterising these histotypes and the lack of correlation between the activity of sorafenib and its targets suggests anti-angiogenic effect as the prevalent mechanism of action of sorafenib in SGCs."

For more information on this research see: A phase II study of sorafenib in recurrent and/or metastatic salivary gland carcinomas: Translational analyses and clinical impact. European Journal of Cancer, 2016;69():158-165. European Journal of Cancer can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; European Journal of Cancer -
Our news journalists report that additional information may be obtained by contacting L.D. Locati, Fdn IRCCS Ist Nazl Tumori, Head & Neck Med Oncol Unit, I-20133 Milan, Italy. Additional authors for this research include F. Perrone, B. Cortelazzi, C. Bergamini, P. Bossi, E. Civelli, C. Morosi, S. Lo Vullo, M. Imbimbo, P. Quattrone, G.P. Dagrada, R. Granata, C. Resteghini, A. Mirabile, S. Alfieri, E. Orlandi, L. Mariani, G. Saibene and Pilotti.

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Keywords for this news article include: Milan, Italy, Europe, Clinical Trials and Studies, Clinical Research, Adenocarcinoma, Angiogenesis, Carcinomas, Genetics, Oncology, Institute for Cancer Research and Treatment (IRCCS).

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Oncology - Carcinomas

New Findings in Carcinomas Described from Tom Baker Cancer Center (Repurposing Sunitinib with Oncolytic Reovirus as a Novel Immunotherapeutic Strategy for Renal Cell Carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Carcinomas. According to news reporting originating from Calgary, Canada, by NewsRx correspondents, research stated, "In addition to their direct cytopathic effects, oncolytic viruses are capable of priming antitumor immune responses. However, strategies to enhance the immunotherapeutic potential of these agents are lacking."

Our news editors obtained a quote from the research from Tom Baker Cancer Center, "Here, we investigated the ability of the multi-tyrosine kinase inhibitor and first-line metastatic renal cell carcinoma (RCC) agent, sunitinib, to augment the antitumor immune response generated by oncolytic reovirus. In vitro, oncolysis and chemokine production were assessed in a panel of human and murine RCC cell lines after exposure to reovirus, sunitinib, or their combination. In vivo, the RENCA syngeneic murine model of RCC was employed to determine therapeutic and tumor-specific immune responses after treatment with reovirus (intratumoral), sunitinib, or their combination. Parallel investigations employing the KLN205 syngeneic murine model of lung squamous cell carcinoma (NSCLC) were conducted for further validation.

Reovirus-mediated oncolysis and chemokine production was observed following RCC infection. Reovirus monotherapy reduced tumor burden and was capable of generating a systemic adaptive antitumor immune response evidenced by increased numbers of tumor-specific CD8(+) IFN gamma-producing cells. Coadministration of sunitinib with reovirus further reduced tumor burden resulting in improved survival, decreased accumulation of immune suppressor cells, and the establishment of protective immunity upon tumor rechallenge. Similar results were observed for KLN205 tumor-bearing mice, highlighting the potential broad applicability of this approach."

According to the news editors, the research concluded: "The ability to repurpose sunitinib for augmentation of reovirus' immunotherapeutic efficacy positions this novel
combination therapy as an attractive strategy ready for clinical testing against a range of histologies, including RCC and NSCLC."

For more information on this research see: Repurposing Sunitinib with Oncolytic Reovirus as a Novel Immunotherapeutic Strategy for Renal Cell Carcinoma. *Clinical Cancer Research*, 2016;22(23):5839-5850. *Clinical Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

The news editors report that additional information may be obtained by contacting D.G. Morris, Tom Baker Canc Clin, Calgary, AB T2N 4N2, Canada. Additional authors for this research include A.A. Mostafa, Z.Q. Shi, J. Spurrell, W.Q. Chen, J. Kawakami, K. Gratton, S. Thakur and D.G. Morris.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-16-0143. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Calgary, Alberta, Canada, North and Central America, Tyrosine Kinase Inhibitors, VEGF - VEGFR Inhibitors, Inflammation Mediators, Multikinase Inhibitors, Renal Cell Carcinoma, Drugs and Therapies, Biological Factors, VEGFR Inhibitors, Antineoplastics, Nephrology, Chemokines, Carcinomas, Sunitinib, Virology, Reovirus, Oncology, Kidney, Viral, Tom Baker Cancer Center.

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**Cardiology**

**New Findings in Cardiology Described from Henry Ford Hospital**

*(Outcomes on Continuous Flow Left Ventricular Assist Devices: A Single Institutional 9-Year Experience)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting originating from Detroit, Michigan, by NewsRx correspondents, research stated, "Continuous-flow left ventricular assist devices (LVADs) have become the standard of care for patients with advanced heart failure. The goal of this study was to review our 9-year institutional experience."

Our news editors obtained a quote from the research from Henry Ford Hospital, "From March 2006 through May 2015, 231 patients underwent implantation of 240 CF LVADs, HeartMate II LVAD (Thoratec Corp., Pleasanton, CA; n=205) or HVAD (HeartWare Inc., Framingham, MA; n=35). Of these, 127 devices (52.9%) were implanted as bridge to transplantation (BTT) and 113 (47.1%) as destination therapy (DT). Mean age was 51.2 +/- 11.9 years for BTT patients and 58.2 +/- 11.4 years for DT patients (p < 0.001). There was a higher incidence of preoperative diabetes, renal insufficiency, peripheral vascular disease, and previous cardiac operation in DT patients (p < 0.05). Survival was higher for BTT patients, with 1-, 6-, 12-, and 24-month survivals of 91.0%, 90.0%, 88.5%, and 72.1%, respectively, versus 85.3%, 81.1%, 75.6%, and 59.0%, respectively, for DT patients (p=0.038). Gastrointestinal bleeding was the most common complication (29.6%), followed by right ventricular failure (22.5%) and stroke (15.0%), with a similar incidence for BTT and DT patients. Preoperative liver biopsy
(hazard ratio [HR] 2.27, p=0.036), mechanical support (HR 1.82, p=0.025), aspartate transaminase (HR 1.07, p=0.001), and alanine aminotransferase (HR 0.95, p=0.024) were severe independent predictors of survival in multivariate analysis. These data indicate excellent survival for BTT and DT patients on long-term LVAD support."

According to the news editors, the research concluded: "However, for LVAD therapy to become a plausible alternative to heart transplantation, we need to further decrease the incidence of postoperative complications."


The news editors report that additional information may be obtained by contacting J.A. Morgan, Henry Ford Hospital, Inst Heart & Vasc, Div Cardiothorac Surg, Detroit, MI 48202, United States. Additional authors for this research include P.H. Go, L. Xuereb, B. Kaur, S. Akrawe, H.W. Nemeh, J. Borgi, D.E. Lanfear, C.T. Williams and G. Paone.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.03.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Left Ventricular Assist Device, Medical Devices, Cardiology, Henry Ford Hospital.

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Drugs and Therapies - Central Nervous System Agents

New Findings in Central Nervous System Agents Described from University of Rey Juan Carlos (Time Trend in Psychotropic Medication Use in Spain: A Nationwide Population-Based Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Central Nervous System Agents have been presented. According to news reporting originating from Alcorcon, Spain, by NewsRx correspondents, research stated, "We performed an epidemiologic study to analyze nationwide time trends in adult psychotropic drug use over a period from 2006 to 2012, and to identify those factors associated with the likelihood of consumption of these drugs during the study period; Methods: Cross-sectional study on psychotropic medication in the Spanish adult population. We used secondary individualized data drawn from the 2006 and 2012 Spanish National Health Surveys (SNHS)."

Our news editors obtained a quote from the research from the University of Rey Juan Carlos, "The dependent variable was the use of psychotropic drugs in the previous two weeks. Independent variables included socio-demographic characteristics, comorbidity, lifestyles and healthcare resource utilization. Using logistic multivariate regression models, we analyzed the temporal evolution of psychotropic medication consumption between 2006 and 2012 in both sexes; Results: The prevalence of psychotropic drug use was significantly greater in women
In Spanish women, the variables associated with a greater probability of psychotropic use were, age, unemployment (adjusted odds ratio (AOR), 1.60; 95% CI, 1.24-2.07), negative perception of health or taking non-psychotropic drugs. Among men, psychotropic use is associated with presence of chronic disease, negative perception of health (AOR, 3.27; 95% CI, 2.62-4.07 in 2012) or inactive status; Conclusions: Between 2006 and 2012, the probability of having taken psychotropic drugs increased by 16% among women. Unemployed women aged >= 45 years with a negative perception of their health constitute a clear risk profile in terms of psychotropic drug use."

According to the news editors, the research concluded: "Inactive men who have a negative perception of their health are the group most likely to consume psychotropic drugs."


The news editors report that additional information may be obtained by contacting P. Carrasco-Garrido, Rey Juan Carlos Univ, Fac Hlth Sci, Prevent Med & Public Hlth Teaching & Res Unit, Alcorcon 28922, Spain. Additional authors for this research include V. Hernandez-Barrera, I. Jimenez-Trujillo, J. Esteban-Hernandez, A. Alvaro-Meca, A. Lopez-de Andres, J.L. Del Barrio-Fernandez and R. Jimenez-Garcia.

Keywords for this news article include: Alcorcon, Spain, Europe, Drugs and Therapies, Epidemiology, Central Nervous System Agents, Psychotropic Drugs, University of Rey Juan Carlos.

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**Drugs and Therapies - Chemotherapy**

**New Findings in Chemotherapy Described from University of California (Posaconazole Plasma Concentrations on Days Three to Five Predict Steady-State Levels)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Chemotherapy have been published. According to news reporting originating from San Diego, California, by NewsRx correspondents, research stated, "Low posaconazole plasma concentrations (PPCs) have been associated with breakthrough invasive fungal infections."

Funders for this research include Merck Investigator Studies Program, Oesterreichische Nationalbank (OeNB).

Our news editors obtained a quote from the research from the University of California, "We assessed the correlation between pre-steady-state PPCs (obtained between days 3 and 5) and PPCs obtained during steady state in 48 patients with underlying hematological malignancies receiving posaconazole oral-solution prophylaxis. Pre-steady-state PPCs correlated significantly with PPCs obtained at steady state (Spearman r = 0.754; P< 0.001)."

According to the news editors, the research concluded: "Receiver operating characteristic (ROC) curve analysis of pre-steady-state PPCs revealed an area under the curve (AUC) of 0.884 (95% confidence interval [CI], 0.790 to 0.977) for predicting satisfactory PPCs..."
at steady state."

For more information on this research see: Posaconazole Plasma Concentrations on Days Three to Five Predict Steady-State Levels. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5595-5599. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting M. Hoenigl, University of California, Div Infect Dis, Dept. of Med, San Diego, CA, United States. Additional authors for this research include W. Duettmann and M. Hoenigl.

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Keywords for this news article include: San Diego, California, United States, North and Central America, Chemotherapy, Drugs and Therapies, University of California.

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**Digestive System Diseases and Conditions -...**

**New Findings in Cholangitis Described from Capital Medical University**

(A multicenter, randomized, double-blind trial comparing the efficacy and safety of TUDCA and UDCA in Chinese patients with primary biliary cholangitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Digestive System Diseases and Conditions - Cholangitis are presented in a new report. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Tauroursodeoxycholic acid (TUDCA) is a taurine conjugated form of ursodeoxycholic acid (UDCA) with higher hydrophility. To further evaluate the efficacy and safety of TUDCA for primary biliary cholangitis (PBC), we performed this study on Chinese patients."

Our news journalists obtained a quote from the research from Capital Medical University. "199 PBC patients were randomly assigned to either 250mg TUDCA plus UDCA placebo or 250mg UDCA plus TUDCA placebo, 3 times per day for 24 weeks. The primary endpoint was defined as percentage of patients achieving serum alkaline phosphatase (ALP) reduction of more than 25% from baseline. At week 24, 75.97% of patients in the TUDCA group and 80.88% of patients in the UDCA group achieved a serum ALP reduction of more than 25% from baseline (P=0.453). The percentage of patients with serum ALP levels declined more than 40% following 24 weeks of treatment was 55.81% in the TUDCA group and 52.94% in the UDCA group (P=0.699). Both groups showed similar improvement in serum levels of ALP, aspartate aminotransferase, and total bilirubin (P >0.05). The proportion of patients with pruritus/scratch increased from 1.43% to 10.00% in UDCA group, while there's no change in TUDCA group (P=0.023). Both drugs were well tolerated, with comparable adverse event rates between the 2 groups."

According to the news editors, the research concluded: "TUDCA is safe and as efficacious as UDCA for the treatment of PBC, and may be better to relieve symptoms than UDCA."
For more information on this research see: A multicenter, randomized, double-blind trial comparing the efficacy and safety of TUDCA and UDCA in Chinese patients with primary biliary cholangitis. *Medicine*, 2016;95(47):147-152. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)


Keywords for this news article include: Beijing, People's Republic of China, Asia, Digestive System Diseases and Conditions, Biliary Tract Diseases and Conditions, Bile Duct Diseases and Conditions, Gastroenterology, Cholangitis, Capital Medical University.

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**Digestive System Diseases and Conditions**

**New Findings in Cholelithiasis Described from University of Milan (Non-steroid anti-inflammatory drugs for biliary colic)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Digestive System Diseases and Conditions - Cholelithiasis is now available. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "Cholelithiasis refers to the presence of gallstones, which are concretions that form in the biliary tract, usually in the gallbladder. Cholelithiasis is one of the most common surgical problems worldwide and is particularly prevalent in most Western countries."

Our news editors obtained a quote from the research from the University of Milan, "Biliary colic is the term used for gallbladder pain experienced by a person with gallstones and without overt infection around the gallbladder. It is the most common manifestation of cholelithiasis, observed in over one-third of people with gallstones over the course of 10 or more years. Non-steroid anti-inflammatory drugs (NSAIDs) have been widely used to relieve biliary colic pain, but their role needs further elucidation. They may decrease the frequency of short-term complications, such as mild form of acute cholecystitis, jaundice, cholangitis, and acute pancreatitis, but they may also increase the occurrence of more severe and possibly life-threatening adverse events such as gastrointestinal bleeding, renal function impairment, cardiovascular events, or milder events such as abdominal pain, drowsiness, headache, dizziness, or cutaneous manifestations. To assess the benefits and harms of NSAIDs in people with biliary colic. Search methods We searched the Cochrane Hepato-Biliary Controlled Trials Register, Cochrane Central Register of Controlled Trials (CENTRAL) in the Cochrane Library, MEDLINE (Ovid SP), Embase (Ovid SP), Science Citation Index Expanded (Web of Science), and ClinicalTrials.gov until July 2016. We applied no language limitation. Selection criteria Randomised clinical trials recruiting participants presenting with biliary colic and comparing NSAIDs versus no intervention, placebo, or other drugs. Data collection and analysis Two review authors (MF and AC) independently identified trials for inclusion. We used risk ratios (RR) to express intervention effect estimates, and we analysed the data with both fixed-effect
and random-effects model meta-analyses, depending on the amount of heterogeneity. We controlled random errors with Trial Sequential Analysis. We assessed the methodological quality of the evidence using GRADE criteria. Twelve randomised clinical trials (RCTs) met our predefined review protocol criteria for analysis. We found only one trial to be at low risk of bias, considering the remaining trials to be at high risk of bias. The risk of selection bias in nine studies was unclear due to poor reporting, leading to uncertainty in the pooled effect estimates. Five trials compared NSAIDs versus placebo, four trials compared NSAID versus opioids, and four trials compared NSAID versus spasmolytic drugs (one of the 12 trials was a three-arm study comparing NSAIDs versus both opioids and spasmolytic drugs). There were 828 randomised participants (minimum 30 and maximum 324 per trial), of whom 416 received NSAIDs and 412 received placebo, spasmolytic drugs, or opioids. Twenty-four per cent of the participants were males. The age of the participants in the trials ranged from 18 to 86 years. All people were admitted to emergency departments for acute biliary pain. There was no mortality. When compared with placebo, NSAIDs obtained a significantly lower proportion of participants without complete pain relief (RR 0.27, 95% confidence interval (CI) 0.19 to 0.40; I² = 0%; 5 trials; moderate-quality evidence), which was confirmed by Trial Sequential Analysis, but not regarding participants with complications (RR 0.66, 95% CI 0.38 to 1.15; I² = 26%; 3 trials; very low-quality evidence). NSAIDs showed more pain control than spasmolytic drugs (RR 0.51, 95% CI 0.37 to 0.71; I² = 0%; 4 trials; low-quality evidence), which was not confirmed by Trial Sequential Analysis, and a significantly lower proportion of participants with complications (RR 0.27, 95% CI 0.12 to 0.57; I² = 0%; 2 trials; low-quality evidence), which was also not confirmed by Trial Sequential Analysis. We found no difference in the proportions of participants without complete pain relief when comparing NSAIDs versus opioids (RR 0.98, 95% CI 0.47 to 2.07; I² = 52%), suggesting moderate heterogeneity among trials (4 trials; very low-quality evidence). Only one trial comparing NSAIDs versus opioids reported results on complications, finding no significant difference between treatments. None of the included trials reported severe adverse events. Seven out of the 12 trials assessed non-severe adverse events: in two out of the seven trials, adverse events were not observed, and minor events were reported in the remaining five trials. In addition, we found one ongoing RCT assessing the analgesic efficacy of intravenous ibuprofen in biliary colic. Authors' conclusions NSAIDs have been assessed in relatively few trials including a limited number of participants for biliary colic, considering its common occurrence. We found only one trial to be at low risk of bias. There was no mortality. None of the included trials reported quality of life. The generalisability of the review is low as most of the RCTs included neither elderly people nor participants with comorbidities, who are more prone to complications as compared to others with biliary colic. The beneficial effect of NSAIDs compared with placebo on pain relief was confirmed when we applied Trial Sequential Analysis. The quality of evidence according to GRADE criteria was moderate for the comparison of NSAIDs versus placebo regarding the outcome lack of pain relief and low or very low for the other outcomes and comparisons. We found only one trial at low risk of bias, following the predefined 'Risk of bias' domains."

According to the news editors, the research concluded: "We found the risk of selection bias to be unclear in nine studies due to poor reporting, leading to uncertainty in the pooled effect estimates."

For more information on this research see: Non-steroid anti-inflammatory drugs for biliary colic. *Cochrane Database of Systematic Reviews*, 2016;(9):1223-1280. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting M. Fraquelli, University of Milan, Dept. of Pathophysiol & Transplantat, Gastroenterol &
Kidney Diseases and Conditions - Chronic Kidney...

**New Findings in Chronic Kidney Disease Described by K. Zhang and Co-Researchers (MICS, an easily ignored contributor to arterial calcification in CKD patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Kidney Diseases and Conditions - Chronic Kidney Disease. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "In chronic kidney disease (CKD), simultaneous mineral and skeleton changes are prevalent, known as CKD-mineral bone disorder (CKD-MBD). Arterial calcification (AC) is a clinically important complication of CKD-MBD."

The news correspondents obtained a quote from the research, "It can increase arterial stiffness, which leads to severe cardiovascular events. However, current treatments have little effect on regression of AC, as its mechanisms are still unclear. There are multiple risk factors of AC, among which Malnutrition-Inflammation Complex Syndrome (MICS) is a new and crucial one. MICS, a combined syndrome of malnutrition and inflammation, generally begins at the early stage of CKD and becomes obvious in end-stage renal disease (ESRD). It was linked to reverse epidemiology and associated with increased cardiovascular mortality in ESRD patients. Recent data suggest that MICS can trigger CKD-MBD and accelerate the course of AC. In this present review, we summarize the recent understanding about the aggravating effects of MICS on AC and discuss the possible underlying mechanisms."

According to the news reporters, the research concluded: "A series of findings indicate that targeting MICS will provide a potential strategy for treating AC in CKD."


Our news journalists report that additional information may be obtained by contacting H. Huang, Guangdong Prov Key Lab Arrhythmia & Electrophysio, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include J.W. Gao, J. Chen, X. Liu, Q.Q. Cai, P.M. Liu and H. Huang.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, End Stage Renal Disease, Article Review, Epidemiology, Risk and Prevention, Kidney Diseases and Conditions, Chronic Kidney Disease, Cardiovascular, Inflammation, Cardiology.
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Kidney Diseases and Conditions - Chronic Kidney...

New Findings in Chronic Kidney Disease Described from Federal University (Asymptomatic Ventricular Arrhythmia and Clinical Outcomes in Chronic Kidney Disease: A Pilot Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Kidney Diseases and Conditions - Chronic Kidney Disease. According to news reporting from Sao Paulo, Brazil, by NewsRx journalists, research stated, "Ventricular arrhythmia is associated with increased risk of cardiovascular events and death in the general population. Sudden death is a leading cause of death in end-stage renal disease."

The news correspondents obtained a quote from the research from Federal University, "We aimed at evaluating the effects of ventricular arrhythmia on clinical outcomes in patients with earlier stages of chronic kidney disease (CKD). In a prospective study of 109 nondialyzed CKD patients (estimated glomerular filtration rate 34.8 +/- 16.1 ml/min/1.73 m(2), 57 +/- 11.4 years, 61% male, 24% diabetics), we tested the hypothesis that the presence of subclinical complex ventricular arrhythmia, assessed by 24-hour electrocardiogram, is associated with increased risks of cardiovascular events, hospitalization, and death and with their composite outcome during 24 months of follow-up. Complex ventricular arrhythmia was defined as the presence of multifocal ventricular extrasystoles, paired ventricular extrasystoles, nonsustained ventricular tachycardia, or R wave over T wave. We identified complex ventricular arrhythmia in 14% of participants at baseline. During follow-up, 11 cardiovascular events, 15 hospitalizations, and 4 deaths occurred. The presence of complex ventricular arrhythmia was associated with cardiovascular events (p < 0.001), hospitalization (p = 0.018), mortality (p < 0.001), and the composite outcome (p < 0.001). In multivariate Cox regression analysis, adjusting for demographic characteristics, complex ventricular arrhythmia was associated with increased risk of the composite outcome (HR 4.40; 95% CI 1.60-12.12; p = 0.004)."

According to the news reporters, the research concluded: "In this pilot study, the presence of asymptomatic complex ventricular arrhythmia was associated with poor clinical outcomes in nondialed CKD patients."


Our news journalists report that additional information may be obtained by contacting M.E.F. Canziani, Federal University of Sao Paulo, Div Nephrol, Dept. of Internal Med, BR-04039000 Sao Paulo, SP, Brazil. Additional authors for this research include R. Watanabe, M.M. Lemos, J.L. Cassiolato, M. Wolf and M.E.F. Canziani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000449260. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Sao Paulo, Brazil, South America, Cardiology, Risk and Prevention, Epidemiology, Kidney Diseases and Conditions, Clinical Trials and Studies, Chronic Kidney Disease, Clinical Research, Cardiovascular, Arrhythmia, Federal University.

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Musculoskeletal Diseases and Conditions - Chronic...

New Findings in Chronic Pain Described from St. Louis University School of Medicine (Identification of A3 adenosine receptor agonists as novel non-narcotic analgesics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Musculoskeletal Diseases and Conditions - Chronic Pain is the subject of a report. According to news reporting originating in St. Louis, Missouri, by NewsRx journalists, research stated, "Chronic pain negatively impacts the quality of life in a variety of patient populations. The current therapeutic repertoire is inadequate in managing patient pain and warrants the development of new therapeutics."

Funders for this research include NIDDK Intramural Research Program, Mayday Fund, National Cancer Institute, Leukemia and Lymphoma Society Translational Research Program.

The news reporters obtained a quote from the research from the St. Louis University School of Medicine, "Adenosine and its four cognate receptors (A1, A2A, A2B and A3) have important roles in physiological and pathophysiological states, including chronic pain. Preclinical and clinical studies have revealed that while adenosine and agonists of the A1 and A2A receptors have antinociceptive properties, their therapeutic utility is limited by adverse cardiovascular side effects. In contrast, our understanding of the A3 receptor is only in its infancy, but exciting preclinical observations of A3 receptor antinociception, which have been bolstered by clinical trials of A3 receptor agonists in other disease states, suggest pain relief without cardiovascular side effects and with sufficient tolerability. Our goal herein is to briefly discuss adenosine and its receptors in the context of pathological pain and to consider the current data regarding A3 receptor-mediated antinociception. We will highlight recent findings regarding the impact of the A3 receptor on pain pathways and examine the current state of selective A3 receptor agonists used for these studies."

According to the news reporters, the research concluded: "The adenosine-to-A3 receptor pathway represents an important endogenous system that can be targeted to provide safe, effective pain relief from chronic pain."


Our news correspondents report that additional information may be obtained by contacting K. Janes, Dept. of Pharmacology and Physiology, Saint Louis University School of Medicine, St Louis, MO, United States. Additional authors for this research include A.M. Symons-Liguori, K.A. Jacobson and D. Salvemini.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13446. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the British Journal of Pharmacology can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Antiarrhythmic Agents, Pharmaceuticals, Missouri, St. Louis, Analgesics, Cardiology, Chronic Pain, United States, Pain Medicine, Article Review, Adenosine Therapy, Radiologic Agents, Pre Trial Research, Drugs and Therapies, Radiologic Adjuncts, Cardiovascular Agents, Cardiac Stressing Agents, North and Central America.

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Cirrhosis

New Findings in Cirrhosis Described from Laboratory of Human Genetics of Infectious Diseases (Impact of IL28B, APOH and ITPA Polymorphisms on Efficacy and Safety of TVR- or BOC-Based Triple Therapy in Treatment-Experienced HCV-1 Patients with ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cirrhosis is now available. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "Human genetic factors influence the outcome of pegylated interferon and ribavirin hepatitis C therapy. We explored the role of IL28B, APOH and ITPA SNPs on the outcomes of triple therapy including telaprevir or boceprevir in patients with compensated cirrhosis chronically infected with HCV-1."

The news reporters obtained a quote from the research from the Laboratory of Human Genetics of Infectious Diseases, "A total of 256 HCV-1 Caucasian treatment-experienced patients with compensated cirrhosis from the ANRS CO[2]0-CUPIC cohort were genotyped for a total of 10 candidate SNPs in IL28B (rs12979860 and rs368234815), APOH (rs8178822, rs12944940, rs10048158, rs52979880, rs1801689 and rs1801690) and ITPA (rs1127354 and rs7270101). We tested the association of IL28B and APOH SNPs with sustained virological response and of ITPA SNPs with anemia related phenotypes by means of logistic regression assuming an additive genetic model. None of the six APOH SNPs were associated with sustained virological response. The favorable alleles of the IL28B SNPs rs12979860 and rs368234815 were associated with sustained virological response (rs12979860: OR=2.35[1.50-3.70], p=2x10(-4)). Refined analysis showed that the effect of IL28B SNPs on sustained virological response was restricted to prior PegIFN/RBV relapse (OR=3.80[1.82-8.92], p=8x10(-4)). We also confirmed the association between ITPA low activity alleles and protection against early hemoglobin decline in triple therapy (p=2x10(-5))."

According to the news reporters, the research concluded: "Our results suggest that the screening of rs12979860 may remain interesting for decision making in prior relapse HCV-1 Caucasian patients with compensated cirrhosis eligible for a telaprevir-or boceprevir-based therapy."

For more information on this research see: Impact of IL28B, APOH and ITPA Polymorphisms on Efficacy and Safety of TVR- or BOC-Based Triple Therapy in Treatment-Experienced HCV-1 Patients with Compensated Cirrhosis from the ANRS CO20-CUPIC Study.
Clinical Research - Clinical Trials and Studies

New Findings in Clinical Trials and Studies Described by B. Tan and Co-Researchers (Incidence and cost of stress ulcer prophylaxis after discharge from the intensive care unit: a retrospective study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Clinical Research - Clinical Trials and Studies. According to news reporting originating in Perth, Australia, by NewsRx journalists, research stated, "To describe current patterns in initiation and cessation of proton pump inhibitors (PPIs) for stress ulcer prophylaxis (SUP) in intensive care units, and to assess the costs associated with inappropriate (non-evidence-based) SUP. setting and participants: Retrospective observational study in five ICUs in Western Australia."

The news reporters obtained a quote from the research, "We assessed the medical records of consecutive patients admitted to the ICUs between September 2013 and January 2015. Patients aged < 18 years were excluded. We included 531 patients in the study. Of the 184 patients in whom PPIs were initiated for SUP in the ICU, 90 (48.9%) were still taking the therapy at the time of discharge from hospital. A documented indication for ongoing therapy was present in only nine patients (10%). We assumed a 10-year life expectancy after ICU discharge and that most patients continued taking a PPI, and calculated an additional cost of $180.20 per patient admitted to the ICU. This was based only on unnecessary PPI costs (ignoring costs of managing additional adverse events). The direct cumulative annual cost to the WA health system of PPIs continued unnecessarily for patients at discharge from hospital is estimated to be $250 800 for each year they continue to receive them. A substantial proportion of patients prescribed SUP in the ICU continue receiving this therapy at hospital discharge despite no clear indication."

According to the news reporters, the research concluded: "In addition to potential adverse clinical effects, this is associated with major direct and indirect cost implications."

For more information on this research see: Incidence and cost of stress ulcer prophylaxis after discharge from the intensive care unit: a retrospective study. Critical Care and Resuscitation, 2016;18(4):270-274. Critical Care and Resuscitation can be contacted at:
Our news correspondents report that additional information may be obtained by contacting B. Tan, Fiona Stanley Hosp, Perth, WA, Australia. Additional authors for this research include R. Norman, E. Litton, C. Heath, D.J. Hawkins, R. Krishnamurthy, R. Sonawane and M.H. Anstey.

Keywords for this news article include: Perth, Australia, Australia and New Zealand, Clinical Trials and Studies, Clinical Research, Intensive Care, Critical Care, Hospital, Therapy.

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Clinical Research - Clinical Trials and Studies

New Findings in Clinical Trials and Studies Described from Fujian University of Traditional Chinese Medicine (Clinical Efficacy of Acupuncture Treatment in Combination With RehaCom Cognitive Training for Improving Cognitive Function in Stroke: ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Clinical Research - Clinical Trials and Studies. According to news reporting originating from Fujian, People's Republic of China, by NewsRx correspondents, research stated, "The aim of this study was to identify the clinical efficacy of acupuncture in combination with RehaCom cognitive training in poststroke patients with cognitive dysfunction. This study was a 2 x 2 factorial design randomized controlled trial comparing acupuncture, computer-assisted cognitive rehabilitation, and the usual treatment by per-protocol analysis."

Our news editors obtained a quote from the research from the Fujian University of Traditional Chinese Medicine, "The trial was completed by 204 stroke patients, including 49 patients in a control group, 52 patients in an acupuncture treatment group, 51 patients in a RehaCom training group, and 52 patients in an acupuncture combined with RehaCom group. All of the patients accepted basic treatment and health education. The interventions continued for 12 weeks (30 minutes per day, 5 days per week). The relative cognitive and functional outcomes were measured at baseline and 12 weeks (at the end of intervention) using the Mini-Mental State Examination (MMSE), Montreal Cognitive Assessment (MoCA), and Functional Independence Measure (FIM) scales. After 12 weeks of treatment, the functional statuses of the patients in each of the 4 groups showed varying degrees of improvement. Multiple comparisons of the changes in the MMSE, MoCA, and FIM scores indicated that acupuncture combined with RehaCom cognitive training (ACR) had enhanced therapeutic effects on the functional statuses of the stroke patients (P < .05). In addition, ACR had similar therapeutic effects on the functional statuses of the stroke patients according to each of the assessment scales applied (P Delta(change) (value) MMSE = 0.399, P Delta MoCA = 0.794, P Delta FIM = 0.862). The interaction effect values between acupuncture and RehaCom training (acceptance or nonacceptance) were as follows: Delta MMSE: F = 6.251, P = .013; Delta MoCA: F = 4.991, P = .027; and Delta FIM: F = 6.317, P = .013. Further, the main effect values for acupuncture and RehaCom training were both significant (P < .05). There is an interaction effect in the treatment of stroke patients using ACR."
According to the news editors, the research concluded: "The use of acupuncture in combination with RehaCom training has better therapeutic effects on the functional statuses of poststroke patients than the use of either treatment alone, demonstrating the clinical significance of this combination therapy."


The news editors report that additional information may be obtained by contacting L.D. Chen, Fujian Univ Tradit Chinese Med, Fuzhou 350108, Fujian, People's Republic of China. Additional authors for this research include S.L. Yang, J. Tao, J. Huang, Y.Y. Li, H.C. Ye, S.J. Chen, W.J. Hong and L.D. Chen.

Keywords for this news article include: Fujian, People's Republic of China, Asia, Clinical Trials and Studies, Clinical Research, Therapy, Fujian University of Traditional Chinese Medicine.

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Clinical Research - Clinical Trials and Studies

**New Findings in Clinical Trials and Studies Described from Medical University ("Threshold-crossing"A Useful Way to Establish the Counterfactual in Clinical Trials?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting out of Vienna, Austria, by NewsRx editors, research stated, "A central question in the assessment of benefit/harm of new treatments is: how does the average outcome on the new treatment (the factual) compare to the average outcome had patients received no treatment or a different treatment known to be effective (the counterfactual)? Randomized controlled trials (RCTs) are the standard for comparing the factual with the counterfactual. Recent developments necessitate and enable a new way of determining the counterfactual for some new medicines."

Our news journalists obtained a quote from the research from Medical University, "For select situations, we propose a new framework for evidence generation, which we call threshold-crossing. This framework leverages the wealth of information that is becoming available from completed RCTs and from real world data sources. Relying on formalized procedures, information gleaned from these data is used to estimate the counterfactual, enabling efficacy assessment of new drugs."

According to the news editors, the research concluded: "We propose future (research) activities to enable threshold-crossing for carefully selected products and indications in which RCTs are not feasible."

For more information on this research see: "Threshold-crossing"A Useful Way to
New Findings in Clinical Trials and Studies Described from University of Iowa (Patient-activation and guideline-concordant pharmacological treatment after bone density testing: the PAADR trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Clinical Research - Clinical Trials and Studies are presented in a new report. According to news reporting from Iowa City, Iowa, by NewsRx journalists, research stated, "Patients often do not know or understand their bone density test results, and pharmacological treatment rates are low. In a clinical trial of 7749 patients, we used a tailored patient-activation result letter accompanied by a bone health brochure to improve appropriate pharmacological treatment."

Financial supporters for this research include National Institute on Aging, National Institute for Arthritis and Musculoskeletal Diseases, National Institute for Arthritis and Musculoskeletal Diseases.

The news correspondents obtained a quote from the research from the University of Iowa, "Treatment rates, however, did not improve. Patients often do not know or understand their dual-energy x-ray absorptiometry (DXA) test results, which may lead to suboptimal care. We tested whether usual care augmented by a tailored patient-activation DXA result letter accompanied by an educational brochure would improve guideline-concordant pharmacological treatment compared to usual care only. We conducted a randomized, controlled, double-blinded, pragmatic clinical trial at three health care centers in the USA. We randomized 7749 patients aged >50 years old and presenting for DXA between February 2012 and August 2014. The primary clinical endpoint at 12 and 52 weeks post-DXA was receiving guideline-concordant pharmacological treatment. We also examined four of the steps along the pathway from DXA testing to that clinical endpoint, including (1) receiving and (2) understanding their DXA results and (3) having subsequent contact with their provider and (4) discussing their results and options. Mean age was 66.6 years, 83.8% were women, and 75.3% were non-Hispanic whites. Intention-to-treat analyses revealed that guideline-concordant pharmacological treatment was not improved at either 12 weeks (65.1 vs. 64.3%, p = 0.506) or 52 weeks (65.2 vs. 63.8%, p =
0.250) post-DXA, even though patients in the intervention group were more likely (all p< 0.001) to recall receiving their DXA results letter at 12 weeks, correctly identify their results at 12 and 52 weeks, have contact with their provider at 52 weeks, and have discussed their results with their provider at 12 and 52 weeks."

According to the news reporters, the research concluded: "A tailored DXA result letter and educational brochure failed to improve guideline-concordant care in patients who received DXA."

For more information on this research see: Patient-activation and guideline-concordant pharmacological treatment after bone density testing: the PAADRN randomized controlled trial. Osteoporosis International, 2016;27(12):3513-3524. Osteoporosis International can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - www.springer.com; Osteoporosis International - www.springerlink.com/content/0937-941x/)

Our news journalists report that additional information may be obtained by contacting F.D. Wolinsky, University of Iowa, Iowa City, IA 52242, United States. Additional authors for this research include F.D. Wolinsky, Y. Lou, S.W. Edmonds, S.F. Hall, D.W. Roblin, N.C. Wright, M.P. Jones and K.G. Saag.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3681-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Iowa City, Iowa, United States, North and Central America, Dual-Energy X-Ray Absorptiometry, Clinical Trials and Studies, Clinical Research, Bone Research, Pharmacology, Therapy, University of Iowa.

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DNA Research

New Findings in DNA Research Described from University of Sao Paulo
(An Aromatic Diamidine That Targets Kinetoplast DNA, Impairs the Cell Cycle in Trypanosoma cruzi, and Diminishes Trypomastigote Release from Infected Mammalian Host Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on DNA Research is the subject of a report. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, research stated, "Trypanosoma cruzi is the etiological agent of Chagas disease, affecting approximately 10 million people in the Americas and with some 40 million people at risk. The objective of this study was to evaluate the anti-T. cruzi activity of three new diamidines that have a 3,4-ethylenedioxy extension of the thiophene core, designated MB17, MB19, and MB38."

Funders for this research include The Ministry of Science, Education and Sports of the Republic of Croatia, MCTI | Conselho Nacional de Desenvolvimento Cientifico e Tecnologico (CNpq), Fundacao de Amparo a Pesquisa do Estado de Sao Paulo (FAPESP).

Our news journalists obtained a quote from the research from the University of Sao Paulo, "All three diamidines exhibited dose-dependent inhibition of epimastigote replication. The mechanisms of action of these diamidines were investigated. Unlike MB17 and MB19, MB38 exhibited a significant increase in the number of annexin-propidium iodide double-
labeled cells compared to levels in control parasites. As MB17 had shown a lower 50% inhibitory concentration (IC50) against epimastigote growth, the mechanism of action of this drug was studied in more detail. MB17 triggered a decrease in the intracellular ATP levels. As a consequence, MB17 affected the genomic DNA and kinetoplast DNA (kDNA) and impaired the parasite cell cycle. Moreover, MB17 caused DNA fragmentation, with a more severe effect on kDNA than on nuclear DNA, resulting in dyskinetoplastic cells. MB17 was tested for toxicity and effectiveness for the treatment of infected CHO-K-1 cells, exhibiting a 50% cytotoxic concentration (CC50) of 13.47 +/- 0.37 μM and an IC50 of 0.14 +/- 0.12 μM against trypomastigote release.

According to the news editors, the research concluded: "MB17 also diminished the infection index by 60% at 0.5 μM. Despite belonging to the same family, these diamidines have different efficiencies. To summarize, MB17 was the most potent of these diamidines against epimastigotes, producing DNA damage preferentially in kDNA, impairing the parasite cell cycle, and decreasing the infection index and trypomastigote release from infected mammalian host cells, with a high selectivity index (SI) (< 90). These data suggest that MB17 could be an interesting lead compound against T. cruzi."

For more information on this research see: An Aromatic Diamidine That Targets Kinetoplast DNA, Impairs the Cell Cycle in Trypanosoma cruzi, and Diminishes Trypomastigote Release from Infected Mammalian Host Cells. *Antimicrobial Agents and Chemotherapy*, 2016;60(10):5867-5877. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting A.M. Silber, University of Sao Paulo, Inst Biomed Sci, Dept. of Parasitol, Lab Biochem Tryps, Sao Paulo, SP, Brazil. Additional authors for this research include M. Crispim, I. Stolic, F.S. Damasceno, M.S. da Silva, E.M.F. Pral, M.C. Elias, M. Bajic and A.M. Silber.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01595-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, DNA Research, University of Sao Paulo.

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**Genetics - DNA Research**

**New Findings in DNA Research Described from University of Toulouse (Analysis of DNA Replication by Optical Mapping in Nanochannels)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics - DNA Research is now available. According to news reporting out of Toulouse, France, by NewsRx editors, research stated, "DNA replication is essential to maintain genome integrity in S phase of the cell division cycle. Accumulation of stalled replication forks is a major source of genetic instability, and likely constitutes a key driver of tumorigenesis."

Financial supporters for this research include Plan Cancer, Agence Nationale de la
Our news journalists obtained a quote from the research from the University of Toulouse, "The mechanisms of regulation of replication fork progression have therefore been extensively investigated, in particular with DNA combing, an optical mapping technique that allows the stretching of single molecules and the mapping of active region for DNA synthesis by fluorescence microscopy. DNA linearization in nanochannels has been successfully used to probe genomic information patterns along single chromosomes, and has been proposed to be a competitive alternative to DNA combing. Yet this conjecture remains to be confirmed experimentally. Here, two complementary techniques are established to detect the genomic distribution of tracks of newly synthesized DNA in human cells by optical mapping in nanochannels. Their respective advantages and limitations are compared, and applied them to detect deregulations of the replication program induced by the antitumor drug hydroxyurea."

According to the news editors, the research concluded: "The developments here thus broaden the field of applications accessible to nanofluidic technologies, and can be used in the future as part for molecular diagnostics in the context of high throughput cancer drug screening."


Our news journalists report that additional information may be obtained by contacting A. Bancaud, Univ Toulouse, LAAS, F-31400 Toulouse, France. Additional authors for this research include S. Pelofy, C. Blatche, M.J. Pillaire, S. Huet, C. Chapuis, J.S. Hoffmann and A. Bancaud.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201503795. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toulouse, France, Europe, Emerging Technologies, DNA Replication, Medical Devices, Nanotechnology, DNA Research, Nanochannels, Genetics, University of Toulouse.

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Drugs and Therapies - Drug Resistance

New Findings in Drug Resistance Described from Yuncheng University (Stability Analysis Of A Two-strain Epidemic Model On Complex Networks With Latency)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Drug Resistance. According to news reporting out of Yuncheng, People's Republic of China, by NewsRx editors, research stated, "In this paper, a two-strain epidemic model on a complex network is proposed. The two strains are the drug-sensitive strain and the drug-resistant strain."

Our news journalists obtained a quote from the research from Yuncheng University, "The related basic reproduction numbers R-s and R-r are obtained. If R-0 = maxR-s, R-r < 1, then the disease-free equilibrium is globally asymptotically stable. If R-r > 1, then there is a
unique drug-resistant strain dominated equilibrium E-r, which is locally asymptotically stable if the invasion reproduction number R-r(s) < 1. If R-s > 1 and R-s > R-r, then there is a unique coexistence equilibrium E*. The persistence of the model is also proved."

According to the news editors, the research concluded: "The theoretical results are supported with numerical simulations."

For more information on this research see: Stability Analysis Of A Two-strain Epidemic Model On Complex Networks With Latency. *Discrete and Continuous Dynamical Systems-Series B*, 2016;21(8):2851-2866. *Discrete and Continuous Dynamical Systems-Series B* can be contacted at: Amer Inst Mathematical Sciences-Aims, PO Box 2604, Springfield, MO 65801-2604, USA.

Our news journalists report that additional information may be obtained by contacting J.Y. Yang, Yuncheng Univ, Dept. of Appl Math, Yuncheng 044000, Shanxi, People's Republic of China. Additional authors for this research include Y.M. Chen and J.M. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3934/dcdsb.2016076. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yuncheng, People's Republic of China, Asia, Drugs and Therapies, Drug Resistance, Yuncheng University.

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**Oncology - Esophageal Cancer**

**New Findings in Esophageal Cancer Described from Chinese Academy of Sciences (Exhaled gases online measurements for esophageal cancer patients and healthy people by proton transfer reaction mass spectrometry)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Esophageal Cancer. According to news reporting originating from Hefei, People's Republic of China, by NewsRx correspondents, research stated, "Esophageal cancer is a prevalent malignancy. There is a considerable demand for developing a fast and noninvasive method to screen out the suspect esophageal cancer patients who may undergo further clinical diagnosis."

Our news editors obtained a quote from the research from the Chinese Academy of Sciences, "The exhaled breathes from 29 esophageal cancer patients and 57 healthy people were directly measured using our home-made proton transfer reaction mass spectrometer (PTR-MS). Mann-Whitney U test and stepwise discriminant analysis were applied to identify the ions in the breath mass spectral data which can distinguish cancer cohort from healthy group. Receiver operating characteristics (ROC) analysis was also performed. Seven kinds of ions in the breath mass spectrum, viz., m/z 136, m/z 34, m/z 63, m/z 27, m/z 95, m/z 107 and m/z 45, have been found to distinguish between the esophageal cancer patients and healthy people with a sensitivity of 86.2% and a specificity of 89.5%, respectively. Compared with that from the healthy people, the breath mass spectra from esophageal cancer patients show that the mediant intensities of five kinds of ions were decrease and the rest two kinds of ions were increase. ROC analysis gave the area under the curve (AUC) of 0.943. This pilot study shows that the ionic characteristics of exhaled VOCs detected by PTR-MS may be used to differentiate between the
esophageal cancer patients and the healthy people."

According to the news editors, the research concluded: "Although the breath tests for more patients are needed to confirm such results, the present work indicates that the PTR-MS may be a promising method in the esophageal cancer screening."


Keywords for this news article include: Hefei, People's Republic of China, Asia, Cancer, Diagnostics and Screening, Esophageal Cancer, Gastroenterology, Oncology, Chinese Academy of Sciences.

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**Oncology - Esophageal Cancer**

**New Findings in Esophageal Cancer Described from Oregon Health and Science University (Significant understaging is seen in clinically staged T2N0 esophageal cancer patients undergoing esophagectomy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Esophageal Cancer have been published. According to news reporting from Portland, Oregon, by NewsRx journalists, research stated, "This study aimed to determine the impact of preoperative staging on the treatment of clinical T2N0 (cT2N0) esophageal cancer patients undergoing esophagectomy. We reviewed a retrospective cohort of 27 patients treated at a single institution between 1999 and 2011."

The news correspondents obtained a quote from the research from Oregon Health and Science University, "Clinical staging was performed with computed tomography, positron emission tomography, and endoscopic ultrasound. Patients were separated into two groups: neoadjuvant therapy followed by surgery (NEOSURG) and surgery alone (SURG). There were 11 patients (41%) in the NEOSURG group and 16 patients (59%) in the SURG group. In the NEOSURG group, three of 11 patients (27%) had a pathological complete response and eight (73%) were partial or nonresponders after neoadjuvant therapy. In the SURG group, nine of 16 patients (56%) were understaged, 6 (38%) were overstaged, and 1 (6%) was correctly staged. In the entire cohort, despite being clinically node negative, 14 of 27 patients (52%) had node-positive disease (5/11 [45%] in the NEOSURG group, and 9/16 [56%] in the SURG group). Overall survival rate was not statistically significant between the two groups (P = 0.96). Many cT2N0 patients are clinically understaged and show no preoperative evidence of node-positive disease."

According to the news reporters, the research concluded: "Consequently, neoadjuvant therapy may have a beneficial role in treatment."


Keywords for this news article include: Portland, Oregon, United States, North and Central America, Digestive System Surgical Procedures, Combined Modality Therapy, Drugs and Therapies, Neoadjuvant Therapy, Esophageal Cancer, Gastroenterology, Esophagectomy, Oncology, Surgery, Oregon Health and Science University.

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Proteins - Extracellular Matrix Proteins

**New Findings in Extracellular Matrix Proteins Described from University of Texas Southwestern (Endotrophin, a multifaceted player in metabolic dysregulation and cancer progression, is a predictive biomarker for the response to PPAR gamma ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Proteins - Extracellular Matrix Proteins are presented in a new report. According to news reporting from Dallas, Texas, by NewsRx journalists, research stated, "Endotrophin is a cleavage product derived from the collagen VI(alpha 3) chain. Collagen VI is expressed in a number of different tissues, but adipose tissue is a particularly prominent source for this extracellular matrix constituent."

The news correspondents obtained a quote from the research from the University of Texas Southwestern, "Mice lacking collagen VI are metabolically healthier due to reduced fibrosis in adipose tissue. Endotrophin seems to be one of the key players of collagen VI-mediated signalling effects, including its pro-fibrotic nature and chemoattractant properties for macrophages, while also playing an important role in cancer progression and the chemoresistance of tumour cells. The glucose-lowering class of thiazolidinediones (TZDs) that mediate their action through the nuclear receptor peroxisome proliferator-activated receptor (PPAR)gamma also exerts important effects on endotrophin by reducing the transcription of parental collagen VI molecules. As with many other pharmacological interventions, there is a range of responses observed in a diabetic patient population. In this issue of Diabetologia, Karsdal and colleagues (DOI:) demonstrate that baseline endotrophin levels offer excellent predictive values to indicate individuals who will show an optimised response to TZDs with respect to the lowering of HbA(1c) and reduced risk of adverse side effects."

According to the news reporters, the research concluded: "The identification of a predictive biomarker for optimal responders is an important step in highlighting the continued viability of TZDs as an effective glucose-lowering class of compounds."
For more information on this research see: Endotrophin, a multifaceted player in metabolic dysregulation and cancer progression, is a predictive biomarker for the response to PPAR gamma agonist treatment. *Diabetologia*, 2017;60(1):24-29. *Diabetologia* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; *Diabetologia* - www.springerlink.com/content/0012-186x/)

Our news journalists report that additional information may be obtained by contacting P.E. Scherer, Univ Texas Southwestern Med Center Dallas, Dept. of Cell Biol, Dallas, TX 75390, United States. Additional authors for this research include J. Park, M. Kim and P.E. Scherer.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Peroxisome Proliferator-Activated Receptors, Extracellular Matrix Proteins, Cancer, Risk and Prevention, Transcription Factors, DNA-Binding Proteins, PPAR gamma, Oncology, Genetics, Collagen, University of Texas Southwestern.

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**Oncology - Gastric Cancer**

**New Findings in Gastric Cancer Described from Royal Marsden Hospital (Novel targets in the treatment of advanced gastric cancer: a perspective review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gastric Cancer. According to news reporting originating in Sutton, United Kingdom, by NewsRx journalists, research stated, "Gastric cancer is responsible for a high burden of disease globally. Although more extensive use of chemotherapy together with the recent introduction of the two targeted agents trastuzumab and ramucirumab have contributed to marginal outcome prolongation, overall survival for patients with advanced stage disease remains poor."

The news reporters obtained a quote from the research from Royal Marsden Hospital, "Over the last decade, a number of novel agents have been examined in clinical trials with largely disappointing results. Potential explanations for this are the absence of molecularly selected trial populations or weak predictive biomarkers within the context of a highly heterogeneous disease. In the recently published gastric cancer The Cancer Genome Atlas (TCGA) project a new classification of four different tumor subtypes according to different molecular characteristics has been proposed. With some overlap, several relatively distinct and potentially targetable pathways have been identified for each subtype."

According to the news reporters, the research concluded: "In this perspective review we match recent trial results with the subtypes described in the gastric cancer TCGA aiming to highlight data regarding novel agents under evaluation and to discuss whether this publication might provide a framework for future drug development."

For more information on this research see: Novel targets in the treatment of advanced gastric cancer: a perspective review. *Therapeutic Advances In Medical Oncology*, 2016;8(2):113-25. (Sage Publications - www.sagepub.com; Therapeutic Advances In Medical Oncology - tam.sagepub.com)

Our news correspondents report that additional information may be obtained by contacting E. Fontana, Royal Marsden Hospital, Sutton, UK.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1758834015616935. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sutton, Europe, Genetics, Oncology, United Kingdom, Article Review, Gastric Cancer, Gastroenterology.

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**Oncology - Gastric Cancer**

**New Findings in Gastric Cancer Described from Shanxi Cancer Hospital (RAD51B as a potential biomarker for early detection and poor prognostic evaluation contributes to tumorigenesis of gastric cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news reporting originating in Taiyuan, People's Republic of China, by NewsRx journalists, research stated, "Gastric cancer (GC) is a common and deadly disease worldwide. Outcomes of patients are poor largely due to chemoresistance or recurrence."

Financial support for this research came from The National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Shanxi Cancer Hospital, "Thus, identifying novel biomarkers to predict response to therapy and/or prognosis are urgently needed. RAD51B, a key player in DNA repair/recombination, has the potential to be a candidate oncogene and biomarker for cancer diagnosis and prognosis. However, its relationship with GC remains unclear. To evaluate clinicopathological and prognostic significance of RAD51B in GC, we examined messenger RNA (mRNA) and protein expression via quantitative real-time polymerase chain reaction (qRT-PCR) from 69 and tissue microarray from 144 GC patients, respectively. Our results showed that RAD51BmRNAexpression was significantly up-regulated in tumors compared to that of matched noncancerous tissues (P < 0.001). In parallel, RAD51B protein showed a mainly nucleus-staining pattern, and the positive rate in tumors and stomach atypical hyperplasia was significantly higher than that in matched noncancerous tissues (P = 0.015). Moreover, high level of RAD51B protein was correlated with advanced stage (P = 0.009), aggressive differentiation (P = 0.022), and lymph node metastasis (P = 0.001). Further, Kaplan-Meier analysis indicated that patients with high level of RAD51B expression exhibited worse overall survival compared to patients with low level (P = 0.040). A multivariate Cox regression analysis suggested that RAD51B may be an independent prognostic factor for GC patients in Chinese population (P = 0.004). Additionally, functional studies indicated that overexpression of RAD51B promoted cell proliferation, aneuploidy, and drug resistance, while RAD51B knockdown led to G1 arrest and sensitized cells to 5-fluorouracil (5-FU)."

According to the news reporters, the research concluded: "RAD51B may act as an oncogene during GC progression, and its hyperexpression may be a potential biomarker for early detection and poor prognosis of GC."

Biology - www.springerlink.com/content/1010-4283/

Our news correspondents report that additional information may be obtained by contacting Y.F. Xi, Shanxi Canc Hosp, Dept. of Pathol, Taiyuan 030001, Shanxi, People's Republic of China. Additional authors for this research include B. Yang, Y.F. Xi and X. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5340-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taiyuan, People's Republic of China, Asia, Cancer, Diagnostics and Screening, Gastroenterology, Gastric Cancer, Oncology, Genetics, Shanxi Cancer Hospital.

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Oncology - Gliomas

**New Findings in Gliomas Described from Central South University**

(*Overexpression of RACK1 Promotes Metastasis by Enhancing Epithelial-Mesenchymal Transition and Predicts Poor Prognosis in Human Glioma*)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Gliomas are presented in a new report. According to news reporting out of Changsha, People's Republic of China, by NewsRx editors, research stated, "Emerging studies show that dysregulation of the receptor of activated protein kinase C1 (RACK1) plays a crucial role in tumorigenesis and progression of various cancers. However, the biological function and underlying mechanism of RACK1 in glioma remains poorly defined."

Our news journalists obtained a quote from the research from Central South University, "Here, we found that RACK1 was significantly up-regulated in glioma tissues compared with normal brain tissues, being closely related to clinical stage of glioma both in mRNA and protein levels. Moreover, Kaplan-Meier analysis demonstrated that patients with high RACK1 expression had a poor prognosis (p = 0.0062, HR = 1.898, 95% CI: 1.225-3.203). In vitro functional assays indicated that silencing of RACK1 could dramatically promote apoptosis and inhibit cell proliferation, migration, and invasion of glioma cells. More importantly, knockdown of RACK1 led to a vast accumulation of cells in G0/G1 phase and their reduced proportions at the S phase by suppressing the expression of G1/S transition key regulators Cyclin D1 and CDK6."

According to the news editors, the research concluded: "Additionally, this forced down-regulation of RACK1 significantly suppressed migration and invasion via inhibiting the epithelial-mesenchymal transition (EMT) markers, such as MMP2, MMP9, ZEB1, N-Cadherin, and Integrin-beta 1. Collectively, our study revealed that RACK1 might act as a valuable prognostic biomarker and potential therapeutic target for glioma."

For more information on this research see: Overexpression of RACK1 Promotes Metastasis by Enhancing Epithelial-Mesenchymal Transition and Predicts Poor Prognosis in Human Glioma. *International Journal of Environmental Research and Public Health*, 2016;13 (10):1174-1188. *International Journal of Environmental Research and Public Health* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.
New Findings in HIV/AIDS Described from Department of Molecular Virology (Human Immunodeficiency Virus Type 1 Two-Long Terminal Repeat Circles: A Subject for Debate)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting from Madrid, Spain, by NewsRx journalists, research stated, "HIV-1 infections are characterized by the integration of the reverse transcribed genomic RNA into the host chromosomes making up the provirus. In addition to the integrated proviral DNA, there are other forms of linear and circular unintegrated viral DNA in HIV-1-infected cells."

The news correspondents obtained a quote from the research from the Department of Molecular Virology, "One of these forms, known as two-long terminal repeat circles, has been extensively studied and characterized both in in vitro infected cells and in cells from patients. Detection of two-long terminal repeat circles has been proposed as a marker of antiretroviral treatment efficacy or ongoing replication in patients with undetectable viral load. But not all authors agree with this use because of the uncertainty about the lifespan of the two-long terminal repeat circles. We review the major studies estimating the half-life of the two-long terminal repeat circles as well as those proposing its detection as a marker of ongoing replication or therapeutic efficacy. We also review the characteristic of these circular forms and the difficulties in its detection and quantification. The variety of approaches and methods used in the two-long terminal repeat quantification as well as the low reliability of some methods make the comparison between results difficult."

According to the news reporters, the research concluded: "We conclude that it is not possible to draw a clear supposition about the lifespan of two-long terminal repeat circles and consequently they should not be used as a marker of ongoing replication without a careful analysis of the methods and results."


Our news journalists report that additional information may be obtained by contacting I. Olivares, Dept. of Molecular Virology, Centro Nacional de Microbiologia, Instituto de Salud Carlos III, Majadahonda, Madrid, Spain. Additional authors for this research include M. Pernas, C. Casado and C. Lopez-Galindez.

Keywords for this news article include: Spain, Madrid, Europe, Genetics, HIV/AIDS, RNA Viruses, Retroviridae, Article Review, HIV Infections, Vertebrate Viruses, Primate.
Lentiviruses, Immune System Diseases and Conditions, Viral Sexually Transmitted Diseases and Conditions.

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**New Findings in HIV/AIDS Described from San Francisco State University (Relationship-Based Predictors of Sexual Risk for HIV Among MSM Couples: A Systematic Review of the Literature)***

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immune System Diseases and Conditions - HIV/AIDS. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "Behavioral and epidemiological studies report high risk for HIV among MSM couples. Over the last decade, studies have examined relationship dynamics associated with sexual risk for HIV."

Our news editors obtained a quote from the research from San Francisco State University, "It is important to examine the impact this research has had on HIV prevention and what is still needed. We conducted a review of the literature focusing on relationship dynamics associated with sexual risk for HIV among MSM couples. Procedures used for this review were guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses established to provide a framework for collecting, reviewing and reporting studies systematically (Mohler et al. in Ann Intern Med 151(4):264-269, 2009). We found that positive relationship dynamics are associated with less risk with partners outside the relationship, but were associated with greater odds of unprotected anal intercourse with primary partners."

According to the news editors, the research concluded: "We also discuss other factors including sexual agreements about outside partners and make recommendations for next steps in HIV prevention research among MSM couples."


The news editors report that additional information may be obtained by contacting C.C. Hoff, San Francisco State Univ, Center Res & Educ Gender & Sexual, San Francisco, CA 94103, United States. Additional authors for this research include C.K. Campbell, D. Chakravarty and L.A. Darbes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10461-016-1350-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Immune System Diseases and Conditions, Article Review, Epidemiology, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Risk and Prevention, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, San Francisco State University.

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New Findings in HIV/AIDS Described from University of California (Use of HIV pre-exposure prophylaxis during the preconception, antepartum and postpartum periods at two United States medical centers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immune System Diseases and Conditions - HIV/AIDS is the subject of a report. According to news originating from San Francisco, California, by NewsRx correspondents, research stated, "Pregnancy may increase a woman's susceptibility to HIV. Maternal HIV acquisition during pregnancy and lactation is associated with increased perinatal and lactational HIV transmission."

Our news journalists obtained a quote from the research from the University of California, "There are no published reports of preexposure prophylaxis use after the first trimester of pregnancy or during lactation. The purpose of this study was to report the use of preexposure prophylaxis and to identify gaps in HIV prevention services for women who were at substantial risk of HIV preconception and during pregnancy and lactation at 2 United States medical centers. Chart review was performed on women who were identified as 'at significant risk' for HIV acquisition preconception (women desiring pregnancy) and during pregnancy and lactation at 2 medical centers in San Francisco and New York from 2010-2015. Women were referred to specialty clinics for women who were living with or were at substantial risk of HIV. Twenty-seven women who were identified had a median age of 27 years. One-half of the women had unstable housing, 22% of the women had ongoing intimate partner violence, and 22% of the women had active substance use. Twenty-six women had a male partner living with HIV, and 1 woman had a male partner who had sex with men. Of the partners who were living with HIV, 73% (19/26) were receiving antiretroviral therapy, and 42% (11/26) had documented viral suppression. Thirty-nine percent (10/26) of partners had known detectable virus, and 19% (5/26) had unknown viral loads. Women were identified by clinicians, health educators, and health departments. Approximately one-third of the women were identified preconception (8/27); the majority of the women were identified during pregnancy (18/27) with a median gestational age of 20 weeks (interquartile range, 11e23), and 1 woman was identified in the postpartum period. None of the pregnant referrals had received safer conception counseling to reduce HIV transmission. Twenty-six percent of all women (7/27) were eligible for postexposure prophylaxis at referral, of whom 57% (4/7) were offered postexposure prophylaxis. In 30% (8/27), the last HIV exposure was not assessed and postexposure prophylaxis was not offered. The median time from identification as 'at substantial risk' to consultation was 30 days (interquartile range, 2e62). Two women were lost to follow up before consultation. One woman who was identified as 'at significant risk' was not referred because of multiple pregnancy complications. She remained in obstetrics care and was HIV-negative at delivery but was lost to follow up until 10 months after delivery when she was diagnosed with HIV. No other seroconversions were identified. Of referrals who presented and were offered preexposure prophylaxis, 67% women (16/24) chose to take it, which was relatively consistent whether the women were preconception (5/8), pregnant (10/15), or after delivery (1/1). Median length of time on preexposure prophylaxis was 30 weeks (interquartile range, 20e53). One-half of women (10/20) who were in care at delivery did not attend a postpartum visit. Women at 2 United States centers frequently chose to use preexposure prophylaxis for HIV
prevention when it was offered preconception and during pregnancy and lactation. Further research and education are needed to close critical gaps in screening for women who are at risk of HIV for pre-and postexposure prophylaxis eligibility and gaps in care linkage before and during pregnancy and lactation.

According to the news editors, the research concluded: "Postpartum women are particularly vulnerable to loss-to-follow-up and miss opportunities for safe and effective HIV prevention."


The news correspondents report that additional information may be obtained from D.L. Seidman, University of California, Sch Med, San Francisco, CA 94143, United States. Additional authors for this research include S. Weber, M.T. Timoney, K.K. Oza, E. Mullins, D.L. Cohan and R.L. Wright.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Postexposure Prophylaxis, Primate Lentiviruses, Risk and Prevention, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, Hospital, HIV/AIDS, Therapy, University of California.

Heart Disorders and Diseases - Heart Attack

**New Findings in Heart Attack Described from Annamalai University (Anti-inflammatory and anti-thrombotic effects of zingerone in a rat model of myocardial infarction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Attack is now available. According to news reporting from Tamil Nadu, India, by NewsRx journalists, research stated, "Myocardial infarction continues to be a major public health problem. Reduction in mortality rate and prevention of myocardial infarction are of utmost importance."

The news correspondents obtained a quote from the research from Annamalai University, "Inflammation and thrombosis play an important role in the pathogenesis of myocardial infarction. The anti-inflammatory and anti-thrombotic effects of zingerone were evaluated in isoproterenol induced myocardial infarcted rats. Rats were pretreated with zingerone (6 mg/kg body weight) daily for 14 days and were then induced myocardial infarction with isoproterenol (100 mg/kg body weight) on 15th and 16th day. Isoproterenol induced myocardial infarcted rats showed significant (P < 0.05) increase in the levels/activities of cardiac troponin-I (cTnI), high sensitive C-reactive protein (Hs CRP), lysosomal hydrolases in the serum and concentration of heart lysosomal lipid peroxidation (LPO) products. RT-PCR study revealed over expression of myocardial tumour necrosis factor - alpha (TNF-alpha),
interleukin-1 beta (IL-1 beta) and interleukin-6 (IL-6) genes in the myocardial infarcted rats. Histopathology of heart and coronary artery revealed marked inflammation and coronary thrombosis. Zingerone pretreatment significantly (P < 0.05) decreased serum cTnI, Hs CRP, lysosomal hydrolases and heart lysosomal LPO and down regulated myocardial TNF-alpha, IL-1 beta and IL-6 genes and prevented coronary thrombosis in isoproterenol induced myocardial infarcted rats."

According to the news reporters, the research concluded: "The observed effects of zingerone could be attributed to its anti-inflammatory and anti-thrombotic properties."


Our news journalists report that additional information may be obtained by contacting P.S.M. Prince, Annamalai Univ, Dept. of Biochem & Biotechnol, Annamalainagar 608002, Tamil Nadu, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.08.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tamil Nadu, India, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Embolism and Thrombosis, Myocardial Infarction, Coronary Thrombosis, Myocardial Ischemia, Catecholamines, Isoproterenol, Ethanolamines, Heart Disease, Inflammation, Heart Attack, Hematology, Genetics, Annamalai University.

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**Stem Cell Research - Hematopoietic Stem Cells**

**New Findings in Hematopoietic Stem Cells Described from University of Debrecen (Evaluation of Mannose-Binding Lectin is a Useful Approach to Predict the Risk of Infectious Complications Following Autologous Hematopoietic Stem Cell ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Stem Cell Research - Hematopoietic Stem Cells are presented in a new report. According to news reporting from Debrecen, Hungary, by NewsRx journalists, research stated, "Hematopoietic stem cell transplantation (HSCT) associated immunocompromised state carries high risk of infectious complications. Mannose-binding lectin (MBL) is an acute phase protein involved in innate immune response."

The news correspondents obtained a quote from the research from the University of Debrecen, "Serum MBL level is genetically determined and quite stable. According to literature, significant association was shown between low MBL concentrations and serious infections. The association between serum MBL level and frequency and severity of infections was studied in 186 patients following autologous HSCT. Double-monoclonal antibody sandwich enzyme-linked immunosorbent assay was used to determine MBL antigen level in sera. MBL levels were
measured around 100 days following transplantation, in a period without active infection. Twenty-one patients (11%) were MBL deficient. The median time of first infection and number of infections during the first year post-transplantation were not significantly different between patients with MBL deficiency and those without MBL deficiency. The occurrence and number of infections after HSCT correlated with the MBL/C-reactive protein ratio. The number of severe infections was not higher among those with MBL deficiency. The occurrence of infections after the pre-engraftment period during the first year post transplantation was significantly different in patient groups separated by MBL cut-off level. The MBL/C-reactive protein ratio might be a useful marker of infectious complications. MBL measurement may be helpful in antibiotic treatment.

According to the news reporters, the research concluded: "In case of MBL deficiency, earlier and more intensive treatment may be indicated."


Our news journalists report that additional information may be obtained by contacting Z.B. Radnay, Univ Debrecen, Inst Internal Med, Dept. of Hematol, Fac Med, H-4032 Debrecen, Hungary. Additional authors for this research include M. Udvardy, M. Papp, J. Harsfalvi, L. Rejto, I. Pal, A. Illes and A. Kiss.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.08.041. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Debrecen, Hungary, Europe, Hematopoietic Stem Cells, Mannose-Binding Lectins, Cell Transplantation, Transplant Medicine, Stem Cell Research, C Reactive Protein, Bone Marrow Cells, Cell Transplants, Biomedicine, Hematology, Collectins, Proteomics, Proteins, Surgery, University of Debrecen.

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Nervous System Diseases and Conditions - Hemiplegia

New Findings in Hemiplegia Described from International Hospital (Pinball-Like Free-Floating Left Atrial Ball Thrombus Presenting with Hemiplegia: A Challenging Treatment Decision)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nervous System Diseases and Conditions - Hemiplegia. According to news reporting originating from Istanbul, Turkey, by NewsRx correspondents, research stated, "We describe a case of a patient with a history of chronic atrial fibrillation who presented with sudden onset of left hemiplegia. Nine months earlier the longstanding warfarin therapy had been suspended due to a hemorrhagic stroke."

Our news editors obtained a quote from the research from International Hospital, "Transthoracic echocardiography revealed a large free-floating highly mobile mass in the left atrium and severe mitral valve regurgitation. Due to the potential risk of an embolic event or a
hemodynamic collapse, a decision to carry out an emergency operation was made irrespective of the neurological condition of the patient."

According to the news editors, the research concluded: "Unfortunately, the patient died on the 18th postoperative day after a freshly occurring hemorrhagic stroke."


The news editors report that additional information may be obtained by contacting T. Demir, Dept. of Cardiovascular Surgery, Kolan International Hospital, Istanbul, Turkey. Additional authors for this research include M.U. Ergenoglu, N. Tanrikulu, A.Y. Cizgici, K.I. Yildirim and E. Demirsoy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1532/hsf.1344. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turkey, Eurasia, Istanbul, Paralysis, Hemiplegia, Thrombosis, Neurologic Manifestations, Cardiovascular Diseases and Conditions, Nervous System Diseases and Conditions.

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**Immunology - Immunoglobulins**

**New Findings in Immunoglobulins Described by N. Poirier and Co-Researchers (First-in-Human Study in Healthy Subjects with FR104, a Pegylated Monoclonal Antibody Fragment Antagonist of CD28)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immunology - Immunoglobulins are presented in a new report. According to news reporting out of Nantes, France, by NewsRx editors, research stated, "FR104 is a monovalent pegylated Fab' Ab, antagonist of CD28, under development for treatment of transplant rejection and autoimmune diseases. In contrast to CD80/86 antagonists (CTLA4-Ig), FR104 selectively blunts CD28 costimulation while sparing CTLA-4 and PD-L1 coinhibitory signals."

Our news journalists obtained a quote from the research, "In the present work, FR104 has been evaluated in a first-in-human study to evaluate the safety, pharmacokinetics, pharmacodynamics, and potency of i.v. administrations in healthy subjects. Sixty-four subjects were randomly assigned to four single ascending dose groups, two double dose groups and four single ascending dose groups challenged with keyhole limpet hemocyanin. Subjects were followed up over a maximum of 113 d. Overall, the pharmacokinetics of FR104 after a single and double infusions was approximately linear at doses >= 0.200 mg/kg. CD28 receptor occupancy by FR104 was saturated at the first sampling time point (0.5 h) at doses above 0.02 mg/kg and returned to 50% in a dose-dependent manner, by day 15 (0.020 mg/kg) to 85 (1.500 mg/kg). FR104 was well tolerated, with no evidence of cytokine-release syndrome and no impact on blood lymphocyte subsets. Inhibition of anti-keyhole limpet hemocyanin Ab response was dose-dependent in FR104 recipients and was already apparent at a dose of 0.02 mg/kg. Abs to FR104 were detected in 22/46 (48%) of FR104 recipients and only 1/46 (2.2%) was detected during drug exposure."
According to the news editors, the research concluded: "Selective blockade of CD28 with FR104 was safe and well tolerated at the doses tested. The observed immunosuppressive activity indicated that FR104 has potential to show clinical activity in the treatment of immune-mediated diseases."

For more information on this research see: First-in-Human Study in Healthy Subjects with FR104, a Pegylated Monoclonal Antibody Fragment Antagonist of CD28. *Journal of Immunology*, 2016;197(12):4593-4602. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1601538. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nantes, France, Europe, Biological Pigments, Biological Factors, Pharmacokinetics, Pharmaceuticals, Immunoglobulins, Blood Proteins, Hemocyanin, Immunology, Antibodies, Therapy.

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Membrane Proteins - Immunologic Receptors

**New Findings in Immunologic Receptors Described from Karolinska Institute (Tetraspanin CD151 and integrin a6b1 mediate platelet-enhanced endothelial colony forming cell angiogenesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Membrane Proteins - Immunologic Receptors are discussed in a new report. According to news reporting originating in Stockholm, Sweden, by NewsRx journalists, research stated, "ESSENTIALS: Platelet releasates (PRs) enhance endothelial colony forming cell (ECFC) angiogenesis. The impact of platelet membrane components on ECFC angiogenesis was studied by a tube formation assay."

Funders for this research include Hjart-Lungfonden, Vetenskapsradet, Cancerfonden, Karolinska Institutet, Stockholms Lans Landsting, China Scholarship Council.

The news reporters obtained a quote from the research from Karolinska Institute, "Platelets enhanced ECFC angiogenesis more potently than PR, via tetraspanin CD151 and integrin a6b1. Optimal enhancement of ECFC angiogenesis by platelets requires both membrane proteins and PR. Platelets promote angiogenesis of endothelial colony forming cells (ECFCs), with the underlying mechanisms not being fully understood. To investigate if platelets regulate the angiogenic property of ECFCs via mechanisms beyond platelet-released angiogenic regulators. Endothelial colony forming cells were generated by ECFC-directed cell culture of peripheral blood mononuclear cells. Capillary-like tube formation of ECFCs was assessed using a Matrigel assay. Platelets promoted ECFC tube formation in both basic and complete ECFC medium. Importantly, the ECFC angiogenic responses induced by platelets were stronger than
those induced by platelet releasates. Thus, the branching points of ECFC tube formation (30.5 \pm 9.0/field, ECFC alone) were increased by platelet releasates (58.2 \pm 8.3/field) and even more profoundly by platelets (95.5 \pm 17.6/field), indicating that platelet membrane components also promoted ECFC tube formation. The latter was further supported by evidence that fixed platelets did enhance ECFC tube formation. Subsequent experiments revealed that the promotion was dependent on platelet-surface glycoproteins, as removal of sialic acid from platelet glycoproteins by neuraminidase abolished the enhancement. Furthermore, platelet-expressed, but not ECFC-expressed, CD151 was important for the enhancement, as pretreatment of platelets, but not ECFCs, with a CD151-blocking antibody attenuated the effect. Integrin \( \alpha 6\beta 1 \) on both ECFCs and platelets also participated in platelet-induced tube formation, as integrin \( \alpha 6 \) or \( \beta 1 \) blockade of either cell type markedly or totally inhibited the phenomenon. Moreover, platelets exerted the enhancement via the Src-PI3K signaling pathway of ECFCs."

According to the news reporters, the research concluded: "Platelet-enhanced ECFC angiogenesis requires platelet tetraspanin CD151 and \( \alpha 6\beta 1 \) integrin, as well as ECFC \( \alpha 6\beta 1 \) integrin and Src-PI3K signaling."

For more information on this research see: Tetraspanin CD151 and integrin \( \alpha 6\beta 1 \) mediate platelet-enhanced endothelial colony forming cell angiogenesis. *Journal of Thrombosis and Haemostasis*, 2016;14(3):606-18. (Wiley-Blackwell - www.wiley.com; Journal of Thrombosis and Haemostasis - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1538-7836)

Our news correspondents report that additional information may be obtained by contacting Z. Huang, Clinical Pharmacology Unit, Dept. of Medicine-Solna, Karolinska Institutet, Stockholm, Sweden. Additional authors for this research include X. Miao, M. Patarroyo, G.P. Nilsson, J. Pernow and N. Li.

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Keywords for this news article include: Sweden, Europe, Stockholm, Integrins, Angiogenesis, Glycoproteins, Glycoconjugates, Membrane Proteins, Immunologic Receptors.

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**New Findings in Immunosuppressive Agents**

**New Findings in Immunosuppressive Agents Described from University of California [In Vitro and In Vivo Sustained Zero-Order Delivery of Rapamycin (Sirolimus) From a Biodegradable Intraocular Device]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Immunosuppressive Agents. According to news reporting out of San Francisco, California, by NewsRx editors, research stated, "We created implantable intraocular devices capable of constant and continuous rapamycin release on the scale of months to years. Polycaprolactone (PCL) thin films were used to encapsulate rapamycin to create implantable and biodegradable intraocular devices."

Our news journalists obtained a quote from the research from the University of California, "Different film devices were studied by modifying the size, thickness, and porosity of the PCL films. In vitro release of rapamycin was observed to be constant (zero-order) through
14 weeks of study. Release rates were tunable by altering PCL film porosity and thickness. In vivo release of rapamycin was observed out through 16 weeks with concentrations in the retina-choroid in the therapeutic range. Rapamycin concentration in the blood was below the lower limit of quantification. The drug remaining in the device was chemically stable in vitro and in vivo, and was sufficient to last for upwards of 2 years of total release. The mechanism of release is related to the dissolution kinetics of crystalline rapamycin."

According to the news editors, the research concluded: "Microporous PCL thin film devices demonstrate good ocular compatibility and the ability to release rapamycin locally to the eye over the course of many weeks."


Our news journalists report that additional information may be obtained by contacting K.D. Lance, University of California at Berkeley-University of California, San Francisco Bioengineering Graduate Program, San Francisco, California, United States. Additional authors for this research include S.D. Good, T.S. Mendes, M. Ishikiriyama, P. Chew, L.S. Estes, K. Yamada, S. Mudumba, R.B. Bhisiitkul and T.A Desai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1167/iovs.15-17757. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, California, San Francisco, United States, Sirolimus Therapy, Drugs and Therapies, Immunosuppressive Agents, North and Central America.

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Inflammation

**New Findings in Inflammation Described from Wenzhou Medical University (Loss of PINK1 inhibits apoptosis by upregulating a-synuclein in inflammation -sensitized hypoxic-ischemic injury in the immature brains)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Inflammation have been published. According to news reporting originating in Wenzhou, People's Republic of China, by NewsRx journalists, research stated, "The incidence of preterm birth is rising worldwide. Among preterm infants, many face a lifetime of neurologic impairments."

The news reporters obtained a quote from the research from Wenzhou Medical University, "Recent studies have revealed that systemic inflammation can sensitize the immature brain to hypoxic-ischemic (HI) injury. Therefore, it is important to identify the mechanisms involved in inflammation sensitized HI injury in immature brains. PTEN-induced putative kinase 1 (PINK1) is a regulatory protein that is highly expressed in the brain. We have previously found that PINK1 gene knockout can protect matured brains from HI injury in postnatal day 10 mice. However, the mechanisms are unknown. In this study, we employed an
inflammation-sensitized HI injury model using postnatal day 3 mice to study the roles and mechanisms that PINK1 plays in the immature brains. Lipopolysaccharide (LPS) was injected intraperitoneally into the mice before HI treatment to set up the model. We found that PINK1-knockout mice had fewer brain infarcts and less cell apoptosis than did the wild-type mice. Furthermore, we found that a-synuclein was markedly higher in the PINK1-knockout mice than in the wild-type mice, and inhibition of a-synuclein through small interfering RNA (siRNA) reversed the protective effect in the PINK1-knockout mice."

According to the news reporters, the research concluded: "Collectively, these findings indicate that loss of PINK1 plays a novel role in the protection of inflammation-sensitized HI brain damage."

For more information on this research see: Loss of PINK1 inhibits apoptosis by upregulating a-synuclein in inflammation-sensitized hypoxic-ischemic injury in the immature brains. Brain Research, 2016;1653():14-22. Brain Research can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Brain Research - www.journals.elsevier.com/brain-research/)


Keywords for this news article include: Wenzhou, People's Republic of China, Asia, Nerve Tissue Proteins, Inflammation, Synucleins, Apoptosis, Genetics, Wenzhou Medical University.

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Lung Diseases and Conditions - Interstitial Lung...

New Findings in Interstitial Lung Disease Described from Columbia University (Rheumatoid arthritis-associated autoantibodies and subclinical interstitial lung disease: the Multi-Ethnic Study of Atherosclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Interstitial Lung Disease. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Adults with interstitial lung disease (ILD) often have serologic evidence of autoimmunity of uncertain significance without overt autoimmune disease. We examined associations of rheumatoid arthritis (RA)-associated antibodies with subclinical ILD in community-dwelling adults."

Funders for this research include National Heart, Lung, and Blood Institute, Arthritis Foundation, Pulmonary Fibrosis Foundation, National Center for Research Resources.

Our news journalists obtained a quote from the research from Columbia University, "We measured serum rheumatoid factor (RF) and anticyclic citrullinated peptide antibody (anti-CCP) and high attenuation areas (HAAs; CT attenuation values between -600 and -250 Hounsfield units) on cardiac CT in 6736 community-dwelling US adults enrolled in the Multi-Ethnic Study of Atherosclerosis. We measured interstitial lung abnormalities (ILAs) in 2907 full-lung CTs at 9.5-year median follow-up. We used generalised linear and additive models to
examine associations between autoantibodies and both HAA and ILA, and tested for effect modification by smoking. In adjusted models, HAA increased by 0.49% (95% CI 0.11% to 0.86%) per doubling of RF IgM and by 0.95% (95% CI 0.50% to 1.40%) per RF IgA doubling. ILA prevalence increased by 11% (95% CI 3% to 20%) per RF IgA doubling. Smoking modified the associations of both RF IgM and anti-CCP with both HAA and ILA (interaction p values varied from 0.01 to 0.09). Among ever smokers, HAA increased by 0.81% (95% CI 0.33% to 1.30%) and ILA prevalence increased by 14% (95% CI 5% to 24%), per RF IgM doubling; and HAA increased by 1.31% (95% CI 0.45% to 2.18%) and ILA prevalence increased by 13% (95% CI 2% to 24%) per anti-CCP doubling. Among never smokers, no meaningful associations were detected.

According to the news editors, the research concluded: "RA-related autoimmunity is associated with both quantitative and qualitative subclinical ILD phenotypes on CT, particularly among ever smokers."


The news correspondents report that additional information may be obtained from D.J. Lederer, Columbia University, Medical Center, Dept. of Epidemiol, New York, NY, United States. Additional authors for this research include R.G. Barr, J.H.M. Austin, S.M. Kawut, G. Raghu, J.L. Sell, E.A. Hoffman, J.R. Newell, J.R. Watts, H. Nath, S.K. Sonavane, J.M. Bathon, D.S. Majka and D.J. Lederer.

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Keywords for this news article include: New York City, New York, United States, North and Central America, Respiratory Tract Diseases and Conditions, Musculoskeletal Diseases and Conditions, Cardiovascular Diseases and Conditions, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Lung Diseases and Conditions, Arterial Occlusive Diseases, Interstitial Lung Disease, Rheumatoid Arthritis, Arteriosclerosis, Atherosclerosis, Columbia University.

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**Digestive System Diseases and Conditions** -

**New Findings in Intestinal Pseudo-Obstruction Described from University of Genoa (Chronic Intestinal Pseudo-Obstruction in a Child Harboring a Founder Hirschsprung RET Mutation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Intestinal Pseudo-Obstruction have been published. According to news reporting originating in Genoa, Italy, by NewsRx journalists, research stated, "Chronic intestinal pseudo obstruction (CIPO) is a rare clinical entity characterized by symptoms and signs of intestinal obstruction without either recognizable anatomical abnormalities or intestinal aganglionosis. A Chinese
female infant presented to our institution with a clinical diagnosis of CIPO."

The news reporters obtained a quote from the research from the University of Genoa, "Aganglionosis was ruled out by full thickness colonic and ileal biopsies and by rectal suction biopsies. Unexpectedly, direct sequencing and PCR amplification of RET proto-oncogene from peripheral blood extracted DNA identified a RET R114H mutation. This mutation has already been reported as strongly associated with Asian patients affected by Hirschsprung's disease (HSCR) and is considered a founder mutation in Asia. The same mutation has never been reported in patients with CIPO, so far. These findings support the role of RET in the development of the enteric nervous system but underline the importance of other genetic or environmental factors contributing to the gastrointestinal phenotype of the disease."

According to the news reporters, the research concluded: "Somehow, this RET R114H mutation proved to have a role in the etiology of both CIPO and HSCR and could contribute to a more diffuse imbalance of gut dysmotility."


Our news correspondents report that additional information may be obtained by contacting V. Rossi, University of Genoa, DINOGMI, Genoa, Italy. Additional authors for this research include M. Mosconi, P. Nozza, D. Murgia, G. Mattioli, I. Ceccherini and A.P. Prato.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37787. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genoa, Italy, Europe, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Ileus, Epidemiology, Genetics, Intestinal Pseudo-Obstruction, Intestinal Obstruction, University of Genoa.

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New Findings in Iron Deficiency Described from Hyogo College of Medicine (Iron is associated with the development of hypoxia-induced pulmonary vascular remodeling in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Iron Deficiency is the subject of a report. According to news originating from Nishinomiya, Japan, by NewsRx correspondents, research stated, "Several recent observations provide the association of iron deficiency with pulmonary hypertension (PH) in human and animal studies. However, it remains completely unknown whether PH leads to iron deficiency or iron deficiency enhances the development of PH."

Financial supporters for this research include A Grant-in-Aid for Scientific Research (C), The Salt Science Research Foundation.

Our news journalists obtained a quote from the research from the Hyogo College of
Medicine, "In addition, it is obscure whether iron is associated with the development of pulmonary vascular remodeling in PH. In this study, we investigate the impacts of dietary iron restriction on the development of hypoxia-induced pulmonary vascular remodeling in mice. Eight- to ten-week-old male C57BL/6J mice were exposed to chronic hypoxia for 4 weeks. Mice exposed to hypoxia were randomly divided into two groups and were given a normal diet or an iron-restricted diet. Mice maintained in room air served as normoxic controls. Chronic hypoxia induced pulmonary vascular remodeling, while iron restriction led a modest attenuation of this change. In addition, chronic hypoxia exhibited increased RV systolic pressure, which was attenuated by iron restriction. Moreover, the increase in RV cardiomyocyte cross-sectional area and RV interstitial fibrosis was observed in mice exposed to chronic hypoxia. In contrast, iron restriction suppressed these changes. Consistent with these changes, RV weight to left ventricular + interventricular septum weight ratio was increased in mice exposed to chronic hypoxia, while this increment was inhibited by iron restriction."

According to the news editors, the research concluded: "Taken together, these results suggest that iron is associated with the development of hypoxia-induced pulmonary vascular remodeling in mice."

For more information on this research see: Iron is associated with the development of hypoxia-induced pulmonary vascular remodeling in mice. *Heart and Vessels*, 2016;31 (12):2074-2079. *Heart and Vessels* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

The news correspondents report that additional information may be obtained from Y. Naito, Hyogo Coll Med, Dept. of Internal Med, Cardiovasc Div, Nishinomiya, Hyogo 6638501, Japan. Additional authors for this research include M. Hosokawa, H. Sawada, M. Oboshi, T. Iwasaku, Y. Okuhara, A. Eguchi, K. Nishimura, Y. Soyama, S. Hirotani, T. Mano, M. Ishihara and T. Masuyama.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00380-016-0860-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nishinomiya, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Iron Deficiency, Hematology, Hyogo College of Medicine.

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**Oncology - Liposarcomas**

**New Findings in Liposarcomas Described from Second Military Medical University (Surgical management of spinal liposarcoma: a case series of 7 patients and literature review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liposarcomas have been published. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Liposarcoma, one of the most common soft tissue sarcomas originates from primitive mesenchymal cells. But spinal involvement of either primary or metastatic liposarcoma is rare."
Our news journalists obtained a quote from the research from Second Military Medical University, "Here we present our experience of seven consecutive patients with spinal liposarcoma. We retrospectively reviewed our patients who have spinal liposarcoma from January 2009 to December 2013. All patients were surgically treated at least once at our spine tumor center and be confirmed as liposarcoma after surgery. All patients' information and follow-up data were collected afterwards. A total of six male and one female patients have been included. Five of them had mobile spinal involvement while the others had sacral involvement. Six piecemeal and one en-bloc resections were successfully performed. Patients' Frankel scores were upgraded with one level or at least preserved postoperatively. The average time of follow-up was 24.6 +/- 13.9 months. Three patients died 13, 15 and 24 months after surgical treatment, respectively while the other four patients were still alive and one of them alive with disease at the end of follow-up. The outcome and prognosis of spinal liposarcoma is poor, and surgical resections should be considered when diagnosis is confirmed. For those whose tumors were too large to resect and/or with multiple metastases, effective treatment options are currently limited."

According to the news editors, the research concluded: "Therefore, multidisciplinary treatment should be adopted, intraoperative chemotherapy, systemic chemotherapy and radiotherapy for instance."

For more information on this research see: Surgical management of spinal liposarcoma: a case series of 7 patients and literature review. European Spine Journal, 2016;25 (12):4088-4093. European Spine Journal can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Spine Journal - www.springerlink.com/content/0940-6719/)

Our news journalists report that additional information may be obtained by contacting C.L. Zhao, Second Military Med Univ, Changzheng Hosp, Spine Tumor Center, Shanghai, People's Republic of China. Additional authors for this research include Z.T. Han, H. Xiao, C. Yang, Y.F. Zhao, T.Q. Fan, Z.W. Sun, T.L. Liu and J.R. Xiao.

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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Oncology, Article Review, Liposarcomas, Second Military Medical University.

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**Biotechnology - Liposomes**

**New Findings in Liposomes Described from University of Hohenheim**

*(In vitro release of grape-seed polyphenols encapsulated from uncoated and chitosan-coated liposomes)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biotechnology - Liposomes is the subject of a report. According to news reporting originating from Stuttgart, Germany, by NewsRx correspondents, research stated, "Grape-seed extract (GSE), a rich source for polyphenols, was incorporated into liposomes (1.1% w/w soy lecithin) using high-pressure homogenization (22,500 psi). A chitosan coating (1% w/w) was used to obtain more stable liposomes."
Financial support for this research came from University of Hohenheim Experiment Station.

Our news editors obtained a quote from the research from the University of Hohenheim, "Physiochemical properties (zeta-potential, mean particle size) of all liposomes were analyzed. In vitro release of GSE-polyphenols from various liposomes was investigated by measuring the total phenolic content of the dialysate (acetate buffer, pH 3.8 +/- 0.1, 25 mM) over time. Diverse kinetic models were used to describe the release of the polyphenols incorporated from liposomes. Z-average particle diameters increased with the incorporation of GSE and chitosan coating. Chitosan-coated liposomes containing GSE had larger particle sizes than coated liposomes without GSE. The zeta-potential changed from -38 mV in uncoated liposomes to +65 mV in coated liposomes. Entrapment efficiency for uncoated and coated liposomes was 88.2 +/- 4.7% and 99.5 +/- 2.3%, respectively. The release rate increased gradually by increasing time. In vitro release of GSE polyphenols from both uncoated and coated liposomes followed an exponential equation (first order Q(t) = a.(1 - exp(-k. t))). The release from coated liposomes was much lower than uncoated liposomes. The release rate after 24 h from uncoated liposomes was 0.55 and from coated liposomes was 0.24."

According to the news editors, the research concluded: "This study indicates that the release of bioactive compounds from liposomes can be reduced by coating with chitosan, allowing an application of coated liposomes with a controlled release of GSE polyphenols in water-based foods."

For more information on this research see: In vitro release of grape-seed polyphenols encapsulated from uncoated and chitosan-coated liposomes. Food Research International, 2016;88():105-113. Food Research International can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Food Research International - www.journals.elsevier.com/food-research-international/)

The news editors report that additional information may be obtained by contacting M. Gibis, University of Hohenheim, Inst Food Sci & Biotechnol, Dept. of Food Phys & Meat Sci, D-70599 Stuttgart, Germany. Additional authors for this research include C. Ruedt and J. Weiss.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.foodres.2016.02.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stuttgart, Germany, Europe, Biotechnology, Liposomes, University of Hohenheim.

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Oncology - Lung Cancer

New Findings in Lung Cancer Described by S. Barbierio and Co-Researchers (Single-fraction flattening filter-free volumetric modulated arc therapy for lung cancer: Dosimetric results and comparison with flattened beams technique)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Lung Cancer is the subject of a report. According to news originating from Aviano, Italy, by NewsRx correspondents, research stated,
"To report on single-fraction stereotactic body radiotherapy (RT) (SBRT) with flattening filter (FF)-free (FFF) volumetric modulated arc therapy (VMAT) for lung cancer and to compare dosimetric results with VMAT with FF. Overall, 25 patients were treated with 6-MV FFF VMAT (Varian TrueBeam STx LINAC) to a prescribed dose of 24 Gy in a single fraction."

Our news journalists obtained a quote from the research, "Treatment plans were recreated using FF VMAT. Dose-volume indices, monitor units (MU), and treatment times were compared between FFF and FF VMAT techniques. Dose constraints to PTV, spinal cord, and lungs were reached in FFF and FF plans. In FFF plans, average conformity index was 1.13 (95% CI: 1.07 to1.38). Maximum doses to spinal cord, heart, esophagus, and trachea were 2.9 Gy (95% CI: 0.4 to 6.7 Gy), 0.8 Gy (95% CI: 0 to 3.6 Gy), 3.3 Gy (95% CI: 0.02 to 13.9 Gy), and 1.5 Gy (95% CI: 0 to 4.9 Gy), respectively. Average V7 Gy, V7.4 Gy, and mean dose to the healthy lung were 126.5 cc (95% CI: 41.3 to 248.9 cc), 107.3 cc (95% CI: 18.7 to 232.8 cc), and 1.1 Gy (95% CI: 0.3 to 2.2 Gy), respectively. No statistically significant differences were found in dosimetric results and MU between FF and FFF treatments. Treatment time was reduced by an average factor of 2.31 (95% CI: 2.15 to 2.43) from FF treatments to FFF, and the difference was statistically significant."

According to the news editors, the research concluded: "FFF VMAT for lung SBRT provides equivalent dosimetric results to the target and organs at risk as FF VMAT while significantly reducing treatment time."


The news correspondents report that additional information may be obtained from M. Avanzo, Center Riferimento Oncol, Medical Phys Div, Aviano, Italy. Additional authors for this research include A. Rink, F. Matteucci, D. Fedele, F. Paiair, F. Pasqualetti and M. Avanzo.

Keywords for this news article include: Aviano, Italy, Europe, Lung Neoplasms, Lung Cancer, Oncology, Therapy.

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Mosquito-Borne Diseases - Malaria

New Findings in Malaria Described from Albert Einstein College of Medicine [Targeting the Plasmodium vivax equilibrative nucleoside transporter 1 (PvENT1) for antimalarial drug development]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mosquito-Borne Diseases - Malaria have been published. According to news reporting originating in Bronx, New York, by NewsRx journalists, research stated, "Infection with Plasmodium falciparum and vivax cause most cases of malaria. Emerging resistance to current antimalarial medications makes new drug development imperative."

Funders for this research include NIGMS Medical Scientist Training Program, NIH.

The news reporters obtained a quote from the research from the Albert Einstein
College of Medicine, "Ideally a new antimalarial drug should treat both falciparum and vivax malaria. Because malaria parasites are purine auxotrophic, they rely on purines imported from the host erythrocyte via Equilibrative Nucleoside Transporters (ENTs). Thus, the purine import transporters represent a potential target for antimalarial drug development. For falciparum parasites the primary purine transporter is the \textit{P. falciparum} Equilibrative Nucleoside Transporter Type 1 (PfENT1). Recently we identified potent PfENT1 inhibitors with nanomolar IC\text{[50]} values using a robust, yeast-based high throughput screening assay. In the current work we characterized the \textit{Plasmodium vivax} ENT1 (PvENT1) homologue and its sensitivity to the PfENT1 inhibitors. We expressed a yeast codon-optimized PvENT1 gene in \textit{Saccharomyces cerevisiae}. PvENT1-expressing yeast imported both purines ((3)H\textit{H})adenosine and pyrimidines ((3)H\textit{H})uridine), whereas wild type (fui1D) yeast did not. Based on radiolabel substrate uptake inhibition experiments, inosine had the lowest IC\text{[50]} (3.8 mM), compared to guanosine (14.9 mM) and adenosine (142 mM). For pyrimidines, thymidine had an IC\text{[50]} of 183 mM (vs. cytidine and uridine; mM range). IC\text{[50]} values were higher for nucleobases compared to the corresponding nucleosides; hypoxanthine had a 25-fold higher IC\text{[50]} than inosine. The archetypal human ENT1 inhibitor 4-nitrobenzylthiokinose (NBMPR) had no effect on PvENT1, whereas dipyridamole inhibited PvENT1, albeit with a 40 mM IC\text{[50]}, a 1000-fold less sensitive than human ENT1 (hENT1). The PfENT1 inhibitors blocked transport activity of PvENT1 and the five known naturally occurring non-synonymous single nucleotide polymorphisms (SNPs) with similar IC\text{[50]} values. Thus, the PfENT1 inhibitors also target PvENT1."

According to the news reporters, the research concluded: "This implies that development of novel antimalarial drugs that target both falciparum and vivax ENT1 may be feasible."

For more information on this research see: Targeting the \textit{Plasmodium vivax} equilibrative nucleoside transporter 1 (PvENT1) for antimalarial drug development. \textit{International Journal for Parasitology Drugs and Drug Resistance}, 2015;6(1):1-11.

Our news correspondents report that additional information may be obtained by contacting R. Deniskin, Dept. of Physiology & Biophysics, Albert Einstein College of Medicine, Bronx, New York, United States. Additional authors for this research include I.J. Frame, Y. Sosa and M.H Akabas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpddr.2015.11.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antimalarial Agents, Bronx, New York, Genetics, United States, Carrier Proteins, Plasmodium vivax, Tropical Disease, Membrane Proteins, Drugs and Therapies, Protozoan Infections, Plasmodium falciparum, Mosquito Borne Diseases, Mosquito Bornes Illness, Mosquito-Borne Diseases, North and Central America.

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**Mononuclear Leukocytes**

**New Findings in Mononuclear Leukocytes Described from Kyushu University (Hedgehog signaling regulates PDL-1 expression in cancer cells to induce anti-tumor activity by activated lymphocytes)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mononuclear Leukocytes are presented in a new report. According to news originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "We investigated whether hypoxia-induced activation of Hh signaling contributes to PDL-1 expression in cancer and whether it affects the anti-tumor function of activated lymphocytes. Hypoxia augmented PDL-1 expression and inhibition of Hh signaling reduced PDL-1 expression under hypoxia."

Financial support for this research came from JSPS KAKENHI.

Our news journalists obtained a quote from the research from Kyushu University, "When activated lymphocytes were cocultured with cancers treated with a Hh inhibitor, activated lymphocyte cell numbers increased under hypoxia. In contrast, this increase was abrogated when cancer cells were treated with a PDL-1 neutralizing antibody."

According to the news editors, the research concluded: "These results suggest that Hh signaling is one of regulatory pathways of PDL-1 expression under hypoxia and that inhibiting Hh signaling may induce lymphocyte anti-tumor activity."

For more information on this research see: Hedgehog signaling regulates PDL-1 expression in cancer cells to induce anti-tumor activity by activated lymphocytes. *Cellular Immunology*, 2016;310():199-204. *Cellular Immunology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Cellular Immunology - www.journals.elsevier.com/cellular-immunology/)

The news correspondents report that additional information may be obtained from H. Onishi, Kyushu University, Grad Sch Med Sci, Dept. of Canc Therapy & Res, Fukuoka, Japan. Additional authors for this research include A. Fujimura, Y. Oyama, A. Yamasaki, A. Imaizumi, M. Kawamoto, M. Katano, M. Umebayashi and T. Morisaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cellimm.2016.08.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fukuoka, Japan, Asia, Hemic and Immune Systems, Mononuclear Leukocytes, Blood Cells, Lymphocytes, Immunology, Oncology, Therapy, Cancer, Kyushu University.

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Heart Disorders and Diseases - Myocardial Ischemia

New Findings in Myocardial Ischemia Described from University of Copenhagen (Diagnostic accuracy of static CT perfusion for the detection of myocardial ischemia. A systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Myocardial Ischemia are discussed in a new report. According to news reporting originating in Copenhagen, Denmark, by NewsRx journalists, research stated, "The aim of this study is to provide a meta-analysis of all published studies assessing the diagnostic accuracy of stress CT myocardial perfusion imaging (CTP) in patients suspected of or with known coronary artery disease. This
analysis is limited to static stress CTP."

The news reporters obtained a quote from the research from the University of Copenhagen, "Systematic literature review and meta-analysis of studies examining the diagnostic accuracy of static CTP imaging alone or combined with coronary CT angiography (CTA) in comparison to single photon emission computed tomography (SPECT), magnetic resonance perfusion (MRP), and/or invasive coronary angiography with and without fractional flow reserve (FFR). The search revealed 19 eligible studies including 1188 patients. Pooled results showed that CTP had a good agreement with SPECT and MRP. On a per-patient level, sensitivity, specificity and AUC were 0.85 (95% CI: 0.70-0.93), 0.81 (95% CI: 0.59-0.93), 0.90 (95% CI: 0.87-0.92). On a per-artery level, sensitivity, specificity and AUC were 0.80 (95% CI: 0.67-0.88), 0.81 (95% CI: 0.72-0.88) and 0.87 (95% CI: 0.84-0.90). When invasive coronary angiography was used as reference standard, combined coronary CTA and CTP compared to coronary CTA alone significantly improved the specificity from 0.62 (95% CI: 0.52-0.70) to 0.84 (95% CI: 0.74-0.91) on a per-patient level (p = 0.008) and from 0.72 (95% CI: 0.63-0.79) to 0.90 (95% CI: 0.85-0.93) on a per-artery level (p = 0.0001) without significant decrease in sensitivity (p = 0.59 and p = 0.23, respectively). In selected patients, static CT myocardial perfusion has high diagnostic accuracy to detecting myocardial ischemia."

According to the news reporters, the research concluded: "Specificity increases significantly when CT myocardial perfusion is combined with coronary CFA."


Our news correspondents report that additional information may be obtained by contacting M.H. Sorgaard, University of Copenhagen, Rigshospitalet, Center Heart, Dept. of Cardiol, DK-2100 Copenhagen, Denmark. Additional authors for this research include K.F. Kofoed, J.J. Linde, R.T. George, C.E. Rochitte, G. Feuchtner, J.A.C. Lima and J. Abdulla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jcct.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Computed Tomography, Article Review, Diagnostics and Screening, Cardiovascular Diseases and Conditions, Cardiovascular Diagnostic Techniques, Heart Disorders and Diseases, Myocardial Ischemia, Imaging Technology, Heart Disease, Angiography, Cardiology, Angiology, University of Copenhagen.

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Nanotechnology - Nanoindentation

New Findings in Nanoindentation Described from Harbin Medical University (Fabrication of atomic force microscope spherical tips and its application in determining the mechanical property of cancer cells)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nanotechnology - Nanoindentation.

According to news reporting from Heilongjiang, People's Republic of China, by NewsRx journalists, research stated, "The process of cancer metastasis is closely related to the mechanical property of cells. Using the atomic force microscope (AFM)-based nanoindentation technique, the mechanical properties of cancer cells can be measured in liquid and at 37 degrees C. However, the conventional AFM tip is too sharp to finish this process."

The news correspondents obtained a quote from the research from Harbin Medical University, "The AFM tip with a microsphere at the end is usually used. How to adhere a microsphere to the tip apex has become a big concern up to now. In this work, an easy and simple method based on the employment of carbon nanotube bundles is presented. The microsphere is successfully adhered to the tip and the elastic constant of the cantilever is calibrated with the Cleveland method. Using the developed tip, the nanoindentation tests on two kinds of lung cancer cells (A549 and AGZY-83a), which exhibit different metastatic properties, are carried out in liquid and at 37 degrees C. Based on the Hertz contact equation between the spherical tip and the cell, the stress relaxation model is used to calculate the Young's modulus and viscoelastic properties of the cells."

According to the news reporters, the research concluded: "Experimental results confirm the feasibility of the method proposed in this work."


Our news journalists report that additional information may be obtained by contacting Y.M. Han, Harbin Med Univ, Subsidiary Hosp 3, Dept. of Gynaecol, Harbin 150040, Heilongjiang, People's Republic of China. Additional authors for this research include J.H. Wang, K. Wang and S. Dong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1049/mnl.2016.0319. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Heilongjiang, People's Republic of China, Asia, Emerging Technologies, Nanoindentation, Nanotechnology, Oncology, Cancer, Harbin Medical University.

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**Oncology**

**New Findings in Oncology Described from Mayo Clinic (Custom Gene Capture and Next-Generation Sequencing to Resolve Discordant ALK Status by FISH and IHC in Lung Adenocarcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology are discussed in a new report. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "We performed a genomic study in lung adenocarcinoma cases with discordant
anaplastic lymphoma receptor tyrosine kinase gene (ALK) status by fluorescent in situ hybridization (FISH) and immunohistochemical (IHC) analysis. DNA from formalin-fixed paraffin-embedded tissues of 16 discordant (four FISH-positive/IHC-negative and 12 FISH-negative/IHC-positive) cases by Vysis ALK Break Apart FISH and ALK IHC testing (ALK1 clone) were subjected to whole gene capture and next-generation sequencing (NGS) of nine genes, including ALK, echinoderm microtubule associated protein like 4 gene (EML4), kinesin family member 5B gene (KIF5B), staphylococcal nuclease and tudor domain containing 1 gene (SND1), BRAF, ret proto-oncogene (RET), ezrin gene (EZR), ROS1, and telomerase reverse transcriptase (TERT).

Our news editors obtained a quote from the research from Mayo Clinic, "All discordant cases (except one FISH-negative/IHC-positive case without sufficient tissue) were analyzed by IHC with D5F3 antibody. In one case with fresh frozen tissue, whole transcriptome sequencing was also performed. Twenty-six concordant (16 FISH-positive/IHC-positive and 10 FISH-negative/IHC-negative) cases were included as controls. In four ALK FISH-positive/IHC-negative cases, no EML4-ALK fusion gene was observed by NGS, but in one case using fresh frozen tissue, we identified EML4-baculoviral AIP repeat containing 6 gene (BIRC6) and AP2 associated kinase 1 gene 1 gene (AAK1)-ALK fusion genes. Whole transcriptome sequencing revealed a highly expressed EML4-BIRC6 fusion transcript and a minimally expressed AAK1 transcript. Among the 12 FISH-negative/IHC-positive cases, no evidence of ALK gene rearrangement was detected by NGS. Eleven of 12 FISH-negative/IHC-positive cases detected by ALK1 clone were concordant by repeat ALK IHC with D5F3 antibody (i.e., FISH-negative/IHC-negative by D5F3 clone). Among the 16 ALK FISH-positive/IHC-positive positive controls, whole gene capture identified ALK gene fusion in 15 cases, including in one case with Huntington interacting protein 1 gene (HIP1)-ALK. No ALK fusion gene was observed in any of the 10 FISH-negative/IHC-negative cases. Other fusion genes involving ROS1, EZR, BRAF, and SND1 were also found. ALK FISH results appeared to be false positive in three of four FISH-positive/IHC-negative cases, whereas no false-negative ALK FISH case was identified among 12 ALK FISH-negative/IHC-positive cases by ALK1 clone, which was in keeping with the concordant FISH-negative/IHC-negative status by D5F3 clone."

According to the news editors, the research concluded: "Our targeted whole gene capture approach using formalin-fixed paraffin embedded samples was effective for detecting rearrangements involving ALK and other actionable oncogenes."


Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Oncology, Enzymes and Coenzymes, Genetics, Genetics, Kinase, Mayo Clinic.

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New Findings in Oral Cancer Described from China Medical University and Hospital (Taiwanin C selectively inhibits arecoline and 4-NQO-induced oral cancer cell proliferation via ERK1/2 inactivation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Oral Cancer are presented in a new report. According to news originating from Taichung, Taiwan, by NewsRx correspondents, research stated, "Arecoline, the most abundant alkaloid in betel nut is known to promote abnormal proliferation of epithelial cells by enhancing epidermal growth factor receptor (EGFR) activation and cyclooxygenase-2 (COX2) expression. Taiwanin C, a naturally occurring lignan extracted from Taiwania cryptomerioides, has been found to be a potential inhibitor of COX2 expression."

Financial support for this research came from Taiwan Ministry of Health and Welfare Clinical Trial and Research Center of Excellence.

Our news journalists obtained a quote from the research from China Medical University and Hospital, "Based on the MTT assay results, taiwanin C was found to be effective in inhibiting the tumorous T28 cell than the non-tumorous N28 cells. The modulations in the expression of relevant proteins were determined to understand the mechanism induced by taiwanin C to inhibit T28 cell proliferation. The levels of activated EGFR and COX2 were found to be abnormally high in the T28 oral cancer cells. However, taiwanin C was found to inhibit the activation of EGFR and regulated other related downstream proteins and thereby inhibited the T28 cell proliferation."

According to the news editors, the research concluded: "In conclusion the results indicate that taiwanin C suppresses COX2-EGFR and enhances P27 pathways to suppress arecoline induced oral cancer cell proliferation via ERK1/2 inactivation. ? 2015 Wiley Periodicals, Inc. Environ Toxicol 32:62-69." For more information on this research see: Taiwanin C selectively inhibits arecoline and 4-NQO-induced oral cancer cell proliferation via ERK1/2 inactivation. Environmental Toxicology, 2015;32(1):62-69. (Wiley-Blackwell - www.wiley.com; Environmental Toxicology - onlinelibrary.wiley.com/journal/10.1002/(ISSN)1522-7278)

The news correspondents report that additional information may be obtained from K.H. Lin, Emergency Department, China Medical University Hospital, Taichung, Taiwan. Additional authors for this research include M.A. Shibu, Y.H. Kuo, Y.C. Chen, H.H. Hsu, D.T. Bau, M.C. Chen, C.C. Tu, V.P. Viswanadha and C.Y Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/tox.22212. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiwan, Taichung, Oncology, Oral Cancers, Mouth Neoplasms, Protein Kinases, Membrane Proteins, Cell Proliferation, Phosphotransferases, Epidermal Growth Factor Receptor, Receptor Protein Tyrosine Kinases, Gastrointestinal Hormone Receptors, Intercellular Signaling Peptides and Proteins.

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Oxides

New Findings in Oxides Described from Research Hospital (Treatment in carbon monoxide poisoning patients with headache: a prospective, multicenter, double-blind, controlled clinical trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oxides is now available. According to news reporting from Istanbul, Turkey, by NewsRx journalists, research stated, "There is a lack of specificity of the analgesic agents used to treat headache and underlying acute carbon monoxide poisoning. To compare effectiveness of 'oxygen alone' vs 'metoclopramide plus oxygen' vs 'metamizole plus oxygen' therapy in treating carbon monoxide-induced headache."

The news correspondents obtained a quote from the research from Research Hospital, "A prospective, multicenter, double-blind, controlled trial. Three emergency departments in Turkey. Adult carbon monoxide poisoning patients with headache. A total of 117 carbon monoxide-intoxicated patients with headache were randomized into 3 groups and assessed at baseline, 30 minutes, 90 minutes, and 4 hours. The primary outcome was patient-reported improvement rates for headache. Secondary end points included nausea, need for rescue medication during treatment, and reduction in carboxyhemoglobin levels. During observation, there was no statistical difference between drug type and visual analog scale score change at 30 minutes, 90 minutes, or 4 hours, for either headache or nausea. No rescue medication was needed during the study period. The reduction in carboxyhemoglobin levels did not differ among the 3 groups."

According to the news reporters, the research concluded: "The use of 'oxygen alone' is as efficacious as 'oxygen plus metoclopramide' or 'oxygen plus metamizole sodium' in the treatment of carbon monoxide-induced headache."


Our news journalists report that additional information may be obtained by contacting T. Ocak, Kanuni Sultan Suleyman Educ & Res Hosp, Dept. of Emergency Med, Istanbul, Turkey. Additional authors for this research include E. Tekin, M. Basturk, A. Duran, M. Serinken and M. Emet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Oxides, Inorganic Carbon Compounds, Carbon Monoxide, Chalcogens, Chemicals, Research Hospital.

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New Findings in Pain Described from Washington University School of Medicine (Eact, a small molecule activator of TMEM16A, activates TRPV1 and elicits pain- and itch-related behaviours)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Neurologic Manifestations - Pain have been presented. According to news reporting originating in St. Louis, Missouri, by NewsRx journalists, research stated, "TMEM16A, also known as anoctamin 1 channel, is a member of the Ca(2+)-activated chloride channels family and serves as a heat sensor in the primary nociceptors. Eact is a recently discovered small molecule activator of the TMEM16A channel."

Financial support for this research came from National Institutes of Health.

The news reporters obtained a quote from the research from the Washington University School of Medicine, "Here, we asked if Eact produces pain-and itch-related responses in vivo and investigated the cellular and molecular basis of Eact-elicited responses in dorsal root ganglia (DRG) neurons. We employed behavioural testing combined with pharmacological inhibition and genetic ablation approaches to identify transient receptor potential vanilloid 1 (TRPV1) as the prominent mediator for Eact-evoked itch-or pain-related responses. We investigated the effects of Eact on TRPV1 and TMEM16A channels expressed in HEK293T cells and in DRG neurons isolated from wild type and Trpv1(-/-) mice using Ca(2+) imaging and patch-clamp recordings. We also used site-directed mutagenesis to determine the molecular basis of Eact activation of TRPV1. Administration of Eact elicited both itch-and pain-related behaviours. Unexpectedly, the Eact-elicited behavioural responses were dependent on the function of TRPV1, as shown by pharmacological inhibition and genetic ablation studies. Eact activated membrane currents and increased intracellular free Ca(2+) in both TRPV1-expressing HEK293T cells and isolated DRG neurons in a TRPV1-dependent manner. Eact activation of the TRPV1 channel was severely attenuated by mutations disrupting the capsaicin-binding sites."

According to the news reporters, the research concluded: "Our results suggest that Eact activates primary sensory nociceptors and produces both pain and itch responses mainly through direct activation of TRPV1 channels."


Our news correspondents report that additional information may be obtained by contacting S. Liu, Dept. of Anesthesiology, The Center for the Study of Itch, Washington University School of Medicine, St Louis, MO, 63110, United States. Additional authors for this research include J. Feng, J. Luo, P. Yang, T.J. Brett and H. Hu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13420. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the British Journal of Pharmacology can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.
New Findings in Palliative and Supportive Care Described from Christian Medical College (The patient who 'must not be told': demographic factors associated with collusion in a retrospective study in South India)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Palliative and Supportive Care have been published. According to news reporting originating in Tamil Nadu, India, by NewsRx journalists, research stated, "Patients with cancer need adequate information about diagnosis, treatment options, and possible outcomes and prognosis to make therapeutic decisions. In cultures where the family plays the dominant role in healthcare decisions, doctors are often requested to collude in withholding distressing information from the patient."

The news reporters obtained a quote from the research from Christian Medical College, "This challenging situation has not been well studied and there is limited knowledge on the different factors that may contribute to collusion. To study the prevalence of collusion among adult cancer patients attending a palliative care outpatient clinic and the contributing factors. The healthcare records of 306 adult cancer patients who had visited the palliative care outpatient clinic at least three times with follow-up until death were retrospectively reviewed. Details on information shared and why it was not shared were retrieved from the documentation in the communication sheet in the patient chart. The prevalence, sociodemographic and clinical factors that could contribute to collusion in doctor-patient communication were studied. Collusion was present in 40% of cases at the time of referral to the palliative care outpatient clinic (collusion regarding diagnosis in 18%; collusion regarding prognosis in 40%). Collusion was later addressed in 35%. Collusion was significantly higher among female patients (p=0.005), manual workers (p=0.035), those not accompanied by a spouse (p=0.000) and with no oncological treatment (p=0.001). Collusion regarding diagnosis or prognosis is common among cancer patients referred for palliative care."

According to the news reporters, the research concluded: "It was more prevalent among female patients, manual workers, patients who had not received oncological treatment, and patients not accompanied by a spouse."


Our news correspondents report that additional information may be obtained by contacting J. Jeba, Christian Medical College, Palliat Care Unit, Vellore 632004, Tamil Nadu, India. Additional authors for this research include A. Jacob, R. Kandasamy and R. George.

Keywords for this news article include: Tamil Nadu, India, Asia, Palliative and
New Findings in Pharmacology and Experimental Therapeutics
Described from University of Michigan (Intranasal Opioid Administration in Rhesus Monkeys: PET Imaging and Antinociception)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Pharmacology and Experimental Therapeutics have been presented. According to news reporting from Ann Arbor, Michigan, by NewsRx journalists, research stated, "The goal of this study was to evaluate the effects of intranasally administered opioids in rhesus monkeys using the tail-withdrawal assay, and to correlate these effects with measures of receptor occupancy using positron emission tomography (PET) imaging. Initial experiments characterized the antinociceptive effects of intranasal (IN) fentanyl and buprenorphine relative to intramuscular (IM) injection."

The news correspondents obtained a quote from the research from the University of Michigan, "Fentanyl (0.010-0.032 mg/kg) and buprenorphine (0.1-1.0 mg/kg) produced dose-dependent increases in tail-withdrawal latency that did not differ between routes of delivery. The second experiment compared the ability of IN and intravenous (IV) naloxone (NLX) to block the antinociceptive effects IV fentanyl, and to measure receptor occupancy at equipotent doses of NLX using PET imaging. IN and IV NLX (0.0032-0.032 mg/kg) produced dose-dependent decreases in fentanyl-induced antinociception. Again, there was no difference observed in overall potency between routes. PET imaging showed that IV and IN NLX produced similar decreases in receptor occupancy as measured by [C-11] carfentanil blocking, although there was a trend for IV NLX to produce marginally greater occupancy changes."

According to the news reporters, the research concluded: "This study validated the first procedures to evaluate the IN effects of opioids in rhesus monkeys."


Our news journalists report that additional information may be obtained by contacting P.A. Saccone, University of Michigan, Sch Med, Dept. of Pharmacol, Ann Arbor, MI 48109, United States. Additional authors for this research include A.M. Lindsey, R.A. Koeppe, K.A. Zelenock, X. Shao, P. Sherman, C.A. Quesada, J.H. Woods and P.J.H. Scott.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.235192. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Pharmacology and Experimental Therapeutics, Drugs and Therapies, University of Michigan.

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Gram-Negative Bacteria - Pseudomonas aeruginosa

New Findings in Pseudomonas aeruginosa Described from Hannover School of Medicine (Intraclonal genome diversity of the major Pseudomonas aeruginosa clones C and PA14)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Pseudomonas aeruginosa are presented in a new report. According to news reporting from Hannover, Germany, by NewsRx journalists, research stated, "Bacterial populations differentiate at the subspecies level into clonal complexes. Intraclonal genome diversity was studied in 100 isolates of the two dominant Pseudomonas aeruginosa clones C and PA14 collected from the inanimate environment, acute and chronic infections."

Funders for this research include Christiane Herzog Stiftung, Deutsche Forschungsgemeinschaft, Bundesministerium für Bildung und Forschung.

The news correspondents obtained a quote from the research from the Hannover School of Medicine, "The core genome was highly conserved among clone members with a median pairwise within-clone single nucleotide sequence diversity of 8 ? 10(-6) for clone C and 2 ? 10(-5) for clone PA14. The composition of the accessory genome was, on the other hand, as variable within the clone as between unrelated clones. Each strain carried a large cargo of unique genes."

According to the news reporters, the research concluded: "The two dominant worldwide distributed P. aeruginosa clones combine an almost invariant core with the flexible gain and loss of genetic elements that spread by horizontal transfer."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1758-2229.12372. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Hannover, Genetics, Pseudomonadaceae, Gammaproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria, Pseudomonas aeruginosa, Gram Negative Aerobic Bacteria, Gram Negative Aerobic Rods and Cocci.

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New Findings in Rectal Cancer Described by C. Huang and Co-Researchers (Clinical comparison of laparoscopy vs open surgery in a radical operation for rectal cancer: A retrospective case-control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Rectal Cancer. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "To assess the diverse immediate and long-term clinical outcomes, a retrospective comparison between laparoscopic and conventional operation was performed. A total number of 916 clinical cases, from January 2006 to December 2013 in our hospital, were analyzed which covered 492 patients underwent the laparoscopy in radical resection (LRR) and 424 cases in open radical resection (ORR)."

The news reporters obtained a quote from the research, "A retrospective analysis was proceeded by comparing the general information, surgery performance, pathologic data, postoperative recovery and complications as well as long-term survival to investigate the diversity of immediate and long-term clinical outcomes of laparoscopic radical operation. There were no statistically significance differences between gender, age, height, weight, body mass index (BMI), tumor loci, tumor node metastasis stages, cell differentiation degree or American Society of Anesthesiologists scores of the patients (p >0.05). In contrast to the ORR group, the LRR group experienced less operating time (p <0.001), a lower blood loss (p <0.001), and had a 2.44% probability of conversion to open surgery. Postoperative bowel function recovered more quickly, analgesic usage and the average hospital stay (p <0.001) were reduced after LRR. Lymph node dissection during LRR appeared to be slightly more than in ORR (p=0.338). There were no obvious differences in the lengths and margins (p=0.182). And the occurrence rate in the two groups was similar (p=0.081). Overall survival rate of ORR and LRR for 1, 3 and 5 years were 94.0% and 93.6% (p=0.534), 78.1% and 80.9% (p=0.284) and 75.2% and 77.0% (p=0.416), respectively. Laparoscopy as a radical operation for rectal cancer was a safe, produced better immediate outcomes."

According to the news reporters, the research concluded: "Long-term survival of laparoscopy revealed that it was similar to the open operation."


Our news correspondents report that additional information may be obtained by contacting C. Huang, Chen Huang, Jing Zhang, Tao Jiang, Wei-Dong Wu, Jun Cao, Ke-Jian Huang, Zheng-Jun Qiu, Dept. of General Surgery, Shanghai First People’s Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai 200080, People's Republic of China. Additional authors for this research include J.C. Shen, J. Zhang, T. Jiang, W.D. Wu, J. Cao, K.J. Huang and Z.J Qiu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v21.i48.13532. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Surgery, Shanghai, Hospital,
Oncology, Rectal Cancer, Gastroenterology, People's Republic of China.

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**Oncology - Renal Cell Carcinoma**

**New Findings in Renal Cell Carcinoma Described from Charles University (Morphological, immunohistochemical, and chromosomal analysis of multicystic chromophobe renal cell carcinoma, an architecturally unusual challenging variant)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Renal Cell Carcinoma. According to news reporting originating in Plzen, Czech Republic, by NewsRx journalists, research stated, "Chromophobe renal cell carcinoma (ChRCC) is typically composed of large leaf-like cells and smaller eosinophilic cells arranged in a solid-alveolar pattern. Eosinophilic, adenomatoid/pigmented, or neuroendocrine variants have also been described."

Funders for this research include Charles University Research Fund, Fakultni Nemocnice Plzen, Lekaska Fakulta v Plzni, Univerzita Karlova.

The news reporters obtained a quote from the research from Charles University, "We collected 10 cases of ChRCC with a distinct multicystic pattern out of 733 ChRCCs from our registry, and subsequently analyzed these by morphology, immunohistochemistry, and array comparative genomic hybridization. Of the 10 patients, 6 were males with an age range of 50-89 years (mean 68, median 69). Tumor size ranged between 1.2 and 20 cm (mean 5.32, median 3). Clinical follow-up was available for seven patients, ranging 1-19 years (mean 7.2, median 2.5). No aggressive behavior was documented. We observed two growth patterns, which were similar in all tumors: (1) variable-sized cysts, resembling multilocular cystic neoplasm of low malignant potential and (2) compressed cystic and tubular pattern with slit-like spaces. Raisinoid nuclei were consistently present while necrosis was absent in all cases. Half of the cases showed eosinophilic/oncocytic cytology, deposits of pigment (lipochrome) and microcalcifications. The other half was composed of pale or mixed cell populations. Immunostains for epithelial membrane antigen (EMA), CK7, OSCAR, CD117, parvalbumin, MIA, and Pax 8 were positive in all tumors while negative for vimentin, TFE3, CANH 9, HMB45, cathepsin K, and AMACR. Ki67 immunostain was positive in up to 1% of neoplastic cells. Molecular genetic examination revealed multiple chromosomal losses in two fifths analyzable tumors, while three cases showed no chromosomal numerical aberrations. ChRCC are rarely arranged in a prominent multicystic pattern, which is probably an extreme form of the microcystic adenomatoid pigmented variant of ChRCC. The spectrum of tumors entering the differential diagnosis of ChRCC is quite different from that of conventional ChRCC. The immunophenotype of ChRCC is identical with that of conventional ChRCC. Chromosomal numerical aberration pattern was variable; no chromosomal numerical aberrations were found in three cases."

According to the news reporters, the research concluded: "All the cases in this series have shown an indolent and non-aggressive behavior."

For more information on this research see: Morphological, immunohistochemical, and chromosomal analysis of multicystic chromophobe renal cell carcinoma, an architecturally unusual challenging variant. Virchows Archiv, 2016;469(6):669-678. Virchows Archiv can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer -

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00428-016-2022-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Plzen, Czech Republic, Europe, Male Kidney Diseases and Conditions, Hemic and Immune Systems, Renal Cell Carcinoma, Gastroenterology, Granulocytes, Men's Health, Blood Cells, Eosinophils, Nephrology, Immunology, Carcinomas, Oncology, Genetics, Charles University.

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Oncology - Small Cell Lung Cancer

New Findings in Small Cell Lung Cancer Described from Maastricht University (Development of symptomatic brain metastases after chemoradiotherapy for stage III non-small cell lung cancer: Does the type of chemotherapy regimen matter?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Small Cell Lung Cancer. According to news originating from Maastricht, Netherlands, by NewsRx correspondents, research stated, "Symptomatic brain metastases (BM) occur frequently after chemoradiotherapy (CRT) for stage III NSCLC. Aim of the current study was to determine whether the specific chemotherapy used in a CRT regimen influences BM development."

Our news journalists obtained a quote from the research from Maastricht University, "Retrospective multicenter study including all consecutive stage III NSCLC who completed CRT. Primary endpoints: symptomatic BM development, whether this was the only site of first relapse. Differences between regimens were assessed with a logistic regression model including known BM risk factors and the specific chemotherapy: concurrent versus sequential (cCRT/sCRT), within cCRT: daily low dose cisplatin (LDC)-cyclic dose polychemotherapy; LDC-(non-)taxane cyclic dose; LDC-polychemotherapy subgroups of >= 50 patients. Between January 2006 and June 2014, 838 patients were eligible (737 cCRT, 101 5CRT). 18.2% developed symptomatic BM, 8.0% had BM as only site of first relapse. BM patients were significantly younger, female, had more advanced N-stage and had adenocarcinoma histology. In both cCRT and sCRT BM were found in 18% (p=0.904). In cyclic dose cCRT (N=346) and LDC (N=391) BM were found in 18.8% and 17.9%, respectively (p=0.757). In 7.2% and 8.7%, respectively, BM were the only site of first relapse (p = 0.463). The chemotherapy used (cCRT versus SCRT) had no influence on BM development, not for all brain relapses nor as only site of first relapse (OR 0.88 (p= 0.669), OR 0.93 (p = 0.855), respectively). LDC versus cyclic dose cCRT was not significantly different: neither for all brain relapses nor as only site of first relapse (OR 0.96 (p = 0.819), OR 1.21 (p= 0.498), respectively).Comparable results were found for LDC versus cyclic dose non-taxane (N = 277) and cyclic dose taxane regimens (N = 69) and
for cCRT regimens with >= 50 patients (LDC versus cisplatin/etoposide (N=188), cisplatin/vinorelbine (N= 65), weekly cisplatin/docetaxel (N= 60))."

According to the news editors, the research concluded: "Approximately 18% developed symptomatic BM after stage III diagnosis, not dependent on type of chemotherapy regimen used within a CRT treatment."

For more information on this research see: Development of symptomatic brain metastases after chemoradiotherapy for stage III non-small cell lung cancer: Does the type of chemotherapy regimen matter? Lung Cancer, 2016;101():68-75. Lung Cancer can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Lung Cancer - www.journals.elsevier.com/lung-cancer/)

The news correspondents report that additional information may be obtained from L.E.L. Hendriks, Maastricht University, Medical Center, GROW Sch Oncol & Dev Biol, Dept. of Pulm Dis, NL-6202 AZ Maastricht, Netherlands. Additional authors for this research include A. Brouns, M. Amini, W. Uyterlinde, R. Wijsman, J. Bussink, B. Biesma, S.B. Oei, J.A. Stigt, G.P. Bootsma, J.S.A. Belderbos, D.K.M. De Ruyscher, M.M. Van den Heuvel and A.M.C. Dingemans.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.lungcan.2016.09.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maastricht, Netherlands, Europe, Cancer, Risk and Prevention, Small Cell Lung Cancer, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Lung Neoplasms, Chemotherapy, Cisplatin, Oncology, Maastricht University.

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Life Science Research - Spinal Research

New Findings in Spinal Research Described from Nanjing University School of Medicine (Replication of Association Between 53 Single-Nucleotide Polymorphisms in a DNA-Based Diagnostic Test and AIS Progression in Chinese Han Population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Spinal Research. According to news originating from Nanjing, People's Republic of China, by NewsRx correspondents, research stated, "A case-only study. The aim of this study was to evaluate the association of the 53 single-nucleotide polymorphisms (SNPs) in a prognostic test with curve progression in Chinese adolescent idiopathic scoliosis (AIS) patients. 'ScoliScore' was the first diagnostic kit developed for curve progression of AIS in the white population."

Our news journalists obtained a quote from the research from the Nanjing University School of Medicine, "To date, there is still a paucity of validation of ScoliScore in Chinese Han population. A total of 670 AIS patients were included in the study, with 313 patients assigned to the nonprogression group and the other 357 patients assigned to the progression group. A panel of 53 SNPs encompassed in ScoliScore were genotyped using the PCR-based Invader assay. The allele frequencies were compared between AIS patients with progressive curve and those with
nonprogressive curve. SNP rs9945359 and rs17044552 are the only 2 SNPs that had significantly different allele frequencies between the 2 groups. Allele A of rs9945359 was significantly higher in the progression group than in the nonprogression group (25.7% vs 19.5%, p=0.01), and allele A of rs17044552 was significantly lower in the progression group (11.5% vs 16.4%, p=0.01). The odds ratio (OR) of these 2 SNPs were 1.42 [95% confidence interval (95% CI) 1.09-1.88] and 0.65 (95% CI 0.47-0.91), respectively. As for the allele frequencies of the other 51 SNPs, no significant difference was found between the 2 groups. ScoliScore could not be able to predict the curve progression of AIS in Chinese Han population."

According to the news editors, the research concluded: "However, the role of this test in other populations cannot be totally excluded, and additional replication studies in other ethnic groups are warranted to evaluate the significance of these SNPs."

For more information on this research see: Replication of Association Between 53 Single-Nucleotide Polymorphisms in a DNA-Based Diagnostic Test and AIS Progression in Chinese Han Population. Spine, 2016;41(4):306-10. (Lippincott Williams and Wilkins - www.lww.com; Spine - journals.lww.com/spinejournal/pages/default.aspx)

The news correspondents report that additional information may be obtained from L. Xu, Dept. of Spine Surgery, the Affiliated Drum Tower Hospital of Nanjing University Medical School. Nanjing, People's Republic of China. Additional authors for this research include X. Qin, W. Sun, J. Qiao, Y. Qiu and Z. Zhu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/BRS.0000000000001203. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nanjing, Genetics, Spinal Research, Life Science Research, People's Republic of China.

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**Spiro Compounds**

**New Findings in Spiro Compounds Described from University of Kerala [Fluorescein-labeled fluoroapatite nanocrystals codoped with Yb(III) and Ho(III) for trimodal (downconversion, upconversion and magnetic resonance) imaging of cancer cells]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Spiro Compounds have been presented. According to news reporting originating from Trivandrum, India, by NewsRx correspondents, research stated, "The authors report on upconversion nanocrystals (NCs) based on a fluoroapatite (FAP) support that was engineered to enable multimodal imaging by fluorescence imaging (FI), magnetic resonance imaging (MRI), and upconversion luminescence imaging. A fluorescein based fluorophore (FITC) was incorporated into the FAP nanocrystals and then doped with Yb(III) and Ho(III) by microwave-assisted solution combustion synthesis."

Financial support for this research came from UGC, India.

Our news editors obtained a quote from the research from the University of Kerala, "The hexagonal phase nanocrystals (FITC-FAP:Yb/Ho) exhibit spindle like morphology with an average diameter and length of 15 nm and 196 nm, respectively. The doping concentration of the Yb (5 %) and Ho (0.6 %) was determined by ICP-MS. The nanocrystals exhibit
upconversion luminescence when irradiated with NIR light of wavelength 980 nm. The emission spectrum consists of two bands centered at 542 nm (green emission) and 654 nm (red emission) corresponding to two transitions of Ho(III). The pump power dependence of upconversion luminescence intensity confirmed the 2-photon process. The presence of FITC in the nanocrystal imparts green fluorescence (peaking at 521 nm) by a conventional downconversion process. The presence of Ho(III) endows the NCs with paramagnetism. The magnetization is 21.063 emu g\(^{-1}\) at room temperature. The NCs exhibit a longitudinal relaxivity \(r_1\) of 0.12 s\(^{-1}\)mM\(^{-1}\), and a transverse relaxivity \(r_2\) of 29 s\(^{-1}\)mM\(^{-1}\), which makes the system suitable for developing T2 MRI contrast agents. The nanocrystals are surface aminated using polyethyleneimine (PEI) and covalently conjugated to folic acid (FA) in order to target the folate receptors that are overexpressed in many cancer cells. The FA-conjugated nanocrystals have been tested for their applicability in fluorescence imaging of HeLa cells.\(^{\text{a}}\)

According to the news editors, the research concluded: "Their biocompatibility, upconversion and downconversion luminescence, and magnetism render these NCs potentially powerful nanoprobes for trimodal imaging."

For more information on this research see: Fluorescein-labeled fluoroapatite nanocrystals codoped with Yb(III) and Ho(III) for trimodal (downconversion, upconversion and magnetic resonance) imaging of cancer cells. *Microchimica Acta*, 2016;183(12):3209-3219. *Microchimica Acta* can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria. (Springer - www.springer.com; Microchimica Acta - www.springerlink.com/content/0026-3672/)

The news editors report that additional information may be obtained by contacting G. Sony, Univ Kerala, Dept. of Chem, Trivandrum 695581, Kerala, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00604-016-1970-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Trivandrum, India, Asia, Emerging Technologies, Magnetic Resonance, Spiro Compounds, Nanotechnology, Fluoresceins, Hydrocarbons, Nanocrystal, Oncology, Cancer, University of Kerala.

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**Succinic Acid**

**New Findings in Succinic Acid Described from Harbin Medical University (Nanoemulsion enhances alpha-tocopherol succinate bioavailability in rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Succinic Acid is now available. According to news reporting originating in Harbin, People's Republic of China, by NewsRx journalists, research stated, "The vitamin E analogue, alpha-tocopherol succinate (alpha-TOS), has a broad anti-tumor effect. alpha-TOS can induce cancer cells apoptosis and suppress tumor growth by targeting mitochondria. Low bioavailability of alpha-TOS is the major problem encountered with formulation development."

The news reporters obtained a quote from the research from Harbin Medical
University, "In our study, alpha-TOS nanoemulsion (alpha-TOS-NE) was demonstrated as a new drug delivery system of alpha-TOS to increase the bioavailability. MTT-based cytotoxicity assay and mitochondrial membrane potential (DY) were performed on human breast cancer cell lines MCF-7 and human oral epithelial cancer cell lines KB to evaluate in vitro anticancer efficacy of alpha-TOS-NE. In comparison with free alpha-TOS, alpha-TOS-NE exhibited a stronger cytotoxicity and decreased Delta Psi. Pharmacokinetic profiles of I.V. alpha-TOS-NE group, I.P. alpha-TOS-NE group, and I.P. free alpha-TOS group (7% DMSO/93% PEG) were drawn. First of all, nanoemulsion (NE) enables the I.V. injection of alpha-TOS, make it possible to be an I.V. preparation. Second, compare to the I.P. free alpha-TOS group, I.P. alpha-TOS-NE group had a higher bioavailability. Thus, NE improved the strong anti-cancer efficacy of alpha-TOS while increasing its in vivo bioavailability in rats."

According to the news reporters, the research concluded: "Our laboratory-made NE was a safe drug delivery system for clinical trials and could be a promising formulation for alpha-TOS by I.V administration."


Keywords for this news article include: Harbin, People's Republic of China, Asia, Dicarboxylic Acids, Succinic Acids, Succinates, Oncology, Cancer, Harbin Medical University.

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**Respiratory Tract Diseases and Conditions - Thoracic...**

**New Findings in Thoracic Aortic Aneurysm Described from Health Science Center (Type A Aortic Dissection After Thoracic Endovascular Aortic Repair)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Respiratory Tract Diseases and Conditions - Thoracic Aortic Aneurysm are presented in a new report. According to news reporting originating in Kochi, Japan, by NewsRx journalists, research stated, "Type A aortic dissection (TAAD) is a rare complication associated with thoracic endovascular aortic repair (TEVAR). Although TAAD can result in catastrophic outcomes, the pathology of the condition has not been thoroughly clarified yet."

The news reporters obtained a quote from the research from Health Science Center, "We retrospectively reviewed details from the medical records of 546 patients with diseases of the thoracic aorta (thoracic aortic aneurysm, n = 362; aortic dissection, n = 178; and fistula between the descending thoracic aorta and esophagus, n = 6) who underwent TEVAR in five
hospitals from May 1997 through February 2015 to identify patients in whom TAAD developed during or after TEVAR. TEVAR-associated TAAD developed in 12 patients (2.2%). Pathologies originally treated with TEVAR were aortic dissection in 10 patients (83%) and true thoracic aortic aneurysm in 2 (17%). Type A aortic dissection developed during hospitalization in 4 patients (33%), within 1 year in 5 (42%), and more than 1 year later in 3 (25%). The entry tear was located in the ascending aorta or the aortic arch away from the edges of stent grafts in 8 patients (67%), whereas it was found just at the proximal edges of stent grafts in 4 patients (33%). Nine patients underwent ascending aortic replacement with or without concomitant aortic arch replacement, and 3 patients underwent medical management. Overall, 2 patients (17%) died during hospitalization. Type A aortic dissection can develop during TEVAR or even years after TEVAR."

According to the news reporters, the research concluded: "Careful operative procedures and follow-up should be mandatory for patients with aortic dissection as TAAD seems to occur more frequently among these patients."


Our news correspondents report that additional information may be obtained by contacting T. Higashigawa, Kochi Hlth Sci Center, Dept. of Cardiovasc Surg, Kochi, Japan. Additional authors for this research include N. Kato, S. Chino, T. Hashimoto, H. Shimpo, T. Tokui, T. Mizumoto, T. Sato, M. Okabe and H. Sakuma.

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Keywords for this news article include: Kochi, Japan, Asia, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Thoracic Aortic Aneurysm, Aortic Dissection, Cardiology, Angiology, Health Science Center.

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Cardiovascular Diseases and Conditions - Thrombosis

New Findings in Thrombosis Described from Heinrich-Heine-University (Platelet-vessel wall interactions and drug effects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Thrombosis. According to news reporting originating from Dusseldorf, Germany, by NewsRx correspondents, research stated, "Platelet-vessel wall interaction is necessary for hemostasis and vascular repair, but also plays a fundamental role in the early and late development of atherosclerosis and atherothrombotic vascular events. A plethora of adhesion molecules, biological mediators and receptors are engaged in the regulation of platelet function in hemostasis and thrombosis."

Our news editors obtained a quote from the research from Heinrich-Heine-University, "Currently available antiplatelet drugs act on targets that are critical for both,
physiological hemostasis and pathological intravascular thrombosis. Consequently, their major disadvantage is bleeding complications, especially when different antiplatelet drugs are combined or applied together with anticoagulants, such as in antithrombotic therapy of acute coronary syndromes. Aspirin, clopidogrel and GPIIb/IIIa antagonists are commonly used inhibitors of platelet aggregation or secretion. In addition, they modify platelet interactions with the vessel wall, which may contribute to or modulate their antithrombotic action. Some commonly used drugs without primary antiplatelet effects, such as heparins or statins, also appear to modify platelet interaction with the vessel wall. Present research on antithrombotic drug targets aims to identify new pharmacological concepts which more specifically address the pathophysiological mechanisms leading to intravascular thrombosis, thus intending to reduce interference with hemostasis."

According to the news editors, the research concluded: "This review article summarizes the biological and pathological mechanisms involved in thrombogenic platelet vessel wall interaction, describes the current knowledge on the clinically available drugs in this field and gives an outlook on emerging concepts and innovative pharmacological compounds, which may improve efficacy and safety of antiplatelet therapy in the future."

For more information on this research see: Platelet-vessel wall interactions and drug effects. *Pharmacology & Therapeutics, 2016;167():74-84. Pharmacology & Therapeutics* can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Pharmacology & Therapeutics - www.journals.elsevier.com/pharmacology-and-therapeutics/)

The news editors report that additional information may be obtained by contacting T. Hohlfeld, Heinrich Heine Univ Dusseldorf, Inst Pharmacol & Klin Pharmakol, D-40225 Dusseldorf, Germany. Additional authors for this research include S. Bagheri, S. Bagheri and T. Hohlfeld.

Keywords for this news article include: Dusseldorf, Germany, Europe, Therapy, Article Review, Drugs and Therapies, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Antithrombotic, Pharmacology, Hematology, Angiology, Heinrich-Heine-University.

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**Tobacco Research**

**New Findings in Tobacco Research Described from Duke University**

*(Efficacy of a Nurse-Delivered Intervention to Prevent and Delay Postpartum Return to Smoking: The Quit for Two Trial)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Tobacco Research is the subject of a report. According to news reporting originating from Durham, North Carolina, by NewsRx correspondents, research stated, "Most pregnant women who quit smoking return to smoking postpartum. Trials to prevent this return have been unsuccessful."

Financial support for this research came from National Institutes of Health.

Our news editors obtained a quote from the research from Duke University, "We tested the efficacy of a nurse-delivered intervention in maintaining smoking abstinence after delivery among pregnant women who quit smoking that was tailored on their high risk of
relapse (eg, had strong intentions to return). We recruited 382 English-speaking spontaneous pregnant quitters from 14 prenatal clinics and randomized them to receive either a smoking abstinence booklet plus newsletters about parenting and stress (control) or a nurse-delivered smoking abstinence intervention that differed in intensity for the high and low risk groups. Our primary outcome was smoking abstinence at 12 months postpartum. Using intent-to-treat analyses, there was a high rate of biochemically validated smoking abstinence at 12 months postpartum but no arm differences (Control: 36% [95% confidence interval [CI]: 29-43] vs. 35% [95% CI: 28-43], P = .81). Among women at low risk of returning to smoking, the crude abstinence rate was significantly higher in the control arm (46%) than in the intervention arm (33%); among women at high risk of returning to smoking, the crude abstinence rate was slightly lower but not different in the control arm (31%) than in the intervention arm (37%). Low-risk women fared better with a minimal intervention that focused on parenting skills and stress than when they received an intensive smoking abstinence intervention. The opposite was true for women who were at high risk of returning to smoking. Clinicians might need to tailor their approach based on whether women are at high or low risk of returning to smoking. Results suggest that high-risk and low-risk women might benefit from different types of smoking relapse interventions."

According to the news editors, the research concluded: "Those who are lower risk of returning to smoking might benefit from stress reduction that is devoid of smoking content, whereas those who are higher risk might benefit from smoking relapse prevention."


The news editors report that additional information may be obtained by contacting K.I. Pollak, Duke University, Sch Med, Dept. of Community & Family Med, Durham, NC 27705, United States. Additional authors for this research include L.J. Fish, P. Lyna, B.L. Peterson, E.R. Myers, X.M. Gao, G.K. Swamy, A. Brown-Johnson, P. Whitecar, A.K. Bilheimer and P.K. Pletsch.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/ntr/ntw108. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Tobacco Research, Risk and Prevention, Duke University.

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Type 2 Diabetes are discussed in a new report. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "To evaluate whether low glycosylated hemoglobin (HbA1c), blood pressure (BP), and total cholesterol (TC) are associated with lower risk of all-cause mortality in very old individuals with type 2 diabetes mellitus. Population-based cohort study."

Financial supporters for this research include King’s College London, National Institute for Health Research, Biomedical Research Centre at Guy's and St Thomas’ National Health Service Foundation Trust.

Our news editors obtained a quote from the research from King's College, "Primary care database in the United Kingdom. Individuals aged 80 and older with type 2 diabetes mellitus (N = 25,966). Associations between baseline HbA1c, BP, and TC and all-cause mortality were evaluated in Cox proportional hazards models. Analyses were adjusted for sex, age, duration of diabetes mellitus, lifestyle variables, HbA1c, BP, TC, comorbidities, prescribing of antidiabetic and cardiovascular drugs, and participants' general practice. There were 4,490 deaths during follow-up (median 2.0 years; mortality 104.7 per 1,000 person-years). Mortality in participants with low (<6.0% (<42 mmol/mol)) or high (>= 8.5% (>= 69 mmol/mol)) HbA1c was similar to that in those with the reference HbA1c (8.0-8.4% (64-68 mmol/mol)). Mortality was lowest in individuals with HbA1c of 7.0-7.4% (53-57 mmol/mol) (80.9 per 1,000 person-years, adjusted hazard ratio (aHR) = 0.80, 95% confidence interval (CI) = 0.70-0.91, P = .001). Mortality was higher in individuals with lower BP (e.g., <130/70 mmHg, 151.7 per 1,000 person-years, aHR = 1.52, 95% CI = 1.34-1.72, P< .001 vs reference BP <150/90 mmHg) and in the lowest TC category (<3.0 mmol/L, 138.7 per 1,000 person-years, aHR = 1.42, 95% CI = 1.24-1.64, P< .001 vs reference TC 4.5-4.9 mmol/L). The relationship between TC and mortality varied according to sex and prescription of lipid-lowering drugs. Low HbA1c, BP, and TC may be associated with higher mortality in very old adults with type 2 diabetes mellitus."

According to the news editors, the research concluded: "Further research is required to understand these associations and to identify optimal treatment targets in this population."

For more information on this research see: Mortality in Individuals Aged 80 and Older with Type 2 Diabetes Mellitus in Relation to Glycosylated Hemoglobin, Blood Pressure, and Total Cholesterol. *Journal of the American Geriatrics Society*, 2016;64(7):1425-1431. 


The news editors report that additional information may be obtained by contacting S. Hamada, Kings Coll London, Dept. of Primary Care & Public Hlth Sci, London SE1 1UL, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgs.14215. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Glucose Metabolism Disorders, Proteins, Epidemiology, Risk and Prevention, Type 2 Diabetes, Blood Proteins, Blood Pressure, Endocrinology, Hemodynamics, Hemoglobins, Cholesterol, Globins, King's College.

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New Findings in the Area of Anidulafungin Therapy Reported from J.B. Locke and Colleagues
(Characterization of In Vitro Resistance Development to the Novel Echinocandin CD101 in Candida Species)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Anidulafungin Therapy is now available. According to news originating from San Diego, California, by NewsRx correspondents, research stated, "CD101 is a novel echinocandin with a long half-life undergoing clinical development for treatment of candidemia/invasive candidiasis and vulvovaginal candidiasis. The potential for and mechanisms underlying the development of resistance to CD101 in Candida species were investigated by using spontaneous resistance and serial passage selection methodologies. Four Candida spp. (C. albicans, C. glabrata, C. parapsilosis, and C. krusei) were chosen for resistance characterization with CD101, anidulafungin, and caspofungin."

Our news journalists obtained a quote from the research, "The frequency of spontaneous, single-step mutations conferring reduced susceptibility to CD101 at 1 x the agar growth inhibition concentration was low across all species, with median frequencies ranging from 1.35 x10(-8) to 3.86 x 10(-9), similar to ranges generated for anidulafungin and caspofungin. Serial passage of Candida spp. on agar plates containing drug gradients demonstrated a low potential for resistance development, with passage 20 CD101-selected strains possessing increases in MICs equivalent to or lower than those for the majority of strains generated under selection with anidulafungin and caspofungin. A total of 12 fks 'hot spot' mutations were identified, typically in strains with the highest MIC shifts. Cross-resistance was broadly observed among the 3 echinocandins evaluated, with no CD101-selected mutants (with or without fks hot spot mutations) exhibiting reduced susceptibility to CD101 but not also to anidulafungin and/or caspofungin."

According to the news editors, the research concluded: "Consistent with currently approved echinocandins, CD101 demonstrates a low potential for resistance development, which could be further enhanced in vivo by the high maximum concentration of drug in serum (Cmax)/area under the concentration-time curve (AUC) plasma drug exposure achieved with once-weekly dosing of CD101."

For more information on this research see: Characterization of In Vitro Resistance Development to the Novel Echinocandin CD101 in Candida Species. Antimicrobial Agents and Chemotherapy, 2016;60(10):6100-6107. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from J.B. Locke, Cidara Therapeut Inc, San Diego, CA 92121, United States. Additional authors for this research include A.L. Almaguer, D.E. Zuill and K. Bartizal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00620-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Diego, California, United States, North and Central America, Anidulafungin Therapy, Drugs and Therapies, Caspofungin Therapy,
Health and Medicine - Cardiovascular Research

New Findings in the Area of Cardiovascular Research Reported from J.S. Shinbane and Colleagues (Digital monitoring and care: Virtual medicine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Health and Medicine - Cardiovascular Research is now available. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "Remote digital health monitoring technologies can be synergistically organized to create a virtual medical system providing more continuous care centered on the patient rather than the bricks and mortar medical complex."

Our news journalists obtained a quote from the research, "Utilization of the digitalized patient health monitoring can facilitate diagnosis, treatment plans, physician-patient interaction, and accelerate the progress of medical research, education, and training. The field of cardiac electrophysiology has been an early adopter of this shift in care and serves as a paradigm applicable to all areas of medicine."

According to the news editors, the research concluded: "The overall impact of this remote virtual care model on the quality of medical care and patient experience requires greater study, as well as vigilance as to the differences between technology and care in order to preserve the intangible and immeasurable factors that bring humanity to the art and science of medicine."


Our news journalists report that additional information may be obtained by contacting L.A. Saxon, Univ Southern Calif, Keck Sch Med, Center Body Comp, Div Cardiovasc Med, Los Angeles, CA 90007, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tcm.2016.05.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Cardiovascular Research, Health and Medicine.

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New Findings in the Area of Clinical Trials and Studies Reported from A. Bottomley and Colleagues (Analysing data from patient-reported outcome and quality of life endpoints for cancer clinical trials: a start in setting international standards)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Clinical Research - Clinical Trials and Studies. According to news reporting from Brussels, Belgium, by NewsRx journalists, research stated, "Measures of health-related quality of life (HRQOL) and other patient-reported outcomes generate important data in cancer randomised trials to assist in assessing the risks and benefits of cancer therapies and fostering patient-centred cancer care. However, the various ways these measures are analysed and interpreted make it difficult to compare results across trials, and hinders the application of research findings to inform publications, product labelling, clinical guidelines, and health policy."

The news correspondents obtained a quote from the research, "To address these problems, the Setting International Standards in Analyzing Patient-Reported Outcomes and Quality of Life Endpoints Data (SISAQOL) initiative has been established. This consortium, directed by the European Organisation for Research and Treatment of Cancer (EORTC), was convened to provide recommendations on how to standardise the analysis of HRQOL and other patient-reported outcomes data in cancer randomised trials."

According to the news reporters, the research concluded: "This Personal View discusses the reasons why this project was initiated, the rationale for the planned work, and the expected benefits to cancer research, patient and provider decision making, care delivery, and policy making."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045(16)%2930510-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Clinical Trials and Studies, Clinical Research, Quality of Life, Oncology, Cancer.

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Enzymes and Coenzymes - ADP Ribose Transferases

New Findings on ADP Ribose Transferases Discussed by Researchers at University of Shandong [Poly(ADP-ribose)polymerase 1 inhibition protects against age-dependent endothelial dysfunction]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Enzymes and Coenzymes - ADP Ribose Transferases is now available. According to news reporting out of Jinan, People's Republic of China, by NewsRx editors, research stated, "Age-related endothelial dysfunction is closely associated with the local production of reactive oxygen species (ROS) within and in the vicinity of the vascular endothelium. Oxidant-induced DNA damage can activate the nuclear enzyme poly(ADP-ribose) polymerase 1 (PARP-1), leading to endothelial dysfunction in various pathophysiological conditions."

Financial supporters for this research include Scientific and Technologic Development Program of Shandong Province, Natural Science Foundation of Shandong Province, Jinan City College Independent Innovation, Seed Fund of the Second Hospital of Shandong University.

Our news journalists obtained a quote from the research from the University of Shandong, "The present study aimed to investigate the role of PARP-1 in age-dependent changes in endothelial cell function and its underlying mechanism. Wild-type (WT) and PARP-1(-/-) mice were divided into young (2 months) and old (12 months) groups. Isolated aortic rings were suspended to record isometric tension to assess endothelial function. Nitric oxide (NO) production and content in plasma were detected by spectrophotometry. Superoxide (O2(-)) production was detected by dihydroethidium. Expression of PARP-1, endothelial nitric oxide synthase (eNOS), induced nitric oxide synthase (iNOS), and arginase-2 (Arg2) was assessed by western blot analysis. Endothelium-dependent relaxation in response to acetylcholine was lost in old WT, but not PARP-1(-/-), mice. Endothelium-independent vasodilation was not impaired in aging mice. Production of O2(-) was greater in aging WT mice than young or aging PARP-1(-/-) mice. eNOS expression was not affected by aging in WT or PARP-1(-/-) mice, but p-eNOS expression decreased and iNOS and Arg2 levels were upregulated only in aging WT mice." According to the news editors, the research concluded: "PARP-1 inhibition may protect against age-dependent endothelial dysfunction, potentially by regulating NO bioavailability via iNOS. Inhibition of PARP-1 may help in vascular aging prevention."

For more information on this research see: Poly(ADP-ribose)polymerase 1 inhibition protects against age-dependent endothelial dysfunction. Clinical and Experimental Pharmacology and Physiology, 2015;42(12):1266-74. (Wiley-Blackwell - www.wiley.com; Clinical and Experimental Pharmacology and Physiology - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1440-1681)

Our news journalists report that additional information may be obtained by contacting G.H. Zhang, Dept. of Cardiology, The Second Hospital of Shandong University, Jinan, People's Republic of China. Additional authors for this research include M. Chao, L.H. Hui, D.L. Xu, W.L. Cai, J. Zheng, M. Gao, M.X. Zhang, J. Wang and Q.H Lu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1440-1681.12484. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Jinan, Synthase, Angiology,
Gram-Negative Bacteria - Acinetobacter baumannii

New Findings on Acinetobacter baumannii from United States Military Academy Summarized (Evaluation of Virulence Gene Expression Patterns in Acinetobacter baumannii Using Quantitative Real-Time Polymerase Chain Reaction Array)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Acinetobacter baumannii are discussed in a new report. According to news reporting originating from West Point, New York, by NewsRx correspondents, research stated, "According to the Centers for Disease Control's recently devised National Strategy for Combating Antibiotic-Resistant Bacteria, Acinetobacter baumannii is a 'serious' threat level pathogen. A. baumannii’s notoriety stems from the fact that a large number of modern strains are multidrug resistant and persist in the hospital setting, thus causing numerous deaths per year. It is imperative that research focus on a more fundamental understanding of the factors responsible for the success of A. baumannii."

Our news editors obtained a quote from the research from United States Military Academy, "Toward this end, our group investigated virulence gene expression patterns in a recently characterized wound isolate, AB5075, using quantitative real-time polymerase chain reaction array. Notably, several genes showed statistically significant upregulation at 37 degrees C compared to 25 degrees C; MviM, Wbbj, CarO, and certain genes of the Bas, Bar, and Csu operons. Additionally, we found that in vitro biofilm formation by Csu transposon insertion mutant strains is attenuated. These findings validate previous reports that suggest a link between the Csu operon and biofilm formation."

According to the news editors, the research concluded: "More importantly, our results demonstrate a successful method for evaluating the significance of previously identified virulence factors in a modern and clinically relevant strain of A. baumannii, thereby providing a path toward a more fundamental understanding of the pathogenicity of A. baumannii."

For more information on this research see: Evaluation of Virulence Gene Expression Patterns in Acinetobacter baumannii Using Quantitative Real-Time Polymerase Chain Reaction Array. *Military Medicine*, 2016;181(9):1108-1113. *Military Medicine* can be contacted at: Assoc Military Surg Us, 9320 Old Georgetown Rd, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting F.M. Lannan, US Military Academy, Dept. of Chem & Life Sci, West Point, NY 10996, United States. Additional authors for this research include D.K. O'conor, J.C. Broderick, J.F. Tate, J.T. Scoggin, N.A. Moran, C.M. Husson, E.M. Hegeman, C.E. Ogrydziak, S.A. Singh, A.G. Vafides, C.C. Brinkley and J.L. Goodin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7205/MILMED-D-15-00437. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: West Point, New York, United States, North and Central America, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic
Our news journalists obtained a quote from the research from the University of Montreal, "We investigated the influence of polymorphisms in doxorubicin metabolic and functional pathways on late-onset CT as estimated by echocardiography in 251 childhood acute lymphoblastic leukemia (cALL) patients. Association analyses revealed a modulating effect of two variants: A-1629 T in ABCC5, an ATP-binding cassette transporter, and G894T in the NOS3 endothelial nitric oxide synthase gene. Individuals with the ABCC5 TT-1629 genotype had an average of 8-12% reduction of ejection (EF) and shortening fractions (SF; EF: P<0.0001, and SF: P = 0.001, respectively). A protective effect of the NOS3 TT894 genotype on EF was seen in high-risk patients (P = 0.02), especially in those who did not receive dexrazoxane (P = 0.002). Analysis of an additional cohort of 44 cALL patients replicated the ABCC5 association but was underpowered for NOS3."

According to the news editors, the research concluded: "In summary, we identified two biomarkers that may contribute to cALL anthracycline CT risk stratification."


Our news journalists report that additional information may be obtained by contacting M. Krajinovic, University of Montreal, Dept. of Pharmacol, Montreal, PQ, Canada. Additional authors for this research include J. Elbared, S. Drouin, L. Bertout, A. Rezgui, M. Ansari, M.J. Raboissson, S.E. Lipshultz, L.B. Silverman, S.E. Sallan, D.S. Neuberg, J.L. Kutok, C. Laverdiere, D. Sinnett and G. Andelfinger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.63. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Acute Lymphoblastic Leukemia, Leukemia, Genetics, Hematology,
New Findings on Acute Myeloid Leukemia Described by Investigators at University Hospital (Natural killer cells in acute myeloid leukemia patients: from phenotype to transcriptomic analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Acute Myeloid Leukemia. According to news reporting from Marseille, France, by NewsRx journalists, research stated, "Chemotherapies allow complete remission in more than 50% of patients with acute myeloid leukemia (AML), however, with frequent relapse. This suggests that residual leukemic cells may escape to chemotherapy and immune system."

The news correspondents obtained a quote from the research from University Hospital, "Natural killer (NK) cells from AML patients (AML-NK) have a weaker natural cytotoxicity-activating receptors (NCRs) expression than NK cells from healthy donors (HD-NK). Coding genes for NCR1/NKp46, NCR2/NKp44 and NCR3/NKp30 are located at different loci on two different chromosomes; however, their expression is tightly coordinated. Most NK cells express either high (NCRbright) or low levels (NCRdull) of all three NCRs. This suggests the existence of negative/positive regulation factor(s) common to the three receptors. In order to find transcription factor(s) or pathway(s) involved in NCRs co-regulation, this study compared the transcriptomic signature of HD-NK and AML-NK cells, before and after in vitro NK cells culture. Microarrays analysis revealed a specific NK cells transcriptomic signature in patients with AML. However, in vitro NK cells expansion erased this signature and up-regulated expression of central molecules of NK functions, such as NCR, NKG2D and also ETS-1, regardless of their origin, i.e., AML-NK vs HD-NK. ETS-1 transcription factor was shown to bind to a specific and common region in the NCRs promoters, thus appearing as a good candidate to explain the coordinated regulation of three NCRs."

According to the news reporters, the research concluded: "Such results are encouraging regarding in vitro AML-NK cytotoxicity restoration and provide a new conceptual support for innovative cellular therapy based on in vitro NK cells expansion before their reinfusion in AML patients."

For more information on this research see: Natural killer cells in acute myeloid leukemia patients: from phenotype to transcriptomic analysis. *Immunologic Research*, 2016;64 (5-6):1225-1236. *Immunologic Research* can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA. (Springer - www.springer.com; Immunologic Research - www.springerlink.com/content/0257-277x/)

Our news journalists report that additional information may be obtained by contacting G. Venton, Center Hosp Univ Concept, Assistance Public Hopital Marseille, Serv Hematol & Therapie Cellulaire, F-13005 Marseille, France. Additional authors for this research include Y. Labiad, J. Colle, A. Fino, S. Afridi, M. Torres, S. Monteuil, B. Loriod, N. Fernandez-Nunez, L. Farnault, P. Suchon, J.C. Mattei, P. Rihet, A. Bergon, C. Nguyen, C. Baier and R. Costello.

The direct object identifier (DOI) for that additional information is:
New Findings on Adenosine Therapy Described by Investigators at Third Military Medical University (Adenosine A1-Receptors Modulate mTOR Signaling to Regulate White Matter Inflammatory Lesions Induced by Chronic Cerebral Hypoperfusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Adenosine Therapy is now available. According to news reporting out of Chongqing, People's Republic of China, by NewsRx editors, research stated, "We sought to investigate the role of the adenosine A1 receptors (A1ARs) in white matter lesions under chronic cerebral hypoperfusion (CCH) and explore the potential repair mechanisms by activation of the receptors. A right unilateral common carotid artery occlusion (rUCCAO) method was used to construct a CCH model. 2-chloro-N6-cyclopentyladenosine (CCPA), a specific agonist of A1ARs, was used to explore the biological mechanisms of repair in white matter lesions under CCH."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Third Military Medical University, "The expression of mammalian target of rapamycin (mTOR), phosphorylation of mTOR (P-mTOR), myelin basic protein (MBP, a marker of white matter myelination) were detected by Western-blot. Pro-inflammatory cytokine tumor necrosis factor-alpha (TNF-alpha) and anti-inflammatory cytokine interleukin-10 (IL-10) levels were determined by ELISA."

According to the news editors, the research concluded: "Compared with the control groups on week 2, 4 and 6, in CCPA-treated groups, the ratio of P-mTOR/mTOR, expression of MBP and IL-10 increased markedly, while the expression of TNF-alpha reduced at week 6. A1ARs appears to reduce inflammation in white matter via the mTOR signaling pathway in the rUCCAO mice. Therefore, A1ARs may serve as a therapeutic target during the repair of white matter lesions under CCH."

For more information on this research see: Adenosine A1-Receptors Modulate mTOR Signaling to Regulate White Matter Inflammatory Lesions Induced by Chronic Cerebral Hypoperfusion. Neurochemical Research, 2016;41(12):3272-3277. Neurochemical Research can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Neurochemical Research - www.springerlink.com/content/0364-3190/)

Our news journalists report that additional information may be obtained by contacting W. Huang, Third Military Medical University, Xinqiao Hosp, Dept. of Neurol, Chongqing 400037, People's Republic of China. Additional authors for this research include X.Z. Zuo, Y.F. Ren, S.J. Bai, W.J. Tang, X.Y. Chen, G. Wang, H.X. Wang, W. Huang and P.
Xie.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1007/s11064-016-2056-0. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Chongqing, People's Republic of China,
Asia, Cardiac Stressing Agents, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Radiologic Adjuncts, Radiologic Agents, Adenosine Therapy, Pharmaceuticals, Third Military Medical University.

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New Findings on Advanced Nursing Described by Investigators at University of Notre Dame (The Cancer Nurse Coordinator Service in Western Australia: perspectives of specialist cancer nurse coordinators)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nursing - Advanced Nursing have been presented. According to news reporting from Fremantle, Australia, by NewsRx journalists, research stated, "In Western Australia the cancer nurse coordinator (CNC) role is unique, state wide and situated in nursing. It requires the domains of clinical expert, resource consultant, educator, change agent, researcher and advocate to facilitate seamless coordination of care for patients across metropolitan, rural and remote geographical areas of Western Australia."

The news correspondents obtained a quote from the research from the University of Notre Dame, "This study examined the role, function and impact of CNCs from the perspective of coordinators themselves. Prospective two-phase mixed method study. This paper reports data from the Self Report Activity Questionnaire in Phase one. The state-wide Western Australian Cancer Nurse Coordinator Service. Metropolitan and rural CNCs (n = 18) who had worked in the role for at least six months. Overall, CNCs spent 70% of time in clinical consultation and 41% of CNCs reported having an educational role. Most CNCs (71%) noted that at least half of their patients had complex psychosocial needs at referral. Key role-related activities related to direct nursing care and patient education were performed most frequently on a daily basis. Tasks related to care management planning, patient advocacy and multidisciplinary clinical care were performed weekly. Strategic, team communication and professional development activities were performed less frequently. Diversity of the CNC role was demonstrated with findings showing that CNCs fulfilled the core components of the specialist cancer nurse."

According to the news reporters, the research concluded: "Given the clear need to provide consistent support to cancer patients in an increasingly individualised and integrated manner, we consider the CNC role a fundamental element of quality cancer care."


Our news journalists report that additional information may be obtained by contacting L. Monterosso, Univ Notre Dame Australia, Sch Nursing & Midwifery, Joint
New Findings on Allergic Rhinitis Discussed by Researchers at Nova Southeastern University (The role of allergen immunotherapy in the management of allergic rhinitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immune System Diseases and Conditions - Allergic Rhinitis is now available. According to news originating from Davie, Florida, by NewsRx editors, the research stated, "To evaluate the role of allergen immunotherapy (AIT) in the treatment of allergic rhinitis (AR). Individual studies, systematic reviews, and practice guidelines that included information on sublingual AIT (SLIT) and subcutaneous AIT (SCIT) in the treatment of AR were considered."

Our news journalists obtained a quote from the research from Nova Southeastern University, "AIT via the SLIT or SCIT route has been shown to be effective in treating AR symptoms with resultant improvements in overall quality of life, comorbid illnesses, and medication requirements. Persistent clinical benefits have been demonstrated years after AIT treatment discontinuation. AIT may prevent the progression of AR to asthma. In addition, studies that evaluated the pharmacoeconomics of AR treatment indicate that AIT may be more cost effective than pharmacotherapy. The AIT cost savings are likely underestimated in that few cost comparison studies considered AIT's long-term benefits or preventive effects. Multiple individual studies and systematic reviews provide strong evidence for the clinical effectiveness of AIT in the treatment of AR."

According to the news editors, the research concluded: "Cost-effectiveness and disease modification are additional advantages of AIT compared with standard drug treatment in the management of AR."

For more information on this research see: The role of allergen immunotherapy in the management of allergic rhinitis. *American Journal of Rhinology & Allergy*, 2016;30(1):48-53.

The news correspondents report that additional information may be obtained from L. Cox, Dept. of Medicine, Nova Southeastern University, Davie, Florida, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2500/ajra.2016.30.4253. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Davie, Florida, Allergens, Allergies, United States, Immunotherapy, Article Review, Allergic Rhinitis, Drugs and Therapies, North and Central America, Nose Diseases and Conditions, Respiratory Tract Infections, Immune System Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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Neurodegenerative Diseases and Conditions –...

New Findings on Alzheimer Disease from University of Lisbon Summarized (Recent progress in multifunctional metal chelators as potential drugs for Alzheimer’s disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting out of Lisbon, Portugal, by NewsRx editors, research stated, 'Alzheimer's disease (AD) is a chronic and irreversible neurodegenerative illness, which involves the progressive deterioration of intellectual functions and behavioral disorders. Several therapeutic approaches have been proposed, but only four acetylcholinesterase inhibitors and one N-methyl-D-aspartate receptor antagonist have been approved by the US Food and Drug Administration, which have quite limited effectiveness and that mostly provide palliative therapy.'

Financial support for this research came from FCT.

Our news journalists obtained a quote from the research from the University of Lisbon, "The complex pathology of this multifaceted disease and the possible interconnections among numerous intervening factors have led to the development of several multi-target candidate drugs. This review describes the most recent progress in multifunctional compounds containing a biometal (Fe, Cu, Zn) chelating unity for potential AD prevention/therapy. The importance of including a chelating moiety in these anti-AD drug candidates is associated with the recognized roles played by metal dyshomeostasis and related oxidative stress in AD pathogenesis, particularly by preceding or inducing the hallmark pathologies of this disease (neurofibrillary tangles, senile plaques, and reactive oxygen species)."

According to the news editors, the research concluded: "This review focuses on recent approaches based on the combination or fusion of different functions in a unique molecular entity, including chelating moieties, with various types of donor atoms and denticity in several scaffolds, i.e., 8-hydroxyquinolines, beta-aminopyridines and other diamino-based chelators, phenol-amino derivatives, amino/hydroxyl chalcones, 3-hydroxy-4-pyridinones, flavonoids, and hydroxyanthraquinones."

For more information on this research see: Recent progress in multifunctional metal chelators as potential drugs for Alzheimer's disease. Coordination Chemistry Reviews, 2016;327():287-303. Coordination Chemistry Reviews can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland. (Elsevier - www.elsevier.com; Coordination Chemistry Reviews - www.journals.elsevier.com/coordination-chemistry-reviews/)

Our news journalists report that additional information may be obtained by contacting M.A. Santos, University of Lisbon, Inst Super Tecn, Center Quim Estrutural, P-1049001 Lisbon, Portugal. Additional authors for this research include K. Chand and S. Chaves.

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Keywords for this news article include: Lisbon, Portugal, Europe, Neurodegenerative Diseases and Conditions, Article Review, Drugs and Therapies, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Alzheimer Disease, Tauopathies, Dementia, University of Lisbon.

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New Findings on Aneurysm from Kyoto University Summarized (Compressed Sensing 3-Dimensional Time-of-Flight Magnetic Resonance Angiography for Cerebral Aneurysms: Optimization and Evaluation)

According to news reporting out of Kyoto, Japan, by NewsRx editors, research stated, "The aims of this study were to optimize parameters for Nesterov algorithm (NESTA) in reconstruction of 3-dimensional time-of-flight (TOF) magnetic resonance angiography (MRA) at 3 T by performing an exhaustive search and to validate the performance of compressed sensing (CS) by applying it to data from cerebral aneurysms and evaluating diagnostic quality. Three-dimensional TOF-MRA was obtained using a 3 T MR system with a 32-channel head coil for both healthy volunteers and 10 patients (11 aneurysms)."

Our news journalists obtained a quote from the research from Kyoto University, "No undersampling was applied for imaging parameters, including parallel imaging or other partial Fourier sampling. In the first step, the experimental setup was for healthy subjects to optimize CS parameters of NESTA and the undersampling mask pattern, so 24,696 different reconstruction conditions were surveyed for sampling rates of 8.0X and 5.0X. Mean square error (MSE) was calculated for each image reconstructed with the undersampling pattern and CS parameter sets. Evaluation was by normalized MSE, edge sharpness for MRA reconstructed using fully sampled data (MRA-full), zero-filled MRA (ZF-MRA) with Poisson disk undersampling mask, and CS-MRA (5.0X and 8.0X) with iterations of 5, 10, 15, 20, 25, 30, 35, 40, 45, and 50. CS-MRA (5.0X and 8.0X) with 5, 10, and 50 iterations of the sampling pattern and CS parameter set with the lowest MSE were visually inspected by 2 neuroradiologists to check the diagnostic quality. The sampling pattern and CS parameter set with the lowest MSE were identical for both CS-MRA 5.0X and CS-MRA 8.0X. At the initial 5 to 15 iterations, MSE of both sampling rates greatly decreased from that of ZF-MRA. For subsequent iterations, the decrease in MSE was relatively small. For CS-MRA, sharpness greatly increased from that of ZF-MRA within the initial 5 to 15 iterations, followed by slight increases with further iterations. Two neuroradiologists graded most aneurysms as excellent, with the exception of 1 to 4 aneurysms recognized as good by 1 observer in CS-MRA (8.0X). Optimization of NESTA in the reconstruction of 3-dimensional TOF-MRA was conducted, and the parameters and undersampling mask with the lowest MSE were determined. Caliber measurement should be performed with CS (5.0X) with 25 or 30 iterations."

According to the news editors, the research concluded: "Most cerebral aneurysms were sufficiently recognized using CS-MRA (5.0X) or CS-MRA (8.0X) with 10 iterations."

For more information on this research see: Compressed Sensing 3-Dimensional Time-of-Flight Magnetic Resonance Angiography for Cerebral Aneurysms: Optimization and Evaluation. Investigative Radiology, 2016;51(4):228-35. (Lippincott Williams and Wilkins - www.lww.com; Investigative Radiology - journals.lww.com/investigativeradiology/pages/default.aspx)

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Keywords for this news article include: Asia, Kyoto, Japan, Cardiology, Angiography, Cerebral Aneurysm, Intracranial Aneurysm, Diagnostics and Screening, Cardiovascular Diseases and Conditions.

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**Cardiovascular Diseases and Conditions - Aneurysm**

**New Findings on Aneurysm from University of Utah Summarized (Inter-rater reliability of published flow diversion occlusion scales)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Aneurysm have been published. According to news reporting from Salt Lake City, Utah, by NewsRx journalists, research stated, "With increasing use of flow-diverting stents for the treatment of intracranial aneurysms, standardized methods and a common language to evaluate angiographic outcomes are needed. Multiple grading scales have been developed for this purpose but none has been widely adopted."

The news correspondents obtained a quote from the research from the University of Utah, "To analyze these scales to determine interobserver reliability. Four independent assessors scored the intraprocedural angiograms of patients who underwent flow-diverting stent deployment for an intracranial saccular or fusiform aneurysm at our institution between October 2012 and June 2015. Angiographic outcome immediately after flow-diverting stent deployment was scored using three grading scales (Kamran-Byrne (KB), Simple Measurement of Aneurysm Residual after Treatment (SMART), and O'Kelley, Kriangs, Marotta (OKM)). Statistical analysis was performed using Light's kappa for multiple raters (kappa), Kendall's coefficient of concordance (W), and intraclass correlation (ICC). We included the angiograms of 50 consecutive patients (mean age 58 years, range 30-79) who underwent flow-diverting stent deployment for an intracranial aneurysm (40 saccular, 10 fusiform). Six aneurysms were located in the posterior circulation. The inter-rater reliability was typically poor or fair: SMART aneurysm filling (kappa=0.30, W=0.36, ICC=0.12), SMART parent vessel stenosis (kappa=0.07, W=0.33, ICC=0.12), KB axis I (kappa=0.24, W=0.50, ICC=0.25), KB axis II (kappa=0.07, W=0.30, ICC=0.06), OKM aneurysm filling (kappa=0.23, W=0.45, ICC=0.13), OKM contrast stasis (kappa=0.36, W=0.71, ICC=0.54)."

According to the news reporters, the research concluded: "Existing flow-diverting stent grading scales have low inter-rater reliability for most categories."

New Findings on Antibiotics Described by Investigators at Federal University (Evaluation Of Aerobic And Anaerobic Biodegradability And Toxicity Assessment Of Real Pharmaceutical Wastewater From Industrial Production Of Antibiotics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antibiotics is the subject of a report. According to news reporting from Belo Horizonte, Brazil, by NewsRx journalists, research stated, "This study evaluates aerobic and anaerobic biodegradability and toxicity of a real pharmaceutical wastewater, which focuses on antibiotics production. Zahn-Wellens and Organization for Economic Cooperation and Development (OECD) methodologies were applied in order to verify the wastewater's biodegradability and Microtox ® analysis was performed for toxicity tests."

The news correspondents obtained a quote from the research from Federal University, "Tests achieved more than 89% and 63% of Total Organic Carbon reduction, showing 80% and 50% of antibiotic removal, for aerobic and anaerobic processes, respectively. Moreover, acute ecotoxicological tests revealed that both techniques decreased the toxic character of real pharmaceutical wastewater. Desorption tests showed that the antibiotic was not degraded, but, in fact, adsorbed onto the sludge. Since biological treatment is the most widely used method for industrial wastewater treatment, this study indicates that this kind of treatment is probably unable to mineralize antibiotics present in pharmaceutical wastewaters, which may induce the development of resistant pathogens."

According to the news reporters, the research concluded: "Therefore, efforts must be taken to elucidate the main mechanisms of biological antibiotic removal from wastewaters since the presence of antibiotics in the environment is considered to be an emerging environmental issue."

For more information on this research see: Evaluation Of Aerobic And Anaerobic Biodegradability And Toxicity Assessment Of Real Pharmaceutical Wastewater From Industrial Production Of Antibiotics. Brazilian Journal of Chemical Engineering, 2016;33(3):445-452. Brazilian Journal of Chemical Engineering can be contacted at: Brazilian Soc Chemical Eng, Rua Libero Badaro 152-11 Andar, Cep 01008-90 Sao Paulo, Brazil.

Our news journalists report that additional information may be obtained by contacting M.S. Park, University of Utah, Dept. of Neurosurg, Salt Lake City, UT 84132, United States. Additional authors for this research include P. Taussky, L.M. Shah, B. Winegar and M.S. Park.

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Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Cardiovascular Diseases and Conditions, Aneurysm, University of Utah.

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The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1590/0104-6632.20160333s20150136. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belo Horizonte, Brazil, South America, Antibacterial Agents, Drugs and Therapies, Antimicrobials, Antibiotics, Federal University.

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Drugs and Therapies - Antibiotics

New Findings on Antibiotics Described by Investigators at University of Tennessee (A single-center retrospective review of postoperative infectious complications in the surgical management of mandibular fractures: Postoperative antibiotics add ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antibiotics. According to news reporting originating in Chattanooga, Tennessee, by NewsRx journalists, research stated, "Mandibular fractures are common facial injuries and treatment may be complicated by post-operative infection. Risk of infection from contamination with oral flora is well established but no consensus exists regarding antibiotic prophylaxis."

The news reporters obtained a quote from the research from the University of Tennessee, "The purpose of this study is to assess risk factors and perioperative antibiotics on surgical site infection (SSI) rates following mandibular fracture surgery. Retrospective medical record review was completed for trauma patients of any age surgically treated for mandibular fractures at a Level I Trauma Center from September 2006 to June 2012. Outcomes analysis was performed to determine SSI rates related to perioperative antibiotic use and other risk factors that may contribute to SSI. 359 patients met inclusion criteria for analysis. 76% were male. Mean age was 30.5 years. Thirty-eight patients developed SSI (10.6%). SSI rate was lower in closed versus open surgery (3.2% vs. 16.3%, p=0.0001), and in closed versus open fractures (1% vs. 14%, p=0.0005). SSI rate increased in patients with tobacco, alcohol, and drug use (14.6%, 13.2%, 53.6%, p<0.0001), traumatic dental injuries (19.6%, p=0.0110), and patients in motor vehicle crashes (12.2%, p=0.0062). SSI rates stratified by Injury Severity Score (ISS) less than or equal to 16 (23/255 [9%]) versus ISS greater than 16 (15/104 [14%]) trended toward more severely injured patients developing SSI, p=0.1347. SSI rate was similar in patients who did and did not receive post-operative antibiotics (14.7% vs. 9.6%, p=0.2556). Type of antibiotic, duration of post-operative antibiotic administration, and duration between injury and surgery did not effect SSI rate."

According to the news reporters, the research concluded: "Findings suggest that following surgical treatment of mandible fractures, open surgery, open fractures, and risk factors including substance abuse, traumatic dental injury, and mechanism of injury significantly increase SSI rates, while post-operative antibiotics do not appear to provide additional benefit compared to pre-operative antibiotics alone."

For more information on this research see: A single-center retrospective review of
postoperative infectious complications in the surgical management of mandibular fractures: Postoperative antibiotics add no benefit. *Journal of Trauma and Acute Care Surgery*, 2016;81 (6):1109-1114. *Journal of Trauma and Acute Care Surgery* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

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Keywords for this news article include: Chattanooga, Tennessee, United States, North and Central America, Antibacterial Agents, Risk and Prevention, Drugs and Therapies, Antimicrobials, Antibiotics, Dentistry, Surgery, University of Tennessee.

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**Drugs and Therapies - Antibiotics**

**New Findings on Antibiotics from Weizmann Institute of Science Summarized (A novel pleuromutilin antibacterial compound, its binding mode and selectivity mechanism)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antibiotics is the subject of a report. According to news reporting originating from Rehovot, Israel, by NewsRx correspondents, research stated, "The increasing appearance of pathogenic bacteria with antibiotic resistance is a global threat. Consequently, clinically available potent antibiotics that are active against multidrug resistant pathogens are becoming exceedingly scarce."

Our news editors obtained a quote from the research from the Weizmann Institute of Science, "Ribosomes are a main target for antibiotics, and hence are an objective for novel drug development. Lefamulin, a semi-synthetic pleuromutilin compound highly active against multi-resistant pathogens, is a promising antibiotic currently in phase III trials for the treatment of community-acquired bacterial pneumonia in adults. The crystal structure of the Staphylococcus aureus large ribosomal subunit in complex with lefamulin reveals its protein synthesis inhibition mechanism and the rationale for its potency."

According to the news editors, the research concluded: "In addition, analysis of the bacterial and eukaryotes ribosome structures around the pleuromutilin binding pocket has elucidated the key for the drug's selectivity."


The news editors report that additional information may be obtained by contacting A. Yonath, Weizmann Inst Sci, Dept. of Biol Struct, IL-7610001 Rehovot, Israel. Additional authors for this research include D. Matzov, M. Krupkin, S. Paukner, R. Riedl, H. Rozenberg, E. Zimmerman, A. Bashan and A. Yonath.
Keywords for this news article include: Rehovot, Israel, Asia, Antibacterial Agents, Drugs and Therapies, Antimicrobials, Antibiotics, Weizmann Institute of Science.

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Drugs and Therapies - Antidepressants

New Findings on Antidepressants from University of Texas Summarized (Ontogeny of Norepinephrine Transporter Expression and Antidepressant-Like Response to Desipramine in Wild-Type and Serotonin Transporter Mutant Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antidepressants are presented in a new report. According to news reporting from San Antonio, Texas, by NewsRx journalists, research stated, "Depression is a major public health concern with symptoms that are often poorly controlled by treatment with common antidepressants. This problem is compounded in juveniles and adolescents, because therapeutic options are limited to selective serotonin reuptake inhibitors (SSRIs)."

The news correspondents obtained a quote from the research from the University of Texas, "Moreover, therapeutic benefits of SSRIs are often especially limited in certain subpopulations of depressed patients, including children and carriers of low-expressing serotonin transporter (SERT) gene variants. Tricyclic antidepressants (TCAs) offer an alternative to SSRIs; however, how age and SERT expression influence antidepressant response to TCAs is not understood. We investigated the relation between antidepressant-like response to the TCA desipramine using the tail suspension test and saturation binding of [H-3]nisoxetine to the norepinephrine transporter (NET), the primary target of desipramine, in juvenile (21 days postnatal [P21]), adolescent (P28), and adult (P90) wild-type (SERT+/+) mice. To model carriers of low-expressing SERT gene variants, we used mice with reduced SERT expression (SERT+/-) or lacking SERT (SERT-/-). The potency and maximal antidepressant-like effect of desipramine was greater in P21 mice than in P90 mice and was SERT genotype independent. NET expression decreased with age in the locus coeruleus and increased with age in several terminal regions (e.g., the cornu ammonis CA1 and CA3 regions of the hippocampus). Binding affinity of [H-3]nisoxetine did not vary as a function of age or SERT genotype."

According to the news reporters, the research concluded: "These data show age-dependent shifts for desipramine to produce antidepressant-like effects that correlate with NET expression in the locus coeruleus and suggest that drugs with NET-blocking activity may be an effective alternative to SSRIs in juveniles."

For more information on this research see: Ontogeny of Norepinephrine Transporter Expression and Antidepressant-Like Response to Desipramine in Wild-Type and Serotonin Transporter Mutant Mice. *Journal of Pharmacology and Experimental Therapeutics*, 2017;360 (1):84-94. *Journal of Pharmacology and Experimental Therapeutics* can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

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Keywords for this news article include: San Antonio, Texas, United States, North and Central America, Norepinephrine Reuptake Inhibitors, Tricyclic Antidepressants, Psychotherapeutic Agents, Cardiovascular Agents, Drugs and Therapies, Desipramine Therapy, Biological Factors, Organic Chemicals, Biogenic Amines, Amino Alcohols, Catecholamines, Ethanolamines, Vasopressors, Tryptamines, Serotonin, Autacoids, University of Texas.

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Drugs and Therapies - Antiinfectives

New Findings on Antiinfectives Described by Investigators at Federal University (Nitazoxanide induces in vitro metabolic acidosis in Taenia crassiceps cysticerci)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiinfectives have been published. According to news reporting originating in Goiania, Brazil, by NewsRx journalists, research stated, "Nitazoxanide (NTZ) is a broad-spectrum anti-parasitic drug used against a wide variety of protozoans and helminthes. Albendazole, its active metabolite albendazole sulfoxide (ABZSO), is one of the drugs of choice to treat both intestinal and tissue helminth and protozoan infections."

The news reporters obtained a quote from the research from Federal University, "However little is known regarding their impact on the metabolism of parasites. The aim of this study was to compare the in vitro effect of NTZ and ABZSO in the glycolysis of Taenia crassiceps cysticerci. The cysticerci were treated with 1.2; 0.6; 0.3 or 0.15 μg/mL of NTZ or ABZSO. Chromatographic and spectrophotometric analyses were performed in the culture medium and in the cysticerci extract. Regarding the glucose concentrations was possible to observe two responses: impair of the uptake and gluconeogenesis. The pyruvate concentrations were increased in the ABZSO treated group. Lactate concentrations were increased in the culture medium of NTZ treated groups."

According to the news reporters, the research concluded: "Therefore it was possible to infer that the metabolic acidosis was greater in the group treated with NTZ than in the ABZSO treated group indicating that this is one of the modes of action used by this drug to induce the parasite death."

For more information on this research see: Nitazoxanide induces in vitro metabolic acidosis in Taenia crassiceps cysticerci. Experimental Parasitology, 2016;171():17-22. Experimental Parasitology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Experimental Parasitology - www.journals.elsevier.com/experimental-parasitology/)

Our news correspondents report that additional information may be obtained by contacting M.C. Vinaud, Univ Fed Goias, Trop Pathol & Public Hlth Inst, Lab Studies Host Parasite Relationship, BR-74605050 Goiania, Go, Brazil. Additional authors for this research include G.D. Piccano, T.L. da Costa, N.F. de Lima, D. Alves, C.M. Fraga, R.D. Lino and M.C. Vinaud.

Keywords for this news article include: Goiania, Brazil, South America, Drugs and
Drugs and Therapies - Antineoplastics

New Findings on Antineoplastics Discussed by Researchers at Zhejiang University (Autophagy in 5-Fluorouracil Therapy in Gastrointestinal Cancer: Trends and Challenges)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antineoplastics is the subject of a report. According to news reporting out of Hangzhou, People's Republic of China, by NewsRx editors, research stated, "5-Fluorouracil (5-FU)-based combination therapies are standard treatments for gastrointestinal cancer, where the modulation of autophagy is becoming increasingly important in offering effective treatment for patients in clinical practice. This review focuses on the role of autophagy in 5-FU-induced tumor suppression and cancer therapy in the digestive system."

Our news journalists obtained a quote from the research from Zhejiang University, "All articles published in English from 1996 to date those assess the synergistic effect of autophagy and 5-FU in gastrointestinal cancer therapy were identified through a systematic online search by use of PubMed. The search terms were 'autophagy' and '5-FU' and ('colorectal cancer' or 'hepatocellular carcinoma' or 'pancreatic adenocarcinoma' or 'esophageal cancer' or 'gallbladder carcinoma' or 'gastric cancer'). Critical reviews on relevant aspects and original articles reporting in vitro and/or in vivo results regarding the efficiency of autophagy and 5-FU in gastrointestinal cancer therapy were reviewed, analyzed, and summarized. The exclusion criteria for the articles were as follows: (1) new materials (e.g., nanomaterial)-induced autophagy; (2) clinical and experimental studies on diagnostic and/or prognostic biomarkers in digestive system cancers; and (3) immunogenic cell death for anticancer chemotherapy. Most cell and animal experiments showed inhibition of autophagy by either pharmacological approaches or via genetic silencing of autophagy regulatory gene, resulting in a promotion of 5-FU-induced cancer cells death. Meanwhile, autophagy also plays a pro-death role and may mediate cell death in certain cancer cells where apoptosis is defective or difficult to induce. The dual role of autophagy complicates the use of autophagy inhibitor or inducer in cancer chemotherapy and generates inconsistency to an extent in clinic trials."

According to the news editors, the research concluded: "Autophagy might be a therapeutic target that sensitizes the 5-FU treatment in gastrointestinal cancer."


Our news journalists report that additional information may be obtained by contacting X.J. Cai, Dept. of General Surgery, Zhejiang Province Key Laboratory of Laparoscopic Technology, Sir Run Run Shaw Hospital, Zhejiang University, Hangzhou, Zhejiang 310016, People's Republic of China. Additional authors for this research include Y.L. Feng, X. Liang and X.J Cai.
New Findings on Antiretrovirals from National Institute of Cholera and Enteric Diseases Summarized (Ribavirin suppresses bacterial virulence by targeting LysR-type transcriptional regulators)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiretrovirals have been published. According to news reporting originating from Kolkata, India, by NewsRx correspondents, research stated, "Targeting bacterial virulence mechanisms without compromising bacterial growth is a promising strategy to prevent drug resistance. LysR-type transcriptional regulators (LTTRs) possess structural conservation across bacterial species and regulate virulence in numerous pathogens, making them attractive targets for antimicrobial agents."

Our news editors obtained a quote from the research from the National Institute of Cholera and Enteric Diseases, "We targeted AphB, a Vibrio cholerae LTTR, which regulates the expression of genes encoding cholera toxin and toxin-co-regulated pilus for inhibitor designing. Since AphB ligand is unknown, we followed a molecular fragment-based approach for ligand designing using FDA-approved drugs and subsequent screen to identify molecules that exhibited high-affinity binding to AphB ligand-binding pocket. Among the identified compounds, ribavirin, an anti-viral drug, antagonized AphB functions. Ribavirin perturbed Vibrio cholerae pathogenesis in animal models. The inhibitory effects of the drug was limited to the bacteria expressing wild type AphB, but not its constitutively active mutant (AphB(N100E)), which represents the ligand-bound state, suggesting that ribavirin binds to the active site of AphB to exert its inhibitory role and there exists no AphB-independent mechanism of its action. Similarly, ribavirin suppressed the functions of Salmonella Typhi LTTR Hrg, indicating its broad spectrum efficacy. Moreover, ribavirin did not affect the bacterial viability in culture."

According to the news editors, the research concluded: "This study cites an example of drug repurposing for anti-infective therapy."

For more information on this research see: Ribavirin suppresses bacterial virulence by targeting LysR-type transcriptional regulators. Scientific Reports, 2016;6():1-16. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting S. Das, Natl Inst Cholera & Enter Dis, Div Clin Med, Kolkata, India. Additional authors for this research include A. Ta, R. Sinha, N. Theeya, A. Ghosh, M. Tasneem, A. Bhunia, H. Koley and
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Keywords for this news article include: Kolkata, India, Asia, Digestive System Diseases and Conditions, Respiratory Inhalant Products, Gram-Negative Bacteria, Inhaled Antinfectives, Drugs and Therapies, Respiratory Agents, Purine Nucleosides, Influenza Therapy, Vibrio cholerae, Antiretrovirals, Proteobacteria, Vibrionaceae, Antivirals, Ribavirin, Genetics, Cholera, National Institute of Cholera and Enteric Diseases.

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Drugs and Therapies - Antiretrovirals

New Findings on Antiretrovirals from University of Alabama Summarized (Cost considerations in the current antiretroviral era)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antiretrovirals have been presented. According to news originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "US national guidelines call for cost-conscious practices including the selection of antiretroviral therapy. The objective is to analyze the relative cost-effectiveness of contemporary antiretroviral therapy in real-world clinical settings."

Our news journalists obtained a quote from the research from the University of Alabama, "Observational cohort study. Retrospective follow-up study of treatment-naive persons living with HIV initiating antiretroviral therapy (ART) between January 2007 and December 2012 at an academically affiliated HIV clinic was conducted. Analysis was restricted to patients with the five most commonly prescribed regimens (N = 491). Patients were followed until December 14 to determine the durability of the initial regimen prescribed; median durations were calculated using Kaplan-Meier survival analyses. The average 340b price of the ART regimen 30-day supply was used for cost. Sensitivity analyses were performed adjusting for missing data and pricing indices and using mean durability (+/- 1 SD). Initial regimens contained emtricitabine and tenofovir, along with a third drug. Median durability was shortest for ritonavir-boosted atazanavir (31.9 months) and longest for ritonavir-boosted darunavir and raltegravir (both 47.8 months). All regimens were dominated, meaning less durable and more costly, relative to efavirenz ($710.64/month) and raltegravir-based regimens ($1075.03/month). These findings were reproduced in sensitivity analysis, although rilpivirine became a valuable option in some scenarios. Relative to the efavirenz-based regimen, raltegravir had an incremental cost of $47/month of additional therapy. In this sample, raltegravir and efavirenz-based regimens are the most cost-effective options for treatment-naive patients. Sensitivity analyses suggest rilpivirine is a reasonable choice in limited scenarios. These findings are relevant given changes in recommended regimens for treatment-naive persons, which include raltegravir and darunavir but exclude efavirenz and rilpivirine-based regimens. Of five commonly prescribed regimens for treatment-naive HIV patients in one clinic (2007-2012), emtricitabine and tenofovir with efavirenz and raltegravir were the only consistently cost-effective options; the rilpivirine-based regimen was valuable in limited scenarios."

According to the news editors, the research concluded: "Further data on the comparative effectiveness of efavirenz and rilpivirine are needed before they are abandoned."

For more information on this research see: Cost considerations in the current antiretroviral era. Aids, 2016;30(14):2215-2219. Aids can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott
Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx

The news correspondents report that additional information may be obtained from E.F. Eaton, Univ Alabama Birmingham, Dept. of Med, Div Infect Dis, Birmingham, AL 35294, United States. Additional authors for this research include A. Tamhane, M. Saag, M.J. Mugavero and M.L. Kilgore.

Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Integrase Strand Transfer Inhibitor, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Antiretrovirals, Retroviridae, RNA Viruses, Antivirals, Efavirenz, HIV/AIDS, Therapy, NNRTIs, University of Alabama.

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Physiology - Applied Physiology

New Findings on Applied Physiology from Sansom Institute for Health Research Summarized (Validity of a perceptually-regulated step test protocol for assessing cardiorespiratory fitness in healthy adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Physiology - Applied Physiology is now available. According to news originating from Adelaide, Australia, by NewsRx correspondents, research stated, "To determine whether maximal oxygen uptake (VO\(_{2}\)max) could be predicted accurately and reliably from a 2-step, perceptually-regulated exercise test (PRET) in healthy adults. Sixteen participants (31.7 +/- 11.3 years, 3 females) completed three PRETs (separated by 24-72 h) and one maximal, perceptually-regulated, graded exercise test (PRETmax) on a motorized treadmill."

Our news journalists obtained a quote from the research from Sansom Institute for Health Research, "Oxygen uptake (VO2) and heart rate (HR) were recorded during each test. VO2 values for RPE range 9-15 were extrapolated to RPE 20 and age-predicted maximal HR (HRmax) using individual linear regression analysis to predict VO(2)max values compared to measured VO(2)max. VO2 and HR values were consistent between each of four RPE levels of the PRET. ICC values ranged between 0.76 and 0.85. Predicted VO(2)max from both methods were lower than measured VO(2)max (p < 0.01). Limits of agreement (LoA) for measured (41.4 +/- 5.3 ml kg(-1) min(-1)) versus predicted VO(2)max from each of the three PRETs using RPE20 were -1.2 +/- 15.6, -1.0 +/- 7.2 and -2.1 +/- 5.5 and for HRmax were -1.8 +/- 4.2; -2.6 +/- 4.2 and -2.4 +/- 4.4 ml kg(-1) min(-1) for PRET 1, 2 and 3, respectively. The step PRET elicited significant and reliable increases in VO2 across the four RPE levels, but under-estimated treadmill VO(2)max. However, there was better agreement between measured and predicted VO(2)max when extrapolated to HRmax."

According to the news editors, the research concluded: "As evidence indicates the underestimation of VO(2)max is explained by the difference in the mode of exercise, the step PRET provides a simple and convenient test of cardiorespiratory fitness."

New Findings on Arachnodactyly Described by Investigators at Research Institute (Whole exome sequencing identifies a novel missense FBN2 mutation co-segregating in a four-generation Chinese family with congenital contractural arachnodactyly)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Musculoskeletal Diseases and Conditions - Arachnodactyly. According to news reporting out of Taiyuan, People's Republic of China, by NewsRx editors, research stated, "Congenital contractural arachnodactyly (CCA) is an autosomal dominant rare genetic disease, estimated to be less than 1 in 10,000 worldwide. People with this condition often have permanently bent joints (contractures), like bent fingers and toes (camptodactyly)."

Our news journalists obtained a quote from the research from Research Institute, "Case presentation: In this study, we investigated the genetic aetiology of CCA in a four-generation Chinese family. The blood samples were collected from 22 living members of the family in the Yangquan County, Shanxi Province, China. Of those, eight individuals across 3 generations have CCA. Whole exome sequencing (WES) identified a missense mutation involving a T-to-G transition at position 3229 (c.3229 T> G) in exon 25 of the FBN2 gene, resulting in a Cys 1077 to Gly change (p.C1077G). This previously unreported mutation was found in all 8 affected individuals, but absent in 14 unaffected family members. SIFT/PolyPhen prediction and protein conservation analysis suggest that this novel mutation is pathogenic. Our study extended causative mutation spectrum of FBN2 gene in CCA patients."

According to the news editors, the research concluded: "This study has identified a novel missense mutation in FBN2 gene (p.C1077G) resulting in CCA in a family of China."

For more information on this research see: Whole exome sequencing identifies a novel missense FBN2 mutation co-segregating in a four-generation Chinese family with congenital contractural arachnodactyly. *BMC Medical Genetics*, 2016;17():1-5. *BMC Medical Genetics* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Medical Genetics - www.biomedcentral.com/bmcmedgenet/)

Keywords for this news article include: Taiyuan, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Musculoskeletal Abnormalities, Congenital Limb Deformities, Congenital Abnormalities, Genetics, Genetics, Arachnodactyly, Research Institute.

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**Arrhythmia**

**New Findings on Arrhythmia from University Hospital Summarized (Asymptomatic Intradialytic Supraventricular Arrhythmias and Adverse Outcomes in Patients on Hemodialysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Arrhythmia. According to news reporting originating from Madrid, Spain, by NewsRx correspondents, research stated, "Supraventricular arrhythmias are associated with high morbidity and mortality. Nevertheless, this condition has received little attention in patients on hemodialysis."

Our news editors obtained a quote from the research from University Hospital, "The objective of this study was to analyze the incidence of intradialysis supraventricular arrhythmia and its long term prognostic value. We designed an observational and prospective study in a cohort of patients on hemodialysis with a 10-year follow-up period. All patients were recruited for study participation and were not recruited for clinical indications. The study population comprised 77 patients (42 men and 35 women; mean age =58 +/- 15 years old) with sinus rhythm monitored using a Holter electrocardiogram over six consecutive hemodialysis sessions at recruitment. Hypertension was present in 68.8% of patients, and diabetes was present in 29.9% of patients. Supraventricular arrhythmias were recorded in 38 patients (49.3%); all of these were short, asymptomatic, and self-limiting. Age (hazard ratio, 1.04 per year; 95% confidence interval, 1.00 to 1.08) and right atrial enlargement (hazard ratio, 4.29; 95% confidence interval, 1.30 to 14.09) were associated with supraventricular arrhythmia in the multivariate analysis. During a median follow-up of 40 months, 57 patients died, and cardiovascular disease was the main cause of death (52.6%). The variables associated with all-cause mortality in the Cox model were age (hazard ratio, 1.04 per year; 95% confidence interval, 1.00 to 1.08), C-reactive protein (hazard ratio, 1.04 per 1 mg/L; 95% confidence interval, 1.00 to 1.08), and supraventricular arrhythmia (hazard ratio, 3.21; 95% confidence interval, 1.29 to 7.96). Patients with supraventricular arrhythmia also had a higher risk of nonfatal cardiovascular events (hazard ratio, 4.32; 95% confidence interval, 2.11 to 8.83) and symptomatic atrial fibrillation during follow-up (hazard ratio, 17.19; 95% confidence interval, 2.03 to 145.15). The incidence of intradialysis supraventricular arrhythmia was high in our hemodialysis study population."

According to the news editors, the research concluded: "Supraventricular arrhythmias were short, asymptomatic, and self-limiting, and although silent, these arrhythmias were independently associated with mortality and cardiovascular events."

The news editors report that additional information may be obtained by contacting E. Verde, Hosp Gen Univ Gregorio Maranon, Dept. of Nephrol, Madrid 28007, Spain. Additional authors for this research include A.P. de Prado, J.M. Lopez-Gomez, B. Quiroga, M. Goicoechea, A. Garcia-Prieto, E. Torres, J. Reque and J. Luno.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2215/CJN.04310416. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Cardiovascular, Renal Dialysis, Hemodialysis, Cardiology, Arrhythmia, University Hospital.

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**Biological Factors - Arthropod Venoms**

**New Findings on Arthropod Venoms from Fourth Military Medical University Summarized (Involvement of Rac1 signalling pathway in the development and maintenance of acute inflammatory pain induced by bee venom injection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biological Factors - Arthropod Venoms. According to news reporting originating in Xi’an, People’s Republic of China, by NewsRx journalists, research stated, "The Rho GTPase, Rac1, is involved in the pathogenesis of neuropathic pain induced by malformation of dendritic spines in the spinal dorsal horn (sDH) neurons. In the present study, the contribution of spinal Rac1 to peripheral inflammatory pain was studied. Effects of s.c. bee venom (BV) injection on cellular localization of Rac1 in the rat sDH was determined with double labelling immunofluorescence.”

Financial supporters for this research include Social Development Project of Shaanxi Province, National Natural Science Foundation of China, Twelfth Five-Year project, National Key Technology R&D Program, National Basic Research Program of China.

The news reporters obtained a quote from the research from Fourth Military Medical University, "Activation of Rac1 and its downstream effector p21-activated kinase (PAK), ERKs and p38 MAPK in inflammatory pain states was evaluated with a pull-down assay and Western blotting. The preventive and therapeutic analgesic effects of intrathecal administration of NSC23766, a selective inhibitor of Rac1, on BV-induced spontaneous noception and pain hypersensitivity were investigated. Rac1 labelling was mainly localized within neurons in both the superficial and deep layers of the sDH in rats of naive, vehicle-treated and inflamed (BV injected) groups. GTP-Rac1-PAK and ERKs/p38 were activated following s.c. BV injection. Post-treatment with intrathecal NSC23766 significantly inhibited GTP-Rac1 activity and phosphorylation of Rac1-PAK, ERKs and p38 MAPK in the sDH. Both pre-treatment and post-treatment with intrathecal NSC23766 dose-dependently attenuated the paw flinches, primary thermal and mechanical hyperalgesia and the mirror-image thermal hyperalgesia induced by BV...
injection, but without affecting the baseline pain sensitivity and motor coordination."

According to the news reporters, the research concluded: "The spinal GTP-Rac1-PAK-ERK/p38MAPK signalling pathway is involved in both the development and maintenance of peripheral inflammatory pain and can be used as a potential molecular target for developing a novel therapeutic strategy for clinical pain."


Our news correspondents report that additional information may be obtained by contacting Y. Wang, Institute for Biomedical Sciences of Pain, Tangdu Hospital, The Fourth Military Medical University, Xi'an, 710038, People's Republic of China. Additional authors for this research include Y.F. Lu, C.L. Li, W. Sun, Z. Li, R.R. Wang, T. He, F. Yang, Y. Yang, X.L. Wang, S.M. Guan and J. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13413. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the British Journal of Pharmacology can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Asia, Xi'an, Bee Venoms, Arthropod Venoms, Biological Factors, People's Republic of China.

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New Findings on Atherosclerosis from Guangxi Medical University Summarized (Arsenic Exposure and Predicted 10-Year Atherosclerotic Cardiovascular Risk Using the Pooled Cohort Equations in US Hypertensive Adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news reporting out of Nanning, People's Republic of China, by NewsRx editors, research stated, "This study was to evaluate the association of urine arsenic with predicted 10-year atherosclerotic cardiovascular disease (ASCVD) risk in U.S. adults with hypertension. Cross-sectional analysis was conducted in 1570 hypertensive adults aged 40-79 years in the 2003-2012 National Health and Nutrition Examination Survey (NHANES) with determinations of urine arsenic."

Our news journalists obtained a quote from the research from Guangxi Medical University. "Predicted 10-year ASCVD risk was estimated by the Pooled Cohort Equations, developed by the American College of Cardiology/American Heart Association in 2013. For men, after adjustment for sociodemographic factors, urine dilution, ASCVD risk factors and organic arsenic intake from seafood, participants in the highest quartiles of urine arsenic had higher 10-year predicted ASCVD risk than in the lowest quartiles; the increases were 24% (95%
confidence interval (CI): 2%, 53%) for total arsenic, 13% (95% CI: 2%, 25%) for
dimethylarsinate and 22% (95% CI: 5%, 40%) for total arsenic minus arsenobetaine separately.
For women, the corresponding increases were 5% (95% CI: 15%, 29%), 10% (95% CI: 8%,
30%) and 0% (95% CI: 15%, 19%), respectively. Arsenic exposure, even at low levels, may
contribute to increased ASCVD risk in men with hypertension."

According to the news editors, the research concluded: "Furthermore, our findings
suggest that particular circumstances need urgently to be considered while elucidating
cardiovascular effects of low inorganic arsenic levels."

For more information on this research see: Arsenic Exposure and Predicted 10-Year
Atherosclerotic Cardiovascular Risk Using the Pooled Cohort Equations in US Hypertensive
803. International Journal of Environmental Research and Public Health can be contacted at:
Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by
contacting Q.J. Nong, Guangxi Med Univ, Sch Public Hlth, Dept. of Épidemiol, Nanning
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Guallar and Q. Zhong.

Keywords for this news article include: Nanning, People's Republic of China, Asia,
Cardiology, Risk and Prevention, Epidemiology, Cardiovascular Diseases and Conditions,
Atherosclerosis, Hypertension, Arsenic, Guangxi Medical University.

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Cardiovascular Diseases and Conditions...

New Findings on Atherosclerosis from University of California
Summarized (Endothelial-mesenchymal transition in atherosclerotic
lesion calcification)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Current study results on Cardiovascular Diseases and Conditions -
Atherosclerosis have been published. According to news reporting from Los Angeles,
California, by NewsRx journalists, research stated, "Endothelial-mesenchymal transitions
(EndMTs) in endothelial cells (ECs) contribute to vascular disease. We used ApoE(-/-) mice fed
a high-fat/high-cholesterol diet."

The news correspondents obtained a quote from the research from the University of
California, "We reported evidence of EndMT in atherosclerotic lesions contributing to
calcification. Stem cell and mesenchymal markers, including sex-determining region Y-box 2
(Sox2), were upregulated in aortic ECs of fat-fed ApoE(-/-) mice. Limiting Sox2 decreased
marker expression and calcification in ApoE(-/-) aortas. Furthermore, a complex of serine
proteases was upregulated in ApoE(-/-) aortic ECs. Blockade of these proteases reduced
expression of Sox2 and atherosclerotic lesion calcification."

According to the news reporters, the research concluded: "Together, our data suggest
that EndMTs contribute to atherosclerotic lesion calcification."

For more information on this research see: Endothelial-mesenchymal transition in
atherosclerotic lesion calcification. Atherosclerosis, 2016;253():124-127. Atherosclerosis can
be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co,
Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting K.I. Bostrom, University of California, Inst Mol Biol, Los Angeles, CA 90095, United States. Additional authors for this research include J. Yao, P.J. Guihard, A.M. Blazquez-Medela and Y. Yao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.08.046. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Cardiovascular Diseases and Conditions, Enzymes and Coenzymes, Atherosclerosis, Cardiology, Protease, University of California.

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Heart Disorders and Diseases - Atrial Fibrillation

New Findings on Atrial Fibrillation Described by Investigators at University Hospital (Direct Oral Anticoagulants for Very Elderly People With Atrial Fibrillation: Efficacy and Safe Enough?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting originating in Udine, Italy, by NewsRx journalists, research stated, "Four direct oral anticoagulants (DOACs) have been licensed for the treatment of atrial fibrillation (AF); efficacy and safety have been shown in clinical trials, but its real use in elderly and very elderly people is still unclear. To evaluate the impact of DOACs in our patients (pts) aged 75 years and switched from other treatments."

The news reporters obtained a quote from the research from University Hospital, "From September 2013 to May 2015, all consecutive pts aged 75 years, males and females, in treatment for AF and switched to DOACs are considered in this study. Follow-up (FU) was scheduled after 3 and 6 months by phone and after 12 months by visit. Two hundred thirty-two pts in treatment for AF were switched to DOACs, among these 143 (61.6%) pts aged 75 years (mean age, 81 years). The medium FU was 9.6 months, during which 4 minor bleedings in 4 different pts and 1 clinically relevant nonmajor bleeding were reported, all treated with temporary cessation or reduction in DOACs. Two strokes occurred in pts in treatment with dabigatran 110 mg, both resolved without serious sequelae; 2.8% of pts had nausea, itching, vomiting, or discomfort, half of these returned to acenocumarol, and the remaining switched to other DOAC. Four pts died, but the deaths were not related to anticoagulation. As reported for general people, also in our elderly population, DOACs resulted in a good alternative to old antithrombotic therapies."

According to the news reporters, the research concluded: "Efficacy and safety associated with a higher compliance by pts bring these drugs to be the first choice for long-term anticoagulation."

New Findings on Atrial Fibrillation Described by Investigators at University of Belgrade (Uncoupling of cardiac and respiratory rhythm in atrial fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting from Belgrade, Serbia, by NewsRx journalists, research stated, "Rearranged origin of heart rhythm in patients with atrial fibrillation (AF) influences the regulation of the heart and consequently the respiratory rhythm, and the bidirectional interaction of these rhythms not documented. Hence, we examined coupling of the RR interval and the respiration (Resp) signal by coherence, Granger causality and the cross-sample entropy method of time series analysis in patients with AF and a healthy control group."

The news correspondents obtained a quote from the research from the University of Belgrade, "In healthy subjects, the influence of respiration on cardiac rhythm was found as increased coherence at the breathing frequency (BF) range, significantly stronger interaction and synchrony from Resp to RR than from RR to Resp. On the contrary, in patients with AF, coherence at BF diminished, there were no causal interactions between signals in both directions, which resulted in equally great asynchrony between them."

According to the news reporters, the research concluded: "In AF, the absence of full functionality of the sinoatrial node, as an integrator of neural cardiac control, resulted in diminished vagal modulation of heart periods and consequently impaired bidirectional cardio-respiratory interaction."

For more information on this research see: Uncoupling of cardiac and respiratory rhythm in atrial fibrillation. Biomedical Engineering-Biomedizinische Technik, 2016;61(6):657-663. Biomedical Engineering-Biomedizinische Technik can be contacted at: Walter De Gruyter Gmbh, Genthiner Strasse 13, D-10785 Berlin, Germany.

Our news journalists report that additional information may be obtained by contacting M.M. Platisa, University of Belgrade, KCS, Fac Med, Inst Biophys, Belgrade 11129, Serbia. Additional authors for this research include T. Bojic, S.U. Pavlovic, N.N. Radovanovic and A. Kalauzi.

Keywords for this news article include: Belgrade, Serbia, Europe, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Cardiology, University of Belgrade.
Heart Disorders and Diseases - Atrial Fibrillation

New Findings on Atrial Fibrillation from Hiroshima International University Summarized (Dosage Adjustment of Dabigatran Etexilate Based on Creatinine Clearance in Patients With Cardioembolic Stroke or Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Atrial Fibrillation have been presented. According to news reporting out of Hiroshima, Japan, by NewsRx editors, research stated, "A recommendation for dosage adjustment of dabigatran etexilate, a prodrug of dabigatran, seems to be desirable based on creatinine clearance to avoid bleeding and stroke. Outpatients and inpatients having a history of cardioembolic stroke or atrial fibrillation were included."

Our news journalists obtained a quote from the research from Hiroshima International University, "After taking dabigatran etexilate orally (75-150 mg twice daily) for at least 1 week, plasma trough concentration (C-trough, ng/mL) of dabigatran and creatinine clearance (CLcr, mL/min) of patients according to Cockcroft and Gault equation were determined. Among the 38 patients studied, Ctrough of dabigatran and CLcr were scattered in a range from 31.4 to 329.5 ng/mL and 15.4-133.4 mL/min, respectively. Temporal CLtotal (Temp-CLtotal) of dabigatran, estimated by dividing the daily absorbed amount of dabigatran etexilate with C-trough of dabigatran, was linearly correlated with CLcr of patients (P = 0.0018). Based on the findings, the daily dose of dabigatran etexilate that provides C-trough of dabigatran at approximately 70 ng/mL was estimated. A linear relationship was found between Temp-CLtotal of dabigatran and CLcr of patients."

According to the news editors, the research concluded: "Depending on CLxr of patients, we recommend 4 different dosages of dabigatran etexilate to obtain C-trough of dabigatran at approximately 70 ng/mL."

For more information on this research see: Dosage Adjustment of Dabigatran Etexilate Based on Creatinine Clearance in Patients With Cardioembolic Stroke or Atrial Fibrillation. Therapeutic Drug Monitoring, 2016;38(6):670-676. Therapeutic Drug Monitoring can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting S. Matsuda, Hiroshima Int Univ, Lab Biopharmaceut & Pharmacokinet, Grad Sch Pharmaceut Sci, Kure, Hiroshima 7370112, Japan. Additional authors for this research include T. Imazu, R. Kimura, M. Nakamura, A. Matsumoto, T. Murakami and Y. Maeda.

Keywords for this news article include: Hiroshima, Japan, Asia, Heart Disorders and Diseases, Drugs and Therapies, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Hiroshima International University.

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Autoimmune Diseases and Conditions

New Findings on Autoimmune Diseases and Conditions from National Institutes of Health Summarized (Targeting cytokine signaling in autoimmunity: back to the future and beyond)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Autoimmune Diseases and Conditions have been presented. According to news originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "Cytokines represent structurally diverse soluble factors with critical roles in normal immune function and the pathogenesis of autoimmunity. The emergence of many successful biological therapies targeting cytokines and cytokine receptors exemplifies the importance of cytokines in driving human autoimmune disease; unsurprisingly, there is no paucity of reviews on this subject."

Funders for this research include National Institute of Arthritis and Musculoskeletal and Skin Diseases, NIH.

Our news journalists obtained a quote from the research from the National Institutes of Health, "Nonetheless, many patients with autoimmune disease do not respond to biologicals, and cure remains an unmet goal. Thus, targeting the intracellular pathways employed by cytokines provides new therapeutic opportunities. A subset of cytokines utilizes the Janus kinase-signal transducer of activators of transcription (JAK-STAT) pathway as a mode of signal transduction. First generation JAK inhibitors (jakinibs) are used to treat rheumatologic disease, and second-generation jakinibs are being developed. Simultaneously, rapid advances are being made in our understanding of the genomic and epigenomic impact of cytokines."

According to the news editors, the research concluded: "In this review, we will briefly review the role of JAKSTAT-dependent cytokines in immune-mediated disease, the current status of Jakinibs, and future possibilities for therapeutic intervention using genomic insights."

For more information on this research see: Targeting cytokine signaling in autoimmunity: back to the future and beyond. Current Opinion in Immunology, 2016;43():89-97. Current Opinion in Immunology can be contacted at: Current Biology Ltd, 84 Theobalds Rd, London WC1X 8RR, England. (Elsevier - www.elsevier.com; Current Opinion in Immunology - www.journals.elsevier.com/current-opinion-in-immunology/)

The news correspondents report that additional information may be obtained from J.J. O'Shea, NIAMS, Mol Immunol & Inflammat Branch, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include D. Schwartz, M. Gadina, Y. Kanno and J.J. O'Shea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.coi.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Immune System Diseases and Conditions, Autoimmune Diseases and Conditions, Cytokines, Article Review, Immunology, Genetics, National Institutes of Health.

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New Findings on B-Cell Lymphoma Described by Investigators at University of Wisconsin (Epigenetic gene regulation by Janus kinase 1 in diffuse large B-cell lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - B-Cell Lymphoma is the subject of a report. According to news originating from Madison, Wisconsin, by NewsRx correspondents, research stated, "Janus kinases (JAKs) classically signal by activating STAT transcription factors but can also regulate gene expression by epigenetically phosphorylating histone H3 on tyrosine 41 (H3Y41-P). In diffuse large B-cell lymphomas (DLBCLs), JAK signaling is a feature of the activated B-cell (ABC) subtype and is triggered by autocrine production of IL-6 and IL-10."

Financial support for this research came from HHS | NIH | National Cancer Institute (NCI).

Our news journalists obtained a quote from the research from the University of Wisconsin, "Whether this signaling involves STAT activation, epigenetic modification of chromatin, or both mechanisms is unknown. Here we use genetic and pharmacological inhibition to show that JAK1 signaling sustains the survival of ABC DLBCL cells. Whereas STAT3 contributed to the survival of ABC DLBCL cell lines, forced STAT3 activity could not protect these cells from death following JAK1 inhibition, suggesting epigenetic JAK1 action. JAK1 regulated the expression of nearly 3,000 genes in ABC DLBCL cells, and the chromatin surrounding many of these genes was modified by H3Y41-P marks that were diminished by JAK1 inhibition. These JAK1 epigenetic target genes encode important regulators of ABC DLBCL proliferation and survival, including IRF4, MYD88, and MYC."

According to the news editors, the research concluded: "A small molecule JAK1 inhibitor cooperated with the BTK inhibitor ibrutinib in reducing IRF4 levels and acted synergistically to kill ABC DLBCL cells, suggesting that this combination should be evaluated in clinical trials."


The news correspondents report that additional information may be obtained from L.X. Rui, University of Wisconsin, Sch Med & Public Hlth, Carbone Canc Center, Madison, WI 53705, United States. Additional authors for this research include A.C. Drennan, M. Ceribelli, F. Zhu, G.W. Wright, D.W. Huang, W.M. Xiao, Y.G. Li, K.M. Grindle, L. Lu, D.J. Hodson, A.L. Shaffer, H. Zhao, W.H. Xu, Y.D. Yang and L.M. Staudt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1610970113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madison, Wisconsin, United States, North and Central America, Intracellular Signaling Peptides and Proteins, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Enzymes and
Coenzymes, Large B-Cell Lymphoma, Kinase, Genetics, Janus Kinase 1, Janus Kinases, Hematology, Lymphomas, Oncology, University of Wisconsin.

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**Biological Structures**

**New Findings on Biological Structures Described by Investigators at University of Sassari (The subcortical maternal complex: multiple functions for one biological structure?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Biological Structures are presented in a new report. According to news reporting out of Sassari, Italy, by NewsRx editors, research stated, "The subcortical maternal complex (SCMC) is a multiprotein complex uniquely expressed in mammalian oocytes and early embryos, essential for zygote progression beyond the first embryonic cell divisions."

Our news journalists obtained a quote from the research from the University of Sassari, "Similar to other factors encoded by maternal effect genes, the physiological role of SCMC remains unclear, although recent evidence has provided important molecular insights into different possible functions. Its potential involvement in human fertility is attracting increasing attention; however, the complete story is far from being told."

According to the news editors, the research concluded: "The present mini review provides an overview of recent findings related to the SCMC and discusses its potential physiological role/s with the aim of inspiring new directions for future research."


Our news journalists report that additional information may be obtained by contacting D. Bebbere, University of Sassari, Dept. of Vet Med, I-07100 Sassari, Italy. Additional authors for this research include L. Masala, D.F. Albertini and S. Ledda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0788-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sassari, Italy, Europe, Biological Structures, Article Review, University of Sassari.

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Blood Vessels

New Findings on Blood Vessels from Children's Hospital Summarized
(A Novel Method for Epicardial Defibrillator Lead Placement in Young Children: Coil Between the Great Arteries)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Blood Vessels is the subject of a report. According to news reporting out of San Diego, California, by NewsRx editors, research stated, "The primary and secondary prevention of sudden cardiac death resulting from malignant arrhythmia, channelopathy, and hypertrophic cardiomyopathy often requires the implantation of automatic internal cardiac defibrillators (AICDs) in the pediatric population."

Our news journalists obtained a quote from the research from Children's Hospital, "In young patients, the small size of the systemic veins, complex anatomy of congenital heart disease, and body habitus often preclude safe and durable transvenous placement of the AICD coil, requiring innovative methods to circumvent this problem."

According to the news editors, the research concluded: "This report describes the technique used at Rady Children's Hospital San Diego/UCSD for the epicardial placement of an ICD system with a transvenous ICD coil placed between the aorta and pulmonary artery, thereby producing a stable location and excellent coil-to-can vector for successful defibrillation."


Our news journalists report that additional information may be obtained by contacting R. Murthy, Rady Childrens Hosp, Dept. of Cardiovascular Surg, Dept. of Cardiol, San Diego, CA, United States. Additional authors for this research include M.R. Williams, J.C. Perry, S. Shepard and D. DiBardino.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.03.109. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Diego, California, United States, North and Central America, Medical Devices, Defibrillators, Blood Vessels, Cardiology, Arteries, Children's Hospital.

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Bone Research

New Findings on Bone Research Reported by S. Manor et al (High-resolution HLA A similar to B similar to DRB1 haplotype frequencies from the Ezer Mizion Bone Marrow Donor Registry in Israel)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Current study results on Bone Research have been published. According to news originating from Petah Tiqwa, Israel, by NewsRx correspondents, research stated, "We have investigated HLA population alleles and haplotype frequencies for the ethnicities that comprise the contemporary population of Israel, using a large data set from the Ezer Mizion Bone Barrow Donor Registry."

Our news journalists obtained a quote from the research, "We genotyped 275,699 individuals at the HLA-A,-B and -DRB1 loci using HLA genotyping methods. HLA A similar to B similar to DRB1 haplotype frequencies were estimated from 19 sub-ethnic Jewish populations and other non-Jewish minorities using the maximum likelihood model, which accommodates typing ambiguities."

According to the news editors, the research concluded: "We present overall and sub-ethnicity specific HLA diversity results of the registry, which will help guide a data-driven strategy for future registry expansion."

For more information on this research see: High-resolution HLA A similar to B similar to DRB1 haplotype frequencies from the Ezer Mizion Bone Marrow Donor Registry in Israel. *Human Immunology*, 2016;77(12):1114-1119. *Human Immunology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

The news correspondents report that additional information may be obtained from S. Manor, Ezer Mizion Bone Marrow Donor Registry, Petah Tiqwa, Israel. Additional authors for this research include M. Halagan, N. Shriki, I. Yaniv, B. Zisser, M. Maiers, A. Madbouly and J. Stein.

Keywords for this news article include: Petah Tiqwa, Israel, Asia, Immune System, Bone Research, Bone Marrow.

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**Oncology - Breast Cancer**

**New Findings on Breast Cancer Described by Investigators at Department of Oncology (GEMOX: An Active Regimen for the Treatment of Luminal and Human Epidermal Growth Factor Receptor 2-Positive Metastatic Breast Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting originating in Brescia, Italy, by NewsRx journalists, research stated, "Pretreated metastatic breast cancer (MBC) remains a formidable challenge with unmet needs both in terms of prolonged survival and quality-of-life-related issues. We collected data from 27 MBC patients treated with gemcitabine and oxaliplatin (GEMOX) at our institution between June 2009 and April 2015."

The news reporters obtained a quote from the research from the Department of Oncology, "The patients were heavily pretreated, and all had previously been exposed to anthracyclines and taxanes. We achieved a complete response in 1 patient (4%), a partial response in 7 patients (26%) and stable disease in 12 patients (44%), while 6 patients (22%) experienced progressive disease. The response of 1 patient (4%) could not be evaluated because she interrupted her treatment during the first cycle due to a major reaction to oxaliplatin. We
observed grade 4 hypertransaminasaemia in only 1 patient (4%) and grade 2 neuropathy in 16 patients (59%). Grade 3 leuconeutropenia was observed in 5 patients (18%). The median progression-free survival was 5.9 months and the median overall survival was 9.6 months."

According to the news reporters, the research concluded: "GEMOX is an efficient and well-tolerated salvage regimen for MBC patients."


Our news correspondents report that additional information may be obtained by contacting A. Zaniboni, Fdn Poliambulanza, Dept. of Oncol, IT-25124 Brescia, Italy. Additional authors for this research include F. Aroldi, P. Bertocchi, T. Prochilo, S. Mutti, G. Savelli, A.P. Fraccon and A. Zaniboni.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000445936. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brescia, Italy, Europe, Metastatic Breast Cancer, Growth Factor Receptors, Membrane Proteins, Peptide Receptors, Women's Health, Oncology, Department of Oncology.

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**New Findings on Breast Cancer Discussed by Researchers at Yamaguchi University (Tissue-Specific Expression of Estrogen Receptor 1 Is Regulated by DNA Methylation in a T-DMR)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news originating from Ube, Japan, by NewsRx correspondents, research stated, "The mechanism controlling tissue-specific expression of estrogen receptor 1 (ESR1) is unclear. In other genes, DNA methylation of a region called the tissue-dependent and differentially methylated region (T-DMR) has been associated with tissue-specific gene expression."

Our news journalists obtained a quote from the research from Yamaguchi University, "This study investigated whether human ESR1 has a T-DMR and whether DNA methylation of the T-DMR regulates its expression. ESR1 expression was tissue-specific, being high in the endometrium and mammary gland and low/nil in the placenta and skin. Therefore, DNA methylation profiles of the promoter of ESR1 were analyzed in these tissues and in breast cancer tissues. In all of the normal tissues, the proximal promoter regions were unmethylated. On the other hand, the distal regions (T-DMR) were unmethylated in the endometrium and mammary gland, but were moderately methylated and hypermethylated in the placenta and skin, respectively. T-DMR-methylated reporter assay was performed to examine whether DNA methylation at the T-DMR suppresses ESR1 transcription. T-DMR, but not the promoter region, had transcriptional activities and DNA methylation of the T-DMR suppressed ESR1
transcription. Early growth response protein 1 was shown to be a possible transcription factor to bind the T-DMR and up-regulate ESR1 expression. ESR1 has several upstream exons, and each upstream exon, Exon-A/Exon-B/Exon-C, had its own T-DMR. In some breast cancer cases and breast cancer cell lines, ESR1 expression was not regulated by DNA methylation at T-DMR as it is in normal tissues."

According to the news editors, the research concluded: "ESR1 has a T-DMR. DNA methylation status at the T-DMR is involved in tissue-specific ESR1 expression in normal tissues but not always in breast cancer."

For more information on this research see: Tissue-Specific Expression of Estrogen Receptor 1 Is Regulated by DNA Methylation in a T-DMR. *Molecular Endocrinology*, 2015;30 (3):335-47. (The Endocrine Society - www.endo-society.org/; Molecular Endocrinology - mend.endojournals.org/)

The news correspondents report that additional information may be obtained from R. Maekawa, Departments of Obstetrics and Gynecology (RM, SS, MO, LL, IT, KJ, TK, HA, YY, HT, NS) and Digestive Surgery and Surgical Oncology (SY), Yamaguchi University Graduate School of Medicine, Ube 755-8505, Japan. Additional authors for this research include S. Sato, M. Okada, L. Lee, I. Tamura, K. Jozaki, T. Kajimura, H. Asada, Y. Yamagata, H. Tamura, S. Yamamoto and N. Sugino.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1210/me.2015-1058. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ube, Asia, Japan, Genetics, Oncology, DNA Research, Breast Cancer, Women's Health, Steroid Receptors, Estrogen Receptors, DNA Binding Proteins, Transcription Factors.

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**Oncology - Breast Cancer**

**New Findings on Breast Cancer from Curtin University Summarized (Breast cancer risk and the interaction between adolescent body size and weight gain in later life: A case-control study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news originating from Perth, Australia, by NewsRx correspondents, research stated, "While the breast cancer risk associated with increasing adult BMI in postmenopausal women can be explained by increases in concentrations of endogenous estrogens the biologic mechanisms behind the inverse association between adolescent BMI and breast cancer risk are still a subject of controversial debate. We investigated the association of breast cancer with body size and changes in body size across life time estimated by age-specific BMI Z scores and changes in BMI Z scores from teenage years to middle age in an age-matched population-based case-control study of 2994 Australian women."

Our news journalists obtained a quote from the research from Curtin University, "Logistic regression adjusted for the matching factor age and further potential confounders was used. Adolescent body leanness in postmenopausal women and excess adult weight gain in all study participants were associated with an increased breast cancer risk with an odds ratio [95%
confidence interval] of 1.29 [1.08,1.54] and 1.31 [1.09,1.59], respectively. Interaction analyses restricted to postmenopausal women revealed an increased risk of breast cancer in those who were lean during adolescence and gained excess weight during adulthood (odds ratio [95% confidence interval]: 1.52 [1.19,1.95]) but not in women who were lean during adolescence and did not gain excess weight during adulthood (1.20 [0.97,1.48]) and not in women who were not lean during adolescence and but gained excess weight during adulthood (1.10 [0.95,1.27]) compared to postmenopausal women who were neither lean during adolescence nor gained excess weight."

According to the news editors, the research concluded: "In postmenopausal women adolescent leanness was only associated with increased breast cancer risk when excess weight was gained during adulthood."

For more information on this research see: Breast cancer risk and the interaction between adolescent body size and weight gain in later life: A case-control study. Cancer Epidemiology, 2016;45():135-144. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news correspondents report that additional information may be obtained from I. Florath, Curtin University, Sch Public Hlth. Perth, WA, Australia. Additional authors for this research include D. Sarink, C. Saunders, J. Heyworth and L. Fritschi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.10.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Perth, Australia, Australia and New Zealand, Adolescence, Epidemiology, Breast Ductal Carcinoma, Risk and Prevention, Women's Health, Breast Cancer, Cancer Risk, Oncology, Curtin University.

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**Oncology - Breast Cancer**

**New Findings on Breast Cancer from Fudan University Summarized**

(***PA-MSHA inhibits the growth of doxorubicin-resistant MCF-7/ADR human breast cancer cells by downregulating Nrf2/p62***)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Acquired resistance to doxorubicin in breast cancer is a serious therapeutic problem. In this study, we investigated whether Pseudomonas aeruginosa mannose-sensitive hemagglutinin (PA-MSHA) could inhibit the growth of doxorubicin-resistant breast cancer cells."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Fudan University, "We found that the expressions of Nrf2 and p62 in breast cancer were higher than that in the corresponding adjacent normal tissues and benign breast epithelial cell. The expressions of Nrf2 and p62 in breast cancer doxorubicin-resistant cells MCF-7/ADR were higher than that in doxorubicin-sensitive cells MCF-7. Silencing of Nrf2 or p62 rendered breast cancer cells more..."
susceptible to doxorubicin. We further demonstrated that PA-MSHA inhibited growth and induced apoptosis of MCF-7/ADR cells but not MCF-7 cells. Subcutaneous administration of PA-MSHA greatly inhibited the growth of xenograft tumors from MCF-7/ADR cells in nude mice. In addition, PA-MSHA could downregulate Nrf2 and p62 in vitro and in vivo. These results suggested that activation of Nrf2 and p62 was associated with doxorubicin resistance in breast cancer. PA-MSHA could inhibit the growth of doxorubicin-resistant MCF-7/ADR cells and its potential mechanism might be due to the suppression of Nrf2/p62."

According to the news editors, the research concluded: "It indicated the possibility of using PA-MSHA in doxorubicin-resistant breast cancer."


Our news journalists report that additional information may be obtained by contacting N. Zhang, Fudan University, Sch Basic Med Sci, Dept. of Pathol, Shanghai, People's Republic of China. Additional authors for this research include D.Y. Liu, X.X. Jin, P. Gao, Q.Y. Wang, J.W. Zhang and N. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.938. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Drugs and Therapies, Pharmaceuticals, Women's Health, Breast Cancer, Oncology, Fudan University.

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Bullying

New Findings on Bullying Reported by B. Venkatesh et al (Prevalence of bullying, discrimination and sexual harassment among trainees and Fellows of the College of Intensive Care Medicine of Australia and New Zealand)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Bullying are presented in a new report. According to news originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Anecdotal reports about bullying behaviour in intensive care emerged during College of Intensive Care Medicine (CICM) hospital accreditation visits. Bullying, discrimination and sexual harassment (BDSH) in the medical profession, particularly in surgery, were widely reported in the media recently."

Our news journalists obtained a quote from the research, "This prompted the College to formally survey its Fellows and trainees to identify the prevalence of these behaviours in the intensive care workplace. An online survey of all trainees (n = 951) and Fellows (n = 970) of the CICM. The survey response rate was 51% (Fellows, 60%; trainees, 41%). The overall prevalences of bullying, discrimination and sexual harassment were 32%, 12% and 3%,
respectively. The proportions of Fellows and trainees who reported being bullied and discriminated against were similar across all age groups. Women reported a greater prevalence of sexual harassment (odds ratio [OR], 2.97 [95% CI, 1.35-6.51]; P=0.006) and discrimination (OR, 2.10 [95% CI, 1.39-3.17]; P = 0.0004) than men. Respondents who obtained their primary medical qualification in Asia or Africa appeared to have been at increased risk of discrimination (OR, 1.88 [95% CI, 1.15-3.05]; P = 0.03). Respondents who obtained their degree in Australia, New Zealand or Hong Kong may have been at increased risk of being bullied. In all three domains of unprofessional behaviour, the perpetrators were predominantly consultants (70% overall), and the highest proportion of these was ICU consultants."

According to the news editors, the research concluded: "The occurrence of BDSH appears to be common in the intensive care environment in Australia and New Zealand."


The news correspondents report that additional information may be obtained from B. Venkatesh, Board Coll Intens Care Med Australia & New Zealan, Melbourne, Vic, Australia. Additional authors for this research include C. Corke, R. Raper, M. Pinder, D. Stephens, G. Joynt, P. Morley, R. Bellomo, R. Bevan, R. Freebairn, B. Varghese, M. Ashbolt, F. Hawker, S. Jacobe and S. Yong.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Intensive Care Medicine, Risk and Prevention, Social Behavior, Bullying.
the National Cancer Institute Common Terminology Criteria for Adverse Events version 4.0. CIN was observed in nine patients. Univariate analysis revealed that cardiac disease and lower baseline serum albumin (Alb) values conferred a higher risk of nephrotoxicity (p <0.05). The cut-off value of Alb was 3.8 g/dL, calculated by receiver operating characteristics (ROC) curves. Multivariable logistic regression analysis revealed that cardiac disease (odds ratio=11.7; p=0.002) and hypoalbuminemia (odds ratio=6.99 p=0.025 significantly correlated with nephrotoxicity."

According to the news reporters, the research concluded: "Cardiac disease and low baseline Alb values are possible risk factors for CIN."


Our news correspondents report that additional information may be obtained by contacting T. Miyoshi, National Hospital Organization, Beppu Med Center, Dept. of Pharm, Beppu, Oita 8740011, Japan. Additional authors for this research include N. Misumi, M. Hiraike, Y. Mihara, T. Nishino, M. Tsuruta, Y. Kawamata, Y. Hiraki, A. Kozono and M. Ichiki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1248/bpb.b16-00473. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beppu, Japan, Asia, Drugs and Therapies, Risk and Prevention, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Lung Neoplasms, Chemotherapy, Lung Cancer, Cancer Risk, Cardiology, Cisplatin, Oncology, National Hospital Organization.

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co-activator p300. C/EBP beta is expressed in several isoforms from alternative translational start codons. We have previously demonstrated that helenalin acetate selectively inhibits only the full-length (liver-enriched activating protein* (LAP*)) isoform but not the slightly shorter (LAP) isoform. Consistent with this, helenalin acetate binds to the LAP* but not to the LAP isoform, explaining why its inhibitory activity is selective for LAP*. Although helenalin acetate contains reactive groups that are able to interact covalently with cysteine residues, as exemplified by its effect on NF-kappa B, the inhibition of C/EBP beta by helenalin acetate is not due to irreversible reaction with cysteine residues of C/EBP beta. In summary, helenalin acetate is the first highly active small-molecule C/EBP beta inhibitor that inhibits C/EBP beta by a direct binding mechanism.

According to the news reporters, the research concluded: "Its selectivity for the LAP* isoform also makes helenalin acetate an interesting tool to dissect the functions of the LAP* and LAP isoforms."

For more information on this research see: Helenalin Acetate, a Natural Sesquiterpene Lactone with Anti-inflammatory and Anti-cancer Activity, Disrupts the Cooperation of CCAAT Box/Enhancer-binding Protein beta (C/EBP beta) and Co-activator p300. *Journal of Biological Chemistry*, 2016;291(50):26098-26108. *Journal of Biological Chemistry* can be contacted at: Amer Soc Biochemistry Molecular Biology Inc, 9650 Rockville Pike, Bethesda, MD 20814-3996, USA. (American Society for Biochemistry and Molecular Biology - www.asbmb.org; Journal of Biological Chemistry - www.jbc.org/)

Our news journalists report that additional information may be obtained by contacting K.H. Klempnauer, Westfal Wilhelms Univ, Inst Biochem, D-48149 Munster, Germany. Additional authors for this research include S. Steinmann, S.M. Henrich, T.J. Schmidt and K.H. Klempnauer.

Keywords for this news article include: Munster, Germany, Europe, Transcription Factors, DNA-Binding Proteins, Drugs and Therapies, Nuclear Proteins, Sesquiterpenes, Cancer Therapy, NF-kappa B, Oncology, Genetics, Institute for Biochemistry.

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**Cardiology**

**New Findings on Cardiology Described by Investigators at Cedars-Sinai Heart Institute (Mitraval annular calcification is not associated vvith decreased procedural success, durability of repair, or left ventricular remodelling in percutaneous ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiology are discussed in a new report. According to news reporting originating in Los Angeles, California, by NewsRx journalists, research stated, "Mitraval annular calcification (MAC) negatively influences outcomes in surgical mitral valve (MV) repair for mitral regurgitation (MR). However, there are no data on whether MAC impacts on outcomes of MitraClip percutaneous MV edge-to-edge repair."

The news reporters obtained a quote from the research from Cedars-Sinai Heart Institute, "This study sought to investigate whether the presence of MAC impacts on the procedural success and durability of percutaneous transcatheter repair of MR using the MitraClip. One hundred and seventy-three patients undergoing MitraClip repair for significant
MR were studied. Patients with moderate-or-severe MAC (n=28) were compared to those with no-or-mild MAC. Post-procedural MR severity was not different (p=0.642) and MR reduction to moderate-or-less was equally high in patients with moderate-or-severe MAC (100%) and those without (96.7%), p=1.000. At one year, MR severity was not different (p=0.831), and there was no difference in the repair durability when comparing patients with moderate-or-severe MAC (93.8%) to those without (90.6%), p=1.000. All patients with moderate-or-severe MAC assessed at one year were in NYHA functional Class I-II and had haemodynamic improvements with a decrease in pulmonary artery systolic pressure (-6.5 +/- 13.1 mmHg), p=0.021, and end-diastolic left ventricular internal diameter (-3.9 +/- 6.5 mm), p=0.034, not different to those achieved by patients without MAC (both p>0.100). Moderate-or-severe MAC scored by echocardiography and confirmed on fluoroscopy was not associated with decreased procedural success or durability of repair.

According to the news reporters, the research concluded: "Patients with moderate-or-severe MAC had improvements in clinical symptoms and haemodynamics, as well as decreased left ventricular dimensions."

For more information on this research see: Mitral annular calcification is not associated with decreased procedural success, durability of repair, or left ventricular remodelling in percutaneous edge-to-edge repair of mitral regurgitation. *Eurointervention*, 2016;12(9):1176-1184. *Eurointervention* can be contacted at: Europa Edition, 19 Allee Jean Jaures B P 61508, Toulouse Cedex 6, 31015, France.

Our news correspondents report that additional information may be obtained by contacting S. Kar, Cedars Sinai Heart Inst, Div Cardiol, Los Angeles, CA 90048, United States. Additional authors for this research include E. Tat, R.J. Siegel, R. Arsanjani, A. Hussaini, M. Makar, Y. Mizutani, A. Trento and S. Kar.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Cardiology, Cedars-Sinai Heart Institute.

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**Cardiology**

**New Findings on Cardiology Described by Investigators at Stanford University (Engineered Substrate-Specific Delta PKC Antagonists to Enhance Cardiac Therapeutics)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting originating in Stanford, California, by NewsRx journalists, research stated, "Most protein kinases phosphorylate multiple substrates, each of which induces different and sometimes opposing functions. Determining the role of phosphorylation of each substrate following a specific stimulus is challenging but is essential to elucidate the role of that substrate in the signaling event."

The news reporters obtained a quote from the research from Stanford University, "Here we describe a rational approach to identify inhibitors of delta protein kinase C (delta PKC), each inhibiting the phosphorylation of only one of delta PKC’s substrates. delta PKC regulates many signaling events and we hypothesized that a docking inhibitor of a given substrate to delta PKC should selectively abrogate the phosphorylation of only that substrate,
without affecting the phosphorylation of the other delta PKC substrates. Here we report the
development of selective inhibitors of three delta PKC substrates (in vitro K-d approximate to 3
nm); two greatly reduced ischemia-induced cardiac injury with an IC50 of approximate to 200
nm and the third had no effect, indicating that its respective substrate phosphorylation by delta
PKC has no role in the response to cardiac ischemia and reperfusion. The three inhibitors are
highly specific; even at 1 mm, the phosphorylation of other delta PKC protein substrates was
unaffected."

According to the news reporters, the research concluded: "The rationale we describe
is likely applicable for the development of other substrate-specific inhibitors as well."

For more information on this research see: Engineered Substrate-Specific Delta
PKC Antagonists to Enhance Cardiac Therapeutics. *Angewandte Chemie-International Edition*,
2016;55(50):15672-15679. *Angewandte Chemie-International Edition* can be contacted at:
Wiley-VCH Verlag GmbH, Postfach 101161, 69451 Weinheim, Germany.

Our news correspondents report that additional information may be obtained by
contacting N. Qvit, Stanford University, Sch Med, Dept. of Chem & Syst Biol, Stanford, CA
94305, United States. Additional authors for this research include O.S. Kornfeld and D.
Mochly-Rosen.

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http://dx.doi.org/10.1002/anie.201605429. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Stanford, California, United States, North
and Central America, Engineering, Cardiology, Stanford University.

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**Cardiology**

**New Findings on Cardiology Described by Investigators at University of
California (Regulation of human cardiac potassium channels by full-
length KCNE3 and KCNE4)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness &
Wellness Week -- Researchers detail new data in Cardiology. According to news reporting
from Irvine, California, by NewsRx editors, the research stated, "Voltage-gated potassium (Kv)
channels comprise pore-forming a subunits and a multiplicity of regulatory proteins, including
the cardiac-expressed and cardiac arrhythmia-linked transmembrane KCNE subunits. After
recently uncovering novel, N-terminally extended (L) KCNE3 and KCNE4 isoforms and
detecting their transcripts in human atrium, reported here are their functional effects on human
cardiac Kv channel a subunits expressed in Xenopus laevis oocytes."

The news correspondents obtained a quote from the research from the University of
California, "As previously reported for short isoforms KCNE3S and KCNE4S, KCNE3L
inhibited hERG; KCNE4L inhibited Kv1.1; neither form regulated the HCN1 pacemaker
channel. Unlike KCNE4S, KCNE4L was a potent inhibitor of Kv4.2 and Kv4.3; co-expression
of cytosolic beta subunit KChIP2, which regulates Kv4 channels in cardiac myocytes, partially
relieved Kv4.3 but not Kv4.2 inhibition. Inhibition of Kv4.2 and Kv4.3 by KCNE3L was
weaker, and its inhibition of Kv4.2 abolished by KChIP2. KCNE3L and KCNE4L also
exhibited subunit-specific effects on Kv4 channel complex inactivation kinetics, voltage
dependence and recovery. Further supporting the potential physiological significance of the robust functional effects of KCNE4L on Kv4 channels, KCNE4L protein was detected in human atrium, where it co-localized with Kv4.3."

According to the news reporters, the research concluded: "The findings establish functional effects of novel human cardiac-expressed KCNE isoforms and further contribute to our understanding of the potential mechanisms influencing cardiomyocyte repolarization."

For more information on this research see: Regulation of human cardiac potassium channels by full-length KCNE3 and KCNE4. Scientific Reports, 2016;6():1-12. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting G.W. Abbott, University of California, Dept. of Physiol & Biophys, Sch Med, Irvine, CA 92717, United States.

Keywords for this news article include: Irvine, California, United States, North and Central America, Cardiology, University of California.

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Our news journalists report that additional information may be obtained by contacting L.M. Hocke, Tufts Biomed Engn Department, Medford, MA, United States. Additional authors for this research include Y.J. Tong, K.P. Lindsey and B.D. Frederick.

Keywords for this news article include: Medford, Massachusetts, United States, North and Central America, Cardiology.

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**Cardiology**

**New Findings on Cardiology from Thomas Jefferson University Summarized (Strategic Positioning and Biased Activity of the Mitochondrial Calcium Uniporter in Cardiac Muscle)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Control of myocardial energetics by Ca2+ signal propagation to the mitochondrial matrix includes local Ca2+ delivery from sarcoplasmic reticulum (SR) ryanodine receptors (RyR2) to the inner mitochondrial membrane (IMM) Ca2+ uniporter (mtCU). mtCU activity in cardiac mitochondria is relatively low, whereas the IMM surface is large, due to extensive cristae folding. Hence, stochastically distributed mtCU may not suffice to support local Ca2+ transfer."

Financial supporters for this research include National Institutes of Health, American Heart Association.

The news correspondents obtained a quote from the research from Thomas Jefferson University, "We hypothesized that mtCU concentrated at mitochondria-SR associations would promote the effective Ca2+ transfer. mtCU distribution was determined by tracking MCU and EMRE, the proteins essential for channel formation. Both proteins were enriched in the IMM-outer mitochondrial membrane (OMM) contact point submitochondrial fraction and, as super-resolution microscopy revealed, located more to the mitochondrial periphery (inner boundary membrane) than inside the cristae, indicating high accessibility to cytosol-derived Ca2+ inputs. Furthermore, MCU immunofluorescence distribution was biased toward the mitochondria-SR interface (RyR2), and this bias was promoted by Ca2+ signaling activity in intact cardiomyocytes. The SR fraction of heart homogenate contains mitochondria with extensive SR associations, and these mitochondria are highly enriched in EMRE. Size exclusion chromatography suggested for EMRE- and MCU-containing complexes a wide size range and also revealed MCU-containing complexes devoid of EMRE (thus disabled) in the mitochondrial but not the SR fraction. Functional measurements suggested more effective mtCU-mediated Ca2+ uptake activity by the mitochondria of the SR than of the mitochondrial fraction."

According to the news reporters, the research concluded: "Thus, mtCU 'hot spots' can
be formed at the cardiac muscle mitochondria-SR associations via localization and assembly bias, serving local Ca2+ signaling and the excitation-energetics coupling."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.755496. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Cardiology, Thomas Jefferson University.

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**Cardiovascular Diseases**

**New Findings on Cardiovascular Diseases Described by Investigators at Duke University (Cardiovascular Disease and HIV: Pathophysiology, Treatment Considerations, and Nursing Implications)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases is the subject of a report. According to news reporting originating from Durham, North Carolina, by NewsRx correspondents, research stated, "HIV infection has progressed from an acute, terminal disease to a chronic illness with cardiovascular disease as the leading cause of death among persons living with HIV. As persons living with HIV infection continue to become older, traditional risk factors for atherosclerosis compounded by the pathophysiological effects of HIV infection and antiretroviral therapy markedly increase the risk for cardiovascular disease."

Our news editors obtained a quote from the research from Duke University, "Further, persons living with HIV are also at high risk for cardiomyopathy. Critical care nurses must recognize the risk factors for cardiovascular disease and the pathophysiology and complex treatment options in order to manage care of these patients and facilitate multidisciplinary collaboration."

According to the news editors, the research concluded: "Two case studies are used to highlight the treatment options and nursing considerations associated with cardiovascular disease among persons living with HIV."

For more information on this research see: Cardiovascular Disease and HIV: Pathophysiology, Treatment Considerations, and Nursing Implications. *Critical Care Nurse*, 2016;36(5):37-46. *Critical Care Nurse* can be contacted at: Amer Assoc Critical Care Nurses,
New Findings on Carotid Stenosis Described by Investigators at Sakarya University (Relationship Between Carotid Stenosis and Infarct Volume in Ischemic Stroke Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Carotid Stenosis. According to news originating from Sakarya, Turkey, by NewsRx correspondents, research stated, "Stroke is a serious health problem all over the world. Ischemia causes 85% of strokes and 75% of these ischemic strokes occur within the area supplied by the internal carotid artery (ICA)."

Our news journalists obtained a quote from the research from Sakarya University, "This study included 47 acute stroke patients who were in the large-artery atherosclerosis group according to Trial of ORG 10172 in Acute Stroke Treatment (TOAST) classification and who had an infarct in the area supplied by the internal carotid artery. We sought to determine whether there was a significant correlation between the infarct volume of the patients as measured by diffusion-weighted magnetic resonance imaging (DW MRI), their National Institutes of Health Stroke Scale (NIHSS), and degree of carotid stenosis as identified by carotid computed tomography angiography (CTA). A significant correlation was observed between the percentage of carotid artery stenosis and infarct volume (p < 0.001). In addition, there was a significant positive correlation between the NIHSS and infarct volume; the correlation was of moderate strength (r= 0.366, p= 0.001)."

According to the news editors, the research concluded: "Our findings indicate that the percentage of carotid artery stenosis could be useful in predicting the infarct volume of the stroke."

For more information on this research see: Relationship Between Carotid Stenosis and Infarct Volume in Ischemic Stroke Patients. *Medical Science Monitor*, 2016;22():4954-4959. *Medical Science Monitor* can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

The news correspondents report that additional information may be obtained from...
New Findings on Cell Biochemistry Described by Investigators at Pusan National University (Hedgehog Signaling is Associated with Liver Response to Fractionated Irradiation in Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cell Biochemistry is now available. According to news reporting out of Pusan, South Korea, by NewsRx editors, research stated, "Radiation-induced liver disease (RILD) is a major obstacle in treating liver cancer; however, the mechanisms underlying RILD development remain unclear. Hedgehog (Hh) orchestrates liver response to injury."

Our news journalists obtained a quote from the research from Pusan National University, "Herein, we investigated the liver response with Hh to fractionated irradiation (FI) using a small murine model for RILD. Male mice exposed to liver-targeted FI with 6Gy in 5 consecutive weekly fractions were sacrificed at one day after weekly irradiation and 6 or 10 weeks post 5(th) FI for the acute and late response model, respectively. The levels of ALT/AST and apoptosis were elevated in all radiation groups. The expression of Hh ligand, Sonic and Indian Hh, and Hh activator, smoothened and gli2, was higher in the acute groups than the control group. Pro-fibrogenic markers were also up-regulated in this model compared with the control group. Histomorphological changes and ballooned hepatocytes were observed in the late response model. Both the expression of Hh and profibrotic genes and the fibrosis level increased in this model compared with the control groups."

According to the news editors, the research concluded: "Enhanced Hedgehog signaling and liver injury with fibrosis in RILD murine model suggests hedgehog as the potential regulator in RILD progression and the suitability of this model for studying RILD."


Our news journalists report that additional information may be obtained by contacting Y. Jung, Pusan National University, Coll Nat Sci, Dept. of Biol Sci, Pusan, South
New Findings on Cell Science from Shanghai Medical College of Fudan University Summarized (MBD3L2 promotes Tet2 enzymatic activity for mediating 5-methylcytosine oxidation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Life Science Research - Cell Science is the subject of a report. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Ten-eleven translocation (Tet) proteins are key players involved in the dynamic regulation of cytosine methylation and demethylation. Inactivating mutations of Tet2 are frequently found in human malignancies, highlighting the essential role of Tet2 in cellular transformation."

Funders for this research include National Natural Science Foundation of China, National Basic Research Program of China 973 Program, The Major Project of Basic Research of Technology Committee in Shanghai of China.

Our news journalists obtained a quote from the research from the Shanghai Medical College of Fudan University, "However, the factors that control Tet enzymatic activity remain largely unknown. Here, we found that methyl-CpG-binding domain protein 3 (MBD3) and its homolog MBD3-like 2 (MBD3L2) can specifically modulate the enzymatic activity of Tet2 protein, but not Tet1 and Tet3 proteins, in converting 5-methylcytosine (5mC) into 5-hydroxymethylcytosine (5hmC). Moreover, MBD3L2 is more effective than MBD3 in promoting Tet2 enzymatic activity through strengthening the binding affinity between Tet2 and the methylated DNA target. Further analysis revealed pronounced decreases in 5mC levels at MBD3L2 and Tet2 co-occupied genomic regions, most of which are promoter elements associated with either cancer-related genes or genes involved in the regulation of cellular metabolic processes. Our data add new insights into the regulation of Tet2 activity by MBD3 and MBD3L2, and into how that affects Tet2-mediated modulation of its target genes in cancer development."

According to the news editors, the research concluded: "Thus, they have important applications in understanding how dysregulation of Tet2 might contribute to human malignancy."


The news correspondents report that additional information may be obtained from F. Wu, Laboratory of Epigenetics, School of Basic Medicine and Institutes of Biomedical Research.
Transplant Medicine - Cell Transplants

New Findings on Cell Transplants Described by Investigators at University College (Optimisation and quality control of cell processing for autologous stem cell transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Cell Transplants have been published. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Clinical practice and the technology of cell processing for autologous stem cell transplantation has continued to evolve over the last two decades and merits review of current quality control expectations."

Financial support for this research came from National Institute for Health Research.

Our news editors obtained a quote from the research from University College, "The external regulatory era has improved quality and safety standards but there is still variable practice, with specific risks illuminated by a number of clinical incidents. Viable CD34(+) cell assays may fail to indicate significant losses in progenitor function during storage, particularly after cryopreservation, and there is a need to develop an alternative, real time functional assay to replace colony assays."

According to the news editors, the research concluded: "The ultimate guide to potency and successful cell processing for haematopoietic progenitor cell products is prompt and reproducible engraftment and close monitoring is essential for safety and quality control."


The news editors report that additional information may be obtained by contacting M.J. Watts, UCL, London, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjh.14378. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Stem Cell Research, Article Review, Cell Transplantation, Transplant Medicine, Cell Transplants, Biomedicine, Surgery, University College.
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**Digestive System Diseases and Conditions**

**New Findings on Cholangitis from Shizuoka Cancer Center Summarized**

(Evaluation of Streptococcus pneumoniae in bile samples: A case series review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Digestive System Diseases and Conditions - Cholangitis are presented in a new report. According to news originating from Shizuoka, Japan, by NewsRx correspondents, research stated, "Although Streptococcus pneumoniae is an important pathogen of humans, pneumococcal cholangitis is rare because of the rapid autolysis of S. pneumoniae. The aim of this case series was to review patients with bile cultures positive for S. pneumoniae."

Our news journalists obtained a quote from the research from Shizuoka Cancer Center, "This study was a single center retrospective case series review of patients with S. pneumoniae in their bile at a tertiary-care cancer center between September 2002 and August 2015. Subjects consisted of all patients in whom S. pneumoniae was isolated in their bile during the study period. Bile specimens for culture were obtained from biliary drainage procedures such as endoscopic retrograde biliary drainage, endoscopic nasobiliary drainage, and percutaneous transhepatic biliary drainage. There were 20 patients with bile cultures positive for S. pneumoniae during the study period. All patients presented with extrahepatic obstructive jaundice due to hepatopancreatobiliary tumors. Nineteen of 20 patients underwent the placement of plastic intrabiliary tubes. The mean time between the first-time drainage and the positive culture was 26 days (range 0-313 days). Although 12 of 20 patients met our definition of cholangitis, 5 were clinically treated with antibiotics based on a physician's assessment of whether there was a true infection. The present study is the largest case series of patients with S. pneumoniae in their bile."

According to the news editors, the research concluded: "Based on our findings, the isolation of S. pneumoniae from bile may be attributed to the placement of biliary drainage devices."

For more information on this research see: Evaluation of Streptococcus pneumoniae in bile samples: A case series review. *Journal of Infection and Chemotherapy*, 2016;22(6):383-386. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

The news correspondents report that additional information may be obtained from N. Itoh, Shizuoka Cane Center Hosp, Div Infect Dis, Shizuoka, Japan. Additional authors for this research include I. Kawamura, M. Tsukahara, K. Mori and H. Kurai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.02.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shizuoka, Japan, Asia, Digestive System Diseases and Conditions, Biliary Tract Diseases and Conditions, Gram-Positive Bacterial Infections, Bile Duct Diseases and Conditions, Streptococcal Infections, Streptococcus pneumoniae, Gram-Positive Cocci, Streptococcaceae, Gastroenterology, Strep Infection,
New Findings on Clinical Trials and Studies from French National Institute of Health and Medical Research (INSERM) Summarized (High level of depressive symptoms as a barrier to reach an ideal cardiovascular health. The Paris Prospective Study ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "We hypothesized that depression might represent a barrier to reach an ideal cardiovascular health (CVH) as estimated by the 7-item tool proposed by the American Heart Association. Between 2008 and 2012, 9,417 subjects 50-75 years of age were examined in a large health center and enrolled in the Paris Prospective Study III (PPS3)."

Our news editors obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "Participants with 0-2, 3-4 and 5-7 health metrics at the ideal level were categorized as having poor, intermediate and ideal CVH, respectively. Participants with a score (>=) 7 on the 13-item Questionnaire of Depression 2nd version, Abridged or who were on antidepressants were referred as having high level of depressive symptoms (HLDS). The mean age of the 9417 study participants was 59.57 (SD 6.28) years and 61.16% were males. A total of 9.55% had HLDS. Poor, intermediate and ideal CVH was present in 40.38%, 49.52% and 10.10% of the participants. In multivariate polytomous logistic regression analysis, HLDS was inversely associated with ideal CVH (odds ratio=0.70; 95% CI: 0.55;0.90). This was driven by an association with the behavioural component of the CVH."

According to the news editors, the research concluded: "Participants with HLDS had a substantial reduced chance of reaching an ideal CVH."

For more information on this research see: High level of depressive symptoms as a barrier to reach an ideal cardiovascular health. The Paris Prospective Study III. Scientific Reports, 2016;6():18951. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting B. Gaye, INSERM, UMR-S970, Paris Cardiovascular Research Center, Dept. of Epidemiology, Paris, France. Additional authors for this research include C. Prugger, M.C. Perier, F. Thomas, M. Plichart, C. Guibout, C. Lemogne, B. Pannier, P. Boutouyrie, X. Jouven and J.P Empana.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18951. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Cardiology, Cardiovascular, Clinical Research, Clinical Trials and Studies.

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Digestive System Diseases and Conditions - Colitis

New Findings on Colitis from Department of Gastroenterology Summarized (Segmental colitis caused by idiopathic myointimal hyperplasia of mesenteric veins)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Digestive System Diseases and Conditions - Colitis are discussed in a new report. According to news reporting from Lisbon, Portugal, by NewsRx journalists, research stated, "Diseases causing colonic ischemia may be mistaken with other causes of segmental colitis such as inflammatory bowel disease, especially in young patients. The authors present the case of a 47-year-old male with severe proctosigmoiditis."

The news correspondents obtained a quote from the research from the Department of Gastroenterology, "Assessment excluded infectious causes, thrombophilia and systemic vasculitis. The initial histological specimen was suggestive of inflammatory bowel disease and therapy was initiated with intravenous steroids and, at day 5, infliximab, with no response. The patient was proposed for surgery. Pathological examination of the surgical specimen revealed an idiopathic myointimal hyperplasia of mesenteric veins, a rare entity exhibiting necrotizing phlebitis with rapid progression to segmental necrosis in the rectosigmoid colon."

According to the news reporters, the research concluded: "In this paper the authors discuss the differential diagnosis of proctosigmoiditis in young ages and the approach to this exceptionally rare ischemic entity."


Our news journalists report that additional information may be obtained by contacting M.N. Costa, Center Hosp Lisboa Cent, Dept. of Gastroenterol, Lisbon, Portugal. Additional authors for this research include J. Saiote, M.J. Pinheiro, P. Duarte, T. Bentes, M. Ferraz-Oliveira and J. Ramos.

Keywords for this news article include: Lisbon, Portugal, Europe, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Bowel Diseases and Conditions, Inflammatory Bowel Disease, Gastroenterology, Gastroenteritis, Proctocolitis, Hyperplasia, Colitis, Department of Gastroenterology.

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Digestive System Diseases and Conditions - Colitis

New Findings on Colitis from Stanford University Summarized (Control of inflammation by stromal Hedgehog pathway activation restrains colitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Colitis. According to news reporting out of Stanford, California, by NewsRx
editors, research stated, "Inflammation disrupts tissue architecture and function, thereby contributing to the pathogenesis of diverse diseases; the signals that promote or restrict tissue inflammation thus represent potential targets for therapeutic intervention. Here, we report that genetic or pharmacologic Hedgehog pathway inhibition intensifies colon inflammation (colitis) in mice."

Funders for this research include Howard Hughes Medical Institute (HHMI), HHS | NIH | National Cancer Institute (NCI).

Our news journalists obtained a quote from the research from Stanford University, "Conversely, genetic augmentation of Hedgehog response and systemic small-molecule Hedgehog pathway activation potently ameliorate colitis and restrain initiation and progression of colitis-induced adenocarcinoma. Within the colon, the Hedgehog protein signal does not act directly on the epithelium itself, but on underlying stromal cells to induce expression of IL-10, an immune-modulatory cytokine long known to suppress inflammatory intestinal damage. IL-10 function is required for the full protective effect of small-molecule Hedgehog pathway activation in colitis; this pharmacologic augmentation of Hedgehog pathway activity and stromal IL-10 expression are associated with increased presence of CD4(+) Foxp3(+) regulatory T cells."

According to the news editors, the research concluded: "We thus identify stromal cells as cellular coordinators of colon inflammation and suggest their pharmacologic manipulation as a potential means to treat colitis."


Our news journalists report that additional information may be obtained by contacting P.A. Beachy, Stanford University, Sch Med, Stanford Canc Inst, Stanford, CA 94305, United States. Additional authors for this research include M.E. Rothenberg, E.S. Seeley, B. Zimdahl, S. Kawano, W.J. Lu, K. Shin, T. Sakata-Kato, J.K. Chen, M. Diehn, M.F. Clarke and P.A. Beachy.

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Keywords for this news article include: Stanford, California, United States, North and Central America, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Gastroenterology, Gastroenteritis, Inflammation, Genetics, Colitis, Stanford University.

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New Findings on Colon Cancer from Emory University Summarized
(Novel synthetic curcumin analogs as potent antiangiogenic agents in colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news reporting originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "The transcription factor NF-B plays a central role in angiogenesis in colorectal cancer (CRC). Curcumin is a natural dietary product that inhibits NF-B."

Our news editors obtained a quote from the research from Emory University, "The objective of this study is to evaluate the antiangiogenic effects of curcumin and two potent synthetic analogues (EF31 and UBS109) in CRC. IC50 values for curcumin, EF31, and UBS109 were determined in the HCT116 and HT-29 cell lines. HUVEC tube formation, egg CAM assay, and matrigel plug assays revealed decreased angiogenesis in cell lines treated with curcumin, EF31, or UBS109. Curcumin and its analogues significantly inhibited VEGF-A synthesis and secretion in both cell lines in association with loss of HIF-1, COX-2, and p-STAT-3 expression. Nuclear NF-B expression was inhibited by curcumin, EF31, and UBS109. Transfection of p65-NF-B in HCT116 and HT-29 cells resulted in increased expression of HIF-1, COX-2, STAT-3, and VEGF-A. Treatment with curcumin, EF31, or UBS109 inhibited these effects in transfected cell lines. In mice carrying HCT116 and HT-29 cell xenografts, EF31 and UBS109 inhibited subcutaneous tumor growth and potentiated the effects of oxaliplatin and 5-FU. Tumors from treated animals revealed inhibition of HIF-1, COX-2, p-STAT-3, and VEGF expression. Our findings suggest that inhibition of NF-B leading to decreased transcription and expression of HIF-1, COX-2, STAT-3, and VEGF is a rational approach for antiangiogenic therapy in CRC."

According to the news editors, the research concluded: "The distinctive properties of EF31 and UBS109 make them promising therapeutic agents for development in CRC as single agents or as part of combination chemotherapy regimens."


The news editors report that additional information may be obtained by contacting B.F. El-Rayes, Emory University, Winship Canc Inst, Dept. of Hematol & Med Oncol, Atlanta, GA 30322, United States. Additional authors for this research include G.P. Nagaraju, W.L. Shaib, O.B. Alese, J.P. Snyder, M. Shoji, S. Pattnaik, A. Alam and B.F. El-Rayes.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Prostaglandin-Endoperoxide Synthases, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Growth Factor Receptors, Enzymes and Coenzymes, Phosphotransferases, Angiogenic Proteins, Colorectal Research, Membrane Proteins, Organic Chemicals, COX-2 Inhibitors, Diarylheptanoids, Cyclooxygenase 2, Gastroenterology, Protein Kinases, Pain Medicine, Angiogenesis, Hydrocarbons, Colon Cancer, Cell Line, Catechols, Oncology, Genetics, Curcumin, Alkanes, VEGF, Emory University.

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New Findings on Dopaminergic Antiparkinsonism Agents from R. Sant'Anna and Co-Authors Summarized (Repositioning tolcapone as a potent inhibitor of transthyretin amyloidogenesis and associated cellular toxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Dopaminergic Antiparkinsonism Agents have been published. According to news reporting originating from Bellaterra, Spain, by NewsRx correspondents, research stated, "Transthyretin (TTR) is a plasma homotetrameric protein implicated in fatal systemic amyloidoses. TTR tetramer dissociation precedes pathological TTR aggregation."

Our news editors obtained a quote from the research, "Native state stabilizers are promising drugs to treat TTR amyloidoses. Here we repurpose tolcapone, an FDA-approved molecule for Parkinson's disease, as a potent TTR aggregation inhibitor. Tolcapone binds specifically to TTR in human plasma, stabilizes the native tetramer in vivo in mice and humans and inhibits TTR cytotoxicity. Crystal structures of tolcapone bound to wild-type TTR and to the V122I cardiomyopathy-associated variant show that it docks better into the TTR T4 pocket than tafamidis, so far the only drug on the market to treat TTR amyloidoses."

According to the news editors, the research concluded: "These data indicate that tolcapone, already in clinical trials for familial amyloid polyneuropathy, is a strong candidate for therapeutic intervention in these diseases, including those affecting the central nervous system, for which no small-molecule therapy exists."

For more information on this research see: Repositioning tolcapone as a potent inhibitor of transthyretin amyloidogenesis and associated cellular toxicity. Nature Communications, 2016;7():10787. (Nature Publishing Group - www.nature.com/ncomms/)

The news editors report that additional information may be obtained by contacting R. Sant'Anna, Institut de Biotecnologia i Biomedicina and Departament de Bioquimica i Biologia Molecular, Universitat Autonoma de Barcelona, Bellaterra, Barcelona 08193, Spain. Additional authors for this research include P. Gallego, L.Z. Robinson, A. Pereira-Henriques, N. Ferreira, F. Pinheiro, S. Esperante, I. Pallares, O. Huertas, M.R. Almeida, N. Reixach, R. Insa, A. Velazquez-Campoy, D. Reverter, N. Reig and S. Ventura.

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Keywords for this news article include: Antiparkinson Agents, Pharmaceuticals, Spain, Europe, Bellaterra, Tolcapone Therapy, Drugs and Therapies, Central Nervous System Agents, Dopaminergic Antiparkinsonism Agents.

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New Findings on Duchenne Muscular Dystrophy from M. Rodrigues and Co-Authors Summarized (Impaired regenerative capacity and lower revertant fibre expansion in dystrophin-deficient mdx muscles on DBA/2 background)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Musculoskeletal Diseases and Conditions - Duchenne Muscular Dystrophy is now available. According to news originating from Edmonton, Canada, by NewsRx correspondents, research stated, "Duchenne muscular dystrophy, one of the most common lethal genetic disorders, is caused by mutations in the DMD gene and a lack of dystrophin protein. In most DMD patients and animal models, sporadic dystrophin-positive muscle fibres, called revertant fibres (RFs), are observed in otherwise dystrophin-negative backgrounds."

Our news journalists obtained a quote from the research, "RFs are thought to arise from skeletal muscle precursor cells and clonally expand with age due to the frequent regeneration of necrotic fibres. Here we examined the effects of genetic background on muscle regeneration and RF expansion by comparing dystrophin-deficient mdx mice on the C57BL/6 background (mdx-B6) with those on the DBA/2 background (mdx-DBA), which have a more severe phenotype. Interestingly, mdx-DBA muscles had significantly lower RF expansion than mdx-B6 in all age groups, including 2, 6, 12, and 18 months. The percentage of centrally nucleated fibres was also significantly lower in mdx-DBA mice compared to mdx-B6, indicating that less muscle regeneration occurs in mdx-DBA."

According to the news editors, the research concluded: "Our study aligns with the model that RF expansion reflects the activity of precursor cells in skeletal muscles, and it serves as an index of muscle regeneration capacity."

For more information on this research see: Impaired regenerative capacity and lower revertant fibre expansion in dystrophin-deficient mdx muscles on DBA/2 background. Scientific Reports, 2016;6():1-9. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from T. Yokota, Muscular Dystrophy Canada Res Chair, Edmonton, AB T6G 2H7, Canada. Additional authors for this research include Y. Echigoya, R. Maruyama, K.R.Q. Lim, S. Fukada and T. Yokota.

Keywords for this news article include: Edmonton, Alberta, Canada, North and Central America, Musculoskeletal Diseases and Conditions, Duchenne Muscular Dystrophy, Biomedical Engineering, Muscle Regeneration, Tissue Engineering, Bioengineering, Biotechnology, Biomedicine, Genetics.

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New Findings on Eicosanoids from Copenhagen University HospitalSummarized (The vasopressin type 2 receptor and prosta
glandin receptors EP2 and EP4 can increase aquaporin-2 plasma membrane
targeting through a cAMP-independent pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Biological Factors - Eicosanoids.
According to news reporting originating from Copenhagen, Denmark, by NewsRx
correspondents, research stated, "Apical membrane targeting of the collecting duct water
channel aquaporin-2 (AQP2) is essential for body water balance. As this event is regulated by
Gs coupled 7-transmembrane receptors such as the vasopressin type 2 receptor (V2R) and the
prostanoid receptors EP2 and EP4, it is believed to be cAMP dependent."

Our news editors obtained a quote from the research from Copenhagen University
Hospital, "However, on the basis of recent reports, it was hypothesized in the current study that
increased cAMP levels are not necessary for AQP2 membrane targeting. The role and dynamics
of cAMP signaling in AQP2 membrane targeting in Madin-Darby canine kidney and mouse
cortical collecting duct (mpkCCD(14)) cells was examined using selective agonists against the
V2R (dDAVP), EP2 (butaprost), and EP4 (CAY10580). During EP2 stimulation, AQP2
membrane targeting continually increased during 80 min of stimulation; whereas cAMP levels
reached a plateau after 10 min. EP4 stimulation caused a rapid and transient increase in AQP2
membrane targeting, but did not significantly increase cAMP levels. After washout of the EP2
agonist or dDAVP, AQP2 membrane abundance remained elevated for at least 80 min, whereas
cAMP levels rapidly decreased. Similar effects of the EP2 agonist were also observed for AQP2
constitutively nonphosphorylated at ser-269. The adenylyl cyclase inhibitor SQ22536 did not
prevent AQP2 targeting during stimulation of each receptor, nor after dDAVP washout."

According to the news editors, the research concluded: "This study demonstrates that
although direct stimulation with cAMP causes AQP2 membrane targeting, cAMP is not
necessary for receptor-mediated AQP2 membrane targeting and Gs-coupled receptors can also
signal through an alternative pathway that increases AQP2 membrane targeting."

For more information on this research see: The vasopressin type 2 receptor and
prostaglandin receptors EP2 and EP4 can increase aquaporin-2 plasma membrane targeting
through a cAMP-independent pathway. American Journal of Physiology-Renal Physiology,
2016;311(5):F935-F944. American Journal of Physiology-Renal Physiology can be contacted
at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting
E.T.B. Olesen, Copenhagen Univ Hosp, Rigshospitalet, Dept. of Clin Biochem, Copenhagen,
Denmark. Additional authors for this research include H.B. Moeller, M. Assentoft, N.
MacAulay and R.A. Fenton.

Keywords for this news article include: Copenhagen, Denmark, Europe, Posterior
Pituitary Hormones, Membrane Transport Proteins, Membrane Glycoproteins, Biological
Factors, Membrane Proteins, Carrier Proteins, Peptide Proteins, Peptide Hormones,
Prostaglandins, Neuropeptides, Oligopeptides, Ion Channels, Vasopressins, Aquaporin 2,
Eicosanoids, Aquaporins, Peptides, Porins, Copenhagen University Hospital.

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**Epithelial Cells**

**New Findings on Epithelial Cells from Harvard School of Medicine Summarized (Characterization of oncocytes in deep esophageal glands)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Epithelial Cells is the subject of a report. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Deep esophageal glands play a vital role in the protection and regeneration of the esophageal mucosa. Conditions such as gastroesophageal reflux disease and Barrett's esophagus have been associated with a change in the usual glands by oncocytic metaplasia."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "However, little is known regarding the function of oncocytes or the relevance of this metaplastic change in the human esophagus. We hypothesized that oncocytes of deep esophageal glands also express markers characteristic of a ductal epithelial phenotype because similar oncocytes have been described as part of large ductal epithelial cells in salivary glands. We used immunohistochemical stains to define structural, functional, proliferative, and potential stem/progenitor characteristics of oncocytes. Oncocytes did not express mucins or lysozyme C, two molecules found in mucous cells and used for antimicrobial defense. Oncocytes did not express CK5, a cytokeratin found in myoepithelial cells and basal epithelial cells, but expressed CK7, a cytokeratin found in intralobular ductal epithelial cells and luminal epithelial cells of the main duct. Oncocytes expressed cystic fibrosis transmembrane conductance regulator and sodium/potassium ATPase, ion channels that play a role in bicarbonate secretion. Membrane-bound beta-catenin was detected in oncocytes, but these cells did not express the proliferative marker Ki67. Approximately, a third of oncocytes expressed SOX9 and p63, transcription factors expressed in epithelial progenitor cells in multiple organs. Moreover, oncocytes expressed CD44, a transmembrane Glycoprotein expressed in cancer stem cells. Taken together, our data show that oncocytes express markers of intralobular ductal epithelial cells and luminal epithelial cells of the main duct. Additionally, our observations suggest that oncocytes act as epithelial progenitor cells and play a role in bicarbonate secretion. Since oncocytic metaplasia is associated with conditions of chronic acid injury, it is possible that oncocytes replace the mucous cells in deep esophageal glands (dEG) as an adaptive change to counteract injury from acid reflux. The marker characterization suggests that oncocytes may originate from transdifferentiation of myoepithelial and mucous cells."

According to the news reporters, the research concluded: "This transdifferentiation might lead to an overall decrease of mucins production and secretion by the dEG and a subsequent reduction of the protection conferred by the viscoelastic mucous layer."


Our news journalists report that additional information may be obtained by contacting G. Gonzalez, Harvard Med Sch, Boston, MA, United States. Additional authors for this research include Q. Huang and H. Mashimo.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Epithelial Cells, Genetics, Harvard School of Medicine.

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New Findings on Escherichia coli from SASTRA University Summarized
(Escherichia coli MazEF toxin-antitoxin system does not mediate programmed cell death)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gram-Negative Bacteria - Escherichia coli. According to news reporting originating from Thanjavur, India, by NewsRx correspondents, research stated, "Toxin-antitoxins systems (TAS) are prokaryotic operons containing two small overlapping genes which encode two components referred to as toxin and antitoxin. Involvement of TAS in bacterial programmed cell death (PCD) is highly controversial."

Our news editors obtained a quote from the research from SASTRA University, "MazEF, a typical type II TAS, is particularly implicated in mediating PCD in Escherichia coli. Hence, we compared the metabolic fitness and stress tolerance of E. coli strains (MC4100 and its mazEF-derivative) which were extensively used by proponents of mazEF-mediated PCD. We found that both the strains are deficient in relA gene and that the Delta mazEF strain has lower fitness and stress tolerance compared to wild type MC4100."

According to the news editors, the research concluded: "We could not reproduce mazEF mediated PCD which emphasizes the need for skeptic approach to the PCD hypothesis."


The news editors report that additional information may be obtained by contacting B.C.M. Ramisetty, SASTRA Univ, Sch Chem & Biotechnol, Thirumalaisamudram 613402, Thanjavur, India. Additional authors for this research include S. Raj and D. Ghosh.

Keywords for this news article include: Thanjavur, India, Asia, Gram-Negative Bacteria, Enterobacteriaceae, Escherichia coli, Immunoglobulins, Serum Globulins, Blood Proteins, Immunoproteins, Proteobacteria, Immune Sera, Immunology, Antitoxins, Antibodies, Genetics, SASTRA University.

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New Findings on Esophageal Cancer Described by Investigators at Shandong University
(Postoperative radiation therapy of pT2-3N0M0 esophageal carcinoma-a review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Esophageal Cancer are presented in a new report.
According to news originating from Shandong, People's Republic of China, by NewsRx correspondents, research stated, "Esophageal cancer is one of the most malignant gastrointestinal cancers worldwide. Despite advances in surgical technique, 5-year survival in pathologic stage T2-3N0M0 esophageal squamous cell carcinoma patients who are treated with surgery alone is still poor."

Our news journalists obtained a quote from the research from Shandong University, "The addition of adjuvant radiotherapy may confer a benefit for these patients. However, not all patients could get a benefit from radiotherapy and patients with esophageal squamous cell carcinoma receiving radiotherapy seem to have a disparity in treatment response. Thus, identifying effective prognostic indicator to complement current clinical staging approaches is extremely important. Those prognostic factors could give rise to a novel prognostic stratification system, which serve as criteria for selecting patients for adjuvant therapy."

According to the news editors, the research concluded: "Consequently, it may help to define the subgroups who are more likely to benefit from postoperative radiation therapy."

For more information on this research see: Postoperative radiation therapy of pT2-3N0M0 esophageal carcinoma-a review. Tumor Biology, 2016;37(11):14443-14450. Tumor Biology can be contacted at: Springer, Van Godewijkstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news correspondents report that additional information may be obtained from Y.J. Luo, Shandong University, Shandong Canc Hosp, Dept. of Radiat Oncol & Radiol, Jinan 250117, Shandong, People's Republic of China. Additional authors for this research include X.L. Wang, J.M. Yu, B. Zhang and M.H. Li.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Therapy, Article Review, Drugs and Therapies, Radiation Therapy, Esophageal Cancer, Gastroenterology, Radiotherapy, Carcinomas, Oncology, Shandong University.

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Evolution

New Findings on Evolution from University of Chicago Summarized (Genotype-by-genotype interactions between an insect and its pathogen)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Evolution are presented in a new report. According to news originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Genotype-by-genotype (GxG) interactions are an essential requirement for the coevolution of hosts and parasites, but have only been documented in a small number of animal model systems. GxG effects arise from interactions between host and pathogen genotypes, such that some pathogen strains are more infectious in certain hosts and some hosts are more susceptible to certain pathogen strains."

Our news journalists obtained a quote from the research from the University of Chicago, "We tested for GxG interactions in the gypsy moth (Lymantria dispar) and its baculovirus. We infected 21 full-sib families of gypsy moths with each of 16 isolates of baculovirus and measured the between-isolate correlations of infection rate across host families.
for all pair-wise combinations of isolates. Mean infectiousness varied among isolates and
disease susceptibility varied among host families. Between-isolate correlations of infection rate
were generally less than one, indicating nonadditive effects of host and pathogen type consistent
with GxG interactions."

According to the news editors, the research concluded: "Our results support the
presence of GxG effects in the gypsy moth-baculovirus interaction and provide empirical
evidence that correlations in infection rates between field-collected isolates are consistent with
values that mathematical models have previously shown to increase the likelihood of pathogen
polymorphism."

For more information on this research see: Genotype-by-genotype interactions
Journal of Evolutionary Biology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken
07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Journal of Evolutionary Biology -
onlinelibrary.wiley.com/journal/10.1111/(ISSN)1420-9101)

The news correspondents report that additional information may be obtained from
A.I. Hudson, University Chicago, Dept. of Ecol & Evolut, Chicago, IL 60637, United States.
Additional authors for this research include A.E. Fleming-Davies, D.J. Paez and G. Dwyer.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/jeb.12977. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and
Central America, Evolution, Genetics, University of Chicago.

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differentiated/undifferentiated carcinoma had an increased risk of cancer mortality. Widowed patients had the highest percentage of women and elderly, and were more susceptible to well and moderately differentiated gastric carcinomas and gastric adenocarcinoma with earlier TNM stage and lowest rate of surgery and radiation therapy. In addition, they also had the worst 5-year GCSS. Our study suggests that unmarried GC patients, especially widowed patients, are at a high risk of GCSS."

According to the news reporters, the research concluded: "Additionally, the survival benefit is more significant among married GC patients in higher malignancy status."


Our news journalists report that additional information may be obtained by contacting R. Zhou, Dept. of General Surgery, The Affiliated Jiangning Hospital of Nanjing Medical University, Nanjing, Jiangsu Province, People's Republic of China. Additional authors for this research include S. Yan and J. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13217. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nanjing, Oncology, Epidemiology, Gastric Cancer, Gastroenterology, Risk and Prevention, People's Republic of China.

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**Oncology - Gastric Cancer**

**New Findings on Gastric Cancer from Yonsei University Summarized**

*(Incidence and impact of scheduled endoscopic surveillance on recurrence after curative endoscopic resection for early gastric cancer)*

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gastric Cancer have been presented. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "The aim of this study was to identify the incidence of recurrent lesions after endoscopic submucosal dissection (ESD) and to determine whether scheduled endoscopic surveillance might control their development and treatment. We reviewed the clinical data of patients who underwent gastric ESD between March 2007 and April 2014."

Our news journalists obtained a quote from the research from Yonsei University, "A total of 1347 patients who underwent curative ESD for early gastric cancer that met the expanded indication for ESD were analyzed. Of these, recurrence at the previous ESD site occurred in 39 patients, whereas recurrence in the stomach at a site other than the ESD site occurred in 102 patients. Older age, intestinal metaplasia, flat or depressed lesions, and ESD criteria were associated with recurrence in the stomach in places other than the ESD site. The annual incidence was 2.48% for recurrence in the stomach at other than the ESD site. In cases of local recurrence and metachronous lesions, there was a significant difference between the short-and long-surveillance interval group (<= 12 months vs > 12 months) in the proportions of recurrent adenocarcinoma (31.9% vs 60.9%, P =
.021), additional gastrectomy (7.1% vs 46.2%, P = .033), and size (8.92 +/- 4.17 mm vs 18.08 +/- 10.47 mm, P = .010). Scheduled endoscopy surveillance is necessary for detecting recurrent lesions.

According to the news editors, the research concluded: "In addition, scheduled endoscopy surveillance might help to detect recurrent lesions at a stage early enough for a curative resection."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gie.2016.03.1404. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Endoscopic Submucosal Dissection, Cancer, Epidemiology, Gastroenterology, Gastric Cancer, Oncology, Surgery, Yonsei University.

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Genetic Disorders

New Findings on Genetic Disorders from Duke University Summarized (The continuum of causality in human genetic disorders)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Genetic Disorders are presented in a new report. According to news reporting out of Durham, North Carolina, by NewsRx editors, the research stated, "Studies of human genetic disorders have traditionally followed a reductionist paradigm."

Our news journalists obtained a quote from the research from Duke University, "Traits are defined as Mendelian or complex based on family pedigree and population data, whereas alleles are deemed rare, common, benign, or deleterious based on their population frequencies. The availability of exome and genome data, as well as gene and allele discovery for various conditions, is beginning to challenge classic definitions of genetic causality."

According to the news editors, the research concluded: "Here, I discuss recent advances in our understanding of the overlap between rare and complex diseases and the context-dependent effect of both rare and common alleles that underscores the need for revising the traditional categorizations of genetic traits."

For more information on this research see: The continuum of causality in human genetic disorders. Genome Biology, 2016;17():38-42. Genome Biology can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; Genome Biology - genmbiology.com)
Our news journalists report that additional information may be obtained by contacting N. Katsanis, Duke University, Medical Center, Center Human Dis Modeling, Durham, NC 27701, United States.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Genetic Disorders, Genetics, Duke University.

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Genetics

New Findings on Genetics from University of Tokyo Summarized (Multiple facets of p53 in senescence induction and maintenance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Genetics are presented in a new report. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Cellular senescence is a state of durable cell cycle arrest with metabolic activities distinct from those of the proliferative state. Since senescence was originally reported to be induced by various genotoxic stressors, such as telomere erosion and oncogenic signaling, it has been proposed to play a pivotal role in aging-related changes and as an antitumorigenic barrier in vivo."

Financial support for this research came from Ministry of Education, Culture, Sports, Science, and Technology.

Our news editors obtained a quote from the research from the University of Tokyo, "However, the mechanisms underlying its induction and maintenance remain entirely elusive. We have recently found that abrupt activation of p53 at G(2) results in a cell skipping mitosis and subsequently undergoing senescence. Surprisingly, we have also found that downregulation of p53 by SCFFb xo22 is crucial for the induction of a senescence-associated phenotype."

According to the news editors, the research concluded: "In this review, we provide an overview of recent advances in understanding the mechanisms underlying the timing and magnitude of activation of p53 during senescence."


The news editors report that additional information may be obtained by contacting M. Nakanishi, University of Tokyo, Instuite Med Sci, Dept. of Canc Biol, Div Canc Cell Biol, Tokyo, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cas.13060. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Genetics, Article Review, p53 Gene, University of Tokyo.

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New Findings on Glioblastomas Discussed by Researchers at Department of Neurosurgery (Inhibiting receptor tyrosine kinase AXL with small molecule inhibitor BMS-777607 reduces glioblastoma growth, migration, and invasion in vitro and in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Glioblastomas have been published. According to news originating from Berlin, Germany, by NewsRx correspondents, research stated, "Receptor tyrosine kinase AXL (RTK-AXL) is regarded as suitable target in glioma therapy. Here we evaluate the anti-tumoral effect of small molecule inhibitor BMS-777607 targeting RTK-AXL in a preclinical glioma model and provide evidence that RTK-AXL is expressed and phosphorylated in primary and recurrent glioblastoma multiforme (GBM)."

Our news journalists obtained a quote from the research from the Department of Neurosurgery, "We studied the impact of BMS-777607 targeting RTK-AXL in GBM models in vitro and in vivo utilizing glioma cells SF126 and U118MG. Impact on proliferation, apoptosis and angiogenesis was investigated by immunohistochemistry (IHC) and functional assays in vitro and in vivo. Tumor growth was assessed with MRI. Human GBM tissue was analyzed in terms of RTK-AXL phosphorylation by immunoprecipitation and immunohistochemistry. BMS-777607 displayed various anti-cancer effects dependent on increased apoptosis, decreased proliferation and migration in vitro and ex vivo in SF126 and U118 GBM cells. In vivo we observed a 56% tumor volume reduction in SF126 xenografts and remission in U118MG xenografts of more than 91%. The tube formation assay confirmed the anti-angiogenic effect of BMS-777607, which became also apparent in tumor xenografts. IHC of human GBM tissue localized phosphorylated RTK-AXL in hypercellular tumor regions, the migratory front of tumor cells in pseudo-palisades, and in vascular proliferates within the tumor. We further proved RTK-AXL phosphorylation in primary and recurrent disease state."

According to the news editors, the research concluded: "Collectively, these data strongly suggest that targeting RTK-AXL with BMS-777607 could represent a novel and potent regimen for the treatment of primary and recurrent GBM."

For more information on this research see: Inhibiting receptor tyrosine kinase AXL with small molecule inhibitor BMS-777607 reduces glioblastoma growth, migration, and invasion in vitro and in vivo. Oncotarget, 2016;7(9):9876-89.

The news correspondents report that additional information may be obtained from J. Onken, Dept. of Neurosurgery, Charite, Berlin, Germany. Additional authors for this research include R. Torka, S. Korsing, J. Radke, I. Krementeskaia, M. Nieminen, X. Bai, A. Ullrich, F. Heppner and P. Vajkoczy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7130. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Berlin, Europe, Germany, Gliomas, Oncology, Proteins, Proteomics, Xenografts, Glioblastomas, Tyrosine Kinase, Xenotransplantation, Drugs and Therapies, Aromatic Amino Acids, Enzymes and Coenzymes, Small Molecule Inhibitors.

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Oncology - Gliomas

New Findings on Gliomas Described by Investigators at University of Toronto (External beam radiation dose escalation for high grade glioma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gliomas have been presented. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "The incidence of high grade glioma (HGG) is approximately 5 per 100,000 person-years in Europe and North America. To assess the effects of postoperative external beam radiation dose escalation in adults with HGG."

Our news editors obtained a quote from the research from the University of Toronto, "Search methods We searched the Cochrane Central Register of Controlled Trials (CENTRAL) (2015, Issue 9), MEDLINE (1977 to October 2015) and Embase (1980 to end October 2015) for relevant randomised phase III trials. Selection criteria We included adults with a pathological diagnosis of HGG randomised to the following external beam radiation regimens. 1. Daily conventionally fractionated radiation therapy versus no radiation therapy. 2. Hypofractionated radiation therapy versus daily conventionally fractionated radiation therapy. 3. Hyperfractionated radiation therapy versus daily conventionally fractionated radiation therapy. 4. Accelerated radiation therapy versus daily conventionally fractionated radiation therapy. Data collection and analysis The primary outcomes were overall survival and adverse effects. The secondary outcomes were progression-free survival and quality of life. We used the standard methodological procedures expected by Cochrane. We used the GRADE approach, as outlined by Cochrane, to interpret the overall quality of the evidence from included studies. We included 11 randomised controlled trials (RCTs) with a total of 2062 participants and 1537 in the relevant arms for this review. There was an overall survival benefit for HGG participants receiving postoperative radiotherapy compared to the participants receiving postoperative supportive care. For the four pooled RCTs (397 participants), the overall hazard ratio (HR) for survival was 2.01 (95% confidence interval (CI) 1.58 to 2.55, P<0.00001), moderate GRADE quality evidence favouring postoperative radiotherapy. Although these trials may not have completely reported adverse effects, they did not note any significant toxicity attributable to radiation. Progression free survival and quality of life could not be pooled due to lack of data. Overall survival was similar between hypofractionated versus conventional radiotherapy in five trials (943 participants), where the HR was 0.95 (95% CI 0.78 to 1.17, P = 0.63), very low GRADE quality evidence. The trials reported that hypofractionated and conventional radiotherapy were well tolerated with mild acute adverse effects. These trials only reported one patient in the hypofractionated arm developing symptomatic radiation necrosis that required surgery. Progression free survival and quality of life could not be pooled due to the lack of data. Overall survival was also similar between hypofractionated versus conventional radiotherapy in the subset of two trials (293 participants) which included 60 years and older participants with glioblastoma. For this category, the HR was 1.16 (95% CI 0.92 to 1.46, P = 0.21), high GRADE quality evidence. There were two trials which compared hyperfractionated radiation therapy versus conventional radiation and one trial which compared accelerated radiation therapy versus conventional radiation. However, the results could not be pooled. The conventionally fractionated radiation therapy regimens were 4500 to 6000 cGy given in 180 to 200 cGy daily fractions, over 5 to 6 weeks. All these trials generally included participants with World Health Organization (WHO) performance status from 0 to 2 and Karnofsky performance status of 50..."
and higher. The risk of selection bias was generally low among these randomized trials. The number of participants lost to follow-up for the outcome of overall survival was low. Attrition, performance, detection and reporting bias for the outcome of overall survival was low. There was unclear attrition, performance, detection and reporting bias relating to the outcomes of adverse effects, progression free survival and quality of life. Authors' conclusions Postoperative conventional daily radiotherapy improves survival for adults with good performance status and HGG as compared to no postoperative radiotherapy. Hypofractionated radiation therapy has similar efficacy for survival as compared to conventional radiotherapy, particularly for individuals aged 60 and older with glioblastoma. There is insufficient data regarding hyperfractionation versus conventionally fractionated radiation (without chemotherapy) and for accelerated radiation versus conventionally fractionated radiation (without chemotherapy). There are HGG subsets who have poor prognosis even with treatment (e.g. glioblastoma histology, older age and poor performance status). These poor prognosis HGG individuals have generally been excluded from the randomised trials based on poor performance status."

According to the news editors, the research concluded: "No randomised trial has compared comfort measures or best supportive care with an active intervention using radiotherapy or chemotherapy in these poor prognosis patients."

For more information on this research see: External beam radiation dose escalation for high grade glioma. *Cochrane Database of Systematic Reviews*, 2016;(8):2221-2277. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting M.N. Tsao, University of Toronto, Radiat Oncol, Toronto, ON M4N 3M5, Canada. Additional authors for this research include H. Soliman, A. Sahgal, J. Perry, W. Xu and M.N. Tsao.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Quality of Life, Article Review, Clinical Trials and Studies, Drugs and Therapies, Radiation Therapy, Clinical Research, Glioblastomas, Radiotherapy, Chemotherapy, Oncology, Gliomas, University of Toronto.

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**Oncology - Gynecologic Oncology**

**New Findings on Gynecologic Oncology Described by Investigators at University of Texas (Sexual health of endometrial cancer survivors before and after a physical activity intervention: A retrospective cohort analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Gynecologic Oncology is now available. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Sexual dysfunction is common in endometrial cancer survivors (ECS). Our group previously tested a six-month exercise intervention in ECS."

The news correspondents obtained a quote from the research from the University of Texas, "We performed a secondary analysis to determine intervention's impact on sexual health. We studied 100 post-treatment Stage I-IIa sedentary ECS who participated in a non-controlled, single-arm, home-based exercise intervention utilizing telephone counseling, printed material,
and pedometers. Quality-of-life and physical activity measures were collected at baseline and six months. Sexual function (SF) and sexual interest (SI) scores were extracted from the QIACS questionnaire. Baseline SF and SI were lower in survivors with less than a four-year college degree (P < 0.001). Baseline SI was higher in survivors who were married or living with a significant other (P = 0.012). No significant differences in SF or SI were observed based on obesity status, race, time since diagnosis, or treatment type. Post intervention, mean SF score improved (P = 0.002), 51% of participants had improved SI, and 43% had improved SF. When controlled for age and time since diagnosis, a one-hour increase in weekly physical activity was associated with a 6.5% increased likelihood of improved SI (P = 0.04). Increased physical activity was not associated with improved SF. Although causation cannot be determined in this study, the correlation between receipt of an exercise intervention and improved sexual health for ECS is a novel finding."

According to the news reporters, the research concluded: "This finding suggests a role for physical activity as a strategy to improve the sexual health of ECS, which our group is examining in a larger prospective study."


Our news journalists report that additional information may be obtained by contacting S.D. Armbruster, Univ Texas MD Anderson Canc Center, Dept. of Reprod Med, Houston, TX 77030, United States. Additional authors for this research include J. Song, A. Bradford, C.L. Carmack, K.H. Lu and K.M. Basen-Engquist.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.09.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Gynecologic Oncology, Oncology, Cancer, University of Texas.

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**Immune System Diseases and Conditions - HIV/AIDS**

**New Findings on HIV/AIDS from K.I. Persson and Co-Authors Summarized (Motivators and barriers for HIV testing among men who have sex with men in Sweden)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news originating from Solna, Sweden, by NewsRx correspondents, research stated, "Aims and objectives. To explore motivators and barriers to HIV testing and to assess the factors associated with testing among men who have sex with men."

Financial support for this research came from Public Health Agency of Sweden. Our news journalists obtained a quote from the research, "Previous research has
considered fear, worries and structural barriers as hindrances to HIV testing among men who have sex with men. However, few studies have included assessments of actual HIV testing when exploring barriers or motivators for such testing. The design of the study was a stratified cross-sectional online survey (n = 2373). Factor analysis was conducted to analyse the barriers and motivators for HIV testing. Logistic regression analysis was conducted to assess predictors for HIV testing. Many men who have sex with men test for HIV regularly, and specific reasons for testing were having unprotected sex or starting/ending a relationship. A lack of awareness and a perception of being at low risk for exposure were common reasons for never being tested. Fear and anxiety as well as barriers related to the use of test services remain important hindrances for testing. Predictors associated with having been tested within the past 12 months were: younger age (15-25 years old compared with 47+); knowledge on where to take an HIV test on short notice as well as having talked with a counsellor, having received condoms for free, or having had unprotected anal intercourse with casual partners within the last 12 months. Easily accessible test services offering testing and counselling on short notice should be available for all men who have sex with men. Outreach activities, distribution of free condoms and testing at venues where men who have sex with men meet are important prevention add-ons that can contribute to increased awareness about HIV and testing. Relevance to clinical practice."

According to the news editors, the research concluded: "Test services must ensure confidentiality and health care professionals who meet men who have sex with men for testing need competency with regards to men who have sex with men sexual health needs."


The news correspondents report that additional information may be obtained from K.I. Persson, Public Hlth Agcy Sweden, Dept. of Knowledge Dev, Unit Hlth & Sexual, Solna, Sweden. Additional authors for this research include T. Berglund, J. Bergstrom, L.E. Eriksson, R. Tikkanen, A. Thorson and B.C. Forsberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13293. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Solna, Sweden, Europe, Immune System Diseases and Conditions, Diagnostics and Screening, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS.

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Attack. According to news reporting out of Valencia, Spain, by NewsRx editors, research stated, "Decision-making in acute chest pain remains challenging despite normal (below ninety-ninth percentile) high-sensitivity troponin (hs-cTn). Some studies suggest that undetectable hs-cTn, far below the ninety-ninth percentile, might rule out acute coronary syndrome."

Our news journalists obtained a quote from the research from the University of Valencia, "We investigated clinical data in comparison to undetectable hs-cTnT. The study comprised 682 patients (November 2010 to September 2011) presenting at the emergency department with chest pain and normal hs-cTnT (<14 ng/l). The main end point was major adverse cardiac events (MACE: death, myocardial infarction, readmission for unstable angina, or revascularization) at a 4-year median follow-up; secondary end point was 30-day MACE. A clinical score was built by assigning points according to hazard ratios of the independent predictive variables: 1 point (male and effort-related pain) and 2 points (recurrent pain and prior ischemic heart disease). The negative predictive values of the clinical score and undetectable hs-cTnT (<5 ng/l), were tested. A total of 72 (10.6%) patients suffered long-term MACE. The C-statistics of the clinical score for long-term (0.75) and 30-day (0.88) MACE, were higher than with the TIMI(Thrombolysis In Myocardial Infarction) risk (0.68, 0.77) or GRACE(Global Registry of Acute Coronary Events) (0.50, 0.47) scores. Likewise, the negative predictive values of score = 0 (97.5%, 100%) and <= 1 point (95.9%, 100%) were higher than using undetectable hs-cTnT (91.9%, 98.1%). Both clinical scores of 0 and <= 1 better classified patients at risk of MACE (p = 0.0001, log-rank test) than hs-cTnT <5 ng/l (p = 0.06)."

According to the news editors, the research concluded: "Clinical data can guide decision-making and perform at least equally well as undetectable hs-cTnT, in patients presenting at the emergency department with chest pain and normal hs-cTnT."


Our news journalists report that additional information may be obtained by contacting J. Sanchis, University of Valencia, Dept. of Med, Valencia, Spain. Additional authors for this research include S. Garcia-Blas, A. Carratala, E. Valero, A. Mollar, G. Minana, V. Ruiz, J.V. Balaguer, M. Roque, X. Bosch and J. Nunez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjcard.2016.08.040. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Valencia, Spain, Europe, Vascular Diseases and Conditions, Troponin, Risk and Prevention, Heart Disorders and Diseases, Microfilament Proteins, Cytoskeletal Proteins, Myocardial Infarction, Myocardial Ischemia, Muscle Proteins, Heart Disease, Heart Attack, Chest Pain, University of Valencia.

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New Findings on Heart Attack from New York University Summarized (Cardiac Arrest and Resuscitation Unique to Pregnancy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Attack have been presented. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "Maternal cardiopulmonary arrest (MCPA) is a catastrophic event that can cause significant morbidity and mortality. A prepared, multidisciplinary team is necessary to perform basic and advanced cardiac life support specific to the anatomic and physiologic changes of pregnancy."

Our news journalists obtained a quote from the research from New York University, "MCPA is a challenging clinical scenario for any provider. Overall, it is an infrequent occurrence that involves 2 patients."

According to the news editors, the research concluded: "However, key clinical intervention performed concurrently can save the life of both mother and baby."


Our news journalists report that additional information may be obtained by contacting C.M. Zelop, New York University, Sch Med, Dept. of Obstet & Gynecol, New York, NY, United States. Additional authors for this research include V.L. Katz and C.M. Zelop.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ogc.2016.07.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Heart Disorders and Diseases, Emergency Treatment, Cardiac Arrest, Resuscitation, Heart Attack, Cardiology, New York University.

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New Findings on Heart Attack from P. Wise and Co-Authors Summarized (Excessive volume of hydrogel injectates may compromise the efficacy for the treatment of acute myocardial infarction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Attack are discussed in a new report. According to news reporting out of Johannesburg, South Africa, by NewsRx editors, research stated, "Biomaterial injectates are promising as a therapy for myocardial infarction to inhibit the adverse ventricular remodeling. The current study explored
interrelated effects of injectate volume and infarct size on treatment efficacy."

Our news journalists obtained a quote from the research, "A finite element model of a rat heart was utilized to represent ischemic infarcts of 10%, 20%, and 38% of left ventricular wall volume and polyethylene glycol hydrogel injectates of 25%, 50%, and 75% of the infarct volume. Ejection fraction was 49.7% in the healthy left ventricle and 44.9%, 46.4%, 47.4%, and 47.3% in the untreated 10% infarct and treated with 25%, 50%, and 75% injectate, respectively. Maximum end-systolic infarct fiber stress was 41.6, 53.4, 44.7, 44.0, and 45.3 kPa in the healthy heart, the untreated 10% infarct, and when treated with the three injectate volumes, respectively. Treating the 10% and 38% infarcts with the 25% injectate volume reduced the maximum end-systolic fiber stress by 16.3% and 34.7% and the associated strain by 30.2% and 9.8%, respectively. The results indicate the existence of a threshold for injectate volume above which efficacy does not further increase but may decrease."

According to the news editors, the research concluded: "The efficacy of an injectate in reducing infarct stress and strain changes with infarct size."


Our news journalists report that additional information may be obtained by contacting T. Franz, Center High Performance Comp, Johannesburg, South Africa. Additional authors for this research include N.H. Davies, M.S. Sirry, J. Kortsmit, L. Dubuis, C.K. Chai, F.P.T. Baaijens and T. Franz.

Keywords for this news article include: Johannesburg, South Africa, Africa, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Polyethylene Glycols, Myocardial Ischemia, Organic Chemicals, Heart Disease, Heart Attack, Cardiology, Alcohols, Hydrogel.

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Heart Disorders and Diseases - Heart Attack

New Findings on Heart Attack from University of Copenhagen
Summarized (Recognition of out-of-hospital cardiac arrest by medical dispatchers in emergency medical dispatch centres in two countries)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Attack. According to news reporting originating from Ballerup, Denmark, by NewsRx correspondents, research stated, "Survival after out-of-hospital cardiac arrest (OHCA) remains low. Early recognition by emergency medical dispatchers is essential for an effective chain of actions, leading to early cardiopulmonary resuscitation, use of an automated external defibrillator and rapid dispatching of the emergency medical services."

Our news editors obtained a quote from the research from the University of Copenhagen, "To analyse and compare the accuracy of OHCA recognition by medical
dispatchers in two countries. An observational register-based study collecting data from national cardiac arrest registers in Denmark and Sweden during a six-month period in 2013. Data were analysed in two steps; registry data were merged with electronically registered emergency call data from the emergency medical dispatch centres in the two regions. Cases with missing or non-OHCA dispatch codes were analysed further by auditing emergency call recordings using a uniform data collection template. The sensitivity for recognition of OHCA was 40.9% (95% CI: 37.1-44.7%) in the Capital Region of Denmark and 78.4% (95% CI: 73.2-83.0%) in the Skane Region in Sweden (p < 0.001). With additional data from the emergency call recordings, the sensitivity was 80.7% (95% CI: 77.7-84.3%) and 86.0% (95% CI: 81.3-89.8%) for the two regions (p = 0.06). The majority of the non-recognised OHCA were dispatched with the highest priority. The accuracy of OHCA recognition was high and comparable. We identified large differences in data registration practices despite the use of similar dispatch tools.

According to the news editors, the research concluded: "This raises a discussion of definitions and transparency in general in scientific reporting of OHCA recognition, which is essential if used as quality indicator in emergency medical services."


The news editors report that additional information may be obtained by contacting T.P. Moller, University of Copenhagen, Emergency Med Serv Copenhagen, DK-2750 Ballerup, Denmark. Additional authors for this research include C. Andrell, S. Viereck, L. Todorova, H. Friberg and F.K. Lippert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.09.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ballerup, Denmark, Europe, Heart Disorders and Diseases, Cardiac Arrest, Heart Attack, Cardiology, Hospital, University of Copenhagen.

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Heart Disorders and Diseases - Heart Attack

New Findings on Heart Attack from University of Zurich Summarized (Treatment and outcomes of patients with recurrent myocardial infarction: A prospective observational cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Attack. According to news reporting out of Zurich, Switzerland, by NewsRx editors, research stated, "Little is known about differences in therapies and outcomes of patients with first myocardial infarction (MI) or recurrent MI (reMI). This study aimed to evaluate the impact of prior MI on therapies and outcomes in patients who presented with ST-elevation MI (STEMI)."

Our news journalists obtained a quote from the research from the University of Zurich, "All STEMI patients enrolled from 2002 to 2014 in the AMIS Plus registry were included. Outcome was analyzed using logistic multivariate regression. From 19,665 STEMI
patients, 2845 (14%) had reMI. These patients were older (69.5y vs. 64.2y; p< 0.001), more frequently male, with more risk factors (hypertension, dyslipidemia), and more comorbidities. Patients with reMI presented 25 min earlier than those with first MI, were more frequently in Killip class 3/4 (12% vs. 7%; p< 0.001), and were less likely to receive guideline recommended drug therapy: aspirin (93% vs. 97%; p< 0.001), P2Y12 inhibitors (76% vs. 83%; p< 0.001), or statins (73% vs. 77%; p< 0.001), or undergo primary percutaneous coronary intervention (77% vs. 87%; p< 0.001). These patients developed more frequently cardiogenic shock (7% vs. 5%; p< 0.001) and reinfarction (2% vs. 1%; p< 0.001) during hospitalization, and had higher crude mortality (10% vs. 5%; p< 0.001) than patients without prior MI. Prior MI was an independent predictor of in-hospital mortality in STEMI patients (OR 1.27; 95% CI 1.05-1.53; p< 0.001). A subgroup (n = 4486) was followed 1 year after discharge (3893 with first MI and 593 with reMI at initial hospitalization). Crude mortality was 2.9% for patients with first MI vs. 6.7% for those with reMI (OR 1.68, 95% CI 1.14-2.47; p = 0.008). Although patients with reMI are high-risk patients, they were less likely to receive evidence-based treatment and had worse in-hospital and 1-year outcomes compared to patients with first MI.

According to the news editors, the research concluded: "Short- and long-term management of patients with recurring MI should be improved."

For more information on this research see: Treatment and outcomes of patients with recurrent myocardial infarction: A prospective observational cohort study. Journal of Cardiology, 2016;68(5-6):498-503. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

Our news journalists report that additional information may be obtained by contacting D. Radovanovic, University of Zurich, Epidemiol Biostat & Prevent Inst, AMIS Plus Data Center, CH-8001 Zurich, Switzerland. Additional authors for this research include L. Maurer, O. Bertel, F. Witassek, P. Urban, J.C. Stauffer, G. Pedrazzini and P. Erne.

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Keywords for this news article include: Zurich, Switzerland, Europe, Patient Care, Risk and Prevention, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Myocardial Ischemia, Hospitalization, Heart Disease, Heart Attack, University of Zurich.

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**New Findings on Heart Failure from Medical University Summarized**

*(Impaired hepato-renal function defined by the MELD XI score as prognosticator in acute heart failure)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Failure are presented in a new report. According to news reporting out of Wroclaw, Poland, by NewsRx editors, research stated, "Multi-organ dysfunction often complicates the natural course of acute heart failure (AHF) and identifies patients with poor prognosis. The MELD score (Model of End-
Stage Liver Dysfunction) combines data reflecting liver and kidney function, which makes it a potentially useful tool for the assessment of patients with AHF."

Our news journalists obtained a quote from the research from Medical University, "The aim of this study was to assess the prognostic utility of the MELD score in patients with AHF. The MELD score was calculated on admission and during hospital stay (days 2-3) using a formula that does not take into account the international normalized ratio (MELD XI). The study population consisted of 203 AHF patients (mean age 65 +/- 12 years, 76% male). The mean MELD XI score was -14.8 +/- 4.5 points on admission and 13.9 +/- 4.3 points during hospitalization. Contributors of elevated MELD XI score at baseline and during hospital stay were isolated increase in creatinine in 22-25%, isolated increase in bilirubin in 17-19%, and abnormal values of both in 40-46% of patients. During 1-year follow-up, 67 (33%) patients died. After adjustment for well-established prognosticators, MELD XI score at baseline and during hospital stay were significant predictors of poor outcome [hazard ratio (95% confidence interval): 1.11 (1.05-1.2) and 1.14 (1.09-1.2), respectively, P < 0.001]. An increase in the MELD XI score during hospital stay occurred in 31% of patients and was related to increased risk of death at 1 year [1.97 (1.2-3.2), P < 0.005]."

According to the news editors, the research concluded: "Impairment of hepato-renal function defined by the MELD XI score is common and carries unfavourable prognosis in AHF patients."


Our news journalists report that additional information may be obtained by contacting P. Ponikowski, Medical University Lublin, Dept. of Heart Dis, Wroclaw, Poland. Additional authors for this research include R. Zymlinski, M. Sokolski, P. Siwolowski, P. Gajewski, S. Nawrocka-Millward, E. Poniewierka, E.A. Jankowska, W. Banasiak and P. Ponikowski.

Keywords for this news article include: Wroclaw, Poland, Europe, Cardiovascular Diseases and Conditions, Kidney Function, Risk and Prevention, Heart Disorders and Diseases, Gastroenterology, Renal Function, Heart Failure, Heart Disease, Nephrology, Cardiology, Hospital, Medical University.

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**Heart Disorders and Diseases - Heart Failure**

**New Findings on Heart Failure from Odense University Hospital Summarized (Incidence of cancer in patients with chronic heart failure: a long-term follow-up study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Failure. According to news reporting originating from Odense, Denmark, by NewsRx correspondents, research stated, "With improvement in survival of chronic heart failure (HF), the clinical importance of co-morbidity is increasing. The aim of this study was to assess the
incidence and risk of cancer and all-cause mortality in a large Danish HF cohort."

Financial support for this research came from Hjerteforeningen.

Our news editors obtained a quote from the research from Odense University Hospital, "A total of 9307 outpatients with verified HF without a prior diagnosis of cancer (27% female, mean age 68 years, 89% with LVEF <45%) were included in the study. A diagnosis of any cancer and all-cause mortality was obtained from Danish national registries. Outcome was compared with the general Danish population. Overall and type-specific risk of cancer was analysed in an adjusted Poisson and Cox regression analysis. The 975 diagnoses of cancer in the HF cohort and 330 843 in the background population corresponded to incidence rates per 10 000 patient-years of 188.9 [95% confidence interval (CI) 177.2-200.6] and 63.0 (95% CI 63.0-63.4), respectively. When stratified by age, incidence rates were increased in all age groups in the HF cohort. Risk of any type of cancer was increased, with an incidence rate ratio of 1.24 (95% CI 1.15-1.33, c<0.0001). Type-specific analysis demonstrated an increased hazard ratio for all major types of cancer except for prostate cancer. All-cause mortality was higher in HF patients with cancer compared with cancer patients from the background population."

According to the news editors, the research concluded: "Patients with HF have an increased risk of cancer, which persists after the first year after the diagnosis of HF, and their prognosis is worse compared with that of cancer patients without HF."


The news editors report that additional information may be obtained by contacting A. Banke, Dept. of Cardiology, Odense University Hospital, Odense, Denmark. Additional authors for this research include M. Schou, L. Videbaek, J.E. Møller, C. Torp-Pedersen, F. Gustafsson, J.S. Dahl, L. Kober, P.R. Hildebrandt and G.H Gislason.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ejhf.472. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Odense, Europe, Cancer, Denmark, Oncology, Cardiology, Heart Attack, Heart Disease, Risk and Prevention, Chronic Heart Failure, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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**Transplant Medicine - Heart Transplants**

**New Findings on Heart Transplants Described by Investigators at University Hospital (Quality of Life According to Urgency Status in De Novo Heart Transplant Recipients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Transplant Medicine - Heart Transplants have been presented. According to news reporting out of Oviedo, Spain, by NewsRx editors, research stated, "Elective heart transplantation (HTX) aims to improve physical ability, increase survival, and improve health-related quality of life (HRQoL) in patients with chronic heart failure. Nevertheless, most patients who undergo urgent HTX are previously healthy, and a transplant
could be perceived as a limitation."

Our news journalists obtained a quote from the research from University Hospital, "The aim of this study is to compare HRQoL between elective and urgent heart transplant recipients. Cohort study including patients undergoing heart transplantation between January 1998 and March 2012 in a single center. Patients with retransplantation or multiorgan transplantation were excluded. Clinical variables including comorbidities were collected. For assessment of HRQoL, the Kansas City Cardiomyopathy Questionnaire (KCCQ) was completed by the survivors on March 2013. Univariate analysis (Mann-Whitney U test) was performed. Questionnaires were collected from 95 of 106 elective recipients and 28 of 33 urgent recipients. Urgent heart recipients were younger, with more cardiovascular risk factors, and ischemic etiology was the leading cause of transplant. All domain results were higher in elective heart transplant recipients, but after univariate analysis only the punctuation of the self-efficacy domain remained superior in the elective HTX group (87.5 vs 79.7, P = .034)."

According to the news editors, the research concluded: "Both urgent and elective heart transplant patients reported a good HRQoL, and there were no significant differences between their scores."

For more information on this research see: Quality of Life According to Urgency Status in De Novo Heart Transplant Recipients. Transplantation Proceedings, 2016;48 (9):3024-3026. Transplantation Proceedings can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Transplantation Proceedings - www.journals.elsevier.com/transplantation-proceedings/)

Our news journalists report that additional information may be obtained by contacting B. Diaz-Molina, Hosp Univ Cent Asturias, Dept. of Cardiol, Oviedo, Spain. Additional authors for this research include J.L. Lambert, F.G. Vilchez, F. Cadenas, M.J. Bernardo, E. Velasco, M. Martin and C. Moris.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oviedo, Spain, Europe, Quality of Life, Risk and Prevention, Cardiac Surgical Procedures, Heart Transplantation, Transplant Medicine, Heart Transplants, Organ Transplants, Biomedicine, Cardiology, Surgery, University Hospital.

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Stem Cell Research - Hematopoietic Stem Cells

New Findings on Hematopoietic Stem Cells from Department of Hematology Summarized (Successful T-cell Replete Hematopoietic Stem Cell Boost Without Conditioning for Late Graft Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Stem Cell Research - Hematopoietic Stem Cells have been published. According to news reporting originating from Hakodate, Japan, by NewsRx correspondents, research stated, "Late graft failure is a rare but significant complication after allogeneic stem cell transplantation, which is often complicated by severe infections."

Our news editors obtained a quote from the research from the Department of
Hematology, "We report a case of late graft failure, which was successfully treated with a T-cell replete hematopoietic stem cell boost without conditioning that induced rapid engraftment and relieved the patient of infection. Discontinuation of immunosuppressants and nilotinib administration suppressed the host cells."

According to the news editors, the research concluded: "Achieving full donor chimerism allowed us to administer a peripheral blood stem cell boost without conditioning."


The news editors report that additional information may be obtained by contacting Y. Tsutsumi, Hakodate Municipal Hosp, Dept. of Hematol, Hakodate, Hokkaido 0418680, Japan. Additional authors for this research include T. Tateno, S. Ito, S. Shiratori and T. Teshima.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.06.035. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hakodate, Japan, Asia, Hematopoietic Stem Cells, Stem Cell Research, Bone Marrow Cells, Hematology, Department of Hematology.

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New Findings on Hemochromatosis Described by Investigators at Oregon Health and Science University (Highly accurate molecular genetic testing for HFE hereditary hemochromatosis: results from 10 years of blinded proficiency surveys by the ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Hemochromatosis. According to news reporting out of Portland, Oregon, by NewsRx editors, research stated, "The College of American Pathologists offers blinded proficiency testing (PT) for laboratories performing HFE genetic tests for hereditary hemochromatosis (common C282Y and H63D variants). This study used 10 years of PT data to determine laboratory performance for HFE analytical genotyping and clinical interpretation."

Our news journalists obtained a quote from the research from Oregon Health and Science University, "Laboratories were graded for accuracy of genotype determination (six possible C282Y/H63D genotypes) and clinical interpretation regarding whether the genotype was likely to have contributed to iron overload in a hypothetical patient. The analytical genotyping error rate was low (0.73%) in 7,663 results (from 257 unique laboratories). Genotyping errors were significantly higher in C282Y heterozygous, H63D homozygous, and C282Y homozygous samples, in non-American laboratories, and in laboratories with lower testing volume. Analytical sensitivity and specificity were >98.5 and >99.5%. The interpretive error rate (4.3%) was higher than the genotyping error rate, with two problematic genotypes (C282Y heterozygous and H63D homozygous) accounting for 77% of total interpretive errors. There was a time-dependent improvement in the interpretation of the clinical significance of..."
HFE genotypes. HFE molecular genetic testing, performed by non US Food and Drug Administration-approved laboratory-developed tests, demonstrated excellent accuracy, sensitivity, and specificity."

According to the news editors, the research concluded: "Clinical interpretations were more heterogeneous, probably owing to the low clinical penetrance of some common HFE genotypes."

For more information on this research see: Highly accurate molecular genetic testing for HFE hereditary hemochromatosis: results from 10 years of blinded proficiency surveys by the College of American Pathologists. Genetics in Medicine, 2016;18(12):1206-1213. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)

Our news journalists report that additional information may be obtained by contacting R.D. Press, Oregon Health Sciences University, Knight Canc Inst, Portland, OR 97201, United States. Additional authors for this research include G. Eickelberg, T.J. McDonald, J. Halley, T. Long, L.J. Tafe and K.E. Week.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gim.2016.34. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Portland, Oregon, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Diagnostics and Screening, Genetics, Inborn Errors Metal Metabolism, Iron Metabolism Disorders, Hemochromatosis, Cardiovascular, Iron Overload, Cardiology, Oregon Health and Science University.

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Herpesvirus Diseases and Conditions - Herpes…

New Findings on Herpes Simplex Virus 1 from Oswaldo Cruz Institute Summarized (Effects of RNA interference therapy against herpes simplex virus type 1 encephalitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Herpesvirus Diseases and Conditions - Herpes Simplex Virus 1. According to news reporting originating from Rio de Janeiro, Brazil, by NewsRx correspondents, research stated, "Herpetic encephalitis (HSE) is caused mainly by herpes simplex virus type 1 (HSV-1) with an annual incidence of 1-4 cases/million inhabitants. Currently, HSE treatment faces difficulties such as the use of antivirals with elevated toxicity, metabolic side effects and HSV-1 resistance."

Our news editors obtained a quote from the research from Oswaldo Cruz Institute, "An alternative to antivirals is the use of small interfering RNA (siRNA) as a viral replication inhibitor. In this work, siRNA targeting the UL-39 region was evaluated for HSE treatment in vivo. BALB/c mice were inoculated with HSV-1 and treated with siRNA. The treatment was evaluated through kinetics of HSV-1 replication inhibition, number of siRNA doses administered and treatment with siRNA plus acyclovir. All groups were evaluated for signs of HSE, mortality and HSV-1 replication inhibition. The treated group of the kinetic experiment
demonstrated a reduction of HSE signs and an HSV-1 replication inhibition of 43.6-99.9% in the brain and 53-98% in trigeminal ganglia (TG). Animals treated with one or two doses of siRNA had a prolonged survival time, reduced clinical signs of HSE and HSV-1 replication inhibition of 67.7% in brains and 85.7% in TG of animals treated with two doses of siRNA. Also, animals treated with siRNA plus acyclovir demonstrated reduced signs of HSE and mortality, as well as HSV-1 replication inhibition in the brain (83.2%) and TG (74.5%). These findings demonstrated that siRNA was capable of reducing HSE clinical signs, prolonging survival time and inhibiting HSV-1 replication in mice."

According to the news editors, the research concluded: "Thus, siRNA can be a potential alternative to the standard HSE treatment especially to reduce clinical signs and extend survival time in vivo."


The news editors report that additional information may be obtained by contacting A.S. da Silva, Fundacao Oswaldo Cruz, Inst Oswaldo Cruz, Lab Viral Technol Dev, Rio De Janeiro, Brazil. Additional authors for this research include J.V. Raposo, T.C. Pereira, M.A. Pinto and V.S. de Paula.

Keywords for this news article include: Rio de Janeiro, Brazil, South America, Central Nervous System Viral Diseases and Conditions, Central Nervous System Diseases and Conditions, Herpesvirus Diseases and Conditions, Viral Skin Diseases and Conditions, Central Nervous System Infections, Virus Diseases and Conditions, Brain Diseases and Conditions, Herpes Simplex Virus 1, Encephalitis, Viral RNA, Genetics, Virology, Therapy, HSV-1, Oswaldo Cruz Institute.

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Parathyroid Diseases and Conditions - …

New Findings on Hyperparathyroidism Described by Investigators at University of Valladolid (Parathyroid Hormone Polymorphism RS6254 is Associated with the Development and Severity of Osteoporosis in Asymptomatic but not Normocalcemic …)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Parathyroid Diseases and Conditions - Hyperparathyroidism. According to news reporting originating from Valladolid, Spain, by NewsRx correspondents, research stated, "Although normocalcemic and asymptomatic hyperparathyroidism (HPT) are becoming more common, they remain only partially understood. Parathyroid hormone (PTH) polymorphisms have been associated with disease severity in classical HPT."

Our news editors obtained a quote from the research from the University of Valladolid, "The aim of the present study was to evaluate the clinical effect of PTH polymorphism (rs6254) in normocalcemic and asymptomatic HPT. A prospective study of 61 consecutive patients with normocalcemic or asymptomatic HPT was carried out. Secondary causes of HPT were ruled out. All patients were followed for >= 1 year. Calcium and
phosphorus metabolism parameters were assessed at least twice during the follow-up period to classify as normocalcemic or asymptomatic HPT. Bone mineral density (BMD) and the rs6254 polymorphism genotypes were also assessed. Genotype rs6254GG was observed in 23 patients (37.7%) whereas GA and AA genotypes were presented in 29 (47.5%) and 9 (14.8%) patients, respectively. Age, sex and genotype distributions were comparable in both groups. In asymptomatic but not normocalcemic HPT patients, the GG genotype was associated with a significantly higher level of intact PTH [200.2 (SD 76.5) vs. 113.3 (SD 25.9) pg/ml; p<0.01], and significantly lower Z-score densitometry at the femoral neck, proximal femur, and lumbar spine. Both remained significant after adjusting for major confounding factors by multiple linear regression. The present study supports the independent pathogenic effect of rs6254GA polymorphism on the development and severity of BMD complications in patients with asymptomatic but not normocalcemic HPT.

According to the news editors, the research concluded: "Further studies are needed to confirm this finding and to assess the effect of other polymorphisms in normocalcemic and asymptomatic HPT."

For more information on this research see: Parathyroid Hormone Polymorphism RS6254 is Associated with the Development and Severity of Osteoporosis in Asymptomatic but Not Normocalcemic Hyperparathyroidism. *Hormone and Metabolic Research*, 2016;48 (12):828-833. *Hormone and Metabolic Research* can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

The news editors report that additional information may be obtained by contacting G. Diaz-Soto, Univ Valladolid, Serv Endocrinol & Nutr, Hosp Clin Univ Valladolid, Center Invest Endocrinol & Nutr, Valladolid, Spain. Additional authors for this research include E. Romero, J.L. Perez-Castrillon, O.I. Jauregui and D.D. Roman.

Keywords for this news article include: Valladolid, Spain, Europe, Endocrine System Diseases and Conditions, Musculoskeletal Diseases and Conditions, Metabolic Bone Diseases and Conditions, Parathyroid Diseases and Conditions, Parathyroid Hormone, Hyperparathyroidism, Peptide Proteins, Peptide Hormones, Osteoporosis, Genetics, University of Valladolid.

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**Heart Disorders and Diseases - Hypertrophic…**

**New Findings on Hypertrophic Cardiomyopathy from University of Michigan Summarized (Genotype-Dependent and -Independent Calcium Signaling Dysregulation in Human Hypertrophic Cardiomyopathy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Hypertrophic Cardiomyopathy are discussed in a new report. According to news originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "Aberrant calcium signaling may contribute to arrhythmias and adverse remodeling in hypertrophic cardiomyopathy (HCM). Mutations in sarcomere genes may distinctly alter calcium handling pathways."

Our news journalists obtained a quote from the research from the University of Michigan, "We analyzed gene expression, protein levels, and functional assays for calcium regulatory pathways in human HCM surgical samples with (n=25) and without (n=10)
sarcoglycan mutations compared with control hearts (n=8). Gene expression and protein levels for calsequestrin, L-type calcium channel, sodium-calcium exchanger, phospholamban, calcineurin, and calcium/calmodulin-dependent protein kinase type II (CaMKII) were similar in HCM samples compared with controls. CaMKII protein abundance was increased only in sarcomere-mutation HCM (P <0.001). The CaMKII target pT17-phospholamban was 5.5-fold increased only in sarcomere-mutation HCM (P=0.01), as was autophosphorylated CaMKII (P <0.01), suggestive of constitutive activation. Calcineurin (PPP3CB) mRNA was not increased, nor was RCAN1 mRNA level, indicating a lack of calcineurin activation. Furthermore, myocyte enhancer factor 2 and nuclear factor of activated T cell transcription factor activity was not increased in HCM, suggesting that calcineurin pathway activation is not an upstream cause of increased CAMKII protein abundance or activation. SERCA2A mRNA transcript levels were reduced in HCM regardless of genotype, as was sarcoplasmic endoplasmic reticular calcium ATPase 2/phospholamban protein ratio (45% reduced; P=0.03). Ca-45 sarcoplasmic endoplasmic reticular calcium ATPase uptake assay showed reduced uptake velocity in HCM regardless of genotype (P=0.01). The cardiac ryanodine receptor was not altered in transcript, protein, or phosphorylated (pS2808, pS2814) protein abundance, and [H-3]ryanodine binding was not different in HCM, consistent with no major modification of the ryanodine receptor. Human HCM demonstrates calcium mishandling through both genotype-specific and common pathways."

According to the news editors, the research concluded: "Posttranslational activation of the CaMKII pathway is specific to sarcomere mutation-positive HCM, whereas sarcoplasmic endoplasmic reticular calcium ATPase 2 abundance and sarcoplasmic reticulum Ca uptake are depressed in both sarcomere mutation-positive and -negative HCM."

For more information on this research see: Genotype-Dependent and -Independent Calcium Signaling Dysregulation in Human Hypertrophic Cardiomyopathy. Circulation, 2016;134(22):1738-1748. Circulation can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news correspondents report that additional information may be obtained from A.S. Helms, University of Michigan, Dept. of Internal Med, Ann Arbor, MI 48109, United States. Additional authors for this research include F.J. Alvarado, J. Yob, V.T. Tang, F. Pagani, M.W. Russell, H.H. Valdivia and S.M. Day.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Intracellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Phosphoprotein Phosphatases, Hypertrophic Cardiomyopathy, Enzymes and Coenzymes, Cellular Structures, Intracellular Space, Cardiomyopathies, Heart Disease, Calcineurin, Hydrolases, Sarcomeres, Myofibrils, Organelles, Cardiology, Esterases, Cytoplasm, Genetics, ATPase, University of Michigan.

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Immunology - Immunoglobulins

New Findings on Immunoglobulins from Lukas Hospital Summarized
(High affinity anti-BSEP antibodies after liver transplantation for PFIC-2-Successful treatment with immuno adsorption and B-cell depletion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Immunoglobulins.
According to news reporting originating in Neuss, Germany, by NewsRx journalists, research stated, "PFIC due to BSEP mutations (PFIC type 2) often necessitates OLT. It has recently been recognized that some PFIC-2 patients develop phenotypic disease recurrence post-OLT due to the appearance of anti-BSEP antibodies."

The news reporters obtained a quote from the research from Lukas Hospital, "Here, we describe a boy who became cholestatic four yr after OLT during modification of immunosuppression. Canalicular antibody deposits were detected in biopsies of the transplant and antibodies specifically reacting with BSEP were identified at high titers in his serum. These antibodies bound extracellular epitopes of BSEP and inhibited BS transport and were assumed to cause disease recurrence. Consequently, anti-BSEP antibody depletion was pursued by IA and B-cell depletion by antiCD20 antibodies (rituximab) along with a switch of immunosuppression. This treatment resulted in prolonged relief of symptoms."

According to the news reporters, the research concluded: "Depletion of pathogenic anti-BSEP antibodies causing AIBD after OLT in PFIC-2 patients should be considered as a central therapeutic goal."


Keywords for this news article include: Neuss, Germany, Europe, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Lukas Hospital.

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Intermediate Filament Proteins

New Findings on Intermediate Filament Proteins Described by Investigators at Texas A&M University (Nebulette is a powerful cytolinker organizing desmin and actin in mouse hearts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Intermediate Filament Proteins is the subject of a report. According to news reporting out of College Station, Texas, by NewsRx editors, research stated, "In the hearts of patients bearing nebulette mutations, a severe general disorganization in cardiomyocytes of the extrasarcomeric desmin intermediate filament system is frequently observed. However, the molecular and functional relationship between the desmin cytoskeleton and nebulette-containing sarcomeres is still unclear."

Our news journalists obtained a quote from the research from Texas A&M University, "Here we report a high-affinity in vitro interaction between nebulette and desmin filaments. A major interaction site has been mapped to the desmin a-helical rod domain, indicating that the filament core is directly involved in the binding of nebulette. The disease-
mutant desmin variants E245D and T453I exhibited increased binding affinity for nebulette, delayed filament assembly kinetics, and caused significant weakening of networks. In isolated chick cardiomyocytes and sections from canine heart, we revealed by ground-state depletion and confocal microscopies that module 5 of nebulette extends outward from Z-disk-associated desmin filaments toward the center of the sarcomere. Accordingly, in the myocardium of Des (-/-) mice, elevated levels of cardiac actin correlated with alterations in the distribution of nebulette. Our data suggest that a well-organized desmin network is required to accommodate an optimal conformation of nebulette on sarcomeres to bind and recruit cardiac α-actin.

According to the news editors, the research concluded: "Hence we propose that nebulette acts in synergy with nebulin to reinforce and temporally fine-tune striated muscle relaxation-contraction cycles."

For more information on this research see: Nebulette is a powerful cytolinker organizing desmin and actin in mouse hearts. *Molecular Biology of the Cell*, 2016;27(24):3869-3882. *Molecular Biology of the Cell* can be contacted at: Amer Soc Cell Biology, 8120 Woodmont Ave, Ste 750, Bethesda, MD 20814-2755, USA.

Our news journalists report that additional information may be obtained by contacting G.M. Conover, Texas A&M University, Dept. of Biochem & Biophys, College Stn, TX 77843, United States. Additional authors for this research include C.M. Bennett, L. Dunina-Barkovskaya, T. Wedig, Y. Capetanaki, H. Herrmann and G.M. Conover.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1091/mbc.E16-04-0237. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: College Station, Texas, United States, North and Central America, Intermediate Filament Proteins, Cardiomyocyte, Cardiology, Desmin, Texas A&M University.

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**Gram-Negative Bacteria - Klebsiella**

**New Findings on Klebsiella Described by Investigators at University of Melbourne (Klebsiella pneumoniae Population Genomics and Antimicrobial-Resistant Clones)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Klebsiella is now available. According to news reporting originating from Parkville, Australia, by NewsRx correspondents, research stated, "Antimicrobial-resistant Klebsiella pneumoniae (Kp) has emerged as a major global public health problem. While resistance can occur across a broad range of Kp clones, a small number have become globally distributed and commonly cause outbreaks in hospital settings."

Our news editors obtained a quote from the research from the University of Melbourne, "Here we describe recent comparative genomics investigations that have shed light on Kp population structure and the evolution of antimicrobial-resistant clones. These studies provide the basic framework within which genomic epidemiology and evolution can be understood, but have merely scratched the surface of what can and should be explored."

According to the news editors, the research concluded: "We assert that further large-
scale comparative and functional genomics studies are urgently needed to better understand the biology of this clinically important bacterium."


The news editors report that additional information may be obtained by contacting K.E. Holt, University of Melbourne, Mol Sci & Biotechnol Inst Bio21, Dept. of Biochem & Mol Biol, Parkville, Vic 3010, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tim.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Parkville, Australia, Australia and New Zealand, Klebsiella pneumoniae, Article Review, Epidemiology, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Proteobacteria, Genetics, University of Melbourne.

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**Parasitic Diseases and Conditions - Leishmaniasis**

**New Findings on Leishmaniasis Described by Investigators at Abdul Wali Khan University (Plants as Antileishmanial Agents: Current Scenario)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Parasitic Diseases and Conditions - Leishmaniasis. According to news originating from Mardan, Pakistan, by NewsRx correspondents, research stated, "Leishmaniasis is a clinical manifestation caused by the parasites of the genus Leishmania. Plants are reservoirs of bioactive compounds, which are known to be chemically balanced, effective and least injurious as compared with synthetic medicines."

Our news journalists obtained a quote from the research from Abdul Wali Khan University, "The current resistance and the toxic effects of the available drugs have brought the trend to assess the antileishmanial effect of various plant extracts and their purified compound/s, which are summarized in this review. Moreover, it also highlights various traditional remedies used by local healers against leishmaniasis. A systematic cross-sectional study for antileishmanial activity of natural products was carried out using multiple literature databases. The records retrieved since 2000 till year 2016 were analysed and summarized in the form of comprehensive tables and graphs. Natural products are potential source of new and selective agents that can significantly contribute to primary healthcare and probably are promising substitutes of chemicals for the treatment of protozoan diseases like leishmaniasis. Where the researchers prefer to use alcoholic solvents for the extraction of antileishmanial agents from plants, most of the studies are limited to in vitro conditions majorly on using promastigote forms of Leishmania. Thus, there is a need to carry out such activities in vivo and in host macrophages."
According to the news editors, the research concluded: "Further, there is a need of mechanistic studies that can help taking few of the promising pure compounds to clinical level."


The news correspondents report that additional information may be obtained from N. Ullah, Abdul Wali Khan Univ Mardan, Fac Chem & Life Sci, Dept. of Biotechnol, Mardan, Pakistan. Additional authors for this research include A. Nadhman, S. Siddiq, S. Mehwish, A. Islam, L. Jafri and M. Hamayun.

Keywords for this news article include: Mardan, Pakistan, Asia, Parasitic Diseases and Conditions, Article Review, Parasitic Skin Diseases and Conditions, Euglenozoa Infections, Protozoan Infections, Leishmaniasis, Abdul Wali Khan University.

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**Oncology - Liver Cancer**

**New Findings on Liver Cancer from Fudan University Summarized (Lamp2a is required for tumor growth and promotes tumor recurrence of hepatocellular carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Liver Cancer are presented in a new report. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Exploring the function of chaperone-mediated autophagy (CMA) in cancer has promoted progress in cancer treatment through the regulation of CMA pathways. However, CMA status and function in hepatocellular carcinoma (HCC) by focusing on the regulatory role of lysosome-associated membrane protein type 2a (Lamp2a) remain to be clarified."

Our news editors obtained a quote from the research from Fudan University, "We examined Lamp2a in a normal human liver cell line, 6 HCC cell lines, 10 normal liver samples as well as 42 HCC tissue and para-tumor tissues samples, and then validated it in 228 HCC patients to assess the relationship between Lamp2a and clinical prognosis. Gain and loss of Lamp2a function were also explored in HCC cell lines and xenograft models. Significantly lower level of Lamp2a expression was found in HCC cells and tissues compared with normal hepatic cells, para-tumor tissues and normal livers. Although no differences in HCC cell morphology or function were observed in relation to Lamp2a expression under normal culture or shortterm starvation conditions, Lamp2a blockage significantly inhibited HCC cell viability under prolonged starvation. Critically, Lamp2a is required for HCC xenograft growth in vivo by helping cells to avoid apoptosis and promoting cell proliferation. Furthermore, a significant correlation between Lamp2a expression and tumor size or cumulative recurrence was uncovered in HCC patients. Collectively, the present study shows that impaired Lamp2a expression in HCC contributes to tumor cell viability and promotes tumor growth and recurrence."

According to the news editors, the research concluded: "Targeting chaperone-mediated autophagy through Lamp2a may also imply a potentially novel treatment strategy for
HCC.


Keywords for this news article include: Shanghai, People's Republic of China, Asia, Xenotransplantation, Biotechnology, Liver Cancer, Xenografts, Carcinomas, Oncology, Fudan University.

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**Oncology - Lung Cancer**

**New Findings on Lung Cancer from Brussels Free University Summarized (Development of controlled-release cisplatin dry powders for inhalation against lung cancers)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news originating from Brussels, Belgium, by NewsRx correspondents, research stated, "The present study focuses on the development of dry powders for inhalation as adjuvant chemotherapy in lung cancer treatment. Cisplatin was chosen as a potential candidate for a local treatment as it remains the main platinum component used in conventional chemotherapies, despite its high and cumulative systemic toxicities."

Our news journalists obtained a quote from the research from Brussels Free University, "Bulk cisplatin was reduced to submicron sizes using high-pressure homogenization, mixed with a solubilized lipid and/or PEGylated component and then spray-dried to produce controlled-release dry powder formulations. The obtained formulations were characterized for their physicochemical properties (particle size and morphology), aerodynamic performance and release profiles. Cisplatin content and integrity were assessed by electrothermal atomic absorption spectrometry and Pt-195 nuclear magnetic resonance spectroscopy. DPI formulations with cisplatin contents ranging from 48.5 to 101.0% w/w exhibited high fine particle fractions ranging from 37.3% to 51.5% of the nominal dose. Formulations containing cisplatin microcrystals dispersed in solid lipid microparticles based on acceptable triglycerides for inhalation and PEGylated excipients showed a controlled-release for more than 24 h and a limited burst effect."

According to the news editors, the research concluded: "These new formulations could provide an interesting approach to increasing and prolonging drug exposure in the lung while minimizing systemic toxicities."

For more information on this research see: Development of controlled-release cisplatin dry powders for inhalation against lung cancers. *International Journal of Pharmaceutics*, 2016;515(1-2):209-220. *International Journal of Pharmaceutics* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier -
New Findings on Lung Cancer from New York University Summarized (The IASLC Mesothelioma Staging Project: Improving Staging of a Rare Disease Through International Participation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lung Cancer. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "For nearly 40 years, there was no generally accepted staging system for malignant pleural mesothelioma. In 1994, members of the International Mesothelioma Interest Group, in collaboration with the International Association for the Study of Lung Cancer, proposed a TNM staging system based on analyses of outcomes in retrospective surgical series and small clinical trials."

Our news editors obtained a quote from the research from New York University, "Subsequently accepted by the American Joint Commission on Cancer and the Union for International Cancer Control for the sixth editions of their staging manuals, this system has since been the international staging standard. However, it has significant limitations, particularly with respect to clinical staging and to the categories for lymph node staging. Here we provide an overview of the development of the International Association for the Study of Lung Cancer malignant pleural mesothelioma staging database, which was designed to address these limitations through the development of a large international data set."

According to the news editors, the research concluded: "Analyses of this database, described in papers linked to this overview, are being used to inform revisions in the eighth editions of the American Joint Commission on Cancer and Union for International Cancer Control staging systems."

For more information on this research see: The IASLC Mesothelioma Staging Project: Improving Staging of a Rare Disease Through International Participation. Journal of Thoracic Oncology, 2016;11(12):2082-2088. Journal of Thoracic Oncology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Thoracic Oncology -
Immunology - Lymphoid Tissue

**New Findings on Lymphoid Tissue Described by Investigators at Georgetown University** (Copy number and expression analysis of FOSL1, GSTP1, NTSR1, FADD and CCND1 genes in primary breast tumors with axillary lymph node metastasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immunology - Lymphoid Tissue. According to news reporting from Washington, District of Columbia, by NewsRx journalists, research stated, "In breast cancer, lymph node (LN) metastasis is one of the strongest prognostic factors at diagnosis. Therefore the identification of molecular markers with metastatic potential that promote the development of LN metastasis is of critical clinical relevance."

Financial supporters for this research include Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior (CAPES), Conselho Nacional de Desenvolvimento Cientifico e Tecnologico (CNPq).

The news correspondents obtained a quote from the research from Georgetown University. "In this study, we evaluated the copy number status of the FOSL1, GSTP1, NTSR1, FADD and CCND1 genes by TaqMan assays in 137 breast cancer patients, 84 with LN metastasis (LN+) and 53 with no LN metastasis (LN). The copy number data for four of these genes (FOSL1, GSTP1, FADD and CCND1) were integrated with their mRNA expression levels in 31 patients. In both groups of patients, gains were the most frequent copy number alteration (CNA) observed, involving mainly the CCND1, NTSR1 and FADD genes; mRNA overexpression was more commonly observed for the CCND1 and FADD genes. For the FADD gene in the LN+ group, gene expression was shown to be dependent on CNAs; for the other genes no association was found."

According to the news reporters, the research concluded: "Increase copy number and mRNA overexpression of FOSL1, GSTP1, FADD, NTSR1 and CCND1 genes are frequently observed in primary breast tumors, and except for the FADD gene, they occur independently and irrespectively of the patients' LN axillary metastatic status."

For more information on this research see: Copy number and expression analysis of FOSL1, GSTP1, NTSR1, FADD and CCND1 genes in primary breast tumors with axillary...

Our news journalists report that additional information may be obtained by contacting L.R. Cavalli, Georgetown University, Dept. of Oncol, Lombardi Comprehens Canc Center, Washington, DC, United States. Additional authors for this research include I.J. Cavalli, R.S. Lima, T.S. Jucoski, C. Torresan, C.A. Urban, F. Kuroda, K.F. Anselmi, L.R. Cavalli and E. Ribeiro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.06.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Immunology, Genetics, Genetics, Hemic and Immune Systems, Lymphoid Tissue, Lymph Nodes, Georgetown University.

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Oncology - Lymphoma

New Findings on Lymphoma from Catholic University of the Sacred Heart Summarized (CD68+ cell count, early evaluation with PET and plasma TARC levels predict response in Hodgkin lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Lymphoma is now available. According to news reporting from Rome, Italy, by NewsRx journalists, research stated, "Early response evaluation with [(18) F]fluordeoxyglucose (FDG) positron emission tomography after 2 cycles of chemotherapy (interim PET) has been indicated as the strongest predictor for outcome in classical Hodgkin lymphoma (HL). We studied the prognostic role of the number of tumor-infiltrating CD68+ cells and of the plasma levels of TARC (thymus and activation-regulated chemokine) in the context of interim PET in 102 patients with classical HL treated with Adriamycin, Bleomycin, Vinblastine, Dacarbazine (ABVD)."

Financial supporters for this research include Associazione Italiana per la Ricerca sul Cancro, MURST (Ministero dell' Universitari e della Ricerca Scientifica e Tecnologica), Fondi d'Ateneo, Linea D1, Universita Cattolica del Sacro Cuore, Fondazione Roma - Progetto Cellule Staminali.

The news correspondents obtained a quote from the research from the Catholic University of the Sacred Heart, "After 2 ABVD cycles, interim PET according to Deauville criteria was negative (score 0-3) in 85 patients and positive (score 4-5) in 15 patients (2 patients technically not evaluable). TARC levels were elevated in 89% of patients at diagnosis, and decreased after 2 cycles in 82% of patients. Persistently elevated TARC levels in 18% of patients were significantly associated with a positive PET result (p=0.007). Strong predictors for progression-free survival (PFS) were a negative interim PET (85% vs. 28%, p<0.0001) and CD68+ cell counts <5% (89% vs. 67%, p=0.006), while TARC levels at diagnosis and at interim evaluation had no prognostic role. In multivariate analysis, interim PET, CD68+ cell counts and presence of B-symptoms were independently associated with PFS. We conclude that although TARC levels are a biomarker for early response evaluation, they cannot substitute for
interim PET as outcome predictor in HL."

According to the news reporters, the research concluded: "The evaluation of CD68 counts and B-symptoms at diagnosis may help to identify low-risk patients regardless positive interim PET."


Our news journalists report that additional information may be obtained by contacting A. Cuccaro, Institute of Hematology, Catholic University of the Sacred Heart, Rome, Italy. Additional authors for this research include S. Annunziata, E. Cupelli, M. Martini, M.L. Calcagni, V. Rufini, M. Giachelia, F. Bartolomei, E. Galli, F. D'Alo, M.T. Voso, G. Leone, A. Giordano, L.M. Larocca and S. Hohaus.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.585. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Oncology, Lymphomas, Hematology, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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Mosquito-Borne Diseases - Malaria

New Findings on Malaria Described by Investigators at Uniformed Services University of the Health Sciences [Using Hematology Data from Malaria Vaccine Research Trials in Humans and Rhesus Macaques (Macaca mulatta) To Guide Volume Limits for ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mosquito-Borne Diseases - Malaria have been published. According to news reporting out of Bethesda, Maryland, by NewsRx editors, research stated, "Guidelines on safe volume limits for blood collection from research participants in both humans and laboratory animals vary widely between institutions. The main adverse event that may be encountered in large blood volume withdrawal is iron-deficiency anemia."

Our news journalists obtained a quote from the research from the Uniformed Services University of the Health Sciences, "Monitoring various parameters in a standard blood panel may help to prevent this outcome. To this end, we analyzed the Hgb and MCV values from 43 humans and 46 macaques in malaria vaccine research trials. Although the percentage of blood volume removed was greater for macaques than humans, macaques demonstrated an overall increase of MCV over time, indicating the ability to respond appropriately to frequent volume withdrawals. In contrast, humans showed a consistent declining trend in MCV. These declines in human MCV and Hgb were significant from the beginning to end of the study despite withdrawals that were smaller than recommended volume limits. Limiting the volume withdrawn to no more than 12.5% seemed to be sufficient for macaques, and at 14% or more individual animals tended to fail to respond appropriately to large-volume blood loss, as demonstrated by a decrease in MCV. The overall positive erythropoietic response seen in
macaques was likely due to the controlled, iron-fortified diet they received.

According to the news editors, the research concluded: "The lack of erythropoietic response in the human subjects may warrant iron supplementation or reconsideration of current blood volume withdrawal guidelines."

For more information on this research see: Using Hematology Data from Malaria Vaccine Research Trials in Humans and Rhesus Macaques (Macaca mulatta) To Guide Volume Limits for Blood Withdrawal. Comparative Medicine, 2016;66(6):474-479. Comparative Medicine can be contacted at: Amer Assoc Laboratory Animal Science, 9190 Crestwyn Hills Dr, Memphis, TN 38125, USA.

Our news journalists report that additional information may be obtained by contacting S.R. Hegge, Uniformed Services University for Health Science, Dept. of Prevent Med & Biostat, Bethesda, MD 20814, United States. Additional authors for this research include B.W. Hickey, S.M. McGrath and V.A. Stewart.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Mosquito-Borne Diseases, Protozoan Infections, Biological Products, Immunization, Vaccines, Malaria, Uniformed Services University of the Health Sciences.

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New Findings on Metabolic Syndrome Described by Investigators at Pusan National University (Association between uterine leiomyoma and metabolic syndrome in parous premenopausal women A case-control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Metabolic Syndrome is now available. According to news originating from Yangsan, South Korea, by NewsRx correspondents, research stated, "Previous studies have reported that uterine leiomyoma (UL) may share pathogenic features with obesity and hypertension, which are components of metabolic syndrome (MetS). We examined the association between UL and MetS in premenopausal parous women."

Our news journalists obtained a quote from the research from Pusan National University, "This 1:1 case-control study was conducted on 615 asymptomatic women with UL and 615 women without UL that were matched for age, reproductive history, and hormonal use, who underwent a comprehensive health examination. UL was diagnosed by a gynecologist based on transvaginal ultrasonography findings. Blood pressure (BP), body composition, fasting plasma glucose, lipid profiles, insulin, and HOMA-IR were checked. Median age of the 1230 study subjects was 44 (40-47) years and 7% had MetS. Women with UL had significantly higher waist circumferences and body fat, BP, and low-density lipoprotein cholesterol (LDL-C) than women without UL. Although nonsignificant, the prevalence of MetS was higher in the UL group than in the non-UL group (9.3% vs 5.7%). In addition, the prevalence of UL increased as the number of abnormal metabolic components increased and was higher than in women without UL. Conditional logistic regression analysis, after adjustment for confounding factors, showed that hyperglycemia was significantly associated with an increased risk of UL (odds ratio=1.45; 95% confidence interval, 1.10-1.89). Prevalence of abnormal metabolic component
was higher in premenopausal women with UL than in normal controls, regardless of age or reproductive history."

According to the news editors, the research concluded: "Furthermore, the study suggests that UL may share pathogenic features with the components of MetS and that women with UL be considered eligible for the early screening of metabolic abnormalities."

For more information on this research see: Association between uterine leiomyoma and metabolic syndrome in parous premenopausal women A case-control study. *Medicine*, 2016;95(46):210-216. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)


Keywords for this news article include: Yangsan, South Korea, Asia, Nutritional and Metabolic Diseases and Conditions, Metabolic Syndrome, Gynecology, Healthcare, Leiomyoma, Pusan National University.

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**Molecular Medicine**

**New Findings on Molecular Medicine Described by Investigators at Department of Radiology (The Importance of Biopsy in the Era of Molecular Medicine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Molecular Medicine. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Recent advances in the molecular characterization of cancers have triggered interest in developing a new taxonomy of disease in oncology with the goal of using the molecular profile of a patient's tumor to predict response to treatment."

The news reporters obtained a quote from the research from the Department of Radiology, "Image-guided needle biopsy is central to this 'precision medicine' effort. In this review, we first discuss the current role of biopsy in relation to clinical examples of molecular medicine."

According to the news reporters, the research concluded: "We then outline important bottlenecks to the advancement of precision medicine and highlight the potential role of image-guided biopsy to address these challenges."

For more information on this research see: The Importance of Biopsy in the Era of Molecular Medicine. *Cancer Journal*, 2016;22(6):418-422. *Cancer Journal* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news correspondents report that additional information may be obtained by contacting E. Ziv, Mem Sloan Kettering Canc Center, Dept. of Radiol, Intervent Radiol Serv, New York, NY 10065, United States. Additional authors for this research include J.C. Durack.
New Findings on Mucositis Described by Investigators at Spanish National Research Council (CSIC) (Susceptibility of lactic acid bacteria, bifidobacteria and other bacteria of intestinal origin to chemotherapeutic agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Digestive System Diseases and Conditions - Mucositis. According to news reporting originating from Villaviciosa, Spain, by NewsRx correspondents, research stated, "Chemotherapy is a cornerstone of cancer treatment but it can have serious side effects, such as intestinal mucositis. This work reports the susceptibility/resistance profiles of 34 species of lactic acid bacteria (LAB), bifidobacteria and other intestinal bacteria from different collections to various chemotherapeutic agents (CAs) currently used in cancer treatments in an attempt to identify microorganisms that could prevent or treat mucositis symptoms."

Financial supporters for this research include Spanish Ministry of Economy and Competitiveness (MINECO), CSIC.

Our news editors obtained a quote from the research from Spanish National Research Council (CSIC), "The highest concentrations of the CAs tested were equal to or higher than those reached in plasma during anticancer treatments. All 34 species proved to be resistant at the highest concentrations assayed [minimum inhibitory concentrations (MICs) > 128 μg/mL] to capecitabine, cyclophosphamide, docetaxel, erlotinib, gefitinib, irinotecan and paclitaxel. For doxorubicin, 5-fluorouracil, gemcitabine and, especially, afatinib and pemetrexed, interspecies variation in the MIC was observed. In further work to assess the interspecies and intraspecies variability, MICs of the CAs pemetrexed and afatinib were determined for 32 strains belonging to four Bifidobacterium spp. of intestinal origin. For pemetrexed, a bimodal MIC curve was obtained (modes < 2-8 μg/mL and > 256 μg/mL), whilst a normal unimodal curve was obtained for afatinib (mode 128 μg/mL). Altogether, these results suggest that the majority of CAs should not, by themselves, perturb the microbial populations of the gut microbiota (but considering that they could be transformed in vivo into more toxic compounds)."

According to the news editors, the research concluded: "However, LAB and bifidobacteria, which are key players in the intestinal microbial balance of the healthy state, might be particularly inhibited by CAs such as gemcitabine or doxorubicin."


The news editors report that additional information may be obtained by contacting
A.B. Florez, CSIC, IPLA, Dept. of Microbiol & Bioquim, Asturias 33300, Villaviciosa, Spain. Additional authors for this research include M. Sierra, P. Ruas-Madiedo and B. Mayo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.07.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Villaviciosa, Spain, Europe, Digestive System Diseases and Conditions, Lactic Acid, Mucositis, Lactates, Spanish National Research Council (CSIC).

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Autoimmune Diseases and Conditions - Multiple
New Findings on Multiple Sclerosis from Beijing Normal University Summarized (Amelioration of Experimental Autoimmune Encephalomyelitis by Isogarcinol Extracted from Garcinia mangostana L. Mangosteen)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Autoimmune Diseases and Conditions - Multiple Sclerosis are presented in a new report. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Isogarcinol is a new natural immunosuppressant that was extracted from Garcinia mangostana L. in our laboratory. Knowledge of its effects on treatable diseases and its mechanism of action is still very limited."

The news reporters obtained a quote from the research from Beijing Normal University, "In this study, we explored the therapeutic effect of isogarcinol in experimental autoimmune encephalomyelitis (EAE), a murine model of multiple sclerosis (MS). Treatment with oral 100 mg/kg isogarcinol markedly ameliorated clinical scores, alleviated inflammation and demyelination of the spinal cord, and reduced intracranial lesions in EAE mice. The percentages of Th cells and macrophages were also strongly reduced. Isogarcinol appeared to act by inhibiting T helper (Th) 1 and Th17 cell differentiation via the janus kinase/signal transducers and activators of transcription pathway and by impairing macrophage function."

According to the news reporters, the research concluded: "Our data suggest that isogarcinol has the potential to be an effective therapeutic agent of low toxicity for treating MS and other autoimmune diseases."

For more information on this research see: Amelioration of Experimental Autoimmune Encephalomyelitis by Isogarcinol Extracted from Garcinia mangostana L. Mangosteen. Journal of Agricultural and Food Chemistry, 2016;64(47):9012-9021. Journal of Agricultural and Food Chemistry can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Journal of Agricultural and Food Chemistry - www.pubs.acs.org/journal/jafcau)

Our news correspondents report that additional information may be obtained by contacting Q. Wei, Beijing Normal University, Gene Engn & Biotechnol Beijing Key Lab, Dept. of Biochem & Mol Biol, Beijing 100875, People's Republic of China. Additional authors for this research include Y.F. Xie, Y.X. Zhong, J.R. Cen, L. Wang, Y.Y. Liu, Y. Zhu, L. Tong and Q. Wei.

The direct object identifier (DOI) for that additional information is:
New Findings on Nephrology from M. Postorino and Co-Authors 
Summarized (Body mass index trend in haemodialysis patients: the shift of nutritional disorders in two Italian regions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Nephrology have been published. According to news reporting originating from Reggio di Calabria, Italy, by NewsRx correspondents, research stated, "In the USA, the increase in the prevalence of obesity in the general population has been accompanied by a marked increase in the prevalence and incidence of obesity in the dialysis population. However, secular trends of body mass index (BMI) have not been investigated in European renal registries."

Our news editors obtained a quote from the research, "We investigated the secular trend of BMI across 18 years (1994-2011) in two haemodialysis (HD) registries (Calabria in southern Italy and Emilia in northern Italy) on a total of 16 201 prevalent HD patients and in a series of 3559 incident HD patients. We compared trends in BMI for HD patients with those in the background general population of the same regions. The average BMI rose from 23.5 kg/m^2 in 1994 to 25.5 (+8.5%) in 2011 in the Calabria registry and from 23.7 in 1998 to 25.4 (+7.1%) in 2011 in the Emilia registry (P < 0.001). The proportion of obese patients (i.e. with BMI > 30 kg/m^2) rose from 6 to 14% in Calabria and from 6 to 16% in Emilia (P < 0.001). These patterns were fully confirmed in incident patients and were mirrored by a substantial decline in the prevalence of underweight-normal and underweight (P < 0.001) patients. Of note, the steepness of the increase in BMI in haemodialysis patients was 3.7 times more pronounced than that in the coeval, age- and sex-matched general population of Calabria and Emilia. In two regional haemodialysis registries in Italy a steady increase in overweight and obese patients is observed. These patterns are more pronounced than those found in the general population."

According to the news editors, the research concluded: "If further confirmed in other European haemodialysis cohorts, these findings may have relevant public health implications."


The news editors report that additional information may be obtained by contacting C. Zoccali, CNR IFC Clin Epidemiol & Pathophysiol Renal Dis &. Reggio Di Calabria, Italy.
Additional authors for this research include E. Mancini, G. D'Arrigo, C. Marino, A. Vilasi, G. Tripepi, S. Gallus, A. Lugo, A. Santoro and C. Zoccali.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/ndt/gfw276. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Reggio di Calabria, Italy, Europe, Nephrology, Health and Medicine.

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Oncology - Non-Small Cell Lung Cancer

New Findings on Non-Small Cell Lung Cancer Described by Investigators at University of Pennsylvania (Carboplatin and pemetrexed with or without pembrolizumab for advanced, non-squamous non-small-cell lung cancer: a randomised, phase 2 cohort of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "Limited evidence exists to show that adding a third agent to platinum-doublet chemotherapy improves efficacy in the first-line advanced non-small-cell lung cancer (NSCLC) setting. The anti-PD-1 antibody pembrolizumab has shown efficacy as monotherapy in patients with advanced NSCLC and has a non-overlapping toxicity profile with chemotherapy."

Our news journalists obtained a quote from the research from the University of Pennsylvania, "We assessed whether the addition of pembrolizumab to platinum-doublet chemotherapy improves efficacy in patients with advanced non-squamous NSCLC. In this randomised, open-label, phase 2 cohort of a multicohort study (KEYNOTE-021), patients were enrolled at 26 medical centres in the USA and Taiwan. Patients with chemotherapy-naive, stage IIIIB or IV, non-squamous NSCLC without targetable EGFR or ALK genetic aberrations were randomly assigned (1: 1) in blocks of four stratified by PD-L1 tumour proportion score (<1% vs >= 1%) using an interactive voice-response system to 4 cycles of pembrolizumab 200 mg plus carboplatin area under curve 5 mg/mL per min and pemetrexed 500 mg/m(2) every 3 weeks followed by pembrolizumab for 24 months and indefinite pemetrexed maintenance therapy or to 4 cycles of carboplatin and pemetrexed alone followed by indefinite pemetrexed maintenance therapy. The primary endpoint was the proportion of patients who achieved an objective response, defined as the percentage of patients with radiologically confirmed complete or partial response according to Response Evaluation Criteria in Solid Tumors version 1.1 assessed by masked, independent central review, in the intention-to-treat population, defined as all patients who were allocated to study treatment. Significance threshold was p<0.025 (one sided). Safety was assessed in the as-treated population, defined as all patients who received at least one dose of the assigned study treatment. This trial, which is closed for enrolment but continuing for follow-up, is registered with ClinicalTrials.gov, number NCT02039674. Between Nov 25, 2014, and Jan 25, 2016, 123 patients were enrolled; 60 were randomly assigned to the pembrolizumab plus chemotherapy group and 63 to the chemotherapy alone group. 33 (55%; 95% CI 42-68) of
60 patients in the pembrolizumab plus chemotherapy group achieved an objective response compared with 18 (29%; 18-41) of 63 patients in the chemotherapy alone group (estimated treatment difference 26% [95% CI 9-42%]; p=0.0016). The incidence of grade 3 or worse treatment-related adverse events was similar between groups (23 [39%] of 59 patients in the pembrolizumab plus chemotherapy group and 16 [26%] of 62 in the chemotherapy alone group). The most common grade 3 or worse treatment-related adverse events in the pembrolizumab plus chemotherapy group were anaemia (seven [12%] of 59) and decreased neutrophil count (three [5%]); an additional six events each occurred in two (3%) for acute kidney injury, decreased lymphocyte count, fatigue, neutropenia, and sepsis, and thrombocytopenia. In the chemotherapy alone group, the most common grade 3 or worse events were anaemia (nine [15%] of 62) and decreased neutrophil count, pancytopenia, and thrombocytopenia (two [3%] each). One (2%) of 59 patients in the pembrolizumab plus chemotherapy group experienced treatment-related death because of sepsis compared with two (3%) of 62 patients in the chemotherapy group: one because of sepsis and one because of pancytopenia. Combination of pembrolizumab, carboplatin, and pemetrexed could be an effective and tolerable first-line treatment option for patients with advanced non-squamous NSCLC."

According to the news editors, the research concluded: "This finding is being further explored in an ongoing international, randomised, double-blind, phase 3 study."


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Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Blood Diseases and Conditions, Non-Small Cell Lung Cancer, Organoplatinum Compounds, Hemic and Immune Systems, Folic Acid Antagonists, Bloodstream Infection, Drugs and Therapies, Carboplatin Therapy, Pemetrexed Therapy, Alkylating Agents, Enzyme Inhibitors, Pharmaceuticals, Antineoplastics, Antimetabolites, Lung Neoplasms, Granulocytes, Chemotherapy, Pancytopenia, Neutrophils, Immunology, Phagocytes, Septicemia, Oncology, Genetics, Sepsis, University of Pennsylvania.

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New Findings on Obesity Described by Investigators at Brown University (Overeat Today, Skip the Scale Tomorrow: An Examination of Caloric Intake Predicting Nonadherence to Daily Self-Weighing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating from Providence, Rhode Island, by NewsRx correspondents, research stated, "Daily self-weighing is an effective weight loss strategy. Little is known about 'micro' factors influencing nonadherence to self-weighing (e.g., daily overeating)."

Our news editors obtained a quote from the research from Brown University, "It was hypothesized that increased caloric intake on a given day would increase odds of not self-weighing the following day. Daily self-reports of weight and caloric intake were collected from 74 adults with overweight and obesity (mean BMI = 31.2 +/- 4.5 kg/m(2), age=50.6 +/- 10 years, 69% female, 87% Caucasian) throughout a 12-week Internet-based weight management intervention. Multilevel logistic regression investigated odds of nonadherence to self-weighing on a given day based on the previous day's caloric intake. Self-monitoring adherence was high (weights: 87%; calories: 85%); adherence was associated with greater 12-week weight loss (weighing: \( r = -0.24, P = 0.04 \); calories: \( r = -0.26, P = 0.04 \)). Increased caloric intake on a given day, relative to the individual's average intake, was associated with increased odds of nonadherence to self-weighing the next day \( (F-(1,F=5106) = 12.66, P = 0.0004, \beta = 0.001) \). For example, following a day of eating 300 calories more than usual, odds of not self-weighing increased by 1.33. Odds of nonadherence to self-weighing increased following a day with higher-than-usual caloric intake."

According to the news editors, the research concluded: "Weight management interventions collecting daily self-monitoring data could provide support to participants who report increased caloric intake to prevent self-weighing nonadherence."


The news editors report that additional information may be obtained by contacting R.R. Wing, Brown University, Dept. of Psychiat & Human Behav, Warren Alpert Med Sch, Miriam HospWeight Control & Diabet Res Center, Providence, RI 02912, United States. Additional authors for this research include K.M. Ross and R.R. Wing.

Keywords for this news article include: Providence, Rhode Island, United States, North and Central America, Obesity, Nutritional and Metabolic Diseases and Conditions, Brown University.

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New Findings on Obstructive Sleep Apnea Described by Investigators at Tel Aviv University (Adenoidectomy for Obstructive Sleep Apnea in Children)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea. According to news reporting originating in Tel Aviv, Israel, by NewsRx journalists, research stated, "Adenotonsillectomy is the recommended treatment for children with obstructive sleep apnea (OSA). Since adenoidectomy alone may be associated with significantly lower morbidity, mortality, and cost, we aimed to investigate whether adenoidectomy alone is a reasonable and appropriate treatment for children with OSA."

The news reporters obtained a quote from the research from Tel Aviv University, "Five-hundred fifteen consecutive children diagnosed with moderate-to-severe OSA (apnea-hypopnea index > 5) based on polysomnography and who underwent adenoidectomy or adenotonsillectomy were reevaluated after 17-73 months (mean 41) for residual or recurrent OSA using a validated questionnaire (Pediatric Sleep Questionnaire, PSQ). Failure of OSA resolution was defined as a positive mean PSQ score >= 0.33. Contribution of age, obesity, tonsil size, and OSA severity at baseline to adenoidectomy or adenotonsillectomy failure was examined. Positive PSQ score occurred in 15% of the entire sample and was not influenced by age or gender. No difference in failure rate was observed between adenoidectomy and adenotonsillectomy for children who were not obese with apnea-hypopnea index < 10 and had small tonsils (< 3). Children with apnea-hypopnea index >= 10 and/ or tonsil size >= 3 showed a higher failure rate after adenoidectomy compared to adenotonsillectomy (20% versus 9.8%, p = 0.028). We suggest that subjective, long term outcomes of adenoidectomy are comparable to those of adenotonsillectomy in non-obese children under 7 years old with moderately OSA and small tonsils. Hence, adenoidectomy alone is a reasonable option in some children."

According to the news reporters, the research concluded: "Future prospective randomized studies are warranted to define children who may benefit from adenoidectomy alone and those children in whom adenoidectomy alone is unlikely to succeed."

For more information on this research see: Adenoidectomy for Obstructive Sleep Apnea in Children. Journal of Clinical Sleep Medicine, 2016;12(9):1285-1291. Journal of Clinical Sleep Medicine can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.

Our news correspondents report that additional information may be obtained by contacting Y. Sivan, Tel Aviv University, Dept. of Pediat Pulmonol Crit Care & Sleep Med, Tel Aviv Sourasky Med Center, Dana Dwek Childrens HospSackler Fac Med, Tel Aviv, Israel. Additional authors for this research include E. Dana, R. Tauman, G. Gut, M. Greenfeld, B.E. Yakir and Y. Sivan.

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Keywords for this news article include: Tel Aviv, Israel, Asia, Respiratory Tract Diseases and Conditions, Sleep Diseases and Conditions, Obstructive Sleep Apnea, Respiration Disorders, Adenotonsillectomy, Sleep Disorders, Otolaryngology, Adenoidectomy, Craniofacial, Pulmonology, Surgery, Tel Aviv University.
New Findings on Oncology from University of Athens Summarized (Aberrant microRNA expression in tumor mycosis fungoides)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology is the subject of a report. According to news reporting from Athens, Greece, by NewsRx journalists, research stated, "Herein, miRNA candidates relevant to mycosis fungoides were investigated to provide data on the molecular mechanisms underlying the pathogenesis of the disease. The miRNA expression profile of skin biopsies from patients with tumor stage MF (tMF) and normal donors was compared using miRNA microarrays."

The news correspondents obtained a quote from the research from the University of Athens, "Overall, 154 miRNAs were found differentially expressed between tMF and the control cohort with the majority of them being up-regulated (57 %). Among the upregulated miRNAs, miR-3177, miR-514b-3p, miR-1267, and miR-1282 were exclusively detected in 70 % of tMF. Additional upregulated miRNAs included miR-34a, miR-29a, let-7a*, and miR-210, while miR-200c* was identified among the downregulated ones. Quantitative real-time polymerase chain reaction was used to further investigate the expression profiles of miR-34a and miR-29a and validated the overexpression of miR-34a. Enrichment studies revealed that the target genes of the differentially expressed miRNAs were important in several cancer-related signaling pathways. The overlapping relationship of the target genes among tMF, Sezary syndrome, and atopic dermatitis revealed several common and disease-specific genes."

According to the news reporters, the research concluded: "Collectively, our study modulated miR-34a as a candidate oncogenic molecule and miR-29a as a putative tumor suppressor highlighting their promising potential in the molecular pathogenesis of tMF."

For more information on this research see: Aberrant microRNA expression in tumor mycosis fungoides. Tumor Biology, 2016;37(11):14667-14675. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting E. Papadavid, University of Athens, Sch Med, Attikon Hosp, Cutaneous Lymphoma Clin, Athens, Greece. Additional authors for this research include M. Braoudaki, M. Bourdakou, A. Lykoudi, V. Nikolaou, G. Tounta, A. Ekonomidi, E. Athanasiadis, G. Spyrou, C. Antoniou, S. Kitsiou-Tzeli, D. Rigopoulos and A. Kolialaxi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5325-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Athens, Greece, Europe, Oncology, Genetics, University of Athens.

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New Findings on Osteoarthritis Described by Investigators at
Maastricht University (Celecoxib-loaded PEA microspheres as an auto regulatory drug-delivery system after intra-articular injection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Musculoskeletal Diseases and Conditions - Osteoarthritis is now available. According to news reporting originating from Maastricht, Netherlands, by NewsRx correspondents, research stated, "In this study, we investigated the potential of celecoxib-loaded polyester amide (PEA) microspheres as an autoregulating drug delivery system for the treatment of pain associated with knee osteoarthritis (OA). Celecoxib release from PEA microspheres and inflammation responsive release of a small molecule from PEA was investigated in vitro."

Financial supporters for this research include Maastricht University Medical Center, Dutch Arthritis Foundation, Annadal Foundation of Maastricht University Medical Center.

Our news editors obtained a quote from the research from Maastricht University, "Inflammation responsive release of a small molecule from PEA was observed when PEA was exposed to cell lysates obtained from a neutrophil-like HI-60 cell line. Following a short initial burst release of similar to 15% of the total drug load in the first days, celecoxib was slowly released throughout a period of >80 days. To investigate biocompatibility and degradation behavior in vivo, celecoxib-loaded PEA microspheres were injected in OA-induced (ACLT+pMMx) or contralateral healthy knee joints of male Lewis rats. Bioactivity of celecoxib from loaded PEA microspheres was confirmed by PGE(2) measurements in total rat knee homogenates. Intra-articular biocompatibility was demonstrated histologically, where no cartilage damage or synovial thickening and necrosis were observed after intra-articular injections with PEA microspheres. Degradation of PEA microspheres was significantly higher in OA induced knees compared to contralateral healthy knee joints, while loading the PEA microspheres with celecoxib significantly inhibited degradation, indicating a drug delivery system with auto regulatory behavior."

According to the news editors, the research concluded: "This study suggests the potential of celecoxib-loaded PEA microspheres to be used as a safe drug delivery system with auto regulatory behavior for treatment of pain associated with OA of the knee."

For more information on this research see: Celecoxib-loaded PEA microspheres as an auto regulatory drug-delivery system after intra-articular injection. Journal of Controlled Release, 2016;244():30-40. Journal of Controlled Release can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

The news editors report that additional information may be obtained by contacting U.T. Timur, Maastricht University, Res Sch CAPHRI, Dept. of Orthopaed Surg, Medical Center, NL-6229 HX Maastricht, Netherlands. Additional authors for this research include U.T. Timur, N. Woike, T.J.M. Welting, G. Draaisma, M. Gijbels, L.W. van Rhijn, G. Mihov, J. Thies and P.J. Emans.

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Keywords for this news article include: Maastricht, Netherlands, Europe,
Musculoskeletal Diseases and Conditions, Central Nervous System Agents, Intra-Articular Injections, Drug Delivery Systems, Drugs and Therapies, Celecoxib Therapy, COX-2 Inhibitors, Pharmaceuticals, Osteoarthritis, Inflammation, Analgesics, Arthritis, Maastricht University.

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Musculoskeletal Diseases and Conditions —

New Findings on Osteoarthritis from University of Tokyo Summarized
(Messenger RNA delivery of a cartilage-anabolic transcription factor as a disease-modifying strategy for osteoarthritis treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Musculoskeletal Diseases and Conditions - Osteoarthritis are discussed in a new report. According to news reporting from Bunkyo ku, Japan, by NewsRx journalists, research stated, "Osteoarthritis (OA) is a chronic degenerative joint disease and a major health problem in the elderly population. No disease-modifying osteoarthritis drug (DMOAD) has been made available for clinical use."

The news correspondents obtained a quote from the research from the University of Tokyo, "Here we present a disease-modifying strategy for OA, focusing on messenger RNA (mRNA) delivery of a therapeutic transcription factor using polyethylene glycol (PEG)-polyamino acid block copolymer-based polyplex nanomicelles. When polyplex nanomicelles carrying the cartilage-anabolic, runt-related transcription factor (RUNX) 1 mRNA were injected into mouse OA knee joints, OA progression was significantly suppressed compared with the non-treatment control. Expressions of cartilage-anabolic markers and proliferation were augmented in articular chondrocytes of the RUNX1-injected knees."

According to the news reporters, the research concluded: "Thus, this study provides a proof of concept of the treatment of degenerative diseases such as OA by the in situ mRNA delivery of therapeutic transcription factors; the presented approach will directly connect basic findings on disease-protective or tissue-regenerating factors to disease treatment."

For more information on this research see: Messenger RNA delivery of a cartilage-anabolic transcription factor as a disease-modifying strategy for osteoarthritis treatment. Scientific Reports, 2016;6():18743. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting H. Aini, Dept. of Bioengineering, The University of Tokyo Graduate School of Engineering, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656, Japan. Additional authors for this research include K. Itaka, A. Fujisawa, H. Uchida, S. Uchida, S. Fukushima, K. Kataoka, T. Saito, U.I. Chung and S. Ohba.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18743. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Genetics, Proteins, Bunkyo ku, Nanomicelles, Nanotechnology, Osteoarthritis, Emerging Technologies, Transcription Factors, Joint Diseases and Conditions, Rheumatic Diseases and Conditions, Musculoskeletal Diseases and Conditions.
New Findings on Osteolysis from New York University Summarized

(Progranulin suppresses titanium particle induced inflammatory osteolysis by targeting TNFa signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Osteolysis have been published. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Aseptic loosening is a major complication of prosthetic joint surgery, characterized by chronic inflammation, pain, and osteolysis surrounding the bone-implant interface. Progranulin (PGRN) is known to have anti-inflammatory action by binding to Tumor Necrosis Factor (TNF) receptors and antagonizing TNFa."

Our news editors obtained a quote from the research from New York University, "Here we report that titanium particles significantly induced PGRN expression in RAW264.7 cells and also in a mouse air-pouch model of inflammation. PGRN-deficiency enhanced, whereas administration of recombinant PGRN effectively inhibited, titanium particle-induced inflammation in an air pouch model. In addition, PGRN also significantly inhibited titanium particle-induced osteoclastogenesis and calvarial osteolysis in vitro, ex vivo and in vivo. Mechanistic studies demonstrated that the inhibition of PGRN on titanium particle induced-inflammation is primarily via neutralizing the titanium particle-activated TNFa/NF-kB signaling pathway and this is evidenced by the suppression of particle-induced IkB phosphorylation, NF-kB p65 nuclear translocation, and activity of the NF-kB-specific reporter gene."

According to the news editors, the research concluded: "Collectively, these findings not only demonstrate that PGRN plays an important role in inhibiting titanium particle-induced inflammation, but also provide a potential therapeutic agent for the prevention of wear debris-induced inflammation and osteolysis."

For more information on this research see: Progranulin suppresses titanium particle induced inflammatory osteolysis by targeting TNFa signaling. Scientific Reports, 2016;6 ():20909. (Nature Publishing Group - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting Y.P. Zhao, Dept. of Orthopaedic Surgery, New York University Medical Center, New York, NY, 10003, United States. Additional authors for this research include J.L. Wei, Q.Y. Tian, A.T. Liu, Y.S. Yi, T.A. Einhorn and C.J Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep20909. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Titanium, Osteolysis, Inflammation, Light Metals, New York City, United States, Bone Resorption, North and Central America, Bone Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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New Findings on Osteosarcomas from Central South University
Summarized (Visfatin triggers the in vitro migration of osteosarcoma cells via activation of NF-kappa B/IL-6 signals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Osteosarcomas have been published. According to news reporting out of Changsha, People's Republic of China, by NewsRx editors, research stated, "Pulmonary metastasis is the major challenge for clinical treatment of osteosarcoma patients. Recent studies indicated that visfatin, a 52 kDa adipocytokine, can trigger the cell motility of various cancers, while its role in the progression of osteosarcoma remains not clear."

Our news journalists obtained a quote from the research from Central South University, "Our present study revealed that visfatin can significantly promote the in vitro migration and invasion of osteosarcoma MG-63 and HOS cells and up regulate the expression of matrix metalloproteinase-2 (MMP-2) and fibronectin (FN). Furthermore, visfatin treatment also increased the expression of IL-6 in both MG-63 and HOS cells via a time dependent manner, while anti-IL-6 antibody can significantly attenuate visfatin induced cell invasion and up regulation of MMP-2 and FN. It suggested that up regulation of IL-6 mediated visfatin induced in vitro motility of osteosarcoma cells. Visfatin treatment can increase the phosphorylation of both p65 and ERK1/2 in MG-63 and HOS cells, while only the inhibitor of NF-kappa B, BAY 11-7082, can abolish visfatin induced up regulation of IL-6. BAY 11-7082 also attenuated visfatin induced upregulation of MMP-2 and FN in MG-63 cells. Western blot analysis revealed that visfatin treatment can significantly increase the phosphorylation of IKB alpha and IKK beta in MG-63 cells. ACHP, the inhibitor of IKK-beta, blocked visfatin induced expression of IL-6 mRNA in both MG-63 and HOS cells. Collectively, our data suggested that visfatin can increase the motility of osteosarcoma cells via up regulation of NF-kappa B/IL-6 signals."

According to the news editors, the research concluded: "It indicated that visfatin might be a potential therapeutic target of osteosarcoma treatment."


Our news journalists report that additional information may be obtained by contacting K.H. Li, Central South University, Xiangya Hosp, Dept. of Orthopaed, Changsha 410008, Hunan, People's Republic of China. Additional authors for this research include N.J. Shen, L. Cheng, Y.H. Fang, H. Huang and K.H. Li.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, Osteosarcomas, Orthopedics, NF-kappa B, Oncology, Genetics, Central South University.

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New Findings on Pancreatic Cancer Described by Investigators at Harvard School of Medicine (Phase I study of safety and pharmacokinetics of the anti-MUC16 antibody-drug conjugate DMUC5754A in patients with platinum-resistant ovarian cancer or ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Pancreatic Cancer have been presented. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "MUC16 is a tumor-specific antigen overexpressed in ovarian (OC) and pancreatic (PC) cancers. The antibody-drug conjugate (ADC), DMUC5754A, contains the humanized anti-MUC16 monoclonal antibody conjugated to the microtubule-disrupting agent, monomethyl auristatin E (MMAE)."

Our news editors obtained a quote from the research from the Harvard School of Medicine, "This phase I study evaluated safety, pharmacokinetics (PK), and pharmacodynamics of DMUC5754A given every 3 weeks (Q3W, 0.3-3.2 mg/kg) or weekly (Q1W, 0.8-1.6 mg/kg) to patients with advanced recurrent platinum-resistant OC or unresectable PC. Biomarker studies were also undertaken. Patients (66 OC, 11 PC) were treated with DMUC5754A (54 Q3W, 23 Q1W). Common related adverse events (AEs) in > 20% of patients (all grades) over all dose levels were fatigue, peripheral neuropathy, nausea, decreased appetite, vomiting, diarrhea, alopecia, and pyrexia in Q3W patients, and nausea, vomiting, anemia, fatigue, neutropenia, alopecia, decreased appetite, diarrhea, and hypomagnesemia in Q1W patients. Grade >= 3-related AE in >= 5% of patients included neutropenia (9%) and fatigue (7%) in Q3W patients, and neutropenia (17%), diarrhea (9%), and hyponatremia (9%) in Q1W patients. Plasma antibody-conjugated MMAE (acMMAE) and serum total antibody exhibited non-linear PK across tested doses. Minimal accumulation of acMMAE, total antibody, or unconjugated MMAE was observed. Confirmed responses (1 CR, 6 PRs) occurred in OC patients whose tumors were MUC16-positive by IHC (2+ or 3+). Two OC patients had unconfirmed PRs; six OC patients had stable disease lasting > 6 months. For CA125, a cut-off of >= 70% reduction was more suitable for monitoring treatment response due to the binding and clearance of serum CA125 by MUC16 ADC. We identified circulating HE4 as a potential novel surrogate biomarker for monitoring treatment response of MUC16 ADC and other anti-MUC16 therapies in OC. DMUC5754A has an acceptable safety profile and evidence of anti-tumor activity in patients with MUC16-expressing tumors."

According to the news editors, the research concluded: "Objective responses were only observed in MUC16-high patients, although prospective validation is required. NCT01335958."


Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Skin and Connective Tissue Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Leukocyte Diseases and Conditions, Skin Diseases and Conditions, Hair Diseases and Conditions, Pancreatic Neoplasms, Drugs and Therapies, Leukocyte Disorders, Pancreatic Cancer, Gastroenterology, Drug Development, Pharmacokinetics, Pharmaceuticals, Immunoglobulins, Agranulocytosis, Blood Proteins, Hypotrichosis, Neutropenia, Immunology, Antibodies, Hematology, Leukopenia, Pancreas, Oncology, Diarrhea, Alopecia, Harvard School of Medicine.

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Oncology - Pancreatic Cancer

New Findings on Pancreatic Cancer Described by Investigators at University of Kragujevac (Epidemiology of pancreatic cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Pancreatic Cancer. According to news reporting from Kragujevac, Serbia, by NewsRx journalists, research stated, "Cancer of the pancreas remains one of the deadliest cancer types. Based on the GLOBOCAN 2012 estimates, pancreatic cancer causes more than 331000 deaths per year, ranking as the seventh leading cause of cancer death in both sexes together."

The news correspondents obtained a quote from the research from the University of Kragujevac, "Globally, about 338000 people had pancreatic cancer in 2012, making it the 11th most common cancer. The highest incidence and mortality rates of pancreatic cancer are found in developed countries. Trends for pancreatic cancer incidence and mortality varied considerably in the world. A known cause of pancreatic cancer is tobacco smoking. This risk factor is likely to explain some of the international variations and gender differences. The overall five-year survival rate is about 6% (ranges from 2% to 9%), but this vary very small between developed and developing countries. To date, the causes of pancreatic cancer are still insufficiently known, although certain risk factors have been identified, such as smoking, obesity, genetics, diabetes, diet, inactivity. There are no current screening recommendations for pancreatic cancer, so primary prevention is of utmost importance."

According to the news reporters, the research concluded: "A better understanding of the etiology and identifying the risk factors is essential for the primary prevention of this disease."


Our news journalists report that additional information may be obtained by contacting M. Ilic, University of Kragujevac, Fac Med Sci, Kragujevac 34000, Serbia.

The direct object identifier (DOI) for that additional information is:
New Findings on Parkinson's Disease from Kyung Hee University Summarized (Mulberry fruit ameliorates Parkinson's-disease-related pathology by reducing alpha-synuclein and ubiquitin levels in a ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Parkinson's disease. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Mulberry fruit, which has been long used in traditional oriental medicine, was reported to ameliorate motor dysfunction and dopaminergic neuronal degeneration via antioxidant and antiapoptotic effects in an animal model of Parkinson's disease (PD). More than 95% of PD patients exhibit nonmotor problems such as olfactory dysfunction and gastrointestinal constipation, which are generally considered to be early symptoms of PD."

Our news editors obtained a quote from the research from Kyung Hee University, "However, few studies have actually examined potential drugs to treat early PD symptoms. The present study examined the protective effects of mulberry fruit extract (ME) against neurotoxicity in a 1-methyl-4-phenyl 1,2,3,6-tetrahydropyridine/probenecid (MPTP/p) model of early PD. MPTP/p model was developed by systemic administration with MPTP (25 mg/kg) and probenecid (250 mg/kg) over 5 weeks. The behavioral studies showed that treatment of mice with ME significantly improved PD-related nonmotor symptoms as well as motor impairment, demonstrated by utilizing the olfactory, pole, rotarod and open field tests. In addition, immunohistochemical analysis indicated that ME exhibits the protective effects against dopaminergic neuronal damage induced by MPTP/p in the substantia nigra and striatum. Moreover, by using Western blot analysis, we found that treatment with ME inhibited the up-regulation of a-synuclein and ubiquitin, well known as composition of Lewy bodies in the substantia nigra and striatum of the MPTP/p mice."

According to the news editors, the research concluded: "Taken together, these data suggest that ME may have therapeutic potential for preventing PD."


The news editors report that additional information may be obtained by contacting M.S. Oh, Kyung Hee Univ, Kyung Hee East West Pharmaceut Res Inst, Seoul 130701, South Korea. Additional authors for this research include M. Moon, J.G. Choi and M.S. Oh.
Enzymes and Coenzymes - Peptide Hydrolases

New Findings on Peptide Hydrolases Described by Investigators at Uppsala University (The association between serum cathepsin L and mortality in older adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Peptide Hydrolases. According to news reporting out of Uppsala, Sweden, by NewsRx editors, research stated, "Research suggests that the protease cathepsin L is causally involved in atherosclerosis. However, data on cathepsin L as a risk marker are lacking."

Our news journalists obtained a quote from the research from Uppsala University, "Therefore, we investigated associations between circulating cathepsin L and cardiovascular mortality. Two independent community-based cohorts were used: Uppsala Longitudinal Study of Adult Men (ULSAM); n = 776; mean age 77 years; baseline 1997-2001; 185 cardiovascular deaths during 9.7 years follow-up, and Prospective Investigation of the Vasculature in Uppsala Seniors (PIVUS); n = 993; 50% women; mean age 70 years; baseline 2001-2004; 42 cardiovascular deaths during 10.0 years follow-up. Higher serum cathepsin L was associated with an increased risk for cardiovascular mortality in age- and sex-adjusted models in both cohorts (ULSAM: hazard ratio (HR) for 1-standard deviation (SD) increase, 1.17 [95% CI, 1.01-1.34], p = 0.032 PIVUS: HR 1.35 [95% CI, 1.07-1.72], p = 0.013). When merging the cohorts, these associations were independent of inflammatory markers and cardiovascular risk factors, but non-significant adjusting for kidney function. Individuals with a combination of elevated cathepsin L and increased inflammation, kidney dysfunction, or prevalent cardiovascular disease had a markedly increased risk, while no increased risk was associated with elevated cathepsin L, in the absence of these disease states. An association between higher serum cathepsin L and increased risk of cardiovascular mortality was found in two independent cohorts. Impaired kidney function appears to be an important moderator or mediator of these associations."

According to the news editors, the research concluded: "Further studies are needed to delineate the underlying mechanisms and to evaluate whether the measurement of cathepsin L might have clinical utility."


Our news journalists report that additional information may be obtained by contacting J. Arnlov, Uppsala University, Dept. of Med Sci, Uppsala, Sweden.
authors for this research include A.C. Carlsson, U. Riserus, A. Larsson, L. Lind and J. Arnlov.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.09.062. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uppsala, Sweden, Europe, Cardiology, Risk and Prevention, Cysteine Endopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Cardiovascular, Cathepsin L, Cathepsins, Uppsala University.

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Peptides and Proteins

New Findings on Peptides and Proteins Discussed by Researchers at Medical University (In Vitro Evaluation of the Allergic Potential of Antibacterial Peptides: Camel and Citropin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peptides and Proteins have been published. According to news reporting from Gdansk, Poland, by NewsRx journalists, research stated, "Peptide-based drugs are promising group of compounds which are characterized by specificity to their in vivo targets and high potency of action (antineoplastic, immunoregulatory, antibacterial). The peptides, however, involve a relatively high risk of allergic reactions that are not predictable on the basis of their sequence and chemical properties."

Financial support for this research came from Innovative Economy Operational Programme.

The news correspondents obtained a quote from the research from Medical University, "In this study, peripheral blood was obtained from 53 patients including 38 hypersensitive patients and 15 control patients. Basophil activation stimulated by two antibacterial peptides (camel, citropin 1.1), and acetylsalicylic acid was assessed by means of BAT (basophil activation test). Basophil activation stimulated by camel occurred in 7 of 38 patients with hypersensitivity (18.42%) as well as in 2 of 15 control patients (13.33%). Basophils were activated by citropin 1.1 in 7 of 38 hypersensitive patients (18.42%) and in none of the control patients. Using the Structural Database of Allergenic Proteins, we confirmed that the examined peptides share some structural similarities with common environmental allergens. Therefore, the cross-reactivity between potentially present anti-allergen IgE with examined peptides cannot be excluded."

According to the news reporters, the research concluded: "Our study proved that BAT, together with other biological tests and specific databases of allergenic compounds, may serve as an initial selection of new active peptides and proteins."


Our news journalists report that additional information may be obtained by contacting M. Pikula, Dept. of Clinical Immunology and Transplantology, Medical University of Gdansk, Debinki 7, 80-211, Gdansk, Poland. Additional authors for this research include M.
Drugs and Therapies - Pharmacoepidemiology

New Findings on Pharmacoepidemiology from University of Groningen Summarized [Estimating time-varying drug adherence using electronic records: extending the proportion of days covered (PDC) method]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Pharmacoepidemiology. According to news reporting originating from Groningen, Netherlands, by NewsRx correspondents, research stated, "Accurate measurement of drug adherence is essential for valid risk-benefit assessments of pharmacologic interventions. To date, measures of drug adherence have almost exclusively been applied for a fixed-time interval and without considering changes over time."

Our news editors obtained a quote from the research from the University of Groningen, "However, patients with irregular dosing behaviour commonly have a different prognosis than patients with stable dosing behaviour. We propose a method, based on the proportion of days covered (PDC) method, to measure time-varying drug adherence and drug dosage using electronic records. We compare a time-fixed PDC method with the time-varying PDC method through detailed examples and through summary statistics of 100 randomly selected patients on statin therapy. We demonstrate that time-varying PDC method better distinguishes an irregularly dosing patient from a stably dosing patient and demonstrate how the time-fixed method can result in a biased estimate of drug adherence. Furthermore, the time-varying PDC method may be better used to reduce certain types of confounding and misclassification of exposure."

According to the news editors, the research concluded: "The time-varying PDC method may improve longitudinal and time-to-event studies that associate adherence with a clinical outcome or (intervention) studies that seek to describe changes in adherence over time."


The news editors report that additional information may be obtained by contacting M.J. Bijlsma, Unit PharmacoEpidemiology & PharmacoEconomics (PE2), Dept. of Pharmacy, University of Groningen, Groningen, Netherlands. Additional authors for this research include
F. Janssen and E. Hak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pds.3935. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Groningen, Netherlands, Drugs and Therapies, Pharmacoepidemiology.

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Pharmacology

New Findings on Pharmacology Described by Investigators at Federal University [Pharmacological Properties of Biocompounds from Spores of the Lingzhi or Reishi Medicinal Mushroom Ganoderma lucidum (Agaricomycetes): A Review]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacology. According to news reporting originating in Curitiba, Brazil, by NewsRx journalists, research stated, "Ganoderma lucidum is a well-known representative of mushrooms that have been used in traditional Chinese medicine for centuries. New discoveries related to this medicinal mushroom and its biological properties are frequently reported."

The news reporters obtained a quote from the research from Federal University, "However, only recently have scientists started to pay special attention to G. lucidum spores. This is in part because of the recent development of methods for breaking the spore wall and extracting biocompounds from the spore. Although some research groups are working with G. lucidum spores, data in the literature are still limited, and the methods used have not been systematized. This review therefore describes the main advances in techniques for breaking the spore wall and extracting biocompounds from the spore."

According to the news reporters, the research concluded: "In addition, the major active components identified and their biological properties, such as neurological activity and antiaging and cell-protective effects, are investigated because these are of importance for potential drug development."

For more information on this research see: Pharmacological Properties of Biocompounds from Spores of the Lingzhi or Reishi Medicinal Mushroom Ganoderma lucidum (Agaricomycetes): A Review. International Journal of Medicinal Mushrooms, 2016;18(9):757-767. International Journal of Medicinal Mushrooms can be contacted at: Begell House Inc, 50 North St, Danbury, CT 06810, USA.

Our news correspondents report that additional information may be obtained by contacting C.R. Soccol, Federal University of Parana, Dept. of Bioproc Engn & Biotechnol, BR-81531980 Curitiba, Parana, Brazil. Additional authors for this research include L.Y. Bissoqui, C. Rodrigues, R. Rubel, S. Sella, F. Leifa, L.P.D. Vandenberghae and V.T. Soccol.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1615/IntJMedMushrooms.v18.i9.10. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Curitiba, Brazil, South America,
Enzymes and Coenzymes - Phosphoric Monoester…

New Findings on Phosphoric Monoester Hydrolases Discussed by Researchers at Ventana Medical Systems (Quinone Methide Signal Amplification: Covalent Reporter Labeling of Cancer Epitopes using Alkaline Phosphatase Substrates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Phosphoric Monoester Hydrolases have been published. According to news reporting originating in Tucson, Arizona, by NewsRx journalists, research stated, "Diagnostic assays with the sensitivity required to improve cancer therapeutics depend on the development of new signal amplification technologies. Herein, we report the development and application of a novel amplification system which utilizes latent quinone methides (QMs) activated by alkaline phosphatase (AP) for signal amplification in solid-phase immunohistochemical (IHC) assays."

The news reporters obtained a quote from the research from Ventana Medical Systems, "Phosphate-protected QM precursor substrates were prepared and conjugated to either biotin or a fluorophore through an amine-functionalized linker group. Upon reaction with AP, the phosphate group is cleaved, followed by elimination of the leaving group and formation of the highly reactive and short-lived QM. The QMs either react with tissue nucleophiles in close proximity to their site of generation, or are quenched by nucleophiles in the reaction media. The reporter molecules that covalently bind to the tissue were then detected visually by fluorescence microscopy in the case of fluorophore reporters, or brightfield microscopy using diaminobenzidine (DAB) in the case of biotin reporters. With multiple reporters deposited per enzyme, significant signal amplification was observed utilizing QM precursor substrates containing either benzyl difluoro or benzyl monofluoro leaving group functionalities."

According to the news reporters, the research concluded: "However, the benzyl monofluoro leaving group gave superior results with respect to both signal intensity and discretion, the latter of which was found to be imperative for use in diagnostic IHC assays."


Our news correspondents report that additional information may be obtained by contacting N.W. Polaske, Ventana Medical Systems, Inc, 1910 East Innovation Park Drive, Tucson, Arizona 85755, United States. Additional authors for this research include B.D. Kelly, J. Ashworth-Sharpe and C. Bieniarz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.bioconjchem.5b00652. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tucson, Cancer, Arizona, Oncology, United States, Alkaline Phosphatase, Enzymes and Coenzymes, North and Central America, Phosphoric Monoester Hydrolases.
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Enzymes and Coenzymes - Phosphotransferases...

New Findings on Phosphotransferases (Alcohol Group Acceptor) Described by Investigators at University of Vermont (Rho kinase activity governs arteriolar myogenic depolarization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Phosphotransferases (Alcohol Group Acceptor). According to news originating from Burlington, Vermont, by NewsRx correspondents, research stated, "Cerebral arterioles contribute critically to regulation of local and global blood flow within the brain. Dysfunction of these blood vessels is implicated in numerous cardiovascular diseases."

Our news journalists obtained a quote from the research from the University of Vermont, "However, treatments are limited due to incomplete understanding of fundamental control mechanisms at this level of circulation. Emerging evidence points to a key role of Rho-associated protein kinase in regulation of microvascular contractility. This study sought to decipher the mechanisms of Rho-associated protein kinase-mediated myogenic vasoconstriction in cerebral parenchymal arterioles. Here, we report that the Rho-associated protein kinase inhibitor H1152 strongly attenuated pressure-induced constriction, cytosolic [Ca2+] increases, and depolarization of isolated parenchymal arterioles. Further, the RhoA activator CN03 potentiated parenchymal arteriole myogenic constriction and depolarization, indicating important involvement of RhoA/Rho-associated protein kinase signaling in myogenic excitation-contraction mechanisms. Because of the well-established role of TRPM4 in pressure-induced depolarization, possible modulatory effects of Rho-associated protein kinase on TRPM4 currents were explored using patch clamp electrophysiology. TRPM4 currents were suppressed by H1152 and enhanced by CN03. Finally, H1152 elevated the apparent [Ca2+]-threshold for TRPM4 activation, suggesting that Rho-associated protein kinase activates TRPM4 by increasing its Ca2+-sensitivity."

According to the news editors, the research concluded: "Our results support a novel mechanism whereby Rho-associated protein kinase-mediated myogenic vasoconstriction occurs primarily through activation of TRPM4 channels, smooth muscle depolarization, and cytosolic [Ca2+] increases in cerebral arterioles."


The news correspondents report that additional information may be obtained from J.E. Brayden, Univ Vermont, Dept. of Pharmacol, Burlington, VT 05405, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0271678X15621069. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Burlington, Vermont, United States, North and Central America, Phosphotransferases (Alcohol Group Acceptor), Cardiovascular
Physiological Phenomena, Enzymes and Coenzymes, Vasconstriction, Protein Kinases, Hemodynamics, Microvessels, Arterioles, Arteries, University of Vermont.

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Lung Diseases and Conditions - Pneumonia

New Findings on Pneumonia Described by Investigators at University of Florida (Intubated Trauma Patients Receiving Prolonged Antibiotics for Pneumonia despite Negative Cultures: Predictors and Outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Pneumonia have been published. According to news reporting originating from Gainesville, Florida, by NewsRx correspondents, research stated, "Despite the excellent negative predictive value of sterile respiratory cultures, antibiotics often are continued after negative endotracheal aspirate (ETA) or bronchoalveolar lavage (BAL) for critically ill trauma patients. We hypothesized that persistent elevation of the Clinical Pulmonary Infection Score (CPIS) would predict continued antibiotic therapy after a negative respiratory culture for intubated trauma patients, and that prolonged antibiotics would provide no benefit."

Our news editors obtained a quote from the research from the University of Florida, "We performed a four-year retrospective cohort analysis (May 1, 2011-September 30, 2015), including patients from our trauma database with ETA or BAL, excluding patients with any infection other than pneumonia or bacteremia. Cultures with <2(+) organisms on gram stain and <2(+) or 10(4) organisms on culture were considered negative. The CPIS was assessed at the time of culture and five days later, when all cultures were final. Multiple logistic regression was used to identify predictors of long-term antibiotic therapy. A series of 106 patients with negative cultures were included, of whom 61 had 5d of antibiotics and 45 had >5d of antibiotics. There were no differences in injury severity, head or chest trauma, initial CPIS, or subsequent culture results between the groups. Long-term antibiotic therapy did not affect intensive care unit (ICU) length of stay (LOS), ventilator days, hospital LOS, or death. Factors predicting long-term antibiotic therapy included development of a localized chest radiograph infiltrate (odds ratio [OR] 6.8; 95% confidence interval [CI] 1.7-28), CPIS >5 fivedays after culture (OR 6.1; 95% CI 1.2-32), and a colonized culture (OR 3.3; 95% CI 1.3-8.3). Long-term antibiotic therapy for intubated trauma patients with negative respiratory cultures provided no benefit and was predicted by development of a localized chest radiograph infiltrate, persistently elevated CPIS, and a contaminated/colonized culture."

According to the news editors, the research concluded: "Although long-term antibiotic use did not worsen outcomes, better strategies are needed to diagnose pneumonia accurately and ensure timely discontinuation of antibiotics when appropriate."

For more information on this research see: Intubated Trauma Patients Receiving Prolonged Antibiotics for Pneumonia despite Negative Cultures: Predictors and Outcomes. Surgical Infections, 2016;17(6):766-772. Surgical Infections can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Surgical Infections - www.liebertpub.com/overview/surgical-infections/53/)

The news editors report that additional information may be obtained by contacting A.M. Mohr, University of Florida, Coll Med, Dept. of Surg, Gainesville, FL 32610, United

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Keywords for this news article include: Gainesville, Florida, United States, North and Central America, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Respiratory Tract Infections, Antibacterial Agents, Drugs and Therapies, Infectious Disease, Antimicrobials, Antibiotics, Pulmonology, Pneumonia, Therapy, University of Florida.

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Gram-Negative Bacteria - Prevotella intermedia

New Findings on Prevotella intermedia Discussed by Researchers at Kyung Hee University (In Vitro Effects of Polyphosphate against Prevotella intermedia in Planktonic Phase and Biofilm)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Prevotella intermedia. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Polyphosphate (polyP) has gained a wide interest in the food industry due to its potential as a decontaminating agent. In this study, we examined the effect of sodium triplypolyphosphate (polyP3; Na5P3O10) against planktonic and biofilm cells of Prevotella intermedia, a major oral pathogen."

Financial support for this research came from Ministry of Education, Science and Technology, South Korea.

Our news journalists obtained a quote from the research from Kyung Hee University, "The MIC of polyP3 against P. intermedia ATCC 49046 determined by agar dilution method was 0.075%, while 0.05% polyP3 was bactericidal against P. intermedia in time-kill analysis performed using liquid medium. A crystal violet binding assay for the assessment of biofilm formation by P. intermedia showed that sub-MICs of polyP3 significantly decreased biofilm formation. Under the scanning electron microscope, decreased numbers of P. intermedia cells forming the biofilms were observed when the bacterial cells were incubated with 0.025% or higher concentrations of polyP3. Assessment of biofilm viability with LIVE/DEAD staining and viable cell count methods showed that 0.05% or higher concentrations of polyP3 significantly decreased the viability of the preformed biofilms in a concentration-dependent manner. The zone sizes of alpha-hemolysis formed on horse blood agar produced by P. intermedia were decreased in the presence of polyP3. The expression of the genes encoding hemolysins and the genes of the hemin uptake (hmu) locus was downregulated by polyP3."

According to the news editors, the research concluded: "Collectively, our results show that polyP is an effective antimicrobial agent against P. intermedia in biofilms as well as planktonic phase, interfering with the process of hemin acquisition by the bacterium."

For more information on this research see: In Vitro Effects of Polyphosphate against Prevotella intermedia in Planktonic Phase and Biofilm. Antimicrobial Agents and Chemotherapy, 2015;60(2):818-26. (American Society for Microbiology - www.asm.org;
Antimicrobial Agents and Chemotherapy - aac.asm.org

The news correspondents report that additional information may be obtained from J.H. Moon, Dept. of Maxillofacial Biomedical Engineering, School of Dentistry and Institute of Oral Biology, Kyung Hee University, Seoul, Republic of Korea Dept. of Life and Nanopharmaceutical Sciences, Kyung Hee University, Seoul, South Korea. Additional authors for this research include M. Kim, M.H. Noh, J.H. Moon and J.Y Lee.

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Keywords for this news article include: Asia, Ions, Seoul, South Korea, Electrolytes, Bacteroidetes, Bacteroidaceae, Polyphosphates, Phosphoric Acids, Inorganic Chemicals, Phosphorus Compounds, Prevotella intermedia, Gram Negative Bacteria, Gram-Negative Bacteria, Gram Negative Anaerobic Bacteria.

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Neurodegenerative Diseases and Conditions - ...

New Findings on Progressive Supranuclear Palsy Discussed by Researchers at Hospital of the Holy Cross and St. Paul (Copy number variation analysis of the 17q21.31 region and its role in neurodegenerative diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurodegenerative Diseases and Conditions - Progressive Supranuclear Palsy are presented in a new report. According to news reporting from Barcelona, Spain, by NewsRx journalists, research stated, "The H1 haplotype of the 17q21.31 inversion polymorphism has been consistently associated with progressive supranuclear palsy, corticobasal degeneration, and Parkinson's disease in Caucasians. Recently, large polymorphic segmental duplications resulting into complex rearrangements at this locus with a high diversity range in human populations have been revealed."

Funders for this research include Instituto de Salud Carlos III, Spanish Ministry of Science and Innovation.

The news correspondents obtained a quote from the research from the Hospital of the Holy Cross and St. Paul, "We sought to explore whether the two multi-allelic copy number variants that are present in the H1 clade (with segmental duplications of 300 and 218 kilobases in length) could be responsible for the known H1-related risk of developing these neurodegenerative disorders. A total of 857 Spanish subjects including 330 patients with Parkinson's disease, 96 with progressive supranuclear palsy, 55 with corticobasal degeneration, 51 dementia with Lewy bodies, and 325 neurologically healthy controls, were genotyped for the H1/H2 haplotype. Subsequently, the two copy number variants that are characteristic of the H1 haplotype were evaluated through a high-resolution approach based on droplet digital polymerase chain reaction, in all H1 homozygous subjects. The H1 allele was significantly overrepresented in all diagnostic groups compared with controls (Parkinson's disease, p=0.0001; progressive supranuclear palsy, p=1.22 \times 10^{-6}; corticobasal degeneration, p=0.0002; and dementia with Lewy bodies, p=0.032). However, no dosage differences were found for any of the two copy number variants analyzed. The H1 haplotype is associated with the risk of several"
neurodegenerative disorders, including dementia with Lewy bodies."

According to the news reporters, the research concluded: "However, common structural diversity within the 17q21.31-H1 clade does not explain this genetic association."


Our news journalists report that additional information may be obtained by contacting L. Cervera-Carles, Memory Unit, Dept. of Neurology, IIB Sant Pau, Hospital de la Santa Creu i Sant Pau, Barcelona, Spain. Additional authors for this research include J. Pagonabarraga, B. Pascual-Sedano, P. Pastor, A. Campolongo, J. Fortea, R. Blesa, D. Alcolea, E. Morenas-Rodriguez, I. Sala, A. Lleo, J. Kulisevsky and J. Clarimon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.b.32390. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, Dementia, Genetics, Barcelona, Neurology, Movement Disorders, Parkinson's Disease, Risk and Prevention, Parkinsonian Disorders, Corticobasal Degeneration, Brain Diseases and Conditions, Progressive Supranuclear Palsy, Basal Ganglia Diseases and Conditions, Neurodegenerative Diseases and Conditions.

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New Findings on Proline Described by Investigators at Chinese Academy of Sciences (Transformation and products of captopril with humic constituents during laccase-catalyzed oxidation: Role of reactive intermediates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proline. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "The transformation of captopril (CAP), a widely-used thiol drug, was studied with the presence of dissolved model humic constituents (HCs) in a laccase-catalyzed system. Reaction products were analyzed by ultra-performance liquid chromatography coupled to time-of-flight mass spectrometry and condensed fukui function computation."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from the Chinese Academy of Sciences, "CAP reacted with different model HCs in the enzymatic system for 1 h, ranging from 75% (syringic acid) to 96% (p-coumaric acid). In the absence of HCs, only 15% of CAP was removed through self-coupling. The presence of HCs apparently changed the transformation of CAP in aqueous environment, and the HC reactive intermediates played an important role. First, during laccase catalysis, HCs with different structures were oxidized to produce reactive intermediates, including phenoxy radical cation, ortho-, and para-quinone intermediates. Second, these intermediates were readily attacked by CAP via nucleophilic reactions, forming
C-S-C covalent conjugates. More importantly, the standard reduction potential of these intermediates is a critical parameter, as PCA showed the highest reactivity to the nucleophilic addition reaction with CAP by forming phenoxy radical cations. While SYR showed the least reactivity due to the formation of quinone intermediates. Therefore, the functional groups on HCs could greatly influence the cross-coupling with CAP, as well as the type and stability of the coupling products.

According to the news editors, the research concluded: "This work clearly demonstrated the transformation of CAP and other thiol drugs with the presence of HCs in aqueous environment, which is similar to the natural humification process."


Our news journalists report that additional information may be obtained by contacting H. Zhao, Chinese Academy Sci, Beijing Engr Res Center Proc Pollut Control, Inst Proc Engr, Div Environm Technol & Engn, Beijing 100190, People's Republic of China. Additional authors for this research include H. Zhao, C.M. Liu, Q.G. Huang and H.B. Cao.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Angiotensin Converting Enzyme Inhibitors, Enzymes and Coenzymes, Cardiovascular Agents, Drugs and Therapies, Captopril Therapy, Oxidoreductases, Pharmaceuticals, Amino Acids, Laccase, Proline, Chinese Academy of Sciences.

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Oncology - Prostate Cancer

New Findings on Prostate Cancer Described by Investigators at University of Udine (Can multiparametric MRI replace Roach equations in staging prostate cancer before external beam radiation therapy?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Prostate Cancer have been presented. According to news reporting originating from Udine, Italy, by NewsRx correspondents, research stated, "To investigate the agreement between Roach equations (RE) and multiparametric magnetic resonance imaging (mpMRI) in assessing the T-stage of prostate cancer (PCa). Seventy-three patients with biopsy-proven PCa and previous RE assessment prospectively underwent mpMRI on a 3.0T magnet before external beam radiation therapy (EBRT)."

Our news editors obtained a quote from the research from the University of Udine, "Using Cohen's kappa statistic, we assessed the agreement between RE and mpMRI in defining the T-stage (> = T3 vs. T <= 2) and risk category according to the National comprehensive cancer network criteria (< intermediate vs. > = high). We also calculated sensitivity and specificity for > = T3 stage in an additional group of thirty-seven patients with post-prostatectomy histological examination (mpMRI validation group). The agreement between RE and mpMRI in assessing
the T stage and risk category was moderate (k=0.53 and 0.56, respectively). mpMRI changed the T stage and risk category in 21.9% (95% C.I. 13.4-33-4) and 20.5% (95% C.I. 12.3-31.9), respectively, prevalently downstaging PCa compared to RE. Sensitivity and specificity for >= T3 stage in the mpMRI validation group were 81.8% (95% C.I. 65.1-91.9) and 88.5% (72.8-96.1). RE and mpMRI show moderate agreement only in assessing the T-stage of PCa, translating into an mpMRI-induced change in risk assessment in about one fifth of patients."

According to the news editors, the research concluded: "As supported by high sensitivity/specificity for >= T3 stage in the validation group, the discrepancy we found is in favour of mpMRI as a tool to stage PCa before ERBT."


The news editors report that additional information may be obtained by contacting R. Girometti, University of Udine, Dept. of Med & Biol Sci, Inst Diagnost Radiol, Azienda Osped Univ Santa Maria della Misericordia, I-33100 Udine, Italy. Additional authors for this research include M.A. Signor, M. Pancot, L. Cereser and C. Zuiani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejrad.2016.10.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Udine, Italy, Europe, Drugs and Therapies, Prostatic Neoplasms, Radiation Therapy, Prostate Cancer, Oncology, University of Udine.

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Proteomics

New Findings on Proteomics from National Institute of Radiological Sciences Summarized (PU-H71, a novel Hsp90 inhibitor, as a potential cancer-specific sensitizer to carbon-ion beam therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Proteomics is the subject of a report. According to news reporting originating in Chiba, Japan, by NewsRx journalists, research stated, "PU-H71, a heat shock protein 90 (Hsp90) inhibitor, has yielded therapeutic efficacy in many preclinical models and is currently in clinical trials. Carbon-ion radiotherapy (CIRT) has provided successful tumor control; however, there is still room for improvement, particularly in terms of tumor-specific radiosensitization."

The news reporters obtained a quote from the research from the National Institute of Radiological Sciences, "The Hsp90 inhibitor PU-H71 has been shown to sensitize tumor cells to X-ray radiation. A murine osteosarcoma cell line (LM8) and a normal human fibroblast cell line (AG01522) were treated with PU-H71 before X-ray, 14- or 50-keV/w mm carbon-ion beam (C-ion) irradiation. Cell survival and protein expression were evaluated with colony formation and western blot, respectively. Treatment with PU-H71 alone was shown to be non-toxic to both cell lines; however, PU-H71 was shown to significantly sensitize LM8 cells to not only X-ray,
but also to C-ion irradiation, while only a minimal sensitizing effect was observed in AG01522 cells. PU-H71 treatment was found to suppress the protein expression levels of Rad51 and Ku70, which are associated with the homologous recombination pathway and the non-homologous end-joining pathway of double-strand break repair."

According to the news reporters, the research concluded: "The findings reported here suggest that PU-H71 could be a promising radiosensitizer for CIRT."


Our news correspondents report that additional information may be obtained by contacting Y. Furusawa, Natl Inst Radiol Sci, Res Center Charged Particle Therapy, Inage Ku, Chiba 2638555, Japan. Additional authors for this research include Y. Matsumoto, Y. Furusawa and T. Kamada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/jrr/rrw054. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chiba, Japan, Asia, Protein Expression, Proteomics, Oncology, Therapy, Cancer, National Institute of Radiological Sciences.

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**Lung Diseases and Conditions - Pulmonary Embolism**

**New Findings on Pulmonary Embolism from Rovigo General Hospital Summarized (Rheolytic thrombectomy in patient with acute pulmonary embolism, heparin-induced thrombocytopenia and recent stoke. When percutaneous treatment is the only therapeutic ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lung Diseases and Conditions - Pulmonary Embolism have been presented. According to news reporting from Rovigo, Italy, by NewsRx journalists, research stated, "To report the combined use of rheolytic thrombectomy (RT) and inferior vena cava (IVC) filter placement in the setting of acute pulmonary embolism (PE), heparin-induced thrombocytopenia (HIT) type II (HIT-II) and recent ischemic stroke. A 66-year-old man with an HIT-II and recent ischemic stroke was referred to our institution from a secondary regional center for acute PE and left deep vein thrombosis (DVT), confirmed at chest computed tomography (CT) and lower limb ultrasound, respectively."

The news correspondents obtained a quote from the research from Rovigo General Hospital, "RT was attempted because intravenous heparin anticoagulation was contraindicated by the patient's medical history while recent ischemic stroke contraindicated thrombolysis. An Angiojet ® catheter was used to perform RT. An IVC filter was placed after the procedure. The patient was discharged after 13 days and did very well, both at the 6- and 12-month follow-ups, with no recurrence of the venous thromboembolism."

According to the news reporters, the research concluded: "This case demonstrates the usefulness of RT in treating acute PE in clinically difficult scenarios, especially when
thrombolytic therapy is contraindicated."

For more information on this research see: Rheolytic thrombectomy in patient with acute pulmonary embolism, heparin-induced thrombocytopenia and recent stroke. When percutaneous treatment is the only therapeutic alternative. Perfusion-Uk, 2016;31(8):703-705. Perfusion-Uk can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England.

Our news journalists report that additional information may be obtained by contacting L. Roncon, Rovigo Gen Hosp, Dept. of Cardiol, Rovigo, Italy. Additional authors for this research include G. Rigatelli and L. Roncon.

Keywords for this news article include: Rovigo, Italy, Europe, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Lung Diseases and Conditions, Blood Platelet Disorders, Embolism and Thrombosis, Drugs and Therapies, Pulmonary Embolism, Thrombocytopenia, Heparin Therapy, Thrombectomy, Hematology, Surgery, Stroke, Rovigo General Hospital.

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Quality of Life

New Findings on Quality of Life Described by Investigators at Royal North Shore Hospital [Nutritional issues and body weight in long-term survivors of allogeneic blood and marrow transplant (BMT) in NSW Australia]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Quality of Life is the subject of a report. According to news reporting originating in St. Leonards, Australia, by NewsRx journalists, research stated, "The aims of this study were to describe the long-term nutrition, body weight and body image issues facing survivors of Allogeneic Blood and Marrow Transplant (BMT) and their impact on quality of life. It also describes survivors' perception of enteral feeding during BMT."

The news reporters obtained a quote from the research from Royal North Shore Hospital, "Four hundred and forty-one survivors who had undergone a BMT in NSW, Australia between 2000 and 2012 (n = 441/583) completed the Sydney Post BMT Study Survey (SPBS). Forty-five percent of survivors less than 2-year post-transplant reported a dry mouth, 36 % reported mouth ulcers and 19 % had diarrhoea. This was consistent across all survivor groups, regardless of time since transplant. Patients with one or more gastrointestinal (GI) symptoms had significantly lower quality of life scores. There was a significant difference in quality of life scores when comparing those with no GI symptoms to those with one or more symptoms (P <= 0.0001). Quality of life was significantly higher in those who once again enjoyed mealtimes (P < 0.0001). Males were more likely to be satisfied with their body weight compared to females (P = 0.009). The median body mass index (BMI) for all patients reporting body weight satisfaction was significantly lower (BMI 23.5) than those reporting dissatisfaction (BMI 27.5) (P <= 0.0001). Survivors who had a normal BMI had significantly higher rates of body weight satisfaction compared to underweight, overweight and obese survivors (P <= 0.0001). Those survivors who were overweight or obese were significantly more likely to be diabetic (P = 0.008). This study revealed an important relationship between gastrointestinal symptoms, body...
weight and body image and survivor's quality of life."

According to the news reporters, the research concluded: "It provides further support for the importance of nutrition therapy post-BMT."

For more information on this research see: Nutritional issues and body weight in long-term survivors of allogeneic blood and marrow transplant (BMT) in NSW Australia. Supportive Care in Cancer, 2017;25(1):137-144. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news correspondents report that additional information may be obtained by contacting J. Smith, Royal North Shore Hosp, Nutr Serv, St Leonards, NSW 2065, Australia. Additional authors for this research include C. Poon, N. Gilroy, M. Kabir, L. Brice, G. Dyer, M. Hogg, M. Greenwood, J. Moore, M. Hertzberg, L. Brown, J. Tan, G. Huang, J. Kwan, S. Larsen, C. Ward and I. Kerridge.

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Keywords for this news article include: St. Leonards, Australia, Australia and New Zealand, Gastroenterology, Quality of Life, Royal North Shore Hospital.

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Drugs and Therapies - Radiation Therapy

New Findings on Radiation Therapy Discussed by Researchers at Polytechnic University (Tumor radio-sensitivity assessment by means of volume data and magnetic resonance indices measured on prostate tumor bearing rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Radiation Therapy are discussed in a new report. According to news reporting originating in Milan, Italy, by NewsRx journalists, research stated, "Radiation therapy is one of the most common treatments in the fight against prostate cancer, since it is used to control the tumor (early stages), to slow its progression, and even to control pain (metastasis). Although many factors (e.g., tumor oxygenation) are known to influence treatment efficacy, radiotherapy doses and fractionation schedules are often prescribed according to the principle 'one-fits-all,' with little personalization."

Financial supporters for this research include National Cancer Institute (NCI), National Institute of Biomedical Imaging and Bioengineering (NIBIB).

The news reporters obtained a quote from the research from Polytechnic University, "Therefore, the authors aim at predicting the outcome of radiation therapy a priori starting from morphologic and functional information to move a step forward in the treatment customization. The authors propose a two-step protocol to predict the effects of radiation therapy on individual basis. First, one macroscopic mathematical model of tumor evolution was trained on tumor volume progression, measured by caliper, of eighteen Dunning R3327-AT1 bearing rats. Nine rats inhaled 100% O2 during irradiation (oxy), while the others were allowed to breathe air. Second, a supervised learning of the weight and biases of two feedforward neural networks was
performed to predict the radio-sensitivity (target) from the initial volume and oxygenation-related information (inputs) for each rat group (air and oxygen breathing). To this purpose, four MRI-based indices related to blood and tissue oxygenation were computed, namely, the variation of signal intensity DSI in interleaved blood oxygen level dependent and tissue oxygen level dependent (IBT) sequences as well as changes in longitudinal DR1 and transverse DR2(*) relaxation rates. An inverse correlation of the radio-sensitivity parameter, assessed by the model, was found with respect the DR2(*) (-0.65) for the oxy group. A further subdivision according to positive and negative values of DR2(*) showed a larger average radio-sensitivity for the oxy rats with DR2(*) <0 and a significant difference in the two distributions (p <0.05). Finally, a leave-one-out procedure yielded a radio-sensitivity error lower than 20% in both neural networks.

According to the news reporters, the research concluded: "While preliminary, these specific results suggest that subjects affected by the same pathology can benefit differently from the same irradiation modalities and support the usefulness of IBT in discriminating between different responses."

For more information on this research see: Tumor radio-sensitivity assessment by means of volume data and magnetic resonance indices measured on prostate tumor bearing rats. Medical Physics, 2016;43(3):1275-84. Medical Physics can be contacted at: Amer Assoc Physicists Medicine Amer Inst Physics, Ste 1 No 1, 2 Huntington Quadrangle, Melville, NY 11747-4502, USA. (American Association of Physicists in Medicine - www.aapm.org; Medical Physics - online.medphys.org/)

Our news correspondents report that additional information may be obtained by contacting A. Belfatto, Dept. of Electronics, Information and Bioengineering, Politecnico di Milano University, Milan 20133, Italy. Additional authors for this research include D.A. White, R.P. Mason, Z. Zhang, S. Stojadinovic, G. Baroni and P. Cerveri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1118/1.4941746. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Medical Physics can be contacted at: Amer Assoc Physicists Medicine Amer Inst Physics, Ste 1 No 1, 2 Huntington Quadrangle, Melville, NY 11747-4502, USA.

Keywords for this news article include: Milan, Italy, Europe, Radiation Therapy, Drugs and Therapies.

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tract infections (LRTIs). The association of pneumococcal colonization with disease has been suggested as a means to increase the diagnostic precision."

The news reporters obtained a quote from the research from Royal Liverpool and Broadgreen University Hospital, "We compared the pneumococcal colonization rates and the densities of nasal pneumococcal colonization by (i) classical culture and (ii) quantitative real-time PCR (qPCR) targetinglyAin patients with LRTIs admitted to a hospital in the United Kingdom and control patients. A total of 826 patients were screened for inclusion in this prospective case-control study. Of these, 38 patients were recruited, 19 with confirmed LRTIs and 19 controls with other diagnoses. Nasal wash (NW) samples were collected at the time of recruitment. Pneumococcal colonization was detected in 1 patient with LRTI and 3 controls (p=0.6) by classical culture. By qPCR, pneumococcal colonization was detected in 10 LRTI patients and 8 controls (p=0.5). Antibiotic usage prior to sampling was significantly higher in the LRTI group than in the control group (19 versus 3; p<0.001). With a clinically relevant cutoff of >8,000 copies/ml on qPCR, pneumococcal colonization was found in 3 LRTI patients and 4 controls (p>0.05). We conclude that neither the prevalence nor the density of nasal pneumococcal colonization (by culture and qPCR) can be used as a method of microbiological diagnosis in hospitalized adults with LRTI in the United Kingdom."

According to the news reporters, the research concluded: "A community-based study recruiting patients prior to antibiotic therapy may be a useful future step."

For more information on this research see: Pneumococcal Colonization Rates in Patients Admitted to a United Kingdom Hospital with Lower Respiratory Tract Infection: a Prospective Case-Control Study. Journal of Clinical Microbiology, 2016;54(4):944-9.

Our news correspondents report that additional information may be obtained by contacting A.M. Collins, Respiratory Infection Group, Royal Liverpool and Broadgreen University Hospital Trust, Liverpool, UK Respiratory Infection Group, Liverpool School of Tropical Medicine, Liverpool, UK. Additional authors for this research include C.M. Johnstone, J.F. Gritzfeld, A. Banyard, C.A. Hancock, A.D. Wright, L. Macfarlane, D.M. Ferreira and S.B Gordon.

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Keywords for this news article include: Europe, Hospital, Liverpool, United Kingdom, Pneumococcal Disease, Diagnostics and Screening, Respiratory Tract Infections, Respiratory Tract Diseases and Conditions.

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Respiratory Tract

New Findings on Respiratory Tract from University of Texas Summarized (Interferon-gamma promotes double-stranded RNA-induced TLR3-dependent apoptosis via upregulation of transcription factor Runx3 in airway epithelial cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Respiratory Tract. According to news reporting from Tyler, Texas, by NewsRx journalists, research stated, "Viral respiratory tract
infections are the most common illness in humans. Infection of the respiratory viruses results in accumulation of viral replicative double-stranded RNA (dsRNA), which is one of the important components of infecting viruses for the induction of lung epithelial cell apoptosis and innate immune response, including the production of interferon (IFN)."

The news correspondents obtained a quote from the research from the University of Texas, "In the present study, we have investigated the regulation of dsRNA-induced airway epithelial cell apoptosis by IFN. We found that transcription factor Runx3 was strongly induced by type-II IFN gamma, slightly by type-III IFN lambda, but essentially not by type-I IFN alpha in airway epithelial cells. IFN gamma-induced expression of Runx3 was predominantly mediated by JAK-STAT1 pathway and partially by NF-kappa B pathway. Interestingly, Runx3 can be synergistically induced by IFN gamma with a synthetic analog of viral dsRNA polyinosinic-polycytidylic acid [poly(I:C)] or tumor necrosis factor-alpha (TNF alpha) through both JAK-STAT1 and NF-kappa B pathways. We further found that dsRNA poly(I:C)-induced apoptosis of airway epithelial cells was mediated by dsRNA receptor toll-like receptor 3 (TLR3) and was markedly augmented by IFN gamma through the enhanced expression of TLR3 and subsequent activation of both extrinsic and intrinsic apoptosis pathways. Last, we demonstrated that upregulation of Runx3 by IFN gamma promoted TLR3 expression, thus amplifying the dsRNA-induced apoptosis in airway epithelial cells. These novel findings indicate that IFN gamma promotes dsRNA-induced TLR3-dependent apoptosis via upregulation of transcription factor Runx3 in airway epithelial cells."

According to the news reporters, the research concluded: "Findings from our study may provide new insights into the regulation of airway epithelial cell apoptosis by IFN gamma during viral respiratory tract infection."


Our news journalists report that additional information may be obtained by contacting H. Tang, Univ Texas Hlth Sci Center Tyler, Dept. of Cellular & Mol Biol, Tyler, TX 75708, United States. Additional authors for this research include Q. Hao, S. Idell and H. Tang.

Keywords for this news article include: Tyler, Texas, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Macrophage-Activating Factors, Transcription Factors, Biological Factors, Respiratory Tract, Interferon-gamma, Epithelial Cells, Lymphokines, Interferons, Cytokines, Apoptosis, Genetics, University of Texas.

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Engineering - Safety Engineering

New Findings on Safety Engineering from Technical University Summarized (Occupational risk-prevention diagnosis: A study of construction SMEs in Spain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Engineering - Safety Engineering.
According to news reporting originating from Madrid, Spain, by NewsRx correspondents, research stated, "Occupational risk-prevention implementation and its integration in the management systems of Small and Medium Enterprises (SMEs) are studied in the Spanish Construction Sector, through a prospective analysis of data collected from a sample of 106 firms (SMEs) in the Autonomous Community of Castile-La Mancha (Spain). The selected sample is well suited to the economic reality of that Autonomous Community, considering the size of the population and the chosen confidence intervals and probabilities."

Our news editors obtained a quote from the research from Technical University, "The following data-collection techniques were used: surveys, open questions, closed questions, and dichotomous questions. Qualitative Focus-Group techniques were chosen, to contrast the information and to validate its reliability, in view of the training criteria and the hierarchical position of the interviewees working for firms with experience in the Construction Sector. Participants included risk-prevention experts from the public administrations."

According to the news editors, the research concluded: "The results point to difficulties with the integration of Occupational Risk Prevention (ORP) in the Management Systems of SMEs in the Spanish construction sector, outside the corporate structure of the firm."

For more information on this research see: Occupational risk-prevention diagnosis: A study of construction SMEs in Spain. Safety Science, 2017:92():104-115. Safety Science can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands.

The news editors report that additional information may be obtained by contacting A.R. Barriuso, Technical Univ Madrid, Madrid, Spain. Additional authors for this research include B.M.V. Escribano, M.N.G. Garcia, A.R. Barriuso and A.R. Saiz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ssci.2016.09.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Safety Engineering, Engineering, Technical University.

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Science

New Findings on Science from Max-Planck-Institute for Biophysics Summarized (Two pathways regulate cortical granule translocation to prevent polyspermy in mouse oocytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news originating from Gottingen, Germany, by NewsRx correspondents, research stated, "An egg must be fertilized by a single sperm only. To prevent polyspermy, the zona pellucida, a structure that surrounds mammalian eggs, becomes impermeable upon fertilization, preventing the entry of further sperm."

Our news journalists obtained a quote from the research from Max-Planck-Institute for Biophysics, "The structural changes in the zona upon fertilization are driven by the exocytosis of cortical granules. These translocate from the oocyte's centre to the plasma membrane during meiosis. However, very little is known about the mechanism of cortical granule translocation. Here we investigate cortical granule transport and dynamics in live
mammalian oocytes by using Rab27a as a marker. We show that two separate mechanisms drive their transport: myosin Va-dependent movement along actin filaments, and an unexpected vesicle hitchhiking mechanism by which cortical granules bind to Rab11a vesicles powered by myosin Vb."

According to the news editors, the research concluded: "Inhibiting cortical granule translocation severely impaired the block to sperm entry, suggesting that translocation defects could contribute to miscarriages that are caused by polyspermy."


The news correspondents report that additional information may be obtained from M. Schuh, Max Planck Inst Biophys Chem, D-37077 Gottingen, Germany. Additional authors for this research include J. Boulanger, L.M. Bond and M. Schuh.

Keywords for this news article include: Gottingen, Germany, Europe, Science, Genetics, Max-Planck-Institute for Biophysics.

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New Findings on Sickle Cell Anemia from E. Charrin and Co-Authors Summarized (Inflammatory and oxidative stress phenotypes in transgenic sickle cell mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematologic Diseases and Conditions - Sickle Cell Anemia have been published. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "The Townes mouse model of homozygous sickle cell disease (SS) has emerged as the major experimental model for studying pathophysiological mechanisms of human sickle cell disease (SCD). We therefore investigated hematological and hemorheological parameters as well as organ-specific inflammatory and oxidative stress molecular profiles in these animals in steady state conditions."

Our news editors obtained a quote from the research, "Evidences of SCD-related intravascular hemolysis, impaired red blood cell (RBC) deformability, leukocytosis and altered plasma nitric oxide byproducts (NOx) level were found in the SS mice. The SS mice have damaged, enlarged and dysfunctional spleen as attested by high AOPP levels, low SOD and GPx activities and low pro-inflammatory cytokines mRNA expression. SS mice exhibited cardiomegaly, high cardiac mRNA levels of proinflammatory markers and low cardiac GPx activity. While lungs did not display any noticeable defects, liver and kidney were particularly sensitive to oxidative stress and inflammation as suggested by high AOPP levels in both organs, elevated renal NF-kappa B and TNF-alpha, and increased hepatic VCAM-1 and IL-1 beta."

According to the news editors, the research concluded: "Our data indicate a tissue-specific phenotype regarding oxidative stress and inflammation in SS mice that may help to optimize the development of novel potential drug treatments."

For more information on this research see: Inflammatory and oxidative stress...

The news editors report that additional information may be obtained by contacting C. Martin, Lab Excellence GR Ex, Paris, France. Additional authors for this research include S.F. Ofori-Acquah, E. Nader, S. Skinner, P. Connes, V. Pialoux, P. Joly and C. Martin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bcmd.2016.10.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Hematologic Diseases and Conditions, Sickle Cell Anemia, Inflammation, Cardiology, Hematology, Genetics.

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**Stainless Steel**

**New Findings on Stainless Steel Reported by B. Moen et al (Microbiota formed on attached stainless steel coupons correlates with the natural biofilm of the sink surface in domestic kitchens)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Stainless Steel have been presented. According to news reporting from As, Norway, by NewsRx journalists, research stated, "Stainless steel coupons are frequently used in biofilm studies in the laboratory, as this material is commonly used in the food industry. The coupons are attached to different surfaces to create a 'natural' biofilm to be studied further in laboratory trials."

The news correspondents obtained a quote from the research, "However, little has been done to investigate how well the microbiota on such coupons represents the surrounding environment. The microbiota on sink wall surfaces and on new stainless steel coupons attached to the sink wall for 3 months in 8 domestic kitchen sinks was investigated by next-generation sequencing (MiSeq) of the 16S rRNA gene derived from DNA and RNA (cDNA), and by plating and identification of colonies. The mean number of colony-forming units was about 10-fold higher for coupons than sink surfaces, and more variation in bacterial counts between kitchens was seen on sink surfaces than coupons. The microbiota in the majority of biofilms was dominated by Moraxellaceae (genus Moraxella/Enhydrobacter) and Micrococcaceae (genus Kocuria). The results demonstrated that the variation in the microbiota was mainly due to differences between kitchens (38.2%), followed by the different nucleic acid template (DNA vs RNA) (10.8%), and that only 5.1% of the variation was a result of differences between coupons and sink surfaces. The microbiota variation between sink surfaces and coupons was smaller for samples based on their RNA than on their DNA."

According to the news reporters, the research concluded: "Overall, our results suggest that new stainless steel coupons are suited to model the dominating part of the natural microbiota of the surrounding environment and, furthermore, are suitable for different downstream studies."

For more information on this research see: Microbiota formed on attached stainless steel coupons correlates with the natural biofilm of the sink surface in domestic kitchens.
New Findings on Staphylococcus aureus from University of Lausanne Summarized (In Vitro and In Vivo Effectiveness of an Innovative Silver-Copper Nanoparticle Coating of Catheters To Prevent Methicillin-Resistant Staphylococcus aureus Infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gram-Positive Bacteria - Staphylococcus aureus. According to news reporting originating from Lausanne, Switzerland, by NewsRx correspondents, research stated, "In this study, silver/copper (Ag/Cu)-coated catheters were investigated for their efficacy in preventing methicillin-resistant Staphylococcus aureus (MRSA) infection in vitro and in vivo. Ag and Cu were sputtered (67/33% atomic ratio) on polyurethane catheters by direct-current magnetron sputtering."

Financial support for this research came from Swiss National Science Foundation.

Our news editors obtained a quote from the research from the University of Lausanne, "In vitro, Ag/Cu-coated and uncoated catheters were immersed in phosphate-buffered saline (PBS) or rat plasma and exposed to MRSA ATCC 43300 at 10(4) to 10(8) CFU/ml. In vivo, Ag/Cu-coated and uncoated catheters were placed in the jugular vein of rats. Directly after, MRSA (10(7) CFU/ml) was inoculated in the tail vein. Catheters were removed 48 h later and cultured. In vitro, Ag/Cu-coated catheters preincubated in PBS and exposed to 10(4) to 10(7) CFU/ml prevented the adherence of MRSA (0 to 12% colonization) compared to uncoated catheters (50 to 100% colonization; P<0.005) and Ag/Cu-coated catheters retained their activity (0 to 20% colonization) when preincubated in rat plasma, whereas colonization of uncoated catheters increased (83 to 100%; P<0.005). Ag/Cu-coating protection diminished with 10(8) CFU/ml in both PBS and plasma (50 to 100% colonization). In vivo, Ag/Cu-coated catheters reduced the incidence of catheter infection compared to uncoated catheters (57% versus 79%,
respectively; P = 0.16) and bacteremia (31% versus 68%, respectively; P<0.05). Scanning electron microscopy of explanted catheters suggests that the suboptimal activity of Ag/Cu catheters in vivo was due to the formation of a dense fibrin sheath over their surface. Ag/Cu-coated catheters thus may be able to prevent MRSA infections."

According to the news editors, the research concluded: "Their activity might be improved by limiting plasma protein adsorption on their surfaces."

For more information on this research see: In Vitro and In Vivo Effectiveness of an Innovative Silver-Copper Nanoparticle Coating of Catheters To Prevent Methicillin-Resistant Staphylococcus aureus Infection. Antimicrobial Agents and Chemotherapy, 2016;60(9):5349-5356. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting J.M. Entenza, University of Lausanne, Dept. of Fundamental Microbiol, Lausanne, Switzerland. Additional authors for this research include S. Rtimi, C. Pulgarin, N. Hopf, A. Berthet, J. Kiwi, P. Moreillon, J.M. Entenza and A. Bizzini.

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Keywords for this news article include: Lausanne, Switzerland, Europe, Methicillin-Resistant Staphylococcus aureus, Drugs and Therapies, Risk and Prevention, Gram-Positive Endospore-Forming Rods, Foodborne Diseases and Conditions, Endospore-Forming Bacteria, Beta-Lactam Antibiotics, Gram-Positive Bacteria, beta-Lactam Resistance, Methicillin Resistance, Penicillin Resistance, Gram-Positive Cocci, Organic Chemicals, Staphylococcaceae, Drug Resistance, Penicillins, Bacillales, Amides, MRSA, University of Lausanne.

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Oncology - Stomach Cancer

New Findings on Stomach Cancer from Jilin University Summarized (Enhanced recovery after surgery with laparoscopic radical gastrectomy for stomach carcinomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Stomach Cancer have been published. According to news originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "To study the efficacy of the enhanced recovery after surgery (ERAS) program in laparoscopic radical gastrectomy for stomach carcinomas. From June 2010 to December 2012, 61 gastric cancer patients who underwent laparoscopic-assisted radical gastrectomy with D2 lymphadenectomy at First Hospital of Jilin University were enrolled in this randomized controlled trial. (Clinical Trials.gov, registration ID: NCT01955096)."

Our news journalists obtained a quote from the research from Jilin University, "The subjects were divided into the ERAS program group and the conventional control group. The clinical characteristics, recovery variables, and complications of patients were analyzed. The time to first ambulation, oral food intake, and time to defecation were significantly shorter in the
ERAS group (n=30), compared to the conventional group (n=31; p=0.04, 0.003, and 0.01, respectively). The postoperative hospital stay was less in the ERAS group (6.8 ± 1.1 d) compared to the conventional group (7.7 ± 1.1 d) (p=0.002). There was no significant difference in postoperative complications between the ERAS (1/30) and conventional care groups (2/31) (p=1.00). There were no readmissions or mortality during the 30-d follow-up period. The ERAS program is associated with a shorter hospital stay in gastric cancer patients undergoing laparoscopic radical gastrectomy."

According to the news editors, the research concluded: "The ERAS protocol is useful in the treatment of gastric cancer."


The news correspondents report that additional information may be obtained from I. Abdikarim, Ikram Abdikarim, Xue-Yuan Cao, Shou-Zhen Li, Yin-Quan Zhao, Yerlan Taupyk, Quan Wang, Dept. of Gastric and Colorectal Surgery, First Hospital of Jilin University, Changchun 130021, Jilin Province, People's Republic of China. Additional authors for this research include X.Y. Cao, S.Z. Li, Y.Q. Zhao, Y. Taupyk and Q. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v21.i47.13339. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Surgery, Hospital, Oncology, Changchun, Carcinomas, Gastrectomy, Gastric Cancer, Stomach Cancer, Gastroenterology, People's Republic of China, Digestive System Surgical Procedures.

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Ear Diseases and Conditions - Suppurative Otitis Media

**New Findings on Suppurative Otitis Media from Seoul National University Summarized (Changes in antibiotic resistance in recurrent Pseudomonas aeruginosa infections of chronic suppurative otitis media)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Ear Diseases and Conditions - Suppurative Otitis Media. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "This study investigated the changes in antibiotic resistance in recurrent Pseudomonas aeruginosa infections in chronic suppurative otitis media (CSOM). Its aim was to provide a treatment strategy for P aeruginosa infections in CSOM for the prevention of multidrug resistance."

The news reporters obtained a quote from the research from Seoul National University, "A case control study was conducted in tertiary teachinghospitals in Korea. The experimental group included patients with recurrent P aeruginosa infection who had relapsed within 2 months after the successful control of a previous P aeruginosa infection. The control group consisted of patients with a P aeruginosa infection who had no history of such an infection. An antibiotic sensitivity test was performed for each culture. The proportion
of recurrent P. aeruginosa infection was 22.69% (98 of 432 cases). Drug resistance to amikacin, tobramycin, netilmicin, ciprofloxacin, and levofloxacin was significantly changed after recurrent infection. The fluoroquinolone strains seen in recurrent P. aeruginosa showed high cross-resistance to other drugs."

According to the research reporters, the research concluded: "Antibiotic resistance of P. aeruginosa in CSOM changed with recurrent infection."

For more information on this research see: Changes in antibiotic resistance in recurrent Pseudomonas aeruginosa infections of chronic suppurative otitis media. ENT-Ear Nose & Throat Journal, 2016;95(10-11):446-451. ENT-Ear Nose & Throat Journal can be contacted at: Vendome Group LLC, 6 East 32 St, 8 Floor, New York, NY 10016, USA.

Our news correspondents report that additional information may be obtained by contacting M.K. Park, Seoul National University, Coll Med, Dept. of Otolaryngol Head & Neck Surg, Seoul 110744, South Korea. Additional authors for this research include B.D. Lee, K.H. Lee, J.D. Lee, Y.J. Park and M.K. Park.

Keywords for this news article include: Seoul, South Korea, Asia, Otorhinolaryngologic Diseases and Conditions, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Ear Diseases and Conditions, Suppurative Otitis Media, Gram-Negative Bacteria, Pseudomonas aeruginosa, Antibacterial Agents, Gammaproteobacteria, Drugs and Therapies, Pseudomonadaceae, Proteobacteria, Antimicrobials, Otolaryngology, Antibiotics, Seoul National University.

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Neurodegenerative Diseases and Conditions - TDP-...

New Findings on TDP-43 Proteinopathies Described by Investigators at Johns Hopkins University (Depletion of TDP-43 decreases fibril and plaque beta-amyloid and exacerbates neurodegeneration in an Alzheimer’s mouse model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Neurodegenerative Diseases and Conditions - TDP-43 Proteinopathies is the subject of a report. According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "TDP-43 proteinopathy, initially associated with ALS and FTD, is also found in 30-60% of Alzheimer’s disease (AD) cases and correlates with worsened cognition and neurodegeneration. A major component of this proteinopathy is depletion of this RNA-binding protein from the nucleus, which compromises repression of non-conserved cryptic exons in neurodegenerative diseases."

The news correspondents obtained a quote from the research from Johns Hopkins University, "To test whether nuclear depletion of TDP-43 may contribute to the pathogenesis of AD cases with TDP-43 proteinopathy, we examined the impact of depletion of TDP-43 in populations of neurons vulnerable in AD, and on neurodegeneration in an AD-linked context. Here, we show that some populations of pyramidal neurons that are selectively vulnerable in AD are also vulnerable to TDP-43 depletion in mice, while other forebrain neurons appear spared. Moreover, TDP-43 depletion in forebrain neurons of an AD mouse model exacerbates neurodegeneration, and correlates with increased prefibrillar oligomeric A beta and decreased A beta plaque burden."
According to the news reporters, the research concluded: "These findings support a role for nuclear depletion of TDP-43 in the pathogenesis of AD and provide strong rationale for developing novel therapeutics to alleviate the depletion of TDP-43 and functional antemortem biomarkers associated with its nuclear loss."


Our news journalists report that additional information may be obtained by contacting P.C. Wong, Johns Hopkins University, Sch Med, Cellular & Mol Med Program, Baltimore, MD 21205, United States. Additional authors for this research include A. Donde, J.P. Ling, Y.H. Jeong, R. Chhabra, L.J. Martin and P.C. Wong.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Metabolic Diseases and Conditions, Brain Diseases and Conditions, Proteostasis Deficiencies, TDP-43 Proteinopathies, Alzheimer Disease, Mental Health, Tauopathies, Proteins, Genetics, Dementia, Amyloid, Johns Hopkins University.

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**Drugs and Therapies - Toxicology and Pharmacology**

**New Findings on Toxicology and Pharmacology from National Institute for Public Health and the Environment Summarized (Critical elements for human health risk assessment of less than lifetime exposures)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Toxicology and Pharmacology is the subject of a report. According to news reporting originating in Bilthoven, Netherlands, by NewsRx journalists, research stated, "Less than lifetime exposure has confronted risk assessors as to how to interpret the risks for human health in case a chronic health-based limit is exceeded. Intermittent, fluctuating and peak exposures do not match with the basis of the chronic limit values possibly leading to conservative outcomes."

Financial support for this research came from The Netherlands Food and Consumer Product Safety Authority (NVWA).

The news reporters obtained a quote from the research from National Institute for Public Health and the Environment, "This paper presents guidance on how to deal with human risk assessment of less than lifetime exposure. Important steps to be considered are characterization of the human exposure situation, evaluation whether the human less than lifetime exposure scenario corresponds to a non-chronic internal exposure: toxicokinetic and toxicodynamic considerations, and, finally, re-evaluation of the risk assessment. Critical elements for these steps are the mode of action, Haber's rule, and toxicokinetics (ADME) amongst others. Previous work for the endpoints non-genotoxic carcinogenicity and developmental toxicity is included in the guidance."

According to the news reporters, the research concluded: "The guidance provides a way to consider the critical elements, without setting default factors to correct for the less than
lifetime exposure in risk assessment."


Our news correspondents report that additional information may be obtained by contacting W. Ter Burg, Natl Inst Public Hlth & Environm RIVM, NL-3720 BA Bilthoven, Netherlands. Additional authors for this research include M.M. Nijkamp and W. Ter Burg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.09.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bilthoven, Netherlands, Europe, Toxicology and Pharmacology, Drugs and Therapies, National Institute for Public Health and the Environment.

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**Drugs and Therapies - Toxicology and Pharmacology**

**New Findings on Toxicology and Pharmacology from T. Zhang and Co-Authors Summarized (The comparison of animal models for premature ovarian failure established by several different source of inducers)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Toxicology and Pharmacology. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "The objective of this study was to compare premature ovarian failure animal models established by several different source of inducers. Female ICR mice, KM mice, and SD rats were treated by cyclophosphamide at 120 mg/kg, busulfan at 12 mg/kg, cisplatin at 3 or 4 mg/kg, 4-vinylcyclohexene diepoxide at 160 mg/kg, 35% galactose food pellet, and tripterygium glycosides at 50 mg/kg, respectively."

Our news journalists obtained a quote from the research, "Parameters were analyzed by body weight, serum concentration level of related hormones, ovarian and uterine pathological examination. The results indicated the body weight of mice increased very slowly following single dose of cyclophosphamide (p < 0.05) with damaged ovary; repeated doses of cisplatin could induce body weight significantly decreased (p < 0.01) with a rising trend of serum LH concentration, declining tendency of serum E2 concentration and injured ovary and uterus; 4-vinylcyclohexene diepoxide also hindered the mice growing (p < 0.05) with damaged ovary and uterus; the body weight of mice feed by 35% galactose food pellet increased slowly (p < 0.05) with dramatically higher serum concentration level of galactose, albumin, and total protein (p < 0.001) and injured ovary. Busulfan and tripterygium glycosides did not present obvious evidences."

According to the news editors, the research concluded: "The inducers presented their respective features in such animal models and should be appropriately applied in preventive methods."
For more information on this research see: The comparison of animal models for premature ovarian failure established by several different source of inducers. *Regulatory Toxicology and Pharmacology*, 2016;81():223-232. *Regulatory Toxicology and Pharmacology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news correspondents report that additional information may be obtained from Z.Y. Sun, Natl Populat & Family Planning Key Lab Contracept, Shanghai, People's Republic of China. Additional authors for this research include D.W. Yan, Y. Yang, A.C. Ma, L. Li, Z.H. Wang, Q. Pan and Z.Y. Sun.

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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Toxicology and Pharmacology, Drugs and Therapies.

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**Mycobacterium Infections - Tuberculosis**

**New Findings on Tuberculosis Described by Investigators at Anacor Pharmaceuticals (Discovery of Novel Oral Protein Synthesis Inhibitors of Mycobacterium tuberculosis That Target Leucyl-tRNA Synthetase)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mycobacterium Infections - Tuberculosis have been published. According to news reporting out of Palo Alto, California, by NewsRx editors, research stated, "The recent development and spread of extensively drug-resistant and totally drug-resistant resistant (TDR) strains of Mycobacterium tuberculosis highlight the need for new antitubercular drugs. Protein synthesis inhibitors have played an important role in the treatment of tuberculosis (TB) starting with the inclusion of streptomycin in the first combination therapies."

Our news journalists obtained a quote from the research from Anacor Pharmaceuticals, "Although parenteral aminoglycosides are a key component of therapy for multidrug-resistant TB, the oxazolidinone linezolid is the only orally available protein synthesis inhibitor that is effective against TB. Here, we show that small-molecule inhibitors of aminoacyl-tRNA synthetases (AARSs), which are known to be excellent antibacterial protein synthesis targets, are orally bioavailable and effective against M. tuberculosis in TB mouse infection models. We applied the oxaborole tRNA-trapping (OBORT) mechanism, which was first developed to target fungal cytoplasmic leucyl-tRNA synthetase (LeuRS), to M. tuberculosis LeuRS. X-ray crystallography was used to guide the design of LeuRS inhibitors that have good biochemical potency and excellent whole-cell activity against M. tuberculosis."

According to the news editors, the research concluded: "Importantly, their good oral bioavailability translates into in vivo efficacy in both the acute and chronic mouse models of TB with potency comparable to that of the frontline drug isoniazid."

For more information on this research see: Discovery of Novel Oral Protein Synthesis Inhibitors of Mycobacterium tuberculosis That Target Leucyl-tRNA Synthetase.
New Findings on Tuberculosis Described by Investigators at Ondokuz Mayis University [Multicenter evaluation of crystal violet decolorization assay (CVDA) for rapid detection of isoniazid and rifampicin resistance in Mycobacterium tuberculosis]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Mycobacterium Infections - Tuberculosis have been presented. According to news reporting originating in Samsun, Turkey, by NewsRx journalists, research stated, "The aim of this multicenter study was to evaluate the performance of the crystal violet decolorization assay (CVDA) for detection of multidrug resistant tuberculosis (MDR-TB). This study was performed in 11 centers in two phases."

The news reporters obtained a quote from the research from Ondokuz Mayis University, "A total of 156 isolates were tested for INH and RIF resistance. In the phase I, 106 clinical isolates were tested in the Center 1-7. In the phase 2, 156 clinical isolates were tested in the center 1-6, center 8-11. Eighty six of 156 tested isolates were the same in phase I. Agreements were 96.2-96.8% for INH and 98.1-98.7% for RIF in the phase I-II, respectively. Mean time to obtain the results in the phase I was 14.3 +/- 5.4 days. In the phase II, mean time to obtain the results was 11.6 +/- 3.5 days. Test results were obtained within 14days for 62.3% (66/106) of isolates in the phase I and 81.4% (127/156) of isolates in the phase II."

According to the news reporters, the research concluded: "CVDA is rapid, reliable, inexpensive, and easy to perform for rapid detection of MDR-TB isolates. In addition, it could be adapted for drug susceptibility testing with all drugs both in developed and developing countries."

For more information on this research see: Multicenter evaluation of crystal violet decolorization assay (CVDA) for rapid detection of isoniazid and rifampicin resistance in Mycobacterium tuberculosis.


Keywords for this news article include: Samsun, Turkey, Eurasia, Gram-Positive Asporogenous Rods, Nicotinic Acid Derivatives, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Antituberculosis Agents, Gram-Positive Bacteria, Drugs and Therapies, Gram-Positive Rods, Isoniazid Therapy, Mycobacteriaceae, Pharmaceuticals, Antiinfectives, Actinobacteria, Antibiotics, Ondokuz Mayis University.

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**Mycobacterium Infections - Tuberculosis**

**New Findings on Tuberculosis Described by Investigators at School of Public Health (Pyrazinamide Resistance Assays and Two-Month Sputum Culture Status in Patients with Multidrug-Resistant Tuberculosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mycobacterium Infections - Tuberculosis have been published. According to research originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Phenotypic drug susceptibility testing is the current 'gold standard' for detecting Mycobacterium tuberculosis susceptibility to antituberculous drugs. Pyrazinamide is one antituberculous drug for which the correlation between in vitro resistance and clinical outcomes remains unclear."

Financial support for this research came from HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID).

Our news journalists obtained a quote from the research from the School of Public Health, "Here we performed latent class analysis (LCA) to develop a consensus gold standard definition of pyrazinamide resistance using three paired standard pyrazinamide resistance assays. We then compared this consensus measure to the 2-month culture results for patients with multidrug-resistant tuberculosis (MDR-TB) who were treated for 2 months with first-line antituberculous drugs before their resistance results were known. Among 121 patients with MDR-TB, 60 (49.6%) were resistant to pyrazinamide by the Wayne method (L. G. Wayne, Am Rev Respir Dis 109: 147-151, 1974), 71 (58.7%) were resistant by the Bactec MGIT 960 method, and 68 (56.2%) were resistant by pncA sequencing. LCA grouped isolates with positive results by at least two assays into a category which we considered the 'consensus gold standard' for pyrazinamide resistance. The sensitivity and specificity for this consensus gold standard were 82.4% and 92.5%, respectively, for the Wayne method; 95.6% and 88.7%, respectively, for the Bactec MGIT 960 method; and 92.6% and 90.6%, respectively, for pncA sequencing. After we adjusted for other factors associated with poor outcomes, including age, sex, alcohol use,
and baseline ethambutol resistance, patients whose isolates were resistant by the LCA-derived consensus gold standard were more likely to be culture positive at 2 months with an odds ratio of 1.95 (95% confidence interval, 0.74 to 5.11), but this result was not statistically significant.

According to the news editors, the research concluded: "These findings underscore the need for improved diagnostics for routine use in programmatic settings."

For more information on this research see: Pyrazinamide Resistance Assays and Two-Month Sputum Culture Status in Patients with Multidrug-Resistant Tuberculosis. Antimicrobial Agents and Chemotherapy, 2016;60(11):6766-6773. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from M.B. Murray, Harvard TH Chan Sch Public Hlth, Dept. of Epidemiol, Boston, MA, United States. Additional authors for this research include R.I. Calderon, C.D. Mitnick, M.C. Becerra, C.C. Huang, Z.B. Zhang, C.C. Contreras, R.M. Yataco, J.T. Galea, L.W. Lecca and M.B. Murray.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00632-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Gram-Positive Bacterial Infections, Multidrug Resistant Tuberculosis, Multidrug-Resistant Tuberculosis, Actinomycetales Infections, Mycobacterium Tuberculosis, Mycobacterium Infections, Pyrazinamide Therapy, Multidrug Resistance, Drugs and Therapies, Drug Resistance, Pharmaceuticals, MDR-TB, School of Public Health.

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Nutritional and Metabolic Diseases and Conditions ...

New Findings on Type 1 Diabetes Mellitus from Department of Clinical Chemistry Summarized (Taurine Transporter Gene Expression in Mononuclear Blood Cells of Type 1 Diabetes Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus are discussed in a new report. According to news reporting originating in Pistoia, Italy, by NewsRx journalists, research stated, "Taurine transporter gene expression (RNA-TauT) has a role in retinal cell function and is modulated in vitro and in vivo by hyperglycemia and/or oxidative stress. This study was aimed at testing whether RNA-TauT gene expression is modified in blood mononuclear peripheral cells (MPCs) of type 1 diabetic patients, is related to plasma markers of oxidative stress or endothelial dysfunction, or, finally, is related to presence of retinopathy."

Financial supporters for this research include Fondazione Cassa di Risparmio di Pistoia e Pescia, Accademia Medica Pistoiese.

The news reporters obtained a quote from the research from the Department of Clinical Chemistry, "RNA-TauT was measured in MPCs by real-time PCR-analysis in 35 type 1 diabetic patients and in 33 age-and sex-matched controls, additionally measuring plasma and
cell taurine and markers of oxidative stress and endothelial dysfunction. RNA-TauT, expressed as 2(-DDCt), was significantly higher in MPCs of type 1 diabetic patients than in controls [median (interquartile range): 1.32(0.31) versus 1.00(0.15); p=0.01]. In diabetic patients RNA-TauT was related to HbA1c (r=0.42; p=0.01) and inversely to plasma homocysteine (r=-0.39; p=0.02) being additionally significantly higher in MPCs of patients without retinopathy [(n=22); 1.36(0.34)] compared to those with retinopathy [(n=13); 1.16(0.20)], independently from HbA1c or diabetes duration. RNA-TauT gene expression is significantly upregulated in MPCs of type 1 diabetes patients and is related to HbA1c levels and inversely to plasma homocysteine."

According to the news reporters, the research concluded: "Finally, in diabetes patients, RNA-TauT upregulation seems to be blunted in patients with retinopathy independently of their metabolic control or longer diabetes duration."

For more information on this research see: Taurine Transporter Gene Expression in Mononuclear Blood Cells of Type 1 Diabetes Patients. Journal of Diabetes Research, 2016;2016():7313162.

Our news correspondents report that additional information may be obtained by contacting Z. Napoli, Dept. of Clinical Chemistry, S Jacopo Hospital, 51100 Pistoia, Italy. Additional authors for this research include G. Seghieri, L. Bianchi, R. Anichini, A. De Bellis, I. Campesi, C. Carru, S. Occhioni, A. Zinellu and F. Franconi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/7313162. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, Plasma, Pistoia, Taurine, Genetics, Hematology, Blood Cells, Retinopathy, Hydrocarbons, Sulfur Acids, Endocrinology, Ophthalmology, Sulfur Compounds, Organic Chemicals, Risk and Prevention, Alkanesulfonic Acids, Type 1 Diabetes Mellitus, Insulin Dependent Diabetes Mellitus.

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Nutritional and Metabolic Diseases and Conditions - …

New Findings on Type 1 Diabetes Mellitus from Department of Internal Medicine Summarized (Adherence to insulin therapeutic regimens in patients with type 1 diabetes. A nationwide survey in Brazil)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus have been published. According to news reporting originating in Sao Paulo, Brazil, by NewsRx journalists, research stated, "Determine the relationship between self-reported adherence to insulin therapeutic regimens in Brazilian patients with type 1 diabetes and demographic, clinical data, glycemic control and cardiovascular risk factors. This was a cross-sectional, multicenter study conducted between August 2011 and August 2014 in 10 Brazilian cities."

The news reporters obtained a quote from the research from the Department of Internal Medicine, "Data were obtained from 1698 patients, aged 30.0 +/- 11.90 years (55.5% females, 53.6% Caucasians) with a diabetes duration of 15.4 +/- 1.9 years. Adherence was evaluated using an adapted 4-item Morisky Medication Scale (MMAS) questionnaire. A total of
166 (9.8%), 717 (42.2%) and 815 (48.0%) of the patients reported maximal (group 0), moderate (group 1) and minimal (group 2) adherence to their insulin therapeutic regimen, respectively. A significant difference in HbA1c was observed in patients from group 2, 9.2 +/- 2.2% (77 +/- 25 mmol/mol) compared to group 1, 8.9 +/- 2.0% (74 +/- 22 mmol/mol) and group 0, 8.6 +/- 1.9% (71 +/- 21 mmol/mol) (p = 0.003). A multivariate logistic analysis revealed that the significant independent variables related to higher insulin therapeutic regimen adherence were older age, higher adherence to diet, lower rate of self-reported hypoglycemia in the last month, low economic status and living in the Southeast region. Insulin therapeutic regimens, number of daily insulin injections, self-monitoring of blood glucose, gender, ethnicity and cardiovascular risk factors were not related to adherence. Most Brazilian T1D patients did not adhere to their prescribed insulin therapeutic regimen, according to the MMAS 4-item scale.

According to the news reporters, the research concluded: "This tool should be initially used to identify non-adherent patients and help them overcome the barriers to adherence to their prescriptions."


Our news correspondents report that additional information may be obtained by contacting C.A. Negrato, Baurus Diabet Assoc, Dept. of Internal Med, Sao Paulo, Brazil.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.diabres.2016.07.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, Type 1 Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions, Insulin Dependent Diabetes Mellitus, Cardiology, Epidemiology, Risk and Prevention, Peptide Proteins, Peptide Hormones, Type 1 Diabetes, Cardiovascular, Proinsulin, Department of Internal Medicine.

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Nutritional and Metabolic Diseases and Conditions -…

New Findings on Type 2 Diabetes Described by Investigators at University of Copenhagen (Ionizing Radiation Potentiates High-Fat Diet-Induced Insulin Resistance and Reprograms Skeletal Muscle and Adipose Progenitor Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been presented. According to news originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "Exposure to ionizing radiation increases the risk of chronic metabolic disorders such as insulin resistance and type 2 diabetes later in life. We hypothesized that irradiation reprograms the epigenome of metabolic progenitor cells, which could account for impaired metabolism after cancer treatment."

Our news journalists obtained a quote from the research from the University of
Copenhagen, "C57BI/6 mice were treated with a single dose of irradiation and subjected to high-fat diet (HFD). RNA sequencing and reduced representation bisulfite sequencing were used to create transcriptomic and epigenomic profiles of preadipocytes and skeletal muscle satellite cells collected from irradiated mice. Mice subjected to total body irradiation showed alterations in glucose metabolism and, when challenged with HFD, marked hyperinsulinemia. Insulin signaling was chronically disrupted in skeletal muscle and adipose progenitor cells collected from irradiated mice and differentiated in culture. Epigenomic profiling of skeletal muscle and adipose progenitor cells from irradiated animals revealed substantial DNA methylation changes, notably for genes regulating the cell cycle, glucose/lipid metabolism, and expression of epigenetic modifiers."

According to the news editors, the research concluded: "Our results show that total body irradiation alters intracellular signaling and epigenetic pathways regulating cell proliferation and differentiation of skeletal muscle and adipose progenitor cells and provide a possible mechanism by which irradiation used in cancer treatment increases the risk for metabolic disease later in life."


The news correspondents report that additional information may be obtained from R. Barres, University of Copenhagen, Novo Nordisk Fdn Center Basic Metab Res, Fac Hlth & Med Sci, Copenhagen, Denmark. Additional authors for this research include L.R. Ingerslev, E. Andersen, O. Fabre, C. Garde, M. Rasmussen, K. Citirikkaya, J. Baek, G.L. Christensen, M. Aznar, L. Specht, D. Simar and R. Barres.

Keywords for this news article include: Copenhagen, Denmark, Europe, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Glucose Metabolism Disorders, Obesity and Diabetes, Risk and Prevention, Insulin Resistance, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Type 2 Diabetes, Proinsulin, Genetics, University of Copenhagen.

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New Findings on Type 2 Diabetes from Huazhong University of Science and Technology Summarized (Entada phaseoloides extract suppresses hepatic gluconeogenesis via activation of the AMPK signaling pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting from Hubei, People's Republic of China, by NewsRx journalists, research stated, "Ethnopharmacological relevance: The seed of Entada phaseoloides (L.) Merr. (Entada phaseoloides) has been long used as a folk medicine for the treatment of Diabetes mellitus by Chinese ethnic minorities. Recent reports have demonstrated that total saponins from Entada phaseoloides (TSEP) could reduce fasting blood glucose in type 2 diabetic rats."
The news correspondents obtained a quote from the research from the Huazhong University of Science and Technology, "However, the mechanism has not been fully elucidated. The aim of this study was to explore the underlying mechanisms of TSEP on type 2 Diabetes mellitus (T2DM). Primary mouse hepatocytes and HepG2 cells were used to investigate the effects of TSEP on gluconeogenesis. After treatment with TSEP, glucose production, genes expression levels of Glucose-6-phosphatase (G6pase) and Phosphoenolpyruvate carboxykinase (Pepck) were detected. The efficacy and underlying mechanism of TSEP on AMP-activated protein kinase (AMPK) signaling pathway were determined. TSEP significantly inhibited glucose production and the gluconeogenic gene expression. Treatment with TSEP elevated the phosphorylation of AMPK, which in turn promoted the phosphorylation of acetyl coenzyme A (ACC) and Akt/glycogen synthase kinase 3 beta (GSK3 beta), respectively. Furthermore, TSEP reduced lipid accumulation and improved insulin sensitivity in hepatocytes."

According to the news reporters, the research concluded: "These findings provide evidence that TSEP exerts an antidiabetic effect by suppressing hepatic gluconeogenesis via the AMPK signaling pathway."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.10.039. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hubei, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Enzymes and Coenzymes, Risk and Prevention, Type 2 Diabetes, Kinase, Huazhong University of Science and Technology.

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in a vaginal swab from a 25-year-old pregnant woman suffering from vaginitis."

Our news editors obtained a quote from the research from Jiangsu University, "Viral metagenomics method was used to detect the viral sequences in 88 vaginal swab samples collected from 88 pregnant women with vaginitis. A novel papillomavirus, named HPV-ZJ01 (GenBank no. KX082661), was detected in one sample and its complete genome sequence was amplified by PCR and sequenced by Sanger walking. Phylogenetic analyses based on the complete genome and the L1 protein of HPV-ZJ01 and other representative human papillomaviruses were done, respectively. Further PCR screening was performed in vaginal swabs (n = 135), cervical smears (n = 40) and cervical cancer tissues (n = 40) using nested-PCR primers designed based on HPV-ZJ01 sequence to investigate the prevalence of HPV-ZJ01. The genome of HPV-ZJ01 is 7,358 bp in length with a GC content of 37.8 %. HPV-ZJ01 was predicted to contain six open reading frames (E6, E7, E1, E2, L2, and L1) and a non-coding long control region (LCR). The genome shared the highest overall similarity to HPV-166, with 70.6 % nucleotide sequence identity while its L1 gene shared the highest nucleotide similarity to HPV-162, with 71.1 % sequence identity. Phylogenetic analysis suggested that HPV-ZJ01 belongs to a novel HPV type in the Gamma-PV genus, species Gamma-19, already containing HPV-161, HPV-162 and HPV-166. PCR screening results indicated that none of the other samples were positive for HPV-ZJ01 except the original HPV-ZJ01 positive vaginal swab specimen. The genome sequence of a novel type of species Gamma-19 HPV was characterized. The screening PCR results suggested that HPV-ZJ01 is not associated with any of the cervical cancer samples tested."

According to the news editors, the research concluded: "In order to confirm the prevalence and disease association, if any, for HPV-ZJ01, a further study with different sample types and a larger sample size is needed."


The news editors report that additional information may be obtained by contacting W. Zhang, Jiangsu Univ, Sch Med, Dept. of Microbiol, Zhenjiang 212013, Jiangsu, People's Republic of China. Additional authors for this research include S.X. Yang, Y. Wang, Q. Shen, Y. Yang, X.T. Deng, W. Zhang and E. Delwart.

Keywords for this news article include: Zhenjiang, People's Republic of China, Asia, Viral, Diagnostics and Screening, Vaginal Diseases and Conditions, Human Papillomavirus, Gammapapillomavirus, Vertebrate Viruses, DNA Tumor Viruses, Papillomaviridae, Women's Health, DNA Viruses, Gynecology, Vaginitis, Virology, Genetics, Jiangsu University.

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Varicocele. According to news reporting originating from Esfahan, Iran, by NewsRx correspondents, research stated, "We aimed to compare the expression of phospholipase C zeta (PLC zeta), as one of the main sperm factors involved in oocyte activation, at both RNA and protein levels in fertile men and those with varicocele. This study included 35 individuals with male factor infertility presenting primary infertility with grade II and III unilateral varicocele and 20 fertile men without varicocele."

Our news editors obtained a quote from the research, "Semen parameters were assessed according to WHO 2010. Sperm DNA fragmentation, relative expression of PLC zeta at messenger RNA, and protein levels were evaluated by sperm chromatin structure assay (SCSA), real-time PCR, and Western blot analysis, respectively. The results of this study reveal that the mean relative expression of PLC zeta was significantly lower in individuals with varicocele compared to fertile men at both transcription and translation levels. In addition, the percentage of DNA fragmentation was significantly higher in infertile men with varicocele compared to fertile men. The findings of the present study illustrate that one of the etiologies of reduced fertility associated with varicocele is the low expression of PLC zeta. This effect could subsequently reduce the sperm ability to induce oocyte activation."

According to the news editors, the research concluded: "Therefore, these results hold promise to modify our understanding of reproductive physiology of varicocele state."


The news editors report that additional information may be obtained by contacting M.H. Esfahani, Isfahan Fertil & Infertil Center, Esfahan, Iran. Additional authors for this research include N. Ghazavi-Khorasgani, M. Tavalaee, D. Zohrabi, H. Abbasi and M.H. Esfahani.

Keywords for this news article include: Esfahan, Iran, Asia, Male Urogenital Diseases and Conditions, Cardiovascular Diseases and Conditions, Reproductive Diseases and Conditions, Male Genital Diseases and Conditions, Men's Health, Infertility, Varicocele, Genetics.

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Cardiovascular Diseases and Conditions - Venous...

New Findings on Venous Thromboembolism from Thomas Jefferson University Hospital Summarized (Aspirin Can Be Used as Prophylaxis for Prevention of Venous Thromboembolism After Revision Hip and Knee Arthroplasty)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Venous Thromboembolism is the subject of a report. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "The optimal prophylaxis for prevention of venous thromboembolic events (VTEs) after revision total joint arthroplasty (TJA) remains unknown. The objective of this study was to evaluate whether aspirin, known to be effective for
prevention of VTEs after primary arthroplasty, is also effective after revision TJA."

Our news journalists obtained a quote from the research from Thomas Jefferson University Hospital, "We studied 2997 consecutive patients who underwent revision TJA between 2005 and 2013 and were treated with intermittent pneumatic compression devices and either aspirin (534 patients) or warfarin (2463 patients) for VTE prophylaxis. Pertinent data including the incidence of symptomatic VTEs, bleeding events, infection, and mortality were retrieved from our prospectively collected database. The incidence of symptomatic VTEs was significantly higher in the warfarin group at 1.75% (43 of 2463) compared with 0.56% (3 of 534) in the aspirin group (odds ratio: 3.2; 95% CI: 1.03-16.3; P = .03). There was a higher rate of bleeding events with administration of warfarin (1.5%) compared with aspirin (0.4%; P = .02; odds ratio: 4.1; 95% CI: 1.2-34.0). The rate of surgical site infection was similar between the aspirin group and the warfarin group (1.61% and 1.70%, respectively)."

According to the news editors, the research concluded: "Administration of aspirin as prophylaxis against VTEs after revision arthroplasty may be a viable option as it appears to be more effective than warfarin in prevention of symptomatic VTEs and is associated with a lower rate of complications."


Our news journalists report that additional information may be obtained by contacting J. Parvizi, Thomas Jefferson University Hospital, Rothman Inst, Philadelphia, PA 19107, United States. Additional authors for this research include S. Heller, E.B. Smith, M. Maltenfort, A.F. Chen and J. Parvizi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arth.2016.03.031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Venous Thromboembolism, Orthopedic Procedures, Risk and Prevention, Knee Arthroplasty, Organic Chemicals, Carboxylic Acids, Salicylic Acids, Benzoic Acids, Hydroxy Acids, Surgery, Aspirin, Thomas Jefferson University Hospital.

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China, by NewsRx journalists, research stated, "This study evaluated the synergistic effects of the selective serotonin reuptake inhibitor, fluoxetine, in combination with azoles against Candida albicans both in vitro and in vivo and explored the underlying mechanism. MICs, sessile MICs, and time-kill curves were determined for resistant C. albicans."

Funders for this research include Shandong Provincial Natural Science Foundation, Department of Science and Technology of Shandong Province.

The news reporters obtained a quote from the research from Shandong University, "Galleria mellonella was used as a nonvertebrate model for determining the efficacy of the drug combinations against C. albicans in vivo. For the mechanism study, gene expression levels of the SAP gene family were determined by reverse transcription (RT)-PCR, and extracellular phospholipase activities were detected in vitro by the egg yolk agar method. The combinations resulted in synergistic activity against C. albicans strains, but the same effect was not found for the non-albicans Candida strains. For the biofilms formed over 4, 8, and 12 h, synergism was seen for the combination of fluconazole and fluoxetine. In addition, the time-kill curves confirmed the synergism dynamically. The results of the G. mellonella studies agreed with the in vitro analysis. In the mechanism study, we observed that fluconazole plus fluoxetine caused downregulation of the gene expression levels of SAP1 to SAP4 and weakened the extracellular phospholipase activities of resistant C. albicans."

According to the news reporters, the research concluded: "The combinations of azoles and fluoxetine showed synergistic effects against resistant C. albicans may diminish the virulence properties of C. albicans."

For more information on this research see: The Synergistic Effect of Azoles and Fluoxetine against Resistant Candida albicans Strains Is Attributed to Attenuating Fungal Virulence. Antimicrobial Agents and Chemotherapy, 2016;60(10):6179-6188. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting S.J. Sun, Shandong University, Qianfoshan Hosp, Dept. of Pharm, Jinan, Shandong, People's Republic of China. Additional authors for this research include D.M. Guo, L.P. Zhang, D.M. Xu and S.J. Sun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.03046-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Selective Serotonin Reuptake Inhibitors, Fluoxetine Therapy Hydrochloride, Psychotherapeutic Agents, Enzymes and Coenzymes, Fluoxetine, Genetics, Drugs and Therapies, Antidepressants, Pharmaceuticals, Phospholipase, Propylamines, Shandong University.

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Science - Food Science

New Food Science Study Findings Have Been Reported by Investigators at Huazhong Agricultural University (Development and Application of a Multiplex Real-Time PCR Assay as an Indicator of Potential Allergenicity
in Citrus Fruits)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Science - Food Science have been presented. According to news reporting out of Wuhan, People's Republic of China, by NewsRx editors, research stated, "The effects of tissue type, harvest maturity, and genetic factors on the expression of genes that related to citrus fruit allergies remain poorly understood. In the present study, a multiplex real-time PCR assay was developed to monitor the expression of citrus allergen genes individually with the advantages of much fewer sample requirements and simultaneously multiple target genes detection."

Funders for this research include Ministry of Education of the People's Republic of China, Ministry of Science and Technology of the People's Republic of China, Ministry of Agriculture of the People's Republic of China, National Natural Science Foundation of China, Independent Scientific and Technological Innovation Foundation, Huazhong Agricultural University.

Our news journalists obtained a quote from the research from Huazhong Agricultural University, "Gene specific primer pairs and Taqman probes of three citrus allergen genes Cit s 1.01, Cit s 2.01, and Cit s 3.01 and the house-keeping gene beta-actin were designed based on gene sequence differences. The PCR results showed that differential expression patterns were found during the ripening process. The expression levels of Cit s 3.01 were much higher than those of Cit s 1.01 and Cit s 2.01 in both peel and pulp tissues among 10 citrus cultivars. Data suggested that Kao Phuang Pummelo could be safely consumed with a potential low risk in allergenicity."

According to the news editors, the research concluded: "Considering that assessing allergenicity is one of the tests in food safety, this assay might also facilitate the breeding and production of 'allergy-friendly' citrus fruits."


Our news journalists report that additional information may be obtained by contacting Z.C. Ma, Huazhong Agricultural University, Minist Educ, Key Lab Hort Plant Biol, Wuhan 430070, People's Republic of China. Additional authors for this research include L. Chen, D.B. Lin, Z.C. Ma and X.X. Deng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jafc.6b03410. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Food Science, Science, Genetics, Genetics, Huazhong Agricultural University.

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New Foot and Mouth Disease Virus Study Findings Reported from GlaxoSmithKline (Pharmacological Characterization of the avb6 Integrin Binding and Internalization Kinetics of the Foot-and-Mouth Disease Virus Derived Peptide A20FMDV2)

2017 JAN 14 (NewsRx) -- By a News Reporter--Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in RNA Viruses - Foot and Mouth Disease Virus. According to news reporting from Stevenage, United Kingdom, by NewsRx journalists, research stated, "A20FMDV2 is a peptide derived from the foot-and-mouth disease virus with a high affinity and selectivity for the alpha-v beta-6 (avb6) arginyl-glycinyl-aspartic acid (RGD)-binding integrin. It has been shown to be an informative tool ligand in pre-clinical imaging studies for selective labelling of the avb6 integrin in a number of disease models."

The news correspondents obtained a quote from the research from GlaxoSmithKline, "In a radioligand binding assay using a radiolabelled form of the peptide ([3H]A20FMDV2), its high affinity (K(D): 0.22 nmol/l) and selectivity (at least 85-fold) for avb6 over the other members of the RGD integrin family was confirmed. [3H]A20FMDV2 avb6 binding could be fully reversed only in the presence of EDTA, whereas a partial reversal was observed in the presence of excess concentrations of an RGD-mimetic small molecule (SC-68448) or unlabelled A20FMDV2. Using flow cytometry on bronchial epithelial cells, the ligand-induced internalization of avb6 by A20FMDV2 and latency-associated peptide-1 was shown to be fast (t (1/2): 1.5 and 3.1 min, respectively), concentration-dependent (EC50: values 1.1 and 3.6 nmol/l, respectively) and was followed by a moderately slow return of integrin to the surface. The results of the radioligand binding studies suggest that the binding of A20FMDV2 to the RGD-binding site on avb6 is required to maintain its engagement with the hypothesised A20FMDV2 synergy site on the integrin. In addition, there is evidence from flow cytometric studies that the RGD-ligand engagement of avb6 post-internalization plays a role in delaying recycling of the integrin to the cell surface."

According to the news reporters, the research concluded: "This mechanism may act as a homeostatic control of membrane avb6 following RGD ligand engagement."


Our news journalists report that additional information may be obtained by contacting R.J. Slack, Fibrosis and Lung Injury Discovery Performance Unit, Respiratory TAU, GlaxoSmithKline, Gunnels Wood Road, Stevenage, Hertfordshire, UK. Additional authors for this research include M. Hafeji, R. Rogers, S.B. Ludbrook, J.F. Marshall, D.J. Flint, S. Pyne and J.C Denyer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443180. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Therapy, Stevenage, Integrins, Aphthovirus, RNA Viruses, Pharmacology, United Kingdom, Picornaviridae, Membrane Proteins, Immunologic Receptors, Foot and Mouth Disease Virus, Foot and Mouth Diseases
New Fragile X Syndrome Findings from Stanford University Reported
(The Role of Executive Function in Independent Living Skills in Female Adolescents and Young Adults With Fragile X Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetic Diseases and Conditions - Fragile X Syndrome. According to news reporting originating from Stanford, California, by NewsRx correspondents, research stated, "Fragile X syndrome (FXS) is associated with executive function (EF) and independent living skills (ILS) deficits. We examined the role of childhood EF in ILS during adolescence/early adulthood in females with FXS and two comparison groups in the same age range (matched for IQ [IQ/Age group] and with another genetic condition, Turner syndrome [TS group])."

Our news editors obtained a quote from the research from Stanford University, "EF and ILS were significantly higher for the FXS group than the IQ/Age group but did not differ from the TS group. For the FXS group, age and EF were significant predictors of ILS during adolescence/early adulthood, but there were no statistically significant longitudinal associations between EF and ILS."

According to the news editors, the research concluded: "Our findings suggest that impairments in EF may have a significant effect on ILS in FXS."


The news editors report that additional information may be obtained by contacting A.L. Reiss, Stanford University, CIBSR, Stanford, CA 94305, United States. Additional authors for this research include E.M. Quintin, S.S. Hall and A.L. Reiss.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1352/1944-7558-121.5.448. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stanford, California, United States, North and Central America, Nervous System Diseases and Conditions, Genetic Diseases and Conditions, Neurobehavioral Manifestations, X-Linked Mental Retardation, Neurologic Manifestations, Sex Chromosome Disorders, Congenital Abnormalities, Fragile X Syndrome, Adolescence, Genetics, Stanford University.

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Friedreich's Ataxia
New Friedreich's Ataxia Study Findings Reported from M. Kearney and Co-Authors (Pharmacological treatments for Friedreich ataxia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Friedreich's ataxia have been published. According to news reporting originating from Wicklow, Ireland, by NewsRx correspondents, research stated, "Friedreich ataxia is a rare inherited autosomal recessive neurological disorder, characterised initially by unsteadiness in standing and walking, slowly progressing to wheelchair dependency usually in the late teens or early twenties. It is associated with slurred speech, scoliosis, and pes cavus."

Our news editors obtained a quote from the research, "Heart abnormalities cause premature death in 60% of people with the disorder. There is no easily defined clinical or biochemical marker and no known treatment. This is the second update of a review first published in 2009 and previously updated in 2012. To assess the effects of pharmacological treatments for Friedreich ataxia. Search methods On 29 February 2016 we searched The Cochrane Neuromuscular Specialised Register, CENTRAL, MEDLINE, EMBASE and CINAHL Plus. On 7 March 2016 we searched ORPHANET and TRIP. We also checked clinical trials registers for ongoing studies. Selection criteria We considered randomised controlled trials (RCTs) or quasi-RCTs of pharmacological treatments (including vitamins) in people with genetically-confirmed Friedreich ataxia. The primary outcome was change in a validated Friedreich ataxia neurological score after 12 months. Secondary outcomes were changes in cardiac status as measured by magnetic resonance imaging or echocardiography, quality of life, mild and serious adverse events, and survival. We excluded trials of duration shorter than 12 months. Data collection and analysis Three review authors selected trials and two review authors extracted data. We obtained missing data from the two RCTs that met our inclusion criteria. We collected adverse event data from included studies. We used standard methodological procedures expected by Cochrane. We identified more than 12 studies that used antioxidants in the treatment of Friedreich ataxia, but only two small RCTs, with a combined total of 72 participants, both fulfilled the selection criteria for this review and published results. One of these trials compared idebenone with placebo, the other compared high-dose versus low-dose coenzyme Q10 and vitamin E (the trialists considered the low-dose medication to be the placebo). We identified two other completed RCTs, which remain unpublished; the interventions in these trials were pioglitazone (40 participants) and idebenone (232 participants). Other RCTs were of insufficient duration for inclusion. In the included studies, the primary outcome specified for the review, change in a validated Friedreich ataxia rating score, was measured using the International Co-operative Ataxia Rating Scale (ICARS). The results did not reveal any significant difference between the antioxidant-treated and the placebo groups (mean difference 0.79 points, 95% confidence interval -1.97 to 3.55 points; low-quality evidence). The published included studies did not assess the first secondary outcome, change in cardiac status as measured by magnetic resonance imaging. Both studies reported changes in cardiac measurements assessed by echocardiogram. The ejection fraction was not measured in the larger of the included studies (44 participants). In the smaller study (28 participants), it was normal at baseline and did not change with treatment. End-diastolic interventricular septal thickness showed a small decrease in the smaller of the two included studies. In the larger included study, there was no decrease, showing significant heterogeneity in the study results; our overall assessment of the quality of evidence for this outcome was very low. Left ventricular mass (LVM) was only available for the smaller RCT, which showed a significant decrease. The
relevance of this change is unclear and the quality of evidence low. There were no deaths related to the treatment with antioxidants. We considered the published included studies at low risk of bias in six of seven domains assessed. One unpublished included RCT, a year-long study using idebenone (232 participants), published an interim report in May 2010 stating that the study reached neither its primary endpoint, which was change in the ICARS score, nor a key cardiological secondary endpoint, but data were not available for verification and analysis. Authors' conclusions Low-quality evidence from two small, published, randomised controlled trials neither support nor refute an effect from antioxidants (idebenone, or a combination of coenzyme Q10 and vitamin E) on the neurological status of people with Friedreich ataxia, measured with a validated neurological rating scale. A large unpublished study of idebenone that reportedly failed to meet neurological or key cardiological endpoints, and a trial of pioglitazone remain unpublished, but on publication will very likely influence quality assessments and conclusions. A single study of idebenone provided low-quality evidence for a decrease in LVM, which is of uncertain clinical significance but of potential importance that needs to be clarified. According to low-quality evidence, serious and non-serious adverse events were rare in both antioxidant and placebo groups."

According to the news editors, the research concluded: "No non-antioxidant agents have been investigated in RCTs of 12 months' duration."

For more information on this research see: Pharmacological treatments for Friedreich ataxia. Cochrane Database of Systematic Reviews, 2016;(8):2373-2413. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting M. Kearney, Irish Coll Gen Practitioners, Gen Practice, Dunlavin, Wicklow, Ireland. Additional authors for this research include R.W. Orrell, M. Fahey, R. Brassington and M. Pandolfo.

Keywords for this news article include: Wicklow, Ireland, Europe, Friedreich's Ataxia, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Mitochondrial Diseases and Conditions, Spinal Cord Diseases and Conditions, Cerebellar Diseases and Conditions, Metabolic Diseases and Conditions, Spinocerebellar Degenerations, Brain Diseases and Conditions, Clinical Trials and Studies, Vitamin E, Article Review, Neurologic Manifestations, Protective Agents, Clinical Research, Friedreich Ataxia, Antioxidants, Pharmacology, Dyskinesias, Cardiology, Neurology, Genetics, Therapy.

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Fusion Proteins

New Fusion Proteins Findings from Harvard School of Medicine Described (NUP98 Fusion Proteins Interact with the NSL and MLL1 Complexes to Drive Leukemogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Fusion Proteins. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "The nucleoporin 98 gene (NUP98) is fused to a variety of partner genes in multiple hematopoietic malignancies. Here, we demonstrate that NUP98 fusion proteins, including NUP98-HOXA9 (NHA9), NUP98-HOXD13 (NHD13), NUP98-NSD1, NUP98-PHF23, and NUP98-TOPI physically interact with mixed lineage leukemia 1 (MLL1) and the non-specific lethal (NSL)
histone-modifying complexes."

Financial supporters for this research include NIH, Gabrielle's Angel Research Foundation, DoD Bone Marrow Failure Postdoctoral Fellowship, Cure Childhood Cancer Foundation.

The news reporters obtained a quote from the research from the Harvard School of Medicine, "Chromatin immunoprecipitation sequencing illustrates that NHA9 and MLL1 co-localize on chromatin and are found associated with Hox gene promoter regions. Furthermore, MLL1 is required for the proliferation of NHA9 cells in vitro and in vivo. Inactivation of MLL1 leads to decreased expression of genes bound by NHA9 and MLL1 and reverses a gene expression signature found in NUP98-rearranged human leukemias."

According to the news reporters, the research concluded: "Our data reveal a molecular dependency on MLL1 function in NUP98-fusion-driven leukemogenesis."

For more information on this research see: NUP98 Fusion Proteins Interact with the NSL and MLL1 Complexes to Drive Leukemogenesis. Cancer Cell, 2016;30(6):863-878. Cancer Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cancer Cell - www.journals.elsevier.com/cancer-cell/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ccell.2016.10.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Fusion Proteins, Genetics, Harvard School of Medicine.

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**Oncology - Gallbladder Cancer**

**New Gallbladder Cancer Findings from Shanghai Jiao-Tong University Described (The lncRNA MALAT1 functions as a competing endogenous RNA to regulate MCL-1 expression by sponging miR-363-3p in gallbladder cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gallbladder Cancer. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Gallbladder carcinoma (GBC) is an aggressive neoplasm, and the treatment options for advanced GBC are limited. Recently, long non-coding RNAs (lncRNAs) have emerged as new gene regulators and prognostic markers in several cancers."

Financial support for this research came from National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from Shanghai Jiao-
Tong University, "In this study, we found that metastasis-associated lung adenocarcinoma transcript 1 (MALAT1) expression was up-regulated in GBC tissues (P < 0.05). Luciferase reporter assays and RNA pull down assays showed that MALAT1 is a target of miR-363-3p. Real-time quantitative PCR and Western blot analysis indicated that MALAT1 regulated Myeloid cell leukaemia-1 (MCL-1) expression as a competing endogenous RNA (ceRNA) for miR-363-3p in GBC cells. Furthermore, MALAT1 silencing decreased GBC cell proliferation and the S phase cell population and induced apoptosis in vitro. In vivo, tumour volumes were significantly decreased in the MALAT1 silencing group compared with those in the control group. These data demonstrated that the MALAT1/miR-363-3p/MCL-1 regulatory pathway controls the progression of GBC."

According to the news reporters, the research concluded: "Inhibition of MALAT1 expression may be a novel therapeutic strategy for gallbladder cancer."


Our news journalists report that additional information may be obtained by contacting J.D. Wang, Shanghai Jiao Tong University, Sch Med, Xinhua Hosp, Dept. of Gen Surg, Shanghai, People's Republic of China. Additional authors for this research include W.J. Zhang, X.C. Wu, M.Z. Weng, M.D. Zhang, Q. Cai, Di Zhou, J.D. Wang and Z.W. Quan. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jcmm.12920. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Gallbladder Cancer, Gastroenterology, Oncology, Genetics, Shanghai Jiao-Tong University.

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**Oncology - Gallbladder Cancer**

**New Gallbladder Cancer Study Findings Have Been Reported by Investigators at Department of Pharmacology (Prognostic Significance of HER-2 and p53 Expression in Gallbladder Carcinoma in North Indian Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gallbladder Cancer have been published. According to news reporting originating in New Delhi, India, by NewsRx journalists, research stated, "Proto-oncogenes (HER-2) and tumor suppressor genes (p53) are commonly deregulated in gallbladder cancer (GBC). Available literature discloses skewed data from endemic Asian countries, especially north India."

The news reporters obtained a quote from the research from the Department of Pharmacology, "This study evaluates the prognostic significance of HER-2 and p53 in GBC patients from two major hospitals. Sixty resectable tumor and control specimens were prospectively collected from December 2012 to January 2016. Immunohistochemical staining
was done using monoclonal antibodies to semiquantitatively evaluate HER 2 and p53 protein expression. The criterion for HER-2 positivity was set at >30% tumor cells showing complete, membranous staining while p53 positivity was established at <50% tumor cells showing complete nuclear staining. Clinicopathological correlations were drawn with major clinical outcomes. It was observed that 36.67% (22/60) tumor cases and 5% (3/60) control cases showed strong HER-2 overexpression significantly correlating with sex, T-stage, nodal spread and distant metastasis (p < 0.05), while 33.3% (20/60) positivity was observed for p53 in tumor cases and 1.7% (1/60) in control cases. Multivariate analysis showed HER-2 (p = 0.04; hazard ratio: 2.36; 95% confidence interval: 1.04-5.33) and p53 (p = 0.03; hazard ratio: 5.63; 95% confidence interval: 1.21-26.26) expression to be independent prognostic factors.

According to the research reporters, the research concluded: "Our study thus suggests the plausible role of HER-2 and p53 expression in worse prognosis of GBC in a north Indian population."

For more information on this research see: Prognostic Significance of HER-2 and p53 Expression in Gallbladder Carcinoma in North Indian Patients. Oncology, 2016;91(6):354-360. Oncology can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Oncology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=223857)

Our news correspondents report that additional information may be obtained by contacting A.K. Najmi, Jamia Hamdard, Dept. of Pharmacol, Fac Pharm, New Delhi 110062, India. Additional authors for this research include P.K. Mishra, S.S. Saluja, M.A. Talikoti, P. Kirtani and A.K. Najmi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000450999. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Delhi, India, Asia, Gallbladder, Epidemiology, Gallbladder Cancer, Gastroenterology, Carcinomas, Genetics, p53 Gene, Oncology, Department of Pharmacology.

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Oncology - Gastric Cancer

New Gastric Cancer Data Have Been Reported by Researchers at Ulsan University School of Medicine (Use of a clinical pathway in laparoscopic gastrectomy for gastric cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "To evaluate the implementation of a clinical pathway and identify clinical factors affecting the clinical pathway for laparoscopic gastrectomy. A standardized clinical pathway for gastric cancer (GC) patients was developed in 2001 by the GC surgery team at the Asan Medical Center."

The news reporters obtained a quote from the research from the Ulsan University School of Medicine, "We reviewed the collected data of 4800 consecutive patients treated using the clinical pathway following laparoscopic gastrectomy with lymph node dissection for GC
involving intracorporeal and extracorporeal anastomosis. The patients were treated between August 2004 and October 2013 in a single institution. To evaluate the rate of completion and risk factors affecting dropout from the clinical pathway, we used a multivariate logistic regression analysis. The overall completion rate of the clinical pathway for laparoscopic gastrectomy was 84.1% (n=4038). In the comparison between groups of intracorporeal anastomosis and extracorporeal anastomosis patients, the completion rates were 83.88% (n=1740) and 84.36% (n=2071), respectively, showing no statistically significant difference. The main reasons for dropping out were postoperative complications (n=463, 9.7%) and the need for patient observation (n=299, 6.2%). Among the discharged patients treated using the clinical pathway, the number of patients who were readmitted within 30 d due to postoperative complications was 54 (1.1%). In a multivariate analysis, the intraoperative events (OR=2.558) were the most predictable risk factors for dropping out of the clinical pathway. Additionally, being male (OR=1.459), advanced age (OR=1.727), total gastrectomy (OR=2.444), combined operation (OR=1.731), and ASA score (OR=1.889) were significant risk factors affecting the dropout rate from the clinical pathway. Laparoscopic gastrectomy appears to be a good indication for the application of a clinical pathway.

According to the news reporters, the research concluded: "For successful application, patients with risk factors should be managed carefully."


Our news correspondents report that additional information may be obtained by contacting H.S. Kim, Hee Sung Kim, Byung Sik Kim, Dept. of Gastric Surgery, Asan Medical Center, Ulsan University School of Medicine, Seoul 138-736, South Korea. Additional authors for this research include S.O. Kim and B.S Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v21.i48.13507. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Surgery, Oncology, South Korea, Gastrectomy, Gastric Cancer, Gastroenterology, Risk and Prevention, Digestive System Surgical Procedures.

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**Oncology - Gastric Cancer**

**New Gastric Cancer Findings Has Been Reported by Investigators at University Medical Center (Esophageal and Gastric Cancer Pearl: a nationwide clinical biobanking project in the Netherlands)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Gastric Cancer. According to news reporting out of Utrecht, Netherlands, by NewsRx editors, research stated, "Esophageal and gastric cancer is associated with a poor prognosis since many patients develop recurrent disease. Treatment requires specific expertise and a structured multidisciplinary approach."
Our news journalists obtained a quote from the research from University Medical Center, "In the Netherlands, this type of expertise is mainly found at the University Medical Centers (UMCs) and a few specialized nonacademic centers. Aim of this study is to implement a national infrastructure for research to gain more insight in the etiology and prognosis of esophageal and gastric cancer and to evaluate and improve the response on (neoadjuvant) treatment. Clinical data are collected in a prospective database, which is linked to the patients' biomaterial. The collection and storage of biomaterial is performed according to standard operating procedures in all participating UMCs as established within the Parelsoer Institute. The collected biomaterial consists of tumor biopsies, blood samples, samples of malignant and healthy tissue of the resected specimen and biopsies of recurrence. The collected material is stored in the local biobanks and is encoded to respect the privacy of the donors. After approval of the study was obtained from the Institutional Review Board, the first patient was included in October 2014. The target aim is to include 300 patients annually."

According to the news editors, the research concluded: "The eight UMCs of the Netherlands collaborated to establish a nationwide database of clinical information and biomaterial of patients with esophageal and gastric cancer. Due to the national coverage, a high number of patients are expected to be included. This will provide opportunity for future studies to gain more insight in the etiology, treatment and prognosis of esophageal and gastric cancer."


Keywords for this news article include: Utrecht, Netherlands, Europe, Gastroenterology, Gastric Cancer, Oncology, University Medical Center.

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Oncology - Gastric Cancer

New Gastric Cancer Findings Has Been Reported by Researchers at Kyoto Prefectural University (Histological evaluation for chemotherapeutic responses of metastatic lymph nodes in gastric cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Gastric Cancer are discussed in a new report. According to news originating from Kyoto, Japan, by NewsRx correspondents, research stated, "To investigate the effect of preoperative chemotherapy (pre-CTX) for metastatic lymph nodes (MLNs) of gastric cancer (GC). A retrospective cohort of patients with advanced GC, who underwent pre-CTX followed by gastrectomy, was reviewed."
Our news journalists obtained a quote from the research from Kyoto Prefectural University. "The histological tumor regression grade (TRG), which considered the percentage of residual cancer in the visible tumor bed, was applied to primary tumors and individual MLNs: G1a (complete response), G1b (<10%), G2 (10%-50%) and G3 (>50%). The clinical response to pre-CTx was retrospectively evaluated using only MLNs information, and we compared the histological and clinical evaluations of MLNs. Twenty-eight patients were enrolled. A total of 438 MLNs were retrieved, and 22 (5%), 48 (11%), 63 (14%) and 305 (70%) LNs were assigned as G1a, G1b, G2 and G3, respectively. Stratification of the residual MLNs based on the TRGs was as follows: 28 G1b MLNs (9%), 48 G2 MLNs (15%), and 253 G3 MLNs (76%) in the D1 region; 20 (23%), 15 (17%), and 52 (60%) in the D2 region, respectively. However, no significant correlation was found between TRGs in MLNs and clinical response in the subgroup for which evaluation of clinical response was available."

According to the news editors, the research concluded: "Pre-CTx does not provide any outstanding histological benefit for MLNs, and an appropriate D2 lymphadenectomy should routinely be performed to offer the chance of curative resection."


The news correspondents report that additional information may be obtained from O. Kinoshita, Osamu Kinoshita, Daisuke Ichikawa, Shuhei Komatsu, Kazuma Okamoto, Eigo Otsuji, Dept. of Surgery, Division of Digestive Surgery, Kyoto Prefectural University of Medicine, Kyoto 602-8566, Japan. Additional authors for this research include D. Ichikawa, Y. Ichijo, S. Komatsu, K. Okamoto, M. Kishimoto, A. Yanagisawa and E. Otsuji.

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Keywords for this news article include: Asia, Kyoto, Japan, Oncology, Immunology, Lymph Nodes, Gastric Cancer, Lymphoid Tissue, Gastroenterology, Hemic and Immune Systems.

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Oncology - Gastric Cancer

New Gastric Cancer Findings Has Been Reported by Researchers at Otto-von-Guericke-University (Expression of aurora kinase A correlates with the Wnt-modulator RACGAP1 in gastric cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gastric Cancer is the subject of a report. According to news originating from Magdeburg, Germany, by NewsRx correspondents, research stated, "Canonical Wnt signaling is involved in gastric carcinogenesis. The aim of this study was to identify the link between Wnt signaling and aurora kinase A (AURKA), a target for the treatment of gastrointestinal cancers."

Financial supporters for this research include Seventh Framework Programme, Bundesministerium fur Bildung und Forschung.
Our news journalists obtained a quote from the research from Otto-von-Guericke-
University. "Publicly available microarray data were used to identify phenotype-specific protein-
protein interaction (PPI) subnetworks. The in silico analysis revealed a gastric cancer-specific
PPI subnetwork consisting of 2745 proteins and 50,935 interactions. We focused on the link of
AURKA to a Wnt-specific interaction module consisting of 92 proteins. There was a direct
association of AURKA with Rac GTPase-activating protein 1 (RACGAP1), as well as with
CTNBB1 (b-catenin) and CDKN1A as second-order interactors. Differential expression analysis
revealed a significant downregulation of both AURKA and RACGAP1 in gastric cancer
compared to noncancer controls. Biopsies from a prospective cohort of 56 patients with gastric
cancer (32 intestinal type, 24 diffuse type) and 20 noncancer controls were used for validation of
the identified targets. The RT-PCR data confirmed a strong correlation of AURKA and
RACGAP1 gene expression both in the tumor, the tumor-adjacent and the tumor-distant
mucosa. RACGAP1 in the tumor was also associated with CTNBB1 expression, and inversely
associated with CDKN1A gene expression. Immunohistochemistry confirmed expression of the
RACGAP1 protein in gastric cancer and the tumor-adjacent mucosa. RACGAP1 expression was
not associated with tumor stage, grading, Lauren type, Helicobacter pylori infection, or age."

According to the news editors, the research concluded: "AURKA is directly
associated with the expression of RACGAP1, a modulator of the canonical Wnt signaling
pathway."

For more information on this research see: Expression of aurora kinase A correlates
(Wiley-Blackwell - www.wiley.com/; Cancer Medicine -
onlinelibrary.wiley.com/journal/10.1002/(ISSN)2045-7634)

The news correspondents report that additional information may be obtained from J.
Bornschein, Dept. of Gastroenterology, Hepatology and Infectious Diseases, Otto-von-Guericke
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include J. Nielitz, I. Drozdov, M. Selgrad, T. Wex, D. Jechorek, A. Link, M. Vieth and P.
Malfertheiner.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1002/cam4.610. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Europe, Kinase, Germany, Genetics,
Oncology, Magdeburg, Gastric Cancer, Gastroenterology, Enzymes and Coenzymes.

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Oncology - Gastric Cancer

New Gastric Cancer Findings Reported from Tongji Medical College
(Detection and Characterization of Metastatic Cancer Cells in the
Mesogastrium of Gastric Cancer Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators discuss new findings in Oncology - Gastric Cancer.
According to news reporting originating in Hubei, People's Republic of China, by NewsRx
journalists, research stated, "Gastric cancer is the second leading cause of cancer death
worldwide. Here, we propose a novel type of tumor metastasis designated as Metastasis V in
gastric cancer."

The news reporters obtained a quote from the research from Tongji Medical College, "Metastasis V is defined as the appearance of cancer cells in the mesogastrium with perigastric adipose tissue. To detect its incidence and characterize its clinic pathological features, large cross sectional tissue analysis of mesogastrium from 74 patients were used. Metastasis V was detected in 1 of 40 (2.5%) patients with early gastric cancer, 8 of 34 (24%) patients with advanced gastric cancer. The mean distance of Metastasis V from gastric wall was approximately 2.6 cm. Metastasis V was closely associated with tumor invasion depth, along with a number of positive lymph node metastasis. The prognosis of patients with Metastasis V was significantly (p <0.05) worse than those with tumor cell-free mesogastrium."

According to the news reporters, the research concluded: "These findings indicate that by using whole-sectional analysis, Metastasis V can be detected in the mesogastrium of gastric cancer patients, and also suggests that it may be a risk factor for patient survival after radical surgery."

For more information on this research see: Detection and Characterization of Metastatic Cancer Cells in the Mesogastrium of Gastric Cancer Patients. Plos One, 2015;10 (11):e0142970. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news correspondents report that additional information may be obtained by contacting D. Xie, Tongji Cancer Research Institute, Tongji Hospital, Tongji Medical College in Huazhong University of Science and Technology, Wuhan, Hubei, People's Republic of China. Additional authors for this research include L. Liu, H. Osaiweran, C. Yu, F. Sheng, C. Gao, J. Hu and J. Gong.

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Keywords for this news article include: Asia, Hubei, Oncology, Gastric Cancer, Gastroenterology, Metastatic Cancer, Risk and Prevention, People's Republic of China.

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Oncology - Gastric Cancer

New Gastric Cancer Findings from China Pharmaceutical University Discussed (E platinum, a newly synthesized platinum compound, induces apoptosis through ROS-triggered ER stress in gastric carcinoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gastric Cancer is the subject of a report. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Gastric cancer (GC) is still one of the leading causes of death in cancer-related diseases. In this study, we aimed to investigate the antitumor effect of E Platinum, a newly platinum-based chemotherapeutic agent bearing the basic structure of Oxaliplatin, in a variety of gastric carcinoma cells and the underlying mechanisms."

The news correspondents obtained a quote from the research from China Pharmaceutical University, "We demonstrated that E Platinum significantly induced apoptosis in gastric cancer cells via mitochondrial apoptotic pathway as a result of increased reactive
oxygen species (ROS). We also found that E Platinum enhanced Ca2+ flux out from the endoplasmic reticulum by increasing the protein expression of IP3R type 1 (IP3R1) and decreasing the expression of ERp44. Dysfunction of Ca2+ homeostasis in endoplasmic reticulum (ER) leads to accumulation of unfolded proteins and ER stress. Mechanically, E Platinum increased ER stress associated protein expression such as GRP78, p-PERK, p-eIF2, ATF4, and CHOP. However, knocking down CHOP reversed E Platinum-induced apoptosis by blocking mitochondrial apoptotic pathway. Furthermore, 10mg/kg of E Platinum significantly suppressed BGC-823 tumor growth in vivo without toxicity, which correlated with induction of apoptosis and expression of ER stress related proteins in tumor tissues. Taken together, E Platinum inhibited tumor growth and induced apoptosis by ROS-mediated ER stress activation both in vitro and in vivo."

According to the news reporters, the research concluded: "Our study indicated that E Platinum may be a potential and effective treatment for gastric cancer in clinical."


Our news journalists report that additional information may be obtained by contacting Z. Chen, China Pharmaceutical University, Expt & Teaching Center Med Basis Pharm, Nanjing 210009, Jiangsu, People's Republic of China. Additional authors for this research include Q.L. Guo, L. Tao, L. Zhao, Y. Chen, T. An, Z. Chen and R. Fu.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Protein Expression, Gastroenterology, Gastrointestinal, Gastric Cancer, Proteomics, Carcinomas, Apoptosis, Oncology, China Pharmaceutical University.

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Oncology - Gastric Cancer

New Gastric Cancer Findings from Department of Oncology Reported (Autophagy Protects from Raddeanin A-Induced Apoptosis in SGC-7901 Human Gastric Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Gastric Cancer are presented in a new report. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "Raddeanin A (RA) is an extractive from Anemone raddeana Regel, a traditional Chinese medicine. The aim of this study is to assess the efficacy of RA against human gastric cancer (GC) cells (SGC-7901) and explore its mechanism."

Our news journalists obtained a quote from the research from the Department of Oncology, "MTT assay showed that RA inhibition of proliferation of SGC-7901 cells increased in a dose-dependent manner. Flow cytometry analysis and Hoechst 33258 staining showed that RA induced apoptosis on SGC-7901 cells. Meanwhile, it induced autophagy. Western blotting analysis showed that the RA induces apoptosis and autophagy by activating p38 MAPK pathway and inhibiting mTOR pathway. Further studies showed that autophagy inhibition could protect
According to the news editors, the research concluded: "RA can induce SGC-7901 cell apoptosis and autophagy by activating p38 MAPK pathway. And autophagy can protect SGC-7901 cells from apoptosis induced by RA."

For more information on this research see: Autophagy Protects from Raddeanin A-Induced Apoptosis in SGC-7901 Human Gastric Cancer Cells. Evidence-Based Complementary and Alternative Medicine, 2016();1-8. Evidence-Based Complementary and Alternative Medicine can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Evidence-Based Complementary and Alternative Medicine - www.hindawi.com/journals/ecam/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/9406758. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Gastroenterology, Gastric Cancer, Apoptosis, Oncology, Department of Oncology.

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Oncology - Gastric Cancer

New Gastric Cancer Findings from Sun Yat Sen University Described (Low expression of MAP1LC3B, associated with low Beclin-1, predicts lymph node metastasis and poor prognosis of gastric cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Gastric Cancer are presented in a new report. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Since the roles of autophagy in gastric cancer remain unclear, we aim to investigate the expression of autophagy-related proteins MAP1LC3B and Beclin-1 in human gastric cancer and discuss their clinical significance and correlation with prognosis of patients with gastric cancer. A total of 160 consecutive patients with gastric cancer who had undergone gastrectomy were enrolled in this study."

Financial support for this research came from Doctoral Fund of Ministry of Education of China.

The news reporters obtained a quote from the research from Sun Yat Sen University, "The expressions of MAP1LC3B and Beclin-1 were assessed by immunohistochemistry. The protein expression rates were analyzed with chi(2) and Fisher's exact tests. Survival analysis (overall survival (OS) and relapse-free survival (RFS)) was determined using the Kaplan-Meier method and Cox's proportional hazard regression model. Both the expressions of MAP1LC3B and Beclin-1 were lower in gastric cancer tissues than adjacent normal tissues (57 vs. 82 %, p = 0.007; 72 vs. 88 %, p = 0.046, respectively). Relativity analysis indicated MAP1LC3B expression was positively correlated with Beclin-1 expression (r = 0.424, p< 0.001). Both the MAP1LC3B-high-expression patients and Beclin-1-high-expression patients have longer OS
time and RFS time than MAP1LC3B-low-expression patients and Beclin-1-low-expression patients (MAP1LC3B: both p < 0.001; Beclin-1: p = 0.014, p = 0.015, respectively). High simultaneous MAP1LC3B and Beclin-1 expressions were associated with longer OS and RFS compared with low simultaneous MAP1LC3B and Beclin-1 expressions (56.77 vs. 24.42 months, p < 0.001; 53.56 vs. 22.33 months, p < 0.001, respectively). Multivariate survival analysis showed both MAP1LC3B and Beclin-1 were independent prognostic factors for OS time (p = 0.016, p = 0.041, respectively). However, MAP1LC3B (p = 0.022) was an independent prognostic factor for RFS. Moreover, low expressions of MAP1LC3B and Beclin-1 were significantly associated with lymph node metastasis (p = 0.007, p = 0.030, respectively).

According to the news reporters, the research concluded: "The loss of MAP1LC3B, correlated with loss of Beclin-1, was observed in gastric cancer and correlated with poor prognosis and lymph node metastasis of gastric cancer patients."

For more information on this research see: Low expression of MAP1LC3B, associated with low Beclin-1, predicts lymph node metastasis and poor prognosis of gastric cancer. Tumor Biology, 2016;37(11):15007-15017. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news correspondents report that additional information may be obtained by contacting Z. Wang, Sun Yat Sen UniversityAffiliated Hosp 1, Dept. of Gastrointestinal Surg, Guangzhou 510080, Guangdong, People's Republic of China. Additional authors for this research include G.H. Li, Z. Wang, Z.X. Wang, C.Q. Chen, S.R. Cai and Y.L. He.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5383-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Hemic and Immune Systems, Gastroenterology, Lymphoid Tissue, Gastric Cancer, Lymph Nodes, Immunology, Oncology, Sun Yat Sen University.

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Oncology - Gastric Cancer

New Gastric Cancer Findings from University of Medicine Described (Patient preferences for palliative treatment of locally advanced or metastatic gastric cancer and adenocarcinoma of the gastroesophageal junction: a choice-based conjoint ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Gastric Cancer are discussed in a new report. According to news reporting originating in Mannheim, Germany, by NewsRx journalists, research stated, "Decisions on palliative chemotherapy (CT) for locally advanced or metastatic gastric cancer (mGC) require trade-offs between potential benefits and risks for patients. Healthcare providers and payers agree that patient-preferences should be considered."

The news reporters obtained a quote from the research from the University of Medicine, "We conducted a choice-based conjoint (CBC) analysis study in pre-treated patients from Germany with mGC or locally advanced or metastatic adenocarcinoma of the gastroesophageal junction (mGEJ-Ca), to evaluate their preferences when hypothetically..."
selecting a CT regimen. German oncologists and gastroenterologists were contacted to identify patients with mGC or mGEJ-Ca who had completed >= 2 cycles of palliative CT in first or later lines of therapy (CT ongoing or complete). The primary objective was to quantify patient preferences for palliative CT by CBC analysis. Six in-depth qualitative interviews identified 3 attributes: treatment tolerability, quality of life in terms of ability of self-care, and additional survival benefit. The CBC matrix was constructed with 4 factor levels per attribute and each participant was presented with 15 different iterations of these levels. A minimum of 50 participants was needed. Consenting patients completed the CBC survey, choosing systematically among profiles. CBC models were estimated by multinomial logistic regression (MLR) and hierarchical Bayesian (HB) analysis. Estimates of importance for each attribute and factor-level were calculated. Fifty-five patients participated in the CBC survey (78.2% male, median age 63 years, 81.8% currently receiving CT). Across this sample, low treatment toxicity was ranked highest (44.6% relative importance, MLR analysis), followed by ability to self-care (32.3%), and an additional survival benefit of up to 3 months (3 months 23.1%, 2 months 18.3%, 1 month 11.2%). The MLR analysis showed high validity (certainty 37.9%, chi square p < 0.01, root-likelihood 0.505). The HB analysis yielded similar results. Patients' preferences related to a new hypothetical palliative CT of mGC or mGEJ-Ca can be assessed by CBC analysis."

According to the news reporters, the research concluded: "Although in real-life, patients initially need to decide on CT before they have any experience, and patients' varied experiences with CT will have impacted specific responses, low toxicity and self-care ability were considered as most important by this group of patients with mGC or mGEJ-Ca."

For more information on this research see: Patient preferences for palliative treatment of locally advanced or metastatic gastric cancer and adenocarcinoma of the gastroesophageal junction: a choice-based conjoint analysis study from Germany. *BMC Cancer*, 2016;16():1-9. *BMC Cancer* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/, BMC Cancer - www.biomedcentral.com/bmcancer/)

Our news correspondents report that additional information may be obtained by contacting R. Hofheinz, Heidelberg Univ, Univ Med Mannheim, Tumorzentrum Mannheim, Tagestherapie Zentrum Interdisziplinaren, D-68167 Mannheim, Germany. Additional authors for this research include J. Clouth, J. Borchardt-Wagner, U. Wagner, E. Weidling, M.H. Jen and P. Bruck.

Keywords for this news article include: Mannheim, Germany, Europe, Gastroenterology, Adenocarcinoma, Gastric Cancer, Self Care, Oncology, Therapy, University of Medicine.

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**Oncology - Gastric Cancer**

**New Gastric Cancer Study Findings Have Been Reported by Investigators at University College (The first European family with gastric adenocarcinoma and proximal polyposis of the stomach: case report and review of the literature)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Researchers detail new data in Oncology - Gastric Cancer. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "Gastric adenocarcinoma and proximal polyposis of the stomach (GAPPS) has to date been recognized in only 8 families worldwide. Recently, different point mutations within the Ying Yang 1 (YY1) binding motif in promoter 1B of the APC gene were assigned as causal in 6 families with GAPPS."

The news reporters obtained a quote from the research from University College, "We diagnosed GAPPS across 3 generations in a Czech white family. The proband's mother died of gastric cancer at 49 years of age. The proband died of gastric cancer at 56 years of age. All 3 of the proband's daughters inherited polyposis, involving exclusively the gastric fundus and body, with relative sparing of the lesser curve. The daughters have all been regularly surveyed endoscopically. Polyposis progressed rapidly with intestinal differentiated low-grade and high-grade dysplasia present on polypectomy specimens 5 years after the original diagnosis. On this basis, all 3 of the proband's daughters were scheduled for prophylactic total gastrectomy. Unfortunately, the middle daughter presented with generalized gastric adenocarcinoma and died at the age of 26 years. The other 2 daughters (aged 30 and 23 years) underwent total gastrectomy within 6 weeks of their sister's death; histology of surgical specimens showed gastric adenocarcinoma stage IA (pT1a, N0, M0) in both cases. Bi-directional Sanger sequencing of promoter 1B revealed a point mutation (c.-191 T>C) in all 3 daughters of the proband."

According to the news reporters, the research concluded: "Atypical endoscopic progression of the fundic gland polyposis, with the presence of dysplasia on polypectomy specimens and genetic testing with recently discovered mutations in promoter 1B of the APC gene might help clinicians to decide whether prophylactic gastrectomy should be performed."


Our news correspondents report that additional information may be obtained by contacting D. Kohoutova, UCL, Div Surg & Intervent Sci, London, United Kingdom. Additional authors for this research include D. Kohoutova, M. Podhola, S. Rejchrt, M. Minarik, L. Benesova, M. Lesko and J. Bures.

Keywords for this news article include: London, United Kingdom, Europe, Digestive System Surgical Procedures, Gastroenterology, Adenocarcinoma, Gastric Cancer, Dermatology, Gastrectomy, Dysplasia, Genetics, Oncology, Surgery, University College.

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**New Gastric Cancer Study Findings Have Been Reported by Researchers at Chinese Academy of Medical Sciences (DNA Methylation mediated down-regulating of MicroRNA-33b and its role in gastric cancer)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gastric Cancer. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "The discovery of microRNAs (miRNAs) provides a new and powerful tool for studying the mechanism, diagnosis and treatment of human cancers. Currently, down-regulation of tumor suppressive miRNAs by CpG island hypermethylation is emerging as a common hallmark of cancer."

The news correspondents obtained a quote from the research from the Chinese Academy of Medical Sciences, "Here, we reported that the down-regulation of miR-33b was associated with pM stage of gastric cancer (GC) patients. Ectopic expression of miR-33b in HGC-27 and MGC-803 cells inhibited cell proliferation, migration and invasion, which might be due to miR-33b targeting oncogene c-Myc. Moreover, enhanced methylation level of the CpG island upstream of miR-33b in GC patients with down-regulated miR-33b was confirmed by methylation-specific PCR (MSP) amplification. Furthermore, re-introduction of miR-33b significantly suppressed tumorigenesis of GC cells in the nude mice."

According to the news reporters, the research concluded: "MiR-33b acts as a tumor suppressor and hypermethylation of the CpG island upstream of miR-33b is responsible for its down-regulation in gastric cancer."

For more information on this research see: DNA Methylation mediated down-regulating of MicroRNA-33b and its role in gastric cancer. Scientific Reports, 2016;6():18824. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting H. Yin, Dept. of Biochemistry, Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences (CAMS) & Peking Union Medical College (PUMC), Beijing 100005, People's Republic of China. Additional authors for this research include P. Song, R. Su, G. Yang, L. Dong, M. Luo, B. Wang, B. Gong, C. Liu, W. Song, F. Wang, Y. Ma, J. Zhang, W. Wang and J. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18824. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Genetics, Oncology, Gastric Cancer, Gastroenterology, People's Republic of China.

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Oncology - Gastric Cancer

New Gastric Cancer Study Findings Have Been Reported by Researchers at Hannover School of Medicine (Different gastric microbiota compositions in two human populations with high and low gastric cancer risk in Colombia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gastric Cancer have been presented. According to news reporting originating from Hannover, Germany, by NewsRx correspondents, research stated, "Inhabitants of T?querres in the Colombian Andes have a 25-fold higher risk of gastric cancer than inhabitants of the coastal town Tumaco, despite similar H. pylori"
prevalences. The gastric microbiota was recently shown in animal models to accelerate the development of *H. pylori*-induced precancerous lesions. 20 individuals from each town, matched for age and sex, were selected, and gastric microbiota analyses were performed by deep sequencing of amplified 16S rDNA."

Our news editors obtained a quote from the research from the Hannover School of Medicine, "In parallel, analyses of *H. pylori* status, carriage of the cag pathogenicity island and assignment of *H. pylori* to phylogeographic groups were performed to test for correlations between *H. pylori* strain properties and microbiota composition. The gastric microbiota composition was highly variable between individuals, but showed a significant correlation with the town of origin. Multiple OTUs were detected exclusively in either Tumaco or T?querres. Two operational taxonomic units (OTUs), Leptotrichia wadei and a Veillonella sp., were significantly more abundant in T?querres, and 16 OTUs, including a Staphylococcus sp. were significantly more abundant in Tumaco. There was no significant correlation of *H. pylori* phylogeographic population or carriage of the cagPAI with microbiota composition."

According to the news editors, the research concluded: "From these data, testable hypotheses can be generated and examined in suitable animal models and prospective clinical trials."

For more information on this research see: Different gastric microbiota compositions in two human populations with high and low gastric cancer risk in Colombia. *Scientific Reports*, 2016;6():18594. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting I. Yang, Institute of Medical Microbiology and Hospital Epidemiology, Hannover Medical School, Carl-Neuberg-Str 1, 30625 Hannover, Germany. Additional authors for this research include S. Woltemate, M.B. Piazuelo, L.E. Bravo, M.C. Yepez, J. Romero-Gallo, A.G. Delgado, K.T. Wilson, R.M. Peek, P. Correa, C. Josenhans, J.G. Fox and S. Suerbaum.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18594. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Hannover, Oncology, Cancer Risk, Gastric Cancer, Gastroenterology, Risk and Prevention.

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**Oncology - Gastric Cancer**

**New Gastric Cancer Study Findings Have Been Reported by Researchers at Peking University Third Hospital (Helicobacter Pylori and Gastric Cancer: Clinical Aspects)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gastric Cancer. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Although *Helicobacter pylori* (*H. pylori*) is considered as the main etiological factor for gastric cancer, the strategy of screening and treating the oncogenic bacterium is still controversial. The objective was to evaluate the status and progress of the cognition about the relationship between *H. pylori* infection and gastric cancer from a clinical aspect."
Our news journalists obtained a quote from the research from Peking University Third Hospital. "The data used in this review were mainly from the PubMed articles published in English from 1984 to 2015. Clinical research articles were selected mainly according to their level of relevance to this topic. Gastric cancer is the fifth most common malignancy and the third leading cause of cancer deaths worldwide. The main etiological factor for gastric cancer is H. pylori infection. About 74.7-89.0% gastric cancer was related to H. pylori infection. Up to date, some regional gastric cancer prevention programs including the detection and treatment of H. pylori infection are under way. Current data obtained from the randomized controlled trials suggest that population-based H. pylori screening and treatment is feasible and cost-effective in preventing gastric cancer; however, a population-based H. pylori eradication campaign would potentially lead to bacterial resistance to the corresponding antibiotics, as well as a negative impact on the normal flora."

According to the news editors, the research concluded: "The important questions of feasibility, program costs, appropriate target groups for intervention, and the potential harm of mass therapy with antibiotics must first be answered before implementing any large-scale program."


The news correspondents report that additional information may be obtained from L.Y. Zhou, Dept. of Gastroenterology, Peking University Third Hospital, Beijing 100191, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.169107. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the Chinese Medical Journal is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Beijing, Oncology, Epidemiology, Article Review, Gastric Cancer, Gastroenterology, Helicobacter pylori, Risk and Prevention, Epsilonproteobacteria, Gram Negative Bacteria, Diagnostics and Screening, People's Republic of China, Parasitic Diseases and Conditions.

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Oncology - Gastric Cancer

New Gastric Cancer Study Findings Have Been Reported by Researchers at Yonsei University College of Medicine (Laparoscopic gastric cancer surgery: Current evidence and future perspectives)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Gastric Cancer are discussed in a new report. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Laparoscopic gastrectomy has been widely accepted as a standard alternative for the treatment of early-stage gastric adenocarcinoma because of its favorable short-term
outcomes. Although controversies exist, such as establishing clear indications, proper preoperative staging, and oncologic safety, experienced surgeons and institutions have applied this approach, along with various types of function-preserving surgery, for the treatment of advanced gastric cancer.

Our news journalists obtained a quote from the research from the Yonsei University College of Medicine, "With technical advancement and the advent of state-of-the-art instruments, indications for laparoscopic gastrectomy are expected to expand as far as locally advanced gastric cancer. Laparoscopic gastrectomy appears to be promising; however, scientific evidence necessary to generalize this approach to a standard treatment for all relevant patients and care providers remains to be gathered. Several multicenter, prospective randomized trials in high-incidence countries are ongoing, and results from these trials will highlight the short- and long-term outcomes of the approach."

According to the news editors, the research concluded: "In this review, we describe up-to-date findings and critical issues regarding laparoscopic gastrectomy for gastric cancer."


The news correspondents report that additional information may be obtained from T. Son, Taeil Son, Woo Jin Hyung, Dept. of Surgery, Yonsei University College of Medicine, Seoul 120-752, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i2.727. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Surgery, Oncology, South Korea, Gastrectomy, Article Review, Gastric Cancer, Gastroenterology, Digestive System Surgical Procedures.

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Oncology - Gastric Cancer

New Gastric Cancer Study Findings Have Been Reported from Maastricht University (Use of Proton Pump Inhibitors and Risks of Fundic Gland Polyps and Gastric Cancer: Systematic Review and Meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gastric Cancer is the subject of a report. According to news reporting out of Maastricht, Netherlands, by NewsRx editors, research stated, "There have been increasing numbers of case reports and observational studies of adverse events in patients receiving long-term therapy with proton pump inhibitors (PPIs). The effects of PPI therapy on risks of fundic gland polyps (FGPs) and gastric cancer have received considerable attention."

Our news journalists obtained a quote from the research from Maastricht University, "We performed a systematic review with a meta-analysis of randomized controlled trials and observational studies that assessed these risks. We searched the PUBMED, EMBASE, and
Cochrane Central Register of Controlled Trials databases for relevant studies published through July 2015. We calculated pooled odds ratio for FGPs and the risk ratio for gastric cancer in PPI users compared with PPI nonusers using fixed and random-effects models. We analyzed data from 12 studies, comprising more than 87,324 patients: 1 randomized controlled trial reporting the effect of PPIs on gastric polyps (location not specified), 6 cohort and 1 case-control studies on FGPs, and 1 cohort and 3 case-control studies on gastric cancer. Pooled odds ratios for FGPs were 1.43 (95% confidence interval, 1.24-1.64) and 2.45 (95% confidence interval, 1.24-4.83) from fixed- and random-effects models, respectively. The pooled risk ratio for gastric cancer was 1.43 (95% confidence interval, 1.23-1.66) from each model. We observed significant heterogeneity among studies reporting on FGPs, but not among studies reporting on gastric cancer. Based on a systematic review with meta-analysis, long-term use of PPIs (1.2 months) is associated with an increased risk of FGPs."

According to the news editors, the research concluded: "PPI therapy might also increase the risk of gastric cancer, but this association could be biased, because of the limited number of studies and possible confounding factors."


Our news journalists report that additional information may be obtained by contacting T.D. An, Maastricht University, Medical Center, Dept. of Clin Epidemiol & Med Technol Assessment, NL-6202 AZ Maastricht, Netherlands. Additional authors for this research include B. Spaetgens, A.W. Hoes, N.J. de Wit and C.D.A. Stehouwer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cgh.2016.05.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maastricht, Netherlands, Europe, Proton Pumps, Article Review, Clinical Trials and Studies, Risk and Prevention, Clinical Research, Gastroenterology, Gastric Cancer, Oncology, Therapy, Maastricht University.

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Oncology - Gastric Cancer

New Gastric Cancer Study Findings Recently Were Reported by Researchers at University of Pennsylvania (Neoadjuvant therapy for gastric cancer: current evidence and future directions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Gastric Cancer is now available. According to news reporting originating in Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Although surgical resection remains the only potentially curative treatment for gastric cancer (GC), poor long-term outcomes with resection alone compel a multimodality approach to this disease. Multimodality strategies vary widely; while adjuvant approaches are typically favored in Asia and the United States (USA), a growing body of evidence supports neoadjuvant
and/or perioperative strategies in locally advanced tumors."

The news reporters obtained a quote from the research from the University of Pennsylvania, "Neoadjuvant approaches are particularly attractive given the morbidity associated with surgical management of GC and the substantial risk of omission of adjuvant therapy. The specific advantages of chemoradiotherapy (CRT) compared to chemotherapy have not been well defined, particularly in the preoperative setting and trials aimed at determining the optimal elements and sequencing of therapy are underway."

According to the news reporters, the research concluded: "Future studies will also define the role of targeted and biologic therapies."


Our news correspondents report that additional information may be obtained by contacting A.D. Newton, 1 Dept. of Surgery, 2 Division of Hematology, Oncology, Dept. of Medicine, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, United States. Additional authors for this research include J. Datta, A. Loaiza-Bonilla, G.C. Karakousis and R.E Roses.

Keywords for this news article include: Oncology, Philadelphia, Pennsylvania, United States, Article Review, Gastric Cancer, Gastroenterology, Drugs and Therapies, Neoadjuvant Therapy, North and Central America, Combined Modality Therapy.

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Oncology - Gastric Cancer

New Gastric Cancer Study Findings Reported from Ningbo University (Novel long non-coding RNA GACAT3 promotes gastric cancer cell proliferation through the IL-6/STAT3 signaling pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gastric Cancer is the subject of a report. According to news reporting from Zhejiang, People's Republic of China, by NewsRx journalists, research stated, "Long non-coding RNAs (lncRNAs) play an important role in cancer occurrence and development. We previously demonstrated that lncRNA gastric cancer-associated transcript 3 (GACAT3) was positively correlated with TNM stages, tumor size, and distant metastasis of patients with gastric cancer."

Financial supporters for this research include National Natural Science Foundation of China, Natural Science Foundation of Ningbo, Scientific Innovation Team Project of Ningbo.

The news correspondents obtained a quote from the research from Ningbo University, "However, the role of GACAT3 in gastric cancer remains unclear. In this study, to investigate its function, we synthesized small interference RNAs (siRNAs) against GACTA3 and developed a GACAT3 overexpression vector (pcDNA3-GACAT3), respectively. The siRNA-mediated knockdown of GACAT3 significantly decreased cell proliferation of the gastric cancer HGC-27 cells, in which GACAT3 is overexpressed. Furthermore, GACAT3 overexpression in gastric cancer SGC-7901 cells promoted cell growth. Moreover, GACAT3 expression in HGC-27 cells was greatly upregulated by IL-6 treatment in a concentration-dependent manner. In contrast, siRNA-mediated knockdown of STAT3 decreased GACAT3 expression even in the presence of IL-6."
According to the news reporters, the research concluded: "These results demonstrated that as a downstream target of the IL6/STAT3 signaling, IncRNA GACAT3 promotes gastric cancer cell growth suggesting that GACAT3 is an inflammatory response gene and may be served as a valuable potential target for the treatment of gastric cancer."

For more information on this research see: Novel long non-coding RNA GACAT3 promotes gastric cancer cell proliferation through the IL-6/STAT3 signaling pathway. Tumor Biology, 2016;37(11):14895-14902. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5372-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zhejiang, People's Republic of China, Asia, Cell Proliferation, Gastroenterology, Gastric Cancer, Oncology, Ningbo University.

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Digestive System Diseases and Conditions -...

New Gastroenteritis Study Findings Have Been Reported by Investigators at University of Calgary (Ondansetron Oral Dissolve Tab Vs. Oral Solution In Children Presenting To The Emergency Department With Gastroenteritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Gastroenteritis. According to news originating from Calgary, Canada, by NewsRx correspondents, research stated, "Ondansetron is often used in the emergency department (ED) to promote oral rehydration in children with acute gastroenteritis (AGE), yet medication solutions administered orally may be poorly tolerated in this population. We compared the tolerability of ondansetron oral dissolve tab (ODT) to oral solution (OS) in children presenting to the ED with AGE."

Our news journalists obtained a quote from the research from the University of Calgary, "Using alternate-day controlled clinical trial design, children aged 3 months to 10 years received either ondansetron ODT or OS. Our primary outcome was early vomiting (within 15 min of drug administration). The secondary outcome was intravenous (i.v.) fluid administration. There were 462/534 eligible children who met study criteria. Demographics, severity, and duration of illness were similar between groups. Using intention-to-treat analysis, early vomiting occurred in 8/209 ODT vs. 19/253 OS children (3.8% vs. 7.5%; odds ratio [OR] 0.49; 95% confidence interval [CI] 0.18-1.21). Using as-treated analysis, 6/222 (2.7%) children receiving ODT experienced early vomiting, compared with 21/221 (9.5%) of the OS group (OR 0.26; 95% CI 0.09-0.70). The proportion of children discharged without i.v. fluids was not different
(intention-to-treat: ODT = 91.4% (191/209), OS = 94.1% (238/253), OR 1.49, 95% CI 0.69-3.28; as-treated: ODT = 92.3% (205/222), OS = 93.2% (206/221), OR 0.88, 95% CI 0.40-1.93).

Using a conservative intention-to-treat analysis, we found that children presenting to an ED with AGE did not have statistically less early vomiting with ondansetron ODT as compared with OS. However, our as-treated analysis demonstrates that children receiving ondansetron ODT experienced early vomiting approximately one-third as often as those receiving OS.

According to the news editors, the research concluded: "The rate of i. v. fluid administration was no different between groups regardless of the type of analysis used."


The news correspondents report that additional information may be obtained from G.C. Thompson, University of Calgary, Alberta Childrens Hosp, Dept. of Pediat, Calgary, AB, Canada. Additional authors for this research include E.L. Morrison, D. Chaulk, H. Wobma, S. Kwong and D.W. Johnson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jemermed.2016.06.051. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Calgary, Alberta, Canada, North and Central America, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Drugs and Therapies, Epidemiology, Central Nervous System Agents, Antiemetic-Antivertigo Agents, 5ht3 Receptor Antagonists, Ondansetron Therapy, Gastroenterology, Pharmaceuticals, Gastroenteritis, University of Calgary.

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**Gastroenterology**

**New Gastroenterology Findings from National University Described [Laparoendoscopic Transgastric Enucleation of an awkardly sited Peri-Cardial Gastrointestinal Stromal Tumour (GIST): A Multi- Modal Approach]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gastroenterology. According to news reporting originating from Kuala Lumpur, Malaysia, by NewsRx correspondents, research stated, "In the modern era of surgery, minimally invasive surgery is increasingly applied for excision of gastrointestinal stromal tumors. Site, size and tumor location are important factors that affect the surgical approach and excision."

Our news editors obtained a quote from the research from National University, "We performed a laparoendoscopic transgastric enucleation of a 4-cm pericardial endophytic gastrointestinal stromal tumor (GIST) using an energy device. The surgery was successful and post-operative recovery uneventful. No tumor recurrence was detected on surveillance gastroscopy. In the safe hands of a well-trained laparoscopic upper gastrointestinal surgeon,
pericardial GIST can be enucleated safely by this method."

According to the news editors, the research concluded: "The avoidance of surgical staplers is not only cost-effective, but also reduces the risk of associated complications."


The news editors report that additional information may be obtained by contacting N.R. Kosai, Departments of 1Surgery, Minimally Invasive, Upper Gastrointestinal and Bariatric Surgery Unit, Universiti Kebangsaan Malaysia Medical Centre, 56000 Cheras, Kuala Lumpur, Malaysia. Additional authors for this research include R. Rajan, E.J. Roslan, P.A. Sutton, M. Mustafa and S. Das.

Keywords for this news article include: Asia, Surgery, Malaysia, Cardiology, Pericardial, Kuala Lumpur, Gastroenterology.

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Gastroenterology

New Gastroenterology Study Findings Have Been Reported from Weill Cornell Medical College (Leaky gut - concept or clinical entity?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gastroenterology is now available. According to news reporting originating from Houston, Texas, by NewsRx editors, the research stated, "This article evaluates the current status of the gut barrier in gastrointestinal disorders. The gut barrier is a complex, multicomponent, interactive, and bidirectional entity that includes, but is not restricted to, the epithelial cell layer."

Our news editors obtained a quote from the research from Weill Cornell Medical College, "Intestinal permeability, the phenomenon most readily and commonly studied, reflects just one (albeit an important one) function of the barrier that is intimately related to and interacts with luminal contents, including the microbiota. The mucosal immune response also influences barrier integrity; effects of inflammation per se must be accounted for in the interpretation of permeability studies in disease states. Although several aspects of barrier function can be assessed in man, one must be aware of exactly what a given test measures, as well as of its limitations. The temptation to employ results from a test of paracellular flux to imply a role for barrier dysfunction in disorders thought to be based on bacterial or macromolecular translocation must be resisted. Although changes in barrier function have been described in several gastrointestinal disorders, their primacy remains to be defined."

According to the news editors, the research concluded: "At present, few studies support efficacy for an intervention that improves barrier function in altering the natural history of a disease process."

For more information on this research see: Leaky gut - concept or clinical entity? Current Opinion In Gastroenterology, 2016;32(2):74-9. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Gastroenterology - journals.lww.com/co-gastroenterology/pages/default.aspx)

The news editors report that additional information may be obtained by contacting E.M. Quigley, Division of Gastroenterology and Hepatology, Lynda K and David M Underwood
New Gastroparesis Data Have Been Reported by Investigators at University of Louisville (Treating an oft-unrecognized and troublesome entity: using gastric electrical stimulation to reduce symptoms of malignancy-associated gastroparesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Digestive System Diseases and Conditions - Gastroparesis have been presented. According to news originating from Louisville, Kentucky, by NewsRx correspondents, research stated, "Malignancy-associated gastroparesis (MAG) is a cause of morbidity in cancer patients but therapies are lacking. Gastric electrical stimulation (GES) is a novel treatment for MAG."

Our news journalists obtained a quote from the research from the University of Louisville, "Here, we describe 19 patients with MAG who underwent temporary GES placement. Nineteen patients (6 males, 13 females) with various malignancies were reviewed for symptom scores and physiologic measures at baseline and after temporary GES placement. Symptoms were scored by three variables: nausea (N), vomiting (V), and GI total symptom score (TSS). Physiologic profiles were measured by solid and liquid phase gastric emptying scans (GET) at 1, 2, and 4 h and cutaneous electrogastrogram (EGG) and mucosal electrogram (EG) frequencies. Symptoms were measured for 5 days after temporary endoscopic GES placement, and measures were repeated post GES placement. Baseline GET results displayed delayed gastric emptying in 16 of 19 patients (mean solid retention 21.7 % at 4 h, normal < 10 %; mean liquid retention 10.4 % at 4 h, normal < 5 %). Cutaneous EGG (mean frequency 5.5 cpm) and EG (mean proximal frequency 5.1 cpm; mean distal frequency 5.1 cpm) showed evidence of neuromuscular dysfunction (normal 2.5-3.3 cpm). Symptom scores in N, V, and TSS showed statistically significant reduction after GES placement. A small sample of patients with MAG and receiving temporary GES experienced symptom improvement, with less change on gastric emptying time or gastric electrical amplitude or frequency. GES may provide a potential therapeutic option for symptomatic management of MAG and evaluation of these MAG patients after permanent GES placement is ongoing."

According to the news editors, the research concluded: "Prospective studies of MAG using temporary and permanent GES may be warranted."

For more information on this research see: Treating an oft-unrecognized and troublesome entity: using gastric electrical stimulation to reduce symptoms of malignancy-associated gastroparesis. Supportive Care in Cancer, 2017;25(1):27-31. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer -
New Gene Therapy Data Have Been Reported by Researchers at Tianjin University (Multitargeting Gene Delivery Systems for Enhancing the Transfection of Endothelial Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biotechnology - Gene Therapy is the subject of a report. According to news reporting out of Tianjin, People's Republic of China, by NewsRx editors, research stated, "Gene therapy demonstrates promising prospects on cardiovascular diseases. However, nonviral gene delivery system has relatively low transfection efficiency, especially for endothelial cells (ECs)."

Funders for this research include National Natural Science Foundation of China, State Key Project of Research and Development, International Science & Technology Cooperation Program of China, Wenzhou government's startup fund, Wenzhou Science and Technology Bureau.

Our news journalists obtained a quote from the research from Tianjin University, "Herein, typical cell-penetrating peptide (TAT), nuclear localization signals (NLSs), and REDV functional peptide have been used to prepare multitargeting complexes. These complexes exhibit higher transfection efficiency owing to the targeting sequences of REDV and NLSs as well as the cell-penetrating function of TAT. The multifunction of the complexes provides high cell uptake, endo/lysosomal escape, and nucleus accumulation of the encapsulated DNA."

According to the news editors, the research concluded: "Thus these multitargeting complexes can provide a potential platform for gene delivery, especially for EC transfection."


Our news journalists report that additional information may be obtained by contacting Y.K. Feng, Tianjin University, Helmholtz Zentrum, Geesthacht Joint Lab Biomat &
New General Surgery Findings Has Been Reported by Investigators at Metaxa Cancer Hospital (Re-admissions for delayed complications after cytoreductive surgery and HIPEC)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Surgery - General Surgery. According to news reporting from Piraeus, Greece, by NewsRx journalists, research stated, "Peritoneal metastasis (PM) is currently treated with the complex procedure of cytoreductive surgery and hyperthermic intra-peritoneal chemotherapy (CRS_HIPEC). This procedure presents high morbidity and mortality rates, but they have only been examined in the immediate post-operative period."

The news correspondents obtained a quote from the research from Metaxa Cancer Hospital, "The aim of our study is to present, describe and analyze the post-operative events, secondary to a cytoreductive surgery and HIPEC procedure that occurs after the patients' discharge from the hospital. We examine retrospectively 219 patients who were discharged from our hospital from the initial 230 patients with PM, who were operated on from August 2005 to August 2015 and underwent CRS and HIPEC. Complications are investigated from the patient's discharge date until the 90th post-operative day, and are categorized with the Clavien-Dindo classification. We identified 17 patients (7.8%) who developed late complications. No major differences in patient characteristics were identified between this group of 17 patients and the rest, apart from a slightly higher PCI (23.5 vs. 22.3). Mean length of stay at the re-admission was 11.7 days. 5 of the patients (29.4%) had to be re-operated on, whereas we found a mortality of 11.8% (2/17 patients). The most common complications involved abdominal abscesses (17.6%), ureteral strictures (17.6%) and enterocutaneous fistulae (17.6%). Our study highlights the late complications following CRS plus HIPEC procedures, that occur after the patient's discharge from the hospital, an issue that has not been investigated thoroughly yet and may have serious impact on the post-operative quality of life."

According to the news reporters, the research concluded: "The role of adjuvant chemotherapy following CRS and HIPEC procedures in the onset of such complications appears to be important and needs further investigation."

For more information on this research see: Re-admissions for delayed complications after cytoreductive surgery and HIPEC. Acta Chirurgica Belgica, 2016;116(2):96-100. Acta Chirurgica Belgica can be contacted at: Acta Medical Belgica, Avenue Circulaire 138 A, B-1180 Brussels, Belgium.
Additional authors for this research include E.O. Argiriou, E. Vafias, V. Manou, N. Vaos, A. Datsis and E. Efstathiou.

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Keywords for this news article include: Piraeus, Greece, Europe, General Surgery, Hospital, Surgery, Metaxa Cancer Hospital.

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New Genetics Findings from Xavier University of Louisiana Reported (Mutant TP53 disrupts age-related accumulation patterns of somatic mutations in multiple cancer types)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Genetics. According to news reporting out of New Orleans, Louisiana, by NewsRx editors, research stated, "Most cancers are driven by somatic mutations in proto-oncogenes and tumor suppressor genes. Genetic changes in a tumor may accumulate in the tissue self-renewal phase prior to neoplasm."

Financial supporters for this research include NIH NIMHD-RCMI, DOD ARO, Louisiana Cancer Research Consortium (LCRC), NIH.

Our news journalists obtained a quote from the research from the Xavier University of Louisiana, "The risk of sporadic mutations increases with age. In this regard, a positive association between patient age and the accumulated mutation burden in tumors exists for many cancer types. However, the reported lines of evidence for such a connection are still limited. TP53 is the most frequently mutated cancer gene. The encoded p53 protein plays crucial roles in DNA repair. Hereby, we speculate that mutant TP53 can disrupt the age-related accumulation patterns of somatic mutations in tumors. We performed linear model analysis on the clinically-annotated genomic data published by TOGA. We found that there was a significant interaction between TP53 genotype (mutant versus wild-type) and patient age at the initial clinical date on somatic mutation burden for five cancers. That is, the regression coefficients of mutation burden on patient age were significant (p < 0.05) for TP53 wild-type tumors but not the mutant counterparts. This disparity was further verified by comparing the group-specific regression coefficients."

According to the news editors, the research concluded: "This finding confirmed our hypothesis and provided unique insights into p53-related tumorigenesis such as the potential temporal order of driver mutations."


Our news journalists report that additional information may be obtained by contacting K. Zhang, Xavier Univ Louisiana, Dept. of Comp Sci, New Orleans, LA 70125, United States. Additional authors for this research include E.K. Flemington and K. Zhang.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.cancergen.2016.07.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Orleans, Louisiana, United States, North and Central America, Cancer, Genetics, Oncology, p53 Gene, Xavier University of Louisiana.

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**Genetics**

**New Genetics Study Findings Have Been Reported by Investigators at Mount Sinai School of Medicine (Emerging roles of p53 and other tumour-suppressor genes in immune regulation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Genetics have been presented. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Tumour-suppressor genes are indispensable for the maintenance of genomic integrity. Recently, several of these genes, including those encoding p53, PTEN, RB1 and ARF, have been implicated in immune responses and inflammatory diseases."

Our news journalists obtained a quote from the research from the Mount Sinai School of Medicine, "In particular, the p53 tumour-suppressor pathway is involved in crucial aspects of tumour immunology and in homeostatic regulation of immune responses. Other studies have identified roles for p53 in various cellular processes, including metabolism and stem cell maintenance. Here, we discuss the emerging roles of p53 and other tumour-suppressor genes in tumour immunology, as well as in additional immunological settings, such as virus infection. This relatively unexplored area could yield important insights into the homeostatic control of immune cells in health and disease and facilitate the development of more effective immunotherapies."

According to the news editors, the research concluded: "Consequently, tumour-suppressor genes are emerging as potential guardians of immune integrity."


The news correspondents report that additional information may be obtained from S.A. Aaronson, Mt Sinai Sch Med, Dept. of Oncol Sci, New York, NY 10029, United States. Additional authors for this research include A. Mandinova, S.A. Aaronson and S.W. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nri.2016.99. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Oncology, Article Review, Immunology, Genetics, Tumor Suppression, p53 Gene, Mount Sinai School of Medicine.

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**New Genetics Study Findings Recently Were Reported by Researchers at Rutgers State University (MicroRNA Control of p53)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics. According to news reporting originating from New Brunswick, New Jersey, by NewsRx correspondents, research stated, "Tumor suppressor p53 plays a central role in tumor suppression. As a transcription factor, p53 mainly exerts its tumor suppressive function through transcriptional regulation of many target genes."

Our news editors obtained a quote from the research from Rutgers State University, "To maintain the proper function of p53, p53 protein level and activity are exquisitely controlled by a group of positive and negative regulators in cells. Thus, p53, its regulators, and regulated genes form a complicated p53 signaling network. microRNAs (miRNAs) are a group of endogenous small non-coding RNA molecules. miRNAs play an important role in regulation of gene expression by blocking translational protein synthesis and/or degrading target mRNAs. Recent studies have demonstrated that p53 and its network are regulated by miRNAs at multiple levels. Some miRNAs regulate the level and function of p53 through directly targeting p53, whereas some other miRNAs target regulators of p53, such as MDM2 and MDM4, to indirectly regulate the activity and function of p53. On the other hand, p53 also regulates the transcriptional expression and the biogenesis of a group of miRNAs, which contributes to the tumor suppressive function of p53. p53 is the most frequently mutated gene in human cancer. Many tumor-associated mutant p53, which have gain-of-function activities in tumorigenesis independently of wild type p53, can regulate the expression of different miRNAs and modulate the biogenesis of specific miRNAs to promote tumorigenesis."

According to the news editors, the research concluded: "These findings have demonstrated that miRNAs are important regulators and mediators of p53 and its signaling pathway, which highlights a pivotal role of miRNAs in the p53 network and cancer. J. Cell. Biochem. 118: 7-14, 2017."


The news editors report that additional information may be obtained by contacting J. Liu, Rutgers State University, Rutgers Canc Inst New Jersey, Dept. of Radiat Oncol, New Brunswick, NJ 08903, United States. Additional authors for this research include C. Zhang, Y.H. Zhao and Z.H. Feng.

Keywords for this news article include: New Brunswick, New Jersey, United States, North and Central America, Genetics, p53 Gene, Rutgers State University.

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New Genetics Study Findings Recently Were Reported by Researchers at Yonsei University College of Medicine (Cellular localization of NRF2 determines the self-renewal and osteogenic differentiation potential of human MSCs via the P53-SIRT1 axis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "NRF2 (nuclear factor erythroid-derived 2-like 2) plays an important role in defense against oxidative stress at the cellular level. Recently, the roles of NRF2 in embryonic and adult stem cells have been reported, but its role in maintaining self-renewal and differentiation potential remains unknown."

Our news editors obtained a quote from the research from the Yonsei University College of Medicine, "We studied the mechanisms of NRF2 action in mesenchymal stem cells (MSCs) derived from human bone marrow. We found that the cellular localization of NRF2 changed during prolonged cell passage and osteogenic differentiation. Blocking the nuclear import of NRF2 using ochratoxin A (OTA) induced the loss of the self-renewal and osteogenic potential of early-passage (EP) MSCs. Conversely, reinforcing the nuclear import of NRF2 using tert-butylhydroquinone (t-BHQ) improved the self-renewal capacity and maintained the differentiation potential in the osteogenic lineage of EP MSCs. Real-time quantitative PCR and western blot analysis showed that NRF2 positively regulates sirtuin 1 (SIRT1) at the mRNA and protein levels via the negative regulation of p53. The self-renewal and osteogenic potential suppressed in OTA-treated or NRF2-targeting small hairpin RNA (shRNA)-infected EP MSCs were rescued by introducing small interfering RNA (siRNA) targeting p53. t-BHQ treatment in late-passage (LP) MSCs, which lost their self-renewal and osteogenic potential, reversed these effects. In LP MSCs treated with t-BHQ for &sim;7 days, the phosphorylation and nuclear localization of NRF2 improved and SIRT1 protein level increased, whereas p53 protein levels decreased. Therefore, our results suggest that NRF2 plays an important role in regulating p53 and SIRT1 to maintain MSC stemness."

According to the news editors, the research concluded: "This study is the first to establish a functional link between NRF2 and SIRT1 expression in the maintenance of MSC self-renewal and differentiation potential."

For more information on this research see: Cellular localization of NRF2 determines the self-renewal and osteogenic differentiation potential of human MSCs via the P53-SIRT1 axis. Cell Death & Disease, 2016;7():e2093. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

The news editors report that additional information may be obtained by contacting D.S. Yoon, Dept. of Orthopaedic Surgery, Yonsei University College of Medicine, Seoul, South Korea. Additional authors for this research include Y. Choi and J.W Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2016.3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Genetics, p53 Gene, South Korea, Stem Cell Research.

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New Genitourinary Tract Agents Study Results Reported from Konkuk University (Oxytocin Protects Hippocampal Memory and Plasticity from Uncontrollable Stress)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Genitourinary Tract Agents is the subject of a report. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "The hippocampus is vulnerable to uncontrollable stress and is enriched with oxytocin receptors, but their interactive influences on hippocampal functioning are unknown. This study aimed to determine the effects of intranasal oxytocin administration on stress-induced alterations in synaptic plasticity and spatial memory in male rats."

The news correspondents obtained a quote from the research from Konkuk University, "While vehicle-administered stressed rats showed impairment in long-term potentiation, enhancement in long-term depression, and weakened spatial memory, these changes were not observed in oxytocin-administered stressed rats. To reveal the potential signaling mechanism mediating these effects, levels of phosphorylated extracellular signal-regulated kinases (pERK) in the hippocampus was examined. Western blotting showed that oxytocin treatment blocked stress-induced alterations of pERK. Additionally, the oxytocin receptor antagonist L-368,899 inhibited the oxytocin's protective effects on hippocampal memory to stress. Thus, intranasal administration of oxytocin reduced stress effects on hippocampal synaptic plasticity and memory in rats via acting on oxytocin receptors and regulating ERK activity."

According to the news reporters, the research concluded: "This study suggests that exogenous oxytocin may be a therapeutically effective means to counter the detrimental neurocognitive effects of stress."

For more information on this research see: Oxytocin Protects Hippocampal Memory and Plasticity from Uncontrollable Stress. Scientific Reports, 2015;5():18540. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting S.Y. Lee, Dept. of Biological Sciences, Konkuk University, 120 Neungdong-ro, Gwangjin-gu, Seoul 05029, South Korea. Additional authors for this research include S.H. Park, C. Chung, J.J. Kim, S.Y. Choi and J.S Han.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18540. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Pharmaceuticals, Seoul, South Korea, Oxytocin Therapy, Peptide Hormones, Peptide Proteins, Uterotonic Agents, Drugs and Therapies, Genitourinary Tract Agents, Posterior Pituitary Hormones.

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New Genomics Findings Has Been Reported by Investigators at Johns Hopkins University Bloomberg School of Public Health (Whole-genome analysis of the methylome and hydroxymethylome in normal and malignant lung and liver)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biotechnology - Genomics have been published. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "DNA methylation at the 5-position of cytosine (5mC) is an epigenetic modification that regulates gene expression and cellular plasticity in development and disease. The ten-eleven translocation (TET) gene family oxidizes 5mC to 5-hydroxy-methylcytosine (5hmC), providing an active mechanism for DNA demethylation, and it may also provide its own regulatory function."

Financial support for this research came from National Institutes of Health (NIH). The news reporters obtained a quote from the research from the Johns Hopkins University Bloomberg School of Public Health, "Here we applied oxidative bisulfite sequencing to generate whole-genome DNA methylation and hydroxymethylation maps at single-base resolution in human normal liver and lung as well as paired tumor tissues. We found that 5hmC is significantly enriched in CpG island (CGI) shores while depleted in CGIs themselves, especially in active genes, which exhibit a bimodal distribution of 5hmC around CGI that corresponds to H3K4me1 modifications. Hydroxymethylation on promoters, gene bodies, and transcription termination regions (TTRs) showed strong positive correlation with gene expression within and across tissues, suggesting that 5hmC is a marker of active genes and could play a role in gene expression mediated by DNA demethylation. Comparative analysis of methylomes and hydroxymethylomes revealed that 5hmC is significantly enriched in both tissue-specific DMRs (t-DMRs) and cancer-specific DMRs (c-DMRs), and 5hmC is negatively correlated with methylation changes, especially in non-CGI-associated DMRs. These findings revealed novel reciprocity between epigenetic markers at CGI shores corresponding to differential gene expression in normal tissues and matching tumors."

According to the news reporters, the research concluded: "Overall, our study provided a comprehensive analysis of the interplay between the methylome, hydroxymethylome, and histone modifications during tumorigenesis."

For more information on this research see: Whole-genome analysis of the methylome and hydroxymethylome in normal and malignant lung and liver. Genome Research, 2016;26(12):1730-1741. Genome Research can be contacted at: Cold Spring Harbor Lab Press, Publications Dept, 1 Bungtown Rd, Cold Spring Harbor, NY 11724, USA.

Our news correspondents report that additional information may be obtained by contacting A. Feinberg, Johns Hopkins Bloomberg Sch Public Hlth, Dept. of Mental Hlth, Baltimore, MD 21205, United States. Additional authors for this research include Y. Liu, T. Salz, K.D. Hansen and A. Feinberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1101/gr.211854.116. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Genomics, Biotechnology, Genetics, Genetics, Johns Hopkins
New Genomics Findings from Laval University Described (RNA expression profile of calcified bicuspid, tricuspid, and normal human aortic valves by RNA sequencing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology - Genomics. According to news originating from Quebec City, Canada, by NewsRx correspondents, research stated, "The molecular mechanisms leading to premature development of aortic valve stenosis (AS) in individuals with a bicuspid aortic valve are unknown. The objective of this study was to identify genes differentially expressed between calcified bicuspid aortic valves (BAVc) and tricuspid valves with (TAVc) and without (TAVn) AS using RNA sequencing (RNA-Seq)."

Financial support for this research came from Gouvernement du Canada | Canadian Institutes of Health Research (Instituts de recherche en santé du Canada). Our news journalists obtained a quote from the research from Laval University, "We collected 10 human BAVc and nine TAVc from men who underwent primary aortic valve replacement. Eight TAVn were obtained from men who underwent heart transplantation. mRNA levels were measured by RNA-Seq and compared between valve groups. Two genes were upregulated, and none were downregulated in BAVc compared with TAVc, suggesting a similar gene expression response to AS in individuals with bicuspid and tricuspid valves. There were 462 genes upregulated and 282 downregulated in BAVc compared with TAVn. In TAVc compared with TAVn, 329 genes were up and 170 were downregulated. A total of 273 upregulated and 147 downregulated genes were concordantly altered between BAVc vs. TAVn and TAVc vs. TAVn, which represent 56 and 84% of significant genes in the first and second comparisons, respectively. This indicates that extra genes and pathways were altered in BAVc. Shared pathways between calcified (BAVc and TAVc) and normal (TAVn) aortic valves were also more extensively altered in BAVc. The top pathway enriched for genes differentially expressed in calcified compared with normal valves was fibrosis, which support the remodeling process as a therapeutic target."

According to the news editors, the research concluded: "These findings are relevant to understand the molecular basis of AS in patients with bicuspid and tricuspid valves."

For more information on this research see: RNA expression profile of calcified bicuspid, tricuspid, and normal human aortic valves by RNA sequencing. *Physiological Genomics*, 2016;48(10):749-761. *Physiological Genomics* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news correspondents report that additional information may be obtained from Y. Bosse, Laval University, Dept. of Mol Med, Quebec City, PQ, Canada. Additional authors for this research include A. Droit, J. Tremblay-Marchand, N. Gaudreault, D. Kalavrouziotis, F. Dagenais, J.G. Seidman, S.C. Body, P. Pibarot, P. Mathieu and Y. Bosse.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/physiolgenomics.00041.2016. This DOI is a link to an online electronic document that is either free or for purchase.
New Genomics and Genetics Study Findings Recently Were Reported by Researchers at Mayo Clinic (Molecular and Functional Characterization of Rare CACNA1C Variants in Sudden Unexplained Death in the Young)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genomics and Genetics have been published. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Perturbations in the CACNA1C-encoded L-type calcium channel a-subunit have been linked recently to heritable arrhythmia syndromes, including Timothy syndrome, Brugada syndrome, early repolarization syndrome, and long QT syndrome. These heritable arrhythmia syndromes may serve as a pathogenic basis for autopsy-negative sudden unexplained death in the young (SUDY)."

Our news editors obtained a quote from the research from Mayo Clinic, "However, the contribution of CACNA1C mutations to SUDY is unknown. We set out to determine the spectrum, prevalence, and pathophysiology of rare CACNA1C variants in SUDY. Mutational analysis of CACNA1C was conducted in 82 SUDY cases using polymerase chain reaction, denaturing high-performance liquid chromatography, and direct sequencing. Identified variants were engineered using site-directed mutagenesis, and heterologously expressed in TSA-201 or HEK293 cells. Two SUDY cases (2.4%) harbored functional variants in CACNA1C. The E850del and N2091S variants involve highly conserved residues and localize to the II-III linker and C-terminus, respectively. Although observed in publically available exome databases, both variants confer abnormal CaV1.2 electrophysiological characteristics. Examination of the electrophysiological properties revealed the E850del mutation in CACNA1C led to a 95% loss-of-function in ICa, and the N2091S variant led to a 105% gain-of-function in ICa. Additionally, N2091S led to minor kinetic alterations including a -3.4 mV shift in V1/2 of activation."

According to the news editors, the research concluded: "This study provides molecular and functional evidence that rare CACNA1C genetic variants may contribute to the underlying pathogenic basis for some cases of SUDY in either a gain or loss-of-function mechanism."

For more information on this research see: Molecular and Functional Characterization of Rare CACNA1C Variants in Sudden Unexplained Death in the Young. Congenital Heart Disease, 2016;11(6):683-692. Congenital Heart Disease can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Congenital Heart Disease - onlinelibrary.wiley.com/journal/10.1111/(ISSN) 1747-0803)

The news editors report that additional information may be obtained by contacting M.J. Ackerman, Mayo Clinic, Dept. of Pediat, Div Pediat Cardiol, Rochester, MN, United States. Additional authors for this research include N.J. Boczek, H. Barajas-Martinez, D. Hu, D. Ye, D.J. Tester, C. Antzelevitch and M.J. Ackerman.
New Giant Cell Arteritis Study Results from Mayo Clinic Described
(Evaluating the Incidence of Arteritic Ischemic Optic Neuropathy and Other Causes of Vision Loss from Giant Cell Arteritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Vascular Diseases and Conditions - Giant Cell Arteritis is the subject of a report. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "To determine the incidence of permanent visual loss from giant cell arteritis (GCA). Retrospective, population-based cohort."

The news correspondents obtained a quote from the research from Mayo Clinic, "All residents of Olmsted County, Minnesota, diagnosed with GCA between January 1, 1950, and December 31, 2009. All cases of GCA were identified using the Rochester Epidemiology Project (REP), which is a record-linkage system of medical records for all patient-physician encounters among Olmsted County, Minnesota, residents. The medical records were reviewed to identify and determine the cause of permanent vision loss among patients with GCA. Systemic symptoms of GCA and visual outcomes also were determined. Incidence and outcomes of permanent vision loss from GCA. Among the 245 new cases of GCA over the 60-year period, 20 patients (8.2%) had permanent vision loss due to GCA. The frequency of arteritic ischemic optic neuropathy (A-ION) was 6.9% (95% confidence interval [CI], 4.0-11.1) accounting for 85% of cases of permanent vision loss. The frequency of central retinal artery occlusion (CRAO) was 1.6% (95% CI, 0.4-4.2), and the frequency of cilioretinal artery occlusion was 0.4% (95% CI, 0.01-2.3). The population-based age-and sex-adjusted annual incidence of A-ION from GCA among persons aged >= 50 years was 1.3 (95% CI, 0.7-2.0) per 100,000 population. Some 20% of patients with permanent vision loss from GCA had vision loss without constitutional symptoms of GCA. Overall, there was no significant difference between presenting and final visual acuities. These population-based data provide the most accurate incidence of permanent vision loss from GCA."

According to the news reporters, the research concluded: "This study confirms that visual outcomes from GCA-related vision loss are poor and that 20% of patients with permanent visual loss from GCA can present without systemic symptoms of GCA."


Our news journalists report that additional information may be obtained by contacting J.J. Chen, Mayo Clinic, Dept. of Ophthalmol, Rochester, MN 55905, United States. Additional authors for this research include J.A. Leavitt, C. Fang, C.S. Crowson, E.L. Matteson and K.J. Warrington.

The direct object identifier (DOI) for that additional information is:
New Glaucoma Findings from University of California Described (Deep Retinal Layer Microvasculature Dropout Detected by the Optical Coherence Tomography Angiography in Glaucoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Eye Diseases and Conditions - Glaucoma are discussed in a new report. According to news reporting out of La Jolla, California, by NewsRx editors, research stated, "To investigate factors associated with dropout of the parapapillary deep retinal layer microvasculature assessed by optical coherence tomography angiography (OCTA) in glaucomatous eyes. Cross-sectional study. Seventy-one eyes from 71 primary open-angle glaucoma (POAG) patients with beta-zone parapapillary atrophy (beta PPA) enrolled in the Diagnostic Innovations in Glaucoma Study."

Our news journalists obtained a quote from the research from the University of California, "Parapapillary deep-layer microvasculature dropout was defined as a complete loss of the microvasculature located within the deep retinal layer of the beta PPA from OCTA-derived optic nerve head vessel density maps by standardized qualitative assessment. Circumpapillary vessel density (cpVD) within the retinal nerve fiber layer (RNFL) also was calculated using OCTA. Choroidal thickness and presence of focal lamina cribrosa (LC) defects were determined using swept-source optical coherence tomography. M-EASURES: Presence of parapapillary deep-layer microvasculature dropout. Parameters including age, systolic and diastolic blood pressure, axial length, intraocular pressure, disc hemorrhage, cpVD, visual field (VF) mean deviation (MD), focal LC defects beta PPA area, and choroidal thickness were analyzed. Parapapillary deep-layer microvasculature dropout was detected in 37 POAG eyes (52.1%). Eyes with microvasculature dropout had a higher prevalence of LC defects (70.3% vs. 32.4%), lower cpVD (52.7% vs. 58.8%), worse VF MD (-9.06 dB vs. -3.83 dB), thinner total choroidal thickness (126.5 μm vs. 169.1 μm), longer axial length (24.7 mm vs. 24.0 mm), larger beta PPA (1.2 mm² vs. 0.76 mm²), and lower diastolic blood pressure (74.7 mmHg vs. 81.7 mmHg) than those without dropout (P < 0.05, respectively). In the multivariate logistic regression analysis, higher prevalence of focal LC defects (odds ratio [OR], 6.27; P = 0.012), reduced cpVD (OR, 1.27; P = 0.002), worse VF MD (OR, 1.27; P = 0.001), thinner choroidal thickness (OR, 1.02; P = 0.014), and lower diastolic blood pressure (OR, 1.16; P = 0.003) were associated significantly with the dropout. Systemic and ocular factors including focal LC defects more advanced glaucoma, reduced RNFL vessel density, thinner choroidal thickness, and lower
diastolic blood pressure were factors associated with the parapapillary deep-layer microvasculature dropout in glaucomatous eyes."

According to the news editors, the research concluded: "Longitudinal studies are required to elucidate the temporal relationship between parapapillary deep-layer microvasculature dropout and systemic and ocular factors."


Our news journalists report that additional information may be obtained by contacting R.N. Weinreb, University of California, Dept. of Ophthalmol, La Jolla, CA 92093, United States. Additional authors for this research include L.M. Zangwill, P.I.C. Manalastas, A. Belghith, A. Yarmohammadi, F.A. Medeiros, A. Diniz-Filho, L.J. Saunders and R.N. Weinreb.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ophtha.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Optical Coherence Tomography, Eye Diseases and Conditions, Imaging Technology, Blood Pressure, Cardiology, Angiography, Glaucoma, University of California.

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Oncology - Glioblastomas

New Glioblastomas Findings from Provincial Hospital Discussed
(Icaritin inhibits the invasion and epithelial-to-mesenchymal transition of glioblastoma cells by targeting EMMPRIN via PTEN/AKt/HIF-1a signalling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Glioblastomas have been presented. According to news reporting originating in Shandong, People's Republic of China, by NewsRx journalists, research stated, "Icaritin, a hydrolytic product of icarin from the Epimedium genus, exerts anti-tumour effects on a variety of tumor cell types, mainly by inhibiting cell proliferation and inducing apoptosis. However, little is known about the role of icaritin in cancer invasion and epithelial-to-mesenchymal transition (EMT)."

The news reporters obtained a quote from the research from Provincial Hospital, "In the present study, the glioblastoma (GBM) cell line U87MG was used as a model to investigate the effects of icaritin on the invasion and EMT of cancer cells. The results showed that icaritin significantly inhibited the invasion and EMT of GBM cells by targeting extracellular matrix metalloproteinase (EMMPRIN). Furthermore, the findings strongly indicate that the modulatory effect of icaritin on EMMPRIN is mediated via the PTEN/Akt/HIF-1a signalling pathway."

According to the news reporters, the research concluded: "The data provide the first experimental evidence of the inhibitory effect of icaritin on cancer cell invasion and EMT, thus highlighting the potential of icaritin to be employed as a promising anti-cancer agent in the
treatment of GBM."

For more information on this research see: Icaritin inhibits the invasion and epithelial-to-mesenchymal transition of glioblastoma cells by targeting EMMPRIN via PTEN/AKt/HIF-1α signalling. *Clinical and Experimental Pharmacology and Physiology*, 2015;42(12):1296-307. (Wiley-Blackwell - www.wiley.com; Clinical and Experimental Pharmacology and Physiology - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1440-1681)

Our news correspondents report that additional information may be obtained by contacting B. Xu, Dept. of Neurology, Provincial Hospital of Shandong University, Jinan, Shandong, People's Republic of China. Additional authors for this research include C. Jiang, H. Han, H. Liu, M. Tang, L. Liu, W. Ji, X. Lu, X. Yang, Y. Zhang and Y. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1440-1681.12488. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Shandong, Oncology, Glioblastomas, People's Republic of China.

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**New Glioblastomas Findings from University of Otago Reported (A combination of tyrosine kinase inhibitors, crizotinib and dasatinib for the treatment of glioblastoma multiforme)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Glioblastomas have been published. According to news reporting from Dunedin, New Zealand, by NewsRx journalists, research stated, "Glioblastoma multiforme (GBM) is the most common and aggressive primary brain tumor. Despite the advances in surgery, radiotherapy and chemotherapy, patient survival averages only 14.6 months."

The news correspondents obtained a quote from the research from the University of Otago, "In most GBM tumors, tyrosine kinases show increased activity and/or expression and actively contribute to the development, recurrence and onset of treatment resistance; making their inhibition an appealing therapeutic strategy. We compared the cytotoxicity of 12 tyrosine kinase inhibitors in vitro. A combination of crizotinib and dasatinib emerged as the most cytotoxic across established and primary human GBM cell lines. The combination treatment induced apoptotic cell death and polyploidy. Furthermore, the combination treatment led to the altered expression and localization of several tyrosine kinase receptors such as Met and EGFR and downstream effectors as such as SRC. Furthermore, the combination treatment reduced the migration and invasion of GBM cells and prevented endothelial cell tube formation in vitro. Overall, our study demonstrated the broad specificity of a combination of crizotinib and dasatinib across multiple GBM cell lines."

According to the news reporters, the research concluded: "These findings provide insight into the development of alternative therapy for the treatment of GBM."

For more information on this research see: A combination of tyrosine kinase inhibitors, crizotinib and dasatinib for the treatment of glioblastoma multiforme. *Oncotarget*, 2015;6(35):37948-64.
Our news journalists report that additional information may be obtained by contacting H. Nehoff, Dept. of Pharmacology and Toxicology, University of Otago, Dunedin, New Zealand. Additional authors for this research include N.N. Parayath, M.J. McConnell, S. Taurin and K. Greish.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5698. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Dunedin, Sprycel, Oncology, Proteins, Proteomics, Glioblastomas, Dasatinib Therapy, Drugs and Therapies, Aromatic Amino Acids, Enzymes and Coenzymes, Australia and New Zealand, BCR ABL Tyrosine Kinase Inhibitors.

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Oncology - Glioblastomas

New Glioblastomas Study Findings Have Been Reported by Researchers at New York Medical College (ATP-site binding inhibitor effectively targets mTORC1 and mTORC2 complexes in glioblastoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Glioblastomas is the subject of a report. According to news reporting from Valhalla, New York, by NewsRx journalists, research stated, "The PI3K-AKT-mTOR signaling axis is central to the transformed phenotype of glioblastoma (GBM) cells, due to frequent loss of tumor suppressor PTEN (phosphatase and tensin homolog deleted on chromosome 10). The mechanistic target of rapamycin (mTOR) kinase is present in two cellular multi-protein complexes, mTORC1 and mTORC2, which have distinct subunit composition, substrates and mechanisms of action."

The news correspondents obtained a quote from the research from New York Medical College, "Targeting the mTOR protein is a promising strategy for GBM therapy. However, neither of these complexes is fully inhibited by the allosteric inhibitor of mTOR, rapamycin or its analogs. Herein, we provide evidence that the combined inhibition of mTORC1/2, using the ATP-competitive binding inhibitor PP242, would effectively suppress GBM growth and dissemination as compared to an allosteric binding inhibitor of mTOR. GBM cells treated with PP242 demonstrated significantly decreased activation of mTORC1 and mTORC2, as shown by reduced phosphorylation of their substrate levels, p70 S6K(Thr389) and AKT(Ser473), respectively, in a dose-dependent manner. Furthermore, insulin induced activation of these kinases was abrogated by pretreatment with PP242 as compared with rapamycin. Unlike rapamycin, PP242 modestly activates extracellular regulated kinase (ERK1/2), as shown by expression of pERK(Thr202/Tyr204). Cell proliferation and S-phase entry of GBM cells was significantly suppressed by PP242, which was more pronounced compared to rapamycin treatment. Lastly, PP242 significantly suppressed the migration of GBM cells, which was associated with a change in cellular behavior rather than cytoskeleton loss."

According to the news reporters, the research concluded: "These results underscore the potential therapeutic use of the PP242, a novel ATP-competitive binding inhibitor of mTORC1/2 kinase, in suppression of GBM growth and dissemination."

For more information on this research see: ATP-site binding inhibitor effectively

Our news journalists report that additional information may be obtained by contacting J. Neil, Dept. of Neurosurgery, New York Medical College, Valhalla, NY 10595, United States. Additional authors for this research include C. Shannon, A. Mohan, D. Laurent, R. Murali and M. Jhanwar-Uniyal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2015.3311. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kinase, Valhalla, New York, Genetics, Oncology, United States, Glioblastomas, Enzymes and Coenzymes, North and Central America.

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**Oncology - Glioblastomas**

**New Glioblastomas Study Results Reported from Hoag Memorial Hospital (Upfront boost Gamma Knife "leading-edge" radiosurgery to FLAIR MRI-defined tumor migration pathways in 174 patients with glioblastoma multiforme: a 15-year assessment of a ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Glioblastomas. According to news reporting originating in Newport Beach, California, by NewsRx journalists, research stated, "Glioblastoma multiforme (GBM) is composed of cells that migrate through the brain along predictable white matter pathways. Targeting white matter pathways adjacent to, and leading away from, the original contrast-enhancing tumor site (termed leading-edge radiosurgery [LERS]) with single-fraction stereotactic radiosurgery as a boost to standard therapy could limit the spread of glioma cells and improve clinical outcomes."

The news reporters obtained a quote from the research from Hoag Memorial Hospital, "Between December 2000 and May 2016, after an initial diagnosis of GBM and prior to or during standard radiation therapy and carmustine or temozolomide chemotherapy, 174 patients treated with radiosurgery to the leading edge (LE) of tumor cell migration were reviewed. The LE was defined as a region outside the contrast-enhancing tumor nidus, defined by FLAIR MRI. The median age of patients was 59 years (range 22-87 years). Patients underwent LERS a median of 18 days from original diagnosis. The median target volume of 48.5 cm(3) (range 2.5-220.0 cm(3)) of LE tissue was targeted using a median dose of 8 Gy (range 6-14 Gy) at the 50% isodose line. The median overall survival was 23 months (mean 43 months) from diagnosis. The 2-, 3-, 5-, 7-, and 10-year actual overall survival rates after LERS were 39%, 26%, 16%, 10%, and 4%, respectively. Nine percent of patients developed treatment-related imaging-documented changes due to LERS. Nineteen percent of patients were hospitalized for management of edema, 22% for resection of a tumor cyst or new tumor bulk, and 2% for shunting to treat hydrocephalus throughout the course of their disease. Of the patients still alive, Karnofsky Performance Scale scores remained stable in 90% of patients and decreased by 1-3 grades in 10% due to symptomatic treatment-related imaging changes. LERS is a safe and effective upfront adjunctive therapy for patients with newly diagnosed GBM. Limitations of this study include a single-center experience and single-institution determination..."
of the LE tumor target. Use of a leading-edge calculation algorithm will be described to achieve a consistent approach to defining the LE target for general use."

According to the news reporters, the research concluded: "A multicenter trial will further elucidate its value in the treatment of GBM."

For more information on this research see: Upfront boost Gamma Knife "leading-edge" radiosurgery to FLAIR MRI-defined tumor migration pathways in 174 patients with glioblastoma multiforme: a 15-year assessment of a novel therapy. Journal of Neurosurgery, 2016;125():40-49. Journal of Neurosurgery can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

Our news correspondents report that additional information may be obtained by contacting C.M. Duma, Hoag Mem Hosp, Center Canc, Newport Beach, CA, United States. Additional authors for this research include B.S. Kim, P.V. Chen, M.E. Plunkett, R. Mackintosh, M.S. Mathews, R.M. Casserly, G.A. Mendez, D.J. Furman, G. Smith, N. Oh, C.A. Caraway, A.R. Sanathara, R.O. Dillman, A.S. Riley, D. Weiland, L. Stemler, R. Cannell and D. Abrams.

Keywords for this news article include: Newport Beach, California, United States, North and Central America, Drugs and Therapies, Glioblastomas, Radiosurgery, Radiotherapy, Oncology, Therapy, Surgery, Hoag Memorial Hospital.

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Oncology - Glioblastomas

New Glioblastomas Study Results from Xinjiang Medical University Described (MicroRNA-106a-5p facilitates human glioblastoma cell proliferation and invasion by targeting adenomatosis polyposis coli protein)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Glioblastomas have been presented. According to news reporting originating from Xinjiang, People's Republic of China, by NewsRx correspondents, research stated, "The invasive behavior of glioblastoma multiforme (GBM) cells is an important reason for its poor prognosis. Tumor cells acquire an ability to digest the extracellular matrix and infiltrate the adjacent normal tissue during invasion."

Our news editors obtained a quote from the research from Xinjiang Medical University, "Restraining GBM invasion by changing effector molecules can significantly improve the patient's prognosis. MiRNAs are involved in multiple biological functions via suppressing target genes. In this study, we found that miR-106a-5p expression was high in GBM tissues and cells. The data showed an inverse correlation in GBM tissues between the levels of miR-106a-5p and adenomatosis polyposis coli (APC) mRNAs. Additionally, ectopic expression of miR-106a-5p facilitated the invasion of GBM cells whereas inhibition of miR-106a-5p expression weakened the invasive ability. Numerous transcription factors are downstream effectors of the Wnt/beta-catenin pathway. Target prediction databases and luciferase data showed that APC is a new direct target of miR-106a-5p. Importantly, westernblot assays demonstrated that miR-106a-5p can reduce APC protein level and enhance target proteins of Wnt/beta-catenin pathway. Thus, we hypothesize that miR-106a-5p directly targets APC, resulting in the activation of Wnt/beta-catenin pathway."
According to the news editors, the research concluded: "Our results suggest that miR-106a-5p is involved in the invasive behavior of GBM cells and by targeting APC and activating Wnt/beta-catenin pathway, it provides a theoretical basis for developing potential clinical strategies."

For more information on this research see: MicroRNA-106a-5p facilitates human glioblastoma cell proliferation and invasion by targeting adenomatosis polyposis coli protein. *Biochemical and Biophysical Research Communications*, 2016;481(3-4):245-250. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)


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Keywords for this news article include: Xinjiang, People's Republic of China, Asia, Armadillo Domain Proteins, Transcription Factors, Cell Proliferation, Glioblastomas, beta Catenin, Catenins, Oncology, Genetics, Xinjiang Medical University.

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**Oncology - Gliomas**

**New Gliomas Data Have Been Reported by Researchers at Department of Neurosurgery (Nimotuzumab enhances temozolomide-induced growth suppression of glioma cells expressing mutant EGFR in vivo)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Gliomas are presented in a new report. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "A mutant form of epidermal growth factor receptor (EGFR), EGFRvIII, is common in glioblastoma (GBM) and confers enhanced tumorigenic activity and drug resistance. Nimotuzumab, an anti-EGFR antibody, has shown preclinical and clinical activity to GBM, but its specific activity against EGFRvIII has not been fully investigated."

Funders for this research include Ministry of Education, Culture, Sports, Science, and Technology, Faculty of Medicine, Kyorin University, Daiichi-Sankyo, Chugai Pharmaceutical Co., Ltd.

Our news editors obtained a quote from the research from the Department of Neurosurgery, "Human glioma U87MG or LNZ308 cells overexpressing either wild-type (wt) EGFR or EGFRvIII were treated with nimotuzumab, temozolomide, or both. Expression and phosphorylation status of molecules were determined by Western blot analysis. Methylation status of promoter region of O(6) -methylguanine-DNA methyltransferase (MGMT) was detected by methylation-specific PCR. Antitumor activity was tested using nude mice bearing either subcutaneous or intracerebral xenografts along with analyses of EGFR phosphorylation..."
status, proliferation, apoptosis, and vessel density. Nimotuzumab treatment resulted in reduction of EGFRvIII tyrosine phosphorylation with a decrease in Akt phosphorylation that was greater than that of wtEGFR. Correspondingly, antitumor effects, growth suppression and survival elongation, were more significant in mice bearing either subcutaneous or intracerebral tumor expressing EGFRvIII than in those expressing wtEGFR. These effects were markedly increased when temozolomide was combined with nimotuzumab. The post-treatment recurrent brain tumors exhibited a decrease in expression of the mismatch repair (MMR) proteins, MSH6 and MLH1, but their methylated MGMT status did not change. Nimotuzumab has in vivo antitumor activity against GBM, especially those expressing EGFRvIII, when combined with temozolomide.

According to the news editors, the research concluded: "This could provide a basis for preselection of patients with GBM by EGFR status who might benefit from the nimotuzumab and temozolomide combination therapy."


The news editors report that additional information may be obtained by contacting Y. Nitta, Dept. of Neurosurgery, Kugayama Hospital, 2-14-20 Kitakarasuyama, Setagaya, Tokyo, 157-0061, Japan. Additional authors for this research include S. Shimizu, Y. Shishido-Hara, K. Suzuki, Y. Shiokawa and M. Nagane.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.614. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antineoplastics, Biotechnology, Pharmaceuticals, Tokyo, Japan, Gliomas, Genetics, Oncology, Nimotuzumab, Immunotherapy, Cancer Therapy, Protein Kinases, Alkylating Agents, Membrane Proteins, Drugs and Therapies, Phosphotransferases, Temozolomide Therapy, Monoclonal Antibodies, Epidermal Growth Factor Receptor.

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Oncology - Gliomas

New Gliomas Findings from University of Wisconsin Described (Effect of D609 on the expression of GADD45 beta protein: Potential inhibitory role in the growth of glioblastoma cancer stem like cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gliomas. According to news reporting originating from Madison, Wisconsin, by NewsRx correspondents, research stated, "GADD45 beta (Growth Arrest and DNA Damage inducible protein) is a stress activated protein which plays an important role in regulating apoptosis, proliferation, DNA repair and potentially may have a role in cancer. In this study we examined the role of anti-oxidative stress on the expression of GADD45 beta in glioma stem-like cells (GSC)."

Our news editors obtained a quote from the research from the University of Wisconsin, "We show that patient derived GSCs have high survival in the absence of exogenous
growth factors. Addition of D609 (Tricyclodecan-9-yl-xanthogenate), a known anti-oxidative compound, to GSCs reduced the cellular ATP content with significant effects observed when GSCs were cultured in growth factor free medium. D609 exposure also resulted in a decrease in the protein and an increase in mRNA of GADD45 beta with a concomitant decline in the survival of cells. However, under similar conditions the phosphorylation of p38 MAP kinase (stress activated MAP kinase), a downstream target of GADD45 beta, was significantly enhanced in response to D609. Therefore it appears that GADD45 beta might play a role in glioma stem cell survival and that p38 MAP kinase may not be directly activated by GADD45 beta."

According to the news editors, the research concluded: "Together these observations suggest that anti-oxidative compounds like D609 can target GADD45 beta which may be one strategy to curtail the growth of glioma stem like cells."


The news editors report that additional information may be obtained by contacting H.S.G. Kalluri, University of Wisconsin, Dept. of Neuril Surg, Madison, WI 53792, United States. Additional authors for this research include J.S. Kuo and R.J. Dempsey.

Keywords for this news article include: Madison, Wisconsin, United States, North and Central America, Enzymes and Coenzymes, Glioblastomas, Oncology, Genetics, Gliomas, Kinase, Cancer, University of Wisconsin.

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Oncology - Gliomas

New Gliomas Study Findings Have Been Reported by Researchers at Si Chuan University (Biomarkers related with seizure risk in glioma patients: A systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gliomas. According to news originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "Increasing evidence indicates that genetic biomarkers play important roles in the development of glioma-associated seizures. Thus, we performed a systematic review to summarise biomarkers that are associated with seizures in glioma patients."

Our news journalists obtained a quote from the research from Si Chuan University, "An electronic literature search of public databases (PubMed, Embase and Medline) was performed using the keywords glioma, seizure and epilepsy. A total of 26 eligible studies with 2224 cases were included in this systematic review of publications to 20 June, 2016. Genetic biomarkers such as isocitrate dehydrogenase 1 (IDH1) mutations, low expression of excitatory amino acid transporter 2 (EAAT2), high xCT expression, overexpression of adenosine kinase (ADK) and low expression of very large G-protein-coupled receptor-1 (VLGR1) are primarily involved in synaptic transmission, whereas BRAF mutations, epidermal growth factor receptor
EGFR amplification, miR-196b expression and low ki-67 expression are associated with regulation of cell proliferation. However, there is limited evidence regarding the roles of RAD50 interactor I (RINT1) and olig2 in epileptogenesis among glioma patients. Glioma-related seizure was related to the dysfunction of tumor microenvironment.

According to the news editors, the research concluded: "Our findings may provide new mechanistic insights into targeted therapy for glioma-related seizures and may result in the development of multi-target therapies."

For more information on this research see: Biomarkers related with seizure risk in glioma patients: A systematic review. Clinical Neurology and Neurosurgery, 2016;151():113-119. Clinical Neurology and Neurosurgery can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Clinical Neurology and Neurosurgery - www.journals.elsevier.com/clinical-neurology-and-neurosurgery/)

The news correspondents report that additional information may be obtained from Q. Mao, Si Chuan Univ, West China Hosp, Dept. of Neurosurg, Chengdu 610041, Sichuan Prov, People's Republic of China. Additional authors for this research include X. Wang, Y. Yang, J.W. Luo, H. Dong, Y.H. Liu and Q. Mao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clineuro.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Nervous System Diseases and Conditions, Article Review, Diagnostics and Screening, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Risk and Prevention, Seizures, Epilepsy, Genetics, Oncology, Gliomas, Si Chuan University.

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Oncology - Gliomas

New Gliomas Study Findings Recently Were Reported by M.S. Eljamel and Co-Researchers (The effectiveness and cost-effectiveness of intraoperative imaging in high-grade glioma resection; a comparative review of intraoperative ALA, fluorescein, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gliomas have been published. According to news reporting originating in Midlothian, United Kingdom, by NewsRx journalists, research stated, "Surgical resection of high-grade gliomas (HGG) is standard therapy because it imparts significant progression free (PFS) and overall survival (OS). However, HGG-tumor margins are indistinguishable from normal brain during surgery."

The news reporters obtained a quote from the research, "Hence intraoperative technology such as fluorescence (ALA, fluorescein) and intraoperative ultrasound (IoUS) and MRI (IoMRI) has been deployed. This study compares the effectiveness and cost-effectiveness of these technologies. Critical literature review and meta-analyses, using MEDLINE/PubMed service. The list of references in each article was double-checked for any missing references. We included all studies that reported the use of ALA, fluorescein (FLCN), IoUS or IoMRI to guide HGG-surgery. The meta-analyses were conducted according to statistical heterogeneity between studies. If there was no heterogeneity, fixed effects model was used; otherwise, a random effects
A statistical model was used. Statistical heterogeneity was explored by chi(2) and inconsistency (I-2) statistics. To assess cost-effectiveness, we calculated the incremental cost per quality-adjusted life-year (QALY). Gross total resection (GTR) after ALA, FLCN, IoUS and IoMRI was 69.1%, 84.4%, 73.4% and 70% respectively. The differences were not statistically significant. All four techniques led to significant prolongation of PFS and tended to prolong OS. However none of these technologies led to significant prolongation of OS compared to controls. The cost/QALY was $16,218, $3181, $6049 and $32,954 for ALA, FLCN, IoUS and IoMRI respectively. ALA, FLCN, IoUS and IoMRI significantly improve GTR and PFS of HGG.

According to the news reporters, the research concluded: "Their incremental cost was below the threshold for cost-effectiveness of HGG-therapy, denoting that each intraoperative technology was cost-effective on its own."

For more information on this research see: The effectiveness and cost-effectiveness of intraoperative imaging in high-grade glioma resection; a comparative review of intraoperative ALA, fluorescein, ultrasound and MRI. *Photodiagnosis and Photodynamic Therapy*, 2016;16 ():35-43. *Photodiagnosis and Photodynamic Therapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Photodiagnosis and Photodynamic Therapy - www.journals.elsevier.com/photodiagnosis-and-photodynamic-therapy/)

Our news correspondents report that additional information may be obtained by contacting M.S. Eljamel, HTNMS, Neurosci, Edinburgh, Midlothian, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pdpdt.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Midlothian, United Kingdom, Europe, Ophthalmic Diagnostic Agents, Technology, Article Review, Ophthalmic Preparations, Drugs and Therapies, Fluorescein Therapy, Spiro Compounds, Contrast Media, Fluoresceins, Hydrocarbons, Oncology, Surgery, Gliomas.

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**Oncology - Gliomas**

**New Gliomas Study Results from Northwestern University Feinberg School of Medicine Described (Controlled Payload Release by Magnetic Field Triggered Neural Stem Cell Destruction for Malignant Glioma Treatment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gliomas have been presented. According to news reporting originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Stem cells have recently garnered attention as drug and particle carriers to sites of tumors, due to their natural ability to track to the site of interest. Specifically, neural stem cells (NSCs) have demonstrated to be a promising candidate for delivering therapeutics to malignant glioma, a primary brain tumor that is not curable by current treatments, and inevitably fatal."

Our news editors obtained a quote from the research from the Northwestern University Feinberg School of Medicine, "In this article, we demonstrate that NSCs are able to internalize 2 mm magnetic discs (SD), without affecting the health of the cells. The SD can then
be remotely triggered in an applied 1 T rotating magnetic field to deliver a payload. Furthermore, we use this NSC-SD delivery system to deliver the SD themselves as a therapeutic agent to mechanically destroy glioma cells. NSCs were incubated with the SD overnight before treatment with a 1T rotating magnetic field to trigger the SD release. The potential timed release effects of the magnetic particles were tested with migration assays, confocal microscopy and immunohistochemistry for apoptosis. After the magnetic field triggered SD release, glioma cells were added and allowed to internalize the particles. Once internalized, another dose of the magnetic field treatment was administered to trigger mechanically induced apoptotic cell death of the glioma cells by the rotating SD."

According to the news editors, the research concluded: "We are able to determine that NSC-SD and magnetic field treatment can achieve over 50% glioma cell death when loaded at 50 SD/cell, making this a promising therapeutic for the treatment of glioma."

For more information on this research see: Controlled Payload Release by Magnetic Field Triggered Neural Stem Cell Destruction for Malignant Glioma Treatment. *Plos One*, 2016;11(1):e0145129. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news editors report that additional information may be obtained by contacting M.E. Muroski, Northwestern University Feinberg School of Medicine, 676 N St Clair Street, Suite 2210, Chicago, IL, 60611, United States. Additional authors for this research include R.A. Morshed, Y. Cheng, T. Vemulkar, R. Mansell, Y. Han, L. Zhang, K.S. Aboody, R.P. Cowburn and M.S Lesniak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0145129. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Gliomas, Illinois, Oncology, United States, Stem Cell Research, North and Central America.

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**Oncology - Gliomas**

**New Gliomas Study Results from Uppsala University Described (Heparanase Promotes Glioma Progression and Is Inversely Correlated with Patient Survival)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Gliomas are presented in a new report. According to news reporting originating from Uppsala, Sweden, by NewsRx correspondents, research stated, "Malignant glioma continues to be fatal, despite improved insight into its underlying molecular mechanisms. The most malignant form, glioblastoma (GBM), is characterized by aberrant activation of receptor tyrosine kinases (RTK) and infiltrative growth."

Our news editors obtained a quote from the research from Uppsala University, "Heparan sulfate proteoglycans (HSPG), integral components of the extracellular matrix of brain tumors, can regulate activation of many RTK pathways. This prompted us to investigate heparanase (HPSE), which cleaves HSPGs, for its role in glioma. This hypothesis was evaluated using tissue microarrays, GBM cells derived from patients, murine in vitro and in vivo models of glioma, and public databases. Downregulation of HPSE attenuated glioma cell proliferation, whereas addition of HPSE stimulated growth and activated ERK and AKT signaling. Using
HPSE transgenic and knockout mice, it was demonstrated that tumor development in vivo was positively correlated to HPSE levels in the brain. HPSE also modified the tumor microenvironment, influencing reactive astrocytes, microglia/monocytes, and tumor angiogenesis. Furthermore, inhibition of HPSE reduces tumor cell numbers, both in vitro and in vivo. HPSE was highly expressed in human glioma and GBM cell lines, compared with normal brain tissue. Indeed, a correlation was observed between high levels of HPSE and shorter survival of patients with high-grade glioma.

According to the news editors, the research concluded: "These data provide proof-of-concept for anti-HPSE treatment of malignant glioma, as well as novel insights for the development of HPSE as a therapeutic target."

For more information on this research see: Heparanase Promotes Glioma Progression and Is Inversely Correlated with Patient Survival. Molecular Cancer Research, 2016;14(12):1243-1253. Molecular Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Molecular Cancer Research - mcr.aacrjournals.org/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1541-7786.MCR-16-0223. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uppsala, Sweden, Europe, Enzymes and Coenzymes, Heparanase, Oncology, Genetics, Gliomas, Uppsala University.

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New Glucose Intolerance Findings from New York University Described (One-hour post-load plasma glucose level during the OGTT predicts dysglycemia Observations from the 24 year follow-up of the Israel Study of Glucose Intolerance, Obesity and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Glucose Intolerance. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "The present study assessed the longitudinal association of an elevated 1-h plasma glucose [1-h-PG >8.6 mmol/l (155 mg/dl)] with and without impaired glucose tolerance [IGT; 2-h-PG 7.8-11.0 mmol/l (140-199 mg/dl)] with cumulative incident of diabetes and prediabetes over 24 years in a non-diabetic cohort. From 1979 to 1984, 1970 non-diabetic men and women completed an oral glucose tolerance test (OGTT), physical and biochemical measurements as well as a questionnaire related to lifestyle and medical background."

The news reporters obtained a quote from the research from New York University,
"During the years 2000-2004, 853 survivors of the original cohort were interviewed and re-examined for glycemic progression. Individuals with 1-h-PG >8.6 mmol/l (155 mg/dl) but with 2-h-PG <7.8 mmol/l (140 mg/dl) had a significantly elevated risk, compared to those with both 1-h-PG 68.6 mmol/l (155 mg/dl) and 2-h-PG <7.8 mmol/l (140 mg/dl), for both diabetes [OR: 4.35 (95% CI: 2.50-7.73)] and prediabetes outcomes [OR: 1.87 (95% CI 1.09-3.26)], adjusted for sex and age, smoking, body mass index, blood pressure, fasting blood glucose and insulin. The risk for diabetes associated with a 1-h level >8.6 mmol/l (155 mg/dl) is increased and further worsened in the presence of IGT."

According to the news reporters, the research concluded: "Identifying individuals at risk with a 1-h-PG glucose level during an OGTT is recommended."

For more information on this research see: One-hour post-load plasma glucose level during the OGTT predicts dysglycemia Observations from the 24 year follow-up of the Israel Study of Glucose Intolerance, Obesity and Hypertension. Diabetes Research and Clinical Practice, 2016;120():221-228. Diabetes Research and Clinical Practice can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Diabetes Research and Clinical Practice - www.journals.elsevier.com/diabetes-research-and-clinical-practice/)

Our news correspondents report that additional information may be obtained by contacting M. Bergman, New York University, Langone Diabet Prevent Program, Sch Med, Dept. of MedDiv Endocrinl & Metab, New York, NY 10016, United States. Additional authors for this research include A. Chetrit, J. Roth, R. Jagannathan, M. Sevick and R. Dankner.

Keywords for this news article include: New York City, New York, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Glucose Metabolism Disorders, Risk and Prevention, Nutrition Disorders, Glucose Intolerance, Diet and Nutrition, Overnutrition, Hyperglycemia, Hypertension, Hematology, Bariatrics, Diabetes, Obesity, Plasma, Blood, New York University.

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Membrane Proteins - Glutamate Receptors

New Glutamate Receptors Study Findings Recently Were Reported by C. Citti and Co-Researchers [7-Chloro-5-(furan-3-yl)-3-methyl-4H-benzo[e][1,2,4]thiadiazine 1,1-Dioxide as Positive AllostERIC Modulator of ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Membrane Proteins - Glutamate Receptors. According to news reporting originating from Lecce, Italy, by NewsRx correspondents, research stated, "5-Arylbenzothiadiazine type compounds acting as positive allosteric modulators of α-amino-3-hydroxy-5-methyl-4-isoaxolepropionic acid receptor (AMPA-PAMs) have received particular attention in the past decade for their nootropic activity and lack of the excitotoxic side effects of direct agonists. Recently, our research group has published the synthesis and biological activity of 7-chloro-5-(furanyl)-3-methyl-3,4-dihydro-2H-1,2,4-benzothiadiazine 1,1-dioxide (1), one of the most active benzothiadiazine-derived AMPA-PAMs in vitro to date."

Our news editors obtained a quote from the research, "However, 1 exists as two stereolabile enantiomers, which rapidly racemize in physiological conditions, and only one
isomer is responsible for the pharmacological activity. In the present work, experiments carried out with rat liver microsomes show that 1 is converted by hepatic cytochrome P450 to the corresponding unsaturated derivative 2 and to the corresponding pharmacologically inactive benzenesulfonamide 3. Surprisingly, patch-clamp experiments reveal that 2 displays an activity comparable to that of the parent compound. Molecular modeling studies were performed to rationalize these results. Furthermore, mice cerebral microdialysis studies suggest that 2 is able to cross the blood-brain barrier and increases acetylcholine and serotonin levels in the hippocampus.

According to the news editors, the research concluded: "The experimental data disclose that the achiral hepatic metabolite 2 possesses the same pharmacological activity of its parent compound 1 but with an enhanced chemical and stereochemical stability, as well as an improved pharmacokinetic profile compared with 1."

For more information on this research see: 7-Chloro-5-(furan-3-yl)-3-methyl-4H-benzo[e][1,2,4]thiadiazine 1,1-Dioxide as Positive Allosteric Modulator of a-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic Acid (AMPA) Receptor. The End of the Unsaturated-Inactive Paradigm? Acs Chemical Neuroscience, 2015;7(2):149-60. (American Chemical Society - www.acs.org; Acs Chemical Neuroscience - www.pubs.acs.org/journal/acncdm)

The news editors report that additional information may be obtained by contacting C. Citti, Dipartimento di Scienze e Tecnologie Biologiche ed Ambientali, Universita del Salento, Via per Monteroni, 73100 Lecce, Italy. Additional authors for this research include U.M. Battisti, G. Cannazza, K. Jozwiak, N. Stasiak, G. Puja, F. Ravazzini, G. Ciccarella, D. Braghiroli, C. Parenti, L. Troisi and M. Zoli.

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Keywords for this news article include: Lecce, Italy, Europe, Therapy, Pharmacology, AMPA Receptors, Membrane Proteins, Glutamate Receptors.

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Glycyrrhetinic Acid

New Glycyrrhetinic Acid Study Results Reported from Kuwait University (Carbenoxolone exposure during late gestation in rats alters placental expressions of p53 and estrogen receptors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Glycyrrhetinic Acid have been published. According to news originating from Safat, Kuwait, by NewsRx correspondents, research stated, "Gestational carbenoxolone exposure inhibits placental 11 beta-hydroxysteroid dehydrogenase (11 beta-HSD), the physiological barrier for glucocorticoids, which increases fetal exposure to glucocorticoids and induces intrauterine growth restriction (IUGR). We hypothesized that carbenoxolone exposure influences the expression of placental estrogen receptors-alpha and beta (ER alpha & ER beta) and p53 leading to inhibited fetal and placental growth."

Financial support for this research came from Kuwait University.

Our news journalists obtained a quote from the research from Kuwait University, "Pregnant Sprague-Dawley rats were injected twice daily with either carbenoxolone (10 mg/kg;
s.c.) or vehicle (control group) from gestational days (dg) 12 onwards. Maternal blood and placentas were collected on 16 dg, 19 dg and 21 dg. The expression of ER alpha, ER beta and p53 were studied in placental basal and labyrinth zones by RT-PCR, Western blotting and immunohistochemistry. Carbenoxolone did not affect placental and fetal body weights, but ELISA showed decreased estradiol levels on 19 dg and 21 dg, and increased maternal luteinizing hormone levels on all dg. The follicle stimulating hormone levels decreased on 16 dg and 19 dg, and increased on 21 dg. Carbenoxolone decreased ER alpha mRNA levels on 16 dg in both zones and its protein level on 19 dg in the labyrinth zone. However, carbenoxolone increased ER beta mRNA levels on 19 dg and 21 dg and protein levels on 16 dg and 19 dg in the labyrinth zone. The p53 mRNA levels increased on all dg, but its protein levels increased on 21 dg in both zones.

According to the news editors, the research concluded: "Carbenoxolone exposure changes placental p53, ER alpha, ER beta expression in favor of cell death but these changes do not induce IUGR in rats."


The news correspondents report that additional information may be obtained from M.D. Al-Bader, Kuwait University, Fac Med, Dept. of Physiol, Safat 13110, Kuwait. Additional authors for this research include S.A. Jasem and N. Kilarkaje.

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Keywords for this news article include: Safat, Kuwait, Asia, Adrenal Cortex Hormones, Transcription Factors, DNA-Binding Proteins, Glycyrrhetinic Acid, Estrogen Receptors, Steroid Receptors, Glucocorticoids, Carbenoxolone, Hydrocarbons, Triterpenes, Genetics, p53 Gene, Kuwait University.

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**Immune System Diseases and Conditions - Graft-Versus-Host Disease Study Results from University of Freiburg Described (Pathogenesis of acute graft-versus-host disease: from intestinal microbiota alterations to donor T cell activation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immune System Diseases and Conditions - Graft-Versus-Host Disease have been presented. According to news reporting from Freiburg, Germany, by NewsRx journalists, research stated, "Acute graft-versus-host disease (aGVHD) is a major life-threatening complication of allogeneic haematopoietic cell transplantation (allo-HCT). Here we discuss the aGVHD pathophysiology initiated by multiple signals that cause alloreactive T-cell activation."

Funders for this research include Deutsche Forschungsgemeinschaft, European
The news correspondents obtained a quote from the research from the University of Freiburg, "The outcome of such donor T-cell activation is influenced by T-cell receptor-signal strength, anatomical location, co-stimulatory/co-inhibitory signals and differentiation stage (naive, effector/memory) of T-cells. Additionally, cross-priming of T cells to antigens expressed by pathogens can contribute to aGVHD-mediated tissue injury. In addition to the properties of donor T-cell activation, highly specialized tissue resident cell types, such as innate lymphoid cells, antigen-presenting cells, immune regulatory cells and various intestinal cell populations are critically involved in aGVHD pathogenesis. The role of the thymus and secondary lymphoid tissue injury, non-haematopoietic cells, intestinal microflora, cytokines, chemokines, microRNAs, metabolites and kinases in aGVHD pathophysiology will be highlighted."

According to the news reporters, the research concluded: "Acute GVHD pathogenic mechanisms will be connected to novel therapeutic approaches under development for, and tested in, the clinic."


Our news journalists report that additional information may be obtained by contacting R. Zeiser, University of Freiburg, Dept. of Haematol Oncol & Stem Cell Transplantat, Medical Center, D-79106 Freiburg, Germany. Additional authors for this research include G. Socie and B.R. Blazar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjh.14295. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Freiburg, Germany, Europe, Immune System Diseases and Conditions, Article Review, Graft-Versus-Host Disease, University of Freiburg.

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Granulocytes

New Granulocytes Findings from Institute of Pediatrics Reported (T Cell Independent Mechanisms Associated with Neutrophil Extracellular Trap Formation and Selective Autophagy in IL-17A Mediated Epidermal Hyperplasia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Granulocytes. According to news reporting originating from Sacramento, California, by NewsRx correspondents, research stated, "IL-17A has been strongly associated with epidermal hyperplasia in many cutaneous disorders. However, because IL-17A is mainly produced by alpha beta and gamma delta T cells in response to IL-23, the role of T cells and IL-23 has overshadowed any IL-17A-independent actions."

Our news editors obtained a quote from the research from the Institute of Pediatrics,
In this article, we report that IL-17A gene transfer induces epidermal hyperplasia in Il23r(-/-) Rag1(-/-) and Tcr delta-deficient mice, which can be prevented by neutrophil depletion. Moreover, adoptive transfer of CD11b(+)Gr-1(hi) cells, after IL-17A gene transfer, was sufficient to phenocopy the disease. We further show that the IL-17A-induced pathology was prevented in transgenic mice with impaired neutrophil extracellular trap formation and/or neutrophils with conditional deletion of the master regulator of selective autophagy, Wdfy3.

According to the news editors, the research concluded: "Our data demonstrate a novel T cell-independent mechanism that is associated with neutrophil extracellular trap formation and selective autophagy in IL-17A-mediated epidermal hyperplasia."

For more information on this research see: T Cell Independent Mechanisms Associated with Neutrophil Extracellular Trap Formation and Selective Autophagy in IL-17A Mediated Epidermal Hyperplasia. *Journal of Immunology*, 2016;197(11):4403-4412. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news editors report that additional information may be obtained by contacting I.E. Adamopoulos, Shriners Hosp Children Northern Calif, Inst Pediat Regenerat Med, Sacramento, CA 95817, United States. Additional authors for this research include E. Maverakis, R. Sarin, L. Bouchareychas, V.K. Kuchroo, F.O. Nestle and I.E. Adamopoulos.

Keywords for this news article include: Sacramento, California, United States, North and Central America, Hemic and Immune Systems, Granulocytes, Hyperplasia, Blood Cells, Neutrophils, Immunology, Phagocytes, Genetics, Institute of Pediatrics.

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**Immunology - Granulocytes**

**New Granulocytes Findings from Johannes Gutenberg-University Reported [Genetics and pathophysiology of granulomatosis with polyangiitis (GPA) and its main autoantigen proteinase 3]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immunology - Granulocytes is the subject of a report. According to news originating from Mainz, Germany, by NewsRx correspondents, research stated, "Granulomatosis with polyangiitis (GPA) is a severe autoimmune disease and one of the small vessel antineutrophil cytoplasmic antibody (ANCA)-associated vasculitides. Although its etiology and pathophysiology are still widely unknown, it is accepted that infections, environmental factors, epigenetic modifications, and a genetic predisposition provide the basis for this systemic disorder."

Our news journalists obtained a quote from the research from Johannes Gutenberg-University, "GPA typically evolves into two phases: an initial phase characterized by ear, nose and throat (ENT) manifestations, such as chronic sinusitis and otitis, ulceration of the oral cavity and pharynx, as well as pulmonary nodules and a severe generalized phase, defined by the occurrence of rapidly progressive glomerulonephritis, pulmonary hemorrhage, and arthritis. ANCA, directed against the neutrophilic enzymes proteinase 3 and myeloperoxidase, are present in up to 90% of the affected patients in the systemic phase. As the humoral immunity is predominantly directed against neutrophilic antigens, it is apparent that neutrophils play a
critical role in GPA both as target and effector cells. Although GPA pathogenesis is not well known, some susceptibility genes and loci have been identified by candidate gene approaches, genome-wide association studies, and meta-analyses, as well as familial association studies. Such genes are CTLA4, PTPN22, COL11A2, SERPINA1, and the MHC class II gene cluster. This review highlights the clinical, pathophysiological, and genetic background of GPA and aims to give an overview of recent efforts to identify GPA susceptibility genes."

According to the news editors, the research concluded: "We point out the genetic basis of the main autoantigen PR3 and why it is so difficult to establish a murine GPA model."


The news correspondents report that additional information may be obtained from M. Relle, Johannes Gutenberg Univ Mainz, University Medical Center, Div Rheumatol & Clin Immunol, Dept. of Internal Med, Mainz, Germany. Additional authors for this research include B. Fohr, F. Fasola and A. Schwarting.

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Keywords for this news article include: Mainz, Germany, Europe, Proteinase, Article Review, Hemic and Immune Systems, Enzymes and Coenzymes, Autoantigens, Granulocytes, Neutrophils, Immunology, Phagocytes, Antigens, Genetics, Johannes Gutenberg-University.

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**Immunology - Granulocytes**

**New Granulocytes Study Findings Have Been Reported by Investigators at Inner Mongolia Medical College (Macrophage migration inhibitory factor contributes to anti-neutrophil cytoplasmic antibody-induced neutrophils activation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Granulocytes. According to news reporting from Hohhot, People's Republic of China, by NewsRx journalists, research stated, "Macrophage migration inhibitory factor (MIF) is an inflammatory mediator released by macrophages that is central to the innate immune system, with an upstream role in the inflammatory cascade. MIF is one of the most important pathogenic factors in the development of the autoimmune diseases."

Financial support for this research came from National Natural Science Fund.

The news correspondents obtained a quote from the research from Inner Mongolia Medical College, "In the current study, we investigated the role of MIF in anti-neutrophil cytoplasmic antibody (ANCA)-induced neutrophil activation. Plasma levels of MIF from 31 patients with active ANCA-associated vasculitis (AAV) were analyzed by ELISA. The various
effects of MIF in ANCA-induced neutrophil respiratory burst and degranulation were measured. Plasma levels of circulating MIF were significantly higher in AAV patients with active disease compared with those in remission and healthy controls. Compared with MIF-primed neutrophils, the MFI value increased significantly in MIF-primed neutrophils further activated with MPO-ANCA-positive IgG or PR3-ANCA-positive IgG (270.8 +/- 9.7 vs. 421.5 +/- 9.7, P< 0.001; 270.8 +/- 9.7 vs. 414.1 +/- 15.6, P< 0.001, respectively). Compared with MIF-primed neutrophils, the lactoferrin concentration increased significantly in the supernatant of MIF-primed neutrophils further activated by MPO-ANCA-positive IgG (567.8 +/- 61.2 ng/ml vs. 1677.0 +/- 42.5 ng/ml, P< 0.001) or PR3-ANCA-positive IgG (567.8 +/- 61.2 ng/ml vs. 1546.0 +/- 116.2 ng/ml, P< 0.001), respectively. Interleukin-8 (IL-8), IL-6 and IL-23 were involved in ANCA-induced activation of MIF-primed neutrophils. MIF primes neutrophils by increasing ANCA antigen translocation."

According to the news reporters, the research concluded: "The primed neutrophils can be further induced by ANCA, resulting in respiratory burst and degranulation." For more information on this research see: "Macrophage migration inhibitory factor contributes to anti-neutrophil cytoplasmic antibody-induced neutrophils activation. Human Immunology, 2016;77(12):1209-1214. Human Immunology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

Our news journalists report that additional information may be obtained by contacting J. Hao, Inner Mongolia Med College, Affiliated Hosp, Dept. of Med, Div Renal, Hohhot 010050, Inner Mongolia, People's Republic of China. Additional authors for this research include T.G. Lv, C. Wang, L.P. Xu and J.R. Zhao.

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Keywords for this news article include: Hohhot, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Macrophage Migration-Inhibitory Factors, Leukocyte Migration-Inhibitory Factors, Mononuclear Phagocyte System, Hemic and Immune Systems, Biological Factors, Immunoglobulins, Blood Proteins, Granulocytes, Lymphokines, Macrophages, Blood Cells, Neutrophils, Immunology, Antibodies, Phagocytes, Genetics, Inner Mongolia Medical College.

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Guanidines

New Guanidines Study Results Reported from Mansoura University (Agmatine protects rat liver from nicotine-induced hepatic damage via antioxidative, antiapoptotic, and antifibrotic pathways)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Guanidines have been published. According to news reporting originating from Mansoura, Egypt, by NewsRx correspondents, research stated, "Tobacco smoking with its various forms is a global problem with proved hazardous effects to human health. The present work was planned to study the defending role of agmatine (AGM) on hepatic oxidative stress and damage induced by nicotine in rats."
Our news editors obtained a quote from the research from Mansoura University, "Thirty-two rats divided into four groups were employed: control group, nicotine-only group, AGM group, and AGM-nicotine group. Measurements of serum hepatic biochemical markers, lipid profile, and vascular cell adhesion molecule-1 were done. In addition, malondialdehyde (MDA), superoxide dismutase (SOD), glutathione (GSH) activity, and nitrate/nitrite (NOx) levels were estimated in the liver homogenates. Immunohistochemistry for Bax and transforming growth factor beta (TGF-beta 1) and histopathology of the liver were also included. Data of the study demonstrated that nicotine administration exhibited marked liver deterioration, an increase in liver enzymes, changes in lipid profile, and an elevation in MDA with a decline in levels of SOD, GSH, and NOx (nitrate/nitrite). Also, levels of proapoptotic Bax and profibrotic TGF-beta 1 showed marked elevation in the liver. AGM treatment to rats in nicotine-only group ameliorated all the previous changes."

According to the news editors, the research concluded: "These findings indicate that AGM could successfully overcome the nicotine-evoked hepatic oxidative stress and tissue injury, apoptosis, and fibrosis."

For more information on this research see: Agmatine protects rat liver from nicotine-induced hepatic damage via antioxidative, antiapoptotic, and antifibrotic pathways. *Naunyn-Schmiedebergs Archives of Pharmacology*, 2016;389(12):1341-1351. *Naunyn-Schmiedebergs Archives of Pharmacology* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

The news editors report that additional information may be obtained by contacting G.M. Attia, Mansoura University, Fac Med, Dept. of Histol & Cell Biol, Mansoura, Egypt. Additional authors for this research include M.A. Nader, G.M. Attia and H. Ateyya.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00210-016-1284-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mansoura, Egypt, Africa, Guanidines, Agmatine, Mansoura University.

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TCGA. In the validation cohort, the majority of patients had stage III/IV disease (208/265, 78.4%). CD47 expression was seen in 210/265 (79.2%). Patients were categorized into CD47hi (129/265; 48.7%) versus CD47lo (136/265; 51.3%). Patients with CD47lo tumors were more likely to have a complete response to adjuvant therapy than CD47hi (65% vs 50%, p = 0.026). Although there was a trend towards an increase in median OS (37.64 vs 45.26 months, p = 0.92) in the CD47lo group compared with CD47hi, the difference was not significant. CD47 is expressed at high frequency in EOC. Patients with CD47lo EOC had a better treatment response to standard therapy, and trended towards improved OS. This demonstrates that while CD47 may be an immunologic shield that may be considered for targeted therapies, it is likely that it operates in concert with other mechanisms of immune evasion.

According to the news editors, the research concluded: "Future studies to evaluate CD47 expression with other known mechanisms of immune escape in the tumor microenvironment may help further define its role."

For more information on this research see: The CD47 "don't eat me signal" is highly expressed in human ovarian cancer. Gynecologic Oncology, 2016;143(2):393-397. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news journalists report that additional information may be obtained by contacting K. Odunsi, Roswell Pk Canc Inst, Center Immunotherapy, Buffalo, NY 14263, United States. Additional authors for this research include K.S. Grzankowski, S. Lele, K. Eng, M. Arshad, H. Chen and K. Odunsi.

Keywords for this news article include: Buffalo, New York, United States, North and Central America, Gynecologic Oncology, Cancer, Epidemiology, Oncology, Roswell Park Cancer Institute.

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Immune System Diseases and Conditions - HIV/AIDS

New HIV/AIDS Data Have Been Reported by Researchers at Fudan University (Specific Reactivation of Latent HIV-1 by dCas9-SunTag-VP64-mediated Guide RNA Targeting the HIV-1 Promoter)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immune System Diseases and Conditions - HIV/AIDS have been presented. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "HIV-1 escapes antiretroviral agents by integrating into the host DNA and forming a latent transcriptionally silent HIV-1 provirus. Transcriptional activation is prerequisite for reactivation and the eradication of latent HIV-1 proviruses. dCas9-SunTag-VP64 transcriptional system has been reported that it can robustly activate the expression of an endogenous gene using a single guide RNA (sgRNA)."

The news correspondents obtained a quote from the research from Fudan University, "Here, we systematically investigated the potential of dCas9-SunTag-VP64 with the designed sgRNAs for reactivating latent HIV-1. We found dCas9-SunTag-VP64 with sgRNA 4 or sgRNA 5 targeted from -164 to -146 or -124 to -106 bp upstream of the transcription start sites of HIV-1 could induce high expression of luciferase reporter gene after screening of sgRNAs..."
targeting different regions of the HIV-1 promoter. Further, we confirmed that dCas9-SunTag-VP64 with sgRNA 4 or sgRNA 5 can effectively reactivate latent HIV-1 transcription in several latently infected human T-cell lines. Moreover, we confirmed that the reactivation of latent HIV-1 by dCas9-SunTag-VP64 with the designed sgRNA occurred through specific binding to the HIV-1 LTR promoter without genotoxicity and global T-cell activation.

According to the news reporters, the research concluded: "Taken together, our data demonstrated dCas9-SunTag-VP64 system can effectively and specifically reactivate latent HIV-1 transcription, suggesting that this strategy could offer a novel approach to anti-HIV-1 latency."

For more information on this research see: Specific Reactivation of Latent HIV-1 by dCas9-SunTag-VP64-mediated Guide RNA Targeting the HIV-1 Promoter. Molecular Therapy, 2016;24(3):508-21. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news journalists report that additional information may be obtained by contacting H. Ji, State Key Laboratory of Genetic Engineering and Key Laboratory of Medical Molecular Virology of Ministry of Education, Health, School of Life Sciences, Fudan University. Shanghai, People's Republic of China. Additional authors for this research include Z. Jiang, P. Lu, L. Ma, C. Li, H. Pan, Z. Fu, X. Qu, P. Wang, J. Deng, X. Yang, J. Wang and H. Zhu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2016.7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shanghai, Genetics, HIV/AIDS, RNA Viruses, Retroviridae, HIV Infections, Vertebrate Viruses, Primate Lentiviruses, People's Republic of China, Immune System Diseases and Conditions, Viral Sexually Transmitted Diseases and Conditions.

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**Immune System Diseases and Conditions - HIV/AIDS**

**New HIV/AIDS Findings Has Been Reported by H. Huerga et al (Who Needs to Be Targeted for HIV Testing and Treatment in KwaZulu-Natal? Results From a Population-Based Survey)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "Identifying gaps in HIV testing and treatment is essential to design specific strategies targeting those not accessing HIV services. We assessed the prevalence and factors associated with being HIV untested, unaware, untreated, and virally unsuppressed in KwaZulu-Natal, South Africa."

Our news editors obtained a quote from the research, "Cross-sectional population-based survey. People aged 15-59 years were eligible. Interviews, HIV testing, and blood collection for antiretroviral drug presence test, CD4, and viral load were done at the participants' home. Of the 5649 individuals included, 81.4% (95% CI: 79.8 to 82.9) had previously been tested. HIV prevalence was 25.2%. HIV-positivity awareness rate was 75.2%
(95% CI: 72.9 to 77.4). Of all unaware, 73.3% of people were aged, 35 years and 68.7% were women. Antiretroviral therapy coverage was 75.0% (95% CI: 72.0 to 77.8) among those eligible for treatment (CD4 < 350, PMTCT-B) and 53.1% (95% CI: 50.4 to 55.7) among all HIV-positive individuals. Viral load was <1000 copies per milliliter in 57.1% of all HIV-positive individuals. Although 66.3% and 71.7% of people with viral load >= 1000 copies per milliliter were people aged, 35 years and women respectively, men had 4.4, 1.8, 1.6, and 1.7 times the odds of being untested, unaware, untreated, and virally unsuppressed. In addition, people with more than 1 sexual partner had 1.3, 2.2, and 1.9 times the odds of being untested, unaware, and untreated. The majority of HIV-positive people unaware of their status, untreated, and virally unsuppressed were individuals aged <35 years and women. However, men were disproportionately untested, unaware HIV positivity, untreated, and virally unsuppressed."

According to the news editors, the research concluded: "In this context, HIV testing and treatment should be prioritized to target young people and women, whereas novel strategies are necessary to reach men."


The news editors report that additional information may be obtained by contacting H. Huerga, Epicentre, Paris, France. Additional authors for this research include G. Van Cutsem, J. Ben Farhat, M. Reid, M. Bouhenia, D. Maman, L. Wiesner, J.F. Etard and T. Ellman.

Keywords for this news article include: Paris, France, Europe, Viral Load, Diagnostics and Screening, Epidemiology, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Virus Physiological Phenomena, Microbiological Techniques, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS.

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Immune System Diseases and Conditions - HIV/AIDS

New HIV/AIDS Findings Has Been Reported by Investigators at Medical College of Wisconsin (Partnership-Level Analysis of African American Women's Risky Sexual Behavior in Main and Non-Main Partnerships)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immune System Diseases and Conditions - HIV/AIDS is now available. According to news reporting out of Milwaukee, Wisconsin, by NewsRx editors, research stated, "The majority of research on risky sexual behavior in African American women has examined global associations between individual-level predictors and behavior. However, this method obscures the potentially significant impact of the specific relationship or relationship partner on risky sexual behavior."

Our news journalists obtained a quote from the research from the Medical College of Wisconsin, "To address this gap, we conducted partnership-level analysis of risky sexual behavior among 718 African American women recruited from HIV counseling, testing, and referral sites in four states. Using mixed model regressions, we tested relationships between..."
condomless vaginal intercourse with men and variables drawn from the Theory of Planned Behavior, Theory of Gender and Power, and previous research specifically on sexual risks among African American women."

According to the news editors, the research concluded: "Significant associations with risky sexual behavior indicate the need for continued emphasis on condom attitudes, condom negotiation behaviors, and overcoming partner resistance to condoms within both main and non-main partnerships when implementing interventions designed to address HIV and sexually transmitted infection risks among African American women."

For more information on this research see: Partnership-Level Analysis of African American Women's Risky Sexual Behavior in Main and Non-Main Partnerships. *AIDS and Behavior*, 2016;20(12):2893-2903. *AIDS and Behavior* can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; AIDS and Behavior - www.springerlink.com/content/1090-7165/)

Our news journalists report that additional information may be obtained by contacting M. Broaddus, Medical College of Wisconsin, Center AIDS Intervent Res, Milwaukee, WI 53202, United States. Additional authors for this research include J. Owczarzak, M. Pacella, S. Pinkerton and C. Wright.

Keywords for this news article include: Milwaukee, Wisconsin, United States, North and Central America, Immune System Diseases and Conditions, Risk and Prevention, Viral Sexually Transmitted Diseases and Conditions, Primates Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Medical College of Wisconsin.

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**Immune System Diseases and Conditions - HIV/AIDS**

**New HIV/AIDS Findings Reported from Kyoto University (Core Binding Factor beta Protects HIV, Type 1 Accessory Protein Viral Infectivity Factor from MDM2-mediated Degradation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immune System Diseases and Conditions - HIV/AIDS. According to news originating from Kyoto, Japan, by NewsRx correspondents, research stated, "HIV, type 1 overcomes host restriction factor apolipoprotein B mRNA-editing enzyme catalytic polypeptide-like 3 (APO-BEC3) proteins by organizing an E3 ubiquitin ligase complex together with viral infectivity factor (Vif) and a host transcription cofactor core binding factor beta (CBF beta). CBF beta is essential for Vif to counteract APOBEC3 by enabling the recruitment of cullin 5 to the complex and increasing the steady-state level of Vif protein; however, the mechanisms by which CBF beta up-regulates Vif protein remains unclear."

Our news journalists obtained a quote from the research from Kyoto University, "Because we have reported previously that mouse double minute 2 homolog (MDM2) is an E3 ligase for Vif, we hypothesized that CBF beta might protect Vif from MDM2-mediated degradation. Co-immunoprecipitation analyses showed that Vif mutants that do not bind to CBF beta preferentially interact with MDM2 and that overexpression of CBF beta disrupts the interaction between MDM2 and Vif. Knockdown of CBF beta reduced the steady-state level of Vif in MDM2-proficient cells but not in MDM2-null cells. Cycloheximide chase analyses
revealed that Vif E88A/W89A, which does not interact with CBF beta, degraded faster than wild-type Vif in MDM2-proficient cells but not in MDM2-null cells, suggesting that Vif stabilization by CBF beta is mainly caused by impairing MDM2-mediated degradation. We identified Vif R93E as a Vif variant that does not bind to MDM2, and the virus with this substitution mutation was more resistant to APOBEC3G than the parental virus. Combinatory substitution of Vif residues required for CBF beta binding and MDM2 binding showed full recovery of Vif steady-state levels, supporting our hypothesis."

According to the news editors, the research concluded: "Our data provide new insights into the mechanism of Vif augmentation by CBF beta."

For more information on this research see: Core Binding Factor beta Protects HIV, Type 1 Accessory Protein Viral Infectivity Factor from MDM2-mediated Degradation. *Journal of Biological Chemistry*, 2016;291(48):24892-24899. *Journal of Biological Chemistry* can be contacted at: Amer Soc Biochemistry Molecular Biology Inc, 9650 Rockville Pike, Bethesda, MD 20814-3996, USA. (American Society for Biochemistry and Molecular Biology - www.asmb.org; Journal of Biological Chemistry - www.jbc.org/)

The news correspondents report that additional information may be obtained from K. Shindo, Kyoto University, Grad Sch Med, Dept. of Hematol & Oncol, Kyoto 6068507, Japan. Additional authors for this research include K. Shindo, K. Nagata, N. Yoshinaga, K. Shirakawa, M. Kobayashi and A. Takaori-Kondo.

Keywords for this news article include: Kyoto, Japan, Asia, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Proteins, Epidemiology, Transcription Factors, Enzymes and Coenzymes, Core Binding Factors, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, Genetics, HIV/AIDS, Ligases, Kyoto University.

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Immune System Diseases and Conditions - HIV/AIDS

**New HIV/AIDS Findings Reported from S.T. Xu and Co-Authors (cGAS-Mediated Innate Immunity Spreads Intercellularly through HIV-1 Env-Induced Membrane Fusion Sites)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immune System Diseases and Conditions - HIV/AIDS. According to news originating from Hannover, Germany, by NewsRx correspondents, research stated, "Upon sensing cytoplasmic retroviral DNA in infected cells, cyclic GMP-AMP (cGAMP) synthase (cGAS) produces the cyclic dinucleotide cGAMP, which activates STING to trigger a type I interferon (IFN) response. We find that membrane fusion-inducing contact between donor cells expressing the HIV envelope (Env) and primary macrophages endogenously expressing the HIV receptor CD4 and coreceptor enable intercellular transfer of cGAMP."

Our news journalists obtained a quote from the research, "This cGAMP exchange results in STING-dependent antiviral IFN responses in target macrophages and protection from HIV infection. Furthermore, under conditions allowing cell-to-cell transmission of HIV-1, infected primary T cells, but not cell-free virions, deliver cGAMP to autologous macrophages through HIV-1 Env and CD4/coreceptor-mediated membrane fusion sites and induce a STING-
dependent, but cGAS-independent, IFN response in target cells."

According to the news editors, the research concluded: "Collectively, these findings identify an infection-specific mode of horizontal transfer of cGAMP between primary immune cells that may boost antiviral responses, particularly in infected tissues in which cell-to-cell transmission of virions exceeds cell-free infection."

For more information on this research see: cGAS-Mediated Innate Immunity Spreads Intercellularly through HIV-1 Env-Induced Membrane Fusion Sites. Cell Host & Microbe, 2016;20(4):443-457. Cell Host & Microbe can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell Host & Microbe - www.journals.elsevier.com/cell-host-and-microbe/)

The news correspondents report that additional information may be obtained from C. Goffinet, Center Expt & Clin Infect Res, TWINCORE, Inst Expt Virol, D-30625 Hannover, Germany. Additional authors for this research include A. Ducroux, A. Ponnurangam, G. Vieyres, S. Franz, M. Musken, T. Zillinger, A. Malassa, E. Ewald, V. Hornung, W. Barchet, S. Haussler, T. Pietschmann and C. Goffinet.

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Keywords for this news article include: Hannover, Germany, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Mononuclear Phagocyte System, Connective Tissue Cells, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Myeloid Cells, Retroviridae, Macrophages, RNA Viruses, Immunology, Phagocytes, Genetics, HIV/AIDS, HIV-1.

Our news editors obtained a quote from the research from the Johns Hopkins University Bloomberg School of Public Health, "We enrolled men and women with a current or prior history of injection drug use in this cross-sectional sub-study within the AIDS Linked to the Intravenous Experience (ALIVE) cohort. We tested oral rinse samples for 37 types of HPV DNA and collected self-reported risk factor information. We compared oral HPV prevalence across categories using chi-squared statistics and multivariable logistic regression. Among 199 subjects, 32% were HIV-positive (median CD4 count 384 cells/mL), 90% were Black, 56% had
less than a high school education, 17% had recently used injection drugs, and the median age was 54 years. Most had performed oral sex (82%) but had fewer than 5 lifetime partners (58%). The prevalence of any oral HPV was 29%, and of any oncogenic oral HPV was 13%. Oral HPV prevalence was high among both heterosexual men (30%) and women (20%). After adjustment, odds of oral HPV were increased among HIV-positive individuals with a low CD4 count (<350 cells/ml, aOR=2.7, 95%CI=1.2-6.4, vs. HIV-negative individuals), but not among HIV-positive individuals with a higher CD4 cell count. Odds were also elevated for those who had recently performed oral sex on a woman (aOR=2.2, 95%CI=1.01-4.6) and, even after this adjustment, among bisexual/lesbian females (aOR=5.6, 95%CI=1.4-23, vs. heterosexual females). Oral HPV prevalence was not associated with vaginal sex, performing oral sex on a man, or recent drug use. Recent drug use was not associated with oral HPV prevalence in our study."

According to the news editors, the research concluded: "However, despite modest numbers of sexual partners, the prevalence of oral HPV among this largely Black population with lower socioeconomic status was high."


The news editors report that additional information may be obtained by contacting H.A. Robbins, Dept. of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States. Additional authors for this research include C.E. Fennell, M. Gillison, W. Xiao, Y. Guo, A. Wentz, G.D. Kirk, S.H. Mehta and G. D'Souza.

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Keywords for this news article include: Maryland, Genetics, Virology, Baltimore, RNA Viruses, Epidemiology, Retroviridae, United States, HIV Infections, Vertebrate Viruses, Drugs and Therapies, Risk and Prevention, Primate Lentiviruses, Opportunistic Infections, North and Central America, HIV/AIDS and Human Papillomavirus, Immune System Diseases and Conditions.

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The news reporters obtained a quote from the research from the University of Antioquia, "Here, we assessed the role of single-stranded RNA40 (ssRNA40) derived from HIV-1 in neutrophil activation. We observed functional activation of neutrophils in response to HIV-1-derived ssRNA40 based on the expression of TLR7/8, RIG-I, and MDA5, induction of cytokines (IL-6 and TNF-alpha), and the production of reactive oxygen species (ROS). Additionally, ssRNA40 promoted the expression of CD62L and TNF-alpha and the production of ROS in the presence of the TLR2 agonist Pam(2)CSK(4). ssRNA40 together with R848 (a TLR7/8 agonist) increased CD11b expression but decreased CD62L expression. Furthermore, decreased IL-6 expression was observed in the presence of the TLR4 agonist LPS. Finally, we found that ssRNA40 promotes RIG-I and MDA5 expression in the presence of the TLR2, TLR4 and TLR7/8 agonists."

According to the news reporters, the research concluded: "This study demonstrates a functional response of TLRs in neutrophils challenged with ssRNA40, suggesting that TLRs could be involved in the innate immune response observed during HIV infection, which might be mediated by its genome."

For more information on this research see: HIV-1-derived single-stranded RNA acts as activator of human neutrophils. *Immunologic Research*. 2016;64(5-6):1185-1194. *Immunologic Research* can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA. (Springer - [www.springer.com](http://www.springer.com); Immunologic Research - [www.springerlink.com/content/0257-277x/](http://www.springerlink.com/content/0257-277x/))

Our news correspondents report that additional information may be obtained by contacting S. Urcuqui-Inchima, Univ Antioquia UdeA, Fac Med, Grp Inmunovirol, Medellin, Colombia. Additional authors for this research include J.C. Hernandez and S. Urcuqui-Inchima.

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Keywords for this news article include: Medellin, Colombia, South America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Hemic and Immune Systems, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Granulocytes, Retroviridae, Blood Cells, Neutrophils, RNA Viruses, Immunology, Phagocytes, HIV/AIDS, Genetics, HIV-1, University of Antioquia.

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**Immune System Diseases and Conditions - HIV/AIDS**

**New HIV/AIDS Study Findings Have Been Reported from University Hospital (NS5A Resistance: Clinical Implications and Treatment Possibilities)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - HIV/AIDS have been published. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "Treatments with interferon-free direct-acting antiviral agents have high efficacy, with sustained virological response rates of more than 90%. Nevertheless, they fail to eliminate the infection in 1-7% of patients."
The news reporters obtained a quote from the research from University Hospital, "The majority of virological failures are due to relapse following treatment discontinuation, while virological rebound during therapy is rare. Although not the only factor, the presence of resistance-associated variants is one of the major causes for said failure. Resistance-associated variants affect the sequence involved in protein synthesis on which different direct-acting antiviral agents act (NS3/4A, NS5A, NS5B). Of all these variants, the ones with the greatest impact are resistance-associated variants that affect the NS5A region due to their long-term persistence."

According to the news reporters, the research concluded: "In this article we will describe the most significant NS5A resistance-associated variants, the clinical relevance of their detection both before and after treatment, their persistence over time, and lastly, we will devote particular attention to discussing what approach to adopt when dealing with treatment failure to an antiviral regimen that includes NS5A inhibitors."


Our news correspondents report that additional information may be obtained by contacting J.L. Calleja, Gastroenterology and Hepatology Department, Puerta de Hierro University Hospital, Majadahonda, Madrid, Spain. Additional authors for this research include S. Llerena, C. Perello and J. Crespo.

Keywords for this news article include: Spain, Madrid, Europe, HIV/AIDS, Article Review, Immune System Diseases and Conditions.

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Immune System Diseases and Conditions - HIV/AIDS

New HIV/AIDS Study Findings Reported from University of California (CRISPR-mediated Activation of Latent HIV-1 Expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting from Berkeley, California, by NewsRx journalists, research stated, "Complete eradication of HIV-1 infection is impeded by the existence of cells that harbor chromosomally integrated but transcriptionally inactive provirus. These cells can persist for years without producing viral progeny, rendering them refractory to immune surveillance and antiretroviral therapy and providing a permanent reservoir for the stochastic reactivation and reseeding of HIV-1."

The news correspondents obtained a quote from the research from the University of California, "Strategies for purging this latent reservoir are thus needed to eradicate infection. Here, we show that engineered transcriptional activation systems based on CRISPR/Cas9 can be harnessed to activate viral gene expression in cell line models of HIV-1 latency. We further demonstrate that complementing Cas9 activators with latency-reversing compounds can enhance latent HIV-1 transcription and that epigenome modulation using CRISPR-based acetyltransferases can also promote viral gene activation."

According to the news reporters, the research concluded: "Collectively, these results demonstrate that CRISPR systems are potentially effective tools for inducing latent HIV-1 expression and that their use, in combination with antiretroviral therapy, could lead to improved
therapies for HIV-1 infection."

For more information on this research see: CRISPR-mediated Activation of Latent HIV-1 Expression. *Molecular Therapy*, 2015;24(3):499-507. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news journalists report that additional information may be obtained by contacting P. Limsirichai, Dept. of Plant and Microbial Biology, University of California, Berkeley, Berkeley, California, United States. Additional authors for this research include T. Gaj and D.V Schaffer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2015.213. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berkeley, Genetics, HIV/AIDS, California, RNA Viruses, Epidemiology, Retroviridae, United States, HIV Infections, Vertebrate Viruses, Primate Lentiviruses, North and Central America, Immune System Diseases and Conditions, Viral Sexually Transmitted Diseases and Conditions.

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**Immune System Diseases and Conditions - HIV/AIDS**

**New HIV/AIDS Study Findings Reported from University of Molise (High prevalence of human papillomavirus type 58 in HIV infected men who have sex with men: A preliminary report in Central Italy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immune System Diseases and Conditions - HIV/AIDS are discussed in a new report. According to news originating from Campobasso, Italy, by NewsRx correspondents, research stated, "Human papillomavirus (HPV) infection and type-specific prevalence at anal, oral, coronal sulcus, and urethral mucosa in fifty HIV positive men having sex with men (MSM) were evaluated; patients were enrolled in a non-metropolitan area of Central Italy. Clinical and socio-demographic information, drug, and sexual behaviors were obtained for each participant."

Our news journalists obtained a quote from the research from the University of Molise, "HPV was detected by PCR from an overall of 200 specimens, and genotyping was performed by both Restriction Fragment Length Polymorphism analysis and sequencing. HPV DNA was found in 60.0% (n=30) of HIV positive MSM, and prevalence was higher at anal canal (n=28, 56.0%) compared to all the other anatomical sites (ch(2) test p<0.01) of coronal sulcus (n=11, 22.0%), oral (n=8, 16.0%), and urethral mucosa (n=5, 10.0%). We found 63.3% (n=19) of MSM with at least one high-risk genotype, and HPV-58 was more frequently detected (n=9, 47.4%) respect to HPV-16 (n=6, 31.6%). This is the first report on HPV detected at four anatomical sites involved in sexual practices in HIV positive MSM. We found an unusual distribution of oncogenic genotypes with an exceeding prevalence of HPV-58 respect to HPV-16."

According to the news editors, the research concluded: "Hence, the recently licensed nonavalent vaccine should be suitable to prevent a larger number of infections caused by potentially emerging high-risk genotypes."

For more information on this research see: High prevalence of human papillomavirus
type 58 in HIV infected men who have sex with men: A preliminary report in Central Italy. 

The news correspondents report that additional information may be obtained from M.L. Sammarco, Chair of Hygiene, Dept. of Medicine and Health Sciences, University of Molise, Campobasso, Italy. Additional authors for this research include C. Ucciferri, M. Tamburro, K. Falasca, G. Ripabelli and J. Vecchiet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jmv.24406. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, Genetics, Vaccines, Virology, Campobasso, RNA Viruses, Epidemiology, Retroviridae, HIV Infections, Vertebrate Viruses, Primate Lentiviruses, Opportunistic Infections, Papillomavirus Infection, HIV/AIDS and Human Papillomavirus, Acquired Immunodeficiency Syndrome, Immune System Diseases and Conditions.

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**Gram-Negative Bacteria - Haemophilus influenzae**

**New Haemophilus influenzae Findings from Center for Disease Control and Prevention Reported (Comparative Genomic Analysis of Haemophilus haemolyticus and Nontypeable Haemophilus influenzae and a New Testing Scheme for Their Discrimination)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Haemophilus influenzae. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "Haemophilus haemolyticus has been recently discovered to have the potential to cause invasive disease. It is closely related to nontypeable Haemophilus influenzae (NT H. influenzae). NT H. influenzae and H. haemolyticus are often misidentified because none of the existing tests targeting the known phenotypes of H. haemolyticus are able to specifically identify H. haemolyticus."

The news correspondents obtained a quote from the research from Center for Disease Control and Prevention, "Through comparative genomic analysis of H. haemolyticus and NT H. influenzae, we identified genes unique to H. haemolyticus that can be used as targets for the identification of H. haemolyticus. A real-time PCR targeting purT (encoding phosphoribosylglycinamidine formyltransferase 2 in the purine synthesis pathway) was developed and evaluated. The lower limit of detection was 40 genomes/PCR; the sensitivity and specificity in detecting H. haemolyticus were 98.9% and 97%, respectively. To improve the discrimination of H. haemolyticus and NT H. influenzae, a testing scheme combining two targets (H. haemolyticus purT and H. influenzae hpd, encoding protein D lipoprotein) was also evaluated and showed 96.7% sensitivity and 98.2% specificity for the identification of H. haemolyticus and 92.8% sensitivity and 100% specificity for the identification of H. influenzae, respectively."

According to the news reporters, the research concluded: "The dual-target testing scheme can be used for the diagnosis and surveillance of infection and disease caused by H. haemolyticus and NT H. influenzae."
For more information on this research, see: Comparative Genomic Analysis of Haemophilus haemolyticus and Nontypeable Haemophilus influenzae and a New Testing Scheme for Their Discrimination. *Journal of Clinical Microbiology*, 2016;54(12):3010-3017. *Journal of Clinical Microbiology* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.

Our news journalists report that additional information may be obtained by contacting X. Wang, Center Dis Control & Prevent, Meningitis & Vaccine Preventable Dis Branch, Div Bacterial Dis, Natl Center Immunizat & Resp Dis, Atlanta, GA 30333, United States. Additional authors for this research include L. Rishishwar, A. Sivadas, G.J. Mitchell, I.K. Jordan, T.F. Murphy, J.R. Gilsdorf, L.W. Mayer and X. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/JCM.01511-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Haemophilus, Diagnostics and Screening, Epidemiology, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Bacteria, Haemophilus influenzae, Gammaproteobacteria, Pasteurellaceae, Proteobacteria, Genetics, Center for Disease Control and Prevention.

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**Hantavirus**

**New Hantavirus Findings from University of Health Sciences Described**

(Targeting a Novel RNA-Protein Interaction for Therapeutic Intervention of Hantavirus Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hantavirus have been published. According to news reporting from Pomona, California, by NewsRx journalists, research stated, "An evolutionarily conserved sequence at the 5' terminus of hantaviral genomic RNA plays an important role in viral transcription initiation and packaging of the viral genome into viral nucleocapsids. Interaction of viral nucleocapsid protein (N) with this conserved sequence facilitates mRNA translation by a unique N-mediated translation strategy."

Financial support for this research came from National Institutes of Health.

The news correspondents obtained a quote from the research from the University of Health Sciences, "Whereas this evolutionarily conserved sequence facilitates virus replication with the assistance of N in eukaryotic hosts having multifaceted antiviral defense, we demonstrate its interaction with N presents a novel target for therapeutic intervention of hantavirus disease. Using a high throughput screening approach, we identified three lead inhibitors that bind and induce structural perturbations in N. The inhibitors interrupt N-RNA interaction and abrogate both viral genomic RNA synthesis and N-mediated translation strategy without affecting the canonical translation machinery of the host cell. The inhibitors are well tolerated by cells and inhibit hantavirus replication with the same potency as ribavarin, a commercially available antiviral."

According to the news reporters, the research concluded: "We report the identification of a unique chemical scaffold that disrupts a critical RNA-protein interaction in
hantaviruses and holds promise for the development of the first anti-hantaviral therapeutic with broad spectrum antiviral activity."


Our news journalists report that additional information may be obtained by contacting M.A. Mir, Western Univ Hlth Sci, Coll Vet Med, Pomona, CA 91766, United States. Additional authors for this research include S.S. Ganaie, A. Roy, S. Jeeva and M.A. Mir.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.750729. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pomona, California, United States, North and Central America, Protein Interaction, Bunyaviridae, RNA Viruses, Proteomics, Hantavirus, Viral RNA, Genetics, Virology, University of Health Sciences.

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**Oncology - Head and Neck Cancer**

**New Head and Neck Cancer Study Findings Have Been Reported by Investigators at University of Malaya (HOPX functions as a tumour suppressor in head and neck cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Head and Neck Cancer are presented in a new report. According to news reporting originating from Kuala Lumpur, Malaysia, by NewsRx correspondents, research stated, "Head and neck squamous cell carcinoma (HNSCC) is a generalized term that encompasses a diverse group of cancers that includes tumours of the oral cavity (OSCC), oropharynx (OPSCC) and nasopharynx (NPC). Genetic alterations that are common to all HNSCC types are likely to be important for squamous carcinogenesis."

Our news editors obtained a quote from the research from the University of Malaya, "In this study, we have investigated the role of the homeodomain-only homeobox gene, HOPX, in the pathogenesis of HNSCC. We show that HOPX mRNA levels are reduced in OSCC and NPC cell lines and tissues and there is a general reduction of HOPX protein expression in these tumours and OPSCCs. HOPX promoter methylation was observed in a subset of HNSCCs and was associated with a worse overall survival in HPV negative tumours. RNAseq analysis of OSCC cells transfected with HOPX revealed a widespread deregulation of the transcription of genes related to epithelial homeostasis and ectopic over-expression of HOPX in OSCC and NPC cells inhibited cell proliferation, plating efficiency and migration, and enhanced sensitivity to UVA-induced apoptosis."

According to the news editors, the research concluded: "Our results demonstrate that HOPX functions as a tumour suppressor in HNSCC and suggest a central role for HOPX in suppressing epithelial carcinogenesis."

For more information on this research see: HOPX functions as a tumour suppressor


Keywords for this news article include: Kuala Lumpur, Malaysia, Asia, Head and Neck Neoplasms, Head and Neck Cancer, Carcinogenesis, Oncology, Genetics, University of Malaya.

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**Oncology - Head and Neck Cancer**

**New Head and Neck Cancer Study Findings Recently Were Reported by Researchers at Research Institute (Treatment delays, race, and outcomes in head and neck cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Head and Neck Cancer are discussed in a new report. According to news reporting originating in Tampa, Florida, by NewsRx journalists, research stated, "Patient race has been shown to predict for differences in outcomes and has been attributed to socioeconomic factors such as social support and access to healthcare. In head and neck cancer (HNC), a disease without recommended screening, we sought to investigate the association between race, treatment delays and outcome."

The news reporters obtained a quote from the research from Research Institute, "Records of 1802 patients with non-metastatic squamous cell HNC treated between 1998 and 2013 were retrospectively assessed from an institutional database. Patient demographics, tumor and treatment characteristics, and patient outcomes were abstracted from the chart. Differences between groups were assessed via logistic regression multivariate analysis (MVA). Outcomes including locoregional control (LRC) and overall survival (OS) were then estimated via Kaplan-Meier and Cox-regression MVA. Median follow up was 34 months. Patient races included white (n = 1671, 93%), black (n = 80, 4%), Asian (n = 18, 1%), and other (n = 33, 2%). On logistic regression MVA, Black patients were less likely to be married (39% vs. 63%; OR 0.595% CI 0.30-0.83, p = 0.007) or be currently employed (43% vs. 61%; OR 0.44 95% CI 0.26-0.74, p = 0.002) when compared to non-blacks. Black patients were also younger (54 vs. 59 years, p = 0.001), more likely to present with advanced tumor stage (T4: 48% vs. 25%), and more often had > 45 days elapsed from diagnosis to treatment initiation (DTI) (61% vs. 49%, p = 0.028). Delays in treatment, such as delayed diagnosis (advanced disease presentation) and delays in DTI > 45 days were also associated with marital and employment status. Black patients were associated with a lower 3-year LRC rate (65% vs. 81%, p < 0.001) and OS rate (43% vs. 69%, p < 0.001), compared to non-black patients. Patients with > 45 days DTI had a detriment in 3-year LRC (77% vs. 83%, p = 0.002) and OS (66% vs. 69%, p = 0.009). On Cox MVA, black race was independently prognostic for worse LRC (HR 1.62 95% CI 1.04-2.51, p = 0.033) and OS (HR 1.55 95% CI 1.15-2.08, p = 0.004) vs. non-blacks. Black race is independently prognostic for LRC and OS. Delays in HNC treatment, such as more advanced
tumor stage presentation and delays in treatment initiation, may be attributed to socioeconomic factors such as employment status and social support."

According to the news reporters, the research concluded: "Efforts to accommodate these factors may expedite treatment, in hopes of improving the race related outcome disparity in HNC."

For more information on this research see: Treatment delays, race, and outcomes in head and neck cancer. *Cancer Epidemiology*, 2016;45():18-25. *Cancer Epidemiology* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news correspondents report that additional information may be obtained by contacting A.O. Naghavi, H Lee Moffitt Canc Center & Res Inst, Dept. of Radiat Oncol, Tampa, FL, United States. Additional authors for this research include M.I. Echevarria, T.J. Strom, Y.A. Abudeh, K.A. Ahmed, P.S. Venkat, A. Trotti, L.B. Harrison, B.L. Green, K. Yamoah and J.J. Caudell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.09.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tampa, Florida, United States, North and Central America, Head and Neck Neoplasms, Cancer, Epidemiology, Head and Neck Cancer, Oncology, Research Institute.

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**Oncology - Head and Neck Cancer**

**New Head and Neck Cancer Study Findings Recently Were Reported by Researchers at University of Colorado (Enhancing radiosensitization in EphB4 receptor-expressing Head and Neck Squamous Cell Carcinomas)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Head and Neck Cancer have been published. According to news reporting from Aurora, Colorado, by NewsRx journalists, research stated, "Members of the Eph family of receptor tyrosine kinases have been implicated in a wide array of human cancers. The EphB4 receptor is ubiquitously expressed in head and neck squamous cell carcinoma (HNSCC) and has been shown to impart tumorigenic and invasive characteristics to these cancers."

The news correspondents obtained a quote from the research from the University of Colorado, "In this study, we investigated whether EphB4 receptor targeting can enhance the radiosensitization of HNSCC. Our data show that EphB4 is expressed at high to moderate levels in HNSCC cell lines and patient-derived xenograft (PDX) tumors. We observed decreased survival fractions in HNSCC cells following EphB4 knockdown in clonogenic assays. An enhanced G2 cell cycle arrest with activation of DNA damage response pathway and increased apoptosis was evident in HNSCC cells following combined EphB4 downregulation and radiation compared to EphB4 knockdown and radiation alone. Data using HNSCC PDX models showed significant reduction in tumor volume and enhanced delay in tumor regrowth following
sEphB4-HSA administration with radiation compared to single agent treatment. sEphB4-HSA is a protein known to block the interaction between the EphB4 receptor and its ephrin-B2 ligand."

According to the news reporters, the research concluded: "Overall, our findings emphasize the therapeutic relevance of EphB4 targeting as a radiosensitizer that can be exploited for the treatment of human head and neck carcinomas."

For more information on this research see: Enhancing radiosensitization in EphB4 receptor-expressing Head and Neck Squamous Cell Carcinomas. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting S.D. Karam, Univ Colorado Denver, Dept. of Radiat Oncol, Aurora, CO 80045, United States. Additional authors for this research include K. Hirsch, J. Sharma, A. Oweida, A. Griego, S. Keysar, A. Jimeno, D. Raben, V. Krasnoperov, P.S. Gill, E.B. Pasquale, X.J. Wang and S.D. Karam.

Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Protein-Tyrosine Kinases, Squamous Cell Carcinoma, Eph Family Receptors, Head and Neck Cancer, Membrane Proteins, Protein Kinases, EphB4 Receptor, Carcinomas, Oncology, Genetics, University of Colorado.

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Surgery - Head and Neck Surgery

New Head and Neck Surgery Findings Has Been Reported by Investigators at Laval University (Decreasing loco-regional recurrence for oral cavity cancer with total Mohs margins technique)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Surgery - Head and Neck Surgery. According to news reporting originating in Quebec City, Canada, by NewsRx journalists, research stated, "The conventional technique for cancer resection margin analysis studies only 0.1% of the surgical margins. Complete frozen section margins - also known as Mohs margins - allows for analysis of 100% of the surgical margins."

The news reporters obtained a quote from the research from Laval University, "The objective of our study is to compare oral cavity cancer loco-regional recurrence rates when treated by total frozen sections technique (Total Mohs margins) versus conventional margins. We conducted a multicenter retrospective cohort chart review. Loco-regional oral cancer recurrence rates were compared between patients treated with total Mohs margins (2007-2013) and patients treated with conventional margins techniques (2002-2007). After applying inclusion criteria, a total of 60 patients treated by total Mohs margins and 57 patients with conventional margins were identified. Patients had similar baseline cancer stages, pathological types, past head and neck cancers and comorbidities (all p> 0.05). One-year recurrence rate was lower (10.0% vs 21.1%, p = 0.019) in favor of Mohs total margins and stayed significantly lower at 5 years of follow-up. When adjusted for T grade with N0 disease, Mohs technique was still beneficial in loco-regional recurrence for Tis-T4N0 up to 2 years (10.5% vs 25.7%, z-score 1.849, p = 0.032). The Number Needed to Treat at 2 years of follow-up for this subgroup of
patients (Tis-T4N0) is 6.6. Margins had to be retaken more often intra-operatively in Mohs technique (68.3% vs 12.3%, p< 0.0001), mainly for positive deep margins (48.6% of all margins, p = 0.028). Duration of surgery was not increased with Mohs vs conventional technique (380 min vs 475 min respectively, p = 0.025). Mohs total margins may result in a significant reduction in cancer recurrence rate at 5 years compare to conventional surgery."

According to the news reporters, the research concluded: "Moreover, duration of surgery was not increased when using Mohs technique when judiciously performed."


Our news correspondents report that additional information may be obtained by contacting N. Audet, Laval University, Hopital Enfant Jesus, CHU Quebec, Dept. of Otolaryngol Head & Neck Surg, Quebec City, PQ G1J 1Z4, Canada. Additional authors for this research include P. Gauthier and N. Audet.

Keywords for this news article include: Quebec City, Quebec, Canada, North and Central America, Head and Neck Surgery, Oncology, Surgery, Cancer, Laval University.

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**Health and Medicine - Health and Society**

**New Health and Society Study Results from IMS Health Described (Orphan Drug Expenditures In The United States: A Historical And Prospective Analysis, 2007-18)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Health and Society. According to news reporting originating in Fairfax, Virginia, by NewsRx journalists, research stated, "The Orphan Drug Act of 1983 established incentives for the development of drugs that treat rare, or orphan, diseases. We used the IMS Health MIDAS database of audited biopharmaceutical sales to measure US annual spending on orphan drugs in the period 2007-13, and we estimated spending on the drugs for the period 2014-18."

The news reporters obtained a quote from the research from IMS Health, "We identified 356 brand-name orphan drugs that were approved by the Food and Drug Administration in the period 1983-2013. While we included orphan drugs with both orphan and other indications, we adjusted spending to include only spending for orphan indications. In 2014 dollars, expenditures on orphan drugs totaled $15 billion in 2007 and $30 billion in 2013-representing 4.8 percent and 8.9 percent of total pharmaceutical expenditures, respectively. Our future trend analysis for the period 2014-18 suggests a slowing in the growth of orphan drug expenditures. The overall impact of orphan drugs on payers' drug budgets is relatively small, and spending on orphan drugs as a percentage of total pharmaceutical expenditures has remained fairly stable."

According to the news reporters, the research concluded: "Concerns that growth in orphan drug expenditures may lead to unsustainable drug expenditures do not appear to be justified."

For more information on this research see: Orphan Drug Expenditures In The United
New Health-System Pharmacy Findings from Medical University of South Carolina Described (Pharmacy residency training measured through a standardized knowledge test)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Health-System Pharmacy is now available. According to news reporting out of Charleston, South Carolina, by NewsRx editors, research stated, "The use of a standardized knowledge test to assess postgraduate year 1 (PGY1) pharmacy residency training was evaluated. This was a retrospective review of a prospectively administered exam."

Our news journalists obtained a quote from the research from the Medical University of South Carolina, "A bank of questions was developed by preceptors from each of the core rotation disciplines: general medicine (including ambulatory care and oncology), pediatrics, critical care (including transplantation), drug information, operations, practice management, and psychiatry. Board-certified pharmacy specialists at our institution were asked to submit 5-10 questions with answers that would likely be encountered by residents during rotation in their specific specialty area. The exam was administered at the beginning and the end of the resident's PGY1 year. A total of 49 PGY1 residents completed the examination during the first and last months of their residency training. Residents' overall scores improved 5-10% annually from baseline to completion of their residency. The mean overall exam score significantly improved from baseline after completion of a PGY1 residency at our institution for all four class years. All four residency classes demonstrated an increase from baseline scores in most core disciplines with the exception of practice management, which decreased every year of the examination."

According to the news editors, the research concluded: "Scores on a standardized exam developed to assess the baseline knowledge of incoming PGY1 residents and the effect of one year of residency training improved in the majority of practice areas at the end of the year compared to scores at the beginning of the year."

For more information on this research see: Pharmacy residency training measured through a standardized knowledge test. American Journal of Health-System Pharmacy, 2016;73 (24):2095-2098. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7727 Wisconsin Ave, Bethesda, MD 20814, USA.
Our news journalists report that additional information may be obtained by contacting A.N. Thompson, Medical University of South Carolina, Coll Pharm, Dept. of Clin Pharm & Outcome Sci, Charleston, SC 29425, United States. Additional authors for this research include B.P. McKinzie, J.S. Haney, J.M. Nappi and N. Pilch.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp150987. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Charleston, South Carolina, United States, North and Central America, Health-System Pharmacy, Drugs and Therapies, Medical University of South Carolina.

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Heart Disorders and Diseases - Heart Attack

New Heart Attack Findings Has Been Reported by M. Cardona-Morrell et al (Pre-existing risk factors for in-hospital death among older patients could be used to initiate end-of-life discussions rather than Rapid Response System calls: A ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Attack. According to news originating from Sydney, Australia, by NewsRx correspondents, research stated, "To investigate associations between clinical parameters beyond the evident physiological deterioration and limitations of medical treatment with in-hospital death for patients receiving Rapid Response System (RRS) attendances. Retrospective case-control analysis of clinical parameters for 328 patients aged 60 years and above at their last RRS call during admission to a single teaching hospital in the 2012-2013 calendar years."

Our news journalists obtained a quote from the research, "Generalised estimating equation modelling was used to compare the deceased with a randomly selected sample of those who had RRS calls and survived admission (controls), matched by age group, sex, and hospital ward. In addition to a pre-existing order for limitation of treatment or cardiac arrest (OR 6.92; 95% CI 4.61-10.27), nursing home residence, proteinuria, advanced malignancy, acute myocardial infarction, chronic kidney disease, cognitive impairment and frailty were associated with high risk of death. After adjusting for all the clinical indicators investigated, the strongest risk factors for in-hospital death for patients with a RRS call were advanced malignancy (OR 3.95; 95% CI 2.16-7.21) and new myocardial infarction (OR 2.79; 95% CI 1.86-4.20). Patients with cognitive impairment, frailty indicator or chronic kidney disease were twice as likely to die as patients without those risk factors. In a sample of older deteriorated patients requiring a RRS attendance, multiple indicators of chronic illness, cognitive impairment and frailty were significantly associated with high risk of death."

According to the news editors, the research concluded: "These clinical features beyond the evident orders for limitation of medical treatment should signal the need for clinicians to initiate end-of-life discussions that may prevent futile interventions."

For more information on this research see: Pre-existing risk factors for in-hospital death among older patients could be used to initiate end-of-life discussions rather than Rapid Response System calls: A case-control study. Resuscitation, 2016;109():76-80. Resuscitation
New Heart Attack Findings Has Been Reported by Researchers at Department of Emergency Medicine (Prevalence of emergency medical service utilisation in patients with out-of-hospital cardiac arrest in Thailand)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting originating in Bangkok, Thailand, by NewsRx journalists, research stated, "Most patients with out-of-hospital cardiac arrest (OHCA) have grave outcomes. The efficacy of emergency medical services (EMS) may affect outcomes."

The news reporters obtained a quote from the research from the Department of Emergency Medicine, "However, no data exists in Thailand. To ascertain the prevalence of EMS utilisation in patients with OHCA transferred to Siriraj Hospital and also to elucidate the rates of return of spontaneous circulation (ROSC), hospital admission and survival to hospital discharge. This prospective cohort study was conducted in patients with OHCA at a university hospital in Bangkok, Thailand from May 2011 to February 2013. The data was gathered by interviewing bystanders. Data about the mode of transportation, reasons for EMS usage, response time, ROSC and 30-day mortality were collected. Patients with rigour mortis or livor mortis were excluded. The factors affecting ROSC and survival rate were determined by univariate analysis. One hundred and fifty-two patients were included. The prevalence of EMS usage was 14.5% (95% CI 9.3 to 21.0). The most common cause of non-usage of EMS was not knowing or forgetting an EMS number (49.2%). The proportion of bystanders having known an EMS number and using EMS was 34%. The ROSC and 30-day survival rates were 53.3% and 10.5%, respectively. Non-cardiac causes and witnessed arrests were associated with ROSC (p <0.05). The prevalence of EMS utilisation in OHCA at Siriraj Hospital was very low. This may affect the outcomes of patients with OHCA."

According to the news reporters, the research concluded: "Improving the EMS system by publicity to increase public awareness and providing life-support education nationwide may improve outcomes of patients with OHCA in Thailand."

Our news correspondents report that additional information may be obtained by contacting A. Monsomboon, Dept. of Emergency Medicine, Siriraj Hospital, Bangkok, Thailand. Additional authors for this research include P. Chantawatsharakorn, S. Sukuriyayothin, K. Keorochana, A. Mukda, N. Prapruetkit, U. Surabenjawong, T. Nakornchai and T. Chakorn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/emermed-2015-204818. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Bangkok, Thailand, Hospital, Cardiology, Heart Attack, Cardiac Arrest, Heart Disorders and Diseases.

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**Heart Disorders and Diseases - Heart Attack**

**New Heart Attack Findings from Federal University Outlined (Effects of thyroid hormones on aortic tissue after myocardial infarction in rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Attack. According to news reporting originating from Porto Alegre, Brazil, by NewsRx correspondents, research stated, "Studies have shown a cardioprotective role of thyroid hormones (THs) in cardiac remodeling after acute myocardial infarction (MI). However, there is no data in the literature examining the influence of TH administration on the aortic tissue in an animal model of MI."

Our news editors obtained a quote from the research from Federal University, "This study aimed to evaluate the effects of thyroid hormones on the aorta after MI. Male Wistar rats were divided into a sham group (SHAM), infarcted group (AMI), sham+TH (SHAMT) and AMI+TH (AMIT). After MI, the animals received T3 and T4 (2 and 8 μg/100 g/day, respectively) by oral gavage for 12 days. Later, the animals underwent echocardiography and euthanasia and the aorta was collected for molecular and biochemical analysis. T3 and T4 administration increased the expression of the pro-angiogenic proteins vascular endothelial growth factor (VEGF) and hypoxia inducible factor 1 alpha (HIF-1 alpha) in the aorta of AMIT rats when compared with AMI. With respect to TH receptors, AMI rats presented a decrease in TR beta levels, which was prevented by the hormonal administration. In AMIT rats, both TR alpha and TR beta levels were increased when compared with the AMI group. Reactive oxygen species levels and NADPH oxidase activity were decreased in both treated groups when compared with the non-treated animals. TH administration after MI may improve angiogenic signaling in the aorta as well as the responsiveness of this vessel to T3 and T4."

According to the news editors, the research concluded: "These positive effects in the aorta may result in additional protection for the cardiovascular system in the context of cardiac ischaemic injury."

For more information on this research see: Effects of thyroid hormones on aortic tissue after myocardial infarction in rats. *European Journal of Pharmacology*, 2016;791():788-
793. *European Journal of Pharmacology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.10.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Porto Alegre, Brazil, South America, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Myocardial Ischemia, Thyroid Hormones, Heart Disease, Angiogenesis, Heart Attack, Cardiology, Angiology, Arteries, Aorta, Federal University.

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**Heart Disorders and Diseases - Heart Attack**

**New Heart Attack Findings from Kanazawa University Hospital Described (Age-specific differences in prognostic significance of rhythm conversion from initial non-shockable to shockable rhythm and subsequent shock delivery in out-of-hospital ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting out of Ishikawa, Japan, by NewsRx editors, research stated, "Early rhythm conversion from an initial non-shockable to a shockable rhythm and subsequent shock delivery in patients with out-of-hospital cardiac arrest (OHCA) has been associated with favourable neurological outcome (Cerebral Performance Category score 1 or 2; CPC 1-2). We hypothesized that the prognostic significance of rhythm conversion and subsequent shock delivery differs by age and time from initiation of cardiopulmonary resuscitation (CPR) by emergency medical service (EMS) providers to first defibrillation (shock delivery time)."

Our news journalists obtained a quote from the research from Kanazawa University Hospital, "We analysed 430,443 OHCA patients with an initial non-shockable rhythm using a prospective Japanese Utstein-style database from 2011 to 2014. The primary endpoint was 1-month CPC 1-2. Multivariate logistic regression revealed that rhythm conversion and subsequent shock delivery is positively associated with 1-month CPC 1-2: the adjusted odds ratio was 6.09 (95% confidence interval: 3.65-9.75) for shock delivery time <10 min and 3.34 (2.58-4.27) for 10-19 min in patients aged 18-64 years, and 3.16 (1.45-6.09) for <10 min and 2.17 (1.51-3.03) for 10-19 min in patients aged 65-74 years. However, it is negatively associated with 1-month CPC 1-2 for shock delivery time of 20-59 min in patients aged 75-84 years (0.55; 0.27-0.98) and >85 years (0.17; 0.03-0.53)."

According to the news editors, the research concluded: "Early rhythm conversion from an initial non-shockable to a shockable rhythm and subsequent shock delivery is associated
with increased odds of 1-month CPC 1-2 in OHCA patients aged 18-74 years but not in those aged >= 75 years."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.09.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ishikawa, Japan, Asia, Heart Disorders and Diseases, Cardiac Arrest, Heart Attack, Cardiology, Hospital, Kanazawa University Hospital.

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**Heart Disorders and Diseases - Heart Attack**

**New Heart Attack Findings from P.C. Sherrell and Co-Authors Described (Cardiac and stem cell-cocooned hybrid microspheres: A multi factorial design approach)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting originating in Linkoping, Sweden, by NewsRx journalists, research stated, "Cell therapy is a promising approach for the treatment of patients suffering from myocardial infarction. Most recent therapies involve direct injection of cells into the damaged heart tissue to induce regeneration and help restore its functions, however, anoikis and the harsh environment at the sight of injection limit the therapeutic efficacy of current techniques."

Funders for this research include European Research Agency, Landstinget i Ostergotland-2013, Linkoping University-2014.

The news reporters obtained a quote from the research, "Biopolymeric microspheres such as alginate have been widely used for cells encapsulation and delivery for cell therapy applications. However, majority of these techniques are not standardized that is a big challenge for translation into clinically-relevant treatment options. In addition, purely-alginate base microspheres are limited by poor biodegradability and lack of strong interaction between the encapsulated cells and their surrounding alginate matrix. In this work, we have shown that the addition of type I collagen into alginate microspheres, systematically optimized by a multivariate experimental design, improves the biocompatibility of the microspheres towards induced pluripotent stem cells (iPSC), cardiomyocytes, and blood outgrowth endothelial cells (BOEC), whilst improving diffusion between outside environment and the inner sphere. The addition of collagen allows for multiple routes for sphere degradation leading to potentially
greater control over cell release once delivered."

According to the news reporters, the research concluded: "Mathematical models were developed and utilized to effectively evaluate and predict the influence of various factors such as polymer ratios, micronization air flow rate, and air-gap distance on spheres size and shape, which play a key role in cell viability, degradation rate of microspheres, as well as controlled production of the cell cocoons toward clinically-relevant cell therapies for treatment of myocardial infarction."

For more information on this research see: Cardiac and stem cell-cocooned hybrid microspheres: A multi factorial design approach. *Sensors and Actuators B-Chemical*, 2016;236 ():480-489. *Sensors and Actuators B-Chemical* can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland.

Our news correspondents report that additional information may be obtained by contacting M. Rafat, LinkoCare Life Sci AB, Linkoping, Sweden. Additional authors for this research include K. Elmen, A. Cieslar-Pobuda, E. Wiechec, M. Lemoine, Z. Arzhangi, M.S. Ejneby, J. Brask, J.N. Daka and M. Rafat.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.snb.2016.06.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Linkoping, Sweden, Europe, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Myocardial Ischemia, Stem Cell Research, Heart Disease, Heart Attack, Cardiology.

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**Heart Disorders and Diseases - Heart Attack**

**New Heart Attack Findings from University of Lille Described (Can we identify termination of resuscitation criteria in cardiac arrest due to drowning: results from the French national out-of-hospital cardiac arrest registry)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Attack. According to news reporting originating from Loos, France, by NewsRx correspondents, research stated, "Aims and objectivesThe aim of this study was to describe the cohort of persons having experiences fatal and non-fatal drowning events, registered in the French cardiac arrest registry and to identify termination of resuscitation criteria. MethodsWe performed a prospective multicenter study based on data from French cardiac arrest registry database."

Our news editors obtained a quote from the research from the University of Lille, "All patients with cardiac arrest after drowning (CAD) recorded between July 2011 and November 2014 were included. The population description was carried out by medians [interquartile ranges (IQR)] or frequencies. The characteristics were compared in terms of the primary endpoint (alive vs dead at hospital admission) using chi-square or Fisher's exact and the Mann-Whitney U test. The predictive model was carried out using the multivariate logistic regression. ResultsThe analysis included 234 CAD. The majority of patients were adults (83.6%) and males (64.5%). Most of the submersions occurred out of home (75.6%). We recorded 66.7% of incidents in fresh water. About a third of CAD was witnessed of which
33.8% had an immediate basic life support. Most of CAD patients received an advanced cardiac life support (87.2%). The median Mobile Medical Team response time was 22 [15-30] minutes. At hospital, 40.6% of patients were alive. Twenty one patients (9.0%) were discharged alive. Among them, 17 had a good neurological outcome. Faster interventions generally resulted in higher survival chances (Mobile Medical Team response time OR: 0.960[0.925; 0.996]; P=0.031; no flow duration OR: 0.535[0.313; 0.913]; P=0.022) if associated with ventilation (OR: 6.742[2.043; 22.250]; P=0.002). Age (OR: 0.971[0.955; 0.988]; P=0.001) and location outside (OR: 0.203[0.064; 0.625]; P=0.007) are the other criteria of our model. Conclusions The model is helpful to highlight explanatory variables concerning CAD patients' outcome. The next step is the validation of these five factors by a larger study.

According to the news editors, the research concluded: "Prevention and public training to lifesaving behaviours must be considered as priorities in French public health programmes."


The news editors report that additional information may be obtained by contacting H. Hubert, ILIS Univ Lille, Dept. of Public Hlth, EA 2694, Loos, France. Additional authors for this research include J. Escutnaire, P. Michelet, E. Babykina, C. El Khoury, K. Tazarourte, C. Vilhelm, L. El Hiki, B. Guinhouya and P.Y. Gueugniaud.

Keywords for this news article include: Loos, France, Europe, Heart Disorders and Diseases, Emergency Treatment, Cardiac Arrest, Resuscitation, Heart Attack, Cardiology, Hospital, Drowning, University of Lille.

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**New Heart Attack Study Findings Have Been Reported by Investigators at Oslo University Hospital (Factors impacting upon timely and adequate allocation of prehospital medical assistance and resources to cardiac arrest patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news originating from Oslo, Norway, by NewsRx correspondents, research stated, "Explore, understand and address issues that impact upon timely and adequate allocation of prehospital medical assistance and resources to out-of-hospital cardiac arrest (OHCA) patients. Mixed-methods design obtaining data for one year in three emergency medical communication centres (EMCC); Oslo-Akershus (OA), Vestfold-Telemark (VT) and Ostfold (O)."

Financial support for this research came from University of Oslo.

Our news journalists obtained a quote from the research from Oslo University Hospital, "Data collection included quantitative data from analysis of dispatch logs, ambulance
records and audio files. Qualitative data were collected through in-depth interviews and non-participant observations. OA-, VT-and O-EMCC responded to 1095 OHCAs and 579 of these calls were included for further analysis (333, 143 and 103, respectively). There were significant site differences in their recognition of OHCA (89, 94 and 78%, respectively, p < 0.001), provision of CPR instructions (83, 83 and 61%, respectively, p < 0.001), time from call answered to initial CPR instructions (1.4 min (1.2, 1.6), 1.1 min (0.9, 1.2) and 1.3 (1.2, 1.7) respectively, p = 0.002). The most frequent reason for delayed or failed recognition of OHCA was misinterpretation of agonal breathing. Interviews and observations revealed individual differences in protocol use, interrogation strategy and assessment of breathing. Use of protocol was only part of decision making, dispatchers trusted their own clinical experience and intuition, and used assumptions about the patient and the situation as part of decision making. Agonal breathing continues to be the main barrier to recognition of cardiac arrest.”

According to the news editors, the research concluded: "Individual differences among dispatchers' strategies can directly impact on performance, mainly due to the wide definition of cardiac arrest and lack of uniform tools for assessment of breathing.”

For more information on this research see: Factors impacting upon timely and adequate allocation of prehospital medical assistance and resources to cardiac arrest patients. Resuscitation, 2016;109():56-63. Resuscitation can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Resuscitation - www.journals.elsevier.com/resuscitation/)

The news correspondents report that additional information may be obtained from C. Hardeland, Oslo Univ Hosp, Norwegian Natl Advisory Unit Prehosp Emergency Me, N-0424 Oslo, Norway. Additional authors for this research include K. Sunde, H. Ramsdal, S.R. Hebbert, L. Soilammi, F. Westmark, F. Nordum, A.E. Hansen, J.E. Steen-Hansen and T.M. Olasveengen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.09.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Norway, Europe, Health Care Economics and Organizations, Heart Disorders and Diseases, Medical Assistance, Public Assistance, Cardiac Arrest, Heart Attack, Cardiology, Oslo University Hospital.

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database were analyzed."

The news correspondents obtained a quote from the research from American University, "Patients aged (>=)18 years undergoing unilateral primary TKA were included. We divided the patients into 4 groups: no anemia, any anemia, mild anemia, and moderate-severe anemia. Associations between anemia and different characteristics as well as cardiac outcomes and death were studied, after adjusting for all potential confounders. In the nonanemic group, the occurrence of myocardial infarction, cardiac arrest, and death were 61 of 34,661 (0.18%), 23 of 34,661 (0.07%), and 30 of 34,661 (0.09%), respectively. The numbers in the anemia group were 23 of 6673 (0.34%), 9 of 6673 (0.13%), and 14 of 6673 (0.21%). These were not statistically different. The anemic group had higher odds for respiratory and renal morbidities and for receiving transfusions. We found no association between preoperative anemia or its severity and myocardial infarction, cardiac arrest, or death up to 30 days postoperatively. This could potentially lower the bar for safe preoperative hematocrit levels for elective TKA, theoretically increasing the percentage of anemic patients undergoing the procedure."

According to the news reporters, the research concluded: "This, however, is at the expense of potential respiratory and renal insults."

For more information on this research see: The Association of Anemia and Its Severity with Cardiac Outcomes and Mortality After Total Knee Arthroplasty in Noncardiac Patients. The Journal of Arthroplasty, 2015;31(4):766-70.

Our news journalists report that additional information may be obtained by contacting J.S. Chamieh, Division of Orthopaedic Surgery, Dept. of Surgery, American University of Beirut Medical Center, Beirut, Lebanon. Additional authors for this research include H.M. Tamim, K.Z. Masrouha, S.S. Saghieh and M.M Al-Taki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arth.2015.10.035. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beirut, Anemia, Lebanon, Surgery, Cardiology, Heart Attack, Heart Disease, Knee Arthroplasty, Myocardial Ischemia, Myocardial Infarction, Orthopedic Procedures, Heart Disorders and Diseases, Vascular Diseases and Conditions, Hematologic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions.

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Heart Disorders and Diseases - Heart Attack

New Heart Attack Study Findings Have Been Reported by Researchers at University Hospital (External validity of a contemporaneous primary percutaneous coronary intervention trial in patients with acute ST-elevation myocardial infarction: ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting originating in Bern, Switzerland, by NewsRx journalists, research stated, "Randomised controlled trials (RCTs) represent the most robust source of evidence-based medicine. However, the generalisability of RCTs is limited by the inclusion of selected populations."
The news reporters obtained a quote from the research from University Hospital, "We sought to assess the external validity of a contemporary trial including patients with ST-elevation myocardial infarction (STEMI) undergoing primary percutaneous coronary intervention (PPCI). Patients presenting to Bern University Hospital during the inclusion period of the COMFORTABLE AMI trial were divided into three groups: RCT participants (41%), eligible not included (17.5%), and excluded patients (41.5%). Major adverse cardiac events (MACE) were defined as one-year death and myocardial infarction. RCT participants compared with RCT-eligible patients had comparable baseline characteristics and outcomes; however, excluded patients differed in risk and had higher rates of MACE (HR 3.63, 95% CI: 2.03-6.48, p <0.001), death (HR 6.23, 95% CI: 2.93-13.24, p<0.001) and definite/probable stent thrombosis (HR 3.63, 95% CI: 1.79-7.36, p<0.001). Inability to provide consent was the most frequent exclusion criterion and was independently associated with an increased risk for MACE (HR 6.85, 95% CI: 3.97-11.81, p<0.001). In this single-centre investigation, results from the COMFORTABLE AMI trial appeared applicable to a broad representation of RCT-eligible patients."

According to the news reporters, the research concluded: "However, patients excluded from the trial represented a higher-risk population with impaired clinical outcomes and a lower adherence to cardiovascular medication."


Our news correspondents report that additional information may be obtained by contacting L. Raber, University Hospital Bern, Dept. of Cardiol, CH-3010 Bern, Switzerland. Additional authors for this research include S. Hadorn, T. Zanchin, K. Yamaji, A. Moschovitis, T. Pilgrim, S. Stortecky, P. Juni, D. Heg, S. Windecker and L. Raber.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4244/EIJV12I9A185. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bern, Switzerland, Europe, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Myocardial Ischemia, Heart Disease, Heart Attack, University Hospital.

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Heart Disorders and Diseases - Heart Attack

New Heart Attack Study Findings Recently Were Reported by Researchers at Tel Aviv Sourasky Medical Center (Differential Effects of Colchicine on Cardiac Cell Viability in an in vitro Model Simulating Myocardial Infarction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Attack are discussed in a new report. According to news reporting from Tel Aviv, Israel, by NewsRx journalists, research stated, "We aimed to examine the effects of colchicine, currently in clinical
trials for acute myocardial infarction (AMI), on the viability of cardiac cells using a cell line model of AMI. HL-1, a murine cardiomyocyte cell line, and H9C2, a rat cardiomyoblast cell line, were incubated with TNFa or sera derived from rats that underwent AMI or sham operation followed by addition of colchicine."

The news correspondents obtained a quote from the research from Tel Aviv Sourasky Medical Center, "In another experiment, HL-1/H9C2 cells were exposed to anoxia with or without subsequent addition of colchicine. Cell morphology and viability were assessed by light microscopy, flow cytometry and Western blot analyses for apoptotic markers. Cellular viability was similar in both sera; however, exposing both cell lines to anoxia reduced their viability. Adding colchicine to anoxic H9C2, but not to anoxic HL-1, further increased their mortality, at least in part via enhanced apoptosis. Under any condition, colchicine induced detachment of H9C2 cells from their culture plates. This phenomenon did not apply to HL-1 cells. Colchicine enhanced cardiomyoblast mortality under in vitro conditions mimicking AMI and reduced their adherence capability. HL-1 was not affected by colchicine; nevertheless, no salvage effect was observed."

According to the news reporters, the research concluded: "We thus conclude that colchicine may not inhibit myocardial apoptosis following AMI."


Our news journalists report that additional information may be obtained by contacting G. Margolis, Dept. of Internal Medicine H, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel. Additional authors for this research include E. Hertzberg-Bigelman, R. Levy, J. Ben-Shoshan, G. Keren and M. Entin-Meer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443369. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Cardiology is: S. Karger AG, Allschwilerstrasse 10, CH-4009 Basel, Switzerland.

Keywords for this news article include: Asia, Israel, Tel Aviv, Cell Line, Cardiology, Heart Attack, Heart Disease, Myocardial Ischemia, Myocardial Infarction, Heart Disorders and Diseases, Vascular Diseases and Conditions.

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Heart Disorders and Diseases - Heart Attack

New Heart Attack Study Findings Reported from University of Alberta
(Complete vs Culprit-Only Percutaneous Coronary Intervention in STEMI With Multivessel Disease: A Meta-analysis and Trial Sequential Analysis of Randomized Trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Attack have been presented. According to news originating from Edmonton, Canada, by NewsRx correspondents,
research stated, "Patients with ST-elevation myocardial infarction (STEMI) and multivessel disease (MVD) most commonly are treated with culprit-only percutaneous coronary intervention (PCI). However, this has been recently challenged, suggesting benefit with complete revascularization (CR)."

Our news journalists obtained a quote from the research from the University of Alberta, "Still, these latest findings are largely based on clinical trials powered for composite outcomes that frequently include 'softer' end points. We performed a meta-analysis comparing routine culprit-only PCI vs CR in STEMI, with an emphasis on 'hard' clinical end points. MEDLINE, EMBASE, ISI Web of Science, and CENTRAL were searched from 1996-May 2015. Studies included patients with STEMI and MVD who received primary PCI. The primary end point was long-term death/myocardial infarction (MI). Data were combined using a fixed-effects model. Seven randomized trials (2004 patients: 1065 CR and 939 culprit-only PCI procedures) were included. Compared with culprit-only PCI, CR reduced the composite of death/MI (odds ratio [OR], 0.71; 95% confidence interval [CI], 0.52-0.96) but not death (OR, 0.78; 95% CI, 0.53-1.15) or recurrent MI (OR, 0.85; 95% CI, 0.58-1.24) alone. If CR was performed during the index catheterization, a reduction in death/MI was observed (death/MI: OR, 0.41; 95% CI, 0.25-0.65; death: OR, 0.59; 95% CI, 0.34-1.00; recurrent MI: OR, 0.35; 95% CI, 0.18-0.69). If staged, no benefits were noted (death/MI: OR, 0.99; 95% CI, 0.67-1.45; death: OR, 0.95; 95% CI, 0.56-1.61; recurrent MI: OR, 1.02; 95% CI, 0.61-1.70). However, when trial sequential analysis was performed for the overall population, the cumulative z-curve did not cross the monitoring boundary, suggesting a lack of evidence for reducing death/MI with CR (similar for index catheterization). In STEMI with MVD, there is insufficient evidence to support a reduction in death/MI with CR."

According to the news editors, the research concluded: "Our results reinforce the need for larger clinical trials powered for robust clinical end points."


The news correspondents report that additional information may be obtained from K.R. Bainey, University of Alberta, Mazankowski Alberta Heart Inst, Edmonton, AB, Canada. Additional authors for this research include R.C. Welsh, B. Toklu and S. Bangalore.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.02.077. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Edmonton, Alberta, Canada, North and Central America, Percutaneous Coronary Intervention, Vascular Diseases and Conditions, Heart Disorders and Diseases, Clinical Trials and Studies, Surgery, Article Review, Myocardial Infarction, Myocardial Ischemia, Clinical Research, Heart Disease, Heart Attack, University of Alberta.

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Heart Disorders and Diseases - Heart Attack

New Heart Attack Study Findings Reported from Yokohama City University (Pharmacodynamic Assessment of Platelet Reactivity After a Loading Dose of Prasugrel or Clopidogrel in Patients With ST-Segment Elevation Myocardial Infarction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Attack are discussed in a new report. According to news originating from Kanagawa, Japan, by NewsRx correspondents, research stated, "Few studies have compared the platelet reactivity of prasugrel and clopidogrel in the acute phase of ST-segment elevation myocardial infarction (STEMI). Primary percutaneous coronary intervention (PCI) was performed in 78 patients with STEMI within 12 h of onset."

Our news journalists obtained a quote from the research from Yokohama City University, "Patients were randomly assigned to receive a Japanese standard loading dose of prasugrel 20 mg or clopidogrel 300 mg. Platelet reactivity was serially assessed using the VerifyNow-P2Y12 assay, the results of which were expressed as P2Y12-reaction-units (PRU). PRU values were significantly lower in the prasugrel group (n=38) than in the clopidogrel group (n=40) at 3 h, 24 h, and 14 days after loading (191+/−101 vs. 271+/−50, 147+/−80 vs. 261+/−57, and 171+/−67 vs. 221+/−70, respectively, P<0.05), although the PRU levels at baseline (231+/−57 vs. 237+/−58, P=0.65) and 1 h after loading (282+/−65 vs. 291+/−62, P=0.54) were similar. As compared with the baseline values, the PRU levels at 1, 3 and 24 h after clopidogrel loading were significantly higher (respectively, P<0.05), whereas only the PRU at 1 h after prasugrel was elevated (P <0.001)."

According to the news editors, the research concluded: "In Japanese patients with STEMI who undergo primary PCI, prasugrel provides stronger platelet inhibition than clopidogrel from 3 h after loading, whereas platelet reactivity remained elevated within 24 h after clopidogrel loading."


The news correspondents report that additional information may be obtained from K. Tsukahara, Yokohama City University, Medical Center, Div Cardiol, Yokohama, Kanagawa, Japan. Additional authors for this research include K. Tsukahara, Y. Minamimoto, Y. Kimura, Y. Matsuzawa, N. Maejima, N. Iwahashi, K. Hibi, M. Kosuge, T. Ebina and K. Kimura.

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Keywords for this news article include: Kanagawa, Japan, Asia, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Myocardial Ischemia, Pharmacodynamics, Pharmaceuticals, Heart Disease, Heart Attack, Yokohama City University.

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New Heart Disease Data Have Been Reported by Investigators at Harvard School of Medicine (Parity, coronary heart disease and mortality in the old order Amish)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Disease is the subject of a report. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Prior data on the association between parity and mortality are limited by the presence of sociodemographic confounders including cultural norms of parity. Our objective was to determine the association between parity and mortality in the Amish, a socioeconomically homogenous group with large numbers of children per family."

The news reporters obtained a quote from the research from the Harvard School of Medicine, "We conducted a population-based cohort study among 518 Old Order Amish women enrolled in a cardiovascular awareness program. The mean length of follow-up for mortality was 13.52 years. We determined the adjusted associations between parity and obesity, prevalent coronary heart disease and mortality. The mean number of total births per woman was 6.7 +/- 3.6 with a mode of 8. No significant association was observed between parity and all-cause mortality when adjusted for age (HR 1.00 per additional birth; 95% CI 0.96-1.05; p = 0.85) or in multivariate analysis (HR 1.00, 95% CI 0.95-1.05; p = 0.95). There was also no association of parity in age- or multivariable adjusted models with prevalent diabetes, hypertension or coronary heart disease. Despite the lack of effect of parity on mortality, a significant association of ten or more births was observed with higher body mass index (BMI) compared to the referent group of 8-9 total births. In a highly homogeneous population with high rates of parity, no association between overall mortality and parity was observed."

According to the news reporters, the research concluded: "Ten or more births were significantly associated with a higher BMI but not with overall mortality."

For more information on this research see: Parity, coronary heart disease and mortality in the old order Amish. Atherosclerosis, 2016;254():14-19. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news correspondents report that additional information may be obtained by contacting F.K. Welty, Harvard Med Sch, Beth Israel Deaconess Med Center, Dept. of Med, Div Cardiovasc, Boston, MA, United States. Additional authors for this research include J. Giuseffi, M.D. Avila, N. Hovnanians, K.J. Mukamal, N. Parikh and F.K. Welty.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Heart Disorders and Diseases, Epidemiology, Cardiovascular Diseases and Conditions, Heart Disease, Cardiology, Harvard School of Medicine.

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New Heart Disease Data Have Been Reported by Researchers at Baptist Hospital of Miami [CAD-RADS (TM): Coronary Artery Disease - Reporting and Data System]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Disease. According to news reporting originating in Miami, Florida, by NewsRx journalists, research stated, "The intent of CAD-RADS Coronary Artery Disease Reporting and Data System is to create a standardized method to communicate findings of coronary CT angiography (coronary CTA) in order to facilitate decision-making regarding further patient management. The suggested CAD-RADS classification is applied on a per-patient basis and represents the highest-grade coronary artery lesion documented by coronary CTA."

The news reporters obtained a quote from the research from the Baptist Hospital of Miami, "It ranges from CAD-RADS 0 (Zero) for the complete absence of stenosis and plaque to CAD-RADS 5 for the presence of at least one totally occluded coronary artery and should always be interpreted in conjunction with the impression found in the report. Specific recommendations are provided for further management of patients with stable or acute chest pain based on the CAD-RADS classification. The main goal of CAD-RADS is to standardize reporting of coronary CTA results and to facilitate communication of test results to referring physicians along with suggestions for subsequent patient management."

According to the news reporters, the research concluded: "In addition, CAD-RADS will provide a framework of standardization that may benefit education, research, peer-review and quality assurance with the potential to ultimately result in improved quality of care."


Keywords for this news article include: Miami, Florida, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Arteriosclerosis, Heart Disease, Cardiology, Angiology, Baptist Hospital of Miami.

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New Heart Disease Data Have Been Reported by Researchers at Tarbiat Modares University [Automated diagnosis of coronary artery disease (CAD) patients using optimized SVM]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Disease. According to news reporting out of Tehran, Iran, by NewsRx editors, research stated, "Currently Coronary Artery Disease (CAD) is one of the most prevalent diseases, and also can lead to death, disability and economic loss in patients who suffer from cardiovascular disease. Diagnostic procedures of this disease by medical teams are typically invasive, although they do not satisfy the required accuracy."

Our news journalists obtained a quote from the research from Tarbiat Modares University, "In this study, we have proposed a methodology for the automatic diagnosis of normal and Coronary Artery Disease conditions using Heart Rate Variability (HRV) signal extracted from electrocardiogram (ECG). The features are extracted from HRV signal in time, frequency and nonlinear domains. The Principal Component Analysis (PCA) is applied to reduce the dimension of the extracted features in order to reduce computational complexity and to reveal the hidden information underlain in the data. Finally, Support Vector Machine (SVM) classifier has been utilized to classify two classes of data using the extracted distinguishing features. In this paper, parameters of the SVM have been optimized in order to improve the accuracy. Provided reports in this paper indicate that the detection of CAD class from normal class using the proposed algorithm was performed with accuracy of 99.2%, sensitivity of 98.43%, and specificity of 100%.

According to the news editors, the research concluded: "This study has shown that methods which are based on the feature extraction of the biomedical signals are an appropriate approach to predict the health situation of the patients."

For more information on this research see: Automated diagnosis of coronary artery disease (CAD) patients using optimized SVM. *Computer Methods and Programs in Biomedicine*, 2017;138():117-126. *Computer Methods and Programs in Biomedicine* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Computer Methods and Programs in Biomedicine - www.journals.elsevier.com/computer-methods-and-programs-in-biomedicine/)

Our news journalists report that additional information may be obtained by contacting A.D. Dolatabadi, Tarbiat Modares Univ, Dept. of Mech Engn, Tehran, Iran. Additional authors for this research include S.E.Z. Khadem and B.M. Asl.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cmpb.2016.10.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Arteriosclerosis, Heart Disease, Cardiology, Angiology, Tarbiat Modares University.

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Heart Disorders and Diseases - Heart Disease

New Heart Disease Findings Has Been Reported by Investigators at Medical University of South Carolina (Prognostic implications of coronary CT angiography-derived quantitative markers for the prediction of major adverse cardiac events)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Disease. According to news reporting out of Charleston, South Carolina, by NewsRx editors, research stated, "To evaluate quantitative markers derived from coronary CT angiography (coronary CTA) for the prediction of major adverse cardiac events (MACE). Pooled data from two centers in the US and Europe were retrospectively analyzed."

Our news journalists obtained a quote from the research from the Medical University of South Carolina, "Forty-six patients (65.5 +/- 8.1 years, 62% male) with suspected coronary artery disease (CAD) who had undergone dual-source CCTA and had experienced MACE within 12 months were included and compared to a Framingham risk score matched cohort (n = 46) without MACE. Various quantitative markers derived from coronary CTA were compared between both groups: Total plaque volume (TPV), calcified and non-calcified plaque volumes (CPV and NCPV), plaque burden (%), remodeling index, lesion length, presence of Napkin-ring sign, segment involvement score (SIS), and segment stenosis score (SSS). Discriminatory power of these markers for predicting MACE was assessed. Patients with MACE had significantly more obstructive CAD with higher plaque burden, SSS, and SIS (all p< 0.05) compared to controls. MACE-related lesions showed higher median TPV (122.6 mm(3) vs. 76.3 mm(3)), NCPV (67.3 mm(3) vs. 56.1 mm(3)), plaque burden (66.3% vs. 44.9%), greater lesion length (23.1 mm vs. 19.2 mm), and higher prevalence of Napkin-ring sign (63% vs. 32%) (all p< 0.05). On multivariable analysis, odds ratios (OR) for MACE on a per-patient level were 1.07 for plaque burden (p = 0.0002) and 1.13 for SSS (p = 0.049). On a per-lesion basis OR for lesion length was 1.05 (p = 0.042), 1.03 for plaque burden (p = 0.018), 1.28 for remodeling index (p = 0.026), and 1.68 for the Napkin-ring sign (p = 0.031). At receiver operating characteristics analysis a combination of markers (Framingham risk score + Napkin-ring sign + lesion length + remodeling index) showed the highest predictive value for MACE (AUC 0.92, p = 0.013). Coronary CTA-derived markers portend predictive value for MACE on a per-patient (plaque burden and SSS) and per-lesion level (lesion length, plaque burden, remodeling index, and Napkin-ring sign)."

According to the news editors, the research concluded: "A combination of markers added to the Framingham risk score has the highest predictive power."


Our news journalists report that additional information may be obtained by contacting U.J. Schoepf, Medical University of South Carolina, Dept. of Medicine, Div Cardiol, Charleston, SC, United States. Additional authors for this research include F. Plank, C.N. De
New Heart Disease Findings Reported from McGill University (Sex Differences in Clinical Outcomes After Premature Acute Coronary Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Disease. According to news reporting originating from Montreal, Canada, by NewsRx correspondents, research stated, "Over past decades, the incidence of acute coronary syndrome (ACS) has increased in young women, and greater mortality rates after discharge were observed among young women vs men. We revisited this issue with contemporary data from the Gender and Sex Determinants of Cardiovascular Disease: From Bench to Beyond Premature Acute Coronary Syndrome (GENESIS-PRAXY), a multicentre prospective cohort study."

Our news editors obtained a quote from the research from McGill University, "One thousand two hundred thirteen patients were enrolled in GENESIS-PRAXY from 26 centres across Canada, the United States, and Switzerland between January 2009 and April 2013. We assessed major adverse cardiac events (MACE) and mortality over 12 months after ACS. The role of sex as a predictor of outcomes was determined with Cox proportional hazard regression analysis. We included 1163 patients with complete data. The occurrence of MACE was 9% and 8% in women and men, respectively (P = 0.75), and 1% of women and men died during follow-up. In adjusted models, there was no sex difference in the risk of MACE or mortality. The proportion of patients with all-cause rehospitalization was higher in women (13%) compared with men (9%; P = 0.006), but cardiac rehospitalization rates were similar in both sexes regardless of ACS type. Among first rehospitalizations, the majority was classified as cardiac related (69%), with chest pain or angina (28%) and myocardial infarction (19%) reported as the most common reasons for first rehospitalization. Women were more likely than men to be rehospitalized for all causes but not for a cardiac cause."

According to the news editors, the research concluded: "In contrast to earlier studies, men and women had similar mortality and MACE outcomes at 1 year."

The news editors report that additional information may be obtained by contacting L. Pilote, McGill University, Center Hlth, Div Clin Epidemiol, Res Inst, Montreal, PQ, Canada. Additional authors for this research include J. Choi, N. Winters, M.J. Eisenberg, S.L. Bacon, J. Cox, S.S. Daskalopoulou, K.L. Lavoie, I. Karp, A. Shimony, D. So, G. Thanassoulis and L. Pilote.

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Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Vascular Diseases and Conditions, Heart Disorders and Diseases, Acute Coronary Syndrome, Myocardial Ischemia, Heart Disease, Cardiology, McGill University.

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Heart Disorders and Diseases - Heart Disease

New Heart Disease Findings from Chonnam National University School of Medicine Described (Associations between Serotonergic Genes and Escitalopram Treatment Responses in Patients with Depressive Disorder and Acute Coronary Syndrome: The ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Disease. According to news reporting originating from Gwangju, South Korea, by NewsRx correspondents, research stated, "Genes related to serotonin are associated with responses to treatment for depression. We examined associations between the serotonin transporter (5-HTT) and serotonin 2a receptor (5-HTR2a) genes and responses to treatment for depressive disorders in acute coronary syndrome (ACS)."

Our news editors obtained a quote from the research from the Chonnam National University School of Medicine, "A total of 255 patients who met the DSM-IV major or minor depressive disorder and recently developed ACS were randomly assigned to the escitalopram (n=127) or placebo (n=128) group in this 24-week double-blind trial (ClinicalTrial.gov identifier: NCT00419471). Remission was defined as a Hamilton Rating Scale for Depression (HAMD) score (<=)7. Assays were performed for the 5-HTTLPR, STin2 VNTR, 5-HTR2a 102T/C, and 5-HTR2a 1438A/G genotypes. Escitalopram was superior to placebo for treating depressive disorder with ACS but there were no significant associations between serotonergic genes and treatment responses even when considering ACS severity."

According to the news editors, the research concluded: "The effect of escitalopram was independent of 5-HTT and 5-HTR2a polymorphisms."

For more information on this research see: Associations between Serotonergic Genes and Escitalopram Treatment Responses in Patients with Depressive Disorder and Acute Coronary Syndrome: The EsDEPACS Study. Psychiatry Investigation, 2015;13(1):157-60.

The news editors report that additional information may be obtained by contacting H.J. Kang, Dept. of Psychiatry, Chonnam National University Medical School, Gwangju, South Korea. Additional authors for this research include K.Y. Bae, S.W. Kim, I.S. Shin, Y.J. Hong, Y. Ahn, M.H. Jeong, S.W. Park, Y.H. Kim, J.S. Yoon and J.M Kim.

The direct object identifier (DOI) for that additional information is:
New Heart Disease Study Findings Recently Were Reported by Researchers at Seoul National University (Limiting scan range of cardiac CT and the chance of missed acute aortic syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Disease are presented in a new report. According to news originating from Gyeonggi Do, South Korea, by NewsRx correspondents, research stated, "Recently, dedicated cardiac computed tomography (CT) has been performed to rule out acute coronary syndrome in patients with chest pain equivalents. However, acute aortic syndrome (AAS) could mimic acute coronary syndrome."

Our news journalists obtained a quote from the research from Seoul National University, "We investigated the reliability of CT with a limited scan range for the detection of AAS. Patients older than 18 years with a diagnosis of AAS were included for a 10-year period. We reviewed all patients’ electronic medical record and cardiac CT scan images. The AAS lesions outside of the upper or lower margin of the cardiac CT scan range were measured. Other abnormalities defined as indirect evidence of AAS such as pericardial effusion were also collected. Of a total of 309 cases, 6 (1.9%; 95% confidence interval, 0.71-4.17) patients had aortic lesions outside of the cardiac CT scan range. One patient had an aortic lesion above the cardiac CT scan range, and 5 patients had aortic lesions below the cardiac CT scan range. Aortic lesions outside of the cardiac CT scan range were not rare."

According to the news editors, the research concluded: "Therefore, using a cardiac CT might not guarantee ruling out AAS completely."


The news correspondents report that additional information may be obtained from K. Kim, Seoul National University, Bundang Hosp, Dept. of Emergency Med, Seongnam Si 463707, Gyeonggi Do, South Korea. Additional authors for this research include J. Kim and K. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.08.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gyeonggi Do, South Korea, Asia, Vascular
New Heart Failure Findings Has Been Reported by Investigators at Gilead Sciences Inc. (Targeting LOXL2 for cardiac interstitial fibrosis and heart failure treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Failure have been presented. According to news originating from Foster City, California, by NewsRx correspondents, research stated, "Interstitial fibrosis plays a key role in the development and progression of heart failure. Here, we show that an enzyme that crosslinks collagen-Lysyl oxidase-like 2 (Loxl2)-is essential for interstitial fibrosis and mechanical dysfunction of pathologically stressed hearts."

Our news journalists obtained a quote from the research from Gilead Sciences Inc., "In mice, cardiac stress activates fibroblasts to express and secrete Loxl2 into the interstitium, triggering fibrosis, systolic and diastolic dysfunction of stressed hearts. Antibody-mediated inhibition or genetic disruption of Loxl2 greatly reduces stress-induced cardiac fibrosis and chamber dilatation, improving systolic and diastolic functions. Loxl2 stimulates cardiac fibroblasts through PI3K/AKT to produce TGF-beta 2, promoting fibroblast-to-myofibroblast transformation; Loxl2 also acts downstream of TGF-beta 2 to stimulate myofibroblast migration. In diseased human hearts, LOXL2 is upregulated in cardiac interstitium; its levels correlate with collagen crosslinking and cardiac dysfunction."

According to the news editors, the research concluded: "LOXL2 is also elevated in the serum of heart failure (HF) patients, correlating with other HF biomarkers, suggesting a conserved LOXL2-mediated mechanism of human HF."


Keywords for this news article include: Foster City, California, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Heart Failure, Heart Disease, Cardiology, Genetics, Gilead Sciences Inc.

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Heart Disorders and Diseases - Heart Failure

New Heart Failure Findings Has Been Reported by Investigators at Kumamoto University (Late gadolinium enhancement on cardiac magnetic resonance predicts coronary vasomotor abnormality and myocardial lactate production in patients with chronic heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Failure. According to news originating from Kumamoto, Japan, by NewsRx correspondents, research stated, "Myocardial fibrosis and microvascular dysfunction are key determinants of outcome in heart failure (HF); we examined their relationship in patients with HF. Our study included 61 consecutive patients with HF but without coronary stenosis."

Financial supporters for this research include Boehringer Ingelheim Japan, Bristol-Myers Squibb Company, Mitsubishi Tanabe Pharma.

Our news journalists obtained a quote from the research from Kumamoto University, "All underwent gadolinium-enhanced cardiac magnetic resonance to evaluate late gadolinium enhancement (LGE) and an acetylcholine (ACh) provocation test to evaluate microvascular dysfunction. During the ACh provocation test, we sampled blood simultaneously from the coronary sinus and aortic root to compare lactate concentrations. We quantified coronary blood flow volume using an intracoronary Doppler-tipped guidewire. We detected LGE in 34 patients (LGE-positive); 27 were LGE-negative. Coronary blood flow volume increased significantly after the ACh provocation test only in LGE-negative patients (before vs. after ACh, 47.5 +/- A 36.8 vs. 69.2 +/- A 48.0 ml/min, respectively; p = 0.004). The myocardial lactate extraction ratio (LER) significantly decreased after the ACh test in both groups (LGE-negative, p = 0.001; LGE-positive, p< 0.001), significantly more so in the LGE-positive group (p = 0.017). Multivariate logistic regression analysis showed that a post-ACh LER < 0 (indicating myocardial lactate production) was a significant predictor of LGE-positivity (odds ratio 4.54; 95 % confidence interval 1.38-14.93; p = 0.013). In the LGE-positive group, an LGE volume greater than the median significantly predicted a post-ACh LER of < 0 (p = 0.042; odds ratio 6.02; 95 % confidence interval 1.07-33.86). ACh-provoked coronary vasomotor abnormality is closely correlated with myocardial fibrosis in patients with HF but without organic coronary stenosis."

According to the news editors, the research concluded: "Coronary vasomotor abnormalities in fibrotic myocardium may worsen HF."

For more information on this research see: Late gadolinium enhancement on cardiac magnetic resonance predicts coronary vasomotor abnormality and myocardial lactate production in patients with chronic heart failure. *Heart and Vessels*, 2016;31(12):1969-1979. *Heart and Vessels* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. ([Springer](http://www.springer.com); Heart and Vessels - [www.springerlink.com/content/0910-8327/])

The news correspondents report that additional information may be obtained from M. Yamamuro, Kumamoto University, Grad Sch Med Sci, Dept. of Cardiovasc Med, Kumamoto 8608556, Japan. Additional authors for this research include M. Yamamuro, K. Kaikita, S. Takashio, D. Utsunomiya, K. Hirakawa, M. Nakayama, K. Sakamoto, E. Yamamoto, K. Tsujita, S. Kojima, S. Hokimoto, Y. Yamashita and H. Ogawa.

The direct object identifier (DOI) for that additional information is: [http://dx.doi.org/10.1007/s00380-016-0816-z](http://dx.doi.org/10.1007/s00380-016-0816-z). This DOI is a link to an online electronic document that is either free or for purchase.
New Heart Failure Findings Has Been Reported by Investigators at Ruhr University (Calcitropic and phosphaturic hormones in heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Failure. According to news reporting from Bad Oeynhausen, Germany, by NewsRx journalists, research stated, "Despite adherence to evidence-based guidelines, heart failure [HF] still results in 5-year mortality rates of 50%, indicating a need to implement additional preventive/intervention strategies. This review summarizes data on alterations in the calcitropic and phosphaturic hormones 1,25-dihydroxyvitamin D [1,25(OH)(2)D] and fibroblast growth factors-23 [FGF-23] in HF and discusses non-pharmacological measures for targeting these hormones."

The news correspondents obtained a quote from the research from Ruhr University, "Data synthesis: The role of 1,25(OH) 2D in the regulation of calcium and phosphate homeostasis is central. 1,25(OH) 2D also plays a pivotal role in cardiac function, but is downregulated by FGF-23. There is accumulating evidence from epidemiological data that HF is associated with decreased circulating 1,25(OH) 2D and elevated FGF-23 levels. In patients with failing hearts, very low 1,25(OH) 2D and extremely high FGF-23 levels have been reported. Experimental data support the assumption that vitamin D deficiency and high serum phosphate/FGF-23 levels increase the risk of HF. This review provides a hypothesis of how vitamin D deficiency, high calcium/phosphorus intake, physical inactivity, and age-related renal impairment may all contribute to HF by adversely affecting calcium-and phosphate-regulating hormones. Several case series in infants and a meta-analysis of randomized controlled trials in adults have already reported successful treatment of or a significant risk reduction in HF by vitamin D supplements. The association of calcium/phosphorus intake, physical activity, or renal function with calcitropic/phosphaturic hormones and HF is however less well documented."

According to the news reporters, the research concluded: "More attention should be paid in future to the association of circulating 1,25(OH) 2D and FGF-23 levels with HF and to (non-pharmacological) measures for targeting these calcitropic/phosphaturic hormones."


Our news journalists report that additional information may be obtained by contacting A. Zittermann, Ruhr University of Bochum, Clin Thorac & Cardiovasc Surg, Heart & Diabet Center North Rhine Westphalia, D-32545 Bad Oeynhausen, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.numecd.2016.06.007. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Bad Oeynhausen, Germany, Europe, Intercellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Therapy, Article Review, Epidemiology, Heart Disorders and Diseases, Fibroblast Growth Factors, Heart Failure, Heart Disease, Pharmacology, Cardiology, Hormones, Ruhr University.

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Heart Disorders and Diseases - Heart Failure

New Heart Failure Findings Reported from Hasselt University (Mode of Death in Octogenarians Treated With Cardiac Resynchronization Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Failure. According to news reporting out of Diepenbeek, Belgium, by NewsRx editors, research stated, "Cardiac resynchronization therapy (CRT) improves morbidity and mortality in heart failure with reduced ejection fraction (HFrEF) and electrical dyssynchrony. CRT patients in clinical practice are older compared with clinical trials."

Our news journalists obtained a quote from the research from Hasselt University, "To investigate clinical response, reverse remodeling, outcome, and mode of death in octogenarians receiving CRT. Baseline characteristics, change in New York Heart Association (NYHA) functional class, reverse ventricular remodeling, heart failure readmissions, all-cause mortality, and mode of death were evaluated in CRT patients with comparison between octogenarians and nonoctogenarians. In addition, annual mortality rates of octogenarians undergoing CRT were compared with age-matched control subjects from the general population with the use of national actuarial tables. A total of 686 patients, including 178 octogenarians (26%), were followed for 38 +/- 22 months. Octogenarians exhibited a similar change in NYHA functional class (P = .640), left ventricular ejection fraction increase (P = .796), and decrease in end-diastolic (P = .441) and end-systolic (P = .312) diameter compared with their younger counterparts undergoing CRT. Octogenarians had a higher all-cause mortality risk (P < .001), but heart failure readmission risk did not differ (hazard ratio 0.916, 95% confidence interval 0.638-1.313; P = .632). A higher proportion of noncardiac deaths was observed in octogenarians (74%) versus younger patients (50%; P = .022), with worsening heart failure rather than malignant tachyarrhythmia being the main cardiac cause of death. Compared with an age-matched sample from the general population, octogenarians receiving CRT had an equivalent annual mortality rate (log-rank test: P = .444)."

According to the news editors, the research concluded: "Octogenarians retain the ability to mount a significant symptomatic and ventricular remodeling response after CRT, resulting in survival similar to the general age-matched population."

For more information on this research see: Mode of Death in Octogenarians Treated With Cardiac Resynchronization Therapy. *Journal of Cardiac Failure*, 2016;22Q(12):970-977. *Journal of Cardiac Failure* can be contacted at: Churchill Livingstone Inc Medical Publishers, Curtis Center, Independence Square West, Philadelphia, PA 19106-3399, USA. (Elsevier - www.elsevier.com; Journal of Cardiac Failure - www.journals.elsevier.com/journal-of-cardiac-failure/)

Our news journalists report that additional information may be obtained by
New Heart Failure Findings from Brigham and Women's Hospital Reported (Long-Term Arrhythmic and Nonarrhythmic Outcomes of Lamin A/C Mutation Carriers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Failure is the subject of a report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Mutations in LMNA are variably expressed and may cause cardiomyopathy, atrioventricular block (AVB), or atrial arrhythmias (AAs) and ventricular arrhythmias (VA). Detailed natural history studies of LMNA-associated arrhythmic and nonarrhythmic outcomes are limited, and the prognostic significance of the index cardiac phenotype remains uncertain."

Our news journalists obtained a quote from the research from Brigham and Women's Hospital, "This study sought to describe the arrhythmic and nonarrhythmic outcomes of LMNA mutation carriers and to assess the prognostic significance of the index cardiac phenotype. The incidence of AVB, AA, sustained VA, left ventricular systolic dysfunction (LVD) (- left ventricular ejection fraction <= 50%), and end-stage heart failure (HF) was retrospectively determined in 122 consecutive LMNA mutation carriers followed at 5 referral centers for a median of 7 years from first clinical contact. Predictors of VA and end-stage HF or death were determined. The prevalence of clinical manifestations increased broadly from index evaluation to median follow-up: AVB, 46% to 57%; AA, 39% to 63%; VA, 16% to 34%; and LVD, 44% to 57%. Implantable cardioverter-defibrillators were placed in 59% of patients for new LVD or AVB. End-stage HF developed in 19% of patients, and 13% died. In patients without LVD at presentation, 24% developed new LVD, and 7% developed end-stage HF. Male sex (p - 0.01), non-missense mutations (p = 0.03), and LVD at index evaluation (p = 0.004) were associated with development of VA, whereas LVD was associated with end-stage HF or death (p < 0.001). Mode of presentation (with isolated or combination of clinical features) did not predict sustained VA or end-stage HF or death. LMNA-related heart disease was associated with a high incidence of phenotypic progression and adverse arrhythmic and nonarrhythmic events over long-term follow-up. The index cardiac phenotype did not predict adverse events."

According to the news editors, the research concluded: "Genetic diagnosis and subsequent follow-up, including anticipatory planning for therapies to prevent sudden death and manage HF, is warranted."

For more information on this research see: Long-Term Arrhythmic and


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jacc.2016.08.058. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Heart Failure, Cardiology, Genetics, Brigham and Women's Hospital.

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**Heart Disorders and Diseases - Heart Failure**

**New Heart Failure Findings from Institute for Health Outlined (Use of Coronary Ultrasound Imaging to Evaluate Ventricular Function in Adult Zebrafish)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Failure are discussed in a new report. According to news reporting out of Strassen, Luxembourg, by NewsRx editors, research stated, "So far, imaging of the adult zebrafish heart and assessment of heart failure in adult zebrafish have been very limited. Here, we describe a new method for in vivo imaging of the hypertrabeculated heart of the adult zebrafish using miniaturized cardiac ultrasound catheters obtained from the cardiac catheterization laboratory."

Our news journalists obtained a quote from the research from Institute for Health, "This method allows the observation of the ventricle of zebrafish and the assessment of ventricular diameters during diastole and systole, as well as heart rate and fractional shortening. Significant changes in these parameters were detected through the use of an adult zebrafish heart failure model induced by chronic anemia."

According to the news editors, the research concluded: "This imaging technique opens the door to detailed in vivo analysis of the adult heart failure phenotype in zebrafish."

For more information on this research see: Use of Coronary Ultrasound Imaging to Evaluate Ventricular Function in Adult Zebrafish. *Zebrafish*, 2016;13(6):477-480. *Zebrafish* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Zebrafish - www.liebertpub.com/overview/zebrafish/122/)

Our news journalists report that additional information may be obtained by contacting I. Emens, Luxembourg Inst Hlth, Cardiovasc Res Unit, L-1445 Strassen, Luxembourg. Additional authors for this research include A.I. Lumley, Y. Devaux and D.R. Wagner.

The direct object identifier (DOI) for that additional information is:
New Heart Failure Findings from P.M. Brown and Colleagues Discussed (Composite End Points in Acute Heart Failure Research: Data Simulations Illustrate the Limitations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Failure. According to news reporting from Edmonton, Canada, by NewsRx journalists, research stated, "Composite end points are frequently used in clinical trials of investigational treatments for acute heart failure, eg, to boost statistical power and reduce the overall sample size. By incorporating multiple and varying types of clinical outcomes they provide a test for the overall efficacy of the treatment."

The news correspondents obtained a quote from the research, "Our objective is to compare the performance of popular composite end points in terms of statistical power and describe the uncertainty in these power estimates and issues concerning implementation. We consider several composites that incorporate outcomes of varying types (eg, time to event, categorical, and continuous). Data are simulated for 5 outcomes, and the composites are derived and compared. Power is evaluated graphically while varying the size of the treatment effects, thus describing the sensitivity of power to varying circumstances and eventualities such as opposing effects. The average z score offered the most power, although caution should be exercised when opposing effects are anticipated. Results emphasize the importance of an a priori assessment of power and scientific basis for construction, including the weighting of individual outcomes deduced from data simulations. The interpretation of a composite should be made alongside results from the individual components."

According to the news reporters, the research concluded: "The average z score offers the most power, but this should be considered in the research context and is not without its limitations."


Our news journalists report that additional information may be obtained by contacting J.A. Ezekowitz, Canadian VIGOUR Center, Edmonton, AB, Canada. Additional authors for this research include K.J. Anstrom, M. Felker and J.A. Ezekowitz.

Keywords for this news article include: Edmonton, Alberta, Canada, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Heart Failure, Heart Disease, Cardiology.
New Heart Failure Findings from University of Ottawa Described
(Charactersitics and outcomes for acute heart failure in elderly patients presenting to the ED)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Failure have been presented. According to news reporting originating from Ottawa, Canada, by NewsRx correspondents, research stated, "The first aim of this study was to investigate the characteristics for elderly patients with acute heart failure presenting to the emergency department (ED). The second aim was to determine the characteristics of these elderly patients associated with serious adverse events."

Our news editors obtained a quote from the research from the University of Ottawa, "The population was divided into 2 age groups, <80 and >= 80 years. The primary outcome was the occurrence of a serious adverse event, defined as either death from any cause within 30 days of the index ED visit or any of the following events within 14 days of the index ED visit: admission to a monitored unit, intubation, need for noninvasive ventilation, myocardial infarction, major procedure, or, for patients who were discharged after the initial visit, return to the ED resulting in admission to hospital. This prospective cohort study included 1658 visits. Older patients had a lower heart rate and higher diastolic blood pressure. The older patients were more likely to experience hospital admission (56% vs 46%, P< .001). For patients 80 years or older, 109 (14%) experienced a serious adverse event. In this >= 80-year group, history of heart failure, current medication with antiarrhythmic, acute infarction on the arrival electrocardiography, chest x-ray with pleural effusion, and urea greater than 12 mmol/L were independently associated with short-term serious adverse events. Elderly patients with heart failure are a high-risk group."

According to the news editors, the research concluded: "Careful assessment of these factors could help physicians identify those patients most at risk for adverse outcomes and, therefore, most in need of hospital admission."


The news editors report that additional information may be obtained by contacting P.G. Claret, University of Ottawa, Ottawa Hospital, Res Inst, Ottawa, ON, Canada. Additional authors for this research include I.G. Stiell, J.W. Yan, C.M. Clement, B.H. Rowe, L.A. Calder and J.J. Perry.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.08.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ottawa, Ontario, Canada, North and Central
New Heart Failure Findings from University of Pennsylvania Discussed
(A qualitative secondary data analysis of intentional and unintentional medication nonadherence in adults with chronic heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "To explore factors contributing to intentional and unintentional medication nonadherence in adults with chronic heart failure (HF). Medication nonadherence is prevalent in HF but the factors contributing to it are not well understood."

Financial supporters for this research include SIGMA Theta Tau International Honor Society of Nursing, NIOSH Education and Research Center for Occupational Safety and Health, Kynett Foundation, the University of Pennsylvania Institute on Aging, New York University Provost University Challenge Research Fund.

The news correspondents obtained a quote from the research from the University of Pennsylvania, "This secondary data analysis of qualitative data explored narrative accounts about medication adherence from four previous studies (N = 112). The Necessity Concerns Framework derived from the Common Sense Model (CSM) of Self-Regulation guided the interpretation of themes. In this diverse sample (39% Black, 6% Hispanic, 63% male; mean age 59 15 years), 90% reported at least intermittent nonadherence. For many (60%), missing medication was unintentional but 27% reported intentional nonadherence. Four interconnected patterns of behavior emerged: 1) rarely non adherent, 2) frequently nonadherent, 3) intentionally nonadherent, and 4) reformed nonadherent. Misperceptions about HF, beliefs, concerns, and contextual factors contributed to both intentional and unintentional nonadherence."

According to the news reporters, the research concluded: "Medication nonadherence is prevalent in HF and influenced by modifiable factors."


Our news journalists report that additional information may be obtained by contacting B. Riegel, University of Pennsylvania, Sch Nursing, Philadelphia, PA 19104, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrtlng.2016.08.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and
New Heart Failure Study Findings Reported from Emory University [An evidence-based review of recent advances in therapy for heart failure with reduced ejection fraction (HFrEF)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Failure is the subject of a report. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "An estimated 5.1 million Americans have chronic heart failure and this is expected to increase 25% by 2030."

The news correspondents obtained a quote from the research from Emory University, "Heart failure is a clinical syndrome that evolves from either functional or structural changes to the ventricles that lead to filling or ejection abnormalities. Thus far, pharmacotherapy has been show to be beneficial in patients only with reduced ejection fraction; however, new therapies have been developed in hopes of reducing the burden of heart failure."

According to the news reporters, the research concluded: "In this review, we will discuss current pharmacotherapies recommended in American College of Cardiology/American Heart Association guidelines, the evidence behind these recommendations as well as new and emerging therapies that have been developed."


Our news journalists report that additional information may be obtained by contacting L. Raj, Emory University, Sch Med, Dept. of Med, Atlanta, GA 30303, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/postgradmedj-2016-134378. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Therapy, Article Review, Heart Failure, Heart Disease, Cardiology, Emory University.

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New Heart Failure Study Results from University of Pennsylvania Hospital Described [Pulsatile Load Components, Resistive Load and Incident Heart Failure: The Multi-Ethnic Study of Atherosclerosis (MESA)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Left ventricular (LV) afterload is composed of systemic vascular resistance (SVR) and components of pulsatile load, including total arterial compliance (TAC), and reflection magnitude (RM). RM, which affects the LV systolic loading sequence, has been shown to strongly predict HF."

The news correspondents obtained a quote from the research from the University of Pennsylvania Hospital, "Effective arterial elastance (E-a) is a commonly used parameter initially proposed to be a lumped index of resistive and pulsatile afterload. We sought to assess how various LV afterload parameters predict heart failure (HF) risk and whether RM predicts HF independently from subclinical atherosclerosis. We studied 4345 MESA participants who underwent radial arterial tonometry and cardiac output (CO) measurements with the use of cardiac MRI. RM was computed as the ratio of the backward (P-b) to forward (P-f) waves. TAC was approximated as the ratio of stroke volume (SV) to central pulse pressure. SVR was computed as mean pressure/CO. E-a was computed as central end-systolic pressure/SV. During 10.3 years of follow-up, 91 definite HF events occurred. SVR (P = .74), TAC (P = .81), and E-a (P = .81) were not predictive of HF risk. RM was associated with increased HF risk, even after adjustment for other parameters of arterial load, various confounders, and markers of subclinical atherosclerosis (standardized hazard ratio [HR] 1.49, 95% confidence interval [CI] 1.18-1.88; P = .001). Pb was also associated with an increased risk of HF after adjustment for P-f (standardized HR 1.43, 95% CI 1.17-1.75; P = .001). RM is an important independent predictor of HF risk, whereas TAC, SVR, and E-a are not."

According to the news reporters, the research concluded: "Our findings support the importance of the systolic LV loading sequence on HF risk, independently from subclinical atherosclerosis."


Our news journalists report that additional information may be obtained by contacting P. Zamani, University of Pennsylvania Hospital, Div Cardiovasc Med, Perelman Sch Med, Philadelphia, PA 19104, United States. Additional authors for this research include S.M. Lilly, P. Segers, D.R. Jacobs, D.A. Bluemke, D.A. Duprez and J.A. Chirinos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cardfail.2016.04.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States,
New Heart Surgery Findings from University of Michigan Described (Delayed Sternal Closure in Infant Heart Surgery-The Importance of Where and When: An Analysis of the STS Congenital Heart Surgery Database)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Surgery - Heart Surgery is now available. According to news reporting out of Ann Arbor, Michigan, by NewsRx editors, research stated, "Delayed sternal closure (DSC) is commonly used to optimize hemodynamic stability after neonatal and infant heart surgery. We hypothesized that duration of sternum left open (SLO) was associated with rate of infection complications, and that location of sternal closure may mitigate infection risk."

Our news journalists obtained a quote from the research from the University of Michigan, "Infants (age <= 365 days) undergoing index operations with cardiopulmonary bypass and DSC at STS Congenital Heart Surgery Database centers (from 2007 to 2013) with adequate data quality were included. Primary outcome was occurrence of infection complication, defined as one or more of the following: endocarditis, pneumonia, wound infection, wound dehiscence, sepsis, or mediastinitis. Multivariable regression models were fit to assess association of infection complication with: duration of SLO (days), location of DSC procedure (operating room versus elsewhere), and patient and procedural factors. Of 6,127 index operations with SLO at 100 centers, median age and weight were 8 days (IQR, 5-24) and 3.3 kg (IQR, 2.9-3.8); 66% of operations were STAT morbidity category 4 or 5. At least one infection complication occurred in 18.7%, compared with 6.6% among potentially eligible neonates and infants without SLO. Duration of SLO (median, 3 days; IQR, 2-5) was associated with an increased rate of infection complications (p < 0.001). Location of DSC procedure was operating room (16%), intensive care unit (67%), or other (17%). Location of DSC was not associated with rate of infection complications (p = 0.45). Rate of occurrence of infectious complications is high among infants with sternum left open following cardiac surgery."

According to the news editors, the research concluded: "Longer duration of SLO is associated with increased infection complications."


Our news journalists report that additional information may be obtained by contacting K. Nelson-McMillan, CS Mott Childrens Hosp, Univ Michigan Heart Center, Dept. of Pediat, Div Pediat Cardiol, Ann Arbor, MI, United States. Additional authors for this research

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Heart Surgery, Cardiology, University of Michigan.

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**Transplant Medicine - Heart Transplants**

**New Heart Transplants Study Findings Reported from Vanderbilt University (Duration of Left Ventricular Assist Device Support Does Not Impact Survival After US Heart Transplantation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Transplant Medicine - Heart Transplants is the subject of a report. According to news reporting originating from Nashville, Tennessee, by NewsRx correspondents, research stated, "The aim of this study was to determine whether the duration of left ventricular device support (LVAD) influenced outcomes after orthotopic heart transplantation in a modern, bridge to transplant national cohort. The United Network for Organ Sharing database, which has recently made pretransplant LVAD duration available, was queried for all adult bridge to transplant patients between January 2011 and December 2012."

Our news editors obtained a quote from the research from Vanderbilt University, "Three LVAD duration cohorts were generated, as follows: short (less than 90 days), intermediate (90 to 365 days), and prolonged (more than 365 days). Recipient, donor, and transplant-specific characteristics were compared among the duration cohorts. Unadjusted short-term and long-term survivals were estimated with the Kaplan-Meier method. Risk-adjusted models were also constructed to determine the independent impact of device duration on mortality. Of the 1,332 patients who met criteria for inclusion, 9.8% (n = 130), 54.7% (n = 729), and 35.5% (n = 473) were classified as short, intermediate, and prolonged, respectively. Although the performance status across each cohort was similar at listing (p = 0.38), more patients in the intermediate and prolonged cohorts were considered functionally independent before orthotopic heart transplantation (32% and 37%, respectively, versus 18%; p< 0.001). Additionally, despite worse baseline renal function in the intermediate and prolonged cohorts relative to the short cohort (glomerular filtration rate, 57 and 57 versus 69, p< 0.001), there was no difference in the incidence of new onset posttransplant renal failure (7% versus 10%, 9%, p = 0.41). There was also no difference in 30-day survival (98%, 96%, 95%, p = 0.51), 6-month survival (93%, 92%, 92%, p = 0.93), or 1-year survival (91%, 89%, 89%, p = 0.78) across the cohorts. After risk adjustment, duration did not independently predict mortality at any timepoint. In the largest, non-industry sponsored study of a modern bridge to transplant cohort, we demonstrated that duration of LVAD support before orthotopic heart transplantation does not influence posttransplant morbidity or mortality."

According to the news editors, the research concluded: "In subanalysis, support for 90 days or more is associated with improvements in pretransplant functional performance."

The news editors report that additional information may be obtained by contacting A.S. Shah, Vanderbilt University, Center Med, Dept. of Cardiac Surg, Nashville, TN 37232, United States. Additional authors for this research include J.T. Magruder, T.C. Crawford, C.D. Fraser, W.G. Plum, C.M. Sciortino, R.S. Higgins, G.J.R. Whitman and A.S. Shah.

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Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Left Ventricular Assist Device, Cardiac Surgical Procedures, Heart Transplantation, Transplant Medicine, Heart Transplants, Organ Transplants, Medical Devices, Biomedicine, Cardiology, Surgery, Vanderbilt University.

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Heart Valves

**New Heart Valves Study Findings Reported from St. Marianna University**

*Influence of aortic valve leaflet calcification on dynamic aortic valve motion assessed by cardiac computed tomography*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Valves. According to news reporting originating from Kanagawa, Japan, by NewsRx correspondents, research stated, "Computed tomography is the best noninvasive imaging modality for evaluating valve leaflet calcification. To evaluate the association of aortic valve leaflet calcification with instantaneous valve opening and closing using dynamic multidetector computed tomography (MDCT)."

Our news editors obtained a quote from the research from St. Marianna University, "We retrospectively evaluated 58 consecutive patients who underwent dynamic MDCT imaging. Aortic valve calcification (AVC) was quantified using the Agatston method. The aortic valve area (AVA) tracking curves were derived by planimetry during the cardiac cycle using all 20 phases (5% reconstruction). da/dt in cm(2)/s was calculated as the rate of change of AVA during opening (positive) or closing (negative). Patients were divided into 3 three groups according to Agatston score quartile: no AVC (Q2, Score 0, n = 18), mild AVC (Q3, Score 1-225, n = 24), and severe AVC (Q4 Score >2254, n = 14). In multivariable linear regression, compared to the non AVC group, the mild and severe AVC groups had lower maximum AVA (by -1.71 cm(2) and -2.25 cm(2), respectively), lower peak positive da/dt (by -21.88 cm(2)/s and -26.65 cm(2)/s, respectively), and higher peak negative da/dt (by 13.78 cm(2)/s and 18.11 cm(2)/s, respectively) (p < 0.05 for all comparisons). AVA and its opening and closing were influenced by leaflet calcification."

According to the news editors, the research concluded: "The present study demonstrates the ability of dynamic MDCT imaging to assess quantitative aortic valve motion in a clinical setting."


The news editors report that additional information may be obtained by contacting Y.J. Akashi, St. Marianna University, Sch Med, Dept. of Internal Med, Div Cardiol, Kawasaki, Kanagawa, Japan. Additional authors for this research include K. Yoneyama, M. Izumo, K. Suzuki, Y. Ogawa, K. Chikaraishi, Y. Ogawa, Y. Kobayashi, T. Furukawa, Y. Tanabe and Y.J. Akashi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jcct.2016.08.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kanagawa, Japan, Asia, Computed Tomography, Imaging Technology, Aortic Valve, Heart Valves, Cardiology, St. Marianna University.

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**Gram-Negative Bacteria - Helicobacter pylori**

**New Helicobacter pylori Findings from Autonomous University Discussed (Regression of gastric intestinal metaplasia after the eradication of Helicobacter pylori infection in a hospital in Mexico)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Helicobacter pylori have been published. According to news reporting from Culiacan, Mexico, by NewsRx journalists, research stated, "Intestinal metaplasia is a precursor lesion of gastric cancer. Infection by Helicobacter pylori is the principal cause of metaplasia."

The news correspondents obtained a quote from the research from Autonomous University, "While evidence of the regression of metaplasia after treatment to eradicate this infection has been demonstrated, controversy remains with regard to this subject. The objective of this study was to determine the frequency of the regression of gastric intestinal metaplasia one year after the eradication of Helicobacter pylori. A prospective longitudinal designed study was carried out. The population studied in this research consisted of patients attending the Endoscopy Unit to undergo an upper endoscopy, in whom various symptoms indicated intestinal metaplasia associated with Helicobacter pylori, and who received standard empiric triple therapy to eradicate the bacteria. An upper endoscopy was performed in which four gastric biopsy samples were taken (two from the antrum and two from the body) before and after the eradicating treatment, with the endoscopic and histological findings studied after one year of monitoring. The statistical analysis was conducted using the Fisher's exact test and the McNemar's test. Forty-six patients were studied, of whom 20 (43.5%) were men and 26 (56.5%) were women, with an average age of 58.9 (DE 11.2). Intestinal metaplasia was found in 46 (100%) patients before treatment and in 21 (45.7%) patients post-eradication. Complete intestinal metaplasia (type I) was found in 35 patients (76.1%) before treatment and in 11 (23.9%) patients post-eradication (p = 0.000), while incomplete intestinal metaplasia (type II) was found in 10 (21.7%) patients before treatment and in 10 (21.7%) patients post-eradication. Non-atrophic chronic gastritis was found in 35 (76.1%) patients before treatment and in 32 (69.6%) patients post-eradication. In this study, gastric intestinal metaplasia associated with
Helicobacter pylori infection showed a regression of 54.3% one year after the eradication of this microorganism."

According to the news reporters, the research concluded: "This treatment could modify the natural history of the development of gastric cancer."

For more information on this research see: Regression of gastric intestinal metaplasia after the eradication of Helicobacter pylori infection in a hospital in Mexico. Revista Espanola De Enfermedades Digestivas, 2016;108(12):770-775. Revista Espanola De Enfermedades Digestivas can be contacted at: Aran Ediciones, S A, Castello, 128, 1O, 28006 Madrid, Spain.

Our news journalists report that additional information may be obtained by contacting J.A. Sanchez-Cuen, Univ Autonoma Sinaloa, Sch Med, Dept. of Postgraduate Studies, Culiacan, Sinaloa, Mexico. Additional authors for this research include A.B. Irineo-Cabrales, G. Bernal-Magana and F.D. Peraza-Garay.

Keywords for this news article include: Culiacan, Mexico, North and Central America, Parasitic Diseases and Conditions, Gram-Negative Bacteria, Epsilonproteobacteria, Helicobacter pylori, Proteobacteria, Autonomous University.

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Gram-Negative Bacteria - Helicobacter pylori

New Helicobacter pylori Findings from Shahrekord University of Medical Sciences Described (Clinical relevance of Helicobacter pylori virulence factors in Iranian patients with gastrointestinal diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Helicobacter pylori is now available. According to news reporting from Shahrekord, Iran, by NewsRx journalists, research stated, "Helicobacter pylori (H. pylori) usually colonizes the gastric mucosa of more than 50% of the human population, causing an infection that may appear in early childhood and can persist for life. H. pylori is suggested as the main cause of peptic ulcer and chronic gastritis. It is also associated with gastric cancer."

The news correspondents obtained a quote from the research from the Shahrekord University of Medical Sciences, "Its severity and symptoms depend on environmental factors, host susceptibility and bacterial components, which allow H. pylori to switch between commensalism and pathogenicity. H. pylori is genetically highly variable, and the variability which affects H. pylori virulence factors might be useful in identifying the strains with different degrees of pathogenicity. The geographic distribution of distinct H. pylori genotypes is largely unknown and should be established. The prevalence of more pathogenic genotypes in certain areas may have important epidemiological consequences. It also might be associated with the severity of H. pylori related diseases in such regions. Given that Iran is located in the Middle East and Asian populations have revealed high levels of gastric cancer, it is of clinical interest to clarify the potential of H. pylori virulence markers in predicting the associated clinical outcomes."

According to the news reporters, the research concluded: "In this review, clinical relevance of adhesion molecules and significant virulence factors of H. pylori in Iranian patients with gastrointestinal diseases are discussed in comparison to other countries."

Our news journalists report that additional information may be obtained by contacting H. Shirzad, Shahrekord Univ Med Sci, Cellular & Mol Res Center, Shahrekord, Iran. Additional authors for this research include F. Azadegan-Dehkordi, M. Rafieian-Kopaei, G. Rahimian, M. Asadi-Samani and H. Shirzad.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.micpath.2016.09.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shahrekord, Iran, Asia, Parasitic Diseases and Conditions, Gastroenterology, Epidemiology, Gram-Negative Bacteria, Epsilonproteobacteria, Helicobacter pylori, Biological Factors, Virulence Factors, Biological Toxins, Proteobacteria, Genetics, Shahrekord University of Medical Sciences.

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**Health and Medicine - Hematology Research**

**New Hematology Research Findings from Leiden University Reported** *(Red cell alloimmunisation in patients with different types of infections)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Hematology Research have been published. According to news reporting originating in Leiden, Netherlands, by NewsRx journalists, research stated, "Red cell alloantigen exposure can cause alloantibody-associated morbidity. Murine models have suggested that inflammation modulates red cell alloimmunisation."

The news reporters obtained a quote from the research from Leiden University, "This study quantifies alloimmunisation risks during infectious episodes in humans. We performed a multicentre case-control study within a source population of patients receiving their first and subsequent red cell transfusions during an 8-year follow-up period. Patients developing a first transfusion-induced red cell alloantibody (N=505) were each compared with two similarly exposed, but non-alloimmunised controls (N=1010) during a 5-week alloimmunisation risk period using multivariate logistic regression analysis. Transfusions during severe' bacterial (tissue-invasive) infections were associated with increased risks of alloantibody development [adjusted relative risk (RR) 1<bold > <i> </i>34, 95% confidence interval (95% CI) 0<bold > <i> </i>97-1<bold > <i> </i>85], especially when these infections were accompanied with long-standing fever (RR 3<bold > <i> </i>06, 95% CI 1<bold > <i> </i>57-5<bold > <i> </i>96). Disseminated viral disorders demonstrated a trend towards increased risks (RR2<bold > <i> </i>41, 95% CI 0<bold > <i> </i>89-6<bold > <i> </i>53), in apparent contrast to a possible protection associated with Gram-negative bacteraemia (RR 0<bold > <i> </i>58, 95% CI 0<bold > <i> </i>13-1<bold > <i> </i>14). Simple' bacterial infections, Gram-positive bacteraemia, fungal infections, maximum C-reactive protein values and leucocytosis were not associated with red cell alloimmunisation. These findings are consistent with murine models."
According to the news reporters, the research concluded: "Confirmatory research is needed before patients likely to develop alloantibodies may be identified based on their infectious conditions at time of transfusion."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjh.14307. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leiden, Netherlands, Europe, Hematology Research, Health and Medicine, Leiden University.

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**Hematopoiesis**

**New Hematopoiesis Study Findings Have Been Reported from M. Letourneau et al (Drosophila hematopoiesis under normal conditions and in response to immune stress)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hematopoiesis are presented in a new report. According to news reporting from Toulouse, France, by NewsRx journalists, research stated, "The emergence of hematopoietic progenitors and their differentiation into various highly specialized blood cell types constitute a finely tuned process. Unveiling the genetic cascades that control blood cell progenitor fate and understanding how they are modulated in response to environmental changes are two major challenges in the field of hematopoiesis."

Funders for this research include Centre National de la Recherche Scientifique, University Toulouse III, Agence Nationale de la Recherche, Association pour la Recherche sur le Cancer, Indo-French Centre for the Promotion of Advanced Research.

The news correspondents obtained a quote from the research, "In the last 20 years, many studies have established important functional analogies between blood cell development in vertebrates and in the fruit fly, Drosophila melanogaster. Thereby, Drosophila has emerged as a powerful genetic model for studying mechanisms that control hematopoiesis during normal development or in pathological situations. Moreover, recent advances in Drosophila have highlighted how intricate cell communication networks and microenvironmental cues regulate blood cell homeostasis. They have also revealed the striking plasticity of Drosophila mature blood cells and the presence of different sites of hematopoiesis in the larva."

According to the news reporters, the research concluded: "This review provides an overview of Drosophila hematopoiesis during development and summarizes our current
knowledge on the molecular processes controlling larval hematopoiesis, both under normal conditions and in response to an immune challenge, such as wasp parasitism."


Our news journalists report that additional information may be obtained by contacting L. Waltzer, Center Biol Integrat, F-31062 Toulouse 9, France. Additional authors for this research include F. Lapraz, A. Sharma, N. Vanzo, L. Waltzer and M. Crozatier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/1873-3468.12327. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toulouse, France, Europe, Blood Cells, Article Review, Hematopoiesis, Hematology, Genetics.

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**Stem Cell Research - Hematopoietic Stem Cells**

**New Hematopoietic Stem Cells Study Findings Recently Were Reported by Researchers at University Hospital (A case of maternal-foetal chimerism identified during routine histocompatibility testing for hematopoietic stem cell transplantation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Stem Cell Research - Hematopoietic Stem Cells. According to news reporting out of Zagreb, Croatia, by NewsRx editors, research stated, "This report describes a case of maternal-foetal chimerism identified in a boy diagnosed with SCID, who underwent HLA testing in preparation for HSCT. The first analysis was carried out on DNA from peripheral blood and included HLA-A, HLA-B, HLA-DRB1 typing using PCR-SSO."

Our news journalists obtained a quote from the research from University Hospital, "The patient's HLA-B typing results were noninterpretable. All samples were re-typed for HLA-B using PCR-SSP, again resulting in noninterpretable typing of patient's HLA-B. In both cases, several weak positive probes/reactions interfered with the interpretation when using commercial software. Next round of HLA typing, using PCR-SSP and PCR-SSO methods, included the patient's bone marrow sample and HLA-C locus, but interpretation was again not possible. The PCR-STR analysis performed on both peripheral blood and bone marrow samples revealed seven STRs for which two maternal and one paternal allele were detected. Retrospective manual interpretation of HLA-B and HLA-C typing revealed that weak positive reactions were indeed owed to paternal HLA-B and HLA-C alleles and that the patient had both maternal and one paternal allele. Retyping of HLA-B and HLA-C loci and STR analysis on the patient's buccal cells sample revealed the expected one maternal/one paternal allele pattern."

According to the news editors, the research concluded: "In summary, the combination of several different typing methods and manual interpretation were necessary to obtain the patient's HLA typing results."

For more information on this research see: A case of maternal-foetal chimerism

Our news journalists report that additional information may be obtained by contacting Z. Grubic, Tissue Typing Center, Clinical Dept. of for Transfusion Medicine ad Transplantation Biology, University Hospital Centre Zagreb, Zagreb, Croatia. Additional authors for this research include K. Stingl Jankovic, J. Kelecic, D. Batinic, K. Dubravcic and R. Zunec.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/iji.12241. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biomedicine, Zagreb, Europe, Croatia, Surgery, Genetics, Bone Research, Immune System, Bone Marrow Cells, Stem Cell Research, Transplant Medicine, Cell Transplantation, Hematopoietic Stem Cells.

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New Hematopoietic Stem Cells Study Findings Recently Were Reported by Researchers at University of Wisconsin (Generating human hematopoietic stem cells in vitro - exploring endothelial to hematopoietic transition as a portal for stemness ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Stem Cell Research - Hematopoietic Stem Cells. According to news reporting out of Madison, Wisconsin, by NewsRx editors, the research stated, "Advances in cellular reprogramming technologies have created alternative platforms for the production of blood cells, either through inducing pluripotency in somatic cells or by way of direct conversion of nonhematopoietic cells into blood cells. However, de novo generation of hematopoietic stem cells (HSCs) with robust and sustained multilineage engraftment potential remains a significant challenge."

Our news journalists obtained a quote from the research from the University of Wisconsin, "Hemogenic endothelium (HE) has been recognized as a unique transitional stage of blood development from mesoderm at which HSCs arise in certain embryonic locations. The major aim of this review is to summarize historical perspectives and recent advances in the investigation of endothelial to hematopoietic transition (EHT) and HSC formation in the context of aiding in vitro approaches to instruct HSC fate from human pluripotent stem cells. In addition, direct conversion of somatic cells to blood and HSCs and progression of this conversion through HE stage are discussed."

According to the news editors, the research concluded: "A thorough understanding of the intrinsic and microenvironmental regulators of EHT that lead to the acquisition of self-renewal potential by emerging blood cells is essential to advance the technologies for HSC production and expansion."

For more information on this research see: Generating human hematopoietic stem cells in vitro - exploring endothelial to hematopoietic transition as a portal for stemness

Our news journalists report that additional information may be obtained by contacting I.I. Slukvin, University of Wisconsin, Grad Sch, Natl Primate Res Center, Madison, WI 53706, United States.

Keywords for this news article include: Madison, Wisconsin, United States, North and Central America, Technology, Article Review, Hematopoietic Stem Cells, Stem Cell Research, Bone Marrow Cells, Blood Cells, Hematology, University of Wisconsin.

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**Hematopoietic**

**New Hematopoietic Study Findings Have Been Reported by A. Cico and Colleagues (Enhancers and their dynamics during hematopoietic differentiation and emerging strategies for therapeutic action)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematopoietic have been published. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "Cellular differentiation requires precisely regulated tissue-specific and developmental stage-specific gene expression patterns."

Funders for this research include Atip-Avenir Program, Plan Cancer, Schlumberger Foundation for Education and Research (FSER), Labex, CEA Irtelis Ph.D. Fellowship.

The news reporters obtained a quote from the research, "Numerous studies have highlighted the predictive power of enhancers on lineage-specific gene expression programs and have started to unravel their mechanisms of action. We review here the dynamics of the enhancer landscape during hematopoietic differentiation and how enhancers function in the context of the 3D organization of the genome."

According to the news reporters, the research concluded: "We further discuss the involvement of aberrant enhancer activity in human diseases and emerging strategies aiming at controlling enhancer activity and chromosome topology for therapeutic purposes."


Our news correspondents report that additional information may be obtained by contacting E. Soler, Lab Excellence GR Ex, Paris, France. Additional authors for this research include C. Andrieu-Soler and E. Soler.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/1873-3468.12424. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Therapy, Article Review, Hematopoietic, Therapeutics, Hematology.
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Biological Factors - Heme

New Heme Study Findings Have Been Reported by Y.K. Ye and Colleagues (Electrochemical gene sensor based on a glassy carbon electrode modified with hemin-functionalized reduced graphene oxide and gold nanoparticle-immobilized probe DNA)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Biological Factors - Heme. According to news reporting from Hefei, People's Republic of China, by NewsRx journalists, research stated, "The authors describe an electrochemical DNA biosensor based on a glassy carbon electrode modified with gold nanoparticles (AuNPs) and reduced graphene oxide that was functionalized with hemin (hemin-rGO). Capture DNA (a 21-mer) is immobilized on the AuNPs via gold-thiol chemistry."

Funders for this research include National Natural Science Foundation of China, Natural Science Foundation of Anhui Province, Science and Technology Program of Guangzhou, China, Fundamental Research Funds for the Central Universities.

The news correspondents obtained a quote from the research, "The detection scheme relies on the measurement of the differential pulse voltammetric current change of the oxidation-reduction reaction of hemin before and after DNA hybridization has occurred. The decrease in the voltammetric currents of iron (III) (best measured at -0.3 V vs. Ag/AgCl) is linearly related to the concentration of complementary DNA. The calibration plot covers the 1.0 aM to 0.1 pM concentration range, and the detection limit is as low as 0.14 aM (at a signal-to-noise ratio of 3)."

According to the news reporters, the research concluded: "The biosensor was successfully applied to the direct determination of complementary DNA in self-prepared samples by using the standard addition method."

For more information on this research see: Electrochemical gene sensor based on a glassy carbon electrode modified with hemin-functionalized reduced graphene oxide and gold nanoparticle-immobilized probe DNA. Microchimica Acta, 2017;184(1):245-252. Microchimica Acta can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria. (Springer - www.springer.com; Microchimica Acta - www.springerlink.com/content/0026-3672/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00604-016-1999-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hefei, People's Republic of China, Asia, Emerging Technologies, Chemicals, Genetics, Biological Factors, Gold Nanoparticles, Nanobiotechnology, Bionanotechnology, Electrochemicals, Nanotechnology, Bioengineering, Biotechnology, DNA Research, Porphyrins, Biosensing, Hemin, Heme.
New HemeProteins Findings from Showa Pharmaceutical University Reported (Identification of putative substrates for cynomolgus monkey cytochrome P450 2C8 by substrate depletion assays with 22 human P450 substrates and inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Proteins - HemeProteins are discussed in a new report. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Cynomolgus monkeys are widely used in drug developmental stages as non-human primate models. Previous studies used 89 compounds to investigate species differences associated with cytochrome P450 (P450 or CYP) function that reported monkey specific CYP2C76 cleared 19 chemicals, and homologous CYP2C9 and CYP2C19 metabolized 17 and 30 human CYP2C9 and/or CYP2C19 substrates/inhibitors, respectively."

Our news journalists obtained a quote from the research from Showa Pharmaceutical University, "In the present study, 22 compounds selected from viewpoints of global drug interaction guidances and guidelines were further evaluated to seek potential substrates for monkey CYP2C8, which is highly homologous to human CYP2C8 (92%). Amodiaquine, montelukast, quercetin and rosiglitazone, known as substrates or competitive inhibitors of human CYP2C8, were metabolically depleted by recombinant monkey CYP2C8 at relatively high rates."

According to the news editors, the research concluded: "Taken together with our reported findings of the slow eliminations of amodiaquine and montelukast by monkey CYP2C9, CYP2C19 and CYP2C76, the present results suggest that these at least four chemicals may be good marker substrates for monkey CYP2C8."


The news correspondents report that additional information may be obtained from H. Yamazaki, Showa Pharmaceutical University, Machida, Tokyo 1948543, Japan. Additional authors for this research include N. Murayama, M. Satsukawa, S. Uehara, M. Shimizu, K. Iwasaki, S. Iwano, Y. Uno and H. Yamazaki.

Keywords for this news article include: Tokyo, Japan, Asia, Chemicals, Drugs and Therapies, HemeProteins, Cytochromes, Proteins, Showa Pharmaceutical University.
New Hemophilia A Findings Reported from University of Caen
(Influence of factor VIII level and its inhibitor titer on the therapeutic response to corticosteroids alone in the management of acquired hemophilia A retrospective single-center study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematologic Diseases and Conditions - Hemophilia A have been published. According to news reporting from Caen, France, by NewsRx journalists, research stated, "The treatment of acquired hemophilia (AH) involves discussing whether corticosteroids should be administered alone or combined with immunosuppressant drugs, which increase the risk of infection especially in elderly patients and/or those with autoimmunity or neoplastic diseases, who represent the target population of the disease. Prognostic factors highlighting adequate responses to corticosteroids alone must be identified for satisfactory clinical response and lower infectious risk. We aimed to evaluating the efficacy of corticosteroids alone in the management of AH depending on factor VIII (FVIII, \( \geq \) or \(< 1\) IU/dL) levels and/or inhibitor (INH, \( \leq \) or \(> 20\) Bethesda units per milliliter [BU/mL]) titer."

The news correspondents obtained a quote from the research from the University of Caen, "We conducted a retrospective single-center study including 24 patients treated for AH with corticosteroids alone. Time to achieve partial remission (PR: absence of hemorrhage and FVIII >50IU/dL) was significantly shorter in the FVIII ≥ 1 IU/dL group than in the FVIII < 1 IU/dL group (20 [10-55] vs 39 [20-207] days, P=0.044) and in the INH ≤ 20 BU/mL and FVIII ≥ 1 IU/dL group than in the FVIII < 1 IU/dL and/or INH > 20 BU/mL group (15[11-35] vs 41 [20-207] days, P=0.003). In both subgroups, time to achieve complete remission (CR: negative INH and corticosteroids below 10 mg/d) was also significantly shorter than that observed in the opposite subgroups. INH titer, considered alone, did not affect the length of time to onset of PR or CR. CR and PR rates did not differ significantly depending on these variables."

According to the news reporters, the research concluded: "Our study suggests that in AH, patients with FVIII levels \( \geq \) 1 IU/dL considered alone or combined with INH titer \( \leq \) 20 BU/mL could be treated by corticosteroids alone, given that this subgroup of patients displayed faster therapeutic responses to this strategy."

For more information on this research see: Influence of factor VIII level and its inhibitor titer on the therapeutic response to corticosteroids alone in the management of acquired hemophilia A retrospective single-center study. Medicine, 2016;95(48):44-49. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting M. Vautier, Center Hosp Univ Caen, Dept. of Internal Med, Caen, France. Additional authors for this research include H. De Boysson, C. Creveuil, Y. Repesse, A. Borel-Derlon, X. Troussard, G.L. Damaj, B. Bienvenu, P. Gautier and A. Aouba.

Keywords for this news article include: Caen, France, Europe, Hemic and Lymphatic Diseases and Conditions, Inherited Blood Coagulation Disorders, Hematologic Diseases and Conditions, Coagulation Protein Disorders, Therapy, Risk and Prevention,
New Hemorrhagic Shock Data Have Been Reported by Investigators at Academy of Military Medical Sciences (Carboxyfullerene nanoparticles alleviate acute hepatic injury in severe hemorrhagic shock)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hemorrhagic Shock is now available. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Hemorrhagic shock/resuscitation involves overwhelming reactive oxygen species (ROS) that cause oxidative stress, inflammation, and subsequent tissue injury. We investigated the effects of the potent antioxidant carboxyfullerene (C-3) on acute liver injury during hemorrhage shock/resuscitation."

Financial supporters for this research include National Natural Science Foundation of China, Youth Science Fund of AMMS.

Our news journalists obtained a quote from the research from the Academy of Military Medical Sciences, "C-3 infusion reduced the alanine aminotransferase (ALT) activity, methemoglobin content, malondialdehyde content, myeloperoxidase activity and expression levels of tumor necrosis factor-alpha and interleukin-6; it increased superoxide dismutase activity in the liver. The histologic injury score and apoptotic index were also markedly decreased after C-3 treatment compared with the vehicle group. Additionally, C-3-treated rats showed a significant decrease in nuclear factor-kappa B DNA binding capacity, which was preceded by reduced phosphorylation of the nuclear factor kappa B (NF-kappa B) p65 subunit in the liver. C-3 nanoparticles ameliorate oxidative stress, the inflammatory response, and subsequent acute liver injury after hemorrhagic shock/resuscitation. These protective effects appear to be mediated through the inhibition of the nuclear factor-kappa B pathway."

According to the news editors, the research concluded: "C-3 treatment may be a promising strategy to improve tissue injury in hemorrhagic shock/resuscitation."

For more information on this research see: Carboxyfullerene nanoparticles alleviate acute hepatic injury in severe hemorrhagic shock. *Biomaterials*, 2017;112():72-81. *Biomaterials* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.10.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Emerging Technologies, Emergency Treatment, Hemorrhagic Shock, Nanotechnology,
Liver Diseases and Conditions - Hepatitis B Virus

New Hepatitis B Virus Findings from Hokkaido University Described
(Hepatitis B virus X protein impairs alpha-interferon signaling via up-regulation of suppressor of cytokine signaling 3 and protein phosphatase 2A)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis B Virus are presented in a new report. According to news reporting out of Hokkaido, Japan, by NewsRx editors, research stated, "Hepatitis B Virus (HBV) causes liver cirrhosis and hepatocellular carcinoma. Standard therapy includes treatment with interferon (IFN); however, its efficacy is limited."

Our news journalists obtained a quote from the research from Hokkaido University, "HBV has been reported to impair IFN signaling; however, the mechanism is unclear. Here, the relationship between HBV X protein (HBx) and IFN signaling was investigated by establishing HepG2 cells, stably expressing HBx (HepG2/HBx) via retrovirus-mediated gene transfer. Subsequently, IFN negative-regulator expression and its mechanism were studied. HepG2/HBx cells showed reduced expression of IFN-stimulated genes and expressed higher levels of suppressor of cytokine signaling 3 (SOCS3) and protein phosphatase 2A (PP2A) suppressor compared with control cells. Knockdown of SOCS3 and PP2A restored IFN sensitivity. Moreover, HepG2/HBx cells showed higher phosphorylation levels of signal transducers and activators of transcription 3 and endoplasmic reticulum stress, which are inducers of SOCS3 and PP2A, respectively. Additionally, HBx-knockdown restored IFN sensitivity in HepG2.215.7 cells. It was also confirmed that SOCS3 and PP2A expression levels were up-regulated in the liver of patients with HBV infection."

According to the news editors, the research concluded: "The results of this study demonstrated that HBx impairs IFN signaling via increased expression of SOCS3 and PP2A, a novel mechanistic insight, providing a potential therapeutic target to enhance the efficiency of IFN therapy. J. Med. Virol. 89:267-275, 2017."


Keywords for this news article include: Hokkaido, Japan, Asia, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease
New Hepatitis B Virus Study Findings Have Been Reported by Researchers at University Hospital (The transcription factor c-JUN/AP-1 promotes HBV-related liver tumorigenesis in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis B Virus are presented in a new report. According to news originating from Freiburg, Germany, by NewsRx correspondents, research stated, "Hepatocellular carcinoma (HCC) develops as a consequence of chronic inflammatory liver diseases such as chronic hepatitis B virus (HBV) infection. The transcription factor c-Jun/activator protein 1 (AP-1) is strongly expressed in response to inflammatory stimuli, promotes hepatocyte survival during acute hepatitis and acts as an oncogene during chemically induced liver carcinogenesis in mice."

Our news journalists obtained a quote from the research from University Hospital, "Here, we therefore aimed to characterize the functions of c-Jun during HBV-related liver tumorigenesis. To this end, transgenic mice expressing all HBV envelope proteins (HBV(+)), an established model of HBV-related HCC, were crossed with knockout mice lacking c-Jun specifically in hepatocytes and tumorigenesis was analyzed. Hepatic expression of c-Jun was strongly induced at several time points during tumorigenesis in HBV(+) mice, whereas expression of other AP-1 components remained unchanged. Importantly, formation of premalignant foci and tumors was strongly reduced in HBV(+) mice lacking c-Jun. This phenotype correlated with impaired hepatocyte proliferation and increased expression of the cell cycle inhibitor p21, whereas hepatocyte survival was not affected. Progression and prognosis of HBV-related HCC correlates with the expression of the cytokine osteopontin (Opn), an established AP-1 target gene. Opn expression was strongly reduced in HBV(+) livers and primary mouse hepatocytes lacking c-Jun, demonstrating that c-Jun regulates hepatic Opn expression in a cell-autonomous manner. These findings indicate that c-Jun has important functions during HBV-associated tumorigenesis by promoting hepatocyte proliferation as well as progression of dysplasia."

According to the news editors, the research concluded: "Therefore, targeting c-Jun may be a useful strategy to prevent hepatitis-associated tumorigenesis."

For more information on this research see: The transcription factor c-JUN/AP-1 promotes HBV-related liver tumorigenesis in mice. Cell Death and Differentiation, 2015;23 (4):576-82. (Nature Publishing Group - www.nature.com/; Cell Death and Differentiation - www.nature.com/cdd/)

The news correspondents report that additional information may be obtained from C. Trierweiler, Dept. of Medicine II, University Hospital Freiburg, Hugstetter Strasse 55, D-79106 Freiburg, Germany. Additional authors for this research include B. Hockenjos, K. Zatloukal, R. Thimme, H.E. Blum, E.F. Wagner and P. Hasselblatt.

The direct object identifier (DOI) for that additional information is:
New Hepatitis B Virus Study Findings Recently Were Reported by Researchers at French National Institute of Health and Medical Research (INSERM) (Intensification with pegylated interferon during treatment with tenofovir in HIV-hepatitis B virus ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis B Virus are presented in a new report. According to news originating from Paris, France, by NewsRx correspondents, research stated, "In hepatitis B e antigen (HBeAg) positive patients with hepatitis B virus (HBV) mono-infection, intensification of nucleos(t)ide analogue treatment with pegylated interferon (PegIFN) could help induce higher HBeAg seroclearance rates. Our aim was to determine the long-term effect of adding PegIFN to tenofovir (TDF)-containing antiretroviral therapy on seroclearance in HBeAg-positive patients co-infected with the human immunodeficiency virus (HIV) and HBV."

Financial supporters for this research include Institut de Medecine et d'Epidemiologie Appliquee, Agence Nationale de Recherches sur le Sida et les Hepatites Virales, Gilead Sciences.

Our news journalists obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "In this prospective matched cohort study, 46 patients with 1-year PegIFN intensification during TDF-containing antiretroviral therapy (TDF+PegIFN) were matched 1:1 to controls undergoing TDF without PegIFN (TDF) using a time-dependent propensity score based on age, CD4+ count and liver cirrhosis status. Kinetics of HBeAg quantification (qHBeAg) and hepatitis B surface antigen quantification (qHBsAg) were estimated using mixed-effect linear regression and time to HBeAg seroclearance or HBsAg seroclearance was modelled using proportional hazards regression. At baseline, previous TDF exposure was a median 39.8 months (IQR=21.4-59.4) and median qHBeAg and qHBsAg levels were 6.9PEIU/mL and 3.72 log(10)IU/mL, respectively (P >.5 between groups). Median follow-up was 33.4 months (IQR=19.0-36.3). During intensification, faster average declines of qHBeAg (-0.066 vs -0.027PEIU/mL/month, P=.001) and qHBsAg (-0.049 vs -0.026 log(10) IU/mL/month, P=.09) were observed in patients undergoing TDF+PegIFN vs TDF, respectively. After intensification, qHBeAg and qHBsAg decline was no different between groups (P=.7 and P=.9, respectively). Overall, no differences were observed in HBeAg seroclearance (TDF+PegIFN=13.2 vs TDF=12.6/100 personyears, P=.5) or HBsAg seroclearance rates (TDF+PegIFN=1.8 vs TDF=1.3/100 personyears, P=.7)."

According to the news editors, the research concluded: "PegIFN intensification in HBeAg-positive co-infected patients did not lead to increased rates of HBeAg or HBsAg..."
clearance, despite faster declines of antigen levels while on PegIFN."


The news correspondents report that additional information may be obtained from A. Boyd, INSERM, UMR_ S1136, Inst Pierre Louis Epidemiol & Sante Public, Paris, France. Additional authors for this research include L. Piroth, S. Maylin, M. Maynard-Muet, F. Lebosse, C. Bouix, C. Lascoux-Combe, N. Mahjoub, P.M. Girard, C. Delaugerre, F. Carrat, K. Lacombe and P. Mialilhes.

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**Liver Diseases and Conditions - Hepatitis C Virus**

**New Hepatitis C Virus Study Findings Have Been Reported by Researchers at Research Foundation (Serum-derived hepatitis C virus 1a infection of human astrocyte cell line SVG)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases and Conditions - Hepatitis C Virus have been presented. According to news reporting from Chennai, India, by NewsRx journalists, research stated, "Neuroinvasion of hepatitis C virus (HCV) is evidenced by recent clinical studies. In this study, serum-derived HCV infection of astrocytes was analysed."

Funders for this research include Department of Biotechnology, Govt. of India, INSPIRE Fellowship programme, Department of Science and Technology, Govt. of India.

The news correspondents obtained a quote from the research from Research Foundation, "Astrocytes were infected with HCV-positive serum, and viral replication was assessed on different days postinfection. RT-PCR was positive for HCV-negative strand on 5th and 7th day postinfection in the HCV-positive serum-infected astrocytes. Real-time RNA count in the cell culture supernatant was steadily increasing from day 3 to day 7. To reconfirm the viral replication, astrocytes were treated with an antiviral before the serum infection, and the
antiviral treatment significantly reduced the viral RNA count. Further, the virus-infected cells
stained positive for the presence of viral core protein. Electron microscopy revealed the
presence of HCV-like particles in the astrocyte cell culture supernatant."

According to the news reporters, the research concluded: "Serum-derived HCV
replicates in human astrocyte cell line SVG."

For more information on this research see: Serum-derived hepatitis C virus 1a
(Wiley-Blackwell - www.wiley.com; Journal of Viral Hepatitis -
onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2893)

Our news journalists report that additional information may be obtained by
contacting A.R. Rajalakshmy, L & T Microbiology Research Centre, Vision Research
Foundation, Chennai, 600006, India. Additional authors for this research include J. Malathi and
H.N Madhavan.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/jvh.12480. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: HCV, Asia, India, Chennai, Genetics,
Virology, Cell Line, Neuroglia, Viral RNA, Astrocytes, Hepatology, RNA Viruses,
Gastroenterology, Hepatitis C Virus, Flaviviridae Infections, Liver Diseases and Conditions,
Infectious Disease and Conditions, Digestive System Diseases and Conditions.

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Liver Diseases and Conditions - Hepatitis C Virus

New Hepatitis C Virus Study Findings Recently Were Reported by
Researchers at Dalian Medical University (Sofosbuvir and ribavirin in
acute hepatitis C-infected patient with decompensated cirrhosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis C Virus are
presented in a new report. According to news originating from Dalian, People's Republic of
China, by NewsRx correspondents, research stated, "The treatment of chronic hepatitis C virus
infection has been revolutionized by the advent of direct-acting antiviral agents. However,
evidence of its effects on patients with acute hepatitis C (AHC) virus infection is limited."

Our news journalists obtained a quote from the research from Dalian Medical
University, "Case summary: We report the case of a patient with decompensated cirrhosis
induced by autoimmune liver disease, whose condition rapidly deteriorated following AHC
virus infection. The patient received sofosbuvir and ribavirin combination treatment for 12
weeks. Serum hepatitis C virus RNA remained undetectable 36 weeks after discontinuing
sofosbuvir and ribavirin."

According to the news editors, the research concluded: "Our findings support the use
of sofosbuvir and ribavirin as a treatment in AHC patients with decompensated cirrhosis."

For more information on this research see: Sofosbuvir and ribavirin in acute
*Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001
Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine -
The news correspondents report that additional information may be obtained from Y. Yan, Dalian Med Univ, Affiliated Hosp 2, Dept. of Gastroenterol, Dalian 116023, Liaoning Provin, People's Republic of China. Additional authors for this research include T. Zhang and Y. Yan.

Keywords for this news article include: Dalian, People's Republic of China, Asia, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Hepatitis C Virus, Gastroenterology, Acute Hepatitis, Hepatology, Cirrhosis, Fibrosis, Genetics, Virology, HCV, Dalian Medical University.

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Liver Diseases and Conditions - Hepatitis

New Hepatitis Findings from Boston University Reported (Extranodal Marginal Zone Endobronchial Lymphoma Associated With Hepatitis C)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Hepatitis is now available. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "We describe two patients with hepatitis C and a diagnosis of pulmonary extranodal marginal zone B cell lymphoma."

Our news editors obtained a quote from the research from Boston University, "Both patients demonstrated a chronic nonproductive cough without hemoptysis. Diagnosis was obtained after a computed tomographic chest scan and flexible bronchoscopic biopsy."

According to the news editors, the research concluded: "We discuss the staging and prognosis of this disease, its correlation with hepatitis C, and potential benefits of treating the associated hepatitis C."


The news editors report that additional information may be obtained by contacting N. Bhatt, Boston University, Center Pulm, Boston, MA 02215, United States. Additional authors for this research include M. Sloan, C.J. O'Hara, R. Oommen, K. Steiling and V.R. Litle.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.060. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Digestive System Diseases and Conditions, Lymphatic Diseases and Conditions, Infectious Disease and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Liver Diseases and Conditions, Gastroenterology, Hematology, Lymphomas, Hepatitis, Oncology, Boston University.

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New Hepatology Research Study Findings Recently Were Reported by Researchers at Saarland University Hospital [The common PNPLA3 variant p.I148M is associated with liver fat contents as quantified by controlled attenuation parameter (CAP)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gastroenterology - Hepatology Research. According to news reporting originating from Homburg, Germany, by NewsRx correspondents, research stated, "Non-alcoholic fatty liver disease (NAFLD) is becoming the most prevalent liver disorder. The PNPLA3 (adiponutrin) variant p.I148M has been identified as common genetic modifier of NAFLD."

Our news editors obtained a quote from the research from Saarland University Hospital, "Our aim was to assess the relationships between genetic risk and non-invasively measured liver fat content. Hepatic steatosis was quantified by transient elastography, using the controlled attenuation parameter (CAP) in 174 patients with chronic liver diseases (50% women, age 18-77 years). In addition, a cohort of 174 gender-matched healthy controls (50% women, age 32-77 years) was recruited. The PNPLA3 mutation as well as the novel NAFLD-predisposing genetic variant (TM6SF2 p.E167K) were genotyped with allele-specific probes. The PNPLA3 genotype correlated significantly (p=0.001) with hepatic CAP measurements. The p.148M risk allele increased the odds of developing liver steatosis (OR=2.39, p=0.023). In multivariate models, BMI and PNPLA3 mutation were both independently associated with CAP values (p <0.001 and p=0.007, respectively). Carriers of the TM6SF2 risk allele presented with increased aminotransferase activities (ALT: p=0.007, AST: p=0.004), but the presence of this variant did not affect CAP values. The PNPLA3 p.I148M variant represents the most important prosteatotic genetic risk factor."

According to the news editors, the research concluded: "NAFLD carriers of this variant should be followed up carefully, with elastography and CAP being ideally suited for this purpose."


The news editors report that additional information may be obtained by contacting A. Arslanow, Dept. of Medicine II, Saarland University Medical Center, Homburg, Germany. Additional authors for this research include C.S. Stokes, S.N. Weber, F. Grunhage, F. Lammert and M. Krawczyk.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/liv.12937. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Liver International is: Blackwell Munksgaard, 35 Norre Sogade, PO Box 2148, DK-1016 Copenhagen, Denmark.

Keywords for this news article include: Europe, Homburg, Germany, Genetics,
New Hereditary Hemorrhagic Telangiectasia Findings from Department of Radiology Discussed (Natural history of brain capillary vascular malformations in hereditary hemorrhagic telangiectasia patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Hereditary Hemorrhagic Telangiectasia. According to news originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Brain capillary vascular malformations (CVMs) are known to occur with relatively high frequency in hereditary hemorrhagic telangiectasia (HHT) patients. These lesions are thought to have a benign natural history but this has not been systematically studied."

Our news journalists obtained a quote from the research from the Department of Radiology, "The purpose of our study was to examine the natural history of CVMs in a consecutive series of HHT patients. Consecutive patients with untreated CVMs receiving serial imaging were included. Baseline data including demographics, HHT gene mutations, and Curacao diagnostic criteria were collected. The primary outcome was rupture on follow-up. A secondary outcome was new focal neurological deficit or seizure related to the lesion. 22 patients with 42 CVMs were included. Mean age was 45.9±16.9 years. 18 patients (81.8%) were women and 4 (18.2%) were men. 19 patients (86.4%) had definite HHT and 3 patients (13.6%) had probable HHT. Mean follow-up was 4.6±3.7 years. There were a total of 100.2 patient years of follow-up and 222.5 lesion years. No lesions ruptured on follow-up and no patient had focal neurological deficits or seizures related to the lesions. Our study found that CVMs in HHT patients have a benign natural history as no patients had hemorrhage or other symptoms related to these lesions."

According to the news editors, the research concluded: "These findings should be confirmed in additional multicenter longitudinal studies."


The news correspondents report that additional information may be obtained from W. Brinjikji, Dept. of Radiology, Mayo Clinic, Rochester, Minnesota, United States. Additional authors for this research include V.N. Iyer, G. Lanzino, K.R. Thielen and C.P Wood.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/neurintsurg-2015-012252. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Rochester, Minnesota, Hematology, Dermatology, Epidemiology, United States, Article Review, North and Central America, Hereditary Hemorrhagic Telangiectasia, Cardiovascular Diseases and Conditions.

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New Hereditary Nonpolyposis Colorectal Cancer Study Findings Have Been Reported from University Medical Center (Cost-effectiveness of routine screening for Lynch syndrome in endometrial cancer patients up to 70 years of age)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Hereditary Nonpolyposis Colorectal Cancer is now available. According to news reporting out of Rotterdam, Netherlands, by NewsRx editors, research stated, "To assess cost-effectiveness of routine screening for Lynch Syndrome (IS) in endometrial cancer (EC) patients years of age. Consecutive EC patients <= 70 years of age were screened for LS by analysis of microsatellite instability, immunohistochemistry and MLH1 hypermethylation."

Our news journalists obtained a quote from the research from University Medical Center, "Costs and health benefit in life years gained (LYG) included surveillance for LS carriers among EC patients and relatives. We calculated incremental cost-effectiveness ratios (ICERs) comparing LS screening among EC patients <= 70 years with <= 50 years and the revised Bethesda guidelines. Screening for LS in 179 EC patients identified 7 LS carriers; 1 was <= 50 and 6 were 51-70 years. Per age category 18 and 9 relatives were identified as LS carrier. Screening resulted in 74.7 LYG (45.4 and 29.3 LYG per age category). The ICER for LS screening in EC patients <= 70 compared with <= 50 years was (sic)5,252/LYG. The revised Bethesda guidelines missed 4/7 (57%) LS carriers among EC patients. The ICER for LS screening in EC patients <= 70 years of age compared with the revised Bethesda guidelines was (sic)6,668/LYG. Both ICERs remained <(sic)16,000/LYG in sensitivity analyses."

According to the news editors, the research concluded: "Routine LS screening in EC patients years is a cost-effective strategy, allowing colorectal cancer prevention in EC patients and their relatives."


Keywords for this news article include: Rotterdam, Netherlands, Europe, Cancer, Diagnostics and Screening, Epidemiology, Hereditary Nonpolyposis Colorectal Cancer, Risk and Prevention, Gastroenterology, Lynch Syndrome, Oncology, University Medical Center.

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New Histology Study Findings Reported from University of California (Molecular inimitability amongst tumors: implications for precision cancer medicine in the age of personalized oncology)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Histology. According to news originating from La Jolla, California, by NewsRx correspondents, research stated, "Tumor sequencing has revolutionized oncology, allowing for detailed interrogation of the molecular underpinnings of cancer at an individual level. With this additional insight, it is increasingly apparent that not only do tumors vary within a sample (tumor heterogeneity), but also that each patient's individual tumor is a constellation of unique molecular aberrations that will require an equally unique personalized therapeutic regimen."

Our news journalists obtained a quote from the research from the University of California, "We report here the results of 439 patients who underwent Clinical Laboratory Improvement Amendment (CLIA)-certified next generation sequencing (NGS) across histologies. Among these patients, 98.4% had a unique molecular profile, and aside from three primary brain tumor patients with a single genetic lesion (IDH1 R132H), no two patients within a given histology were molecularly identical. Additionally, two sets of patients had identical profiles consisting of two mutations in common and no other anomalies. However, these profiles did not segregate by histology (lung adenocarcinoma-appendiceal cancer (KRAS G12D and GNAS R201C), and lung adenocarcinoma-liposarcoma (CDK4 and MDM2 amplification pairs))."

According to the news editors, the research concluded: "These findings suggest that most advanced tumors are molecular singletons within and between histologies, and that tumors that differ in histology may still nonetheless exhibit identical molecular portraits, albeit rarely."


The news correspondents report that additional information may be obtained from S.P. Patel, Center for Personalized Cancer Therapy and Division of Hematology and Oncology, University of California San Diego Moores Cancer Center, La Jolla, CA, United States. Additional authors for this research include M. Schwaederle, G.A. Daniels, P.T. Fanta, R.B. Schwab, K.A. Shimabukuro, S. Kesari, D.E. Piccioni, L.A. Bazhenova, T.L. Helsten, S.M. Lippman, B.A. Parker and R. Kurzrock.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5289. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, La Jolla, Genetics, Oncology, Histology, California, United States, North and Central America.

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New Hormones Study Results from Karolinska Institute Described (Hippocampal Transcriptome Profile of Persistent Memory Rescue in a Mouse Model of THRA1 Mutation-Mediated Resistance to Thyroid Hormone)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hormones have been published. According to news reporting from Stockholm, Sweden, by NewsRx journalists, research stated, "Hypothyroidism due to THRA1 (gene coding for thyroid hormone receptor a1) mutation-mediated Resistance to Thyroid Hormone (RTH) has been recently reported in human and is associated with memory deficits similar to those found in a mouse model for Thra1 mutation mediated RTH (Thra1(+/m) mice). Here, we show that a short-term treatment of Thra1(+/m) mice with GABAA receptor antagonist pentylenetetrazol (PTZ) completely and durably rescues their memory performance."

The news correspondents obtained a quote from the research from Karolinska Institute, "In the CA1 region of the hippocampus, improvement of memory is associated with increased in long-term potentiation (LTP) and an augmentation of density of dendritic spines (DDS) onto the apical dendrites of pyramidal cells reflecting an increase in the local excitatory drive. Unbiased gene profiling analysis of hippocampi of treated Thra1(+/+) and Thra1(+/m) mice were performed two weeks and three months post treatment and identified co-expression modules that include differentially expressed genes related with and predicting higher memory, LTP and DDS in the hippocampi of PTZ-treated animals."

According to the news reporters, the research concluded: "We observed that PTZ treatment changed similar sets of genes in both Thra1(+/+) and Thra1(+/m) mice, which are known to be involved in memory consolidation and neurotransmission dynamics and could participate in the persistent effects of PTZ on memory recovery."

For more information on this research see: Hippocampal Transcriptome Profile of Persistent Memory Rescue in a Mouse Model of THRA1 Mutation-Mediated Resistance to Thyroid Hormone, Scientific Reports, 2016;6():18617. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting Y. Wang, Dept. of Neuroscience, Karolinska Institutet, 171 77 Stockholm, Sweden. Additional authors for this research include A. Fisahn, I. Sinha, D.P. Nguyen, U. Sterzenbach, F. Lallemend and S. Hadjab.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18617. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Genetics, Genomics, Stockholm, RNA Research, Thyroid Hormones.

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New Human Genetics Findings Reported from C. Beeroud and Co-Authors (BRCA Share: A Collection of Clinical BRCA Gene Variants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Genetics - Human Genetics have been presented. According to news reporting from San Juan Capistrano, California, by NewsRx journalists, research stated, "As next-generation sequencing increases access to human genetic variation, the challenge of determining clinical significance of variants becomes ever more acute. Germline variants in the BRCA1 and BRCA2 genes can confer substantial lifetime risk of breast and ovarian cancer."

The news correspondents obtained a quote from the research, "Assessment of variant pathogenicity is a vital part of clinical genetic testing for these genes. A database of clinical observations of BRCA variants is a critical resource in that process. This article describes BRCA ShareTM, a database created by a unique international alliance of academic centers and commercial testing laboratories. By integrating the content of the Universal Mutation Database generated by the French Unicancer Genetic Group with the testing results of two large commercial laboratories, Quest Diagnostics and Laboratory Corporation of America (LabCorp), BRCA ShareTM has assembled one of the largest publicly accessible collections of BRCA variants currently available. Although access is available to academic researchers without charge, commercial participants in the project are required to pay a support fee and contribute their data. The fees fund the ongoing curation effort, as well as planned experiments to functionally characterize variants of uncertain significance."

According to the news reporters, the research concluded: "BRCA ShareTM databases can therefore be considered as models of successful data sharing between private companies and the academic world."


Our news journalists report that additional information may be obtained by contacting C.M. Strom, Quest Diagnost, San Juan Capistrano, CA 92675, United States. Additional authors for this research include S.I. Letovsky, C.D. Braastad, S.M. Caputo, O. Beaudoux, Y.J. Bignon, B.B.D. Paillerets, M. Bronner, C.M. Buell, G.E. Colloid-Beeroud, F. Coulet, N. Derive, C. Divincenzo, C.D. Elzinga, C. Garrec, C. Houdayer, I. Karbassi and Liza.

Keywords for this news article include: San Juan Capistrano, California, United States, North and Central America, Human Genetics, Genetics, Genetics.

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New Human Genetics Findings Reported from Korea National Institute of Health (Application of whole-exome sequencing for detecting copy number variants in CMT1A/HNPP)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics - Human Genetics. According to news reporting from Cheongju, South Korea, by NewsRx journalists, research stated, "Large insertions and deletions (indels), including copy number variations (CNVs), are commonly seen in many diseases. Standard approaches for indel detection rely on well-established methods such as qPCR or short tandem repeat (STR) markers."

The news correspondents obtained a quote from the research from the Korea National Institute of Health, "Recently, a number of tools for CNV detection based on next-generation sequencing (NGS) data have also been developed; however, use of these methods is limited. Here, we used whole-exome sequencing (WES) in patients previously diagnosed with CMT1A or HNPP using STR markers to evaluate the ability of WES to improve the clinical diagnosis. Patients were evaluated utilizing three CNV detection tools including CONIFER, ExomeCNV and CEQer, and array comparative genomic hybridization (aCGH). We identified a breakpoint region at 17p11.2-p12 in patients with CMT1A and HNPP. CNV detection levels were similar in both 6 Gb (mean read depth= 80x) and 17 Gb (mean read depth= 190x) data. Taken together, these data suggest that 6 Gb WES data are sufficient to reveal the genetic causes of various diseases and can be used to estimate single mutations, indels, and CNVs simultaneously."

According to the news reporters, the research concluded: "Furthermore, our data strongly indicate that CNV detection by NGS is a rapid and cost-effective method for clinical diagnosis of genetically heterogeneous disorders such as CMT neuropathy."


Our news journalists report that additional information may be obtained by contacting S.K. Koo, Korea Natl Inst Hlth, Center Biomed Sci, Div Intractable Dis, Cheongju 363951, Chungcheongbuk, South Korea. Additional authors for this research include M.H. Park, H.M. Woo, M.H. Han, B.Y. Kim, B.O. Choi, K.W. Chung and S.K. Koo.

Keywords for this news article include: Cheongju, South Korea, Asia, Human Genetics, Genetics, Genetics, Korea National Institute of Health.

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New Human Herpesvirus 8 Findings from Hannover School of Medicine Outlined (The KSHV RNA regulator ORF57: target specificity and its role in the viral life cycle)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Human Herpesvirus Diseases and Conditions - Human Herpesvirus 8. According to news reporting out of Hannover, Germany, by NewsRx editors, research stated, "Kaposi's sarcoma-associated herpesvirus (KSHV) encodes ORF57, which enhances the expression of intron-less KSHV genes on multiple post-transcriptional levels mainly affecting RNA stability and export to the cytoplasm. Yet, it remains elusive how ORF57 recognizes viral RNAs and discriminates them from cellular messenger RNAs (mRNAs)."

Our news journalists obtained a quote from the research from the Hannover School of Medicine, "Although one common binding motif on three separate KSHV RNAs has been described, most other lytic genes lack this sequence element. In this article we will review the sequence requirements for ORF57 to enhance RNA expression and discuss a model how ORF57 achieves specificity for viral RNAs."

According to the news editors, the research concluded: "Finally, the role of ORF57 is integrated into the viral life cycle as a complex interplay with other viral and host factors and with implications for cellular gene expression."

For more information on this research see: The KSHV RNA regulator ORF57: target specificity and its role in the viral life cycle. Wiley Interdisciplinary Reviews Rna, 2016;7 (2):173-85.

Our news journalists report that additional information may be obtained by contacting C. Vogt, Institute for Virology, Hannover Medical School, Hannover, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/wrna.1323. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HHV8, KSHV, HHV 8, Europe, Germany, Hannover, Genetics, Virology, Article Review, Kaposi Sarcoma, Human Herpesvirus Diseases and Conditions.

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New Human Immunodeficiency Virus Study Findings Recently Were Reported by Researchers at Blood Systems Research Institute [Self-reported historic human immunodeficiency virus (HIV) testing in a Brazilian blood donor HIV case-control study]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Human Immunodeficiency Virus is now available. According to news reporting originating from San Francisco, California, by NewsRx
correspondents, research stated, "There has been increased worldwide emphasis on the many benefits of human immunodeficiency virus (HIV) serostatus awareness for both infection prevention and improved treatment outcomes. Previous studies indicate that donors may use blood donation to be tested; the objectives of this analysis were to assess, among donors with previously undisclosed risk behavior in the 12 months before donation, the frequency of those who have previously been tested for HIV and the demographic and behavioral factors associated with such testing."

Our news editors obtained a quote from the research from Blood Systems Research Institute, "In this secondary analysis from an HIV case-control study of blood donors in Brazil, we analyzed the response to the question, 'Other than blood donation, have you ever been tested for HIV?' Demographic and disclosed risk behaviors associated with previous testing were determined. The study included 341 HIV-positive cases and 791 HIV-negative controls (1:2 case/control ratio). Overall, 31% of blood donors (40% of cases and 26% of controls) reported having been tested for HIV outside of blood donation. History of HIV testing varied according to sex, HIV status, and reported sexual risk behavior. Although it is encouraging that previous testing was more frequent in donors with acknowledged sexual risk behavior in Brazil, 60% still had not been tested for HIV outside of the blood donation setting."

According to the news editors, the research concluded: "Educating donors on the importance of not using blood centers as a means to get tested for HIV in Brazil, especially if they engage in higher risk behaviors, and seeking alternate testing venues instead could improve the safety of donated blood."


Keywords for this news article include: San Francisco, California, United States, North and Central America, Immune System Diseases and Conditions, Diagnostics and Screening, Risk and Prevention, Epidemiology, Viral Sexually Transmitted Diseases and Conditions, Human Immunodeficiency Virus, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Blood Systems Research Institute.

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**Immunology - Human Immunology**

**New Human Immunology Study Findings Reported from Laboratory for Immunology (Next-Generation Sequencing of the HLA locus: Methods and impacts on HLA typing, population genetics and disease association studies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Human Immunology.
According to news reporting from Strasbourg, France, by NewsRx journalists, research stated, "The human Major Histocompatibility Complex, known as the 'Human Leukocyte Antigen (HLA)', could be defined as a 'super locus' (historically called 'supergene') governing the adaptive immune system in vertebrates. It also harbors genes involved in innate immunity."

The news correspondents obtained a quote from the research from Laboratory for Immunology, "HLA is the most gene-dense, polymorphic and disease-associated region of the human genome. It is of critical medical relevance given its involvement in the fate of the transplanted organs/tissues and its association with more than 100 diseases. However, despite these important roles, comprehensive sequence analysis of the 4 megabase HLA locus has been limited due to technological challenges. Thanks to recent improvements in Next Generation Sequencing (NGS) technologies however, one is now able to handle the peculiarities of the MHC notably the tight linkage disequilibrium between genes as well as their high degree of polymorphism (and hence heterozygosity). Increased read lengths, throughput, accuracy, as well as development of new bioinformatics tools now enable to efficiently generate complete and accurate full-length HLA haplotypes without phase ambiguities. The present report reviews current NGS approaches to capture, sequence and analyze HLA genes and loci."

According to the news reporters, the research concluded: "The impact of these new methodologies on various applications including HLA typing, population genetics and disease association studies are discussed."

For more information on this research see: Next-Generation Sequencing of the HLA locus: Methods and impacts on HLA typing, population genetics and disease association studies. Human Immunology, 2016;77(11):1016-1023. Human Immunology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

Our news journalists report that additional information may be obtained by contacting R. Carapito, Nouvel Hopital Civil, Pole Biol, Plateau Technical Biol, Lab Immunol, F-67091 Strasbourg, France. Additional authors for this research include M. Radosavljevic and S. Bahram.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.humimm.2016.04.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Strasbourg, France, Europe, Human Immunology, Genetics, Immunology, Genetics, Laboratory for Immunology.

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Drugs and Therapies - Human Serum Albumin Therapy

New Human Serum Albumin Therapy Findings from Tarbiat Modares University Described (Inhibition of lysozyme fibrillation by human serum albumin nanoparticles: Possible mechanism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Human Serum Albumin Therapy. According to news reporting originating in Tehran, Iran, by NewsRx journalists, research stated, "Amyloid fibrillation is a prevalent phenomenon in different proteins and peptides, which results in a variety of disorders. Over the last decade,
implementation of nanoparticles (NPs), with or without drugs, is considered as a promising approach to protect against the aggregation process of amyloid proteins."

Financial support for this research came from Tarbiat Modares University and National Institute of Genetic Engineering and Biotechnology.

The news reporters obtained a quote from the research from Tarbiat Modares University, "In this study, we investigated the effect of human serum albumin NPs (HSA NPs) on the fibrillation of Hen Egg White Lysozyme (HEWL). The results showed that HSA NPs decrease the fibrillation of HEWL in a size dependent manner. Surprisingly, despite their inhibitory effects on the formation of long fibrils, our studies revealed that the NPs do not preserve the stability of the protein's structure in denaturing conditions. In fact, different structural analysis methods revealed that in the presence of the NPs, the protein's tendency to expose hydrophobic patches increased. Therefore, it seems that HSA NPs are responsible for decrease in HEWL fibrillation by reducing its concentration and blocking hot spot regions for self-assembly via moderate interaction."

According to the news reporters, the research concluded: "Collectively, our results shed light on the impact of HSA NPs on HEWL fibrillation and open new challenges on the implications of these NPs for drug delivery purposes or direct use as therapeutic agents."


Our news correspondents report that additional information may be obtained by contacting S.A. Shojaosadati, Tarbiat Modares Univ, Dept. of Chem Engn, Tehran 14115111, Iran. Additional authors for this research include H. Mohammad-Beigi, F. Aliakbari, A.T. Marvian, S.A. Shojaosadati and D. Morshed.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.09.108. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Human Serum Albumin Therapy, Serum albumin Therapy, Emerging Technologies, Acute-Phase Proteins, Drugs and Therapies, Blood Proteins, Nanotechnology, Nanoparticle, Lysozyme, Albumins, Tarbiat Modares University.

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disease by regulating cell proliferation and differentiation. Transcriptional activity, whether by bHLH homo- or heterodimerization, is dependent on protein protein and protein DNA interactions mediated by a-helices."

The news reporters obtained a quote from the research from Dana-Farber Cancer Institute, "Thus, alpha-helical decoys have been proposed as potential targeted therapies for pathologic bHLH transcription. Here, we developed a library of stabilized alpha-helices of OLIG2 (SAH-OLIG2) to test the capacity of hydrocarbon-stapled peptides to disrupt OLIG2 homodimerization, which drives the development and chemoresistance of glioblastoma multiforme, one of the deadliest forms of human brain cancer. Although stapling successfully reinforced the alpha-helical structure of bHLH constructs of varying length, sequence-specific dissociation of OLIG2 dimers from DNA was not achieved. Re-evaluation of the binding determinants for OLIG2 self-association and stability revealed an unanticipated role of the C-terminal domain."

According to the news reporters, the research concluded: "These data highlight potential pitfalls in peptide-based targeting of bHLH transcription factors given the liabilities of their positively charged amino acid sequences and multifactorial binding determinants."

For more information on this research see: Challenges in Targeting a Basic Helix-Loop-Helix Transcription Factor with Hydrocarbon-Stapled Peptides. ACS Chemical Biology, 2016;11(11):3146-3153. ACS Chemical Biology can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Chemical Biology - www.pubs.acs.org/journal/acbcct)

Our news correspondents report that additional information may be obtained by contacting C.D. Stiles, Dana Farber Canc Inst, Dept. of Canc Biol, Boston, MA 02215, United States. Additional authors for this research include D.H. Meijer, R.M. Guerra, R.J. Molenaar, J.A. Alberta, F. Bernal, G.H. Bird, C.D. Stiles and L.D. Walensky.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Transcription Factors, Organic Chemicals, Hydrocarbons, Proteomics, Proteins, Peptides, Genetics, Dana-Farber Cancer Institute.

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Hydrochloric Acid

New Hydrochloric Acid Study Findings Have Been Reported by Researchers at University of Tennessee (Safety Of Continuous Peripheral Infusion Of 3% Sodium Chloride Solution In Neurocritical Care Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hydrochloric Acid have been presented. According to news originating from Memphis, Tennessee, by NewsRx correspondents, research stated, "Numerous drug information resources recommend that continuous intravenous 3% sodium chloride solution be administered via a central catheter. To evaluate the incidence of infusion-related reactions and electrolyte abnormalities in neurocritical care patients treated with continuous intravenous infusion of 3% sodium chloride solution via a peripheral catheter."

Our news journalists obtained a quote from the research from the University of Tennessee, "Data on patients treated with continuous intravenous infusion of 3% sodium
chloride solution at 2 academic medical centers were evaluated retrospectively to determine the administration site. Electronic notes on catheter status were reviewed to determine the occurrence of infusion-related reactions. Prespecified thresholds were used to assess electrolyte abnormalities. Of 213 patients who had peripheral continuous intravenous infusions of 3% sodium chloride solution, 15 (7%) had infusion-related reactions. Administration was changed to a central catheter in 56 patients (26.3%), but only 5 changes were due to an infusion-related reaction. Most (157 patients, 73.7%) received their entire treatment peripherally, for a median duration of 44 hours, 3 minutes. The most common electrolyte abnormalities were hyperchloremia in 49.3% and hypokalemia in 46.9% of patients. Current recommendations that a central catheter is required for continuous intravenous infusion of 3% sodium chloride solution should be reevaluated. Only a few patients who had peripheral infusions had infusion-related reactions.

According to the news editors, the research concluded: "Electrolyte abnormalities occurred frequently with peripheral infusion, but the clinical importance of the abnormalities remains unclear."

For more information on this research see: Safety Of Continuous Peripheral Infusion Of 3% Sodium Chloride Solution In Neurocritical Care Patients. *American Journal of Critical Care*, 2017;26(1):37-42. *American Journal of Critical Care* can be contacted at: Amer Assoc Critical Care Nurses, 101 Columbia, Aliso Viejo, CA 92656, USA.

The news correspondents report that additional information may be obtained from G.M. Jones, University of Tennessee, Hlth Sci Center, Clin Pharm Neurol & Neurosurg, Memphis, TN 38104, United States. Additional authors for this research include L. Bode, H. Riha and M.J. Erdman.

Keywords for this news article include: Memphis, Tennessee, United States, North and Central America, Nasal Lubricants and Irrigations, Electrolyte Abnormalities, Intravenous Infusions, Parenteral Infusions, Inorganic Chemicals, Drugs and Therapies, Respiratory Agents, Hydrochloric Acid, Sodium Compounds, Sodium Chloride, Electrolytes, Nephrology, Chlorides, Anions, University of Tennessee.

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**Nutritional and Metabolic Diseases and Conditions - ...**

**New Hypercholesterolemia Study Findings Have Been Reported by Investigators at Federal University (The effects of rosuvastatin on lipid-lowering, inflammatory, antioxidant and fibrinolytics blood biomarkers are influenced by Val16Ala superoxide ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Hypercholesterolemia. According to news reporting from Santa Maria, Brazil, by NewsRx journalists, research stated, "Rosuvastatin is a cholesterol-lowering drug that also attenuates the inflammatory process and oxidative stress via the reduction of superoxide anion production. Superoxide anions are metabolized by manganese-dependent superoxide dismutase (MnSOD or SOD2) in the mitochondria."

The news correspondents obtained a quote from the research from Federal University, "In humans, there is a gene polymorphism where a change of alanine (Ala) to valine
(Val) occurs at the 16th amino acid (Ala16Val-SOD2). The VV genotype has been associated with the risk of developing several metabolic diseases, such as hypercholesterolemia. Thus, to further explore this phenomenon, this study investigated the influence of the Val16AlaSOD2 polymorphism on the lipid profile and inflammatory and fibrinolytic biomarkers of 122 hypercholesterolemic patients undergoing the first pharmacological cholesterol-lowering therapy who were treated with 20 mg rosuvastatin for 120 days. The findings indicate that the VV patients who present a low-efficiency SOD2 enzyme exhibit an attenuated response to rosuvastatin compared with the A-allele patients. The effect of rosuvastatin on inflammatory and fibrinolytic biomarkers was also less intense in the VV patients.

According to the news reporters, the research concluded: "These results suggest some pharmacogenetic effects of Val16Ala-SOD2 in hypercholesterolemia treatment."

For more information on this research see: The effects of rosuvastatin on lipid-lowering, inflammatory, antioxidant and fibrinolytics blood biomarkers are influenced by Val16Ala superoxide dismutase manganese-dependent gene polymorphism. Pharmacogenomics Journal, 2016;16(6):501-506. Pharmacogenomics Journal can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Pharmacogenomics Journal - www.nature.com/tpj/)

Our news journalists report that additional information may be obtained by contacting I.B.M. da Cruz, Federal University of Santa Maria, Center Hlth Sci, Dept. of Morphol, Santa Maria, RS, Brazil. Additional authors for this research include I.B.M. da Cruz, F. Barbisan, D. Capellete, R.N. Moresco and M. Duarte.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.91. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Santa Maria, Brazil, South America, Dismutase, Article Review, Diagnostics and Screening, Risk and Prevention, Genetics, Nutritional and Metabolic Diseases and Conditions, HMG-CoA Reductase Inhibitor, Lipid Metabolism Disorders, Antihyperlipidemic Agents, Reactive Oxygen Species, Enzymes and Coenzymes, Superoxide Dismutase, Rosuvastatin Therapy, Hypercholesterolemia, Drugs and Therapies, Protective Agents, Anticholesteremic, Oxidoreductases, Hyperlipidemias, Dyslipidemias, Antioxidants, Electrolytes, Superoxides, Anions, Federal University.

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**Hyperoxia**

**New Hyperoxia Study Findings Have Been Reported from Medical University (Cyclic and constant hyperoxia cause inflammation, apoptosis and cell death in human umbilical vein endothelial cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hyperoxia are presented in a new report. According to news reporting out of Vienna, Austria, by NewsRx editors, research stated, "Perioperative high-dose oxygen (O2) exposure can cause hyperoxia. While the effect of constant hyperoxia on the vascular endothelium has been investigated to some extent, the impact of cyclic hyperoxia largely remains unknown."
Financial support for this research came from Mayor of the City of Vienna, Austria.

Our news journalists obtained a quote from the research from Medical University. "We hypothesized that cyclic hyperoxia would induce more injury than constant hyperoxia to human umbilical vein endothelial cells (HUVECs). HUVECs were exposed to cyclic hyperoxia (5-95% O2) or constant hyperoxia (95% O2), normoxia (21% O2), and hypoxia (5% O2). Cell growth, viability (Annexin V/propidium iodide and 3-(4,5-dimethythiazol-2-yl)-2,5-diphenyl tetrazolium bromide, MTT) lactate dehydrogenase (LDH), release, cytokine (interleukin, IL and macrophage migration inhibitory factor, MIF) release, total antioxidant capacity (TAC), and superoxide dismutase activity (SOD) of cell lysate were assessed at baseline and 8, 24, and 72 h. A signal transduction pathway finder array for gene expression analysis was performed after 8 h. Constant and cyclic hyperoxia-induced gradually detrimental effects on HUVECs. After 72 h, constant or cyclic hyperoxia exposure induced change in cytotoxic (LDH +12%, p=0.026; apoptosis +121/61%, p<0.01; alive cells -15%, p<0.01; MTT -16/15%, p<0.01), inflammatory (IL-6 +142/190%, p<0.01; IL-8 +72/43%, p<0.01; MIF +147/93%, p<0.01), or redox-sensitive (SOD +278%, TAC-25% p<0.01) markers. Gene expression analysis revealed that constant and cyclic hyperoxia exposure differently activates oxidative stress, nuclear factor kappa B, Notch, and peroxisome proliferator-activated receptor pathways. Extreme hyperoxia exposure induces inflammation, apoptosis and cell death in HUVECs."

According to the news editors, the research concluded: "Although our findings cannot be transferred to clinical settings, results suggest that hyperoxia exposure may cause vascular injury that could play a role in determining perioperative outcome."


Our news journalists report that additional information may be obtained by contacting J. Wu, Dept. of Anaesthesia, General Intensive Care and Pain Management, Medical University of Vienna, Vienna, Austria. Additional authors for this research include C. Hafner, J.P. Schramel, C. Kaun, K.A. Krychtiiuk, J. Wojta, S. Boehme, R. Ullrich, E.V. Tretter, K. Markstaller and K.U Klein.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/aas.12646. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vienna, Europe, Austria, Genetics, Apoptosis, Hyperoxia, Inflammation, Machine Learning, Endothelial Cells, Emerging Technologies, Gene Expression Analysis.

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**Cardiovascular Diseases and Conditions**

**New Hypertension Data Have Been Reported by Researchers at North West University (A call to action and a lifecourse strategy to address the global burden of raised blood pressure on current and future generations: the Lancet Commission on ...)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Hypertension are discussed in a new report. According to news reporting from Potchefstroom, South Africa, by NewsRx journalists, research stated, "Elevated blood pressure is the strongest modifiable risk factor for cardiovascular disease worldwide. Despite extensive knowledge about ways to prevent as well as to treat hypertension, the global incidence and prevalence of hypertension and, more importantly, its cardiovascular complications are not reduced-partly because of inadequacies in prevention, diagnosis, and control of the disorder in an ageing world."

The news correspondents obtained a quote from the research from North West University, "The aim of the Lancet Commission on hypertension is to identify key actions to improve the management of blood pressure both at the population and the individual level, and to generate a campaign to adopt the suggested actions at national levels to reduce the impact of elevated blood pressure globally. The first task of the Commission is this report, which briefly reviews the available evidence for prevention, identification, and treatment of elevated blood pressure, hypertension, and its cardiovascular complications. The report focuses on how as-yet unsolved issues might be tackled using approaches with population-wide impact and new methods for patient evaluation and education in the broadest sense (some of which are not always strictly evidence based) to manage blood pressure worldwide. The report is built around the concept of lifetime risk applicable to the entire population from conception. Development of subclinical and sometimes clinical cardiovascular disease results from lifetime exposure to cardiovascular risk factors combined with the susceptibility of individuals to the harmful consequences of these risk factors. The Commission recognises the importance of other cardiovascular risk factors—e.g., smoking, obesity, dyslipidaemia, and diabetes mellitus—on antihypertensive treatment. However, as a Commission on hypertension, this report focuses mainly on issues and actions related to elevated blood pressure. Previous action plans for improving management of elevated blood pressure and hypertension have not yet provided adequate results. Therefore, the Commission has identified ten essential and achievable goals and ten accompanying, mutually additive, and synergistic key actions that—if implemented effectively and broadly—will make substantial contributions to the management of blood pressure globally."

According to the news reporters, the research concluded: "The Commission deliberately has not listed these complementary key actions by priority because the balance between strength of evidence, feasibility, and potential benefit could differ by country."

For more information on this research see: A call to action and a lifecourse strategy to address the global burden of raised blood pressure on current and future generations: the Lancet Commission on hypertension. Lancet, 2016;388(10060):2665-2712. Lancet can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Lancet - www.journals.elsevier.com/lancet/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S0140-6736%2816%2931134-5. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Potchefstroom, South Africa, Africa, Cardiovascular Diseases and Conditions, Risk and Prevention, Article Review, Blood Pressure, Hemodynamics, Hypertension, Cardiology, North West University.

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Cardiovascular Diseases and Conditions -…

New Hypertension Findings from Tel Aviv University Described (Combination Therapy for Pulmonary Arterial Hypertension: A Systematic Review and Meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating from Tel Aviv, Israel, by NewsRx correspondents, research stated, "Combination therapy (CT) for patients with pulmonary arterial hypertension (PAH) has been recommended for many years, despite weak evidence of efficacy over monotherapy (MT). A previous meta-analysis comparing CT vs MT with pulmonary vasodilators failed to demonstrate a clear reduction in clinical worsening events."

Our news editors obtained a quote from the research from Tel Aviv University, "We searched for relevant articles in PubMed, EMBASE, the Cochrane Database, and clinicaltrials.gov; we also manually searched review articles and conference abstracts from 1980-December 2015. Target articles were double-blinded studies of 2 or more pulmonary vasodilators given in combination vs monotherapy for treatment of patients with PAH. The principal outcome of interest was 'combined clinical worsening' (CCW) events (including but not limited to death or hospitalization). Data on physiological outcomes were also explored. Meta-analysis was performed using the DerSimonian and Laird random-effects model. We extracted data from 18 randomized controlled trials (RCTs) (N = 4162). CT was associated with a significant 38% reduction of risk of CCW (15 RCTs: n = 3906; risk ratio [RR], 0.62; 95% confidence interval [CI], 0.50-0.77). This reduction in risk was driven by a reduction in nonfatal end points (12 RCTs: n = 2611; RR, 0.56; 95% CI, 0.40-0.78) and not by a reduction of mortality (12 RCTs: n = 2717; RR, 0.79; 95% CI, 0.53-1.17). CT was also associated with improvement in 6-minute walking distance (10 RCTs: n = 1553; weighted mean difference [WMD], +23.0 m; 95% CI, 15.9-30.1), improved functional class (9 RCTs: n = 1737; RR, 1.26; 95% CI, 1.05-1.51), and beneficial effects on pulmonary hemodynamics such as cardiac index (WMD, +0.35 L/min/m; 95% CI, 0.14-0.56)."

According to the news editors, the research concluded: "In this highly comprehensive meta-analysis, CT reduces the risk of CCW events in patients with PAH and brings physiological improvement."


The news editors report that additional information may be obtained by contacting B.D. Fox, Tel Aviv University, Fac Med, Tel Aviv, Israel. Additional authors for this research
include O. Shtraichman, D. Langleben, A. Shimony and M.R. Kramer.

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http://dx.doi.org/10.1016/j.cjca.2016.03.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tel Aviv, Israel, Asia, Cardiovascular Diseases and Conditions, Drugs and Therapies, Article Review, Combination Therapy, Hypertension, Tel Aviv University.

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Cardiovascular Diseases and Conditions -...

New Hypertension Findings from Veterans Affairs Medical Center Described (Screening and brief intervention for unhealthy substance use in patients with chronic medical conditions: a systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating from Menlo Park, California, by NewsRx correspondents, research stated, "Aims and objectives. This systematic review describes studies evaluating screening tools and brief interventions for addressing unhealthy substance use in primary care patients with hypertension, diabetes or depression."

Financial support for this research came from Department of Veterans Affairs (VA) Office of Research and Development.

Our news editors obtained a quote from the research from Veterans Affairs Medical Center, "Primary care is the main entry point to the health care system for most patients with comorbid unhealthy substance use and chronic medical conditions. Although of great public health importance, systematic reviews of screening tools and brief interventions for unhealthy substance use in this population that are also feasible for use in primary care have not been conducted. Systematic review. We systematically review the research literature on evidence-based tools for screening for unhealthy substance use in primary care patients with depression, diabetes and hypertension, and utilising brief interventions with this population. Despite recommendations to screen for and intervene with unhealthy substance use in primary care patients with chronic medical conditions, the review found little indication of routine use of these practices. Limited evidence suggested the Alcohol Use Disorders Identification Test and Alcohol Use Disorders Identification Test-C screeners had adequate psychometric characteristics in patients with the selected chronic medical conditions. Screening scores indicating more severe alcohol use were associated with health-risk behaviours and poorer health outcomes, adding to the potential usefulness of screening for unhealthy alcohol use in this population. Studies support brief interventions' effectiveness with patients treated for hypertension or depression who hazardously use alcohol or cannabis, for both substance use and chronic medical condition outcomes. Relevance to clinical practice. Although small, the international evidence base suggests that screening with the Alcohol Use Disorders Identification Test or Alcohol Use Disorders Identification Test-C and brief interventions for primary care patients with chronic medical conditions, delivered by nurses or other providers, are effective for identifying unhealthy substance use and associated with healthy behaviours and improved outcomes."
According to the news editors, the research concluded: "Lacking are studies screening for illicit drug use, and using single-item screening tools, which could be especially helpful for frontline primary care providers including nurses."


The news editors report that additional information may be obtained by contacting C. Timko, Vet Affairs Palo Alto Hlth Care Syst, Center Innovat Implementat, Menlo Park, CA 94025, United States. Additional authors for this research include C. Kong, L. Vittorio and M.A. Cucciare.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13244. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Menlo Park, California, United States, North and Central America, Cardiovascular Diseases and Conditions, Article Review, Diagnostics and Screening, Hypertension, Veterans Affairs Medical Center.

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Cardiovascular Diseases and Conditions -...

**New Hypertension Study Findings Have Been Reported by F. Crovetto and Co-Researchers (First-trimester screening with specific algorithms for early- and late-onset fetal growth restriction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating from Barcelona, Spain, by NewsRx correspondents, research stated, "To develop optimal first-trimester algorithms for the prediction of early and late fetal growth restriction (FGR). This was a prospective cohort study of singleton pregnancies undergoing first-trimester screening."

Our news editors obtained a quote from the research, "FGR was defined as an ultrasound estimated fetal weight <10th percentile plus Doppler abnormalities or a birth weight <3rd percentile. Logistic regression-based predictive models were developed for predicting early and late FGR (cut-off: delivery at 34 weeks). The model included the a-priori risk (maternal characteristics), mean arterial pressure (MAP), uterine artery pulsatility index (UtA-PI), placental growth factor (PIGF) and soluble fms-like tyrosine kinase-1 (sFlt-1). Of the 9150 pregnancies included, 462 (5%) fetuses were growth restricted: 59 (0.6%) early and 403 (4.4%) late. Significant contributions to the prediction of early FGR were provided by black ethnicity, chronic hypertension, previous FGR, MAP, UtA-PI, PIGF and sFlt-1. The model achieved an overall detection rate (DR) of 86.4% for a 10% false-positive rate (area under the receiver-operating characteristics curve (AUC): 0.93 (95% CI, 0.87-0.98)). The DR was 94.7% for FGR with pre-eclampsia (PE) (64% of cases) and 71.4% for FGR without PE (36% of cases). For late FGR, significant contributions were provided by chronic hypertension, autoimmune disease,
previous FGR, smoking status, nulliparity, MAP, UtA-PI, PIGF and sFlt-1. The model achieved a DR of 65.8% for a 10% false-positive rate (AUC: 0.76 (95% CI, 0.73-0.80)). The DR was 70.2% for FGR with PE (12% of cases) and 63.5% for FGR without PE (88% of cases)."

According to the news editors, the research concluded: "The optimal screening algorithm was different for early vs late FGR, supporting the concept that screening for FGR is better performed separately for the two clinical forms."


The news editors report that additional information may be obtained by contacting F. Figueras, Center Biomed Res Rare Dis CIBER ER, Barcelona, Spain. Additional authors for this research include S. Triunfo, F. Crispi, V. Rodriguez-Sureda, E. Roma, C. Dominguez, E. Gratacos and F. Figueras.

Keywords for this news article include: Barcelona, Spain, Europe, Cardiovascular Diseases and Conditions, Algorithms, Diagnostics and Screening, Hypertension.

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Cardiovascular Diseases and Conditions -...

New Hypertension Study Findings Have Been Reported by Investigators at Mayo Clinic (Emerging concepts for patients with treatment-resistant hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Hypertension are discussed in a new report. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "Treatment-resistant hypertension (TRH) is defined as elevated blood pressure despite treatment with three properly dosed antihypertensive drugs, and is associated with adverse cardiovascular and renal outcomes and increased mortality. Treatment of patients with TRH focuses on maximizing the doses of antihypertensive drugs and adding drugs with complementary mechanisms of action, including a combination of angiotensin-converting enzyme inhibitors or angiotensin-receptor blockers, calcium channel blockers, and thiazide-like diuretics."

Financial support for this research came from NIH.

The news correspondents obtained a quote from the research from Mayo Clinic, "Randomized clinical trials have demonstrated the efficacy of the mineralocorticoid receptor antagonist spironolactone as a fourth-line therapy for patients with TRH. Other pharmacologic considerations include adding alpha-blockers, combined alpha-beta-blockers, centrally acting alpha-agonists, or direct vasodilators. However, a small, but important subset of patients remain hypertensive despite combination regimens with multiple antihypertensive drugs, underscoring the need for novel blood pressure-lowering therapies. Over recent years, alternative approaches for treating TRH have emerged, including agonists of natriuretic peptides, endothelin-receptor antagonists, and additional vasoactive drugs. Lastly, device-based interventions, such as renal
denervation or carotid baroreflex activation, may supplement drug therapy for these patients."

According to the news reporters, the research concluded: "This review summarizes current knowledge on the management of TRH, with focus on novel therapeutic strategies designed to achieve optimal blood pressure control."


Our news journalists report that additional information may be obtained by contacting L.O. Lerman, Mayo Clinic, Div Nephrol & Hypertens, Rochester, MN 55905, United States. Additional authors for this research include S.C. Textor and L.O. Lerman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tcm.2016.05.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cardiovascular Diseases and Conditions, Biological Factors, Blood Pressure, Angiotensins, Hemodynamics, Hypertension, Autacoids, Mayo Clinic.

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**New Hypertension Study Findings Have Been Reported by Investigators at Ohio State University (Ascorbic Acid Protects against Hypertension through Downregulation of ACE1 Gene Expression Mediated by Histone Deacetylation in Prenatal ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Hypertension is the subject of a report. According to news reporting originating from Columbus, Ohio, by NewsRx correspondents, research stated, "Hypertension is a major risk factor for cardiovascular and cerebrovascular disease. Prenatal exposure to lipopolysaccharide (LPS) leads to hypertension in a rat offspring."

Our news editors obtained a quote from the research from Ohio State University, "However, the mechanism is still unclear. This study unraveled epigenetic mechanism for this and explored the protective effects of ascorbic acid against hypertension on prenatal inflammation-induced offspring. Prenatal LPS exposure resulted in an increase of intrarenal oxidative stress and enhanced angiotensin-converting enzyme 1 (ACE1) gene expression at the mRNA and protein levels in 6-and 12-week-old offspring, correlating with the augmentation of histone H3 acetylation (H3AC) on the ACE1 promoter. However, the prenatal ascorbic acid treatment decreased the LPS-induced expression of ACE1, protected against intrarenal oxidative stress, and reversed the altered histone modification on the ACE1 promoter, showing the protective effect in offspring of prenatal LPS stimulation. Our study demonstrates that ascorbic acid is able to prevent hypertension in offspring from prenatal inflammation exposure."

According to the news editors, the research concluded: "Thus, ascorbic acid can be a
new approach towards the prevention of fetal programming hypertension."

For more information on this research see: Ascorbic Acid Protects against Hypertension through Downregulation of ACE1 Gene Expression Mediated by Histone Deacetylation in Prenatal Inflammation-Induced Offspring. *Scientific Reports*, 2016;6():11-20. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting J.H. Yu, Ohio State University, Center Comprehensive Cancer, Columbus, OH 43210, United States. Additional authors for this research include N. Yin, Y.C. Deng, Y.L. Wei, Y.H. Huang, X.Y. Pu, L. Li, Y.R. Zheng, J.X. Guo, J.H. Yu, X.H. Li and P. Yi.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Cardiovascular Diseases and Conditions, Inflammation, Genetics, Systolic Hypertension, Risk and Prevention, Nucleoproteins, Ascorbic Acid, Sugar Acids, Angiology, Proteins, Histones, Ohio State University.

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**Cardiovascular Diseases and Conditions -...**

**New Hypertension Study Findings Reported from M. Nemezcz and Co-Authors (Role of MicroRNA in Endothelial Dysfunction and Hypertension)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Hypertension are discussed in a new report. According to news originating from Bucharest, Romania, by NewsRx correspondents, research stated, "Purpose of Review Hypertension is either a cause or a consequence of the endothelial dysfunction and a major risk factor for cardiovascular disease (CVD). In vitro and in vivo studies established that microRNAs (miRNAs) are decisive for endothelial cell gene expression and function in various pathological conditions associated with CVD."

Our news journalists obtained a quote from the research, "This review provides an overview of the miRNA role in controlling the key connections between endothelial dysfunction and hypertension. Herein we summarize the present understanding of mechanisms underlying hypertension and its associated endothelial dysfunction as well as the miRNA role in endothelial cells with accent on the modulation of renin-angiotensin-aldosterone-system, nitric oxide, oxidative stress and on the control of vascular inflammation and angiogenesis in relation to endothelial dysfunction in hypertension. In particular, latest insights in the identification of endothelial-specific microRNAs and their targets are added to the understanding of miRNA significance in hypertension."

According to the news editors, the research concluded: "This comprehensive knowledge of the role of miRNAs in endothelial dysfunction and hypertension and of molecular mechanisms proposed for miRNA actions may offer novel diagnostic biomarkers and therapeutic targets for controlling hypertension-associated endothelial dysfunction and other cardiovascular complications."

For more information on this research see: Role of MicroRNA in Endothelial

The news correspondents report that additional information may be obtained from G. Tanko, Nicolae Simionescu Romanian Academy, Inst Cellular Biol & Pathol, Dept. of Pathophysiol & Pharmacol, Bucharest 050568, Romania. Additional authors for this research include N. Alexandru, G. Tanko and A. Georgescu.

Keywords for this news article include: Bucharest, Romania, Europe, Cardiology, Article Review, Risk and Prevention, Cardiovascular Diseases and Conditions, Hypertension, Genetics.

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**Cardiovascular Diseases and Conditions -…**

**New Hypertension Study Results Reported from University of Science Malaysia [Efficacy of Losartan in the management of Post-Dialysis Euvolemic Hypertension (HELD-Trial): A Single-Blind Randomized Control Trial]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Hypertension are presented in a new report. According to news originating from Kelantan, Malaysia, by NewsRx correspondents, research stated, "To assess the effectiveness of losartan 50 mg on post dialysis euvolemic hypertensive patients against standard antihypertensive pharmacotherapy. A multicentre, prospective, randomized, single-blind trial was conducted to assess the effect of losartan 50 mg every other day (EOD), once a morning (OM) among post-dialysis euvolemic hypertensive patients."

Our news journalists obtained a quote from the research from the University of Science Malaysia, "Covariate-adaptive randomization was used to allocate participants to a standard or treatment arm, and they were followed up for eight weeks. Pre-, intra-and post-dialysis session blood pressure (BP) measurements were recorded along with any adverse events. A total of 88 patients were randomized into standard (n = 44) and treatment arms (n = 44) and were followed for a period of 8 weeks. In the standard group, the mean post-dialysis blood pressure dropped by 0.3 mmHg by the end of the 8th week. However the treatment arm reported a drop of 2.4 mmHg of BP drop during the 8-week trial period. Analysis suggests that there was a significant difference in blood pressure readings at the end of 8 weeks among patients treated with losartan (P < 0.001). However, no such statistical association was observed in the standard arm (P 0.75)."

According to the news editors, the research concluded: "A slow, steady significant decline in post-dialysis BP was observed among euvolemic hypertensive patients that were treated with losartan 50 mg."

New Hypertension Study Results from Soochow University Described

(High sucrose intake during gestation increases angiotensin II type 1 receptor-mediated vascular contractility associated with epigenetic alterations in aged offspring rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news reporting from Suzhou, People's Republic of China, by NewsRx journalists, research stated, "Accruing evidence have confirmed that the fetal programming in response to adverse environmental in utero factors plays essential roles in the pathogenesis of hypertension in later life. High sugar intake has been accepted worldwide in everyday life diet and becomes the critical public health issue."

The news correspondents obtained a quote from the research from Soochow University, "Our previous studies indicated that intake of high sucrose (HS) during pregnancy could change the vascular reactivity and dipsogenic behavior closely associated with abnormal renin-angiotensin system (RAS), to increase the risk of hypertension in adult offspring. In the present study, we tested the hypothesis that maternal HS intake in pregnancy may further deteriorate the Ang II-induced cardiovascular responses in the aged offspring. HS intake was provided to pregnant rats throughout the gestation. Blood pressure (BP) in conscious state and vascular contractility in vitro were measured in 22-month-old aged offspring rats. In addition, mRNA and protein expressions and epigenetic changes of Ang II type 1 receptor (AT(1)R) gene in blood vessels were determined with the methods of real-time RT-PCR, Western blotting, and Chromatin Immunoprecipitation Assay (CHIP). in the aged offspring, maternal HS intake during gestation would cause the elevation of basal BP which could be diminished by losartan. Although the circulatory Ang II was not changed, levels of local Ang II were significantly increased in blood vessels. In addition, prenatal HS exposure would significantly enhance the ATI R-mediated vasoconstriction in both aorta and mesenteric arteries of the aged offspring. Moreover, in the aged offspring of prenatal HS exposure, mRNA and protein expressions of AT (1)R gene in both large and small blood vessels were significantly increased, which should be closely associated with the changes of epigenetic mechanisms such as histone modifications."

According to the news reporters, the research concluded: "Collectively, we proposed that maternal HS intake during gestation would cause abnormal BP responses mediated via the
enhancement of vascular RAS, together with the increased expression of AT(1)R gene related to the its epigenetic changes, which would actually lead to the overt phenotype of hypertension in the aged offspring."

For more information on this research see: High sucrose intake during gestation increases angiotensin II type 1 receptor-mediated vascular contractility associated with epigenetic alterations in aged offspring rats. Peptides, 2016;86():133-144. Peptides can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Peptides - www.journals.elsevier.com/peptides/)

Our news journalists report that additional information may be obtained by contacting Z.C. Xu, Soochow Univ, Hosp 1, Inst Fetol & Reprod, Medical Center, Suzhou 215006, People's Republic of China. Additional authors for this research include A.P. Shi, D. Zhu, L. Bo, Y. Zhong, J. Wang, Z.C. Xu and C.P. Mao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.peptides.2016.11.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Suzhou, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Blood Pressure, Genetics, Cardiovascular System, Nerve Tissue Proteins, Systolic Hypertension, Risk and Prevention, Biological Factors, Peptide Proteins, Peptide Hormones, Angiotensin II, Blood Vessels, Oligopeptides, Neuropeptides, Angiotensins, Autacoids, Angiology, Peptides, Soochow University.

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**New Hypoalbuminemia Findings from Boston University Reported (Effect of severe hypoalbuminemia on toxicity of high-dose melphalan and autologous stem cell transplantation in patients with AL amyloidosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematologic Diseases and Conditions - Hypoalbuminemia is now available. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "High-dose melphalan with stem cell transplantation (HDM/SCT) extends survival and induces hematologic and clinical responses in patients with light chain (AL) amyloidosis. Eighty percent of melphalan is bound to plasma proteins (60% albumin-bound)."

The news correspondents obtained a quote from the research from Boston University, "We hypothesized that patients with profound hypoalbuminemia have a greater free melphalan fraction and more toxicity. Patients with AL amyloidosis treated with HDM/SCT between 2011 and 2014 with severe hypoalbuminemia (SH), defined as serum albumin <= 2 g/dL were studied retrospectively. Sixteen patients with SH were identified. Forty-one patients without severe hypoalbuminemia (WSH) treated between 2011 and 2012 served as control. The incidence of acute renal failure requiring hemodialysis was 25% among patients with SH, compared with 5% among patients WSH (P= 0.05). Not all patients who needed dialysis required it long term; 6.25% for SH and 2.44% for WSH (P= 0.49). The rates of grade 3 or 4 febrile neutropenia and gastrointestinal toxicities were not significantly different between the
groups. Engraftment kinetics were similar for both groups. Grade 4 renal toxicity and grade 3 lightheadedness were more frequent in patients with SH undergoing HDM/SCT for AL amyloidosis.

According to the news reporters, the research concluded: "Further studies into the mechanism of increased renal toxicity in patients with SH are warranted."

For more information on this research see: Effect of severe hypoalbuminemia on toxicity of high-dose melphalan and autologous stem cell transplantation in patients with AL amyloidosis. *Bone Marrow Transplantation*, 2016;51(10):1318-1322. *Bone Marrow Transplantation* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news journalists report that additional information may be obtained by contacting V. Sanchorawala, Boston University, Sch Med, Sect Hematol Oncol, Boston, MA 02118, United States. Additional authors for this research include R.S. Meehan, D.C. Seldin, J.M. Sloan, K. Quillen, A. Shelton, D. Brauneis and V. Sanchorawala.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Proteostasis Deficiencies, Blood Protein Disorders, Cell Transplantation, Transplant Medicine, Stem Cell Research, Cell Transplants, Hypoalbuminemia, Hypoproteinemia, Phenylalanine, Amino Acids, Biomedicine, Amyloidosis, Nephrology, Melphalan, Surgery, Kidney, Boston University.

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arm. The difference in percent mortality was 0.18% (99% CI, -0.25 to 0.61). Ninety-day mortality was not significantly lower in patients cared for by anesthesiologists who received automated alerts to double-low states."

According to the news editors, the research concluded: "Prolonged cumulative double-low conditions were strongly associated with mortality."

For more information on this research see: Effectiveness of an Electronic Alert for Hypotension and Low Bispectral Index on 90-day Postoperative Mortality A Prospective, Randomized Trial. Anesthesiology, 2016;125(6):1113-1120. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

The news correspondents report that additional information may be obtained from D.L. Reich, Icahn Sch Med Mt Sinai, Dept. of Anesthesiol, New York, NY 10029, United States. Additional authors for this research include M.A. Levin, H.M. Lin, D.I. Sessler and D.L. Reich.

Keywords for this news article include: New York City, New York, United States, North and Central America, Cardiovascular Diseases and Conditions, Clinical Trials and Studies, Clinical Research, Hypotension, School of Medicine.

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Cardiovascular Diseases and Conditions - Hypotension

New Hypotension Study Findings Have Been Reported by Researchers at Federal University (Cardiovascular Effects of the Essential Oil of Croton argyrophylloides in Normotensive Rats: Role of the Autonomic Nervous System)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypotension have been published. According to news reporting originating in Fortaleza, Brazil, by NewsRx journalists, research stated, "Cardiovascular effects of the essential oil of Croton argyrophylloides Muell. Arg. (EOCA) were investigated in normotensive rats. In saline-pretreated anesthetized or conscious rats, intravenous (i.v.) injection of the EOCA induced dose-dependent hypotension."

Funders for this research include Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico, UFPE.

The news reporters obtained a quote from the research from Federal University. "Dose-dependent tachycardia was observed only in conscious rats. In anesthetized rats, cervical bivagotomy failed to enhance EOCA-induced hypotension but unmasked significant bradycardia. In conscious rats, i.v. pretreatment with methylatropine, but not with atenolol or L-NAME, reduced both hypotensive and tachycardiac responses to EOCA. However, hexamethonium pretreatment reverted the EOCA-induced tachycardia into significant bradycardia without affecting the hypotension. In aortic ring preparations precontracted with phenylephrine, EOCA induced a concentration-dependent relaxation that was significantly reduced by vascular endothelium removal and pretreatment with atropine, indomethacin, or glibenclamide but remained unaffected by pretreatment with L-NAME or TEA. It is concluded
that i.v. treatment with EOAC decreased blood pressure probably through an active vascular relaxation rather than withdrawal of sympathetic tone. Muscarinic receptor stimulation, liberation of the endothelium-derived prostacyclin, and opening KATP channels are partially involved in the aortic relaxation induced by EOCA and in turn in the mediation of EOCA-induced hypotension.

According to the news reporters, the research concluded: "EOCA-induced tachycardia in conscious rats appears to be mediated reflexly through inhibition of vagal drive to the heart."

For more information on this research see: Cardiovascular Effects of the Essential Oil of Croton argyrophylloides in Normotensive Rats: Role of the Autonomic Nervous System. Evidence-Based Complementary and Alternative Medicine, 2016;(1):1-9. Evidence-Based Complementary and Alternative Medicine can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Evidence-Based Complementary and Alternative Medicine - www.hindawi.com/journals/ecam/)

Our news correspondents report that additional information may be obtained by contacting S. Lahlou, Univ Fed Ceara, Dept. of Physiol & Pharmacol, Fortaleza, CE, Brazil. Additional authors for this research include R.J.B. de Siqueira, G.P. Duarte and S. Lahlou.

The direct object identifier (DOI) for that additional information is: https://dx.doi.org/10.1155/2016/4106502. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fortaleza, Brazil, South America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiac Arrhythmias, Heart Disease, Endothelium, Bradycardia, Tachycardia, Hypotension, Cardiology, Angiology, Federal University.

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Cardiovascular Diseases and Conditions - Hypotension

New Hypotension Study Findings Recently Were Reported by Researchers at Xi'an Jiao Tong University [Vasodilation and hypotension of a novel 3-benzylquinazolin-4(3H)-one derivative via the inhibition of calcium flux]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Hypotension are presented in a new report. According to news reporting from Shaanxi, People's Republic of China, by NewsRx journalists, research stated, "A novel 3-benzylquinazolin-4(3H)-one derivative Z32, namely 6,7-dimethoxy-3-(3-chloro-4-(4-fluorobenzyloxy)benzyl)quinazolin-4(3H)-one was synthesized. The vasorelaxant and antihypertensive effects of Z32 and its underlying mechanisms were investigated."

The news correspondents obtained a quote from the research from Xi'an Jiao Tong University, "The following methods were used. The isometric tension of artery ring segments was recorded using an in vitro myography system. Changes in the calcium influx in mesenteric arteries were surveyed using a real-time confocal microscopy. The arterial pressure of spontaneously hypertensive rats was measured in vivo using a non-invasive tail cuff blood
pressure system. The results showed that Z32 can relax rat mesenteric arteries pre-constricted by KCl or phenylephrine in a concentration-dependent manner. The vasorelaxant effects were not affected by the removal of the endothelium, blockade of potassium channels by tetraethylammonium chloride, or inhibition of either guanylate cyclase by ODQ, nitric oxide synthase by L-NAME, or cyclooxygenase by indomethacin. In Ca2+-free conditions, Z32 did not affect the constriction evoked by caffeine, however, significantly reduced the constrictions induced (1) by phenylephrine, (2) by CaCl2 in either phenylephrine (in the presence of verapamil) or KCl stimulated arteries, (3) by extracellular Ca2+ restoration in thapsigargin-treated mesenteric arteries, and (4) by the activator of protein kinase C phorbol-12, 13-dibutyrate, and the inhibitor of protein tyrosine phosphatase sodium orthovanadate. Further, Z32 decreased the systolic and diastolic arterial pressure of spontaneously hypertensive rats in a dose-dependent manner."

According to the news reporters, the research concluded: "Z32 lowers the arterial pressure and induces vasorelaxation through the inhibition of calcium flux, probably via a protein tyrosine phosphorylation-dependent way."

For more information on this research see: Vasodilation and hypotension of a novel 3-benzylquinazolin-4(3H)-one derivative via the inhibition of calcium flux. European Journal of Pharmacology, 2016;791():741-750. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting Y.X. Cao, Xi An Jiao Tong Univ, Coll Med, Dept. of Pharmaco, Xian 710061, Shaanxi, People's Republic of China. Additional authors for this research include S.J. Zuo, L. Cao, D.Z. Liu, S.Q. Zhang and Y.X. Cao.

Keywords for this news article include: Shaanxi, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Hypotension, Xi'an Jiao Tong University.

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Surgery - Hysterectomy

New Hysterectomy Findings from Southeast University Described (Effects of propofol and sevoflurane on perioperative immune response in patients undergoing laparoscopic radical hysterectomy for cervical cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Surgery - Hysterectomy. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "The aim of this study is to compare the effects of propofol and sevoflurane anesthesia on perioperative immune response in patients undergoing laparoscopic radical hysterectomy for cervical cancer. Sixty patients with cervical cancer scheduled for elective laparoscopic radical hysterectomy under general anesthesia were randomized into 2 groups."

Our news journalists obtained a quote from the research from Southeast University, "TIVA group received propofol induction and maintenance and SEVO group received sevoflurane induction and maintenance. Blood samples were collected at 30 min before
induction (T-0); the end of the operation (T-1); and 24h (T-2), 48h (T-3), and 72h (T-4) after operation. The T lymphocyte subsets (including CD3+ cells, CD4+ cells, and CD8+ cells) and CD4+/CD8+ ratio, natural killer (NK) cells, and B lymphocytes were analyzed by flow cytometry. After surgery, all immunological indicators except CD8+ cells were significantly decreased in both groups compared to basal levels in T0, and the counts of CD3+ cells, CD4+ cells, NK cells, and the CD4+/CD8+ ratios were significantly lower in the SEVO groups than that in the TIVA group. However, the numbers of B cells were comparable at all the time points between 2 groups. Laparoscopic radical hysterectomy for cervical cancer is associated with postoperative lymphopenia."

According to the news editors, the research concluded: "In terms of protecting circulating lymphocytes, propofol is superior to sevoflurane."

For more information on this research see: Effects of propofol and sevoflurane on perioperative immune response in patients undergoing laparoscopic radical hysterectomy for cervical cancer. Medicine, 2016;95(49):186-191. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/

The news corresponds report that additional information may be obtained from S.T. Liu, Southeast Univ, Dept. of Anesthesiol, Xuzhou Cent Hosp, Affiliated Xuzhou HospMed College, Xuzhou 221009, Jiangsu, People's Republic of China. Additional authors for this research include X.Y. Gu, L.J. Zhu, G.N. Wu, H. Zhou, Y. Song and C.Y. Wu.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Gynecologic Surgical Procedures, Radical Hysterectomy, Pain Medicine, Anesthesia, Oncology, Propofol, Phenols, Surgery, Cancer, Southeast University.

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Immunology - Immunoglobulins

New Immunoglobulins Findings from University of Texas Health Science Center Reported (Pharmacological concentrations of recombinant factor VIIa restore hemostasis independent of tissue factor in antibody-induced hemophilia mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology - Immunoglobulins have been presented. According to news originating from Tyler, Texas, by NewsRx correspondents, research stated, "ESSENTIALS: The role of tissue factor (TF) in recombinant factor VIIa (rFVIIa) therapy in hemophilia is unclear. An acquired mouse hemophilia model with very low or normal levels of human TF was used in the study. rFVIIa is equally effective in correcting the bleeding in mice expressing low or normal levels of TF."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from the University of Texas Health Science Center, "Pharmacological doses of rFVIIa restore hemostasis in hemophilia independent of TF. Recombinant factor VIIa (rFVIIa) has been used widely for treating hemophilia patients with inhibitory autoantibodies against factor VIII or IX. Its mechanism of action is not entirely known. A majority of in vitro studies suggested that pharmacological concentrations of rFVIIa restore hemostasis in hemophilia in a phospholipid-
dependent manner, independent of tissue factor (TF). However, a few studies suggested that a TF-dependent mechanism has a primary role in correction of bleeding by rFVIIa in hemophilia patients. Here, we investigated the potential contribution of TF in rFVIIa-induced hemostasis in hemophilia employing a model system of FVIII antibody-induced hemophilia in TF transgenic mice. Mice expressing low levels of human TF (LTF mice), mice expressing relatively high levels of human TF (HTF mice) and wild-type mice (WT mice) had neutralizing anti-FVIII antibodies administered in order to induce hemophilia in these mice. The mice were then treated with varying concentrations of rFVIIa. rFVIIa-induced hemostasis was evaluated with the saphenous vein bleeding model. Administration of FVIII inhibitory antibodies induced the hemophilic bleeding phenotype in all three genotypes. rFVIIa administration rescued the bleeding phenotype in all three genotypes. No significant differences were observed in rFVIIa-induced correction of bleeding between LTF and HTF mice that had FVIII antibodies administered.

According to the news editors, the research concluded: "Our results provide strong evidence supporting the suggestion that the hemostatic effect of pharmacological doses of rFVIIa stems from a TF-independent mechanism."


The news correspondents report that additional information may be obtained from S. Keshava, Dept. of Cellular and Molecular Biology, The University of Texas Health Science Center at Tyler, Tyler, TX, United States. Additional authors for this research include J. Sundaram, A. Rajulapati, U.R. Pendurthi and L.V Rao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jth.13244. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Tyler, Texas, Therapy, Genetics, Hematology, Immunology, Factor VIIa, Hemophilia A, Pharmacology, United States, Blood Proteins, Immunoglobulins, Peptide Hydrolases, Enzymes and Coenzymes, Serine Endopeptidases, North and Central America, Blood Coagulation Factors.

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Immunology - Immunoglobulins

New Immunoglobulins Study Findings Have Been Reported by Investigators at Aichi Medical University (De Novo Anti-HLA DSA Characteristics and Subclinical Antibody-Mediated Kidney Allograft Injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immunology - Immunoglobulins is now available. According to news originating from Aichi, Japan, by NewsRx correspondents, research stated, "It is unclear whether all donor-specific antibodies (DSA) can cause chronic antibody-mediated rejection (AMR). Subclinical stage before manifestation of renal dysfunction may be a critical
period for reversing AMR."

Our news journalists obtained a quote from the research from Aichi Medical University, "The aim of our study was to identify factors related to the development of subclinical AMR and to clarify the characteristics of de novo DSA. Eight hundred ninety-nine renal transplants were screened for HLA antibody. De novo DSA were detected in 95 patients. Forty-three patients without renal dysfunction who underwent renal biopsies were enrolled in this study. Eighteen patients (41.9%) were diagnosed with biopsy-proven subclinical AMR and treated with plasmapheresis and rituximab-based therapy, whereas 25 showed no findings of AMR. Significant subclinical AMR-related factors were younger recipients, history of acute T cell-mediated rejection and DSA class II, especially DR-associated DSA. Mean fluorescence intensity (MFI) values of DR-DSA were significantly higher, whereas DQ-DSA was not different between subclinical AMR and no AMR. The MFI (>50%), DSA-MFI values greater than 3000, and Clq binding DSA were also significant subclinical AMR-related factors (P < 0.05). Among 18 patients treated for subclinical AMR, 8 patients (44.4%) obtained over 50% reduction of DSA-MFI and/or improvement or no deterioration of pathological findings. In contrast, 25 patients without subclinical AMR did not show renal dysfunction clinically. Moreover, all of the 8 patients with rebiopsy after 2 years continued to demonstrate no AMR. About 40% of patients with de novo DSA demonstrated biopsy-proven subclinical AMR, leading to progressive graft injury."

According to the news editors, the research concluded: "To validate the intervention and treatment for de novo DSA-positive patients without renal dysfunction, further study is necessary."

For more information on this research see: De Novo Anti-HLA DSA Characteristics and Subclinical Antibody-Mediated Kidney Allograft Injury. Transplantation, 2016;100 (10):2194-2202. Transplantation can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Transplantation - journals.lww.com/transplantjournal/pages/default.aspx)


Keywords for this news article include: Aichi, Japan, Asia, Immunoglobulins, Blood Proteins, Nephrology, Immunology, Antibodies, Kidney, Aichi Medical University.

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**Immunology - Immunoglobulins**

**New Immunoglobulins Study Findings Have Been Reported by Investigators at University of Pittsburgh [A depleting antibody toward sca-1 mitigates a surge of CD34(+)c-kit(+) progenitors and reduces vascular restenosis in a murine vascular injury ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immunology - Immunoglobulins is now available. According to news reporting originating in Pittsburgh, Pennsylvania, by NewsRx journalists,
research stated, "Vascular restenosis remains a major obstacle to long-term success after vascular intervention. Circulating progenitor cells have been implicated in restenosis, and yet it has remained unclear if these cells, particularly nonendothelial progenitors, have an active role in this pathologic process."

The news reporters obtained a quote from the research from the University of Pittsburgh, "We hypothesized that circulating CD34(+) / c-kit(+) progenitors would increase after vascular injury, mirrored by changes in the injury signal, stromal cell-derived factor 1 alpha (sdf1 alpha). We further postulated that an antibody-based depletion would mitigate progenitor surge and, in turn, reduce restenosis in a murine model. C57BL6 mice underwent wire injury of the femoral artery and were compared with mice with sham surgery and vessel ligation by flow cytometry as well as by sdf1 alpha enzyme-linked immunosorbent assay of peripheral blood. Next, injured C57BL6 mice treated with a depleting antibody toward the progenitor marker sca-1 or with an isotype control were compared in terms of sdf1 alpha as well as enumeration of progenitors. At 28 days, restenosis was quantified between sca-1- and isotype-treated animals. Wire injury generated an increase in sdf1 alpha as well as a surge of CD34(+) / c-kit(+) progenitors relative to nonsurgical controls (P = .005). Treatment with sca-1 antibody ablated the peripheral surge compared with isotype-treated, injured animals (P = .02), and sca progenitor depletion reduced the 28-day intima to media ratio in a statistically significant fashion compared with either nontreated (P = .04) or isotype-treated (P = .036) animals. Our study has demonstrated that sca-1 antibody reduces both progenitor surge and vascular restenosis after endoluminal vascular injury in a murine model."

According to the news reporters, the research concluded: "This suggests that circulating progenitors play an active role in restenotic disease."


Our news correspondents report that additional information may be obtained by contacting B.W. Tillman, University of Pittsburgh, McGowan Inst Regenerat Med, Pittsburgh, PA 15232, United States. Additional authors for this research include J. Kelly, T.D. Richards, A.F. Chen, A.D. Donnenberg, V.S. Donnenberg and E. Tzeng.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Surgical Technology, Immunoglobulins, Cardiovascular, Blood Proteins, Heart Disease, Cardiology, Restenosis, Immunology, Antibodies, Surgery, University of Pittsburgh.

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**Immunology - Immunoglobulins**

**New Immunoglobulins Study Findings Reported from S. Ducreux and Co-Authors (Monitoring efficiency of humoral rejection episode therapy in liver transplantation: any role for complement binding Luminex Single Antigen assays?)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immunology - Immunoglobulins. According to news reporting originating from Lyon, France, by NewsRx correspondents, research stated, "Humoral rejection and its relationship with anti HLA antibodies have been extensively studied in organ transplantation with the exception of liver transplantation (LT). Recently, association between donor specific anti HLA antibodies (DSA) and increased risk of rejection and graft loss has been suggested in LT."

Our news editors obtained a quote from the research, "When such antibodies appear, adequate treatment and monitoring are needed to avoid or delay allograft loss. We report here three cases of probable antibody-mediated rejection developed after pregnancy in liver transplanted women. Sera at the time of rejection and during follow-up have been retrospectively tested for the ability of DSA to bind complement components. These cases display different outcomes depending on the complement binding DSA capacity and titers after treatment of the rejection episodes."

According to the news editors, the research concluded: "Thus, they highlight the potential interest of complement binding Luminex Single Antigen assays to monitor the efficiency of anti-rejection therapy."

For more information on this research see: Monitoring efficiency of humoral rejection episode therapy in liver transplantation: any role for complement binding Luminex Single Antigen assays? Transplant Immunology, 2016;35():23-8. (Elsevier - www.elsevier.com; Transplant Immunology - www.journals.elsevier.com/transplant-immunology/)

The news editors report that additional information may be obtained by contacting S. Ducreux, Etablissement Francais du Sang, Laboratoire d'Histocompatibilite, Lyon, France. Additional authors for this research include O. Guillaud, A. Bosch, O. Thaunat, E. Morelon, V. Hervieu, Y. Mekki, O. Boillot, J.Y. Scoazec, V. Dubois and J. Dumortier.

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Keywords for this news article include: Lyon, Antibodies, France, Europe, Therapy, Immunology, Blood Proteins, Immunoglobulins.

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Immunology

New Immunology Findings from University of Sydney Described [The Analysis of CD83 Expression on Human Immune Cells Identifies a Unique CD83(+)‐Activated T Cell Population]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immunology are discussed in a new report. According to news reporting out of Sydney, Australia, by NewsRx editors, research stated, "CD83 is a member of the Ig gene superfamily, first identified in activated lymphocytes. Since then, CD83 has become an important marker for defining activated human dendritic cells (DC)."

Our news journalists obtained a quote from the research from the University of Sydney, "Several potential CD83 mRNA isoforms have been described, including a soluble form detected in human serum, which may have an immunosuppressive function. To further
understand the biology of CD83, we examined its expression in different human immune cell types before and after activation using a panel of mouse and human anti-human CD83 mAb. The mouse anti-human CD83 mAbs, HB15a and HB15e, and the human anti-human CD83 mAb, 3C12C, were selected to examine cytoplasmic and surface CD83 expression, based on their different binding characteristics. Glycosylation of CD83, the CD83 mRNA isoforms, and soluble CD83 released differed among blood DC, monocytes, and monocyte-derived DC, and other immune cell types. A small T cell population expressing surface CD83 was identified upon T cell stimulation and during allogeneic MLR. This subpopulation appeared specifically during viral Ag challenge. We did not observe human CD83 on unstimulated human natural regulatory T cells (Treg), in contrast to reports describing expression of CD83 on mouse Treg. CD83 expression was increased on CD4(+), CD8(+) T, and Treg cells in association with clinical acute graft-versus-host disease in allogeneic hematopoietic cell transplant recipients."

According to the news editors, the research concluded: "The differential expression and function of CD83 on human immune cells reveal potential new roles for this molecule as a target of therapeutic manipulation in transplantation, inflammation, and autoimmune diseases."

For more information on this research see: The Analysis of CD83 Expression on Human Immune Cells Identifies a Unique CD83(+) Activated T Cell Population. *Journal of Immunology*, 2016;197(12):4613-4625. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; *Journal of Immunology* - www.jimmunol.org)


Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Genetics, Immunology, University of Sydney.

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**Drugs and Therapies - Immunosuppressive Agents**

**New Immunosuppressive Agents Findings Reported from Department of Surgery (Unusual case of tacrolimus vascular toxicity after deceased donor renal transplantation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Immunosuppressive Agents have been published. According to news reporting out of Tottori, Japan, by NewsRx editors, research stated, "We report a case of tacrolimus vascular toxicity found on a protocol biopsy shortly after a deceased donor renal transplantation. The patient was immunologically high-risk and acute antibody-mediated rejection during post-transplant dialysis phase was suspected on the protocol biopsy."

Our news journalists obtained a quote from the research from the Department of Surgery, "Although the patient was stable after treatment of rejection, a further examination showed a very rare but specific side-effect of tacrolimus. It is sometimes difficult to make a differential diagnosis during postoperative dialysis period among AMR, primary non-
functioning, drug toxicity, infection or just prolonged recovery from the damage of a long
agonal phase on the non-heart beating donor."

According to the news editors, the research concluded: "Although the possibilities of
coexistence of rejection or other causes such as infection have not been completely excluded, it
is important to be aware of this unusual side effect of tacrolimus."

For more information on this research see: Unusual case of tacrolimus vascular
can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-
1440-1797)

Our news journalists report that additional information may be obtained by
contacting A. Sugitani, Yonago Med Center, Dept. of Surg, Yonago, Tottori, Japan. Additional
authors for this research include C. Takahashi, T. Naka, K. Hisamitsu, O. Yamamoto, K.

Keywords for this news article include: Tottori, Japan, Asia, Immunosuppressive
Agents, Drugs and Therapies, Tacrolimus Therapy, Pharmaceuticals, Nephrology,
Macrolides, Kidney, Department of Surgery.

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Drugs and Therapies - Immunosuppressive Agents

New Immunosuppressive Agents Findings from University of
Montpellier Described (Evaluation of the New Siemens Tacrolimus
Assay on the Dimension EXL Integrated Chemistry System Analyzer:
Comparison With an Ultra-Performance Liquid ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators discuss new findings in Drugs and Therapies -
Immunosuppressive Agents. According to news reporting originating from Montpellier, France,
by NewsRx correspondents, research stated, "Many patients are maintained at the lower end of
the tacrolimus (TAC) reference range (3-7 ng/mL), requiring the use of analytical methods
displaying a very low limit of quantification for their follow-up. Therefore, the new Dimension
TAC, based on affinity chrome-mediated immunoassay technology, was evaluated on the
Dimension EXL Integrated Chemistry System (Siemens Healthcare Diagnostics Inc)."

Our news editors obtained a quote from the research from the University of
Montpellier, "The aims of this study were (1) to evaluate the analytical performances with
special emphasis on sensibility at low levels of TAC, (2) to compare the results with an ultra-
performance liquid chromatography-tandem mass spectrometry (UPLC/MS/MS) method.
Analytical performance (imprecision, linearity, limit of detection, and limit of quantification)
was evaluated. Comparison to UPLC/MS/MS was performed on 106 whole blood samples from
88 transplant recipients using regression analysis and Bland-Altman plot analysis. Repeatability
and within-laboratory coefficients of variation were <6% at mean TAC control levels of 3.7,
11.7, and 19.2 ng/mL. Linearity was confirmed between 1.0 and 22 ng/mL. Passing-Bablok
regression analysis of Siemens TAC assay in comparison with UPLC/MS/MS values displayed
a slope of 1.09 and an intercept of -0.42. Using Bland-Altman analysis, the mean bias was 0.27
ng/mL with 1.96 SD limits of -2.14 and 2.67 ng/mL."
According to the news editors, the research concluded: "The new Dimension TAC immunoassay on the EXL analyzer demonstrated reliable and reproducible performances allowing routine monitoring in transplant patients, even at TAC concentrations at the lower end of the therapeutic range."


The news editors report that additional information may be obtained by contacting J.P. Cristol, University of Montpellier, CHRU Montpellier, PhyMedExp, Lab BiochimINSERMU1046CNRSUMR 9214, F-34295 Montpellier 5, France. Additional authors for this research include T. Sutra, S. Badiou, N. Kuster, A.M. Dupuy, G. Mourad, G.P. Pageaux, M. Le Quintrec and J.P. Cristol.

Keywords for this news article include: Montpellier, France, Europe, Immunosuppressive Agents, Drugs and Therapies, Tacrolimus Therapy, Pharmaceuticals, Macrolides, Chemistry, University of Montpellier.

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**Drugs and Therapies - Immunotherapy**

**New Immunotherapy Study Findings Recently Were Reported by Researchers at Shiraz University of Medical Sciences [Monitoring of CD8(+) T-cell Activity in mTOR Inhibitor-treated Cancer Patients for Successful Immunotherapy]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Immunotherapy. According to news reporting originating from Shiraz, Iran, by NewsRx correspondents, research stated, "Mammalian target of rapamycin (mTOR) inhibitors are strong anti-tumor drugs; however, they have adverse immunosuppressive side effects in some cancer patients. Animal studies have provided evidence that mTOR inhibitors improved tumor-specific T-cells adoptive transfer in which the quality of CD8+ T-cells is a major factor for predicting success."

Our news editors obtained a quote from the research from the Shiraz University of Medical Sciences, "Interestingly, mTOR inhibitors are capable of stimulating cytotoxic CD8+ T-cell if their dose/duration is adjusted. Rapamycin-induced CD8+ T-cells have also been associated with tumor immunity in animal models. We hypothesize that mTOR inhibitors can be a potential tool toward successful immunotherapy in cancer patients. CD8+ T-cell activity should be monitored before and after treatment to identify patients with improved CD8+ T-cells who might further benefit from expanding these cells and autologous lymphocyte therapy. Patients with a suppressed CD8+ T-cell activity may require individual adjustment of the drug dose in order to convert harmful immunosuppressive side effects of mTOR inhibitors into helpful immunostimulatory activities."

According to the news editors, the research concluded: "Further investigations and
clinical trials are required to prove the utility of CD8+ T-cell monitoring for successful immunotherapy in mTOR inhibitor-treated cancer patients."

For more information on this research see: Monitoring of CD8(+) T-cell Activity in mTOR Inhibitor-treated Cancer Patients for Successful Immunotherapy. *Archives of Medical Research*, 2016;47(5):401-402. *Archives of Medical Research* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Archives of Medical Research - www.journals.elsevier.com/archives-of-medical-research/)

The news editors report that additional information may be obtained by contacting Z. Mojtabahed, Shiraz University of Medical Science, Sch Med, Shiraz Inst Canc Res, Shiraz, Iran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arcmed.2016.08.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shiraz, Iran, Asia, Drugs and Therapies, Immunotherapy, Oncology, Cancer, Shiraz University of Medical Sciences.

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**Drugs and Therapies - Immunotherapy**

**New Immunotherapy Study Results Reported from Dana-Farber Cancer Institute (Genomic Approaches to Understanding Response and Resistance to Immunotherapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Immunotherapy have been presented. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Immunotherapy has led to a paradigm shift in the treatment of some malignancies, providing long-term, durable responses for patients with advanced cancers. However, such therapy has benefited only a subset of patients, with some patients failing to respond to treatment at all and others achieving a limited response followed by tumor progression."

Our news journalists obtained a quote from the research from Dana-Farber Cancer Institute, "Understanding factors contributing to an effective response and further elucidating mechanisms of resistance will be crucial as these therapies are applied more broadly. Genomics-based approaches have significantly advanced the study of response and resistance to immunotherapy in general, and to immune checkpoint blockade more specifically. Here, we review how genomic and transcriptomic approaches have identified both somatic and germline positive correlates of response, including high mutational/neoantigen load and low intratumoral heterogeneity, among others. The genomic analysis of resistant tumors has additionally identified crucial factors involved in resistance to immune checkpoint blockade, including loss of PTEN and upregulation of other immune checkpoints."

According to the news editors, the research concluded: "Overall, the continued use of genomic techniques at the point of care, combined with appropriate functional studies, would ideally lead to a better understanding of why certain patients respond to immune-based therapies, allowing clinicians to identify the subset of patients likely to benefit from such therapy, and potentially providing insight into how other therapies may be added in combination..."
to increase the number of patients who may benefit from immunotherapy."

For more information on this research see: Genomic Approaches to Understanding Response and Resistance to Immunotherapy. *Clinical Cancer Research*, 2016;22(23):5642-5650. *Clinical Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clinicanews.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting E.M. Van Allen, Dana Farber Canc Inst, Center Canc Precis Med, Boston, MA 02115, United States. Additional authors for this research include K.P. Burke and E.M. Van Allen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-16-0066. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Drugs and Therapies, Article Review, Immunotherapy, Dana-Farber Cancer Institute.

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**Drugs and Therapies - Indomethacin Therapy**

**New Indomethacin Therapy Study Findings Have Been Reported by Investigators at University of Barcelona (Oil-in-water nanoemulsions are suitable for carrying hydrophobic compounds: Indomethacin as a model of anti-inflammatory drug)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Indomethacin Therapy. According to news originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Oil-in-water nanoemulsions are increasingly being used as delivery systems for encapsulating lipophilic components in functional food, personal care and pharmaceutical products. In the current study, we developed a multimodal platform to carry hydrophobic indomethacin or magnetic nanoparticles, or both."

Financial support for this research came from Spanish Ministerio de Economia y Competitividad (MINECO).

Our news journalists obtained a quote from the research from the University of Barcelona, "As a consequence, this platform has great potential for therapeutic or imaging purposes. By optimizing the system composition and homogenization conditions, a nanoemulsion with a mean droplet diameter of about 200 nm and a low polydispersity index (< 0.2) was formed. The plain nanoemulsion was shown to be innocuous in cellular studies and did not present acute toxicity (observed in a rat model)."

According to the news editors, the research concluded: "More interesting was the finding that nanoemulsions loaded with indomethacin presented a significantly different anti-inflammatory than the free drug."

For more information on this research see: Oil-in-water nanoemulsions are suitable for carrying hydrophobic compounds: Indomethacin as a model of anti-inflammatory drug.
New Indomethacin Therapy Study Findings Have Been Reported by Investigators at Vanderbilt University (Antitumor Activity of Cytotoxic Cyclooxygenase-2 Inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Indomethacin Therapy. According to news reporting originating in Nashville, Tennessee, by NewsRx journalists, research stated, "Targeted delivery of chemotherapeutic agents to tumors has been explored as a means to increase the selectivity and potency of cytotoxicity. Most efforts in this area have exploited the molecular recognition of proteins highly expressed on the surface of cancer cells followed by internalization."

Financial support for this research came from National Cancer Institute.

The news reporters obtained a quote from the research from Vanderbilt University, "A related approach that has received less attention is the targeting of intracellular proteins by ligands conjugated to anticancer drugs. An attractive target for this approach is the enzyme cyclooxygenase-2 (COX-2), which is highly expressed in a range of malignant tumors. Herein, we describe the synthesis and evaluation of a series of chemotherapeutic agents targeted to COX-2 by conjugation to indomethacin. Detailed characterization of compound 12, a conjugate of indomethacin with podophyllotoxin, revealed highly potent and selective COX-2 inhibition in vitro and in intact cells. Kinetics and X-ray crystallographic studies demonstrated that compound 12 is a slow, tight-binding inhibitor that likely binds to COX-2's allosteric site with its indomethacin moiety in a conformation similar to that of indomethacin. Compound 12 exhibited cytotoxicity in cell culture similar to that of podophyllotoxin with no evidence of COX-2-dependent selectivity. However, in vivo, compound 12 accumulated selectively in and more effectively inhibited the growth of a COX-2-expressing xenograft compared to a xenograft that did not express COX-2."

According to the news reporters, the research concluded: "Compound 12, which we have named chemocoxib A, provides proof-of-concept for the in vivo targeting of
chemotherapeutic agents to COX-2 but suggests that COX-2-dependent selectivity may not be evident in cell culture-based assays.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschembio.6b00560. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Prostaglandin-Endoperoxide Synthases, Enzymes and Coenzymes, Indomethacin Therapy, Drugs and Therapies, Xenotransplantation, Cyclooxygenase 2, Pharmaceuticals, Cancer Therapy, Biotechnology, Xenografts, COX-2, Vanderbilt University.

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**Inflammation**

**New Inflammation Findings from G.J. Szebeni and Colleagues Discussed (Pro-Tumoral Inflammatory Myeloid Cells as Emerging Therapeutic Targets)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Inflammation have been presented. According to news reporting originating from Budapest, Hungary, by NewsRx correspondents, research stated, "Since the observation of Virchow, it has long been known that the tumor microenvironment constitutes the soil for the infiltration of inflammatory cells and for the release of inflammatory mediators. Under certain circumstances, inflammation remains unresolved and promotes cancer development."

Our news editors obtained a quote from the research, "Here, we review some of these indisputable experimental and clinical evidences of cancer related smouldering inflammation. The most common myeloid infiltrate in solid tumors is composed of myeloid-derived suppressor cells (MDSCs) and tumor-associated macrophages (TAMs). These cells promote tumor growth by several mechanisms, including their inherent immunosuppressive activity, promotion of neoangiogenesis, mediation of epithelial-mesenchymal transition and alteration of cellular metabolism. The pro-tumoral functions of TAMs and MDSCs are further enhanced by their cross-talk offering a myriad of potential anti-cancer therapeutic targets. We highlight these main pro-tumoral mechanisms of myeloid cells and give a general overview of their phenotypical and functional diversity, offering examples of possible therapeutic targets. Pharmacological targeting of inflammatory cells and molecular mediators may result in therapies improving patient condition and prognosis."
According to the news editors, the research concluded: "Here, we review experimental and clinical findings on cancer-related inflammation with a major focus on creating an inventory of current small molecule-based therapeutic interventions targeting cancer-related inflammatory cells: TAMs and MDSCs."

For more information on this research see: Pro-Tumoral Inflammatory Myeloid Cells as Emerging Therapeutic Targets. *International Journal of Molecular Sciences, 2016;17* (11):2753-2780. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting G.J. Szebeni, Synaptogenex Ltd, H-1037 Budapest, Hungary. Additional authors for this research include C. Vizier, L.I. Nagy, K. Kitajka and L.G. Puskas.

Keywords for this news article include: Budapest, Hungary, Europe, Inflammation, Article Review, Oncology, Therapy, Cancer.

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**Inflammation**

**New Inflammation Findings from German Cancer Research Center Described (Natural killer cell memory in infection, inflammation and cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Inflammation have been presented. According to news reporting out of Heidelberg, Germany, by NewsRx editors, research stated, "Immunological memory can be defined as a quantitatively and qualitatively enhanced immune response upon rechallenge. For natural killer (NK) cells, two main types of memory exist."

Our news journalists obtained a quote from the research from German Cancer Research Center, "First, similarly to T cells and B cells, NK cells can exert immunological memory after encounters with stimuli such as haptons or viruses, resulting in the generation of antigen-specific memory NK cells. Second, NK cells can remember inflammatory cytokine milieus that imprint long-lasting non-antigen-specific NK cell effector function."

According to the news editors, the research concluded: "The basic concepts derived from studying NK cell memory provide new insights about innate immunity and could lead to novel strategies to improve treatments for infectious diseases and cancer."

For more information on this research see: Natural killer cell memory in infection, inflammation and cancer. *Nature Reviews Immunology, 2016;16*(2):112-23. (Nature Publishing Group - www.nature.com/nri/)

Our news journalists report that additional information may be obtained by contacting A. Cerwenka, Innate Immunity Group, German Cancer Research Center, D080, 69120 Heidelberg, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nri.2015.9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Cancer, Germany, Oncology, Heidelberg, Immunology, Inflammation, Article Review.
New Inflammation Findings from National Center for Scientific Research (CNRS) Discussed (Pan PPAR agonist IVA337 is effective in prevention and treatment of experimental skin fibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Inflammation have been presented. According to news reporting out of Paris, France, by NewsRx editors, research stated, "The pathogenesis of systemic sclerosis (SSc) involves a distinctive triad of autoimmune, vascular and inflammatory alterations resulting in fibrosis. Evidence suggests that peroxisome proliferator-activated receptors (PPARs) play an important role in SSc-related fibrosis and their agonists may become effective therapeutic targets."

Our news journalists obtained a quote from the research from National Center for Scientific Research (CNRS), "To determine the expression of PPARs in human fibrotic skin and investigate the effects of IVA337, a pan PPAR agonist, in vitro and in vivo models of fibrosis. The antifibrotic effects of IVA337 were studied using a bleomycin-induced mouse model of dermal fibrosis. The in vivo effect of IVA337 on wound closure and inflammation were studied using an excisional model of wound healing. Low levels of PPAR alpha and PPAR gamma were detected in the skin of patients with SSc compared with controls. In mice, IVA337 was associated with decreased extracellular matrix (ECM) deposition and reduced expression of phosphorylated SMAD2/3-intracellular effector of transforming growth factor (TGF)-beta 1. Although the antifibrotic effect of pan PPAR was similar to that of PPAR gamma agonist alone, a significant downregulation of several markers of inflammation was associated with IVA337. Despite its anti-inflammatory and antifibrotic properties, IVA337 did not interfere with wound closure. In vitro effects of IVA337 included attenuation of transcription of ECM genes and alteration of canonical and non-canonical TGF-beta signalling pathways."

According to the news editors, the research concluded: "These findings indicate that simultaneous activation of all three PPAR isoforms exerts a dampening effect on inflammation and fibrosis, making IVA337 a potentially effective therapeutic candidate in the treatment of fibrotic diseases including SSc."


Our news journalists report that additional information may be obtained by contacting N. Ruzehaji, CNRS, UMR8104, Paris, France. Additional authors for this research include C. Frantz, M. Ponsoye, J. Avouac, S. Pezet, T. Guilbert, J.M. Luccarini, P. Broqua, J.L. Junien and Y. Allanore.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/annrheumdis-2015-208029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Inflammation,
New Inflammation Findings from Y.J. Lee and Co-Authors Described (Acquired Bilateral Dyspigmentation on Face and Neck: Clinically Appropriate Approaches)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Inflammation. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "Facial dyspigmentation in Asian women often poses diagnostic and therapeutic challenges. Recently, a distinctive bilateral hyperpigmentation of face and neck has occasionally been observed."

The news reporters obtained a quote from the research, "This study was performed to investigate the clinico-pathological features of this dyspigmentation as well as proper treatment approaches. We retrospectively investigated the medical records including photographs, routine laboratory tests, histopathologic studies of both lesional and peri-lesional normal skin and patch test of thirty-one patients presented acquired bizarre hyperpigmentation on face and neck. The mean age of patients was 52.3 years and the mean duration of dyspigmentation was 24.2 months. In histologic evaluations of lesional skin, a significantly increased liquefactive degeneration of basal layer, pigmentary incontinence and lymphocytic infiltration were noted, whereas epidermal melanin or solar elastosis showed no statistical differences. Among 19 patients managed with a step-by-step approach, seven improved with using only topical anti-inflammatory agents and moisturizer, and 12 patients gained clinical benefit after laser therapy without clinical aggravation. Both clinical and histopathologic findings of the cases suggest a distinctive acquired hyperpigmentary disorder related with subclinical inflammation."

According to the news reporters, the research concluded: "Proper step-by-step evaluation and management of underlying subclinical inflammation would provide clinical benefit."

For more information on this research see: Acquired Bilateral Dyspigmentation on Face and Neck: Clinically Appropriate Approaches. Journal of Korean Medical Science, 2016;31(12):2042-2050. Journal of Korean Medical Science can be contacted at: Korean Acad Medical Sciences, 302 75 Dong Du Ichon, Dong Yongsan Ku, Seoul 140 031, South Korea.

Our news correspondents report that additional information may be obtained by contacting J.H. Lee, Sungkyunkwan University Dept. of Med Device Management & Res, SAIHST, Seoul, South Korea. Additional authors for this research include J.H. Park, D.Y. Lee and J.H. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3346/jkms.2016.31.12.2042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Inflammation.
New Inflammatory Bowel Disease Findings from Mercy Hospital
Reported (Identification of Factors Impacting Recurrent Clostridium difficile Infection and Development of a Risk Evaluation Tool)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Inflammatory Bowel Disease. According to news reporting from St. Louis, Missouri, by NewsRx journalists, research stated, "Recurrent Clostridium difficile infection (RCDI) is a growing concern, yet limited data exists to clarify which patients are at highest risk. Identification of these patients may better inform decisions of those who may benefit from prophylactic intervention."

The news correspondents obtained a quote from the research from Mercy Hospital, "The purpose of this study was to determine which factors are associated with the recurrence of Clostridium difficile infection (CDI) and to develop a risk stratification tool. Patients readmitted within 10 weeks of positive C. difficile polymerase chain reaction (PCR) with symptoms were included in this retrospective case control study. The primary outcome was analyzed via univariate regression analyses of the independent factors including age, gender, number of CDI episodes, administration of acid blocking agents, antibiotics or chemotherapy, Charlson Comorbidity Index, gastrointestinal conditions, and exposure to healthcare facilities. Recurrent CDI was identified in 44 of 220 included patients. In the univariate analysis, factors associated with development of RCDI included antibiotic exposure (OR 2.51, 95% CI 1.14-5.54; p 0.02) and inflammatory bowel disease (OR 5.77, 95% CI 1.24-26.79; p 0.03). An evaluation tool was created from a well-fit model. Additional factors included in the tool were chosen based on evaluation of findings from existing literature. Antibiotic therapy and inflammatory bowel disease were found to be associated with RCDI. Although a statistically significant association with RCDI was not found for other factors, this is likely related to small sample size."

According to the news reporters, the research concluded: "The creation of an evaluation tool using specific patient factors can help determine the risk of RCDI, while future studies may validate this tool."


Our news journalists report that additional information may be obtained by contacting E.K. Hennessey, Mercy Hosp St Louis, St Louis, MO, United States. Additional authors for this research include E.K. Hennessey, A.M. Bryant, J.A. Khoury and A.J. Crannage.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18433/J32S41. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Gram-Positive Endospore-Forming Bacteria, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Gram-Positive Endospore-Forming Rods, Bowel Diseases and Conditions, Inflammatory Bowel Disease, Gram-Positive Bacteria, Clostridium difficile, Gastroenteritis, Mercy Hospital.
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**RNA Viruses - Influenza A Virus**

**New Influenza A Virus Findings Has Been Reported by Researchers at University of Melbourne (Apocynin and ebselen reduce influenza A virus-induced lung inflammation in cigarette smoke-exposed mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on RNA Viruses - Influenza A Virus.

According to news reporting originating in Victoria, Australia, by NewsRx journalists, research stated, "Influenza A virus (IAV) infections are a common cause of acute exacerbations of chronic obstructive pulmonary disease (AECOPD). Oxidative stress is increased in COPD, IAV-induced lung inflammation and AECOPD."

The news reporters obtained a quote from the research from the University of Melbourne, "Therefore, we investigated whether targeting oxidative stress with the Nox2 oxidase inhibitors and ROS scavengers, apocynin and ebselen could ameliorate lung inflammation in a mouse model of AECOPD. Male BALB/c mice were exposed to cigarette smoke (CS) generated from 9 cigarettes per day for 4 days. On day 5, mice were infected with 1 ? 10^{4.5} PFUs of the IAV Mem71 (H3N1). BALF inflammation, viral titers, superoxide production and whole lung cytokine, chemokine and protease mRNA expression were assessed 3 and 7 days post infection. IAV infection resulted in a greater increase in BALF inflammation in mice that had been exposed to CS compared to non-smoking mice. This increase in BALF inflammation in CS-exposed mice caused by IAV infection was associated with elevated gene expression of pro-inflammatory cytokines, chemokines and proteases, compared to CS alone mice. Apocynin and ebselen significantly reduced the exacerbated BALF inflammation and pro-inflammatory cytokine, chemokine and protease expression caused by IAV infection in CS mice."

According to the news reporters, the research concluded: "Targeting oxidative stress using apocynin and ebselen reduces IAV-induced lung inflammation in CS-exposed mice and may be therapeutically exploited to alleviate AECOPD."

For more information on this research see: Apocynin and ebselen reduce influenza A virus-induced lung inflammation in cigarette smoke-exposed mice. *Scientific Reports*, 2016;6 ():20983. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting L.C. Oostwoud, Lung Health Research Centre, Dept. of Pharmacology &Therapeutics, The University of Melbourne, Victoria, Australia. Additional authors for this research include P. Gunasinghe, H.J. Seow, J.M. Ye, S. Selemidis, S. Bozinovski and R. Vlahos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep20983. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Viral, Victoria, Genetics, Protease, Virology, Chemokines, RNA Viruses, Orthomyxoviridae, Influenza A Virus, Biological Factors, Enzymes and Coenzymes, Inflammation Mediators, Australia and New Zealand.
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RNA Viruses - Influenza A Virus Subtype H1N1

New Influenza A Virus Subtype H1N1 Study Findings Have Been Reported from Howard Hughes Medical Institute (Influenza immunization elicits antibodies specific for an egg-adapted vaccine strain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in RNA Viruses - Influenza A Virus Subtype H1N1. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "For broad protection against infection by viruses such as influenza or HIV, vaccines should elicit antibodies that bind conserved viral epitopes, such as the receptor-binding site (RBS). RBS-directed antibodies have been described for both HIV1-3 and influenza virus(4-8), and the design of immunogens to elicit them is a goal of vaccine research in both fields."

Our news journalists obtained a quote from the research from Howard Hughes Medical Institute, "Residues in the RBS of influenza virus hemagglutinin (HA) determine a preference for the avian or human receptor, alpha-2,3-linked sialic acid and alpha-2,6-linked sialic acid, respectively(9,10). Transmission of an avian-origin virus between humans generally requires one or more mutations in the sequences encoding the influenza virus RBS to change the preferred receptor from avian to human(9,11,12), but passage of a human-derived vaccine candidate in chicken eggs can select for reversion to avian receptor preference(13-15). For example, the X-181 strain of the 2009 new pandemic H1N1 influenza virus, derived from the A/California/07/2009 isolate and used in essentially all vaccines since 2009, has arginine at position 226, a residue known to confer preference for an alpha-2,3 linkage in H1 subtype viruses(13,14); the wild-type A/California/07/2009 isolate, like most circulating human H1N1 viruses, has glutamine at position 226. We describe, from three different individuals, RBS-directed antibodies that recognize the avian-adapted H1 strain in current influenza vaccines but not the circulating new pandemic 2009 virus; Arg226 in the vaccine-strain RBS accounts for the restriction. The polyclonal sera of the three donors also reflect this preference."

According to the news editors, the research concluded: "Therefore, when vaccines produced from strains that are never passaged in avian cells become widely available, they may prove more capable of eliciting RBS-directed, broadly neutralizing antibodies than those produced from egg-adapted viruses, extending the established benefits of current seasonal influenza immunizations."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4223. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Influenza A Virus Subtype H1N1, Vertebrate Viruses, Orthomyxoviridae, Immunoglobulins, Blood Proteins, RNA Viruses, Immunology, Antibodies, Genetics, Howard Hughes Medical Institute.

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**Immunology - Innate Immunity**

**New Innate Immunity Data Have Been Reported by Researchers at Medical University [Paul Ehrlich (1854-1915) and His Contributions to the Foundation and Birth of Translational Medicine]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immunology - Innate Immunity are presented in a new report. According to news originating from Vienna, Austria, by NewsRx correspondents, research stated, "Translational research and precision medicine are based on a profound knowledge of cellular and molecular mechanisms contributing to various physiologic processes and pathologic reactions in diverse organs. Whereas specific molecular interactions and mechanisms have been identified during the past 5 decades, the underlying principles were defined much earlier and originate from to the seminal observations made by outstanding researchers between 1850 and 1915."

Our news journalists obtained a quote from the research from Medical University, "One of the most outstanding exponents of these scientists is Paul Ehrlich. His work resulted not only in the foundation and birth of modern hematolgy and immunology, but also led to the development of chemotherapy and specific targeted treatment concepts. In 2015, the Medical University of Vienna organized a memorial meeting, with the aim of honoring Paul Ehrlich's contributions to science, and to commemorate the 100th anniversary of his death."

According to the news editors, the research concluded: "The authors of the current review served as faculty members and dedicate this paper to Paul Ehrlich and his remarkable contributions to medicine."


The news correspondents report that additional information may be obtained from P. Valent, Dept. of Medicine I, Division of Hematology and Hemostaseology, Medical University of Vienna, Vienna, Austria. Additional authors for this research include B. Groner, U. Schumacher, G. Superti-Furga, M. Busslingger, R. Kralovics, C. Zielinski, J.M. Penninger, D. Kerjaschki, G. Stingl, J.S. Sinolen, R. Valenta, H. Lassmann, H. Kovar, U. Jager, G. Kornek, M. Muller and So.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443526. This DOI is a link to an online electronic document that is either free or for purchase.
New Integrative Medicine Findings from D. Damaske and Co-Authors Described (The beliefs and attitudes of chiropractors and their patients utilising an open practice environment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Health and Medicine - Integrative Medicine have been presented. According to news reporting originating from Bergamo, Italy, by NewsRx correspondents, research stated, "Although chiropractic care is known to be provided in different types of environments, patient satisfaction on the use of an open plan/multi bedded environment is unknown. The aim of this study was to examine chiropractic patients' beliefs, experiences and satisfaction with chiropractic care in an open environment and to test the hypothesis that a patient's privacy and dignity may be preserved in open adjusting environments."

Our news editors obtained a quote from the research, "A convenience sample of twenty-seven European chiropractors from 8 European countries was obtained through 2 national association e-mail lists and verbal request at 2 continuing education seminars. They and their patients were asked to complete a Global Wellness and Likert-type survey for the purpose of this study. One thousand, one hundred and nine patients who received chiropractic care in an open environment participated in this study. They reported to be very highly satisfied with the care they were receiving (average rating = 8.98/10) and expressed significantly improved survey responses in regard to their self-rated Global Wellness at the time of evaluation compared to baseline measures. In terms of their attitudes, beliefs and experiences in this model of chiropractic care, participants indicated positive experiences in that they were comfortable receiving care in such an environment, their dignity was respected, their privacy maintained and they were cared for in a professional manner. The findings presented here provide valuable insight into patients' perspectives in receiving care in an open adjusting environment. Our results demonstrate that the open adjusting environment is an effective practice model for maintaining a patient's dignity and privacy while providing a high level of patient satisfaction."

According to the news editors, the research concluded: "Open room care may need to be included in future decisions regarding best practice configuration for chiropractic care facilities."


The news editors report that additional information may be obtained by contacting D. Damaske, Multispecialist Hosp Humanitas Gavazzeni, Bergamo, Italy. Additional authors for this research include P. McCrossin, F. Santoro and J. Alcantara.

The direct object identifier (DOI) for that additional information is:
New Interleukin Receptors Study Results from Ajou University Described (Recent Progress in the Molecular Recognition and Therapeutic Importance of Interleukin-1 Receptor-Associated Kinase 4)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Interleukin Receptors. According to news originating from Suwon, South Korea, by NewsRx correspondents, research stated, "Toll-like receptors (TLRs) are the most upstream pattern recognition receptors in the cell, which detect pathogen associated molecular patterns and initiate signal transduction, culminating in the transcription of pro-inflammatory cytokines and antiviral interferon. Interleukin-1 receptor-associated kinase 4 (IRAK4) is a key mediator in TLR (except for TLR3) and interleukin-1 receptor signaling pathways."

Our news journalists obtained a quote from the research from Ajou University, "The loss of kinase function of IRAK4 is associated with increased susceptibility to various pathogens, while its over-activation causes autoimmune diseases such as rheumatoid arthritis, systemic lupus erythematosus, and cancer. The therapeutic importance of this master kinase has been advocated by a number of recent preclinical studies, where potent inhibitors have been administered to improve various TLR-mediated pathologies. Increasing studies of X-ray crystallographic structures with bound inhibitors have improved our knowledge on the molecular recognition of ligands by IRAK4, which will be crucial for the development of new inhibitors with improved potencies."

According to the news editors, the research concluded: "In this review, we briefly discuss the structural aspect of ligand recognition by IRAK4 and highlight its therapeutic importance in the context of TLR-associated unmet medical needs."

For more information on this research see: Recent Progress in the Molecular Recognition and Therapeutic Importance of Interleukin-1 Receptor-Associated Kinase 4. Molecules, 2016;21(11):1645-1659. Molecules can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

The news correspondents report that additional information may be obtained from M.C. Patra, Ajou University, Dept. of Mol Sci & Technol, Suwon 443749, South Korea.

Keywords for this news article include: Suwon, South Korea, Asia, Intercellular Signaling Peptides and Proteins, Interleukin-1 Receptor-Associated Kinases, Protein-Serine-Threonine Kinases, Therapy, Article Review, Interleukin-1 Receptors, Enzymes and Coenzymes, Interleukin Receptors, Emerging Technologies, Molecular Recognition, Phosphotransferases, Membrane Proteins, Nanotechnology, Interleukins, Immunology, Monokines, Cytokines, Genetics, Ajou University.

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Intermediate Filament Proteins

New Intermediate Filament Proteins Findings Has Been Reported by Investigators at Veterans Affairs Medical Center (Disruption of desmin-mitochondrial architecture in patients with regurgitant mitral valves and preserved ventricular function)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Intermediate Filament Proteins are presented in a new report. According to news reporting originating in Birmingham, Alabama, by NewsRx journalists, research stated, "Recent studies have demonstrated improved outcomes in patients receiving early surgery for degenerative mitral regurgitation (MR) rather than adhering to conventional guidelines for surgical intervention. However, studies providing a mechanistic basis for these findings are limited."

The news reporters obtained a quote from the research from Veterans Affairs Medical Center, "Left ventricular (LV) myocardium from 22 patients undergoing mitral valve repair for American Heart Association class I indications was evaluated for desmin, the voltage-dependent anion channel, alpha-B-crystallin, and alpha, beta-unsaturated aldehyde 4-hydroxynonenal by fluorescence microscopy. The same was evaluated in 6 normal control LV autopsy specimens. Cardiomyocyte ultrastructure was examined by transmission electron microscopy. Magnetic resonance imaging with tissue tagging was performed in 55 normal subjects and 22 MR patients before and 6 months after mitral valve repair. LV end-diastolic volume was 1.5-fold (P<.0001) higher and LV mass-to-volume ratio was lower in MR (P=.004) hearts versus normal hearts and showed improvement 6 months after mitral valve surgery. However, LV ejection fraction decreased from 65% +/- 7% to 52% +/- 9% (P=.0001) and LV circumferential (P<.0001) and longitudinal strain decreased significantly below normal values (P<.002) after surgery. Hearts with MR had a 53% decrease in desmin (P<.0001) and a 2.6-fold increase in desmin aggregates (P<.0001) versus normal, along with substantial, intense perinuclear staining of alpha, beta-unsaturated aldehyde 4-hydroxynonenal in areas of mitochondrial breakdown and clustering. Transmission electron microscopy demonstrated numerous electron-dense deposits, myofibrillar loss, Z-disc abnormalities, and extensive granulofilamentous debris identified as desmin-positive by immunogold transmission electron microscopy."

According to the news reporters, the research concluded: "Despite well-preserved preoperative LV ejection fraction, severe oxidative stress and disruption of cardiomyocyte desmin-mitochondrial sarcomeric architecture may explain postoperative LV functional decline and further supports the move toward earlier surgical intervention."


Our news correspondents report that additional information may be obtained by
Lung Diseases and Conditions - Interstitial Lung...

**New Interstitial Lung Disease Study Results from Fukushima Medical University Described (Clinicopathological analysis of mechanic's hand associated with dermatomyositis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Interstitial Lung Disease. According to news reporting from Fukushima, Japan, by NewsRx journalists, research stated, "Mechanic's hand is often seen in the fingers of patients with dermatomyositis and is frequently associated with anti-aminoacyl-transfer RNA synthetase autoantibodies and interstitial lung disease. We analysed the clinical symptoms of 50 patients with dermatomyositis who had visited our department, 26 of whom also had mechanic's hand."

The news correspondents obtained a quote from the research from Fukushima Medical University, "A histological examination was carried out in 16 of the 26 cases, which revealed hyperkeratosis in all cases and colloid bodies in the epidermis in 15 cases. The number of cases of interstitial lung disease in patients with mechanic's hand (22/26, 85%) was significantly higher than that in those without mechanic's hand (12/24, 50%) (P < 0.05)."

According to the news reporters, the research concluded: "Mechanic's hand is an important skin lesion of dermatomyositis, and increases the likelihood of interstitial lung disease."


Our news journalists report that additional information may be obtained by contacting T. Mori, Fukushima Med Univ, Dept. of Dermatol, Fukushima 9601295, Japan. Additional authors for this research include T. Ohashi, Y. Kato, M. Ohtsuka and T. Yamamoto.

Keywords for this news article include: Fukushima, Japan, Asia, Skin and Connective Tissue Diseases and Conditions, Respiratory Tract Diseases and Conditions, Musculoskeletal Diseases and Conditions, Nervous System Diseases and Conditions,
Central Nervous System Diseases and Conditions - …

New Intracranial Aneurysm Findings Has Been Reported by Investigators at Zhengzhou University (Safety and efficacy of a new prophylactic tirofiban protocol without oral intraoperative antiplatelet therapy for endovascular treatment of ruptured ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Central Nervous System Diseases and Conditions - Intracranial Aneurysm is the subject of a report. According to news reporting out of Zhengzhou, People's Republic of China, by NewsRx editors, research stated, "Coil embolization of intracranial aneurysms is being increasingly used; however, thromboembolic events have become a major periprocedural complication. To determine the safety and efficacy of prophylactic tirofiban in patients with ruptured intracranial aneurysms."

Our news journalists obtained a quote from the research from Zhengzhou University, "Tirofiban was administered as an intravenous bolus (8.0 µg/kg over 3 min) followed by a maintenance infusion (0.10 µg/kg/min) before stent deployment or after completion of single coiling. Dual oral antiplatelet therapy (loading doses) was overlapped with half the tirofiban dose 2 h before cessation of the tirofiban infusion. Cases of intracranial hemorrhage or thromboembolism were recorded. Tirofiban was prophylactically used in 221 patients, including 175 (79.19%) who underwent stent-assisted coiling and 46 (20.81%) who underwent single coiling, all in the setting of aneurysmal subarachnoid hemorrhage. Six (2.71%) cases of intracranial hemorrhage occurred, including four (1.81%) tirofiban-related cases and two (0.90%) antiplatelet therapy related cases. There were two (0.90%) cases of fatal hemorrhage, one related to tirofiban and the other related to dual antiplatelet therapy. Thromboembolic events occurred in seven (3.17%) patients (6 stent-assisted embolization, 1 single coiling), of which one (0.45%) event occurred during stenting and six (2.72%) occurred during intravenous tirofiban maintenance. No thromboembolic events related to dual antiplatelet therapy were found."

According to the news editors, the research concluded: "Tirofiban bolus over 3 min followed by maintenance infusion appears to be a safe and efficient prophylactic protocol for the endovascular treatment of ruptured intracranial aneurysms and may be an alternative to intraoperative oral antiplatelet therapy, especially in the case of stent-assisted embolization."


Our news journalists report that additional information may be obtained by contacting T.X. Li, Zhengzhou Univ, Henan Prov Peoples Hosp, Dept. of Intervent Therapy
New Intracranial Aneurysm Study Findings Reported from Stanford University Hospital (Detection and characterization of intracranial aneurysms: a 10-year multidetector CT angiography experience in a large center)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Intracranial Aneurysm have been published. According to news reporting out of Stanford, California, by NewsRx editors, research stated, "CT angiography (CTA) is increasingly used for the detection, characterization, and follow-up of intracranial aneurysms. A lower threshold to request a CT angiogram may render a patient population that differs from previous studies primarily evaluated with conventional angiography."

Our news journalists obtained a quote from the research from Stanford University Hospital, "Our objective was to broaden our knowledge of the factors associated with aneurysm rupture and patient mortality in this population. All CTA studies performed over a 10-year period at a large neurovascular referral center were reviewed for the presence of an intracranial aneurysm. Patient demographics, mortality, CTA indication, aneurysm location, size, and rupture status were recorded. Results 2927 patients with aneurysms were identified among 29 003 CTAs. 17% of the aneurysms were ruptured at the time of imaging, 24% of aneurysms were incidentally identified, and multiple aneurysms were identified in 34% of patients. Aneurysms most commonly arose from the supraclinoid internal carotid artery (22%), the middle cerebral artery (18%), and the anterior communicating artery (13%). Male sex, age <50 years, aneurysms >6 mm, and aneurysms arising from the anterior communicating artery, posterior communicating artery, or the posterior circulation were independent predictors of aneurysm rupture. Independent mortality predictors included male sex, posterior circulation aneurysms, intraventricular hemorrhage, and intraparenchymal hemorrhage."

According to the news editors, the research concluded: "These results indicate that aneurysms detected on CTA that arise from the anterior communicating artery, posterior communicating artery, or the posterior circulation, measure >6 mm in size, occur in men, and in
patients aged <50 years are associated with rupture."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/neurintsurg-2015-012082. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stanford, California, United States, North and Central America, Central Nervous System Diseases and Conditions, Intracranial Arterial Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Posterior Communicating Artery, Anterior Communicating Artery, Brain Diseases and Conditions, Cerebrovascular Disorders, Angiology, Epidemiology, Intracranial Aneurysm, Cardiology, Angiography, Hemorrhage, Stanford University Hospital.

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**New Intracranial Hypertension Study Findings Reported from Ohio State University [Idiopathic Intracranial Hypertension (Pseudotumor Cerebri)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Intracranial Hypertension. According to news reporting from Columbus, Ohio, by NewsRx editors, the research stated, "Idiopathic intracranial hypertension has been recognized in the literature for over 100 years. It is a disease of elevated intracranial pressure without evidence of a space-occupying lesion found most often in obese women of childbearing age."

The news correspondents obtained a quote from the research from Ohio State University, "The signs and symptoms have been well described; however, the etiology is yet unknown. Medical and surgical treatment is aimed at the preservation of vision and improvement in symptoms. The medical literature is replete with articles addressing the epidemiology, pathophysiology, clinical and imaging features, and treatment. There are limited nursing reports (Lehman, 2003; McDonald, 1984; Revta, 1977)."

According to the news reporters, the research concluded: "The objective of this manuscript is to provide an overview for the neuroscience nurse of the clinical features, diagnostic work-up, and therapeutic options available for patients with idiopathic intracranial hypertension."

For more information on this research see: Idiopathic Intracranial Hypertension (Pseudotumor Cerebri). *Journal of Neuroscience Nursing*, 2016;48(6):303-310. *Journal of Neuroscience Nursing* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq,
2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Neuroscience Nursing - journals.lww.com/jnnonline/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting S. Bell, Ohio State University, Wexner Med Center, Neurosurg, Columbus, OH 43210, United States.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Cardiovascular Diseases and Conditions, Epidemiology, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Intracranial Hypertension, Pseudotumor Cerebri, Ohio State University.

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Membrane Proteins - Ion Channels

New Ion Channels Data Have Been Reported by Researchers at University of Turku (L-type calcium channels regulate filopodia stability and cancer cell invasion downstream of integrin signalling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Membrane Proteins - Ion Channels have been presented. According to news reporting originating from Turku, Finland, by NewsRx correspondents, research stated, "Mounting in vitro, in vivo and clinical evidence suggest an important role for filopodia in driving cancer cell invasion. Using a high-throughput microscopic-based drug screen, we identify FDA-approved calcium channel blockers (CCBs) as potent inhibitors of filopodia formation in cancer cells."

Our news editors obtained a quote from the research from the University of Turku, "Unexpectedly, we discover that L-type calcium channels are functional and frequently expressed in cancer cells suggesting a previously unappreciated role for these channels during tumorigenesis. We further demonstrate that, at filopodia, L-type calcium channels are activated by integrin inside-out signalling, integrin activation and Src. Moreover, L-type calcium channels promote filopodia stability and maturation into talin-rich adhesions through the spatially restricted regulation of calcium entry and subsequent activation of the protease calpain-1."

According to the news editors, the research concluded: "Altogether we uncover a novel and clinically relevant signalling pathway that regulates filopodia formation in cancer cells and propose that cycles of filopodia stabilization, followed by maturation into focal adhesions, directs cancer cell migration and invasion."


The news editors report that additional information may be obtained by contacting G. Jacquemet, University of Turku, Turku Center Biotechnol, FIN-20520 Turku, Finland. Additional authors for this research include H. Baghirov, M. Georgiadou, H. Sihto, E. Peuhu, P. Cettour-Janet, T. He, M. Perala, P. Kronqvist, H. Joensuu and J. Ivaska.

Keywords for this news article include: Turku, Finland, Europe, Immunologic
New Iron Deficiency Study Results from University of the Free State Described (Iron status determination in pregnancy using the Thomas plot)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Iron Deficiency are discussed in a new report. According to news reporting out of Bloemfontein, South Africa, by NewsRx editors, research stated, "Physiological changes during pregnancy affect routine tests for iron deficiency. The reticulocyte haemoglobin equivalent (RET-He) and serum-soluble transferrin receptor (sTfR) assay are newer diagnostic parameters for the detection of iron deficiency, combined in the Thomas diagnostic plot."

Financial support for this research came from NHLS Research Trust.

Our news journalists obtained a quote from the research from the University of the Free State, "We used this plot to determine the iron status of pregnant women presenting for their first visit to an antenatal clinic in Bloemfontein, South Africa. Routine laboratory tests (serum ferritin, full blood count and C-reactive protein) and RET-He and sTfR were performed. The iron status was determined using the Thomas plot. For this study, 103 pregnant women were recruited. According to the Thomas plot, 72.8% of the participants had normal iron stores and erythropoiesis. Iron-deficient erythropoiesis was detected in 12.6%. A third of participants were anaemic. Serum ferritin showed excellent sensitivity but poor specificity for detecting depleted iron stores. HIV status had no influence on the iron status of the participants. Our findings reiterate that causes other than iron deficiency should be considered in anaemic individuals. When compared with the Thomas plot, a low serum ferritin is a sensitive but nonspecific indicator of iron deficiency."

According to the news editors, the research concluded: "The Thomas plot may provide useful information to identify pregnant individuals in whom haematologic parameters indicate limited iron availability for erythropoiesis."


Our news journalists report that additional information may be obtained by contacting R. Weyers, Dept. of Haematology and Cell Biology, Faculty of Health Sciences, University of the Free State and National Health Laboratory Service (NHLS), Bloemfontein, South Africa. Additional authors for this research include M.J. Coetzee and M. Nel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12448. This DOI is a link to an online electronic document that is either free or for purchase.
Publisher contact information for the International Journal of Laboratory Hematology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Ferritins, Hematology, Bloemfontein, South Africa, Erythropoiesis, Iron Deficiency, Carrier Proteins, Iron Binding Proteins, Diagnostics and Screening, Nutritional and Metabolic Diseases and Conditions.

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New Iron-Binding Proteins Study Findings Recently Were Reported by Researchers at University of Pennsylvania (Vascular Accessibility of Endothelial Targeted Ferritin Nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Carrier Proteins - Iron-Binding Proteins are presented in a new report. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "Targeting nanocarriers to the endothelium, using affinity ligands to cell adhesion molecules such as ICAM-1 and PECAM-1, holds promise to improve the pharmacotherapy of many disease conditions. This approach capitalizes on the observation that antibody-targeted carriers of 100 nm and above accumulate in the pulmonary vasculature more effectively than free antibodies."

Financial support for this research came from National Heart, Lung, and Blood Institute.

Our news journalists obtained a quote from the research from the University of Pennsylvania, "Targeting of prospective nanocarriers in the 10-50 nm range, however, has not been studied. To address this intriguing issue, we conjugated monoclonal antibodies (Ab) to ICAM-1 and PECAM-1 or their single chain antigen-binding fragments (scFv) to ferritin nanoparticles (FNPs, size 12 nm), thereby producing Ab/FNPs and scFv/FNPs. Targeted FNPs retained their typical symmetric core-shell structure with sizes of 20-25 nm and ∼4-5 Ab (or ∼7-9 scFv) per particle. Ab/FNPs and scFv/FNPs, but not control IgG/FNPs, bound specifically to cells expressing target molecules and accumulated in the lungs after intravenous injection, with pulmonary targeting an order of magnitude higher than free Ab. Most intriguing, the targeting of Ab/FNPs to ICAM-1, but not PECAM-1, surpassed that of larger Ab/carriers targeted by the same ligand."

According to the news editors, the research concluded: "These results indicate that (i) FNPs may provide a platform for targeting endothelial adhesion molecules with carriers in the 20 nm size range, which has not been previously reported; and (ii) ICAM-1 and PECAM-1 (known to localize in different domains of endothelial plasmalemma) differ in their accessibility to circulating objects of this size, common for blood components and nanocarriers."


Our news journalists report that additional information may be obtained by contacting E. Arguiri, Division of Pulmonary, Allergy and Critical Care Medicine, Dept. of Medicine, University of Pennsylvania, Hospital of the University of Pennsylvania, 835W Gates Building, 3600 Spruce Street, Philadelphia, Pennsylvania 19104, United States. Additional
New Iron-Deficiency Anemia Findings from Pamukkale University Reported (Response to parenteral iron therapy distinguish unexplained refractory iron deficiency anemia from iron-refractory iron deficiency anemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Iron-Deficiency Anemia have been published. According to news originating from Denizli, Turkey, by NewsRx correspondents, research stated, "We evaluated that response to parenteral iron therapy could be helpful in distinguishing the types of iron deficiency anemia. This study analyzed responses to IV iron sucrose therapy of 15 children with unexplained refractory iron deficiency anemia (URIDA)."

Our news journalists obtained a quote from the research from Pamukkale University, "We compared the results at diagnosis, 6 weeks and 6 months after the therapy. Results were compared with responses of 11 patients' results with iron-refractory iron deficiency anemia (IRIDA) from our previous study. Six weeks after the start of treatment, ferritin, MCV, MCH and Hb values were in normal range in 10 patients. The increase in Hb, MCH, MCV, and ferritin values ranged 2.6-3.5 g/dL, 1.7-4.2 pg, 2-9 fL, and 13-25 ng/mL, respectively. In five patients, Hb, MCH, and MCV mean (range) values [11.2 g/dL (11-12.2), 24.5 pg (24-25.6), and 67 fL (65-70)] were nearly normal but ferritin mean (range) values [9.8 ng/mL (8-11)] were below normal. Six weeks after the start of treatment, Hb, MCH, MCV and ferritin values of patients with IRIDA were increased. The increase in Hb, MCH, MCV, and ferritin values ranged 0.8-2.7 g/dL, 1.7-4.2 pg, 2-9 fL, and 13-25 ng/mL, respectively. IRIDA is only partially responsive to parenteral iron supplementation."

According to the news editors, the research concluded: "This study demonstrated that the response to intravenous iron therapy for the URIDA cases improved blood parameters more effectively than hereditary IRIDA. Response to parenteral iron therapy would be helpful to distinguish unexplained refractory IDA from hereditary IRIDA for clinicians who do not have access to hepcidin or TMPRS6 mutation analysis."

For more information on this research see: Response to parenteral iron therapy distinguish unexplained refractory iron deficiency anemia from iron-refractory iron deficiency anemia. International Journal of Laboratory Hematology, 2016;38(2):167-71. International Journal of Laboratory Hematology can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA. (Wiley-Blackwell - www.wiley.com; International Journal of
The news correspondents report that additional information may be obtained from M. Akin, Dept. of Pediatric Hematology, Pamukkale University, Denizli, Turkey. Additional authors for this research include H. Sarbay, S. Guler, Y.I. Balci and A. Polat.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12462. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the International Journal of Laboratory Hematology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Turkey, Denizli, Eurasia, Therapy, Genetics, Ferritins, Carrier Proteins, Iron Binding Proteins, Iron Deficiency Anemia, Iron-Deficiency Anemia, Hematologic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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Ischemia

New Ischemia Findings from Royal Melbourne Institute of Technology University Reported (Highly Sensitive Detection of Minimal Cardiac Ischemia using Positron Emission Tomography Imaging of Activated Platelets)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Ischemia. According to news reporting originating from Melbourne, Australia, by NewsRx correspondents, research stated, "A reliable method for the diagnosis of minimal cardiac ischemia would meet a strong demand for the sensitive diagnosis of coronary artery disease in cardiac stress testing and risk stratification in patients with chest pain but unremarkable ECGs and biomarkers. We hypothesized that platelets accumulate early on in ischemic myocardium and a newly developed technology of non-invasive molecular PET imaging of activated platelets can thus detect minimal degrees of myocardial ischemia."

Our news editors obtained a quote from the research from the Royal Melbourne Institute of Technology University, "To induce different degrees of minimal cardiac ischemia, the left anterior descending artery (LAD) was ligated for 10, 20 or 60 min. Mice were injected with a newly generated scFv(anti-GPIIb/IIIa)-(64)CuMeCOSar radiotracer, composed of a single-chain antibody that only binds to activated integrin GPIIb/IIIa (alpha(IIb)beta(III)) and thus to activated platelets, and a sarcophagine cage MeCOSar complexing the long half-life PET tracer copper-64. A single PET/CT scan was performed. Evans Blue/TTC staining to detect necrosis as well as classical serological biomarkers like Troponin I and heart-type fatty acid-binding protein (H-FABP) were negative, whereas PET imaging of activated platelets was able to detect small degrees of ischemia."

According to the news editors, the research concluded: "Taken together, molecular PET imaging of activated platelets represents a unique and highly sensitive method to detect minimal cardiac ischemia."

For more information on this research see: Highly Sensitive Detection of Minimal Cardiac Ischemia using Positron Emission Tomography Imaging of Activated Platelets.
Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting K. Peter, RMIT Univ, Melbourne, Vic, Australia. Additional authors for this research include K. Alt, B.M. Paterson, P. Kanellakis, A. Bobik, P.S. Donnelly, C.E. Hagemeyer and K. Peter.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Angiology, Diagnostics and Screening, Cardiology, Ischemia, Royal Melbourne Institute of Technology University.

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Ischemia

New Ischemia Study Findings Have Been Reported by Investigators at Kyushu University (Protective Effects of Imatinib on Ischemia/Reperfusion Injury in Rat Lung)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Ischemia are discussed in a new report. According to news reporting originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "Ischemia/reperfusion injury (IRI) remains a significant complication after lung transplantation. Endothelial damage and inflammation contribute to its development."

Our news editors obtained a quote from the research from Kyushu University, "Imatinib has been reported to regulate vascular permeability by maintaining endothelial junctions and showing antiinflammatory effects through inhibition of the Abl kinases. We hypothesized that imatinib could have a protective effect against IRI. Male Lewis rats were heparinized and underwent left thoracotomy, and the left hilum was clamped for 90 minutes followed by reperfusion for 120 minutes. Imatinib mesylate (50 mg/kg) and a solvent were administered intraperitoneally 20 minutes before ischemia in the imatinib group and the vehicle group, respectively (n = 7 in each group). After reperfusion, lung function, lung wet to dry weight (W/D) ratio, and histologic findings were obtained. The expression of vascular endothelial cadherin (VEC), the phosphorylation level of CrkL (pCrkL) (an exclusive target of Abl kinases), and the cytokine level were evaluated using lung tissue lysate. The imatinib concentrations of plasma and lungs after reperfusion were measured in this hilar clamp model (n = 7). In the imatinib group, lung function was improved with a lower W/D ratio. Perivascular edema and neutrophil infiltration were ameliorated. The imatinib group demonstrated maintained expression of VEC, inhibition of pCrkL, and a significantly higher level of interleukin (IL)-10. The imatinib concentration in both lungs showed a strong correlation with plasma concentration. In a rat IRI model, imatinib attenuated lung injury by an antipermeability and antiinflammatory effect."

According to the news editors, the research concluded: "The delivery and function of imatinib in the lung was also confirmed in this model."

www.journals.elsevier.com/annals-of-thoracic-surgery/)

The news editors report that additional information may be obtained by contacting S. Tanaka, Kyushu University, Fac Med Sci, Dept. of Res & Dev Next Generat Med, Fukuoka, Japan. Additional authors for this research include T.F. Chen-Yoshikawa, M. Kajiwara, T. Menju, K. Ohata, M. Takahashi, T. Kondo, K. Hijiya, H. Motoyama, A. Aoyama, S. Masuda and H. Date.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.05.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fukuoka, Japan, Asia, Cardiovascular Diseases and Conditions, Ischemia-Reperfusion Injury, Transfusion Medicine, Blood Transfusion, Medical Devices, Kyushu University.

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Ischemia

New Ischemia Study Findings Have Been Reported by Investigators at University Medical Center, Hamburg Eppendorf (Lymphocyte-specific deletion of IKK2 or NEMO mediates an increase in intrarenal Th17 cells and accelerates renal damage in an ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Ischemia. According to news reporting out of Hamburg, Germany, by NewsRx editors, research stated, "Acute kidney injury (AKI) is associated with poor patient outcome and a global burden for end-stage renal disease. Ischemia-reperfusion injury (IRI) is one of the major causes of AKI, and experimental work has revealed many details of the inflammatory response in the kidney, such as activation of the NF-kappa B pathway."

Our news journalists obtained a quote from the research from University Medical Center, Hamburg Eppendorf, "Here, we investigated whether deletion of the NF-kappa B kinases IKK2 or NEMO in lymphocytes or systemic inhibition of IKK2 would cause different kidney inflammatory responses after IRI induction. Serum creatinine, blood urea nitrogen (BUN) level, and renal tubular injury score were significantly increased in CD4(cre)IKK2(f/f) (CD4xIKK2(Delta)) and CD4(cre)NEMO(f/f) (CD4xNEMO(Delta)) mice compared with CD4cre mice after IRI induction. The frequency of Th17 cells infiltrating the kidneys of CD4xIKK2(Delta) or CD4xNEMO(Delta) mice was also significantly increased at all time points. CCL20, an important chemokine in Th17 cell recruitment, was significantly increased at early time points after the induction of IRI. IL-1 beta, TNF-alpha, and CCL2 were also significantly increased in different patterns. A specific IKK2 inhibitor, KINK-1, reduced BUN and serum creatinine compared with nontreated mice after IRI induction, but the frequency of kidney Th17 cells was also significantly increased."

According to the news editors, the research concluded: "Although systemic IKK2 inhibition improved kidney function, lymphocyte-specific deletion of IKK2 or NEMO aggravated kidney injury after IRI, and, in both conditions, the percentage of Th17 cells was increased. Our findings demonstrate the critical role of the NF-kappa B pathway in Th17 activation, which advises caution when using systemic IKK2 inhibitors in patients with kidney
injury, since they might impair the T cell response and aggravate renal disease."

For more information on this research see: Lymphocyte-specific deletion of IKK2 or NEMO mediates an increase in intrarenal Th17 cells and accelerates renal damage in an ischemia-reperfusion injury mouse model. *American Journal of Physiology-Renal Physiology*, 2016;311(5):F1005-F1014. *American Journal of Physiology-Renal Physiology* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting F. Thaiss, Univ Klinikum Hamburg Eppendorf, Medical Klin 3, D-20246 Hamburg, Germany. Additional authors for this research include H.H. Lee, M.D. Noriega, H.J. Paust, G. Zahner and F. Thaiss.

Keywords for this news article include: Hamburg, Germany, Europe, Cardiovascular Diseases and Conditions, Ischemia-Reperfusion Injury, Hemic and Immune Systems, Mononuclear Leukocytes, Transcription Factors, DNA-Binding Proteins, Transfusion Medicine, Blood Transfusion, Nuclear Proteins, Medical Devices, Renal Disease, Blood Cells, Lymphocytes, NF-kappa B, Nephrology, Immunology, Kidney, University Medical Center, Hamburg Eppendorf.

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**Oncology - Kidney Cancer**

**New Kidney Cancer Data Have Been Reported by Investigators at Cancer Hospital (Newly-presented potential targeted drugs in the treatment of renal cell cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Kidney Cancer. According to news reporting out of Nanchang, People's Republic of China, by NewsRx editors, research stated, "Renal cell carcinoma (RCC) is the most frequent form of renal cancer, and is associated with a high frequency of metastasis. While, there is few therapeutic methods can substantially prolong survival."

Our news journalists obtained a quote from the research from Cancer Hospital, "Superior to cytokine therapy with IL-2 and/or IFN-alpha, several newer targeted treatments are available for the treatment of patients with advanced conventional (clear cell) renal cell carcinoma (RCC), which received improved outcomes. These newer targeted treatments include the multi-targeted tyrosine kinase inhibitors (TKIs, sorafenib, sunitinib, pazopanib, and axitinib), the humanised antivascular endothelial growth factor (VEGF) monoclonal antibody [bevacizumab combined with interferon (IFN)-alpha], and mTOR (mammalian target of rapamycin) complex 1 kinase inhibitors (everolimus and temsirolimus). However, these targeted drugs are still associated with limited efficacy and high toxicity, so there is still a strong need for further discovery of new targeted drugs."

According to the news editors, the research concluded: "In the present manuscript, we summarize newly-presented potential targeted drugs for RCC, classified by drug characteristic, small molecule, small molecule combination, monoclonal antibody, polysaccharides, organometals and peptides."

For more information on this research see: Newly-presented potential targeted drugs in the treatment of renal cell cancer. *Open Life Sciences*, 2016;11(1):122-129. *Open Life*
New Kidney Transplants Data Have Been Reported by A.S. Benjumea and Co-Authors (Hepatitis C Virus in Kidney Transplant Recipients: A Problem on the Path to Eradication)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Kidney Transplants is now available. According to news reporting from Seville, Spain, by NewsRx journalists, research stated, "Hepatitis C virus (HCV) still has significant prevalence in kidney transplant (KT) recipients and is related to poor recipient and graft survival. New direct-acting antivirals (DAA) are leading to a radical change in the problem."

The news correspondents obtained a quote from the research, "We studied HCV prevalence at the time of transplantation and in follow-up patients, the way cases are handled, and the results of DAA. A total of 2,001 KT had been performed in our center since 1978. Pre- or post-transplantation HCV serology was present in 1,880 cases and was positive in 13.4%. A total of 1,195 transplant recipients were still being monitored by us, with only 60 (5%) HCV+ and 45 (3.6%) RNA+ cases. Of these 45 HCV+/RNA+, 25 had been or were being treated, 7 were about to begin treatment, 1 was awaiting new DAA treatment owing to low glomerular filtration rate (GFR), 3 were being evaluated, 2 had been excluded owing to high comorbidity, 2 refused to be treated, 2 needed to return to hemodialysis, and 1 was lost to follow-up. Except 1 case where Viekira Pak was used because of low GFR, all cases included sofosbuvir as the main drug associated with either ledipasvir (70%) or daclatasvir (25%). Ribavirin was added as coadjuvant in 35% of cases. Twenty-one patients had completed treatment (84%). Two patients had to interrupt DAA therapy (8%), one because of hepatotoxicity and the other as a result of a liver transplantation. In every case, the graft maintained function and negativization of viral replication occurred. Side effects have been low, anemia related to ribavirin being the main one. Just one case needed to be interrupted at the 7th week of DAA therapy due to hepatotoxicity."

According to the news reporters, the research concluded: "It has frequently been necessary to adjust immunosuppression treatment with the use of higher doses of tacrolimus."

New Kidney Transplants Findings Has Been Reported by E. Luna et al

[Effect of Cytomegalovirus Infection on Survival of Older Kidney Transplant Patients (D plus /R plus ): Impact of Valganciclovir Prophylaxis Versus Preemptive Therapy]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Kidney Transplants have been published. According to news reporting originating in Badajoz, Spain, by NewsRx journalists, research stated, "Kidney transplant patients with D+/R+ serology can be treated with either prophylaxis or preemptive valganciclovir. The older transplant population suffers severe immunosenescence, especially patients with latent cytomegalovirus (CMV) infection (R+)."

The news reporters obtained a quote from the research, "They are more likely to develop indirect CMV effects. Likewise, many patients have significant cardiovascular comorbidity, which makes them more sensitive to these indirect effects. The aim of this study was to evaluate the incidence of CMV viremia and indirect effects on survival, comparing prophylaxis (V) against preemptive (P) valganciclovir in an older kidney transplant population. We analyzed the data of 233 recipients from 2002 (age, >55 years; D+/R+) with >= 6 months of follow-up. The patients were divided into 2 groups: 167 (71.7%) in the V group and 66 (28.3%) in the P group. The incidence of CMV infection in the P group was 32% versus 6% in V group. Patients with CMV viremia showed worse survival values than patients without viremia (log rank P = .031). Five-year survivals were 74% vs 88%, respectively. Cox regression showed that the adjusted effect of CMV infection on overall survival was a significant risk (hazard ratio [HR], 2.07; 95% CI, 1.003-4.29). Patients with CMV viremia showed worse cardiovascular survival than patients without viremia, with 5-year survivals of 79% vs 94%. Cox regression showed that the adjusted effect of CMV infection was a significant risk (HR, 2.62). CMV infection has a detrimental effect on the survival of older patients."

According to the news reporters, the research concluded: "Valganciclovir prophylaxis induces a protective effect against CMV infection and could improve survival of older patients with cardiovascular comorbidities."

Our news correspondents report that additional information may be obtained by contacting E. Luna, Infanta Cristina Hosp, Nephrol & Kidney Transplantat Department, Badajoz 06011, Spain. Additional authors for this research include F. Caravaca, F. Ferreira, N. Fernandez, P. Martin, M.L. Vargas, M.L. Vargas, J.S. de Santamaria, G.G. Pino, L. Azevedo and A.M. Sanz.

Keywords for this news article include: Badajoz, Spain, Europe, Herpesvirus Diseases and Conditions, Virus Diseases and Conditions, Transplant Medicine, Kidney Transplants, Betaherpesvirinae, Organ Transplants, Cytomegalovirus, Transplantation, Cardiovascular, Herpesviridae, DNA Viruses, Biomedicine, Cardiology, Virology, Therapy, Viremia, Surgery, Viral.

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**Transplant Medicine - Kidney Transplants**

**New Kidney Transplants Findings Has Been Reported by Investigators at Yonsei University (Low-dose mycophenolate mofetil in tablet form or capsule form combined with tacrolimus in the early period after kidney transplantation: a prospective ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Kidney Transplants is now available. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "The tablet form (500 mg) of mycophenolate mofetil (MMF) provides more convenience of taking drugs and cost-effectiveness than the capsule form (250 mg). We examined the efficacy and safety of MMF in its different forms combined with tacrolimus in kidney transplant recipients."

Our news journalists obtained a quote from the research from Yonsei University, "This multicenter, 26-week, randomized trial was performed to compare the efficacy and safety of the tablet form of MMF versus the capsule form of MMF in 156 kidney transplant recipients. Allograft function, the incidence of efficacy failure (biopsy-proven acute rejection (BPAR), death, graft loss, or loss to follow-up), and adverse events were compared. The mean dose (mg/day) of MMF at 26 weeks was comparable: 1,052.6 +/- 194.2 in the tablet group vs. 1,155.6 +/- 298.1 in the capsule group (p = 0.063). Trough levels of tacrolimus at 26 weeks were comparable. The mean estimated glomerular filtration rate of the tablet group at 26 weeks post-transplant was not inferior to that of the capsule group. The incidence of efficacy failure was similar in the two groups: tablet group, 5.2% and capsule group, 7.7% (difference -2.5%; 95% confidence interval -5.22 - 10.21%). The incidence of BPAR until 26 weeks post-transplant in the tablet group was 3.9%, compared to 7.7% in the capsule group (p = 0.346). There was no significant difference in the incidence of discontinuations and serious adverse events between the groups."
According to the news editors, the research concluded: "Low-dose MMF in tablet form combined with tacrolimus can be considered as an efficacious and safe immunosuppressive regimen in the early period after kidney transplantation."

For more information on this research see: Low-dose mycophenolate mofetil in tablet form or capsule form combined with tacrolimus in the early period after kidney transplantation: a prospective randomized trial. *Clinical Nephrology*, 2016;86(6):319-327. *Clinical Nephrology* can be contacted at: Dustri-Verlag Dr Karl Feistle, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.


Keywords for this news article include: Seoul, South Korea, Asia, Mycophenolate Mofetil Therapy, Clinical Trials and Studies, Immunosuppressive Agents, Drugs and Therapies, Transplant Medicine, Tacrolimus Therapy, Kidney Transplants, Clinical Research, Organ Transplants, Pharmaceuticals, Transplantation, Biomedicine, Macrolides, Surgery, Yonsei University.

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**Transplant Medicine - Kidney Transplants**

**New Kidney Transplants Findings Reported from Roma Tor Vergata University (Everolimus and Advagraf Ab Initio in Combined Liver and Kidney Transplant With Donor-Specific Antibodies: A Case Report)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Kidney Transplants have been published. According to news reporting out of Rome, Italy, by NewsRx editors, research stated, "Although donor-specific antibodies are regarded as a contraindication for kidney transplantation, the data available for combined liver and kidney transplantation (cLKTx) are scarce, and there is no established therapeutic approach for this category of transplant recipients. De novo use of everolimus and a reduced dose of calcineurin inhibitor reportedly provides excellent kidney function compared with a standard regimen containing a calcineurin inhibitor."

Our news journalists obtained a quote from the research from Roma Tor Vergata University, "This strategy, however, has been applied in only some recipient categories. Here we report a case of a highly sensitized male patient who underwent a cLKTx and received everolimus with low-dose tacrolimus (once-daily prolonged-release formulation) as ab initio immunosuppressive treatment. The pretransplant panel-reactive antibody estimate was 97%, and multiple anti-HLA antibodies were detected at the time of transplantation."

According to the news editors, the research concluded: "Thus far, patient and allograft survival have reached 2 years, with the recipient remaining on a regimen of immunosuppression with everolimus and low-dose tacrolimus, with no episodes of rejection."

Our news journalists report that additional information may be obtained by contacting L. Tariciotti, Roma Tor Vergata University, Policlinico Tor Vergata, Liver & Kidney Transplant Center, Rome, Italy. Additional authors for this research include T.M. Manzia, D. Sforza, A. Anselmo and G. Tisone.

Keywords for this news article include: Rome, Italy, Europe, Tyrosine Kinase Inhibitors, Immunosuppressive Agents, MTOR Kinase Inhibitors, Drugs and Therapies, Transplant Medicine, Kidney Transplants, Organ Transplants, Immunoglobulins, Antineoplastics, MTOR Inhibitors, Transplantation, Blood Proteins, Biomedicine, Immunology, Antibodies, Everolimus, Surgery, Roma Tor Vergata University.

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Transplant Medicine - Kidney Transplants

New Kidney Transplants Findings from Institute for Cancer Research and Treatment (IRCCS) Described (Mesenchymal stromal cells in renal transplantation: opportunities and challenges)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Transplant Medicine - Kidney Transplants is the subject of a report. According to news reporting originating from Bergamo, Italy, by NewsRx correspondents, research stated, "Lifelong immunosuppressive therapy is essential to prevent allograft rejection in transplant recipients. Long-term, nonspecific immunosuppression can, however, result in life-threatening complications and fail to prevent chronic graft rejection."

Our news editors obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Bone marrow (BM)-derived multipotent mesenchymal stromal cells (MSCs) have emerged as a potential candidate for cell-based therapy to modulate the immune response in organ transplantation. These cells can repair tissue after injury and downregulate many of the effector functions of immune cells that participate in the alloimmune response, converting them into regulatory cells. The findings of preclinical and initial clinical studies support the potential tolerance-inducing effects of MSCs and highlight the unanticipated complexity of MSC therapy in kidney transplantation. In animal models of transplantation MSCs promote donor-specific tolerance through the generation of regulatory T cells and antigen-presenting cells. In some settings, however, MSCs can acquire proinflammatory properties and contribute to allograft dysfunction. The available data from small clinical studies suggest that cell infusion is safe and well tolerated by kidney transplant recipients. Ongoing and future trials will provide evidence regarding the long-term safety of MSC therapy and determine the optimum cell source (either autologous or allogeneic) and infusion protocol to achieve operational tolerance in kidney transplant recipients."

According to the news editors, the research concluded: "These studies will also provide additional evidence regarding the risks and benefits of MSC infusion and will hopefully offer definitive answers to the important questions of when, where, how many and which types of MSCs should be infused to fully exploit their immunomodulatory, pro-tolerogenic and tissue-repairing properties."

For more information on this research see: Mesenchymal stromal cells in renal

The news editors report that additional information may be obtained by contacting F. Casiraghi, IRCCS - Istituto di Ricerche Farmacologiche Mario Negri, Transplant Research Center Chiara Cucchi de Alessandri e Gilberto Crespi, Via GB Camozzi 3, 24020 Ranica, Bergamo, Italy. Additional authors for this research include N. Perico, M. Cortinovis and G. Remuzzi.

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Keywords for this news article include: Biomedicine, Pharmaceuticals, Italy, Europe, Bergamo, Surgery, Therapy, Nephrology, Stromal Cells, Article Review, Transplantation, Organ Transplants, Kidney Transplants, Transplant Medicine, Connective Tissue Cells.

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Transplant Medicine - Kidney Transplants

**New Kidney Transplants Study Findings Have Been Reported by Investigators at Department of Nephrology (Hepatitis C Treatment With Direct-Acting Antivirals in Kidney Transplant: Preliminary Results From a Multicenter Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Transplant Medicine - Kidney Transplants. According to news reporting from Seville, Spain, by NewsRx journalists, research stated, "Hepatitis C (HC) is a very relevant negative prognosis factor for graft and transplant recipient survival. New direct-acting antivirals (DAAs) allow us to solve this problem in an effective way."

The news correspondents obtained a quote from the research from the Department of Nephrology, "It is crucial to understand their real impact in our daily practice. We analyzed treatment results with DAA, free of interferon, in kidney transplant recipients (KTRs) from 15 Spanish hospitals (Grupo Espanol de Actualizacion en Trasplante), regarding effectiveness, tolerance, and impact on immunosuppression, renal function-proteinuria, and diabetes. One hundred nineteen KTRs were included (9 combined liver-kidney transplants). The main DAA used was sofosbuvir (91%) combined with ledipasvir (55%), simeprevir (14%), or daclatasvir (13%); in 9 cases (7%), a paritaprevir-ritonavir-ombitasvir-dasabuvir combination (3D) was used; Ribavirin was used as a coadjuvant in 18%. Side effects were limited (23.5%) and without relevance in general, except in 7 patients for whom we needed to interrupt the treatment due to neurotoxicity (1) caused by drug interaction (3D and tacrolimus) or anemia (3) by Ribavirin or others. Ninety-four patients had completed the treatment when data were analyzed: virological response was seen in 97.8% % of cases. Liver function analysis improved: 84% normal versus 21% before starting the treatment (P < .001). Renal function and proteinuria did not change. Tacrolimus level at the end of DAA-treatment was significantly lower with respect to the beginning (5.8 +/- 2.1 ng/mL vs. 7.4 +/- 1.8 ng/mL, P = .03), despite a slight increase in the dose (2.6 mg/d vs. 2.3 mg/d, P = .17). DAA are highly effective in the treatment of hepatitis C in
KTRs with good tolerance in general, making it possible to solve the problem and have a good chance to improve the prognosis in our transplantation patients."

According to the news reporters, the research concluded: "The use of these therapies in KTRs requires special control and coordination with digestive professionals, especially if 3D or Ribavirin is used."


Our news journalists report that additional information may be obtained by contacting C. Gonzalez-Corvillo, Hosp Virgen Del Rocío, Dept. of Nephrol, Seville, Spain. Additional authors for this research include C. Gonzalez-Corvillo, M. Perello, S. Zarraga, C. Jimenez-Martín, L.R. Lauzurica, A. Alonso, A. Franco, D. Hernandez-Marrero and A. Sanchez-Fructuoso.

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Keywords for this news article include: Seville, Spain, Europe, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Respiratory Inhalant Products, Liver Diseases and Conditions, Inhaled Antinfectives, Drugs and Therapies, Transplant Medicine, Respiratory Agents, Purine Nucleosides, Kidney Transplants, Influenza Therapy, Organ Transplants, Gastroenterology, Kidney Function, Antiretrovirals, Transplantation, Renal Function, Biomedicine, Nephrology, Antivirals, Ribavirin, Hepatitis, Surgery, Department of Nephrology.

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PTLD in transplant patients should also be kept in mind."


The news correspondents report that additional information may be obtained from N. Seyahi, Istanbul University, Cerrahpasa Med Fac, Div Nephrol, Dept. of Internal Med, Istanbul, Turkey. Additional authors for this research include S.F. Yalin, S. Gulcicek, N. Ozgur, M.R. Altiparmak and N. Seyahi.

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Keywords for this news article include: Istanbul, Turkey, Eurasia, Hemic and Lymphatic Diseases and Conditions, Immune System Diseases and Conditions, Lymphoproliferative Disorders, Transplant Medicine, Kidney Transplants, Organ Transplants, Renal Transplant, Transplantation, Renal Allograft, Biomedicine, Nephrology, Surgery, Istanbul University.

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**Transplant Medicine - Kidney Transplants**

**New Kidney Transplants Study Results from University Medical Center Described (A high intrapatient variability in tacrolimus exposure is associated with poor long-term outcome of kidney transplantation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Transplant Medicine - Kidney Transplants are discussed in a new report. According to news originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "Tacrolimus is a critical dose drug with a considerable intrapatient variability (IPV) in its pharmacokinetics. We investigated whether a high IPV in tacrolimus exposure is associated with adverse long-term renal transplantation outcomes."

Financial support for this research came from Chiesi Farmaceutici.

Our news journalists obtained a quote from the research from University Medical Center, "Tacrolimus IPV was calculated from predose concentrations measured between 6 and 12 months post-transplantation of 808 renal transplant recipients (RTRs) transplanted between 2000 and 2010. One hundred and eighty-eight (23.3%) patients reached the composite end point consisting of graft loss, late biopsy-proven rejection, transplant glomerulopathy, or doubling of serum creatinine concentration between month 12 and the last follow-up. The cumulative incidence of the composite end point was significantly higher in patients with high IPV than in patients with low IPV (hazard ratio: 1.41, 95% CI: 1.06-1.89; P = 0.019). After the adjustment for several factors, the higher incidence of the composite end point for RTRs with a high IPV remained statistically significant (hazard ratio: 1.42, 95% CI: 1.06-1.90; P = 0.019). Younger recipient age at transplantation, previous transplantation, worse graft function (at month 6 post-transplantation), and low mean tacrolimus concentration at 1 year post-transplantation were additional predictors for worse long-term transplant outcome."

According to the news editors, the research concluded: "A high tacrolimus IPV is an
independent risk factor for adverse kidney transplant outcomes that can be used as an easy monitoring tool to help identify high-risk RTRs."


The news correspondents report that additional information may be obtained from N. Shuker, University Medical Center, Dept. of Hosp Pharm, Erasmus MC, Rotterdam, Netherlands. Additional authors for this research include L. Shuker, J. van Rosmalen, J.I. Roodnat, L.C.P. Borra, W. Weimar, D.A. Hesselink and T. van Gelder.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tri.12798. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Tacrolimus, Risk and Prevention, Immunosuppressive Agents, Drugs and Therapies, Transplant Medicine, Tacrolimus Therapy, Kidney Transplants, Organ Transplants, Pharmaceuticals, Transplantation, Biomedicine, Macrolides, University Medical Center.

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Gram-Negative Bacteria - Klebsiella

New Klebsiella Data Have Been Reported by Investigators at Federal University (Outbreaks of colistin-resistant and colistin-susceptible KPC-producing Klebsiella pneumoniae in a Brazilian intensive care unit)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Klebsiella have been published. According to news reporting originating in Uberlandia, Brazil, by NewsRx journalists, research stated, "Carbapenem-resistant Enterobacteriaceae (CRE), especially those that produce Klebsiella pneumoniae carbapenemase (KPC) and are associated with colistin resistance, pose a severe health threat due to the limited treatment options. To describe two outbreaks of KPC-producing K. pneumoniae in an adult intensive care unit (AICU) in Brazil."

The news reporters obtained a quote from the research from Federal University. "In May 2015, 14 patients had colistin-susceptible KPC-producing strains (ColS-KPC), and in July 2015, nine patients had colistin-resistant KPC-producing strains (ColR-KPC). Between September 2014 and August 2015, we performed surveillance at a university hospital and all CRE were tested for blaKPC genes. Clonality was investigated by pulsed-field gel electrophoresis. Resistance to colistin was confirmed by broth microdilution method. Consumption of carbapenems and colistin was expressed as defined daily doses. In all, 111 patients with CRE were identified during the surveillance period; K. pneumoniae was the major isolate (77.13%). The two outbreaks were identified when infection rates (KPC per 1000 patient-days) exceeded the background level. Rates of carbapenem and colistin consumption were high. Control measures (bedside alcohol gel, contact precautions, regular rectal swabs) did not curtail the outbreaks. Mortality rates were 42.9% and 44.4% for ColS-KPC- and ColR-KPC-
infected patients, respectively. After the death of four infected patients with CoIR-KPC, the unit was closed to new admissions. Our experience demonstrates the serious risks presented by KPC, and especially CoIR-KPC, in Brazilian AICUs."

According to the news reporters, the research concluded: "Selective pressure from excessive antibiotic use and transmission on healthcare workers' hands were likely the major factors in transmission."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jhin.2016.08.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uberlandia, Brazil, South America, Gram-Negative Facultatively Anaerobic Rods, Klebsiella pneumoniae, Epidemiology, Pore Forming Cytotoxic Proteins, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Membrane Proteins, Proteobacteria, Polymyxins, Genetics, Colistin, Federal University.

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Gram-Negative Bacteria - Klebsiella

New Klebsiella Study Findings Recently Were Reported by Researchers at Oswaldo Cruz Institute (mgrB Mutations Mediating Polymyxin B Resistance in Klebsiella pneumoniae Isolates from Rectal Surveillance Swabs in Brazil)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Gram-Negative Bacteria - Klebsiella is the subject of a report. According to news reporting originating in Rio de Janeiro, Brazil, by NewsRx journalists, research stated, "We aimed to investigate polymyxin B (PMB) resistance and its molecular mechanisms in 126 Klebsiella pneumoniae isolates from rectal swabs in Brazil."

Financial supporters for this research include MCTI | Conselho Nacional de Desenvolvimento Cientifico e Tecnologico (CNPq), PAPES/Oswaldo Cruz Institute (IOC-FIOCRUZ), Fundacao Carlos Chagas Filho de Amparo a Pesquisa do Estado do Rio de Janeiro (FAPERJ).

The news reporters obtained a quote from the research from Oswaldo Cruz Institute, "Ten isolates exhibited PMB resistance with interruption of mgrB gene by insertion sequences or missense mutations. Most of the PMB-resistant isolates harbored bla(KPC-2) (n = 8) and
belonged to clonal complex 258 (CC258) (n = 7)."

According to the news reporters, the research concluded: "These results highlight the importance of monitoring the spread of polymyxin-resistant bacteria in hospitals, since few options remain to treat multidrug-resistant isolates."

For more information on this research see: mgrB Mutations Mediating Polymyxin B Resistance in Klebsiella pneumoniae Isolates from Rectal Surveillance Swabs in Brazil. Antimicrobial Agents and Chemotherapy, 2016;60(11):6969-6972. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting M.D. Asensi, Fiocruz MS, Inst Oswaldo Cruz, Lab Pesquisa Infeccao Hosp LAPIH, Rio De Janeiro, Brazil. Additional authors for this research include P.S. Pereira, M.D. Asensi and A.P.D. Carvalho-Assef.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01456-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rio de Janeiro, Brazil, South America, Gram-Negative Facultatively Anaerobic Rods, Antimicrobial Cationic Peptides, Pore Forming Cytotoxic Proteins, Gram-Negative Bacteria, Klebsiella pneumoniae, Gammaproteobacteria, Enterobacteriaceae, Membrane Proteins, Cyclic Peptides, Proteobacteria, Polymyxin B, Polymyxins, Genetics, Oswaldo Cruz Institute.

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Oncology - Laryngeal Cancer

New Laryngeal Cancer Study Findings Have Been Reported by Investigators at University of California (Prognostic significance of p16 in squamous cell carcinoma of the larynx and hypopharynx)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Laryngeal Cancer have been presented. According to news reporting originating from Los Angeles, California, by NewsRx correspondents, research stated, "To evaluate the prognostic significance of p16 expression among patients with squamous cell carcinoma of the larynx (LSCC) and hypopharynx (HSCC). The medical records of all patients with locally advanced, non-metastatic LSCC/ HSCC were reviewed. p16(INK4A) (p16) protein expression was evaluated on pathological specimens by immunohistochemistry (IHC), and the Kaplan Meier method was used to estimate overall survival (OS) and locoregional control (LRC)."

Our news editors obtained a quote from the research from the University of California, "In select cases, p16 expression was correlated to high-risk and low-risk HPV genotypes using in situ hybridization (ISH). Thirty-one patients (23 LSCC; 8 HSCC) were identified. Seventeen (54.8%) patients were p16 negative; 14 (45.2%) were p16-positive. The primary treatment modality was radiation therapy for 22 (71.0%) patients and surgery for 9 (29.0%). Nineteen (61.3%) patients were evaluated for high-risk HPV and low-risk HPV genotypes by IHC, of whom 2 (10.5%) patients were positive for high-risk HPV and 1 (5.3%)
was positive for low-risk HPV. For high risk HPV, the positive predictive value (PPV), sensitivity, and specificity of p16 was 20.0%, 100%, and 52.9%. There was no significant difference in the 2-year actuarial rates of OS (91% vs. 64%, p = 0.34) or LRC (51% vs. 46%, p = 0.69) between the p16-positive and p-16 negative patients. In this small cohort of 31 LSCC and HSCC patients, p16 was not a significant predictive of either LRC or OS.

According to the news editors, the research concluded: "Furthermore, p16 was poorly correlated with HPV genotyping as identified by ISH."


The news editors report that additional information may be obtained by contacting A.M. Chen, University of California, David Geffen Sch Med, Dept. of Radiat Oncol, Los Angeles, CA 90024, United States. Additional authors for this research include P.C. Wang, R. Chin, M.S. John, E. Abemayor, S. Bhuta and A.M. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjoto.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Squamous Cell Carcinoma, Laryngeal Cancer, Carcinomas, Oncology, University of California.

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Heart Disorders and Diseases - Left Ventricular...  

New Left Ventricular Dysfunction Findings from Rovigo General Hospital Described (ECG parameters predict left ventricular conduction delay in patients with left ventricular dysfunction)  

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Left Ventricular Dysfunction have been published. According to news reporting originating from Rovigo, Italy, by NewsRx correspondents, research stated, "Estimating left ventricular electrical delay (Q-LV) from a 12-lead ECG may be important in evaluating cardiac resynchronization therapy (CRT). The purpose of this study was to assess the impact of Q-LV interval on ECG configuration."

Our news editors obtained a quote from the research from Rovigo General Hospital, "One hundred ninety-two consecutive patients undergoing CRT implantation were divided electrocardiographically into 3 groups: left bundle branch block (LBBB), right bundle branch block (RBBB), and nonspecific intraventricular conduction delay (IVCD). The IVCD group was further subdivided into 81 patients with left (L)-IVCD and 15 patients with right ®-IVCD (resembling RBBB, but without S wave in leads I and aVL). The Q-LV interval in the different groups and the relationship between ECG parameters and the maximum Q-LV interval were analyzed. Patients with LBBB presented a long Q-LV interval (147.7 +/- 14.6 ms, all exceeding cutoff value of 110 ms), whereas RBBB patients presented a very short Q-LV interval (75.2 +/-
Patients with an IVCD displayed a wide range of Q-LV intervals. In L-IVCD, mid-QRS notching/slurring showed the strongest correlation with a longer Q-LV interval, followed, in decreasing order, by QRS duration >150 ms and intrinsicoid deflection >60 ms. Isolated mid-QRS notching/slurring predicted Q-LV interval >110 ms in 68% of patients. The R-IVCD group presented an unexpectedly longer Q-LV interval (127.0 +/- 12.5 ms; 13/15 patients had Q-LV >110 ms). Patients with LBBB have a very prolonged Q-LV interval. Mid-QRS notching in lateral leads strongly predicts a longer Q-LV interval in L-IVCD patients.

According to the news editors, the research concluded: "Patients with R-IVCD constitute a subgroup of patients with a long Q-LV interval."

For more information on this research see: ECG parameters predict left ventricular conduction delay in patients with left ventricular dysfunction. *Heart Rhythm*, 2016;13 (12):2289-2296. *Heart Rhythm* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Heart Rhythm - www.journals.elsevier.com/heart-rhythm/)

The news editors report that additional information may be obtained by contacting G. Pastore, Rovigo Gen Hosp, Dept. of Cardiol, Rovigo, Italy. Additional authors for this research include M. Maines, L. Marcantoni, F. Zanon, F. Noventa, G. Corbucci, E. Baracca, S. Aggio, C. Picariello, D. Lanza, G. Rigatelli, M. Carraro, L. Roncon and S.S. Barold.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.07.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rovigo, Italy, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Left Ventricular Dysfunction, Bundle-Branch Block, Heart Disease, Heart Block, Cardiology, Rovigo General Hospital.

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**Leiomyosarcomas**

**Leiomyosarcomas Findings from University of Texas Discussed**

(Survival of patients with metastatic leiomyosarcoma: the MD Anderson Clinical Center for targeted therapy experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Leiomyosarcomas. According to news reporting originating in Houston, Texas, by Newsrx journalists, research stated, "Advanced stage leiomyosarcoma (LMS) is incurable with current systemic antitumor therapies. Therefore, there is clinical interest in exploring novel therapeutic regimens to treat LMS."

Financial support for this research came from National Natural Science Foundation of China.

The news reporters obtained a quote from the research from the University of Texas, "We reviewed the medical records of 75 consecutive patients with histologically confirmed metastatic LMS, who had been referred to the Clinical Center for Targeted Therapy at MD Anderson Cancer Center. To lay the foundation for potential phase I trials for the treatment of advanced LMS, we analyzed tumor response and survival outcome data. The frequent hotspot gene aberrations that we observed were the TP53 mutation (65%) and RB1 loss/mutation (45%)
detected by Sequenom or next-generation sequencing. Among patients treated with gene aberration-related phase I trial therapy, the median progression-free survival was 5.8 months and the median overall survival was 15.9 months, significantly better than in patients without therapy (1.9 months, $P = 0.001$; and 8.7 months, $P = 0.013$, respectively). Independent risk factors that predicted shorter overall survival included hemoglobin <10 g/dL, body mass index < 30 kg/m(2), serum albumin < 3.5 g/dL, and neutrophil above upper limit of normal. The median survivals were 19.9, 7.6, and 0.9 months for patients with 0, 1 or 2, and $\geq$ 3 of the above risk factors, respectively ($P < 0.001$). A prognostic scoring system that included four independent risk factors might predict survival in patients with metastatic LMS who were treated in a phase I trial."

According to the news reporters, the research concluded: "Gene aberration-related therapies led to significantly better clinical benefits, supporting that further exploration with novel mechanism-driven therapeutic regimens is warranted."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.956. This DOI is a link to an online electronic document that is either free or for purchase.

**Keywords** for this news article include: Houston, Texas, United States, North and Central America, Leiomyosarcomas, Clinical Trials and Studies, Risk and Prevention, Clinical Research, Leiomyosarcoma, Genetics, Therapy, Urology, University of Texas.

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**Leptospira**

**New Leptospira Study Results Reported from S.M. Faisal et al**

**[Leptospira surface adhesin (Lsa21) induces Toll like receptor 2 and 4 mediated inflammatory responses in macrophages]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Leptospira. According to news originating from Andhra Pradesh, India, by NewsRx correspondents, research stated, "Leptospirosis is zoonotic and emerging infectious disease of global importance. Little is understood about Leptospira pathogenesis and host immune response."

Our news journalists obtained a quote from the research, "In the present work we have investigated how Leptospira modulates the host innate immune response mediated by Toll-like receptors (TLRs) via surface exposed proteins. We screened Leptospira outer
membrane/surface proteins for their ability to activate/inhibit TLR2/4 signaling in HEK293 cell lines. Of these the 21 kDa Leptospira surface adhesin, Lsa21 had strong TLR2 and TLR4 activity leading to production of proinflammatory cytokines and expression of costimulatory molecules in mouse macrophages. This activity of Lsa21 on innate response was dependent on activation of mitogen activated protein kinases (MAPKs) via stimulating the rapid phosphorylation of p38, JNK and activation of transcription factor NF-kappa B. Additionally, neutralizing antibodies against TLR2 and TLR4 significantly inhibited cytokine secretion and attenuated Lsa21 induced phosphorylation of p38 and JNK. Furthermore, Lsa21 induced cytokine levels were significantly lower in TLR2(-/-) and TLR4(-/-) than in wild type mouse macrophage cell lines. Confocal microscopy and molecular docking confirmed that Lsa21 interacted with both TLR2 and TLR4."

According to the news editors, the research concluded: "These results indicate that Lsa21 is a potent TLR2 and TLR4 agonist that induces strong innate response and may play important role in Leptospira pathogenesis."

For more information on this research see: Leptospira surface adhesin (Lsa21) induces Toll like receptor 2 and 4 mediated inflammatory responses in macrophages. Scientific Reports, 2016;6():1-14. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from S.M. Faisal, Natl Inst Anim Biotechnol, Hyderabad, Andhra Pradesh, India. Additional authors for this research include V.P. Varma, M. Subathra, S. Azam, A.K. Sunkara, M. Akif, M.S. Baig and Y.F. Chang.

Keywords for this news article include: Andhra Pradesh, India, Asia, Gram-Negative Aerobic Rods and Cocci, Pattern Recognition Receptors, Mononuclear Phagocyte System, Connective Tissue Cells, Gram-Negative Bacteria, Toll-Like Receptor 2, Toll-Like Receptors, Membrane Proteins, Leptospiraceae, Spirochaetales, Myeloid Cells, Macrophages, Immunology, Phagocytes, Genetics.

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Drugs and Therapies - Lercanidipine Therapy

New Lercanidipine Therapy Data Have Been Reported by Investigators at China Pharmaceutical University (Simultaneous Determination of a Fixed-Dose Combination of Lercanidipine and Valsartan in Human Plasma by LC-MS-MS: Application to a ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Lercanidipine Therapy. According to news originating from Nanjing, People's Republic of China, by NewsRx correspondents, research stated, "A simple, sensitive and reproducible liquid chromatography-electrospray ionization-tandem mass spectrometry (LC-MS-MS) method was developed and validated for the first time for simultaneous quantification of lercanidipine and valsartan in human plasma. The analytes were extracted by simple protein precipitation with acetonitrile and separated on a Hanbon Hedera ODS-2 C-18 (150 mmx 2.1 mm, 5 mu m) column."

Our news journalists obtained a quote from the research from China Pharmaceutical
University, "The mobile phase was composed of a mixture (53: 47, v/v) of acetonitrile and 10 mmol/L ammonium acetate containing 0.5% formic acid. The analytes were ionized by positive electrospray ion and detected in the multi-reaction monitoring mode with m/z 612.1 -> 280.2 for lercanidipine, m/z 436.0 -> 235.1 for valsartan and m/z 285.1 -> 193.1 for diazepam, the internal standard. The calibration curves obtained were linear over the concentration range of 0.01504-10.07 ng/mL for lercanidipine and 5.025-6,030 ng/mL for valsartan. The results of the intra-and inter-day precision studies were within the acceptance range. The recoveries of the analytes were in the range of 98-103%.

According to the news editors, the research concluded: "This method was successfully applied to the pharmacokinetic study of a novel fixed-dose combination of lercanidipine and valsartan formulation after an oral administration to healthy Chinese subjects."

For more information on this research see: Simultaneous Determination of a Fixed-Dose Combination of Lercanidipine and Valsartan in Human Plasma by LC-MS-MS: Application to a Pharmacokinetic Study. *Journal of Chromatographic Science, 2016;54* (9):1553-1559.

The news correspondents report that additional information may be obtained from L. Ding, China Pharmaceutical University, Dept. of Pharmaceut Anal, Nanjing 210009, People's Republic of China. Additional authors for this research include J.E. Agbokponto, R. Zhang, Q. Li and L. Ding.

Keywords for this news article include: Nanjing, People's Republic of China, Asia, Angiotensin II Inhibitors, Cardiovascular Agents, Lercanidipine Therapy, Drugs and Therapies, Valsartan Therapy, Pharmacokinetics, Antihypertensive, Pharmaceuticals, China Pharmaceutical University.

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**Neurodegenerative Diseases and Conditions - Lewy...**

**New Lewy Body Disease Data Have Been Reported by G. Perini and Co-Authors (Misidentification Delusions Prevalence in Different Types of Dementia and Validation of a Structured Questionnaire)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurodegenerative Diseases and Conditions - Lewy Body Disease are presented in a new report. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "Misidentification delusions (MDs) are considered relatively rare psychopathologic phenomena that may occur within the context of psychiatric or neurological conditions. The purpose of this study was to assess the prevalence of MD in different types of dementia, correlate the presence of MD with demographic and clinical variables, and validate a specific questionnaire."

Our news journalists obtained a quote from the research, "We examined 146 subjects with Alzheimer disease, 21 with Lewy body dementia, 6 with frontotemporal dementia, and 13 with vascular dementia (subcortical type), who were consecutively enrolled in the study from 2 Memory Clinics. Patients had a mean age of 78.7 +/- 6.4 years and an Mini-Mental State Examination average score of 16.9 +/- 6.1. The Neuropsychiatric Inventory delusion subscale
and a new Misidentification Delusion Questionnaire aimed at specific assessment of 11 delusional misidentification syndromes were administered to the caregivers. On the basis of the Neuropsychiatric Inventory, MDs were present in 33.3% of the subjects, whereas according to the Misidentification Delusion Questionnaire they were present in 36.0% of the subjects. Specifically, 34.2% of Alzheimer disease, 52.4% of Lewy body dementia, and 46.1% of vascular dementia patients experienced at least 1 MD. None of the patients with frontotemporal dementia developed MD. The most frequent MD was house misidentification, followed by splitting of people and reduplicative paramnesia.

According to the news editors, the research concluded: "Our self-administered questionnaire proved to be an accurate and specific tool for the detection of MD."

For more information on this research see: Misidentification Delusions Prevalence in Different Types of Dementia and Validation of a Structured Questionnaire. Alzheimer Disease & Associated Disorders, 2016;30(4):331-337. Alzheimer Disease & Associated Disorders can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Alzheimer Disease & Associated Disorders - journals.lww.com/alzheimerjournal/pages/default.aspx)

The news correspondents report that additional information may be obtained from E. Farina, Don Carlo Gnocchi Fdn, Santa Maria Nascente Clin Res Center, Neurorehabil Unit, Milan, Italy. Additional authors for this research include A. Carlini, S. Pomati, M. Alberoni, C. Mariani, R. Nemni and E. Farina.

Keywords for this news article include: Milan, Italy, Europe, Neurodegenerative Diseases and Conditions, Epidemiology, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Alzheimer Disease, Lewy Body Disease, Tauopathies, Dementia.

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Life Science Research

New Life Science Research Findings Has Been Reported by Researchers at Federal University (Monoconjugation of Human Amylin with Methylpolyethylene glycol)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Life Science Research is the subject of a report. According to news reporting originating in Rio de Janeiro, Brazil, by NewsRx journalists, research stated, "Amylin is a pancreatic hormone cosecreted with insulin that exerts unique roles in metabolism and glucose homeostasis. The therapeutic restoration of postprandial and basal amylin levels is highly desirable in diabetes mellitus."

The news reporters obtained a quote from the research from Federal University, "Protein conjugation with the biocompatible polymer polyethylene glycol (PEG) has been shown to extend the biological effects of biopharmaceuticals. We have designed a PEGylated human amylin by using the aminoreactive compound methoxylpolyethylene glycol succinimidyl carbonate (mPEGsc). The synthesis in organic solvent resulted in high yields of monoPEGylated human amylin, which showed large stability against aggregation, an 8 times increase in half-life in vivo compared to the non-conjugated amylin, and pharmacological activity as shown by
modulation of cAMP production in MCF-7 cell line, decrease in glucagon and modulation of
glycemia following subcutaneous administration in mice."

According to the news reporters, the research concluded: "Altogether these data
reveal the potential use of PEGylated human amylin for the restoration of fasting amylin levels."

For more information on this research see: Monoconjugation of Human Amylin with
Methylpolyethyleneglycol. Plos One, 2015;10(10):e0138803. (Public Library of Science -
www.plos.org; Plos One - www.plosone.org)

Our news correspondents report that additional information may be obtained by
contacting T. Sisnande, Federal University of Rio de Janeiro-UFRJ, CCS, Bss24, Ilha do
Fundao, 21941-590, Rio de Janeiro, RJ, Brazil. Additional authors for this research include L.H.

The direct object identifier (DOI) for that additional information is:
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document that is either free or for purchase.

Keywords for this news article include: Brazil, South America, Rio de Janeiro, Life
Science Research.

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**New Lipid Metabolism Disorders Findings from University of Manitoba Discussed (HNF-4 alpha regulated miR-122 contributes to development of gluconeogenesis and lipid metabolism disorders in Type 2 diabetic mice and in palmitate-treated HepG2 ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness &
Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and
Conditions - Lipid Metabolism Disorders. According to news reporting out of Winnipeg,
Canada, by NewsRx editors, research stated, "Hepatocyte Nuclear Factor-4 alpha (HNF-4 alpha)
is a key nuclear receptor protein required for liver development. miR-122 is a predominant
microRNA expressed in liver and is involved in the regulation of cholesterol and fatty acid
metabolism. HNF-4 alpha is know to regulate expression of miR-122 in liver."

Our news journalists obtained a quote from the research from the University of
Manitoba, "We examined how HNF-4 alpha regulated gluconeogenesis and lipid metabolism
through miR-122 in vivo and in vitro. Expression of miR-122, HNF-4 alpha,
phosphoeneolpyruvate carboxykinase (PEPCK), glucose-6-phosphatase (G6Pase), sterol response
elementary binding protein-1 (SREBP-1), fatty acid synthase-1 (FAS-1), carnitine
palmitoyltransferase-1 (CPT-1) and acetyl Coenzyme A carboxylase alpha (ACCoC) were
determined in livers of Type 2 diabetic mice and in insulin resistant palmitate-treated HepG2
cells. CPT-1 and phosphorylated ACCoC expression were significantly decreased in livers of
Type 2 diabetic mice and in palmitate-treated HepG2 cells compared to controls. In contrast,
expression of miR-122, HNF-4 alpha, PEPCK, G6Pase, SREBP-1, FAS-1 and ACCoC were
significantly elevated in liver of Type 2 diabetic mice and in palmitate-treated HepG2 cells
compared to controls. Expression of HNF-4 alpha increased whereas siRNA knockdown of
HNF-4 alpha decreased miR-122 levels in HepG2 cells compared to controls. In addition,
extension of HNF-4 alpha in HepG2 cells increased PEPCK, G6Pase, SREBP-1, FAS-1,
ACCoc mRNA and protein expression and decreased CPT-1 and p-ACCoc mRNA and protein expression compared to controls. Addition of miR-122 inhibitors attenuated the HNF-4 alpha mediated effect on expression of these gluconeogenic and lipid metabolism proteins."

According to the news editors, the research concluded: "The results indicate that HNF-4 alpha regulated miR-122 contributes to development of the gluconeogenic and lipid metabolism alterations observed in Type 2 diabetic mice and in palmitate-treated HepG2 cells."

For more information on this research see: HNF-4 alpha regulated miR-122 contributes to development of gluconeogenesis and lipid metabolism disorders in Type 2 diabetic mice and in palmitate-treated HepG2 cells. European Journal of Pharmacology, 2016;791():254-263. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting G. Hatch, University of Manitoba, Inst Child Hlth, Dept. of Pharmacol & Therapeut, Winnipeg, MB, Canada. Additional authors for this research include M. Zhang, Y. Yu, H. Xue, X.X. Lan, S.P. Liu, G. Hatch and L. Chen.

Keywords for this news article include: Winnipeg, Manitoba, Canada, North and Central America, Nutritional and Metabolic Diseases and Conditions, Lipid Metabolism Disorders, Protein Expression, Endocrinology, Proteomics, Diabetes, Genetics, University of Manitoba.

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Lipid Research

New Lipid Research Study Findings Have Been Reported by Investigators at Linkoping University (Alterations in high-density lipoprotein proteome and function associated with persistent organic pollutants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lipid Research. According to news reporting out of Linkoping, Sweden, by NewsRx editors, research stated, "There is a growing body of evidence that persistent organic pollutants (POPs) may increase the risk for cardiovascular disease (CVD), but the mechanisms remain unclear. High-density lipoprotein (HDL) acts protective against CVD by different processes, and we have earlier found that HDL from subjects with CVD contains higher levels of POPs than healthy controls."

Financial support for this research came from Research Council of Southeast Sweden.

Our news journalists obtained a quote from the research from Linkoping University, "In the present study, we have expanded analyses on the same individuals living in a contaminated community and investigated the relationship between the HDL POP levels and protein composition/ function. HDL from 17 subjects was isolated by ultracentrifugation. HDL protein composition, using nanoliquid chromatography tandemmass spectrometry, and antioxidant activity were analyzed. The associations of 16 POPs, including polychlorinated biphenyls (PCBs) and organochlorine pesticides, with HDL proteins/functions were investigated by partial least square and multiple linear regression analysis. Proteomic analyses identified 118
HDL proteins, of which ten were significantly (p < 0.05) and positively associated with the combined level of POPs or with highly chlorinated PCB congeners. Among these, cholesteryl ester transfer protein and phospholipid transfer protein, as well as the inflammatory marker serum amyloid A, were found. The serum paraoxonase/arylesterase 1 activity was inversely associated with POPs. Pathway analysis demonstrated that up-regulated proteins were associated with biological processes involving lipoprotein metabolism, while down-regulated proteins were associated with processes such as negative regulation of proteinases, acute phase response, platelet degranulation, and complement activation. These results indicate an association between POP levels, especially highly chlorinated PCBs, and HDL protein alterations that may result in a less functional particle. Further studies are needed to determine causality and the importance of other environmental factors."

According to the news editors, the research concluded: "Nevertheless, this study provides a first insight into a possible link between exposure to POPs and risk of CVD."


Our news journalists report that additional information may be obtained by contacting S.A. Ljunggren, Linkoping University, Dept. of Clin & Expt Med, Occupat & Environm Med Center, Linkoping, Sweden. Additional authors for this research include I. Helmfrid, U. Norinder, M. Fredriksson, G. Wingren, H. Karlsson and M. Lindahl.

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Keywords for this news article include: Linkoping, Sweden, Europe, Lipid Research, Proteome, Risk and Prevention, Epidemiology, Cardiovascular Diseases and Conditions, Lipoproteins, Proteins, Lipids, Linkoping University.

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**Lipid Research**

**New Lipid Research Study Findings Have Been Reported by Researchers at Quebec Heart and Lung Institute (Coronary atheroma progression rates in men and women following high-intensity statin therapy: A pooled analysis of REVERSAL, ASTEROID and ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lipid Research have been presented. According to news reporting originating from Quebec City, Canada, by NewsRx correspondents, research stated, "High-intensity statin therapy (HIST) reduces cardiovascular events, however, sex-related differences in treatment effects are not well characterized. A patient-level post hoc pooled analysis of 3 randomized trials utilizing serial coronary intravascular ultrasound was undertaken, testing the anti-atherosclerotic effects of HIST in coronary disease patients."

Our news editors obtained a quote from the research from Quebec Heart and Lung
Institute, "Sex-related differences in changes (Delta) in coronary percent atheroma volume (PAV) were ascertained following 18-24 months of HIST (atorvastatin 80 mg or rosuvastatin 40 mg daily), and further characterized according to on-treatment lipid and lipoprotein levels. In women (n = 451) compared with men (n = 1190), on-treatment levels of LDL-C (68 +/- 24 vs. 67 +/- 22 mg/dl, p = 0.62) and apoB (77 +/- 23 vs. 76 +/- 20 mg/dl, p = 0.51) were similar; levels of HDL-C (53 +/- 12 vs. 47 +/- 11 mg/dl, p< 0.001), apoA1 (154 +/- 26 vs. 140 +/- 24 mg/dl, p< 0.001), triglycerides [122 (95, 158) vs. 114 (89, 154) mg/dl, p = 0.012] and CRP [1.7 (0.9, 3.8) vs. 1.1 (0.6, 2.7) mg/l, p< 0.001] were higher; while the total cholesterol/HDL-C (TC/HDL-C) ratio was lower (2.9 +/- 0.8 vs. 3.1 +/- 0.8, p< 0.001). Compared with men, women harbored significantly lower baseline PAV (34.8 +/- 8.7 vs. 38.3 +/- 8.8%, p< 0.001), yet demonstrated significantly greater PAV regression (Delta PAV -1.07 +/- 0.26 vs. -0.66 +/- 0.23%, p = 0.02). When achieved on-treatment levels of LDL-C were <64 mg/dl, apoB <73 mg/dl, non-HDL-C < 88.8 mg/dl, and TC/HDL-C < 2.99, women demonstrated significantly greater PAV regression than men. Multivariable analysis revealed female sex to independently associate with PAV regression (coefficient -0.66, p = 0.02).

According to the news editors, the research concluded: "Women demonstrate greater degrees of coronary plaque regression compared with men following long-term HIST, especially in the setting of lower achieved atherogenic lipoprotein levels."

For more information on this research see: Coronary atheroma progression rates in men and women following high-intensity statin therapy: A pooled analysis of REVERSAL, ASTEROID and SATURN. Atherosclerosis, 2016;254():78-84. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news editors report that additional information may be obtained by contacting R. Puri, Quebec Heart & Lung Inst, Quebec City, PQ, Canada. Additional authors for this research include M. Shao, S.J. Nicholls, M. Elshazly, L. Cho, P. King, S. Kapadia, M. Tuzcu, S.E. Nissen and R. Puri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.09.059. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Quebec City, Quebec, Canada, North and Central America, Lipid Research, Lipoproteins, Therapy, Lipids, Quebec Heart and Lung Institute.

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The news correspondents obtained a quote from the research from Veterans Affairs Medical Center, "It is been difficult to verify this in population studies because of confounding factors. Nonetheless, meta-analysis of controlled studies documents a cholesterol-raising action of dietary cholesterol. Most of this effect occurs in low-density lipoproteins (LDLs), but the cholesterol content of other lipoproteins can be increased as well. Moreover, population studies strongly suggest that dietary cholesterol is atherogenic beyond any rise in LDL concentrations. It must be emphasized that dietary cholesterol is only one of several dietary factors influencing serum cholesterol levels. Others include saturated fatty acids, trans fatty acids, soluble fiber, and total caloric intake. To achieve substantial serum cholesterol lowering, favorable changes in all of these factors must be combined. To maximize cardiovascular risk reduction, a lifetime of a healthy diet is needed. Reduced cholesterol intake is only one of several factors required to achieve such a diet. In addition, reduction of cholesterol absorption can enhance serum cholesterol lowering. This can be attained by the addition of plant sterols or plant stanols to the diet or by use of ezetimibe, a cholesterol absorption blocker."

According to the news reporters, the research concluded: "By combining dietary cholesterol reduction with other cholesterol-lowering modalities, it should be possible to substantially reduce atherosclerosis throughout life short of using cholesterol-lowering drugs that act systemically."

For more information on this research see: Does Dietary Cholesterol Matter? *Current Atherosclerosis Reports*, 2016;18(11):48-54. *Current Atherosclerosis Reports* can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; *Current Atherosclerosis Reports* - www.springerlink.com/content/1523-3804/)

Our news journalists report that additional information may be obtained by contacting S.M. Grundy, Vet Affairs Med Center, Dallas, TX 75216, United States.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Lipid Research, Lipids, Article Review, Lipoproteins, Veterans Affairs Medical Center.

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**Nutritional and Metabolic Diseases and Conditions -**

**New Lipodystrophy Findings from University of Leipzig Discussed (Progranulin is increased in human and murine lipodystrophy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Lipodystrophy have been presented. According to news reporting originating from Leipzig, Germany, by NewsRx correspondents, research stated, "Lipodystrophies (LD) are genetic or acquired disorders sharing the symptom of partial or complete adipose tissue deficiency and a dysregulation of adipokines including leptin and adiponectin. Progranulin, an adipokine with proinflammatory and insulin resistance-inducing characteristics, has not been investigated in LD so far."

Our news editors obtained a quote from the research from the University of Leipzig, "Circulating progranulin was determined in LD patients (N = 37) and in age-, gender-, and body mass index-matched healthy control subjects (N = 37). Additionally, we investigated progranulin expression in an LD mouse model as compared to wild-type mice. Moreover, we
elucidated circulating progranulin before and during metreleptin supplementation in 10 patients with LD. Median [interquartile range] circulating progranulin was increased in patients with LD (82.9 [25.9] µg/l) as compared to controls (73.6 [22.8] µg/l) (p = 0.005). C-reactive protein (CRP) remained an independent and positive predictor of progranulin in multivariate analysis. Progranulin mRNA was significantly upregulated in all adipose tissue depots, i.e. visceral, subcutaneous, and brown adipose tissue, and in muscle of LD animals versus wild-type mice. Progranulin levels did not significantly change during metreleptin supplementation. Progranulin serum concentration is increased in patients with LD, and shows an independent and positive correlation with CRP."

According to the news editors, the research concluded: "Different adipose tissue depots and muscle might be potential origins of elevated progranulin."

For more information on this research see: Progranulin is increased in human and murine lipodystrophy. *Diabetes Research and Clinical Practice*, 2016;120():1-7. *Diabetes Research and Clinical Practice* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Diabetes Research and Clinical Practice - www.journals.elsevier.com/diabetes-research-and-clinical-practice/)

The news editors report that additional information may be obtained by contacting K. Miehle, University of Leipzig, Dept. of Internal Med Endocrinol & Nephrol, D-04103 Leipzig, Germany. Additional authors for this research include T. Ebert, S. Kralisch, A. Hoffmann, J. Kratzsch, H. Schlogl, M. Stumvoll and M. Fasshauer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.diabres.2016.07.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leipzig, Germany, Europe, Nutritional and Metabolic Diseases and Conditions, Lipid Metabolism Disorders, Lipodystrophy, Genetics, University of Leipzig.

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**Oncology - Liposarcomas**

**New Liposarcomas Study Findings Reported from General Hospital (Liposarcoma scroti: a rare paratesticular tumor)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liposarcomas. According to news reporting originating from Turnhout, Belgium, by NewsRx correspondents, research stated, "Paratesticular liposarcoma is a rare condition characterized by a growing, painless inguinal, or scrotal mass. To our knowledge, less than 200 cases worldwide are reported thus far."

Our news editors obtained a quote from the research from General Hospital, "It is characterized by slow growth and can reach large dimensions at diagnosis. Paratesticular well-differentiated liposarcoma has a prolonged clinical course with recurrences in more than half the cases, sometimes late. Regardless of tumor size, radical orchidectomy with free surgical margins is recommended in order to avoid recurrence. When there is tumor recurrence, reoperation is the treatment of choice because radio-and chemotherapy have yet to be well established in these cases. There is a low risk of metastasis. Overall prognosis is good. Adjuvant therapies,
represented by radio-and chemotherapy, have a controversial role in the literature due to the rarity of the disease."

According to the news editors, the research concluded: "In this article, we present a review of the literature and case discussion of paratesticular liposarcoma with focus on diagnosis, treatment and follow-up."


The news editors report that additional information may be obtained by contacting C. Schoonjans, Gen Hosp Turnhout, Dept. of Gen Surg, Turnhout, Belgium. Additional authors for this research include D. Servaes and M. Bronckaers.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/00015458.2016.1139939. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turnhout, Belgium, Europe, Oncology, Risk and Prevention, Liposarcomas, General Hospital.

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Biotechnology - Liposomes

**New Liposomes Study Findings Reported from Nagoya University (Septin Interferes with the Temperature-Dependent Domain Formation and Disappearance of Lipid Bilayer Membranes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biotechnology - Liposomes is now available. According to news reporting originating in Nagoya, Japan, by NewsRx journalists, research stated, "Domain formation or compartmentalization in a lipid bilayer membrane has been thought to take place dynamically in cell membranes and play important roles in the spatiotemporal regulation of their physiological functions. In addition, the membrane skeleton, which is a protein assembly beneath the cell membrane, also regulates the properties as well as the morphology of membranes because of its role as a diffusion barrier against constitutive molecules of the membrane or as a scaffold for physiological reactions."

Financial supporters for this research include Ministry of Education, Culture, Sports, Science, and Technology, Japan Society for the Promotion of Science.

The news reporters obtained a quote from the research from Nagoya University, "Therefore, it is important to study the relationship between lipid bilayer membranes and proteins that form the membrane skeleton. Among cytoskeletal systems, septin is unique because it forms arrays on liposomes that contain phosphoinositides, and this property is thought to contribute to the formation of the annulus in sperm flagellum. In this study, a supported lipid bilayer (SLB) was used to investigate the effect of septin on lipid bilayers because SLBs rather than liposomes are suitable for observation of the membrane domains formed. We found that SLBs containing phosphatidylinositol (PI) reversibly form domains by decreasing the temperature and that septin affects both the formation and the disappearance of the cooling-induced domain. Septin inhibits the growth of cooling-induced domains during decreases in temperature and inhibits the dispersion and the disappearance of those domains during increases..."
According to the news reporters, the research concluded: "These results indicate that septin complexes, i.e., filaments or oligomers assembling on the surface of lipid bilayer membranes, can regulate the dynamics of domain formation via their behavior as an anchor for PI molecules."


Our news correspondents report that additional information may be obtained by contacting K. Takiguchi, Nagoya University, Struct Biol Res Center, Nagoya, Aichi 4648601, Japan. Additional authors for this research include T. Isogai, R. Tero, Y. Tanaka-Takiguchi, T. Ujihara, M. Kinoshita and K. Takiguchi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.langmuir.6b03452. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nagoya, Japan, Asia, Biotechnology, Liposomes, Nagoya University.

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**Oncology - Liver Cancer**

**New Liver Cancer Data Have Been Reported by Investigators at Henan University (MicroRNA-27b exerts an oncogenic function by targeting Fbxw7 in human hepatocellular carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news originating from Kaifeng, People's Republic of China, by NewsRx correspondents, research stated, "Aberrant expression of microRNAs (miRNAs) plays fundamental effect on the pathogenesis of hepatocellular carcinoma (HCC). MiR-27b was previously found to play important roles in human cancers."

Our news journalists obtained a quote from the research from Henan University, "However, its expression status, clinical significance, and biological functions in HCC remain largely unclear. The expression status of miR-27b in HCC specimens and cells were determined with qRT-PCR. MTT, 5-bromodeoxyuridine (BrdU) proliferation assays, and flow cytometry analysis were carried out to assay proliferation, cell cycle, and apoptosis. A subcutaneous model was used to evaluated the HCC tumor growth in vivo. The putative target gene of miR-27b was disclosed by TargetScan and a luciferase reporter assay. The levels of miR-27b were overexpressed in HCC. Overexpression of miR-27b was correlated with adverse prognostic features and reduced survival rate. Inhibition of miR-27b in SMMC-7721 cells remarkably suppressed proliferative ability and cell-cycle progression while enhanced apoptosis. In contrast, miR-27b overexpression resulted in prominent increased proliferation and process of cell cycle and reduced apoptosis of Hep3B cells. In vivo studies showed that knockdown of miR-27b inhibited the in vivo growth of SMMC-7721 cells in mouse xenograft model. Furthermore, we
confirmed that Fbxw7 was directly regulated by miR-27b and mediated the roles of miR-27b in HCC.

According to the news editors, the research concluded: "We suggest that miR-27b serves as an oncogenic miRNA in HCC by modulating proliferation, cell-cycle progression, and apoptosis, and its oncogenic effect is mediated by its downstream target gene, Fbxw7."

For more information on this research see: MicroRNA-27b exerts an oncogenic function by targeting Fbxw7 in human hepatocellular carcinoma. Tumor Biology, 2016;37 (11):15325-15332. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news correspondents report that additional information may be obtained from Q.X. Ge, Henan Univ, Huaihe Hosp, Dept. of Gastroenterol, Kaifeng 475000, Henan Province, People's Republic of China. Additional authors for this research include J.P. Sun, H.T. Hou, K. Li, X. Liu and Q.X. Ge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5444-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kaifeng, People's Republic of China, Asia, Liver Cancer, Carcinomas, Apoptosis, Oncology, Henan University.

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Oncology - Liver Cancer

New Liver Cancer Data Have Been Reported by Researchers at Xi'an Jiaotong University (MicroRNA-519a promotes tumor growth by targeting PTEN/PI3K/AKT signaling in hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Liver Cancer are discussed in a new report. According to news reporting out of Shaanxi, People's Republic of China, by NewsRx editors, research stated, "MicroRNAs (miRNAs) have been found to play fundamental roles in the pathogenesis of hepatocellular carcinoma (HCC). Previous miRNA array data showed that miR-519a was upregulated in HCC tissues compared to adjacent non-tumor tissues."

Our news journalists obtained a quote from the research from Xi'an Jiaotong University, "However, the functional role of miR-519a in HCC remains unexplored. In this study, we demonstrated that the expression of miR-519a was elevated in both HCC tissues and cell lines. Clinical association analysis revealed that high expression of miR-519a was correlated with adverse clinicopathological characteristics including large tumor size, high Edmondson-Steiner grading, advanced tumor-node-metastasis (TNM) tumor stage and venous infiltration. Furthermore, high expression of miR-519a conferred a reduced 5-year overall survival and disease-free survival of HCC patients. Moreover, we disclosed that miR-519a overexpression promoted, but miR-519a silencing reduced, HCC cell proliferation and cell cycle progression in vitro. Notably, we identified phosphatase and tensin homolog (PTEN) as a direct downstream target and functional mediator of miR-519a in HCC cells. Mechanistically, phosphatidylinositol-3-OH kinase (PI3K)/AKT pathway, downstream of PTEN, is essential for the functional roles of miR-519a in HCC cells."
According to the news editors, the research concluded: "Our results indicate that miR-519a promotes tumor growth of HCC by targeting PTEN-mediated PI3K/AKT pathway, and potentially serves as a novel prognostic biomarker and therapeutic target for HCC."


Our news journalists report that additional information may be obtained by contacting K. Tu, Dept. of Hepatobiliary Surgery, the First Affiliated Hospital of Xi’an Jiaotong University, Xi’an, Shaanxi 710061, People’s Republic of China. Additional authors for this research include Z. Liu, B. Yao, S. Han and W. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2015.3309. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shaanxi, Oncology, Carcinomas, Liver Cancer, People's Republic of China.

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Oncology - Liver Cancer

New Liver Cancer Findings Has Been Reported by Investigators at Pusan National University (Development and Applicability of the A-P 200 Criteria for Liver Transplantation for Hepatocellular Carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Liver Cancer is the subject of a report. According to news reporting out of Yangsan, South Korea, by NewsRx editors, research stated, "The Milan criteria are widely accepted for indicating liver transplantation in patients with hepatocellular carcinoma (HCC). However, a 7% to 20% possibility of HCC recurrence remains, even among patients who fulfill the Milan criteria."

Our news journalists obtained a quote from the research from Pusan National University, "We retrospectively reviewed 88 patients with HCC who underwent liver transplantation at Pusan National University Yangsan Hospital between May 2010 and December 2014. The risk factors for HCC recurrence were analyzed, and the overall survival and disease-free survival rates were calculated based on each risk factor. Seventeen patients (19.3%) experienced HCC recurrence. Multivariate analyses revealed that the independent risk factors for HCC recurrence were protein induced by vitamin K absence or antagonist II (PIVKA-II) levels of >200 mAU/mL, levels of >200 for alpha-fetoprotein (ng/mL) or PIVKA-II (mAU/mL), and microvascular invasion. Therefore, we defined the A-P 200 criteria as simultaneously exhibiting alpha-fetoprotein levels of <= 200 ng/mL and PIVKA-II levels of <= 200 mAU/mL. The 3-year overall survival rates among patients who fulfilled or exceeded the A-P 200 criteria were 89.2% and 80.0%, respectively (P = .79). The 3-year disease-free survival rates among patients who fulfilled or exceeded the A-P 200 criteria were 89.9% and 43.1%, respectively (P < .001). We also applied the A-P 200 criteria to patient data from another major center and observed similar results."

According to the news editors, the research concluded: "These findings confirm that the A-P 200 criteria can be used to predict recurrence after liver transplantation among patients
with HCC."


Our news journalists report that additional information may be obtained by contacting K. Yang, Pusan National University, yangsan Hosp, Res Inst Convergence Biomed Sci & Technol, Yangsan, South Korea. Additional authors for this research include T.B. Lee, B.H. Choi, Y.M. Park, J.H. Ryu, D.J. Joo and C.W. Chu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.08.050. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yangsan, South Korea, Asia, Environment and Public Health, Biological Tumor Markers, Disease-Free Survival, Risk and Prevention, Statistics as Topic, Biological Factors, alpha-Fetoproteins, Survival Analysis, Epidemiology, Liver Cancer, Carcinomas, Oncology, Pusan National University.

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**Oncology - Liver Cancer**

**New Liver Cancer Findings from University of Bologna Described (Length time bias in surveillance for hepatocellular carcinoma and how to avoid it)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting out of Bologna, Italy, by NewsRx editors, research stated, "Length time bias is a selection bias which can lead to an overestimation of survival of screening-detected cases caused by the relative excess of slower-growing tumors detected with respect to symptomatic cases. This leads to the incorrect perception that screening improves outcomes when it only selects tumors with a favorable biology."

Our news journalists obtained a quote from the research from the University of Bologna, "Data regarding this bias in surveillance for hepatocellular carcinoma (HCC) have never been provided. A semi-Markov model was developed to investigate this issue. An exponential tumor growth was applied. During its growth, tumor diagnosis 'at surveillance appointments' was made when tumor attained a size equal to or above the size of tumors diagnosed in surveilled patients obtained from pertinent published reports, or 'in-between appointments' (due to the development of symptoms) if tumor size attained the size of symptomatic diagnosis, derived from published reports; otherwise the tumor continued to grow until the time horizon had been reached. Tumor doubling time (DT) values were recorded according to the method of diagnosis. In a theoretical cohort of 1000 patients submitted to semiannual surveillance, 72.5% will be diagnosed at a surveillance appointment and 18% because of symptom development, although under surveillance. Patients diagnosed with HCC at a surveillance appointment had a median tumor DT of 100 days (interquartile range, 68-143
days), whereas those diagnosed because of symptoms had a median DT of 42 days (interquartile range, 29-58 days) although under surveillance."

According to the news editors, the research concluded: "The surveillance propensity to detect slower-growth tumors is relevant, and practical suggestions to minimize this bias in longitudinal studies are provided."

For more information on this research see: Length time bias in surveillance for hepatocellular carcinoma and how to avoid it. Hepatology Research, 2016;46(12):1275-1280. Hepatology Research can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Elsevier - www.elsevier.com; Hepatology Research - www.journals.elsevier.com/hepatology-research/)

Our news journalists report that additional information may be obtained by contacting A. Cucchetti, University of Bologna, Dept. of Med & Surg Sci, S Orsola Malpighi Hosp, Alma Mater Studiorum, Bologna, Italy. Additional authors for this research include F. Garuti, A.D. Pinna and F. Trevisani.

Keywords for this news article include: Bologna, Italy, Europe, Oncology, Diagnostics and Screening, Epidemiology, Liver Cancer, Carcinomas, University of Bologna.

Our news editors report that additional information may be obtained by contacting: 443 patients with HCV-related cirrhosis and Barcelona Clinic Liver Cancer Stage A/0 HCC who had a complete radiological response after curative resection or ablation. Active HCV infection was present in 328, selected from the Italian Liver Cancer group cohort; 58 patients had SVR achieved by IFN-free regimens after HCC cure, and 57 patients had SVR achieved by IFN-based regimens after HCC cure. Individual data of patients in the last two groups were extracted from available publications. TTR by Kaplan-Meier curve was significantly lower in patients with active HCV infection compared with those with SVR both by IFN-free (P = 0.02) and by IFN-based (P < 0.001) treatments. TTR was similar in patients with SVR by IFN-free or by IFN-based (P = 0.49) strategies."

According to the news editors, the research concluded: "In HCV-infected, successfully treated patients with early HCC, SVR obtained by IFN-based or IFN-free regimens significantly reduce tumour recurrence without differences related to the anti-viral strategy
used."


The news editors report that additional information may be obtained by contacting C. Camma, University of Palermo, Sect Gastroenterol, Palermo, Italy. Additional authors for this research include G. Cabibbo, M. Barbara, S. Attardo, L. Bucci, F. Farinati, E.G. Giannini, F. Tovoli, F. Ciccarese, G.L. Rapaccini, M. Di Marco, E. Caturelli, M. Zoli, F. Borzio, R. Sacco, R. Virdone, F. Marra, M. Felder, F. Morisco and Benvengnu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13821. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Palermo, Italy, Europe, Intercellular Signaling Peptides and Proteins, Liver Cancer, Interferons, Carcinomas, Cytokines, Oncology, University of Palermo.

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**Oncology - Liver Cancer**

**New Liver Cancer Study Findings Have Been Reported by Researchers at University of Illinois (Carotenoid Nanovector for Efficient Therapeutic Gene Knockdown of Transcription Factor FOXC1 in Liver Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news originating from Urbana, Illinois, by NewsRx correspondents, research stated, "Transcription factor FOXC1 has been implicated to play a critical role in hepatocellular carcinoma (HCC) progression, but targeting FOXC1 for therapeutic benefit remains a challenge owing to its location inside the cell nucleus. Herein we report successful therapeutic gene knockdown of transcription factor FOXC1 in liver cancer cells through efficient delivery of siFOXC1 using novel carotenoid functionalized dendritic nanoparticles (CDN)."

Financial supporters for this research include University of Illinois at Urbana-Champaign, Warren H. and Clara Cole Society.

Our news journalists obtained a quote from the research from the University of Illinois, "This delivery system also displayed a markedly reduced toxicity profile compared to a standard siRNA transfection agent. We were able to achieve ∼90% FOXC1 knockdown using the CDN-siFOXC1 complex."

According to the news editors, the research concluded: "Additionally, it was found to have ∼18% greater delivery efficiency compared to treatments with particles which have no carotenoid tagging, thereby emphasizing the role of carotenoid mediated cell internalization in the efficient delivery of CDN-siFOXC1 complex in liver cancer cells."

For more information on this research see: Carotenoid Nanovector for Efficient Therapeutic Gene Knockdown of Transcription Factor FOXC1 in Liver Cancer. *Bioconjugate
Oncology - Liver Cancer

New Liver Cancer Study Findings Have Been Reported by Researchers at Xiamen University (The preventative effect of Akt knockout on liver cancer through modulating NF-kB-regulated inflammation and Bad-related apoptosis signaling pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Liver Cancer. According to news reporting originating in Fujian, People's Republic of China, by NewsRx journalists, research stated, "Primary liver cancer is globally the sixth most frequent cancer, and the second leading cause of cancer death and its incidence is increasing in many countries, thus, becoming serious threat to human health. Substantial research has focused on the treatment and prevention of liver cancer."

The news reporters obtained a quote from the research from Xiamen University, "However, the underlying molecular mechanism of liver cancer are still not fully understood, and therefore development of treatments are delayed. Akt has been suggested to play an essential role in the progression of inflammation response and apoptosis. Hence, in the present study, Akt knockout mice and cell lines were used as a model to investigate the molecular mechanism of Akt-associated inflammatory and apoptotic signaling pathway with NF-kB and Bad in the progression of liver cancer. Western blotting, quantitative RT-PCR (qRT-PCR), immunohistochemistry, ELISA and flow cytometric analysis were used to determine the key signaling pathway in the development of liver cancer. The results indicated that, compared to the normal liver cells, the expression of Akt was significantly higher in liver cancer cell lines. In addition, Akt-knockout liver cancer cells showed lower Akt expression. we also, found that Akt-knockout cancer cell lines modulated inflammation response and apoptosis via inhibiting NF-kB expression and suppressing apoptotic activation. Our results indicated that the downstream signals, including cytokines regulated by NF-kB signaling pathway and caspase-3-activated apoptosis affected by Bad were downregulated for knockout of Akt. These findings demonstrated that Akt is related to NF-kB and Bad signaling pathway possibly playing a direct..."
According to the news reporters, the research concluded: "Thus, Akt might be an important and potential treatment choice for the clinical diagnosis and treatment in the future."

For more information on this research see: The preventative effect of Akt knockout on liver cancer through modulating NF-kB-regulated inflammation and Bad-related apoptosis signaling pathway. *International Journal of Oncology*, 2016;48(4):1467-76.

Our news correspondents report that additional information may be obtained by contacting B. Hu, Dept. of Laboratory Medicine, The First Affiliated Hospital of Xiamen University, Xiamen, Fujian 361003, People's Republic of China. Additional authors for this research include M. Sun, J. Liu, G. Hong and Q. Lin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3383. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Fujian, Oncology, Apoptosis, Cell Line, Inflammation, Liver Cancer, Risk and Prevention, People's Republic of China.

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Oncology - Liver Cancer

New Liver Cancer Study Findings Recently Were Reported by Researchers at Department of Radiology (Hepatocellular carcinoma: modern image-guided therapies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting from Leeds, United Kingdom, by NewsRx journalists, research stated, "The most common primary malignancy of the liver and the third leading cause of cancer mortality worldwide is hepatocellular carcinoma (HCC), which presents a major global health problem due to its increasing incidence. Most cases of HCC are secondary to either infection (hepatitis B or C) or cirrhosis (alcohol being the most common cause)."

The news correspondents obtained a quote from the research from the Department of Radiology, "Clinical presentation is variable and the tumor can be an incidental finding. Treatment options for HCC and prognosis are dependent on many factors but most importantly tumor size and staging. The last two decades have revolutionised the treatment of HCC using image-guided techniques. The concepts of imaging and image-guided techniques are still young and not well described in standard textbooks and hence an up to date review article is essential. The clinical subspecialties may lack familiarity with image-guided techniques but are responsible for management of these patients before and after the treatment by interventional radiologists. This article reviews current image-guided techniques, evidence and outcomes and provides educational highlights and question and answers."

According to the news reporters, the research concluded: "The article provides an overview in a simple understandable manner to enable readers from various levels of practice and training to benefit from and apply in their practice."

For more information on this research see: Hepatocellular carcinoma: modern image-guided therapies. *Postgraduate Medical Journal*, 2016;92(1085):165-71. (BMJ Publishing Group - group.bmj.com; Postgraduate Medical Journal - pmj.bmj.com/)
Our news journalists report that additional information may be obtained by contacting S. Puppala, Dept. of Radiology, Leeds Teaching Hospitals, Leeds, UK. Additional authors for this research include R. Patel, K.S. Yap, J. Patel, T. Wah and A. Snoddon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/postgradmedj-2014-132923. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leeds, Europe, Oncology, Carcinomas, Liver Cancer, United Kingdom, Article Review.

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Oncology - Liver Cancer

New Liver Cancer Study Findings Reported from Kirby Institute [Trends in hepatocellular carcinoma among people with HBV or HCV notification in Australia (2000-2014)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Liver Cancer have been presented. According to news reporting originating from Sydney, Australia, by NewsRx correspondents, research stated, "This study evaluates trends in hepatocellular carcinoma (HCC) among people with hepatitis B virus (HBV) or hepatitis C virus (HCV) infection in New South Wales (NSW), Australia between 2000 and 2014. Data on HBV and HCV notifications between January 1993 and December 2012 were linked to the NSW Admitted Patients Data Collection database between July 2000 and June 2014 and NSW Registry of Births Deaths and Marriages."

Our news editors obtained a quote from the research from Kirby Institute, "The burden, crude and age-standardised incidence of HCC based on first hospitalization were calculated. In NSW between 2000-2014, there were 54,399, 93,099 and 3,809 individuals notified with HBV, HCV and HBV/HCV coinfection respectively. There were 725 (1.3%) with HCC among those with HBV notification as compared to 1,309 with HCC (1.4%) in those with HCV notification. The population-level burden of new HCC cases per year has stabilised in the HBV cohort (53 in 2001 and 44 in 2013), but increased markedly in the HCV cohort (49 in 2001 to 151 in 2013). The age-standardised incidence rates of HCC (per 1,000 person-years) declined from 2.3 (95% confidence interval (CI) 1.4, 3.1) in 2001 to 0.9 (95% CI 0.6, 1.2) in 2012 among those with HBV and remained stable between 2001 (1.4; 95% CI 0.8, 1.9) and 2012 (1.5; 95% CI 1.2, 1.7) in those with HCV. Main factors associated with HCC in those with HBV included later study period (2005-2009; 2010-2014) (hazard ratio (HR)=0.54, 95% CI 0.42, 0.70), male gender (HR=4.50, 95% CI 3.6, 5.6), Asia-Pacific country of birth (HR=3.84, 95% CI 2.58, 5.71) and alcohol dependency (HR=2.84, 95% CI 1.95, 4.13). Main factors associated with HCC in those with HCV included male gender (HR=2.56, 95% CI 2.20, 2.98), rural place of residence (HR=0.73, 95% CI 0.62, 0.86), Asia-Pacific country of birth (HR=2.37, 95% CI 1.99, 2.82) and alcohol dependency (HR=3.90, 95% CI 3.39, 4.49). Individual-level risk of HBV-related HCC has declined, suggesting an impact of more effective antiviral therapy from mid-2000s. In contrast, the interferon-containing HCV treatment era had no impact on individual-level HCV-related HCC risk and has seen escalating population-level HCC burden. Lay summary: Individual-level risk of HBV-related HCC has declined, suggesting an impact of more effective antiviral therapy from mid-2000s."

According to the news editors, the research concluded: "In contrast, the interferon-
containing HCV treatment era had no impact on individual-level HCV-related HCC risk and has seen escalating population-level HCC burden."


The news editors report that additional information may be obtained by contacting R. Waziry, UNSW Australia, Kirby Inst, Sydney, NSW, Australia. Additional authors for this research include J. Grebely, J. Amin, M. Alavi, B. Hajarizadeh, J. George, G.V. Matthews, M. Law and G.J. Dore.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Hepadnaviridae Infections, Flaviviridae Infections, Hepatitis B Virus, Orthohepadnavirus, Hepatitis C Virus, Gastroenterology, Women's Health, Gender Health, Liver Cancer, DNA Viruses, RNA Viruses, Carcinomas, Hepatology, Oncology, Virology, Viral, HCV, Kirby Institute.

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**Oncology - Liver Cancer**

**New Liver Cancer Study Results Reported from National Research Center (Relationship Between Serum microRNA155 and Telomerase Expression in Hepatocellular Carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Liver Cancer is now available. According to news reporting originating in Cairo, Egypt, by NewsRx journalists, research stated, "Activation of telomerase reverse transcriptase (hTERT) has a role in liver carcinogenesis where telomerase is normally suppressed in most human somatic tissues after birth. In the current study we aimed to detect the significance of hTERT mRNA in early detection of hepatocellular carcinoma (HCC) and to determine the relationship between serum microRNA155 and telomerase expression."

The news reporters obtained a quote from the research from National Research Center, "Serum and liver tissue samples were collected from 40 patients (17 samples from patients with liver cirrhosis and 23 samples from patients with HCC) and 12 blood samples from healthy subjects were collected. Serum miRNA155 levels and blood and tissue hTERT mRNA were detected by real-time quantitative reverse-transcriptase PCR (RT-qPCR) among liver cirrhosis and HCC patients. Moreover, miR-155, blood and tissue hTERT levels were analyzed in relation to clinical and pathological features. Calculated expression of miRNA155 revealed that relative quantity (RQ) miR 155 was overexpressed in sera of HCC patients when compared to patients with liver cirrhosis and controls (p < 0.0001). The median values of serum telomerase were significantly increased among HCC patients than in patients with liver cirrhosis and controls (p = 0.04). Moreover, tissue expression of telomerase was significantly higher in malignant tissue more than adjacent nonmalignant tissue among HCC patients (p = 0.02). It was also found that tissue expression of telomerase was significantly decreased in tissue of liver cirrhosis patients (p = 0.03). Interestingly, we found that blood telomerase was directly
The study found that low expression of DCXR protein indicates a poor prognosis for hepatocellular carcinoma patients. Researchers from Second Military Medical University, Shanghai, People's Republic of China, investigated the prognostic value of dicarbonyl/L-xylulose reductase (DCXR) in human hepatocellular carcinoma (HCC). They used immunohistochemistry and tissue microarrays to evaluate DCXR protein expression levels. The results showed that DCXR proteins were significantly lower in HCC tumor tissues compared to peritumoral non-cancer tissues. The study concluded that low expression of DCXR is associated with a worse prognosis for HCC patients.
shorter time to recurrence (TTR) in both the training and validation set were found to be associated with lower expression levels of DCXR. In the training set, the expression level of DCXR in HCC was an independent prognostic factor for OS according to univariate and multivariate analyses."

According to the news reporters, the research concluded: "DCXR expression is an independent prognostic factor for OS and TTR of post-operative HCC patients, and low expression levels of DCXR in HCC may indicate poor outcome of HCC patients after surgical resection."

For more information on this research see: Low expression of DCXR protein indicates a poor prognosis for hepatocellular carcinoma patients. Tumor Biology, 2016;37 (11):15079-15085. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)


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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Hepatocellular Carcinoma, Liver Cancer, Carcinomas, Oncology, Second Military Medical University.

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Liver Diseases and Conditions - Liver Fibrosis

New Liver Fibrosis Study Findings Have Been Reported by G. Bain and Colleagues (Selective Inhibition of Autotaxin Is Efficacious in Mouse Models of Liver Fibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Liver Fibrosis is now available. According to news reporting originating from San Diego, California, by NewsRx correspondents, research stated, "Autotaxin (ATX) is a secreted glycoprotein that converts lysophosphatidylcholine (LPC) to the bioactive phospholipid lysophosphatidic acid (LPA) and is the major enzyme generating circulating LPA. Inhibition of LPA signaling has profound antifibrotic effects in multiple organ systems, including lung, kidney, skin, and peritoneum."

Our news editors obtained a quote from the research, "However, other LPA-generating pathways exist, and the role of ATX in localized tissue LPA production and fibrosis remains unclear and controversial. In this study, we describe the preclinical pharmacologic, pharmacokinetic, and pharmacodynamic properties of a novel small-molecule ATX inhibitor, PAT-505 [3-([6-chloro-2-cyclopropyl-1-(1-ethyl-1H-pyrazol-4-yl)-7-fluoro-1H-indol-3-yl) thio]-2-fluorobenzoic acid sodium salt]. PAT-505 is a potent, selective, noncompetitive inhibitor that displays significant inhibition of ATX activity in plasma and liver tissue after oral administration. When dosed therapeutically in a Stelic Mouse Animal Model of nonalcoholic
steatohepatitis (NASH), PAT-505 treatment resulted in a small but significant improvement in fibrosis with only minor improvements in hepatocellular ballooning and hepatic inflammation. In a choline-deficient, high-fat diet model of NASH, therapeutic treatment with PAT-505 robustly reduced liver fibrosis with no significant effect on steatosis, hepatocellular ballooning, or inflammation."

According to the news editors, the research concluded: "These data demonstrate that inhibiting autotaxin is antifibrotic and may represent a novel therapeutic approach for the treatment of multiple fibrotic liver diseases, including NASH."


Keywords for this news article include: San Diego, California, United States, North and Central America, Liver Diseases and Conditions, Gastroenterology, Liver Cirrhosis, Liver Fibrosis, Inflammation.

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Liver Diseases and Conditions - Liver Fibrosis

**New Liver Fibrosis Study Findings Have Been Reported by Researchers at Theodor Bilharz Research Institute (Wharton's jelly-derived mesenchymal stem cells combined with praziquantel as a potential therapy for Schistosoma mansoni-induced liver ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Liver Fibrosis. According to news reporting from Giza, Egypt, by NewsRx journalists, research stated, "Liver fibrosis is one of the most serious consequences of *S. mansoni* infection. The aim of the present study was to investigate the potential anti-fibrotic effect of human Wharton's jelly-derived mesenchymal stem cells (WJMSCs) combined with praziquantel (PZQ) in *S. mansoni*-infected mice. *S. mansoni*-infected mice received early (8(th) week post infection) and late (16(th) week post infection) treatment with WJMSCs, alone and combined with oral PZQ."

The news correspondents obtained a quote from the research from Theodor Bilharz Research Institute, "At the 10(th) month post infection, livers were collected for subsequent flow cytometric, histopathological, morphometric, immunohistochemical, gene expression, and gelatin zymographic studies. After transplantation, WJMSCs differentiated into functioning liver-like cells as evidenced by their ability to express human hepatocyte-specific markers. Regression of *S. mansoni*-induced liver fibrosis was also observed in transplanted groups, as evidenced by histopathological, morphometric, and gelatin zymographic results besides decreased expression of three essential contributors to liver fibrosis in this particular model;
alpha smooth muscle actin, collagen-I, and interleukin-13. PZQ additionally enhanced the beneficial effects observed in WJMSCs-treated groups."

According to the news reporters, the research concluded: "Our results suggest that combining WJMSCs to PZQ caused better enhancement in S. mansoni-induced liver fibrosis, compared to using each alone."

For more information on this research see: Wharton's jelly-derived mesenchymal stem cells combined with praziquantel as a potential therapy for Schistosoma mansoni-induced liver fibrosis. Scientific Reports, 2016;6():21005. (Nature Publishing Group - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting O.A. Hammam, Dept. of Pathology, Theodor Bilharz Research Institute, Warrak El-Hadar, Imbaba, PO Box 30, Giza 12411, Egypt. Additional authors for this research include N. Elkhafif, Y.M. Attia, M.T. Mansour, M.M. Elmazar, R.M. Abdelsalam, S.A. Kenawy and A.S El-Khatib.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep21005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Giza, Egypt, Africa, Therapy, Genetics, Liver Fibrosis, Liver Cirrhosis, Gastroenterology, Stem Cell Research, Mesenchymal Stem Cells, Liver Diseases and Conditions.

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injury and keep the vessel open."

For more information on this research see: Left branch of portal vein thrombosis in a liver transplant recipient with donation after cardiac death donor A case report. *Medicine, 2016;95(49):268-271. Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting X.S. He, Guangdong Prov Int Cooperat Base Sci & Technol Or, Guangdong Prov Key Lab Organ Donat & Transplant I, Guangzhou 510080, Guangdong, People's Republic of China. Additional authors for this research include W.Q. Ju, X.H. Lin, Q. Zhao, D.P. Wang and X.S. He.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Liver Transplantation, Transplant Medicine, Liver Transplants, Organ Transplants, Portal Vein, Biomedicine, Cardiology, Hematology, Angiology.

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**Oncology - Lung Cancer**

**New Lung Cancer Data Have Been Reported by Investigators at Oregon Health and Science University (The Roles of Dyadic Appraisal and Coping in Couples With Lung Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting out of Portland, Oregon, by NewsRx editors, research stated, "Given the high symptom burden and low survivability of lung cancer, patients and their spouses have been found to experience poor mental health. The current study examined the roles of dyadic appraisal and dyadic coping on the mental health of 78 couples living with non-small cell lung cancer."

Our news journalists obtained a quote from the research from Oregon Health and Science University, "Multilevel modeling revealed that spouses, on average, reported significantly worse mental health than patients. Dyadic appraisal and dyadic coping played important roles in predicting mental health, controlling for known developmental and contextual covariates. Dyadic appraisal of the patient's pain and fatigue was significantly associated with spouse mental health, albeit in opposite directions. Dyadic coping significantly predicted patient mental health. The study underlines the need to incorporate routine screening of both patient and spouse mental health, and highlights the complex role of appraisal within the couple in a life-threatening context. Viewing the couple as a unit, rather than separate individuals, raises important awareness about the role of disparate illness appraisals and coping strategies within the dyad on the health of both members."

According to the news editors, the research concluded: "Nurses are particularly well situated to engage in a collaborative family-focused approach to the couple with cancer that promotes communication and health."

New Lung Cancer Data Have Been Reported by Researchers at Chinese Peoples' Liberation Army General Hospital (Ratio of lymph node to primary tumor SUVmax multiplied by maximal tumor diameter on positron emission tomography/integrated computed ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lung Cancer. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Positron emission tomography/integrated computed tomography (PET/CT) provides the most accurate imaging modality for preoperative lung cancer staging. However, the diagnostic accuracy of maximum standardized uptake value (SUVmax) for mediastinal (N2) lymph nodes (LN) is unclear."

Our news editors obtained a quote from the research from Chinese Peoples' Liberation Army General Hospital, "We compared SUVmax, the ratio of LN to primary tumor SUVmax (SUVn/t), and SUVn/t multiplied by maximal tumor diameter (SUVindex) in terms of their abilities to predict mediastinal LN malignancy. We retrospectively analyzed 170 mediastinal LN stations from 73 consecutive patients who underwent systemic LN resection and PET/CT within 27 days. The SUVmax of the primary tumors was >2.0 and the SUVmax of the mediastinal LN stations ranged from 2.0 to 7.0 on PET/CT. Receiver-operating characteristic curves (ROCs) of SUVmax, SUVn/t, and SUVindex were calculated separately and the areas under the curves (AUCs) were used to assess the abilities of the parameters to predict LN malignancy. The optimal cutoff values were calculated from each ROC curve and the diagnostic abilities were also compared. The diagnostic accuracies of the 3 methods were also assessed separately in smoking and nonsmoking patients. Twenty-eight LN stations were malignancy-positive and the remaining 142 were malignancy-negative. The AUCs for SUVindex, SUVn/t, and SUVmax were 0.709, 0.590, and 0.673, respectively, and the optimal cutoff values for SUVindex, SUVn/t, and SUVmax were 1.11, 0.34, and 3.6, respectively. The differences between SUVindex and SUVn/t were significant, but there was no significant difference between SUVindex and SUVmax. There were no significant differences between smokers and nonsmokers in the AUCs for any of the methods for predicting LN malignancy (P values >
0.05)."

According to the news editors, the research concluded: "SUVindex may be a predictor of mediastinal LN malignancy in lung cancer patients."

For more information on this research see: Ratio of lymph node to primary tumor SUVmax multiplied by maximal tumor diameter on positron emission tomography/integrated computed tomography may be a predictor of mediastinal lymph node malignancy in lung cancer. *Medicine, 2016;95(46):426-432.* *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting X.Y. Chu, Chinese Peoples' Liberation Army PLA Gen Hosp, Dept. of Thorac Surg, Beijing, People's Republic of China. Additional authors for this research include Y.H. Tang, Z.Q. Xue, P. Yang, K.F. Ma, G.Y. Ma and X.Y. Chu.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Computed Tomography, Diagnostics and Screening, Hemic and Immune Systems, Imaging Technology, Lymphoid Tissue, Lung Neoplasms, Lymph Nodes, Lung Cancer, Immunology, Oncology, Chinese Peoples' Liberation Army General Hospital.

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**Oncology - Lung Cancer**

**New Lung Cancer Study Findings Have Been Reported by Investigators at University of Louisville (Normalization of Exhaled Carbonyl Compounds After Lung Cancer Resection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting originating in Louisville, Kentucky, by NewsRx journalists, research stated, "Quantitative analysis of specific exhaled carbonyl compounds (ECCs) has shown promise for the detection of lung cancer. The purpose of this study is to demonstrate the normalization of ECCs in patients after lung cancer resection."

The news reporters obtained a quote from the research from the University of Louisville, "Patients from a single center gave consent and were enrolled in the study from 2011 onward. Breath analysis was performed on lung cancer patients before and after surgical resection of their tumors. One liter of breath from a single exhalation was collected and evacuated over a silicon microchip. Carbonyls were captured by oximation reaction and analyzed by mass spectrometry. Concentrations of four cancer-specific ECCs were measured and compared by using the Wilcoxon test. A given cancer marker was considered elevated at 1.5 or more standard deviations greater than the mean of the control population. There were 34 cancer patients with paired samples and 187 control subjects. The median values after resection were significantly lower for all four ECCs and were equivalent to the control patient values for three of the four ECCs. The analysis of ECCs demonstrates reduction to the level of control patients after surgical resection for lung cancer. This technology has the potential to be a useful tool to detect disease after lung cancer resection."

According to the news reporters, the research concluded: "Continued follow-up will determine whether subsequent elevation of ECCs is indicative of recurrent disease."

Our news correspondents report that additional information may be obtained by contacting V. van Berkel, University of Louisville, Dept. of Chem Engn, Louisville, KY 40292, United States. Additional authors for this research include M.C. Black, M. Bousamra, J.R. Trivedi, M. Li, X.A. Fu and V. van Berkel.

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Keywords for this news article include: Louisville, Kentucky, United States, North and Central America, Cancer, Surgery, Lung Neoplasms, Lung Cancer, Oncology, University of Louisville.

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**Oncology - Lung Cancer**

**New Lung Cancer Study Findings Have Been Reported by Investigators at University of North Carolina (Lysyl Hydroxylase 2 Is Secreted by Tumor Cells and Can Modify Collagen in the Extracellular Space)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lung Cancer. According to news reporting from Chapel Hill, North Carolina, by NewsRx journalists, research stated, "Lysyl hydroxylase 2 (LH2) catalyzes the hydroxylation of lysine residues in the telopeptides of fibrillar collagens, which leads to the formation of stable collagen cross-links. Recently we reported that LH2 enhances the metastatic propensity of lung cancer by increasing the amount of stable hydroxylysine aldehyde-derived collagen cross-links (HLCCs), which generate a stiffer tumor stroma (Chen, Y., et al. (2015) J. Clin. Invest. 125, 1147-1162)."

Funders for this research include National Cancer Institute, National Institute of Arthritis and Musculoskeletal and Skin Diseases.

The news correspondents obtained a quote from the research from the University of North Carolina, "It is generally accepted that LH2 modifies procollagen alpha chains on the endoplasmic reticulum before the formation of triple helical procollagen molecules. Herein, we report that LH2 is also secreted and modifies collagen in the extracellular space. Analyses of lung cancer cell lines demonstrated that LH2 is present in the cell lysates and the conditioned media in a dimeric, active form in both compartments. LH2 co-localized with collagen fibrils in the extracellular space in human lung cancer specimens and in orthotopic lung tumors generated by injection of a LH2-expressing human lung cancer cell line into nude mice. LH2 depletion in MC3T3 osteoblastic cells impaired the formation of HLCCs, resulting in an increase in the unmodified lysine aldehyde-derived collagen cross-link (LCC), and the addition of recombinant LH2 to the media of LH2-deficient MC3T3 cells was sufficient to rescue HLCC formation in the extracellular matrix."

According to the news reporters, the research concluded: "The finding that LH2
modifies collagen in the extracellular space challenges the current view that LH2 functions solely on the endoplasmic reticulum and could also have important implications for cancer biology."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.759803. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Extracellular Matrix Proteins, Enzymes and Coenzymes, Extracellular Space, Cellular Structures, Lung Neoplasms, Hydroxylase, Lung Cancer, Oncology, Collagen, University of North Carolina.

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Oncology - Lung Cancer

New Lung Cancer Study Findings Have Been Reported by Researchers at CHA University (Genomic profiling of lung adenocarcinoma patients reveals therapeutic targets and confers clinical benefit when standard molecular testing is negative)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Lung Cancer is the subject of a report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Identification of clinically relevant oncogenic drivers in advanced cancer is critical in selecting appropriate targeted therapy. Using next-generation sequencing (NGS)-based clinical cancer gene assay, we performed comprehensive genomic profiling (CGP) of advanced cases of lung adenocarcinoma."

Our news editors obtained a quote from the research from CHA University, "Formalin-fixed paraffin-embedded tumors from 51 lung adenocarcinoma patients whose tumors previously tested negative for EGFR/KRAS/ALK by conventional methods were collected, and CGP was performed via hybridization capture of 4,557 exons from 287 cancer-related genes and 47 introns from 19 genes frequently rearranged in cancer. Genomic profiles of all 51 cases were obtained, with a median coverage of 564x and a total of 190 individual genomic alterations (GAs). GAs per specimen was a mean of 3.7 (range 0-10). Cancer genomes are characterized by 50% (80/190) non-synonymous base substitutions, 15% (29/190) insertions or deletion, and 3% (5/190) splice site mutation. TP53 mutation was the most common GAs
(15%, n=29/190), followed by CDKN2A homozygous loss (5%, n=10/190), KRAS mutation (4%, n=8/190), EGFR mutation (4%, n=8/190) and MDM2 amplification (2%, n=5/190). As per NCCN guidelines, targetable GAs were identified in 16 patients (31%) (BRaf mutation [n=1], EGFR mutation [n=8], ERBB2 mutation [n=4], MET amplification [n=1], KIF5B-RET rearrangement [n=2], CCDC6-RET rearrangement [n=1], CD74-ROS1 rearrangement [n=1], EZR-ROS1 rearrangement [n=5], and SLC34A2-ROS1 rearrangement [n=1]). Fifty eight percent of patients wild type by standard testing for EGFR/KRAS/ALK have GAs identifiable by CGP that suggest benefit from target therapy."

According to the news editors, the research concluded: "CGP used when standard molecular testing for NSCLC is negative can reveal additional avenues of benefit from targeted therapy."

For more information on this research see: Genomic profiling of lung adenocarcinoma patients reveals therapeutic targets and confers clinical benefit when standard molecular testing is negative. Oncotarget, 2016;7(17):24172-8.

The news editors report that additional information may be obtained by contacting S.M. Lim, Dept. of Internal Medicine, Division of Medical Oncology, CHA Bundang Hospital, CHA University, Seoul, South Korea. Additional authors for this research include E.Y. Kim, H.R. Kim, S.M. Ali, J.R. Greenbowe, H.S. Shim, H. Chang, S. Lim, S. Paik and B.C Cho.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8138. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Therapy, Genetics, Oncology, South Korea, Lung Cancer, Adenocarcinoma, Diagnostics and Screening.

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Oncology - Lung Cancer

New Lung Cancer Study Findings Have Been Reported from International Agency for Research on Cancer (Descriptive epidemiology of lung cancer and current status of tobacco control measures in Central and South America)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lung Cancer. According to news reporting from Lyon, France, by NewsRx journalists, research stated, "Rationale and objective: Lung cancer is the most commonly diagnosed cancer and the leading cause of cancer death in the world. In Central and South America lung cancer is now one of most frequent cancers and the leading cause of cancer-related death in both sexes."

The news correspondents obtained a quote from the research from International Agency for Research on Cancer, "We describe patterns and trends in lung cancer incidence and mortality in Central and South America and give a brief overview of the current status of tobacco control measures based on the most recent MPOWER report. We obtained regional and national-level incidence data from 48 population-based cancer registries in 13 countries and cancer deaths from the WHO mortality database for 18 countries. We estimated world population age-standardized incidence and mortality rates per 100,000 person-years. Incidence of lung cancer by histological subtype were only available from high-quality population-based..."
cancer registries for the period 2003-2007. The highest incidence and mortality rates in the region were seen among males in Argentina, Cuba, Chile and Uruguay. Adenocarcinoma was the most frequent histological type overall, though squamous carcinoma was more frequent in Antofagasta-Chile and Villa Clara-Cuba. Smoke-free policies and warnings are widely implemented tobacco control measures; cessation is offered but the costs are not covered by health systems in the majority of countries.

According to the news reporters, the research concluded: "The high burden of lung cancer in the region highlights the need to improve long term information and strengthen current tobacco control policies including aggressive taxing measures and supporting smoking cessation in order to achieve the targeted reductions in smoking prevalence."


Our news journalists report that additional information may be obtained by contacting M. Pineros, Int Agcy Res Canc, Sect Canc Surveillance, F-69008 Lyon, France. Additional authors for this research include M.S. Sierra and D. Forman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.03.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Lung Neoplasms, Epidemiology, Lung Cancer, Oncology, Smoking, International Agency for Research on Cancer.

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Oncology - Lung Cancer

New Lung Cancer Study Findings Recently Were Reported by Researchers at Cochin Hospital (Intratumoral Immune Cell Densities Are Associated with Lung Adenocarcinoma Gene Alterations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lung Cancer. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "Tumor-infiltrating immune cells affect lung cancer outcome. However, the factors that influence the composition and function of the tumor immune environment remain poorly defined and need investigation, particularly in the era of immunotherapy."

Our news editors obtained a quote from the research from Cochin Hospital. "To determine whether the tumoral immune environment is related to lung adenocarcinoma mutations. This retrospective cohort included 316 consecutive patients with lung adenocarcinoma (225 men; 258 smokers) studied from 2001 to 2005 in a single center. We investigated the association of densities of intratumoral mature dendritic cells (mDCs), CD8(+) T cells, neutrophils, and macrophages with clinical and pathological variables and tumor cell mutation profiles obtained by next-generation sequencing. In 282 tumors, we found 460 mutations, mainly in TP53 (59%), KRAS (40%), STK11 (24%), and EGFR (14%). Intratumoral
CD8(+) T-cell density was high in smokers (P = 0.02) and TP53-mutated tumors (P = 0.02) and low in BRAF-mutated tumors (P = 0.005). Intratumoral mDC density was high with low pathological tumor stage (P = 0.01) and low with STK11 mutation (P = 0.004). Intratumoral neutrophil density was high and low with BRAF mutation (P = 0.04) and EGFR mutation (P = 0.02), respectively. Intratumoral macrophage density was low with EGFR mutation (P = 0.01). Intratumoral CD8(+) T-cell and mDC densities remained strong independent markers of overall survival (P = 0.001 and P = 0.02, respectively).

According to the news editors, the research concluded: "Intratumoral immune cell densities (mDCs, CD8+ T cells, neutrophils, macrophages) were significantly associated with molecular alterations in adenocarcinoma underlying the interactions between cancer cells and their microenvironment."


The news editors report that additional information may be obtained by contacting D. Damotte, Hopital Cochin, Serv Pathol, Paris, France. Additional authors for this research include M. Alifano, N. Pecuchet, J. Biton, E. Becht, J. Goc, C. Germain, H. Ouakrim, J.F. Regnard, I. Cremer, P. Laurent-Puig, M.C. Dieu-Nosjean, H. Blons and D. Damotte.

Keywords for this news article include: Paris, France, Europe, Mononuclear Phagocyte System, Hemic and Immune Systems, Tumors, Genetics, Adenocarcinoma, Granulocytes, Macrophages, Neutrophils, Lung Cancer, Immunology, Phagocytes, Oncology, Cochin Hospital.

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**Oncology - Lung Cancer**

**New Lung Cancer Study Findings Recently Were Reported by Researchers at George Mason University** (Functional signaling pathway analysis of lung adenocarcinomas identifies novel therapeutic targets for KRAS mutant tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news reporting from Manassas, Virginia, by NewsRx journalists, research stated, "Little is known about the complex signaling architecture of KRAS and the interconnected RAS-driven protein-protein interactions, especially as it occurs in human clinical specimens. This study explored the activated and interconnected signaling network of KRAS mutant lung adenocarcinomas (AD) to identify novel therapeutic targets. Thirty-four KRAS mutant (MT) and twenty-four KRAS wild-type (WT) frozen biospecimens were obtained from surgically treated lung ADs."

The news correspondents obtained a quote from the research from George Mason University, "Samples were subjected to Laser Capture Microdissection and Reverse Phase Protein Microarray analysis to explore the expression/activation levels of 150 signaling proteins along with co-activation concordance mapping. An independent set of 90 non-small cell lung
cancers (NSCLC) was used to validate selected findings by immunohistochemistry (IHC). Compared to KRAS WT tumors, the signaling architecture of KRAS MT ADs revealed significant interactions between KRAS downstream substrates, the AKT/mTOR pathway, and a number of Receptor Tyrosine Kinases (RTK). Approximately one-third of the KRAS MT tumors had ERK activation greater than the WT counterpart (p <0.01). Notably 18% of the KRAS MT tumors had elevated activation of the Estrogen Receptor alpha (ER-a) (p=0.02). This finding was verified in an independent population by IHC (p=0.03). KRAS MT lung ADs appear to have a more intricate RAS linked signaling network than WT tumors with linkage to many RTKs and to the AKT-mTOR pathway. Combination therapy targeting different nodes of this network may be necessary to treat this group of patients.

According to the news reporters, the research concluded: "In addition, for patients with KRAS MT tumors and activation of the ER-a, anti-estrogen therapy may have important clinical implications."


According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "Oncogenic activation of protein kinase BRAF drives tumor growth by promoting mitogen-activated protein kinase (MAPK) pathway signaling. Because oncogenic mutations in BRAF occur in similar to 2-7% of lung adenocarcinoma (LA), BRAF-mutant LA is the most frequent cause of BRAF-mutant cancer mortality worldwide."

Our news editors obtained a quote from the research from the University of California, "Whereas most tumor types harbor predominantly the BRAF(V600E)-mutant allele, the spectrum of BRAF mutations in LA includes BRAF(V600E) (similar to 60% of cases) and non-V600E mutant alleles (similar to 40% of cases) such as BRAF(G469A) and BRAF (G466V). The presence of BRAFV600E in LA has prompted clinical trials testing selective
BRAF inhibitors such as vemurafenib in BRAF(V600E)-mutant patients. Despite promising clinical efficacy, both innate and acquired resistance often result from reactivation of MAPK pathway signaling, thus limiting durable responses to the current BRAF inhibitors. Further, the optimal therapeutic strategy to block non-V600E BRAF-mutant LA remains unclear. Here, we report the efficacy of the Raf proto-oncogene serine/threonine protein kinase (RAF) inhibitor, PLX8394, that evades MAPK pathway reactivation in BRAF-mutant LA models. We show that PLX8394 treatment is effective in both BRAF(V600E) and certain non-V600 LA models, in vitro and in vivo. PLX8394 was effective against treatment-naive BRAF-mutant LAs and those with acquired vemurafenib resistance caused by an alternatively spliced, truncated BRAF (V600E) that promotes vemurafenib-insensitive MAPK pathway signaling. We further show that acquired PLX8394 resistance occurs via EGFR-mediated RAS-mTOR signaling and is prevented by upfront combination therapy with PLX8394 and either an EGFR or mTOR inhibitor."

According to the news editors, the research concluded: "Our study provides a biological rationale and potential polytherapy strategy to aid the deployment of PLX8394 in lung cancer patients."


The news editors report that additional information may be obtained by contacting T.G. Bivona, University of California, Dept. of Cellular & Mol Pharmacol, San Francisco, CA 94158, United States. Additional authors for this research include L. Lin, V. Olivas, E. Chan, E. Markegard, A. Rymar, D. Neel, X. Chen, G. Hemmati, G. Bollag and T.G. Bivona.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Phosphotransferases (Alcohol Group Acceptor), Clinical Trials and Studies, Enzymes and Coenzymes, Pre-Trial Research, Protein Kinases, Lung Neoplasms, Lung Cancer, Oncology, Genetics, University of California.

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**Oncology - Lung Cancer**

**New Lung Cancer Study Results from P.N. Lee et al Described (The effect of time changes in diagnosing lung cancer type on its recorded distribution, with particular reference to adenocarcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lung Cancer. According to news reporting out of Surrey, United Kingdom, by NewsRx editors, research stated, "Among lung cancers, a substantial shift over time has occurred in the recorded frequency of adenocarcinoma (AdC) relative to that of squamous cell carcinoma (SqCC). This is evident in many countries, and also in those who have never smoked."
Financial supporters for this research include British American Tobacco (Investments) Limited, Altria Client Services.

Our news journalists obtained a quote from the research, "We attempted to address the extent to which this increase is real, or an artefact of changing diagnostic practices. We reviewed studies re-evaluating diagnoses using more up-to-date criteria, and studies applying standard criteria to cases collected over a long period. We also describe changes to classifications, and factors affecting diagnostic accuracy and consistency. While the four main types have long remained essentially unchanged, successive WHO classifications differ in how tumours are ascribed to these types. Despite refinement of classifications and technological advances, the decision is ultimately the pathologist's. In 11 studies, 189/1212(15.6%) originally diagnosed AdCs were reclassified as non-AdC on review, whereas 541/1564(34.6%) of non-AdCs were reclassified as AdC, increasing AdCs by 30%. Studies examining trends in the proportion of AdC were conflicting; three showing a declining trend, seven no trend, and six some increase. Some studies find lepidic (bronchioloalveolar) carcinoma, but not other AdC sub-types, increased."

According to the news editors, the research concluded: "The rising AdC/SqCC ratio results at least partly from diagnostic changes."

For more information on this research see: The effect of time changes in diagnosing lung cancer type on its recorded distribution, with particular reference to adenocarcinoma. Regulatory Toxicology and Pharmacology, 2016;81():322-333. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting P.N. Lee, PN Lee Stat & Comp Ltd, Sutton SM2 5DA, Surrey, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.09.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Surrey, United Kingdom, Europe, Cancer, Diagnostics and Screening, Adenocarcinoma, Lung Neoplasms, Lung Cancer, Oncology.

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Oncology - Lung Cancer

New Lung Cancer Study Results from Peking University Cancer Hospital and Institute Described (Quantification of mutant alleles in circulating tumor DNA can predict survival in lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "We aimed to investigate the feasibility of droplet digital PCR (ddPCR) for the quantitative and dynamic detection of EGFR mutations and next generation sequencing (NGS) for screening EGFR-tyrosine kinase inhibitors (EGFR-TKIs) resistance-relevant mutations in circulating tumor DNA (ctDNA) from advanced lung adenocarcinoma (ADC) patients. Detection limit of EGFR mutation in ctDNA by ddPCR was 0.04%."
The news reporters obtained a quote from the research from Peking University Cancer Hospital and Institute, "Taking the EGFR mutation in tumor tissue as the golden standard, the concordance of EGFR mutations detected in ctDNA was 74% (54/73). Patients with EGFR mutation in ctDNA (n=54) superior progression-free survival (PFS, median, 12.6 vs. 6.7 months, p<0.001) and overall survival (OS, median, 35.6 vs. 23.8 months, p=0.028) compared to those with EGFR wild type in ctDNA (n=19). Patients with high EGFR-mutated abundance in ctDNA (>5.15%) showed better PFS compared to those with low EGFR mutated abundance (<= 5.15%) (PFS, median, 15.4 vs. 11.1 months, p=0.021). NGS results showed that 66.6% (8/12) total mutational copy number were elevated and 76.5% (26/34) mutual mutation frequency increased after disease progression. Seventy-three advanced ADC patients with tumor tissues carrying EGFR mutations and their matched pre-and post-EGFR-TKIs plasma samples were enrolled in this study. Absolute quantities of plasma EGFR mutant and wild-type alleles were measured by ddPCR. Multi-genes testing was performed using NGS in 12 patients. Dynamic and quantitative analysis of EGFR mutation in ctDNA could guide personalized therapy for advanced ADC."

According to the news reporters, the research concluded: "NGS shows good performance in multiple genes testing especially novel and uncommon genes."


Our news correspondents report that additional information may be obtained by contacting X. Yang, Dept. of Thoracic Medical Oncology, Key Laboratory of Carcinogenesis and Translational Research (Ministry of Education), Peking University Cancer Hospital and Institute, Beijing, People's Republic of China. Additional authors for this research include M. Zhuo, X. Ye, H. Bai, Z. Wang, Y. Sun, J. Zhao, T. An, J. Duan, M. Wu and J. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Genetics, Oncology, Lung Cancer, Lung Neoplasms, Diagnostics and Screening, People's Republic of China.

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Lung Diseases

New Lung Diseases Findings from Yonsei University Described (Implication of vitamin D-associated factors in patients with non tuberculous mycobacterial lung disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Little information is available regarding vitamin D-associated factors in patients with non tuberculous mycobacteria (NTM) lung disease. To determine the association between vitamin D-related factors and susceptibility to NTM lung disease."

Our news editors obtained a quote from the research from Yonsei University, "The relative gene expression levels of cathelicidin (CAMP), defensin (DEFB4), vitamin D receptor (VDR) and 1 alpha-hydroxylase (CYP27B1), as well as the serum levels of 25-hydroxyvitamin
D (25[OH]D), cathelicidin (LL-37), defensin (hBD-2) and vitamin D binding protein (DBP) from 82 patients with NTM lung disease and 28 control subjects were analysed. Gene expression of CAMP and DEFB4 was significantly higher, and gene expression of VDR and CYP27B1 was significantly lower, in NTM patients than controls. Serum LL-37 and hBD-2 levels were not significantly different between NTM patients and controls; however, the serum DBP level was higher in NTM patients than controls. The serum vitamin D status of patients did not correlate with serum LL-37, hBD-2, or DBP concentration or gene expression of CAMP, DEFB4, VDR or CYP27B1.

According to the news editors, the research concluded: "A higher level of gene expression for antimicrobial peptide is more likely to be associated with NTM lung disease than serum vitamin D status."


Keywords for this news article include: Seoul, South Korea, Asia, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Genetics, Yonsei University.

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Lung Diseases

New Lung Diseases Study Findings Have Been Reported by Investigators at Harvard School of Medicine (Soluble epoxide hydrolase deficiency or inhibition enhances murine hypoxic pulmonary vasoconstriction after lipopolysaccharide challenge)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases are discussed in a new report. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Hypoxic pulmonary vasoconstriction (HPV) is the response of the pulmonary vasculature to low levels of alveolar oxygen. HPV improves systemic arterial oxygenation by matching pulmonary perfusion to ventilation during alveolar hypoxia and is impaired in lung diseases such as the acute respiratory distress syndrome (ARDS) and in experimental models of endotoxemia."

Financial supporters for this research include Deutsche Forschungsgemeinschaft (DFG), HHS | NIH | National Heart, Lung, and Blood Institute (NHBLI), HHS | National Institutes of Health (NIH).

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Epoxyeicosatrienoic acids (EETs) are pulmonary vasoconstrictors, which are metabolized to less vasoactive dihydroxyeicosatrienoic acids (DHETs) by soluble epoxide hydrolase (sEH). We hypothesized that pharmacological inhibition or a congenital deficiency of
sEH in mice would reduce the metabolism of EETs and enhance HPV in mice after challenge with lipopolysaccharide (LPS). HPV was assessed 22 h after intravenous injection of LPS by measuring the percentage increase in the pulmonary vascular resistance of the left lung induced by left mainstem bronchial occlusion (LMBO). After LPS challenge, HPV was impaired in sEH (+/+), but not in sEH(-/-) mice or in sEH(+/+) mice treated acutely with a sEH inhibitor. Deficiency or pharmacological inhibition of sEH protected mice from the LPS-induced decrease in systemic arterial oxygen concentration (PaO2) during LMBO. In the lungs of sEH(-/-) mice, the LPS-induced increase in DHETs and cytokines was attenuated. Deficiency or pharmacological inhibition of sEH protects mice from LPS-induced impairment of HPV and improves the PaO2 after LMBO. After LPS challenge, lung EET degradation and cytokine expression were reduced in sEH(-/-) mice.

According to the news editors, the research concluded: "Inhibition of sEH might prove to be an effective treatment for ventilation-perfusion mismatch in lung diseases such as ARDS."

For more information on this research see: Soluble epoxide hydrolase deficiency or inhibition enhances murine hypoxic pulmonary vasoconstriction after lipopolysaccharide challenge. American Journal of Physiology-Lung Cellular and Molecular Physiology, 2016;311 (6):L1213-L1221. American Journal of Physiology-Lung Cellular and Molecular Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting W.M. Zapol, Harvard Med Sch, Boston, MA 02114, United States. Additional authors for this research include A. Beloiartsev, M.D. Buswell, D. Panigrahy, R. Malhotra, E.S. Buys, P. Radermacher, F. Ichinose, D.B. Bloch and W.M. Zapol.

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Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Bacterial Polysaccharides, Enzymes and Coenzymes, Lipopolysaccharides, Epoxide Hydrolases, Biological Factors, Bacterial Toxins, Pharmacology, Endotoxins, Therapy, Harvard School of Medicine.

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Lung Diseases

New Lung Diseases Study Findings Have Been Reported by Investigators at Shaheed Beheshti University of Medical Sciences (The roles of miRNAs as potential biomarkers in lung diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases is now available. According to news reporting out of Tehran, Iran, by NewsRx editors, research stated, "MicroRNAs (miRNAs) are small non-coding RNAs which can act as master regulators of gene expression, modulate almost all biological process and are essential for maintaining cellular homeostasis. Dysregulation of miRNA expression has been associated with aberrant gene expression and may lead to pathological conditions."
Financial supporters for this research include MRC, Wellcome Trust, Royal Brompton NHS Foundation Trust, Imperial College London.

Our news journalists obtained a quote from the research from the Shaheed Beheshti University of Medical Sciences, "Evidence suggests that miRNA expression profiles are altered between health and disease and as such may be considered as biomarkers of disease. Evidence is increasing that miRNAs are particularly important in lung homeostasis and development and have been demonstrated to be the involved in many pulmonary diseases such as asthma, COPD, sarcoidosis, lung cancer and other smoking related diseases. Better understanding of the function of miRNA and the mechanisms underlying their action in the lung, would help to improve current diagnosis and therapeutics strategies in pulmonary diseases. Recently, some miRNA-based drugs have been introduced as possible therapeutic agents."

According to the news editors, the research concluded: "In this review we aim to summarize the recent findings regarding the role of miRNAs in the airways and lung and emphasise their potential therapeutic roles in pulmonary diseases."

For more information on this research see: The roles of miRNAs as potential biomarkers in lung diseases. European Journal of Pharmacology, 2016;791():395-404. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting E. Mortaz, Shahid Beheshti Univ Med Sci, Clin TB & Epidemiol Res Center, Natl Res & Inst TB & Lung Dis, Tehran, Iran. Additional authors for this research include I.M. Adcock, J. Garssen, E. Mortaz, M. Varahram, M. Mirsaeidi and A. Velayati.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Pulmonary Disease, Genetics, Shaheed Beheshti University of Medical Sciences.

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**Lung Diseases**

**New Lung Diseases Study Findings Have Been Reported by Investigators at Sungkyunkwan University (Peak Plasma Concentration of Azithromycin and Treatment Responses in Mycobacterium avium Complex Lung Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Macrolides, such as azithromycin (AZM) and clarithromycin, are the cornerstones of treatment for Mycobacterium avium complex lung disease (MAC-LD). Current guidelines recommend daily therapy with AZM for cavitary MAC-LD and intermittent therapy for noncavitary MAC-LD, but the effectiveness of these regimens has not been thoroughly investigated."

Financial supporters for this research include National Research Foundation of Korea
The news correspondents obtained a quote from the research from Sungkyunkwan University, "This study evaluated associations between microbiological response and estimated peak plasma concentrations (C-max) of AZM. The AZM C-max was measured in patients receiving daily therapy (250 mg of AZM daily, n = 77) or intermittent therapy (500 mg of AZM three times weekly, n = 89) for MAC-LD and daily therapy for Mycobacterium abscessus complex LD (MABC-LD) (250 mg of AZM daily, n = 55). The AZM C-max was lower with the daily regimen for MAC-LD (median, 0.24 μg/ml) than with the intermittent regimen for MAC-LD (median, 0.65 μg/ml; P< 0.001) or daily therapy for MABC-LD (median, 0.53 μg/ml; P< 0.001). After adjusting for confounding factors, AZM C(max)was independently associated with favorable microbiological responses in MAC-LD patients receiving a daily regimen (adjusted odds ratio [aOR], 1.58; 95% confidence interval [CI], 1.01 to 2.48; P = 0.044) but not an intermittent regimen (aOR, 0.85; 95% CI, 0.58 to 1.23, P = 0.379). With the daily AZM-based multidrug regimen for MAC-LD, a low AZM C-max was common, whereas a higher AZM C-max was associated with favorable microbiologic responses. The results also suggested that the addition of rifampin may lower AZM C-max."

According to the news reporters, the research concluded: "When a daily AZM-based multidrug regimen is used for treating severe MAC-LD, such as cavitary disease, the currently recommended AZM dose might be suboptimal."

For more information on this research see: Peak Plasma Concentration of Azithromycin and Treatment Responses in Mycobacterium avium Complex Lung Disease. Antimicrobial Agents and Chemotherapy, 2016;60(10):6076-6083. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00770-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Respiratory Tract Diseases and Conditions, Gram-Positive Asporogenous Rods, Lung Diseases and Conditions, Mycobacterium avium Complex, Ophthalmic Antiinfectives, Ophthalmic Preparations, Gram-Positive Bacteria, Macrolide Derivatives, Atypical Mycobacteria, Drugs and Therapies, Gram-Positive Rods, Mycobacteriaceae, Actinomyceetales, Actinobacteria, Azithromycin, Erythromycin, Antibiotics, Therapy, Sungkyunkwan University.

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Autoimmune Diseases and Conditions - Lupus

New Lupus Findings from Central Hospital Reported (Expression of BAFF and BR3 in patients with systemic lupus erythematosus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Autoimmune Diseases and Conditions - Lupus have been
presented. According to news reporting originating in Tianjin, People's Republic of China, by NewsRx journalists, research stated, "The objective of this study was to examine the relationship between the expression of B cell activating factor (BAFF) and BAFF receptor in patients with disease activity of systemic lupus erythematosus (SLE). Real-time RT-PCR was used to examine BAFF mRNA expression in peripheral blood monocytes of active and stable SLE patients and healthy controls."

The news reporters obtained a quote from the research from Central Hospital, "The percentage of BAFF receptor 3 (BR3) on B lymphocytes was measured by flow cytometry. Soluble BAFF levels in serum were assayed by ELISA. Microalbumin levels were assayed by an automatic immune analysis machine. BAFF mRNA and soluble BAFF levels were highest in the active SLE group, followed by the stable SLE group, and controls (p <0.01). The percentage of BR3 on B lymphocytes was downregulated in the active SLE group compared with the stable SLE group and controls (p <0.01). BAFF mRNA levels and soluble BAFF levels were higher in patients who were positive for proteinuria than in those who were negative (p <0.01). The percentage of BR3 on B lymphocytes was lower in patients who were positive for proteinuria than in those who were negative (p <0.01). The BAFF/BR3 axis may be over-activated in SLE patients."

According to the news reporters, the research concluded: "BAFF and BR3 levels may be useful parameters for evaluating treatment."

For more information on this research see: Expression of BAFF and BR3 in patients with systemic lupus erythematosus. Brazilian Journal of Medical and Biological Research, 2016;49(3):.

Our news correspondents report that additional information may be obtained by contacting J.H. Duan, Tianjin First Central Hospital, Tianjin, People's Republic of China. Additional authors for this research include Y. Jiang, H. Mu and Z.Q Tang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1590/1414-431X20154853. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tianjin, Genetics, Immunology, Blood Cells, Lymphocytes, Mononuclear Leukocytes, Hemic and Immune Systems, People's Republic of China, Systemic Lupus Erythematosus, Autoimmune Diseases and Conditions.

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Autoimmune Diseases and Conditions - Lupus

New Lupus Study Findings Have Been Reported by Researchers at King's College (Urinary congophilia in women with hypertensive disorders of pregnancy and preexisting proteinuria or hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Autoimmune Diseases and Conditions - Lupus is the subject of a report. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "Congophilia indicates the presence of amyloid protein, which is an aggregate of misfolded proteins, that is implicated in the pathophysiologic condition of preeclampsia. Recently, urinary congophilia has been proposed as a test for the diagnosis and prediction of preeclampsia."
Our news journalists obtained a quote from the research from King's College, "The purpose of this study was to determine whether urine congophilia is present in a cohort of women with preeclampsia and in pregnant and nonpregnant women with renal disease. With the use of a preeclampsia, chronic hypertension, renal disease, and systemic lupus erythematosus cohort, we analyzed urine samples from healthy pregnant control subjects (n = 31) and pregnant women with preeclampsia (n = 23), gestational hypertension (n = 10), chronic hypertension (n = 14), chronic kidney disease; n = 28), chronic kidney disease with superimposed preeclampsia (n = 5), and chronic hypertension and superimposed preeclampsia (n = 12). Samples from nonpregnant control subjects (n = 10) and nonpregnant women with either systemic lupus erythematosus with (n = 25) and without (n = 14) lupus nephritis were analyzed. For each sample, protein concentration was standardized before it was mixed with Congo Red, spotted to nitrocellulose membrane, and rinsed with methanol. The optical density of the residual Congo Red stain was determined; Congo red stain retention was calculated, and groups were compared with the use of the Mann-Whitney test or Kruskal-Wallis analysis of Variance test, as appropriate. Congophilia was increased in urine from women with preeclampsia (median Congo red stain retention, 47%; interquartile range, 22-68%) compared with healthy pregnant control subjects (Congo red stain retention: 16%; interquartile range, 13-21%; P = .002), women with gestational hypertension (Congo red stain retention, 20%; interquartile range, 13-27%; P = .008), or women with chronic hypertension Congo red stain retention, 17%; interquartile range, 12-28%; P = .01). There were no differences in Congo red retention between pregnant women with chronic hypertension and normal pregnant control subjects (Congo red stain retention, 17% [ interquartile range, 12-28%] vs 16% [interquartile range, 13-21%], respectively; P = .72).

Congophilia was present in pregnant women with chronic kidney disease (Congo red stain retention, 32%; interquartile range, 14-57%), being similar to values found in women with preeclampsia (P = .22) and for women with chronic kidney disease and superimposed preeclampsia (Congo red stain retention, 57%; [interquartile range, 29-71%; P = .18). Nonpregnant women with lupus nephritis had higher congophilia levels compared with nonpregnant female control subjects (Congo red stain retention, 38% [interquartile range, 17-73%] vs 9% [7-11%], respectively; P< .001) and nonpregnant women with systemic lupus erythematosus without nephritis (Congo red stain retention, 38% [interquartile range, 17-73%] vs 13% [interquartile range, 11-17%], respectively; P = .001). A significant positive correlation was observed between congophilia and protein: creatinine ratio (Spearman rank correlations, 0.702; 95% confidence interval, 0.618-0.770; P< .001). This study confirms that women with preeclampsia and chronic kidney disease without preeclampsia have elevated urine congophilia levels compared with healthy pregnant women. Nonpregnant women with lupus nephritis also have elevated urine congophilia levels compared with healthy control subjects."

According to the news editors, the research concluded: "An elevated Congo Red stain retention may not be able to differentiate between these conditions; further research is required to explore the use of congophilia in clinical practice."


The news correspondents report that additional information may be obtained from F.P. McCarthy, Kings Coll London, St. Thomas Hospital, Womens Hlth Academy Center, London, United Kingdom. Additional authors for this research include A. Adetoba, C. Gill, K. Bramham, M. Bertolaccini, G.J. Burton, G. Girardi, P.T. Seed, L. Poston and L.C. Chappell.
New Luteinizing Hormone Findings from National Research Institute of Aquaculture Discussed (Development of a homologous radioimmunoassay for red seabream follicle stimulating hormone and regulation of gonadotropins by GnRH in red seabream, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peptide Proteins - Luteinizing Hormone. According to news reporting originating from Oita, Japan, by NewsRx correspondents, research stated, "Using a recombinant chimeric single-chain follicle stimulating hormone (FSH), we established a radioimmunoassay (RIA) for red seabream (Pagrus major) FSH (pmFSH) which became a powerful tool for studying reproductive physiology. We studied the profiles in plasma and pituitary concentrations of FSH and luteinizing hormone (LH) during sexual maturation."

Financial support for this research came from JSPS KAKENHI.

Our news editors obtained a quote from the research from the National Research Institute of Aquaculture, "A pre-established RIA for red seabream LH was used for the LH measurements. The regulation of FSH and LH secretion from the pituitary was investigated using a gonadotropin-releasing hormone analog (GnRHa) in vivo and in vitro. Marked differences in plasma and pituitary FSH levels were observed between males and females; pituitary FSH content in males was much higher than that in females during all seasons, and plasma FSH levels in males were high during the spawning season, whereas those in females were unchanged. In contrast, plasma and pituitary levels of LH were elevated before and during the spawning season in males and females. Injecting or implanting (cholesterol pellet) a GnRHa into adult and juvenile red seabream resulted in significant increases in plasma LH concentrations; however, no significant change was observed in plasma FSH. Moreover, GnRHa stimulated only LH secretion in an in vitro experiment using dispersed pituitary cells. The discrete FSH and LH secretion profiles revealed suggest differential roles for the two gonadotropins during red seabream gametogenesis."

According to the news editors, the research concluded: "In addition, the marked difference in pituitary FSH levels in males and females suggests the relative significance of FSH in male reproduction."

For more information on this research see: Development of a homologous radioimmunoassay for red seabream follicle stimulating hormone and regulation of gonadotropins by GnRH in red seabream, Pagrus major. General and Comparative Endocrinology, 2016;239();4-12. General and Comparative Endocrinology can be contacted at:
New Lymphocytes Study Findings Recently Were Reported by Researchers at University Hospital (Moving Immune Checkpoint Blockade in Thoracic Tumors beyond NSCLC)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Lymphocytes. According to news reporting from Parma, Italy, by NewsRx journalists, research stated, "SCLC and malignant pleural mesothelioma (MPM) are historically characterized by a disappointing lack of significant therapeutic breakthroughs for novel agents, and both malignancies represent true unmet medical needs. Given the promising results of anti-cytotoxic T-lymphocyte associated protein-4 and anti-programmed cell death-1/programmed death ligand-1 antibodies in the treatment of advanced NSCLCs, these immune checkpoint inhibitors are now also under investigation in SCLC and MPM, as well as in thymic epithelial tumors (TETs)."

The news correspondents obtained a quote from the research from University Hospital, "Here, we review the biological and clinical rationale for immune checkpoint inhibition in SCLC, MPM, and TETs and present preliminary clinical results with available antibodies. Immunotherapeutic perspectives for these malignancies in terms of novel agents currently under evaluation or anticipated in the near future are also discussed. Current immune checkpoint blockers targeting cytotoxic T-lymphocyte associated protein-4 and the programmed cell death-1/programmed death ligand-1 axis, administered alone or in combination and as multi modality treatment, are likely to be a valuable addition to the therapeutic array for managing SCLC and MPM; studies in TETs, which are currently in their infancy, are merited."

According to the news reporters, the research concluded: "Close attention to potential toxicities will be important to the success of such strategies in these settings."

Our news journalists report that additional information may be obtained by contacting F. Facchinetti, University Hospital Parma, Medical Oncol Unit, Parma, Italy. Additional authors for this research include A. Marabelle, G. Rossi, J.C. Soria, B. Besse and M. Tiseo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtho.2016.05.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Parma, Italy, Europe, Hemic and Immune Systems, Tumors, Article Review, T-Lymphocytes, Immunology, Leukocytes, University Hospital.

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Immunology - Lymphoid Tissue

New Lymphoid Tissue Findings from Medical University Outlined
(Vulvar cancer: initial management and systematic review of literature on currently applied treatment approaches)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immunology - Lymphoid Tissue are discussed in a new report. According to news reporting from Gdansk, Poland, by NewsRx editors, the research stated, "This review provides guidelines and aims to estimate utilisation rates of treatment modalities applied in vulvar cancer. Current standards of treatment are as follows: wide local excision instead of radical vulvectomy in the case of small tumour (T < 2 cm), no lymph node dissection in the case of a microinvasive tumour (invasion < 1 mm), unilateral lymph node dissection in the case of a lateral tumour and inguinal-femoral lymphadenectomy by separate incisions instead of en bloc inguinal-femoral lymph node excision."

The news correspondents obtained a quote from the research from Medical University, "Implementation of sentinel lymph node biopsy in patients with tumours not exceeding 4 cm is safe and efficiently eliminates redundant groin dissections. Pre-operative treatment with chemoradiotherapy reduces tumour size and improves surgical excision of inoperable primary tumours or fixed lymph nodes, but side effects are considerable. Literature search performed using PubMed database (from: 1 June 2005 to 1 June 2015) with the terms 'consecutive', 'vulvar cancer', 'treatment' identified seven full-text manuscripts, including data on 1114 patients. Utilisation rates of neoadjuvant radiochemotherapy, chemotherapy alone, surgery, adjuvant radiotherapy and adjuvant radiochemotherapy were 5.9%, 0.3%, 89.3%, 22.6% and 0.2% respectively."

According to the news reporters, the research concluded: "An evidence-based estimation of appropriate rates of surgery, radiotherapy and chemotherapy for vulvar cancer is needed to compare management reflecting guidelines with presented here real frequency of applied modalities."

Our news journalists report that additional information may be obtained by contacting J.J. Sznurkowski, Medical University Lublin, Dept. of Surg Oncol, Gdansk, Poland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ecc.12455. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gdansk, Poland, Europe, Hemic and Immune Systems, Surgery, Article Review, Lymphoid Tissue, Radiotherapy, Lymph Nodes, Immunology, Oncology, Therapy, Cancer, Medical University.

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**Immunology - Lymphoid Tissue**

**New Lymphoid Tissue Findings from School of Medicine Described (Pelvic Lymph Node Dissection in Patients Treated for Testis Cancer: The Memorial Sloan Kettering Cancer Center Experience)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immunology - Lymphoid Tissue. According to news reporting originating in Springfield, Illinois, by NewsRx journalists, research stated, "To describe the pathologic findings and clinical outcome data for patients undergoing pelvic lymph node dissection (PLND) in the course of management of testicular germ cell tumors at Memorial Sloan Kettering Cancer Center (MSKCC). Following institutional review board approval, data on 2186 patients who underwent retroperitoneal lymph node dissection (RPLND) at MSKCC between 1989 and 2011 were retrospectively reviewed."

The news reporters obtained a quote from the research from the School of Medicine, "Of these 2186 patients, we analyzed data for 44 patients (2%) who underwent PLND at the time of RPLND. PLND was performed in 14/44 (31%) patients at time of primary RPLND (P-RPLND), and in 21/44(48%) patients at time of postchemotherapy RPLND (PC-RPLND), usually for suspicious radiologic or intraoperative findings, whereas 9/44 (21%) underwent PLND for treatment of relapse. Positive pelvic findings on imaging included pelvic disease <= 5 cm in 17/44 (39%) patients and >5 cm in 11/44 (25%) patients (median size = 4 cm). At the time of PC-RPLND, alphafetoprotein and beta human chorionic gonadotropin were elevated in 6/21 (29%) and 4/21 (19%) patients, respectively. Histology revealed teratoma in 15/44 (34%) and viable tumor in 5/44 (11%) patients. At a median follow-up of 46 months, 40/44 (91%) patients were living without disease, 3/44 (7%) were living with disease (1 after PC-RPLND and 2 after relapse), and 1/44 (2%) died of other causes."

According to the news reporters, the research concluded: "PLND was performed infrequently in our series of patients who underwent RPLND for testis cancer."


Our news correspondents report that additional information may be obtained by contacting S.R. Alanee, Southern Illinois Univ, Sch Med, Dept. of Surg, Div Urol, Springfield,
Oncology - Lymphoma

New Lymphoma Findings from University of Rochester Described [ACR Appropriateness Criteria (R) Hodgkin Lymphoma-Favorable Prognosis Stage I and II]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lymphoma. According to news reporting from Rochester, New York, by NewsRx journalists, research stated, "This topic addresses the treatment of newly diagnosed patients with favorable prognosis stage I and II Hodgkin lymphoma. In most cases, combined modality therapy (chemotherapy followed by involved site radiation therapy) constitutes the current standard of care."

The news correspondents obtained a quote from the research from the University of Rochester, "The American College of Radiology Appropriateness Criteria are evidence-based guidelines for specific clinical conditions that are reviewed annually by a multidisciplinary expert panel. The guideline development and revision include an extensive analysis of current medical literature from peer-reviewed journals and the application of well-established methodologies (RAND/UCLA Appropriateness Method and Grading of Recommendations Assessment, Development, and Evaluation or GRADE) to rate the appropriateness of imaging and treatment procedures for specific clinical scenarios. In those instances where evidence is lacking or equivocal, expert opinion may supplement the available evidence to recommend imaging or treatment. By combining the most recent medical literature and expert opinion, this revised guideline can aid clinicians in the appropriate use of combined modality therapy for favorable prognosis stage I and II Hodgkin lymphoma."

According to the news reporters, the research concluded: "Increasing information about the late effects of treatment has led to attempts to decrease toxicity by using less chemotherapy (decreased duration and/or intensity or different agents) and less radiation therapy (reduced volume and/or dose) while maintaining excellent efficacy."

For more information on this research see: ACR Appropriateness Criteria® Hodgkin Lymphoma-Favorable Prognosis Stage I and II. American Journal of Clinical Oncology-Cancer Clinical Trials, 2016;39(6):535-544. American Journal of Clinical Oncology-Cancer Clinical Trials can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting S. Dhakal, University of Rochester, Medical Center, Rochester, NY 14627, United States. Additional authors for this research include R. Advani, L.K. Ballas, B.S. Dabaja, C.R.

Keywords for this news article include: Rochester, New York, United States, North and Central America, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Combined Modality Therapy, Hematology, Lymphomas, Oncology, University of Rochester.

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Machine Learning

New Machine Learning Findings from University of California Outlined (Molecular Properties of Drugs Interacting with SLC22 Transporters OAT1, OAT3, OCT1, and OCT2: A Machine-Learning Approaches)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Machine Learning. According to news originating from La Jolla, California, by NewsRx correspondents, research stated, "Statistical analysis was performed on physicochemical descriptors of similar to 250 drugs known to interact with one or more SLC22 'drug' transporters (i.e., SLC22A6 or OAT1, SLC22A8 or OAT3, SLC22A1 or OCT1, and SLC22A2 or OCT2), followed by application of machine-learning methods and wet laboratory testing of novel predictions. In addition to molecular charge, organic anion transporters (OATs) were found to prefer interacting with planar structures, whereas organic cation transporters (OCTs) interact with more three-dimensional structures (i.e., greater SP3 character)."

Our news journalists obtained a quote from the research from the University of California, "Moreover, compared with OAT1 ligands, OAT3 ligands possess more acyclic tetravalent bonds and have a more zwitterionic/cationic character. In contrast, OCT1 and OCT2 ligands were not clearly distinguishable form one another by the methods employed. Multiple pharmacophore models were generated on the basis of the drugs and, consistent with the machine-learning analyses, one unique pharmacophore created from ligands of OAT3 possessed cationic properties similar to OCT ligands; this was confirmed by quantitative atomic property field analysis. Virtual screening with this pharmacophore, followed by transport assays, identified several cationic drugs that selectively interact with OAT3 but not OAT1. Although the present analysis may be somewhat limited by the need to rely largely on inhibition data for modeling, wet laboratory/in vitro transport studies, as well as analysis of drug/metabolite handling in Oat and Oct knockout animals, support the general validity of the approach-which can also be applied to other SLC and ATP binding cassette drug transporters. This may make it possible to predict the molecular properties of a drug or metabolite necessary for interaction with the transporter(s), thereby enabling better prediction of drug-drug interactions and drug-metabolite interactions."

According to the news editors, the research concluded: "Furthermore, understanding the overlapping specificities of OATs and OCTs in the context of dynamic transporter tissue expression patterns should help predict net flux in a particular tissue of anionic, cationic, and zwitterionic molecules in normal and pathophysiological states."

Mosquito-Borne Diseases - Malaria

New Malaria Study Findings Have Been Reported from J.I. Nankabirwa et al (Intermittent Preventive Treatment with Dihydroartemisinin-Piperaquine in Ugandan Schoolchildren Selects for Plasmodium falciparum Transporter Polymorphisms That Modify ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mosquito-Borne Diseases - Malaria. According to news reporting originating in Kampala, Uganda, by NewsRx journalists, research stated, "Dihydroartemisinin-piperaquine (DP) offers prolonged protection against malaria, but its impact on Plasmodium falciparum drug sensitivity is uncertain. In a trial of intermittent preventive treatment in schoolchildren in Tororo, Uganda, in 2011 to 2012, monthly DP for 1 year decreased the incidence of malaria by 96% compared to placebo; DP once per school term offered protection primarily during the first month after therapy."

The news reporters obtained a quote from the research, "To assess the impact of DP on selection of drug resistance, we compared the prevalence of key polymorphisms in isolates that emerged at different intervals after treatment with DP. Blood obtained monthly and at each episode of fever was assessed for P. falciparum parasitemia by microscopy. Samples from 160 symptomatic and 650 asymptomatic episodes of parasitemia were assessed at 4 loci (N86Y, Y184F, and D1246Y in pfmdr1 and K76T in pfcrt) that modulate sensitivity to aminoquinoline antimalarials, utilizing a ligase detection reaction-fluorescent microsphere assay. For pfmdr1 N86Y and pfcrt K76T, but not the other studied polymorphisms, the prevalences of mutant genotypes were significantly greater in children who had received DP within the past 30 days than in those not treated within 60 days (86Y, 18.0% versus 8.3% [P = 0.03]; 76T, 96.0% versus 86.1% [P = 0.05]), suggesting selective pressure of DP. Full sequencing of pfcrt in a subset of samples did not identify additional polymorphisms selected by DP."

According to the news reporters, the research concluded: "In summary, parasites that emerged soon after treatment with DP were more likely than parasites not under drug pressure to harbor pfmdr1 and pfcrt polymorphisms associated with decreased sensitivity to aminoquinoline antimalarials."

For more information on this research see: Intermittent Preventive Treatment with Dihydroartemisinin-Piperaquine in Ugandan Schoolchildren Selects for Plasmodium falciparum Transporter Polymorphisms That Modify Drug Sensitivity. Antimicrobial Agents and

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00920-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kampala, Uganda, Africa, Mosquito-Borne Illness, Mosquito-Borne Diseases, Plasmodium falciparum, Protozoan Infections, Drugs and Therapies, Antimalarial Agents, Tropical Disease, Malaria.

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**Mosquito-Borne Diseases - Malaria**

**New Malaria Study Findings Recently Were Reported by Researchers at Clemson University (Identification of Novel Plasmodium falciparum Hexokinase Inhibitors with Antiparasitic Activity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mosquito-Borne Diseases - Malaria. According to news reporting originating in Clemson, South Carolina, by NewsRx journalists, research stated, "Plasmodium falciparum, the deadliest species of malaria parasites, is dependent on glycolysis for the generation of ATP during the pathogenic red blood cell stage. Hexokinase (HK) catalyzes the first step in glycolysis, transferring the gamma-phosphoryl group of ATP to glucose to yield glucose-6-phosphate."

Financial support for this research came from HHS | National Institutes of Health (NIH).

The news reporters obtained a quote from the research from Clemson University, "Here, we describe the validation of a high-throughput assay for screening small-molecule collections to identify inhibitors of the P. falciparum HK (PfHK). The assay, which employed an ADP-Glo reporter system in a 1,536-well-plate format, was robust with a signal-to-background ratio of 3.4 +/- 1.2, a coefficient of variation of 6.8% +/- 2.9%, and a Z'-factor of 0.75 +/- 0.08. Using this assay, we screened 57,654 molecules from multiple small-molecule collections. Confirmed hits were resolved into four clusters on the basis of structural relatedness. Multiple singleton hits were also identified. The most potent inhibitors had 50% inhibitory concentrations as low as similar to 1 mu M, and several were found to have low-micromolar 50% effective concentrations against asexual intraerythrocytic-stage P. falciparum parasites. These molecules additionally demonstrated limited toxicity against a panel of mammalian cells."

According to the news reporters, the research concluded: "The identification of PfHK inhibitors with antiparasitic activity using this validated screening assay is encouraging, as it justifies additional HTS campaigns with more structurally amenable libraries for the identification of potential leads for future therapeutic development."
For more information on this research see: Identification of Novel Plasmodium falciparum Hexokinase Inhibitors with Antiparasitic Activity. *Antimicrobial Agents and Chemotherapy*, 2016;60(10):6023-6033. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.

(American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting J.C. Morris, Clemson University, Dept. of Biochem & Genet, Eukaryot Pathogens Innovat Center, Clemson, SC 29634, United States. Additional authors for this research include S.L. Patrick, W.M. Blanding, V. Dwivedi, J. Suryadi, J.E. Golden, N.P. Coussens, O.W. Lee, M. Shen, M.B. Boxer, M.D. Hall, E.R. Sharlow, M.E. Drew and J.C. Morris.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00914-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Clemson, South Carolina, United States, North and Central America, Phosphotransferases (Alcohol Group Acceptor), Hexokinase, Diagnostics and Screening, Mosquito-Borne Diseases, Enzymes and Coenzymes, Plasmodium falciparum, Tropical Disease, Malaria, Clemson University.

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**Mosquito-Borne Diseases - Malaria**

**New Malaria Study Results Reported from GlaxoSmithKline**

**Development of a Novel High-Density [H-3] Hypoxanthine Scintillation Proximity Assay To Assess Plasmodium falciparum Growth**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mosquito-Borne Diseases - Malaria. According to news reporting originating in Tres Cantos, Spain, by NewsRx journalists, research stated, "The discovery and development of new antimalarial drugs are becoming imperative because of the spread of resistance to current clinical treatments. The lack of robustly validated antimalarial targets and the difficulties with the building in of whole-cell activity in screening hits are hampering target-based approaches."

The news reporters obtained a quote from the research from GlaxoSmithKline, "However, phenotypic screens of structurally diverse molecule libraries are offering new opportunities for the identification of novel antimalarials. Several methodologies can be used to determine the whole-cell in vitro potencies of antimalarial hits. The [H-3] hypoxanthine incorporation assay is considered the 'gold standard' assay for measurement of the activity of antimalarial compounds against intraerythrocytic forms of Plasmodium falciparum. However, the method has important limitations, as the assay is not amenable for high-throughput screening since it remains associated with the 96-well plate format. We have overcome this drawback by adapting the [3H] hypoxanthine incorporation method to a 384-well high-density format by coupling a homogeneous scintillation proximity assay (SPA) and thus eliminating the limiting filtration step. This SPA has been validated using a diverse set of 1,000 molecules, including both a representative set from the Tres Cantos Antimalarial Set (TCAMS) of compounds and molecules inactive against whole cells. The results were compared with those from the P. falciparum lactate dehydrogenase whole-cell assay, another method that is well established as a
surrogate for parasite growth and is amenable for high-throughput screening."

According to the news reporters, the research concluded: "The results obtained demonstrate that the SPA-based [H-3] hypoxanthine incorporation assay is a suitable design that is adaptable to high-throughput antimalarial drug screening and that maintains the features, robustness, and reliability of the standard filtration hypoxanthine incorporation method."


Our news correspondents report that additional information may be obtained by contacting C. de Cozar, GlaxoSmithKline, DDW, Tres Cantos, Spain. Additional authors for this research include I. Caballero, G. Colmenarejo, L.M. Sanz, E. Alvarez-Ruiz, F.J. Gamo and C. Cid.

Keywords for this news article include: Tres Cantos, Spain, Europe, Drugs and Therapies, Diagnostics and Screening, Mosquito-Borne Illness, Mosquito-Borne Diseases, Plasmodium falciparum, Antimalarial Agents, Tropical Disease, Malaria, GlaxoSmithKline.

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Mosquito-Borne Diseases - Malaria

New Malaria Study Results from M.W. Vos et al Described (A semi-automated luminescence based standard membrane feeding assay identifies novel small molecules that inhibit transmission of malaria parasites by mosquitoes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mosquito-Borne Diseases - Malaria. According to news reporting originating in Nijmegen, Netherlands, by NewsRx journalists, research stated, "Current first-line treatments for uncomplicated falciparum malaria rapidly clear the asexual stages of the parasite, but do not fully prevent parasite transmission by mosquitoes. The standard membrane feeding assay (SMFA) is the biological gold standard assessment of transmission reducing activity (TRA), but its throughput is limited by the need to determine mosquito infection status by dissection and microscopy."

The news reporters obtained a quote from the research, "Here we present a novel dissection-free luminescence based SMFA format using a transgenic Plasmodium falciparum reporter parasite without resistance to known antimalarials and therefore unrestricted in its utility in compound screening. Analyses of sixty-five compounds from the Medicines for Malaria Venture validation and malaria boxes identified 37 compounds with high levels of TRA (>80%); different assay modes allowed discrimination between gametocytocidal and downstream modes of action. Comparison of SMFA data to published assay formats for predicting parasite infectivity indicated that individual in vitro screens show substantial numbers of false negatives. These results highlight the importance of the SMFA in the screening pipeline for transmission reducing compounds and present a rapid and objective method."

According to the news reporters, the research concluded: "In addition we present
sixteen diverse chemical scaffolds from the malaria box that may serve as a starting point for further discovery and development of malaria transmission blocking drugs."

For more information on this research see: A semi-automated luminescence based standard membrane feeding assay identifies novel small molecules that inhibit transmission of malaria parasites by mosquitoes. *Scientific Reports*, 2015;5():18704. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting M.W. Vos, TropIQ Health Sciences, PO Box 9101, 6500 HB Nijmegen, Netherlands. Additional authors for this research include W.J. Stone, K.M. Koolen, G.J. van Gemert, B. van Schaijk, D. Leroy, R.W. Sauerwein, T. Bousema and K.J Dechering.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18704. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Malaria, Nijmegen, Genetics, Mosquitoes, Netherlands, Epidemiology, Protozoan Infections, Mosquito Borne Diseases, Mosquito-Borne Diseases, Diagnostics and Screening.

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**Oncology - Malignant Mesothelioma**

**New Malignant Mesothelioma Data Have Been Reported by Investigators at Seoul National University (Hypomethylation reduced the aggressive potential of human malignant mesothelioma cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Malignant Mesothelioma have been published. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Epigenetic modifications have been implicated in the development of therapeutic resistance responsible for the poor prognosis of human malignant mesothelioma (HMM). To find a potential way to overcome this therapeutic resistance, this study investigated the anticancer effects of a DNA demethylating agent, 5-Aza-2'-Deoxycytidine (5-aza-dC), on HMM cells."

Our news journalists obtained a quote from the research from Seoul National University, "The 5-aza-dC exhibited minimal detrimental effects on cell survival. However, treatment with 5-aza-dC significantly altered the, biological characteristics associated with malignancy, such as cell migration and cell interaction, colony-forming capacity, and invasiveness. Moreover, it significantly reduced the fraction of side population (SP) cells, which are reportedly enriched for more aggressive cells. Large-scale methylation analysis based on methylated DNA immunoprecipitation revealed a more than two fold increase in the methylation level of major tumor suppressor genes in the SP fraction. The data indicated that SP cells might acquire malignancy by hypermethylation of tumor suppressor genes. Treatment with 5-aza-dC could attack more malignant cells through the modification of their methylation status. The results indicate that the modulation of DNA methylation might be a valuable strategy to overcome the therapeutic resistance of HMM."

According to the news editors, the research concluded: "Moreover, ensuing changes in the biological characteristics provide a basis for further analysis of the role of methylation in
DNA Viruses - Mastadenovirus

New Mastadenovirus Study Results Reported from University of Manitoba (The interaction of adenovirus E1A with the mammalian protein Ku70/XRCC6)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on DNA Viruses - Mastadenovirus have been presented. According to news originating from Winnipeg, Canada, by NewsRx correspondents, research stated, "Human adenovirus infects terminally differentiated cells and to replicate it must induce S-phase. The chief architects that drive adenovirus-infected cells into S-phase are the E1A proteins, with 5 different isoforms expressed during infection."

Financial supporters for this research include Natural Sciences and Engineering Research Council, Research Manitoba (MHRC Establishment Grant).

Our news journalists obtained a quote from the research from the University of Manitoba, "E1A remodels the infected cell by associating with cellular factors and modulating their activity. The C-terminus of E1A is known to bind to only a handful of proteins. We have identified a novel E1A C-terminus binding protein, Ku70 (XRCC6), which was found to bind directly within the CR4 of E1A from human adenovirus type 5. Depletion of Ku70 reduced virus growth, possibly by activating the DNA damage response pathway. Ku70 was found to localize to viral replication centers and associate with the viral genome. Ku70 was also recruited to cellular cell cycle regulated promoters following viral infection."

According to the news editors, the research concluded: "Our study has identified, for the first time, Ku70 as a novel E1A-binding protein which affects virus life cycle."

For more information on this research see: The interaction of adenovirus E1A with the mammalian protein Ku70/XRCC6. Virology, 2017;500():11-21. Virology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Virology - www.journals.elsevier.com/virology/)

The news correspondents report that additional information may be obtained from P.
New Measles Findings Reported from Paul Ehrlich Institute (Enhanced lysis by bispecific oncolytic measles viruses simultaneously using HER2/neu or EpCAM as target receptors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Infectious Diseases and Conditions - Measles are discussed in a new report. According to news reporting from Langen, Germany, by NewsRx journalists, research stated, "To target oncolytic measles viruses (MV) to tumors, we exploit the binding specificity of designed ankyrin repeat proteins (DARPins). These DARPin-MVs have high tumor selectivity while maintaining excellent oncolytic potency."

The news correspondents obtained a quote from the research from Paul Ehrlich Institute, "Stability, small size, and efficacy of DARPin allowed the generation of MVs simultaneously targeted to tumor marker HER2/neu and cancer stem cell (CSC) marker EpCAM. For optimization, the linker connecting both DARPin was varied in flexibility and length. Flexibility had no impact on fusion helper activity whereas length had. MVs with bispecific MV-H are genetically stable and revealed the desired double-target specificity. In vitro, the cytolysis activity of bispecific MVs was superior or comparable to mono-targeted viruses depending on the target cells. In vivo, therapeutic efficacy of the bispecific viruses was validated in an orthotopic ovarian carcinoma model revealing an effective reduction of tumor mass. Finally, the power of bispecific targeting was demonstrated on cocultures of different tumor cells thereby mimicking tumor heterogeneity in vitro, more closely reflecting real tumors. Here, bispecific excelled monospecific viruses in efficacy."

According to the news reporters, the research concluded: "DARPin-based targeting domains thus allow the generation of efficacious oncolytic viruses with double specificity, with the potential to handle intratumoral variation of antigen expression and to simultaneously target CSCs and the bulk tumor mass."

For more information on this research see: Enhanced lysis by bispecific oncolytic measles viruses simultaneously using HER2/neu or EpCAM as target receptors. *Molecular Therapy-Oncolytics*, 2016;3():1-13. *Molecular Therapy-Oncolytics* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

Our news journalists report that additional information may be obtained by contacting M.D. Muhlebach, Paul Ehrlich Inst, Oncolyt Measles Viruses & Vaccine Vectors, Langen, Germany. Additional authors for this research include L. Gottschlich, D. Riehl, T.

Keywords for this news article include: Langen, Germany, Europe, Infectious Diseases and Conditions, Paramyxoviridae Infections, Morbillivirus Infections, Mononegavirales, Paramyxovirinae, Measles Virus, RNA Viruses, Virology, Genetics, Viral, Paul Ehrlich Institute.

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Genetics - Medical Genetics

New Medical Genetics Findings from School of Psychiatry Described (Sleep disturbance in Mowat-Wilson syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Genetics - Medical Genetics have been presented. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "Mowat-Wilson syndrome (MWS) is a multiple congenital anomaly syndrome caused by a heterozygous mutation or deletion of the ZEB2 gene. It is characterized by a distinctive facial appearance in association with intellectual disability (ID) and variable other features including agenesis of the corpus callosum, seizures, congenital heart defects, microcephaly, short stature, hypotonia, and Hirschsprung disease."

Financial supporters for this research include University of New South Wales, Sydney Children's Hospital Foundation.

The news reporters obtained a quote from the research from the School of Psychiatry, "The current study investigated sleep disturbance in people with MWS. In a series of unstructured interviews focused on development and behaviors in MWS, family members frequently reported sleep disturbance, particularly early-morning waking and frequent night waking. The Sleep Disturbance Scale for Children (SDSC) was therefore administered to a sample of 35 individuals with MWS, along with the Developmental Behaviour Checklist (DBC) to measure behavioral and emotional disturbance. A high level of sleep disturbance was found in the MWS sample, with 53% scoring in the borderline range and 44% in the clinical disorder range for at least one subscale of the SDSC. Scores were highest for the Sleep-wake transition disorders subscale, with 91% of participants reaching at least the borderline disorder range. A significant positive association was found between total scores on the SDSC and the DBC Total Behaviour Problem Score."

According to the news reporters, the research concluded: "These results suggest that sleep disorders should be screened for in people with MWS, and where appropriate, referrals to sleep specialists made for management of sleep problems."


Our news correspondents report that additional information may be obtained by contacting E. Evans, Dept. of Developmental Disability Neuropsychiatry, School of Psychiatry, UNSW Australia, Sydney, New South Wales, Australia. Additional authors for this research include D. Mowat, M. Wilson and S. Einfeld.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37502. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Medical Genetics, Australia and New Zealand.

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Genetics - Medical Genetics

New Medical Genetics Study Findings Reported from Technion-Israel Institute of Technology (Is One Diagnosis the Whole Story? Patients with Double Diagnoses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Genetics - Medical Genetics. According to news originating from Haifa, Israel, by NewsRx correspondents, research stated, "One of the goals of evaluating a patient in the genetics clinic is to find the diagnosis that would explain his or her clinical presentation. Sometimes the patient's diagnosis remains undefined or does not explain all of the clinical findings."

Our news journalists obtained a quote from the research from the Technion-Israel Institute of Technology, "As clinicians are often guided by a 'single disorder' paradigm, diagnosing multiple genetic conditions in the same patient requires a heightened sense of awareness. Over the last few years, we evaluated several patients (n = 14) who were found to have more than one genetic diagnosis. In this paper, we will describe their natural history and diagnoses, and draw on the lessons learned from this phenomenon, which we expect to grow in this era of next-generation diagnostic technologies. To our knowledge, this is by far the largest series of patients with double diagnoses."

According to the news editors, the research concluded: "Based on our findings, we strongly recommend that physicians question every diagnosis to determine whether it indeed explains all of the patients' symptoms, and consider whether they should continue the diagnostic evaluation to look for a more accurate and complete set of diagnoses."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37799. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Haifa, Israel, Asia, Medical Genetics,
New Medicinal Chemistry Findings Has Been Reported by Investigators at Shanghai Jiao-Tong University (Screening and biological evaluation of a novel STAT3 signaling pathway inhibitor against cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Health and Medicine - Medicinal Chemistry have been presented. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "It is now established that the specificity in signaling of signal transducer and activator of transcription 3 (STAT3) is mediated by the SH2 domain of STAT3, which mediates its interaction with the phosphopeptide docking sites displayed by receptors and JAKs, dimerization and subsequent DNA binding. Thus, we aimed to identify and design a class of strong potential small molecular inhibitors of STAT3 for the discovery and development of novel anticancer agents."

Financial supporters for this research include National Basic Research Program of China, National Natural Science Foundation of China.

Our news editors obtained a quote from the research from Shanghai Jiao-Tong University, "Several classes of small molecules have been identified as STAT3 inhibitors after structure-based screening of the STAT3 SH2 domain. Next, we detected the activity of these inhibitors using fluorescence polarization (FP) and identified the growth inhibition of DU145 and MDA-MB-468 cells using the CCK-8 assay. Consequently, B9 inhibits the proliferation of tumor cells harboring abnormal activation of STAT3, such as, MDA-MB-468, MDA-MB-231 and DU145. However, there is little inhibition of MCF-7 cells. In addition, The K-d of B9 to STAT3 (1634S/Q635G) is 22.75 μM compared to 4.59 μM for WT as analyzed by SPR. The phosphorylation of STAT3 in MDA-MB-468 cells was obviously decreased after treatment with B9 at the preconceived concentration of 30 μM, as detected using immunoblotting. Here, we evaluated the effect of B9 on the migration of MDA-MB-468 cells."

According to the news editors, the research concluded: "Taken together, our results indicate a novel small molecule that decreases STAT3 activation and function of the STAT3 signaling pathway, thereby inducing an antitumor response in human breast cancer cells harboring constitutively active STAT3."


The news editors report that additional information may be obtained by contacting J. Zhang, Shanghai Jiao Tong University, Sch Med, Dept. of Pathophysiol, Key Lab Cell Differentiat & ApoptosisChinese Min, Shanghai 200025, People's Republic of China. Additional authors for this research include Z.J. Chen, L. Zhang, Z.M. Huang, Y.Y. Chen, J.R. Xu, J. Zhang and X.H. Shu.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bmcl.2016.09.073. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Medicinal Chemistry, Health and Medicine, Oncology, Genetics, Cancer, Shanghai Jiao-Tong University.

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Health and Medicine - Medicinal Chemistry

New Medicinal Chemistry Findings from University of Birmingham Outlined (Nucleoside Phosphate and Phosphonate Prodrug Clinical Candidates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Health and Medicine - Medicinal Chemistry have been presented. According to news reporting out of Birmingham, United Kingdom, by NewsRx editors, research stated, "Nucleoside monophosphates and monophosphonates have been known for a long time to exert favorable pharmacological effects upon intracellular delivery. However, their development as drug molecules has been hindered by the inherent poor druglike properties of the monophosphate and monophosphonate groups."

Our news journalists obtained a quote from the research from the University of Birmingham, "These include inefficient cellular uptake and poor in vivo stability, with this latter drawback being most relevant to monophosphates than monophosphonates. To address these limitations, numerous monophosphate and monophosphonate prodrug strategies have been developed and applied in the discovery of nucleoside monophosphate and monophosphonate prodrugs that can treat viral infections and cancer. The approval of sofosbuvir, a nucleoside monophosphate prodrug, highlighted the success to be had by employing these prodrug technologies in the discovery of nucleotide therapeutics."

According to the news editors, the research concluded: "In this Miniperspective, we discuss the different key monophosphate and monophosphonate nucleoside prodrugs that entered clinical development, some of which may in the future be approved to treat various human diseases."

For more information on this research see: Nucleoside Phosphate and Phosphonate Prodrug Clinical Candidates. Journal of Medicinal Chemistry, 2016;59(23):10400-10410.

Journal of Medicinal Chemistry can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Journal of Medicinal Chemistry - www.pubs.acs.org/journal/jmchem)

Our news journalists report that additional information may be obtained by contacting Y. Mehellou, University of Birmingham, Coll Engn & Phys Sci, Sch Chem, Birmingham B15 2TT, W Midlands, United Kingdom. Additional authors for this research include H. Kadri, A. Miccoli and Y. Mehellou.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Medicinal Chemistry, Health and Medicine, Genetics, University of Birmingham.

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New Medicinal Chemistry Study Findings Have Been Reported by Investigators at Academy of Sciences (Synthesis and biological evaluation of novel 2-imino-4-thiazolidinone derivatives as potent anti-cancer agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Health and Medicine - Medicinal Chemistry are presented in a new report. According to news reporting originating from Tamil Nadu, India, by NewsRx correspondents, research stated, "A new series of 2-imino-4-thiazolidinone derivatives (7a-7t) has been synthesised and screened for their cytotoxicity against three cancer cell lines (B16F10, A549, PANC-1) and normal cell line (CHO). Among the compounds tested, compounds 7k, 7m, 7n showed potent cytotoxicity against B16F10 cell line with IC50 between 3.4 and 7 μM. Interestingly these three compounds are non toxic to non cancerous CHO cells and induced apoptosis in B16F10 cells observed by DNA damage analysis through PI/Hoechst double staining method."

Financial supporters for this research include CSIR, Department of Science & Technology, Government of India, DST.

Our news editors obtained a quote from the research from the Academy of Sciences, "Compounds 7k and 7n induced G0/G1 cell cycle arrest while compound 7m induced G2/M cell cycle arrest in B16F10 cells which confirms that these compounds have role in cancer cell cycle regulation. Additionally, compound 7m showed generation of intracellular reactive oxygen species (ROS) in B16F10 cells that may contribute in the cell cycle arrest whereas compounds 7k and 7n show anti-cancer activity through independent of ROS formation. Induction of apoptosis, cell cycle arrest in B16F10 cells are found to be the anti-cancer mechanism of these three compounds."

According to the news editors, the research concluded: "The results all together demonstrate the potent cytotoxic nature of these compounds in cancer cells could be considered as new class of chemotherapeutic agents in near future."


The news editors report that additional information may be obtained by contacting R.M. Kumbhare, Academy Sci & Innovat Res, Madras 600113, Tamil Nadu, India. Additional authors for this research include R. Kotcherlakota, T.L. Dadmal, V.S. Bollu, R.M. Kumbhare and C.R. Patra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bmcl.2016.08.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tamil Nadu, India, Asia, Medicinal Chemistry, Health and Medicine, Oncology, Genetics, Cancer, Academy of Sciences.

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**Oncology - Melanoma**

**New Melanoma Data Have Been Reported by Researchers at University of Sao Paulo (Genotyping and differential expression analysis of inflammasome genes in sporadic malignant melanoma reveal novel contribution of CARD8, IL1B and IL18 in melanoma ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Melanoma have been presented. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Sporadic melanoma malignancy is correlated with constitutive secretion of IL-1 beta in transformed melanocytes suggesting the involvement of inflammasome in melanoma. Common variants in inflammasome genes are known to affect IL-1 beta expression."

Funders for this research include Sao Paulo Research Foundation, CNPq.

Our news journalists obtained a quote from the research from the University of Sao Paulo, "To investigate the contribution of inflammasome genetics in melanoma development and progression and to identify a potential prognostic marker, the distribution of selected inflammasome SNPs was analysed in a Brazilian case/control cohort of sporadic malignant melanoma (SMM) and then the expression of inflammasome components was evaluated in melanoma biopsies. Allele and gene-specific Taqman assays were implied for genotyping of case/control DNA samples and for relative expression analysis in skin biopsies respectively. CARD8 rs6509365 was found to be significantly more common in healthy volunteers than in SMM patients suggesting a protection effect of this variant towards melanoma development. Accordingly, CARD8 expression was found to be reduced in nevus compared to melanoma biopsies. Upon stratification, NLRP1 rs11651270 and CARD8 rs2043211 were found associated with nodular melanoma; IL1B rs1143643 to a lower value of Breslow index; IL18 rs5744256 to melanoma development in sun sensitive individuals. As expected, IL1B expression was up-regulated in tumour biopsies especially in metastatic samples, whereas IL18 was down-regulated compared to nevus."

According to the news editors, the research concluded: "Our results demonstrated for the first time the contribution of inflammasome genes CARD8, IL1B and IL18 in SMM."


The news correspondents report that additional information may be obtained from W.C. da Silva, University of Sao Paulo, Fac Med, Dept. of Dermatol, Lab Med Invest Dermatol & Immunodeficiencies LIM 5, BR-05403000 Sao Paulo, SP, Brazil. Additional authors for this research include T.M. Oshiro, D.C. de Sa, D. Franco, C.F. Neto and A. Pontillo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.09.004. This DOI is a link to an online electronic document that is either free or for purchase.
New Melanoma Findings Reported from Tufts University (Brachytherapy vs. external beam radiotherapy for choroidal melanoma: Survival and patterns-of-care analyses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Melanoma have been published. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "No modern randomized trials exist comparing external beam radiotherapy (EBRT) and plaque brachytherapy (BT) for choroidal melanoma, and the optimal treatment modality is currently unknown. This study compares the patterns of care and efficacy of EBRT vs. BT based on data in the Surveillance, Epidemiology, and End Results database."

The news correspondents obtained a quote from the research from Tufts University, "The Surveillance, Epidemiology, and End Results database was queried for patients aged 20-79 diagnosed with choroidal melanoma from 2004 to 2011, treated with EBRT or BT; included patients were clinically T1-T4, NO, and MO. Overall survival and cause-specific survival curves were calculated by the Kaplan-Meier method. Univariate and multi-variate analyses were performed in the survival and patterns-of-care analyses. A total of 1004 cases (380 EBRT and 624 BT) were included in the survival analysis. There was no difference in the 5-year overall survival (83.3% EBRT vs. 82.5% BT, p = 0.69) and 5 year cause-specific survival (88.3% EBRT vs. 88.3% BT, p = 0.92). In the survival analysis, older age and advanced tumor stage were predictors of increased risk of death. In the patterns-of-care analysis, later year of diagnosis and smaller tumor stage were predictors of BT use. Advanced tumor stage and older age seem to be independent predictors for risk of death from choroidal melanoma. The use of BT favors smaller tumors and later year of diagnosis."

According to the news reporters, the research concluded: "There is no difference in survival between those treated with EBRT or BT, and the utilization of BT is increasing."


Our news journalists report that additional information may be obtained by contacting J.E. Mignano, Tufts University, Sch Med, Tufts Med Center, Dept. of Radiat Oncol, Boston, MA 02111, United States. Additional authors for this research include N.L. Gagne, C.S. Melhus and J.E. Mignano.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.brachy.2015.12.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Epidemiology, Risk and Prevention, Drugs and Therapies,
New Melanoma Study Findings Reported from University of Chicago
(Density of immunogenic antigens does not explain the presence or absence of the T-cell-inflamed tumor microenvironment in melanoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Melanoma are discussed in a new report. According to news reporting from Chicago, Illinois, by NewsRx journalists, research stated, "Melanoma metastases can be categorized by gene expression for the presence of a T-cell-inflamed tumor microenvironment, which correlates with clinical efficacy of immunotherapies. T cells frequently recognize mutational antigens corresponding to nonsynonymous somatic mutations (NSSMs), and in some cases shared differentiation or cancer-testis antigens."

The news correspondents obtained a quote from the research from the University of Chicago, "Therapies are being pursued to trigger immune infiltration into non-T-cell-inflamed tumors in the hope of rendering them immunotherapy responsive. However, whether those tumors express antigens capable of T-cell recognition has not been explored. To address this question, 266 melanomas from The Cancer Genome Atlas (TCGA) were categorized by the presence or absence of a T-cell-inflamed gene signature. These two subsets were interrogated for cancer-testis, differentiation, and somatic mutational antigens. No statistically significant differences were observed, including density of NSSMs. Focusing on hypothetical HLA-A2(+) binding scores, 707 peptides were synthesized, corresponding to all identified candidate neoepitopes. No differences were observed in measured HLA-A2 binding between inflamed and noninflamed cohorts. Twenty peptides were randomly selected from each cohort to evaluate priming and recognition by human CD8(+) T cells in vitro with 25% of peptides confirmed to be immunogenic in both. A similar gene expression profile applied to all solid tumors of TCGA revealed no association between T-cell signature and NSSMs. Our results indicate that lack of spontaneous immune infiltration in solid tumors is unlikely due to lack of antigens."

According to the news reporters, the research concluded: "Strategies that improve T-cell infiltration into tumors may therefore be able to facilitate clinical response to immunotherapy once antigens become recognized."


Our news journalists report that additional information may be obtained by contacting T.F. Gajewski, University Chicago, Human Immune Monitoring Facil, Chicago, IL 60637, United States. Additional authors for this research include J.J. Luke, R. Bao, Y.Y. Zha, K.M. Hernandez, Y. Li, A.P. Gajewski, J. Andrade and T.F. Gajewski.
Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Drugs and Therapies, Biological Factors, Cancer, Genetics, Immunotherapy, Immunology, Oncology, Antigens, Melanoma, Tumors, University of Chicago.

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Oncology - Melanoma

**New Melanoma Study Results from University Hospital Described (Noncutaneous Melanomas: A Single-Center Analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Melanoma. According to news reporting out of Zurich, Switzerland, by NewsRx editors, research stated, "The optimal treatment algorithm for noncutaneous melanomas must yet be established. To compare systemic treatment-relevant mutational status, metastatic pattern and response to systemic treatment in noncutaneous melanoma."

Our news journalists obtained a quote from the research from University Hospital, "Retrospective single-center study analyzing 64 noncutaneous melanoma patients treated between January 2006 and September 2013. c-KIT mutations were found exclusively in vulvovaginal melanoma (4/7). Overall status for NRAS and BRAF mutations was low (1/7 and 0/21 detected mutations, respectively). Seven out of 7 vulvovaginal and 6/13 sinonasal melanomas first metastasized to lymph nodes, whereas 18/22 ocular melanomas first metastasized to the liver. Response to systemic treatment in vulvovaginal melanomas was best for imatinib with a disease control rate of 3/3 and overall for ipilimumab with a disease control rate of 3/10. Sorafenib was associated with adverse drug reactions (6/13) and poor results. Noncutaneous melanomas show few tumor-signaling pathway mutations and distinct metastasization patterns."

According to the news editors, the research concluded: "Immunotherapy induces response rates in mucosal melanoma similar to those in cutaneous melanoma."


Our news journalists report that additional information may be obtained by contacting V. Del Prete, Dept. of Dermatology, University Hospital of Zurich, Zurich, Switzerland. Additional authors for this research include K. Chaloupka, D. Holzmann, D. Fink, M. Levesque, R. Dummer and S.M Goldinger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441444. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zurich, Europe, Genetics, Melanoma, Oncology, Switzerland.

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Membrane Proteins - Membrane Glycoproteins

New Membrane Glycoproteins Study Findings Have Been Reported by Investigators at University of Melbourne [Novel mechanism of modulation at a ligand-gated ion channel; action of 5-Cl-indole at the 5-HT(3)A receptor]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Membrane Proteins - Membrane Glycoproteins is the subject of a report. According to news reporting from Parkville, Australia, by NewsRx journalists, research stated, "Background and PurposeThe 5-HT3 receptor is a prototypical member of the Cys-loop ligand-gated ion channel (LGIC) superfamily and an established therapeutic target. In addition to activation via the orthosteric site, receptor function can be modulated by allosteric ligands."

The news correspondents obtained a quote from the research from the University of Melbourne, "We have investigated the pharmacological action of Cl-indole upon the 5-HT(3)A receptor and identified that this positive allosteric modulator possesses a novel mechanism of action for LGICs. Experimental ApproachThe impact of Cl-indole upon the 5-HT3 receptor was assessed using single cell electrophysiological recordings and [H-3]-granisetron binding in HEK293 cells stably expressing the 5-HT3 receptor. Key ResultsCl-indole failed to evoke 5-HT (3)A receptor-mediated responses (up to 30M) or display affinity for the [H-3]-granisetron binding site. However, in the presence of Cl-indole, termination of 5-HT application revealed tail currents mediated via the 5-HT(3)A receptor that were independent of the preceding 5-HT concentration but were antagonized by the 5-HT3 receptor antagonist, ondansetron. These tail currents were absent in the 5-HT(3)AB receptor. Furthermore, the presence of 5-HT revealed a concentration-dependent increase in the affinity of Cl-indole for the orthosteric binding site of the human 5-HT(3)A receptor. Conclusions and ImplicationsCl-indole acts as both an orthosteric agonist and an allosteric modulator, but the presence of an orthosteric agonist (e.g. 5-HT) is a prerequisite to reveal both actions. Precedent for ago-allosteric action is available, yet the essential additional presence of an orthosteric agonist is now reported for the first time."

According to the news reporters, the research concluded: "This widening of the pharmacological mechanisms to modulate LGICs may offer further therapeutic opportunities."


Our news journalists report that additional information may be obtained by contacting N.M. Barnes, University of Melbourne, Sch Biomed Sci, Dept. of Pharmacol & Therapeut, Fac Med Dental & Hlth Sci, Parkville, Vic, Australia. Additional authors for this research include G. Grafton, A. Roberts, S. Larkin, N. O'Neill, J. Palandri, R. Otvos, A.J. Cooper, C. Ulens and N.M. Barnes.

Keywords for this news article include: Parkville, Australia, Australia and New Zealand, Serotonin-Type 3 Receptor Antagonists, Membrane Transport Proteins, Membrane Glycoproteins, Membrane Proteins, Carrier Proteins, Pharmacology, Ion Channels, Therapy, 5-HT3, University of Melbourne.
Proteins - Membrane Proteins

New Membrane Proteins Findings from University of California Described (Modeling Membrane Protein-Ligand Binding Interactions: The Human Purinergic Platelet Receptor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Membrane Proteins. According to news reporting out of Irvine, California, by NewsRx editors, research stated, "Membrane proteins, due to their roles as cell receptors and signaling mediators, make prime candidates for drug targets. The computational analysis of protein ligand binding affinities has been widely employed as a tool in rational drug design efforts."

Our news journalists obtained a quote from the research from the University of California, "Although efficient implicit solvent-based methods for modeling globular protein-ligand binding have been around for many years, the extension of such methods to membrane protein-ligand binding is still in its infancy. In this study, we extended the widely used Amber/MMPBSA method to model membrane protein-ligand systems, and we used it to analyze protein-ligand binding for the human purinergic platelet receptor (P2Y(12)R), a prominent drug target in the inhibition of platelet aggregation for the prevention of myocardial infarction and stroke. The binding affinities, computed by the Amber/MMPBSA method using standard parameters, correlate well with experiment. A detailed investigation of these parameters was conducted to assess their impact on the accuracy of the method. These analyses show the importance of properly treating the nonpolar solvation interactions and the electrostatic polarization in the binding of nucleotide agonists and non nucleotide antagonists to P2Y(12)R On the basis of the crystal structures and the experimental conditions in the binding assay, we further hypothesized that the nucleotide agonists lose their bound magnesium ion upon binding to P2Y(12)R, and our computational study supports this hypothesis."

According to the news editors, the research concluded: "Ultimately, this work illustrates the value of computational analysis in the interpretation of experimental binding reactions."


Our news journalists report that additional information may be obtained by contacting R. Luo, University of California, Dept. of Chem Engn & Mat Sci, Irvine, CA 92697, United States. Additional authors for this research include W.M. Botello-Smith, A. Follmer, L. Xiao, E. Lambros and R. Luo.

Keywords for this news article include: Irvine, California, United States, North and Central America, Membrane Proteins, Genetics, University of California.

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New Meningeal Neoplasms Findings from King's College Hospital Discussed (Comparative gene expression profiling of ADAMs, MMPs, TIMPs, EMMPRIN, EGF-R and VEGFA in low grade meningioma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Meningeal Neoplasms. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "MMPs (matrix metalloproteinases), ADAMs (a disintegrin and metalloproteinase) and TIMPs (tissue inhibitors of metalloproteinases) are implicated in invasion and angiogenesis: both are tissue remodelling processes involving regulated proteolysis of the extracellular matrix, growth factors and their receptors. The expression of these three groups and their correlations with clinical behaviour has been reported in gliomas but a similar comprehensive study in meningiomas is lacking."

Our news editors obtained a quote from the research from King's College Hospital, "In this study, we aimed to evaluate the patterns of expression of 23 MMPs, 4 TIMPs, 8 ADAMs, selective growth factors and their receptors in 17 benign meningiomas using a quantitative real-time polymerase chain reaction (qPCR). Results indicated very high gene expression of 13 proteases, inhibitors and growth factors studied: MMP2 and MMP14, TIMP-1, -2 and -3, ADAM9, 10, 12, 15 and 17, EGF-R, EMMPRIN and VEGF-A, in almost every meningioma. Expression pattern analysis showed several positive correlations between MMPs, ADAMs, TIMPs and growth factors. Furthermore, our findings suggest that expression of MMP14, ADAM9, 10, 12, 15 and 17, TIMP-2, EGF-R and EMMPRIN reflects histological subtype of meningioma such that fibroblastic subtype had the highest mRNA expression, transitional subtype was intermediate and meningothelial type had the lowest expression."

According to the news editors, the research concluded: "This is the first comprehensive study characterizing gene expression of 8 ADAMs in meningiomas. These neoplasms, although by histological definition benign, have invasive potential. Taken together, the selected elevated gene expression pattern may serve to identify targets for therapeutic intervention or indicators of biological progression and recurrence."

For more information on this research see: Comparative gene expression profiling of ADAMs, MMPs, TIMPs, EMMPRIN, EGF-R and VEGFA in low grade meningioma. International Journal of Oncology, 2016;49(6):2309-2318. International Journal of Oncology can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.


Keywords for this news article include: London, United Kingdom, Europe, Central Nervous System Diseases and Conditions, Genetics, Central Nervous System Neoplasms, Meningeal Neoplasms, Meningioma, King's College Hospital.

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Central Nervous System Diseases and Conditions –…

New Meningeal Neoplasms Study Findings Have Been Reported from University of California (Expression and prognostic impact of immune modulatory molecule PD-L1 in meningioma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Meningeal Neoplasms have been published. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated, "While immunotherapy may offer promising new approaches for high grade meningiomas, little is currently known of the immune landscape in meningiomas. We sought to characterize the immune microenvironment and a potentially targetable antigen mesothelin across WHO grade I-III cases of meningiomas, and how infiltrating immune populations relate to patient outcomes."

Financial support for this research came from Neurosurgery Research and Education Foundation.

The news reporters obtained a quote from the research from the University of California, "Immunohistochemistry was performed on tissue microarrays constructed from 96 meningioma cases. The cohort included 16 WHO grade I, 62 WHO grade II, and 18 WHO grade III tumors. Immunohistochemistry was performed using antibodies against CD3, CD8, CD20, CD68, PD-L1, and mesothelin. Dual staining using anti-PD-L1 and anti-CD68 antibodies was performed, and automated cell detection and positive staining detection algorithms were utilized. Greater degree of PD-L1 expression was found in higher grade tumors. More specifically, higher grade tumors contained increased numbers of intratumoral CD68-, PD-L1+ cells (p = 0.022), but did not contain higher numbers of infiltrating CD68+, PD-L1+ cells (p = 0.30). Higher PD-L1+/CD68- expression was independently predictive of worse overall survival in our cohort when accounting for grade, performance status, extent of resection, and recurrence history (p = 0.014). Higher expression of PD-L1+/CD68- was also present in tumors that had undergone prior radiotherapy (p = 0.024). Approximately quarter of meningiomas overexpressed mesothelin to levels equivalent to those found in pancreatic carcinomas and malignant mesotheliomas. The association with poor survival outcomes in our study suggests that PD-L1 may play a significant biologic role in the aggressive phenotype of higher grade meningiomas."

According to the news reporters, the research concluded: "Thus, immunotherapeutic strategies such as checkpoint inhibition may have clinical utility in PD-L1 overexpressing meningiomas."

For more information on this research see: Expression and prognostic impact of immune modulatory molecule PD-L1 in meningioma. *Journal of Neuro-Oncology*, 2016;130 (3):543-552. *Journal of Neuro-Oncology* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of Neuro-Oncology - www.springerlink.com/content/0167-594x/)

Our news correspondents report that additional information may be obtained by contacting S.J. Han, University of California, Dept. of Neurol Surg, San Francisco, CA 94143, United States. Additional authors for this research include G. Reis, G. Kohanbash, S. Shrivastav, S.T. Magill, A.M. Molinaro, M.W. McDermott, P.V. Theodosopoulos, M.K. Aghi, M.S. Berger, N.A. Butowski, I. Barani, J.J. Phillips, A. Perry and H. Okada.

The direct object identifier (DOI) for that additional information is:
Mental Health

New Mental Health Study Findings Recently Were Reported by Researchers at College of Nursing (Interventions to encourage uptake of cancer screening for people with severe mental illness)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mental Health are presented in a new report. According to news reporting from Brentford, United Kingdom, by NewsRx journalists, research stated, "Adults with severe mental illness (i.e. schizophrenia or other related psychotic disorders and bipolar disorder) can be at greater risk of cancer than those without severe mental illness (SMI). Early detection of cancer through screening is effective in improving patient outcomes including death."

The news correspondents obtained a quote from the research from the College of Nursing, "However, people with SMI are less likely than others to take up available cancer screening. To determine the effectiveness of interventions targeted at adults with SMI, or their carers or health professionals, and aimed at increasing the uptake of cancer screening tests for which the adults with SMI are eligible. Search methods We searched the Cochrane Schizophrenia Group’s Trials Register (October 25, 2012; December 19, 2014; April 07, 2015; July 04, 2016). Selection criteria All randomised controlled trials (RCTs) of interventions, targeted towards adults with SMI or their carers or health professionals, to encourage uptake of cancer screening tests for which the adults with SMI were eligible. Data collection and analysis Two review authors independently screened titles and abstracts and assessed these against the inclusion criteria. We did not find any trials that met the inclusion criteria. Authors' conclusions A comprehensive search showed that currently there is no RCT evidence for any method of encouraging cancer screening uptake in people with SMI. No specific approach can therefore be recommended."

According to the news reporters, the research concluded: "High-quality, large-scale RCTs are needed urgently to help address the disparity between people with SMI and others in cancer screening uptake."

For more information on this research see: Interventions to encourage uptake of cancer screening for people with severe mental illness. Cochrane Database of Systematic Reviews, 2016;(9):2795-2812. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting E.A. Barley, Univ West London, Coll Nursing Midwifery & Healthcare, Brentford TW8 9GA, Middx, United Kingdom. Additional authors for this research include R.D. Borschmann, P. Walters and A. Tylee.

Keywords for this news article include: Brentford, United Kingdom, Europe, Mental
Stem Cell Research - Mesenchymal Stem Cells

New Mesenchymal Stem Cells Study Findings Have Been Reported by Investigators at Biotechnology Research Institute (Human umbilical cord-derived mesenchymal stem cells in acute liver injury: Hepatoprotective efficacy, subchronic toxicity, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Stem Cell Research - Mesenchymal Stem Cells have been published. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Umbilical cord-derived mesenchymal stem cells (UC-MSCs) therapy might be an alternative to liver transplantation for acute or chronic liver injury. The aim of this study was to evaluate the efficacy of human UC-MSCs on carbon tetrachloride (CCl4)-induced acute liver injury."

Funders for this research include Industrial Core Technology Development Program, Ministry of Knowledge Economy, Republic of Korea.

Our news journalists obtained a quote from the research from Biotechnology Research Institute, "In addition, its toxicity, tumorigenicity, and biodistribution were determined. Significant hepatoprotective effects of hUC-MSCs with decreased levels of hepatocellular necrosis and lobular neutrophilic infiltration were found. Regarding the safety of hUC-MSCs, no serious hUC-MSCs-related changes (body weight, food/water consumption, clinical symptom, urinalysis, hematology, clinical chemistry, organ weight, and histopathology) were observed in a 13-week subchronic toxicity study. In a 26-week tumorigenicity study, no mice developed tumor related to hUC-MSCs transplantation up to 1 x 10(8) cells/kg. In particular, human mitochondrial sequence detection revealed that most hUC-MSCs were cleared from the major organs of the mice at 13 weeks after transplantation. There was no systemic toxicity or neoplastic finding either."

According to the news editors, the research concluded: "Taken together, these results suggested that hUC-MSCs have great potential for future clinical treatment of acute liver disease."

For more information on this research see: Human umbilical cord-derived mesenchymal stem cells in acute liver injury: Hepatoprotective efficacy, subchronic toxicity, tumorigenicity, and biodistribution. Regulatory Toxicology and Pharmacology, 2016;81():437-447. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)


The direct object identifier (DOI) for that additional information is:
Stem Cell Research - Mesenchymal Stem Cells

New Mesenchymal Stem Cells Study Results from C. Pontikoglou et al Described (CD200 expression in human cultured bone marrow mesenchymal stem cells is induced by pro-osteogenic and pro-inflammatory cues)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Stem Cell Research - Mesenchymal Stem Cells. According to news reporting originating from Tours, France, by NewsRx correspondents, research stated, "Similar to other adult tissue stem/progenitor cells, bone marrow mesenchymal stem/stromal cells (BM MSCs) exhibit heterogeneity at the phenotypic level and in terms of proliferation and differentiation potential. In this study such a heterogeneity was reflected by the CD200 protein."

Financial supporters for this research include Seventh Framework Programme, REBORNE.

Our news editors obtained a quote from the research, "We thus characterized CD200 (pos) cells sorted from whole BM MSC cultures and we investigated the molecular mechanisms regulating CD200 expression. After sorting, measurement of lineage markers showed that the osteoblastic genes RUNX2 and DLX5 were up-regulated in CD200(pos) cells compared to CD200(neg) fraction. At the functional level, CD200(pos) cells were prone to mineralize the extra-cellular matrix in vitro after sole addition of phosphates. In addition, osteogenic cues generated by bone morphogenetic protein 4 (BMP4) or BMP7 strongly induced CD200 expression. These data suggest that CD200 expression is related to commitment/differentiation towards the osteoblastic lineage. Immunohistochemistry of trephine bone marrow biopsies further corroborates the osteoblastic fate of CD200(pos) cells. However, when dexamethasone was used to direct osteogenic differentiation in vitro, CD200 was consistently down-regulated. As dexamethasone has anti-inflammatory properties, we assessed the effects of different immunological stimuli on CD200 expression. The pro-inflammatory cytokines interleukin-1b and tumor necrosis factor-a increased CD200 membrane expression but down-regulated osteoblastic gene expression suggesting an additional regulatory pathway of CD200 expression. Surprisingly, whatever the context, i.e. pro-inflammatory or pro-osteogenic, CD200 expression was down-regulated when nuclear-factor (NF)-kB was inhibited by chemical or adenoviral agents."

According to the news editors, the research concluded: "CD200 expression by cultured BM MSCs can be induced by both osteogenic and pro-inflammatory cytokines through the same pathway: NF-kB."

For more information on this research see: CD200 expression in human cultured bone marrow mesenchymal stem cells is induced by pro-osteogenic and pro-inflammatory cues. *Journal of Cellular and Molecular Medicine*, 2016;20(4):655-65. *Journal of Cellular and
New Metabolic Diseases Findings from Salk Institute for Biological Studies Outlined (Circadian physiology of metabolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Metabolic Diseases are presented in a new report. According to news reporting out of La Jolla, California, by NewsRx editors, the research stated, "A majority of mammalian genes exhibit daily fluctuations in expression levels, making circadian expression rhythms the largest known regulatory network in normal physiology. Cell-autonomous circadian clocks interact with daily light-dark and feeding-fasting cycles to generate approximately 24-hour oscillations in the function of thousands of genes."

Our news journalists obtained a quote from the research from Salk Institute for Biological Studies, "Circadian expression of secreted molecules and signaling components transmits timing information between cells and tissues. Such intra- and intercellular daily rhythms optimize physiology both by managing energy use and by temporally segregating incompatible processes. Experimental animal models and epidemiological data indicate that chronic circadian rhythm disruption increases the risk of metabolic diseases. Conversely, time-restricted feeding, which imposes daily cycles of feeding and fasting without caloric reduction, sustains robust diurnal rhythms and can alleviate metabolic diseases."

According to the news editors, the research concluded: "These findings highlight an integrative role of circadian rhythms in physiology and offer a new perspective for treating chronic diseases in which metabolic disruption is a hallmark."

For more information on this research see: Circadian physiology of metabolism. Science, 2016;354(6315):1008-1015. Science can be contacted at: Amer Assoc Advancement Science, 1200 New York Ave, NW, Washington, DC 20005, USA. (Springer - www.springer.com; Science - www.springerlink.com/content/0926-7220/)

Our news journalists report that additional information may be obtained by contacting S. Panda, Salk Inst Biol Studies, La Jolla, CA 92037, United States.

The direct object identifier (DOI) for that additional information is:
New Metabolic Syndrome Study Findings Have Been Reported by Investigators at Weill Cornell Medical College (The Metabolic Role of the Microbiome: Implications for NAFLD and the Metabolic Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Metabolic Syndrome are presented in a new report. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Nonalcoholic fatty liver disease (NAFLD) has rapidly emerged as one of the most prevalent liver diseases worldwide and is set to achieve virtually epidemic proportions if current trends in obesity continue."

The news correspondents obtained a quote from the research from Weill Cornell Medical College, "A considerable volume of data from animal experiments has revealed the magnitude of the metabolic contribution of the gut microbiome and how a disordered microbial population could contribute to the development of obesity and its complications, including NAFLD. Although considerable progress has been made in developing a role for the microbiome in NAFLD and nonalcoholic steatosis (NASH), there are still many issues to be resolved, including the nature and location of the altered microbiome (i.e., small intestine or colon, or both); the specificity of deficits in intestinal integrity to NAFLD/NASH versus liver disease in general; the metabolic pathways, in man, that are key to the influence of the microbiome; and finally, the therapeutic interventions that are likely to be of benefit to our patients."

According to the news reporters, the research concluded: "As always, the situation in man is somewhat more complex than in animal models, but the role of the microbiota and of interventions that modulate the microbiome, though not yet ready for clinical practice, continue to be fertile areas for basic and clinical research."

For more information on this research see: The Metabolic Role of the Microbiome: Implications for NAFLD and the Metabolic Syndrome. *Seminars in Liver Disease*, 2016;36 (4):312-316. *Seminars in Liver Disease* can be contacted at: Thieme Medical Publ Inc, 333 Seventh Ave, New York, NY 10001, USA. (Thieme - www.thieme.com)

Our news journalists report that additional information may be obtained by contacting E.M.M. Quigley, Weill Cornell Med College, Houston, TX, United States. Additional authors for this research include A. Abu-Shanab, E.F. Murphy, C. Stanton and H.P. Monsour.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0036-1593880. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Article Review, Epidemiology, Genetics, Salk Institute for Biological Studies.

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New Metencephalon Study Results Reported from University of Salerno
(Synthesis and pharmacological evaluation of functionalized isoindolinones on GABA-activated chloride currents in rat cerebellum granule cells in culture)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System - Metencephalon have been presented. According to news reporting originating from Fisciano, Italy, by NewsRx correspondents, research stated, "A focused N-substituted 3-(2-piperazin-1-yl)-2-oxoethyl)-2-(pyridin-2-yl)isoindolin-1-ones small library was synthesized for modulation of GABA-A receptor function and compared to Zopiclone for the ability to increase GABA-activated chloride currents. All compounds were tested for their effects on GABA-activated chloride currents in rat cerebellar granule cells by use of the whole-cell patch clamp technique."

Our news editors obtained a quote from the research from the University of Salerno, "Electrophysiological studies on cultured cerebellar granule cells revealed 3-[2-(4-methylpiperazin-1-yl)-2-oxoethyl]-2-(5-nitropyridin-2-yl)isoindolin-1-one (Id) as a partial agonist displaying 34% increase of the 10 JIM GABA evoked peak chloride currents, antagonized by flumazenil. Moreover, a second group of compounds, with bulky functional groups at N-4 position of piperazine, have shown inverse agonist effects."

According to the news editors, the research concluded: "The simple synthetic procedure and the possibility of modulating the efficacy of this class of ligands through additional structural modifications pave the way for further development of new molecules as a novel class of compounds able to interfere with benzodiazepine receptors."


The news editors report that additional information may be obtained by contacting A. Massa, University of Salerno, Dept. of Biol & Chem, I-84084 Fisciano, SA, Italy. Additional authors for this research include É. Gatta, C. Petronzi, A. Cupello, P. De Caprariis, M. Robello, A. Massa and R. Filosa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bmcl.2016.09.042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fisciano, Italy, Europe, Central Nervous System, Hydrochloric Acid, Metencephalon, Pharmacology, Brain Stem, Cerebellum,
New Microbiology Study Findings Recently Were Reported by Researchers at University of Santiago (Characterization of the microbiota associated to Pecten maximus gonads using 454-pyrosequencing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Life Science Research - Microbiology are presented in a new report. According to news originating from Santiago de Compostela, Spain, by NewsRx correspondents, research stated, "A next-generation sequencing (NGS) approach was used to study the microbiota associated to Pecten maximus broodstock, applying pyrosequencing of PCR-amplified V1-V4 16S rRNA gene regions. We analysed the resident bacterial communities in female and male scallop gonads before and after spawning."

Our news journalists obtained a quote from the research from the University of Santiago, "DNA samples were amplified and quality-filtered reads were assigned to family and genus taxonomic levels using the Ribosomal Database Project classifier. A total of 18,520 sequences were detected, belonging to 13 phyla, including Proteobacteria (55%), Bacteroidetes (11.7%), Firmicutes (3%), Actinobacteria (2%) and Spirochaetes (1.2%), and 110 genera. The major fraction of the sequences detected corresponded to Proteobacteria, Beta-and Gammaproteobacteria being the most abundant classes. The microbiota of P. maximus gonad harbour a wide diversity, however differences on male and female samples were observed, where female gonad samples show a larger number of genera and families. The dominant bacterial genera appeared to be Delftia, Acinetobacter, Hydrotalea, Aquabacterium, Bacillus, Sediminibacterium, Sphingomonas, and Pseudomonas that were present among the four analysed samples."

According to the news editors, the research concluded: "This next generation sequencing technique, applied for the first time in P. maximus (great scallop) gonads was useful for the study of the bacterial communities in this mollusc, unravelling the great bacterial diversity in its microbiota."

For more information on this research see: Characterization of the microbiota associated to Pecten maximus gonads using 454-pyrosequencing. International Microbiology, 2016;19(2):93-99. International Microbiology can be contacted at: Inst Estudis Catalans, Carrer Del Carme, 47, Barcelona, 08001, Spain. (Springer - www.springer.com; International Microbiology - www.springerlink.com/content/1139-6709/)

The news correspondents report that additional information may be obtained from J.L. Romalde, University of Santiago, Dept. of Microbiol & Parasitol, CIBUS, Santiago De Compostela, Spain. Additional authors for this research include A. Mira, A. Camelo-Castillo, P. Belda-Ferre and J.L. Romalde.

Keywords for this news article include: Santiago de Compostela, Spain, Europe, Microbiology, Life Science Research, Genetics, University of Santiago.

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New Middle Cerebral Artery Infarction Data Have Been Reported by Investigators at Mashhad University of Medical Sciences (Aqueous and Ethanolic Extracts of Boswellia serrata Protect Against Focal Cerebral Ischemia and Reperfusion Injury in Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Central Nervous System Diseases and Conditions - Middle Cerebral Artery Infarction is the subject of a report. According to news reporting originating from Mashhad, Iran, by NewsRx correspondents, research stated, "Oxidative stress and cell apoptosis play major roles in neuronal injury after ischemia-reperfusion (I-R) injury. Boswellia serrata is a medicinal plant with antioxidant properties."

Our news editors obtained a quote from the research from the Mashhad University of Medical Sciences, "Acetyl-11-keto-beta-boswelic acid (AKBA) is an active triterpenoid compound from B. serrate. In the current study, the neuroprotective effects of aqueous and ethanolic extracts of B. serrata (named ABS and EBS, respectively) and AKBA were investigated against middle cerebral artery occlusion-induced cerebral I-R injury in rats. ABS and EBS with doses of 125, 250 and 500 and AKBA with a dose of 50 mg/kg were administered (intraperitoneally) just after middle cerebral artery occlusion induction for 30 min and reperfusion for 24 h. HPLC analysis suggested that ABS and EBS had AKBA of 8.8% and 9.5% (w/w), respectively. B. serrata and AKBA significantly improved neurological deficit and reduced brain infarction, neuronal cell loss and apoptosis and also attenuated lipid peroxidation while increasing glutathione content and superoxide dismutase activity in the cerebral cortex following a stroke. Apoptosis suppression was found to be mediated through regulating caspase-3 and bax/bcl-2 expressions."

According to the news editors, the research concluded: "Our results demonstrated that B. serrata and AKBA attenuate oxidative damage and inhibit cell apoptosis, subsequently protecting cerebral I-R injury in rats."


The news editors report that additional information may be obtained by contacting H.R. Sadeghnia, Mashhad Univ Med Sci, Neurocognit Res Center, Fac Med, Mashhad, Iran. Additional authors for this research include H. Hosseinzadeh, A.E. Bideskan and H.R. Sadeghnia.

Keywords for this news article include: Mashhad, Iran, Asia, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Middle Cerebral Artery Infarction, Transfusion Medicine, Reperfusion Injury, Blood Transfusion, Medical Devices, Mashhad University of Medical Sciences.

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New Mitotic Inhibitors Study Results Reported from University of Tehran (Specific targeting delivery to MUC1 overexpressing tumors by albumin-chitosan nanoparticles conjugated to DNA aptamer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Mitotic Inhibitors have been published. According to news reporting originating in Tehran, Iran, by NewsRx journalists, research stated, "Chitosan-coated human serum albumin nanoparticles were functionalized by MUC1 aptamer to obtain a selective drug carrier toward cancers overexpressing MUC1. The negative charges of albumin nanoparticles were shifted to positive charges by surface modification with chitosan, and MUC1 was conjugated through an acrylate spacer."

Financial support for this research came from Nanotechnology Research Center of Tehran University of Medical Sciences.

The news reporters obtained a quote from the research from the University of Tehran, "The cytotoxicity of targeted nanoparticles was significantly more than non-aptamer nanoparticles, and also the chitosan-coated nanoparticles had more cytotoxic effects than the negatively charged albumin nanoparticles. The IC50 of targeted nanoparticles was 28 and 26% of free paclitaxel in MCF7 and T47D cells at 48 h, respectively. Confocal laser scanning electron microscopy showed that aptamer conjugation and positive charge increase the cellular uptake. 66% of paclitaxel was released within 32 h, but 100% of drug was released at pH = 5.5 (similar cancer cells)."

According to the news reporters, the research concluded: "The paclitaxel plasma amount was at a good level of 17.6% at 2 h for increasing the chance of cellular uptake."


Our news correspondents report that additional information may be obtained by contacting R. Dinarvand, Univ Tehran Med Sci, Dept. of Pharmaceut, Fac Pharm, Tehran, Iran. Additional authors for this research include A. Mohammadi, F. Atyabi, S.M. Nabavi, S.M. Ebrahimi, E. Shahmoradi, B.S. Varnamkhiati, M.H. Ghahremani and R. Dinarvand.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.066. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Emerging Technologies, Drugs and Therapies, Paclitaxel Therapy, Mitotic Inhibitors, Pharmaceuticals, Antineoplastics, Nanotechnology, Nanoparticle, University of Tehran.

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New Molecular Biology Findings Reported from Fujian Agriculture and Forestry University [Cytotoxic, Antitumor and Immunomodulatory Effects of the Water-Soluble Polysaccharides from Lotus (Nelumbo nucifera Gaertn.) Seeds]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Molecular Biology have been published. According to news reporting out of Fuzhou, People's Republic of China, by NewsRx editors, research stated, "Lotus is an edible and medicinal plant, and the extracts from its different parts exhibit various bioactivities. In the present study, the hot water-soluble polysaccharides from lotus seeds (LSPS) were evaluated for their cancer cell cytotoxicity, immunomodulatory and antitumor activities."

Our news journalists obtained a quote from the research from Fujian Agriculture and Forestry University, "LSPS showed significant inhibitory effects on the mouse gastric cancer MFC cells, human liver cancer HuH-7 cells and mouse hepatocarcinoma H22 cells. The animal studies showed that LSPS inhibited tumor growth in H22 tumor-bearing mice with the highest inhibition rate of 45.36%, which is comparable to that induced by cyclophosphamide (30 mg/kg) treatment (50.79%). The concentrations of white blood cells were significantly reduced in cyclophosphamide-treated groups (p < 0.01), while LSPS showed much fewer side effects according to the hematology analysis. LSPS improved the immune response in H22 tumor-bearing mice by enhancing the spleen and thymus indexes, and increasing the levels of serum cytokines including tumor necrosis factor-ff and interleukin-2. Moreover, LSPS also showed in vivo antioxidant activity by increasing superoxide dismutase activity, thus reducing the malondialdehyde level in the liver tissue."

According to the news editors, the research concluded: "These results suggested that LSPS can be used as an antitumor and immunomodulatory agent."

For more information on this research see: Cytotoxic, Antitumor and Immunomodulatory Effects of the Water-Soluble Polysaccharides from Lotus (Nelumbo nucifera Gaertn.) Seeds. *Molecules*, 2016;21(11):689-699. *Molecules* can be contacted at: Mdpj Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)


Keywords for this news article include: Fuzhou, People's Republic of China, Asia, Molecular Biology, Life Science Research, Oncology, Cancer, Fujian Agriculture and Forestry University.

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New Molecular Cancer and Carcinogenesis Data Have Been Reported by Researchers at Kinki University (Significance of FGF9 gene in resistance to anti-EGFR therapies targeting colorectal cancer: A subset of colorectal cancer patients with FGF9 ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Molecular Cancer and Carcinogenesis. According to news originating from Osaka, Japan, by NewsRx correspondents, research stated, "Although fibroblast growth factor (FGF) signals are strongly associated with malignancy, limited information is available regarding the role of the FGF9 signal in colorectal cancer (CRC). In this study, we investigated the frequency of FGF9 amplification in CRC clinical specimens and the association between the FGF9 gene and resistance to anti-EGFR therapies."

Our news journalists obtained a quote from the research from Kinki University, "In clinical samples, an FGF9 copy number gain of 5 copies was observed at a frequency of 8/145 (5.5%) and tended to be related to wild-type KRAS (7/96, 7.3%). Furthermore, FGF9 amplification was not observed in any of the samples from the 15 responders to anti-EGFR therapies but was observed in one sample from the seven non-responders with wild-type KRAS, and two samples from non-responders also had high FGF9 mRNA expression levels. FGF9 amplification was validated using a fluorescence in situ hybridization (FISH) analysis, and FGF9-amplified sections showed readily detectable signals originating from FGF9 protein when examined using immunohistochemistry. In both the in vitro and in vivo experiments using FGF9-overexpressing CRC cell lines, FGF9 overexpression induced strong resistance to anti-EGFR therapies via the enforced FGFR signal, and this resistance was cancelled by the application of an FGFR inhibitor. Considering these results, the FGF9 gene may play an important role in resistance to anti-EGFR therapies in patients with CRC, and such resistance might be overcome by combined treatment with an anti-FGFR inhibitor."

According to the news editors, the research concluded: "These findings strongly encourage the development of FGFR-targeted therapy for CRC patients with FGF9 gene upregulation."


Keywords for this news article include: Osaka, Japan, Asia, Molecular Cancer and Carcinogenesis, Oncology, Genetics, Kinki University.

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New Molecular Chaperones Study Findings Reported from J. Lee and Co-Authors (Heat Shock Protein 90 Regulates Subcellular Localization of Smads in Mv1Lu Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Proteins - Molecular Chaperones are discussed in a new report. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Heat shock protein 90 (HSP90) regulates the stability of various proteins and plays an essential role in cellular homeostasis. Many client proteins of HSP90 are involved in cell growth, survival, and migration; processes that are generally accepted as participants in tumorigenesis."

Funders for this research include Nuclear Research & Development Program, Ministry of Science, ICT and Future Planning (MSIP).

Our news journalists obtained a quote from the research, "HSP90 is also up-regulated in certain tumors. Indeed, the inhibition of HSP90 is known to be effective in cancer treatment. Recently, studies showed that HSP90 regulates transforming growth factor b1 (TGF-b1)-induced transcription by increasing the stability of the TGF-b receptor. TGF-b signaling also has been implicated in cancer, suggesting the possibility that TGF-b1 and HSP90 function cooperatively during the cancer cell progression. Here in this paper, we investigated the role of HSP90 in TGF-b1-stimulated Mv1Lu cells. Treatment of Mv1Lu cells with the HSP90 inhibitor, 17-allylamino-demethoxy-geldanamycin (17AAG), or transfection with truncated HSP90 (DHSP90) significantly reduced TGF-b1-induced cell migration. Pretreatment with 17AAG or transfection with DHSP90 also reduced the levels of phosphorylated Smad2 and Smad3. In addition, the HSP90 inhibition interfered the nuclear localization of Smads induced by constitutively active Smad2 (S2EE) or Smad3 (S3EE). We also found that the HSP90 inhibition decreased the protein level of importin-b1 which is known to regulate R-Smad nuclear translocation. These data clearly demonstrate a novel function of HSP90; HSP90 modulates TGF-b signaling by regulating Smads localization. Overall, our data could provide a detailed mechanism linking HSP90 and TGF-b signaling."

According to the news editors, the research concluded: "The extension of our understanding of HSP90 would offer a better strategy for treating cancer."


Our news journalists report that additional information may be obtained by contacting J. Lee, Division of Radiation Effects, Korea Institute of Radiation and Medical Sciences, Seoul, South Korea. Additional authors for this research include Y.S. An, M.R. Kim, Y.A. Kim, J.K. Lee, C.S. Hwang, E. Chung, I.C. Park and J.Y Yi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcb.25269. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Cancer, Genetics, Oncology, South Korea, Heat Shock Proteins, Molecular Chaperones.

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New Molecular Genetics Findings from Gazi University Described
(Molecular analysis of the AGXT gene in patients suspected with hyperoxaluria type 1 and three novel mutations from Turkey)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Life Science Research - Molecular Genetics are discussed in a new report. According to news originating from Ankara, Turkey, by NewsRx correspondents, research stated, "Primary hyperoxaluria type 1 (PH1) is a rare, autosomal recessive disease, caused by the defect of AGXT gene encoding hepatic peroxisomal alanine glyoxylateaminotransferase (AGT). This enzyme is responsible for the conversion of glyoxylate to glycine."

Our news journalists obtained a quote from the research from Gazi University, "The diagnosis of PH1 should be suspected in infants and children with nephrocalcinosis or nephrolithiasis. Early diagnosis and treatment is crucial in preventing disease progression to end stage kidney disease (ESKD). In this study, AGXT gene sequence analyses were performed in 82 patients who were clinically suspected (hyperoxaluria and nephrolithiasis or nephrocalcinosis with or without renal impairment) to have PH1. Disease causing mutations have been found in fifteen patients from thirteen families (18%). Novel mutations have been found (c.458T > A (p.L153X), c.733_734delAA (p.Lys245Valfs*11), c.52 C> T (p.L18F)) in three of 13 families. There were 3-year lag time between initial symptoms and the time of PH1 is suspected; additionally, 5.5-year lag time between initial symptoms and definitive diagnosis. Consanguinity was detected in 77% of the patients with mutation. After genetic diagnosis, one patient received combined kidney and liver transplantation. AGXT gene sequencing is now the choice of diagnosis of PH1 due to its non-invasive nature compared to liver enzyme assay."

According to the news editors, the research concluded: "Early diagnosis and accurate treatment in PH1 is important for better patient outcomes."

For more information on this research see: Molecular analysis of the AGXT gene in patients suspected with hyperoxaluria type 1 and three novel mutations from Turkey. Molecular Genetics and Metabolism, 2016;119(4):311-316. Molecular Genetics and Metabolism can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Molecular Genetics and Metabolism - www.journals.elsevier.com/molecular-genetics-and-metabolism/)

The news correspondents report that additional information may be obtained from E. Isiyel, Gazi University, Fac Med, Dept. of Pediat Nephrol, Ankara, Turkey. Additional authors for this research include S.A.B. Ezgu, S. Caliskan, S. Akman, I. Akil, Y. Tabel, N. Akinci, E.B. Ozdogan, A. Ozel, F.K. Eroglu and F.S. Ezgu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ymgme.2016.10.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ankara, Turkey, Eurasia, Molecular Genetics, Life Science Research, Genetics, Risk and Prevention, Genetics, Genetics, Gazi University.

Our reports deliver fact-based news of research and discoveries from around the
New Molecular Pharmaceutics Data Have Been Reported by Researchers at Guangzhou University (Improving Therapeutic Potential of Farnesylthiosalicylic Acid: Tumor Specific Delivery via Conjugation with Heptamethine Cyanine Dye)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology - Molecular Pharmaceutics. According to news reporting originating from Guangzhou, People's Republic of China, by NewsRx correspondents, research stated, "The RAS and mTOR inhibitor S-trans-trans-farnesylthiosalicylic acid (FTS) is a promising anticancer agent with moderate potency, currently undergoing clinical trials as a chemotherapeutic agent. FTS has displayed its potential against a variety of cancers including endocrine resistant breast cancer."

Our news editors obtained a quote from the research from Guangzhou University, "However, the poor pharmacokinetics profile attributed to its high hydrophobicity is a major hindrance for its continued advancement in clinic. One of the ways to improve its therapeutic potential would be to enhance its bioavailability to cancer tissue by developing a method for targeted delivery. In the current study, FTS was conjugated with the cancer-targeting heptamethine cyanine dye 5 to form the FTS-dye conjugate 11. The efficiency of tumor targeting properties of conjugate 11 against cancer cell growth and mTOR inhibition was evaluated in vitro in comparison with parent FTS. Cancer targeting of 11 in a live mouse model of MCF7 xenografts was demonstrated with noninvasive, near-infrared fluorescence (NIRF) imaging. The results from our studies clearly suggest that the bioavailability of FTS is indeed improved as indicated by log P values and cancer cell uptake. The FTS-dye conjugate 11 displayed higher potency (IC=16.8 ? 0.5 mM) than parent FTS (IC=&sim;51.3 ? 1.8 mM) and inhibited mTOR activity in the cancer cells at a lower concentration (12.5 mM). The conjugate 11 was shown to be specifically accumulated in tumors as observed by in vivo NIRF imaging, organ distribution, and ex vivo tumor histology along with cellular level confocal microscopy."

According to the news editors, the research concluded: "The conjugation of FTS with cancer-targeting heptamethine cyanine dye improved its pharmacological profile."

For more information on this research see: Improving Therapeutic Potential of Farnesylthiosalicylic Acid: Tumor Specific Delivery via Conjugation with Heptamethine Cyanine Dye. Molecular Pharmaceutics, 2016;(). (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news editors report that additional information may be obtained by contacting Y. Guan, International Institute for Translational Chinese Medicine, Guangzhou University of Chinese Medicine, Guangzhou 51006, People's Republic of China. Additional authors for this research include Y. Zhang, L. Xiao, J. Li, J.P. Wang, M.D. Chordia, Z.Q. Liu, L.W. Chung, W. Yue and D. Pan.

Keywords for this news article include: Asia, Biotechnology, Cancer, Therapy, Oncology, Guangzhou, Molecular Pharmaceutics, People's Republic of China.

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Biotechnology - Molecular Therapeutics

New Molecular Therapeutics Findings from I. Petta and Co-Researchers Described (Modulation of Protein-Protein Interactions for the Development of Novel Therapeutics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology - Molecular Therapeutics. According to news reporting from Ghent, Belgium, by NewsRx journalists, research stated, "Protein-protein interactions (PPIs) underlie most biological processes. An increasing interest to investigate the unexplored potential of PPIs in drug discovery is driven by the need to find novel therapeutic targets for a whole range of diseases with a high unmet medical need."

The news correspondents obtained a quote from the research, "To date, PPI inhibition with small molecules is the mechanism that has most often been explored, resulting in significant progress towards drug development. However, also PPI stabilization is gradually gaining ground. In this review, we provide a focused overview of a number of PPIs that control critical regulatory pathways and constitute targets for the design of novel therapeutics. We discuss PPI-modulating small molecules that are already pursued in clinical trials."

According to the news reporters, the research concluded: "In addition, we review a number of PPIs that are still under preclinical investigation but for which preliminary data support their use as therapeutic targets."

For more information on this research see: Modulation of Protein-Protein Interactions for the Development of Novel Therapeutics. *Molecular Therapy*, 2015;24(4):707-18. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news journalists report that additional information may be obtained by contacting I. Petta, Receptor Research Laboratories, Cytokine Receptor Lab (CRL), VIB Dept. of Medical Protein Research, Ghent, Belgium. Additional authors for this research include S. Lievens, C. Libert, J. Tavernier and K. De Bosscher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2015.214. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Ghent, Europe, Belgium, Article Review, Molecular Therapeutics.

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Biotechnology - Molecular Therapeutics

New Molecular Therapeutics Findings from University of Minnesota Described (Evaluation of TCR Gene Editing Achieved by TALENs, CRISPR/Cas9, and megaTAL Nucleases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biotechnology - Molecular Therapeutics have been
presented. According to news reporting originating in Minneapolis, Minnesota, by NewsRx journalists, research stated, "Present adoptive immunotherapy strategies are based on the re-targeting of autologous T-cells to recognize tumor antigens. As T-cell properties may vary significantly between patients, this approach can result in significant variability in cell potency that may affect therapeutic outcome."

The news reporters obtained a quote from the research from the University of Minnesota. "More consistent results could be achieved by generating allogeneic cells from healthy donors. An impediment to such an approach is the endogenous T-cell receptors present on T-cells, which have the potential to direct dangerous off-tumor antithost reactivity. To address these limitations, we assessed the ability of three different TCR-a-targeted nucleases to disrupt T-cell receptor expression in primary human T-cells. We optimized the conditions for the delivery of each reagent and assessed off-target cleavage."

According to the news reporters, the research concluded: "The megaTAL and CRISPR/Cas9 reagents exhibited the highest disruption efficiency combined with low levels of toxicity and off-target cleavage, and we used them for a translatable manufacturing process to produce safe cellular substrates for next-generation immunotherapies."

For more information on this research see: Evaluation of TCR Gene Editing Achieved by TALENs, CRISPR/Cas9, and megaTAL Nucleases. Molecular Therapy, 2015;24 (3):570-81. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2015.197. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Genetics, Minnesota, Minneapolis, United States, Molecular Therapeutics, North and Central America.

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Life Science Research - Molecular and Cellular Biology

New Molecular and Cellular Biology Data Have Been Reported by A. Gubern and Co-Authors (The N-Terminal Phosphorylation of RB by p38 Bypasses Its Inactivation by CDKs and Prevents Proliferation in Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Life Science Research - Molecular and Cellular Biology. According to news reporting from Barcelona, Spain, by NewsRx journalists, research stated, "Control of the G1/S phase transition by the Retinoblastoma (RB) tumor suppressor is critical for the proliferation of normal cells in tissues, and its inactivation is one of the most fundamental events leading to cancer. Cyclin-dependent kinase (CDK) phosphorylation
inactivates RB to promote cell cycle-regulated gene expression."

The news correspondents obtained a quote from the research, "Here we show that, upon stress, the p38 stress-activated protein kinase (SAPK) maximizes cell survival by downregulating E2F gene expression through the targeting of RB. RB undergoes selective phosphorylation by p38 in its N terminus; these phosphorylations render RB insensitive to the inactivation by CDKs. p38 phosphorylation of RB increases its affinity toward the E2F transcription factor, represses gene expression, and delays cell-cycle progression."

According to the news reporters, the research concluded: "Remarkably, introduction of a RB phosphomimetic mutant in cancer cells reduces colony formation and decreases their proliferative and tumorigenic potential in mice."


Our news journalists report that additional information may be obtained by contacting E. de Nadal, UPF, Dept. of Ciencies Expt & Salut, Cell Signaling Res Grp, Barcelona 08003, Spain. Additional authors for this research include M. Joaquin, M. Marques, P. Maseres, J. Garcia-Garcia, R. Amat, D. Gonzalez-Nunez, B. Oliva, F.X. Real, E. de Nadal and F. Posas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.08.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Molecular and Cellular Biology, Life Science Research, Enzymes and Coenzymes, Kinase, Genetics, Oncology, Cancer.

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**Drugs and Therapies - Monoclonal Antibodies**

**New Monoclonal Antibodies Data Have Been Reported by Investigators at University of Verona (Teriparatide and denosumab combination therapy and skeletal metabolism)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Monoclonal Antibodies are discussed in a new report. According to news reporting originating from Verona, Italy, by NewsRx correspondents, research stated, "Several therapies are available for osteoporosis. Understanding the bone turnover changes and their mutual relationship gives an overall view and might lead to a target therapy. Introduction The aim of this study is to compare the changes in bone turnover markers in patients treated with either denosumab alone, teriparatide (TPTD) alone, or in a third therapeutic scheme, when TPTD was added to patients previously treated with denosumab."

Our news editors obtained a quote from the research from the University of Verona, "Fifty-nine women over 65 years old with severe postmenopausal osteoporosis (evidence of at least two moderate-severe vertebral fractures) were enrolled in the study. Serum samples were
collected every 3 months. They were assayed for intact N-propeptide of type I collagen (P1NP), C-terminal telopeptide of type I collagen (CTX), intact parathyroid hormone (PTH), 25 hydroxyvitamin D (25 OHD), Sclerostin (SOST), and Dickkopf-related protein 1 (DKK1). Bone mass density was assessed by dual-energy X-ray absorptiometry at the lumbar spine and at the total hip. In the groups treated only with TPTD or with denosumab, bone turnover markers increased and decreased, respectively. In TPTD group, a later significant increase in DKK1 was observed, while in denosumab group, a progressive increase in SOST was associated with a progressive significant decrease in DKK1. In the group treated first with denosumab and in which TPTD was added 3 months later, both CTX and P1NP increased 3 months after the beginning of TPTD. The strong effect of denosumab on bone turnover seems to be reversed by TPTD treatment. In this study, we showed that TPTD is able to express its biological activity even when bone turnover is fully suppressed by denosumab treatment.

According to the news editors, the research concluded: "The combination therapy is associated with significant increases in both DKK1 and SOST."

For more information on this research see: Teriparatide and denosumab combination therapy and skeletal metabolism. Osteoporosis International, 2016;27(11):3301-3307. Osteoporosis International can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - www.springer.com; Osteoporosis International - www.springerlink.com/content/0937-941x/)

The news editors report that additional information may be obtained by contacting L. Idolazzi, University of Verona, Dept. of Med, Rheumatol Unit, I-37126 Verona, Italy. Additional authors for this research include M. Rossini, O. Viapiana, V. Braga, A. Fassio, C. Benini, V. Kunnathully, S. Adami and D. Gatti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3647-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Verona, Italy, Europe, Parathyroid Hormone and Analogs, Monoclonal Antibodies, Drugs and Therapies, Combination Therapy, Peptide Proteins, Bone Research, Biotechnology, Immunotherapy, Teriparatide, Denosumab, Hormones, University of Verona.

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Immunology - Mononuclear Phagocyte System

New Mononuclear Phagocyte System Study Findings Have Been Reported by Researchers at University of Kansas Medical Center (Serine 574 phosphorylation alters transcriptional programming of FOXO3 by selectively enhancing apoptotic gene expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Mononuclear Phagocyte System. According to news reporting from Kansas City, Kansas, by NewsRx journalists, research stated, "Forkhead box O3 (FOXO3) is a multispecific transcription factor that is responsible for multiple and conflicting transcriptional programs such as cell survival and apoptosis. The protein is heavily post-translationally modified and there is considerable evidence that post-transcriptional modifications (PTMs) regulate protein stability and nuclear-
The news correspondents obtained a quote from the research from the University of Kansas Medical Center, "Much less is known about how FOXO3 PTMs determine the specificity of its transcriptional program. In this study we demonstrate that exposure of hepatocytes to ethanol or exposure of macrophages to lipopolysaccharide (LPS) induces the c-Jun N-terminal kinase (JNK)-dependent phosphorylation of FOXO3 at serine-574. Chromatin immunoprecipitation (ChIP), mRNA and protein measurements demonstrate that p-574-FOXO3 selectively binds to promoters of pro-apoptotic genes but not to other well-described FOXO3 targets. Both unphosphorylated and p-574-FOXO3 bound to the B-cell lymphoma 2 (Bcl-2) promoter, but the unphosphorylated form was a transcriptional activator, whereas p-574-FOXO3 was a transcriptional repressor. The combination of increased TRAIL (TNF-related apoptosis-inducing ligand) and decreased Bcl-2 was both necessary and sufficient to induce apoptosis. LPS treatment of a human monocyte cell line (THP-1) induced FOXO3 S-574 phosphorylation and apoptosis. LPS-induced apoptosis was prevented by knockdown of FOXO3. It was restored by overexpressing wild-type FOXO3 but not by overexpressing a nonphosphorylatable S-574A FOXO3. Expression of an S-574D phosphomimetic form of FOXO3 induced apoptosis even in the absence of LPS. A similar result was obtained with mouse peritoneal macrophages where LPS treatment increased TRAIL, decreased Bcl-2 and induced apoptosis in wild-type but not FOXO3(-/-) cells."

According to the news reporters, the research concluded: "This work thus demonstrates that S-574 phosphorylation generates a specifically apoptotic form of FOXO3 with decreased transcriptional activity for other well-described FOXO3 functions."

For more information on this research see: Serine 574 phosphorylation alters transcriptional programming of FOXO3 by selectively enhancing apoptotic gene expression. Cell Death and Differentiation, 2015;23(4):583-95. (Nature Publishing Group - www.nature.com/cdd/)

Our news journalists report that additional information may be obtained by contacting Z. Li, Dept. of Internal Medicine, University of Kansas Medical Center, Kansas City, KS 66160, United States. Additional authors for this research include J. Zhao, I. Tikhanovich, S. Kuravi, J. Helzberg, K. Dorko, B. Roberts, S. Kumer and S.A Weinman.

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Keywords for this news article include: Serine, Genetics, Apoptosis, Immunology, Kansas City, Macrophages, United States, Neutral Amino Acids, North and Central America, Mononuclear Phagocyte System.

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Motor Neuron Disease have been published. According to news reporting from Daejeon, South Korea, by NewsRx journalists, research stated, "Although the ubiquitin proteasome system is believed to play an important role in the pathogenesis of familial amyotrophic lateral sclerosis (FALS), caused by mutations in Cu/Zn-superoxide dismutase 1 (SOD1), the mechanism of how mutant SOD1 protein is regulated in cells is still poorly understood."

Funders for this research include Korea Research Institute of Bioscience and Biotechnology, National Research Foundation of Korea, National Research Council of Science and Technology.

The news correspondents obtained a quote from the research from the University of Science and Technology, "Here we have demonstrated that cellular inhibitor of apoptosis proteins (cIAPs) are specifically associated with FALS-linked mutant SOD1 (mSOD1) and that this interaction promotes the ubiquitin-dependent proteasomal degradation of mutant SOD1. By utilizing cumate inducible SOD1 cells, we also showed that knock-down or pharmacologic depletion of cIAPs leads to H2O2 induced cytotoxicity in mSOD1 expressing cells."

According to the news reporters, the research concluded: "Altogether, our results reveal a novel role of cIAPs in FALS-associated mutant SOD1 regulation."

For more information on this research see: cIAPs promote the proteasomal degradation of mutant SOD1 linked to familial amyotrophic lateral sclerosis. *Biochemical and Biophysical Research Communications*, 2016;480(3):422-428. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting S. Kim, Univ Sci & Technol, Dept. of Biomol Sci, Daejeon 305350, South Korea. Additional authors for this research include K. Kim, D.H. Lee, S. Cho, J. Du Ha, B.C. Park, S. Kim, S.G. Park and J.H. Kim.

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Keywords for this news article include: Daejeon, South Korea, Asia, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Neuromuscular Diseases and Conditions, Spinal Cord Diseases and Conditions, Amyotrophic Lateral Sclerosis, TDP-43 Proteinopathies, Motor Neuron Disease, Neurology, Genetics, University of Science and Technology.

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**New Moyamoya Disease Study Results Reported from Keio University (Homzygosity for Moyamoya Disease Risk Allele Leads to Moyamoya Disease with Extracranial Systemic and Pulmonary Vasculopathy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Moyamoya Disease are discussed in a new report. According to news reporting originating in
Tokyo, Japan, by NewsRx journalists, research stated, "Moyamoya disease is characterized by diffuse distal intracranial stenosis. Recently, RNF213 has been identified as a susceptibility gene in the development of this condition."

Financial supporters for this research include Ministry of Health, Labour and Welfare, Japan Agency for Medical Research and Development, Kawano Masanori Memorial Public Interest Incorporated Foundation, Keio University Research Grants, Japan Foundation for Pediatric Research, Japan Society for the Promotion of Science.

The news reporters obtained a quote from the research from Keio University, "Pulmonary hypertension is a rare progressive vasculopathy with an unknown etiology. The co-occurrence of pulmonary hypertension and Moyamoya disease has been described in four patients; however, whether this co-occurrence represents a chance association or a common vascular pathology has remained unknown. Here, we report two unrelated male patients who presented during their childhood with dyspnea on exertion. Systemic vascular imaging studies revealed the presence of pulmonary hypertension and Moyamoya disease in both patients. Medical exome sequencing revealed that both patients had a homozygous mutation for p.Arg4810Lys in RNF213. We suggest that homozygosity in RNF213 may lead to a novel entity involving the brain and lung. Interestingly, when present in a heterozygous state, this mutation causes a classic cerebral vascular disease, Moyamoya disease. In the homozygous state, the exact same mutation led to Moyamoya disease with extracranial systemic vasculopathy in at least two patients."

According to the news reporters, the research concluded: "From a clinical standpoint, cerebrovascular or pulmonary vascular investigations may be warranted in patients with pulmonary hypertension or Moyamoya disease, respectively."


Our news correspondents report that additional information may be obtained by contacting K. Kosaki, Keio University, Sch Med, Center Med Genet, Tokyo, Japan. Additional authors for this research include T. Takenouchi and K. Kosaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37829. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Central Nervous System Diseases and Conditions, Intracranial Arterial Diseases and Conditions, Cerebral Arterial Diseases and Conditions, Cardiovascular Diseases and Conditions, Carotid Artery Diseases and Conditions, Vascular Diseases and Conditions, Brain Diseases and Conditions, Lung Diseases and Conditions, Arterial Occlusive Diseases, Cerebrovascular Disorders, Pulmonary Vasculopathy, Pulmonary Hypertension, Genetics, Genetics, Moyamoya Disease, Keio University.

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New Multiple Myeloma Findings Has Been Reported by Investigators at University of Belgrade (Prognostic Significance of Cereblon Expression in Patients With Multiple Myeloma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Multiple Myeloma. According to news reporting out of Belgrade, Serbia, by NewsRx editors, research stated, "Within a personalized treatment approach in multiple myeloma (MM), the prognostic significance of cereblon (CRBN) expression was analyzed in 92 newly diagnosed patients. In patients treated with thalidomide-based combinations, CRBN expression significantly affected the treatment response (P = .028) and progression free survival (P = .017)."

Our news journalists obtained a quote from the research from the University of Belgrade, "With implications for the treatment outcome, measurement of CRBN expression might represent an additional prognostic tool in a personalized treatment approach. To personalize the treatment approach for patients with multiple myeloma (MM), molecular markers such as cereblon (CRBN) are currently the focus of investigation. The aim of the present study was to test the prognostic significance of CRBN expression in MM patients ineligible for autologous stem cell transplantation (ASCT). The data from 92 previously untreated patients were analyzed. The distribution according to the International Staging System score was 26.1%, 30.4%, and 43.5% with a score of 1, 2, and 3, respectively. Thalidomide- and bortezomib-based combinations were used in 83.7% and 16.3% of the patients, respectively. A treatment response (complete remission, very good partial remission, partial remission) was achieved in 83.7% of the patients and correlated with high CRBN expression (P = .006), mainly in the patients treated with thalidomide (P = .028). Low CRBN expression affected progression-free survival (PFS; P = .017) but not overall survival (OS) in patients treated with thalidomide and had no influence on OS in the bortezomib group. In the Cox regression model, low CRBN expression was the most important prognostic parameter that influenced PFS in the thalidomide-treated patients (P = .012). CRBN expression is of prognostic value in MM patients ineligible for ASCT treated with thalidomide as an immunomodulatory drug."

According to the news editors, the research concluded: "With low expression indicating a possible suboptimal treatment outcome, measurement of CRBN expression might serve as additional prognostic tool in the personalized treatment approach."

For more information on this research see: Prognostic Significance of Cereblon Expression in Patients With Multiple Myeloma. Clinical Lymphoma Myeloma & Leukemia, 2016;16(11):610-615. Clinical Lymphoma Myeloma & Leukemia can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA.

Our news journalists report that additional information may be obtained by contacting J. Bila, University of Belgrade, Fac Med, Belgrade, Serbia. Additional authors for this research include A. Sretenovic, J. Jelicic, N. Tosic, I. Glumac, M.D. Fekete, D. Antic, M.T. Balint, O. Markovic, Z. Milojovic, M. Radojkovic, G. Trajkovic, M. Puric, S. Pavlovic and B. Mihaljevic.

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Keywords for this news article include: Belgrade, Serbia, Europe, Hemic and
Oncology - Multiple Myeloma

New Multiple Myeloma Findings from Celgene Outlined (A Dual Color Immunohistochemistry Assay for Measurement of Cereblon in Multiple Myeloma Patient Samples)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Multiple Myeloma have been published. According to news originating from San Diego, California, by NewsRx correspondents, research stated, "Clinical interest in the measurement of Cereblon (CRBN), the primary target of the IMiDs immunomodulatory drugs lenalidomide and pomalidomide, has been fueled by its essential requirement for antitumor or immunomodulatory activity of both drugs in multiple myeloma (MM). However, limited analyses of clinical samples for CRBN gene expression or protein levels have utilized unvalidated reagents and assays, raising uncertainty about the interpretation of these results."

Our news journalists obtained a quote from the research from Celgene, "We previously described a highly specific rabbit monoclonal antibody CRBN65 against 65-76 AA of human Cereblon. Here we describe a validated dual color bright-field Cereblon/CD138 immunohistochemical (IHC) assay utilizing CRBN65 and a commercial mouse monoclonal CD138 antibody. Sensitivity and specificity of the assay was determined and assay precision was shown for both cytoplasmic and nuclear Cereblon in MM bone marrow samples with coefficient of variation values of 5% and 2%, respectively. The dual IHC assay was effective for detecting a continuous range of Cereblon levels in 22 MM patient bone marrow core biopsies and aspirate clots, as shown by average cytoplasmic H-scores ranging from 63 to 267 and nuclear H-scores ranging from 17 to 250. Interpathologist comparison of MM sample H-scores by 3 pathologists demonstrated good concordance (R-2=0.73)."

According to the news editors, the research concluded: "This dual assay demonstrated superior Cereblon IHC measurement in MM samples compared with the single IHC assay using a published commercial rabbit polyclonal Cereblon antibody and could be used to explore the potential utility of Cereblon as a biomarker in the clinic."

For more information on this research see: A Dual Color Immunohistochemistry Assay for Measurement of Cereblon in Multiple Myeloma Patient Samples. Applied Immunohistochemistry & Molecular Morphology, 2016;24(10):695-702. Applied Immunohistochemistry & Molecular Morphology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

The news correspondents report that additional information may be obtained from M. Wang, Celgene, Dept. of Exploratory Toxicol, San Diego, CA 92121, United States.
Additional authors for this research include M. Wang, S. Couto, D.E. Hansel, K. Miller, A. Lopez-Girona, C.C. Bjorklund, A.K. Gandhi, A. Thakurta, R. Chopra and M. Breider.

Keywords for this news article include: San Diego, California, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Blood Protein Disorders, Hemorrhagic Disorders, Hemostatic Disorders, Multiple Myeloma, Paraproteinemias, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Oncology, Celgene.

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**Oncology - Multiple Myeloma**

**New Multiple Myeloma Findings from Southern Medical University Described (Characterization of gamma delta regulatory T cells from peripheral blood in patients with multiple myeloma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Multiple Myeloma are presented in a new report. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Gamma delta regulatory T cells are able to inhibit the activation and function of T cells involved in antigen-specific immune responses. This study aimed to investigate the potential role of gamma delta regulatory T cells in inhibiting anti-tumor immune responses in patients diagnosed as multiple myeloma (MM)."

Our news journalists obtained a quote from the research from Southern Medical University, "We measured the levels of gamma delta T cells, the distribution and clonally amplified TCR V gamma and V delta T cells in peripheral blood of healthy donors, patients recently diagnosed with MM, and MM patients in remission cohorts. In addition, we evaluated the ability of gamma delta regulatory T cells to inhibit the proliferation of CD4-FCD25- T cells and detected the expression of immunoregulatory-associated molecules. We found that the levels of gamma delta regulatory T cells from the peripheral blood in patients of MM were significantly higher than those in healthy donors. Comparison of gamma delta T regulatory cells function in MM and healthy donors showed similarly inhibitory effects on the proliferation of T cells. Additionally, TLR8 expression level increased significantly in MM patients compared to healthy donors, while the expression levels of Foxp3, CD25, CTLA4, GITR, GATA3 and Tbet in MM patients and healthy donors showed no significant difference."

According to the news editors, the research concluded: "Taken together, our study reveals the potential role of gamma delta regulatory T cells in inhibiting anti-tumor immune responses in MM patients."

For more information on this research see: Characterization of gamma delta regulatory T cells from peripheral blood in patients with multiple myeloma. *Biochemical and Biophysical Research Communications*, 2016;480(4):594-601. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news correspondents report that additional information may be obtained from Q.F. Liu, Southern Med Univ, Nanfang Hosp, Dept. of Hematol, Guangzhou 510010,
Guangdong, People’s Republic of China. Additional authors for this research include H.Y. Lei, J. Tan, L. Xuan, X.L. Wu and Q.F. Liu.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Myeloma, Diagnostics and Screening, Vascular Diseases and Conditions, Blood Protein Disorders, Hemorrhagic Disorders, Hemostatic Disorders, Multiple Myeloma, Paraproteinemias, Hematology, Oncology, Southern Medical University.

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**Oncology - Multiple Myeloma**

**New Multiple Myeloma Study Findings Have Been Reported by Investigators at University College (17P deleted multiple myeloma presenting with intracranial disease: durable remission after tailored management)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Multiple Myeloma. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "In multiple myeloma (MM), del(17p) is associated with a poor outcome if present in greater than half the tumour cells. Similarly, intracranial involvement, often seen in the context of advanced disease, also heralds short survival."

The news reporters obtained a quote from the research from University College, "We present a rare case of MM presenting with intracranial disease and carrying del(17p) in 100% of tumour cells. This patient was successfully treated with combination chemotherapy employing central nervous system directed agents and bortezomib, followed by autologous stem cell transplant and consolidation with radiotherapy, bortezomib and thalidomide."

According to the news reporters, the research concluded: "We also present the outcomes of our single-centre experience of MM patients presenting with del(17p) disease."


Our news correspondents report that additional information may be obtained by contacting J. Lee, Univ Coll London NHS Fdn Trust, Clin Haematol, London, United Kingdom. Additional authors for this research include D. Smith, N. Rabin, J. Tobias and K. Yong.

Keywords for this news article include: London, United Kingdom, Europe, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Blood Protein Disorders, Hemorrhagic Disorders, Hemostatic Disorders, Multiple Myeloma, Paraproteinemias, Hematology, Oncology, University College.

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New Multiple Myeloma Study Findings Have Been Reported by J.K. Zhang and Colleagues (Design, synthesis and biological evaluation of novel non-covalent piperidine-containing peptidyl proteasome inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Multiple Myeloma have been published. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "A series of novel non-covalent piperidine-containing dipeptidyl derivatives were designed, synthesized and evaluated as proteasome inhibitors. All target compounds were tested for their proteasome chymotrypsin-like inhibitory activities, and selected derivatives were evaluated for the anti-proliferation activities against two multiple myeloma (MM) cell lines RPMI 8226 and MM-1S."

Financial supporters for this research include Hangzhou Science and Technology Committee, National Natural Science Foundation of China.

The news reporters obtained a quote from the research, "Among all of these compounds, eight exhibited significant proteasome inhibitory activities with IC50 less than 20 nM, and four are more potent than the positive control Carfilzomib. Compound 28 displayed the most potent proteasome inhibitory activity (IC50: 1.4 +/- 0.1 nM) and cytotoxicities with IC50 values at 13.9 +/- 1.8 nM and 9.5 +/- 0.5 nM against RPMI 8226 and MM-1S, respectively. Additionally, the ex vivo blood cell proteasome inhibitory activities of compounds 24 and 27-29 demonstrated that the enzymatic metabolism in the whole blood could be well tolerated."

According to the news reporters, the research concluded: "All these experiments confirmed that the piperidine-containing non-covalent proteasome inhibitors are potential leads for exploring new anti-cancer drugs."


Our news correspondents report that additional information may be obtained by contacting R.X. Zhuang, Hangzhou Xixi Hosp, Dept. of Pharmaceut Preparat, Hangzhou 310023, Zhejiang, People's Republic of China. Additional authors for this research include L.X. Gao, J.J. Xi, L. Sheng, Y.M. Zhao, L. Xu, Y.D. Shao, S.R. Liu, R.X. Zhuang, Y.B. Zhou and J. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bmc.2016.10.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Multiple Myeloma.

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New Multiple Myeloma Study Findings Have Been Reported by Researchers at Division of Genetics and Cell Biology (Assessing Heterogeneity of Osteolytic Lesions in Multiple Myeloma by H-1 HR-MAS NMR Metabolomics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Multiple Myeloma. According to news reporting out of Milan, Italy, by NewsRx editors, research stated, "Multiple myeloma (MM) is a malignancy of plasma cells characterized by multifocal osteolytic bone lesions. Macroscopic and genetic heterogeneity has been documented within MM lesions."

Our news journalists obtained a quote from the research from the Division of Genetics and Cell Biology, "Understanding the bases of such heterogeneity may unveil relevant features of MM pathobiology. To this aim, we deployed unbiased H-1 high-resolution magic-angle spinning (HR-MAS) nuclear magnetic resonance (NMR) metabolomics to analyze multiple biopsy specimens of osteolytic lesions from one case of pathological fracture caused by MM. Multivariate analyses on normalized metabolite peak integrals allowed clusterization of samples in accordance with a posteriori histological findings. We investigated the relationship between morphological and NMR features by merging morphological data and metabolite profiling into a single correlation matrix. Data-merging addressed tissue heterogeneity, and greatly facilitated the mapping of lesions and nearby healthy tissues."

According to the news editors, the research concluded: "Our proof-of-principle study reveals integrated metabolomics and histomorphology as a promising approach for the targeted study of osteolytic lesions."

For more information on this research see: Assessing Heterogeneity of Osteolytic Lesions in Multiple Myeloma by H-1 HR-MAS NMR Metabolomics. *International Journal of Molecular Sciences*, 2016;17(11):830-844. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting L. Tavel, Ist Sci San Raffaele, Div Genet & Cell Biol, Biomol NMR Unit, I-20132 Milan, Italy. Additional authors for this research include F. Fontana, J.M.G. Manteiga, S. Mari, E. Mariani, E. Caneva, R. Sitia, F. Camnasio, M. Marcatti, S. Cenci and G. Musco.

Keywords for this news article include: Milan, Italy, Europe, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Nuclear Magnetic Resonance, Diagnostics and Screening, Blood Protein Disorders, Hemorrhagic Disorders, Hemostatic Disorders, Multiple Myeloma, Paraproteinemias, Hematology, Genetics, Oncology, Division of Genetics and Cell Biology.

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New Multiple Myeloma Study Findings Reported from Mayo Clinic
(Myelomatous Involvement of the Central Nervous System)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Multiple Myeloma. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Myelomatous involvement of the central nervous system (CNS) is an uncommon complication that portends a poor prognosis in patients with multiple myeloma (MM). Limited data exist regarding the optimal management of CNS MM."

Our news editors obtained a quote from the research from Mayo Clinic, "In the present case-control study, we examined the clinical presentation, diagnosis, treatment, and outcomes of CNS MM patients compared with a control group of MM patients without CNS involvement, matched by date of diagnosis and gender. Limited data exist with respect to the outcome and optimal treatment of patients with myelomatous involvement of the central nervous system (CNS). Of 4060 patients with multiple myeloma (MM), evaluated at Mayo Clinic from 1998 to 2014, 29 (0.7%) had identifiable CNS involvement, established by the presence of atypical plasma cells in the cerebrospinal fluid (CSF) and/or identification of intraparenchymal or meningeal involvement on magnetic resonance imaging (MRI). A cohort of 87 MM patients without CNS disease served as the control group (1:3), matched by diagnosis date and gender. Plasma cells were detected in the CSF in 87% and MRI findings consistent with CNS involvement were noted in 82% of the patients. A bone marrow plasma cell labeling index of >= 3%, the presence of disease at other extramedullary sites, or peripheral blood plasma cells of > 800 per 150,000 events were associated with an odds ratio of 7.1, 10.3, and 14, respectively, for the risk of CNS involvement. Overall survival (OS) from the diagnosis of MM was significantly shorter in the CNS-MM group (median 40 months; 95% confidence interval [CI], 24-56 months) than in the control group (median, 93 months; 95% CI, 67-129 months). OS was 3.4 months from the detection of CNS disease. Patients who underwent autologous stem cell transplantation after CNS involvement (n = 7) had a median OS of 19 months (95% CI, 10-67 months) from the detection of CNS involvement. Myelomatous involvement of the CNS is a rare complication that portends a poor survival."

According to the news editors, the research concluded: "Current therapeutic approaches appear to be largely ineffective for this subset of patients with MM."

For more information on this research see: Myelomatous Involvement of the Central Nervous System. Clinical Lymphoma Myeloma & Leukemia, 2016;16(11):644-654. Clinical Lymphoma Myeloma & Leukemia can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clml.2016.08.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases
and Conditions, Central Nervous System Disorders, Vascular Diseases and Conditions, Hemic and Immune Systems, Hemorrhagic Disorders, Hemostatic Disorders, Multiple Myeloma, Women's Health, Gender Health, B-Lymphocytes, Plasma Cells, Blood Cells, Immunology, Leukocytes, Hematology, Oncology, Mayo Clinic.

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Oncology - Multiple Myeloma

New Multiple Myeloma Study Findings Reported from Tongji University (Pterostilbene Inhibits Human Multiple Myeloma Cells via ERK1/2 and JNK Pathway In Vitro and In Vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Multiple Myeloma are presented in a new report. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Multiple myeloma (MM) is the second most common malignancy in the hematologic system, which is characterized by accumulation of plasma cells in bone marrow. Pterostilbene (PTE) is a natural dimethylated analog of resveratrol, which has antioxidant, anti-inflammatory and anti-tumor properties."

The news reporters obtained a quote from the research from Tongji University, "In the present study, we examined the anti-tumor effect of PTE on MM cell lines both in vitro and in vivo using the cell counting kit (CCK)-8, apoptosis assays, cell cycle analysis, reactive oxygen species (ROS) generation, JC-1 mitochondrial membrane potential assay, Western blotting and tumor xenograft models. The results demonstrated that PTE induces apoptosis in the H929 cell line and causes cell cycle arrest at G0/G1 phase by enhancing ROS generation and reducing mitochondrial membrane potential. The anti-tumor effect of PTE may be caused by the activation of the extracellular regulated protein kinases (ERK) 1/2 and c-Jun N-terminal kinase (JNK) signaling pathways. Additionally, mice treated with PTE by intraperitoneal injection demonstrated reduced tumor volume."

According to the news reporters, the research concluded: "Taken together, the results of this study indicate that the anti-tumor effect of PTE on MM cells may provide a new therapeutic option for MM patients."

For more information on this research see: Pterostilbene Inhibits Human Multiple Myeloma Cells via ERK1/2 and JNK Pathway In Vitro and In Vivo. International Journal of Molecular Sciences, 2016;17(11):2318-2330. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.


Keywords for this news article include: Shanghai, People's Republic of China, Asia, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Blood Protein Disorders, Hemorrhagic Disorders, Hemostatic Disorders, Drugs and Therapies, Multiple Myeloma, Paraproteinemias, Cancer Therapy, Hematology, Oncology, Tongji University.
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Autoimmune Diseases and Conditions - Multiple...

New Multiple Sclerosis Findings from Harvard School of Medicine Discussed (Environmental control of autoimmune inflammation in the central nervous system)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Autoimmune Diseases and Conditions - Multiple Sclerosis are discussed in a new report. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Multiple sclerosis (MS) is a chronic autoimmune inflammatory demyelinating disorder of the central nervous system (CNS), which causes severe disability and requires extensive medical attention and treatment. While the infiltration of pathogenic immune cells into the CNS leads to the formation of inflammatory lesions in its initial relapsing-remitting stage, late stages of MS are characterized by progressive neuronal loss and demyelination even without continued interaction with the peripheral immune compartment."

Financial supporters for this research include National Institutes of Health, National Multiple Sclerosis Society, International Progressive MS Alliance, American Cancer Society, Mallinckrodt Pharmaceuticals and Deutsche Forschungsgemeinschaft (DFG).

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "Several genetic and environmental factors modulate and influence these processes on multiple levels. Genetic variants confer a predisposition for the development of MS, but are not accessible to therapeutic intervention as of today. However, migration studies suggest that environmental factors influence disease development, activity and progression."

According to the news reporters, the research concluded: "This article reviews mechanisms of disease pathogenesis in MS and their modulation by environmental factors such as geographical localization, the gut microbiome and the diet."

For more information on this research see: Environmental control of autoimmune inflammation in the central nervous system. Current Opinion in Immunology, 2016;43():46-53. Current Opinion in Immunology can be contacted at: Current Biology Ltd, 84 Theobalds Rd, London WC1X 8RR, England. (Elsevier - www elsevier com; Current Opinion in Immunology - www journals elsevier com/current-opinion-in-immunology/)

Our news journalists report that additional information may be obtained by contacting F.J. Quintana, Harvard Med Sch, Brigham & Women's Hospital, Ann Romney Center Neurol Dis, Boston, MA 02115, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.coi.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Inflammation, Article Review, Epidemiology, Autoimmune Diseases and Conditions, Central Nervous System Disorders, Multiple Sclerosis, Environment, Genetics, Harvard School of Medicine.

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New Multiple Sclerosis Study Findings Reported from University of Rijeka (Angiotensin-converting enzyme insertion/deletion gene polymorphism in multiple sclerosis: a meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Autoimmune Diseases and Conditions - Multiple Sclerosis is the subject of a report. According to news reporting from Rijeka, Croatia, by NewsRx journalists, research stated, "The activity of angiotensin-converting enzyme (ACE) has been increased in the blood and cerebrospinal fluid of multiple sclerosis (MS) patients. In addition, there has been suppression of disease development in experimental autoimmune encephalomyelitis after blockade of ACE."

Financial support for this research came from University of Rijeka, Croatia.

The news correspondents obtained a quote from the research from the University of Rijeka, "These findings suggest that ACE may play a role in the MS pathogenesis. Since the previous studies investigating the association between the insertion/deletion (I/D) polymorphism in intron 16 of the ACE gene and MS reported contradictory results, we performed a meta-analysis of four studies conducted in European populations of Slavic origin (1062 patients and 1067 controls) using the Comprehensive Meta-analysis 3.0 software. The results demonstrated that the ACE I/D polymorphism had no statistically significant association with an increased MS risk (all p > 0.05) under all genetic comparison models: (1) allelic (D vs. I), (2) recessive (DD vs. ID + II), (3) dominant (DD + ID vs. II), and (4) additive (DD vs. ID vs. II). This meta-analysis indicates that the ACE I/D polymorphism is not associated with susceptibility to MS in Europeans of Slavic origin."

According to the news reporters, the research concluded: "Further studies with larger sample sizes from genetically different populations are warranted."


Our news journalists report that additional information may be obtained by contacting S. Ristic, University of Rijeka, Sch Med, Dept. of Biol & Med Genet, Rijeka 51000, Croatia. Additional authors for this research include N.S. Cizmarevic, J. Sepcic, M. Kapovic and B. Peterlin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10072-016-2698-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rijeka, Croatia, Europe, Autoimmune Diseases and Conditions of the Nervous System, Demyelinating Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Enzymes and Coenzymes, Genetics, Risk and Prevention, Biological Factors, Multiple Sclerosis, Peptide Proteins, Peptide Hormones, Oligopeptides, Neuropeptides, Angiotensins, Autacoids, Peptides, University of Rijeka.

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Autoimmune Diseases and Conditions - Multiple...

New Multiple Sclerosis Study Results from NeuroCure Clinical Research Center Described (Analysis of Lymphocytic DNA Damage in Early Multiple Sclerosis by Automated Gamma-H2AX and 53BP1 Foci Detection: A Case Control Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Multiple Sclerosis. According to news originating from Berlin, Germany, by NewsRx correspondents, research stated, "In response to DNA double-strand breaks, the histone protein H2AX becomes phosphorylated at its C-terminal serine 139 residue, referred to as g-H2AX. Formation of g-H2AX foci is associated with recruitment of p53-binding protein 1 (53BP1), a regulator of the cellular response to DNA double-strand breaks. g-H2AX expression in peripheral blood mononuclear cells (PBMCs) was recently proposed as a diagnostic and disease activity marker for multiple sclerosis (MS)."

Our news journalists obtained a quote from the research from NeuroCure Clinical Research Center, "To evaluate the significance of g-H2AX and 53BP1 foci in PBMCs as diagnostic and disease activity markers in patients with clinically isolated syndrome (CIS) and early relapsing-remitting MS (RRMS) using automated g-H2AX and 53BP1 foci detection. Immunocytochemistry was performed on freshly isolated PBMCs of patients with CIS/early RRMS (n=25) and healthy controls (n=27) with g-H2AX and 53BP1 specific antibodies. Nuclear g-H2AX and 53BP1 foci were determined using a fully automated reading system, assessing the numbers of g-H2AX and 53BP1 foci per total number of cells and the percentage of cells with foci. Patients underwent contrast enhanced 3 Tesla magnetic resonance imaging (MRI) and clinical examination including expanded disability status scale (EDSS) score. g-H2AX and 53BP1 were also compared in previously frozen PBMCs of each 10 CIS/early RRMS patients with and without contrast enhancing lesions (CEL) and 10 healthy controls. The median (range) number of g-H2AX (0.04 [0-0.5]) and 53BP1 (0.005 [0-0.2]) foci per cell in freshly isolated PBMCs across all study participants was low and similar to previously reported values of healthy individuals. For both, g-H2AX and 53BP1, the cellular focus number as well as the percentage of positive cells did not differ between patients with CIS/RRMS and healthy controls. g-H2AX and 53BP1 levels neither correlated with number nor volume of T2-weighted lesions on MRI, nor with the EDSS. Although g-H2AX, but not 53BP1, levels were higher in previously frozen PBMCs of patients with than without CEL, g-H2AX values of both groups overlapped and g-H2AX did not correlate with the number or volume of CEL. g-H2AX and 53BP1 foci do not seem to be promising diagnostic or disease activity biomarkers in patients with early MS."

According to the news editors, the research concluded: "Lymphocytic DNA double-strand breaks are unlikely to play a major role in the pathophysiology of MS."


The news correspondents report that additional information may be obtained from L. Rasche, NeuroCure Clinical Research Center, Charite - Universitätsmedizin Berlin, Berlin, Germany. Additional authors for this research include L. Heiserich, J.R. Behrens, K. Lenz, C.
New Muscular Atrophy Findings from Cleveland Clinic Outlined
(Sarcopenia from mechanism to diagnosis and treatment in liver disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Musculoskeletal Diseases and Conditions - Muscular Atrophy. According to news originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Sarcopenia or loss of skeletal muscle mass is the major component of malnutrition and is a frequent complication in cirrhosis that adversely affects clinical outcomes. These include survival, quality of life, development of other complications and post liver transplantation survival."

Our news journalists obtained a quote from the research from Cleveland Clinic, "Radiological image analysis is currently utilized to diagnose sarcopenia in cirrhosis. Nutrient supplementation and physical activity are used to counter sarcopenia but have not been consistently effective because the underlying molecular and metabolic abnormalities persist or are not influenced by these treatments. Even though alterations in food intake, hypermetabolism, alterations in amino acid profiles, endotoxemia, accelerated starvation and decreased mobility may all contribute to sarcopenia in cirrhosis, hyperammonemia has recently gained attention as a possible mediator of the liver-muscle axis. Increased muscle ammonia causes: cataplerosis of o-t-ketoglutarate, increased transport of leucine in exchange for glutamine, impaired signaling by leucine, increased expression of myostatin (a transforming growth factor beta superfamily member) and an increased phosphorylation of eukaryotic initiation factor 2a. In addition, mitochondrial dysfunction, increased reactive oxygen species that decrease protein synthesis and increased autophagy mediated proteolysis, also play a role. These molecular and metabolic alterations may contribute to the anabolic resistance and inadequate response to nutrient supplementation in cirrhosis. Central and skeletal muscle fatigue contributes to impaired exercise capacity and responses. Use of proteins with low ammoniagenic potential, leucine enriched amino acid supplementation, long-term ammonia lowering strategies and a combination of resistance and endurance exercise to increase muscle mass and function may target the molecular abnormalities in the muscle."

According to the news editors, the research concluded: "Strategies targeting endotoxemia and the gut microbiome need further evaluation."

For more information on this research see: Sarcopenia from mechanism to diagnosis

The news correspondents report that additional information may be obtained from S. Dasarathy, Cleveland Clinic, Dept. of Gastroenterol Hepatol & Pathobiol, Cleveland, OH, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jhep.2016.07.040. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Digestive System Diseases and Conditions, Musculoskeletal Diseases and Conditions, Nervous System Diseases and Conditions, Liver Diseases and Conditions, Neuromuscular Manifestations, Branched-Chain Amino Acids, Neurologic Manifestations, Leucine, Article Review, Essential Amino Acids, Muscular Atrophy, Sarcopenia, Cirrhosis, Fibrosis, Cleveland Clinic.

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**Autoimmune Diseases and Conditions - Myasthenia...**

**New Myasthenia Gravis Findings from University of Athens School of Medicine Reported (Future perspectives in target-specific immunotherapies of myasthenia gravis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Myasthenia Gravis. According to news reporting originating in Philadelphia, Pennsylvania, by NewsRx editors, the research stated, "Myasthenia gravis (MG) is an autoimmune disease caused by complement-fixing antibodies against acetylcholine receptors (AChR); antigen-specific CD4+ T cells, regulatory T cells (Tregs) and T helper (Th) 17+ cells are essential in antibody production. Target-specific therapeutic interventions should therefore be directed against antibodies, B cells, complement and molecules associated with T cell signaling."

The news reporters obtained a quote from the research from the University of Athens School of Medicine, "Even though the progress in the immunopathogenesis of the disease probably exceeds any other autoimmune disorder, MG is still treated with traditional drugs or procedures that exert a non-antigen specific immunosuppression or immunomodulation. Novel biological agents currently on the market, directed against the following molecular pathways, are relevant and specific therapeutic targets that can be tested in MG: (a) T cell intracellular signaling molecules, such as anti-CD52, anti-interleukin (IL) 2 receptors, anti-costimulatory molecules, and anti-Janus tyrosine kinases (JAK1, JAK3) that block the intracellular cascade associated with T-cell activation; (b) B cells and their trophic factors, directed against key B-cell molecules; © complement C3 or C5, intercepting the destructive effect of complement-fixing antibodies; (d) cytokines and cytokine receptors, such as those targeting IL-6 which promotes antibody production and IL-17, or the p40 subunit of IL-12/IL-23 that affect regulatory T cells; and (e) T and B cell transmigration molecules associated with lymphocyte egress from the lymphoid organs. All drugs against these molecular pathways require testing in controlled trials,
although some have already been tried in small case series."

According to the news reporters, the research concluded: "Construction of recombinant AChR antibodies that block binding of the pathogenic antibodies, thereby eliminating complement and antibody-dependent-cell-mediated cytotoxicity, are additional novel molecular tools that require exploration in experimental MG."

For more information on this research see: Future perspectives in target-specific immunotherapies of myasthenia gravis. *Therapeutic Advances In Neurological Disorders*, 2015;8(6):316-27. *Therapeutic Advances In Neurological Disorders* can be contacted at: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com/; Therapeutic Advances In Neurological Disorders - tan.sagepub.com)

Our news correspondents report that additional information may be obtained by contacting M.C. Dalakas, Neuroimmunology Unit, University of Athens Medical School, Athens, Greece and Director, Neuromuscular Division, Thomas Jefferson University, 900 Walnut Street, Philadelphia, PA 19107, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1756285615605700. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal *Therapeutic Advances In Neurological Disorders* can be contacted at: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Antibodies, Neurology, Immunology, Philadelphia, Pennsylvania, United States, Immunotherapy, Article Review, Blood Proteins, Immunoglobulins, Myasthenia Gravis, Drugs and Therapies, North and Central America, Autoimmune Diseases and Conditions of the Nervous System.

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**Myeloid Cells**

**New Myeloid Cells Findings from Chinese Academy of Sciences Described [Crucial Role of P2X(7) Receptor in Regulating Exocytosis of Single-Walled Carbon Nanotubes in Macrophages]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Myeloid Cells have been presented. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Exocytosis of single-walled carbon nanotubes (SWCNTs) determines therapeutic efficiency and toxicity of nanoproducts but its underlying mechanism remains elusive. In this study, it is found that the exocytosis mechanism of SWCNTs is mediated mainly through the activation of P2X(7) receptor (P2X(7)R), an ATP-gated membrane receptor highly expressed in macrophages."

Our news journalists obtained a quote from the research from the Chinese Academy of Sciences, "Inhibition of P2X(7)R signaling by either a specific inhibitor (oxidized ATP) or small interfering RNA targeting P2X(7)R largely prevents the exocytosis of SWCNTs from Raw264.7 cells, resulting in significant accumulation of SWCNTs within cells. In contrast, activation of P2X(7)R with ATP promotes exocytosis of SWCNTs. Specifically, it is elucidated that internalized SWCNTs are accumulated in lysosomes and induce transitional release of ATP into extracellular space, which further activates P2X(7)R, leading to the influx of calcium ions,
phosphorylation of protein kinase C, ERK1/2, p38, and JNK, as well as alkalization of lysosomes. SWCNTs exposure also induces microtubules reorganization that facilitates the secretion of SWCNTs-containing lysosomes. It is also found that P2X(7)R simultaneously mediates secretion of IL-1 beta from Raw264.7 cells during the process of SWCNTs exocytosis. The combined data reveals that P2X(7)R-mediated pathway is the predominant molecular mechanism for exocytosis of SWCNTs in Raw264.7 cells. 

According to the news editors, the research concluded: "Moreover, SWCNT-induced inflammation is closely coupled with the exocytosis of SWCNTs through P2X(7)R."


Our news journalists report that additional information may be obtained by contacting B. Wan, Univ Chinese Academy Sci, Beijing 100049, People's Republic of China. Additional authors for this research include B. Wan, Y. Yang, X.M. Ren, L.H. Guo and H. Zhang.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Single Walled Carbon Nanotubes, Mononuclear Phagocyte System, Connective Tissue Cells, Cytoplasmic Structures, Emerging Technologies, Cytoplasmic Vesicles, Intracellular Space, Nanotechnology, Myeloid Cells, Macrophages, Fullerenes, Exocytosis, Immunology, Phagocytes, Lysosomes, Genetics, Chinese Academy of Sciences.

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Oncology - Myeloid Leukemia

New Myeloid Leukemia Findings from University of Munster Reported (Myeloid leukemia with transdifferentiation plasticity developing from T-cell progenitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Myeloid Leukemia have been published. According to news reporting out of Munster, Germany, by NewsRx editors, research stated, "Unfavorable patient survival coincides with lineage plasticity observed in human acute leukemias. These cases are assumed to arise from hematopoietic stem cells, which have stable multipotent differentiation potential."

Our news journalists obtained a quote from the research from the University of Munster, "However, here we report that plasticity in leukemia can result from instable lineage identity states inherited from differentiating progenitor cells. Using mice with enhanced c-Myc expression, we show, at the single-cell level, that T-lymphoid progenitors retain broad malignant lineage potential with a high capacity to differentiate into myeloid leukemia. These T-cell-derived myeloid blasts retain expression of a defined set of T-cell transcription factors, creating a lymphoid epigenetic memory that confers growth and propagates myeloid/T-lymphoid plasticity. Based on these characteristics, we identified a correlating human leukemia cohort and revealed targeting of Jak2/Stat3 signaling as a therapeutic possibility. Collectively, our study suggests the thymus as a source for myeloid leukemia and proposes leukemic plasticity as a
driving mechanism."

According to the news editors, the research concluded: "Moreover, our results reveal a pathway-directed therapy option against thymus-derived myeloid leukemogenesis and propose a model in which dynamic progenitor differentiation states shape unique neoplastic identities and therapy responses."


Our news journalists report that additional information may be obtained by contacting F. Rosenbauer, University of Munster, Inst Mol Tumor Biol, Munster, Germany. Additional authors for this research include M. Czeh, J. Fischer, C. Walter, S. Ghani, M. Zepper, K. Agelopoulos, S. Lettermann, M.L. Gebhardt, N. Mah, A. Weilemann, M. Grau, V. Groning, T. Haferlach, D. Lenze, R. Delwel, M. Prinz, M.A. Andrade-Navarro, G. Lenz and Dugas.

Keywords for this news article include: Munster, Germany, Europe, Myeloid Leukemia, Hematology, Oncology, Genetics, University of Munster.

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**Heart Disorders and Diseases - Myocardial Ischemia**

**New Myocardial Ischemia Findings from Ehime University Described (Optimal Scan Time for Single-Phase Myocardial Computed Tomography Perfusion to Detect Myocardial Ischemia - Derivation Cohort From Dynamic Myocardial Computed Tomography Perfusion)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Myocardial Ischemia are presented in a new report. According to news originating from Toon, Japan, by NewsRx correspondents, research stated, "Single-phase myocardial computed tomography perfusion (CTP) is useful for detecting myocardial ischemia, but determining the optimal scan time is difficult. The present study evaluated this by analyzing dynamic CTP data."

Our news journalists obtained a quote from the research from Ehime University, "We retrospectively selected 32 patients, all of whom had undergone stress dynamic CTP and magnetic resonance myocardial perfusion imaging (MR-MPI). Myocardial ischemia was assessed by MR-MPI using the 16-segment model. Whole-heart dynamic CTP data were acquired for 30 consecutive heartbeats without spatial or temporal gaps using a wide-detector CT, and redistributed into 11 series of single-phase CTP acquired from -2 s to 8 s from the time of maximal enhancement (Tmax) in the ascending aorta. Single-phase CTP images were visually assessed at the segment level, and diagnostic performance of single-phase CTP images for detecting myocardial ischemia was compared with dynamic CTP. Of 512 segments, 177 segments (35%) were diagnosed as ischemic by MR-MPI. The diagnostic accuracy of single-phase CTP acquired at 2-6 s from Tmax in the ascending aorta (median 86%, range 84-87%) was comparable to that of dynamic CTP."

According to the news editors, the research concluded: "The optimal scan time for detecting myocardial ischemia with single-phase CTP was at 2-6 s from Tmax in the ascending..."
aorta."


The news correspondents report that additional information may be obtained from Y. Tanabe, Ehime University, Grad Sch Med, Dept. of Radiol, Shitsukawa, Toon 7910295, Japan. Additional authors for this research include T. Kido, A. Kurata, T. Uetani, N. Fukuyama, T. Yokoi, H. Nishiyama, T. Kido, M. Miyagawa and T. Mochizuki.

Keywords for this news article include: Toon, Japan, Asia, Cardiovascular Diseases and Conditions, Angiology, Diagnostics and Screening, Heart Disorders and Diseases, Computed Tomography, Myocardial Ischemia, Imaging Technology, Heart Disease, Ehime University.

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**Nanotechnology - Nanomaterials**

**New Nanomaterials Study Findings Recently Were Reported by Researchers at Research Institute (Effects of dose volume and delivery device on bronchoalveolar lavage parameters of intratracheally administered nano-sized TiO2 in rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nanotechnology - Nanomaterials have been published. According to news reporting from Oita, Japan, by NewsRx journalists, research stated, "The intratracheal (IT) test is useful for screening the pulmonary toxicity of inhaled materials, including nanomaterials. However, a standard procedure has not yet been authorized internationally, and the effects of different test parameters are unknown."

Financial support for this research came from Ministry of Economy, Trade and Industry.

The news correspondents obtained a quote from the research from Research Institute, "To determine appropriate experimental conditions for the IT test, we intratracheally administered nano-sized TiO2 to male F344 rats at 3.0 mg/kg body weight by using two delivery devices (gavage needle or microaerosolizer) and dose volumes of 0.5-3.0 mL/kg (gavage needle) or 0.5-2.0 mL/kg (microaerosolizer). We evaluated the pulmonary deposition and interlobar distribution of TiO2 at both 30 min and 3 days after administration. In addition, the inflammatory components in bronchoalveolar lavage (BAL) fluid were measured 3 days after administration of TiO2. At dose volumes of 0.5-2.0 mL/kg, the BAL values were comparable regardless of the device used. In addition, pulmonary TiO2 burden and lobar concentration patterns were equivalent at all combinations of dose volume and delivery device."

According to the news reporters, the research concluded: "The acute pulmonary toxicity of nanomaterials can be assessed effectively by using an IT test in which the test agent is provided to rats at a dose volume of 0.5-2.0 mL/kg with either a gavage needle or microaerosolizer."
For more information on this research see: Effects of dose volume and delivery device on bronchoalveolar lavage parameters of intratracheally administered nano-sized TiO2 in rats. Regulatory Toxicology and Pharmacology, 2016;81():233-241. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)


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Keywords for this news article include: Oita, Japan, Asia, Nanomaterials, Emerging Technologies, Nanotechnology, Nanomaterial, Research Institute.

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New Nanoparticles Findings from Academy of Sciences Described
(Amplified Fluorescence from Polyfluorene Nanoparticles with Dual State Emission and Aggregation Caused Red Shifted Emission for Live Cell Imaging and Cancer Theranostics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nanotechnology - Nanoparticles. According to news reporting out of Tamil Nadu, India, by NewsRx editors, research stated, "A newly synthesized polyfluorene derivative with pendant di(2-picoly)amine (PF-DPA) shows dual state emission and aggregation caused red shifted emission that was utilized for cell imaging and cancer theranostics. PF-DPA was nontoxic to normal cells but showed cytotoxicity against cancer cells, suggesting its utility for cancer therapy."

Funders for this research include Council of Scientific and Industrial Research, Science and Engineering Research Board, Department of Electronics and Information Technology, Ministry of Communications and Information Technology, Max-Planck-Gesellschaft.

Our news journalists obtained a quote from the research from the Academy of Sciences, "PF-DPA exhibits a large and unique red shifted emission at 556 nm at higher water ratio of THF:H2O (10:90) due to the formation of polymer nanoparticles or PDots spontaneously by intra- and intermolecular self-assembly induced aggregation. Dual state emission and aggregation caused red shifted emission (>100 nm) in PF-DPA homopolymer nanoparticles is very unique and attributed to the combined effect of intramolecular planarization and J-type aggregate formation in the PDots (25 +/- 5 nm)."

According to the news editors, the research concluded: "The PF-DPA PDots exhibit bright green and orange fluorescence with exceptional live cell imaging properties and potential applications in cancer theranostics due to their selective cytotoxic nature toward cancer cells."

For more information on this research see: Amplified Fluorescence from

Our news journalists report that additional information may be obtained by contacting C.R. Patra, Academy Sci & Innovat Res AcSIR, Madras 600113, Tamil Nadu, India. Additional authors for this research include S. Mukherjee, C.R. Patra and P.K. Iyer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b11373. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tamil Nadu, India, Asia, Nanoparticles, Emerging Technologies, Nanotechnology, Nanoparticle, Oncology, Cancer, Academy of Sciences.

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**Nanotechnology - Nanoparticles**

**New Nanoparticles Findings from Swinburne University of Technology Described (Microwave-assisted formulation of solid lipid nanoparticles loaded with non-steroidal anti-inflammatory drugs)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nanotechnology - Nanoparticles have been presented. According to news reporting from Melbourne, Australia, by NewsRx journalists, research stated, "Stearic acid-based solid lipid nanoparticles (SLNs) were prepared using the microwave assisted one-pot microemulsions procedure pioneered by our group. In this study, non-steroidal anti-inflammatory drugs (NSAIDs) including indomethacin, ketoprofen and nimesulide were selected as ideal 'test' drugs, based on their poor water solubility."

The news correspondents obtained a quote from the research from the Swinburne University of Technology, "The model drugs were incorporated within the SLNs by the microwave-assisted procedure at the time of SLN production. The microwave-produced drug-loaded SLNs were evaluated in terms of their physicochemical characteristics, drug release behavior and their uptake into against A549 cell line (human lung epithelial cells). The microwave-produced drug-loaded SLNs had a small particle size distribution, negative zeta potential and high encapsulation efficiency. The drug release studies were consistent with a core-shell structure of SLNs (probably a drug-loaded shell) which results in biphasic drug release from the SLNs. The drug release kinetics suggested a good fit of the release data to the Makoid-Banakar model and was governed by Fickian diffusion. The drug-loaded SLNs showed concentration-dependent cytotoxicity and reduced IL-6 and IL-8 secretion in lipopolysaccharide-induced cells."

According to the news reporters, the research concluded: "All of the above findings suggest that the microwave-produced SLNs could be promising drug carriers of NSAIDs and will further facilitate their development for topical, oral and/or nasal administration."

For more information on this research see: Microwave-assisted formulation of solid

Our news journalists report that additional information may be obtained by contacting R.M. Shah, Swinburne Univ Technol, Dept. of Chem & Biotechnol, Fac Sci Engn & Technol, Melbourne, Vic 3122, Australia. Additional authors for this research include D.S. Eldridge, E.A. Palombo and I.H. Harding.

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Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Nanoparticles, Emerging Technologies, Drugs and Therapies, Nanotechnology, Nanoparticle, Swinburne University of Technology.

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New Nanotechnology Study Findings Reported from State Key Laboratory of Environmental Chemistry and Ecotoxicology [Improved In Vitro and In Vivo Biocompatibility of Graphene Oxide through Surface Modification: Poly(Acrylic ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nanotechnology. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "The unique physicochemical properties of two-dimensional (2D) graphene oxide (GO) could greatly benefit the biomedical field; however, recent research demonstrated that GO could induce in vitro and in vivo toxicity. We determined the mechanism of GO induced toxicity, and our in vitro experiments revealed that pristine GO could impair cell membrane integrity and functions including regulation of membrane-and cytoskeleton-associated genes, membrane permeability, fluidity and ion channels."

Financial supporters for this research include Ministry of Science and Technology of the People's Republic of China, National Natural Science Foundation of China, Chinese Academy of Sciences.

The news reporters obtained a quote from the research from the State Key Laboratory of Environmental Chemistry and Ecotoxicology, "Furthermore, GO induced platelet depletion, pro-inflammatory response and pathological changes of lung and liver in mice. To improve the biocompatibility of pristine GO, we prepared a series of GO derivatives including aminated GO (GO-NH2), poly(acrylamide)-functionalized GO (GO-PAM), poly(acrylic acid)-functionalized GO (GO-PAA) and poly(ethylene glycol)-functionalized GO (GO-PEG), and compared their toxicity with pristine GO in vitro and in vivo. Among these GO derivatives, GO-PEG and GO-PAA induced less toxicity than pristine GO, and GO-PAA was the most biocompatible one in vitro and in vivo. The differences in biocompatibility were due to the differential compositions of protein corona, especially immunoglobulin G (IgG), formed on their surfaces that determine
their cell membrane interaction and cellular uptake, the extent of platelet depletion in blood, thrombus formation under short-term exposure and the pro-inflammatory effects under long-term exposure."

According to the news reporters, the research concluded: "Overall, our combined data delineated the key molecular mechanisms underlying the in vivo and in vitro biological behaviors and toxicity of pristine GO, and identified a safer GO derivative that could be used for future applications."

For more information on this research see: Improved In Vitro and In Vivo Biocompatibility of Graphene Oxide through Surface Modification: Poly(Acrylic Acid)-Functionalization is Superior to PEGylation. *Acs Nano*, 2016;10(3):3267-81. (American Chemical Society - www.acs.org; Acs Nano - www.pubs.acs.org/journal/ancac3)

Our news correspondents report that additional information may be obtained by contacting M. Xu, State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, People's Republic of China. Additional authors for this research include J. Zhu, F. Wang, Y. Xiong, Y. Wu, Q. Wang, J. Weng, Z. Zhang, W. Chen and S. Liu.

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Keywords for this news article include: Asia, Beijing, Genetics, Nanotechnology, People's Republic of China.

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**Neovascularization**

**New Neovascularization Findings from Department of Ophthalmology Discussed (Lack of netrin-4 modulates pathologic neovascularization in the eye)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neovascularization have been published. According to news reporting originating from Berlin, Germany, by NewsRx correspondents, research stated, "Netrins are a family of matrix-binding proteins that function as guidance signals. Netrin-4 displays pathologic roles in tumorigenesis and neovascularization."

Our news editors obtained a quote from the research from the Department of Ophthalmology, "To answer the question whether netrin-4 acts either pro-or anti-angiogenic, angiogenesis in the retina was assessed in Ntn-4(-/-) mice with oxygen-induced retinopathy (OIR) and laser-induced choroidal neovascularization (CNV), mimicking hypoxia-mediated neovascularization and inflammatory mediated angiogenesis. The basement membrane protein netrin-4 was found to be localised to mature retinal blood vessels. Netrin-4, but not netrin-1 mRNA expression, increased in response to relative hypoxia and recovered to normal levels at the end of blood vessel formation. No changes in the retina were found in normoxic Ntn-4(-/-) mice. In OIR, Ntn-4(-/-) mice initially displayed larger avascular areas which recovered faster to revascularization. Ganzfeld electroretinography showed faster recovery of retinal function in Ntn-4(-/-) mice. Expression of netrin receptors, Unc5H2 (Unc-5 homolog B, C. elegans) and DCC (deleted in colorectal carcinoma), was found in Müller cells and astrocytes. Laser-induced
neovascularization in Nnt-4(-/-) mice did not differ to that in the controls."

According to the news editors, the research concluded: "Our results indicate a role for netrin-4 as an angiogenesis modulating factor in O2-dependent vascular homeostasis while being less important during normal retinal developmental angiogenesis or during inflammatory neovascularization."

For more information on this research see: Lack of netrin-4 modulates pathologic neovascularization in the eye. Scientific Reports, 2016;6():18828. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting N. Kociok, Dept. of Ophthalmology, Charite Universitatsmedizin, Berlin, Germany. Additional authors for this research include S. Crespo-Garcia, Y. Liang, S.V. Klein, C. Nurnberg, N. Reichhart, S. Skosyrski, E. Moritz, A.K. Maier, W.J. Brunken, O. Strauß, M. Koch and A.M Joussen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18828. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berlin, Europe, Germany, Genetics, Angiogenesis, Pathologic Neovascularization.

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Nephrology

New Nephrology Study Findings Have Been Reported by Investigators at University of Crete (Micro-RNA analysis of renal biopsies in human lupus nephritis demonstrates up-regulated miR-422a driving reduction of kallikrein-related peptidase 4)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nephrology are presented in a new report. According to news reporting from Iraklion, Greece, by NewsRx journalists, research stated, "Aberrancies in gene expression in immune effector cells and in end-organs are implicated in lupus pathogenesis. To gain insights into the mechanisms of tissue injury, we profiled the expression of micro-RNAs in inflammatory kidney lesions of human lupus nephritis (LN)."

Financial supporters for this research include Greek General Secretariat of, Research and Technology, European Social Fund (ESF) and National Resources.

The news correspondents obtained a quote from the research from the University of Crete, "Kidney specimens were from patients with active proliferative, membranous or mixed LN and unaffected control tissue. Micro-RNAs were quantified by TaqMan Low Density Arrays. Bioinformatics was employed to predict gene targets, gene networks and perturbed signaling pathways. Results were validated by transfection studies (luciferase assay, real-time PCR) and in murine LN. Protein expression was determined by immunoblotting and immunohistochemistry. Twenty-four micro-RNAs were dysregulated (9 up-regulated, 15 down-regulated) in human LN compared with control renal tissue. Their predicted gene targets participated in pathways associated with TGF-beta, kinases, NF-kappa B, HNF4A, Wnt/beta-catenin, STAT3 and IL-4. miR-422a showed the highest upregulation (17-fold) in active LN and correlated with fibrinoid necrosis lesions (beta = 0.63, P = 0.002). In transfection studies, miR-
422a was found to directly target kallikrein-related peptidase 4 (KLK4) mRNA. Concordantly, KLK4 mRNA was significantly reduced in the kidneys of human and murine LN and correlated inversely with miR-422a levels. Immunohistochemistry confirmed reduced KLK4 protein expression in renal mesangial and tubular epithelial cells in human and murine LN.

According to the news reporters, the research concluded: "KLK4, a serine esterase with putative renoprotective properties, is down-regulated by miR-422a in LN kidney suggesting that, in addition to immune activation, local factors may be implicated in the disease."


Our news journalists report that additional information may be obtained by contacting G.K. Bertsias, University of Crete, Rheumatol Clin Immunol & Allergy, Sch Med, Iraklion, Greece. Additional authors for this research include A. Banos, E. Stagakis, K. Loupasakis, E. Drakos, V. Sinatkas, A. Zampoulaki, A. Papagianni, D. Iliopoulos, D.T. Boumpas and G.K. Bertsias.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/ndt/gfv374. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Iraklion, Greece, Europe, Blood Coagulation Factors, Enzymes and Coenzymes, Serine Endopeptidases, Proteomics, Genetics, Protein Expression, Peptide Hydrolases, Kallikreins, Hematology, Nephrology, Peptidase, Kidney, Lupus, University of Crete.

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**Nephrology**

**New Nephrology Study Findings Have Been Reported by Investigators at University of Palermo (Association Between Uric Acid and Renal Hemodynamics: Pathophysiological Implications for Renal Damage in Hypertensive Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nephrology is now available. According to news reporting originating from Palermo, Italy, by NewsRx correspondents, research stated, "The role of vascular renal changes in mediating the association between serum uric acid (SUA) and renal damage is unclear. The purposes of this study were to investigate the relationship between SUA and renal resistive index (RRI), assessed by duplex Doppler ultrasonography, and to assess whether hemodynamic renal changes may explain the association between SUA and renal damage in hypertensive patients."

Our news editors obtained a quote from the research from the University of Palermo, "A total of 530 hypertensive patients with and without chronic kidney disease were enrolled and divided into SUA tertiles based on sex-specific cutoff values. RRI and albuminuria were greater
and glomerular filtration rate (GFR) was lower in the uppermost SUA tertile patients when compared with those in the lowest tertiles (all P<.001). Moreover, SUA strongly correlated with RRI (P < .001) in all patients.

According to the news editors, the research concluded: "However, RRI did not seem to explain the relationship between SUA and renal damage, and GFR significantly related with SUA in the overall population (P < .001) even after adjustment for RRI."


The news editors report that additional information may be obtained by contacting G. Geraci, University of Palermo, Dipartimento Biomed Med Interna & Specialist DIBI, Unit Nephrol & Hypertens, European Soc Hypertens Excellence Center, Palermo, Italy. Additional authors for this research include G. Mule, M. Mogavero, C. Geraci, E. Nardi and S. Cottone.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12812. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Palermo, Italy, Europe, Nephrology, Kidney, University of Palermo.

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**Nephrology**

**New Nephrology Study Findings Have Been Reported by Researchers at Medical University (Renal microRNA- and RNA-profiles in progressive chronic kidney disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nephrology have been presented. According to news originating from Innsbruck, Austria, by NewsRx correspondents, research stated, "MicroRNAs (miRNAs) contribute to chronic kidney disease (CKD) progression via regulating mRNAs involved in renal homeostasis. However, their association with clinical outcome remains poorly understood."

Financial support for this research came from Seventh Framework Programme.

Our news journalists obtained a quote from the research from Medical University, "We performed miRNA and mRNA expression profiling on renal biopsy sections by qPCR (miRNA) and microarrays (mRNA) in a discovery (n=43) and in a validation (n=29) cohort. miRNAs differentiating stable and progressive cases were inversely correlated with putative target mRNAs, which were further characterized by pathway analysis using KEGG pathways. miR-30d, miR-140-3p, miR-532-3p, miR-194, miR-190, miR-204 and miR-206 were downregulated in progressive cases. These seven miRNAs correlated with upregulated 29 target mRNAs involved in inflammatory response, cell-cell interaction, apoptosis and intra-cellular signalling. In particular, miR-206 and miR-532-3p were associated with distinct biological processes via the expression of their target mRNAs: Reduced expression of miR-206 in
progressive disease correlated with the upregulation of target mRNAs participating in inflammatory pathways (CCL19, CXCL1, IFNAR2, NCK2, PTK2B, PTPRC, RASGRP1 and TNFRSF25). Progressive cases also showed a lower expression of miR-532-3p and an increased expression of target transcripts involved in apoptosis pathways (MAP3K14, TNFRSF10B/TRAIL-R2, TRADD and TRAF2). In the validation cohort, we confirmed the decreased expression of miR-206 and miR-532-3p, and the inverse correlation of these miRNAs with the expression of nine of the 12 target genes. The levels of the identified miRNAs and the target mRNAs correlated with clinical parameters and histological damage indices."

According to the news editors, the research concluded: "These results suggest the involvement of specific miRNAs and mRNAs in biological pathways associated with the progression of CKD."


The news correspondents report that additional information may be obtained from M. Rudnicki, Dept. of Internal Medicine IV - Nephrology and Hypertension, Medical University Innsbruck, Innsbruck, Austria. Additional authors for this research include P. Perco, B. D Haene, J. Leierer, A. Heinzel, I. Muhlberger, N. Schweibert, J. Sunzenauer, H. Regele, A. Kronbichler, P. Mestdagh, J. Vandesompele, B. Mayer and G. Mayer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/eci.12585. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Kidney, Austria, Genetics, Innsbruck, Nephrology.

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Nephropathy

New Nephropathy Study Findings Have Been Reported from Jilin University [Increased ratio of ICOS(+) /PD-1(+) follicular helper T cells positively correlates with the development of human idiopathic membranous nephropathy]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nephropathy are discussed in a new report. According to news originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "To identify the frequencies of different subsets of peripheral blood follicular helper T (Tfh) cells in human idiopathic membranous nephropathy (IMN), 39 patients with new onset IMN and 18 age-and gender-matched healthy controls (HC) were enrolled for this study. The frequency of Tfh cells in venous blood were measured by flow cytometry, while concentration of serum IL-21 was detected by enzyme-linked immunosorbent assay."

Financial supporters for this research include National Natural Science Foundation of China, Bethune B plan of Jilin University, Special Research Foundation of Jilin University. Our news journalists obtained a quote from the research from Jilin University,
"Correlation between the clinical features of IMN and Tfh cells was assessed by Spearman's rank correlation test. Overall, the frequencies of total, ICOS(+) and PD-1(+) Tfh cells were increased in IMN patients, while the ratio of ICOS(+)/PD-1(+) Tfh cells positively correlated with IMN progression. However, the elevated serum IL-21 level in three subgroups of IMN patients, stratified based on 24-h urine protein levels, was not statistically significant compared to HC. Nonetheless, intracellular IL-21 in Tfh cells was generally increased in all IMN patients, and closely correlated with IMN development. Finally, the frequency of IL-21(+) Tfh cells and the ratio of ICOS(+) /PD-1(+) Tfh cells were positively correlated with the estimated 24-h urine protein of IMN patients. The data indicated that Tfh cells contribute to the pathogenicity of IMN."

According to the news editors, the research concluded: "The ratio of ICOS(+) /PD-1(+) Tfh cells and the frequency of IL-21(+) Tfh cells may be indicators for evaluating the IMN development."


The news correspondents report that additional information may be obtained from X. Shi, Genetic Diagnosis Centre, Central Laboratory, Ministry of Education, First Hospital, Jilin University, Changchun, People's Republic of China. Additional authors for this research include Z. Qu, L. Zhang, N. Zhang, Y. Liu, M. Li, J. Qian and Y. Jiang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1440-1681.12555. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Changchun, Nephrology, Membranous Nephropathy, People's Republic of China.

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**Proteins - Nerve Tissue Proteins**

**New Nerve Tissue Proteins Findings from University of Padua Discussed (Alpha-synuclein at the intracellular and the extracellular side: functional and dysfunctional implications)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Proteins - Nerve Tissue Proteins is the subject of a report. According to news reporting originating in Padua, Italy, by NewsRx journalists, research stated, "Alpha-synuclein (alpha-syn) is an abundant neuronal protein whose physiological function, even if still not completely understood, has been consistently related to synaptic function and vesicle trafficking. A group of disorders known as synucleinopathies, among which Parkinson's disease (PD), is deeply associated with the mis-folding and aggregation of alpha-syn, which can give rise to proteinaceous inclusion known as Lewy bodies (LB)."

The news reporters obtained a quote from the research from the University of Padua, "Proteostasis stress is a relevant aspect in these diseases and, currently, the presence of oligomeric alpha-syn species rather than insoluble aggregated forms, appeared to be associated
with cytotoxicity. Many observations suggest that alpha-syn is responsible for neurodegeneration by interfering with multiple signaling pathways. alpha-syn protein can directly form plasma membrane channels or modify with their activity, thus altering membrane permeability to ions, abnormally associate with mitochondria and cause mitochondrial dysfunction (i.e. mitochondrial depolarization, Ca2+ dys-homeostasis, cytochrome c release) and interfere with autophagy regulation. The picture is further complicated by the fact that single point mutations, duplications and triplication in alpha-syn gene are linked to autosomal dominant forms of PD."

According to the news reporters, the research concluded: "In this review we discuss the multi-faced aspect of alpha-syn biology and address the main hypothesis at the basis of its involvement in neuronal degeneration."

For more information on this research see: Alpha-synuclein at the intracellular and the extracellular side: functional and dysfunctional implications. Biological Chemistry, 2017;398(1):77-100. Biological Chemistry can be contacted at: Walter De Gruyter Gmbh, Genthiner Strasse 13, D-10785 Berlin, Germany.

Our news correspondents report that additional information may be obtained by contacting M. Brini, University of Padua, Dept. of Biol, I-35131 Padua, Italy. Additional authors for this research include T. Cali, I. Szabo and M. Brini.

Keywords for this news article include: Padua, Italy, Europe, Proteins, Article Review, Nerve Tissue Proteins, alpha-Synuclein, Synucleins, Genetics, University of Padua.

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Oncology - Neuroblastomas

New Neuroblastomas Findings from Fudan University Discussed (Wip1 inhibitor GSK2830371 inhibits neuroblastoma growth by inducing Chk2/p53-mediated apoptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Neuroblastomas. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Neuroblastoma (NB) is the most common extracranial tumor in children. Unlike in most adult tumors, tumor suppressor protein 53 (p53) mutations occur with a relatively low frequency in NB and the downstream function of p53 is intact in NB cell lines."

Our news journalists obtained a quote from the research from Fudan University, "Wip1 is a negative regulator of p53 and hindrance of Wip1 activity by novel inhibitor GSK2830371 is a potential strategy to activate p53's tumor suppressing function in NB. Yet, the in vivo efficacy and the possible mechanisms of GSK2830371 in NB have not yet been elucidated. Here we report that novel Wip1 inhibitor GSK2830371 induced Chk2/p53-mediated apoptosis in NB cells in a p53-dependent manner. In addition, GSK2830371 suppressed the colony-formation potential of p53 wild-type NB cell lines. Furthermore, GSK2830371 enhanced doxorubicin-(Dox) and etoposide-(VP-16) induced cytotoxicity in a subset of NB cell lines, including the chemoresistant LA-N-6 cell line. More importantly, GSK2830371 significantly inhibited tumor growth in an orthotopic xenograft NB mouse model by inducing Chk2/p53-mediated apoptosis in vivo."
According to the news editors, the research concluded: "Taken together, this study suggests that GSK2830371 induces Chk2/p53-mediated apoptosis both in vitro and in vivo in a p53 dependent manner."


Keywords for this news article include: Shanghai, People's Republic of China, Asia, Neuroblastomas, Hematology, Cell Line, Apoptosis, Genetics, p53 Gene, Oncology, Fudan University.

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**Oncology - Neuroblastomas**

**New Neuroblastomas Study Results Reported from University of Rome (Neuroblastoma: oncogenic mechanisms and therapeutic exploitation of necroptosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Neuroblastomas have been presented.

According to news reporting out of Rome, Italy, by NewsRx editors, research stated, "Neuroblastoma (NB) is the most common extracranial childhood tumor classified in five stages (1, 2, 3, 4 and 4S), two of which (3 and 4) identify chemotherapy-resistant, highly aggressive disease. High-risk NB frequently displays MYCN amplification, mutations in ALK and ATRX, and genomic rearrangements in TERT genes."

Our news journalists obtained a quote from the research from the University of Rome, "These NB subtypes are also characterized by reduced susceptibility to programmed cell death induced by chemotherapeutic drugs. The latter feature is a major cause of failure in the treatment of advanced NB patients. Thus, proper reactivation of apoptosis or of other types of programmed cell death pathways in response to treatment is relevant for the clinical management of aggressive forms of NB. In this short review, we will discuss the most relevant genomic rearrangements that define high-risk NB and the role that destabilization of p53 and p73 can have in NB aggressiveness. In addition, we will propose a strategy to stabilize p53 and p73 by using specific inhibitors of their ubiquitin-dependent degradation."

According to the news editors, the research concluded: "Finally, we will introduce necroptosis as an alternative strategy to kill NB cells and increase tumor immunogenicity."


Our news journalists report that additional information may be obtained by
contacting S. Nicolai, Dept. of Experimental Medicine and Surgery, University of Rome Tor Vergata, Via Montpellier I, Rome 00133, Italy. Additional authors for this research include M. Pieraccioli, A. Peschiaroli, G. Melino and G. Raschella.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2015.354. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Therapy, Genetics, Oncology, p53 Gene, Hematology, Necroptosis, Article Review, Neuroblastomas.

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Neurodegenerative Diseases

New Neurodegenerative Diseases and Conditions Findings Has Been Reported by Researchers at Neuroscience Institute (Neurosteroidogenesis Today: Novel Targets for Neuroactive Steroid Synthesis and Action and Their Relevance for Translational ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurodegenerative Diseases and Conditions are presented in a new report. According to news originating from Cagliari, Italy, by NewsRx correspondents, research stated, "Neuroactive steroids are endogenous neuromodulators synthesised in the brain that rapidly alter neuronal excitability by binding to membrane receptors, in addition to the regulation of gene expression via intracellular steroid receptors. Neuroactive steroids induce potent anxiolytic, antidepressant, anticonvulsant, sedative, analgesic and amnesic effects, mainly through interaction with the GABAA receptor."

Funders for this research include National Institutes of Health, JSPS KAKENHI, National Institute of Mental Health, National Institute of General Medical Sciences, New York State Office for People With Developmental Disabilities, Bowles Center for Alcohol Studies, Fondazione Cavalieri Ottolenghi, Fondazione Cariplo.

Our news journalists obtained a quote from the research from Neuroscience Institute, "They also exert neuroprotective, neurotrophic and antiapoptotic effects in several animal models of neurodegenerative diseases. Neuroactive steroids regulate many physiological functions, such as the stress response, puberty, the ovarian cycle, pregnancy and reward. Their levels are altered in several neuropsychiatric and neurological diseases and both preclinical and clinical studies emphasise a therapeutic potential of neuroactive steroids for these diseases, whereby symptomatology ameliorates upon restoration of neuroactive steroid concentrations. However, direct administration of neuroactive steroids has several challenges, including pharmacokinetics, low bioavailability, addiction potential, safety and tolerability, which limit its therapeutic use. Therefore, modulation of neurosteroidogenesis to restore the altered endogenous neuroactive steroid tone may represent a better therapeutic approach. This review summarises recent approaches that target the neuroactive steroid biosynthetic pathway at different levels aiming to promote neurosteroidogenesis. These include modulation of neurosteroidogenesis through ligands of the translocator protein 18 kDa and the pregnane xenobiotic receptor, as well as targeting of specific neurosteroidogenic enzymes such as 17b-hydroxysteroid dehydrogenase type 10 or P450 side chain cleavage."

According to the news editors, the research concluded: "Enhanced
neurosteroidogenesis through these targets may be beneficial not only for neurodegenerative
diseases, such as Alzheimer's disease and age-related dementia, but also for neuropsychiatric
diseases, including alcohol use disorders.

For more information on this research see: Neurosteroidogenesis Today: Novel
Targets for Neuroactive Steroid Synthesis and Action and Their Relevance for Translational
ISSN)1365-2826)

The news correspondents report that additional information may be obtained from P.
Porcu, Neuroscience Institute, National Research Council of Italy (CNR), Cagliari, Italy.
Additional authors for this research include A.M. Barron, C.A. Frye, A.A. Walf, S.Y. Yang,

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/jne.12351. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Italy, Europe, Therapy, Cagliari, Genetics,
Article Review, Neurodegenerative Diseases and Conditions.

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Oncology - Neuroectodermal Tumors

New Neuroectodermal Tumors Findings from University of Texas
Outlined (Activity of c-Met/ALK Inhibitor Crizilinib and Multi-Kinase
VEGF Inhibitor Pazopanib in Metastatic Gastrointestinal
Neuroectodermal Tumor Harboring EINSR1-CREB1 Fusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators discuss new findings in Oncology - Neuroectodermal
Tumors. According to news originating from Houston, Texas, by NewsRx correspondents,
research stated, "Malignant gastrointestinal neuroectodermal tumor (GNET) is an aggressive
rare tumor, primarily occurring in young adults with frequent local-regional metastases and
recurrence after local control. The tumor is characterized by the presence of EWSR1-ATFI or
EWSR1-CREB1 and immunohistochemical positivity for S-100 protein without melanocytic
marker positivity."

Our news journalists obtained a quote from the research from the University of
Texas, "Due to poor responses to standard sarcoma regimens, GNET has a poor prognosis, and
development of effective systemic therapy is desperately needed to treat these patients. Herein,
we present a patient with a small bowel GNET who experienced recurrent hepatic and skeletal
metastases after a primary resection. Comprehensive genomic profiling (CGP) in the course of
clinical care with DNA and RNA sequencing demonstrated the presence of an exon 7 to exon 6
EWSR1-CREB1 fusion in the context of a diploid genome with no other genomic alterations. In
a clinical trial, the patient received a combination of 250 mg crizotinib with 600 mg pazopanib
quaque die and achieved partial response and durable clinical benefit for over 2.8 years, and
with minimal toxicity from therapy."

According to the news editors, the research concluded: "Using a CGP database of
over 50,000 samples, we identified 11 additional cases that harbor EWSR1-CREB1 and report
clinicopathologic characteristics, as these patients may also benefit from such a regimen."

For more information on this research see: Activity of c-Met/ALK Inhibitor Crizilinib and Multi-Kinase VEGF Inhibitor Pazopanib in Metastatic Gastrointestinal Neuroectodermal Tumor Harboring EINSR1-CREB1 Fusion. Oncology, 2016;91(6):348-353. Oncology can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Oncology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=223857)


Keywords for this news article include: Houston, Texas, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Tyrosine Kinase Inhibitors, Growth Factor Receptors, Neuroectodermal Tumors, Enzymes and Coenzymes, Angiogenic Proteins, Drugs and Therapies, Membrane Proteins, Gastroenterology, Antineoplastics, Pazopanib, Oncology, Genetics, VEGF, University of Texas.

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Oncology - Neuroendocrine Cancer

New Neuroendocrine Cancer Data Have Been Reported by Researchers at Chiba University (Expression of Sex Determining Region Y-Box 2 and Pancreatic and Duodenal Homeobox 1 in Pancreatic Neuroendocrine Tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Neuroendocrine Cancer. According to news reporting from Chiba, Japan, by NewsRx journalists, research stated, "The World Health Organization 2010 classification divides pancreatic neuroendocrine tumors (p-NETs) entity to well-differentiated neuroendocrine tumors (NET) and poorly differentiated neuroendocrine carcinomas (NEC) by Ki-67 index. The aim of this study is elucidate the pathophysiology and tumor biology of p-NETs."

The news correspondents obtained a quote from the research from Chiba University, "We assessed the expression of transcription factors sex determining region Y-box 2 (SOX2) and pancreatic and duodenal homeobox 1 (Pdx1) essential for the normal fetal development of pancreatic neuroendocrine cells in 46 surgically resected p-NETs by immunohistochemistry. The relationship of expression levels of these factors and clinicopathological factors were analyzed. SOX2 was positive in 6 p-NETs (13.0%). Five of 7 NEC patients showed positive for SOX2. SOX2 was highly (sensitivity 71%) and specifically (specificity 97%) expressed in NEC. Patients with SOX2 positive p-NET showed the significantly shorter disease-free and overall survival than patients with SOX2 negative p-NET. High Pdx1 expression was seen in 25 p-NET patients (54.3%). None of the NEC patients showed high Pdx1 expression. There was a significant reverse correlation between SOX2 and Pdx1 expression. The expression patterns of SOX2 and Pdx1 highly correlated with prognosis of p-NETs."
According to the news reporters, the research concluded: "These expression patterns may represent the biological and pathophysiological difference of p-NETs and indicate the origin of tumor."

For more information on this research see: Expression of Sex Determining Region Y-Box 2 and Pancreatic and Duodenal Homeobox 1 in Pancreatic Neuroendocrine Tumors. *Pancreas*, 2016;45(4):522-7. (Lippincott Williams and Wilkins - www.lww.com; Pancreas - journals.lww.com/pancreasjournal/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting T. Akiyama, From the Dept. of General Surgery, Graduate School of Medicine, Chiba University, Chiba City, Chiba, Japan. Additional authors for this research include T. Shida, H. Yoshitomi, S. Takano, S. Kagawa, H. Shimizu, M. Ohtsuka, A. Kato, K. Furukawa and M. Miyazaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MPA.0000000000000504. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chiba, Japan, Genetics, Oncology, Pancreas, Gastroenterology, Neuroendocrine Cancer, Neuroendocrine Tumors.

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**Oncology - Neuroendocrine Cancer**

**New Neuroendocrine Cancer Findings from Uppsala University Outlined (Somatostatin analogues in acromegaly and gastroenteropancreatic neuroendocrine tumours: past, present and future)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Neuroendocrine Cancer have been published. According to news originating from Uppsala, Sweden, by NewsRx correspondents, research stated, "Acromegaly is a hormonal disorder that arises when the pituitary gland secretes excess growth hormone (GH), which in turn stimulates a concomitant increase in serum insulin-like growth factor 1 (IGF-1) levels. Gastroenteropancreatic neuroendocrine tumours (GEP-NET) constitute a heterogeneous group of tumours that can secrete serotonin and a variety of peptide hormones that may cause characteristic symptoms known as carcinoid syndrome or other symptoms and hormonal hypersecretion syndromes depending on the tumour's site of origin."

Our news journalists obtained a quote from the research from Uppsala University, "Current medical therapy for the treatment of acromegaly and GEP-NET involves the administration of somatostatin analogues that effectively suppress excess hormone secretion. After its discovery in 1979, octreotide became the first synthetic biologically stable somatostatin analogue with a short-acting formulation of octreotide introduced into clinical practice in the late 1980s. Lanreotide, another somatostatin analogue, became available in the mid-1990s initially as a prolonged-release formulation administered every 10 or 14 days. Long-acting release formulations of both octreotide (Sandostatin LAR and Novartis) and lanreotide (Somatuline Autogel, Ipsen), based on microparticle and nanoparticle drug-delivery technologies, respectively, were later developed, which allowed for once-monthly administration and improved convenience. First-generation somatostatin analogues remain one of the cornerstones of medical therapy in the management of pituitary and GEP-NET hormone
hypersecretion, with octreotide having the longest established efficacy and safety profile of the somatostatin analogue class. More recently, pasireotide (Signifor), a next-generation multireceptor-targeted somatostatin analogue, has emerged as an alternative therapeutic option for the treatment of acromegaly."

According to the news editors, the research concluded: "This review summarizes the development and clinical success of somatostatin analogues."

For more information on this research see: Somatostatin analogues in acromegaly and gastroenteropancreatic neuroendocrine tumours: past, present and future. *Endocrine-Related Cancer*, 2016;23(12):R551-R566. *Endocrine-Related Cancer* can be contacted at: Bioscientifica Ltd, Euro House, 22 Apex Court Woodlands, Bradley Stoke, Bristol BS32 4JT, England.

The news correspondents report that additional information may be obtained from K. Oberg, Uppsala University, Uppsala, Sweden.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1530/ERC-16-0151. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uppsala, Sweden, Europe, Central Nervous System Diseases and Conditions, Pituitary Hormone Release Inhibiting Hormones, Musculoskeletal Diseases and Conditions, Endocrine Bone Diseases and Conditions, Somatostatin and Somatostatin Analogs, Hypothalamic Diseases and Conditions, Pituitary Diseases and Conditions, Brain Diseases and Conditions, Hormones, Article Review, Nerve Tissue Proteins, Neuroendocrine Cancer, Neuroendocrine Tumors, Pancreatic Hormones, Drugs and Therapies, Octreotide Therapy, Peptide Proteins, Peptide Hormones, Hyperpituitarism, Cyclic Peptides, Neuropeptides, Endocrinology, Lanreotide, Acromegaly, Oncology, Uppsala University.

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**Nervous System Research - Neuroendocrinology**

**New Neuroendocrinology Findings from University of Regensburg Reported (The neural basis of sex differences in sexual behavior: A quantitative meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nervous System Research - Neuroendocrinology. According to news reporting out of Regensburg, Germany, by NewsRx editors, research stated, "Sexuality as to its etymology presupposes the duality of sexes. Using quantitative neuroimaging meta analyses, we demonstrate robust sex differences in the neural processing of sexual stimuli in thalamus, hypothalamus, and basal ganglia."

Funders for this research include Deutsche Forschungsgemeinschaft, National Institute of Mental Health, Helmholtz Portfolio Theme, European Union Seventh Framework Programme, Human Brain Project, German National Merit Foundation.

Our news journalists obtained a quote from the research from the University of Regensburg, "In a narrative review, we show how these relate to the well-established sex differences on the behavioral level. More specifically, we describe the neural bases of known poor agreement between self-reported and genital measures of female sexual arousal, of
previously proposed male proneness to affective sexual conditioning, as well as hints of unconscious activation of bonding mechanisms during sexual stimulation in women."

According to the news editors, the research concluded: "In summary, our meta-analytic review demonstrates that neurofunctional sex differences during sexual stimulation can account for well-established sex differences in sexual behavior."


Our news journalists report that additional information may be obtained by contacting T.B. Poeppl, University of Regensburg, Dept. of Psychiat & Psychotherapy, D-93053 Regensburg, Germany. Additional authors for this research include B. Langguth, R. Rupprecht, A. Safron, D. Bzdok, A.R. Laird and S.B. Eickhoff.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yfrne.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Regensburg, Germany, Europe, Neuroendocrinology, Nervous System Research, Article Review, University of Regensburg.

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Neuroimaging

New Neuroimaging Study Findings Have Been Reported by Investigators at National Hospital (Megalencephaly, polymicrogyria and ribbon-like band heterotopia: A new cortical malformation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neuroimaging have been published. According to news reporting out of Niigata, Japan, by NewsRx editors, research stated, "Megalencephalic polymicrogyria syndromes include megalencephaly-capillary malformation and megalencephaly-polymicrogyria-polydactyly-hydrocephalus. Recent genetic studies have identified that genes in the PI3K-AKT pathway are involved in the pathogenesis of these disorders."

Our news journalists obtained a quote from the research from National Hospital, "Herein, we report a patient who presented with developmental delay, epilepsy and peculiar neuroimaging findings of megalencephaly, polymicrogyria, and symmetrical band heterotopia in the periventricular region. The heterotopias exhibited inhomogeneous signals with undulatory mixtures of gray and white matter, resembling ribbon-like heterotopia, with a predominance in the temporal to occipital regions. These neuroradiological findings were not consistent with those in known megalencephalic polymicrogyria syndromes. No genetic abnormality was identified through whole-exome sequencing."

According to the news editors, the research concluded: "The neuroimaging findings of this patient may represent a novel cortical malformation involving megalencephaly with polymicrogyria and ribbon-like band heterotopia."

For more information on this research see: Megalencephaly, polymicrogyria and

Our news journalists report that additional information may be obtained by contacting Y. Kobayashi, Nishi Niigata Chuo Natl Hosp, Dept. of Child Neurol, Niigata, Japan. Additional authors for this research include S. Magara, K. Okazaki, T. Komatsubara, H. Saitsu, N. Matsumoto, M. Kato and J. Tohyama.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.braindev.2016.06.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Niigata, Japan, Asia, Neuroimaging, Genetics, National Hospital.

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**Surgery - Neurointerventional Surgery**

**New Neurointerventional Surgery Study Findings Have Been Reported by L.B.C. Brasiliense and Co-Researchers (Silent ischemic events after Pipeline embolization device: a prospective evaluation with MR diffusion-weighted imaging)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Surgery - Neurointerventional Surgery have been presented. According to news reporting out of Jacksonville, Florida, by NewsRx editors, research stated, "The development of ischemic events is relatively common after endovascular interventions, and flow diverters may pose a particular threat owing to their increased technical complexity and high metal content. To investigate the incidence and potential risk factors for thromboembolic lesions after treatment with a Pipeline embolization device (PED)."

Our news journalists obtained a quote from the research, "This prospective study included a total of 59 patients electively treated with a PED over 12 months. Postprocedural diffusion-weighted imaging sequences of the brain were obtained 24 h after interventions to detect ischemic lesions. Demographic data, aneurysm characteristics, antiplatelet management, and perioperative data were correlated with the rate of ischemic events. The incidence of silent ischemic events after use of a PED was 62.7% (37 patients) and neurological symptoms occurred in 8.1% of affected patients. Development of ischemic events was significantly associated with older patients (>= 60 years; p=0.038). Routine use of platelet function assays and newer P2Y12 receptor inhibitors (ticagrelor) were not associated with fewer thromboembolic events. Thromboembolic events are relatively common after treatment with a PED with an incidence comparable to stent-assisted and conventional coiling but the risk of neurological morbidity from ischemic burden is low."

According to the news editors, the research concluded: "Older patients are at particularly increased risk of thromboembolic events."

New Neuromuscular Diseases Study Results Reported from C.D. Kassardjian et al (The Utility Of Genetic Testing In Neuromuscular Disease: A Consensus Statement From The Aanem On The Clinical Utility Of Genetic Testing In Diagnosis Of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neuromuscular Diseases. According to news reporting out of Rochester, Minnesota, by NewsRx editors, research stated, "The aim of this consensus statement is to provide a recommendation from AANEM experts on the clinical utility of genetic testing. It is not meant to recommend or endorse any specific genetic testing methodology or algorithm."

Our news journalists obtained a quote from the research, "The AANEM Professional Practice Committee reached a consensus based on expert opinion on the utility of genetic testing in neuromuscular diseases and made recommendations on factors that physicians and patients should consider when deciding whether to proceed with such testing. Despite the costs of genetic testing, these tests can be both valuable and beneficial in the diagnosis and treatment of neuromuscular diseases in many situations. The AANEM believes that performing genetic testing to arrive at a specific molecular diagnosis is a critical step in providing high-quality care to neuromuscular patients."

According to the news editors, the research concluded: "The cost of testing should not be a deterrent, as there are important clinical, safety, psychosocial, and research benefits."


Our news journalists report that additional information may be obtained by contacting C.D. Kassardjian, Care Off Suk M, Amer Assoc Neuromuscular & Electrodiagnost
Autoimmune Diseases and Conditions -...

New Neuromyelitis Optica Study Findings Reported from Central South University [CD14(+) CD16(++) monocytes are increased in patients with NMO and are selectively suppressed by glucocorticoids therapy]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Autoimmune Diseases and Conditions - Neuromyelitis Optica are discussed in a new report. According to news reporting originating in Changsha, People's Republic of China, by NewsRx journalists, research stated, "The pathophysiologic significance of the CD16(+) monocyte subset has been demonstrated by its expansion in various autoimmune disorders. To date, the characteristics and roles of monocyte subpopulations in patients with neuromyelitis optica (NMO) have been poorly defined."

The news reporters obtained a quote from the research from Central South University, "We measured the percentages of the monocyte subsets in the peripheral blood, the levels of IL-1 beta and TNF-alpha mRNA in monocyte subsets and the concentrations of IL-1 beta and TNF-alpha in plasma and CSF from NMO patients. Our results showed that nonclassical monocytes were up-regulated in NMO patients and significantly elevated and TNF-a expression was detected in it."

According to the news reporters, the research concluded: "In addition the increased nonclassical monocytes could be selectively suppressed by GC in patients with NMO."

For more information on this research see: CD14(+) CD16(++) monocytes are increased in patients with NMO and are selectively suppressed by glucocorticoids therapy. *Journal of Neuroimmunology*, 2016;300():1-8. *Journal of Neuroimmunology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Neuroimmunology - www.journals.elsevier.com/journal-of-neuroimmunology/)


Keywords for this news article include: Changsha, People's Republic of China, Asia, Autoimmune Diseases and Conditions, Mononuclear Phagocyte System, Hemic and Immune Systems, Adrenal Cortex Hormones, Mononuclear Leukocytes, Neumyelitis Optica, Bone Marrow Cells, Glucocorticoids, Cell Research, Blood Cells, Immunology, Phagocytes, Monocytes, Genetics, Therapy, Central South University.

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Neurons

New Neurons Data Have Been Reported by Investigators at Israel Naval Medical Institute (Evidence for the infiltration of gas bubbles into the arterial circulation and neuronal injury following "yo-yo" dives in pigs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurons. According to news originating from Haifa, Israel, by NewsRx correspondents, research stated, "Yo-yo' diving may place divers at a greater risk of neurologic decompression illness (DCI). Using a rat model, we previously demonstrated that 'yo-yo' diving has a protective effect against DCI."

Our news journalists obtained a quote from the research from Israel Naval Medical Institute, "In the current study, we evaluated the risk of neurologic DCI following 'yo-yo' dives in a pig model. Pigs were divided into four groups. The Control group (group A) made a square dive, without excursions to the surface ('peeps'). Group B performed two 'peeps,' group C performed four 'peeps,' and group D did not dive at all. All dives were conducted on air to 5 atm absolute, for 30-min bottom time. Echocardiography was performed to detect cardiac gas bubbles before the dive, immediately after, and at 90-min postdive. Motor performance was observed during the 5-h postdive period. Symptoms increased dramatically following a dive with four 'peeps.' Gas bubbles were detected in the right ventricle of all animals except for the sham group and in the left ventricle only after the four-peep dive. Neuronal cell injury was found in the spinal cord in each of the three experimental groups, tending to decrease with an increase in the number of 'peeps.' A four-peep 'yo-yo' dive significantly increased the risk of neurologic DCI in pigs."

According to the news editors, the research concluded: "Following a four-peep dive, we detected a higher incidence of bubbles in the left ventricle, supporting the common concern regarding an increased risk of neurologic DCI, albeit there was no direct correlation with the frequency of 'red neurons' in the spinal cord."


The news correspondents report that additional information may be obtained from Y. Arieli, Israel Def Forces Med Corps, Israel Naval Med Inst, Haifa, Israel. Additional authors for this research include Y. Yanir, M. Mullokandov, B. Aviner and Y. Arieli.

Keywords for this news article include: Haifa, Israel, Asia, Neurons, Cells, Israel Naval Medical Institute.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neuroscience - Neurophysiology. According to news reporting from Nashville, Tennessee, by NewsRx journalists, research stated, "Evidence accumulating over the past 15 years soundly refutes the dogma that the Drosophila nervous system is hardwired. The preponderance of studies reveals activity-dependent neural circuit refinement driving optimization of behavioral outputs."

Financial support for this research came from HHS | NIH | National Institute of Mental Health (NIMH).

The news correspondents obtained a quote from the research from Vanderbilt University, "We describe developmental, sensory input-dependent plasticity in the brain olfactory antennal lobe, which we term long-term central adaption (LTCA). LTCA is evoked by prolonged exposure to an odorant during the first week of posteclosion life, resulting in a persistently decreased response to aversive odors and an enhanced response to attractive odors. This limited window of early-use, experience-dependent plasticity represents a critical period of olfactory circuit refinement tuned by initial sensory input. Consequent behavioral adaptations have been associated with changes in the output of olfactory projection neurons to higher brain centers. Recent studies have indicated a central role for local interneuron signaling in LTCA presentation. Genetic and molecular analyses have implicated the mRNA-binding fragile X mental retardation protein and ataxin-2 regulators, Notch trans-synaptic signaling, and cAMP signal transduction as core regulatory steps driving LTCA."

According to the news reporters, the research concluded: "In this article, we discuss the structural, functional, and behavioral changes associated with LTCA and review our current understanding of the molecular pathways underlying these developmental, experience-dependent changes in the olfactory circuitry."

For more information on this research see: Developmental experience-dependent plasticity in the first synapse of the Drosophila olfactory circuit. Journal of Neurophysiology, 2016;116(6):2730-2738. Journal of Neurophysiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting K. Broadie, Vanderbilt University, Dept. of Biol Sci, Nashville, TN 37235, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/jn.00616.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Neurophysiology, Neuroscience, Genetics, Article Review, Vanderbilt University.

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Neutral Amino Acids

New Neutral Amino Acids Findings from University of Texas Discussed (Targeting Stromal Glutamine Synthetase in Tumors Disrupts Tumor Microenvironment-Regulated Cancer Cell Growth)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neutral Amino Acids. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Reactive stromal cells are an integral part of tumor microenvironment (TME) and interact with cancer cells to regulate their growth. Although targeting stromal cells could be a viable therapy to regulate the communication between TME and cancer cells, identification of stromal targets that make cancer cells vulnerable has remained challenging and elusive."

Financial supporters for this research include St. Louis Ovarian Cancer Awareness Research Grant, NIH.

The news correspondents obtained a quote from the research from the University of Texas, "Here, we identify a previously unrecognized mechanism whereby metabolism of reactive stromal cells is reprogrammed through an upregulated glutamine anabolic pathway. This dysfunctional stromal metabolism confers atypical metabolic flexibility and adaptive mechanisms in stromal cells, allowing them to harness carbon and nitrogen from noncanonical sources to synthesize glutamine in nutrient-deprived conditions existing in TME. Using an orthotopic mouse model for ovarian carcinoma, we find that co-targeting glutamine synthetase in stroma and glutaminase in cancer cells reduces tumor weight, nodules, and metastasis."

According to the news reporters, the research concluded: "We present a synthetic lethal approach to target tumor stroma and cancer cells simultaneously for desirable therapeutic outcomes."

For more information on this research see: Targeting Stromal Glutamine Synthetase in Tumors Disrupts Tumor Microenvironment-Regulated Cancer Cell Growth. *Cell Metabolism*, 2016;24(5):685-700. *Cell Metabolism* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell Metabolism - www.journals.elsevier.com/cell-metabolism/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cmet.2016.10.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Connective Tissue Cells, Enzymes and Coenzymes, Diamino Amino Acids, Neutral Amino Acids, Basic Amino Acids, Pharmaceuticals, Stromal Cells, Synthetase, Glutamine, Oncology, Cancer, University of Texas.

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Leukocyte Diseases and Conditions - Neutropenia

**New Neutropenia Findings from M. Aapro and Colleagues Discussed**

[Predictive modeling of the outcomes of chemotherapy-induced (febrile) neutropenia prophylaxis with biosimilar filgrastim (MONITOR-GCSF]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Leukocyte Diseases and Conditions - Neutropenia have been published. According to news reporting from Genolier, Switzerland, by NewsRx journalists, research stated. "Risk models of chemotherapy-induced (CIN) and febrile neutropenia (FN) have to date focused on determinants measured at the start of chemotherapy. We extended this static approach with a dynamic approach of CIN/FN risk modeling at the start of each cycle."

Financial support for this research came from Hexal AG/Sandoz International GmbH.

The news correspondents obtained a quote from the research, "We applied predictive modeling using multivariate logistic regression to identify determinants of CIN/FN episodes and related hospitalizations and chemotherapy disturbances (CIN/FN consequences) in analyses at the patient ('ever' during the whole period of chemotherapy) and cycle-level (during a given chemotherapy cycle). Statistical dependence of cycle data being 'nested' under patients was managed using generalized estimation equations. Predictive performance of each model was evaluated using bootstrapped concordance statistics. Static patient-level risk models of 'ever' experiencing CIN/FN adverse events and consequences during a planned chemotherapy regimen included predictors related to history, risk factors, and prophylaxis initiation and intensity. Dynamic cycle-level risk models of experiencing CIN/FN adverse events and consequences in an upcoming cycle included predictors related to history, risk factors, and prophylaxis initiation and intensity; as well as prophylaxis duration, CIN/FN in prior cycle, and treatment center characteristics. These 'real-world evidence' models provide clinicians with the ability to anticipate CIN/FN adverse events and their consequences at the start of a chemotherapy line (static models); and, innovatively, to assess risk of CIN/FN adverse events and their consequences at the start of each cycle (dynamic models). This enables individualized patient treatment and is consistent with the EORTC recommendation to re-appraise CIN/FN risk at the start of each cycle. Prophylaxis intensity (under-, correctly-, or over-prophylacted relative to current EORTC guidelines) is a major determinant. Under-prophylaxis is clinically unsafe."

According to the news reporters, the research concluded: "Over-prophylaxis of patients administered chemotherapy with intermediate or low myelotoxicity levels may be beneficial, both in patients with and without risk factors, and must be validated in future studies."


Our news journalists report that additional information may be obtained by contacting M. Aapro, Clin Genolier, Inst Multidisciplinaire Oncol, CH-1272 Genolier, Switzerland. Additional authors for this research include H. Ludwig, C. Bokemeyer, P. Gascon, M. Boccadoro, K. Denhaerynck, A. Krendyukov, M. Gorray, K. Macdonald and I. Abraham.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/annonc/mdw309. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genolier, Switzerland, Europe, Recombinant Granulocyte Colony Stimulating Factor, Intercellular Signaling Peptides and Proteins, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and
Nitrosourea Compounds

New Nitrosourea Compounds Findings from H. Fisli and Co-Researchers Reported (Spectrofluorimetric determination of the antineoplastic agent lomustine based on the sensitizing effect of b-cyclodextrin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nitrosourea Compounds are presented in a new report. According to news originating from Guelma, Algeria, by NewsRx correspondents, research stated, "The effects of solvent dipolarity/polarizability and solvent-solute hydrogen bonding on the photophysical properties of the antineoplastic drug lomustine were analysed by means of the linear solvation energy relationship (LSER) concept proposed by Kamlet and Taft. The LSER method enabled the overall solvent effects to be quantitatively estimated and separated into specific and non-specific contributions."

Our news journalists obtained a quote from the research, "The molecular encapsulation of lomustine by b-cyclodextrin (b-CD) has been studied using fluorescence spectroscopy. The results are discussed in terms of the binding parameter and the effect of the solvent used. It was concluded that b-CD forms a 1:1 inclusional complex with lomustine in acetonitrile solution and its association constant was calculated to be 500 M(-1). In addition, and for the first time, a simple, rapid and high sensitive fluorimetric method for the determination of lomustine was developed based upon the enhancement effect produced through complex formation with b-CD. The new approach for the quantification of lomustine in the presence of b-CD was described in aqueous and organic solutions."

According to the news editors, the research concluded: "Better limits of detection (0.31 ?g ml(-1)) and quantification (1.05 ?g ml(-1)) were obtained in aqueous solution with respect to those obtained in organic solvent."


The news correspondents report that additional information may be obtained from H. Fisli, Laboratoire de Chimie Appliquee (LCA), Universite 8 mai 1945, Guelma, Algeria. Additional authors for this research include N. Bensouilah and M. Abdaoui.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/bio.3045. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Pharmaceuticals, Guelma, Africa, Algeria, Alkylating Agents, Lomustine Therapy, Drugs and Therapies, Nitrosourea Compounds.
New Non-Hodgkin Lymphoma Study Findings Reported from Ulsan University Hospital (Biweekly dose-dense gemcitabine-oxaliplatin and dexamethasone for relapsed/refractory aggressive non-Hodgkin lymphoma: A multicenter, single-arm, phase II trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Non-Hodgkin Lymphoma is the subject of a report. According to news reporting originating from Ulsan, South Korea, by NewsRx correspondents, research stated, "We performed a phase II study to evaluate the efficacy of combination chemotherapy consisting of gemcitabine, dexamethasone and oxaliplatin (GemDOx) as a biweekly regimen and salvage therapy in patients with relapsed or refractory aggressive non-Hodgkin lymphoma (NHL).Gemcitabine (1000 mg/m(2) ) and oxaliplatin (85 mg/m(2) ) were administered intravenously on days 1 and 15, and dexamethasone (40 mg) was administered orally on days 1-4."

Financial support for this research came from Ministry of Education, Science and Technology.

Our news editors obtained a quote from the research from Ulsan University Hospital, "Twenty-nine patients were enrolled, and most patients had diffuse large B-cell lymphoma (n=18). The median age of the patients and median prior number of chemotherapy cycles were 53 (range, 26-74) years and 1 (range, 1-4) cycle, respectively. Only 17 (58.6%) and 9 (31.0%) patients completed two or more and four or more cycles, respectively, and the median number of received cycles was two (range, 1-8). Overall response rates were 27.6% (complete response in 13.8%) among intent-to-treat patients and 47.1% (complete response in 23.5%) among patients who had received at least two GemDOx cycles. Median progression-free survival and median overall survival were 3.9 and 20.5 months, respectively. The most-frequent grade 3 or 4 toxicity was neutropenia (22.9%), and no grade 3 or 4 peripheral neurotoxicity was noted."

According to the news editors, the research concluded: "GemDOx chemotherapy, therefore, showed modest activity against relapsed or refractory aggressive NHL, although toxicities were acceptable."


The news editors report that additional information may be obtained by contacting J.C. Jo, Dept. of Hematology and Oncology, Ulsan University Hospital, University of Ulsan College of Medicine, Ulsan, South Korea. Additional authors for this research include J.H. Baek, J.H. Lee, Y.D. Joo, S.H. Bae, J.L. Lee, J.H. Lee, D.Y. Kim, W.S. Lee, H.M. Ryoo, Y. Choi, H. Kim and K.H. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ajco.12462. This DOI is a link to an online electronic document that is...
either free or for purchase.

Publisher contact information for the Asia-Pacific Journal of Clinical Oncology is:
Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Antimetabolites, Antineoplastics, Antivirals, Pharmaceuticals, Ulsan, Hormones, Oncology, Hematology, South Korea, Chemotherapy, Glucocorticoids, Alkylating Agents, Clinical Research, Drugs and Therapies, Gemcitabine Therapy, Ophthalmic Steroids, Oxaliplatin Therapy, Non Hodgkin Lymphoma, Non-Hodgkin Lymphoma.

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Oncology - Non-Small Cell Lung Cancer

New Non-Small Cell Lung Cancer Data Have Been Reported by I. Sullivan and Co-Authors (ALK inhibitors in non-small cell lung cancer: the latest evidence and developments)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Non-Small Cell Lung Cancer. According to news reporting from Villejuif, France, by NewsRx journalists, research stated, "The treatment of patients with advanced non-small cell lung cancer (NSCLC) harbouring chromosomal rearrangements of ALK (anaplastic lymphoma kinase) was revolutionized by crizotinib, a small molecule inhibitor of ALK, ROS1 and MET. Unfortunately, the disease progressed within the first 12 months in most of the patients because of the development of crizotinib resistance in the majority of patients and the emergence of acquired resistance mutations in most of them."

The news correspondents obtained a quote from the research, "Many of them had been reported even before its approval leading to the rapid development of second-generation ALK inhibitors for crizotinib-resistant NSCLC. In the last few years, novel potent ALK inhibitors with promising results and a good toxicity profile have become available: ceritinib (LDK378), alectinib (RG7853/AF-802/RO5424802/CH5424802), brigatinib (AP26113), entrectinib (RXDX-101, NMS-E628), PF-06463922, ASP3026, TSR-011, X-376/X-396 and CEP-28122/CEP-37440. Moreover, HSP90 (90 kDa heat shock protein) inhibitors have demonstrated clinical activity in patients with ALK+ NSCLC."

According to the news reporters, the research concluded: "This review focuses on the molecular and clinical properties of this new generation of ALK inhibitors under development in the clinic."

For more information on this research see: ALK inhibitors in non-small cell lung cancer: the latest evidence and developments. Therapeutic Advances in Medical Oncology, 2016;8(1):32-47. (Sage Publications - www.sagepub.com; Therapeutic Advances In Medical Oncology - tam.sagepub.com)

Our news journalists report that additional information may be obtained by contacting I. Sullivan, Gustave Roussy - Medical Oncology, Villejuif, France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1758834015617355. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: France, Europe, Genetics, Oncology,
New Non-Small Cell Lung Cancer Data Have Been Reported by Researchers at University of Texas (Auranofin-mediated inhibition of PI3K/AKT/mTOR axis and anticancer activity in non-small cell lung cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Non-Small Cell Lung Cancer are presented in a new report. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Auranofin, a gold complex that has been used to treat rheumatoid arthritis in clinics and has documented pharmacokinetic and safety profiles in humans, has recently been investigated for its anticancer activity in leukemia and some solid cancers. However, auranofin's single agent activity in lung cancer is not well characterized."

The news correspondents obtained a quote from the research from the University of Texas, "To determine whether auranofin has single agent activity in lung cancer, we evaluated auranofin's activity in a panel of 10 non-small cell lung cancer (NSCLC) cell lines. Cell viability analysis revealed that auranofin induced growth inhibition in a subset of NSCLC cell lines with a half maximal inhibitory concentration (IC[50]) below 1.0 mM. Treatment with auranofin elicited apoptosis and necroptosis in auranofin-sensitive cell lines. Moreover, the susceptibility of NSCLC cells to auranofin was inversely correlated with TXNRD1 expression in the cells. Transient transfection of the TXNRD1-expressing plasmid in auranofin-sensitive Calu3 cells resulted in partial resistance, indicating that high TXNRD level is one of causal factors for resistance to auranofin. Further mechanistic characterization with proteomic analysis revealed that auranofin inhibits expression and/or phosphorylation of multiple key nodes in the PI3K/AKT/mTOR pathway, including S6, 4EBP1, Rictor, p70S6K, mTOR, TSC2, AKT and GSK3. Ectopic expression of TXNRD1 partially reversed auranofin-mediated PI3K/AKT/mTOR inhibition, suggesting that TXNRD1 may participate in the regulation of PI3K/AKT/mTOR pathway. Administration of auranofin to mice with xenograft tumors derived from NSCLC cells significantly suppressed tumor growth without inducing obvious toxic effects."

According to the news reporters, the research concluded: "Our results demonstrated feasibility of repurposing auranofin for treatment of lung cancer."


Our news journalists report that additional information may be obtained by contacting H. Li, Dept. of Thoracic and Cardiovascular Surgery, University of Texas MD Anderson Cancer Center, Houston, Texas, United States. Additional authors for this research include J. Hu, S. Wu, L. Wang, X. Cao, X. Zhang, B. Dai, M. Cao, R. Shao, R. Zhang, M. Majidi, L. Ji, J.V. Heymach, M. Wang, S. Pan, J. Minna, R.J. Mehran, S.G. Swisher, J.A. Roth and B. Fang.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6516. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antirheumatics, Pharmaceuticals, Texas, Houston, Oncology, Cell Line, United States, Cancer Therapy, Lung Neoplasms, Aurothioglucose, Auranofin Therapy, Drugs and Therapies, North and Central America, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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**Oncology - Non-Small Cell Lung Cancer**

**New Non-Small Cell Lung Cancer Findings from Arnau de Vilanova University Hospital Described (Eventual role of EGFR-tyrosine kinase inhibitors in early-stage non-small-cell lung cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Non-Small Cell Lung Cancer. According to news reporting originating from Lleida, Spain, by NewsRx correspondents, research stated, "Nonadvanced non-small-cell lung cancer (NSCLC) has a poor long-term survival from surgery or definitive radiation that is minimally improved with induction/adjuvant conventional chemotherapy. EGFR-tyrosine kinase inhibitors (TKIs), which provide a significant benefit for molecularly selected EGFR-mutant patients with advanced NSCLC, have been infrequently explored in nonadvanced NSCLC to date."

Our news editors obtained a quote from the research from Arnau de Vilanova University Hospital, "Current published studies reported no significant benefit from adding EGFR-TKI to the induction/adjuvant setting. However, many of them present eventual biases such as unpowered statistics, lack of molecular selection, recruitment of low-risk NSCLC, low sample size or unsuitable control arms. strengths and deficiencies of completed and ongoing trials were fully discussed."

According to the news editors, the research concluded: "Similarly, the selection of patients and control arms, the duration and risks of EGFR-TKI therapies in early-stage NSCLC, the evaluation of response and the diagnosis of EGFR status were considered and analyzed."


The news editors report that additional information may be obtained by contacting D. Marquez-Medina, Medical Oncology Department, Arnau de Vilanova University Hospital, Lleida, Spain.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.15.356. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Lleida, Europe, Oncology, Proteins, Proteomics, Article Review, Lung Neoplasms, Tyrosine Kinase, Aromatic Amino Acids, Enzymes and Coenzymes, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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Oncology - Non-Small Cell Lung Cancer

New Non-Small Cell Lung Cancer Findings from Kyung Hee University Described (Decursin enhances TRAIL-induced apoptosis through oxidative stress mediated-endoplasmic reticulum stress signalling in non-small cell lung cancers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "The TNF-related apoptosis-inducing ligand (TRAIL) is a promising anticancer agent due to its remarkable ability to selectively kill tumor cells. However, because most tumours exhibit resistance to TRAIL-induced apoptosis, the development of combination therapies to overcome resistance to TRAIL is required for effective cancer therapy."

Financial support for this research came from Korea Government (MEST).

Our news editors obtained a quote from the research from Kyung Hee University, "Cell viability and possible synergy between the plant pyranocoumarin decursin and TRAIL was measured by MTT assay and calceusyn software. Reactive oxygen species (ROS) and apoptosis were measured using dichlorodihydrofluorescein and annexin/propidium iodide in cell flow cytometry. Changes in protein levels were assessed with Western blotting. Combining decursin and TRAIL markedly decreased cell viability and increased apoptosis in TRAIL-resistant non-small-cell lung cancer (NSCLC) cell lines. Decursin induced expression of the death receptor 5 (DR5). Inhibition of DR5 attenuated apoptotic cell death in decursin + TRAIL treated NSCLC cell lines. Interestingly, induction of DR5 and CCAAT/enhancer-binding protein homologues protein by decursin was mediated through selective induction of the pancreatic endoplasmic reticulum kinase (PERK)/activating transcription factor 4 (ATF4) branch of the endoplasmic reticulum stress response pathway. Furthermore, enhancement of PERK/ATF4 signalling by decursin was mediated by ROS generation in NSCLC cell lines, but not in normal human lung cells. Decursin also markedly down-regulated expression of survivin and Bcl-xL in TRAIL-resistant NSCLC cells."

According to the news editors, the research concluded: "ROS generation by decursin selectively activated the PERK/ATF4 axis of the endoplasmic reticulum stress signalling pathway, leading to enhanced TRAIL sensitivity in TRAIL-resistant NSCLC cell lines, partly via up-regulation of DR5."


The news editors report that additional information may be obtained by contacting J. Kim, College of Korean Medicine, Kyung Hee University, Seoul, South Korea. Additional authors for this research include M. Yun, E.O. Kim, D.B. Jung, G. Won, B. Kim, J.H. Jung and S.H Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13408. This DOI is a link to an online electronic document that is
either free or for purchase.

Publisher contact information for the *British Journal of Pharmacology* is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Asia, Seoul, Genetics, Oncology, Cell Line, Cytoplasm, Organelles, South Korea, Lung Neoplasms, Cellular Structures, Intracellular Space, Endoplasmic Reticulum, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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**Oncology - Non-Small Cell Lung Cancer**

**New Non-Small Cell Lung Cancer Findings from Kyushu University Described (Clinical implications of sarcopenia in patients undergoing complete resection for early non-small cell lung cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Non-Small Cell Lung Cancer are discussed in a new report. According to news reporting originating in Fukuoka, Japan, by NewsRx journalists, research stated, "Sarcopenia is characterized by progressive and generalized loss of skeletal muscle mass and strength. We aimed to investigate sarcopenia in patients with stage I non-small cell lung cancer (NSCLC) who underwent complete resection, and the relationship of sarcopenia with clinicopathological factors."

The news reporters obtained a quote from the research from Kyushu University, "All consecutive patients who underwent lung resection between January 2005 and December 2008 were enrolled in this retrospective study. Eligible patients were assigned to one of 2 groups according to the presence or absence of sarcopenia, as assessed by the sum of cross-sectional areas of skeletal muscles in the region of the third lumbar vertebra (L3) on preoperative computed tomography (CT). Sixteen of 52 male (30.8%) and 22 of 38 female (57.9%) patients were identified with sarcopenia (p = 0.01). Patients with sarcopenia were more likely to have a low body mass index (BMI) (p <0.0001). Kaplan-Meier analysis showed that patients with sarcopenia had a significantly worse outcome than patients without sarcopenia (5-year-survival: 72.8% vs 85.8%, respectively, p = 0.028). Multivariate analysis found that sarcopenia was a significant independent prognostic factor (hazard ratio: 7.09, p = 0.0008)."

According to the news reporters, the research concluded: "Sarcopenia identified on a cross-sectional CT image of the L3 level was associated with poor outcome with completely resected early-stage NSCLC."


Our news correspondents report that additional information may be obtained by contacting T. Okamoto, Kyushu University, Grad Sch Med Sci, Dept. of Surg & Sci, Fukuoka 812, Japan. Additional authors for this research include T. Okamoto, T. Fujishita, M. Katsura, T. Akamine, S. Takamori, Y. Morodomi, T. Tagawa, F. Shoji and Y. Maehara.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.lungcan.2016.08.007. This DOI is a link to an online electronic
New Non-Small Cell Lung Cancer Findings from School of Life Science and Technology Described (MARVELD1 Modulates Cell Surface Morphology and Suppresses Epithelial-Mesenchymal Transition in Non-Small Cell Lung Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news reporting originating in Harbin, People's Republic of China, by NewsRx journalists, research stated, "Integrins have been known to play pivotal roles in malignant progression and epithelial-mesenchymal transition (EMT) of non-small cell lung cancer (NSCLC). We previously demonstrated that MARVELD1, a potential tumor suppressor, is epigenetically silenced in multiple cancer cells."

The news reporters obtained a quote from the research from the School of Life Science and Technology, "In this study, we found MARVELD1 silencing altered cell surface ultrastructure of NSCLC cells and inhibited the formation of punctate integrin beta 1/beta 4 cluster in microvillus, whereas MARVELD1 overexpression suppressed TGF-beta 1-induced EMT. Remarkably, the balance of integrin beta 1 and beta 4 was modulated by MARVELD1. MARVELD1 silencing led to imbalance of integrin beta 1/beta 4 and significantly reduced microvillus length, furthermore affected the localization of beta 1/beta 4 at microvilli tips. TGF-beta 1-induced EMT was promoted by MARVELD1 silencing, while rebalance of integrin beta 1/beta 4 partly rescued the epithelial phenotype of MARVELD1-silenced cells."

According to the news reporters, the research concluded: "Mechanistically, we demonstrate that MARVELD1-mediated balance of integrin beta 1 and beta 4 regulates cell surface ultrastructure and EMT phenotype of NSCLC cells, suggesting MARVELD1 has a potential to be developed as a therapeutic target for NSCLC."


Our news correspondents report that additional information may be obtained by contacting Y. Li, Harbin Inst Technol, Sch Life Sci & Technol, Harbin, People's Republic of China. Additional authors for this research include M. Shi, S.S. Liu, Y.Q. Li, K.X. Guo, Y.P. Ci, W.Z. Liu and Y. Li.

Keywords for this news article include: Harbin, People's Republic of China, Asia, Non-Small Cell Lung Cancer, Immunologic Receptors, Membrane Proteins, Lung Neoplasms,
New Non-Small Cell Lung Cancer Findings from University of Palermo Reported (Exosomes isolation and characterization in serum is feasible in non-small cell lung cancer patients: critical analysis of evidence and potential role in clinical ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news originating from Palermo, Italy, by NewsRx correspondents, research stated, "Exosomes are nano-sized vesicles of endolysosomal origin, released by several cytotypes in physiological and pathological conditions. Tumor derived exosomes, interacting with other cells of the tumor microenvironment, modulate tumor progression, angiogenic switch, metastasis, and immune escape."

Our news journalists obtained a quote from the research from the University of Palermo, "Recently, extracellular vesicles were proposed as excellent biomarkers for disease monitoring and prognosis in cancer patients. Non-small cell lung cancer (NSCLC) has a poor 5-year survival rate due to the delay in the detection of the disease. The majority of patients are diagnosed in an advanced disease stage. Exosomes might be promising beneficial tools as biomarker candidates in the scenario of NSCLC, since they contain both, proteins and miRNAs. The clinical case reported in this manuscript is a proof of concept revealing that NSCLC exosomes and sorted miRNAs might constitute, in a near future, novel biomarkers."

According to the news editors, the research concluded: "This review summarizes the role of exosomes in NSCLC, focusing on the importance of exosomal microRNAs in lung cancer diagnosis and prognosis."


The news correspondents report that additional information may be obtained from S. Taverna, Dept. of Biopathology and Medical Biotechnology, Section of Biology and Genetics, University of Palermo, Palermo, Italy. Additional authors for this research include M. Giallombardo, I. Gil-Bazo, A.P. Carreca, M. Castiglia, J. Chacartegui, A. Araujo, R. Alessandro, P. Pauwels, M. Peeters and C. Rolfo.

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Keywords for this news article include: Italy, Europe, Palermo, Exosomes, Oncology, Organelles, Article Review, Lung Neoplasms, Transport Vesicles, Cytoplasmic Structures, Diagnostics and Screening, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.
New Non-Small Cell Lung Cancer Study Findings Have Been Reported by Investigators at Huazhong University of Science and Technology (HMGB1 induces human non-small cell lung cancer cell motility by activating integrin alpha v beta 3/FAK through ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Non-Small Cell Lung Cancer is the subject of a report. According to news reporting from Hubei, People's Republic of China, by NewsRx journalists, research stated, "High mobility group box 1 (HMGB1) is a ubiquitous nuclear protein with multi-functions and plays an important role in tumorigenesis and metastasis in various human cancers. In the present study, we found that HMGB1 induced migration of human non-small cell lung cancer (NSCLC) cells by up-regulating integrin alpha v beta 3 expression."

The news correspondents obtained a quote from the research from the Huazhong University of Science and Technology, "Further investigation evidenced that HMGB1 activated Toll-like receptor 4 (TLR4) and NF-kappa B, which was responsible for alpha v beta 3 up-regulation. Furthermore, HMGB1-induced integrin alpha v beta 3 expression led to focal adhesion kinase (FAK) phosphorylation and increased paxillin and talin mRNA expression. Knockdown HMGB1 inhibited xenograft tumor metastasis in athymic mice."

According to the news reporters, the research concluded: "Taken together, our findings suggested that HMGB1 enhances tumor cell migration ability by activating alpha v beta 3/FAK through TLR4/NF-kappa B signaling, leading to metastasis of NSCLC."


Our news journalists report that additional information may be obtained by contacting J.H. Zhu, Huazhong University of Science & Technology, Tongji Med College, Wuhan Hosp 1, Clin Immunol Lab, Wuhan 430022, Hubei, People's Republic of China. Additional authors for this research include J. Luo, Y.C. Li, M. Jia, Y.Q. Wang, Y. Huang and S.H. Ke.

Keywords for this news article include: Hubei, People's Republic of China, Asia, Non-Small Cell Lung Cancer, Transcription Factors, Focal Adhesion Kinase, Immunologic Receptors, DNA-Binding Proteins, Membrane Proteins, Nuclear Proteins, Lung Neoplasms, Cell Motility, NF-kappa B, Integrins, Oncology, Genetics, Huazhong University of Science and Technology.

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New Non-Small Cell Lung Cancer Study Findings Have Been Reported by Investigators at Oslo University Hospital (Estrogen receptor expression and gene promoter methylation in non-small cell lung cancer - a short report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Non-Small Cell Lung Cancer are discussed in a new report. According to news reporting out of Oslo, Norway, by NewsRx editors, research stated, "In the past, anomalous estrogen receptor (ER) regulation has been associated with various lung pathologies, but so far its involvement in lung cancer initiation and/or progression has remained unclear. Here, we aimed at assessing in vivo and in vitro ER expression and its possible epigenetic regulation in non-small cell lung cancer (NSCLC) samples and their corresponding normal tissues and cells."

Financial support for this research came from Kreftforeningen.

Our news journalists obtained a quote from the research from Oslo University Hospital, "ER alpha and ER beta gene expression levels were assessed using real time quantitative PCR (RT-qPCR), whereas ER alpha and ER beta gene promoter methylation levels were assessed using DNA bisulfite conversion followed by pyrosequencing. We included NSCLC (n = 87) and adjacent histologically normal lung tissue samples from lung cancer patients (n = 184), primary normal bronchial epithelial-derived cell cultures (n = 11), immortalized bronchial epithelial-derived cell lines (n = 3) and NSCLC derived cell lines (n = 9). Using RT-qPCR we found significantly lower ER alpha and ER beta expression levels in the NSCLC tissue samples compared to their normal adjacent tissue samples. These lower ER expression levels were confirmed in vitro using primary normal bronchial epithelial-derived cell cultures, immortalized bronchial epithelial-derived cell lines and NSCLC-derived cell lines. By using this latter panel of cells, we found that ER gene promoter hypermethylation was associated with decreased ER expression. In addition we found that in tumor and normal lung tissues, smoking was associated with decreased ER expression and that normal lung tissues with a low ER beta expression level exhibited increased smoking-related DNA adducts."

According to the news editors, the research concluded: "Taken together, our results indicate that decreased ER expression mediated by DNA methylation may play a role in NSCLC development."


Our news journalists report that additional information may be obtained by contacting X. Tekpli, Oslo Univ Hosp, Inst Canc Res, Dept. of Genet, Oslo, Norway. Additional authors for this research include V. Skaug, R. Baera, D.H. Phillips, A. Haugen and S. Mollerup.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13402-016-0295-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Norway, Europe, Non-Small Cell Lung Cancer, Transcription Factors, DNA-Binding Proteins, Proteins, Genetics, Estrogen
New Non-Small Cell Lung Cancer Study Findings Recently Were Reported by Researchers at China Medical University and Hospital (Overexpression of CASS4 promotes invasion in non-small cell lung cancer by activating the AKT signaling pathway and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news originating from Shenyang, People's Republic of China, by NewsRx correspondents, research stated, "The role of Crk-associated substrate (CAS) family members in regulating invasion and metastasis has been described in several cancers. As the fourth member of the CAS family, CASS4 is also related with positive lymph node metastasis and poor prognosis in lung cancer."

Funders for this research include National Natural Science Foundation of China, Natural Science Foundation of Liaoning Province, Research Foundation for the Doctoral Program.

Our news journalists obtained a quote from the research from China Medical University and Hospital, "However, the underlying mechanisms and downstream effectors of CASS4 in the development and progression of non-small cell lung cancer (NSCLC) remain unclear. In this study, CASS4 overexpression inhibited E-cadherin expression and enhanced invasion in NSCLC cell line transfected with CASS4 plasmid, while CASS4 depletion upregulated E-cadherin expression and inhibited invasion in NSCLC cell line transfected with CASS4 siRNA. The effect of CASS4 overexpression in facilitating invasion of NSCLC cells was reversed by restoring E-cadherin expression, which indicates that CASS4 may promote invasion by inhibiting E-cadherin expression. Subsequent immunohistochemistry results confirmed that CASS4 overexpression correlated with loss of E-cadherin expression. We next investigated the phosphorylation levels of focal adhesion kinase (FAK), p38, extracellular signal-related kinase (ERK), and AKT after CASS4 plasmid or CASS4 siRNA transfection. CASS4 facilitated AKT (Ser473) phosphorylation. Treatment with an AKT phosphorylation inhibitor reversed the increased invasive capacity and downregulation of E-cadherin protein induced by CASS4 overexpression."

According to the news editors, the research concluded: "Taken together, the present results indicate that CASS4 may promote NSCLC invasion by activating the AKT signaling pathway, thereby inhibiting E-cadherin expression."

For more information on this research see: Overexpression of CASS4 promotes invasion in non-small cell lung cancer by activating the AKT signaling pathway and inhibiting E-cadherin expression. Tumor Biology, 2016;37(11):15157-15164. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news correspondents report that additional information may be obtained from Y. Miao, China Med Univ, Coll Basic Med Sci, Shenyang, People's Republic of China. Additional

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5411-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Non-Small Cell Lung Cancer, Cell Adhesion Molecules, Enzymes and Coenzymes, Membrane Proteins, Lung Neoplasms, Cell Research, Glycoproteins, Cadherins, Oncology, Kinase, China Medical University and Hospital.

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Oncology - Non-Small Cell Lung Cancer

New Non-Small Cell Lung Cancer Study Findings Recently Were Reported by Researchers at Faculty of Medicine (MEK inhibitors against MET-amplified non-small cell lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Non-Small Cell Lung Cancer have been presented. According to news reporting originating from Osaka, Japan, by NewsRx correspondents, research stated, "Several receptor tyrosine kinases (RTKs) including EGFR, ALK, and MET have been identified as therapeutic targets in non-small cell lung cancer (NSCLC). Among the downstream pathways of RTKs, the MAPK pathway is particularly important for cancer cell proliferation, differentiation, and survival."

Our news editors obtained a quote from the research from the Faculty of Medicine, "In this study, the effects of MEK inhibitors (trametinib and PD0325901) in several NSCLC cell lines with driver gene alterations, especially RTK genes, were tested in vitro using an MTT assay, and a wide range of sensitivities was found. In particular, all the EGFR-mutated cell lines were resistant to MEK inhibitors, whereas all the MET-amplified cell lines were sensitive. A bioinformatics technique and western blot analyses showed that the PI3K/AKT pathway is more activated in EGFRmutated NSCLC than in MET-amplified NSCLC, and a PI3K inhibitor enhanced the sensitivity to trametinib in the EGFR-mutated cell lines, suggesting that this pathway is associated with resistance to MEK inhibitors. Although the HCC827 cell line (EGFR mutation) was resistant to MEK inhibitors, the HCC827CNXR cell line, whose driver gene shifts from EGFR to MET, exhibited enhanced sensitivity to MEK inhibitors, indicating the biological importance of the MAPK pathway for MET-amplified NSCLC. Furthermore, a synergistic effect of crizotinib (a MET inhibitor) and trametinib was observed in MET-amplified NCLC cell lines."

According to the news editors, the research concluded: "Our findings indicate that the MAPK pathway is biologically important for MET-amplified NSCLC and strongly encourage the development of combination therapy with a MET inhibitor and a MEK inhibitor against MET-amplified NSCLC."


Keywords for this news article include: Osaka, Japan, Asia, Non-Small Cell Lung Cancer, Lung Neoplasms, Cell Line, Oncology, Genetics, Faculty of Medicine.

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**Oncology - Non-Small Cell Lung Cancer**

**New Non-Small Cell Lung Cancer Study Findings Recently Were Reported by Researchers at Jiangsu University (The functional status of DNA repair pathways determines the sensitization effect to cisplatin in non-small cell lung cancer cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news reporting out of Zhenjiang, People's Republic of China, by NewsRx editors, research stated, "Cisplatin can cause a variety of DNA crosslink lesions including intra-strand and inter-strand crosslinks (ICLs), which are associated with the sensitivity of cancer cells to cisplatin. Here, we aimed to assess the contribution of the Fanconi anemia (FA), homologous recombination (HR) and nucleotide excision repair (NER) pathways to cisplatin resistance in non-small cell lung cancer (NSCLC)-derived cells."

Our news journalists obtained a quote from the research from Jiangsu University, "The expression of FA, HR and NER pathway-associated genes was assessed by RT-qPCR and Western blotting. siRNAs were used to knock down the expression of these genes. CCK-8 and flow cytometry assays were used to assess the viability and apoptotic rate of NSCLC-derived cells, respectively. Immunofluorescence and alkaline comet assays were used to assess the repair of ICLs. We found that acquired cisplatin-resistant NSCLC-derived A549/DR cells exhibited markedly enhanced FA and HR repair pathway capacities compared to its parental A549 cells and another independent NSCLC-derived cell line, Calu-1, which possesses a moderate innate resistance to cisplatin. siRNA-mediated silencing of the FA-associated genes FANCL and RAD18 and the HR-associated genes BRCA1 and BRCA2 significantly potentiated the sensitivity of A549/DR cells to cisplatin compared to A549 and Calu-1 cells, suggesting that the acquired cisplatin resistance in A549/DR cells may be attributed to enhanced FA and HR pathway capacities responsible for ICL repair. Although we found that expression knockdown of the NER-associated genes XPA and ERCC1 sensitized the three NSCLC-derived cell lines to cisplatin, the sensitization effect was more significant in Calu-1 cells than in A549 and A549/DR cells, implying that the innate cisplatin resistance in Calu-1 cells may result from an increased NER activity. Our results indicate that the functional status of DNA repair pathways determine the sensitivity of NSCLC cells to cisplatin."

According to the news editors, the research concluded: "Direct targeting of the pathway that is involved in cisplatin resistance may be an effective strategy to surmount cisplatin resistance in NSCLC."

For more information on this research see: The functional status of DNA repair...

Our news journalists report that additional information may be obtained by contacting J. Li, Jiangsu Univ, Dept. of Pulm Med, Affiliated Hosp, Zhenjiang 212001, People's Republic of China. Additional authors for this research include J. Li, Y.C. Chen, H. Qian, Y.J. Chen, J.Y. Su, M. Wu and T. Lan.

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Keywords for this news article include: Zhenjiang, People's Republic of China, Asia, Non-Small Cell Lung Cancer, Deoxyribonucleic Acid, Proteomics, Genetics, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Lung Neoplasms, DNA Research, DNA Repair, Cisplatin, Oncology, Jiangsu University.

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**Oncology - Non-Small Cell Lung Cancer**

**New Non-Small Cell Lung Cancer Study Results Reported from Department of Surgery (Clinical Staging of Stage I Non-Small Cell Lung Cancer in the Netherlands-Need for Improvement in an Era With Expanding Nonsurgical Treatment Options: Data From ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Non-Small Cell Lung Cancer is the subject of a report. According to news reporting from Alkmaar, Netherlands, by NewsRx journalists, research stated, "The clinical stage of non-small cell lung cancer (NSCLC) determines the initial treatment, whereas the pathologic stage best determines prognosis and the need for adjuvant treatment. In an era in which stereotactice ablative radiotherapy (SABR) has become an alternative modality to surgical intervention, clinical staging is even more important, because pathologic staging is omitted in the case of SABR."

The news correspondents obtained a quote from the research from the Department of Surgery, "The objective of this study was to determine the concordance between clinical and pathologic stage in routine clinical practice for patients with early-stage NSCLC. Prospective data were derived from the Dutch Lung Surgery Audit (DLSA) in 2013 and 2014. Patients with clinical stage I NSCLC who underwent surgical resection and had a positron emission tomographycomputed tomography (PET-CT) scan in their clinical workup were selected. Clinical and pathologic TNM (cTNM and pTNM) stages were compared. From a total of 1,790 patients with clinical stage I, 1,555 (87%) patients were included in this analysis. Concordance between cTNM and pTNM was 59.9%. Of the patients with clinical stage I, 22.6% were upstaged to pathologic stage II or higher. In total, 14.9% of all patients with clinical stage I had nodal metastases, and 5.5% of all patients had unforeseen N2 disease. In patients with clinical stage T2a tumors, 21.3% had nodal metastases, 14.5% being N1 and 6.7% being N2 disease. Concordance between clinical and pathologic stage is 59.9%. In patients with clinical stage I NSCLC, 22.6% were upstaged to pathologic stage II or higher, which is an indication for..."
adjuvant chemotherapy."

According to the news reporters, the research concluded: "Improvement in accuracy of staging is thus needed, particularly for these patients."


Our news journalists report that additional information may be obtained by contacting D.J. Heineman, Medical Center Alkmaar, Dept. of Surg, NL-1815 JD Alkmaar, Netherlands. Additional authors for this research include M.G. ten Berge, J.M. Daniels, M.I. Versteegh, P.J. Marang-van de Mheen, M.W. Wouters and W.H. Schreurs.

Keywords for this news article include: Alkmaar, Netherlands, Europe, Non-Small Cell Lung Cancer, Lung Neoplasms, Oncology, Surgery, Department of Surgery.

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**Oncology - Non-Small Cell Lung Cancer**

**New Non-Small Cell Lung Cancer Study Results from Shanghai Jiao-Tong University Described (Nrf2 but not autophagy inhibition is associated with the survival of wild-type epidermal growth factor receptor non-small cell lung cancer cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Non-Small Cell Lung Cancer. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Non-small cell lung cancer (NSCLC) is one of the most common malignancies in the world. Icotinib and Gefitinib are two epidermal growth factor receptor (EGFR) tyrosine kinase inhibitors (TKIs) that have been used to treat NSCLC."

Funders for this research include National Natural Science Foundation of China, Shanghai Committee of Science and Technology, China, NIAAA, National Center for Research Resources, National Institute of General Medical Sciences, NIH.

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "While it is well known that mutations of EGFR can affect the sensitivity of NSCLC to the EGFR-TKI, other mechanisms may also be adopted by lung cancer cells to develop resistance to EGFR-TKI treatment. Cancer cells can use multiple adaptive mechanisms such as activation of autophagy and Nrf2 to protect against various stresses and chemotherapeutic drugs. Whether autophagy or Nrf2 activation contributes to the resistance of NSCLC to EGFR-TKI treatment in wild-type EGFR NSCLC cells remains elusive. In the present study, we confirmed that Icotinib and Gefitinib induced apoptosis in EGFR mutant HCC827 but not in EGFR wild-type A549 NSCLC cells. Icotinib and Gefitinib did not induce autophagic flux or inhibit mTOR in A549 cells. Moreover, suppression of autophagy by chloroquine, a lysosomal inhibitor, did not affect Icotinib- or Gefitinib-induced cell death in A549 cells. In contrast, Brusatol, an Nrf2 inhibitor, significantly suppressed the cell survival of A549 cells. However, Brusatol did not
further sensitize A549 cells to EGFR TKI-induced cell death."

According to the news editors, the research concluded: "Results from this study suggest that inhibition of Nrf2 can decrease cell vitality of EGFR wild-type A549 cells independent of autophagy."

For more information on this research see: Nrf2 but not autophagy inhibition is associated with the survival of wild-type epidermal growth factor receptor non-small cell lung cancer cells. Toxicology and Applied Pharmacology, 2016;310():140-149. Toxicology and Applied Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Toxicology and Applied Pharmacology - www.journals.elsevier.com/toxicology-and-applied-pharmacology/)

Our news journalists report that additional information may be obtained by contacting H. Zhong, Shanghai Jiao Tong University, Shanghai Chest Hosp, Dept. of Pulm, Shanghai 200030, People's Republic of China. Additional authors for this research include Y. Li, H.M. Ni, W.X. Ding and H. Zhong.

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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Tyrosine Kinase Inhibitors, Non-Small Cell Lung Cancer, Growth Factor Receptors, Drugs and Therapies, Membrane Proteins, Peptide Receptors, Gefitinib Therapy, Antineoplastics, Pharmaceuticals, EGFR Inhibitors, Lung Neoplasms, Oncology, Genetics, Shanghai Jiao-Tong University.

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Nosocomial Infections

New Nosocomial Infections Study Findings Reported from Shanghai Jiao-Tong University (Systematic Mutational Analysis of Histidine Kinase Genes in the Nosocomial Pathogen Stenotrophomonas maltophilia Identifies BfmAK System Control of Biofilm ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nosocomial Infections. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "The Gram-negative bacterium Stenotrophomonas maltophilia lives in diverse ecological niches. As a result of its formidable capabilities of forming biofilm and its resistance to multiple antibiotic agents, the bacterium is also a nosocomial pathogen of serious threat to the health of patients whose immune systems are suppressed or compromised."

Financial supporters for this research include National Natural Science Foundation of China (NSFC), Chinese Academy of Sciences (CAS).

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University. "Besides the histidine kinase RpfC, the two-component signal transduction system (TCS), which is the canonical regulatory machinery used by most bacterial pathogens, has never been experimentally investigated in S. maltophilia Here, we annotated 62 putative histidine kinase genes in the S. maltophilia genome and successfully obtained 51 mutants by systematical insertional inactivation. Phenotypic characterization identified a series of mutants with
deficiencies in bacterial growth, swimming motility, and biofilm development. A TCS, named here BfmA-BfmK (Smlt4209-Smlt4208), was genetically confirmed to regulate biofilm formation in *S. maltophilia*. Together with interacting partner prediction and chromatin immunoprecipitation screens, six candidate promoter regions bound by BfmA in vivo were identified. We demonstrated that, among them, BfmA acts as a transcription factor that binds directly to the promoter regions of bfmA-bfmK and Smlt0800(acoT), a gene encoding an acyl coenzyme A thioesterase that is associated with biofilm development, and positively controls their transcription.

According to the news editors, the research concluded: "Genome-scale mutational analyses of histidine kinase genes and functional dissection of BfmK-BfmA regulation in biofilm provide genetic information to support more in-depth studies on cellular signaling in *S. maltophilia*, in the context of developing novel approaches to fight this important bacterial pathogen."


Our news journalists report that additional information may be obtained by contacting Z. Liu, School of Pharmacy, Shanghai Jiao Tong University, Shanghai, People's Republic of China. Additional authors for this research include F.F. Wang, B.Z. Ren, W. Liu, Z. Liu and W. Qian.

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Keywords for this news article include: Asia, Kinase, Shanghai, Genetics, Histidine, Xanthomonadaceae, Cyclic Amino Acids, Gammaproteobacteria, Enzymes and Coenzymes, Essential Amino Acids, Nosocomial Infections, Gram Negative Bacteria, People's Republic of China, *Stenotrophomonas maltophilia*, Gram Negative Aerobic Bacteria, Nosocomial Diseases and Conditions.

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**Nuclear Magnetic Resonance**

**New Nuclear Magnetic Resonance Study Results Reported from Chiba University (Application of Solid-State NMR Relaxometry for Characterization and Formulation Optimization of Grinding-Induced Drug Nanoparticle)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nuclear Magnetic Resonance. According to news reporting originating from Chiba, Japan, by NewsRx correspondents, research stated, "The formation mechanism of drug nanoparticles was investigated using solid-state nuclear magnetic resonance (NMR) techniques for the efficient discovery of an optimized nanoparticle formulation. The cogrinding of nifedipine (NIF) with polymers, including hydroxypropyl methylcellulose (HPMC) and polyvinylpyrrolidone (PVP), and sodium dodecyl
sulfate (SDS) was performed to prepare the NIF nanoparticle formulations.

Financial supporters for this research include Japan Society for the Promotion of Science, Uehara Memorial Foundation, Japan Agency for Medical Research and Development, Hosokawa Powder Technology Foundation.

Our news editors obtained a quote from the research from Chiba University, "Then, solid-state NMR relaxometry was used for the nanometer-order characterization of NIF in the polymer matrix. Solid-state NMR measurements revealed that the crystal size of NIF was reduced to several tens of nanometers with amorphization of NIF by cogrinding with HPMC and SDS for 100 min. Similarly, the size of the NIF crystal was reduced to less than 90 nm in the 40 min ground mixture of NIF/PVP/SDS. Furthermore, 100 min grinding of NIF/PVP/SDS induced amorphization of almost all the NIF crystals followed by nanosizing. The hydrogen bond between NIF and PVP led to the efficient amorphization of NIF in the NIF/PVP/SDS system compared with NIF/HPMC/SDS system. The efficient nanosizing of the NIF crystal in the solid state, revealed by the solid-state NMR relaxation time measurements, enabled the formation of large amounts of NIF nanoparticles in water followed by the polymer dissolution. In contrast, excess amorphization of the NIF crystals failed to efficiently prepare the NIF nanoparticles. The solid-state characterization of the crystalline NIF revealed good correlation with the NIF nanoparticles formation during aqueous dispersion."

According to the news editors, the research concluded: "Furthermore, the solid-state NMR measurements including relaxometry successfully elucidated the nanometer-order dispersion state of NIF in polymer matrix, leading to the discovery of optimized conditions for the preparation of suitable drug nanoparticles."


The news editors report that additional information may be obtained by contacting K. Ueda, Graduate School of Pharmaceutical Sciences, Chiba University, 1-8-1 Inohana, Chuo-ku, Chiba 260-8675, Japan. Additional authors for this research include K. Higashi and K. Moribe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00781. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chiba, Japan, Nanoparticle, Nanotechnology, Drugs and Therapies, Emerging Technologies, Diagnostics and Screening, Nuclear Magnetic Resonance.

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**Proteins - Nucleoproteins**

**New Nucleoproteins Findings from Fudan University Described**

(Distinct roles of the histone chaperones NAP1 and NRP and the chromatin-remodeling factor INO80 in somatic homologous recombination in Arabidopsis thaliana)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Proteins - Nucleoproteins have been presented. According
to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Homologous recombination (HR) of nuclear DNA occurs within the context of a highly complex chromatin structure. Despite extensive studies of HR in diverse organisms, mechanisms regulating HR within the chromatin context remain poorly elucidated."

Funders for this research include National Basic Research Program of China, Agence Nationale de la Recherche.

Our news journalists obtained a quote from the research from Fudan University, "Here we investigate the role and interplay of the histone chaperones NUCLEOSOME ASSEMBLY PROTEIN1 (NAP1) and NAP1-RELATED PROTEIN (NRP) and the ATP-dependent chromatin-remodeling factor INOSITOL AUXOTROPHY80 (INO80) in regulating somatic HR in Arabidopsis thaliana. We show that simultaneous knockout of the four AtNAP1 genes and the two NRP genes in the sextuple mutant m123456-1 barely affects normal plant growth and development. Interestingly, compared with the respective AtNAP1 (m123-1 and m1234-1) or NRP (m56-1) loss-of-function mutants, the sextuple mutant m123456-1 displays an enhanced plant hypersensitivity to UV or bleomycin treatments. Using HR reporter constructs, we show that AtNAP1 and NRP act in parallel to synergistically promote somatic HR. Distinctively, the AtINO80 loss-of-function mutation (atino80-5) is epistatic to m56-1 in plant phenotype and telomere length but hypostatic to m56-1 in HR determinacy. Further analyses show that expression of HR machinery genes and phosphorylation of H2A.X (-H2A.X) are not impaired in the mutants."

According to the news editors, the research concluded: "Collectively, our study indicates that NRP and AtNAP1 synergistically promote HR upstream of AtINO80-mediated chromatin remodeling after the formation of -H2A.X foci during DNA damage repair."


Our news journalists report that additional information may be obtained by contacting A.W. Dong, Fudan University, Int Associated Lab CNRS Fudan HUNAU Plant Epigeno, State Key Lab Genet EngnSch Life SciInst Plant, Dept. of BiochemCollaborat Innovat Center Genet & Dev., Shanghai 20043, People's Republic of China. Additional authors for this research include J. Gao, J. Ma, L. Cao, C. Zhang, Y. Zhu, A.W. Dong and W.H. Shen.

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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Molecular Chaperones, Proteins, Genetics, Histone Chaperones, Nucleoproteins, Chromatin, Histones, Fudan University.

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New Obesity Data Have Been Reported by Investigators at University of Mississippi (Nitric oxide synthase-mediated blood pressure regulation in obese melanocortin-4 receptor-deficient pregnant rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Obesity is now available. According to news reporting from Jackson, Mississippi, by NewsRx journalists, research stated, "Although obesity increases the risk for hypertension in pregnancy, the mechanisms responsible are unknown. Increased nitric oxide (NO) production results in vasodilation and reduced blood pressure during normal pregnancy in lean rats; however, the role of NO is less clear during obese pregnancies."

Funders for this research include HHS | NIH | National Heart, Lung, and Blood Institute (NHBLI), HHS | NIH | National Institute of General Medical Sciences (NIGMS), HHS | NIH | National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).

The news correspondents obtained a quote from the research from the University of Mississippi, "We examined the impact of obesity on NO synthase (NOS)-mediated regulation of blood pressure during pregnancy by testing the hypothesis that NOS activity, expression, and regulation of vascular tone and blood pressure are reduced in obese pregnant rats. At gestational day 19, melanocortin-4 receptor (MC4R)-deficient obese rats (MC4R) had greater body weight and fat mass with elevated blood pressure and circulating sFlt-1 levels compared with MC4R pregnant rats. MC4R pregnant rats also had less circulating cGMP levels and reduced total NOS enzymatic activity and expression in mesenteric arteries. Despite decreased biochemical measures of NO/NOS in MC4R rats, NOS inhibition enhanced vasoconstriction only in mesenteric arteries from MC4R rats, suggesting greater NOS-mediated tone. To examine the role of NOS on blood pressure regulation in obese pregnant rats, MC4R and MC4R pregnant rats were administered the nonselective NOS inhibitor N-G-nitro-L-arginine methyl ester ((L)-NAME, 100 mg/l) from gestational day 14 to 19 in drinking water. The degree by which (L)-NAME raised blood pressure was similar between obese and lean pregnant rats."

According to the news reporters, the research concluded: "Although MC4R obese pregnant rats had elevated blood pressure associated with reduced total NOS activity and expression, they had enhanced NOS-mediated attenuation of vasoconstriction, with no evidence of alterations in NOS-mediated regulation of blood pressure."


Our news journalists report that additional information may be obtained by contacting F.T. Spradley, University of Mississippi, Medical Center, Womens Hlth Res Center, Jackson, MS 39216, United States. Additional authors for this research include J.M. Sasser, J.B. Musall, J.C. Sullivan and J.P. Granger.

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Keywords for this news article include: Jackson, Mississippi, United States, North
New Obesity Findings Has Been Reported by Investigators at Biomedical Research Institute (Prenatal nutrition and the risk of adult obesity: Long-term effects of nutrition on epigenetic mechanisms regulating gene expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Solid epidemiological evidence indicates that part of the risk of obesity in adulthood could be programmed during prenatal development by the quality of maternal nutrition. Nevertheless, the molecular mechanisms involved are mostly unknown, which hinders our capacity to develop effective intervention policies."

Our news journalists obtained a quote from the research from Biomedical Research Institute, "Here, we discuss the hypothesis that mechanisms underlying prenatal programming of adult risk are epigenetic and sensitive to environmental cues such as nutrition. While the information encoded in DNA is essentially stable, regulatory epigenetic mechanisms include reversible, covalent modifications of DNA and chromatin, such as methylation, acetylation etc. It is known that dietary availability of methyl donors has an impact on the patterns of gene expression by affecting DNA methylation at regulatory regions, a likely basis for reprogramming developmental plasticity. The Agouti and Axin-Psed genes, as well as the embryonic growth factor IGF2/H19 locus are examples of diet-induced modulation of phenotypic traits by affecting methylation of gene-regulatory regions. Recent work has evidenced an unsuspected role for chromatin as metabolic sensor. Chromatin is susceptible to a number of post-translational modifications that modulate gene expression, among them the GlcNAcylation of histone proteins and other epigenetic regulators. Intracellular levels of the precursor molecule UDP-GlcNAc, and hence the degree of global chromatin GlcNAcylation, depend on the energetic state of the cell, making GlcNAcylation a functional link between nutrition and regulation of gene expression."

According to the news editors, the research concluded: "Dietary interference with these regulatory mechanisms could effectively counteract the early-life programming of adult risk."

The news correspondents report that additional information may be obtained from E. Navarro, Bellvitge Biomed Res Inst IDIBELL, Mol Oncol Lab, Barcelona 08908, Spain. Additional authors for this research include A.N. Funtikova, M. Fito and H. Schröder.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jnutbio.2016.03.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Nutritional and Metabolic Diseases and Conditions, Proteins, Article Review, Epidemiology, Genetics, Cell Nucleus Structures, Chromosome Structures, Risk and Prevention, Nutrition Disorders, Intranuclear Space, Diet and Nutrition, Nucleoproteins, Overnutrition, Bariatrics, Chromatin, Obesity, Biomedical Research Institute.

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**New Obesity Findings Has Been Reported by Investigators at Kuwait Institute for Scientific Research (Total Energy Expenditure in Obese Kuwaiti Primary School Children Assessed by the Doubly-Labeled Water Technique)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Obesity is the subject of a report. According to news originating from Safat, Kuwait, by NewsRx correspondents, research stated, "The aim of this pilot study was to assess body composition and total energy expenditure (TEE) in 35 obese 7-9 years old Kuwaiti children (18 girls and 17 boys). Total body water (TBW) and TEE were assessed by doubly-labeled water technique."

Our news journalists obtained a quote from the research from Kuwait Institute for Scientific Research, "TBW was derived from the intercept of the elimination rate of deuterium and TEE from the difference in elimination rates of O-18 and deuterium. TBW was used to estimate fat-free mass (FFM), using hydration factors for different ages and gender. Fat mass (FM) was calculated as the difference between body weight and FFM. Body weight was not statistically different but TBW was significantly higher (p = 0.018) in boys (44.9% +/- 3.3%) than girls (42.4% +/- 3.0%), while girls had significantly higher estimated FM (45.2 +/- 3.9 weight % versus 41.6% +/- 4.3%; p = 0.014). TEE was significantly higher in boys (2395 +/- 349 kcal/day) compared with girls (1978 +/- 169 kcal/day); p = 0.001. Estimated physical activity level (PAL) was significantly higher in boys; 1.61 +/- 0.167 versus 1.51 +/- 0.870; p = 0.034."

According to the news editors, the research concluded: "Our results provide the first dataset of TEE in 7-9 years old obese Kuwaiti children and highlight important gender differences to be considered during the development of school based interventions targeted to combat childhood obesity."

New Obesity Findings from Centers for Disease Control and Prevention Discussed (The role of obesity in the relation between total water intake and urine osmolality in US adults, 2009-2012)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating from Hyattsville, Maryland, by NewsRx correspondents, research stated, "Adequate water intake is critical to physiologic and cognitive functioning. Although water requirements increase with body size, it remains unclear whether weight status modifies the relation between water intake and hydration status."

Our news editors obtained a quote from the research from Centers for Disease Control and Prevention, "We examined how the association between water intake and urine osmolality, which is a hydration biomarker, varied by weight status. NHANES cross-sectional data (2009-2012) were analyzed in 9601 nonpregnant adults aged >= 20 y who did not have kidney failure. Weight status was categorized with the use of body mass index on the basis of measured height and weight (underweight or normal weight, overweight, and obesity). Urine osmolality was determined with the use of freezing-point depression osmometry. Hyphydration was classified according to the following age dependent formula: >= 831 mOsm/kg - [3.4 X (age - 20 y)]. Total water intake was determined with the use of a 24-h dietary recall and was dichotomized as adequate or low on the basis of the Institute of Medicine's adequate intake recommendations for men and women (men: >= 3.7 or <3.7 L; nonlactating women: >= 2.7 or <2.7 L; lactating women: >= 3.8 or <3.8 L for adequate or low intakes, respectively). We tested interactions and conducted linear and log-binomial regressions. Total water intake (P = 0.002), urine osmolality (P < 0.001), and hypohydration prevalence (P < 0.001) all increased with higher weight status. Interactions between weight status and water intake status were significant in linear (P = 0.005) and log-binomial (P = 0.015) models, which were then stratified. The prevalence ratio of hypohydration between subjects with adequate water intake and those with low water intake was 0.56 (95% CI: 0.43, 0.73) in adults who were underweight or normal weight, 0.67 (95% CI: 0.57, 0.79) in adults who were overweight, and 0.78 (95% CI: 0.70, 0.88) in adults who were obese."

According to the news editors, the research concluded: "On a population level, obesity modifies the association between water intake and hydration status."

For more information on this research see: The role of obesity in the relation

The news editors report that additional information may be obtained by contacting A.Y. Rosinger, CDC, Div Hlth & Nutr Examinat Surveys, Natl Center Hlth Stat, Hyattsville, MD, United States. Additional authors for this research include H.G. Lawman, L.J. Akinbami and C.L. Ogden.

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Keywords for this news article include: Hyattsville, Maryland, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Centers for Disease Control and Prevention.

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**Nutritional and Metabolic Diseases and Conditions -…**

**New Obesity Findings from Monash University Described (Circadian regulation of lipid metabolism)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting from Melbourne, Australia, by NewsRx editors, the research stated, "The circadian system temporally coordinates daily rhythms in feeding behaviour and energy metabolism. The objective of the present paper is to review the mechanisms that underlie circadian regulation of lipid metabolic pathways."

The news correspondents obtained a quote from the research from Monash University, "Circadian rhythms in behaviour and physiology are generated by master clock neurons in the suprachiasmatic nucleus (SCN). The SCN and its efferent targets in the hypothalamus integrate light and feeding signals to entrain behavioural rhythms as well as clock cells located in peripheral tissues, including the liver, adipose tissue and muscle. Circadian rhythms in gene expression are regulated at the cellular level by a molecular clock comprising a core set of clock genes/proteins. In peripheral tissues, hundreds of genes involved in lipid biosynthesis and fatty acid oxidation are rhythmically activated and repressed by clock proteins, hence providing a direct mechanism for circadian regulation of lipids. Disruption of clock gene function results in abnormal metabolic phenotypes and impaired lipid absorption, demonstrating that the circadian system is essential for normal energy metabolism. The composition and timing of meals influence diurnal regulation of metabolic pathways, with food intake during the usual rest phase associated with dysregulation of lipid metabolism. Recent studies using metabolomics and lipidomics platforms have shown that hundreds of lipid species are circadian-regulated in human plasma, including but not limited to fatty acids, TAG, glycerophospholipids, sterol lipids and sphingolipids."

According to the news reporters, the research concluded: "In future work, these lipid profiling approaches can be used to understand better the interaction between diet, mealtimes and circadian rhythms on lipid metabolism and risk for obesity and metabolic diseases."

For more information on this research see: Circadian regulation of lipid metabolism.
New Obesity Findings from Rutgers State University Outlined (High phenolics Rutgers Scarlet Lettuce improves glucose metabolism in high fat diet-induced obese mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news originating from New Brunswick, New Jersey, by NewsRx correspondents, research stated, "Scope: The ability of high phenolic Rutgers Scarlet Lettuce (RSL) to attenuate metabolic syndrome and gut dysbiosis was studied in very high fat diet (VHFD)-fed mice. Phenolic absorption was assessed in vivo and in a gastrointestinal tract model."

Funders for this research include National Center for Complementary and Alternative Medicine, Office of Dietary Supplements, National Institute of General Medical Sciences.

Our news journalists obtained a quote from the research from Rutgers State University, "Mice were fed VHFD, VHFD supplemented with RSL (RSL-VHFD) or store-purchased green lettuce (GL-VHFD), or low-fat diet (LFD) for 13 weeks. Compared to VHFD or GL-VHFD-fed groups, RSL-VHFD group showed significantly improved oral glucose tolerance (p <0.05). Comparison of VHFD, RSL-VHFD, and GL-VHFD groups revealed no significant differences with respect to insulin tolerance, hepatic lipids, body weight gain, fat mass, plasma glucose, triglycerides, free fatty acid, and lipopolysaccharide levels, as well as relative abundances of major bacterial phyla from 16S rDNA amplicon data sequences (from fecal and cecal samples). However, RSL and GL-supplementation increased abundance of several taxa involved in plant polysaccharide degradation/fermentation. RSL phenolics chlorogenic acid, quercetin-3-glucoside, and quercetin-malonyl-glucoside were bioaccessible in the TIM-1 digestion model, but had relatively low recovery. RSL phenolics contributed to attenuation of post-prandial hyperglycemia."

According to the news editors, the research concluded: "Changes in gut microbiota were likely due to microbiota accessible carbohydrates in RSL and GL rather than RSL phenolics, which may be metabolized, absorbed, or degraded before reaching the colon."

The news correspondents report that additional information may be obtained from I. Raskin, Rutgers State University, Dept. of Plant Biol, New Brunswick, NJ 08901, United States. Additional authors for this research include D.E. Roopchand, A. Poulev, P. Kuhn, I. Armas, W.D. Johnson, A. Oren, D. Ribnicky, E. Zelzion, D. Bhattacharya and I. Raskin.

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Keywords for this news article include: New Brunswick, New Jersey, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Bariatrics, Obesity, Rutgers State University.

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Nutritional and Metabolic Diseases and Conditions -...

New Obesity Findings from University of Chicago Described
(Relationship Between Obesity, Hypertension, and Aldosterone Production in Postmenopausal African American Women: A Pilot Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating in Chicago, Illinois, by NewsRx journalists, research stated, "Increased abdominal obesity is associated with increased cardiovascular risk, especially in African American women. The adipocyte is documented to produce a number of inflammatory factors including the hormone aldosterone."

The news reporters obtained a quote from the research from the University of Chicago, "There are very few data documenting aldosterone production from adipocytes of postmenopausal women as well as data demonstrating the effects of angiotensin receptor blockade (ARB) on its production in predominately African American women. The authors hypothesize that increased central adipocyte mass in obese postmenopausal women contributes to increased production of aldosterone that is suppressed with the ARB azilsartan medoxomil. The authors tested this hypothesis in a double-blind, placebo-controlled pilot study of 34 hypertensive postmenopausal women (mean age 57.5 +/- 7.5 years), 91% of whom were African American. Patients had a mean 24-hour ambulatory systolic blood pressure of 127 +/- 13 mm Hg off any blocker of the renin-angiotensin system but while taking other antihypertensive medications. The authors further validated aldosterone production in a nested cohort of women using fat cells from a fat pad biopsy. Azilsartan reduced 24-hour urinary aldosterone by 47.3% from baseline (P=.03), with between-groups differences in urine aldosterone of -5.3 +/- 52.3% placebo vs -47.3 +/- 32.9% azilsartan (P=.07) at 6 months. An adrenal cell line treated with adipocyte-conditioned media from subcutaneous abdominal adipocytes of postmenopausal women (n=3) showed an increase in aldosterone production blocked by an ARB (1948 +/- 1297 pg/mL fat alone vs 894 +/- 438 pg/mL fat + ARB; P=.022). The authors conclude that
aldosterone is produced from subcutaneous adipocytes of obese postmenopausal women."

According to the news reporters, the research concluded: "Moreover, use of an ARB significantly reduces aldosterone production within 6 months of use in these women as well as in cells exposed to their adipocytes."


Our news correspondents report that additional information may be obtained by contacting G.L. Bakris, Univ Chicago Med, Sect Endocrinol Diabet & Metab, ASH Comprehens Hypertens Center, Dept. of Med, Chicago, IL 60637, United States. Additional authors for this research include C. Majewski, C.H. Liao and G.L. Bakris.

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Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Clinical Trials and Studies, 11-Hydroxycorticosteroids, Connective Tissue Cells, Adrenal Cortex Hormones, Nutrition Disorders, Biological Factors, Diet and Nutrition, Clinical Research, Overnutrition, Angiotensins, Hypertension, Aldosterone, Adipocytes, Bariatrics, Autacoids, Obesity, University of Chicago.

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Nutritional and Metabolic Diseases and Conditions -

New Obesity Findings from University of Minnesota Outlined (Meal Replacements Followed by Topiramate for the Treatment of Adolescent Severe Obesity: A Pilot Randomized Controlled Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news originating from Minneapolis, Minnesota, by NewsRx correspondents, research stated, "To assess the safety and efficacy of short-term meal replacement therapy followed by topiramate for body mass index (BMI) reduction in adolescents with severe obesity. Adolescents (ages 12-18 years) with severe obesity (BMI >= 1.2 times the 95th percentile or BMI >= 35 kg/m(2)) were recruited for this double-blind, randomized, placebo-controlled trial."

Our news journalists obtained a quote from the research from the University of Minnesota, "Participants completed 4 weeks of meal replacement therapy followed by randomization (1: 1) to either 24 weeks of topiramate 75 mg/day or placebo. Mean changes were compared between groups. Thirty adolescents (mean age 15.2 +/- 1.7 years, mean BMI 40.3 +/- 4.6 kg/m(2)) completed the meal replacement phase and were randomized; 21 completed the study. The difference in mean percent change in BMI between the topiramate and placebo groups was not significant (-1.9%; 95% CI: -5.2% to +1.5%; P = 0.291). Significant
improvements in visceral fat and very-low-density lipoprotein cholesterol were observed in the topiramate compared with the placebo group. There were no concerning changes in neurocognitive function or bone health."

According to the news editors, the research concluded: "In this pilot study, 4 weeks of meal replacement therapy followed by 24 weeks of low-dose topiramate compared with meal replacement therapy alone did not result in significant BMI reduction for adolescents with severe obesity."

For more information on this research see: Meal Replacements Followed by Topiramate for the Treatment of Adolescent Severe Obesity: A Pilot Randomized Controlled Trial. Obesity, 2016;24(12):2553-2561. Obesity can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

The news correspondents report that additional information may be obtained from C.K. Fox, University of Minnesota, Dept. of Pediat, Minneapolis, MN 55455, United States. Additional authors for this research include A.M. Kaizer, K.D. Rudser, B.M. Nathan, A.C. Gross, M. Sunni, M.J. Abuzeahab, B.L. Schwartz, S. Kumar, A. Petryk, C.J. Billington, J.R. Ryder and A.S. Kelly.

Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Carbonic Anhydrase Inhibitor Anticonvulsants, Central Nervous System Agents, Clinical Trials and Studies, Drugs and Therapies, Nutrition Disorders, Topiramate Therapy, Diet and Nutrition, Clinical Research, Pharmaceuticals, Overnutrition, Bariatrics, Placebos, Obesity, University of Minnesota.

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Nutritional and Metabolic Diseases and Conditions …

New Obesity Study Findings Have Been Reported by Researchers at Auckland University of Technology (Family-Centered Brief Intervention for Reducing Obesity and Cardiovascular Disease Risk: A Randomized Controlled Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Obesity are discussed in a new report. According to news reporting from Auckland, New Zealand, by NewsRx journalists, research stated, "To assess the effects of a family-centered, physical activity and nutrition 'brief' intervention (time-limited contact) on body weight and related health outcomes in primary health care patients with an elevated 5-year cardiovascular disease (CVD) risk. This study implemented a cluster randomized controlled trial design with two treatment conditions: a CVD risk assessment and one-time consultation ('usual care' control) and a CVD risk assessment and up to five home sessions that aimed to reduce obesity by encouraging physical activity and healthy eating (intervention)."

The news correspondents obtained a quote from the research from the Auckland University of Technology, "Three hundred and twenty patients aged 35 to 65 years from 16 primary health care clinics in Auckland, New Zealand, participated in the study. Intervention effects on BMI, waist circumference, blood pressure, blood cholesterol, triglycerides, 5-year
CVD risk, physical activity, and dietary patterns were assessed using generalized linear mixed models. When compared with the control group, the intervention resulted in a significant but relatively modest decrease in BMI between baseline and the 12-month follow-up (-0.633 kg m\(^{-2}\), P-adj = 0.048). Significant decreases were also observed for total cholesterol at 4 and 12 months, the total cholesterol to high-density lipoprotein cholesterol ratio at 4 months, 5-year CVD risk at 4 months, and fast food consumption at 12 months."

According to the news reporters, the research concluded: "Our findings show that a family-centered brief intervention targeting physical activity and nutrition can generate slightly better obesity-related health outcomes than usual care alone."

For more information on this research see: **Family-Centered Brief Intervention for Reducing Obesity and Cardiovascular Disease Risk: A Randomized Controlled Trial.** *Obesity*, 2016;24(11):2311-2318. *Obesity* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news journalists report that additional information may be obtained by contacting S. Duncan, Auckland University of Technology, Sch Sport & Recreat, Human Potential Center, Auckland, New Zealand. Additional authors for this research include F. Goodyear-Smith, J. McPhee, C. Zinn, A. Grontved and G. Schofield.

Keywords for this news article include: Auckland, New Zealand, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Clinical Trials and Studies, Nutrition Disorders, Diet and Nutrition, Clinical Research, Overnutrition, Cholesterol, Bariatrics, Obesity, Auckland University of Technology.

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**Nutritional and Metabolic Diseases and Conditions**…

**New Obesity Study Findings Have Been Reported from Department of Pediatrics (Setting Adolescents Up for Success: Promoting a Policy to Delay High School Start Times)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "A unique biological shift in sleep cycles occurs during adolescence causing later sleep and wake times. This shift is not matched by a concurrent modification in school start times, resulting in sleep curtailment for a large majority of adolescents."

Financial support for this research came from Leadership Education in Adolescent Health training grant.

Our news editors obtained a quote from the research from the Department of Pediatrics, "Chronic inadequate sleep is associated with poor academic performance including executive function impairments, mood, and behavioral issues, as well as adverse health outcomes such as an increased risk of obesity, hypertension, and cardiovascular disease. In order to address sleep deficits and the potential negative outcomes associated with chronic sleep deprivation, the American Academy of Pediatrics (AAP) and US Centers for Disease Control...
and Prevention (CDC) support delaying school start times for middle and high school students. We summarize current evidence, explicate the need for policy change, and urge school districts to put adolescent students' health as top priority and implement school start times consistent with their developmental needs. Whereas substantial evidence illustrating adverse consequences of inadequate sleep on psychological and physical health, and recommendations exist to adapt daytime school schedules to match sleep needs have been released, actual implementation of these recommendations have been limited."

According to the news editors, the research concluded: "This is a call to action for the implementation of AAP/CDC recommendations across the state and nation."


The news editors report that additional information may be obtained by contacting M. Barnes, UAB, Dept. of Pediat, Div Gen Pediat & Adolescent Med, Birmingham, AL 35233, United States. Additional authors for this research include K. Davis, M. Mancini, J. Ruffin, T. Simpson and K. Casazza.

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Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Risk and Prevention, Bariatrics, Obesity, Department of Pediatrics.

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**Nutritional and Metabolic Diseases and Conditions** -

**New Obesity Study Results from University of Arkansas Described**

*(Obese Mice Fed a Diet Supplemented with Enzyme-Treated Wheat Bran Display Marked Shifts in the Liver Metabolome Concurrent with Altered Gut Bacteria)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting from Little Rock, Arkansas, by NewsRx journalists, research stated, "Enzyme-treated wheat bran (ETWB) contains a fermentable dietary fiber previously shown to decrease liver triglycerides (TGs) and modify the gut microbiome in mice. It is not clear which mechanisms explain how ETWB feeding affects hepatic metabolism, but factors (i.e., xenometabolites) associated with specific microbes may be involved."

The news correspondents obtained a quote from the research from the University of Arkansas, "The objective of this study was to characterize ETWB-driven shifts in the cecal microbiome and to identify correlates between microbial changes and diet-related differences in liver metabolism in diet-induced obese mice that typically display steatosis. Five-week-old male C57BL/6J mice fed a 45%-lard based fat diet supplemented with ETWB (20% wt:wt) or rapidly
digestible starch (control) (n = 15/group) for 10 wk were characterized by using a multi-omics approach. Multivariate statistical analysis was used to identify variables that were strong discriminators between the ETWB and control groups. Body weight and liver TGs were decreased by ETWB feeding (by 10% and 25%, respectively; P< 0.001), and an index of liver reactive oxygen species was increased (by 29%, P< 0.01). The cecal microbiome showed an increase in Bacteroidetes (by 42%; P< 0.05) and a decrease in Firmicutes (by 16%; P< 0.05). Metabolites that were strong discriminators between the ETWB and control groups included decreased liver antioxidants (glutathione and a-tocopherol); decreased liver carbohydrate metabolites, including glucose; lower hepatic arachidonic acid; and increased liver and plasma I3-hydroxybutyrate. Liver transcriptomics revealed key metabolic pathways affected by ETWB, especially those related to lipid metabolism and some fed- or fasting-regulated genes. Together, these changes indicate that dietary fibers such as ETWB regulate hepatic metabolism concurrently with specific gut bacteria community shifts in C57BL/6J mice.

According to the news reporters, the research concluded: "It is proposed that these changes may elicit gut-derived signals that reach the liver via enterohepatic circulation, ultimately affecting host liver metabolism in a manner that mimics, in part, the fasting state."


Our news journalists report that additional information may be obtained by contacting S.H. Adams, University of Arkansas, Dept. of Pediat, Little Rock, AR 72205, United States. Additional authors for this research include B.D. Piccolo, M.L. Marco, E.B. Kim, M.L. Goodson, M.J. Keenan, T.N. Dunn, K.E.B. Knudsen, S.H. Adams and R.J. Martin.

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Keywords for this news article include: Little Rock, Arkansas, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Enzymes and Coenzymes, Bariatrics, Genetics, Obesity, University of Arkansas.

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**Obesity, Fitness and Wellness**

**New Obesity, Fitness and Wellness Findings from KACST Discussed (Revisiting the morbid genome of Mendelian disorders)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Obesity, Fitness and Wellness. According to news reporting originating in Riyadh, Saudi Arabia, by NewsRx journalists, research stated, "The pathogenicity of many Mendelian variants has been challenged by large-scale sequencing efforts. However, many rare and benign 'disease mutations' are difficult to analyze due to their rarity."

The news reporters obtained a quote from the research from KACST, "The Saudi Arabian variome is enriched for homozygosity due to inbreeding, a key advantage that can be
exploited for the critical examination of previously published variants. We collated all 'disease-related mutations' listed in the Human Gene Mutation Database (HGMD) and ClinVar, including 'variants of uncertain significance' (VOUS). We find that the use of public databases including 1000 Genomes, ExAC, and Kaviar can reclassify many of these variants as likely benign. Our Saudi Human Genome Program (SHGP) can reclassify many variants that are rare in public databases. Furthermore, SGPD allows us to observe many previously reported variants in the homozygous state and our extensive phenotyping of participants makes it possible to demonstrate the lack of phenotype for these variants, thus challenging their pathogenicity despite their rarity. We also find that 18 VOUS BRCA1 and BRCA2 variants that are listed in BRCA Exchange are present at least once in the homozygous state in patients who lack features of Fanconi anemia. Reassuringly, we could reciprocally demonstrate that none of those labeled as 'pathogenic' were observed in the homozygous state in individuals who lack Fanconi phenotype in our database.

According to the news reporters, the research concluded: "Our study shows the importance of revisiting disease-related databases using public resources as well as of population-specific resources to improve the specificity of the morbid genome of Mendelian diseases in humans."

For more information on this research see: Revisiting the morbid genome of Mendelian disorders. Genome Biology, 2016;17():1-7. Genome Biology can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; Genome Biology - genomebiology.com)

Our news correspondents report that additional information may be obtained by contacting M. Abouelhoda, KACST, Saudi Human Genome Program, Riyadh, Saudi Arabia. Additional authors for this research include T. Faquih, M. El-Kalioby and F.S. Alkuraya.

Keywords for this news article include: Riyadh, Saudi Arabia, Asia, Obesity, Fitness and Wellness, Genetics, KACST.

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Respiratory Tract Diseases and Conditions -...

New Obstructive Sleep Apnea Findings Reported from Harvard School of Medicine (Effect of Body Mass Index on Left Ventricular Mass in Career Male Firefighters)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea is now available. According to news reporting from Cambridge, Massachusetts, by NewsRx journalists, research stated, "Left ventricular (LV) mass is a strong predictor of cardiovascular disease (CVD) events; increased LV mass is common among US firefighters and plays a major role in firefighter sudden cardiac death. We aim to identify significant predictors of LV mass among firefighters."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "Cross-sectional study of 400 career male firefighters selected by an enriched randomization strategy. Weighted analyses were performed based on the total number of risk factors per subject with inverse probability weighting. LV mass was assessed by echocardiography (ECHO), and cardiac magnetic resonance, and normalized (indexed) for
height. CVD risk parameters included vital signs at rest, body mass index (BMI) defined obesity, obstructive sleep apnea risk, low cardiorespiratory fitness, and physical activity. Linear regression models were performed. In multivariate analyses, BMI was the only consistent significant independent predictor of LV mass indexes (all, p<0.001). A 1-unit decrease in BMI was associated with 1-unit (g/m(1.7)) reduction of LV mass/height(1.7) after adjustment for age, obstructive sleep apnea risk, and cardiorespiratory fitness."

According to the news reporters, the research concluded: "After height-indexing ECHO-measured and cardiac magnetic resonance measured LV mass, BMI was found to be a major driver of LV mass among firefighters. Our findings taken together with previous research suggest that reducing obesity will improve CVD risk profiles and decrease on-duty CVD and sudden cardiac death events in the fire service. Our results may also support targeted noninvasive screening for LV hypertrophy with ECHO among obese firefighters."


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Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Sleep Diseases and Conditions, Obstructive Sleep Apnea, Respiration Disorders, Risk and Prevention, Otolaryngology, Craniofacial, Pulmonology, Cardiology, Harvard School of Medicine.

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New Obstructive Sleep Apnea Findings from Fujian Medical University Discussed (Assessment of Upper-Airway Configuration in Obstructive Sleep Apnea Syndrome With Computed Tomography Imaging During Muller Maneuver)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea have been presented. According to news originating from Fuzhou, People's Republic of China, by NewsRx correspondents, research stated, "The purpose of this observational study was to investigate the relationship between upper-airway configuration assessed by CT imaging during the Muller maneuver state and the severity of obstructive sleep
apnea syndrome (OSAS). A total of 358 snoring subjects who underwent standard polysomnography and upper-airway configuration by using CT imaging were enrolled. According to the apnea-hypopnea index (AHI), subjects were classified into 4 groups: snoring group (simple snoring), AHI < 5; mild OSAS, 5 <= AHI < 15; moderate OSAS, 15 <= AHI < 30; and severe OSAS, AHI >= 30.

Our news journalists obtained a quote from the research from Fujian Medical University. "We also divided the upper airway into 3 parts, named the nasopharynx, oropharynx, and hypopharynx, from the CT scan and evaluated the minimal cross-sectional area (mCSA) and the shape of each airway level and calculated upper-airway length and distance from mandibular plane to hyoid bone (MPH). Multivariate logistic stepwise regression analysis identified body mass index (BMI), mCSA of nasopharynx, upper-airway length, and MPH as risk factors for the severity of OSAS. When subdivided for BMI and sex, upper-airway length was a risk factor for OSAS in non-obese (BMI < 27 kg/m(2)) and male subjects, and MPH was a risk factor only in obese (BMI >= 27 kg/m(2)) subjects. Meanwhile, mCSA of nasopharynx was significantly associated with the severity of OSAS independent of BMI. Subjects with severe OSAS have more significant abnormalities of the upper airway. Obesity, mCSA of nasopharynx, upper-airway length, and MPH may contribute to the severity of OSAS."

According to the news editors, the research concluded: "Obesity and sex should be taken into account when evaluating the abnormalities of upper-airway anatomy in snorers and patients with OSAS."

For more information on this research see: Assessment of Upper-Airway Configuration in Obstructive Sleep Apnea Syndrome With Computed Tomography Imaging During Muller Maneuver. Respiratory Care, 2016;61(12):1651-1658. Respiratory Care can be contacted at: Daedalus Enterprises Inc, 9425 N Mac Arthur Blvd, Ste 100, Irving, TX 75063-4706, USA.

The news correspondents report that additional information may be obtained from Q.C. Lin, Fujian Med Univ, Fujian Prov Sleep Disordered Breathing Clin Center, Lab Resp Dis, Dept. of Resp Med Affiliated Hosp 1, Fuzhou, Fujian Province, People's Republic of China. Additional authors for this research include G.P. Chen, B.Y. Wang, H.S. Xie, J.M. Zhao, L.H. Wu, L.D. Chen and Q.C. Lin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4187/respcare.04669. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fuzhou, People's Republic of China, Asia, Respiratory Tract Diseases and Conditions, Nervous System Diseases and Conditions, Sleep Diseases and Conditions, Intrinsic Sleep Disorders, Obstructive Sleep Apnea, Sleep Apnea Syndromes, Respiration Disorders, Risk and Prevention, Computed Tomography, Imaging Technology, Otolaryngology, Craniofacial, Pulmonology, Dyssomnias, Snoring, Fujian Medical University.

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New Obstructive Sleep Apnea Findings from Jilin University Described (Obstructive sleep apnea syndrome is a risk factor of hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea have been published. According to news reporting out of Changchun, People's Republic of China, by NewsRx editors, research stated, "Some studies investigated the association between obstructive sleep apnea syndrome (OSAS) and hypertension risk. However, the results remained inconclusive."

Our news journalists obtained a quote from the research from Jilin University, "Thus, we performed a meta-analysis to clarify the association of OSAS and hypertension risk. EVIDENCE ACQUISITION: Online electronic databases (PubMed and EMBASE) was searched. The strength of association between the OSAS and hypertension risk was assessed by calculating OR with 95% CI. EVIDENCE SYNTHESIS: A total of 6 articles with 20,637 patients on OSAS and hypertension risk met the study inclusion criteria, and were included in the meta-analysis. OSAS was associated with a significantly increased risk of hypertension (OR=1.41; 95%CI, 1.29-1.88; I²=20%). In the race subgroup analysis, Caucasians with OSAS had increased hypertension risk (OR=1.43; 95%CI, 1.29-1.59; I²=20%). In the subgroup analysis according to gender, male OSAS patients were significantly associated with risk of hypertension (OR=1.59; 95%CI, 1.16-2.17; I²=0%), while female OSAS patients were not significantly associated with risk of hypertension (OR=1.18; 95%CI, 0.80-1.73; I²=0%). All of the different severities of OSAS patients had an increased hypertension risk (mild: OR=1.26; 95%CI, 1.17-1.35; I²=45%; moderate: OR=1.50; 95%CI, 1.27-1.76; I²=46%; severe: OR=1.47; 95%CI, 1.33-1.64; I²=63%)."

According to the news editors, the research concluded: "This meta-analysis suggested that OSAS may be associated with hypertension risk."

For more information on this research see: Obstructive sleep apnea syndrome is a risk factor of hypertension. Minerva Medica. 2016;107(5):294-299. Minerva Medica can be contacted at: Edizioni Minerva Medica, Corso Bramante 83-85 Int Journals Dept., 10126 Turin, Italy.

Our news journalists report that additional information may be obtained by contacting B.S. Lin, Jilin University, China Japan Union Hosp, Dept. of Cardiac Surg, Changchun 130033, People's Republic of China. Additional authors for this research include J.H. Ma, W. Wang and B.S. Lin.

Keywords for this news article include: Changchun, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Article Review, Respiratory Tract Diseases and Conditions, Nervous System Diseases and Conditions, Sleep Diseases and Conditions, Hypertension Risk Factors, Intrinsic Sleep Disorders, Obstructive Sleep Apnea, Systolic Hypertension, Sleep Apnea Syndromes, Respiration Disorders, Risk and Prevention, Otolaryngology, Craniofacial, Pulmonology, Dyssomnias, Angiology, Jilin University.

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New Ocular Hypertension Study Findings Reported from University of Iowa (Glaucoma Risk Alleles in the Ocular Hypertension Treatment Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Eye Diseases and Conditions - Ocular Hypertension is now available. According to news reporting originating from Iowa City, Iowa, by NewsRx correspondents, research stated, "Primary open-angle glaucoma (POAG) is a major cause of blindness and visual disability. Several genetic risk factors for POAG and optic nerve features have been identified."

Our news editors obtained a quote from the research from the University of Iowa, "We measured the relative risk for glaucoma that these factors contribute to participants in the Ocular Hypertension Treatment Study (OHTS). Comparative series. One thousand fifty-seven of 1636 participants (65%) of the OHTS were enrolled in this genetics ancillary study. Samples of DNA were available from 1057 OHTS participants. Of these, 209 developed POAG (cases) and 848 did not develop glaucoma (controls) between 1994 and 2009. The frequencies of 13 risk alleles previously associated with POAG or with optic disc features in other cohorts were compared between POAG cases and controls in the OHTS cohort using analyses of variance. The 2 largest subgroups, non-Hispanic whites (n = 752; 70.7%) and blacks (n = 249, 23.7%), also were analyzed separately. The probability of glaucoma developing over the course of the OHTS was compared between participants stratified for transmembrane and coiled-coil domains 1 (TMCO1) risk alleles using Kaplan-Meier and Cox proportional hazards analyses. Association of POAG with known genetic factors. No association was detected between the known POAG risk alleles when the OHTS cohort was examined as a whole. However, in the subgroup of non-Hispanic whites, allele frequencies at the TMCO1 locus were statistically different between cases and controls (P = 0.00028). By 13 years, non-Hispanic white participants with TMCO1 risk alleles had a 12% higher cumulative frequency of glaucoma developing than participants with no TMCO1 risk alleles. Moreover, the Cox proportional hazard analysis demonstrated that TMCO1 alleles increased relative risk comparable with that of some previously analyzed clinical measures (i.e., intraocular pressure). The size of the OHTS cohort and its composition of 2 large racial subgroups may limit its power to detect some glaucoma risk factors."

According to the news editors, the research concluded: "However, TMCO1 genotype was found to increase the risk of glaucoma developing among non-Hispanic whites, the largest racial subgroup in the OHTS cohort, at a magnitude similar to clinical predictors of disease that long have been associated with glaucoma."


The news editors report that additional information may be obtained by contacting J.H. Fingert, University of Iowa, Stephen A Wynn Inst Vis Res, Iowa City, IA, United States. Additional authors for this research include B. Faga, L. Ortega, B.R. Roos, M.O. Gordon, M.A. Kass, K. Wang and J.H. Fingert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ophtha.2016.08.036. This DOI is a link to an online electronic
New Oncology Findings from Sun Yat Sen University Described (FABP5 correlates with poor prognosis and promotes tumor cell growth and metastasis in cervical cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology have been presented. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Fatty acid-binding protein 5 (FABP5) was found in our previous study to be a potential biomarker for lymph node metastasis of cervical cancer. However, the roles of FABP5 in cervical cancer remain unclear."

Financial supporters for this research include The Sun Yat-sen University Clinical Research 5010 Program, The Guangdong Natural Science Fund, The Science and Technology Program of Guangzhou.

The news correspondents obtained a quote from the research from Sun Yat Sen University, "In the present study, FABP5 expression was found to be significantly upregulated in cervical cancer tissues, and high FABP5 expression was significantly correlated with lymph node metastasis, lymphovascular space invasion, the International Federation of Gynecology and Obstetrics (FIGO) stage, and tumor size. Moreover, FABP5 was an independent factor for poor prognosis in cervical cancer patients. Silencing of FABP5 inhibited cell proliferation, colony formation, cell migration, and invasion in vitro. Furthermore, FABP5 silencing significantly reduced tumor growth and lung metastases in a murine allograft model in vivo. In addition, FABP5 silencing decreased the expression of matrix metalloproteinase-2 (MMP-2) and matrix metalloproteinase-9 (MMP-9) in vitro and in vivo."

According to the news reporters, the research concluded: "Collectively, these findings indicated that FABP5 plays an important role in the carcinogenesis and metastasis of cervical cancer, and FABP5 may be a novel predictor for prognostic assessment of cervical cancer patients."

For more information on this research see: FABP5 correlates with poor prognosis and promotes tumor cell growth and metastasis in cervical cancer. Tumor Biology, 2016;37 (11):14873-14883. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5350-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Matrix Metalloproteinase, Enzymes and Coenzymes, Metalloproteinases, Proteomics, Oncology, Cancer, Sun Yat Sen University.

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**Nursing - Oncology Nursing**

**New Oncology Nursing Data Have Been Reported by Investigators at University of Turku (Measuring trust in nurses - Psychometric properties of the Trust in Nurses Scale in four countries)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nursing - Oncology Nursing have been published. According to news originating from Turku, Finland, by NewsRx correspondents, research stated, "The purpose of this study was to examine psychometric properties of three translated versions of the Trust in Nurses Scale (TNS) and cancer patients' perceptions of trust in nurses in a sample of cancer patients from four European countries. A cross-sectional, cross-cultural, multi-site survey design was used."

Our news journalists obtained a quote from the research from the University of Turku, "The data were collected with the Trust in Nurses Scale from patients with different types of malignancies in 17 units within five clinical sites (n = 599) between 09/2012 and 06/2014. Data were analyzed using descriptive and inferential statistics, multivariate methods and psychometrics using exploratory factor analysis, Cronbach's alpha coefficients, item analysis and Rasch analysis. The psychometric properties of the data were consistent in all countries. Within the exploratory factor analysis the principal component analysis supported the one component structure (unidimensionality) of the TNS. The internal consistency reliability was acceptable. The Rasch analysis supported the unidimensionality of the TNS cross-culturally. All items of the TNS demonstrated acceptable goodness-of-fit to the Rasch model. Cancer patients trusted nurses to a great extent although between country differences were found."

According to the news editors, the research concluded: "The Trust in Nurses Scale proved to be a valid and reliable tool for measuring patients' trust in nurses in oncological settings in international contexts."


The news correspondents report that additional information may be obtained from M. Stolt, University of Turku, Dept. of Nursing Sci, Turku 20014, Finland. Additional authors for this research include A. Charalambous, L. Radwin, C. Adam, J. Katajisto, C. Lemonidou, E. Patiraki, K. Sjovall and R. Suhonen.
Keywords for this news article include: Turku, Finland, Europe, Oncology Nursing, Nursing, Oncology, Cancer, University of Turku.

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Oncology

New Oncology Study Findings Have Been Reported by Researchers at Institute for Cancer Research and Treatment (IRCCS) (Toward the molecular dissection of peritoneal pseudomyxoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology is now available. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "Outcome of pseudomyxoma peritonei (PMP) after cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) is heterogeneous even after adjusting for clinicopathological prognostic variables. The identification of additional prognostic or even predictive biomarkers is an unmet clinical need."

Our news editors obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Forty patients with mucinous appendiceal tumors and PMP were clinically eligible and had evaluable tumor samples obtained after CRS and HIPEC. We carried out next-generations sequencing (NGS) of 50 gene's hotspot regions contained in the Hotspot Cancer Panel v2 using the Ion Torrent Personal Genome Machine platform (Life Technologies). KRAS and GNAS mutations were found in 72% and 52%, and their allelic frequency was below 10% in 55% and 43% of samples, respectively. KRAS and GNAS mutations were associated with worse progression-free survival (PFS) at univariate analysis (P = 0.006 and 0.011, respectively). At multivariate analysis, only KRAS mutatrd with worse progression-free survival (PFS) at univariate analysis (P = 0.012); GNAS mutations were not-being significantly associated with other poor prognostic features such as incomplete cytoreduction or KRAS mutations. Validation of results was carried out in an independent bi-institutional cohort of 25 patients and the prognostic effect of KRAS mutations was again confirmed in the multivariate model (P = 0.029). NGS approach allowed the discovery of other potentially druggable mutations such as those in PI3K, AKT, LKB1, FGFR3 and PDGFRA."

According to the news editors, the research concluded: "Given the homogeneity of this series and the sensitivity of NGS in this low-cellularity tumor, we demonstrated for the first time a poor prognostic role of KRAS mutations."


The news editors report that additional information may be obtained by contacting F. Pietrantonio, Fdn IRCCS Ist Nazl Tumori, Dept. of Med Oncol, Milan, Italy. Additional authors for this research include F. Perrone, A. Mennitto, E.M. Gleeson, M. Milione, E. Tamborini, A. Busico, G. Settanni, R. Berenato, M. Caporale, F. Morano, I. Bossi, A. Pellegrinelli, M. Di Bartolomeo, F. de Braud, D. Baratti, W.B. Bowne and S Kusamura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/annonc/mdw314. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Oncology, Genetics, Institute for Cancer Research and Treatment (IRCCS).

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Oncology

New Oncology Study Findings Have Been Reported by Researchers at Warsaw University of Life Sciences (The biology of extracellular vesicles with focus on platelet microparticles and their role in cancer development and progression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology have been published. According to news reporting from Warsaw, Poland, by NewsRx journalists, research stated, "Extracellular vesicles (EVs) are a heterogeneous group of structures which can be classified into smaller in size and relatively homogenous exosomes (EXSMs)-spherical fragments of lipid bilayers from inner cell compartments-and bigger in size ectosomes (ECSMs)-a direct consequence of cell-membrane blebbing. EVs can be found in body fluids of healthy individuals."

Financial support for this research came from Narodowe Centrum Nauki.

The news correspondents obtained a quote from the research from the Warsaw University of Life Sciences, "Their number increases in cancer and other pathological conditions. EVs can originate from various cell types, including leukocytes, erythrocytes, thrombocytes, and neoplastic cells. Platelet microparticles (PMPs) are the most abundant population of EVs in blood. It is well documented that PMPs, being a crucial element of EVs signaling, are involved in tumor growth, metastasis, and angiogenesis and may participate in the development of multidrug resistance by tumor cells. The aim of this review is to present the role of PMPs in carcinogenesis."

According to the news reporters, the research concluded: "The biology and functions of PMPs with a particular emphasis on the most recent scientific reports on EV properties are also characterized."

For more information on this research see: The biology of extracellular vesicles with focus on platelet microparticles and their role in cancer development and progression. Tumor Biology, 2016;37(11):14391-14401. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting A. Miskiewicz, Warsaw Univ Life Sci WULS SGGW, Fac Vet Med, Dept. of Pathol & Vet Diagnost, Warsaw, Poland. Additional authors for this research include M. Guzera, A. Miskiewicz, D. Jagielski and A. Winnicka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5358-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Warsaw, Poland, Europe, Cancer, Article Review, Oncology, Warsaw University of Life Sciences.
Oncology

New Oncology Study Findings Have Been Reported from University of Torino (Oncogenic kinase fusions: an evolving arena with innovative clinical opportunities)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology have been published. According to news reporting from Torino, Italy, by NewsRx journalists, research stated, "Cancer biology relies on intrinsic and extrinsic deregulated pathways, involving a plethora of intra-cellular and extra-cellular components. Tyrosine kinases are frequently deregulated genes, whose aberrant expression is often caused by major cytogenetic events (e.g. chromosomal translocations)."

The news corresponents obtained a quote from the research from the University of Torino, "The resulting tyrosine kinase fusions (TKFs) prompt the activation of oncogenic pathways, determining the biological and clinical features of the associated tumors. First reported half a century ago, oncogenic TKFs are now found in a large series of hematologic and solid tumors. The molecular basis of TKFs has been thoroughly investigated and tailored therapies against recurrent TKFs have recently been developed. This review illustrates the biology of oncogenic TKFs and their role in solid as well as hematological malignancies."

According to the news reporters, the research concluded: "We also address the therapeutic implications of TKFs and the many open issues concerning their clinical impact."

For more information on this research see: Oncogenic kinase fusions: an evolving arena with innovative clinical opportunities. Oncotarget, 2016;7(18):25064-86.

Our news journalists report that additional information may be obtained by contacting F. Tabbo, Dept. of Molecular Biotechnology and Health Science and Center for Experimental Research and Medical Studies (CeRMS), University of Torino, Torino, Italy. Additional authors for this research include M. Pizzi, P.W. Kyriakides, B. Ruggeri and G. Inghirami.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7853. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Torino, Europe, Kinase, Genetics, Oncology, Article Review, Enzymes and Coenzymes.

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Oncology

New Oncology Study Findings Recently Were Reported by Researchers at University of Oxford (Notch signaling: its roles and therapeutic potential in hematological malignancies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology have been published. According to news reporting from Torino, Italy, by NewsRx journalists, research stated, "Cancer biology relies on intrinsic and extrinsic deregulated pathways, involving a plethora of intra-cellular and extra-cellular components. Tyrosine kinases are frequently deregulated genes, whose aberrant expression is often caused by major cytogenetic events (e.g. chromosomal translocations)."

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Our news journalists report that additional information may be obtained by contacting F. Tabbo, Dept. of Molecular Biotechnology and Health Science and Center for Experimental Research and Medical Studies (CeRMS), University of Torino, Torino, Italy. Additional authors for this research include M. Pizzi, P.W. Kyriakides, B. Ruggeri and G. Inghirami.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7853. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Torino, Europe, Kinase, Genetics, Oncology, Article Review, Enzymes and Coenzymes.

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& Wellness Week -- New research on Oncology is the subject of a report. According to news reporting originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "Notch is a highly conserved signaling system that allows neighboring cells to communicate, thereby controlling their differentiation, proliferation and apoptosis, with the outcome of its activation being highly dependent on signal strength and cell type. As such, there is growing evidence that disturbances in physiological Notch signaling contribute to cancer development and growth through various mechanisms."

Our news editors obtained a quote from the research from the University of Oxford, "Notch was first reported to contribute to tumorigenesis in the early 90s, through identification of the involvement of the Notch1 gene in the chromosomal translocation t(7;9)(q34;q34.3), found in a small subset of T-cell acute lymphoblastic leukemia. Since then, Notch mutations and aberrant Notch signaling have been reported in numerous other precursor and mature hematological malignancies, of both myeloid and lymphoid origin, as well as many epithelial tumor types. Of note, Notch has been reported to have both oncogenic and tumor suppressor roles, dependent on the cancer cell type. In this review, we will first give a general description of the Notch signaling pathway, and its physiologic role in hematopoiesis. Next, we will review the role of aberrant Notch signaling in several hematological malignancies."

According to the news editors, the research concluded: "Finally, we will discuss current and potential future therapeutic approaches targeting this pathway."


The news editors report that additional information may be obtained by contacting Y. Gu, Dept. of Clinical Haematology, Oxford University Hospitals, Churchill Hospital, Oxford, UK. Additional authors for this research include M. Masiero and A.H Banham.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7772. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, Europe, Genetics, Oncology, United Kingdom, Article Review.

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Eye Diseases and Conditions - Open-Angle Glaucoma

New Open-Angle Glaucoma Findings from Brigham and Women's Hospital Outlined (Prospective Study of Oral Health and Risk of Primary Open-Angle Glaucoma in Men Data from the Health Professionals Follow-up Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Eye Diseases and Conditions - Open-Angle Glaucoma are discussed in a new report. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Tooth loss or periodontal disease is associated with systemic endothelial dysfunction, which has been implicated in primary open-angle glaucoma (POAG). The relationship between oral health and POAG has received limited attention."

The news reporters obtained a quote from the research from Brigham and Women's
Thus, we evaluated the association between oral health history and risk of POAG and POAG subtypes. Prospective cohort study. Health Professionals Follow-up Study participants (40,536 men) followed biennially from 1986 to 2012. At each 2-year risk period, eligible participants were aged 40+ years, were free of POAG, and reported eye examinations. By using validated questions, we updated participants' status on number of natural teeth, teeth lost, periodontal disease with bone loss, and root canal treatments. During follow-up, 485 incident cases of POAG were confirmed with medical records and classified into subtypes defined by intraocular pressure (IOP; $\geq$ or $<22$ mmHg) or visual field (VF) loss pattern at diagnosis (peripheral loss only or early paracentral loss). Multivariable relative risks (MVRRs) and 95% confidence intervals (CIs) were estimated. Number of natural teeth, periodontal disease, and root canal treatment were not associated with POAG. However, compared with no report of tooth loss, a report of losing teeth within the past 2 years was associated with a 1.45-fold increased risk of POAG (95% CI, 1.06-1.97); in particular, a report within the past 2 years of both losing teeth and having a prevalent diagnosis of periodontal disease was associated with a 1.85-fold increased risk of POAG (95% CI, 1.07-3.18). The associations with recent tooth loss were not significantly different for the POAG subtypes ($P$ for heterogeneity $\geq 0.36$), although associations were strongest in relation to the POAG subtypes with IOP $<22$ mmHg (MVRR, 1.93; 95% CI, 1.09-3.43) and early paracentral VF loss (MVRR, 2.27; 95% CI, 1.32-3.88). Although the number of natural teeth was not associated with risk of POAG, recent tooth loss was associated with an increased risk of POAG.

According to the news reporters, the research concluded: "Because these findings may be due to chance, they need confirmation in larger studies."


Our news correspondents report that additional information may be obtained by contacting J.H. Kang, Brigham & Women's Hospital, Dept. of Med, Channing Div Network Med, Boston, MA 02115, United States. Additional authors for this research include L. Hyman, J.L. Wiggs, B.A. Rosner, K. Joshipura, M. McEvoy, Z.E. McPherson, J. Danias and J.H. Kang.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Dental Diseases and Conditions, Risk and Prevention, Stomatognathic Diseases and Conditions, Periodontal Diseases and Conditions, Mouth Diseases and Conditions, Tooth Diseases and Conditions, Clinical Trials and Studies, Eye Diseases and Conditions, Open-Angle Glaucoma, Clinical Research, Tooth Loss, Dentistry, Brigham and Women's Hospital.

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Drugs and Therapies - Ophthalmic Glaucoma Agents

New Ophthalmic Glaucoma Agents Study Results Reported from King's College (Reversal of cardiac vagal effects of phystostigmine by adjunctive muscarinic blockade)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Ophthalmic Glaucoma Agents
are discussed in a new report. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Pre-treatment with reversible acetylcholinesterase (AChE) inhibitors is an effective strategy for reducing lethality following organophosphate nerve agent exposure. AChE inhibition may have unwanted cardiac side effects, which could be negated by adjunctive anti-cholinergic therapy."

Financial support for this research came from Defence Science and Technology Laboratory.

The news correspondents obtained a quote from the research from King's College, "The aims of the present study were to examine the concentration-dependent effects of physostigmine on cardiac responses to vagus nerve stimulation (VNS), to test whether adjunctive treatment with hyoscine can reverse these effects and to assess the functional interaction and electrophysiological consequences of a combined pretreatment. Studies were performed in an isolated innervated rabbit heart preparation. The reduction in heart rate with VNS was augmented by physostigmine (1-1000 nmol/L), in a concentration-dependent manner - with an EC50 of 19 nmol/L. Hyoscine was shown to be effective at blocking the cardiac responses to VNS with an IC50 of 11 nmol/L. With concomitant perfusion of physostigmine, the concentration response curve for hyoscine was shifted downward and to the right, increasing the concentration of hyoscine required to normalise (to control values) the effects of physostigmine on heart rate. At the lowest concentration of hyoscine examined (1 nmol/L) a modest potentiation of heart rate response to VNS (+15 +/- 3%) was observed. We found no evidence of cardiac dysfunction or severe electrophysiological abnormalities with either physostigmine or hyoscine alone, or as a combined drug-therapy. The main finding of this study is that hyoscine, at concentrations greater than 10(-8) M, is effective at reversing the functional effects of physostigmine on the heart."

According to the news reporters, the research concluded: "However, low-concentrations of hyoscine may augment cardiac parasympathetic control."

For more information on this research see: Reversal of cardiac vagal effects of physostigmine by adjunctive muscarinic blockade. Neurotoxicology, 2016;57():174-182. Neurotoxicology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Neurotoxicology - www.journals.elsevier.com/neurotoxicology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neuro.2016.09.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Ophthalmic Glaucoma Agents, Ophthalmic Preparations, Drugs and Therapies, Organic Chemicals, Carboxylic Acids, Phenylcarbamates, Physostigmine, King's College.

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New Optic Neuritis Study Findings Have Been Reported from University of Buenos Aires (Neuroprotective effect of melatonin in experimental optic neuritis in rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Eye Diseases and Conditions - Optic Neuritis is now available. According to news reporting from Buenos Aires, Argentina, by NewsRx journalists, research stated, "Optic neuritis (ON) is an inflammatory, demyelinating, and neurodegenerative condition of the optic nerve, which might induce permanent vision loss. Currently, there are no effective therapies for this disorder."

Financial supporters for this research include Agencia Nacional de Promocion Cientifica y Tecnologica, Universidad de Buenos Aires, Consejo Nacional de Investigaciones Cientificas y Tecnicas.

The news correspondents obtained a quote from the research from the University of Buenos Aires, "We have developed an experimental model of primary ON in rats through a single microinjection of 4.5 mg of bacterial lipopolysaccharide (LPS) into the optic nerve. Since melatonin acts as a pleiotropic therapeutic agent in various neurodegenerative diseases, we analyzed the effect of melatonin on LPS-induced ON. For this purpose, LPS or vehicle were injected into the optic nerve from adult male Wistar rats. One group of animals received a subcutaneous pellet of 20 mg melatonin at 24 hr before vehicle or LPS injection, and another group was submitted to a sham procedure. Melatonin completely prevented the decrease in visual evoked potentials (VEPs), and pupil light reflex (PLR), and preserved anterograde transport of cholera toxin b-subunit from the retina to the superior colliculus. Moreover, melatonin prevented microglial reactivity (ED1-immunoreactivity, p<0.01), astrogliosis (glial fibrillary acid protein-immunostaining, p<0.05), demyelination (luxol fast blue staining, p<0.01), and axon (toluidine blue staining, p<0.01) and retinal ganglion cell (Brn3a-immunoreactivity, p<0.01) loss, induced by LPS. Melatonin completely prevented the increase in nitric oxide synthase 2, cyclooxygenase-2 levels (Western blot) and TNFa levels, and partly prevented lipid peroxidation induced by experimental ON. When the pellet of melatonin was implanted at 4 days postinjection of LPS, it completely reversed the decrease in VEPs and PLR."

According to the news reporters, the research concluded: "These data suggest that melatonin could be a promising candidate for ON treatment."


Our news journalists report that additional information may be obtained by contacting M.L. Aranda, Laboratory of Retinal Neurochemistry and Experimental Ophthalmology, Dept. of Human Biochemistry, School of Medicine, CEFyBO, University of Buenos Aires, CONICET, Buenos Aires, Argentina. Additional authors for this research include M.F. Gonzalez Fleitas, A. De Laurentiis, M.I. Keller Sarmiento, M. Chianelli, P.H. Sande, D. Dorfman and R.E Rosenstein.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jpi.12318. This DOI is a link to an online electronic document that is...
New Oral Cancer Findings from National Yang Ming University Described (Automatic and objective oral cancer diagnosis by Raman spectroscopic detection of keratin with multivariate curve resolution analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Oral Cancer is now available. According to news reporting originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "We have developed an automatic and objective method for detecting human oral squamous cell carcinoma (OSCC) tissues with Raman microspectroscopy. We measure 196 independent Raman spectra from 196 different points of one oral tissue sample and globally analyze these spectra using a Multivariate Curve Resolution (MCR) analysis."

Our news editors obtained a quote from the research from National Yang Ming University, "Discrimination of OSCC tissues is automatically and objectively made by spectral matching comparison of the MCR decomposed Raman spectra and the standard Raman spectrum of keratin, a well-established molecular marker of OSCC. We use a total of 24 tissue samples, 10 OSCC and 10 normal tissues from the same 10 patients, 3 OSCC and 1 normal tissues from different patients. Following the newly developed protocol presented here, we have been able to detect OSCC tissues with 77 to 92% sensitivity (depending on how to define positivity) and 100% specificity."

According to the news editors, the research concluded: "The present approach lends itself to a reliable clinical diagnosis of OSCC substantiated by the 'molecular fingerprint' of keratin."

For more information on this research see: Automatic and objective oral cancer diagnosis by Raman spectroscopic detection of keratin with multivariate curve resolution analysis. Scientific Reports, 2016;6():20097. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting P.H. Chen, Institute of Biophotonics, National Yang-Ming University, No 155, Sec 2, Li-nong Street, Taipei, Taiwan. Additional authors for this research include R. Shimada, S. Yabumoto, H. Okajima, M. Ando, C.T. Chang, L.T. Lee, Y.K. Wong, A. Chiou and H.O Hamaguchi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep20097. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taipei, Taiwan, Keratins, Oncology, Oral Cancers, Scleroproteins, Mouth Neoplasms, Cancer Diagnostics, Carcinoma Diagnostics,
Oncology - Oral Cancer

New Oral Cancer Study Findings Have Been Reported from China Medical University and Hospital (Tetrandrine induces programmed cell death in human oral cancer CAL 27 cells through the reactive oxygen species production and caspase-dependent ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Oral Cancer. According to news reporting out of Taichung, Taiwan, by NewsRx editors, research stated, "Tetrandrine, a bisbenzylisoquinoline alkaloid, is extracted from the root of the Chinese herb Radix Stephania tetrandra S Moore. This compound has antitumor activity in different cancer cell types."

Financial support for this research came from China Medical University, Taichung (Taiwan, R.O.C.).

Our news journalists obtained a quote from the research from China Medical University and Hospital, "In this study, the effects of tetrandrine on human oral cancer CAL 27 cells were examined. Results indicated that tetrandrine induced cytotoxic activity in CAL 27 cells. Effects were due to cell death by the induction of apoptosis and accompany with autophagy and these effects were concentration-and time-dependent manners. Tetrandrine induced apoptosis was accompanied by alterations in cell morphology, chromatin fragmentation, and caspase activation in CAL 27 cells. Tetrandrine treatment also induced intracellular accumulation of reactive oxygen species (ROS). The generation of ROS may play an important role in tetrandrine-induced apoptosis. Tetrandrine triggered LC3B expression and induced autophagy in CAL 27 cells. Tetrandrine induced apoptosis and autophagy were significantly attenuated by N-acetylcysteine pretreatment that supports the involvement of ROS production."

According to the news editors, the research concluded: "Tetrandrine induced cell death may act through caspase-dependent apoptosis with Beclin-1-induced autophagy in human oral cancer cells. ? 2016 Wiley Periodicals, Inc. Environ Toxicol 32:329-343."


Our news journalists report that additional information may be obtained by contacting J.C. Lien, Graduate Institute of Pharmaceutical Chemistry, China Medical University, Taichung, 404, Taiwan. Additional authors for this research include M.W. Lin, S.J. Chang, K.C. Lai, A.C. Huang, F.S. Yu and J.G Chung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/tox.22238. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiwan, Taichung, Caspases, Oncology, Apoptosis, Chalcogens, Oral Cancers, Mouth Neoplasms, Oxygen Compounds, Peptide Hydrolases, Enzymes and Coenzymes, Cysteine Endopeptidases, Reactive Oxygen
Species.

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**Oncology - Oral Cancer**

**New Oral Cancer Study Results Reported from Fukuoka Dental College (Factors affecting volume change of myocutaneous flaps in oral cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Oral Cancer have been published. According to news reporting out of Fukuoka, Japan, by NewsRx editors, research stated, "After oral cancer resection with flap reconstruction, the volume of the flap decreases over time. The purpose of this study was to estimate the volume change in myocutaneous flaps and to identify the clinical factors associated with this volume decrease."

Our news journalists obtained a quote from the research from Fukuoka Dental College, "Postoperative computed tomography scans and magnetic resonance images of 30 patients, obtained at 1, 6, and 12 months after oral cancer resection with myocutaneous flap reconstruction, were reviewed retrospectively. Changes in the volume of the flaps over time were assessed. The residual flap ratio was calculated using the flap volume at 1 month after reconstruction as the denominator. The residual ratios in relation to clinical factors were compared at 6 and 12 months using the Student t-test. Overall, the flap residual ratio was 78.1% (range 64.1-93.9%) at 6 months and 71.4% (range 48.8-87.2%) at 12 months. Hypertension, diabetes mellitus, and postoperative radiotherapy were significantly associated with volume changes at 6 months, and postoperative infection and decreased serum albumin levels were associated with volume changes at both 6 months (P = 0.015 and P = 0.001, respectively) and 12 months (P = 0.026 and P = 0.017, respectively)."

According to the news editors, the research concluded: "Flap reconstruction must be performed with postoperative flap atrophy in mind in order to preserve optimum speech and swallowing function."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijom.2016.04.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fukuoka, Japan, Asia, Mouth Neoplasms, Oral Cancers, Oncology, Fukuoka Dental College.
Oncology - Oral Squamous Cell Carcinoma

New Oral Squamous Cell Carcinoma Findings from University of Coimbra Outlined (WT1, MSH6, GATA5 and PAX5 as epigenetic oral squamous cell carcinoma biomarkers - a short report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Oral Squamous Cell Carcinoma. According to news reporting originating in Coimbra, Portugal, by NewsRx journalists, research stated, "Oral squamous cell carcinoma (OSCC) is a frequently occurring aggressive malignancy with a heterogeneous clinical behavior. Based on the paucity of specific early diagnostic and prognostic biomarkers, which hampers the appropriate treatment and, ultimately the development of novel targeted therapies, we aimed at identifying such biomarkers through a genetic and epigenetic analysis of these tumors. 93 primary OSCCs were subjected to DNA copy number alteration (CNA) and methylation status analyses using methylation-specific multiplex ligation-dependent probe amplification (MS-MPLA)."

Financial support for this research came from Portuguese Foundation for Science and Technology.

The news reporters obtained a quote from the research from the University of Coimbra, "The genetic and epigenetic OSCC profiles obtained were associated with the patients' clinic-pathological features. We found that WT1 gene promoter methylation is a predictor of a better prognosis and that MSH6 and GATA5 gene promoter methylation serve as predictors of a worse prognosis. GATA5 gene promoter methylation was found to be significantly associated with a shorter survival rate. In addition, we found that PAX5 gene promoter methylation was significantly associated with tongue tumors. To the best of our knowledge, this is the first study that highlights this specific set of genes as epigenetic diagnostic and prognostic biomarkers in OSCC."

According to the news reporters, the research concluded: "Our data highlight the importance of epigenetically assessing OSCCs to identify key genes that may serve as diagnostic and prognostic biomarkers and, potentially, as candidate therapeutic targets."

For more information on this research see: WT1, MSH6, GATA5 and PAX5 as epigenetic oral squamous cell carcinoma biomarkers - a short report. *Cellular Oncology*, 2016;39(6):573-582. *Cellular Oncology* can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Cellular Oncology - www.springerlink.com/content/2211-3428/)

Our news correspondents report that additional information may be obtained by contacting I.M. Carreira, University of Coimbra, CIMAGO Center Invest Environn Genet & Oncobiol, Fac Med, P-3000354 Coimbra, Portugal. Additional authors for this research include F. Caramelo, F. Marques, A. Domingues, M. Mesquita, L. Barroso, H. Prazeres, M.J. Juliao, I.P. Baptista, A. Ferreira, J.B. Melo and I.M. Carreira.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13402-016-0293-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Coimbra, Portugal, Europe, Oncology,
Diagnostics and Screening, Genetics, Oral Squamous Cell Carcinoma, Carcinomas, University of Coimbra.

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**Oncology - Oral Squamous Cell Carcinoma**

**New Oral Squamous Cell Carcinoma Study Findings Recently Were Reported by Researchers at Shanghai Jiao-Tong University (High Vimentin Expression Associated with Lymph Node Metastasis and Predicated a Poor Prognosis in Oral Squamous Cell ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Oral Squamous Cell Carcinoma have been published. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Oral squamous cell carcinoma (OSCC) is a common public health problem worldwide with poor prognosis, which is largely due to lymph node metastasis and recurrence. Identification of specific molecular markers of OSCC with lymph node metastasis would be very important for early and specific diagnosis."

The news correspondents obtained a quote from the research from Shanghai Jiao-Tong University, "In this study, we screened for the potential prognosis markers via unbiased transcriptomic microarray analysis in paired two OSCC cell lines, a lymph node metastatic HN12 cell line and a low metastatic parental HN4 cell line. The results showed that vimentin, with 87-fold increase of expression, was on the top of all upregulated genes in metastatic HN12 cells compared to non-metastatic HN4 cells. Treatment of non-metastatic HN4 cells with TGF-beta 1 induced epithelial to mesenchymal transition (EMT), with increased vimentin expression as well as enhanced migration activity. Consistently, knockdown of vimentin via siRNA resulted in suppressed invasion and migration activities of HN12 cells, suggesting an essential role of vimentin in EMT-related functions of OSCC cells. Finally, immunohistochemical (IHC) staining analysis showed that high vimentin expression was strongly associated with high lymph node metastases (p < 0.05), and poor overall survival (p < 0.05) in OSCC patients."

According to the news reporters, the research concluded: "Thus, high vimentin expression is strongly associated with increased metastatic potential, and may serve as a prediction marker for poor prognosis in OSCC patients."


Keywords for this news article include: Shanghai, People's Republic of China, Asia, Intermediate Filament Proteins, Oral Squamous Cell Carcinoma, Hemic and Immune Systems, Lymphoid Tissue, Lymph Nodes, Immunology, Carcinomas, Vimentin, Oncology, Genetics,
New Organelles Findings Reported from Rutgers State University
(Toxicity of ricin A chain is reduced in mammalian cells by inhibiting its interaction with the ribosome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Organelles is now available. According to news reporting originating from New Brunswick, New Jersey, by NewsRx correspondents, research stated, "Ricin is a potent ribotoxin that is considered a bioterror threat due to its ease of isolation and possibility of aerosolization. In yeast, mutation of arginine residues away from the active site results in a ricin toxin A chain (RTA) variant that is unable to bind the ribosome and exhibits reduced cytotoxicity."

Financial support for this research came from National Institutes of Health.

Our news editors obtained a quote from the research from Rutgers State University, "The goal of the present work was to determine if these residues contribute to ribosome binding and cytotoxicity of RTA in mammalian cells. The RTA mutant R193A/R235A did not interact with mammalian ribosomes, while a G212E variant with a point mutation near its active site bound ribosomes similarly to wild-type (WT) RTA. R193A/R235A retained full catalytic activity on naked RNA but had reduced activity on mammalian ribosomes. To determine the effect of this mutant in intact cells, pre-R193A/R235A containing a signal sequence directing it to the endoplasmic reticulum and mature R193A/R235A that directly targeted cytosolic ribosomes were each expressed. Depurination and protein synthesis inhibition were reduced by both pre- and mature R193A/R235A relative to WT. Protein synthesis inhibition was reduced to a greater extent by R193A/R235A than by G212E. Pre R193A/R235A caused a greater reduction in caspase activation and loss of mitochondria/membrane potential than G212E relative to WT RTA. These findings indicate that an RTA variant with reduced ribosome binding is less toxic than a variant with less catalytic activity but normal ribosome binding activity."

According to the news editors, the research concluded: "The toxin-ribosome interaction represents a novel target for the development of therapeutics to prevent or treat ricin intoxication."

For more information on this research see: Toxicity of ricin A chain is reduced in mammalian cells by inhibiting its interaction with the ribosome. *Toxicology and Applied Pharmacology*, 2016;310():120-128. *Toxicology and Applied Pharmacology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Toxicology and Applied Pharmacology - www.journals.elsevier.com/toxicology-and-applied-pharmacology/)

The news editors report that additional information may be obtained by contacting W.S. Cohick, Rutgers State University, Dept. of Anim Sci, New Brunswick, NJ 08901, United States. Additional authors for this research include X.P. Li, N.E. Tumer and W.S. Cohick.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.09.004. This DOI is a link to an online electronic
New Osteogenesis Imperfecta Study Results Reported from McGill University (DNA sequence analysis in 598 individuals with a clinical diagnosis of osteogenesis imperfecta: diagnostic yield and mutation spectrum)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Musculoskeletal Diseases and Conditions - Osteogenesis Imperfecta is the subject of a report. According to news originating from Montreal, Canada, by NewsRx correspondents, research stated, "We detected disease-causing mutations in 585 of 598 individuals (98%) with typical features of osteogenesis imperfecta (OI). In mild OI, only collagen type I encoding genes were involved."

Financial supporters for this research include Shriners of North America, Fonds de Recherche du Quebec - Sante.

Our news journalists obtained a quote from the research from McGill University, "In moderate to severe OI, mutations in 12 different genes were found; 11% of these patients had mutations in recessive genes. OI is usually caused by mutations in COL1A1 or COL1A2, the genes encoding collagen type I alpha chains, but mutations in at least 16 other genes have also been associated with OI. It is presently unknown what proportion of individuals with clinical features of OI has a disease-causing mutation in one of these genes. DNA sequence analysis was performed on 598 individuals from 487 families who had a typical OI phenotype. OI type I was diagnosed in 43% of individuals, and 57% had moderate to severe OI, defined as OI types other than type I. Disease-causing variants were detected in 97% of individuals with OI type I and in 99% of patients with moderate to severe OI. All mutations found in OI type I were dominant and exclusively affected COL1A1 or COL1A2. In moderate to severe OI, dominant mutations were found in COL1A1/COL1A2 (77%), IFITM5 (9%), and P4HB (0.6%). Mutations in one of the recessive OI-associated gene were observed in 12% of individuals with moderate to severe OI. The genes most frequently involved in recessive OI were SERPINF1 (4.0% of individuals with moderate to severe OI) and CRTAP (2.9%). DNA sequence analysis of currently known OI-associated genes identifies disease-causing variants in almost all individuals with a typical OI phenotype."

According to the news editors, the research concluded: "About 20% of individuals with moderate to severe OI had mutations in genes other than COL1A1/COL1A2."

For more information on this research see: DNA sequence analysis in 598 individuals with a clinical diagnosis of osteogenesis imperfecta: diagnostic yield and mutation spectrum. *Osteoporosis International*, 2016;27(12):3607-3613. *Osteoporosis International* can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL,
New Osteoporosis Findings from University of Putra Malaysia Described
(Piper sarmentosum Effects on 11 beta-Hydroxysteroid Dehydrogenase Type 1 Enzyme in Serum and Bone in Rat Model of Glucocorticoid-Induced Osteoporosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Musculoskeletal Diseases and Conditions - Osteoporosis have been presented. According to news originating from Selangor, Malaysia, by NewsRx correspondents, research stated, "Glucocorticoid-induced osteoporosis is one of the common causes of secondary osteoporosis. Piper sarmentosum (Ps) extract possesses antioxidant and anti-inflammatory activities."

Our news journalists obtained a quote from the research from the University of Putra Malaysia, "In this study, we determined the correlation between the effects of Ps leaf water extract with the regulation of 11 beta-hydroxysteroid dehydrogenase (HSD) type 1 enzyme activity in serum and bone of glucocorticoid-induced osteoporotic rats. Twenty-four Sprague-Dawley rats were grouped into following: G1: sham-operated group administered with intramuscular vehicle olive oil and vehicle normal saline orally; G2: adrenalectomized (adrx) control group given intramuscular dexamethasone (120 mu g/kg/day) and vehicle normal saline orally; G3: adrx group given intramuscular dexamethasone (120 mu g/kg/day) and water extract of Piper sarmentosum (125 mg/kg/day) orally. After two months, the femur and serum were taken for ELISA analysis. Ps leaf water extract significantly reduced the femur corticosterone concentration (p < 0.05)."

According to the news editors, the research concluded: "This suggests that Ps leaf water extract was able to prevent bone loss due to long-term glucocorticoid therapy by acting locally on the bone cells by increasing the dehydrogenase action of 11 beta-HSD type 1. Thus, Ps may have the potential to be used as an alternative medicine against osteoporosis and osteoporotic fracture in patients on long-term glucocorticoid treatment."

For more information on this research see: Piper sarmentosum Effects on 11 beta-Hydroxysteroid Dehydrogenase Type 1 Enzyme in Serum and Bone in Rat Model of Glucocorticoid-Induced Osteoporosis. Molecules, 2016;21(11):1565-1574. Molecules can be
New Osteosarcomas Findings from Inje University Discussed
[Noninvasive and Repetitive Measurement of Cellular Metabolite from Human Osteosarcoma Cells (MG-63) Using 3.0 Tesla Proton (H-1) MR Spectroscopy]
The news correspondents report that additional information may be obtained from C.W. Mun, Inje Univ, Dept. of Hlth Sci & Technol, Gyeongnam, South Korea. Additional authors for this research include C.W. Mun, S.I. Chun, T.H. Kim, D.B. Son and H.D. Kim.

Keywords for this news article include: Gyeongnam, South Korea, Asia, Osteosarcomas, Orthopedics, Oncology, Genetics, Inje University.

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New Osteosarcomas Study Findings Have Been Reported by Investigators at Zhengzhou University (Upregulation of miR-192 inhibits cell growth and invasion and induces cell apoptosis by targeting TCF7 in human osteosarcoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Osteosarcomas. According to news reporting originating from Zhengzhou, People's Republic of China, by NewsRx correspondents, research stated, "MicroRNAs (miRNAs) can function as oncogenes or tumor suppressor genes and are involved in multiple processes in cancer development and progression. For example, miR-192 is dysregulated in multiple human cancers, including osteosarcoma (OS)."

Our news editors obtained a quote from the research from Zhengzhou University, "However, the pathophysiological role of miR-192 and its relevance to OS cell growth and invasion has not yet been clarified. This study aimed to investigate the expression of miR-192 in OS and elucidate the molecular mechanisms by which miR-192 acts as a tumor suppressor in this disease. The qRT-PCR data identified significant down-regulation of miR-192 in 20 OS tissue samples and two OS cell lines when compared with adjacent normal tissues and a human osteoblast cell line, respectively. Furthermore, Western blot analysis revealed overexpression of T cellspecific transcription factor (TCF) 7 protein in tumor tissues compared with matched adjacent normal tissues. Further in vitro studies demonstrated that enforced expression of miR-192 inhibited U2OS and MG63 cell proliferation, invasion, and migration and induced apoptosis. Finally, Western blot and Luciferase assays identified TCF7 as a target of miR192."

According to the news editors, the research concluded: "Collectively, these findings suggest an important role for miR-192 in regulating the proliferation, migration, invasion, and apoptosis of OS cells through the regulation of TCF7."

For more information on this research see: Upregulation of miR-192 inhibits cell growth and invasion and induces cell apoptosis by targeting TCF7 in human osteosarcoma. Tumor Biology, 2016;37(11):15211-15220. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news editors report that additional information may be obtained by contacting Y.B. Li, Zhengzhou Univ, Sch Basic Med Sci, Dept. of Biochem & Mol Biol, Zhengzhou 450001, People's Republic of China. Additional authors for this research include S.F. Zhang, Y. Xu, Y. Zhang, H.Y. Guan, X.J. Li, Y.B. Li and Y.S. Wang.

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document that is either free or for purchase.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Tumor Suppression, Osteosarcomas, Orthopedics, Apoptosis, Oncology, Genetics, Zhengzhou University.

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**Oncology - Osteosarcomas**

**New Osteosarcomas Study Findings Have Been Reported from Guangzhou University (Curcumin Promotes Osteosarcoma Cell Death by Activating miR-125a/ERR Signal Pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Osteosarcomas. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Curcumin has demonstrated valuable therapeutic potential against a variety of human cancers including osteosarcoma. However, the molecular mechanisms underlying its anti-tumor effect remain to be poorly understood."

The news correspondents obtained a quote from the research from Guangzhou University, "By RNA sequence profiling, we found that curcumin significantly down-regulates the expression of estrogen-related receptor alpha (ERR) in osteosarcoma cells. Overexpression of ERR diminished curcumin-activated apoptotic cell death and scavenged curcumin-induced reactive oxygen species (ROS), while ERR silencing sensitized osteosarcoma cells to curcumin, resulting in increased inhibition of cell proliferation. In addition, we found that curcumin suppressed the ERR gene expression through upregulation of miR-125a. Data from this study revealed a novel mechanism for curcumin-mediated apoptotic cell death, which involves tumor cell killing via activating miR-125a/ERR pathway."

According to the news reporters, the research concluded: "Our studies also provide further support for osteosarcoma therapy by targeting ERR alone or in combination with curcumin. J. Cell. Biochem. 118: 74-81, 2017."


Our news journalists report that additional information may be obtained by contacting W. He, Guangzhou Univ Chinese Med, Affiliated Hosp 1, Guangzhou 510405, Guangdong, People's Republic of China. Additional authors for this research include H.B. Wang, F. Yang, H.W. Chen, W. He and J.J. Wang.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Organic Chemicals, Diarylheptanoids, Osteosarcomas, Hydrocarbons, Orthopedics, Catechols, Curcumin, Oncology, Genetics, Alkanes, Guangzhou University.

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New Pacemakers Study Findings Recently Were Reported by Researchers at Emory University (How to Implant a Leadless Pacemaker With a Tine-Based Fixation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Pacemakers. According to news reporting originating in Atlanta, Georgia, by NewsRx journalists, research stated, "Leadless Implant Procedure. Two major studies have shown that leadless pacemakers are safe and effective for patients requiring right ventricular rate responsive pacing therapy."

The news reporters obtained a quote from the research from Emory University, "This positive result recently led to FDA approval of one of the available leadless pacing devices. While this new technology is promising, it requires a different skill set for safe implantation."

According to the news reporters, the research concluded: "In this article, we review in detail the different steps required for implantation of tine-based leadless pacemakers while providing tips and tricks to minimize complications."


Our news correspondents report that additional information may be obtained by contacting M.F. El-Chami, Emory University, Sch Med, Div Cardiol, Sect Electrophysiol, Atlanta, GA 30322, United States. Additional authors for this research include P.R. Roberts, A. Kypta, P. Omdahl, M.D. Bonner, R.C. Kowal and G.Z. Duray.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Medical Devices, Pacemakers, Emory University.

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between patients without PPM (no-PPM), patients with PPM prior to TAVI (old-PPM) and
patients with PPM implanted after TAVI (new-PPM). Out of 1,062 patients included in the
pooled data set, 783 (73.7%) were in the no-PPM group, 164 (15.4%) in the new-PPM group
and 115 (10.8%) in the old-PPM group. All-cause and cardiovascular mortality at two years
were similar for patients with no-PPM and new-PPM (adjusted HR 1.11, 95% CI: 0.74-1.67; p=
0.62; and adjusted HR 1.16, 95% CI: 0.68-1.98; p=0.59). Conversely, old-PPM was associated
with increased risk of both all-cause and cardiovascular mortality vs. no-PPM. By multivariable
analysis new-PPM did not affect LVEFR, while old PPM did. We observed a multiplicative
interaction, between new-PPM and post-procedural aortic regurgitation >1+ on two-year
mortality and one-year LVEFR, with increased risk of death and impaired, LVEFR in patients
with new-PPM and post-procedural aortic regurgitation (PPAR) >= 1+ (both p(interaction)
<0.0001). In patients undergoing TAVI, the presence of a PPM at baseline yielded a negative
effect on long-term prognosis while new-PPM did not.

According to the news editors, the research concluded: "The combination of new-
PPM with PPAR adversely impacts on survival and LV function recovery."

For more information on this research see: Impact of permanent pacemaker on
mortality after transcatheter aortic valve implantation: the PRAGMATIC (Pooled Rotterdam-
Milan-Toulouse in Collaboration) Pacemaker substudy. Eurointervention, 2016;12(9):1185-
1193. Eurointervention can be contacted at: Europa Edition, 19 Allees Jean Jaures B P 61508,
Toulouse Cedex 6, 31015, France.

The news correspondents report that additional information may be obtained from A.
Colombo, Ist Sci San Raffaele, Dept. of Cardiothorac & Vasc Dis, Milan, Italy. Additional
authors for this research include R.M.A. Van der Boon, J.M.M. de Nicolas, N. Dumonteil, A.
Chieffo, P.P.T. de Jaegere, D. Tchetcbe, B. Marcheix, D. Millischer, R. Cassagneau, D. Carrie,
N.M. Van Mieghem and A. Colombo.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.4244/EIJV12I9A192. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Cardiology, Risk and
Prevention, Medical Devices, Cardiovascular, Aortic Valve, Heart Valves, Pacemakers.

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New Pain Findings from School of Medicine Described (Propacetamol-
Induced Injection Pain Is Associated with Activation of Transient
Receptor Potential Vanilloid 1 Channels)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Neurologic Manifestations - Pain.
According to news originating from Hannover, Germany, by NewsRx correspondents, research
stated, "Propacetamol (PPCM) is a prodrug of paracetamol (PCM), which was generated to
increase water solubility of PCM for intravenous delivery. PPCM is rapidly hydrolyzed by
plasma esterases to PCM and diethylglycine and shares some structural and metabolic properties
with lidocaine."

Our news journalists obtained a quote from the research from the School of
Although PPCM is considered to be comparable to PCM regarding its analgesic properties, injection pain is a common side effect described for PPCM but not PCM. Injection pain is a frequent and unpleasant side effect of numerous drugs in clinical use, and previous reports have indicated that the ligand gated ion channels transient receptor potential ankyrin 1 (TRPA1) and transient receptor potential vanilloid 1 (TRPV1) can mediate this effect on sensory neurons. This study aimed to investigate molecular mechanisms by which PPCM, in contrast to PCM, causes injection pain. Therefore, human TRPV1 and TRPA1 receptors were expressed in human embryonic kidney 293 cells and investigated by means of whole-cell patch clamp and ratiometric calcium imaging. PPCM (but not PCM) activated TRPV1, sensitized heat-induced currents, and caused an increase in intracellular calcium. In TRPA1-expressing cells however, both PPCM and PCM evoked calcium responses but failed to induce inward currents. Intracutaneous injection of PPCM, but not of PCM, in human volunteers induced an intense and short-lasting pain and an increase in superficial blood flow, indicating activation of nociceptive C fibers and subsequent neuropeptide release.

According to the news editors, the research concluded: "Activation of human TRPV1 by PPCM seems to be a relevant mechanism for induction of pain upon intracutaneous injection and thus also for pain reported as an adverse side effect upon intravenous administration."


The news correspondents report that additional information may be obtained from M. Eberhardt, Hannover Med Sch, Dept. of Anaesthesiol & Intens Care Med, D-30625 Hannover, Germany. Additional authors for this research include E. Eberhardt, A. Leffler and M. Eberhardt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.233452. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hannover, Germany, Europe, Neurologic Manifestations, Pain, School of Medicine.

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this way, the aim of this study was to investigate the behavioral, biochemical and neurochemical effects of a p,p'-methoxyl-diphenyl diselenide (OMePhSe)(2) supplemented diet on pain-depression dyad induced by reserpine in rats. Adult Wistar rats were fed with 10 mg (MeOPhSe) (2) per kg of rat chow supplemented diet for 30 days. Pain-depression dyad was induced by daily subcutaneous reserpine injection (0.5 mg/kg for three consecutive days) from 22 to 24 day of (MeOPhSe)(2) supplementation. The results showed that the reserpine injected rats had behavior phenotypes typical of depression-pain dyad and the (MeOPhSe)(2)-supplemented diet protected against these modifications. Furthermore, the (MeOPhSe)(2) dietary supplementation was effective against the increase in the prefrontal cortical MDA levels caused by reserpine. (MeOPhSe)(2)-supplemented diet triggered a per se augmentation of Nrf-2 levels. The [H-3] serotonin uptake, [H-3] glutamate uptake and release and MAO activity were not altered in the prefrontal cortices of rats from any experimental group.

According to the news editors, the research concluded: "Therefore, the results indicate that protective effects of a (MeOPhSe)(2)-supplemented diet can be mediated, at least in part, by its antioxidant property."

For more information on this research see: Pain-depression dyad induced by reserpine is relieved by p,p'-methoxyl-diphenyl diselenide in rats. European Journal of Pharmacology, 2016;791():794-802. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting G. Zeni, Federal University of Santa Maria, Center Ciencias Nat & Exatas, Lab Sintese Reatividade & Avaliacao Farmacol & To, BR-97105900 Santa Maria, RS, Brazil. Additional authors for this research include M. Sari, V.A. Zborowski, V.C. Prado, C.W. Nogueira and G. Zeni.

Keywords for this news article include: Santa Maria, Brazil, South America, Neurologic Manifestations, Pain, Federal University.

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Oncology - Pancreatic Cancer

New Pancreatic Cancer Data Have Been Reported by Researchers at Osaka City University Graduate School of Medicine (Molecular targets for the treatment of pancreatic cancer: Clinical and experimental studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Pancreatic Cancer is now available. According to news reporting out of Osaka, Japan, by NewsRx editors, research stated, "Pancreatic cancer is the fourth most common cause of cancer deaths worldwide. Although recent therapeutic developments for patients with pancreatic cancer have provided survival benefits, the outcomes for patients with pancreatic cancer remain unsatisfactory."

Our news journalists obtained a quote from the research from the Osaka City University Graduate School of Medicine, "Molecularly targeted cancer therapy has advanced in the past decade with the use of a number of pathways as candidates of therapeutic targets. This
review summarizes the molecular features of this refractory disease while focusing on the recent clinical and experimental findings on pancreatic cancer."

According to the news editors, the research concluded: "It also discusses the data supporting current standard clinical outcomes, and offers conclusions that may improve the management of pancreatic cancer in the future."


Our news journalists report that additional information may be obtained by contacting T. Matsuoka, Tasuku Matsuoka, Masakazu Yashiro, Dept. of Surgical Oncology, Osaka City University Graduate School of Medicine, Osaka 545-8585, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i2.776. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Osaka, Japan, Oncology, Article Review, Gastroenterology, Pancreatic Cancer, Pancreatic Neoplasms.

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Oncology - Pancreatic Cancer

New Pancreatic Cancer Findings Reported from Skane University Hospital (Immune checkpoint therapy for pancreatic cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Pancreatic Cancer have been presented. According to news reporting originating in Lund, Sweden, by NewsRx journalists, research stated, "Novel treatment modalities are necessary for pancreatic cancer. Immunotherapy with immune checkpoint inhibition has shown effect in other solid tumors, and could have a place in pancreatic cancer treatment."

The news reporters obtained a quote from the research from Skane University Hospital, "Most available clinical studies on immune checkpoint inhibitors for pancreatic cancer are not yet completed and are still recruiting patients. Among the completed trials, there have been findings of a preliminary nature such as delayed disease progression and enhanced overall survival after treatment with immune checkpoint inhibitors in mono- or combination therapy. However, due to small sample sizes, major results are not yet identifiable. The present article provides a clinical overview of immune checkpoint inhibition in pancreatic cancer. PubMed, ClinicalTrials.gov and American Society of Clinical Oncology's meeting abstracts were systematically searched for relevant clinical studies."

According to the news reporters, the research concluded: "Four articles, five abstracts and 25 clinical trials were identified and analyzed in detail."

Our news correspondents report that additional information may be obtained by contacting D. Ansari, Skane Univ Hosp, SE-22185 Lund, Sweden. Additional authors for this research include R. Andersson, M. Bauden, S. Hammes, S. Holdenrieder and D. Ansari.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i43.9457. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lund, Sweden, Europe, Therapy, Article Review, Pancreatic Neoplasms, Pancreatic Cancer, Gastroenterology, Pancreas, Oncology, Skane University Hospital.

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**Oncology - Pancreatic Cancer**

**New Pancreatic Cancer Findings from National Taiwan University Described** (Association of radiotherapy with favorable prognosis in daily clinical practice for treatment of locally advanced and metastatic pancreatic cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Pancreatic Cancer is the subject of a report. According to news reporting originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Radiotherapy (RT) with or without chemotherapy is currently used in definitive therapy for advanced pancreatic cancer. We sought to evaluate the prognostic significance, pattern of care, and use of RT in locally advanced and metastatic pancreatic cancer."

Our news editors obtained a quote from the research from National Taiwan University, "Between 2002 and 2011, patients with invasive pancreatic carcinoma and prior exposure to systemic chemotherapy were included. We used Cox regression model and propensity score matching for prognostic analyses and logistic regression for analyzing the factors impacting the use of RT. We identified 217 pancreatic cancer patients (74 with unresectable stage II or III and 143 with stage IV). Of all patients, 90.8% had adenocarcinoma, and only 19.2% (42/217) received RT with doses ranging from 50 to 55 Gy in 25 to 28 fractions using modern RT techniques. Logistic regression showed stage (P < 0.001) and initial CA 19-9 level (P = 0.026) were significantly predictive of the choice of RT as a first-line treatment, whereas the second-line use of RT was associated with the response to first-line chemotherapy and longer progression-free survival. Patients with RT had a better median survival than those without it (14.6 vs 8.1 months, P< 0.001). In the multivariate analysis and propensity score matching, RT remained a good prognostic factor for overall survival. The use of RT might be associated with a favorable clinical outcome in patients with locally advanced and metastatic pancreatic cancer."

According to the news editors, the research concluded: "Further exploration of RT as a first-line therapy or second-line therapy for locally advanced or even metastatic pancreatic cancer is warranted."

The news editors report that additional information may be obtained by contacting K.H. Yeh, National Taiwan University, Coll Med, Grad Inst Clin Med, Taipei, Taiwan. Additional authors for this research include J.C. Guo, K.H. Yeh, Y.W. Tien, A.L. Cheng and S.H. Kuo.

Keywords for this news article include: Taipei, Taiwan, Asia, Pancreatic Neoplasms, Drugs and Therapies, Pancreatic Cancer, Gastroenterology, Radiotherapy, Chemotherapy, Oncology, Pancreas, Therapy, National Taiwan University.

Our news editors report that additional information may be obtained by contacting D. Xie, Dept. of Oncology, Shanghai Tongji University Affiliated East Hospital.
Shanghai, People's Republic of China. Additional authors for this research include J. Cui, T. Xia, Z. Jia, L. Wang, W. Wei, A. Zhu, Y. Gao, K. Xie and M. Quan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5772. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shanghai, Genetics, Oncology, Gastroenterology, Pancreatic Cancer, Pancreatic Neoplasms, People's Republic of China.

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Oncology - Pancreatic Cancer

New Pancreatic Cancer Findings from University of Cambridge Described (GEMMs as preclinical models for testing pancreatic cancer therapies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Pancreatic Cancer have been presented. According to news originating from Cambridge, United Kingdom, by NewsRx correspondents, research stated, "Pancreatic ductal adenocarcinoma is the most common form of pancreatic tumour, with a very limited survival rate and currently no available disease-modifying treatments. Despite recent advances in the production of genetically engineered mouse models (GEMMs), the development of new therapies for pancreatic cancer is still hampered by a lack of reliable and predictive preclinical animal models for this disease."

Our news journalists obtained a quote from the research from the University of Cambridge, "Preclinical models are vitally important for assessing therapies in the first stages of the drug development pipeline, prior to their transition to the clinical arena. GEMMs carry mutations in genes that are associated with specific human diseases and they can thus accurately mimic the genetic, phenotypic and physiological aspects of human pathologies. Here, we discuss different GEMMs of human pancreatic cancer, with a focus on the Lox-Stop-Lox (LSL)-Kras (G12D); LSL-Trp53(R172H); Pdx1-cre (KPC) model, one of the most widely used preclinical models for this disease."

According to the news editors, the research concluded: "We describe its application in preclinical research, highlighting its advantages and disadvantages, its potential for predicting clinical outcomes in humans and the factors that can affect such outcomes, and, finally, future developments that could advance the discovery of new therapies for pancreatic cancer."

For more information on this research see: GEMMs as preclinical models for testing pancreatic cancer therapies. Disease Models & Mechanisms, 2015;8(10):1185-200.

The news correspondents report that additional information may be obtained from A. Gopinathan, Cancer Research UK Cambridge Institute, University of Cambridge, Robinson Way, Cambridge, CB2 0RE, UK. Additional authors for this research include J.P. Morton, D.I. Jodrell and O.J Sansom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/dmm.021055. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Genetics, Oncology, Cambridge, United Kingdom, Article Review, Gastroenterology, Pancreatic Cancer, Pancreatic Neoplasms.
New Pancreatic Cancer Study Findings Have Been Reported by Investigators at Kyushu University (CD146 Attenuation in Cancer-Associated Fibroblasts Promotes Pancreatic Cancer Progression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Pancreatic Cancer are discussed in a new report. According to news originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "Cancer-associated fibroblasts (CAFs) are heterogeneous cell populations that influence tumor initiation and progression. CD146 is a cell membrane protein whose expression has been implicated in multiple human cancers."

Our news journalists obtained a quote from the research from Kyushu University, "CD146 expression is also detected in pancreatic cancer stroma; however, the role it plays in this context remains unclear. This study aimed to clarify the function and significance of CD146 expression in pancreatic cancer. We performed immunohistochemical staining to investigate the prevalence of CD146 expression in stromal fibroblasts in pancreatic cancer. We also examined the influence of CD146 on CAF-mediated tumor invasion and migration and CAF activation using CD146 small interfering RNA or overexpression plasmids in primary cultures of CAFs derived from pancreatic cancer tissues. CD146 expression in CAFs was associated with high-grade pancreatic intraepithelial neoplasia and low histological grade invasive ductal carcinoma of the pancreas, while patients with low CD146 expression had a poorer prognosis. Blocking CD146 expression in CAFs significantly enhanced tumor cell migration and invasion in a co-culture system. CD146 knockdown also promoted CAF activation, possibly by inducing the production of pro-tumorigenic factors through modulation of NF-kappa B activity. Consistently, overexpression of CD146 in CAFs inhibited migration and invasion of co-cultured cancer cells. Finally, CD146 expression in CAFs was reduced by interaction with cancer cells."

According to the news editors, the research concluded: "Our findings suggest that decreased CD146 expression in CAFs promotes pancreatic cancer progression."


The news correspondents report that additional information may be obtained from K. Ohuchida, Kyushu University, Grad Sch Med Sci, Adv Med Initiat, Fukuoka, Japan. Additional authors for this research include K. Ohuchida, Y. Chijiiwa, M. Zhao, Y. Mizuuchi, L. Cui, K. Horioka, T. Ohtsuka, K. Mizumoto, Y. Oda, M. Hashizume, M. Nakamura and M. Tanaka.

Keywords for this news article include: Fukuoka, Japan, Asia, Connective Tissue Cells, Pancreatic Neoplasms, Pancreatic Cancer, Gastroenterology, Fibroblasts, Pancreas, Oncology, Genetics, Kyushu University.

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New Pancreatic Cancer Study Findings Have Been Reported by Investigators at Shanghai Jiao-Tong University (Arginine Methylation of MDH1 by CARM1 Inhibits Glutamine Metabolism and Suppresses Pancreatic Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Pancreatic Cancer is now available. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Distinctive from their normal counterparts, cancer cells exhibit unique metabolic dependencies on glutamine to fuel anabolic processes. Specifically, pancreatic ductal adenocarcinoma (PDAC) cells rely on an unconventional metabolic pathway catalyzed by aspartate aminotransferase, malate dehydrogenase 1 (MDH1), and malic enzyme 1 to rewire glutamine metabolism and support nicotinamide adenine dinucleotide phosphate (NADPH) production."

Financial supporters for this research include MOST, Natural Science Foundation of China, “Chenguang Program” of Shanghai Education Development Foundation and Shanghai Municipal Education Commission.

The news reporters obtained a quote from the research from Shanghai Jiao-Tong University, "Here, we report that methylation on arginine 248 (R248) negatively regulates MDH1. Protein arginine methyltransferase 4 (PRMT4/CARM1) methylates and inhibits MDH1 by disrupting its dimerization. Knockdown of MDH1 represses mitochondria respiration and inhibits glutamine metabolism, which sensitizes PDAC cells to oxidative stress and suppresses cell proliferation. Meanwhile, re-expression of wild-type MDH1, but not its methylation-mimetic mutant, protects cells from oxidative injury and restores cell growth and clonogenic activity. Importantly, MDH1 is hypomethylated at R248 in clinical PDAC samples."

According to the news reporters, the research concluded: "Our study reveals that arginine methylation of MDH1 by CARM1 regulates cellular redox homeostasis and suppresses glutamine metabolism of pancreatic cancer."

For more information on this research see: Arginine Methylation of MDH1 by CARM1 Inhibits Glutamine Metabolism and Suppresses Pancreatic Cancer. Molecular Cell, 2016;64(4):673-687. Molecular Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

Our news correspondents report that additional information may be obtained by contacting Y.P. Wang, Shanghai Jiao Tong University, Sch Med, Shanghai Key Lab Tumor Microenvironm & Inflammat, Dept. of Biochem & Mol Cell Biol, Shanghai 200025, People's Republic of China. Additional authors for this research include W. Zhou, J. Wang, X. Huang, Y. Zuo, T.S. Wang, X. Gao, Y.Y. Xu, S.W. Zou, Y.B. Liu, J.K. Cheng and Q.Y. Lei.

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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Essential Amino Acids, Pancreatic Neoplasms, Diamino Amino Acids, Neutral Amino Acids, Basic Amino Acids, Pancreatic Cancer, Gastroenterology, Glutamine, Pancreas, Oncology, Arginine, Shanghai Jiao-Tong University.
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Oncology - Pancreatic Cancer

New Pancreatic Cancer Study Findings Have Been Reported by Investigators at University of Witwatersrand (Anti-LRP/LR-specific antibody IgG1-iS18 impedes adhesion and invasion of pancreatic cancer and neuroblastoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Pancreatic Cancer. According to news reporting out of Johannesburg, South Africa, by NewsRx editors, research stated, "Cancer has become a global burden due to its high incidence and mortality rates, with an estimated 14.1 million cancer cases reported worldwide in 2012 particularly as a result of metastasis. Metastasis involves two crucial steps: adhesion and invasion, and the non-integrin receptor; the 37-kDa/67-kDa laminin receptor precursor/high affinity laminin receptor (LRP/LR) has been shown to be overexpressed on the surface of tumorigenic cells, thus being implicated in the enhancement of these two crucial steps."

Our news journalists obtained a quote from the research from the University of Witwatersrand, "The current study investigated the role of LRP/LR on the aggressiveness of pancreatic cancer (AsPC-1) and neuroblastoma (IMR-32) cells with respect to their adhesive and invasive potential. AsPC-1 and IMR-32 cells were utilized as the experimental cell lines for the study. Cell surface LRP/LR levels were visualised and quantified on the experimental and control (MCF-7) cell lines via confocal microscopy and flow cytometry, respectively. Total LRP/LR levels in the cell lines were assessed by Western blotting and the adhesive and invasive potential of the above-mentioned cell lines was determined before and after supplementation with the anti-LRP/LR specific antibody IgG1-iS18. Statistical significance of the data was confirmed via the use of the two-tailed student’s t-test and Pearson's correlation coefficient. Flow cytometry revealed that AsPC-1 and IMR-32 cells displayed significantly higher cell surface LRP/LR levels in comparison to the MCF-7 control cell line. However, Western blotting and subsequent densitometric analysis revealed that all three tumorigenic cell lines displayed no significant difference in total LRP/LR levels. The treatment of AsPC-1 and IMR-32 cells with IgG1-iS18 caused a significant reduction in the adhesive and invasive potential of the cells to laminin-1 and through the ECM-like Matrigel™, respectively. Pearson's correlation coefficients indicated a high correlation, thus suggesting a directly proportional relationship between cell surface LRP/LR levels and the adhesive and invasive potential of AsPC-1 and IMR-32 cells."

According to the news editors, the research concluded: "These findings suggest that through the interference of the LRP/LR-laminin-1 interaction, the anti-LRP/LR specific antibody IgG1-iS18 may act as an alternative therapeutic tool for the treatment of metastatic pancreatic cancer and neuroblastoma."


Our news journalists report that additional information may be obtained by
contacting S.F.T. Weiss, University of Witwatersrand, Sch Mol & Cell Biol, Johannesburg, South Africa. Additional authors for this research include C.J. Chetty, E. Ferreira and S.F.T. Weiss.

Keywords for this news article include: Johannesburg, South Africa, Africa, Extracellular Matrix Proteins, Membrane Glycoproteins, Pancreatic Neoplasms, Membrane Proteins, Pancreatic Cancer, Gastroenterology, Immunoglobulins, Blood Proteins, Neuroblastomas, Immunology, Antibodies, Hematology, Cytometry, Cell Line, Pancreas, Oncology, Laminin, University of Witwatersrand.

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Oncology - Pancreatic Cancer

New Pancreatic Cancer Study Findings Have Been Reported by T. Han and Colleagues (Long Non-Coding RNA: An Emerging Paradigm of Pancreatic Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Pancreatic Cancer. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Pancreatic cancer remains a worldwide issue and burden that is hard to resolve given its low resection rate and chemo-resistance. Early diagnosis and early treatment are critical for conquering pancreatic cancer."

Our news journalists obtained a quote from the research, "Therefore, new biomarkers for diagnosis and prognosis are urgently needed. Previously, researchers mainly focused on protein-coding genetic and epigenetic changes in many types of cancers, and regarded the non-coding part as waste. Recently, however, long non-coding RNA (lncRNA) has emerged as a major participant in carcinogenesis, as it regulates cell proliferation, migration, invasion, metastasis, chemo-resistance, etc. The underlying mechanisms are summarized as signaling, decoy, guide and scaffold, yet the specific regulation networks remain to be uncovered. Several studies have revealed that some lncRNAs are dysregulated in pancreatic cancer, participating in biological functions."

According to the news editors, the research concluded: "In this review, we will briefly outline the functional lncRNAs in pancreatic cancer, decipher possible mechanisms of lncRNAs, and further explore their significance in pancreatic cancer."


Our news journalists report that additional information may be obtained by contacting F. Jiao, Shanghai Key Lab Pancreat Dis, Shanghai 201620, People's Republic of China. Additional authors for this research include H. Hu, M. Zhuo, L. Wang, J.J. Cui, F. Jiao and L.W. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1566524016666160927095812. This DOI is a link to an online
New Pancreatic Cancer Study Results Reported from Nagasaki University (No-touch isolation techniques for pancreatic cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Pancreatic Cancer. According to news reporting from Nagasaki, Japan, by NewsRx journalists, research stated, "The rate of recurrence, including liver metastasis is high in pancreatic cancer, even when complete surgical resection is performed as a curative treatment. In patients with pancreatic cancer, the handling and grasping of the pancreas during surgery may increase the risk of liver metastasis, as squeezing may spread cancer cells via the portal vein."

The news correspondents obtained a quote from the research from Nagasaki University, "A no-touch isolation technique might prevent the spread of cancer cells via the hematogenous metastatic route in patients with pancreatic cancer. However, while no-touch isolation techniques are simple, feasible and, in theory, ideal procedures for the surgical treatment of pancreatic cancer, there have been no randomized controlled prospective studies to validate their advantages and their efficacy remains controversial."

According to the news reporters, the research concluded: "It is, therefore, worth investigating the use of no-touch isolation techniques in pancreatic cancer."


Our news journalists report that additional information may be obtained by contacting T. Kuroki, Nagasaki University, Grad Sch Biomed Sci, Dept. of Surg, Nagasaki 8528501, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00595-016-1317-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nagasaki, Japan, Asia, Pancreas, Article Review, Surgery, Pancreatic Neoplasms, Risk and Prevention, Pancreatic Cancer, Gastroenterology, Liver Metastasis, Hepatology, Oncology, Nagasaki University.

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New Pancreatic Cancer Study Results from Turgut Ozal University Described (Investigation of the expression of RIF1 gene on head and neck, pancreatic and brain cancer and cancer stem cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Pancreatic Cancer is now available. According to news reporting originating in Ankara, Turkey, by NewsRx journalists, research stated, "Recent studies have shown that cancer stem cells are resistant to chemotherapy. The aim of this study was to compare RIF1 gene expression in head and neck, pancreatic cancer and glioma cell lines and the cancer stem cells isolated from these cell lines."

The news reporters obtained a quote from the research from Turgut Ozal University, "UT-SCC-74 from Turku University and UT-SCC-74B primary tumor metastasis and neck cancer cell lines, YKG-1 glioma cancer cell line from RIKEN, pancreatic cancer cell lines and ASPC-1 cells from ATCC were grown in cell culture. To isolate cancer stem cells, ALDH-1 for UT-SCC-74 and UT-SCC-74B cell line, CD-133 for YKG-1 cell line and CD-24 for ASPC-1 cell line, were used as markers of cancer stem cells. RNA isolation was performed for both cancer lines and cancer stem cells. RNAs were converted to cDNA. RIF1 gene expression was performed by qRT-PCR analysis. RIF1 gene expression was compared with cancer cell lines and cancer stem cells isolated from these cell lines. The possible effect of RIF1 gene was evaluated. In the pancreatic cells, RIF1 gene expression in the stem cell-positive cell line was 256 time that seen in the stem cell-negative cell line. Considering the importance of RIF1 in NHEJ and of NHEJ in pancreatic cancer, RIF1 may be one of the genes that plays an important role in the diagnoses and therapeutic treatment of pancreatic cancer."

According to the news reporters, the research concluded: "The results of head and neck and brain cancers are inconclusive and further studies are required to elucidate the connection between RIF1 gene and these other types of cancers."

For more information on this research see: Investigation of the expression of RIF1 gene on head and neck, pancreatic and brain cancer and cancer stem cells. *Clinical and Investigative Medicine*, 2016;39(6):S43-S47. *Clinical and Investigative Medicine* can be contacted at: Canadian Soc Clinical Investigation, Csci Head Office, 774 Echo Drive, Ottawa, On K1S 5N8, Canada.

Our news correspondents report that additional information may be obtained by contacting M. Acar, Turgut Ozal Univ, Dept. of Med Genet, Fac Med, TR-06170 Ankara, Turkey. Additional authors for this research include M. Acar, F.B. Barut, M. Gunduz, R. Grenman and E. Gunduz.

Keywords for this news article include: Ankara, Turkey, Eurasia, Pancreatic Neoplasms, Cell Line, Genetics, Stem Cell Research, Pancreatic Cancer, Gastroenterology, Brain Cancer, Pancreas, Oncology, Turgut Ozal University.

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New Papillomavirus Infections Findings from Beijing University Reported (Human papillomavirus infection mechanism and vaccine of vulva carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Tumor Virus Infections - Papillomavirus Infections have been published. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Vulvar carcinoma is a rare tumor occurring in female patients. Though more than 40% of vulva cancers are due to the infection of human papillomavirus (HPV), understanding of HPV and vulvar carcinoma is insufficient."

The news correspondents obtained a quote from the research from Beijing University, "HPV expression is regulated by cellular and viral transcription factors that bind to specific elements within the ligase chain reaction. These proteins bind with different affinity to host cell proteins and disrupt normal epithelial differentiation and apoptosis. Immunotherapy does not target tumors, but instead targets the host immune system. Active immunotherapy is tumor-targeting or immune-targeting monoclonal antibodies and vaccines. Nonspecific active immunotherapy is mainly cytokine therapy. In the treatment and prevention of HPV, the most popular research projects were regarding peptide, recombinant protein and DNA-based vaccines, recombinant virus and other targets in HPV infection."

According to the news reporters, the research concluded: "Since the cervix and vulva are both susceptible areas, these studies may be able to help reduce prevalence of vulvar precancerous lesions and prevent all cancers caused by HPV."

For more information on this research see: Human papillomavirus infection mechanism and vaccine of vulva carcinoma. *Open Life Sciences*, 2016;11(1):185-190. *Open Life Sciences* can be contacted at: De Gruyter Open Ltd, Bogumila Zuga 32A St, 01-811 Warsaw, Poland.

Our news journalists report that additional information may be obtained by contacting Z. Jin, Beijing Univ Chinese Med, Dongfang Hosp, Dept. of Gynaecol, Beijing 100078, People's Republic of China. Additional authors for this research include L.Q. Zheng, R.Y. Zhao, T.L. Xing, Y.B. Li, T. Lin, X. Zhang and Z. Jin.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Papillomavirus Infections, Tumor Virus Infections, Viral, Article Review, Human Papillomavirus, Active Immunotherapy, DNA Virus Infections, Drugs and Therapies, Biological Products, Immunomodulation, Immunization, DNA Viruses, Immunology, Carcinomas, Virology, Genetics, Vaccines, Oncology, Therapy, Beijing University.

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New Paralysis Findings Reported from Vanderbilt University (Nondepolarizing Neuromuscular Blocking Agents, Reversal, and Risk of Postoperative Pneumonia)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nervous System Diseases and Conditions - Paralysis is now available. According to news reporting from Nashville, Tennessee, by NewsRx journalists, research stated, "Residual postoperative paralysis from nondepolarizing neuromuscular blocking agents (NMBAs) is a known problem. This paralysis has been associated with impaired respiratory function, but the clinical significance remains unclear."

The news correspondents obtained a quote from the research from Vanderbilt University, "The aims of this analysis were two-fold: (1) to investigate if intermediate-acting NMBA use during surgery is associated with postoperative pneumonia and (2) to investigate if nonreversal of NMBAs is associated with postoperative pneumonia. Surgical cases (n = 13,100) from the Vanderbilt University Medical Center National Surgical Quality Improvement Program database who received general anesthesia were included. The authors compared 1,455 surgical cases who received an intermediate-acting nondepolarizing NMBA to 1,455 propensity score-matched cases who did not and 1,320 surgical cases who received an NMBA and reversal with neostigmine to 1,320 propensity score-matched cases who did not receive reversal. Postoperative pneumonia incidence rate ratios (IRRs) and bootstrapped 95% CIs were calculated. Patients receiving an NMBA had a higher absolute incidence rate of postoperative pneumonia (9.00 vs. 5.22 per 10,000 person-days at risk), and the IRR was statistically significant (1.79; 95% bootstrapped CI, 1.08 to 3.07). Among surgical cases who received an NMBA, cases who were not reversed were 2.26 times as likely to develop pneumonia after surgery compared to cases who received reversal with neostigmine (IRR, 2.26; 95% bootstrapped CI, 1.65 to 3.03). Intraoperative use of intermediate nondepolarizing NMBAs is associated with developing pneumonia after surgery."

According to the news reporters, the research concluded: "Among patients who receive these agents, nonreversal is associated with an increased risk of postoperative pneumonia."

For more information on this research see: Nondepolarizing Neuromuscular Blocking Agents, Reversal, and Risk of Postoperative Pneumonia. Anesthesiology, 2016;125(4):647-655. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting J.M. Ehrenfeld, Vanderbilt University, Medical Center, Dept. of Hlth Policy, Nashville, TN 37232, United States. Additional authors for this research include M.A. Terekhov, B.J. Martin, R.R. Dmochowski, R.M. Hayes and J.M. Ehrenfeld.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Respiratory Tract Diseases and Conditions, Nervous System Diseases and Conditions, Lung Diseases and Conditions, Respiratory Tract Infections, Neurologic Manifestations, Infectious Disease, Pulmonology, Pneumonia, Paralysis, Surgery, Vanderbilt University.

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New Parkinson's Disease Findings Has Been Reported by Investigators at Qingdao University (Association of VEGF gene polymorphisms with sporadic Parkinson's disease in Chinese Han population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Parkinson's disease. According to news reporting originating in Shandong, People's Republic of China, by NewsRx journalists, research stated, "Recent evidence indicates that vascular endothelial growth factor (VEGF) is capable of protecting dopaminergic (DA) neurons. Parkinson's disease (PD) is a progressive neurodegenerative disease caused by the degeneration of nigrostriatal dopaminergic neurons."

The news reporters obtained a quote from the research from Qingdao University, "To evaluate the role of VEGF single nucleotide polymorphisms (SNPs) and haplotypes in PD, we performed a case-control study including 400 PD patients and 400 healthy-matched controls. Polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) analysis and DNA sequencing were used to detect the rs699947, rs2010963 and rs3025039 polymorphisms of the VEGF gene in cases and controls. Our study revealed that T allelic frequency of rs3025039 polymorphism was significantly higher in PD subjects (OR 1.497, 95 % CI 1.099-2.040, P = 0.013) than that in controls. Significant association for rs3025039 could be found in additive model (TT vs. CT vs. CC: OR 1.489, 95 % CI 1.018-2.177, P = 0.040) and dominant model (TT + CT vs. CC: OR 1.538, 95 % CI 1.068-2.216, P = 0.021). Subgroup analyses performed by gender suggested that this association could be found in male, but not in female. Moreover, it also demonstrated a significant association in the subgroup of late-onset PD (LOPD). However, for rs699947 and rs2010963 polymorphisms, genotype or allele frequencies did not differ between groups. No significant association could be found between rs699947 and rs2010963 polymorphism and PD risk. None of the observed haplotypes showed significant association with PD."

According to the news reporters, the research concluded: "Therefore, these results suggested that the VEGF gene might be associated with risk of developing sporadic PD in Han Chinese and the rs3025039 polymorphism may be a risk factor for sporadic PD."

For more information on this research see: Association of VEGF gene polymorphisms with sporadic Parkinson's disease in Chinese Han population. Neurological Sciences, 2016;37(12):1923-1929. Neurological Sciences can be contacted at: Springer-Verlag Italia Srl, Via Decembrio, 28, Milan, 20137, Italy. (Springer - www.springer.com; Neurological Sciences - www.springerlink.com/content/1590-1874/)

Our news correspondents report that additional information may be obtained by contacting A.M. Xie, Qingdao Univ, Affiliated Hosp, Dept. of Neurol, Qingdao 266003, Shandong, People's Republic of China. Additional authors for this research include Y.Y. Zhang, X. Han, X.Y. Li, L. Xue and A.M. Xie.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Neurodegenerative Diseases and Conditions, Risk and Prevention, Genetics, Central Nervous System Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Basal Ganglia Diseases and Conditions, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Brain Diseases and Conditions, Growth Factor Receptors, Parkinsonian Disorders, Parkinson's Disease, Phosphotransferases, Angiogenic Proteins, Movement Disorders, Membrane Proteins, Protein Kinases, VEGF, Qingdao University.
New Parkinson's Disease Study Findings Have Been Reported by Researchers at National Center for Scientific Research (CNRS) (Bee Venom Alleviates Motor Deficits and Modulates the Transfer of Cortical Information through the Basal Ganglia in Rat ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Parkinson's disease. According to news reporting originating from Marseille, France, by NewsRx correspondents, research stated, "Recent evidence points to a neuroprotective action of bee venom on nigral dopamine neurons in animal models of Parkinson's disease (PD). Here we examined whether bee venom also displays a symptomatic action by acting on the pathological functioning of the basal ganglia in rat PD models."

Our news editors obtained a quote from the research from National Center for Scientific Research (CNRS), "Bee venom effects were assessed by combining motor behavior analyses and in vivo electrophysiological recordings in the substantia nigra pars reticulata (SNr, basal ganglia output structure) in pharmacological (neuroleptic treatment) and lesional (unilateral intranigral 6-hydroxydopamine injection) PD models. In the hemi-parkinsonian 6-hydroxydopamine lesion model, subchronic bee venom treatment significantly alleviates contralateral forelimb akinesia and apomorphine-induced rotations. Moreover, a single injection of bee venom reverses haloperidol-induced catalepsy, a pharmacological model reminiscent of parkinsonian akinetic deficit. This effect is mimicked by apamin, a blocker of small conductance Ca2+-activated K+ (SK) channels, and blocked by CyPPA, a positive modulator of these channels, suggesting the involvement of SK channels in the bee venom antiparkinsonian action. In vivo electrophysiological recordings in the substantia nigra pars reticulata (basal ganglia output structure) showed no significant effect of BV on the mean neuronal discharge frequency or pathological bursting activity. In contrast, analyses of the neuronal responses evoked by motor cortex stimulation show that bee venom reverses the 6-OHDA-and neuroleptic-induced biases in the influence exerted by the direct inhibitory and indirect excitatory striatonigral circuits."

According to the news editors, the research concluded: "These data provide the first evidence for a beneficial action of bee venom on the pathological functioning of the cortico-basal ganglia circuits underlying motor PD symptoms with potential relevance to the symptomatic treatment of this disease."

For more information on this research see: Bee Venom Alleviates Motor Deficits and Modulates the Transfer of Cortical Information through the Basal Ganglia in Rat Models of Parkinson's Disease. Plos One, 2015;10(11):e0142838. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news editors report that additional information may be obtained by contacting N. Maurice, Aix Marseille Universite, CNRS, IBDM UMR 7288, Marseille, France. Additional authors for this research include T. Deltheil, C. Melon, B. Degos, C. Mourre, M. Amalric and L. Kerkerian-Le Goff.

The direct object identifier (DOI) for that additional information is:
New Pediatrics Study Findings Recently Were Reported by C. Ingels and Co-Researchers (The pattern recognition molecule collectin-L1 in critically ill children)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Pediatrics are discussed in a new report. According to news reporting originating in Leuven, Belgium, by NewsRx journalists, research stated, "Critically ill children are prone to nosocomial infections, which may lead to adverse outcome. Low serum concentrations upon admission to the pediatric intensive care unit (PICU) of the mannan-binding lectin (MBL)-associated serine protease (MASP)-3 protein of the lectin pathway of complement activation have been associated with risk of infection and prolonged need for intensive care."

The news reporters obtained a quote from the research, "We hypothesized that also a low upon-admission concentration of collectin-L1 (CL-L1), a novel member of this pathway, is independently associated with these adverse outcomes. We quantified the serum concentrations of CL-L1 in 81 healthy children and in 700 critically ill children upon PICU admission. CL-L1 concentrations were significantly lower in the critically ill children as compared with the healthy children. However, corrected for baseline characteristics, risk factors and several lectin pathway proteins, a higher CL-L1 concentration upon PICU admission was independently associated with an increased risk of acquiring a new infection and with a prolonged time to PICU discharge. In contrast, a low MASP-3 concentration remained independently associated with these adverse outcomes."

According to the news reporters, the research concluded: "A high serum CL-L1 concentration in critically ill children upon PICU admission is associated with an increased risk of infection and prolonged need of intensive care, and counteracts the protective effect of having a high MASP-3 concentration."

For more information on this research see: The pattern recognition molecule collectin-L1 in critically ill children. Pediatric Research, 2016;80(2):237-243. Pediatric Research can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Pediatric Research - www.nature.com/pr/)

Our news correspondents report that additional information may be obtained by contacting C. Ingels, Dept. of Cellular & Mol Med, Lab Intens Care Med, Leuven, Belgium. Additional authors for this research include I. Vanhorebeek, I. Derese, L. Jensen, P.J. Wouters, S. Thiel and G. Van den Berghe.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/pr.2016.76. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leuven, Belgium, Europe, Pediatrics, Risk and Prevention.

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Inflammatory Diseases and Conditions - Pelvic...

New Pelvic Inflammatory Disease Study Findings Recently Were Reported by Researchers at University of Copenhagen (Increased risk of borderline ovarian tumors in women with a history of pelvic inflammatory disease: A nationwide population-based ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Inflammatory Diseases and Conditions - Pelvic Inflammatory Disease have been published. According to news reporting out of Copenhagen, Denmark, by NewsRx editors, research stated, "Some studies suggest that pelvic inflammatory disease (PID) is a potential risk factor for ovarian cancer. However, only few studies have investigated the association between PID and risk of borderline ovarian tumors."

Financial support for this research came from MERMAID.

Our news journalists obtained a quote from the research from the University of Copenhagen, "We conducted a population-based cohort study to investigate the association between PID and risk of borderline ovarian tumors. Using various nationwide Danish registries we identified all women in Denmark during 1978-2012, who were born during 1940-1970 (n = 1,318,925). Of these, 81,263 women were diagnosed with PID in the study period, and 2736 women had a borderline ovarian tumor (1290 serous and 1344 mucinous). Hazard ratios (HRs) and 95% confidence intervals (CIs) for the association between PID and risk of borderline tumors were estimated using Cox regression models with adjustment for potential confounders. A history of PID was associated with an increased risk of borderline ovarian tumors (HR = 1.39; 95% CI: 1.19-1.61). However, histotype-specific analyses revealed significant variation in risk as PID was only associated with an increased risk of serous borderline tumors (HR = 1.85; 95% CI: 1.52-224), but not with mucinous borderline tumors (HR = 1.06; 95% CI: 0.83-135). PID is associated with an increased risk of serous borderline tumors."

According to the news editors, the research concluded: "Further research on the potential underlying biological mechanisms and on the identification of the subset of women with PID who are at increased risk of serous borderline tumors is warranted."

For more information on this research see: Increased risk of borderline ovarian tumors in women with a history of pelvic inflammatory disease: A nationwide population-based cohort study. *Gynecologic Oncology*, 2016;143(2):346-351. *Gynecologic Oncology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news journalists report that additional information may be obtained by contacting S.K. Kjaer, University of Copenhagen, Dept. of Gynecol, Rigshospitalet, Copenhagen, Denmark. Additional authors for this research include A. Jensen, V. Albieri, K.K.
Andersen and S.K. Kjaer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.08.318. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Inflammatory Diseases and Conditions, Risk and Prevention, Epidemiology, Pelvic Inflammatory Disease, Women's Health, Gynecology, University of Copenhagen.

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Enzymes and Coenzymes - Peptide Hydrolases

New Peptide Hydrolases Study Findings Have Been Reported from University of Oxford (Metalloprotease SPRTN/DVC1 Orchestrates Replication-Coupled DNA-Protein Crosslink Repair)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - Peptide Hydrolases. According to news reporting originating in Oxford, United Kingdom, by NewsRx journalists, research stated, "The cytotoxicity of DNA-protein crosslinks (DPCs) is largely ascribed to their ability to block the progression of DNA replication. DPCs frequently occur in cells, either as a consequence of metabolism or exogenous agents, but the mechanism of DPC repair is not completely understood."

Funders for this research include Medical Research Council programme, The Wellcome Trust, ULTRA-DD.

The news reporters obtained a quote from the research from the University of Oxford, "Here, we characterize SPRTN as a specialized DNA-dependent and DNA replication-coupled metalloprotease for DPC repair. SPRTN cleaves various DNA binding substrates during S-phase progression and thus protects proliferative cells from DPC toxicity. Ruijs-Aalfs syndrome (RJALS) patient cells with monogenic and biallelic mutations in SPRTN are hypersensitive to DPC-inducing agents due to a defect in DNA replication fork progression and the inability to eliminate DPCs. We propose that SPRTN protease represents a specialized DNA replication-coupled DPC repair pathway essential for DNA replication progression and genome stability."

According to the news reporters, the research concluded: "Defective SPRTN-dependent clearance of DPCs is the molecular mechanism underlying RJALS, and DPCs are contributing to accelerated aging and cancer."

For more information on this research see: Metalloprotease SPRTN/DVC1 Orchestrates Replication-Coupled DNA-Protein Crosslink Repair. Molecular Cell, 2016;64 (4):704-719. Molecular Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

Our news correspondents report that additional information may be obtained by contacting K. Ramadan, University of Oxford, Dept. of Oncol, MRC, Oxford Inst Radiat Oncol, Oxford OX3 7DQ, United Kingdom. Additional authors for this research include M. Popovic, J.A. Newman, J. Fielden, H. Aitkenhead, S. Halder, A.N. Singh, I. Vendrell, R. Fischer, I. Torrecilla, N. Drobnitzky, R. Freire, D.J. Amor, P.J. Lockhart, B.M. Kessler, G.W. McKenna,
O. Gileadi and K. Ramadan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.09.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, United Kingdom, Europe, Enzymes and Coenzymes, Peptide Hydrolases, Metalloproteases, DNA Research, Genetics, University of Oxford.

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**New Peptides and Proteins Findings Has Been Reported by Investigators at Yeungnam University (Therapeutic importance of peptides from marine source: A mini review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Peptides and Proteins are presented in a new report. According to news originating from Gyongsan, South Korea, by NewsRx editors, the research stated, "In recent years, much attention has been paid on microbial peptides with biological activities and proteins derived from foods that might have beneficial effects for humans."

Our news journalists obtained a quote from the research from Yeungnam University, "Microbial peptides are small chain amino acid molecules with multitude of biological and therapeutic potential. Moreover, many studies have reported that marine bioactive peptides can be used as antihypertensive, antioxidative, anticoagulant, and antimicrobial components in functional foods or nutraceuticals and pharmaceuticals due to their therapeutic potential in the treatment or prevention of severe diseases."

According to the news editors, the research concluded: "This contribution presents an overview of the bioactive peptides derived from marine organisms and their biological activities with potential applications in different areas of food and medicine industries."

For more information on this research see: Therapeutic importance of peptides from marine source: A mini review. *Indian Journal of Geo-Marine Sciences*, 2016;45(11):1422-1431. *Indian Journal of Geo-Marine Sciences* can be contacted at: Natl Inst Science Communication-Niscair, Dr K S Krishnan Marg, Pusa Campus, New Delhi 110 012, India.

The news correspondents report that additional information may be obtained from S. Shukla, Yeungnam University, Dept. of Food Sci & Technol, Gyongsan 712749, Gyeongbuk, South Korea.

Keywords for this news article include: Gyongsan, South Korea, Asia, Peptides and Proteins, Therapy, Article Review, Therapeutics, Amino Acids, Peptides, Proteins, Yeungnam University.

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Peptides and Proteins

New Peptides and Proteins Findings from University of Oxford Discussed (Drosophila sensory cilia lacking MKS proteins exhibit striking defects in development but only subtle defects in adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Peptides and Proteins are discussed in a new report. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "Cilia are conserved organelles that have important motility, sensory and signalling roles. The transition zone (TZ) at the base of the cilium is crucial for cilia function, and defects in several TZ proteins are associated with human congenital ciliopathies such as nephronophthisis (NPHP) and Meckel-Gruber syndrome (MKS)."

Financial supporters for this research include Biotechnology and Biological Sciences Research Council, Wellcome Trust, Medical Research Council.

Our news journalists obtained a quote from the research from the University of Oxford, "In several species, MKS and NPHP proteins form separate complexes that cooperate with Cep290 to assemble the TZ, but flies seem to lack core components of the NPHP module. We show that MKS proteins in flies are spatially separated from Cep290 at the TZ, and that flies mutant for individual MKS genes fail to recruit other MKS proteins to the TZ, whereas Cep290 seems to be recruited normally. Although there are abnormalities in microtubule and membrane organisation in developing MKS mutant cilia, these defects are less apparent in adults, where sensory cilia and sperm flagella seem to function quite normally."

According to the news editors, the research concluded: "Thus, localising MKS proteins to the cilium or flagellum is not essential for viability or fertility in flies."


The news correspondents report that additional information may be obtained from J.W. Raff, University of Oxford, Sir William Dunn Sch Pathol, Oxford OX1 3RE, United Kingdom. Additional authors for this research include J.S. Titlow, I. Davis, A.R. Barker, H.R. Dawe, J.W. Raff and H. Roque.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/jcs.194621. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, United Kingdom, Europe, Peptides and Proteins, Amino Acids, Proteins, Peptides, Genetics, University of Oxford.

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New Peptides and Proteins Findings from Virginia Commonwealth University Reported (Multi-kinase inhibitors can associate with heat shock proteins through their NH2-termini by which they suppress chaperone function)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Peptides and Proteins. According to news reporting originating in Richmond, Virginia, by NewsRx journalists, research stated, "We performed proteomic studies using the GRP78 chaperone-inhibitor drug AR-12 (OSU-03012) as bait. Multiple additional chaperone and chaperone-associated proteins were shown to interact with AR-12, including: GRP75, HSP75, BAG2; HSP27; ULK-1; and thioredoxin."

The news reporters obtained a quote from the research from Virginia Commonwealth University, "AR-12 down-regulated in situ immuno-fluorescence detection of ATP binding chaperones using antibodies directed against the NH2-termini of the proteins but only weakly reduced detection using antibodies directed against the central and COOH portions of the proteins. Traditional SDS-PAGE and western blotting assessment methods did not exhibit any alterations in chaperone detection. AR-12 altered the sub-cellular distribution of chaperone proteins, abolishing their punctate speckled patterning concomitant with changes in protein co-localization. AR-12 inhibited chaperone ATPase activity, which was enhanced by sildenafil; inhibited chaperone -chaperone and chaperone -client interactions; and docked in silico with the ATPase domains of HSP90 and of HSP70. AR-12 combined with sildenafil in a GRP78 plus HSP27 -dependent fashion to profoundly activate an eIF2a/ATF4/CHOP/Beclin1 pathway in parallel with inactivating mTOR and increasing ATG13 phosphorylation, collectively resulting in formation of punctate toxic autophagosomes. Over-expression of [GRP78 and HSP27] prevented: AR-12 -induced activation of ER stress signaling and maintained mTOR activity; AR-12 -mediated down-regulation of thioredoxin, MCL-1 and c-FLIP-s; and preserved tumor cell viability."

According to the news reporters, the research concluded: "Thus the inhibition of chaperone protein functions by AR-12 and by multi-kinase inhibitors very likely explains why these agents have anti-tumor effects in multiple genetically diverse tumor cell types."

For more information on this research see: Multi-kinase inhibitors can associate with heat shock proteins through their NH2-termini by which they suppress chaperone function. Oncotarget, 2016;7(11):12975-96.

Our news correspondents report that additional information may be obtained by contacting L. Booth, Dept. of Biochemistry and Molecular Biology, Virginia Commonwealth University, Richmond, VA 23298, United States. Additional authors for this research include B. Shuch, T. Albers, J.L. Roberts, M. Tavallai, S. Proniuk, A. Zukiwski, D. Wang, C.S. Chen, D. Bottaro, H. Ecroyd, I.O. Lebedyeva and P. Dent.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7349. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: ATPase, Kinase, Richmond, Virginia, Amino Acids, United States, Heat Shock Proteins, Molecular Chaperones, Enzymes and Coenzymes, Peptides and Proteins, North and Central America.

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Percutaneous Coronary Intervention

New Percutaneous Coronary Intervention Study Findings Recently Were Reported by Researchers at Johns Hopkins University (Patients without ST elevation after return of spontaneous circulation may benefit from emergent percutaneous intervention: ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Percutaneous Coronary Intervention is the subject of a report. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "The American Heart Association recommends that post-arrest patients with evidence of ST elevation myocardial infarction (STEMI) on electrocardiogram (ECG) be emergently taken to the catheterization lab for percutaneous coronary intervention (PCI). However, recommendations regarding the utility of emergent PCI for patients without ST elevation are less specific."

The news reporters obtained a quote from the research from Johns Hopkins University, "This review examined the literature on the utility of PCI in post-arrest patients without ST elevation compared to patients with STEMI. A systematic review of the English language literature was performed for all years to March 1, 2015 to examine the hypothesis that a percentage of post-cardiac arrest patients without ST elevation will benefit from emergent PCI as defined by evidence of an acute culprit coronary lesion. Out of 1067 articles reviewed, 11 articles were identified that allowed for analysis of data to examine our study hypothesis. These studies show that patients presenting post cardiac arrest with STEMI are thirteen times more likely to be emergently taken to the catheterization lab than patients without STEMI; OR 13.8 (95% CI 4.9-39.0). Most importantly, the cumulative data show that when taken to the catheterization lab as much as 32.2% of patients without ST elevation had an acute culprit lesion requiring intervention, compared to 71.9% of patients with STEMI; OR 0.15 (95% CI 0.06-0.34)."

According to the news reporters, the research concluded: "The results of this systematic review demonstrate that nearly one third of patients who have been successfully resuscitated from cardiopulmonary arrest without ST elevation on ECG have an acute lesion that would benefit from emergent percutaneous coronary intervention."

For more information on this research see: Patients without ST elevation after return of spontaneous circulation may benefit from emergent percutaneous intervention: A systematic review and meta-analysis. Resuscitation, 2016;108():54-60. Resuscitation can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Resuscitation - www.journals.elsevier.com/resuscitation/)

Our news correspondents report that additional information may be obtained by contacting M.G. Millin, Johns Hopkins University, Sch Med, Baltimore, MD, United States. Additional authors for this research include A.C. Comer, J.V. Nable, P.V. Johnston, B.J. Lawner, N. Woltman, M.J. Levy, K.G. Seaman and J.M. Hirshon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.09.004. This DOI is a link to an online electronic document that is either free or for purchase.
New Peripheral Nervous System Research Data Have Been Reported by Researchers at Xiangya Hospital (MFN2-related genetic and clinical features in a cohort of Chinese CMT2 patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Peripheral Nervous System Research. According to news reporting originating in Changsha, People's Republic of China, by NewsRx journalists, research stated, "Charcot-Marie-Tooth disease 2A (CMT2A), caused by mutations in the mitofusin 2 gene (MFN2), is the most common CMT2 subtype. The aim of our study is to assess the frequency and summarize the genetic and clinical characteristics of Chinese CMT2A patients."

Funders for this research include Fundamental Research Funds for the Central Universities of Central South University, Hunan Provincial Natural Science Foundation of China, High Level Health Personnel “225” Training Project of Hunan Province.

The news reporters obtained a quote from the research from Xiangya Hospital, "A total of 17 coding exons of MFN2 were detected by direct sequencing in 82 unrelated Chinese families diagnosed as CMT2. Clinical evaluations were analyzed among CMT2A patients. We identified 14 missense variants in 9 sporadic and 6 familial cases, including four novel mutations (T129A, S249F, Q367P, and Q674L), 4 known mutations (R94W, R94Q, T105M, C132Y, M376V and Q751X), and 4 rare missense variants (K120E, C217F, K307E and T356S). A total of 23 patients had early-onset phenotype. Two patients had a CMTNS score of 0 to 10; 16 had a score of 11 to 20; and 7 had a score greater than 20. Five patients were confirmed a de novo origin. Six of 14 variants were located or closed to the GTPase domain. We report four novel mutations and four rare missense variants. MFN2 mutations account for 18% of CMT2 families in mainland China."

According to the news reporters, the research concluded: "The common characteristics of Chinese pedigree are early disease onset and moderate phenotypes."


Our news correspondents report that additional information may be obtained by contacting Y. Xie, Dept. of Neurology, the Third Xiangya Hospital, Changsha, People's Republic of China. Additional authors for this research include X. Li, L. Liu, Z. Hu, S. Huang, Y. Zhan, X. Zi, K. Xia, B. Tang and R. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jns.12159. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Changsha, Genetics, Health and
Personalized Medicine

New Personalized Medicine Study Results from KRIBB Described (Application of cancer-associated glycoforms and glycan-binding probes to an in vitro diagnostic multivariate index assay for precise diagnoses of cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Personalized Medicine. According to news reporting originating in Daejeon, South Korea, by NewsRx journalists, research stated, "Personalized medicine has emerged as a widely accepted trend in medicine for the efficacious and safe treatment of various diseases. It covers every medical treatment tailored according to various properties of individuals."

Financial support for this research came from National Research Council of Science & Technology.

The news reporters obtained a quote from the research from KRIBB, "Cancer-associated glycosylation mirrors cancer states more precisely, and this 'sweet side of cancer' is thus intended to spur the development of an advanced in vitro diagnostic system. The changes of glyco-codes are often subtle and thus not easy to trace, thereby making it difficult to discriminate changes from various compounding factors. Special glycan-binding probes, often lectins, can be paired with aglycosylated antibodies to enable quantitative and qualitative measurements of glycoforms."

According to the news reporters, the research concluded: "With the in vitro diagnosis multivariate index assay (IVDMIA) considered to be capable of yielding patient-specific results, the combinatorial use of multiple glycoproteins may be a good modality to ensure disease-specific, personalized diagnoses."


Our news correspondents report that additional information may be obtained by contacting J.G. Kang, Genome Editing Research Center, KRIBB, Daejeon, South Korea. Additional authors for this research include J.H. Ko and Y.S Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pmic.201500553. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Daejeon, Oncology, South Korea, Article Review, Personalized Medicine.

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New Pharmaceutical Research Findings Has Been Reported by Investigators at University of Hamburg (Multispectral UV imaging for surface analysis of MUPS tablets with special focus on the pellet distribution)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Pharmaceutical Research have been published. According to news reporting from Hamburg, Germany, by NewsRx journalists, research stated, "In the present study the applicability of multispectral UV imaging in combination with multivariate image analysis for surface evaluation of MUPS tablets was investigated with respect to the differentiation of the API pellets from the excipients matrix, estimation of the drug content as well as pellet distribution, and influence of the coating material and tablet thickness on the predictive model. Different formulations consisting of coated drug pellets with two coating polymers (Aquacoat ® ECD and Eudragit ® NE 30 D) at three coating levels each were compressed to MUPS tablets with various amounts of coated pellets and different tablet thicknesses."

The news correspondents obtained a quote from the research from the University of Hamburg, "The coated drug pellets were clearly distinguishable from the excipients matrix using a partial least squares approach regardless of the coating layer thickness and coating material used. Furthermore, the number of the detected drug pellets on the tablet surface allowed an estimation of the true drug content in the respective MUPS tablet. In addition, the pellet distribution in the MUPS formulations could be estimated by UV image analysis of the tablet surface."

According to the news reporters, the research concluded: "This study revealed that UV imaging in combination with multivariate image analysis is a promising approach for the automatic quality control of MUPS tablets during the manufacturing process."


Our news journalists report that additional information may be obtained by contacting A. Novikova, University of Hamburg, Dept. of Chem, Div Pharmaceut Technol, D-20146 Hamburg, Germany. Additional authors for this research include J.M. Carstensen, T. Rades and C.S. Leopold.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.09.087. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hamburg, Germany, Europe, Pharmaceutical Research, Drugs and Therapies, University of Hamburg.

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New Pharmaceutical Research Study Findings Have Been Reported by Investigators at Ewha Woman's University (Transcriptional modulation of regulatory T cell development by novel regulators NR4As)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Pharmaceutical Research have been published. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Regulatory T (Treg) cells with high expression of both CD25 and Foxp3 are developed in the thymus and also peripheral tissues. Treg cells suppress the activation and functions of effector T cells raised against specific antigens and are crucial for maintaining immune homeostasis."

Financial support for this research came from National Research Foundation of Korea.

Our news journalists obtained a quote from the research from Ewha Woman's University, "Treg cell development is associated with the induction of and epigenetic alterations of forkhead transcription factor Foxp3. Foxp3 expression is increased by the activation of several transcription factors including nuclear factor-kappa B (NF-kappa B), nuclear factor of activated T cells (NFAT), and Smad3 in response to various signals such as TGF beta, retinoic acid, and rapamycin. Recently, the orphan nuclear receptor 4A proteins (NR4As) including NR4A1 (Nur77), NR4A2 (Nurr1), and NR4A3 (Nor1) are reported to regulate Treg cell development through activation of Foxp3 and have therapeutic potentials in treating immune disorders."

According to the news editors, the research concluded: "This review summarizes the function and regulatory mechanisms of Treg cells and also implicates current advances in immunomodulatory functions of NR4As and their therapeutic potentials in inflammation and cancer."

For more information on this research see: Transcriptional modulation of regulatory T cell development by novel regulators NR4As. Archives of Pharmacal Research, 2016;39 (11):1530-1536. Archives of Pharmacal Research can be contacted at: Pharmaceutical Soc Korea, 1489-3 Suhcho-Dong, Suhcho-Ku, Seoul 137-071, South Korea. (Springer - www.springer.com; Archives of Pharmacal Research - www.springerlink.com/content/0253-6269/)

The news correspondents report that additional information may be obtained from E.S. Hwang, Ewha Woman's University, Grad Sch Pharmaceut Sci, Seoul 03760, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12272-016-0803-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Pharmaceutical Research, Drugs and Therapies, Genetics, Article Review, Ewha Woman's University.

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New Pharmacoepidemiology and Drug Safety Data Have Been Reported by Researchers at Ajou University (Provider risk factors for medication administration error alerts: analyses of a large-scale closed-loop medication administration system using ...)
New Pharmacokinetics Findings from Wenzhou Medical University Discussed (A Simple and Rapid UPLC Method for the Determination of Rosavin in Rat Plasma and Its Application to a Pharmacokinetic Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pharmacokinetics have been published. According to news reporting originating in Wenzhou, People's Republic of China, by NewsRx journalists, research stated, "Rosavin is a bioactive antidepressant component isolated from Rhodiola rosea L. In this work, an ultra-performance liquid chromatography (UPLC) method was established for the determination of rosavin in rat plasma. The chromatographic separation was achieved on a HSS T3 column (100 mm x 2.1 mm, 1.8 mu m) with a gradient mobile phase consisting of acetonitrile and water (0.1% formic acid)."

The news reporters obtained a quote from the research from Wenzhou Medical University, "Plasma samples were processed with one-step protein precipitation. Rutin was chosen as internal standard and the detection wavelength was 249 nm. The pharmacokinetic parameters were analyzed using the drug and statistics software. The results showed that the established method has an excellent linearity in the range of 10-1,000 ng/mL (R-2 = 0.992) with a lower limit of quantification (10 ng/mL). The intra-and interday precision (relative standard deviation) were from 2.0 to 10.6% and the extraction recovery was 92.4-95.1%.

According to the news reporters, the research concluded: "The simple and rapid UPLC method was successfully applied to the pharmacokinetic and bioavailability study of rosavin in rats."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/chromsci/bmw044. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wenzhou, People's Republic of China, Asia, Pharmacokinetics, Pharmaceuticals, Wenzhou Medical University.

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Pharmacokinetics

New Pharmacokinetics Study Findings Have Been Reported by Investigators at Taussig Cancer Institute (Pharmacokinetically Guided Dosing of Oral Drugs: True Precision Oncology?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacokinetics. According to news reporting originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Higher plasma concentrations of tyrosine kinase inhibitors (TKI), such as pazopanib, are associated with improved clinical outcomes."

Our news editors obtained a quote from the research from Taussig Cancer Institute, "However, TKI pharmacokinetics exhibit significant interpatient variability, resulting in inconsistent and unpredictable plasma drug levels."

According to the news editors, the research concluded: "An individualized dosing approach based on patient pharmacokinetics data and toxicity can potentially optimize plasma concentrations of pazopanib."

For more information on this research see: Pharmacokinetically Guided Dosing of Oral Drugs: True Precision Oncology? Clinical Cancer Research, 2016;22(23):5626-5628. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

The news editors report that additional information may be obtained by contacting B.I. Rini, Cleveland Clinic, Taussig Canc Inst, Dept. of Hematol & Med Oncol, Cleveland, OH 44106, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-16-1833. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Pharmacokinetics, Pharmaceuticals, Oncology, Taussig Cancer Institute.

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Pharmacokinetics

New Pharmacokinetics Study Findings Reported from University Medical Center (Heritability of Caffeine Metabolism: Environmental Effects Masking Genetic Effects on CYP1A2 Activity but Not on NAT2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Pharmacokinetics is now available. According to news originating from Gottingen, Germany, by NewsRx correspondents, research stated, "Heritability of caffeine pharmacokinetics and cytochrome P450 1A2 (CYP1A2) activity is controversial. Here, we analyzed the pharmacokinetics of caffeine, an in vivo probe drug for CYP1A2 and arylamine N-acetyltransferase 2 (NAT2) activity, in monozygotic (MZ) and dizygotic (DZ) twins."

For more information on this research see: Pharmacokinetics - Clinical Pharmacology Research, 2016;22(23):5626-5628. Clinical Pharmacology Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Pharmacology Research - clincancerres.aacrjournals.org/)

The news editors report that additional information may be obtained by contacting B.I. Rini, Cleveland Clinic, Taussig Canc Inst, Dept. of Hematol & Med Oncol, Cleveland, OH 44106, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-16-1833. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Pharmacokinetics, Pharmaceuticals, Oncology, Taussig Cancer Institute.

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Our news journalists obtained a quote from the research from University Medical Center, "In the entire group, common and unique environmental effects explained most variation in caffeine area under the curve (AUC). Apparently, smoking and hormonal contraceptives masked the genetic effects on CYP1A2 activity. However, when excluding smokers and users of hormonal contraceptives, 89% of caffeine AUC variation was due to genetic effects and, even in the entire group, 8% of caffeine AUC variation could be explained by a CYP1A1/1A2 promoter polymorphism (rs2470893). In contrast, nearly all of the variations (99%) of NAT2 activity were explained by genetic effects."

According to the news editors, the research concluded: "This study illustrates two very different situations in pharmacogenetics from an almost exclusively genetic determination of NAT2 activity with no environmental modulation to only moderate genetic effects on CYP1A2 activity with strong environmental modulation."

For more information on this research see: Heritability of Caffeine Metabolism: Environmental Effects Masking Genetic Effects on CYP1A2 Activity but Not on NAT2. Clinical Pharmacology & Therapeutics, 2016;100(6):606-616. Clinical Pharmacology & Therapeutics can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Clinical Pharmacology & Therapeutics - www.nature.com/clpt/)

The news correspondents report that additional information may be obtained from J. Matthaei, University Medical Center, Inst Clin Pharmacol, Gottingen, Germany. Additional authors for this research include M.V. Tzvetkov, J. Strube, D. Sehrt, C. Sachse-Seeboth, J.B. Hjelmborg, S. Moller, U. Halekoh, U. Hofmann, M. Schwab, R. Kerb and J. Brockmoller.

Keywords for this news article include: Gottingen, Germany, Europe, Central Nervous System Stimulants, Phosphodiesterase Inhibitors, Anorexigenic Agent, Pharmacokinetics, Pharmaceuticals, Caffeine, Genetics, University Medical Center.

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**Drugs and Therapies - Pharmacology and Physiology**

**New Pharmacology and Physiology Study Findings Have Been Reported by Researchers at Georgia State University [17-(allylamino)-17-demethoxygeldanamycin drives Hsp70 expression but fails to improve morphological or functional recovery in injured ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmacology and Physiology. According to news reporting out of Atlanta, Georgia, by NewsRx editors, research stated, "The stress inducible 70 kDa heat shock protein (Hsp70) is instrumental to efficient morphological and functional recovery following skeletal muscle injury because of its roles in protein quality control and molecular signalling. Therefore, in attempt to improve recovery, Hsp70 expression was increased with 17-(allylamino)-17-demethoxygeldanamycin (17-AAG) prior to and following an intramuscular injection of barium chloride (BaCl2) into the tibialis anterior (TA) of healthy young mice."

Our news journalists obtained a quote from the research from Georgia State University, "To assess recovery, regenerating fibre cross-sectional area (CSA) of the TA and in vivo peak isometric torque produced by the anterior crural muscles (TA, extensor digitorum..."
longus and extensor hallucis muscles) were analyzed for up to 3 weeks after the injury. Because treatment of 17-AAG and Hsp70 are known to influence inflammatory and myogenic signalling, tumor necrosis factor-a (TNF-a) and myogenin content were also assessed. This study reports that 17-AAG was effective at up-regulating Hsp70 expression, increasing content fivefold in the uninjured muscle. However, this significant increase in Hsp70 content did not enhance morphological or functional recovery following the injury, as the return of regenerating fibre CSA and in vivo peak isometric torque did not differ compared to that of the injured muscle from the vehicle treated mice. Treatment with 17-AAG also altered TNF-a and myogenin content, increasing both to a greater extent after the injury.

According to the news editors, the research concluded: "Together, these findings demonstrate that although 17-AAG may alter molecular makers of regeneration, it does not improve recovery following BaCl2-induced skeletal muscle injury in healthy young mice."


Our news journalists report that additional information may be obtained by contacting C.W. Baumann, Muscle Biology Laboratory, Dept. of Kinesiology and Health, Georgia State University, Atlanta, GA, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1440-1681.12477. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, Drugs and Therapies, North and Central America, Pharmacology and Physiology.

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**Drugs and Therapies - Pharmacy Practice**

**New Pharmacy Practice Findings from M.E. Sanders and Co-Researchers Described (Probiotic use in at-risk populations)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Pharmacy Practice is the subject of a report. According to news reporting out of Centennial, Colorado, by NewsRx editors, research stated, "To inform health care providers about quality standards for manufacture of probiotic products being recommended for at-risk patient populations. Probiotics are used in a variety of clinical settings, sometimes in at-risk populations for therapeutic endpoints."

Our news journalists obtained a quote from the research, "Although probiotics might not be approved as drugs, they are sometimes used for the prevention or treatment of disease. In the United States, and many regions of the world, probiotic products are marketed as dietary supplements (not drugs) and are therefore subject to different manufacturing and quality control standards than approved drugs are. Health care providers need to be assured that probiotic products used in at-risk populations are safe for this use. Pharmacists should require certificates of analysis, which document quality standards, from manufacturers of products stocked in hospital formularies or other pharmacies dispensing to at-risk people. Although responsible
manufacturers use stringent quality standards on their processes and finished products, using a third party to verify compliance with manufacturing and accuracy of product labeling adds assurance to end users that the product is of high quality. It is in patients’ best interest to use probiotics in the prevention and treatment of conditions when the evidence is convincing. To protect high-risk patients, probiotic products should meet stringent microbiological standards. Product testing results should be available for review before recommending probiotic products to at-risk individuals."

According to the news editors, the research concluded: "For products used in at-risk populations, manufacturers should provide this information or participate in a third-party verification program that certifies compliance."


Our news journalists report that additional information may be obtained by contacting M.E. Sanders, Int Sci Assoc Probiot & Prebiot, Centennial, CO 80122, United States. Additional authors for this research include D.J. Merenstein, A.C. Ouwehand, G. Reid, S. Salminen, M.D. Cabana, G. Paraskevakos and G. Leyer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.japh.2016.07.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Centennial, Colorado, United States, North and Central America, Pharmacy Practice, Drugs and Therapies.

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**New Pharmacy and Pharmaceutical Sciences Findings from C. Shimizu et al Outlined**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Pharmacy and Pharmaceutical Sciences are discussed in a new report. According to news reporting originating in Shizuoka, Japan, by NewsRx journalists, research stated, "Heavy and long-term alcohol consumption increase the risk of alcohol-related diseases. Epidemiological studies show moderate drinking reduces the risk of mortality, cardiovascular diseases, and brain infarction in the J-shaped or U-shaped curve effect."

The news reporters obtained a quote from the research, "However, why moderate drinkers may be healthy and non-drinkers may be ill in diverse populations remains controversial. Herein, we examined the relationship between moderate/lifelong alcohol intake and aging, especially aging-related cognitive functions in senescence-accelerated mouse prone 8 (SAMP8) model. SAMP8 model (5-week-old, male, n = 36), a model of age-related cognitive deficit, were group-housed (n = 6/cage) and provided free access to water (water group, n = 18) or 1% ethanol (EtOH group, n = 18, intake started when mice were 9 weeks old). The object
recognition test (ORT) and object location test (OLT) were used to evaluate cognitive functions. The intestinal flora at the age of 87 weeks was analyzed by terminal restriction fragment length polymorphism (T-RFLP). The lifespan of the EtOH-group mice was about 4 weeks longer than that of the water-group mice. In the EtOH group, spatial recognition impairment, assessed by OLT, was observed later (age, 73 weeks) than that in the water group (age, 52 weeks). The spinal curvature and skin conditions progressed significantly slower in the EtOH group than in the water group. Moreover, diarrhea symptoms only appeared in the water group, at the age of 82 weeks. The T-RFLP analysis of the intestinal flora indicated higher Lactobacillales order and lower Clostridium cluster XI in the EtOH group than in the water group, although those were extremely high in some mice close to death in both groups. Water-group mice with diarrhea presented significantly higher Clostridium cluster XI than did those without diarrhea (P = 0.017).

According to the news reporters, the research concluded: "Moderate alcohol intake changes intestinal flora and positively affects aging of SAMP8 model."


Our news correspondents report that additional information may be obtained by contacting C. Shimizu, SAPPORO HOLDINGS LTD, Frontier Labs Value Creat, Yaizu, Shizuoka, Japan. Additional authors for this research include Y. Oki, Y. Mitani, Y. Tsuchiya and T. Nabeshima.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18433/J3990V. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shizuoka, Japan, Asia, Pharmacy and Pharmaceutical Sciences, Drugs and Therapies, Diarrhea, Epidemiology, Risk and Prevention, Genetics.

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Phenothiazines

New Phenothiazines Findings Reported from University of Tehran (Evaluation of photo-activated disinfection effectiveness with methylene blue against Porphyromonas gingivalis involved in endodontic infection: An in vitro study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Phenothiazines have been presented. According to news reporting out of Tehran, Iran, by NewsRx editors, research stated, "Eradication or suppression of microbial pathogens is a major goal in endodontic infection therapy. Sub-lethal doses of photo-activated disinfection (sPAD) as a new treatment method might be able to control the microorganisms involved in endodontic infections normally treated with PAD."

Financial support for this research came from Tehran University of Medical Sciences
Our news journalists obtained a quote from the research from the University of Tehran, "This study evaluated the effect of sPAD using methylene blue (MB) in combination with diode laser irradiation on the growth and biofilm formation ability of Porphyromonas gingivalis as an endodontic pathogen. The anti-microbial and anti-biofilm potential of sPAD against P. gingivalis were assessed at sub-lethal doses of MB and irradiation by diode laser on colony forming unit and crystal violet assays, respectively. MB-sPAD using 25 µg/mL at a fluency of 117.18 J/cm(2) and 50-100 µg/mL at a fluency of 93.75J/cm(2) significantly P. gingivalis growth when compared to the control. MB at 100 µg/mL at a fluency of 117.18 J/cm(2) in MB-mediated PAD showed a significant inhibitory effect on biofilm formation in P. gingivalis compared with MB-sPAD. High doses of MB-mediated sPAD exhibited anti-microbial and anti-biofilm potential activity, whereas lower doses of MB-mediated sPAD did not display this ability."

According to the news editors, the research concluded: "Therefore, the dose of PAD used in vivo should be taken into account for endodontic treatment."


Our news journalists report that additional information may be obtained by contacting A. Bahador, Univ Tehran Med Sci, Laser Res Center, Dental Res Inst, Tehran, Iran. Additional authors for this research include N. Chiniforush, R. Raooofian, B. Pourakbari, R. Ghorbanzadeh, F. Bazarjani and A. Bahador.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pdpdt.2016.09.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Gram-Negative Anaerobic Bacteria, Porphyromonas gingivalis, Gram-Negative Bacteria, Urinary Antinfectives, Drugs and Therapies, Bacteroidaceae, Methylene Blue, Phenothiazines, Bacteroidetes, Endodontics, Antidotes, University of Tehran.

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glucokinase protein activators. The conformations obtained by molecular dynamics simulation were superimposed according to the twelve alignments tested in a virtual three-dimensional box comprised of 2,000 cells.

Financial supporters for this research include Conselho Nacional de Desenvolvimento Científico e Tecnológico, Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Fundação de Amparo a Pesquisa do Estado de Minas Gerais.

The news reporters obtained a quote from the research from Federal University, "The models were generated by the technique that combines genetic algorithms and partial least squares. The best alignment models generated with a determination coefficient (r(2)) between 0.674 and 0.743 and cross-validation (q(2)) between 0.509 and 0.610, indicating good predictive capacity."

According to the news reporters, the research concluded: "The 4D-QSAR models developed in this study suggest novel molecular regions to be explored in the search for better glucokinase activators."


Our news correspondents report that additional information may be obtained by contacting T.M. de Assis, Dept. of Chemistry, Federal University of Lavras, PO Box 3037, Lavras, 37200-000, Brazil. Additional authors for this research include G.C. Gajo, L.C. de Assis, L.S. Garcia, D.R. Silva, T.C. Ramalho and E.F da Cunha.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12683. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Chemical Biology & Drug Design can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Lavras, Brazil, Physics, Glucokinase, South America, Molecular Dynamics, Drugs and Therapies, Enzymes and Coenzymes, Phosphotransferases (Alcohol Group Acceptor).

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Chemistry - Physical Chemistry

New Physical Chemistry Data Have Been Reported by Researchers at University of Maryland (Constant pH Molecular Dynamics Reveals pH-Modulated Binding of Two Small-Molecule BACE1 Inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Chemistry - Physical Chemistry have been published. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Targeting β-secretase (BACE1) with small-molecule inhibitors offers a promising route for treatment of Alzheimer's disease. However, the intricate pH dependence of BACE1 function and inhibitor efficacy has posed major challenges for structure-based drug design."
Financial supporters for this research include Division of Molecular and Cellular Biosciences, National Institute of General Medical Sciences.

Our news journalists obtained a quote from the research from the University of Maryland, "Here we investigate two structurally similar BACE1 inhibitors that have dramatically different inhibitory activity using continuous constant pH molecular dynamics (CpHMD). At high pH, both inhibitors are stably bound to BACE1; however, within the enzyme active pH range, only the iminopyrimidinone-based inhibitor remains bound, while the aminothiazine-based inhibitor becomes partially dissociated following the loss of hydrogen bonding with the active site and change of the 10s loop conformation. The drastically lower activity of the second inhibitor is due to the protonation of a catalytic aspartate and the lack of a propyne tail."

According to the news editors, the research concluded: "This work demonstrates that CpHMD can be used for screening pH-dependent binding profiles of small-molecule inhibitors, providing a new tool for structure-based drug design and optimization."


The news correspondents report that additional information may be obtained from C.R. Ellis, Dept. of Pharmaceutical Sciences, University of Maryland School of Pharmacy, Baltimore, Maryland 21201, United States. Additional authors for this research include C.C. Tsai, X. Hou and J. Shen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jpcl.6b00137. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maryland, Baltimore, United States, Molecular Dynamics, Physical Chemistry, North and Central America.

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Physical Fitness

New Physical Fitness Study Results Reported from Aalborg University (Association Between Physical Fitness and Academic Achievement in a Cohort of Danish School Pupils)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Physical Fitness are discussed in a new report. According to news originating from Aalborg, Denmark, by NewsRx correspondents, research stated, "Time spent on physical activity in elementary school has been altered to improve core academics. However, little is known about the relationship between physical fitness and academic achievement."

Financial support for this research came from Helsefonden.

Our news journalists obtained a quote from the research from Aalborg University, "We examined the association between physical fitness and academic achievement and investigated the influence of parental socioeconomic status and ethnicity. Participants were 542 girls and 577 boys aged 13 to 15 residing in the Danish municipality of Aalborg. A watt-max cycle ergometer test was completed to evaluate physical fitness as represented by VO(2)max"
Academic achievement was measured 1 school year later through a series of mandatory exams within the humanities, sciences, and all obligatory defined exams. Parental income and education were drawn from nationwide registers. Linear regression models were used to investigate the association. Adjusting for ethnicity and parental socioeconomic status, the effect size of the humanities was 0.08 grad/VO(2)max (95% CI: 0.05 to 0.11) for girls and 0.06 grad/VO(2)max (95% CI: 0.03 to 0.08) for boys. The effect size of the sciences was 0.09 grad/VO(2)max (95% CI: 0.05 to 0.13) for girls and 0.06 grad/VO(2)max (95% CI: 0.03 to 0.09) for boys. The effect size of the defined exams was 0.09 grad/VO(2)max (95% CI: 0.06 to 0.11) for girls and 0.06 grad/VO(2)max (95% CI: 0.03 to 0.08) for boys.

According to the news editors, the research concluded: "We found a statistically significant positive association between physical fitness and academic achievement after adjusting for ethnicity and parental socioeconomic status."


The news correspondents report that additional information may be obtained from M.P. Andersen, Aalborg Univ, Fac Med, Dept. of Hlth Sci & Technol, Public Hlth & Epidemiol Grp, DK-9220 Aalborg, Denmark. Additional authors for this research include R.N. Mortensen, H. Vardinghus-Nielsen, J. Franch, C. Torp-Pedersen and H. Boggild.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/josh.12422. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aalborg, Denmark, Europe, Physical Fitness, Exercise, Aalborg University.

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Physiology, Nutrition and Metabolism

New Physiology, Nutrition and Metabolism Study Findings Have Been Reported by Researchers at University of Porto (Exercise mitigates mitochondrial permeability transition pore and quality control mechanisms alterations in nonalcoholic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Physiology, Nutrition and Metabolism have been presented. According to news reporting out of Porto, Portugal, by NewsRx editors, research stated, "Mitochondrial quality control and apoptosis have been described as key components in the pathogenesis of nonalcoholic steatohepatitis (NASH); exercise is recognized as a nonpharmacological strategy to counteract NASH-associated consequences. We aimed to analyze the effect of voluntary physical activity (VPA) and endurance training (ET) against NASH-induced mitochondrial permeability transition pore (mPTP) opening and mitochondrial and cellular quality control deleterious alterations."

Our news journalists obtained a quote from the research from the University of Porto, "Forty-eight male Sprague-Dawley rats were divided into standard-diet sedentary (SS, n=
16), standard-diet VPA (n=8), high-fat diet sedentary (HS, n=16), and high-fat diet VPA (n=8). After 9 weeks of diet treatment, half of the SS and HS groups were engaged in an ET program for 8 weeks, 5 days/week, 1 h/day. Liver mPTP susceptibility through osmotic swelling, mPTP-related proteins (cyclophilin D, Sirtuin3, Cofilin-1), markers of mitochondrial biogenesis ((mitochondrial transcription factor A (Tfam) and peroxisome proliferator-activated receptor gamma co-activator protein (PGC-1a)), dynamics (Mitofusin 1 (Mfn1), Mitofusin 2 (Mfn2), Dynamin related protein 1, and Optic atrophy 1)), auto/mitophagy (Beclin-1, microtubule-associated protein 1 light chain 3, p62, PINK1, and Parkin), and apoptotic signaling (Bax, Bcl-2) and caspases-like activities were assessed. HS animals showed an increased susceptibility to mPTP, compromised expression of Tfam, Mfn1, PINK1, and Parkin and an increase in Bax content (HS vs. SS). ET and VPA improved biogenesis-related proteins (PGC-1a) and autophagy signaling (Beclin-1 and Beclin-1/Bcl-2 ratio) and decreased apoptotic signaling (caspases 8 activity, Bax content, and Bax/Bcl-2 ratio). However, only ET decreased mPTP susceptibility and positively modulated Bcl-2, Tfam, Mfn1, Mfn2, PINK1, and Parkin content.

According to the news editors, the research concluded: "Exercise reduces the increased susceptibility to mPTP induced by NASH and promotes the increase of auto/mitophagy and mitochondrial fusion towards a protective phenotype."


Our news journalists report that additional information may be obtained by contacting I.O. Goncalves, a Research Center in Physical Activity, Health and Leisure, Faculty of Sport, University of Porto, Rua Dr Placido Costa, n° 91 4200-450 Porto, Portugal. Additional authors for this research include E. Passos, C.V. Diogo, S. Rocha-Rodrigues, E. Santos-Alves, P.J. Oliveira, A. Ascenso and J. Magalhaes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1139/apnm-2015-0470. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Applied Physiology, Nutrition, and Metabolism* is: National Research Council of Canada, NRC Communications & Corporate Relations, 1200 Montreal Road, Bldg. M-58, Ottawa, Ontario, Canada K1A 0R6.

Keywords for this news article include: Porto, Portugal, Europe, Genetics, Physiology, Nutrition and Metabolism.

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Drugs and Therapies - Piperazine Therapy

**New Piperazine Therapy Study Results Reported from Charles University (Large-Scale Synthesis of Piperazine-2,6-dione and Its Use in the Synthesis of Dexrazoxane Analogues)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- A new study on Drugs and Therapies - Piperazine Therapy is now available. According to news reporting out of Hradec Kralove, Czech Republic, by NewsRx editors, research stated, "An efficient, large-scale synthesis of piperazine-2,6-dione was developed."

Our news journalists obtained a quote from the research from Charles University, "The advantages of this procedure include the use of inexpensive starting materials, satisfactory yields, and a convenient workup without the need for chromatographic techniques. Furthermore, this procedure can be easily modified for the preparation of 1-substituted piperazine-2,6-dione hydrobromides."

According to the news editors, the research concluded: "The utility of the prepared piperazine-2,6-dione was demonstrated in the synthesis of a novel analogue of the only drug used in clinical practice to prevent anthracycline-induced cardiotoxicity, dexrazoxane."

For more information on this research see: Large-Scale Synthesis of Piperazine-2,6-dione and Its Use in the Synthesis of Dexrazoxane Analogues. Synthesis-Stuttgart, 2016;48 (24):4580-4588. Synthesis-Stuttgart can be contacted at: Georg Thieme Verlag Kg, Ruderstr 14, D-70469 Stuttgart, Germany.

Our news journalists report that additional information may be obtained by contacting J. Roh, Charles Univ Prague, Fac Pharm Hradec Kralove, Hradec Kralove 50005, Czech Republic. Additional authors for this research include G. Karabanovich, V. Novakova, T. Simunek and K. Vavrova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0035-1562618. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hradec Kralove, Czech Republic, Europe, Dexrazoxane Therapy Hydrochloride, Drugs and Therapies, Piperazine Therapy, Pharmaceuticals, Antinematodal, Anthelmintics, Charles University.

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Hematology - Plasma

New Plasma Data Have Been Reported by Investigators at University of Colorado (Glutamine metabolism drives succinate accumulation in plasma and the lung during hemorrhagic shock)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematology - Plasma is now available. According to news reporting out of Aurora, Colorado, by NewsRx editors, research stated, "Metabolomic investigations have consistently reported succinate accumulation in plasma after critical injury. Succinate receptors have been identified on numerous tissues, and succinate has been directly implicated in postsischemic inflammation, organ dysfunction, platelet activation, and the generation of reactive oxygen species, which may potentiate morbidity and mortality risk to patients."

Our news journalists obtained a quote from the research from the University of Colorado, "Metabolic flux (heavy-isotope labeling) studies demonstrate that glycolysis is not the primary source of increased plasma succinate during protracted shock. Glutamine is an alternative parent substrate for ATP generation during anaerobic conditions, a biochemical
mechanism that ultimately supports cellular survival but produces succinate as a catabolite. We hypothesize that succinate accumulation during hemorrhagic shock is driven by glutaminolysis. Sprague-Dawley rats were subjected to hemorrhagic shock for 45 minutes (shock, \(n = 8\)) and compared with normotensive shams (sham, \(n = 8\)). At 15 minutes, animals received intravenous injection of C-13(5)-N-15(2)-glutamine solution (iLG). Blood, brain, heart, lung, and liver tissues were harvested at defined time points. Labeling distribution in samples was determined by ultrahigh-pressure liquid chromatography-mass spectrometry metabolomic analysis. Repeated-measures analysis of variance with Tukey comparison determined significance of relative fold change in metabolite level from baseline. Hemorrhagic shock instigated succinate accumulation in plasma and lungs tissues (8.5- vs. 1.1-fold increase plasma succinate level from baseline, shock vs. sham, \(p = 0.001\); 3.2-fold higher succinate level in lung tissue, shock vs. sham, \(p = 0.006\)). Metabolomic analysis identified labeled glutamine and labeled succinate in plasma (\(p = 0.002\)) and lung tissue (\(p = 0.013\)), confirming glutamine as the parent substrate. Kinetic analyses in shams showed constant total levels of all metabolites without significant change due to iLG. Glutamine metabolism contributes to increased succinate concentration in plasma during hemorrhagic shock."

According to the news editors, the research concluded: "The glutaminolytic pathway is implicated as a therapeutic target to prevent the contribution of succinate accumulation in plasma and the lung-to-postshock pathogenesis."

For more information on this research see: Glutamine metabolism drives succinate accumulation in plasma and the lung during hemorrhagic shock. *Journal of Trauma and Acute Care Surgery*, 2016;81(6):1012-1019. *Journal of Trauma and Acute Care Surgery* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting E.D. Peltz, Univ Colorado Denver, Dept. of Surg, Aurora, CO, United States. Additional authors for this research include A. D'Alessandro, E.E. Moore, A. Banerjee, C.C. Silliman, K.C. Hansen, J.A. Reisz, M. Fragoso, M.J. Wither, A.W. Bacon, H.B. Moore and E.D. Peltz.

Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Hematology, Risk and Prevention, Diamino Amino Acids, Neutral Amino Acids, Dicarboxylic Acids, Hemorrhagic Shock, Basic Amino Acids, Pharmaceuticals, Succinic Acids, Succinates, Glutamine, Plasma, Blood, University of Colorado.

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**Hematology - Plasma**

**New Plasma Findings from Academy of Sciences of the Czech Republic Described (Quantitation of isobaric phosphatidylcholine species in human plasma using a hybrid quadrupole linear ion-trap mass spectrometer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Plasma. According to news reporting from Prague, Czech Republic, by NewsRx journalists, research stated,
"Phosphatidylcholine (PC) species in human plasma are used as biomarkers of disease. PC biomarkers are often limited by the inability to separate isobaric PCs."

Funders for this research include National Institute of Food and Agriculture, Agricultural Research Service.

The news correspondents obtained a quote from the research from the Academy of Sciences of the Czech Republic, "In this work, we developed a targeted shotgun approach for analysis of isobaric and isomeric PCs. This approach is comprised of two MS methods: a precursor ion scanning (PIS) of mass m/z 184 in positive mode (PIS m/z +184) and MS3 fragmentation in negative mode, both performed on the same instrument, a hybrid triple quadrupole ion-trap mass spectrometer. The MS3 experiment identified the FA composition and the relative abundance of isobaric and sn-1, sn-2 positional isomeric PC species, which were subsequently combined with absolute quantitative data obtained by PIS m/z +184 scan. This approach was applied to the analysis of a National Institute of Standards and Technology human blood plasma standard reference material (SRM 1950). We quantified more than 70 PCs and confirmed that a majority are present in isobaric and isomeric mixtures. The FA content determined by this method was comparable to that obtained using GC with flame ionization detection, supporting the quantitative nature of this MS method."

According to the news reporters, the research concluded: "This methodology will provide more in-depth biomarker information for clinical and mechanistic studies."


Our news journalists report that additional information may be obtained by contacting P. Zacek, Biochem Academy Sci Czech Republ, Prague 16610 6, Czech Republic. Additional authors for this research include M. Bukowski, T.A. Rosenberger and M. Picklo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1194/jlr.D070656. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Prague, Czech Republic, Europe, Hematology, Plasma, Blood, Academy of Sciences of the Czech Republic.

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**Hematology - Plasma**

**New Plasma Study Findings Have Been Reported by Investigators at University Medical Center (Development of a Simple and Rapid Method to Measure the Free Fraction of Tacrolimus in Plasma Using Ultrafiltration and LC-MS/MS)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematology - Plasma. According to news reporting originating in Utrecht, Netherlands, by NewsRx journalists, research stated, "Tacrolimus is an immunosuppressant mainly used in the prophylaxis of solid organ transplant..."
rejection. Therapeutic drug monitoring of tacrolimus is essential for avoiding toxicity related to overexposure and transplant rejection from underexposure."

The news reporters obtained a quote from the research from University Medical Center, "Previous studies suggest that unbound tacrolimus concentrations in the plasma may serve as a better predictor of tacrolimus-associated nephrotoxicity and neurotoxicity compared to tacrolimus concentration in whole blood. Monitoring the plasma concentrations of unbound tacrolimus might be of interest in preventing tacrolimus-related toxicity. Therefore, the aim was to develop a method for the measurement of total and unbound tacrolimus concentrations in plasma. The sample preparation for the determination of the plasma concentrations of unbound tacrolimus consisted of an easy-to-use ultrafiltration method followed by solid-phase extraction. To determine the total concentration of tacrolimus in plasma, a simple method based on protein precipitation was developed. The extracts were injected into a Thermo Scientific HyPurity C18 column using gradient elution. The analytes were detected by liquid chromatography-tandem mass spectrometry with positive ionization. The method was validated over a linear range of 1.00-200 ng/L for unbound tacrolimus concentrations in plasma and 100-3200 ng/L for total plasma concentrations. The lower limit of quantification was 1.00 ng/L in ultrafiltrate and 100 ng/L in plasma. The inaccuracy and imprecision for the determination of unbound tacrolimus concentrations in ultrafiltrate and plasma showed a maximum coefficients of variation (CV) of 11.7% and a maximum bias of 3.8%. A rapid and easy method based on ultrafiltration and liquid chromatography-tandem mass spectrometry was established to measure the total and unbound tacrolimus concentrations in plasma."

According to the news reporters, the research concluded: "This method can facilitate further investigations on the relationship between plasma concentrations of unbound tacrolimus and clinical outcomes in transplant recipients."

For more information on this research see: Development of a Simple and Rapid Method to Measure the Free Fraction of Tacrolimus in Plasma Using Ultrafiltration and LC-MS/MS. *Therapeutic Drug Monitoring*, 2016;38(6):722-727. *Therapeutic Drug Monitoring* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting N.A. Stienstra, Univ Med Center Utrecht, Dept. of Clin Pharm, NL-3508 GA Utrecht, Netherlands. Additional authors for this research include M.A. Sikma, A.L. van Dapperen, D.W. de Lange and E.M. van Maarseveen.

Keywords for this news article include: Utrecht, Netherlands, Europe, Immunosuppressive Agents, Drugs and Therapies, Tacrolimus Therapy, Pharmaceuticals, Macrolides, Hematology, Plasma, Blood, University Medical Center.

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Platinum Compounds

New Platinum Compounds Findings Reported from Department of Pharmacology (Edaravone alleviates cisplatin-induced neurobehavioral deficits via modulation of oxidative stress and inflammatory mediators in the rat hippocampus)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Platinum Compounds are presented in a new report. According to news originating from Gauhati, India, by NewsRx correspondents, research stated, "Cisplatin is a chemotherapeutic agent used in the treatment of malignant tumors. A major clinical limitation of cisplatin is its potential toxic effects, including neurotoxicity."

Our news journalists obtained a quote from the research from the Department of Pharmacology, "Edaravone, a potent free radical scavenger, has been reported to have the neuroprotective effect against neurological deficits. The aim of the present study was to determine the neuroprotective effect of edaravone against cisplatin-induced behavioral and biochemical anomalies in male Wistar rats. Our results showed that cisplatin (5 mg/kg/week, i.p.) administration for seven weeks caused marked cognitive deficits and motor incoordination in rats. This was accompanied by oxido-nitrosative stress, neuroinflammation, NE-kappa B activation and down regulation of Nrf2/HO-1 gene expression level in the hippocampus. Edaravone (10 mg/kg/week, i.p.) treatment for seven weeks inhibited the aforementioned neurobehavioral and neurochemical deficits. Furthermore, edaravone was found to up-regulate the gene expression level of Nrf2/HO-1 and prevented the cisplatin-induced NE-kappa B activation."

According to the news editors, the research concluded: "These findings demonstrated that oxido-nitrosative stress and inflammatory signaling mediators play a key role in the development of cisplatin-induced neurobehavioral deficits which were prevented by edaravone treatment."

For more information on this research see: Edaravone alleviates cisplatin-induced neurobehavioral deficits via modulation of oxidative stress and inflammatory mediators in the rat hippocampus. European Journal of Pharmacology, 2016;791():51-61. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news correspondents report that additional information may be obtained from M. Lahkar, Gauhati Med College, Dept. of Pharmacol, Gauhati, India. Additional authors for this research include M. Kwatra, T. Singh, R. Pant, P. Kushwah, S. Ahmed, D. Dwivedi, B. Saroha and M. Lahkar.

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Keywords for this news article include: Gauhati, India, Asia, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin, Department of Pharmacology.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Platinum Compounds. According to news reporting originating in Shenzhen, People's Republic of China, by NewsRx journalists, research stated, "DNA damage response plays a key role not only in maintaining genome integrity but also in mediating the antitumor efficacy of DNA-damaging antineoplastic drugs. Herein, we report the rational design and evaluation of a Pt-IV anticancer prodrug inhibiting nucleotide excision repair (NER), one of the most pivotal processes after the formation of cisplatin-induced DNA damage that deactivates the drug and leads to drug resistance in the clinic."

The news reporters obtained a quote from the research from the City University of Hong Kong, "This dual-action prodrug enters cells efficiently and causes DNA damage while simultaneously inhibiting NER to promote apoptotic response. The prodrug is strongly active against the proliferation of cisplatin-resistant human cancer cells with an up to 88-fold increase in growth inhibition compared with cisplatin, and the prodrug is muchmore active than a mixture of cisplatin and an NER inhibitor."

According to the news reporters, the research concluded: "Our study highlights the importance of targeting downstream pathways after the formation of Pt-induced DNA damage as a novel strategy to conquer cisplatin resistance."


Our news correspondents report that additional information may be obtained by contacting G.Y. Zhu, City University of Hong Kong, Shenzhen Res Inst, Shenzhen, People's Republic of China. Additional authors for this research include Z.F. Xu and G.Y. Zhu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/anie.201608936. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shenzhen, People's Republic of China, Asia, Deoxyribonucleic Acid, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin Therapy, Alkylating Agents, Pharmaceuticals, Antineoplastics, Cancer Therapy, DNA Research, Proteomics, DNA Damage, Genetics, City University of Hong Kong.

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Lung Diseases and Conditions - Pneumonia

New Pneumonia Study Findings Reported from J. Hoffmann and Co-Authors (Viral and bacterial co-infection in severe pneumonia triggers innate immune responses and specifically enhances IP-10: a translational study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Pneumonia. According to news reporting from Lyon, France, by NewsRx journalists, research stated, "Mixed
viral and bacterial infections are widely described in community-acquired pneumonia; however, the clinical implications of co-infection on the associated immunopathology remain poorly studied. In this study, microRNA, mRNA and cytokine/chemokine secretion profiling were investigated for human monocyte-derived macrophages infected in-vitro with Influenza virus A/H1N1 and/or Streptococcus pneumoniae."

The news correspondents obtained a quote from the research, "We observed that the in-vitro co-infection synergistically increased interferon-gamma-induced protein-10 (CXCL10, IP-10) expression compared to the singly-infected cells conditions. We demonstrated that endogenous miRNA-200a-3p, whose expression was synergistically induced following co-infection, indirectly regulates CXCL10 expression by targeting suppressor of cytokine signaling-6 (SOCS-6), a well-known regulator of the JAK-STAT signaling pathway. Additionally, in a subsequent clinical pilot study, immunomodulators levels were evaluated in samples from 74 children (≤ 5 years-old) hospitalized with viral and/or bacterial community-acquired pneumonia. Clinically, among the 74 cases of pneumonia, patients with identified mixed-detection had significantly higher (3.6-fold) serum IP-10 levels than those with a single detection (P = 0.03), and were significantly associated with severe pneumonia (P < 0.01)."

According to the news reporters, the research concluded: "This study demonstrates that viral and bacterial co-infection modulates the JAK-STAT signaling pathway and leads to exacerbated IP-10 expression, which could play a major role in the pathogenesis of pneumonia."


Keywords for this news article include: Lyon, France, Europe, Intercellular Signaling Peptides and Proteins, Respiratory Tract Diseases and Conditions, Bacterial Infections and Mycoses, Lung Diseases and Conditions, Respiratory Tract Infections, Infectious Disease, Chemokine CXCL10, CXC Chemokines, Pulmonology, Pneumonia, Genetics, Viral, Virus.

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**Hematologic Diseases and Conditions - Polycythemia**

**New Polycythemia Study Findings Recently Were Reported by Researchers at Eunice Kennedy Shriver National Institute of Child Health and Human Development (Novel insights into the polycythemia-paraganglioma-somatostatinoma syndrome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematologic Diseases and Conditions - Polycythemia are discussed in a new report. According to news reporting from Bethesda, Maryland, by
NewsRx journalists, research stated, "Worldwide, the syndromes of paraganglioma (PGL), somatostatinoma (SOM) and early childhood polycythemia are described in only a few patients with somatic mutations in the hypoxia-inducible factor 2 alpha (HIF2A). This study provides detailed information about the clinical aspects and course of 7 patients with this syndrome and brings into perspective these experiences with the pertinent literature."

The news correspondents obtained a quote from the research from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, "Six females and one male presented at a median age of 28 years (range 11-46). Two were found to have HIF2A somatic mosaicism. No relatives were affected. All patients were diagnosed with polycythemia before age 8 and before PGL/SOM developed. PGLs were found at a median age of 17 years (range 8-38) and SOMs at 29 years (range 22-38). PGLs were multiple, recurrent and metastatic in 100, 100 and 29% of all cases, and SOMs in 40, 40 and 60%, respectively. All PGLs were primarily norepinephrine-producing. All patients had abnormal ophthalmologic findings and those with SOMs had gallbladder disease. Computed tomography (CT) and magnetic resonance imaging revealed cystic lesions at multiple sites and hemangiomas in 4 patients (57%), previously thought to be pathognomonic for von Hippel-Lindau disease. The most accurate radiopharmaceutical to detect PGL appeared to be [F-18]- fluorodihydroxyphenylalanine ([F-18]-FDOPA). Therefore, [F-18]-FDOPA PET/CT, not [Ga-68]-(DOTA)-[Tyr3]-octreotate ([Ga-68]-DOTATATE) PET/CT is recommended for tumor localization and aftercare in this syndrome. The long term prognosis of the syndrome is unknown. However, to date no deaths occurred after 6 years follow-up."

According to the news reporters, the research concluded: "Physicians should be aware of this unique syndrome and its diagnostic and therapeutic challenges."

For more information on this research see: Novel insights into the polycythemia-paraganglioma-somatostatinoma syndrome. *Endocrine-Related Cancer*, 2016;23(12):899-908. *Endocrine-Related Cancer* can be contacted at: Bioscientifica Ltd, Euro House, 22 Apex Court Woodlands, Bradley Stoke, Bristol BS32 4JT, England.


Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Pituitary Hormone Release Inhibiting Hormones, Hemic and Lymphatic Diseases and Conditions, Digestive System Diseases and Conditions, Endocrine System Diseases and Conditions, Hematologic Diseases and Conditions, Pancreatic Diseases and Conditions, Digestive System Neoplasms, Endocrine Gland Neoplasms, Nerve Tissue Proteins, Islet Cell Carcinoma, Pancreatic Neoplasms, Pancreatic Hormones, Peptide Proteins, Peptide Hormones, Somatostatinoma, Paragangliomas, Neuropeptides, Polycythemia, Genetics, Eunice Kennedy Shriver National Institute of Child Health and Human Development.

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New Polyethylene Glycols Findings from University of Belgrade Outlined (Lignin model compound in alginate hydrogel: a strong antimicrobial agent with high potential in wound treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Polyethylene Glycols have been published. According to news reporting originating in Belgrade, Serbia, by NewsRx journalists, research stated, "Nowadays bacterial resistance to known antibiotics is a serious health problem. In order to achieve more efficient treatment, lately there is an effort to find new substances, such as certain biomaterials, that are non-toxic to humans with antibiotic potential."

Financial support for this research came from Ministry of Education, Science and Technological Development of the Republic of Serbia.

The news reporters obtained a quote from the research from the University of Belgrade, "Lignins and lignin-derived compounds have been proposed to be good candidates for use in medicine and health maintenance. In this study, the antibacterial activity of the lignin model polymer dehydrogenate polymer (DHP) in alginate hydrogel (Alg) was studied. The obtained results show that DHP-Alg has strong antimicrobial activity against several bacterial strains and biofilms and does not have a toxic effect on human epithelial cells."

According to the news reporters, the research concluded: "These results strongly suggest its application as a wound healing agent or as an adjunct substance for wound treatments."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.08.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belgrade, Serbia, Europe, Polyethylene Glycols, Organic Chemicals, Alcohols, Hydrogel, University of Belgrade.

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**Membrane Proteins - Polymyxins**

**New Polymyxins Findings from Monash University Discussed (p53 Mediates Colistin-Induced Autophagy and Apoptosis in PC-12 Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Membrane Proteins - Polymyxins are presented in a new report. According to news reporting from Parkville, Australia, by NewsRx journalists, research stated, "The mechanism of colistin-induced neurotoxicity is still unknown. Our recent study (L.Zhang, Y.H.Zhao, W.J. Ding, G.Z. Jiang, Z.Y. Lu, L. Li, J. L. Wang, J.Li, and J.C."

Financial supporters for this research include National Natural Science Foundation of China (NSFC), Natural Science Fund of Heilongjiang Province.

The news correspondents obtained a quote from the research from Monash University, "Li, Antimicrob Agents Chemother 59:2189-2197, 2015, http://dx.doi.org/10.1128/AAC.04092-14; H. Jiang, J. C. Li, T. Zhou, C. H. Wang, H. Zhang, and H. Wang, Int J Mol Med 33: 1298-1304, 2014, http://dx.doi.org/10.3892/ijmm.2014.1684) indicates that colistin induces autophagy and apoptosis in rat adrenal medulla PC-12 cells, and there is interplay between both cellular events. As an important cellular stress sensor, phosphoprotein p53 can trigger cell cycle arrest and apoptosis and regulate autophagy. The aim of the present study was to investigate the involvement of the p53 pathway in colistin-induced neurotoxicity in PC-12 cells. Specifically, cells were treated with colistin (125 μg/ml) in the absence and presence of a p53 inhibitor, pifithrin-alpha(PFT- alpha; 20 nM), for 12 h and 24 h, and the typical hallmarks of autophagy and apoptosis were examined by fluorescence/immunofluorescence microscopy and electron microscopy, real-time PCR, and Western blotting. The results indicate that colistin had a stimulatory effect on the expression levels of the target genes and proteins involved in autophagy and apoptosis, including LC3-II/I, p53, DRAM (damage-regulated autophagy modulator), PUMA (p53 upregulated modulator of apoptosis), Bax, p-AMPK (activated form of AMP-activated protein kinase), and caspase-3. In contrast, colistin appeared to have an inhibitory effect on the expression of p-mTOR (activated form of mammalian target of rapamycin), which is another target protein in autophagy. Importantly, analysis of the levels of p53 in the cells treated with colistin revealed an increase in nuclear p53 at 12 h and cytoplasmic p53 at 24 h. Pretreatment of colistin-treated cells with PFT-alpha inhibited autophagy and promoted colistin-induced apoptosis."

According to the news reporters, the research concluded: "This is the first study to demonstrate that colistin-induced autophagy and apoptosis are associated with the p53-mediated pathway."

For more information on this research see: p53 Mediates Colistin-Induced Autophagy and Apoptosis in PC-12 Cells. *Antimicrobial Agents and Chemotherapy*, 2016;60 (9):5294-5301. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiobiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting J. Li, Monash University, Monash Inst Pharmaceut Sci, Drug Delivery Disposit & Dynam, Parkville, Vic, Australia. Additional authors for this research include D.Y. Xie, X.P. Chen, M.L.R. Hughes, G.Z. Jiang, Z.Y. Lu, C.L. Xia, L. Li, J.L. Wang, W. Xu, Y. Sun, R. Li, R. Wang, F. Qian, J. Li and J.C. Li.

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that is either free or for purchase.

Keywords for this news article include: Parkville, Australia, Australia and New Zealand, Pore Forming Cytotoxic Proteins, Membrane Proteins, Polymyxins, Apoptosis, Genetics, p53 Gene, Colistin, Monash University.

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Membrane Proteins - Porins

New Porins Study Findings Recently Were Reported by M.M. Albataineh and Co-Researchers (Activation of the metabolic sensor AMP-activated protein kinase inhibits aquaporin-2 function in kidney principal cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Membrane Proteins - Porins have been published. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "Aquaporin-2 (AQP2) is essential to maintain body water homeostasis. AQP2 traffics from intracellular vesicles to the apical membrane of kidney collecting duct principal cells in response to vasopressin [arginine vasopressin (AVP)], a hormone released with low intravascular volume, which causes decreased kidney perfusion."

Our news journalists obtained a quote from the research, "Decreased kidney perfusion activates AMP-activated kinase (AMPK), a metabolic sensor that inhibits the activity of several transport proteins. We hypothesized that AMPK activation also inhibits AQP2 function. These putative AMPK effects could protect interstitial ionic gradients required for urinary concentration during metabolic stress when low intravascular volume induces AVP release. Here we found that short-term AMPK activation by treatment with 5-aminoimidazole-4-carboxamide-1-beta-D-ribofuranoside (AICAR; 75 min) in kidney tissue prevented baseline AQP2 apical accumulation in principal cells, but did not prevent AQP2 apical accumulation in response to the AVP analog desmopressin (dDAVP). Prolonged AMPK activation prevented AQP2 cell membrane accumulation in response to forskolin in mouse collecting duct mpkCCD (c14) cells. Moreover, AMPK inhibition accelerated hypotonic lysis of Xenopus oocytes expressing AQP2. We performed phosphorylation assays to elucidate the mechanism by which AMPK regulates AQP2. Although AMPK weakly phosphorylated immunoprecipitated AQP2 in vitro, no direct AMPK phosphorylation of the AQP2 COOH-terminus was detected by mass spectrometry. AMPK promoted Ser-261 phosphorylation and antagonized dDAVP-dependent phosphorylation of other AQP2 COOH-terminal sites in cells. Our findings suggest an increasing, time-dependent antagonism of AMPK on AQP2 regulation with AICAR-dependent inhibition of cAMP-dependent apical accumulation and AVP-dependent phosphorylation of AQP2."

According to the news editors, the research concluded: "This inhibition likely occurs via a mechanism that does not involve direct AQP2 phosphorylation by AMPK."


Keywords for this news article include: Los Angeles, California, United States, North and Central America, Intracellular Signaling Peptides and Proteins, AMP-Activated Protein Kinases, Membrane Transport Proteins, Membrane Glycoproteins, Enzymes and Coenzymes, Membrane Proteins, Carrier Proteins, Ion Channels, Aquaporin 2, Vasopressin, Aquaporins, Hormones, Porins.

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**Post-Traumatic Stress Disorders**

**New Post-Traumatic Stress Disorders Study Findings Have Been Reported from University of Cape Town (Pharmacology for sleep disturbance in PTSD)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Post-Traumatic Stress Disorders have been presented. According to news reporting originating from Rondebosch, South Africa, by NewsRx correspondents, research stated, "Symptoms of sleep disturbance, particularly nightmares and insomnia, are a central feature of post-traumatic stress disorder (PTSD). Emerging evidence suggests that specific treatment of PTSD-related sleep disturbance improves other symptoms of the disorder, which in turn suggests that such disturbance may be fundamental to development and maintenance of the disorder."

Financial supporters for this research include EU Marie Curie International Staff Exchange Scheme, National Research Foundation.

Our news editors obtained a quote from the research from the University of Cape Town, "This mini-review focuses on pharmacological treatment of sleep disturbance in adult PTSD (specifically, studies testing the efficacy of antidepressants, adrenergic inhibiting agents, antipsychotics and benzodiazepine and non-benzodiazepine hypnotics). We conclude that only prazosin, an adrenergic inhibiting agent, has had its efficacy established by multiple randomised controlled trials. There is also high-level evidence supporting use of eszopiclone, as well as risperidone and olanzapine as adjunct therapy. Antidepressants such as sertraline, venlafaxine and mirtazapine, benzodiazepines such as alprazolam and clonazepam and non-benzodiazepine hypnotics such as zolpidem appear ineffective in treating PTSD-related sleep disturbance. Most studies that report reduced frequency of nightmares and insomnia also report decreases in overall symptom severity."

According to the news editors, the research concluded: "Such findings suggest that (i) sleep disruption is central to PTSD; (ii) treating sleep disruption may be an effective way to address other symptoms of the disorder and (iii) PTSD symptoms tend to cluster together in predictable ways."

For more information on this research see: Pharmacology for sleep disturbance in PTSD. *Human Psychopharmacology*, 2016;31(2):156-63. (Wiley-Blackwell - www.wiley.com/;
New Post-Trial Research Findings from University Hospital Discussed
(Diagnostic contribution of a second percutaneous needle biopsy in patients with spontaneous diskitis and negative blood cultures and first biopsy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Trials and Studies - Post-Trial Research are discussed in a new report. According to news originating from Reims, France, by NewsRx correspondents, research stated, "The primary objective was to assess the diagnostic contribution of a second percutaneous needle biopsy in patients with spontaneous diskitis and negative findings from blood cultures and the first biopsy. We also assessed the sensitivity of the first biopsy and the diagnostic contribution of post-biopsy blood cultures."

Financial support for this research came from Reims and Charleville-Mezieres hospitals.

Our news journalists obtained a quote from the research from University Hospital, "Multicenter retrospective study of patients managed between 2004 and 2014. We excluded patients with postoperative diskitis. We identified 63 patients with spontaneous diskitis, negative blood cultures, and at least one percutaneous needle biopsy during the study period. The first biopsy established the diagnosis in 33 (52%) patients. Of the 30 remaining patients, 10 (33%) had a second biopsy, which was positive in 6 (60%), and 20 (67%) received probabilistic antibiotic therapy. There were 8 positive blood cultures after the first biopsy but, among them, 7 occurred in biopsy-positive patients. Biopsy yield varied with the guidance method (needle guidance software or imaging by computed tomography and/or fluoroscopy) and operators. Antibiotic therapy within the 6 months preceding the first biopsy was significantly associated with having a negative first biopsy (15/30 versus 7/33; odds ratio, 3.13; 95% confidence interval, 1.07-9.13; P<0.05)."

According to the news editors, the research concluded: "In our study, a second needle biopsy was useful, providing the bacteriological diagnosis in 60% of cases of spontaneous diskitis with negative findings from blood cultures and the first biopsy."

For more information on this research see: Diagnostic contribution of a second percutaneous needle biopsy in patients with spontaneous diskitis and negative blood cultures and first biopsy. Joint Bone Spine, 2016;83(6):715-719. Joint Bone Spine can be contacted at:
Clinical Trials and Studies - Post-Trial Research

New Post-Trial Research Study Findings Recently Were Reported by Researchers at Lankenau Institute for Medical Research (Insights from HuR biology point to potential improvement for second-line ovarian cancer therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Trials and Studies - Post-Trial Research. According to news reporting out of Wynnewood, Pennsylvania, by NewsRx editors, research stated, "This retrospective study aimed to investigate the role that an RNA-binding protein, HuR, plays in the response of high-grade serous ovarian tumors to chemotherapeutics. We immunohistochemically stained sections of 31 surgically-debulked chemo-na?ve ovarian tumors for HuR and scored the degree of HuR cytoplasmic staining."

Our news journalists obtained a quote from the research from Lankenau Institute for Medical Research, "We found no correlation between HuR intracellular localization in tumor sections and progression free survival (PFS) of these patients, 29 of whom underwent second-line gemcitabine/platin combination therapy for recurrent disease. Ribonucleoprotein immunoprecipitation (RNP-IP) analysis of ovarian cancer cells in culture showed that cytoplasmic HuR increases deoxycytidine kinase (dCK), a metabolic enzyme that activates gemcitabine. The effects of carboplatin treatment on HuR and WEE1 (a mitotic inhibitor) expression, and on cell cycle kinetics, were also examined. Treatment of ovarian cancer cells with carboplatin results in increased HuR cytoplasmic expression and elevated WEE1 expression, arresting cell cycle G2/M transition. This may explain why HuR cytoplasmic localization in chemo-na?ve tumors is not predictive of therapeutic response and PFS following second-line gemcitabine/platin combination therapy."

According to the news editors, the research concluded: "These results suggest treatment of recurrent ovarian tumors with a combination of gemcitabine, carboplatin, and a WEE1 inhibitor may be potentially advantageous as compared to current clinical practices."

For more information on this research see: Insights from HuR biology point to potential improvement for second-line ovarian cancer therapy. Oncotarget, 2016;7(16):21812-24.

Our news journalists report that additional information may be obtained by
contacting Y.H. Huang, Lankenau Institute for Medical Research, Wynnewood, PA 19086, United States. Additional authors for this research include W. Peng, N. Furuuchi, J.B. DuHadaway, M. Jimbo, A. Pirritano, C.J. Dunton, G.S. Daum, B.E. Leiby, J.R. Brody and J.A Sawicki.

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Keywords for this news article include: Antimetabolites, Antineoplastics, Antivirals, Pharmaceuticals, Cancer, Genetics, Oncology, Wynnewood, Cytoplasm, Pennsylvania, United States, Alkylating Agents, Carboplatin Therapy, Drugs and Therapies, Gemcitabine Therapy, Intracellular Space, Post Trial Research, Post-Trial Research, Immunosuppressive Agents.

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Clinical Trials and Studies - Pre-Trial Research

New Pre-Trial Research Data Have Been Reported by Investigators at University of Chicago (Treatment with methylnaltrexone is associated with increased survival in patients with advanced cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Clinical Trials and Studies - Pre-Trial Research. According to news originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Methylnaltrexone (MNTX), a peripherally acting mu-opioid receptor (MOR) antagonist, is FDA-approved for treatment of opioid-induced constipation (OIC). Preclinical data suggest that MOR activation can play a role in cancer progression and can be a target for anticancer therapy."

Our news journalists obtained a quote from the research from the University of Chicago, "Pooled data from advanced end-stage cancer patients with OIC, despite laxatives, treated in two randomized (phase III and IV), placebo-controlled trials with MNTX were analyzed for overall survival (OS) in an unplanned post hoc analysis. MNTX or placebo was given subcutaneously during the double-blinded phase, which was followed by the open-label phase, allowing MNTX treatment irrespective of initial randomization. In two randomized, controlled trials, 229 cancer patients were randomized to MNTX (117, 51%) or placebo (112, 49%). Distribution of patients' characteristics and major tumor types did not significantly differ between arms. Treatment with MNTX compared with placebo [76 days, 95% confidence interval (CI) 43-109 versus 56 days, 95% CI 43-69; P = 0.033] and response (laxation) to treatment compared with no response (118 days, 95% CI 59-177 versus 55 days, 95% CI 40-70; P< 0.001) had a longer median OS, despite 56 (50%) of 112 patients ultimately crossing over from placebo to MNTX. Multivariable analysis demonstrated that response to therapy [hazard ratio (HR) 0.47, 95% CI 0.29-0.76; P = 0.002] and albumin >= 3.5 (HR 0.46, 95% CI 0.30-0.69; P< 0.001) were independent prognostic factors for increased OS. Of interest, there was no difference in OS between MNTX and placebo in 134 patients with advanced illness other than cancer treated in these randomized studies (P = 0.88). This unplanned post hoc analysis of two randomized trials demonstrates that treatment with MNTX and, even more so, response to MNTX are associated with increased OS, which supports the preclinical hypothesis that MOR can play a role in cancer progression."

According to the news editors, the research concluded: "Targeting MOR with
MNTX warrants further investigation in cancer therapy. NCT00401362, NCT00672477."


The news correspondents report that additional information may be obtained from J. Moss, University Chicago, Pritzker Sch Med, Dept. of Anesthesia & Crit Care, Chicago, IL 60637, United States. Additional authors for this research include L.K. Johnson, D.D. Karp, J.T. Atkins, P.A. Singleton and J. Moss.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/annonc/mdw317. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Peripheral Opioid Receptor Antagonists, Functional Bowel Disorder Agents, Clinical Trials and Studies, Gastrointestinal Agents, Drugs and Therapies, Pre-Trial Research, Clinical Research, Methylnaltrexone, Placebos, Oncology, Therapy, Cancer, University of Chicago.

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Pregnancy Complications - Pregnancy-Induced...

**New Pregnancy-Induced Hypertension Study Findings Have Been Reported from Shandong University (Serum Beta-Trace Protein as a Novel Predictor of Pregnancy-Induced Hypertension)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Pregnancy Complications - Pregnancy-Induced Hypertension. According to news reporting from Shandong, People's Republic of China, by NewsRx journalists, research stated, "Beta-trace protein (BTP) has emerged as a novel biomarker of cardiovascular risk. However, the level of circulating BTP in pregnancy-induced hypertension (PIH) is still unknown."

The news correspondents obtained a quote from the research from Shandong University. "The aim of this study was to determine the concentration of serum BTP in healthy pregnant women and patients with PIH. No significant difference was found in the serum concentration of BTP in patients with a normal pregnancy. In contrast, serum BTP levels in women with PIH (n=46) were significantly higher than those in women with normal pregnancy (n=57). Receiver operating characteristic analysis revealed that using a serum BTP value of 321.3 ng/mL as a cutoff produced a sensitivity of 91.3% and a specificity of 89.5%.

According to the news reporters, the research concluded: "Taken together, these findings suggest that a higher serum BTP concentration in PIH patients compared with those with normal pregnancy and serum BTP might be a novel biomarker in the diagnosis of PIH."

New Proglucagon Findings Reported from Wageningen University (The Noncaloric Sweetener Rebaudioside A Stimulates Glucagon-Like Peptide 1 Release and Increases Enteroendocrine Cell Numbers in 2-Dimensional Mouse Organoids Derived from Different ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Peptide Proteins - Proglucagon. According to news reporting from Wageningen, Netherlands, by NewsRx journalists, research stated, "Glucagon-like peptide 1 (GLP-1) contributes to satiety and plays a pivotal role in insulin secretion and glucose homeostasis. Similar to GLP-1, peptide YY (PYY) and cholecystokinin also influence food intake."

The news correspondents obtained a quote from the research from Wageningen University, "The secretion of these hormones by enteroendocrine cells along the intestine is modulated by nutrients. Preparations from the Stevia rebaudiana plant, including rebaudioside A, are increasingly being used as noncaloric sweeteners. We investigated the effects of rebaudioside A on enteroendocrine cells by assessing both cell numbers as well as their secretory capacity in an organoid model. A 2-dimensional organoid model derived from duodenal, jejunal, and ileal crypts of a C57BL/6J mouse was developed and characterized with the use of gene expression and immunofluorescence. We stimulated these organoids with 10 mmol/L rebaudioside A for 1 h and measured their GLP-1, PYY, and cholecystokinin release. We also analyzed the effects of rebaudioside A on gene expression in enteroendocrine cells after an 18-h incubation. The 2-dimensional organoids contained crypt cells and differentiated villus cells, including enterocytes and goblet and enteroendocrine cells. These enteroendocrine cells stained positive for GLP-1, PYY, and serotonin. The cultured 2-dimensional organoids maintained their location-specific gene expression patterns. Compared with the control, rebaudioside A induced GLP-1 secretion 1.7-fold in the duodenum (P < 0.01), 2.2-fold in the jejunum (P < 0.01), and 4.3-fold in the ileum (P < 0.001). PYY release was increased by rebaudioside A 3-fold in the ileum compared with the control (P < 0.05). Long-term (18-h) stimulation with the sweetener induced the expression of the enteroendocrine-specific markers chromogranin A, glucagon, Pyy, and cholecystokinin 3.5- (P < 0.001), 3.5- (P < 0.001), 3.8- (P < 0.05), and 6.5-fold (P < 0.001), respectively."
According to the news reporters, the research concluded: "These results show novel ex vivo effects of rebaudioside A on enteroendocrine cells of the mouse small intestine and highlight potentially new applications for rebaudioside A in metabolic diseases."


Our news journalists report that additional information may be obtained by contacting J. Meijerink, Wageningen University, Div Human Nutr, Wageningen, Netherlands. Additional authors for this research include J.P. ten Klooster, S. Muckenschnabl, R. Pieters, H.F.J. Hendriks, R.F. Witkamp and J. Meijerink.

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Keywords for this news article include: Wageningen, Netherlands, Europe, Glucagon-Like Peptide 1, Genetics, Gastrointestinal Hormones, Glucagon-Like Peptides, Enteroendocrine Cells, Gastroenterology, Endocrine System, Peptide Proteins, Peptide Hormones, Cholecystokinin, Neuropeptides, Proglucagon, Wageningen University.

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Peptide Proteins - Proinsulin

New Proinsulin Study Results Reported from E. Maseroli et al (Cardiometabolic Risk and Female Sexuality: Focus on Clitoral Vascular Resistance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Peptide Proteins - Proinsulin are discussed in a new report. According to news reporting originating in Rome, Italy, by NewsRx journalists, research stated, "The relation between sexual and cardiovascular health in women is not well defined. Clitoral color Doppler ultrasound (CDU) with assessment of the pulsatility index (PI), reflecting resistance to blood flow, has been proposed as an objective measurement of sexual functioning."

The news reporters obtained a quote from the research, "To investigate associations between clitoral PI and cardiometabolic risk factors, sexual and intrapsychic parameters, and self-perception of body image. Seventy-one adult heterosexual women in a stable relationship attending our clinic for sexual dysfunction were consecutively recruited. Patients underwent physical, laboratory, and clitoral color Doppler ultrasound examinations and completed the Female Sexual Function Index, the Middlesex Hospital Questionnaire, and the Body Uneasiness Test (BUT). Clitoral PI was positively correlated with body mass index (r = 0.441, P< .0001), waist circumference (r = 0.474, P< .0001), glycemia (r = 0.300, P = .029), insulin (r = 0.628, P = .002), homeostatic model assessment index (r = 0.605, P = .005), triglycerides (r = 0.340, P = .011), total cholesterol (r = 0.346, P = .010), and low-density lipoprotein cholesterol (r = 0.334, P = .016). All relations, with the exception of glycemia, retained statistical significance after adjusting for age, smoking habit, and years since menopause (P < .0001 for body mass index,
waist circumference, and triglycerides; P < .05 for all other associations). Analysis of covariance, after adjusting for confounders, showed that women with obesity or metabolic syndrome (MetS) showed significantly higher PI values (obesity: F = 17.79, P = .001; MetS: F = 7.37, P = .019). In particular, a stepwise increase of PI was found as a function of increasing MetS components (beta = 0.434, P = .007). Clitoral PI was negatively associated with Female Sexual Function Index arousal (beta = -0.321, P = .014) and satisfaction (beta = -0.289, P = .026) scores and positively associated with Middlesex Hospital Questionnaire somatized anxiety symptoms, even after adjusting for age, smoking habit, years since menopause, and current use of psychiatric medication (beta = 0.354, P = .011). A positive association also was observed between PI and the BUT positive symptom distress index (beta = 0.322, P = .039) and BUT for dislike of the womb, genitals, and breast (beta = 0.538, P < .0001; beta = 0.642, P < .0001; beta = 0.549, P < .0001, respectively). After introducing waist circumference as another covariate, the associations between clitoral PI and the BUT positive symptom distress index and BUT dislike of the womb, genitals, and breast retained statistical significance (P = .038 for positive symptom distress index; P < .0001 for dislike of womb, genitals, and breast). Clitoral vascular resistance is positively associated with MetS (in particular insulin resistance), decreased sexual arousal, body image concerns, and increased somatized anxiety symptoms."

According to the news reporters, the research concluded: "Further studies are needed to establish whether treatment of metabolic abnormalities might improve clitoral color Doppler ultrasound indices and sexual outcomes."


Our news correspondents report that additional information may be obtained by contacting L. Vignozzi, Istituto Nazionale Biostrutture e Biosistemi, Rome, Italy. Additional authors for this research include: E. Fanni; S. Cipriani; I. Scavello; F. Pampaloni; C. Battaglia; M. Fambrini; E. Mannucci; E.A. Jannini; M. Maggi; L. Vignozzi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jsxm.2016.09.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Hemodynamics, Risk and Prevention, Vascular Resistance, Peptide Proteins, Peptide Hormones, Proinsulin, Hospital.

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**Propanolamines**

**New Propanolamines Findings from Indian Institute of Technology Discussed (Amino Functionalized Graphene Oxide and Polymer Nanocomposite Based Electrochemical Platform for Sensitive Assay of Anti-Doping Drug Atenolol in Biological Fluids)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Propanolamines have been published. According
An ultra-sensitive method based on the electrodeposited polymer nano-composite using amino functionalized graphene oxide (EAGO) and conductive polymer (poly 4-amino-3-hydroxy-1-naphthalenesulfonic acid; p-AHNSA) for the determination of atenolol (ATN) is presented. The surface morphology of the polymer nano-composite has been investigated by using Cyclic voltammetry (CV), Square wave voltammetry (SWV), Electrochemical Impedance Spectroscopy (EIS), Field Emission-Scanning Electron Microscopy (FE-SEM), Fourier transform infrared spectroscopy (FTIR) and Powder X-ray diffraction (XRD).

The news reporters obtained a quote from the research from the Indian Institute of Technology, "The oxidation of ATN occurred in a well-defined, pH dependent peak. The polymer nano-composite modified surface electro-catalyzed the electrochemical oxidation of atenolol in comparison to the unmodified surface and GO/p-(AHNSA) modified surface. The determination of atenolol was carried out in the wide concentration range and a linear calibration plot was observed in the range 0.1-300 μM with sensitivity and detection limit (L.O.D.) of 0.1334 μA M⁻¹ and 20 nM (n = 3), respectively."

According to the news reporters, the research concluded: "The analytical applicability of the developed method has been demonstrated in detecting ATN in the pharmaceutical formulations and biological fluids (urine and plasma) with excellent recoveries of > 97%.


Our news correspondents report that additional information may be obtained by contacting R.N. Goyal, Indian Inst Technol Roorkee, Dept. of Chem, Roorkee 247667, Uttar Pradesh, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1149/2.0281613jes. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uttar Pradesh, India, Asia, Beta-Adrenergic Blocking Agents, Cardiovascular Agents, Phenoxypropanolamines, Drugs and Therapies, Organic Chemicals, Electrochemicals, Atenolol Therapy, Pharmaceuticals, Amino Alcohols, Propanolamines, Indian Institute of Technology.

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Propranolol is widely used to prevent gastroesophageal variceal bleeding; however, some patients could not benefit from propranolol. This study is to evaluate the relationship between CYP2D6 and b2-adrenergic receptor (b2-AR) gene polymorphisms and the hemodynamic response to propranolol in Chinese Han patients.

Our news journalists obtained a quote from the research from the School of Medicine, "The clinical data of patients with gastroesophageal varices undergoing hepatic venous pressure gradient (HVPG) measurement before and 7 days after oral propranolol administration in our department were collected. Four single nucleotide polymorphisms of CYP2D6 and b2-AR genes were detected. The relationship was identified by logistic regression model. Thirty patients were involved in the analysis. Sixty milligram propranolol twice each day was well tolerated by all the patients. The initial and secondary average of HVPG was 17.4 ? 5.8 mmHg vs. 13.2 ? 4.8 mmHg, respectively (t=5.726, p<0.001). Twenty patients responded to propranolol. The mean reduction value of HVPG was 6.6 ? 3.6 mmHg (range from 3 to 19). Genotype analysis showed: 20 homozygotes for C/C188 and 10 for heterozygous C/T188, 8 homozygotes for G/G4268 and 22 heterozygotes for G/C4268, 14 homozygotes for Gly16 and 10 heterozygotes, and 6 homozygotes for Arg16, 27 homozygotes for Gln27 and 3 heterozygotes. The multivariate logistic regression analysis indicated that CYP2D6 (188C >T) genotype was an independent predicting factor for HVPG response to propranolol (p=0.033). CYP2D6 (188C >T) gene polymorphisms influence the hemodynamic response to propranolol in this population of Chinese Han patients with gastroesophageal varices."

According to the news editors, the research concluded: "However, HVPG response cannot be completely predicted from CYP2D6 and b2-AR gene polymorphisms."


Our news journalists report that additional information may be obtained by contacting F. Zhang, Dept. of Gastroenterology, Affiliated Drum Tower Hospital of Nanjing University Medical School, Nanjing, People's Republic of China. Additional authors for this research include X. Duan, M. Zhang, Z. Li, Q. He, Y. Wang, C. Miao, W. Zhong, X. Zou and Y. Zhuge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13198. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nanjing, Genetics, Propranolol, Hydrocarbons, Naphthalenes, Amino Alcohols, Membrane Proteins, Organic Chemicals, Adrenergic Receptors, Phenoxypropanolamines, Catecholamine Receptors, People's Republic of China.

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Oncology - Prostate Cancer

New Prostate Cancer Data Have Been Reported by Researchers at University Health Network (Limitations in Predicting Organ Confined Prostate Cancer in Patients with Gleason Pattern 4 on Biopsy: Implications for Active Surveillance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "In prostate cancer biopsy Gleason score predicts stage and helps determine active surveillance suitability. Evidence suggests that small incremental differences in the quantitative percent of Gleason pattern 4 on biopsy stratify disease extent, biochemical failure following surgery and eligibility for active surveillance."

Our news journalists obtained a quote from the research from University Health Network, "We explored the overall quantitative percent of Gleason pattern 4 levels and adverse outcomes in patients with low and intermediate risk prostate cancer to whom active surveillance may be offered under expanded criteria. We analyzed the records of patients with biopsy Gleason score 6 (3 + 3) or 7 (3 + 4) who underwent radical prostatectomy from January 2008 to August 2015. Age, prostate specific antigen, Gleason score, quantitative percent of Gleason pattern 4, overall percent positive cores (percent of prostate cancer) and clinical stage were explored as predictors of nonorgan confined disease and time to failure after radical prostatectomy. In 1,255 patients biopsy Gleason score 7 (3 + 4) was associated with T3 or greater disease at radical prostatectomy in 35.0% compared with Gleason score 6 (3 + 3) in 19.0% (p < 0.001). On multivariate analysis for each quantitative percent of Gleason pattern 4 increase there were 2% higher odds of T3 or greater disease (OR 1.02, 95% CI 1.01-1.04, p<0.001). When stratified, patients with Gleason score 7 (3 + 4) only approximated the pT3 rates of Gleason score 6 (3 + 3) when prostate specific antigen was less than 8 ng/ml and the percent of prostate cancer was less than 15%. In those cases the quantitative percent of Gleason pattern 4 had less effect. Time to failure after radical prostatectomy was worse in Gleason score 7 (3 + 4) than 6 (3 + 3) cases. The quantitative percent of Gleason pattern 4 helps predict advanced disease and Gleason score 7 (3 + 4) is associated with worse outcomes. However, the impact of the quantitative percent of Gleason pattern 4 on adverse pathological and clinical outcomes is best used in combination with prostate specific antigen, age and disease volume since each has a greater impact on predicting nonorgan confined disease."

According to the news editors, the research concluded: "The calculated absolute risk of T3 or greater can be used in shared decision making on prostate cancer treatment by patients and clinicians."


The news correspondents report that additional information may be obtained from N. Perlis, Univ Hlth Network, Dept. of Surg Oncol, Div Urol, Toronto, ON, Canada. Additional authors for this research include R. Sayyid, A. Evans, T. Van der Kwast, A. Toi, A. Finelli, G. Kulkarni, R. Hamilton, A.R. Zlotta, J. Trachtenberg, S. Ghai and N.E. Fleshner.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.juro.2016.07.076. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Prostate-Specific Antigen, Epidemiology, Male Urologic Surgical Procedures, Operative Surgical Procedures, Prostatic Secretory Proteins, Biological Tumor Markers, Prostatic Neoplasms, Biological Factors, Neoplasm Antigens, Prostate Cancer, Prostatectomy, Men's Health, Immunology, Oncology, Surgery, Biopsy, University Health Network.

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Oncology - Prostate Cancer

New Prostate Cancer Data Have Been Reported by Researchers at University of Quebec (Association between lifetime alcohol consumption and prostate cancer risk: A case-control study in Montreal, Canada)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting out of Laval, Canada, by NewsRx editors, research stated, "Alcohol intake may increase the risk of prostate cancer (PCa). Many previous studies harbored important methodological limitations."

Our news journalists obtained a quote from the research from the University of Quebec, "We conducted a population-based case-control study of PCa comprising 1933 cases and 1994 controls in Montreal, Canada. Lifetime alcohol consumption was elicited, by type of beverage, during in-person interviews. Odds ratios (OR) and 95% confidence intervals (CI) assessed the association between alcohol intake and PCa risk, adjusting for potential confounders and considering the subjects' PCa screening history. We observed a weak, non-significant positive association between high consumption of total alcohol over the lifetime and risk of high-grade PCa (OR = 1.18, 95% CI 0.81-1.73). Risk estimates were more pronounced among current drinkers (OR = 1.40, 95% CI 1.00-1.97), particularly after adjusting for the timing of last PCa screening (OR = 1.52, 95% CI 1.07-2.16). These associations were largely driven by beer consumption. The OR for high-grade PCa associated with high beer intake was 1.37 (95% CI 1.00-1.89); it was 1.49 (95% CI 0.99-2.23) among current drinkers and 1.68 (95% CI 1.10-2.57) after adjusting for screening recency. High cumulative consumption of spirits was associated with a lower risk of low-grade PCa (OR = 0.75, 95% CI 0.60-0.94) but the risk estimate no longer achieved statistical significance when restricting to current users. No association was found for wine consumption. Findings add to the accumulating evidence that high alcohol consumption increases the risk of high-grade PCa."

According to the news editors, the research concluded: "This association largely reflected beer intake in our population, and was strengthened when taking into account PCa screening history."

For more information on this research see: Association between lifetime alcohol consumption and prostate cancer risk: A case-control study in Montreal, Canada. Cancer Epidemiology, 2016;45():11-17. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd,
New Prostate Cancer Findings Has Been Reported by Investigators at Emory University (Neurovascular bundle-sparing radiotherapy for prostate cancer using MRI-CT registration: A dosimetric feasibility study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting originating in Atlanta, Georgia, by NewsRx journalists, research stated, "Sexual dysfunction after radiotherapy for prostate cancer remains an important late adverse toxicity. The neurovascular bundles (NVB) that lie posterolaterally to the prostate are typically spared during prostatectomy, but in traditional radiotherapy planning they are not contoured as an organ-at-risk with dose constraints."

The news reporters obtained a quote from the research from Emory University, "Our goal was to determine the dosimetric feasibility of 'NVB-sparing' prostate radiotherapy while still delivering adequate dose to the prostate. Twenty-five consecutive patients with prostate cancer (with no extraprostatic disease on pelvic magnetic resonance imaging [MRI]) who that were treated with external beam radiotherapy, with the same primary planning target volume margins, to a dose of 79.2 Gy were evaluated. Pelvic MRI and simulation computed tomography scans were registered using dedicated software to allow for bilateral NVB target delineation on T2-weighted MRI. A volumetric modulated arc therapy plan was generated using the NVB bilaterally with 2 mm margin as an organ to spare and compared to the patient's previously delivered plan. Dose-volume histogram endpoints for NVB, rectum, bladder, and planning target volume 79.2 were compared between the 2 plans using a 2-tailed paired t-test. The V70 for the NVB was significantly lower on the NVB-sparing plan (p <0.01), while rectum and bladder endpoints were similar. Target V100% was similar but V-105% was higher for the NVB-sparing plans (p <0.01). 'NVB-sparing' radiotherapy is dosimetrically feasible using CT-MRI registration, and for volumetric modulated arc therapy technology-target coverage is acceptable without increased dose to other normal structures, but with higher target dose inhomogeneity."

According to the news reporters, the research concluded: "The clinical impact of
'NVB-sparing' radiotherapy is currently under study at our institution."


Our news correspondents report that additional information may be obtained by contacting R.J. Cassidy, Emory University, Dept. of Radiat Oncol, Winship Canc Inst, Atlanta, GA 30322, United States. Additional authors for this research include X. Yang, T. Liu, M. Thomas, S.G. Nour and A.B. Jani.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Clinical Trials and Studies, Prostatic Neoplasms, Clinical Research, Prostate Cancer, Radiotherapy, Oncology, Therapy, Emory University.

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**Oncology - Prostate Cancer**

**New Prostate Cancer Findings Reported from Nanjing University**

*(Contrast-enhanced transrectal ultrasound for prediction of prostate cancer aggressiveness: The role of normal peripheral zone time-intensity curves)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "To assess the role of time-intensity curves (TICs) of the normal peripheral zone (PZ) in the identification of biopsy-proven prostate nodules using contrast-enhanced transrectal ultrasound (CETRUS). This study included 132 patients with 134 prostate PZ nodules."

Our news journalists obtained a quote from the research from Nanjing University, "Arrival time (AT), peak intensity (PI), mean transit time (MTT), area under the curve (AUC), time from peak to one half (TPH), wash in slope (WIS) and time to peak (TTP) were analyzed using multivariate linear logistic regression and receiver operating characteristic (ROC) curves to assess whether combining nodule TICs with normal PZ TICs improved the prediction of prostate cancer (PCa) aggressiveness. The PI, AUC (p < 0.001 for both), MTT and TPH (p = 0.011 and 0.040 respectively) values of the malignant nodules were significantly higher than those of the benign nodules. Incorporating the PI and AUC values (both, p< 0.001) of the normal PZ TIC, but not the MTT and TPH values (p = 0.076 and 0.159 respectively), significantly improved the AUC for prediction of malignancy (PI: 0.784-0.923; AUC: 0.758-0.891) and assessment of cancer aggressiveness (p < 0.001)." According to the news editors, the research concluded: "Thus, all these findings indicate that incorporating normal PZ TICs with nodule TICs in CETRUS readings can improve the diagnostic accuracy for PCa and cancer aggressiveness assessment."

New Prostate Cancer Findings from P.S. Jadhavar and Colleagues Discussed (Targeting prostate cancer with compounds possessing dual activity as androgen receptor antagonists and HDAC6 inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "While enzalutamide and abiraterone are approved for treatment of metastatic castration-resistant prostate cancer (mCRPC), approximately 20-40% of patients have no response to these agents. It has been stipulated that the lack of response and the development of secondary resistance to these drugs may be due to the presence of AR splice variants."

Our news editors obtained a quote from the research, "HDAC6 has a role in regulating the androgen receptor (AR) by modulating heat shock protein 90 (Hsp90) acetylation, which controls the nuclear localization and activation of the AR in androgen-dependent and independent scenarios. With dual-acting AR-HDAC6 inhibitors it should be possible to target patients who don't respond to enzalutamide. Herein, we describe the design, synthesis and biological evaluation of dual-acting compounds which target AR and are also specific towards HDAC6. Our efforts led to compound 10 which was found to have potent dual activity (HDAC6 IC50 = 0.0356 μM and AR binding IC50 <=0.03 μM)."

According to the news editors, the research concluded: "Compound 10 was further evaluated for antagonist and other cell-based activities, in vitro stability and pharmacokinetics."


The direct object identifier (DOI) for that additional information is:
New Prostate Cancer Findings from RWTH Aachen University Discussed (Prediction of radiation-induced toxicity by in vitro radiosensitivity of lymphocytes in prostate cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news originating from Aachen, Germany, by NewsRx correspondents, research stated, "To identify predictive assays for radiation-induced toxicity in prostate cancer patients. Patients have been surveyed prospectively before and up to 16 months after radiotherapy using a validated questionnaire."

Our news journalists obtained a quote from the research from RWTH Aachen University, "Subgroups of 25 patients with minor and larger score changes, respectively, were selected for g-H2AX, G2 and Annexin V assays. A significantly higher spontaneous chromatid aberration yield (HR: 1.46 [95% CI: 1.02-2.09]; p=0.04), higher levels of early apoptotic (HR: 1.12 [95% CI: 1.01-1.24]; p=0.04) and late apoptotic and necrotic (HR: 1.10 [95% CI: 0.99-1.23]; p=0.08) lymphocytes 24 h post-irradiation were found in patients with a bowel bother score decrease greater than 20 points more than 1 year after treatment."

According to the news editors, the research concluded: "Chromatid aberration and apoptosis/necrosis assays appear to be suitable for the prediction of radiation-induced toxicity."


The news correspondents report that additional information may be obtained from M. Pinkawa, Dept. of Radiation Oncology, RWTH Aachen University, Pauwelsstrasse 30, 52057 Aachen, Germany. Additional authors for this research include K. Brzozowska, R. Kriehuber, M.J. Eble and S. Schmitz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.15.334. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aachen, Europe, Germany, Oncology, Immunology, Blood Cells, Lymphocytes, Prostate Cancer, Prostatic Neoplasms, Mononuclear Leukocytes, Hemic and Immune Systems.

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New Prostate Cancer Study Findings Have Been Reported from University of Lausanne (Inhibition of Notch pathway arrests PTEN-deficient advanced prostate cancer by triggering p27-driven cellular senescence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology-Prostate Cancer are discussed in a new report. According to news reporting originating in Lausanne, Switzerland, by NewsRx journalists, research stated, "Activation of NOTCH signalling is associated with advanced prostate cancer and treatment resistance in prostate cancer patients. However, the mechanism that drives NOTCH activation in prostate cancer remains still elusive."

The news reporters obtained a quote from the research from the University of Lausanne, "Moreover, preclinical evidence of the therapeutic efficacy of NOTCH inhibitors in prostate cancer is lacking. Here, we provide evidence that PTEN loss in prostate tumours upregulates the expression of ADAM17, thereby activating NOTCH signalling. Using prostate conditional inactivation of both Pten and Notch1 along with preclinical trials carried out in Pten-null prostate conditional mouse models, we demonstrate that Pten-deficient prostate tumours are addicted to the NOTCH signalling. Importantly, we find that pharmacological inhibition of gamma-secretase promotes growth arrest in both Pten-null and Pten/Trp53-null prostate tumours by triggering cellular senescence."

According to the news reporters, the research concluded: "Altogether, our findings describe a novel pro-tumorigenic network that links PTEN loss to ADAM17 and NOTCH signalling, thus providing the rational for the use of gamma-secretase inhibitors in advanced prostate cancer patients."


Our news correspondents report that additional information may be obtained by contacting A. Alimonti, Univ Lausanne UNIL, Fac Biol & Med, CH-1011 Lausanne, Switzerland. Additional authors for this research include M.L. Perciato, A. Toso, A. Alajati, J.J. Chen, H. Gerber, M. Dimitrov, A. Rinaldi, N. Delaleu, E. Pasquini, R. D'Antuono, S. Pinton, M. Losa, L. Gnetti, A. Arribas, P. Fraering, F. Bertoni, A. Nepveu and A. Alimonti.

Keywords for this news article include: Lausanne, Switzerland, Europe, Clinical Trials and Studies, Enzymes and Coenzymes, Prostatic Neoplasms, Pre-Trial Research, Prostate Cancer, Secretase, Oncology, University of Lausanne.

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New Prostate Cancer Study Findings Have Been Reported from University of Michigan (Noninvasive Ablation of Prostate Cancer Spheroids Using Acoustically-Activated Nanodroplets)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Prostate Cancer are discussed in a new report. According to news reporting out of Ann Arbor, Michigan, by NewsRx editors, research stated, "We have developed acoustically activated nanodroplets (NDs) using an amphiphilic triblock copolymer, which self-assembles and encapsulates different perfluorocarbons including perfluorpentane (PFP) and perfluorohexane (PFH). Applying histotripsy pulses (i.e., short, high pressure, ultrasound pulses) to solutions of PFP- and PFH-NDs generated bubble clouds at a significantly reduced acoustic pressure compared to the cavitation pressure observed for histotripsy treatment alone."

Funders for this research include U.S. Department of Defense, National Science Foundation. Our news journalists obtained a quote from the research from the University of Michigan, "In this report, we summarize the results of combining histotripsy at low frequency (345 and 500 kHz) with PFP-NDs and PFH-NDs on the ablation of PC-3 and C4-2B prostate cancer cells. Using custom built histotripsy transducers coupled to a microscope and a high speed recording camera, we imaged the generation of a cavitation bubble cloud in response to different ultrasound regimes in solution and in tissue-mimicking gel phantoms. We quantified the associated ablation of individual cancer cells and 3D spheroids suspended in solution and embedded in tissue phantoms to compare the ablative capacity of PFP-NDs and PFH-NDs. Results show that histotripsy pulses at high acoustic pressure (26.2 MPa) ablated 80% of prostate cancer spheroids embedded in tissue-mimicking gel phantoms. In comparison, combining histotripsy pulses at a dramatically lower acoustic pressure (12.8 MPa) with PFP-NDs and PFH-NDs caused an ablation of 40% and 80% of the tumor spheroid volumes, respectively."

According to the news editors, the research concluded: "These results show the potential of acoustically activated NDs as an image-guided ablative therapy for solid tumors and highlight the higher ablative capacity of PFH-NDs, which correlates with the boiling point of the encapsulated PFH and the stability of the formed bubble cloud."

For more information on this research see: Noninvasive Ablation of Prostate Cancer Spheroids Using Acoustically-Activated Nanodroplets. Molecular Pharmaceutics, 2016;13 (12):4054-4065. Molecular Pharmaceutics can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

Our news journalists report that additional information may be obtained by contacting Z. Xu, University of Michigan, Dept. of Pediat & Communicable Dis, Div Pediat Cardiol, Ann Arbor, MI 48109, United States. Additional authors for this research include E. Vlaisavljevich, Y.Y. Durmaz, Z. Xu and M.E.H. ElSayed.

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Keywords for this news article include: Ann Arbor, Michigan, United States, North
New Prostate Cancer Study Findings Recently Were Reported by T. Horrill and Co-Researchers (Active surveillance in prostate cancer: a concept analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news originating from Winnipeg, Canada, by NewsRx editors, the research stated, "To report an analysis of the concept of active surveillance. Prostate cancer has become more prevalent since the introduction of PSA screening, however, many men are diagnosed with low-risk disease that may not require treatment."

Our news journalists obtained a quote from the research, "Active surveillance is a treatment strategy used to avoid treatment and related adverse effects when immediate treatment is not necessary. A universal definition is lacking. Concept analysis. The CINAHL, PubMed, Scopus, Cochrane Library and Google Scholar databases were searched for literature published between 1980 and 2014 using the term active surveillance. The method of Walker and Avant (2010) was used to analyse the concept of active surveillance, specifically within the context of prostate cancer. Key attributes of active surveillance emerging from the analysis include: regular and purposeful monitoring, early detection of disease progression and planned curative intervention if necessary. Multiple terms are used in the literature to refer to the concept of active surveillance. Active surveillance can cause uncertainty, and prompt men to make lifestyle changes and seek more information on prostate cancer. Active surveillance is not well understood, and ambiguity remains around the concept. Active surveillance and watchful waiting are used interchangeably in the literature and in clinical practice, but in fact do not refer to the same strategy. Active surveillance can generate significant uncertainty for the patient and family, which may be a barrier to choosing it as a treatment strategy and nursing research in this area is limited. Nurses need a clear understanding of active surveillance and how it differs from other strategies in order to reduce ambiguity around the concept."

According to the news editors, the research concluded: "Nurses must be aware of the uncertainty accompanying active surveillance, and a need exists for continued nursing research in this area."


The news correspondents report that additional information may be obtained from T. Horrill, CancerCare Manitoba, Winnipeg, Manitoba, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13111. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Winnipeg, Manitoba, Oncology,
New Prostate Cancer Study Findings Reported from Nagoya Central Hospital (Photoselective Vaporization of the Prostate: Long-Term Outcomes and Safety During 10 Years of Follow-Up)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting out of Nagoya, Japan, by NewsRx editors, research stated, "To evaluate the long-term outcomes and safety photoselective vaporization of the prostate (PVP). From April 2005 to December 2015, a total of 1154 patients with benign prostatic hyperplasia underwent PVP."

Our news journalists obtained a quote from the research from Nagoya Central Hospital, "The type of Green Light laser was an 80W potassium-titanyl-phosphate laser and later a 120W lithium triborate laser. Before and after surgery, the International Prostate Symptom Score (IPSS), maximum urinary flow rate (Qmax), post-voiding volume of residual urine (PVR), prostate-specific antigen (PSA) level, and prostate volume were assessed regularly. After surgery, events such as second PVP, transurethral incision, and permanent urethral catheterization were defined as retreatment. The mean and median periods of follow-up after PVP were 35.4 and 24.0 months, respectively. The maximum duration of follow-up was 125 months. Compared with before surgery, the IPSS, quality of life score, and PSA concentration improved significantly, even at 10 years after PVP; however, Qmax and PVR were not improved at 10 years. The retreatment-free survival rate was 93.9% at 5 years and 79.0% at 10 years. Prostate cancer was found in 27 cases after PVP, and all patients who were found to have prostate cancer remained alive. Prostate cancer-free survival after PVP was 96.7% at 5 years and 89.4% at 10 years. Our data suggest that the efficacy of PVP was maintained for 10 years; however, it may decrease after more than 10 years."

According to the news editors, the research concluded: "PVP also did not promote the progression of or worsen the prognosis of prostate cancer."

For more information on this research see: Photoselective Vaporization of the Prostate: Long-Term Outcomes and Safety During 10 Years of Follow-Up. *Journal of Endourology, 2016;30(12):1306-1311.* *Journal of Endourology* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc - www.liebertpub.com; Journal of Endourology - www.liebertpub.com/overview/journal-of-endourologybr--and-part-b-videourology/32/)

Our news journalists report that additional information may be obtained by contacting Y. Yamada, Nagoya Cent Hosp, Dept. of Urol, Nagoya, Aichi, Japan. Additional authors for this research include J. Furusawa, Y. Sugimura and I. Kuromatsu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/end.2016.0522. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nagoya, Japan, Asia, Prostatic Neoplasms, Prostate Cancer, Oncology, Surgery, Nagoya Central Hospital.
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Oncology - Prostate Cancer

New Prostate Cancer Study Findings Reported from Queensland University of Technology (Sex Hormone Binding Globulin Modifies Testosterone Action and Metabolism in Prostate Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news originating from Brisbane, Australia, by NewsRx correspondents, research stated, "Sex Hormone Binding Globulin (SHBG) is the major serum carrier of sex hormones. However, growing evidence suggests that SHBG is internalised and plays a role in regulating intracellular hormone action."

Funders for this research include Royal Brisbane and Women’s Hospital Research Foundation, Science Education and Research Trust Fund.

Our news journalists obtained a quote from the research from the Queensland University of Technology, "This study was to determine whether SHBG plays a role in testosterone uptake, metabolism, and action in the androgen sensitive LNCaP prostate cancer cell line. Internalisation of SHBG and testosterone, the effects of SHBG on testosterone uptake, metabolism, regulation of androgen responsive genes, and cell growth were assessed. LNCaP cells internalised SHBG by a testosterone independent process. Testosterone was rapidly taken up and effluxed as testosterone-glucuronide; however this effect was reduced by the presence of SHBG. Addition of SHBG, rather than reducing testosterone bioavailability, further increased testosterone-induced expression of prostate specific antigen and enhanced testosterone-induced reduction of androgen receptor mRNA expression. Following 38 hours of testosterone treatment cell morphology changed and growth declined; however, cotreatment with SHBG abrogated these inhibitory effects."

According to the news editors, the research concluded: "These findings clearly demonstrate that internalised SHBG plays an important regulatory and intracellular role in modifying testosterone action and this has important implications for the role of SHBG in health and disease."


The news correspondents report that additional information may be obtained from K. Richard, Queensland University of Technology, Sch Biomed Sci, Brisbane, Qld 4000, Australia. Additional authors for this research include T. Pham, B.C. McWhinney, J.P. Ungerer, C.J. Pretorius, D.J. Richard, R.H. Mortimer, M.C. d'Emden and K. Richard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/6437585. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brisbane, Australia, Australia and New
Zealand, Sex Hormone-Binding Globulin, Prostatic Neoplasms, Carrier Proteins, Prostate Cancer, Blood Proteins, Beta-Globulins, Oncology, Genetics, Hormones, Queensland University of Technology.

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Oncology - Prostate Cancer

New Prostate Cancer Study Results Reported from Johns Hopkins University (Detection of aggressive prostate cancer associated glycoproteins in urine using glycoproteomics and mass spectrometry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Prostate Cancer have been presented. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "Clinical management of prostate cancer remains a significant challenge due to the lack of available tests for guiding treatment decisions. The blood prostate-specific antigen test has facilitated early detection and intervention of prostate cancer."

Our news journalists obtained a quote from the research from Johns Hopkins University, "However, blood prostate-specific antigen levels are less effective in distinguishing aggressive from indolent prostate cancers and other benign prostatic diseases. Thus, the development of novel approaches specific for prostate cancer that can differentiate aggressive from indolent disease remains an urgent medical need. In the current study, we evaluated urine specimens from prostate cancer patients using LC-MS/MS, with the aim of identifying effective urinary prostate cancer biomarkers. Glycoproteins from urine samples of prostate cancer patients with different Gleason scores were characterized via solid phase extraction of N-linked glycosite-containing peptides and LC-MS/MS. A total of 2923 unique glycosite-containing peptides were identified. Glycoproteomic comparison on urine and tissues from aggressive and non-aggressive prostate cancers as well as sera from prostate cancer patients revealed that the majority of AG prostate cancer associated glycoproteins were more readily detected in patient's urine than serum samples."

According to the news editors, the research concluded: "Our data collectively indicate that urine provides a potential source for biomarker testing in patients with AG prostate cancer."


Our news journalists report that additional information may be obtained by contacting H. Zhang, Johns Hopkins University, Dept. of Pathol, Baltimore, MD 21287, United States. Additional authors for this research include J. Chen, S.S. Sun, W.M. Yang, S. Yang, P. Shah, N. Hoti, B. Veltri and H. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pmic.201500506. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North
New Prostate Cancer Study Results Reported from Xi'an Jiaotong University (Expression of netrin-1 by hypoxia contributes to the invasion and migration of prostate carcinoma cells by regulating YAP activity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Prostate Cancer are discussed in a new report. According to news originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "Hypoxia is a hallmark of solid tumor growth microenvironment and appropriates the major contributor for the failure and poor prognosis of clinical tumor treatment, including prostate cancer (PCa). Ectopic expression of netrin-1 is reportedly associated with the progression of several carcinomas."

Our news journalists obtained a quote from the research from Xi'an Jiaotong University, "Here, we aimed to investigate the role of netrin-1 in hypoxic metastasis potential of prostate carcinoma. Here, hypoxia induced the up-regulation of netrin-1 mRNA and protein expression in prostate cancer cell lines PC3 and DU145. Importantly, knockdown of netrin-1 dramatically suppressed cell invasion, migration and epithelial-to-mesenchymal transition (EMT) of PC3 and DU145 cells under hypoxia. Furthermore, hypoxia treatment increased the activity of Yes-associated protein (YAP) by increasing YAP expression in the nucleus and inhibiting p-YAP levels. However, YAP activation was notably restrained following netrin-1 down-regulation. Interestingly, interrupting YAP expression attenuated hypoxia-triggered cell invasion, migration and EMT of DU145 cells. More importantly, restoring YAP expression strikingly antagonized the inhibitory effects of netrin-1 decrease on the metastatic potential of prostate cancer cells. Together, these results indicate that netrin-1 may function as a positive regulator of hypoxia-triggered malignant behavior in PCa by activating the YAP signaling."

According to the news editors, the research concluded: "Accordingly, netrin-1 could be a promising therapeutic agent against prostate carcinoma."

For more information on this research see: Expression of netrin-1 by hypoxia contributes to the invasion and migration of prostate carcinoma cells by regulating YAP activity. Experimental Cell Research, 2016;349(2):302-309. Experimental Cell Research can be contacted at: Elsevier Inc, 525 B Street, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Experimental Cell Research - www.journals.elsevier.com/experimental-cell-research/)

The news correspondents report that additional information may be obtained from Q. Chen, Xi An Jiao Tong Univ, Affiliated Hosp 2, Dept. of Urol, Xian 710004, People's Republic of China. Additional authors for this research include Q. Chen and Q.D. Luo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yexcr.2016.10.023. This DOI is a link to an online electronic document that is either free or for purchase.
New Prostate Cancer Study Results from Technical University Described (p38 MAPK regulates the Wnt inhibitor Dickkopf-1 in osteotropic prostate cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting originating from Dresden, Germany, by NewsRx correspondents, research stated, "The Wnt inhibitor Dickkopf-1 (DKK-1) has been associated with the occurrence of bone metastases in osteotropic prostate cancer by inhibiting osteoblastogenesis. P38 mitogen-activated protein kinase (MAPK) activity is also dysregulated in advanced prostate cancer."

Our news editors obtained a quote from the research from Technical University, "However, the impact of p38 MAPK signaling on DKK-1 remains unknown. Inhibition of p38 MAPK signaling in osteolytic PC3 cells by small molecule inhibitors (doramapimod, LY2228820 and SB202190) suppressed DKK-1 expression, whereas activation of p38 MAPK by anisomycin increased DKK-1. Further dissection by targeting individual p38 MAPK isoforms with siRNA revealed a stronger role for MAPK11 than MAPK14 and MAPK12 in the regulation of DKK-1. Moreover, prostate cancer cells with a predominantly osteolytic phenotype produced sufficient amounts of DKK-1 to inhibit Wnt3a-induced osteoblastic differentiation in C2C12 cells. This inhibition was blocked directly by neutralizing DKK-1 using a specific antibody and also indirectly by blocking p38 MAPK. Furthermore, tissue expression in human prostate cancer revealed a correlation between p38 MAPK and DKK-1 expression with higher expression in tumor compared with normal tissues."

According to the news editors, the research concluded: "These results reveal that p38 MAPK regulates DKK-1 in prostate cancer and may present a potential target in osteolytic prostate cancers."

For more information on this research see: p38 MAPK regulates the Wnt inhibitor Dickkopf-1 in osteotropic prostate cancer cells. Cell Death & Disease, 2016;7():e2119. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

The news editors report that additional information may be obtained by contacting A.J. Browne, Division of Endocrinology and Metabolic Bone Diseases, Dept. of Medicine III, Technische Universitat Dresden, Dresden, Germany. Additional authors for this research include A. Gobel, S. Thiele, L.C. Hofbauer, M. Rauner and T.D Rachner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2016.32. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Dresden, Germany, Oncology, Prostate Cancer, Prostatic Neoplasms.

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New Protease Inhibitors Data Have Been Reported by Investigators at Dalian Ocean University [Polymorphism in a serine protease inhibitor gene and its association with the resistance of bay scallop (Argopecten irradians) to Listonella anguillarum ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Protease Inhibitors is the subject of a report. According to news reporting out of Dalian, People's Republic of China, by NewsRx editors, research stated, "Serine protease inhibitors (SPIs) play a crucial role in regulation of both host and bacterial serine protease. They are classified into several protein families, where Kazal-type inhibitors are one of families with multi-domain."

Funders for this research include Research Foundation for Talented Scholars in Dalian Ocean University, Chinese Ministry of Science and Technology, Modern Agro-industry Technology Research System.

Our news journalists obtained a quote from the research from Dalian Ocean University, "In the present study, the polymorphism of AiSPI from Bay scallop Argopecten irradians was found to be associated with disease resistance of bay scallop against Listonella anguillarum. Nine single nucleotide polymorphisms (SNPs) were identified in the exon region of AiSPI, where five SNPs were non-synonymous mutation. Three of these mutations were located in 'kazal-like 3'domain, two SNP loci positioned at +536, +1312 were selected for further association studies. For the locus +536, the genotype frequency of A/G in the resistant stock (12.8%) was significantly lower (p < 0.05) than that in the susceptible stock (35.1%), while, the genotype A/A in the resistant stock (87.2%) was significantly higher in comparison with susceptible stock (64.9%) (p < 0.05). The G allele frequencies were 6.4% and 17.6% in resistant stock and susceptible stock, respectively, and chi(2)-test revealed a significant difference in the frequency distribution between the two stocks (p < 0.05). But there was no significant association between the mutation C-T at locus +1312 with either resistant or susceptible group (p > 0.05). The genotype frequencies of T/T, T/C, C/C at locus +1312 were 94.6%, 2.7% and 2.7% respectively in the susceptible stock, while 100%, 0% and 0% respectively in the resistant stock. The amino acid change for the mutation at locus +536 A-G was from asparagine to serine, and the predicted homology model of this amino acid variation could affect its function as well as the structural integrity of the domain. In vitro elastase inhibition assay of the protein variants at locus +536 was conducted to explicate the effect of SNP. The increasing concentration of protein (0 mmol/L- 2.93 mmol/L) was incubated with 80 nmol/L elastase where the residual enzyme activity values for rAiSPI (N) with A variant and rAiSPI (S) with G variant were started to reduce from 0.40 to 0.215 and 0.435 to 0.356, respectively. The elastase inhibition ability of rAiSPI (N) variant was significantly higher than that of rAiSPI (S) (p < 0.01)."

According to the news editors, the research concluded: "The results suggested that the mutation at locus +536A/A significantly associated with disease resistance of bay scallop would shed light for selective breeding program."

For more information on this research see: Polymorphism in a serine protease inhibitor gene and its association with the resistance of bay scallop (Argopecten irradians) to


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.fsi.2016.09.056. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dalian, People's Republic of China, Asia, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Bacteria, Enzymes and Coenzymes, Neutral Amino Acids, Gammaproteobacteria, Drugs and Therapies, Protease Inhibitors, Elastase, Genetics, Peptide Hydrolases, Enzyme Inhibitors, Serine Proteases, Proteobacteria, Vibrionaceae, Listonella, Dalian Ocean University.

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**Proteomics**

**New Proteomics Findings Reported from Houston Community College (Stimulation of Protein Expression Through the Harmonic Resonance of Frequency-Specific Music)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Proteomics are discussed in a new report. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "The use of specific frequencies for specific individual amino acids may increase the potential energy of protein molecules in the medium [1]. The resonance would also increase the movement of particles in the cytosol, increasing the collisions necessary for the conduction of protein expression."

Our news journalists obtained a quote from the research from Houston Community College, "The clash of two waves that share frequencies will exhibit an increase in energy through an increase in amplitude [2]. The increase in energy would in turn increase the number of collisions forming the tRNA-amino acid, increasing the amino acid acquire for ribosomes to improve intracellular efficiency in gene expression. To test the hypothesis, Red Fluorescent Protein (RFP) in transformed BL-21 strains of E. coli and p53 protein of MCF-7 were examined after exposure to sounds of specific frequencies. Through the exposure of the experimental systems to a sequence of sounds that match the frequencies of specific amino acids, the levels of RFP exhibition respective to the control groups in the bacterial medium increased two-fold in terms of RFU. The experiments that targeted the p53 protein with the 'music' showed a decrease in the cell prevalence in the MCF-7 type breast cancer cells by 28%, by decreasing the speed of tumour formation."

According to the news editors, the research concluded: "Exposure to 'music' that was designed through assigning a musical note for every single one of the twenty unique amino acids, produced both an analytical and a visible shift in protein synthesis, making it as potential
tool for reducing procedural time uptake.

For more information on this research see: Stimulation of Protein Expression Through the Harmonic Resonance of Frequency-Specific Music. *Clinical and Investigative Medicine*, 2016;39(6):S34-S38. Clinical and Investigative Medicine can be contacted at: Canadian Soc Clinical Investigation, Csci Head Office, 774 Echo Drive, Ottawa, On K1S 5N8, Canada.

The news correspondents report that additional information may be obtained from I.Y. Orhan, Houston Community College, Houston, TX, United States.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Protein Expression, Amino Acids, Proteomics, Proteins, Peptides, Genetics, p53 Gene, Houston Community College.

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**Skin Diseases and Conditions - Pruritus**

**New Pruritus Study Findings Have Been Reported by Researchers at University of Freiburg (Pharmacological interventions for pruritus in adult palliative care patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Skin Diseases and Conditions - Pruritus are presented in a new report. According to news reporting originating in Freiburg, Germany, by NewsRx journalists, research stated, "This is an update of the original Cochrane review published in 2013 (Issue 6). Pruritus occurs in patients with disparate underlying diseases and is caused by different pathologic mechanisms."

The news reporters obtained a quote from the research from the University of Freiburg, "In palliative care patients, pruritus is not the most prevalent but is one of the most puzzling symptoms. It can cause considerable discomfort and affects patients' quality of life. To assess the effects of different pharmacological treatments for preventing or treating pruritus in adult palliative care patients. Search methods For this update, we searched CENTRAL (the Cochrane Library), and MEDLINE (OVID) up to 9 June 2016 and Embase (OVID) up to 7 June 2016. In addition, we searched trial registries and checked the reference lists of all relevant studies, key textbooks, reviews and websites, and we contacted investigators and specialists in pruritus and palliative care regarding unpublished data. Selection criteria We included randomised controlled trials (RCTs) assessing the effects of different pharmacological treatments, compared with a placebo, no treatment, or an alternative treatment, for preventing or treating pruritus in palliative care patients. Data collection and analysis Two review authors independently assessed the identified titles and abstracts, performed data extraction and assessed the risk of bias and methodological quality. We summarised the results descriptively and quantitatively (meta-analyses) according to the different pharmacological interventions and the diseases associated with pruritus. We assessed the evidence using GRADE (Grading of Recommendations Assessment, Development and Evaluation) and created 10 'Summary of findings' tables. In total, we included 50 studies and 1916 participants in the review. We added 10 studies with 627 participants for this update. Altogether, we included 39 different treatments for pruritus in four different patient groups. The overall risk of bias profile was heterogeneous and ranged from high to low risk. However, 48 studies (96%) had a high risk of bias due to low sample size (i.e. fewer than 50 participants per treatment arm). Using GRADE criteria, we
downgraded our judgement on the quality of evidence to moderate in seven and to low in three comparisons for our primary outcome (pruritus), mainly due to imprecision and risk of bias. In palliative care participants with pruritus of different nature, the treatment with the drug paroxetine, a selective serotonin reuptake inhibitor, reduced pruritus by 0.78 points (numerical analogue scale from 0 to 10; 95% confidence interval (CI) -1.19 to -0.37; one RCT, N = 48, quality of evidence: moderate) compared to placebo. For participants suffering from uraemic pruritus (UP), gabapentin was more effective than placebo (visual analogue scale (VAS): 0 to 10), mean difference (MD) -5.91, 95% CI -6.87 to -4.96; two RCTs, N = 118, quality of evidence: moderate). The kappa-opioid receptor agonist nalfurafine showed amelioration of UP (VAS 0 to 10, MD -0.95, 95% CI -1.32 to -0.58; three RCTs, N = 422, quality of evidence: moderate) and only few adverse events. Moreover, cromolyn sodium relieved UP participants from pruritus by 2.94 points on the VAS (0 to 10) (95% CI -4.04 to -1.83; two RCTs, N = 100, quality of evidence: moderate) compared to placebo. In participants with cholestatic pruritus (CP), data favoured rifampin (VAS: 0 to 100, MD -24.64, 95% CI -31.08 to -18.21; two RCTs, N = 42, quality of evidence: low) and flumecinol (RR > 1 favours treatment group; RR 1.89, 95% CI 1.05 to 3.39; two RCTs, N = 69, quality of evidence: low) and showed a low incidence of adverse events in comparison with placebo. The opioid antagonist naltrexone reduced pruritus for participants with CP (VAS: 0 to 10, MD -2.26, 95% CI -3.19 to -1.33; two RCTs, N = 52, quality of evidence: moderate) compared to placebo. However, effects in participants with UP were inconclusive (percentage difference -12.30%, 95% CI -25.82% to 1.22%, one RCT, N = 32). Furthermore, large doses of opioid antagonists (e.g. naltrexone) could be inappropriate in palliative care patients because of the risk of reducing analgesia. For participants with HIV-associated pruritus, it is uncertain whether drug treatment with hydroxyzine hydrochloride, pentoxifylline, triamcinolone or indomethacin reduces pruritus because the evidence was of very low quality (e.g. small sample size, lack of blinding). Authors' conclusions Different interventions tended to be effective for CP and UP. However, therapies for patients with malignancies are still lacking."

According to the news reporters, the research concluded: "Due to the small sample sizes in most meta-analyses and the heterogeneous methodological quality of the included trials, the results should be interpreted cautiously in terms of generalisability."

For more information on this research see: Pharmacological interventions for pruritus in adult palliative care patients. *Cochrane Database of Systematic Reviews*, 2016; (11):2540-2799. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting W. Siemens, University of Freiburg, Medical Center, Fac Med, Clin Palliat Care, Freiburg, Germany. Additional authors for this research include C. Xander, J.J. Meerpohl, S. Buroh, G. Antes, G. Schwarz and G. Becker.

Keywords for this news article include: Freiburg, Germany, Europe, Skin and Connective Tissue Diseases and Conditions, Palliative and Supportive Care, Skin Diseases and Conditions, Therapy, Article Review, Palliative Care, Pharmacology, Patient Care, Placebos, Pruritus, University of Freiburg.

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New Pseudomonas aeruginosa Study Findings Have Been Reported by Researchers at University of Wisconsin (A Comparative Analysis of Synthetic Quorum Sensing Modulators in Pseudomonas aeruginosa: New Insights into Mechanism, Active Efflux ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Pseudomonas aeruginosa have been published. According to news reporting originating in Madison, Wisconsin, by NewsRx journalists, research stated, "Quorum sensing (QS) is a chemical signaling mechanism that allows bacterial populations to coordinate gene expression in response to social and environmental cues. Many bacterial pathogens use QS to initiate infection at high cell densities."

Financial supporters for this research include Burroughs Wellcome Fund, National Institute of General Medical Sciences.

The news reporters obtained a quote from the research from the University of Wisconsin, "Over the past two decades, chemical antagonists of QS in pathogenic bacteria have attracted substantial interest for use both as tools to further elucidate QS mechanisms and, with further development, potential anti-infective agents. Considerable recent research has been devoted to the design of small molecules capable of modulating the LasR QS receptor in the opportunistic pathogen Pseudomonas aeruginosa. These molecules hold significant promise in a range of contexts; however, as most compounds have been developed independently, comparative activity data for these compounds are scarce. Moreover, the mechanisms by which the bulk of these compounds act are largely unknown. This paucity of data has stalled the choice of an optimal chemical scaffold for further advancement. Herein, we submit the best-characterized LasR modulators to standardized cell-based reporter and QS phenotypic assays in P.?aeruginosa, and we report the first comprehensive set of comparative LasR activity data for these compounds. Our experiments uncovered multiple interesting mechanistic phenomena (including a potential alternative QS-modulatory ligand binding site/partner) that provide new, and unexpected, insights into the modes by which many of these LasR ligands act."

According to the news reporters, the research concluded: "The lead compounds, data trends, and mechanistic insights reported here will significantly aid the design of new small molecule QS inhibitors and activators in P.?aeruginosa, and in other bacteria, with enhanced potencies and defined modes of action."


Our news correspondents report that additional information may be obtained by contacting J.D. Moore, Dept. of Chemistry, University of Wisconsin-Madison, 1101 University Avenue, Madison, Wisconsin 53706, United States. Additional authors for this research include F.M. Rossi, M.A. Welsh, K.E. Nyffeler and H.E Blackwell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/jacs.5b06728. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Madison, Genetics, Wisconsin, United States, Pseudomonadaceae, Gammaproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria, Pseudomonas aeruginosa, North and Central America, Gram Negative Aerobic Bacteria, Gram Negative Aerobic Rods and Cocci.

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Gram-Negative Bacteria - Pseudomonas aeruginosa

New Pseudomonas aeruginosa Study Findings Have Been Reported from Hartford Hospital (Population Pharmacokinetics and Safety of Ceftolozane-Tazobactam in Adult Cystic Fibrosis Patients Admitted with Acute Pulmonary Exacerbation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Pseudomonas aeruginosa have been published. According to news reporting originating from Hartford, Connecticut, by NewsRx correspondents, research stated, "Ceftolozane-tazobactam has potent activity against Pseudomonas aeruginosa, a pathogen associated with cystic fibrosis (CF) acute pulmonary exacerbations (APE). Due to the rapid elimination of many antibiotics, CF patients frequently have altered pharmacokinetics."

Financial support for this research came from Merck (Merck & Co., Inc.).

Our news editors obtained a quote from the research from Hartford Hospital, "In this multicenter, open-label study, we described the population pharmacokinetics and safety of ceftolozane- tazobactam at 3 g every 8 h (q8h) in 20 adult CF patients admitted with APE. Population pharmacokinetics were determined using the nonparametric adaptive grid program in Pmetrics for R. A 5,000-patient Monte Carlo simulation was performed to determine the probability of target attainment (PTA) for the ceftolozane component at 1.5 g and 3 g of ceftolozane-tazobactam q8h across a range of MICs using a primary threshold exposure of 60% free time above the MIC (fT >MIC). In these 20 adult CF patients, ceftolozane and tazobactam concentration data were best described by 2-compartment models, and ceftolozane clearance (CL) was significantly correlated with creatinine clearance (r = 0.71, P< 0.001). These data suggest that ceftolozane and tazobactam clearance estimates in CF patients are similar to those in adults without CF (ceftolozane CF CL, 4.76 +/- 1.13 liter/h; tazobactam CF CL, 20.51 +/- 4.41 liter/h). However, estimates of the volume of the central compartment (V-c) were lower than those for adults without CF (ceftolozane CF V-c, 7.51 +/- 2.05 liters; tazobactam CF V-c, 7.85 +/- 2.66 liters). Using a threshold of 60% fT >MIC, ceftolozane-tazobactam regimens of 1.5 g and 3 g q8h should achieve PTAs of >= 90% at MICs up to 4 and 8 mu g/ml, respectively. Ceftolozane-tazobactam at 3 g q8h was well tolerated."

According to the news editors, the research concluded: "These observations support additional studies of ceftolozane-tazobactam for Pseudomonas aeruginosa APE in CF patients."

For more information on this research see: Population Pharmacokinetics and Safety of Ceftolozane-Tazobactam in Adult Cystic Fibrosis Patients Admitted with Acute Pulmonary Exacerbation. Antimicrobial Agents and Chemotherapy, 2016;60(11):6578-6584. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)
New Pseudomonas aeruginosa Study Findings Reported from Sapienza University (Positively charged biopolymeric nanoparticles for the inhibition of Pseudomonas aeruginosa biofilms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Negative Bacteria - Pseudomonas aeruginosa. According to news reporting originating from Rome, Italy, by NewsRx correspondents, research stated, "Currently, many microbial infections have the potential to become lethal owing to the development of antimicrobial resistance by means of different mechanisms and mainly on the basis of the fact that many drugs are unable to reach therapeutic levels in the target sites. This requires the use of high doses and frequent administrations, causing adverse side effects or in some cases toxicity."

Our news editors obtained a quote from the research from Sapienza University, "The use of nanoparticle systems could help overcome such problems and increase drug efficacy. In the present study, we developed a new drug delivery system based on the use of biopolymeric nanovectors loaded with tobramycin (Tb), which is the standard antibiotic for the treatment of Cystic Fibrosis-associated P. aeruginosa lung infections. Tb-loaded biopolymeric nanoparticles composed by dextran sulfate (DS) and chitosan (CS) were prepared by ionotropic gelation. We optimized drug entrapment in DS/CS nanoparticles, obtaining particles of 170 nm and with a drug loading of 400 lg Tb/mg of nanoparticles."

According to the news editors, the research concluded: "In accord with in vitro release experiments, such preparations were able to release approximately 25 % of their cargo in 60 h. In vitro, the antimicrobial efficacy of the drug delivery system on P. aeruginosa biofilm was tested and compared to the effects of free drug revealing that this formulation can reduce the viability of P. aeruginosa biofilms for 48 h with a single-dose administration."


The news editors report that additional information may be obtained by contacting C.
Palocci, Roma La Sapienza University, Dept. of Chem, Rome, Italy. Additional authors for this research include E.G. Di Domenico, F. Ascenzioni and C. Palocci.

Keywords for this news article include: Rome, Italy, Europe, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Gram-Negative Bacteria, Pseudomonas aeruginosa, Emerging Technologies, Gammaproteobacteria, Pseudomonadaceae, Proteobacteria, Nanotechnology, Nanoparticle, Sapienza University.

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Skin Diseases and Conditions - Psoriasis

New Psoriasis Findings from Federal University Described (Increased IL17A, IFNG, and FOXP3 Transcripts in Moderate-Severe Psoriasis: A Major Influence Exerted by IL17A in Disease Severity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Skin Diseases and Conditions - Psoriasis. According to news reporting out of Recife, Brazil, by NewsRx editors, research stated, "Psoriasis is a chronic and recurrent dermatitis, mediated by keratinocytes and T cells. Several proinflammatory cytokines contribute to formation and maintenance of psoriatic plaque."

Funders for this research include Instituto Nacional de Ciencia e Tecnologia para Inovacao Farmaceutica, Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior, Fundacao de Amparo a Ciencia e Tecnologia de Pernambuco, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico.

Our news journalists obtained a quote from the research from Federal University, "The Th1/Th17 pathways and some of IL-1 family members were involved in psoriasis pathogenesis and could contribute to disease activity. Therefore, we sought to analyse skin transcript levels of IL17A, IL22, RORC, IL8, IFNG, IL33, IL36A, FOXP3, and IL10 and correlate with clinic of patients with plaque-type psoriasis. In order to conduct that, we collected punch biopsies from lesional skin and obtained tissue RNA. After reverse transcription, qRT-PCR quantified the relative mRNA expression. The main results revealed increased transcripts levels of IL17A, IFNG, and FOXP3 in moderate-severe patients. Despite this, only IL17A can increase the chance to worsen disease severity. We also observed many significant positive correlations between each transcript."

According to the news editors, the research concluded: "IL17A is elevated in lesional skin from psoriasis patients and plays crucial role in disease severity."

For more information on this research see: Increased IL17A, IFNG, and FOXP3 Transcripts in Moderate-Severe Psoriasis: A Major Influence Exerted by IL17A in Disease Severity. Mediators of Inflammation, 2016;():1-8. Mediators of Inflammation can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Mediators of Inflammation - www.hindawi.com/journals/mi/)

Our news journalists report that additional information may be obtained by contacting M.G.D. Pitta, Univ Fed Pernambuco UFPE, NUPIT SG, LINAT, Recife, PE, Brazil. Additional authors for this research include M.C. Pereira, S.K.S. de Paula, E.V.A. Lima, M.M.D. Lima, R.G. de Arruda, W.L.M. de Oliveira, A. Duarte, I.D. Pitta, M. Rego and M.G.D. Pitta.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/4395276. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Recife, Brazil, South America, Papulosquamous Skin Diseases and Conditions, Dermatology, Psoriasis, Genetics, Federal University.

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Skin Diseases and Conditions - Psoriasis

New Psoriasis Study Findings Reported from Health Science Center (‘I should have taken that further’ - missed opportunities during cardiovascular risk assessment in patients with psoriasis in UK primary care settings: a mixed-methods study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Skin Diseases and Conditions - Psoriasis. According to news reporting from Manchester, United Kingdom, by NewsRx journalists, research stated, "Unhealthy lifestyle is common in psoriasis, contributing to worsening disease and increased cardiovascular disease (CVD) risk. CVD risk communication should improve patients' understanding of risk and risk-reducing behaviours; however, the effectiveness of risk screening is debated and evaluation currently limited."

The news correspondents obtained a quote from the research from Health Science Center, "To examine the process of assessing for and communicating about CVD risk in the context of psoriasis. Mixed-methods study in English general practices to (i) determine proportions of CVD risk factors among patients with psoriasis at risk assessment and (ii) examine patient and practitioner experiences of risk communication to identify salient 'process' issues. Audio recordings of consultations informed in-depth interviews with patients and practitioners using tape-assisted recall, analysed with framework analysis. Patients with psoriasis (n = 287) undergoing CVD risk assessment; 29 patients and 12 practitioners interviewed. A high proportion of patients had risk factor levels apparent at risk assessment above NICE recommendations: very high waist circumference (52%), obesity (35%), raised blood pressure (29%), smoking (18%) and excess alcohol consumption (18%). There was little evidence of personalized discussion about CVD risk and behaviour change support in consultations. Professionals reported a lack of training in behaviour change, while patients wanted to discuss CVD risk/risk reduction and believed practitioners to be influential in supporting lifestyle management. Despite high levels of risk factors identified, opportunities may be missed in consultations to support patients with psoriasis to understand CVD risk/risk reduction."

According to the news reporters, the research concluded: "Practitioners need training in behaviour change techniques to capitalize on 'teachable moments' and increase the effectiveness of risk screening."

For more information on this research see: 'I should have taken that further' - missed opportunities during cardiovascular risk assessment in patients with psoriasis in UK primary care settings: a mixed-methods study. *Health Expectations*, 2016;19(5):1121-1137. *Health Expectations* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ,
Health and Medicine - Public Health

New Public Health Findings Has Been Reported by Investigators at University of Surrey (The impact of body vigilance on help-seeking for cancer 'alarm' symptoms: a community-based survey)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Public Health have been published. According to news originating from Guildford, United Kingdom, by NewsRx correspondents, research stated, "The act of detecting bodily changes is a pre-requisite for subsequent responses to symptoms, such as seeking medical help. This is the first study to explore associations between self-reported body vigilance and help-seeking in a community sample currently experiencing cancer 'alarm' symptoms."

Our news journalists obtained a quote from the research from the University of Surrey, "Using a cross-sectional study design, a 'health survey' was mailed through primary care practices to 4913 UK adults (age >= 50 years, no cancer diagnosis), asking about symptom experiences and medical help-seeking over the previous three months. Body vigilance, cancer worry and current illness were assessed with a small number of self-report items derived from existing measures. The response rate was 42% (N = 2042). Almost half the respondents (936/2042; 46%) experienced at least one cancer alarm symptom. Results from logistic regression analysis revealed that paying more attention to bodily changes was significantly associated with help-seeking for cancer symptoms (OR = 1.44; 1.06-1.97), after controlling for socio-demographics, current illness and cancer worry. Being more sensitive to bodily changes was not significantly associated with help-seeking. Respondents who paid attention to their bodily changes were more likely to seek help for their symptoms. Although the use of a cross-sectional study design and the limited assessment of key variables preclude any firm conclusions, encouraging people to be body vigilant may contribute towards earlier cancer diagnosis."

According to the news editors, the research concluded: "More needs to be understood about the impact this might have on cancer-related anxiety."

New Public Health Nutrition Findings from University of Bergen Discussed (Local spatial clustering of stunting and wasting among children under the age of 5 years: implications for intervention strategies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Health and Medicine - Public Health Nutrition. According to news reporting from Bergen, Norway, by NewsRx journalists, research stated, "The present study aimed to evaluate the clustering of undernutrition indicators of children under the age of 5 years in relation to different scales. A community-based cross-sectional study design was employed."

The news correspondents obtained a quote from the research from the University of Bergen, "We collected anthropometric data, geographic locations/elevations of households and other data from visited households. We used a retrospective purely spatial Poisson probability model to identify and locate clusters (high rates) of stunting and wasting using the software SaTScan™ version 9.1.1. We ran a logistic regression model to help evaluate the causes of clustering. Six villages in the Meskane Mareko District (38.45763 degrees E, 8.042144 degrees N) of southern Ethiopia. We surveyed 2371 children aged <5 years, who were found in 1744 households. We found a micro-level variation in the risk of stunting and wasting within the studied district. We found the most likely significant clusters for wasting and severe wasting in two of the six villages. For stunting, a single large cluster size of 390 cases (304.19 expected) in 756 households was identified (relative risk = 1.48, P< 0.01). For severe stunting, a single cluster size of 106 cases (69.39 expected) in 364 households was identified (relative risk = 1.69, P = 0.035). We conclude that the distribution of wasting and stunting was partly spatially structured. We identified distinct areas within and between villages that have a higher risk than the underlying at-risk population."

According to the news reporters, the research concluded: "Our analysis identified the spatial locations of high-risk areas for stunting that could be an input for geographically targeting and optimizing nutritional interventions."

New Public Health Study Findings Have Been Reported by Investigators at University of Twente [Study protocol for a non-inferiority trial of a blended smoking cessation treatment versus face-to-face treatment (LiveSmokefree-Study)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Health and Medicine - Public Health have been presented. According to news reporting originating from Enschede, Netherlands, by NewsRx correspondents, research stated, "Smoking cessation can significantly reduce the risk of developing smoking-related diseases. Several face-to-face and web-based treatments have shown to be effective."

Our news editors obtained a quote from the research from the University of Twente, "Blending of web-based and face-to-face treatment is expected to improve smoking cessation treatment. The primary objective of this study is to compare the prolonged abstinence rate of the blended smoking cessation treatment with the face-to-face treatment. Secondary objectives are to assess the benefits of blended treatment in terms of cost effectiveness and patient satisfaction, and to identify mechanisms underlying successful smoking cessation. This study will be a single-center randomized controlled non-inferiority-trial with parallel group design. Patients (n = 344) will be randomly assigned to either the blended or the face-to-face group. Both treatments will consist of ten sessions with equal content held within 6 months. In the blended treatment five out of ten sessions will be delivered online. The treatments will cover the majority of behavior change techniques that are evidence-based within smoking cessation counseling. All face-to-face sessions in both treatments will take place at the outpatient smoking cessation clinic of a hospital. The primary outcome parameter will be biochemically validated prolonged abstinence at 15 months from the start of the smoking cessation treatment. This RCT will be the first study to examine the effectiveness of a blended smoking cessation treatment. It will also be the first study to explore patient satisfaction, adherence, cost-effectiveness, and the clinically relevant influencing factors of a blended smoking cessation treatment."

According to the news editors, the research concluded: "The findings of this RCT are expected to substantially strengthen the base of evidence available to inform the development and delivery of smoking cessation treatment."

For more information on this research see: Study protocol for a non-inferiority trial of a blended smoking cessation treatment versus face-to-face treatment (LiveSmokefree-Study). *BMC Public Health*, 2016;16():8-18. *BMC Public Health* can be contacted at: Biomed Central
New Pulmonary Embolism Data Have Been Reported by Researchers at McMaster University (Rapid quantitative D-dimer to exclude pulmonary embolism: a prospective cohort management study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Pulmonary Embolism is the subject of a report. According to news reporting from Hamilton, Canada, by NewsRx journalists, research stated, "ESSENTIALS: It is not known if D-dimer testing alone can safely exclude pulmonary embolism (PE). We studied the safety of using a quantitative latex agglutination D-dimer to exclude PE in 808 patients. 52% of patients with suspected PE had a negative D-dimer test and were followed for 3 months."

Funders for this research include Heart & Stroke Foundation of Ontario, Heart and Stroke Foundation of Canada.

The news correspondents obtained a quote from the research from McMaster University, "The negative predictive value of D-dimer testing alone was 99.8%, suggesting it may safely exclude PE. Strategies are needed to exclude pulmonary embolism (PE) efficiently without the need for imaging tests. Although validated rules for clinical probability assessment can be combined with D-dimer testing to safely exclude PE, the rules can be complicated or partially subjective, which limits their use. To determine if PE can be safely excluded in patients with a negative D-dimer without incorporating clinical probability assessment. We enrolled consecutive outpatients and inpatients with suspected PE from four tertiary care hospitals. All patients underwent D-dimer testing using the MDA D-dimer test, a quantitative latex agglutination assay. PE was excluded in patients with a D-dimer less than 750 mg FEU L(-1) without further testing. with D-dimer levels of 750 mg FEU L(-1) or higher underwent standardized imaging tests for PE. All patients in whom PE was excluded had anticoagulant therapy withheld and were followed for 3 months for venous thromboembolism (VTE). Suspected events during follow-up were adjudicated centrally. Eight hundred and eight patients were enrolled, of whom 99 (12%) were diagnosed with VTE at presentation. Four hundred and twenty (52%) patients had a negative D-dimer level at presentation and were not treated with anticoagulants; of these, one had VTE during follow-up. The negative predictive value of D-dimer testing for PE was 99.8% (95% confidence interval, 98.7-99.9%)."

According to the news reporters, the research concluded: "A negative latex agglutination D-dimer assay is seen in about one-half of patients with suspected PE and reliably excludes PE as a stand-alone test."

Our news journalists report that additional information may be obtained by contacting S.M. Bates, Dept. of Medicine, McMaster University, Hamilton, ON, Canada. Additional authors for this research include S. Takach Lapner, J.D. Douketis, C. Kearon, J. Julian, S. Parpia, S. Schulman, J.I. Weitz, L.A. Linkins, M. Crowther, W. Lim, F.A. Spencer, A.Y. Lee, P.L. Gross and J. Ginsberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jth.13234. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Ontario, Hamilton, Pulmonary Embolism, Embolism and Thrombosis, North and Central America, Diagnostics and Screening, Lung Diseases and Conditions, Cardiovascular Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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**Lung Diseases and Conditions - Pulmonary Embolism**

**New Pulmonary Embolism Findings Reported from Kyungpook National University School of Medicine (Factors determining clot resolution in patients with acute pulmonary embolism)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Pulmonary Embolism is now available. According to news reporting from Daegu, South Korea, by NewsRx journalists, research stated, "There are limited data on the rate of clot resolution after acute pulmonary embolism and risk factors for residual emboli. The aim of the present study was to investigate the rate of clot resolution over time and identify risk factors of residual emboli in pulmonary embolism patients."

The news correspondents obtained a quote from the research from the Kyungpook National University School of Medicine, "We retrospectively analyzed pulmonary embolism patients with follow-up computed tomography (CT) scans taken between day 3 and day 90. The patients were classified into three cohorts, depending on the time of CT scan: day 3-7, day 8-21, and day 22-90. Each cohort was regrouped into the residual embolus and complete resolution groups. The rate of complete resolution of pulmonary emboli was 24% at 3-7 days, 47% at 8-21 days, and 78% at 22-90 days. In a multivariate analysis, independent predictors in each cohort were lobar or larger pulmonary artery pulmonary embolism and a right ventricle/left ventricle diameter ratio within 1 week, lobar or larger pulmonary artery pulmonary embolism at 1-3 weeks, and central pulmonary embolism at 3 weeks to 3 months. The rate of venous thromboembolism (VTE) recurrence, frequency of an adverse outcome, and in-hospital mortality did not differ between the two groups in each cohort. Complete resolution of pulmonary emboli occurred in most pulmonary embolism patients. Regardless of the time interval, larger pulmonary artery involvement by pulmonary emboli was only independent predictor of residual emboli."
According to the news reporters, the research concluded: "The presence of residual emboli was not associated with an adverse outcome of pulmonary embolism and rate of VTE recurrence."

For more information on this research see: Factors determining clot resolution in patients with acute pulmonary embolism. Blood Coagulation & Fibrinolysis, 2016;27(3):294-300. (Lippincott Williams and Wilkins - www.lww.com; Blood Coagulation & Fibrinolysis - journals.lww.com/bloodcoagulation/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting K.J. Choi, aDept. of Internal Medicine bDept. of Radiology cDept. of Preventive Medicine, Kyungpook National University School of Medicine, Daegu, South Korea. Additional authors for this research include S.I. Cha, K.M. Shin, J.K. Lim, S.S. Yoo, J. Lee, S.Y. Lee, C.H. Kim, J.Y. Park and W.K Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MBC.0000000000000425. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Daegu, Angiology, South Korea, Pulmonary Artery, Pulmonary Embolism, Risk and Prevention, Embolism and Thrombosis, Lung Diseases and Conditions, Cardiovascular Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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**Lung Diseases and Conditions - Pulmonary Embolism**

**New Pulmonary Embolism Findings from Juntendo University Described (CT pulmonary angiography-based scoring system to predict the prognosis of acute pulmonary embolism)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Pulmonary Embolism have been published. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "The purpose is to develop a comprehensive risk-scoring system based on CT findings for predicting 30-day mortality after acute pulmonary embolism (PE), and to compare it with PE Severity Index (PESI). The study included consecutive 1698 CT pulmonary angiograms (CTPA) positive for acute PE performed at a single institution (2003-2010)."

Our news journalists obtained a quote from the research from Juntendo University, "Two radiologists independently assessed each study regarding clinically relevant findings and then performed adjudication. These variables plus patient clinical information were included to build a LASSO logistic regression model to predict 30-day mortality. A point score for each significant variable was generated based on the final model. PESI score was calculated in 568 patients who visited the hospital after 2007. Inter-reader agreements of interpretations were > 95% except for septal bowing (92%). The final prediction model showed superior ability over PESI (AUC = 0.822 vs 0.745) for predicting all-cause 30 day mortality (12.4%). The scoring system based on the significant variables (age (years), pleural effusion (+20), pericardial effusion (+20), lung/liver/bone lesions suggesting malignancy (+60), chronic interstitial lung disease (+20), enlarged lymph node in thorax (+20), and ascites (+40)) stratified patients into 4
severity categories, with mortality rates of 0.008% in class-I (≤ 50 pt), 3.8% in class-II (51-100 pt), 17.6% in class-III (101-150 pt), and 40.9% in class-IV (>150 pt). The mortality rate in the CTPA-high risk category (class-IV) was higher than those in the PESI's high risk (27.4%) and very high risk (25.2%) categories. The CTPA-based model was superior to PESI in predicting 30-day mortality.

According to the news editors, the research concluded: "Incorporating the CTPA-based scoring system into image interpretation workflows may help physicians to select the most appropriate management approach for individual patients."


The news correspondents report that additional information may be obtained from K.K. Kumamaru, Juntendo University, Dept. of Radiol, Tokyo, Japan. Additional authors for this research include S.S. Saboo, A. Aghayev, P. Cai, C.G. Quesada, E. George, Z. Hussain, T.R. Cai and F.J. Rybicki.

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Keywords for this news article include: Tokyo, Japan, Asia, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Cardiovascular Diagnostic Techniques, Vascular Diseases and Conditions, Lung Diseases and Conditions, Embolism and Thrombosis, Pulmonary Embolism, Angiography, Cardiology, Juntendo University.

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Lung Diseases and Conditions - Pulmonary Fibrosis

New Pulmonary Fibrosis Study Findings Have Been Reported by Researchers at Central South University (TGF-b1 Upregulates the Expression of Triggering Receptor Expressed on Myeloid Cells 1 in Murine Lungs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Pulmonary Fibrosis is now available. According to news reporting originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "Triggering receptor expressed on myeloid cells 1 (TREM-1) increases the expression of TGF-b family genes, which are known as profibrogenic cytokines in the pathogenesis of pulmonary fibrosis. In this study, we determined whether TGF-b1 regulated the expression of TREM-1 in a mouse model of pulmonary fibrosis."

Our news editors obtained a quote from the research from Central South University, "The expression of TGF-b1 and TREM-1 was increased on day 7, 14, and 21 after single intratracheal injection of bleomycin (BLM). And there was positive correlation between the expression of TGF-b1 and TREM-1. TGF-b1 increased expression of TREM-1 mRNA and
protein in a time-and dose-dependent manner in mouse macrophages. The expression of the activator protein 1 (AP-1) was increased in lung tissues from mouse after BLM injection and in mouse macrophages after TGF-b1 treatment, respectively. TGF-b1 significantly increased the relative activity of luciferase in the cells transfected with plasmid containing wild type-promoter of TREM-1. But TGF-b1 had no effect on the activity of luciferase in the cells transfected with a mutant-TREM1 plasmid carrying mutations in the AP-1 promoter binding site."

According to the news editors, the research concluded: "We found the expression of TREM-1 was increased in lung tissues from mice with pulmonary fibrosis. TGF-b1 increased the expression of TREM-1 in mouse macrophages partly via the transcription factor AP-1."

For more information on this research see: TGF-b1 Upregulates the Expression of Triggering Receptor Expressed on Myeloid Cells 1 in Murine Lungs. *Scientific Reports*, 2016;6 ():18946. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting L. Peng, Dept. of Physiology, Xiangya School of Medicine, Central South University, Changsha, People's Republic of China. Additional authors for this research include Y. Zhou, L. Dong, R.Q. Chen, G.Y. Sun, T. Liu, W.Z. Ran, X. Fang, J.X. Jiang and C.X. Guan.

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Keywords for this news article include: Asia, Changsha, Genetics, Immunology, Luciferases, Macrophages, Myeloid Cells, Pulmonary Fibrosis, Enzymes and Coenzymes, Connective Tissue Cells, People's Republic of China, Lung Diseases and Conditions, Mononuclear Phagocyte System, Respiratory Tract Diseases and Conditions.

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**Lung Diseases and Conditions - Pulmonary**

**New Pulmonary Hypertension Study Results Reported from University of Chile (2-Aminoethyldiphenylborinate modifies the pulmonary circulation in pulmonary hypertensive newborn lambs partially gestated at high altitude)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Pulmonary Hypertension. According to news reporting from Santiago, Chile, by NewsRx journalists, research stated, "Calcium signaling through store-operated channels (SOC) is involved in hypoxic pulmonary hypertension. We determined whether a treatment with 2-aminoethyldiphenylborinate (2-APB), a compound with SOC blocker activity, reduces pulmonary hypertension and vascular remodeling."

Funders for this research include FONDECYT, Vicerrectoria de Investigacion y Desarrollo, Universidad de Chile VID-Enlace.

The news correspondents obtained a quote from the research from the University of Chile, "Twelve newborn lambs exposed to perinatal chronic hypoxia were studied, six of them received a 2-APB treatment and the other six received vehicle treatment for 10 days in both cases. Throughout this period, we recorded cardiopulmonary variables and on day 11 we
evaluated the response to an acute hypoxic challenge. Additionally, we assessed the vasoconstrictor and vasodilator function in isolated pulmonary arteries as well as their remodeling in lung slices. 2-APB reduced pulmonary arterial pressure between the 3rd and 10th days, cardiac output between the 4th and 8th days, and pulmonary vascular resistance at the 10th day of treatment. The pulmonary vasoconstrictor response to acute hypoxia was reduced by the end of treatment. 2-APB also decreased maximal vasoconstrictor response to the thromboxane mimetic U46619 and endothelin-1 and increased maximal relaxation to 8-bromoguanosine 3', 5'-cyclic monophosphate (8-BrcGMP). The maximal relaxation and potency to phosphodiesterase-5 and Rhokinase inhibition with sildenafil and fasudil, respectively, were also increased. Finally, 2-APB reduced the medial and adventitial layers' thickness, the expression of alpha-actin, and the percentage of Ki67-positive nuclei of small pulmonary arteries. Taken together, our results indicate that 2-APB reduces pulmonary hypertension, vasoconstrictor responses, and pathological remodeling in pulmonary hypertensive lambs."

According to the news reporters, the research concluded: "SOC targeting may be a useful strategy for the treatment of neonatal pulmonary hypertension; however, further testing of specific blockers is needed."


Our news journalists report that additional information may be obtained by contacting R.V. Reyes, University of Chile, Fac Med, Inst Ciencias Biomed ICBM, Programa Fisiopatol, Santiago, Chile. Additional authors for this research include S. Quezada, F. Moraga, G. Ebensperger, E.A. Herrera, F. Benaldo, I. Hernandez, R. Ebensperger, S. Ramirez, A.J. Llanos and R.V. Reyes.

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Keywords for this news article include: Santiago, Chile, South America, Cardiovascular Diseases and Conditions, Lung Diseases and Conditions, Pulmonary Hypertension, University of Chile.

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Sleep Diseases and Conditions - REM Sleep…

New REM Sleep Behavior Disorder Findings from Second Military Medical University Outlined (Effects of Rotigotine on REM Sleep Behavior Disorder in Parkinson Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Sleep Diseases and Conditions - REM Sleep Behavior Disorder is the subject of a report. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "REM sleep behavior disorder (RBD) is a common manifestation of Parkinson disease (PD). In this study, we assessed the effects of rotigotine transdermal patch on RBD features in patients with PD."
Our news journalists obtained a quote from the research from Second Military Medical University, "In this prospective open-label study, eleven PD patients with untreated RBD were administered rotigotine patches for up to seven months to ameliorate their parkinsonism. The severities of their RBD symptoms before and after rotigotine therapy were evaluated through patient and bed partner interviews, a validated evaluation scale (REM sleep behavior disorder questionnaire-Hong Kong, RBDQ-HK), and blinded assessments based on video-polysomnographic (VPSG) measure. Rotigotine improved parkinsonism and subjective sleep quality in PD patients with RBD. The RBDQ-HK total score, especially the Factor 2 score, was decreased, which demonstrated that the subjective severity of RBD symptoms was improved after rotigotine treatment, especially the frequency and severity of abnormal RBD-related motor behaviors. The VPSG analyses showed that the total sleep time (TST) and stage 1% were increased and that the PLMS index was decreased. However, no differences in the RBD-related sleep measures were observed. The improved RBD symptoms and VPSG measures of PD patients in this study (TST, stage 1%, and PLMS index) suggest that, in PD, rotigotine may partially improve RBD-related symptoms."

According to the news editors, the research concluded: "Rotigotine should be considered to be an optional drug for the treatment of RBD symptoms in PD."

For more information on this research see: Effects of Rotigotine on REM Sleep Behavior Disorder in Parkinson Disease. _Journal of Clinical Sleep Medicine_, 2016;12 (10):1403-1409. _Journal of Clinical Sleep Medicine_ can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.

The news correspondents report that additional information may be obtained from Z.X. Zhao, Second Military Med Univ, Changzheng Hosp, Dept. of Neurol, Shanghai 200003, People's Republic of China. Additional authors for this research include Y.C. Yang, H.J. Wu, D.M. Lan, Y. Chen and Z.X. Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.6200. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Developmental Diseases and Conditions, Basal Ganglia Diseases and Conditions, Dopaminergic Antiparkinsonism Agents, Central Nervous System Agents, Brain Diseases and Conditions, Sleep Diseases and Conditions, REM Sleep Behavior Disorder, Parkinsonian Disorders, REM Sleep Parasomnias, Antiparkinson Agents, Drugs and Therapies, Parkinson's Disease, Behavior Disorders, Movement Disorders, Sleep Disorders, Parkinsonism, Psychiatry, Rotigotine, Second Military Medical University.

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**Enzymes and Coenzymes - RNA-Directed DNA...**

**New RNA-Directed DNA Polymerase Findings from Carnegie Mellon University Described (Oxidative guanine base damage regulates human telomerase activity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - RNA-
Directed DNA Polymerase. According to news reporting from Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "Changes in telomere length are associated with degenerative diseases and cancer. Oxidative stress and DNA damage have been linked to both positive and negative alterations in telomere length and integrity."

The news correspondents obtained a quote from the research from Carnegie Mellon University, "Here we examined how the common oxidative lesion 8-oxo-7,8-dihydro-2'-deoxyguanine (8-oxoG) regulates telomere elongation by human telomerase. When 8-oxoG is present in the dNTP pool as 8-oxodGTP, telomerase utilization of the oxidized nucleotide during telomere extension is mutagenic and terminates further elongation. Depletion of MTH1, the enzyme that removes oxidized dNTPs, increases telomere dysfunction and cell death in telomerase-positive cancer cells with shortened telomeres. In contrast, a preexisting 8-oxoG within the telomeric DNA sequence promotes telomerase activity by destabilizing the G-quadruplex DNA structure."

According to the news reporters, the research concluded: "We show that the mechanism by which 8-oxoG arises in telomeres, either by insertion of oxidized nucleotides or by direct reaction with free radicals, dictates whether telomerase is inhibited or stimulated and thereby mediates the biological outcome."


Our news journalists report that additional information may be obtained by contacting P.L. Opresko, Carnegie Mellon University, Center Nucle Acids Sci & Technol, Pittsburgh, PA 15213, United States. Additional authors for this research include J. Lormand, A. Bose, H.T. Lee, G.S. Kim, J.F. Li, R.W. Sobol, B.D. Freudenthal, S. Myong and P.L. Opresko.

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Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, DNA Nucleotidylder transferases, RNA-Directed DNA Polymerase, Cell Nucleus Structures, Enzymes and Coenzymes, Chromosome Structures, Phosphotransferases, Intranuclear Space, Ribonucleoproteins, Carrier Proteins, Telomerase, Genetics, Telomere, Carnegie Mellon University.

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Drugs and Therapies - Radiation Therapy

New Radiation Therapy Study Findings Recently Were Reported by Researchers at Prince of Wales Clinical School (Radiation therapy for people with cancer: what do written information materials tell them?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Radiation Therapy have been presented. According to news reporting out of Sydney, Australia, by NewsRx editors, research stated, "This study aimed to compare and contrast the contents of different types of written
patient information about radiotherapy, namely (1) hospital radiotherapy departments vs. cancer control organisations and (2) generic vs. tumour-specific materials. A coding framework, informed by existing patients’ information needs literature, was developed and applied to 54 radiotherapy information resources.”

Funders for this research include Sydney Medical School, Australian National and Health Medical Research Council Early Career Researcher Fellowship.

Our news journalists obtained a quote from the research from the Prince of Wales Clinical School, "The framework comprised 12 broad themes; cancer diagnosis, general information about radiotherapy, treatment planning, daily treatment, side effects, self-care management, external radiotherapy, internal radiotherapy, impact on daily activities, post-treatment, psychosocial health and other content, such as a glossary. Materials produced by cancer organisations contained significantly more information than hospital resources on diagnosis, general radiotherapy information, internal radiotherapy and psychosocial health. However, hospital materials provided more information about treatment planning, daily treatment and the impact on daily activities. Compared to generic materials, tumour-specific resources were superior in providing information about diagnosis, daily treatment, side effects, post-treatment and psychosocial health. Information about internal radiotherapy, prognosis and chronic side effects were poorly covered by most resources. Collectively, hospital and cancer organisation resources complement each other in meeting patients’ information needs."

According to the news editors, the research concluded: "Identifying ways to consolidate different information sources could help comprehensively address patients’ medical and psychosocial information needs about radiotherapy.”


Our news journalists report that additional information may be obtained by contacting S.K. Smith, Univ New South Wales, Psychosocial Res Grp, Prince Wales Clin Sch, Fac Med, Sydney, NSW, Australia. Additional authors for this research include B. Yan, C. Milross and H.M. Dhillon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ecc.12366. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Drugs and Therapies, Radiation Therapy, Psychosocial, Radiotherapy, Hospital, Oncology, Cancer, Prince of Wales Clinical School.

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Oncology - Rectal Cancer

New Rectal Cancer Findings from University of Ulsan Described (Phase II Study of Preoperative Capecitabine and Oxaliplatin-based Intensified Chemoradiotherapy With or Without Induction Chemotherapy in Patients With Locally Advanced Rectal ...
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Rectal Cancer. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "Controversy surrounds the management of patients with locally advanced rectal cancer with synchronous resectable liver metastases (LMs). This study was designed to improve both systemic and local control in these patients."

The news reporters obtained a quote from the research from the University of Ulsan, "Patients with locally advanced rectal cancer (cT3-4N0 or cTanyN1-2) and synchronous resectable liver-limited metastases (cMLa) were randomly assigned to receive either preoperative treatments of induction CapeOx, followed by chemoradiotherapy with CapeOx (CapeOx-RT) (arm A) or CapeOx-RT alone (arm B). Induction CapeOx consisted of oxaliplatin 130 mg/m(2) on day 1 and capcitabine 1000 mg/m(2) twice daily on days 1 to 14, every 3 weeks for 2 cycles; CapeOx-RT consisted of radiotherapy with 45 Gy/25 daily fractions +/- 5.4 Gy/3 fractions, oxaliplatin 50 mg/m(2) weekly for 5 weeks, and capcitabine 825 mg/m(2) twice daily on days 1 to 38. Total mesorectal excision and simultaneous liver metastasectomy were planned within 6 weeks after completion of preoperative treatments. The primary endpoint was R0 resection rate of both the primary tumor and LMs. Thirty-eight patients were randomly assigned to the present study, 18 to arm A and 20 to arm B. The overall R0 resection rate for both the primary tumor and LMs was 77.8% in arm A and 70.0% in arm B (P=0.72). The median progression-free survival was 14.2 versus 15.1 months (P=0.422) and the 3-year overall survival rate was 75.0% versus 88.8% (P=0.29), respectively."

According to the news reporters, the research concluded: "Both treatment strategies showed considerable R0 resection rates; however, further study will be warranted to apply these intensified strategies in clinical practice."

For more information on this research see: Phase II Study of Preoperative Capecitabine and Oxaliplatin-based Intensified Chemoradiotherapy With or Without Induction Chemotherapy in Patients With Locally Advanced Rectal Cancer and Synchronous Liver-limited Resectable Metastases. American Journal of Clinical Oncology-Cancer Clinical Trials, 2016;39(6):623-629. American Journal of Clinical Oncology-Cancer Clinical Trials can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.


Keywords for this news article include: Seoul, South Korea, Asia, Clinical Trials and Studies, Drugs and Therapies, Clinical Research, Gastroenterology, Rectal Cancer, Chemotherapy, Oncology, University of Ulsan.

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New Rectal Cancer Study Findings Have Been Reported by Investigators at Ohio State University (Neoadjuvant Therapy for Rectal Cancer Affects Lymph Node Yield and Status Without Clear Implications on Outcome: The Case for Eliminating a Metric ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Rectal Cancer have been presented. According to news reporting originating from Columbus, Ohio, by NewsRx correspondents, research stated, "Nodal status has long been considered pivotal to oncologic care, staging, and management. This has resulted in the establishment of rudimentary metrics regarding adequate lymph node yield in colon and rectal cancers for accurate cancer staging."

Our news editors obtained a quote from the research from Ohio State University, "In the era of neoadjuvant treatment, the implications of lymph node yield and status on patient outcomes remains unclear. This study included 1,680 patients with locally advanced rectal cancer from the NCCN prospective oncology database stratified into 3 groups based on preoperative therapy received: no neoadjuvant therapy, neoadjuvant chemoradiation, and neoadjuvant chemotherapy. Clinicopathologic characteristics and survival were compared between the groups, with univariate and multivariate analyses undertaken. The clinicopathologic characteristics demonstrated statistically significant differences and heterogeneity among the 3 groups. The neoadjuvant chemoradiation group demonstrated the statistically lowest median lymph node yield (n=15) compared with 17 and 18 for no-neoadjuvant and neoadjuvant chemotherapy, respectively (P <.0001). Neoadjuvant treatment did impact survival, with chemoradiation demonstrating increased median overall survival of 42.7 compared with 37.3 and 26.6 months for neoadjuvant chemotherapy and noneoadjuvant therapy, respectively (P <.0001). Patients with a yield of fewer than 12 lymph nodes had improved median overall survival of 43.3 months compared with 36.6 months in patients with 12 or more lymph nodes (P=.009). Multivariate analysis demonstrated that neither node yield nor status were predictors for overall survival. This analysis reiterates that nodal yield in rectal cancer is multifactorial, with neoadjuvant therapy being a significant factor. Node yield and status were not significant predictors of overall survival."

According to the news editors, the research concluded: "A nodal metric may not be clinically relevant in the era of neoadjuvant therapy, and guidelines for perioperative therapy may need reconsideration."

For more information on this research see: Neoadjuvant Therapy for Rectal Cancer Affects Lymph Node Yield and Status Without Clear Implications on Outcome: The Case for Eliminating a Metric and Using Preoperative Staging to Guide Therapy. *Journal of the National Comprehensive Cancer Network*, 2016;14(12):1528-1534. *Journal of the National Comprehensive Cancer Network* can be contacted at: Harborside Press, 37 Main St, Cold Spring Harbor, NY 11724, USA.

The news editors report that additional information may be obtained by contacting S.R.Z. Abdel-Misih, Ohio State University, Div Surg Oncol, Wexner Med Center, Arthur G James Canc Hosp, Columbus, OH 43210, United States. Additional authors for this research include L. Wei, A.B. Benson, S. Cohen, L. Lai, J. Skibber, N. Wilkinson, M. Weiser, D. Schrag and T. Bekaii-Saab.

Keywords for this news article include: Columbus, Ohio, United States, North and
Rehabilitation

New Rehabilitation Study Findings Have Been Reported by Investigators at Baylor University College of Medicine (Anesthetizing a child for a large compressive mediastinal mass with distraction techniques and music therapies as the sole agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Rehabilitation have been published. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "Anesthetic management of the child with an anterior mediastinal mass is challenging. The surgical/procedural goal typically is to obtain a definitive tissue diagnosis to guide treatment; the safest approach to anesthesia is often one that alters cardiorespiratory physiology the least."

Our news journalists obtained a quote from the research from the Baylor University College of Medicine, "In severe cases, this may translate to little or no systemic sedatives/analgesics. Distraction techniques, designed to shift attention away from procedure-related pain (such as counting, listening to music, non procedure-related talk), may be of great benefit, allowing for avoidance of pharmaceuticals."

According to the news editors, the research concluded: "In this report, we present an approach in children where the anesthetic risk is deemed excessive."


The news correspondents report that additional information may be obtained from A.C. Adler, Baylor College of Medicine, Dept. of Anesthesiol Perioperat & Pain Med, Houston, TX 77030, United States. Additional authors for this research include E.R. Schwartz', J.M. Waters and P.A. Stricker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.09.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Complementary and Alternative Medicine, Sensory Art Therapy, Rehabilitation, Music Therapy, Baylor University College of Medicine.

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Reproductive Techniques

New Reproductive Techniques Findings from School of Public Health Described (Contraceptive practices among women: the second Australian study of health and relationships)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Reproductive Techniques have been published. According to news reporting originating from Sydney, Australia, by NewsRx correspondents, research stated, "To document the use of contraception by a representative sample of Australian women aged 16-49 years and compare it with 2001-2002. Women were asked about their use of contraception and method used or reason for non-use during computer-assisted telephone interviews in 2012-2013."

Our news editors obtained a quote from the research from the School of Public Health, "Women were sampled by random digit dialling of landline and mobile phones (participation rate 67.2%). Of a weighted sample of 5654 heterosexually active women interviewed 81% were using a method of contraception including sterilisation; this amounts to 66% of all women aged 16-49. Of those who were not using a method, 42% were pregnant or wanted a baby, 25% said they or their partners were infertile, 5% were currently not having intercourse, 3% were past menopause and 25% were apparently at risk of unintended pregnancy. Of those who used a method, 33% used oral contraceptives, 30% condoms and 19% sterilisation as their primary method. Use of condoms, intrauterine devices, implants and emergency contraception has increased since 2002, and use of sterilisation has fallen. Method used varied by age group, location, occupational group, relationship status and parity. A third of women had ever used emergency contraception, with the highest rate among women in their 20s. Australian women have access to a wide range of effective contraceptive methods."

According to the news editors, the research concluded: "Given the high levels of use, most unintended pregnancies in Australia are likely to be attributable to method failure or inconsistent use."


The news editors report that additional information may be obtained by contacting J. Richters, Univ New South Wales, Sch Public Hlth & Community Med, Sydney, NSW, Australia. Additional authors for this research include S. Fitzadam, A. Yeung, T. Caruana, C. Rissel, J.M. Simpson and R. de Visser.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.contraception.2016.06.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Contraception, Risk and Prevention, Reproductive Techniques, Contraceptives, School of Public Health.

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New Respiratory Distress Syndrome Study Findings Have Been Reported by T. Baranovich and Co-Researchers (The Hemagglutinin Stem-Binding Monoclonal Antibody VIS410 Controls Influenza Virus-Induced Acute Respiratory Distress Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Respiratory Tract Diseases and Conditions - Respiratory Distress Syndrome. According to news reporting out of Cambridge, Massachusetts, by NewsRx editors, research stated, "Most cases of severe influenza are associated with pulmonary complications, such as acute respiratory distress syndrome (ARDS), and no antiviral drugs of proven value for treating such complications are currently available. The use of monoclonal antibodies targeting the stem of the influenza virus surface hemagglutinin (HA) is a rapidly developing strategy for the control of viruses of multiple HA subtypes."

Financial support for this research came from HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID).

Our news journalists obtained a quote from the research, "However, the mechanisms of action of these antibodies are not fully understood, and their ability to mitigate severe complications of influenza has been poorly studied. We evaluated the effect of treatment with VIS410, a human monoclonal antibody targeting the HA stem region, on the development of ARDS in BALB/c mice after infection with influenza A(H7N9) viruses. Prophylactic administration of VIS410 resulted in the complete protection of mice against lethal A(H7N9) virus challenge. A single therapeutic dose of VIS410 given 24 h after virus inoculation resulted in dose-dependent protection of up to 100% of mice inoculated with neuraminidase inhibitor-susceptible or -resistant A(H7N9) viruses. Compared to the outcomes in mock-treated controls, a single administration of VIS410 improved viral clearance from the lungs, reduced virus spread in lungs in a dose-dependent manner, resulting in a lower lung injury score, reduced the extent of the alteration in lung vascular permeability and protein accumulation in bronchoalveolar lavage fluid, and improved lung physiologic function."

According to the news editors, the research concluded: "Thus, antibodies targeting the HA stem can reduce the severity of ARDS and show promise as agents for controlling pulmonary complications in influenza."

For more information on this research see: The Hemagglutinin Stem-Binding Monoclonal Antibody VIS410 Controls Influenza Virus-Induced Acute Respiratory Distress Syndrome. Antimicrobial Agents and Chemotherapy, 2016;60(4):2118-31. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting S.E. Sloan, Visterra, Inc, Cambridge, Massachusetts, United States. Additional authors for this research include J.C. Jones, M. Russier, P. Vogel, K.J. Szretter, S.E. Sloan, P. Seiler, J.M. Trevejo, R.J. Webby and E.A Govorkova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.02457-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Therapy, Cambridge, Influenza, Immunology, Pulmonology, Massachusetts, United States, Blood Proteins, Immunoglobulins,
North and Central America, Respiratory Distress Syndrome, Respiratory Tract Diseases and Conditions.

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Drugs and Therapies - Respiratory Inhalant Products

New Respiratory Inhalant Products Findings from University of Calabria Outlined [Cromolyn as surface active drug (surfadrug): Effect of the self-association on diffusion and percutaneous permeation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Respiratory Inhalant Products is now available. According to news reporting originating in Cosenza, Italy, by NewsRx journalists, research stated, "Cromolyn sodium, or disodium cromoglycate (CS), is a surface active drug: a pharmacologically active compound with an amphiphilic nature. At certain conditions it is able to self-associate in several kind of supramolecular aggregates."

Financial support for this research came from MIUR, the Italian Ministry for University.

The news reporters obtained a quote from the research from the University of Calabria, "Since CS could play the role of both carrier and drug, bypassing the use of additional excipients and increasing the system biocompatibility, the effects of cromolyn self-aggregates on diffusion and percutaneous permeation across rabbit ear skin were investigated. Niosomes (vesicular systems, 0.5 wt% of CS), monomeric and isotropic solutions (0.5 and 5 wt% of CS), nematic (15 wt% of CS) and hexagonal phases (30 wt% of CS) were selected as supramolecular systems and tested as transdermal delivery systems. Results demonstrated that CS was able to form vesicular structures of about 500 nm of diameter and this formulation gave the higher percutaneous permeation profile (systemic action), while isotropic solution and liquid crystals mesophases acted as slower release reservoir of drug on the skin surface (local action), as confirmed by diffusion coefficients. Diffusion rates through a synthetic membrane were dependent both on CS concentration present into the formulations and on its structural organization: maximum diffusion was noticed with isotropic solution, a lower amount of diffused cromolyn sodium was achieved by hexagonal phase."

According to the news reporters, the research concluded: "Consequently, CS appears as a versatile surfadrug as, depending on the disease degree, it is possible to modulate its permeation profile by choosing the most appropriate formulation."

For more information on this research see: Cromolyn as surface active drug (surfadrug): Effect of the self-association on diffusion and percutaneous permeation. Colloids and Surfaces B-Biointerfaces, 2016;139():132-137. Colloids and Surfaces B-Biointerfaces can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands.

Our news correspondents report that additional information may be obtained by contacting L. Tavano, University of Calabria, Dept. of Pharm Hlth & Nutr Sci, I-87036 Cosenza, Italy. Additional authors for this research include F.P. Nicoletta, N. Picci and R. Muzzalupo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.colsurfb.2015.12.010. This DOI is a link to an online electronic document that is either free or for purchase.
New Respiratory Syncytial Viruses Study Results from Imperial College Described (T cell responses are elicited against Respiratory Syncytial Virus in the absence of signalling through TLRs, RLRs and IL-1R/IL-18R)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in RNA Viruses - Respiratory Syncytial Viruses. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Pattern recognition receptors (PRRs) and cytokine receptors are key players in the initiation of immune responses to infection. PRRs detecting viral RNA, such as toll like receptor (TLR)-3, -7/8, and RIG-I like receptors (RLRs; RIG-I and MDA-5), as well as cytokine receptors such as interleukin 1 receptor (IL-1R), have been implicated in responses to RNA viruses that infect the airways."

Our news journalists obtained a quote from the research from Imperial College, "The latter includes respiratory syncytial virus (RSV), a human pathogen that can cause severe lower respiratory tract infections, especially in infants. To evaluate the collective contribution of PRRs and IL-1R signalling to RSV immunity, we generated Myd88/Trif/Mavs(-/-) mice that are deficient in signalling by all TLRs, RLRs and IL-1R, as well as other cytokine receptors such as IL-18 receptor. Early production of pro-inflammatory mediators and lung infiltration by immune cells were completely abrogated in infected Myd88/Trif/Mavs(-/-) mice. However, RSV-specific CD8(+) T cells were elicited and recruited into the lungs and airways. Consistent with these findings, Myd88/Trif/Mavs(-/-) mice survived RSV infection but displayed higher viral load and weight loss."

According to the news editors, the research concluded: "These data highlight an unappreciated level of redundancy in pathways that couple innate virus sensing to adaptive immunity, providing the host with remarkable resilience to infection."

For more information on this research see: T cell responses are elicited against Respiratory Syncytial Virus in the absence of signalling through TLRs, RLRs and IL-1R/IL-18R. Scientific Reports, 2015;5():18533. (Nature Publishing Group - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting M. Goritzka, Centre for Respiratory Infections, Respiratory Infections Section, St Mary's campus, National Heart and Lung Institute, Faculty of Medicine, Imperial College London, London, W2 1PG, UK. Additional authors for this research include C. Pereira, S. Makris, L.R. Durant and C. Johansson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18533. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, Virology,
New Retinal Vein Occlusion Study Findings Have Been Reported by Investigators at Cukurova University (Choroidal Thickness Changes After Intravitreal Dexamethasone Implant Injection For The Treatment Of Macular Edema Due To Retinal Vein Occlusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Eye Diseases and Conditions - Retinal Vein Occlusion. According to news reporting from Adana, Turkey, by NewsRx journalists, research stated, "To investigate changes in choroidal thickness after intravitreal injection of a dexamethasone implant for macular edema due to retinal vein occlusion. Thirty-one eyes of 31 patients, treated with a single dose of a dexamethasone implant for retinal vein occlusion-associated macular edema, were included."

The news correspondents obtained a quote from the research from Cukurova University, "Subfoveal choroidal thickness (SFCT) and central macular thickness of the affected eyes were compared with those of the normal contralateral eyes at baseline and 1, 3, and 5 months after injection. The mean SFCT of the affected eyes (296.3 μm +/- 61.6 μm) was significantly higher than that of the contralateral eyes (251.2 μm +/- 57.7 μm; P< 0.001) at baseline. After injection, the mean SFCT was decreased compared with baseline in the treated eyes at months 1, 3, and 5. There was a correlation between SFCT and central macular thickness in the affected eyes at baseline (r = 0.397, P = 0.027). The change in SFCT was not correlated with the change in central macular thickness after injection. In the contralateral eyes, the mean SFCT did not change significantly. Subfoveal choroidal thickness in eyes with macular edema due to retinal vein occlusion was higher than that of the contralateral eyes."

According to the news reporters, the research concluded: "Intravitreal injection of a dexamethasone implant was associated with a reduction in the choroidal thickness of the treated eye."

For more information on this research see: Choroidal Thickness Changes After Intravitreal Dexamethasone Implant Injection For The Treatment Of Macular Edema Due To Retinal Vein Occlusion. Retina-The Journal of Retinal and Vitreous Diseases, 2016;36 (12):2297-2303. Retina-The Journal of Retinal and Vitreous Diseases can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting E. Esen, Cukurova University, Sch Med, Dept. of Ophthalmology, Adana, Turkey. Additional authors for this research include S. Sizmaz and N. Demircan.

Keywords for this news article include: Adana, Turkey, Eurasia, Cardiovascular Diseases and Conditions, Retinal Diseases and Conditions, Eye Diseases and Conditions, Embolism and Thrombosis, Retinal Vein Occlusion, Retinal Degeneration, Macular Degeneration, Venous Thrombosis, Macular Edema, Cukurova University.
New Retinal Vein Occlusion Study Findings Have Been Reported from Department of Ophthalmology (Lysophosphatidic Acids And Autotaxin In Retinal Vein Occlusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Eye Diseases and Conditions - Retinal Vein Occlusion have been published. According to news reporting from Los Angeles, California, by NewsRx journalists, research stated, "To analyze the levels of lysophosphatidic acids (LPAs) and autotaxin (ATX) in undiluted vitreous of untreated patients with retinal vein occlusion (RVO). Sixty-four vitreous samples (40 RVO, 24 controls with idiopathic floaters) were analyzed in this retrospective case series using LC/MS for LPAs 16:0, 18:0, 18:1, 20:4, and ELISA kits or Luminex technology for ATX, angiopoetin-1 (ANG-1), interleukin-6 (IL-6), interleukin-7 (IL-7), interleukin-8 (IL-8), monocyte chemoattractant protein-1 (MCP-1), pigment epithelium-derived factor (PEDF), and vascular endothelial growth factor (VEGF)."

The news correspondents obtained a quote from the research from the Department of Ophthalmology, "LPA and ATX levels were correlated with the visual acuity, central macular thickness (CMT), average retinal thickness (AvT), vitreal cytokine levels and with each other. Levels of every LPA species tested and ATX were significantly increased in the vitreous fluid from all patients with RVO (total LPAs: 968.0 +/- 842.3 nM; ATX: 2.5 +/- 1.02 nM) compared with controls (total LPAs: 225.2 +/- 292.8 nM, P< 0.0001; ATX:1.9 +/- 1.00 nM, P = 0.005). There were strong positive correlations between the vitreal levels of IL-6, IL-8, MCP-1, VEGF and LPAs."

According to the news reporters, the research concluded: "Levels of LPAs and ATX were positively correlated with proinflammatory cytokines and VEGF and might thus play an important role in the development of macular edema secondary to RVO."

For more information on this research see: Lysophosphatidic Acids And Autotaxin In Retinal Vein Occlusion. *Retina-The Journal of Retinal and Vitreous Diseases*, 2016;36 (12):2311-2318. *Retina-The Journal of Retinal and Vitreous Diseases* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting M.J. Koss, Univ Southern Calif, Dept. of Ophthalmol, Los Angeles, CA, United States. Additional authors for this research include C. Ullmer, K. Ceglowska, E. Nogoceke, G. Hartmann, S. Muller, R. Rejdak, K. Nowomieska, M. Reich, M. Nobl, T. Tandogan, F.T.A. Kretz, G.U. Auffarth and M.J. Koss.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Retinal Diseases and Conditions, Eye Diseases and Conditions, Growth Factor Receptors, Embolism and Thrombosis, Retinal Vein Occlusion, Angiogenic Proteins, Membrane Proteins, Venous Thrombosis, Interleukins, Cytokines, VEGF, Department of Ophthalmology.
New Retinoblastoma Study Findings Reported from University of Utah

[Cell-specific Kaiso (ZBTB33) Regulation of Cell Cycle through Cyclin D1 and Cyclin E1]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Eye Diseases and Conditions - Retinoblastoma are discussed in a new report. According to news reporting out of Salt Lake City, Utah, by NewsRx editors, research stated, "The correlation between aberrant DNA methylation with cancer promotion and progression has prompted an interest in discerning the associated regulatory mechanisms. Kaiso (ZBTB33) is a specialized transcription factor that selectively recognizes methylated CpG-containing sites as well as a sequence-specific DNA target."

Funders for this research include American Cancer Society, National Cancer Institute.

Our news journalists obtained a quote from the research from the University of Utah, "Increasing reports link ZBTB33 overexpression and transcriptional activities with metastatic potential and poor prognosis in cancer, although there is little mechanistic insight into how cells harness ZBTB33 transcriptional capabilities to promote and progress disease. Here we report mechanistic details for how ZBTB33 mediates cell-specific cell cycle regulation. By utilizing ZBTB33 depletion and overexpression studies, it was determined that in HeLa cells ZBTB33 directly occupies the promoters of cyclin D1 and cyclin El, inducing proliferation by promoting retinoblastoma phosphorylation and allowing for E2F transcriptional activity that accelerates G(1)-to-S-phase transition. Conversely, in HEK293 cells ZBTB33 indirectly regulates cyclin E abundance resulting in reduced retinoblastoma phosphorylation, decreased E2F activity, and decelerated G(1) transition."

According to the news editors, the research concluded: "Thus, we identified a novel mechanism by which ZBTB33 mediates the cyclin D1/cyclin El/BR1/E2E pathway, controlling passage through the G(1) restriction point and accelerating cancer cell proliferation."


Our news journalists report that additional information may be obtained by contacting B.A. Buck-Koehntop, University of Utah, Dept. of Chem, Salt Lake City, UT 84112, United States. Additional authors for this research include T.W. Terooatea and B.A. Buck-Koehntop.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.746370. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Intracellular Signaling Peptides and Proteins, Retinal Diseases and
New Rett Syndrome Findings from Maastricht University Outlined (Neurophysiology Versus Clinical Genetics in Rett Syndrome: A Multicenter Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Central Nervous System Diseases and Conditions - Rett Syndrome is now available. According to news reporting originating in Maastricht, Netherlands, by NewsRx journalists, research stated, "Many studies have attempted to establish the genotype-phenotype correlation in Rett syndrome (RTT). Cardiorespiratory measurements provide robust objective data, to correlate with each of the different clinical phenotypes."

The news reporters obtained a quote from the research from Maastricht University, "It has important implications for the management and treatment of this syndrome. The aim of this study was to correlate the genotype with the quantitative cardiorespiratory data obtained by neurophysiological measurement combined with a clinical severity score. This international multicenter study was conducted in four European countries from 1999 to 2012. The study cohort consisted of a group of 132 well-defined RTT females aged between 2 and 43 years with extended clinical, molecular, and neurophysiological assessments. Diagnosis of RTT was based on the consensus criteria for RTT and molecular confirmation. Genotype-phenotype analyses of clinical features and cardiorespiratory data were performed after grouping mutations by the same type and localization or having the same putative biological effect on the MeCP2 protein, and subsequently on eight single recurrent mutations. A less severe phenotype was seen in females with CTS, p.R133C, and p.R294X mutations. Autonomic disturbances were present in all females, and not restricted to nor influenced by one specific group or any single recurrent mutation. The objective information from non-invasive neurophysiological evaluation of the disturbed central autonomic control is of great importance in helping to organize the lifelong care for females with RTT."

According to the news reporters, the research concluded: "Further research is needed to provide insights into the pathogenesis of autonomic dysfunction, and to develop evidence-based management in RTT."


Our news correspondents report that additional information may be obtained by contacting E.E. Smeets, Maastricht University, Medical Center, Netherlands Rett Expertise Center GKC, NL-6202 AZ Maastricht, Netherlands. Additional authors for this research include E.E. Smeets, P. Julu, I.W.E. Om, G. Pini, S. Bigoni, S. Hansen, F. Apartopoulos, R. Delamont,
New Rheumatic Heart Disease Findings from M.S. Sreekanth and Co-Researchers Reported (Association of IL-1 beta+3953 C and HLA-DRB1*15 with Coronary Artery and Rheumatic Heart Diseases in South India)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Rheumatic Heart Disease have been published. According to news originating from Tamil Nadu, India, by NewsRx correspondents, research stated, "Among the various candidate genes predisposing for cardiovascular diseases, HLA-DRB1* and IL-1 beta +3953C/T alleles have been implicated repeatedly. To test these in South India, we carried out a case control study of 323 Coronary Artery Disease (CAD) patients, 56 Rheumatic Heart Disease (RHD) patients and 254 endemic controls."

Our news journalists obtained a quote from the research, "The polymorphisms were studied by PCR - SSP and ARMS-PCR methods and results analyzed for various clinical and demographic parameters. In CAD, HLA-DRB1*14 allele showed significant predisposition (OR: 2.19; 95% CI: 1.04-4.58; p value = 0.023), particularly in male patients (OR: 4.07; 95% CI: 1.20-13.81; p value = 0.01) and further in males with Triple Vessel Disease (OR: 5.49; 95% CI: 1.45-20.60; p value = 0.007). On the other hand, HLA-DRB1*15 predisposed for RHD (OR: 3.56; 95% CI: 1.87-6.78; p value = 0.001) in both the genders. Population stratification showed this higher risk association in Vanniyar caste (OR: 5.00; 95% CI: 1.27-19.59; p value = 0.022). Among the IL1-beta +3953C/T polymorphism, the ancestral allele 'C' showed a significant high risk association with CAD (OR: 1.83; 95% CI: 1.24-2.70; p value = 0.001), particularly in Mudaliar (OR: 6.07; 95% CI: 1.77-20.74; p value = 0.003; AF = 0.7) and Vanniyar castes (OR: 3.67; 95% CI: 0.92-14.57; p value = 0.05; AF = 0.660). Two different cardiac ailments studied, RHD & CAD thus showed varied associations in this South Indian cohorts."

According to the news editors, the research concluded: "RHD having an infectious aetiology shared a HLA-DRB1*15 high risk association, while HLA-DRB1*14 and IL-1 +3953C predisposed for CAD, an inflammatory disorder, reiterating the diverse genetic predisposition of the two cardiac ailments studied."

For more information on this research see: Association of IL-1 beta+3953 C and HLA-DRB1*15 with Coronary Artery and Rheumatic Heart Diseases in South India. Human Immunology, 2016;77(12):1275-1279. Human Immunology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

The news correspondents report that additional information may be obtained from R.M. Pitchappan, Chettinad Academy Res & Educ, Dept. of Allied Hlth Sci, Madras 603103,
Autoimmune Diseases and Conditions - Rheumatoid…

New Rheumatoid Arthritis Findings from M. Dougados and Co-Researchers Described (Evaluation of the Disease Activity Score in Twenty-Eight Joints-Based Flare Definitions in Rheumatoid Arthritis: Data From a Three-Year Clinical Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Rheumatoid Arthritis. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "To assess the flare rate using published criteria (Disease Activity Score in 28 joints [DAS28-2] increase between visits of >1.2 or >0.6 if current DAS28 (>=3.2) in patients receiving constant treatment, and to compare published flare criteria to criteria used by study investigators after biologic treatment discontinuation in the ACT-RAY study. Patients with rheumatoid arthritis (n=553) were randomized to add tocilizumab to ongoing methotrexate, or switch to tocilizumab plus placebo."

Financial support for this research came from F. Hoffmann-La Roche, Ltd.

Our news editors obtained a quote from the research, "If DAS28 (<=3.2 occurred at week 24, treatment remained constant until week 52; here we assessed the DAS28-2 flare rate. Between weeks 52 and 104, patients in sustained remission (DAS28 <2.6 at 2 consecutive visits 12 weeks apart) discontinued tocilizumab and were assessed every 4 weeks. Per protocol, flare was defined as a worsening of disease activity that required treatment beyond the permitted therapy based on investigator opinions (investigator flare) and was compared with the DAS28-2 definition. After tocilizumab discontinuation, DAS28-2 was sensitive (88-100%), but not specific (57-65%), for detecting investigator flare. Under constant treatment, DAS28-2 criteria were met in 136 cases per 100 patient-years despite stable disease activity. Sustained flares were infrequent. Other DAS28-based criteria led to similar conclusions. DAS28-based flare occurred more often than investigator-defined flares after biologic agent discontinuation."

According to the news editors, the research concluded: "More stringent criteria may be more appropriate for clinical practice."


The news editors report that additional information may be obtained by contacting M. Dougados, Hopital Cochin, Paris, France. Additional authors for this research include T.W. Huizinga, E.H. Choy, C.O. Bingham, M. Aassi and C. Bernasconi.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/acr.22633. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Paris, France, Europe, Tocilizumab, Immunotherapy, Clinical Research, Immunologic Agents, Drugs and Therapies, Rheumatoid Arthritis, Monoclonal Antibodies, Clinical Trials and Studies, Joint Diseases and Conditions, Autoimmune Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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Autoimmune Diseases and Conditions - Rheumatoid ...

New Rheumatoid Arthritis Findings from X.F. Li and Co-Researchers Reported (MicroRNA-20a negatively regulates expression of NLRP3-inflammasome by targeting TXNIP in adjuvant-induced arthritis fibroblast-like synoviocytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Autoimmune Diseases and Conditions - Rheumatoid Arthritis is the subject of a report. According to news reporting from Hefei, People's Republic of China, by NewsRx journalists, research stated, "Rheumatoid arthritis (RA) is a heterogenic and systemic autoimmune disease characterized by synovitis and joint structural damage. However, the pathogenesis of RA is still obscure."

Financial supporters for this research include National Science Fundations of China, Doctoral Program of Higher Education, Anhui Provincial Natural Science Foundation.

The news correspondents obtained a quote from the research, "It has been reported microRNA-20a (miRNA-20a) was significantly associated with the regulation of pro inflammatory cytokines release in RA FLS. The purpose of this study was to explore the function and underlying mechanisms of miRNA-20a on NLRP3-inflammasome in adjuvant-induced arthritis (AA) fibroblast-like synoviocytes (FLSs) in vitro. In this study, using a combination of Western blotting, Q-PCR, and ELISA analysis, we investigated the influence and function of miRNA-20a on NLRP3-inflammasome by targeting TXNIP in AA FLSs. In the present study, the expression of NLRP3-inflammasome was significant up-regulated in AA model in vitro. Our study indicated that silence of NLRP3 down-regulated the expression of NLRP3-inflammasome and the secretion of IL-1 beta and MMP-1. Moreover, over-expression of miR-20a decreased formation of NLRP3-inflammasome, including NLRP3, ASC and caspase-1, and suppressed the secretion of IL-1 beta and MMP-1, along with down-regulated the expressions of TXNIP in primary FLSs isolated from AA. With the combined use of prediction programs and luciferase assay, the rat TXNIP mRNA 3'UTR predicted to be targeted by miR-20a. Similarly, inhibitor TXNIP expression by TXNIP-siRNA markedly repressed formation of NLRP3-inflammasome and the secretion of IL-1 beta and MMP-1."

According to the news reporters, the research concluded: "Taken together, these results indicate that miR-20a may play a pivotal role in the NLRP3-inflammasome by targeted inhibit TXNIP expression in AA FLSs."

For more information on this research see: MicroRNA-20a negatively regulates expression of NLRP3-inflammasome by targeting TXNIP in adjuvant-induced arthritis fibroblast-like synoviocytes. Joint Bone Spine, 2016;83(6):695-700. Joint Bone Spine can be

Our news journalists report that additional information may be obtained by contacting J. Li, Anhui Inst Innovat Drugs, Hefei 230032, People's Republic of China. Additional authors for this research include W.W. Shen, Y.Y. Sun, W.X. Li, Z.H. Sun, Y.H. Liu, L. Zhang, C. Huang, X.M. Meng and J. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jbspin.2015.10.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hefei, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Rheumatoid Arthritis, Fibroblasts, Genetics.

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Autoimmune Diseases and Conditions - Rheumatoid...

New Rheumatoid Arthritis Study Findings Have Been Reported by Researchers at Veterans General Hospital (Rheumatoid Arthritis Risk Associated with Periodontitis Exposure: A Nationwide, Population-Based Cohort Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Autoimmune Diseases and Conditions - Rheumatoid Arthritis is the subject of a report. According to news reporting originating in Taichung, Taiwan, by NewsRx journalists, research stated, "The risk of periodontitis (PD) is increased in the patient group of rheumatoid arthritis (RA). RA and PD also shared some pathological mechanism."

The news reporters obtained a quote from the research from Veterans General Hospital, "The aim of this study is to investigate the risk of RA associated with PD exposure. This study identified 3 mutually exclusive cohorts using the 1999-2010 Taiwanese National Health Insurance Research Database (NHIRD) to investigate the association between PD and the risk of incident RA. All patients with PD in 2000 were identified from the database of all enrollees as the PD cohort. From the representative database of 1,000,000 enrollees randomly selected in 2010 (LHID2010), individuals without any periodontal disease (PO) during 1999-2010 were selected as the non-PO cohort. Individuals who were not included in the non-PO cohort and received dental scaling (DS) no more than two times per year during 1999-2010 were selected as the DS cohort from LHID2010. Using cox proportional regression analysis, hazard ratios (HRs) with 95% confidence intervals (CIs) were calculated to quantify the association between PD exposure and RA development. In the three-group comparison using the non-PO cohort as reference, we found that the risk of RA was higher in the PD and DS cohorts (HRs, 1.89 and 1.43; 95% CIs, 1.56-2.29 and 1.09-1.87, respectively). For comparisons between two cohorts, the PD cohort had a higher risk of RA than the non-PO and DS cohorts (HRs, 1.91 and 1.35; 95% CIs, 1.57-2.30 and 1.09-1.67, respectively)."

According to the news reporters, the research concluded: "PD was associated with an increased risk of RA development."
For more information on this research see: Rheumatoid Arthritis Risk Associated with Periodontitis Exposure: A Nationwide, Population-Based Cohort Study. Plos One, 2015;10 (10):e0139693. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news correspondents report that additional information may be obtained by contacting Y.Y. Chou, Division of Allergy, Immunology and Rheumatology, Dept. of Internal Medicine, Taichung Veterans General Hospital, Taichung, Taiwan. Additional authors for this research include K.L. Lai, D.Y. Chen, C.H. Lin and H.H Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0139693. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiwan, Taichung, Periodontitis, Risk and Prevention, Rheumatoid Arthritis, Joint Diseases and Conditions, Mouth Diseases and Conditions, Autoimmune Diseases and Conditions, Periodontal Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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Autoimmune Diseases and Conditions - Rheumatoid ...

New Rheumatoid Arthritis Study Results Reported from A. Balasubramanian et al (Glucocorticoid exposure and fracture risk in patients with new-onset rheumatoid arthritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Autoimmune Diseases and Conditions - Rheumatoid Arthritis have been presented. According to news reporting originating from Salt Lake City, Utah, by NewsRx correspondents, research stated, "Retrospective claims analysis indicated that high levels of daily and cumulative doses of systemic glucocorticoids were associated with elevated fracture risk in a large cohort of new RA patients under age 65. Heightened risk began to decline within months of discontinuation."

Financial support for this research came from Amgen.

Our news editors obtained a quote from the research, "Findings were similar among patients age <50 years. We evaluated the impact of systemic glucocorticoid exposure on fracture risk among relatively young patients with new-onset rheumatoid arthritis (RA). Using administrative data, we identified 42,127 RA patients diagnosed January 1, 2005-December 31, 2012, age 18-64 years, with benefits coverage for >= 12 months before RA diagnosis. Follow-up extended to clinical fracture, cancer diagnosis, or December 31, 2012. Glucocorticoid users were new to therapy. Fracture incidence rates (IR) were stratified by glucocorticoid exposure expressed as prednisone equivalent doses. Cox's proportional hazards models estimated fracture risk adjusted for demographics and baseline clinical characteristics to assess dose-response relationships with current (daily) and prior (cumulative) dose, and by time since discontinuation. Most patients (85 %) had glucocorticoid exposure. Exposed and unexposed patients were demographically similar (74 % female; mean age 49.7 and 48.8 years); 1 % had prior fracture. Fracture IRs (95% confidence intervals) were 5 to 9 per 1000 person-years at doses < 15 mg/day, 16.0 (11.0, 22.6) at doses >= 15 mg/day, and 13.4 (10.7, 16.7) at cumulative doses >= 5400 mg. Adjusted fracture risk was approximately 2-fold higher at highest dose levels compared with 0 mg/day current daily dose and < 675 mg cumulative dose, respectively."
Fracture risk was 29% lower at 60-182 days post-discontinuation compared with ongoing use and was similar to unexposed patients by 12 months. Findings were similar among patients age < 50 years.

According to the news editors, the research concluded: "Among younger, new-onset RA patients, fracture risk was significantly elevated at high levels of daily and cumulative dose, and was similar to unexposed patients by 12 months post-discontinuation."


The news editors report that additional information may be obtained by contacting S.W. Wade, Wade Outcomes Res & Consulting, Salt Lake City, UT, United States. Additional authors for this research include S.W. Wade, R.A. Adler, C.J.F. Lin, M. Maricic, C.D. O'Malley, K. Saag and J.R. Curtis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3646-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Glucocorticoids, Risk and Prevention, Epidemiology, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Adrenal Cortex Hormones, Rheumatoid Arthritis, Drugs and Therapies.

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Autoimmune Diseases and Conditions - Rheumatoid...

New Rheumatoid Arthritis Study Results from Institute for Rehabilitation Described [The-2518 A/G polymorphism in the monocyte chemoattractant protein 1 gene (MCP-1) is associated with an increased risk of rheumatoid arthritis in Argentine ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Autoimmune Diseases and Conditions - Rheumatoid Arthritis. According to news reporting originating in Buenos Aires, Argentina, by NewsRx journalists, research stated, "The aim of this study was to analyze the influence of nucleotide transition (G/A) in position -2518 of the MCP-1 gene related to the susceptibility of developing RA."

The news reporters obtained a quote from the research from Institute for Rehabilitation, "Two hundred twenty-three consecutive RA patients according to 2010 ACR/EULAR criteria were included; 120 healthy subjects were used as controls. MCP-1 -2518 A/G polymorphism (AG + GG) was present in 162 (72.6%) RA patients and in 63 (52.5%) healthy subjects [OR 2.44 (IC95% 1.53-3.88, p = 0.0002)]; associations for heterozygotes and homozygotes were OR 1.92 (IC95% 1.19-3.15, p = 0.001) and OR 5.19 (IC95% 2.34-11.51, p = 0.001), respectively."

According to the news reporters, the research concluded: "In Argentine patients,
MCP-1 gene polymorphism confers susceptibility for developing RA."

For more information on this research see: The-2518 A/G polymorphism in the monocyte chemoattractant protein 1 gene (MCP-1) is associated with an increased risk of rheumatoid arthritis in Argentine patients. Clinical Rheumatology, 2016;35(12):3057-3061.

Clinical Rheumatology can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - www.springer.com; Clinical Rheumatology - www.springerlink.com/content/0770-3198/)

Our news correspondents report that additional information may be obtained by contacting E. Saint Martin, Inst Rehabil Psicofis, Rheumatol Sect, RA-1428 Buenos Aires, DF, Argentina. Additional authors for this research include E.E. Schneeberger, F.M. Aranda, S.W. Peres, M.D. Valerio, M.D. Correa, F. Dal Pra, L. Martinez, G. Remondino, G. de Larranaga and G. Citera.

Keywords for this news article include: Buenos Aires, Argentina, South America, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Mononuclear Phagocyte System, Hemic and Immune Systems, Mononuclear Leukocytes, Rheumatoid Arthritis, Monocytes, Genetics, Risk and Prevention, Bone Marrow Cells, Cell Research, Blood Cells, Immunology, Phagocytes, Institute for Rehabilitation.

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Gram-Negative Bacteria - Rickettsia

New Rickettsia Findings Reported from Center for Disease Control and Prevention (Development of a Rickettsia bellii-Specific TaqMan Assay Targeting the Citrate Synthase Gene)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Rickettsia are discussed in a new report. According to news reporting out of Atlanta, Georgia, by NewsRx editors, research stated, "Rickettsia bellii is a rickettsial species of unknown pathogenicity that infects argasid and ixodid ticks throughout the Americas. Many molecular assays used to detect spotted fever group (SFG) Rickettsia species do not detect R. bellii, so that infection with this bacterium may be concealed in tick populations when assays are used that screen specifically for SFG rickettsiae."

Our news journalists obtained a quote from the research from Center for Disease Control and Prevention, "We describe the development and validation of a R. bellii-specific, quantitative, real-time PCR TaqMan assay that targets a segment of the citrate synthase (gltA) gene. The specificity of this assay was validated against a panel of DNA samples that included 26 species of Rickettsia, Orientia, Ehrlichia, Anaplasma, and Bartonella, five samples of tick and human DNA, and DNA from 20 isolates of R. bellii, including 11 from North America and nine from South America. A R. bellii control plasmid was constructed, and serial dilutions of the plasmid were used to determine the limit of detection of the assay to be one copy per 4 ml of template DNA."

According to the news editors, the research concluded: "This assay can be used to better determine the role of R. bellii in the epidemiology of tickborne rickettsioses in the Western Hemisphere."

Our news journalists report that additional information may be obtained by contacting J.A. Hecht, Center Dis Control & Prevent, Rickettsial Zoonoses Branch, Natl Center Emerging & Zoonot Infect Dis, Atlanta, GA 30333, United States. Additional authors for this research include M.E.J. Allerdice, F.S. Krawczak, M.B. Labruna, C.D. Paddock and S.E. Karpathy.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Synthase, Epidemiology, Genetics, Gram-Negative Bacteria, Enzymes and Coenzymes, Rickettsiaceae, Proteobacteria, Rickettsiaeae, Center for Disease Control and Prevention.

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**Rickettsia**

**New Rickettsia Study Findings Recently Were Reported by Researchers at Collaborative Innovation Center for Diagnosis and Treatment of Infectious Disease (Extensive genetic diversity of Rickettsiales bacteria in multiple mosquito species)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Rickettsia. According to news originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "Rickettsiales are important zoonotic pathogens, causing severe disease in humans globally. Although mosquitoes are an important vector for diverse pathogens, with the exception of members of the genus Wolbachia little is known about their role in the transmission of Rickettsiales."

Our news journalists obtained a quote from the research from the Collaborative Innovation Center for Diagnosis and Treatment of Infectious Disease, "Herein, Rickettsiales were identified by PCR in five species of mosquitoes (Anopheles sinensis, Armigeres subalbatus, Aedes albopictus, Culex quinquefasciatus and Cu. tritaeniorhynchus) collected from three Chinese provinces during 2014-2015. Subsequent phylogenetic analyses of the rrs, groEL and gltA genes revealed the presence of Anaplasma, Ehrlichia, Candidatus Neoehrlichia, and Rickettsia bacteria in mosquitoes, comprising nine documented and five tentative species bacteria, as well as three symbionts/endosymbionts. In addition, bacteria were identified in mosquito eggs, larvae, and pupae sampled from aquatic environments. Hence, these data suggest that Rickettsiales circulate widely in mosquitoes in nature. Also of note was that Ehrlichia and Rickettsia bacteria were detected in each life stage of laboratory cultured mosquitoes, suggesting that Rickettsiales may be maintained in mosquitoes through both transstadial and transovarial transmission."

According to the news editors, the research concluded: "In sum, these data indicate that mosquitoes may have played an important role in the transmission and evolution of Rickettsiales in nature."

For more information on this research see: Extensive genetic diversity of

*Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from Y.Z. Zhang, Collaborat Innovat Center Diag & Treatment Infect Di, Hangzhou, Zhejiang, People's Republic of China. Additional authors for this research include J.H. Tian, X.D. Lin, X.B. Ni, X.P. Chen, Y. Liao, S.Y. Yang, J.S. Dumler, E.C. Holmes and Y.Z. Zhang.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Rickettsiaceae, Mosquitoes, Genetics, Collaborative Innovation Center for Diagnosis and Treatment of Infectious Disease.

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**Risk Management**

**New Risk Management Study Findings Recently Were Reported by S.C. Anenberg and Co-Researchers (Survey of Ambient Air Pollution Health Risk Assessment Tools)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Risk Management have been published. According to news reporting originating from Washington, District of Columbia, by NewsRx correspondents, research stated, "Designing air quality policies that improve public health can benefit from information about air pollution health risks and impacts, which include respiratory and cardiovascular diseases and premature death. Several computer-based tools help automate air pollution health impact assessments and are being used for a variety of contexts."

Our news editors obtained a quote from the research, "Expanding information gathered for a May 2014 World Health Organization expert meeting, we survey 12 multinational air pollution health impact assessment tools, categorize them according to key technical and operational characteristics, and identify limitations and challenges. Key characteristics include spatial resolution, pollutants and health effect outcomes evaluated, and method for characterizing population exposure, as well as tool format, accessibility, complexity, and degree of peer review and application in policy contexts. While many of the tools use common data sources for concentration-response associations, population, and baseline mortality rates, they vary in the exposure information source, format, and degree of technical complexity. We find that there is an important tradeoff between technical refinement and accessibility for a broad range of applications. Analysts should apply tools that provide the appropriate geographic scope, resolution, and maximum degree of technical rigor for the intended assessment, within resources constraints. Asystematic intercomparison of the tools' inputs, assumptions, calculations, and results would be helpful to determine the appropriateness of each for different types of assessment."

According to the news editors, the research concluded: "Future work would benefit from accounting for multiple uncertainty sources and integrating ambient air pollution health impact assessment tools with those addressing other related health risks (e.g., smoking, indoor pollution, climate change, vehicle accidents, physical activity)."

For more information on this research see: Survey of Ambient Air Pollution Health

The news editors report that additional information may be obtained by contacting S.C. Anenberg, Environm Hlth Analyt LLC, Washington, DC 20015, United States. Additional authors for this research include A. Belova, J. Brandt, N. Fann, S. Greco, S. Gutikunda, M.E. Heroux, F. Hurley, M. Krzyzanowski, S. Medina, B. Miller, K. Pandey, J. Roos and R. Van Dingenen.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Risk Management, Risk and Prevention.

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**Engineering - Safety Engineering**

**New Safety Engineering Findings from Valencia Polytechnic University Described (Motor vehicles overtaking cyclists on two-lane rural roads: Analysis on speed and lateral clearance)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Engineering - Safety Engineering have been published. According to news reporting from Valencia, Spain, by NewsRx journalists, research stated, "Two-lane rural roads in Spain accommodate significant bicycle traffic volumes, mainly associated to sport and leisure activities. Motor vehicles' higher speed, weight and volume, compared to cyclists, represent a serious safety concern when overtaking a bicycle."

Financial support for this research came from Spanish Ministry of Economy.

The news correspondents obtained a quote from the research from Valencia Polytechnic University, "Spanish traffic rules determine a minimum 1.5 m lateral distance. This research characterised 2928 overtaking manoeuvres in the overtaking lateral clearance between motor vehicle and bicycle, as well as in the motor vehicle speed, in contrast with previous research. Two instrumented bicycles were equipped with laser rangefinders, a GPS tracker and three video cameras. They rode along seven rural road segments at a speed between 15 and 25 km/h, centred on the paved shoulder, or as close as possible to the outer edge. Besides, this methodology allowed the characterisation of the overtaken vehicle type, its left lane occupation as well as its interaction with opposing traffic flow. For each session, rider's general risk perception was also registered. The analysis suggested that lateral clearance is not the only factor that influenced rider's risk perception, although current standards are only related to it. On the contrary, a combined factor of lateral clearance, vehicle type and vehicle speed had a more significant correlation with the perceived risk. This agreed with literature models of transient aerodynamic forces between overtaking and overtaken vehicles. Results showed that effect of heavy vehicles on bicyclists was also strong."

According to the news reporters, the research concluded: "In addition to this, the combined factor of clearance and speed was higher on tangent sections where overtaking was permitted."

For more information on this research see: Motor vehicles overtaking cyclists on two-lane rural roads: Analysis on speed and lateral clearance. *Safety Science*, 2017;92():302-310. *Safety Science* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae
Amsterdam, Netherlands.

Our news journalists report that additional information may be obtained by contacting C. Llorca, Valencia Polytechnic University, Highway Engn Res Grp, E-46022 Valencia, Spain. Additional authors for this research include A. Angel-Domenech, F. Agustin-Gomez and A. Garcia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ssci.2015.11.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Valencia, Spain, Europe, Safety Engineering, Engineering, Valencia Polytechnic University.

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**Gram-Negative Bacteria - Salmonella enterica**

**New Salmonella enterica Study Results Reported from Osaka University (Phenotype microarray analysis of the drug efflux systems in Salmonella enterica serovar Typhimurium)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Salmonella enterica have been published. According to news originating from Osaka, Japan, by NewsRx correspondents, research stated, "A large number of drug efflux transporters have been identified in Salmonella enterica serovar Typhimurium, and increased expression of these transporters confers drug resistance in this organism. Here we compared the respiration activities of the wild-type strain and a mutant with nine deleted transporters by phenotype microarray analysis."

Funders for this research include Japanese Society for the Promotion of Science (JSPS), JSPS Fellows, JSPS, Japan Agency for Medical Research and Development (AMED), Japan Science and Technology Agency, JST, Naito Foundation, Senri Life Science Foundation.

Our news journalists obtained a quote from the research from Osaka University, "The mutant was susceptible to 66 structurally unrelated compounds including many antibiotics, dyes, detergents, antihistamine agents, plant alkaloids, antidepressants, antipsychotic drugs, and antiprotozoal drugs. To investigate the effect of each transporter on the susceptibilities to these drugs, we used the single transporter mutants, several multiple deletion mutants, and the transporter overexpressor strains to determine minimum inhibitory concentrations of ampicillin, erythromycin, minocycline, ciprofloxacin, orphenadrine, amitriptyline, thioridazine, and chlorpromazine. The data indicate that the increased susceptibilities of the mutant lacking nine transporter genes are mainly dependent on the absence of the acrAB efflux genes as well as the tolC gene. In addition to the AcrAB-TolC efflux system, the results from the overexpressor strains show that AcrEF confers resistance to these compounds as well as AcrAB of Escherichia coli, MexAB-OprM and MexXY-OprM of Pseudomonas aeruginosa."

According to the news editors, the research concluded: "The results highlight the importance of the efflux systems not only for resistance to antibiotics but also for resistance to antihistamine agents, plant alkaloids, antidepressants, antipsychotic drugs, and antiprotozoal drugs."

For more information on this research see: Phenotype microarray analysis of the

The news correspondents report that additional information may be obtained from K. Nishino, Osaka University, Grad Sch Pharmaceut Sci, Suita, Osaka 5650871, Japan. Additional authors for this research include T. Fujioka, K. Hayashi, S. Yamasaki, M. Hayashi-Nishino and K. Nishino.

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Keywords for this news article include: Osaka, Japan, Asia, Gram-Negative Bacteria, Drugs and Therapies, Gram-Negative Facultatively Anaerobic Rods, Gammaproteobacteria, Salmonella enterica, Enterobacteriaceae, Proteobacteria, Genetics, Osaka University.

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**Gram-Negative Bacteria - Salmonella typhimurium**

**New Salmonella typhimurium Study Findings Have Been Reported by Investigators at VIT University (Identification of Potential Therapeutics to Conquer Drug Resistance in Salmonella typhimurium: Drug Repurposing Strategy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Salmonella typhimurium have been presented. According to news reporting originating in Tamil Nadu, India, by NewsRx journalists, research stated, "Salmonella typhimurium is the main cause of gastrointestinal illness in humans, and treatment options are decreasing because drug-resistant strains have emerged. The objective of this study was to use computational drug repurposing to identify a novel candidate with an effective mechanism of action to circumvent the drug resistance."

The news reporters obtained a quote from the research from VIT University, "We used the Mantra 2.0 database to initially screen drug candidates that share similar gene expression profiles to those of quinolones. Data were further reduced using pharmacophore mapping theory. Finally, we employed molecular-simulation studies to calculate the binding affinity of the screened candidates with DNA gyrase, alongside an analysis of side effects. A total of 16 drug candidates from the Mantra 2.0 database were screened. The pharmacophoric features of the screened candidates were examined and nalidixic acid features compared using the PharamGist program. A total of 11 compounds with the highest pharmacophore score were considered for binding energy calculation. Finally, we analysed the side effects of the eight drug candidates that showed significant binding affinity in the simulation study."

According to the news reporters, the research concluded: "Overall, flufenamic acid and sulconazole may be potential drug candidates that could be studied in vitro to assess their resistance profile against Salmonella enterica Typhimurium."

For more information on this research see: Identification of Potential Therapeutics

Our news correspondents report that additional information may be obtained by contacting K. Ramanathan, VIT Univ, Sch Bio Sci & Technol, Dept. of Biotechnol, Vellore 632014, Tamil Nadu, India. Additional authors for this research include V. Shanthi and K. Ramanathan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40259-016-0200-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tamil Nadu, India, Asia, Gram-Negative Facultatively Anaerobic Rods, Therapy, Diagnostics and Screening, Gram-Negative Bacteria, Salmonella typhimurium, Drugs and Therapies, Gammaproteobacteria, Salmonella enterica, Enterobacteriaceae, Drug Development, Drug Resistance, Proteobacteria, Salmonellosis, Therapeutics, Genetics, VIT University.

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**Mental Health Diseases and Conditions - Schizophrenia**

**New Schizophrenia Findings from Xi'an Jiaotong University Outlined (Association of the NOTCH4 Gene Polymorphism rs204993 with Schizophrenia in the Chinese Han Population)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health Diseases and Conditions - Schizophrenia. According to news reporting out of Xi'an, People's Republic of China, by NewsRx editors, research stated, "NOTCH4 regulates signaling pathways associated with neuronal maturation, a process involved in the development and patterning of the central nervous system. The NOTCH4 gene has also been identified as a possible susceptibility gene for schizophrenia (SCZ)."

Financial supporters for this research include National Science Foundation for Post-Doctoral Scientists of Shaanxi, National Science Foundation for Post-Doctoral Scientists of China.

Our news journalists obtained a quote from the research from Xi'an Jiaotong University, "The objective of this study was to examine the relationship between NOTCH4 polymorphisms and SCZ in the Chinese Han population. The rs2071287 and rs204993 polymorphisms of the NOTCH4 gene were analyzed in 443 patients with SCZ and 628 controls of Han Chinese descent. Single SNP allele-, genotype-, and gender-specific associations were analyzed using different models (i.e., additive, dominant, and recessive models). This association study revealed that the rs204993 polymorphism is significantly associated with susceptibility for SCZ and that the AA genotype of rs204993 is associated with a higher risk for SCZ (p=0.027; OR=1.460; 95% CI, 1.043-2.054). Our data are consistent with those obtained in previous studies that suggested that rs204993 is associated with SCZ and that the AA genotype of rs204993 demonstrates a higher risk."

According to the news editors, the research concluded: "Further large-scale association analyses in Han Chinese populations are warranted."

Our news journalists report that additional information may be obtained by contacting B. Zhang, College of Medicine & Forensic, Health Science Center, Xi’an Jiaotong University, Xi’an 710061, People’s Republic of China. Additional authors for this research include Q.R. Fan, W.H. Li, N. Lu, D.K. Fu, Y.J. Kang, N. Wang, T. Li, X.P. Wen and da X Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/408096. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Xi’an, Genetics, Psychiatry, Schizophrenia, People’s Republic of China, Mental Health Diseases and Conditions.

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Mental Health Diseases and Conditions - Schizophrenia

New Schizophrenia Study Findings Have Been Reported from Center for Addiction and Mental Health (Genetic association analysis of N-methyl-D-aspartate receptor subunit gene GRIN2B and clinical response to clozapine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health Diseases and Conditions - Schizophrenia. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "Approximately 30% of patients with schizophrenia fail to respond to antipsychotic therapy and are classified as having treatment-resistant schizophrenia. Clozapine is the most efficacious drug for treatment-resistant schizophrenia and may deliver superior therapeutic effects partly by modulating glutamate neurotransmission."

Our news journalists obtained a quote from the research from Center for Addiction and Mental Health, "Response to clozapine is highly variable and may depend on genetic factors as indicated by twin studies. We investigated eight polymorphisms in the N-methyl-D-aspartate glutamate receptor subunit gene GRIN2B with response to clozapine. GRIN2B variants were genotyped using standard TaqMan procedures in 175 European patients with schizophrenia deemed resistant or intolerant to treatment. Response was assessed using change in Brief Psychiatric Rating Scale scores following six months of clozapine therapy. Categorical and continuous response was assessed using chi-squared test and analysis of covariance, respectively. No associations were observed between the variants and response to clozapine. A-allele carriers of rs1072388 responded marginally better to clozapine therapy than GG-homozygotes; however, the difference was not statistically significant (p=0.067, uncorrected). Our findings do not support a role for these GRIN2B variants in altering response to clozapine in our sample."

According to the news editors, the research concluded: "Investigation of additional glutamate variants in clozapine response is warranted."

For more information on this research see: Genetic association analysis of N-methyl-D-aspartate receptor subunit gene GRIN2B and clinical response to clozapine. Human Psychopharmacology, 2016;31(2):121-34. (Wiley-Blackwell - www.wiley.com/; Human
Our news journalists report that additional information may be obtained by contacting D.L. Taylor, Neurogenetics Section, Campbell Family Mental Health Research Institute, Centre for Addiction and Mental Health, Toronto, ON, Canada. Additional authors for this research include A.K. Tiwari, J.A. Lieberman, S.G. Potkin, H.Y. Meltzer, J. Knight, G. Remington, D.J. Muller and J.L Kennedy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/hup.2519. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Canada, Toronto, Ontario, Genetics, Glutamates, Psychiatry, Glutamic Acid, Schizophrenia, Clozapine Therapy, Drugs and Therapies, Atypical Antipsychotics, Psychotherapeutic Agents, North and Central America, Mental Health Diseases and Conditions.

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**New Science Data Have Been Reported by Investigators at Institute of Physical Chemistry [Antibacterial and anticancer PDMS surface for mammalian cell growth using the Chinese herb extract paeonol(4-methoxy-2-hydroxyacetophenone)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news reporting originating in Warsaw, Poland, by NewsRx journalists, research stated, "Polydimethylsiloxane (PDMS) is widely used as a cell culture platform to produce micro-and nano-technology based microdevices. However, the native PDMS surface is not suitable for cell adhesion and is always subject to bacterial pollution and cancer cell invasion."

The news reporters obtained a quote from the research from the Institute of Physical Chemistry, "Coating the PDMS surface with antibacterial or anticancer materials often causes considerable harm to the non-cancer mammalian cells on it. We have developed a method to fabricate a biocompatible PDMS surface which not only promotes non-cancer mammalian cell growth but also has antibacterial and anticancer activities, by coating the PDMS surface with a Chinese herb extract, paeonol. Coating changes the wettability and the elemental composition of the PDMS surface. Molecular dynamic simulation indicates that the absorption of paeonol onto the PDMS surface is an energy favourable process. The paeonol-coated PDMS surface exhibits good antibacterial activity against both Gram-positive and Gram-negative bacteria. Moreover considerable antibacterial activity is maintained after the coated surface is rinsed or incubated in water. The coated PDMS surface inhibits bacterial growth on the contact surface and promotes non-cancer mammalian cell growth with low cell toxicity; meanwhile the growth of cancer cells is significantly inhibited."

According to the news reporters, the research concluded: "Our study will potentially guide PDMS surface modification approaches to produce biomedical devices."

For more information on this research see: Antibacterial and anticancer PDMS surface for mammalian cell growth using the Chinese herb extract paeonol(4-methoxy-2-hydroxyacetophenone). *Scientific Reports*, 2016;6():1-11. *Scientific Reports* can be contacted
New Science Data Have Been Reported by Investigators at University of Claude Bernard (Phosphatidylinositol 3-kinase inhibition restores Ca2+ release defects and prolongs survival in myotubularin-deficient mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science. According to news reporting out of Villeurbanne, France, by NewsRx editors, research stated, "Mutations in the gene encoding the phosphoinositide 3-phosphatase myotubularin (MTM1) are responsible for a pediatric disease of skeletal muscle named myotubular myopathy (XLMTM). Muscle fibers from MTM1-deficient mice present defects in excitation-contraction (EC) coupling likely responsible for the disease-associated fatal muscle weakness."

Our news journalists obtained a quote from the research from the University of Claude Bernard, "However, the mechanism leading to EC coupling failure remains unclear. During normal skeletal muscle EC coupling, transverse (t) tubule depolarization triggers sarcoplasmic reticulum (SR) Ca2+ release through ryanodine receptor channels gated by conformational coupling with the t-tubule voltage-sensing dihydropyridine receptors. We report that MTM1 deficiency is associated with a 60% depression of global SR Ca2+ release over the full range of voltage sensitivity of EC coupling. SR Ca2+ release in the diseased fibers is also slower than in normal fibers, or delayed following voltage activation, consistent with the contribution of Ca2+-gated ryanodine receptors to EC coupling. In addition, we found that SR Ca2+ release is spatially heterogeneous within myotubularin-deficient muscle fibers, with focally defective areas recapitulating the global alterations."

According to the news editors, the research concluded: "Importantly, we found that pharmacological inhibition of phosphatidylinositol 3-kinase (PtdIns 3-kinase) activity rescues the Ca2+ release defects in isolated muscle fibers and increases the lifespan and mobility of XLMTM mice, providing proof of concept for the use of PtdIns 3-kinase inhibitors in myotubular myopathy and suggesting that unbalanced PtdIns 3-kinase activity plays a critical role in the pathological process."

New Science Data Have Been Reported by Researchers at University of Tsukuba (BMP-SMAD-ID promotes reprogramming to pluripotency by inhibiting p16/INK4A-dependent senescence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news originating from Ibaraki, Japan, by NewsRx correspondents, research stated, "Fibrodysplasia ossificans progressiva (FOP) patients carry a missense mutation in ACVR1 [617G > A (R206H)] that leads to hyperactivation of BMP-SMAD signaling. Contrary to a previous study, here we show that FOP fibroblasts showed an increased efficiency of induced pluripotent stem cell (iPSC) generation."

Financial support for this research came from HHS | National Institutes of Health (NIH).

Our news journalists obtained a quote from the research from the University of Tsukuba, "This positive effect was attenuated by inhibitors of BMP-SMAD signaling (Dorsomorphin or LDN1931890) or transducing inhibitory SMADs (SMAD6 or SMAD7). In normal fibroblasts, the efficiency of iPSC generation was enhanced by transducing mutant ACVR1 (617G > A) or SMAD1 or adding BMP4 protein at early times during the reprogramming. In contrast, adding BMP4 at later times decreased iPSC generation. ID genes, transcriptional targets of BMP-SMAD signaling, were critical for iPSC generation. The BMP-SMAD-ID signaling axis suppressed p16/INK4A-mediated cell senescence, a major barrier to reprogramming."

According to the news editors, the research concluded: "These results using patient cells carrying the ACVR1 R206H mutation reveal how cellular signaling and gene expression change during the reprogramming processes."


The news correspondents report that additional information may be obtained from Y.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1603668113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ibaraki, Japan, Asia, Science, Genetics, University of Tsukuba.

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Science

New Science Findings Has Been Reported by Investigators at University of Seville (The role of PIM1/PIM2 kinases in tumors of the male reproductive system)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news reporting out of Seville, Spain, by NewsRx editors, research stated, "The PIM family of serine/threonine kinases has three highly conserved isoforms (PIM1, PIM2 and PIM3). PIM proteins are regulated through transcription and stability by JAK/STAT pathways and are overexpressed in hematological malignancies and solid tumors."

Our news journalists obtained a quote from the research from the University of Seville, "The PIM kinases possess weak oncogenic abilities, but enhance other genes or chemical carcinogens to induce tumors. We generated conditional transgenic mice that overexpress PIM1 or PIM2 in male reproductive organs and analyzed their contribution to tumorigenesis. We found an increase in alterations of sexual organs and hyperplasia in the transgenic mice correlating with inflammation. We also found that PIM1/2 are overexpressed in a subset of human male germ cells and prostate tumors correlating with inflammatory features and stem cell markers. Our data suggest that PIM1/2 kinase overexpression is a common feature of male reproductive organs tumors, which provoke tissue alterations and a large inflammatory response that may act synergistically during the process of tumorigenesis."

According to the news editors, the research concluded: "There is also a correlation with markers of cancer stem cells, which may contribute to the therapy resistance found in tumors overexpressing PIM kinases."

For more information on this research see: The role of PIM1/PIM2 kinases in tumors of the male reproductive system. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting A. Carnero, Univ Seville, CSIC, Hosp Univ Virgen del Rocio, Inst Biomed Sevilla IBIS, Seville 41013, Spain. Additional authors for this research include A. Lucena-Cacace, M.J. Robles-Frias, M. Narlik-Grassow, C. Blanco-Aparicio and A. Carnero.

Keywords for this news article include: Seville, Spain, Europe, Science, Genetics,
News Science Findings Reported from Johns Hopkins University
(Evolution of cellular morpho-phenotypes in cancer metastasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Science is now available. According to news reporting originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Intratumoral heterogeneity greatly complicates the study of molecular mechanisms driving cancer progression and our ability to predict patient outcomes. Here we have developed an automated high-throughput cell-imaging platform (htCIP) that allows us to extract high-content information about individual cells, including cell morphology, molecular content and local cell density at single-cell resolution."

Our news editors obtained a quote from the research from Johns Hopkins University, "We further develop a comprehensive visually-aided morpho-phenotyping recognition (VAMPIRE) tool to analyze irregular cellular and nuclear shapes in both 2D and 3D microenvironments. VAMPIRE analysis of ~39,000 cells from 13 previously sequenced patient-derived pancreatic cancer samples indicate that metastasized cells present significantly lower heterogeneity than primary tumor cells. We found the same morphological signature for metastasis for a cohort of 10 breast cancer cell lines."

According to the news editors, the research concluded: "We further decipher the relative contributions to heterogeneity from cell cycle, cell-cell contact, cell stochasticity and heritable morphological variations."

For more information on this research see: Evolution of cellular morpho-phenotypes in cancer metastasis. Scientific Reports, 2015;5():18437. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting P.H. Wu, Johns Hopkins Physical Sciences - Oncology Center, The Johns Hopkins University, Baltimore, Maryland 21218, United States. Additional authors for this research include J.M. Phillip, S.B. Khatau, W.C. Chen, J. Stirman, S. Rosseel, K. Tschudi, J. Van Patten, M. Wong, S. Gupta, A.S. Baras, J.T. Leek, A. Maitra and D. Wirtz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18437. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Science, Maryland, Oncology, Baltimore, United States, North and Central America.

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New Science Findings from Institute of Immunology and Experimental Therapy Outlined (Mammalian Host-Versus-Phage immune response determines phage fate in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science. According to news originating from Wroclaw, Poland, by NewsRx correspondents, research stated, "Emerging bacterial antibiotic resistance draws attention to bacteriophages as a therapeutic alternative to treat bacterial infection. Examples of phage that combat bacteria abound."

Our news journalists obtained a quote from the research from the Institute of Immunology and Experimental Therapy, "However, despite careful testing of antibacterial activity in vitro, failures nevertheless commonly occur. We investigated immunological response of phage antibacterial potency in vivo. Anti-phage activity of phagocytes, antibodies, and serum complement were identified by direct testing and by high-resolution fluorescent microscopy. We accommodated the experimental data into a mathematical model. We propose a universal schema of innate and adaptive immunity impact on phage pharmacokinetics, based on the results of our numerical simulations. We found that the mammalian-host response to infecting bacteria causes the concomitant removal of phage from the system."

According to the news editors, the research concluded: "We propose the notion that this effect as an indirect pathway of phage inhibition by bacteria with significant relevance for the clinical outcome of phage therapy."

For more information on this research see: Mammalian Host-Versus-Phage immune response determines phage fate in vivo. Scientific Reports, 2015;5():14802. (Nature Publishing Group - www.nature.com/srep/)

The news correspondents obtained that additional information may be obtained from K. Hodyra-Stefaniak, Bacteriophage Laboratory, Institute of Immunology and Experimental Therapy, Polish Academy of Sciences, Weigla 12, 53-114 Wroclaw, Poland. Additional authors for this research include P. Miernikiewicz, J. Drapala, M. Drab, E. Jonczyk-Matysiak, D. Lecion, Z. Kazmierczak, W. Beta, J. Majewska, M. Harhala, B. Bubak, A. Klopot, A. Gorski and K. Dabrowska.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep14802. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Poland, Europe, Wroclaw, Science.

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New Science Findings from University of Gothenburg Reported (Global analysis of somatic structural genomic alterations and their impact on gene expression in diverse human cancers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science. According to news originating from Gothenburg, Sweden, by NewsRx correspondents, research stated, "The analysis of somatic structural genomic alterations and their impact on gene expression in diverse human cancers is presented.

The news correspondents reported that additional information may be obtained from the University of Gothenburg, Department of Cell Biology, Sweden. Additional authors for this research include S. Persson, J. Larsson, K. Hansson, M. Wahlsten, A. Olofsson, and I. Kalland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep14802. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Gothenburg, Science.

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& Wellness Week -- Current study results on Science have been published. According to news reporting originating from Gothenburg, Sweden, by NewsRx correspondents, research stated, "Tumor genomes are mosaics of somatic structural variants (SVs) that may contribute to the activation of oncogenes or inactivation of tumor suppressors, for example, by altering gene copy number amplitude. However, there are multiple other ways in which SVs can modulate transcription, but the general impact of such events on tumor transcriptional output has not been systematically determined."

Our news editors obtained a quote from the research from the University of Gothenburg, "Here we use whole-genome sequencing data to map SVs across 600 tumors and 18 cancers, and investigate the relationship between SVs, copy number alterations (CNAs), and mRNA expression. We find that 34% of CNA breakpoints can be clarified structurally and that most amplifications are due to tandem duplications. We observe frequent swapping of strong and weak promoters in the context of gene fusions, and find that this has a measurable global impact on mRNA levels. Interestingly, several long noncoding RNAs were strongly activated by this mechanism. Additionally, SVs were confirmed in telomere reverse transcriptase (TERT) upstream regions in several cancers, associated with elevated TERT mRNA levels. We also highlight high-confidence gene fusions supported by both genomic and transcriptomic evidence, including a previously undescribed paired box 8 (PAX8)-nuclear factor, erythroid 2 like 2 (NFE2L2) fusion in thyroid carcinoma."

According to the news editors, the research concluded: "In summary, we combine SV, CNA, and expression data to provide insights into the structural basis of CNAs as well as the impact of SVs on gene expression in tumors."


The news editors report that additional information may be obtained by contacting E. Larsson, University of Gothenburg, Dept. of Med Biochem & Cell Biol, Inst Biomed, Sahlgrenska Academy, SE-40530 Gothenburg, Sweden. Additional authors for this research include J. Bhadury, J.W. Karlsson, J.A. Nilsson and E. Larsson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1606220113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gothenburg, Sweden, Europe, Science, Cancer, Genetics, Oncology, University of Gothenburg.

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Science

New Science Study Findings Have Been Reported by Investigators at Institute of Animal Science (Co-expression analysis and identification of fecundity-related long non-coding RNAs in sheep ovaries)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Science. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Small Tail Han sheep, including the FecB(B)FecB(B) (Han BB) and FecB(+) FecB(+) (Han++) genotypes, and Dorset sheep exhibit different fecundities. To identify novel long non-coding RNAs (lncRNAs) associated with sheep fecundity to better understand their molecular mechanisms, a genome-wide analysis of mRNAs and lncRNAs from Han BB, Han++ and Dorset sheep was performed."

Our news editors obtained a quote from the research from the Institute of Animal Science, "After the identification of differentially expressed mRNAs and IncRNAs, 16 significant modules were explored by using weighted gene coexpression network analysis (WGCNA) followed by functional enrichment analysis of the genes and lncRNAs in significant modules. Among these selected modules, the yellow and brown modules were significantly related to sheep fecundity. lncRNAs (e.g., NR0B1, XLOC_041882, and MYH15) in the yellow module were mainly involved in the TGF-beta signalling pathway, and NYAP1 and BCORL1 were significantly associated with the oxytocin signalling pathway, which regulates several genes in the coexpression network of the brown module. Overall, we identified several gene modules associated with sheep fecundity, as well as networks consisting of hub genes and IncRNAs that may contribute to sheep prolificacy by regulating the target mRNAs related to the TGF-beta and oxytocin signalling pathways."

According to the news editors, the research concluded: "This study provides an alternative strategy for the identification of potential candidate regulatory IncRNAs."

For more information on this research see: Co-expression analysis and identification of fecundity-related long non-coding RNAs in sheep ovaries. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting X.Y. Miao, Chinese Academy Agr Sci, Inst Anim Sci, Beijing 100193, People's Republic of China. Additional authors for this research include Q.M. Luo, H.J. Zhao and X.Y. Qin.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Science, Hormones, Genetics, Oxytocin, Institute of Animal Science.

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New Science Study Findings Have Been Reported by Researchers at Ulsan National Institute of Science and Technology (Cell Nucleus-Targeting Zwitterionic Carbon Dots)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news originating from Ulsan, South Korea, by NewsRx correspondents, research stated, "An innovative nucleus-targeting zwitterionic carbon dot (CD) vehicle has been developed for anticancer drug delivery and optical monitoring. The zwitterionic functional groups of the CDs introduced by a simple one-step synthesis using b-alanine as a passivating and zwitterionic ligand allow cytoplasmic uptake and subsequent nuclear translocation of the CDs."

Our news journalists obtained a quote from the research from the Ulsan National Institute of Science and Technology, "Moreover, multicolor fluorescence improves the accuracy of the CDs as an optical code. The CD-based drug delivery system constructed by non-covalent grafting of doxorubicin, exhibits superior antitumor efficacy owing to enhanced nuclear delivery in vitro and tumor accumulation in vivo, resulting in highly effective tumor growth inhibition."

According to the news editors, the research concluded: "Since the zwitterionic CDs are highly biocompatible and effectively translocated into the nucleus, it provides a compelling solution to a multifunctional nanoparticle for substantially enhanced nuclear uptake of drugs and optical monitoring of translocation."

For more information on this research see: Cell Nucleus-Targeting Zwitterionic Carbon Dots. *Scientific Reports*, 2015;5():18807. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from Y.K. Jung, Dept. of Chemistry, Ulsan National Institute of Science and Technology (UNIST), UNIST-gil 50, Ulsan 689-798, South Korea. Additional authors for this research include E. Shin and B.S Kim.

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Keywords for this news article include: Asia, Ulsan, Science, South Korea.

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New Science Study Findings Recently Were Reported by Researchers at Johns Hopkins University (Evaluating the evaluation of cancer driver genes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Science is the subject of a report. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Sequencing has identified millions of somatic mutations in human cancers, but distinguishing cancer driver
genes remains a major challenge. Numerous methods have been developed to identify driver genes, but evaluation of the performance of these methods is hindered by the lack of a gold standard, that is, bona fide driver gene mutations."

Financial support for this research came from HHS | NIH | National Cancer Institute (NCI).

Our news journalists obtained a quote from the research from Johns Hopkins University, "Here, we establish an evaluation framework that can be applied to driver gene prediction methods. We used this framework to compare the performance of eight such methods. One of these methods, described here, incorporated a machine-learning-based ratiometric approach. We show that the driver genes predicted by each of the eight methods vary widely. Moreover, the P values reported by several of the methods were inconsistent with the uniform values expected, thus calling into question the assumptions that were used to generate them. Finally, we evaluated the potential effects of unexplained variability in mutation rates on false-positive driver gene predictions."

According to the news editors, the research concluded: "Our analysis points to the strengths and weaknesses of each of the currently available methods and offers guidance for improving them in the future."


The news correspondents report that additional information may be obtained from B. Vogelstein, Johns Hopkins Med Inst, Howard Hughes Med Inst, Baltimore, MD 21231, United States. Additional authors for this research include N. Papadopoulos, K.W. Kinzler, B. Vogelstein and R. Karchin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1616440113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Science, Cancer, Genetics, Oncology, Johns Hopkins University.

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disorders including muscular dystrophies. Although a few research groups have used them for skeletal muscle differentiation, most were based on gene over-expression or long-term mesenchymal differentiation and retrospective identification of myogenic cells."

Our news editors obtained a quote from the research from the University of Texas Health Science Center, "Therefore, this study was aimed to generate a knock-in reporter human iPS cell line for MYF5, as an early myogenic specification gene, to allow prospective identification and purification of myogenic progenitors from human iPS cells. By using a CRISPR/Cas9 double nickase strategy, a 2A-GFP reporter was inserted before the stop codon of the MYF5 gene using homologous recombination. This approach allowed for highly efficient in-frame targeting of MYF5 in human iPS cells. Furthermore, in order to prove the reporter function, endogenous MYF5 expression was induced using a novel dead Cas9-VP160 transcriptional activator. Induced clones demonstrated appropriate MYF5-GFP co-expression. Finally, to confirm the differentiation potential, reporter human iPS clones were differentiated through embryoid body method and MYF5-GFP(+) myogenic cells were sorted and characterized."

According to the news editors, the research concluded: "These data provides valuable guidelines for generation of knock-in reporter human iPS cell lines for myogenic genes which can be used for disease modeling, drug screening, gene correction and future in vivo applications."

For more information on this research see: Generation and Characterization of a MYF5 Reporter Human iPSC Cell Line Using CRISPR/Cas9 Mediated Homologous Recombination. Scientific Reports, 2016;6():18759. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting J. Wu, Center for Stem Cell and Regenerative Medicine (CSCRM), Brown Foundation Institute of Molecular Medicine (IMM), University of Texas Health Science Center at Houston, Houston, TX 77030, United States. Additional authors for this research include S.D. Hunt, H. Xue, Y. Liu and R. Darabi.

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Keywords for this news article include: Texas, Houston, Science, Genetics, Cell Line, United States, North and Central America.

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Science

New Science Study Results from Beijing Normal University Described
(Applicability of drinking water treatment residue for lake restoration in relation to metal/metalloid risk assessment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science have been published. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Drinking water treatment residue (DWTR), a byproduct generated during potable water production, exhibits a high potential for recycling to control eutrophication.
However, this beneficial recycling is hampered by unclear metal/metalloid pollution risks related to DWTR."

Our news editors obtained a quote from the research from Beijing Normal University, "In this study, the pollution risks of Al, As, Ba, Be, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, and Zn due to DWTR application were first evaluated for lake water based on human health risk assessment models and comparison of regulatory standards. The risks of DWTR were also evaluated for sediments on the basis of toxicity characteristics leaching procedure and fractionation in relation to risk assessment code. Variations in the biological behaviors of metal/metalloid in sediments caused by DWTR were assessed using Chironomus plumosus larvae and Hydrilla verticillata. Kinetic luminescent bacteria test (using Aliivibrio fischeri) was conducted to analyze the possibility of acute and chronic detrimental effects of sediment with DWTR application. According to the obtained results, we identify a potential undesirable effect of DWTR related to Fe and Mn (typically under anaerobic conditions); roughly present a dosage threshold calculation model; and recommend a procedure for DWTR prescreening to ensure safe application."

According to the news editors, the research concluded: "Overall, managed DWTR application is necessary for successful eutrophication control."


The news editors report that additional information may be obtained by contacting C.H. Wang, Beijing Normal University, Sch Environm, Key Lab Water & Sediment Sci, Minist Educ, Beijing 100875, People's Republic of China. Additional authors for this research include C.H. Wang, Y.S. Pei and H.L. Jiang.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Science, Risk and Prevention, Beijing Normal University.

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Proteins - Scleroproteins

New Scleroproteins Findings from University of Oslo Reported (The effect of culture medium and carrier on explant culture of human limbal epithelium: A comparison of ultrastructure, keratin profile and gene expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Proteins - Scleroproteins have been published. According to news reporting originating from Oslo, Norway, by NewsRx correspondents, research stated, "Patients with limbal stem cell deficiency (LSCD) often experience pain and photophobia due to recurrent epithelial defects and chronic inflammation of the cornea. Successfully restoring a healthy corneal surface in these patients by transplantation of ex vivo expanded human limbal epithelial cells (LECs) may alleviate these symptoms and significantly improve their quality of life."

Funders for this research include Norwegian Financial Mechanism, Ministry of
Our news editors obtained a quote from the research from the University of Oslo, "The clinical outcome of transplantation is known to be influenced by the quality of transplanted cells. Presently, several different protocols for cultivation and transplantation of LECs are in use. However, no consensus on an optimal protocol exists. The aim of this study was to examine the effect of culture medium and carrier on the morphology, staining of selected keratins and global gene expression in ex vivo cultured LECs. Limbal biopsies from cadaveric donors were cultured for three weeks on human amniotic membrane (HAM) or on tissue culture coated plastic (PL) in either a complex medium (COM), containing recombinant growth factors, hormones, cholera toxin and fetal bovine serum, or in medium supplemented only with human serum (HS). The expanded LECs were examined by light microscopy (LM), transmission electron microscopy (TEM), immunohistochemistry (IHC) for keratins K3, K7, K8, K12, K13, K14, K15 and K19, as well as microarray and qRT-PCR analysis. The cultured LECs exhibited similar morphology and keratin staining on LM, TEM and IHC examination, regardless of the culture condition. The epithelium was multilayered, with cuboidal basal cells and flattened superficial cells. Cells were attached to each other by desmosomes. Adhesion complexes were observed between basal cells and the underlying carrier in LECs cultured on HAM, but not in LECs cultured on PL. GeneChip Human Gene 2.0 ST microarray (Affymetrix) analysis revealed that 18,653 transcripts were >= 2 fold up or downregulated (p <= 0.05). Cells cultured in the same medium (COM or HS) showed more similarities in gene expression than cells cultured on the same carrier (HAM or PL). When each condition was compared to HAM/COM, no statistical difference was found in the transcription level of the selected genes associated with keratin expression, stemness, proliferation, differentiation, apoptosis, corneal wound healing or autophagy."

According to the news editors, the research concluded: "The results indicate that ex vivo cultures of LECs on HAM and PL, using culture media supplemented with COM or HS, yield tissues with similar morphology and keratin staining. The gene expression appears to be more similar in cells cultured in the same medium (COM or HS) compared to cells cultured on the same carrier (HAM or PL)."


The news editors report that additional information may be obtained by contacting M. Pathak, University of Oslo, Oslo, Norway. Additional authors for this research include O.K. Olstad, L. Drolsum, M.C. Moe, N. Smorodinova, S. Kalasova, K. Jirsova, B. Nicolaissen and A. Noer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.exer.2016.09.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Norway, Europe, Intermediate Filament Proteins, Keratins, Genetics, Scleroproteins, University of Oslo.

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New Sclerotherapy Study Results Reported from Children's Hospital (A Vulvovaginal Mass in a 16-Year-Old Adolescent: A Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Sclerotherapy. According to news reporting originating from Miami, Florida, by NewsRx correspondents, research stated, "Vulvar varicosities might be misdiagnosed as vulvar venous malformations in the prepubertal or pubertal age. If seen isolated, they can mimic other masses that are usually seen in this anatomic area like a hernia or a cyst."

Our news editors obtained a quote from the research from Children's Hospital, "Depending on the associated symptoms and clinical findings, imaging modalities investigate the nature of such a mass and might provide a therapeutic alternative besides surgery. We report a case of an isolated asymptomatic vulvar varicosity in a 16-year-old adolescent. A pelvic ultrasound followed by a Doppler and a magnetic resonance imaging scan confirmed the diagnosis. We used guided direct sclerotherapy for successful treatment. Summary and Conclusion: Optimal management and outcome are assured using a multidisciplinary approach."

According to the news editors, the research concluded: "Guided sclerotherapy provides a safe, effective, and minimally invasive procedure to treat vulvar varicosities."


The news editors report that additional information may be obtained by contacting J. Naous, Nicklaus Childrens Hosp, Div Adolescent Med, Miami, FL 33155, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jpag.2015.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Sclerotherapy, Therapy, Children's Hospital.

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Blood Diseases and Conditions - Sepsis

New Sepsis Findings from G. Rolando and Co-Researchers Described (Prognostic value of ventricular diastolic dysfunction in patients with severe sepsis and septic shock)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Blood Diseases and Conditions - Sepsis. According to news originating from Buenos Aires, Argentina, by NewsRx correspondents, research stated, "To evaluate the prevalence of myocardial dysfunction and its prognostic value in patients with severe sepsis and septic shock. Adult septic patients admitted
to an intensive care unit were prospectively studied using transthoracic echocardiography within
the first 48 hours after admission and thereafter on the 7th-10th days."

Our news journalists obtained a quote from the research, "Echocardiographic
variables of biventricular function, including the E/e' ratio, were compared between survivors
and non-survivors. A total of 99 echocardiograms (53 at admission and 46 between days 7 -10)
were performed on 53 patients with a mean age of 74 (SD 13) years. Systolic and diastolic
dysfunction was present in 14 (26%) and 42 (83%) patients, respectively, and both types of
dysfunction were present in 12 (23%) patients. The E/e' ratio, an index of diastolic dysfunction,
was the best predictor of hospital mortality according to the area under the ROC curve (0.71)
and was an independent predictor of outcome, as determined by multivariate analysis (OR=1.36
[1.05 -1.76], p=0.02). In septic patients admitted to an intensive care unit, echocardiographic
systolic dysfunction is not associated with increased mortality."

According to the news editors, the research concluded: "In contrast, diastolic
dysfunction is an independent predictor of outcome."

For more information on this research see: Prognostic value of ventricular diastolic
dysfunction in patients with severe sepsis and septic shock, *Revista Brasileira De Terapia

The news correspondents report that additional information may be obtained from G.
Rolando, Instituto Medico de Alta Complejidad, Buenos Aires, Argentina. Additional authors
for this research include E.D. Espinoza, E. Avid, S. Welsh, J.D. Pozo, A.R. Vazquez, Y. Arzani,
F.D. Masevicius and A. Dubin.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.5935/0103-507X.20150057. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Sepsis, Argentina, Cardiology, Septicemia,
Buenos Aires, Septic Shock, South America, Bloodstream Infection, Blood Diseases and
Conditions.

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**Blood Diseases and Conditions - Sepsis**

**New Sepsis Study Findings Have Been Reported by Researchers at Loyola University (Modulation of Interleukins in Sepsis-Associated Clotting Disorders: Interplay With Hemostatic Derangement)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Blood Diseases and Conditions - Sepsis are discussed in a new report. According to news reporting originating in Maywood, Illinois, by NewsRx journalists, research stated, "Interleukins play a central role in the immune system and are
involved in a variety of immunological, inflammatory, and infectious disease states including
sepsis syndrome. Levels of interleukins may correlate with overall survival and may directly or
indirectly affect some of the regulators of coagulation and fibrinolysis, thereby disrupting
hemostasis and thrombosis."

The news reporters obtained a quote from the research from Loyola University, "Our
hypothesis is that in sepsis-associated coagulopathies (SACs), interleukins may be upregulated,
leading to hemostatic imbalance by generating thrombogenic mediators. We profiled the levels
of interleukins IL-1, IL-1, IL-2, IL-4, IL-6, IL-8, and IL-10 in addition to d-dimer (DD) in patients with SAC and in normal donors. We observed the highest increase in interleukins IL-6 (322-fold), IL-8 (48-fold), IL-10 (72-fold), and DD (18-fold).

According to the news reporters, the research concluded: "This suggests that interleukins such as IL-6 and IL-10 have a close association with coagulopathy and fibrinolytic dysregulation in sepsis and can be considered as candidates for potential therapeutic targets in SAC."


Our news correspondents report that additional information may be obtained by contacting J. Fareed, Loyola University, Medical Center, Dept. of Pathol & Pharmacol, Maywood, IL 60153, United States. Additional authors for this research include D. Syed, D. Khan, S. Tetik, A. Walborn, D. Hoppensteadt, M. Mosier and J. Fareed.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1076029616659696. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maywood, Illinois, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Blood Diseases and Conditions, Bloodstream Infection, Drugs and Therapies, Interleukins, Hemostatics, Coagulants, Septicemia, Cytokines, Sepsis, Loyola University.

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Oncology - Serous Carcinoma

New Serous Carcinoma Data Have Been Reported by Researchers at Cleveland Clinic (Racial disparity in survival of patients with uterine serous carcinoma: Changes in clinical characteristics, patterns of care and outcomes over time from 1988 to ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Serous Carcinoma. According to news reporting originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "To determine if the disparities in the outcome between white (W) and African American (AA) patients with uterine serous carcinoma (USC) have changed over time. Women with USC were identified using the SEER database from 1988 to 2011 (N = 7667)."

Our news editors obtained a quote from the research from Cleveland Clinic, "Years of the study were divided into three periods (1988-1997,1998-2004 and 2005-2011). Overall (OS) and disease specific survivals (DSS) was estimated. Over the three time periods, African American patients continued to be younger and less likely to have cancer directed surgery and extensive lymphadenectomy when compared to white patients. In multi variable analysis adjusting for age, race, marital status, stage, cancer-directed surgery, extent of lymphadenectomy, adjuvant radiation, and geographic location, AA was significantly associated with worse DSS and OS in the three time periods compared to white race. African American patients were 29% (95% CI 1.03-1.62, p = 0.027) in 1988-1997, 40% in 1998-2004 (95% CI
1.21-1.63, p< 0.0001) and 34% in 2005-2011 (95% CI 1.13-1.59, p = 0.0008) more likely to die from uterine cancer compared to their white counterparts. A slight improvement in the difference in OS over time was noted comparing African American and white patients. African American patients were 46% (95% CI 1.23-1.73, p< 0.0001) in 1988-1997, 39% in 1998-2004 (95% CI 1.23-1.56, p< 0.0001) and 26% in 2005-2011 (95% CI 1.10-1.45, p< 0.0001) more likely to die from any cause compared to their white counterparts. Significant improvement in outcome was noted in both racial groups over time."

According to the news editors, the research concluded: "However, African American patients continued to have worse outcome than white patients over time."

For more information on this research see: Racial disparity in survival of patients with uterine serous carcinoma: Changes in clinical characteristics, patterns of care and outcomes over time from 1988 to 2011. Gynecologic Oncology, 2016;143(2):334-345. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

The news editors report that additional information may be obtained by contacting H. Mahdi, Cleveland Clinic, Div Gynecol Oncol, Ob Gyn & Womens Hlth Inst, Cleveland, OH 44106, United States. Additional authors for this research include X.Z. Han, F. Abdul-Karim and R. Vargas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.03.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Serous Carcinoma, Carcinomas, Oncology, Surgery, Cancer, Cleveland Clinic.

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New Severe Combined Immunodeficiency Findings from University of Colorado Described (Single-Dose Primaquine in a Preclinical Model of Glucose-6-Phosphate Dehydrogenase Deficiency: Implications for Use in Malaria Transmission-Blocking Programs)

New Severe Combined Immunodeficiency Findings from University of Colorado Described (Single-Dose Primaquine in a Preclinical Model of Glucose-6-Phosphate Dehydrogenase Deficiency: Implications for Use in Malaria Transmission-Blocking Programs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - Severe Combined Immunodeficiency have been published. According to news reporting out of Denver, Colorado, by NewsRx editors, research stated, "Individuals with glucose-6-phosphate dehydrogenase (G6PD) deficiency (G6PDd) are at risk for developing hemolytic anemia when given the antimalarial drug primaquine (PQ). The WHO Evidence Review Group released a report suggesting that mass administration of a single dose of PQ at 0.25 mg of base/kg of body weight (mpk) (mouse equivalent of 3.125 mpk) could potentially reduce malaria transmission based on its gametocytocidal activity and could be safely administered to G6PD-deficient individuals, but there are limited safety data available confirming the optimum single dose of PQ."

Financial supporters for this research include Medicines for Malaria Venture
Our news journalists obtained a quote from the research from the University of Colorado, "A single-dose administration of PQ was therefore assessed in our huRBC-SCID mouse model used to predict hemolytic toxicity with respect to G6PD deficiency. In this model, nonobese diabetic (NOD)/SCID mice are engrafted with human red blood cells (huRBC) from donors with the African or Mediterranean variant of G6PD (A-G6PDd or Med-G6PDd, respectively) and demonstrate dose-dependent sensitivity to PQ. In mice engrafted with A-G6PD-deficient huRBC, single-dose PQ at 3.125, 6.25, or 12.5 mpk had no significant loss of huRBC compared to the vehicle control group. In contrast, in mice engrafted with Med-G6PDd huRBC, a single dose of PQ at 3.125, 6.25, or 12.5 mpk resulted in a significant, dose-dependent loss of huRBC compared to the vehicle control group."

According to the news editors, the research concluded: "Our data suggest that administration of a single low dose of 0.25 mpk of PQ could induce hemolytic anemia in MedG6PDd individuals but that use of single-dose PQ at 0.25 mpk as a gametocytocidal drug to block transmission would be safe in areas where A-G6PDd predominates."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00600-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Denver, Colorado, United States, North and Central America, Immune System Diseases and Conditions, Hematologic Diseases and Conditions, Severe Combined Immunodeficiency, Hemolytic, Risk and Prevention, Primaquine Therapy Phosphate, Mosquito-Borne Diseases, Enzymes and Coenzymes, Protozoan Infections, Drugs and Therapies, Phosphoric Acids, Hemolytic Anemia, Pharmaceuticals, Dehydrogenase, Hematology, Phosphates, Malaria, Anions, SCID, University of Colorado.

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**New Short Bowel Syndrome Study Findings Recently Were Reported by Researchers at Children’s Hospital (Liver steatosis induced by small bowel resection is prevented by oral vancomycin)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Digestive System Diseases and Conditions - Short Bowel Syndrome are discussed in a new report. According to news reporting out of St. Louis,
Missouri, by NewsRx editors, research stated, "Intestinal failure associated liver disease causes significant mortality in patients with short bowel syndrome. Steatosis, a major component of intestinal failure associated liver disease has been shown to persist even after weaning from parenteral nutrition."

Our news journalists obtained a quote from the research from Children's Hospital, "We sought to determine whether steatosis occurs in our murine model of short bowel syndrome and whether steatosis was affected by manipulation of the intestinal microbiome. Male C57BL6 mice underwent 50% small bowel resection and orogastric gavage with vancomycin or vehicle for 10 weeks. DNA was extracted from stool samples then sequenced using 16s rRNA. Liver lipid content was analyzed. Bile acids were measured in liver and stool. Compared with unoperated mice, small bowel resection resulted in significant changes in the fecal microbiome and was associated with a>25-fold increase in steatosis. Oral vancomycin profoundly altered the gut microbiome and was associated with a 15-fold reduction in hepatic lipid content after resection. There was a 17-fold reduction in fecal secondary bile acids after vancomycin treatment. Massive small bowel resection in mice is associated with development of steatosis and prevented by oral vancomycin."

According to the news editors, the research concluded: "These findings implicate a critical role for gut bacteria in intestinal failure associated liver disease pathogenesis and illuminate a novel, operative model for future investigation into this important morbidity."

For more information on this research see: Liver steatosis induced by small bowel resection is prevented by oral vancomycin. Surgery, 2016;160(6):1485-1495. Surgery can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Surgery - www.journals.elsevier.com/surgery/)

Our news journalists report that additional information may be obtained by contacting B.W. Warner, St Louis Childrens Hosp, Div Pediat Surg, St Louis, MO 63110, United States. Additional authors for this research include C.P. Gayer, A. Roberts, J.M. Golden, B.G. Aladegbami, J. Guo, C.R. Erwin and B.W. Warner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.surg.2016.07.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Liver Diseases and Conditions, Malabsorption Syndromes, Short Bowel Syndrome, Gastroenterology, Glycopeptides, Vancomycin, Steatosis, Peptides, Genetics, Children's Hospital.

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China, by NewsRx journalists, research stated, "Primary Sjögren's syndrome (pSS) is a complex autoimmune disorder. So far, genetic research in pSS has lagged far behind and the underlying biological mechanism is unclear."

The news reporters obtained a quote from the research from the Institute of Psychology, "Further exploring existing genome-wide association study (GWAS) data is urgently expected to uncover disease-related gene combination patterns. Herein, we conducted a network-based analysis by integrating pSS GWAS in Han Chinese with a protein-protein interactions network to identify pSS candidate genes. After module detection and evaluation, 8 dense modules covering 40 genes were obtained for further functional annotation. Additional 31 MHC genes with significant gene-level P-values (sigMHC-gene) were also remained. The combined module genes and sigMHC-genes, a total of 71 genes, were denoted as pSS candidate genes. Of these pSS candidates, 14 genes had been reported to be associated with any of pSS, RA, and SLE, including STAT4, GTF2I, HLA-DPB1, HLA-DRB1, PTTG1, HLA-DQB1, MBL2, TAP2, CFLAR, NF-kBIE, HLA-DRA, APOM, HLA-DQA2 and NOTCH4. This is the first report of the network-assisted analysis for pSS GWAS data to explore combined gene patterns associated with pSS."

According to the news reporters, the research concluded: "Our study suggests that network-assisted analysis is a useful approach to gaining further insights into the biology of associated genes and providing important clues for future research into pSS etiology."

For more information on this research see: Network-assisted analysis of primary Sjögren's syndrome GWAS data in Han Chinese. *Scientific Reports*, 2015;5():18855. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep)

Our news correspondents report that additional information may be obtained by contacting K. Fang, Key Laboratory of Mental Health, Institute of Psychology, Chinese Academy of Sciences, Beijing 100101, People's Republic of China. Additional authors for this research include K. Zhang and J. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18855. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Genetics, Sjögren's Syndrome, People's Republic of China, Autoimmune Diseases and Conditions.

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Oncology - Skin Cancer

New Skin Cancer Data Have Been Reported by Researchers at Cancer Center (The European Status Quo in legal recognition and patient-care services of occupational skin cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Skin Cancer is now available. According to news reporting originating from Berlin, Germany, by NewsRx correspondents, research stated, "Skin cancer is the most common malignancy in Caucasian populations worldwide and ultraviolet radiation (UVR) is known for being the number one carcinogen. As, especially in outdoor workers, UVR is an inevitable carcinogen, the prevention and management of UVR-related skin cancers in these at-risk populations represent a collective challenge for
Our news editors obtained a quote from the research from Cancer Center, "To provide an overview on the current regulations on the acknowledgement and management of work-related skin cancer in 11 European countries. Dermatologists from 11 countries networking within the EU Horizon 2020 COST Action TD1206 'StanDerm' contributed to a standardized survey regarding current national regulations, implemented for the recognition, prevention and management as well as possible compensation regulations in their individual country of residence. Ten of 11 participating countries in this survey reported the existence of an established programme available on certain occupational diseases; work-related skin diseases were only specifically recognized in eight countries. Seven of 11 countries recognize cutaneous squamous cell carcinoma in outdoor workers as 'occupational skin cancer'. Basal cell carcinoma (6 of 11), actinic keratosis (5 of 11), Bowen's disease (5 of 11) and malignant melanoma (5 of 11) are not as regularly approved as potentially 'work-induced'. Only a few of the countries included into this survey established a general documentation system (national registry) on occupational skin diseases. So far, representatives of only three countries of this survey referred to a specific established national programme for the prevention, management or compensation of occupational skin cancers acquired during work-related UVR exposure. This survey highlights the need for mandatory regulations on the prevention, management and potential compensation of work-related UV-induced skin cancer across Europe. Against the background of a joint European domestic market, equal standards of occupational safety across Europe should include binding regulations for the protection and management of work-related skin cancer."

According to the news editors, the research concluded: "The design of a common regulation to meet the increasing incidence of skin cancers in outdoor workers should become part of the European agenda, ensuring equal working and living conditions in the member states."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jdv.13609. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berlin, Europe, Germany, Oncology, Skin Cancer, Skin Neoplasms.

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Skin Diseases

New Skin Diseases Findings from Yale University Described (The X-Ray Crystal Structure of the Keratin 1-Keratin 10 Helix 2B Heterodimer Reveals Molecular Surface Properties and Biochemical Insights into Human Skin Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Skin Diseases. According to news reporting out of New Haven, Connecticut, by NewsRx editors, research stated, "Keratins 1 (K1) and 10 (K10) are the primary keratins expressed in differentiated epidermis. Mutations in K1/K10 are associated with human skin diseases."

Our news journalists obtained a quote from the research from Yale University, "We determined the crystal structure of the complex between the distal (2B) helices of K1 and K10 to better understand how human keratin structure correlates with function. The 3.3 angstrom resolution structure confirms many features inferred by previous biochemical analyses, but adds unexpected insights. It demonstrates a parallel, coiled-coil heterodimer with a predominantly hydrophobic intermolecular interface; this heterodimer formed a higher order complex with a second K1-K10-2B heterodimer via a Cys401(K10) disulfide link, although the bond angle is unanticipated. The molecular surface analysis of K1-K10-2B identified several pockets, one adjacent to the disulfide linkage and conserved in K5-K14. The solvent accessible surface area of the K1-K10 structure is 20-25% hydrophobic. The 2B region contains mixed acidic and basic patches proximally (N-terminal), whereas it is largely acidic distally (C-terminal). Mapping of conserved and nonconserved residues between K1-K10 and K5-K14 onto the structure demonstrated the majority of unique residues align along the outer helical ridge."

According to the news editors, the research concluded: "Finally, the structure permitted a fresh analysis of the deleterious effects caused by K1/K10 missense mutations found in patients with phenotypic skin disease."


Our news journalists report that additional information may be obtained by contacting C.G. Bunick, Yale University, Dept. of Dermatol, New Haven, CT 06520, United States.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Skin and Connective Tissue Diseases and Conditions, Intermediate Filament Proteins, Skin Diseases and Conditions, Cytoskeletal Proteins, Type II Keratins, Type I Keratins, Scleroproteins, Biochemicals, Biochemistry, Biopolymers, Keratin-10, Chemicals, Genetics, Yale University.

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New Small Interference RNAs (siRNAs) Data Have Been Reported by Researchers at National University (NON-VIRAL XYLOSYLTRANSFERASE-1 siRNA DELIVERY AS AN EFFECTIVE ALTERNATIVE TO CHONDROITINASE IN AN IN VITRO MODEL OF REACTIVE ASTROCYTES)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Small Interference RNAs (siRNAs) are discussed in a new report. According to news originating from Galway, Ireland, by NewsRx correspondents, research stated, "Reactive astrocitosis and the subsequent glial scar is ubiquitous to injuries of the central nervous system, especially spinal cord injury (SCI) and primarily serves to protect against further damage, but is also a prominent inhibitor of regeneration. Manipulating the glial scar by targeting chondroitin sulfate proteoglycans (CSPGs) has been the focus of much study as a means to improve axon regeneration and subsequently functional recovery."

Financial support for this research came from Science Foundation Ireland.

Our news journalists obtained a quote from the research from National University, "In this study we investigate the ability of small interfering RNA (siRNA) delivered by a non-viral polymer vector to silence the rate limiting enzyme involved in CSPG synthesis. Gene expression of this enzyme, xylosyltransferase-1, was silenced by 65% in Neu7 astrocytes which conferred a reduced expression of CSPGs. Furthermore, conditioned medium taken from treated Neu7s, or co-culture experiments with dorsal root ganglia (DRG) showed that siRNA treatment resulted in a more permissive environment for DRG neurite outgrowth than treatment with chondroitinase ABC alone."

According to the news editors, the research concluded: "These results indicate that there is a role for targeted siRNA therapy using polymeric vectors to facilitate regeneration of injured axons following central nervous system injury."

For more information on this research see: NON-VIRAL XYLOSYLTRANSFERASE-1 siRNA DELIVERY AS AN EFFECTIVE ALTERNATIVE TO CHONDROITINASE IN AN IN VITRO MODEL OF REACTIVE ASTROCYTES. Neuroscience, 2016;339():267-275. Neuroscience can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Neuroscience - www.journals.elsevier.com/neuroscience/)

The news correspondents report that additional information may be obtained from A. Pandit, Natl Univ Ireland, Network Excellence Funct Biomat NFB, Galway, Ireland. Additional authors for this research include B. Newland, M. Naughton, W.X. Wang, S. Mcmahon and A. Pandit.

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Keywords for this news article include: Galway, Ireland, Europe, Small Interference RNAs (siRNAs), Small Interference RNAs, Central Nervous System, Enzymes and Coenzymes, Xylosyltransferase, Chondroitinases, Biotechnology, Genetics, siRNA, National University.

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Small Interference RNAs (siRNAs)

New Small Interference RNAs (siRNAs) Study Findings Reported from Institute of Obstetrics and Gynecology (CXCR4-targeted modular peptide carriers for efficient anti-VEGF siRNA delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Small Interference RNAs (siRNAs) have been published. According to news reporting originating from St. Petersburg, Russia, by NewsRx correspondents, research stated, "The application of small interfering RNA (siRNA) for specific gene inhibition is a promising strategy in gene therapy treatments. The efficient cellular delivery of therapeutic siRNA is a critical step in RNA interference (RNAi) application."

Funders for this research include Russian Science Foundation, Russian Foundation for Basic Research, President of Russian Federation scholarship.

Our news editors obtained a quote from the research from the Institute of Obstetrics and Gynecology, "Highly efficient siRNA carriers should be developed for specific cellular uptake, stable RNA-complexes formation and intracellular RNA release. To study these features, we evaluated modular peptide carriers bearing CXCR4 targeting ligand for their ability to condense siRNA, facilitate endosomal escape and VEGFA gene silencing in CXCR4-expressing endothelial and glioblastoma cells. Peptide carriers were shown to condense and protect siRNA from RNase degradation. Various N/P ratios were used for physicochemical characterization to optimize siRNA/peptide complexes for in vitro studies. On average, cytotoxicity of siRNA-polyplexes depended on cell type and was not higher than that of PEI/siRNA complexes. VEGFA gene knockdown was significantly improved with CXCR4-targeted carriers in contrast to nontargeted peptides. siRNA delivery by means of ligandconjugated carriers resulted in 2.5-3-fold decrease of VEGF expression in glioblastoma cells and in 1.5-2-fold decrease of VEGF expression in endothelial cells. Delivery of siRNA/polyplexes resulted in 2-6-fold decrease in VEGF protein yield and in significant inhibition of endothelial cells migration."

According to the news editors, the research concluded: "The study shows that implication of peptide carriers modified with CXCR4 ligand is a promising approach to develop targeted siRNA delivery system into CXCR4-expressing cancer and endothelial cells."


The news editors report that additional information may be obtained by contacting A. Kiselev, DO Ott Res Inst Obstet Gynecol & Reproductol, St Petersburg 199034, Russia. Additional authors for this research include A. Shubina, D. Sokolov, S. Selkov, V. Baranov and A. Kiselev.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.049. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: St. Petersburg, Russia, Eurasia, Small Interference RNAs (siRNAs), Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Endothelial Cells, Genetics, Growth Factor Receptors, Small Interference RNAs, Phosphotransferases, Angiogenic Proteins, Membrane Proteins, Protein Kinases, Biotechnology, siRNA, VEGF, Institute of Obstetrics and Gynecology.

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**Oncology - Solid Cancer**

**New Solid Cancer Findings Reported from R. Bahleda and Co-Authors** *(Phase I study of afatinib combined with nintedanib in patients with advanced solid tumours)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Solid Cancer. According to news reporting originating in Villejuif, France, by NewsRx journalists, research stated, "This Phase I study evaluated continuous-and intermittent-dosing (every other week) of afatinib plus nintedanib in patients with advanced solid tumours. In the dose-escalation phase (n=45), maximum tolerated doses (MTDs) were determined for continuous/intermittent afatinib 10, 20, 30 or 40 mg once daily plus continuous nintedanib 150 or 200 mg twice daily."

The news reporters obtained a quote from the research, "Secondary objectives included safety and efficacy. Clinical activity of continuous afatinib plus nintedanib at the MTD was further evaluated in an expansion phase (n=25). The most frequent dose-limiting toxicities were diarrhoea (11%) and transaminase elevations (7%). Maximum tolerated doses were afatinib 30 mg continuously plus nintedanib 150 mg, and afatinib 40 mg intermittently plus nintedanib 150 mg. Treatment-related adverse events (mostly Grade≤3) included diarrhoea (98%), asthenia (64%), nausea (62%) and vomiting (60%). In the dose-escalation phase, two patients had partial responses (PRs) and 27 (60%) had stable disease (SD). In the expansion phase, one complete response and three PRs were observed (all non-small cell lung cancer), with SD in 13 (52%) patients. No pharmacokinetic interactions were observed. MTDs of continuous or intermittent afatinib plus nintedanib demonstrated a manageable safety profile with proactive management of diarrhoea."

According to the news reporters, the research concluded: "Antitumour activity was observed in patients with solid tumours."


Our news correspondents report that additional information may be obtained by contacting R. Bahleda, Drug Development Department, Gustave Roussy, 114 Rue Edouard Vaillant, 94805 Villejuif Cedex, France. Additional authors for this research include A. Hollebecque, A. Varga, A. Gazzah, C. Massard, E. Deutsch, N. Amellal, F. Farace, M. Ould-Kaci, F. Roux, K. Marzin and J.C Soria.

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is either free or for purchase.

Keywords for this news article include: France, Europe, Oncology, Villejuif, Solid Cancer.

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Spermatozoa

New Spermatozoa Study Results Reported from University of Texas (The regulatory repertoire of PLZF and SALL4 in undifferentiated spermatogonia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Spermatozoa have been published. According to news reporting originating from San Antonio, Texas, by NewsRx correspondents, research stated, "Spermatogonial stem cells (SSCs) maintain spermatogenesis throughout adulthood through balanced self-renewal and differentiation, yet the regulatory logic of these fate decisions is poorly understood. The transcription factors Sal-like 4 (SALL4) and promyelocytic leukemia zinc finger (PLZF; also known as ZBTB16) are known to be required for normal SSC function, but their targets are largely unknown."

Financial supporters for this research include National Science Foundation, National Institutes of Health, Max and Minnie Tomerlin Voelcker Fund, Helen Freeborn Kerr Charitable Foundation, University of Texas at San Antonio.

Our news editors obtained a quote from the research from the University of Texas, "ChIP-seq in mouse THY1+ spermatogonia identified 4176 PLZF-bound and 2696 SALL4-bound genes, including 1149 and 515 that were unique to each factor, respectively, and 1295 that were bound by both factors. PLZF and SALL4 preferentially bound gene promoters and introns, respectively. Motif analyses identified putative PLZF and SALL4 binding sequences, but rarely both at shared sites, indicating significant non-autonomous binding in any given cell. Indeed, the majority of PLZF/SALL4 shared sites contained only PLZF motifs. SALL4 also bound gene introns at sites containing motifs for the differentiation factor DMRT1. Moreover, mRNA levels for both unique and shared target genes involved in both SSC self-renewal and differentiation were suppressed following SALL4 or PLZF knockdown."

According to the news editors, the research concluded: "Together, these data reveal the full profile of PLZF and SALL4 regulatory targets in undifferentiated spermatogonia, including SSCs, which will help elucidate mechanisms controlling the earliest cell fate decisions in spermatogenesis."


The news editors report that additional information may be obtained by contacting B.P. Hermann, Univ Texas San Antonio, Dept. of Biol, San Antonio, TX 78249, United States. Additional authors for this research include Z. Gao, K. Mutoji, Y.C. Song, J.H. Ruan and B.P. Hermann.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1242/dev.132761. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Antonio, Texas, United States, North and Central America, Spermatogonia, Spermatozoa, Genetics, University of Texas.

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Musculoskeletal Diseases and Conditions - Spinal...

New Spinal Stenosis Study Findings Recently Were Reported by Researchers at Tianjin Medical University General Hospital (MicroRNA-221 Regulates Hypertrophy of Ligamentum Flavum in Lumbar Spinal Stenosis by Targeting TIMP-2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Musculoskeletal Diseases and Conditions - Spinal Stenosis are presented in a new report. According to news reporting from Tianjin, People's Republic of China, by NewsRx journalists, research stated, "A study of lumbar ligamentum flavum (LF). The aim of this study was to identify LF hypertrophy related microRNAs (miRNAs) expression profile and to investigate the role of miRNAs in the development of LF hypertrophy in lumbar spinal stenosis (LSS)."

The news correspondents obtained a quote from the research from Tianjin Medical University General Hospital, "Although histologic and biologic literature on LF hypertrophy is available, the pathomechanism is still unknown. Accumulating evidence suggests that microRNAs (miRNAs) participate in many physiologic processes, including cell proliferation, differentiation, and fibrosis, but the role of specific miRNAs involved in LF hypertrophy remains elusive. An initial screening of LF tissues miRNA expression by miRNA microarray was performed using samples from 10 patients and 10 controls, respectively. Subsequently, differential expression was validated using qRT-PCR. Then, functional analysis of the miRNAs in regulating collagens I and III expression was carried out. Western blotting and luciferase reporter assay were also used to detect the target gene. In addition, the thickness of the LF at the level of the facet joint was measured on axial T1-weighted magnetic resonance images. We identified 18 miRNAs that were differentially expressed in patients compared with controls. Following qRT-PCR confirmation, miR-221 was significantly lower in LF tissues of patients than controls. The LF was significantly thicker in patients than that in controls. Bioinformatics target prediction identified tissue inhibitors of matrix metalloproteinase (TIMP)-2 as a putative target of miR-221. Furthermore, luciferase reporter assays demonstrated that miR-221 directly targets TIMP-2 and affects the protein expression of TIMP-2 in fibroblasts isolated from LF. Of note, miR-221 mimic reduced mRNA and protein expression of collagens I and collagen III in fibroblasts isolated from LF. The downregulation of miR-221 might contribute to LF hypertrophy by promoting collagens I and III expression via the induction of TIMP-2."

According to the news reporters, the research concluded: "Our study also underscores the potential of miR-221 as a novel therapeutic target in LSS."

For more information on this research see: MicroRNA-221 Regulates Hypertrophy of Ligamentum Flavum in Lumbar Spinal Stenosis by Targeting TIMP-2. Spine, 2016;41 (4):275-82. (Lippincott Williams and Wilkins - www.lww.com; Spine - journals.lww.com/spinejournal/pages/default.aspx)
Our news journalists report that additional information may be obtained by contacting Y.Q. Xu, Dept. of Orthopedic Surgery, Tianjin Medical University General Hospital, Tianjin, People's Republic of China. Additional authors for this research include Z.H. Zhang, Y.F. Zheng and S.Q Feng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/BRS.0000000000001226. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tianjin, Genetics, Angiology, Proteomics, Hypertrophy, Luciferases, Protein Expression, Enzymes and Coenzymes, Lumbar Spinal Stenosis, People's Republic of China, Bone Diseases and Conditions, Spinal Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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Oncology - Squamous Cell Carcinoma

New Squamous Cell Carcinoma Findings from Faculty of Medicine Discussed (FGFR gene alterations in lung squamous cell carcinoma are potential targets for the multikinase inhibitor nintedanib)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Squamous Cell Carcinoma. According to news reporting out of Osaka, Japan, by NewsRx editors, research stated, "Fibroblast growth factor receptor (FGFR) gene alterations are relatively frequent in lung squamous cell carcinoma (LSCC) and are a potential targets for therapy with FGFR inhibitors. However, little is known regarding the clinicopathologic features associated with FGFR alterations."

Funders for this research include Ministry of Health, Labor, and Welfare of Japan, Astellas Pharma, AstraZeneca, Boehringer Ingelheim, Bristol Myers Squibb, Chugai, Chugai Pharmaceutical, Daiichi Sankyo, Eisai, Eli Lilly, EPS Associates, Japan Clinical Research Operations, Meso Scale Diagnostics, Oncotherapy Science, Ono Pharmaceutical, Pfizer, Quintiles, Taiho Pharmaceutical, Takeda Pharmaceutical.

Our news journalists obtained a quote from the research from the Faculty of Medicine, "The angiokinase inhibitor nintedanib has shown promising activity in clinical trials for non-small cell lung cancer. We have now applied next-generation sequencing (NGS) to characterize FGFR alterations in LSCC patients as well as examined the antitumor activity of nintedanib in LSCC cell lines positive for FGFR1 copy number gain (CNG). The effects of nintedanib on the proliferation of and FGFR signaling in LSCC cell lines were examined invitro, and its effects on tumor formation were examined invivo. A total of 75 clinical LSCC specimens were screened for FGFR alterations by NGS. Nintedanib inhibited the proliferation of FGFR1 CNG-positive LSCC cell lines in association with attenuation of the FGFR1-ERK signaling pathway invitro and invivo. FGFR1 CNG (10.7%), FGFR1 mutation (2.7%), FGFR2 mutation (2.7%), FGFR4 mutation (5.3%), and FGFR3 fusion (1.3%) were detected in LSCC specimens by NGS. Clinicopathologic features did not differ between LSCC patients positive or negative for FGFR alterations. However, among the 36 patients with disease recurrence after surgery, prognosis was significantly worse for those harboring FGFR alterations."

According to the news editors, the research concluded: "Screening for FGFR
alterations by NGS warrants further study as a means to identify patients with LSCC recurrence after surgery who might benefit from nintedanib therapy."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cas.13071. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Squamous Cell Carcinoma, Surgery, Genetics, Carcinomas, Cell Line, Oncology, Faculty of Medicine.

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**Oncology - Squamous Cell Carcinoma**

**New Squamous Cell Carcinoma Findings from Second Military Medical University Discussed (miR-214 inhibits invasion and migration via downregulating GALNT7 in esophageal squamous cell cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Squamous Cell Carcinoma is now available. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Previous studies verified that miR-214 is of great significance in the invasion and migration of a variety of cancers. It has been demonstrated that UDP-N-acetyl-alpha-D-galactosamine: polypeptide N-acetylgalactosaminyltransferase 7(GALNT7) is a putative target of miR-214."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Second Military Medical University, "We performed this study to figure out howmiR-214 and GALNT7 play their roles in the invasion and migration of esophageal squamous cell carcinoma(ESCC). The expression of miR-214 was significantly downregulated in tumors compared to the corresponding non-tumor tissues while GALNT7 showed an opposite tendency. The low expression of miR-214 and the high expression of GALNT7 were found positively correlated with poor tumor differentiation (P = 0.004), tumor invasion (P = 0.013), and lymph nodemetastasis (P = 0.012) in ESCC patients. Functional study demonstrated that overexpression of miR-214 or knockdown of GALNT7 could weaken invasive and migratory ability in Eca109, TE1, and KYSE150. Moreover, tumorigenicity assay showed us mice injected with cells containing miR-214 mimic or GALNT7 small interfering RNA formed substantially smaller tumors than that in miR-214 inhibitor group."
According to the news editors, the research concluded: "Consequently, we concluded that miR-214 shows potential to be a diagnostic marker and therapeutic target in ESCC."


The news correspondents report that additional information may be obtained from H.Z. Chen, Second Military Med Univ, Shanghai Hosp, Dept. of Thorac Surg, Shanghai 200433, People's Republic of China. Additional authors for this research include L. Xu, C.G. Li, Y. Yuan, S.D. Huang and H.Z. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5320-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Squamous Cell Carcinoma, Oncology, Genetics, Cancer, Second Military Medical University.

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**Oncology - Squamous Cell Carcinoma**

**New Squamous Cell Carcinoma Findings from Sun Yat Sen University Reported (Integrin alpha 7 is a functional cancer stem cell surface marker in oesophageal squamous cell carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Squamous Cell Carcinoma. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Non-CG methylation has been associated with stemness regulation in embryonic stem cells. By comparing differentially expressed genes affected by non-CG methylation between tumour and corresponding non-tumour tissues in oesophageal squamous cell carcinoma (OSCC), we find that Integrin alpha 7 (ITGA7) is characterized as a potential cancer stem cell (CSC) marker."

The news correspondents obtained a quote from the research from Sun Yat Sen University, "Clinical data show that a high frequency of ITGA7(+) cells in OSCC tissues is significantly associated with poor differentiation, lymph node metastasis and worse prognosis. Functional studies demonstrate that both sorted ITGA7(+) cells and ITGA7 overexpressing cells display enhanced stemness features, including elevated expression of stemness-associated genes and epithelial-mesenchymal transition features, as well as increased abilities to self-renew, differentiate and resist chemotherapy. Mechanistic studies find that ITGA7 regulates CSC properties through the activation of the FAK-mediated signalling pathways."

According to the news reporters, the research concluded: "As knockdown of ITGA7 can effectively reduce the stemness of OSCC cells, ITGA7 could be a potential therapeutic target in OSCC treatment."

For more information on this research see: Integrin alpha 7 is a functional cancer stem cell surface marker in oesophageal squamous cell carcinoma. *Nature Communications*, 2016;7():1-14. *Nature Communications* can be contacted at: Nature Publishing Group,
New Squamous Cell Carcinoma Study Findings Recently Were Reported by F.P. Xu and Co-Researchers (Overexpression of SRC-3 promotes esophageal squamous cell carcinoma aggressiveness by enhancing cell growth and invasiveness)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Squamous Cell Carcinoma is the subject of a report. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "Steroid receptor coactivator-3 (SRC-3), a transcriptional coactivator for nuclear receptors and other transcription factors, plays an important role in the genesis and progression of several cancers. However, studies investigated the role of SRC-3 in esophageal squamous cell carcinomas (ESCCs) are limited, and the role of SRC-3 in tumor progression remains unclear."

Financial supporters for this research include National Natural Science Foundation of China, National Clinical Key Subject Construction Project Fund of China.

Our news journalists obtained a quote from the research, "We examined the expression of SRC-3 in 8 ESCC cell lines and 302 human ESCC tissues by qPCR, Western blot, and immunohistochemistry. In addition, ESCC cell lines were subjected to proliferation and invasion assays, tumorigenicity assay, flow cytometry assay, qPCR, Western blot, and Chromatin Immunoprecipitation assay to investigate the role of SRC-3 in cancer progression. SRC-3 was overexpressed in 48% of cases and correlated with poor overall (P = 0.0076) and progression-free (P = 0.0069) survival of surgically resected ESCC patient. Cox regression analysis revealed that SRC-3 is an independent prognostic marker. Furthermore, we found that activation of insulin-like growth factor (IGF)/AKT) was involved in the SRC-3 on the cell growth and invasiveness in two ESCC cell lines, Eca109 and EC18 cells."

According to the news editors, the research concluded: "SRC-3 overexpression is clinically and functionally relevant to the progression of human ESCC, and might be a useful molecular target for ESCC prognosis and treatment."

For more information on this research see: Overexpression of SRC-3 promotes esophageal squamous cell carcinoma aggressiveness by enhancing cell growth and invasiveness. Cancer Medicine, 2016;5(12):3500-3511. Cancer Medicine can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell -

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.884. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Squamous Cell Carcinoma, Drugs and Therapies, Cancer Gene Therapy, Biotechnology, Carcinomas, Cell Line, Oncology, Genetics.

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Oncology - Squamous Cell Carcinoma

New Squamous Cell Carcinoma Study Findings Recently Were Reported by Researchers at Tianjin Medical University (The unusual yin-yang fashion of RIZ1/RIZ2 contributes to the progression of esophageal squamous cell carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Squamous Cell Carcinoma is the subject of a report. According to news reporting originating from Tianjin, People's Republic of China, by NewsRx correspondents, research stated, "Retinoblastoma protein-interacting zinc finger gene RIZ encodes two different protein products, RIZ1 and RIZ2. Observations suggest that RIZ1 is a tumor suppressor, while RIZ2 acts as a negative regulator of RIZ1 and may play a positive role in oncogenesis."

Our news editors obtained a quote from the research from Tianjin Medical University, "The imbalance amount of RIZ1 and RIZ2 may be involved in cancer development. In this study we detected the expression levels of RIZ1 and RIZ2 mRNA in human esophageal squamous cell carcinoma (ESCC) tissue specimens, reexpressed RIZ1 in the human ESCC cell line EC109 in which RIZ1 mRNA level was not detected, examined the changes of RIZ1 and RIZ2 mRNA expression, investigated the changes of proliferation, and apoptosis of the cells. We found that RIZ1 mRNA expression is commonly decreased or at undetectable level in human esophageal squamous cancer tissue specimens compared to the normal tissue specimens, while RIZ2 is usually expressed. With the forced expression of RIZ1, RIZ2 mRNA expression did not change, The ESCC cell proliferation was inhibited and apoptosis was induced."

According to the news editors, the research concluded: "This unusual yin-yang fashion of RIZ1/RIZ2 may contribute to the progression of ESCC."

For more information on this research see: The unusual yin-yang fashion of RIZ1/RIZ2 contributes to the progression of esophageal squamous cell carcinoma. Open Life Sciences, 2016;11(1):136-141. Open Life Sciences can be contacted at: De Gruyter Open Ltd, Bogumila Zuga 32A St, 01-811 Warsaw, Poland.

The news editors report that additional information may be obtained by contacting P. Zhang, Tianjin Med Univ, General Hospital, Dept. of Cardiothorac Surg, Tianjin 300070,
People's Republic of China. Additional authors for this research include M. Ding, S.W. Dong, Y.G. Wang and P. Zhang.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Squamous Cell Carcinoma, Carcinomas, Oncology, Genetics, Tianjin Medical University.

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**Gram-Positive Bacteria - Staphylococcus aureus**

**New Staphylococcus aureus Findings Reported from Department of Medicine (Diagnostic accuracy of methicillin-resistant Staphylococcus aureus nasal colonization to predict methicillin-resistant S aureus soft tissue infections)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Gram-Positive Bacteria - Staphylococcus aureus is the subject of a report. According to news reporting out of West Haven, Connecticut, by NewsRx editors, research stated, "Nasal methicillin-resistant Staphylococcus aureus (MRSA) testing at admission to the hospital was found to have a positive likelihood ratio of 8.5 and a negative likelihood ratio of 0.41 for predicting MRSA soft tissue infections."

Our news journalists obtained a quote from the research from the Department of Medicine, "The clinical utility of this test depends on the prevalence of MRSA infection. In high prevalence populations, nasal MRSA is useful to rule in MRSA infections."

According to the news editors, the research concluded: "In low prevalence populations it may be useful to rule out infections."


Our news journalists report that additional information may be obtained by contacting C.G. Gunderson, Vet Affairs Connecticut Healthcare Syst, Dept. of Med, West Haven, CT, United States. Additional authors for this research include J.L. Holleck, J.J. Chang, N. Merchant, S. Lin and S. Gupta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajic.2016.03.039. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: West Haven, Connecticut, United States, North and Central America, Methicillin-Resistant Staphylococcus aureus, Gram-Positive Endospore-Forming Rods, Drugs and Therapies, Epidemiology, Endospore-Forming Bacteria, Beta-Lactam Antibiotics, Gram-Positive Bacteria, beta-Lactam Resistance, Methicillin Resistance, Penicillin Resistance, Gram-Positive Cocci, Organic Chemicals, Staphylococcaceae, Drug Resistance, Penicillins, Bacillales, Amides, MRSA, Department of Medicine.

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Gram-Positive Bacteria - Staphylococcus aureus

New Staphylococcus aureus Findings Reported from University Medical Center (Staphylococcus aureus protects its immune-evasion proteins against degradation by neutrophil serine proteases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Positive Bacteria - Staphylococcus aureus have been presented. According to news originating from Utrecht, Netherlands, by NewsRx correspondents, research stated, "Neutrophils store large quantities of neutrophil serine proteases (NSPs) that contribute, via multiple mechanisms, to antibacterial immune defences. Even though neutrophils are indispensable in fighting Staphylococcus aureus infections, the importance of NSPs in anti-staphylococcal defence is yet unknown."

Financial support for this research came from Nederlandse Organisatie voor Wetenschappelijk Onderzoek.

Our news journalists obtained a quote from the research from University Medical Center, "However, the fact that S. aureus produces three highly specific inhibitors for NSPs [the extracellular adherence proteins (EAPs) Eap, EapH1 and EapH2], suggests that these proteases are important for host defences against this bacterium. In this study we demonstrate that NSPs can inactivate secreted virulence factors of S. aureus and that EAP proteins function to prevent this degradation. Specifically, we find that a large group of S. aureus immune-evasion proteins is vulnerable to proteolytic inactivation by NSPs. In most cases, NSP cleavage leads to functional inactivation of virulence proteins. Interestingly, proteins with similar immune-escape functions appeared to have differential cleavage sensitivity towards NSPs. Using targeted mutagenesis and complementation analyses in S. aureus, we demonstrate that all EAP proteins can protect other virulence factors from NSP degradation in complex bacterial supernatants. These findings show that NSPs inactivate S. aureus virulence factors. Moreover, the protection by EAP proteins can explain why this antibacterial function of NSPs was masked in previous studies."

According to the news editors, the research concluded: "Furthermore, our results indicate that therapeutic inactivation of EAP proteins can help to restore the natural host immune defences against S."


The news correspondents report that additional information may be obtained from D.A. Stapels, Medical Microbiology, University Medical Center Utrecht, Utrecht, Netherlands. Additional authors for this research include A. Kuipers, M. von Kockritz-Blickwede, M. Ruyken, A.T. Tromp, M.J. Horsburgh, C.J. de Haas, J.A. van Strijp, K.P. van Kessel and S.H Rooijakkers.

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Enzymes and Coenzymes, Staphylococcus aureus, Gram Positive Bacteria, Gram-Positive Bacteria.

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**Stem Cell Research**

**New Stem Cell Research Findings Has Been Reported by Investigators at University of California (Comparison of Endothelial Differentiation Capacities of Human and Rat Adipose-Derived Stem Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Stem Cell Research is the subject of a report. According to news reporting out of Sacramento, California, by NewsRx editors, research stated, "The authors compared the endothelial differentiation capacities of human and rat adipose-derived stem cells to determine whether human adipose-derived stem cells can be a source of endothelial cells clinically. Human and rat adipose-derived stem cells were harvested and characterized with flow cytometry and trilineage differentiation."

Our news journalists obtained a quote from the research from the University of California, "Cells from passages III through V were fed with endothelial cell differentiation medium for up to 3 weeks. Cells were harvested after 1, 2, and 3 weeks, and endothelial differentiation was evaluated with quantitative reverse-transcriptase polymerase chain reaction, flow cytometry, and angiogenic sprouting assays. Both human and rat adipose-derived stem cells were CD90(+), CD44(+), and CD31(-) before differentiation. The cells were successfully differentiated into adipogenic, osteogenic, and chondrogenic lineages. Expression of endothelial cell-specific genes peaked at the second week of differentiation in both human and rat cells. The fold changes in expression of CD31, vascular endothelial growth factor receptor-1, nitric oxide synthase, and von Willebrand factor genes at week 2 were 0.4 +/- 0.1, 34.7 +/- 0.3, 2.03 +/- 0.25, and 12.5 +/- 0.3 respectively, in human adipose-derived stem cells; and 1.5 +/- 1.01, 21.6 +/- 1.7, 17.9 +/- 0.6, and 11.2 +/- 1.3, respectively, in rat cells. The percentages of CD31(+) cells were 0.2, 0.64, and 1.6 in human cell populations and 0.5, 5.91, and 11.5 in rat cell populations at weeks 1, 2, and 3, respectively. Rat adipose-derived stem cell-derived endothelial cells displayed enhanced sprouting capability compared with the human cells. Human adipose-derived stem cells responded less strongly to EGM-2MV endothelial differentiation medium than did the rat cells."

According to the news editors, the research concluded: "Still, the human cells have the potential to become a clinical source of endothelial cells with modifications in the differentiation conditions.""


Our news journalists report that additional information may be obtained by contacting D.E. Sahar, University of California, Medical Center, Dept. of Surg, Div Plast Surg, Sacramento, CA 95817, United States. Additional authors for this research include K. Devi,
New Stem Cell Research Findings Reported from Western Michigan University [Human B-1 and B-2 B Cells Develop from Lin(-)CD34(+)_CD38(lo) Stem Cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Stem Cell Research is now available. According to news reporting originating from Kalamazoo, Michigan, by NewsRx correspondents, research stated, "The B-1 B cell population is an important bridge between innate and adaptive immunity primarily because B-1 cells produce natural Ab. Murine B-1 and B-2 cells arise from distinct progenitors; however, in humans, in part because it has been difficult to discriminate between them phenotypically, efforts to pinpoint the developmental origins of human B-1 and B-2 cells have lagged."

Our news editors obtained a quote from the research from Western Michigan University, "To characterize progenitors of human B-1 and B-2 cells, we separated cord blood and bone marrow Lin(-)CD34(+)_hematopoietic stem cells into Lin(-)CD34(+)_CD38(lo) and Lin(-)CD34(+)_CD38(hi) populations. We found that transplanted Lin(-)CD34(+)_CD38(lo) cells, but not Lin(-)CD34(+)_CD38(hi) cells, generated a CD19(+) B cell population after transfer into immunodeficient NOD.Cg-Prkdc(scid) Il2rg(tm1wjl)/SxJ neonates. The emergent CD19(+) B cell population was found in spleen, bone marrow, and peritoneal cavity of humanized mice and included distinct populations displaying the B-1 or the B-2 cell phenotype. Engrafted splenic B-1 cells exhibited a mature phenotype, as evidenced by low-to-intermediate expression levels of CD24 and CD38. The engrafted B-1 cell population expressed a VH-DH-JH composition similar to cord blood B-1 cells, including frequent use of VH4-34 (8 versus 10%, respectively). Among patients with hematologic malignancies who underwent hematopoietic stem cell transplantation, B-1 cells were found in the circulation as early as 8 wk posttransplantation."

According to the news editors, the research concluded: "Altogether, our data demonstrate that human B-1 and B-2 cells develop from a Lin(-)CD34(+)_CD38(lo) stem cell population, and engrafted B-1 cells in humanized mice exhibit an Ig-usage pattern comparable to B-1 cells in cord blood."

For more information on this research see: Human B-1 and B-2 Cells Develop from Lin(-)CD34(+)_CD38(lo) Stem Cells. *Journal of Immunology*, 2016;197(10):3950-3958. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news editors report that additional information may be obtained by contacting T.L. Rothstein, Western Michigan University, Homer Stryker MD Sch Med, Kalamazoo, MI 49008, United States. Additional authors for this research include T.J. Hopkins, N.E. Holodick, R. Vuyyuru, T. Manser, R.L. Bayer and T.L. Rothstein.
Keywords for this news article include: Kalamazoo, Michigan, United States, North and Central America, Bone Marrow, Immunology, Stem Cell Research, Immune System, Hematopoietic, Bone Research, Hematology, Western Michigan University.

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Stilbenes

New Stilbenes Findings Reported from Panjab University (QbD-Driven Development and Validation of a HPLC Method for Estimation of Tamoxifen Citrate with Improved Performance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Stilbenes. According to news reporting from Chandigarh, India, by NewsRx journalists, research stated, "The current studies entail Quality by Design (QbD)-enabled development of a simple, rapid, sensitive and cost-effective high-performance liquid chromatographic method for estimation of tamoxifen citrate (TMx). The factor screening studies were performed using a 7-factor 8-run Taguchi design."

Financial support for this research came from University Grants Commission (UGC).

The news correspondents obtained a quote from the research from Panjab University, "Systematic optimization was performed employing Box-Behnken design by selecting the mobile phase ratio, buffer pH and oven temperature as the critical method parameters (CMPs) identified from screening studies, thus evaluating the critical analytical attributes (CAAs), namely, peak area, retention time, theoretical plates and peak tailing as the parameters of method robustness. The optimal chromatographic separation was achieved using acetonitrile and phosphate buffer (pH 3.5) 52:48 v/v as the mobile phase with a flow rate 0.7 mL/min, an oven temperature 40 degrees C and UV detection at 256 nm. The method was validated as per the ICH recommended conditions, which revealed high degree of linearity, accuracy, precision, sensitivity and robustness over the existing liquid chromatographic methods of the drug. Also the method was applied for the estimation of TMx in nanostructured formulations, which indicated no significant change in the retention time."

According to the news reporters, the research concluded: "In a nutshell, the studies demonstrated successful development of the HPLC method of TMx with improved understanding of the relationship among the influential variables for enhancing the method performance."


Our news journalists report that additional information may be obtained by contacting B. Singh, Panjab University, UGC Center Adv Studies, Univ Inst Pharmaceut Sci, Chandigarh 160014, India. Additional authors for this research include S. Beg, O.P. Katare and B. Singh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/chromsci/bmw090. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Chandigarh, India, Asia, Selective Estrogen Receptor Modulators, Drugs and Therapies, Benzene Derivatives, Antineoplastics, Tamoxifen, Stilbenes, Hormones, Panjab University.

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Oncology - Stomach Cancer

New Stomach Cancer Findings from International Agency for Research on Cancer Outlined (Stomach cancer burden in Central and South America)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Stomach Cancer have been published. According to news reporting out of Lyon, France, by NewsRx editors, research stated, "Rationale and objective: Stomach cancer mortality rates in Central and South America (CSA) are among the highest in the world. We describe the current burden of stomach cancer in CSA."

Our news journalists obtained a quote from the research from International Agency for Research on Cancer, "We obtained regional and national-level cancer incidence data from 48 population-based registries (13 countries) and nation-wide cancer deaths from WHO's mortality database (18 countries). We estimated world population age-standardized incidence (ASR) and mortality (ASMR) rates per 100,000 and estimated annual percent change to describe time trends. Stomach cancer was among the 5 most frequently diagnosed cancers and a leading cause of cancer mortality. Between CSA countries, incidence varied by 6-fold and mortality by 5-6-fold. Males had up to 3-times higher rates than females. From 2003 to 2007, the highest ASRs were in Chile, Costa Rica, Colombia, Ecuador, Brazil and Peru (males: 19.2-29.1, females: 9.7-15.1). The highest ASMRs were in Chilean, Costa Rican, Colombian and Guatemalan males (17.4-24.6) and in Guatemalan, Ecuadorian and Peruvian females (10.5-17.1). From 1997 to 2008, incidence declined by 4% per year in Brazil, Chile and Costa Rica; mortality declined by 3-4% in Costa Rica and Chile. 60-96% of all the cancer cases were unspecified in relation to gastric sub-site but, among those specified, non-cardia cancers occurred 2-13 times more frequently than cardia cancers. The variation in rates may reflect differences in the prevalence of Helicobacter pylori infection and other risk factors. High mortality may additionally reflect deficiencies in healthcare access."

According to the news editors, the research concluded: "The high proportion of unspecified cases calls for improving cancer registration processes."

For more information on this research see: Stomach cancer burden in Central and South America. Cancer Epidemiology, 2016;44():S62-S73. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/

Our news journalists report that additional information may be obtained by contacting M.S. Sierra, Int Agcy Res Canc, Sect Canc Surveillance, Lyon, France. Additional authors for this research include P. Cueva, L.E. Bravo and D. Forman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.03.008. This DOI is a link to an online electronic
New Stomatitis Findings Reported from Janssen Pharmaceuticals KK

A comparison of overall survival with 40 and 50 mg/m(2) pegylated liposomal doxorubicin treatment in patients with recurrent epithelial ovarian cancer: Propensity score-matched analysis of real-world data.

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mouth Diseases and Conditions - Stomatitis have been published. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "In clinical practice, 40 mg/m(2) of pegylated liposomal doxorubicin (PLD40) has been used as an initial dosage for treating recurrent epithelial ovarian cancer (OC) instead of the recommended dose of 50 mg/m2 (PLD50). However, no robust evidence is available to support the use of PLD40."

Our news journalists obtained a quote from the research from Janssen Pharmaceuticals KK, "This post-hoc study aimed to compare the efficacy and safety of initial PLD dosages in propensity score (P-score)-matched dataset. The data source was a PLD postmarketing surveillance dataset (n = 2189) conducted in Japan. Eligibility criteria for the present study were as follows: recurrent OC, history of chemotherapy, and treatment with PLD monotherapy at a dosage between 35.5 and 54.4 mg/m(2). Overall survival (OS) was compared between PLD50- and PLD40-treated groups using the log-rank test. Incidences of palmar-plantar erythrodysesthesia (PPE) and stomatitis were also compared between the groups. Overall, 503 matched pairs were generated using P-score analysis. The median survival time with PLD50 and PLD40 was 383 and 350 days, respectively, with a hazard ratio of 1.10 (95% confidence interval, 0.98-1.26; p = 0.211), although the difference was not statistically significant in the P-score-matched dataset. However, the incidence and severity of PPE and stomatitis were significantly lower with PLD40. Our study showed that the efficacy of PLD did not differ based on initial dosages, but the risk of adverse events was reduced with PLD40."

According to the news editors, the research concluded: "Considering the balance between patient benefits and risks, our results support the use of PLD40 in clinical practice."

For more information on this research see: A comparison of overall survival with 40 and 50 mg/m(2) pegylated liposomal doxorubicin treatment in patients with recurrent epithelial ovarian cancer: Propensity score-matched analysis of real-world data. *Gynecologic Oncology*, 2016;143(2):246-251. *Gynecologic Oncology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news journalists report that additional information may be obtained by contacting M. Nakayama, Janssen Pharmaceut KK, Medical Affairs Div, Chiyoda Ku, Tokyo 1010065, Japan. Additional authors for this research include H. Kobayashi, T. Takahara, Y. Nishimura, K. Fukushima and K. Yoshizawa.
Central Nervous System Diseases and Conditions —

New Subarachnoid Hemorrhage Study Findings Have Been Reported by M. Balbi and Co-Researchers (Acute changes in neurovascular reactivity after subarachnoid hemorrhage in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Subarachnoid Hemorrhage. According to news originating from Munich, Germany, by NewsRx correspondents, research stated, "Subarachnoid hemorrhage causes acute and long-lasting constrictions of pial arterioles. Whether these vessels dilate normally to neuronal activity is of great interest since a mismatch between delivery and consumption of glucose and oxygen may cause additional neuronal damage."

Our news journalists obtained a quote from the research, "Therefore, we investigated neurovascular reactivity of pial and parenchymal arterioles after experimental subarachnoid hemorrhage. C57BL/6 mice were subjected to subarachnoid hemorrhage by filament perforation or sham surgery. Neurovascular reactivity was assessed 3 h later by forepaw stimulation or inhalation of 10% CO2. Diameters of cerebral arterioles were assessed using two-photon microscopy. Neurovascular coupling and astrocytic endfoot Ca2+ were measured in brain slices using two-photon and infrared-differential interference contrast microscopy. Vessels of sham-operated mice dilated normally to CO2 and forepaw stimulation. Three hours after subarachnoid hemorrhage, CO2 reactivity was completely lost in both pial and parenchymal arterioles, while neurovascular coupling was not affected. Brain slices studies also showed normal neurovascular coupling and a normal increase in astrocytic endfoot Ca2+ acutely after subarachnoid hemorrhage."

According to the news editors, the research concluded: "These findings suggest that communication between neurons, astrocytes, and parenchymal arterioles is not affected in the first few hours after subarachnoid hemorrhage, while CO2 reactivity, which is dependent on NO signaling, is completely lost."


The news correspondents report that additional information may be obtained from N. Plesnila, Munich Cluster Syst Neurol, Munich, Germany. Additional authors for this research include M. Koide, S.M. Schwarzmaier, G.C. Wellman and N. Plesnila.

Keywords for this news article include: Munich, Germany, Europe, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Brain Diseases and Conditions, Cerebrovascular Disorders, Intracranial Hemorrhages, Subarachnoid Hemorrhage.
Central Nervous System Diseases and Conditions –…

New Subdural Hematoma Findings from Virginia Commonwealth University Outlined (Tranexamic Acid for Recurring Subdural Hematomas Following Surgical Evacuation: A Clinical Case Series)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Subdural Hematoma. According to news originating from Richmond, Virginia, by NewsRx correspondents, research stated, "Chronic subdural hematomas (SDHs) are commonly encountered in neurosurgery. Optimal management of SDHs remains a significant challenge."

Our news journalists obtained a quote from the research from Virginia Commonwealth University, "Current treatment options generally include supportive care or surgical intervention. A significant proportion of patients have surgery; however, the reoperation rate is considered high. There are also cases in which additional surgical procedures would carry significant morbidity, and as a result, there is a need for nonsurgical medical therapies. We describe the use of tranexamic acid (TXA) as a nonsurgical option for the treatment of recurrent SDHs following surgery. Patients were identified as candidates for potential TXA therapy and followed prospectively. The decision to administer TXA was made on the basis of history, presentation, and prognosis after further surgical intervention. Data collected included patient imaging, treatment administered, and both radiologic and clinical outcomes. Three patients underwent surgical evacuation of a chronic SDH (two via burr hole washout and one via craniotomy). All patients had recurrence identified on subsequent imaging. Two patients had poorer predicted outcomes if additional surgical intervention was necessary, and one refused additional surgical intervention. TXA was administered, in the same dosing and scheduled course, to all patients. Complete resolution was observed on imaging, and in the case of the patient who was symptomatic, clinical improvement was also noted."

According to the news editors, the research concluded: "TXA may be considered for the treatment of recurrent SDHs following surgical evacuation in patients for whom additional surgery would add significant morbidity."


The news correspondents report that additional information may be obtained from R.A. Vega, Virginia Commonwealth Univ Hlth Syst, Dept. of Neurosurg, Medical Coll Virginia, Richmond, VA 23298, United States. Additional authors for this research include L. Hutchins and R.A. Vega.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0036-1584212. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Richmond, Virginia, United States, North and Central America, Central Nervous System Diseases and Conditions,
New Sudden Death Findings from Cedars-Sinai Medical Center Reported (Tpeak-to-Tend interval corrected for heart rate: A more precise measure of increased sudden death risk?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Sudden Death have been published. According to news originating from Los Angeles, California, by NewsRx correspondents, research stated, "The Tpeak to Tend (Tpe) interval on the 12-lead electrocardiogram predicts an increased risk of sudden cardiac arrest (SCA). There is controversy over whether Tpe would be more useful if corrected for heart rate (Tpec)."

Our news journalists obtained a quote from the research from Cedars-Sinai Medical Center, "We evaluated whether the predictive value of Tpe for SCA improves with heart rate correction and sought to determine an optimal cutoff value for Tpec in the context of SCA risk. Cases of SCA (n = 628; mean age 66.4 +/- 14.5 years; n = 416, 66.2% men) from the Oregon Sudden Unexpected Death Study with an archived electrocardiogram available prior and unrelated to the SCA event were analyzed. Comparisons were made with control subjects (n = 819; mean age 66.7 +/- 11.5 years; n = 559, 68.2% men). The Tpe interval was corrected for heart rate using Bazett (TpecBa) and Fridericia (TpecFd) formulas, and the predictive value of Tpec for SCA was evaluated using logistic regression models. The area under the curve for Tpec predicting SCA improved with both correction formulas. TpecBa and TpecFd were shown to have an area under the curve of 0.695 and 0.672, respectively, as compared with a baseline of 0.601 with an uncorrected Tpe. A TpecBa value of >90 ms was predictive of SCA, independent of age, sex, comorbidities, QRS duration, corrected QT interval, and severely reduced left ventricular ejection fraction (<= 35%; odds ratio 2.8; 95% confidence interval 1.92-4.17; P < .0001). Correcting Tpe for heart rate, using either the Bazett or the Fridericia formula, improved the independent predictive value of this marker for the assessment of SCA risk."

According to the news editors, the research concluded: "Prolongation of TpecBa beyond 90 ms was associated with a nearly 3-fold increased risk of SCA."


The news correspondents report that additional information may be obtained from S.S. Chugh, Cedars Sinai Med Center, Inst Heart, Los Angeles, CA 90048, United States. Additional authors for this research include C. Rusinaru, K. Reinier, A. Uy-Evanado, H. Chugh, K. Gunson, J. Jui and S.S. Chugh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.08.022. This DOI is a link to an online electronic document that is either free or for purchase.
Sulfanilamides

New Sulfanilamides Findings from Hoshi University Described (The effect of structurally related impurities on crystallinity reduction of sulfamethazine by grinding)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Sulfanilamides. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "In this study, the effect of structurally related impurities on crystallinity reduction of sulfamethazine by grinding was evaluated. The crystallinity of sulfamethazine was not decreased when it was ground alone."

Financial supporters for this research include Research on Development of New Drugs, Japan Society for the Promotion of Science.

The news correspondents obtained a quote from the research from Hoshi University, "However, when structurally related impurities with sulfonamide derivatives were blended, the crystallinity of sulfamethazine was decreased by grinding. Other materials without a sulfonamide moiety showed no such effect. The Raman spectra of sulfamethazine demonstrated that there was a difference between its crystalline and amorphous states within its sulfonamide structure."

According to the news reporters, the research concluded: "It was suggested that the sulfonamide structure of the impurities was important in causing the inhibition of recrystallization of sulfamethazine during grinding."


Our news journalists report that additional information may be obtained by contacting Y. Hamada, Hoshi University, Grad Sch Pharmaceut Sci, Shinagawa Ku, Tokyo 1428501, Japan. Additional authors for this research include M. Onoa, M. Ohara and E. Yonemochi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.09.069. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Organic Chemicals, Sulfur Compounds, Sulfamethazine, Sulfanilamides, Sulfonamides, Eye Proteins, Crystallins, Sulfones, Hoshi University.

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New Sulfur Amino Acids Findings from University of Geneva Described
(Cysteine-specific Chemical Proteomics: From Target Identification to Drug Discovery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Sulfur Amino Acids. According to news reporting originating in Geneva, Switzerland, by NewsRx journalists, research stated, "Our laboratory focuses on chemical proteomics-enabled discovery of new cysteine-reactive small molecules with intriguing biomedical activities as well as identification and detailed characterization of their proteomic targets. In this overview article, we summarize our progress since 2013 in this research field."

The news reporters obtained a quote from the research from the University of Geneva, "We have developed a novel mass spectrometry-based chemoproteomic method that allows detection and monitoring of up to 3000 reactive cysteines in any cellular proteome. This is achieved via strategic use of two clickable, cysteine-reactive chemical probes with complementary substrate selectivity profiles, iodoacetamide and ethynyl benziodoxolone. Using this method, we have been able to identify the direct biological targets of curcumin, a diarylheptanoid natural product with anticancer activity, and deoxyelephantopin, a highly cytotoxic natural sesquiterpene lactone. Furthermore, we have developed chloromethyl triazoles (CMTs) as a novel chemical scaffold for cysteine-reactive inhibitors that can be accessed from commercially available substrates in only two chemical steps."

According to the news reporters, the research concluded: "From a small collection of chloromethyl triazoles, we have identified compound AA-CW236 as the first non-pseudosubstrate inhibitor of MGMT, a DNA repair protein that renders several devastating cancer forms resistant to chemotherapy."

For more information on this research see: Cysteine-specific Chemical Proteomics: From Target Identification to Drug Discovery. Chimia, 2016;70(11):764-767. Chimia can be contacted at: Swiss Chemical Soc, Schwarztorstrasse 9, Ch-3007 Bern, Switzerland.

Our news correspondents report that additional information may be obtained by contacting A. Adibekian, University of Geneva, Dept. of Organ Chem, CH-1211 Geneva 4, Switzerland. Additional authors for this research include D. Abegg, C. Wang, A. Shuster and A. Adibekian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2533/chimia.2016.764. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Geneva, Switzerland, Europe, Genetics, Drugs and Therapies, Sulfhydryl Compounds, Neutral Amino Acids, Sulfur Amino Acids, Proteomics, Cysteine, University of Geneva.

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New Sulfur Amino Acids Study Results from University of Louisville Described (Homocysteine, Alcoholism, and Its Potential Epigenetic Mechanism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Sulfur Amino Acids is the subject of a report. According to news originating from Louisville, Kentucky, by NewsRx correspondents, research stated, "Alcohol is the most socially accepted addictive drug. Alcohol consumption is associated with some health problems such as neurological, cognitive, behavioral deficits, cancer, heart, and liver disease."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from the University of Louisville, "Mechanisms of alcohol-induced toxicity are presently not yet clear. One of the mechanisms underlying alcohol toxicity has to do with its interaction with amino acid homocysteine (Hcy), which has been linked with brain neurotoxicity. Elevated Hcy impairs with various physiological mechanisms in the body, especially metabolic pathways. Hcy metabolism is predominantly controlled by epigenetic regulation such as DNA methylation, histone modifications, and acetylation. An alteration in these processes leads to epigenetic modification."

According to the news editors, the research concluded: "Therefore, in this review, we summarize the role of Hcy metabolism abnormalities in alcohol-induced toxicity with epigenetic adaptation and their influences on cerebrovascular pathology."


The news correspondents report that additional information may be obtained from N. Tyagi, University of Louisville, Sch Med, Dept. of Physiol, Louisville, KY 40292, United States. Additional authors for this research include C.J. Mallonee, A.K. George, S.C. Tyagi and N. Tyagi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/acer.13234. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Louisville, Kentucky, United States, North and Central America, Homocysteine, Article Review, Sulfur Amino Acids, Genetics, University of Louisville.

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New Sulfur Compounds Study Findings Have Been Reported by Researchers at Anadolu University (Synthesis and Evaluation of New Benzodioxole-Based Thiosemicarbazone Derivatives as Potential Antitumor Agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Sulfur Compounds have been published. According to news reporting originating in Eskisehir, Turkey, by NewsRx journalists, research stated, "New benzodioxole-based thiosemicarbazone derivatives were synthesized and evaluated for their cytotoxic effects on A549 human lung adenocarcinoma, C6 rat glioma and NIH/3T3 mouse embryonic fibroblast cells. In order to examine the correlation between anticancer activity and cholinesterases, the compounds were evaluated for their inhibitory effects on AChE and BuChE."

The news reporters obtained a quote from the research from Anadolu University, "The most effective anticancer agents were investigated for their effects on DNA synthesis, apoptosis and mitochondrial membrane potential. 4-(1,3-Benzodioxol-5-yl)-1-([1,1'-biphenyl]-4-ylmethylene)thiosemicarbazide (5) was identified as the most promising anticancer agent against C6 and A549 cell lines due to its inhibitory effects on C6 and A549 cells and low toxicity to NIH/3T3 cells. Compound 5 increased early and late apoptosis in A549 and C6 cells. Compound 5 also caused disturbance on mitochondrial membrane potential and showed DNA synthesis inhibitory activity in A549 and C6 cells. Compound 5 was investigated for SIRT1 inhibitory activity to provide mechanistic insight and for that purpose docking studies were also performed for this compound on SIRT1. On the other hand, compound 5 did not show any inhibitory activity against AChE and BuChE."

According to the news reporters, the research concluded: "This outcome pointed out that there is no relationship between anticancer activity of compound 5 and cholinesterases."

For more information on this research see: Synthesis and Evaluation of New Benzodioxole-Based Thiosemicarbazone Derivatives as Potential Antitumor Agents. Molecules, 2016;21(11):2652-2669. Molecules can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news correspondents report that additional information may be obtained by contacting M.D. Altintop, Anadolu Univ, Fac Pharm, Dept. of Pharmaceut Chem, TR-26470 Eskisehir, Turkey. Additional authors for this research include H.E. Temel, B. Sever, G.A. Ciftci and Z.A. Kaplancikli.

Keywords for this news article include: Eskisehir, Turkey, Eurasia, Thiosemicarbazones, Sulfur Compounds, Genetics, Anadolu University.

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New Sweat Gland Diseases Study Findings Have Been Reported by Investigators at National Institutes of Health (Foxc1 Ablated Mice Are Anhidrotic and Recapitulate Features of Human Miliaria Sweat Retention Disorder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Sweat Gland Diseases is now available. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Sweat glands are critical for thermoregulation. The single tubular structure of sweat glands has a lower secretory portion and an upper reabsorptive duct leading to the secretory pore in the skin."

Our news journalists obtained a quote from the research from the National Institutes of Health, "Genes that determine sweat gland structure and function are largely unidentified. Here we report that a Fox family transcription factor, Foxc1, is obligate for appreciable sweat duct activity in mice. When Foxc1 was specifically ablated in skin, sweat glands appeared mature, but the mice were severely hypohidrotic. Morphologic analysis revealed that sweat ducts were blocked by hyperkeratotic or parakeratotic plugs. Consequently, lumens in ducts and secretory portions were dilated, and blisters and papules formed on the skin surface in the knockout mice. The phenotype was strikingly similar to the human sweat retention disorder miliaria. We further show that Foxc1 deficiency ectopically induces the expression of keratinocyte terminal differentiation markers in the duct luminal cells, which most likely contribute to keratotic plug formation. Among those differentiation markers, we show that Sprr2a transcription is directly repressed by overexpressed Foxc1 in keratinocytes."

According to the news editors, the research concluded: "In summary, Foxc1 regulates sweat duct luminal cell differentiation, and mutant mice mimic miliaria and provide a possible animal model for its study."


The news correspondents report that additional information may be obtained from C.Y. Cui, NIA, Lab Genet & Genom, National Institutes of Health, Baltimore, MD 21224, United States. Additional authors for this research include R. Ishii, D.P. Campbell, M. Michel, Y.L. Piao, T. Kume and D. Schlessinger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jid.2016.08.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Sweat Gland Diseases and Conditions, Skin Diseases and Conditions, Miliaria, Genetics, National Institutes of Health.

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**Takayasu's Arteritis**

**New Takayasu's Arteritis Study Findings Have Been Reported by Investigators at Beijing Union Medical College Hospital (The efficacy of Mycophenolate mofetil for the treatment of Chinese Takayasu's arteritis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Takayasu's arteritis have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "To investigate the therapeutic effect of mycophenolate mofetil (MMF) on Chinese Takayasu's arteritis (TAK) patients. Thirty consecutive TAK outpatients were prospectively enrolled during 2013 to 2015."

The news reporters obtained a quote from the research from Beijing Union Medical College Hospital, "MMF combined with glucocorticoid was the primary treatment regimen. If clinical stable disease could not be reached, another traditional immunosuppressive agent could be added. All patients were evaluated and followed up every 3 months and vascular image studies by Doppler ultrasonography were repeated every 6 months. The effectiveness of MMF was defined as: (1) ESR < 20 mm/hr; (2) CRP < 10 mg/L or hs-CRP < 3 mg/L; (3) stable or improved in vascular image studies; (4) clinical assessment is stable, improved or in remission; (5) the dosage of glucocorticoid could be tapered to less than 15 mg/day. ESR < 40 mm/hr, CRP < 20 mg/L or hs-CRP < 6 mg/L, but meet the other three criteria is defined as partial effectiveness. MMF alone combined with corticosteroid was effective in 12 (40.0%) patients. When MMF combined with methotrexate less than 15 mg/week, the effective rate was 30.0% (9/30), including partial effective in 3 patients. When MMF combined with azathioprine 100150 mg/day, the effective rate was 10.0% (3/30), including partial effective in 1 patient. Four patients withdrew due to side effects. Two patients failed to show response."

According to the news reporters, the research concluded: "The overall effective rate of therapy including MMF in treating TAK is 80%.


Our news correspondents report that additional information may be obtained by contacting X.P. Tian, Beijing Union Med Coll Hosp, Peking Union Med College, Dept. of Rheumatol & Clin Immunol, Beijing 100032, People's Republic of China. Additional authors for this research include Y.J. Yang, J.L. Zhao, M.T. Li, X.P. Tian and X.F. Zeng.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Mycophenolate Mofetil Therapy, Immunosuppressive Agents, Adrenal Cortex Hormones, Aortic Arch Syndromes, Takayasu's Arteritis, Drugs and Therapies, Glucocorticoids, Pharmaceuticals, Cardiology, Vasculitis, Beijing Union Medical College Hospital.

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New Takotsubo Cardiomyopathy Findings from University of Foggia Reported (Serum interleukin 6 and 10 levels in Takotsubo cardiomyopathy: Increased admission levels may predict adverse events at follow-up)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Takotsubo Cardiomyopathy. According to news reporting from Foggia, Italy, by NewsRx journalists, research stated, "Systemic inflammation has been hypothesized as a possible mechanism of Takotsubo cardiomyopathy (TTC). Aim of the study was to assess the role of interleukin (IL)-6 and IL-10 in subjects with an episode of TTC."

The news correspondents obtained a quote from the research from the University of Foggia, "Fifty-six consecutive subjects with TTC were prospectively enrolled in the study and followed for a mean of 178 days. Circulating levels of IL-6, IL-10, clinical condition and left ventricular ejection fraction were evaluated at admission. Incidence of death, re-hospitalization and recurrence of TTC during follow-up was also recorded. 23% of patients experienced in-hospital complications while 20% of patients had adverse events at follow-up. IL-6 and IL-10 serum levels at admission were higher in subjects with adverse events at follow-up (120 +/- 294 vs. 22 +/- 40 pg/ml, p<0.05; 13 +/- 35 vs. 2 +/- 3 pg/ml, p = 0.05, respectively). Increased serum levels of IL-6 and IL-10 were associated with higher adverse events rates at follow-up (Log-Rank p<0.001, <0.05, hazard ratio 8.6, 5.1, respectively) and mortality rates (Log-Rank p <0.001, p<0.05, hazard ratio 20.8, 7.1, respectively). Subjects with both increased IL-6 and IL-10 levels were characterized by an increased risk of adverse events when compared to subjects with only IL-6 or IL-10 increased levels or with values below cutoff values (Log-Rank p<0.01 for any event, <0.001 for death; hazard ratio 1.20 for any event, 1.31 for death), even after correction for age, LVEF and NTproBNP levels in multivariable Cox analysis."

According to the news reporters, the research concluded: "Serum IL-6 and IL-10 admission levels are associated with higher risk of adverse events during follow-up."

For more information on this research see: Serum interleukin 6 and 10 levels in Takotsubo cardiomyopathy: Increased admission levels may predict adverse events at follow-up. Atherosclerosis, 2016;254():28-34. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting N.D. Brunetti, University of Foggia, Foggia, Italy. Additional authors for this research include N. Tarantino, A. Ferraretti, R. Ieva, F. Musaico, F. Guastafierro, L. Di Martino, M. Di Biase and N.D. Brunetti.

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Keywords for this news article include: Foggia, Italy, Europe, Intercellular Signaling Peptides and Proteins, Risk and Prevention, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Left Ventricular Dysfunction, Takotsubo Cardiomyopathy, Cardiomyopathies, Interleukin-6, Heart Disease, Interleukins, Cytokines, University of Foggia.
New Takotsubo Cardiomyopathy Study Results from DZHK German Center for Cardiovascular Research Described (Management of arrhythmias in patients with Takotsubo cardiomyopathy: Is the implantation of permanent devices necessary?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Takotsubo Cardiomyopathy is now available. According to news reporting from Lubeck, Germany, by NewsRx journalists, research stated, "Arrhythmias are frequent in Takotsubo cardiomyopathy (TTC) and a major determinant of outcome. The purpose of this study was to provide a rationale for management strategies, particularly for permanent device implantation given the reversible nature of TTC."

The news correspondents obtained a quote from the research from DZHK German Center for Cardiovascular Research, "Treatment strategies of arrhythmias including ventricular fibrillation (VF), ventricular tachycardia (VT), asystole, pulse less electrical activity, and complete atrioventricular (AV) or sinoatrial block were assessed in a bicentric cohort of consecutive patients with TTC (n = 286) with a mean follow-up period of 3.3 +/- 2.4 years. The prevalence of arrhythmias during the acute phase of TTC was 12.2% (n = 35), consisting predominantly of VT (n = 16 [5.6%]), VF (n = 7 [2.4%]), and complete AV block (n = 8 [2.8%]). Seven patients received a permanent pacemaker because of complete AV (n = 6) or sinoatrial (n = 1) block. Regular device checkups were available in 2 patients and demonstrated ongoing high-degree AV block despite recovery of left ventricular function. Three patients with transient bradyarrhythmias who did not receive devices died shortly after hospital discharge from unknown causes. One patient received an implantable cardioverter-defibrillator after resuscitation for VF and did not require device interventions during 2-year follow-up. Patients with polymorphic VT (n = 7), monomorphic VT (n = 6), or VF (n = 2) who were discharged from hospital survived or died of noncardiac reasons, with the cause of death remaining unclear in 1 patient with monomorphic sustained VT. Our data suggest that bradyarrhythmias in the acute setting of TTC may require permanent pacemaker implantation."

According to the news reporters, the research concluded: "In contrast, polymorphic ventricular arrhythmias might be managed with a temporary approach (eg, wearable cardioverter-defibrillators) until recovery of repolarization time and left ventricular function."


Our news journalists report that additional information may be obtained by contacting I. Eitel, German Center Cardiovasc Res DZHK, Lubeck, Germany. Additional authors for this research include K.P. Rommel, C. Eitel, C. Moller, T. Graf, S. Desch, H. Thiele and I. Eitel.

The direct object identifier (DOI) for that additional information is:
New Tay-Sachs Disease Study Findings Have Been Reported by Researchers at University of Pennsylvania (Tay-Sachs disease mutations in HEXA target the alpha chain of hexosaminidase A to endoplasmic reticulum-associated degradation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Tay-Sachs Disease. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Loss of function of the enzyme beta-hexosaminidase A (HexA) causes the lysosomal storage disorder Tay-Sachs disease (TSD). It has been proposed that mutations in the alpha chain of HexA can impair folding, enzyme assembly, and/or trafficking, yet there is surprisingly little known about the mechanisms of these potential routes of pathogenesis."

The news correspondents obtained a quote from the research from the University of Pennsylvania, "We therefore investigated the biosynthesis and trafficking of TSD-associated HexA alpha mutants, seeking to identify relevant cellular quality control mechanisms. The alpha mutants E482K and G269S are defective in enzymatic activity, unprocessed by lysosomal proteases, and exhibit altered folding pathways compared with wild-type alpha. E482K is more severely misfolded than G269S, as observed by its aggregation and inability to associate with the HexA beta chain. Importantly, both mutants are retrotranslocated from the endoplasmic reticulum (ER) to the cytosol and are degraded by the proteasome, indicating that they are cleared via ER-associated degradation (ERAD). Leveraging these discoveries, we observed that manipulating the cellular folding environment or ERAD pathways can alter the kinetics of mutant alpha degradation. Additionally, growth of patient fibroblasts at a permissive temperature or with chemical chaperones increases cellular Hex activity by improving mutant alpha folding."

According to the news reporters, the research concluded: "Therefore modulation of the ER quality control systems may be a potential therapeutic route for improving some forms of TSD."

Our news journalists report that additional information may be obtained by contacting Y. Argon, University of Pennsylvania, Children's Hospital of Philadelphia, Dept. of Pathol & Lab Med, Philadelphia, PA 19104, United States. Additional authors for this research include Y. Iwamoto and Y. Argon.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Lysosomal Storage Diseases and Conditions, beta-N-Acetylhexosaminidases, Lipid Metabolism Disorders, Endoplasmic Reticulum, Enzymes and Coenzymes, Glycoside Hydrolases, Cellular Structures, Intracellular Space, GM2 Gangliosidoses, Tay-Sachs Disease, Hexosaminidase A, Sphingolipidoses, Hexosaminidases, Organelles, Cytoplasm, Genetics, University of Pennsylvania.

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Central Nervous System - Tegmentum Mesencephali

**New Tegmentum Mesencephali Study Findings Have Been Reported by Investigators at RIKEN (Isoforms of the Erythropoietin receptor in dopaminergic neurons of the Substantia Nigra)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Central Nervous System - Tegmentum Mesencephali is the subject of a report. According to news reporting from Kanagawa, Japan, by NewsRx journalists, research stated, "Erythropoietin receptor (EpoR) regulates erythrocytes differentiation in blood. In the brain, EpoR has been shown to protect several neuronal cell types from cell death, including the A9 dopaminergic neurons (DA) of the Substantia Nigra (SN)."

Funders for this research include Ministero dell'Istruzione, dell'Universita e della Ricerca, European Commission, Ministry of Education, Culture, Sports, Science, and Technology.

The news correspondents obtained a quote from the research from RIKEN, "These cells form the nigrostriatal pathway and are devoted to the control of postural reflexes and voluntary movements. Selective degeneration of A9 DA neurons leads to Parkinson's disease. By the use of nanoCAGE, a technology that allows the identification of Transcription Start Sites (TSSs) at a genome-wide level, we have described the promoter-level expression atlas of mouse A9 DA neurons purified with Laser Capture Microdissection (LCM). Here, we identify mRNA variants of the Erythropoietin Receptor (DA-EpoR) transcribed from alternative TSSs. Experimental validation and full-length cDNA cloning is integrated with gene expression analysis in the FANTOM5 database. In DA neurons, the EpoR gene encodes for a N-terminal truncated receptor. Based on STAT5 phosphorylation assays, we show that the new variant of N-terminally truncated EpoR acts as decoy when co-expressed with the full-length form. A similar isoform is also found in human."

According to the news reporters, the research concluded: "This work highlights new complexities in the regulation of Erythropoietin (EPO) signaling in the brain."

Oncology - Testicular Cancer

New Testicular Cancer Findings Reported from University of Turin (Baldness and testicular cancer: the EPSAM case-control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Testicular Cancer are presented in a new report. According to news reporting originating from Torino, Italy, by NewsRx correspondents, research stated, "The etiology of testicular cancer is largely unexplained. Research has mainly focused on prenatal exposures, especially to sex hormones, while less attention has been paid to exposures that may act also postnatally."

Financial supporters for this research include Piedmont Region, Universita degli Studi di Torino.

Our news editors obtained a quote from the research from the University of Turin, "As baldness has been previously associated with testicular cancer risk we focused on baldness and body hairiness, which are both associated with androgen activity. We used data of the Postnatal Exposures and Male Health (EPSAM) study, a case-control study on testicular cancer conducted in the Province of Turin, Italy, involving cases diagnosed between 1997 and 2008. Information was collected using mailed questionnaires. Analyses included 255 cases and 459 controls. We calculated ORs and 95% CIs to estimate testicular cancer risk among those who developed baldness and among those with body hairiness. We found an inverse association between testicular cancer and baldness (OR: 0.67, 95% CI: 0.46-0.98) and body hairiness (OR: 0.78, 95% CI: 0.53-1.16), although the latter had wider CIs. The inverse association between baldness and testicular cancer is consistent with the results from previous studies."

According to the news editors, the research concluded: "These results suggest that androgens activity may influence testicular cancer risk."

For more information on this research see: Baldness and testicular cancer: the EPSAM case-control study. Andrology, 2016;4(2):251-6.

The news editors report that additional information may be obtained by contacting G. Moirano, Cancer Epidemiology Unit-CERMS, Dept. of Medical Sciences, University of Turin and CPO-Piemonte, Torino, Italy. Additional authors for this research include D. Zugna, C.
Grasso, P. Lista, L. Ciuffreda, N. Segnan, F. Merletti and L. Richiardi.

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Keywords for this news article include: Italy, Torino, Europe, Alopecia, Oncology, Cancer Risk, Men's Health, Testicular Cancer, Risk and Prevention, Skin Diseases and Conditions, Testicular Diseases and Conditions.

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Tetracyclines

New Tetracyclines Study Findings Have Been Reported from Tehran University of Medical Sciences (Minocycline Attenuates Depressive-Like Behaviour Induced by Rat Model of Testicular Torsion: Involvement of Nitric Oxide Pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Tetracyclines. According to news originating from Tehran, Iran, by NewsRx correspondents, research stated, "Testicular torsion/detorsion (T/D) can induce depression in pre-and post-pubertal patients. This study was conducted to investigate the psychological impact of testicular torsion and mechanism underlying its depressive-like behaviour, as well as antidepressant-like activity of minocycline and possible involvement of nitric oxide (NO)/cyclic GMP pathway in this paradigm in male rats undergoing testicular T/D."

Our news journalists obtained a quote from the research from the Tehran University of Medical Sciences, "Unilateral T/D was performed in 36 male adult Wistar rats, and different doses of minocycline were injected alone or combined with N(o) -nitro-l-arginine methyl ester (l-NAME), non-specific NO synthase (NOS) inhibitor; aminoguanidine (AG), specific inducible NOS inhibitor; l-arginine, an NO precursor; and selective PDE5i, sildenafil. After assessment of locomotor activity in open-field test, immobility times were recorded in the forced swimming test (FST). Moreover, 30 days after testicular T/D, testicular venous testosterone and serum nitrite concentrations were measured. A correlation was observed between either a decrease in plasma testosterone or an increase in serum nitrite concentrations with prolongation in immobility time in the testicular T/D-operated rats FST. Minocycline (160 mg/kg) exerted the highest significant antidepressant-like effect in the operated rats in the FST (p <0.001). Furthermore, combination of subeffective doses of minocycline (80 mg/kg) and either l-NAME (10 mg/kg) or AG (50 mg/kg) demonstrated a significant robust antidepressant-like activity in T/D group (p <0.01). Consequently, NO/cGMP pathway was involved in testicular T/D-induced depressive-like behaviour and antidepressant-like activity of minocycline in the animal model."

According to the news editors, the research concluded: "Moreover, a contribution was observed between either decreased testosterone or elevated serum nitrite levels and depressive-like behaviour following testicular T/D."

For more information on this research see: Minocycline Attenuates Depressive-Like Behaviour Induced by Rat Model of Testicular Torsion: Involvement of Nitric Oxide Pathway. Basic & Clinical Pharmacology & Toxicology, 2015;118(4):249-58. (Wiley-Blackwell - www.wiley.com/; Basic & Clinical Pharmacology & Toxicology -
The news correspondents report that additional information may be obtained from S.S. Saravi, Dept. of Pharmacology, School of Medicine, Tehran University of Medical Sciences, Tehran, Iran. Additional authors for this research include S.E. Mousavi, S.S. Saravi and A.R Dehpour.

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Keywords for this news article include: Iran, Asia, Tehran, Chemicals, Minocycline, Nitric Oxide, Tetracyclines, Nitrogen Oxides, Reactive Nitrogen Species.

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Heart Disorders and Diseases - Tetralogy of Fallot

New Tetralogy of Fallot Study Results Reported from Children's Hospital (Assessment of Microvolt T Wave Alternans in Children with Repaired Tetralogy of Fallot during 24-Hour Holter Electrocardiography)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Tetralogy of Fallot have been published. According to news reporting originating from Izmir, Turkey, by NewsRx correspondents, research stated, "We aimed to examine microvolt T wave alternans (MTWA) in 24-hour Holter electrocardiography (ECG) of children with repaired tetralogy of Fallot (TOF) to assess associations of MTWA with ventricular arrhythmias, ECG parameters, and echocardiographic findings. Holter ECG records and archive files of 56 repaired TOF patients (62.5% male) who were analyzed retrospectively."

Our news editors obtained a quote from the research from Children's Hospital, "Subjects' ECG parameters and MTWA values were compared with age-sex-matched control group. T wave changes were analyzed by time-domain-modified moving average method from the three channels of 24-hour Holter ECG. Mean age was 123.4 +/- 48.3 months. Median MTWA value was 55.5 mu V in the control group, whereas 95.5 mu V in patients group (P < 0.001). A significant weak positive correlation was found between the presence of ventricular extrasystoles and tricuspid regurgitation. There was no correlation between ECG parameters, echocardiographic findings, and MTWA. MTWA was increased in children with repaired TOF as reported before."

According to the news editors, the research concluded: "To our knowledge, this is the first study analyzing MTWA with 24-hour Holter ECG in repaired TOF patients."


The news editors report that additional information may be obtained by contacting O. Doksoz, Izmir Dr Behcet Uz Childrens Hosp, Dept. of Pediat Cardiol, Izmir, Turkey. Additional authors for this research include T. Mese, U. Karaarslan, G. Ceylan, S. Demirpence, V. Tavli
New Therapeutic Drug Monitoring Data Have Been Reported by M.D.R. Fernandez and Co-Authors (Determination of Antidepressants in Hair via UHPLC-MS/MS as a Complementary Informative Tool for Clinical and Forensic Toxicological Assessments)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Therapeutic Drug Monitoring. According to news reporting from Brussels, Belgium, by NewsRx journalists, research stated, "Hair analysis is a complementary approach for the detection of antidepressants (ADs) in clinical and forensic schemes because it yields a picture of long-term exposure over a time window depending on the length of the hair. A fast and sensitive ultra-high performance liquid chromatography tandem mass spectrometry method using a BEH C18 column with a mobile phase consisting of ammonium acetate/acetonitrile was developed and validated according to international guidelines for the simultaneous analysis of 24 ADs in hair."

The news correspondents obtained a quote from the research, "Methanol/acetonitrile/ammonium formate buffer 1 mmol/L (25: 25:50, vol/vol/vol) was used to extract the drugs from the hair matrix before a solid-phase extraction using cation exchange cartridges was applied. Hair samples (n = 18) obtained from a US workplace drug testing center were analyzed to demonstrate the method applicability. The limit of quantification values ranged from 0.006 to 0.05 ng/mg hair, and the calibration curves ranged from the LOQ up to 10 ng/mg hair. The bias and imprecision were,15% for all the compounds except maprotiline (17%). This was evaluated with 2 'in-house' QCs and 1 authentic hair sample from an amitriptyline user. No significant matrix effects for most of the compounds were observed, and the extraction efficiency of the sample cleanup procedure ranged from 40% to 80% (relative standard deviation,15%) [except for demethylcitalopram, didemethylcitalopram, and trazodone (relative standard deviation,33%)]. The method was then successfully applied to the analysis of hair samples from workplace drug testing. The samples were analyzed in 1-cm segments to determine the medication history of the patient. When a sample was reported positive, information concerning the prescription was obtained anonymously for several samples. Concentrations of (minimum-maximum value in ng/mg) citalopram (0.01-132: extrapolated), trazodone (0.01-5.3), sertraline (0.05-0.1), paroxetine (0.02-1.0), bupropion (0.05-0.6), fluoxetine (0.5-8), and amitriptyline (0.2-4.8), including metabolites, are reported."

According to the news reporters, the research concluded: "This study may be of interest to clinical and forensic laboratories for interpretation because it demonstrates the AD concentration windows in hair and the link to the prescribed drugs."

For more information on this research see: Determination of Antidepressants in Hair via UHPLC-MS/MS as a Complementary Informative Tool for Clinical and Forensic Toxicological Assessments. *Therapeutic Drug Monitoring*, 2016;38(6):751-760. *Therapeutic
**New Therapeutics Findings from Nagoya City University Discussed**

(Whole-pelvic radiotherapy with spot-scanning proton beams for uterine cervical cancer: a planning study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Therapeutics is now available. According to news reporting originating in Nagoya, Japan, by NewsRx journalists, research stated, "The aim of this study was to compare the dosimetric parameters of whole-pelvic radiotherapy (WPRT) for cervical cancer among plans involving 3D conformal radiotherapy (3D-CRT), intensity-modulated radiotherapy (IMRT), or spot-scanning proton therapy (SSPT). The dose distributions of 3D-CRT-, IMRT-, and SSPT-based WPRT plans were compared in 10 patients with cervical cancer."

The news reporters obtained a quote from the research from Nagoya City University, "All of the patients were treated with a prescribed dose of 50.4 Gy in 1.8-Gy daily fractions, and all of the plans involved the same planning target volume (PTV) constrictions. A 3D-CRT plan involving a four-field box, an IMRT plan involving seven coplanar fields, and an SSPT plan involving four fields were created. The median PTV D95% did not differ between the 3D-CRT, IMRT and SSPT plans. The median conformity index 95% and homogeneity index of the IMRT and SSPT were better than those of the 3D-CRT. The homogeneity index of the SSPT was better than that of the IMRT. SSPT resulted in lower median V20 values for the bladder wall, small intestine, colon, bilateral femoral heads, skin, and pelvic bone than IMRT. Comparing the Dmean values, SSPT spared the small intestine, colon, bilateral femoral heads, skin and pelvic bone to a greater extent than the other modalities. SSPT can reduce the irradiated volume of the organs at risk compared with 3D-CRT and IMRT, while maintaining excellent PTV coverage."

According to the news reporters, the research concluded: "Further investigations of SSPT are warranted to assess its role in the treatment of cervical cancer."


Our news correspondents report that additional information may be obtained by
contacting S. Hashimoto, Nagoya City University, Dept. of Radiol, Grad Sch Med Sci, Mizuho Ku, Nagoya, Aichi 4678601, Japan. Additional authors for this research include Y. Shibamoto, H. Iwata, H. Ogino, H. Shibata, T. Toshito, C. Sugie and J. Mizoe.

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Keywords for this news article include: Nagoya, Japan, Asia, Therapeutics, Bone Research, Radiotherapy, Oncology, Therapy, Cancer, Nagoya City University.

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Therapeutics

New Therapeutics Findings from National Institute of Mental Health Described (Concise Review: Progress and Challenges in Using Human Stem Cells for Biological and Therapeutics Discovery: Neuropsychiatric Disorders)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Therapeutics are presented in a new report. According to news reporting out of Bethesda, Maryland, by NewsRx editors, the research stated, "In facing the daunting challenge of using human embryonic and induced pluripotent stem cells to study complex neural circuit disorders such as schizophrenia, mood and anxiety disorders, and autism spectrum disorders, a 2012 National Institute of Mental Health workshop produced a set of recommendations to advance basic research and engage industry in cell-based studies of neuropsychiatric disorders. This review describes progress in meeting these recommendations, including the development of novel tools, strides in recapitulating relevant cell and tissue types, insights into the genetic basis of these disorders that permit integration of risk-associated gene regulatory networks with cell/circuit phenotypes, and promising findings of patient-control differences using cell-based assays."

Our news journalists obtained a quote from the research from the National Institute of Mental Health, "However, numerous challenges are still being addressed, requiring further technological development, approaches to resolve disease heterogeneity, and collaborative structures for investigators of different disciplines. Additionally, since data obtained so far is on small sample sizes, replication in larger sample sets is needed."

According to the news editors, the research concluded: "A number of individual success stories point to a path forward in developing assays to translate discovery science to therapeutics development."


Our news journalists report that additional information may be obtained by contacting D.M. Panchision, Division of Neuroscience and Basic Behavioral Science, National Institute of Mental Health, Bethesda, Maryland, United States.

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either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, Genetics, Therapeutics, United States, Mental Health, Article Review, Stem Cell Research, North and Central America, Neuropsychiatric Disorder.

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**New Thrombolysis Findings Reported from Department of Neurology**

**New Thrombolysis Findings Reported from Department of Neurology [Stroke Thrombolysis in a Centralized and a Decentralized System (Helsinki and Telemedical Project for Integrative Stroke Care Network)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Thrombolysis is the subject of a report. According to news reporting out of Munich, Germany, by NewsRx editors, research stated, "Intravenous thrombolysis with tissue-type plasminogen activator (tPA) for acute ischemic stroke is more effective when delivered early. Timely delivery is challenging particularly in rural areas with long distances."

Our news journalists obtained a quote from the research from the Department of Neurology, "We compared delays and treatment rates of a large, decentralized telemedicine-based system and a well-organized, large, centralized single-hospital system. We analyzed the centralized system of the Helsinki University Central Hospital (Helsinki and Province of Uusimaa, Finland, 1.56 million inhabitants, 9096 km(2)) and the decentralized TeleStroke Unit network in a predominantly rural area (Telemedical Project for Integrative Stroke Care [TEMPiS], South-East Bavaria, Germany, 1.94 million inhabitants, 14 992 km(2)). All consecutive tPA treatments were prospectively registered. We compared tPA rates per total ischemic stroke admissions in the Helsinki and TEMPiS catchment areas. For delay comparisons, we excluded patients with basilar artery occlusions, in-hospital strokes, and those being treated after 270 minutes. From January 1, 2011, to December 31, 2013, 912 patients received tPA in Helsinki University Central Hospital and 1779 in TEMPiS hospitals. Area-based tPA rates were equal (13.0% of 7017 ischemic strokes in the Helsinki University Central Hospital area versus 13.3% of 14637 ischemic strokes in the TEMPiS area; P= 0.078). Median prehospital delays were longer (88; interquartile range, 60-135 versus 65; 48-101 minutes; P< 0.001) but in-hospital delays were shorter (18; interquartile range, 13-30 versus 39; 26-56 minutes; P< 0.001) in Helsinki University Central Hospital compared with TEMPiS with no difference in overall delays (117; interquartile range, 81-168 versus 115; 87-155 minutes; P= 0.45)."

According to the news editors, the research concluded: "A decentralized telestroke thrombolysis service can achieve similar treatment rates and time delays for a rural population as a centralized system can achieve for an urban population."

For more information on this research see: Stroke Thrombolysis in a Centralized and a Decentralized System (Helsinki and Telemedical Project for Integrative Stroke Care Network). *Stroke*, 2016;47(12):2999-3004. *Stroke* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Stroke - stroke.ahajournals.org/)

Our news journalists report that additional information may be obtained by
contacting G.J. Hubert, Stadt Klinikum Munchen GmbH, Klinikum Harlaching, Dept. of Neurol, D-81545 Munich, Germany. Additional authors for this research include A. Meretoja, H.J. Audebert, T. Tatlisumak, F. Zeman, S. Boy, R.L. Haberl, M. Kaste and P. Muller-Barna.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1161/STROKEAHA.116.014258. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munich, Germany, Europe, Thrombolysis, Hematology, Hospital, Department of Neurology.

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Thrombopoietin

New Thrombopoietin Findings Reported from Waseda University (Thrombopoietin induces production of nucleated thrombocytes from liver cells in Xenopus laevis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Thrombopoietin is the subject of a report. According to news reporting out of Wakamatsu, Japan, by NewsRx editors, research stated, "The development of mammalian megakaryocytes (MKs) and platelets, which are thought to be absent in non-mammals, is primarily regulated by the thrombopoietin (TPO)/Mpl system. Although non-mammals possess nucleated thrombocytes instead of platelets, the features of nucleated thrombocyte progenitors remain to be clarified."

Our news journalists obtained a quote from the research from Waseda University, "Here, we provide the general features of TPO using Xenopus laevis TPO (xLTPO). Hepatic and splenic cells were cultured in liquid suspension with recombinant xLTPO. These cells differentiated into large, round, polyploid CD41-expressing cells and were classified as X. laevis MKs, comparable to mammalian MKs. The subsequent culture of MKs after removal of xLTPO produced mature, spindle-shaped thrombocytes that were activated by thrombin, thereby altering their morphology. xLTPO induced MKs in cultured hepatic cells for at least three weeks; however, this was not observed in splenic cells; this result demonstrates the origin of early haematopoietic progenitors in the liver rather than the spleen. Additionally, xLTPO enhanced viability of peripheral thrombocytes, indicating the xLTPO-Mpl pathway stimulates anti-apoptotic in peripheral thrombocytes. The development of thrombocytes from MKs via the TPO-Mpl system in X. laevis plays a crucial role in their development from MKs, comparable to mammalian thrombopoiesis."

According to the news editors, the research concluded: "Thus, our results offer insight into the cellular evolution of platelets/MKs in vertebrates."

For more information on this research see: Thrombopoietin induces production of nucleated thrombocytes from liver cells in Xenopus laevis. Scientific Reports, 2015;5():18519. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting Y. Tanizaki, Dept. of Biology, Faculty of Education and Integrated Arts and Sciences, Waseda University, 2-2 Wakamatsu, Shinjuku, Tokyo, 162-8480, Japan. Additional authors for this research include M. Ichisugi, M. Obuchi-Shimoji, T. Ishida-Iwata, A. Tahara-Mogi, M. Meguro-Ishikawa and T. Kato.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18519. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Wakamatsu, Cytokines, Hematology, Glycoproteins, Thrombopoietin, Biological Factors, Colony Stimulating Factors, Intercellular Signaling Peptides and Proteins.

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Cardiovascular Diseases and Conditions - Thrombosis

New Thrombosis Findings from Brigham and Women's Hospital Discussed (Thrombosis, Hypercoagulable States, and Anticoagulants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Thrombosis are presented in a new report. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Patients with derangements of secondary hemostasis resulting from inherited or acquired thrombophilias are at increased risk of venous thromboemboli (VTE)."

The news correspondents obtained a quote from the research from Brigham and Women's Hospital, "Evaluation of a patient with suspected VTE proceeds via evidence-based algorithms that involve computing a pretest probability based on the history and physical examination; this guides subsequent work-up, which can include D dimer and/or imaging. Testing for hyper-coagulable disorders should be pursued only in patients with VTE with an increased risk for an underlying thrombophilia."

According to the news reporters, the research concluded: "Direct oral anticoagulants are first-line VTE therapies, but they should be avoided in patients who are pregnant, have active cancer, antiphospholipid antibody syndrome, severe renal insufficiency, or prosthetic heart valves."

For more information on this research see: Thrombosis, Hypercoagulable States, and Anticoagulants. Primary Care, 2016;43(4):619-635,CP6. Primary Care can be contacted at: W B Saunders Co-Elsevier Inc, 1600 John F Kennedy Boulevard, Ste 1800, Philadelphia, PA 19103-2899, USA. (Elsevier - www.elsevier.com; Primary Care - www.journals.elsevier.com/primary-care-diabetes/)

Our news journalists report that additional information may be obtained by contacting E.M. Battinelli, Brigham & Women's Hospital, Div Hematol, Boston, MA 02115, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pop.2016.07.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Brigham and Women's Hospital.

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New Thrombosis Study Findings Have Been Reported by Researchers at Second Affiliated Hospital (Extensive blooming artifact predicts no recanalization after intravenous thrombolysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Thrombosis have been published. According to news reporting originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "Hemosiderin exhibits a stronger T2 shortening effect than deoxyhemoglobin. The extent of the 'blooming artifact' may therefore reflect a composition of different iron forms."

Financial supporters for this research include Science Technology Department of Zhejiang Province, National Natural Science Foundation of China.

Our news editors obtained a quote from the research from Second Affiliated Hospital, "Our aim was to investigate the relationship between extent of susceptibility vessel sign (SVS) width beyond the lumen and middle cerebral artery (MCA) recanalization. Clinical and imaging data from consecutive acute ischaemic stroke patients with MCA occlusion who underwent susceptibility-weighted imaging (SWI) before intravenous thrombolysis were examined. The source images of magnitude and angiography were used to obtain the width of SVS and MCA at the interface, respectively. The presence of MCA SVS was observed in 64 patients on initial SWI scans and recanalization was observed in 30 (46.9%) patients. The overestimation ratio of thrombus width on SWI was an acceptable predictor for no recanalization [odds ratio 1.360 per 0.1; 95% confidence interval (CI) 1.093-1.691; p=0.006]. The optimal cut-off point was identified at 1.943, and this yielded a sensitivity of 67.6% and a specificity of 86.7%. Extensive blooming artifact, defined as overestimation ratio (>=)2, independently predicted no recanalization (odds ratio 9.687, 95% CI 1.974-47.545; p=0.005) and unfavorable outcome (odds ratio 4.916, 95% CI 1.049-23.051; p=0.043). The extent of SVS width beyond the lumen might reflect the content of hemosiderin."

According to the news editors, the research concluded: "An extreme overestimation ratio might indicate aged thrombus, which may be resistant to thrombolysis."


The news editors report that additional information may be obtained by contacting S. Yan, Dept. of Neurology, School of Medicine, Second Affiliated Hospital of Zhejiang University, Hangzhou, People's Republic of China. Additional authors for this research include Q. Chen, X. Zhang, M. Xu, Q. Han, A. Shao, D.S. Liebeskind and M. Lou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.12930. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Hangzhou, Hematology, Thrombosis, Thrombolysis, People's Republic of China, Cardiovascular Diseases and Conditions.

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New Thrombosis Study Findings Recently Were Reported by Researchers at Juntendo University (A Case Report of Severe Hepatic Artery Vasospasm Induced by Hepatic Arterial Buffer Response After Liver Transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Thrombosis are presented in a new report. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "The management of severe hepatic artery vasospasm soon after liver transplantation (LT) is challenging because it can lead to hepatic artery thrombosis and subsequent graft failure. A 61-year-old man with hepatitis C cirrhosis and portal vein thrombosis received a deceased donor LT."

Our news editors obtained a quote from the research from Juntendo University, "On postoperative day 1, Doppler ultrasonography revealed a high resistance waveform in the hepatic artery. Angiography showed severe vasospasm of the donor hepatic artery on postoperative day 3. Strong hepatic arterial buffer response (HABR) was considered for this etiology due to high portal vein velocity. Therefore, vasodilators, including nitroglycerin and prostaglandin E1, were initiated. The waveform of the hepatic artery vasospasm gradually improved as portal vein velocity decreased by Doppler ultrasonography within 7 days after LT."

According to the news editors, the research concluded: "Hepatic arterial buffer response can induce hepatic artery vasospasm immediately after LT. This vasospasm type may be managed conservatively with a positive outcome."


The news editors report that additional information may be obtained by contacting K. Uchida, Juntendo University, Sch Med, Atop Res Center, Tokyo, Japan. Additional authors for this research include K. Uchida, S. Nishida, D.M. Levi, G. Selvaggi, A. Tekin, J. Fan, T. Froud and A.G. Tzakis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.05.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Hepatic Artery, Portal Vein, Hematology, Angiology, Juntendo University.

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Cardiovascular Diseases and Conditions - Thrombosis

New Thrombosis Study Results from School of Medicine Described (Sinus thrombectomy for purulent cerebral venous sinus thrombosis utilizing a novel combination of the Trevo stent retriever and the Penumbra ACE aspiration catheter: the stent anchor with mobile aspiration technique)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Thrombosis. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Intracranial complications of sinusitis are rare but life threatening. We present a case of a 17-year-old woman with sinusitis who deteriorated over the course of 12 days from subdural empyema and global purulent cerebral venous sinus thrombosis."

Our news journalists obtained a quote from the research from the School of Medicine, "The patient was managed with surgery and mechanical thrombectomy utilizing a novel 'stent anchor with mobile aspiration technique', in which a Trevo stent retriever (Stryker) was anchored in the superior sagittal sinus (SSS) while a 5 MAX ACE reperfusion catheter (Penumbra) was passed back and forth from the SSS to the sigmoid sinus with resultant dramatic improvement in venous outflow. The patient was extubated on postoperative day 3 and was discharged with minimal lower extremity weakness on postoperative day 11. This is the first report using the Trevo stent retriever for sinus thrombosis."

According to the news editors, the research concluded: "It is important to keep these rare complications in mind when evaluating patients with oral and facial infections."


The news correspondents report that additional information may be obtained from J. Mocco, Icahn Sch Med Mt Sinai, Dept. of Neurosurg, New York, NY 10029, United States. Additional authors for this research include M. Pain, H.K. Zarzour, P. Baxter, S. Ghatan and J. Mocco.

Keywords for this news article include: New York City, New York, United States, North and Central America, Respiratory Tract Diseases and Conditions, Paranasal Sinus Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Nose Diseases and Conditions, Respiratory Tract Infections, Embolism and Thrombosis, Otolaryngology, Thrombectomy, Hematology, Sinusitis, Surgery, School of Medicine.

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Thrombotic Microangiopathy

New Thrombotic Microangiopathy Findings Has Been Reported by Investigators at French National Institute of Health and Medical Research (INSERM) (Collapsing glomerulopathy is common in the setting of thrombotic microangiopathy of the native ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Thrombotic Microangiopathy is the subject of a report. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "Thrombotic microangiopathy (TMA) is a poorly recognized cause of collapsing glomerulopathy. The frequency and significance of collapsing glomerulopathy associated with renal TMA have not been specifically studied in native kidney biopsy specimens."

Our news editors obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "Here we retrospectively documented clinicopathologic features of 53 patients with histologically proven TMA in the native kidney, with special emphasis on changes due to focal segmental glomerulosclerosis (FSGS). Histological TMA was related to hypertensive nephropathy in 21 patients, genetic complement abnormalities in 9, drugs in 7, and to other causes in 16 patients. Almost half (26 patients) presented with arteriolar, 6 with glomerular, and 21 with mixed TMA. Using the Columbia classification system for the 53 patients with histological TMA, 33 had concurrent FSGS lesions with collapsing glomerulopathy the dominant variant in 19 patients (58% of the FSGS cases), not otherwise specified in 9 patients, cellular in 3, and perihilar or tip lesions in 1 patient each. The presence of FSGS was associated with a poor renal prognosis, with no prognostic difference between collapsing glomerulopathy and other FSGS variants."

According to the news editors, the research concluded: "Thus, collapsing glomerulopathy is frequently found in native kidney biopsies with TMA, suggesting that endothelial injury may play an important role in the pathophysiology of FSGS."


The news editors report that additional information may be obtained by contacting D. Buob, INSERM, UMR S 1155, Paris, France. Additional authors for this research include M. Decambron, V. Gnmemi, M. Frimat, M. Hoffmann, R. Azar, J.D. Gheerbrant, T. Guincestre, C. Noel, M.C. Copin and F. Glowacki.

Keywords for this news article include: Paris, France, Europe, Thrombotic Microangiopathy, Medical Devices, Genetics, French National Institute of Health and Medical Research (INSERM).

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Lymphatic Diseases and Conditions - Thymoma

New Thymoma Study Findings Have Been Reported by Researchers at Yonsei University (Spontaneous rupture of hepatic metastasis from a thymoma: A case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lymphatic Diseases and Conditions - Thymoma. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Bleeding resulting from spontaneous rupture of the liver is an infrequent but potentially life threatening complication that may be associated with an underlying liver disease. A hepatocellular carcinoma or hepatic adenoma is frequently reported is such cases."

Our news editors obtained a quote from the research from Yonsei University, "However, hemoperitoneum resulting from a hepatic metastatic thymoma is extremely rare. Here, we present a case of a 62-year-old man with hypovolemic shock induced by ruptured hepatic metastasis from a thymoma. At the first hospital admission, the patient had a 45-mm anterior mediastinal mass that was eventually diagnosed as a type A thymoma. The mass was excised, and the patient was disease-free for 6 years. He experienced sudden-onset right upper quadrant pain and was again admitted to our hospital. We noted large hemoperitoneum with a 10-cm encapsulated mass in S5/8 and a 2.3-cm nodular lesion in the right upper quadrant of the abdomen."

According to the news editors, the research concluded: "He was diagnosed with hepatic metastasis from the thymoma, and he underwent chemotherapy and surgical excision."


The news editors report that additional information may be obtained by contacting J.Y. Park, Yonsei University, Coll Med, Dept. of Internal Med, Seoul 120752, South Korea. Additional authors for this research include Y.E. Park, M.S. Ki, S.J. Lee, S.H. Beom, D.H. Han, Y.N. Park and J.Y. Park.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i44.9860. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Hemoperitoneum, Diagnostics and Screening, Digestive System Diseases and Conditions, Peritoneal Diseases and Conditions, Lymphatic Diseases and Conditions, Thymus Neoplasms, Hospital, Thymoma, Yonsei University.

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New Thyroid Cancer Findings Reported from Department of Medical Oncology (Three cases of thyroid cancer following the diagnosis of testicular cancer: treatment-related complication or genetics?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Thyroid Cancer. According to news reporting originating in Glasgow, United Kingdom, by NewsRx journalists, research stated, "Large-scale epidemiological studies have shown that the incidence of second primary thyroid cancer in subjects diagnosed and treated for testicular cancer is raised. This finding is strongly associated to treatment with radiotherapy and/or chemotherapy and it is explained by their mutagenic effect."

The news reporters obtained a quote from the research from the Department of Medical Oncology, "On the other hand, inherited cancer susceptibility syndromes inducing both testicular and thyroid cancers denote that these tumours might share common genomic aberrations. We herein present our experience with three cases of metachronous development of thyroid cancer after diagnosis and treatment of testicular cancer in our tertiary cancer centre."

According to the news reporters, the research concluded: "Our case report contributes to the limited available literature on such findings and aims to raise awareness of the cancer physicians treating these particular tumour types."


Our news correspondents report that additional information may be obtained by contacting P. Spiliopoulou, Beatson West Scotland Canc Center, Dept. of Med Oncol, Glasgow, Lanark, United Kingdom. Additional authors for this research include S.P. Bowers, S. Gibson, J. White and N. Reed.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0036933016635409. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Glasgow, United Kingdom, Europe, Testicular Diseases and Conditions, Cancer, Epidemiology, Testicular Cancer, Thyroid Neoplasms, Thyroid Cancer, Oncology, Genetics, Department of Medical Oncology.

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to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Familial non-medullary thyroid cancer (FNMT) constitutes 3-9% of all thyroid cancers. Out of all FNMT cases, only 5% in the syndromic form has well-studied driver germline mutations."

Our news editors obtained a quote from the research, "These associated syndromes include Cowden syndrome, familial adenomatous polyposis, Gardner syndrome, Carney complex type 1, Werner syndrome and DICER1 syndrome. It is important for the clinician to recognize these phenotypes so that genetic counseling and testing can be initiated to enable surveillance for associated malignancies and genetic testing of family members. The susceptibility chromosomal loci and genes of 95% of FNMT cases remain to be characterized. To date, 4 susceptibility genes have been identified (SRGAP1 gene (12q14), TITF-1/NKX2.1 gene (14q13), FOXE1 gene (9q22.33) and HABP2 gene (10q25.3)), out of which only the FOXE1 and the HABP2 genes have been validated by separate study groups. The causal genes located at the other 7 FNMT-associated chromosomal loci (TCO (19q13.2), fPTC/PRN (7q21), FTEN (8p23.1-p22), NMTC1 (9q21), MNG1 (14q32), 6q22, 8q24) have yet to be identified. Increasingly, gene regulatory mechanisms (miRNA and enhancer elements) are recognized to affect gene expression and FNMT tumorigenesis. With newer sequencing technique, along with functional studies, there has been progress in the understanding of the genetic basis of FNMT."

According to the news editors, the research concluded: "In our review, we summarize the FNMT studies to date and provide an update on the recently reported susceptibility genes including novel germline SEC23B variant in Cowden syndrome, SRGAP1 gene, FOXE1 gene and HABP2 genes in non-syndromic FNMT."

For more information on this research see: Familial non-medullary thyroid cancer: unraveling the genetic maze. *Endocrine-Related Cancer*, 2016;23(12):R577-R595. *Endocrine-Related Cancer* can be contacted at: Bioscientifica Ltd, Euro House, 22 Apex Court Woodlands, Bradley Stoke, Bristol BS32 4JT, England.

The news editors report that additional information may be obtained by contacting J. Ngeow, Duke NUS Med Sch, Oncol Academy Clin Program, Singapore, Singapore.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1530/ERC-16-0067. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Singapore, Singapore, Asia, Cancer, Article Review, Diagnostics and Screening, Epidemiology, Genetics, Medullary Thyroid Cancer, Thyroid Neoplasms, Oncology.

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in a new report. According to news reporting out of Bhubaneswar, India, by NewsRx editors, research stated, "Wound, burn and tissue related diseases are the most common and devastating forms of trauma worldwide and thousands are still dying each year when they are left untreated. The traditional treatments for wound infection using medicinal plant extracts in hydrogels and ointment formulations have several disadvantages, delicate shape and dry up quickly upon exposure to air."

Our news journalists obtained a quote from the research, "Indeed, there is need for the development of an alternative form of dressing material for wound healing applications. Because the medicinal plant products are economical, researchers have adopted a novel approach of complexing the active components of plants with various groups of polymers to develop biodegradable fabrications. Moreover, fabricated constructs are very extremely useful as scaffold in tissue regeneration with known successes in wound healing/dressing applications that the fabricated substitutes mimic the extracellular matrix of tissue. In this review, we give an extensive overview on scientifically evaluated bioactive molecules of medicinal plants as well as plant extract blended polymeric constructs for the possible treatment of various skin injuries."

According to the news editors, the research concluded: "In addition, the technological challenges and future trends for recent developments of the treatments of wound infections are extensively summarized."


Our news journalists report that additional information may be obtained by contacting S.S. Behera, Govt Odisha, Dept. of Fisheries & Anim Resource Dev, Bhubaneswar, Odisha, India. Additional authors for this research include S.S. Behera, S. Singh, S.I. Rizvi and A.K. Singh.

Keywords for this news article include: Bhubaneswar, India, Asia, Tissue Engineering, Article Review, Biomedical Engineering, Tissue Regeneration, Bioengineering, Biotechnology, Biomedicine.

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Biomedical Engineering - Tissue Engineering

New Tissue Engineering Findings from H. Miyoshi and Colleagues Discussed (A Perturbation Analysis to Understand the Mechanism How Migrating Cells Sense and Respond to a Topography in the Extracellular Environment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biomedical Engineering - Tissue Engineering have been presented. According to news reporting originating from Hyogo, Japan, by NewsRx correspondents, research stated, "Migrating cells in vivo monitor the physiological state of an organism by integrating the physical as well as chemical cues in the extracellular microenvironment, and alter the migration mode, in order to achieve their unique function. The
clarification of the mechanism focusing on the topographical cues is important for basic biological research, and for biomedical engineering specifically to establish the design concept of tissue engineering scaffolds."

Our news editors obtained a quote from the research, "The aim of this study is to understand how cells sense and respond to the complex topographical cues in vivo by exploring in vitro analyses to complex in vivo situations in order to simplify the issue. Since the intracellular mechanical events at subcellular scales and the way of the coordination of these events are supposed to change in the migrating cells, a key to success of the analysis is a mechanical point of view with a particular focus of the subcellular mechanical events. We designed an experimental platform to explore the mechanical requirements in a migrating fibroma cell responding to micro-grooves. The micro-grooved structure is a model of gap structures, typically seen in the microenvironments in vivo. In our experiment, the contributions of actomyosin force generation can be spatially divided and analyzed in the cell center and peripheral regions."

According to the news editors, the research concluded: "The analysis specified that rapid leading edge protrusion, and the cell body translocation coordinated with the leading edge protrusion are required for the turning response at a micro-groove."


The news editors report that additional information may be obtained by contacting H. Miyoshi, AMED, PRIME, Chuo Ku, Kobe, Hyogo 6500047, Japan. Additional authors for this research include K. Suzuki, J. Ju, J.S. Ko, T. Adachi and Y. Yamagata.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2116/analsci.32.1207. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hyogo, Japan, Asia, Biomedical Engineering, Tissue Engineering, Biotechnology, Biomedicine, Genetics.

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Technology.

The news correspondents obtained a quote from the research from the School of Chemical Engineering, "Therapeutic agents, including chemotherapeutic agents, protein drugs or cells, are easily mixed with the low-viscous polymer solution at room temperature. Therapeutic-agents-containing solutions are readily injected into target sites through syringe or catheter, which could form hydrogel depot and serve as bioactive molecules release carriers. In particular, they are convenient for in vivo injection in a minimally invasive manner. Owing to their ease of handling, hydrogel scaffolds encapsulated with a wide array of therapeutic agents including growth factors, cells or fillers have been used in regeneration or filling of the defect area. Therefore, injectable hydrogels found a variety of biomedical applications, such as drug delivery and tissue engineering. Here, we summarize the chemical designs and recent developments of polysaccharide-based injectable hydrogels, giving a special attention to hydrogels prepared using amphiphilic polysaccharides for biomedical applications."

According to the news reporters, the research concluded: "Advantages and future perspectives of polysaccharide-based injectable hydrogels are highlighted."


Our news journalists report that additional information may be obtained by contacting D.S. Lee, Sungkyunkwan University Theranost Macromol Res Center, Sch Chem Engn, Suwon, South Korea. Additional authors for this research include V.H.G. Phan and D.S. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/marc.201600371. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Suwon, South Korea, Asia, Therapy, Article Review, Biomedical Engineering, Tissue Engineering, Bioengineering, Biotechnology, Biomedicine, School of Chemical Engineering.

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Biomedical Engineering - Tissue Engineering

New Tissue Engineering Study Findings Have Been Reported by Investigators at Yonsei University (Mussel Adhesion-Inspired Reverse Transfection Platform Enhances Osteogenic Differentiation and Bone Formation of Human Adipose-Derived Stem Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biomedical Engineering - Tissue Engineering is now available. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Using small interfering RNA (siRNA) to regulate gene expression is an emerging strategy for stem cell manipulation to improve stem cell therapy. However, conventional methods of siRNA delivery into stem cells based on solution-mediated transfection

...
are limited due to low transfection efficiency and insufficient duration of cell-siRNA contact during lengthy culturing protocols."

Funders for this research include Ministry of Science, ICT and Future Planning, Ministry of Health and Welfare.

The news correspondents obtained a quote from the research from Yonsei University. "To overcome these limitations, a bio-inspired polymer-mediated reverse transfection system is developed consisting of implantable poly(lactic-co-glycolic acid) (PLGA) scaffolds functionalized with siRNA-lipidoid nanoparticle (sLNP) complexes via polydopamine (pDA) coating. Immobilized sLNP complexes are stably maintained without any loss of siRNA on the pDA-coated scaffolds for 2 weeks, likely due to the formation of strong covalent bonds between amine groups of sLNP and catechol group of pDA. siRNA reverse transfection with the pDA-sLNP-PLGA system does not exhibit cytotoxicity and induces efficient silencing of an osteogenesis inhibitor gene in human adipose-derived stem cells (hADSCs), resulting in enhanced osteogenic differentiation of hADSCs. Finally, hADSCs osteogenically committed on the pDA-sLNP-PLGA scaffolds enhanced bone formation in a mouse model of critical-sized bone defect."

According to the news reporters, the research concluded: "Therefore, the bio-inspired reverse transfection system can provide an all-in-one platform for genetic modification, differentiation, and transplantation of stem cells, simultaneously enabling both stem cell manipulation and tissue engineering."


Our news journalists report that additional information may be obtained by contacting S.W. Cho, Yonsei University, Dept. of Biotechnol, Seoul 120749, South Korea. Additional authors for this research include J.H. Cho, Y. Jin, K. Yang, J.S. Lee, H.J. Park, H.S. Han, J. Lee, H. Jeon, H. Shin and S.W. Cho.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201601868. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Small Interference RNAs, Biomedical Engineering, Stem Cell Research, Tissue Engineering, Bioengineering, Bone Research, Biotechnology, Biomedicine, Genetics, siRNA, Yonsei University.

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**Toluene**

**New Toluene Findings from Kangwon National University Described (3D Visualization of Developmental Toxicity of 2,4,6-Trinitrotoluene in Zebrafish Embryogenesis Using Light-Sheet Microscopy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Toluene. According to news reporting
from Chunchon, South Korea, by NewsRx journalists, research stated, "Environmental contamination by trinitrotoluene is of global concern due to its widespread use in military ordnance and commercial explosives. Despite known long-term persistence in groundwater and soil, the toxicological profile of trinitrotoluene and other explosive wastes have not been systematically measured using in vivo biological assays."

The news correspondents obtained a quote from the research from Kangwon National University, "Zebrafish embryos are ideal model vertebrates for high-throughput toxicity screening and live in vivo imaging due to their small size and transparency during embryogenesis. Here, we used Single Plane Illumination Microscopy (SPIM)/light sheet microscopy to assess the developmental toxicity of explosive-contaminated water in zebrafish embryos and report 2,4,6-trinitrotoluene-associated developmental abnormalities, including defects in heart formation and circulation, in 3D. Levels of apoptotic cell death were higher in the actively developing tissues of trinitrotoluene-treated embryos than controls. Live 3D imaging of heart tube development at cellular resolution by light-sheet microscopy revealed trinitrotoluene-associated cardiac toxicity, including hypoplastic heart chamber formation and cardiac looping defects, while the real time PCR (polymerase chain reaction) quantitatively measured the molecular changes in the heart and blood development supporting the developmental defects at the molecular level."

According to the news reporters, the research concluded: "Identification of cellular toxicity in zebrafish using the state-of-the-art 3D imaging system could form the basis of a sensitive biosensor for environmental contaminants and be further valued by combining it with molecular analysis."

For more information on this research see: 3D Visualization of Developmental Toxicity of 2,4,6-Trinitrotoluene in Zebrafish Embryogenesis Using Light-Sheet Microscopy. International Journal of Molecular Sciences, 2016;17(11):2290-2303. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.


Keywords for this news article include: Chunchon, South Korea, Asia, Trinitrotoluene, Hydrocarbons, Cardiology, Kangwon National University.

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Kingdom, by NewsRx journalists, research stated, "The aim of this paper is to compare results from inhalation studies with those from intraperitoneal and intrapleural tests, where available, for a number of fibrous and particulate test materials. The objective is to determine how well intraperitoneal/intrapleural studies predict the pathological responses observed in more standard in vivo studies of pulmonary toxicity, with a particular focus on carcinogenicity."

Financial support for this research came from ECFIA.

The news reporters obtained a quote from the research from the University of Hertfordshire, "Published toxicity data was obtained for a number of materials including asbestos, wollastonite, MMVF (including glass fibres, stone wools and RCF), silicon carbide whiskers, potassium octatitanate, quartz, kevlar, polypropylene and titanium dioxide. For some of the fibrous material reviewed, there is conformity between the results of intraperitoneal and inhalation tests such that they are either consistently positive or consistently negative. For the remaining fibrous materials reviewed, intraperitoneal and inhalation tests give different results, with positive results in the intraperitoneal test not being reflected by positive inhalation results. It is suggested that the intraperitoneal test can be used to exonerate a dust or fibre (because if negative in the intraperitoneal test it is extremely unlikely to be positive in either inhalation or intratracheal tests) but should not be used to positively determine that a dust or fibre is carcinogenic by inhalation."

According to the news reporters, the research concluded: "We would argue against the use of intraperitoneal tests for human health risk assessment except perhaps for the purpose of exonerating a material from classification as a carcinogen."

For more information on this research see: A comparison of the results from intrapleural and intra-peritoneal studies with those from inhalation and intratracheal tests for the assessment of pulmonary responses to inhalable dusts and fibres. Regulatory Toxicology and Pharmacology, 2016;81():89-105. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting G. Drummond, University of Hertfordshire, Hatfield AL10 9AB, Herts, United Kingdom. Additional authors for this research include R. Bevan and P. Harrison.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.07.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Herts, United Kingdom, Europe, Toxicology and Pharmacology, Drugs and Therapies, Risk and Prevention, University of Hertfordshire.

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Drugs and Therapies - Toxicology and Pharmacology

New Toxicology and Pharmacology Findings from Incyte Discussed [Results from oral gavage carcinogenicity studies of ruxolitinib in Tg.rasH2 mice and Sprague-Dawley (Crl:CD) rats]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Toxicology and Pharmacology is
now available. According to news reporting originating in Wilmington, Delaware, by NewsRx journalists, research stated, "Ruxolitinib is a selective and potent inhibitor of Janus kinase (JAK) 1 and JAK2. It is approved for the treatment of patients with intermediate or high-risk myelofibrosis, or those with polycythemia vera who have had an inadequate response to or are intolerant of hydroxyurea."

Financial support for this research came from Incyte Corporation.

The news reporters obtained a quote from the research from Incyte, "To investigate its carcinogenic potential, ruxolitinib was administered by oral gavage once daily to Tg.rasH2 mice for 6 months at doses of 15, 45 or 125 mg/kg/day, and to Sprague-Dawley (Crl:CD) rats for 2 years at 10, 20 or 60 mg/kg/day. Ruxolitinib had no effect on survival, and did not increase the incidence of any neoplastic findings in either species. Exposure (AUC) was similar to or exceeded that associated with therapeutic use. Lymphoid depletion and a decrease in extramedullary hematopoiesis in the spleen occurred in rats, which were attributed to the pharmacologic activity of ruxolitinib. In Tg.rasH2 mice, increased inflammation in the nasal cavity was observed. Dose-dependent decreases in a number of spontaneous neoplastic/preneoplastic lesions were observed in rats, including mammary tumors in females, adrenal pheochromocytomas in males, hepatocellular adenomas/carcinomas in males, and hepatic basophilic (males and females) and eosinophilic (males) foci. Peribiliary fibrosis was also decreased. Clear cell foci in the liver were increased in females."

According to the news reporters, the research concluded: "Based on the results of these studies, ruxolitinib is not considered to be carcinogenic."

For more information on this research see: Results from oral gavage carcinogenicity studies of ruxolitinib in Tg.rasH2 mice and Sprague-Dawley (Crl:CD) rats. Regulatory Toxicology and Pharmacology, 2016;81():305-315. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting D.L. Shuey, Incyte Corp, Wilmington, DE 19803, United States. Additional authors for this research include J. Oliver, G.F. Zhou and A. Roberts.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.09.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wilmington, Delaware, United States, North and Central America, Toxicology and Pharmacology, Drugs and Therapies Incyte.

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Drugs and Therapies - Toxicology and Pharmacology

New Toxicology and Pharmacology Findings from Merck & Company Reported [Use of an in vitro human skin permeation assay to assess bioequivalence of two topical cream formulations containing butenafine hydrochloride (1%, w/w)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Toxicology and Pharmacology is
now available. According to news reporting originating in West Point, Pennsylvania, by NewsRx journalists, research stated, "The primary objective of this work was to investigate, using an in vitro human skin permeation study, whether changes in the excipients of butenafine hydrochloride cream would have any effect on bio-performance of the formulation. Such in vitro data would be a surrogate for any requirement of a bio-equivalence (BE) study to demonstrate formulation similarity."

The news reporters obtained a quote from the research from Merck & Company, "A LC-MS/MS method for quantitation of butenafine in various matrices was developed and validated. A pilot study was performed to validate the in vitro skin permeation methodology using three cream formulations containing butenafine hydrochloride at concentrations of 0.5, 1.0 and 1.5% (w/w). Finally, a definitive in vitro human skin permeation study was conducted, comparing the extent of butenafine hydrochloride permeation from the new formulation to that from the current formulation. The results of the study comparing the two formulations showed that there was no statistically significant difference in the extent of butenafine permeation into human skin."

According to the news reporters, the research concluded: "These in vitro data demonstrated that the formulation change is likely to have no significant impact on the bioperformance of 1% (w/w) butenafine hydrochloride cream."

For more information on this research see: Use of an in vitro human skin permeation assay to assess bioequivalence of two topical cream formulations containing butenafine hydrochloride (1%, w/w). Regulatory Toxicology and Pharmacology, 2016;82():14-19. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting A. Mitra, Merck & Co Inc, Pharmaceut Sci & Clin Supply, West Point, PA 19486, United States. Additional authors for this research include N. Kim, D. Spark, F. Toner, S. Craig, C. Roper and T.A. Meyer.

Keywords for this news article include: West Point, Pennsylvania, United States, North and Central America, Toxicology and Pharmacology, Drugs and Therapies, Merck & Company.

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Drugs and Therapies - Toxicology and Pharmacology

New Toxicology and Pharmacology Study Findings Recently Were Reported by N. Lin and Co-Researchers [Comparison of in vivo immunomodulatory effects of 5-hydroxymethylfurfural and 5, 5'-oxydimethylenebis (2-furfural)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Toxicology and Pharmacology are discussed in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "The standard of 5-Hydroxymethylfurfural (5-HMF) existed in dextrose injection as an inevitable by-product during high-temperature
setrilization has been included in pharmacopoeias considering its hazardous effects on human health. We found that the concentrations of 5-HMF in some traditional Chinese medicine injections (TCMIs) far exceeded its limit in dextrose injection."

The news correspondents obtained a quote from the research, "Besides, we detected 5, 5'-Oxydimethylenebis (2-furfural) (OMBF) in those TCMIs containing high concentrations of 5-HMF. We investigated the in vivo immunomodulatory effects of 5-HMF and OMBF at three dose levels using the reporter antigen popliteal lymph node assay (RA-PLNA), which allows the straightforward examination and mechanistic study of immunotoxicity of low molecular weight compounds. We found that 5-HMF increased the production of IgG(2a) and IFN-gamma when co-injected with TNP-OVA, indicating its capability of providing a co-stimulatory signal to evoke a typical type-1 immune response. Compared with the 5-HMF, OMBF elevated the production of IgG(1) IgG(2), IL-4 and IFN-gamma in response to both reporter antigens, suggesting that OMBF can act as a neo-antigen or neo-epitope to elicit a mixed type-1 and type-2 immune response."

According to the news reporters, the research concluded: "It indicates that both 5-HMF and OMBF have immunosensitizing potential with different mechanisms, and exposure to 5-HMF and OMBF may represent a safety concern for humans."

For more information on this research see: Comparison of in vivo immunomodulatory effects of 5-hydroxymethylfurfural and 5, 5'-oxydimethylenebis (2-furfural). Regulatory Toxicology and Pharmacology, 2016;81():500-511. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)


Keywords for this news article include: Beijing, People's Republic of China, Asia, Toxicology and Pharmacology, Drugs and Therapies.

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Respiratory Tract Diseases and Conditions - Tracheal…

New Tracheal Stenosis Study Findings Recently Were Reported by Researchers at University of Miami (Two lost airways and one unexpected problem: undiagnosed tracheal stenosis in a morbidly obese patient)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Respiratory Tract Diseases and Conditions - Tracheal Stenosis have been presented. According to news reporting out of Miami, Florida, by NewsRx editors, research stated, "Anesthetic care of the morbidly obese is complex due to anatomic and physiologic alterations. Airway management in particular can be challenging."

Our news journalists obtained a quote from the research from the University of Miami, "High body mass index is predictive of difficult ventilation and possibly difficult
intubation. Other airway anomalies, such as tracheal stenosis, add to the complexity of airway management. Tracheal stenosis, a form of central airway obstruction, may be challenging to diagnose, especially in the obese. Comorbidities can mask the diagnosis and routine imaging may fail to identify the pathology."

According to the news editors, the research concluded: "We present the case of a morbidly obese patient with 2 failed intubations due to difficult anatomy compounded with undiagnosed tracheal stenosis."


Our news journalists report that additional information may be obtained by contacting M.A. Cobas, University of Miami, Leonard Miller Sch Med, Dept. of Anesthesiol Perioperat Med & Pain Management, Miami, FL 33136, United States. Additional authors for this research include N.D. Martin and H.B. Barkin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.07.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Respiratory Tract Diseases and Conditions, Stenosis, Diagnostics and Screening, Tracheal Diseases and Conditions, Tracheal Stenosis, Bariatrics, Angioloogy, Obesity, University of Miami.

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**Proteins - Transcription Factors**

**New Transcription Factors Findings Has Been Reported by Investigators at University of Ljubljana [Transcription factor HIF1A: downstream targets, associated pathways, polymorphic hypoxia response element (HRE) sites, and initiative for ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Proteins - Transcription Factors. According to news originating from Ljubljana, Slovenia, by NewsRx correspondents, research stated, "Hypoxia-inducible factor-1 alpha (HIF-1 alpha) has crucial role in adapting cells to hypoxia through expression regulation of many genes. Identification of HIF-1 alpha target genes (HIF1 alpha-TGs) is important for understanding the adapting mechanism."

Financial support for this research came from Javna Agencija za Raziskovalno Dejavnost RS.

Our news journalists obtained a quote from the research from the University of Ljubljana, "The aim of the present study was to collect known HIF1 alpha-TGs and identify their associated pathways. Targets and associated genomics data were retrieved using PubMed, WoS (http://apps.webofknowledge.com/), HGNC (http://www.genenames.org/), NCBI (http://www.ncbi.nlm.nih.gov/), Ensemblv.84 (http://www.ensembl.org/index.html), DAVID
Bioinformatics Resources (https://david.ncifcrf.gov/), and Disease Ontology database (http://disease-ontology.org/). From 51 papers, we collected 98 HIF-1 alpha TGs found to be associated with 20 pathways, including metabolism of carbohydrates and pathways in cancer. Reanalysis of genomic coordinates of published HREs (hypoxia response elements) revealed six polymorphisms within HRE sites (HRESNPs): ABCG2, ACE, CA9, and CP. Due to large heterogeneity of results presentation in scientific literature, we also propose a first step towards reporting standardization of HIF-1 alpha-target interactions consisting of ten relevant data types. Suggested minimal checklist for reporting will enable faster development of a complete catalog of HIF-1 alpha-TGs, data sharing, bioinformatics analyses, and setting novel more targeted hypotheses.”

According to the news editors, the research concluded: "The proposed format for data standardization is not yet complete but presents a baseline for further optimization of the protocol with additional details, for example, regarding the experimental validation.”

For more information on this research see: Transcription factor HIF1A: downstream targets, associated pathways, polymorphic hypoxia response element (HRE) sites, and initiative for standardization of reporting in scientific literature. Tumor Biology, 2016;37(11):14851-14861. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news correspondents report that additional information may be obtained from T. Kunej, Univ Ljubljana, Dept. of Anim Sci, Biotech Fac, Ljubljana, Slovenia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5331-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ljubljana, Slovenia, Europe, Applied Bioinformatics, Transcription Factors, Genetics, Proteins, University of Ljubljana.

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**Nursing - Transcultural Nursing**

**New Transcultural Nursing Study Findings Have Been Reported from University of California (Aging, Genetic Variations, and Ethnopharmacology: Building Cultural Competence Through Awareness of Drug Responses in Ethnic Minority Elders)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nursing - Transcultural Nursing. According to news reporting from Los Angeles, California, by NewsRx journalists, research stated. "Unique drug responses that may result in adverse events are among the ethnocultural differences described by the Agency for Healthcare Research and Quality. These differences, often attributed to a lack of adherence on the part of the older adult, may be linked to genetic variations that influence drug responses in different ethnic groups."

The news correspondents obtained a quote from the research from the University of California, "The paucity of research coupled with a lack of knowledge among health care providers compound the problem, contributing to further disparities, especially in this era of personalized medicine and pharmacogenomics. This article examines how age-related changes
and genetic differences influence variations in drug responses among older adults in unique ethnocultural groups."

According to the news reporters, the research concluded: "The article starts with an overview of age-related changes and ethnopharmacology, moves to describing genetic differences that affect drug responses, with a focus on medications commonly prescribed for older adults, and ends with application of these issues to culturally congruent health care."


Our news journalists report that additional information may be obtained by contacting D.L. Woods, University of California, Los Angeles, CA, United States. Additional authors for this research include J.C. Mentes, M. Cadogan and L.R. Phillips.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1043659615606202. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Transcultural Nursing, Nursing, Genetics, Drugs and Therapies, University of California.

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**Transfusion Medicine**

**New Transfusion Medicine Findings from Singapore National University Described (Farnesoid X Receptor and Its Ligands Inhibit the Function of Platelets)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Transfusion Medicine. According to news originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Although initially seemingly paradoxical because of the lack of nucleus, platelets possess many transcription factors that regulate their function through DNA-independent mechanisms. These include the farnesoid X receptor (FXR), a member of the superfamily of ligand-activated transcription factors, that has been identified as a bile acid receptor."

Our news journalists obtained a quote from the research from Singapore National University, "In this study, we show that FXR is present in human platelets and FXR ligands, GW4064 and 6 alpha-ethyl-chenodeoxycholic acid, modulate platelet activation nongenomically. Approach and Results-FXR ligands inhibited the activation of platelets in response to stimulation of collagen or thrombin receptors, resulting in diminished intracellular calcium mobilization, secretion, fibrinogen binding, and aggregation. Exposure to FXR ligands also reduced integrin alpha(IIb)beta(3) outside-in signaling and thereby reduced the ability of platelets to spread and to stimulate clot retraction. FXR function in platelets was found to be associated with the modulation of cyclic guanosine monophosphate levels in platelets and associated downstream inhibitory signaling. Platelets from FXR-deficient mice were refractory
to the actions of FXR agonists on platelet function and cyclic nucleotide signaling, firmly linking the nongenomic actions of these ligands to the FXR. This study provides support for the ability of FXR ligands to modulate platelet activation."

According to the news editors, the research concluded: "The atheroprotective effects of GW4064, with its novel antiplatelet effects, indicate FXR as a potential target for the prevention of atherothrombotic disease."

For more information on this research see: Farnesoid X Receptor and Its Ligands Inhibit the Function of Platelets. Arteriosclerosis Thrombosis and Vascular Biology, 2016;36 (12):2324-2333. Arteriosclerosis Thrombosis and Vascular Biology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.


Keywords for this news article include: Singapore, Singapore, Asia, Transfusion Medicine, Blood Transfusion, Singapore National University.

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Cardiovascular Diseases and Conditions - Transient

New Transient Ischemic Attack Study Findings Reported from University of Oxford (Hemodynamic correlates of transient cognitive impairment after transient ischemic attack and minor stroke: A transcranial Doppler study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Transient Ischemic Attack. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "Transient cognitive impairment (TCI) on the Mini Mental State Evaluation score is common after transient ischemic attack/minor stroke and might identify patients at increased risk of dementia. We aimed to replicate TCI using the Montreal Cognitive Assessment (MoCA), compare it with persistent Mild Cognitive Impairment (PMCI), and to determine whether global cerebral hemodynamic changes could explain transient impairment."

Our news journalists obtained a quote from the research from the University of Oxford, "Consecutive patients with transient ischemic attack/minor stroke (NIHSS <= 3) were assessed with the MoCA and transcranial Doppler ultrasound acutely and at 1 month. We compared patients with TCI (baseline MoCA < 26 with >= 2 points increase at 1 month), PMCI (MoCA < 26 with < 2 points increase), and no cognitive impairment (NCI; MoCA >= 26). Of 326 patients, 46 (14.1%) had PMCI, 98 (30.1%) TCI, and 182 (55.8%) NCI. At baseline, TCI patients had higher systolic blood pressure (150.95 +/- 21.52 vs 144.86 +/- 22.44 mmHg, p = 0.02) and lower cerebral blood flow velocities, particularly end-diastolic velocity (30.16 +/- 9.63 vs 35.02 +/- 9.01 cm/s, p< 0.001) and mean flow velocity (48.95 +/- 12.72 vs 54 +/- 12.46 cm/s, p = 0.001) than those with NCI, but similar clinical and hemodynamic profiles to those with

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PMCI. Systolic BP fell between baseline and 1 month (mean reduction = 14.01 +/- 21.26 mmHg) and end-diastolic velocity and mean flow velocity increased (mean increase = +2.42 +/- 6.41 and 1.89 +/- 8.77 cm/s, respectively), but these changes did not differ between patients with TCI, PMCI, and NCI. TCI is detectable with the MoCA after transient ischemic attack and minor stroke and has similar clinical and hemodynamic profile to PMCI.

According to the news editors, the research concluded: "However, TCI does not appear to be due to exaggerated acute reversible global hemodynamic changes."


The news correspondents report that additional information may be obtained from S. Mazzucco, University of Oxford, Nuffield Dept. of Clin Neurosci, Oxford, United Kingdom. Additional authors for this research include L.X. Li, M.A. Tuna, S.T. Pendlebury, R. Wharton and P.M. Rothwell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1747493016661565. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, United Kingdom, Europe, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Cardiovascular Diseases and Conditions, Transient Ischemic Attack, Risk and Prevention, Dementia, University of Oxford.

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Triterpenes

New Triterpenes Findings Has Been Reported by Investigators at Nanjing University (Simultaneous determination of notoginsenoside R1 and ginsenoside Re in rat plasma by ultra high performance liquid chromatography with tandem mass spectrometry ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Triterpenes have been published. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "A rapid and high sensitive ultra high performance liquid chromatography with tandem mass spectrometry method for the simultaneous determination of notoginsenoside R1 and ginsenoside Re in rat plasma was developed. The analytes and internal standard, digoxin, were extracted from rat plasma via protein precipitation with methanol and separated on an Phenomenex Gemini C-18 column within 2 min."

The news reporters obtained a quote from the research from Nanjing University, "Quantitation was performed on a triple quadrupole mass spectrometer employing electrospray ionization technique, operating in multiple reaction monitoring and positive ion mode. The precursor to product ion transitions monitored for notoginsenoside R1, ginsenoside Re, and internal standard were m/z 955.5 -> 775.5, 969.6 -> 789.1, and 803.6 -> 283.1, respectively. The
assay was validated with linear range of 1.9-380 ng/mL for notoginsenoside R1 and 0.5-100 ng/mL for ginsenoside Re. The intra-and interday precisions (RSD%) were within 8.96% for each analyte. The absolute recoveries were greater than 93% for R1 and 96% for Re. Each analyte was stable during all sample storage, preparation, and analytic procedures."

According to the news reporters, the research concluded: "The method was successfully applied to a pharmacokinetic study of Xuesaitong dispersible tablets in eight rats."


Keywords for this news article include: Jiangsu, People's Republic of China, Asia, High-Performance Liquid Chromatography, Imaging Technology, Pharmacokinetics, Pharmaceuticals, Ginsenosides, Triterpenes, Nanjing University.

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**Parasitic Diseases and Conditions - Trypanosomiasis**

**New Trypanosomiasis Study Findings Recently Were Reported by Researchers at Swiss Tropical and Public Health Institute (Efficacy, Safety, and Dose of Pafuramidine, a New Oral Drug for Treatment of First Stage Sleeping Sickness, in a Phase 2a ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Parasitic Diseases and Conditions - Trypanosomiasis have been presented. According to news reporting originating from Basel, Switzerland, by NewsRx correspondents, research stated, "Sleeping sickness (human African trypanosomiasis [HAT]) is caused by protozoan parasites and characterized by a chronic progressive course, which may last up to several years before death. We conducted two Phase 2 studies to determine the efficacy and safety of oral pafuramidine in African patients with first stage HAT."

Our news editors obtained a quote from the research from Swiss Tropical and Public Health Institute, "The Phase 2a study was an open-label, non-controlled, proof-of-concept study where 32 patients were treated with 100 mg of pafuramidine orally twice a day (BID) for 5 days at two trypanosomiasis reference centers (Angola and the Democratic Republic of the Congo [DRC]) between August 2001 and November 2004. The Phase 2b study compared pafuramidine in 41 patients versus standard pentamidine therapy in 40 patients. The Phase 2b study was open-label, parallel-group, controlled, randomized, and conducted at two sites in the DRC between April 2003 and February 2007. The Phase 2b study was then amended to add an open-label sequence (Phase 2b-2), where 30 patients received pafuramidine for 10 days. The primary efficacy endpoint was parasitologic cure at 24 hours (Phase 2a) or 3 months (Phase 2b) after
treatment completion. The primary safety outcome was the rate of occurrence of World Health Organization Toxicity Scale Grade 3 or higher adverse events. All subjects provided written informed consent. Pafuramidine for the treatment of first stage HAT was comparable in efficacy to pentamidine after 10 days of dosing. The cure rates 3 months post-treatment were 79% in the 5-day pafuramidine, 100% in the 7-day pentamidine, and 93% in the 10-day pafuramidine groups. In Phase 2b, the percentage of patients with at least 1 treatment-emergent adverse event was notably higher after pentamidine treatment (93%) than pafuramidine treatment for 5 days (25%) and 10 days (57%)."

According to the news editors, the research concluded: "These results support continuation of the development program for pafuramidine into Phase 3."

For more information on this research see: Efficacy, Safety, and Dose of Pafuramidine, a New Oral Drug for Treatment of First Stage Sleeping Sickness, in a Phase 2a Clinical Study and Phase 2b Randomized Clinical Studies. *Plos Neglected Tropical Diseases*, 2016;10(2):e0004362. (Public Library of Science - www.plos.org; Plos Neglected Tropical Diseases - www.plosntds.org)

The news editors report that additional information may be obtained by contacting C. Burri, Swiss Tropical and Public Health Institute, Basel, Switzerland. Additional authors for this research include P.D. Yeramian, J.L. Allen, A. Merolle, K.K. Serge, A. Mpanya, P. Lutumba, V.K. Mesu, C.M. Bilenge, J.P. Lubaki, A.M. Mpoto, M. Thompson, B.F. Munungu, F. Manuel, T. Josenando, S.C. Bernhard, C.A. Olson, J. Blum and Tidwel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pntd.0004362. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibiotics, Basel, Europe, Switzerland, Pentamidine, Benzamidines, Trypanosomiasis, Respiratory Agents, Drugs and Therapies, Protozoan Infections, Euglenozoa Infections, Inhaled Antiinfectives, Respiratory Inhalant Products, Parasitic Diseases and Conditions.

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**Tryptamines**

**New Tryptamines Findings from ARUP Described** (A high-performance liquid chromatography method for the serotonin release assay is equivalent to the radioactive method)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Tryptamines. According to news reporting originating from Salt Lake City, Utah, by NewsRx correspondents, research stated, "The serotonin release assay (SRA) is considered the gold standard laboratory test for heparin-induced thrombocytopenia (HIT). The historic SRA method uses platelets loaded with radiolabeled serotonin to evaluate platelet activation by HIT immune complexes."

Our news editors obtained a quote from the research from ARUP, "However, a nonradioactive method is desirable. We report the performance characteristics of a high-performance liquid chromatography (HPLC) SRA method. We validated the performance characteristics of an HPLC-SRA method, including correlation with a reference laboratory using the radioactive method. Serotonin released from reagent platelets was quantified by HPLC using
fluorescent detection. Results were expressed as % release and classified as positive, negative, or indeterminate based on previously published cutoffs. Serum samples from 250 subjects with suspected HIT were tested in the HPLC-SRA and with the radioactive method. Concordant classifications were observed in 230 samples (92%). Sera from 41 healthy individuals tested negative. Between-run imprecision studies showed standard deviation of <6 (% release) for positive, weak positive, and negative serum pools. Stability studies demonstrated stability after two freeze-thaw cycles or up to a week of refrigeration."

According to the news editors, the research concluded: "The HPLC-SRA has robust performance characteristics, equivalent to the historic radioactive method, but avoids the complexities of working with radioactivity."


The news editors report that additional information may be obtained by contacting N.K. Sono-Koree, ARUP Laboratories Institute for Clinical and Experimental Pathology, Salt Lake City, UT, United States. Additional authors for this research include R.A. Crist, E.L. Frank, G.M. Rodgers and K.J Smock.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12442. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *International Journal of Laboratory Hematology* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Utah, Autacoids, Serotonin, Tryptamines, United States, Salt Lake City, Biogenic Amines, Organic Chemicals, Biological Factors, Imaging Technology, North and Central America, High Performance Liquid Chromatography.

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**Mycobacterium Infections - Tuberculosis**

**New Tuberculosis Data Have Been Reported by H.H. Soutter and Co-Authors (Discovery of cofactor-specific, bactericidal Mycobacterium tuberculosis InhA inhibitors using DNA-encoded library technology)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mycobacterium Infections - Tuberculosis is the subject of a report. According to news reporting out of Waltham, Massachusetts, by NewsRx editors, research stated, "Millions of individuals are infected with and die from tuberculosis (TB) each year, and multidrug-resistant (MDR) strains of TB are increasingly prevalent. As such, there is an urgent need to identify novel drugs to treat TB infections."

Our news journalists obtained a quote from the research, "Current frontline therapies include the drug isoniazid, which inhibits the essential NADH-dependent enoyl-acyl-carrier protein (ACP) reductase, InhA. To inhibit InhA, isoniazid must be activated by the catalase-peroxidase KatG. Isoniazid resistance is linked primarily to mutations in the katG gene."
Discovery of InhA inhibitors that do not require KatG activation is crucial to combat MDR TB. Multiple discovery efforts have been made against InhA in recent years. Until recently, despite achieving high potency against the enzyme, these efforts have been thwarted by lack of cellular activity. We describe here the use of DNA-encoded X-Chem (DEX) screening, combined with selection of appropriate physical properties, to identify multiple classes of InhA inhibitors with cell-based activity. The utilization of DEX screening allowed the interrogation of very large compound libraries (10^{11} unique small molecules) against multiple forms of the InhA enzyme in an multiplexed format."

According to the news editors, the research concluded: "Comparison of the enriched library members across various screening conditions allowed the identification of cofactor-specific inhibitors of InhA that do not require activation by KatG, many of which had bactericidal activity in cell-based assays."


Keywords for this news article include: Waltham, Massachusetts, United States, North and Central America, Technology, Diagnostics and Screening, Gram-Positive Asporogenous Rods, Nicotinic Acid Derivatives, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Antituberculosis Agents, Gram-Positive Bacteria, Drugs and Therapies, Gram-Positive Rods, Infectious Disease, Isoniazid Therapy, Mycobacteriaceae, Pharmaceuticals, Antiinfectives, Actinobacteria, Biotechnology, DNA Libraries, Proteomics, Genetics, Genomics.

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**Mycobacterium Infections - Tuberculosis**

**New Tuberculosis Data Have Been Reported by Researchers at Center for Disease Control and Prevention (Discovery and Optimization of Two Eis Inhibitor Families as Kanamycin Adjuvants against Drug-Resistant M. tuberculosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Mycobacterium Infections - Tuberculosis. According to news reporting originating in Atlanta, Georgia, by NewsRx journalists, research stated, "Drug-resistant tuberculosis (TB) is a global threat and innovative approaches such as
using adjuvants of anti-TB therapeutics are required to combat it. High-throughput screening yielded two lead scaffolds of inhibitors of Mycobacterium tuberculosis (Mt) acetyltransferase Eis, whose upregulation causes resistance to the anti-TB drug kanamycin (KAN)."

Financial supporters for this research include National Institute of Allergy and Infectious Diseases, Firland Foundation, College of Pharmacy, University of Kentucky, Center for Chemical Genomics, University of Michigan.

The news reporters obtained a quote from the research from Center for Disease Control and Prevention, "Chemical optimization on these scaffolds resulted in potent Eis inhibitors. One compound restored the activity of KAN in a KAN-resistant Mt strain."

According to the news reporters, the research concluded: "Model structures of Eis-inhibitor complexes explain the structure activity relationship."

For more information on this research see: "Discovery and Optimization of Two Eis Inhibitor Families as Kanamycin Adjuvants against Drug-Resistant M. tuberculosis. ACS Medicinal Chemistry Letters, 2016;7(12):1219-1221. ACS Medicinal Chemistry Letters can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Medicinal Chemistry Letters - www.pubs.acs.org/journal/amclct)"

Our news correspondents report that additional information may be obtained by contacting J.E. Posey, Center Dis Control & Prevent, Mycobacteriol Lab Branch, Div TB Eliminat, Natl Center HIV AIDS Viral Hepatitis STD & TB Preven, Atlanta, GA 30333, United States. Additional authors for this research include M.J. Willby, K.D. Green, O.V. Tsodikov, J.E. Posey and S. Garneau-Tsodikova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsmedchemlett.6b00261. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Drugs and Therapies, Infectious Disease, Drug Resistance, Aminoglycosides, Antiinfectives, Antibiotics, Kanamycin, Center for Disease Control and Prevention.

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Mycobacterium Infections - Tuberculosis

New Tuberculosis Findings from A. Disratthakit and Co-Researchers Reported (Role of gyrB Mutations in Pre-extensively and Extensively Drug-Resistant Tuberculosis in Thai Clinical Isolates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mycobacterium Infections - Tuberculosis is the subject of a report. According to news reporting originating in Bangkok, Thailand, by NewsRx journalists, research stated, "DNA gyrase mutations are a major cause of quinolone resistance in Mycobacterium tuberculosis. We therefore conducted the first comprehensive study to determine the diversity of gyrase mutations in pre-extensively drug-resistant (pre-XDR) (n = 71) and extensively drug-resistant (XDR) (n = 30) Thai clinical tuberculosis (TB) isolates."

Funders for this research include Royal Golden Jubilee Ph.D. Program, Research and
Development, Faculty of Medicine Siriraj Hospital, Japan Science and Technology Agency and National Science and Technology Development Agency.

The news reporters obtained a quote from the research, "All pre-XDR-TB and XDR-TB isolates carried at least one mutation within the quinolone resistance-determining region of GyrA (G88A [1.1%], A90V [17.4%], S91P [1.1%], or D94A/G/H/N/V/Y [72.7%]) or GyrB (D533A [1.1%], N538D [1.1%], or E540D [2.2%]). MIC and DNA gyrase supercoiling inhibition assays were performed to determine the role of gyrase mutations in quinolone resistance. Compared to the MICs against M. tuberculosis H37Rv, the levels of resistance to all quinolones tested in the isolates that carried GyrA-D94G or GyrB-N538D (8-to 32-fold increase) were significantly higher than those in isolates bearing GyrA-D94A or GyrA-A90V (2-to 8-fold increase) (P < 0.01). Intriguingly, GyrB-E540D led to a dramatic resistance to later-generation quinolones, including moxifloxacin, gatifloxacin, and sparfloxacin (8-to 16-fold increases in MICs and 8.3- to 11.2-fold increases in 50% inhibitory concentrations [IC(50)s]). However, GyrB-E540D caused low-level resistance to early-generation quinolones, including ofloxacin, levofloxacin, and ciprofloxacin (2-to 4-fold increases in MICs and 1.5-to 2.0-fold increases in IC(50)s). In the present study, DC-159a was the most active antituberculosis agent and was little affected by the gyrase mutations described above."

According to the news reporters, the research concluded: "Our findings suggest that although they are rare, gyrB mutations have a notable role in quinolone resistance, which may provide clues to the molecular basis of estimating quinolone resistance levels for drug and dose selection."

For more information on this research see: Role of gyrB Mutations in Pre-extensively and Extensively Drug-Resistant Tuberculosis in Thai Clinical Isolates. Antimicrobial Agents and Chemotherapy, 2016;60(9):5189-5197. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting A. Chaiprasert, Siriraj Fdn, Drug Resistant TB Res Fund, Bangkok, Thailand. Additional authors for this research include T. Pramananan, C. Tribuddharat, I. Thaipisuttikul, N. Doi, M. Leechawengwongs and A. Chaiprasert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00539-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bangkok, Thailand, Asia, Extensively Drug-Resistant Tuberculosis, Multidrug Resistant Tuberculosis, Drug Resistant Tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Enzymes and Coenzymes, Drugs and Therapies, Infectious Disease, Drug Resistance, Genetics, MDR-TB, Gyrase.

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New Tuberculosis Findings from L. Moreira-Teixeira and Co-Authors Described (Type I IFN Inhibits Alternative Macrophage Activation during Mycobacterium tuberculosis Infection and Leads to Enhanced Protection in the Absence of IFN-gamma Signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mycobacterium Infections - Tuberculosis are presented in a new report. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Tuberculosis causes similar to 1.5 million deaths every year, thus remaining a leading cause of death from infectious diseases in the world. A growing body of evidence demonstrates that type I IFN plays a detrimental role in tuberculosis pathogenesis, likely by interfering with IFN-gamma-dependent immunity."

The news correspondents obtained a quote from the research, "In this article, we reveal a novel mechanism by which type I IFN may confer protection against Mycobacterium tuberculosis infection in the absence of IFN-gamma signaling. We show that production of type I IFN by M. tuberculosis-infected macrophages induced NO synthase 2 and inhibited arginase 1 gene expression. In vivo, absence of both type I and type II IFN receptors led to strikingly increased levels of arginase 1 gene expression and protein activity in infected lungs, characteristic of alternatively activated macrophages. This correlated with increased lung bacterial burden and pathology and decreased survival compared with mice deficient in either receptor. Increased expression of other genes associated with alternatively activated macrophages, as well as increased expression of Th2-associated cytokines and decreased TNF expression, were also observed. Thus, in the absence of IFN-gamma signaling, type I IFN suppressed the switching of macrophages from a more protective classically activated phenotype to a more permissive alternatively activated phenotype."

According to the news reporters, the research concluded: "Together, our data support a model in which suppression of alternative macrophage activation by type I IFN during M. tuberculosis infection, in the absence of IFN-gamma signaling, contributes to host protection."

For more information on this research see: Type I IFN Inhibits Alternative Macrophage Activation during Mycobacterium tuberculosis Infection and Leads to Enhanced Protection in the Absence of IFN-gamma Signaling. *Journal of Immunology*, 2016;197 (12):4714-4726. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news journalists report that additional information may be obtained by contacting L. Moreira-Teixeira, Francis Crick Inst, Lab Immunoregulat & Infect, London NW1 1AT, United Kingdom. Additional authors for this research include J. Sousa, F.W. McNab, E. Torrado, F. Cardoso, H. Machado, F. Castro, V. Cardoso, J. Gaifem, X.M. Wu, R. Appelberg, A.G. Castro, A. O'Garra and M. Saraiva.

Keywords for this news article include: London, United Kingdom, Europe, Gram-Positive Asporogenous Rods, Mononuclear Phagocyte System, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Enzymes and Coenzymes, Gram-Positive Rods, Mycobacteriaceae, Actinobacteria, Macrophages, Immunology, Phagocytes, Arginase, Genetics.

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New Tuberculosis Findings from University of Alabama Described (8-Hydroxyquinolines Are Boosting Agents of Copper-Related Toxicity in Mycobacterium tuberculosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mycobacterium Infections - Tuberculosis are presented in a new report. According to news reporting originating in Birmingham, Alabama, by NewsRx journalists, research stated, "Copper (Cu) ions are likely the most important immunological metal-related toxin utilized in controlling bacterial infections. Impairment of bacterial Cu resistance reduces viability within the host."

Funders for this research include HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID), National Science Foundation (NSF).

The news reporters obtained a quote from the research from the University of Alabama, "Thus, pharmacological enhancement of Cu-mediated antibacterial toxicity may lead to novel strategies in drug discovery and development. Screening for Cu toxicity-enhancing antibacterial molecules identified 8-hydroxyquinoline (8HQ) to be a potent Cu-dependent bactericidal inhibitor of Mycobacterium tuberculosis. The MIC of 8HQ in the presence of Cu was 0.16 μM for replicating and nonreplicating M. tuberculosis cells. We found 8HQ's activity to be dependent on the presence of extracellular Cu and to be related to an increase in cell-associated labile Cu ions. Both findings are consistent with 8HQ acting as a Cu ionophore. Accordingly, we identified the 1:1 complex of 8HQ and Cu to be its active form, with Zn, Fe, or Mn neither enhancing nor reducing its Cu-specific action. This is remarkable, considering that the respective metal complexes have nearly identical structures and geometries. Finally, we found 8HQ to kill M. tuberculosis selectively within infected primary macrophages. Given the stark Cu-dependent nature of 8HQ activity, this is the first piece of evidence that Cu ions within macrophages may bestow antibacterial properties to a Cu-dependent inhibitor of M. tuberculosis."

According to the news reporters, the research concluded: "Our findings highlight the metal-binding ability of the 8-hydroxyquinoline scaffold to be a potential focus for future medicinal chemistry and highlight the potential of innate immunity-inspired screening platforms to reveal molecules with novel modes of action against M. tuberculosis."

For more information on this research see: 8-Hydroxyquinolines Are Boosting Agents of Copper-Related Toxicity in Mycobacterium tuberculosis. Antimicrobial Agents and Chemotherapy, 2016;60(10):5765-5776. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting F. Wolschendorf, Univ Alabama Birmingham, Dept. of Med, Div Infect Dis, Birmingham, AL 35294, United States. Additional authors for this research include A.G. Dalecki, A.P. Malalasekera, C.L. Crawford, S.M. Michalek, O. Kutsch, J. Sun, S.H. Bossmann and F. Wolschendorf.

The direct object identifier (DOI) for that additional information is:
New Tuberculosis Findings from University of Kentucky Reported
(Sulfonamide-Based Inhibitors of Aminoglycoside Acetyltransferase Eis Abolish Resistance to Kanamycin in Mycobacterium tuberculosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mycobacterium Infections - Tuberculosis are presented in a new report. According to news originating from Lexington, Kentucky, by NewsRx correspondents, research stated, "A two-drug combination therapy where one drug targets an offending cell and the other targets a resistance mechanism to the first drug is a time-tested, yet underexploited approach to combat or prevent drug resistance. By high-throughput screening, we identified a sulfonamide scaffold that served as a pharmacophore to generate inhibitors of Mycobacterium tuberculosis acetyltransferase Eis, whose upregulation causes resistance to the aminoglycoside (AG) antibiotic kanamycin A (KAN) in Mycobacterium tuberculosis." Funders for this research include National Institute of Allergy and Infectious Diseases, Firland Foundation, College of Pharmacy, University of Kentucky, Center for Chemical Genomics, University of Michigan.

Our news journalists obtained a quote from the research from the University of Kentucky, "Rational systematic derivatization of this scaffold to maximize Eis inhibition and abolish the Eis-mediated KAN resistance of M. tuberculosis yielded several highly potent agents. A crystal structure of Eis in complex with one of the most potent inhibitors revealed that the inhibitor bound Eis in the AG-binding pocket held by a conformationally malleable region of Eis (residues 28-37) bearing key hydrophobic residues."

According to the news editors, the research concluded: "These Eis inhibitors are promising leads for preclinical development of innovative AG combination therapies against resistant TB."


The news correspondents report that additional information may be obtained from O.V. Tsodikov, University of Kentucky, Dept. of Pharmaceut Sci, Coll Pharm, Lexington, KY 40536, United States. Additional authors for this research include M.J. Willby, K.D. Green, C.S.
New Tuberculosis Study Findings Recently Were Reported by Researchers at Global Alliance for TB Drug Development (TB Alliance regimen development for multidrug-resistant tuberculosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mycobacterium Infections - Tuberculosis have been published. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "The recent approval of new tuberculosis (TB) drugs raises hope for new and more effective anti-tuberculosis treatment regimens."

Our news journalists obtained a quote from the research from Global Alliance for TB Drug Development, "The Global Alliance for TB Drug Development (TB Alliance) is committed to ensuring that new anti-tuberculosis drugs fulfill the needs of patients, their families and the local health services that serve the communities. Here we present highlights of the TB Alliance's pipeline of regimen development, with novel regimens for patients with drug-susceptible, multidrug-resistant and extensively drug-resistant TB."

According to the news editors, the research concluded: "The ongoing clinical trials (STAND, NC-005, Nix-TB and LIN-CL001) are outlined and their rationale and goals presented."


The news correspondents report that additional information may be obtained from S. Murray, Global Alliance TB Drug Dev TB Alliance, New York, NY 10005, United States. Additional authors for this research include C. Mendel and M. Spigelman.

Keywords for this news article include: New York City, New York, United States, North and Central America, Gram-Positive Bacterial Infections, Multidrug Resistant Tuberculosis, Multidrug-Resistant Tuberculosis, Actinomycetales Infections, Mycobacterium Tuberculosis, Mycobacterium Infections, Multidrug Resistance, Drugs and Therapies, Infectious Disease, Drug Resistance, MDR-TB, Global Alliance for TB Drug Development.

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Mycobacterium Infections - Tuberculosis


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jmedchem.6b01161. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lexington, Kentucky, United States, North and Central America, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Enzymes and Coenzymes, Drugs and Therapies, Gram-Positive Rods, Acetyltransferases, Mycobacteriaceae, Acyltransferases, Aminoglycosides, Antiinfectives, Actinobacteria, Sulfonamides, Antibiotics, Kanamycin, Sulfones, University of Kentucky.

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New Type 1 Diabetes Mellitus Findings Reported from University of Helsinki (Endotoxins are associated with visceral fat mass in type 1 diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus have been published. According to news originating from Helsinki, Finland, by NewsRx correspondents, research stated, "Bacterial lipopolysaccharides (LPS), potent inducers of inflammation, have been associated with chronic metabolic disturbances. Obesity is linked to dyslipidemia, increased body adiposity, and endotoxemia."

Our news journalists obtained a quote from the research from the University of Helsinki, "We investigated the cross-sectional relationships between serum LPS activity and body adiposity as well as inflammation in 242 subjects with type 1 diabetes. Body fat distribution was measured by DXA and serum LPS activity by the limulus amebocyte lysate end-point assay. Since no interaction between visceral fat mass and sex was observed, data were pooled for the subsequent analyses. LPS was independently associated with visceral fat mass, when adjusted for traditional risk factors (age, sex, kidney status, hsCRP, insulin sensitivity). In the multivariate analysis, serum LPS activity and triglyceride concentrations had a joint effect on visceral fat mass, independent of these factors alone. A combination of high LPS and high hsCRP concentrations was also observed in those with the largest visceral fat mass."

According to the news editors, the research concluded: "High serum LPS activity levels were associated with visceral fat mass in subjects with type 1 diabetes strengthening its role in the development of central obesity, inflammation and insulin resistance."

For more information on this research see: Endotoxins are associated with visceral fat mass in type 1 diabetes. Scientific Reports, 2016;6():1-6. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from M. Lehto, University of Helsinki, Res Programs Unit, Diabet & Obes, Helsinki, Finland. Additional authors for this research include A.J. Ahola, V. Harjutsalo, C. Forsblom, P.H. Groop and M. Lehto.

Keywords for this news article include: Helsinki, Finland, Europe, Type 1 Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions, Insulin Dependent Diabetes Mellitus, Risk and Prevention, Peptide Proteins, Peptide Hormones, Type 1 Diabetes, Inflammation, Proinsulin, University of Helsinki.

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New Type 1 Diabetes Mellitus Study Findings Have Been Reported by Researchers at Sapienza University [Saxagliptin improves glycaemic control and C-peptide secretion in latent autoimmune diabetes in adults (LADA)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus. According to news reporting from Rome, Italy, by NewsRx journalists, research stated, "To assess the efficacy and tolerability of saxagliptin and C-peptide secretion in patients with diagnosed type 2 diabetes classified as glutamic acid decarboxylase antibody (GADA)-positive or GADA-negative. Post hoc analysis of data pooled from five randomized, placebo-controlled, 24-week phase 3 studies (n=2709) was conducted."

The news correspondents obtained a quote from the research from Sapienza University, "We evaluated mean change from baseline at week 24 in HbA1c, fasting plasma glucose, postprandial plasma glucose, fasting and postprandial C-peptide, and HOMA2-%b and the proportion of patients achieving HbA1c <7% (53 mmol/mol) at week 24. Saxagliptin produced greater adjusted mean reductions from baseline in HbA1c versus placebo for GADA-negative [difference vs placebo (95% CI), -0.62% (-0.71% to -0.54%); -6.8 mmol/mol (-7.8, -5.9)] and GADA-positive patients [-0.64% (-1.01% to -0.27%); -7.0 mmol/mol (-11.0, -3.0)]. Consistently, saxagliptin produced a greater reduction from baseline in fasting plasma glucose and postprandial plasma glucose versus placebo in GADA-positive versus GADA-negative patients, and more patients achieved HbA1c <7% (53 mmol/mol) with saxagliptin versus placebo in both GADA-negative and GADA-positive patients. Saxagliptin increased b-cell function as assessed by HOMA2-%b and postprandial C-peptide area under the curve from baseline in patients in both GADA-positive and GADA-negative patients. Adverse events and hypoglycaemic events were similar across treatment groups and GADA categories. Saxagliptin was effective in lowering blood glucose levels and generally well tolerated in GADA-positive patients."

According to the news reporters, the research concluded: "Interestingly, saxagliptin appears to improve b-cell function in these patients, although a longer treatment duration may be needed to confirm this finding."

For more information on this research see: Saxagliptin improves glycaemic control and C-peptide secretion in latent autoimmune diabetes in adults (LADA). Diabetes, 2015;32 (3):289-96. (Elsevier - www.elsevier.com; Diabetes - www.journals.elsevier.com/diabetes-and-metabolic-syndrome-clinical-research-and-reviews/)

Our news journalists report that additional information may be obtained by contacting R. Buzzetti, Dept. of Experimental Medicine, Sapienza University of Rome, Rome, Italy. Additional authors for this research include P. Pozzilli, R. Frederich, N. Iqbal and B. Hirshberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/dmrr.2717. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Blood, Europe, Plasma, C Peptide, Hematology, Proinsulin, Type 2 Diabetes, Peptide Hormones, Peptide Proteins, Risk and Prevention, Type 1 Diabetes Mellitus, Non Insulin Dependent Diabetes Mellitus,
New Type 2 Diabetes Data Have Been Reported by Investigators at Shandong University (Association between DPP4 gene polymorphism and serum lipid levels in Chinese type 2 diabetes individuals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting out of Shandong, People's Republic of China, by NewsRx editors, research stated, "The goal of the genetic investigation was to identify the associations of serum lipid levels and DPP-4 variants in Chinese type 2 diabetes patients. We detected four variants of the DPP4 gene in. 190 Chinese individuals with type 2 diabetes and tested for an association with dyslipidemia in 82 selected samples."

Funders for this research include Forbidden City International Pharmacist Forum, Natural Science Foundation of Shandong Province, China, National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Shandong University, "Data including basic information, HbA1c, FPG, serum lipid parameters were collected. Statistical analysis was performed by SPSS 13.0 through ANOVA and chi(2) test. The genetic polymorphism of rs466/1443, rs3788979, rs7608798 and rs1558957 in Chinese type 2 diabetes were consistent with Hardy-Weinberg equilibrium. The CT genotype of rs4664443 suffered from higher serum TG (P = 0.013), LDL (P = 0.044) and ApoB (P = 0.006) levels, whereas the TT genotype of rs7608798 exhibited a lower serum TG level (P = 0.037). For rs3788979, the serum TG level (P = 0.034) and BMI (P = 0.04) were significantly different among genotypes. Moreover, serum TG and TC levels and BMI showed a positive correlation with the number unfavorable alleles, and individuals with more than two unfavorable alleles had higher TG (P = 0.004), TC (P = 0.011), and BMI (P = 0.044) values."

According to the news editors, the research concluded: "This is the first study to investigate DPP4 allelic distributions and their association with dyslipidemia in Chinese type 2 diabetes patients, which may have clinical significance."


Our news journalists report that additional information may be obtained by contacting L. Liao, Shandong University, Shandong Prov Qianfoshan Hosp, Dept. of Endocrinol, Jinan, Shandong, People's Republic of China. Additional authors for this research include Y. Han, X.J. Zhou, B. Zhang, Y. Li, Z.S. Wang, L. Liao and L.Q. Su.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.npep.2016.08.005. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Shandong, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Genetics, Non-Insulin Dependent Diabetes Mellitus, Risk and Prevention, Type 2 Diabetes, Dyslipidemias, Shandong University.

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Nutritional and Metabolic Diseases and Conditions —

New Type 2 Diabetes Findings from McGill University Described
(Pharmacosurveillance without borders: electronic health records in different countries can be used to address important methodological issues in estimating the risk of adverse events)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting from Montreal, Canada, by NewsRx journalists, research stated, "Evaluate methodological advantages and limitations of an international pharmacosurveillance system based on electronic health records (EHRs). Type 2 diabetes was used as an exemplar."

The news correspondents obtained a quote from the research from McGill University, "Cohorts of newly treated diabetics were followed in each country (Quebec, Canada; Massachusetts, United States; Manchester, UK) from 2009 to 2012 using local EHR systems. Cox proportional hazards models were used to assess the risk of cardiovascular events. A total of 44,913 newly treated diabetics were identified; 82.6% (United States) to 93.1% (Canada) were started on biguanides; 13% of patients failed to fill initial prescriptions. An increased risk of cardiovascular events with sulfonylureas was observed when dispensing [hazard ratio (HR): 2.83] vs. ERR. prescribing (HR: 2.47) data were used. The addition of clinical data produced a threefold to 10-fold increase in comorbidity for obesity and renal disease, but had no impact on the risk of different hypoglycemic therapies. The risk of cardiovascular events with sulfonylureas was higher in the United States [HR: 3.4; 95% confidence interval (CI): 2.1, 5.5] compared to England (HR: 1.3; 95% CI: 1.1, 1.6)."

According to the news reporters, the research concluded: "An international surveillance system based on EHRs may provide more timely information about drug safety and new opportunities to estimate potential sources of bias and health system effects on drug-related outcomes."

For more information on this research see: Pharmacosurveillance without borders; electronic health records in different countries can be used to address important methodological issues in estimating the risk of adverse events. *Journal of Clinical Epidemiology*, 2016;77 ():101-111. *Journal of Clinical Epidemiology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Journal of Clinical Epidemiology - www.journals.elsevier.com/journal-of-clinical-epidemiology/)


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Nutritional and Metabolic Diseases and Conditions - …

New Type 2 Diabetes Findings from Poznan University of Medical Sciences Outlined (The Impact of Pharmacotherapy of Type 2 Diabetes Mellitus on IL-1b, IL-6 and IL-10 Secretion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting originating from Poznan, Poland, by NewsRx correspondents, research stated, "The aim of this study was to assess the impact of pharmacotherapy of diabetes on atherosclerosis, as reflected in interleukin (IL)-1b, IL-6 and IL-10 serum levels. We studied patients with type 2 diabetes, treated with metformin, insulin combined with metformin and conventional insulin."

Our news editors obtained a quote from the research from the Poznan University of Medical Sciences, "IL-1b, IL-6 and IL-10 serum levels were assayed using BD? Cytometric Bead Array. Multivariate analysis of covariance was performed to exclude the impact of some metabolic and anthropometric factors on differences in cytokines concentrations among the participants receiving different pharmacotherapy. The serum concentrations of IL-1b and IL-6 were significantly higher and IL-10 serum levels were significantly lower in the insulin-treated group than in other therapeutic groups. Covariance analysis confirmed that differences in IL-1b and IL-6 levels were determined by pharmacotherapy and fasting plasma glucose, whereas in IL-10 levels by the therapy only. Additionally, peptide C modified differences in IL-1b levels and HbA1c in IL-6 concentrations. This study revealed that both pharmacotherapy and glycemic control may modify some pro-atherogenic factors, such as IL-1b and IL-6."

According to the news editors, the research concluded: "The therapy with metformin and insulin combined with metformin seems to be much more beneficial in terms of their impact on pro-inflammatory cytokines secretion in comparison to conventional insulinotherapy."

For more information on this research see: The Impact of Pharmacotherapy of Type 2 Diabetes Mellitus on IL-1b, IL-6 and IL-10 Secretion. Pharmacology, 2016;97(3-4):189-94. (Karger - www.karger.com/; Pharmacology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224274)

The news editors report that additional information may be obtained by contacting M. Borowska, Dept. of Pharmacology, Poznan University of Medical Sciences, Poznan, Poland. Additional authors for this research include M. Dworacka, A. Wesolowska, H. Winiarska, E. Krzyzagorska and G. Dworacki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443897. This DOI is a link to an online electronic document that is either free or for purchase.
New Type 2 Diabetes Study Findings Have Been Reported by Investigators at Instituto de Salud Carlos III [A dysregulation of glucose metabolism control is associated with carotid atherosclerosis in patients with coronary heart disease ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news reporting from Madrid, Spain, by NewsRx journalists, research stated, "Patients with coexisting coronary heart disease (CHD) and type 2 diabetes mellitus (T2DM) are at high risk of cardiovascular recurrence, however, it is not well established whether they exhibit an increased intima-media thickness of both common carotid arteries (IMT-CC). Furthermore, whether this relationship is inherent to T2DM or depends on glycemic control has not been tested in large cohorts."

The news correspondents obtained a quote from the research from Instituto de Salud Carlos III, "Our aim was to determine whether clinical categories and/or analytical markers of glucose metabolism control were associated with IMT-CC in CHD patients. 1002 patients aged 20-75 years, categorized into normal glucose tolerance (NGT), impaired fasting glucose (IFG), impaired glucose tolerance (IGT) or T2DM, underwent an oral glucose tolerance test (OGTT) and an IMT-CC measurement. IMT-CC was higher in T2DM patients with HbA1c > 6.5% compared to T2DM patients with HbA1c < 6.5% (p = 0.001), patients with IFG or IGT (p < 0.001) and NGT (p < 0.001). When age was considered, IMT-CC was influenced by glucose metabolism control only in patients with age < 61 years (p < 0.01). In a multiple linear regression analysis, glucose concentration at 120 min, but not other OGTT time-points appeared as a significant independent contributor of IMT-CC (p < 0.001). Moreover, a multiple logistic regression and the area under curve (AUC) of the ROC curve analysis showed a predictive power of glucose at 120 min to detect those CHD patients at the highest risk, defined as IMT-CC >= 0.7 mm (R-2 = 0.221; AUC = 0.761). Our results highlight the importance of properly controlling glucose metabolism in CHD patients, in younger populations in particular, providing an easy way of categorizing patients with an increased IMT-CC."

According to the news reporters, the research concluded: "Moreover, glucose concentration at 120 min could contribute to CVD risk and its determination could be used as a predictive tool to identify those CHD patients at the highest risk."

For more information on this research see: A dysregulation of glucose metabolism control is associated with carotid atherosclerosis in patients with coronary heart disease (CORDIOPREV-DIAB study). Atherosclerosis, 2016;253():178-185. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis -

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.903. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Arterial Occlusive Diseases, Risk and Prevention, Arteriosclerosis, Atherosclerosis, Type 2 Diabetes, Heart Disease, Cardiology, Angiology, Instituto de Salud Carlos III.

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Nutritional and Metabolic Diseases and Conditions - …

New Type 2 Diabetes Study Findings Have Been Reported by Investigators at Magna Graecia University (A polymorphism of HMGA1 protects against proliferative diabetic retinopathy by impairing HMGA1-induced VEGFA expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news reporting from Catanzaro, Italy, by NewsRx journalists, research stated, "Diabetic retinopathy (DR) is a major complication of diabetes mellitus, and is the leading cause of blindness in working-age people. Usually, DR progresses from the asymptomatic non-proliferative DR that does not significantly alter vision, to proliferative DR (PDR), which can result in aberrant retinal neovessel formation and blindness."

The news correspondents obtained a quote from the research from Magna Graecia University, "The High-Mobility-Group A1 (HMGA1) protein is a transcriptional master regulator of numerous genes, including metabolic and inflammatory genes, which, by modulating the expression of angiogenic factors, may induce retinal neovascularization, a hallmark of PDR. Herein, we examined the relationship between HMGA1 rs139876191 variant and DR. Results revealed that patients with type 2 diabetes, who were carriers of the HMGA1 rs139876191 variant had a significantly lower risk of developing PDR, compared to non-carrier diabetic patients. From a mechanistic point of view, our findings indicated that, by adversely affecting HMGA1 protein expression and function, the HMGA1 rs139876191 variant played a key role in this protective mechanism by downregulating the expression of vascular endothelial growth factor A (VEGFA), a major activator of neovascularization in DR."

According to the news reporters, the research concluded: "These data provide new insights into the pathogenesis and progression of DR, and may offer opportunities for discovering novel biomarkers and therapeutic targets for diagnosis, prevention and treatment of PDR."
For more information on this research see: A polymorphism of HMGA1 protects against proliferative diabetic retinopathy by impairing HMGA1-induced VEGFA expression. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting A. Brunetti, Magna Graecia Univ Catanzaro, Dept. of Hlth Sci, Catanzaro, Italy. Additional authors for this research include V. Ventura, C. Capula, G. Randazzo, V. Scorcia, M. Fedele, B. Arcidiacono, M.T. Nevolo, F.L. Bilotta, M. Vitiello, C. Palmieri, E. Gulletta, A. Fusco, D. Foti, R. Vero and A. Brunetti.

Keywords for this news article include: Catanzaro, Italy, Europe, Nutritional and Metabolic Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Non-Insulin Dependent Diabetes Mellitus, Vascular Endothelial Growth Factor A, Vascular Diseases and Conditions, Retinal Diseases and Conditions, Eye Diseases and Conditions, Diabetic Angiopathies, Diabetic Retinopathy, Risk and Prevention, Neovascularization, Type 2 Diabetes, Ophthalmology, Endocrinology, Genetics, Magna Graecia University.

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Nutritional and Metabolic Diseases and Conditions…

New Type 2 Diabetes Study Findings Have Been Reported by Investigators at University of Basel Hospital (Fibrates for primary prevention of cardiovascular disease events)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are presented in a new report. According to news reporting originating in Basel, Switzerland, by NewsRx journalists, research stated, "Fibrates are effective for modifying atherogenic dyslipidaemia, and particularly for lowering serum triglycerides. However, evidence that fibrates reduce mortality and morbidity associated with cardiovascular disease (CVD), or overall mortality and morbidity, in the primary prevention of CVD is lacking."

The news reporters obtained a quote from the research from the University of Basel Hospital, "This Cochrane Review and meta-analysis aimed to evaluate the clinical benefits and harms of fibrates versus placebo or usual care or fibrates plus other lipid-modifying drugs versus other lipid-modifying drugs alone for the primary prevention of cardiovascular disease (CVD) morbidity and mortality. Search methods We searched the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE (Ovid), Embase (Ovid), CINAHL (EBSCO), and Web of Science (all from inception to 19 May 2016). We searched four clinical trial registers (last searched on 3 August 2016) with the help of an experienced professional librarian. We searched the databases to identify randomised controlled trials (RCTs) evaluating the clinical effects of fibrate therapy in the primary prevention of CVD events. We did not impose any language restrictions. Selection criteria We aimed to include all RCTs comparing the effects of fibrate monotherapy versus placebo or usual care, or fibrates plus other lipid-modifying drugs versus other lipid-modifying drugs alone. Included studies had a follow-up of at least six months for the primary prevention of CVD events. We excluded trials with clofibrate, because it was withdrawn from the market in 2002. Data collection and analysis Two reviewers independently screened titles and abstracts for potential study inclusion. Two review authors
independently retrieved the full-text papers and extracted data. Disagreements were resolved by consensus. We calculated risk ratios (RRs) and accompanying 95% confidence intervals (CIs) for aggregate data on primary and secondary outcomes. We tested for heterogeneity with the Cochrane Q-test and used the I-2 statistic to measure inconsistency of treatment effects across studies. Using the GRADE approach, we assessed the quality of the evidence and used the GRADE profiler software (GRADEpro GDT) to import data from Review Manager 5 to create 'Summary of findings' tables. We identified six eligible trials including 16,135 individuals. The mean age of trial populations varied across trials; between 47.3 and 62.3 years. Four trials included individuals with diabetes mellitus type 2 only. The mean treatment duration and follow-up of participants across trials was 4.8 years. We judged the risks of selection and performance bias to be low; risks of detection bias, attrition bias, and reporting bias were unclear. Reporting of adverse effects by included trials was very limited; that is why we used discontinuation of therapy due to adverse effects as a proxy for adverse effects. Patients treated with fibrates had a reduced risk for the combined primary outcome of CVD death, non-fatal myocardial infarction, or non-fatal stroke compared to patients on placebo (risk ratio (RR) 0.84, 95% confidence interval (CI) 0.74 to 0.96; participants = 16,135; studies = 6; moderate-quality of evidence). For secondary outcomes we found RRs for fibrate therapy compared with placebo of 0.79 for combined coronary heart disease death or non-fatal myocardial infarction (95% CI 0.68 to 0.92; participants = 16,135; studies = 6; moderate-quality of evidence); 1.01 for overall mortality (95% CI 0.81 to 1.26; participants = 8471; studies = 5; low-quality of evidence); 1.01 for non-CVD mortality (95% CI 0.76 to 1.35; participants = 8471; studies = 5; low-quality of evidence); and 1.38 for discontinuation of therapy due to adverse effects (95% CI 0.71 to 2.68; participants = 4805; studies = 3; I-2 = 74%; very low-quality of evidence). Data on quality of life were not available from any trial. Trials that evaluated fibrates in the background of statins (2 studies) showed no benefits in preventing cardiovascular events. Authors' conclusions Moderate-quality evidence suggests that fibrates lower the risk for cardiovascular and coronary events in primary prevention, but the absolute treatment effects in the primary prevention setting are modest (absolute risk reductions < 1%). There is low-quality evidence that fibrates have no effect on overall or non-CVD mortality.

According to the news reporters, the research concluded: "Very low-quality evidence suggests that fibrates are not associated with increased risk for adverse effects."

For more information on this research see: Fibrates for primary prevention of cardiovascular disease events. Cochrane Database of Systematic Reviews, 2016;(11):468-536. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting M. Briel, University of Basel Hospital, Basel Inst Clin Epidemiol & Biostat, Basel, Switzerland. Additional authors for this research include A.J. Nordmann, S. Schandelmaier, I. Ferreira-Gonzalez and M. Briel.

Keywords for this news article include: Basel, Switzerland, Europe, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Therapy, Article Review, Myocardial Infarction, Myocardial Ischemia, Risk and Prevention, Type 2 Diabetes, Heart Disease, Heart Attack, Cardiology, Placebos, University of Basel Hospital.

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Nutritional and Metabolic Diseases and Conditions - …

New Type 2 Diabetes Study Findings Have Been Reported by Investigators at University of Florida (Hepatic ZIP14-mediated Zinc Transport Contributes to Endosomal Insulin Receptor Trafficking and Glucose Metabolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news originating from Gainesville, Florida, by NewsRx correspondents, research stated, "Zinc influences signaling pathways through controlled targeted zinc transport. Zinc transporter Zip14 KO mice display a phenotype that includes impaired intestinal barrier function with low grade chronic inflammation, hyperinsulinemia, and increased body fat, which are signatures of diet-induced diabetes (type 2 diabetes) and obesity in humans."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from the University of Florida, "Hyperglycemia in type 2 diabetes and obesity is caused by insulin resistance. Insulin resistance results in inhibition of glucose uptake by liver and other peripheral tissues, principally adipose and muscle and with concurrently higher hepatic glucose production. Therefore, modulation of hepatic glucose metabolism is an important target for antidiabetic treatment approaches. We demonstrate that during glucose uptake, cell surface abundance of zinc transporter ZIP14 and mediated zinc transport increases. Zinc is distributed to multiple sites in hepatocytes through sequential translocation of ZIP14 from plasma membrane to early and late endosomes. Endosomes from Zip14 KO mice were zinc-deficient because activities of the zinc-dependent insulin-degrading proteases insulin-degrading enzyme and cathepsin D were impaired; hence insulin receptor activity increased. Transient increases in cytosolic zinc levels are concurrent with glucose uptake and suppression of glycogen synthesis. In contrast, Zip14 KO mice exhibited greater hepatic glycogen synthesis and impaired gluconeogenesis and glycolysis related to low cytosolic zinc levels. We can conclude that ZIP14-mediated zinc transport contributes to regulation of endosomal insulin receptor activity and glucose homeostasis in hepatocytes."

According to the news editors, the research concluded: "Therefore, modulation of ZIP14 transport activity presents a new target for management of diabetes and other glucose-related disorders."


The news correspondents report that additional information may be obtained from R.J. Cousins, University of Florida, Dept. of Biochem & Mol Biol, Coll Med, Gainesville, FL 32611, United States. Additional authors for this research include C. Troche, M.H. Kim and R.J. Cousins.

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that is either free or for purchase.

Keywords for this news article include: Gainesville, Florida, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Receptor Protein-Tyrosine Kinases, Pancreatic Hormone Receptors, Glucose Metabolism Disorders, Phosphotransferases, Risk and Prevention, Insulin Resistance, Membrane Proteins, Gastroenterology, Insulin Receptor, Peptide Proteins, Peptide Hormones, Protein Kinases, Hyperinsulinism, Type 2 Diabetes, Proinsulin, Genetics, University of Florida.

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New Type 2 Diabetes Study Findings Have Been Reported by Investigators at Wageningen University (Intake of different types of dairy and its prospective association with risk of type 2 diabetes: The Rotterdam Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news reporting from Wageningen, Netherlands, by NewsRx journalists, research stated, "The prevalence of type 2 diabetes (T2DM) is increasing. Several studies have suggested a beneficial effect of several major dairy nutrients on insulin production and sensitivity."

Funders for this research include FrieslandCampina, Erasmus University Rotterdam, Netherlands Organisation of Scientific Research (NWO), Netherlands Organisation for Health Research and Development (ZonMw), Ministry of Education, Culture, and Science, Ministry of Health, Welfare, and Sports, European Commission (DG-XII), Nestle Nutrition (Nestec Ltd.), Metagenics Inc.

The news correspondents obtained a quote from the research from Wageningen University, "Conversely, harmful effects have been suggested as well. This study aimed to investigate the impact of the full-range of dairy products and its association with incidence T2DM in Dutch adults aged >= 55 years participating in the Rotterdam Study. Dairy intake was assessed with a validated FFQ, including total, skimmed, semi-skimmed, full-fat, fermented, and non-fermented dairy, and subclasses of these product groups. Verified prevalent and incident diabetes were documented. Cox proportional hazards regression and spline regression were used to analyse data, adjusting for age, sex, alcohol, smoking, education, physical activity, body mass index, intake of total energy, energy-adjusted meat, and energy-adjusted fish intake. Median total dairy intake was 398 g/day (IQR 259-559 g/day). Through 9.5 +/- 4.1 years of follow-up, 393 cases of incident T2DM were reported. Cox and spline regression did not point towards associations of total dairy consumption, dairy consumption based on fat content, non-fermented or fermented dairy consumption, or individual dairy product consumption with incident T2DM. The HR for total dairy intake and T2DM was 0.93 (95% CI: 0.70-1.23) in the upper quartile (P-for trend 0.76)."

According to the news reporters, the research concluded: "This prospective cohort study did not point towards an association between dairy consumption and T2DM."

For more information on this research see: Intake of different types of dairy and its

Our news journalists report that additional information may be obtained by contacting E.M. Brouwer-Brolsma, Wageningen University, Div Human Nutr, Wageningen, Netherlands. Additional authors for this research include G.J. van Woudenbergh, S. Elferink, C.M. Singh-Povel, A. Hofman, A. Dehghan, O.H. Franco and E.J.M. Feskens.

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Keywords for this news article include: Wageningen, Netherlands, Europe, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Risk and Prevention, Type 2 Diabetes, Wageningen University.

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**New Type 2 Diabetes Study Results from Federal University Described** *(Therapeutic potential of green tea on risk factors for type 2 diabetes in obese adults - a review)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting out of Goiania, Brazil, by NewsRx editors, research stated, "Green tea has been associated with positive effects in the treatment of obesity and other associated comorbidities such as type 2 diabetes. These benefits are thought to be related to the anti-inflammatory and antioxidant effects of green tea and to the reduction in body fat percentage exhibited by its bioactive compounds."

Our news journalists obtained a quote from the research from Federal University, "The predominant active compounds in green tea are flavonoid monomers known as catechins, in particular epigallocatechin-3-gallate, which is the most abundant and most effective catechin in metabolic care, particularly among obese patients. The objective of this review was to investigate the effects of green tea on body composition, oxidative stress, inflammation and insulin resistance, risk factors for the development of type 2 diabetes in obese individuals and the mechanisms that underlie the modulatory actions of green tea compounds on these risk factors."

According to the news editors, the research concluded: "Although green tea has therapeutic potential in the treatment of obese individuals, the findings of this review demonstrate the need for a greater number of studies to confirm the positive effects of green tea, especially regarding the modulation of obesity."

Our news journalists report that additional information may be obtained by contacting P.B. Botelho, Fed Univ Goias UFG, Nutr Fac, Lab Res Clin Nutr & Sports Labince, Goiania, Go, Brazil. Additional authors for this research include D.M. Silva, A.C. de Morais, J.F. Mota and P.B. Botelho.

Keywords for this news article include: Goiania, Brazil, South America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Obesity and Diabetes, Risk and Prevention, Insulin Resistance, Type 2 Diabetes, Bariatrics, Federal University.

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New Type 2 Diabetes Study Results from University of California Described (Impaired Collateral Flow Compensation During Chronic Cerebral Hypoperfusion in the Type 2 Diabetic Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated, "The presence of collaterals is associated with a reduced risk of stroke and transient ischemic attack in patients with steno-occlusive carotid artery disease. Although metabolic syndrome negatively impacts collateral status, it is unclear whether and to what extent type 2 diabetes mellitus affects cerebral collateral flow regulation during hypoperfusion."

The news reporters obtained a quote from the research from the University of California, "We examined the spatial and temporal changes of the leptomeningeal collateral flow and the flow dynamics of the penetrating arterioles in the distal middle cerebral artery and anterior cerebral artery branches over 2 weeks after unilateral common carotid artery occlusion (CCAO) using optical coherent tomography in db/+ and db/db mice. We also assessed the temporal adaptation of the circle of Willis after CCAO by measuring circle of Willis vessel diameters. After unilateral CCAO, db/db mice exhibited diminished leptomeningeal collateral flow compensation compared with db/+ mice, which coincided with a reduced dilation of distal anterior cerebral artery branches, leading to reduced flow not only in pial vessels but also in penetrating arterioles bordering the distal middle cerebral artery and anterior cerebral artery. However, no apparent cell death was detected in either strain of mice during the first week after CCAO. db/db mice also experienced a more severe early reduction in the vessel diameters of several ipsilateral main feeding arteries in the circle of Willis, in addition to a delayed post-CCAO adaptive response by 1 to 2 weeks, compared with db/+ mice."

According to the news reporters, the research concluded: "Type 2 diabetes mellitus is an additional risk factor for hemodynamic compromise during cerebral hypoperfusion, which may increase the severity and the risk of stroke or transient ischemic attack."

For more information on this research see: Impaired Collateral Flow Compensation During Chronic Cerebral Hypoperfusion in the Type 2 Diabetic Mice. Stroke, 2016;47 (12):3014-3021. Stroke can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Stroke - stroke.ahajournals.org/)

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Keywords for this news article include: San Francisco, California, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Central Nervous System Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Cardiovascular Diseases and Conditions, Glucose Metabolism Disorders, Transient Ischemic Attack, Anterior Cerebral Artery, Middle Cerebral Artery, Risk and Prevention, Type 2 Diabetes, Endocrinology, Angiology, Stroke, University of California.

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Inflammatory Bowel Diseases and Conditions –

New Ulcerative Colitis Study Results Reported from Poznan University of Medical Sciences (Bone Metabolism and the c.-223C > T Polymorphism in the 5'UTR Region of the Osteoprotegerin Gene in Patients with Inflammatory Bowel Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Inflammatory Bowel Diseases and Conditions - Ulcerative Colitis have been presented. According to news reporting originating from Poznan, Poland, by NewsRx correspondents, research stated, "Osteoporosis is more frequent in inflammatory bowel disease (IBD) patients. A reduction in bone mineral mass in these individuals is caused not only by inflammatory processes in the bowel, because osteoporosis occurs already in very young IBD patients and in newly diagnosed individuals who have not yet undergone any pharmacological treatment."

Our news editors obtained a quote from the research from the Poznan University of Medical Sciences, "One of individual determinants of the bone turnover parameters is osteoprotegerin (OPG) encoded by the TNFRSF11B gene. The c.-223C > T polymorphism in this gene has been extensively studied in post-menopausal osteoporosis patients. However, no such studies exist for osteoporosis related to IBD. The aim of our study was to determine whether the c.-223C > T (rs2073617) polymorphism in the 5'UTR region of the gene encoding osteoprotegerin is a functional polymorphism which may change the gene expression and resulting OPG levels, and so be associated with osteopenia and osteoporosis, and impaired bone metabolism in Crohn's disease and ulcerative colitis patients. Our study included 198 IBD patients and 41 healthy controls. Lumbar spine and femoral neck bone mineral density, T-score, Z-score as well as OPG, RANKL, vitamin D, calcium and interleukin 4 and 10 concentrations were determined for all study subjects. Genotyping of the TNFRSF11B polymorphic site was performed by restriction fragment length polymorphism technique. Statistical analyses were conducted using Statistica software. Odds ratios, 95% confidence intervals, and P values were...
calculated using the HWE calculator. Our results did not allow determining an unequivocal association between the polymorphic variants of the TNFRSF11B 5'UTR region and a susceptibility to osteoporosis in IBD patients. We have shown, however, that the c.-223T allele was twice as more frequent in Crohn's disease (CD) patients than among controls (OR = 1.99, P value = 0.009). Interestingly, average osteoprotegerin levels in CD patients did not significantly differ from those in controls, whereas in ulcerative colitis patients, OPG levels were significantly lower. We have concluded that low OPG levels may be associated with osteoporosis in ulcerative colitis, but it is not correlated with the c.-223C > T polymorphism in the TNFRSF11B gene. In CD patients, in turn, we observed increased RANKL levels."

According to the news editors, the research concluded: "Our observations confirm different pathogeneses of Crohn's disease and ulcerative colitis as well as different molecular backgrounds of osteoporosis associated with these two diseases."

For more information on this research see: Bone Metabolism and the c.-223C > T Polymorphism in the 5'UTR Region of the Osteoprotegerin Gene in Patients with Inflammatory Bowel Disease. Calcified Tissue International, 2016;99(6):616-624. Calcified Tissue International can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Calcified Tissue International - www.springerlink.com/content/0171-967x/)

The news editors report that additional information may be obtained by contacting I. Krela-Kazmierczak, Poznan Univ Med Sci, Dept. of Gastroenterol Human Nutr & Internal Dis, PL-60355 Poznan, Poland. Additional authors for this research include M. Kaczmarek-Rys, A. Szymczak, M. Michalak, M. Skrzypczak-Zielinska, N. Drweska-Matelska, M. Marcinkowska, P. Eder, L. Lykowska-Szuber, E. Wysoka, K. Linke and R. Slomski.

Keywords for this news article include: Poznan, Poland, Europe, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Musculoskeletal Diseases and Conditions, Metabolic Bone Diseases and Conditions, Tumor Necrosis Factor Decoy Receptors, Colonic Diseases and Conditions, Bone Research, Genetics, Ulcerative Colitis, Gastroenterology, Osteoprotegerin, Gastroenteritis, Crohn's Disease, Osteoporosis, Immunology, Poznan University of Medical Sciences.

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**Calcified Tissue International -**

**New University of Lisbon Reports Findings in Clostridium difficile (The SpolIIQ-SpolIIIAH complex of Clostridium difficile controls forespore engulfment and late stages of gene expression and spore morphogenesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Positive Bacteria - Clostridium difficile have been presented. According to news reporting originating in Oeiras, Portugal, by NewsRx journalists, research stated, "Engulfment of the forespore by the mother cell is a universal feature of endosporulation. In Bacillus subtilis, the forespore protein SpolIQ and the mother cell protein SpolIIIAH form a channel, essential for endosporulation, through which the developing spore is nurtured."
The news reporters obtained a quote from the research from the New University of Lisbon, "The two proteins also form a backup system for engulfment. Unlike in B. subtilis, SpoIIQ of Clostridium difficile has intact LytM zinc-binding motifs. We show that spoIIQ or spoIIIAH deletion mutants of C. difficile result in anomalous engulfment, and that disruption of the SpoIIQ LytM domain via a single amino acid substitution (H120S) impairs engulfment differently. SpoIIQ and SpoIIQ(H120S) interact with SpoIIIAH throughout engulfment. SpoIIQ, but not SpoIIQ(H120S), binds Zn(2+), and metal absence alters the SpoIIQ-SpoIIIAH complex in vitro. Possibly, SpoIIQ(H120S) supports normal engulfment in some cells but not a second function of the complex, required following engulfment completion. We show that cells of the spoIIQ or spoIIIAH mutants that complete engulfment are impaired in post-engulfment, forespore and mother cell-specific gene expression, suggesting a channel-like function."

According to the news reporters, the research concluded: "Both engulfment and a channel-like function may be ancestral functions of SpoIIQ-SpoIIIAH while the requirement for engulfment was alleviated through the emergence of redundant mechanisms in B. subtilis and related organisms."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/mmi.13311. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oeiras, Europe, Portugal, Genetics, Clostridium difficile, Gram Positive Bacteria, Gram-Positive Bacteria, Gram Positive Endospore Forming Rods, Gram Positive Endospore Forming Bacteria.

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Surgery - Urethrotomy

New Urethrotomy Study Findings Have Been Reported by Investigators at Research Hospital (Modified platelet-rich plasma with transforming growth factor beta 1 neutralization antibody injection may reduce recurrence rate of urethral stricture)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Surgery - Urethrotomy have been presented. According to news reporting out of Van, Turkey, by NewsRx editors, the research stated, "Urethral stricture is one of the most bothersome urologic disease among urologists and has a substantial impact on quality of life and healthcare costs. Although it can be cured with internal urethrotomy easily,
post-surgery stricture recurrence is challenging."

Our news journalists obtained a quote from the research from Research Hospital, "Several adjuvant therapies have been used in conjunction with internal urethrotomy but none of them are used routinely because the pathophysiology of the disease is still obscure. Fibrosis is the most accused hypothesis for the action. Platelet-rich plasma (PRP) is an autologous blood product containing a high concentration of platelets that is being used for a very wide range of clinical healing applications. It comprises a concentration of fundamental protein growth factors shown to be actively excreted by platelets to initiate accurate wound healing. Although PRP can play a critical role in wound healing and has been used in fibrotic diseases successfully, it has some deleterious cytokines such as transforming growth factor beta 1 (TGF beta 1) which can also cause fibrosis."

According to the news editors, the research concluded: "The new hypothesis is that the subcutaneous injection of neutralized platelet-rich plasma with TGF beta 1 antibody at the planned urethrotomy site may prevent recurrence and provide superior healing and long-term results."

For more information on this research see: Modified platelet-rich plasma with transforming growth factor beta 1 neutralization antibody injection may reduce recurrence rate of urethral stricture. Medical Hypotheses, 2016;97():1-3. Medical Hypotheses can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Medical Hypotheses - www.journals.elsevier.com/medical-hypotheses/)

Our news journalists report that additional information may be obtained by contacting M. Gul, Van Training & Res Hosp, Dept. of Urol, TR-65000 Van, Turkey.

Keywords for this news article include: Van, Turkey, Eurasia, Intercellular Signaling Peptides and Proteins, Transforming Growth Factor beta, TGF-beta Superfamily Proteins, Transforming Growth Factors, Platelet-Rich Plasma, Immunoglobulins, Blood Proteins, Urethrotomy, Immunology, Antibodies, Hematology, Cytokines, Surgery, Research Hospital.

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Urologic Diseases and Conditions - Urinary Tract...

New Urinary Tract Infections Study Findings Have Been Reported by Investigators at Nara Medical University (Bacteremia secondary to Alloscardovia omnicolens urinary tract infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Urologic Diseases and Conditions - Urinary Tract Infections have been presented. According to news reporting from Nara, Japan, by NewsRx journalists, research stated, "A 70-year-old woman was admitted to our hospital with malaise, bilateral leg edema, and oliguria. She had a history of advanced uterine cancer."

The news correspondents obtained a quote from the research from Nara Medical University, "Bilateral double-J catheters were inserted because growth of intra-abdominal metastases led to bilateral ureteral stricture and hydronephrosis. Two days later, she suddenly developed high fever. Thin gram-positive bacilli of moderate length were detected in the anaerobic blood culture bottles. We performed 16S ribosomal RNA analysis of the isolate and it showed 100% match with Alloscardovia omnicolens DSM 21503T."
According to the news reporters, the research concluded: "She was successfully treated with cefmetazole in addition to percutaneous nephrostomy."

For more information on this research see: Bacteremia secondary to Alloscardovia omnicolens urinary tract infection. *Journal of Infection and Chemotherapy*, 2016;22(6):424-425. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

Our news journalists report that additional information may be obtained by contacting Y. Ogawa, Nara Medical University, Center Infect Dis, Kashihara, Nara, Japan. Additional authors for this research include A. Koizumi, K. Kasahara, S.T. Lee, Y. Yamada, R. Nakano, H. Yano and K. Mikasa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2015.12.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nara, Japan, Asia, Urologic Diseases and Conditions, Urinary Tract Infections, Women's Health, Genetics, Nara Medical University.

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New Urology Findings from University of Chicago Outlined (Iatrogenic Bladder Injury: National Analysis of 30-Day Outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Urology have been published. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "To examine the risk factors and outcomes of BI, a rare complication of abdominopelvic surgery. We queried the National Surgical Quality Improvement Program database to identify intraoperative bladder injury (BI) defined by the Current Procedural Terminology code for cystorrhaphy from 2005 to 2013."

Our news journalists obtained a quote from the research from the University of Chicago, "Propensity-score matching balanced the differences between patients with BI and the controls. The factors matched included age, body mass index, race, modified frailty index, and procedure category. There were 1685 cases of BI in 1,541,736 surgeries (0.11%). Although 49.5% of surgeries were performed in an open fashion, this approach accounted for 69.3% of BI (P < .001). Prior to matching, mortality rates and morbidity were increased for the BI group (P < .001). Moreover, age, recent chemotherapy or radiation or steroid history, and smoking were among the risk factors for BI (all P< .05). Resident involvement increased the odds of BI and complications after BI, but decreased the risk of readmission (all P<.05). After matching, 30-day mortality was no longer increased for patients with BI (P < .001). Patients with BI requiring repair did have increased median length of stay (6 days [interquartile range IQR: 3-11] vs 5 [IQR: 2-9]; P< .001) and operative time (203 min [IQR: 140-278] vs 134 [IQR: 86-199]; P <.001). BI patients were more likely to undergo reoperation (7.7% vs 5.3%; P = .005). Urine infection, sepsis, and bleeding were more likely in the BI group compared with the matched controls (all P<.001). Delayed repair was rare. We present the largest national series assessing iatrogenic BI and subsequent repair. BI increases 30-day complications, reoperation, and length of stay but does not increase 30-day mortality compared with matched controls."
According to the news editors, the research concluded: "More complex surgical cases and increased baseline comorbidity were risk factors for BI."


Our news journalists report that additional information may be obtained by contacting A.J. Cohen, Univ Chicago Med, Urol Sect, Dept. of Surg, Chicago, IL 60637, United States. Additional authors for this research include V.T. Packiam, C.U. Nottingham, J.J. Pariser, S.F. Faris and G.T. Bales.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.05.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Urology, Health and Medicine, Risk and Prevention, University of Chicago.

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**Health and Medicine - Urology**

**New Urology Study Findings Have Been Reported by Investigators at University Hospital (The translational potential of microRNAs as biofluid markers of urological tumours)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Urology. According to news reporting originating in Berlin, Germany, by NewsRx journalists, research stated, "MicroRNAs (miRNAs) are secreted by cells in-vesicles, bound in a ribonucleoprotein complex or as free molecules."

The news reporters obtained a quote from the research from University Hospital, "These miRNA secretion pathways are dysregulated in cancer, making miRNAs attractive candidate molecules for liquid biopsies. A number of studies have investigated the regulation of miRNA secretion into blood and urine and suggested that miRNAs are noninvasive diagnostic, prognostic and surveillance markers in urological carcinomas, and research in this area has increased over the past 5 years."

According to the news reporters, the research concluded: "However, methodological and analytical pitfalls exist and require addressing to enable future translation of the laboratory findings regarding miRNAs as biomarkers into clinical practice in bladder cancer, kidney cancer, prostate cancer and testicular cancer."


Our news correspondents report that additional information may be obtained by contacting K. Jung, Univ Hosp Charite, Berlin Inst Urol Res, D-10117 Berlin, Germany. Additional authors for this research include C. Stephan, G.M. Yousef, G. Kristiansen and K.
Jung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrurol.2016.193. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berlin, Germany, Europe, Urology, Health and Medicine, Cancer, Article Review, Epidemiology, Oncology, University Hospital.

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Immunization - Vaccines

New Vaccines Findings from Free University Described (Intralymphatic mRNA vaccine induces CD8 T-cell responses that inhibit the growth of mucosally located tumours)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immunization - Vaccines is the subject of a report. According to news reporting from Brussels, Belgium, by NewsRx journalists, research stated, "The lack of appropriate mouse models is likely one of the reasons of a limited translational success rate of therapeutic vaccines against cervical cancer, as rapidly growing ectopic tumours are commonly used for preclinical studies. In this work, we demonstrate that the tumor microenvironment of TC-1 tumours differs significantly depending on the anatomical location of tumor lesions (i.e. subcutaneously, in the lungs and in the genital tract)."

The news correspondents obtained a quote from the research from Free University, "Our data demonstrate that E7-TriMix mRNA vaccine-induced CD8(+) T lymphocytes migrate into the tumor nest and control tumor growth, although they do not express mucosa-associated markers such as CD103 or CD49a. We additionally show that despite the presence of the antigen-specific T cells in the tumor lesions, the therapeutic outcomes in the genital tract model remain limited. Here, we report that such a hostile tumor microenvironment can be reversed by cisplatin treatment, leading to a complete regression of clinically relevant tumours when combined with mRNA immunization."

According to the news reporters, the research concluded: "We thereby demonstrate the necessity of utilizing clinically relevant models for preclinical evaluation of anticancer therapies and the importance of a simultaneous combination of anticancer immune response induction with targeting of tumor environment."

For more information on this research see: Intralymphatic mRNA vaccine induces CD8 T-cell responses that inhibit the growth of mucosally located tumours. *Scientific Reports*, 2016;6():22509. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting L. Bialkowski, Laboratory of Molecular and Cellular Therapy, Vrije Universiteit Brussel, Laarbeeklaan 103E, 1090 Brussels, Belgium. Additional authors for this research include A. van Weijnen, K. Van der Jeught, D. Renmans, L. Daszkiewicz, C. Heirman, G. Stange, K. Breckpot, J.L. Aerts and K. Thielemans.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep22509. This DOI is a link to an online electronic document that is either free or for purchase.
New Vaccines Findings from K. Oddsson and Co-Researchers Described

Attitudes and knowledge among parents or guardians of 12-year-old girls about HPV vaccination - A population-based survey in Iceland

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunization - Vaccines have been published.

According to news reporting from Reykjavik, Iceland, by NewsRx journalists, research stated, "To assess attitude and knowledge among parents or guardians of 12-year-old girls about human papillomavirus (HPV), cervical cancer, and HPV vaccination. A mail survey was sent to a randomized sample of 1,000 parents or guardians of 12-year-old girls from a cohort of total 2,092 girls born in 1995 and registered in the Icelandic National Register by the end of December 2007."

The news correspondents obtained a quote from the research, "Of the 994 eligible parents, 583 (59%) returned the questionnaire. Majority of the respondents were mothers who had two or three children. More than one-third of respondents had university education and 84% were married or living with a partner. Over two-thirds did not know that HPV causes cervical cancer and genital warts. Almost all (> 90%) would vaccinate theirs daughters with a HPV vaccine, 73% said they would vaccinate their sons, or themselves if the vaccine was effective for them. Only 11% believed HPV vaccination would increase promiscuity or decrease cervical screening attendance."

According to the news reporters, the research concluded: "In Iceland, willingness to vaccinate young girls with HPV vaccine is high, however, knowledge about HPV infections is limited."

For more information on this research see: Attitudes and knowledge among parents or guardians of 12-year-old girls about HPV vaccination - A population-based survey in Iceland. European Journal of Gynaecological Oncology, 2016;37(6):837-841. European Journal of Gynaecological Oncology can be contacted at: I R O G Canada, Inc, 4900 Cote St-Luc, Apt# 212, Montreal, Quebec H3W 2H3, Canada.

Our news journalists report that additional information may be obtained by contacting K. Oddsson, Iceland Canc Soc, Canc Detect Clin, Reykjavik 105, Iceland. Additional authors for this research include T. Gudmundsdottir and H. Briem.

Keywords for this news article include: Reykjavik, Iceland, Europe, Human Papillomavirus, Biological Products, Public Health, Immunization, Vaccination, Vaccines.
New Vaccines Study Findings Have Been Reported by C. Willame and Colleagues (Importance of feasibility assessments before implementing non-interventional pharmacoepidemiologic studies of vaccines: lessons learned and recommendations for future ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunization - Vaccines. According to news reporting from Wavre, Belgium, by NewsRx journalists, research stated, "Investigational and marketed vaccines are increasingly evaluated, and manufacturers are required to put in place mechanisms to monitor long-term benefit-risk profiles. However, generating such evidence in real-world settings remains challenging, especially when rare adverse events are assessed."

The news correspondents obtained a quote from the research, "Planning of an appropriate study design is key to conducting a valid study. The aim of this paper is to illustrate how feasibility assessments support the generation of robust pharmacoepidemiological data. Following an initiative launched by the International Society for Pharmacoepidemiology in May 2014, a working group including members of the private and public sectors, was formed to assess the value of conducting feasibility assessments as a necessary step before embarking on larger-scale post-licensure studies. Based on five real-life examples of feasibility assessments, lessons learned and recommendations were issued by the working group to support scientific reasoning and decision making when designing pharmacoepidemiologic vaccine studies. The working group developed a toolbox to provide a pragmatic approach to conducting feasibility assessments. The toolbox contains two main components: the scientific feasibility and the operational feasibility. Both components comprise a series of specific questions aimed at overcoming methodological and operational challenges. A feasibility assessment should be formalized as a necessary step prior to the actual start of any pharmacoepidemiologic study. It should remain a technical evaluation and not a hypothesis testing."

According to the news reporters, the research concluded: "The feasibility assessment report may facilitate communication with regulatory agencies toward improving the quality of study protocols and supporting the endorsement of study objectives and methods addressing regulatory commitments."


Our news journalists report that additional information may be obtained by contacting C. Willame, GSK Vaccines, Business & Decis Life Sci, B-1300 Wavre, Belgium. Additional authors for this research include L. Baril, J. van den Bosch, G.L.C. Ferreira, R. Williams, D. Rosillon and C. Cohet.

Keywords for this news article include: Wavre, Belgium, Europe, Therapy, Drugs and Therapies, Epidemiology, Pharmacoepidemiology, Biological Products, Immunization, Vaccines.

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New Vaccines Study Findings Have Been Reported by Researchers at University of California (Novel cancer antigens for personalized immunotherapies: latest evidence and clinical potential)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immunization - Vaccines is now available. According to news reporting originating from Sacramento, California, by NewsRx correspondents, research stated, "The clinical success of monoclonal antibody immune checkpoint modulators such as ipilimumab, which targets cytotoxic T lymphocyte-associated antigen 4 (CTLA-4), and the recently approved agents nivolumab and pembrolizumab, which target programmed cell death receptor 1 (PD-1), has stimulated renewed enthusiasm for anticancer immunotherapy, which was heralded by Science as 'Breakthrough of the Year' in 2013. As the potential of cancer immunotherapy has been recognized since the 1890s when William Coley showed that bacterial products could be beneficial in cancer patients, leveraging the immune system in the treatment of cancer is certainly not a new concept; however, earlier attempts to develop effective therapeutic vaccines and antibodies against solid tumors, for example, melanoma, frequently met with failure due in part to self-tolerance and the development of an immunosuppressive tumor microenvironment."

Our news editors obtained a quote from the research from the University of California, "Increased knowledge of the mechanisms through which cancer evades the immune system and the identification of tumor-associated antigens (TAAs) and negative immune checkpoint regulators have led to the development of vaccines and monoclonal antibodies targeting specific tumor antigens and immune checkpoints such as CTLA-4 and PD-1. This review first discusses the established targets of currently approved cancer immunotherapies and then focuses on investigational cancer antigens and their clinical potential."

According to the news editors, the research concluded: "Because of the highly heterogeneous nature of tumors, effective anticancer immunotherapy-based treatment regimens will likely require a personalized combination of therapeutic vaccines, antibodies and chemotherapy that fit the specific biology of a patient's disease."

For more information on this research see: Novel cancer antigens for personalized immunotherapies: latest evidence and clinical potential. Therapeutic Advances In Medical Oncology, 2016;8(1):4-31. (Sage Publications - www.sagepub.com/; Therapeutic Advances In Medical Oncology - tam.sagepub.com)

The news editors report that additional information may be obtained by contacting G.T. Wurz, Dept. of Internal Medicine, Division of Hematology and Oncology, University of California, Davis, Sacramento, CA, United States. Additional authors for this research include C.J. Kao and M.W DeGregorio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1758834015615514. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Antigens, Oncology, Vaccines, Sacramento, California, Immunology, Immunization, United States, Immunotherapy, Article Review, Blood Proteins, Cancer Therapy, Immunoglobulins, Biological Factors, Biological...
New Vaccines Study Results from Leiden University Described
(Repeated fractional intradermal dosing of an inactivated polio vaccine by a single hollow microneedle leads to superior immune responses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immunization - Vaccines. According to news reporting originating in Leiden, Netherlands, by NewsRx journalists, research stated, "The purpose of this study was to investigate the effect of various repeated fractional intradermal dosing schedules of inactivated polio vaccine serotype 1 (IPV1) on IPV1-specific IgG responses in rats. By utilizing an applicator that allowed for precisely controlled intradermal microinjections by using a single hollow microneedle, rats were immunized intradermally with 5 D-antigen units (DU) of IPV1 at 150 μm skin depth."

The news reporters obtained a quote from the research from Leiden University, "This dose was administered as a bolus, or in a repeated fractional dosing schedule: 4 doses of 1.25DU (1/4th of total dose) were administered on four consecutive days or every other day; 8 doses of 0.625 DU (1/8th of total dose) were administered on eight consecutive days; or 4 exponentially increasing doses (0.04, 0.16, 0.8 and 4 DU), either with or without an exponentially increasing CpG oligodeoxynucleotide 1826 (CpG) dose, were administered on four consecutive days. All of these fractional dosing schedules resulted in up to ca. 10-fold higher IPV1-specific IgG responses than intradermal and intramuscular bolus dosing. IPV1 combined with adjuvant CpG in exponential dosing did not significantly increase the IPV1-specific IgG responses further, which demonstrated that maximal responses were achieved by fractional dosing."

According to the news reporters, the research concluded: "Repeated fractional intradermal IPV1 dosing leads to superior IPV1-specific IgG responses without the use of adjuvants. These results indicate that a controlled release delivery system for intradermal IPV1 delivery can potentiate IPV1-specific IgG responses."

For more information on this research see: Repeated fractional intradermal dosing of an inactivated polio vaccine by a single hollow microneedle leads to superior immune responses. *Journal of Controlled Release*, 2016;242():141-147. *Journal of Controlled Release* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news correspondents report that additional information may be obtained by contacting P. Schipper, Leiden University, Leiden Academy Center Drug Res, Cluster BioTherapeut, Div Drug Delivery Technol, NL-2300 RA Leiden, Netherlands. Additional authors for this research include K. van der Maaden, S. Romeijn, C. Oomens, G. Kersten, W. Jiskoot and J. Bouwstra.

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Cardiovascular Diseases and Conditions - Vasculitis

New Vasculitis Study Findings Recently Were Reported by Researchers at Hospital Clinic (Antibody-Mediated Acute Vascular Rejection of Kidney Allografts: Fifteen-Year Follow-up)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Vasculitis are presented in a new report. According to news reporting out of Madrid, Spain, by NewsRx editors, research stated, "Although acute vascular rejection (AVR) is associated with a high risk of graft loss, it remains unclear whether AVR with accompanied cellular or humoral rejection (AHR) has dissimilar outcomes. The aim of this study was to examine the association between subtypes of AVR and graft loss."

Our news journalists obtained a quote from the research from Hospital Clinic, "We assessed patients who provided biopsy samples for acute allograft rejection from 1998 to 2014. To investigate distinct rejection patterns, we retrospectively assessed rejection episodes with review of graft histology as well as donor-specific anti-HLA antibodies when available. A total of 1,004 patients were biopsied and included in the main analyses, of which 259 (32.87%) had acute biopsy-proven rejection. We identified three patterns of graft rejection defined according to the presence of peritubular capillaritis (ptc): a) T-cell mediated acute vascular rejection if ptc free; b) humoral-mediated acute vascular rejection if ptc >0; and c) T-cell mediated rejection if vasculitis = 0 and ptc = 0 (148 [57%], 70 [27%], and 41 [16%], respectively). At 5 years, graft survival was lower among patients with ptc-vascular rejection than those with T-cell vascular rejection (72.3% vs 83.2%; P = .010). T-cell mediated rejection without vasculitis had similar survival compared with rejection absence (89.3% vs 89.2%; P = .698). Multivariate analysis adjusted by age and sex showed that risk of graft loss was higher in biopsies with high scores of glomerulitis (g2-g3); vasculitis (v2-v3), capillaritis (ptc2- ptc3), or interstitial inflammation (i2-i3). However, tubulitis and C4d were not statically significant. We conclude that antibody-mediated AVR involves a poorer prognosis than T-cell mediated AVR."

According to the news editors, the research concluded: "The presence of tubulitis does not seem to determine a poor long-term renal graft prognosis."


Our news journalists report that additional information may be obtained by contacting B.R. Cubillo, Hosp Clin San Carlos, Nephrol, Madrid, Spain. Additional authors for this research include I.P. Flores, N. Calvo, A. Pascual, J.A. Cortes, M.A. Moreno, J. Blanco and A.S. Fructuoso.

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http://dx.doi.org/10.1016/j.transproceed.2016.09.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Cardiovascular Diseases and Conditions, Immunology, Risk and Prevention, Immunoglobulins, Blood Proteins, Antibodies, Vasculitis, Hospital Clinic.

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Cardiovascular Diseases and Conditions - Venous...

New Venous Thromboembolism Data Have Been Reported by Investigators at Department of Orthopedic Surgery (Rate of Transfusions After Total Knee Arthroplasty in Patients Receiving Lovenox or High-Dose Aspirin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Venous Thromboembolism are discussed in a new report. According to news reporting originating from Honolulu, Hawaii, by NewsRx correspondents, research stated, "Controversy continues regarding the use of powerful anticoagulants for venous thromboembolism prophylaxis in patients undergoing total knee arthroplasty (TKA). To comply with institution-mandated guidelines and pressure from hospitalist intent on complying with conventionally recommended anticoagulation guidelines, we singularly changed our chemoprophylaxis practice from using aspirin to Lovenox and noted that transfusion rates increased substantially."

Our news editors obtained a quote from the research from the Department of Orthopedic Surgery, "A retrospective case review was performed to evaluate transfusion requirement differences in primary TKA patients receiving Lovenox (unilateral TKA: n = 135, bilateral TKA: n = 44) or aspirin (unilateral TKA: n = 153, bilateral TKA: n = 45) for venous thromboembolism prophylaxis. Pearson's chi-square tests were used to evaluate surgical complications and the rate of transfusions between aspirin and Lovenox groups. Independent t tests were used to evaluate the units of packed red blood cells transfused, hemoglobin drop, and hematocrit drop between aspirin and Lovenox groups. Lovenox was found to significantly increase (P < .01) the rate of transfusion, units of packed red blood cells, hemoglobin drop, and hematocrit drop compared to aspirin in both unilateral and bilateral TKA patients, without significantly decreasing venous thromboembolism events (aspirin: 3 pulmonary embolisms and 4 deep venous thrombosis; Lovenox: 3 pulmonary embolisms and 2 deep venous thrombosis)."

According to the news editors, the research concluded: "Our findings suggest that aspirin is as effective as Lovenox in preventing venous thromboembolism and that the use of Lovenox significantly increases the likelihood of requiring transfusions after surgery."


The news editors report that additional information may be obtained by contacting C.K. Nakasone, Straub Bone & Joint Center, Dept. of Orthoped Surg, Honolulu, HI, United
New Venous Thromboembolism Data Have Been Reported by Investigators at Johns Hopkins University (The Johns Hopkins Venous Thromboembolism Collaborative: Multidisciplinary Team Approach to Achieve Perfect Prophylaxis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Venous Thromboembolism have been published. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "Venous thromboembolism (VTE) is an important cause of preventable harm in hospitalized patients. The critical steps in delivery of optimal VTE prevention care include (1) assessment of VTE and bleeding risk for each patient, (2) prescription of risk-appropriate VTE prophylaxis, (3) administration of risk-appropriate VTE prophylaxis in a patient-centered manner, and (4) continuously monitoring outcomes to identify new opportunities for learning and performance improvement."

Our news journalists obtained a quote from the research from Johns Hopkins University, "To ensure that every hospitalized patient receives VTE prophylaxis consistent with their individual risk level and personal care preferences, we organized a multidisciplinary task force, the Johns Hopkins VTE Collaborative. To achieve the goal of perfect prophylaxis for every patient, we developed evidence-based, specialty-specific computerized clinical decision support VTE prophylaxis order sets that assist providers in ordering risk-appropriate VTE prevention. We developed novel strategies to improve provider VTE prevention ordering practices including face-to-face performance reviews, pay for performance, and provider VTE scorecards. When we discovered that prescription of risk-appropriate VTE prophylaxis does not ensure its administration, our multidisciplinary research team conducted in-depth surveys of patients, nurses, and physicians to design a multidisciplinary patient-centered educational intervention to eliminate missed doses of pharmacologic VTE prophylaxis that has been funded by the Patient Centered Outcomes Research Institute. We expect that the studies currently underway will bring us closer to the goal of perfect VTE prevention care for every patient."

According to the news editors, the research concluded: "Our learning journey to eliminate harm from VTE can be applied to other types of harm."

For more information on this research see: The Johns Hopkins Venous


Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiovascular Diseases and Conditions, Risk and Prevention, Vascular Diseases and Conditions, Embolism and Thrombosis, Venous Thromboembolism, Hematology, Johns Hopkins University.

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New Venous Thromboembolism Study Results Reported from Institute Gulbenkian de Ciencia (Mitochondrial genome association study with peripheral arterial disease and venous thromboembolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Venous Thromboembolism have been published. According to news reporting originating in Oeiras, Portugal, by NewsRx journalists, research stated, "Peripheral arterial disease (PAD) and venous thromboembolism (VTE) are vascular traits sharing common modifiable and non-modifiable risk factors. These vascular pathologies have known nuclear-encoded genetic risk factors and the mitochondrial DNA may account for part of the missing heritability."

Funders for this research include National Human Genome Research Institute, National Heart, Lung, and Blood Institute, NIH, NIH Genes, Environment and Health Initiative [GEI], Gene Environment Association Studies (GENEVA), NIH GEI, NIH contract “High throughput genotyping for studying the genetic contributions to human disease”.

The news reporters obtained a quote from the research from Institute Gulbenkian de Ciencia, "To determine if PAD and VTE have a dual genetic control (mitochondrial and nuclear), we hereby investigated the association of mitochondrial DNA polymorphisms and haplogroups with these vascular traits. The association of mitochondrial single nucleotide polymorphisms (mtSNPs) and haplogroups was tested in 1652 PAD cases and 1629 controls from the eMERGE PAD genome-wide association study (GWAS), and 1241 VTE cases and 1278 controls from the GENEVA GWAS of venous thrombosis (dbGaP accession numbers phs000203. v1. p1 and phs000289. v2. p1, respectively). 66 and 72 mtSNPs passed quality control filters and were tested for association with PAD and VTE, respectively. Significant evidence of population stratification could not be detected in both datasets. Three mtSNPs (m. 477T > C, m. 9667A > G, and m. 10915T > C) were nominally associated (3.01 x 10(-3) <= pa <= 3.96 x 10(-2)) with PAD in the logistic regression adjusted for confounding factors, and m. 11914G > A was nominally associated (pa = 4.14 x 10(-2)) with VTE. None of the nine major
mitochondrial haplogroups were associated with either PAD or VTE."

According to the news reporters, the research concluded: "Unlike other vascular diseases such as stroke and diabetes, these results suggest that common mitochondrial variants individually or in combination do not play a major role in PAD and VTE susceptibility."

For more information on this research see: Mitochondrial genome association study with peripheral arterial disease and venous thromboembolism. Atherosclerosis, 2016;252():97-105. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news correspondents report that additional information may be obtained by contacting S.A. Oliveira, Inst Gulbenkian Ciencias, Oeiras, Portugal. Additional authors for this research include A. Rosa, V. Francisco, I. Sousa, J.M. Xavier and S.A. Oliveira.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.920. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oeiras, Portugal, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Peripheral Artery Disease, Embolism and Thrombosis, Venous Thromboembolism, Risk and Prevention, Hematology, Genetics, Institute Gulbenkian de Ciencia.

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Heart Disorders and Diseases - Ventricular Tachycardia

New Ventricular Tachycardia Study Findings Recently Were Reported by Researchers at Na Homolce Hospital (Catheter Ablation of Ischemic Ventricular Tachycardia With Remote Magnetic Navigation: STOP-VT Multicenter Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Ventricular Tachycardia. According to news reporting from Prague, Czech Republic, by NewsRx journalists, research stated, "Catheter ablation is an effective treatment of scar-related ventricular tachycardia (VT), but the overall complexity of the procedure has precluded its widespread use. Remote magnetic navigation (RMN) has been shown to facilitate cardiac mapping and ablation of VT in a retrospective series."

Funders for this research include Stereotaxis, St. Louis, Biosense-Webster and St. Jude Medical, Biosense-Webster, St. Jude Medical, and Boston Scientific.

The news correspondents obtained a quote from the research from Na Homolce Hospital, "STOP-VT is the first multicenter, prospective, single-arm and single-procedure study evaluating RMN-based mapping and ablation of post-infarction VT. Patients with documented VT and prior MI, in whom an ICD was implanted either for primary or secondary prevention, were recruited from four EU and US centers. Either a transseptal (48 patients) or transaortic (5 patients) approach was employed to gain access for ventricular endocardial mapping/ablation during VT (entrainment mapping, activation mapping) and/or substrate mapping in sinus rhythm (elimination of fractionated/late potentials, variable extent of substrate modification) with RMN and irrigated RF ablation. The primary endpoints were as follows: (i) non-inducibility of the
target VT or any other sustained VT; (ii) elimination of sustained VT/VF during ICD follow-up of up to 12 months. The cohort included 53 consecutive patients (median age 67 years, 49 men, median LVEF 31%). One hemodynamically unstable patient was excluded at the onset of mapping. Inducibility of sustained VT was achieved an average of 2.2 times per patient (1-8), with mean tachycardia cycle length (TCL) 374 milliseconds (179-510). Mean total procedure and fluoroscopy times were 223 minutes and 8.7 minutes, respectively; mean cumulative fluoroscopy time during mapping and ablation was 0.95 minutes; maximum power averaged 42.3 W with nominal saline 30 cc/min irrigation; mean cumulative RF time was 38 minutes. Non-inducibility of the target VT was achieved in 49/52 patients (94.2%) and non-inducibility of any VT was achieved in 38/52 patients (73.1%). A combination of RMN and manual ablation was performed in two patients, rendering one non-inducible. During the 12-month ICD follow-up period, freedom from any sustained VT/VF was observed in 30 patients (62%), of which 19 (63%) were off antiarrhythmic medications. Five patients expired during follow-up: one presented with a VT storm, but for the others, death was not related to VT/VF (MI-cardiogenic shock, pulmonary embolism, bronchogenic carcinoma, end stage heart failure). No procedural complications were reported.

According to the news reporters, the research concluded: "This first prospective, single-procedure, multicenter study indicates that remote magnetic navigation is a safe and effective method for catheter ablation of post-infarction VT."


Our news journalists report that additional information may be obtained by contacting J. Skoda, Cardiology Department, Na Homolce Hospital, Prague, Czech Republic. Additional authors for this research include A. Arya, F. Garcia, E. Gerstenfeld, F. Marchlinski, G. Hindricks, J. Miller, J. Petru, L. Sediva, Q. Sha, M. Janotka, M. Chovanec, P. Waldauf, P. Neuzil and V.Y Reddy.

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Publisher contact information for the Journal of Cardiovascular Electrophysiology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Prague, Europe, Diagnosis, Cardiology, Heart Disease, Czech Republic, Cardiovascular, Catheter Ablation, Electrocoagulation, Cardiac Arrhythmias, Heart Catheterization, Ventricular Tachycardia, Heart Disorders and Diseases, Diagnostic Techniques and Procedures.

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New Ventricular Tachycardia Study Findings Recently Were Reported by Researchers at Tomsk Polytechnic University (Radionuclide Assessment of Cardiac Function and Dyssynchrony in Children with Idiopathic Ventricular Tachycardia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Ventricular Tachycardia have been published. According to news reporting from Tomsk, Russia, by NewsRx journalists, research stated, "The aim of the study was to evaluate the impact of idiopathic ventricular tachycardia and premature ventricular beats on cardiac function and dyssynchrony and to elucidate relationships between data of scintigraphic and intracardiac electrophysiology studies (EPSs). The study comprised 64 patients with idiopathic ventricular arrhythmias (VAs; median age of 14 years ranging from 8 to 18 years)."

The news correspondents obtained a quote from the research from Tomsk Polytechnic University, "The control group comprised 20 patients (median age of 12 ranging from 7 to 16 years) without cardiac arrhythmias. EPS and radiofrequency ablation (RFA) procedure for VA were performed in 21 children according to indications. The functional state of both ventricles was assessed by gated blood pool single photon emission computer tomography (GBP-SPECT) before and after RFA in all patients. Patients with VA had local areas of asynchronous myocardial contraction (AMC). Compared with the control group, VA patients had significantly higher values of end-diastolic volume, end-systolic volume, and lower contractility indices. Negative association was found between total numbers of AMC areas and cardiac contractility indices. Ectopic foci localization, determined based on EPS data, was associated with AMC areas topography based on GBP-SPECT. RFA procedure significantly improved cardiac contractility indices; AMC areas completely disappeared or decreased compared with the preoperative conditions. In VA patients, AMC areas were localized mostly in the right ventricle. Comparison of the results of GBP-SPECT and EPS studies showed a relationship between AMC localizations and ectopic foci topography."

According to the news reporters, the research concluded: "The fact that AMC areas disappeared after RFA supports the hypothesis stating that the presence of AMC areas is a scintigraphic symptom of ectopic focus."

For more information on this research see: Radionuclide Assessment of Cardiac Function and Dyssynchrony in Children with Idiopathic Ventricular Tachycardia. PACE-Pacing and Clinical Electrophysiology, 2016;39(11):1213-1224. PACE-Pacing and Clinical Electrophysiology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting K.V. Zavadovsky, Natl Res Tomsk Polytechnic Univ, Tomsk, Russia. Additional authors for this research include V.V. Saushkin, M.S. Khlynin, S.V. Popov and Y.B. Lishmanov.

Keywords for this news article include: Tomsk, Russia, Eurasia, Heart Disorders and Diseases, Ventricular Tachycardia, Cardiac Arrhythmias, Cardiovascular, Heart Disease, Cardiology, Tomsk Polytechnic University.

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Membrane Proteins - Vesicular Transport Proteins

New Vesicular Transport Proteins Study Findings Reported from Vanderbilt University (Caveolin-1 is an aggresome-inducing protein)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Membrane Proteins - Vesicular Transport Proteins have been presented. According to news reporting from Nashville, Tennessee, by NewsRx journalists, research stated, "Caveolin-1 (Cav1) drives the formation of flask-shaped membrane invaginations known as caveolae that participate in signaling, clathrin-independent endocytosis and mechanotransduction. Overexpression or mutations of Cav1 can lead to its mistrafficking, including its accumulation in a perinuclear compartment previously identified as the Golgi complex."

The news correspondents obtained a quote from the research from Vanderbilt University, "Here, we show that in the case of overexpressed Cav1-GFP, this perinuclear compartment consists of cytoplasmic inclusion bodies generated in response to the accumulation of aggregates of misfolded proteins, known as aggresomes. Aggresomes containing Cav1-GFP are encased within vimentin cages, form in a microtubule-dependent manner, and are enriched in a number of key regulators of protein turnover, including ubiquitin, VCP/p97 and proteasomes. Interestingly, aggresome induction was cell-type dependent and was observed for many but not all Cav1 constructs tested. Furthermore, endogenous Cav1 accumulated in aggresomes formed in response to proteasomal inhibition. Our finding that Cav1 is both an aggresome-inducing and aggresome-localized protein provides new insights into how cells handle and respond to misfolded Cav1."

According to the news reporters, the research concluded: "They also raise the possibility that aggresome formation may contribute to some of reported phenotypes associated with overexpressed and/or mutant forms of Cav1."

For more information on this research see: Caveolin-1 is an aggresome-inducing protein. Scientific Reports, 2016;6():1-14. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting A.K. Kenworthy, Vanderbilt University, Chem & Phys Biol Program, Nashville, TN 37235, United States. Additional authors for this research include C.A. Copeland, B. Han, C.A. Hanson, K. Raghu Nathan and A.K. Kenworthy.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Intracellular Signaling Peptides and Proteins, Signal Transducing Adaptor Proteins, Vesicular Transport Proteins, Membrane Proteins, Phosphoproteins, Caveolin 1, Caveolins, Genetics, Vanderbilt University.

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Gram-Negative Bacteria - *Vibrio alginolyticus*

**New Vibrio alginolyticus Findings Reported from South China Normal University [Identification, characterization and expression analysis of tumor suppressor protein p53 from pufferfish (Takifugu obscurus) after the Vibrio alginolyticus challenge]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - *Vibrio alginolyticus* are presented in a new report. According to news reporting from Guangdong, People’s Republic of China, by NewsRx journalists, research stated, "The tumor suppressor protein p53 plays a critical role in cell cycle, apoptosis and DNA repair. In this study, the full-length pufferfish p53 (Pfp53) was obtained, containing an open reading frame of 1095 bp, a 5'UTR of 157 bp and a 3'UTR of 285 bp with a poly (A) tail."

Funders for this research include National Natural Science Foundation of China, Hainan Applied Technology Research and Development and Demonstration Projects, China Postdoctoral Science Foundation, Ministry of Agriculture, Guangdong Provincial Natural Science Foundation, Scientific and Technological Planning Project of Guangdong Province, Science and technology innovation of Higher School Guangdong Province, Project of Guangdong Provincial Oceanic and Fishery Administration, Scientific and Technological Planning Project of Guangzhou City.

The news correspondents obtained a quote from the research from South China Normal University, "The Pfp53 encoded a polypeptide of 364 amino acids with a theoretical isoelectric point of 8.03 and predicted molecular weight of 40.6 kDa. Pfp53 was ubiquitously expressed in various tissues with a high-level expression in kidney, liver and gill. *Vibrio alginolyticus* challenge could induce ROS production and disrupt Ca2+ homeostasis, subsequently leading to the induction of DNA damage and apoptosis, while the *Vibrio alginolyticus*-induced oxidative stress can also increase the non-specific immunity. The pufferfish challenged with *Vibrio alginolyticus* showed a sharp increase of Pf-p53 transcript in liver. Subcellular localization analysis revealed that Pfp53 was primarily localized in nucleus. Furthermore, overexpression of Pfp53 in HeLa cells could inhibit cell proliferation and the transcriptional activities of the NF-kappa B promoter."

According to the news reporters, the research concluded: "Taken together, our results indicated that Pf-p53 may play an important role in the immune response to *Vibrio alginolyticus* challenge."

For more information on this research see: Identification, characterization and expression analysis of tumor suppressor protein p53 from pufferfish (Takifugu obscurus) after the *Vibrio alginolyticus* challenge. *Fish & Shellfish Immunology*, 2016;59():312-322. *Fish & Shellfish Immunology* can be contacted at: Academic Press Ltd- Elsevier Science Ltd, 24-28 Oval Rd, London NW1 7DX, England. (Elsevier - www.elsevier.com; Fish & Shellfish Immunology - www.journals.elsevier.com/fish-and-shellfish-immunology/)

Our news journalists report that additional information may be obtained by contacting A.L. Wang, South China Normal Univ, Sch Life Sci, Key Lab Ecol & Environment Sci Guangdong Higher Educ, Guangdong Prov Key Lab Healthy & Safe Aquaculture, Guangzhou 510300, Guangdong, People's Republic of China. Additional authors for this research include S.W. Luo, C.X. Ye, A.L. Wang and Z.X. Guo.

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http://dx.doi.org/10.1016/j.fsi.2016.10.040. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Gram-Negative Facultatively Anaerobic Rods, Tumor Suppressor Protein p53, Tumor Suppressor Proteins, Gram-Negative Bacteria, Genetics, Immunology, DNA-Binding Proteins, Vibrio alginolyticus, Gammaproteobacteria, Neoplasm Proteins, Tumor Suppression, Nuclear Proteins, Phosphoproteins, Proteobacteria, Vibrionaceae, Oncology, South China Normal University.

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Viral Load

New Viral Load Study Findings Have Been Reported by Researchers at School of Medicine (Effects of Chronic Diurnal Disruption and Acute Inflammatory Challenge on Mice with Latent Murine Gammaherpesvirus Infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Viral Load have been published. According to news reporting out of Springfield, Illinois, by NewsRx editors, research stated, "People who engage in shift work (SW) have increased risk of developing illnesses, including infectious diseases and various inflammatory conditions. We hypothesized that exposure to repeated cycles of diurnal disruption, mimicking SW, influences viral clearance, latent viral load, or viral reactivation from latency in mice infected with murine gammaherpesvirus (MuGHV)."

Our news journalists obtained a quote from the research from the School of Medicine, "To test this idea, we inoculated BALB/cByJ and C.129S7(B6)-Ifng(tm1Ts)/J (IFNgKO) mice with MuGHV and housed them under either a stable light:dark (LD) cycle or one mimicking SW. Compared with BALB/cByJ mice, IFNγKO mice generally had higher levels of lytic virus during the 6-wk period after inoculation. In addition, more IFNgKO mice were positive for replicating virus than were BALB/cByJ mice. Exposure to SW did not alter these measures consistently. After the virus had entered the latent phase of infection, mice received either LPS or pyrogen-free saline intraperitoneally. Mice exposed to SW and then injected with LPS during latent infection had greater viral loads and more replicating virus in the lung at 7 d after injection than did either mice that received pyrogen-free saline or those exposed to LD and then treated with LPS. Some cytokine and chemokine concentrations were changed in lung collected 1 d after but not at 7 d after LPS administration."

According to the news editors, the research concluded: "These findings suggest that exposure to repeated chronic diurnal disruption and an acute inflammatory challenge during latent MuGHV infection, in the context of impaired host immune competence, contribute to enhanced viral reactivity and an increased viral load that might trigger 'sickness behavior' symptoms of infectious disease and perhaps contribute to chronic fatigue syndrome."

For more information on this research see: Effects of Chronic Diurnal Disruption and Acute Inflammatory Challenge on Mice with Latent Murine Gammaherpesvirus Infection. Comparative Medicine, 2016;66(6):445-454. Comparative Medicine can be contacted at: Amer Assoc Laboratory Animal Science, 9190 Crestwyn Hills Dr, Memphis, TN 38125, USA.

Our news journalists report that additional information may be obtained by
Neurodevelopmental Diseases and Conditions —

New Williams Syndrome Study Findings Have Been Reported by Investigators at Department of Pediatrics (Williams syndrome and mature B-Leukemia: A random association?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodevelopmental Diseases and Conditions - Williams Syndrome have been published. According to news originating from Como, Italy, by NewsRx correspondents, research stated, "Williams syndrome (WBS) is a rare neurodevelopmental disorder with specific phenotypic characteristics and cardiac abnormalities, but is not considered as a cancer predisposing condition. However, in rare cases, malignancies have been described in patients with WBS, with hematologic cancer (mainly Burkitt Lymphoma and Acute Lymphoblastic Leukemia) as the most represented."

Our news journalists obtained a quote from the research from the Department of Pediatrics, "We report here the case of a boy with WS and B-NHL. This is the unique case within the large cohort of patients (n = 117) followed in our institution for long time (mean clinical follow-up, 13 years)."

According to the news editors, the research concluded: "We herewith propose that the BCL7B gene, located in the chromosomal region commonly deleted in Williams syndrome, could potentially have a role in this particular association."

For more information on this research see: Williams syndrome and mature B-Leukemia: A random association? European Journal of Medical Genetics, 2016;59(12):634-640. European Journal of Medical Genetics can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Medical Genetics - www.journals.elsevier.com/european-journal-of-medical-genetics/)

The news correspondents report that additional information may be obtained from A. Selicorni, ASST Lariana, Presidio S Fermo, Dept. of Pediat, Como, Italy. Additional authors for this research include G. Fazio, F. Dell’Acqua, S. Maitz, M. Galbiati, C. Rizzari, A. Biondi, G. Cazzaniga and A. Selicorni.

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Keywords for this news article include: Como, Italy, Europe, Neurodevelopmental Diseases and Conditions, Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Heart Valve Diseases and Conditions, Neurobehavioral Manifestations, Supravalvular Aortic Stenosis, Heart Disorders and Diseases, Neurologic Manifestations, Congenital Abnormalities, Aortic Valve Stenosis, Chromosome Disorders, Leukemia, Genetics, Mental Retardation, Williams Syndrome, Heart Disease, Hematology, Oncology,
New beta-Lactams Study Findings Have Been Reported by Researchers at Institute of Medicine [Antimicrobial Susceptibility among European Gram-Negative and Gram-Positive Isolates Collected as Part of the Tigecycline Evaluation and Surveillance ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on beta-Lactams have been published. According to news reporting from Leipzig, Germany, by NewsRx journalists, research stated, "European centers (n = 226) involved in the Tigecycline Evaluation and Surveillance Trial (TEST, 2004-2014) submitted data and bacterial isolates. Minimal inhibitory concentrations and susceptibility were determined using Clinical and Laboratory Standards Institute methods and European Committee on Antimicrobial Susceptibility Testing breakpoints."

The news correspondents obtained a quote from the research from the Institute of Medicine, "The rates of the following resistant pathogens increased from 2004 to 2014: extended-spectrum beta-lactamase (ESBL)-positive Escherichia coli (from 8.9 to 16.9%), multidrug-resistant Acinetobacter baumannii complex (from 15.4 to 48.5%), and ESBL-positive Klebsiella pneumoniae (from 17.2 to 23.7%). The rate of methicillin-resistant Staphylococcus aureus was 27.5% in 2004 and 28.9% in 2014. Resistance to the carbapenems (imipenem and meropenem) was 37.4 and 14.5% for A. baumannii complex and Pseudomonas aeruginosa, respectively. Carbapenem resistance was <= 4.3% among the Enterobacteriaceae and 0.2% against Streptococcus pneumoniae. The resistance to tigecycline ranged between 7.4% against ESBL-producing K. pneumoniae and 0.0% against S. aureus. The carbapenems and tigecycline were active against Enterobacteriaceae. Agents with activity against A. baumannii complex and P. aeruginosa are limited."

According to the news reporters, the research concluded: "The carbapenems, tigecycline, linezolid, and vancomycin were active against Gram-positive organisms."


Our news journalists report that additional information may be obtained by contacting A.C. Rodloff, Inst Med Mikrobiol & Infekt Epidemiol, DE-04103 Leipzig, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000445022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leipzig, Germany, Europe, beta-Lactams, Carbapenems, Institute of Medicine.

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New pharmacon allows testicular tumors to shrink

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Testicular cancer is the most common malignant tumor disease in men between 20 and 40 years of age. It can usually be treated well. In some cases, however, the cancer hardly responds or does not respond at all to treatment. A substance that was originally destined to be an innovative contraceptive is offering new hope in these cases. An experimental drug with the cryptic name JQ1 blocks sperm maturation and was discussed to be a male contraceptive. Instead, it may be suitable for cancer therapy.

JQ1 belongs to a new class of drugs with far-reaching abilities: its members fundamentally influence which genes in the cell are active and which are not. The hereditary material DNA is similar to an extremely long strip of Morse code, on which the assembly instructions for the cellular molecules are found. To fit into the cell nuclei, this strip of Morse code is wrapped around small protein balls at regular intervals - the histones. Histones and DNA together resemble a string of pearls.

However, the histones do not only play a structural role. They also feature chemical tags - called methyl or acetyl groups. These tags signal to the synthesis machinery in the cell whether the strip of Morse code should be read at this point or not. "JQ1 inhibits those proteins that read these histone marks and thus changes the gene activity in the cell," explains Prof. Hubert Schorle from the Institute for Pathology at the University of Bonn.

The cancer cells react very sensitive to these changes: they activate a suicide program, called apoptosis. "In a testicular cancer mouse model, the tumors began to shrink after administering JQ1," explains the lead author of the study, Sina Jostes. "In contrast, healthy skin cells seem to tolerate JQ1 very well."

Especially effective in combination

Besides JQ1, other drugs that alter the marks of the histones are also known. One of these is romidepsin. The laboratory in Bonn was recently able to show that romidepsin is also very effective at fighting testicular cancer cells. Unlike JQ1, romidepsin is already approved for the treatment of patients with certain types of cancer.

"In our study, we treated mice with both JQ1 and romidepsin," explains Dr. Daniel Nettersheim, who helped in planning and performing the studies. "This way, we achieved a similar effect alike JQ1 or romidepsin treatment alone, but we could reduce the quantities of both substances. Such a combination therapy to treat testicular tumors may be much better tolerated. Chemotherapy-resistant patients could also benefit from this." However, clinical studies are now needed to move the treatment towards the clinics.

Besides scientists from the University of Bonn, the studies also involved researchers from the University of St. Gallen (Switzerland) and Harvard Medical School (USA).

Keywords for this news article include: Genetics, Histones, Nucleoproteins, Nuclear Proteins, University of Bonn, Oncology - Testicular Cancer, Testicular Diseases and Conditions.

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**Amyotrophic Lateral Sclerosis**

**New tool shines light on protein condensation in living cells**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A tool that uses light to manipulate matter inside living cells has begun to explain how proteins assemble into different liquid and gel-like solid states, a key to understanding many critical cellular operations.

Marvels of complexity, cells host many thousands of simultaneous chemical reactions. Some reactions happen inside specialized compartments, called organelles. Certain organelles, however, lack any membrane to wall themselves off from the rest of the matter floating within cells. These membraneless organelles somehow persist as self-contained structures amidst a cellular sea of water, proteins, nucleic acids and other molecules.

Scientists at Princeton University have developed a new tool -- dubbed optoDroplet -- that offers unprecedented access to manipulating and understanding the chemistry that allows membraneless organelles to function.

"This optoDroplet tool is starting to allow us to dissect the rules of physics and chemistry that govern the self-assembly of membraneless organelles," said Clifford Brangwynne, an assistant professor of chemical and biological engineering at Princeton and senior author of a paper published online in Cell on Dec. 29. "The basic mechanisms underlying this process are very poorly understood, and if we get a handle on it, there might be a hope for developing interventions and treatments for devastating diseases connected with protein aggregation, such as ALS."

Previous research has demonstrated that membraneless organelles assemble within the cell by a process known as a phase transition: examples of familiar phase transitions include water vapor condensing into dew droplets or liquid water freezing into solid ice. Studies over the last several years by Brangwynne and colleagues have revealed that altering the concentration of certain proteins, or modifying their structure, appears to trigger a phase change that allows proteins to condense into droplet-like organelles.

To date, though, most studies have used purified proteins studied in test tubes, and researchers have had few methods to study phase transitions in the frenetic dynamos that are living cells. OptoDroplets will help scientists learn about when phase transitions go awry, yielding solid-like gels and crystalline aggregates of proteins implicated in diseases including Alzheimer's and amyotrophic lateral sclerosis (ALS).

OptoDroplet relies on a technique called optogenetics, involving proteins whose behavior can be altered by exposure to light. (Cells are mostly water and thus essentially transparent.) The researchers showed that they could induce phase transitions and create membraneless organelles by switching on the light-activated proteins. They also could undo the transitions by simply turning the light off. Increasing the light intensity and protein concentrations allowed the researchers to further control the transition. By changing those inputs, they can determine when condensed liquid protein droplets form, as well as solid-like, protein aggregates, possibly linked to diseases.

"OptoDroplet provides us a level of control we can use to precisely map what we call the phase diagram in living cells," said Brangwynne. "With that, we're beginning to understand how cells use their natural machinery to move through this intracellular phase diagram to assemble different types of organelles."

The lead author of the paper is Yongdae Shin, a postdoctoral fellow in Brangwynne's Soft Living Matter Group, part of Princeton's Department of Chemical and Biological
Engineering. Co-authors Joel Berry and Mikko Haataj a of the Department of Mechanical and Aerospace Engineering helped develop mathematical models for understanding the intracellular phase behavior, while Nicole Pannucci and Jared Tootcher of the Department of Molecular Biology are experts in optogenetics and helped guide the molecular design of the optoDroplet proteins. The work was supported in part by the National Institutes of Health and the National Science Foundation.

Using mouse and human cells, the research team spliced in a gene for a light-sensitive protein from a plant called a mouse-ear cress (or Arabidopsis thaliana,) a relative of cabbage and mustard that is a mainstay of genetics research. Blue light exposure causes the protein to self-associate, scrunching up on itself.

The light-sensitive tag was fused to protein components thought to drive phase transitions in living cells. Using the light, the researchers found that they could induce the proteins to huddle up, mimicking the condensation process that naturally occurs in cells. "To use the analogy of water vapor, you can think of what we did as using a laser to locally change the temperature of some area of the air so that water droplets would condense out of it," said Brangwynne.

The team repeatedly prompted the proteins to condense and then dissolve by turning the light on and off. The process proved fully reversible, even after many cycles. However, with high-intensity light or high concentrations of proteins, the researchers created semi-solid gels. Those gels were initially reversible, but over time they solidified to form irreversible lumpy aggregates, similar to those found in some diseases.

"We've shown with optoDroplet that we can readily assemble and disassemble phase-separated liquids, and they do not appear to cause any problem for the cell," said Brangwynne. "But the gel-like assemblies appear to be more problematic, since over many cycles, they develop into persistent aggregates that the cell can no longer deal with and that can start to gum up healthy biological processes."

One example is the protein called FUS. The FUS protein is critical for the cell's operations; it helps produce other proteins and repair damaged DNA. But scores of genetic mutations can cause the FUS protein to become too sticky, leading to ALS, also known as Lou Gehrig's disease. A neurological condition in which patients lose the ability to voluntarily control their muscles, ALS is marked by clumps of protein accumulating in nerve cells. Those clumps might stem from FUS or other proteins pathologically aggregating, instead of staying as dynamic fluid droplets. Huntington's disease and Alzheimer's also involve clumps of proteins clogging up cells, again suggesting that abnormal phase transitions in cells are closely connected with these conditions.

Edward Lemke, a researcher at the European Molecular Biology Laboratory in Heidelberg, Germany, who was not involved in the Cell study, noted the promise of optoDroplet.

"The proteins targeted by optoDroplet are an important constituent of phase-separating proteins, many of which are also associated with infamous diseases," Lemke said. "The optoDroplet system gives access to modulating the state of these proteins inside the cell in a minimally invasive and highly controlled fashion, so it can provide new insights on how they carry out their function."

Brangwynne and colleagues look forward to continuing to experiment with optoDroplet to better understand cells' complex behaviors.

"This is fundamental science we're doing, answering basic questions about phase transitions in cells," Brangwynne said. "But we're hoping these insights will reveal not only how healthy cells work, but also how they can become diseased, and maybe eventually cured."
Keywords for this news article include: Genetics, Peptides, Proteins, Chemistry, Organelles, Amino Acids, Cellular Structures, Intracellular Space, Biological Engineering, Cytoplasmic Structures, Amyotrophic Lateral Sclerosis, Princeton University Engineering School, Neurodegenerative Diseases and Conditions.

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Heart Disorders and Diseases - Heart Disease

North Bristol NHS Trust Details Findings in Heart Disease (Low-dose intensive insulin therapy in patients with Acute Coronary Syndrome accompanied by Left Ventricular Failure: audit of two UK hospitals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Disease. According to news reporting originating in Bristol, United Kingdom, by NewsRx journalists, research stated, "To determine whether a low-dose intravenous insulin regimen reduces blood glucose levels at a timely rate and associated side effects among patients with Acute Coronary Syndrome and Left Ventricular Failure. Induced hypoglycaemia and the associated risks have questioned the benefits of intensive insulin therapy in patients presenting with raised blood glucose levels and Acute Coronary Syndromes."

The news reporters obtained a quote from the research from North Bristol NHS Trust, "Local audit data identified that patients with Acute Coronary Syndrome and Left Ventricular Failure experienced more hypoglycaemic episodes than those with Acute Coronary Syndrome alone. Consequently, a new regimen of low-dose insulin for this group was implemented and audited over 12 months. Audit. Thirty-six consecutive patient notes with a diagnosis of Acute Coronary Syndrome and blood glucose of >= 10 mmol/l treated with a new insulin therapy regimen were analysed. Data were extracted using a standardised form and entered into an Excel spreadsheet for analysis. The mean age of the sample was 70 years with 66% of subjects being men and 50% presenting with Acute Coronary Syndrome and Left Ventricular Failure. The low-dose regimen was effective in achieving normoglycaemia, (range 4-8 mmol/l) for a consecutive six-hour period. This was achieved in 72% of patients and within a median time of 13 hours. The audit suggests that a low-dose insulin regimen can effectively stabilise blood glucose in patients presenting with both Acute Coronary Syndrome and Left Ventricular Failure."

According to the news reporters, the research concluded: "The importance of regularly monitoring blood sugar levels is vital and highlights the role of nurses in minimising patient risk and promoting safety."


Our news correspondents report that additional information may be obtained by contacting N. Manning, North Bristol NHS Trust, Southmead Hosp, Cardiac Rehab Department, Bristol, Avon, United Kingdom.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13257. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bristol, United Kingdom, Europe, Vascular Diseases and Conditions, Heart Disorders and Diseases, Acute Coronary Syndrome, Myocardial Ischemia, Peptide Proteins, Peptide Hormones, Heart Disease, Proinsulin, Cardiology, Therapy, North Bristol NHS Trust.

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Biotechnology - Pharmacogenomics

NorthShore University Health System Details Findings in Pharmacogenomics (Implementation of a multidisciplinary pharmacogenomics clinic in a community health system)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology - Pharmacogenomics. According to news reporting originating from Evanston, Illinois, by NewsRx correspondents, research stated, "The development and implementation of a multidisciplinary pharmacogenomics clinic within the framework of an established community based medical genetics program are described. Pharmacogenomics is an important component of precision medicine that holds considerable promise for pharmacotherapy optimization."

Our news editors obtained a quote from the research from NorthShore University Health System, "As part of the development of a health system-wide integrated pharmacogenomics program, in early 2015 Northshore University Health System established a pharmacogenomics clinic run by a multidisciplinary team including a medical geneticist, a pharmacist, a nurse practitioner, and genetic counselors. The team identified five key program elements: (1) a billable-service provider, (2) a process for documentation of relevant medication and family histories, (3) personnel with the knowledge required to interpret pharmacogenomic results, (4) personnel to discuss risks, benefits, and limitations of pharmacogenomic testing, and (5) a mechanism for reporting results. The most important program component is expert interpretation of genetic test results to provide clinically useful information; pharmacists are well positioned to provide that expertise. At the Northshore University HealthSystem pharmacogenomics clinic, patient encounters typically entail two one-hour visits and follow a standardized workflow. At the first visit, pharmacogenomics-focused medication and family histories are obtained, risks and benefits of genetic testing are explained, and a test sample is collected; at the second visit, test results are provided along with evidence-based pharmacotherapy recommendations."

According to the news editors, the research concluded: "A multidisciplinary clinic providing genotyping and related services can facilitate the integration of pharmacogenomics into clinical care and meet the needs of early adopters of precision medicine."

The news editors report that additional information may be obtained by contacting H.M. Dunnenberger, NorthShore Univ HealthSyst, Center Mol Med, Evanston, IL 60201, United States. Additional authors for this research include M. Biszewski, G.C. Bell, A. Sereika, H. May, S.G. Johnson, P.J. Hulick and J. Khandekar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp160072. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Evanston, Illinois, United States, North and Central America, Community Health, Pharmacogenomics, Pharmacotherapy, Biotechnology, Pharmacology, Genetics, Therapy, NorthShore University Health System.

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Nervous System Diseases and Conditions - Charcot-Marie-Tooth Disease [X-linked Charcot-Marie-Tooth disease type 6 (CMTX6) patients with a p.R158H mutation in the pyruvate dehydrogenase kinase isoenzyme 3 gene]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nervous System Diseases and Conditions - Charcot-Marie-Tooth Disease is now available. According to news reporting originating from Sydney, Australia, by NewsRx correspondents, research stated, "Charcot-Marie-Tooth disease (CMT) is the most common inherited peripheral neuropathy. Mutations in the pyruvate dehydrogenase kinase isoenzyme 3 (PDK3) gene have been found to cause X-linked dominant CMT type 6 (CMTX6)."

Funders for this research include Korean Health Technology R&D Project, Ministry of Health & Welfare, Republic of Korea, National Research Foundation of Korea, Korean Government, Ministry of Science ICT and Future Planning, Australian National Health and Medical Research Project Grant.

Our news editors obtained a quote from the research from Northcott Neuroscience Laboratory, "This study identified the p.R158H PDK3 mutation after screening 67 probable X-linked CMT families. The mutation fully segregated with the phenotype, and genotyping the family indicated the mutation arose on a different haplotype compared with the original Australian CMTX6 family. Results of bisulphite sequencing suggest that methylated deamination of a CpG dinucleotide may cause the recurrent p.R158H mutation. The frequency of the p.R158H PDK3 mutation in Koreans is very rare. Magnetic resonance imaging revealed fatty infiltration involving distal muscles in the lower extremities. In addition, fatty infiltrations were predominantly observed in the soleus muscles, with a lesser extent in tibialis anterior muscles. This differs from demyelinating CMT1A patients and is similar to axonal CMT2A patients."

According to the news editors, the research concluded: "The clinical, neuroimaging, and electrophysiological findings from a second CMTX6 family with the p.R158H PDK3 mutation were similar to the axonal neuropathy reported in the Australian family."

For more information on this research see: X-linked Charcot-Marie-Tooth disease type 6 (CMTX6) patients with a p.R158H mutation in the pyruvate dehydrogenase kinase

The news editors report that additional information may be obtained by contacting M.L. Kennerson, Northcott Neuroscience Laboratory, ANZAC Research Institute & Sydney Medical School University of Sydney, Sydney, Australia. Additional authors for this research include E.J. Kim, A. Siddell, A. Kidambi, S.M. Kim, Y.B. Hong, S.H. Hwang, K.W. Chung and B.O Choi.

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Keywords for this news article include: Sydney, Kinase, Genetics, Dentistry, Pyruvates, Isoenzymes, Keto Acids, Dehydrogenase, Polyneuropathies, Protein Isoforms, Enzymes and Coenzymes, Congenital Abnormalities, Australia and New Zealand, Charcot Marie Tooth Disease, Charcot-Marie-Tooth Disease, Nervous System Malformations, Tooth Diseases and Conditions.

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**Heart Disorders and Diseases - Heart Failure**

**Novel drug may help repair failing hearts**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Cimaglermin, a new experimental drug, may help restore cardiac function after heart failure, according to a first-in-man study published in *JACC: Basic to Translational Science*.

Heart failure, characterized by a loss of cardiac function, is among the leading causes of death worldwide. A significant portion of heart failure patients, particularly those with severe left ventricular systolic dysfunction, do not sufficiently respond to current medical therapy.

Researchers examined the safety and efficacy of a single infusion of cimaglermin, which acts as a growth factor for the heart, helping the structural, metabolic and contractile elements of the heart to repair itself following injury. The study enrolled 40 heart failure patients who were taking optimal medical therapy for at least three months prior to the trial. Compared to patients who received a placebo, patients who received a high dose of cimaglermin had a sustained increase in left ventricular ejection fraction, or pumping capacity, through 90 days after dosing, with the maximum increase reached at day 28.

"These findings support continued clinical development of the investigational drug cimaglermin, including further safety evaluations and detailing the potential improvement on clinical heart failure outcome measures," said Daniel J. Lenihan MD, from the division of cardiovascular medicine at Vanderbilt University and the lead author of the study. "As with all experimental therapeutics, additional studies will be required and subject to regulatory review to determine if the relative risks and benefits of cimaglermin warrant approval."

The most common side effects were headache and nausea, which were temporarily associated with exposure to the drug. One patient receiving the highest planned dose of cimaglermin experienced an adverse reaction that met the stopping criteria of Federal Drug Administration guidance for drug induced liver injury.

Limitations of this study include the small sample size and the fact that patients only
received a single infusion rather than multiple doses.

"Although the results of the study must be regarded as provisional because of the small numbers of patients, the results of this study are nonetheless very exciting," said Douglas L. Mann, MD, FACC, editor-in-chief of JACC: Basic to Translational Science. "Instead of blocking the fundamental mechanisms that lead to cardiac injury, the early results with cimaglermin suggest that it may also be possible to administer therapeutics that allow the failing heart to repair itself using its own repair mechanisms. If the results of this study can be replicated and translated into improvements in clinical outcomes in larger numbers of patients in phase II and III clinical trials, it will represent a paradigm shift in the way in which clinicians treat patients with heart failure."

Keywords for this news article include: Heart Disease, American College of Cardiology, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases - Heart Failure.

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Foodborne Diseases and Conditions - Listeria

Off-switch for CRISPR-Cas9 gene editing system discovered

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- UC San Francisco researchers have discovered a way to switch off the widely used CRISPR-Cas9 gene-editing system using newly identified anti-CRISPR proteins that are produced by bacterial viruses. The technique has the potential to improve the safety and accuracy of CRISPR applications both in the clinic and for basic research.

The new study, published in Cell on Dec. 29, 2016, was led by Benjamin Rauch, PhD, a post-doctoral researcher in the laboratory of Joseph Bondy-Denomy, PhD, who is a UCSF Sandler Faculty Fellow in the Department of Microbiology and Immunology.

CRISPR-Cas9 evolved in bacteria as an immune system to protect against viral infections, but in the past decade it has excited both researchers and the general public as a general-use gene editing system, enabling scientists to quickly and efficiently modify genetic information and tweak gene activity in virtually any organism.

Many hope CRISPR will speed efforts to directly treat genetic disorders, among many other applications, but for the most part the technology has not yet proven quite precise enough, making occasional unintended edits along with the intended ones. Researchers and bioethicists also worry that the technology's very power and ease of use raise the possibility that it could potentially cause harm, either intentionally or by accident.

The newly discovered anti-CRISPR proteins -- which are the first to work against the type of CRISPR-Cas9 system most commonly used by laboratories and the burgeoning gene editing industry -- could help resolve both problems, Bondy-Denomy says, enabling more precise control in CRISPR applications but also providing a fail-safe to quickly block any potentially harmful uses of the technology.

To find such a switch, Bondy-Denomy and Rauch turned to the same billion-year arms race between viruses and bacteria that produced the CRISPR system itself:

"Just as CRISPR technology was developed from the natural anti-viral defense systems in bacteria, we can also take advantage of the anti-CRISPR proteins that viruses have sculpted to get around those bacterial defenses," Rauch said.
How it was done: identifying "self-targeting" bacteria

In order to discover an anti-CRISPR protein that would work against the type of CRISPR-Cas9 system most labs now use, which depends on a protein called SpyCas9 as its targeted DNA clippers, the researchers came up with a clever trick: They reasoned that they should be able to identify bacteria with inactivated CRISPR systems by looking for evidence of so-called "self-targeting" -- bacterial strains where some virus had successfully gotten through the Cas9 blockade and inserted its genes into the bacterial genome. The team hypothesized that these phages must encode some anti-CRISPR agent, or else Cas9 would kill the bacteria by cutting its own genome where the viral DNA had been inserted.

"Cas9 isn't very smart," Bondy-Denomy said. "It's not able to avoid cutting the bacterium's own DNA if it is programmed to do so. So we looked for strains of bacteria where the CRISPR-Cas9 system ought to be targeting its own genome - the fact that the cells do not self-destruct was a clue that the whole CRISPR system was inactivated."

Using a bioinformatics approach designed by Rauch, the team examined nearly 300 strains of Listeria, a bacterial genus famous for its role in food-borne illness, and found that three percent of strains exhibited "self-targeting". Further investigation isolated four distinct anti-CRISPR proteins that proved capable of blocking the activity of the Listeria Cas9 protein, which is very similar to SpyCas9.

Additional experiments showed that two of the four anti-CRISPR proteins -- which the researchers dubbed AcrIIA2 and AcrIIA4 -- worked to inhibit the ability of the commonly used SpyCas9 to target specific genes in other bacteria - such as E. coli - as well as in engineered human cells. Together, the results suggest that AcrIIA proteins are potent inhibitors of the CRISPR-Cas9 gene editing system as it has been adopted in labs around the world.

"The next step is to show in human cells that using these inhibitors can actually improve the precision of gene editing by reducing off-target effects," Rauch said. "We also want to understand exactly how the inhibitor proteins block Cas9's gene targeting abilities, and continue the search for more and better CRISPR inhibitors in other bacteria."

Off-switch could improve accuracy and safety of many CRISPR applications

Rauch and Bondy-Denomy believe the ability to deactivate SpyCas9 will make CRISPR-based gene editing much safer and more precise by resolving the ongoing problem of unintended "off-target" gene modifications, which become more likely the longer the CRISPR gene editing machinery remains active in target cells.

The discovery could also be a boon for scientists using newer CRISPR techniques pioneered in part at UCSF - such as CRISPR interference and CRISPR activation -- which use Cas9 not to modify gene sequences but to precisely tune their activity up and down. Using anti-CRISPR proteins, researchers could boost or block gene activity temporarily, potentially even synchronizing choreographed bursts of activity from sets of interconnected genes across the genome, which could be key to studying and treating complex, multi-gene diseases.

CRISPR inhibitors could also prove to be a valuable safeguard, the researchers say, enabling scientists to quickly halt any application of CRISPR gene editing outside the lab.

"Researchers and the public are reasonably concerned about CRISPR being so powerful that it potentially gets put to dangerous uses," Bondy-Denomy said. "These inhibitors provide a mechanism to block nefarious or out-of-control CRISPR applications, making it safer to explore all the ways this technology can be used to help people."

Keywords for this news article include: Virus, Genetics, Peptides, Proteins, Viral DNA, Technology, Amino Acids, Gram-Positive Bacteria, Bacterial Infections and Mycoses, University of California - San Francisco, Foodborne Diseases and Conditions - Listeria.
Oncology - Soft Tissue Sarcomas

Oscar Lambret Center Details Findings in Soft Tissue Sarcomas [Safety and efficacy of regorafenib in patients with advanced soft tissue sarcoma (REGOSARC): a randomised, double-blind, placebo-controlled, phase 2 trial]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Soft Tissue Sarcomas is now available. According to news reporting from Lille, France, by NewsRx journalists, research stated, "Regorafenib is a multikinase inhibitor with proven activity in refractory gastrointestinal stromal tumours and chemotherapy-refractory advanced colorectal cancers. We assessed this agent's efficacy and safety in patients with metastatic soft tissue sarcomas previously treated with anthracycline."

The news correspondents obtained a quote from the research from Oscar Lambret Center, "In this randomised, double-blind, phase 2 trial undertaken in France and Austria, we enrolled patients aged 18 years and older with advanced soft tissue sarcomas who had received previous doxorubicin or other anthracycline treatment. These patients were randomly assigned (1: 1) into one of the following four cohorts: liposarcoma, leiomyosarcoma, synovial sarcoma, and other sarcomas. Participants were treated with oral regorafenib (160 mg per day 3 weeks on and 1 week off) or matched placebo. Patients receiving placebo were offered optional crossover in case of centrally confirmed disease progression. The random allocation schedule was computer-generated with permuted blocks of four patients, with two stratification factors: country (France or Austria) and previous exposure to pazopanib (yes or no). Eligibility criteria included patients with histologically proven advanced and inoperable soft tissue sarcomas with intolerance or failure to doxorubicin or other anthracycline-based chemotherapy and at least one unidimensionally or bidimensionally measurable lesion according to Response Evaluation Criteria in Solid Tumors (RECIST; version 1.1). The primary endpoint was RECIST-based progression-free survival after central radiological review in the intention-to-treat population. Physicians, and radiologists of the panel were masked to treatment allocation. This study is still open for recruitment for an additional stratum (patients previously treated with pazopanib) and registered with ClinicalTrials.gov, NCT01900743. From Aug 5, 2013, to Nov 26, 2014, 182 patients were randomly assigned to one of four cohorts and included in the final analysis. At the cutoff date (Jan 7, 2016), the number of required events was reached for the four cohorts. In the liposarcoma cohort, progression-free survival was 1.1 months (95% CI 0.9-2.3) with regorafenib versus 1.7 months (0.9-1.8) with placebo (HR 0.89 [95% CI 0.48-1.64] p=0.70). In the leiomyosarcoma cohort, progression-free survival was 3.7 months (95% CI 2.5-5.0) with regorafenib versus 1.8 (1.0-2.8) months with placebo (HR 0.46 [95% CI 0.46-0.80] p=0.0045). In the synovial sarcoma cohort, progression-free survival was 5.6 months (95% CI 1.4-11.6) with regorafenib versus 1.0 (0.8-1.4) with placebo (HR 0.10 [95% CI 0.03-0.35] p<0.0001). In the other sarcoma cohort, progression-free survival was 2.9 months (95% CI 1.0-7.8) with regorafenib versus 1.0 (0.9-1.9) with placebo (HR 0.46 [95% CI 025-081] p=0.0061). Before crossover, the most common clinically significant grade 3 or higher adverse events were arterial hypertension (17 [19%] events in the 89 patients in the regorafenib group vs two [2%] events in the 92 patients in the placebo group), hand and foot skin reaction (14 [15%] vs no events) and
asthenia (12 [13%] vs six [6%]). One treatment-related death occurred in the regorafenib group due to liver failure. Regorafenib has an important clinical antitumour effect in non-adipocytic soft tissue sarcomas, improving progression-free survival."

According to the news reporters, the research concluded: "Regorafenib should be further evaluated in this setting, and its therapeutic role has to be defined in the context of the growing therapeutic armamentarium, already including one approved multikinase inhibitor, pazopanib."


Our news journalists report that additional information may be obtained by contacting N. Penel, Center Oscar Lambret, Dept. of Med Oncol, F-59000 Lille, France. Additional authors for this research include T. Brodowicz, A. Italiano, J. Wallet, J.Y. Blay, F. Bertucci, C. Chevreau, S. Piperno-Neumann, E. Bompas, S. Salas, C. Perrin, C. Delcambre, B. Liegl-Atzwanger, M. Toulmonde, S. Dumont, I. Ray-Coquard, S. Clisant, S. Taieb and Guil.

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Keywords for this news article include: Lille, France, Europe, Clinical Trials and Studies, Tyrosine Kinase Inhibitors, Soft Tissue Sarcomas, Drugs and Therapies, Clinical Research, Antineoplastics, Pazopanib, Placebos, Oncology, Therapy, Oscar Lambret Center.

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Clinical Research - Clinical Trials and Studies

Ottawa Hospital Research Institute Details Findings in Clinical Trials and Studies (A Phase II Study of PF-03446962 in Patients with Advanced Malignant Pleural Mesothelioma. CCTG Trial IND.207)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news reporting from Ottawa, Canada, by NewsRx journalists, research stated, "There is no approved second-line systemic therapy option for malignant pleural mesothelioma (MPM), but targeting angiogenesis is an area of investigation. PF-03446962 is a fully human antibody against activin receptor-like kinase 1, which is commonly expressed in tumor vasculature."

The news correspondents obtained a quote from the research from Ottawa Hospital Research Institute, "We performed a multicenter, open label, single-arm, two-stage phase II study of PF-03446962 in patients with MPM and progressive disease after platinum-based chemotherapy. In total, 17 patients were enrolled, but no partial or complete responses were observed. The trial did not meet the prespecified response criterion for moving to the second stage. There were only three grade 3 (G3) or higher non-hematological toxicities observed (G3 hypertension [n=2] and G3 fatigue [n=1]) and just one episode of G3 lymphopenia."
According to the news reporters, the research concluded: "PF-03446962, despite being generally well tolerated, failed to demonstrate efficacy in the treatment of advanced MPM as a single agent. There are no plans for further investigation of this agent in MPM."


Our news journalists report that additional information may be obtained by contacting P. Wheatley-Price, Ottawa Hosp Res Inst, Ottawa Hosp Canc Center, Ottawa, ON, Canada. Additional authors for this research include Q. Chu, M. Bonomi, J. Seely, A. Gupta, G. Goss, J. Hilton, R. Feld, C.W. Lee, J.R. Goffin, A. Maksymiuk, N. Murray, L. Hagerman and P.A. Bradbury.

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Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Clinical Trials and Studies, Clinical Research, Mesotheliomas, Ottawa Hospital Research Institute.

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Nutritional and Metabolic Diseases and Conditions —

Overweight affects DNA methylation

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- The extra pounds you gain during the holidays will not only show up on your hips but will also affect your DNA. This is the result of a large-scale international study coordinated by Helmholtz Zentrum Munchen, a partner in the German Center for Diabetes Research, which has now been published in 'Nature'. The study shows that a high BMI leads to epigenetic changes at nearly 200 loci of the genome - with effects on gene expression.

While our genes do not change in the course of life, our lifestyle can directly influence their surroundings. Scientists speak here of the epigenome (Greek epi: over, outside of, around), which refers to everything that happens on or around the genes. Up to now there has not been much research on how the epigenome is altered as a result of being overweight. "This issue is particularly relevant because an estimated one and a half billion people throughout the world are overweight," said first author Dr. Simone Wahl of the Research Unit Molecular Epidemiology (AME) at Helmholtz Zentrum Munchen, "especially considering that being overweight can have adverse consequences and lead to diabetes and diseases of the cardiovascular and metabolic systems."

For this reason, the international research team led by Dr. Christian Gieger and Dr. Harald Grallert of the AME (as well as Jaspal Kooner and John Chambers of Imperial College London) examined possible correlations between body mass index (BMI) and epigenetic changes.* Using state-of-the-art technology, the team carried out the world's largest study so far on the subject.

The scientists examined the blood samples of over 10,000 women and men from
Europe. A large proportion of these were inhabitants of London of Indian ancestry, who according to the authors are at high risk for obesity and metabolic diseases. In a first step with 5,387 samples *, the research team identified 207 gene loci that were epigenetically altered dependent on the BMI. They then tested these candidate loci in blood samples of an additional 4,874 subjects and were able to confirm 187 of these*. Further studies and long-term observations also indicated that the changes were predominantly a consequence of being overweight - not the cause.

"In particular, significant changes were found in the expression of genes responsible for lipid metabolism and substrate transport, but inflammation-related gene loci were also affected," said group leader Harald Grallert. From the data, the team was also able to identify epigenetic markers that could predict the risk of type 2 diabetes.

"Our results allow new insights into which signaling pathways are influenced by obesity", said Christian Gieger, head of the AME. "We hope that this will lead to new strategies for predicting and possibly preventing type 2 diabetes and other consequences of being overweight." Next, within the framework of translational research in the German Center for Diabetes Research, the researchers want to investigate in detail how the epigenetic changes affect the expression of the underlying genes.

Keywords for this news article include: Obesity, Genetics, Bariatrics, Epidemiology, Risk and Prevention, Non-Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes, Helmholtz Zentrum Munchen - German Research Center for Environmental Health.

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C Reactive Protein

Peking Union Medical College Details Findings in C Reactive Protein (Enhanced pro-protein convertase subtilisin/kexin type 9 expression by C-reactive protein through p38MAPK-HNF1 alpha pathway in HepG2 cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in C Reactive Protein. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Plasma C-reactive protein (CRP) concentration is associated positively with cardiovascular risk, including dyslipidemia. We suggested a regulating role of CRP on pro-protein convertase subtilisin/kexin type 9 (PCSK9), a key regulator of low-density lipoprotein (LDL) metabolism, and demonstrated the PCSK9 as a pathway linking CRP and LDL regulation."

The news correspondents obtained a quote from the research from Peking Union Medical College, "Firstly, experiments were carried out in the presence of human CRP on the protein and mRNA expression of PCSK9 and LDL receptor (LDLR) in human hepatoma cell line HepG2 cells. Treatment with CRP (10 mu g/ml) enhanced significantly the mRNA and protein expression of PCSK9 and suppressed the expression of LDLR. Of note, a late return of LDLR mRNA levels occurred at 12 hrs, while the LDLR protein continued to decrease at 24 hrs, suggesting that the late decrease in LDLR protein levels was unlikely to be accounted for the decrease in LDL mRNA. Secondly, the role of PCSK9 in CRP-induced LDLR decrease and the
underlying pathways were investigated. As a result, the inhibition of PCSK9 expression by small interfering RNA (siRNA) returned partly the level of LDLR protein and LDL uptake during CRP treatment; CRP-induced PCSK9 increase was inhibited by the p38MAPK inhibitor, SB203580, resulting in a significant rescue of LDLR protein expression and LDL uptake; the pathway was involved in hepatocyte nuclear factor 1 alpha (HNF1 alpha) but not sterol responsive element-binding proteins (SREBPs) preceded by the phosphorylation of p38MAPK.

According to the news reporters, the research concluded: "These findings indicated that CRP increased PCSK9 expression by activating p38MAPK-HNF1 alpha pathway, with a certain downstream impairment in LDL metabolism in HepG2 cells."


Our news journalists report that additional information may be obtained by contacting J.J. Li, Chinese Academy Med Sci, Peking Union Med College, Natl Center Cardiovasc Dis, Div Dyslipidemia Fu Wai Hosp, Beijing, People's Republic of China. Additional authors for this research include C.G. Zhu, J. Sun, Y. Du, Y. Zhang, N.Q. Wu, Y.L. Guo, R.X. Xu, Y. Gao and J.J. Li.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Enzymes and Coenzymes, Serine Endopeptidases, Acute-Phase Proteins, Protein Expression, Peptide Hydrolases, C-Reactive Protein, C Reactive Protein, Serine Proteases, Immunoproteins, Subtilisins, Proteomics, Convertase, Immunology, Albumins, Genetics, Peking Union Medical College.

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**Nutritional and Metabolic Diseases and Conditions**

**Penn expert : Human genome sequences linked to health data will change clinical medicine**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- PHILADELPHIA - The value of intersecting the sequencing of individuals' exomes (all expressed genes) or full genomes to find rare genetic variants -- on a large scale -- with their detailed electronic health record (EHR) information has "myriad benefits, including the illumination of basic human biology, the early identification of preventable and treatable illnesses, and the identification and validation of new therapeutic targets," wrote Daniel J. Rader, MD, chair of the Department of Genetics, in the Perelman School of Medicine at the University of Pennsylvania, in Science this week, with Scott M. Damrauer, MD, an assistant professor of Surgery at Penn and the Veterans Affairs Medical Center in Philadelphia.

Their commentary accompanies two linked studies on the topic in the same issue. One reports on whole-exome sequencing of more than 50,000 individuals from the Geisinger Health System in Pennsylvania and the analyses of rare variants with data from longitudinal electronic health records. They identified hundreds of people with rare "loss-of-function" gene variants that were linked to observable physiological characteristics, or phenotypes. The second
article reports on a study that identified individuals in the same database with familial hypercholesterolemia, many of whom had not been diagnosed or treated.

"These results demonstrate the enormous potential of this approach for promoting scientific biomedical discovery and influencing the practice of clinical medicine," the authors wrote. v

Because sequencing ever-larger datasets of human exomes -- and full genomes -- has become faster, more accurate, and less expensive, researchers can find rare genetic variants more quickly. And then matching these rare genetic finds to EHR phenotype data has the potential to inform health care in important ways.

"Many single-gene disorders like familial hypercholesterolemia [FH] are under-diagnosed," Rader said. "Once an individual with a single-gene disorder is identified, not only can that person be placed on appropriate medical intervention, but we can also screen his or her extended family members to see who else carries the mutant gene and may benefit from preventative approaches." He cites a recent list of 59 "medically actionable" genes, curated by the American College of Medical Genetics and Genomics (ACMG), in which loss of function mutations can lead to specific medical interventions. For example, individuals from the extended family of a person found to have FH who also carry the mutation should have their cholesterol checked and be placed on medication to reduce cholesterol.

"Identifying rare variants can also contribute to our understanding of more common, complex disorders such as Type 2 diabetes or chronic kidney disease," Rader said. "These efforts will one day reveal the fundamental value of what the genome contains for health and disease and pave the way for precision medicine in every clinic and hospital."

Keywords for this news article include: Genetics, Dyslipidemias, Hyperlipidemias, Risk and Prevention, Hypercholesterolemia, Diagnostics and Screening, Lipid Metabolism Disorders, Non-Insulin Dependent Diabetes Mellitus, University of Pennsylvania School of Medicine, Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes.

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Oncology - Breast Cancer

Peter MacCallum Cancer Center Reports Findings in Breast Cancer
( Clinical relevance of host immunity in breast cancer: from TILs to the clinic)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating from Victoria, Australia, by NewsRx correspondents, research stated, "The clinical relevance of the host immune system in breast cancer has long been unexplored. Studies developed over the past decade have highlighted the biological heterogeneity of breast cancer, prompting researchers to investigate whether the role of the immune system in this malignancy is similar across different molecular subtypes of the disease."

Our news editors obtained a quote from the research from Peter MacCallum Cancer Center, "The presence of high levels of lymphocytic infiltration has been consistently associated with a more-favourable prognosis in patients with early stage triple-negative and HER2-positive breast cancer. These infiltrates seem to reflect favourable host antitumour immune responses, suggesting that immune activation is important for improving survival outcomes. In this
Review, we discuss the composition of the immune infiltrates observed in breast cancers, as well as data supporting the clinical relevance of host antitumour immunity, as represented by lymphocytic infiltration, and how this biomarker could be used in the clinical setting.

According to the news editors, the research concluded: "We also discuss the rationale for enhancing immunity in breast cancer, including early data on the efficacy of T-cell checkpoint inhibition in this setting."

For more information on this research see: Clinical relevance of host immunity in breast cancer: from TILs to the clinic. Nature Reviews Clinical Oncology, 2015;13(4):228-41. (Nature Publishing Group - www.nature.com/; Nature Reviews Clinical Oncology - www.nature.com/nrclinonc/)

The news editors report that additional information may be obtained by contacting P. Savas, Peter MacCallum Cancer Centre, Locked Bag 1, A'Beckett Street, East Melbourne, Victoria 8006, Australia. Additional authors for this research include R. Salgado, C. Denkert, C. Sotiriou, P.K. Darcy, M.J. Smyth and S. Loi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrclinonc.2015.215. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Victoria, Oncology, Immunology, Breast Cancer, Article Review, Women's Health, Hemic and Immune Systems, Australia and New Zealand.

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Oncology - Small Cell Lung Cancer

**PharmaMar and Chugai enter into a license and commercialization agreement for PM1183**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- PharmaMar (MSE:PHM) has announced the signing of an exclusive license, development and commercialization agreement with Chugai Pharmaceutical Co. Ltd. (TSE:4519) for its third marine-derived anticancer drug PM1183 (lurbinectedin) in Japan. Under the terms of this agreement, PharmaMar will receive an upfront payment of €30 million, along with double-digit tiered royalties, and will also be eligible for receiving payments in line with the progress of the development and sales milestones; potentially worth over €100 million.

PharmaMar will continue to conduct the clinical development activities for the first two indications of PM1183 (platinum-resistant ovarian cancer and small cell lung cancer) in Japan, whereas Chugai will make milestone payments at study initiation and will be responsible for registration filing. In addition, Chugai will have the rights to conduct clinical development in Japan to pursue additional indications and may contribute to the global development. PharmaMar will retain the exclusive production rights of lurbinectedin and will supply the API to Chugai.

PM1183 is PharmaMar´s third anticancer drug and is currently under development for the treatment of several types of solid tumors. The Company has recently completed the recruitment of patients in a Phase III study in platinum resistant ovarian cancer, and during the month of August, a pivotal Phase III trial in small cell lung cancer was initiated.

According to Luis Mora, Managing Director of PharmaMar´s Oncology Business
"we are about to address our second strategic alliance with Chugai for the commercialization of a marine based anti-tumor compound. With this agreement, we will contribute to the sale of PM1183 in Japan. Meanwhile, we shall continue with the clinical development of the molecule and to advance in the upcoming regulatory steps to obtain its approval in the years to come".

"Both companies share the same value to bring PM1183 - an innovative marine based medicine to the Japanese patients so that we can contribute to the treatment," said Chugai's Representative Director, President and Chief Operating Officer, Tatsuro Kosaka. "Chugai is committed to continuously provide innovative medicines to the patients. We hope to obtain approval based on the clinical results attained so far, and also from new results that will come in the future".

Keywords for this news article include: Asia, Pharmaceutical Companies, Japan, Cancer Therapy, PharmaMar S.A., Drugs and Therapies, Oncology - Small Cell Lung Cancer.

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Autoimmune Diseases and Conditions

Preventing too much immunity

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Scientists at the Immunology Frontier Research Center (IFReC), Osaka University, Japan, report a new molecular mechanism that could explain the cause of some autoimmune diseases.

While the immune system is crucial for protecting the body from infection and disease, prolonged activation can damage healthy tissue. After its activation, the immune system is shut off by specialized immune cells known as regulatory T cells (Treg cells). Understanding the development of Treg cells is thought to be critical for combating autoimmune diseases. "The development of Treg cells in the thymus depends on super-enhancer establishment," explains IFReC Professor Shimon Sakaguchi.

This super-enhancer establishment permits the expression of genes specific for Treg cell development. "Super-enhancers appeared to be a pre-requisite for Treg cell development, so we sought molecules controlling super-enhancers," he added.

In the most recent publication by the Sakaguchi lab, which can be seen in Nature Immunology, Sakaguchi and his team report that Satb1 regulates the super enhancers essential for Treg cell development.

Looking at the Treg cell development pathway, the scientists found that the level of Satb1 was highest before Treg cells develop, and dropped after Treg cell development. Further study showed that Satb1 bound to the super enhancers responsible for Treg cell development, but again, only in progenitors that differentiated into Treg cells and not Treg cells themselves. Therefore, Satb1 may regulate the epigenetic changes that precede the creation of Treg cells.

"Satb1 appears to be necessary for the differentiation of Treg cells, but not for the maintenance of Treg cells," said Dr. Yohko Kitagawa, who first-authored the study.

Indeed, in mice lacking Satb1, the development of Treg cells was impaired and the mice showed symptoms of autoimmune disease. Furthermore, the progenitors cells of these mice showed inferior super enhancer activity, which resulted in less expression of the genes necessary for Treg cell development.
Based on these findings, Sakaguchi theorizes that defective Satb1-dependent super-enhancer establishment could be a cause of autoimmune diseases and allergy. "Autoimmune diseases are due to hyperactive immune systems. One cause is not having enough Treg cells. Understanding how this occurs is an important step towards treating autoimmune diseases," he said.

Keywords for this news article include: Genetics, Immunology, Osaka University, Hemic and Immune Systems, Autoimmune Diseases and Conditions.

Heart Disorders and Diseases - Heart Attack

Rate of death, heart attack after noncardiac surgery decreases, although risk of stroke increases

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- In a study published online by JAMA Cardiology, Sripal Bangalore, M.D., M.H.A., of the New York University School of Medicine, New York, and colleagues examined national trends in perioperative cardiovascular outcomes and mortality after major noncardiac surgery.

Worldwide, more than 300 million noncardiac surgeries are performed each year. Major adverse cardiovascular and cerebrovascular events (MACCE), including heart attack and ischemic stroke, are a significant source of perioperative (the period of time extending from when the patient goes into the hospital for surgery until discharged home) illness and death. Despite the significant burden perioperative events place on the national health care system, recent data are lacking on trends in perioperative MACCE among patients hospitalized for major noncardiac surgery.

Using the National Inpatient Sample, the researchers for this study identified patients who underwent major noncardiac surgery from January 2004 to December 2013. Among 10,581,621 hospitalizations (average patient age, 66 years; 57 percent female) for major noncardiac surgery, perioperative MACCE (defined as in-hospital, all-cause death, acute myocardial infarction [AMI; heart attack]), or acute ischemic stroke), occurred in 317,479 hospitalizations (3 percent), corresponding to an annual incidence of approximately 150,000 events. Major adverse cardiovascular and cerebrovascular events occurred most frequently in patients undergoing vascular (7.7 percent), thoracic (6.5 percent), and transplant surgery (6.3 percent).

Between 2004 and 2013, the frequency of MACCE declined from 3.1 percent to 2.6 percent, driven by a decline in frequency of perioperative death and AMI, but there was an increase in perioperative ischemic stroke from 0.52 percent in 2004 to 0.77 percent in 2013.

Men had higher risk of perioperative MACCE than women. In analyses of perioperative events by race and ethnicity, non-Hispanic black patients had the highest rates of perioperative death and ischemic stroke in comparison to other racial groups. "Perioperative MACCE occurs in 1 of every 33 hospitalizations for noncardiac surgery," the authors write. "Cardiovascular complications after noncardiac surgery remain a major source of morbidity and mortality. Despite improvements in perioperative outcomes over the past decade, the significant increase in the rate of ischemic stroke in this analysis requires confirmation and further study. Additional efforts are necessary to improve perioperative..."
Skin Diseases and Conditions - Tinea pedis

Recent Data from A. Shemer and Co-Authors Highlight Findings in Tinea pedis (Increased Risk of Tinea Pedis and Onychomycosis Among Swimming Pool Employees in Netanya Area, Israel)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Skin Diseases and Conditions - Tinea pedis are presented in a new report. According to news reporting originating in London, Canada, by NewsRx journalists, research stated, "Tinea pedis and onychomycosis often co-occur in individuals. A relationship between swimming pools and tinea pedis exists; however, little research has investigated the relationship between onychomycosis, tinea pedis, and swimming pools."

The news reporters obtained a quote from the research, "This study sought to examine the prevalence of tinea pedis and onychomycosis among swimming pool employees, a population that may be at risk of tinea infections. Samples were taken from 169 employees at 21 swimming pools in the Netanya area, Israel. KOH microscopy and culture was used to identify fungi. About 46% of swimming pool employees had concurrent tinea pedis and onychomycosis, 30% had tinea pedis only, and 6% had onychomycosis only, compared to 10, 8, and 8% of controls, respectively. After adjusting for age and gender, swimming pool employees were 20x more likely to have concurrent tinea pedis and onychomycosis, 15x more likely to have tinea pedis only, and 3x more likely to have onychomycosis only compared to controls. The present results are in agreement with previous research and support that swimming pools remain an important source of fungal contamination."

According to the news reporters, the research concluded: "More attention to hygienic guidelines and preventative measures may be needed in these settings."

For more information on this research see: Increased Risk of Tinea Pedis and Onychomycosis Among Swimming Pool Employees in Netanya Area, Israel. Mycopathologia, 2016;181(11-12):851-856. Mycopathologia can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Mycopathologia - www.springerlink.com/content/0301-486x/)

Our news correspondents report that additional information may be obtained by contacting A.K. Gupta, Mediprobe Res Inc, London, ON, Canada. Additional authors for this research include A.K. Gupta, B. Amichai, S. Baum, A. Barzilai, R. Farhi, Y. Kaplan and M.A. MacLeod.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11046-016-0040-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Ontario, Canada, North and Central America, Skin Diseases and Conditions, Risk and Prevention, Athlete's Foot, Dermatomycoses, Tinea pedis, Ringworm.
Recent Data from E.H. Wang and Co-Authors Highlight Findings in Prostate Cancer: (Disparities in Treatment of Patients With High-risk Prostate Cancer: Results From a Population-based Cohort)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "To assess the variation in primary treatment of high-risk prostate cancer (PCa) by different hospital characteristics in the United States. We used the National Cancer Data Base to identify patients diagnosed with pretreatment high-risk PCa from 2004 to 2011."

The news reporters obtained a quote from the research, "The primary outcomes were different forms of primary therapy or watchful waiting (WW) across different types of hospitals (community, comprehensive cancer community, and academic hospitals). Multivariable logistic regression analyses were used to test for differences in treatment by hospital type. During the study period, we identified 102,701 men diagnosed with high-risk PCa. Overall, the most common treatment was radical prostatectomy (37.0%) followed by radiation therapy (33.2%) and WW (8.5%). Compared with white men with high-risk PCa, black men had lower adjusted odds ratios (OR) for surgery at comprehensive community (OR: 0.64; P< .001) and academic (OR: 0.62; P< .001) hospitals. Similarly, black men were also more likely to be managed with WW at community (OR: 1.49; P< .001), comprehensive cancer community (OR: 1.24; P<. 001), and academic (OR: 1.55; P<. 001) hospitals, as well as with radiation therapy at comprehensive cancer community (OR: 1.27; P<. 001) and academic hospitals (OR: 1.23; P<. 001). Disparities in the use of WW and different primary treatments among patients with high-risk PCa persisted across different types of hospitals and over time."

According to the news reporters, the research concluded: "Our findings highlight a significant racial disparity in the use of curative therapy for high-risk PCa that should be urgently addressed to ensure that all men with PCa receive appropriate care across all racial groups and cancer care facilities."

For more information on this research see: Disparities in Treatment of Patients With High-risk Prostate Cancer: Results From a Population-based Cohort. Urology, 2016;95():88-94. Urology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.06.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Therapy, Diagnostics and Screening, Prostatic Neoplasms, Prostate Cancer, Hospital, Oncology.
Recent Data from G.K. Raju and Co-Authors Highlight Findings in Non-Small Cell Lung Cancer (A Benefit-Risk Analysis Approach to Capture Regulatory Decision-Making: Non-Small Cell Lung Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Non-Small Cell Lung Cancer is the subject of a report. According to news reporting from Cambridge, Massachusetts, by NewsRx journalists, research stated, "Drug regulators around the world make decisions about drug approvability based on qualitative benefit-risk analyses. There is much interest in quantifying regulatory approaches to benefit and risk."

The news correspondents obtained a quote from the research, "In this work the use of a quantitative benefit-risk analysis was applied to regulatory decision-making about new drugs to treat advanced non-small cell lung cancer (NSCLC). Benefits and risks associated with 20 US Food and Drug Administration (FDA) decisions associated with a set of candidate treatments submitted between 2003 and 2015 were analyzed. For benefit analysis, the median overall survival (OS) was used where available. When not available, OS was estimated based on overall response rate (ORR) or progression-free survival (PFS). Risks were analyzed based on magnitude (or severity) of harm and likelihood of occurrence. Additionally, a sensitivity analysis was explored to demonstrate analysis of systematic uncertainty."

According to the news reporters, the research concluded: "FDA approval decision outcomes considered were found to be consistent with the benefit-risk logic."


Our news journalists report that additional information may be obtained by contacting G.K. Raju, Light Pharma Inc, Cambridge, MA 02142, United States. Additional authors for this research include K. Gurumurthi, R. Domike, D. Kazandjian, G. Blumenthal, R. Pazdur and J. Woodcock.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cpt.501. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Non-Small Cell Lung Cancer, Lung Neoplasms, Oncology.

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**Cardiology**

**Recent Data from N. Benyounes and Co-Authors Highlight Findings in Cardiology (Could quantitative longitudinal peak systolic strain help in the detection of left ventricular wall motion abnormalities in our daily echocardiographic practice?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiology is the subject of a report. According to news originating from Paris, France, by NewsRx correspondents, research stated, "Background.- Transthoracic echocardiography is the most commonly used tool for the detection of left ventricular wall motion (LVWM) abnormalities using 'naked eye evaluation'. This subjective and operator-dependent technique requires a high level of clinical training and experience."

Our news journalists obtained a quote from the research, "Two-dimensional speckle-tracking echocardiography (2D-STE), which is less operator-dependent, has been proposed for this purpose. However, the role of on-line segmental longitudinal peak systolic strain (LPSS) values in the prediction of LVWM has not been fully evaluated. Aim.-To test segmental LPSS for predicting LVWM abnormalities in routine echocardiography laboratory practice. Methods.-LVWM was evaluated by an experienced cardiologist, during routine practice, in 620 patients; segmental LPSS values were then calculated. -In this work, reflecting real life, 99.6% of segments were successfully tracked. Mean (95% confidence interval [CI]) segmental LPSS values for normal basal (n=3409), mid (n=3468) and apical (n=3466) segments were -16.7% (-16.9% to 16.5%), -18.2% (-18.3% to 18.0%) and -21.1% (-21.3% to 20.9%), respectively. Mean (95% CI) segmental LPSS values for hypokinetic basal (n=114), mid (n=116) and apical (n=90) segments were -7.7% (-9.0% to 6.3%), -10.1% (-11.1% to 9.0%) and -9.3% (-10.5% to 8.1%), respectively. Mean (95% CI) segmental LPSS values for akinetic basal (n=128), mid (n = 95) and apical (n=91) segments were 6.6% (-8.0% to 5.1%), 6.1% (-7.7% to 4.6%) and 4.2% (-5.4% to 3.0%), respectively. LPSS allowed the differentiation between normal and abnormal segments at basal, mid and apical levels. An LPSS value $\geq -12\%$ detected abnormal segmental motion with a sensitivity of 78% for basal, 70% for mid and 82% for apical segments."

According to the news editors, the research concluded: "Conclusions.-Segmental LPSS values may help to differentiate between normal and abnormal left ventricular segments."

For more information on this research see: Could quantitative longitudinal peak systolic strain help in the detection of left ventricular wall motion abnormalities in our daily echocardiographic practice? Archives of Cardiovascular Diseases, 2016;109(10):533-541. Archives of Cardiovascular Diseases can be contacted at: Elsevier Masson, Via Paleocapa 7, 20121 Milano, Italy. (Elsevier - www.elsevier.com; Archives of Cardiovascular Diseases - www.journals.elsevier.com/archives-of-cardiovascular-diseases/)

The news correspondents report that additional information may be obtained from N. Benyounes, Fdn Ophtalmol A de Rothschild, Cardiol Unit, F-19 Paris, France. Additional authors for this research include S. Lang, O. Gout, Y. Ancedy, A. Etienney and A. Cohen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.acvd.2016.02.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Diagnostic Techniques and Procedures, Heart Function Tests, Echocardiography, Cardiovascular, Cardiology, Diagnosis.
Recent Findings by A. Prytula and Colleagues in Liver Transplants Provides New Insights (Tacrolimus Predose Concentration Is Associated With Hypertension in Pediatric Liver Transplant Recipients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Liver Transplants. According to news originating from Ghent, Belgium, by NewsRx correspondents, research stated, "The aim of the study was to analyze the incidence of hypertension in pediatric liver transplantation (LT) recipients using ambulatory blood pressure measurements (ABPM) and to identify factors associated with hypertension. We also investigated whether hypertension or tacrolimus predose concentration (TAC C-0) was associated with increased left ventricular (LV) wall thickness."

Our news journalists obtained a quote from the research, "On a retrospective longitudinal base, we included 39 pediatric LT recipients. Median time since transplantation was 65 months (range: 11-183). Two consecutive ABPM were analyzed with a median time interval of 13 months. Data from echocardiographic evaluation parallel to the baseline ABPM were analyzed. All patients except 1 were prescribed tacrolimus. The median TAC C-0 was 4 ng/mL (range 0.9-11.2). Univariate and multivariate logistic regression models were fitted to identify factors associated with systolic and diastolic hypertension and LV wall thickness. Twenty-two of 39 children were hypertensive at baseline and 19 of 32 were hypertensive at follow-up. At baseline 10 (26%) children had masked systolic hypertension. TAC C-0 was associated with systolic (P=0.007, Exp(B) 2.02, 95% CI 1.2-3.3) and diastolic (P=0.044, Exp(B) 1.48, 95% CI 1.0-2.2) hypertension. LV wall thickness was increased in children after LT compared with healthy population, but it was not associated with hypertension or TAC C(0.)

Conclusions:Given the high prevalence of masked hypertension, ABPM should be performed in all pediatric LT recipients."

According to the news editors, the research concluded: "Systolic and diastolic hypertension is associated with TAC C-0; therefore, children with a higher target TAC C-0 require a more intensive blood pressure surveillance."

For more information on this research see: Tacrolimus Predose Concentration Is Associated With Hypertension in Pediatric Liver Transplant Recipients. Journal of Pediatric Gastroenterology and Nutrition, 2016;63(6):616-623. Journal of Pediatric Gastroenterology and Nutrition can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Pediatric Gastroenterology and Nutrition - journals.lww.com/jpgn/pages/default.aspx)

The news correspondents report that additional information may be obtained from A. Prytula, SafePeddrug Consortium, Pediat Nephrol & Rheumatol Department, Ghent, Belgium. Additional authors for this research include K. Vandekerckhove, A. Raes, D. De Wolf, J. Dehoorne, J. Vande Walle and R. De Bruyne.

Keywords for this news article include: Ghent, Belgium, Europe, Cardiovascular Diseases and Conditions, Pediatrics, Epidemiology, Liver Transplantation, Transplant Medicine, Liver Transplants, Organ Transplants, Hypertension, Biomedicine, Tacrolimus,
Macrolides.

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Clinical Research - Clinical Trials and Studies

Recent Findings by E.M. Roth and Colleagues in Clinical Trials and Studies Provides New Insights (A phase III randomized trial evaluating alirocumab 300 mg every 4 weeks as monotherapy or add-on to statin: ODYSSEY CHOICE I)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news originating from Cincinnati, Ohio, by NewsRx correspondents, research stated, "In previous phase III studies, the PCSK9 monoclonal antibody alirocumab was administered at doses of 75 or 150 mg every 2 weeks (Q2W). CHOICE I (NCT01926782) evaluated 300 mg every 4 weeks (Q4W) in patients on either maximally tolerated statin or no statin, both +/- other lipid-lowering therapies."

Our news journalists obtained a quote from the research, "CHOICE I included patients with hypercholesterolemia at moderate-to-very-high cardiovascular risk. Patients were randomized to alirocumab 300 mg Q4W, 75 mg Q2W (calibrator arm), or placebo for 48 weeks, with dose adjustment for either alirocumab arm to 150 mg Q2W at Week (W) 12 if at W8 LDL-C levels were > 70/100 mg/dL (1.8/2.6 mmol/L) depending on cardiovascular risk or LDL-C reduction was <30% from baseline. Co-primary endpoints were percent LDL-C change from baseline to W24, and to time-averaged LDL-C over W21-24. Approximately two-thirds of randomized patients were receiving statins. At W12, 14.7% (no statin) and 19.3% (statin) of patients receiving alirocumab 300 mg Q4W required dose adjustment. At W24, significant LDL-C reductions from baseline were observed with alirocumab 300 mg Q4W: mean differences were -52.7% (no statin; placebo: -0.3%) and -58.8% (statin; placebo: -0.1%). Average LDL-C reductions from baseline to W21-24 were also significantly greater with alirocumab 300 mg Q4W vs. placebo in patients not receiving (-56.9% vs. -1.6%) and receiving statin (-65.8% vs. -0.8%). Treatment-emergent adverse event rates ranged from 61.1 to 75.0% (placebo) and 71.5 to 78.1% (alirocumab 300 mg Q4W)."

According to the news editors, the research concluded: "Alicrocumab 300 mg Q4W is a viable additional treatment option in patients requiring LDL-C-lowering."

For more information on this research see: A phase III randomized trial evaluating alirocumab 300 mg every 4 weeks as monotherapy or add-on to statin: ODYSSEY CHOICE I. Atherosclerosis, 2016;254():254-262. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news correspondents report that additional information may be obtained from E.M. Roth, Sterling Res Grp, Cincinnati, OH 45219, United States. Additional authors for this research include P.M. Moriarty, J. Bergeron, G. Langslet, G. Manvelian, J. Zhao, M.T. Baccara-Dinet and D.J. Rader.

Keywords for this news article include: Cincinnati, Ohio, United States, North and Central America, Clinical Trials and Studies, Clinical Research, Cardiovascular, Cardiology, Placebos, Therapy.
Recent Findings by F. Aziz and Colleagues in Chronic Kidney Disease Provides New Insights (The Triad of Sleep Apnea, Hypertension, and Chronic Kidney Disease: A Spectrum of Common Pathology)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Kidney Diseases and Conditions - Chronic Kidney Disease are discussed in a new report. According to news reporting from Columbia, Missouri, by NewsRx journalists, research stated, "Obstructive sleep apnea (OSA), hypertension, and chronic kidney disease (CKD) are different entities and are generally managed individually most of the time. However, CKD, OSA, and hypertension share many common risk factors and it is not uncommon to see this complex triad together."

The news correspondents obtained a quote from the research, "In fact, they share similar pathophysiology and have been interlinked with each other. The common pathophysiology includes chronic volume overload, hyperaldosteronism, increased sympathetic activity, endothelial dysfunction, and increased inflammatory markers. The combination of this triad has significant negative impact on the cardiovascular health, and increases the mortality and morbidity in this complicated group of patients. On one hand, progression of CKD can lead to the worsening of OSA and hypertension; similarly, worsening sleep apnea can make the hypertension difficult to treat and enhance the progression of CKD."

According to the news reporters, the research concluded: "This review article highlights the bidirectional interlink among these apparently different disease processes which share common pathophysiological mechanisms and emphasizes the importance of treating them collectively to improve outcomes."


Our news journalists report that additional information may be obtained by contacting K. Chaudhary, Harry S Truman Vet Hosp, Nephrol Sect, Columbia, MO, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000450796. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbia, Missouri, United States, North and Central America, Pathology, Article Review, Risk and Prevention, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Kidney Diseases and Conditions, Obstructive Sleep Apnea, Chronic Kidney Disease, Respiration Disorders, Sleep Disorders, Hypertension.

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Recent Findings from A. Amundsen and Co-Researchers Yields New Information on Cancer Care (Adapting an Australian question prompt list in oncology to a Norwegian setting-a combined method approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Cancer Care are presented in a new report. According to news reporting out of Tromso, Norway, by NewsRx editors, research stated, "A question prompt list (QPL) is an inexpensive communication aid that has been proved effective in encouraging patients to ask questions during medical consultations. The aim of this project was to develop a QPL for Norwegian cancer patients."

Our news journalists obtained a quote from the research, "A multimethod approach was chosen combining literature review, focus groups, and a survey in the process of culturally adjusting an Australian QPL for the Norwegian setting. Participants were recruited from the University Hospital of North Norway. They were asked to review and comment on iterative drafts of the QPL. Eighteen patients, mean age 54, participated in the focus groups, and 31 patients, mean age 55, participated in the survey. Focus groups suggested that topics related to accompanying relatives, children as next of kin, and rehabilitation were important and should be added to the original QPL. The survey revealed that most questions from the original QPL were considered both useful and understandable. Although half of the patients found some questions about prognosis unpleasant, the vast majority considered the same questions useful. Questions regarding clinical studies, multidisciplinary teams, and public versus private hospitals had lower ratings of usefulness. QPLs require some adjustment to the local cultural context, and a mixed method approach may provide a useful model for future cultural adaptation of QPLs."

According to the news editors, the research concluded: "The present QPL has been adjusted to the needs of oncology patients in the Norwegian health care setting."

For more information on this research see: Adapting an Australian question prompt list in oncology to a Norwegian setting-a combined method approach. Supportive Care in Cancer, 2017;25(1):51-58. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news journalists report that additional information may be obtained by contacting A. Amundsen, Univ Sykehuset Nord Norge, Kreftavdelingen, N-9038 Tromso, Norway. Additional authors for this research include B. Ervik, P. Butow, M.H.N. Tattersall, S. Bergvik, T. Sørlie and T. Nordoy.

Keywords for this news article include: Tromso, Norway, Europe, Cancer Care, Oncology.

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Recent Findings from A. Herman and Co-Researchers Yields New Information on Psoriasis (Topically Used Herbal Products for the Treatment of Psoriasis - Mechanism of Action, Drug Delivery, Clinical Studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Skin Diseases and Conditions - Psoriasis are presented in a new report. According to news reporting originating in Warsaw, Poland, by NewsRx journalists, research stated, "Psoriasis is a chronic inflammatory skin disease characterized histologically by hyperproliferation and aberrant differentiation of epidermal keratinocytes. A wide range of conventional medical therapies to treat psoriasis is established, from topical therapies and systemic medications through to phototherapy or combinations of those."

The news reporters obtained a quote from the research, "However, most of these therapies have a limited efficacy and may cause a number of side effects, including cutaneous atrophy, organ toxicity, carcinogenicity, and broadband immunosuppression, which are restricting their long-term use. Therefore, it would be desirable to use herbal products as an alternative treatment for psoriasis that causes fewer side effects. For this purpose, several electronic databases and literature references were used to summarize the current knowledge acquired on the basis of animal studies and clinical trials regarding herbal products used to treat psoriasis topically. This review discusses the mechanisms of herbal products activities through (1) inhibition of the keratinocyte hyperproliferation and inducing apoptosis, (2) inhibition of immune-inflammatory reaction, (3) suppression of phosphorylase kinase (PhK) activity, and (4) inhibition of the hedgehog (Hh) signaling pathway."

According to the news reporters, the research concluded: "Moreover, the penetration of herbal products through the psoriatic skin barrier, novel herbal drug delivery systems in psoriasis treatment, and possible adverse effects of herbal therapy are discussed."

For more information on this research see: Topically Used Herbal Products for the Treatment of Psoriasis - Mechanism of Action, Drug Delivery, Clinical Studies. Planta Medica, 2016;82(17):1447-1455. Planta Medica can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

Our news correspondents report that additional information may be obtained by contacting A. Herman, Academy Cosmet & Hlth Care, Fac Cosmetol, PL-00252 Warsaw, Poland.

Keywords for this news article include: Warsaw, Poland, Europe, Papulosquamous Skin Diseases and Conditions, Drugs and Therapies, Article Review, Drug Delivery Systems, Dermatology, Psoriasis.

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Drugs and Therapies - Drug Delivery Systems

Recent Findings from Abo Akademi University Has Provided New Information about Drug Delivery Systems (Printed Drug-Delivery Systems for Improved Patient Treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Drug Delivery Systems is now available. According to news reporting out of Turku, Finland, by NewsRx editors, research stated, "The use of various types of printing technologies offer potential solutions for personalized medicine and tailored dosage forms to meet the needs of individual treatments of the future. Many types of scenario for printed dosage form exist and the concepts include, on the simplest level, accurately deposited doses of drug substances."

Our news journalists obtained a quote from the research from Abo Akademi University, "In addition, computer design allows endless opportunities to create suitable geometries with tailored functionality and different levels of complexity to control the release properties of one or multiple drug substances. It will take some time to convert these technological developments in printing to better treatments for patients, because challenges exist."

According to the news editors, the research concluded: "However, printing technologies are developing fast and have the potential to allow the use of versatile materials to manufacture sophisticated drug-delivery systems and biofunctional constructs for personalized treatments."


Our news journalists report that additional information may be obtained by contacting N. Sandler, Abo Akad University, Pharmaceut Sci Lab, Turku, Finland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tips.2016.10.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turku, Finland, Europe, Technology, Article Review, Personalized Medicine, Drug Delivery Systems, Drugs and Therapies, Abo Akademi University.

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Hematologic Diseases and Conditions - Sickle Cell...

Recent Findings from Ain Shams University Provides New Insights into Sickle Cell Anemia (Tartrate-Resistant Acid Phosphatase 5b in Young Patients With Sickle Cell Disease and Trait Siblings: Relation to Vasculopathy and Bone Mineral Density)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematologic Diseases and Conditions - Sickle Cell Anemia have been published. According to news reporting out of Cairo, Egypt, by NewsRx editors, research stated, "Bone involvement is a frequent cause of acute morbidity in sickle cell disease (SCD). Tartrate-resistant acid phosphatase 5b (TRACP 5b), a bone resorption marker, is produced specifically by activated osteoclasts."

Our news journalists obtained a quote from the research from Ain Shams University, "We assessed bone mineral density (BMD) in 30 young patients with SCD and 17 asymptomatic patients with sickle cell trait (SCT) compared with 32 healthy controls and determined TRACP 5b levels in relation to vascular complications. Serum ferritin, alkaline phosphatase (ALP), and TRACP 5b were measured. Echocardiography was performed with assessment of BMD using dual energy X-ray absorptiometry (DXA). The BMD was decreased in patients with SCD compared with SCT and controls (P = .005), with no significant difference between the latter 2 groups. Patients with SCD had higher incidence of bone complications than SCT group and controls (P = .03). The SCD group with abnormal DXA scan had higher ferritin and ALP than normal BMD. Serum TRACP 5b was significantly higher in patients with SCD than SCT and controls (P = .003). The TRACP 5b levels were associated with severe vaso-occlusive crisis (P = .022). Patients treated with hydroxyurea and those on chelation therapy had lower TRACP 5b levels than untreated patients. The TRACP 5b level was positively correlated with lactate dehydrogenase, while there was no relation with ferritin, ALP, or BMD. We suggest that bone complications frequently occur in SCD as reflected by low BMD and high ALP and TRACP 5b. Hemolysis and iron overload may be involved in the occurrence of these complications."

According to the news editors, the research concluded: "The lack of correlation between abnormal DXA scan and high TRACP 5b suggests that bone disease in SCD is multifactorial."


Our news journalists report that additional information may be obtained by contacting A.A.G. Tantawy, Ain Shams University, Dept. of Pediat, Fac Med, Cairo, Egypt. Additional authors for this research include A.A.G. Tantawy, A.A. Hamed, A.A.M. Adly, E.A.R. Ismail and S.M. Makkeyah.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1076029615594001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cairo, Egypt, Africa, Hematologic Diseases and Conditions, Dual-Energy X-Ray Absorptiometry, Phosphoric Monoester Hydrolases, Iron-Binding Proteins, Enzymes and Coenzymes, Dicarboxylic Acids, Sickle Cell Anemia, Sickle Cell Trait, Carrier Proteins, Acid Phosphatase, Bone Research, Sugar Acids, Hematology, Ferritins, Tartrates, Ain Shams University.

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Recent Findings from Ajou University Provides New Insights into Antineoplastic Monoclonal Antibodies [Bacterial production and structure-functional validation of a recombinant antigen-binding fragment (Fab) of an anti-cancer therapeutic antibody ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antineoplastic Monoclonal Antibodies have been published. According to news reporting originating from Gyeonggi Do, South Korea, by NewsRx correspondents, research stated, "Fragment engineering of monoclonal antibodies (mAbs) has emerged as an excellent paradigm to develop highly efficient therapeutic and/or diagnostic agents. Engineered mAb fragments can be economically produced in bacterial systems using recombinant DNA technologies."

Financial support for this research came from Korea Small and Medium Business Administration.

Our news editors obtained a quote from the research from Ajou University, "In this work, we established recombinant production in Escherichia coli for monovalent antigen-binding fragment (Fab) adopted from a clinically used anticancer mAB drug cetuximab targeting epidermal growth factor receptor (EGFR). Recombinant DNA constructs were designed to express both polypeptide chains comprising Fab in a single vector and to secrete them to bacterial periplasmic space for efficient folding. Particularly, a C-terminal engineering to confer an interchain disulfide bond appeared to be able to enhance its heterodimeric integrity and EGFR-binding activity. Conformational relevance of the purified final product was validated by mass spectrometry and crystal structure at 1.9 resolution. Finally, our recombinant cetuximab-Fab was found to have strong binding affinity to EGFR overexpressed in human squamous carcinoma model (A431) cells. Its binding ability was comparable to that of cetuximab. Its EGFR-binding affinity was estimated at approximately 0.7 nM of Kd in vitro, which was quite stronger than the binding affinity of natural ligand EGF."

According to the news editors, the research concluded: "Hence, the results validate that our construction could serve as an efficient platform to produce a recombinant cetuximab-Fab with a retained antigen-binding functionality."

For more information on this research see: Bacterial production and structure-functional validation of a recombinant antigen-binding fragment (Fab) of an anti-cancer therapeutic antibody targeting epidermal growth factor receptor. Applied Microbiology and Biotechnology, 2016;100(24):10521-10529. Applied Microbiology and Biotechnology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Applied Microbiology and Biotechnology - www.springerlink.com/content/0175-7598/)

The news editors report that additional information may be obtained by contacting H.C. Kang, Ajou University, Dept. of Physiol, Sch Med, Suwon 16499, Gyeonggi, South Korea. Additional authors for this research include D.W. Sim, D. Park, T.G. Jung, S. Lee, T. Oh, J.R. Ha, S.H. Seok, M.D. Seo, H.C. Kang, Y.P. Kim and H.S. Won.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00253-016-7717-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gyeonggi Do, South Korea, Asia,
Recent Findings from Albert Einstein College of Medicine Has Provided New Data on Cardiology (Remote Magnetic Navigation: A Focus on Catheter Ablation of Ventricular Arrhythmias)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting out of Bronx, New York, by NewsRx editors, research stated, "VT ablation is based on percutaneous catheter insertion under fluoroscopic guidance to selectively destroy (i.e., ablate) myocardial tissue regions responsible for the initiation or propagation of ventricular arrhythmias. Although the last decade has witnessed a rapid evolution of ablation equipment and techniques, the control over catheter movement during manual ablation has remained largely unchanged."

Our news journalists obtained a quote from the research from the Albert Einstein College of Medicine, "Moreover, the procedures are long, and require ergonomically unfavorable positions, which can lead to operator fatigue. In an attempt to overcome these constraints, several technical advancements, including remote magnetic navigation (RMN), have been developed. RMN utilizes a magnetic field to remotely manipulate specially designed soft-tip ablation catheters anywhere in the x, y, or z plane inside the patient's chest. RMN also facilitates titration of the contact force between the catheter and the myocardial tissue, which may reduce the risk of complications while ensuring adequate lesion formation. There are several non-randomized studies showing that RMN has similar efficacy to manual ablation, while complication rates and total radiation exposure appears to be lower."

According to the news editors, the research concluded: "Although these data are promising, larger randomized studies are needed to prove that RMN is superior to manual ablation of VT."


Our news journalists report that additional information may be obtained by contacting P. Aagaard, Montefiore-Einstein Center for Heart and Vascular Care, Montefiore Medical Center, Albert Einstein College of Medicine, Bronx, New York, United States. Additional authors for this research include A. Natale, D. Briceno, H. Nakagawa, S. Mohanty,
Recent Findings from Ankara Numune Training and Research Hospital Provides New Insights into Abdominal Aortic Aneurysm (Transient Ischemic Attacks of Spinal Cord due to Abdominal Aortic Aneurysm Thrombus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm. According to news reporting originating from Ankara, Turkey, by NewsRx correspondents, research stated, "Thrombosis due to abdominal aortic aneurysm is a rare condition that causes high mortality."

Our news editors obtained a quote from the research from Ankara Numune Training and Research Hospital, "Transient ischemic attack of the spinal cord can occur as a result of trash emboli from thrombus in abdominal aortic aneurysm. This condition generally occurs during operation of abdominal aortic aneurysm; very rarely, it can also be seen in laminated abdominal aortic aneurysm."

According to the news editors, the research concluded: "Here, we present a case of a patient presenting with bilateral lower extremity paralysis resulting from transient ischemic attack of the spinal cord due to infrarenal abdominal aortic aneurysm."


The news editors report that additional information may be obtained by contacting I. Ates, Ankara Numune Training & Res Hosp, Dept. of Internal Med, Ankara, Turkey. Additional authors for this research include M. Kaplan, M. Ozcalik and N. Yilmaz.

Keywords for this news article include: Ankara, Turkey, Eurasia, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Transient Ischemic Attack, Abdominal Aortic Aneurysm, Spinal Cord, Thrombosis, Cardiology, Ankara Numune Training and Research Hospital.

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Recent Findings from Auburn University Provides New Insights into Tissue Engineering (Polymeric Biomaterials for In Vitro Cancer Tissue Engineering and Drug Testing Applications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biomedical Engineering - Tissue Engineering is the subject of a report. According to news reporting from Auburn, Alabama, by NewsRx journalists, research stated, "Biomimetic polymers and materials have been widely used in tissue engineering for regeneration and replication of diverse types of both normal and diseased tissues. Cancer, being a prevalent disease throughout the world, has initiated substantial interest in the creation of tissue-engineered models for anticancer drug testing."

The news correspondents obtained a quote from the research from Auburn University, "The development of these in vitro three-dimensional (3D) culture models using novel biomaterials has facilitated the investigation of tumorigenic and associated biological phenomena with a higher degree of complexity and physiological context than that provided by established two-dimensional culture models. In this review, an overview of a wide range of natural, synthetic, and hybrid biomaterials used for 3D cancer cell culture and investigation of cancer cell behavior is presented. The role of these materials in modulating cell-matrix interactions and replicating specific tumorigenic characteristics is evaluated. In addition, recent advances in biomaterial design, synthesis, and fabrication are also assessed."

According to the news reporters, the research concluded: "Finally, the advantages of incorporating polymeric biomaterials in 3D cancer models for obtaining efficacy data in anticancer drug testing applications are highlighted."

For more information on this research see: Polymeric Biomaterials for In Vitro Cancer Tissue Engineering and Drug Testing Applications. Tissue Engineering Part B-Reviews, 2016;22(6):470-484. Tissue Engineering Part B-Reviews can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA.

Our news journalists report that additional information may be obtained by contacting E.A. Lipke, Auburn University, Dept. of Chem Engn, Auburn, AL 36849, United States. Additional authors for this research include I. Hassani, J.M. Clary and E.A. Lipke.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/ten.teb.2015.0567. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Auburn, Alabama, United States, North and Central America, Tissue Engineering, Article Review, Diagnostics and Screening, Biomedical Engineering, Drugs and Therapies, Bioengineering, Cancer Therapy, Biotechnology, Biomedicine, Oncology, Auburn University.

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Recent Findings from Bhabha Atomic Research Center Has Provided New Information about Nuclear Medicine [Industrial-Scale Synthesis of Intrinsically Radiolabeled (CuS)-Cu-64 Nanoparticles for Use in Positron Emission Tomography (PET) Imaging of ...]
Transfusion Medicine - Blood Transfusion

Recent Findings from Biomedical Research Institute Provides New Insights into Blood Transfusion (Brain hemorrhage after endovascular reperfusion therapy of ischemic stroke: a threshold-finding whole-brain perfusion CT study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Transfusion Medicine - Blood Transfusion is the subject of a report. According to news reporting from Barcelona, Spain, by NewsRx journalists, research stated, "Endovascular reperfusion therapy is increasingly used for acute ischemic stroke treatment. The occurrence of parenchymal hemorrhage is clinically relevant and increases with reperfusion therapies."

The news correspondents obtained a quote from the research from Biomedical Research Institute, "Herein we aimed to examine the optimal perfusion CT-derived parameters and the impact of the duration of brain ischemia for the prediction of parenchymal hemorrhage after endovascular therapy. A cohort of 146 consecutive patients with anterior circulation occlusions and treated with endovascular reperfusion therapy was analyzed. Recanalization was assessed at the end of reperfusion treatment, and the rate of parenchymal hemorrhage at follow-up neuroimaging. In regression analyses, cerebral blood volume and cerebral blood flow performed better than Delay Time maps for the prediction of parenchymal hemorrhage. The most informative thresholds (receiver operating curves) for relative cerebral blood volume and relative cerebral blood flow were values lower than 2.5% of normal brain. In binary regression analyses, the volume of regions with reduced relative cerebral blood volume and/or relative cerebral blood flow was significantly associated with an increased risk of parenchymal hemorrhage, as well as delayed vessel recanalization."

According to the news reporters, the research concluded: "These results highlight the relevance of the severity and duration of ischemia as drivers of blood-brain barrier disruption in acute ischemic stroke and support the role of perfusion CT for the prediction of parenchymal hemorrhage."


Our news journalists report that additional information may be obtained by contacting S. Amaro, August Pi & Sunyer Biomed Res Inst IDIBAPS, Barcelona, Spain. Additional authors for this research include C. Laredo, R.L. Tudela, X. Urra, A. Lopez-Rueda, L. Llull, L. Oleaga, S. Amaro and A. Chamorro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0271678X15621704. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Transfusion Medicine, Cerebral Blood Flow, Blood Transfusion, Medical Devices, Reperfusion, Hemorrhage, Perfusion, Angiology, Therapy, Stroke, Biomedical Research Institute.

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Clinical Research - Clinical Trials and Studies

Recent Findings from Burdwan Medical College Provides New Insights into Clinical Trials and Studies (Role of olanzapine in chemotherapy-induced nausea and vomiting on platinum-based chemotherapy patients: a randomized controlled study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Clinical Research - Clinical Trials and Studies are presented in a new report. According to news reporting originating from Bengal, India, by NewsRx correspondents, research stated, "Even with the use of modern antiemetic drugs, chemotherapy-induced nausea and vomiting (CINV) is still a cause of great distress to the patients. Olanzapine, primarily marketed as an antipsychotic, was found to reduce nausea and vomiting in some chemotherapy patients."

Financial support for this research came from NON FUNDED.

Our news editors obtained a quote from the research from Burdwan Medical College, "But it was never tested in Indian population with a diverse genetic background. The present study aims to evaluate the role of olanzapine in CINV in patients receiving platinum-based chemotherapy. The study was a randomized, controlled, assessor-blinded study on 100 chemotherapy-naïve consenting patients receiving any one from cisplatin, carboplatin or oxaliplatin. The control group (n = 50) received palonosetron and dexamethasone in the approved therapeutic dose from the day 1 of chemotherapy. The test group (n = 50) received additional olanzapine 10 mg/day from day 1 for five consecutive days. CINV and quality of life (QoL) were assessed. Vomiting was significantly less among the olanzapine-treated patients. Control of delayed emesis was significantly better in this group (complete response among 96 vs. 42% in the control group, p value < 0.0001). Incidence and severity of nausea was significantly less in this group. Failure of anti-CINV measure was 4% in this group compared to 26% of the patients of the control group during overall days 1-5. Though sedation was more in these olanzapine-treated patients, there was no dose-limiting adverse event. Quality of life was also better among the olanzapine-treated patients."

According to the news editors, the research concluded: "Olanzapine was found to be effective as add-on in the control of CINV."

For more information on this research see: Role of olanzapine in chemotherapy-induced nausea and vomiting on platinum-based chemotherapy patients: a randomized controlled study. Supportive Care in Cancer, 2017;25(1):145-154. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

The news editors report that additional information may be obtained by contacting S. Mukhopadhyay, Burdwan Med College, Pharmacovigilance, Dept. of Pharmacol, Burdwan 713102, W Bengal, India. Additional authors for this research include G. Kwatra, K.P. Alice and D. Badyal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3386-9. This DOI is a link to an online electronic document that is either free or for purchase.
Musculoskeletal Diseases and Conditions —

Recent Findings from CHA University Provide New Insights into Osteoarthritis (AIMP1 downregulation restores chondrogenic characteristics of dedifferentiated/degenerated chondrocytes by enhancing TGF-b signal)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Osteoarthritis. According to news reporting originating in Gyeonggi Do, South Korea, by NewsRx journalists, research stated, "Dedifferentiation and degeneration of chondrocytes critically influences the efficiency of cartilage repair. One of the causes is the defect of transforming growth factor (TGF)-b signaling that promotes chondrogenic differentiation and degeneration."

The news reporters obtained a quote from the research from CHA University, "In the present study, we found that aminoacyl-tRNA synthetase-interacting multifunctional protein 1 (AIMP1) negatively regulates TGF-b signaling via interactions with Smad2 and Smad3 in immunoprecipitation assay and luciferase assay. In addition, we observed that the AIMP1 expression level was significantly increased in osteoarthritis (OA) patient-derived degenerated chondrocytes compared with healthy control. So, we hypothesized that downregulation of AIMP1 using small-interfering RNA (siRNA) technology in dedifferentiated (collected at passage #6) and degenerated (obtained from OA-affected areas) chondrocytes could lead to recover TGF-b signaling in both chondrocytes. Indeed, AIMP1 downregulation restored TGF-b signaling by promoting phosphorylation of Smad2 and Smad3, which shows redifferentiated characteristics in both dedifferentiated and degenerated chondrocytes. Additionally, implantation analyses using in vivo mouse model clearly showed that AIMP1 downregulation resulted in the increased chondrogenic potential as well as the enhanced cartilage tissue formation in both dedifferentiated and degenerated chondrocytes. Histological analyses clarified that AIMP1 downregulation increased expression levels of collagen type II (Col II) and aggrecan, but not Col I expression."

According to the news reporters, the research concluded: "Taken together, these data indicate that AIMP1 downregulation using siRNA is a novel tool to restore TGF-b signaling and thereby increases the chondrogenic potential of dedifferentiated/degenerated chondrocytes, which could be further developed as a therapeutic siRNA to treat OA."

For more information on this research see: AIMP1 downregulation restores chondrogenic characteristics of dedifferentiated/degenerated chondrocytes by enhancing TGF-b signal. *Cell Death & Disease*, 2016;7():e2099. (Nature Publishing Group - [www.nature.com/cddis/](http://www.nature.com/cddis/))

Our news correspondents report that additional information may be obtained by contacting J. Ahn, Dept. of Biomedical Science, CHA University, Seongnam-si, Gyeonggi-do,
South Korea. Additional authors for this research include H. Kumar, B.H. Cha, S. Park, Y. Arai, I. Han, S.G. Park and S.H Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2016.17. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Genetics, Gyeonggi Do, South Korea, Osteoarthritis, Musculoskeletal Diseases and Conditions.

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Parasitic Diseases and Conditions - Leishmaniasis

Recent Findings from CSIR Provides New Insights into Leishmaniasis (A Novel Spirooxindole Derivative Inhibits the Growth of Leishmania donovani Parasites both In Vitro and In Vivo by Targeting Type IB Topoisomerase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Parasitic Diseases and Conditions - Leishmaniasis is now available. According to news originating from Kolkata, India, by NewsRx correspondents, research stated, "Visceral leishmaniasis is a fatal parasitic disease, and there is an emergent need for development of effective drugs against this neglected tropical disease. We report here the development of a novel spirooxindole derivative, N-benzyl-2,2'alpha-3,3', 5', 6', 7', 7 alpha,alpha'-octahydro-2methoxycarbonyl-spiro[indole-3,3'-pyrrolizidine]-2-one (compound 4c), which inhibits Leishmania donovani topoisomerase IB (LdTopIB) and kills the wild type as well as drug-resistant parasite strains."

Funders for this research include Department of Science and Technology, Ministry of Science and Technology (DST), Council of Scientific and Industrial Research (CSIR), Department of Biotechnology, Ministry of Science and Technology (DBT).

Our news journalists obtained a quote from the research from CSIR, "This compound inhibits catalytic activity of LdTopIB in a competitive manner. Unlike camptothecin (CPT), the compound does not stabilize the DNA-topoisomerase IB cleavage complex; rather, it hinders drug-DNA-enzyme covalent complex formation. Fluorescence studies show that the stoichiometry of this compound binding to LdTopIB is 2:1 (mole/mole), with a dissociation constant of 6.65 mu M. Molecular docking with LdTopIB using the stereoisomers of compound 4c produced two probable hits for the binding site, one in the small subunit and the other in the hinge region of the large subunit of LdTopIB. This spirooxindole is highly cytotoxic to promastigotes of L. donovani and also induces apoptosis-like cell death in the parasite. Treatment with compound 4c causes depolarization of mitochondrial membrane potential, formation of reactive oxygen species inside parasites, and ultimately fragmentation of nuclear DNA. Compound 4c also effectively clears amastigote forms of wild-type and drug-resistant parasites from infected mouse peritoneal macrophages but has less of an effect on host macrophages. Moreover, compound 4c showed strong antileishmanial efficacies in the BALB/c mouse model of leishmaniasis."

According to the news editors, the research concluded: "This compound potentially can be used as a lead for developing excellent antileishmanial agents against emerging drug-resistant strains of the parasite."
For more information on this research see: A Novel Spirooxindole Derivative Inhibits the Growth of Leishmania donovani Parasites both In Vitro and In Vivo by Targeting Type IB Topoisomerase. Antimicrobial Agents and Chemotherapy, 2016;60(10):6281-6293.

Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00352-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kolkata, India, Asia, Parasitic Skin Diseases and Conditions, Parasitic Diseases and Conditions, Enzymes and Coenzymes, Euglenozoa Infections, Protozoan Infections, Topoisomerase, Leishmaniasis, CSIR.

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Oncology - Breast Cancer

Recent Findings from Cancer Research Institute Provides New Insights into Breast Cancer (Evaluation of expression profiles of microRNAs and two target genes, FOXO3a and RUNX2, effectively supports diagnostics and therapy predictions in breast ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting out of Bratislava, Slovakia, by NewsRx editors, research stated, "Breast cancer (BC) including its progression into bone metastasis is a complex process involving changes in gene expression and function of both, microRNAs (miRNAs) and their target genes. Deregulation of miRNAs has been described as a crucial factor responsible for the initiation and progression of BC, and specific miRNA expression profiles have been found to be associated with particular disease states, histological tumor types, and BRCA1/2 or HER status."

Our news journalists obtained a quote from the research from Cancer Research Institute, "BRCA1 tumor suppressor is involved in DNA damage response and repair and epigenetically controls miR-155 expression and its pre-cancerous potential. MiR-155 targets 3’UTR region of multiple components of the pro-oncogenic signaling cascades, including FOXO3a tumor suppressor and RUNX2 transcription factor regulating metastatic potential in BC. We employed qRT-PCR to determine expression level and examine possible regulatory role of selected miRNAs (miR-17, miR-18a, miR-19a, miR-20a, miR-21, miR-27a and miR-155) and their impact on expression modulation of FOXO3a and RUNX2 in peripheral blood mononuclear cells (PBMCs) in healthy individuals, in women carrying BRCA1 mutations with no disease manifestation, in women carrying BRCA1 mutations after tumor resection and therapy and in women with BC of unknown BRCA1 status in acute stage before tumor resection. Our results showed significant increase of miR-17, miR-19a, miR-21, miR-27, miR-155 and RUNX2 expression in PBMCs in BRCA1 patients and patients in acute stage, while
FOXO3a expression was significantly decreased in these patients. MiR-18a and miR-20a expression was not affected."

According to the news editors, the research concluded: "We propose that expression changes reported in this study could provide significant additive information for early BC diagnosis, disease development prediction and therapy outcome monitoring."

For more information on this research see: Evaluation of expression profiles of microRNAs and two target genes, FOXO3a and RUNX2, effectively supports diagnostics and therapy predictions in breast cancer. Neoplasma, 2016;63(6):941-951. Neoplasma can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

Our news journalists report that additional information may be obtained by contacting D. Jurkovicova, Slovak Academy Sci, Canc Res Inst, Biomed Res Center, Bratislava 84505, Slovakia. Additional authors for this research include M. Magyerkova, Z. Sestakova, L. Copakova, V. Bella, M. Konecny, M. Krivjanska, L. Kulcsar and M. Chovanec.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4149/neo_2016_613. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bratislava, Slovakia, Europe, Tumor Suppression, Women's Health, Breast Cancer, Oncology, Genetics, Therapy, Cancer Research Institute.

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Recent Findings from Central South University Has Provided New Data on Hereditary Hemorrhagic Telangiectasia (Thalidomide Effects in Patients with Hereditary Hemorrhagic Telangiectasia During Therapeutic Treatment and in Fli-EGFP Transgenic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Hereditary Hemorrhagic Telangiectasia are discussed in a new report. According to news reporting originating in Changsha, People's Republic of China, by NewsRx journalists, research stated, "Hereditary hemorrhagic telangiectasia (HHT) is an autosomal dominant disease characterized by recurrent epistaxis, mucocutaneous telangiectasia, and arteriovenous malformations. The efficacy of traditional treatments for HHT is very limited."

The news reporters obtained a quote from the research from Central South University. "The aim of this study was to investigate the therapeutic role of thalidomide in HHT patients and the effect in FLI-EGFP transgenic zebrafish model. HHT was diagnosed according to Shovlin criteria. Five HHT patients were treated with thalidomide (100 mg/d). The Epistaxis Severity Score (ESS), telangiectasia spots, and hepatic computed tomography angiography (CTA) were used to assess the clinical efficacy of thalidomide. The Fli-EGFP zebrafish model was investigated for the effect of thalidomide on angiogenesis. Dynamic real-time polymerase chain reaction assay, ELISA and Western blotting from patient's peripheral blood mononuclear cells and plasma were used to detect the expression of transforming growth factor beta 3 (TGF-b3) messenger RNA (mRNA) and vascular endothelial growth factor (VEGF) protein before and after 6 months of thalidomide treatment. The average ESS before and after thalidomide were
6.966 \pm 3.093 and 1.799 \pm 0.627, respectively (p=0.009). The 'telangiectatic spot' on the tongue almost vanished; CTA examination of case 2 indicated a smaller proximal hepatic artery and decreased or ceased hepatic artery collateral circulation. The Fli-EGFP zebrafish model manifested discontinuous vessel development and vascular occlusion (7 of 10 fishes), and the TGF-b3 mRNA expression of five patients was lower after thalidomide therapy. The plasma VEGF protein expression was down-regulated in HHT patients. Thalidomide reverses telangiectasia and controls nosebleeds by down-regulating the expression of TGF-b3 and VEGF in HHT patients."

According to the news reporters, the research concluded: "It also leads to vascular remodeling in the zebrafish model."


Our news correspondents report that additional information may be obtained by contacting G.S. Zhang, Division of Hematology, Second Xiangya Hospital, Central South University, Changsha, Hunan 410011, People's Republic of China. Additional authors for this research include Y.F. Yi, S.K. Zhou, S.S. Xie and G.S Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.169068. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the Chinese Medical Journal can be contacted at: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: VEGF, Antiinfectives, Antineoplastics, Pharmaceuticals, Changsha, Genetics, Angiology, Epistaxis, Hematology, Dermatology, Leprostatics, Phthalimides, Hepatic Artery, Carboxylic Acids, Membrane Proteins, Organic Chemicals, Angiogenic Proteins, Drugs and Therapies, Thalidomide Therapy, Growth Factor Receptors.

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Heart Disorders and Diseases - Hypoplastic Left... Recent Findings from Children's Hospital Provides New Insights into Hypoplastic Left Heart Syndrome (Understanding the Hybrid Stage I Approach for Hypoplastic Left Heart Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Hypoplastic Left Heart Syndrome are presented in a new report. According to news reporting originating in Columbus, Ohio, by NewsRx journalists, research stated, "Hybrid stage I palliation combines cardiothoracic surgery and interventional transcatheter procedures for treatment of hypoplastic left heart syndrome. The approach is an alternative to the Norwood procedure, the traditional first stage of surgical palliation."

The news reporters obtained a quote from the research from Children's Hospital,
"Hybrid stage I palliation involves placing bilateral branch pulmonary artery bands and a patent ductus arteriosus stent through a median sternotomy, performed without cardiopulmonary bypass. The purpose of the bands is to control blood flow to the lungs and protect the pulmonary bed while the stent sustains systemic cardiac output. A balloon atrial septostomy is performed to create an atrial septal defect for unobstructed blood flow from the left atrium to the right atrium. The second stage of palliative surgery is the comprehensive stage II, which incorporates removal of the stent and pulmonary artery bands, atrial septectomy, anastomosis of the diminutive ascending aorta to the main pulmonary artery, aortic arch augmentation, and bidirectional cavopulmonary anastomosis."

According to the news reporters, the research concluded: "The traditional Fontan procedure completes the series of palliation."

For more information on this research see: Understanding the Hybrid Stage I Approach for Hypoplastic Left Heart Syndrome. Critical Care Nurse. 2016;36(5):48-55. Critical Care Nurse can be contacted at: Amer Assoc Critical Care Nurses, 101 Columbia, Aliso Viejo, CA 92656, USA.

Our news correspondents report that additional information may be obtained by contacting S.L. Cheatham, Nationwide Childrens Hosp, Center Heart, Cardiac Catheterization Suites, Columbus, OH, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4037/ccn2016894. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Hypoplastic Left Heart Syndrome, Heart Disorders and Diseases, Cardiovascular Abnormalities, Congenital Heart Defects, Congenital Abnormalities, Pulmonary Artery, Heart Disease, Angiology, Arteries, Surgery, Children's Hospital.

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**Oncology - Breast Cancer**

**Recent Findings from Chongqing Medical University Provide New Insights into Breast Cancer (LncRNA-Hh Strengthen Cancer Stem Cells Generation in Twist-Positive Breast Cancer via Activation of Hedgehog Signaling Pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting out of Chongqing, People's Republic of China, by NewsRx editors, research stated, "Cancer stem cells (CSCs) are a subpopulation of neoplastic cells with self-renewal capacity and limitless proliferative potential as well as high invasion and migration capacity. These cells are commonly associated with epithelial-mesenchymal transition (EMT), which is also critical for tumor metastasis."

Funders for this research include National Natural Science Foundation of China, National Institutes of Health.

Our news journalists obtained a quote from the research from Chongqing Medical University, "Recent studies illustrate a direct link between EMT and stemness of cancer cells. Long non-coding RNAs (lncRNAs) have emerged as important new players in the regulation of
multiple cellular processes in various diseases. To date, the role of IncRNAs in EMT-associated CSC stemness acquisition and maintenance remains unclear. In this study, we discovered that a set of IncRNAs were dysregulated in Twist-positive mammosphere cells using IncRNA microarray analysis. Multiple IncRNAs-associated canonical signaling pathways were identified via bioinformatics analysis. Especially, the Shh-GLI1 pathway associated IncRNA-Hh, transcriptionally regulated by Twist, directly targets GAS1 to stimulate the activation of hedgehog signaling (Hh). The activated Hh increases GLI1 expression, and enhances the expression of SOX2 and OCT4 to play a regulatory role in CSC maintenance. Thus, the mammosphere-formation efficiency (MFE) and the self-renewal capacity in vitro, and oncogenicity in vivo in Twist-positive breast cancer cells are elevated. IncRNA-Hh silence in Twist-positive breast cells attenuates the activated Shh-GLI1 signaling and decreases the CSC-associated SOX and OCT4 levels, thus reduces the MFE and tumorigenesis of transplanted tumor.

According to the news editors, the research concluded: "Our results reveal that IncRNAs function as an important regulator endowing Twist-induced EMT cells to gain the CSC-like stemness properties."


Our news journalists report that additional information may be obtained by contacting M. Zhou, Key Laboratory of Laboratory Medical Diagnostics, Chinese Ministry of Education, Chongqing Medical University, Chongqing, People's Republic of China. Additional authors for this research include Y. Hou, G. Yang, H. Zhang, G. Tu, Y.E. Du, S. Wen, L. Xu, X. Tang, S. Tang, L. Yang, X. Cui and M. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2219. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Oncology, Chongqing, Breast Cancer, Women's Health, Stem Cell Research, People's Republic of China.

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**Oncology - Gliomas**

**Recent Findings from City of Hope National Medical Center Has Provided New Information about Gliomas [Increased Expression of System x(c)(-) in Glioblastoma Confers an Altered Metabolic State and Temozolomide Resistance]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gliomas is the subject of a report. According to news reporting from Duarte, California, by NewsRx journalists, research stated, "Glioblastoma multiforme is the most aggressive malignant primary brain tumor in adults. Several studies have shown that glioma cells upregulate the expression of xCT (SLC7A11), the catalytic subunit of system x©(-), a transporter involved in cystine import, that modulates glutathione production and glioma growth."
The news correspondents obtained a quote from the research from the City of Hope National Medical Center, "However, the role of system x©(-) in regulating the sensitivity of glioma cells to chemotherapy is currently debated. Inhibiting system x©(-) with sulfasalazine decreased glioma growth and survival via redox modulation, and use of the chemotherapeutic agent temozolomide together with sulfasalazine had a synergistic effect on cell killing. To better understand the functional consequences of system x©(-) in glioma, stable SLC7A11-knockdown and -overexpressing U251 glioma cells were generated. Modulation of SLC7A11 did not alter cellular proliferation but overexpression did increase anchorage-independent cell growth. Knockdown of SLC7A11 increased basal reactive oxygen species (ROS) and decreased glutathione generation resulting in increased cell death under oxidative and genotoxic stress. Overexpression of SLC7A11 resulted in increased resistance to oxidative stress and decreased chemosensitivity to temozolomide. In addition, SLC7A11 overexpression was associated with altered cellular metabolism including increased mitochondrial biogenesis, oxidative phosphorylation, and ATP generation."

According to the news reporters, the research concluded: "These results suggest that expression of SLC7A11 in the context of glioma contributes to tumorigenesis, tumor progression, and resistance to standard chemotherapy."

For more information on this research see: Increased Expression of System x©(-) in Glioblastoma Confers an Altered Metabolic State and Temozolomide Resistance. Molecular Cancer Research, 2016;14(12):1229-1242. Molecular Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Molecular Cancer Research - mcr.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting M.D. Polewski, City Hope Natl Med Center, Irell & Manella Grad Sch Biol Sci, Duarte, CA 91010, United States. Additional authors for this research include R.F. Reveron-Thornton, G.A. Cherryholmes, G.K. Marinov, K. Cassidy and K.S. Aboody.

Keywords for this news article include: Duarte, California, United States, North and Central America, Glioblastomas, Oncology, Gliomas, City of Hope National Medical Center.

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Our news journalists obtained a quote from the research from Cooper Union, "Five OSAS and six control obese girls between 14 and 18 years of age were studied. All underwent polysomnography, critical closing pressure (P-crit) studies, and dynamic MRI of the upper airway during awake tidal breathing. Effective airway compliance was defined as the slope of cross-sectional area vs. average pressure between maximum inspiration and maximum expiration along the pharyngeal airway. Pharyngeal pressure fields were calculated by using image-based computational fluid dynamics and nasal resistance. Spearman correlations were calculated to test associations between apnea-hypopnea index (AHI), P-crit, and airway compliance. Effective compliances in the nasopharynx (C-NP) and velopharynx (C-VP) were lower and negative in OSAS compared with controls: -4.4 vs. 1.9 (mm(2)/cmH(2)O, P = 0.012) and -2.1 vs. 3.9 (mm(2)/cmH(2)O, P = 0.021), respectively, suggesting a strong phasic pharyngeal dilator activity during inspiration in OSAS compared with controls. For all subjects, CNP and AHI correlated negatively (τ(S) = -0.69, P = 0.02), and passive P-crit correlated with CNP (τ(S) = -0.76, P = 0.006) and with AHI (τ(S) = 0.86, P = 0.0006). Pharyngeal mechanics obtained during wakefulness could be used to characterize subjects with OSAS."

According to the news editors, the research concluded: "Moreover, negative effective compliance during wakefulness and its correlation to AHI and P-crit suggest that phasic dilator activity of the upper pharynx compensates for negative pressure loads in these subjects."

For more information on this research see: Computational fluid dynamics upper airway effective compliance, critical closing pressure, and obstructive sleep apnea severity in obese adolescent girls. Journal of Applied Physiology, 2016;121(4):925-931. Journal of Applied Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.


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Keywords for this news article include: New York City, New York, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Respiratory Tract Diseases and Conditions, Sleep Diseases and Conditions, Obstructive Sleep Apnea, Respiration Disorders, Adolescent Girls, Sleep Disorders, Women's Health, Otolaryngology, Craniofacial, Pulmonology, Bariatrics, Obesity, Cooper Union.

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Drugs and Therapies - Antibiotics

Recent Findings from Department of Clinical Pharmacology Provide New Insights into Antibiotics (Pharmacokinetics and Pulmonary Distribution of Clarithromycin and Rifampicin after Concomitant and Consecutive Administration in Foals)
According to news originating from Greifswald, Germany, by NewsRx correspondents, research stated, "Drug interactions often result from multiple pharmacokinetic changes, such as after rifampicin (RIF) and clarithromycin (CLA) in the treatment of abscessing lung diseases. Comedication of RIF may interact with CLA disposition by either induction of presystemic elimination processes and/or inhibition of uptake mechanisms because it regulates gene transcription and modulates function of various CYP enzymes, multidrug efflux and uptake transporters for which CLA is a substrate."

Our news journalists obtained a quote from the research from the Department of Clinical Pharmacology, "To distinguish the transcriptional changes from the modulating interaction components upon CLA absorption and pulmonary distribution, we initiated a repeated-dose study in 12 healthy foals with CLA (7.5 mg/kg, p.o., b.i.d.) in comedication with RIF (10 mg/kg, p.o., b.i.d.) given either concomitantly with CLA or consecutively 4 h after CLA. Affinity of CLA to human P-gp, MRP2, and MRP3 and to OCT1, OCT3, and PEPT1 was measured using SF9-derived inside-out membrane vesicles and transfected HEK293 cells, respectively. ABCB1 (P-gp) induction by RIF and affinity of CLA to equine P-gp were studied using primary equine hepatocytes. Absolute bioavailability of CLA was reduced from \( \sim 40\% \) to below 5% after comedication of RIF in both schedules of administration, and Tmax occurred \( \sim 2-3 \) h earlier. The loss of bioavailability was not associated with increased 14-hydroxyclarithromycin (14-OH-CLA) exposure. After consecutive dosing, absolute bioavailability and pulmonary penetration of CLA increased \( \sim 2 \)-fold compared to concomitant use. In vitro, CLA showed affinity to human and equine P-gp. Expression of ABCB1 mRNA was upregulated by RIF in 7 of 8 duodenal biopsy specimens and in primary equine hepatocytes."

According to the news editors, the research concluded: "The major undesired influence of RIF on oral absorption and pulmonary distribution of CLA is associated with induction of intestinal P-gp. Consecutive administration to avoid competition with its intestinal uptake transport results in significantly, although not clinically relevant, improved systemic exposure."

For more information on this research see: Pharmacokinetics and Pulmonary Distribution of Clarithromycin and Rifampicin after Concomitant and Consecutive Administration in Foals. Molecular Pharmaceutics, 2016;13(3):1089-99. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news correspondents report that additional information may be obtained from S. Berlin, Dept. of Clinical Pharmacology, Center of Drug Absorption and Transport (C_DAT), University Medicine of Greifswald, Greifswald, Germany. Additional authors for this research include L. Spieckermann, S. Oswald, M. Keiser, S. Lumpe, A. Ullrich, M. Grube, M. Hasan, M. Venner and W. Siegmund.

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Keywords for this news article include: Antibiotics, Antinfectives, Pharmaceuticals, Europe, Germany, Genetics, Greifswald, Erythromycin, Clarithromycin, Pharmacokinetics, Drugs and Therapies, Macrolide Derivatives.

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Recent Findings from Department of Medicine Has Provided New Information about Cancer Risk (Increased yield of actionable mutations using multi-gene panels to assess hereditary cancer susceptibility in an ethnically diverse clinical cohort)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Risk. According to news reporting originating in Los Angeles, California, by NewsRx journalists, research stated, "This study aims to assess multi-gene panel testing in an ethnically diverse clinical cancer genetics practice. We conducted a retrospective study of individuals with a personal or family history of cancer undergoing clinically indicated multi-gene panel tests of 6-110 genes, from six commercial laboratories."

The news reporters obtained a quote from the research from the Department of Medicine, "The 475 patients in the study included 228 Hispanics (47.6%), 166 non Hispanic Whites (35.4%), 55 Asians (11.6%), 19 Blacks (4.0%), and seven others (1.5%). Panel testing found that 15.6% (74/475) of patients carried deleterious mutations for a total of 79 mutations identified. This included 7.4% (35/475) of patients who had a mutation identified that would not have been tested with a gene-by-gene approach. The identification of a panel added mutation impacted clinical management for most of cases (69%, 24/35), and genetic testing was recommended for the first degree relatives of nearly all of them (91%, 32/35). Variants of uncertain significance (VUSs) were identified in a higher proportion of tests performed in ethnic minorities. Multi-gene panel testing increases the yield of mutations detected and adds to the capability of providing individualized cancer risk assessment. VUSs represent an interpretive challenge due to less data available outside of White, non-Hispanic populations."

According to the news reporters, the research concluded: "Further studies are necessary to expand understanding of the implementation and utilization of panels across broad clinical settings and patient populations."


Our news correspondents report that additional information may be obtained by contacting C. Ricker, Univ Southern Calif, Dept. of Med, Los Angeles, CA 90033, United States. Additional authors for this research include J.O. Culver, K. Lowstuter, D. Sturgeon, J.D. Sturgeon, C.R. Chanock, W.J. Gauderman, K.J. McDonnell, G.E. Idos and S.B. Gruber.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2015.12.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Cancer, Diagnostics and Screening, Risk and Prevention, Genetics, Cancer Risk, Oncology, Department of Medicine.

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Peptides and Proteins

Recent Findings from Dow AgroSciences LLC Has Provided New Information about Peptides and Proteins (Rapid simulated gastric fluid digestion of in-seed/grain proteins expressed in genetically engineered crops)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Peptides and Proteins is now available. According to news reporting out of Indianapolis, Indiana, by NewsRx editors, research stated, "The speed of simulated gastric digestion of proteins expressed in genetically engineered (GE) crops is commonly used to inform the allergenicity risk assessment. However, persistence of purified proteins in simulated gastric fluid (SGF) is poorly correlated with the allergenic status of proteins."

Our news journalists obtained a quote from the research from Dow AgroSciences LLC, "It has been proposed that the plant or food matrix may affect the digestion of proteins and should be considered in interpreting digestion results. Here the SGF digestion of several GE proteins both as purified preparations and in soybean, corn, and cotton seed/grain extracts (in-matrix) are compared. Cry1F, Cry1Ac, phosphinothricin acetyltransferase (PAT), aryloxyalkanoate dioxygenase-1 (AAD-1), aryloxyalkanoate dioxygenase-12 (AAD-12), and double mutant 5-enol pyruvylshikimate-3-phosphate synthase (2mEPSPS) were all found to rapidly digest both as purified protein preparations and in seed/grain extracts from GE crops expressing these proteins."

According to the news editors, the research concluded: "Based on these results, purified protein from microbial sources is a suitable surrogate for proteins in-matrix when conducting SGF digestion studies."

For more information on this research see: Rapid simulated gastric fluid digestion of in-seed/grain proteins expressed in genetically engineered crops. Regulatory Toxicology and Pharmacology, 2016;81():106-112. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting R.A. Herman, Dow AgroSci LLC, Indianapolis, IN 46268, United States. Additional authors for this research include S.K. Embrey and R.A. Herman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.08.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Peptides and Proteins, Enzymes and Coenzymes, Genetic Engineering, Bioengineering, Dioxygenases, Amino Acids, Technology, Genetics, Proteins, Peptides, Dow AgroSciences LLC.

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Recent Findings from EMD Serono Advance Knowledge in Metabolic Syndrome (Predictors of Treatment Response to Tesamorelin, a Growth Hormone-Releasing Factor Analog, in HIV-Infected Patients with Excess Abdominal Fat)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Metabolic Syndrome have been published. According to news reporting from Rockland, Massachusetts, by NewsRx journalists, research stated, "Tesamorelin, a synthetic analog of human growth hormone-releasing factor, decreases visceral adipose tissue (VAT) in human immunodeficiency virus (HIV)-infected patients with lipodystrophy. 1) To evaluate the utility of patient characteristics and validated disease-risk scores, namely indicator variables for the metabolic syndrome defined by the International Diabetes Federation (MetS-IDF) or the National Cholesterol Education Program (MetS-NCEP) and the Framingham Risk Score (FRS), as predictors of VAT reduction during tesamorelin therapy at 3 and 6 months, and 2) To explore the characteristics of patients who reached a threshold of VAT <140 cm², a level associated with lower risk of adverse health outcomes, after 6 months of treatment with tesamorelin."

The news correspondents obtained a quote from the research from EMD Serono, "Data were analyzed from two Phase 3 studies in which HIV-infected patients with excess abdominal fat were randomized in a 2:1 ratio to receive tesamorelin 2 mg (n=543) or placebo (n=263) subcutaneously daily for 6 months, using ANOVA and ANCOVA models. Metabolic syndrome (MetS-IDF or MetS-NCEP) and FRS were significantly associated with VAT at baseline. Presence of metabolic syndrome ([MetS-NCEP), triglyceride levels >1.7 mmol/L, and white race had a significant impact on likelihood of response to tesamorelin after 6 months of therapy (interaction p-values 0.054, 0.063, and 0.025, respectively). No predictive factors were identified at 3 months. The odds of a VAT reduction to <140 cm² for subjects treated with tesamorelin was 3.9 times greater than that of subjects randomized to placebo after controlling for study, gender, baseline body mass index (BMI) and baseline VAT (95% confidence interval [CI] 2.03; 7.44). Individuals with baseline MetS-NCEP, elevated triglyceride levels, or white race were most likely to experience reductions in VAT after 6 months of tesamorelin treatment."

According to the news reporters, the research concluded: "The odds of response of VAT <140 cm² was 3.9 times greater for tesamorelin-treated patients than that of patients receiving placebo."

For more information on this research see: Predictors of Treatment Response to Tesamorelin, a Growth Hormone-Releasing Factor Analog, in HIV-Infected Patients with Excess Abdominal Fat. Plos One, 2015;10(10):e0140358. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting A. Mangili, EMD Serono, Inc, Rockland, Massachusetts, United States. Additional authors for this research include J. Falutz, J.C. Mamputu, M. Stepanians and B. Hayward.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0140358. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rockland, HIV/AIDS, Healthcare, RNA Viruses, Retroviridae, Massachusetts, United States, HIV Infections, Growth Hormones, Peptide
Hormones, Metabolic Syndrome, Vertebrate Viruses, Risk and Prevention, Primate Lentiviruses, North and Central America, Anterior Pituitary Hormones, Human Immunodeficiency Virus.

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Drugs and Therapies - Cancer Therapy

Recent Findings from Emory University Has Provided New Information about Cancer Therapy (New Anticancer Drugs Associated With Large Increases In Costs And Life Expectancy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Cancer Therapy are presented in a new report. According to news originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "Spending on anticancer drugs has risen rapidly over the past two decades. A key policy question is whether new anticancer drugs offer value, given their high cost."

Our news journalists obtained a quote from the research from Emory University, "Using data from the Surveillance, Epidemiology, and End Results (SEER)-Medicare database, we assessed the value of new cancer treatments in routine clinical practice for patients with metastatic breast, lung, or kidney cancer or chronic myeloid leukemia in the periods 1996-2000 and 2007-11. We found that there were large increases in medical costs, but also large gains in life expectancy. For example, among patients with breast cancer who received physician-administered drugs, lifetime costs-including costs for outpatient and inpatient care-increased by $72,000 and life expectancy increased by thirteen months."

According to the news editors, the research concluded: "Changes in life expectancy and costs were much smaller among patients who did not receive these drugs."

For more information on this research see: New Anticancer Drugs Associated With Large Increases In Costs And Life Expectancy. Health Affairs, 2016;35(9):1581-1587. Health Affairs can be contacted at: Project Hope, 7500 Old Georgetown Rd, Ste 600, Bethesda, MD 20814-6133, USA.

The news correspondents report that additional information may be obtained from D.H. Howard, Emory University, Dept. of Hlth Policy & Management, Atlanta, GA 30322, United States. Additional authors for this research include M.E. Chernew, T. Abdelgawad, G.L. Smith, J. Sollano and D.C. Grabowski.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1377/hlthaff.2016.0286. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Cancer, Epidemiology, Drugs and Therapies, Cancer Therapy, Oncology, Emory University.

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Recent Findings from Federal University Provides New Insights into HIV/AIDS (TRIM5 gene polymorphisms in HIV-1-infected patients and healthy controls from Northeastern Brazil)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immune System Diseases and Conditions - HIV/AIDS is the subject of a report. According to news reporting out of Recife, Brazil, by NewsRx editors, research stated, "Humans show heterogeneity in vulnerability to HIV-1 infection, partially under control of genes involved in host immunity and virus replication. TRIM5 alpha protein has restriction activity against replication of many retroviruses."

Financial supporters for this research include Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico, Fundacao de Amparo a Ciencia e Tecnologia do Estado de Pernambuco.

Our news journalists obtained a quote from the research from Federal University, "Human TRIM5 gene single nucleotide polymorphisms have been reported as involved in susceptibility to HIV-1 infection. We recruited 213 HIV-1-positive patients and 234 healthy uninfected controls from Northeast Brazil; two non-synonymous variants at exon 2, rs3740996 (H43Y) and rs10838525 (R136Q), and one regulatory polymorphism (rs16934386) at 5'UTR region of TRIM5 were analyzed. The R136Q variation presented significant differences between HIV-1-positive patients and healthy controls. The 136Q allele and the 136QQ genotype were more frequent in healthy controls (32.7 and 10.2 %, respectively) than in HIV-1-positive patients (136Q allele: 24.4 %; OR 0.66; CI 95 % 0.49-0.90; p value = 0.008/136QQ genotype: 4.2 %; OR 0.33; CI 95 % 0.13-0.79; p = 0.008) also after adjusting for age and sex. We also stratified our findings according to the presence of CCR5 Delta 32 variation, but the results remained the same. We observed that rs10838525 (R136Q) and rs3740996 (H43Y) were in linkage disequilibrium (D' = 0.71), forming four possible haplotypes. The H43-136Q haplotype was significantly more frequent in healthy controls (28.2 %) than in HIV-positive patients (21.4 %; OR 0.69; CI 95 % 0.50-0.96; p = 0.022). An increased frequency of allele (136Q) and genotype (136QQ) of the non-synonymous rs10838525 (R136Q) variant and the haplotype (43H-136Q) was observed among healthy controls individuals."

According to the news editors, the research concluded: "Being aware of the limitation of this study (unavailability of exposed but uninfected individuals), we hypothesize a potential role for TRIM5 variations in the protection against HIV-1 infection."

For more information on this research see: TRIM5 gene polymorphisms in HIV-1-infected patients and healthy controls from Northeastern Brazil. Immunologic Research, 2016;64(5-6):1237-1242. Immunologic Research can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA. (Springer - www.springer.com; Immunologic Research - www.springerlink.com/content/0257-277x/)

Our news journalists report that additional information may be obtained by contacting R.C. da Silva, Fed Univ Pernambuco UFPE, Lab Immunopathol Keizo Asami LIKA, Recife, PE, Brazil. Additional authors for this research include A.V.C. Coelho, L.C. Arraes, L.A.C. Brandao, S. Crovella and R.L. Guimares.

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Keywords for this news article include: Recife, Brazil, South America, Immune System Diseases and Conditions, Immunology, Genetics, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, HIV-1, Federal University.

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Life Science Research - Human Reproduction

Recent Findings from Free University Provides New Insights into Human Reproduction (Cryopreservation of testicular tissue or testicular cell suspensions: a pivotal step in fertility preservation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Human Reproduction have been published. According to news reporting originating in Brussels, Belgium, by NewsRx journalists, research stated, "Germ cell depletion caused by chemical or physical toxicity, disease or genetic predisposition can occur at any age. Although semen cryopreservation is the first reflex for preserving male fertility, this cannot help out prepubertal boys."

Funders for this research include European Commission Research and Innovation Marie Slodowska Actions (MSCA), Seventh Framework program, Agency for Innovation by Science and Technology (IWT), Flemish League against Cancer-Public Utility Foundation, Vrije Universiteit Brussel (Methusalem), UZ Brussel (Wetenschappelijk Fonds Willy Gepts).

The news reporters obtained a quote from the research from Free University, "Yet, these boys do have spermatogonial stem cells (SSCs) that able to produce sperm at the start of puberty, which allows them to safeguard their fertility through testicular tissue (TT) cryopreservation. SSC transplantation (SSCT), TT grafting and recent advances in in vitro spermatogenesis have opened new possibilities to restore fertility in humans. However, these techniques are still at a research stage and their efficiency depends on the amount of SSCs available for fertility restoration. Therefore, maintaining the number of SSCs is a critical step in human fertility preservation. Standardizing a successful cryopreservation method for TT and testicular cell suspensions (TCSs) is most important before any clinical application of fertility restoration could be successful. This review gives an overview of existing cryopreservation protocols used in different animal models and humans. Cell recovery, cell viability, tissue integrity and functional assays are taken into account. Additionally, biosafety and current perspectives in male fertility preservation are discussed. An extensive PubMed and Medline database search was conducted. Relevant studies linked to the topic were identified by the search terms: cryopreservation, male fertility preservation, (immature)testicular tissue, testicular cell suspension, spermatogonial stem cell, gonadotoxicity, radiotherapy and chemotherapy. The feasibility of fertility restoration techniques using frozen-thawed TT and TCS has been proven in animal models. Efficient protocols for cryopreserving human TT exist and are currently applied in the clinic. For TCSs, the highest post-thaw viability reported after vitrification is 55.6 +/- 23.8%. Yet, functional proof of fertility restoration in the human is lacking. In addition, few to no data are available on the safety aspects inherent to offspring generation with gametes derived from frozen-thawed TT or TCSs. Moreover, clarification is needed on whether it is better to cryopreserve TT or TCS. Fertility restoration techniques are very promising and expected to be implemented in the clinic in the near future. However, inter-center variability needs to be overcome and the gametes produced for reproduction purposes need to be subjected
to safety studies."

According to the news reporters, the research concluded: "With the perspective of a future clinical application, there is a dire need to optimize and standardize cryopreservation and safety testing before using frozen-thawed TT of TCSs for fertility restoration."


Our news correspondents report that additional information may be obtained by contacting J. Onofre, Vrije Univ Brussel, Res Lab Reprod Genet & Regenerat Med, Biol Testis, B-1090 Brussels, Belgium. Additional authors for this research include Y. Baert, K. Faes and E. Goossens.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/humupd/dmw029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Human Reproduction, Life Science Research, Genetics, Free University.

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**Heart Disorders and Diseases - Cardiomegaly**

**Recent Findings from French National Institute of Health and Medical Research (INSERM) Provide New Insights into Cardiomegaly (Endothelial cell dysfunction and cardiac hypertrophy in the STOX1 model of preeclampsia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Cardiomegaly. According to news originating from Paris, France, by NewsRx correspondents, research stated, "Preeclampsia is a disease of pregnancy involving systemic endothelial dysfunction. However, cardiovascular consequences of preeclampsia are difficult to analyze in humans."

Our news journalists obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "The objective of the present study is to evaluate the cardiovascular dysfunction induced by preeclampsia by examining the endothelium of mice suffering of severe preeclampsia induced by STOX1 overexpression. Using Next Generation Sequencing on endothelial cells of mice carrying either transgenic or control embryos, we discovered significant alterations of gene networks involved in inflammation, cell cycle, and cardiac hypertrophy. In addition, the heart of the preeclamptic mice revealed cardiac hypertrophy associated with histological anomalies. Bioinformatics comparison of the networks of modified genes in the endothelial cells of the preeclamptic mice and HUVECs exposed to plasma from preeclamptic women identified striking similarities. The cardiovascular alterations in the pregnant mice are comparable to those endured by the cardiovascular system of preeclamptic women."

According to the news editors, the research concluded: "The STOX1 mice could help
to better understand the endothelial dysfunction in the context of preeclampsia, and guide the search for efficient therapies able to protect the maternal endothelium during the disease and its aftermath."

For more information on this research see: Endothelial cell dysfunction and cardiac hypertrophy in the STOX1 model of preeclampsia. *Scientific Reports*, 2016;6():19196. (Nature Publishing Group - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from A. Ducat, Inserm, U1016, Institut Cochin, Paris, France. Additional authors for this research include L. Doridot, R. Calicchio, C. Mehats, J.L. Vilotte, J. Castille, S. Barbaux, B. Couderc, S. Jacques, F. Letournier, C. Buffat, F. Le Grand, P. Laissue, F. Miralles and D. Vaiman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19196. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Genetics, Angiology, Cardiology, Obstetrics, Endothelium, Hypertrophy, Cardiomegaly, Preeclampsia, Cardiovascular, Women's Health, Endothelial Cells, Pregnancy Complications, Heart Disorders and Diseases.

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**Drugs and Therapies - Transdermal Delivery**

**Recent Findings from Friedrich-Schiller-University Has Provided New Information about Transdermal Delivery (Transdermal delivery from liposomal formulations - Evolution of the technology over the last three decades)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Transdermal Delivery is now available. According to news reporting from Jena, Germany, by NewsRx journalists, research stated, "Strong barrier properties of stratum corneum often limits the efficiency of drug delivery through skin. Several strategies were tried to improve permeation of drug through skin for local as well as systemic drug delivery."

The news correspondents obtained a quote from the research from Friedrich-Schiller-University, "Incorporation of the drug within flexible liposomal vesicles has been one of the popular and well-studied approaches for delivering drug to deeper layers of the skin or even systemic circulation. Flexible/deformable/elastic liposomal systems such as invasomes, Transfersomes®, ethosomes, niosomes, etc. have demonstrated encouraging results in delivering small molecules and large proteins to the skin. It is necessary to recognize the promising concepts and analyze their potential, since a clear understanding of the drawbacks and advantages of these approaches will lead towards future development. In the current review we have attempted to give an overview of different liposomal drug carriers for transdermal drug delivery and their efficiency as drug delivery system through different in vivo and in vitro studies."

According to the news reporters, the research concluded: "Also, an overview of the studies which investigated the interactions between skin and vesicles, which have lead us to our current understanding of the skin penetration mechanisms of liposomal formulations is
presented."

For more information on this research see: Transdermal delivery from liposomal formulations - Evolution of the technology over the last three decades. Journal of Controlled Release, 2016;242():126-140. Journal of Controlled Release can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news journalists report that additional information may be obtained by contacting A. Fahr, Friedrich Schiller Univ Jena, Inst Pharm, D-07743 Jena, Germany. Additional authors for this research include K. Nagarasekar and A. Fahr.

Keywords for this news article include: Jena, Germany, Europe, Drug Delivery Systems, Transdermal Delivery, Drugs and Therapies, Biotechnology, Technology, Liposomes, Friedrich-Schiller-University.

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Oncology - Colon Cancer

Recent Findings from Fudan University Shanghai Cancer Center Has Provided New Data on Colon Cancer (RPS7 inhibits colorectal cancer growth via decreasing HIF-1a-mediated glycolysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Ribosomal protein S7 (RPS7) acts as a tumor suppressor in primary tumorigenesis but its role in cancer metabolism remains unclear. In this study, we demonstrate that RPS7 inhibits the colorectal cancer (CRC) cell glycolysis by suppressing the expression of hypoxia-inducible transcription factor-1a (HIF-1a) and the metabolic promoting proteins glucose transporter 4 (GLUT4) and lactate dehydrogenase B (LDHB)."

Our news journalists obtained a quote from the research from Fudan University Shanghai Cancer Center, "Further study found that the enhanced expression of HIF-1a abrogates the overexpression effects of RPS7 on CRC. In vivo assays also demonstrate that RPS7 suppresses colorectal cancer tumorigenesis and glycolysis. Clinically, the tissue microarray (TMA) analysis discloses the negative regulatory association between RPS7 and HIF-1a in colorectal cancer. Meanwhile, overexpression of RPS7 in colorectal cancer tissues predicts good overall survival and progression-free survival, but high expression level of HIF-1a indicates poor overall survival and progression-free survival."

According to the news editors, the research concluded: "Overall, we reveal that RPS7 inhibits colorectal cancer glycolysis through HIF-1a-associated signaling and may be a promising biomarker for prognosis prediction and a potential target for therapeutic treatment."

For more information on this research see: RPS7 inhibits colorectal cancer growth via decreasing HIF-1a-mediated glycolysis. Oncotarget, 2016;7(5):5800-14.

The news correspondents report that additional information may be obtained from W. Zhang, Cancer Institute and Dept. of Medical Oncology, Fudan University Shanghai Cancer Center, Shanghai 200032, People's Republic of China. Additional authors for this research include D. Tong, F. Liu, D. Li, J. Li, X. Cheng and Z. Wang.

The direct object identifier (DOI) for that additional information is:
Endothelial Cells

Recent Findings from Fuzhou University Has Provided New Information about Endothelial Cells (S-nitrosocaptopril interrupts adhesion of cancer cells to vascular endothelium by suppressing cell adhesion molecules via inhibition of the NF-kappa B ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Endothelial Cells. According to news reporting originating from Fuzhou, People's Republic of China, by NewsRx correspondents, research stated, "Inflammatory cytokines can induce the expression of cell adhesion molecules (CAMs) in endothelial cells. The induction may play an important role in attracting circulating tumor cells (CTCs) to endothelial cells."

Our news editors obtained a quote from the research from Fuzhou University, "S-nitrosocaptopril (CapNO) is known to produce vasorelaxation and interfere the hetero-adhesion of CTCs to vascular endothelium via down-regulating the expression of CAMs. To elucidate the mechanisms underlying the inhibition of CapNO on CAMs, in this study, we examined the relationship between cytokines and CAMs expression and investigated the effects of CapNO on cytokine-induced NF-kappa B and JAK/STAT signal pathways. The activation of CAMs by cytokines was dependent on concentrations and reaction time of cytokines, and the combination of cytokines could produce a strong synergistic effect. IL-1 beta induced the expression of CAMs on endothelial cells by activating NF-kappa B and JAK/STAT pathways. CapNO inhibited IL-1 beta-stimulated NF-kappa B pathway by down-regulating IKK-alpha and inducing Ix13-alpha directly. CapNO also inhibited JAK/STAT pathway by inhibiting JAK2 and STAT3 expressions. These effects bring about down-regulating CAMs expression on endothelial cells."

According to the news editors, the research concluded: "These results suggest that CapNO may interrupt adhesion of cancer cells to endothelium by suppressing CAMs via inhibiting the NF-kappa B and JAK/STAT pathways in endothelial cells."


The news editors report that additional information may be obtained by contacting L. Jia, Fuzhou Univ, Coll Chem, Biopharmaceut Photocatalysis, State Key Lab Photocatalysis Energy & Environm, Fuzhou 350002, People's Republic of China. Additional authors for this research include Y.S. Lu, Y.L. Cheng, T. Yu, X.D. Xie, H.Y. Liang, Y.Y. Ye and L. Jia.
Keywords for this news article include: Fuzhou, People's Republic of China, Asia, Cell Adhesion Molecules, Membrane Glycoproteins, Transcription Factors, DNA-Binding Proteins, Membrane Proteins, Endothelial Cells, Surface Antigens, Nuclear Proteins, Endothelium, Immunology, NF-kappa B, Angiology, Cytokines, Oncology, Cancer, Fuzhou University.

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Pneumococcal Disease

Recent Findings from G. Errico and Co-Authors Provide New Insights into Pneumococcal Disease [Application of capsular sequence typing (CST) to serotype non-viable Streptococcus pneumoniae isolates from an old collection]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pneumococcal Disease have been published. According to news reporting originating from Rome, Italy, by NewsRx correspondents, research stated, "Serotyping of Streptococcus pneumoniae is essential for monitoring changes in the pneumococcal population and the impact of vaccines. Recently, various DNA-based methods have become available and are increasingly used because they are cheaper and easier to perform than the Quellung reaction."

Our news editors obtained a quote from the research, "Our aim was to apply a DNA-based method, capsular sequence typing (CST), to a collection of non-viable lyophilized pneumococcal isolates dating from the 1980s to elucidate the serotypes circulating in Italy 30 years ago. As a preliminary evaluation of the method, CST was applied to 68 recent pneumococcal isolates representative of the most common serotypes circulating in Italy in invasive pneumococcal disease (IPD) previously serotyped by the Quellung reaction. CST was then applied to 132 lyophilized non-viable isolates. A serotype-specific polymerase chain reaction (PCR), using primers suggested by the Centers for Disease Control and Prevention (CDC), was performed when CST did not yield a univocal serotype. Considering the control isolates, CST concordance with the Quellung reaction was 95.6 %. For the non-viable lyophilized isolates, CST identified a univocal serotype for 59.4 % of the isolates. This percentage increased to 78.1 % if CST was combined with serotype-specific PCR. The most frequent serotypes in the collection of non-viable strains were: 3 (15.6 %), 14 (11.7 %), 35B (5.5 %), 19A (5.5 %), and 8 (4.7 %). CST proved to be a valid method for serotyping pneumococcal strains and provided information about pneumococcal serotypes present in Italy 30 years ago."

According to the news editors, the research concluded: "The combination of CST with serotype-specific PCR was an effective strategy to identify pneumococcal serotypes that can be suggested also for routine laboratories."

For more information on this research see: Application of capsular sequence typing (CST) to serotype non-viable Streptococcus pneumoniae isolates from an old collection. European Journal of Clinical Microbiology & Infectious Diseases, 2016;35(12):2025-2031. European Journal of Clinical Microbiology & Infectious Diseases can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Journal of Clinical Microbiology & Infectious Diseases - www.springerlink.com/content/0934-...
The news editors report that additional information may be obtained by contacting A. Pantosti, Ist Super Sanita, Dept. of Infect Parasit & Immune Mediated Dis, I-00161 Rome, Italy. Additional authors for this research include C. Lucarelli, F. D'Ambrosio, M. Del Grosso, L. Ingrosso, A. Pantosti and R. Camilli.

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Keywords for this news article include: Rome, Italy, Europe, Gram-Positive Bacterial Infections, Streptococcal Infections, Streptococcus pneumoniae, Pneumococcal Disease, Gram-Positive Cocci, Streptococcaceae, Strep Infection, Genetics.

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Cardiovascular Diseases and Conditions -...

Recent Findings from General Hospital Provides New Insights into Atherosclerosis (GDF11 Protects against Endothelial Injury and Reduces Atherosclerotic Lesion Formation in Apolipoprotein E-Null Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news reporting originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "Growth differentiation factor 11 (GDF11) reduces cardiac hypertrophy, improves cerebral vasculature and enhances neurogenesis in ageing mice. Higher growth differentiation factor 11/8 (GDF11/8) is associated with lower risk of cardiovascular events in humans."

Our news editors obtained a quote from the research from General Hospital, "Here, we showed that adeno-associated viruses-GDF11 and recombinant GDF11 protein improve endothelial dysfunction, decrease endothelial apoptosis, and reduce inflammation, consequently decrease atherosclerotic plaques area in apolipoprotein mice. Moreover, adeno-associated viruses-GDF11 and recombinant GDF11 stabilize atherosclerotic plaques by selectively decreasing in macrophages and T lymphocytes, while increasing in collagen and vascular smooth muscle cells within plaques. In addition, GDF11 inhibit palmitic acid-induced endothelial apoptosis and ameliorate palmitic acid-induced inflammatory response in RAW264.7 macrophages in vitro. Mechanistically, GDF11 activates the TGF-beta/Smad2/3, AMPK/endothelial nitricoxide synthase (eNOS) while suppresses INK and NF-kappa B pathways. In humans, circulating GDF11/8 is positively associated with flow-mediated endothelium-dependent dilation in overweight subjects."

According to the news editors, the research concluded: "We concluded that adeno-associated viruses-GDF11 and recombinant GDF11 protect against endothelial injury and reduce atherosclerosis in apolipoprotein E-/- mice, thus may be providing a novel approach to the treatment of atherosclerosis."

For more information on this research see: GDF11 Protects against Endothelial Injury and Reduces Atherosclerotic Lesion Formation in Apolipoprotein E-Null Mice. Molecular Therapy, 2016;24(11):1926-1938. Molecular Therapy can be contacted at: Nature
Recent Findings from Giannina Gaslini Institute Has Provided New Information about Human Genetics (WES in a family trio suggests involvement of TECPR2 in a complex form of progressive motor neuron disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Genetics - Human Genetics are discussed in a new report. According to news originating from Genoa, Italy, by NewsRx correspondents, research stated, "We have performed whole-exome sequencing in a family trio with a 16-year-old girl suffering of progressive motor neuron disease. There was no family history of the disease and no parental consanguinity."

Our news journalists obtained a quote from the research from Giannina Gaslini Institute, "Our exome analysis indicated the proband as a compound heterozygote for two missense variants in the TECPR2 gene according to a recessive mode of inheritance. The TECPR2 gene has been reported as a positive regulator of autophagy which is an essential mechanism for maintaining neuron homeostasis and survival and plays a key role in major adult and pediatric neurodegenerative diseases. Variants in this gene have been found responsible for a recently described form of hereditary spastic paraplegia called SPG49 in two previous reports. We propose that both variants causing amino acid substitution, p.Leu684Val and p.Thr903Met, inherited in trans-phase compound heterozygote form, can be responsible for the phenotype observed in our patient. We also consider the possible contribution of a heterozygous variant in the SPG7 gene."

According to the news editors, the research concluded: "Sanger sequencing confirmed the segregation of variants within the family tree including the patient's unaffected brother."

For more information on this research see: WES in a family trio suggests involvement of TECPR2 in a complex form of progressive motor neuron disease. *Clinical Genetics*, 2016;90(2):182-185. *Clinical Genetics* can be contacted at: Wiley-Blackwell, 111
Recent Findings from Graduate School Provides New Insights into Heart Disease (Birth weight and risk of ischemic heart disease: A Mendelian randomization study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Disease is the subject of a report. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Low birth weight is a risk factor for cardiovascular disease. However, the association could be confounded by many factors."

The news reporters obtained a quote from the research from Graduate School, "We used Mendelian randomization to clarify the role of birth weight in ischemic heart disease (IHD) and lipids. We used all 7 single nucleotide polymorphisms (SNPs) independently contributing to birth weight at genome wide significance (p < 5 x 10(-8)) in separate sample instrumental variable analysis to estimate the effect of birth weight on IHD using the CARDIoGRAMplusC4D 1000 Genomes based GWAS case (n = 60,801)-control (n = 123,504) study and on lipids using GLGC (n = 188,577). Higher genetically predicted birth weight was associated with lower risk of IHD (odds ratio (OR) 0.96 per 100 grams, 95% confidence interval (CI) 0.93 to 0.99), but the association was not robust to sensitivity analyses excluding SNPs related to height or use of weighted median methods. Genetically predicted birth weight was not associated with low density lipoprotein cholesterol or triglycerides, but was associated with lower high density lipoprotein cholesterol (-0.014 standard deviation, 95% CI-0.027 to -0.0005) and the association was more robust to the sensitivity analyses."

According to the news reporters, the research concluded: "Our study does not show strong evidence for an effect of birth weight on IHD and lipids."

For more information on this research see: Birth weight and risk of ischemic heart disease: A Mendelian randomization study. Scientific Reports, 2016;6():1-7. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting C.M. Schooling, CUNY, Grad Sch Public Hlth & Hlth Policy, New York, NY 10021, United States. Additional authors for this research include S.L. Lin, A.M. Li and C.M. Schooling.

Keywords for this news article include: New York City, New York, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and
Recent Findings from Guangxi Medical University Has Provided New Information about Ventricular Fibrillation (Edaravone improves survival and neurological outcomes after CPR in a ventricular fibrillation model of rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Ventricular Fibrillation have been presented. According to news reporting originating from Guangxi, People's Republic of China, by NewsRx correspondents, research stated, "Overproduction of free radicals is a main factor contributing to cerebral injury after cardiac arrest (CA)/cardiopulmonary resuscitation (CPR). We sought to evaluate the impact of edaravone on the survival and neurological outcomes after CA/CPR in rats."

Funders for this research include National Natural Science Foundation of China, Guangxi Natural Science Foundation.

Our news editors obtained a quote from the research from Guangxi Medical University, "Rats were subjected to CA following CPR. For survival study, the rats with restoration of spontaneous circulation (ROSC) were randomly allocated to one of the two groups (edaravone and saline group, n = 20/each group) to received Edaravone (3 mg/kg) or normal saline. Another 10 rats without experiencing CA and CPR served as the sham group. Survival was observed for 72 hours and the neurological deficit score (NDS) was calculated at 12, 24, 48, and 72 hours after ROSC. For the neurological biochemical analysis study, rats were subjected to the same experimental procedures. Then, edaravone group (n = 24), saline group (n = 24) and sham group (n = 16) were further divided into 4 subgroups according to the different time intervals (12, 24, 48, and 72 hours following ROSC). Brain tissues were harvested at relative time intervals for evaluation of oxidative stress, TUNEL staining and apoptotic gene expression. Edaravone improved postresuscitative survival time and neurological deficit, decreased brain malonyaldehyde level, increased superoxide dismutase activities, decreased proapoptotic gene expression of capase-8, capase-3, and Bax, and increased antiapoptotic Bcl-2 expression at 12, 24, 48, and 72 hours after ROSC."

According to the news editors, the research concluded: "Edaravone improves survival and neurological outcomes following CPR via antioxidative and antiapoptotic effects in rats."


The news editors report that additional information may be obtained by contacting L. Xie, Guangxi Med Univ, Sch Preclin Sci, Dept. of Physiol, Nanning 530021, Guangxi, People's
Republic of China. Additional authors for this research include L.Y. Lei, N. Li, F.Y.R. Shi, M.H. Chen and L. Xie.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.06.084. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangxi, People's Republic of China, Asia, Heart Disorders and Diseases, Ventricular Fibrillation, Cardiac Arrhythmias, Cardiovascular, Heart Disease, Cardiology, Genetics, Guangxi Medical University.

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Oncology - Glioblastomas

Recent Findings from Harbin Medical University Has Provided New Data on Glioblastomas (Identification and characterization of IncRNA mediated transcriptional dysregulation dictates IncRNA roles in glioblastoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Glioblastomas. According to news reporting originating in Harbin, People's Republic of China, by NewsRx journalists, research stated, "Long non-coding RNAs (lncRNAs) modulate gene expression, and lncRNA misregulation is associated with cancer. However, precise functional roles in biological and disease processes have been described for only a few lncRNAs."

The news reporters obtained a quote from the research from Harbin Medical University, "Identification of genome-wide lncRNA-mediated transcriptional dysregulations may improve cancer treatments. In the present study, we used a computational framework that combined lncRNA and gene expression profiles with transcription factor (TF)-target relationships to comprehensively identify dysregulatory lncRNA-TF-gene triplets. In glioblastoma (GBM), we found that most lncRNAs affect multiple targets and primarily affect TF activity in trans. Six different classes of lncRNA-mediated transcriptional dysregulations were identified, with most lncRNAs either enhancing or attenuating target gene expression. Functional analysis of lncRNAs via their dysregulated targets implicated lncRNA modulators in some hallmarks of cancer, providing a new way to predict lncRNA function. Finally, we identified several lncRNA-TF-gene triplets (including HOTAIR-MXI1-CD58/PRKCE and HOTAIR-ATF5-NCAM1) that are associated with glioblastoma prognosis."

According to the news reporters, the research concluded: "The integration of lncRNA modulators into transcriptional regulatory networks will further enhance our understanding of lncRNA functions in cancer."

For more information on this research see: Identification and characterization of lncRNA mediated transcriptional dysregulation dictates lncRNA roles in glioblastoma. Oncotarget, 2016;7(29):45027-45041.

Our news correspondents report that additional information may be obtained by contacting Y. Li, College of Bioinformatics Science and Technology and Bio-Pharmaceutical Key Laboratory of Heilongjiang Province, Harbin Medical University, Harbin 150081, People's Republic of China. Additional authors for this research include Z. Wang, Y. Wang, Z. Zhao, J. Zhang, J. Lu, J. Xu and X. Li.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7801. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Harbin, Cancer, Genetics, Oncology, Glioblastomas, People's Republic of China.

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Heart Disorders and Diseases - Heart Failure

Recent Findings from Heart and Vascular Institute Has Provided New Information about Heart Failure (Ventricular Assist Device Therapy in Older Patients With Heart Failure: Characteristics and Outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Failure. According to news originating from Falls Church, Virginia, by NewsRx correspondents, research stated, "Limited data exist on outcomes in patients years of age supported with the use of continuous flow left ventricular assist devices (LVADs). Data on 1149 continuous-flow LVAD recipients was queried from the Mechanical Circulatory Support Research Network."

Our news journalists obtained a quote from the research from Heart and Vascular Institute, "Groups were assigned based on age: >= 70 years ('older patients') and <70 years. The primary outcome was survival at one-year based on age grouping. Compared with younger patients (54.3 +/- 11.2 y; n = 986), older patients (73.4 +/- 3.0 y) constituted only 14% of LVAD implants. Older patients had similar rates of device thrombosis (P = .47) and stroke (P = .44), but survival-free of gastrointestinal bleeding (GIB) at 1 year was lower compared with younger patients (58% vs 69%; P< .01). Unadjusted survival at 1 year in older patients was 75% compared with 84% in younger patients, and at 2 years 65% versus 73% (P = .18). Age >= 70 years was not associated with increased mortality (adjusted hazard ratio [aHR] 0.94, 95% confidence interval [CI] 0.70-1.26; P = .67). Preoperative creatinine (aHR 1.57, 95% CI: 1.30-1.89, P< .0001), bilirubin (aHR 1.22, 95% CI 1.05-1.42; P = .010), and ischemic cardiomyopathy (aHR 1.43, 95% CI 1.11-1.84; P = .005) portended increased risk of death. In older patients, the only predictor of mortality was creatinine (HR 2.1, 95% CI 1.2-3.4; P = .007). Creatinine >= 1.4 mg/dL was associated with a 1-year survival of 65%, compared with 84% when the creatinine was <1.4 mg/dL (P = .009). Age >70 years is an important consideration when assessing LVAD risk, but other correlates may be more predictive of LVAD survival. Older patients without renal dysfunction have survival similar to younger patients."

According to the news editors, the research concluded: "Older patients should be counseled about age-correlated risks, including higher rates of GIB."

For more information on this research see: Ventricular Assist Device Therapy in Older Patients With Heart Failure: Characteristics and Outcomes. Journal of Cardiac Failure, 2016;22Q(12):981-987. Journal of Cardiac Failure can be contacted at: Churchill Livingstone Inc Medical Publishers, Curtis Center, Independence Square West, Philadelphia, PA 19106-3399, USA. (Elsevier - www.elsevier.com; Journal of Cardiac Failure - www.journals.elsevier.com/journal-of-cardiac-failure/)

The news correspondents report that additional information may be obtained from P. Shah, Inova Heart & Vasc Inst, Falls Church, VA, United States. Additional authors for this

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cardfail.2016.10.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Falls Church, Virginia, United States, North and Central America, Cardiovascular Diseases and Conditions, Therapy, Risk and Prevention, Heart Disorders and Diseases, Ventricular Assist Device, Medical Devices, Cardio Device, Heart Failure, Heart Disease, Cardiology, Heart and Vascular Institute.

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**Oncology - Thyroid Cancer**

**Recent Findings from Hebei Medical University Provides New Insights into Thyroid Cancer (Iodine-131: An Effective Method for Treating Lymph Node Metastases of Differentiated Thyroid Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Thyroid Cancer are discussed in a new report. According to news reporting originating from Shijiazhuang, People's Republic of China, by NewsRx correspondents, research stated, "The aim of this study was to assess the efficacy of radioactive iodine-131 (I-131) therapy for lymph node metastasis of differentiated thyroid cancer (DTC) and to identify influential factors using univariate and multivariate analyses to determine if identified factors influence the efficacy of treatment. This study included a retrospective review of 218 patients with histologically proven DTC in the post-operation stage."

Our news editors obtained a quote from the research from Hebei Medical University, "After thyroid tissue remnants were eliminated with I-131 therapy, patients' lymph node status was confirmed by ultrasound and by I-131 whole body scan regarding lymph node metastasis, and then patients were treated with I-131 as appropriate. The treatment efficacy was assessed and possible influencing factors were identified using univariate and multivariate analyses. The total effective rate of I-131 therapy was 88.07% (including a cure rate of 20.64% and an improvement rate of 67.43%). The non-effective rate was 11.93%. Of the total 406 lymph nodes of 218 patients, 319 lymph nodes (78.57%) were judged to be effectively cured, including 133 (32.75%) lymph nodes that were totally eliminated and 186 (45.82%) lymph nodes that shrunk. Eighty-seven (21.43%) of the 406 lymph nodes had no obvious change. No lymph nodes were found to be in a continuously enlarging state. Distant metastasis, size of lymph node, human serum thyroglobulin (HTG) level, and condition of thyroid remnants ablation were identified as the independent factors influencing the efficacy of treatment using univariate and multivariate analyses. The use of I-131 is a promising treatment for lymph node metastasis of DCT."

According to the news editors, the research concluded: "Distant metastasis, size of lymph nodes, HTG level, and condition of thyroid remnant ablation were independent factors influencing the treatment efficacy."

For more information on this research see: Iodine-131: An Effective Method for Treating Lymph Node Metastases of Differentiated Thyroid Cancer. *Medical Science Monitor*, 2016;22():4924-4928. *Medical Science Monitor* can be contacted at: Int Scientific Literature,
Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

The news editors report that additional information may be obtained by contacting P. Xie, Hebei Medical University, Hosp 3, Dept. of Nucl Med, Shijiazhuang, Hebei, People's Republic of China. Additional authors for this research include M.Z. Pan, J.M. Huang, P. Xie, F. Zhang and L.G. Wei.

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Keywords for this news article in clude:  Shijiazhuang, People's Republic of China, Asia, Hemic and Immune Systems, Thyroid Neoplasms, Lymphoid Tissue, Thyroid Cancer, Lymph Nodes, Immunology, Oncology, Halogens, Therapy, Iodine, Hebei Medical University.

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Ischemia

Recent Findings from Hokkaido University Has Provided New Information about Ischemia (Hydrogen Gas Ameliorates Hepatic Reperfusion Injury After Prolonged Cold Preservation in Isolated Perfused Rat Liver)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Ischemia. According to news reporting out of Hokkaido, Japan, by NewsRx editors, research stated, "Hydrogen gas reduces ischemia and reperfusion injury (IRI) in the liver and other organs. However, the precise mechanism remains elusive."

Our news journalists obtained a quote from the research from Hokkaido University, "We investigated whether hydrogen gas ameliorated hepatic I/R injury after cold preservation. Rat liver was subjected to 48-h cold storage in University of Wisconsin solution. The graft was reperfused with oxygenated buffer with or without hydrogen at 378 for 90 min on an isolated perfusion apparatus, comprising the H-2(+) and H-2 (-) groups, respectively. In the control group (CT), grafts were reperfused immediately without preservation. Graft function, injury, and circulatory status were assessed throughout the perfusion. Tissue samples at the end of perfusion were collected to determine histopathology, oxidative stress, and apoptosis. In the H-2(-) group, IRI was indicated by a higher aspartate aminotransferase (AST), alanine aminotransferase (ALT) leakage, portal resistance, 8-hydroxy-2-deoxyguanosine-positive cell rate, apoptotic index, and endothelial endothelin-1 expression, together with reduced bile production, oxygen consumption, and GSH/GSSG ratio (vs. CT). In the H-2(+) group, these harmful changes were significantly suppressed [vs. H-2(-)]."

According to the news editors, the research concluded: "Hydrogen gas reduced hepatic reperfusion injury after prolonged cold preservation via the maintenance of portal flow, by protecting mitochondrial function during the early phase of reperfusion, and via the suppression of oxidative stress and inflammatory cascades thereafter."

For more information on this research see: Hydrogen Gas Ameliorates Hepatic Reperfusion Injury After Prolonged Cold Preservation in Isolated Perfused Rat Liver. Artificial Organs, 2016;40(12):1128-1136. Artificial Organs can be contacted at: Wiley-Blackwell, 111
Recent Findings from Hokkaido University Hospital Has Provided New Information about Kidney Transplants (Successful treatment with foscarnet for ganciclovir-resistant cytomegalovirus infection in a kidney transplant recipient: A case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Transplant Medicine - Kidney Transplants have been presented. According to news reporting originating from Hokkaido, Japan, by NewsRx correspondents, research stated, "Cytomegalovirus (CMV) infection is the most common infectious complication following solid organ transplantation. Ganciclovir (GCV)-resistant CMV infection may be fatal, and is difficult to treat while avoiding allograft rejection."

Our news editors obtained a quote from the research from Hokkaido University Hospital, "A 31-year-old woman received a second ABO-incompatible kidney transplant, from her father. Induction therapy consisted of basiliximab and rituximab followed by maintenance immunosuppression with tacrolimus, mycophenolate mofetil, and methylprednisolone. Her CMV serostatus was D+/R- at second transplant and she received prophylactic low-dose valganciclovir (VGCV). BK polyoma virus nephropathy (BKVN) developed 7 months after transplant concurrent with CMV hepatitis and retinitis. VGCV was increased to a therapeutic dose combined with reduced immunosuppression with minimal methylprednisolone (2mg/day) and everolimus (0.5mg/day). However, pp65 antigenaemia continued to increase for 6 weeks. Her CMV was defined as ganciclovir (GCV)-resistant. Foscarnet was therefore administered and her CMV disease resolved within 2 weeks. Kidney allograft dysfunction developed 9 months after transplant, and graft biopsy showed tubulointerstitial injury with crystal deposition suggesting foscarnet nephrotoxicity, with no findings of BKVN or rejection. Kidney function recovered after cessation of foscarnet and the patient had good graft function 18 months after transplant. This case demonstrates the successful use of foscarnet to treat GCV-resistant CMV infection after ABO-incompatible kidney transplant complicated with BKVN, without acute allograft rejection."

According to the news editors, the research concluded: "This case further highlights the need to establish appropriate management for CMV D+/R- patients to avoid the acquisition of GCV-resistant gene mutations."

The news editors report that additional information may be obtained by contacting D. Iwami, Hokkaido Univ Hosp, Dept. of Urol, Sapporo, Hokkaido, Japan. Additional authors for this research include Y. Ogawa, H. Fujita, K. Morita, H. Sasaki, Y. Oishi, H. Higuchi, K. Hatanaka and N. Shinohara.

Keywords for this news article include: Hokkaido, Japan, Asia, Herpesvirus Diseases and Conditions, Ophthalmic Antiinfectives, Ophthalmic Preparations, Phosphonoacetic Acid, Drugs and Therapies, Transplant Medicine, Purine Nucleosides, Kidney Transplants, Organic Chemicals, Betaherpesvirinae, Organ Transplants, Carboxylic Acids, Antiretrovirals, Cytomegalovirus, Transplantation, Herpesviridae, Ganciclovir, DNA Viruses, Biomedicine, Antivirals, Foscarnet, Virology, Genetics, Surgery, Viral, Hokkaido University Hospital.

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**Gram-Negative Bacteria - Salmonella**

**Recent Findings from Hong Kong Polytechnic University Has Provided New Information about Salmonella (IncHI2 Plasmids Are the Key Vectors Responsible for oqxAB Transmission among Salmonella Species)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Salmonella have been published. According to news reporting out of Hong Kong, People's Republic of China, by NewsRx editors, research stated, "This study reported and analyzed the complete sequences of two oqxAB-bearing IncHI2 plasmids harbored by a clinical Salmonella enterica serovar Typhimurium strain and an S. Indiana strain of animal origin, respectively."

Financial support for this research came from FHB | Health and Medical Research Fund (HMRF).

Our news journalists obtained a quote from the research from Hong Kong Polytechnic University, "In particular, pA3T recovered from S. Indiana comprised the resistance determinants oqxAB, aac(6') Ib-cr, fosA3, and bla(CTX-M-14)."

According to the news editors, the research concluded: "Further genetic screening of 63 oqxAB-positive Salmonella isolates revealed that the majority carried IncHI2 plasmids, confirming that such plasmids play a pivotal role in dissemination of oqxAB in Salmonella spp."

For more information on this research see: IncHI2 Plasmids Are the Key Vectors Responsible for oqxAB Transmission among Salmonella Species. *Antimicrobial Agents and Chemotherapy*, 2016;60(11):6911-6915. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)
Our news journalists report that additional information may be obtained by contacting S. Chen, Hong Kong Polytechnic University, Dept. of Appl Biol & Chem Technol, State Key Lab Chirosiences, Kowloon, Hong Kong, People's Republic of China. Additional authors for this research include E.W.C. Chan, L.Q. Xie, R.C. Li and S. Chen.

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Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Proteobacteria, Salmonella, Hong Kong Polytechnic University.

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Cardiology
Recent Findings from Huazhong University of Science and Technology Has Provided New Information about Cardiology (Inhibitory effects of hesperetin on Nav1.5 channels stably expressed in HEK 293 cells and on the voltage-gated cardiac sodium...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiology. According to news reporting out of Wuhan, People's Republic of China, by NewsRx editors, research stated, "Voltage-gated sodium channels composed of a pore-forming alpha subunit and auxiliary beta subunits are responsible for the upstroke of the action potential in cardiac myocytes. The pore-forming subunit of the cardiac sodium channel Nav1.5, which is encoded by SCN5A, is the main ion channel that conducts the voltage-gated cardiac sodium current (I-Na) in cardiac cells."

Our news journalists obtained a quote from the research from the Huazhong University of Science and Technology, "The current study sought to investigate the inhibitory effects of hesperetin on human cardiac Nav1.5 channels stably expressed in human embryonic kidney 293 (HEK 293) cells and on the voltage-gated cardiac sodium current (I-Na) in human atrial myocytes. The effects of hesperetin on human cardiac Nav1.5 channels expressed in HEK 293 cells and on cardiac Na+ currents in human atrial myocytes were examined through whole-cell patch-clamp techniques. Nav1.5 currents were potently and reversibly suppressed in a concentration-and voltage-dependent manner by hesperetin, which exhibited an IC50 of 62.99 μmol/L. Hesperetin significantly and negatively shifted the voltage-dependent activation and inactivation curves. Hesperetin also markedly decelerated Nav1.5 current inactivation and slowed the recovery from Nav1.5 channel inactivation. The hesperetin-dependent blockage of Nav1.5 currents was frequency-dependent. Hesperetin also potently and reversibly inhibited Na+ current (I-Na) in human atrial myocytes, consistently with its effects on Nav1.5 currents in HEK 293 cells. Hesperetin is a potent inhibitor of I-Na in human atrial myocytes and Nav1.5 channels expressed in human embryonic kidney 293 cells."

According to the news editors, the research concluded: "Hesperetin probably functions by blocking the open state and the inactivated state of these channels."

For more information on this research see: Inhibitory effects of hesperetin on Nav1.5 channels stably expressed in HEK 293 cells and on the voltage-gated cardiac sodium...


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/aps.2016.97. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Cardiology, Huazhong University of Science and Technology.

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**Autoimmune Diseases and Conditions - Behcet…**

**Recent Findings from Imperial College Has Provided New Information about Behcet Disease (A low balance between microparticles expressing tissue factor pathway inhibitor and tissue factor is associated with thrombosis in Behcet’s Syndrome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Behcet Disease. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Thrombosis is common in Behcet's Syndrome (BS), and there is a need for better biomarkers for risk assessment. As microparticles expressing Tissue Factor (TF) can contribute to thrombosis in preclinical models, we investigated whether plasma microparticles expressing Tissue Factor (TF) are increased in BS."

Our news editors obtained a quote from the research from Imperial College, "We compared blood plasma from 72 healthy controls with that from 88 BS patients (21 with a history of thrombosis (Th+) and 67 without (Th-). Using flow cytometry, we found that the total plasma MP numbers were increased in BS compared to HC, as were MPs expressing TF and Tissue Factor Pathway Inhibitor (TFPI) (all p< 0.0001). Amongst BS patients, the Th+ group had increased total and TF positive MP numbers (both p<= 0.0002) compared to the Th-group, but had a lower proportion of TFPI positive MPs (p < 0.05). Consequently, the ratio of TFPI positive to TF positive MP counts (TFPI/TF) was significantly lower in Th+ versus Th-BS patients (p = 0.0002), and no patient with a TFPI/TF MP ratio > 0.7 had a history of clinical thrombosis."

According to the news editors, the research concluded: "TF-expressing MP are increased in BS and that an imbalance between microparticulate TF and TFPI may predispose to thrombosis."

For more information on this research see: A low balance between microparticles expressing tissue factor pathway inhibitor and tissue factor is associated with thrombosis in Behcet's Syndrome. *Scientific Reports*, 2016;6():1-12. *Scientific Reports* can be contacted at:
Recent Findings from Inha University School of Medicine Has Provided New Data on Immunoproteins (Antiallergic effects of anti-interleukin-33 are associated with suppression of immunoglobulin light chain and inducible nitric oxide synthase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immunology - Immunoproteins is the subject of a report. According to news reporting originating from Incheon, South Korea, by NewsRx correspondents, research stated, "We aimed to find novel genes that are significantly induced in allergic mice and that are significantly downregulated with anti-interleukin (IL) 33 treatment. Thirty-six mice were allocated into each of group A (intraperitoneal [i.p.]) sensitized and intranasally challenged to saline solution), group B (sensitized and challenged to ovalbumin), group C (sensitized and challenged with ovalbumin, and null treatment with i.p. saline solution), and group D (sensitized and challenged with ovalbumin, and treatment with anti-IL-33 i.p. injection)."

Our news editors obtained a quote from the research from the Inha University School of Medicine, "We counted the number of nose-scratching in 10 minutes, serum ovalbumin-specific immunoglobulin E (IgE), and titers of cytokines (IL-1, IL-4, IL-5, IL-10, IL-13) in bronchoalveolar lavage fluid. By using one whole lung from each mouse, we performed microarray analysis and real-time polymerase chain reaction. group D showed a significantly reduced nose-scratching events and lower serum ovalbumin-specific IgE compared with groups B and C. All the cytokines in the bronchoalveolar lavage fluid were significantly decreased after anti-IL-33 treatment. Microarray analysis revealed that group B (immunoglobulin free light chain [IgFLC], 89.1 times; nitric oxide synthase [NOS] 2, 11.5 times) and group C (IgFLC, 141.6 times; NOS2, 11.7 times) had significantly increased expression of IgFLC and NOS2 genes compared with group A. After anti-IL-33 treatment, group D showed significantly decreased expression of both IgFLC (49.3 times) and NOS2 (6.5 times). In real-time polymerase chain reaction, groups B and C had significantly increased expression of these genes (IgFLC, 10.4 times and 29 times, respectively; NOS2, 3.8 times and 4.5 times, respectively). After
treatment, group D showed significantly decreased expression of IgFLC (5.0 times) and NOS2 (2.5 times).

According to the news editors, the research concluded: "The antiallergic effect of anti-IL-33 can be explained by suppression of IgFLC and NOS2 in a murine model of allergic rhinitis."


The news editors report that additional information may be obtained by contacting C.S. Park, Dept. of Pharmacology, Hypoxia-Related Disease Research Center, Inha Research Institute for Medical Sciences, Inha University College of Medicine, Incheon, South Korea. Additional authors for this research include T.Y. Jang, M.J. Heo, A.Y. Jung and Y.H Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2500/ajra.2015.29.4251. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Incheon, Serpins, Genetics, Chemicals, Cytokines, Diagnosis, Ovalbumin, Immunology, Polymerase, South Korea, Diagnostics, Interleukins, Blood Proteins, Immunoproteins, Nitrogen Oxides, Serum Globulins, Dietary Egg Proteins, Enzymes and Coenzymes, Nitric Oxide Synthase, Immunoglobulin Subunits.

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Immunology - Antigens

Recent Findings from Inovio Pharmaceuticals Provides New Insights into Antigens (Augmentation of cellular and humoral immune responses to HPV16 and HPV18 E6 and E7 antigens by VGX-3100)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immunology - Antigens is now available. According to news originating from Plymouth Meeting, Pennsylvania, by NewsRx correspondents, research stated, "We have previously demonstrated the immunogenicity of VGX-3100, a multicomponent DNA immunotherapy for the treatment of Human Papillomavirus (HPV) 16/18-positive CIN2/3 in a phase 1 clinical trial. Here, we report on the ability to boost immune responses with an additional dose of VGX-3100."

Our news journalists obtained a quote from the research from Inovio Pharmaceuticals, "Patients completing our initial phase 1 trial were offered enrollment into a follow on trial consisting of a single boost dose of VGX-3100. Data show both cellular and humoral immune responses could be augmented above pre-boost levels, including the induction of interferon (IFN), production, tumor necrosis factor (TNF) a production, CD8+ T cell activation and the synthesis of lytic proteins. Moreover, observation of antigen-specific regulation of immune-related gene transcripts suggests the induction of a proinflammatory response following the boost. Analysis of T cell receptor (TCR) sequencing suggests the localization of putative HPV-specific T cell clones to the cervical mucosa, which underscores the putative mechanism of action of lesion regression and HPV16/18 elimination noted in our double-blind placebo-controlled phase 2B trial. Taken together, these data indicate that VGX-3100 drives the induction of robust cellular and humoral immune responses that can be
augmented by a fourth 'booster' dose."

According to the news editors, the research concluded: "These data could be important in the scope of increasing the clinical efficacy rate of VGX-3100."

For more information on this research see: Augmentation of cellular and humoral immune responses to HPV16 and HPV18 E6 and E7 antigens by VGX-3100. Molecular Therapy-Oncolytics, 2016;3(1):1-11. Molecular Therapy-Oncolytics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.


Keywords for this news article include: Plymouth Meeting, Pennsylvania, United States, North and Central America, Biological Factors, Immunology, Antigens, Genetics, Inovio Pharmaceuticals.

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Drugs and Therapies - Ketoprofen Therapy

Recent Findings from Institute of Research and Development Has Provided New Information about Ketoprofen Therapy (Solid State Interactions Between Ketoprofen and Excipients in Solid Dosage Forms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Ketoprofen Therapy is the subject of a report. According to news reporting originating in Cluj Napoca, Romania, by NewsRx journalists, research stated, "This study assesses the solid-solid interactions between the commercial form of Ketoprofen (KET), a non steroidal anti-inflammatory drug of the propionic acid class, and several widely used pharmaceutical excipients."

The news reporters obtained a quote from the research from the Institute of Research and Development, "The work was carried out on drug-excipient mixtures, in 1:1 (w:w) ratio, blended in an agate mortar at room temperature. The compatibility/incompatibility of KET with the proposed excipients was highlighted by the most commonly used analytic methods: differential scanning calorimetry (DSC), Fourier transformed infrared spectroscopy (FT-IR) and powder X-ray diffraction (PXRD)."

According to the news reporters, the research concluded: "The interactions between KET and three of the excipients, namely Macrogol 6000, magnesium stearate dehydrate and lactose monohydrate were evidenced by DSC and further confirmed by FT-IR and PXRD analysis."

For more information on this research see: Solid State Interactions Between Ketoprofen and Excipients in Solid Dosage Forms. Revista De Chimie, 2016;67(10):2043-2048. Revista De Chimie can be contacted at: Chiminform Data S A, Calea Plevnei Nr 139, Sector 6, Bucharest R-77131, Romania.

Our news correspondents report that additional information may be obtained by
Recent Findings from International University Has Provided New Information about Thrombocytopenia (Linezolid-Induced Thrombocytopenia Is Caused by Suppression of Platelet Production via Phosphorylation of Myosin Light Chain 2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematologic Diseases and Conditions - Thrombocytopenia is the subject of a report. According to news reporting out of Tochigi, Japan, by NewsRx editors, research stated, "Linezolid (LZD) is an antimicrobial that is commonly used for treatment of vancomycin-resistant Enterococci and methicillin-resistant Staphylococcus aureus infections. However, the development of thrombocytopenia, one of the most frequent adverse side effects of this antimicrobial, can lead to discontinuation of LZD treatment."

Our news journalists obtained a quote from the research from International University, "While clinical studies indicate that risk factors for the development of LZD-induced thrombocytopenia include treatment for >14 consecutive days, renal dysfunction, and chronic liver disease, the fundamental mechanism governing the pathogenesis of this disorder remains unclear. In this study, we aimed to elucidate the mechanism of LZD-induced thrombocytopenia by investigating the impact of LZD treatment on platelet destruction and production using rat platelet-rich plasma (PRP) and human immortalized cell lines, respectively. Compared to the control population, an increase in lactate dehydrogenase release was not detected upon exposure of rat PRP to varying concentrations of LZD, indicating that this compound is not cytotoxic towards platelets. Meanwhile, LZD treatment resulted in a significant dose-dependent increase in the proliferation of HEL human erythroleukemia and MEG-01 human megakaryoblast cells in vitro, but did not influence the differentiation of these cell lines. Lastly, LZD treatment yielded elevated levels of phosphorylation of myosin light chain 2 (MLC2), which regulates platelet release, in MEG-01 cells. Based on these results, we speculate that LZD induces thrombocytopenia by promoting MLC2 phosphorylation and thereby suppressing the release of platelets from mature megakaryocytes."

According to the news editors, the research concluded: "These findings provide the first insight into the mechanism of LZD-mediated thrombocytopenia and may facilitate the development of strategies to treat and/or prevent this disease."

Recent Findings from Iowa State University Has Provided New Information about Obesity (More efficient, perhaps, but at what price? Pleasure and enjoyment responses to high-intensity interval exercise in low-active women with obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Ames, Iowa, by NewsRx editors, research stated, "Fewer than 1.5% of women with obesity in the USA are physically active at recommended levels. High-intensity interval exercise (HIIE) has been proposed as a possible solution to the problem of low activity, based on the dual promise of accelerating the accrual of benefits while reducing the time commitment."

Our news journalists obtained a quote from the research from Iowa State University, "However, concerns have been raised about the appeal and sustainability of HIIE. The purpose of this study was to compare during-exercise affective valence and post-exercise enjoyment in response to a bout of HIIE and a longer, isocaloric bout of moderate-intensity continuous exercise (MICE). Within-subjects experiment. Low-active women with obesity (N = 24) completed one bout of HIIE (3-min warm-up, four 3-min intervals of recumbent cycling at 115% of Watts at the ventilatory threshold, four 2-min periods of active recovery at 85% of Watts at the ventilatory threshold, 5-min cool-down) and one bout of MICE (3-min warm-up, 25 min of recumbent cycling at 90% of Watts at the ventilatory threshold, 5-min cool down) in counterbalanced order. The Feeling Scale (FS) was administered during exercise and the Physical Activity Enjoyment Scale (PACES) was administered after cool-down. Differences were found for both FS (condition by time interaction: p< 0.001, eta(2) = 0.27) and PACES (p = 0.04, d = -0.38), with both outcomes favoring MICE."

According to the news editors, the research concluded: "The lower pleasure and enjoyment associated with HIIE compared to MICE underscore the importance of considering not only physiological adaptations but also the appeal and sustainability of HIIE for low-active women with obesity."

For more information on this research see: More efficient, perhaps, but at what price? Pleasure and enjoyment responses to high-intensity interval exercise in low-active women with obesity. Psychology of Sport and Exercise, 2017;28():1-10. Psychology of Sport and Exercise can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam,
Recent Findings from J. Gotte and Co-Researchers Yields New Information on Prostheses (Redo Aortic Valve Implantation After Full Root Replacement Using A Sutureless Valve Prosthesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Prostheses. According to news reporting originating from Stuttgart, Germany, by NewsRx correspondents, research stated, "We report the case of a 83-year-old man who had undergone a full root replacement with a stentless bio-prosthesis 15 years earlier. He was now diagnosed with severe aortic valve regurgitation secondary to leaflet degeneration, moderate mitral regurgitation, and single-vessel coronary artery disease."

Our news editors obtained a quote from the research, "To reduce cross-clamp time and technical difficulties a sutureless aortic prosthesis was used. His surgery and postoperative course were uneventful."

According to the news editors, the research concluded: "This is the first report of the successful use of a sutureless aortic valve prosthesis in a patient after bioprosthetic full root replacement who required additional mitral repair and coronary artery bypass surgery."


The news editors report that additional information may be obtained by contacting J. Gotte, Sana Cardiac Surg Stuttgart GmbH, D-70174 Stuttgart, Germany. Additional authors for this research include W. Hemmer, D. Roser, M. Liebrich and N. Doll.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.01.067. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stuttgart, Germany, Europe, Prostheses, Coronary Artery, Medical Devices, Prosthetics, Cardiology, Angiology, Surgery.
Anions

Recent Findings from J.R. Condon and Co-Researchers Yields New Information on Anions (Inhibition of cancer cell mitosis by reducing the availability of phosphate)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Anions is now available. According to news originating from London, United Kingdom, by NewsRx editors, the research stated, "The addition of phosphate groups is an essential requirement for the proper functioning of cyclin and cyclin dependent kinase which control various stages in the mitotic division of cancer cells. Thus limiting the availability of phosphate is likely to interfere with the metabolism of rapidly growing malignant cells."

Our news journalists obtained a quote from the research, "The human hormone glucagon and the anti metabolite mithramycin reduce serum phosphate by increasing phosphaturia and are both very effective in treating Paget's disease of bone, a precancerous condition. In this disorder large doses of glucagon given intravenously relieve bone pain and cause serum phosphate and alkaline phosphatase as well as urine hydroxyproline to fall, indicating a marked reduction in bone turnover. A constant iv infusion of glucagon was given to each of three patients all of whom had secondary malignant bone deposits. Two of the patients had primary prostate cancer and one had a squamous cell lung tumour. All three patients had relief of bone pain and a fall in serum alkaline phosphatase. Serum acid phosphatase also fell in the two patients with prostate cancer. It is proposed that the marked drop in serum phosphate due to glucagon causes intracellular phosphate to fall. This in turn disrupts the addition and removal of phosphate groups essential for the proper functioning of cyclin and cyclin dependent kinase. These two proteins control the transition from G1 to S (DNA synthesis phase) and G2 to M (mitotic phase) in the dividing cycle of malignant cells. Depriving a tumour of an essential ingredient used in phosphorylation reactions will disrupt its growth. It is also proposed that, by the same mechanism, glucagon induced hypophosphataemia renders malignant cells more sensitive to established chemotherapeutic agents and radiation waves. If this hypothesis proves to be correct, lowering intracellular phosphate may become an useful tool in cancer therapy."

According to the news editors, the research concluded: "However extensive studies are necessary to determine whether mitosis in cancer cells can be advantageously disrupted by glucagon induced hypophosphataemia."


The news correspondents report that additional information may be obtained from J.R. Condon, Greenwich Dist Hosp, London, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mehy.2016.09.014. This DOI is a link to an online electronic...
Musculoskeletal Diseases and Conditions ...

Recent Findings from Jichi Medical University Provides New Insights into Duchenne Muscular Dystrophy (Low Six4 and Six5 gene dosage improves dystrophic phenotype and prolongs life span of mdx mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Musculoskeletal Diseases and Conditions - Duchenne Muscular Dystrophy are discussed in a new report. According to news originating from Tochigi, Japan, by NewsRx correspondents, research stated, "Muscle regeneration is an important process for skeletal muscle growth and recovery. Repair of muscle damage is exquisitely programmed by cellular mechanisms inherent in myogenic stem cells, also known as muscle satellite cells."

Funders for this research include Ministry of Education, Culture, Sports, Science, and Technology, Ichiro Kanehara Foundation for the Promotion of Medical Sciences and Medical Care, Nakatomi Foundation.

Our news journalists obtained a quote from the research from Jichi Medical University, "We demonstrated previously the involvement of homeobox transcription factors, SIX1, SIX4 and SIX5, in the coordinated proliferation and differentiation of isolated satellite cells in vitro. However, their roles in adult muscle regeneration in vivo remain elusive. To investigate SIX4 and SIX5 functions during muscle regeneration, we introduced knockout alleles of Six4 and Six5 into an animal model of Duchenne Muscular Dystrophy (DMD), mdx (Dmd(mdx)/Y) mice, characterized by frequent degeneration-regeneration cycles in muscles. A lower number of small myofibers, higher number of thick ones and lower serum creatine kinase and lactate dehydrogenase activities were noted in 50-week-old Six4(+/-)5(+/-)Dmd(mdx)/Y mice than Dmd(mdx)/Y mice, indicating improvement of dystrophic phenotypes of Dmd (mdx)/Y mice. Higher proportions of cells positive for MYOD1 and MYOG (markers of regenerating myonuclei) and SIX1 (a marker of regenerating myoblasts and newly regenerated myofibers) in 12-week-old Six4(+/-)5(+/-)Dmd(mdx)/Y mice suggested enhanced regeneration, compared with Dmd mdx /Y mice. Although grip strength was comparable in Six4(+/-)5(+/-) Dmd(mdx)/Y and Dmd(mdx)/Y mice, treadmill exercise did not induce muscle weakness in Six4(+/-)5(+/-)Dmd(mdx)/Y mice, suggesting higher regeneration capacity. In addition, Six4 (+/-)5(+/-)Dmd(mdx)/Y mice showed 33.8% extension of life span."

According to the news editors, the research concluded: "The results indicated that low Six4 and Six5 gene dosage improved dystrophic phenotypes of Dmd(mdx)/Y mice by enhancing muscle regeneration, and suggested that SIX4 and SIX5 are potentially useful de novo targets in therapeutic applications against muscle disorders, including DMD."

For more information on this research see:  Low Six4 and Six5 gene dosage

The news correspondents report that additional information may be obtained from K. Kawakami, Jichi Med Univ, Center Mol Med, Div Biol, Shimotsuke, Tochigi 3290498, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/dgd.12290. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tochigi, Japan, Asia, Musculoskeletal Diseases and Conditions, Duchenne Muscular Dystrophy, Biotechnology, Genetics, Biomedical Engineering, Muscle Regeneration, Tissue Engineering, Bioengineering, Biomedicine, Jichi Medical University.

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**Cardiovascular Research**

**Recent Findings from Johns Hopkins University Has Provided New Information about Cardiovascular Research (Cardiovascular implantable electronic device function and longevity at autopsy: an underestimated resource)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Research have been published. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "The feasibility and safety of postmortem cardiovascular implantable electronic device (CIED; pacemaker or defibrillator) retrieval for reuse has been shown. To date, studies indicate a low yield of reusable postmortem CIEDs (17%-30%)."

The news reporters obtained a quote from the research from Johns Hopkins University, "The purpose of this study was to test the hypothesis that a higher rate of reusable CIEDs would be identified upon postmortem retrieval when an institutional protocol for systematic and routine acquisition, interrogation, reprogramming, and manufacturer analysis was used. Over a 6-year period, all subjects referred for autopsy underwent concomitant CIED pulse generator retrieval and enrollment in the Johns Hopkins Post-Mortem CIED Registry. CIEDs were interrogated, reprogrammed, and submitted for manufacturer analysis. In total, 84 autopsies had CIEDs (37 pacemakers, 47 implantable cardioverter-defibrillators). CIEDs were implanted 2.84 +/- 2.32 years before death, with 30% implanted <1 year before death. Overall, CIED postmortem longevity was 4.79 +/- 3.41 years, with 56% demonstrating longevity >= 4 years (this group had an estimated mean longevity of 7.37 +/- 2.44 years). Manufacturer analyses uncovered 2 falsely triggered elective replacement indication alerts, confirmed 5 correctly triggered elective replacement indication alerts, identified a recalled pacemaker, and verified that a defibrillator had undergone nonprogrammable hard reset. When a protocol for systematic and routine postmortem CIED retrieval, interrogation, reprogramming, and analysis was used, we noted that >60% of pacemakers and >50% of defibrillators demonstrated normal functional status with projected longevities >7 years on average."

According to the news reporters, the research concluded: "Formation of a national hospital-based 'CIED donor network' would facilitate larger scale charitable efforts in
underserved countries."


Our news correspondents report that additional information may be obtained by contacting S.K. Sinha, Johns Hopkins University, Sch Med, Div Cardiol, Baltimore, MD, United States. Additional authors for this research include B. Crain, K. Flickinger, H. Calkins, J. Rickard, A.L. Cheng, R. Berger, G. Tomaselli and J.E. Marine.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.05.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiovascular Research, Medical Devices, Defibrillators, Cardiovascular, Cardio Device, Cardiology, Johns Hopkins University.

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Autoimmune Diseases and Conditions - Rheumatoid...

Recent Findings from Johns Hopkins University Has Provided New Information about Rheumatoid Arthritis (Measuring transaminases in patients with rheumatoid arthritis on weekly methotrexate: does timing of blood testing matter?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Autoimmune Diseases and Conditions - Rheumatoid Arthritis. According to news reporting originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "The change in transaminase levels over a single week during therapy with methotrexate (MTX) has not been investigated or reported to date. In clinical practice, it is common to observe abnormal transaminase levels upon routine blood work for toxicity monitoring."

Financial supporters for this research include The Johns Hopkins Arthritis Center Discovery Fund, National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS).

Our news editors obtained a quote from the research from Johns Hopkins University, "Many have suggested that such lab abnormalities can sometimes be attributed to sampling blood for toxicity monitoring proximately following MTX dosing. The aim of our study was to evaluate changes in transaminase levels (AST/ALT) over 1 week after MTX administration in rheumatoid arthritis (RA) patients. In this small proof of concept study, we evaluated 13 patients with RA taking stable doses of methotrexate and background medications (e.g., NSAIDs and prednisone), but no other disease-modifying anti-rheumatic drugs (DMARDs). All patients were on a stable dose of folic acid. Patients received their usual doses of MTX administered at a specified time, and then sequential blood samples were obtained over the course of 7 days. Peripheral blood was obtained at each time point to measure serum transaminases. We did not observe any significant change in sequential transaminases over 1 week in relationship to MTX.
administration. It is possible that MTX therapy alone does not lead to significant weekly transaminase variations, contrary to our clinical expectations."

According to the news editors, the research concluded: "The addition of other medications (i.e., NSAIDs) to stable MTX regimen may result in transaminase abnormalities."


The news editors report that additional information may be obtained by contacting C.A. Mecoli, Johns Hopkins Div Rheumatol, Baltimore, MD 21224, United States. Additional authors for this research include N.G. Delev and C.O. Bingham.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10067-016-3361-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Nitrogenous Group Transferases, Joint Diseases and Conditions, Methotrexate Therapy Sodium, Diagnostics and Screening, Enzymes and Coenzymes, Rheumatoid Arthritis, Drugs and Therapies, Pharmaceuticals, Antimetabolites, Antineoplastics, Antirheumatics, Antipsoriatics, Blood Testing, Transaminases, Hematology, Johns Hopkins University.

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Drugs and Therapies - Human Serum Albumin Therapy

Recent Findings from L. Sulkowski and Co-Researchers Yields New Information on Human Serum Albumin Therapy (Characteristics of the Protoporphyrin IX Binding Sites on Human Serum Albumin Using Molecular Docking)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Human Serum Albumin Therapy is now available. According to news reporting originating in Czestochowa, Poland, by NewsRx journalists, research stated, "Human serum albumin (HSA) is the main plasma protein responsible for a distribution of drugs in the human circulatory system. The binding to HSA is one of the factors that determines both the pharmacological actions and the side effects of drugs."

The news reporters obtained a quote from the research, "The derivative of heme, protoporphyrin IX (PpIX), is a hydrophobic photosensitizer widely used in photodynamic diagnosis and therapy of various malignant disorders. Using absorption and fluorescence spectroscopy, it has been demonstrated that PpIX forms complexes with HSA. Its binding sites in the tertiary structure of HSA were found in the subdomains IB and IIA. PpIX binds to HSA in one class of binding sites with the association constant of 1.68 x 10(5) M-1 and 2.30 x 10(5) M-1 for an excitation at wavelength lambda(ex) = 280 nm and 295 nm, respectively. The binding interactions between HSA and PpIX have been studied by means of molecular docking simulation using the CLC Drug Discovery Workbench (CLC DDWB) computer program. PpIX
creates a strong 'sandwich-type' complex between its highly conjugated porphine system and aromatic side chains of tryptophan and tyrosine."

According to the news reporters, the research concluded: "In summary, fluorescent studies on binding interactions between HSA and PpIX have been confirmed by the results of computer simulation."

For more information on this research see: Characteristics of the Protoporphyrin IX Binding Sites on Human Serum Albumin Using Molecular Docking. *Molecules*, 2016;21 (11):1507-1525. *Molecules* can be contacted at: Mdpï Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news correspondents report that additional information may be obtained by contacting L. Sulkowski, Reg Specialist Hosp, Dept. of Gen & Vasc Surg, PL-42218 Czestochowa, Poland. Additional authors for this research include B. Pawelczak, M. Chudzik and M. Maciazek-Jurczyk.

Keywords for this news article include: Czestochowa, Poland, Europe, Human Serum Albumin Therapy, Serum albumin Therapy, Acute-Phase Proteins, Drugs and Therapies, Biological Factors, Protoporphyrins, Blood Proteins, Porphyrins, Albumins.

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**Oncology**

**Recent Findings from L. Zitvogel and Co-Authors Yields New Data on Oncology (Mouse models in oncoimmunology)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology are presented in a new report. According to news reporting originating from Villejuif, France, by NewsRx correspondents, research stated, "Fundamental cancer research and the development of efficacious antineoplastic treatments both rely on experimental systems in which the relationship between malignant cells and immune cells can be studied. Mouse models of transplantable, carcinogen-induced or genetically engineered malignancies - each with their specific advantages and difficulties - have laid the foundations of oncoimmunology."

Our news editors obtained a quote from the research, "These models have guided the immunosurveillance theory that postulates that evasion from immune control is an essential feature of cancer, the concept that the long-term effects of conventional cancer treatments mostly rely on the reinstatement of anticancer immune responses and the preclinical development of immunotherapies, including currently approved immune checkpoint blockers. Specific aspects of pharmacological development, as well as attempts to personalize cancer treatments using patient-derived xenografts, require the development of mouse models in which murine genes and cells are replaced with their human equivalents. Such 'humanized' mouse models are being progressively refined to characterize the leukocyte subpopulations that belong to the innate and acquired arms of the immune system as they infiltrate human cancers that are subjected to experimental therapies."

According to the news editors, the research concluded: "We surmise that the ever-advancing refinement of murine preclinical models will accelerate the pace of therapeutic optimization in patients."

The news editors report that additional information may be obtained by contacting L. Zitvogel, GRCC, CICBT1428, Center Clin Invest Biotherapies Canc, F-94805 Villejuif, France. Additional authors for this research include J.M. Pitt, R. Daillere, M.J. Smyth and G. Kroemer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrc.2016.91. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Villejuif, France, Europe, Cancer, Article Review, Epidemiology, Oncology, Genetics.

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Enzymes and Coenzymes - Esterases

Recent Findings from M.T. Certo and Co-Authors Provide New Insights into Esterases (Salient Features of Endonuclease Platforms for Therapeutic Genome Editing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - Esterases. According to news reporting originating from Cambridge, Massachusetts, by NewsRx correspondents, research stated, "Emerging gene-editing technologies are nearing a revolutionary phase in genetic medicine: precisely modifying or repairing causal genetic defects. This may include any number of DNA sequence manipulations, such as knocking out a deleterious gene, introducing a particular mutation, or directly repairing a defective sequence by site-specific recombination."

Our news editors obtained a quote from the research, "All of these edits can currently be achieved via programmable rare-cutting endonucleases to create targeted DNA breaks that can engage and exploit endogenous DNA repair pathways to impart site-specific genetic changes. Over the past decade, several distinct technologies for introducing site-specific DNA breaks have been developed, yet the different biological origins of these gene-editing technologies bring along inherent differences in parameters that impact clinical implementation."

According to the news editors, the research concluded: "This review aims to provide an accessible overview of the various endonuclease-based gene-editing platforms, highlighting the strengths and weakness of each with respect to therapeutic applications."

For more information on this research see: Salient Features of Endonuclease Platforms for Therapeutic Genome Editing. Molecular Therapy, 2016;24(3):422-9. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

The news editors report that additional information may be obtained by contacting M.T. Certo, bluebird bio, Cambridge, Massachusetts, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2016.21. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Therapy, Genetics, Cambridge, Esterases, Technology, Massachusetts, United States, Endonucleases, Article Review, Enzymes and Coenzymes, North and Central America.

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Recent Findings from Mayo Clinic Provides New Insights into Arthroplasty (Survivorship After Primary Total Hip Arthroplasty in Solid-Organ Transplant Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Arthroplasty. According to news reporting originating in Rochester, Minnesota, by NewsRx journalists, research stated, "Although a growing number of primary total hip arthroplasties (THAs) are being performed on solid-organ transplant (SOT) recipients, long-term patient and implant surviviorships have not been well studied in contemporary transplant and arthroplasty practices. A total of 136 THAs (105 patients) with prior SOT were retrospectively reviewed from 2000 to 2013 at mean clinical follow-up of 5 years."

The news reporters obtained a quote from the research from Mayo Clinic, "The mean age was 59 years, with 39% being females. The most common SOT was renal (56%), followed by liver (24%). Patient mortality was 3.8% and 13.3% at 2 and 5 years, respectively. There were 9 revisions (6.6%), including 5 (4%) for deep periprosthetic infection. Implant survivorship free of any revision was 95% and 94% at 2 and 5 years, respectively. Transplant type or surgical indication did not significantly impact patient or implant survivorship. Compared with the general population, SOT patients undergoing THA have slightly higher mortality rates at 5 years."

According to the news reporters, the research concluded: "Implant survivorship free of revision was slightly lower than the general population, primarily due to an increased risk of periprosthetic joint infection."


Our news correspondents report that additional information may be obtained by contacting M.P. Abdel, Mayo Clinic, Dept. of Orthoped Surg, Rochester, MN 55905, United States. Additional authors for this research include C.K. Ledford, J.M. Statz, K.I. Perry, T.M. Mabry, A.D. Hanssen and M.P. Abdel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arth.2016.04.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Orthopedic Procedures, Arthroplasty, Surgery, Mayo Clinic.

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Disease Attributes - Disease Progression

Recent Findings from Medical University Provide New Insights into Disease Progression (Biomarkers of evasive resistance predict disease progression in cancer patients treated with antiangiogenic therapies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Disease Attributes - Disease Progression is now available. According to news reporting from Innsbruck, Austria, by NewsRx journalists, research stated, "Numerous antiangiogenic agents are approved for the treatment of oncological diseases. However, almost all patients develop evasive resistance mechanisms against antiangiogenic therapies."

The news correspondents obtained a quote from the research from Medical University, "Currently no predictive biomarker for therapy resistance or response has been established. Therefore, the aim of our study was to identify biomarkers predicting the development of therapy resistance in patients with hepatocellular cancer (n=11), renal cell cancer (n=7) and non-small cell lung cancer (n=2). Thereby we measured levels of angiogenic growth factors, tumor perfusion, circulating endothelial cells (CEC), circulating endothelial progenitor cells (CEP) and tumor endothelial markers (TEM) in patients during the course of therapy with antiangiogenic agents, and correlated them with the time to antiangiogenic progression (aTTP). Importantly, at disease progression, we observed an increase of proangiogenic factors, upregulation of CEC/CEP levels and downregulation of TEMs, such as Robo4 and endothelial cell-specific chemotaxis regulator (ECSCR), reflecting the formation of torturous tumor vessels. Increased TEM expression levels tended to correlate with prolonged aTTP (ECSCR high=275 days vs. ECSCR low=92.5 days; p=0.07 and for Robo4 high=387 days vs. Robo4 low=90.0 days; p=0.08). This indicates that loss of vascular stabilization factors aggravates the development of antiangiogenic resistance. Thus, our observations confirm that CEP/CEC populations, proangiogenic cytokines and TEMs contribute to evasive resistance in antiangiogenic treated patients."

According to the news reporters, the research concluded: "Higher TEM expression during disease progression may have clinical and pathophysiological implications, however, validation of our results is warranted for further biomarker development."

For more information on this research see: Biomarkers of evasive resistance predict disease progression in cancer patients treated with antiangiogenic therapies. Oncotarget, 2016;7 (15):20109-23.

Our news journalists report that additional information may be obtained by contacting A. Pircher, Dept. of Internal Medicine V, Hematology and Oncology, Medical University Innsbruck, Innsbruck, Austria. Additional authors for this research include K. Johrer, F. Kocher, N. Steiner, I. Graziadei, I. Heidegger, R. Pichler, N. Leonhartsberger, C. Kremser, J. Kern, G. Untergasser, E. Gunsilius and W. Hilbe.

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Keywords for this news article include: Europe, Cancer, Austria, Therapy, Oncology, Innsbruck, Disease Attributes, Disease Progression, Pathologic Processes, Diagnostics and
Nutritional and Metabolic Diseases and Conditions –…

Recent Findings from Memorial Hospital Provide New Insights into Acidosis (Chronic Metabolic Acidosis Activates Renal Tubular Sodium Chloride Cotransporter through Angiotension II-dependent WNK4-SPAK Phosphorylation Pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Acidosis is now available. According to news reporting originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "The mechanism by which chronic metabolic acidosis (CMA) regulates sodium (Na(+-))-chloride (Cl(-)) cotransporter (NCC) in the renal distal convoluted tubules remains unexplored. We examined the role of STE20/SPS1-related proline/alanine-rich kinase (SPAK) and with-no-lysin kinase 4 (WNK4) on expression of NCC in mouse models of CMA."

Our news editors obtained a quote from the research from Memorial Hospital, "CMA was induced by NH4Cl in wild type mice (WTA mice), SPAK, and WNK4 knockout mice. The quantities of Ncc mRNA, expression of total NCC, phosphorylated (p)-NCC, SPAK and WNK4 in the kidneys as well as NCC inhibition with hydrochlorothiazide and Na(+) balance were evaluated. Relative to WT mice, WTA mice had similar levels of Ncc mRNA, but increased expression of total and p-NCC, SPAK, and WNK4 and an exaggerated response to hydrochlorothiazide which could not be observed in SPAK or WNK4 knockout mice with CMA. In WTA mice, increased plasma renin activity, aldosterone and angiotensin II concentrations accompanied by a significantly negative Na(+) balance. High Na(+) diet abolished the enhanced NCC expression in WTA mice. Furthermore, an angiotensin II type 1 receptor blocker rather than a mineralocorticoid receptor antagonist exerted a marked inhibition on Na(+) reabsorption and NCC phosphorylation in WTA mice."

According to the news editors, the research concluded: "CMA increases WNK4-SPAK-dependent NCC phosphorylation and appears to be secondary to previous natriuresis with volume-dependent angiotensin II activation."

For more information on this research see: Chronic Metabolic Acidosis Activates Renal Tubular Sodium Chloride Cotransporter through Angiotension II-dependent WNK4-SPAK Phosphorylation Pathway. Scientific Reports, 2016;6():18360. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting Y.W. Fang, Division of Nephrology, Dept. of Medicine, Shin Kong Wu Ho-Su Memorial Hospital, Taipei, Taiwan. Additional authors for this research include S.S. Yang, C.J. Cheng, M.H. Tseng, H.M. Hsu and S.H Lin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18360. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taipei, Taiwan, Anions, Kidney, Kinase, Acidosis, Genetics, Autacoids, Chemicals, Nephrology, Neuropeptides, Oligopeptides,
Recent Findings from Mt. Sinai Hospital Has Provided New Information about Lumpectomy [The MarginProbe (R) System: An Innovative Approach to Reduce the Incidence of Positive Margins Found After Lumpectomy]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Surgery - Lumpectomy is the subject of a report. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "The goal of lumpectomy surgery for breast cancer is to completely remove the tumor and have clear margins, reducing the rates of local recurrence. The MarginProbe ® System is a new device that can detect microscopic tumor cells at or close to the margin of the surgical resection intraoperatively, providing the surgeon with the ability to re-excite tissue at the time of surgery, reducing the need for a second surgery to obtain clear margins."

Our news journalists obtained a quote from the research from Mt. Sinai Hospital, "At a Glance  Lumpectomy surgery followed by radiation is the recommended treatment for early-stage breast cancer; however, successful lumpectomy is contingent upon cancer-free surgical margins. Current standards of intraoperative margin assessments include visual inspection, palpation, and imaging techniques, which are all less than reliable."

According to the news editors, the research concluded: "The MarginProbe ® System, used during lumpectomy surgery, has been shown to reduce the need for a second surgery because of positive tumor margins."


The news correspondents report that additional information may be obtained from S. Gola, Mt. Sinai Hospital, Preventable Admiss Care Team, New York, NY 10029, United States.

Keywords for this news article include: New York City, New York, United States, North and Central America, Lumpectomy, Oncology, Surgery, Cancer, Mt. Sinai Hospital.

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Gram-Negative Bacteria - Burkholderia

Recent Findings from N. Castanheira and Co-Authors Provide New Insights into Burkholderia (Plant growth-promoting Burkholderia species isolated from annual ryegrass in Portuguese soils)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria -
Burkholderia. According to news reporting out of Oeiras, Portugal, by NewsRx editors, research stated, "To search for culturable Burkholderia species associated with annual ryegrass in soils from natural pastures in Portugal, with plant growth-promoting effects. Annual ryegrass seedlings were used to trap Burkholderia from two different soils in laboratory conditions."

Funders for this research include Fundacao para a Ciencia e a Tecnologia, Programa Leonardo da Vinci, Fundecyt, Espana.

Our news journalists obtained a quote from the research, "A combined approach using genomic fingerprinting and sequencing of 16S rRNA and recA genes resulted in the identification of Burkholderia strains belonging to the species Burkholderia graminis, Burkholderia fungorum and the Burkholderia cepacia complex. Most strains were able to solubilize mineral phosphate and to synthesize indole acetic acid; some of them could produce siderophores and antagonize the phytopathogenic oomycete, Phytophthora cinnamomi. A strain (G2Bd5) of B. graminis was selected for gnotobiotic plant inoculation experiments. The main effects were the stimulation of root growth and enhancement of leaf lipid synthesis and turnover. Fluorescence in situ hybridization and confocal laser microscopy evidenced that strain G2Bd5 is a rhizospheric and endophytic colonizer of annual ryegrass. This work revealed that annual ryegrass can naturally associate with members of the genus Burkholderia. A novel plant growth promoting strain of B. graminis was obtained."

According to the news editors, the research concluded: "The novel strain belongs to the plant-associated Burkholderia cluster and is a promising candidate for exploitation as plant inoculant in field conditions."


Our news journalists report that additional information may be obtained by contacting N. Castanheira, Instituto Nacional de Investigacao Agraria e Veterinaria, IP, Oeiras, Portugal. Additional authors for this research include A.C. Dourado, S. Kruz, P.I. Alves, A.I. Delgado-Rodriguez, I. Pais, J. Semedo, P. Scotti-Campos, C. Sanchez, N. Borges, G. Carvalho, M.T. Barreto Crespo and P. Fareleira.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jam.13025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oeiras, Europe, Portugal, Genetics, Burkholderiaceae, Betaproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria, Gram Negative Aerobic Rods and Coci.

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Recent Findings from N. Matsuo and Co-Authors Yields New Data on Anorexia (Predictors of responses to corticosteroids for anorexia in advanced cancer patients: a multicenter prospective observational...
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Anorexia is the subject of a report. According to news reporting from Akita, Japan, by NewsRx journalists, research stated, "Although corticosteroids are widely used to relieve anorexia, information regarding the factors predicting responses to corticosteroids remains limited. The purpose of the study is to identify potential factors predicting responses to corticosteroids for anorexia in advanced cancer patients."

The news correspondents obtained a quote from the research, "Inclusion criteria for this multicenter prospective observational study were patients who had metastatic or locally advanced cancer and had an anorexia intensity score of 4 or more on a 0-10 Numerical Rating Scale (NRS). Univariate and multivariate analyses were conducted to identify the factors predicting ae yen >2-point reduction in NRS on day 3. Among 180 patients who received corticosteroids, 99 (55 %; 95 % confidence interval [CI], 47-62 %) had a response with ae yen >2-point reduction. Factors that significantly predicted responses were Palliative Performance Scale (PPS) > 40 and absence of drowsiness. In addition, factors that tended to be associated with ae yen >2-point reduction in NRS included PS 0-3, absence of diabetes mellitus, absence of peripheral edema, presence of lung metastasis, absence of peritoneal metastasis, baseline anorexia NRS of > 6, presence of pain, and presence of constipation. A multivariate analysis showed that the independent factors predicting responses were PPS of > 40 (odds ratio = 2.7 [95 % CI = 1.4-5.2]), absence of drowsiness (2.6 [1.3-5.0]), and baseline NRS of > 6 (2.4 [1.1-4.8]). Treatment responses to corticosteroids for anorexia may be predicted by PPS, drowsiness, and baseline symptom intensity."

According to the news reporters, the research concluded: "Larger prospective studies are needed to confirm these results."

For more information on this research see: Predictors of responses to corticosteroids for anorexia in advanced cancer patients: a multicenter prospective observational study. Supportive Care in Cancer, 2017;25(1):41-50. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news journalists report that additional information may be obtained by contacting N. Matsuo, Medical Corp Junkei Kai Sotoasahikawa Hosp, Akita 0100802, Japan. Additional authors for this research include T. Morita, Y. Matsuda, K. Okamoto, Y. Matsumoto, K. Kaneishi, T. Odagiri, H. Sakurai, H. Katayama, I. Mori, H. Yamada, H. Watanabe, T. Yokoyama, T. Yamaguchi, T. Nishi, A. Shirado, S. Hiramoto, T. Watanabe, H. Kohara and Shimoy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3383-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Akita, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Clinical Trials and Studies, Adolescent Medicine, Clinical Research, Eating Disorders, Oncology, Anorexia, Cancer.

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Recent Findings from Nanchang University Provides New Insights into Breast Cancer (LINC00978 predicts poor prognosis in breast cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating in Nanchang, People's Republic of China, by NewsRx journalists, research stated, "Breast cancer is the most frequently diagnosed cancer and the leading cause of cancer death among women worldwide. Long non-coding RNAs (lncRNAs) are a class of non-coding RNAs in the human genome that involves in breast cancer development and progression."

The news reporters obtained a quote from the research from Nanchang University, "Here, we identify a lncRNA, LINC00978, which is upregulated in breast cancer cell lines and tissues compared with corresponding controls. Furthermore, LINC00978 expression is negatively associated with hormone receptor (HR) status in 195 breast cancer patients studied (p = 0.033). Kaplan-Meier survival analysis shows that patients with high LINC00978 expression have poorer disease-free survival (DFS) than those with low LINC00978 expression (p = 0.012), and multivariate analysis identifies LINC00978 as an independent prognostic factor in breast cancer (p = 0.008, hazard ratio [HR] = 2.270, 95% confidence interval [CI]1.237-4.165)."

According to the news reporters, the research concluded: "Our study indicates that LINC00978 may be an oncogene in breast cancer, and can serve as a potential biomarker to predict prognosis in breast cancer patients."

For more information on this research see: LINC00978 predicts poor prognosis in breast cancer patients. Scientific Reports, 2016;6():1-7. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting L. Wang, Nanchang University, Affiliated Hosp 2, Dept. of Gen Surg, Nanchang 330006, People's Republic of China. Additional authors for this research include Y.Y. Chi, L. Liu, N.S. Huang, L. Wang and J. Wu.

Keywords for this news article include: Nanchang, People's Republic of China, Asia, Women's Health, Breast Cancer, Oncology, Genetics, Nanchang University.

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"Defects in the adenosine-uridine (AU)-rich elements (AREs), which mediate post-transcriptional regulation, play important roles in cancers. Both tristetraprolin (TTP, also known as TIS11 and ZFP36) and human antigen R (HuR, also known as ELAVL1) are two important and closely related AU-rich RNA-binding proteins (ARE-BPs)."

Financial support for this research came from Jiangsu Health Department.

The news reporters obtained a quote from the research from Nanjing Medical University, "High-expression or aberrant nuclear/cytoplasmic distribution of HuR and decreased TTP have been found in many types of cancers. TTP mediates the decay of target mRNAs, whereas HuR generally stabilizes target transcripts and promotes translation of certain mRNAs. Furthermore, thousands of overlapping binding sites of TTP and HuR were found in more than 1300 genes. RNA-IP experiments also indicated that TTP can bind directly to and destabilize HuR mRNA. The dysregulation of TTP and HuR has been found to play an important role in the progression of cancers, including inflammation-related cancer, as well as in proliferation, apoptosis, angiogenesis, metastasis, invasion, and chemotherapy resistance."

According to the news reporters, the research concluded: "In this review, we provided an overview of the role of TTP and HuR, as well as the underlying mechanisms of the TTP-HuR axis in cancers."

For more information on this research see: Dysregulation of TTP and HuR plays an important role in cancers. Tumor Biology, 2016;37(11):14451-14461. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news correspondents report that additional information may be obtained by contacting J.Z. Xia, Nanjing Medical University, Affiliated Wuxi Hosp 2, Translat Med Center, Wuxi 214002, Jiangsu, People's Republic of China. Additional authors for this research include N.N. Ding, J. Guo, J.Z. Xia and Y.L. Ruan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5397-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Cancer, Article Review, Oncology, Genetics, Nanjing Medical University.

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Oncology - Lung Cancer

Recent Findings from Nanjing University Provides New Insights into Lung Cancer (Cancer-associated fibroblasts treated with cisplatin facilitates chemoresistance of lung adenocarcinoma through IL-11/IL-11R/STAT3 signaling pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lung Cancer. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Cancer-associated fibroblasts (CAF) are recognized as one of the key determinants in the malignant progression of lung adenocarcinoma. And its contributions to chemoresistance acquisition of lung cancer has raised more and more attention."
Our news journalists obtained a quote from the research from Nanjing University, "In our study, cancer associated fibroblasts treated with cisplatin conferred chemoresistance to lung cancer cells. Meanwhile, Interleukin-11 (IL-11) was significantly up-regulated in the CAF stimulated by cisplatin. As confirmed in lung adenocarcinoma cells in vivo and in vitro, IL-11 could protect cancer cells from cisplatin-induced apoptosis and thus promote their chemoresistance. Furthermore, it was also observed that IL-11 induced STAT3 phosphorylation and increased anti-apoptotic protein Bcl-2 and Survivin expression in cancer cells. The effect could be abrogated by suppressing STAT3 phosphorylation or silencing IL-11R alpha expression in cancer cells."

According to the news editors, the research concluded: "Chemotherapy-induced IL-11 upregulation in CAF promotes lung adenocarcinoma cell chemoresistance by activating IL-11R/STAT3 anti-apoptotic signaling pathway."

For more information on this research see: Cancer-associated fibroblasts treated with cisplatin facilitates chemoresistance of lung adenocarcinoma through IL-11/IL-11R/STAT3 signaling pathway. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from H.Z. Song, Nanjing University, Sch Med, Jinling Hosp, Dept. of Med Oncol, Nanjing 210002, Jiangsu, People's Republic of China. Additional authors for this research include G.C. Huang, R. Wang, Y. Pan, Z.Y. He, X.Y. Chu, H.Z. Song and L.B. Chen.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Connective Tissue Cells, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Adenocarcinoma, Fibroblasts, Lung Cancer, Cisplatin, Oncology, Nanjing University.

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Peptide Proteins - Peptide Hormones

Recent Findings from National Chung Hsing University Provides New Insights into Peptide Hormones (Ginkgoghrelins, unique acylated flavonoid diglycosides in Folium Ginkgo, stimulate growth hormone secretion via activation of the ghrelin receptor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Peptide Proteins - Peptide Hormones are presented in a new report. According to news reporting originating in Taichung, Taiwan, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Folium Ginkgo, the dried leaf of Ginkgo biloba L. is a traditional Chinese medicine listed in the Pharmacopoeia of the People's Republic of China with several therapeutic effects, including prevention of aging. It is used as herbal medicine for the treatment of several aging-related diseases."

Financial support for this research came from National Chung-Hsing University. The news reporters obtained a quote from the research from National Chung Hsing University. "The therapeutic effects of Folium Ginkgo on aging-related diseases are suspected to be similar to the anti-aging effects of growth hormone release induced by ghrelin. Candidate components responsible for the anti-aging effects via the ghrelin receptor-activated pathway were searched from the known compounds found in Folium Ginkgo. Two acylated flavonoid
diglycosides, tentatively named ginkgoghrelins in this study, were selected and isolated from the methanol extract of Folium Ginkgo, and their chemical structures were confirmed by spectroscopic analysis. These two compounds were examined for their capability of stimulating growth hormone release of rat primary anterior pituitary cells via activation of the ghrelin receptor. The major metabolites of ginkgoghrelins in rat bile were detected after intravenous injection and structurally analyzed by mass spectroscopy. Molecular modeling of ginkgoghrelins docking to the ghrelin receptor was exhibited to explore the possible interaction within the binding pocket. Similar to growth hormone-releasing hormone-6 (GHRP-6), a synthetic analog of ghrelin, ginkgoghrelins were demonstrated to stimulate growth hormone secretion of rat primary anterior pituitary cells in a dose dependent manner, and the stimulation was inhibited by [D-Arg(1), D-Phe(5), D-Trp(7,9) Leu(11)]-substance P, an inverse agonist of the ghrelin receptor. Putative metabolites of ginkgoghrelins via glucuronidation and methylation were detected in bile of rats after intravenous injection. Molecular modeling and docking showed that ginkgoghrelins as well as GHRP-6 could fit in and adequately interact with the binding pocket of the ghrelin receptor."

According to the news reporters, the research concluded: "The results suggest that ginkgoghrelins are putative components partly accounting for the anti-aging effects of Folium Ginkgo possibly via activation of the ghrelin receptor, and possess great potential to be developed as non-peptidyl analogs of ghrelin."


Our news correspondents report that additional information may be obtained by contacting J.T.C. Tzen, National Chung Hsing University, Grad Inst Biotechnol, Taichung 402, Taiwan. Additional authors for this research include T.Y. Chung, Y.C. Li, Y.H. Lo, N.H. Lin, P.C. Kuo, W.Y. Chen and J.T.C. Tzen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taichung, Taiwan, Asia, Anterior Pituitary Hormones, Intravenous Injections, Molecular Modeling, Peptide Hormones, Peptide Proteins, Growth Hormones, Ghrelin, National Chung Hsing University.

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Cardiovascular Diseases and Conditions - Thrombosis

Recent Findings from Nordic Bioscience Advance Knowledge in Thrombosis (Collagen-mediated hemostasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Thrombosis have been published. According to news reporting originating in Herlev, Denmark, by NewsRx journalists, research stated, "Collagens mediate essential hemostasis by maintaining the integrity and stability of the vascular wall. Imbalanced turnover of collagens by uncontrolled
formation and/or degradation may result in pathologic conditions such as fibrosis."

The news reporters obtained a quote from the research from Nordic Bioscience, "Thickening of the vessel wall because of accumulation of collagens may lead to arterial occlusion or thrombosis. Thinning of the wall because of collagen degradation or deficiency may lead to rupture of the vessel wall or aneurysm. Preventing excessive hemorrhage or thrombosis relies on collagen-mediated actions. Von Willebrand factor, integrins and glycoprotein VI, as well as clotting factors, can bind collagen to restore normal hemostasis after trauma."

According to the news reporters, the research concluded: "This review outlines the essential roles of collagens in mediating hemostasis, with a focus on collagens types I, III, IV, VI, XV, and XVIII."


Our news correspondents report that additional information may be obtained by contacting T. Manon-Jensen, Nordic Bioscience A, S, Herlev, Denmark. Additional authors for this research include N.G. Kjeld and M.A Karsdal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jth.13249. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Herlev, Europe, Denmark, Collagen, Hematology, Article Review, Embolism and Thrombosis, Extracellular Matrix Proteins, Cardiovascular Diseases and Conditions.

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Mental Health

Recent Findings from Nottingham Trent University Has Provided New Information about Mental Health (Pathways through the criminal justice system for prisoners with acute and serious mental illness)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health. According to news reporting from Nottingham, United Kingdom, by NewsRx journalists, research stated, "To evaluate pathways through the criminal justice system for 63 prisoners under the care of prison mental health services. A small number (3%) were acutely mentally ill at prison reception, which may reflect the successful operation of liaison and diversion services at earlier stages in the pathway."

Funders for this research include NHS England, Nottingham Trent University, St George's University Hospitals NHS Foundation.

The news correspondents obtained a quote from the research from Nottingham Trent University. "However, a third (33%) went onto display acute symptoms at later stages. Cases displaying suicide risk at arrest, with a history of in-patient care, were at increased risk of acute deterioration in the first weeks of imprisonment, with a general absence of health assessments for these cases prior to their imprisonment. Inconsistencies in the transfer of mental health
information to health files may result in at-risk cases being overlooked, and a lack of
standardisation at the court stage results in difficulties determining onward service provision
and outcomes. Greater consistency in access to pre-prison health services in the criminal justice
system is needed, especially for those with preexisting vulnerabilities, and it may have a role in
preventing subsequent deterioration."

According to the news reporters, the research concluded: "A single system for health
information flow across the whole pathway would be beneficial."

For more information on this research see: Pathways through the criminal justice
system for prisoners with acute and serious mental illness. Journal of Forensic and Legal
Medicine, 2016;44():162-168. Journal of Forensic and Legal Medicine can be contacted at:
(Elsevier - www.elsevier.com; Journal of Forensic and Legal Medicine -
www.journals.elsevier.com/journal-of-forensic-and-legal-medicine/)

Our news journalists report that additional information may be obtained by
contacting K. Slade, Nottingham Trent Univ, Div Psychol, Nottingham, United Kingdom.
Additional authors for this research include C. Samele, L. Valmaggia and A. Forrester.

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http://dx.doi.org/10.1016/j.jflm.2016.10.007. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Nottingham, United Kingdom, Europe,
Mental Health, Psychiatry, Risk and Prevention, Mental Illness, Legal Issues, Nottingham
Trent University.

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Digestive System Diseases and Conditions - Crohn's

Recent Findings from Nottingham University Hospital NHS Trust
Provide New Insights into Crohn's Disease (Ustekinumab for the
treatment of Crohn's disease: can it find its niche?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Digestive System Diseases and
Conditions - Crohn's Disease. According to news reporting from Nottingham, United Kingdom,
by NewsRx journalists, research stated, "Crohn's disease is an immune-mediated disease that
results in panenteric chronic inflammation in genetically predisposed individuals exposed to an
appropriate environment. The past two decades have witnessed the emergence of an important
class of drugs known as anti-tumour necrosis factor (TNF) agents in the treatment of Crohn's
disease."

The news correspondents obtained a quote from the research from Nottingham
University Hospital NHS Trust, "Unfortunately, the utility of these agents have been hampered
by primary and secondary nonresponse in a significant proportion of patients. Ustekinumab, a
monoclonal antibody to the p40 subunit of interleukin (IL) 12 and 23, is a novel
pharmacotherapy for this patient cohort that offers an out-of-class option. It is approved for use
in psoriasis and psoriatic arthritis, and has now been evaluated in phase II trials for moderate-to-
severe Crohn's disease."

According to the news reporters, the research concluded: "We here review the
published literature and describe a potential clinical role for its use in this disease cohort."

For more information on this research see: Ustekinumab for the treatment of Crohn's disease: can it find its niche? *Therapeutic Advances In Gastroenterology*, 2016;9(1):26-36. *Therapeutic Advances In Gastroenterology* can be contacted at: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com; Therapeutic Advances In Gastroenterology - tag.sagepub.com)

Our news journalists report that additional information may be obtained by contacting E.G. Simon, Dept. of Gastroenterology, Christian Medical College, Vellore, India NIHR Biomedical Research Unit in Gastrointestinal and Liver Diseases, Nottingham University Hospitals NHS Trust and The University of Nottingham, Nottingham, UK. Additional authors for this research include S. Ghosh, M. Iacucci and G.W Moran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1756283X15618130. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Therapeutic Advances In Gastroenterology* is: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Biotechnology, Europe, Genetics, Nottingham, Ustekinumab, United Kingdom, Article Review, Crohn's Disease, Gastroenteritis, Gastroenterology, Immunologic Agents, Drugs and Therapies, Monoclonal Antibodies, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.

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**Ear Diseases and Conditions - Otitis Media**

**Recent Findings from Ohio State University Has Provided New Information about Otitis Media (Multi-scale finite element modeling of Eustachian tube function: influence of mucosal adhesion)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Ear Diseases and Conditions - Otitis Media. According to news originating from Columbus, Ohio, by NewsRx correspondents, research stated, "The inability to open the collapsible Eustachian tube (ET) leads to the development of chronic Otitis Media (OM). Although mucosal inflammation during OM leads to increased mucin gene expression and elevated adhesion forces within the ET lumen, it is not known how changes in mucosal adhesion alter the biomechanical mechanisms of ET function."

Our news journalists obtained a quote from the research from Ohio State University, "In this study, we developed a novel multi-scale finite element model of ET function in adults that utilizes adhesion spring elements to simulate changes in mucosal adhesion. Models were created for six adult subjects, and dynamic patterns in muscle contraction were used to simulate the wave-like opening of the ET that occurs during swallowing. ET opening is highly sensitive to the level of mucosal adhesion and that exceeding a critical value of adhesion leads to rapid ET dysfunction. Parameter variation studies and sensitivity analysis indicate that increased mucosal adhesion alters the relative importance of several tissue biomechanical properties. For example, increases in mucosal adhesion reduced the sensitivity of ET function to tensor veli palatini muscle forces but did not alter the insensitivity of ET function to levator veli palatini
muscle forces. Interestingly, although changes in cartilage stiffness did not significantly influence ET opening under low adhesion conditions, ET opening was highly sensitive to changes in cartilage stiffness under high adhesion conditions."

According to the news editors, the research concluded: "Therefore, our multi-scale computational models indicate that changes in mucosal adhesion as would occur during inflammatory OM alter the biomechanical mechanisms of ET function."


The news correspondents report that additional information may be obtained from S.N. Ghadiali, Ohio State University, Wexner Med Center, Davis Heart & Lung Res Inst, Columbus, OH 43210, United States. Additional authors for this research include J.D. Swarts and S.N. Ghadiali.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Ear Diseases and Conditions, Otorhinolaryngology, Eustachian Tube, Medical Devices, Otitis Media, Genetics, Ohio State University.

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**Oncology - Gastric Cancer**

**Recent Findings from Osaka City University Graduate School of Medicine Advance Knowledge in Gastric Cancer (Fibroblast growth factor receptor signaling as therapeutic targets in gastric cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gastric Cancer. According to news reporting originating in Osaka, Japan, by NewsRx journalists, research stated, "Fibroblast growth factor receptors (FGFRs) regulate a variety of cellular functions, from embryogenesis to adult tissue homeostasis. FGFR signaling also plays significant roles in the proliferation, invasion, and survival of several types of tumor cells."

The news reporters obtained a quote from the research from the Osaka City University Graduate School of Medicine, "FGFR-induced alterations, including gene amplification, chromosomal translocation, and mutations, have been shown to be associated with the tumor initiation and progression of gastric cancer, especially in diffuse-type cancers. Therefore, the FGFR signaling pathway might be one of the therapeutic targets in gastric cancer. This review aims to provide an overview of the role of FGFR signaling in tumorigenesis, tumor progression, proliferation, and chemoresistance."

According to the news reporters, the research concluded: "We also discuss the accumulating evidence that demonstrates the effectiveness of using clinical therapeutic agents to inhibit FGFR signaling for the treatment of gastric cancer."

For more information on this research see: Fibroblast growth factor receptor signaling as therapeutic targets in gastric cancer. *World Journal of Gastroenterology*, 2016;22
Heart Disorders and Diseases - Heart Attack

Recent Findings from Osaka University Has Provided New Data on Heart Attack (Myeloid cell-derived LRG attenuates adverse cardiac remodelling after myocardial infarction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Attack is the subject of a report. According to news reporting originating from Osaka, Japan, by NewsRx correspondents, research stated, "Leucine-rich a2-glycoprotein (LRG) is considered as a biomarker of the clinical activities of chronic inflammatory diseases, including heart failure. However, its pathophysiological roles in cardiac remodelling after myocardial infarction (MI) remain to be clarified."

Financial supporters for this research include MEXT/JSPS KAKENHI, Ministry of Health, Labour and Welfare.

Our news editors obtained a quote from the research from Osaka University, "In this study, we have addressed functional roles of LRG in cardiac remodelling after MI. MI was generated by ligating the left coronary artery in mice. Real-time reverse transcription (RT)-PCR and immunoblot analyses revealed that the expressions of LRG transcript and protein were up-regulated in post-infarct myocardium. LRG protein was produced by heart-infiltrating myeloid cells, such as macrophages and neutrophils. To elucidate functional roles of LRG in cardiac remodelling, we generated MI in wild-type (WT) and LRG-deficient (LRG(-/-)) mice and found that LRG gene ablation aggravated myocardial fibrosis with cardiac dysfunction after MI. Immunohistochemical analyses with anti-CD31 antibody revealed that capillary density decreased at border zone in LRG(-/-) mice compared with WT mice. Consistently, the expression of apelin receptor was reduced in LRG(-/-) mice, implying that the impaired angiogenic activity is associated with adverse cardiac remodelling in LRG(-/-) mice. Moreover, LRG gene ablation suppressed the activation of smad1/5/8, a pro-angiogenic signalling pathway. Finally, the transplantation of WT bone marrow cells into LRG(-/-) mice attenuated cardiac fibrosis with functional improvement after MI, accompanied by restoration of capillary density compared with the bone marrow transplantation from LRG(-/-) mice. LRG, produced by heart-infiltrating myeloid cells, suppresses adverse cardiac remodelling after MI as a novel cardioprotective factor."
According to the news editors, the research concluded: "LRG signalling could be a therapeutic target against cardiovascular diseases."


The news editors report that additional information may be obtained by contacting Y. Fujio, Laboratory of Clinical Science and Biomedicine, Graduate School of Pharmacological Sciences, Osaka University, 1-6 Yamada-oka, Suita, Osaka, Japan. Additional authors for this research include H. Nakayama, M. Fujimoto, H. Honda, S. Serada, H. Ishibashi-Ueda, A. Kasai, M. Obana, Y. Sakata, Y. Sawa, Y. Fujio and T. Naka.

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Keywords for this news article include: Asia, Osaka, Japan, Genetics, Cardiology, Bone Marrow, Angiogenesis, Heart Attack, Bone Research, Heart Disease, Immune System, Myeloid Cells, Myocardial Ischemia, Myocardial Infarction, Heart Disorders and Diseases, Vascular Diseases and Conditions.

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**Intranuclear Space**

**Recent Findings from Palacky University Provides New Insights into Intranuclear Space (Chromosomal aberrations in childhood acute lymphoblastic leukemia: 15-year single center experience)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Intranuclear Space have been published. According to news originating from Olomouc, Czech Republic, by NewsRx correspondents, research stated, "Genetic analysis of leukemic cells significantly impacts prognosis and treatment stratification in childhood acute lymphoblastic leukemia (ALL). Our retrospective single center study of 86 children with ALL enrolled into three consecutive treatment protocols (ALL-BFM 90, ALL-BFM 95 and ALL IC-BFM 2002) between 1991 and 2007 demonstrates the importance of conventional cytogenetics and fluorescence in situ hybridization (FISH)."

Financial supporters for this research include Czech Ministry of Health, Czech Ministry of Education, Youth and Sports.

Our news journalists obtained a quote from the research from Palacky University, "Cytogenetic and FISH examinations were performed successfully in 82/86 (95.3%) patients and chromosomal changes were detected in 78 of the 82 (95.1%) patients: in 69/73 patients with B-cell precursor (BCP)-ALL and in 9/9 patients with T-lineage ALL (T-ALL). The most frequent chromosomal changes in subgroups divided according to WHO classification independent of treatment protocol and leukemia subtype were hyperdiploidy in 36 patients (with >= 50 chromosomes in 23 patients, with 47-49 chromosomes 13 patients) followed by translocation t(12;21) with ETV6/RUNX1 fusion detected by FISH in 18 (22%) patients. Additional changes were detected in 16/18 (88.8%) ETV6/RUNX1-positive ALL patients with predominant deletion or rearrangement of untranslocated ETV6 allele. Unique aberrations were
detected in 4 patients and dicentric chromosomes in 8 patients, one with T-ALL."

According to the news editors, the research concluded: "These results demonstrate that cytogenetics and FISH successfully provided important prognostic information and revealed not only recurrent but also new and rare rearrangements requiring further investigation in terms of prognostic significance."


The news correspondents report that additional information may be obtained from M. Jarosova, Palacky Univ, Univ Hosp Olomouc, Fac Med & Dental, Dept. of Hematooncol, Olomouc 77515, Czech Republic. Additional authors for this research include J. Volejnikova, I. Porizkova, M. Holzerova, D. Pospisilova, Z. Novak, J. Vrbkova and V. Mihal.

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Keywords for this news article include: Olomouc, Czech Republic, Europe, Chromosomes, Genetics, Genetics, Cellular Structures, Intracellular Space, Intranuclear Space, Cell Nucleus, Palacky University.

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**Oncology - Colon Cancer**

**Recent Findings from Peking Union Medical College Has Provided New Information about Colon Cancer (Exploration of the Optimal Minimum Lymph Node Count after Colon Cancer Resection for Patients Aged 80 Years and Older)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Colon Cancer are presented in a new report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "The elderly colon cancer (CC) patients are increasing and represent a heterogeneous patient group. The objectives of this study were to identify the features of lymph node examination and to explore the optimal minimum lymph node count after CC resection for patients aged >= 80."

Our news journalists obtained a quote from the research from Peking Union Medical College, "Using the Surveillance, Epidemiology, and End Results (SEER) database, we identified 65719 CC patients in stage I-III between 2004 and 2012, 26.0% of patients were aged >= 80. The median node count decreased with increasing age, which were 25.5, 20.2, 17.8 and 16.9 for patients aged 20-39, 40-59, 60-79, and >= 80. The rate of >= 12 nodes and the rate of node positivity for patients aged >= 80 were obviously lower than younger patients. Using X-tile analysis, we determined 9 nodes as the optimal node count for patients aged >= 80. Then, we compared the 5-year cancer specific survival (CSS) between patients with >= 9 nodes and < 9 nodes. The results showed the 5-year CSSs were improved for patients with >= 9 nodes. Furthermore, the rate of node positivity and survival under the 9-node measure were equal to
According to the news editors, the research concluded: "Therefore, the lymph node examination should be discriminately evaluated for elder patients, and 9-node measure was available for patients aged >= 80."

For more information on this research see: Exploration of the Optimal Minimum Lymph Node Count after Colon Cancer Resection for Patients Aged 80 Years and Older. Scientific Reports, 2016;6():1-8. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)


Keywords for this news article include: Beijing, People's Republic of China, Asia, Hemic and Immune Systems, Cancer, Epidemiology, Lymphoid Tissue, Colon Cancer, Lymph Nodes, Immunology, Oncology, Peking Union Medical College.

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Pharmacokinetics
Recent Findings from People's Liberation Army Has Provided New Information about Pharmacokinetics (Determination of sophoraflavanone G and kurarinone in rat plasma by UHPLC-MS/MS and its application to a pharmacokinetic study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacokinetics. According to news originating from Harbin, People's Republic of China, by NewsRx correspondents, research stated, "This study aimed to develop and validate a simple and sensitive ultra high performance liquid chromatography tandem mass spectrometry method for the simultaneous determination of sophoraflavanone G and kurarinone in rat plasma by using rutin as the internal standard. Then, the developed method was applied to investigate the pharmacokinetics of sophoraflavanone G and kurarinone in rats after dosing the flavonoid extract from Sophora flavescens."

Our news journalists obtained a quote from the research from People's Liberation Army, "Plasma samples were processed using a liquid-liquid extraction procedure with ethyl acetate. The analysis was performed on a triple quadrupole tandem mass spectrometer by multiple reaction monitoring with an electrospray ionization source in negative ionization mode. Quantitative ion transitions of m/z 423.2 -> 161.2, 437.2 -> 161.1, and 609.3 -> 300.3 were monitored for sophoraflavanone G, kurarinone, and rutin, respectively. The calibration curves of the two analytes exhibited good linearity ((r)^2 >0.9923) over the range of 0.1-200 ng/mL for sophoraflavanone G and 0.1-1000 ng/mL for kurarinone. Relative standard deviations were less than 13.2% for the intra-and inter-day precisions and no more than 12.6% for the recovery, showing good precision and satisfactory accuracy of the developed method."

According to the news editors, the research concluded: "The validated method was successfully applied to the pharmacokinetic study of sophoraflavanone G and kurarinone after a single intravenous (25 mg/kg) and oral (500 mg/kg) administration of the flavonoid extract from
S. flavescens, and the absolute bioavailability for sophoraflavanone G and kurarinone was about 36 and 17%, respectively."


The news correspondents report that additional information may be obtained from W.Z. Deng, Peoples Liberat Army, Hosp 211, Harbin 150080, People's Republic of China. Additional authors for this research include W.J. Zhang, X. Li, B.S. Shan, J.J. Liu and W.Z. Deng.

Keywords for this news article include: Harbin, People's Republic of China, Asia, Pharmacokinetics, Pharmaceuticals, People's Liberation Army.

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Oncology - Acute Myeloid Leukemia

Recent Findings from Postgraduate Institute of Medical Education and Research Provide New Insights into Acute Myeloid Leukemia (Immunohistochemical Detection of NPM1 Mutation in Acute Myeloid Leukemia and its Association With Cup-like Nuclear ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Acute Myeloid Leukemia. According to news reporting out of Chandigarh, India, by NewsRx editors, research stated, "Blasts showing cup-like nuclei in acute myeloid leukemia (AML) have been identified in patients with nucleophosmin 1 gene (NPM1) mutation, that is, AML with cytoplasmic NPM (NPMc+ AML). We analyzed 100 consecutive cases of AML, and defined the cutoff percentages of cup-like blasts in peripheral blood and bone marrow aspirate smears that can predict NPMc+ AML."

Our news journalists obtained a quote from the research from the Postgraduate Institute of Medical Education and Research, "A lower cutoff level of (>=)10% blasts in peripheral blood and (>=)9% in bone marrow aspirate gave an excellent specificity for NPMc+ AML and a positive-predictive value of 90.9% and a negative-predictive value of 87.6% for NPMc+ AML. Cup-like nuclei were associated with higher total leukocyte count, higher blasts percentage, AML-M1 subtype, and human leukocyte antigen-DR region negativity."

According to the news editors, the research concluded: "Our results suggest that cup-like nuclei represent an important morphologic clue that can predict NPMc+ AML and guide toward prioritizing the further workup of AML patients."

For more information on this research see: Immunohistochemical Detection of NPM1 Mutation in Acute Myeloid Leukemia and its Association With Cup-like Nuclear Morphology of Blasts. Applied Immunohistochemistry & Molecular Morphology, 2016;24(4):261-7. (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

Our news journalists report that additional information may be obtained by
contacting P. Rastogi, Departments of *Hematology † Internal Medicine, Postgraduate Institute of Medical Education and Research, Chandigarh, India. Additional authors for this research include S. Naseem, N. Varma and S. Varma.

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Keywords for this news article include: Asia, India, Genetics, Oncology, Chandigarh, Hematology, Bone Marrow, Bone Research, Immune System, Acute Myeloid Leukemia.

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Oncology - Breast Cancer

Recent Findings from R. Ocana-Riola and Co-Researchers Yields New Information on Breast Cancer [Geographical and Temporal Variations in Female Breast Cancer Mortality in the Municipalities of Andalusia (Southern Spain)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news originating from Granada, Spain, by NewsRx correspondents, research stated, "The last published figures have shown geographical variations in mortality with respect to female breast cancer in European countries. However, national health policies need a dynamic image of the geographical variations within the country."

Our news journalists obtained a quote from the research, "The aim of this paper was to describe the spatial distribution of age-specific mortality rates from female breast cancer in the municipalities of Andalusia (southern Spain) and to analyze its evolution over time from 1981 to 2012. An ecological study was devised. Two spatio-temporal hierarchical Bayesian models were estimated. One of these was used to estimate the age-specific mortality rate for each municipality, together with its time trends, and the other was used to estimate the age-specific rate ratio compared with Spain as a whole. The results showed that 98% of the municipalities exhibited a decreasing or a flat mortality trend for all the age groups. In 2012, the geographical variability of the age-specific mortality rates was small, especially for population groups below 65. In addition, more than 96.6% of the municipalities showed an age-specific mortality rate similar to the corresponding rate for Spain, and there were no identified significant clusters."

According to the news editors, the research concluded: "This information will contribute towards a reflection on the past, present and future of breast cancer outcomes in Andalusia."


The news correspondents report that additional information may be obtained from R. Ocana-Riola, Inst Invest Biosanitaria Granada, Granada 18012, Spain. Additional authors for this research include C. Montano-Remacha and J.M. Mayoral-Cortes.
Keywords for this news article include: Granada, Spain, Europe, Women's Health, Breast Cancer, Oncology.

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Oncology - Breast Cancer

Recent Findings from San Raffaele Scientific Institute Provide New Insights into Breast Cancer (Effects of the scaffold proteins liprin-a1, b1 and b2 on invasion by breast cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news originating from Milano, Italy, by NewsRx correspondents, research stated, "The expression of the scaffold protein liprin-a1 is upregulated in human breast cancer. This protein is part of a molecular network that is important for tumor cell invasion in vitro."

Funders for this research include AIRC (Italian Association for Cancer Research), Italian Ministry for Research.

Our news journalists obtained a quote from the research from San Raffaele Scientific Institute, "Liprin-a1 promotes invasion by supporting the protrusive activity at the leading edge of the migrating tumor cell and the degradation of the extracellular matrix by invadopodia. In this study, we have addressed the role of liprin-a1 in the invasive process in vivo and of liprin-proteins in tumor cell motility. The human tumor cell line MDA-MB-231 expresses liprin-a1 and is able to promote the formation of metastasis in mice. Liprin-a proteins may hetero-oligomerize with the members of the subfamily of the liprin-b adaptor proteins. Analysis of the role of liprin-b1 and liprin-b2 has shown that while liprin-b1 contributes positively to tumor cell motility in vitro; liprin-b2 has a negative effect on both cell motility and invasion. Interestingly, we also observed differential effects on the ability of tumor cells to degrade the extracellular matrix, which is required for efficient invasion by tumor cells. In addition, analysis of the formation of lung metastases in vivo revealed that while the overexpression of liprin-a1 in MDA-MB-231 cells did not evidently affect the metastatic process, silencing of the endogenous protein strongly impaired the formation of metastases by two independent invasion assays, without inhibiting the growth of primary tumours. Our data support an important role of distinct liprin family members in the regulation of tumor cell invasion, highlighting pro-invasive and anti-invasive effects by liprin-a1 and liprin-b2, respectively."

According to the news editors, the research concluded: "Our results indicate the importance of liprins in breast cancer cell invasion, and are expected to lead to future investigations on the mechanisms underlying the effects of distinct liprin proteins in different processes linked to tumor cell migration and invasion."


The news correspondents report that additional information may be obtained from S. Chiaretti, Division of Neuroscience, Cell Adhesion Laboratory, San Raffaele Scientific Institute, Milano, 20132, Italy. Additional authors for this research include V. Astro, E. Chiricozzi and I. de Curtis.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/boc.201500063. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Milano, Europe, Oncology, Peptides, Proteins, Amino Acids, Breast Cancer, Cell Motility, Women's Health.

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Oncology - Breast Cancer

Recent Findings from School of Medicine Provide New Insights into Breast Cancer (BRCA1 inhibits AR-mediated proliferation of breast cancer cells through the activation of SIRT1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating in Nanjing, People's Republic of China, by NewsRx journalists, research stated, "Breast cancer susceptibility gene 1 (BRCA1) is a tumor suppressor protein that functions to maintain genomic stability through critical roles in DNA repair, cell-cycle arrest, and transcriptional control. The androgen receptor (AR) is expressed in more than 70% of breast cancers and has been implicated in breast cancer pathogenesis."

The news reporters obtained a quote from the research from the School of Medicine, "However, little is known about the role of BRCA1 in AR-mediated cell proliferation in human breast cancer. Here, we report that a high expression of AR in breast cancer patients was associated with shorter overall survival (OS) using a tissue microarray with 149 non-metastatic breast cancer patient samples. We reveal that overexpression of BRCA1 significantly inhibited expression of AR through activation of SIRT1 in breast cancer cells. Meanwhile, SIRT1 induction or treatment with a SIRT1 agonist, resveratrol, inhibits AR-stimulated proliferation. Importantly, this mechanism is manifested in breast cancer patient samples and TCGA database, which showed that low SIRT1 gene expression in tumor tissues compared with normal adjacent tissues predicts poor prognosis in patients with breast cancer."

According to the news reporters, the research concluded: "Taken together, our findings suggest that BRCA1 attenuates AR-stimulated proliferation of breast cancer cells via SIRT1 mediated pathway."

For more information on this research see: BRCA1 inhibits AR-mediated proliferation of breast cancer cells through the activation of SIRT1. Scientific Reports, 2016;6 ():22034. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting W. Zhang, Dept. of Medical Oncology, Jinling Hospital, Medical School of Nanjing University, Nanjing 210002, People's Republic of China. Additional authors for this research include J. Luo, F. Yang, Y. Wang, Y. Yin, A. Strom, J.A. Gustafsson and X. Guan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep22034. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nanjing, Genetics, Oncology, Breast Cancer, Women's Health, People's Republic of China.
Recent Findings from School of Medicine Provides New Insights into Health and Society (Geographical disparities in access to cancer management and treatment services in England)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Health and Society. According to news originating from Norwich, United Kingdom, by NewsRx correspondents, research stated, "This study seeks to examine the extent to which cancer services are geographically located according to cancer incidence, and assess the association with cancer survival. We identified hospital sites serving English PCTs (Primary Care Trusts) with the management and treatment of breast, lung and colorectal cancer."

Our news journalists obtained a quote from the research from the School of Medicine, "Geographical access was estimated as travel time in minutes from LSOAs (Lower Super Output Areas) to the nearest hospital site and aggregated to PCT level. Correlations between PCT level mean travel times and cancer cases were estimated using Spearman's rank correlation. Associations between PCT level mean travel times and cancer relative survival rates were estimated using linear regression with adjustment for area deprivation and for a PCT level measure of the reported ease of obtaining a doctor's appointment. We found that cancer services tended to be located farther from areas with more cancer cases, and longer average travel times are associated with worse survival after adjustment for age, sex, year and area deprivation."

According to the news editors, the research concluded: "This suggests that geographical access to cancer services remains a concern in England."


The news correspondents report that additional information may be obtained from P. Murage, Univ East Anglia, Norwich Med Sch, Norwich, Norfolk, United Kingdom. Additional authors for this research include S.M. Crawford, M. Bachmann and A. Jones.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.healthplace.2016.08.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Norwich, United Kingdom, Europe, Health and Society, Health and Medicine, Hospital, Oncology, Cancer, School of Medicine.

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Skin Diseases and Conditions - Acne Vulgaris

Recent Findings from Seoul National University Provides New Insights into Acne Vulgaris (Recent progress in the research about Propionibacterium acnes strain diversity and acne: pathogen or bystander?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Skin Diseases and Conditions - Acne Vulgaris is the subject of a report. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Recent progress has steadily reported the existence of the diverse strains of Propionibacterium acnes, and these studies have contributed to the elucidation of their contradictory roles between normal commensals and pathogens. In this review, the authors aim to provide an update on the recent understanding of research about P. acnes strain diversity and acne, analyzing the potential implications for clinical applications."

Our news journalists obtained a quote from the research from Seoul National University, "Before the era of genomic research, P. acnes was known to be distinguished based on serological agglutination tests, cell wall sugar analysis, or fermentation traits. Since the complete genome sequence of P. acnes was first deciphered, genetic studies based on sequence data have expanded with the introduction of more refined and precise DNA-based typing methods, including multilocus sequence typing and metagenomics. These sophisticated techniques have revealed that P. acnes consists of phylogenetically distinct cluster groups with various pathogenic traits, including elicitation of inflammation, protein secretome profile, and unique distribution patterns in various skin loci. In following large-scale studies from patients' acne samples have revealed that specific sequence types are included within the phylogenetic divisions and further suggested that particular P. acnes strains play an etiologic role in acne while others are associated with health, providing a firm platform for evidential-based research into the exact role of this organism in acne."

According to the news editors, the research concluded: "We strongly believe that future research would provide fruitful results in not only clarifying the apparent controversy with respect to roles of P. acnes but also developing therapeutic drugs by pinpointing specific targets of the pathogenic strain only."


Our news journalists report that additional information may be obtained by contacting D.H. Suh, Seoul National University, Coll Med, Dept. of Dermatol, Seoul 110744, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijd.13282. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Propionibacterium, Article Review, Gram-Positive Asporogenous Rods, Skin Diseases and Conditions, Propionibacterium acnes, Gram-Positive Bacteria, Propionibacteriacea, Gram-
Recent Findings from Shanghai Jiao-Tong University Provide New Insights into Thrombocytopenia (Interleukin-17-producing CD4+ T lymphocytes are increased in patients with primary immune thrombocytopenia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematologic Diseases and Conditions - Thrombocytopenia are discussed in a new report. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "The present study was performed to investigate the role of interleukin-17-producing CD4-positive T cells in the pathogenesis of primary immune thrombocytopenia (ITP). Peripheral blood was collected from ITP patients and healthy controls."

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "The immunophenotyping of T lymphocytes and the detection of T helper 1/2/17 (Th1/Th2/Th17) cells were performed by flow cytometry, Th1/Th2/Th17-associated cytokines were determined by cytokines microarray and ELISA. The association between Th17 and T regulatory cells (Tregs) was also investigated. The percentage of Th17 and Th1 cells were markedly increased in ITP patients especially in those with severe ITP compared with normal controls. Th17 cytokines microarray revealed the upregulation of proinflammatory cytokines and downregulation of inflammatory inhibitory cytokines in ITP patients compared with that in the normal controls. Further ELISA analysis verified high levels of Th17-associated proinflammatory cytokines such as interleukin-17A/F, interleukin-6 and interleukin-23 and low levels of inflammatory inhibitory factors including interleukin-10 and transforming growth factor-b in ITP patients compared with normal controls. We also observed that the ratio of Th17/Treg was significantly higher in severe ITP than that in mild ITP and normal controls and inversely correlated with platelet count. In addition, Tregs from ITP patients could suppress the secretion of interferon-g by effector CD4-positive T cells, but had no effect on interleukin-17 production in vitro."

According to the news editors, the research concluded: "Th17 cells are increased in ITP patients, and the inversion of Th17/Treg may contribute to the activation of autoimmunity."

For more information on this research see: Interleukin-17-producing CD4+ T lymphocytes are increased in patients with primary immune thrombocytopenia. Blood Coagulation & Fibrinolysis, 2016;27(3):301-7. (Lippincott Williams and Wilkins - www.lww.com; Blood Coagulation & Fibrinolysis - journals.lww.com/bloodcoagulation/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting L. Zhou, Shanghai Jiaotong University Affiliated Sixth People's Hospital, Shanghai, People's Republic of China. Additional authors for this research include F. Xu, C. Chang, Y. Tao, L. Song and X. Li.

The direct object identifier (DOI) for that additional information is:
Recent Findings from Shanghai Jiao-Tong University School of Medicine Has Provided New Data on Breast Cancer (Structural simulation of adenosine phosphate via plumbagin and zoledronic acid competitively targets JNK/Erk to synergistically ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "The treatment of breast cancer-induced osteolysis remains a challenge in clinical settings. Here, we explored the effect and mechanism of combined treatment with zoledronic acid (ZA) and plumbagin (PL), a widely investigated component derived from Plumbago zeylanica, against breast cancer-induced osteoclastogenesis."

The news correspondents obtained a quote from the research from the Shanghai Jiao-Tong University School of Medicine, "We found that the combined treatment with PL and ZA suppressed cell viability of precursor osteoclasts and synergistically inhibited MDA-MB-231-induced osteoclast formation (combination index=0.28) with the abrogation of recombinant mouse receptor activator of nuclear factor-kB ligand (RANKL)-induced activation of NF-kB/MAPK (nuclear factor-kB/mitogen-activated protein kinase) pathways. Molecular docking suggested a putative binding area within c-Jun N-terminal kinase/extracellular signal-regulated kinase (JNK/Erk) protease active sites through the structural mimicking of adenosine phosphate (ANP) by the spatial combination of PL with ZA. A homogeneous time-resolved fluorescence assay further illustrated the direct competitiveness of the dual drugs against ANP docking to phosphorylated JNK/Erk, contributing to the inhibited downstream expression of c-Jun/c-Fos/NFATc-1 (nuclear factor of activated T cells, cytoplasmic, calcineurin-dependent 1). Then, in vivo testing demonstrated that the combined administration of PL and ZA attenuated breast cancer growth in the bone microenvironment. Additionally, these molecules prevented the destruction of proximal tibia, with significant reduction of tartrate-resistant acid phosphatase (TRAcP)-positive osteoclast cells and potentiation of apoptotic cancer cells, to a greater extent when combined than when the drugs were applied independently."

According to the news reporters, the research concluded: "Altogether, the combination treatment with PL and ZA could significantly and synergistically suppress osteoclastogenesis and inhibit tumorigenesis both in vitro and in vivo by simulating the spatial structure of ANP to inhibit competitively phosphorylation of c-Jun N-terminal kinase/extracellular signal-regulated kinase (JNK/Erk)."

For more information on this research see: Structural simulation of adenosine phosphate via plumbagin and zoledronic acid competitively targets JNK/Erk to synergistically

Our news journalists report that additional information may be obtained by contacting H. Qiao, Shanghai Key Laboratory of Orthopaedic Implants, Dept. of Orthopaedic Surgery, Shanghai Ninth People's Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai, People's Republic of China. Additional authors for this research include T.Y. Wang, Z.F. Yu, X.G. Han, X.Q. Liu, Y.G. Wang, Q.M. Fan, A. Qin and T.T Tang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2016.11. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antiarrhythmic Agents, Pharmaceuticals, Anions, Kinase, Shanghai, Hormones, Oncology, Phosphates, Macrophages, Osteoclasts, Breast Cancer, Women's Health, Bisphosphonates, Zoledronic Acid, Phosphoric Acids, Adenosine Therapy, Radiologic Agents, Drugs and Therapies, Radiologic Adjuncts, Cardiovascular Agents.

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**Proteins - Carrier Proteins**

**Recent Findings from ShanghaiTech University Provides New Insights into Carrier Proteins (Unusual Processing Generates SPA LncRNAs that Sequester Multiple RNA Binding Proteins)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Proteins - Carrier Proteins have been published. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "We identify a type of polycistronic transcript-derived long noncoding RNAs (lncRNAs) that are 50 small nucleolar RNA (snoRNA) capped and 30 polyadenylated (SPAs). SPA processing is associated with nascent mRNA 30 processing and kinetic competition between XRN2 trimming and Pol II elongation."

Funders for this research include MOST, NSFC.

The news reporters obtained a quote from the research from ShanghaiTech University, "Following cleavage/polyadenylation of its upstream gene, the downstream uncapped pre-SPA is trimmed by XRN2 until this exonuclease reaches the co-transcriptionally assembled snoRNP. This snoRNP complex prevents further degradation, generates a snoRNA 50 end, and allows continuous Pol II elongation. The imprinted 15q11-q13 encodes two SPAs that are deleted in Prader-Willi syndrome (PWS) patients. These lncRNAs form a nuclear accumulation that is enriched in RNA binding proteins (RBPs) including TDP43, RBFOX2, and hnRNP M. Generation of a human PWS cellular model by depleting these lncRNAs results in altered patterns of RBPs binding and alternative splicing."

According to the news reporters, the research concluded: "Together, these results expand the diversity of lncRNAs and provide additional insights into PWS pathogenesis."

For more information on this research see: Unusual Processing Generates SPA LncRNAs that Sequester Multiple RNA Binding Proteins. *Molecular Cell*, 2016;64(3):534-548. *Molecular Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell -
Enzymes and Coenzymes

Recent Findings from Showa Pharmaceutical University Provides New Insights into Enzymes and Coenzymes (Utility of non-human primates in drug development: Comparison of non-human primate and human drug-metabolizing cytochrome P450 enzymes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Enzymes and Coenzymes is now available. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Cynomolgus monkeys (Macaca fascicularis, an Old World Monkey) have been widely used as a non-human primate model in preclinical studies because of their genetic and physiological similarity to humans. This trend has been followed by common marmoset (Callithrix jacchus, a New World Monkey)."


The news correspondents obtained a quote from the research from Showa Pharmaceutical University, "However, drug -metabolism properties in these non -human primates have not been fully understood due to limited information on cytochrome P450 (P450) enzymes, major drug -metabolizing enzymes in humans. Multiple forms of cynomolgus monkey P450 enzymes have been identified and characterized in comparison to those of humans, including a cynomolgus monkey specific form, P450 2C76. Similarly, marmoset P450 1A/B, 2A, 2C, 2D, and 4F enzymes were recently identified and characterized to understand drug metabolism properties. In this research update, updates for marmoset, cynomolgus monkey, and human P450 cDNAs are provided. Marmoset and cynomolgus monkey P450 enzymes showed high sequence homology to their human counterparts and generally had similar substrate recognition functionality to human P450 enzymes; however, they also possibly contribute to limited specific differences in drug oxidative metabolism partly due to small differences in amino acid residues. These findings provide a foundation for successful use of non -human primates as preclinical models and will help to further understand molecular mechanisms of human P450 function."

According to the news reporters, the research concluded: "In addition to the P450 enzymes, flavin-containing monooxygenases, another monooxygenase family, in these non-
Human primates have been found to be involved in the oxidation of a variety of compounds associated with pharmacological and/or toxicological effects in humans and are also described.


Our news journalists report that additional information may be obtained by contacting H. Yamazaki, Showa Pharmaceutical University, Machida, Tokyo 1948543, Japan. Additional authors for this research include S. Uehara and H. Yamazaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bcp.2016.06.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Proteins, Drugs and Therapies, Enzymes and Coenzymes, Hemeproteins, Cytochromes, Showa Pharmaceutical University.

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Recent Findings from Sir Ganga Ram Hospital Provides New Insights into Heart Surgery (Parachute Tricuspid Valve: A Case Treated by Open Heart Surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Surgery - Heart Surgery. According to news reporting out of New Delhi, India, by NewsRx editors, research stated, "Parachute valve is the malformation of an atrioventricular valve in which the tension apparatus springs from a single papillary muscle or group of muscles."

Our news journalists obtained a quote from the research from Sir Ganga Ram Hospital, "Parachute tricuspid valve is a rare anomaly with no surgically repaired case to date. We describe a case of parachute deformity of the tricuspid valve leading to hemodynamically significant severe tricuspid stenosis."

According to the news editors, the research concluded: "The present case was successfully repaired surgically along with atrial septal defect (ASD) and ventricular septal defect (VSD) closure."


Our news journalists report that additional information may be obtained by contacting A. Gupta, Sir Ganga Ram Hosp, Dept. of Paediat Cardiac Sci, New Delhi, India. Additional authors for this research include R. Kalra, R.K. Joshi, N. Aggarwal, M. Aggarwal, R. Pandey and R. Joshi.
Brachytherapy

Recent Findings from Soochow University Has Provided New Information about Brachytherapy [CT-guided implantation of I-125 seeds (permanent brachytherapy) for metastatic tumors of the hepatic portal system: Effectiveness and safety in 13 patients]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Brachytherapy is now available. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "To retrospectively evaluate the efficacy and safety of CT-guided implantation of I-125 seeds (permanent brachytherapy) for metastatic tumors of the hepatic portal system (HPS). Between January 2012 and January 2015, 13 patients with metastases measuring >3.0 cm in short-axis diameter, which remained in the HPS after conventional chemotherapy and/or transcatheter arterial chemoembolization, and for which an effective therapeutic dose from external beam radiotherapy could not be delivered, received CT-guided I-125 brachytherapy."

Our news journalists obtained a quote from the research from Soochow University, "Clinical data were studied retrospectively. In terms of metrological requirements, the minimum dose to 90% of the target volume (D-90) was 90-160 Gy for I-125 seeds with activity of 2.96 x 10(7)Bq. CT-based evaluation after 2, 4, and 8 weeks, as well as 6 months after implantation enabled review of local control of tumors. All symptoms were improved after 125I brachytherapy. The mean value for D-90 for implantation of I-125 seeds was 136 Gy. Complete response (CR) partial response (PR) was documented in 61.5%, 69.2%, and 84.6% of patients at 2 weeks, 4 weeks, and 6 months after implantation, respectively. Four of 13 patients had complete response, 7 cases had PR, 1 patient had stable disease, and 1 case had progressive disease. All metastatic foci were controlled by implantation. No serious complications were observed. CT-guided I-125 brachytherapy is a safe and effective treatment for metastatic tumors of the HPS and can achieve good local control in the short term as long as the radiation dose is sufficient."

According to the news editors, the research concluded: "CT-guided I-125 brachytherapy carries few complications, is simple, safe, and a good complement to cancer treatment."


Our news journalists report that additional information may be obtained by contacting X.L. Zhu, Soochow Univ, Affiliated Hosp 1, Dept. of Intervent Radiol, Suzhou, Jiangsu, People's Republic of China. Additional authors for this research include Q.G. Xie, W.G. Wang, Y.Y. Hua, Y. Cheng, L. Li and X.L. Zhu.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia,
Recent Findings from Soochow University Provides New Insights into Chalcogens (TaOx decorated perfluorocarbon nanodroplets as oxygen reservoirs to overcome tumor hypoxia and enhance cancer radiotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Chalcogens have been published. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Cancer radiotherapy (RT) is a clinically used tumor treatment strategy applicable for a wide range of solid tumors. However, during RT treatment of tumors, only a small portion of applied ionizing irradiation energy is absorbed by the tumor, in which the largely hypoxic microenvironment also limits the antitumor efficacy of RT."

Financial supporters for this research include National Research Programs from Ministry of Science and Technology (MOST), National Natural Science Foundation of China, Natural Science Fund for Distinguished Young Scholars, Jiangsu Higher Education Institutions.

Our news journalists obtained a quote from the research from Soochow University, "In this work, we rationally fabricate polyethylene glycol (PEG) stabilized perfluorocarbon (PFC) nano-droplets decorated with TaOx nanoparticles (TaOx@PFC-PEG) as a multifunctional RT sensitizer. The obtained TaOx@PFC-PEG nanoparticles on one hand can absorb X-ray by TaOx to concentrate radiation energy within tumor cells, on the other hand after saturating PFC with oxygen will act as an oxygen reservoir to gradually release oxygen and improve tumor oxygenation. As the result, remarkably enhanced in vivo RT treatment is achieved with TaOx@PFC-PEG nanoparticles in our mouse tumor model experiments."

According to the news editors, the research concluded: "Our work thus presents a new nanotechnology strategy to enhance RT-induced tumor treatment by simultaneously concentrating radiation energy within tumors and improving tumor oxygenation, using one multifunctional agent."

For more information on this research see: TaOx decorated perfluorocarbon nanodroplets as oxygen reservoirs to overcome tumor hypoxia and enhance cancer radiotherapy. Biomaterials, 2017;112():257-263. Biomaterials can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.10.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Emerging Technologies, Nanotechnology, Radiotherapy, Nanoparticle, Chalcogens,
Drugs and Therapies - Antiinfectives

Recent Findings from Southern University of Chile Provides New Insights into Antiinfectives (Pentamidine antagonizes the benznidazole's effect in vitro, and lacks of synergy in vivo: Implications about the polyamine transport as an ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antiinfectives have been presented. According to news reporting originating from Valdivia, Chile, by NewsRx correspondents, research stated, "Benznidazole is the first-line drug used in treating Chagas disease, which is caused by the parasite Trypanosoma cruzi (T. cruzi). However, benznidazole has limited efficacy and several adverse reactions."

Our news editors obtained a quote from the research from the Southern University of Chile, "Pentamidine is an antiprotozoal drug used in the treatment of leishmaniasis and African trypanosomiasis. In T. cruzi, pentamidine blocks the transport of putrescine, a precursor of trypanothione, which constitutes an essential molecule in the resistance of T. cruzi to benznidazole. In the present study, we describe the effect of the combination of benznidazole and pentamidine on isolated parasites, mammalian cells and in mice infected with T. cruzi. In isolated trypomastigotes, we performed a dose matrix scheme of combinations, where pentamidine antagonized the effect of benznidazole, mainly at concentrations below the EC50 of pentamidine. In T. cruzi-infected mammalian cells, pentamidine reversed the effect of benznidazole (measured by qPCR). In comparison, in infected BALB/c mice, pentamidine failed to get synergy with benznidazole, measured on mice survival, parasitemia and amastigote nest quantification. To further explain the in vitro antagonism, we explored whether pentamidine affects intracellular trypanothione levels, however, pentamidine produced no change in trypanothione concentrations. Finally, the T cruzi polyamine permease (TcPAT12) was overexpressed in epimastigotes, showing that pentamidine has the same trypanocidal effect, independently of transporter expression levels."

According to the news editors, the research concluded: "These results suggest that, in spite of the high potency in the putrescine transport blockade, TcPAT12 permease is not the main target of pentamidine, and could explain the lack of synergism between pentamidine and benznidazole."

For more information on this research see: Pentamidine antagonizes the benznidazole's effect in vitro, and lacks of synergy in vivo: Implications about the polyamine transport as an anti-Trypanosoma cruzi target. Experimental Parasitology, 2016;171():23-32. Experimental Parasitology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Experimental Parasitology - www.journals.elsevier.com/experimental-parasitology/)

The news editors report that additional information may be obtained by contacting R. Lopez-Munoz, Univ Austral Chile, Fac Ciencias Vet, Inst Farmacol & Morfofisiol, Valdivia, Chile. Additional authors for this research include L. Castro, C. Reigada, L. Cortes, M.V. Diaz, M.R. Miranda, C.A. Pereira, M. Lapier, C. Campos-Estrada, A. Morello, U. Kemmerling, J.D.
Recent Findings from Sun Yat Sen University Provides New Insights into Nasopharyngeal Carcinoma (Induction chemotherapy plus concurrent chemoradiotherapy versus concurrent chemoradiotherapy alone in locoregionally advanced nasopharyngeal ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Nasopharyngeal Carcinoma have been presented. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "The value of adding cisplatin, fluorouracil, and docetaxel (TPF) induction chemotherapy to concurrent chemoradiotherapy in locoregionally advanced nasopharyngeal carcinoma is unclear. We aimed to compare TPF induction chemotherapy plus concurrent chemoradiotherapy with concurrent chemoradiotherapy alone in a suitably powered trial."

Our news editors obtained a quote from the research from Sun Yat Sen University, "We did an open-label, phase 3, multicentre, randomised controlled trial at ten institutions in China. Patients with previously untreated, stage II-IVB (except T3-4N0) nasopharyngeal carcinomas, aged 18-59 years without severe comorbidities were enrolled. Eligible patients were randomly assigned (1:1) to receive induction chemotherapy plus concurrent chemoradiotherapy or concurrent chemoradiotherapy alone (three cycles of 100 mg/m(2) cisplatin every 3 weeks, concurrently with intensity-modulated radiotherapy). Induction chemotherapy was three cycles of intravenous docetaxel (60 mg/m(2) on day 1), intravenous cisplatin (60 mg/m(2) on day 1), and continuous intravenous fluorouracil (600 mg/m(2) per day from day 1 to day 5) every 3 weeks before concurrent chemoradiotherapy. Randomisation was by a computer-generated random number code with a block size of four, stratified by treatment centre and disease stage (III or IV). Treatment allocation was not masked. The primary endpoint was failure-free survival calculated from randomisation to locoregional failure, distant failure, or death from any cause; required sample size was 476 patients (238 per group). We did efficacy analyses in our intention-to-treat population. The follow-up is ongoing; in this report, we present the 3-year survival results and adverse effects. This trial is registered with ClinicalTrials.gov, number NCT01245959. Between March 1, 2011, and Aug 22, 2013, 241 patients were assigned to induction chemotherapy plus concurrent chemoradiotherapy and 239 to concurrent chemoradiotherapy alone. After a median follow-up of 45 months (IQR 38-49), 3-year failure-free survival was 80% (95% CI 75-85) in the induction chemotherapy plus concurrent chemoradiotherapy group and 72% (66-78) in the concurrent chemoradiotherapy alone group (hazard ratio 0.68, 95% CI 0.48-0.97; p=0.034). The most common grade 3 or 4 adverse events during treatment in the 239 patients in the induction chemotherapy plus concurrent chemoradiotherapy group versus the 238 patients in concurrent chemoradiotherapy alone group were neutropenia (101 [42%] vs 17 [7%]), leucopenia (98 [41%] vs 41 [17%]), and stomatitis (98 [41%] vs 84 [35%]). Addition of TPF induction chemotherapy to concurrent..."
chemoradiotherapy significantly improved failure-free survival in locoregionally advanced nasopharyngeal carcinoma with acceptable toxicity."

According to the news editors, the research concluded: "Long-term follow-up is required to determine long-term efficacy and toxicities."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045%2816%2930410-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Clinical Trials and Studies, Nasopharyngeal Carcinoma, Drugs and Therapies, Clinical Research, Chemotherapy, Carcinomas, Oncology, Sun Yat Sen University.

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Neuropathy

Recent Findings from Taipei Medical University Advance Knowledge in Neuropathy (Melatonin relieves neuropathic allodynia through spinal MT2-enhanced PP2Ac and downstream HDAC4 shuttling-dependent epigenetic modification of hmgb1 transcription)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neuropathy. According to news originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Melatonin (MLT; N-acetyl-5-methoxytryptamine) exhibits analgesic properties in chronic pain conditions. While researches linking MLT to epigenetic mechanisms have grown exponentially over recent years, very few studies have investigated the contribution of MLT-associated epigenetic modification to pain states."

Financial supporters for this research include National Science Council, Mackay Memorial Hospital, Department of Medicine, Mackay Medical College, Taipei Medical University, Saint Paul's Hospital.

Our news journalists obtained a quote from the research from Taipei Medical University, "Here, we report that together with behavioral allodynia, spinal nerve ligation (SNL) induced a decrease in the expression of catalytic subunit of phosphatase 2A (PP2Ac) and enhanced histone deacetylase 4 (HDAC4) phosphorylation and cytoplasmic accumulation, which epigenetically alleviated HDAC4-suppressed hmgb1 gene transcription, resulting in
increased high-mobility group protein B1 (HMGB1) expression selectively in the ipsilateral dorsal horn of rats. Focal knock-down of spinal PP2Ac expression also resulted in behavioral allodynia in association with similar protein expression as observed with SNL. Notably, intrathecal administration with MLT increased PP2Ac expression, HDAC4 dephosphorylation and nuclear accumulation, restored HDAC4-mediated hmgb1 suppression and relieved SNL-sensitized behavioral pain; these effects were all inhibited by spinal injection of 4P-PDOT (a MT2 receptor antagonist, 30 minutes before MLT) and okadaic acid (OA, a PP2A inhibitor, 3 hr after MLT). Our findings demonstrate a novel mechanism by which MLT ameliorates neuropathic allodynia via epigenetic modification.

According to the news editors, the research concluded: "This MLT-exhibited anti-allodynia is mediated by MT2-enhanced PP2Ac expression that couples PP2Ac with HDAC4 to induce HDAC4 dephosphorylation and nuclear import, herein increases HDAC4 binding to the promoter of hmgb1 gene and upregulates HMGB1 expression in dorsal horn neurons."


The news correspondents report that additional information may be obtained from T.B. Lin, Dept. of Physiology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan. Additional authors for this research include M.C. Hsieh, C.Y. Lai, J.K. Cheng, H.H. Wang, Y.P. Chau, G.D. Chen and H.Y Peng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jpi.12307. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taipei, Taiwan, Genetics, Hormones, Melatonin, Neuropathy.

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Science - Neurological Science

Recent Findings from Tel Aviv University Has Provided New Information about Neurological Science (Malformations of Cortical Development: From Postnatal to Fetal Imaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science - Neurological Science. According to news reporting out of Tel Aviv, Israel, by NewsRx editors, research stated, "Abnormal fetal corticogenesis results in malformations of cortical development (MCD). Abnormal cell proliferation leads to microcephaly or megalencephaly, incomplete neuronal migration results in heterotopia and lissencephaly, neuronal overmigration manifests as cobblestone malformations, and anomalous postmigrational cortical organization is responsible for polymicrogyria and focal cortical dysplasias."

Our news journalists obtained a quote from the research from Tel Aviv University, "MCD comprises various congenital brain disorders, caused by different genetic, infectious, or vascular etiologies and is associated with significant neurological morbidity. Although MCD are
rarely diagnosed prenatally, both dedicated multiplanar neurosonography and magnetic resonance imaging enable good demonstration of fetal cortical development. The imaging signs of fetal MCD are: delayed or absent cerebral sulcation; premature abnormal sulci; thin and irregular hemispheric parenchyma; wide abnormal overdeveloped gyri; wide opening of isolated sulci; nodular bulging into the lateral ventricles; cortical clefts; intraparenchymal echogenic nodules; and cortical thickening."

According to the news editors, the research concluded: "The postnatal and prenatal imaging features of four main malformations of cortical development: lissencephaly, cobblestone malformations, periventricular nodular heterotopia, and polymicrogyria are described."

For more information on this research see: Malformations of Cortical Development: From Postnatal to Fetal Imaging. *Canadian Journal of Neurological Sciences*, 2016;43(5):611-618. *Canadian Journal of Neurological Sciences* can be contacted at: Cambridge Univ Press, 32 Avenue Of The Americas, New York, NY 10013-2473, USA.

Our news journalists report that additional information may be obtained by contacting T. Lerman-Sagie, Tel Aviv University, Sackler Fac Med, Tel Aviv, Israel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/cjn.2016.271. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tel Aviv, Israel, Asia, Neurological Science, Science, Genetics, Article Review, Tel Aviv University.

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**Oncology - Prostate Cancer**

**Recent Findings from Temple University Advance Knowledge in Prostate Cancer (The role of radical prostatectomy in high-risk localized, node-positive and metastatic prostate cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "A lack of quality evidence comparing management strategies confounds complex treatment decisions for patients with high-risk prostate cancers. No randomized trial comparing surgery to radiation has been successfully completed."

Our news editors obtained a quote from the research from Temple University, "Despite inherent selection biases, however, observational and registry data suggest improved outcomes for patients initially managed with prostatectomy. As consensus shifts away from aggressive treatment for low-risk disease and toward multimodal treatment of locally advanced and metastatic disease, there is renewed interest in surgery for local control in patients presenting with high-risk localized, node-positive and minimally metastatic disease."

According to the news editors, the research concluded: "The objective of this review is to examine the evidence evaluating clinical outcomes of patients with high-risk clinically localized, node-positive and metastatic prostate cancer treated with radical prostatectomy."

Recent Findings from Tokyo Medical and Dental University Provides New Insights into Gastric Cancer (Postoperative Complications of Laparoscopic Total Gastrectomy versus Open Total Gastrectomy for Gastric Cancer in a Meta-Analysis of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Some meta-analyses of case-controlled studies (CCSs) have shown that laparoscopic or laparoscopy-assisted total gastrectomy (LTG) had some short-term advantages over open total gastrectomy (OTG). However, postoperative complications differed somewhat among the meta-analyses, and some CCSs included in the meta-analyses had mismatched factors between LTG and OTG."

Our news editors obtained a quote from the research from Tokyo Medical and Dental University, "CCSs comparing postoperative complications between LTG and OTG were identified in PubMed and Embase. Studies matched for patients' status, tumor stage, and the extents of lymph-node dissection were included. Outcomes of interest, such as anastomotic, other intra-abdominal, wound, and pulmonary complications, were evaluated in a meta-analysis performed using ReviewManager version 5.3 software. This meta-analysis included a total of 2,560 patients (LTG, 1,073 patients; OTG, 1,487 patients) from 15 CCSs. Wound complications were significantly less frequent in LTG than in OTG (n = 2,430; odds ratio [OR] 0.30, 95% confidence interval [CI] 0.29-0.85, P = 0.01, I-2 = 0%, and OR 0.46, 95% CI 0.17-0.52, P<0.0001, I-2 = 0%). However, the incidence of anastomotic complications was slightly but not significantly higher in LTG than in OTG (n = 2,560; OR 1.44, 95% CI 0.96-2.16, P = 0.08, I-2 = 0%)."

According to the news editors, the research concluded: "LTG was associated with a lower incidence of wound-related postoperative complications than was OTG in this meta-analysis of CCSs; however, some concern remains about anastomotic problems associated with LTG."

For more information on this research see: Postoperative Complications of Laparoscopic Total Gastrectomy versus Open Total Gastrectomy for Gastric Cancer in a Meta-
Heart Disorders and Diseases - Heart Attack

Recent Findings from Tufts University Has Provided New Information about Heart Attack (The Evolving Paradigm Of Individualized Postresuscitation Care After Cardiac Arrest)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "The postresuscitation period after a cardiac arrest is characterized by a wide range of physiological derangements."

The news correspondents obtained a quote from the research from Tufts University, "Variations between patients include preexisting medical problems, the underlying cause of the cardiac arrest, presence or absence of hemodynamic and circulatory instability, severity of the ischemia-reperfusion injury, and resuscitation-related injuries such as pulmonary aspiration and rib or sternal fractures. Although protocols can be applied to many elements of postresuscitation care, the widely disparate clinical condition of cardiac arrest survivors requires an individualized approach that stratifies patients according to their clinical profile and targets specific treatments to patients most likely to benefit."

According to the news reporters, the research concluded: "This article describes such an individualized approach, provides a practical framework for evaluation and triage at the bedside, and reviews concerns specific to all members of the interprofessional postresuscitation care team."

For more information on this research see: The Evolving Paradigm Of Individualized Postresuscitation Care After Cardiac Arrest. American Journal of Critical Care, 2016;25(6):556-564. American Journal of Critical Care can be contacted at: Amer Assoc Critical Care Nurses, 101 Columbia, Aliso Viejo, CA 92656, USA.

Our news journalists report that additional information may be obtained by contacting D.B. Seder, Tufts University, Sch Med, Med, Boston, MA 02111, United States.
Additional authors for this research include C. Lord and D.J. Gagnon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4037/ajcc2016496. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Heart Disorders and Diseases, Article Review, Cardiac Arrest, Heart Attack, Cardiology, Tufts University.

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**Oncology - Prostate Cancer**

**Recent Findings from University College Has Provided New Data on Prostate Cancer (The challenging landscape of medical device approval in localized prostate cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Findings of research using modern multiparametric MRI have provided clinicians with reliable targets for guiding prostate biopsy sampling and directing targeted therapy, often termed focal therapy, to specific areas of the prostate. This emerging shift in treatment strategy from a whole-gland approach to a lesion-specific or region-specific approach requires novel medical devices."

Our news journalists obtained a quote from the research from University College, "The rules regulating the approval and clinical use of such new devices often differ between the USA and Europe, and these differences can affect the treatments that patients receive. Current regulatory pathways for approval of various image-guided biopsy and focal therapy devices intended to be used in patients with prostate cancer are discussed in detail."

According to the news editors, the research concluded: "Finally, we offer some perspective on the current status of research in the field, and propose a potential roadmap towards the establishment of timely, safe and standardized criteria for optimal evaluation of novel image-guided devices for treatment of patients with localized prostate cancer."


Our news journalists report that additional information may be obtained by contacting M. Valerio, Division of Surgery and Interventional Science, University College London, 21 University Street, London WC1E 6AU, UK. Additional authors for this research include M. Emberton, S.E. Eggener and H.U Ahmed.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrurol.2015.289. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Therapy, Oncology, United Kingdom, Article Review, Prostate Cancer, Prostatic Neoplasms.

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Recent Findings from University Duisburg-Essen Have Provided New Data on Atrial Fibrillation (The value of basic research insights into atrial fibrillation mechanisms as a guide to therapeutic innovation: a critical analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Atrial Fibrillation are presented in a new report. According to news reporting originating in Essen, Germany, by NewsRx journalists, research stated, "Atrial fibrillation (AF) is an extremely common clinical problem associated with increased morbidity and mortality. Current antiarrhythmic options include pharmacological, ablation, and surgical therapies, and have significantly improved clinical outcomes."

Financial supporters for this research include European Network for Translational Research in Atrial Fibrillation, Canadian Institutes of Health Research, Heart and Stroke Foundation of Canada, Federation francaise de Cardiologie, National Institutes of Health, American Heart Association.

The news reporters obtained a quote from the research from University Duisburg-Essen, "However, their efficacy remains suboptimal, and their use is limited by a variety of potentially serious adverse effects. There is a clear need for improved therapeutic options. Several decades of research have substantially expanded our understanding of the basic mechanisms of AF. Ectopic firing and re-entrant activity have been identified as the predominant mechanisms for arrhythmia initiation and maintenance. However, it has become clear that the clinical factors predisposing to AF and the cellular and molecular mechanisms involved are extremely complex. Moreover, all AF-promoting and maintaining mechanisms are dynamically regulated and subject to remodelling caused by both AF and cardiovascular disease. Accordingly, the initial presentation and clinical progression of AF patients are enormously heterogeneous. An understanding of arrhythmia mechanisms is widely assumed to be the basis of therapeutic innovation, but while this assumption seems self-evident, we are not aware of any papers that have critically examined the practical contributions of basic research into AF mechanisms to arrhythmia management. Here, we review recent insights into the basic mechanisms of AF, critically analyse the role of basic research insights in the development of presently used anti-AF therapeutic options and assess the potential value of contemporary experimental discoveries for future therapeutic innovation."

According to the news reporters, the research concluded: "Finally, we highlight some of the important challenges to the translation of basic science findings to clinical application."


Our news correspondents report that additional information may be obtained by contacting D. Dobrev, Institute of Pharmacology, West German Heart and Vascular Center, Faculty of Medicine, University Duisburg-Essen, Hufelandstr 55, D-45122 Essen, Germany. Additional authors for this research include V. Algalarondo, N. Voigt, J. Melka, X.H. Wehrens, D. Dobrev and S. Nattel.

The direct object identifier (DOI) for that additional information is:
Recent Findings from University Hospital Provide New Insights into Hydroxycorticosteroids (Does Pregnenolone Enhance Exposure Therapy in Obsessive-Compulsive Disorder? - A Pilot, Interim Report of a Randomized, Placebo-Controlled, Double-Blind ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hydroxycorticosteroids are discussed in a new report. According to news reporting from Hamburg, Germany, by NewsRx journalists, research stated, "Exposure therapy is an effective cognitive-behavioral treatment for patients with obsessive-compulsive disorder (OCD). However, a further amelioration of symptoms by additional drugs that enhance extinction learning is desirable."

The news correspondents obtained a quote from the research from University Hospital, "An interesting candidate is pregnenolone, which positively modulates NMDA and GABAA receptors in preclinical studies and influences amygdala and prefrontal activity in humans. We present pilot data showing high acceptance and good tolerability of pregnenolone given 2 h before exposure sessions in OCD patients."

According to the news reporters, the research concluded: "As per our interim analyses, exposure treatment resulted in significantly improved main outcome parameters, but no effects of pregnenolone vs. placebo pretreatment were detectable thus far."


Our news journalists report that additional information may be obtained by contacting M. Kellner, Dept. of Psychiatry and Psychotherapy, University Hospital Eppendorf, Hamburg, Germany. Additional authors for this research include S. Nowack, V. Wortmann, A. Yassouridis and K. Wiedemann.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0035-1569371. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Europe, Hamburg, Germany, Placebos, Pregnenolone, Mental Health, Gonadal Hormones, Drugs and Therapies, Hydroxycorticosteroids, Progesterone Congeners, Obsessive Compulsive Disorder.

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Recent Findings from University Hospital Provide New Insights into Immune System (Stress-Induced In Vivo Recruitment of Human Cytotoxic Natural Killer Cells Favors Subsets with Distinct Receptor Profiles and Associates with Increased ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Immune System have been published. According to news originating from Basel, Switzerland, by NewsRx correspondents, research stated, "Acute stress drives a 'high-alert' response in the immune system. Psychoactive drugs induce distinct stress hormone profiles, offering a sought-after opportunity to dissect the in vivo immunological effects of acute stress in humans."

Our news journalists obtained a quote from the research from University Hospital, "3,4-methylenedioxymethamphetamine (MDMA), methylphenidate (MPH), or both, were administered to healthy volunteers in a randomized, double-blind, placebo-controlled crossover-study. Lymphocyte subset frequencies, natural killer (NK) cell immune-phenotypes, and changes in effector function were assessed, and linked to stress hormone levels and expression of CD62L, CX3CR1, CD18, and stress hormone receptors on NK cells. MDMA/MPH >MDMA >MPH robustly induced an epinephrine-dominant stress response. Immunologically, rapid redistribution of peripheral blood lymphocyte-subsets towards phenotypically mature NK cells occurred. NK cytotoxicity was unaltered, but they expressed slightly reduced levels of the activating receptor NKG2D. Preferential circulation of mature NK cells was associated with high epinephrine receptor expression among this subset, as well as expression of integrin ligands previously linked to epinephrine-induced endothelial detachment. The acute epinephrine-induced stress response was characterized by rapid accumulation of mature and functional NK cells in the peripheral circulation."

According to the news editors, the research concluded: "This is in line with studies using other acute stressors and supports the role of the acute stress response in rapidly mobilizing the innate immune system to counteract incoming threats."

For more information on this research see: Stress-Induced In Vivo Recruitment of Human Cytotoxic Natural Killer Cells Favors Subsets with Distinct Receptor Profiles and Associates with Increased Epinephrine Levels. Plos One, 2015;10(12):e0145635. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news correspondents report that additional information may be obtained from M.B. Bigler, Translational Immunology, Dep of Biomedicine, University Hospital Basel, Basel, Switzerland. Additional authors for this research include S.B. Egli, C.M. Hysek, G. Hoenger, L. Schmied, F.S. Baldin, F.A. Marquardsen, M. Recher, M.E. Liechti, C. Hess and C.T Berger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0145635. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Basel, Europe, Hormones, Immunology, Leukocytes, Switzerland, Vasopressors, Ethanolamines, Catecholamines, Biogenic Amines, Organic Chemicals, Lymphocyte Subsets, Respiratory Agents, Drugs and Therapies, Epinephrine Therapy, Cardiovascular Agents, Ophthalmic Preparations, Hemic and Immune Systems.

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Recent Findings from University of Agriculture Provides New Insights into Clinical Trials and Studies [A Novel Extract of Fenugreek Husk (FenuSMART (TM)) Alleviates Postmenopausal Symptoms and Helps to Establish the Hormonal Balance: A ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news reporting out of Bangalore, India, by NewsRx editors, research stated, "Despite the widespread use of hormone replacement therapy, various reports on its side effects have generated an increasing interest in the development of safe natural agents for the management of postmenopausal discomforts. The present randomized, double-blinded, placebo-controlled study investigated the effect of 90-day supplementation of a standardized extract of fenugreek (Trigonella foenum-graecum) (FenuSMART ™), at a dose of 1000 mg/day, on plasma estrogens and postmenopausal discomforts."

Our news journalists obtained a quote from the research from the University of Agriculture, "Eighty-eight women having moderate to severe postmenopausal discomforts and poor quality of life (as evidenced from the scores of Greene Climacteric Scale, short form SF-36 ® and structured medical interview) were randomized either to extract-treated (n = 44) or placebo (n = 44) groups. There was a significant (p < 0.01) increase in plasma estradiol (120%) and improvements on various postmenopausal discomforts and quality of life of the participants in the extract-treated group, as compared with the baseline and placebo. While 32% of the subjects in the extract group reported no hot flashes after supplementation, the others had a reduction to one to two times per day from the baseline stages of three to five times a day."

According to the news editors, the research concluded: "Further analysis of haematological and biochemical parameters revealed the safety of the extract and its plausible role in the management of lipid profile among menopausal women."


Our news journalists report that additional information may be obtained by contacting S.S. Begum, Univ Agr Sci, Bangalore 560065, Karnataka, India. Additional authors for this research include H.K. Jayalakshmi, H.G. Vidyavathi, G. Gopakumar, I. Abin, M. Balu, K. Geetha, S.V. Suresha, M. Vasundhara and I.M. Krishnakumar.

Keywords for this news article include: Bangalore, India, Asia, Clinical Trials and Studies, Clinical Research, Placebos, Therapy, University of Agriculture.

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Recent Findings from University of Basel Provides New Insights into Chemical Biology (The best of both worlds: reaping the benefits from mammalian and bacterial therapeutic circuits)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Chemical Research - Chemical Biology have been published. According to news originating from Basel, Switzerland, by NewsRx correspondents, research stated, "Synthetic biology has revolutionized the field of biology in the last two decades. By taking apart natural systems and recombining engineered parts in novel constellations, it has not only unlocked a staggering variety of biological control mechanisms but it has also created a panoply of biomedical achievements, such as innovative diagnostics and therapies."

Our news journalists obtained a quote from the research from the University of Basel, "The most common mode of action in the field of synthetic biology is mediated by synthetic gene circuits assembled in a systematic and rational manner. This review covers the most recent therapeutic gene circuits implemented in mammalian and bacterial cells designed for the diagnosis and therapy of an extensive array of diseases."

According to the news editors, the research concluded: "Highlighting new tools for therapeutic gene circuits, we describe a future that holds a plethora of potentialities for the medicine of tomorrow."


The news correspondents report that additional information may be obtained from M. Fussenegger, University of Basel, Fac Life Sci, CH-4058 Basel, Switzerland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cbpa.2016.05.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Basel, Switzerland, Europe, Chemical Biology, Chemical Research, Therapy, Article Review, Genetics, University of Basel.

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Recent Findings from University of California Provides New Insights into Dengue Hemorrhagic Fever (Homotypic Dengue Virus Reinfections in Nicaraguan Children)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Mosquito-Borne Diseases - Dengue Hemorrhagic
Fever are discussed in a new report. According to news reporting out of Berkeley, California, by NewsRx editors, research stated, "Infection with any of the 4 related dengue virus serotypes (DENV-1-4) is thought to result in lifelong immunity to homotypic reinfection (ie, reinfection with the same serotype). Archived serum samples collected as part of an ongoing pediatric dengue cohort study in Nicaragua were tested for DENV by real-time reverse transcription polymerase chain reaction."

Financial supporters for this research include Thrasher Research Fund (early career award 11979 to J. J. W.), National Institute of Allergy and Infectious Diseases, National Institutes of Health, Pediatric Dengue Vaccine Initiative (grant VE-1 to E. H.), Bill and Melinda Gates Foundation and the Instituto Carlos Slim de la Salud (grant to E. H.).

Our news journalists obtained a quote from the research from the University of California, "Samples were collected from 2892 children who presented with an acute febrile illness clinically attributed to a non-DENV cause (hereafter, 'C cases'). Test results were added to a database of previously identified symptomatic dengue cases in the cohort to identify repeat infections. Four patients with homotypic DENV reinfections were identified and confirmed among 29 repeat DENV infections (13.8%) with serotype confirmation. Homotypic reinfections with DENV-1, DENV-2, and DENV-3 occurred 325-621 days after the initial infection. Each patient experienced 1 symptomatic dengue case and 1 DENV-positive C case, and 2 patients presented with symptomatic dengue during their second infection. These DENV-positive C cases did not elicit long-lived humoral immune responses, despite viremia levels of up to 6.44 log(10) copies per mL of serum. We describe the first set of virologically confirmed homotypic DENV reinfections."

According to the news editors, the research concluded: "Such cases challenge the current understanding of DENV immunity and have important implications for modeling DENV transmission."


Our news journalists report that additional information may be obtained by contacting E. Harris, University of California, Sch Public Hlth, Div Infect Dis & Vaccinol, Berkeley, CA 94720, United States. Additional authors for this research include A. Balmaseda, L. Gresh, M.K. Sahoo, M. Montoya, C.L. Wang, J. Abeynayake, G. Kuan, B.A. Pinsky and E. Harris.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/infdis/jiw099. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berkeley, California, United States, North and Central America, Dengue Hemorrhagic Fever, Viral Hemorrhagic Fevers, Mosquito-Borne Diseases, Flaviviridae Infections, Flavivirus Infections, RNA Virus Infections, Arbovirus Infections, Dengue Virus, Dengue Fever, RNA Viruses, Virology, Genetics, University of California.

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Recent Findings from University of Cambridge Has Provided New Information about Neuropeptides (Role of enteroendocrine L-cells in arginine vasopressin-mediated inhibition of colonic anion secretion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Neuropeptides. According to news reporting originating in Cambridge, United Kingdom, by NewsRx journalists, research stated, "Arginine vasopressin (AVP) regulates fluid balance and blood pressure via AVP receptor (AVPR) 2 in the kidney and AVP receptor 1A in vascular smooth muscle. Its role in intestinal function has received less attention."

The news reporters obtained a quote from the research from the University of Cambridge, "We hypothesized that enteroendocrine L-cells producing glucagon-like peptide 1 (GLP-1) and peptide YY (PYY) may be a target of AVP and contribute to the control of fluid balance. Avpr1b expression was assessed by quantitative RT-PCR on fluorescence-activated cell sorting-isolated L- and control cells and was enriched in colonic L-cells. AVP stimulated GLP-1 and PYY release from primary cultured murine and human colonic cells and was associated with elevated calcium and cAMP concentrations in L-cells as measured in cultures from GLU-Cre/ROSA26-GCaMP3 and GLU-Epac2camps mice. An antagonist of AVPR1B reduced AVP-triggered hormone secretion from murine and human cells. In Ussing chambers, basolaterally applied AVP reduced colonic anion secretion and this effect was blocked by a specific neuropeptide Y receptor Y1 (NPY1R) antagonist. In human serum, PYY concentrations were higher in samples with raised osmolality or copeptin (a surrogate marker for AVP)."

According to the news reporters, the research concluded: "We propose that AVP activates L-cell AVPR1B, causing GLP-1 and PYY secretion. PYY in turn reduces colonic anion secretion via epithelial NPY1R. Our data suggest L-cells are active players in the hypothalamic control of intestinal fluid homeostasis, providing a potential link between the regulation of blood volume/pressure/osmolality and blood glucose."


Our news correspondents report that additional information may be obtained by contacting F. Reimann, University of Cambridge, Metab Res Labs, Addenbrookes Hospital, Wellcome TrustMRC Inst Metab Sci, Cambridge CB2 0QQ, United Kingdom. Additional authors for this research include J. Rievaj, C. Meek, G. De Costa, S. Jayamaha, R.T. Alexander, F. Reimann and F. Gribble.

Keywords for this news article include: Cambridge, United Kingdom, Europe, Posterior Pituitary Hormones, Nerve Tissue Proteins, Essential Amino Acids, Arginine Vasopressin, Diamino Amino Acids, Basic Amino Acids, Peptide Hormones, Peptide Proteins, Neuropeptides, Oligopeptides, Peptides, University of Cambridge.

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Liver Diseases and Conditions - Fatty Liver

Recent Findings from University of Colorado Provides New Insights into Fatty Liver [Perilipin-2 Deletion Impairs Hepatic Lipid Accumulation by Interfering with Sterol Regulatory Element-binding Protein (SREBP) Activation and Altering the Hepatic ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Fatty Liver is now available. According to news reporting originating in Aurora, Colorado, by NewsRx journalists, research stated, "Perilipin-2 (PLIN2) is a constitutively associated cytoplasmic lipid droplet coat protein that has been implicated in fatty liver formation in non-alcoholic fatty liver disease. Mice with or without whole-body deletion of perilipin-2 (Plin2-null) were fed either Western or control diets for 30 weeks."

Financial support for this research came from National Institutes of Health.

The news reporters obtained a quote from the research from the University of Colorado, "Perilipin-2 deletion prevents obesity and insulin resistance in Western diet-fed mice and dramatically reduces hepatic triglyceride and cholesterol levels in mice fed Western or control diets. Gene and protein expression studies reveal that PLIN2 deletion suppressed SREBP-1 and SREBP-2 target genes involved in de novo lipogenesis and cholesterol biosynthetic pathways in livers of mice on either diet. GC-MS lipidomics demonstrate that this reduction correlated with profound alterations in the hepatic lipidome with significant reductions in both desaturation and elongation of hepatic neutral lipid species. To examine the possibility that lipidomic actions of PLIN2 deletion contribute to suppression of SREBP activation, we isolated endoplasmic reticulum membrane fractions from long-term Western diet-fed wild type (WT) and Plin2-null mice. Lipidomic analyses reveal that endoplasmic reticulum membranes from Plin2-null mice are markedly enriched in -3 and -6 long-chain polyunsaturated fatty acids, which others have shown inhibit SREBP activation and de novo lipogenesis."

According to the news reporters, the research concluded: "Our results identify PLIN2 as a determinant of global changes in the hepatic lipidome and suggest the hypothesis that these actions contribute to SREBP-regulated de novo lipogenesis involved in non-alcoholic fatty liver disease."


Our news correspondents report that additional information may be obtained by contacting J.L. McManaman, University of Colorado, Div Reprod Sci, Aurora, CO 80045, United States. Additional authors for this research include E. Bales, D.J. Orlicky and J.L. McManaman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.759795. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aurora, Colorado, United States, North and
Recent Findings from University of Delaware Provides New Insights into Complementary and Alternative Medicine (Yoga Helps Put the Pieces Back Together: A Qualitative Exploration of a Community-Based Yoga Program for Cancer Survivors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Complementary and Alternative Medicine. According to news originating from Newark, Delaware, by NewsRx correspondents, research stated, "A qualitative research methods approach was used to explore the experiences of participants in an ongoing community-based yoga program developed for cancer survivors and their support persons. 25 participants took part in a series of semistructured focus groups following a seven-week yoga program and at three-and six-month follow-ups."

Financial supporters for this research include Social Sciences and Humanities Research Council of Canada, Alberta Innovates-Health Solutions, Vanier Canada Graduate scholarship, Canadian Imperial Bank of Commerce.

Our news journalists obtained a quote from the research from the University of Delaware, "Focus groups were transcribed verbatim and analyzed using a process of inductive thematic analysis. The group was comprised of 20 cancer survivors, who were diagnosed on average 25.40 (20.85) months earlier, and five support persons. Participants had completed the yoga program an average of 3.35 (3.66) times previously and attended approximately 1.64 (0.70) of three possible focus groups. Four key themes were identified: (1) safety and shared understanding; (2) cancer-specific yoga instruction; (3) benefits of yoga participation; (4) mechanisms of yoga practice. Qualitative research provides unique and in-depth insight into the yoga experience. Specifically, cancer survivors and support persons participating in a community-based yoga program discussed their experiences of change over time and were acutely aware of the beneficial effects of yoga on their physical, psychological, and social well-being."

According to the news editors, the research concluded: "Further, participants were able to articulate the mechanisms they perceived as underpinning the relationship between yoga and improved well-being as they developed their yoga practice."

For more information on this research see: Yoga Helps Put the Pieces Back Together: A Qualitative Exploration of a Community-Based Yoga Program for Cancer Survivors. Evidence-Based Complementary and Alternative Medicine, 2016;():1-10. Evidence-Based Complementary and Alternative Medicine can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Evidence-Based Complementary and Alternative Medicine - www.hindawi.com/journals/ecam/)

The news correspondents report that additional information may be obtained from M.J. Mackenzie, University of Delaware, Dept. of Human Dev & Family Studies, Newark, DE 19716, United States. Additional authors for this research include A.J. Wurz, Y. Yamauchi,
Recent Findings from University of Fukui Provides New Insights into Spinal Cord Injury [alpha(1D)-Adrenoceptor blockade increases voiding efficiency by improving external urethral sphincter activity in rats with spinal cord injury]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Spinal Cord Injury have been published. According to news reporting from Fukui, Japan, by NewsRx journalists, research stated, "Ideal therapy for lower urinary tract dysfunction in patients with spinal cord injury (SCI) should decrease detrusor overactivity, thereby promoting urine storage at low intravesical pressure and promoting efficient voiding at low pressure by decreasing detrusor-sphincter dyssynergia. Here we investigated blockade of various alpha-adrenoceptors to determine the subtype that was principally responsible for improving the voiding dysfunction."

The news correspondents obtained a quote from the research from the University of Fukui, "The effects of the intravenous alpha-blocker naftopidil, the alpha-blocker BMY 7378, and the alpha-blocker silodosin were evaluated using cystometrography and external urethral sphincter-electromyography (EMG) in decerebrated, unanesthetized female Sprague-Dawley rats with chronic SCI following transection at Th8. Parameters measured included the voided volume, residual volume, voiding efficiency, and burst and silent periods on EMG. Compared with values in decerebrated non-SCI rats, EMG of decerebrated SCI rats revealed more prominent tonic activity, significantly shorter periods of bursting activity, and a reduced ratio of the silent to active period during bursting. Compared with the value before drug administration (control), the voiding efficiency was significantly increased by naftopidil (1 and 3 mg/kg) (<0.05 each), and the burst (<0.01 and <0.05, respectively) and silent periods (<0.01 each) on EMG were significantly lengthened. BMY 7378 (1 mg/kg) significantly increased voiding efficiency and lengthened the burst periods (<0.05 each). Silodosin did not affect any parameters."

According to the news reporters, the research concluded: "These results suggest that alpha-blockade reduces the urethral resistance associated with detrusor-sphincter dyssynergia, thus improving voiding efficiency in SCI rats."

Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting O. Yokoyama, Univ Fukui, Dept. of Urol, Fac Med Sci, Fukui 9101193, Japan. Additional authors for this research include H. Yamauchi, H. Ito, H. Akino and O. Yokoyama.

Keywords for this news article include: Fukui, Japan, Asia, Central Nervous System Diseases and Conditions, Nervous System Trauma, Spinal Cord Injuries, Spinal Cord Injury, University of Fukui.

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**Drugs and Therapies - Antiretrovirals**

**Recent Findings from University of Genoa Provides New Insights into Antiretrovirals (Switch from unboosted protease inhibitor to a single-tablet regimen containing rilpivirine improves cholesterol and triglycerides)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiretrovirals have been published. According to news originating from Genoa, Italy, by NewsRx correspondents, research stated, "This study aimed to evaluate the efficacy, tolerability and potential savings of combined antiretroviral therapy (cART) simplification from an unboosted protease inhibitor (PI) regimen with atazanavir or fosamprenavir to a single-tablet regimen (STR) based on rilpivirine/emtricitabine/tenofovir disoproxil fumarate (RPV/FTC/TDF) among HIV-1-infected patients with HIV-1 RNA <50 copies/mL. This was a retrospective, multicentre, open-label, 12-week trial."

Our news journalists obtained a quote from the research from the University of Genoa, "Plasma HIV-1-RNA levels, CD4+ cell counts, cholesterol, triglycerides, bilirubin, glycaemia, creatinine and physical examination were performed at baseline and at scheduled follow-up. All patient costs were calculated and were estimated for 52 weeks of therapy. Fifty-one patients were enrolled [28 male (54.9%)]. At baseline, 30 patients (58.8%) were treated with FTC/TDF, 20 (39.2%) with abacavir/lamivudine and 1 (2.0%) with lamivudine/zidovudine. Thirty-three patients (64.7%) received atazanavir. All patients maintained HIV-RNA <50 copies/mL; the median CD4+ cell count remained stable. Mean triglycerides decreased from 124 mg/dL (range, 39-625) at enrolment to 108.7 mg/dL (range, 39-561) at study end (P = 0.25). At baseline, mean cholesterol was 172.8 +/- 38.1 mg/dL and decreased to 161.9 +/- 38.6 mg/dL (P = 0.038); likewise, median total bilirubin decreased from 1.07 mg/dL (range, 0.2-4.7) to 0.6 mg/dL (range, 0.13-3.1) (P < 0.001). cART-related annual cost reduction with a STR was (sic) 3155.47 per patient (-24%). Non-cART patient management expenses were (sic)402.68 vs. (sic) 299.10 for atazanavir or fosamprenavir and STR regimens, respectively."

According to the news editors, the research concluded: "Switching to RPV/FTC/TDF from an unboosted PI in virologically suppressed HIV-infected patients is safe and is associated with a reduction in triglycerides, cholesterol and cART-related costs."

For more information on this research see: Switch from unboosted protease inhibitor to a single-tablet regimen containing rilpivirine improves cholesterol and triglycerides. International Journal of Antimicrobial Agents, 2016;48(5):551-554. International Journal of Antimicrobial Agents can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae
Recent Findings from University of Leeds Provide New Insights into Medical Genetics (Deficiency of the myogenic factor MyoD causes a perinatally lethal fetal akinesia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Health and Medicine - Medical Genetics is the subject of a report. According to news reporting originating from Leeds, United Kingdom, by NewsRx correspondents, research stated, "Lethal fetal akinesia deformation sequence (FADS) describes a clinically and genetically heterogeneous phenotype that includes fetal akinesia, intrauterine growth retardation, arthrogryposis and developmental anomalies. Affected babies die as a result of pulmonary hypoplasia."

Our news editors obtained a quote from the research from the University of Leeds, "We aimed to identify the underlying genetic cause of this disorder in a family in which there were three affected individuals from two sibships. Autosomal-recessive inheritance was suggested by a family history of consanguinity and by recurrence of the phenotype between the two sibships. We performed exome sequencing of the affected individuals and their unaffected mother, followed by autozygosity mapping and variant filtering to identify the causative gene. Five autozygous regions were identified, spanning 31.7 Mb of genomic sequence and including 211 genes. Using standard variant filtering criteria, we excluded all variants as being the likely pathogenic cause, apart from a single novel nonsense mutation, c.188C > A p.(Ser63*) (NM_002478.4), in MYOD1. This gene encodes an extensively studied transcription factor involved in muscle development, which has nonetheless not hitherto been associated with a hereditary human disease phenotype. We provide the first description of a human phenotype that appears to result from MYOD1 mutation."

According to the news editors, the research concluded: "The presentation with FADS is consistent with a large body of data demonstrating that in the mouse, MyoD is a major
controller of precursor cell commitment to the myogenic differentiation programme."

For more information on this research see: Deficiency of the myogenic factor MyoD causes a perinatally lethal fetal akinesia. Journal of Medical Genetics, 2016;53(4):264-9. (BMJ Publishing Group - group.bmj.com; Journal of Medical Genetics - jmg.bmj.com/)

The news editors report that additional information may be obtained by contacting C.M. Watson, Yorkshire Regional Genetics Service, St James's University Hospital, Leeds, UK School of Medicine, University of Leeds, St James's University Hospital, Leeds, UK. Additional authors for this research include L.A. Crinnion, H. Murphy, M. Newbould, S.M. Harrison, C. Lascelles, A. Antanaviciute, I.M. Carr, E. Sheridan, D.T. Bonthron and A. Smith.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/jmedgenet-2015-103620. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leeds, Europe, United Kingdom, Medical Genetics, Health and Medicine.

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Eye Diseases and Conditions - Proliferative...

Recent Findings from University of Liverpool Provides New Insights into Proliferative Vitreoretinopathy (Controlling drug release from non-aqueous environments: Moderating delivery from ocular silicone oil drug reservoirs to combat ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Eye Diseases and Conditions - Proliferative Vitreoretinopathy. According to news reporting out of Liverpool, United Kingdom, by NewsRx editors, research stated, "In a number of cases of retinal detachment, treatment may require the removal of the vitreous humour within the eye and replacement with silicone oil to aid healing of the retina. The insertion of silicone oil offers the opportunity to also deliver drugs to the inside of the eye; however, drug solubility in silicone oil is poor and release from this hydrophobic drug reservoir is not readily controlled."

Our news journalists obtained a quote from the research from the University of Liverpool, "Here, we have designed a range of statistical graft copolymers that incorporate dimethylsiloxane and ethylene glycol repeat units within the side chains, allowing short chains of oligo(ethylene glycol) to be solubilised within silicone oil and provide hydrogen bond acceptor sites to interact with acid functional drug molecules. Our hypothesis included the potential for such interactions to be able to delay/control drug release and for polymer architecture and composition to play a role in the silicone oil miscibility of the targeted polymers. This strategy has been successfully demonstrated using both ibuprofen and all-trans retinoic acid; drugs with anti-inflammatory and anti-proliferation activity. After the copolymers were shown to be non-toxic to retinal pigment epithelial cells, studies of drug release using radiochemical approaches showed that the presence of 10 v/v% of a linear graft copolymer could extend ibuprofen release over three-fold (from 3 days to >9 days) whilst the release of all-trans retinoic from the silicone oil phase was extended to >72 days."

According to the news editors, the research concluded: "These timescales are highly clinically relevant showing the potential to tune drug delivery during the healing process and

...
offer an efficient means to improve patient outcomes."

For more information on this research see: Controlling drug release from non-aqueous environments: Moderating delivery from ocular silicone oil drug reservoirs to combat proliferative vitreoretinopathy. *Journal of Controlled Release*, 2016;244():41-51. *Journal of Controlled Release* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news journalists report that additional information may be obtained by contacting V.R. Kearns, University of Liverpool, Dept. of Eye & Vis Sci, Liverpool, Merseyside, United Kingdom. Additional authors for this research include M. Le Hellaye, M. Long, S.M. Kennedy, R.L. Williams, V.R. Kearns and S.P. Rannard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jconrel.2016.11.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Liverpool, United Kingdom, Europe, Silicone Oils, Drugs and Therapies, Proliferative Vitreoretinopathy, Eye Diseases and Conditions, Silicones, Siloxanes, University of Liverpool.

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**Hormones - Corpus Luteum Hormones**

**Recent Findings from University of Melbourne Advance Knowledge in Corpus Luteum Hormones [Time-dependent activation of prostacyclin and nitric oxide pathways during continuous i.v. infusion of serelaxin (recombinant human H2 relaxin)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hormones - Corpus Luteum Hormones have been published. According to news reporting originating from Parkville, Australia, by NewsRx correspondents, research stated, "In the RELAX-AHF trial, a 48 h i.v. serelaxin infusion reduced systemic vascular resistance in patients with acute heart failure. Consistent with preclinical studies, serelaxin augments endothelial vasodilator function in rat mesenteric arteries."

Our news editors obtained a quote from the research from the University of Melbourne, "Little is known about the contribution of endothelium-derived relaxing factors after a longer duration of continuous serelaxin treatment. Here we have assessed vascular reactivity and mechanistic pathways in mesenteric arteries and veins and the aorta after 48 or 72 h continuous i.v. infusion of serelaxin. Male rats were infused with either placebo or serelaxin (13.3 mg?kg(-1) ?h(-1)) via the jugular vein using osmotic minipumps. Vascular function was assessed using wire myography. Changes in gene and protein expression and 6-keto PGF1a levels were determined by quantitative PCR, Western blot and ELISA respectively. Continuous i.v. serelaxin infusion augmented endothelium-dependent relaxation in arteries (mesenteric and aorta) but not in mesenteric veins. In mesenteric arteries, 48 h i.v. serelaxin infusion increased basal NOS activity, associated with increased endothelial NOS (eNOS) expression. Interestingly, phosphorylated-eNOS(Ser1177), eNOS and basal NOS activity were reduced in mesenteric veins following 72 h serelaxin treatment. At 72 h, serelaxin treatment improved bradykinin-mediated relaxation through COX2-derived PGI2 production. Continuous i.v.
serelaxin infusion enhanced endothelial vasodilator function in arteries but not in veins. The underlying mediator at 48 h was NO but there was a transition to PGI2 by 72 h.

According to the news editors, the research concluded: "Activation of the PGI2-dependent pathway is key to the prolonged vascular response to serelaxin treatment."


The news editors report that additional information may be obtained by contacting C.H. Leo, School of BioSciences, The University of Melbourne, Parkville, Vic, Australia. Additional authors for this research include M. Jelinic, H.H. Ng, M. Tare and L.J Parry.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13404. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the British Journal of Pharmacology is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Relaxin, Parkville, Angiology, Chemicals, Endothelium, Nitric Oxide, Peptide Hormones, Peptide Proteins, Corpus Luteum Hormones, Australia and New Zealand.

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Life Science Research - Developmental Biology

Recent Findings from University of Michigan Has Provided New Information about Developmental Biology (hPSC-derived lung and intestinal organoids as models of human fetal tissue)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Developmental Biology. According to news originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "In vitro human pluripotent stem cell (hPSC) derived tissues are excellent models to study certain aspects of normal human development. Current research in the field of hPSC derived tissues reveals these models to be inherently fetal-like on both a morphological and gene expression level."

Our news journalists obtained a quote from the research from the University of Michigan, "In this review we briefly discuss current methods for differentiating lung and intestinal tissue from hPSCs into individual 3-dimensional units called organoids. We discuss how these methods mirror what is known about in vivo signaling pathways of the developing embryo. Additionally, we will review how the inherent immaturity of these models lends them to be particularly valuable in the study of immature human tissues in the clinical setting of premature birth."

According to the news editors, the research concluded: "Human lung organoids (HLOs) and human intestinal organoids (HIOs) not only model normal development, but can also be utilized to study several important diseases of prematurity such as respiratory distress
syndrome (RDS), bronchopulmonary dysplasia (BPD), and necrotizing enterocolitis (NEC)."

For more information on this research see: hPSC-derived lung and intestinal organoids as models of human fetal tissue. *Developmental Biology*, 2016;420(2):230-238. Developmental Biology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Developmental Biology - www.journals.elsevier.com/developmental-biology/)

The news correspondents report that additional information may be obtained from J.R. Spence, University of Michigan, Sch Med, Center Organogenesis, Ann Arbor, MI, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ydbio.2016.06.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Developmental Biology, Life Science Research, Genetics, Article Review, University of Michigan.

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**Eye Diseases and Conditions - Optic Atrophy**

**Recent Findings from University of Montpellier Has Provided New Information about Optic Atrophy (WFS1 in Optic Neuropathies: Mutation Findings in Nonsyndromic Optic Atrophy and Assessment of Clinical Severity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Eye Diseases and Conditions - Optic Atrophy. According to news reporting originating in Montpellier, France, by NewsRx journalists, research stated, "To search for WFS1 mutations in patients with optic atrophy (OA) and assess visual impairment. Retrospective molecular genetic and clinical study."

The news reporters obtained a quote from the research from the University of Montpellier, "Patients with OA followed at a national referral center specialized in genetic sensory diseases. Mutation screening in WFS1 was performed by Sanger sequencing. WFS1-positive patients were evaluated on visual acuity (VA) and retinal nerve fiber layer (RNFL) thickness using time-domain (TD) or spectral-domain (SD) optical coherence tomography (OCT). Statistical analysis was performed. Mutation identification, VA values, and RNFL thickness in sectors. Biallelic WFS1 mutations were found in 3 of 24 unrelated patients (15%) with autosomal recessive nonsyndromic optic atrophy (arNSOA) and in 8 patients with autosomal recessive Wolfram syndrome (arWS) associated with diabetes mellitus and OA. Heterozygous mutations were found in 4 of 20 unrelated patients (20%) with autosomal dominant OA. The 4 WFS1-mutated patients of this latter group with hearing loss were diagnosed with autosomal dominant Wolfram-like syndrome (adWLS). Most patients had VA decrease, with logarithm of the minimum angle of resolution (logMAR) values lower in arWS than in arNSOA (1.530 vs. 0.440; P = 0.026) or adWLS (0.240; P = 0.006) but not differing between arNSOA and adWLS (P = 0.879). All patients had decreased RNFL thickness that was worse in arWS than in arNSOA (SD OCT, 35.50 vs. 53.80 mu m; P = 0.018) or adWLS (TD-OCT, 45.84 vs. 59.33 mu m; P = 0.049). The greatest difference was found in the inferior
bundle. Visual acuity was negatively correlated with RNFL thickness (r = -0.89; P = 0.003 in SD OCT and r = -0.75; P = 0.01 in TD-OCT). WFS1 is a gene causing arNSOA. Patients with this condition had significantly less visual impairment than those with arWS."

According to the news reporters, the research concluded: "Thus systematic screening of WFS1 must be performed in isolated, sporadic, or familial optic atrophies."


Our news correspondents report that additional information may be obtained by contacting C.P. Hamel, University of Montpellier, Montpellier, France. Additional authors for this research include I. Meunier, V. Daien, C. Baudoin, F. Halloy, B. Bocquet, C. Blanchet, C. Delettre, E. Eslenjaud, A. Roubertie, G. Lenaers and C.P. Hamel.

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Keywords for this news article include: Montpellier, France, Europe, Cranial Nerve Diseases and Conditions, Optic Nerve Diseases and Conditions, Optical Coherence Tomography, Eye Diseases and Conditions, Diagnostics and Screening, Optic Atrophy, Neuropathy, Genetics, University of Montpellier.

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**Clinical Research - Clinical Trials and Studies**

**Recent Findings from University of Oslo Provides New Insights into Clinical Trials and Studies (Routine vs. on-demand analgesia in colonoscopy: a randomized clinical trial)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Clinical Research - Clinical Trials and Studies are presented in a new report. According to news reporting out of Oslo, Norway, by NewsRx editors, research stated, "Background and study aims: Colonoscopy is frequently performed with opioid analgesia, but the impact of drug delivery timing has not been studied in detail. Low-dose opioids administered before the procedure may provide better pain control than on-demand administration when the patient experiences pain."

Our news journalists obtained a quote from the research from the University of Oslo, "A total of 119 outpatients were randomized to receive 50 mu g of fentanyl either before colonoscopy (routine group) or on demand if needed during the colonoscopy (on-demand group). Additional fentanyl or midazolam was allowed in both groups if required. The primary outcome was pain measured on both a 100-mm visual analog scale (VAS; 0= no pain, 100= worst possible pain) and a four-point Likert scale (no, slight, moderate, or severe pain) immediately after the procedure. A total of 61 patients in the routine group and 58 patients in the on-demand group were included in the study. Mean VAS pain scores were 27.4mm in the routine group and 30.5mm in the on-demand group (mean difference -3.2mm; 95% confidence interval -11.9 to 5.5; P= 0.5). On the Likert scale, moderate or severe pain was experienced by
25.0% and 31.5% of patients in the routine and on-demand groups, respectively (p= 0.5). Cecal intubation rate and time to reach the cecum were similar between the groups. More patients in the on-demand group (81.0 %) than in the routine group (62.3 %) were able to leave the clinic without the need for recovery time (P= 0.03).

According to the research editors, the research concluded: "Routine administration of fentanyl did not provide better analgesia during colonoscopy than on-demand fentanyl, and more patients needed time for recovery."

For more information on this research see: Routine vs. on-demand analgesia in colonoscopy: a randomized clinical trial. Endoscopy, 2016;48(9):823-828. Endoscopy can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

Our news journalists report that additional information may be obtained by contacting O. Holme, University of Oslo, Inst Hlth & Soc, Oslo, Norway. Additional authors for this research include T. de Lange, A. Stallemo, H. Wiig, A. Hasund, K. Dvergsnes, K. Garborg, C.M. Ystrom, M. Loberg, G. Hoff, M. Brethauer and M. Kalager.

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Keywords for this news article include: Oslo, Norway, Europe, Central Nervous System Agents, Clinical Trials and Studies, Fentanyl Therapy Citrate, Drugs and Therapies, Narcotic Analgesics, Clinical Research, Pharmaceuticals, University of Oslo.

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**Myeloid Cells**

**Recent Findings from University of Sydney Advance Knowledge in Myeloid Cells (Scanning Electron Microscopy Reveals Two Distinct Classes of Erythroblastic Island Isolated from Adult Mammalian Bone Marrow)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Myeloid Cells have been published. According to news reporting out of Camperdown, Australia, by NewsRx editors, research stated, "Erythroblastic islands are multicellular clusters in which a central macrophage supports the development and maturation of red blood cell (erythroid) progenitors. These clusters play crucial roles in the pathogenesis observed in animal models of hematological disorders."

Our news journalists obtained a quote from the research from the University of Sydney, "The precise structure and function of erythroblastic islands is poorly understood. Here, we have combined scanning electron microscopy and immuno-gold labeling of surface proteins to develop a better understanding of the ultrastructure of these multicellular clusters. The erythroid-specific surface antigen Ter-119 and the transferrin receptor CD71 exhibited distinct patterns of protein sorting during erythroid cell maturation as detected by immuno-gold labeling. During electron microscopy analysis we observed two distinct classes of erythroblastic islands. The islands varied in size and morphology, and the number and type of erythroid cells interacting with the central macrophage. Assessment of femoral marrow isolated from a cavid rodent species (guinea pig, Cavis porcellus) and a marsupial carnivore species (fat-tailed..."
dunnarts, Sminthopsis crassicaudata) showed that while the morphology of the central macrophage varied, two different types of erythroblastic islands were consistently identifiable."

According to the news editors, the research concluded: "Our findings suggest that these two classes of erythroblastic islands are conserved in mammalian evolution and may play distinct roles in red blood cell production."

For more information on this research see: Scanning Electron Microscopy Reveals Two Distinct Classes of Erythroblastic Island Isolated from Adult Mammalian Bone Marrow. *Microscopy and Microanalysis*, 2016;22(2):368-78. (Cambridge University Press - www.cambridge.org; Microscopy and Microanalysis - journals.cambridge.org/action/displayJournal?jid=MAM)

Our news journalists report that additional information may be obtained by contacting J.H. Yeo, 1Discipline of Anatomy & Histology, School of Medical Sciences, Bosch Institute, University of Sydney, Camperdown, NSW 2050, Australia. Additional authors for this research include B.M. McAllan and S.T Fraser.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S1431927616000155. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Camperdown, Immunology, Bone Marrow, Macrophages, Bone Research, Immune System, Myeloid Cells, Connective Tissue Cells, Australia and New Zealand, Mononuclear Phagocyte System.

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**Recent Findings from University of Technology Has Provided New Data on Osteomyelitis (Calcium phosphate nanocoatings and nanocomposites, part 2: thin films for slow drug delivery and osteomyelitis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Osteomyelitis. According to news reporting originating from Broadway, Australia, by NewsRx correspondents, research stated, "During the last two decades although many calcium phosphate based nanomaterials have been proposed for both drug delivery, and bone regeneration, their coating applications have been somehow slow due to the problems related to their complicated synthesis methods. In order to control the efficiency of local drug delivery of a biomaterial the critical pore sizes as well as good control of the chemical composition is pertinent."

Our news editors obtained a quote from the research from the University of Technology, "A variety of calcium phosphate based nanocoated composite drug delivery systems are currently being investigated. This review aims to give an update into the advancements of calcium phosphate nanocoatings and thin film nanolaminates."

According to the news editors, the research concluded: "In particular recent research on PLA/hydroxyapatite composite thin films and coatings into the slow drug delivery for the possible treatment of osteomyelitis is covered."

The news editors report that additional information may be obtained by contacting B. Ben-Nissan, Faculty of Science, University of Technology Sydney, 15 Broadway, Ultimo NSW 2007, Australia. Additional authors for this research include I. Macha, S. Cazalbou and A.H Choi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/nnm.15.220. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Anions, Broadway, Nanocoatings, Nanocomposite, Osteomyelitis, Article Review, Nanotechnology, Phosphoric Acids, Calcium Compounds, Calcium Phosphates, Drugs and Therapies, Inorganic Chemicals, Phosphorus Compounds, Drug Delivery Systems, Emerging Technologies, Australia and New Zealand.

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Central Nervous System Diseases and Conditions -…

Recent Findings from University of Texas Has Provided New Information about Subarachnoid Hemorrhage [THSD1 (Thrombospondin Type 1 Domain Containing Protein 1) Mutation in the Pathogenesis of Intracranial Aneurysm and Subarachnoid Hemorrhage]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System Diseases and Conditions - Subarachnoid Hemorrhage are presented in a new report. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "A ruptured intracranial aneurysm (IA) is the leading cause of a subarachnoid hemorrhage. This study seeks to define a specific gene whose mutation leads to disease."

Our news journalists obtained a quote from the research from the University of Texas, "More than 500 IA probands and 100 affected families were enrolled and clinically characterized. Whole exome sequencing was performed on a large family, revealing a segregating THSD1 (thrombospondin type 1 domain containing protein 1) mutation. THSD1 was sequenced in other probands and controls. Thsd1 loss-of-function studies in zebrafish and mice were used for in vivo analyses and functional studies performed using an in vitro endothelial cell model. A nonsense mutation in THSD1 was identified that segregated with the 9 affected (3 suffered subarachnoid hemorrhage and 6 had unruptured IA) and was absent in 13 unaffected family members (LOD score 4.69). Targeted THSD1 sequencing identified mutations in 8 of 507 unrelated IA probands, including 3 who had suffered subarachnoid hemorrhage (1.6% [95% confidence interval, 0.8%-3.1%]). These THSD1 mutations/rare variants were highly enriched in our IA patient cohort relative to 89,040 chromosomes in Exome Aggregation Consortium (ExAC) database (P < 0.0001). In zebrafish and mice, Thsd1 loss-of-function caused cerebral bleeding (which localized to the subarachnoid space in mice) and increased mortality. Mechanistically, THSD1 loss impaired endothelial cell focal adhesion to the basement membrane. These adhesion defects could be rescued by expression of wild-type..."
THSD1 but not THSD1 mutants identified in IA patients. This report identifies THSD1 mutations in familial and sporadic IA patients and shows that THSD1 loss results in cerebral bleeding in 2 animal models."

According to the news editors, the research concluded: "This finding provides new insight into IA and subarachnoid hemorrhage pathogenesis and provides new understanding of THSD1 function, which includes endothelial cell to extracellular matrix adhesion."

For more information on this research see: THSD1 (Thrombospondin Type 1 Domain Containing Protein 1) Mutation in the Pathogenesis of Intracranial Aneurysm and Subarachnoid Hemorrhage. Stroke, 2016;47(12):3005-3013. Stroke can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Stroke - stroke.ahajournals.org/)

The news correspondents report that additional information may be obtained from D.H. Kim, Univ Texas Houston, Sch Med, Dept. of Neurosurg, Houston, TX, United States. Additional authors for this research include X.Q. Fang, M.L. Hennessy, S.V. Nalbach, S.R. DePalma, M.S. Lee, S.C. Greenway, B. McDonough, G.W. Hergenroeder, K.J. Patek, S.M. Colosimo, K.J. Qualmann, J.P. Hagan, D.M. Milewicz, C.A. MacRae, S.M. Dymecki and C.E. Seidman.

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Keywords for this news article include: Houston, Texas, United States, North and Central America, Central Nervous System Diseases and Conditions, Intracranial Arterial Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Brain Diseases and Conditions, Cerebrovascular Disorders, Intracranial Hemorrhages, Subarachnoid Hemorrhage, Membrane Glycoproteins, Intracranial Aneurysm, Endothelial Cells, Membrane Proteins, Thrombospondins, Genetics, University of Texas.

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Oncology - Cervical Cancer

Recent Findings from University of Texas Provides New Insights into Cervical Cancer (Quality of life after radical trachelectomy for early-stage cervical cancer: A 5-year prospective evaluation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Cervical Cancer. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "To longitudinally assess quality of life (QOL) in women undergoing radical trachelectomy for early-stage cervical cancer. We prospectively enrolled patients with stage IA1-IB1 cervical cancer prior to undergoing radical trachelectomy to complete validated QOL instruments."

The news reporters obtained a quote from the research from the University of Texas, "These instruments included the General Health-Related QOL (SF-12), Functional Assessment of Cancer Therapy-Cervix (FACT-Cx), MD Anderson Symptom Inventory (MDASI), Female Sexual Functioning Index (FSFI), and Satisfaction with Decision scale (SWD). Instruments were filled out at baseline, postoperatively at 6 weeks, 6 months, 1 year, and annually thereafter for 4 years. Thirty-nine patients enrolled in the study, and 32 patients were evaluable. The scores
for FSFI-arousal (p = 0.0002), lubrication (p < 0.0001), orgasm (p = 0.006), pain (p = 0.01), satisfaction (p = 0.03) and total score (p = 0.004) showed a significant decline at 6 weeks then returned to baseline levels by 6 months. The scores for FACT-Cx functional well-being (p = 0.02) and physical well-being (p < 0.0001), SF-12 bodily pain (p < 0.0001), physical functioning (p < 0.0001), role physical (p < 0.0001), role emotional (p = 0.03), social functioning (p = 0.002), and MDASI total (p = 0.04) showed significantly worsened symptoms at 6 weeks then returned to baseline by 6 months. The scores for FACT-Cx emotional well-being showed significant worsening of symptoms that persisted at 6-weeks (p = 0.004), 6 months (p = 0.007), 1 year (p = 0.001), 2 years (p = 0.002), and 4 years (p = 0.03). There was no difference in SWD. Several quality of life assessments decline immediately postoperatively after radical trachelectomy, however, return to baseline thereafter."

According to the news reporters, the research concluded: "The long-term emotional impact of this surgery highlights a need for perioperative counseling in these patients."

For more information on this research see: Quality of life after radical trachelectomy for early-stage cervical cancer: A 5-year prospective evaluation. Gynecologic Oncology, 2016;143(3):596-603. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news correspondents report that additional information may be obtained by contacting N.D. Fleming, Univ Texas MD Anderson Canc Center, Dept. of Gynecol Oncol & Reprod Med, Houston, TX 77030, United States. Additional authors for this research include P.T. Ramirez, P.T. Soliman, K.M. Schmeler, G.B. Chisholm, A.M. Nick, S.N. Westin and M. Frumovitz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.10.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Quality of Life, Cervical Cancer, Women's Health, Oncology, University of Texas.

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Nutritional and Metabolic Diseases and Conditions -...

Recent Findings from University of Tokyo Provides New Insights into Type 2 Diabetes (J-curve relation between daytime nap duration and type 2 diabetes or metabolic syndrome: A dose-response meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Adequate sleep is important for good health, but it is not always easy to achieve because of social factors. Daytime napping is widely prevalent around the world."

Our news journalists obtained a quote from the research from the University of Tokyo, "We performed a meta-analysis to investigate the association between napping (or
excessive daytime sleepiness: EDS) and the risk of type 2 diabetes or metabolic syndrome, and
to quantify the potential dose-response relation using cubic spline models. Electronic databases
were searched for articles published up to 2016, with 288,883 Asian and Western subjects.
Pooled analysis revealed that a long nap (>= 60 min/day) and EDS were each significantly
associated with an increased risk of type 2 diabetes versus no nap or no EDS (odds ratio 1.46
(95% CI 1.23-1.74, p < 0.01) for a long nap and 2.00 (1.58-2.53) for EDS). In contrast, a short
nap (< 60 min/day) was not associated with diabetes (p = 0.75). Dose-response meta-analysis
showed a J-curve relation between nap time and the risk of diabetes or metabolic syndrome,
with no effect of napping up to about 40 minutes/day, followed by a sharp increase in risk at
longer nap times. In summary, longer napping is associated with an increased risk of metabolic
disease."

According to the news editors, the research concluded: "Further studies are needed to
confirm the benefit of a short nap."

For more information on this research see: J-curve relation between daytime nap
duration and type 2 diabetes or metabolic syndrome: A dose-response meta-analysis. Scientific
Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group,
Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group -
www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from T.
Yamada, University of Tokyo, Grad Sch Med, Dept. of Diabet & Metab Dis, Tokyo 1138654,
Japan. Additional authors for this research include N. Shojima, T. Yamauchi and T. Kadowaki.

Keywords for this news article include: Tokyo, Japan, Asia, Nutritional and
Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Risk and
Prevention, Metabolic Syndrome, Type 2 Diabetes, Healthcare, University of Tokyo.

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Pharmacokinetics
Recent Findings from University of Ulsan College of Medicine Has
Provided New Data on Pharmacokinetics (Population plasma and urine
pharmacokinetics of ivabradine and its active metabolite S18982 in
healthy Korean volunteers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Pharmacokinetics are discussed in a new report.
According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated,
"Ivabradine, a selective inhibitor of the pacemaker current (If), is used for heart failure and
coronary heart disease and is mainly metabolized to S18982. The purpose of this study was to
explore the pharmacokinetics (PK) of ivabradine and S18982 in healthy Korean volunteers."

The news correspondents obtained a quote from the research from the University of
Ulsan College of Medicine, "Subjects in a phase I study were randomized to receive 2.5, 5, or
10 mg of ivabradine administered every 12 hours for 4.5 days, and serial plasma and urine
concentrations of ivabradine and S18982 were measured. The plasma PK of ivabradine was best
described by a 2-compartment model with mixed 0-and first-order absorption, linked to a 2-
compartment model for S18982. The introduction of interoccasion variabilities and period as
covariate into absorption-related parameters improved the model fit. Urine data have been
applied to estimate renal and nonrenal clearance, enabling a more detailed description of the elimination process. We developed a population PK model describing the plasma and urine PK of ivabradine and S18982 in healthy Korean adult males."

According to the news reporters, the research concluded: "This model might be useful for predicting the plasma and urine PK of ivabradine, potentially helping to identify the optimal dosing regimens in various clinical situations."


Our news journalists report that additional information may be obtained by contacting H.Y. Choi, Dept. of Clinical Pharmacology and Therapeutics, Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea. Additional authors for this research include K.S. Bae, S.H. Cho, J.L. Ghim, S. Choe, J.A. Jung and H.S Lim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcph.614. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *Journal of Clinical Pharmacology* is: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Pharmaceuticals, Seoul, South Korea, Pharmacokinetics.

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**Recent Findings from University of Ulsan Provides New Insights into Acinetobacter baumannii (In Vitro Synergistic Activity of Antimicrobial Agents in Combination against Clinical Isolates of Colistin-Resistant Acinetobacter baumannii)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Acinetobacter baumannii have been presented. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Emerging resistance to colistin in clinical Acinetobacter baumannii isolates is of growing concern. Since current treatment options for these strains are extremely limited, we investigated the in vitro activities of various antimicrobial combinations against colistin-resistant A. baumannii."

Financial support for this research came from Ministry of Health and Welfare (MOHW).

Our news journalists obtained a quote from the research from the University of Ulsan, "Nine clinical isolates (8 from bacteremia cases and 1 from a pneumonia case) of colistin-resistant A. baumannii were collected in Asan Medical Center, Seoul, South Korea, between January 2010 and December 2012. To screen for potential synergistic effects, multiple
combinations of two antimicrobials among 12 commercially available agents were tested using the multiple-combination bactericidal test (MCBT). Checkerboard tests were performed to validate these results. Among the 9 colistin-resistant strains, 6 were pandrug resistant and 3 were extensively drug resistant. With MCBT, the most effective combinations were colistin-rifampin and colistin-teicoplanin; both combinations showed synergistic effect against 8 of 9 strains. Colistin-aztreonam, colistin-meropenem, and colistin-vancomycin combinations showed synergy against seven strains. Colistin was the most common constituent of antimicrobial combinations that were active against colistin-resistant A. baumannii. Checkerboard tests were then conducted in colistin-based combinations. Notably, colistin-rifampin showed synergism against all nine strains (100%). Both colistin-vancomycin and colistin-teicoplanin showed either synergy or partial synergy. Colistin combined with another beta-lactam agent (aztreonam, ceftazidime, or meropenem) showed a relatively moderate effect. Colistin combined with ampicillin-sulbactam, tigecycline, amikacin, azithromycin, or trimethoprim-sulfamethoxazole demonstrated limited synergism."

According to the news editors, the research concluded: "Using MCBT and checkerboard tests, we found that only colistin-based combinations, particularly those with rifampin, glycopeptides, or beta-lactams, may confer therapeutic benefits against colistin-resistant A. baumannii."

For more information on this research see: In Vitro Synergistic Activity of Antimicrobial Agents in Combination against Clinical Isolates of Colistin-Resistant Acinetobacter baumannii. Antimicrobial Agents and Chemotherapy, 2016;60(11):6774-6779. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00839-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Gram-Negative Aerobic Rods and Cocci, Pore Forming Cytotoxic Proteins, Gram-Negative Aerobic Bacteria, Antituberculosis Agents, Acinetobacter baumannii, Gram-Negative Bacteria, Rifampicin Derivatives, Drugs and Therapies, Gammaproteobacteria, Membrane Proteins, Rifampin Therapy, Pharmaceuticals, Proteobacteria, Antiinfectives, Antimicrobials, Moraxellaceae, Antibiotics, Polymyxins, Colistin, University of Ulsan.

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& Wellness Week -- Data detailed on Drugs and Therapies - Antibiotics have been presented. According to news originating from Salt Lake City, Utah, by NewsRx correspondents, research stated, "Surgical debridement and broad-spectrum empiric antibiotics are first-line therapy for necrotizing soft tissue infections (NSTI). The objective of this multi-center retrospective review was to evaluate antimicrobial agent initiation and duration and compare outcomes in the treatment of patients with NSTI."

Our news journalists obtained a quote from the research from the University of Utah, "This review included adults with NSTI, as indicated by International Classification of Diseases, 9th Edition, Clinical Modification codes 728.86, 608.33, or 040.0, who were admitted to three academic institutions between 1/1/09 and 5/15/14. Demographics, antibiotic practices, operative management, and clinical outcomes were compared. A total of 341 patients were identified at the three centers. Subjects were comparable in age (median 53 years, p=0.14), gender (67% male, p=0.57) and body mass index (median 31.9 (p=0.31) between sites. No significant difference was found in time from admission to start of empiric antibiotic therapy between the three centers (median 1 d for each, p=0.70), but duration of antibiotic therapy was significantly different (Site A=16 d, Site B=12 d, Site C=9 d, medians, p<0.001). Although total number of operations differed between sites (median of two at Sites A and B, three at Site C, p=0.001), sites consistently operated on the day of patient arrival to their facility, and the number of debridements did not differ (median of two for all sites, p=0.10). Mortality rate (Site A=22%, Site B=18%, and Site C=9%, p=0.02) and length of stay for survivors (Site A=29 d, Site B=16 d, Site C=19 d, medians, p=0.001) was significantly different among centers. Variation in antibiotic duration between centers with expertise in the care of NSTI illustrates how little is known about best care practices for patients with NSTI."

According to the news editors, the research concluded: "Future studies should emphasize development of evidence-based practices for NSTI management to further improve the outcomes of this complex group of patients."

For more information on this research see: A Multi-Center Review of Care Patterns and Outcomes in Necrotizing Soft Tissue Infections. Surgical Infections, 2016;17(6):773-778. Surgical Infections can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Surgical Infections - www.liebertpub.com/overview/surgical-infections/53/)

The news correspondents report that additional information may be obtained from A. Cochran, University of Utah, Dept. of Surg, Salt Lake City, UT, United States. Additional authors for this research include D. Yang, M. Eggerstedt, Y. Zhai, P. Liebel, G. Graves, S. Dissanaike, M. Mosier and A. Cochran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/sur.2015.238. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Antibacterial Agents, Drugs and Therapies, Antimicrobials, Antibiotics, Therapy, University of Utah.

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Liver Diseases and Conditions - Hepatitis C Virus

Recent Findings from University of Utrecht Has Provided New Information about Hepatitis C Virus (Tyrphostin AG1478 Inhibits Encephalomyocarditis Virus and Hepatitis C Virus by Targeting Phosphatidylinositol 4-Kinase III alpha)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Hepatitis C Virus have been published. According to news reporting out of Utrecht, Netherlands, by NewsRx editors, research stated, "Encephalomyocarditis virus (EMCV), like hepatitis C virus (HCV), requires phosphatidylinositol 4-kinase III alpha(PI4KA) for genome replication."

Our news journalists obtained a quote from the research from the University of Utrecht, "Here, we demonstrate that tyrphostin AG1478, a known epidermal growth factor receptor (EGFR) inhibitor, also inhibits PI4KA activity, both in vitro and in cells. AG1478 impaired replication of EMCV and HCV but not that of an EMCV mutant previously shown to escape PI4KA inhibition."

According to the news editors, the research concluded: "This work uncovers novel cellular and antiviral properties of AG1478, a compound previously regarded only as a cancer chemotherapy agent."

For more information on this research see: Tyrphostin AG1478 Inhibits Encephalomyocarditis Virus and Hepatitis C Virus by Targeting Phosphatidylinositol 4-Kinase III alpha. Antimicrobial Agents and Chemotherapy, 2016;60(10):6402-6406. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting F.J.M. van Kuppeveld, University of Utrecht, Fac Vet Med, Dept. of Infect Dis & Immunol, Div Virol, Utrecht, Netherlands. Additional authors for this research include C. Harak, R. Klein, L. van der Linden, J. Strating, H.M. van der Schaar, V. Lohmann and F.J.M. van Kuppeveld.

Keywords for this news article include: Utrecht, Netherlands, Europe, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Encephalomyocarditis Virus, Flaviviridae Infections, Enzymes and Coenzymes, Benzylidene Compounds, Hepatitis C Virus, Gastroenterology, Picornaviridae, Hydrocarbons, Tyrphostins, RNA Viruses, Cardiovirus, Hepatology, Nitriles, Genetics, Virology, Kinase, Viral, HCV, University of Utrecht.

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Drugs and Therapies - Adrenal Cortical Steroids

Recent Findings from University of Western Australia Has Provided New Information about Adrenal Cortical Steroids (Maternofetal pharmacokinetics and fetal lung responses in chronically catheterized
sheep receiving constant, low-dose infusions ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Adrenal Cortical Steroids have been published. According to news reporting from Drugs and Therapies - Adrenal Cortical Steroids, research stated, "Antenatal steroids are standard of care for cases of anticipated preterm labor to improve neonatal outcomes. However, steroids are potent drugs, and their use in pregnancy remains largely unoptimized."

The news correspondents obtained a quote from the research from the University of Western Australia, "The objective of the study was to measure the maternofetal pharmacokinetics of constant, low-dose intravenous betamethasone phosphate infusions and correlate these data with the transcriptional effect exerted by subclinical betamethasone exposures on the ovine fetal lung. Thirty-two ewes carrying a single fetus had surgery to catheterize fetal and maternal jugular veins at 116 days of gestation (term, 150 days). Animals were recovered for 2 days and then were randomized to receive 2 sequential maternal intravenous infusions of either (n = 4/group) of the following: 1) saline, 0.125, 0.04, or 0.0125 mg/kg betamethasone phosphate over 3 hours; or 2) saline, 0.25, 0.08, or 0.025 mg/kg betamethasone phosphate over 12 hours. Each infusion was separated by 2 days. Fetal lung tissue was collected for analysis using quantitative polymerase chain reaction and an ovine-specific microarray. Plasma betamethasone levels from time-course catheter samples were determined by mass spectrometry. Data were assessed for distribution, variance, and tested by an analysis of variance. Betamethasone was detectable (>1 ng/mL) in fetal plasma only in animals randomized to 0.125 mg/kg 3 hour or 0.250 mg/kg 12 hour infusions. Fetal betamethasone half-lives were 1.7-2.8 times greater than maternal values. At maximum concentration, fetal plasma betamethasone levels were approximately 10% of maternal levels. Compared with saline control, all animals, other than those receiving 0.0125 mg/kg 3 hour betamethasone phosphate infusions, had evidence of dose-dependent glucocorticoid transcriptional responses in the fetal lung. Constant maternal betamethasone infusions delivering substantially lower fetal and maternal betamethasone maximal concentrations than those achieved with current clinical treatment protocols were associated with dose-dependent changes in glucocorticoid-response markers in the fetal lung."

According to the news reporters, the research concluded: "Further studies to determine the minimally efficacious dose of steroids for improving outcomes in preterm infants should be viewed as a priority."


Our news journalists report that additional information may be obtained by contacting M.W. Kemp, University of Western Australia, ARC Center Excellence, Sch Womens & Infants Hlth, Perth, WA, Australia. Additional authors for this research include M. Saito, H. Usuda, T.J. Molloy, Y. Miura, S. Sato, S. Watanabe, M. Clarke, M. Fossler, A. Schmidt, S.G. Kallapur, B.W. Kramer, J.P. Newnham and A.H. Jobe.

Keywords for this news article include: Perth, Australia, Australia and New Zealand, Adrenal Cortical Steroids, Adrenal Cortex Hormones, Dermatological Agents, Betamethasone Therapy, Drugs and Therapies, Pharmacokinetics, Phosphoric Acids, Topical
Recent Findings from University of Western Sydney Has Provided New Information about Cervical Cancer (Barriers to cervical cancer screening experienced by lesbian women: a qualitative study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cervical Cancer. According to news reporting from Penrith, Australia, by NewsRx journalists, research stated, "Aims and objectives. To provide deeper insights into the experiences of lesbian women in accessing cervical cancer screening and to inform strategies to increase the uptake of these services for this group of women."

The news correspondents obtained a quote from the research from the University of Western Sydney, "Lesbian women continue to face significant health disparities and are at increased risk for specific medical conditions. With cervical cancer being largely a preventable disease, early detection through the Papanicolaou test is crucial, as it enables treatment to commence early and limit the progression of the disease. Although the rates of cervical abnormalities among lesbian women are similar to that of the general population, lesbian women are less likely to have regular cervical screening. The reasons for this are largely unknown and there is a paucity of research that explores cervical cancer screening in lesbian women. Qualitative descriptive design. Participants (n = 9) were recruited via media release and those living in New South Wales who self-identified as lesbian, meeting the inclusion criteria were recruited for the study. Semi-structured, face to face and telephone interviews were used to obtain narrative data from lesbian women on their experiences of cervical screening. Three main themes emerged from the data: 'Lack of opportunistic screening'; 'Fear of penetration' and 'Encountering heterosexism and discrimination'. This current study builds on existing knowledge and further, has identified issues that have not been previously raised in the literature. New findings from this study highlight participants' fear of penetration, and stigma associated with accessing information, as substantial barriers to cervical screening. Relevance to clinical practice."

According to the news reporters, the research concluded: "This study's findings can guide future research and highlight possibilities for specific strategies to reduce health disparities among lesbian women."


Our news journalists report that additional information may be obtained by contacting C. Curmi, University of Western Sydney, Sch Nursing & Midwifery, Penrith, NSW 2751, Australia. Additional authors for this research include K. Peters and Y. Salamonson.

The direct object identifier (DOI) for that additional information is:
Recent Findings from University of York Has Provided New Information about Obesity (Simple tests for the diagnosis of childhood obesity: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating in York, United Kingdom, by NewsRx journalists, research stated, "There is a need to accurately quantify levels of adiposity in order to identify overweight and obesity in children. This systematic review aimed to identify all diagnostic accuracy studies evaluating simple tests for obesity and adiposity, including body mass index (BMI), skin-fold thickness and waist circumference, compared against high-quality reference tests."

The news reporters obtained a quote from the research from the University of York, "Twenty-four cohort studies including 25,807 children were included. BMI had good performance when diagnosing obesity: a sensitivity of 81.9% (95% confidence interval [CI]: 73.0 to 93.8) for a specificity of 96.0% (95% CI: 93.8 to 98.1). It was less effective at diagnosing overweight (sensitivity: 76.3%, 95% CI: 70.2 to 82.4; specificity: 92.1% 95% CI: 90.0 to 94.3). When diagnosing obesity, waist circumference had similar performance (sensitivity: 83.8%; specificity: 96.5%). Skin-fold thickness had slightly poorer performance (sensitivity: 72.5%; specificity: 93.7%). Few studies considered any other tests. There was no conclusive evidence that any test was generally superior to the others. BMI is a good simple diagnostic test for identifying childhood adiposity. It identifies most genuinely obese and adipose children while misclassifying only a small number as obese."

According to the news reporters, the research concluded: "There was no conclusive evidence that any test should be preferred to BMI, and the extra complexity of skin-fold thickness tests does not appear to improve diagnostic accuracy."


Our news correspondents report that additional information may be obtained by contacting M. Simmonds, University of York, Center Reviews & Disseminat, York YO10 5DD, N Yorkshire, United Kingdom. Additional authors for this research include A. Llewellyn, C.G. Owen and N. Woolacott.

Keywords for this news article include: York, United Kingdom, Europe, Nutritional and Metabolic Diseases and Conditions, Diagnostics and Screening, Nutrition Disorders, Diet
Recent Findings from Veterans Affairs Medical Center Has Provided New Information about Inflammation (Loss of Junctional Adhesion Molecule A Promotes Severe Steatohepatitis in Mice on a Diet High in Saturated Fat, Fructose, and Cholesterol)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Inflammation. According to news reporting originating in Decatur, Georgia, by NewsRx journalists, research stated, "There is evidence from clinical studies that compromised intestinal epithelial permeability contributes to the development of nonalcoholic steatohepatitis (NASH), but the exact mechanisms are not clear. Mice with disruption of the gene (F11r) encoding junctional adhesion molecule A (JAM-A) have defects in intestinal epithelial permeability."

The news reporters obtained a quote from the research from Veterans Affairs Medical Center, "We used these mice to study how disruption of the intestinal epithelial barrier contributes to NASH. Male C57BL/6 (control) or F11r(-/-) mice were fed a normal diet or a diet high in saturated fat, fructose, and cholesterol (HFCD) for 8 weeks. Liver and intestinal tissues were collected and analyzed by histology, quantitative reverse-transcription polymerase chain reaction, and flow cytometry. Intestinal epithelial permeability was assessed in mice by measuring permeability to fluorescently labeled dextran. The intestinal microbiota were analyzed using 16S ribosomal RNA sequencing. We also analyzed biopsy specimens from proximal colons of 30 patients with nonalcoholic fatty liver disease (NAFLD) and 19 subjects without NAFLD (controls) undergoing surveillance colonoscopy. F11r(-/-) mice fed a HFCD, but not a normal diet, developed histologic and pathologic features of severe NASH including steatosis, lobular inflammation, hepatocellular ballooning, and fibrosis, whereas control mice fed a HFCD developed only modest steatosis. Interestingly, there were no differences in body weight, ratio of liver weight: body weight, or glucose homeostasis between control and F11r(-/-) mice fed a HFCD. In these mice, liver injury was associated with significant increases in mucosal inflammation, tight junction disruption, and intestinal epithelial permeability to bacterial endotoxins, compared with control mice or F11r(-/-) mice fed a normal diet. The HFCD led to a significant increase in inflammatory microbial taxa in F11r(-/-) mice, compared with control mice. Administration of oral antibiotics or sequestration of bacterial endotoxins with sevelamer hydrochloride reduced mucosal inflammation and restored normal liver histology in F11r(-/-) mice fed a HFCD. Protein and transcript levels of JAM-A were significantly lower in the intestinal mucosa of patients with NAFLD than without NAFLD; decreased expression of JAM-A correlated with increased mucosal inflammation. Mice with defects in intestinal epithelial permeability develop more severe steatohepatitis after a HFCD than control mice, and colon tissues from patients with NAFLD have lower levels of JAM-A and higher levels of inflammation than subjects without NAFLD. These findings indicate that intestinal epithelial barrier function and microbial dysbiosis contribute to the development of NASH."

According to the news reporters, the research concluded: "Restoration of intestinal barrier integrity and manipulation of gut microbiota might be developed as therapeutic strategies..."
for patients with NASH."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.gastro.2016.06.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Decatur, Georgia, United States, North and Central America, Inflammation, Histology, Genetics, Veterans Affairs Medical Center.

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**Central Nervous System Diseases and Conditions —**

**Recent Findings from Walter Reed Army Institute of Research Has Provided New Information about Brain Injuries (Neurochemical changes following combined hypoxemia and hemorrhagic shock in a rat model of penetrating ballistic-like brain injury: A ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Central Nervous System Diseases and Conditions - Brain Injuries. According to news originating from Silver Spring, Maryland, by NewsRx correspondents, research stated, "Energy metabolic dysfunction is a key determinant of cellular damage following traumatic brain injury and may be worsened by additional insults. This study evaluated the acute/subacute effects of combined hypoxemia (HX) and hemorrhagic shock (HS) on cerebral interstitial levels of glucose, lactate, and pyruvate in a rat model of penetrating ballistic-like brain injury (PBBI)."

Our news journalists obtained a quote from the research from the Walter Reed Army Institute of Research, "Rats were randomly assigned into the sham control, PBBI, and combined injury (P + HH) groups. The P + HH group received PBBI followed by 30-minute HX and 30 minute HS. Samples were collected from striatum (perilesional region) using intracerebral microdialysis at 1 to 3 hours after injury and then at 1 to 3, 7, and 14 days after injury. Glucose, lactate, and pyruvate were measured in the dialysate samples. Glucose levels dropped significantly up to 24 hours following injury in both PBBI and P + HH groups (p < 0.05). A reduction in pyruvate was observed in the PBBI group from 24 to 72 hours after injury (vs. sham). In the P + HH group, the pyruvate was significantly reduced from 2 to 24 hours after injury (p < 0.05 vs. PBBI). This prominent reduction persisted for 14 days after injury. In contrast, lactate levels were significantly increased in the PBBI group during the first 24 hours after injury and remained elevated out to 7 days. The P + HH group exhibited a similar trend of
lactate increase as did the PBBI group. Critically, P + HH further increased the lactate-to-
pyruvate ratio by more than twofold (vs. PBBI) during the first 24 hours. The ratio reached a
peak at 2 hours and then gradually decreased, but the level remained significantly higher than
that in the sham control from 2 to 14 days after injury (p < 0.05). This study identified the
temporal profile of energy-related neurochemical dysregulation induced by PBBI and combined
injury in the perilesional region."

According to the news editors, the research concluded: "Furthermore, combined HX
and HS further reduced the pyruvate level and increased the lactate-to-pyruvate ratio following
PBBI, indicating the exacerbation of posttraumatic metabolic perturbation."

For more information on this research see: Neurochemical changes following
combined hypoxemia and hemorrhagic shock in a rat model of penetrating ballistic-like brain
injury: A microdialysis study. *Journal of Trauma and Acute Care Surgery*. 2016;81(5):860-
867. *Journal of Trauma and Acute Care Surgery* can be contacted at: Lippincott Williams &
Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott
Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery-
journals.lww.com/jtrauma/pages/default.aspx)

The news correspondents report that additional information may be obtained from
L.Y. Leung, Walter Reed Army Inst Res, Brain Trauma Neuroprotect & Neurorestorat Branch,
Center Military Psychiat & Neurosci, Silver Spring, MD, United States. Additional authors for
this research include Y. Deng-Bryant, K. Cardiff, M. Winter, F. Tortella and D. Shear.

Keywords for this news article include: Silver Spring, Maryland, United States,
North and Central America, Central Nervous System Diseases and Conditions, Cranioencephalic
Trauma, Hemorrhagic Shock, Microtechnology, Brain Injuries, Microdialysis, Hematology,
Keto Acids, Pyruvates, Walter Reed Army Institute of Research.

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**Oncology - Prostate Cancer**

**Recent Findings from Western University Provides New Insights into
Prostate Cancer (Target margins in radiotherapy of prostate cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to
news reporting from London, Canada, by NewsRx journalists, research stated, "We reviewed the
literature on the use of margins in radiotherapy of patients with prostate cancer, focusing on
different options for image guidance (IG) and technical issues. The search in PubMed database
was limited to include studies that involved external beam radiotherapy of the intact prostate."

The news correspondents obtained a quote from the research from Western
University, "Post-prostatectomy studies, brachytherapy and particle therapy were excluded. Each
article was characterized according to the IG strategy used: positioning on external marks using
room lasers, bone anatomy and soft tissue match, usage of fiducial markers, electromagnetic
tracking and adapted delivery. A lack of uniformity in margin selection among institutions was
evident from the review. In general, introduction of pre-and in-treatment IG was associated with
smaller planning target volume (PTV) margins, but there was a lack of definitive
experimental/clinical studies providing robust information on selection of exact PTV values. In
addition, there is a lack of comparative research regarding the cost-benefit ratio of the different
strategies: insertion of fiducial markers or electromagnetic transponders facilitates prostate
gland localization but at a price of invasive procedure; frequent pretreatment imaging increases patient in-room time, dose and labour; online plan adaptation should improve radiation delivery accuracy but requires fast and precise computation.

According to the news reporters, the research concluded: "Finally, optimal protocols for quality assurance procedures need to be established."


Our news journalists report that additional information may be obtained by contacting S. Yartsev, Western Univ, Dept. of Med Biophys, London, ON, Canada.

Keywords for this news article include: London, Ontario, Canada, North and Central America, Cancer, Article Review, Prostatic Neoplasms, Prostate Cancer, Radiotherapy, Oncology, Therapy, Western University.

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**Adenocarcinomas**

**Recent Findings from Xi'an Jiao Tong University Provides New Insights into Adenocarcinomas (The Management and Prognostic Prediction of Adenocarcinoma of Appendix)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Adenocarcinomas. According to news reporting out of Shaanxi, People's Republic of China, by NewsRx editors, research stated, "Malignant tumours of the appendix are quite rare, especially appendiceal adenocarcinomas, which may be difficult to detect preoperatively or intraoperatively. We collected data for 1404 patients with adenocarcinoma of the appendix from the Surveillance, Epidemiology, and End Results Program (SEER) database to explore the potential associations between clinicopathological factors and overall survival."

Our news journalists obtained a quote from the research from Xi'an Jiao Tong University, "Furthermore, a novel nomogram for predicting prognosis was developed based on our analysis of the SEER data. The nomogram prediction model included seven prognostic factors derived based on different clinical estimates. When compared with the traditional tumour-node-metastasis (TNM) staging system, the nomogram prediction model showed superior discriminatory power (Harrell's C-index, 0.741 vs. 0.686) and a greater degree of similarity to actual 5-year overall survival after calibration (Akaike Information Criterion index, 5270.781 vs. 5430.141). Finally, we provide recommendations for the management of patients with adenocarcinoma of the appendix. Notably, we found the depth of adenocarcinoma invasion may be used as an indicator to determine the optimal surgical approach. For mucinous adenocarcinomas of the appendix, because these tumours are characterized by unique biological behaviour, intraoperative hyperthermic intraperitoneal chemotherapy (HIPEC) is recommended."

According to the news editors, the research concluded: "However, whether systematic chemotherapy should be administered to patients with adenocarcinoma of the appendix requires further investigation."


Keywords for this news article include: Shaanxi, People's Republic of China, Asia, Adenocarcinomas, Adenocarcinoma, Epidemiology, Xi'an Jiao Tong University.

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Oncology - Cancer Research

Recent Findings from Yale University Provides New Insights into Cancer Research (Era of a Single Population-Based Payment to a Cancer Center Delivering the Value of Interventional Oncology in Accountable Care Organizations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Research.

According to news reporting from New Haven, Connecticut, by NewsRx journalists, research stated, "To curtail increasing health care costs, the government has ushered in the era of the Accountable care organization (ACO)."

The news correspondents obtained a quote from the research from Yale University, "The purposes of this review are to evaluate the effects the ACO will have on the practice of interventional oncology and its role in cancer care and to explore methods to assimilate. Proposed action points include integration into the modern-day cancer center, adoption of an outpatient clinic, mandatory performance measures, and workflow and cost analysis."

According to the news reporters, the research concluded: "If adaptations are made, interventional oncology can continue its role in cancer treatment, will provide more effective care, and reach more patients in the new ACO."

For more information on this research see: Era of a Single Population-Based Payment to a Cancer Center Delivering the Value of Interventional Oncology in Accountable Care Organizations. *Cancer Journal*, 2016;22(6):423-426. *Cancer Journal* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting H.S. Kim, Yale University, Yale Canc Center, New Haven, CT, United States. Additional authors for this research include R. Lencioni, H.P. Forman and H.S. Kim.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Cancer Research, Cancer, Article Review, Oncology, Yale University.

Our reports deliver fact-based news of research and discoveries from around the
Recent Findings from Zhejiang University Advance Knowledge in Pancreatic Cancer (IR-780 Loaded Phospholipid Mimicking Homopolymeric Micelles for Near-IR Imaging and Photothermal Therapy of Pancreatic Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Pancreatic Cancer is now available. According to news reporting originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "IR-780 iodide, a near-infrared (near-IR) fluorescent dye, can be utilized as an effective theranostic agent for both imaging and photothermal therapy. However, its lipophilicity limits its further biomedical applications."

Funders for this research include Ministry of Education of the People's Republic of China, National Natural Science Foundation of China, Zhejiang Province.

Our news editors obtained a quote from the research from Zhejiang University, "Herein, we synthesized a phospholipid mimicking amphiphilic homopolymer poly(12-(methacryloyloxy)dodecyl phosphorylcholine) (PMDPC) via reversible addition-fragmentation chain transfer (RAFT) polymerization. The amphiphilic homopolymer PMDPC can be self-assembled into micelles and used for the encapsulation of IR-780. The IR-780 loaded micelles (PMDPC-IR-780) exhibited low cytotoxicity in the dark, whereas remarkable photothermal cytotoxicity to pancreatic cancer cells (BxPC-3) was observed upon near-IR laser irradiation. We further investigated in vivo biodistribution of PMDPC-IR-780 micelles. Higher accumulation of PMDPC-IR-780 than that of free IR-780 in tumor tissue was verified, which might be ascribed to the enhanced permeability and retention (EPR) effect and long circulation time benefitting from the zwitterionic phosphorylcholine surface."

According to the news editors, the research concluded: "Therefore, the IR-780 loaded phospholipid mimicking homopolymeric micelles could have great potential for cancer theranostics."


The news editors report that additional information may be obtained by contacting Y. Chen, MOE Key Laboratory of Macromolecular Synthesis and Functionalization, Dept. of Polymer Science and Engineering, Zhejiang University, Hangzhou 310027, People's Republic of China. Additional authors for this research include Z. Li, H. Wang, Y. Wang, H. Han, Q. Jin and J. Ji.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b00251. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Therapy, Hangzhou, Oncology, Gastroenterology, Pancreatic Cancer, Pancreatic Neoplasms, People's Republic of China.

Our reports deliver fact-based news of research and discoveries from around the
Neutral Amino Acids

Recent Findings from Zhejiang University Has Provided New Data on Neutral Amino Acids (Obg-like ATPase 1 regulates global protein serine/threonine phosphorylation in cancer cells by suppressing the GSK3b-inhibitor 2-PP1 positive feedback loop)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neutral Amino Acids. According to news reporting from Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "OLA1 is an Obg family P-loop NTPase that possesses both GTP-and ATP-hydrolyzing activities. Here we report that OLA1 is a GSK3b interacting protein, and through its ATPase activity, inhibits the GSK3b-mediated activation of protein serine/threonine phosphatase 1 (PP1)."

The news correspondents obtained a quote from the research from Zhejiang University, "It is hypothesized that GSK3b phosphorylates inhibitor 2 (I-2) of PP1 at Thr-72 and activates the PP1 ? I-2 complex, which in turn dephosphorylates and stimulates GSK3b, thus forming a positive feedback loop. We revealed that the positive feedback loop is normally suppressed by OLA1, and becomes over-activated under OLA1 deficiency, resulting in increased cellular PP1 activity and dephosphorylation of multiple Ser/Thr phosphoproteins, and more strikingly, decreased global protein threonine phosphorylation. Furthermore, using xenograft models of colon cancer (H116) and ovarian cancer (SKOV3), we established a correlation among downregulation of OLA1, over-activation of the positive feedback loop as indicated by under-phosphorylation of I-2, and more aggressive tumor growth."

According to the news reporters, the research concluded: "This study provides the first evidence for the existence of a GSK3b-I-2-PP1 positive feedback loop in human cancer cells, and identifies OLA1 as an endogenous suppressor of this signaling motif."

For more information on this research see: Obg-like ATPase 1 regulates global protein serine/threonine phosphorylation in cancer cells by suppressing the GSK3b-inhibitor 2-PP1 positive feedback loop. Oncotarget, 2016;7(3):3427-39.

Our news journalists report that additional information may be obtained by contacting D. Xu, Dept. of Surgical Oncology, The Second Affiliated Hospital, School of Medicine, Zhejiang University, Hangzhou, Zhejiang 310009, People's Republic of China. Additional authors for this research include R. Song, G. Wang, P.V. Jeyabal, A.M. Weiskoff, K. Ding and Z.Z Shi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6496. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, ATPase, Cancer, Serine, Hangzhou, Oncology, Threonine, Neutral Amino Acids, Enzymes and Coenzymes, Essential Amino Acids, People's Republic of China.

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Eye Diseases and Conditions - Age-Related Macular... 

Recent Findings in Age-Related Macular Degeneration Described by Researchers from Xi'an Jiao Tong University (The Association between LIPC rs493258 Polymorphism and the Susceptibility to Age-Related Macular Degeneration)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Eye Diseases and Conditions - Age-Related Macular Degeneration. According to news reporting originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "The purpose of this study was to evaluate the association of the hepatic lipase (LIPC) rs493258 polymorphism and susceptibility to age-related macular degeneration (AMD). A systematic search in PubMed, EMBASE, and ISI web of science databases was performed to identify eligible published studies without language restrictions up to April 2016."

Our news editors obtained a quote from the research from Xi'an Jiao Tong University, "Pooled odds ratios (ORs) with 95% confidence intervals (CIs) in different stages of AMD were estimated under different genetic models using meta-analytic methods. Seven studies comprising 20,559 cases and 17,200 controls met the inclusion criteria and were included in the meta-analysis. The LIPC rs493258 polymorphism showed a significant association with a lower risk of AMD under the allelic model (OR = 0.87, 95% CI = 0.84-0.90). Significant relationships between the variant and AMD were also observed in other genetic models (OR ranging from 0.71 to 0.86, all p<0.05). Stratified analysis based on ethnicity found that LIPC rs493258 polymorphism had a significant association with the decreased risk of the disease in the Caucasian population, but not in the Asian population. For late AMD, significant associations of the rs493258 polymorphism with a lower risk of this disease were also observed in the allelic genetic model (OR = 0.87, 95% CI = 0.83-0.90). This meta-analysis demonstrates that the T allele in the LIPC rs493258 polymorphism was significantly associated with the risk of any and late AMD."

According to the news editors, the research concluded: "The associations of the locus with early and late AMD risk in various populations need further exploration."

For more information on this research see: The Association between LIPC rs493258 Polymorphism and the Susceptibility to Age-Related Macular Degeneration. *International Journal of Environmental Research and Public Health*, 2016;13(10):1189-1198. *International Journal of Environmental Research and Public Health* can be contacted at: Mdpi Ag, St Albans-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting Y.F. Wang, Xi An Jiao Tong Univ, Sch Public Hlth, Hlth Sci Center, Xian 710061, People's Republic of China. Additional authors for this research include M.X. Wang, X.Q. Zhang, J. Nie, M. Zhang, X.H. Liu and L. Ma.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Age-Related Macular Degeneration, Retinal Diseases and Conditions, Genetics, Risk and Prevention, Eye Diseases and Conditions, Retinal Degeneration, Xi'an Jiao Tong University.

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Drugs and Therapies - Alendronate Therapy

Recent Findings in Alendronate Therapy Described by Researchers from Federal University (Solid-State Phase Transition Mechanism and Physical-Chemical Study of the Crystal Forms of Monosodium Alendronate: Trihydrate versus Anhydrate)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Alendronate Therapy are presented in a new report. According to news reporting originating from Alenafas, Brazil, by NewsRx correspondents, research stated, "Alendronic acid is one of the most effective diphosphonate compounds used for clinical treatment of bone disorders. It is administered orally as its monosodium salt, for which hydrate and anhydrous crystal forms are known."

Our news editors obtained a quote from the research from Federal University, "The monosodium alendronate trihydrate form (NaH(4)A center dot 3H(2)O) is incorporated into medicines as the Active Pharmaceutical Ingredient (API). The NaH(4)A center dot 3H(2)O form can be dehydrated at temperatures above 115 degrees C, resulting in the anhydrous form (NaH(4)A). Although the crystal structures of both forms have already been reported, an investigation of the reversible dehydration/hydration solid-phase transition is presented here for the first time. A solid-state mechanism for the phase transition, which involves the reversible dehydration-hydration of the NaH(4)A center dot 3H(2)O and NaH(4)A forms, is also proposed. A systematic study comparing the equilibrium solubility and discriminatory intrinsic dissolution of the NaH(4)A center dot 3H(2)O and NaH(4)A forms is included. To achieve this goal, an alternative method of quantifying alendronate anions released from the crystal forms into solution, flame photometry, is proposed and validated."

According to the news editors, the research concluded: "The stability and interconversion of the NaH(4)A center dot 3H(2)O and NaH(4)A forms are probed by differential scanning calorimetry (DSC), thermogravimetric analysis (TGA), Fourier transform infrared spectroscopy-attenuated total reflectance (FTIR-ATR), and powder X-ray diffraction (PXRD)."


The news editors report that additional information may be obtained by contacting A.C. Doriguetto, Univ Fed Alenafas, Inst Quim, Lab Cristallog, BR-37130000 Alenafas, MG, Brazil. Additional authors for this research include A.L.M. Viana, O. Viana and A.C. Doriguetto.

Keywords for this news article include: Alenafas, Brazil, South America, Alendronate Therapy Sodium, Drugs and Therapies, Bisphosphonates, Pharmaceuticals, Hormones, Federal University.

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Hematologic Diseases and Conditions - Anemia

Recent Findings in Anemia Described by Researchers from University of Florida (End-tidal carbon dioxide and occult injury in trauma patients ETCO2 does not rule out severe injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematologic Diseases and Conditions - Anemia. According to news reporting originating from Jacksonville, Florida, by NewsRx correspondents, research stated, "To determine if early measurement of end-tidal carbon dioxide (ETCO2) in nonintubated patients triaged to a level 1 trauma center has utility in ruling out severe injury. We performed a prospective cohort study of adult patients triaged to our urban, academic, level 1 trauma center."

Our news editors obtained a quote from the research from the University of Florida, "Included patients had ETCO2 measured within 30 minutes of arrival. Chart review was performed on enrolled patients to identify severe injury defined by: admission to an intensive care unit, need for an invasive procedure, blood product transfusion, acute blood loss anemia, and acute clinically significant finding on computed tomographic scan. Of 170 patients enrolled, 115 met the outcome of no severe injury. Mean ETCO2 for patients without and with severe injury was 33.1mmHg (SD, 5.8) and 30.3mmHg (SD, 6.7), respectively. This difference reached statistical significance (P = .05), but did not demonstrate added clinical utility when combined with Glasgow Coma Scale, systolic blood pressure, and age in predicting the primary outcome (area under curve, 0.70 with ETCO2 vs area under curve, 0.68 without ETCO2, P = .5). Patients with ETCO2 <= 30mmHg were found to be older, more likely to require intensive care unit admission or emergency operative intervention, develop acute blood loss anemia, and have an acute finding on computed tomography than patients with a higher ETCO2. End-tidal carbon dioxide cannot be used to rule out severe injury in patients meeting criteria for trauma center care."

According to the news editors, the research concluded: "The ETCO2 <= 30 mm Hg may be associated with increased risk of traumatic severe injury."


The news editors report that additional information may be obtained by contacting D.J. Williams, University of Florida, Dept. of Emergency Med, Jacksonville, FL 32209, United States. Additional authors for this research include F.W. Guirgis, T.K. Morrissey, J. Wilkerson, R.L. Wears, C. Kalynych, A.J. Kerwin and S.A. Godwin.

Keywords for this news article include: Jacksonville, Florida, United States, North and Central America, Hematologic Diseases and Conditions, Inorganic Carbon Compounds, Carbon Dioxide, Chemicals, Anemia, University of Florida.

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Recent Findings in Antiepileptics Described by Researchers from Albany College of Pharmacy and Health Sciences (Anticonvulsants Based on the a-Substituted Amide Group Pharmacophore Bind to and Inhibit Function of Neuronal Nicotinic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antiepileptics have been presented. According to news reporting out of Albany, New York, by NewsRx editors, the research stated, "Although the antiepileptic properties of a-substituted lactams, acetamides, and cyclic imides have been known for over 60 years, the mechanism by which they act remains unclear. I report here that these compounds bind to the nicotinic acetylcholine receptor (nAChR) and inhibit its function."

Financial supporters for this research include Epilepsy Foundation, Partnership for Pediatric Epilepsy Research.

Our news journalists obtained a quote from the research from the Albany College of Pharmacy and Health Sciences, "Using transient kinetic measurements with functionally active, nondesensitized receptors, I have discovered that (i) a-substituted lactams and cyclic imides are noncompetitive inhibitors of heteromeric subtypes (such as a4b2 and a3b4) of neuronal nAChRs and (ii) the binding affinity of these compounds toward the nAChR correlates with their potency in preventing maximal electroshock (MES)-induced convulsions in mice. Based on the hypothesis that a-substituted amide group is the essential pharmacophore of these drugs, I found and tested a simple compound, 2-phenylbutyramide. This compound indeed inhibits nAChR and shows good anticonvulsant activity in mice. Molecular docking simulations suggest that a-substituted lactams, acetamides, and cyclic imides bind to the same sites on the extracellular domain of the receptor."

According to the news editors, the research concluded: "These new findings indicate that inhibition of brain nAChRs may play an important role in the action of these antiepileptic drugs, a role that has not been previously recognized."

For more information on this research see: Anticonvulsants Based on the a-Substituted Amide Group Pharmacophore Bind to and Inhibit Function of Neuronal Nicotinic Acetylcholine Receptors. Acs Chemical Neuroscience, 2016;7(3):316-26. (American Chemical Society - www.acs.org; Acs Chemical Neuroscience - www.pubs.acs.org/journal/acncdm)

Our news journalists report that additional information may be obtained by contacting A.V. Krivoshein, Dept. of Basic and Social Sciences, Albany College of Pharmacy and Health Sciences , 106 New Scotland Avenue, Albany, New York 12208, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschemneuro.5b00259. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiepileptics, Albany, New York, United States, Acetylcholine, Biogenic Amines, Drugs and Therapies, North and Central America.

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Drugs and Therapies - Antiretrovirals

Recent Findings in Antiretrovirals Described by Researchers from University of Toronto (A Multi-State Model Examining Patterns of Transitioning Among States of Engagement in Care in HIV-Positive Individuals Initiating Combination Antiretroviral Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antiretrovirals is now available. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "Common measures of engagement in care fail to acknowledge that infrequent follow-up may occur either intentionally among patients with sustained virologic suppression or unintentionally among patients with poor clinical outcomes. Five states of HIV care were defined within the Canadian Observational Cohort Collaboration following combination antiretroviral therapy (cART) initiation: (1) guidelines HIV care [suppressed viral load (VL) and CD4 >200 cells per cubic millimeter, no gaps in cART >3 months, no gaps in CD4 or VL measurement >6 months], (2) successful care with decreased frequency of follow-up (as above except no gaps in CD4 or VL measurement >12 months), (3) suboptimal care (unsuppressed VL, CD4,200 cells per cubic millimeter on 2 consecutive visits, >= 1 gap in cART >3 months, or >= 1 gap in CD4 or VL measurement >12 months), (4) loss to follow-up (no contact for 18 months), and (5) death."

Our news journalists obtained a quote from the research from the University of Toronto, "Multi-state models were used to determine factors associated with transitioning among states. In total, 7810 participants were included. Younger age, female gender, Indigenous ethnicity, and people who have injected drugs were associated with increased likelihoods of transitioning from guidelines to suboptimal care and decreased likelihoods of transitioning from suboptimal to guidelines care. One-fifth of individuals in successful, decreased follow-up after cART initiation (mean sojourn time 0.72 years) were in suboptimal care in subsequent years. Using routinely collected data, we have developed a flexible framework that characterizes patient transitions among states of HIV clinical care."

According to the news editors, the research concluded: "We have demonstrated that multi-state models provide a useful approach to supplement 'cascade of care' work."

For more information on this research see: A Multi-State Model Examining Patterns of Transitioning Among States of Engagement in Care in HIV-Positive Individuals Initiating Combination Antiretroviral Therapy. Jaulds-Journal of Acquired Immune Deficiency Syndromes, 2016;73(5):531-539. Jaulds-Journal of Acquired Immune Deficiency Syndromes can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news correspondents report that additional information may be obtained from J. Raboud, University of Toronto, Dalla Lana Sch Public Hlth, Toronto, ON, Canada. Additional authors for this research include M. Loutfy, A.M. Bayoumi, T. Antoniou, A.N. Burchell, S. Walmsley, C. Cooper, M.B. Klein, N. Machouf, J.S.G. Montaner, S.B. Rourke, C. Tsoukas, R. Hogg and J. Raboud.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Antiretrovirals, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Therapy, University
Recent Findings in Anxiolytics Sedatives and Hypnotics Described by L.R. Pinto Jr and Colleagues (Eszopiclone versus zopiclone in the treatment of insomnia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Anxiolytics Sedatives and Hypnotics. According to news reporting originating in Sao Paulo, Brazil, by NewsRx journalists, research stated, "To determine the therapeutic effects of two selective GABA-A agonists, zopiclone and eszopiclone, in the treatment of insomnia. This study comprised a phase III, single-center, randomized, double-blind, double-dummy, parallel-group, non-inferiority trial."

The news reporters obtained a quote from the research, "Patients were randomized to receive zopiclone 7.5 mg or eszopiclone 3 mg, both orally, for four weeks. In total, 199 patients were evaluated during two visits and then followed for at least six weeks. The primary endpoint was the Insomnia Severity Index after four weeks of treatment. Secondary endpoints were obtained through polysomnography data, including total sleep time, sleep latency and sleep efficiency. The frequency of adverse events was also analyzed. ClinicalTrials.gov: NCT01100164. The primary efficacy analysis demonstrated the non-inferiority of eszopiclone over zopiclone. Analysis of objective parameters assessed by polysomnography showed that eszopiclone increased total sleep time and also improved sleep efficiency. The safety profile of both study treatments was similar and the most common events reported in both groups were dysgeusia, headache, dizziness, irritability and nausea. Adverse events were observed in 223 patients, 109 (85.2%) in the eszopiclone group and 114 (87.7%) in the zopiclone group."

According to the news reporters, the research concluded: "Based on the Insomnia Severity Index at the end of four weeks of treatment, eszopiclone demonstrated efficacy comparable to that of zopiclone in the treatment of insomnia, increasing total sleep time as well as sleep efficiency according to polysomnography."


Our news correspondents report that additional information may be obtained by contacting L.R. Pinto Jr, Departamento de Psicobiologia, Universidade Federal de Sao Paulo (UNIFESP), Sao Paulo, SP, Brazil. Additional authors for this research include L.R. Bittencourt, E.C. Treptow, L.R. Braga and S. Tufik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.6061/clinics/2016%2801%2902. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Brazil, Sao Paulo, South America, Drugs and Therapies, Eszopiclone Therapy, Hypnotics and Sedatives, Central Nervous System Agents, Anxiolytics Sedatives and Hypnotics.

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Recent Findings in Aplastic Anemia Described by Researchers from Kyung Hee University (Invasive Fungal Sinusitis by Lasiodiplodia theobromae in an Patient with Aplastic Anemia: An Extremely Rare Case Report and Literature Review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Bone Marrow Diseases and Conditions - Aplastic Anemia are presented in a new report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Human Lasiodiplodia theobromae infection has not been reported frequently. We report the first case of invasive L. theobromae nasal and neck infection."

Our news editors obtained a quote from the research from Kyung Hee University, "A 66-year-old male visited our hospital with anemia and general weakness. He showed pancytopenia, and his bone marrow examination revealed markedly decreased hematopoietic cells. The patient was presumed to have iatrogenic aplastic anemia due to mushroom toxicity. He began treatment for multiple organ infections with broad-spectrum antibiotics and antifungal agents. During hospitalization, he complained of nasal obstruction and left neck lymph node enlargement. A mass-like lesion was observed, and a nasal mass biopsy was performed. The mass was identified as a fungal ball. He underwent surgical excision for the nasal mass and the neck lymph node. The pathologic examination indicated an invasive fungal infection, and the lymph node revealed chronic granulomatous inflammation with fungal infection. 18s rRNA sequencing revealed that the sequence shared 99 % identity with L. theobromae. The nasal mass fungus was identified by internal transcribed spacer region sequencing from pathologic paraffin sections. The obtained sequence corresponded to Lasiodiplodia or Macrophoma. The sequence corresponded to the neck discharge sequence results. Hence, the patient was diagnosed with invasive fungal sinusitis with neck lymph node involvement caused by L. theobromae. To our knowledge, this is the first report of L. theobromae infection in Korea and the first report of invasive L. theobromae fungal sinusitis in the literature."

According to the news editors, the research concluded: "We should include more precise evaluations of additional novel fungal species as possible candidates."

For more information on this research see: Invasive Fungal Sinusitis by Lasiodiplodia theobromae in an Patient with Aplastic Anemia: An Extremely Rare Case Report and Literature Review. Mycopathologia, 2016;181(11-12):901-908. Mycopathologia can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Mycopathologia - www.springerlink.com/content/0301-486x/)

The news editors report that additional information may be obtained by contacting H.J. Lee, Kyung Hee Univ, Dept. of Lab Med, Sch Med, Seoul 02447, South Korea. Additional authors for this research include Y.J. Kim, H.J. Lee, S.H. Dong, S.W. Kim, H.J. Huh and C.S. Ki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11046-016-0062-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Hemic and
Recent Findings in Applied Bioinformatics Described by Researchers from Nanjing Medical University (Expression and prognostic value of E2F activators in NSCLC and subtypes: a research based on bioinformatics analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Applied Bioinformatics have been presented. According to news reporting from Changzhou, People's Republic of China, by NewsRx journalists, research stated, "E2F activators (E2F1-3) codify a family of transcription factors (TFs) in higher eukaryotes. E2F activators are involved in the cell cycle regulation and synthesis of DNA in mammalian cells, and their overexpression has been detected in many human cancers."

The news correspondents obtained a quote from the research from Nanjing Medical University, "However, their clinical significance has not been deeply researched in non-small-cell lung cancer (NSCLC), and bioinformatics analysis has never been reported to explore their clinical role in NSCLC. In the current study, we investigated the expression and prognostic value of E2F activators in NSCLC patients through the 'TCGA datasets' and the 'Kaplan-Meier plotter' (KM plotter) database. Hazard ratio (HR), 95% confidence intervals, and log-rank P were calculated. Compared with normal tissue samples, E2F activators were overexpressed in NSCLC tissues, in lung adenocarcinoma (LUAD) tissues, and in lung squamous cell carcinoma (LUSC) tissues. In NSCLC patients, E2F1 expression was significantly correlated with age, sex, and tumor stage. E2F2 expression was found to be significantly correlated with sex and tumor size. We further demonstrated that E2F1 and E2F2 overexpressions were significantly associated with poor prognosis. In LUAD patients, E2F1 expression was significantly correlated with tumor size and tumor stage. E2F2 expression was significantly correlated with lymph node status and tumor stage. E2F1 and E2F2 overexpression showed a significant association with poor prognosis, while E2F3 overexpression was significantly correlated to better prognosis. In LUSC patients, E2F1 was concluded to be significantly correlated with tumor stage."

According to the news reporters, the research concluded: "However, E2F activators were not found to be correlated to prognosis."

For more information on this research see: Expression and prognostic value of E2F activators in NSCLC and subtypes: a research based on bioinformatics analysis. Tumor Biology, 2016;37(11):14979-14987. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting Y. Wang, Nanjing Medical University, Changzhou Peoples Hosp 2, Dept. of Cardiothorac Surg, Changzhou 213003, People's Republic of China. Additional authors for this
Arrhythmia

Recent Findings in Arrhythmia Described by Researchers from Children's Hospital (Arrhythmias After Stage I Hybrid Palliation in Single-Ventricle Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Arrhythmia are presented in a new report. According to news reporting from Columbus, Ohio, by NewsRx journalists, research stated, "The hybrid procedure is an alternative palliative strategy for patients with single-ventricle physiology. No data exist documenting the incidence of arrhythmias after the hybrid procedure."

The news correspondents obtained a quote from the research from Children's Hospital, "Goal of this study was to determine the incidence and type of arrhythmias in patients undergoing the hybrid procedure. A retrospective chart review was performed including all patients undergoing the hybrid procedure between January of 2010 through December of 2013. Sixty-five patients underwent the hybrid procedure during this time period (43 HLHS, 22 other). Average gestational age at admission was 37.7 weeks. Average age at time of procedure was 7.6 days. Five patients had documented arrhythmias (7.7%). Four were supraventricular tachycardias, and 1 was a sinus bradycardia. One patient with arrhythmia died during hospitalization, and another patient with arrhythmia died during the interstage period. Hybrid palliation for patients with single-ventricle physiology has a low incidence of arrhythmias. In this cohort of patients, arrhythmias did not contribute to mortality."

According to the news reporters, the research concluded: "There was a trend toward association between arrhythmias and longer total length of hospital stay."

For more information on this research see: Arrhythmias After Stage I Hybrid Palliation in Single-Ventricle Patients. Pediatric Cardiology, 2016;37(8):1416-1421. Pediatric Cardiology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Pediatric Cardiology - www.springerlink.com/content/0172-0643/)

Our news journalists report that additional information may be obtained by contacting J. Moore, Nationwide Childrens Hosp, Columbus, OH 43205, United States. Additional authors for this research include D. Paulus, C.L. Cua, N.J. Kertesz, Y.J. Miao, J.P. Cheatham, M. Galantowicz and R. Fernandez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00246-016-1450-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Arrhythmia, Cardiology, Children's Hospital.
Recent Findings in Asthma Described by Researchers from Department of Internal Medicine (Autophagy in airway diseases: a new frontier in human asthma?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Asthma have been published. According to news originating from Davis, California, by NewsRx correspondents, research stated, "The study of autophagy ('self-eating'), a fundamental cell fate pathway involved in physiological and pathological subcellular processes, opens a new frontier in the continuous search for novel therapies for human asthma. Asthma is a complex syndrome with different disease phenotypes."

Financial supporters for this research include National Institutes of Health, Manitoba Medical Services Foundation.

Our news journalists obtained a quote from the research from the Department of Internal Medicine, "Autophagy plays a central role in cell physiology, energy and metabolism, and cell survival. Autophagy's hallmark is the formation of double-membrane autophagic autophagosomes, and this process is operational in airway epithelial and mesenchymal cells in asthma. Genetic associations between autophagy genes and asthma have been observed including single nucleotide polymorphisms in Atg5 which correlate with reduced lung function. Immune mechanisms important in asthma such as Th2 cells and eosinophils also manifest autophagy. Lastly, we address the role of autophagy in extracellular matrix deposition and fibrosis in asthmatic airways remodeling, a pathologic process still without effective therapy, and discuss potential pharmacologic inhibitors."

According to the news editors, the research concluded: "We end by offering two opposing but plausible hypotheses as to how autophagy may be directly involved in airway fibrosis."


The news correspondents report that additional information may be obtained from A.A. Zeki, Division of Pulmonary, Critical Care and Sleep Medicine, Dept. of Internal Medicine, Center for Comparative Respiratory Biology and Medicine, Davis, CA, United States. Additional authors for this research include B. Yeganeh, N.J. Kenyon, M. Post and S. Ghavami.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/all.12761. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Davis, Asthma, Genetics, California, United States, Article Review, North and Central America, Respiratory Hypersensitivity, Bronchial Diseases and Conditions, Immune System Diseases and Conditions, Obstructive Lung Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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Cardiovascular Diseases and Conditions...

**Recent Findings in Atherosclerosis Described by Researchers from Huazhong University of Science and Technology (Selenoprotein S Is Highly Expressed in the Blood Vessels and Prevents Vascular Smooth Muscle Cells From Apoptosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Atherosclerosis have been presented. According to news originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "Atherosclerosis and related cardiovascular diseases (CVD) represent one of the greatest threats to human health worldwide. The protection of vascular smooth muscle cells (VSMCs) from apoptosis in the plaque has become an important therapeutic target for atherosclerotic plaque stabilization."

Funders for this research include National Natural Science Foundation of China, Excellent Youth Foundation of Hubei Scientific Committee.

Our news journalists obtained a quote from the research from the Huazhong University of Science and Technology, "A significant association of selenoprotein S (SelS) gene polymorphism with atherosclerotic CVD has been reported in epidemiologic studies, but the underlying mechanism remains unknown. In this paper, SelS expression in the thoracic aorta and its role in the protection of VSMCs from apoptosis have been studied. Western blot analysis showed that SelS was highly expressed in rat thoracic aorta. SelS gene silence by small interference RNA (siRNA) rendered VSMCs more sensitive to hydrogen peroxide or tunicamycin-induced injury and apoptosis, as determined by MTT assay, Hoechst staining, and annexin V/propidium iodide staining. SelS silence aggravated hydrogen peroxide-induced oxidative stress and phosphorylation of p38 MAPK and c-Jun N-terminal kinase (JNK) in VSMCs. Furthermore, SelS silence enhanced endoplasmic reticulum (ER) stress induced by hydrogen peroxide or tunicamycin, as showed by the increased protein levels of ER chaperone 78 kDa glucose-regulated protein (GRP78), ER stress transducer phosphorylated protein kinase RNA like ER kinase (PERK), and the proapoptotic transcription factor C/EBP homologous protein (CHOP)."

According to the news editors, the research concluded: "The present study suggested that SelS highly expressed in the blood vessel might protect VSMCs from apoptosis by inhibiting oxidative stress and ER stress. Our finding provided mechanistic insights for the potential preventive role of SelS in atherosclerotic CVD."


The news correspondents report that additional information may be obtained from Y. Ye, School of Chemistry and Chemical Engineering, Huazhong University of Science and Technology, Wuhan, 430074, People's Republic of China. Additional authors for this research include F. Fu, X. Li, J. Yang and H. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcb.25254. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Wuhan, Kinase, Genetics, Angiology,
Recent Findings in Atrial Fibrillation Described by Researchers from Henry Ford Hospital (Impact of Preoperative Atrial Fibrillation on Postoperative Thromboembolic Events After Left Ventricular Assist Device Implantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting originating from Detroit, Michigan, by NewsRx correspondents, research stated, "The incidence of atrial fibrillation (AF) among patients undergoing left ventricular assist device (LVAD) implantation is high. However, the impact of AF on clinical outcomes has not been clarified."

Our news editors obtained a quote from the research from Henry Ford Hospital, "We reviewed our 9-year experience of continuous flow (CF) LVADs to determine the impact of preoperative AF on stroke, device thrombosis, and survival. Between March 2006 and May 2015, 231 patients underwent implantation of 240 CF LVADs, 127 (52.9%) as bridge to transplantation and 113 (47.1%) as destination therapy. Effect of AF on postoperative outcomes was assessed by using Kaplan-Meier survival and Cox proportional hazard regression. There were 78 patients (32.5%) with preoperative AF with a mean age of 55.7 +/- 11.4 years. A similar incidence of stroke was found in patients with and without AF, 12.8% versus 16.0%, respectively (p = 0.803). Survival was similar, with 1-, 6-, 12-, and 24-month survivals of 96.2%, 91.7%, 84.5%, and 69.2%, respectively, for AF patients, versus 93.1%, 85.0%, 79.4%, and 74.1%, respectively, for non-AF patients (p = 0.424). Preoperative AF was not a significant independent predictor of survival with the use of Cox proportional hazard regression (hazard ratio 1.08, 95% confidence interval: 0.66 to 1.76). Preoperative AF was associated with a similar incidence of postoperative stroke, device thrombosis, and survival."

According to the news editors, the research concluded: "On the basis of these data, it seems unnecessary to perform a left atrial appendage ligation or to alter postoperative anticoagulation in patients with AF undergoing LVAD implantation."


The news editors report that additional information may be obtained by contacting L. Xuereb, Henry Ford Hospital, Inst Heart & Vasc, Div Cardiothorac Surg, Detroit, MI, United States. Additional authors for this research include P.H. Go, B. Kaur, S. Akrawe, H.W. Nemeh, J. Borgi, C.T. Williams, G. Paone and J.A. Morgan.

The direct object identifier (DOI) for that additional information is:
Recent Findings in Autacoids Described by Researchers from Tel Aviv University (Does Polypharmacy in Nursing Homes Affect Long-Term Mortality?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biological Factors - Autacoids have been published. According to news reporting out of Petah Tiqwa, Israel, by NewsRx editors, research stated, "To investigate the association between polypharmacy and mortality in nursing home (NH) residents. Prospective observational cohort study."

Our news journalists obtained a quote from the research from Tel Aviv University, "Six NHs in central Israel. Mobile with dementia and fully dependent residents (N = 764; n = 558 (73%) fully dependent, n = 206 (27%) mobile residents with dementia requiring institutional care; mean age 82.2 +/- 5.9). Two-year mortality and its association with number of drugs that individual residents were taking at baseline, controlled for multiple confounders. At baseline, 268 residents were taking five or fewer drugs per day, 202 were taking six or seven, and 294 were taking eight or more. In the multivariate analysis, the likelihood of dying within 2 years in the group taking six or seven drugs per day (odds ratio (OR = 0.95, 95% CI = 0.63-1.43) and in those taking eight or more (OR = 1.20, 95% CI = 0.78-1.84) was similar to that of those taking five or fewer. Variables at baseline independently associated with greater mortality were male sex (OR = 1.75, 95% CI = 1.24-2.46), older age (OR = 1.07, 95% CI = 1.04-1.10), higher Charlson Comorbidity Index (OR = 1.17, 95% CI = 1.04-1.30), and taking anticoagulant (OR = 1.78, 95% CI = 1.01-3.13) or antihyperglycemic medication (OR = 1.69, 95% CI = 1.12-2.53). Variables at baseline independently associated with lower mortality were higher body mass index (OR = 0.99, 95% CI = 0.93-0.99) and taking lipid-lowering medication (OR = 0.54, 95% CI = 0.36-0.80) and selective serotonin reuptake inhibitors or serotonin-norepinephrine reuptake inhibitors (OR = 0.52, 95% CI = 0.37-0.75)."

According to the news editors, the research concluded: "Polypharmacy, defined quantitatively according to number of drugs, was not associated with mortality in these NH residents."


Our news journalists report that additional information may be obtained by
contacting A. Schlesinger, Tel Aviv University, Sackler Sch Med, Petah Tiqwa, Israel. Additional authors for this research include A. Weiss, O. Nenaydenko, A. Adunsky and Y. Beloosesky.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgs.14213. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Petah Tiqwa, Israel, Asia, Drugs and Therapies, Biological Factors, Polypharmacy, Serotonin, Autacoids, Tel Aviv University.

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Biomedical Engineering - Bioprosthetics

Recent Findings in Bioprosthetics Described by Researchers from University of British Columbia (Computed tomography assessment for transcatheter aortic valve in valve implantation: The vancouver approach to predict anatomical risk for coronary ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biomedical Engineering - Bioprosthetics have been published. According to news originating from Vancouver, Canada, by NewsRx correspondents, research stated, "Valve-in-valve implantation of a transcatheter heart valve into a failed bioprosthetic heart valve has emerged as a treatment alternative to repeat conventional surgery."

Our news journalists obtained a quote from the research from the University of British Columbia, "This requires careful pre-procedural assessment using non-invasive imaging to identify patients at risk for procedure related adverse events, such as ostial coronary occlusion."

According to the news editors, the research concluded: "Herein we report how to comprehensively assess aortic root anatomy using computed tomography prior to transcatheter valve implantation for failed bioprosthetic aortic valves."


The news correspondents report that additional information may be obtained from J. Leipsic, University of British Columbia, St Pauls Hosp, Vancouver, BC, Canada. Additional authors for this research include J. Soon, D. Dvir, J.K. Park, C. Naoum, S.H. Kueh, D.A. Wood, B.L. Norgaard, K. Selvakumar, J. Ye, A. Cheung, J.G. Webb and J. Leipsic.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jcct.2016.09.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vancouver, British Columbia, Canada,
Recent Findings in Bone Research Described by Researchers from University of Bristol (Bone Mineral Density Is Positively Related to Carotid Intima-Media Thickness: Findings From a Population-Based Study in Adolescents and Premenopausal Women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Bone Research have been published. According to news reporting from Bristol, United Kingdom, by NewsRx journalists, research stated, "Osteoporosis and cardiovascular disease (CVD) are both common causes of morbidity and mortality. Previous studies, mainly of people older than 60 years, suggest a relationship between these conditions."

The news correspondents obtained a quote from the research from the University of Bristol, "Our aim was to determine the association between bone characteristics and CVD markers in younger and middle-aged individuals. Women (n=3366) and their adolescent offspring (n=4368) from the UK population-based cohort study, Avon Longitudinal Study of Parents and Children (ALSPAC), were investigated. We measured total body (TB) and hip bone mineral density (BMD), TB bone area (BA) and bone mineral content (BMC) by dual-energy X-ray absorptiometry (DXA), and carotid intima-media thickness (cIMT) by high-resolution ultrasound. Arterial distensibility was calculated as the difference between systolic and diastolic arterial diameters. Linear regression determined associations between bone exposures and cIMT (in adolescents) and both cIMT and arterial distensibility (in women), generating partial correlation coefficients. Mean (SD) age of women was 48 (4.2) years, body mass index (BMI) was 26.2 (5.0) kg/m(2), and 71% were premenopausal. In confounder-adjusted analyses (age, height, lean mass, fat mass, menopause, smoking, estrogen replacement, calcium/vitamin D supplementation, and education) TB and hip BMD were both positively associated with cIMT (0.071 [0.030, 0.112], p=0.001; 0.063 [0.025, 0.101], p=0.001, respectively). Femoral neck BMD and TB BMC, BMC, and BA were positively associated with arterial distensibility. Mean (SD) age of adolescents was 17 (0.4) years, BMI was 23 (4.1) kg/m(2), and 44.5% were male. Total hip and TB measurements were positively associated with cIMT, with similar magnitudes of association to those found in their mothers. In contrast to most published findings, we identified weak positive associations between BMD and cIMT in predominantly premenopausal women and their adolescent offspring. We found greater femoral neck BMD and TB DXA measurements to be associated with reduced arterial stiffness."

According to the news reporters, the research concluded: "Rather than a relationship with preclinical atherosclerosis, in these relatively young populations, we speculate our associations between BMD, cIMT, and arterial distensibility may reflect a shared relationship between bone and vascular growth and development."

For more information on this research see: Bone Mineral Density Is Positively Related to Carotid Intima-Media Thickness: Findings From a Population-Based Study in

North and Central America, Heart Valves, Article Review, Biomedical Engineering, Computed Tomography, Imaging Technology, Bioengineering, Bioprosthetics, Aortic Valve, Biomedicine, University of British Columbia.

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Recent Findings in Brain Cancer Described by Researchers from New York University (Phase I study of temozolomide in combination with thiotepa and carboplatin with autologous hematopoietic cell rescue in patients with malignant brain tumors with ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Brain Cancer have been published. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Recurrence of malignant brain tumors results in a poor prognosis with limited treatment options. High-dose chemotherapy with autologous hematopoietic cell rescue (AHCR) has been used in patients with recurrent malignant brain tumors and has shown improved outcomes compared with standard chemotherapy."

Our news editors obtained a quote from the research from New York University, "Temozolomide is standard therapy for glioblastoma and has also shown activity in patients with medulloblastoma/primitive neuro-ectodermal tumor (PNET), particularly those with recurrent disease. Temozolomide was administered twice daily on days -10 to -6, followed by thiotepa 300 mg/m(2) per day and carboplatin dosed using the Calvert formula or body surface area on days -5 to -3, with AHCR day 0. Twenty-seven patients aged 3-46 years were enrolled. Diagnoses included high-grade glioma (n=12); medulloblastoma/PNET (n=9); central nervous system (CNS) germ cell tumor (n=4); ependymoma (n=1) and spinal cord PNET (n=1). Temozolomide doses ranged from 100 mg/m(2) per day to 400 mg/m(2) per day. There were no toxic deaths. Prolonged survival was noted in several patients including those with recurrent high-grade glioma, medulloblastoma and CNS germ cell tumor. Increased doses of temozolomide are feasible with AHCR."

According to the news editors, the research concluded: "A phase II study using temozolomide, carboplatin and thiotepa with AHCR for children with recurrent malignant brain tumors is being conducted through the Pediatric Blood and Marrow Transplant Consortium."

For more information on this research see: Phase I study of temozolomide in combination with thiotepa and carboplatin with autologous hematopoietic cell rescue in patients with malignant brain tumors with minimal residual disease. Bone Marrow Transplantation, 2016;51(4):542-5.
Brain Research

Recent Findings in Brain Research Described by Researchers from University of Groningen (PET Tracers for Imaging of ABC Transporters at the Blood-Brain Barrier: Principles and Strategies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Brain Research. According to news reporting originating from Groningen, Netherlands, by NewsRx correspondents, research stated, "ABC transporters at the human blood-brain barrier protect the brain against the entry of harmful compounds but may also limit (or prevent) the cerebral entry of therapeutic drugs (e.g. anti-epileptics, antidepressants and antipsychotics). The efflux function of these transporters may be impaired in neurodegenerative disorders like Alzheimer and Parkinson disease."

Our news editors obtained a quote from the research from the University of Groningen, "For such reasons, there is much interest in modulation of the efflux function of ABC transporters and in the monitoring of this function with positron emission tomography (PET). The efflux function of P-glycoprotein, an important member of the ABC transporter family, can be quantified with the PET tracer ®-[C-11] verapamil, but the lipophilicity of this probe and the formation of radioactive metabolites which enter the brain complicate such measurements considerably. ®-[C-11] verapamil is also not very suitable for the detection of P-gp upregulation, as may occur in epilepsy or drug resistance."

According to the news editors, the research concluded: "Current radiochemical efforts are therefore focused on the development of PET probes with improved characteristics, for example; capability to detect both up and down regulation of transporter function and expression, a better metabolic profile (no brain-entering metabolites), reduced lipophilicity and a longer physical half-life (labeling with F-18 instead of C-11)."

For more information on this research see: PET Tracers for Imaging of ABC Transporters at the Blood-Brain Barrier: Principles and Strategies. Current Pharmaceutical
Recent Findings in Brugada Syndrome Described by Researchers from University of Montreal (Predictors of Ventricular Arrhythmias and Sudden Death in a Quebec Cohort With Brugada Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Brugada Syndrome. According to news reporting originating in Montreal, Canada, by NewsRx journalists, research stated, "Patients with Brugada syndrome (BrS) are at risk for ventricular arrhythmias (VAs) and sudden death. Identification of high-risk individuals beyond those with syncope or resuscitated sudden death remains a major challenge."

The news reporters obtained a quote from the research from the University of Montreal, "We assessed the value of clinical, electrophysiological, and electrocardiographic (ECG) features, including depolarization and repolarization metrics, in predicting arrhythmic events and sudden death in consecutive patients with BrS diagnosed between 2002 and 2013 in Quebec, Canada. Qualifying electrocardiograms with the highest type 1 ST-segment elevations were reviewed and analyzed by 2 electrophysiologists who were blinded to clinical history. Survival analyses were adjusted for Firth bias correction and left truncation. A total of 105 patients, 79.8% of whom were men, were diagnosed with BrS at a mean age of 46.2 +/- 13.3 years and were followed for 59.6 +/- 16.4 months. Ten (9.5%) had a history of cardiac arrest, 37 (35.2%) had syncope, and 7 (6.7%) experienced 20 arrhythmic events during follow-up, all consisting of appropriate ICD therapy (7 antitachycardia pacing; 13 shocks). In multivariate Cox regression analyses, a spontaneous type 1 electrocardiographic (ECG) pattern (hazard ratio [HR], 10.80; 95% confidence interval [CI], 1.03-113.87; P = 0.0476), maximal T peak-end (Tp-e) duration >= 100 ms (HR, 29.73; 95% CI, 1.33-666.37; P = 0.0325), and QRS duration in lead V-6 > 110 ms (HR, 15.27; 95% CI, 1.07-217.42; P = 0.0443) were independently associated with VAs or aborted sudden cardiac death."

According to the news reporters, the research concluded: "In a multicentre cohort with BrS from Quebec, Canada, VAs and sudden death were independently associated with standard 12-lead ECG features, including a spontaneous type 1 pattern, depolarization (QRS in
lead V6), and repolarization (maximal Tp-e duration) criteria."


Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Nervous System Diseases and Conditions, Arrhythmia, Diagnostics and Screening, Neurologic Diseases and Conditions, Neurobehavioral Manifestations, Heart Disorders and Diseases, Neurologic Manifestations, Consciousness Disorders, Cardiac Arrhythmias, Brugada Syndrome, Unconsciousness, Heart Disease, Sudden Death, Cardiology, Syncope, University of Montreal.

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Oncology - Cancer Research

Recent Findings in Cancer Research Described by Researchers from University Medical Center (Role of tumour-free margin distance for loco-regional control in vulvar cancer-a subset analysis of the Arbeitsgemeinschaft Gynakologische Onkologie ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Cancer Research are discussed in a new report. According to news reporting from Hamburg, Germany, by NewsRx journalists, research stated, "Aim of the study: A tumour-free pathological resection margin of >= 8 mm is considered state-of-the-art. Available evidence is based on heterogeneous cohorts."

The news correspondents obtained a quote from the research from University Medical Center, "This study was designed to clarify the relevance of the resection margin for loco-regional control in vulvar cancer. AGO-CaRE-1 is a large retrospective study. Patients (n = 1618) with vulvar cancer >= FIGO stage IB treated at 29 German gynecologic-cancer-centres 1998-2008 were included. This subgroup analysis focuses on solely surgically treated node-negative patients with complete tumour resection (n = 289). Of the 289 analysed patients, 141 (48.8%) had pT1b, 140 (48.4%) pT2 and 8 (2.8%) pT3 tumours. One hundred twenty-five (43.3%) underwent complete vulvectomy, 127 (43.9%) partial vulvectomy and 37 (12.8%) radical local excision. The median minimal resection margin was 5 mm (1 mm-33 mm); all patients received groin staging, in 86.5% with full dissection. Median follow-up was 35.1 months. 46 (15.9%) patients developed recurrence, thereof 34 (11.8%) at the vulva, after a median of 18.3 months. Vulvar recurrence rates were 12.6% in patients with a margin <8mm and 10.2% in patients with a margin >= 8 mm. When analysed as a continuous variable, the margin distance had no statistically significant impact on local recurrence (HR per mm increase:
Multivariate analyses did also not reveal a significant association between the margin and local recurrence neither when analysed as continuous variable nor categorically based on the 8 mm cutoff. Results were consistent when looking at disease-free-survival and time-to-recurrence at any site (HR per mm increase: 0.949, 95% CI: 0.864-1.041; p = 0.267).

According to the news reporters, the research concluded: "The need for a minimal margin of 8 mm could not be confirmed in the large and homogeneous node-negative cohort of the AGO-CaRE database."


Our news journalists report that additional information may be obtained by contacting L. Woelber, Eppendorf University Medical Center, Dept. of Gynecol, Hamburg, Germany. Additional authors for this research include L.F. Griebel, C. Eulenburg, J. Sehouli, J. Jueckstock, F. Hilpert, N. de Gregorio, A. Hasenburg, A. Ignatov, P. Hillemanns, S. Fuerst, H.G. Strauss, K.H. Baumann, F.C. Thiel, A. Mustea, W. Meier, P. Harter, P. Wimberger and Han.

Keywords for this news article include: Hamburg, Germany, Europe, Cancer Research, Oncology, Cancer, University Medical Center.

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Recent Findings in Cancer Therapy Described by Researchers from Silesian Technical University [Miktoarm star copolymers from D-(-)-salicin core aggregated into dandelion-like structures as anticancer drug delivery systems: synthesis, ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Cancer Therapy. According to news reporting out of Gliwice, Poland, by NewsRx editors, research stated, "The beta-glucoside-based heterofunctional initiator was used in the synthesis of well-defined eight-armed miktopolymers by sequential ring opening polymerization (ROP) of epsilon-caprolactone (CL) and atom transfer radical (co) polymerization (ATRP) of methyl methacrylate (MMA) and/or tert-butyl methacrylate (tBMA). Consequently, methacrylic acid (MAA) repeating units were introduced via selective cleavage of pendant tert-butyl protecting groups."

Our news journalists obtained a quote from the research from Silesian Technical University, "Both the amphiphilic copolymers and miktoarm copolymers were self-assembled at 37 degrees C and pH 7.4. The aggregates of miktoarm polymers were larger than that formed by polymethacrylate homoarm stars (>= 250 nm vs <= 200 nm). The critical aggregation concentrations (CAC) of (mikto) stars were relatively low (0.006-0.411 mg/mL) and decreased with the increase in MAA fraction content. Both MAA-based mikto- and homoarmed (co) polymers with shorter arms exhibited lower doxorubicin (DOX) loading capacity, whereas
camptothecin (CPT) was encapsulated preferably by miktostars. The kinetic profiles of drug release showed that the rate of release was higher at acidic environment (pH 5.0) than in neutral pH.

According to the news editors, the research concluded: "In the most cases the studied miktopolymer systems demonstrated the well-controlled delivery of the model anticancer drugs, which can be adjusted by structural parameters of polymeric carriers."


Our news journalists report that additional information may be obtained by contacting D. Neugebauer, Silesian Technical University, Dept. of Phys Chem & Technol Polymers, Fac Chem, PL-44100 Gliwice, Poland. Additional authors for this research include J. Odrobinska, S. Grzadka, L. Mielanczyk and D. Neugebauer.

Keywords for this news article include: Gliwice, Poland, Europe, Drug Delivery Systems, Drugs and Therapies, Cancer Therapy, Silesian Technical University.

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**Oncology - Carcinoid Tumor**

**Recent Findings in Carcinoid Tumor Described by Researchers from University Hospital (A case of parenchymal-sparing right mainstem bronchial sleeve resection for carcinoid tumor)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Carcinoid Tumor have been published. According to news reporting from Leuven, Belgium, by NewsRx journalists, research stated, "Neuroendocrine tumors are rare bronchial carcinomata often presenting in a central airway. Resection usually includes a sleeve of the bronchus with the underlying lobe."

The news correspondents obtained a quote from the research from University Hospital, "Case report We present a 19-year old male with retro-obstructive pneumonia from a tumor in the right mainstem bronchus. Bronchoscopy showed an obstructive mass confirmed as being a typical carcinoid on biopsy. Sleeve resection of the mainstem bronchus only was successfully performed sparing the entire right lung."

According to the news reporters, the research concluded: "This type of limited tumoral resection should be reserved for carefully selected patients with a low-grade neoplasm without extrabronchial extension and with both tumor-negative lymph nodes and bronchial margins on frozen section."


Our news journalists report that additional information may be obtained by contacting D. Van Raemdonck, University Hospital Leuven, Dept. of Thorac Surg, Leuven,
Belgium. Additional authors for this research include H. Decaluwe and D. Van Raemdonck. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/00015458.2015.1136490. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leuven, Belgium, Europe, Carcinoid Tumor, Oncology, Cancer, University Hospital.

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**Oncology - Carcinoma Ex Pleomorphic Adenoma**

**Recent Findings in Carcinoma Ex Pleomorphic Adenoma Described by Researchers from University of Copenhagen (The interleukin-6/Janus kinase/STAT3 pathway in pleomorphic adenoma and carcinoma ex pleomorphic adenoma of the lacrimal gland)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Carcinoma Ex Pleomorphic Adenoma have been published. According to news reporting originating in Copenhagen, Denmark, by NewsRx journalists, research stated, "PurposePleomorphic adenoma (PA) is the most common tumour of the lacrimal gland, but very little is known about its biology. It has a tendency to recur and an ability to transform into the high-grade malignancy carcinoma ex pleomorphic adenoma (ca-ex-PA), which is also largely unexplored."

Financial supporters for this research include Traun Pedersens Memorial Grant, Einar Willumsens Memorial Grant, Kraeftens Bekæmpelse.

The news reporters obtained a quote from the research from the University of Copenhagen, "In this study, we examine the expression of the interleukin-6/Janus kinase/STAT3 (IL-6/JAK/STAT3) pathway components in PA and ca-ex-PA. MethodsSixteen PAs and two ca-ex-PAs were examined with immunohistochemistry. Seven PAs were subjected to microdissection and subsequent qPCR. ResultsThe IL-6/JAK/STAT3 pathway was overexpressed in PA compared to normal lacrimal gland. Overexpression of phosphorylated JAK1 (p-JAK1) and cyclin D1 was significantly overexpressed in ductal cells compared with myoepithelial cells in PA. A shift from p-JAK1 to p-JAK2 and p-Tyk2 overexpression was seen between PA and ca-ex-PA, combined with a high p-STAT3 expression in the latter. ConclusionThe IL-6/JAK/STAT3 pathway is overexpressed in PA, and this overexpression was even more pronounced in ca-ex-PA, with a shift in the JAKs mediating STAT3 phosphorylation."

According to the news reporters, the research concluded: "Future studies are needed to clarify whether PA and ca-ex-PA could be treated with targeted therapy directed against components of the IL-6/JAK/STAT3 pathway."


Our news correspondents report that additional information may be obtained by
Recent Findings in Cardiology Described by Researchers from Ohio State University (Controllable Large-Scale Transfection of Primary Mammalian Cardiomyocytes on a Nanochannel Array Platform)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiology. According to news reporting originating from Columbus, Ohio, by NewsRx correspondents, research stated, "While electroporation has been widely used as a physical method for gene transfection in vitro and in vivo, its application in gene therapy of cardiovascular cells remains challenging. Due to the high concentration of ion-transport proteins in the sarcolemma, conventional electroporation of primary cardiomyocytes tends to cause ion-channel activation and abnormal ion flux, resulting in low transfection efficiency and high mortality."

Our news editors obtained a quote from the research from Ohio State University, "In this work, a high-throughput nanoelectroporation technique based on a nanochannel array platform is reported, which enables massively parallel delivery of genetic cargo (microRNA, plasmids) into mouse primary cardiomyocytes in a controllable, highly efficient, and benign manner. A simple 'dipping-trap' approach was implemented to precisely position a large number of cells on the nanoelectroporation platform. With dosage control, our device precisely titrates the level of miR-29, a potential therapeutic agent for cardiac fibrosis, and determines the minimum concentration of miR-29 causing side effects in mouse primary cardiomyocytes. Moreover, the dose-dependent effect of miR-29 on mitochondrial potential and homeostasis is monitored."

According to the news editors, the research concluded: "Altogether, our nanochannel array platform provides efficient trapping and transfection of primary mouse cardiomyocyte, which can improve the quality control for future microRNA therapy in heart diseases."


The news editors report that additional information may be obtained by contacting D. Gallego-Perez, Ohio State University, Dept. of Surg, Center Regenerat Med & Cell Based
Recent Findings in Cardiovascular Agents Described by Researchers from College of Pharmacy and Health Sciences (A-803467, a tetrodotoxin-resistant sodium channel blocker, modulates ABCG2-mediated MDR in vitro and in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Cardiovascular Agents. According to news reporting out of Queens, New York, by NewsRx editors, research stated, "ATP-binding cassette subfamily G member 2 (ABCG2) is a member of the ABC transporter superfamily proteins, which has been implicated in the development of multidrug resistance (MDR) in cancer, apart from its physiological role to remove toxic substances out of the cells. The diverse range of substrates of ABCG2 includes many antineoplastic agents such as topotecan, doxorubicin and mitoxantrone."

Our news journalists obtained a quote from the research from the College of Pharmacy and Health Sciences, "ABCG2 expression has been reported to be significantly increased in some solid tumors and hematologic malignancies, correlated to poor clinical outcomes. In addition, ABCG2 expression is a distinguishing feature of cancer stem cells, whereby this membrane transporter facilitates resistance to the chemotherapeutic drugs. To enhance the chemosensitivity of cancer cells, attention has been focused on MDR modulators. In this study, we investigated the effect of a tetrodotoxin-resistant sodium channel blocker, A-803467 on ABCG2-overexpressing drug selected and transfected cell lines. We found that at non-toxic concentrations, A-803467 could significantly increase the cellular sensitivity to ABCG2 substrates in drug-resistant cells overexpressing either wild-type or mutant ABCG2. Mechanistic studies demonstrated that A-803467 (7.5 mM) significantly increased the intracellular accumulation of [(3)H]-mitoxantrone by inhibiting the transport activity of ABCG2, without altering its expression levels. In addition, A-803467 stimulated the ATPase activity in membranes overexpressed with ABCG2. In a murine model system, combination treatment of A-803467 (35 mg/kg) and topotecan (3 mg/kg) significantly inhibited the tumor growth in mice xenografted with ABCG2-overexpressing cancer cells."

According to the news editors, the research concluded: "Our findings indicate that a combination of A-803467 and ABCG2 substrates may potentially be a novel therapeutic treatment in ABCG2-positive drug resistant cancers."

For more information on this research see: A-803467, a tetrodotoxin-resistant sodium channel blocker, modulates ABCG2-mediated MDR in vitro and in vivo. Oncotarget,
Our news journalists report that additional information may be obtained by contacting N. Anreddy, Dept. of Pharmaceutical Sciences, College of Pharmacy and Health Sciences, St John's University, Queens, NY 11439, United States. Additional authors for this research include A. Patel, Y.K. Zhang, Y.J. Wang, S. Shukla, R.J. Kathawala, P. Kumar, P. Gupta, S.V. Ambudkar, J.N. Wurpel, Z.S. Chen and H. Guo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5747. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Queens, Cancer, New York, Oncology, Ion Channels, Tetrodotoxin, United States, Marine Toxins, Drug Resistance, Carrier Proteins, Membrane Proteins, Biological Factors, Drugs and Therapies, Cardiovascular Agents, Sodium Channel Blockers, North and Central America.

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Drugs and Therapies - Central Nervous System Agents

Recent Findings in Central Nervous System Agents Described by P.B. Prajapati and Colleagues (y Development and Validation of Stability-Indicating HPTLC Method for Estimation of Naratriptan Hydrochloride in Its Pharmaceutical Dosage Form and Its ...

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Central Nervous System Agents are discussed in a new report. According to news reporting originating in Gujarat, India, by NewsRx journalists, research stated, "The present research project involves development and validation of a stability-indicating HPTLC method for the estimation of naratriptan-HCl in their pharmaceutical dosage forms and its content uniformity testing. Naratriptan-HCl was subjected to alkaline, acidic, oxidative, neutral, thermal (dry heat) and photo-degradation conditions."

The news reporters obtained a quote from the research, "The chromatographic separation was carried out using a precoated silica gel G 60 F-254 TLC plate as the stationary phase and dichloromethane-toluene-methanol-triethylamine (4: 4: 2:1, v/v/v/v) as the mobile phase. The spots of NRT-HCl and its degradation products were detected at 290 nm. The R-f value of NRT-HCl was found to be 0.60 +/- 0.02. The linearity was obtained in the range of 100-500 ng/spot. The limit of detection and limit of quantitation were found to be 6.07 ng/spot and 18.41 ng/spot, respectively. The percentage recovery was found in the range of 98.87-99.55%. NRT-HCl was degraded under acidic, alkaline and oxidative conditions while stable under photolytic, neutral and dry heat conditions."

According to the news reporters, the research concluded: "The developed method was applied for estimation of naratriptan-HCl in marketed formulations and its content uniformity testing."

Our news correspondents report that additional information may be obtained by contacting P.B. Prajapati, Maliba Pharm College, Taradi 394350, Gujarat, India. Additional authors for this research include J. Chotalia, K.B. Bodiwala, B.P. Marolia and S.A. Shah.

Keywords for this news article include: Gujarat, India, Asia, Central Nervous System Agents, Selective Serotonin Agonist, Vasconstrictor Agents, Drugs and Therapies, Naratriptan Therapy, Antimigraine Agents, Dosage Forms, Analgesics.

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Oncology - Cervical Cancer

Recent Findings in Cervical Cancer Described by Researchers from National Cancer Registry (Temporal changes in the cervical cancer burden in Bulgaria: Implications for eastern european countries going through transition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cervical Cancer have been published. According to news originating from Sofia, Bulgaria, by NewsRx correspondents, research stated, "In most developed countries, incidence of cervical cancer declined likely due to well-established cervical cancer screening programs. However, such decline has not been identified in Eastern Europe, where such programs are not well established."

Financial support for this research came from National Cancer Institute, USA.

Our news journalists obtained a quote from the research from National Cancer Registry, "This study utilized data of the Bulgarian Cancer Registry for the period 1993-2013. Age-standardized incidence and mortality trends were analyzed using Joinpoint regression. Maps were created to illustrate spatial distributions of rates. The northern region of Bulgaria showed a larger cervical cancer burden than the southern region and rural women tended to be diagnosed at older ages (p < 0.0001) and later stages (p < 0.0001) than urban women. The distribution of disease stages changed over the 21 years, with most common stages of diagnosis being stage II in 1993 (39.2%) to stage I in 2013 (44.7%; p< 0.0001). While age-standardized mortality slightly increased over the 21 years (from 4.8 to 5.2 per 100,000; p = 0.009), age-standardized incidence increased from 14.0 to 21.4 per 100,000 up until 2006 (p < 0.001), after which it plateaued. The lack of a similar plateau in mortality may be because the second most prevalent stage of diagnosis in recent years was stage III, indicating diagnosis at advanced symptomatic stages. Cervical cancer incidence is expected to continue to decrease if screening programs are strengthened and human papillomavirus vaccines are widely utilized."

According to the news editors, the research concluded: "As Bulgaria has shared cervical cancer trends with other Eastern European countries in the past, it may be beneficial to develop future prevention interventions based on a regional, rather than a country-specific level."

Recent Findings in Chemotherapy Described by Researchers from Kansai Medical University (Clinical outcomes of pancreatic ductal adenocarcinoma resection following neoadjuvant chemoradiation therapy vs. chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Chemotherapy have been published. According to news originating from Osaka, Japan, by NewsRx correspondents, research stated, "We compared the clinical outcomes of pancreatic ductal adenocarcinoma (PDAC) resection after neoadjuvant chemoradiation therapy (NACRT) vs. chemotherapy (NAC). The study population comprised 81 patients with UICC stage T3/4 PDAC, treated initially by NACRT with S-1 in 40 and by NAC with gemcitabine + S-1 in 41."

Our news journalists obtained a quote from the research from Kansai Medical University, "This was followed by pancreatectomy with routine nerve plexus resection in 35 of the patients who had received NACRT and 32 of those who had received NAC. We compared the survival curves and clinical outcomes of these two groups. The rates of clinical response, surgical resectability, and margin-negative resection were similar. The NACRT group patients had significantly higher rates of Evans stage >= IIB tumors (29 vs. 0 %, respectively, p = 0.010) and negative lymph nodes (49 vs. 16 %, respectively, p = 0.021) than the NAC group patients. There was no difference in disease-free survival between the groups, but the disease-specific survival of the NAC group patients was better than that of the NACRT group patients (p = 0.034). Patients undergoing pancreatectomy with nerve plexus resection following NACRT had significantly higher rates of intractable diarrhea and ascites but consequently received significantly less adjuvant chemotherapy and therapeutic chemotherapy for relapse."

According to the news editors, the research concluded: "NACRT followed by pancreatectomy with nerve plexus resection is superior for achieving local control, but postoperative diarrhea and ascites may prohibit continuation of adjuvant chemotherapy or chemotherapy for relapse (UMIN4148)."

For more information on this research see: Clinical outcomes of pancreatic ductal adenocarcinoma resection following neoadjuvant chemoradiation therapy vs. chemotherapy. *Surgery Today*, 2017;47(1):84-91. *Surgery Today* can be contacted at: Springer, 233 Spring St,
New York, NY 10013, USA. (Springer - www.springer.com; Surgery Today - www.springerlink.com/content/0941-1291/)

The news correspondents report that additional information may be obtained from S. Sato, Kansai Mededical University, Dept. of Surg, Hirakata, Osaka 5731010, Japan. Additional authors for this research include H. Yanagimoto, T. Yamamoto, C. Ohe, C. Miyasaka, Y. Uemura, S. Hirooka, S. Yamaki, H. Ryota, T. Michiura, K. Inoue, Y. Matsui, N. Tanigawa and M. Kon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00595-016-1358-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Digestive System Surgical Procedures, Drugs and Therapies, Gastroenterology, Adenocarcinoma, Pancreatectomy, Chemotherapy, Pancreas, Therapy, Surgery, Kansai Medical University.

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**Lung Diseases and Conditions - Chronic Obstructive**

**Recent Findings in Chronic Obstructive Pulmonary Disease Described by Researchers from Montpellier University Hospital (CCSP G38A polymorphism environment interactions regulate CCSP levels differentially in COPD)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease have been published. According to news originating from Montpellier, France, by NewsRx correspondents, research stated, "Impaired airway homeostasis in chronic obstructive pulmonary disease (COPD) could be partly related to club cell secretory protein (CCSP) deficiency. We hypothesize that CCSP G38A polymorphism is involved and aim to examine the influence of the CCSP G38A polymorphism on CCSP transcription levels and its regulatory mechanisms."

Our news journalists obtained a quote from the research from Montpellier University Hospital, "CCSP genotype and CCSP levels in serum and sputum were assessed in 66 subjects with stable COPD included in a 1-yr observational study. Forty-nine of them had an exacerbation. In an in vitro study, the impact on the CCSP promoter of 38G wild-type or 38A variant was assessed. BEAS-2B cells were transfected by either the 38G or 38A construct, in the presence/absence of cigarette smoke extract (CSE) or lipopolysaccharides (LPS). Cotransfections with modulating transcription factors, p53 and Nkx2.1, identified by in silico analysis by using ConSite and TFSEARCH were conducted. A allele carrier COPD patients had lower serum and sputum CCSP levels, especially among active smokers, and a decreased body mass index, airflow obstruction, dyspnea, and exercise capacity (BODE) score. In vitro, baseline CCSP transcription levels were similar between the wild and variant constructs. CSE decreased more profoundly the CCSP transcription level of 38A transfected cells. The opposite effect was observed with p53 cotransfection. LPS stimulation induced CCSP repression in 38A promoter transfected cells. Cotransfection with Nkx2.1 significantly activated the CCSP promoters irrespective of the polymorphism. Circulating CCSP levels are associated with smoking and the CCSP G38A polymorphism. CSE, LPS, and the Nkx2.1 and p53 transcription factors modulated
According to the news editors, the research concluded: "The 38A polymorphism exaggerated the CCSP repression in response to p53 and CSE."


The news correspondents report that additional information may be obtained from A. Bourdin, Montpellier Univ Hosp, Dept. of Resp Dis, Montpellier, France. Additional authors for this research include J. Varilh, A. Bergougnoux, A.S. Gamez, J. Bonini, A. Pommier, A. Petit, N. Molinari, I. Vachier, M. Taulan-Cadars and A. Bourdin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00280.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montpellier, France, Europe, Chronic Obstructive Pulmonary Disease, Lung Diseases and Conditions, Genetics, p53 Gene, Montpellier University Hospital.

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**Recent Findings in Cleft Lip and Palate Described by Researchers from University of Regensburg (Van der Woude and Popliteal Pterygium Syndromes: Broad Intrafamilial Variability in a Three Generation Family with Mutation in IRF6)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mouth Disease and Conditions - Cleft Lip and Palate is now available. According to news reporting originating from Regensburg, Germany, by NewsRx correspondents, research stated, "Patients with Van der Woude syndrome typically present with cleft lip, cleft lip and palate, or with cleft palate only. In contrast to non-syndromic cleft lip and/or palate, Van der Woude syndrome typically is characterized by bilateral, paramedian lower-lip pits."

Our news editors obtained a quote from the research from the University of Regensburg, "Popliteal pterygium syndrome shares features with Van der Woude syndrome, but, in addition, is characterized by a popliteal pterygium, genital anomalies, cutaneous syndactyly of the fingers and the toes, and a characteristic pyramidal fold of skin overlying the nail of the hallux. In some patients oral synechiae or eyelid synechiae are present. Van der Woude Syndrome and Popliteal pterygium syndrome are autosomal dominantly inherited disorders caused by heterozygous mutations in IRF6. We present a three generation family with tremendous intrafamilial phenotypic variability. The newborn index patient had a diagnosis of Popliteal pterygium syndrome. The mother presented with a classic Van der Woude Syndrome, while the maternal grandfather had Van der Woude Syndrome as well as minor signs of Popliteal pterygium syndrome. In all three affecteds the known pathogenic mutation c.265A >G, p.Lys89Glu in IRF6 was identified."
According to the news editors, the research concluded: "While inter-as well as intrafamilial variability has been described in IRF6-related disorders, the occurrence of a typical Van der Woude Syndrome without any other anomalies as well as a diagnosis of Popliteal pterygium syndrome in the same family is rare."


The news editors report that additional information may be obtained by contacting A. Busche, University of Regensburg, Inst Humangenet, Regensburg, Germany. Additional authors for this research include U. Hehr, P. Sieg and G. Gillessen-Kaesbach.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37791. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Regensburg, Germany, Europe, Conjunctival Diseases and Conditions, Stomatognathic System Abnormalities, Diseases and Conditions, Genetics, Mouth Diseases and Conditions, Popliteal Pterygium Syndrome, Mouth Disease and Conditions, Eye Diseases and Conditions, Lip Diseases and Conditions, Congenital Abnormalities, Van der Woude Syndrome, Cleft Lip and Palate, Mouth Abnormalities, University of Regensburg.

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**Clinical Research - Clinical Trials and Studies**

**Recent Findings in Clinical Trials and Studies Described by Researchers from Autonomous University (Cancer randomized trials showed that dissemination bias is still a problem to be solved)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting originating in Barcelona, Spain, by NewsRx journalists, research stated, "The objective of the present study was to determine the publication rate of cancer randomized controlled trial (RCTs) and to analyze the determinants of the publication, as well as to estimate the possible existence of a location and time lag bias. We also described the bibliometric characteristics of the publications."

The news reporters obtained a quote from the research from Autonomous University, "Study design and Setting: We conducted an observational study that identified publications resulting from RCTs involving cancer-related drug products. These studies were authorized and registered by the Spanish Agency of Medicines and Medical Devices between 1999 and 2003. We identified 168 publications of 303 RCTs, resulting in a publication rate of 55.4% after a mean follow-up of 12 years. The only factor associated to the likelihood of nonpublication was the study setting favoring only national RCTs (odds ratio 2.7; 95% confidence interval 1.5-4.8). Type of sponsor did not seem to be associated, although the largest volume of nonpublished trials is international, industry-sponsored. Positive results seemed to be associated to a
publication in a higher impact factor journal and a shorter time-to-publication. About half of the cancer RCTs during the target period have not been published."

According to the news reporters, the research concluded: "The national setting is a factor associated to nonpublication, whereas the direction of results determines its dissemination (impact factor and timely publication)."

For more information on this research see: Cancer randomized trials showed that dissemination bias is still a problem to be solved. *Journal of Clinical Epidemiology*, 2016;77 ():84-90. *Journal of Clinical Epidemiology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Journal of Clinical Epidemiology - www.journals.elsevier.com/journal-of-clinical-epidemiology/)

Our news correspondents report that additional information may be obtained by contacting X. Bonfill, Autonomous University of Barcelona, Barcelona, Spain. Additional authors for this research include M. Ballesteros, B. Djulbegovic, I. Gich, M. Roque and X. Bonfill.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinepi.2016.04.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Clinical Trials and Studies, Cancer, Epidemiology, Clinical Research, Oncology, Autonomous University.

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According to the news reporters, the research concluded: "This review will summarize PKG signaling, how it is being targeted clinically, and the proteomic challenges and techniques that are being used to study it."


Our news correspondents report that additional information may be obtained by contacting J.A. Kirk, Dept. of Cell and Molecular Physiology, Stritch School of Medicine, Loyola University, Maywood, IL, United States. Additional authors for this research include R.J. Holewinski, E.L. Crowgey and J.E Van Eyk.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pmic.201500401. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maywood, Illinois, Cardiology, Proteomics, United States, Article Review, Protein Kinases, Clinical Research, Enzymes and Coenzymes, North and Central America, Clinical Trials and Studies, Phosphotransferases (Alcohol Group Acceptor).

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**Recent Findings in Cushing Syndrome Described by Researchers from Medical College of Wisconsin (Postsurgical Recurrent Cushing Disease: Clinical Benefit Of Early Intervention In Patients With Normal Urinary Free Cortisol)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Adrenal Gland Diseases and Conditions - Cushing Syndrome have been published. According to news reporting originating in Menomonee Falls, Wisconsin, by NewsRx journalists, research stated, "To assess the performance of biochemical markers in the detection of recurrent Cushing disease (CD), as well as the potential benefit of early intervention in recurrent CD patients with elevated late-night salivary cortisol (LNSC) and normal urinary free cortisol (UFC). The design was a single-center, retrospective chart review."

The news reporters obtained a quote from the research from the Medical College of Wisconsin, "Patients treated by the authors from 2008-2013 were included. Recurrence was defined by postsurgical remission of CD with subsequent abnormal LNSC, UFC, or dexamethasone suppression test (DST). We identified 15 patients with postsurgical recurrent CD after initial remission; all but one underwent testing with LNSC, DST, and ITC. Although 12 of 15 patients had normal UFC at time of recurrence, DST was abnormal in 11 of 15, and all 14 patients with LNSC results had >= 1 elevated measurement. Nine patients (7 with normal UFC) showed radiologic evidence of a pituitary tumor at time of recurrence. Among the 14 patients with available follow-up data, 12 have demonstrated significant improvement since receiving treatment. Five patients underwent repeat pituitary surgery and 4 achieved clinical and biochemical remission. Eight patients received mifepristone or cahergoline, and 6 showed clinical and/or biochemical improvement. Three patients (2 with prior mifepristone) underwent..."
bilateral adrenalectomy and demonstrated significant clinical improvements. LNSC is more sensitive than UFC or DST for detection of CD recurrence. Prompt intervention when LNSC is elevated, despite normal-ITC, may yield significant clinical benefit for many patients with CD."

According to the news reporters, the research concluded: "Early treatment for patients with recurrent CD should be prospectively evaluated, utilizing LNSC elevation as an early biochemical marker."

For more information on this research see: Postsurgical Recurrent Cushing Disease: Clinical Benefit Of Early Intervention In Patients With Normal Urinary Free Cortisol. *Endocrine Practice*, 2016;22(10):1216-1223. *Endocrine Practice* can be contacted at: Amer Assoc Clinical Endocrinologists, 245 Riverside Avenue, Ste 200, Jacksonville, FL 32202, USA.

Our news correspondents report that additional information may be obtained by contacting T.B. Carroll, Medical College of Wisconsin, Endocrinol Center & Clin, Menomonee Falls, WI, United States. Additional authors for this research include B.R. Javorsky and J.W. Findling.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4158/EP161380.OR. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Menomonee Falls, Wisconsin, United States, North and Central America, Adrenal Gland Diseases and Conditions, Cushing Syndrome, Mifepristone, Biochemicals, Biochemistry, Chemicals, Hormones, Medical College of Wisconsin.

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**Lung Diseases and Conditions - Cystic Fibrosis**

**Recent Findings in Cystic Fibrosis Described by Researchers from General Hospital (Duration of intravenous antibiotic therapy in people with cystic fibrosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Cystic Fibrosis. According to news originating from Sheffield, United Kingdom, by NewsRx correspondents, research stated, "Respiratory disease is the major cause of mortality and morbidity in cystic fibrosis. Life expectancy of people with cystic fibrosis has increased dramatically in the last 40 years."

Our news journalists obtained a quote from the research from General Hospital, "One of the major reasons for this increase is the mounting use of antibiotics to treat chest exacerbations caused by bacterial infections. The optimal duration of intravenous antibiotic therapy is not clearly defined. Individuals usually receive intravenous antibiotics for 14 days, but treatment may range from 10 to 21 days. A shorter duration of antibiotic treatment risks inadequate clearance of infection which could lead to further lung damage. Prolonged courses of intravenous antibiotics are expensive and inconvenient and the incidence of allergic reactions to antibiotics also increases with prolonged courses. The use of aminoglycosides requires frequent monitoring to avoid some of their side effects. However, some organisms which infect people with cystic fibrosis are known to be multi-resistant to antibiotics, and may require a longer course of treatment. This is an update of previously published reviews. To assess the optimal
duration of intravenous antibiotic therapy for treating chest exacerbations in people with cystic fibrosis. Search methods We searched the Cochrane Cystic Fibrosis and Genetic Disorders Group Trials Register which comprises references identified from comprehensive electronic database searches, handsearches of relevant journals, abstract books and conference proceedings. Most recent search of the Group's Cystic Fibrosis Trials Register: 05 May 2016. Selection criteria Randomised and quasi-randomised controlled trials comparing different durations of intravenous antibiotic courses for acute respiratory exacerbations in people with CF, either with the same drugs at the same dosage, the same drugs at a different dosage or frequency or different antibiotics altogether, including studies with additional therapeutic agents. Data collection and analysis No eligible trials were identified. Authors' conclusions There are no clear guidelines on the optimum duration of intravenous antibiotic treatment. Duration of treatment is currently based on unit policies and response to treatment. Shorter duration of treatment should improve quality of life and compliance; result in a reduced incidence of drug reactions; and be less costly. However, this may not be sufficient to clear a chest infection and may result in an early recurrence of an exacerbation.

According to the news editors, the research concluded: "This systematic review identifies the need for a multicentre, randomised controlled trial comparing different durations of intravenous antibiotic treatment as it has important clinical and financial implications."

For more information on this research see: Duration of intravenous antibiotic therapy in people with cystic fibrosis. Cochrane Database of Systematic Reviews, 2016; (9):1281-1300. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from T. Gleeson, Northern Gen Hosp, Dept. of Pharm, Sheffield S5 7AU, S Yorkshire, United Kingdom. Additional authors for this research include M. Wildman and T. Gleeson.

Keywords for this news article include: Sheffield, United Kingdom, Europe, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Lung Diseases and Conditions, Therapy, Article Review, Antibacterial Agents, Drugs and Therapies, Cystic Fibrosis, Antimicrobials, Antibiotics, Genetics, General Hospital.

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**Dual-Energy X-Ray Absorptiometry**

**Recent Findings in Dual-Energy X-Ray Absorptiometry Described by Researchers from University of Sao Paulo [Visceral fat measured by DXA is associated with increased risk of non-spine fractures in nonobese elderly women: a population-based ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Dual-Energy X-Ray Absorptiometry. According to news reporting originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "The present study investigates the relationship between visceral fat measured by dual-energy X-ray absorptiometry (DXA) and the incidence of non-spine fractures in community-dwelling elderly women. We demonstrated a potential negative effect of visceral fat
on bone health in nonobese women.

Our news editors obtained a quote from the research from the University of Sao Paulo, "The protective effect of obesity on bone health has been questioned because visceral fat has been demonstrated to have a deleterious effect on bone. The aim of this study was to investigate the association of visceral fat measured by DXA with the incidence of non-spine fractures in community-dwelling elderly women. This longitudinal prospective population-based cohort study evaluated 433 community-dwelling women aged 65 years or older. A specific clinical questionnaire, including personal history of a fragility fracture in non-spine osteoporotic sites, was administered at baseline and after an average of 4.3 years. All incidences of fragility fractures during the study period were confirmed by affected-site radiography. Visceral adipose tissue (VAT) was measured in the android region of a whole-body DXA scan. The mean age was 72.8 +/- 4.7 years, and 28 incident non-spine osteoporotic fractures were identified after a mean follow-up time of 4.3 +/- 0.8 years. According to the Lipschitz classification for nutritional status in the elderly, 38.6 % of women were nonobese (BMI < 27 kg/m (2)) and 61.4 % were obese/overweight. Logistic regression models were used to estimate the relationship between VAT and non-spine fractures in elderly women. After adjusting for age, race, previous fractures, and BMD, VAT (mass, area, volume) had a significant association with the incidence of non-spine fractures only in nonobese elderly women (VAT mass: OR, 1.42 [95 % CI, 1.09-1.85; p = 0.010]; VAT area: OR, 1.19 [95 % CI, 1.05-1.36; p = 0.008]; VAT volume: OR, 1.40 [95 % CI, 1.09-1.80; p = 0.009])."

According to the news editors, the research concluded: "This study suggests a potential negative effect of visceral adiposity on bone health in nonobese women."

For more information on this research see: Visceral fat measured by DXA is associated with increased risk of non-spine fractures in nonobese elderly women: a population-based prospective cohort analysis from the Sao Paulo Ageing & Health (SPAH) Study. Osteoporosis International, 2016;27(12):3525-3533. Osteoporosis International can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - www.springer.com; Osteoporosis International - www.springerlink.com/content/0937-941x/)

The news editors report that additional information may be obtained by contacting R.M.R. Pereira, University of Sao Paulo, Fac Med, Bone Metab Lab Rheumatol Div, BR-01246903 Sao Paulo, SP, Brazil. Additional authors for this research include D.S. Domiciano, C.P. Figueiredo, V.F. Caparbo, L. Takayama, R.M. Oliveira, J.B. Lopes, P.R. Menezes and R.M.R. Pereira.

Keywords for this news article include: Sao Paulo, Brazil, South America, Dual-Energy X-Ray Absorptiometry, Bone Research, University of Sao Paulo.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Human Herpesvirus Diseases and Conditions - Epstein-Barr Virus have been published. According to news reporting originating from Guangzhou, People's Republic of China, by NewsRx correspondents, research stated, "Nasopharyngeal carcinoma is associated with Epstein-Barr virus (EBV). The current study investigated change in the plasma EBV DNA load in the first 3 months after treatment and its clinical significance in NPC."

Our news editors obtained a quote from the research from Sun Yat-Sen University Cancer Center, "A total of 273 patients with non-metastatic, histologically-proven NPC treated with radiotherapy or chemoradiotherapy were retrospectively reviewed. EBV DNA was detectable in 19/273 (7.0%) patients at the end of therapy (end-DNA). Three months later, 16/273 (5.9%) patients had detectable EBV DNA (3-month-DNA). To investigate risk stratified by the pattern of change in post-treatment EBV-DNA, we divided patients into four subgroups: Group 1, undetectable end-DNA and 3-month-DNA (n=244); Group 2, detectable end-DNA and undetectable 3-month-DNA (n=13); Group 3, undetectable end-DNA and detectable 3-month-DNA (n=7); and Group 4, detectable end-DNA and 3-month-DNA (n=2). Patients with delayed remission of EBV DNA after treatment (Group 2) had significantly poorer 3-year DFS (48.6% vs. 89.7%, p<0.001), DMFS (48.6% vs. 94.6%, p<0.001) and OS (91.7% vs. 97.5%, p<0.001) than those with persistently undetectable EBV DNA post-treatment (Group 1). Five of the seven patients with re-emergent EBV DNA (Group 3) and both patients with persistent EBV DNA post-treatment (Group 4) developed disease failure. Plasma EBV DNA load continues to change during the first 3 months after treatment."

According to the news editors, the research concluded: "The pattern of change in EBV DNA load post-treatment could help identify patients with different prognoses."

For more information on this research see: Risk stratification based on change in plasma Epstein-Barr virus DNA load after treatment in nasopharyngeal carcinoma. Oncotarget, 2016;7(8):9576-85.

The news editors report that additional information may be obtained by contacting Y. Zhang, Dept. of Radiation Oncology, Sun Yat-Sen University Cancer Center, State Key Laboratory of Oncology in South China, Collaborative Innovation Center of Cancer Medicine, Guangzhou 510060, People's Republic of China. Additional authors for this research include W.F. Li, Y.P. Mao, R. Guo, L.L. Tang, H. Peng, Y. Sun, Q. Liu, L. Chen and J. Ma.

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Keywords for this news article include: Asia, HHV4, HHV 4, Genetics, Oncology, Virology, Guangzhou, Viral DNA, DNA Research, Tumor Viruses, Epstein Barr Virus, Epstein-Barr Virus, Risk and Prevention, Tumor Virus Infections, Nasopharyngeal Carcinoma, People's Republic of China, Human Herpesvirus Diseases and Conditions.

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Recent Findings in Escherichia coli Described by Researchers from French National Institute for Agricultural Research (INRA) (Escherichia coli ClbS is a colibactin resistance protein)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Escherichia coli have been published. According to news reporting originating in Toulouse, France, by NewsRx journalists, research stated, "The genomic pks island codes for the biosynthetic machinery that produces colibactin, a peptide-polyketide metabolite. Escherichia coli is a genotoxin that contributes to the virulence of extra-intestinal pathogenic Escherichia coli and promotes colorectal cancer. In this work, we examined whether the pks-encoded clbS gene of unknown function could participate in the self-protection of E. coli-producing colibactin."

The news reporters obtained a quote from the research from French National Institute for Agricultural Research (INRA), "A clbS mutant was not impaired in the ability to inflict DNA damage in HeLa cells, but the bacteria activated the SOS response and ceased to replicate. This autotoxicity phenotype was markedly enhanced in a clbS uvrB double mutant inactivated for DNA repair by nucleotide excision but was suppressed in a clbS clbA double mutant unable to produce colibactin. In addition, ectopic expression of clbS protected infected HeLa cells from colibactin."

According to the news reporters, the research concluded: "Thus, ClbS is a resistance protein blocking the genotoxicity of colibactin both in the procaryotic and the eucaryotic cells."


Our news correspondents report that additional information may be obtained by contacting N. Bossuet-Greif, INRA, USC 1360, Toulouse, France. Additional authors for this research include D. Dubois, C. Petit, S. Tronnet, P. Martin, R. Bonnet, E. Oswald and J.P Nougayrede.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/mmi.13272. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: France, Europe, Toulouse, Genetics, Proteobacteria, Escherichia coli, Enterobacteriaceae, Gram Negative Bacteria, Gram-Negative Bacteria.

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Neuropeptides - Galanin

Recent Findings in Galanin Described by Researchers from University of Cambridge (Galanin inhibits GLP-1 and GIP secretion via the GAL1 receptor in enteroendocrine L and K cells)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Neuropeptides - Galanin is the subject of a report. According to news reporting from Cambridge, United Kingdom, by NewsRx journalists, research stated, "Galanin is a widely expressed neuropeptide, which in the gut is thought to modulate gastrointestinal motility and secretion. We aimed to elucidate the poorly characterised mechanisms underlying the inhibitory effect of galanin and the potential involvement of G-protein coupled inwardly rectifying potassium, Kir 3, (GIRK) channels in glucagon-like peptide 1 (GLP-1) and glucose-dependent insulinotropic polypeptide (GIP) secretion."

Funders for this research include MRC, Wellcome Trust.

The news correspondents obtained a quote from the research from the University of Cambridge, "Purified murine L and K cells were analysed for expression of galanin receptors and GIRK subunits. Hormone secretion was measured from primary murine intestinal cultures. Intracellular cAMP was monitored in primary L cells derived from mice expressing the Epac2camps sensor under the control of the proglucagon promoter. Galanin receptor 1 (GAL1, Galr1) and GIRK channel 1 (Kir 3.1, Kcnj3) and 4 (Kir 3.4, Kcnj5) mRNA expression was highly enriched in K and L cells. Galanin and a selective GAL1 receptor agonist (M617) potently inhibited GLP-1 and GIP secretion from primary small intestinal cultures. In L cells, galanin significantly inhibited the forskolin-induced cAMP response. The GIRK1/4 activator ML297 significantly reduced glucose-stimulated and IBMX-stimulated GLP-1 secretion but had no effect on GIP. The GIRK blocker tertiapin-Q did not impair galanin-mediated GLP-1 inhibition. Galanin, acting via the GAL1 receptor and Gi-coupled signalling in L and K cells, is a potent inhibitor of GLP-1 and GIP secretion."

According to the news reporters, the research concluded: "Although GIRK1/4 channels are expressed in these cells, their activation does not appear to play a major role in galanin-mediated inhibition of incretin secretion."


Our news journalists report that additional information may be obtained by contacting A. Psichas, Metabolic Research Laboratories and MRC Metabolic Diseases Unit, WT-MRC Institute of Metabolic Science, Addenbrooke's Hospital, University of Cambridge, Cambridge, CB2 0QQ, UK. Additional authors for this research include L.L. Glass, S.J. Sharp, F. Reimann and F.M Gribble.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13407. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the British Journal of Pharmacology is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Galanin, Proteins, Cambridge, Neuropeptides, United Kingdom.

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Recent Findings in Genetic Epidemiology Described by Researchers from School of Public Health (A perspective on interaction effects in genetic association studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Genetics - Genetic Epidemiology are discussed in a new report. According to news reporting out of Boston, Massachusetts, by NewsRx editors, the research stated, "The identification of gene-gene and gene-environment interaction in human traits and diseases is an active area of research that generates high expectation, and most often lead to high disappointment. This is partly explained by a misunderstanding of the inherent characteristics of standard regression-based interaction analyses."

Our news journalists obtained a quote from the research from the School of Public Health, "Here, I revisit and untangle major theoretical aspects of interaction tests in the special case of linear regression; in particular, I discuss variables coding scheme, interpretation of effect estimate, statistical power, and estimation of variance explained in regard of various hypothetical interaction patterns. Linking this components it appears first that the simplest biological interaction models-in which the magnitude of a genetic effect depends on a common exposure-are among the most difficult to identify. Second, I highlight the demerit of the current strategy to evaluate the contribution of interaction effects to the variance of quantitative outcomes and argue for the use of new approaches to overcome this issue. Finally, I explore the advantages and limitations of multivariate interaction models, when testing for interaction between multiple SNPs and/or multiple exposures, over univariate approaches."

According to the news editors, the research concluded: "Together, these new insights can be leveraged for future method development and to improve our understanding of the genetic architecture of multifactorial traits."


Our news journalists report that additional information may be obtained by contacting H. Aschard, Harvard TH Sch Public Hlth, Dept. of Epidemiol, Boston, MA 02115, United States.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Genetic Epidemiology, Genetics, Epidemiology, Genetics, School of Public Health.

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Eye Diseases and Conditions - Glaucoma

Recent Findings in Glaucoma Described by Researchers from Oregon Health and Science University (Baseline Fourier-Domain Optical Coherence Tomography Structural Risk Factors for Visual Field Progression in the Advanced Imaging for Glaucoma Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Eye Diseases and Conditions - Glaucoma have been published. According to news reporting originating in Portland, Oregon, by NewsRx journalists, research stated, "To identify baseline structural parameters that predict the progression of visual field (VF) loss in patients with open-angle glaucoma. Multicenter cohort study."

Financial support for this research came from NIH.

The news reporters obtained a quote from the research from Oregon Health and Science University, "Participants from the Advanced Imaging for Glaucoma (AIG) study were enrolled and followed up. VF progression is defined as either a confirmed progression event on Humphrey Progression Analysis or a significant (P < .05) negative slope for VF index (VFI). Fourier-domain optical coherence tomography (FDOCT) was used to measure optic disc, peripapillary retinal nerve fiber layer (NFL), and macular ganglion cell complex (GCC) thickness parameters. A total of 277 eyes of 188 participants were followed up for 3.7 +/- 2.1 years. VF progression was observed in 83 eyes (30%). Several baseline NFL and GCC parameters, but not disc parameters, were found to be significant predictors of progression on univariate Cox regression analysis. The most accurate single predictors were the GCC focal loss volume (FLV), followed closely by NFL-FLV. An abnormal GCC-FLV at baseline increased risk of progression by a hazard ratio of 3.1. Multivariate Cox analysis showed that combining age and central corneal thickness with GCC-FLV in a composite index called 'Glaucoma Composite Progression Index' (GCPI) further improved the accuracy of progression prediction. GCC-FLV and GCPI were both found to be significantly correlated with the annual rate of change in VFI. Focal GCC and NFL loss as measured by FDOCT are the strongest predictors for VF progression among the measurements considered."

According to the news reporters, the research concluded: "Older age and thinner central corneal thickness can enhance the predictive power using the composite risk model."


Our news correspondents report that additional information may be obtained by contacting D. Huang, Oregon Health Sciences University, Casey Eye Inst, Portland, OR 97239, United States. Additional authors for this research include A. Dastiridou, B.A. Francis, O. Tan, R. Varma, D.S. Greenfield, J.S. Schuman, M. Sehi, V. Chopra and D. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajo.2016.09.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Portland, Oregon, United States, North and
Central America, Optical Coherence Tomography, Eye Diseases and Conditions, Risk and Prevention, Imaging Technology, Glaucoma, Oregon Health and Science University.

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Drugs and Therapies - Health-System Pharmacy

Recent Findings in Health-System Pharmacy Described by Researchers from Eshelman School of Pharmacy (The layered learning practice model: Lessons learned from implementation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Health-System Pharmacy. According to news reporting out of Chapel Hill, North Carolina, by NewsRx editors, research stated, "Pharmacists' views about the implementation, benefits, and attributes of a layered learning practice model (LLPM) were examined. Eligible and willing attending pharmacists at the same institution that had implemented an LLPM completed an individual, 90-minute, face-to-face interview using a structured interview guide developed by the interdisciplinary study team."

Our news journalists obtained a quote from the research from the Eshelman School of Pharmacy, "Interviews were digitally recorded and transcribed verbatim without personal identifiers. Three researchers independently reviewed preliminary findings to reach consensus on emerging themes. In cases where thematic coding diverged, the researchers discussed their analyses until consensus was reached. Of 25 eligible attending pharmacists, 24 (96%) agreed to participate. The sample was drawn from both acute and ambulatory care practice settings and all clinical specialty areas. Attending pharmacists described several experiences implementing the LLPM and perceived benefits of the model. Attending pharmacists identified seven key attributes for hospital and health-system pharmacy departments that are needed to design and implement effective LLPMs: shared leadership, a systematic approach, good communication, flexibility for attending pharmacists, adequate resources, commitment, and evaluation. Participants also highlighted several potential challenges and obstacles for organizations to consider before implementing an LLPM."

According to the news editors, the research concluded: "According to attending pharmacists involved in an LLPM, successful implementation of an LLPM required shared leadership, a systematic approach, communication, flexibility, resources, commitment, and a process for evaluation."

For more information on this research see: The layered learning practice model: Lessons learned from implementation. American Journal of Health-System Pharmacy, 2016;73 (24):2077-2082. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting N.R. Pinelli, UNC, Div Practice Adv & Clin Educ, Eshelman Sch Pharm, Dept. of PharmUNC Med Center, Chapel Hill, NC 27514, United States. Additional authors for this research include S.F. Eckel, M.B. Vu, M. Weinberger and M.T. Roth.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp160163. This DOI is a link to an online electronic document that is either free or for purchase.
Recent Findings in Heart Attack Described by Researchers from Medical College of Wisconsin (Acute Myocardial Infarction in Adult Congenital Patients with Bodily Isomerism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Attack have been presented. According to news reporting originating in Milwaukee, Wisconsin, by NewsRx journalists, research stated, "Children born with congenital malformations of the heart are increasingly surviving into adulthood. This population of patients possesses lesion-specific complication risks while still being at risk for common illnesses."

The news reporters obtained a quote from the research from the Medical College of Wisconsin, "Bodily isomerism or heterotaxy, is a unique clinical entity associated with congenital malformations of the heart which further increases the risk for future cardiovascular complications. We aimed to investigate the frequency of myocardial infarction in adults with bodily isomerism. We utilized the 2012 iteration of the Nationwide Inpatient Sample to identify adult inpatient admissions associated with acute myocardial infarction in patients with isomerism. Data regarding demographics, comorbidities and various procedures were collected and compared between those with and without isomerism. A total of 6,907,109 admissions were analyzed with a total of 172,394 admissions being associated with an initial encounter for acute myocardial infarction. The frequency of myocardial infarction did not differ between those with and without isomerism and was roughly 2% in both groups. Similarly, the number of procedures and in-hospital mortality did not differ between the two groups."

According to the news reporters, the research concluded: "The frequency and short-term prognosis of acute myocardial infarction is similar in patients with and without isomerism."

For more information on this research see: Acute Myocardial Infarction in Adult Congenital Patients with Bodily Isomerism. Congenital Heart Disease, 2016;11(6):548-553. Congenital Heart Disease can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Congenital Heart Disease - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1747-0803)

Our correspondents report that additional information may be obtained by contacting R.S. Loomba, Medical College of Wisconsin, Children's Hospital of Wisconsin, Dept. of Pediat, Milwaukee, WI 53226, United States. Additional authors for this research include S. Aggarwal, M. Buelow, K. Nijhawan, N. Gupta, V. Alla and R.R. Arora.

Keywords for this news article include: Milwaukee, Wisconsin, United States, North and Central America, Heart Disorders and Diseases, Epidemiology, Vascular Diseases and Conditions, Myocardial Infarction, Myocardial Ischemia, Heart Disease, Heart Attack, Medical College of Wisconsin.

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Recent Findings in Heart Attack Described by Researchers from Seoul National University (A multicentre observational study of inter-hospital transfer for post-resuscitation care after out-of-hospital cardiac arrest)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Attack is now available. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "To provide therapeutic hypothermia (TH) to survivors after out-of-hospital cardiac arrest (OHCA), inter-hospital transfers (IHT) are frequently required. The safety of IHT remains controversial."

Financial support for this research came from Korea Centers for Disease Control and Prevention (CDC).

The news correspondents obtained a quote from the research from Seoul National University, "The aim of this study was to investigate whether the effect of TH on brain recovery after OHCA differs between IHT and direct arrival groups. We identified patients with OHCA of presumed cardiac aetiology who were resuscitated by emergency medical services and experienced return-of-spontaneous circulation in 27 hospitals between January and December 2014. The main exposure variables were TH and IHT. The primary endpoint was discharge with good neurological recovery. We compared outcomes between the TH and non-TH groups using multivariable logistic regression with an interaction term between TH and IHT, after adjusting for potential confounders. Among 1616 patients, 576 patients were included in the final analyses. Neurologic recovery was better in the TH group (46.2%) than in the non-TH group (20.1%) (adjusted odds ratio [aOR] 2.03 [95% confidence interval (CI) 1.24-3.33]). In the interaction model for the outcome of good neurological recovery, the aOR for TH was 2.82 (95% CI 1.59-5.01) in the direct transfer group vs. 0.76 (95% CI 0.29-2.01) in the IHT group. The measure of interaction on the multiplicative scale in this model was also statistically significant (OR 0.27 [95% CI 0.07-0.83]; p = 0.02). IHT modified the effect of TH on neurological recovery for survivors of OHCA."

According to the news reporters, the research concluded: "TH is significantly less beneficial for good neurological recovery in patients who arrive via IHT than for those who arrive directly."


Our news journalists report that additional information may be obtained by contacting K.O. Ahn, Seoul National University, Biomed Res Inst, Lab Emergency Med Serv, Seoul 110744, South Korea. Additional authors for this research include K.O. Ahn, S.D. Shin, K.J. Song, Y.S. Ro, J.Y. Kim, E.J. Lee and Y.J. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.08.025. This DOI is a link to an online electronic document that is either free or for purchase.
Recent Findings in Heart Attack Described by Researchers from Xi'an Jiaotong University (Chest Pain after Aortic Valve Replacement: Rupture of Right Sinus of Valsalva Presenting as Myocardial Infarction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting out of Xi'an, People's Republic of China, by NewsRx editors, research stated, "A 47-year-old male presented with retrosternal chest pain, which had started 4 days previously and had become excruciating for the past 6 h. He had undergone mechanical aortic valve replacement surgery 4 months previously."

Our news journalists obtained a quote from the research from Xi'an Jiaotong University, "Electrocardiography, echocardiography, computed tomography-angiography of the aorta. Rupture of the right sinus of Valsalva and right coronary artery dissection."

According to the news editors, the research concluded: "The defect in the right coronary sinus was closed, and the dissection at the root of the right coronary artery was resected and the right coronary artery bypassed to the root of the aorta."


Our news journalists report that additional information may be obtained by contacting J. She, Cardiovascular Department, First Affiliated Hospital of Medical College, Xi'an Jiaotong University, Xi'an, People's Republic of China. Additional authors for this research include Z. Hu, Y. Deng, F. Liu and Z. Yuan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443266. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Cardiology is: S. Karger AG, Allschwilerstrasse 10, CH-4009 Basel, Switzerland.

Keywords for this news article include: Asia, Xi'an, Angiology, Cardiology, Chest Pain, Heart Attack, Heart Disease, Myocardial Ischemia, Myocardial Infarction, Right Coronary Artery, People's Republic of China, Heart Disorders and Diseases, Vascular Diseases and Conditions.

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Recent Findings in Heart Failure Described by Researchers from University of Washington (Neonatal Diesel Exhaust Particulate Exposure Does Not Predispose Mice to Adult Cardiac Hypertrophy or Heart Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Failure. According to news reporting out of Seattle, Washington, by NewsRx editors, research stated, "We have previously reported that in utero and early life exposure to diesel exhaust particulates predisposes mice to adult heart failure, and that in utero exposure alone is sufficient to confer this predisposition. This follow up study addresses whether neonatal exposure alone can also confer this predisposition."

Our news journalists obtained a quote from the research from the University of Washington, "Newborn male C57BL/6 mice were exposed to diesel exhaust (DE) particulates immediately after birth until weaning at 21 days of age, whereupon they were transferred to filtered air (FA) conditions. At the age of 12 weeks, transverse aortic constriction (TAC) was performed followed by weekly echocardiography for three weeks. After the last echocardiogram, mice were euthanized for organ harvest, gravimetry and histology. Neonatal exposure to DE particulates did not increase susceptibility to cardiac hypertrophy or heart failure after TAC when compared to FA exposed controls (ventricular weight/body weight ratio 7.505 vs. 7.517 mg/g, p = Not Significant (NS)). The left ventricular ejection fraction after TAC was similar between groups at one week, two weeks, and three weeks after procedure. Histological analysis showed no difference in the degree of cardiac hypertrophy or fibrosis."

According to the news editors, the research concluded: "Neonatal exposure to DE particulates does not predispose mice to TAC-induced cardiac hypertrophy and heart failure in adulthood, in contrast to previously published results showing susceptibility due to in utero exposure."

For more information on this research see: Neonatal Diesel Exhaust Particulate Exposure Does Not Predispose Mice to Adult Cardiac Hypertrophy or Heart Failure. *International Journal of Environmental Research and Public Health*, 2016;13(12):105-111. *International Journal of Environmental Research and Public Health* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting Y.G. Liu, University of Washington, Dept. of Med, Div Cardiol, Seattle, WA 98109, United States. Additional authors for this research include C.S. Weldy and M.T. Chin.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Cardiovascular Diseases and Conditions, Transverse Aortic Constriction, Heart Disorders and Diseases, Heart Failure, Heart Disease, Cardiomegaly, Hypertrophy, Cardiology, Surgery, University of Washington.

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Recent Findings in Hepatitis C Virus Described by V. Knop and Colleagues (Regression of fibrosis and portal hypertension in HCV-associated cirrhosis and sustained virologic response after interferon-free antiviral therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases and Conditions - Hepatitis C Virus have been presented. According to news reporting from Frankfurt, Germany, by NewsRx journalists, research stated, "It is still controversial, whether and to what amount cirrhosis and portal hypertension are reversible in patients with hepatitis C virus (HCV)-associated cirrhosis and sustained virologic response (SVR) after interferon-free antiviral therapy. In this study, we prospectively evaluated dynamics of liver and spleen stiffness in HCV-infected patients with advanced liver disease and SVR after interferon-free treatment."

The news correspondents obtained a quote from the research, "A total of 54 patients with HCV-associated cirrhosis and SVR were included. Liver and spleen stiffness was measured at therapy baseline (BL), end of treatment (EOT) and 24 weeks after EOT (FU24) by transient liver elastography (L-TE) as well as by acoustic radiation force impulse of the liver (L-ARFI) and spleen (S-ARFI), as well as biochemical, virologic and clinical data. Improvement of liver and spleen stiffness was found in 44 of 50 (88%), 31 of 54 (57%) and 25 of 54 (46%) of patients assessed by L-TE, L-ARFI and S-ARFI between baseline and FU24. Liver stiffness assessed by L-TE improved between BL [median (range), 32.5 (9.1-75) kPa] and EOT [median (range), 21.3 (6.7-73.5) kPa; (P <.0001)], and between BL and FU24 [median (range), 21.2 (5.4-70) kPa; (P <.0001)]. Liver stiffness assessed by L-ARFI improved between BL [median (range), 2.7 (1.2-4.1) m/s] and FU24 [median (range), 2.4 (1.2-3.9) m/s; P=.002], while spleen stiffness remained unchanged."

According to the news reporters, the research concluded: "Our data suggest that improvement of liver stiffness may be rather due to reduced necroinflammation and may be due to a less extent to regression of cirrhosis, as dynamics of liver stiffness improvement was more pronounced between BL and EOT than BL and FU24."


Our news journalists report that additional information may be obtained by contacting M.W. Welker, Univ Klinikum Frankfurt, Medizin Klin 1, Frankfurt, Germany. Additional authors for this research include D. Hoppe, T. Welzel, J. Vermehren, E. Herrmann, A. Vermehren, M. Friedrich-Rust, C. Sarrazin, S. Zeuzem and M.W. Welker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jvh.12578. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Frankfurt, Germany, Europe, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Cardiovascular Diseases and Conditions, Liver Diseases and Conditions, Hemic and Immune Systems,
Recent Findings in Human Genetics Described by Researchers from CHA University (Evidence for No Significant Impact of Müllerian Anomalies on Reproductive Outcomes of Twin Pregnancy in Korean Women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics - Human Genetics. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "The present article aimed to evaluate the impact of congenital Müllerian anomalies (MA) on twin pregnancy after 24 gestational weeks in Korean women. All records of twin pregnancies in a large maternity hospital in Korea between January 2005 and July 2013 were analyzed."

Our news editors obtained a quote from the research from CHA University, "Patients with monochorionic monoamniotic (MCMA) twins, non-Korean patients, patients with twins delivered prior to 24 gestational weeks, and patients with miscarriage of one fetus or intrauterine fetal death (IUFD) before 24 gestational weeks were excluded from data analysis. In total, 1,422 women with twin pregnancy were eligible for data analysis, including 17 (1.2%) who had a known congenital MA (septate uterus, bicornuate uterus, arcuate uterus, and unicornuate uterus). Except for the mode of conception, baseline demographics were similar between women with MA and those without MA. No significant differences were found in pregnancy outcomes of gestational age at delivery (p=.86), birth weight of smaller and larger twins (p=.54 and p=.65), and number of twins with birth weight <5th percentile for gestational age (p=.43). The rates of obstetrical complications such as pre-eclampsia, gestational diabetes mellitus (GDM), placenta previa, cerclage, IUFD, and postpartum hemorrhage were not significantly different between the two groups either."

According to the news editors, the research concluded: "We concluded that the presence of congenital MA may not increase obstetrical risks in outcomes of pregnancy of twins delivered after 24 gestational weeks."


The news editors report that additional information may be obtained by contacting S. Shim, Dept. of Obstetrics and Gynecology, CHA Gangnam Medical Center, CHA University, Seoul, South Korea. Additional authors for this research include Y.M. Hur, da H. Kim, S.J. Seong, M.L. Kim and J.S Shin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/thg.2016.4. This DOI is a link to an online electronic document that is either free or for purchase.
Recent Findings in Immune System Described by Researchers from Sheffield Teaching Hospitals (The therapeutic potential of epigenetic manipulation during infectious diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immunology - Immune System are discussed in a new report. According to news reporting originating in Sheffield, United Kingdom, by NewsRx journalists, research stated, "Epigenetic modifications are increasingly recognized as playing an important role in the pathogenesis of infectious diseases. They represent a critical mechanism regulating transcriptional profiles in the immune system that contributes to the cell-type and stimulus specificity of the transcriptional response."

The news reporters obtained a quote from the research from Sheffield Teaching Hospitals, "Recent data highlight how epigenetic changes impact macrophage functional responses and polarization, influencing the innate immune system through macrophage tolerance and training. In this review we will explore how post translational modifications of histone tails influence immune function to specific infectious diseases. We will describe how these may influence outcome, highlighting examples derived from responses to acute bacterial pathogens, models of sepsis, maintenance of viral latency and HIV infection."

According to the news reporters, the research concluded: "We will discuss how emerging classes of pharmacological agents, developed for use in oncology and other settings, have been applied to models of infectious diseases and their potential to modulate key aspects of the immune response to bacterial infection and HIV therapy."


Our news correspondents report that additional information may be obtained by contacting D.H. Dockrell, Sheffield Teaching Hosp, Sheffield, S Yorkshire, United Kingdom. Additional authors for this research include P. Morris, M.J. Dickman and D.H. Dockrell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pharmthera.2016.07.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sheffield, United Kingdom, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Infectious Diseases and Conditions, Mononuclear Phagocyte System, Hemic and Immune Systems, Therapy, Article Review, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, Macrophages, Immunology, Phagocytes, Genetics, HIV/AIDS, Sheffield Teaching Hospitals.

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Recent Findings in Ischemia Described by Researchers from Institute of Biomedical Research (Polyethylene Glycol Preconditioning: An Effective Strategy to Prevent Liver Ischemia Reperfusion Injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Ischemia have been presented. According to news reporting originating in Barcelona, Spain, by NewsRx journalists, research stated, "Hepatic ischemia reperfusion injury (IRI) is an inevitable clinical problem for liver surgery. Polyethylene glycols (PEGs) are water soluble nontoxic polymers that have proven their effectiveness in various in vivo and in vitro models of tissue injury."

Financial supporters for this research include Fondo de Investigaciones Sanitarias, Generalitat de Catalunya.

The news reporters obtained a quote from the research from the Institute of Biomedical Research, "The present study aims to investigate whether the intravenous administration of a high molecular weight PEG of 35 kDa (PEG 35) could be an effective strategy for rat liver preconditioning against IRI. PEG 35 was intravenously administered at 2 and 10 mg/kg to male Sprague Dawley rats. Then, rats were subjected to one hour of partial ischemia (70%) followed by two hours of reperfusion. The results demonstrated that PEG 35 injected intravenously at 10 mg/kg protected efficiently rat liver against the deleterious effects of IRI. This was evidenced by the significant decrease in transaminases levels and the better preservation of mitochondrial membrane polarization. Also, PEG 35 preserved hepatocyte morphology as reflected by an increased F-actin/G-actin ratio and confocal microscopy findings. In addition, PEG 35 protective mechanisms were correlated with the activation of the prosurvival kinase Akt and the cytoprotective factor AMPK and the inhibition of apoptosis."

According to the news reporters, the research concluded: "Thus, PEG may become a suitable agent to attempt pharmacological preconditioning against hepatic IRI."


Our news correspondents report that additional information may be obtained by contacting M. Bejaoui, Experimental Pathology Department, Institute of Biomedical Research of Barcelona (IIBB), CSIC, Rossello 161, Barcelona, 08036 Catalonia, Spain. Additional authors for this research include E. Pantazi, M. Calvo, E. Folch-Puy, A. Serafin, G. Pasut, A. Panisello, R. Adam and J. Rosello-Catafau.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/9096549. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, Alkenes, Polyenes, Barcelona, Hydrocarbons, Medical Devices, Blood Transfusion, Organic Chemicals, Polyethylene Glycols, Transfusion Medicine, Ischemia Reperfusion Injury, Cardiovascular Diseases and Conditions.

Our reports deliver fact-based news of research and discoveries from around the
Recently, researchers from Saitama Medical University have described their findings on the long-term outcomes of 154 patients treated with balloon-occluded retrograde transvenous obliteration (B-RTO) for gastric fundal varices. The study aimed to clarify the long-term outcome of therapeutic strategies including B-RTO for patients with gastric fundal varices. The subjects were 154 patients with gastric fundal varices fulfilling the criteria for receiving B-RTO.

In patients showing variceal bleeding, endoscopic therapies and/or balloon tamponade was performed to achieve hemostasis. B-RTO was accomplished with injection of 5% ethanolamine olate through a standard balloon catheter except for patients with atypical varices, in whom a microballoon catheter was used to occlude drainage vessels other than a gastrorenal shunt. In patients complicated with esophageal varices at baseline, endoscopic therapies were performed following B-RTO. Balloon-occluded retrograde transvenous obliteration was performed successfully in 147 patients (95%), including 15 patients using a microballoon catheter. Complete variceal obliteration was achieved in all patients. Additional endoscopic therapies for esophageal varices were performed in 31 patients. Gastric varices did not recur in any of these patients. The cumulative survival rates at 1, 3, and 5 years after B-RTO were 91%, 76%, and 72%, respectively. Child-Pugh scores and hepatocellular carcinoma complication were identified as prognostic factors associated with survival rates. The cumulative exacerbation rates of esophageal varices at 1, 3, and 5 years were 13%, 20%, and 27%, respectively, and rupture developed in six patients, which were successfully treated with endoscopic therapies.

According to the news editors, the research concluded: "Therapeutic strategies including B-RTO with a microballoon catheter were useful to achieve a favorable outcome in patients with gastric fundal varices especially in those manifesting Child-Pugh class-A liver damage and/or those without hepatocellular carcinoma complication."


The news correspondents report that additional information may be obtained from S. Mochida, Saitama Med Univ, Dept. of Gastroenterol & Hepatom, Fac Med, Moroyama, Saitama 3500495, Japan. Additional authors for this research include M. Nakazawa, S. Ando, K. Sugawara and S. Mochida.

Keywords for this news article include: Saitama, Japan, Asia, Varicose Veins, Liver
Recent Findings in Lung Cancer Described by Researchers from Department of Radiation Oncology (Focal Adhesion Kinase Regulates the DNA Damage Response and Its Inhibition Radiosensitizes Mutant KRAS Lung Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Lung Cancer is the subject of a report. According to news originating from Dallas, Texas, by NewsRx correspondents, research stated, "Non-small cell lung cancer (NSCLC) is the leading cause of cancer-related deaths worldwide due to the limited availability of effective therapeutic options. For instance, there are no effective strategies for NSCLCs that harbor mutant KRAS, the most commonly mutated oncogene in NSCLC."

Our news journalists obtained a quote from the research from the Department of Radiation Oncology, "Thus, our purpose was to make progress toward the generation of a novel therapeutic strategy for NSCLC. We characterized the effects of suppressing focal adhesion kinase (FAK) by RNA interference (RNAi), CRISPR/CAS9 gene editing or pharmacologic approaches in NSCLC cells and in tumor xenografts. In addition, we tested the effects of suppressing FAK in association with ionizing radiation (IR), a standard-of-care treatment modality. FAK is a critical requirement of mutant KRAS NSCLC cells. With functional experiments, we also found that, in mutant KRAS NSCLC cells, FAK inhibition resulted in persistent DNA damage and susceptibility to exposure to IR. Accordingly, administration of IR to FAK-null tumor xenografts causes a profound antitumor effect in vivo. FAK is a novel regulator of DNA damage repair in mutant KRAS NSCLC and its pharmacologic inhibition leads to radiosensitizing effects that could be beneficial in cancer therapy."

According to the news editors, the research concluded: "Our results provide a framework for the rationale clinical testing of FAK inhibitors in NSCLC patients."

For more information on this research see: Focal Adhesion Kinase Regulates the DNA Damage Response and Its Inhibition Radiosensitizes Mutant KRAS Lung Cancer. Clinical Cancer Research, 2016;22(23):5851-5863. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

The news correspondents report that additional information may be obtained from P.P. Scaglioni, Simmons Comprehens Canc Center, Dept. of Radiat Oncol, Dallas, TX, United States. Additional authors for this research include J.D. Constanzo, N. Venkateswaran, M. Melegari, M. Ilcheva, J.C. Morales, F. Skoulidis, J.V. Heymach, D.A. Boothman and P.P. Scaglioni.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-15-2603. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and
Central America, Enzymes and Coenzymes, Cell-Matrix Junctions, Deoxyribonucleic Acid, Cellular Structures, Xenotransplantation, Focal Adhesions, Lung Neoplasms, Cell Membrane, Biotechnology, DNA Research, Lung Cancer, Proteomics, DNA Damage, Xenografts, Oncology, Genetics, Kinase, Department of Radiation Oncology.

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Oncology - Lung Cancer
Recent Findings in Lung Cancer Described by Researchers from Yale University (EGFR-GRB2 Protein Colocalization Is a Prognostic Factor Unrelated to Overall EGFR Expression or EGFR Mutation in Lung Adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news originating from New Haven, Connecticut, by NewsRx correspondents, research stated, "EGFR is a therapeutic target in NSCLC for EGFR-mutant patients. Proximity ligation assay (PLA) is a method to detect functional signaling associated protein complexes."

Funders for this research include National Institutes of Health, Yale SPORE in Lung Cancer, Yale Cancer Center, OKIBEE.

Our news journalists obtained a quote from the research from Yale University, "Growth factor receptor bound protein 2 (GRB2) is an adaptor protein that binds to the phosphorylated residues of active EGFR. Interaction of EGFR and GRB2 correlates with active EGFR signaling and leads to activation of the MAPK/ERK pathway. A PLA developed to detect EGFR-GRB2 interaction was measured by quantitative immunofluorescence using Automated Quantitative Analysis technology. EGFR pathway activation was assessed in patients with NSCLC with different mutation status along with overall EGFR expression. Additionally, the PLA to detect EGFR-GRB2 interaction was evaluated as a prognostic marker in two cohorts of patients with lung adenocarcinoma. The PLA to detect EGFR-GRB2 interaction was unrelated to overall EGFR expression or mutation in a series of patients with NSCLC with known mutation status. EGFR-mutant (p = 0.04) and EGFR/KRAS wild-type tumors (p = 0.0049) had significantly higher EGFR pathway activation compared with KRAS-mutant cases, with no significant difference shown between mutation sites. In two series of patients with lung adenocarcinoma, the PLA to detect EGFR-GRB2 interaction was independently associated with longer survival (hazard ratio = 0.46, 95% confidence interval: 0.2-0.78, p = 0.0085 and hazard ratio = 0.48, 95% confidence interval: 0.2-0.85, p = 0.017). Total EGFR protein expression alone was not correlated with outcome. EGFR colocalization with GRB2 as assessed by PLA is not correlated with EGFR expression levels or mutation status, defining a patient group that may show EGFR pathway activation, as illustrated by its prognostic value."

According to the news editors, the research concluded: "Future studies may determine whether this group is more likely to respond to EGFR-targeted therapies."

For more information on this research see: EGFR-GRB2 Protein Colocalization Is a Prognostic Factor Unrelated to Overall EGFR Expression or EGFR Mutation in Lung Adenocarcinoma. Journal of Thoracic Oncology, 2016;11(11):1901-1911. Journal of Thoracic Oncology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Thoracic
Oncology - Malignant Pleural Effusion

Recent Findings in Malignant Pleural Effusion Described by Researchers from Chinese People's Liberation Army General Hospital
(Combination use of paclitaxel and avastin enhances treatment effect for the NSCLC patients with malignant pleural ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Malignant Pleural Effusion. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "The current study is conducted to investigate efficacy of the chemotherapy drug paclitaxel in combination with Avastin (Roche Diagnostics GmbH., Mannheim, Germany) (antiangiogenic agent) in treatment of malignant pleural effusions (MPEs). Twenty-four patients with non-small cell lung cancer were randomly assigned for 2 treatment approaches."

The news reporters obtained a quote from the research from Chinese People's Liberation Army General Hospital, "Ten patients received paclitaxel (175 mg/m(2)) alone, and 14 patients took a combination therapy of paclitaxel and Avastin (5 mg/kg). Efficacy of the treatment approaches in the patients was validated with the change in the MPE volume. Pharmacokinetic (PK) profile and urinary excretion rate of paclitaxel were analyzed with serum vascular endothelial growth factor (VEGF) level, and adverse events were examined as well. The combination therapy reduced the MPE level with a successful rate of 29% and a survival rate of 25% over the single paclitaxel treatment in the study cohort (both P<0.05). PKs for the combined treatment displayed a rapid distribution of the anticancer drug paclitaxel with an obvious increase in its elimination half-life in the pleural fluid (both P<0.01). Mean residence time of paclitaxel increased in the presence of Avastin (P <0.01). Serum VEGF levels significantly reduced in the Avastin-treated patients as compared to the paclitaxel-treated ones (P <0.01). The urinary excretion rate was similar in the study cohort. Incidence of adverse events for the 2 treatment approaches was similar in the patients." According to the news reporters, the research concluded: "Intervention of Avastin enhances potency of paclitaxel in treatment of MPEs with the increased survival rate of the patients through inhibiting VEGF production and prolonging time of ongoing interaction between the chemotherapy drug and the tumor tissues."
For more information on this research see: Combination use of paclitaxel and avastin enhances treatment effect for the NSCLC patients with malignant pleural effusion. Medicine, 2016;95(47):153-160. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting N. Du, Chinese Peoples Liberat Army Gen Hosp, Dept. of Oncol, Affiliated Hosp 1, Beijing 100048, People's Republic of China. Additional authors for this research include F. Li, X.S. Li, H.R. Kang, H. Zhao and N. Du.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Respiratory Tract Diseases and Conditions, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Pleural Diseases and Conditions, Malignant Pleural Effusion, Growth Factor Receptors, Monoclonal Antibodies, Drugs and Therapies, Angiogenic Proteins, Paclitaxel Therapy, Mitotic Inhibitors, Organic Chemicals, Membrane Proteins, Pharmaceuticals, Antineoplastics, Avastin Therapy, Cycloparaffins, Hydrocarbons, Bevacizumab, Terpenes, Oncology, Taxoids, VEGF, Chinese People's Liberation Army General Hospital.

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Membrane Proteins - Membrane Glycoproteins

Recent Findings in Membrane Glycoproteins Described by Researchers from Baker IDI Heart and Diabetes Institute (Small GTPase ARF6 Regulates Endocytic Pathway Leading to Degradation of ATP-Binding Cassette Transporter A1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Membrane Proteins - Membrane Glycoproteins are discussed in a new report. According to news reporting originating in Melbourne, Australia, by NewsRx journalists, research stated, "ABCA1 (ATP-binding cassette transporter A1) is the principal protein responsible for cellular cholesterol efflux. Abundance and functionality of ABCA1 is regulated both transcriptionally and post-translationally, with endocytosis of ABCA1 being an important element of post-translational regulation."

The news reporters obtained a quote from the research from Baker IDI Heart and Diabetes Institute, "Functional ABCA1 resides on the plasma membrane but can be internalized and either degraded or recycled back to the plasma membrane. The interaction between the degradative and recycling pathways determines the abundance of ABCA1 and may contribute to the efflux of intracellular cholesterol. Approach and Results-Here, we show that the principal pathway responsible for the internalization of ABCA1 leading to its degradation in macrophages is ARF6-dependent endocytic pathway. This pathway was predominant in the regulation of ABCA1 abundance and efflux of plasma membrane cholesterol. Conversely, the efflux of intracellular cholesterol was predominantly controlled by ARF6-independent pathways, and inhibition of ARF6 shifted ABCA1 into recycling endosomes enhancing efflux of intracellular cholesterol."

According to the news reporters, the research concluded: "We conclude that ARF6-dependent pathway is the predominant route responsible for the ABCA1 internalization and
degradation, whereas ARF6-independent endocytic pathways may contribute to ABCA1 recycling and efflux of intracellular cholesterol."

For more information on this research see: Small GTPase ARF6 Regulates Endocytic Pathway Leading to Degradation of ATP-Binding Cassette Transporter A1. *Arteriosclerosis Thrombosis and Vascular Biology*, 2016;36(12):2292-2303. *Arteriosclerosis Thrombosis and Vascular Biology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news correspondents report that additional information may be obtained by contacting D. Sviridov, Baker IDI Heart & Diabet Inst, Dept. of Lipoprot & Atherosclerosis, Melbourne, Vic, Australia. Additional authors for this research include A. Hoang, H.L. Cui, I. Carmichael, Y. Fu, M. Bukrinsky and D. Sviridov.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, ATP-Binding Cassette Transporters, Membrane Transport Proteins, Membrane Glycoproteins, Enzymes and Coenzymes, Membrane Proteins, Carrier Proteins, GTPase, Baker IDI Heart and Diabetes Institute.

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Autoimmune Diseases and Conditions - Multiple...

**Recent Findings in Multiple Sclerosis Described by Researchers from University of Medicine and Dentistry of New Jersey (UMDNJ) (Predictive cytokine biomarkers of clinical response to glatiramer acetate therapy in multiple sclerosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Autoimmune Diseases and Conditions - Multiple Sclerosis are presented in a new report. According to news reporting originating in Piscataway, New Jersey, by NewsRx journalists, research stated, "A prospective study of 62 patients with relapsing-remitting multiple sclerosis (RRMS) treated with Glatiramer acetate (GA) was conducted to evaluate the value of baseline and treatment-modulated cytokines in predicting the clinical response to the drug after 2 years of therapy. There were 32 responders and 30 non-responders."

Financial supporters for this research include Wadsworth Foundation, TEVA Pharmaceuticals.

The news reporters obtained a quote from the research from the University of Medicine and Dentistry of New Jersey (UMDNJ), "GA upregulated Th2/regulatory cytokines and inhibited Th1 cytokines in sera or PBMC supernatants 3 and 6 months into treatment. We found two prognostic models with clinical utility. A model based on IL-18 at baseline, the change in TNFα from baseline to 3 months, the change in IL-4 from baseline to 6 months, and the change in the log of the ratio of TNFα/IL-4 from baseline to 6 months had an area under the curve (AUC) of 0.80. A high IL-18 level at baseline and a reduction of TNF-alpha over time are associated with a response to GA."

According to the news reporters, the research concluded: "Although the study identified predictive biomarkers of clinical response to GA, the results will need to be validated in other data sets."

For more information on this research see: Predictive cytokine biomarkers of
Recent Findings in Obesity Described by J. Lopez-Minguez and Colleagues (Circadian rhythms, food timing and obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news originating from Murcia, Spain, by NewsRx correspondents, research stated, "It is known that our physiology changes throughout the day and that several physiological hormones display circadian rhythmicity. The alteration of this normal pattern is called chronodisruption (CD)."

Our news journalists obtained a quote from the research, "In recent years, it has been demonstrated that CD is related to obesity. Although several factors may be causing CD, one important aspect to consider is the failure in our internal clock. Indeed, studies performed in mutant animals have demonstrated that mutations in clock genes are related to obesity. In human subjects, mutations are rare (<1% of the population). Nevertheless, it is rather common to have genetic variations in one SNP, which underlie differences in our vulnerability to disease. Several SNP in clock genes are related to obesity and weight loss. Taking into account that genetics is behind CD, as has already been demonstrated in twins' models, the question is: Are we predestinated? We will see along these lines that nutrigenetics and epigenetics answer: No, we are not predestinated. Through nutrigenetics we know that our behaviours may interact with our genes and may decrease the deleterious effect of one specific risk variant. From epigenetics the message is even more positive: it is demonstrated that by changing our behaviours we can change our genome. Herein, we propose modifying what, how, and when we eat as an effective tool to decrease our genetic risk, and as a consequence to diminish CD and decrease obesity."

According to the news editors, the research concluded: "This is a novel and very
promising area in obesity prevention and treatment.”


The news correspondents report that additional information may be obtained from M. Garaulet, IMIB Arrixaca, Murcia, Spain. Additional authors for this research include P. Gomez-Abellan and M. Garaulet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S0029665116000628. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Murcia, Spain, Europe, Nutritional and Metabolic Diseases and Conditions, Genetic Diseases and Conditions, Circadian Rhythms, Genetics, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Genetic Risk, Bariatrics, Obesity.

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Recent Findings in Obesity Described by Researchers from University of Colorado (Body Mass Index and the Spontaneous Onset of Parturition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Obesity is the subject of a report. According to news reporting out of Denver, Colorado, by NewsRx editors, research stated, “To investigate the relationship between body mass index (BMI) and the onset of parturition throughout gestation. This was a secondary analysis of the Maternal-Fetal Medicine Units Network Preterm Prediction Study.”

Our news journalists obtained a quote from the research from the University of Colorado, “Time-to-spontaneous-birth-event (ie, ‘survival’) methods were used to study the association of BMI with the timing of spontaneous onset of labor throughout gestation with indicated births censored at delivery. A Kaplan-Meier estimate of the probability of spontaneous labor was compared with a log rank test across five categories of BMI (kg/m(2)): underweight (less than 18.5), normal weight (18.5-24.99), preobese (25-29.99), obese I (30-34.99), and obese II+ (35 or greater). A proportional hazards model was estimated to compare time to spontaneous onset of labor adjusted for multiple variables known to be associated with the onset of labor. Normal-weight women (n=1,054) had a median delivery gestational age of 39 3/7 weeks. Obese II+ women (n=178) had a median delivery gestational age 5 days later than normal-weight women (P <.001). Delivery gestational age of preobese (n=866) and obese I (n=548) women was not significantly different from normal-weight women. Underweight women (n=41) had a median delivery gestational age 5 days earlier than normal-weight women (P <.001). Compared with women with normal BMIs, obese II+ women were significantly less likely and underweight women significantly more likely to enter spontaneous labor at all gestational ages. In the multivariable model, BMI was significantly associated with spontaneous onset of labor.
throughout pregnancy (BMI [five-unit] adjusted hazard ratio \(0.874, 0.829-0.921\)). Body mass index is significantly associated with the likelihood of the spontaneous onset of labor at all gestational ages with gestational age at the time of delivery and BMI being inversely related."

According to the news editors, the research concluded: "This novel observation unifies previous reports focusing on the association of overweight and underweight BMIs and preterm and postterm birth and may inform discussions surrounding elective induction of labor at term."

For more information on this research see: Body Mass Index and the Spontaneous Onset of Parturition. Obstetrics and Gynecology, 2016;128(5):1033-1038. Obstetrics and Gynecology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Obstetrics and Gynecology - journals.lww.com/greenjournal/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting A.C. Hermesch, University of Colorado, Colorado Sch Public Hlth, Dept. of Biostat & Informat, Denver, CO 80202, United States. Additional authors for this research include A.A. Allshouse and K.D. Heyborne.

Keywords for this news article include: Denver, Colorado, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Bariatrics, Obesity, University of Colorado.

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Respiratory Tract Diseases and Conditions -...

Recent Findings in Obstructive Sleep Apnea Described by R. Soca and Colleagues (Parasomnia Overlap Disorder with Sexual Behaviors during Sleep in a Patient with Obstructive Sleep Apnea)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea. According to news reporting originating in St. Paul, Minnesota, by NewsRx journalists, research stated, "Sleep-related abnormal sexual behaviors (sexsomnia) are classified as a subtype of NREM sleep parasomnias. Sexsomnia has been reported as part of parasomnia overlap disorder (POD) in two other patients."

The news reporters obtained a quote from the research, "We present the case of a 42-year-old male patient with video-polysomnography (vPSG) documented POD. The patient had sleepwalking, sleep-related eating, confusional arousals, sexsomnia, sleepwalking, and REM sleep behavior disorder (RBD). Confusional arousals and RBD were documented during the vPSG. This case had the added complexity of obstructive sleep apnea (OSA) playing a role in sleepwalking and sleep related eating, with good response to nasal continuous positive airway pressure (nCPAP)."

According to the news reporters, the research concluded: "The sexsomnia did not respond to nCPAP but responded substantially to bedtime clonazepam therapy."

For more information on this research see: Parasomnia Overlap Disorder with Sexual Behaviors during Sleep in a Patient with Obstructive Sleep Apnea. Journal of Clinical Sleep Medicine, 2016;12(8):1189-1191. Journal of Clinical Sleep Medicine can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.
Our news correspondents report that additional information may be obtained by contacting R. Soca, HealthEast Care Syst, Sleep Care Center, St Paul, MN, United States. Additional authors for this research include J.C. Keenan and C.H. Schenck.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.6066. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Paul, Minnesota, United States, North and Central America, Respiratory Tract Diseases and Conditions, Nervous System Diseases and Conditions, Sleep Diseases and Conditions, Obstructive Sleep Apnea, Respiration Disorders, Sleep Disorders, Otolaryngology, Craniofacial, Parasomnias, Pulmonology.

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Oncology

Recent Findings in Oncology Described by Researchers from Peking University [Crosstalk between autophagy and intracellular radiation response (Review)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Autophagy induced by radiation is critical to cell fate decision. Evidence now sheds light on the importance of autophagy induced by cancer radiotherapy."

Our news journalists obtained a quote from the research from Peking University, "Traditional view considers radiation can directly or indirectly damage DNA which can activate DNA damage the repair signaling pathway, a large number of proteins participating in DNA damage repair signaling pathway such as p53, ATM, PARP1, FOXO3a, mTOR and SIRT1 involved in autophagy regulation. However, emerging recent evidence suggests radiation can also cause injury to extranuclear targets such as plasma membrane, mitochondria and endoplasmic reticulum (ER) and induce accumulation of ceramide, ROS, and Ca2+ concentration which activate many signaling pathways to modulate autophagy. Herein we review the role of autophagy in radiation therapy and the potent intracellular autophagic triggers induced by radiation."

According to the news editors, the research concluded: "We aim to provide a more theoretical basis of radiation-induced autophagy, and provide novel targets for developing cytotoxic drugs to increase radiosensitivity."


Our news journalists report that additional information may be obtained by contacting J.J. Wang, Peking University, Hosp 3, Dept. of Radiat Oncol, Beijing 100191, People's Republic of China. Additional authors for this research include H. Wang, L. Huang, Y. Zhao and J.J. Wang.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Oncology, Genetics, Article Review, Peking University.
Recent Findings in Primary Graft Dysfunction Described by Researchers from University of Strasbourg (Microparticles: A new insight into lung primary graft dysfunction?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Primary Graft Dysfunction is the subject of a report. According to news reporting originating in Strasbourg, France, by NewsRx journalists, research stated, "Lung transplantation is the only life-saving treatment for end stage respiratory disease. The immediate outcome is still hampered by primary graft dysfunction."

The news reporters obtained a quote from the research from the University of Strasbourg, "The latter is a form of acute lung injury occurring within the 30 min following the unclamping of the pulmonary artery that prompts ischemia reperfusion injury. Severe forms may need prolonged mechanical ventilation and extra-corporeal membrane oxygenation. Overall, primary graft dysfunction accounts for at least one third of the deaths during the first post-operative month. Despite increasing experience and knowledge on the underlying cellular events, there is still a lack of an early marker of ischemia reperfusion graft injuries. Microparticles are plasma membrane vesicles that are released from damaged or stressed cells in biological fluids and remodeling tissues, among which the lung parenchyma during acute or chronic injury. We recently evidenced alveolar microparticles as surrogate markers of strong ischemia injury in ex-vivo reperfusion experimental models."

According to the news reporters, the research concluded: "We propose herein new insights on how microparticles may be helpful to evaluate the extent of lung ischemia reperfusion injuries and predict the occurrence of primary graft dysfunction."

For more information on this research see: Microparticles: A new insight into lung primary graft dysfunction? Human Immunology, 2016;77(11):1101-1107. Human Immunology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

Our news correspondents report that additional information may be obtained by contacting A. Olland, Univ Strasbourg, Translat Med Federat, EA SVTT Stress Vasculaire & Tissulaire Transplant, Strasbourg, France. Additional authors for this research include J. Reeb, A. Leclerq, B. Renaud-Picard, P.E. Falcoz, R. Kessler, V. Schini-Kerth, L. Kessler, F. Toti and G. Massard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.humimm.2016.07.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Strasbourg, France, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Primary Graft Dysfunction, Ischemia, Immunology, Transfusion Medicine, Reperfusion Injury, Blood Transfusion, Medical Devices, University of Strasbourg.

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Oncology - Prostate Cancer

Recent Findings in Prostate Cancer Described by Researchers from CSIR (Disulfiram and Its Novel Derivative Sensitize Prostate Cancer Cells to the Growth Regulatory Mechanisms of the Cell by Re-Expressing the Epigenetically Repressed Tumor ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting out of Uttar Pradesh, India, by NewsRx editors, research stated, "Estrogen Receptor-beta (ER-beta), a tumor-suppressor in prostate cancer, is epigenetically repressed by hypermethylation of its promoter. DNA-methyltransferases (DNMTs), which catalyze the transfer of methyl-groups to CpG islands of gene promoters, are overactive in cancers and can be inhibited by DNMT-inhibitors to re-express the tumor suppressors."

Our news journalists obtained a quote from the research from CSIR, "The FDA-approved nucleoside DNMT-inhibitors like 5-Azacytidine and 5-Aza-deoxycytidine carry notable concerns due to their off-target toxicity, therefore non-nucleoside DNMT inhibitors are desirable for prolonged epigenetic therapy. Disulfiram (DSF), an antabuse drug, inhibits DNMT and prevents proliferation of cells in prostate and other cancers, plausibly through the re-expression of tumor suppressors like ER-beta. To increase the DNMT-inhibitory activity of DSF, its chemical scaffold was optimized and compound-339 was discovered as a doubly potent DSF-derivative with similar off-target toxicity. It potently and selectively inhibited cell proliferation of prostate cancer (PC3/DU145) cells in comparison to normal (non-cancer) cells by promoting cell-cycle arrest and apoptosis, accompanied with inhibition of total DNMT activity, and re-expression of ER-beta (mRNA/protein). Bisulfite-sequencing of ER-beta promoter revealed that compound-339 demethylated CpG sites more efficaciously than DSF, restoring near-normal methylation status of ER-beta promoter. Compound-339 docked on to the MTase domain of DNMT1 with half the energy of DSF. In xenograft mice-model, the tumor volume regressed by 24% and 50% after treatment with DSF and compound-339, respectively, with increase in ER-beta expression. Apparently both compounds inhibit prostate cancer cell proliferation by re-expressing the epigenetically repressed tumor-suppressor ER-beta through inhibition of DNMT activity."

According to the news editors, the research concluded: "Compound-339 presents a new lead for further study as an anti-prostate cancer agent."


Gupta.

Keywords for this news article include: Uttar Pradesh, India, Asia, Drugs Used In Alcohol Dependence, Central Nervous System Agents, Estrogen Receptor beta, Transcription Factors, DNA-Binding Proteins, Drugs and Therapies, Prostatic Neoplasms, Cell Proliferation, Estrogen Receptors, Disulfiram Therapy, Tumor Suppression, Steroid Receptors, Carboxylic Acids, Pharmaceuticals, Prostate Cancer, Disulfides, Carbamates, Ditiocarb, Oncology, Genetics, CSIR.

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Oncology - Prostate Cancer

Recent Findings in Prostate Cancer Described by Researchers from Case Western Reserve University (Contemporary National Trends of Prostate Cancer Screening Among Privately Insured Men in the United States)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting from Cleveland, Ohio, by NewsRx journalists, research stated, "To assess the possible impact of changes to the clinical guidelines from the US Preventive Services Task Force recommendations in 2012 on the national trends of prostate-specific antigen (PSA) screening and identify patient characteristics associated with PSA screening from a large private insurance database. We conducted a retrospective cohort study of men between 40 and 80 years of age who underwent PSA screening for prostate cancer from 2008 to 2013 in a population-based cohort of privately insured patients."

The news correspondents obtained a quote from the research from Case Western Reserve University, "Unadjusted and adjusted rates were calculated using member-years and reported per 1000 member-years. Rates of PSA screening remained stable from 190.4 per 1000 member-years in 2008 to 196.4 in 2013 (P = .66). From 2008 to 2013, PSA screening did not change for patients aged 50-59 (236.5 to 241.1 per 1000 member-years; P = .78), 60-64 (284.1 to 288.3 per 1000 member-years; P = .77), 65-69 (250.6 to 248.0 per 1000 member-years; P = .56), and 70-74 (266.4 to 280.3 per 1000 member-years; P = .17). However, patients = 75 years had marked decrease in the rate of PSA screening from 201.5 to 124.1 per 1000 member-years (P = .04). Across different racial groups, PSA screening rates remain unchanged over time irrespective of age. Among this population-based cohort of privately insured men, we found little effect on PSA screening from changes to the US Preventive Services Task Force clinical practice guidelines. However, the rates of PSA screening were much lower among older men (>75 years)."

According to the news reporters, the research concluded: "Further research is needed to assess the impact of the new guidelines on prostate cancer incidence and survival."

For more information on this research see: Contemporary National Trends of Prostate Cancer Screening Among Privately Insured Men in the United States. Urology, 2016;97():111-116. Urology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

Our news journalists report that additional information may be obtained by
Recent Findings in Pulmonary Medicine Described by Researchers from University of Turin (Infant weight trajectories and early childhood wheezing: the NINFEA birth cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Health and Medicine - Pulmonary Medicine. According to news reporting from Turin, Italy, by NewsRx journalists, research stated, "Rapid postnatal weight gain has been associated with wheezing and asthma in children, but it remains unclear whether it acts independently of overweight. We aimed to disentangle the roles of infant's size and weight gain velocity in the development of wheezing in early childhood using a novel method that allows for mutual adjustment for different aspects of growth."

The news correspondents obtained a quote from the research from the University of Turin, "Data were obtained from the NINFEA questionnaires where weight measurements from birth up to 18 months of age were assessed in 4492 term singletons. Wheezing was defined as at least one episode of wheezing/whistling in the chest occurring between 6 and 18 months of age. The SuperImposition by Translation And Rotation model was used to estimate individual weight trajectories defined by three child-specific parameters: size, velocity and tempo, that is age at peak weight velocity. These parameters were standardised and related to wheezing using logistic regression with effects expressed as an increase of one SD. A median of five weight measurements per child were obtained. Infant size (OR=1.28; 95% CI 1.12 to 1.46) and weight gain velocity (OR=1.30; 95% CI 1.15 to 1.48) were independently positively associated with wheezing. We found no evidence of an effect of tempo on infant wheezing. The estimates were changed only minimally after adjustment for potential confounders. Faster growth and larger size in the first 18 months of life are both independently associated with an increased risk of wheezing."

According to the news reporters, the research concluded: "These findings suggest that early growth patterns play a role in shaping the occurrence of wheezing."

Recent Findings in Science Described by Researchers from Leiden University (The effect of standardized food intake on the association between BMI and H-1-NMR metabolites)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news reporting from Leiden, Netherlands, by NewsRx journalists, research stated, "Multiple studies have shown that levels of H-1-NMR metabolites are associated with disease and risk factors of disease such as BMI. While most previous investigations have been performed in fasting samples, meta-analysis often includes both cohorts with fasting and non-fasting blood samples."

The news correspondents obtained a quote from the research from Leiden University, "In the present study comprising 153 participants (mean age 63 years; mean BMI 27 kg/m(2)) we analyzed the effect of a standardized liquid meal (SLM) on metabolite levels and how the SLM influenced the association between metabolites and BMI. We observed that many metabolites, including glycolysis related metabolites, multiple amino acids, LDL diameter, VLDL and HDL lipid concentration changed within 35 minutes after a standardized liquid meal (SLM), similarly for all individuals. Remarkable, however, is that the correlations of metabolite levels with BMI remained highly similar before and after the SLM. Hence, as exemplified with the disease risk factor BMI, our results suggest that the applicability of 1H-NMR metabolites as disease biomarkers depends on the standardization of the fasting status rather than on the fasting status itself."

According to the news reporters, the research concluded: "Future studies are required to investigate the dependency of metabolite biomarkers for other disease risk factors on the fasting status."


Our news journalists report that additional information may be obtained by contacting P.E. Slagboom, Leiden University, Medical Center, Dept. of Mol Epidemiol, NL-2300 RC Leiden, Netherlands. Additional authors for this research include E.B. van den Akker,
Recent Findings in Science Described by T. Yeo and Colleagues
(Microfluidic enrichment for the single cell analysis of circulating tumor cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Science is now available. According to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Resistance to drug therapy is a major concern in cancer treatment. To probe clones resistant to chemotherapy, the current approach is to conduct pooled cell analysis."

Our news editors obtained a quote from the research, "However, this can yield false negative outcomes, especially when we are analyzing a rare number of circulating tumor cells (CTCs) among an abundance of other cell types. Here, we develop a microfluidic device that is able to perform high throughput, selective picking and isolation of single CTC to 100% purity from a larger population of other cells. This microfluidic device can effectively separate the very rare CTCs from blood samples from as few as 1 in 20,000 white blood cells. We first demonstrate isolation of pure tumor cells from a mixed population and track variations of acquired T790M mutations before and after drug treatment using a model PC9 cell line. With clinical CTC samples, we then show that the isolated single CTCs are representative of dominant EGFR mutations such as T790M and L858R found in the primary tumor."

According to the news editors, the research concluded: "With this single cell recovery device, we can potentially implement personalized treatment not only through detecting genetic aberrations at the single cell level, but also through tracking such changes during an anticancer therapy."

For more information on this research see: Microfluidic enrichment for the single cell analysis of circulating tumor cells. Scientific Reports, 2016;6():22076. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting T. Yeo, Clearbridge Accelerator Pte Ltd, 81 Science Park Drive, The Chadwick, #02-03, Singapore Science Park 1, Singapore 118257, Singapore. Additional authors for this research include S.J. Tan, C.L. Lim, D.P. Lau, Y.W. Chua, S.S. Krisna, G. Iyer, G.S. Tan, T.K. Lim, D.S. Tan, W.T. Lim and C.T Lim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep22076. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Science, Genetics.

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Central Nervous System Diseases and Conditions -…

Recent Findings in Spinal Cord Injury Described by R. Requejo-Aguilar and Colleagues (Combined polymer-curcumin conjugate and ependymal progenitor/stem cell treatment enhances spinal cord injury functional recovery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Spinal Cord Injury. According to news originating from Valencia, Spain, by NewsRx correspondents, research stated, "Spinal cord injury (SCI) suffers from a lack of effective therapeutic strategies. Animal models of acute SCI have provided evidence that transplantation of ependymal stem/progenitor cells of the spinal cord (epSPCs) induces functional recovery, while systemic administration of the anti-inflammatory curcumin provides neuroprotection."

Funders for this research include Spanish Ion Channel Initiative, Instituto de Salud Carlos III, MINECO.

Our news journalists obtained a quote from the research, "However, functional recovery from chronic stage SCI requires additional enhancements in available therapeutic strategies. Herein, we report on a combination treatment for SCI using epSPCs and a pH-responsive polymer-curcumin conjugate. The incorporation of curcumin in a pH-responsive polymeric carrier mainchain, a polyacetal (PA), enhances blood bioavailability, stability, and provides a means for highly localized delivery. We find that PA-curcumin enhances neuroprotection, increases axonal growth, and can improve functional recovery in acute SCI. However, when combined with epSPCs, PA-curcumin also enhances functional recovery in a rodent model of chronic SCI."

According to the news editors, the research concluded: "This suggests that combination therapy may be an exciting new therapeutic option for the treatment of chronic SCI in humans."


The news correspondents report that additional information may be obtained from M.J. Vicent, Principe Felipe Res Center, Polymer Therapeut Lab, Valencia 46012, Spain. Additional authors for this research include A. Alastrue-Agudo, M. Cases-Villar, E. Lopez-Mocholi, R. England, M.J. Vicent and V. Moreno-Manzano.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.10.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Valencia, Spain, Europe, Central Nervous System Diseases and Conditions, Nervous System Trauma, Spinal Cord Injuries, Stem Cell Research, Spinal Cord Injury, Organic Chemicals, Diarylheptanoids, Therapeutics, Hydrocarbons, Catechols, Curcumin, Therapy, Alkanes.

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Recent Findings in Squamous Cell Carcinoma Described by Researchers from Southern Medical University (MicroRNA-127 is a tumor suppressor in human esophageal squamous cell carcinoma through the regulation of oncogene FMNL3)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Squamous Cell Carcinoma. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "In this study, we investigated the expression patterns and functional roles of microRNA 127 (miR-127) and its target gene Formin-Like 3 (FMNL3) in human esophageal squamous cell carcinoma (ESCC). Quantitative RT-PCR (qRT-PCR) was used to compare miR-127 expression between ESCC cell lines and normal esophageal epithelium cell line, as well as paired ESCC tumors and adjacent normal esophageal tissues in 33 patients."

Our news editors obtained a quote from the research from Southern Medical University, "We found miR-127 was aberrantly downregulated in both ESCC cell lines and human ESCC tumors. In ESCC cell lines TE-1 and ECA109 cells, lentiviral-induced miR-127 upregulation markedly inhibited cancer proliferation and migration in vitro, and tumorigenicity in vivo. Through dual-luciferase assay and qRT-PCR, FMNL3 was confirmed to be the downstream target gene of miR-127 in ESCC. Finally, FMNL3 was downregulated by siRNA in TE-1 and ECA109 cells. And we discovered that SiRNA-induced FMNL3 downregulation had tumor suppressive effect in ESCC, inhibiting cancer proliferation, migration in vitro, and tumorigenicity in vivo. These results suggest that miR-127 is downregulated and acting as tumor suppressor in ESCC."

According to the news editors, the research concluded: "Inversely, FMNL3, the target gene of miR-127, is upregulated and acting as an oncogene in ESCC."

For more information on this research see: MicroRNA-127 is a tumor suppressor in human esophageal squamous cell carcinoma through the regulation of oncogene FMNL3. European Journal of Pharmacology, 2016;791():603-610. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Squamous Cell Carcinoma, Oncology, Genetics, Tumor Suppression, Carcinomas, Cell Line, Southern Medical University.
Recent Findings in Steatosis Described by Researchers from Veterans General Hospital (Aliskiren Reduces Hepatic steatosis and Epididymal Fat Mass and Increases Skeletal Muscle Insulin Sensitivity in High-Fat Diet-Fed Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Steatosis are discussed in a new report. According to news reporting from Taipei, Taiwan, by NewsRx journalists, research stated, "Aliskiren has been found to reduce chronic injury and steatosis in the liver of methionine-choline-deficient (MCD) diet-fed mice. This study investigated whether aliskiren has an anti-steatotic effect in HFD-fed mice, which are more relevant to human patients with non-alcoholic fatty liver disease than MCD mice."

The news correspondents obtained a quote from the research from Veterans General Hospital, "Mice fed with 4-week normal chow or HFD randomly received aliskiren (50 mg/kg/day) or vehicle via osmotic minipumps for further 4 weeks. Aliskiren reduced systemic insulin resistance, hepatic steatosis, epididymal fat mass and increased gastrocnemius muscle glucose transporter type 4 levels with lower tissue angiotensin II levels in the HFD-fed mice. In addition, aliskiren lowered nuclear peroxisome proliferator-activated receptor gamma and its down-signaling molecules and increased cytochrome P450 4A14 and carnitine palmitoyltransferase 1A (CPT1a) in liver. In epididymal fat, aliskiren inhibited expressions of lipogenic genes, leading to decrease in fat mass, body weight, and serum levels of leptin and free fatty acid. Notably, in the gastrocnemius muscle, aliskiren increased phosphorylation of insulin receptor substrate 1 and Akt."

According to the news reporters, the research concluded: "Based on these beneficial effects on liver, peripheral fat and skeletal muscle, aliskiren is a promising therapeutic agent for patients with NAFLD."

For more information on this research see: Aliskiren Reduces Hepatic steatosis and Epididymal Fat Mass and Increases Skeletal Muscle Insulin Sensitivity in High-Fat Diet-Fed Mice. Scientific Reports, 2016;6():18899. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting K.C. Lee, Division of Gastroenterology and Hepatology, Dept. of Medicine, Taipei Veterans General Hospital, Taipei, Taiwan. Additional authors for this research include Y.C. Hsieh, Y.Y. Yang, C.C. Chan, Y.H. Huang and H.C Lin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18899. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taipei, Taiwan, Genetics, Aliskiren, Steatosis, Healthcare, Proinsulin, Peptide Hormones, Peptide Proteins, Renin Inhibitors, Drugs and Therapies, Fatty Liver Disease, Cardiovascular Agents, Diseases and Conditions.

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Recent Findings in Thoracic Aortic Aneurysm Described by Researchers from University of Pittsburgh (Regional Disruptions in Endothelial Nitric Oxide Pathway Associated With Bicuspid Aortic Valve)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Respiratory Tract Diseases and Conditions - Thoracic Aortic Aneurysm have been presented. According to news reporting from Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "Endothelial nitric oxide (NO) synthase (eNOS) has been implicated in the development of bicuspid aortic valve (BAV) and with differential expression in the ascending aorta of BAV patients. However, little is known about functional disruptions in the eNOS pathway and the effect on BAV-associated aortic dilatation."

Funders for this research include National Heart, Lung, and Blood Institute, National Institutes of Health, American Heart Association.

The news correspondents obtained a quote from the research from the University of Pittsburgh, "We tested the hypothesis that eNOS function is regionally diminished in ascending thoracic aortic aneurysms associated with BAV. Thoracic aortic aneurysms specimens were collected from patients with BAV (n=21) or tricuspid aortic valve (n=12). Tissue samples were harvested from three circumferential regions corresponding to locations above the right, left, and noncoronary sinuses. Adventitial-stripped specimens containing media and intima only were analyzed for NO synthase 3 gene expression and total eNOS protein. Indicators of eNOS activity (pSer1177-eNOS) and NO bioavailability (phosphorylation of vasodilator-stimulated phosphoprotein at Ser239) were also measured. NO synthase 3 and eNOS protein were elevated in the right aortic region of BAV specimens compared with tricuspid aortic valve specimens. Activation of eNOS, as indicated by pSer1177-eNOS, was higher in BAV specimens across all regions. Despite increases in eNOS and pSer1177-eNOS, BAV specimens displayed no change in pSer239-vasodilator-stimulated phosphoprotein compared with tricuspid aortic valve specimens. BAV is associated with regional disruptions in the eNOS pathway, most markedly in the right aortic region."

According to the news reporters, the research concluded: "The discrepancy between increased eNOS activity and the absence of increased NO bioavailability in this region provides insight into physiologic mechanisms potentially underlying the asymmetric dilatation pattern observed in BAV."


Our news journalists report that additional information may be obtained by contacting M.P. Kotlarczyk, University of Pittsburgh, Center Vasc Remodeling & Regenerat, Pittsburgh, PA, United States. Additional authors for this research include M. Billaud, B.R. Green, J.C. Hill, S. Shiva, E.E. Kelley, J.A. Phillips and T.G. Gleason.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.001. This DOI is a link to an online electronic document that is either free or for purchase.
Recent Findings in Tuberculosis Described by Researchers from Ishikawa Prefectural Central Hospital (Paradoxical reaction to antituberculosis therapy after 6 months of treatment for pulmonary tuberculosis: A case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections - Tuberculosis. According to news originating from Ishikawa, Japan, by NewsRx correspondents, research stated, "Paradoxical reactions (PRs) to antituberculosis (anti-TB) drugs during treatment are well known phenomena, but a PR presenting as a new pulmonary lesion after completion of treatment is extremely rare, and little is known about the management of such cases. A 44-year-old man was diagnosed with pulmonary TB."

Our news journalists obtained a quote from the research from Ishikawa Prefectural Central Hospital, "His sputum cultures became negative 45 days after the initiation of standard anti-TB treatment. Upon the patient's completion of 6 months of anti-TB therapy, computed tomography revealed a new irregularly shaped mass in the lower left pulmonary lobe. A transbronchial lung biopsy (TBLB) revealed caseous necrosis and granulomatosis surrounded by epithelioid and multinucleated giant cells. Cultures of both the TBLB specimen and bronchoalveolar lavage fluid remained negative for TB. The CT shadow disappeared 6 months later without further administration of anti-TB drugs."

According to the news editors, the research concluded: "Careful observation without therapy may be sufficient for a patient treated for TB who develops a PR upon completion of treatment, if the patient has achieved a bacteriological remission."

For more information on this research see: Paradoxical reaction to antituberculosis therapy after 6 months of treatment for pulmonary tuberculosis: A case report. Journal of Infection and Chemotherapy, 2016;22(11):748-751. Journal of Infection and Chemotherapy can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

The news correspondents report that additional information may be obtained from A. Okazaki, Ishikawa Prefectural Cent Hosp, Dept. of Resp Med, Kanazawa, Ishikawa, Japan. Additional authors for this research include S. Watanabe, T. Yoneda, J. Hara, M. Nishitsuji, K. Nishi and K. Kasahara.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.03.012. This DOI is a link to an online electronic document that is either free or for purchase.
Recent Findings in Type 1 Diabetes Mellitus Described by Researchers from Sahlgrenska University Hospital (LDL cholesterol is not a good marker of cardiovascular risk in Type 1 diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus are presented in a new report. According to news reporting from Gothenburg, Sweden, by NewsRx journalists, research stated, "LDL cholesterol (LDL-C) is considered an important cardiovascular disease (CVD) risk factor. Less is known in Type 1 diabetes."

Financial support for this research came from The Swedish Association of Local Authorities and Regions funds the NDR.

The news correspondents obtained a quote from the research from Sahlgrenska University Hospital. "We assessed LDL-C and total cholesterol to HDL cholesterol ratio (TC/HDL-C) as predictors of CVD in Type 1 diabetes. The study monitored 30 778 people with Type 1 diabetes, baseline 2003-2006, to 31 December 2011. Cox regression analyses were performed with LDL-C and TC/HDL-C as predictors of fatal/non-fatal CVD. Models were adjusted for traditional CVD risk factors. Hazard ratios (HR) (with 95% CI) per 1 mmol/l increase in LDL-C for CVD were 1.09 (1.01-1.18) in people without lipid-lowering medication and 1.02 (0.95-1.09) in people with lipid-lowering medication (p=0.02 and 0.65). In people aged 40 years or older having a CVD risk factor, and in people with a history of CVD, HR was 1.07 (0.99-1.16) and 1.02 (0.92-1.13) (p=0.07 and 0.66). HR per 1 unit increase in TC/HDL-C was 1.12 (1.05-1.20) in people without lipid-lowering medication and 1.08 (1.02-1.15) in people with lipid-lowering medication (p <0.001 and 0.01). For people aged 40 or older and people with a history of CVD, HR was 1.16 (1.09-1.24) and 1.04 (0.95-1.14) (p <0.001 and 0.43). Broken down into octiles, LDL-C was not a significant predictor of CVD in any group. Higher octiles of TC/HDL-C were significant predictors for CVD in people without lipid-lowering medication and in those aged 40 years or older. In this study of people with Type 1 diabetes in clinical practice, LDL-C was not a good predictor of CVD. We found no support for an LDL-C cut-off point <2.6 mmol/l."

According to the news reporters, the research concluded: "TC/HDL-C seems more reliable as a marker for CVD risk when considering primary prevention."

For more information on this research see: LDL cholesterol is not a good marker of cardiovascular risk in Type 1 diabetes. Diabetic Medicine, 2015;33(3):316-23. (Wiley-Blackwell - www.wiley.com; Diabetic Medicine - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1464-5491)

Our news journalists report that additional information may be obtained by contacting C. Hero, Dept. of Medicine, Sahlgrenska University Hospital, University of Gothenburg, Gothenburg, Sweden. Additional authors for this research include A.M. Svensson,
Recent Findings in Type 2 Diabetes Described by Researchers from Johns Hopkins University Bloomberg School of Public Health

(Triglycerides to high-density lipoprotein-cholesterol ratio, glycemic control and cardiovascular risk in obese patients ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been presented. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "This article provides an update on the role of the triglyceride to high-density lipoprotein-cholesterol (triglyceride/HDL-C) ratio in the setting of obesity-related insulin resistance and type 2 diabetes mellitus. Insulin resistance and type 2 diabetes mellitus are well-established risk factors for cardiovascular diseases, and are commonly associated with metabolic abnormalities such as hypertriglyceridemia, low HDL-C and presence of small, dense low-dense lipoprotein (LDL) particles."

Our news journalists obtained a quote from the research from the Johns Hopkins University Bloomberg School of Public Health, "Mounting evidence suggests that the triglyceride/HDL-C ratio is a marker of insulin resistance, although this relationship might vary as a function of ethnicity and sex. The triglyceride/HDL-C ratio has also been shown to correlate with other atherogenic lipid measurements, such as triglyceride-rich lipoproteins, remnant cholesterol and small dense LDL particles. Recent epidemiologic studies have shown that the triglyceride/HDL-C ratio associates with cardiovascular risk, mainly because of its association with insulin resistance. Finally, triglyceride/HDL-C can also be a marker of glycemic control, especially in obese patients with type 2 diabetes mellitus. The triglyceride/HDL-C integrates information on triglyceride-rich lipoproteins, insulin resistance and glycemic control."

According to the news editors, the research concluded: "Future studies may better define its specific clinical role."

For more information on this research see: Triglycerides to high-density lipoprotein-cholesterol ratio, glycemic control and cardiovascular risk in obese patients with type 2 diabetes. Current Opinion In Endocrinology, Diabetes, and Obesity, 2016;23(2):150-6.

Our news journalists report that additional information may be obtained by contacting R. Quispe, a Johns Hopkins Ciccarone Center for the Prevention of Heart Disease b Welch Center, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States. Additional authors for this research include S.S. Martin and S.R Jones.

The direct object identifier (DOI) for that additional information is:
Recent Findings in Uveitis Described by Researchers from University Hospital (Adalimumab for Treatment of Noninfectious Uveitis Immunogenicity and Clinical Relevance of Measuring Serum Drug Levels and Antidrug Antibodies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Eye Diseases and Conditions - Uveitis are discussed in a new report. According to news reporting originating from Leon, Spain, by NewsRx correspondents, research stated, "To evaluate the rate of immunogenicity induced by adalimumab and its relationship with drug serum levels and clinical responses in patients with noninfectious uveitis. Prospective observational study."

Our news editors obtained a quote from the research from University Hospital, "Consecutive patients from 1 referral center who initiated treatment with adalimumab for active noninfectious uveitis resistant to conventional therapy. All patients received 40 mg adalimumab every other week. Patients were evaluated clinically and immunologically before and after 4, 8, and 24 weeks of treatment. Clinical evaluation included assessment of changes in visual acuity, degree of inflammation in the anterior chamber and vitreous cavity, central macular thickness, and retinal angiographic leakage. Immunologic evaluation included assessment of serum trough adalimumab and antibodies against adalimumab (AAA) levels and class II HLA typing. Twenty-five patients were enrolled. Overall, 18 of 25 patients (72%) showed a favorable clinical response to adalimumab therapy. Eleven patients (44%) achieved a complete response and 7 (28%) achieved a partial response. However, 7 of 25 patients (28%) were considered nonresponders. Median trough adalimumab serum levels were higher in responders than in nonresponders (P < 0.001). We observed AAA positivity (AAA+) at least 1 time point in 8 of 25 patients (32%), including 4 with transitory AAA and 4 with permanent AAA. In all patients with permanent AAA+, trough adalimumab levels became undetectable (P < 0.001). However, in patients who demonstrated transitory AAA+, no correlation was observed between AAA titers and adalimumab trough levels (P = 0.2). Concomitant immunosuppression did not show any protective effect on adalimumab immunogenicity in our cohort. An association between the presence of AAA+ and a worse uveitis outcome was observed only in patients with permanent AAA+, which correlated with undetectable adalimumab trough levels (P = 0.014). Treatment of noninfectious uveitis with adalimumab is associated with high rates of favorable clinical response. Overall, adalimumab trough levels were higher in responder patients. Development of permanent AAA was associated with undetectable trough adalimumab levels and worse uveitis outcome."

According to the news editors, the research concluded: "Immunogenicity was more
common in patients in whom uveitis was associated with a systemic disease and was not influenced by concomitant immunosuppressors."


The news editors report that additional information may be obtained by contacting J.G.R. de Morales, Univ Hosp Leon, Uveitis Unit, Leon, Spain. Additional authors for this research include S. Calleja-Antolin, I. Garzo-Garcia, A.M. Nunez-Garnes, C. Alvarez-Castro, M. Franco-Benito and J.G.R. de Morales.

Keywords for this news article include: Leon, Spain, Europe, Tumor Necrosis Factor (TNF) Inhibitors, Uveal Diseases and Conditions, Clinical Trials and Studies, Eye Diseases and Conditions, Monoclonal Antibodies, Drugs and Therapies, Immunologic Agents, Clinical Research, Immunoglobulins, Pharmaceuticals, Blood Proteins, Antirheumatics, Biotechnology, Ophthalmology, Immunology, Adalimumab, Uveitis, University Hospital.

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Viral RNA

**Recent Findings in Viral RNA Described by Researchers from Wuhan University (Nucleocapsid proteins: roles beyond viral RNA packaging)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Viral RNA have been published. According to news reporting out of Wuhan, People's Republic of China, by NewsRx editors, research stated, "Viral nucleocapsid proteins (NCs) enwrap the RNA genomes of viruses to form NC-RNA complexes, which act as a template and are essential for viral replication and transcription. Beyond packaging viral RNA, NCs also play important roles in virus replication, transcription, assembly, and budding by interacting with viral and host cellular proteins."

Funders for this research include National Science Foundation, Major State Basic Research Development Program (973 Program).

Our news journalists obtained a quote from the research from Wuhan University, "Additionally, NCs can inhibit interferon signaling response and function in cell stress response, such as inducing apoptosis. Finally, NCs can be the target of vaccines, benefiting from their conserved gene sequences."

According to the news editors, the research concluded: "Here, we summarize important findings regarding the additional functions of NCs as much more than structural RNA-binding proteins, with specific emphasis on (1) their association with the viral life cycle, (2) their association with host cells, and (3) as ideal candidates for vaccine development."


Our news journalists report that additional information may be obtained by contacting B. Ding, State Key Laboratory of Virology, College of Life Sciences, Wuhan University, Wuhan, People's Republic of China. Additional authors for this research include Y.
Qin and M. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/wrna.1326. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Wuhan, Virion, Genetics, Viral RNA, Article Review, Viral Proteins, Nucleocapsid Proteins, Viral Structural Proteins, People's Republic of China.

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Liver Diseases and Conditions - Chronic Hepatitis C…

Recent Reports from Burnet Institute Highlight Findings in Chronic Hepatitis C Virus (Cost-effectiveness of treating chronic hepatitis C virus with direct-acting antivirals in people who inject drugs in Australia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Chronic Hepatitis C Virus is now available. According to news reporting originating in Melbourne, Australia, by NewsRx journalists, research stated, "Reducing the burden of hepatitis C virus (HCV) related liver disease will require treating people who inject drugs (PWID), the group at most risk of infection and transmission. We determine the cost-effectiveness of treating PWID with interferon-free direct-acting antiviral therapy in Australia."

Financial support for this research came from Victorian Infectious Diseases Service Special Purpose Fund.

The news reporters obtained a quote from the research from Burnet Institute, "Using a deterministic model of HCV treatment and liver disease progression, including a fixed rate of re-infection, the expected healthcare costs and quality-adjusted life years (QALYs) of a cohort of newly HCV-infected PWID were calculated for: no treatment; treatment after initial infection ('early-treatment'); and treatment prior to developing compensated cirrhosis ('late-treatment'). Incremental cost-effectiveness ratios (ICERs) were used to compare scenarios. Late-treatment was cost-effective compared to no treatment, with a discounted average gain of 2.98 (95% confidence interval 2.88-5.22) QALYs per person for an additional cost of $15,132 ($11,246-18,922), giving an ICER of $5078 ($2847-5295) per QALY gained. Compared to late-treatment, early-treatment gained a further discounted average of 2.27 (0.58-4.80) QALYs per person for $38,794 ($34,789-41,367), giving an ICER of $17,090 ($2847-63,282), which was cost-effective in approximately 90% of Monte-Carlo uncertainty simulations. For every 100 newly HCV-infected PWID, there were an estimated 40 (39-56) eventual liver-related deaths without treatment, compared to 7 (6-11) and 8 (7-13) with early-treatment and late-treatment available respectively. Treating HCV-infected PWID with new therapies is cost-effective and could prevent a significant number of liver-related deaths."

According to the news reporters, the research concluded: "Although late-treatment was the most cost-effective option, the cost per QALY gained for early-treatment compared to late-treatment is likely to be below unofficial Australian willingness to pay thresholds."

For more information on this research see: Cost-effectiveness of treating chronic hepatitis C virus with direct-acting antivirals in people who inject drugs in Australia. Journal of

Our news correspondents report that additional information may be obtained by contacting N. Scott, Centre for Population Health, Burnet Institute, Melbourne, Victoria, Australia. Additional authors for this research include D.M. Iser, A.J. Thompson, J.S. Doyle and M.E Hellard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13223. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HCV, Viral, Virology, Melbourne, Hepatology, RNA Viruses, Gastroenterology, Drugs and Therapies, Risk and Prevention, Flaviviridae Infections, Australia and New Zealand, Chronic Hepatitis C Virus, Liver Diseases and Conditions, Infectious Disease and Conditions, Digestive System Diseases and Conditions.

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Oncology - Brain Cancer
Recent Reports from Case Western Reserve University Highlight Findings in Brain Cancer (Crossing the barrier: treatment of brain tumors using nanochain particles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Brain Cancer. According to news reporting from Cleveland, Ohio, by NewsRx journalists, research stated, "Despite advancements in surgery and radiotherapy, the aggressive forms of brain tumors, such as gliomas, are still uniformly lethal with current therapies offering only palliation complicated by significant toxicities. Gliomas are characteristically diffuse with infiltrating edges, resistant to drugs and nearly inaccessible to systemic therapies due to the brain-tumor barrier."

Financial support for this research came from National Cancer Institute.

The news correspondents obtained a quote from the research from Case Western Reserve University, "Currently, aggressive efforts are underway to further understand brain-tumor's microenvironment and identify brain tumor cell-specific regulators amenable to pharmacologic interventions. While new potent agents are continuously becoming available, efficient drug delivery to brain tumors remains a limiting factor. To tackle the drug delivery issues, a multicomponent chain-like nanoparticle has been developed. These nanochains are comprised of iron oxide nanospheres and a drug-loaded liposome chemically linked into a 100-nm linear, chain-like assembly with high precision. The nanochain possesses a unique ability to scavenge the tumor endothelium. By utilizing effective vascular targeting, the nanochains achieve rapid deposition on the vascular bed of glioma sites establishing well-distributed drug reservoirs on the endothelium of brain tumors. After reaching the target sites, an on-command, external low-power radiofrequency field can remotely trigger rapid drug release, due to mechanical disruption of the liposome, facilitating widespread and effective drug delivery into regions harboring brain tumor cells. Integration of the nanochain delivery system with the appropriate combination of complementary drugs has the potential to unfold the field and allow significant expansion of therapies for the disease where success is currently very limited."
According to the news reporters, the research concluded: "WIREs Nanomed Nanobiotechnol 2016, 8:678-695. doi: 10.1002/wnan.1387 For further resources related to this article, please visit the WIREs website."

For more information on this research see: Crossing the barrier: treatment of brain tumors using nanochain particles. Wiley Interdisciplinary Reviews Nanomedicine and Nanobiotechnology, 2016;8(5):678-95.

Our news journalists report that additional information may be obtained by contacting E. Karathanasis, Dept. of Biomedical Engineering and Dept. of Radiology, Case Comprehensive Cancer Center, Case Western Reserve University, Cleveland, OH, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/wnan.1387. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Biotechnology, Oncology, Cleveland, Angiology, Liposomes, Nanochains, Endothelium, Brain Cancer, United States, Article Review, Nanotechnology, Drugs and Therapies, Drug Delivery Systems, Emerging Technologies, North and Central America.

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Oncology - Head and Neck Cancer

Recent Reports from Department of Medical Oncology Highlight Findings in Head and Neck Cancer (Cetuximab promotes epithelial to mesenchymal transition and cancer associated fibroblasts in patients with head and neck cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Head and Neck Cancer are discussed in a new report. According to news reporting originating from Brussels, Belgium, by NewsRx correspondents, research stated, "To investigate if cetuximab induces epithelial to mesenchymal transition (EMT) and activation of cancer associated fibroblast (CAF) in the tumors of patients with squamous cell carcinoma of the head and neck (SCCHN). Cetuximab was administered for two weeks prior to surgery to 20 treatment-na?ve patients."

Our news editors obtained a quote from the research from the Department of Medical Oncology, "Five untreated patients were included as controls. Tumor biopsies were performed at baseline and before surgery. Gene expression profiles and quantitative real-time PCR (qRT-PCR) analysis of the pre-and post-treatment biopsies were compared. To further investigate EMT and CAF, correlations between previously described EMT and CAF markers and our microarray data set were calculated. Gene expression profile analyses and qRT-PCR showed that some of the genes modified by cetuximab were related to CAFs and EMT (ZNF521, CXCL12, ASPN, OLFML3, OLFM1, TWIST1, LEF1, ZEB1, FAP). We identified 2 patient clusters with different EMT and CAF characteristics. Whereas one cluster showed clear upregulation of expression of genes implicated in CAF and EMT including markers of embryologic pathways like NOTCH and Wnt, the other did not."

According to the news editors, the research concluded: "Even if EMT and CAFs are implicated in cetuximab resistance in pre-clinical models, we demonstrate for the first time that
these molecular processes may occur clinically early on."

For more information on this research see: Cetuximab promotes epithelial to mesenchymal transition and cancer associated fibroblasts in patients with head and neck cancer. *Oncotarget, 2015;6(33):34288-99.*

The news editors report that additional information may be obtained by contacting S. Schmitz, Institut Roi Albert II, Dept. of Medical Oncology, Cliniques Universitaires Saint-Luc and Institut de Recherche Clinique et Experimentale (Pole MIRO), Universite Catholique de Louvain, Brussels, Belgium. Additional authors for this research include G. Bindea, R.I. Albu, B. Mlecnik and J.P Machiels.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5924. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Belgium, Surgery, Brussels, Genetics, Oncology, Fibroblasts, Head and Neck Cancer, Connective Tissue Cells, Head and Neck Neoplasms.

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**Recent Reports from Florida State University Highlight Findings in Obesity (Combined whole-body vibration training and L-citrulline supplementation improves pressure wave reflection in obese postmenopausal women)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Tallahassee, Florida, by NewsRx editors, research stated, "Postmenopausal women have increased wave reflection (augmentation pressure (AP) and index (Alx)) and reduced muscle function that predispose them to cardiac diseases and disability. Our aim was to examine the combined and independent effects of whole-body vibration training (WBVT) and L-citrulline supplementation on aortic hemodynamics and plasma nitric oxide metabolites (NOx) in postmenopausal women."

Our news journalists obtained a quote from the research from Florida State University, "Forty-one obese postmenopausal women were randomized to 3 groups: 1-citrulline, WBVT+1-citrulline and WBVT+Placebo for 8 weeks. Brachial and aortic systolic blood pressure, diastolic blood pressure, AP, Alx, Alx adjusted to 75 beats/min (Alx@75), and NOx were measured before and after 8 weeks. All groups similarly decreased (p <0.05) brachial and aortic pressures as well as AP, and similarly increased (p <0.05) NOx levels. Alx and Alx@75 decreased (p <0.01) in the WBVT+1-citrulline and WBVT+Placebo groups, but not in the L-citrulline group. The improvement in Alx@75 (-10.5%  ? 8.8%, p<0.05) in the WBVT+1-citrulline group was significant compared with the l-citrulline group. l-Citrulline supplementation and WBVT alone and combined decreased blood pressures. The combined intervention reduced Alx@75."

According to the news editors, the research concluded: "This study supports the effectiveness of WBVT+1-citrulline as a potential intervention for prevention of hypertension-related cardiac diseases in obese postmenopausal women."

Our news journalists report that additional information may be obtained by contacting A. Wong, a Dept. of Nutrition, Food and Exercise Sciences, The Florida State University, Tallahassee, FL 32306, United States. Additional authors for this research include S. Alvarez-Alvarado, S.J. Jaime, A.W. Kinsey, M.T. Spicer, T.A. Madzima and A. Figueroa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1139/apnm-2015-0465. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Applied Physiology, Nutrition, and Metabolism* is: National Research Council of Canada, NRC Communications & Corporate Relations, 1200 Montreal Road, Bldg. M-58, Ottawa, Ontario, Canada K1A 0R6.

Keywords for this news article include: Florida, Obesity, Angiology, Bariatrics, Cardiology, Citrulline, Tallahassee, United States, Diamino Amino Acids, Risk and Prevention, Systolic Hypertension, North and Central America, Cardiovascular Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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**Connective Tissue Cells**

**Recent Reports from French National Institute of Health and Medical Research (INSERM) Highlight Findings in Connective Tissue Cells (TGF-b1 and GDF5 Act Synergistically to Drive the Differentiation of Human Adipose Stromal Cells toward Nucleus ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Connective Tissue Cells have been presented. According to news originating from Nantes, France, by NewsRx correspondents, research stated, "Degenerative disc disease (DDD) primarily affects the central part of the intervertebral disc namely the nucleus pulposus (NP). DDD explains about 40% of low back pain and is characterized by massive cellular alterations that ultimately result in the disappearance of resident NP cells."

Our news journalists obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "Thus, repopulating the NP with regenerative cells is a promising therapeutic approach and remains a great challenge. The objectives of this study were to evaluate the potential of growth factor-driven protocols to commit human adipose stromal cells (hASCs) toward NP-like cell phenotype and the involvement of Smad proteins in this differentiation process. Here, we demonstrate that the transforming growth factor-b1 and the growth differentiation factor 5 synergistically drive the nucleopulpogenic differentiation process. The commitment of the hASCs was robust and highly specific as attested by the expression of NP-related genes characteristic of young healthy human
NP cells. In addition, the engineered NP-like cells secreted an abundant aggrecan and type II collagen rich extracellular matrix comparable with that of native NP. Furthermore, we demonstrate that these in vitro engineered cells survived, maintained their specialized phenotype and secretory activity after in vivo transplantation in nude mice subcutis. Finally, we provide evidence suggesting that the Smad 2/3 pathway mainly governed the acquisition of the NP cell molecular identity while the Smad1/5/8 pathway controlled the NP cell morphology."

According to the news editors, the research concluded: "This study offers valuable insights for the development of biologically-inspired treatments for DDD by generating adapted and exhaustively characterized autologous regenerative cells."


The news correspondents report that additional information may be obtained from P. Colombier, INSERM UMRS 791, Laboratoire d'Ingenierie Osteo Articulaire et Dentaire (LIOAD), Nantes, France. Additional authors for this research include J. Clouet, C. Boyer, M. Ruel, G. Bonin, J. Lesoeur, A. Moreau, B.H. Fellah, P. Weiss, L. Lescaudron, A. Camus and J. Guicheux.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2249. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nantes, France, Europe, Genetics, Engineering, Stromal Cells, Connective Tissue Cells.

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**Liver Diseases and Conditions - Non-Alcoholic...**

**Recent Reports from Gradenigo Hospital Highlight Findings in Non-Alcoholic Steatohepatitis (Non-alcoholic steatohepatitis: emerging molecular targets and therapeutic strategies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Non-Alcoholic Steatohepatitis have been published. According to news reporting out of Turin, Italy, by NewsRx editors, research stated, "Non-alcoholic fatty liver disease -the most common chronic liver disease -encompasses a histological spectrum ranging from simple steatosis to non-alcoholic steatohepatitis (NASH). Over the next decade, NASH is projected to be the most common indication for liver transplantation."

Our news journalists obtained a quote from the research from Gradenigo Hospital, "The absence of an effective pharmacological therapy for NASH is a major incentive for research into novel therapeutic approaches for this condition. The current focus areas for research include the modulation of nuclear transcription factors; agents that target lipotoxicity and oxidative stress; and the modulation of cellular energy homeostasis, metabolism and the inflammatory response."

According to the news editors, the research concluded: "Strategies to enhance resolution of inflammation and fibrosis also show promise to reverse the advanced stages of
liver disease."


Our news journalists report that additional information may be obtained by contacting G. Musso, Gradenigo Hospital, Corso Regina Margherita 8, 10132 Turin, Italy. Additional authors for this research include M. Cassader and R. Gambino.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrd.2015.3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turin, Italy, Europe, Genetics, Article Review, Drugs and Therapies, Liver Diseases and Conditions, Non Alcoholic Steatohepatitis, Non-Alcoholic Steatohepatitis, Digestive System Diseases and Conditions.

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**Liver Diseases and Conditions - Chronic Hepatitis B…**

**Recent Reports from Okayama University Graduate School of Medicine Highlight Findings in Chronic Hepatitis B Virus (Entecavir Reduces Hepatocarcinogenesis in Chronic Hepatitis B Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases and Conditions - Chronic Hepatitis B Virus have been presented. According to news reporting from Okayama, Japan, by NewsRx journalists, research stated, "Chronic hepatitis B (CHB) leads to cirrhosis and hepatocellular carcinoma (HCC). With a cohort of 1,206 CHB patients who visited Okayama University Hospital and related hospitals in 2011 and 2012, we compared the incidence rates of HCC among the patients grouped by age, hepatitis B virus (HBV) DNA, hepatitis B e antigen (HBeAg), and treatment."

The news correspondents obtained a quote from the research from the Okayama University Graduate School of Medicine, "HCCs were observed in 115 patients with the median observation period of 1,687 days. Among the HCC patients aged >35 years, HBV DNA >4 log copies/mL and positive HBeAg at diagnosis (n=184), the HCC incidence rate was 8.4% at 5 years in the entecavir (ETV)-treated patients, 21.8% in the lamivudine (LVD)-treated patients, and 26.4% among the patients not treated with drugs. The cumulative HCC incidence was significantly reduced in the ETV-treated patients compared to those treated with LVD or not treated (p=0.013). Among the patients aged >35 years with HBV DNA >4 log copies/mL and negative HBeAg (n=237), the cumulative HCC incidence was 14.6% in 5 years in ETV group and 13.9% among those not treated with a drug (p >0.05). Only small numbers of HCCs occurred in other patients."

According to the news reporters, the research concluded: "In CHB patients aged >35 years with HBV DNA >4 log copies/mL and positive HBeAg, ETV treatment is recommended for the suppression of HCC development."

Okayama can be contacted at: Okayama Univ Med School, Dept Pharmacology, Okayama, 700, Japan.

Our news journalists report that additional information may be obtained by contacting T. Yasunaka, Dept. of Gastroenterology and Hepatology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama 700-8558, Japan. Additional authors for this research include F. Ikeda, N. Wada, Y. Morimoto, S. Fujioka, J. Toshimori, H. Kobashi, K. Kariyama, Y. Morimoto, H. Takayama, T. Seno, K. Takaguchi, A. Moriya, H. Miyatake, R. Okamoto, K. Yabushita, A. Takaki and K. Yamamoto.

Publisher contact information for the journal Acta Medica Okayama is: Okayama Univ Med School, Dept Pharmacology, Okayama, 700, Japan.

Keywords for this news article include: Asia, Antiinfectives, Antiretrovirals, Antivirals, Japan, Okayama, Genetics, Entecavir, Viral DNA, DNA Viruses, Gastroenterology, Orthohepadnavirus, Drugs and Therapies, Chronic Hepatitis B Virus, Hepadnaviridae Infections, Liver Diseases and Conditions, Infectious Disease and Conditions.

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Recent Reports from Rice University Highlight Findings in Neisseria meningitidis (The Neisseria meningitidis CRISPR-Cas9 System Enables Specific Genome Editing in Mammalian Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Neisseria meningitidis have been presented. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "The clustered regularly-interspaced short palindromic repeats (CRISPR)-CRISPR-associated (Cas) system from Streptococcus pyogenes (Spy) has been successfully adapted for RNA-guided genome editing in a wide range of organisms. However, numerous reports have indicated that Spy CRISPR-Cas9 systems may have significant off-target cleavage of genomic DNA sequences differing from the intended on-target site."

The news reporters obtained a quote from the research from Rice University, "Here, we report the performance of the Neisseria meningitidis (Nme) CRISPR-Cas9 system that requires a longer protospacer-adjacent motif for site-specific cleavage, and present a comparison between the Spy and Nme CRISPR-Cas9 systems targeting the same protospacer sequence. The results with the native crRNA and tracrRNA as well as a chimeric single guide RNA for the Nme CRISPR-Cas9 system were also compared. Our results suggest that, compared with the Spy system, the Nme CRISPR-Cas9 system has similar or lower on-target cleavage activity but a reduced overall off-target effect on a genomic level when sites containing three or fewer mismatches are considered."

According to the news reporters, the research concluded: "Thus, the Nme CRISPR-Cas9 system may represent a safer alternative for precision genome engineering applications."

For more information on this research see: The Neisseria meningitidis CRISPR-Cas9 System Enables Specific Genome Editing in Mammalian Cells. Molecular Therapy, 2016;24 (3):645-54. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news correspondents report that additional information may be obtained by
Recent Reports from Rowan University Highlight Findings in Rheumatic Diseases and Conditions (The role of ANKH in pathologic mineralization of cartilage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Musculoskeletal Diseases and Conditions - Rheumatic Diseases and Conditions. According to news originating from Camden, New Jersey, by NewsRx editors, the research stated, "ANKH is the human homolog of a gene whose dysfunction in a mutant mouse strain results in progressive ankylosis of the spine as well as soft tissue mineralization. ANKH mutations have been reported in inherited human disorders such as familial calcium pyrophosphate deposition disease (CPPD) and cranial metaphyseal dysplasia; however, research into the function of the ANKH protein has been more challenging."

Our news journalists obtained a quote from the research from Rowan University, "Progress has recently been made to understand the role of ANKH in the regulation of physiological and pathological mineralization. ANKH expression is regulated by intracellular levels of oxygen, phosphate and calcium as well as by the growth factor TGF-β. In addition, ANKH expression affects chondrogenesis, osteoblastogenesis and osteoclastogenesis. ANKH appears to interact with several cellular proteins, including the phosphate transporter PiT-1, and with proteins involved in NF-kappa b signaling, suggesting that ANKH may play an important non-PPi transporter role. ANKH has also been shown to regulate ATP efflux from chondrocytes. ANKH expression, as well as its potential non-PPi transporter functions, plays a variety of roles in the regulation of cellular events that surround differentiation and mineralization in bone and cartilage."

According to the news editors, the research concluded: "Additional studies are warranted to further elucidate the contributions of ANKH to human health and disease, and to determine if ANKH deserves targeting for the treatment of diseases such as CPPD."

For more information on this research see: The role of ANKH in pathologic mineralization of cartilage. *Current Opinion In Rheumatology*, 2016;28(2):145-51. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Rheumatology - journals.lww.com/co-rheumatology/pages/default.aspx)

The news correspondents report that additional information may be obtained from C.J. Williams, Dept. of Biomedical Sciences, Cooper Medical School of Rowan University, Camden, New Jersey, United States.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/BOR.0000000000000247. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Camden, Genetics, New Jersey, United States, Article Review, North and Central America, Rheumatic Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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Oncology - Carcinomas

Recent Reports from Taipei Medical University Highlight Findings in Carcinomas (Melatonin inhibits MMP-9 transactivation and renal cell carcinoma metastasis by suppressing Akt-MAPKs pathway and NF-kB DNA-binding activity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Carcinomas are presented in a new report. According to news reporting out of Taipei, Taiwan, by NewsRx editors, research stated, "Renal cell carcinoma (RCC) is the most lethal of all urological malignancies because of its potent metastasis potential. Melatonin exerts multiple tumour-suppressing activities through antiproliferative, proapoptotic, and anti-angiogenic actions and has been tested in clinical trials."

Financial support for this research came from Taipei Medical University.

Our news journalists obtained a quote from the research from Taipei Medical University, "However, the antimetastatic effect of melatonin and its underlying mechanism in RCC are unclear. In this study, we demonstrated that melatonin at the pharmacologic concentration (0.5-2 mm) considerably reduced the migration and invasion of RCC cells (Caki-1 and Achn). Furthermore, we found that melatonin suppressed metastasis of Caki-1 cells in spontaneous and experimental metastasis animal models. Mechanistic investigations revealed that melatonin transcriptionally inhibited MMP-9 by reducing p65-and p52-DNA-binding activities. Moreover, the Akt-mediated JNK1/2 and ERK1/2 signaling pathways were involved in melatonin-regulated MMP-9 transactivation and cell motility. Clinical samples revealed an inverse correlation between melatonin receptor 1A (MTNR1A) and MMP-9 expression in normal kidney and RCC tissues. In addition, a higher survival rate was found in MTNR1A(high)/MMP-9(low) patients than in MTNR1A(low)/MMP-9(high) patients."

According to the news editors, the research concluded: "Overall, our results provide new insights into the role of melatonin-induced molecular regulation in suppressing RCC metastasis and suggest that melatonin has potential therapeutic applications for metastatic RCC."


Our news journalists report that additional information may be obtained by contacting Y.W. Lin, Graduate Institute of Clinical Medicine, Taipei Medical University, Taipei, Taiwan. Additional authors for this research include L.M. Lee, W.J. Lee, C.Y. Chu, P.
Recent Reports from Tianjin Medical University Highlight Findings in Anticholinergics (a-Melanocyte-stimulating hormone ameliorates ocular surface dysfunctions and lesions in a scopolamine-induced dry eye model via PKA-CREB and MEK-Erk pathways)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Anticholinergics. According to news reporting originating in Tianjin, People's Republic of China, by NewsRx journalists, research stated, "Dry eye is a highly prevalent, chronic, and multifactorial disease that compromises quality of life and generates socioeconomic burdens. The pathogenic factors of dry eye disease (DED) include tear secretion abnormalities, tear film instability, and ocular surface inflammation."

The news reporters obtained a quote from the research from Tianjin Medical University, "An effective intervention targeting the pathogenic factors is needed to control this disease. Here we applied a-Melanocyte-stimulating hormone (a-MSH) twice a day to the ocular surface of a scopolamine-induced dry eye rat model. The results showed that a-MSH at different doses ameliorated tear secretion, tear film stability, and corneal integrity, and corrected overexpression of proinflammatory factors, TNF-a, IL-1b, and IFN-g, in ocular surface of the dry eye rats. Moreover, a-MSH, at 10(-4) mg/ml, maintained corneal morphology, inhibited apoptosis, and restored the number and size of conjunctival goblet cells in the dry eye rats. Mechanistically, a-MSH activated both PKA-CREB and MEK-Erk pathways in the dry eye corneas and conjunctivas; pharmacological blockade of either pathway abolished a-MSH's protective effects, suggesting that both pathways are necessary for a-MSH's protection under dry eye condition."

According to the news reporters, the research concluded: "The peliotropic protective functions and explicit signaling mechanism of a-MSH warrant translation of the a-MSH-containing eye drop into a novel and effective intervention to DED."

For more information on this research see: a-Melanocyte-stimulating hormone ameliorates ocular surface dysfunctions and lesions in a scopolamine-induced dry eye model via PKA-CREB and MEK-Erk pathways. *Scientific Reports*, 2015;5():18619. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting Y. Ru, Tianjin Medical University Eye Hospital, Tianjin Medical University Eye Institute, College of Optometry and Ophthalmology, Tianjin Medical University, Tianjin, 300384, People's Republic of China. Additional authors for this research include Y. Huang, H.
Recent Reports from University of Sydney Highlight Findings in Cataracts (Sporadic and Familial Congenital Cataracts: Mutational Spectrum and New Diagnoses Using Next-Generation Sequencing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Eye Diseases and Conditions - Cataracts is now available. According to news reporting originating from Sydney, Australia, by NewsRx correspondents, research stated, "Congenital cataracts are a significant cause of lifelong visual loss. They may be isolated or associated with microcornea, microphthalmia, anterior segment dysgenesis (ASD) and glaucoma, and there can be syndromic associations."

Financial support for this research came from Ophthalmic Research Institute of Australia.

Our news editors obtained a quote from the research from the University of Sydney, "Genetic diagnosis is challenging due to marked genetic heterogeneity. In this study, next-generation sequencing (NGS) of 32 cataract-associated genes was undertaken in 46 apparently nonsyndromic congenital cataract probands, around half sporadic and half familial cases. We identified pathogenic variants in 70% of cases, and over 68% of these were novel. In almost two-thirds (20/33) of these cases, this resulted in new information about the diagnosis and/or inheritance pattern. This included identification of: new syndromic diagnoses due to NHS or BCOR mutations; complex ocular phenotypes due to PAX6 mutations; de novo autosomal-dominant or X-linked mutations in sporadic cases; and mutations in two separate cataract genes in one family. Variants were found in the crystallin and gap junction genes, including the first report of severe microphthalmia and sclerocornea associated with a novel GJA8 mutation. Mutations were also found in rarely reported genes including MAF, VIM, MIP, and BFSP1."

According to the news editors, the research concluded: "Targeted NGS in presumed nonsyndromic congenital cataract patients provided significant diagnostic information in both familial and sporadic cases."


The news editors report that additional information may be obtained by contacting A.S. Ma, Eye Genetics Research, The Children's Hospital at Westmead, Save Sight Institute, Children's Medical Research Institute, University of Sydney, Sydney, New South Wales,
Oncology - Liver Cancer

Recent Reports from University of Ulsan College of Medicine Highlight Findings in Liver Cancer (Inactivation of Hippo Pathway Is Significantly Associated with Poor Prognosis in Hepatocellular Carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Liver Cancer have been presented. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "The Hippo pathway is a tumor suppressor in the liver. However, the clinical significance of Hippo pathway inactivation in HCC is not clearly defined."

Our news journalists obtained a quote from the research from the University of Ulsan College of Medicine, "We analyzed genomic data from human and mouse tissues to determine clinical relevance of Hippo pathway inactivation in HCC. We analyzed gene expression data from Mst1/2(-/-) and Sav1(-/-) mice and identified a 610-gene expression signature reflecting Hippo pathway inactivation in the liver [silence of Hippo (SOH) signature]. By integrating gene expression data from mouse models with those from human HCC tissues, we developed a prediction model that could identify HCC patients with an inactivated Hippo pathway and used it to test its significance in HCC patients, via univariate and multivariate Cox analyses. HCC patients (National Cancer Institute cohort, n=113) with the SOH signature had a significantly poorer prognosis than those without the SOH signature [p <0.001 for overall survival (OS)]. The significant association of the signature with poor prognosis was further validated in the Korean (n=100, p=0.006 for OS) and Fudan University cohorts (n=242, p=0.001 for OS). On multivariate analysis, the signature was an independent predictor of recurrence-free survival (HR, 1.6; 95% confidence interval, 1.12-2.28: p=0.008). We also demonstrated significant concordance between the SOH HCC subtype and the hepatic stem cell HCC subtype that had been identified in a previous study (p <0.001)."

According to the news editors, the research concluded: "Inactivation of the Hippo pathway in HCC is significantly associated with poor prognosis."

For more information on this research see: Inactivation of Hippo Pathway Is Significantly Associated with Poor Prognosis in Hepatocellular Carcinoma. *Clinical Cancer Research*, 2015;22(5):1256-64. *Clinical Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)
Our news journalists report that additional information may be obtained by contacting Y.Y. Park, ASAN Institute for Life Sciences, ASAN Medical Center, Dept. of Convergence Medicine, University of Ulsan College of Medicine, Seoul, South Korea. Additional authors for this research include J.J. Shim, S.B. Kim, K.Y. Jang, S.M. Kim, J.H. Kim, J.E. Hwang, H.J. Jang, H.S. Lee, S.C. Kim, W. Jeong, S.S. Kim, E.S. Park, J. Heo, Y.J. Kim, D.G. Kim, S.H. Leem, A. Kaseb, M.M. Hassan, M. Cha, I.S. Chu and R.L. Johnson.

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Publisher contact information for the journal Clinical Cancer Research is: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA.

Keywords for this news article include: Asia, Seoul, Genetics, Oncology, Carcinomas, South Korea, Liver Cancer.

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Polyomavirus

Recent Research from Academic Medical Center Highlight Findings in Polyomavirus (Predominant Tubular Interleukin-18 Expression in Polyomavirus-Associated Nephropathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Polyomavirus have been presented. According to news originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Polyomavirus-associated nephropathy (PVAN) occurs in a significant percentage of renal transplant recipients, with BK virus reactivation as the main causative agent. PVAN leads to tubular damage and may result in allograft loss."

Our news journalists obtained a quote from the research from Academic Medical Center, "In this study, we analyzed the antiviral immune response in PVAN. Transcription of the proinflammatory cytokine interleukin-18 (IL-18) was significantly higher in PVAN biopsies compared with T cell-mediated rejection (TCMR) (1.42 +/- 0.20 and 0.69 +/- 0.10, respectively; *P = 0.0021). Tubular expression of IL-18 was significantly increased in PVAN compared with TCMR (2.00 +/- 0.24 and 1.333 +/- 0.13, respectively; *P = 0.028). In contrast, in TCMR, IL-18 was expressed predominantly by CD163-positive macrophages."

According to the news editors, the research concluded: "These data suggest that the antiviral immune response in PVAN is partly coordinated by the tubular epithelium, whereas in TCMR, this may be controlled by inflammatory cells."

For more information on this research see: Predominant Tubular Interleukin-18 Expression in Polyomavirus-Associated Nephropathy. Transplantation, 2016;100(10):E88-E95. Transplantation can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Transplantation - journals.lww.com/transplantjournal/pages/default.aspx)

The news correspondents report that additional information may be obtained from G. Stokman, Academy Med Center, Dept. of Pathol, NL-1105 AZ Amsterdam, Netherlands. Additional authors for this research include J. Kers, U. Yapici, J.J. Hoelbeek, N. Claessen, O.J. de Boer, M.G. Netea, L. Hilbrands, F.J. Bemelman, I.J.M. ten Berge and S. Florquin.
Recent Research from Alagappa University Highlight Findings in Serratia (Piper betle and its bioactive metabolite phytol mitigates quorum sensing mediated virulence factors and biofilm of nosocomial pathogen Serratia marcescens in vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gram-Negative Bacteria - Serratia. According to news reporting out of Tamil Nadu, India, by NewsRx editors, research stated, "Ethnopharmacological relevance: Piper betle, a tropical creeper plant belongs to the family Piperaceae. The leaves of this plant have been well known for their therapeutic, religious and ceremonial value in South and Southeast Asia."

Financial supporters for this research include Department of Biotechnology, Government of India, University Grants Commission, New Delhi, India.

Our news journalists obtained a quote from the research from Alagappa University, "It has also been reported to possess several biological activities including antimicrobial, antioxidant, antiinociceptive, antidiabetic, insecticidal and gastroprotective activities and used as a common ingredient in indigenous medicines. In Indian system of ayurvedic medicine, P. betle has been well recognized for its antiseptic properties and is commonly applied on wounds and lesions for its healing effects. Aim of the study: To evaluate the anti-quorum sensing (anti-QS) and antibiofilm efficacy of P. betle and its bioactive metabolite phytol against Serratia marcescens. The P. betle ethyl acetate extract (PBE) was evaluated for its anti-QS efficacy against S. marcescens by assessing the prodigiosin and lipase production at 400 and 500 μg ml(-1) concentrations. In addition, the biofilm biomass quantification assay was performed to evaluate the antibiofilm activity of PBE against S. marcescens. Besides, the influence of PBE on bacterial biofilm formation was assessed through microscopic techniques. The biofilm related phenomenons like exopolysaccharides (EPS) production, hydrophobicity and swarming motility were also examined to support the antibiofilm activity of PBE. Transcriptional analysis of QS regulated genes in S. marcescens was also done. Characterization of PBE was done by separation through column chromatography and identification of active metabolites by gas chromatography-mass spectrometry. The major compounds of active fractions such as hexadecanoic acid, eugenol and phytol were assessed for their anti-QS activity against S. marcescens. Further, the in vitro bioassays such as protease, biofilm and HI quantification were also carried out to confirm the anti-QS and antibiofilm potential of phytol in PBE. PBE inhibits QS mediated prodigiosin pigment production in S. marcescens, which confirmed its anti QS potential against S. marcescens. At 500 μg ml(-1) concentration, PBE significantly inhibited the production of protease, lipase, biofilm and EPS to the level of 71%, 68%, 65% and 43% in S. marcescens, respectively. Further, their antibiofilm efficacy was confirmed through microscopic techniques. In addition, PBE effectively inhibited the hydrophobicity and swarming motility. Additionally, the results of qPCR analysis validated the down regulation of QS genes.
Chromatographic techniques the presence of hexadecanoic acid, eugenol and phytol in PBE and the potential bioactive compound with anti-QS activity was identified as phytol. In vitro assays with phytol evidenced the potent inhibition of QS-controlled prodigiosin, protease, biofilm and hydrophobicity in S. marcescens, without exerting any deleterious effect on its growth.

According to the news editors, the research concluded: "This study demonstrates the promising anti-QS and antibiofilm activities of PBE and its active metabolite phytol, and confirms the ethnopharmacological applications of these leaves against S. marcescens infections."


Our news journalists report that additional information may be obtained by contacting A.V. Ravi, Alagappa Univ, Dept. of Biotechnol, Karaikudi 630004, Tamil Nadu, India. Additional authors for this research include K.R. Devi, A. Kannappan, S.K. Pandian and A.V. Ravi.

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Keywords for this news article include: Tamil Nadu, India, Asia, Gram-Negative Facultatively Anaerobic Rods, Nosocomial Diseases and Conditions, Gram-Negative Bacteria, Enzymes and Coenzymes, Biological Pigments, Gammaproteobacteria, Biological Factors, Enterobacteriaceae, Virulence Factors, Biological Toxins, Proteobacteria, Prodigiosin, Diterpenes, Protease, Serratia, Phytol, Lipase, Alagappa University.

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**Cardiothoracic**

**Recent Research from Albert Einstein College of Medicine Highlight Findings in Cardiothoracic (Sex and the Risk of AKI Following Cardiothoracic Surgery: A Meta-Analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiothoracic. According to news reporting originating from Bronx, New York, by NewsRx correspondents, research stated, "Being a woman is a well established risk factor for the development of cardiothoracic surgery-associated AKI. In striking contrast, women are less likely to develop AKI associated with noncardiac surgical procedures than men."

Our news editors obtained a quote from the research from the Albert Einstein College of Medicine, "In an attempt to ascertain why being a woman might be protective for ischemic AKI after general surgery but deleterious in patients undergoing cardiothoracic surgery, we examined cardiothoracic surgery-associated AKI in greater detail. & measurements We performed a systematic review and meta-analysis of cardiothoracic surgery-associated AKI studies published between January of 1978 and December of 2015 to further explore the
relationship between sex and cardiothoracic surgery-associated AKI. Sixty-four studies were identified that provided sex-specific data regarding the incidence of cardiothoracic surgery-associated AKI among 1,057,412 subjects. Using univariate analysis, women were more likely than men to develop AKI postoperatively (odds ratio, 1.21; 95% confidence interval, 1.09 to 1.33; P<0.001). However, when the analysis was restricted to the 120,464 subjects reported in 29 studies that used the Acute Kidney Injury Network criteria, the RIFLE criteria, or the Kidney Disease Improving Global Outcomes criteria to define AKI, there was no significant sex-related difference in risk. Seventeen studies used multivariate analysis to assess risk factors for cardiothoracic surgery-associated AKI and provided sex-specific odd ratios. Among the 1,587,181 individuals included in these studies, the risk of developing cardiothoracic surgery-associated AKI was not significantly associated with sex (odds ratio, 1.04; 95% confidence interval, 0.92 to 1.19; P=0.51). However, when the analysis was restricted to the 5106 subjects reported in four studies that used the Acute Kidney Injury Network criteria to define AKI, the risk of developing AKI was significantly lower in women compared with in men (odds ratio, 0.75; 95% confidence interval, 0.65 to 0.87; P<0.001).

According to the news editors, the research concluded: "Our systematic review and meta-analysis contradict the generally held consensus that being a woman is an independent risk factor for the development of cardiothoracic surgery-associated AKI."


The news editors report that additional information may be obtained by contacting J. Neugarten, Montefiore Med Center, Albert Einstein College of Medicine, Dept. of Med, Div Nephrol, Bronx, NY 10467, United States. Additional authors for this research include S. Sandilya, B. Singh and L. Golestaneh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2215/CJN.03340316. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bronx, New York, United States, North and Central America, Risk and Prevention, Cardiothoracic, Surgery, Albert Einstein College of Medicine.

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and CH3) with 2-amino-3-(5-bromo-2-hydroxybenzylamino)maleonitrile. The solvatochromic behaviors of the molecules were probed by studying their UV-Vis spectra in five pure organic solvents of different polarities."

Financial support for this research came from Arak University.

Our news journalists obtained a quote from the research from Arak University, "The p-NO2 substituted receptor shows a dramatic color change from yellow to blue upon the addition of fluoride ion in CH3CN. This capability was studied by systematic TD-DFT calculations. These compounds were assayed for their in vitro antibacterial activities against Gram-positive (S. aureus, S. epidermidis and L monocytogenes) and Gram-negative (E. coli, P. aeruginosa and K. pneumonia) bacteria by disc diffusion method."

According to the news editors, the research concluded: "The results indicated that the compounds show good inhibition against Gram positive bacteria namely L monocytogenes as compared to standard drugs."


The news correspondents report that additional information may be obtained from H. Khanmohammadi, Arak Univ, Fac Sci, Dept. of Chem, Arak 3815688349, Iran. Additional authors for this research include V. Arab, K. Rezaeian, G.R. Talei, M. Pass and N. Shabani.

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Keywords for this news article include: Arak, Iran, Asia, Antibacterial Agents, Drugs and Therapies, Antimicrobials, Antibiotics, Arak University.

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Heart Disorders and Diseases - Cardiac Tamponade

**Recent Research from Catholic University of Korea Highlight Findings in Cardiac Tamponade (Cardiac Tamponade due to Suprahepatic Surgical Exploration in Liver Retransplantation: A Case Report)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Cardiac Tamponade is now available. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Cardiac tamponade is an emergency condition that requires early recognition and prompt pericardial decompression. Little has been reported on cardiac tamponade in liver retransplantation (reLT), but most cases are fatal."

The news correspondents obtained a quote from the research from the Catholic University of Korea, "We managed a case of reLT complicated by accidental cardiac tamponade. A 59-year-old man underwent an emergency reLT because of liver cirrhosis with recurrent hepatitis B. During the dissection, suprahepatic exploration was attempted, but this resulted in severe hemorrhage because of the many tissue adhesions. After 1 hour of allograft reperfusion, the cardiac index and blood pressure dropped markedly despite volume...

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Recent Research from Catholic University of Korea Highlight Findings in Cardiac Tamponade (Cardiac Tamponade due to Suprahepatic Surgical Exploration in Liver Retransplantation: A Case Report)
resuscitation, and the central venous pressure increased abruptly. Using transthoracic echocardiography, cardiac tamponade was diagnosed, and an urgent pericardiotomy was performed. Although bizarre changes in the electrocardiogram were observed briefly, the vital signs normalized."

According to the news reporters, the research concluded: "After a short period of hypotension and hyperlactatemia in the intensive care unit, the patient was transferred to a ward in satisfactory condition on postoperative day 7. This case demonstrates the need for careful monitoring of hemodynamics during suprahepatic exploration with marked tissue adhesions in reLT."


Our news journalists report that additional information may be obtained by contacting C.S. Park, Catholic University of Korea, Coll Med, Seoul St Marys Hosp, Dept. of Anesthesiol & Pain Med, Seoul 06591, South Korea. Additional authors for this research include Y.K. Jeon, D.G. Kim, G.H. Na, Y.S. Yi and C.S. Park.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.02.065. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiac Tamponade, Heart Disease, Cardiology, Catholic University of Korea.

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systolic dysfunction was significantly prevalent (43.8% vs. 20.0%, p = 0.03) and the improvement in LV ejection fraction (EF) more than 10% on FU echocardiography was more significantly frequent (62.5% vs. 23.3%, p = 0.003) in the reversible TR group than in the non-reversible TR group. However, the other echocardiographic parameters, including right ventricular function were not different between the groups. In multivariate analysis using Cox proportional hazard model, the improvement of LVEF more than 10% was the only independent predictor of reversible TR (HR = 7.39, 95%CI 1.80-30.28, p = 0.005). Nine patients died only in patients with non-reversible TR (12.7%), but the reversibility of TR was not associated with mortality. The improvement of LV systolic function was the only independent predictor of reversible TR.

According to the news editors, the research concluded: "Appropriate medical therapy including management for heart failure should be considered before performing surgery in patients with severe functional TR and AF, especially in patients with LV dysfunction."


Our news journalists report that additional information may be obtained by contacting K.H. Kim, Chonnam Natl Univ Hosp, Dept. of Translat Res Center Aging, Gwangju, South Korea. Additional authors for this research include K.H. Kim, J.Y. Kim, D.S. Sim, H.J. Yoon, N.S. Yoon, Y.J. Hong, H.W. Park, J.H. Kim, Y. Ahn, M.H. Jeong, J.G. Cho and J.C. Park.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2015.11.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gwangju, South Korea, Asia, Cardiology, Risk and Prevention, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Echocardiography, Cardiovascular, Heart Disease, Chonnam National University Hospital.

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Membrane Proteins - Vesicular Transport Proteins
Recent Research from Chubu University Highlight Findings in Vesicular Transport Proteins (Caveolin-1 facilitates internalization and degradation of ABCA1 and probucol oxidative products interfere with this reaction to increase HDL biogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Membrane Proteins - Vesicular Transport Proteins have been presented. According to news reporting from Kasugai, Japan, by NewsRx journalists, research stated, "Expression of ATP binding cassette transporter (ABC) A1, a key membrane protein for biogenesis of high-density lipoprotein (HDL), is regulated not only by its gene transcription but also by its intracellular degradation to modulate plasma HDL concentration. We previously showed that inhibition of ABCA1 degradation by probucol oxidative products, spiroquinone (SQ) and diphenoquinone (DQ), increased HDL biogenesis and reverse cholesterol
transport, and achieved reduction of atherosclerosis in animal models."

The news correspondents obtained a quote from the research from Chubu University, "The background mechanism has thus been investigated. Involvement of caveolin-1, a protein of multiple functions in cell biology, particularly in cholesterol trafficking, has been examined for its roles in ABCA1 degradation as well as the effects of SQ and DQ on the reaction. ABCA1 protein was increased in caveolin-1-deficient mouse embryonic fibroblasts, not by increase of transcription but by decrease in its internalization and degradation. Transfection and expression of caveolin-1 normalized the protein level and the rate of degradation of ABCA1. Immunoprecipitation experiments demonstrated association between ABCA1 and caveolin-1 and SQ and DQ disrupted this interaction. The effects of SQ and DQ to increase ABCA1 and cell cholesterol release induced by apolipoprotein A-I were dependent on expression of caveolin-1. Fluorescence imaging of ABCA1 and caveolin-1 in cultured cells demonstrated their co-localization as well as its disruption by SQ and DQ, being consistent with the biochemical findings. Caveolin-1 enhances internalization and degradation of ABCA1 by its association with ABCA1."

According to the news reporters, the research concluded: "Interference of this interaction by probucol oxidative products suppresses ABCA1 degradation and increase HDL biogenesis."

For more information on this research see: Caveolin-1 facilitates internalization and degradation of ABCA1 and probucol oxidative products interfere with this reaction to increase HDL biogenesis. Atherosclerosis, 2016;253():54-60. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting S. Yokoyama, Chubu Univ, Nutr Hlth Sci Res Center, Kasugai, Aichi 4878501, Japan. Additional authors for this research include T. Tsuboi, K. Okumura-Noji, N. Iwamoto and S. Yokoyama.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.08.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kasugai, Japan, Asia, Intracellular Signaling Peptides and Proteins, Signal Transducing Adaptor Proteins, Vesicular Transport Proteins, Membrane Proteins, Phosphoproteins, Caveolin 1, Caveolins, Probucol, Genetics, Phenols, Chubu University.

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Neutral Amino Acids

Recent Research from Dalian Medical University Highlight Findings in Neutral Amino Acids (Evaluation of PFOS-mediated neurotoxicity in rat primary neurons and astrocytes cultured separately or in co-culture)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neutral Amino Acids. According to news reporting originating in Dalian, People's Republic of China, by NewsRx journalists,
research stated, "Perfluorooctane sulfonate (PFOS) is a potential neurotoxicant reported by epidemiological investigations and experimental studies, while the underlying mechanisms are still unclear. Astrocytes not only support for the construction of neurons, but also conduct neuronal functions through glutamate-glutamine cycle in astrocyteneuron crosstalk."

The news reporters obtained a quote from the research from Dalian Medical University, "In the present study, the effect of PFOS exposure on rat primary hippocampal neurons or cortex astrocytes was evaluated. Then the role of the astrocytes in PFOS-induced toxic effect on neurons was explored with astrocyte-neuron co-culture system. Exposure of rat primary hippocampal neurons to PFOS has led to oxidation-antioxidation imbalance, increased apoptosis and abnormal autophagy. The adverse effect of PFOS on rat primary cortex astrocytes manifested in the form of altered extracellular glutamate and glutamine concentrations, decreased glutamine synthase activity, as well as decreased gene expression of glutamine synthase, glutamate transporters and glutamine transporters in the glutamate-glutamine cycle. Especially, the alleviation of PFOS-inhibited neurite outgrowth in neurons could be observed in astrocyte-neuron co-culture system, though the ability of astrocytes in fostering neurite outgrowth was affected by PFOS. These results indicated that both astrocytes and neurons might be the targets of PFOS-induced neurotoxicity, and astrocytes could protect against PFOS-inhibited neurite outgrowth in primary cultured neurons."

According to the news reporters, the research concluded: "Our research might render some information in explaining the mechanisms of PFOS-induced neurotoxicity."

For more information on this research see: Evaluation of PFOS-mediated neurotoxicity in rat primary neurons and. astrocytes cultured separately or in co-culture. Toxicology in Vitro, 2017;38():77-90. Toxicology in Vitro can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Toxicology in Vitro - www.journals.elsevier.com/toxicology-in-vitro/)

Our news correspondents report that additional information may be obtained by contacting X.H. Liu, Dalian Med Univ, Sch Public Hlth, Dept. of Environm Hlth & Toxicol, Dalian 116044, People's Republic of China. Additional authors for this research include Q. Liu, C. Liu, C.N. Li, Y.C. Li, S.Y. Li, X.H. Liu and J. Shao.

Keywords for this news article include: Dalian, People's Republic of China, Asia, Synthase, Epidemiology, Enzymes and Coenzymes, Diamino Amino Acids, Neutral Amino Acids, Basic Amino Acids, Glutamic Acid, Glutamates, Glutamine, Genetics, Dalian Medical University.

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clinical score to predict difficult ventilation through a supraglottic airway device. The score was proposed from our previously reported derivation data, and we prospectively validated the score in 5532 patients from November 2013 to April 2014.

Our news editors obtained a quote from the research from Dokkyo Medical University, "Predictive accuracy of the score was compared by the area under the receiver operating characteristic (ROC) curve (AUC). We assigned point values to each of the identified four risk factors: male, age >45 yr, short thyromental distance, and limited neck movement, their sum composing the score. The score ranged between 0 and 7 points. The optimal predictive level of the score was determined using ROC curve analysis. The AUC of the score was 0.75 (95% CI 0.66 to 0.84) in the validation data set, and was similar to that in the derivation data set (0.80; 95% CI 0.75 to 0.86). In derivation and validation data sets, the incidence of low risk categories (scores 0-3) was 0.42% vs 0.32% and of high risk categories (scores 4-7) was 3% vs 1.7% respectively. A score 4 or greater is associated with a six to seven fold increased risk of difficult ventilation through a supraglottic airway device."

According to the news editors, the research concluded: "The new score for prediction of difficult ventilation through a supraglottic airway device is easy to perform and reliable, and could help anaesthetists plan for difficult airway management."


The news editors report that additional information may be obtained by contacting T. Saito, Dokkyo Med Univ, Koshigaya Hosp, Dept. of Anaesthesia, Koshigaya, Saitama 3438555, Japan. Additional authors for this research include S.T.H. Chew, W.L. Liu, K.K. Thinn, T. Asai and L.K. Ti.

Keywords for this news article include: Saitama, Japan, Asia, Anesthesiology, Pain Medicine, Risk and Prevention, Dokkyo Medical University.

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Hematology - Blood Coagulation Factors

Recent Research from Erasmus University Highlight Findings in Blood Coagulation Factors (von Willebrand Factor, ADAMTS13 Activity, and Decline in Kidney Function: A Population-Based Cohort Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematology - Blood Coagulation Factors have been published. According to news reporting out of Rotterdam, Netherlands, by NewsRx editors, research stated, "Altered levels of von Willebrand factor (vWF) and ADAMTS13 can promote thrombosis and disturb blood flow in kidney microcirculations. We investigated the association of serum vWF: ADAMTS13 ratio in relation to decline in kidney function."

Financial supporters for this research include Baxalta Innovations GmbH, Nestle Nutrition (Nestec Ltd), Metagenics Inc, AXA.

Our news journalists obtained a quote from the research from Erasmus University, "Prospective cohort study. 2,479 individuals (mean age, 65.1 +/- 5.9 [SD] years; 43% men) from the population-based Rotterdam Study. Predictors: vWF, ADAMTS13, and vWF: ADAMTS13
ratio. Annual decline in estimated glomerular filtration rate (eGFR), halving of eGFR, and new-onset eGFR < 60 mL/min/1.73 m(2) were assessed. During a median follow-up of 11 (range, 7.81-13.57) years, 500 cases of new-onset eGFR < 60 mL/min/1.73 m(2) occurred. The population had a mean eGFR decline of 0.96 +/- 0.92 mL/min/1.73 m 2 per year. Higher vWF:ADAMTS13 ratio was associated with steeper annual decline in eGFR (difference, -0.06 [95% CI, -0.09 to -0.02] mL/min/1.73 m(2) per year) and higher risk for new-onset eGFR < 60 mL/min/1.73 m(2) (OR, 1.13; 95% CI, 1.01-1.27). Likewise, higher vWF: ADAMTS13 ratio was associated with higher risk for halving of eGFR (OR, 1.40; 95% CI, 1.02-1.93). After adjustment for cardiovascular risk factors and blood group, effect estimates remained the same. Limitations: No data available for albuminuria. Participants were classified based on a single measurement of vWF and ADAMTS13."

According to the news editors, the research concluded: "In this population-based study, we showed that higher vWF: ADAMTS13 ratio is associated with decline in kidney function, suggesting a role of elevated prothrombotic factors in the development and progression of kidney disease."


Our news journalists report that additional information may be obtained by contacting A. Dehghan, Erasmus University, Medical Center, Dept. of Epidemiol, Rotterdam, Netherlands. Additional authors for this research include P.S. de Vries, J. Boender, M.A.H. Sonneveld, E.J. Hoorn, A. Hofman, M.P.M. de Maat, O.H. Franco, M.A. Ikram, F.W.G. Leebeek and A. Dehghan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.ajkd.2016.05.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Hematology, Risk and Prevention, Epidemiology, Blood Coagulation Factors, Von Willebrand Disease, Von Willebrand Factor, Erasmus University.

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Oncology - Esophageal Cancer

Recent Research from Federal University Highlight Findings in Esophageal Cancer (Unchanging pattern of prevalence of esophageal cancer, overall and by histological subtype, in the endoscopy service of the main referral hospital in the central ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Esophageal Cancer are presented in a new report. According to news reporting originating in Porto Alegre, Brazil, by NewsRx journalists, research stated, "Squamous cell carcinoma (SCC) and adenocarcinoma (ADC) are the two main histological types of esophageal cancer. Southern Brazil has the highest rates of esophageal
The news reporters obtained a quote from the research from Federal University, "This study assessed the trend changes in the histological types of esophageal cancer, in a 20-year period, in the central region of Rio Grande do Sul State, Brazil. We searched all cases of esophageal cancer from 1993 to 2012 by their histological diagnosis, grouping the patients in 4-year time periods to evaluate time trends. Among 18,441 upper gastrointestinal endoscopies we identified 686 cases of esophageal cancer. Histological study confirmed the diagnosis of SCC in 640 (93.3%) patients and ADC in 46 (6.7%). Overall, 522 men were diagnosed with esophageal carcinoma; from these, 489 (93.6%) presented SCC, and 33 (6.3%) ADC. Among women, 164 had the diagnosis of esophageal cancer, 151 (92%) SCC, and 13 (7.9%) ADC. The proportion found among men and women was 3.1:1, respectively. The prevalence rate of esophageal cancer, along a 20 year-period, remained stable, as well as the rates of SCC and ADC."

According to the news reporters, the research concluded: "SCC was the most common type of esophageal cancer, and ADC presented very low prevalence."


Our news correspondents report that additional information may be obtained by contacting R.B. Fagundes, Univ Fed Rio Grande do Sul, Fac Med, Programa Postgraduate Ciencias Gastroenterol & Hepato, Porto Alegre, RS, Brazil. Additional authors for this research include D. de Carli, R.V. Xaubet and J.C. Cantarelli.

Keywords for this news article include: Porto Alegre, Brazil, South America, Squamous Cell Carcinoma, Epidemiology, Esophageal Cancer, Gastroenterology, Oncology, Federal University.

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**Terminal Care**

**Recent Research from Free University Highlight Findings in Terminal Care (Euthanasia in Belgium: trends in reported cases between 2003 and 2013)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Terminal Care. According to news reporting from Brussels, Belgium, by NewsRx journalists, research stated, "In 2002, the Belgian Act on Euthanasia came into effect, regulating the intentional ending of life by a physician at the patient's explicit request. We undertook this study to describe trends in officially reported euthanasia cases in Belgium with regard to patients' sociodemographic and clinical profiles, as well as decision-making and performance characteristics."

The news correspondents obtained a quote from the research from Free University, "We used the database of all euthanasia cases reported to the Federal Control and Evaluation Committee on Euthanasia in Belgium between Jan. 1, 2003, and Dec. 31, 2013 (n = 8752). The
committee collected these data with a standardized registration form. We analyzed trends in patient, decision-making and performance characteristics using a (2) technique. We also compared and analyzed trends for cases reported in Dutch and in French. The number of reported euthanasia cases increased every year, from 235 (0.2% of all deaths) in 2003 to 1807 (1.7% of all deaths) in 2013. The rate of euthanasia increased significantly among those aged 80 years or older, those who died in a nursing home, those with a disease other than cancer and those not expected to die in the near future (p < 0.001 for all increases). Reported cases in 2013 most often concerned those with cancer (68.7%) and those under 80 years (65.0%). Palliative care teams were increasingly often consulted about euthanasia requests, beyond the legal requirements to do so (p < 0.001). Among cases reported in Dutch, the proportion in which the person was expected to die in the foreseeable future decreased from 93.9% in 2003 to 84.1% in 2013, and palliative care teams were increasingly consulted about the euthanasia request (from 34.0% in 2003 to 42.6% in 2013). These trends were not significant for cases reported in French. Since legalization of euthanasia in Belgium, the number of reported cases has increased each year. Most of those receiving euthanasia were younger than 80 years and were dying of cancer.

According to the news reporters, the research concluded: "Given the increases observed among non-terminally ill and older patients, this analysis shows the importance of detailed monitoring of developments in euthanasia practice."

For more information on this research see: Euthanasia in Belgium: trends in reported cases between 2003 and 2013. Canadian Medical Association Journal, 2016;188(16):E407-E414. Canadian Medical Association Journal can be contacted at: Cma-Canadian Medical Assoc, 1867 Alta Vista Dr, Ottawa, Ontario K1G 5W8, Canada.

Our news journalists report that additional information may be obtained by contacting S. Dierickx, Vrije Univ Brussel, End Of Life Care Res Grp, Brussels, Belgium. Additional authors for this research include L. Deliens, J. Cohen and K. Chambaere.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1503/cmaj.160202. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Palliative and Supportive Care, Epidemiology, Terminal Care, Euthanasia, Oncology, Cancer, Free University.

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Central Nervous System Diseases and Conditions -…

Recent Research from Goethe-University Hospital Highlight Findings in Subarachnoid Hemorrhage (Cerebral vasospasm and delayed cerebral infarctions in 225 patients with non-aneurysmal subarachnoid hemorrhage: the underestimated risk of Fisher 3 ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Central Nervous System Diseases and Conditions - Subarachnoid Hemorrhage is now available. According to news reporting from Frankfurt, Germany, by NewsRx journalists, research stated. "Recent data have shown increasing numbers of non-aneurysmal subarachnoid hemorrhage (NASAH). However, data are limited and often
only small series have been published."

The news correspondents obtained a quote from the research from Goethe-University Hospital, "Our objective was to analyze the rate of cerebral vasospasm (CVS), delayed cerebral infarction (DCI), and their influence on the clinical outcome, especially in patients with diffuse Fisher 3 bleeding pattern NASAH (Fi3). Between 1999 and 2014, 225 patients had NASAH. CVS, DCI, and outcome (according to the modified Rankin Scale at 6 months) were analyzed retrospectively. Patients were stratified according to the bleeding type. After univariate analysis a multivariate analysis was performed and NASAH Fi3 was also compared with aneurysmal SAH Fi3. Patient characteristics and the outcome of perimesencephalic (PM) and non-PM (NPM) SAH were similar. Excluding Fi3, PM and NPM without Fi3 had similar patient characteristics, clinical course, and outcome. In particular, the Fi3 subgroup had a significantly increased risk of CVS, DCI, unfavorable outcome, hydrocephalus, and death. Early hydrocephalus was associated with Fi3 and intraventricular hemorrhage. The multivariate regression model showed the variables elderly patients, Fi3, and early hydrocephalus as independent and significant predictors for an unfavorable outcome. A further comparison of NASAH Fi3 with aneurysmal SAH Fi3 showed similar characteristics, CVS rate, and mortality. Patients with NASAH without a Fi3 bleeding pattern had a similar excellent outcome to patients with PM-SAH. Patients with Fi3 had a high risk for early hydrocephalus, CVS, DCI, and an unfavorable outcome, similar to patients with aneurysmal SAH. After multivariate analysis, early hydrocephalus, elderly patients, and Fi3 were identified as negative prognostic factors."

According to the news reporters, the research concluded: "Therefore, patients with Fi3 are at risk and need careful clinical observation."


Our news journalists report that additional information may be obtained by contacting J. Konczalla, Goethe Univ Hosp, Dept. of Neurosurg, D-60528 Frankfurt, Germany. Additional authors for this research include S. Kashefiolasl, N. Brawanski, S. Lescher, C. Senft, J. Platz and V. Seifert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/neurintsurg-2015-012153. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Frankfurt, Germany, Europe, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Hemorrhage, Risk and Prevention, Brain Diseases and Conditions, Cerebrovascular Disorders, Intracranial Hemorrhages, Subarachnoid Hemorrhage, Intracranial Vasospasm, Hydrocephalus, Goethe-University Hospital.

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Recent Research from Gujarat Cancer and Research Institute Highlight Findings in Oral Cancer (Role of miRNA dynamics and cytokine profile in governing CD44v6/Nanog/PTEN axis in oral cancer: modulating the master regulators)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Oral Cancer are presented in a new report. According to news reporting originating from Gujarat, India, by NewsRx correspondents, research stated, "Late diagnosis, low therapeutic response, and metastasis are accountable for poor 5-year survival rate of OSCC. These failures are attributed to the existence of 'cancer stem cell (CSC) subpopulation.'

Financial support for this research came from The Gujarat Cancer Society. Our news editors obtained a quote from the research from Gujarat Cancer and Research Institute, "Hence, it is necessary to identify and understand the mechanism of CSCs in tumor development, metastasis, and chemotherapeutic response. Propelling evidences suggest that microRNA (miRNA)-mediated regulation and cytokines of tumor microenvironment have the ability to modulate CSC signalling pathway; however, their exact mechanism needs to be elucidated. Thus, in this study, we characterized CSC markers and highlighted the miRNA dynamics and cytokine profile regulating these CSCs in a pathway-dependent manner. Our results demonstrated CD44+ subpopulation as tumor-initiating cells with self-renewal capability, tumorigenic growth potential and intrinsic chemoresistance. These tumors exhibited increased expression of CSC markers (CD44v3, CD44v6, Nanog, and Bmi1) and significantly reduced expression of PTEN and ATM in OSCC patients. Pathway analysis of these CSC markers demonstrated a prospective pathway regulated by miRNA and cytokine network. On analyzing these modulators, we observed decreased expression of miRNA542-3p, miRNA34a and miRNA9, and significant upregulation of miRNA21, thus forming an unexplored axis. Cytokine profiling revealed significantly increased levels of IL-6 and IL-8 compared to normals and demonstrated their strong association with CD44v6. Collectively, this study indicates that miR5423p and miR34a targets the CD44v6-Nanog-PTEN axis, thus playing a vital role in regulating the CSC properties."

According to the news editors, the research concluded: "Furthermore, we speculate an impinging role of cytokines IL-6 and IL-8 in regulating this CSC-mediated pathway which can have prognostic and therapeutic implications."

For more information on this research see: Role of miRNA dynamics and cytokine profile in governing CD44v6/Nanog/PTEN axis in oral cancer: modulating the master regulators. Tumor Biology, 2016;37(11):14565-14575. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news editors report that additional information may be obtained by contacting R. Rawal, Gujarat Canc Res Inst, Dept. of Canc Biol, Div Med Chem & Pharmacogen, Ahmadabad 380016, Gujarat, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5289-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gujarat, India, Asia, Intercellular Signaling.
Recent Research from H. Lundbeck AS Highlight Findings in Phosphodiesterase Inhibitors (Novel Approach toward 3,3-Difluoropiperidines from Easily Available Starting Materials and Synthesis of a New Phosphodiesterase Inhibitor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Phosphodiesterase Inhibitors. According to news originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "A novel methodology for the synthesis of 3,3-difluoropiperidines has been developed."

Our news journalists obtained a quote from the research from H. Lundbeck AS, "The target compounds are prepared in three steps using a robust protocol and simple starting materials. The incorporation of the fluorine is achieved by using the cheap and easily available ethyl 2-bromo-2,2-difluoroacetate as building block."

According to the news editors, the research concluded: "Using this methodology, a new potent in vitro phosphodiesterase 2A (PDE2A) inhibitor containing the functionalized fluorinated piperidine scaffold has been prepared."

For more information on this research see: Novel Approach toward 3,3-Difluoropiperidines from Easily Available Starting Materials and Synthesis of a New Phosphodiesterase Inhibitor. *Synlett*, 2016;27(20):2803-2806. *Synlett* can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

The news correspondents report that additional information may be obtained from M. Marigo, H Lundbeck & Co AS, DMPK, DK-2500 Copenhagen, Denmark. Additional authors for this research include R.P. Clausen and M. Marigo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0036-1588313. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Phosphodiesterase Inhibitors, Enzymes and Coenzymes, Drugs and Therapies, Phosphodiesterases, Enzyme Inhibitors, H. Lundbeck AS.

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Hematologic Diseases and Conditions - Sickle Cell...

Recent Research from HCPA Highlight Findings in Sickle Cell Anemia (The role of BCL11A and HMIP-2 polymorphisms on endogenous and hydroxyurea induced levels of fetal hemoglobin in sickle cell anemia patients from southern Brazil)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematologic Diseases and Conditions - Sickle Cell Anemia. According to news reporting from Porto Alegre, Brazil, by NewsRx journalists, research stated, "High levels of fetal hemoglobin (HbF) reduce sickle cell anemia (SCA) morbidity and mortality. HbF levels vary considerably and there is a strong genetic component that influences HbF production."

The news correspondents obtained a quote from the research from HCPA, "Genetic polymorphisms at three quantitative trait loci (QTL): Xmn1-HBG2, HMIP-2 and BCL11A, have been shown to influence HbF levels and disease severity in SCA. Hydroxyurea (HU) is a drug that increases HbF. We investigated the influence of single nucleotide polymorphisms (SNPs) at the Xmn1-HBG2 (rs7482144); BCL11A (rs1427407, rs1427407 and rs1188680); and HMIP-2 (rs9399137 and rs9402686) loci on baseline and HU-induced HbF levels in 111 HbSS patients. We found that both BCL11A and HMIP-2 were associated with increased endogenous levels of HbF. Interestingly, we also found that BCL11A was associated with higher induction of HbF with HU. This effect was independent of the effect of BCL11A on baseline HbF levels."

According to the news reporters, the research concluded: "Additional studies will be needed to validate these findings and explain the ample inter-individual variations in HbF levels at baseline and HU-induced in patients with SCA."

For more information on this research see: The role of BCL11A and HMIP-2 polymorphisms on endogenous and hydroxyurea induced levels of fetal hemoglobin in sickle cell anemia patients from southern Brazil. Blood Cells Molecules and Diseases, 2016;62():32-37. Blood Cells Molecules and Diseases can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA.

Our news journalists report that additional information may be obtained by contacting J.R. Friedrisch, HCPA, Hematol & Bone Marrow Transplantat Serv, Porto Alegre, RS, Brazil. Additional authors for this research include V. Sheehan, J.M. Flanagan, A. Baldan, C.C.G. Summarell, C.M. Bittar, B.K. Friedrisch, I.I. Wilke, C.B. Ribeiro, L.E. Daudt and L.M.D. Silla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bcmd.2016.11.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Porto Alegre, Brazil, South America, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Drugs and Therapies, Hydroxyurea Therapy, Sickle Cell Anemia, Fetal Hemoglobin, Pharmaceuticals, Antimetabolites, Antineoplastics, Blood Proteins, Hemeprteins, Hemoglobins, Hematology, Genetics, Globins, HCPA.

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Liver Diseases and Conditions - Hepatitis

Recent Research from Huazhong University of Science and Technology Highlight Findings in Hepatitis (Sustained immune control in HBeAg-positive patients who switched from entecavir therapy to pegylated interferon-alpha 2a: 1 year follow-up of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Liver Diseases and Conditions - Hepatitis is the subject of a report. According to news reporting originating in Wuhan, People's Republic of China, by NewsRx journalists, research stated, "In the OSST study, hepatitis B e antigen (HBeAg)-positive chronic hepatitis B patients who switched from long-term entecavir (ETV) therapy to pegylated interferon-alpha 2a (PEG-IFN-alpha 2a; 40 kDa) achieved higher rates of HBeAg seroconversion and hepatitis B surface antigen (HBsAg) loss than those who continued ETV. Herein we report the sustainability of serological responses during 1 year of untreated follow-up in patients who switched from ETV to PEGIFN-alpha 2a therapy."

The news reporters obtained a quote from the research from the Huazhong University of Science and Technology, "A total of 62 patients who completed 48 weeks of PEG-IFN-alpha 2a therapy were followed-up for 48 weeks off treatment. Primary end points were HBeAg seroconversion and maintenance of HBeAg seroconversion at 48 weeks post-treatment. Secondary end points included HBsAg loss, HBV DNA < 1,000 copies/ml and alanine aminotransferase normalization (< 1x upper limit of normal). The HBeAg seroconversion rate increased from 17.7% (11/62) at the end of treatment to 38.7% (24/62) 1 year post-treatment. Sustained HBeAg seroconversion was achieved by 63.6% (7/11) patients with end-of-treatment responses, while late HBeAg seroconversion was achieved by 33.3% (17/51) of patients who did not have end-of-treatment responses. Sustained HBsAg loss was documented in 6 of 7 patients, and sustained HBV DNA suppression was achieved in 60% (27/45) of patients with an end-of-treatment response. In patients who do not achieve HBeAg seroconversion during long-term ETV therapy, switching to finite treatment with PEG-IFN-alpha 2a produces HBeAg seroconversion in a substantial proportion of patients at end of treatment and during 1 year of follow-up."

According to the news reporters, the research concluded: "Moreover, HBeAg seroconversion and HBsAg loss are sustained in most patients during 1 year of untreated follow-up."

For more information on this research see: Sustained immune control in HBeAg-positive patients who switched from entecavir therapy to pegylated interferon-alpha 2a: 1 year follow-up of the OSST study. Antiviral Therapy, 2016;21(4):337-344. Antiviral Therapy can be contacted at: Int Medical Press Ltd, 2-4 Idol Lane, London EC3R 5DD, England.

Our news correspondents report that additional information may be obtained by contacting Q. Ning, Huazhong University of Science & Technology, Tongji Hosp, Tongji Med College, Wuhan, People's Republic of China. Additional authors for this research include J.J. Jiang, J.L. Hou, D.M. Tan, Y.T. Sun, M.Z. Zhao and Q. Ning.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Drugs and Therapies, Biological Factors, Interferon Type I, Interferon-alpha, Gastroenterology, Antiretrovirals, Antiinfectives, Interferons, Antivirals,
Recent Research from Jimei University Highlight Findings in Vibrio parahaemolyticus (PI3K-AKT signaling pathway is involved in hypoxia/thermal-induced immunosuppression of small abalone Haliotis diversicolor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Vibrio parahaemolyticus have been presented. According to news reporting from Xiamen, People's Republic of China, by NewsRx journalists, research stated, "The PI3K-AKT signal pathway has been found to be involved in many important physiological and pathological processes of the innate immune system of vertebrates and invertebrates. In this study, the AICT (HdAKT) and P131C (HdPI3K) gene of small abalone Haliotis diversicolor were cloned and characterized for the important status of PI3K and AICT protein in PI3K-AKT signaling pathway."

Funders for this research include Natural Science Foundation of China, Innovation Team Foundation of Jimei University, Fujian Agriculture and Forestry University.

The news correspondents obtained a quote from the research from Jimei University, "The full length cDNAs of HdAICT and HdPI3K are 2126 bp and 6052 bp respectively, encoding proteins of 479 amino acids and 1097 amino acids, respectively. The mRNA expression level of fourteen genes in the PI3K-AICT signaling pathway were detected by quantitative real-time PCR. The results showed that all these fourteen genes were ubiquitously expressed in seven selected tissues. Meanwhile, HdAKT was expressed in haemocytes with the highest expression level (p < 0.05) next in hepatopancreas (p < 0.05). On the other hand, the expression level of HdPI3K in haemocytes was higher than other tissues. Under normal condition, the gene expression level of HdAKT, HdPI3K, and other PI3K-AKT signaling pathway members were significantly up-regulated by Vibrio parahaemolyticus infection which demonstrated that HdAKT, HdPI3K, and other PI3K-AKT signaling pathway members play a role in the innate immune system of abalone. The mRNA expression of these genes in gills, haemocytes and hepatopancreas was significantly down regulated after the Vibrio parahaemolyticus stimulation with environment stimulation (thermal, hypoxia and thermal & hypoxia). These results indicate that the dual/multiple stresses defeat the immune system and lead to immunosuppression in abalone."

According to the news reporters, the research concluded: "PI3K-AKT signaling pathway may be involved in hypoxia/thermal-induced immunosuppression of small abalone Haliotis diversicolor."

For more information on this research see: PI3K-AKT signaling pathway is involved in hypoxia/thermal-induced immunosuppression of small abalone Haliotis diversicolor. Fish & Shellfish Immunology, 2016;59():492-508. Fish & Shellfish Immunology can be contacted at: Academic Press Ltd- Elsevier Science Ltd, 24-28 Oval Rd, London NW1 7DX, England. (Elsevier - www.elsevier.com; Fish & Shellfish Immunology - www.journals.elsevier.com/fish-and-shellfish-immunology/)
Recent Research from Ludwig-Maximilians-University Highlight Findings in Acute Respiratory Distress Syndrome (Predictors of Inadequate Linezolid Concentrations after Standard Dosing in Critically Ill Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Acute Respiratory Distress Syndrome have been published. According to news reporting originating in Munich, Germany, by NewsRx journalists, research stated, "Adequate linezolid blood concentrations have been shown to be associated with an improved clinical outcome. Our goal was to assess new predictors of inadequate linezolid concentrations often observed in critically ill patients."

Financial support for this research came from Merieux Research Grant.

The news reporters obtained a quote from the research from Ludwig-Maximilians-University. "Fifty-two critically ill patients with severe infections receiving standard dosing of linezolid participated in this prospective observational study. Serum samples (median, 32 per patient) were taken on four consecutive days, and total linezolid concentrations were quantified. Covariates influencing linezolid pharmacokinetics were identified by multivariate analysis and a population pharmacokinetic model. Target attainment (area under the concentration-time curve over 12 h [AUC(12)]/MIC ratio of >50; MIC = 2 mg/liter) was calculated for both the study patients and a simulated independent patient group (n = 67,000). Target attainment was observed for only 36% of the population on both days 1 and 4. Independent covariates related to significant decreases of linezolid concentrations included higher weight, creatinine clearance rates, and fibrinogen and antithrombin concentrations, lower concentrations of lactate, and the presence of acute respiratory distress syndrome (ARDS). Linezolid clearance was increased in ARDS patients (by 82%) and in patients with elevated fibrinogen or decreased lactate concentrations. In simulated patients, most covariates, including fibrinogen and lactate concentrations and weight, showed quantitatively minor effects on target attainment (difference of <= 9% between the first and fourth quartiles of the respective parameters). In contrast, the presence of ARDS had the strongest influence, with only <= 6% of simulated patients reaching this target."

According to the news reporters, the research concluded: "The presence of ARDS was identified as a new and strong predictor of insufficient linezolid concentrations, which
might cause treatment failure. Insufficient concentrations might also be a major problem in patients with combined alterations of other covariate parameters."

For more information on this research see: Predictors of Inadequate Linezolid Concentrations after Standard Dosing in Critically Ill Patients. Antimicrobial Agents and Chemotherapy, 2016;60(9):5254-5261. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting M. Zoller, Hosp Ludwig Maximilians Univ Munich, Dept. of Anesthesiol, Munich, Germany. Additional authors for this research include M. Zoller, B. Maier, S. Frechen, C. Scharf, L.M. Holdt, L. Frey, M. Vogeser, U. Fuhr and J. Zander.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00356-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munich, Germany, Europe, Acute Respiratory Distress Syndrome, Lung Diseases and Conditions, Blood Coagulation Factors, Coagulation Modifiers, Acute-Phase Proteins, Drugs and Therapies, Protein Precursors, Antiinfectives, Antibiotics, Fibrinogen, Hematology, Linezolid, Ludwig-Maximilians-University.

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Oncology - Osteosarcomas

Recent Research from Mie University Highlight Findings in Osteosarcomas (STAT3 inhibitor, cucurbitacin I, is a novel therapeutic agent for osteosarcoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Osteosarcomas. According to news reporting from Mie, Japan, by NewsRx journalists, research stated, "The development of clinical agents remains a costly and time-consuming process. Although identification of new uses of existing drugs has been recognized as a more efficient approach for drug discovery than development of novel drugs, little screening of drugs that might be used for a rare malignant tumor such as osteosarcoma (OS) has been performed."

The news correspondents obtained a quote from the research from Mie University, "In this study, we attempted to identify new molecular targeted agents for OS by employing Screening Committee of Anticancer Drugs (SCADS) kits. To screen compounds for OS treatment, their effect on cell viability of the OS cell lines 143B, MG63, HOS, SAOS-2, and HUO9 were evaluated. Candidate drugs were narrowed down based on a global anti-proliferative effect against these five OS cell lines. After excluding cytotoxic compounds and compounds unsuitable for in vivo administration, cucurbitacin I was extracted. Cucurbitacin I has been found to have cytotoxic and anti-proliferative properties against several tumors through inhibition of signal transducer and activator of transcription 3 (STAT3) activation. Cucurbitacin I dose- and time-dependently inhibited the proliferation of all five OS cell lines. Following cucurbitacin I treatment, STAT3 was inactivated and analysis of Mc1-1, cleaved
PARP and caspase-3 indicated apoptosis induction. Expression of cell cycle regulator proteins, such as phospho-cyclin D1, c-Myc and survivin, were suppressed. Finally, cucurbitacin I potently inhibited the tumor growth of human OS 143B cells in nude mice."

According to the news reporters, the research concluded: "Our in vitro and in vivo results suggest that STAT3 inhibition by cucurbitacin I will be an effective and new approach for the treatment of OS."


Our news journalists report that additional information may be obtained by contacting K. Asanuma, Mie Univ, Dept. of Orthoped Surg, Sch Med, Tsu, Mie 5148507, Japan. Additional authors for this research include K. Asanuma, A. Matsumine, T. Matsubara, T. Nakamura, T. Iino, Y. Asanuma, M. Goto, K. Okuno, T. Kakimoto, Y. Yada and A. Sudo.

Keywords for this news article include: Mie, Japan, Asia, Therapy, Diagnostics and Screening, Cucurbitacins, Osteosarcomas, Therapeutics, Triterpenes, Orthopedics, Cell Line, Oncology, Genetics, Mie University.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Recent Research from National Center for Global Health and Medicine Highlight Findings in HIV/AIDS (Prognosis of ocular syphilis in patients infected with HIV in the antiretroviral therapy era)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "To describe the clinical course and prognosis of ocular syphilis in patients infected with HIV-1 in the antiretroviral therapy (ART) era. We conducted a single-centre retrospective chart review of ocular syphilis in patients infected with HIV-1 diagnosed between August 1997 and July 2015."

The news reporters obtained a quote from the research from National Center for Global Health and Medicine, "The prognosis of best-corrected visual acuity (BCVA) was analysed. The study subjects were 30 eyes of 20 men who had sex with men (MSM) (median age, 41). Loss of vision and posterior uveitis were the most common ocular clinical features (43%) and location of inflammation at presentation (50%), respectively. The median baseline BCVA was 0.4 (IQR 0.2-1.2), including three eyes with hand motion. BCVA <= 0.4 at diagnosis was significantly associated with posterior uveitis or panuveitis (p=0.044). Seventy-five per cent were treated with intravenous benzylpenicillin and 53% were diagnosed with neurosyphilis. After treatment (median follow-up: 21 months), BCVA improved in 89% of the eyes, including all eyes with hand motion, to a median BCVA of 1.2 (IQR 0.8-1.2). Kaplan-Meier analysis showed that >28 days of ocular symptoms before diagnosis was the only factor associated with poor prognosis of BCVA. Three patients (15%) developed recurrence after treatment. The prognosis of BCVA in HIV-infected patients with ocular syphilis in the ART era was favourable after proper treatment. Having >28 days of ocular symptoms before diagnosis
was associated with poor prognosis."

According to the news reporters, the research concluded: "Changes in visual acuity in HIV-infected MSM should prompt an immediate assessment for ocular syphilis as delays in diagnosis and therapy can lead to irreversible visual loss."

For more information on this research see: Prognosis of ocular syphilis in patients infected with HIV in the antiretroviral therapy era. *Sexually Transmitted Infections*, 2016;92 (8):605-610. *Sexually Transmitted Infections* can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Sexually Transmitted Infections - sti.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting T. Nishijima, Natl Center Global Hlth & Med, AIDS Clin Center, Tokyo, Japan. Additional authors for this research include T. Nishijima, S. Yashiro, K. Teruya, Y. Kikuchi, N. Katai, S. Oka and H. Gatanaga.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/sextrans-2016-052568. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Bacterial Sexually Transmitted Diseases and Conditions, Sexually Transmitted Diseases and Conditions (STDs), Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Therapy, Diagnostics and Screening, Uveal Diseases and Conditions, Eye Diseases and Conditions, Opportunistic Infections, HIV/AIDS and Syphilis, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Posterior Uveitis, Antiretrovirals, HIV Infections, Ophthalmology, Men's Health, Retroviridae, RNA Viruses, HIV-1, National Center for Global Health and Medicine.

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**Peripheral Artery Disease**

**Recent Research from Queen Margaret Hospital Highlight Findings in Peripheral Artery Disease (Ankle brachial index for the diagnosis of lower limb peripheral arterial disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Peripheral Artery Disease have been presented. According to news reporting out of Fife, United Kingdom, by NewsRx editors, research stated, "Peripheral arterial disease (PAD) of the lower limb is common, with prevalence of both symptomatic and asymptomatic disease estimated at 13% in the over 50 age group. Symptomatic PAD affects about 5% of individuals in Western populations between the ages of 55 and 74 years."

Our news journalists obtained a quote from the research from Queen Margaret Hospital, "The most common initial symptom of PAD is muscle pain on exercise that is relieved by rest and is attributed to reduced lower limb blood flow due to atherosclerotic disease (intermittent claudication). The ankle brachial index (ABI) is widely used by a variety of healthcare professionals, including specialist nurses, physicians, surgeons and podiatrists working in primary and secondary care settings, to assess signs and symptoms of PAD. As the ABI test is non-invasive and inexpensive and is in widespread clinical use, a systematic review of its diagnostic accuracy in people presenting with leg pain suggestive of PAD is highly
relevant to routine clinical practice. To estimate the diagnostic accuracy of the ankle brachial index (ABI) - also known as the ankle brachial pressure index (ABPI) - for the diagnosis of peripheral arterial disease in people who experience leg pain on walking that is alleviated by rest.

Search methods We carried out searches of the following databases in August 2013: MEDLINE (Ovid SP), Embase (Ovid SP), the Cumulative Index to Nursing and Allied Health Literature (CINAHL) (EBSCO), Latin American and Caribbean Health Sciences (LILACS) (Bireme), Database of Abstracts of Reviews of Effects and the Health Technology Assessment Database in The Cochrane Library, the Institute for Scientific Information (ISI) Conference Proceedings Citation Index -Science, the British Library Zetoc Conference search and Medion.

Selection criteria We included cross-sectional studies of ABI in which duplex ultrasonography or angiography was used as the reference standard. We also included cross-sectional or diagnostic test accuracy (DTA) cohort studies consisting of both prospective and retrospective studies. Participants were adults presenting with leg pain on walking that was relieved by rest, who were tested in primary care settings or secondary care settings (hospital outpatients only) and who did not have signs or symptoms of critical limb ischaemia (rest pain, ischaemic ulcers or gangrene). The index test was ABI, also called the ankle brachial pressure index (ABPI) or the Ankle Arm Index (AAI), which was performed with a hand-held doppler or oscillometry device to detect ankle vessels. We included data collected via sphygmomanometers (both manual and aneroid) and digital equipment. Data collection and analysis Two review authors independently replicated data extraction by using a standard form, which included an assessment of study quality, and resolved disagreements by discussion. Two review authors extracted participant-level data when available to populate 2x2 contingency tables (true positives, true negatives, false positives and false negatives). After a pilot phase involving two review authors working independently, we used the methodological quality assessment tool the Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2), which incorporated our review question - along with a flow diagram to aid reviewers' understanding of the conduct of the study when necessary and an assessment of risk of bias and applicability judgements. We screened 17,055 records identified through searches of databases. We obtained 746 full-text articles and assessed them for relevance. We scrutinised 49 studies to establish their eligibility for inclusion in the review and excluded 48, primarily because participants were not patients presenting solely with exertional leg pain, investigators used no reference standard or investigators used neither angiography nor duplex ultrasonography as the reference standard. We excluded most studies for more than one reason. Only one study met the eligibility criteria and provided limb-level accuracy data from just 85 participants (158 legs). This prospective study compared the manual doppler method of obtaining an ABI (performed by untrained personnel) with the automated oscillometric method. Limb-level data, as reported by the study, indicated that the accuracy of the ABI in detecting significant arterial disease on angiography is superior when stenosis is present in the femoropopliteal vessels, with sensitivity of 97% (95% confidence interval (CI) 93% to 99%) and specificity of 89% (95% CI 67% to 95%) for oscillometric ABI, and sensitivity of 95% (95% CI 89% to 97%) and specificity of 56% (95% CI 33% to 70%) for doppler ABI. The ABI threshold was not reported. Investigators attributed the lower specificity for doppler to the fact that a tibial or dorsalis pedis pulse could not be detected by doppler in 12 of 27 legs with normal vessels or non-significant lesions. The superiority of the oscillometric (automated) method for obtaining an ABI reading over the manual method with a doppler probe used by inexperienced operators may be a clinically important finding. Authors' conclusions Evidence about the accuracy of the ankle brachial index for the diagnosis of PAD in people with leg pain on exercise that is alleviated by rest is sparse. The single study included in our review provided only limb-level data from a few participants. Well-designed cross-sectional studies are required to evaluate the accuracy of ABI in patients presenting with early symptoms of
peripheral arterial disease in all healthcare settings."

According to the news editors, the research concluded: "Another systematic review of existing studies assessing the use of ABI in alternative patient groups, including asymptomatic, high-risk patients, is required."

For more information on this research see: Ankle brachial index for the diagnosis of lower limb peripheral arterial disease. *Cochrane Database of Systematic Reviews*, 2016; (9):967-1002. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting F. Crawford, Queen Margaret Hosp, NHS Fife, Dunfermline KY12 0SU, Fife, United Kingdom. Additional authors for this research include K. Welch, A. Andras and F.M. Chappell.

Keywords for this news article include: Fife, United Kingdom, Europe, Cardiology, Article Review, Diagnostics and Screening, Peripheral Artery Disease, Angiography, Leg Pain, Queen Margaret Hospital.

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Nutritional and Metabolic Diseases and Conditions – …

**Recent Research from Research Institute Highlight Findings in Type 1 Diabetes Mellitus (The role of FOXP3 in autoimmunity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus. According to news reporting originating from Vancouver, Canada, by NewsRx correspondents, research stated, "FOXP3 controls the development and function of T regulatory cells (Tregs). Autoimmunity is linked to changes in FOXP3 activity that can occur at multiple levels and lead to Treg dysfunction."

Financial supporters for this research include Canadian Institutes for Health Research, The Canucks for Kids Foundation, JDRF.

Our news editors obtained a quote from the research from Research Institute, "For example, changes in IL-2 signaling, FOXP3 transcription and/or post-translational modifications can all contribute to loss of self-tolerance. As additional pathways of FOXP3 regulation are elucidated, new therapeutic approaches to increase Treg activity either by cell therapy or pharmacological intervention are being tested."

According to the news editors, the research concluded: "Early success from pioneering studies of Treg-based therapy in transplantation has promoted the undertaking of similar studies in autoimmunity, with emerging evidence for the effectiveness of these approaches, particularly in the context of type 1 diabetes."

For more information on this research see: The role of FOXP3 in autoimmunity. *Current Opinion in Immunology*, 2016;43():16-23. *Current Opinion in Immunology* can be contacted at: Current Biology Ltd, 84 Theobalds Rd, London WC1X 8RR, England. (Elsevier - www.elsevier.com; Current Opinion in Immunology - www.journals.elsevier.com/current-opinion-in-immunology/)

The news editors report that additional information may be obtained by contacting M.K. Levings, BC Childrens Hosp, Res Inst, Vancouver, BC, Canada. Additional authors for this research include L. Cook and M.K. Levings.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.coi.2016.07.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Type 1 Diabetes Mellitus, Autoimmune Diseases and Conditions, Article Review, Immunology, Nutritional and Metabolic Diseases and Conditions, Insulin Dependent Diabetes Mellitus, Risk and Prevention, Type 1 Diabetes, Genetics, Research Institute.

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Vinyl Compounds
Recent Research from Southeast University Highlight Findings in Vinyl Compounds (Use of polyvinylpyrrolidone-iodine solution for sterilisation and preservation improves mechanical properties and osteogenesis of allografts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Vinyl Compounds are discussed in a new report. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Allografts eliminate the disadvantages associated with autografts and synthetic scaffolds but are associated with a disease-transmission risk. Therefore, allograft sterilisation is crucial."

Our news journalists obtained a quote from the research from Southeast University, "We aimed to determine whether polyvinylpyrrolidone-iodine (PVP-I) can be used for sterilisation and as a new wet-preservation method. PVP-I-sterilised and preserved allografts demonstrated improved mechanical property, osteogenesis, and excellent microbial inhibition. A thigh muscle pouch model of nude mice showed that PVP-I-preserved allografts demonstrated better ectopic formation than Co-60-sterilised allografts (control) in vivo (P < 0.05). Furthermore, the PVP-I-preserved group showed no difference between 24 h and 12 weeks of allograft preservation (P > 0.05). PVP-I-sterilised allografts showed more hydrophilic surfaces and PVP-I-sterilised tendons showed higher mechanical strength than Co-60-sterilised tendons (P < 0.05). The level of residual PVP-I was higher without washing and with prolonged preservation (P < 0.05). In vitro cellular tests showed that appropriate PVP-I concentration was nontoxic to preosteoblast cells, and cellular differentiation measured by alkaline phosphatase activity and osteogenic gene markers was enhanced (P < 0.05)."

According to the news editors, the research concluded: "Therefore, the improved biological performance of implanted allografts may be attributable to better surface properties and residual PVP-I, and PVP-I immersion can be a simple, easy method for allograft sterilisation and preservation."

For more information on this research see: Use of polyvinylpyrrolidone-iodine solution for sterilisation and preservation improves mechanical properties and osteogenesis of allografts. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from Y.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Organic Chemicals, Vinyl Compounds, Hydrocarbons, Polyvinyls, Halogens, Polyenes, Iodine, Southeast University.

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**Oncology - Carcinoma Ex Pleomorphic Adenoma**

**Recent Research from State University Highlight Findings in Carcinoma Ex Pleomorphic Adenoma (Carcinoma ex-pleomorphic adenoma derived from recurrent pleomorphic adenoma shows important difference by array CGH compared to recurrent pleomorphic ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Carcinoma Ex Pleomorphic Adenoma are presented in a new report. According to news reporting originating from Campinas, Brazil, by NewsRx correspondents, research stated, "A key step of cancer development is the progressive accumulation of genomic changes resulting in disruption of several biological mechanisms. Carcinoma ex-pleomorphic adenoma (CXPA) is an aggressive neoplasm that arises from a pleomorphic adenoma."

Our news editors obtained a quote from the research from State University, "CXPA derived from a recurrent PA (RPA) has been rarely reported, and the genomic changes associated with these tumors have not yet been studied. We analyzed CXPA from RPAs and RPAs without malignant transformation using array comparative genomic hybridization (array-CGH) to identify somatic copy number alterations and affected genes. DNA samples extracted from FFPE tumors were submitted to array-CGH investigation, and data was analyzed by Nexus Copy Number Discovery Edition v.7. No somatic copy number alterations were found in RPAs without malignant transformation. As for CXPA from RPA, although genomic profiles were unique for each case, we detected some chromosomal regions that appear to be preferentially affected by copy number alterations. The first case of CXPA-RPA (frankly invasive myoepithelial carcinoma) showed copy number alterations affecting 1p36.33p13, 5p and chromosomes 3 and 8. The second case of CXPA-RPA (frankly invasive epithelial-myop epithelial carcinoma) showed several alterations at chromosomes 3, 8, and 16, with two amplifications at 8p12p11.21 and 12q14.3q21.2. The third case of CXPA-RPA (minimally invasive epithelial-myop epithelial carcinoma) exhibited amplifications at 12q13.3q14.1, 12q14.3, and 12q15."

According to the news editors, the research concluded: "The occurrence of gains at chromosomes 3 and 8 and genomic amplifications at 8p and 12q, mainly those encompassing the HMGA2, MDM2, WIF1, WHSC1L1, LIRG3, CDK4 in CXAP from RPA can be a significant promotional factor in malignant transformation."

For more information on this research see: Carcinoma ex-pleomorphic adenoma derived from recurrent pleomorphic adenoma shows important difference by array CGH compared to recurrent pleomorphic adenoma without malignant transformation. *Brazilian*
Recent Research from Tabriz University of Medical Sciences Highlight Findings in Acute Chest Syndrome (Blood transfusions for treating acute chest syndrome in people with sickle cell disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Acute Chest Syndrome is now available. According to news originating from Tabriz, Iran, by NewsRx correspondents, research stated, "Sickle cell disease is an inherited autosomal recessive blood condition and is one of the most prevalent genetic blood diseases worldwide. Acute chest syndrome is a frequent complication of sickle cell disease, as well as a major cause of morbidity and the greatest single cause of mortality in children with sickle cell disease."

Our news journalists obtained a quote from the research from the Tabriz University of Medical Sciences, "Standard treatment may include intravenous hydration, oxygen as treatment for hypoxia, antibiotics to treat the infectious cause and blood transfusions may be given. This is an update of a Cochrane review first published in 2010. To assess the effectiveness of blood transfusions, simple and exchange, for treating acute chest syndrome by comparing improvement in symptoms and clinical outcomes against standard care. Search methods We searched The Cochrane Cystic Fibrosis and Genetic Disorders Group’s Haemoglobinopathies Trials Register, which comprises references identified from comprehensive electronic database searches and handsearching of relevant journals and abstract books of conference proceedings. Date of the most recent search: 25 April 2016. Selection criteria Randomised controlled trials and quasi-randomised controlled trials comparing either simple or exchange transfusion versus standard care (no transfusion) in people with sickle cell disease suffering from acute chest syndrome. Data collection and analysis Both authors independently selected trials and assessed the risk of bias, no data could be extracted. One trial was eligible for inclusion in the review. While in the multicentre trial 237 people were enrolled (169 SCC, 42 SC, 15 S beta degrees - thalassemia, 11S beta(+)thalassemia); the majority were recruited to an observational arm and only ten participants met the inclusion criteria for randomisation. Of these, four were randomised to the transfusion arm and received a single transfusion of 7 to 13 ml/kg packed red blood cells, and six were randomised to standard care.
None of the four participants who received packed red blood cells developed acute chest syndrome, while 33% (two participants) developed acute chest syndrome in standard care arm. No data for any pre-defined outcomes were available. Authors' conclusions We found only one very small randomised controlled trial; this is not enough to make any reliable conclusion to support the use of blood transfusion. Whilst there appears to be some indication that chronic blood transfusion may play a roll in reducing the incidence of acute chest syndrome in people with sickle cell disease and albeit offering transfusions may be a widely accepted clinical practice, there is currently no reliable evidence to support or refute the perceived benefits of these as treatment options; very limited information about any of the potential harms associated with these interventions or indeed guidance that can be used to aid clinical decision making. Clinicians should therefore base any treatment decisions on a combination of; their clinical experience, individual circumstances and the unique characteristics and preferences of adequately informed people with sickle cell disease who are suffering with acute chest syndrome."

According to the news editors, the research concluded: "This review highlights the need of further high quality research to provide reliable evidence for the effectiveness of these interventions for the relief of the symptoms of acute chest syndrome in people with sickle cell disease."

For more information on this research see: Blood transfusions for treating acute chest syndrome in people with sickle cell disease. *Cochrane Database of Systematic Reviews*, 2016;(8):2414-2431. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from S. Dastgiri, Tabriz Univ Med Sci, Tabriz Hlth Serv Management Res Center, Tabriz 5166615739, Iran.

Keywords for this news article include: Tabriz, Iran, Asia, Hemic and Lymphatic Diseases and Conditions, Respiratory Tract Diseases and Conditions, Hematologic Diseases and Conditions, Biological Therapy, Article Review, Lung Diseases and Conditions, Clinical Trials and Studies, Respiration Disorders, Transfusion Medicine, Acute Chest Syndrome, Hemoglobinopathies, Sickle Cell Anemia, Blood Transfusion, Clinical Research, Congenital Anemia, Medical Devices, Thalassemia, Hematology, Hemolytic, Genetics, Tabriz University of Medical Sciences.

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**Genetics**

**Recent Research from Technical University Highlight Findings in Genetics (Design of a molecular support for cryo-EM structure determination)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Genetics is the subject of a report. According to news reporting from Garching, Germany, by NewsRx journalists, research stated, "Despite the recent rapid progress in cryo-electron microscopy (cryo-EM), there still exist ample opportunities for improvement in sample preparation. Macromolecular complexes may disassociate or adopt nonrandom orientations against the extended air-water interface that exists for a short time
before the sample is frozen."

Funders for this research include EMBO, Deutsche Forschungsgemeinschaft (DFG), EC | European Research Council (ERC), Medical Research Council (MRC).

The news correspondents obtained a quote from the research from Technical University, "We designed a hollow support structure using 3D DNA origami to protect complexes from the detrimental effects of cryo-EM sample preparation. For a first proof-of-principle, we concentrated on the transcription factor p53, which binds to specific DNA sequences on double-stranded DNA. The support structures spontaneously form monolayers of preoriented particles in a thin film of water, and offer advantages in particle picking and sorting. By controlling the position of the binding sequence on a single helix that spans the hollow support structure, we also sought to control the orientation of individual p53 complexes. Although the latter did not yet yield the desired results, the support structures did provide partial information about the relative orientations of individual p53 complexes. We used this information to calculate a tomographic 3D reconstruction, and refined this structure to a final resolution of similar to 15 angstrom."

According to the news reporters, the research concluded: "This structure settles an ongoing debate about the symmetry of the p53 tetramer bound to DNA."


Our news journalists report that additional information may be obtained by contacting H. Dietz, Technical University of Munich, Walter Schottky Inst, Dept. of Phys, D-85748 Garching, Germany. Additional authors for this research include T.A.M. Bharat, A.C. Joerger, X.C. Bai, F. Praetorius, A.R. Fersht, H. Dietz and S.H.W. Scheres.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1612720113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Garching, Germany, Europe, Genetics, p53 Gene, Technical University.

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Bone Research

Recent Research from Tokyo Medical and Dental University Highlight Findings in Bone Research (Supramolecular inclusion complexation of simvastatin with methylated beta-cyclodextrins for promoting osteogenic differentiation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Bone Research are discussed in a new report. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Statins are recognized as a potential candidate to induce the regeneration of bone. However,
Statins are a strongly hydrophobic drug and it is difficult to administer at the local sites."

The news correspondents obtained a quote from the research from Tokyo Medical and Dental University, "In this study, the inclusion complexes of simvastatin (SV) with hydroxypropyl-beta-cyclodextrin (HP-beta-CD) and randomly methylated beta-cyclodextrin (RM-beta-CD) were prepared to improve the water-solubility and the osteogenic differentiation ability of the inclusion complexes in MC3T3-E1 cells was investigated. The water-solubility of SV increased linearly upon the addition of both HP-beta-CD and RM-beta-CD, due to the formation of inclusion complexes. The osteogenic differentiation ability of the inclusion complexes were evaluated by the production of alkaline phosphatase (ALP) and late stage osteogenetic gene expression in MC3T3-E1 cells after 14 days of culture. As a result, the RM-beta-CD/SV inclusion complexes showed significantly higher ALP production and the expression of bone sialoprotein (BSP) and osteocalcin (OCN) than the untreated and free SV-treated cells. Additionally, the production of bone morphogenetic protein-2 (BMP-2) from MC3T3-E1 cells after the treatment with RM-beta-CD/SV inclusion complexes was significantly higher than the untreated and free SV-treated cells."

According to the news reporters, the research concluded: "Accordingly, it is concluded that the inclusion complexation of SV with RM-beta-CD is a potential formulation for bone regenerative therapy to improve water-solubility and osteodifferentiation efficiency."


Our news journalists report that additional information may be obtained by contacting A. Tamura, Tokyo Medical & Dental University, Inst Biomat & Bioengn, Dept. of Organ Biomat, Chiyoda Ku, Tokyo 1010062, Japan. Additional authors for this research include T. Inada, A. Tonegawa, A. Tamura, S. Yamaguchi, K. Harada and N. Yui.

Keywords for this news article include: Tokyo, Japan, Asia, Antihyperlipidemic Agents, Emerging Technologies, Drugs and Therapies, Simvastatin Therapy, Pharmaceuticals, Supramolecular, Nanotechnology, Bone Research, Lovastatin, Tokyo Medical and Dental University.

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Oncology - Colon Cancer

Recent Research from Tokyo University of Agriculture and Technology Highlight Findings in Colon Cancer (Transcriptome and long noncoding RNA sequencing of three extracellular vesicle subtypes released from the human colon cancer LIM1863 cell ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Previously we reported that LIM1863 colorectal cancer (CRC) cells secrete three distinct extracellular vesicle
subtypes - two subpopulations of exosomes (apical EpCAM-Exos and basolateral A33-Exos) and shed microvesicles (sMVs) - with distinct protein and miRNA signatures. Here, we extend our omics approach to understand the fundamental role of LIM1863-derived EVs by performing a comprehensive analysis of their mRNAs and long non-coding RNAs (lncRNAs) using RNA-Seq."

Our news journalists obtained a quote from the research from the Tokyo University of Agriculture and Technology, "We show that 2,389 mRNAs, 317 pseudogene transcripts, 1,028 lncRNAs and 206 short non-coding RNAs selectively distributed to (i.e., are enriched in) LIM1863 EVs, relative to the parent cell. An Ensembl/UniProtKB analysis revealed 1,937 mRNAs encode canonical proteins, 348 isoforms (including splice-variant proteins), and 119 'missing proteins' (i.e., annotated in Ensembl but not UniProtKB). Further dissection of our protein/RNA data revealed that 6/151 observed RNA binding proteins have the potential to interact with similar to 75% of EV-enriched RNAs. Intriguingly, the co-existence of U1 and U2 ribonucleoproteins and their cognate snRNAs in LIM1863 EVs suggests a possible association of CRC EVs with recipient cell splicing events."

According to the news editors, the research concluded: "Our data reveal several potential lncRNA CRC biomarkers and novel splicing/fusion genes that, collectively, will advance our understanding of EV biology in CRC and accelerate the development of EV-based diagnostics and therapeutics."

For more information on this research see: Transcriptome and long noncoding RNA sequencing of three extracellular vesicle subtypes released from the human colon cancer LIM1863 cell line. Scientific Reports, 2016;6():1-14. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting R.J. Simpson, Tokyo University of Agriculture & Technology, Global Innovat Res Organization, Tokyo, Japan. Additional authors for this research include R. Xu, H. Ji, D.W. Greening, A. Rai, K. Izumikawa, H. Ishikawa, N. Takahashi and R.J. Simpson.

Keywords for this news article include: Tokyo, Japan, Asia, Colon Cancer, Cell Line, Oncology, Genetics, Tokyo University of Agriculture and Technology.

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Recent Research from Umea University Highlight Findings in Head and Neck Cancer (Motives that head and neck cancer patients have for contacting a specialist nurse - an empirical study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Head and Neck Cancer have been presented. According to news reporting out of Umea, Sweden, by NewsRx editors, research stated, "Aims and objectives. The purpose of this study is to systematically explore the motives for patients with head and neck cancer to contact a specialist nurse during two years postdiagnosis."

Funders for this research include Cancerfonden, Swedish Laryng Foundation, Cancer Research Foundation in Northern Sweden.

Our news journalists obtained a quote from the research from Umea University,
"Research focusing on the role of specialist nurses in cancer care almost exclusively concern cancers other than head and neck cancer. Qualitative, descriptive study based on the contacts between patients with head and neck cancer and a specialist nurse. Patients were invited to contact a specialist nurse by telephone. The specialist nurse took systematic field notes, that is, she registered who contacted her, the nature of the call and the outcome. Sixty patients were included. In descending order, the motives for contact were questions about practical and uncomplicated matters, consultations about medical troubles/worries, presenting a report of the patient's situation, requests for additional information about the treatment plan and requests for medical information. The pattern of the patients' motivations for calling was not related to medical or social factors, suggesting that the initiative to make contact is very much a question of the complexity of individual life circumstances. Very few referrals were sent from the specialist nurse to other professionals. The specialist nurse turned out to be more than just a coordinator of health-care resources. The findings bring up questions about the potential of the nurse's function as a coordinator, but also as a potential attachment figure, and questions about the nurse's relationships to other professionals. Relevance to clinical practice. When implementing a specialist nurse function, it is important to decide whether the function should be inspired by a broader relational perspective."

According to the news editors, the research concluded: "In addition to the indispensible competence and experience in the clinical field of head and neck cancer, training in counselling and acquaintance with object-relational psychology will then be desirable."


Our news journalists report that additional information may be obtained by contacting P. Salander, Umea University, Dept. of Social Work, S-90187 Umea, Sweden. Additional authors for this research include J. Isaksson, B. Granstrom and G. Laurell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13283. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Umea, Sweden, Europe, Head and Neck Neoplasms, Head and Neck Cancer, Oncology, Umea University.

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**Platinum Compounds**

**Recent Research from University of Algarve Highlight Findings in Platinum Compounds (Ecotoxicological assessment of the anticancer drug cisplatin in the polychaete Nereis diversicolor)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Platinum Compounds is the subject of a report.

According to news reporting from Faro, Portugal, by NewsRx journalists, research stated, "Anticancer drugs are designed to inhibit tumor cell proliferation by interacting with DNA and altering cellular growth factors. When released into the waterbodies of municipal and hospital
effluents these pharmaceutical compounds may pose a risk to non-target aquatic organisms, due to their mode of action (cytotoxic, genotoxic, mutagenic and teratogenic)."

Financial support for this research came from National Council for Scientific and Technological Development.

The news correspondents obtained a quote from the research from the University of Algarve, "The present study aimed to assess the ecotoxicological potential of the alkylating agent cisplatin (CisPt) to the polychaete Nereis diversicolor, at a range of relevant environmental concentrations (i.e. 0.1, 10 and 100 ng Pt L-1). Behavioural impairment (burrowing kinetic impairment), ion pump effects (SR Ca2+-ATPase), neurotoxicity (AChE activity), oxidative stress (SOD, CAT and GPXs activities), metal exposure (metallothionein-like proteins - MTLP), biotransformation (GST), oxidative damage (LPO) and genotoxicity (DNA damage), were selected as endpoints to evaluate the sublethal responses of the ragworms after 14-days of exposure in a water-sediment system. Significant burrowing impairment occurred in worms exposed to the highest CisPt concentration (100 ng Pt L-1) along with neurotoxic effects. The activity of antioxidant enzymes (SOD, CAT) and second phase biotransformation enzyme(GST) was inhibited but such effects were compensated by MTLP induction. Furthermore, LPO levels also increased."

According to the news reporters, the research concluded: "Results showed that the mode of action of cisplatin may pose a risk to this aquatic species even at the range of ng L-1."


Our news journalists report that additional information may be obtained by contacting M.J. Bebianno, University of Algarve, Center Marine & Environm Res, CIMA, P-8005135 Faro, Portugal. Additional authors for this research include M.B. Morais, T. Rocha, D.M.S. Abessa, M. Aureliano and M.J. Bebianno.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.scitotenv.2016.09.185. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Faro, Portugal, Europe, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Alkylating Agents, Antineoplastics, Cisplatin, University of Algarve.

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Hodgkin Lymphoma. According to news reporting originating in Los Angeles, California, by NewsRx journalists, research stated, "MicroRNAs, small non-coding RNAs involved in gene regulation, are implicated in lymphomagenesis. We evaluated whether genetic variations in microRNA coding regions, binding sites, or biogenesis genes (collectively referred to as miRNA-SNPs) were associated with risk of AIDS-associated non-Hodgkin lymphoma (AIDS-NHL), and serum levels of four lymphoma-related microRNAs."

Funders for this research include National Institutes of Health, UCLA AIDS Institute.

The news reporters obtained a quote from the research from the University of California, "Twenty-five miRNA-SNPs were genotyped in 180 AIDS-NHL cases and 529 HIV-infected matched controls from the Multicenter AIDS Cohort Study (MACS), and real-time polymerase chain reaction was used to quantify serum microRNA levels. Adjusted odds ratios (ORs) estimated using conditional logistic regression evaluated associations between miRNA-SNPs and AIDS-NHL risk. A semi-Bayes shrinkage approach was employed to reduce likelihood of false-positive associations. Adjusted mean ratios (MR) calculated using linear regression assessed associations between miRNA-SNPs and serum microRNA levels. DDX20 rs197412, a non-synonymous miRNA biogenesis gene SNP, was associated with AIDS-NHL risk (OR = 1.34 per minor allele; 95% CI: 1.02-1.75), and higher miRNA-222 serum levels nearing statistical significance (MR = 1.21 per minor allele; 95% CI: 0.98-1.49). MiRNA-196a2 rs11614913 was associated with decreased central nervous system (CNS) AIDS-NHL (CT vs. CC OR = 0.52; 95% CI: 0.27-0.99). The minor allele of HIF1A rs2057482, which creates a miRNA-196a2 binding site, was associated with systemic AIDS-NHL risk (OR = 1.73 per minor allele; 95% CI: 1.12-2.67), and decreased CNS AIDS-NHL risk (OR = 0.49 per minor allele; 95% CI: 0.25-0.94). This study suggests that a few miRNA-SNPs are associated with AIDS-NHL risk and may modulate miRNA expression."

According to the news reporters, the research concluded: "These results support a role for miRNA in AIDS-NHL and may highlight pathways to be targeted for risk stratification or therapeutics."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Lymphatic Diseases and Conditions, HIV/AIDS and Non-Hodgkin Lymphoma, Immunoproliferative Disorders, Lymphoproliferative Disorders, Opportunistic Infections, Lymphomas, Epidemiology, Central Nervous System, Hematology, Oncology, Genetics, University of California.

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Nanotechnology - Nanoparticles

Recent Research from University of Coimbra Highlight Findings in Nanoparticles (Can lipid nanoparticles improve intestinal absorption?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nanotechnology - Nanoparticles have been presented. According to news reporting originating in Coimbra, Portugal, by NewsRx journalists, research stated, "Lipid nanoparticles and their multiple designs have been considered appealing nanocarrier systems. Bringing the benefits of these nanosystems together with conventional coating technology clearly results in product differentiation."

Financial support for this research came from Fundacao para a Ciencia e a Tecnologia.

The news reporters obtained a quote from the research from the University of Coimbra, "This work aimed at developing an innovative solid dosage form for oral administration based on tableting nanostructured lipid carriers (NLC), coated with conventional polymer agents. NLC dispersions co-encapsulating olanzapine and simvastatin (Combo-NLC) were produced by high pressure homogenization, and evaluated in terms of scalability, drying procedure, tableting and performance from in vitro release, cytotoxicity and intestinal permeability stand points. Factorial design indicated that the scaling-up of the NLC production is clearly feasible. Spray-drying was the method selected to obtain dry particles, not only because it consists of a single step procedure, but also because it facilitates the coating process of NLC with different polymers. Modified NLC formulations with the polymers allowed obtaining distinct release mechanisms, comprising immediate, delayed and prolonged release. Sureteric: Combo-NLC provided a low cytotoxicity profile, along with a ca. 12-fold OL/3-fold SV higher intestinal permeability, compared to those obtained with commercial tablets."

According to the news reporters, the research concluded: "Such findings can be ascribed to drug protection and control over release promoted by NLC, supporting them as a versatile platform able to be modified according to the intended needs."


Our news correspondents report that additional information may be obtained by contacting C. Vitorino, University of Coimbra, Fac Pharm, Polo Ciencias Saude, P-3000548 Coimbra, Portugal. Additional authors for this research include H.T. Soares, L.G. Arnaut, J.J. Sousa, A. Pais and C. Vitorino.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.09.065. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Coimbra, Portugal, Europe, Nanoparticles, Emerging Technologies, Nanotechnology, Nanoparticle, University of Coimbra.

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Recent Research from University of Heidelberg Highlight Findings in Information and Data Modeling (Comparative evaluation of methods approximating drug prescription durations in claims data: modeling, simulation, and application to real data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Information Technology - Information and Data Modeling. According to news reporting originating in Heidelberg, Germany, by NewsRx journalists, research stated, "The purpose of this study was to compare the predictive accuracy of different methods suggested for approximation of drug prescription durations in claims data. We expanded a well-established modeling and simulation framework to compare approximated drug prescription durations with 'true' (i.e., simulated) durations."

The news reporters obtained a quote from the research from the University of Heidelberg, "Real claims data of persons aged >= 65 years insured by the German nationwide 'Statutory Health Insurance Fund' AOK between 2010 and 2012 provided empiric input parameters that were completed with missing information on actual dosing patterns from an observational cohort. The distinct approximation methods were based on crude measures (one tablet a day), population-averaged measures (defined daily doses), or individually-derived measures (longitudinal coverage approximation of the applied dose, COV). As a proof-of-principle, we assessed the methods' performance to predict the well-characterized bleeding risks of anticoagulant, antiplatelet, and/or non-steroidal anti-inflammatory drugs. When applied to modeling and simulation data sets, the closest, least biased, and thus most accurate approximation was observed using the COV approximation. In a real-data example, rather similar results to an external reference were obtained for all methods. However, some of the differences between methods were meaningful, and the most reasonable and consistent results were obtained with the COV approach. Based on theoretically most accurate approximations and practically reasonable estimates, the individual COV approach was preferable over the population-averaged defined daily dose technique, although the latter might be justified in certain situations."

According to the news reporters, the research concluded: "Advantages of the COV approach are expected to be even bigger for drug therapies with particularly large dosing heterogeneity."

For more information on this research see: Comparative evaluation of methods approximating drug prescription durations in claims data: modeling, simulation, and application to real data. *Pharmacoepidemiology and Drug Safety*, 2016;25(12):1434-1442.


Our news correspondents report that additional information may be obtained by contacting A.D. Meid, Heidelberg Univ, Dept. of Clin Pharmaco & Pharmacoepidemiol, D-69120 Heidelberg, Germany. Additional authors for this research include D. Heider, J.B. Adler, R. Quinzler, H. Brenner, C. Gunster, H.H. Konig and W.E. Haefeli.

Keywords for this news article include: Heidelberg, Germany, Europe, Drug Prescriptions, Drugs and Therapies, Epidemiology, Risk and Prevention, Information and Data Modeling, Information Technology, University of Heidelberg.
Recent Research from University of Malaysia Highlight Findings in Blood Coagulation Factors (Aptamer-based impedimetric determination of the human blood clotting factor IX in serum using an interdigitated electrode modified with a ZnO nanolayer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Blood Coagulation Factors. According to news reporting out of Arau, Malaysia, by NewsRx editors, research stated, "This article describes a sensitive impedimetric method for the determination of human blood coagulation factor IX protein (FIX) which is present in extremely low concentration in serum. An interdigitated electrode (IDE) whose surface was layered with zinc oxide was modified with two kinds of probes."

Funders for this research include UM-HIR grant, UM-HIR.

Our news journalists obtained a quote from the research from the University of Malaysia, "One is an antibody, the other an aptamer against FIX. A comparative study between anti-FIX aptamer and anti-FIX antibody showed the aptamer to possess higher affinity for FIX. A sandwich aptamer assay was worked out by using the FIX-binding aptamer on the surface of the IDE. It has a detection limit as low as 10 pM which makes it 4 to 30-fold more sensitive than any other method reported for FIX. Moreover, to practice detection in clinical samples, FIX was detected from the human blood serum by spiking."

According to the news editors, the research concluded: "In our perception, the sensitivity of the ZnO-modified IDE presented here makes it a promising tool for sensing clinically relevant analytes that are present in very low (sub-pM) concentrations."

For more information on this research see: Aptamer-based impedimetric determination of the human blood clotting factor IX in serum using an interdigitated electrode modified with a ZnO nanolayer. Microchimica Acta, 2017;184(1):117-125. Microchimica Acta can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria. (Springer - www.springer.com; Microchimica Acta - www.springerlink.com/content/0026-3672/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00604-016-2001-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Arau, Malaysia, Asia, Blood Coagulation Factors, Hematology, Factor IX, University of Malaysia.

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Recent Research from University of Maryland Highlight Findings in Staph Infections [Staphylococcal chromosomal cassettes mec (SCCmec): A mobile genetic element in methicillin-resistant Staphylococcus aureus]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Staph Infections have been published. According to news reporting originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Considered to be a potential 'superbug', methicillin-resistant Staphylococcus aureus (MRSA) has been one of the major recent infectious pathogens and thus poses a challenge to hospital infection control. The mobile genetic element staphylococcal chromosomal cassette mec (SCCmec) carries both the mecA or mecC gene, encoding for a novel specific penicillin-binding protein (PBP2a), and site-specific recombinase genes ccrAB orfand ccrC."

Financial supporters for this research include National 973-Plan of China, National Natural Science Foundation of China, International Science & Technology Cooperation Program, National Outstanding Doctoral Dissertation Funding, Guangdong Outstanding Doctoral Dissertation Funding, State Key Laboratory of Food Science and Technology, Jiangnan University, Key Laboratory for Green Chemical Process of Ministry of Education in Wuhan Institute of Technology.

Our news editors obtained a quote from the research from the University of Maryland, "In MRSA, the acquisition of SCCmec leads to the resistance to the beta-lactam antibiotics. As SCCmec plays a core role in the antimicrobial resistance characteristics, molecular epidemiology and evolution of MRSA, a thorough summary and comprehensive understanding of the prevalence and structural characteristics of SCCmec may aid in global surveillance, implementation and investigation on MRSA isolates, as well as further development of preventive and therapeutic approaches."

According to the news editors, the research concluded: "Consequently, this review is aimed at describing the history, prevalence, types and subtypes, and current typing methods of SCCmec, with the focus on the typical structures of the SCCmec cassette."


The news editors report that additional information may be obtained by contacting Z.B. Xu, University of Maryland, Sch Dental, Dept. of Microbial Pathogenesis, Baltimore, MD 21201, United States. Additional authors for this research include D.Q. Chen, B.M. Peters, L. Li, B. Li, Z.B. Xu and M.E. Shirliff.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.micpath.2016.10.028. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Methicillin-Resistant Staphylococcus aureus, Gram-Positive Endospore-Forming Rods, Drugs and Therapies, Epidemiology, Endospore-Forming Bacteria,
Recent Research from University of Nebraska Highlight Findings in Squamous Cell Carcinoma (Comparison of outcomes between rectal squamous cell carcinoma and adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Squamous Cell Carcinoma are discussed in a new report. According to news reporting originating in Omaha, Nebraska, by NewsRx journalists, research stated, "Large, population-based analyses of rectal squamous cell carcinoma (SCC) have not been previously conducted. We assessed patterns of care, prognostic factors, and outcomes of rectal SCC and adenocarcinoma (AC) in population-based cohorts."

The news reporters obtained a quote from the research from the University of Nebraska, "Surveillance, Epidemiology, and End Results (SEER) registry searches were performed (1998-2011), producing 42,308 nonmetastatic rectal cancer patients (999 SCC and 41,309 AC). tumor, and treatment characteristics were compared. Based on risk factors, SCC/AC groups were subdivided into low-, intermediate-, and high-risk groups. Overall survival (OS) was compared between histological and risk groups using Kaplan-Meier method and log-rank test. Multivariate logistic regression models evaluated prognostic factors for 5-year survival. Cox regression modeling was performed on propensity-matched data. Rectal SCC, more common in females and associated with larger tumors of higher grade, was more often treated with radiotherapy (RT) than surgery. Surgery was associated with higher OS in AC but not SCC, and RT had proportionally greater benefits in SCC. These effects of RT and surgery were retained when stratified into risk groups (particularly high/intermediate-risk). Favorable prognostic factors for survival included younger age, non-black race, SCC histology, size <= 3.9 cm, localized stage, lower grade, surgery, and RT. For SCC, race, tumor grade, and surgery were not prognostic factors for survival. Cox regression modeling of propensity-matched data showed that AC histology increased risk of death versus SCC."

According to the news reporters, the research concluded: "In the largest analysis of rectal SCC to date, and in the notable absence (and likelihood) of prospective data, nonsurgical and RT-based treatment is recommended."


Our news correspondents report that additional information may be obtained by contacting C. Lin, Univ Nebraska Med Center, Dept. of Radiat Oncol, Omaha, NE 68198, United States. Additional authors for this research include V. Verma, N.R. Bennion, A.R. Bhirud, J.L. Li, M.E. Charlton, C. Are and C. Lin.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.927. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Omaha, Nebraska, United States, North and Central America, Histology, Epidemiology, Risk and Prevention, Squamous Cell Carcinoma, Adenocarcinoma, Carcinomas, Oncology, Surgery, University of Nebraska.

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Nutritional and Metabolic Diseases and Conditions –

Recent Research from University of Otago Highlight Findings in Type 2 Diabetes (The Type 2 Diabetic Heart: Its Role in Exercise Intolerance and the Challenge to Find Effective Exercise Interventions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are presented in a new report. According to news reporting originating in Dunedin, New Zealand, by NewsRx journalists, research stated, "The metabolic and microvascular benefits of regular exercise for people with diabetes are unequivocal."

The news reporters obtained a quote from the research from the University of Otago, "However, cardiovascular disease, which disproportionately affects people with diabetes, is not reduced by regular exercise, and heart disease remains the leading cause of death for people with type 2 diabetes. 'Subclinical' changes in the function of the diabetic left ventricle are common and reduce cardiac reserve and exercise capacity."

According to the news reporters, the research concluded: "This review describes the changes in resting and exercising left ventricular function, and the possible causes of these changes, and introduces the possibility that more vigorous exercise may be needed to improve left ventricular function and reduce rates of cardiovascular disease in people with type 2 diabetes."

For more information on this research see: The Type 2 Diabetic Heart: Its Role in Exercise Intolerance and the Challenge to Find Effective Exercise Interventions. Sports Medicine, 2016;46(11):1605-1617. Sports Medicine can be contacted at: Adis Int Ltd, 5 The Warehouse Way, Northcote 0627, Auckland, New Zealand. (Lippincott Williams and Wilkins - www.lww.com; Sports Medicine - journals.lww.com/sportsmedarthro/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting J.C. Baldi, University of Otago, Dept. of Med HeartOtago, Dunedin Sch Med, Dunedin, New Zealand. Additional authors for this research include G.A. Wilson, L.C. Wilson, G.T. Wilkins and R.R. Lamberts.

Keywords for this news article include: Dunedin, New Zealand, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Left Ventricular Function, Article Review, Non-Insulin Dependent Diabetes Mellitus, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Cardiovascular Diseases and Conditions, Risk and Prevention, Type 2 Diabetes, Endocrinology, Cardiology, University of Otago.

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Recent Research from University of Pittsburgh Highlight Findings in Chronic Pancreatitis [A Carboxyl Ester Lipase (CEL) Mutant Causes Chronic Pancreatitis by Forming Intracellular Aggregates That Activate Apoptosis]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Digestive System Diseases and Conditions - Chronic Pancreatitis is the subject of a report. According to news reporting out of Pittsburgh, Pennsylvania, by NewsRx editors, research stated, "Patients with chronic pancreatitis (CP) frequently have genetic risk factors for disease. Many of the identified genes have been connected to trypsinogen activation or trypsin inactivation."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from the University of Pittsburgh, "The description of CP in patients with mutations in the variable number of tandem repeat (VNTR) domain of carboxyl ester lipase (CEL) presents an opportunity to study the pathogenesis of CP independently of trypsin pathways. We tested the hypothesis that a deletion and frameshift mutation (C563fsX673) in the CEL VNTR causes CP through proteotoxic gain-of-function activation of maladaptive cell signaling pathways including cell death pathways. HEK293 or AR42J cells were transfected with constructs expressing CEL with 14 repeats in the VNTR (CEL14R) or C563fsX673 CEL (CEL maturity onset diabetes of youth with a deletion mutation in the VNTR (MODY)). In both cell types, CEL MODY formed intracellular aggregates. Secretion of CEL MODY was decreased compared with that of CEL14R. Expression of CEL MODY increased endoplasmic reticulum stress, activated the unfolded protein response, and caused cell death by apoptosis."

According to the news editors, the research concluded: "Our results demonstrate that disorders of protein homeostasis can lead to CP and suggest that novel therapies to decrease the intracellular accumulation of misfolded protein may be successful in some patients with CP."


Our news journalists report that additional information may be obtained by contacting M.E. Lowe, University of Pittsburgh, Medical Center, Children's Hospital of Pittsburgh, Dept. of Pediat, Pittsburgh, PA 15224, United States. Additional authors for this research include G. Jones, W.A. Sevilla, D.B. Stolz, K.E. Magee, M. Haughney, A. Mukherjee, Y. Wang and M.E. Lowe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.734384. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Apoptosis, Risk and Prevention, Carboxylic Ester Hydrolases, Enzymes and Coenzymes, Chronic Pancreatitis, Gastroenterology, Genetics, Lipase, University of...
Pittsburgh.

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**Oncology - Ovarian Cancer**

**Recent Research from University of Pittsburgh Highlight Findings in Ovarian Cancer (Symptom management in women with recurrent ovarian cancer: Do patients and clinicians agree on what symptoms are most important?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Ovarian Cancer are presented in a new report. According to news reporting originating in Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "We sought to compare symptoms identified as a priority by patients with recurrent ovarian cancer to symptoms most frequently documented by their clinicians, and examine the association between clinician documentation of symptoms and subsequent clinical intervention. Single-institution, retrospective chart review of patients enrolled in WRITE Symptoms Study (GOG 259), a randomized controlled trial of internet-based recurrent ovarian cancer symptom management."

The news reporters obtained a quote from the research from the University of Pittsburgh, "As part of the trial, women completed the Symptom Representation Questionnaire for 28 symptoms and selected 3 priority symptoms (PS). We compared patient-reported PS to clinician documentation of symptoms and interventions over the time period corresponding to study enrollment. At least one PS was documented in 92% of patients. Of 150 PS reported by patients, 53% were never documented by clinicians; these symptoms tended to be less directly related to disease or treatment status. Symptoms not identified by patients as PS were frequently documented by clinicians; these symptoms tended to relate to physiologic effects of disease and treatment toxicity. 58% of patients had at least one PS intervention. PS intervened for were documented at 2.58 visits vs 0.50 visits for PS not receiving intervention (p <= 0.0001). Discordance was identified between symptoms reported by patients as important and symptoms documented by clinicians. Symptoms more frequently documented were also more frequently intervened for."

According to the news reporters, the research concluded: "Our study illustrates the need to improve identification of symptoms important to patients, and suggests that improving communication between patients and clinicians could increase intervention rates to enhance quality of life in women with recurrent ovarian cancer."

For more information on this research see: Symptom management in women with recurrent ovarian cancer: Do patients and clinicians agree on what symptoms are most important? *Gynecologic Oncology*, 2016;143(2):367-370. *Gynecologic Oncology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news correspondents report that additional information may be obtained by contacting C.M. Hay, University of Pittsburgh, Medical Center, Magee Womens Hosp, Div Gynecol OncolDept Obst Gynecol & Reprod Sc, Pittsburgh, PA 15213, United States. Additional authors for this research include M. Courtney-Brooks, C. Lefkowits, T.L. Hagan,

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.08.235. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Women's Health, Ovarian Cancer, Gynecology, Oncology, University of Pittsburgh.

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**Oncology - Liver Metastasis**

**Recent Research from University of Tokyo Highlight Findings in Liver Metastasis (The innate immune receptor Dectin-2 mediates the phagocytosis of cancer cells by Kupffer cells for the suppression of liver metastasis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Metastasis have been published. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, “Tumor metastasis is the cause of most cancer deaths. Although metastases can form in multiple end organs, the liver is recognized as a highly permissive organ.”

Funders for this research include MEXT, Japan Agency for Medical Research and Development (A-MED).

The news correspondents obtained a quote from the research from the University of Tokyo, "Nevertheless, there is evidence for immune cell-mediated mechanisms that function to suppress liver metastasis by certain tumors, although the underlying mechanisms for the suppression of metastasis remain elusive. Here, we show that Dectin-2, a C-type lectin receptor (CLR) family of innate receptors, is critical for the suppression of liver metastasis of cancer cells. We provide evidence that Dectin-2 functions in resident macrophages in the liver, known as Kupffer cells, to mediate the uptake and clearance of cancer cells. Interestingly, Kupffer cells are selectively endowed with Dectin-2-dependent phagocytic activity, with neither bone marrow-derived macrophages nor alveolar macrophages showing this potential. Concordantly, subcutaneous primary tumor growth and lung metastasis are not affected by the absence of Dectin-2. In addition, macrophage C-type lectin, a CLR known to be complex with Dectin-2, also contributes to the suppression of liver metastasis."

According to the news reporters, the research concluded: "Collectively, these results highlight the hitherto poorly understood mechanism of Kupffer cell-mediated control of metastasis that is mediated by the CLR innate receptor family, with implications for the development of anticancer therapy targeting CLRs."

For more information on this research see: The innate immune receptor Dectin-2 mediates the phagocytosis of cancer cells by Kupffer cells for the suppression of liver metastasis. *Proceedings of the National Academy of Sciences of the United States of America*, 2016;113(49):14097-14102. *Proceedings of the National Academy of Sciences of the United States of America* can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC 20418, USA. (National Academy of Sciences - www.nasonline.org/; Proceedings of the National Academy of Sciences of the United States of America -
Our news journalists report that additional information may be obtained by contacting T. Taniguchi, Max Planck Univ Tokyo Center Integrat Inflammol, Tokyo 1538505, Japan. Additional authors for this research include A. Inoue, S. Hangai, S. Saijo, H. Negishi, J. Nishio, S. Yamasaki, Y. Iwakura, H. Yanai and T. Taniguchi.

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Keywords for this news article include: Tokyo, Japan, Asia, Mononuclear Phagocyte System, Hemic and Immune Systems, Connective Tissue Cells, Gastroenterology, Liver Metastasis, Myeloid Cells, Kupffer Cells, Phagocytosis, Macrophages, Immunology, Phagocytes, Hepatology, Oncology, Cancer, University of Tokyo.

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Chemistry - Coordination Chemistry

Recent Research from University of Wroclaw Highlight Findings in Coordination Chemistry (Harnessing the power of fungal siderophores for the imaging and treatment of human diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Chemistry - Coordination Chemistry have been published. According to news reporting out of Wroclaw, Poland, by NewsRx editors, research stated, "Innovative strategies are needed to address the current lack of clinically available antifungal drugs and for diagnostic techniques. 'Repurposing' of antifungal drugs, similar to techniques currently being utilized with 'older' antibacterial drugs in order to combat widespread resistance in the face of a dearth of new drugs, could prove beneficial. Although as yet very limited for fungi, a siderophore-based 'Trojan Horse' strategy, in the form of siderophore-antibiotic conjugates, siderophore-fluorescent probe conjugates, or Ga(III)-siderophore complexes, reveals potential clinical relevance and provides a strategy for targeting fungal infections through drug delivery, imaging, and in diagnostics."

Funders for this research include Polish National Science Centre, Wroclaw Centre of Biotechnology.

Our news journalists obtained a quote from the research from the University of Wroclaw, "The application of siderophores against pathogenic fungi is evolving but is still far from its full potential, and further studies are needed to demonstrate their advantages and limitations. One of the biggest obstacles in developing fungus-specific diagnostics and side-effects-free therapeutics is that apart from the fungal cell wall, fungi are metabolically similar to mammalian cells; thus, pathogen-specific targets are extremely limited. One of the few fundamental differences between fungal and mammalian cells lies in the iron acquisition system. The most common mechanism is mediated by small organic chelators siderophores, often essential for fungal virulence and pathogenicity. Fungi synthesize mainly hydroxamate-type siderophores, which are excreted into the environment, and bind ferric ions with high affinity and selectivity. Delivery of iron-loaded siderophores back to the pathogen occurs via specific membrane receptors and transport proteins. Natural siderophores are generally not species-specific; they exhibit broad-spectrum activity and can be recognized by various types of
microorganisms. Moreover, they generally miss proper sites for incorporating additional functionalities; e.g. fluorescent probes, surface-adhesive moieties or drug molecules, to be used for imaging and/or as therapeutic conjugates smuggled into microbial species via siderophore recognition and a 'Trojan Horse' strategy. Biomimetic analogues can overcome both these limitations and offer novel tools for both diagnostics and therapeutics.

According to the news editors, the research concluded: "Siderophore mimics with a narrow spectrum of activity offer the possibility of developing selective diagnostic tools, while those with broad-spectrum activity may find therapeutic applications as antifungal drug delivery tools."

For more information on this research see: Harnessing the power of fungal siderophores for the imaging and treatment of human diseases. *Coordination Chemistry Reviews*, 2016;327():84-109. *Coordination Chemistry Reviews* can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland. (Elsevier - www.elsevier.com; Coordination Chemistry Reviews - www.journals.elsevier.com/coordination-chemistry-reviews/)

Our news journalists report that additional information may be obtained by contacting E. Gumienna-Kontecka, University of Wroclaw, Fac Chem, Wroclaw, Poland. Additional authors for this research include E. Olshvang, A. Shanzer, P.L. Carver and E. Gumienna-Kontecka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ccr.2016.05.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wroclaw, Poland, Europe, Coordination Chemistry, Chemistry, Article Review, University of Wroclaw.

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**Lung Diseases and Conditions - Cystic Fibrosis**

**Recent Research from University of the South, Toulon-Var Highlight Findings in Cystic Fibrosis (The 1-Minute Sit-to-Stand Test in Adults With Cystic Fibrosis: Correlations With Cardiopulmonary Exercise Test, 6-Minute Walk Test, and Quadriceps ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Cystic Fibrosis is now available. According to news reporting out of Toulon, France, by NewsRx editors, research stated, "Exercise testing is part of the regular assessment of patients with cystic fibrosis (CF). We aimed to evaluate (1) the convergent validity of the 1-min sit-to-stand (STS) test in CF by investigating its relationships with peak oxygen uptake (peak V-O2), quadriceps strength, and quality of life and (2) to compare these associations with those of the 6-min walk test (6MWT)."

Our news journalists obtained a quote from the research from the University of the South, Toulon-Var, "Twenty-five adults with CF (FEV1 = 59 +/- 24%) performed the STS test, the 6MWT, quadriceps strength assessment, and cardiopulmonary exercise test (CPET). Physical activity level, quality of life, and self-esteem were assessed by questionnaires. STS repetitions, 6-min walk distance, quadriceps strength, and peak V-o2 were, respectively, 71 12,0 10, 93 29, and 62 +/- 16% of predicted. The STS test had moderate associations with peak V-o2
(r = 0.56, P = 0.004), quadriceps strength (r = 0.52, P = 0.008), and some questionnaire items (e.g., perceived physical strength, r = 0.67, P < 0.001) only when repetitions were expressed as a product of body weight. Overall, these associations were weaker than those obtained from 6-min walk distance x weight. Oxygen desaturation during the STS test was strongly associated with oxygen desaturation during CPET (r = 0.80, P < 0.001). Peak heart rate was lower during the STS test as compared with CPET (P < 0.001) and the 6MWT (P = 0.009). The STS test cannot be used as a replacement for, CPET to accurately assess peak exercise capacity in CF. The STS test may have utility in detecting patients with CF who may exhibit a high level of oxygen desaturation during heavy exercise.

According to the news editors, the research concluded: "Further studies should identify the factors contributing to STS performance to confirm the potential interest of STS repetitions x body weight outcome as a useful submaximal exercise parameter in CF."

For more information on this research see: The 1-Minute Sit-to-Stand Test in Adults With Cystic Fibrosis: Correlations With Cardiopulmonary Exercise Test, 6-Minute Walk Test, and Quadriceps Strength. Respiratory Care, 2016;61(12):1620-1628. Respiratory Care can be contacted at: Daedalus Enterprises Inc, 9425 N MacArthur Blvd, Ste 100, Irving, TX 75063-4706, USA.

Our news journalists report that additional information may be obtained by contacting M. Gruet, Univ Toulon & Var, Univ Nice Sophia Antipolis, Lab Motricite Humaine Educ Sport Sante, Toulon, France. Additional authors for this research include L.A. Peyre-Tartaruga, L. Mely and J.M. Vallier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4187/respcare.04821. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toulon, France, Europe, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Diagnostic Techniques and Procedures, Pancreatic Diseases and Conditions, Lung Diseases and Conditions, Heart Function Tests, Cystic Fibrosis, Exercise Test, Chalcogens, Diagnosis, University of the South, Toulon-Var.

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Sleep Diseases and Conditions - Sleep Disorders

Recent Research from VAMC Highlight Findings in Sleep Disorders (Obese Veterans Enrolled in a Veterans Affairs Medical Center Outpatient Weight Loss Clinic Are Likely to Experience Disordered Sleep and Posttraumatic Stress)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Sleep Diseases and Conditions - Sleep Disorders are discussed in a new report. According to news reporting originating from Richmond, Virginia, by NewsRx correspondents, research stated, "This cross-sectional study aimed to characterize sleep patterns, the quality and duration of sleep, and estimate the prevalence of common sleep disorders and posttraumatic stress disorder (PTSD) in a hospital-based Veterans Affairs MOVE! (Managing Overweight Veterans Everywhere) clinic. Participants completed five instruments: the Pittsburgh Sleep Quality Index (PSQI), Smith's Measure of Morningness/Eveningness,
Restless Legs Syndrome Rating Scale, the STOP Questionnaire, and the Posttraumatic Stress Disorder (PTSD) Checklist-Civilian Version (PCL-C)."

Our news editors obtained a quote from the research from VAMC, "Enrolled Veterans (n = 96) were mostly male (78%), African American (49%), mean age 58 (standard deviation [SD] 10.6) years, and mean body mass index (BMI) 38.4 kg/m(2) (SD 8.4). By PSQI, 89% rated sleep quality as 'poor' (mean = 11.1, SD = 5.1), consistent with severely impaired sleep. Most were at high risk for sleep disorders including restless leg syndrome (53%), obstructive sleep apnea (66%), and circadian sleep disorders (72%). Forty-seven percent endorsed clinically significant symptoms of PTSD. Hypotheses-generating regression models suggest sleep latency (minutes before falling asleep) was associated with BMI (p = 0.018).

Bedtime, getting up time, hours of sleep, waking up in the middle of the night or early morning, having to get up to use the bathroom, inability to breathe comfortably, cough or snore loudly, feeling too cold or too hot, having bad dreams, pain, and frequency of having trouble sleeping, were not significantly associated with BMI. Our cross-sectional study suggests that sleep difficulties are common among Veterans referred to a weight loss program at a Veterans Affairs Hospital."

According to the news editors, the research concluded: "Controlled studies are needed to investigate whether the results are generalizable and whether obesity among veterans is a risk factor for sleep disorders and PTSD."

For more information on this research see: Obese Veterans Enrolled in a Veterans Affairs Medical Center Outpatient Weight Loss Clinic Are Likely to Experience Disordered Sleep and Posttraumatic Stress. *Journal of Clinical Sleep Medicine*, 2016;12(7):997-1002. *Journal of Clinical Sleep Medicine* can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.

The news editors report that additional information may be obtained by contacting S.B. Mayer, Hunter Holmes McGuire VAMC, Dept. of Med, Div Endocrinol, Richmond, VA, United States. Additional authors for this research include J.R. Levy, L. Farrell-Carnahan, M.G. Nichols and S. Raman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.5934. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Richmond, Virginia, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nervous System Diseases and Conditions, Post-Traumatic Stress Disorders, Sleep Diseases and Conditions, Risk and Prevention, Sleep Disorders, Mental Health, Bariatrics, Hospital, Obesity, PTSD, VAMC.

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**Leukocyte Diseases and Conditions - Leukopenia**

Recent Research from Yale University Highlight Findings in Leukopenia (Novel Developments in Leukopenia and Pancytopenia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Leukocyte Diseases and Conditions - Leukopenia have been published. According to news reporting originating in New Haven, Connecticut, by NewsRx journalists, research stated, "Cytopenias are not disease entities in and of themselves;
rather, they are the expression of various underlying disease processes."

The news reporters obtained a quote from the research from Yale University, "Careful attention to details in patients' presentation, careful history and examination, as well as attention to the ancillary parameters of the complete blood count with a peripheral blood smear can point the clinician toward the appropriate workup. Causes of cytopenias can be inherited or acquired; the latter include medication related, autoimmune, or neoplastic causes."

According to the news reporters, the research concluded: "Emergencies need to be recognized in a timely fashion and expert consultation obtained."

For more information on this research see: Novel Developments in Leukopenia and Pancytopenia. Primary Care, 2016;43(4):559-573,CP5. Primary Care can be contacted at: W B Saunders Co-Elsevier Inc, 1600 John F Kennedy Boulevard, Ste 1800, Philadelphia, PA 19103-2899, USA. (Elsevier - www.elsevier.com; Primary Care - www.journals.elsevier.com/primary-care-diabetes/)

Our news correspondents report that additional information may be obtained by contacting S. Halene, Yale University, Sect Hematol, Dept. of Internal Med, Yale Comprehens Canc CenterSch Med, New Haven, CT 06511, United States. Additional authors for this research include J. Arshad, J. Astle, M.N. Xu and S. Halene.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pop.2016.07.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Leukocyte Diseases and Conditions, Leukocyte Disorders, Pancytopenia, Leukopenia, Yale University.

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Drugs and Therapies - Antigonadotropic Agents

Recent Research from Yamaguchi University Highlight Findings in Antigonadotropic Agents (Development of hepatocellular carcinoma after long-term immunosuppressive therapy including danazol in a dog)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antigonadotropic Agents. According to news originating from Yamaguchi, Japan, by NewsRx correspondents, research stated, "A 2-year-old female beagle was referred to our hospital for evaluation of anemia. Laboratory tests, including bone marrow cytology, revealed non-regenerative immune-mediated anemia (NRIMA)."

Our news journalists obtained a quote from the research from Yamaguchi University, "Although initial immunosuppressive multi-drug therapy was not effective, additional administration of danazol was successful in treating the anemia. However, hepatocellular carcinoma (HCC) developed about 20 months after the administration of danazol. In humans, several cases of development of HCC after the administration of danazol have been reported."

According to the news editors, the research concluded: "The present report describes a case of HCC development in a dog after chronic administration of danazol in addition to other immunosuppressive drugs."
For more information on this research see: Development of hepatocellular carcinoma after long-term immunosuppressive therapy including danazol in a dog. *Journal of Veterinary Medical Science, 2016;78(10):1611-1614. Journal of Veterinary Medical Science can be contacted at: Japan Soc Vet Sci, Univ Tokyo, 1-1-1 Yayoi, Bunkyo-Ku, Tokyo, 103, Japan.

The news correspondents report that additional information may be obtained from M. Okuda, Yamaguchi University, Joint Fac Vet Med, Lab Vet Internal Med, Yamaguchi 7538511, Japan. Additional authors for this research include T.S. Miyama, K. Itamoto, S. Noguchi, K. Baba, T. Mizuno and M. Okuda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1292/jvms.16-0019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yamaguchi, Japan, Asia, Antigonadotropic Agents, Drugs and Therapies, Hormones, Therapy, Danazol, Yamaguchi University.

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Drugs and Therapies - Antiretrovirals

Recent Studies by J. Fox and Co-Authors Add New Data to Antiretrovirals Findings (Pharmacokinetic/Pharmacodynamic Investigation of Single-Dose Oral Maraviroc in the Context of HIV-1 Pre-exposure Prophylaxis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antiretrovirals. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "To investigate the pharmacokinetics/pharmacodynamics of single-dose maraviroc 300 mg in HIV-1 exposure compartments. Maraviroc concentrations in blood, secretions (vaginal, urethral, oral, and rectal), and tissue (vaginal and rectal) were measured, and ex vivo challenge was performed in 54 healthy volunteers to study protection from HIV infection."

Our news editors obtained a quote from the research, "Maraviroc Cmax occurred within 4 hours in most compartments. Concentrations from 4 to 72 hours were above intracellular (IC) IC90 in all compartments, range 15-8095 ng/mL. Mean AUC(0-72) compartment-to-plasma ratios were highest in the rectum (45-819) and urethra (144) compared with the female genital tract (1.6-4.8) and saliva (0.2). No sex differences in AUC0-72 or Cmax were observed. No ex vivo protection from HIV-1BaL occurred in rectal or vaginal tissue."

According to the news editors, the research concluded: "Despite high and sustained concentrations, single-dose maraviroc was not protective against ex vivo challenge of vaginal/rectal tissue."


The news editors report that additional information may be obtained by contacting J.
Recent Studies by J.D. Song and Co-Authors Add New Data to Non-Small Cell Lung Cancer Findings (Non-small cell lung cancer: quantitative phenotypic analysis of CT images as a potential marker of prognosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Non-Small Cell Lung Cancer. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "This was a retrospective study to investigate the predictive and prognostic ability of quantitative computed tomography phenotypic features in patients with non-small cell lung cancer (NSCLC). 661 patients with pathological confirmed as NSCLC were enrolled between 2007 and 2014. 592 phenotypic descriptors was automatically extracted on the pre-therapy CT images. Firstly, support vector machine (SVM) was used to evaluate the predictive value of each feature for pathology and TNM clinical stage."

Our news journalists obtained a quote from the research, "Secondly, Cox proportional hazards model was used to evaluate the prognostic value of these imaging signatures selected by SVM which subjected to a primary cohort of 138 patients, and an external independent validation of 61 patients. The results indicated that predictive accuracy for histopathology, N staging, and overall clinical stage was 75.16%, 79.40% and 80.33%, respectively. Besides, Cox models indicated the signatures selected by SVM: 'correlation of co-occurrence after wavelet transform' was significantly associated with overall survival in the two datasets (hazard ratio [HR]: 1.65, 95% confidence interval [CI]: 1.41-2.75, p = 0.010; and HR: 2.74, 95% CI: 1.10-6.85, p = 0.027, respectively)."

According to the news editors, the research concluded: "Our study indicates that the phenotypic features might provide some insight in metastatic potential or aggressiveness for NSCLC, which potentially offer clinical value in directing personalized therapeutic regimen selection for NSCLC."


The news correspondents report that additional information may be obtained from D.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Non-Small Cell Lung Cancer, Lung Neoplasms, Oncology.

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Environmental Health - Environmental Research and…

Recent Studies by L. Bauld and Co-Authors Add New Data to Environmental Research and Public Health Findings (English Stop-Smoking Services: One-Year Outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Environmental Health - Environmental Research and Public Health. According to news reporting originating from Nottingham, United Kingdom, by NewsRx correspondents, research stated, "The UK is a global leader in stop-smoking support-providing free behavioral support and cessation medication via stop smoking services (SSS) without charge to smokers. This study aimed to explore the client and service characteristics associated with abstinence 52 weeks after quitting."

Our news editors obtained a quote from the research, "A prospective cohort study of 3057 SSS clients in nine different areas of England who began their quit attempt between March 2012 and March 2013 was conducted. Important determinants of long-term quitting were assessed through quit rates and multivariable logistic regression. Our results showed that the overall weighted carbon monoxide validated quit rate for clients at 52 weeks was 7.7% (95% confidence interval (CI) 6.6-9.0). The clients of advisors, whose main role was providing stop-smoking support, were more likely to quit long-term than advisors who had a generalist role in pharmacies or general practices (odds ratio (OR) 2.3 (95% CI 1.2-4.6)). Clients were more likely to achieve abstinence through group support than one-to-one support (OR 3.4 (95% CI 1.7-6.7)). Overall, one in thirteen people who set a quit date with the National Health Service (NHS) Stop-Smoking Service maintain abstinence for a year. Improving abstinence is likely to require a greater emphasis on providing specialist smoking cessation support."

According to the news editors, the research concluded: "Results from this study suggest that over 18,000 premature deaths were prevented through longer-term smoking cessation achieved by smokers who accessed SSS in England from March 2012 to April 2013, but outcomes varied by client characteristic and the type of support provided."


The news editors report that additional information may be obtained by contacting L. Bauld, UK Center Tobacco & Alcohol Studies, Nottingham, United Kingdom. Additional authors for this research include R. Hiscock, F. Dobbie, P. Aveyard, T. Coleman, J. Leonardi-Bee, H. McRobbie and A. McEwen.

Keywords for this news article include: Nottingham, United Kingdom, Europe, Environmental Research and Public Health, Environmental Health.
Recent Studies by L.V. Vasileva and Co-Authors Add New Data to Tropanes Findings (Beneficial effect of commercial Rhodiola extract in rats with scopolamine induced memory impairment on active avoidance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Tropanes. According to news reporting from Plovdiv, Bulgaria, by NewsRx journalists, research stated, "Rhodiola rosea L., family Crassulaceae also known as Golden Root or Arctic root is one of the most widely used medicinal plants with effect on cognitive dysfunction, psychological stress and depression. The aim of the study was to examine the effect of a standardized commercial Rhodiola extract on learning and memory processes in naive rats as well as its effects in rats with scopolamine-induced memory impairment."

The news correspondents obtained a quote from the research, "Sixty male Wistar rats were used in the study. The experiment was conducted in two series - on naive rats and on rats with scopolamine-induced model of impaired memory. The active avoidance test was performed in an automatic conventional shuttle box set-up. The criteria used were the number of conditional stimuli (avoidances), the number of unconditioned stimuli (escapes) as well as the number of intertrial crossings. The chemical fingerprinting of the standardized commercial Rhodiola extract was performed by means of nuclear magnetic resonance (NMR). Naive rats treated with standardized Rhodiola extract increased the number of avoidances during the learning session and memory retention test compared to the controls. Rats with scopolamine-induced memory impairment treated with Rhodiola extract showed an increase in the number of avoidances during the learning session and on the memory tests compared to the scopolamine group. The other two parameters were not changed in rats treated with the extract of Rhodiola in the two series. It was found that the studied Rhodiola extract exerts a beneficial effect on learning and memory processes in naive rats and rats with scopolamine-induced memory impairment. The observed effect is probably due to multiple underlying mechanisms including its modulating effect on acetylcholine levels in the brain and MAO-inhibitory activity leading to stimulation of the monoamines neurotransmission."

According to the news reporters, the research concluded: "In addition the pronounced stress-protective properties of Rhodiola rosea L. could also play a role in the improvement of cognitive functions."


Our news journalists report that additional information may be obtained by contacting L.V. Vasileva, Technol Center Emergency Med TCEMED, Lab Expt Neuropharmacol, Plovdiv 4000, Bulgaria. Additional authors for this research include D.P.
Oncology - Breast Cancer

Recent Studies by M. Motallebnezhad and Co-Authors Add New Data to Breast Cancer Findings (Antiproliferative and apoptotic effects of a specific anti-insulin-like growth factor I receptor single chain antibody on breast cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting from Tehran, Iran, by NewsRx journalists, research stated, "Insulin-like growth factor I receptor (IGF-IR) is expressed on breast cancer cells and involves in metastasis, survival, and proliferation. Currently, application of IGF-IR-targeting monoclonal antibodies (mAbs), alone or in combination with other drugs, is a promising strategy for breast cancer therapy."

The news correspondents obtained a quote from the research, "Single-chain fragment variable (scFv) antibodies have been introduced as appropriate tools for tumor-targeting purposes because of their advantages over whole antibodies. In the present study, we employed a naive phage library and isolated scFvs against a specific epitope from extracellular domain of IGF-IR by panning process. The selected scFvs were further characterized using polyclonal and monoclonal phage ELISA, soluble monoclonal ELISA, and colony PCR and sequencing. Antiproliferative and apoptotic effects of selected scFv antibodies on breast cancer cell lines were also evaluated by MTT and Annexin V/PI assays. The results of ELISA indicated specific reactions of the isolated scFvs against the IGF-IR peptide, and analyses of PCR product and sequencing confirmed the presence of full length V-H and V kappa inserts. Treatment of MCF7 and SKBR3 cells with anti-IGF-IR scFv led to a significant growth inhibition. The results also showed that scFv treatment significantly augmented trastuzumab growth inhibitory effects on SKBR3 cells. The percentage of the apoptotic MCF7 and SKBR3 cells after 24-h treatment with scFv was 39 and 30.70 %, respectively. Twenty-four-hour treatment with scFv in combination with trastuzumab resulted in 44.75 % apoptosis of SKBR3 cells."

According to the news reporters, the research concluded: "Taken together, our results demonstrate that the targeting of IGF-IR by scFv can be an effective strategy in the treatment of breast cancer and provide further evidence for effectiveness of dual targeting of HER2 and IGF-IR in breast cancer therapy."

For more information on this research see: Antiproliferative and apoptotic effects of a specific anti-insulin-like growth factor I receptor single chain antibody on breast cancer cells. Tumor Biology, 2016;37(11):14841-14850. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting V. Younesi, Pishtaz Teb Diagnost, Tehran, Iran. Additional authors for this research include V. Younesi, L. Aghebati-Maleki, H. Nickho, E. Safarzadeh, M. Ahmadi, A.A.
Recent Studies by M.S. Bakken and Co-Authors Add New Data to Hip Fracture Findings (Antipsychotic Drugs and Risk of Hip Fracture in People Aged 60 and Older in Norway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hip Fracture have been published. According to news reporting out of Bergen, Norway, by NewsRx editors, research stated, "To examine associations between exposure to various subgroups of antipsychotic drugs and risk of hip fracture in older adults. Nationwide cohort study. Norway, 2005-2010."

Our news journalists obtained a quote from the research, "Everyone living in Norway born before 1945 (N = 906,422). Information was obtained on all prescriptions of antipsychotic drugs dispensed from 2004 to 2010 (Norwegian Prescription Database) and data on all primary hip fractures from 2005 to 2010 (Norwegian Hip Fracture Registry). Incidence rates of hip fracture during person-time exposed and unexposed to antipsychotic drugs were compared by calculating the standardized incidence ratio (SIR). Thirty-nine thousand nine hundred thirty-eight (4.4%) participants experienced a primary hip fracture. Greater risk of hip fracture was associated with exposure to any antipsychotic (SIR = 2.1, 95% confidence interval (CI) = 1.9-2.1), first-generation antipsychotics (SIR = 2.0, 95% CI = 1.8-2.2), second-generation antipsychotics (SIR = 2.2, 95% CI = 1.9-2.4), prolactin-sparing antipsychotics (SIR = 2.4, 95% CI = 1.8-3.1) and prolactin-elevating antipsychotics (SIR = 2.0, 95% CI = 1.9-2.2). In people aged 60 and older in Norway, those who took an antipsychotic drug had twice the risk of sustaining a hip fracture during exposure than during nonexposure. Although confounding by indication, comorbidity, or other drugs used cannot be excluded, this association is relevant for clinical practice because hip fracture and antipsychotic drug use are prevalent in vulnerable older individuals."

According to the news editors, the research concluded: "Clinical studies examining mechanisms or causality of the observed association between antipsychotic drug use and excess risk of hip fracture are needed."

Our news journalists report that additional information may be obtained by contacting M.S. Bakken, Haraldsplass Deaconess Hosp, Kavli Res Center Geriatr & Dementia, Bergen, Norway. Additional authors for this research include J. Schlott, A. Engeland, L.B. Engesceter and S. Ruths.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgs.14162. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bergen, Norway, Europe, Hip Fractures, Drugs and Therapies, Risk and Prevention, Antipsychotics, Mental Health.

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Immunology - Immunoglobulins

Recent Studies by R.P. Carroll and Co-Authors Add New Data to Immunoglobulins Findings [Angiotensin II type-1 receptor antibody (AT1Rab) associated humoral rejection and the effect of peri operative plasma exchange and candesartan]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Immunoglobulins. According to news reporting out of Adelaide, Australia, by NewsRx editors, research stated, "Angiotensin II type 1 antibodies (AT1Rab) can mediate antibody mediated rejection (AMR). Pre transplant AT1Rab levels, and risk of rejection were assessed in Kidney Transplant Recipients (KTR) transplanted in our centre from 2013 to 2014 (n = 145). 14/145 (9.7%) KTR experienced antibody mediated rejection (AMR)."

Our news journalists obtained a quote from the research, "The Hazard Ratio for AMR = 3.7 [95% CI 2-26] (p = 0.009) for KTR with AT1Rab levels >17.5 U/ml. 6/11 of KTR with levels >25 U/ml experienced AMR. In 2015 (n = 80) KTR were transplanted and 6/80 KTR experienced rejection (2 AMR and 4 TCMR with vascular lesions). 7/80 of KTR had AT1Rab 17.5-25 U/ml and none experienced rejection and were induced with ATG and candesartan. 7/80 had AT1Rab 25-40 U/ml and received pre and post-operative plasma exchange, ATG and candesartan and 1/7 experienced TCMR with a vascular lesion."

According to the news editors, the research concluded: "This perioperative regimen may alter the risk of rejection in patients with high levels of AT1Ab and further studies are needed."

For more information on this research see: Angiotensin II type-1 receptor antibody (AT1Rab) associated humoral rejection and the effect of peri operative plasma exchange and candesartan. *Human Immunology*, 2016;77(12):1154-1158. *Human Immunology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

Our news journalists report that additional information may be obtained by contacting R.P. Carroll, Univ South Australia, Adelaide, SA, Australia. Additional authors for this research include M. Riceman, C.M. Hope, A. Zeng, S. Deayton, G.D. Bennett and P.T. Coates.

The direct object identifier (DOI) for that additional information is:
Mycobacterium Infections - Tuberculosis

Recent Studies from CIBERES Add New Data to Tuberculosis (Urgent Implementation in a Hospital Setting of a Strategy To Rule Out Secondary Cases Caused by Imported Extensively Drug-Resistant Mycobacterium tuberculosis Strains at Diagnosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mycobacterium Infections - Tuberculosis. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "Current migratory movements require new strategies for rapidly tracking the transmission of high-risk imported Mycobacterium tuberculosis strains. Whole-genome sequencing (WGS) enables us to identify single-nucleotide polymorphisms (SNPs) and therefore design PCRs to track specific relevant strains."

Funders for this research include ISCIII, MINECO, Russian Science Foundation (RSF).

Our news journalists obtained a quote from the research from CIBERES, "However, fast implementation of these strategies in the hospital setting is difficult because professionals working in diagnostics, molecular epidemiology, and genomics are generally at separate institutions. In this study, we describe the urgent implementation of a system that integrates genomics and molecular tools in a genuine high-risk epidemiological alert involving 2 independent importations of extensively drug resistant (XDR) and pre-XDR Beijing M. tuberculosis strains from Russia into Spain. Both cases involved commercial sex workers with long-standing tuberculosis (TB). The system was based on strain-specific PCRs tailored from WGS data that were transferred to the local node that was managing the epidemiological alert. The optimized tests were available for prospective implementation in the local node 33 working days after receiving the primary cultures of the XDR strains and were applied to all 42 new incident cases."

According to the news editors, the research concluded: "An interpretable result was obtained in each case (directly from sputum for 27 stain-positive cases) and corresponded to the amplification profiles for strains other than the targeted pre-XDR and XDR strains, which made it possible to prospectively rule out transmission of these high-risk strains at diagnosis."

For more information on this research see: Urgent Implementation in a Hospital Setting of a Strategy To Rule Out Secondary Cases Caused by Imported Extensively Drug-Resistant Mycobacterium tuberculosis Strains at Diagnosis. *Journal of Clinical Microbiology*, 2016;54(12):2969-2974. *Journal of Clinical Microbiology* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.
The news correspondents report that additional information may be obtained from D. Garcia-de-Viedma, CIBERES, CIBER Enfermedades Resp, Madrid, Spain. Additional authors for this research include M. Martinez-Lirola, S. Garcia, M. Herranz, I. Mokrousov, I. Comas, L. Martinez-Priego, E. Bouza and D. Garcia-de-Viedma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/JCM.01718-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Drugs and Therapies, Gram-Positive Rods, Mycobacteriaceae, Drug Resistance, Actinobacteria, Epidemiology, Hospital, Genetics, CIBERES.

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Heart Disorders and Diseases - Atrial Fibrillation

Recent Studies from Caritas Medical Center Add New Data to Atrial Fibrillation (Anticoagulation for stroke prevention in elderly patients with non-valvular atrial fibrillation: what are the obstacles?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Atrial Fibrillation are presented in a new report. According to news reporting originating from Hong Kong, People's Republic of China, by NewsRx editors, the research stated, "The elderly with atrial fibrillation are more prone to stroke. Oral anticoagulants such as warfarin are effective in the prevention of atrial fibrillation associated stroke and systemic embolism."

Our news editors obtained a quote from the research from Caritas Medical Center, "The CHADS(2) or CHA(2)DS(2)-VASc score and HAS-BLED score were developed to stratify stroke risk associated with atrial fibrillation and bleeding risk in a patient with atrial fibrillation, respectively, to facilitate the decision for and safe use of oral anticoagulant. Nonetheless, the decision for anticoagulation is not straightforward and the elderly with non valvular atrial fibrillation are often precluded from anticoagulant prescription. Advanced age and disadvantages associated with the elderly such as fall, comorbidities, cognitive impairment, and polypharmacy contribute to the over-concern of physicians about bleeding risk. Various treatment options such as low-intensity warfarin and aspirin plus clopidogrel have been suggested but are inferior to dose-adjusted warfarin. Novel oral anticoagulants with promising efficacy and convenience hold great appeal."

According to the news editors, the research concluded: "Optimal management of underlying medical conditions and modifiable stroke risk factors, together with intervention to improve the safe use of oral anticoagulants, are useful."

For more information on this research see: Anticoagulation for stroke prevention in elderly patients with non-valvular atrial fibrillation: what are the obstacles? Hong Kong Medical Journal, 2016;22(6):608-615. Hong Kong Medical Journal can be contacted at: Hong Kong Acad Medicine Press, 9, F, Room 901, 99 Wong Chuk Hang Rd, Aberdeen, Hong Kong, 00000, Peoples R China.

The news editors report that additional information may be obtained by contacting
C.W. Wong, Caritas Med Center, Dept. of Med & Geriatr, Shamshuipo, Hong Kong, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12809/hkmj154803. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Heart Disorders and Diseases, Risk and Prevention, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Stroke, Caritas Medical Center.

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Heart Disorders and Diseases - Heart Failure

Recent Studies from Charles University Add New Data to Heart Failure (Circulating Microparticles as a Predictor of Vascular Properties in Patients on Mechanical Circulatory Support; Hype or Hope?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Failure. According to news originating from Prague, Czech Republic, by NewsRx correspondents, research stated, "Microparticles are small circulating vesicles originating from circulatory system and vascular wall cells released during their activation or damage. They possess different roles in regulation of endothelial function, inflammation, thrombosis, angiogenesis, and in general, cellular stress."

Our news journalists obtained a quote from the research from Charles University, "Microparticles are the subject of intensive research in pulmonary hypertension, atherosclerotic disease, and heart failure. Another recently emerging role is the evaluation of the status of vasculature in end-stage heart failure patients treated with implantable ventricular assist devices. In patients implanted as destination therapy, assessment of the long-term effect of currently used continuous-flow left ventricular assist devices (LVADs) on vasculature might be of critical importance. However, unique continuous flow pattern generated by LVADs makes it difficult to assess reliably the vascular function with most currently used methods, based mainly on ultrasound detection of changes of arterial dilatation during pulsatile flow. In this respect, the measurement of circulating microparticles as a marker of vascular status may help to elucidate both short- and long-term effects of LVADs on the vascular system."

According to the news editors, the research concluded: "Because data regarding this topic are very limited, this review is focused on the advantages and caveats of the circulating microparticles as markers of vascular function in patients on continuous-flow LVADs."

For more information on this research see: Circulating Microparticles as a Predictor of Vascular Properties in Patients on Mechanical Circulatory Support; Hype or Hope? Physiological Research, 2016;65(5):727-735. Physiological Research can be contacted at: Acad Sciences Czech Republic, Inst Physiology, Videnska 1083, Prague 4 142 20, Czech Republic.

The news correspondents report that additional information may be obtained from P. Ivak, Charles Univ Prague, Fac Med 3, Prague, Czech Republic. Additional authors for this research include J. Pitha and I. Netuka.

Keywords for this news article include: Prague, Czech Republic, Europe, Heart
Recent Studies from Daiichi Sankyo Add New Data to Glycols
(Evaluation of species difference in peripheral lymphocyte reduction
effect of CS-0777, a sphingosine 1-phosphate receptor modulator,
based on a pharmacokinetic/pharmacodynamic model ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Glycols have been published. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Pharmacokinetic (PK) and pharmacodynamic (PD) modeling was conducted for the reduction of peripheral lymphocytes after oral administration of CS-0777 to healthy rats, monkeys and experimental autoimmune encephalomyelitis (EAE) induced rats. The phosphorylated active metabolite of CS-0777, M1, is a selective sphingosine 1-phosphate receptor-1 modulator."

Our news journalists obtained a quote from the research from Daiichi Sankyo, "A linear one- and two-compartment model with a reversible metabolism process characterized the time courses of CS-0777 and M1 concentrations in rats and monkeys, respectively. The relationship between lymphocyte counts and M1 concentrations in blood was well described by an indirect response model in all animals examined. An I-max of 0.815 and an IC50 of 6.58nM in healthy rats, an I-max of 0.807 and an IC50 of 5.09nM in the EAE rats, an I-max of 0.789 and an IC50 of 0.484nM in monkeys were estimated by the indirect PD model. Since the IC50 values calculated in terms of the unbound plasma concentration in rats and monkeys were within a similar range, after correction of the IC50 in blood described above with the blood to plasma concentration ratio and the plasma free fraction of M1, it was revealed that there is no species difference in the essential activity of M1 against lymphocyte reduction. The sensitivity of the lymphocytes to M1 was not affected by the EAE status."

According to the news editors, the research concluded: "Comparison of the simulated lymphocyte reduction in EAE rats after multiple dosing with CS-0777 and the actual EAE clinical scores implies that the significant suppressive effect on EAE did not require the elimination of all lymphocytes from the blood."


The news correspondents report that additional information may be obtained from S. Inaba, Daiichi Sankyo Co Ltd, Drug Metab & Pharmacokin Res Labs, Tokyo, Japan. Additional authors for this research include M. Goto, K. Tanaka-takanaka, H. Tanaka, W. Tomisato, H. Yuita, H. Doi-Komuro, R. Inoue, K. Oshima, T. Kagari, T. Shimozato and T. Izumi.
Post-Traumatic Stress Disorders

Recent Studies from Dicle University Add New Data to Post-Traumatic Stress Disorders (The Levels of Cortisol and Oxidative Stress and DNA Damage in Child and Adolescent Victims of Sexual Abuse with or without Post-Traumatic Stress Disorder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Post-Traumatic Stress Disorders have been published. According to news reporting from Diyarbakir, Turkey, by NewsRx journalists, research stated, "The aim of this study was to investigate whether cortisol and oxidative stress levels and DNA damage differ between individuals who developed PTSD or not following a sexual trauma. The study included 61 children aged between 5 and 17 years who sustained sexual abuse (M/F: 18/43)."

The news correspondents obtained a quote from the research from Dicle University, "The patients were divided into two groups: patients with PTSD and patients without PTSD based, based on the results of a structured psychiatric interview (K-SADS-PL and CAPS-CA). Cortisol, glutathione peroxidase (GPx), superoxide dismutase (SOD), coenzyme Q 8-Hydroxy-2-Deoxyguanosine (8-OHdG) were all evaluated by the ELISA method. Our evaluation revealed a diagnosis of PTSD in 51% (n=31) of victims. There was no significant difference between the groups with or without PTSD in terms of cortisol, GPx, SOD, coenzyme Q, and 8-OHdG levels. There was no correlation between CAPS scores and GPx, SOD, coenzyme Q, and 8-OHdG levels between patients with or without PTSD. In patients with PTSD, both cortisol and 8-OHdG levels decreased with increasing time after trauma, and there was no significant correlation with cortisol and 8-OHdG levels in patients without PTSD."

According to the news reporters, the research concluded: "Although the present study did not find any difference between the groups in terms of 8-OHdG concentrations, the decreases in both cortisol and 8-OHdG levels with increasing time after trauma is considered to indicate a relationship between cortisol and DNA damage."

For more information on this research see: The Levels of Cortisol and Oxidative Stress and DNA Damage in Child and Adolescent Victims of Sexual Abuse with or without Post-Traumatic Stress Disorder. *Psychiatry Investigation*, 2016;13(6):616-621. *Psychiatry Investigation* can be contacted at: Korean Neuropsychiatric Assoc, Rn 522, G-Five Central Plaza 1685-8 Seoco 4-Dong, Seoco-Gu, Seoul, 137-882, South Korea.

Our news journalists report that additional information may be obtained by contacting S. Simsek, Dicle University, Sch Med, Dept. of Child Psychiat, TR-21280 Diyarbakir, Turkey. Additional authors for this research include T. Yuksel, I. Kaplan, C. Uysal and H. Aktas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4306/pi.2016.13.6.616. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Diyarbakir, Turkey, Eurasia, Post-Traumatic Stress Disorders, Deoxyribonucleic Acid, Mental Health, DNA Research, Proteomics, DNA Damage, Genetics, PTSD, Dicle University.

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Central Nervous System Diseases and Conditions –

Recent Studies from Eli Lilly Add New Data to Epilepsy (Forebrain-selective AMPA-receptor antagonism guided by TARP gamma-8 as an antiepileptic mechanism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Central Nervous System Diseases and Conditions - Epilepsy is the subject of a report. According to news reporting originating in Indianapolis, Indiana, by NewsRx journalists, research stated, "Pharmacological manipulation of specific neural circuits to optimize therapeutic index is an unrealized goal in neurology and psychiatry. AMPA receptors are important for excitatory synaptic transmission(1), and their antagonists are antiepileptic(2)."

The news reporters obtained a quote from the research from Eli Lilly, "Although efficacious, AMPA-receptor antagonists, including perampanel (Fycompa), the only approved antagonist for epilepsy, induce dizziness and motor impairment(3,4). We hypothesized that blockade of forebrain AMPA receptors without blocking cerebellar AMPA receptors would be antiepileptic and devoid of motor impairment. Taking advantage of an AMPA receptor auxiliary protein, TARP gamma-8, which is selectively expressed in the forebrain and modulates the pharmacological properties of AMPA receptors(5), we discovered that LY3130481 selectively antagonized recombinant and native AMPA receptors containing gamma-8, but not gamma-2 (cerebellum) or other TARP members. Two amino acid residues unique to gamma-8 determined this selectivity. We also observed antagonism of AMPA receptors expressed in hippocampal, but not cerebellar, tissue from an patient with epilepsy. Corresponding to this selective activity, LY3130481 prevented multiple seizure types in rats and mice and without motor side effects."

According to the news reporters, the research concluded: "These findings demonstrate the first rationally discovered molecule targeting specific neural circuitries for therapeutic advantage."

For more information on this research see: Forebrain-selective AMPA-receptor antagonism guided by TARP gamma-8 as an antiepileptic mechanism. Nature Medicine, 2016;22(12):1496-1501,177-180. Nature Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Nature Medicine - www.nature.com/nm/)


Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Glutamate Receptors, Drugs and Therapies, Membrane Proteins, AMPA
Recent Studies from Erasmus University Medical Center Add New Data to Blood Pressure (Reference Values for Noninvasive Blood Pressure in Children during Anesthesia A Multicentered Retrospective Observational Cohort Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Blood Pressure is the subject of a report. According to news reporting out of Rotterdam, Netherlands, by NewsRx editors, research stated, "Although noninvasive blood pressure (NIBP) monitoring during anesthesia is a standard of care, reference ranges for blood pressure in anesthetized children are not available. We developed sex-and age-specific reference ranges for NIBP in children during anesthesia and surgery."

Our news journalists obtained a quote from the research from Erasmus University Medical Center, "In this retrospective observational cohort study, we included NIBP data of children with no or mild comorbidity younger than 18 yr old from the Multicenter Perioperative Outcomes Group data set. Sex-specific percentiles of the NIBP values for age were developed and extrapolated into diagrams and reference tables representing the 50th percentile (0 SD), +1 SD, -1 SD, and the upper (+2 SD) and lower reference ranges (-2 SD). In total, 116,362 cases from 10 centers were available for the construction of NIBP age-and sex-specific reference curves. The 0 SD of the mean NIBP during anesthesia varied from 33 mmHg at birth to 67 mmHg at 18 yr. The low cutoff NIBP (2 SD below the 50th percentile) varied from 17 mmHg at birth to 47 mmHg at 18 yr old. This is the first study to present reference ranges for blood pressure in children during anesthesia."

According to the news editors, the research concluded: "These reference ranges based on the variation of values obtained in daily care in children during anesthesia could be used for rapid screening of changes in blood pressure during anesthesia and may provide a consistent reference for future blood pressure-related pediatric anesthesia research."

For more information on this research see: Reference Values for Noninvasive Blood Pressure in Children during Anesthesia A Multicentered Retrospective Observational Cohort Study. Anesthesiology, 2016;125(5):904-913. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting J.C. de Graaff, Erasmus MC, Sophia Childrens Hosp, Dept. of Anesthesia, Rotterdam, Netherlands. Additional authors for this research include W. Pasma, S.V. Buuren, J.J. Duijghuisen, O.O. Nafiu, S. Kheterpal and W.A. van Klei.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Blood Pressure, Pain Medicine, Anesthesia, Erasmus University Medical Center.
Recent Studies from Federal University Add New Data to Gastric Cancer

**Oncology - Gastric Cancer**

**Recent Studies from Federal University Add New Data to Gastric Cancer**

*(Current advances in targeted therapies for metastatic gastric cancer: improving patient care)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gastric Cancer. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, research stated, "In this article, we review the literature on the current advances in targeted therapies for metastatic gastric cancer aimed at improving patient care. We conclude that the key to guiding targeted therapy is individual biomarkers, which are not completely elucidated."

Our news journalists obtained a quote from the research from Federal University, "HER2 overexpression is the only predictive biomarker currently in use. Furthermore, it is necessary to understand that gastric tumors are heterogeneous; therefore, is impossible to evaluate a novel biological compound without evaluating personal biomarkers."

According to the news editors, the research concluded: "The selection of patients who are able to receive each treatment is paramount for improving advanced gastric cancer survival and reducing unnecessary costs."


Our news journalists report that additional information may be obtained by contacting P.N. Aguiar, Division of Medical Oncology, Federal University of Sao Paulo, Sao Paulo, Brazil. Additional authors for this research include T.P. Muniz, R.R. Miranda, H. Tadokoro, N.M. Forones, I.D. Monteiro, P. Castelo-Branco, Y.Y. Janjigian and R.A Mello.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.15.348. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Therapy, Oncology, Sao Paulo, Patient Care, South America, Article Review, Gastric Cancer, Gastroenterology, Diagnostics and Screening.

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**Oncology - Gliomas**

**Recent Studies from Fudan University Add New Data to Gliomas (Effect of Hyperbaric Oxygen on the Growth of Intracranial Glioma in Rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gliomas. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Numerous studies have confirmed that hyperbaric oxygen (HBO) in combination with radiotherapy or chemotherapy may increase the efficacy of radiotherapy or chemotherapy in patients with glioma. However, whether HBO therapy alone may inhibit or promote the growth of malignant tumors remains controversial."
The news correspondents obtained a quote from the research from Fudan University, "This study aimed to investigate the effect of HBO on the growth of glioma in rats, and the impact of HBO on the expression of vascular endothelial growth factor (VEGF) and hypoxia-inducible factor 1-alpha (HIF-1a), angiogenesis, and apoptosis of glioma cells. Male Sprague-Dawley rats were treated with or without HBO after glioma cell inoculation and followed for up to 16 days postinoculation. Rats were randomized to receive bilateral forelimb function tests (n=20 per group) and head magnetic resonance imaging (n=5 per group). Differences between HBO and control groups were tested using 2-sample independent t-tests and changes over time within treatment groups were analyzed using a repeated measurement analysis of variance with Bonferroni correction. The effect of HBO on the expression of VEGF, HIF-1a, von Willebrand factor, angiogenesis, and tumor cell apoptosis were also examined (n=5 per group). Forelimb function scores were reduced in both HBO-treated and control groups. HBO-treated rats had significantly larger tumor volume and more water in the cerebellum compared with control rats. The intratumoral expression of VEGF was significantly higher in HBO-treated rats compared with control rats (23.2% vs. 13.3%, p=0.002). HIF-1a was significantly increased in HBO-treated rats compared with controls in the expression of both intratumoral (72.7% vs. 54.9%, p=0.001) and peritumoral (2.6% vs. 1.9%, p=0.003) cells. The intratumoral microvessel density (MVD) was significantly higher in the HBO group (15.6 vessels/field vs. 4.4 vessels/field, p<0.001), and the peritumoral MVD was not significantly different between the two groups (p>0.05). Apoptosis was significantly lower in HBO-treated rats compared with controls (44.4% vs. 82.8% for intratumoral; 10.1% vs. 77.5% for peritumoral, both p<0.001). The current results demonstrate that HBO alone may promote tumor growth, and is therefore not suitable to treat patients with gliomas with neurological deficits or disorders with HBO alone."

According to the news reporters, the research concluded: "If HBO must be used as a mean of rehabilitation, it is recommended that HBO should be combined with radiotherapy or chemotherapy."


Our news journalists report that additional information may be obtained by contacting Z.Y. Qin, Dept. of Neurosurgery, Huashan Hospital, Shanghai Medical College, Fudan University, Shanghai 200040, People's Republic of China. Additional authors for this research include J.R. Chen, H.Z. Xu and Z.Y Qin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.170278. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *Chinese Medical Journal* is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, VEGF, Gliomas, Shanghai, Oncology, Apoptosis, Chalcogens, Angiogenesis, Chemotherapy, Radiotherapy, Hyperbaric Oxygen, Membrane Proteins, Angiogenic Proteins, Drugs and Therapies, Growth Factor Receptors, People's Republic of China, Receptor Protein Tyrosine Kinases, Vascular Endothelial Growth Factors.

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Recent Studies from German Cancer Research Center Add New Data to Immunotherapy (Neurological sequelae of cancer immunotherapies and targeted therapies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Immunotherapy. According to news reporting from Heidelberg, Germany, by NewsRx journalists, research stated, "Neurological complications of cancer and of anticancer treatments can be substantially disabling to patients, especially with classic chemotherapies. As a rare but important complication, targeted therapies might also result in similar unwanted effects, partly because inhibition of VEGF is a common downstream effect."

The news correspondents obtained a quote from the research from German Cancer Research Center, "Therapeutic antibodies, such as the CD20-depleting antibody rituximab, and underlying haematological malignancies, can induce long-lasting cellular immunosuppression, predisposing patients to opportunistic CNS infections, such as progressive multifocal leukoencephalopathy, where treatment-induced recovery can result in severe reconstitution of immune inflammatory syndromes of the central nervous system. Immune-related neurological adverse events, particularly from immune-activating checkpoint inhibitors, occur as a result of immune activation, resulting in organ-specific autoimmune-like disease. The prevalence of immune-related neurological adverse events might only be about 1%-a low prevalence compared with toxicities in other organs-but it constitutes new patterns of neurological toxic forms, which could result in considerable morbidity and fatal outcomes."

According to the news reporters, the research concluded: "Clinicians should be aware of treatment-associated neurotoxicity, and consider discontinuation of the drug with parallel supportive measures to help patients."

For more information on this research see: Neurological sequelae of cancer immunotherapies and targeted therapies. Lancet Oncology, 2016;17(12):E529-E541. Lancet Oncology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Lancet Oncology - www.journals.elsevier.com/lancet-oncology/)

Our news journalists report that additional information may be obtained by contacting W. Wick, German Canc Res Center, German Canc Consortium DKTK, Clin Cooperat Units, Neurooncol, Heidelberg, Germany. Additional authors for this research include A. Hertenstein and M. Platten.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045%2816%2930571-X. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Heidelberg, Germany, Europe, Cancer, Article Review, Drugs and Therapies, Immunotherapy, Oncology, German Cancer Research Center.

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Recent Studies from Harvard School of Medicine Add New Data to Angiology (Validity assessment of grading scales predicting complications from embolization of cerebral arteriovenous malformations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Angiology have been published. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Endovascular embolization, though initially approved as an adjunctive therapy for surgical excision of cerebral arteriovenous malformations (AVMs), has found extensive use in the management of these lesions. A number of systems have been proposed to stratify AVMs by the procedural risk of embolization, including the Buffalo score and AVM Neuroendovascular grade."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "An external validity assessment of these systems has not been performed. A retrospective review of all patients who underwent embolization of cerebral AVMs at a single institution, between 2010 and 2016, was performed. Data including patient demographics, AVM characteristics, procedural details, complications, and outcomes were collected. Fifty-five embolization procedures in 39 patients (median age 53.1 years) were identified. Ten (25.6%) patients underwent more than 1 embolization procedure. A triaxial catheter system for support was used in 48 (87.3%) of the embolization procedures and a detachable tip microcatheter was used in 28 (50.9%). Complete obliteration of the AVM was achieved in 10.9% of the cases. There was one (2.6%) mortality unrelated to the procedure. Three minor (5.5%) and 2 major (3.6%) clinical complications occurred. Neither Spetzler-Martin grade, Buffalo score, or AVM Neuroendovascular grade correlated with complications. Neither Buffalo score nor AVM Neuroendovascular grade predicted complications from embolization in the present study."

According to the news editors, the research concluded: "Given the relative infrequency of complications, the number of factors that may influence AVM treatment, recent advancements in endovascular technologies, and the subjectivity inherent in these grading systems, the relative utility of risk stratification scales in the embolization of AVMs remains largely unknown."

For more information on this research see: Validity assessment of grading scales predicting complications from embolization of cerebral arteriovenous malformations. Clinical Neurology and Neurosurgery, 2016;151():102-107. Clinical Neurology and Neurosurgery can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Clinical Neurology and Neurosurgery - www.journals.elsevier.com/clinical-neurology-and-neurosurgery/)

The news correspondents report that additional information may be obtained from A.J. Thomas, Harvard Med Sch, Div Neurosurg, Beth Israel Deaconess Med Center, Boston, MA, United States. Additional authors for this research include N. Adeeb, J.M. Moore, R. Motiei-Langroudi, C.J. Griessenauer, A.S. Patel, C.S. Ogilvy and A.J. Thomas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clineuro.2016.10.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North
Salicylic Acid

Recent Studies from Hunan University Add New Data to Salicylic Acid (Salicylic Acid Regulates Pollen Tip Growth through an NPR3/NPR4-Independent Pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Salicylic Acid have been presented. According to news reporting out of Changsha, People's Republic of China, by NewsRx editors, research stated, "Tip growth is a common strategy for the rapid elongation of cells to forage the environment and/or to target to long-distance destinations. In the model tip growth system of Arabidopsis pollen tubes, several small molecule hormones regulate their elongation, but how these rapidly diffusing molecules control extremely localized growth remains mysterious."

Our news journalists obtained a quote from the research from Hunan University, "Here we show that the interconvertible salicylic acid (SA) and methylated SA (MeSA), well characterized for their roles in plant defense, oppositely regulate Arabidopsis pollen tip growth with SA being inhibitory and MeSA stimulatory. The effect of SA and MeSA was independent of known NPR3/NPR4 SA receptor-mediated signaling pathways. SA inhibited clathrin-mediated endocytosis in pollen tubes associated with an increased accumulation of less stretchable demethylated pectin in the apical wall, whereas MeSA did the opposite. Furthermore, SA and MeSA alter the apical activation of ROP1 GTPase, a key regulator of tip growth in pollen tubes, in an opposite manner. Interestingly, both MeSA methylesterase and SA methyltransferase, which catalyze the interconversion between SA and MeSA, are localized at the apical region of pollen tubes, indicating of the tip-localized production of SA and MeSA and consistent with their effects on the apical cellular activities."

According to the news editors, the research concluded: "These findings suggest that local generation of a highly diffusible signal can regulate polarized cell growth, providing a novel mechanism of cell polarity control apart from the one involving protein and mRNA polarization."


Our news journalists report that additional information may be obtained by contacting X.M. Liu, Hunan Univ, Coll Biol, State Key Lab Chemo Biosensing & Chemometr, Hunan Prov Key Lab Plant Funct Genom & Dev Regula, Changsha 410082, Hunan, People's Republic of China. Additional authors for this research include N. Luo, J.C. Mollet, X.M. Liu and Z.B. Yang.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Hydroxybenzoic Acids, Organic Chemicals, Carboxylic Acids, Plant Structures, Plant Germ Cells, Salicylic Acids, Flowering Tops, Benzoic Acids, Hydroxy Acids, Genetics, Pollen, Hunan University.
Recent Studies from Inje University Add New Data to Immunotherapy
(Signal transducer and activator of transcription proteins: regulators of myeloid-derived suppressor cell-mediated immunosuppression in cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Immunotherapy have been published. According to news reporting originating from Gimhae, South Korea, by NewsRx correspondents, research stated, "The success of cancer immunotherapy in patients depends on overcoming immunosuppressive mechanisms in addition to stimulating effective anticancer immune responses. Myeloid-derived suppressor cells (MDSCs) inhibit a spectrum of immune responses, including adaptive immune responses and innate immune responses at the tumor site."

Financial support for this research came from National Research Foundation of Korea.

Our news editors obtained a quote from the research from Inje University; "MDSCs have been targeted to overcome immunosuppression either by reducing their numbers or downregulating their immunosuppressive activities. Although signal transducer and activator of transcription (STAT) proteins are recognized as signaling and transcription factors induced by cytokines in normal cells, they also have roles in cancer and cancer-related cells, as well as MDSC differentiation and function. In in vitro and in vivo studies, including studies on humans, selective STAT3 inhibitors such as Stattic and S3I-201 have demonstrated potential in regulating MDSC-mediated immunosuppression. Thus, STAT pathways represent a promising target in cancer immunotherapy."

According to the news editors, the research concluded: "Herein, we review the roles of STAT signaling in MDSC biology, and the clinical potential of STAT inhibitors in regulating tumor-associated immunosuppression mediated by MDSCs."


The news editors report that additional information may be obtained by contacting Y.J. Kim, Inje Univ, Coll Pharm, Lab Microbiol & Immunol, Gimhae 621749, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12272-016-0822-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gimhae, South Korea, Asia, Cancer, Article Review, Drugs and Therapies, Immunotherapy, Oncology, Genetics, Inje University.
Recent Studies from Institute of Food Research Add New Data to Science (Identification of critical paralog groups with indispensable roles in the regulation of signaling flow)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Science is the subject of a report. According to news reporting from Norwich, United Kingdom, by NewsRx journalists, research stated, "Extensive cross-talk between signaling pathways is required to integrate the myriad of extracellular signal combinations at the cellular level. Gene duplication events may lead to the emergence of novel functions, leaving groups of similar genes-termed paralogs-in the genome."

The news correspondents obtained a quote from the research from the Institute of Food Research, "To distinguish critical paralog groups (CPGs) from other paralogs in human signaling networks, we developed a signaling network-based method using cross-talk annotation and tissue-specific signaling flow analysis. 75 CPGs were found with higher degree, betweenness centrality, closeness, and `bowtieness' when compared to other paralogs or other proteins in the signaling network. CPGs had higher diversity in all these measures, with more varied biological functions and more specific post-transcriptional regulation than non-critical paralog groups (non-CPG). Using TGF-beta, Notch and MAPK pathways as examples, SMAD2/3, NOTCH1/2/3 and MEK3/6-p38 CPGs were found to regulate the signaling flow of their respective pathways. Additionally, CPGs showed a higher mutation rate in both inherited diseases and cancer, and were enriched in drug targets."

According to the news reporters, the research concluded: "The results revealed two distinct types of paralog groups in the signaling network: CPGs and non-CPGs. Thus highlighting the importance of CPGs as compared to non-CPGs in drug discovery and disease pathogenesis."


Our news journalists report that additional information may be obtained by contacting T. Korcsmaros, Inst Food Res, Gut Hlth & Food Safety Programme, Norwich, Norfolk, United Kingdom. Additional authors for this research include J. Brooks, D. Fazekas, E. Ari, T. Vellai, P. Csermely, T. Korcsmaros and K. Lenti.

Keywords for this news article include: Norwich, United Kingdom, Europe, Science, Genetics, Institute of Food Research.

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Recent Studies from Institute of Science Add New Data to Kidney Transplants (Acute kidney transplant rejection mediated by angiotensin II type 1 receptor antibodies in a pediatric hyperimmune patient)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Kidney Transplants is now available. According to news reporting out of Rome, Italy, by NewsRx editors, research stated, "Several cases of severe antibody-mediated rejection (AMR) secondary to antibodies against the angiotensin II type 1 receptor (AT1R-Ab) have been described with variable outcome. We report the case of a 13-year-old boy whose first kidney transplant failed due to steroid-resistant acute cellular rejection, with the subsequent development of sensitization."

Our news journalists obtained a quote from the research from the Institute of Science, "He received a second kidney transplant which was complicated by early humoral rejection, with weakly positive staining for the complement degradation product C4d. Test results were negative for donor-specific antibodies against human leukocyte antigens (HLA-DSA) and MHC class I-related chain A (MICA) but positive for AT1R-Ab. Retrospective testing of the sera collected during the first kidney transplant was also positive for AT1R-Ab. We therefore hypothesized that the failure of the first transplant was secondary to the same cause. Losartan was immediately introduced into the therapeutic regimen, and the patient showed an excellent clinical and histological recovery. Testing for AT1R-Ab in any hypertensive patient with acute rejection who tests negative or weakly positive for C4d and negative for HLA-DSA and who is refractory to therapy is highly advisable. Pre-transplant AT1R-Ab may be indicative of the outcome in patients whose first transplant failed."

According to the news editors, the research concluded: "Prompt initiation of treatment with losartan-immediately after transplantation in patients with pre-existing AT1R-Ab-should be encouraged."

For more information on this research see: Acute kidney transplant rejection mediated by angiotensin II type 1 receptor antibodies in a pediatric hyperimmune patient. Pediatric Nephrology, 2017;32(1):185-188. Pediatric Nephrology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Pediatric Nephrology - www.springerlink.com/content/0931-041x/)

Our news journalists report that additional information may be obtained by contacting I. Guzzo, Bambino Gesu Pediat Hosp, Nephrol Unit, Dept. of Pediat, Inst Sci Res, I-00165 Rome, Italy. Additional authors for this research include F. Morolli, F.D. Camassei, A. Piazza, E. Poggi and L. Dello Strologo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00467-016-3500-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Nerve Tissue Proteins, Transplant Medicine, Biological Factors, Kidney Transplants, Organ Transplants, Peptide Proteins, Peptide Hormones, Immunoglobulins, Transplantation, Angiotensin II, Blood Proteins, Oligopeptides, Neuropeptides, Angiotensins, Biomedicine, Pediatrics, Immunology, Antibodies, Autacoids, Peptides, Surgery, Institute of Science.

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Heart Disorders and Diseases - Atrial Fibrillation

Recent Studies from Istanbul University Add New Data to Atrial Fibrillation (Effects of inspiratory muscle training on pulmonary function, respiratory muscle strength and functional capacity in patients with atrial fibrillation: a randomized ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting originating from Istanbul, Turkey, by NewsRx correspondents, research stated, "To investigate the effects of inspiratory muscle training on pulmonary function, respiratory muscle strength and functional capacity in patients with atrial fibrillation. Prospective randomized controlled single-blind study."

Our news editors obtained a quote from the research from Istanbul University, "Cardiology department of a university hospital. A total of 38 patients with permanent atrial fibrillation were randomly allocated to either a treatment group (n = 19; age 66.2 years (8.8)) or a control group (n = 19; age 67.1 years (6.4)). The training group received inspiratory muscle training at 30% of maximal inspiratory pressure for 15 minutes twice a day, 7 days a week, for 12 weeks alongside the standard medical treatment. The control group received standard medical treatment only. Spirometry, maximal inspiratory and expiratory pressures and 6-minute walking distance was measured at the beginning and end of the study. There was a significant increase in maximal inspiratory pressure (27.94 cmH(2)O (8.90)), maximal expiratory pressure (24.53 cmH(2)O (10.34)), forced vital capacity (10.29% (8.18) predicted), forced expiratory volume in one second (13.88% (13.42) predicted), forced expiratory flow 25%-75% (14.82% (12.44) predicted), peak expiratory flow (19.82% (15.62) predicted) and 6-minute walking distance (55.53 m (14.13)) in the training group (p < 0.01). No significant changes occurred in the control group (p > 0.05)."

According to the news editors, the research concluded: "Inspiratory muscle training can improve pulmonary function, respiratory muscle strength and functional capacity in patients with atrial fibrillation."

For more information on this research see: Effects of inspiratory muscle training on pulmonary function, respiratory muscle strength and functional capacity in patients with atrial fibrillation: a randomized controlled trial. Clinical Rehabilitation, 2016;30(12):1165-1174. Clinical Rehabilitation can be contacted at: Sage Publications Ltd, 1 Oliers Yard, 55 City Road, London EC1Y 1SP, England. (Sage Publications - www.sagepub.com; Clinical Rehabilitation - cre.sagepub.com)

The news editors report that additional information may be obtained by contacting R. Demir, Istanbul University, Dept. of Cardiol, Istanbul, Turkey. Additional authors for this research include R. Demir, Z. Yigit and H.N. Gurses.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0269215515628038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Heart Disorders and Diseases, Clinical Trials and Studies, Atrial Fibrillation, Cardiac Arrhythmias, Clinical Research, Heart Disease, Istanbul University.

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Drugs and Therapies - Bromfenac Therapy

Recent Studies from JNT University Add New Data to Bromfenac Therapy (Development and Validation of a New Stability-Indicating RP-UPLC Method for the Quantitative Determination of Bromfenac Sodium and Its Impurities in an Ophthalmic Dosage Form)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Bromfenac Therapy. According to news reporting out of Andhra Pradesh, India, by NewsRx editors, research stated, "A new rapid stability-indicating reversed-phase UPLC method was developed and validated for the determination of Bromfenac sodium and its impurities in Bromfenac ophthalmic solution. During literature search, only a few publications were found about Bromfenac sodium."

Our news journalists obtained a quote from the research from JNT University, "There is no official monograph in the pharmacopoeias about Bromfenac sodium. Chromatographic separation has been achieved on a polar-embedded Waters Acquity BEH Shield RP18 (100 mmx 2.1 mm, 1.7 mu m) column under gradient elution by using a binary mixture of potassium dihydrogen phosphate (0.01 M, pH 3.3) and acetonitrile (ACN) at a flow rate of 0.5 mL/min. Chromatogram was monitored at 265 nm using a photodiode array detector (PDA). The drug and its related impurities are eluted within 13 min. Resolution of Bromfenac sodium and all eight potential impurities have been achieved greater than 4.0 for all pairs of compounds. To prove the stability-indicating power of the method, the drug was subjected to hydrolytic (acid, alkaline and water), oxidative, photolytic and thermal stress, and the major degradation products were identified based on LC-MS analysis."

According to the news editors, the research concluded: "The developed method was validated as per ICH guidelines with respect to specificity, linearity, limit of detection, limit of quantification, precision, accuracy and robustness."


Our news journalists report that additional information may be obtained by contacting S. Koppala, JNT Univ, Center Chem Sci & Technol, IST, Hyderabad 500085, Andhra Pradesh, India. Additional authors for this research include V.R. Reddy and J.S. Anireddy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/chromsci/bmw089. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Andhra Pradesh, India, Asia, Ophthalmic Antiinflammatory Agents, Ophthalmic Preparations, Drugs and Therapies, Bromfenac Therapy, Dosage Forms, Analgesics, JNT University.

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Ethanol

Recent Studies from Jawaharlal Nehru Technological University Add New Data to Ethanol (Chronic treatment with a selective 5-HT6 receptor antagonist alters the behavioral and neurochemical effects of ethanol in young adult rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Ethanol. According to news reporting from Hyderabad, India, by NewsRx journalists, research stated, "Experimental evidence indicates a potential role of 5-HT6 receptors in the regulation of addictive behavior. We studied the effects of a potent and selective 5-HT6 receptor antagonist (compound A) on voluntary ethanol intake and behavioral/neurochemical changes induced by ethanol."

The news correspondents obtained a quote from the research from Jawaharlal Nehru Technological University, "The pharmacokinetic interaction of compound A and ethanol was assessed. The effect of compound A on schedule-induced ethanol polydipsia was studied to determine its effect on voluntary ethanol intake. Open-field and ethanol-induced loss of righting reflex assays were carried out to determine the effect of compound A on the ataxic and sedative effects of ethanol. The effect on motor learning was evaluated using rotarod and brain microdialysis was carried out to study the effect on monoaminergic neurotransmission. No significant changes were observed in the pharmacokinetic parameters of compound A when cotreated with ethanol. Compound A significantly decreased voluntary ethanol consumption and attenuated the effects of ethanol on motor learning. Compound A also antagonized the sedative and ataxic effects of ethanol. The effect of ethanol on the dopaminergic and noradrenergic neurotransmission was blocked by compound A. The effects of compound A were evident only after chronic treatment."

According to the news reporters, the research concluded: "Compound A may have attenuated the behavioral effects of ethanol by blocking the ethanol-induced efflux of dopamine and norepinephrine in the motor cortex."

For more information on this research see: Chronic treatment with a selective 5-HT6 receptor antagonist alters the behavioral and neurochemical effects of ethanol in young adult rats. Behavioural Pharmacology, 2016;27(2-3 Spec I):225-35. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting P. Jayarajan, aDiscovery Research, Suven Life Sciences Ltd bDept. of Pharmaceutical sciences, Jawaharlal Nehru Technological University Hyderabad, Hyderabad, India. Additional authors for this research include R. Nirogi, A. Shinde, V. Benade and N.R Muddana.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000141. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Pharmaceuticals, India, Alcohols, Hyderabad, Ethanolamines, Pharmacokinetics.

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Heart Disorders and Diseases - Atrial Fibrillation

Recent Studies from Jikei University Add New Data to Atrial Fibrillation (Adenosine testing during cryoballoon ablation and radiofrequency ablation of atrial fibrillation: A propensity score-matched analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Atrial Fibrillation have been presented. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "The infusion of adenosine triphosphate after radio-frequency (RF) pulmonary vein (PV) isolation (PVI), which may result in acute transient PV-atrium reconnection, can unmask dormant conduction. The purpose of this study was to compare the incidence and characteristics of dormant conduction after cryoballoon (CB) and RF ablation of atrial fibrillation (AF)."

The news reporters obtained a quote from the research from Jikei University, "Of 414 consecutive patients undergoing initial catheter ablation of paroxysmal AF, 246 (59%) propensity score-matched patients (123 CB-PVI and 123 RF-PVI) were included. Dormant conduction was less frequently observed in patients who underwent CB-PVI than in those who underwent RF-PVI (4.5% vs 12.8% of all PVs; P<.0001). The incidence of dormant conduction in each PV was lower in patients who underwent CB-PVI than in those who underwent RF-PVI in the left superior PV (P < .0001) and right superior PV (P = .001). The site of dormant conduction was mainly located around the bottom of both inferior PVs after CB-PVI. Multivariable analysis revealed that a longer time to the elimination of the PV potential (odds ratio 1.018; 95% confidence interval 1.001-1.036; P =.04) and the necessity of touch-up ablation (odds ratio 3.242; 95% confidence interval 2.761-7.111; P< .0001) were independently associated with the presence of dormant conduction after CB-PVI. After the elimination of dormant conduction by additional ablation, the AF free rate was similar in patients with and without dormant conduction after both CB-PVI and RF-PVI (P = .28 and P = .73, respectively)."

According to the news reporters, the research concluded: "The results of the propensity score-matched analysis showed that dormant PV conduction was less frequent after CB ablation than after RF ablation and was not associated with ablation outcomes."


Our news correspondents report that additional information may be obtained by contacting M. Tokuda, Jikei Univ, Sch Med, Dept. of Cardiol, Minato Ku, Tokyo 1058461, Japan. Additional authors for this research include S. Matsuo, R. Isogai, G. Uno, K. Tokutake, K. Yokoyama, M. Kato, R. Narui, S. Tanigawa, S. Yamashita, K. Inada, M. Yoshimura and T. Yamane.

Keywords for this news article include: Tokyo, Japan, Asia, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Jikei University.

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Heart Disorders and Diseases - Heart Disease

Recent Studies from Johns Hopkins University Add New Data to Heart Disease (The Risk Continuum of Atherosclerosis and its Implications for Defining CHD by Coronary Angiography)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Disease is now available. According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "Patients undergoing coronary angiography for suspected coronary heart disease who are found to have coronary atherosclerotic disease with <50% diameter stenosis may carry a risk of adverse cardiac events similar to that in patients with single-vessel obstructive disease. Yet clinical practice guidelines offer no direction for managing symptomatic patients with nonobstructive coronary atherosclerosis because current diagnostic criteria for coronary heart disease are not met."

The news correspondents obtained a quote from the research from Johns Hopkins University, "Accordingly, secondary preventive measures are not endorsed, and their role is not defined in this setting. Available data suggest that we are missing the opportunity to provide effective preventive measures in millions of patients with nonobstructive coronary heart disease."

According to the news reporters, the research concluded: "The emergence of noninvasive coronary angiography in patients with suspected coronary heart disease provides the opportunity to transition from a categorical perspective on the presence or absence of coronary heart disease to accepting the risk continuum from atherosclerosis and its implications for diagnosis and management."

For more information on this research see: The Risk Continuum of Atherosclerosis and its Implications for Defining CHD by Coronary Angiography. *Journal of the American College of Cardiology*, 2016;68(22):2467-2478. *Journal of the American College of Cardiology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.

Our news journalists report that additional information may be obtained by contacting A. Arbab-Zadeh, Johns Hopkins University, Dept. of Med, Div Cardiol, Baltimore, MD, United States.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Diagnosis, Article Review, Risk and Prevention, Cardiovascular Diseases and Conditions, Diagnostic Techniques and Procedures, Cardiovascular Diagnostic Techniques, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Angiography, Heart Function Tests, Arteriosclerosis, Atherosclerosis, Heart Disease, Cardiology, Johns Hopkins University.

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Apoptosis

Recent Studies from Konkuk University Add New Data to Apoptosis (Loss of PGL-1 and PGL-3, members of a family of constitutive germ-granule components, promotes germline apoptosis in C. elegans)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Apoptosis. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "In Caenorhabditis elegans, the mechanisms regulating germline apoptosis remain largely unknown, except for the core machinery. Here, we found that mutants of pgl-1 and pgl-3, encoding members of a family of constitutive protein components of germline-specific P granules, showed increased germline apoptosis under both physiological and DNA-damaged conditions."

Our news journalists obtained a quote from the research from Konkuk University, "We also found that the number of germ cells that lost PGL proteins increased significantly following UV irradiation, and that only those PGL-absent germ cells were selectively engulfed by gonadal sheath cells in adult hermaphrodite gonads. We further revealed that CEP-1, the p53 homolog, and the caspase CED-3 promoted elimination of PGL-1 from germ cells following UV irradiation. Furthermore, protein levels of CED-4, the Apaf-1 homolog, and cytoplasmic translocation of SIR-2.1, a Sirtuin homolog, significantly increased in pgl mutants and increased even more following UV irradiation. CED-4 and SIR-2.1 were essential for high levels of germline apoptosis in pgl mutants."

According to the news editors, the research concluded: "PGL proteins suppress excessive germline apoptosis by repressing both the protein levels of CED-4 and the cytoplasmic translocation of SIR-2.1. Our study has revealed new roles for PGL-1 and PGL-3 in the control of germline apoptosis."


Our news journalists report that additional information may be obtained by contacting Y.H. Shim, Dept. of Bioscience and Biotechnology, Konkuk University, Seoul 143-701, Republic of Korea Institute of KU Biotechnology, Konkuk University, Seoul 143-701, South Korea. Additional authors for this research include Y.H. Shim and I. Kawasaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/jcs.174201. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Genetics, Apoptosis, Genitalia, Germ Cells, South Korea.

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Recent Studies from Kunming Medical University Add New Data to Lipopolysaccharides (Protective effect of Xuebijing injection on D-galactosamine- and lipopolysaccharide-induced acute liver injury in rats through the regulation of p38 MAPK, MMP-9 ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lipopolysaccharides is the subject of a report. According to news reporting from Kunming, People's Republic of China, by NewsRx journalists, research stated, "Xuebijing injection (XBJ) has long been used to treat infectious diseases in China. The therapeutic effect of XBJ is probably associated with anti-inflammatory effects."

The news correspondents obtained a quote from the research from Kunming Medical University, "However, the precise mechanisms responsible for the effects of XBJ remain unknown. The present study was conducted in order to evaluate the protective effects of XBJ in a rat model of D-galactosamine (D-Gal)- and lipopolysaccharide (LPS)-induced acute liver injury. In the present study, the rats were injected with D-Gal and LPS intraperitoneally to induce acute liver injury. Two hours prior to D-Gal and LPS administration, the treatment group was administered XBJ by intravenous infusion. The effects of XBJ on D-Gal- and LPS-induced expression of tumor necrosis factor (TNF)-alpha-induced protein 8-like 2 (TIPE2), nuclear factor-B (NF-B), matrix metalloproteinase-9 (MMP-9) and heme oxygenase-1 (HO-1) as well as mitogen-activated protein kinase (MAPK) signaling was examined using reverse transcription-quantitative polymerase chain reaction (RT-qPCR), western blot analysis, immunofluorescence, as well as by analysing the serum levels of pro-inflammatory cytokines and the transaminases, alanine aminotransferase (ALT) and aspartate aminotransferase (AST). Myeloperoxidase (MPO), malondialdehyde (MDA) and superoxide dismutase (SOD) levels in the rat liver tissues were also measured. For histological analysis, hematoxylin and eosin (H&E)-stained liver samples were evaluated. The results showed that XBJ upregulated TIPE2 and HO-1 expression, reduced the expression of NF-B65 and MMP-9, inhibited the LPS-induced gene expression of c-jun N-terminal kinase (JNK) and p38 MAPK, decreased the generation of pro-inflammatory cytokines [interleukin (IL)-6, IL-13 and TNF-], inhibited ALT and AST activity, and ameliorated D-Gal- and LPS-induced liver injury. The histological results also demonstrated that XBJ attenuated D-Gal- and LPS-induced liver inflammation. It was found that XBJ may prevent LPS-induced pro-inflammatory gene expression through inhibiting the NF-B and MAPK signaling pathways by upregulating TIPE2 expression, thereby attenuating LPS-induced liver injury in rats."

According to the news reporters, the research concluded: "The marked protective effects of XBJ suggest that it has the potential to be used in the treatment of LPS-induced liver injury."

For more information on this research see: Protective effect of Xuebijing injection on D-galactosamine- and lipopolysaccharide-induced acute liver injury in rats through the regulation of p38 MAPK, MMP-9 and HO-1 expression by increasing TIPE2 expression. *International Journal of Molecular Medicine, 2016;38(5):1419-1432. International Journal of Molecular Medicine* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

Our news journalists report that additional information may be obtained by contacting W. Zhang, Kunming Med Univ, Hosp 1, Dept. of Emergency Med, Kunming
Recent Studies from Mahidol University Add New Data to Reciprocating Tachycardia (Determining the Site of Accessory Pathways in Orthodromic Reciprocating Tachycardia by Using the Response to Right Ventricular Pacing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Reciprocating Tachycardia. According to news reporting originating from Bangkok, Thailand, by NewsRx correspondents, research stated, "Postpacing interval (PPI) after right ventricular (RV) pacing entrainment minus tachycardia cycle length (TCL) with a correction for atrioventricular (AV) node delay (corrected PPI-TCL) was useful to differentiate atrioventricular node reentrant tachycardia (AVNRT) from orthodromic reciprocating tachycardia (ORT). However, the value of corrected PPI-TCL in determining the site of the accessory pathway (AP) in ORT has not been investigated."

Our news editors obtained a quote from the research from Mahidol University, "The purpose of this study was to assess whether the corrected PPI-TCL is useful in differentiating ORT using a left-sided AP from a right-sided AP. We studied 52 patients with ORT using a left-sided AP and 13 patients with a right-sided AP. The PPI was measured upon cessation of the RV pacing at a cycle length 10-40 ms shorter than the TCL. The corrected PPI-TCL was calculated from the subtraction of the increment in AV nodal conduction time of the first PPI from the PPI-TCL. The mean corrected PPI-TCL was 83 ± 20 ms in patients with ORT using a left-sided AP and 27 ± 19 ms in patients with a right-sided AP (P (<=) 0.001). All patients with ORT using a left-sided AP except three patients with left septal AP and none of the patients with ORT using a right-sided AP had a corrected PPI-TCL >55 ms."

According to the news editors, the research concluded: "The corrected PPI-TCL after the RV pacing entrainment is useful to guide differentiating ORT using a left-sided AP from a right-sided AP."


The news editors report that additional information may be obtained by contacting W. Boonyapisit, Division of Cardiology, Dept. of Medicine, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand. Additional authors for this research include
Recent Studies from Manipal University Add New Data to Clostridium difficile (Characterization Of Clostridium Difficile Isolated From Diarrheal Patients In A Tertiary-care Hospital, Karnataka, South India)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - Clostridium difficile. According to news reporting originating from Karnataka, India, by NewsRx correspondents, research stated, "Increase in Clostridium difficile infection in tertiary-care hospitals in Karnataka, South India with a paucity of data on antibiotic susceptibility and genetic characteristics of the pathogen from this region of the country necessitated this study. From April 2012 to December 2014, 480 hospitalized antibiotic-associated diarrhea cases with a history of antibiotic treatment in the previous three weeks were enrolled."

Our news editors obtained a quote from the research from Manipal University, "Sixteen percent of the samples were positive for C. difficile toxins A and B by rapid enzyme immunoassay, anaerobic culture and multiplex PCR. In 40 representative strains, minimum inhibitory concentrations (MICs) determined by E-test revealed that 39 strains were resistant to imipenem and moxifloxacin (MIC > 32 μg/ml), 38 to clindamycin (MIC > 256 μg/ml) and 19 to tetracycline (MIC > 4 μg/ml), while all 40 strains were susceptible to ampicillin (MIC < 2 μg/ml), ampicillin sulbactam (MIC < 8 μg/ml), metronidazole (MIC < 8 μg/ml) and vancomycin group (MIC <2 μg/ml). Pulsed field gel-electrophoresis (PFGE) of 13 representative strains grouped them into three clusters: cluster A consisting of two strains having > 65% similarity, cluster B of 6 strains with 100% similarity (considered clonal) and 3 strains with > 85% similarity, and cluster C of 2 strains with 50% similarity. Clusters A and C contained unrelated strains having different antibiograms."

According to the news editors, the research concluded: "Periodic monitoring of resistance profiles with epidemiological typing by PFGE should aid in interpretation of emerging drug resistant C. difficile clones."

For more information on this research see: Characterization Of Clostridium Difficile Isolated From Diarrheal Patients In A Tertiary-care Hospital, Karnataka, South India. Southeast Asian Journal of Tropical Medicine and Public Health, 2016;47(6):1221-1230. Southeast Asian Journal of Tropical Medicine and Public Health can be contacted at: Southeast Asian Ministers Educ Organization, Seameo-Tropmed, 420-6 Rajvithi Rd, Bangkok 10400, Thailand.

The news editors report that additional information may be obtained by contacting B. Mamatha, Manipal Univ, Cent Res Lab, Enter Dis Div, Manipal, Karnataka, India. Additional
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Keywords for this news article include: Karnataka, India, Asia, Gram-Positive Endospore-Forming Bacteria, Gram-Positive Endospore-Forming Rods, Clostridium, Epidemiology, Gram-Positive Bacteria, Clostridium difficile, Antibacterial Agents, Drugs and Therapies, Antimicrobials, Antibiotics, Genetics, Diarrhea, Manipal University.

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**Drugs and Therapies - Natural Penicillins**

**Recent Studies from McMaster University Add New Data to Natural Penicillins (Structural and Kinetic Characterization of Diazabicyclococtanes as Dual Inhibitors of Both Serine-b-Lactamases and Penicillin-Binding Proteins)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Natural Penicillins are presented in a new report. According to news reporting out of Hamilton, Canada, by NewsRx editors, research stated, "Avibactam is a diazabicyclococtane b-lactamase inhibitor possessing outstanding but incomplete efficacy against multidrug-resistant Gram-negative pathogens in combination with b-lactam antibiotics. Significant pharmaceutical investment in generating derivatives of avibactam warrants a thorough characterization of their activity."

Funders for this research include Howard Hughes Medical Institute, Canadian Institutes of Health Research, Canada Foundation for Innovation, Canada Research Chairs, Natural Sciences and Engineering Research Council of Canada, British Columbia Knowledge Development Fund.

Our news journalists obtained a quote from the research from McMaster University, "We show here through structural and kinetic analysis that select diazabicyclooctane derivatives display effective but varied inhibition of two clinically important b-lactamases (CTX-M-15 and OXA-48). Furthermore, these derivatives exhibit considerable antimicrobial activity (MIC (<=) 2 mg/mL) against clinical isolates of *Pseudomonas aeruginosa*, *Escherichia coli*, and *Enterobacter* spp. Imaging of cell phenotype along with structural and biochemical experiments unambiguously demonstrate that this activity, in *E. coli*, is a result of targeting penicillin-binding protein 2. Our results suggest that structure-activity relationship studies for the purpose of drug discovery must consider both b-lactamases and penicillin-binding proteins as targets."

According to the news editors, the research concluded: "We believe that this approach will yield next-generation combination or monotherapies with an expanded spectrum of activity against currently untreatable Gram-negative pathogens."


Our news journalists report that additional information may be obtained by contacting A.M. King, MG DeGroote Institute for Infectious Disease Research, McMaster University, Hamilton, Ontario L8S 4K1, Canada. Additional authors for this research include D.T. King, S. French, E. Brouillette, A. Asli, J.A. Alexander, M. Vuckovic, S.N. Maiti, T.R.
Suicide

Recent Studies from McMaster University Add New Data to Suicide (Body Mass Index Is an Important Predictor for Suicide: Results from a Systematic Review and Meta-Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Suicide is now available. According to news reporting originating in Hamilton, Canada, by NewsRx journalists, research stated, "Public health concerns for the independent management of obesity and suicidal behavior are rising. Emerging evidence suggests body weight plays an important role in quantifying the risk of suicide."

Financial supporters for this research include Canadian Institute for Health Research, Brain and Behavior Research Foundation.

The news reporters obtained a quote from the research from McMaster University, "In light of these findings, we aimed to clarify the association between body mass index (BMI) and suicidal behavior by systematically reviewing and evaluating the literature. Studies were identified by searching MEDLINE, EMBASE, PsycINFO, and CINAHL from inception to January 2015, supplemented by hand and grey literature searches. Study screening, data extraction, and risk of bias assessment were conducted in duplicate. We included 38 observational studies. Meta-analyses supported an inverse association between BMI and completed suicide. Pooled summary estimates demonstrated that underweight was significantly associated with an increased risk of completed suicide (HR=1.21, 95% CI 1.07 to 1.36, p=.002), and obesity (HR=0.71, 95% CI 0.56 to 0.89, p=.003) and overweight (HR=0.78, 95% CI 0.75 to 0.82, p<.0001) were significantly associated with a decreased risk of completed suicide relative to normal weight. A qualitative summary of the literature demonstrated conflicting evidence regarding the association between BMI and attempted suicide and revealed no association between BMI and suicidal ideation. BMI may be used to aid the assessment of suicide risk, especially that of completed suicide."

According to the news reporters, the research concluded: "However, unmeasured confounders and systematic biases of individual studies limit the quality of evidence."

For more information on this research see: Body Mass Index Is an Important Predictor for Suicide: Results from a Systematic Review and Meta-Analysis. Suicide and Life-Threatening Behavior, 2016;46(6):697-736. Suicide and Life-Threatening Behavior can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Suicide and Life-Threatening Behavior - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1943-278X)
Recent Studies from Ministry of Health Add New Data to Meningitis (Population Pharmacokinetics and Dosing Regimen Optimization of Meropenem in Cerebrospinal Fluid and Plasma in Patients with Meningitis after Neurosurgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Meningitis. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Meropenem is used to manage postneurosurgical meningitis, but its population pharmacokinetics (PPK) in plasma and cerebrospinal fluid (CSF) in this patient group are not well-known. Our aims were to (i) characterize meropenem PPK in plasma and CSF and (ii) recommend favorable dosing regimens in postneurosurgical meningitis patients."

Financial support for this research came from Ministry of Science and Technology of the People's Republic of China (MOST).

Our news journalists obtained a quote from the research from the Ministry of Health, "Eighty-two patients were enrolled to receive meropenem infusions of 2 g every 8 h (q8h), 1 g q8h, or 1 g q6h for at least 3 days. Serial blood and CSF samples were collected, and concentrations were determined and analyzed via population modeling. Probabilities of target attainment (PTA) were predicted via Monte Carlo simulations, using the target of unbound meropenem concentrations above the MICs for at least 40% of dosing intervals in plasma and at least of 50% or 100% of dosing intervals in CSF. A two-compartment model plus another CSF compartment best described the data. The central, intercentral/peripheral, and intercentral/CSF compartment clearances were 22.2 liters/h, 1.79 liters/h, and 0.01 liter/h, respectively. Distribution volumes of the central and peripheral compartments were 17.9 liters and 3.84 liters, respectively. The CSF compartment volume was fixed at 0.13 liter, with its clearance calculated by the observed drainage amount. The multiplier for the transfer from the central to the CSF compartment was 0.172. Simulation results show that the PTAs increase as infusion is prolonged and as the daily CSF drainage volume decreases."

According to the news editors, the research concluded: "A 4-hour infusion of 2 g q8h with CSF drainage of less than 150 ml/day, which provides a PTA of >90% for MICs of <= 8 mg/liter in blood and of <= 0.5 mg/liter or 0.25 mg/liter in CSF, is recommended."
Oncology - Colon Cancer

Recent Studies from Nanjing University Add New Data to Colon Cancer (MicroRNAs as Regulators, Biomarkers and Therapeutic Targets in the Drug Resistance of Colorectal Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Chemotherapy and targeted therapy are the main options for advanced colorectal cancer (CRC). However, resistance to these therapies is a major challenge in the clinic."

The news reporters obtained a quote from the research from Nanjing University, "Understanding molecular mechanisms and developing effective strategies against the drug resistance are highly desired. Increasing evidence has revealed that microRNAs (miRNAs) are closely linked to drug resistance in CRC. The explosion of knowledge in this field has brought forward new predictive and therapeutic opportunities. In this review, we systemically summarize the roles of miRNAs as regulators, tissue or circulating biomarkers, and therapeutics in the CRC resistance to 5-fluorouracil (5-FU), oxaliplatin and anti-EGFR therapy."

According to the news reporters, the research concluded: "We also discuss the potential unsettled issues and future directions concerning these processes."

For more information on this research see: MicroRNAs as Regulators, Biomarkers and Therapeutic Targets in the Drug Resistance of Colorectal Cancer. Cellular Physiology and Biochemistry, 2016;40(1-2):62-76. Cellular Physiology and Biochemistry can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com/; Cellular Physiology and Biochemistry -
Our news correspondents report that additional information may be obtained by contacting C. Chen, Nanjing University, Sch Med, Jinling Hosp, Dept. of Med Oncol, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include M.X. Huang, Y. Wang, L.Y. Wang, C. Chen and X.Y. Chu.

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Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Colorectal Research, Drugs and Therapies, Gastroenterology, Drug Resistance, Colon Cancer, Oncology, Therapy, Nanjing University.

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Drugs and Therapies - Antineoplastics

Recent Studies from National Defense Medical College Add New Data to Antineoplastics (Impact of UGT1A1 genotype upon toxicities of combination with low-dose irinotecan plus platinum)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antineoplastics. According to news reporting originating from Tokorozawa, Japan, by NewsRx correspondents, research stated, "Irinotecan-induced severe toxicities are possibly related to UGT1A1*6 and *28 genotypes. However, the correlation between UGT1A1 polymorphisms and the risk of toxicities induced by low-dose irinotecan plus platinum combination therapy still remains controversial."

Our news editors obtained a quote from the research from National Defense Medical College, "This prospective observational study aimed to examine the correlation between UGT1A1 genotypes and clinical outcomes of low-dose irinotecan (median 60 mg/m(2), range 25-115 mg/m(2)) plus platinum in Japanese patients with solid tumors. Toxicity profiles were compared between UGT1A1 SNP heterozygotes (hetero-group) and patients with homozygous SNP profile (*6/*6, *28/*28 and *6/*28). Logistic regression models were used to identify independent risk factors for these toxicities. A total of 331 patients were enrolled: 84% with hetero-group and 16% with homo-group. Although the initial irinotecan dose was similar, the dose intensities during the three cycles were significantly lower in the homo-group (p <0.01). Grade 3/4 hematological toxicities were significantly more frequent in the homo-group. Multivariable analysis identified UGT1A1 genotype (p <0.01) as an independent factor for grade 4 hematological toxicity in the first treatment cycle. UGT1A1 genotype has a major impact on the increased risk of severe hematological toxicities, even in low-dose irinotecan regimens."

According to the news editors, the research concluded: "UGT1A1 genotypes are useful biomarkers for predicting severe hematological toxicities in patients treated with irinotecan plus platinum analog."

Recent Studies from National University Add New Data to Neurons (Evidence for a role of glycoprotein M6a in dendritic spine formation and synaptogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Neurons is now available. According to news reporting from Buenos Aires, Argentina, by NewsRx journalists, research stated, "Neuronal glycoprotein M6a belongs to the tetraspan proteolipid protein (PLP) family. Mutations in GPM6A gene have been related to mental disorders like schizophrenia, bipolar disorders and claustrophobia."

The news correspondents obtained a quote from the research from National University, "M6a is expressed mainly in neuronal cells of the central nervous system and it has been extensively related to neuronal plasticity. M6a induces neuritogenesis and axon/filopodium outgrowth; however its mechanism of action is still unresolved. We recently reported that the integrity of the transmembrane domains (TMDs) 2 and 4 are critical for M6a filopodia induction. There is also experimental data suggesting that M6a might be involved in synaptogenesis. In this regard, we have previously determined that M6a is involved in filopodia motility, a process that is described in the first step of the filopodial model for synaptogenesis. In this work we analyzed the possible involvement of M6a in synaptogenesis and spinogenesis, and evaluated the effect of two non-synonymous SNPs present in the coding region of TMD2-GPM6A in these processes. The results showed that endogenous M6a colocalized with both, pre-synaptic (synaptophysin) and post-synaptic (NMDA-R1), markers along of neuronal soma and dendrites. M6a-overexpressing neurons displayed an increased number of synaptophysin and NMDA-R1 puncta and, also, an increased number of colocalization puncta between both markers. Conversely, the number of synaptic puncta markers in neurons expressing nsSNP variants was similar to those of control neurons. Overexpression of M6a is accompanied by an increase in spine density, particularly in mature spines, as compared with neurons expressing...
mGFP or GPM6A nsSNP variants."

According to the news reporters, the research concluded: "Taken together, these results suggest that M6a contributes positively to spine and, likely, synapse formation."

For more information on this research see: Evidence for a role of glycoprotein M6a in dendritic spine formation and synaptogenesis. *Molecular and Cellular Neuroscience*, 2016;77():95-104. *Molecular and Cellular Neuroscience* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Molecular and Cellular Neuroscience - www.journals.elsevier.com/molecular-and-cellular-neuroscience/)

Our news journalists report that additional information may be obtained by contacting C. Scorticati, Univ Nacl San Martin UNSAM, Consejo Nacl Invest Cient & Tecn CONICET, Inst Invest Biotecnol IIB INTECH, RA-1650 Buenos Aires, DF, Argentina. Additional authors for this research include M.D. Garcia, A.C. Frasch and C. Scorticati.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mcn.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Buenos Aires, Argentina, South America, Biological Tumor Markers, Biological Factors, Dendritic Spines, Glycoconjugates, Synaptophysin, Glycoproteins, Dendrites, Genetics, Neurons, Cells, National University.

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**Drugs and Therapies - Antiepileptics**

**Recent Studies from Oslo University Hospital Add New Data to Antiepileptics (Discrepancies between physicians' prescriptions and patients' use of antiepileptic drugs)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antiepileptics is now available. According to news originating from Oslo, Norway, by NewsRx correspondents, research stated, "The purpose of this study was to investigate whether prescribed antiepileptic drugs (AEDs) were consistent with what patients actually used, and to explore challenges in treatment and reasons for possible discrepancies according to patients' view of their medication. Anonymized data were collected from a questionnaire distributed to in-and outpatients and their physicians at the National Center for Epilepsy, Norway."

Our news journalists obtained a quote from the research from Oslo University Hospital, "They were asked to report AEDs and dosages currently used. Additionally, 20 patients were interviewed regarding AED treatment. This information was analyzed qualitatively. Answers from 174 patients and their physicians were analyzed. The patients' mean age was 43 years (21-83 years), 85 (49%) were women, and 56% used AED polytherapy (2-5 AEDs). For 56 patients (32%), there was a discrepancy regarding either dosage (n = 70) or prescribed drug (n = 32) (12%). There were discrepancies for all top 10 used drugs, with a similar distribution of patients stating lower or higher doses. Based upon interviews of 20 patients, concerns and challenges in AED treatment were addressed. Polytherapy and adverse effects which reduced the patients' quality of life were the most important obstacles for adherence to the treatment. This study revealed that 32% of the patients had one or more
discrepancies between what the physician had prescribed and what the patients actually used, in either the type or the dosages of AEDs. Polytherapy, adverse effects, and poor adherence were common challenges.

According to the news editors, the research concluded: "Improved communication and information about AEDs may improve adherence and thus treatment outcome."


The news correspondents report that additional information may be obtained from C.J. Landmark, Oslo Univ Hosp, Dept. of Pharmacol, Oslo, Norway. Additional authors for this research include O. Henning, A. Baftiu, A.G. Granas, S.I. Johannessen, K.O. Nakken and C.J. Landmark.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ANE.12578. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Norway, Europe, Drugs and Therapies, Antiepileptics, Oslo University Hospital.

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**Life Science Research - Molecular Biology**

**Recent Studies from Peking Union Medical College Add New Data to Molecular Biology (Semisynthetic and SAR Studies of Amide Derivatives of Neocrotocembraneic Acid as Potential Antitumor Agents)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Life Science Research - Molecular Biology. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "A series of novel amide derivatives of cembranoid neocrotocembraneic acid were designed and synthesized."

Our news journalists obtained a quote from the research from Peking Union Medical College, "The antiproliferative activities of these derivatives were evaluated against three human tumor cell lines (the human cervical cancer cell line HeLa, chronic myeloid leukemia cell line K562 and leukemia multidrug-resistant cell line K562/A02). Some of the synthesized compounds exhibited moderate to good activity against all three cancer cell lines."

According to the news editors, the research concluded: "Particularly, compound 8a exhibited more potent antiproliferative activity than the reference drug etoposide against drug-resistant cell line K562/A02, indicating that it possessed a great potential for further development as a multidrug resistance modulator by structural modification."

For more information on this research see: Semisynthetic and SAR Studies of Amide Derivatives of Neocrotocembraneic Acid as Potential Antitumor Agents. Molecules, 2016;21(11):2424-2433. Molecules can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)
Our news journalists report that additional information may be obtained by contacting H. Shang, Peking Union Med College, Beijing 100193, People's Republic of China. Additional authors for this research include L.Y. Li, W.H. Cheng, J. Luo, H.W. Zhang and Z.M. Zou.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Molecular Biology, Life Science Research, Cell Line, Peking Union Medical College.

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Nursing - Oncology Nursing
Recent Studies from People's Hospital Add New Data to Oncology Nursing (The Chinese version of hospital anxiety and depression scale: Psychometric properties in Chinese cancer patients and their family caregivers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nursing - Oncology Nursing have been published. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "The Hospital Anxiety and Depression Scale (HADS) acts as one of the most frequently used self reported measures in cancer practice. The evidence for construct validity of HADS, however, remains inconclusive."

Our news editors obtained a quote from the research from People's Hospital, "The objective of this study is to evaluate the psychometric properties of the Chinese version HADS (C-HADS) in terms of construct validity, internal consistency reliability, and concurrent validity in dyads of Chinese cancer patients and their family caregivers. This was a cross-sectional study, conducted in multiple centers: one hospital in each of the seven different administrative regions in China from October 2014 to May 2015. A total of 641 dyads, consisting of cancer patients and family caregivers, completed a survey assessing their demographic and background information, anxiety and depression using C-HADS, and quality of life (QOL) using Chinese version SF-12. Data analysis methods included descriptive statistics, confirmatory factor analysis (CFA), and Pearson correlations. Both the two-factor and one-factor models offered the best and adequate fit to the data in cancer patients and family caregivers respectively. The comparison of the two-factor and single-factor models supports the basic assumption of two-factor construct of C-HADS. The overall and two subscales of C-HADS in both cancer patients and family caregivers had good internal consistency and acceptable concurrent validity. The Chinese version of the HADS may be a reliable and valid screening tool, as indicated by its original two-factor structure."

According to the news editors, the research concluded: "The finding supports the basic assumption of two-factor construct of HADS."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejon.2016.09.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Oncology Nursing, Nursing, Cancer, Epidemiology, Hospital, Oncology, People's Hospital.

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Drugs and Therapies - Central Nervous System Agents

Recent Studies from Purdue University Add New Data to Central Nervous System Agents (Improved Release of Celecoxib from High Drug Loading Amorphous Solid Dispersions Formulated with Polyacrylic Acid and Cellulose Derivatives)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Central Nervous System Agents have been published. According to news reporting from West Lafayette, Indiana, by NewsRx journalists, research stated, "Amorphous solid dispersions (ASDs) have been extensively exploited as a strategy for improving the dissolution performance of poorly water-soluble drugs. However, factors underpinning the observed dissolution profiles are not clearly understood, and the choice of polymeric carriers is largely empirical."

Financial support for this research came from Center for Pharmaceutical Processing Research, Purdue University.

The news correspondents obtained a quote from the research from Purdue University. "In the current study, the dissolution performance of a high drug loading ASD containing the poorly water-soluble, anti-inflammatory agent, celecoxib, was optimized by using binary polymers combinations. Polyacrylic acid (PAA), a highly water-soluble polymer, was used to substantially increase the dissolution rate of the drug, while hydroxypropyl methyl cellulose (HPMC) or HPMC acetate succinate (HPMCAS) were added to stabilize the solid amorphous matrix against crystallization upon hydration, as well as to maintain supersaturation. Quantitative measurements of the impact of the polymers on the solution nucleation and growth rates of celecoxib revealed that, while the cellulose derivatives are effective nucleation inhibitors, it is more difficult to completely prevent crystal growth in solutions containing seed crystals, in particular at high supersaturations. Therefore, it is critical to prevent the formation of crystals in the dissolving matrix during dissolution. By using certain ratios of HPMC and PAA, both rapid release as well as crystallization inhibition could be achieved, even at high drug loadings."

According to the news reporters, the research concluded: "Utilizing combinations of polymers may therefore be useful to tailor release profiles while providing optimized crystallization inhibition."

For more information on this research see: Improved Release of Celecoxib from High Drug Loading Amorphous Solid Dispersions Formulated with Polyacrylic Acid and Cellulose Derivatives. Molecular Pharmaceutics, 2016;13(3):873-84. (American Chemical
Recent Studies from Research Hospital Add New Data to Heart Bypass Surgery (Preoperative Platelet to Lymphocyte Ratio Is Associated with Early Morbidity and Mortality after Coronary Artery Bypass Grafting)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Surgery - Heart Bypass Surgery. According to news reporting from Kocaeli, Turkey, by NewsRx journalists, research stated, "To investigate the association of platelet to lymphocyte ratio to mortality and morbidity after coronary artery bypass grafting operation. We evaluated records of 916 patients who underwent coronary artery bypass grafting operation between January 2009 and May 2014 retrospectively."

The news correspondents obtained a quote from the research from Research Hospital, "Patients were grouped as Group 1 (n=604) if the platelet to lymphocyte ratio was above 142 and Group 2 (n=312) if platelet to lymphocyte ratio was below 142. The number of patients who developed a neurologic event during the hospital stay and in the first postoperative month was 7 (1.2%) in Group 1 and 12 (3.8%) in Group 2 for which the difference was statistically significant (p=.007). Early term mortality occurred in 3 patients (0.5%) in Group 1 and in 10 patients (3.2%) in Group 2 for which the difference was statistically highly significant (p=.001). In univariate and multivariate regression analysis, the preoperative platelet to lymphocyte ratio was determined as an independent risk factor for occurrence of atrial fibrillation in the early postoperative period, reoperation for sternum dehiscence, occurrence of a neurologic event, prolonged stay in the hospital and mortality."

According to the news reporters, the research concluded: "In this study, elevated levels of platelet to lymphocyte ratio were associated with mortality and morbidity after coronary artery bypass grafting operation."


Our news journalists report that additional information may be obtained by contacting H. Saskin, Dept. of Cardiovascular Surgery, Derince Training and Research Hospital, Kocaeli, Turkey. Additional authors for this research include C. Duzyol, K.S. Ozcan, R. Aksoy and M. Idiz.

The direct object identifier (DOI) for that additional information is:
Oncology - Ovarian Cancer

Recent Studies from Sacred Heart Catholic University Add New Data to Ovarian Cancer (Laparoscopic Versus Laparotomic Surgical Staging for Early-Stage Ovarian Cancer: A Case-Control Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Ovarian Cancer are discussed in a new report. According to news reporting originating in Rome, Italy, by NewsRx journalists, research stated, "To evaluate the oncologic outcomes of patients with early-stage ovarian cancer (eOC) managed by laparoscopy or laparotomy in a single high-volume gynecologic cancer center. Retrospective case-control study (Canadian Task Force classification II-2)."

The news reporters obtained a quote from the research from Sacred Heart Catholic University, "Catholic University of the Sacred Heart, Rome, Italy. Data of consecutive women with eOC undergoing comprehensive laparoscopic staging between 2007 and 2013 were matched with a cohort of patients undergoing open surgery between 2000 and 2011. Four-year survival outcomes were analyzed using the Kaplan-Meier method. Sixty women undergoing staging via laparoscopy were compared with a cohort of 120 patients undergoing open surgery. Baseline characteristics were similar between groups. Seventy percent of patients underwent adjuvant platinum based chemotherapy without differences between the 2 groups. Operative time (p =.01), estimated blood loss (p =.032), and median hospital stay (p =.001) were higher in patients submitted to laparotomic versus laparoscopic staging. As of October 2015, median duration of follow-up was 38 months (range, 24-48), recurrent disease was documented in 16 patients (13.3%) in the laparotomic group and in 5 patients (8.3%) in the laparoscopic group (p =.651), without differences in the pattern of recurrence presentation. Four-year progression-free survival (PFS) and overall survival (OS) rates were 89% and 92% in the laparoscopic group, respectively, and 81% and 91% in the laparotomic group, without any statistical significant difference between the groups (4-year PFS p =.651; 4-year OS p =.719)."

According to the news reporters, the research concluded: "The findings of the present study suggests that in the surgical treatment of FIGO stage I ovarian cancer, laparoscopy is associated with equivalent oncologic outcome compared with a conventional abdominal approach."


Our news correspondents report that additional information may be obtained by
contacting V. Gallotta, Sacred Heart Catholic University, Div Gynecol Oncol, Rome, Italy. Additional authors for this research include M. Petrillo, C. Conte, G. Vizzielli, A. Fagotti, G. Ferrandina, F. Fanfani, B. Costantini, V. Carbone and G. Scambia.

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Keywords for this news article include: Rome, Italy, Europe, Women's Health, Ovarian Cancer, Gynecology, Oncology, Surgery, Sacred Heart Catholic University.

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Cardiovascular Diseases and Conditions -...

Recent Studies from School of Medicine Add New Data to Atherosclerosis (Intraoperative middle cerebral artery pressure measurements during superficial temporal artery to middle cerebral artery bypass procedures in patients with cerebral ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Atherosclerosis is now available. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "No previous study has monitored middle cerebral artery (MCA) pressure during the superficial temporal artery (STA)-MCA bypass procedure for cerebral atherosclerotic disease. In this paper, the authors describe their method of monitoring MCA pressure and report their initial data on intraoperative MCA pressure and its relationship with hemodynamics prior to and after the bypass procedures."

Our news editors obtained a quote from the research from the School of Medicine, "The results from a total of 39 revascularization procedures performed between 2004 and 2014 were analyzed. The patient group included 27 men and 12 women, and their mean age at surgery was 67.6 years (range 39-83 years). The authors investigated the MCA pressure via the STA during STA-MCA bypass procedures. After one branch of the STA was anastomosed to the MCA, the other branch was connected to an arterial line, and a clip was placed temporally on the main STA trunk to monitor the pre-anastomosis MCA pressure. Simultaneously, the radial artery (RA) pressure was determined before removing the temporal clip to measure the post-anastomosis MCA pressure. The relationship between MCA pressures and single photon emission computed tomography findings and the risk factors for hyperperfusion after STA-MCA bypass were analyzed. The MCA/RA (%) pressure was significantly correlated with that of the resting stenotic/normal side cerebral blood flow (CBF) ratio (%) in the linear regression analysis (slope 1.200, r(2) = 0.3564, F = 20.49, p< 0.0001). The intraoperative MCA pressure was 39.3% of RA pressure in patients with Powers' Stage 2 cerebral atherosclerotic disease. After 1 branch of the STA was anastomosed, the intraoperative MCA pressure increased to 75.3% of the RA pressure. The rate of increase in pressure was significantly correlated with the increase in the STA diameter in the linear regression analysis (slope 2.59, r(2) = 0.205, F = 9.549, p = 0.0038). Hyperperfusion occurred in 2 cases. When mean values for these 2 patients were compared with those for the 37 patients without hyperperfusion, significant differences were found in the stenotic/normal side CBF ratio (p = 0.0001), pre-anastomosis MCA pressure (p = 0.02), rate of increase in pressure (p = 0.02), pre-anastomotic MCA/RA pressure ratio (p =
0.01), vascular reserve (p = 0.0489), and STA diameter (p = 0.0002). The measurement of intraoperative MCA pressure may be a useful technique to assess cerebral perfusion and for predicting the risk of hyperperfusion."

According to the news editors, the research concluded: "Monitoring MCA pressure is recommended during STA-MCA bypass procedures for atherosclerotic disease."

For more information on this research see: Intraoperative middle cerebral artery pressure measurements during superficial temporal artery to middle cerebral artery bypass procedures in patients with cerebral atherosclerotic disease. *Journal of Neurosurgery*, 2016;125 (6):1367-1373. *Journal of Neurosurgery* can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

The news editors report that additional information may be obtained by contacting F. Matano, Nippon Med Sch, Dept. of Neurol Surg, Tokyo, Japan. Additional authors for this research include Y. Murai, R. Tanikawa, H. Kamiyama, K. Tateyama, T. Tamaki, T. Mizunari, S. Mizumura, S. Kobayashi, A. Teramoto and A. Morita.

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Keywords for this news article include: Tokyo, Japan, Asia, Cardiovascular Diseases and Conditions, Angiology, Risk and Prevention, Superficial Temporal Artery, Middle Cerebral Artery, Atherosclerosis, Cardiology, School of Medicine.

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**Recent Studies from Scripps Research Institute Add New Data to Molecular and Cellular Biology (CRY2 and FBXL3 Cooperatively Degrade c-MYC)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Life Science Research - Molecular and Cellular Biology are presented in a new report. According to news reporting originating from La Jolla, California, by NewsRx correspondents, research stated, "For many years, a connection between circadian clocks and cancer has been postulated. Here we describe an unexpected function for the circadian repressor CRY2 as a component of an FBXL3-containing E3 ligase that recruits T58-phosphorylated c-MYC for ubiquitylation. c-MYC is a critical regulator of cell proliferation; T58 is central in a phosphodegron long recognized as a hotspot for mutation in cancer."

Funders for this research include NIH, Kinship Foundation, Sidney Kimmel Cancer Research Foundation, Lung Cancer Research Foundation, Swedish Research Council, Deutsche Forschungsgemeinschaft, American Heart Association, NIGMS.

Our news editors obtained a quote from the research from Scripps Research Institute, "This site is also targeted by FBXW7, although the full machinery responsible for its turnover has remained obscure. CRY1 cannot substitute for CRY2 in promoting c-MYC degradation. Their unique functions may explain prior conflicting reports that have fueled uncertainty about the relationship between clocks and cancer."

According to the news editors, the research concluded: "We demonstrate that c-MYC is a target of CRY2-dependent protein turnover, suggesting a molecular mechanism for
circadian control of cell growth and a new paradigm for circadian protein degradation."

For more information on this research see: CRY2 and FBXL3 Cooperatively Degrade c-MYC. *Molecular Cell*, 2016;64(4):774-789. *Molecular Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

The news editors report that additional information may be obtained by contacting K.A. Lamia, Scripps Res Inst, Dept. of Physiol Chem, La Jolla, CA 92037, United States. Additional authors for this research include S.J. Papp, A.B. Chan, E. Henriksson, S.D. Jordan, A. Kriebs, M. Nguyen, M. Wallace, Z.Z. Li, C.M. Metallo and K.A. Lamia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.10.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Molecular and Cellular Biology, Life Science Research, Oncology, Genetics, Cancer, Scripps Research Institute.

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**Oncology - Pancreatic Cancer**

**Recent Studies from Shanghai Jiao-Tong University Add New Data to Pancreatic Cancer (Periostin promotes the chemotherapy resistance to gemcitabine in pancreatic cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Pancreatic Cancer. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Pancreatic ductal adenocarcinoma (PDAC) ranks fourth among cancer-related deaths. The nucleoside analog gemcitabine has been the cornerstone of adjuvant chemotherapy in PDAC for decades."

Financial support for this research came from The National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "However, gemcitabine resistance develops within weeks of chemotherapy initiation, which might be intrinsic to cancer cells and influenced by tumor microenvironment. Recently, pancreatic stellate cells (PSCs) have greatly increased our attention on tumor microenvironment-mediated drug resistance. Periostin is exclusively overexpressed in PSCs and the stroma of PDAC creating a tumor-supportive microenvironment in the pancreas. However, whether periostin contributed to chemoresistance in PDAC remains unknown. Therefore, we focused on the role of periostin in PDAC by observing the effects of silencing this gene on gemcitabine resistance in vitro and in vivo aiming to explore the possible molecular mechanism. In this study, the pancreatic cancer cell (PCC) proliferation and apoptosis were assayed to investigate the sensitivity to gemcitabine after silencing periostin. We provide the evidence that periostin not only drives the carcinogenic process itself but also significantly associated with gemcitabine-induced apoptosis. These findings collectively indicated that periostin increases the chemoresistance to gemcitabine."

According to the news editors, the research concluded: "Thus, targeting periostin..."
might offer a new opportunity to overcome the gemcitabine resistance of PDAC."


The news correspondents report that additional information may be obtained from Q. Zhao, Shanghai Jiao Tong University, Sch Med, Natl Minist Educ, Shanghai 200025, People's Republic of China. Additional authors for this research include F. Li, F. Gao, L.X. Xing, P. Qin, X.X. Liang, J.J. Zhang, X.H. Qiao, L.Z. Lin, Q. Zhao and L.F. Du.

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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Radiation-Sensitizing Agents, Immunosuppressive Agents, Pancreatic Neoplasms, Drugs and Therapies, Gemcitabine Therapy, Pancreatic Cancer, Gastroenterology, Antineoplastics, Antimetabolites, Chemotherapy, Antivirals, Oncology, Pancreas, Shanghai Jiao-Tong University.

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**RNA Viruses - Lentivirus**

**Recent Studies from Sichuan University Add New Data to Lentivirus (Effect of lentiviral vector overexpression alpha-calcitonin gene-related peptide on titanium implant osseointegration in alpha-CGRP-deficient mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on RNA Viruses - Lentivirus. According to news reporting originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "Alpha-Calcitonin gene-related peptide (alpha-CGRP) plays a significant pathophysiological role in bone development, metabolism and remodeling around dental implants. However, the half-life of alpha-CGRP in plasma is only 10 min, which affects its long-time application and an alternative approach should be developed to deliver alpha-CGRP over long periods of time."

Our news editors obtained a quote from the research from Sichuan University, "The aim of this study is to investigate whether a lentiviral alpha-CGRP overexpression vector system can express this target-gene longer at peri-implant sites, thus enhancing osseointegration. Animals were divided to the following groups: alpha-CGRP(-/-), alpha-CGRP(-/-) with lentivirus transfection and alpha-CGRP(+/+) mice. MS Spectrum imaging observations identified the successful transfection of alpha-CGRP around experimental implants inserted in the femurs at 5 days after injection. Histomorphometrical analysis indicated an increase of bone-implant contact (BIC) at 1-month healing in the transfection group. Moreover, real-time RT-PCR and western blot results of bone-related markers Runx2, Osterix, and BSP levels elevated in lentivirus-transfected mice at 21 days, compared to the untreated alpha-CGRP(-/-) mice. There was no significant difference between the transfection group and alpha-CGRP(+/+) group.
Further alpha-CGRP protein detection confirmed the persistent expression of this transgene at 21 days post-operatively."

According to the news editors, the research concluded: "These results suggest that this lentiviral vector system expresses alpha-CGRP in an effective, appropriate and sustained manner, which might have a potential application in enhancing titanium implant osseointegration."


The news editors report that additional information may be obtained by contacting P. Gong, Sichuan University, West China Hosp Stomatol, Dept. of Implantol, Chengdu 610041, People's Republic of China. Additional authors for this research include L. Ma, N. Wei, T.L. Wang, Q.Q. Yao, B. Yang, Y. Xiong, Y.Y. Wu and P. Gong.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Calcitonin Gene-Related Peptides, Peptide Proteins, Peptide Hormones, Bone Research, Neuropeptides, Light Metals, Retroviridae, RNA Viruses, Lentivirus, Titanium, Sichuan University.

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Heart Disorders and Diseases - Heart Failure
Recent Studies from St Anselm College Add New Data to Heart Failure (Planning for Deactivation of Implantable Cardioverter Defibrillators at the End of Life in Patients With Heart Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Failure is now available. According to news reporting originating in Manchester, New Hampshire, by NewsRx editors, the research stated, "Implantable cardioverter defibrillators (ICDs) may be burdensome in end-stage heart failure. At the end of life, as many as one-fifth to one-third of patients experience an ICD shock."

The news reporters obtained a quote from the research from St Anselm College, "Critical care nurses should be aware of the potential burden of these shocks at the end of life as well as the ethics and organizational policies surrounding ICD deactivation. This literature review examines the issues surrounding ICD therapy at the end of life. Based on this author's findings, recommendations for discussing and implementing ICD deactivation are offered. Health care organizations should have clear policies addressing ICD deactivation to provide for seamless integration of palliative care services throughout the course of heart failure."

According to the news reporters, the research concluded: "These policies should empower nurses to activate resources in a timely manner and should clearly outline processes for ICD deactivation."

For more information on this research see: Planning for Deactivation of Implantable Cardioverter Defibrillators at the End of Life in Patients With Heart Failure. Critical Care Nurse, 2016;36(6):24-31. Critical Care Nurse can be contacted at: Amer Assoc Critical Care
Recent Studies from Sungkyunkwan University Add New Data to Sepsis (Genipin alleviates sepsis-induced liver injury by restoring autophagy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Blood Diseases and Conditions - Sepsis have been presented. According to news reporting out of Suwon, South Korea, by NewsRx editors, research stated, "Autophagy is an essential cytoprotective system that is rapidly activated in response to various stimuli including inflammation and microbial infection. Genipin, an aglycon of geniposide found in gardenia fruit, is well known to have anti-inflammatory, antibacterial and antioxidative properties."

Funders for this research include Ministry of Science, ICT & Future Planning, So-Jin Kim.

Our news journalists obtained a quote from the research from Sungkyunkwan University, "This study examined the protective mechanisms of genipin against sepsis, with particular focus on the autophagic signalling pathway. Mice were subjected to sepsis by caecal ligation and puncture (CLP). Genipin (1, 2.5 and 5 mg?kg(-1) ) or vehicle (saline) was injected i.v. immediately (0 h) after CLP, and chloroquine (60 mg?kg(-1) ), an autophagy inhibitor, was injected i.p. 1 h before CLP. Blood and liver tissues were isolated 6 h after CLP. Genipin improved survival rate and decreased serum levels of aminotransferases and pro-inflammatory cytokines after CLP; effects abolished by chloroquine. The liver expression of autophagy-related protein (Atg)12-Atg5 conjugate increased after CLP, and this increase was enhanced by genipin. CLP decreased Atg3 protein liver expression, and genipin attenuated this decrease. CLP impaired autophagic flux, as indicated by increased liver expression of microtubule-associated protein-1 light chain 3-II and sequestosome-1/p62 protein; this impaired autophagic flux was restored by genipin, and chloroquine abolished this effect. Genipin also attenuated the decreased expression of lysosome-associated membrane protein-2 and Rab7 protein and increased expression of calpain 1 protein induced by CLP in the liver. Our findings suggest that genipin protects against septic injury by restoring impaired autophagic flux."

According to the news editors, the research concluded: "Therefore, genipin might be a potential therapeutic agent for the treatment of sepsis."

For more information on this research see: Genipin alleviates sepsis-induced liver injury by restoring autophagy. *British Journal of Pharmacology*, 2016;173(6):980-91. *British Journal of Pharmacology* can be contacted at: Nature Publishing Group, 345 Park Avenue

Our news journalists report that additional information may be obtained by contacting H.I. Cho, School of Pharmacy, Sungkyunkwan University, Suwon, 440-746, South Korea. Additional authors for this research include S.J. Kim, J.W. Choi and S.M Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13397. This DOI is a link to an online electronic document that is either free or for purchase.

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Life Science Research - Molecular and Cellular Biology

Recent Studies from Swiss Federal Institute of Technology Add New Data to Molecular and Cellular Biology (The MMS22L-TONSL heterodimer directly promotes RAD51-dependent recombination upon replication stress)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Life Science Research - Molecular and Cellular Biology have been presented. According to news reporting from Zurich, Switzerland, by NewsRx journalists, research stated, "Homologous recombination (HR) is a key pathway that repairs DNA double-strand breaks (DSBs) and helps to restart stalled or collapsed replication forks. How HR supports replication upon genotoxic stress is not understood."

The news correspondents obtained a quote from the research from the Swiss Federal Institute of Technology, "Using invivo and invitro approaches, we show that the MMS22L-TONSL heterodimer localizes to replication forks under unperturbed conditions and its recruitment is increased during replication stress in human cells. MMS22L-TONSL associates with replication protein A (RPA)-coated ssDNA, and the MMS22L subunit directly interacts with the strand exchange protein RAD51. MMS22L is required for proper RAD51 assembly at DNA damage sites invivo, and HR-mediated repair of stalled forks is abrogated in cells expressing a MMS22L mutant deficient in RAD51 interaction. Similar to the recombination mediator BRCA2, recombinant MMS22L-TONSL limits the assembly of RAD51 on dsDNA, which stimulates RAD51-ssDNA nucleoprotein filament formation and RAD51-dependent strand exchange activity invitro."

According to the news reporters, the research concluded: "Thus, by specifically regulating RAD51 activity at uncoupled replication forks, MMS22L-TONSL stabilizes perturbed replication forks by promoting replication fork reversal and stimulating their HR-mediated restart invivo."

For more information on this research see: The MMS22L-TONSL heterodimer directly promotes RAD51-dependent recombination upon replication stress. *Embo Journal*, 2016;35(23):2584-2601. *Embo Journal* can be contacted at: Wiley-Blackwell, 111 River St,
Apoptosis

Recent Studies from Takeda Pharmaceutical Add New Data to Apoptosis [An inhibitor of apoptosis protein antagonist T-3256336 potentiates the antitumor efficacy of the Nedd8-activating enzyme inhibitor pevonedistat (TAK-924/MLN4924)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Apoptosis have been presented. According to news reporting originating from Fujisawa, Japan, by NewsRx correspondents, research stated, "Inhibitors of apoptosis proteins (IAPs) are antiapoptotic regulators that block cell death, and are frequently overexpressed in several human cancers, where they facilitate evasion of apoptosis and promote cell survival. IAP antagonists are also known as second mitochondria-derived activator of caspase (SMAC)-mimetics, and have recently been considered as novel therapeutic agents for inducing apoptosis, alone and in combination with other anticancer drugs."

Our news editors obtained a quote from the research from Takeda Pharmaceutical, "In this study, we showed that T-325636, the orally available IAP antagonist has synergistically enhances the antiproliferative effects of the NEDD8-activating enzyme (NAE) inhibitor pevonedistat (TAK-924/MLN4924), and these effects were attenuated by a TNF alpha-neutralizing antibody. In the present mechanistic analyses, pevonedistat induced TNF alpha mRNA and triggered IAP antagonist-dependent extrinsic apoptotic cell death in cancer cell lines. Furthermore, synergistic effects of the combination of T-325636 and pevonedistat were demonstrated in a HL-60 mouse xenograft model."

According to the news editors, the research concluded: "Our findings provide mechanistic evidence of the effects of IAP antagonists in combination with NAE inhibitors, and demonstrate the potential of a new combination therapy for cancer."

For more information on this research see: An inhibitor of apoptosis protein antagonist T-3256336 potentiates the antitumor efficacy of the Nedd8-activating enzyme inhibitor pevonedistat (TAK-924/MLN4924). Biochemical and Biophysical Research Communications, 2016;480(3):380-386. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news editors report that additional information may be obtained by contacting H. Sumi, Takeda Pharmaceut Co Ltd, Div Pharmaceut Res, Fujisawa, Kanagawa 2518555, Japan.

Biochemical and Biophysical Research Communications
Additional authors for this research include M. Inazuka, M. Morimoto, R. Hibino, K. Hashimoto, T. Ishikawa, K. Kuida, P.G. Smith, S. Yoshida and M. Yabuki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.058. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fujisawa, Japan, Asia, Intracellular Signaling Peptides and Proteins, Inhibitor of Apoptosis Proteins, Apoptosis Regulatory Proteins, Enzymes and Coenzymes, Genetics, Takeda Pharmaceutical.

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Therapeutics

Recent Studies from University Health Network Add New Data to Therapeutics (Investigation of the 4D composite MR image distortion field associated with tumor motion for MR-guided radiotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Therapeutics is the subject of a report. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "Magnetic resonance (MR) images are affected by geometric distortions due to the specifics of the MR scanner and patient anatomy. Quantifying the distortions associated with mobile tumors is particularly challenging due to real anatomical changes in the tumor's volume, shape, and relative location within the MR imaging volume."

Our news editors obtained a quote from the research from University Health Network, "In this study, the authors investigate the 4D composite distortion field, which combines the effects of the susceptibility-induced and system-related distortion fields, experienced by mobile lung tumors. The susceptibility (ch) effects were numerically simulated for two specific scenarios: (a) a full motion cycle of a lung tumor due to breathing as depicted on ten phases of a 4D CBCT data set and (b) varying the tumor size and location in lung tissue via a synthetically generated sphere with variable diameter (4-80 mm). The ch simulation procedure relied on the segmentation and generation of 3D susceptibility (ch) masks and computation of the magnetic field by means of finite difference methods. A system-related distortion field, determined with a phantom and image processing algorithm, was used as a reference. The 4D composite distortion field was generated as the vector summation of the ch-induced and system-related fields. The analysis was performed for two orientations of the main magnetic field (B0), which correspond to several MRIgRT system configurations. Specifically, B0 was set along the z-axis as in the case of a cylindrical-bore scanner and in the (x,y)-plane as for a biplanar MR. Computations were also performed for a full revolution at 15° increments in the case of a rotating biplanar magnet. Histograms and metrics such as maximum, mean, and range were used to evaluate the characteristics of the 4D distortion field. The ch-induced field depends on the change in volume and shape of the moving tumor as well as the local surrounding anatomy. In the case of system-related distortions, the tumor experiences increased field perturbations as it moves further away from the MR isocenter. For a mobile lung tumor, the 4D composite field, corresponding to a 1.5 T field and a readout gradient of 5 mT/m, amounts to 3.0 and 2.8 mm for the MRIgRT system designs featuring B0 oriented along the z-axis (cylindrical-bore scanner) and in the (x,y)-plane (biplanar scanner), respectively. For a rotating biplanar scanner, the composite distortion field varied nonlinearly with the rotation.
Overall, the dominant contribution to the composite field was from the system-related distortion field. The tumor centroid experienced a systematic shift of 2 mm and showed a negligible perturbation for different B0 values. The dependency on the tumor size was also investigated, namely the max values varied from 1.2 to 2.5 mm for spherical volumes with a diameter between 4 and 80 mm. The composite distortion field requires adequate quantification for lung radiation therapy applications such as treatment planning, pretreatment patient setup verification, and real-time treatment delivery guidance. For certain scenarios such as small tumor volumes, the spatial distortions may be corrected by applying systematic shifts derived from a single tumor motion phase.

According to the news editors, the research concluded: "In the case of high readout gradients common to fast imaging applications, the distortions were found to be less than 1 mm irrespective of scanner configuration."

For more information on this research see: Investigation of the 4D composite MR image distortion field associated with tumor motion for MR-guided radiotherapy. Medical Physics, 2016;43(3):1550-62. Medical Physics can be contacted at: Amer Assoc Physicists Medicine Amer Inst Physics, Ste 1 No 1, 2 Huntington Quadrangle, Melville, NY 11747-4502, USA. (American Association of Physicists in Medicine - www.aapm.org; Medical Physics - online.medphys.org/)

The news editors report that additional information may be obtained by contacting T. Stanescu, Princess Margaret Cancer Centre, University Health Network, Toronto, Ontario M5G 2M9, Canada and Dept. of Radiation Oncology, University of Toronto, 610 University Avenue, Toronto, Ontario M5G 2M9, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1118/1.4941958. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Medical Physics is: Amer Assoc Physicists Medicine Amer Inst Physics, Ste 1 No 1, 2 Huntington Quadrangle, Melville, NY 11747-4502, USA.

Keywords for this news article include: Canada, Toronto, Ontario, Radiotherapy, Therapeutics, North and Central America.

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Oncology - Gastric Cancer

Recent Studies from University Hospital Add New Data to Gastric Cancer (In the nick of time: arterial thrombosis on starting combination chemotherapy in metastatic gastric adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gastric Cancer. According to news reporting out of Birmingham, United Kingdom, by NewsRx editors, research stated, "A 70-year-old man newly diagnosed with metastatic gastric adenocarcinoma was started on standard first-line palliative chemotherapy with anthracycline (epirubicin), platinum (oxaliplatin) and fluoropyrimidine (capecitabine); EOX combination chemotherapy. 5 days after the first cycle of chemotherapy, he presented with tachycardia with associated severe abdominal and lumbar pains. Initial investigations confirmed life-threatening metabolic acidosis with
serum lactate of 9.7 mmol/L (normal range 0.5-2.2 mmol/L)."

Our news journalists obtained a quote from the research from University Hospital, "CT angiogram identified acute arterial thrombosis within the abdominal aorta, lumbar and right common iliac artery, which was absent on staging contrast CT scan 6 weeks prior. The patient was immediately anticoagulated and chemotherapy discontinued. Urgent oncology and surgical opinions advised conservative management. The patient responded well to early treatment and survived this acute episode."

According to the news editors, the research concluded: "He was subsequently started on life-long treatment dose enoxaparin and second-line single agent chemotherapy with docetaxel (taxotere), with no reported complications."

For more information on this research see: In the nick of time: arterial thrombosis on starting combination chemotherapy in metastatic gastric adenocarcinoma. Bmj Case Reports, 2016;2016():. (BMJ Publishing Group - group.bmj.com; Bmj Case Reports - casereports.bmj.com)

Our news journalists report that additional information may be obtained by contacting I.S. Boon, University Hospitals Birmingham NHS Foundation Trust, Birmingham, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2015-214236. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Oncology, Birmingham, Hematology, Chemotherapy, United Kingdom, Adenocarcinoma, Gastric Cancer, Gastroenterology, Drugs and Therapies, Embolism and Thrombosis, Cardiovascular Diseases and Conditions.

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Oncology - Liver Cancer

Recent Studies from University Hospital Add New Data to Liver Cancer (Prognostic Value of Pre-transplantation Serum Alpha-Fetoprotein Levels in Hepatocellular Carcinoma Recurrence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Liver Cancer are discussed in a new report. According to news reporting from Valencia, Spain, by NewsRx journalists, research stated, "Serum alpha-fetoprotein (AFP) value is still not included in the consensus guidelines to make decisions referring to liver transplantation (LT) for hepatocellular carcinoma (HCC).

Many studies demonstrated the influence of high AFP level in poor prognosis after LT for HCC."

The news correspondents obtained a quote from the research from University Hospital, "We studied 301 consecutive recipients transplanted for HCC from January 2002 to December 2011. The median follow-up was 64.3 months (interquartile range, 41.6-90.8). HCC recurrence was 31.6% when AFP was >400 ng/mL and 50% when AFP was >1,000 ng/mL. Specificity to predict HCC recurrence was 95.1% (95% confidence interval [CI], 91.9-97.1) when AFP was >400 ng/mL and 98.9% (95% CI, 96.8-99.6) when AFP was >1,000 ng/mL. The overall survival (P = .008) and disease-free survival (P = .004) differed between patients groups..."
when an AFP cutoff level of 1,000 ng/mL was used."

According to the news reporters, the research concluded: "The predictive accuracy of high pre-transplantation serum AFP level for HCC post-transplantation recurrence should be used in decision algorithms for LT."


Our news journalists report that additional information may be obtained by contacting E.M. Montalva, Le Fe Univ Hosp, Unit Hepato Biliary Pancreat Surg & Transplantat, Valencia, Spain. Additional authors for this research include M. Cantos, A. Bosca, A. Rubin, C. Vinaixa, P. Granero, J. Maupoey and R. Lopez-Andujar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.07.033. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Valencia, Spain, Europe, Biological Tumor Markers, alpha-Fetoproteins, Biological Factors, Fetal Proteins, Liver Cancer, Carcinomas, Oncology, University Hospital.

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Cardiovascular Research

Recent Studies from University Medical Center Add New Data to Cardiovascular Research (Bisphosphonates for cardiovascular risk reduction: A systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Research are discussed in a new report. According to news reporting originating from Utrecht, Netherlands, by NewsRx correspondents, research stated, "Bisphosphonates might be effective in reducing cardiovascular events due to their ability to reduce calcification in arterial walls. We aimed to investigate the effects of treatment with bisphosphonates on the prevention of atherosclerotic processes and cardiovascular disease."

Our news editors obtained a quote from the research from University Medical Center, "Pubmed, Embase and the Cochrane Library were systematically reviewed by two independent investigators for randomized controlled studies published up to January 2016, in which the effect of bisphosphonates on arterial wall disease, cardiovascular events, cardiovascular mortality or all-cause mortality were reported. There was no restriction for the type of population used in the trials. Random-effects models were used to calculate the pooled estimates. 61 trials reporting the effects of bisphosphonates on the outcomes of interest were included. Bisphosphonates had beneficial effects on arterial wall disease regarding arterial calcification (pooled mean percentage difference of 2 trials -11.52 (95% CI -16.51 to -6.52, p< 0.01, I-2 13%), but not on arterial stiffness (pooled mean percentage difference of 2 trials -2.82; 95% CI -10.71-5.07; p = 0.48, I-2 59%). No effect of bisphosphonate treatment on
cardiovascular events was found (pooled RR of 20 trials 1.03; 95% CI 0.91-1.17, I-2 16%), while a lower risk for cardiovascular mortality was observed in patients treated with bisphosphonates (pooled RR of 10 trials 0.81; 95% CI 0.64-1.02; I-2 0%) although not statistically significant. Patients treated with bisphosphonates had a reduced risk of all-cause mortality (pooled RR of 48 trials 0.90; 95% CI 0.84-0.98; I-2 53%). In this systematic review and meta-analysis it is shown that bisphosphonates reduce arterial wall calcification but have no effect on arterial stiffness or on cardiovascular events."

According to the news editors, the research concluded: "Bisphosphonates tend to reduce the risk of cardiovascular mortality and reduce all-cause mortality in various patient groups, including osteoporosis and cancer patients."

For more information on this research see: Bisphosphonates for cardiovascular risk reduction: A systematic review and meta-analysis. *Atherosclerosis*, 2016;252():106-115. 
*Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news editors report that additional information may be obtained by contacting W. Spiering, Univ Med Center Utrecht, Dept. of Vasc Med, NL-3508 GA Utrecht, Netherlands. Additional authors for this research include J.W. Bartstra, M. Weijmans, P.A. de Jong, W.P. Mali, H.J. Verhaar, F.L.J. Visseren and W. Spiering.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.06.039. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Utrecht, Netherlands, Europe, Cardiovascular Research, Cardiology, Article Review, Risk and Prevention, Cardiovascular, University Medical Center.

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**Drugs and Therapies - Central Nervous System Agents**

**Recent Studies from University Medical Center Add New Data to Central Nervous System Agents [Counter-flow suggests transport of dantrolene and 5-OH dantrolene by the organic anion transporters 2 (OAT2) and 3 (OAT3)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Central Nervous System Agents have been published. According to news reporting originating in Gottingen, Germany, by NewsRx journalists, research stated, "Dantrolene is the only available drug for the treatment of malignant hyperthermia, a life-threatening inborn sensitivity of the ryanodine receptor (RyR1) in skeletal muscles to volatile anesthetics. Dantrolene is metabolized in the liver to 5-OH dantrolene."

The news reporters obtained a quote from the research from University Medical Center, "Both compounds are zwitterions or net negatively charged. Here, we investigated interactions of dantrolene and 5-OH dantrolene with solute carrier (SLC) family members occurring in skeletal muscle cells, hepatocytes, and renal proximal tubule cells. SLC22A8 (organic anion transporter 3, OAT3) was very sensitive to both compounds exhibiting IC50
values of 0.35 +/- 0.03 and 1.84 +/- 0.34 μM, respectively. These IC50 concentrations are well below the plasma concentration in patients treated with dantrolene (3-28 μM). SLC22A7 (OAT2) was less sensitive to dantrolene and 5-OH dantrolene with IC50 values of 15.6 +/- 2.1 and 15.8 +/- 3.2 μM, respectively. SLCO1B1 (OATP1B1), SLCO1B3 (OATP1B3), and SLCO2B1 (OATP2B1) mainly interacted with 5-OH dantrolene albeit with higher IC50 values than those observed for OAT2 and OAT3. Dantrolene and 5-OH dantrolene failed to inhibit uptake of 1-methyl-4-phenylpyrimidinium (MPP) by OCT1 and of carnitine by OCTN2. In counter-flow experiments on OAT3, dantrolene and 5-OH dantrolene decreased pre-equilibrated cellular [H-3]estrone-3-sulfate (ES) content as did the transported substrates glutarate, furosemide, and bumetanide. With OAT2, dantrolene and 5-OH dantrolene slightly decreased the pre-equilibrated [H-3] cGMP content."

According to the news reporters, the research concluded: "If no other transporter markedly contributes to uptake or release of ES or cGMP, respectively, these data suggest that OAT3 and OAT2 may be involved in absorption, metabolism, and excretion of dantrolene and its metabolite 5-OH dantrolene."

For more information on this research see: Counter-flow suggests transport of dantrolene and 5-OH dantrolene by the organic anion transporters 2 (OAT2) and 3 (OAT3). Pflugers Archiv-European Journal of Physiology, 2016;468(11-12):1909-1918. Pflugers Archiv-European Journal of Physiology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

Our news correspondents report that additional information may be obtained by contacting B.C. Burckhardt, Univ Med Center Gottingen, Inst System Physiol & Pathophysiol, D-37073 Gottingen, Germany. Additional authors for this research include M. Henjakovic, Y. Hagos and G. Burckhardt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00424-016-1894-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gottingen, Germany, Europe, Central Nervous System Agents, Skeletal Muscle Relaxants, Drugs and Therapies, Dantrolene Therapy, University Medical Center.

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Biotechnology - Cancer Gene Therapy

Recent Studies from University of Alberta Add New Data to Cancer Gene Therapy (Single and Combinational siRNA Therapy of Cancer Cells: Probing Changes in Targeted and Nontargeted Mediators after siRNA Treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biotechnology - Cancer Gene Therapy have been published. According to news reporting from Edmonton, Canada, by NewsRx journalists, research stated, "Cancer cells are known to be heterogeneous and plastic, which imparts innate and acquired abilities to resist molecular targeting by short interfering RNA (siRNA). Not all cancer cells in a population would show a similar responsiveness to targeting of genes critical for their survival and even the responders could quickly transform and switch to alternative
mechanism(s) for their survival."

Funders for this research include Chapman University, Natural Sciences and Engineering Research Council of Canada, Canadian Breast Cancer Foundation, Office of Research, University of Alberta.

The news correspondents obtained a quote from the research from the University of Alberta, "This study was designed to look at this phenomenon by analyzing the effect of siRNA silencing of selected protein mRNAs involved in cell survival and proliferation on other protein mRNAs that could contribute to cell survival. We compared the gene expression profile of the initial population after siRNA silencing to the subpopulation that survived the siRNA silencing, to identify potential overexpressions that might explain the cell survival. Our studies show that silencing well-selected protein mRNAs simultaneously could offer advantages compared to individual siRNA silencing due to an additional impact on the expression level of certain protein mRNAs. We also demonstrate that overexpression of certain protein mRNAs could explain the innate unresponsiveness of a subpopulation of cells."

According to the news reporters, the research concluded: "These observations could be a stepping stone for further investigation of the possibility of significant synergistic effect for this combinational RNA interference strategy."


Our news journalists report that additional information may be obtained by contacting H.M. Aliabadi, University of Alberta, Fac Engn, Dept. of Chem & Mat Engn, Edmonton, AB T6G 2G6, Canada. Additional authors for this research include P. Mandipoor, M. Bisoffi, J.C. Hugh and H. Uludag.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.6b00711. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Edmonton, Alberta, Canada, North and Central America, Drugs and Therapies, Cancer Gene Therapy, Biotechnology, Oncology, Genetics, University of Alberta.

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**Oncology**

**Recent Studies from University of Bath Add New Data to Oncology**

(tek1 and MEK2 inhibitors and cancer therapy: the long and winding road)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology have been published. According to news reporting out of Bath, United Kingdom, by NewsRx editors, research stated, "The role of the ERK signalling pathway in cancer is thought to be most prominent in tumours in which mutations in the receptor tyrosine kinases RAS, BRAF, CRAF, MEK1 or MEK2 drive growth
factor-independent ERK1 and ERK2 activation and hence inappropriate cell proliferation and survival. New drugs that inhibit RAF or MEK1 and MEK2 have recently been approved or are currently undergoing late-stage clinical evaluation."

Our news journalists obtained a quote from the research from the University of Bath, "In this Review, we consider the ERK pathway, focusing particularly on the role of MEK1 and MEK2, the 'gatekeepers' of ERK1/2 activity. We discuss their validation as drug targets, the merits of targeting MEK1 and MEK2 versus BRAF and the mechanisms of action of different inhibitors of MEK1 and MEK2."

According to the news editors, the research concluded: "We also consider how some of the systems-level properties (intrapathway regulatory loops and wider signalling network connections) of the ERK pathway present a challenge for the success of MEK1 and MEK2 inhibitors, discuss mechanisms of resistance to these inhibitors, and review their clinical progress."


Our news journalists report that additional information may be obtained by contacting C.J. Caunt, Dept. of Biology and Biochemistry, University of Bath, Claverton Down, Bath BA2 7AY, UK. Additional authors for this research include M.J. Sale, P.D. Smith and S.J Cook.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrc4000. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bath, Europe, Cancer, Therapy, Genetics, Oncology, United Kingdom, Article Review.

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Diabetes

Recent Studies from University of California Add New Data to Diabetes (Simultaneous in vivo assessment of cardiac and hepatic metabolism in the diabetic rat using hyperpolarized MRS)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Diabetes have been presented. According to news originating from San Francisco, California, by NewsRx correspondents, research stated, "Understanding and assessing diabetic metabolism is vital for monitoring disease progression and improving treatment of patients. In vivo assessments, using MRI and MRS, provide non-invasive and accurate measurements, and the development of hyperpolarized C-13 spectroscopy in particular has been demonstrated to provide valuable metabolic data in real time."

Our news journalists obtained a quote from the research from the University of California, "Until now, studies have focussed on individual organs. However, diabetes is a systemic disease affecting multiple tissues in the body. Therefore, we have developed a technique to simultaneously measure metabolism in both the heart and liver during a single acquisition. A hyperpolarized C-13 MRS protocol was developed to allow acquisition of metabolic data from the heart and liver during a single scan. This protocol was subsequently
used to assess metabolism in the heart and liver of seven control male Wistar rats and seven diabetic rats (diabetes was induced by three weeks of high-fat feeding and a 30 mg/kg injection of streptozotocin). Using our new acquisition, we observed decreased cardiac and hepatic pyruvate dehydrogenase flux in our diabetic rat model. These diabetic rats also had increased blood glucose levels, decreased insulin, and increased hepatic triglycerides. Decreased production of hepatic [1-C-13] alanine was observed in the diabetic group, but this change was not present in the hearts of the same diabetic animals. We have demonstrated the ability to measure cardiac and hepatic metabolism simultaneously, with sufficient sensitivity to detect metabolic alterations in both organs.

According to the news editors, the research concluded: "Further, we have non-invasively observed the different reactions of the heart and liver to the metabolic challenge of diabetes."


The news correspondents report that additional information may be obtained from L.M. Le Page, University of California, Dept. of Radiol & Biomed Imaging, San Francisco, CA 94143, United States. Additional authors for this research include D.R. Ball, V. Ball, M.S. Dodd, J.J. Miller, L.C. Heather and D.J. Tyler.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Endocrinology, Cardiology, Diabetes, University of California.

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**Mosquito-Borne Diseases - Zika Virus**

**Recent Studies from University of California Add New Data to Zika Virus (Zika virus cell tropism in the developing human brain and inhibition by azithromycin)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mosquito-Borne Diseases - Zika Virus. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "The rapid spread of Zika virus (ZIKV) and its association with abnormal brain development constitute a global health emergency. Congenital ZIKV infection produces a range of mild to severe pathologies, including microcephaly."

Funders for this research include HHS | NIH | National Institute of Neurological Disorders and Stroke (NINDS), Howard Hughes Medical Institute (HHMI), HHS | NIH | National Institute of Mental Health (NIMH), Paul G. Allen Family Foundation, Damon Runyon Cancer Research Foundation (Damon Runyon).

Our news editors obtained a quote from the research from the University of California, "To understand the pathophysiology of ZIKV infection, we used models of the developing brain that faithfully recapitulate the tissue architecture in early to midgestation. We identify the brain cell populations that are most susceptible to ZIKV infection in primary human
tissue, provide evidence for a mechanism of viral entry, and show that a commonly used antibiotic protects cultured brain cells by reducing viral proliferation. In the brain, ZIKV preferentially infected neural stem cells, astrocytes, oligodendrocyte precursor cells, and microglia, whereas neurons were less susceptible to infection. These findings suggest mechanisms for microcephaly and other pathologic features of infants with congenital ZIKV infection that are not explained by neural stem cell infection alone, such as calcifications in the cortical plate. Furthermore, we find that blocking the glia-enriched putative viral entry receptor AXL reduced ZIKV infection of astrocytes in vitro, and genetic knockdown of AXL in a glial cell line nearly abolished infection. Finally, we evaluate 2,177 compounds, focusing on drugs safe in pregnancy. We show that the macrolide antibiotic azithromycin reduced viral proliferation and virus-induced cytopathic effects in glial cell lines and human astrocytes.

According to the news editors, the research concluded: "Our characterization of infection in the developing human brain clarifies the pathogenesis of congenital ZIKV infection and provides the basis for investigating possible therapeutic strategies to safely alleviate or prevent the most severe consequences of the epidemic."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1618029113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Musculoskeletal Diseases and Conditions, Malformations of Cortical Development, Musculoskeletal Abnormalities, Nervous System Malformations, Craniofacial Abnormalities, Ophthalmic Antiinfectives, Neuroglia, Epidemiology, Ophthalmic Preparations, Mosquito-Borne Diseases, Macrolide Derivatives, Drugs and Therapies, Azithromycin, Erythromycin, Microcephaly, Antibiotics, RNA Viruses, Astrocytes, Flavivirus, Zika Virus, Genetics, Viral, University of California.

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& Wellness Week -- Current study results on Oncology - Thyroid Cancer have been published. According to news originating from Catania, Italy, by NewsRx correspondents, research stated, "The diffuse sclerosing variant (DSV) of papillary thyroid cancer (PTC) is considered an aggressive histotype associated with poor prognosis. However, the available data for both the outcome and best management of this disease are inconsistent."

Our news journalists obtained a quote from the research from the University of Catania, "This study reviewed the current literature by searching PubMed up to November 30, 2015, using the search terms 'diffuse sclerosing variant' and 'papillary thyroid cancer (or carcinoma)' and selecting only studies evaluating recurrent/persistent disease and cancer-related mortality in both DSV and classic PTC (cPTC). The association with some features of aggressiveness at diagnosis, the risk of recurrence or persistence, and the risk of cancer-related death were reported as odds ratio (OR) with confidence intervals (CI). Meta-regression analysis was used to assess the effect of covariates across the studies. Ten studies met the eligibility criteria and contributed 585 DSV and 64,611 cPTC patients. Relative to patients with cPTC, patients with DSV exhibited a higher risk of extrathyroidal extension and lymph node and distant metastases. The risk of persistent/recurrent disease was three times higher in patients with DSV than it was in cPTC patients (OR = 3.19 [CI 1.86-5.49]). This risk was not different when only studies where post-surgical 131 I was routinely administered were considered (OR = 2.07 [CI 0.88-4.90]). The risk of cancer-related mortality was not different between DSV and cPTC (OR = 1.34 [CI 0.76-2.38]). This meta-analysis confirms the aggressive biological behavior of DSV thyroid cancer."

According to the news editors, the research concluded: "When preoperatively suspected, total thyroidectomy with lymph node excision followed by radiiodine therapy should be the correct management for DSV."

For more information on this research see: Outcome of the Diffuse Sclerosing Variant of Papillary Thyroid Cancer: A Meta-Analysis. Thyroid, 2016;26(9):1285-1292. Thyroid can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Thyroid - www.liebertpub.com/overview/thyroid/55/)

The news correspondents report that additional information may be obtained from P. Malandrino, University of Catania, Dept. of Clin & Expt Med, Garibaldi Nesima Med Center, Endocrinol, Catania, Italy. Additional authors for this research include M. Russo, C. Regalbuto, G. Pellegriti, M. Moleti, A. Caff, S. Squatrito and R. Vigneri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/thy.2016.0168. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Catania, Italy, Europe, Cancer, Risk and Prevention, Papillary Thyroid Cancer, Thyroid Neoplasms, Oncology, University of Catania.

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Health and Medicine - Hematology Research

Recent Studies from University of Pennsylvania Add New Data to Hematology Research [Real-world clinical experience in the Connect ((R)) chronic lymphocytic leukaemia registry: a prospective cohort study of 1494 patients across 199 US centres]
Investigators publish new report on Health and Medicine - Hematology Research. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "The clinical course of chronic lymphocytic leukaemia (CLL) is heterogeneous, and treatment options vary considerably. The Connect(®) CLL registry is a multicentre, prospective observational cohort study that provides a real-world perspective on the management of, and outcomes for, patients with CLL."

Our news editors obtained a quote from the research from the University of Pennsylvania, "Between 2010 and 2014, 1494 patients with CLL and that initiated therapy, were enrolled from 199 centres throughout the USA (179 community-, 17 academic-, and 3 government-based centres). Patients were grouped by line of therapy at enrolment (LOT). We describe the clinical and demographic characteristics of, and practice patterns for, patients with CLL enrolled in this treatment registry, providing patient-level observational data that represent real-world experiences in the USA. Fluorescence in situ hybridization (FISH) analyses were performed on 49 <bold > </bold >3% of patients at enrolment. The most common genetic abnormalities detected by FISH were del(13q) and trisomy 12 (45 <bold > </bold >7% and 20 <bold > </bold >8%, respectively). Differences in disease characteristics and comorbidities were observed between patients enrolled in LOT1 and combined LOT2/3 cohorts. Important trends observed include the infrequent use of genetic prognostic testing, and differences in patient characteristics for patients receiving chemoimmunotherapy combinations."

According to the news editors, the research concluded: "These data represent experiences of patients with CLL in the USA, which may inform treatment decisions in everyday practice."


The news editors report that additional information may be obtained by contacting A. Mato, University of Pennsylvania, Abramson Canc Center, Center CLL, Philadelphia, PA 19104, United States. Additional authors for this research include C. Nabhan, N.E. Kay, M.A. Weiss, N. Lamanna, T.J. Kipps, D.L. Grinblatt, I.W. Flinn, M.F. Kozloff, C.R. Flowers, C.M. Farber, P. Kiselev, A.S. Swern, K. Sullivan, E.D. Flick and J.P. Sharman.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Hematology Research, Health and Medicine, University of Pennsylvania.

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Drugs and Therapies - Antifungals
Recent Studies from University of Texas Add New Data to Antifungals (Albumin Enhances Caspofungin Activity against Aspergillus Species by Facilitating Drug Delivery to Germinating Hyphae)

Recent Studies from University of Texas Add New Data to Antifungals (Albumin Enhances Caspofungin Activity against Aspergillus Species by Facilitating Drug Delivery to Germinating Hyphae)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Drugs and Therapies - Antifungals are discussed in a new report. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "The modest in vitro activity of echinocandins against Aspergillus implies that host-related factors augment the action of these antifungal agents in vivo. We found that, in contrast to the other antifungal agents (voriconazole, amphotericin B) tested, caspofungin exhibited a profound increase in activity against various Aspergillus species under conditions of cell culture growth, as evidenced by a (>=)4-fold decrease in minimum effective concentrations (MECs) (p=0.0005)."

The news correspondents obtained a quote from the research from the University of Texas, "Importantly, the enhanced activity of caspofungin against Aspergillus spp. under cell culture conditions was strictly dependent on serum albumin and was not observed with the other two echinocandins, micafungin and anidulafungin. Of interest, fluorescently labeled albumin bound preferentially on the surface of germinating Aspergillus hyphae, and this interaction was further enhanced upon treatment with caspofungin. In addition, supplementation of cell culture medium with albumin resulted in a significant, 5-fold increase in association of fluorescently labeled caspofungin with Aspergillus hyphae (p <0.0001)."

According to the news reporters, the research concluded: "Collectively, we found a novel synergistic interaction between albumin and caspofungin, with albumin acting as a potential carrier molecule to facilitate antifungal drug delivery to Aspergillus hyphae."

For more information on this research see: Albumin Enhances Caspofungin Activity against Aspergillus Species by Facilitating Drug Delivery to Germinating Hyphae. *Antimicrobial Agents and Chemotherapy*, 2015;60(3):1226-33. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting D.P. Kontoyiannis, Dept. of Infectious Diseases, The University of Texas, MD Anderson Cancer Center, Houston, Texas, United States. Additional authors for this research include A. Andrianaki, T. Akoumianaki, I. Kyrmizi, N. Albert, D. Perlin, G. Samonis, D.P. Kontoyiannis and G. Chamilos.

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Keywords for this news article include: Antifungals, Antiinfectives, Texas, Houston, Aspergillus, United States, Echinocandins, Caspofungin Therapy, Drugs and Therapies, Drug Delivery Systems, North and Central America.

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**Gram-Negative Bacteria - Pseudomonas aeruginosa**

**Recent Studies from University of Texas Add New Data to Pseudomonas aeruginosa (Ceftazidime/Avibactam: Who Says You Can’t Teach an Old Drug New Tricks?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gram-Negative Bacteria - Pseudomonas aeruginosa. According to news reporting originating in Richardson, Texas, by NewsRx journalists, research stated, "Gram-negative resistance continues to rise with treatment.
options becoming more limited. Ceftazidime/avibactam was recently approved in the United States and Europe, which combines an established third-generation cephalosporin with a new, unique, non-beta-lactam beta-lactamase inhibitor."

The news reporters obtained a quote from the research from the University of Texas, "This review conducts a thorough examination of structure, pharmacology, spectrum of activity, pharmacokinetics/pharmacodynamics, in vitro and clinical efficacy and safety/tolerability of ceftazidime/avibactam, as well as detailed future directions for the agent. Pubmed and clinicaltrials.gov searches, as well as abstracts from the 2015 Interscience Conference on Antimicrobial Agents and Chemotherapy/International Society of Chemotherapy (ICAAC/ICC) and ID Week meetings and the 2016 American Society of Microbiology Microbe meeting, were conducted from January 2004 - September 2016. Relevant search terms included ceftazidime, ceftazidime/avibactam, avibactam, NXL104 and AVE1330A. The US package insert for ceftazidime/avibactam (02/2015) and European public assessment report (06/2016) were also reviewed. In vitro susceptibility for ceftazidime/avibactam displayed potent activity against many Enterobacteriaceae including extended-spectrum-beta-lactamase (ESBL) and carbapenemase-producing strains, as well as Pseudomonas aeruginosa. Phase II clinical trials utilized for approval demonstrated comparable safety and efficacy to imipenem/cilastatin for treatment of complicated urinary tract infections (70.4% vs. 71.4%) and combined with metronidazole compared to meropenem in complicated intra-abdominal infections (91.2% vs 93.4%). Phase III data displayed non-inferior efficacy of ceftazidime/avibactam compared to doripenem for complicated urinary tract infections (70.2% vs 66.2%) and combined with metronidazole compared to meropenem in complicated intra-abdominal infections (82.5% vs 84.9%), as well as comparable safety. Ceftazidime/avibactam was well-tolerated but does require renal adjustments. Additionally, 3 case series and a single case report have demonstrated the potential for ceftazidime/avibactam against multidrug resistant organisms for compassionate use or failure after previous therapy."

According to the news reporters, the research concluded: "By adding avibactam to ceftazidime, clinicians' antimicrobial armamentarium is expanded, potentially increasing the ability to combat multi-drug resistant gram-negative pathogens, particularly ESBL and carbapenemase-producing organisms, as well as Pseudomonas aeruginosa."


Our news correspondents report that additional information may be obtained by contacting R.L. Akins, Univ Texas Dallas, Dept. of Biol Sci, Richardson, TX 75083, United States. Additional authors for this research include J.K. Ortwine and R.L. Akins.

Keywords for this news article include: Richardson, Texas, United States, North and Central America, Gram-Negative Aerobic Rods and Cocci, Third Generation Cephalosporins, Gram-Negative Aerobic Bacteria, Lactamase, Article Review, Beta-Lactam Antibiotics, Gram-Negative Bacteria, Pseudomonas aeruginosa, Enzymes and Coenzymes, Drugs and Therapies, Organic Chemicals, Sulfur Compounds, Pseudomonadaceae, Antinfectives, Proteobacteria, Urinary Tract, Cephaloridine, Ceftazidime, Thiazines, Amides, University of Texas.

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Recent Studies from University of Tokyo Add New Data to Chronic Kidney Disease (Expanding roles of the hypoxia-response network in chronic kidney disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Kidney Diseases and Conditions - Chronic Kidney Disease have been presented. According to news reporting out of Tokyo, Japan, by NewsRx editors, the research stated, "Studies over the last two decades have established tubulointerstitial hypoxia as a final common pathway leading to end-stage kidney disease (ESKD). Chronic kidney disease (CKD) is frequently associated with various degrees of hypoxic injury in distinct tubular segments, depending on the etiology and pathological stages, which constitutes an intricate link among inflammation, oxidative stress and fibrosis."

Financial support for this research came from Japan Society for the Promotion of Science.

Our news journalists obtained a quote from the research from the University of Tokyo, "Resident cells in the kidney are equipped with mechanisms through which they cope with hypoxia. Here, transcription of genes by hypoxia-inducible factors (HIFs) plays a central role. In the ischemic kidney, HIF-1 is expressed in tubular and glomerular epithelial cells and in papillary interstitial cells, whereas HIF-2 is expressed in endothelial cells and interstitial fibroblasts. There is ample evidence that HIF protects the kidney from acute ischemic damage. In CKD, studies suggest that the function of HIF may be suppressed because of factors, such as oxidative stress and uremia, which may underlie the pathogenesis of both CKD and co-existing problems, such as renal anemia. Based on these observations, efforts are in progress to test whether restoration and activation of HIF might protect the kidney from CKD. Initial studies using non-specific or supraphysiological HIF activation suggested that the role of HIF may be multifactorial and depend on pathological context. On the other hand, specific HIF stabilizers, such as prolyl hydroxylase (PHD) inhibitors, are being developed for the treatment of renal anemia."

According to the news editors, the research concluded: "Application of these compounds in experimental CKD may override those previous findings and provide deeper insight into the roles of hypoxia and oxygen-sensing pathways."

For more information on this research see: Expanding roles of the hypoxia-response network in chronic kidney disease. *Clinical and Experimental Nephrology.* 2016;20(6):835-844. *Clinical and Experimental Nephrology* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; *Clinical and Experimental Nephrology* - www.springerlink.com/content/1342-1751/)

Our news journalists report that additional information may be obtained by contacting T. Tanaka, University of Tokyo, Sch Med, Div Nephrol & Endocrinol, Tokyo 1138655, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10157-016-1241-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Hematologic Diseases and Conditions, Article Review, Kidney Diseases and Conditions, Chronic Kidney Disease, Genetics, Anemia, University of Tokyo.
Recent Studies from University of Tokyo Add New Data to Gastric Cancer (Production of Cisplatin-Incorporating Hyaluronan Nanogels via Chelating Ligand-Metal Coordination)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gastric Cancer have been presented. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Hyaluronan (HA) is a promising drug carrier for cancer therapy because of its CD44 targeting ability, good biocompatibility, and biodegradability. In this study, cisplatin (CDDP)-incorporating HA nanogels were fabricated through a chelating ligand-metal coordination cross-linking reaction."

Financial supporters for this research include Ministry of Education, Culture, Sports, Science, and Technology, Japan Society for the Promotion of Science, Ministry of Health, Labour and Welfare.

The news correspondents obtained a quote from the research from the University of Tokyo, "We conjugated chelating ligands, iminodiacetic acid or malonic acid, to HA and used them as a precursor polymer. By mixing the ligand-conjugated HA with CDDP, cross-linking occurred via coordination of the ligands with the platinum in CDDP, resulting in the spontaneous formation of CDDP-loaded HA nanogels. The nanogels showed pH-responsive release of CDDP, because the stability of the ligand-platinum complex decreases in an acidic environment. Cell viability assays for MKN45P human gastric cancer cells and Met-5A human mesothelial cells revealed that the HA nanogels selectively inhibited the growth of gastric cancer cells. In vivo experiments using a mouse model of peritoneal dissemination of gastric cancer demonstrated that HA nanogels specifically localized in peritoneal nodules after the intraperitoneal administration. Moreover, penetration assays using multicellular tumor spheroids indicated that HA nanogels had a significantly higher ability to penetrate tumors than conventional, linear HA."

According to the news reporters, the research concluded: "These results suggest that chelating-ligand conjugated HA nanogels will be useful for targeted cancer therapy."


Our news journalists report that additional information may be obtained by contacting M. Shinohara, Institute of Industrial Science, The University of Tokyo, 4-6-1 Komaba, Meguro-ku, Tokyo 153-8505, Japan. Additional authors for this research include S. Hiramoto, Y. Amano, M. Sato, Y. Suzuki, M. Shinohara, S. Emoto, H. Yamaguchi, H. Ishigami, Y. Sakai, J. Kitayama and T. Ito.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.bioconjchem.5b00674. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antineoplastics, Pharmaceuticals,
Tokyo, Japan, Nanogels, Oncology, Hyaluronan, Gastric Cancer, Nanotechnology, Gastroenterology, Alkylating Agents, Cisplatin Therapy, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Drugs and Therapies, Emerging Technologies, Viscosupplementation Agents.

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Hereditary Angioedema

Recent Studies from University of Toronto Add New Data to Hereditary Angioedema (C1-esterase inhibitor for short-term prophylaxis in a patient with hereditary angioedema with normal C1 inhibitor function)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hereditary Angioedema is the subject of a report. According to news reporting from Toronto, Canada, by NewsRx journalists, research stated, "Hereditary angioedema with normal C1-esterase inhibitor (HAE-nC1INH) perioperative is a rare condition which could have potential disastrous ramifications for the anesthesiologist in the perioperative period. However, there is limited evidence and/or guidelines on the optimal way to manage these patients."

The news correspondents obtained a quote from the research from the University of Toronto, "We present the case of a patient with HAE-nC1INH who was successfully managed in the perioperative period with plasma derived Cl-esterase inhibitor (pdC1INH). A 29-year-old woman with a diagnosis of HAE-nC1INH presented to the preoperative consultation in preparation for an upcoming total thyroidectomy. She had a 14-year history of ongoing lip and facial edema sometimes necessitating emergency department visitation. Close consultation with her immunologist, transfusion medicine specialists, and anesthesia care providers allowed for a preoperative plan to provide the patient adequate prophylaxis. Both pdC1INH and tranexamic acid were given preoperatively. The patient underwent surgery with no complications."

According to the news reporters, the research concluded: "A multi-disciplinary team of clinical immunologists, transfusion medicine specialists, and anesthesiologists facilitated the successful perioperative management of a patient with HAE-nC1INH; pdC1INH may a suitable prophylactic perioperative therapy for this rare patient population."


Our news journalists report that additional information may be obtained by contacting A. Alam, University of Toronto, Sunnybrook Hlth Sci Center, Dept. of Anesthesia Trauma Emergency & Crit Care Prog, Toronto, ON M4N 3M5, Canada. Additional authors for this research include J. Callum and A. Alam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.08.042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and
Recent Studies from University of Wollongong Add New Data to Vaccination (Australian general practice nurse's knowledge, attitudes and practices regarding influenza vaccination: a cross-sectional survey)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Vaccination are discussed in a new report. According to news reporting originating from Wollongong, Australia, by NewsRx correspondents, research stated, "Aims and objectives. The aim of this study was to examine the knowledge, attitudes and practices of Australian general practice nurses (GPNs) regarding influenza vaccination."

Our news editors obtained a quote from the research from the University of Wollongong, "Despite the evidence for the benefits of influenza vaccination, vaccination rates remain sub-optimal. The knowledge, attitudes and practices of nurses both affects vaccination rates and the advice given to consumers. Given their significant role in opportunistic and planned vaccinations, GPNs are in an optimal position to positively influence vaccination rates. A descriptive cross-sectional survey was used. GPNs were recruited by email to complete an online survey. The survey tool comprised the King's College Nurses' Influenza Vaccination Questionnaire and adapted demographic items. Data analysis used descriptive and inferential statistics. Open-ended questions were analysed using thematic analysis. Most of the 85 respondents had received the seasonal influenza vaccination in the last year (n = 67; 78.8%); fewer received the H1N1 vaccination (n = 54; 63.5%). Intention to receive vaccination was affected by previous vaccination. Those who had received the seasonal influenza vaccine in the last year had a higher total knowledge score. The seasonal and total influenza knowledge score was high, with lower scores on the H1N1 sub-scale. A positive correlation was identified between influenza knowledge and risk perception. This study highlighted the high level of knowledge amongst GPNs related to seasonal influenza, whilst identifying a knowledge deficit around the H1N1 items. It demonstrated that GPN's knowledge of seasonal influenza was related to vaccination status and risk perception. Further research is required to explore how this translates into the advice GPNs give to consumers. Relevance to clinical practice. Influenza vaccination should be considered as a key topic for GPN's ongoing professional development. The evidence for links between education and vaccination uptake should encourage employers to facilitate opportunities for this training."

According to the news editors, the research concluded: "Future efforts to increase vaccination uptake in nurses should promote the benefits of vaccination in protecting the individual rather than as a professional responsibility."

For more information on this research see: Australian general practice nurse's knowledge, attitudes and practices regarding influenza vaccination: a cross-sectional survey.

The news editors report that additional information may be obtained by contacting S. Smith, University of Wollongong, Sch Nursing, Wollongong, NSW 2522, Australia. Additional authors for this research include J. Sim and E. Halcomb.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13287. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wollongong, Australia, Australia and New Zealand, Influenza, Epidemiology, Immunization, Vaccination, University of Wollongong.

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Drugs and Therapies - Cancer Therapy

Recent Studies from Xi'an Jiao Tong University Add New Data to Cancer Therapy (HMGB1-mediated autophagy decreases sensitivity to oxymatrine in SW982 human synovial sarcoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Cancer Therapy are presented in a new report. According to news reporting originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "Oxymatrine (OMT) is a type of alkaloid extracted from a traditional Chinese medicinal herb, Sophora flavescens. Although the antitumor activities of OMT have been observed in various cancers, there are no reports regarding the effects of OMT on human synovial sarcoma."

Our news editors obtained a quote from the research from Xi'an Jiao Tong University, "In the present study, we analyzed the antitumor activities of OMT in SW982 human synovial sarcoma cells and determine whether high mobility group box protein 1 (HMGB1)-mediated autophagy was associated with its therapeutic effects. We found that OMT exhibited antitumor activity in SW982 cells and facilitated increases in autophagy. Inhibition of autophagy by 3-MA or ATG7 siRNA increased the level of apoptosis, which indicated that OMT-induced autophagy protected cells from the cytotoxicity of OMT. Administration of OMT to SW982 cells increased the expression of HMGB1. When HMGB1 was inhibited via HMGB1-siRNA, OMT-induced autophagy was decreased, and apoptosis was increased. Furthermore, we found that HMGB1-siRNA significantly increased the expression of p-Akt and p-mTOR. OMT-induced autophagy may be mediated by the Akt/mTOR pathway, and HMGB1 plays a vital role in the regulation of autophagy."

According to the news editors, the research concluded: "Therefore, we believe that combining OMT with an inhibitor of autophagy or HMGB1 may make OMT more effective in the treatment of human synovial sarcoma."

For more information on this research see: HMGB1-mediated autophagy decreases sensitivity to oxymatrine in SW982 human synovial sarcoma cells. Scientific Reports, 2016;6 ():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/;
Recent Studies from Yantai University Add New Data to Parkinson's Disease (Intranasal delivery of rotigotine to the brain with lactoferrin-modified PEG-PLGA nanoparticles for Parkinson's disease treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Parkinson's disease. According to news reporting out of Yantai, People's Republic of China, by NewsRx editors, research stated, "Sustainable and safe delivery of brain-targeted drugs is highly important for successful therapy in Parkinson's disease (PD). This study was designed to formulate biodegradable poly(ethylene glycol)-poly(lactic-co-glycolic acid) (PEG-PLGA) nanoparticles (NPs), which were surface-modified with lactoferrin (Lf), for efficient intranasal delivery of rotigotine to the brain for the treatment of PD."

Our news journalists obtained a quote from the research from Yantai University, "Rotigotine NPs were prepared by nanoprecipitation, and the effect of various independent process variables on the resulting properties of NPs was investigated by a Box-Behnken experimental design. The physicochemical and pharmaceutical properties of the NPs and Lf-NPs were characterized, and the release kinetics suggested that both NPs and Lf-NPs provided continuous, slow release of rotigotine for 48h. Neither rotigotine NPs nor Lf-NPs reduced the viability of 16HBE and SH-SY5Y cells; in contrast, free rotigotine was cytotoxic. Qualitative and quantitative cellular uptake studies demonstrated that accumulation of Lf-NPs was greater than that of NPs in 16HBE and SH-SY5Y cells. Following intranasal administration, brain delivery of rotigotine was much more effective with Lf-NPs than with NPs. The brain distribution of rotigotine was heterogeneous, with a higher concentration in the striatum, the primary region affected in PD. This strongly suggested that Lf-NPs enable the targeted delivery of rotigotine for the treatment of PD."

According to the news editors, the research concluded: "Taken together, these results demonstrated that Lf-NPs have potential as a carrier for nose-to-brain delivery of rotigotine for the treatment of PD."

For more information on this research see: Intranasal delivery of rotigotine to the brain with lactoferrin-modified PEG-PLGA nanoparticles for Parkinson's disease treatment. *International Journal of Nanomedicine*, 2016;11():6547-6559. *International Journal of Nanomedicine* can be contacted at: Dove Medical Press Ltd, PO Box 300-008, Albany, Auckland 0752, New Zealand.

Our news journalists report that additional information may be obtained by

Keywords for this news article include: Yantai, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Basal Ganglia Diseases and Conditions, Dopaminergic Antiparkinsonism Agents, Central Nervous System Agents, Brain Diseases and Conditions, Parkinsonian Disorders, Iron-Binding Proteins, Emerging Technologies, Antiparkinson Agents, Drugs and Therapies, Parkinson's Disease, Movement Disorders, Dietary Proteins, Carrier Proteins, Nanotechnology, Glycoproteins, Nanoparticle, Lactoferrin, Rotigotine, Yantai University.

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Drugs and Therapies - Cardiovascular Agents

Recent Studies from Yonsei University Add New Data to Cardiovascular Agents (Simultaneous Determination of Sildenafil, Tadalafil, and Vardenafil in Pharmaceutical Preparations by High-Temperature Gas Chromatography/Mass Spectrometry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cardiovascular Agents have been published. According to news reporting from Wonju, South Korea, by NewsRx journalists, research stated, "Sildenafil (SD), tadalafil (TD), and vardenafil (VD) are drugs used to treat erectile dysfunction (ED). Pharmaceutical counterfeiting-related SD, TD, and VD compounds are becoming a critical problem due to their harmful side-effects."

The news correspondents obtained a quote from the research from Yonsei University, "Especially, SD and TD are two major counterfeit ED drugs in South Korea. In this study, a new high-temperature gas chromatography/mass spectrometry (HTGC/MS) method was developed for the rapid determination of SD, TD, and VD in pharmaceutical preparations. A HT GC column was introduced for the rapid analysis of high molecular weight and high boiling point compounds. High-speed centrifugation led to shortened time for results. Calibration curves were linear (R (2) = 0.9972) over the concentration ranges of 12.5-100 A mu g mg(-1) for TD and VD, and 25-175 A mu g mg(-1) for SD. The intra- and inter-day precisions were within 7.5 %, while the intra- and inter-day accuracies ranged from -3.0 to 8.0 %. The limits of quantification were 0.7 A mu g mg(-1) (SD and TD) and 0.13 A mu g mg(-1) (VD)."

According to the news reporters, the research concluded: "The recoveries were in the range of 87.3-102.4 %. The developed method was rapid and accurate both for routine quantitative measurement of SD, TD, and VD in pharmaceutical preparations as well as screening their suspected counterfeit compounds."

Ischemia

Recent Studies from Zhongnan Hospital of Wuhan University Add New Data to Ischemia (Effect Of Intraperitoneal Resuscitation With Different Concentrations Of Sodium Pyruvate On Intestinal Ischemia Reperfusion Injury In Hemorrhagic Shock Rat)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Ischemia is now available. According to news reporting originating from Hubei, People's Republic of China, by NewsRx correspondents, research stated, "To determine the effects of intraperitoneal resuscitation (PR) with different concentrations of sodium pyruvate (PY) on intestinal ischemia reperfusion injury in rats hemorrhagic shock (HS). Sixty rats were randomly assigned to six groups."

Our news editors obtained a quote from the research from the Zhongnan Hospital of Wuhan University, "These included: group SHAM, intravenous resuscitation only (VR) group, and four PR groups based on resuscitation fluid: glucose-lactate-based peritoneal dialysis solution (LA), and PY-1.1%, PY-1.6%, and PY-2.2% (concentrations in grams/dL). Mean arterial pressure (MAP) was monitored continuously. Blood pH, base excess (BE), lactate, intestinal myeloperoxidase (MPO), malondialdehyde (MDA), tumor necrosis factor alpha (TNF-alpha), interleukin-6 (IL-6), activated caspase-3, and zonula occludens-1 (ZO-1) were measured; intestinal mucosal damage index (IMDI) and subcellular changes were observed; apoptotic index (AI) was calculated. Three hours after resuscitation, in PY groups, MPO, MDA, and TNF-alpha were significantly lower than VR and LA groups, while pH and BE were higher. PY groups showed less expression of activated caspase-3 but elevated ZO-1. Among PY groups, group PY-1.1% had the lowest MPO, MDA and TNF-alpha, and had less pathological damage and subcellular changes than other experimental groups. PR using PY solution combined with VR provided protection against intestinal ischemia-reperfusion injury following HS and resuscitation. Under the same hypertonic condition, 1.1% PY solution showed significant advantages compared with 2.2% and 1.6% solutions."

According to the news editors, the research concluded: "The underlying mechanisms may include the maintenance of hemodynamic stability, regulation of homeostasis, inhibition of oxidative stress and inflammation, and protection of intestinal epithelial tight junction barrier function."
For more information on this research see: Effect Of Intraperitoneal Resuscitation With Different Concentrations Of Sodium Pyruvate On Intestinal Ischemia Reperfusion Injury In Hemorrhagic Shock Rat. *Shock*, 2016;45(4):441-9. (Lippincott Williams and Wilkins - www.lww.com; Shock - journals.lww.com/shockjournal/pages/default.aspx)

The news editors report that additional information may be obtained by contacting L.L. Jiang, Dept. of Anesthesiology, Zhongnan Hospital of Wuhan University, Wuhan, Hubei, People's Republic of China. Additional authors for this research include J.J. Zhang, Z.Z. Zhang, X.H. He, D.L. Chen and Y.L Wang.

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Keywords for this news article include: Asia, Hubei, Caspase, Pyruvates, Hematology, Keto Acids, Resuscitation, Medical Devices, Blood Transfusion, Hemorrhagic Shock, Emergency Treatment, Transfusion Medicine, Enzymes and Coenzymes, People's Republic of China, Ischemia Reperfusion Injury, Cardiovascular Diseases and Conditions.

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**Airborne Disease**

**Report Summarizes Airborne Disease Study Findings from N. Ogata and Co-Researchers (Inactivation of Airborne Bacteria and Viruses Using Extremely Low Concentrations of Chlorine Dioxide Gas)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Airborne Disease. According to news reporting originating from Kyoto, Japan, by NewsRx correspondents, research stated, "Infectious airborne microbes, including many pathological microbes that cause respiratory infections, are commonly found in medical facilities and constitute a serious threat to human health. Thus, an effective method for reducing the number of microbes floating in the air will aid in the minimization of the incidence of respiratory infectious diseases."

Our news editors obtained a quote from the research, "Here, we demonstrate that chlorine dioxide (ClO2) gas at extremely low concentrations, which has no detrimental effects on human health, elicits a strong effect to inactivate bacteria and viruses and significantly reduces the number of viable airborne microbes in a hospital operating room. In one set of experiments, a suspension of *Staphylococcus aureus*, bacteriophage MS2, and bacteriophage PHX174 were released into an exposure chamber. When ClO2 gas at 0.01 or 0.02 parts per million (ppm, volume/volume) was present in the chamber, the numbers of surviving microbes in the air were markedly reduced after 120 min. The reductions were markedly greater than the natural reductions of the microbes in the chamber. In another experiment, the numbers of viable airborne bacteria in the operating room of a hospital collected over a 24-hour period in the presence or absence of 0.03 ppm ClO2 gas were found to be 10.9 ? 6.7 and 66.8 ? 31.2 colony-forming units/m3 (n=9, p<0.001), respectively. Taken together, we conclude that ClO2 gas at extremely low concentrations ( (<=)0.03 ppm) can reduce the number of viable microbes floating in the air in a room."

According to the news editors, the research concluded: "These results strongly support the potential use of ClO2 gas at a non-toxic level to reduce infections caused by the
inhalation of pathogenic microbes in nursing homes and medical facilities."


The news editors report that additional information may be obtained by contacting N. Ogata, Taiko Pharmaceutical Co, Ltd, Seikacho, Kyoto, Japan. Additional authors for this research include M. Sakasegawa, T. Miura, T. Shibata, Y. Takigawa, K. Taura, K. Taguchi, K. Matsubara, K. Nakahara, D. Kato, K. Sogawa and H. Oka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444503. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Kyoto, Japan, Viruses, Chlorine, Halogens, Hospital, Bacteriophages, Airborne Diseases and Conditions.

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Neurodegenerative Diseases and Conditions...

Report Summarizes Alzheimer Disease Study Findings from University of Jinan (RPS23RG1 reduces Ab oligomer-induced synaptic and cognitive deficits)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting originating in Guangzhou, People's Republic of China, by NewsRx journalists, research stated, "Alzheimer's disease (AD) is the most common form of dementia in the elderly. It is generally believed that b-amyloidogenesis, tau-hyperphosphorylation, and synaptic loss underlie cognitive decline in AD."

The news reporters obtained a quote from the research from the University of Jinan, "Rps23rg1, a functional retroposed mouse gene, has been shown to reduce Alzheimer's b-amyloid (Ab) production and tau phosphorylation. In this study, we have identified its human homolog, and demonstrated that RPS23RG1 regulates synaptic plasticity, thus counteracting Ab oligomer (oAb)-induced cognitive deficits in mice. The level of RPS23RG1 mRNA is significantly lower in the brains of AD compared to non-AD patients, suggesting its potential role in the pathogenesis of the disease. Similar to its mouse counterpart, human RPS23RG1 interacts with adenylate cyclase, activating PKA/CREB, and inhibiting GSK-3. Furthermore, we show that human RPS23RG1 promotes synaptic plasticity and offsets oAb-induced synaptic loss in a PKA-dependent manner in cultured primary neurons. Overexpression of Rps23rg1 in transgenic mice consistently prevented oAb-induced PKA inactivation, synaptic deficits, suppression of long-term potentiation, and cognitive impairment as compared to wild type littermates."

According to the news reporters, the research concluded: "Our study demonstrates that RPS23RG1 may reduce the occurrence of key elements of AD pathology and enhance synaptic functions to counteract oAb-induced synaptic and cognitive deficits in AD."

For more information on this research see: RPS23RG1 reduces Ab oligomer-induced...
synaptic and cognitive deficits. *Scientific Reports*, 2016;6():18668. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting L. Yan, Dept. of Pharmacology, School of Medicine, Jinan University, Guangzhou 510632, People's Republic of China. Additional authors for this research include Y. Chen, W. Li, X. Huang, H. Badie, F. Jian, T. Huang, Y. Zhao, S.N. Cohen, L. Li, Y.W. Zhang, H. Luo, S. Tu and H. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18668. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Dementia, Genetics, Guangzhou, Tauopathies, Alzheimer Disease, People's Republic of China, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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**Neurodegenerative Diseases and Conditions -**

**Report Summarizes Amyotrophic Lateral Sclerosis Study Findings from Jozef Stefan Institute [Anti-sense DNA d(GGCCCC)n expansions in C9ORF72 form i-motifs and protonated hairpins]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neurodegenerative Diseases and Conditions - Amyotrophic Lateral Sclerosis. According to news reporting out of Ljubljana, Slovenia, by NewsRx editors, research stated, "The G4C2 hexanucleotide repeat expansion mutation (HREM) in C9ORF72, represents the most common mutation associated with amyotrophic lateral sclerosis (ALS) and frontotemporal lobar degeneration (FTLD). Three main disease mechanisms have been proposed to date: C9ORF72 haploinsufficiency, RNA toxicity, and accumulation of dipeptide repeat proteins."

Our news journalists obtained a quote from the research from Jozef Stefan Institute, "Pure GC content of the HREM potentially enables the formation of various non-B DNA structures such as G-quadruplexes and i-motifs. These structures are proposed to act as promoters and regulatory elements affecting replication, transcription and translation of the surrounding region. G-quadruplexes have already been shown on the G-rich sense DNA and RNA strands (G4C2)n, the structure of the anti-sense (G2C4)n strand remains unresolved. Similar C-rich sequences may, under acidic conditions, form i-motifs consisting of two parallel duplexes in a head to tail orientation held together by hemi-protonated C(+)-C pairs. We show that d(G2C4)n repeats do form i-motif and protonated hairpins even under near-physiological conditions. Rather than forming a DNA duplex, i-motifs persist even in the presence of the sense strand. This preferential formation of G-quadruplex and i-motif/hairpin structures over duplex DNA, may explain HREM replicational and transcriptional instability."

According to the news editors, the research concluded: "Furthermore, i-motifs/hairpins can represent a novel pharmacological target for C9ORF72 associated ALS and FTLD."

For more information on this research see: Anti-sense DNA d(GGCCCC)n expansions in C9ORF72 form i-motifs and protonated hairpins. *Scientific Reports*, 2015;5
Our news journalists report that additional information may be obtained by contacting A. Kovanda, Dept. of Biotechnology, Jožef Stefan Institute, Jamova 39, SI-1000 Ljubljana, Slovenia. Additional authors for this research include M. Zalar, P. Šket, J. Plavec and B. Rogelj.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep17944. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antisense DNA, Antisense Technology, Biotechnology, Europe, Slovenia, Genetics, Ljubljana, DNA Research, Bioengineering, TDP 43 Proteinopathies, Proteostasis Deficiencies, Amyotrophic Lateral Sclerosis, Neurodegenerative Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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Drugs and Therapies - Antibiotics

Report Summarizes Antibiotics Study Findings from Medical University (Robust HPLC-MS/MS method for levofloxacin and ciprofloxacin determination in human prostate tissue)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antibiotics have been published. According to news reporting out of Gdansk, Poland, by NewsRx editors, research stated, "Fluoroquinolones are the drugs of choice in the prevention of bacterial infections after transrectal ultrasound guided prostate biopsy. In order to improve assessment of antibacterial efficacy in the target tissue a simple, selective, rapid and robust HPLC-ESI-MS/MS method for the determination of levofloxacin and ciprofloxacin concentrations in human prostate bioptates was developed and validated."

Our news journalists obtained a quote from the research from Medical University, "Preparation procedure for prostate samples (10 mg) was carried out using homogenization and filtration steps. Analyses were performed within 3.5 min using RP C-18 column in the isocratic elution mode with mobile phase composed of a mixture of 0.1% formic acid aqueous solution and 0.1% formic acid methanol solution (v/v; 79:21). The method was linear between 0.3 μg/g and 15 μg/g for levofloxacin and ciprofloxacin with coefficient of correlation (r) >= 0.999. The limit of detection and the limit of quantification for levofloxacin were 0.06 μg/g and 0.2 μg/g and for ciprofloxacin were 0.04 μg/g and 0.13 μg/g, respectively. Average concentrations (+/- SD) of levofloxacin and ciprofloxacin obtained from patients tissue were 5.4 +/- 2.2 μg/g and 3.9 +/- 1.5 μg/g, respectively. Additionally, during validation procedure a novel, experimental design approach was applied for the robustness study. For evaluation of analytical method robustness, Plackett-Burman design was employed and for sample preparation method robustness Fractional Factorial design was used. The developed and validated method was successfully applied to examine prostate tissue samples obtained from patients enrolled into a clinical study."

According to the news editors, the research concluded: "Up to now, there has been no other HPLC-ESI-MS/MS method reported for the simultaneous determination of
levofloxacin and ciprofloxacin in human prostatic tissue."

For more information on this research see: Robust HPLC-MS/MS method for levofloxacin and ciprofloxacin determination in human prostate tissue. *Journal of Pharmaceutical and Biomedical Analysis*, 2017;132():173-183. *Journal of Pharmaceutical and Biomedical Analysis* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Pharmaceutical and Biomedical Analysis - www.journals.elsevier.com/journal-of-pharmaceutical-and-biomedical-analysis/)

Our news journalists report that additional information may be obtained by contacting M.J. Markuszewski, Medical University of Gdansk, Dept. of Biopharmaceut & Pharmacodynam, PL-80416 Gdansk, Poland. Additional authors for this research include J. Jacyna, A. Gibas, M. Sieczkowski, D. Siluk, M. Matuszewski, R. Kalisz and M.J. Markuszewski.

Keywords for this news article include: Gdansk, Poland, Europe, Bacterial Infections and Mycoses, Ophthalmic Antiinfectives, Ophthalmic Preparations, Risk and Prevention, Drugs and Therapies, Otic Antiinfectives, Otic Preparations, Ciprofloxacin, Levofloxacin, Antibiotics, Quinolones, Medical University.

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**Drugs and Therapies - Antibiotics**

**Report Summarizes Antibiotics Study Findings from Shenyang Pharmaceutical University (Determination of Doxorubicin in Stealth Hyaluronic Acid-Based Nanoparticles in Rat Plasma by the Liquid-Liquid Nanoparticles-Breaking Extraction Method: ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antibiotics. According to news reporting originating in Shenyang, People's Republic of China, by NewsRx journalists, research stated, "An efficient extraction of doxorubicin (Dox) from homemade stealth hyaluronic acid (HA)-based nanoparticles (NPs) in rat plasma could not be performed by previously published methods. Therefore, we attempted to establish the novel NPs-breaking and UPLC-MS-MS method for evaluating the pharmacokinetic profiles of the homemade stealth HA NPs in rats."

The news reporters obtained a quote from the research from Shenyang Pharmaceutical University, "The pretreatment method of plasma samples used the liquid-liquid extraction method with isopropyl alcohol as NPs-breaking and protein-precipitating solvents, and the NPs-breaking efficiency of isopropyl alcohol was as high as 97.2%. The analyte and gliclazide (internal standard) were extracted from plasma samples with isopropyl alcohol and were separated on UPLC BEH C-18 with a mobile phase consisting of methanol and water (containing 0.1% formic acid). The method demonstrated good linearity at the concentrations ranging from 5 to 5,000 ng/mL. The intra-and interday relative standard deviations were >10%.

According to the news reporters, the research concluded: "Finally, the method was successfully applied to a pharmacokinetic study of homemade stealth HA-based NPs in rats following intravenous administration."

For more information on this research see: Determination of Doxorubicin in Stealth

Our news correspondents report that additional information may be obtained by contacting J. Sun, Shenyang Pharmaceutical University, Sch Pharm, Dept. of Pharmaceut, Shenyang 110016, People's Republic of China. Additional authors for this research include W. Wei, L. Zhong, C. Luo, C.N. Wu, Q.K. Jiang and J. Sun.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Emerging Technologies, Drugs and Therapies, Pharmacokinetics, Pharmaceuticals, Nanotechnology, Nanoparticle, Shenyang Pharmaceutical University.

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**Drugs and Therapies - Antiemetic-Antivertigo Agents**

**Report Summarizes Antiemetic-Antivertigo Agents Study Findings from University of Bari (Carbon monoxide contributes to the constipating effects of granisetron in rat colon)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiemetic-Antivertigo Agents have been published. According to news reporting originating from Bari, Italy, by NewsRx correspondents, research stated, "To investigate the mechanisms underlying the potential contribution of the heme oxygenase/carbon monoxide (HO/CO) pathway in the constipating effects of granisetron. For in vivo studies, gastrointestinal motility was evaluated in male rats acutely treated with granisetron [25, 50, 75 μg/kg/subcutaneous (sc)], zinc protoporphyrin IX [ZnPPIX, 50 μg/kg/intraperitoneal (ip)] and hemin (50 μmol/L/kg/ip), alone or in combination."

Our news editors obtained a quote from the research from the University of Bari, "For in vitro studies, the contractile neurogenic response to electrical field stimulation (EFS, 3, 5, 10 Hz, 14 V, 1 ms, pulse trains lasting 10 s), as well as the contractile myogenic response to acetylcholine (ACh, 0.1-100 μmol/L) were evaluated on colon specimens incubated with granisetron (3 μmol/L, 15 min), ZnPPIX (10 μmol/L, 60 min) or CO-releasing molecule-3 (CORM-3, 100, 200, 400 μmol/L) alone or in combination. These experiments were performed under co-treatment with or without atropine (3 μmol/L, a muscarinic receptor antagonist) or N-G-nitro-L-Arginine (L-NNA, 100 μmol/L, a nitric oxide synthase inhibitor). Administration of granisetron (50, 75 μg/kg) in vivo significantly increased the time to first defecation (P = 0.045 vs vehicle-treated rats), clearly suggesting a constipating effect of this drug. Although administration of ZnPPIX or hemin alone had no effect on this gastrointestinal motility parameter, ZnPPIX co-administered with granisetron abolished the granisetron-induced constipation. On the other hand, co-administration of hemin and granisetron did not modify the increased constipation observed under granisetron alone. When administered in vitro, granisetron alone (3 μmol/L) did not significantly modify the colon's contractile response to either EFS or ACh. Incubation with ZnPPIX alone (10 μmol/L) significantly reduced the..."
colon's contractile response to EFS (P = 0.016) but had no effect on contractile response to ACh. Co-administration of ZnPPIX and atropine (3 μmol/L) abolished the ZnPPIX-mediated decrease in contractile response to EFS. Conversely, incubation with CORM-3 (400 μmol/L) alone increased both the contractile response to EFS at 10 Hz (10 Hz: 71.02 +/- 19.16 vs 116.25 +/- 53.70, P = 0.01) and the contractile response to ACh (100 μmol/L) (P = 0.012). Co-administration of atropine abolished the CORM-3-mediated effects on the EFS-mediated response. When granisetron was co-incubated in vitro with ZnPPIX, the ZnPPIX-mediated decrease in colon contractile response to EFS was lost. On the other hand, co-incubation of granisetron and CORM-3 (400 μmol/L) further increased the colon's contractile response to EFS (at 5 Hz: P = 0.007; at 10 Hz: P = 0.001) and to ACh (ACh 10 μmol/L: P = 0.001; ACh 100 μmol/L: P = 0.001) elicited by CORM-3 alone. L-NNA co-administered with granisetron and CORM-3 abolished the potentiating effect of CORM-3 on granisetron on both the EFS-induced and ACh-induced contractile response.

According to the news editors, the research concluded: "Taken together, findings from in vivo and in vitro studies suggest that the HO/CO pathway is involved in the constipating effects of granisetron."


The news editors report that additional information may be obtained by contacting M.A. De Salvia, Univ Bari Aldo Moro, Sch Med, Dept. of Biomed Sci & Human Oncol, Pharmacol Sect, I-70124 Bari, Italy. Additional authors for this research include M. Fanelli, M.A. Potenza, V. Leo, M. Montagnani and M.A. De Salvia.

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Keywords for this news article include: Bari, Italy, Europe, Anticholinergic Chronotropic Agents, Central Nervous System Agents, Antiemetic-Antivertigo Agents, Inorganic Carbon Compounds, 5ht3 Receptor Antagonists, Ophthalmic Preparations, Cardiovascular Agents, Azabicyclo Compounds, Serotonin Antagonist, Drugs and Therapies, Granisetron Therapy, Biological Factors, Gastroenterology, Atropine Therapy, Anticholinergics, Carbon Monoxide, Pharmaceuticals, Antiemetics, Porphyrins, Mydriatics, Chemicals, Antidotes, Hemin, Heme, University of Bari.

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Drugs and Therapies - Antiretrovirals

Report Summarizes Antiretrovirals Study Findings from Academic Medical Center (White matter hyperintensities in relation to cognition in HIV-infected men with sustained suppressed viral load on combination antiretroviral therapy)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antiretrovirals are presented in a new report. According to news reporting originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "The objective of this study was to assess whether HIV-infected patients on long-term successful combination antiretroviral therapy (cART) have more extensive white matter hyperintensities (WMH) of presumed vascular origin compared with uninfected controls and whether these intensities are associated with cognitive impairment. Furthermore, we explored potential determinants of increased WMH load long-term suppressed HIV infection."

Our news editors obtained a quote from the research from Academic Medical Center, "A cross-sectional comparison of WMH in an observational cohort. Clinical, cognitive, and MRI data were collected from 103 middle-aged, aviremic HIV-infected men on cART, and 70 HIV-uninfected, otherwise similar controls. In the MRI data, WMH load was quantified by automated approaches and qualitatively reviewed by an experienced neuroradiologist using the Fazekas scale. HIV-infected men had an increased WMH load. Among HIV-infected patients, increased WMH load was independently associated with older age, higher DBP, higher D-dimer levels, and longer time spent with a CD4(+) cell count below 500 cells/ml. HIV-associated cognitive deficits were associated with increased WMH load. WMH are more extensive and associated with cognitive deficits in middle-aged, aviremic cART-treated HIV-infected men. The extent of WMH load was associated with both cardiovascular risk factors and past immune deficiency. As cognitive impairment in these same patients is also associated with these risk factors, this may suggest that in the setting of HIV, WMH, and cognitive deficits share a common cause."

According to the news editors, the research concluded: "This supports the importance of optimizing cardiovascular risk management, and early, effective treatment of HIV infection."

For more information on this research see: White matter hyperintensities in relation to cognition in HIV-infected men with sustained suppressed viral load on combination antiretroviral therapy. *Aids*, 2016;30(15):2329-2339. *Aids* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx)

The news editors report that additional information may be obtained by contacting C.B. Majoie, Academy Med Center, Dept. of Radiol, NL-1100 DD Amsterdam, Netherlands. Additional authors for this research include F. Wit, M.W.A. Caan, J. Schouten, M. Prins, G.J. Geurtsen, J.H. Cole, D.J. Sharp, E. Richard, L. Reneman, P. Portegies, P. Reiss and C.B. Majoie.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Virus Physiological Phenomena, Microbiological Techniques, Primate Lentiviruses, Risk and Prevention, Drugs and Therapies, Vertebrate Viruses, Antiretrovirals, Cardiovascular, HIV Infections, Retroviridae, RNA Viruses, Cardiology, Viral Load, HIV/AIDS, Therapy, Academic Medical Center.

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Report Summarizes Applied Materials & Interfaces Study Findings from Dublin City University (Pulsed-Plasma Physical Vapor Deposition Approach Toward the Facile Synthesis of Multilayer and Monolayer Graphene for Anticoagulation Applications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Materials Research - Applied Materials & Interfaces have been published. According to news reporting originating from Dublin, Ireland, by NewsRx correspondents, research stated, "We demonstrate the growth of multilayer and single-layer graphene on copper foil using bipolar pulsed direct current (DC) magnetron sputtering of a graphite target in pure argon atmosphere. Single-layer graphene (SG) and few-layer graphene (FLG) films are deposited at temperatures ranging from 700 °C to 920 °C within <30 min."

Funders for this research include Science Foundation Ireland, Higher Education Authority.

Our news editors obtained a quote from the research from Dublin City University, "We find that the deposition and post-deposition annealing temperatures influence the layer thickness and quality of the graphene films formed. The films were characterized using atomic force microscopy (AFM), scanning electron microscopy (SEM), high-resolution transmission electron microscopy (HRTEM), Raman spectroscopy, X-ray photoelectron spectroscopy (XPS), and optical transmission spectroscopy techniques. Based on the above studies, a diffusion-controlled mechanism was proposed for the graphene growth. A single-step whole blood assay was used to investigate the anticoagulant activity of graphene surfaces. Platelet adhesion, activation, and morphological changes on the graphene/glass surfaces, compared to bare glass, were analyzed using fluorescence microscopy and SEM techniques. We have found significant suppression of the platelet adhesion, activation, and aggregation on the graphene-covered surfaces, compared to the bare glass, indicating the anticoagulant activity of the deposited graphene films."

According to the news editors, the research concluded: "Our production technique represents an industrially relevant method for the growth of SG and FLG for various applications including the biomedical field."


The news editors report that additional information may be obtained by contacting R.K. Vijayaraghavan, National Centre for Plasma Science and Technology, ‡School of Electronic Engineering, Biomedical Diagnostics Institute and ||School of Physical Sciences, Dublin City University, Glasnevin, Dublin 9, Ireland. Additional authors for this research include C. Gaman, B. Jose, A.P. McCoy, T. Cafolla, P.J. McNally and S. Daniels.

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Keywords for this news article include: Dublin, Europe, Ireland, Materials Research,
Heart Disorders and Diseases - Arrhythmogenic...

Report Summarizes Arrhythmogenic Right Ventricular Dysplasia Study Findings from University Medical Center (Prolonged Electromechanical Interval Unmasks Arrhythmogenic Right Ventricular Dysplasia/Cardiomyopathy in the Subclinical Stage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Arrhythmogenic Right Ventricular Dysplasia. According to news reporting originating in Utrecht, Netherlands, by NewsRx journalists, research stated, "Arrhythmogenic right ventricular dysplasia/cardiomyopathy (ARVD/C) is characterized by high incidence of ventricular arrhythmias. Overt ARVD/C is preceded by a subclinical stage with lack of detectable ECG and structural abnormalities."

Financial support for this research came from Interuniversity Cardiology Institute of the Netherlands.

The news reporters obtained a quote from the research from University Medical Center, "Activation delay is present before structural abnormalities and is a hallmark of arrhythmogenesis. Deformation imaging may unmask activation delay in the subclinical stage. Three groups were compared: (1) mutation-positive definite ARVD/C-patients fulfilling 2010 Task Force criteria (TFC) (n=44); (2) asymptomatic mutation carriers not fulfilling TFC and without history of ventricular arrhythmias (n=31); and (3) controls (n=30). All underwent ECG and echocardiographic deformation imaging. As a surrogate for local activation delay the electromechanical interval (EMI) was measured, defined as time between onset-QRS and onset of shortening. Arrhythmic outcome (PVC-count, VT) of asymptomatic mutation carriers was correlated with EMI and ECG TFC. In definite ARVD/C-patients, EMI was prolonged in all lateral RV segments. In asymptomatic mutation carriers, prolonged EMI was detected in the subtricuspid area in 14/31. Terminal activation duration (>=)55 milliseconds (definition: supporting information) was the only ECG abnormality in this group (8/31). After a mean follow-up of 4.2 ± 3.1 years 10/31 asymptomatic mutation carriers experienced arrhythmic outcome. Prolonged subtricuspid EMI was the only parameter significantly associated with arrhythmogenesis during follow-up. In ARVD/C-patients, EMI prolongation was present throughout the RV. In asymptomatic mutation carriers, prolonged EMI in the subtricuspid area is often detected without any additional abnormalities."

According to the news reporters, the research concluded: "These preliminary results indicate that prolonged EMI is a new parameter unmasking activation delay in the subclinical stage and may contribute to risk stratification."

Our news correspondents report that additional information may be obtained by contacting T.P. Mast, Dept. of Cardiology, University Medical Center Utrecht, Utrecht, Netherlands. Additional authors for this research include A.J. Teske, A.S. Te Riele, J.A. Groeneweg, J.F. Van Der Heijden, B.K. Velthuis, P. Loh, P.A. Doevendans, T.A. Van Veen, D. Dooijes, J.M. De Bakker, R.N. Hauer and M.J Cramer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jce.12882. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the Journal of Cardiovascular Electrophysiology can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Europe, Utrecht, Genetics, Cardiology, Netherlands, Dermatology, Heart Disease, Cardiomyopathies, Congenital Abnormalities, Congenital Heart Defects, Cardiovascular Abnormalities, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions, Arrhythmogenic Right Ventricular Dysplasia.

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Oncology - Astrocytomas

Report Summarizes Astrocytomas Study Findings from Copenhagen University Hospital (A new NFIA:RAF1 fusion activating the MAPK pathway in pilocytic astrocytoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Astrocytomas is now available. According to news reporting originating in Copenhagen, Denmark, by NewsRx journalists, research stated, "Pilocytic astrocytoma (PA) is one of the most common brain cancers among children and activation of the Mitogen-Activated Protein Kinase (MAPK) pathway is considered the hallmark. In the majority of cases, oncogenic BRAF fusions or BRAF V600E mutations are observed, while RAF1 or NF1 alterations are more rarely found."

The news reporters obtained a quote from the research from Copenhagen University Hospital, "However, in some cases, no apparent cancer driver events can be identified. Here, we describe a novel fusion between the transcription factor nuclear factor 1A (NFIA) and Raf-1 proto- oncogene (RAF1) in a 5-year old boy with PA. The novel fusion was identified as part of a comprehensive genomic tumor profiling. We show that the NFIA:RAF1 fusion results in constitutive Raft kinase activity, leading to activation of downstream MEK1/2 cascade and increased proliferation of cancer cells. The NFIA:RAF1 fusion displayed distinct subcellular localization towards the plasma membrane indicative of Raf-1 activation, in contrast to both wild type NFIA and Raf-1, which were localized in the nucleus and cytoplasm, respectively."

According to the news reporters, the research concluded: "Our data support the existence of rare oncogenic RAF1 fusions with constitutive Raf-1 activity. This highlights the need for broad genetic testing in order to refine diagnostics of PA and to unravel potential treatment options, e.g. with MEK inhibitors."

For more information on this research see: A new NFIA:RAF1 fusion activating the MAPK pathway in pilocytic astrocytoma. Cancer Genetics, 2016;209(10):440-444. Cancer Genetics can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Cancer Genetics -
www.journals.elsevier.com/cancer-genetics/)

Our news correspondents report that additional information may be obtained by contacting M. Rossing, Copenhagen Univ Hosp, Rigshospitalet, Center Genom Med, DK-2100 Copenhagen, Denmark. Additional authors for this research include A. Sehested, A. Mateu-Regue, O. Ostrup, D. Scheie, K. Nysom, F.C. Nielsen and M. Rossing.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Enzymes and Coenzymes, Kinase, Genetics, Astrocytomas, Oncology, Copenhagen University Hospital.

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Cardiovascular Diseases and Conditions -...

Report Summarizes Atherosclerosis Study Findings from E.A. Ivanova and Co-Researchers (Cellular Model of Atherogenesis Based on Pluripotent Vascular Wall Pericytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news reporting originating in Leuven, Belgium, by NewsRx journalists, research stated, "Pericytes are pluripotent cells that can be found in the vascular wall of both microvessels and large arteries and veins. They have distinct morphology with long branching processes and form numerous contacts with each other and with endothelial cells, organizing the vascular wall cells into a three-dimensional network."

Financial support for this research came from Russian Scientific Foundation.

The news reporters obtained a quote from the research, "Accumulating evidence demonstrates that pericytes may play a key role in the pathogenesis of vascular disorders, including atherosclerosis. Macrovascular pericytes are able to accumulate lipids and contribute to growth and vascularization of the atherosclerotic plaque. Moreover, they participate in the local inflammatory process and thrombosis, which can lead to fatal consequences. At the same time, pericytes can represent a useful model for studying the atherosclerotic process and for the development of novel therapeutic approaches. In particular, they are suitable for testing various substances' potential for decreasing lipid accumulation induced by the incubation of cells with atherogenic low-density lipoprotein."

According to the news reporters, the research concluded: "In this review we will discuss the application of cellular models for studying atherosclerosis and provide several examples of successful application of these models to drug research."

For more information on this research see: Cellular Model of Atherogenesis Based on Pluripotent Vascular Wall Pericytes. Stem Cells International, 2016;2016():7321404. (Hindawi Publishing - www.hindawi.com; Stem Cells International - www.hindawi.com/journals/sci/)

Our news correspondents report that additional information may be obtained by contacting E.A. Ivanova, Dept. of Development and Regeneration, KU Leuven, 3000 Leuven, Belgium.
Heart Disorders and Diseases - Atrial Fibrillation

Report Summarizes Atrial Fibrillation Study Findings from University Health Network (Identifying Patients With Atrial Fibrillation in Administrative Data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Atrial Fibrillation are presented in a new report. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "Identifying patients with atrial fibrillation (AF) using administrative data is important for epidemiologic and outcomes research. Although administrative data cover large populations, it is necessary to assess their validity in identifying AF patients."

Our news journalists obtained a quote from the research from University Health Network, "We used Ontario family physician electronic medical records from the Electronic Medical Record Administrative data Linked Database (EMRALD) as a reference standard to assess the accuracy of administrative data algorithms in identifying patients with AF. From a random sample of 7500 adult patients, patients with AF as recorded in family physician records were identified. The optimal algorithm consisted of any of: hospitalization or an emergency room code for AF or prescription for an AF-specific antiarrhythmic agent or billing code for cardioversion, or prescription for an anticoagulant that was accompanied by a physician billing code for arrhythmia. The algorithm sensitivity was 80.7% (95% confidence interval [CI], 75.1-86.3), specificity 99.1% (95% CI, 98.9-99.3), positive predictive value 71.1% (95% CI, 65.1-77.1), and negative predictive value 99.5% (95% CI, 99.3-99.7). This algorithm, applied to the Ontario population, resulted in a calculated increase in AF prevalence from 1.68% to 2.36% over the years 2000-2014. Anticoagulation rates for AF patients increased from 53% in 2011 to 60% in 2014. Among AF patients receiving anticoagulants, novel oral anticoagulant utilization increased from < 5% in 2011 to > 50% in 2014."

According to the news editors, the research concluded: "Identifying patients with AF can be done using administrative data, and the algorithm can be used to assess trends in disease burden over time and patterns of care in large populations."


Our news journalists report that additional information may be obtained by contacting K. Tu, Toronto Western Hosp, Univ Hlth Network, Family Hlth Team, Toronto, ON, Canada. Additional authors for this research include R. Nieuwlaat, S.Y. Cheng, L. Wing, N.
Ivers, C.L. Atzema, J.S. Healey and P. Dorian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.06.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Heart Disorders and Diseases, Algorithms, Epidemiology, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, University Health Network.

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Heart Disorders and Diseases - Atrial Fibrillation

Report Summarizes Atrial Fibrillation Study Findings from Zhejiang University (Perindopril for the prevention of atrial fibrillation recurrence after radiofrequency catheter ablation: One-year experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting from Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "Recurrence of atrial fibrillation (AF) after ablation is still high. Perindopril plays an essential role in AF induction and maintenance."

The news correspondents obtained a quote from the research from Zhejiang University, "We aimed to prove that perindopril (8 mg) could prevent recurrence after pulmonary vein isolation. Patients with paroxysmal AF who received radio frequency ablation were randomized to a 3 -month course of perindopril 8 mg once daily (perindopril group) or placebo (placebo group). Angiotensin-II (Ang-II) therapy and standard transthoracic echocardiography were performed. All 256 patients with paroxysmal AF who received radiofrequency ablation were randomized. And we followed them for complete 1 year. The 3 -month recurrence and the 1 -year recurrence were compared between the 2 groups. The 3 -month recurrence of AF was observed in 33 (26.19%) of 126 patients in the placebo group vs 19 (14.62%) 130 patients who received perindopril 8 mg once daily (x2, P =.021). One-year recurrence of AF was observed in 36 (28.5%) of 126 patients in the placebo group as compared with 21 (16.2%) of 130 patients who received perindopril after 1 year (P =.017). The kappa value was 0.94 in the control group (P <.001) and 0.96 in the perindopril group (P <.001) between 3 -month and 1 -year recurrence. The Ang-II level was related to the left atrial distance with the reduction in AF recurrence (r = 0.17, P =.005 at 3 months; r = 0.25, P<.001 at 1 year). Perindopril is an effective and safe treatment for the prevention of AF recurrence after radiofrequency catheter ablation."

According to the news reporters, the research concluded: "This effect seems to be strongly associated with a significant decrease in Ang-II level and left atrial distance."


Our news journalists report that additional information may be obtained by contacting L.R. Zheng, Zhejiang University, Coll Med, Affiliated Hosp 1, Div Cardiol,
Report Summarizes Biochemistry Study Findings from Dental Research Institute (Epigenetic regulation of CFTR in salivary gland)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Chemistry - Biochemistry. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Cystic fibrosis transmembrane conductance regulator (CFTR) plays a key role in exocrine secretion, including salivary glands. However, its functional expression in salivary glands has not been rigorously studied."

Financial supporters for this research include Oromaxillofacial Dysfunction Research Center for the Elderly, National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from Dental Research Institute, "In this study, we investigated the expression pattern and regulatory mechanism of CFTR in salivary glands using immunohistochemistry, western blot analysis, Ussing chamber study, methylation-specific PCR, and bisulfite sequencing. Using an organ culture technique, we found that CFTR expression was first detected on the 15th day at the embryonic stage (E15) and was observed in ducts but not in acini. CFTR expression was confirmed in HSG and SIMS cell lines, which both originated from ducts, but not in the SMG C-6 cell line, which originated from acinar cells. Treatment of SMG C-6 cells with 5-aza-2'-deoxycytidine (5-Aza-CdR) restored the expression level of CFTR mRNA in a time-dependent manner. Restoration of CFTR was further confirmed by a functional study. In the Ussing chamber study, 10 μM C-act-A1, a CFTR activator, did not evoke any currents in SMG C-6 cells. In contrast, in SMG C-6 cells pretreated with 5-Aza-CdR, C-act-A1 evoked a robust increase of currents, which were inhibited by the CFTR inhibitor CFTRinh-172. Furthermore, forskolin mimicked the currents activated by C-act-A1. In our epigenetic study, SMG C-6 cells showed highly methylated CG pairs in the CFTR CpG island and most of the methylated CG pairs were demethylated by 5-Aza-CdR."

According to the news reporters, the research concluded: "Our results suggest that epigenetic regulation is involved in the development of salivary glands by silencing the CFTR gene in a tissue-specific manner."

For more information on this research see: Epigenetic regulation of CFTR in salivary gland. Biochemical and Biophysical Research Communications, 2016;481(1-2):31-37. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier -
Blood Pressure

Report Summarizes Blood Pressure Study Findings from School of Medicine (The response of the vestibulosympathetic reflex to linear acceleration in the rat)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Blood Pressure. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "The vestibulosympathetic reflex (VSR) increases blood pressure (BP) upon arising to maintain blood flow to the brain. The optimal directions of VSR activation and whether changes in heart rate (HR) are associated with changes in BP are still not clear."

Financial support for this research came from HHS | NIH | National Institute on Deafness and Other Communication Disorders (NIDCD).

Our news editors obtained a quote from the research from the School of Medicine, "We used manually activated pulses and oscillatory linear accelerations of 0.2-2.5 g along the naso-occipital, interaural, and dorsoventral axes in isoflurane-anesthetized, male Long-Evans rats. BP and HR were recorded with an intra-aortic sensor and acceleration with a three-dimensional accelerometer. Linear regressions of BP changes in accelerations along the upward, downward, and forward axes had slopes of approximate to 3-6 mmHg. g(-1) (P < 0.05). Lateral and backward accelerations did not produce consistent changes in BP. Thus upward, downward, and forward translations were the directions that significantly altered BP. HR was unaffected by these translations. The VSR sensitivity to oscillatory forward-backward translations was approximate to 6-10 mmHg. g(-1) at frequencies of approximate to 0.1 Hz (0.2 g), decreasing to zero at frequencies above 2 Hz (1.8 g). Upward, 70 degrees tilts of an alert rat increased BP by 9 mmHg. g(-1) without changes in HR, indicating that anesthesia had not reduced the VSR sensitivity. The similarity in BP induced in alert and anesthetized rats indicates that the VSR is relatively insensitive to levels of alertness and that the VSR is likely to cause changes in BP through modification of peripheral vascular resistance."

According to the news editors, the research concluded: "Thus the VSR, which is directed toward the cardiovascular system, is in contrast to the responses in the alert state that can produce sweating, alterations in BP and HR, and motion sickness."

For more information on this research see: The response of the vestibulosympathetic reflex to linear acceleration in the rat. Journal of Neurophysiology, 2016;116(6):2752-2764.
Blood Pressure

Report Summarizes Blood Pressure Study Findings from University of Nove Julho (Resistance or aerobic training decreases blood pressure and improves cardiovascular autonomic control and oxidative stress in hypertensive menopausal rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Blood Pressure. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, research stated, "We investigated whether resistance training (RT) vs. aerobic training (AT) differentially impacts on arterial pressure and related mechanisms in ovariectomized spontaneously hypertensive rats (SHRs). Female SHRs were ovariectomized and assigned to one of the following groups: sedentary, AT, or RT; sham sedentary SHR were used as control group."

Financial supporters for this research include Ministry of Science, Technology and Innovation | Conselho Nacional de Desenvolvimento Cientifico e Tecnologico (National Council for Scientific and Technological Development), Sao Paulo Research Foundation (FAPESP).

Our news journalists obtained a quote from the research from the University of Nove Julho, "AT was performed on a treadmill, whereas RT was performed on a vertical ladder. Both exercise protocols were performed for 8 wk, 5 days/wk. Arterial pressure, baroreflex sensitivity, autonomic modulation, and cardiac oxidative stress parameters (lipid peroxidation, protein oxidation, redox balance, NADPH oxidase, and antioxidant enzymes activities) were analyzed. Ovariectomy increased mean arterial pressure (similar to 9 mmHg), sympathetic modulation (similar to 40%), and oxidative stress in sedentary rats. Both RT and AT reduced mean arterial pressure (similar to 20 and similar to 8 mmHg, respectively) and improved baroreflex sensitivity compared with sedentary ovariectomized rats. However, RT-induced arterial pressure decrease was significantly less pronounced than AT. Lipid peroxidation and protein oxidation were decreased while antioxidant enzymes were increased in both trained groups vs. sedentaries. The reduced glutathione was higher after AT vs. other groups, whereas oxidized glutathione was lower after RT vs. AT. Moreover, sympathetic and parasympathetic modulations were highly correlated with cardiac oxidative stress parameters."

According to the news editors, the research concluded: "Both RT and AT can decrease arterial pressure in a model of hypertension and menopause; although, at different
magnitudes this decrease was related to attenuated autonomic dysfunction in association with cardiac oxidative stress improvement in both exercise protocols."

For more information on this research see: Resistance or aerobic training decreases blood pressure and improves cardiovascular autonomic control and oxidative stress in hypertensive menopausal rats. *Journal of Applied Physiology*, 2016;121(4):1032-1038. *Journal of Applied Physiology* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting K. De Angelis, Univ Nove Julho, Lab Translat Physiol, Sao Paulo, Brazil. Additional authors for this research include I.C. Moraes-Silva, D.D. Dias, G.L. Shimojo, F.F. Conti, N. Bernardes, C.A. Barboza, I.C. Sanches, A.S.D. Araujo, M.C. Irigoyen and K. De Angelis.

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Keywords for this news article include: Sao Paulo, Brazil, South America, Cardiovascular, Blood Pressure, Cardiology, University of Nove Julho.

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**Drugs and Therapies - Botulinum Toxin Therapy**

**Report Summarizes Botulinum Toxin Therapy Study Findings from Aristotle University (Do we understand how botulinum toxin works and have we optimized the way it is administered to the bladder? ICI-RS 2014)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Botulinum Toxin Therapy is the subject of a report. According to news reporting originating in Thessaloniki, Greece, by NewsRx journalists, research stated, "The use of botulinum toxin A (BoNT/A) is commonplace now in the management of refractory overactive bladder and neurogenic detrusor overactivity (NDO). Despite one formulation now having a license, the full mechanism of action is not fully understood."

The news reporters obtained a quote from the research from Aristotle University, "Furthermore practice varies worldwide in the way the toxin is delivered to the bladder. At the ICI-RS 2014 Meeting in Bristol, UK a Think Tank session was conducted on the topic of 'Do we understand how botulinum toxin works and have we optimized the way it is administered to the bladder?' This manuscript reflects the Think Tank's summary and opinion. An overview of the existing evidence and consensus regarding mechanism of action and practical aspects of BoNT/A administration was presented. Further avenues of potential research were suggested. BoNT/A effect in the bladder is complex with likely effects on both efferent and afferent nerves. The site of action is controversial with the relative contribution of the detrusor as opposed to the suburothelial effects remaining unclear and open to further studying. The classical concept of prevention of acetylcholine release in the bladder is not supported by a wealth of evidence on neurotransmitters although co-localization studies have suggested cholinergic nerves are the most affected by BoNT/A. There is more robust evidence for effects on the purinergic system and afferent desensitization and emerging evidence for central effects. A variety of technique
studies were presented. OnabotulinumtoxinA has recently been studied in large phase III trials and with this there is a standardized injection technique which is trigone-sparing. The evidence for altering location of injection is mixed with some studies suggesting less voiding dysfunction in bladder base injections alone but others suggesting location of injection does not affect outcomes. Early pilot data and evidence of instillation either with electromotive drug administration (EMDA) or in liposomes were also presented as an alternative to injections. The mechanism of action of BoNT/A in the bladder is complex and not fully understood. There is emerging support for its role on afferent mechanisms."

According to the news reporters, the research concluded: "The technical aspects of the injection procedure have been standardized to a certain extent but further study is required in larger scale studies to assess minimizing voiding dysfunction, improving tolerability, and assessing alternatives to injections."

For more information on this research see: Do we understand how botulinum toxin works and have we optimized the way it is administered to the bladder? ICI-RS 2014. Neurourology and Urodynamics, 2016;35(2):293-8. (Wiley-Blackwell - www.wiley.com; Neurourology and Urodynamics - onlinelibrary.wiley.com/journal/10.1002/(ISSN)1520-6777)

Our news correspondents report that additional information may be obtained by contacting A. Apostolidis, 2nd Dept. of Urology, Aristotle University of Thessaloniki, Thessaloniki, Greece. Additional authors for this research include M.S. Rahnama'i, C. Fry, R. Dmochowski and A. Sahai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/nau.22797. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antidystonic, Antiwrinkle, Greece, Europe, Thessaloniki, Article Review, Bacterial Toxins, Biological Factors, Drugs and Therapies, Botulinum Toxin Therapy.

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Oncology - Bowel Cancer

Report Summarizes Bowel Cancer Study Findings from Department of Medical Oncology (Survival impact of the Australian National Bowel Cancer Screening Programme)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Bowel Cancer. According to news reporting from Melbourne, Australia, by NewsRx journalists, research stated, "The Australian National Bowel Cancer Screening Program (NBCSP) has been offering age-based faecal occult blood testing since 2006. With the rapid expansion of this programme, the NBCSP will ultimately offer biennial screening to all 50-74 years old by 2020."

The news correspondents obtained a quote from the research from the Department of Medical Oncology, "Participation rates remain low. Previous reports have described an increased proportion of earlier stage cancers in patients with NBCSP-detected tumours. Data on consecutive patients enrolled into a prospective, comprehensive, multidisciplinary database at six Victorian hospitals were examined. Clinicopathologic and outcome data were compared for NBCSP and symptomatic presentation patients. We identified 3743 patients that presented with
colorectal cancer (CRC) at participating hospitals since May 2006. Of 1930 patients aged between 50 and 70 years, 141 (7.3%) had a NBCSP detected cancer, 1441 (74.7%) presented with symptoms and 266 (13.8%) were diagnosed through screening outside of the NBCSP. Based on the American Society of Anaesthesiology score, the NBCSP patients were fitter. They had an earlier stage of diagnosis and were more likely to be female and less likely to have lymphovascular invasion or to present as an emergency. NBCSP detected patients had a lower rate of recurrence (HR 0.17, p=0.0001) and fewer deaths (HR 0.19, p=0.005). Patients with NBCSP-detected CRC have a markedly reduced risk of CRC recurrence and death compared with patients with a symptomatic presentation. The dominant driver of this appears to be earlier stage at diagnosis."

According to the news reporters, the research concluded: "Increased promotion of the impact of the NBCSP, including data related to the survival impact, should be undertaken to increase participation rates and achieve further survival gains."


Our news journalists report that additional information may be obtained by contacting S. Ananda, Dept. of Medical Oncology, Royal Melbourne Hospital, Melbourne, Victoria, Australia. Additional authors for this research include H. Wong, I. Faragher, I.T. Jones, M. Steele, S. Kosmider, J. Desai, J. Tie, K. Field, R. Wong, B. Tran, S. Bae and P. Gibbs.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imj.12916. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hospital, Oncology, Melbourne, Bowel Cancer, Australia and New Zealand, Diagnostics and Screening.

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**Oncology - Breast Cancer**

**Report Summarizes Breast Cancer Study Findings from A. Grundy and Co-Researchers (Occupational exposure to magnetic fields and breast cancer among Canadian men)***

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news originating from Calgary, Canada, by NewsRx correspondents, research stated, "Occupational magnetic field (MF) exposure has been suggested as a risk factor for breast cancer in both men and women. Due to the rarity of this disease in men, most epidemiologic studies investigating this relationship have been limited by small sample sizes."

Financial support for this research came from Cancer Care Ontario.

Our news journalists obtained a quote from the research, "Herein, associations of several measures of occupational MF exposure with breast cancer in men were investigated using data from the population-based case-control component of the Canadian National Enhanced Cancer Surveillance System. Lifetime job histories were provided by 115 cases and 570 controls. Average MF exposure of individual jobs was classified into three categories (<0.3,
0.3 to <0.6, or (>=)0.6 mT) through expert blinded review of participant's lifetime occupational histories. The impact of highest average and cumulative MF exposure, as well as exposure duration and specific exposure-time windows, on cancer risk was examined using logistic regression. The proportion of cases (25%) with a highest average exposure of (>=)0.3 mT was higher than among controls (22%). We found an elevated risk of breast cancer in men who were exposed to (>=)0.6 mT (odds ratio [OR]=1.80, 95% CI=0.82-3.95) when compared to those with exposures <0.3 mT. Those exposed to occupational MF fields for at least 30 years had a nearly threefold increase in risk of breast cancer (OR=2.77, 95% CI=0.98-7.82) when compared to those with background levels of exposure. Findings for the other time-related MF variables were inconsistent.

According to the news editors, the research concluded: "Our analysis, in one of the largest case-control studies of breast cancer in men conducted to date, provides limited support for the hypothesis that exposure to MF increases the risk breast cancer in men."


The news correspondents report that additional information may be obtained from A. Grundy, Dept. of Cancer Epidemiology and Prevention Research, Alberta Health Services - Cancer Control Alberta, Calgary, Alberta, Canada. Additional authors for this research include S.A. Harris, P.A. Demers, K.C. Johnson, D.A. Agnew and P.J Villeneuve.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.581. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Calgary, Alberta, Oncology, Cancer Risk, Epidemiology, Breast Cancer, Risk and Prevention, Breast Ductal Carcinoma, North and Central America.

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Cardiology

Report Summarizes Cardiology Study Findings from Monash University (Benign Cardiac Effects of Hemoglobin H Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiology are discussed in a new report. According to news originating from Clayton, Australia, by NewsRx correspondents, research stated, "Hemoglobin H (HbH) disease is associated with iron overload, but whether this results in serious cardiac or vascular sequelae is unresolved. We identified 39 adult subjects (age 42 ± 12 years, 13 men) with HbH disease who had undergone echocardiography, 27 of whom had also undergone cardiac and liver magnetic resonance assessment of iron loading using T2*-weighted imaging."

Our news journalists obtained a quote from the research from Monash University, "None of the subjects had a history of heart failure or arrhythmias. There were 13/39 subjects with a ferritin level within the sex-based normal range and only 4/39 had ferritin >1,000 ng/ml. Left ventricular (LV) and left atrial dilatation was common, but LV ejection fraction was normal ( (>=)55%) in all subjects. Age was positively correlated with log ferritin in the 27
nontransfused subjects \((r=0.43)\) and was inversely correlated with the transmitral E wave and E/A ratio \((r=-0.69 \text{ and } r=-0.79, \text{ respectively})\), but no relation of log ferritin with E or E/A was evident. The peak tricuspid regurgitation velocity was normal in 24/29 subjects for whom this was obtained, and it was no more than mildly elevated in the other 5. None of the tested subjects had an abnormal cardiac T2* reading, but half had evidence of liver iron loading.

According to the news editors, the research concluded: "No myocardial iron loading or serious cardiac or vascular sequelae were identified in this cohort with HbH disease."


The news correspondents report that additional information may be obtained from C. Sheeran, Thalassaemia Service, Monash University and Monash Health, Clayton, Vic, Australia. Additional authors for this research include D.K. Bowden, S.R. Pasricha, K. Cheng, G. Romanelli and R.E Peverill.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442193. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Clayton, Ferritins, Cardiology, Blood Proteins, Carrier Proteins, Hemoglobin H Disease, Iron Binding Proteins, Australia and New Zealand.

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**Cardiology**

**Report Summarizes Cardiology Study Findings from University Hospital (Symptoms Of Cardiac Anxiety In Family Members Of Intensive Care Unit Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiology is the subject of a report. According to news originating from Ioannina, Greece, by NewsRx correspondents, research stated, "Studies have shown an association between intensive care unit environments and symptoms of psychological distress in family members of critically ill patients. To investigate levels of cardiac anxiety in family members of intensive care unit patients."

Our news journalists obtained a quote from the research from University Hospital, "From March 2012 to July 2013, on the third day after the patient's admission, 223 family members of 147 patients completed the Cardiac Anxiety Questionnaire. A total score was calculated from 3 subscales: fear and worry about heart sensations, avoidance of activities reproducing cardiac symptoms, and heart-focused attention and monitoring of cardiac activity. Among the family members, 142 were women (63.7%) and 81 (36.3%) were men, 150 (67.3%) were married, and 37 (16.6%) were unemployed. Their mean score for overall cardiac anxiety was 1.11 (SD, 0.64), significantly higher \((P < .001)\) than for the general Greek population. Although all 3 subscales scores were significantly higher than for the general population, the highest score was recorded for the avoidance subscale \((mean, 1.77; SD, 0.68)\). The relationship to the patient had a significant effect on heart-focused attention \((F=5 = 3.51; P = .03)\). The mean..."
score for patients' siblings (2.0; SD, 0.01) differed significantly (P =.02) from the mean for other family member groups. Older adults (P =.02) and married participants (P =.05) reported higher levels of fear and worry related to cardiac stimuli, and women further reported higher levels of cardioprotective avoidance behavior (P =.02)."

According to the news editors, the research concluded: "A noticeable number of family members of critical care patients had moderate to severe cardiac anxiety during the hospitalization of their relatives."

For more information on this research see: Symptoms Of Cardiac Anxiety In Family Members Of Intensive Care Unit Patients. American Journal of Critical Care, 2016;25(5):448-456. American Journal of Critical Care can be contacted at: Amer Assoc Critical Care Nurses, 101 Columbia, Aliso Viejo, CA 92656, USA.

The news correspondents report that additional information may be obtained from V. Koulouras, Univ Hosp Ioannina, Dept. of Intens Care Med, Ioannina, Greece. Additional authors for this research include M. Gouva, E. Dragioti, G. Nakos and V. Koulouras.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4037/ajcc2016642. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ioannina, Greece, Europe, Cardiology, University Hospital.

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Cardiovascular Research

Report Summarizes Cardiovascular Research Study Findings from T.O. Kiviniemi and Co-Researchers (Trends in rates, patient selection and prognosis of coronary revascularisations in Finland between 1994 and 2013: the CVDR)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Research have been published. According to news reporting originating from Framingham, Massachusetts, by NewsRx correspondents, research stated, "The aim of the study was to investigate the 20-year trends in rates, patient selection and prognosis of coronary revascularisations in Finland. We identified patients from nationwide registers who had undergone first-ever percutaneous coronary intervention (PCI) or coronary artery bypass grafting (CABG) between 1994 and 2013."

Our news editors obtained a quote from the research, "We examined changes in procedure rates, patient characteristics and estimated hazard ratios (HR) and 95% confidence intervals for cardiovascular events during this period. Between 1994 and 2013, 85,482 PCIs and 74,338 CABGs were performed. During this period, PCI rates more than quadrupled while CABG rates declined by two thirds. Between 1994-1998 and 2009-2013, the proportion of urgent procedures and mean patient age increased while the proportion of women remained stable. Although unadjusted mortality rose, the multivariable-adjusted HRs for 28-day mortality (PCI: 0.62 [0.49-0.79]; CABG: 0.62 [0.54-0.72]) and five-year incidence of cardiovascular death (PCI: 0.72 [0.66-0.80]; CABG: 0.77 [0.72-0.83]), myocardial infarction (PCI: 0.47 [0.44-0.50]; CABG: 0.31 [0.29-0.32]) and stroke (PCI: 0.37 [0.34-0.40]; CABG: 0.36 [0.33-0.38]) were lower in the last five-year period than in the period 1994-1998. Although revascularisation
patients are older than before, post-procedural prognosis has improved drastically in recent years."

According to the news editors, the research concluded: "Understanding the changing characteristics and prognosis of these patients is important for the interpretation of previous and future studies."


The news editors report that additional information may be obtained by contacting T.J. Niiranen, Framingham Heart Dis Epidemiol Study, Framingham, MA 01702, United States. Additional authors for this research include A. Pietila, J.M. Gunn, J.M. Aittokallio, M.S. Mahonen, V.V. Salomaa and T.J. Niiranen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4244/EIJV12I9A183. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Framingham, Massachusetts, United States, North and Central America, Cardiovascular Research, Cardiovascular, Cardiology.

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Central Nervous System Diseases and Conditions - …

Report Summarizes Cerebral Infarction Study Findings from Zhejiang University (Serial Attacks: Contralateral Hematoma Secondary to Decompressive Craniectomy for Traumatic Brain Injury Led to Posttraumatic Cerebral Infarction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Cerebral Infarction. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "A 40-year-old man suffered severe brain injury and received left side subdural hematoma evacuation with decompressive craniectomy. Intraoperative brain swelling had occurred during the surgery."

The news reporters obtained a quote from the research from Zhejiang University, "Postoperative computed tomography (CT) scan was done immediately and showed a contralateral epidural hematoma resulting in herniation. Secondary hematoma evacuation was performed and found a linear fracture near a bleeding meningeal artery. 2 days later CT scan showed cerebral infarction mainly in right posterior cerebral artery distribution."

According to the news reporters, the research concluded: "Early diagnosis by postoperative CT scan or other potential ways such as intraoperative sonography is important to prompt treatments and interrupt the pathophysiological chain of the serial attacks."


Our news correspondents report that additional information may be obtained by
Oncology - Cervical Cancer

Report Summarizes Cervical Cancer Study Findings from Statens Serum Institute (Cervical cancer screening in Greenland, 1997-2011: Screening coverage and trends in the incidence of high-grade cervical lesions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Cervical Cancer are discussed in a new report. According to news reporting from Copenhagen, Denmark, by NewsRx journalists, research stated, "In spite of the high incidence of cervical cancer in Greenland, no assessment has been made of the impact of organized cervical screening, introduced in 1998, in relation to occurrence of high-grade cervical lesions. The objectives of the present study were to estimate coverage of the screening program and to examine possible changes in cervical intraepithelial neoplasia (CIN3) incidence in Greenland during 1997-2011 according to calendar period and age."

The news correspondents obtained a quote from the research from Statens Serum Institute, "Using nationwide registries, we calculated age-standardized incidence rates for all women born and living in Greenland. To investigate whether possible variation in the incidence of CIN3 were related to differences in screening coverage, we further estimated relative risks of CIN3 within two years of screening among women who participated in the screening program using log-linear binomial regression. Coverage of the screening program was low during 1997-2011 with the highest level of 54% observed in 2011. Peaks in CIN3 incidence of around 300 per 100,000 person-years were observed in 1999 and between 2009 and 2011, while the incidence was lower of approximately 100 per 100,000 person-years between 2000 and 2008. During 2009-2011, the highest incidence was found among women aged 25-34 years. Similar patterns of CIN3 risk according to calendar period and age groups were observed among screened women."

According to the news reporters, the research concluded: "The great variations in CIN3 incidence and low screening coverage observed during 1997-2011 suggest that improvements in the Greenlandic screening program are warranted."

For more information on this research see: Cervical cancer screening in Greenland, 1997-2011: Screening coverage and trends in the incidence of high-grade cervical lesions.
Report Summarizes Coloboma Study Findings from University of Pittsburgh (The hyaloid vasculature facilitates basement membrane breakdown during choroid fissure closure in the zebrafish eye)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Eye Diseases and Conditions - Coloboma is the subject of a report. According to news reporting originating in Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "A critical aspect of vertebrate eye development is closure of the choroid fissure (CF). Defects in CF closure result in colobomas, which are a significant cause of childhood blindness worldwide."

Funders for this research include National Science Foundation, National Eye Institute, NIH CORE, NIH, NIH-NCRR.

The news reporters obtained a quote from the research from the University of Pittsburgh, "Despite the growing number of mutated loci associated with colobomas, we have a limited understanding of the cell biological underpinnings of CF closure. Here, we utilize the zebrafish embryo to identify key phases of CF closure and regulators of the process. Utilizing Laminin-111 as a marker for the basement membrane (BM) lining the CF, we determine the spatial and temporal patterns of BM breakdown in the CF, a prerequisite for CF closure. Similarly, utilizing a combination of in vivo time-lapse imaging, beta-catenin immunohistochemistry and F-actin staining, we determine that tissue fusion, which serves to close the fissure, follows BM breakdown closely. Periocular mesenchyme (POM)-derived endothelial cells, which migrate through the CF to give rise to the hyaloid vasculature, possess distinct actin foci that correlate with regions of BM breakdown. Disruption of talin1, which encodes a regulator of the actin cytoskeleton, results in colobomas and these correlate with structural defects in the hyaloid vasculature and defects in BM breakdown. cloche mutants, which entirely lack a hyaloid vasculature, also possess defects in BM breakdown in the CF."

According to the news reporters, the research concluded: "Taken together, these data support a model in which the hyaloid vasculature and/or the POM-derived endothelial cells that give rise to the hyaloid vasculature contribute to BM breakdown during CF closure."

For more information on this research see: The hyaloid vasculature facilitates basement membrane breakdown during choroid fissure closure in the zebrafish eye.
Our news correspondents report that additional information may be obtained by contacting J.M. Gross, University of Pittsburgh, Sch Med, Dept. of Dev Biol, Pittsburgh, PA 15213, United States. Additional authors for this research include C. Lee, A.M. Williams, K. Angileri, K.L. Lathrop and J.M. Gross.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ydbio.2016.09.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include:  Pittsburgh, Pennsylvania, United States, North and Central America, Eye Diseases and Conditions, Congenital Abnormalities, Eye Abnormalities, Coloboma, Genetics, University of Pittsburgh.

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Oncology - Cutaneous Melanoma

Report Summarizes Cutaneous Melanoma Study Findings from Laboratory for Molecular Cancer Biology (The emerging role of long non-coding RNAs in cutaneous melanoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cutaneous Melanoma is the subject of a report. According to news reporting out of Leuven, Belgium, by NewsRx editors, research stated, "Malignant melanoma is a highly aggressive form of skin cancer, the incidence of which is rising rapidly. Although MAPK-targeting therapies and immune checkpoint blockade are emerging as attractive therapeutic approaches, their utility is limited to only a subset of patients who often acquire resistance."

Our news journalists obtained a quote from the research from Laboratory for Molecular Cancer Biology, "A better understanding of the aetiologies and genetic underpinnings of melanoma is therefore critical for the development of adjuvant or alternative therapeutic strategies aimed at increasing the proportion of responders and improving treatment efficacy. A key step in identifying novel therapeutic targets may be the shift in focus from the protein-coding components to the non-coding portion of the genome. The latter, representing about 98% of the genome, serves as a template for the transcription of many thousands of long non-coding RNAs (lncRNAs). Intriguingly, lncRNA loci are frequently mutated or altered in a variety of cancers, including melanoma, and there is growing evidence that lncRNAs can function as cancer-causing oncogenes or tumour suppressors."

According to the news editors, the research concluded: "In this review, we summarize recent data highlighting the importance of lncRNAs in the biology of melanoma and their potential utility as biomarkers and therapeutic targets."

Our news journalists report that additional information may be obtained by contacting J.C. Marine, Center Biol Dis, Lab Mol Canc Biol, Leuven, Belgium. Additional authors for this research include E.A. Coe, J.C. Marine and K.W. Vance.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/pcmr.12537. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leuven, Belgium, Europe, Oncology, Article Review, Cutaneous Melanoma, Genetics, Laboratory for Molecular Cancer Biology.

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Drugs and Therapies - Dermatological Agents

Report Summarizes Dermatological Agents Study Findings from McGill University (Confoundning by drug formulary restriction in pharmacoepidemiologic research)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Dermatological Agents are presented in a new report. According to news reporting from Montreal, Canada, by NewsRx journalists, research stated, "The potential consequences of confounding due to drug formulary restrictions in pharmacoepidemiologic research remain incompletely understood. Our objective was to illustrate this potential bias using the example of fluticasone/salmeterol combination therapy, an oral inhaler used to treat asthma and chronic obstructive pulmonary disease, whose use is restricted in the province of Quebec, Canada."

Financial supporters for this research include Canadian Institutes of Health Research (CIHR), Fonds de Recherche du Quebec - Sante, Canadian Institutes of Health Research.

The news correspondents obtained a quote from the research from McGill University, "We identified all new users of fluticasone/salmeterol in Quebec's administrative databases and classified those who received their initial dispensing of fluticasone/salmeterol between 1 September 1999 and 30 September 2003 as users from the liberal period and those who received it between 1 January 2004 and 31 October 2006 as users from the restricted period. The primary outcome was time to first hospitalization for respiratory causes within 12 months of cohort entry. Our cohort included 72 154 new users from the liberal period and 5058 from the restricted period. Compared with use during the liberal period, use during the restricted period was associated with an increased rate of hospitalization for respiratory causes (crude hazard ratio [HR]=1.41, 95% confidence interval [CI]=1.32, 1.51). Subsequent adjustment for age, sex, and hospitalization for respiratory causes in the previous year attenuated the association (HR=1.05, 95%CI=0.98, 1.12). Further adjustment for other potential confounders resulted in a lower rate during the restricted period (HR=0.78, 95%CI=0.73, 0.83)."

According to the news reporters, the research concluded: "Formulary restrictions can result in substantial and unexpected confounding and should be considered during the design and analysis of pharmacoepidemiologic studies."

Hematologic Diseases and Conditions - ... 

Report Summarizes Disseminated Intravascular Coagulation Study Findings from University of Ulsan [Performance Evaluation of Five Different Disseminated Intravascular Coagulation (DIC) Diagnostic Criteria for Predicting Mortality in Patients with ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hematologic Diseases and Conditions - Disseminated Intravascular Coagulation. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "Disseminated intravascular coagulation (DIC) is a major complication in sepsis patients. We compared the performance of five DIC diagnostic criteria, focusing on the prediction of mortality."

The news reporters obtained a quote from the research from the University of Ulsan, "One hundred patients with severe sepsis or septic shock admitted to intensive care unit (ICU) were enrolled. Routine DIC laboratory tests were performed over the first 4 days after admission. The overall ICU and 28-day mortality in DIC patients diagnosed from five criteria (International Society on Thrombosis and Haemostasis [ISTH], the Japanese Association for Acute Medicine [JAAM], the revised JAAM [R-JAAM], the Japanese Ministry of Health and Welfare [JMHW] and the Korean Society on Thrombosis and Hemostasis [KSTH]) were compared. Both KSTH and JMHW criteria showed superior performance than ISTH, JAAM and R-JAAM criteria in the prediction of overall ICU mortality in DIC patients (odds ratio 3.828 and 5.181, P= 0.018 and 0.006, 95% confidence interval 1.256-11.667 and 1.622-16.554, respectively) when applied at day 1 after admission, and survival analysis demonstrated significant prognostic impact of KSTH and JMHW criteria on the prediction of 28-day mortality (P = 0.007 and 0.049, respectively) when applied at day 1 after admission."

According to the news reporters, the research concluded: "Both KSTH and JMHW criteria would be more useful than other three criteria in predicting prognosis in DIC patients with severe sepsis or septic shock."

For more information on this research see: Performance Evaluation of Five Different Disseminated Intravascular Coagulation (DIC) Diagnostic Criteria for Predicting Mortality in

Our news correspondents report that additional information may be obtained by contacting S. Jang, University of Ulsan, Coll Med, Dept. of Lab Med, Seoul, South Korea. Additional authors for this research include S.H. Park, S.B. Hong and S. Jang.

Keywords for this news article include: Seoul, South Korea, Asia, Cardiovascular Diseases and Conditions, Disseminated Intravascular Coagulation, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Blood Diseases and Conditions, Blood Coagulation Disorders, Embolism and Thrombosis, Bloodstream Infection, Hemorrhagic Disorders, Thrombophilia, Septicemia, Hematology, Angiology, Sepsis, University of Ulsan.

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**Drugs and Therapies - Drug Delivery Systems**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Drug Delivery Systems is now available. According to news originating from Barcelona, Spain, by NewsRx correspondents, research stated, "We describe for the first time the synthesis and photochemical properties of a coumarin-caged cyclic RGD peptide and demonstrate that uncaging can be efficiently performed with biologically compatible green light. This was accomplished by using a new dicyanocoumarin derivative (DEAdcCE) for the protection of the carboxyl function at the side chain of the aspartic acid residue, which was selected on the basis of Fmoc-tBu SPPS compatibility and photolysis efficiency."

Financial supporters for this research include Secretaria de Estado de Investigacion, Desarrollo e Innovacion, Generalitat de Catalunya, Universitat de Barcelona.

Our news journalists obtained a quote from the research from the University of Barcelona, "The shielding effect of a methyl group incorporated in the coumarin derivative near the ester bond linking both moieties in combination with the use of acidic additives such as HOBt or Oxyma during the basic Fmoc-removal treatment were found to be very effective for minimizing aspartimide-related side reactions. In addition, a conjugate between the dicyanocoumarin-caged cyclic RGD peptide and ruthenocene, which was selected as a metallodrug model cargo, has been synthesized and characterized."

According to the news editors, the research concluded: "The fact that green-light triggered photoactivation can be efficiently performed both with the caged peptide and with its ruthenocenoyl bioconjugate reveals great potential for DEAdcCE-caged peptide sequences as selective drug carriers in the context of photocontrolled targeted anticancer strategies."

Ebola Virus

Report Summarizes Ebola Virus Study Findings from University of Manitoba (Prophylactic Efficacy of Quercetin 3-beta-O-D-Glucoside against Ebola Virus Infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Ebola Virus. According to news reporting originating from Winnipeg, Canada, by NewsRx correspondents, research stated, "Ebola outbreaks occur on a frequent basis, with the 2014-2015 outbreak in West Africa being the largest one ever recorded. This outbreak has resulted in over 11,000 deaths in four African countries and has received international attention and intervention."

Our news editors obtained a quote from the research from the University of Manitoba, "Although there are currently no approved therapies or vaccines, many promising candidates are undergoing clinical trials, and several have had success in promoting recovery from Ebola. However, these prophylactics and therapeutics have been designed and tested only against the same species of Ebola virus as the one causing the current outbreak. Future outbreaks involving other species would require reformulation and possibly redevelopment. Therefore, a broad-spectrum alternative is highly desirable. We have found that a flavonoid derivative called quercetin 3-beta-O-D-glucoside (Q3G) has the ability to protect mice from Ebola even when given as little as 30 min prior to infection. Furthermore, we have demonstrated that this compound targets the early steps of viral entry. Most promisingly, antiviral activity against two distinct species of Ebola virus was seen."

According to the news editors, the research concluded: "This study serves as a proof of principle that Q3G has potential as a prophylactic against Ebola virus infection."

For more information on this research see: Prophylactic Efficacy of Quercetin 3-beta-O-D-Glucoside against Ebola Virus Infection. Antimicrobial Agents and Chemotherapy, 2016;60(9):5182-5188. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting X.G. Qiu, University of Manitoba, Dept. of Med Microbiol, Winnipeg, MB, Canada. Additional authors for this research include A. Kroeker, S.H. He, R. Kozak, J. Audet, M. Mbikay and M.
Endothelial Cells

Report Summarizes Endothelial Cells Study Findings from University of Michigan (Organization of Endothelial Cells, Pericytes, and Astrocytes into a 3D Microfluidic in Vitro Model of the Blood-Brain Barrier)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Endothelial Cells is the subject of a report. According to news reporting from Ann Arbor, Michigan, by NewsRx journalists, research stated, "The endothelial cells lining the capillaries supplying the brain with oxygen and nutrients form a formidable barrier known as the blood-brain barrier (BBB), which exhibits selective permeability to small drug molecules and virtually impermeable to macromolecular therapeutics. Current in vitro BBB models fail to replicate this restrictive behavior due to poor integration of the endothelial cells with supporting cells (pericytes and astrocytes) following the correct anatomical organization observed in vivo."

Funders for this research include Horace H. Rackham School of Graduate Studies, University of Michigan, National Institute of Biomedical Imaging and Bioengineering.

The news correspondents obtained a quote from the research from the University of Michigan, "We report the coculture of mouse brain microvascular endothelial cells (b.End3), pericytes, with/without C8-D1A astrocytes in layered microfluidic channels forming three-dimensional (3D) bi- and triculture models of the BBB. The live/dead assay indicated high viability of all cultured cells up to 21 days. Trans-endothelial electrical resistance (TEER) values confirmed the formation of intact monolayers after 3 days in culture and showed statistically higher values for the triculture model compared to the single and biculture models. Screening the permeability of (14)C-mannitol and (14)C-urea showed the ability of bi- and triculture models to discriminate between different markers based on their size. Further, permeability of (14)C-mannitol across the triculture model after 18 days in culture matched its reported permeability across the BBB in vivo. Mathematical calculations also showed that the radius of the tight junctions pores in the triculture model is similar to the reported diameter of the BBB in vivo. Finally, both the bi-and triculture models exhibited functional expression of the P-glycoprotein efflux pump, which increased with the increase in the number of days in culture."

According to the news reporters, the research concluded: "These results collectively indicate that the triculture model is a robust in vitro model of the BBB."


Our news journalists report that additional information may be obtained by contacting J.D. Wang, Dept. of Biomedical Engineering, University of Michigan, 1101 Beal
Oncology - Epithelial Ovarian Cancer

Report Summarizes Epithelial Ovarian Cancer Study Findings from Delaware State University (Age-specific discrimination of blood plasma samples of healthy and ovarian cancer prone mice using laser-induced breakdown spectroscopy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Epithelial Ovarian Cancer. According to news reporting originating from Dover, Delaware, by NewsRx correspondents, research stated, "Epithelial ovarian cancer (EOC) mortality rates are strongly correlated with the stage at which it is diagnosed. Detection of EOC prior to its dissemination from the site of origin is known to significantly improve the patient outcome."

Funders for this research include National Science Foundation, National Aeronautics and Space Administration.

Our news editors obtained a quote from the research from Delaware State University, "However, there are currently no effective methods for early detection of the most common and lethal subtype of EOC We sought to determine whether laser-induced breakdown spectroscopy (LIBS) and classification techniques such as linear discriminant analysis (IDA) and random forest (RF) could classify and differentiate blood plasma specimens from transgenic mice with ovarian carcinoma and wild type control mice. Herein we report results using this approach to distinguish blood plasma samples obtained from serially bled (at 8, 12, and 16 weeks) tumor-bearing TgMISIIR-TAg transgenic and wild type cancer-free littermate control mice. We have calculated the age-specific accuracy of classification using 18,000 laser-induced breakdown spectra of the blood plasma samples from tumor-bearing mice and wild type controls. When the analysis is performed in the spectral range 250 nm to 680 nm using LDA, these are 76.7 (+/- 2.6)%, 71.2 (+/- 1.3)%, and 73.1 (+/- 1.4)%, for the 8, 12 and 16 weeks. When the RF classifier is used, we obtain values of 78.5 (+/- 2.3)% 76.9 (+/- 2.1)% and 75.4 (+/- 2.0)% in the spectral range of 250 nm to 680 nm, and 81.0 (+/- 1.8)% 80.4 (+/- 2.1)% and 79.6 (+/- 3.5)% in 220 nm to 850 nm. In addition, we report, the positive and negative predictive values of the classification of the two classes of blood plasma samples. The approach used in this study is rapid, requires only 5 μL of blood plasma, and is based on the use of unsupervised and widely accepted multivariate analysis algorithms."

According to the news editors, the research concluded: "These findings suggest that LIBS and multivariate analysis may be a novel approach for detecting EOC."

For more information on this research see: Age-specific discrimination of blood plasma samples of healthy and ovarian cancer prone mice using laser-induced breakdown spectroscopy.

The news editors report that additional information may be obtained by contacting N. Melikechi, Delaware State Univ, Opt Sci Center Appl Res, Dover, DE 19901, United States. Additional authors for this research include Y. Markushin, D.C. Connolly, J. Lasue, E. Ewusi-Annan and S. Makrogianis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.sab.2016.07.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dover, Delaware, United States, North and Central America, Epithelial Ovarian Cancer, Women's Health, Hematology, Oncology, Genetics, Plasma, Blood, Delaware State University.

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**Gram-Negative Bacteria - Escherichia coli**

**Report Summarizes Escherichia coli Study Findings from University of Oxford [Complete Sequencing of Plasmids Containing bla(OXA-163) and bla(OXA-48) in Escherichia coli Sequence Type 131]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Negative Bacteria - Escherichia coli. According to news reporting out of Oxford, United Kingdom, by NewsRx editors, research stated, "OXA-48-like enzymes have emerged as important extended-spectrum beta-lactamases/carbapenemases in Escherichia coli sequence type 131 (ST131)."

Our news journalists obtained a quote from the research from the University of Oxford, "We report the structures of the first fully sequenced bla(OXA-163) plasmid and of two other bla(OXA-48) plasmids in this lineage. bla(OXA-163) was located on a 71-kb IncN plasmid with other resistance genes. bla(OXA-48) was present on IncL/M plasmids, genetically similar to other bla(OXA-48) plasmid sequences, and consistent with interspecies/interlineage spread."

According to the news editors, the research concluded: "The presence of bla(OXA-48)-like genes on epidemic plasmids in ST131 is of concern."

For more information on this research see: Complete Sequencing of Plasmids Containing bla(OXA-163) and bla(OXA-48) in Escherichia coli Sequence Type 131. *Antimicrobial Agents and Chemotherapy*, 2016;60(11):6948-6951. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


Keywords for this news article include: Oxford, United Kingdom, Europe, Gram-
Ethylamines Study Findings from University of Oregon (Evidence of a broad histamine footprint on the human exercise transcriptome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Ethylamines is the subject of a report. According to news reporting from Eugene, Oregon, by NewsRx journalists, research stated, "Histamine is a primordial signalling molecule, capable of activating cells in an autocrine or paracrine fashion via specific cell surface receptors. In humans, aerobic exercise is followed by a post-exercise activation of histamine H-1 and H-2 receptors localized to the previously exercised muscle."

The news correspondents obtained a quote from the research from the University of Oregon, "This could trigger a broad range of cellular adaptations in response to exercise. Thus, we exploited RNA sequencing to explore the effects of H-1 and H-2 receptor blockade on the exercise transcriptome in human skeletal muscle tissue harvested from the vastus lateralis. We found that exercise exerts a profound influence on the human transcriptome, causing the differential expression of more than 3000 protein-coding genes. The influence of histamine blockade post-exercise was notable for 795 genes that were differentially expressed between the control and blockade condition, which represents >25% of the number responding to exercise."

According to the news reporters, the research concluded: "The broad histamine footprint on the human exercise transcriptome crosses many cellular functions, including inflammation, vascular function, metabolism, and cellular maintenance."


Our news journalists report that additional information may be obtained by contacting J.R. Halliwill, University of Oregon, Dept. of Human Physiol, Eugene, OR 97403, United States. Additional authors for this research include A.D. Hocker, J.E. Mangum, M.J. Luttrell, D.W. Turnbull, A.J. Struck, M.R. Ely, D.C. Sieck, H.C. Dreyer and J.R. Halliwill.

Keywords for this news article include: Eugene, Oregon, United States, North and Central America, Biogenic Monoamines, Biological Factors, RNA Research, Ethylamines, Histamine, Autacoids, Genomics, Genetics, University of Oregon.

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Proteins - Extracellular Matrix Proteins

Report Summarizes Extracellular Matrix Proteins Study Findings from UERJ (A combination of stereological methods, biochemistry and electron microscopy for the investigation of drug treatment effects in experimental animals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Extracellular Matrix Proteins. According to news originating from Rio de Janeiro, Brazil, by NewsRx correspondents, research stated, "Some chemotherapeutic agents used for breast cancer (BC) treatment can induce severe side effects in the ovarian tissue. The combination of cyclophosphamide and docetaxel (TC) is widely used for BC treatment; however, its late effects in the ovary are not completely understood."

Our news journalists obtained a quote from the research from UERJ, "The main purpose of this study was to evaluate the structural and ultrastructural alterations in the ovarian stroma induced by TC treatment. Wistar rats were divided into two groups: a control group and a TC group. They were euthanized 5 months after the end of treatment, and their plasma and ovaries were collected. Important alterations were noted. The serum estradiol level was significantly reduced in the TC group compared with the control group. Additionally, the number of apoptotic nuclei was higher in the TC group. The role of the inflammatory response in the development of ovarian damage was investigated, and we found an increased number of mast cells and increased expression of TNF-a in the TC group. The involvement of fibrosis was also investigated. The results showed that the TC group had increased expression levels of TGF-b1, collagen type I (col-I) and collagen type III (col-III) compared with the control group. Ultrastructural analysis revealed the presence of collagen fibrils in the treated group and illustrated that the ovarian tissue architecture was more disorganized in this group than in the control group."

According to the news editors, the research concluded: "The results from this study are important in the study of chemotherapy-induced ovarian failure and provide further insight into the mechanisms involved in the development of this disease."


The news correspondents report that additional information may be obtained from A.C. De Moraes, Laboratorio de Pesquisas em Celulas-Tronco, Departamento de Histologia e Embriologia, Instituto de Biologia Roberto Alcantara Gomes, UERJ, Rio de Janeiro, RJ, Brazil. Additional authors for this research include C.B. Andrade, C. Salata, A.L. Nascimento, I.P. Ramos, R.C. Goldenberg, J.J. Carvalho and A.C Machado.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jmi.12329. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Collagen, Biochemistry, South America, Rio de Janeiro, Drugs and Therapies, Extracellular Matrix Proteins.

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Immune System Diseases and Conditions - HIV/AIDS

Report Summarizes HIV/AIDS Study Findings from Royal Free Hospital (Clinical characteristics and outcomes of HIV-associated immune complex kidney disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immune System Diseases and Conditions - HIV/AIDS. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "The pathogenesis and natural history of HIV-associated immune complex kidney disease (HIVICK) is not well understood. Key questions remain unanswered, including the role of HIV infection and replication in disease development and the efficacy of antiretroviral therapy (ART) in the prevention and treatment of disease."

Financial support for this research came from Medical Research Council, UK.

The news correspondents obtained a quote from the research from Royal Free Hospital, "In this multicentre study, we describe the renal pathology of HIVICK and compare the clinical characteristics of patients with HIVICK with those with IgA nephropathy and HIV-associated nephropathy (HIVAN). Poisson regression models were used to identify risk factors for each of these pathologies. Between 1998 and 2012, 65 patients were diagnosed with HIVICK, 27 with IgA nephropathy and 70 with HIVAN. Black ethnicity and HIV RNA were associated with HIVICK, receipt of ART with IgA nephropathy and black ethnicity and CD4 cell count with HIVAN. HIVICK was associated with lower rates of progression to end-stage kidney disease compared with HIVAN and IgA nephropathy (p <0.0001). Patients with HIVICK who initiated ART and achieved suppression of HIV RNA experienced improvements in estimated glomerular filtration rate and proteinuria. These findings suggest a pathogenic role for HIV replication in the development of HIVICK and that ART may improve kidney function in patients who have detectable HIV RNA at the time of HIVICK diagnosis."

According to the news reporters, the research concluded: "Our data also suggest that IgA nephropathy should be viewed as a separate entity and not included in the HIVICK spectrum."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/ndt/gfv436. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, HIV/AIDS, Nephrology, Nephropathy, RNA Viruses, Retroviridae, United Kingdom, HIV Infections,
Vertebrate Viruses, Risk and Prevention, Primate Lentiviruses, Immune System Diseases and Conditions, Viral Sexually Transmitted Diseases and Conditions.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Report Summarizes HIV/AIDS Study Findings from University of Missouri (NMR detection of intermolecular interaction sites in the dimeric 5’-leader of the HIV-1 genome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immune System Diseases and Conditions - HIV/AIDS have been presented. According to news reporting out of Columbia, Missouri, by NewsRx editors, research stated, "HIV type-1 (HIV-1) contains a pseudodiploid RNA genome that is selected for packaging and maintained in virions as a noncovalently linked dimer. Genome dimerization is mediated by conserved elements within the 5’-leader of the RNA, including a palindromic dimer initiation signal (DIS) that has been proposed to form kissing hairpin and/or extended duplex intermolecular contacts."

Our news journalists obtained a quote from the research from the University of Missouri, "Here, we have applied a H-2-edited NMR approach to directly probe for intermolecular interactions in the full-length, dimeric HIV-1 5'-leader (688 nucleotides; 230 kDa). The interface is extensive and includes DIS: DIS base pairing in an extended duplex state as well as intermolecular pairing between elements of the upstream Unique-5’ (U5) sequence and those near the gag start site (AUG). Other pseudopalindromic regions of the leader, including the transcription activation (TAR), polyadenylation (PolyA), and primer binding (PBS) elements, do not participate in intermolecular base pairing. Using a 2H-edited one-dimensional NMR approach, we also show that the extended interface structure forms on a time scale similar to that of overall RNA dimerization."

According to the news editors, the research concluded: "Our studies indicate that a kissing dimer-mediated structure, if formed, exists only transiently and readily converts to the extended interface structure, even in the absence of the HIV-1 nucleocapsid protein or other RNA chaperones."

For more information on this research see: NMR detection of intermolecular interaction sites in the dimeric 5’-leader of the HIV-1 genome. *Proceedings of the National Academy of Sciences of the United States of America*, 2016;113(46):13033-13038.

*Proceedings of the National Academy of Sciences of the United States of America* can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC 20418, USA. (National Academy of Sciences - www.nasonline.org; Proceedings of the National Academy of Sciences of the United States of America - www.nasonline.org/publications/pnas/)

Our news journalists report that additional information may be obtained by contacting X. Heng, University of Missouri, Dept. of Biochem, Columbia, MO 65211, United States. Additional authors for this research include V. Van, H.M. Frank, C.A. Sciandra, S. McCowin, J. Santos, X. Heng and M.F. Summers.

Keywords for this news article include: Columbia, Missouri, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections,
Heart Disorders and Diseases - Heart Failure

Report Summarizes Heart Failure Study Findings from Department of Internal Medicine (The Lymphocyte Count and Neutrophil/lymphocyte Ratio are Independent Predictors for Adverse Cardiac Events in Ischemic Heart Failure but not with Non-ischemic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Failure have been presented. According to news reporting originating in Cluj Napoca, Romania, by NewsRx journalists, research stated, "The predictive value of some biomarkers in heart failure is not yet established. A high value of white blood cell (WBC) count and neutrophil/lymphocyte ratio (NLR) was found to be a marker of higher long term cardiovascular mortality in patients with ischemic heart disease."

The news reporters obtained a quote from the research from the Department of Internal Medicine, "Recent data suggests that some specific types of leucocytes have different predictive values for the cardiovascular risk. This value is improved by using NLR. The purpose of the study was to evaluate the predictive values of WBC count, NLR, WBC differential formula (WBC-DF) for cardiovascular events in patients with non-ischemic heart failure (NIHF) as compared with ischemic heart failure (IHF). Our study included 256 patients with HF (147 with IHF and 109 with NIHF), NYHA class II-IV. They signed informed consent and underwent clinical and laboratory assessment: lipid profile, NT-proBNP, CRP, WBC, NLR and WBC-DF. The patients were followed up for one year. In patients with IHF, significantly higher levels of NT-proBNP (p <0.001), CRP (p <0.005), WBC (p <0.005), lymphocytes (p <0.05) and NRL values (1.27 (1.2-1.36) vs 0.99 (0.4 - 1.15), p<0.02) were found as compared with NIHF. A significant difference between NRL values was found only in patients in NYHA class II vs III. A positive correlation between NRL and NT-proBNP level was found (p <0.05). The lymphocyte count, NLR and NYHA class (p <0.001) represent independent predictors for the rehospitalization and cardiac events in HF patients."

According to the news reporters, the research concluded: "Our study has shown that for patients in the same NYHA class, the lymphocyte count and NLR are independent predictors for adverse cardiac events only in IHF."

For more information on this research see: The Lymphocyte Count and Neutrophil/lymphocyte Ratio are Independent Predictors for Adverse Cardiac Events in Ischemic Heart Failure but not with Non-ischemic Heart Failure. *Revista De Chimie*, 2016;67 (10):2091-2094. *Revista De Chimie* can be contacted at: Chiminform Data S A, Calea Plevnei Nr 139, Sector 6, Bucharest R-77131, Romania.

Our news correspondents report that additional information may be obtained by contacting M.A. Stoia, Inliu Hatieganu Univ Med & Pharm, Dept. of Internal Med, Cluj Napoca 400012, Romania. Additional authors for this research include M.A. Stoia, F.P. Anton, D.M. Hognogi, R.D. Ianos, S.E.S. Hojda, I.L. Gavrila, D. Lutac, I.I. Burian and L.A.V. Simiti.

Keywords for this news article include: Cluj Napoca, Romania, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Hemic and Immune
Heart Disorders and Diseases - Heart Failure

Report Summarizes Heart Failure Study Findings from University of Pittsburgh (Growing Relevance of Cardiac Rehabilitation for an Older Population With Heart Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Failure is now available. According to news reporting originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "Cardiac rehabilitation (CR) is a comprehensive lifestyle program that can have particular benefit for older patients with heart failure (HF). Prevalence of HF is increasingly common among older adults."

Our news editors obtained a quote from the research from the University of Pittsburgh, "Mounting effects of cardiovascular risk factors in older age as well as the added effects of geriatric syndromes such as multimorbidity, frailty, and sedentariness contribute to the high incidence of HF as well as to management difficulty. CR can play a decisive role in improving function, quality of life, symptoms, morbidity, and mortality, and also address the idiosyncratic complexities of care that often arise in old age. Unfortunately, the current policies and practices regarding CR for patients with HF are limited to HF with reduced ejection fraction and do not extend to HF with preserved ejection fraction, which is likely undercutting its full potential to improve care for today's aging population. Despite the strong rationale for CR on important clinical outcomes, it remains underused, particularly among older patients with HF."

According to the news editors, the research concluded: "In this review, we discuss both the potential and the limitations of contemporary CR for older adults with HF."

For more information on this research see: Growing Relevance of Cardiac Rehabilitation for an Older Population With Heart Failure. *Journal of Cardiac Failure*, 2016;22Q(12):1015-1022. *Journal of Cardiac Failure* can be contacted at: Churchill Livingstone Inc Medical Publishers, Curtis Center, Independence Square West, Philadelphia, PA 19106-3399, USA. (Elsevier - www.elsevier.com; Journal of Cardiac Failure - www.journals.elsevier.com/journal-of-cardiac-failure/)

The news editors report that additional information may be obtained by contacting D.E. Forman, University of Pittsburgh, Dept. of Med, Pittsburgh, PA, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cardfail.2016.10.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Heart Failure, Article Review, Risk and Prevention, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Heart Disease, Cardiology, University of Pittsburgh.

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Human Papillomavirus

Report Summarizes Human Papillomavirus Study Findings from J.R. Beadle and Co-Researchers [Synthesis and Antiviral Evaluation of Octadecyloxyethyl Benzyl 9-[(2-Phosphonomethoxy)ethyl]guanine (ODE-Bn-PMEG), a Potent Inhibitor of Transient HPV DNA ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Human Papillomavirus. According to news originating from San Francisco, California, by NewsRx correspondents, research stated, "Human papillomavirus (HPV) high-risk genotypes such as HPV-16 and HPV-18 cause the majority of anogenital tract carcinomas, including cervical cancer, the second most common malignancy in women worldwide. Currently there are no approved antiviral agents that reduce or eliminate HPV and reverse virus associated pathology."

Financial support for this research came from National Institute of Allergy and Infectious Diseases.

Our news journalists obtained a quote from the research, "We synthesized and evaluated several alkoxyalkyl acyclic nucleoside phosphonate diesters and identified octadecyloxyethyl benzyl 9-[(2-phosphonomethoxy)ethyl]guanine (ODE-Bn-PMEG) as an active compound which strongly inhibited transient amplification of HPV-11, -16, and -18 origin containing plasmid DNA in transfected cells at concentrations well below its cytotoxic concentrations. ODE-Bn-PMEG demonstrated increased uptake in human foreskin fibroblast cells and was readily converted in-vitro to the active antiviral metabolite, PMEG diphosphate. The P-chiral enantiomers of ODE-Bn-PMEG were obtained and appeared to have equivalent antiviral activities against HPV."

According to the news editors, the research concluded: "ODE-Bn-PMEG is a promising candidate for the local treatment of HPV-16 and HPV-18 and other high-risk types, an important unmet medical need."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jmedchem.6b00659. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Human Papillomavirus 16, Alphapapillomavirus, Vertebrate Viruses, DNA Tumor Viruses, Papillomaviridae, DNA Viruses, Viral DNA, Genetics.

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Central Nervous System Diseases and Conditions -

Report Summarizes Intracranial Aneurysm Study Findings from University Hospital (Unruptured intracranial aneurysms: development, rupture and preventive management)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Intracranial Aneurysm have been published. According to news reporting from Mannheim, Germany, by NewsRx journalists, research stated, "Saccular unruptured intracranial aneurysms (UIAs) have a prevalence of 3% in the adult population, and are being increasingly detected because of improved quality and higher frequency of cranial imaging. Large amounts of data, providing varying levels of evidence, have been published on aneurysm development, progression and rupture, but less information is available on the risks and efficacy of preventive treatment."

The news correspondents obtained a quote from the research from University Hospital, "When deciding how to best manage UIAs, clinicians must consider the age and life expectancy of the patient, the estimated risk of rupture, the risk of complications attributed to preventive treatment, and the level of anxiety caused by the awareness of having an aneurysm. This Review highlights the latest human data on the formation, progression and rupture of intracranial aneurysms, as well as risks associated with preventive treatment. Considering these we discuss the implication for clinical management. Furthermore, we highlight pivotal questions arising from current data on intracranial aneurysms and the implications the data have for future experimental or clinical research. We also discuss data on novel radiological surrogates for rupture for those aneurysms that do not require preventive occlusion."

According to the news reporters, the research concluded: "Finally, we provide guidance for clinicians who are confronted with patients with incidentally detected UIAs."


Our news journalists report that additional information may be obtained by contacting N. Etminan, Heidelberg Univ, Univ Hosp Mannheim, Dept. of Neurosurg, Fac Med, D-68167 Mannheim, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrneurol.2016.150. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mannheim, Germany, Europe, Cardiovascular Diseases and Conditions, Article Review, Risk and Prevention, Central Nervous System Diseases and Conditions, Intracranial Arterial Diseases and Conditions, Vascular Diseases and Conditions, Brain Diseases and Conditions, Cerebrovascular Disorders, Intracranial Aneurysm, University Hospital.

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Ischemia

Report Summarizes Ischemia Study Findings from Catholic University of Leuven (Steroids can reduce warm ischemic reperfusion injury in a porcine donation after circulatory death model with ex vivo lung perfusion evaluation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Ischemia is the subject of a report. According to news originating from Leuven, Belgium, by NewsRx correspondents, research stated, "Donation after circulatory death (DCD) is being used to increase the number of transplantable organs. The role and timing of steroids in DCD donation and ex vivo lung perfusion (EVLP) has not been thoroughly investigated."

Financial support for this research came from Clinical Research Fund of the University Hospitals Leuven (Leuven, Belgium).

Our news journalists obtained a quote from the research from the Catholic University of Leuven, "In this study, we investigated the effect of steroids on warm ischemic injury in a porcine model (n = 6/group). Following cardiac arrest, grafts were left untouched in the donor (90-min warm ischemia). Graft function was assessed after 6 h of EVLP. In the MP group, 500 mg methyl-prednisolone was given prior to cardiac arrest and during EVLP. In the CONTR group, no steroids were added. Median lung compliance (13 ml/cmH(2)0) was significantly better preserved in the CONTR group than in the MP group (30.5 ml/cmH(2)0). Also, median wet-to-dry weight (6.11 vs. 6.94) and CT density (182.5 vs. 352.9 g/l) were significantly better in the MP group than in the CONTR group, respectively. There was no difference in oxygenation and pulmonary vascular resistance. Perfusate cytokine analysis showed a significant reduction in IL-1 beta, IL-8, IFN-alpha, IL-10, TNF-alpha, and IFN-gamma in MP. Cytokines in bronchoalveolar lavage were not decreased except for IFN-gamma. We demonstrated that warm ischemic injury in DCD donation can be attenuated by steroids when given prior to warm ischemia and during EVLP."

According to the news editors, the research concluded: "Ethical context of donor preconditioning should be discussed further."


The news correspondents report that additional information may be obtained from A.P. Neyrinck, Catholic University of Leuven, Leuven Lung Transplant Unit, Leuven, Belgium. Additional authors for this research include M. Boada, B.M. Vanaudenaerde, S.E. Verleden, R. Vos, G.M. Verleden, E.K. Verbeken, D. Van Raemdonck, D. Schols, S. Claes and A.P. Neyrinck.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tri.12823. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leuven, Belgium, Europe, Cardiovascular Diseases and Conditions, Ischemia-Reperfusion Injury, Transfusion Medicine, Blood
Transfusion, Medical Devices, Cardiology, Catholic University of Leuven.

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Oncology - Liver Cancer

Report Summarizes Liver Cancer Study Findings from University of Franche-Comte (Tumor control by human cytomegalovirus in a murine model of hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting originating in Besancon, France, by NewsRx journalists, research stated, "Although viruses can cause cancer, other studies reported the regression of human tumors upon viral infections. We investigated the cytoreductive potential of human cytomegalovirus (HCMV) in a murine model of human hepatocellular carcinoma (HCC) in severe-immunodeficient mice."

The news reporters obtained a quote from the research from the University of Franche-Comte, "Infection of HepG2 cells with HCMV resulted in the absence of tumor or in a limited tumor growth following injection of cells subcutaneously. By contrast all mice injected with uninfected HepG2 cells and with HepG2 cells infected with UV-treated HCMV did develop tumors without any significant restriction. Analysis of tumors indicated that in mice injected with HCMV-infected-HepG2 cells, but not in controls, a restricted cellular proliferation was observed parallel to a limited activation of the STAT3-cyclin D1 axis, decreased formation of colonies in soft agar, and activation of the intrinsic apoptotic pathway."

According to the news reporters, the research concluded: "HCMV can provide antitumoral effects in a murine model of HCC which requires replicative virus at some stages that results in limitation of tumor cell proliferation and enhanced apoptosis mediated through the intrinsic caspase pathway."

For more information on this research see: Tumor control by human cytomegalovirus in a murine model of hepatocellular carcinoma. Molecular Therapy-Oncolytics, 2016;3():1-10. Molecular Therapy-Oncolytics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

Our news correspondents report that additional information may be obtained by contacting G. Herbein, COMUE Bourgogne Franche Comte Univ, UPRES EA4266, SFR FED 4234, CHRU Besancon, Besancon, France. Additional authors for this research include L. Coquard, S. Pasquerneau, L. Russo, S. Valmary-Degano, C. Borg, P. Pothier and G. Herbein.

Keywords for this news article include: Besancon, France, Europe, Herpesvirus Diseases and Conditions, Human Cytomegalovirus, Betaherpesvirinae, Herpesviridae, Liver Cancer, DNA Viruses, Carcinomas, Virology, Oncology, Viral, University of Franche-Comte.

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Report Summarizes Lung Cancer Study Findings from Fujita Health University (Classification of 27 Tumor-Associated Antigens by Histochemical Analysis of 36 Freshly Resected Lung Cancer Tissues)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news originating from Aichi, Japan, by NewsRx correspondents, research stated, "In previous studies, we identified 29 tumor-associated antigens (TAAs) and isolated 488 human monoclonal antibodies (mAbs) that specifically bind to one of the 29 TAAs. In the present study, we performed histochemical analysis of 36 freshly resected lung cancer tissues by using 60 mAbs against 27 TAAs."

Our news journalists obtained a quote from the research from Fujita Health University, "Comparison of the staining patterns of tumor cells, bronchial epithelial cells, and normal pulmonary alveolus cells and interalveolar septum allowed us to determine the type and location of cells that express target molecules, as well as the degree of expression. The patterns were classified into 7 categories. While multiple Abs were used against certain TAAs, the differences observed among them should be derived from differences in the binding activity and/or the epitope. Thus, such data indicate the versatility of respective clones as anti-cancer drugs. Although the information obtained was limited to the lung and bronchial tube, bronchial epithelial cells represent normal growing cells, and therefore, the data are informative. The results indicate that 9 of the 27 TAAs are suitable targets for therapeutic Abs."

According to the news editors, the research concluded: "These 9 Ags include EGFR, HER2, TfR, and integrin alpha 6 beta 4. Based on our findings, a pharmaceutical company has started to develop anti-cancer drugs by using Abs to TfR and integrin alpha 6 beta 4. HGFR, PTP-LAR, CD147, CDCP1, and integrin alpha v beta 3 are also appropriate targets for therapeutic purposes."

For more information on this research see: Classification of 27 Tumor-Associated Antigens by Histochemical Analysis of 36 Freshly Resected Lung Cancer Tissues. *International Journal of Molecular Sciences*, 2016;17(11):1506-1513. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from G. Kurosawa, Fujita Hlth Univ, Inst Comprehens Med Sci, Div Antibody Project, Toyoake, Aichi 4701192, Japan. Additional authors for this research include M. Sugiura, Y. Hattori, H. Tsuda and Y. Kurosawa.

Keywords for this news article include: Aichi, Japan, Asia, Immunologic Receptors, Biological Factors, Membrane Proteins, Lung Neoplasms, Lung Cancer, Immunology, Integrins, Oncology, Antigens, Fujita Health University.

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Report Summarizes Lymphopenia Study Findings from IDIBAPS
(Selective Sphingosine 1-Phosphate Receptor 1 Agonist Is Protective Against Ischemia/Reperfusion in Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - Lymphopenia. According to news reporting originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Growing evidence supports that the immunomodulatory drug fingolimod is protective in stroke. Fingolimod binds to 4 of 5 sphingosine-1-phosphate (S1P) receptors and, among other actions, it induces lymphopenia."

Our news editors obtained a quote from the research from IDIBAPS, "In this study, we investigated whether a selective S1P1 agonist is protective in experimental stroke. Drug selectivity was studied in vitro in cells overexpressing the human S1P receptors. Mice (n= 54) received different doses of LASW1238 (3 or 10 mg/kg), fingolimod (1 mg/kg), or the vehicle intraperitoneal, and lymphopenia was studied at different time points. After intraluminal middle cerebral artery occlusion for 45 minutes and immediately after reperfusion, mice (n= 56) received the drug treatment. At 24 hours, a neurological test was performed and infarct volume was measured. Treatment and all the analyses were performed in a blind fashion. In vitro functional assays showed that LASW1238 is a selective agonist of the S1P1 receptor. At 10 mg/kg, this compound induced sustained lymphopenia in mice comparable with fingolimod, whereas at 3 mg/kg it induced shortlasting lymphopenia. After ischemia, both LASW1238 (10 mg/kg) and fingolimod reduced infarct volume, but only LASW1238 (10 mg/kg) showed statistically significant differences versus the vehicle. The neurological function and plasma cytokine levels were not different between groups. The selective S1P1 agonist LASW1238 reduces infarct volume after ischemia/reperfusion in mice, but only when lymphopenia is sustained for at least 24 hours. S1P1 and lymphocytes are potential targets for drug treatment in stroke."

According to the news editors, the research concluded: "Defining the best drug dosing regimens to control the extent and duration of lymphopenia is critical to achieve the desired effects."

For more information on this research see: Selective Sphingosine 1-Phosphate Receptor 1 Agonist Is Protective Against Ischemia/Reperfusion in Mice. Stroke, 2016;47 (12):3053-3056. Stroke can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Stroke - stroke.ahajournals.org/)

The news editors report that additional information may be obtained by contacting A.M. Planas, Brain Ischemia & Neurodegenerat, IDIBAPS, IIBB CSIC, Barcelona 08036, Spain. Additional authors for this research include G. Tarrason, A. Gavalda, N. Godessart and A.M. Planas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1161/STROKEAHA.116.015371. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Hemic and Lymphatic Diseases and Conditions, Immune System Diseases and Conditions, Hematologic Diseases and Conditions, Immunologic Deficiency Syndromes, Immunosuppressive Agents,
Oncology - Melanoma

Report Summarizes Melanoma Study Findings from University of California (Inhibition of oncogenic BRAF activity by indole-3-carbinol disrupts microphthalmia-associated transcription factor expression and arrests melanoma cell proliferation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Melanoma have been presented. According to news originating from Berkeley, California, by NewsRx correspondents, research stated, "Indole-3-carbinol (I3C), an anti-cancer phytochemical derived from cruciferous vegetables, strongly inhibited proliferation and down-regulated protein levels of the melanocyte master regulator microphthalmia-associated transcription factor (MITF-M) in oncogenic BRAF-V600E expressing melanoma cells in culture as well as in vivo in tumor xenografted athymic nude mice. In contrast, wild type BRAF-expressing melanoma cells remained relatively insensitive to I3C anti-proliferative signaling."

Our news journalists obtained a quote from the research from the University of California, "In BRAF-V600E-expressing melanoma cells, I3C treatment inhibited phosphorylation of MEK and ERK/MAPK, the down stream effectors of BRAF. The I3C anti-proliferative arrest was concomitant with the down-regulation of MITF-M transcripts and promoter activity, loss of endogenous BRN-2 binding to the MITF-M promoter, and was strongly attenuated by expression of exogenous MITF-M. Importantly, in vitro kinase assays using immunoprecipitated BRAF-V600E and wild type BRAF demonstrated that I3C selectively inhibited the enzymatic activity of the oncogenic BRAF-V600E but not of the wild type protein. In silico modeling predicted an I3C interaction site in the BRAF-V600E protomer distinct from where the clinically used BRAF-V600E inhibitor Vemurafenib binds to BRAF-V600E. Consistent with this prediction, combinations of I3C and Vemurafenib more potently inhibited melanoma cell proliferation and reduced MITF-M levels in BRAF-V600E expressing melanoma cells compared to the effects of each compound alone."

According to the news editors, the research concluded: "Thus, our results demonstrate that oncogenic BRAF-V600E is a new cellular target of I3C that implicate this indolecarbinol compound as a potential candidate for novel single or combination therapies for melanoma."


The news correspondents report that additional information may be obtained from G.L. Firestone, University of California, Dept. of Mol & Cell Biol, Berkeley, CA 94720, United
Hematologic Diseases and Conditions --

Report Summarizes Myelodysplastic Syndromes Study Findings from University of Texas [Efficacy and safety of extended dosing schedules of CC-486 (oral azacitidine) in patients with lower-risk myelodysplastic syndromes]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hematologic Diseases and Conditions - Myelodysplastic Syndromes are presented in a new report. According to news reporting out of Houston, Texas, by NewsRx editors, research stated, "CC-486, the oral formulation of azacitidine (AZA), is an epigenetic modifier and DNA methyltransferase inhibitor in clinical development for treatment of hematologic malignancies. CC-486 administered for 7 days per 28-day treatment cycle was evaluated in a phase 1 dose-finding study."

Our news journalists obtained a quote from the research from the University of Texas, "AZA has a short plasma half-life and DNA incorporation is S-phase-restricted; extending CC-486 exposure may increase the number of AZA-affected diseased target cells and maximize therapeutic effects. Patients with lower-risk myelodysplastic syndromes (MDS) received 300 mg CC-486 once daily for 14 days (n=28) or 21 days (n=27) of repeated 28-day cycles. Median patient age was 72 years (range 31-87) and 75% of patients had International Prognostic Scoring System Intermediate-1 risk MDS. Median number of CC-486 treatment cycles was 7 (range 2-24) for the 14-day dosing schedule and 6 (1-24) for the 21-day schedule. Overall response (complete or partial remission, red blood cell (RBC) or platelet transfusion independence (TI), or hematologic improvement) (International Working Group 2006) was attained by 36% of patients receiving 14-day dosing and 41% receiving 21-day dosing. RBC TI rates were similar with both dosing schedules (31% and 38%, respectively). CC-486 was generally well-tolerated."

According to the news editors, the research concluded: "Extended dosing schedules of oral CC-486 may provide effective long-term treatment for patients with lower-risk MDS."

For more information on this research see: Efficacy and safety of extended dosing schedules of CC-486 (oral azacitidine) in patients with lower-risk myelodysplastic syndromes. Leukemia, 2015;30(4):889-96. (Nature Publishing Group - www.nature.com/; Leukemia - www.nature.com/leu/)

Our news journalists report that additional information may be obtained by contacting G. Garcia-Manero, Dept. of Leukemia, University of Texas MD Anderson Cancer Center, Houston, TX, United States. Additional authors for this research include S.D. Gore, S. Kambhampati, B. Scott, A. Tefferi, C.R. Cogle, W.J. Edenfield, J. Hetzer, K. Kumar, E. Laille, T. Shi, K.J. MacBeth and B. Skikne.

The direct object identifier (DOI) for that additional information is:
Heart Disorders and Diseases - Myocardial Ischemia

Report Summarizes Myocardial Ischemia Study Findings from Shanghai Jiao-Tong University (The nuclear melatonin receptor RORa is a novel endogenous defender against myocardial ischemia/reperfusion injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Myocardial Ischemia. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Circadian rhythm disruption or decrease in levels of circadian hormones such as melatonin increases ischemic heart disease risk. The nuclear melatonin receptors RORs are pivotally involved in circadian rhythm regulation and melatonin effects mediation."

Funders for this research include National Natural Science Foundation of China, Key Basic Research Program of Shanghai Committee of Science and Technology, Ministry of Education of China, Shanghai Shuguang Program, Shanghai Municipal Education Commission, Shanghai Jiaotong University, Shanghai Jiaotong University School of Medicine.

Our news editors obtained a quote from the research from Shanghai Jiao-Tong University, "However, the functional roles of RORs in the heart have never been investigated and were therefore the subject of this study on myocardial ischemia/reperfusion (MI/R) injury pathogenesis. RORa and RORg subtypes were detected in the adult mouse heart, and RORa but not RORg was downregulated after MI/R. To determine the pathological consequence of MI/R-induced reduction of RORa, we subjected RORa-deficient staggerer mice and wild-type (WT) littermates to MI/R injury, resulting in significantly increased myocardial infarct size, myocardial apoptosis and exacerbated contractile dysfunction in the former. Mechanistically, RORa deficiency promoted MI/R-induced endoplasmic reticulum stress, mitochondrial impairments, and autophagy dysfunction. Moreover, RORa deficiency augmented MI/R-induced oxidative/nitrative stress. Given the emerging evidence of RORa as an essential melatonin effects mediator, we further investigated the RORa roles in melatonin-exerted cardioprotection, in particular against MI/R injury, which was significantly attenuated in RORa-deficient mice, but negligibly affected by cardiac-specific silencing of RORg. Finally, to determine cell type-specific effects of RORa, we generated mice with cardiomyocyte-specific RORa overexpression and they were less vulnerable to MI/R injury."

According to the news editors, the research concluded: "In summary, our study provides the first direct evidence that the nuclear melatonin receptor RORa is a novel endogenous protective receptor against MI/R injury and an important mediator of melatonin-exerted cardioprotection; melatonin-RORa axis signaling thus appears important in protection against ischemic heart injury."

The news editors report that additional information may be obtained by contacting B. He, Dept. of Cardiology, Ren Ji Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai, People's Republic of China. Additional authors for this research include Y. Zhao, L. Xu, L. Gao, Y. Su, N. Lin and J. Pu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jpi.12312. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Surgery, Shanghai, Hormones, Cardiology, Medical Devices, Blood Transfusion, Membrane Proteins, Melatonin Receptors, Myocardial Ischemia, Risk and Prevention, Transfusion Medicine, Ischemic Heart Disease, Coronary Artery Disease, Constrictive Pericarditis, People's Republic of China, G Protein Coupled Receptors.

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**Nutritional and Metabolic Diseases and Conditions**

**Report Summarizes Obesity Study Findings from University of Verona (Considerations for Systemic Treatment of Psoriasis in Obese Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news originating from Verona, Italy, by NewsRx correspondents, research stated, "Psoriasis is an immune-mediated inflammatory skin disease frequently associated with metabolic disorders, including diabetes, dyslipidaemia and metabolic syndrome. Moreover, a growing number of studies confirm the association between psoriasis and obesity."

Our news journalists obtained a quote from the research from the University of Verona, "It has been found that obesity, as measured by body mass index > 30 kg/m(2), can double the risk of incident psoriasis. A positive correlation between different measures of adiposity and the severity of psoriasis has also been reported. Epidemiologic studies have also provided robust evidence confirming the association between obesity and psoriatic arthritis. Genetic, metabolic and environmental factors are all likely to contribute to these associations. Adipose tissue is an active endocrine and paracrine organ that has a key role in lipid and glucose metabolism as well as inflammation. Fat tissue is traditionally distributed into two main compartments with different metabolic characteristics, i.e. the subcutaneous and visceral adipose tissue. Particular attention has been devoted to visceral adiposity because of its contribution to inflammation and atherosclerosis. The association between psoriasis and obesity should be properly considered when choosing a systemic treatment, because it could exert negative effects on metabolic parameters, including liver enzymes, serum lipids and renal function. Obesity may increase the risk of liver and renal toxicity from methotrexate and cyclosporine. Moreover, obesity can compromise the effectiveness of systemic treatments for psoriasis (conventional and biological therapies)."

According to the news editors, the research concluded: "Dermatologists are also
expected to promote a healthy lifestyle and weight loss for obese patients because they could improve metabolic parameters and responsiveness to psoriasis therapies."


The news correspondents report that additional information may be obtained from P. Gisondi, University of Verona, Sect Dermatol & Venereol, Dept. of Med, I-37126 Verona, Italy. Additional authors for this research include M. Del Giglio and G. Girolomoni.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40257-016-0211-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Verona, Italy, Europe, Nutritional and Metabolic Diseases and Conditions, Papulosquamous Skin Diseases and Conditions, Inflammation, Article Review, Epidemiology, Obesity and Diabetes, Nutrition Disorders, Diet and Nutrition, Overnutrition, Dermatology, Bariatrics, Psoriasis, Genetics, University of Verona.

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Oncology - Pancreatic Cancer

Report Summarizes Pancreatic Cancer Study Findings from University of Southern Denmark (Lipid-modified G4-decoy oligonucleotide anchored to nanoparticles: delivery and bioactivity in pancreatic cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Pancreatic Cancer are presented in a new report. According to news originating from Odense, Denmark, by NewsRx correspondents, research stated, "KRAS is mutated in >90% of pancreatic ductal adenocarcinomas. As its inactivation leads to tumour regression, mutant KRAS is considered an attractive target for anticancer drugs."

Our news journalists obtained a quote from the research from the University of Southern Denmark, "In this study we report a new delivery strategy for a G4-decoy oligonucleotide that sequesters MAZ, a transcription factor essential for KRAS transcription. It is based on the use of palmitoyl-oleyl-phosphatidylcholine (POPC) liposomes functionalized with lipid-modified G4-decoy oligonucleotides and a lipid-modified cell penetrating TAT peptide."

According to the news editors, the research concluded: "The potency of the strategy in pancreatic cancer cells is demonstrated by cell cytometry, confocal microscopy, clonogenic and qRT-PCR assays."

For more information on this research see: Lipid-modified G4-decoy oligonucleotide anchored to nanoparticles: delivery and bioactivity in pancreatic cancer cells. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group
Personalized Medicine

Report Summarizes Personalized Medicine Study Findings from L. Zhang and Co-Researchers (Personalized medicine and blood disorders)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Personalized Medicine. According to news reporting originating from Cambridge, Massachusetts, by NewsRx editors, the research stated, "Personalized medicine has been using genomics approaches to elucidate the etiology of a disease as well as to personalize the management for patients of a particular disease based on that individual's genetic features. It benefits patients across a multitude of therapeutic areas and advancements are particularly evident in hematology/oncology."

Our news editors obtained a quote from the research, "The importance of genomics discoveries and development in nonmalignant blood disorders generally goes unrecognized, but it becomes critical now due to the global disease burden and a high mortality. This paper focuses on the exploration of personalized medicine applications in hemoglobin diseases, and thrombotic and bleeding disorders. It discusses the challenges which slow down the implementation as well."

According to the news editors, the research concluded: "The available data suggest that the ability to understand the clinical features of a patient's genetic profile and the knowledge of disease mechanisms are the keys to facilitate new diagnosis, new therapies, new prescriptions and better healthcare."

For more information on this research see: Personalized medicine and blood disorders. Personalized Medicine, 2016;13(6):587-596. Personalized Medicine can be contacted at: Future Medicine Ltd, Unitec House, 3RD Floor, 2 Albert Place, Finchley Central, London, N3 1QB, England.

The news editors report that additional information may be obtained by contacting L. Zhang, Baxalta Inc, Clin Res Hematol, Cambridge, MA 02142, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/pme-2016-0043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Personalized Medicine, Genetics.

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Report Summarizes Pharmacoepidemiology and Drug Safety Study Findings from Brown University (Consensus of recommendations guiding comparative effectiveness research methods)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Pharmacoepidemiology and Drug Safety have been published. According to news reporting originating from Providence, Rhode Island, by NewsRx correspondents, research stated, "Because of an increasing demand for quality comparative effectiveness research (CER), methods guidance documents have been published, such as those from the Agency for Healthcare Research and Quality (AHRQ) and the Patient-Centered Outcomes Research Institute (PCORI). Our objective was to identify CER methods guidance documents and compare them to produce a summary of important recommendations which could serve as a consensus of CER method recommendations."

Our news editors obtained a quote from the research from Brown University, "We conducted a systematic literature review to identify CER methods guidance documents published through 2014. Identified documents were analyzed for methods guidance recommendations. Individual recommendations were categorized to determine the degree of overlap. We identified nine methods guidance documents, which contained a total of 312 recommendations, 97% of which were present in two or more documents. All nine documents recommended transparency and adaptation for relevant stakeholders in the interpretation and dissemination of results. Other frequently shared CER methods recommendations included: study design and operational definitions should be developed a priori and allow for replication (n = 8 documents); focus on areas with gaps in current clinical knowledge that are relevant to decision-makers (n = 7); validity of measures, instruments, and data should be assessed and discussed (n = 7); outcomes, including benefits and harms, should be clinically meaningful, and objectively measured (n = 7). Assessment for and strategies to minimize bias (n = 6 documents), confounding (n = 6), and heterogeneity (n = 4) were also commonly shared recommendations between documents."

According to the news editors, the research concluded: "We offer a field-consensus guide based on nine CER methods guidance documents that will aid researchers in designing CER studies and applying CER methods."


The news editors report that additional information may be obtained by contacting A.R. Caffrey, Brown University, Sch Public Hlth, Providence, RI 02912, United States. Additional authors for this research include R. McConeghy, K. Heinrich, N.M. Gatto and A.R. Caffrey.

Keywords for this news article include: Providence, Rhode Island, United States, North and Central America, Pharmacoepidemiology and Drug Safety, Drugs and Therapies,
Report Summarizes Pharmacy Practice Study Findings from C.K. Frail and Co-Researchers (Experience with technology-supported transitions of care to improve medication use)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Pharmacy Practice is now available. According to news originating from Jackson Center, Ohio, by NewsRx correspondents, research stated, "To describe an innovative community pharmacy-based pilot program using technology to support transitions of care for patients living in rural areas. This service occurred through a partnership between 1 independent community pharmacy organization with 5 locations in Ohio and Indiana and one 92-bed general medical and surgical county hospital during May 2014 to May 2015."

Our news journalists obtained a quote from the research, "Practice description and innovation: Community pharmacists worked with patients immediately following discharge to reconcile their medications and make recommendations to optimize therapy. The pharmacy packaged their new medication regimen in clear, individual dose adherence packaging. Medications were delivered by a staff driver to the patient's home within 72 hours of discharge. Patients consulted with the pharmacist by videoconference using a computer tablet device. Patients received telephone follow-up shortly before their medication supply was to run out, and additionally as needed on an individual basis. Evaluation: Self-reported hospital readmissions were collected at 30 and 180 days after enrollment. Patient satisfaction data were also collected at 30 and 180 days using a tool modified from the 5-item Transition Measure (15-item Care Transitions Measure). Eighteen patients participated in the evaluation of the pilot. Three patients were readmitted within 30 days (17%), and 2 additional patients were readmitted within 180 days (11%). Patient satisfaction results were positive overall. Lessons learned relate to establishing partnerships, logistics, and patient engagement. These lessons will assist future community pharmacies in implementing a transition of care service."

According to the news editors, the research concluded: "This pharmacist care model may offer a solution to increase access to pharmacy services for patients in rural areas during a critical transition in care."


The news correspondents report that additional information may be obtained from A.L. Haas, Jackson Pharm & Wellness Center, Jackson Center, OH 45334, United States. Additional authors for this research include O.W. Garza and A.L. Haas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.japh.2016.04.565. This DOI is a link to an online electronic document that is either free or for purchase.
Hematology - Plasma

Report Summarizes Plasma Study Findings from Second Military Medical University (Analysis of amino acids in human blood using UHPLC-MS/MS: Potential interferences of storage time and vacutainer tube in pre-analytical procedure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematology - Plasma is now available. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "To investigate potential interferences of two pre-analytical variables, the storage time and the vacutainer tube, on the quantification of 20 amino acids using a UHPLC-MS/MS method. Blood samples from 25 apparently healthy subjects were collected into duplicate sets of EDTA-2K, EDTA-3K, coagulation, heparin and citrate tubes, and stored in capped vacutainer tubes at 4 degrees C for 6 h, 12 h and 24 h before sample analysis."

Our news journalists obtained a quote from the research from Second Military Medical University, "A UHPLC-MS/MS method was established for simultaneous quantification of 20 amino acids. ANOVA for repeated measurement was conducted based on the model of Mauchly's test of Sphericity. Student's t-test was applied for comparison between amino acid concentrations obtained from different vacutainer tubes, and consistency of the results was checked through Bland-Altman difference plots and Passing-Bablok regression analysis. Most of the 20 amino acids showed a least concentration fluctuation with storage time in heparin plasma, followed by EDTA-3K and citrate plasma. The amino acid concentrations were significantly lower in citrate plasma and slightly higher in serum, compared with those in heparin plasma. No fixed bias was observed for amino acid concentrations in EDTA and heparin plasma, but the differences were mostly of statistical significance. Amino acid concentrations in EDTA-3K plasma achieved a good consistency with those in heparin plasma by UHPLC-MS/MS analysis. Storage time and vacutainer tube were important variables for amino acid analysis."

According to the news editors, the research concluded: "They should draw researchers' attention and then be controlled in good laboratory practice to reduce pre-analytical errors."


Our news journalists report that additional information may be obtained by contacting W.S. Chen, Second Military Med Univ, Changzheng Hosp, Dept. of Pharm, Shanghai 200003, People's Republic of China. Additional authors for this research include S.H. Gao, C. Shu, Y. Wen, Y.L. Yun, X. Tao, W.S. Chen and F. Zhang.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinbiochem.2016.09.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Amino Acids, Hematology, Proteins, Peptides, Plasma, Blood, Second Military Medical University.

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Peptide Proteins - Proinsulin

Report Summarizes Proinsulin Study Findings from Baylor University College of Medicine (The History Of Insulin Technology: A Brief Review Of The Updates In Basal Insulin Therapy Through The Years)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peptide Proteins - Proinsulin. According to news reporting originating in Houston, Texas, by NewsRx editors, the research stated, "Recent advances in insulin pharmacology, metallurgy, and insulin delivery technology have largely remediated the difficulties associated with insulin injection circa 1925."

The news reporters obtained a quote from the research from the Baylor University College of Medicine, "Each generation of basal insulin has offered incremental improvements in safety and convenience over the previous generation. Ultralong-acting basal insulin analogues are notable for their very long duration of action (>24 hours), flatter pharmacodynamic profiles, and more consistent pharmacodynamic action throughout the day, on different days, and in different patients, relative to long-acting basal insulin analogues."

According to the news reporters, the research concluded: "These characteristics yield basal insulins with more predictable actions that are more forgiving of variations in injection frequency, potentially with a lower risk of overall, nocturnal, and severe hypoglycemia."

For more information on this research see: The History Of Insulin Technology: A Brief Review Of The Updates In Basal Insulin Therapy Through The Years. *Endocrine Practice*, 2016;22():7-9. *Endocrine Practice* can be contacted at: Amer Assoc Clinical Endocrinologists, 245 Riverside Avenue, Ste 200, Jacksonville, FL 32202, USA.

Our news correspondents report that additional information may be obtained by contacting A.J. Garber, Baylor College of Medicine, Dept. of Diabet Endocrinol & Metab, Medical Biochem & Mol & Cellular Biol, Houston, TX 77030, United States.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Pharmacodynamics, Peptide Proteins, Peptide Hormones, Pharmaceuticals, Technology, Proinsulin, Therapy, Baylor University College of Medicine.

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Report Summarizes Prostate Cancer Study Findings from T. Todenhofe

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "The expression of AR-V7 (androgen receptor splice variant) in circulating tumor cells has been associated with resistance to abiraterone and enzalutamide in patients with metastatic castration resistant prostate cancer. We used a sensitive, whole blood reverse transcriptase-polymerase chain reaction assay that does not require circulating tumor cell enrichment to correlate outcomes of abiraterone with whole blood expression of AR-V7 and other prostate cancer associated transcripts."

Our news journalists obtained a quote from the research, "We assessed the expression of AR-V7, FOXA1, GRHL2, HOXB13, KLK2, KLK3 and TMPRSS2: ERG mRNA in 2.5 ml whole blood from each of 27 patients with metastatic castration resistant prostate cancer and 33 controls without cancer as the discovery cohort. Cycle threshold values of controls with the highest gene expression were set as the threshold for a positive test. Thresholds were then applied to a validation cohort of 37 patients with metastatic castration resistant prostate cancer who were commencing abiraterone. Gene expression was correlated with the prostate specific antigen response rate using the chi-square test, and with time to prostate specific antigen progression and overall survival using the log rank test. In the discovery cohort 3 of 27 patients (11.1%) with metastatic castration resistant prostate cancer were AR-V7 positive vs 4 of 37 (10.8%) in the validation cohort. In the validation cohort patients with a positive AR-V7 test had a lower prostate specific antigen response rate (0% vs 42%, p = 0.27) together with shorter median prostate specific antigen progression (0.7 vs 4.0 months, p < 0.001) and median overall survival (5.5 vs 22.1 months, p < 0.001). Reverse transcriptase-polymerase chain reaction detection of AR-V7 transcripts in whole blood was associated with inferior outcomes in patients treated with abiraterone."

According to the news editors, the research concluded: "These results reinforce the potential usefulness of AR-V7 as a prognostic and predictive biomarker for metastatic castration resistant prostate cancer."


The news correspondents report that additional information may be obtained from K.N. Chi, British Columbia, Toronto, ON, Canada. Additional authors for this research include A. Azad, C. Stewart, J. Gao, B.J. Eigl, M.E. Gleave, A.M. Joshua, P.C. Black and K.N. Chi.

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Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Prostatic Secretory Proteins, Prostate-Specific Antigen, Biological Tumor Markers, Reverse Transcriptase, Enzymes and Coenzymes, Prostatic Neoplasms, Biological Factors, Peptide Hydrolases, Neoplasm Antigens, Serine Proteases, Prostate Cancer, Endopeptidases, Diagnostics, Kallikreins, Proteomics, Polymerase, Immunology, Diagnosis, Oncology, Genetics.

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Oncology - Renal Cell Carcinoma

Report Summarizes Renal Cell Carcinoma Study Findings from Veterans Affairs Medical Center (An Empiric Evaluation of the Effect of Variation in Intensity of Followup for Surgically Treated Renal Neoplasms on Cancer Specific Survival)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Renal Cell Carcinoma have been published. According to news originating from Nashville, Tennessee, by NewsRx correspondents, research stated, "Followup protocols after the surgical management of renal cell carcinoma lack clear evidence linking the intensity of imaging surveillance to improved outcomes. In this context we characterized the relationship between surveillance imaging intensity and cancer specific survival."

Our news journalists obtained a quote from the research from Veterans Affairs Medical Center, "Using SEER-Medicare data we identified 7,603 men with renal cell carcinoma treated surgically between 2004 and 2009. Multivariable negative binomial regression analysis was performed to assess the relationship between patient level characteristics and the variation in imaging intensity. We modeled the association between kidney cancer specific mortality and imaging intensity using Fine and Gray proportional subdistribution hazards regression with other cause death treated as a competing risk for 2 separate followup periods (15 and 36 months). More than 40% of patients in the short interval cohort and more than 50% in the intermediate interval group underwent no chest imaging during the evaluated survivorship period. More than 30% of patients in both followup periods had no abdominal imaging tests performed. Overall, followup imaging did not appear to confer an improvement in disease specific survival compared to undergoing no imaging in the 2 survivorship periods. There remains considerable variation in the post-treatment surveillance regimen for patients with renal cell carcinoma in the United States."

According to the news editors, the research concluded: "More importantly, this study raises important questions regarding the link between posttreatment surveillance imaging and survival."


The news correspondents report that additional information may be obtained from M.J. Resnick, Tennessee Valley VA Hlth Care Syst, Geriatr Res Educ & Clin Center, Nashville,
TN, United States. Additional authors for this research include A.J. Graves, M.D. Tyson, B. O'Neil, S.S. Chang, S.H. Ni, D.A. Barocas, D.F. Penson and M.J. Resnick.

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Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Male Kidney Diseases and Conditions, Neoplasms, Epidemiology, Renal Cell Carcinoma, Gastroenterology, Men's Health, Nephrology, Carcinomas, Oncology, Cancer, Veterans Affairs Medical Center.

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Salicylic Acid

Report Summarizes Salicylic Acid Study Findings from University of Pisa (Experimental and DFT Characterization of Halloysite Nanotubes Loaded with Salicylic Acid)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Salicylic Acid are presented in a new report. According to news reporting out of Pisa, Italy, by NewsRx editors, research stated, "Halloysite nanotubes (HNTs) and salicylic acid (SA) are natural substances widely used in different fields. HNTs are very promising as nanocarriers because of their biocompatibility, atoxicity, anti-inflammatory properties and capacity to maintain the biological activity of immobilized enzymes."

Our news journalists obtained a quote from the research from the University of Pisa, "Because of its bactericidal and antiseptic properties, salicylic acid (SA) is used in pharmaceutical formulations, and as an additive for preserving foods and cosmetics. In this study, we set up a procedure for the loading of HNTs with SA for their possible application in active food packaging. Pristine HNTs were studied together with acidic etched HNTs with enlarged internal lumen, and various pH values for the loading solutions were tested in order to obtain the maximum loading. The HNTs-empty and loaded with SA-were characterized by TG-FTIR, FTIR SEM, STEM, and nitrogen adsorption/desorption isotherms measurements. We obtained a maximum loading of 10.5% (w/w), using HNTs pretreated with H2SO4 2 M at 25 degrees C for 48h and a solution of sodium salicylate at pH 8. We also characterized the interaction of SA-HNTs at a molecular level by combining ATR-FTIR measurements and periodic density functional theory (DFT) calculations. We believe that the information on the SA-HNT complexes derived from our research should help to improve the current knowledge of SA clay interactions."

According to the news editors, the research concluded: "In addition, it should be of interest for environmental and earth sciences since SA is used to model natural organic matter (NOM) in both experimental and theoretical studies of NOM adsorption on different kinds of mineral surfaces."

Our news journalists report that additional information may be obtained by contacting C. Duce, University of Pisa, Chem & Ind Chem Department, I-56124 Pisa, Italy. Additional authors for this research include C. Duce, A. Pedone, D. Presti, J.G. Rivera, V. Ierardi and M.R. Tine.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jpcc.6b06964. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pisa, Italy, Europe, Dermatological Agents, Emerging Technologies, Hydroxybenzoic Acids, Drugs and Therapies, Topical Acne Agents, Organic Chemicals, Carboxylic Acids, Salicylic Acids, Topical Agents, Nanotechnology, Benzoic Acids, Hydroxy Acids, Nanotube, University of Pisa.

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Salicylic Acids

Report Summarizes Salicylic Acids Study Findings from Harbin Medical University (Anti-cancer activity and potential mechanism of a novel aspirin derivative)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Salicylic Acids is the subject of a report. According to news reporting from Daqing, People's Republic of China, by NewsRx journalists, research stated, "Aspirin has been used in the treatment and chemoprevention of many malignant cancers. The mechanism of its anti-cancer activity mainly involves the inhibition of cyclooxygenase-2 (COX-2)."

Financial support for this research came from Scientific Research Fund of Postgraduates Innovation of Heilongjiang Province.

The news correspondents obtained a quote from the research from Harbin Medical University, "However, the application of aspirin is limited by the serious gastric mucosal damage that accompanies its usage. We have previously reported the preparation of a novel aspirin derivative that we named Ca-Asp, and showed that it causes less damage to gastric mucosa of rat and inhibits the expression of COX-2 to higher degree than Asp. However, the anti-cancer effect and mechanism of Ca-Asp was not demonstrated. In this study, the anti-cancer effect of Ca-Asp was investigated and compared with those of Asp and Hydroxyapatite (Hap) at the cell level. The results showed that treatment of SGC-7901 cells (human gastric cancer cell line) with 200-400 μg/ml Ca-Asp resulted in significant reduction in cell viability, compared to treatment with either Asp or Hap, and at a higher concentration (500 μg/ml). Subsequent investigation into the possible underlying mechanism showed that Ca-Asp induced apoptosis and caused cell cycle arrest at the G1 phase. Ca-Asp also up regulated the levels of caspase-3 and p53, but down regulated the level of cyclin D1, NF-kappa beta, COX-2 and PGE(2). Furthermore, simultaneous treatment of SGC-7901 cells with Ca-Asp and exogenous PGE(2) reduced the anti-proliferative effect of Ca-Asp on the cells."

According to the news reporters, the research concluded: "Taken together, the results suggested that Ca-Asp might act as a potential anti-cancer drug, and that its suppression of PGE(2) production might constitute an important part of its anti-cancer activity."

For more information on this research see: Anti-cancer activity and potential

Our news journalists report that additional information may be obtained by contacting S. Li, Harbin Med Univ, Daqing Branch, Dept. of Pharmaceut, Daqing 163319, People's Republic of China. Additional authors for this research include D.D. Fan, S. Lin, Y.P. Song, Z.Y. Wang, X.L. Ma, W.H. Qiu, Y.H. Bai, L. Li and S. Li.

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Keywords for this news article include: Daqing, People's Republic of China, Asia, Platelet Aggregation Inhibitors, Coagulation Modifiers, Drugs and Therapies, Antiplatelet Agents, Organic Chemicals, Carboxylic Acids, Aspirin Therapy, Pharmaceuticals, Salicylic Acids, Cancer Therapy, Benzoic Acids, Hydroxy Acids, Oncology, Harbin Medical University.

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**Oncology - Squamous Cell Carcinoma**

**Report Summarizes Squamous Cell Carcinoma Study Findings from Institute for Cancer Research and Treatment (IRCCS) (Whole exome sequencing of independent lung adenocarcinoma, lung squamous cell carcinoma, and malignant peritoneal mesothelioma A ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Squamous Cell Carcinoma. According to news reporting out of Genoa, Italy, by NewsRx editors, research stated, "The presence of multiple primary tumors (MPT) in a single patient has been identified with an increasing frequency. A critical issue is to establish if the second tumor represents an independent primary cancer or a metastasis."

Our news journalists obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Therefore, the assessment of MPT clonal origin might help understand the disease behavior and improve the management/prognosis of the patient. Herein, we report a 73-year-old male smoker who developed 2 primary lung cancers (adenocarcinoma and squamous cell carcinoma) and a malignant peritoneal mesothelioma (PM). Whole exome sequencing (WES) of the 3 tumors and of germline DNA was performed to determine the clonal origin and identify genetic cancer susceptibility. Both lung cancers were characterized by a high mutational rate with distinct mutational profiles and activation of tumor-specific pathways. Conversely, the PM harbored a relative low number of genetic variants and a novel mutation in the WT1 gene that might be involved in the carcinogenesis of nonasbestos-related mesothelioma. Finally, WES of the germinial DNA displayed several single nucleotide polymorphisms in DNA repair genes likely conferring higher cancer susceptibility. Overall, WES did not disclose any somatic genetic variant shared across the 3 tumors, suggesting their clonal independency: however, the carcinogenic effect of smoke combined with a deficiency in DNA repair genes and the patient advanced age might have been responsible for the MPT"
development."

According to the news editors, the research concluded: "This case highlights the WES importance to define the clonal origin of MPT and susceptibility to cancer."

For more information on this research see: Whole exome sequencing of independent lung adenocarcinoma, lung squamous cell carcinoma, and malignant peritoneal mesothelioma A case report. Medicine, 2016;95(48):108-115. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting S. Coco, IRCCS AOU San Martino IST Ist Nazl Ric Canc, Lung Canc Unit, I-16132 Genoa, Italy. Additional authors for this research include S. Coco, S. Bonfiglio, D. Cittaro, C. Genova, F. Biello, M. Mora, V. Rossella, M.G. Dal Bello, A. Truini, B. Banelli, D. Lazarevic, A. Alama, E. Rijavec, G. Barletta and F. Grossi.

Keywords for this news article include: Genoa, Italy, Europe, Squamous Cell Carcinoma, Adenocarcinoma, Mesotheliomas, Lung Cancer, Carcinomas, Oncology, Genetics, Institute for Cancer Research and Treatment (IRCCS).

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Oncology - Testicular Cancer

Report Summarizes Testicular Cancer Study Findings from K. Litchfield and Co-Researchers (Rare disruptive mutations in ciliary function genes contribute to testicular cancer susceptibility)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Testicular Cancer have been presented. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "Testicular germ cell tumour (TGCT) is the most common cancer in young men. Here we sought to identify risk factors for TGCT by performing whole-exome sequencing on 328 TGCT cases from 153 families, 634 sporadic TGCT cases and 1,644 controls."

Our news journalists obtained a quote from the research, "We search for genes that are recurrently affected by rare variants (minor allele frequency <0.01) with potentially damaging effects and evidence of segregation in families. A total of 8.7% of TGCT families carry rare disruptive mutations in the cilia-microtubule genes (CMG) as compared with 0.5% of controls (P = 2.1 x 10(-8)). The most significantly mutated CMG is DNAAF1 with biallelic inactivation and loss of DNAAF1 expression shown in tumours from carriers. DNAAF1 mutation as a cause of TGCT is supported by a dnaaf1(hu255h)(+/-) zebrafish model, which has a 94% risk of TGCT."

According to the news editors, the research concluded: "Our data implicate cilia-microtubule inactivation as a cause of TGCT and provide evidence for CMGs as cancer susceptibility genes."

For more information on this research see: Rare disruptive mutations in ciliary function genes contribute to testicular cancer susceptibility. Nature Communications, 2016;7 ():1-8. Nature Communications can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Nature Communications - www.nature.com/ncomms/)

Keywords for this news article include: London, United Kingdom, Europe, Cancer, Risk and Prevention, Genetics, Testicular Diseases and Conditions, Testicular Cancer, Oncology.

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Oncology - Thyroid Cancer

Report Summarizes Thyroid Cancer Study Findings from Cancer Hospital (Association between neutrophil-to-lymphocyte ratio and differentiated thyroid cancer: a meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Thyroid Cancer. According to news reporting out of Chengdu, People's Republic of China, by NewsRx editors, research stated, "The association between neutrophil-to-lymphocyte ratio (NLR) and differentiated thyroid cancer (DTC) is undecided. To rectify this question, we conducted a systematic meta-analysis based on 7 prospective cohort studies published between 2013 and 2015, comprising 7349 patients."

Our news journalists obtained a quote from the research from Cancer Hospital, "Six of these cohorts included pretreatment (baseline) NLR data for patients with thyroid nodules. The meta-analysis of these 6 cohorts showed that the NLR of patients with DTC (4617 cases) was statistically similar to patients with benign nodules only (1666 cases), with a mean difference (MD) of 0.19 (95% CI: -0.09 to 0.46; I-2 = 93%; P< 0.001). No significant difference in NLR was found between patients with DTC and patients with benign nodules. Two studies addressed an association between NLR and papillary thyroid carcinoma in patients stratified by age < 45 and >= 45 years (496 and 891 cases, respectively); the pooled MD was 0.09 (95% CI: -0.37 to 0.55; I-2 = 92.2%, P< 0.001). An elevated NLR seems not a reliable indicator of progressing DTC in patients with goiters, and there was no difference in NLR between patients aged < 45 years and those aged >= 45 years."

According to the news editors, the research concluded: "Well-designed and large-scale investigations are warranted to understand the value of NLR in the prognosis of DTC."

For more information on this research see: Association between neutrophil-to-lymphocyte ratio and differentiated thyroid cancer: a meta-analysis. Scientific Reports, 2016;6 ():1-7. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting X.X. Li, Sichuan Canc Hosp, Dept. of Head & Neck Surg, Chengdu, People's Republic of China. Additional authors for this research include L. Ba, H. Lv, D. Lv, J.T. Du, X.M. Jing, N.J. Yang, S.X. Wang, C. Li and X.X. Li.

Keywords for this news article include: Chengdu, People's Republic of China, Asia,
Drugs and Therapies - Toxicology and Pharmacology

Report Summarizes Toxicology and Pharmacology Study Findings from Procter & Gamble (Exposure Factor considerations for safety evaluation of modern disposable diapers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Toxicology and Pharmacology are discussed in a new report. According to news originating from Cincinnati, Ohio, by NewsRx correspondents, research stated, "Modern disposable diapers are complex products and ubiquitous globally. A robust safety assessment for disposable diapers include two important exposure parameters, i) frequency of diaper use & ii) constituent transfer from diaper to skin from direct and indirect skin contact materials."

Our news journalists obtained a quote from the research from Procter & Gamble, "This article uses published information and original studies to quantify the exposure parameters for diapers. Using growth tables for the first three years of diapered life, an average body weight of 10-11 kg can be calculated, with a 10th percentile for females (8.5-8.8 kg). Data from surveys and diary studies were conducted to determine the frequency of use of diapers. The overall mean in the US is 4.7 diapers per day with a 75th, 90th, and 95th percentile of 5.0, 6.0, and 7.0 respectively. Using diaper topsheet-lotion transfer as a model, direct transfer to skin from the topsheet was 3.0-4.3% of the starting amount of lotion. Indirect transfer of diaper core materials as a measure of re-wetting of the skin via urine resurfacing back to the topsheet under pressure was estimated at a range of 0.32-0.66% averaging 0.46%.

According to the news editors, the research concluded: "As described, a thorough data-based understanding of exposure is critical for a robust exposure based safety assessment of disposable diapers."

For more information on this research see: Exposure Factor considerations for safety evaluation of modern disposable diapers. Regulatory Toxicology and Pharmacology, 2016;81 ():183-193. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/

The news correspondents report that additional information may be obtained from S. Dey, Procter & Gamble Co, Cincinnati, OH, United States. Additional authors for this research include M. Purdon, T. Kirsch, H. Helbich, K. Kerr, L.J. Li and S.Y. Zhou.

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Keywords for this news article include: Cincinnati, Ohio, United States, North and Central America, Toxicology and Pharmacology, Drugs and Therapies, Procter & Gamble.

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Nutritional and Metabolic Diseases and Conditions -…

Report Summarizes Type 2 Diabetes Study Findings from Mahidol University (PAX4 R192H and P321H polymorphisms in type 2 diabetes and their functional defects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting originating from Bangkok, Thailand, by NewsRx correspondents, research stated, "We have previously identified PAX4 mutations causing MODY9 and a recent genome-wide association study reported a susceptibility locus of type 2 diabetes (T2D) near PAX4. In this study, we aim to investigate the association between PAX4 polymorphisms and T2D in Thai patients and examine functions of PAX4 variant proteins."

Our news editors obtained a quote from the research from Mahidol University, "PAX4 rs2233580 (R192H) and rs712701 (P321H) were genotyped in 746 patients with T2D and 562 healthy normal control subjects by PCR and restriction-fragment length polymorphism method. PAX4 variant proteins were investigated for repressor function on human insulin and glucagon promoters and for cell viability and apoptosis upon high glucose exposure. Genotype and allele frequencies of PAX4 rs2233580 were more frequent in patients with T2D than in control subjects (P=0.001 and 0.0006, respectively) with odds ratio of 1.66 (P=0.001; 95% confidence interval, 1.22-2.27). PAX4 rs712701 was not associated with T2D but it was in linkage disequilibrium with rs2233580. The 192H/321H (A/A) haplotype was more frequent in T2D patients than in controls (9.5% vs 6.6%; P=0.009). PAX4 R192H, but not PAX4 P321H, impaired repression activities on insulin and glucagon promoters and decreased transcript levels of genes required to maintain beta-cell function, proliferation and survival. Viability of a-cell was reduced under glucotoxic stress condition for the cells overexpressing either PAX4 R192H or PAX4 P321H or both."

According to the news editors, the research concluded: "Thus these PAX4 polymorphisms may increase T2D risk by defective transcription regulation of target genes and/or decreased a-cell survival in high glucose condition."


The news editors report that additional information may be obtained by contacting N. Plengvidhya, Mahidol University, Fac Med, Div Endocrinol & Metab, Dept. of MedSiriraj Hosp, Bangkok 10700, Thailand. Additional authors for this research include S. Kooptiwut, N. Chongjaroen, N. Semprasert, W. Hanchang, K. Chanprasert, W. Tangjittipokin, P.T. Yenchitsomanus and N. Plengvidhya.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/jhg.2016.80. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bangkok, Thailand, Asia, Nutritional and
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Gram-Negative Bacteria - Acinetobacter baumannii

Reports Outline Acinetobacter baumannii Study Findings from Institute for Biology Research (Wide spread of OXA-23-producing carbapenem-resistant Acinetobacter baumannii belonging to clonal complex II in different hospitals in Lebanon)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Acinetobacter baumannii. According to news reporting from Angers, France, by NewsRx journalists, research stated, "To investigate the molecular epidemiology of Acinetobacter baumannii strains isolated from different hospitals in Lebanon. A total of 119 non-duplicate Acinetobacter strains were identified using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry (MALDI-TOF MS) and partial rpoB gene sequencing."

The news correspondents obtained a quote from the research from Institute for Biology Research, "Antibiotic susceptibility testing was performed by disc diffusion method and all identified carbapenem-resistant isolates were investigated by PCR assays for the presence of the carbapenemase-encoding genes. Multilocus sequence typing (MLST) and pulsed-field gel electrophoresis (PFGE) were used for molecular typing. Of the 119 A. baumannii isolates, 76.5% were resistant to carbapenems. The most common carbapenemase was the OXA-23-type, found in 82 isolates. The study of population structure using MLST revealed the presence of 30 sequence types (STs) including 18 new ones, with ST2 being the most commonly detected, accounting for 61% of the isolates typed. PFGE performed on all strains of ST2 identified a major cluster of 53 isolates, in addition to three other minor clusters and ten unique profiles. This study highlights the wide dissemination of highly related OXA-23-producing carbapenem-resistant A. baumannii belonging to the international clone II in Lebanon."

According to the news reporters, the research concluded: "Thus, appropriate infection control measures are recommended in order to control the geographical spread of this clone in this country."


Our news journalists report that additional information may be obtained by contacting M. Kempf, Center Hosp Univ Angers, Inst Biol Sante, Lab Bacteriol, F-49933 Angers, France. Additional authors for this research include M. Hamze, T. Jisr, C. Lemarie, M. Eveillard, M.L. Joly-Guillou and M. Kempf.

The direct object identifier (DOI) for that additional information is:
Reports Outline Adipokines Study Results from V. Mela et al (Blockage of neonatal leptin signaling induces changes in the hypothalamus associated with delayed pubertal onset and modifications in neuropeptide expression during adulthood in male ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Intercellular Signaling Peptides and Proteins - Adipokines. According to news reporting from Madrid, Spain, by NewsRx journalists, research stated, "The neonatal leptin surge, occurring from postnatal day (PND) 5 to 13 and peaking at PND9 in rodents, is important for the development of neuroendocrine circuits involved in metabolic control and reproductive function. We previously demonstrated that treatment with a leptin antagonist from PND 5 to 9, coincident with peak leptin levels in the neonatal surge, modified trophic factors and markers of cell turnover and neuronal maturation in the hypothalamus of peri-pubertal rats."

The news correspondents obtained a quote from the research, "The kisspeptin system and metabolic neuropeptide and hormone levels were also modified. Here our aim was to investigate if the timing of pubertal onset is altered by neonatal leptin antagonism and if the previously observed peripubertal modifications in hormones and neuropeptides persist into adulthood and affect male sexual behavior. To this end, male Wistar rats were treated with a pegylated super leptin antagonist (5 mg/kg, s.c.) from PND 5 to 9 and killed at PND102-103. The appearance of external signs of pubertal onset was delayed. Hypothalamic kissl mRNA levels were decreased in adult animals, but sexual behavior was not significantly modified. Although there was no effect on body weight or food intake, circulating leptin, insulin and triglyceride levels were increased, while hypothalamic leptin receptor, POMC and AgRP mRNA levels were decreased."

According to the news reporters, the research concluded: "Alteration of the neonatal leptin surge can modify the timing of pubertal onset and have long-term effects on hypothalamic expression of reproductive and metabolic neuropeptides."


Our news journalists report that additional information may be obtained by contacting J.A. Chowen, Inst Carlos III, CIBER Fisiopatol Obesidad & Nutr, Madrid, Spain. Additional authors for this research include S. Jimenez, A. Freire-Regatillo, V. Barrios, E.M.
Drugs and Therapies - Alendronate Therapy

Reports Outline Alendronate Therapy Study Findings from Kyoto Pharmaceutical University (Enhanced oral delivery of alendronate by sucrose fatty acids esters in rats and their absorption-enhancing mechanisms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Alendronate Therapy. According to news reporting originating in Kyoto, Japan, by NewsRx journalists, research stated, "Oral delivery is the most fascinating route for interminable drug remedy. However, the intestinal absorption of alendronate (ALN), a bisphosphonate drug after oral administration is very poor."

Financial support for this research came from Al-Baath University (Syria).

The news reporters obtained a quote from the research from Kyoto Pharmaceutical University, "Absorption enhancers, which help to achieve the efficiency-safety balance, are considered one of the most promising agents for the improvement the intestinal absorption of drugs. In the current study, we focused on using sucrose fatty acid esters (SEs) as promising absorption enhancers to enhance the intestinal absorption of alendronate using an in situ closed-loop method in rats. The intestinal absorption of alendronate was significantly enhanced in the presence of SEs, especially L-1695. In addition, no considerable increase was observed in the activity of lactate dehydrogenase (LDH) or in protein release from the intestinal epithelium in the presence of sugar esters at concentrations equivalent to or lower than 1.0% (w/v), suggesting that these compounds are safe. Furthermore, mechanistic studies revealed increased membrane fluidity and loosening of the tight junctions (TJs) might be the underlying mechanism by which SEs improve the intestinal intake of alendronate, via transcellular and paracellular routes, respectively."

According to the news reporters, the research concluded: "These findings suggest that SEs are effective absorption enhancers for improving the intestinal absorption of alendronate, without causing serious damage to the enteric epithelium."


Our news correspondents report that additional information may be obtained by contacting A. Yamamoto, Kyoto Pharmaceutical University, Dept. of Biopharmaceut,

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.046. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kyoto, Japan, Asia, Alendronate Therapy Sodium, Drugs and Therapies, Carboxylic Acids, Bisphosphonates, Pharmaceuticals, Diphosphonates, Hormones, Esters, Kyoto Pharmaceutical University.

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Drugs and Therapies - Alkylating Agents

Reports Outline Alkylating Agents Study Findings from University of Yamanashi (AMPK Suppresses Connexin43 Expression in the Bladder and Ameliorates Voiding Dysfunction in Cyclophosphamide-induced Mouse Cystitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Alkylating Agents. According to news reporting from Yamanashi, Japan, by NewsRx journalists, research stated, "Bladder voiding dysfunction is closely related to local oxidation, inflammation, and enhanced channel activities. Given that the AMP-activated protein kinase (AMPK) has anti-oxidative, anti-inflammatory and channel-inhibiting properties, we examined whether and how AMPK affected bladder activity."

The news correspondents obtained a quote from the research from the University of Yamanashi, "AMPK activation in rat bladder smooth muscle cells (BSMCs) using three different AMPK agonists resulted in a decrease in connexin43 (Cx43) expression and function, which was associated with reduced CREB phosphorylation, Cx43 promoter activity and mRNA expression, but not Cx43 degradation. Downregulation of CREB with siRNA increased Cx43 expression. A functional analysis revealed that AMPK weakened BSMC contraction and bladder capacity. AMPK also counteracted the IL-1b- and TNFa-induced increase in Cx43 in BSMCs. In vivo administration of the AMPK agonist AICAR attenuated cyclophosphamide-initiated bladder oxidation, inflammation, Cx43 expression and voiding dysfunction. Further analysis comparing the responses of the wild-type (Cx43(+/+)) and heterozygous (Cx43((plusminus))) Cx43 mice to cyclophosphamide revealed that the Cx43((plusminus)) mice retained a relatively normal micturition pattern compared to the Cx43(+/+) mice. Taken together, our results indicate that AMPK inhibits Cx43 in BSMCs and improves bladder activity under pathological conditions."

According to the news reporters, the research concluded: "We propose that strategies that target AMPK can be developed as novel therapeutic approaches for treating bladder dysfunction."

For more information on this research see: AMPK Suppresses Connexin43 Expression in the Bladder and Ameliorates Voiding Dysfunction in Cyclophosphamide-induced Mouse Cystitis. Scientific Reports, 2016;6():19708. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)
Our news journalists report that additional information may be obtained by contacting X. Zhang, Dept. of Molecular Signaling, Interdisciplinary Graduate School of Medicine and Engineering, University of Yamanashi, Yamanashi, Japan. Additional authors for this research include J. Yao, K. Gao, Y. Chi, T. Mitsui, T. Ihara, N. Sawada, M. Kamiyama, J. Fan and M. Takeda.

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Keywords for this news article include: Asia, Antineoplastics, Pharmaceuticals, Japan, Yamanashi, Hydrocarbons, Inflammation, Alkylating Agents, Mustard Compounds, Drugs and Therapies, Phosphoramide Mustards, Cyclophosphamide Therapy.

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Neurodegenerative Diseases and Conditions -...

Reports Outline Alzheimer Disease Findings from Johns Hopkins University (Cortical thickness in relation to clinical symptom onset in preclinical AD)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurodegenerative Diseases and Conditions - Alzheimer Disease are presented in a new report. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Mild cognitive impairment (MCI) and Alzheimer's disease (AD) dementia are preceded by a phase of disease, referred to as 'preclinical AD', during which cognitively normal individuals have evidence of AD pathology in the absence of clinical impairment. This study examined whether a magnetic resonance imaging (MRI) measure of cortical thickness in brain regions, collectively known as 'AD vulnerable' regions, predicted the time to onset of clinical symptoms associated with MCI and whether cortical thickness was similarly predictive of clinical symptom onset within 7 years post baseline versus progression at a later point in time."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from Johns Hopkins University, "These analyses included 240 participants from the BIOCARD study, a cohort of longitudinally followed individuals who were cognitively normal at the time of their MRI (mean age = 56 years). Participants have been followed for up to 18 years (M follow-up = 11.8 years) and 50 participants with MRIs at baseline have developed MCI or dementia over time (mean time to clinical symptom onset = 7 years). Cortical thickness in AD vulnerable regions was based on the mean thickness of eight cortical regions. Using Cox regression models, we found that lower mean cortical thickness was associated with an increased risk of progression from normal cognition to clinical symptom onset within 7 years of baseline (p=0.03), but not with progression >7 years from baseline (p=0.30). Lower cortical thickness was also associated with higher levels of phosphorylated tau, measured in cerebrospinal fluid at baseline."

According to the news editors, the research concluded: "These results suggest that cortical thinning in AD vulnerable regions is detectable in cognitively normal individuals several years prior to the onset of clinical symptoms that are a harbinger of a diagnosis of MCI, and that the changes are more likely to be evident in the years proximal to clinical symptom
onset, consistent with hypothetical AD biomarker models."


The news correspondents report that additional information may be obtained from C. Pettigrew, Johns Hopkins University, Sch Med, Dept. of Neurol, Baltimore, MD 21224, United States. Additional authors for this research include A. Soldan, Y. Zhu, M.C. Wang, A. Moghekar, T. Brown, M. Miller and M. Albert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.06.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Neurodegenerative Diseases and Conditions, Risk and Prevention, Alzheimer Disease, Johns Hopkins University.

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**Reports Outline Alzheimer Disease Study Results from Institute for Cancer Research and Treatment (IRCCS) (Tackling amyloidogenesis in Alzheimer's disease with A2V variants of Amyloid-b)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been published. According to news reporting out of Milan, Italy, by NewsRx editors, research stated, "We developed a novel therapeutic strategy for Alzheimer's disease (AD) exploiting the properties of a natural variant of Amyloid-b (Ab) carrying the A2V substitution, which protects heterozygous carriers from AD by its ability to interact with wild-type Ab, hindering conformational changes and assembly thereof. As prototypic compound we designed a six-mer mutated peptide (Ab1-6A2V), linked to the HIV-related TAT protein, which is widely used for brain delivery and cell membrane penetration of drugs."

Our news journalists obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "The resulting molecule [Ab1-6A2VTAT(D)] revealed strong anti-amyloidogenic effects in vitro and protected human neuroblastoma cells from Ab toxicity. Preclinical studies in AD mouse models showed that short-term treatment with Ab1-6A2VTAT(D) inhibits Ab aggregation and cerebral amyloid deposition, but a long treatment schedule unexpectedly increases amyloid burden, although preventing cognitive deterioration. Our data support the view that the AbA2V-based strategy can be successfully used for the development of treatments for AD, as suggested by the natural protection against the disease in human A2V heterozygous carriers."

According to the news editors, the research concluded: "The undesirable outcome of the prolonged treatment with Ab1-6A2VTAT(D) was likely due to the TAT intrinsic attitude to increase Ab production, avidly bind amyloid and boost its seeding activity, warning against the use of the TAT carrier in the design of AD therapeutics."

For more information on this research see: Tackling amyloidogenesis in Alzheimer's disease with A2V variants of Amyloid-b...

Our news journalists report that additional information may be obtained by contacting G. Di Fede, Neurology V and Neuropathology Unit, IRCCS Foundation Carlo Besta Neurological Institute (INCB), Via Celoria 11, 20133 Milan, Italy. Additional authors for this research include M. Catania, E. Maderna, M. Morbin, F. Moda, L. Colombo, A. Rossi, A. Cagnotto, T. Virgilio, L. Palamara, M. Ruggerone, G. Giaccone, I. Campagnani, M. Costanza, R. Pedotti, M. Salvalaglio, M. Salmona and Tagliavi.

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Keywords for this news article include: Milan, Italy, Europe, Amyloid, Dementia, Genetics, Proteins, Tauopathies, Alzheimer Disease, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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**Life Science Research - Amino Acids Research**

**Reports Outline Amino Acids Research Study Results from Ulm University Hospital (CK1d activity is modulated by CDK2/E- and CDK5/p35-mediated phosphorylation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Life Science Research - Amino Acids Research. According to news reporting from Ulm, Germany, by NewsRx journalists, research stated, "CK1 protein kinases form a family of serine/threonine kinases which are highly conserved through different species and ubiquitously expressed. CK1 family members can phosphorylate numerous substrates thereby regulating different biological processes including membrane trafficking, cell cycle regulation, circadian rhythm, apoptosis, and signal transduction."

Financial support for this research came from Deutsche Krebshilfe.

The news correspondents obtained a quote from the research from Ulm University Hospital, "Deregulation of CK1 activity and/or expression contributes to the development of neurological diseases and cancer. Therefore, CK1 became an interesting target for drug development and it is relevant to further understand the mechanisms of its regulation. In the present study, Cyclin-dependent kinase 2/Cyclin E (CDK2/E) and Cyclin-dependent kinase 5/p35 (CDK5/p35) were identified as cellular kinases able to modulate CK1d activity through site-specific phosphorylation of its C-terminal domain. Furthermore, pre-incubation of CK1d with CDK2/E or CDK5/p35 reduces CK1d activity in vitro, indicating a functional impact of the interaction between CK1d and CDK/cyclin complexes. Interestingly, inhibition of Cyclin-dependent kinases by Dinaciclib increases CK1d activity in pancreatic cancer cells. In summary, these results suggest that CK1d activity can be modulated by the interplay between CK1d and CDK2/E or CDK5/p35."

According to the news reporters, the research concluded: "These findings extend our knowledge about CK1d regulation and may be of use for future development of CK1-related therapeutic strategies in the treatment of neurological diseases or cancer."

Our news journalists report that additional information may be obtained by contacting C. Ianes, Dept. of General and Visceral Surgery, Surgery Centre, Ulm University Hospital, Albert-Einstein-Allee 23, 89081 Ulm, Germany. Additional authors for this research include P. Xu, N. Werz, Z. Meng, D. Henne-Bruns, J. Bischof and U. Knippschild.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00726-015-2114-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ulm, Europe, Cancer, Kinase, Germany, Oncology, Amino Acids Research, Enzymes and Coenzymes, Life Science Research.

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**Amino Acids**

**Reports Outline Amino Acids Study Findings from Medical University (Design, Synthesis, and Antimycobacterial Activity of Novel Theophylline-7-Acetic Acid Derivatives With Amino Acid Moieties)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Amino Acids. According to news reporting out of Sofia, Bulgaria, by NewsRx editors, research stated, "The theophylline-7-acetic acid (7-TAA) scaffold is a promising novel lead compound for antimycobacterial activity. Here, we derive a model for antitubercular activity prediction based on 14 7-TAA derivatives with amino acid moieties and their methyl esters."

Our news journalists obtained a quote from the research from Medical University, "The model is applied to a combinatorial library, consisting of 40 amino acid and methyl ester derivatives of 7-TAA. The best three predicted compounds are synthesized and tested against *Mycobacterium tuberculosis* H37Rv."

According to the news editors, the research concluded: "All of them are stable, non-toxic against human cells and show antimycobacterial activity in the nanomolar range being 60 times more active than ethambutol."


Our news journalists report that additional information may be obtained by contacting G. Stavrakov, Faculty of Pharmacy, Medical University of Sofia, 2 Dunav St, Sofia, 1000, Bulgaria. Additional authors for this research include V. Valcheva, Y. Voynikov, I. Philipova, M. Atanasova, S. Konstantinov, P. Peikov and I. Doytchinova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12676. This DOI is a link to an online electronic document that is either free or for purchase.
Oncology - Anal Cancer

Reports Outline Anal Cancer Findings from Wake Forest University
(Early dose-dependent cortical thinning of the femoral neck in anal cancer patients treated with pelvic radiation therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Anal Cancer have been published. According to news reporting originating from Winston Salem, North Carolina, by NewsRx correspondents, research stated, "Anal cancer patients treated with radiation therapy (RT) have an increased risk of hip fractures after treatment. The mechanism of these fractures is unknown; however, femoral fractures have been correlated with cortical bone thinning."

Our news editors obtained a quote from the research from Wake Forest University, "The objective of this study was to assess early changes in cortical bone thickness at common sites of femoral fracture in anal cancer patients treated with intensity modulated radiation therapy (IMRT). RT treatment plans and computed tomography (CT) scans from 23 anal cancer patients who underwent IMRT between November 2012 and December 2014 were retrospectively reviewed. Cortical thickness (Ct.Th) was mapped at homologous vertices within the proximal femur using pre-RT and post-RT (<= 4 months) CT scans. The bone attenuation measurements were collected at homologous locations within the trabecular bone of the right femoral neck (FN). The percent change in Ct.Th and trabecular bone mineral density (trBMD) were assessed. FN cortical thinning was correlated to RT dose using linear regression. A logistic model for dose dependent cortical thinning was constructed. Twenty-two patients were analyzed. Significant post-treatment cortical thinning was observed in the intertrochanteric crest, subcapital and inferior FN (p < 0.05). FN volume receiving >= 40Gy (V40Gy) was a significant predictor of focal cortical thinning >= 30% (p = 0.03). A significant decrease in FN trBMD was observed (-6.4% [range -34.4 to 33%]; p = 0.01). Significant early decrease in Ct.Th and trBMD occurs at the FN in patients treated with RT for anal cancer."

According to the news editors, the research concluded: "FN V40Gy was predictive of clinically significant focal FN cortical thinning."

For more information on this research see: Early dose-dependent cortical thinning of the femoral neck in anal cancer patients treated with pelvic radiation therapy. Bone, 2017;94 ():84-89. Bone can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Bone - www.journals.elsevier.com/bone/)

The news editors report that additional information may be obtained by contacting J.S. Willey, Wake Forest University, Center Comprehens Canc, Winston Salem, NC 27109, United States. Additional authors for this research include D.M. Randolph, E.R. McTyre, A. Kwok, A.A. Weaver, W. Blackstock, M.T. Munley and J.S. Willey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bone.2016.10.021. This DOI is a link to an online electronic
Reports Outline Antiarrhythmic Agents Study Results from Adnan Menderes University (Phenytoin intoxication with no symptoms correlated with serum drug level: a case study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antiarrhythmic Agents have been presented. According to news reporting originating from Aydin, Turkey, by NewsRx correspondents, research stated, "In high-dose intake of phenytoin, which is used frequently to treat epilepsy, nystagmus, diplopia, nausea-vomiting, lethargy, confusion, seizure, and coma can be observed. In recent studies on phenytoin intoxication, in which seizure and coma were observed in drug levels greater than 50 ug/mL."

Our news editors obtained a quote from the research from Adnan Menderes University, "The serum phenytoin level of a patient, who consumed approximately 100 pcs of 100 mg phenytoin tablets in an effort to commit suicide, and who had no pathological finding in her neurologic examination, was 124 ug/mL. High drug level and the absence of toxic effect (or the absence of toxic effect correlated with the drug level) indicates that cytochrome P450 is functioning, but there can be a mutation in the MDR1 gene."

According to the news editors, the research concluded: "In our case study, we report on phenytoin intoxication in a patient having a high level of phenytoin but no symptoms correlated with serum drug level, as supported by the findings in the literature."

For more information on this research see: Phenytoin intoxication with no symptoms correlated with serum drug level: a case study. The Pan African Medical Journal, 2015;22 ():297.

The news editors report that additional information may be obtained by contacting M. Avcil, Adnan Menderes University, Dept. of Emergency Medicine, Aydin, Turkey. Additional authors for this research include A. Duman, K.A. Turkdogan, M. Kapci, A. Akoz, S.E. Canakci and Y.E Ozluer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.11604/pamj.2015.22.297.7956. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Coma, Antiarrhythmic Agents, Pharmaceuticals, Aydin, Turkey, Eurasia, Genetics, Unconsciousness, Phenytoin Therapy, Drugs and Therapies, Cardiovascular Agents, Consciousness Disorders, Group I Antiarrhythmics, Hydantoin Anticonvulsants, Neurologic Manifestations, Central Nervous System Agents, Neurobehavioral Manifestations.

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Reports Outline Antibiotics Study Findings from Soochow University (Enhanced Cellular Internalization and On-Demand Intracellular Release of Doxorubicin by Stepwise pH-/Reduction-Responsive Nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a new report. According to news reporting out of Suzhou, People's Republic of China, by NewsRx editors, research stated, "The efficient delivery of antitumor agents to tumor sites faces numerous obstacles, such as poor cellular uptake and slow intracellular drug release. In this regard, smart nanoparticles (NPs) that respond to the unique microenvironment of tumor tissues have been widely used for drug delivery."

Financial supporters for this research include National Natural Science Foundation projects of China, Priority Academic Program Development of Jiangsu Higher Education Institutions (PAPD).

Our news journalists obtained a quote from the research from Soochow University, "In this study, novel charge-reversal and reduction-responsive histidine-grafted chitosan-lipoic acid NPs (HCSL-NPs) were selected for efficient therapy of breast cancer by enhancing cell internalization and intracellular pH- and reduction-triggered doxorubicin (DOX) release. The surface charge of HCSL-NPs presented as negative at physiological pH and reversed to positive at the extracellular and intracellular pH of the tumor. In vitro release investigation revealed that DOX/HCSL-NPs demonstrated a sustained drug release under the physiological condition, whereas rapid DOX release was triggered by both endolysosome pH and high-concentration reducing glutathione (GSH). These NPs exhibited enhanced internalization at extracellular pH, rapid intracellular drug release, and improved cytotoxicity against 4T1 cells in vitro. Excellent tumor penetrating efficacy was also found in 4T1 tumor spheroids and solid tumor slices. In vivo experiments demonstrated that HCSL-NPs exhibited excellent tumor-targeting ability in tumor tissues as well as excellent antitumor efficacy and low systemic toxicity in breast tumor-bearing BALB/c mice."

According to the news editors, the research concluded: "These results indicated that the novel charge reversal and reduction-responsive HCSL-NPs have great potential for targeted and efficient delivery of chemotherapeutic drugs in cancer treatments."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b09604. This DOI is a link to an online electronic document that is either free or for purchase.
Reports Outline Antidiabetic Agents Study Results from Jiangsu University (Pioglitazone inhibits EGFR/MDM2 signaling-mediated PPAR gamma degradation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antidiabetic Agents. According to news reporting originating from Changzhou, People's Republic of China, by NewsRx correspondents, research stated, "Aberrant activation of the epidermal growth factor receptor (EGFR) signaling is involved in many cancer events. Although peroxisome proliferator-activated receptor gamma (PPAR gamma) has been implicated in inhibition of inflammation and cancer, EGFR/MDM2 signaling induces PPAR gamma phosphorylation and degradation."

Our news editors obtained a quote from the research from Jiangsu University, "Here we found that cancer cells in response to EGF reduced PPAR gamma protein levels by inducing its phosphorylation, ubiquitination and degradation, but PPAR gamma agonist pioglitazone reversed this event. More importantly, pioglitazone increased cancer cell sensitivity to chemotherapy drugs."

According to the news editors, the research concluded: "Therefore, our study revealed a novel mechanism that pioglitazone inhibited EGFR/MDM2-mediated cancer cell chemoresistance, which provides a novel strategy for cancer treatment."


The news editors report that additional information may be obtained by contacting J.H. Jin, Jiangsu Univ, Affiliated Wujin Hosp, Dept. of Oncol, Changzhou, Jiangsu, People's Republic of China. Additional authors for this research include W.B. Zhang, M.L. You, Y. Xu, Y.Z. Hou and J.H. Jin.

Keywords for this news article include: Changzhou, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Peroxisome Proliferator-Activated Receptors, Gastrointestinal Hormone Receptors, Pioglitazone Therapy Hydrochloride, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor, Gastrointestinal Hormones, Epidermal Growth Factors, Growth Factor Receptors, Transcription Factors, DNA-Binding Proteins, Phosphotransferases, Drugs and Therapies, Antidiabetic Agents, Thiazolidinediones, Membrane Proteins, Protein Kinases, Pharmaceuticals, PPAR gamma, Oncology, Cancer, Jiangsu University.
Reports Outline Antifungals Findings from University of Medicine and Dentistry of New Jersey (UMDNJ) (Rapid Detection of FKS-Associated Echinocandin Resistance in Candida glabrata)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antifungals. According to news reporting originating in Newark, New Jersey, by NewsRx journalists, research stated, "A novel and highly accurate diagnostic assay platform was established for rapid identification of FKS mutations associated with echinocandin resistance in Candida glabrata. The assay platform uses allele-specific molecular beacon and DNA melt analysis following asymmetric PCR."

The news reporters obtained a quote from the research from the University of Medicine and Dentistry of New Jersey (UMDNJ), "A dual assay for FKS1 and FKS2 was developed to identify within 3 h the most common and clinically relevant resistance-associated mutations, including 8 FKS1 HS1 (wild type [WT], S629P, F625S, D632Y, D632E [T1896G], D632E [T1896A], I634V, and F625F) and 7 FKS2 HS1 (WT, F659del, F659S, F659V, F659L, S663P, and S663F) genotypes. A blinded panel of 188 C. glabrata clinical isolates was tested by both assays. The molecular diagnostic results from the dual assay were 100% concordant with data obtained from DNA sequencing."

According to the news reporters, the research concluded: "This platform has the potential to overcome the deficiencies of existing in vitro susceptibility-based assays to identify echinocandin-resistant C. glabrata and holds promise as a surrogate diagnostic method to better direct echinocandin therapy."


Keywords for this news article include: Newark, New Jersey, United States, North and Central America, Drugs and Therapies, Cyclic Peptides, Echinocandins, Antifungals, University of Medicine and Dentistry of New Jersey (UMDNJ).

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antiinfectives. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Carbapenem-resistant Acinetobacter baumannii (CRAB) is an important clinical threat. Combination therapy that exerts a synergistic effect has become a potential solution to combat CRAB."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research, "However, choosing an optimal combination regimen is challenging. A dynamic in vitro pharmacokinetic/pharmacodynamic (PK/PD) model that can simulate the pharmacokinetic profiles of antibiotics provides a powerful tool to compare antibacterial responses to different clinical dosage regimens. In this study, the synergistic effect of the combination of meropenem and colistin was tested in 12 clinical CRAB isolates from Chinese patients using the chequerboard technique. The antibacterial effect was investigated in an in vitro PK/PD diffusion model by simulating different dosage regimens: meropenem monotherapy (0.5 g with 0.5-h infusion or 1 g with 3-h infusion); colistin monotherapy (fixed unbound concentration maintained at 0.25, 0.5 or 1 mg/L); and combination of meropenem and colistin. The chequerboard method showed that the combination of meropenem and colistin had synergistic effects against all 12 isolates, with fractional inhibitory concentration indices (FICIs) of <0.5. Moreover, the dynamic in vitro PK/PD model demonstrated that for clinical CRAB isolates with a meropenem MIC of 128 mg/L, the combination (meropenem 1 g with 3-h infusion combined with colistin maintained at 1 mg/L) could achieve 3.8 log(10) killing after 24 h, whereas monotherapy was unable to provide such an antibacterial effect."

According to the news editors, the research concluded: "Taken together, these results suggest that the combination of meropenem and colistin might be a promising therapy against CRAB."


The news correspondents report that additional information may be obtained from J. Zhang, Natl Populat & Family Planning Commiss, Key Lab Clin Pharmacol Antibiot, Shanghai 200040, People's Republic of China. Additional authors for this research include M. Zhao, Y.C. Chen, X.C. Bian, Y.F. Li, J. Shi and J. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.07.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Gram-Negative Aerobic Rods and Cocci, Pore Forming Cytotoxic Proteins, Gram-Negative Aerobic Bacteria, Acinetobacter baumannii, Gram-Negative Bacteria, Gammaproteobacteria, Drugs and Therapies, Membrane Proteins, Proteobacteria, Antiinfectives, Moraxellaceae, beta-Lactams, Carbapenems, Polymyxins, Meropenem, Colistin.

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Drugs and Therapies - Antimicrobials

Reports Outline Antimicrobials Study Findings from Institute for Physical Science and Technology Center (Size-dependent antimicrobial properties of the cobalt ferrite nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antimicrobials is the subject of a report. According to news reporting originating in Vilnius, Lithuania, by NewsRx journalists, research stated, "The growing resistance of bacteria to conventional antibiotics elicited considerable interest to non-typical drugs. In this study, antimicrobial investigations were performed on low-size dispersion cobalt ferrite nanoparticles (Nps) fabricated by co-precipitation approach in several average sizes, in particular, 15.0, 5.0, and 1.65 nm."

The news reporters obtained a quote from the research from Institute for Physical Science and Technology Center, "A variety of experimental tests demonstrated that the size of these Nps is determinant for antimicrobial efficiency against S. cerevisiae and several Candida species, in particular, C. parapsilosis, C. krusei, and C. albicans. The small and ultra-small fractions of CoFe2O4 Nps possess especially strong antimicrobial activity against all tested microorganisms. The possible reasons are discussed."

According to the news reporters, the research concluded: "Nps were characterized by means of transmission and high-resolution transmission electron microscopy, X-ray diffraction, energy dispersive X-ray spectroscopy and atomic force microscopy, chemical analysis and magnetic measurements."


Our news correspondents report that additional information may be obtained by contacting A. Jagminas, State Res Inst, Center Phys Sci & Technol, LT-10257 Vilnius, Lithuania. Additional authors for this research include A. Paskevicius, M. Kartinaitiene and A. Jagminas.

Keywords for this news article include: Vilnius, Lithuania, Europe, Emerging Technologies, Transition Elements, Drugs and Therapies, Antimicrobials, Nanotechnology, Nanoparticle, Cobalt, Institute for Physical Science and Technology Center.

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Drugs and Therapies - Antirheumatics

Reports Outline Antirheumatics Findings from Pfizer (Monoclonal Antibody and Fusion Protein Biosimilars Across Therapeutic Areas: A Systematic Review of Published Evidence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antirheumatics.
According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Despite regulatory efforts to formalize guidance policies on biosimilars, there remains a need to educate healthcare stakeholders on the acknowledged definition of biosimilarity and the data that underpin it. The objectives of the study were to systematically collate published data for monoclonal antibodies and fusion protein biosimilars indicated for cancer, chronic inflammatory diseases, and other indications, and to explore differences in the type and weight (quantity and quality) of available evidence."

Financial support for this research came from Pfizer.

Our news journalists obtained a quote from the research from Pfizer, "MEDLINE, Embase, and ISI Web of Science were searched to September 2015. Conference proceedings (n = 17) were searched 2012 to July 2015. Included studies were categorized by originator, study type, and indication. To assess data strength and validity, risk of bias assessments were undertaken. Across therapeutic areas, 43 named (marketed or proposed) biosimilars were identified for adalimumab, abciximab, bevacizumab, etanercept, infliximab, omalizumab, ranibizumab, rituximab, and trastuzumab originators. Infliximab CT-P13, SB2, and etanercept SB4 biosimilars have the greatest amount of published evidence of similarity with their originators, based on results of clinical studies involving larger numbers of patients or healthy subjects (N = 1405, 743, and 734, respectively). Published data were also retrieved for marketed intended copies of etanercept and rituximab."

According to the news editors, the research concluded: "This unbiased synthesis of the literature exposed significant differences in the extent of published evidence between molecules at preclinical, clinical, and post-marketing stages of development, providing clinicians and payers with a consolidated view of the available data and remaining gaps."


The news correspondents report that additional information may be obtained from I. Jacobs, Pfizer Inc, Global Established Pharma Medicines Dev Grp, New York, NY 10017, United States. Additional authors for this research include D. Petersel, L.G. Shane, C.K. Ng, C. Kirchhoff, G. Finch and S. Lula.

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Keywords for this news article include: New York City, New York, United States, North and Central America, Tumor Necrosis Factor (TNF) Inhibitors, Fusion Proteins, Article Review, Drugs and Therapies, Immunologic Agents, Etanercept Therapy, Immunoglobulins, Pharmaceuticals, Blood Proteins, Antirheumatics, Immunology, Antibodies, Pfizer.

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**Drugs and Therapies - Antirheumatics**

**Reports Outline Antirheumatics Findings from William Harvey Research Institute (Rational design of antirheumatic prodrugs specific for sites of inflammation)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antirheumatics is the subject of a report. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Biologic drugs, such as the anti-tumor necrosis factor (anti-TNF) antibody adalimumab, have represented a breakthrough in the treatment of rheumatoid arthritis. Yet, concerns remain over their lack of efficacy in a sizable proportion of patients and their potential for systemic side effects such as infection."

Financial supporters for this research include Arthritis Research UK, Nuffield Foundation (Oliver Bird Rheumatism Programme PhD Studentship to Dr. Ferrari).

Our news journalists obtained a quote from the research from William Harvey Research Institute, "Improved biologic prodrugs specifically targeted to the site of inflammation have the potential to alleviate current concerns surrounding biologic anticytokine therapies. The purpose of this study was to design, construct, and evaluate in vitro and ex vivo the targeting and antiinflammatory capacity of activatable bispecific antibodies. Activatable dual variable domain (aDVD) antibodies were designed and constructed to target intercellular adhesion molecule 1 (ICAM-1), which is up-regulated at sites of inflammation, and anti-TNF antibodies (adalimumab and infliximab). These bispecific molecules included an external arm that targets ICAM-1 and an internal arm that comprises the therapeutic domain of an anti-TNF antibody. Both arms were linked to matrix metalloproteinase (MMP)-cleavable linkers. The constructs were tested for their ability to bind and neutralize both in vitro and ex vivo targets. Intact aDVD constructs demonstrated significantly reduced binding and anti-TNF activity in the prodrug formulation as compared to the parent antibodies. Human synovial fluid and physiologic concentrations of MMP enzyme were capable of cleaving the external domain of the antibody, revealing a fully active molecule. Activated antibodies retained the same binding and anti-TNF inhibitory capacities as the parent molecules. The design of a biologic prodrug with enhanced specificity for sites of inflammation (synovium) and reduced specificity for off-target TNF is described."

According to the news editors, the research concluded: "This construct has the potential to form a platform technology that is capable of enhancing the therapeutic index of drugs for the treatment of RA and other inflammatory diseases."

For more information on this research see: Rational design of antirheumatic prodrugs specific for sites of inflammation. Arthritis & Rheumatology, 2015;67(10):2661-72.

Our news journalists report that additional information may be obtained by contacting S.C. Onuoha, William Harvey Research Institute, Barts and The London School of Medicine and Dentistry and Queen Mary University of London, London, UK. Additional authors for this research include M. Ferrari, D. Sblattero and C. Pitzalis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/art.39232. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Antirheumatics, London, Europe, Immunology, Inflammation, United Kingdom, Blood Proteins, Immunoglobulins, Drugs and Therapies.

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Reports Outline Aquatic Toxicology Study Findings from University of Insubria (Evaluation of tissue morphology and gene expression as biomarkers of pollution in mussel Mytilus galloprovincialis caging experiment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Aquatic Toxicology. According to news reporting from Milan, Italy, by NewsRx journalists, research stated, "The ecosystem is being anthropogenically disturbed, which has serious consequences for the environment and human health, having strong social and economic impacts on the community. One of the most common methods to evaluate the effects of toxic contaminants is based on biomonitoring, e.g., placing Mytilus galloprovincialis in the polluted areas investigated."

Funders for this research include PRIN, FAR.

The news correspondents obtained a quote from the research from the University of Insubria, "In this study, we have combined two different methods, transcriptomic and morphological analysis, with the purpose of determining whether cell morphology and the ultrastructural organization of our animal model are related to gene expression in outdoor experiments. The most pronounced changes were observed in mussel gills and digestive gland for mRNA involved in protein machinery (18S, 28S and EF1), while HSP70, MT10, CYP4Y1, SOD1, and CAT mRNAs showed scattered modifications not related to the studied area. In agreement with 18S, 28S, and EF1 mRNA evaluation, optical and electron microscopy demonstrated an initial inflammatory response of the cells that can lead to apoptosis in the caged mussels in all the polluted areas."

According to the news reporters, the research concluded: "The application of a multidisciplinary approach proved to be effective for assessing the biological effects of contaminations on the health of aquatic organisms, and thus suitable to be applied in ecotoxicological studies. Although affected by several uncontrolled environmental variables, the assessment of mRNA can represent a useful endpoint for an integrated estimation of the overall threats to the sea environment within a field research approach."

For more information on this research see: Evaluation of tissue morphology and gene expression as biomarkers of pollution in mussel Mytilus galloprovincialis caging experiment. Aquatic Toxicology, 2016;181():57-66. Aquatic Toxicology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Aquatic Toxicology - www.journals.elsevier.com/aquatic-toxicology/)

Our news journalists report that additional information may be obtained by contacting R. Gornati, University of Insubria, Milan, Italy. Additional authors for this research include S. Palombella, C. Pirrone, G. Mancini, G. Bernardini and R. Gornati.

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Keywords for this news article include: Milan, Italy, Europe, Aquatic Toxicology, Life Science Research, Genetics, Genetics, University of Insubria.

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Heart Disorders and Diseases - Atrial Fibrillation

Reports Outline Atrial Fibrillation Findings from V. Velagic and Colleagues (Repeat Procedures After Hybrid Thoracoscopic Ablation in the Setting of Longstanding Persistent Atrial Fibrillation: Electrophysiological Findings and 2-Year Clinical ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting from Brussels, Belgium, by NewsRx journalists, research stated, "In order to increase success rates of invasive treatment of persistent atrial fibrillation, the hybrid approach was developed, combining video-assisted thoracoscopic epicardial procedure with conventional endocardial catheter ablation. Currently, there are no reports of electrophysiological findings and clinical outcomes of repeat procedures after the hybrid approach."

The news correspondents obtained a quote from the research, "Out of 64 patients who were treated by hybrid ablation for persistent atrial fibrillation (AF), 14 underwent the repeat catheter ablation and were selected for this study. All 14 patients initially presented with longstanding persistent atrial fibrillation and markedly dilated atria. The hybrid procedure was performed in a single act and the mean time to redo procedure was 346 ± 227 days. In 57% of patients indication for redo procedure was regular atrial tachycardia, and the rest presented with recurrent atrial fibrillation. In 36% of patients, recovered conduction was found along the previous ablation lesions. Only 9% of pulmonary veins were reconnected (0.36 veins per patient) and 7% of box lesions were not complete. The overall success rate at 2 years follow-up after the repeat procedure, including second repeat procedure and patients taking antiarrhythmic drugs, was 64% (57% without drugs and further ablation). One case of moderate pulmonary vein stenosis was detected as a consequence of hybrid procedure. Hybrid atrial fibrillation ablation results in durable lesions and high rates of chronic pulmonary vein isolation even after long-term follow-up."

According to the news reporters, the research concluded: "Most of the repeat procedures after the hybrid approach are related to left atrial flutters that could be successfully treated by catheter ablation."


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http://dx.doi.org/10.1111/jce.12837. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *Journal of Cardiovascular Electrophysiology* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Europe, Belgium, Brussels, Angiology, Heart Disease, Pulmonary Veins, Catheter Ablation, Electrocoagulation, Atrial Fibrillation, Cardiac Arrhythmias, Heart Catheterization, Heart Disorders and Diseases.

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**Reports Outline Atrial Fibrillation Study Results from Heart Center**

(Cryoballoon ablation for persistent atrial fibrillation - Large single-center experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Atrial Fibrillation is now available. According to news reporting from Munich, Germany, by NewsRx journalists, research stated, "Different catheter ablation (CA) strategies have been established in the treatment of persistent atrial fibrillation (persAF). Pulmonary vein isolation (PVI) only might be an option for the initial ablation procedure."

The news correspondents obtained a quote from the research from Heart Center, "There is a paucity of outcome data on second-generation cryoballoon (CBG2) PVI in persAF. Patients with symptomatic drug-refractory persAF who underwent initial CA of AF were prospectively enrolled and PVI was performed with CBG2. The primary composite endpoint was freedom from AF, atrial tachycardia, or related symptoms after a 3-month blanking period. The secondary endpoint referred to periprocedural complications. One hundred seventy-three consecutive patients (64 +/- 10 years, 29% female) with symptomatic drug-refractory persAF were identified. Acute PVI was achieved in 100% of pulmonary veins with the CB technique. The left atrial procedure time was 112 +/- 30 min. Major complications occurred in 1.7% (3 of 173 patients) including two phrenic nerve palsies (1%), which resolved until discharge, and one pericardial effusion (0.6%). Follow-up >= 12 months was completed for 157 of 173 patients (91%). Median follow-up was 14 months. At 12 months, the primary composite endpoint was achieved in 129 of 157 patients (82%). However, 22 of 129 patients at risk (17%) were still on antiarrhythmic drugs. A relapse during the blanking period was identified as the only independent predictor for AF recurrence."

According to the news reporters, the research concluded: "PVI using the second-generation cryoballoon is a reasonable treatment option for patients with symptomatic drug-refractory persAF with a favorable rate of freedom from AF and a low complication rate."

For more information on this research see: Cryoballoon ablation for persistent atrial fibrillation - Large single-center experience. *Journal of Cardiology*, 2016;68(5-6):492-497. *Journal of Cardiology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

Our news journalists report that additional information may be obtained by contacting F. Straube, Munich Municipal Hosp Grp, Dept. of Cardiol & Internal Intens Care
Reports Outline Autografts Study Findings from Department of Surgery (Outcomes of Reintervention on the Autograft After Ross Procedure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Autografts have been presented. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "After a Ross procedure, a small subset of patients requires reintervention for autograft dilatation or valve insufficiency. We sought to determine the indications, nature, and outcomes of autograft reinterventions in the left ventricular outflow tract after a Ross procedure."

Our news journalists obtained a quote from the research from the Department of Surgery, "We retrospectively reviewed the charts of 316 consecutive patients, age 4 days to 70 years, who underwent a Ross procedure at our institution. Of these, 47 patients (15%) required autograft reintervention during a median follow-up of 8.2 years. Forty-seven patients, median age 26 years (interquartile range [IQR], 14.4 to 44.8 years), 32 (68%) men, required autograft reintervention a median 5.5 years (IQR, 1.8 to 9.4 years) after a Ross procedure. In 47% (22 of 47 patients), the autograft valve could be salvaged (15 valve-sparing aortic replacements, 7 valve repairs). The remaining 53% underwent replacement of the root (10 mechanical, 5 homograft) or valve alone (7 mechanical, 3 bioprosthetic). Twenty patients presented without autograft root dilatation 1 year (IQR, 0.5 to 2.9 years) after Ross. Fifteen of them (75%) required valve replacement. The 27 patients who demonstrated root dilatation presented 6.9 years (IQR, 4.5 to 9.7 years; p< 0.01 compared with the nondilated group) after Ross, and 17 (63%) of these valves could be spared (p = 0.01). There was no surgical mortality and 5 (11%) major morbidity events. Patients were followed up for 4.9 years (IQR, 2.1 to 7 years) after left ventricular outflow tract reintervention. For patients whose autograft valve could be spared, 3-, 5-, and 8-year freedom from valve replacement was 92%, 86%, and 86%, respectively. At last follow-up, only 1 patient had greater than mild aortic insufficiency, and all but 1 had normal ejection fraction. Autograft reintervention after a Ross appears to follow a bimodal distribution. Patients with primary autograft leaflet problems tend to present early without root dilatation and frequently require valve replacement. The autograft valve can be salvaged in the majority of patients who present later with root dilatation."

According to the news editors, the research concluded: "Valve-sparing procedures are durable in the intermediate term and can be accomplished with low morbidity."


Our news journalists report that additional information may be obtained by
contacting S.R. Kumar, Univ Southern Calif, Dept. of Surg, Div Cardiac Surg, Los Angeles, CA 90033, United States. Additional authors for this research include N. Bansal, W.J. Wells and V.A. Starnes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.059. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Autografts, Cardiology, Autograft, Surgery, Department of Surgery.

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Chemistry - Biochemistry

Reports Outline Biochemistry Study Results from University of Manchester (Cytoskeletal Filamin A Differentially Modulates RNA Polymerase III Gene Transcription in Transformed Cell Lines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Chemistry - Biochemistry. According to news originating from Manchester, United Kingdom, by NewsRx correspondents, research stated, "Cytoskeletal filamin A (FLNA) is an important protein involved in multiple cellular processes. Previous studies have shown that FLNA can promote or inhibit cancer growth and development; however, the mechanisms underlying these events are not fully understood."

Funders for this research include National Natural Science Foundation of China, Worldwide Cancer Research.

Our news journalists obtained a quote from the research from the University of Manchester, "Here we show that, in both 293T and SaOS2 cells, knockdown of FLNA significantly enhanced transcription of RNA polymerase (pol) III-transcribed genes except for a subset of tRNA genes. In contrast, re-expression of FLNA in an FLNA-deficient melanoma cell line (A7) repressed transcription of all pol III-transcribed genes, suggesting that FLNA inhibits pol III transcription in a cell type-specific manner. Chromatin immunoprecipitation assays revealed that the repression of pol III gene transcription by FLNA correlates with the decreased occupancy of the RNA pol III transcription machinery at promoters. Immunofluorescence microscopy and coimmunoprecipitation assays revealed that FLNA can associate with the RNA pol III transcription machinery through its actin-binding domain within nuclei. Mechanistic analysis revealed that FLNA suppresses pol III gene transcription by confining the recruitment of the RNA pol III transcription machinery at the promoters of the genes that are sensitive to the alteration of FLNA expression."

According to the news editors, the research concluded: "These findings not only extend the understanding of FLNA function in cells but also provide novel insights into the mechanism by which FLNA represses cell proliferation."

Reports Outline Biophysical Chemistry Study Results from Indian Institute of Technology [Binding of the alkaloid coralyne to parallel G-quadruplex DNA [d(TTGGGGT)][4] studied by multi-spectroscopic techniques]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Chemistry - Biophysical Chemistry. According to news reporting from Uttar Pradesh, India, by NewsRx journalists, research stated, "Binding of coralyne to tetra-molecular parallel G-quadruplex DNA [d(TTGGGGT)][4] was evaluated for the first time using biophysical techniques. Absorbance titration show hypo/hyper-chromism accompanied by 12 nm red shift with binding constant K-b = 02-4.0 x 10(6) M-1."

The news correspondents obtained a quote from the research from the Indian Institute of Technology, "Binding induces a negative circular dichroism band of coralyne at 315 nm. Quenching of fluorescence (similar to 64%) along with 10 nm blue shift in emission maxima indicates proximity of coralyne to guanine bases. Job plot indicates existence of multiple complexes. The observed two fluorescence life times, 6 and 12 ns, with relative abundance 33% and 63%, respectively suggest two binding sites/conformations in complex. ID H-1 NMR spectra reveal significant broadening and upfield shift of G3NH, G6NH and G3H8 proton signals upon binding."

According to the news reporters, the research concluded: "The NOESY spectra reveal sequence specific non-intercalative interaction of coralyne in monomeric form at two sites close to A3/G3 and G6 bases of [d(TTGGGGT)][4] and [d(TTAGGGT)][4] and [d(TTAGGGT)][4], which has implications in anti-cancer drug action."

For more information on this research see: Binding of the alkaloid coralyne to parallel G-quadruplex DNA [d(TTGGGGT)][4] studied by multi-spectroscopic techniques, *Biophysical Chemistry*, 2016;219():49-58. *Biophysical Chemistry* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Biophysical Chemistry - www.journals.elsevier.com/biophysical-chemistry/)

Our news journalists report that additional information may be obtained by contacting R. Barthwal, Indian Inst Technol Roorkee, Dept. of Biotechnol, Roorkee 247667,
Reports Outline Blood Coagulation Factors Study Findings from Research Center (The contribution of von Willebrand factor-GPIba interactions to persistent aggregate formation in apheresis platelet concentrates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematology - Blood Coagulation Factors are discussed in a new report. According to news reporting out of Ghent, Belgium, by NewsRx editors, research stated, "Apheresis platelet concentrates sometimes contain persistent aggregates (PA). Because apheresis involves extracorporeal circulation, we hypothesized that interactions between GPIba and von Willebrand factor (VWF) underlie their origin."

Our news journalists obtained a quote from the research from Research Center, "Platelets in donations with PA were compared to aggregate-free (AF) controls. Flow cytometry was used to determine platelet bound VWF. Degranulation was measured using P-selectin expression in flow cytometry and cytokine release using immunosorbent assays. Platelet adhesion to VWF was assessed in hydrodynamic flow and real-time video microscopy. Platelets in PA concentrates had significantly more (p=0.009, n (>=) 8) bound VWF compared to AF platelets, but differences in VWF concentration, VWF collagen binding, activated VWF or GPIba expression were not found. Degranulation was higher (p=0.030, n=7) in PA than AF concentrates on day 1 of storage, but adhesion to immobilized VWF under hydrodynamic flow conditions was normal at that moment. On day 6, however, significantly less VWF adhesion (p=0.009, n (>=) 6) was found for PA platelets compared to AF, indicating accelerated storage lesion in PA products. In a model that mimicks PA formation by chemically induced binding of VWF to platelets, we found that degranulation, phosphatidyserine expression and metabolism did not differ with paired controls at any time during subsequent storage. Accelerated storage lesion is found in concentrates with PA, but this cannot be explained solely by increased platelet bound VWF following apheresis."

According to the news editors, the research concluded: "Therefore, additional stressors are probably responsible for the increases observed in platelet degranulation and storage lesion in products with PA."


Our news journalists report that additional information may be obtained by contacting H.B. Feys, Transfusion Research Center, Belgian Red Cross-Flanders, Ghent, Belgium. Additional authors for this research include B. Van Aelst, R. Devloo, P. Vandekerckhove and V. Compernolle.

The direct object identifier (DOI) for that additional information is:
Reports Outline Blood Pressure Findings from State University of Campinas [New 2-Aminothiazoline derivatives lower blood pressure of spontaneously hypertensive rats (SHR) via I-1-imidazoline and alpha-2 adrenergic receptors activation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Pressure have been published. According to news reporting originating in Campinas, Brazil, by NewsRx journalists, research stated, "2-Aminothiazolines share an isosteric relationship with imidazolines and oxazolines with antihypertensive activity mainly mediated by the imidazole I-1-receptor. In the present work, we have prepared five aminothiazolines, following a previously described synthetic pathway."

The news reporters obtained a quote from the research from the State University of Campinas, "Aminothiazolines derived from dicyclo-propylmethylamine (ATZ1) and cyclohexylamine (3) are unprecedented in the literature. Competitive radioligand assay was carried out with all synthetic compounds, and the I-1 receptor affinity in comparison to rilmenidine in PC12 cells was determined. Surprisingly, the rilmenidine isoster (ATZ1) showed no I-1-receptor interaction. Diethyl (ATZ4) and 2-ethyl-hexylamine (ATZ5) derivatives bind to the receptor with 11.98 and 10.94 nmol/l, respectively. These compounds were selected for in vivo experiments. Both compounds reduced the blood pressure of spontaneously hypertensive rats (SHR). The hypotensive effect of these compounds was abrogated in the presence of a(2) adrenergic (yohimbine) and I-1 (efaroxan) receptor antagonists suggesting that both aminothiazolines bind to the adrenergic and imidazoline receptors."

According to the news reporters, the research concluded: "Lipinski's descriptors of the synthesized aminothiazolines were calculated and are similar to the known imidazoline I-1 receptor ligands. 3D-Similarity between ATZ5 and agmatine, the natural imidazoline receptor ligand, was also observed."


Our news correspondents report that additional information may be obtained by contacting W.P. Almeida, Campinas State University, Fac Pharmaceut Sci, BR-13083859 Campinas, SP, Brazil. Additional authors for this research include M.G. De Oliveira, E. Antunes, W.P. Almeida, B.M. Ibrahim and A.A. Abdel-Rahman.

Keywords for this news article include: Campinas, Brazil, South America, Catecholamine Receptors, Adrenergic Receptors, Membrane Proteins, Blood Pressure, State
Reports Outline Blood Proteins Study Results from Uppsala University
[The lectin complement pathway serine proteases (MASPs) represent a possible crossroad between the coagulation and complement systems in thromboinflammation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Blood Proteins. According to news originating from Uppsala, Sweden, by NewsRx correspondents, research stated, "ESSENTIALS: The lectin pathway's MASP-1/2 activates coagulation factors but the trigger of the activation is unknown. MASP-1/2 activation was assessed by quantifying complexes between MASPs and antithrombin/C1-inhibitor."

Funders for this research include Vetenskapsradet, Seventh Framework Programme.

Our news journalists obtained a quote from the research from Uppsala University, "Activated platelets and fibrin were demonstrated to activate MASP-1 and MASP-2 both in vitro and in vivo. These findings may represent a crossroad between the complement and the coagulation systems. The activated forms of the complement lectin pathway (LP) proteases MASP-1 and MASP-2 are able to cleave the coagulation factors prothrombin, fibrinogen, factor XIII and thrombin-activatable fibrinolysis inhibitor in vitro. In vivo studies also show that MASP-1 is involved in thrombogenesis. To clarify the not yet identified mechanisms involved in triggering activation of the LP during thrombotic reactions. Novel sandwich-ELISAs for detection of complexes between MASP-1 or MASP-2 and the serpins C1 inhibitor (C1-INH) or antithrombin (AT), were used to specifically detect and quantify the activated forms of MASP-1 and MASP-2. Activated platelets were shown by flow cytometry to bind Ficolin-1, -2 and -3 but not MBL, which was associated with activation of MASP-1 and MASP-2. We also demonstrated that fibrin and the plasmin-generated fibrin fragment DD in plasma, bind and activate MASP-1 and MASP-2. As demonstrated by the ELISA and SDS-PAGE/Western blotting, the fibrin-associated activation was reflected in a specific inactivation by AT during clotting without the assistance of heparin. In all other cases the MASPs were, as previously reported, inactivated by C1-INH. In systemic lupus erythematosus patients with thrombotic disease and in polytrauma patients, the levels of activated MASP-1 and MASP-2 in complex with both AT and C1-INH were associated with markers of thrombotic disease and contact/coagulation system activation. MASP-1 and MASP-2 are activated during blood clotting."

According to the news editors, the research concluded: "This activation is triggered by activated platelets and by the generation of fibrin during thrombotic reactions in vitro and in vivo, and may represent a novel activation/amplification mechanism in thromboinflammation."

The news correspondents report that additional information may be obtained from H. Kozarcanin, Dept. of Immunology, Genetics and Pathology, Rudbeck Laboratory C5:3, Uppsala University, Uppsala, Sweden. Additional authors for this research include C. Lood, L. Munthe-Fog, K. Sandholm, O.A. Hamad, A.A. Bengtsson, M.O. Skjoedt, M. Huber-Lang, P. Garred, K.N. Ekdahl and B. Nilsson.

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Keywords for this news article include: Antithrombins, Sweden, Europe, Fibrin, Serine, Uppsala, Protease, Angiology, Blood Proteins, Neutral Amino Acids, Enzymes and Coenzymes.

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**Transfusion Medicine - Blood Transfusion**

**Reports Outline Blood Transfusion Study Findings from University of Texas Health Science Center (Recurrent event frailty models reduced time-varying and other biases in evaluating transfusion protocols for traumatic hemorrhage)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Transfusion Medicine - Blood Transfusion. According to news reporting out of Houston, Texas, by NewsRx editors, research stated, "Transfusion research seeks to improve survival for severely injured and hemorrhaging patients using optimal plasma and platelet ratios over red blood cells (RBCs). However, most published studies comparing different ratios are plagued with serious bias and ignore time-varying effects."

Our news journalists obtained a quote from the research from the University of Texas Health Science Center, "We applied joint recurrent event frailty models to increase validity and clinical utility. Using the PRospective Observational Multicenter Major Trauma Transfusion study data, our joint random effects models estimated the association of (1) clinical covariates with transfusion rate intensities and (2) varying plasma:RBC and platelet:RBC ratios with survival over the 24 hours after hospital admission. Along with survival time, baseline patient vital signs, laboratory values, and longitudinal data on types and volumes of transfusions were included. Baseline systolic blood pressure, heart rate, pH, and hemoglobin were significantly associated with RBC transfusion rates. Increased transfusion rates (per hour) of plasma (P = 0.05), platelets (P < 0.001), or RBCs were associated with increased 24-hour mortality. Higher ratios of plasma:RBC (P = 0.107) and platelet:RBC (P < 0.001) were associated with reduced mortality in a time-varying pattern (P < 0.001)."

According to the news editors, the research concluded: "The proposed joint analysis of transfusion rates and ratios offers a more valid statistical approach to evaluate survival effects in the presence of informative censoring by early death."

For more information on this research see: Recurrent event frailty models reduced time-varying and other biases in evaluating transfusion protocols for traumatic hemorrhage. *Journal of Clinical Epidemiology*, 2016;77():52-59. *Journal of Clinical Epidemiology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.
Reports Outline Blue Rubber Bleb Nevus Syndrome Study Findings from Catholic University of Louvain [Blue Rubber Bleb Nevus (BRBN) Syndrome Is Caused by Somatic TEK (TIE2) Mutations]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Diseases and Conditions - Blue Rubber Bleb Nevus Syndrome. According to news reporting from Brussels, Belgium, by NewsRx journalists, research stated, "Blue rubber bleb nevus syndrome (Bean syndrome) is a rare, severe disorder of unknown cause, characterized by numerous cutaneous and internal venous malformations; gastrointestinal lesions are pathognomonic. We discovered somatic mutations in TEK, the gene encoding TIE2, in 15 of 17 individuals with blue rubber bleb nevus syndrome."

The news correspondents obtained a quote from the research from the Catholic University of Louvain, "Somatic mutations were also identified in five of six individuals with sporadically occurring multifocal venous malformations. In contrast to common unifocal venous malformation, which is most often caused by the somatic L914F TIE2 mutation, multifocal forms are predominantly caused by double (cis) mutations, that is, two somatic mutations on the same allele of the gene. Mutations are identical in all lesions from a given individual."

According to the news reporters, the research concluded: "T1105N-T1106P is recurrent in blue rubber bleb nevus, whereas Y897C-R915C is recurrent in sporadically occurring multifocal venous malformation: both cause ligand-independent activation of TIE2, and increase survival, invasion, and colony formation when expressed in human umbilical vein endothelial cells."


Our news journalists report that additional information may be obtained by contacting M. Vikkula, Catholic University of Louvain, de Duve Inst, Human Mol Genet, Brussels, Belgium. Additional authors for this research include J. Kangas, M. Natynki, A. Mendola, R. Helaers, M. Uebelhoer, M. Kaakinen, M. Cordisco, A. Dompmartin, O. Enjolras, S. Holden, A.D. Irvine, L. Kangesu, C. Leaute-Labreze, A. Lanoel, Z. Lokmic, S. Maas, M.A.
McAleer and Penington.

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Keywords for this news article include: Brussels, Belgium, Europe, Blue Rubber Bleb Nevus Syndrome, Diseases and Conditions, Genetics, Catholic University of Louvain.

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Brachytherapy

Reports Outline Brachytherapy Findings from W.T. Hrinivich and Colleagues (Three-dimensional transrectal ultrasound guided high-dose-rate prostate brachytherapy: A comparison of needle segmentation accuracy with two-dimensional image guidance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Brachytherapy. According to news reporting originating in London, Canada, by NewsRx journalists, research stated, "Conventional transrectal ultrasound guided high-dose-rate prostate brachytherapy (HDR-BT) uses an axially acquired image set for organ segmentation and 2D sagittal images for needle segmentation. Sagittally reconstructed 3D (SR3D) transrectal ultrasound enables both organ and needle segmentation and has the potential to reduce organ-needle alignment uncertainty."

The news reporters obtained a quote from the research, "This study compares the accuracy of needle tip localization between the conventional 2D sagittally assisted axially reconstructed (SAAR) and SR3D approaches. Twelve patients underwent SAAR-guided HDR-BT, during which SR3D images were acquired for subsequent segmentation and analysis. A total of 183 needles were investigated. Needle end-length measurements were taken, providing a gold standard for insertion depths. Dosimetric impact of insertion depth errors (IDEs) on clinical treatment plans was assessed. SR3D guidance provided statistically significantly smaller IDEs than SAAR guidance with a mean +/- SD of -0.6 +/- 3.2 mm and 2.8 +/- 3.2 mm, respectively (p < 0.001). Shadow artifacts were found to obstruct the view of some needle tips in SR3D images either partially (12%) or fully (10%); however, SR3D IDEs had a statistically significantly smaller impact on prostate V-100% than SAAR IDEs with mean +/- SD decreases of -1.2 +/- 1.3% and-6.5 +/- 6.7%, respectively (p < 0.05). SR3D-guided HDR-BT eliminates a source of systematic uncertainty from the SAAR-guided approach, providing decreased IDEs for most needles, leading to a significant decrease in dosimetric uncertainty."

According to the news reporters, the research concluded: "Although imaging artifacts can limit the accuracy of tip localization in a subset of needles, we identified a method to mitigate these artifacts for clinical implementation."


Our news correspondents report that additional information may be obtained by

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.brachy.2015.12.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Ontario, Canada, North and Central America, Drugs and Therapies, Brachytherapy, Radiotherapy, Therapy.

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Oncology - Breast Cancer

Reports Outline Breast Cancer Findings from University Hospital (EpCAM-Independent Enrichment of Circulating Tumor Cells in Metastatic Breast Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting originating in Duesseldorf, Germany, by NewsRx journalists, research stated, "Circulating tumor cells (CTCs) are the potential precursors of metastatic disease. Most assays established for the enumeration of CTCs so far-including the gold standard CellSearch-rely on the expression of the cell surface marker epithelial cell adhesion molecule (EpCAM)."

The news reporters obtained a quote from the research from University Hospital, "But, these approaches may not detect CTCs that express no/low levels of EpCAM, e.g. by undergoing epithelial-to-mesenchymal transition (EMT). Here we present an enrichment strategy combining different antibodies specific for surface proteins and extracellular matrix (ECM) components to capture an EpCAMlow/neg cell line and EpCAMneg CTCs from blood samples of breast cancer patients depleted for EpCAM-positive cells. The expression of respective proteins (Trop2, CD49f, c-Met, CK8, CD44, ADAM8, CD146, TEM8, CD47) was verified by immunofluorescence on EpCAMpos (e.g. MCF7, SKBR3) and EpCAMlow/neg (MDA-MB-231) breast cancer cell lines. To test antibodies and ECM proteins (e.g. hyaluronic acid (HA), collagen I, laminin) for capturing EpCAMneg cells, the capture molecules were first spotted in a single-and multi-array format onto aldehyde-coated glass slides. Tumor cell adhesion of EpCAMpos/neg cell lines was then determined and visualized by Coomassie/MitoTracker staining. In consequence, marginal binding of EpCAMlow/neg MDA-MB-231 cells to EpCAM-antibodies could be observed. However, efficient adhesion/capturing of EpCAMlow/neg cells could be achieved via HA and immobilized antibodies against CD49f and Trop2. Optimal capture conditions were then applied to immunomagnetic beads to detect EpCAMneg CTCs from clinical samples. Captured CTCs were verified/quantified by immunofluorescence staining for anti-pan-Cytokeratin (CK)-FITC/anti-CD45 AF647/DAPI. In total, in 20 out of 29 EpCAM-depleted fractions (69%) from 25 metastatic breast cancer patients additional EpCAMneg CTCs could be identified [range of 1-24 CTCs per sample] applying Trop2, CD49f, c-Met, CK8 and/or HA magnetic enrichment. EpCAMneg dual-positive (CKpos/CD45pos) cells could be traced in 28 out of 29 samples [range 1-480]. By single-cell array-based comparative genomic hybridization we were able to demonstrate the malignant nature of one EpCAMneg subpopulation."

According to the news reporters, the research concluded: "We established a novel
enhanced CTC enrichment strategy to capture EpCAMneg CTCs from clinical blood samples by targeting various cell surface antigens with antibody mixtures and ECM components."


Our news correspondents report that additional information may be obtained by contacting H. Schneck, Dept. of Obstetrics and Gynecology, University Hospital and Medical Faculty of the Heinrich-Heine University Duesseldorf, Duesseldorf, Germany. Additional authors for this research include B. Gierke, F. Uppenkamp, B. Behrens, D. Niederacher, N.H. Stoecklein, M.F. Templin, M. Pawlak, T. Fehm and H. Neubauer.

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Keywords for this news article include: Antibodies, Europe, Germany, Genetics, Oncology, Immunology, Duesseldorf, Breast Cancer, Blood Proteins, Women's Health, Immunoglobulins, Immunofluorescence.

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Oncology - Breast Cancer

Reports Outline Breast Cancer Study Results from King Saud University (Development of Liposomal Formulation for Delivering Anticancer Drug to Breast Cancer Stem-Cell-Like Cells and its Pharmacokinetics in an Animal Model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting from Riyadh, Saudi Arabia, by NewsRx journalists, research stated, "The objective of the present study is to develop a liposomal formulation for delivering anticancer drug to breast cancer stem-cell-like cells, ANV-1, and evaluate its pharmacokinetics in an animal model. The anticancer drug ESC8 was used in dexamethasone (Dex)-associated liposome (DX) to form ESC8-entrapped liposome named DXE."

Funders for this research include Council of Scientific and Industrial Research, Mayo Clinic, National Plan for Science, Technology and Innovation.

The news correspondents obtained a quote from the research from King Saud University, "ANV-1 cells showed high-level expression of NRP-1. To enhance tumor regression, we additionally adapted to codeliver the NRP-1 shRNA-encoded plasmid using the established DXE liposome. In vivo efficacy of DXE-NRP-1 was carried out in mice bearing ANV-1 cells as xenograft tumors and the extent of tumor growth inhibition was evaluated by tumor-size measurement. A significant difference in tumor volume started to reveal between DXE-NRP-1 group and DXE-Control group. DXE-NRP-1 group showed ∼4 folds and ∼2.5 folds smaller tumor volume than exhibited by untreated and DXE-Control-treated groups, respectively. DXE disposition was evaluated in Sprague-Dawley rats following an intraperitoneal dose (3.67 mg/kg of ESC8 in DXE). The plasma concentrations of ESC8 in the DXE formulation were measured by liquid chromatography mass spectrometry and pharmacokinetic parameters were determined using a noncompartmental analysis. ESC8 had a
half-life of 11.01 ± 0.29 h, clearance of 2.10 ± 3.63 L/kg/h, and volume of distribution of 33.42 ± 0.83 L/kg. This suggests that the DXE liposome formulation could be administered once or twice daily for therapeutic efficacy."

According to the news reporters, the research concluded: "In overall, we developed a potent liposomal formulation with favorable pharmacokinetic and tumor regression profile that could sensitize and kill highly aggressive and drug-resistive cancer stem-cell-like cells."


Our news journalists report that additional information may be obtained by contacting A. Ahmad, Dept. of Clinical Pharmacy, College of Pharmacy, King Saud University, Riyadh 11451, Saudi Arabia. Additional authors for this research include S.K. Mondal, D. Mukhopadhyay, R. Banerjee and K.M Alkharfy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00900. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Biotechnology, Pharmaceuticals, Riyadh, Oncology, Liposomes, Saudi Arabia, Breast Cancer, Cancer Therapy, Women's Health, Pharmacokinetics, Stem Cell Research, Drugs and Therapies, Drug Delivery Systems.

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Oncology - Breast Cancer

Reports Outline Breast Cancer Study Results from Veneto Institute of Oncology (Predictive markers in elderly patients with estrogen receptor-positive breast cancer treated with aromatase inhibitors: an array-based pharmacogenetic study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating in Padua, Italy, by NewsRx journalists, research stated, "So far, no reliable predictive clinicopathological markers of response to aromatase inhibitors (AIs) have been identified, and little is known regarding the role played by host genetics. To identify constitutive predictive markers, an array- based association study was performed in a cohort of 55 elderly hormone-dependent breast cancer (BC) patients treated with third-generation AIs."

The news reporters obtained a quote from the research from the Veneto Institute of Oncology, "The array used in this study interrogates variants in 225 drug metabolism and disposition genes with documented functional significance. Six variants emerged as associated with response to AIs: three located in ABCG1, UGT2A1, SLCO3A1 with a good response, two in SLCO3A1 and one in ABCC4 with a poor response. Variants in the AI target CYP19A1 resulted associated with a favourable response only as haplotype; haplotypes with increased response association were also detected for ABCG1 and SLCO3A1."

According to the news reporters, the research concluded: "These results highlight the relevance of host genetics in the response to AIs and represent a first step toward precision
medicine for elderly BC patients."


Our news correspondents report that additional information may be obtained by contacting E. Rumiato, Veneto Inst Oncol IOV IRCCS, Immunol & Mol Oncol Unit, I-35128 Padua, Italy. Additional authors for this research include A. Brunello, S. A. Djaballah, L. Borgato, M. Gusella, D. Menon, F. Pasini, A. Amadori, D. Saggioro and V. Zagonel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.73. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Padua, Italy, Europe, Mixed Function Oxygenases, Transcription Factors, Enzymes and Coenzymes, DNA-Binding Proteins, Steroid Hydroxylases, Estrogen Receptors, Steroid Receptors, Pharmacogenetics, Pharmaceuticals, Oxidoreductases, Women's Health, Breast Cancer, Hemeproteins, Cytochromes, Aromatase, Oncology, Genetics, Veneto Institute of Oncology.

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**Lung Diseases and Conditions - Bronchopulmonary…**

**Reports Outline Bronchopulmonary Dysplasia Study Results from University of Colorado (Endothelin-1-Rho kinase interactions impair lung structure and cause pulmonary hypertension after bleomycin exposure in neonatal rat pups)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Bronchopulmonary Dysplasia is now available. According to news reporting originating in Aurora, Colorado, by NewsRx journalists, research stated, "Bronchopulmonary dysplasia (BPD) is the chronic lung disease associated with premature birth, characterized by impaired vascular and alveolar growth. In neonatal rats bleomycin decreases lung growth and causes pulmonary hypertension (PH), which is poorly responsive to nitric oxide."

The news reporters obtained a quote from the research from the University of Colorado, "In the developing lung, through Rho kinase (ROCK) activation, ET-1 impairs endothelial cell function; however, whether ET-1-ROCK interactions contribute to impaired vascular and alveolar growth in experimental BPD is unknown. Neonatal rats were treated daily with intraperitoneal bleomycin with and without selective ETA (BQ123/ BQ610) and ETB (BQ788) receptor blockers, nonselective ET receptor blocker (ETRB) (bosentan), or fasudil (ROCK inhibitor). At day 14, lungs were harvested for morphometrics, and measurements of Fulton's index (RV/ LV + S), medial wall thickness (MWT), and vessel density. Lung ET-1 protein and ROCK activity (phosphoMYPT-1: total MYPT-1 ratio) were also measured by Western blot analysis. Bleomycin increased lung ET-1 protein expression by 65%, RV/ LV + S by 60%, mean linear intercept (MLI) by 212%, and MWT by 140% and decreased radial
alveolar count (RAC) and vessel density by 40 and 44%, respectively (P < 0.01 for each comparison). After bleomycin treatment, fasudil and bosentan partially restored RAC and vessel density and decreased MLI, RV/LV + S, and MWT to normal values. Bleomycin increased ROCK activity by 120%, which was restored to normal values by bosentan but not selective ETRB.

According to the news reporters, the research concluded: "ET-1-ROCK interactions contribute to decreased alveolar and vascular growth and PH in experimental BPD. We speculate that nonselective ETRB and ROCK inhibitors may be effective in the treatment of infants with BPD and PH."


Our news correspondents report that additional information may be obtained by contacting J. Gien, University of Colorado, Dept. of Pediat, Pediat Heart Lung Center, Sch Med, Aurora, CO, United States. Additional authors for this research include N. Tseng, G. Seedorf, K. Kuhn and S.H. Abman.

Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Lung Diseases and Conditions, Bronchopulmonary Dysplasia, Pulmonary Hypertension, Enzymes and Coenzymes, Glycopeptides, Endothelin-1, Endothelins, Bleomycin, Kinase, University of Colorado.

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Oncology - Cancer Epidemiology

Reports Outline Cancer Epidemiology Study Results from University of Toronto (Cancer screening barriers and facilitators for under and never screened populations: A mixed methods study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Cancer Epidemiology is now available. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "Cancer screening is below targets in Ontario, Canada. Our objective was to identify and quantify the barriers and facilitators for breast, cervical and colorectal cancer screening for under and never screened (UNS) residents living in Ontario between 2011 and 2013."

Financial support for this research came from Integrated Cancer Screening Program at Cancer Care Ontario.

Our news editors obtained a quote from the research from the University of Toronto, "We used a multi-phased mixed methods study design. Results from thematic analysis of focus group discussions with health care providers and UNS community members were used to develop an online, province-wide, cross-sectional survey to estimate the prevalence of barriers and facilitators for the provincial population. Adjusted prevalence odds ratios and 95% confidence intervals were estimated for UNS compared to regularly screened participants using
logistic regression. Four focus groups were held with health service providers and sixteen with UNS community members. Top barriers and facilitators themed around provider-patient communication, fear and embarrassment, history of physical or sexual abuse, social determinants of health (including low literacy, lack of awareness, and health insurance), symptoms appearing, and family and friends. 3075 participants completed the online survey. Compared to regularly screened participants, UNS had significantly higher odds of reporting: no regular health care provider; not feeling comfortable talking about screening; or the Doctor or Nurse Practitioner not suggesting screening. UNS also had significantly higher odds of reporting the facilitators: the test being less scary/painful or uncomfortable; friend/family insisting on getting screened; starting to have symptoms; or an easier test that could be done at home.

According to the news editors, the research concluded: "Interventions addressing fear through individual, interpersonal and structural facilitators may increase cancer screening."

For more information on this research see: Cancer screening barriers and facilitators for under and never screened populations: A mixed methods study. Cancer Epidemiology, 2016;45():126-134. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news editors report that additional information may be obtained by contacting D. Gesink, University of Toronto, Dalla Lana Sch Public Hlth, Toronto, ON M5T 3M7, Canada. Additional authors for this research include B. Filsinger, A. Mihic, A. Norwood, C.S. Racey, D. Perez, J. Antal, P. Ritvo and L. Vernich.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.10.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Cancer Epidemiology, Cancer, Diagnostics and Screening, Epidemiology, Oncology, University of Toronto.

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Drugs and Therapies - Cancer Therapy

Reports Outline Cancer Therapy Study Results from Safarik University
[Total synthesis and the anticancer activity of (+)-spisulosine]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cancer Therapy have been published. According to news originating from Kosice, Slovakia, by NewsRx correspondents, research stated, "The total synthesis of the anticancer agent (+)-spisulosine has been accomplished."

Funders for this research include Ministry of Education, Slovak Republic, Slovak Research and Development Agency, Operational Programme Research and Development.

Our news journalists obtained a quote from the research from Safarik University, "The strategy involved a substrate-controlled aza-Claisen rearrangement to establish the erythro-configured amino-alcohol motif followed by deoxygenation to create a methyl side-chain. Subsequent Wittig olefination then permitted the construction of the carbon backbone of the target molecule."
According to the news editors, the research concluded: "To investigate the anti proliferative effect of 1, its biological profile was examined on a panel of 6 human malignant cell lines and demonstrated the significant anticancer activity of 1 on at least five of the evaluated lines with IC50 < 1 μM (MCF-7, HTC-116, Caco-2, Jurkat and HeLa)."


The news correspondents report that additional information may be obtained from M. Martinkova, Safarik Univ, Inst Chem Sci, Dept. of Organ Chem, Kosice 04001, Slovakia. Additional authors for this research include M. Martinkova, S. Hirkova, J. Gonda, M.B. Pilatova and G. Gonciova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.carres.2016.09.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kosice, Slovakia, Europe, Drugs and Therapies, Cancer Therapy, Safarik University.

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Drugs and Therapies - Carbamazepine Therapy

Reports Outline Carbamazepine Therapy Study Findings from Medical University (Isobolographic Analysis of Interaction for Three-Drug Combination of Carbamazepine, Phenobarbital and Topiramate in the Mouse Maximal Electroshock-Induced Seizure ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Carbamazepine Therapy have been published. According to news reporting out of Lublin, Poland, by NewsRx editors, the research stated, "To characterize the anticonvulsant effects of a combination of 3 antiepileptic drugs (AEDs; i.e. carbamazepine (CBZ), phenobarbital (PB) and topiramate (TPM)) at the fixed-ratio of 1:1:1 in the mouse maximal electroshock (MES)-induced seizure model. Tonic hind limb extension (seizure activity) was evoked in adult male albino Swiss mice by a current (sine-wave, 25 mA, 500 V, 50 Hz, 0.2 s stimulus duration) delivered via auricular electrodes."

Our news journalists obtained a quote from the research from Medical University, "Type I isobolographic analysis for parallel dose-response relationship curves (DRRCs) was used to analyze the 3-drug combination. In the mouse MES model, all the studied AEDs (i.e., CBZ, PB and TPM) administered singly had their DRRCs parallel to each other. With type I isobolography for parallel DRRCs, a combination of CBZ, PB and TPM at the fixed-ratio of 1:1:1 exerted supra-additive (synergistic) interaction in the mouse MES model. Synergistic interaction among CBZ, PB and TPM at the fixed-ratio of 1:1:1 against MES-induced seizures is worthy of consideration in further clinical settings."

According to the news editors, the research concluded: "All detailed calculations required to perform type I isobolographic analysis for the 3-drug combination were presented."

Our news journalists report that additional information may be obtained by contacting J.J. Luszczki, Dept. of Pathophysiology, Medical University of Lublin, Lublin, Poland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444452. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Lublin, Poland, Europe, Phenobarbital, Topiramate Therapy, Drugs and Therapies, Carbamazepine Therapy, Barbiturate Anticonvulsants, Central Nervous System Agents, Dibenzazepine Anticonvulsants, Anxiolytics Sedatives and Hypnotics, Carbonic Anhydrase Inhibitor Anticonvulsants.

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**Oncology - Carcinomas**

**Reports Outline Carcinomas Findings from Adolfo Lutz Institute (Breast Carcinoma-associated Fibroblasts Share Similar Biomarker Profiles in Matched Lymph Node Metastasis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Carcinomas. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "This study sought to understand the role of breast carcinoma-associated fibroblasts in the progression of cancer cells into lymph nodes. We compared fibroblasts of primary tumors and matched the involved lymph nodes to select fibroblast activation markers, namely -smooth muscle actin (-SMA), S100A4, and vimentin, as well as to determine the frequency of transforming growth factor 1, a pleiotropic cytokine that induces the differentiation of fibroblasts to myofibroblasts, and its downstream effectors: CXCR4 and p-AKT."

Our news journalists obtained a quote from the research from Adolfo Lutz Institute, "We disposed samples of 80 primary invasive ductal carcinomas and matched the involved lymph nodes from 43 cases into 3 tissue microarrays, and analyzed stromal and tumor epithelial cells separately by immunohistochemistry. Control uninvolved lymph nodes were analyzed by whole-tissue sections. Cancer-associated fibroblast in lymph nodes with macrometastasis expressed similar profiles of vimentin, -SMA, and S100A4 as those found in primary tumors. Cancer-associated fibroblast were uniformly estrogen receptor, progesterone receptor, HER-2, Ki-67, and p53 negative, but expressions of transforming growth factor 1 (TGF1), CXCR4, and p-AKT staining (62.3%, 52.4%, 65%, respectively) were equivalent between primary and lymph node metastasis (LNM) fibroblasts. A significant coexpression of TGF1 with p-AKT and CXCR4 in LNMs suggested the involvement of these proteins with TGF1 signaling. These biomarkers, including -SMA and S100A4, were negative in fibroblasts of cancer-free lymph nodes, with the exception of vimentin."

According to the news editors, the research concluded: "Our finding that expressions
of biological markers were similar in fibroblasts of the primary tumors and in matched LNMs, but were absent in cancer-free lymph nodes, supports the assumption that the lymph node stroma mimics the microenvironment observed in primary tumors."

For more information on this research see: Breast Carcinoma-associated Fibroblasts Share Similar Biomarker Profiles in Matched Lymph Node Metastasis. *Applied Immunohistochemistry & Molecular Morphology*, 2016;24(10):712-720. *Applied Immunohistochemistry & Molecular Morphology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

The news correspondents report that additional information may be obtained from M.M. Brentani, Adolfo Lutz Inst, Pathol Div, Sao Paulo, Brazil. Additional authors for this research include F.S. Pasini, S. Nonogaki, R.M. Rocha, F.A. Soares, M.M. Brentani and A.F. Logullo.

Keywords for this news article include: Sao Paulo, Brazil, South America, Intermediate Filament Proteins, Hemic and Immune Systems, Connective Tissue Cells, Lymphoid Tissue, Fibroblasts, Lymph Nodes, Immunology, Carcinomas, Vimentin, Oncology, Cancer, Adolfo Lutz Institute.

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### Oncology - Carcinomas

**Reports Outline Carcinomas Study Results from Kyoto University**

**Population Pharmacokinetics of Everolimus in Relation to Clinical Outcomes in Patients With Advanced Renal Cell Carcinoma**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Carcinomas have been published. According to news reporting originating from Kyoto, Japan, by NewsRx correspondents, research stated, "Everolimus has been used for the treatment of unresectable or metastatic renal cell carcinoma (RCC). Here, we measured blood concentrations of everolimus to obtain the population pharmacokinetic parameters and to examine the relationship between blood concentration and clinical outcomes."

Our news editors obtained a quote from the research from Kyoto University, "Twenty-two Japanese patients were enrolled. Blood samples were collected before and 2, 4, 8, and 24 hours after drug administration on days 1 and 8 of everolimus therapy (5 or 10 mg) from inpatients; occasional samples were collected from outpatients. Blood concentrations of everolimus were measured by high-performance liquid chromatography with tandem mass spectrometry. Population pharmacokinetic analysis was conducted using the NONMEM software. Everolimus pharmacokinetics was best described by a 2-compartment model with population mean estimates of apparent oral clearance of 10.0 L/h and an interindividual variability of 42.4%. There was no relationship between overall best responses and the predicted trough concentrations at day 8. The predicted trough concentration in patients who terminated everolimus treatment owing to adverse drug reactions (ADRs) was significantly higher than in patients who stopped the treatment owing to disease progression or other reasons (27.6 +/- 3.1 versus 15.7 +/- 2.3 ng/mL; mean +/- SEM). Patients who terminated the treatment owing to ADRs had significantly shorter time-to-treatment failure than other patients (112 versus 187
days, median). This study reports the first population pharmacokinetic parameters of everolimus in patients with RCC.

According to the news editors, the research concluded: "Individual dose adjustment based on everolimus blood concentrations helps to avoid early drug cessation due to ADRs."

For more information on this research see: Population Pharmacokinetics of Everolimus in Relation to Clinical Outcomes in Patients With Advanced Renal Cell Carcinoma. Therapeutic Drug Monitoring, 2016;38(6):663-669. Therapeutic Drug Monitoring can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

The news editors report that additional information may be obtained by contacting I. Yano, Kyoto University, Grad Sch Pharmaceut Sci, Dept. of Clin Pharm & Educ, Kyoto, Japan. Additional authors for this research include I. Yano, K. Shinsako, E. Sato, M. Fukudo, S. Masuda, T. Yamasaki, T. Kamba, O. Ogawa and K. Matsubara.

Keywords for this news article include: Kyoto, Japan, Asia, Tyrosine Kinase Inhibitors, Immunosuppressive Agents, MTOR Kinase Inhibitors, Drugs and Therapies, Pharmacokinetics, Pharmaceuticals, Antineoplastics, MTOR Inhibitors, Nephrology, Everolimus, Carcinomas, Oncology, Kidney, Kyoto University.

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Cardiology

Reports Outline Cardiology Findings from University of Hong Kong (Transcatheter Leadless Cardiac Pacing in Renal Failure with Limited Venous Access)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiology is the subject of a report. According to news reporting out of Hong Kong, People's Republic of China, by NewsRx editors, research stated, "Entirely leadless cardiac pacemakers that are delivered transvenously required the use of large-diameter delivery sheath and femoral venous approach."

Our news journalists obtained a quote from the research from the University of Hong Kong, "The complexity of external femoral and iliac venous anatomy may limit their implantation. We describe a hemodialysis patient without subclavian venous access and a conventional pacemaker with a failed right ventricular lead, who had difficult iliac venous anatomy that was also compressed by an external endovascular abdominal aortic stent."

According to the news editors, the research concluded: "Successful leadless pacing using a Micra™ (Medtronic Inc., Minneapolis, MN, USA) was accomplished with a strong support wire, hydrophilic delivery sheath, and guided by venography."

For more information on this research see: Transcatheter Leadless Cardiac Pacing in Renal Failure with Limited Venous Access. PACE-Pacing and Clinical Electrophysiology, 2016;39(11):1281-1284. PACE-Pacing and Clinical Electrophysiology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting C.P. Lau, University of Hong Kong, Li Ka Shing Fac Med, Res Center Heart Brain Hormone & Hlth Ageing, Hong Kong, Hong Kong, People's Republic of China.
Reports Outline Cardiology Study Findings from Heart Center
(Performance of allogeneic bioengineered replacement pulmonary valves in rapidly growing young lambs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting from Kansas City, Missouri, by NewsRx journalists, research stated, "Cardiac allometric organ growth after pediatric valve replacement can lead to patient-prosthesis size mismatch and valve re-replacement, which could be mitigated with allogeneic decellularized pulmonary valves treated with collagen conditioning solutions to enhance biological and mechanical performance, termed 'bioengineered valves.' In this study, we evaluated functional, dimensional, and biological responses of these bioengineered valves compared with traditional cryopreserved valves implanted in lambs during rapid somatic growth. From a consanguineous flock of 13 lambs, the pulmonary valves of 10 lambs (mean weight, 19.6 +/- 1.4 kg) were replaced with 7 bioengineered valves or 3 classically cryopreserved valves."

The news correspondents obtained a quote from the research from Heart Center, "After 6 months, the 10 lambs with implanted valves and 3 untreated flock mates were compared by echocardiography, cardiac catheterization, and explant pathology. Increases in body mass, valve geometric dimensions, and effective orifice areas were similar in the 2 groups of lambs. The bioengineered valves had higher median cusp-to-cusp coaptation areas (34.6%; interquartile range, 21.00%-35.13%) and were more similar to native valves (43.4%; interquartile range, 42.59%-44.01%) compared with cryopreserved valves (13.2%; interquartile range, 7.07%-13.91%) (P = .043). Cryopreserved valves cusps, but not bioengineered valve cusps, were thicker than native valve cusps (P = .01). Histologically, cryopreserved valves demonstrated less than native cellularity, whereas bioengineered valves that were acellular at the time of surgery gained surface endothelium and subsurface myofibroblast interstitial cells in pulmonary artery, sinus wall, and cusp base regions. Biological valve conduits can enlarge via passive dilatation without matrix synthesis, but this would result in decreased cusp coaptation areas. Bioengineered valves demonstrated similar annulus enlargement as cryopreserved valves but usually retained larger areas of cuspal coaptation."

According to the news reporters, the research concluded: "Heat-shock protein 47-positive (collagen-synthesizing) cells were present in previously acellular bioengineered sinus walls and cusp bases, but rarely in more distal cusp matrices."


Our news journalists report that additional information may be obtained by
contacting R.A. Hopkins, Childrens Mercy Kansas City, Ward Family Heart Center
Cardiothorac Surg, Cardiac Regenerat Surg Res Labs, Kansas City, MO 64108, United States.
Additional authors for this research include A.A. Bert, G.L. Converse, E.E. Buse, S.L. Hilbert,
W.B. Drake and R.A. Hopkins.

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http://dx.doi.org/10.1016/j.jtcvs.2016.05.051. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Kansas City, Missouri, United States, North
and Central America, Cardiology, Surgery, Bioengineered, Heart Center.

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Cardiology

Reports Outline Cardiology Study Findings from University of Picardie
(Role of echocardiography before cardiac resynchronization therapy: new advances and current developments)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news reporting from Amiens, France, by NewsRx journalists, research stated, "The role of echocardiography in improving the selection of patients who will benefit from cardiac resynchronization therapy (CRT) remains a source of debate. Although previous landmark reports have demonstrated a link between mechanical dyssynchrony, assessed by delays between left ventricle (LV) walls and response to CRT, the predictive value of these findings has not yet been confirmed in multicenter trials."

The news correspondents obtained a quote from the research from the University of Picardie, "Indeed, recent studies demonstrated that the classical assessment of LV mechanical dyssynchrony using delay between walls by echocardiography depends not only on LV electrical activation delay (electrical dyssynchrony), but also on abnormalities in regional contractility of the LV and/or loading conditions, which do not represent an appropriate target for CRT. Recent reports highlighted the value of new indices of electromechanical dyssynchrony obtained by echocardiography, to predict LV response and outcome after CRT including septal flash, left bundle branch blocktypical pattern by longitudinal strain, apical rocking, septal strain patterns, and systolic stretch index. This was achieved using a mechanistic approach, based on the contractile consequences of electrical dyssynchrony. These indices are rarely found in patients with narrow QRS (<120ms), whereas their frequency rises in patients with an increase in QRS duration (>120ms)."

According to the news reporters, the research concluded: "Theses indices should improve candidate selection for CRT in clinical practice, especially for patients in whom the benefit of CRT remains uncertain, for example, patients with intermediate QRS width (120-150ms)."

Our news journalists report that additional information may be obtained by contacting S. Marechaux, Univ Picardie, INSERM, U1088, Amiens, France. Additional authors for this research include A. Menet, Y. Guyomar, P.V. Ennezat, R.A. Guerbaai, P. Graux and C. Tribouilloy.

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Keywords for this news article include: Amiens, France, Europe, Therapy, Article Review, Echocardiography, Pharmaceuticals, Cardiovascular, Cardiology, University of Picardie.

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### Cardiology

**Reports Outline Cardiology Study Results from University of California (High Efficiency Coronary MR Angiography with Nonrigid Cardiac Motion Correction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "To improve the coronary visualization quality of four-dimensional (4D) coronary MR angiography (MRA) through cardiac motion correction and iterative reconstruction. A contrast-enhanced, spoiled gradient echo sequence with 3D radial trajectory and self-gating was used for 4D coronary MRA data acquisition at 3 Tesla."

Our news journalists obtained a quote from the research from the University of California, "A whole-heart 16-phase cine series was reconstructed with respiratory motion correction. Nonrigid registration was performed between the identified quiescent phases and a reference. The motion information of all included phases was then used along with the corresponding k-space data to iteratively reconstruct the final image. Healthy volunteer studies (N = 13) were conducted to compare the proposed method with the conventional strategy, which accepts data from a single, contiguous window out of the original 16-phase data. Apparent signal-to-noise ratio (aSNR) and coronary sharpness were used as the image quality metrics. The proposed method significantly improved aSNR (11.89+/−3.76 to 13.97+/−5.21; P = 0.005) and scan efficiency (18.8%+/−6.0% to 40.9%+/−9.7%; P<0.001), compared with the conventional strategy. Sharpness of left main (P = 0.002), proximal (P = 0.04), and middle (P = 0.02) right coronary artery, and proximal left anterior descending (P = 0.04) was also significantly improved."

According to the news editors, the research concluded: "The proposed cardiac motion-corrected reconstruction significantly improved the achievable quality of coronary visualization from 4D coronary MRA."

Our news journalists report that additional information may be obtained by contacting D.B. Li, University of California, Bioengineering, Los Angeles, CA, United States. Additional authors for this research include Y.H. Chen, Z.Y. Fan, C. Nguyen, Q. Yang, Y.B. Xie and D.B. Li.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Cardiology, Angiography, University of California.

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Cardiovascular Diseases

Reports Outline Cardiovascular Diseases Study Findings from George Institute for Global Health (Inaccurate risk perceptions contribute to treatment gaps in secondary prevention of cardiovascular disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases have been presented. According to news reporting from Sydney, Australia, by NewsRx journalists, research stated, "All patients with cardiovascular disease (CVD) are at high risk of recurrent events. Despite strong evidence, large treatment gaps exist in CVD secondary prevention."

The news correspondents obtained a quote from the research from George Institute for Global Health, "We hypothesise that patients' self-perception and general practitioner's (GP) assessment of future cardiovascular (CV) risk may influence secondary prevention behaviours. To examine in patients with known CVD the perceived risk of future CV events and its relationship with use of secondary prevention medications and risk factor control. We examined patient and practitioner's perceived risk and its relationship with the uptake of secondary prevention recommendations in adults with CVD participating in the Australian Hypertension and Absolute Risk Study. Among the 1453 participants, only 11% reported having a high absolute risk and 29% reported high relative risk of recurrent events. The GP categorised only 30% as having a 5-year risk (>=)15%. After adjusting for covariates, hospitalisation within the preceding 12 months was the only significant predictor of patients' accurate risk perception. Conventional CV risk factors were predictive of the GP's risk estimates. Patients who accurately understood their risk reported higher smoking cessation rates (7 vs 3%, p=0.003) and greater use of antiplatelet, blood pressure lowering therapy and statins (P (<=) 0.01). However, there was no relationship between GP's risk perception and secondary prevention treatments. Both patients and GP have optimistic bias and underestimate the risk of future CV events. Patients’ accurate self-perception, but not GP risk perception, was associated with improved secondary preventative behaviours. This suggests that helping patients to understand their risk may influence their motivation towards secondary prevention."

According to the news reporters, the research concluded: "Providing support to GP or programmes to help patients better understand their risks could have potential benefit on secondary prevention behaviours."

Our news journalists report that additional information may be obtained by contacting J. Thakkar, The George Institute for Global Health, Sydney, New South Wales, Australia. Additional authors for this research include E.L. Heeley, J. Chalmers and C.K Chow.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imj.12982. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Cardiology, Risk and Prevention, Australia and New Zealand, Cardiovascular Diseases and Conditions.

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Cardiovascular Research

Reports Outline Cardiovascular Research Study Results from Sahlgrenska University Hospital (Contemporary cardiovascular risk and secondary preventive drug treatment patterns in peripheral artery disease patients undergoing revascularization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Research. According to news reporting out of Gothenburg, Sweden, by NewsRx editors, research stated, "Peripheral artery disease (PAD) is common worldwide, and PAD patients are increasingly offered lower limb revascularization procedures. The aim of this population-based study was to describe the current risk for cardiovascular (CV) events and mortality and also to elucidate the current pharmacologic treatment patterns in revascularized lower limb PAD patients."

Our news journalists obtained a quote from the research from Sahlgrenska University Hospital, "This observational, retrospective cohort study analyzed prospectively collected linked data retrieved from mandatory Swedish national health care registries. The Swedish National Registry for Vascular Surgery database was used to identify revascularized PAD patients. Current risk for CV events and death was analyzed, as were prescribed drugs aimed for secondary prevention. A Cox proportional hazard regression model was used to explore risk factors for suffering a CV event. Between May 2008 and December 2013, there were 18,742 revascularized PAD patients identified. Mean age was 70.0 years among patients with intermittent claudication (IC; n = 6959) and 76.8 years among patients with critical limb ischemia (CLI; n = 11,783). Antiplatelet therapy, statins, angiotensin-converting enzyme inhibitors/angiotensin receptor blockers, and beta-blockers were used by 73%, 60%, 57%, and 49% at admission for revascularization. CV event rate (a composite of myocardial infarction, ischemic stroke, or CV death) at 12, 24, and 36 months was 5.1% (95% confidence interval [CI], 4.5-5.6), 9.5% (95% CI, 8.7-10.3), and 13.8% (95% CI, 12.8-14.8) in patients with IC and 16.8% (95% CI, 16.1-17.6), 25.9% (95% CI, 25.0-26.8), and 34.3% (95% CI, 33.2-35.4) in patients with CLI. Best medical treatment, defined as any antiplatelet or anticoagulant therapy along with statin treatment, was offered to 65% of IC patients and 45% of CLI patients with little change during the study period. Statin therapy was associated with reduced CV events (hazard ratio, 0.76; 95% CI, 0.71-0.81; P< .001), whereas treatment with low-dose aspirin was not. Revascularized PAD patients are still at a high risk for CV events without a declining time trend. A large proportion of both IC and CLI patients were not offered best medical treatment. The most commonly used agent was aspirin, which was not associated with CV event
According to the news editors, the research concluded: "This study calls for improved medical management and highlights an important and partly unmet medical need among revascularized PAD patients."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2016.03.429. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gothenburg, Sweden, Europe, Cardiovascular Research, Therapy, Drugs and Therapies, Surgery, Risk and Prevention, Epidemiology, Peripheral Artery Disease, Biological Factors, Cardiovascular, Angiotensins, Hematology, Cardiology, Autacoids, Angiology, Sahlgrenska University Hospital.

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**Cardiovascular Research**

**Reports Outline Cardiovascular Research Study Results from Yonsei University (Prognostic value of urine dipstick proteinuria on mortality after acute ischemic stroke)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Research. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Proteinuria is a marker of kidney disease and a strong risk factor for cardiovascular diseases including stroke. This study was aimed at investigating the prognostic value of proteinuria measured by urine dipstick in patients with acute ischemic stroke."

Our news editors obtained a quote from the research from Yonsei University, "This post-hoc analysis of a prospective cohort study included 3404 consecutive patients who had been admitted for acute ischemic stroke between November 2005 and June 2013. Proteinuria was defined as a trace or more of protein on a urine dipstick test routinely performed at admission. Date and cause of death until December 31, 2013 were collected. We investigated the association of proteinuria with all-cause mortality, cardiovascular mortality (defined as ICD-10 codes 100-199), and noncardiovascular mortality. Proteinuria was present in 12.8% of the 3404 patients. During the mean follow-up period of 3.56 +/- 2.22 years, there were 681 cases of all-cause mortality (460 cardiovascular deaths and 221 noncardiovascular deaths). Multivariate Cox regression analysis showed that the presence of proteinuria was an independent risk factor for all-cause mortality (adjusted hazard ratio [HR] 1.69, 95% confidence interval [CI] 1.40-
2.04), cardiovascular mortality (adjusted HR 1.65, 95% CI 1.31-2.08), and noncardiovascular mortality (adjusted HR 1.59, 95% CI 1.13-2.23). Adding proteinuria to the multivariate Cox models moderately improved the model performance for all-cause mortality (integrated area under curve [95% CI]: from 0.800 [0.784-0.816] to 0.803 [0.788-0.818], p = 0.026).

According to the news editors, the research concluded: "Proteinuria, which was detected on a urine dipstick test, was a significant predictor of mortality after acute ischemic stroke."

For more information on this research see: Prognostic value of urine dipstick proteinuria on mortality after acute ischemic stroke. *Atherosclerosis*, 2016;253():118-123.

*Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news editors report that additional information may be obtained by contacting J.H. Heo, Yonsei University, Coll Med, Dept. of Neurol, Seoul 03722, South Korea. Additional authors for this research include T.J. Song, D. Song, J. Yoo, J.H. Baek, H.S. Lee, C.M. Nam, H.S. Nam, Y.D. Kim and J.H. Heo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.08.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Cardiovascular Research, Risk and Prevention, Cardiovascular, Cardiology, Yonsei University.

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**Cell Proliferation**

**Reports Outline Cell Proliferation Study Results from Genomics Research Center (The nucleolar protein NIFK promotes cancer progression via CK1a/b-catenin in metastasis and Ki-67-dependent cell proliferation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cell Proliferation have been published. According to news reporting out of Taipei, Taiwan, by NewsRx editors, research stated, "Nucleolar protein interacting with the FHA domain of pKi-67 (NIFK) is a Ki-67-interacting protein. However, its precise function in cancer remains largely uninvestigated."

Financial support for this research came from Academia Sinica.

Our news journalists obtained a quote from the research from Genomics Research Center, "Here we show the clinical significance and metastatic mechanism of NIFK in lung cancer. NIFK expression is clinically associated with poor prognosis and metastasis. Furthermore, NIFK enhances Ki-67-dependent proliferation, and promotes migration, invasion in vitro and metastasis in vivo via downregulation of casein kinase 1a (CK1a), a suppressor of pro-metastatic TCF4/b-catenin signaling. Inversely, CK1a is upregulated upon NIFK knockdown. The silencing of CK1a expression in NIFK-silenced cells restores TCF4/b-catenin transcriptional activity, cell migration, and metastasis. Furthermore, RUNX1 is identified as a transcription factor of CSNK1A1 (CK1a) that is negatively regulated by NIFK."
According to the news editors, the research concluded: "Our results demonstrate the prognostic value of NIFK, and suggest that NIFK is required for lung cancer progression via the RUNX1-dependent CK1a repression, which activates TCF4/b-catenin signaling in metastasis and the Ki-67-dependent regulation in cell proliferation."

For more information on this research see: The nucleolar protein NIFK promotes cancer progression via CK1a/b-catenin in metastasis and Ki-67-dependent cell proliferation. *Elife*, 2016;5():.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7554/eLife.11288. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taipei, Taiwan, Cancer, Genetics, Oncology, Cell Proliferation.

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Cell Surface Extensions

Reports Outline Cell Surface Extensions Findings from New University of Lisbon (Arl13b and the exocyst interact synergistically in ciliogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cell Surface Extensions is now available. According to news reporting from Lisbon, Portugal, by NewsRx journalists, research stated, "Arl13b belongs to the ADP-ribosylation factor family within the Ras superfamily of regulatory GTPases. Mutations in Arl13b cause Joubert syndrome, which is characterized by congenital cerebellar ataxia, hypotonia, oculomotor apraxia, and mental retardation."

The news correspondents obtained a quote from the research from the New University of Lisbon, "Arl13b is highly enriched in cilia and is required for ciliogenesis in multiple organs. Nevertheless, the precise role of Arl13b remains elusive. Here we report that the exocyst subunits Sec8, Exo70, and Sec5 bind preferentially to the GTP-bound form of Arl13b, consistent with the exocyst being an effector of Arl13b. Moreover, we show that Arl13b binds directly to Sec8 and Sec5. In zebrafish, depletion of arl13b or the exocyst subunit sec10 causes phenotypes characteristic of defective cilia, such as curly tail up, edema, and abnormal pronephric kidney development. We explored this further and found a synergistic genetic interaction between arl13b and sec10 morphants in cilia-dependent phenotypes. Through conditional deletion of Arl13b or Sec10 in mice, we found kidney cysts and decreased ciliogenesis in cells surrounding the cysts. Moreover, we observed a decrease in Arl13b expression in the kidneys from Sec10 conditional knockout mice."

According to the news reporters, the research concluded: "Taken together, our results indicate that Arl13b and the exocyst function together in the same pathway leading to functional cilia."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1091/mbc.E15-02-0061. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cilia, Lisbon, Europe, Portugal, Genetics, Cell Surface Extensions.

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Kidney Diseases and Conditions - Chronic Kidney…

**Reports Outline Chronic Kidney Disease Study Findings from University of Belgrade (Oxidized Low-Density Lipoprotein Predicts the Development of Renal Dysfunction in Atrial Fibrillation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Kidney Diseases and Conditions - Chronic Kidney Disease. According to news reporting out of Belgrade, Serbia, by NewsRx editors, research stated, "To investigate the role of oxidative stress (OS) in the development of chronic kidney disease (CKD) in atrial fibrillation (AF). We compared OS burden, determined at study inclusion as plasma concentrations of oxidized low-density lipoprotein (oxLDL), between stable AF patients (n = 256, mean age: 62.8 +/- 9.3 years; 60.9% males) with preserved renal function, defined as an estimated glomerular filtration rate (eGFR) >= 60 ml/min/1.73 m2, and a matched control group in sinus rhythm (n = 138, mean age: 61.5 +/- 11.2 years; 60.9% males)."

Our news journalists obtained a quote from the research from the University of Belgrade, "During the prospective follow-up of AF patients, we investigated the association and prognostic validity of oxLDL for CKD development, diagnosed as a sustained decline in eGFR to <60 ml/min/1.73 m2. AF patients had a higher mean oxLDL (76.2 +/- 21.7 U/l) compared to sinus rhythm controls (61.6 +/- 13.1 U/l; p< 0.001). AF presence independently predicted increased oxLDL levels in the study cohort [beta = 14.7; 95% confidence interval (CI), 10.7-18.7; p< 0.001]. Over a median 4-year follow-up, 19.9% of AF patients developed CKD. Adjusting for all clinical covariates, oxLDL (per tertile) was associated with a hazard ratio of 2.17 for CKD occurrence (95% CI, 1.40-3.35; p< 0.001). AF patients in the upper oxLDL tertile ( >= 88.7 U/l) had a 3.70-fold (95% CI, 1.55-8.81) higher risk for CKD compared to the lower oxLDL tertile (<67.0 U/l) patients (p < 0.001). oxLDL improved discriminative validity (c-statistic increment: 0.041, 95% CI, 0.007-0.075, p = 0.017), and increased the net reclassification and integrated discrimination for CKD risk by 12.4 and 6.0%, respectively (both p< 0.001)."

According to the news editors, the research concluded: "OxLDL is increased in AF patients compared to sinus rhythm controls. oxLDL has an independent association and an
incremental predictive value that might complement clinical CKD risk assessment in AF patients following further research.”

For more information on this research see: Oxidized Low-Density Lipoprotein Predicts the Development of Renal Dysfunction in Atrial Fibrillation. Cardiorenal Medicine, 2017;7(1):31-41. Cardiorenal Medicine can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Cardiorenal Medicine - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=254695)

Our news journalists report that additional information may be obtained by contacting M. Polovina, University of Belgrade, Sch Med, Belgrade, Serbia. Additional authors for this research include I. Petrovic, V. Brkovic, M. Asanin, J. Marinkovic and M. Ostojc.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000449173. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belgrade, Serbia, Europe, Kidney Diseases and Conditions, Heart Disorders and Diseases, Chronic Kidney Disease, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Lipoproteins, Nephrology, Lipids, University of Belgrade.

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Kidney Diseases and Conditions - Chronic Kidney Disease Study Results from Karolinska Institute (Lipophilic index, kidney function, and kidney function decline)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Kidney Diseases and Conditions - Chronic Kidney Disease is now available. According to news reporting from Stockholm, Sweden, by NewsRx journalists, research stated, "Unhealthy dietary fats are associated with faster kidney function decline. The cell membrane composition of phospholipid fatty acids (FAs) is a determinant of membrane fluidity and rheological properties."

Funders for this research include Stockholm County Council, Heart and Lung Foundation, Karolinska Institutet, Baxter Healthcare.

The news correspondents obtained a quote from the research from Karolinska Institute, "These properties, which have been linked to kidney damage, are thought to be reflected by the lipophilic index (LI). We prospectively investigated the associations of LI with kidney function and its decline. Observational study from the Prospective Investigation of Vasculature in Uppsala Seniors including 975 men and women with plasma phospholipid FAs composition and cystatin-C estimate glomerular filtration rate (eGFR). Of these, 780 attended reexamination after 5 years, and eGFR changes were assessed. Participants with a 5-year eGFR reduction >= 30% were considered chronic kidney disease (CKD) progressors (n = 198). LI was calculated as the sum of the products of the FA proportions with the respective FAs melting points. Blood rheology/viscosity measurements were performed in a random subsample of 559 subjects at baseline. Increased LI showed a statistically significant but overall weak association with blood, plasma viscosity (both Spearman rho = 0.16, p < 0.01), and erythrocyte deformability (rho = -0.09, p < 0.05). In cross-sectional analyses, LI associated with lower eGFR (regression coefficient 3.00 ml/min/1.73 m(2) 1-standard deviation (SD) increment in LI, 95% CI: -4.31, -1.69, p < 0.001). In longitudinal analyses, LI associated with a faster eGFR decline (-2.13 [95%
CI -3.58, -0.69] ml/min/1.73 m(2), p< 0.01) and with 32% increased odds of CKD progression (adjusted OR 1.32 [95%, CI 1.05-1.65])."

According to the news reporters, the research concluded: "A high LI was associated with lower kidney function, kidney function decline, and CKD progression."

For more information on this research see: Lipophilic index, kidney function, and kidney function decline. Nutrition Metabolism and Cardiovascular Diseases, 2016;26 (12):1096-1103. Nutrition Metabolism and Cardiovascular Diseases can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England.

Our news journalists report that additional information may be obtained by contacting J.J. Carrero, Karolinska Inst, Center Mol Med, Stockholm, Sweden. Additional authors for this research include J. Arnlov, B. Sandhagen, U. Riserus, B. Lindholm, L. Lind and J.J. Carrero.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.numecd.2016.09.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stockholm, Sweden, Europe, Kidney Diseases and Conditions, Chronic Kidney Disease, Karolinska Institute.

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Health and Medicine - Clinical Dysmorphology

Reports Outline Clinical Dysmorphology Study Findings from University Hospital (A rare example of germ-line chromothripsis resulting in large genomic imbalance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Clinical Dysmorphology. According to news reporting from Cardiff, United Kingdom, by NewsRx journalists, research stated, "Chromothripsis is a recently described 'chromosome catastrophe' phenomenon in which multiple genomic rearrangements are generated in a single catastrophic event. Chromothripsis has most frequently been associated with cancer, but there have also been rare reports of chromothripsis in patients with developmental disorders and congenital anomalies."

The news correspondents obtained a quote from the research from University Hospital, "In contrast to the massive DNA loss that often accompanies chromothripsis in cancer, only minimal DNA loss has been reported in the majority of cases of chromothripsis that have occurred in the germ line. Presumably, this is because in most instances, large genomic losses would be lethal in utero. We report on a female patient with developmental delay and dysmorphism. G-banded chromosome analysis detected a subtle, interstitial deletion of chromosome 13 and a complex rearrangement of one X chromosome. Subsequent array comparative genomic hybridisation studies indicated nine deletions on the X chromosome ranging from 327 kb to 8 Mb in size. A 4.4 Mb deletion on chromosome 13 was also confirmed, compatible with the patient's clinical phenotype."

According to the news reporters, the research concluded: "We propose that this is a rare example of constitutional chromothripsis in association with relatively large genomic imbalances and that these have been tolerated in this case as they have occurred in a female on
the X chromosome, which has undergone preferential X inactivation."


Our news journalists report that additional information may be obtained by contacting S.E. Anderson, Laboratory Genetics, Institute of Medical Genetics, University Hospital of Wales, Cardiff, UK. Additional authors for this research include A. Kamath, D.T. Pilz and S.M Morgan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MCD.0000000000000113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Cardiff, Genetics, United Kingdom, Health and Medicine, Clinical Dysmorphology.

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Additional authors for this research include K. Gurumurthi and R. Domike.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cpt.507. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Clinical Pharmacology and Therapeutics, Drugs and Therapies, Massachusetts Institute of Technology.

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Clinical Research - Clinical Trials and Studies

Reports Outline Clinical Trials and Studies Findings from Dicle University (Efficiency of therapeutic ultrasound on pain, disability, anxiety, depression, sleep and quality of life in patients with subacromial impingement syndrome: A randomized ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Research - Clinical Trials and Studies. According to news reporting from Diyarbakir, Turkey, by NewsRx journalists, research stated, "Subacromial impingement syndrome (SIS) is characterized by pain and disability of shoulder. Various treatment methods have been used for SIS."

The news correspondents obtained a quote from the research from Dicle University, "The aim of our study was to evaluate efficacy of therapeutic ultrasound (US) on pain, disability, anxiety, depression, sleep quality and quality of life in patients with SIS. Patients with SIS were randomly divided into two groups, including the group 1 (continuous US group; 3 MHz, 1.5 W/cm2, n=26) and group 2 (sham US group, n=24). Additionally, transcutaneous electrical nerve stimulation (TENS) + exercise program were added in both groups. Pain and disability of the shoulder were assessed by the Shoulder Pain and Disability Index (SPADI), while anxiety and depression were evaluated using the Hospital Anxiety and Depression Scale. The Pittsburgh Sleep Quality Index (PSQI) was used to evaluate sleep quality. Quality of life was evaluated by the Nottingham Health Profile (NHP). Patients were evaluated at baseline and after end of three weeks. Both groups had significantly improvements in terms of SPADI-pain, SPADI-disability, SPADI-total, NHP-pain and NHP-sleep scores after the three weeks interventions. There were significantly improvements in the Group 1 in terms of PSQI-total, and NHP-physical activity. Group 2 had significantly improvements in terms of anxiety-HADS, depression-HADS and NHP-emotional reaction scores. In the inter-group comparison, there were no significantly differences in the change scores were observed in any domains of SPADI scores, anxiety, depression and sleep scores, or any NHP scores. Our study showed that US does not have any benefits on SIS."

According to the news reporters, the research concluded: "TENS + exercise program are not effective on anxiety, depression and fatigue, however TENS +$ exercise program are effective on pain, disability and sleep disturbance in patients with SIS."

Our news editors obtained a quote from the research from Health Science Center, "Secondary analysis of a randomised controlled parallel-group pilot trial. Canada, 2012-2013. 28 patients with stage 3 chronic kidney disease randomised (2:1) to a hydration (n=17) or control group (n=11). The hydration group was coached to increase water intake by up to 1.5 L/day for 6 weeks. The control group was asked to maintain regular water intake. Participants provided blood and 24 h urine samples at baseline and 6 weeks. Change in plasma copeptin was compared within and between study groups. Participants were 64% male with a mean age of 62 years and an estimated glomerular filtration rate of 40 mL/min/1.73 m(2). Between baseline and 6 weeks, 24 h urine volume increased by 0.7 L/day in the hydration group, rising from 2.3 to 3.0 L/day (p=0.01), while decreasing by 0.3 L/day among controls, from 2.0 to 1.7 L/day (p=0.07); between-group difference: 0.9 L/day (95% CI 0.37 to 1.46; p=0.002). In the hydration group, median copeptin decreased by 3.6 pmol/L, from 15.0 to 10.8 pmol/L (p=0.005), while remaining stable among controls at 19 pmol/L (p=0.76; p=0.19 for the between-group difference in median change); the between-group difference in mean change was 5.4 pmol/L (95% CI -1.2 to 12.0; p=0.11). Adults with stage 3 chronic kidney disease can be successfully randomised to drink approximately 1 L more per day than controls. This increased water intake caused a significant decrease in plasma copeptin concentration."

According to the news editors, the research concluded: "Our larger 12-month trial
will examine whether increased water intake can slow renal decline in patients with chronic kidney disease."

For more information on this research see: Effect of increased water intake on plasma copeptin in patients with chronic kidney disease: results from a pilot randomised controlled trial. *Bmj Open*, 2015;5(11):e008634. (BMJ Publishing Group - group.bmj.com/; Bmj Open - bmjopen.bmj.com/)

The news editors report that additional information may be obtained by contacting J.M. Sontrop, Division of Nephrology, Dept. of Medicine, London Health Sciences Centre, London, Ontario, Canada Dept. of Epidemiology & Biostatistics, Western University, London, Ontario, Canada. Additional authors for this research include S.H. Huang, A.X. Garg, L. Moist, A.A. House, K. Gallo and W.F Clark.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bmjopen-2015-008634. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Blood, London, Canada, Plasma, Ontario, Hormones, Hematology, Vasopressin, Clinical Research, North and Central America, Clinical Trials and Studies.

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**Gram-Positive Bacteria - Clostridium difficile**

**Reports Outline Clostridium difficile Study Results from L.K. Kociolek et al (Breakthroughs in the treatment and prevention of Clostridium difficile infection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Positive Bacteria - Clostridium difficile have been published. According to news reporting from Chicago, Illinois, by NewsRx journalists, research stated, "This Review summarizes the latest advances in the treatment and prevention of *Clostridium difficile* infection (CDI), which is now the most common health-care-associated infection in the USA. As traditional, standard CDI antibiotic therapies (metronidazole and vancomycin) are limited by their broad spectrum and further perturbation of the intestinal microbiota, which result in unacceptably high recurrence rates, novel therapeutic strategies for CDI are needed."

The news correspondents obtained a quote from the research, "Emerging CDI therapies are focused on limiting further perturbation of the intestinal microbiota and/or restoring the microbiota to its pre-morbid state, reducing colonization of the intestinal tract by toxigenic strains of *C. difficile* and bolstering the host immune response against *C. difficile* toxins. Fidaxomicin is associated with reduced CDI recurrences, and other emerging narrow-spectrum CDI antibiotic therapies might eventually demonstrate a similar benefit. Prevention of intestinal colonization of toxigenic strains of *C. difficile* can be achieved through restoration of the intestinal microbiota with faecal microbiota transplantation, as well as by colonizing the gut with nontoxigenic *C. difficile* strains. Finally, emerging immunological therapies, including monoclonal antibodies and vaccines against *C. difficile* toxins, might protect against CDI and subsequent CDI recurrences."

According to the news reporters, the research concluded: "The available clinical data
for these emerging therapies, and their relative advantages and disadvantages, are described.


Our news journalists report that additional information may be obtained by contacting L.K. Kociolek, Ann & Robert H Lurie Children's Hospital of Chicago, 225 East Chicago Avenue, Chicago, Illinois 60611, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrgastro.2015.220. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, Article Review, Risk and Prevention, Clostridium difficile, Gram Positive Bacteria, Gram-Positive Bacteria, North and Central America, Gram Positive Endospore Forming Rods, Gram Positive Endospore Forming Bacteria.

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**Digestive System Diseases and Conditions - Colitis**

**Reports Outline Colitis Study Results from University of Leeds (The relationship between different information sources and disease-related patient knowledge and anxiety in patients with inflammatory bowel disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Colitis have been published. According to news reporting originating in Leeds, United Kingdom, by NewsRx journalists, research stated, "Patient education forms a cornerstone of management of inflammatory bowel disease (IBD). The Internet has opened new avenues for information gathering."

Financial support for this research came from Warner Chilcott.

The news reporters obtained a quote from the research from the University of Leeds, "To determine the relationship between different information sources and patient knowledge and anxiety in patients with IBD. The use of information sources in patients with IBD was examined via questionnaire. Anxiety was assessed with the hospital anxiety and depression scale and disease-related patient knowledge with the Crohn's and colitis knowledge score questionnaires. Associations between these outcomes and demographics, disease-related factors, and use of different information sources were analysed using linear regression analysis. Of 307 patients (165 Crohn's disease, 142 ulcerative colitis) 60.6% were female. Participants used the hospital IBD team (82.3%), official leaflets (59.5%), and official websites (53.5%) most frequently in contrast to alternative health websites (9%). University education (P < 0.001), use of immunosuppressants (P = 0.025), Crohn's and Colitis UK membership (P = 0.001), frequent use of the hospital IBD team (P = 0.032), and frequent use of official information websites (P = 0.005) were associated with higher disease-related patient knowledge. Female sex (P = 0.004), clinically active disease (P < 0.001), frequent use of general practitioners (P = 0.014), alternative health websites (homoeopathy, nutritionists, etc.) (P = 0.004) and random links (P = 0.016) were
independently associated with higher anxiety. Different patient information sources are associated with better knowledge or worse anxiety levels. Face-to-face education and written information materials remain the first line of patient education."

According to the news reporters, the research concluded: "Patients should be guided towards official information websites and warned about the association between the use of alternative health websites or random links and anxiety."


The news correspondents report that additional information may be obtained by contacting C.P. Selinger, University of Leeds, Leeds Inst Biomed & Clin Sci, Leeds, W Yorkshire, United Kingdom. Additional authors for this research include I. Carbery, V. Warren, A.F. Rehman, C.J. Williams, S. Mumtaz, H. Bholah, R. Sood, D.J. Gracie, P.J. Hamlin and A.C. Ford.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13831. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leeds, United Kingdom, Europe, Digestive System Diseases and Conditions, Epidemiology, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Bowel Diseases and Conditions, Inflammatory Bowel Disease, Gastroenterology, Gastroenteritis, Hospital, Colitis, University of Leeds.

Oncology - Colon Cancer

Reports Outline Colon Cancer Findings from Radboud University (The genetic heterogeneity of colorectal cancer predisposition - guidelines for gene discovery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting from Nijmegen, Netherlands, by NewsRx journalists, research stated, "Colorectal cancer (CRC) is a cumulative term applied to a clinically and genetically heterogeneous group of neoplasms that occur in the bowel. Based on twin studies, up to 45 % of the CRC cases may involve a heritable component."

Financial supporters for this research include ZonMw, KWF Kankerbestrijding (NL), KWF Kankerbestrijding.

The news correspondents obtained a quote from the research from Radboud University, "Yet, only in 5-10 % of these cases high-penetrant germline mutations are found (e.g. mutations in APC and DNA mismatch repair genes) that result in a familial aggregation and/or an early onset of the disease. Genome-wide association studies have revealed that another similar to 5 % of the CRC cases may be explained by a cumulative effect of low-penetrant risk factors. Recent attempts to identify novel genetic factors using whole exome and whole genome
sequencing has proven to be difficult since the remaining, yet to be discovered, high penetrant CRC predisposing genes appear to be rare. In addition, most of the moderately penetrant candidate genes identified so far have not been confirmed in independent cohorts. Based on literature examples, we here discuss how careful patient and cohort selection, candidate gene and variant selection, and corroborative evidence may be employed to facilitate the discovery of novel CRC predisposing genes. The picture emerges that the genetic predisposition to CRC is heterogeneous, involving complex interplays between common and rare (inter)genic variants with different penetrances."

According to the news reporters, the research concluded: "It is anticipated, however, that the use of large clinically well-defined patient and control datasets, together with improved functional and technical possibilities, will yield enough power to unravel this complex interplay and to generate accurate individualized estimates for the risk to develop CRC."


Our news journalists report that additional information may be obtained by contacting R.P. Kuiper, Radboud University, Radboud Inst Mol Life Sci, Dept. of Human Genet, Medical Center, NL-6500 HB Nijmegen, Netherlands. Additional authors for this research include R.M. de Voer, N. Hoogerbrugge, M.J.L. Ligtenberg, R.P. Kuiper and A.G. van Kessel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13402-016-0284-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Cancer, Article Review, Risk and Prevention, Genetics, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Radboud University.

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**Oncology - Colon Cancer**

Reports Outline Colon Cancer Findings from University of California (Differential Radiographic Appearance of BRAF V600E-Mutant Metastatic Colorectal Cancer in Patients Matched by Primary Tumor Location)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news originating from San Francisco, California, by NewsRx correspondents, research stated, "BRAF-mutant metastatic colorectal cancers (mCRCs) share many clinicopathologic features with right-sided colon tumors, including frequent peritoneal involvement. Because of the poorer outcomes associated with BRAF mutations, early enrollment in clinical trials has been encouraged."

Our news journalists obtained a quote from the research from the University of California, "However, the use of standard eligibility and assessment criteria, such as measurable
disease, has anecdotally impeded patient accrual and restricted appraisal of treatment response. We investigated whether the presence of a BRAF V600E mutation is differentially associated with sites and appearance of metastatic disease in patients matched by primary tumor location. A total of 40 patients with BRAF-mutant mCRC were matched to 80 patients with BRAF wild-type mCRC by location of primary tumor (right or left colon; rectum), sex, and age. Associations between BRAF mutation status and clinicopathologic characteristics and metastatic sites were analyzed using proportion tests. Survival was summarized with Kaplan-Meier and Cox regression methods. The distribution of primary tumor locations was: 60% right colon, 30% left colon, and 10% rectum. Compared with BRAF wild-type tumors, BRAF-mutant tumors more commonly associated with peritoneal metastases (50% vs 31%; P=.045) and ascites (50% vs 24%; P=.0038). In patients with left colon primaries, BRAF mutations were associated with more frequent ascites (58% vs 12%; P=.0038) and less frequent liver metastases (42% vs 79%; P=.024). Among patients with right colon primaries, no significant difference in sites of disease by BRAF mutation status was observed. Disease was not measurable by RECIST 1.1 in 24% of patients with right-sided primary tumors, irrespective of BRAF mutation status. In the BRAF-mutated cohort, ascites correlated unfavorably with survival (hazard ratio, 2.35; 95% CI, 1.14, 4.83; P=.02)."

According to the news editors, the research concluded: "Greater frequency of ascites and peritoneal metastases, which pose challenges for RECIST 1.1 interpretation of therapeutic outcomes, are seen with BRAF-mutant mCRC, even when patients are matched for primary tumor location."

For more information on this research see: Differential Radiographic Appearance of BRAF V600E-Mutant Metastatic Colorectal Cancer in Patients Matched by Primary Tumor Location. *Journal of the National Comprehensive Cancer Network*, 2016;14(12):1536-1543. *Journal of the National Comprehensive Cancer Network* can be contacted at: Harborside Press, 37 Main St, Cold Spring Harbor, NY 11724, USA.

The news correspondents report that additional information may be obtained from C.E. Atreya, University of California, Helen Diller Family Comprehens Canc Center, San Francisco, CA 94143, United States. Additional authors for this research include C. Greene, R.M. McWhirter, N.S. Ikram, I.E. Allen, K. Van Loon, A.P. Venook, B.M. Yeh and S.C. Behr.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, Ascites, University of California.

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**Oncology - Colon Cancer**

**Reports Outline Colon Cancer Study Results from Shiraz University of Medical Sciences [Determination of a CD4(+)CD25(-)FoxP3(+) T cells subset in tumor-draining lymph nodes of colorectal cancer secreting IL-2 and IFN-gamma]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating from Shiraz, Iran, by NewsRx correspondents, research stated, "CD4(+)CD25(-)FoxP3(+) cells are a newly recognized subset of T cells which was first
reported in autoimmune diseases. In our previous study, this subset was detected in tumor-draining lymph nodes (TDLNs) of patients with breast cancer."

Our news editors obtained a quote from the research from the Shiraz University of Medical Sciences, "As little is known about their function in TDLNs of cancer patients, in this study, their frequency as well as their ability to produce interleukin (IL)-2, IL-10, or interferon (IFN)-gamma were investigated in TDLNs of colorectal cancer (CRC) patients. Mononuclear cells were isolated from lymph nodes of 13 patients with CRC using Ficoll-Hypaque gradient centrifugation. Cells were stimulated in vitro and stained with CD25, CD4, FoxP3, IFN-gamma, IL-10, and IL-2 or isotype matched antibodies and subjected to flow cytometry. The frequency of CD4(+)CD25(-)FoxP3(+)CD127(dim/-) cells was significantly lower than CD4(+)CD25(+) FoxP3(+)CD127(dim/-) population in TDLNs of CRC patients. The percentage of CD127 (dim/-) cells and also the MFI of FoxP3 expression was significantly lower in CD4(+CD25(-) FoxP3(+) in comparison with CD4(+)CD25(+)FoxP3(+) population. Moreover, CD4(+)CD25(-) FoxP3(+) cells contained higher percentages of IL-2- and IFN-gamma-producing cells than CD4 (+)CD25(+FoxP3(+) subpopulation. But, no difference was seen between two subsets in terms of IL-10 production."

According to the news editors, the research concluded: "CD4(+)CD25(-)FoxP3(+) cells in TDLNs of CRC patients had lower suppressive and higher effector properties in comparison with CD4(+)CD25(+)FoxP3(+) conventional regulatory T cells."

For more information on this research see: Determination of a CD4(+)CD25(-) FoxP3(+) T cells subset in tumor-draining lymph nodes of colorectal cancer secreting IL-2 and IFN-gamma. *Tumor Biology*, 2016;37(11):14659-14666. *Tumor Biology* can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news editors report that additional information may be obtained by contacting A. Ghaderi, Shiraz University of Medical Science, Sch Med, Dept. of Immunol, Shiraz, Iran.

Additional authors for this research include F. Mehdipour, S.V. Hosseini, L. Ghahramani, M. Hosseinzadeh and A. Ghaderi.

Keywords for this news article include: Shiraz, Iran, Asia, Hemic and Immune Systems, Colorectal Research, Gastroenterology, Lymphoid Tissue, Colon Cancer, Lymph Nodes, Immunology, Oncology, Shiraz University of Medical Sciences.

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**Oncology - Colon Cancer**

**Reports Outline Colon Cancer Study Results from Soochow University**

**(Total laparoscopic right hemicolecction with 3-step stapled intracorporeal isoperistaltic ileocolic anastomosis for colon cancer An evaluation of short-term outcomes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Laparoscopic right hemicolecction with extracorporeal anastomosis is a widely used procedure; several authors have published their approach to intracorporeal anastomosis. In this paper, we present an approach developed by us and compare..."
short-term outcomes with those of extracorporeal anastomosis in colon cancer patients."

Our news journalists obtained a quote from the research from Soochow University, "Retrospective review of colon cancer patients treated with laparoscopic right hemicolectomy either with intracorporeal anastomosis (TLG group) or extracorporeal anastomosis (LG group) at the Zhangjiagang Hospital Affiliated to Soochow University between January 2011 and October 2015. Operative and postoperative data are compared. Around 85 patients underwent laparoscopic hemicolecotomy (56 TLG and 29 LG) during the reference period for this study. Age, gender, body mass index (BMI), stage of cancer, operation time, number of lymph nodes harvested, and length of hospital stay were comparable between the two groups. In the TLG group, the ileocolic anastomosis time was significantly shorter (9.9-11.5 minutes vs 13.5-18.2 minutes in LG; P<0.001), the mean intraoperative blood loss was lower (83.2 mL [range, 56.5-100.5 mL] vs 93.3 mL [range, 75.8 - 110.3 mL]; P<0.001), the recovery of bowel function was faster (P<0.001), and the postoperative pain score was lower (P<0.001) as compared to that in the LG group. Complications in the LG group included wound infection (4 patients), obstruction (1), and postoperative bleeding complications (1); however, only 1 patient developed complication (wound infection) in the TLG group. Total laparoscopic right hemicolecotomy with 3-step stapled intracorporeal anastomosis for colon cancer is a safe and reliable procedure."

According to the news editors, the research concluded: "Its advantages include short anastomosis time, less intraoperative blood loss, less postoperative pain, and early bowel function recovery."

For more information on this research see: Total laparoscopic right hemicolecotomy with 3-step stapled intracorporeal isoperistaltic ileocolic anastomosis for colon cancer An evaluation of short-term outcomes. Medicine, 2016;95(48):239-243. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from B. Zhang, Soochow Univ, Zhangjiagang Hosp, Dept. of Gen Surg, Zhangjiagang, Jiangsu, People's Republic of China. Additional authors for this research include S.S. Wang, B. Zhang, J. Fang and L. Zhou.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Bacterial Infections and Mycoses, Wound Infections, Hemicolecotomy, Colon Cancer, Hospital, Oncology, Surgery, Soochow University.

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Oncology - Colon Cancer

Reports Outline Colon Cancer Study Results from University of South Carolina (IL-33 promotes growth and liver metastasis of colorectal cancer in mice by remodeling the tumor microenvironment and inducing angiogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting out of Columbia, South Carolina, by NewsRx editors, research stated, "Liver metastasis is the major cause of death from colorectal cancer (CRC). Understanding its mechanisms is necessary for timely diagnosis and development of effective therapies."
Our news journalists obtained a quote from the research from the University of South Carolina, "Interleukin-33 (IL-33) is an IL-1 cytokine family member that uniquely functions as a cytokine and nuclear factor. It is released by necrotic epithelial cells and activated innate immune cells, functioning as an alarmin or an early danger signal. Its role in invoking type 2 immune response has been established; however, it has contrasting roles in tumor development and metastasis. We identified IL-33 as a potently upregulated cytokine in a highly metastatic murine CRC cell line and examined its role in tumor growth and metastasis to the liver. IL-33 was transgenically expressed in murine and human adenocarcinoma and carcinoma cell lines and their growth and spontaneous metastasis to the liver were assessed in orthotopic models of CRC in wild-type C57Bl/6 and Il33 knockout mice. The results showed that increased expression of IL-33 in CRC cells enhanced their tumor take, growth, and liver metastasis. Tumor- rather than host-derived IL-33 induced the enhanced recruitment of CD11b(+) GR1(+) and CD11b(+)F4/80(+) myeloid cells to remodel the tumor microenvironment by increased expression of mobilizing cytokines, and tumor angiogenesis by activating endothelial cells. IL-33 expression was elevated in patient tumor tissues, induced early in adenoma development, and activated by pro-inflammatory cytokines derived from the tumor microenvironment."

According to the news editors, the research concluded: "The data suggest that tumor-derived IL-33 modulates the tumor microenvironment to potently promote colon carcinogenesis and liver metastasis, underscoring its potential as a therapeutic target."


Our news journalists report that additional information may be obtained by contacting M.M.O. Pena, University of South Carolina, Center Colon Canc Res, Columbia, SC, United States. Additional authors for this research include C. Davis, S. Shah, D. Hughes, J.C. Ryan, D. Altomare and M.M.O. Pena.

Keywords for this news article include: Columbia, South Carolina, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Colorectal Research, Gastroenterology, Liver Metastasis, Angiogenesis, Colon Cancer, Hepatology, Cytokines, Oncology, University of South Carolina.

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**Oncology - Colorectal Cancer**

**Reports Outline Colorectal Cancer Study Findings from General Hospital (Increased risk of colorectal neoplasia in patients with primary sclerosing cholangitis and inflammatory bowel disease: a meta-analysis of 16 observational studies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Colorectal Cancer is the subject of a report. According to news reporting originating in Shandong, People's Republic of China, by NewsRx journalists, research stated, "Ulcerative colitis (UC) patients with concomitant primary
sclerosing cholangitis (PSC) carry an increased risk of colorectal neoplasia (dysplasia and cancer), whereas the association between PSC and the development of colorectal neoplasia in Crohn's disease (CD) is controversial. A meta-analysis was carried out to compare the risk of this neoplasia in patients with inflammatory bowel disease (IBD) with and without PSC."

The news reporters obtained a quote from the research from General Hospital, "A systematic research of MEDLINE, EMBASE and the Cochrane Central Register of Controlled Trials was performed to identify studies that compared the risk of colorectal neoplasia (dysplasia and cancer) in patients with IBD with and without PSC. Quality assessment was performed using the Newcastle-Ottawa Scale. Pooled odds ratio (OR) was calculated using the random-effects model by STATA 12.0. A total of 16 studies (four cohort studies, 12 case-control studies; nine prospective studies and seven retrospective studies) were selected for further study. These studies included 13 379 IBD patients, of whom 1022 also had PSC. Patients with IBD and PSC were at an increased risk of colorectal dysplasia and cancer compared with patients with IBD alone [OR 3.24; 95% confidence interval (CI): 2.14-4.90]. This increased risk was present even when the risk of colorectal cancer alone was analysed (OR 3.41; 95% CI: 2.13-5.48). Data only from patients with UC showed that PSC was associated with an increased risk for the development of colorectal neoplasia and cancer in patients with UC (OR 2.98; 95% CI: 1.54-5.76) (OR 3.01; 95% CI: 1.44-6.29), but there were high heterogeneity among studies (I²= 76.9 and 62.8%, respectively). Heterogeneity of the studies was affected by the study design (prospective or retrospective). The OR of colorectal neoplasia was 2.32 (95% CI: 0.70-7.70, p= 0.133) and that of cancer was 2.91 (95% CI: 0.84-10.16, p=0.388) for patients with CD and concurrent PSC. Patients with IBD and PSC have a markedly higher risk for the development of colorectal neoplasia than patients with IBD, but not PSC. Stratification by IBD type show that the presence of PSC is associated with an increased risk for the development of colorectal neoplasia in patients with UC; however, there is a nonsignificant association in CD patients."

According to the news reporters, the research concluded: "When the risk of colorectal cancer alone is analysed, the conclusion does not change."


Our news correspondents report that additional information may be obtained by contacting H.H. Zheng, a Postgraduate Training Base of the General Hospital of Jinan Military Command, Liaoning Medical University, Dept. of Gastroenterology, The General Hospital of Jinan Military Command, Jinan, Shandong, People's Republic of China.

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Keywords for this news article include: Shandong, Oncology, Dysplasia, Neoplasia, Dermatology, Article Review, Crohn's Disease, Gastroenteritis, Gastroenterology, Colorectal Cancer, Colorectal Research, Risk and Prevention, People's Republic of China, Inflammatory Bowel Disease, Bowel Diseases and Conditions, Primary Sclerosing Cholangitis.

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Reports Outline Cor Triatriatum Study Results from University of Toronto (Catheter-Based Palliation in an Infant With Obstructed Cor Triatriatum)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Cor Triatriatum have been published. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "A 33-day-old infant with obstructed cor triatriatum sinister and partial anomalous pulmonary venous drainage presented with respiratory distress and fever."

Our news editors obtained a quote from the research from the University of Toronto, "Her suprasystemic pulmonary hypertension was relieved by opening the connection to the right atrium using balloon atrial septoplasty and septostomy, and to the inferior chamber using balloon dilation of a fenestration in the dividing membrane. This enabled extubation and discharge, with elective surgical repair at 2 months."

According to the news editors, the research concluded: "To our knowledge, this is the youngest patient to receive a catheter intervention for obstructed cor triatriatum sinister, providing relief of pulmonary hypertension and postponement of surgical repair."


The news editors report that additional information may be obtained by contacting R.R. Chaturvedi, University of Toronto, Hospital for Sick Children, Div Cardiol, Dept. of Paediat, Toronto, ON, Canada. Additional authors for this research include J.P. Sandoval, L. Grosse-Wortmann, E. Jaeggi and R.R. Chaturvedi.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Cardiovascular Diseases and Conditions, Lung Diseases and Conditions, Heart Disorders and Diseases, Cardiovascular Abnormalities, Congenital Heart Defects, Congenital Abnormalities, Pulmonary Hypertension, Cor Triatriatum, Heart Disease, University of Toronto.

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Cystic Fibrosis

Reports Outline Cystic Fibrosis Findings from Catholic University of Louvain (High-level resistance to meropenem in clinical isolates of Pseudomonas aeruginosa in the absence of carbapenemases: role of active efflux and porin alterations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cystic Fibrosis. According to news
reporting originating in Brussels, Belgium, by NewsRx journalists, research stated, "High-level carbapenem resistance is worryingly increasing in clinical isolates and is often attributed to carbapenemase expression. This study aimed to determine the mechanisms leading to high-level meropenem resistance in six carbapenemase-negative Pseudomonas aeruginosa isolated from cystic fibrosis (CF) patients and seven carbapenemase-positive isolates from patients suffering from hospital-acquired pneumonia (HAP)."

The news reporters obtained a quote from the research from the Catholic University of Louvain, "MICs were determined in the absence or presence of L-arginine or glycine-glutamate as competitive substrates for OprD (OccD1) or OpdP (OccD3), respectively, or the efflux pump inhibitor Phe-Arg beta-naphthylamide (PA beta N). beta-Lactamases were screened by phenotypic tests and/or PCR. The oprD gene and its promoter were sequenced; protein expression was evidenced by SDS-PAGE. mexA, mexX, mexC and mexE transcripts were evaluated by real-time and semiquantitative PCR. Meropenem/ imipenem MICs were 64-128/16-32 mg/L and 128/128-256 mg/L in CF and HAP isolates, respectively; PA beta N reduced meropenem MICs to 4-16 mg/L only and specifically in CF isolates; porin competitors had no effect on MICs. All isolates showed an increase in transcription levels of mexA, mexX and/or mexC and mutations in oprD leading to production of truncated proteins. AmpC-type cephalosporinases were overexpressed in CF isolates and VIM-2 was expressed in HAP isolates. Antibiotic exclusion from bacteria by concomitant efflux and reduced uptake is sufficient to confer high-level resistance to meropenem in isolates overexpressing AmpC-type cephalosporinases. As efflux is preponderant in these isolates, it confers a paradoxical phenotype where meropenem is less active than imipenem."

According to the news reporters, the research concluded: "Concomitant susceptibility testing of both carbapenems and rapid elucidation of the most probable resistance mechanisms is thus warranted."


Our news correspondents report that additional information may be obtained by contacting F. Van Bambeke, Catholic University of Louvain, Louvain Drug Res Inst, Pharmacol Cellulaire & Mol, B-1200 Brussels, Belgium. Additional authors for this research include Y. Saenz, H. Rodriguez-Villalobos, O. Denis, B.C. Kahl, P.M. Tulkens and F. Van Bambeke.

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Keywords for this news article include: Brussels, Belgium, Europe, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Lung Diseases and Conditions, Gram-Negative Bacteria, Pseudomonas aeruginosa, Gammaproteobacteria, Membrane Proteins, Pseudomonadaceae, Cystic Fibrosis, Proteobacteria, Ion Channels, Genetics, Porins, Catholic University of Louvain.

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Reports Outline Cystic Fibrosis Study Findings from Erasmus University Medical Center (Correction of lung inflammation in a F508del CFTR murine cystic fibrosis model by the sphingosine-1-phosphate lyase inhibitor LX2931)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Cystic Fibrosis is the subject of a report. According to news reporting out of Rotterdam, Netherlands, by NewsRx editors, research stated, "Progressive lung disease with early onset is the main cause of mortality and morbidity in cystic fibrosis patients. Here we report a reduction of sphingosine-1-phosphate (S1P) in the lung of unchallenged Cftr(tm1EUR) F508del CFTR mutant mice."

Financial supporters for this research include Dutch Lung Foundation, Dutch Cf Foundation (NCFS).

Our news journalists obtained a quote from the research from Erasmus University Medical Center, "This correlates with enhanced infiltration by inducible nitric oxide synthase (iNOS)expressing granulocytes, B cells, and T cells. Furthermore, the ratio of macrophage-derived dendritic cells (MoDC) to conventional dendritic cells (cDC) is higher in mutant mouse lung, consistent with unprovoked inflammation. Oral application of a S1P lyase inhibitor (LX2931) increases S1P levels in mutant mouse tissues. This normalizes the lung MoDC/cDC ratio and reduces B and T cell counts. Lung granulocytes are enhanced, but iNOS expression is reduced in this population. Although lung LyC6+ monocytes are enhanced by LX2931, they apparently do not differentiate to MoDC and macrophages. After challenge with bacterial toxins (LPS-fMLP) we observe enhanced levels of proinflammatory cytokines TNF-alpha, KC, IFN gamma, and IL-12 and the inducible mucin MUC5AC in mutant mouse lung, evidence of deficient resolution of inflammation. LX2931 does not prevent transient inflammation or goblet cell hyperplasia after challenge, but it reduces MUC5AC and proinflammatory cytokine levels toward normal values. We conclude that lung pathology in homozygous mice expressing murine F508del CFTR, which represents the most frequent mutation in CF patients, is characterized by abnormal behavior of infiltrating myeloid cells and delayed resolution of induced inflammation."

According to the news editors, the research concluded: "This phenotype can be partially corrected by a S1P lyase inhibitor, providing a rationale for therapeutic targeting of the S1P signaling pathway in CF patients."


Our news journalists report that additional information may be obtained by contacting B.J. Scholte, Erasmus MC, Cell Biol, Rotterdam, Netherlands. Additional authors for this research include M. Stolarczyk, D. Radzioch, G. Wojewodka, J.B. De Sanctis, W.A. Dik, O. Dzyubachyk, T. Oravec, I. de Kleer and B.J. Scholte.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00298.2016. This DOI is a link to an online electronic document that is either free or for purchase.
Lung Diseases and Conditions - Cystic Fibrosis

Reports Outline Cystic Fibrosis Study Results from D. Fraser-Pitt et al (Activity of Cysteamine against the Cystic Fibrosis Pathogen Burkholderia cepacia Complex)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Lung Diseases and Conditions - Cystic Fibrosis. According to news originating from Aberdeen, United Kingdom, by NewsRx correspondents, research stated, "There are no wholly successful chemotherapeutic strategies against Burkholderia cepacia complex (BCC) colonization in cystic fibrosis (CF). We assessed the impact of cysteamine (Lynovex) in combination with standard-of-care CF antibiotics in vitro against BCC CF isolates by the concentration at which 100% of bacteria were killed (MIC100) and checkerboard assays under CLSI standard conditions."

Our news journalists obtained a quote from the research, "Cysteamine facilitated the aminoglycoside-, fluoroquinolone- and folate pathway inhibitor-mediated killing of BCC organisms that were otherwise resistant or intermittently sensitive to these antibiotic classes. Slow-growing BCC strains are often recalcitrant to treatment and form biofilms."

According to the news editors, the research concluded: "In assessing the impact of cysteamine on biofilms, we demonstrated inhibition of BCC biofilm formation at sub-MIC(100)s of cysteamine."

For more information on this research see: Activity of Cysteamine against the Cystic Fibrosis Pathogen Burkholderia cepacia Complex. Antimicrobial Agents and Chemotherapy, 2016;60(10):6200-6206. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from D. Fraser-Pitt, NovaBiot Ltd, Craibstone, Bucksburn, Aberdeen, United Kingdom. Additional authors for this research include D. Mercer, E. Lovie, J. Robertson and D. O'Neil.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01198-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aberdeen, United Kingdom, Europe, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Gram-Negative Aerobic Rods and Cocci, Pancreatic Diseases and Conditions, Gram-Negative Aerobic Bacteria, Lung Diseases and Conditions, Burkholderia cepacia complex, Gram-Negative Bacteria, Mercaptoethylamines, Betaproteobacteria, Burkholderiaceae, Cystic Fibrosis, Proteobacteria, Cysteamine.
Reports Outline Dementia Study Findings from Asia University
(Diverticular disease and additional comorbidities associated with increased risk of dementia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurodegenerative Diseases and Conditions - Dementia. According to news reporting from Taichung, Taiwan, by NewsRx journalists, research stated, "Colonic diverticular disease may cause a chronic systemic effect, but its role in the development of dementia remains unclear. The purpose of this study was to investigate the potential increased risk for dementia in colonic diverticular disease."

The news correspondents obtained a quote from the research from Asia University, "We conducted a population-based cohort study using data from Taiwan's National Health Insurance Research Database. A total of 66,377 sex-matched, age-matched, and index year-matched (1:4) pairs of patients with colonic diverticular disease and 265,508 patients without colonic diverticular disease, who served as controls, were selected from all potential participants aged 20 years or older in the database. Each subject was individually tracked from 2000 to 2011 to identify incident cases of dementia. Cox proportional hazards regression was employed to calculate the hazard ratios and 95% confidence intervals for the association between colonic diverticular disease and dementia. There were 1057 dementia cases in the diverticular disease cohort during the follow-up period of 315,171 person-years; the overall incidence rate of dementia differed from that of the control group (3.35 vs 2.43 per 1000 person-years, P< 0.001). The adjusted hazard ratio for dementia was 1.24 (95% confidence interval 1.15-1.33) for diverticular disease patients after adjusting for age, sex, and comorbidities."

According to the news reporters, the research concluded: "Colonic diverticular disease may be associated with increased risk for dementia."


Our news journalists report that additional information may be obtained by contacting C.H. Kao, Asia Univ, Dept. of Bioinform & Med Engn, Taichung, Taiwan. Additional authors for this research include C.L. Lin, H.Z. Yeh, C.F. Tung, C.S. Chang and C.H. Kao.

Keywords for this news article include: Taichung, Taiwan, Asia, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Diverticular Disease, Epidemiology, Brain Diseases and Conditions, Risk and Prevention, Dementia, Asia University.

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**Mental Health Diseases and Conditions - Depression**

**Reports Outline Depression Findings from University of Montpellier**

(Patterns of selective serotonin reuptake inhibitor use and risk of falls and fractures in community-dwelling elderly people: the Three-City cohort)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mental Health Diseases and Conditions - Depression have been published. According to news reporting originating from Montpellier, France, by NewsRx correspondents, research stated, "In this population-based elderly cohort, participants using selective serotonin reuptake inhibitor (SSRI) antidepressants have an increased risk of falls and fractures notably when the treatment was continued over 4 years. Among the various SSRI types, citalopram only was at significant risk for falls and fluoxetine for fractures."

Financial support for this research came from Fondation pour la Recherche Medicale.

Our news editors obtained a quote from the research from the University of Montpellier, "Increased risk of falls and fractures has been reported in elderly users of SSRIs. However, biases were insufficiently addressed notably temporality between exposure and outcome and confounding by residual depression. Our objective was to examine the associations between SSRIs and fall or fracture incidence focusing on their chronic use and different types of SSRIs. The population-based cohort included participants aged 65 years and above, who had not fallen before inclusion (n = 6599) or were free of recent fracture (n = 6823) and were followed up twice over 4 years. New fall and fracture events were self-reported and defined as at least two falls and one fracture, respectively, during the previous 2 years. SSRI users were compared with those taking no antidepressants. Hazard ratios (HRs) were estimated using Cox models with delayed entry and adjusted for many confounders including residual depressive symptoms. Incidence of falls was 19.3 % over 4 years and that of fractures 9.5 %. After multi-adjustment, SSRI intake was significantly associated with a higher risk of falls (HR, 95 % CI = 1.58, 1.23-2.03) and fractures (HR, 95 % CI = 1.61, 1.16-2.24). The risks were significantly increased by 80 % in those continuing the treatment over 4 years. Citalopram intake only was at significant risk for falls and fluoxetine for fractures. In this large community-dwelling elderly sample, SSRI users were at higher risk of falls and fractures. This association was not due to reverse causality or residual depressive symptoms."

According to the news editors, the research concluded: "Different SSRI drugs may have specific adverse effects on falls and fractures."

For more information on this research see: Patterns of selective serotonin reuptake inhibitor use and risk of falls and fractures in community-dwelling elderly people: the Three-City cohort. *Osteoporosis International*, 2016;27(11):3187-3195. *Osteoporosis International* can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - www.springer.com; Osteoporosis International - www.springerlink.com/content/0937-941x/)

The news editors report that additional information may be obtained by contacting I. Carriere, University of Montpellier, F-U1061 Montpellier, France. Additional authors for this research include A. Farre, J. Norton, M. Wyart, C. Tzourio, P. Noize, K. Peres, A. Fourrier-Reglat and M.L. Ancelin.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1007/s00198-016-3667-7. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Montpellier, France, Europe, Selective
Serotonin Reuptake Inhibitor, Risk and Prevention, Epidemiology, Mental Health Diseases
and Conditions, Serotonin Reuptake Inhibitors, Biological Factors, Organic Chemicals,
Biogenic Amines, Tryptamines, Depression, Autacoids, Therapy, SSRI, University of
Montpellier.

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Nutritional and Metabolic Diseases and Conditions - ...

Reports Outline Diabetic Angiopathies Study Findings from Yang Ming
National University (Regulatory SNPs Alter the Gene Expression of
Diabetic Retinopathy Associated Secretary Factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions -
Diabetic Angiopathies is now available. According to news reporting originating in Taipei,
Taiwan, by NewsRx journalists, research stated, "Diabetic retinopathy (DR) is a common
microvascular complication in both type I and type II diabetes. Several previous reports
indicated the serum centration of some secretary factors were highly associated with DR."

The news reporters obtained a quote from the research from Yang Ming National
University, "Therefore, we hypothesis regulatory SNPs (rSNPs) genotype in secretary factors
may alter these gene expression and lead to DR. At first, pyrosequencing were applying to
screen the SNPs which present allele frequency different in DR and DNR. Then individual
genotyping was processed by Taqman assays in Taiwanese DR and DNR patients. To evaluate
the effect of SNP allele on transcriptional activity, we measured promoter activity using
luciferase reporter constructs. We found the frequencies of the CC, CG, and GG genotype of the
rs2010963 polymorphism were 15.09%, 47.14%, and 37.74% in DR and 12.90%, 19.35%, and
67.74% in DNR, respectively (p = 0.0205). The prevalence of DR was higher (p = 0.00793) in
patients with the CC or CG genotype (62.26% and 32.26% for DR and DNR, respectively)
compared with the patients with the GG genotype. To evaluate the effect of rs2010963-C allele
on transcriptional activity, we measured promoter activity using luciferase reporter constructs.
The rs2010963-C reporter showed 1.6 to 2-fold higher luciferase activity than rs2010963-G in 3
cell lines. Our data proposed rs2010963-C altered the expression level of VEGFA in different
tissues."

According to the news reporters, the research concluded: "We suggested small
increase but long term exposure to VEGFA may lead to DR finally."

For more information on this research see: Regulatory SNPs Alter the Gene
Expression of Diabetic Retinopathy Associated Secretary Factors. *International Journal of
Medical Sciences*, 2016;13(9):717-723. *International Journal of Medical Sciences* can be
contacted at: Ivyspring Int Publ, PO Box 4546, Lake Haven, Nsw 2263, Australia.

Our news correspondents report that additional information may be obtained by
contacting C.Y. Tsai, Yang Ming National University, Inst Public Hlth, Taipei, Taiwan.
Additional authors for this research include S.W. Liou, H.H. Wu, C.H. Lin, L.S. Huang, L.C.
Woung and C.Y. Tsai.

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Keywords for this news article include: Taipei, Taiwan, Asia, Nutritional and Metabolic Diseases and Conditions, Vascular Diseases and Conditions, Retinal Diseases and Conditions, Eye Diseases and Conditions, Bioluminescence, Genetics, Enzymes and Coenzymes, Diabetic Angiopathies, Luminescent Proteins, Diabetic Retinopathy, Ophthalmology, Endocrinology, Luciferases, Diabetes, Yang Ming National University.

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**Diabetic Neuropathy**

**Reports Outline Diabetic Neuropathy Study Findings from Roma Tor Vergata University (Recent advances in exploring the genetic susceptibility to diabetic neuropathy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Diabetic Neuropathy have been presented. According to news reporting out of Rome, Italy, by NewsRx editors, research stated, "Diabetic polyneuropathy and cardiovascular autonomic neuropathy are common and disabling complications of diabetes. Although glycaemic control and cardiovascular risk factors are major contributory elements in its development, diabetic neuropathy recognizes a multifactorial influence and a multiplicity of pathogenetic mechanisms."

Our news journalists obtained a quote from the research from Roma Tor Vergata University, "Thus genetic and environmental factors may contribute to its susceptibility, each with a modest contribution, by targeting various metabolic and microvascular pathways whose alterations intervene in diabetic neuropathy pathogenesis. This review is aimed at describing major data from the available literature regarding genetic susceptibility to diabetic neuropathies. It provides an overview of the genes reported as associated with the development or progression of these complications, i.e. ACE, MTHFR, GST, GLO1, APOE, TCF7L2, VEGF, IL-4, GPX1, eNOS, ADRA2B, GFRA2, MIR146A, MIR128A."

According to the news editors, the research concluded: "The identification of genetic susceptibility can help in both expanding the comprehension of the pathogenetic mechanisms of diabetic nerve damage and identifying biomarkers of risk prediction and response to therapeutic intervention."

For more information on this research see: Recent advances in exploring the genetic susceptibility to diabetic neuropathy. *Diabetes Research and Clinical Practice*, 2016;120():198-208. *Diabetes Research and Clinical Practice* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Diabetes Research and Clinical Practice - www.journals.elsevier.com/diabetes-research-and-clinical-practice/)

Our news journalists report that additional information may be obtained by contacting P. Borgiani, Roma Tor Vergata University, Genet Sect, Dept. of Biomed & Prevent, I-00133 Rome, Italy. Additional authors for this research include C. Ciccacci, C. D'Amato, G. Novelli, P. Borgiani and V. Spallone.
Diarylheptanoids

Reports Outline Diarylheptanoids Findings from Nanjing University (Nrf2 Knockdown Disrupts the Protective Effect of Curcumin on Alcohol-Induced Hepatocyte Necroptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Diarylheptanoids. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "It has emerged that hepatocyte necroptosis plays a critical role in chronic alcoholic liver disease (ALD). Our previous study has identified that the beneficial therapeutic effect of curcumin on alcohol-caused liver injury might be attributed to activation of nuclear factor (erythroid-derived 2)-like 2 (Nrf2), whereas the role of curcumin in regulating necroptosis and the underlying mechanism remain to be determined."

Financial supporters for this research include Natural Science Foundation of Jiangsu Province, National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from Nanjing University, "We first found that chronic alcohol consumption triggered obvious hepatocyte necroptosis, leading to increased expression of receptor-interacting protein 1, receptor-interacting protein 3, high-mobility group box 1, and phosphorylated mixed lineage kinase domain-like in murine livers. Curcumin dose-dependently ameliorated hepatocyte necroptosis and alleviated alcohol-caused decrease in hepatic Nrf2 expression in alcoholic mice. Then Nrf2 shRNA lentivirus was introduced to generate Nrf2-knockdown mice. Our results indicated that Nrf2 knockdown aggravated the effects of alcohol on liver injury and necroptosis and even abrogated the inhibitory effect of curcumin on necroptosis. Further, activated Nrf2 by curcumin inhibited p53 expression in both livers and cultured hepatocytes under alcohol stimulation. The next in vitro experiments, similar to in vivo ones, revealed that although Nrf2 knockdown abolished the suppression of curcumin on necroptosis of hepatocytes exposed to ethanol, p53 siRNA could clearly rescued the relative effect of curcumin. In summary, for the first time, we concluded that curcumin attenuated alcohol-induced hepatocyte necroptosis in a Nrf2/p53-dependent mechanism."

According to the news reporters, the research concluded: "These findings make curcumin an excellent candidate for ALD treatment and advance the understanding of ALD mechanisms associated with hepatocyte necroptosis."

For more information on this research see: Nrf2 Knockdown Disrupts the Protective Effect of Curcumin on Alcohol-Induced Hepatocyte Necroptosis. Molecular Pharmaceutics.
2016;13(12):4043-4053. *Molecular Pharmaceutics* can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

Our news journalists report that additional information may be obtained by contacting S.Z. Zheng, Nanjing Univ Chinese Med, Jiangsu Key Lab Pharmacol & Safety Evaluat Chines, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include W.X. Xu, F. Zhang, J.J. Shao and S.Z. Zheng.

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Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Alcoholic Liver Disease, Organic Chemicals, Gastroenterology, Diarylheptanoids, Hydrocarbons, Necroptosis, Catechols, Curcumin, Genetics, p53 Gene, Alkanes, Nanjing University.

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### Drugs and Therapies - Drug Delivery Systems

#### Reports Outline Drug Delivery Systems Study Findings from Chinese Academy of Sciences (Multitriggered Tumor-Responsive Drug Delivery Vehicles Based on Protein and Polypeptide Coassembly for Enhanced Photodynamic Tumor Ablation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Drug Delivery Systems. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Tumor-responsive nanocarriers are highly valuable and demanded for smart drug delivery particularly in the field of photodynamic therapy (PDT), where a quick release of photosensitizers in tumors is preferred. Herein, it is demonstrated that protein-based nanospheres, prepared by the electrostatic assembly of proteins and polypeptides with intermolecular disulfide cross-linking and surface polyethylene glycol coupling, can be used as versatile tumor-responsive drug delivery vehicles for effective PDT."

Financial supporters for this research include National Natural Science Foundation of China, Talent Fund of the Recruitment Program of Global Youth Experts, Chinese Academy of Sciences.

Our news editors obtained a quote from the research from the Chinese Academy of Sciences, "These nanospheres are capable of encapsulation of various photosensitizers including Chlorin e6 (Ce6), protoporphyrin IX, and verteporfin. The Chlorin e6-encapsulated nanospheres (Ce6-Ns) are responsive to changes in pH, redox potential, and proteinase concentration, resulting in multitriggered rapid release of Ce6 in an environment mimicking tumor tissues. In vivo fluorescence imaging results indicate that Ce6-Ns selectively accumulate near tumors and the quick release of Ce6 from Ce6-Ns can be triggered by tumors. In tumors the fluorescence of released Ce6 from Ce6-Ns is observed at 0.5 h postinjection, while in normal tissues the fluorescence appeared at 12 h postinjection."

According to the news editors, the research concluded: "Tumor ablation is demonstrated by in vivo PDT using Ce6-Ns and the biocompatibility of Ce6-Ns is evident from
the histopathology imaging, confirming the enhanced in vivo PDT efficacy and the biocompatibility of the assembled drug delivery vehicles.


The news editors report that additional information may be obtained by contacting X.H. Yan, Chinese Academy Sci, Inst Proc Engn, Center Mesosci, Beijing 100190, People's Republic of China. Additional authors for this research include F.F. Zhao, Q.L. Zou, Y.X. Li, G.H. Ma and X.H. Yan.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Drug Delivery Systems, Emerging Technologies, Drugs and Therapies, Nanotechnology, Biotechnology, Photodynamics, Nanosphere, Chinese Academy of Sciences.

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Drugs and Therapies - Drug Resistance

Reports Outline Drug Resistance Findings from Singapore National University [Thermoresponsive Delivery of Paclitaxel by beta-Cyclodextrin-Based Poly(N-isopropylacrylamide) Star Polymer via Inclusion Complexation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Drug Resistance. According to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Paclitaxel (PTX), a hydrophobic anticancer drug, is facing several clinical limitations such as low bioavailability and drug resistance. To solve the problems, a well-defined beta-cyclodextrin-poly(N-isopropylacrylamide) star polymer was synthesized and used as a nanocarrier to improve the water solubility and aim to thermoresponsive delivery of PTX to cancer cells."

Our news editors obtained a quote from the research from Singapore National University, "The star polymer was able to form supramolecular self-assembled inclusion complex with PTX via host guest interaction at room temperature, which is below the low critical solution temperature (LCST) of the star polymer, significantly improving the solubilization of PTX. At body temperature (above LCST), the phase transition of poly(N-isopropylacrylamide) segments induced the formation of nanoparticles, which greatly enhanced the cellular uptake of the polymer-drug complex, resulting in efficient thermoresponsive delivery of PTX."

According to the news editors, the research concluded: "In particular, the polymer drug complex exhibited better antitumor effects than the commercial formulation of PTX in overcoming the multi-drug resistance in AT3B-1 cells."

For more information on this research see: Thermoresponsive Delivery of Paclitaxel
Drugs and Therapies - Drugs Used In Alcohol

Reports Outline Drugs Used In Alcohol Dependence Study Results from Changchun Institute of Applied Chemistry [Pharmacological characterization of the opioid inactive isomers (+)-naltrexone and (+)-naloxone as antagonists of toll-like receptor 4]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drugs Used In Alcohol Dependence have been published. According to news reporting originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "The toll-like receptor TLR4 is involved in neuropathic pain and in drug reward and reinforcement. The opioid inactive isomers (+)-naltrexone and (+)-naloxone act as TLR4 antagonists, reversing neuropathic pain and reducing opioid and cocaine reward and reinforcement."

Funders for this research include National Institutes of Health, Australian Research Council Research Fellowship, National Natural Science Foundation of China, Natural Medicines, China Pharmaceutical University.

Our news editors obtained a quote from the research from the Changchun Institute of Applied Chemistry, "However, how these agents modulate TLR4 signalling is not clear. Here, we have elucidated the molecular mechanism of (+)-naltrexone and (+)-naloxone on TLR4 signalling. BV-2 mouse microglial cell line, primary rat microglia and primary rat peritoneal macrophages were treated with LPS and TLR4 signalling inhibitors. Effects were measured using Western blotting, luciferase reporter assays, fluorescence microscopy and ELISA KEY (+)-Naltrexone and (+)-naloxone were equi-potent inhibitors of the LPS-induced TLR4 downstream signalling and induction of the pro-inflammatory factors NO and TNF-a. Similarly, (+)-naltrexone or (+)-naloxone inhibited production of reactive oxygen species and increased microglial phagocytosis, induced by LPS. However, (+)-naltrexone and (+)-naloxone did not directly inhibit the increased production of IL-1β, induced by LPS. The drug interaction of (+)-naloxone and (+)-naltrexone was additive. (+)-Naltrexone or (+)-naloxone inhibited LPS-induced activation of IFN regulatory factor 3 and production of IFN-β. However, they did not inhibit TLR4 signalling via the activation of either NF-kβ, p38 or JNK in these cellular models.
(+)-Naltrexone and (+)-naloxone were TRIF-IFN regulatory factor 3 axis-biased TLR4 antagonists. They blocked TLR4 downstream signalling leading to NO, TNF-a and reactive oxygen species."

According to the news editors, the research concluded: "This pattern may explain, at least in part, the in vivo therapeutic effects of (+)-naltrexone and (+)-naloxone."


The news editors report that additional information may be obtained by contacting X. Wang, Chemical Biology Laboratory, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, Jilin, 130022, People's Republic of China. Additional authors for this research include Y. Zhang, Y. Peng, M.R. Hutchinson, K.C. Rice, H. Yin and L.R Watkins.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13394. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the British Journal of Pharmacology is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

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Oncology - Duodenal Cancer

Reports Outline Duodenal Cancer Study Findings from University of Pennsylvania (Lymph node evaluation and survival after curative-intent resection of duodenal adenocarcinoma: A matched cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Duodenal Cancer. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Lymph node (LN) metastasis in patients with duodenal adenocarcinoma is associated with poor prognosis; however, the optimal extent of LN assessment and the interaction between LN assessment and adjuvant systemic therapy is poorly understood. Resected non-metastatic duodenal adenocarcinoma patients (n = 1743) were identified in the National Cancer Database (1998-2011)."

The news correspondents obtained a quote from the research from the University of Pennsylvania, "Logistic regression analysis identified covariates associated with LN metastasis. The influence of increasing LN cut-off points on overall survival (OS) was analysed using the log-rank test and Cox proportional hazards modelling. Adjuvant chemotherapy (AC) and
surgery alone cohorts were matched (1:1) by propensity scores based on the likelihood of nodal metastasis or survival hazard on Cox modelling. OS in the matched cohort was compared by Kaplan-Meier estimates. LN metastases were present in 865 (49.6%) patients. Increasing LN assessment was associated with an increased likelihood of nodal involvement (P = 0.008). In node-negative patients, increasing LN assessment was associated with a decreased risk of death, with the largest actuarial survival differences observed for >= 15 LN (hazard ratio [HR] 0.63, 95% confidence interval [CI] 0.48-0.82, P = 0.001). In the propensity score-matched cohort of node-negative patients, AC was associated with non-significant improvements in 5-year actuarial (66.1% versus 58.7%, HR 0.79, 95% CI 0.53-1.18, P = 0.249), and did not vary by adequacy of LN counts (< 15 LNs: HR 0.79, 95% CI 0.51-1.24, P = 0.305; >= 15 LNs: HR 0.90, 95% CI 0.35-2.30, P = 0.900).

According to the news reporters, the research concluded: "The extent of LN identification has prognostic significance in resected node-negative duodenal adenocarcinoma, but cannot be implicated in the selection of non-dendegenative patients for AC."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejca.2016.09.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Adenocarcinoma, Risk and Prevention, Hemic and Immune Systems, Lymphoid Tissue, Duodenal Cancer, Lymph Nodes, Immunology, Oncology, University of Pennsylvania.

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End Stage Renal Disease

Reports Outline End Stage Renal Disease Study Findings from People's Hospital (Resveratrol Ameliorated Vascular Calcification by Regulating Sirt-1 and Nrf2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on End Stage Renal Disease have been presented. According to news reporting originating in Chengdu, People's Republic of China, by NewsRx journalists, research stated, "Pathologic vascular calcification is a significant reason for mortality and morbidity in patients who suffer from end-stage renal disease (ESRD). Resveratrol, a scavenger for many free radicals, is a crucial compound for biomedicine."
The news reporters obtained a quote from the research from People's Hospital, "However, the role and mechanism of resveratrol in vascular calcification is still unknown. In this study, to mimic vascular calcification in ESRD, we used beta-glycophosphate to stimulate the rat vascular smooth muscle cells (RASMCs). We investigate the therapeutic role of resveratrol pretreatment in vascular calcification. In the current in vitro study, we observe the effects of resveratrol on improving intracellular calcium deposition and protecting against mitochondria dysfunction in calcific RASMCs. Resveratrol decreased the mRNA level of fibroblast growth factor-23, then increased the mRNA level of klotho and the nuclear transcription factor NF-E2-related factor 2 (nuclear factor-erythroid 2 related factor 2 [Nrf2]) in RASMCs after calcification. Further, resveratrol activated the expression of sirtuin-1 and Nrf2, and inhibited the expression of osteopontin, runt-related transcription factor 2, and heme oxygenase-1. Our study shows that resveratrol could ameliorate oxidative injury of RASMCs by preventing vascular calcification induced calcium deposition and mitochondria dysfunction through involving sirtuin-1 and Nrf2."

According to the news reporters, the research concluded: "These results might indicate a novel role for resveratrol in resistance to oxidative stress for ESRD patients suffering from vascular calcification."


Our news correspondents report that additional information may be obtained by contacting L. Wang, Sichuan Prov Peoples Hosp, Chengdu 610072, People's Republic of China. Additional authors for this research include Y. Li, Y. Du, G. Li, L. Wang and F. Zhou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.10.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Genetics, Risk and Prevention, End Stage Renal Disease, People's Hospital.

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Environmental Health - Environmental Research and...
"By the use of unmanned aerial vehicle (UAV) photography and video processing techniques, the conflict type and severity was judged. Time to collision (TTC) was determined with the traffic conflict evaluation index. Then, the TTC severity threshold was determined. Quantizing the weight of the conflict by direct losses of different severities of freeway traffic accidents, the calculated weight of the HCRI can be obtained. Calibration of the relevant parameters of the micro-simulation simulator VISSIM is conducted by the travel time according to the field data. Variables are placed into orthogonal tables at different levels. On the basis of this table, the trajectory file of every traffic condition is simulated, and then submitted into a surrogate safety assessment model (SSAM), identifying the number of hourly traffic conflicts in the merging area, a statistic of HCRI. Moreover, the multivariate linear regression model was presented and validated to study the relationship between HCRI and the influencing variables. A comparison between the HCRI model and the hourly conflicts ratio (HCR), without weight, shows that the HCRI model fitting degree was obviously higher than the HCR."

According to the news editors, the research concluded: "This will be a reference to design and implement operational planners."

For more information on this research see: Crash Risk Prediction Modeling Based on the Traffic Conflict Technique and a Microscopic Simulation for Freeway Interchange Merging Areas. *International Journal of Environmental Research and Public Health*, 2016;13 (11):1623-1636. *International Journal of Environmental Research and Public Health* can be contacted at: MdpI Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting S. Li, Southeast Univ, Sch Transportat, Nanjing 210096, Jiangsu, People's Republic of China. Additional authors for this research include Q.J. Xiang, Y.F. Ma, X. Gu and H. Li.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Environmental Research and Public Health, Environmental Health, Southeast University.

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Enzymes and Coenzymes

Reports Outline Enzymes and Coenzymes Findings from National Reference Laboratory of Veterinary Drug Residues SCAU (Comparative Characterization of CTX-M-64 and CTX-M-14 Provides Insights into the Structure and Catalytic Activity of the CTX-M ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Enzymes and Coenzymes are discussed in a new report. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "Clinical isolates producing hybrid CTX-M beta-lactamases, presumably due to recombination between the bla(CTX-M-15) and bla(CTX-M-14) elements, have emerged in recent years. Among the hybrid enzymes, CTX-M-64 and CTX-M-14 display the most significant difference in catalytic activity."

Financial support for this research came from Chinese National Key Basic Research and Development (973) Program.

Our news journalists obtained a quote from the research from the National Reference Laboratory of Veterinary Drug Residues SCAU, "This study aims to investigate the mechanisms underlying such differential enzymatic activities in order to provide insight into the
structure/function relationship of this class of enzymes. Sequence alignment analysis showed that the major differences between the amino acid composition of CTX-M-64 and CTX-M-14 lie at both the N and C termini of the enzymes. Single or multiple amino acid substitutions introduced into CTX-M-64 and CTX-M-14 were found to produce only minor effects on hydrolytic functions; such a finding is consistent with the notion that the discrepancy between the functional activities of the two enzymes is not the result of only a few amino acid changes but is attributable to interactions between a unique set of amino acid residues in each enzyme. This theory is supported by the results of the thermal stability assay, which confirmed that CTX-M-64 is significantly more stable than CTX-M-14."

According to the news editors, the research concluded: "Our data confirmed that, in addition to the important residues located in the active site, residues distal to the active site also contribute to the catalytic activity of the enzyme through stabilizing its structural integrity."

For more information on this research see: Comparative Characterization of CTX-M-64 and CTX-M-14 Provides Insights into the Structure and Catalytic Activity of the CTX-M Class of Enzymes. Antimicrobial Agents and Chemotherapy, 2016;60(10):6084-6090. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00917-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Enzymes and Coenzymes, Amino Acids, Proteins, Peptides, National Reference Laboratory of Veterinary Drug Residues SCAU.

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Central Nervous System Diseases and Conditions -…

Reports Outline Epilepsy Study Findings from LUMC (Mortality in Dravet syndrome: A review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting originating from Leiden, Netherlands, by NewsRx correspondents, research stated, "Premature mortality is a major issue in Dravet syndrome (DS). To improve understanding of DS premature mortality, we conducted a comprehensive literature search with a particular emphasis on SUDEP."

Financial supporters for this research include Dutch National Epilepsy Fund, NIHR.

Our news editors obtained a quote from the research from LUMC, "We searched PubMed, Embase, Web of Science, Cochrane, CENTRAL, CINAHL, PsycINFO, Academic Search Premier, and ScienceDirect on the following terms: 'Dravet syndrome', 'severe myoclonic
epilepsy', 'SMEI', 'mortality', 'survivors', 'prognosis', and 'death'. DS cases or cohorts studies reporting mortality were included. The search yielded 676 articles and 86 meeting abstracts. After removing duplicates and screening titles and abstracts, full text of 73 articles was reviewed. Only 28 articles and six meeting abstracts met inclusion criteria. Five articles and four meeting abstracts were excluded, as the case(s) were also described elsewhere. After checking the references, five additional studies were included. The 30 items reported 177 unique cases. Sudden unexpected death in epilepsy was the likely cause in nearly half of the cases (n = 87, 49%), followed by status epilepticus (n = 56, 32%). Drowning or accidental death was reported in 14 cases (8%), infections in 9 (5%), other causes in six (3%), and unknown in five (3%). Age at death was reported for 142 of the 177 cases (80%), with a mean age of 8.7 +/- 9.8 years (SD); 73% died before the age of 10 years. Dravet syndrome is characterized by high epilepsy-related premature mortality and a marked young age at death. Sudden unexpected death in epilepsy is the leading reported cause of death in DS, accounting for nearly half of all deaths."

According to the news editors, the research concluded: "The cause of this excess mortality remains elusive but may be explained by epilepsy severity, as well as genetic susceptibility to SUDEP."

For more information on this research see: Mortality in Dravet syndrome: A review. *Epilepsy & Behavior*, 2016;64():69-74. *Epilepsy & Behavior* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Epilepsy & Behavior - www.journals.elsevier.com/epilepsy-and-behavior/)

The news editors report that additional information may be obtained by contacting R.D. Thijs, LUMC Leiden Univ, Medical Center, Dept. of Neurol, Leiden, Netherlands. Additional authors for this research include S.M. Sisodiya, W.B. Gunning, J.W. Sander and R.D. Thijs.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yebeh.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leiden, Netherlands, Europe, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Epilepsy, Article Review, Genetics, LUMC.

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**Gram-Negative Bacteria - Escherichia coli**

**Reports Outline Escherichia coli Study Findings from Third Military Medical University (Design of New Antibacterial Enhancers Based on AcrB's Structure and the Evaluation of Their Antibacterial Enhancement Activity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Negative Bacteria - Escherichia coli. According to news reporting originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "Previously, artesunate (AS) and dihydroartemisinine 7 (DHA7) were found to have antibacterial enhancement activity against Escherichia coli via inhibition of the efflux pump AcrB. However, they were only effective against E. coli standard strains."
Our news editors obtained a quote from the research from Third Military Medical University. "This study aimed to develop effective antibacterial enhancers based on the previous work. Our results demonstrate that 86 new antibacterial enhancers were designed via 3D-SAR and molecular docking. Among them, DHA27 had the best antibacterial enhancement activity. It could potentiate the antibacterial effects of ampicillin against not only E. coli standard strain but also clinical strains, and of beta-lactam antibiotics, not non-beta-lactam antibiotics. DHA27 could increase the accumulation of daunomycin and nile red within E. coli ATCC 35218, but did not increase the bacterial membrane permeability. DHA27 reduced acrB's mRNA expression of E. coli ATCC 35218 in a dose-dependent manner, and its antibacterial enhancement activity is related to the degree of acrB mRNA expression in E. coli clinical strains. The polypeptides from AcrB were obtained via molecular docking assay; the pre-incubated polypeptides could inhibit the activity of DHA27. Importantly, DHA27 had no cytotoxicity on cell proliferation."

According to the news editors, the research concluded: "Among newly designed antibacterial enhancers, DHA27 had favorable physical and pharmacological properties with no significant cytotoxicity at effective concentrations, and might serve as a potential efflux pump inhibitor in the future."

For more information on this research see: Design of New Antibacterial Enhancers Based on AcrB's Structure and the Evaluation of Their Antibacterial Enhancement Activity. *International Journal of Molecular Sciences*, 2016;17(11):2405-2424. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting Y. Song, Third Military Medical University, Dept. of Pharmacol, Coll Pharm, Chongqing 400038, People's Republic of China. Additional authors for this research include R.X. Qin, X.C. Pan, Q.Y. Ouyang, T.Y. Liu, Z.X. Zhai, Y.C. Chen, B. Li and H. Zhou.

Keywords for this news article include: Chongqing, People's Republic of China, Asia, Gram-Negative Bacteria, Antibacterial Agents, Gammaproteobacteria, Drugs and Therapies, Enterobacteriaceae, Escherichia coli, Escherichia Coli, Proteobacteria, Antimicrobials, Antibiotics, Genetics, Third Military Medical University.

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**Drugs and Therapies - Ethnopharmacology**

**Reports Outline Ethnopharmacology Study Results from Research Institute (Standardization of the manufacturing procedure for Pinelliae Rhizoma Praeparatum cum Zingibere et Alumine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Ethnopharmacology is now available. According to news reporting originating in Shenzhen, People's Republic of China, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Pinelliae Rhizoma (PR), the dried tuber of Pinellia ternata (Thunb.) Breit., is a traditional Chinese medicinal herb. It is commonly used for treating cancer, cough and phlegm."

Funders for this research include Research Grants Council of Hong Kong, National Natural Science Foundation of China, Science, Technology and Innovation Commission of Shenzhen, Guangdong Natural Science Foundation, Hong Kong Baptist University, Chinese
Pharmacopoeia Commission.

The news reporters obtained a quote from the research from Research Institute, "To treat cancer, Chinese medicine practitioners often use raw PR; while to treat cough and phlegm, they usually use Pinelliae Rhizoma Praeparatum cum Zingibere et Alumine (PRZA, raw PR processed with ginger juice and alum as adjuvant materials). Currently, the producing protocol of PRZA varies greatly among different places in China. This study aims to standardize the manufacturing procedure for PRZA. We also evaluated the impact of processing on the bioactivities and chemical profile of raw PR. We used the orthogonal design to optimize the manufacturing procedure of PRZA at bench scale, and validated the optimized procedure in pilot-scale production. The MTT assay was used to compare the cytotoxicities of raw PR and PRZA in hepatocellular carcinoma HepG2 cells. Animal models (ammonia liquor-induced cough model and phenol red secretion model) were used to compare the antitussive and expectorant effects of raw PR and PRZA, respectively. The chemical profiles of raw PR and PRZA samples were compared using a newly developed ultra-performance liquid chromatography/quadrupole-time-of-flight mass spectrometry (UPLC/Q-TOF-MS) method. The standardized manufacturing procedure for PRZA is as follows: soak raw PR in water until the center of the cut surface is devoid of a dry core, after that, boil the herb in water (for each 100 kg raw PR, 12.5 kg alum and 25 L freshly squeezed ginger juice are added) for 6 h, and then take out and dry them. The cytotoxicity of PRZA was less potent than that of raw PR. Intragastric administration of raw PR or PRZA demonstrated antitussive and expectorant effects in mice. These effects of PRZA were more potent than that of raw PR at the dose of 3 g/kg. By comparing the chemical profiles, we found that six peaks were lower, while nine other peaks were higher in PRZA than in raw PR. Six compounds corresponding to six individual changed peaks were tentatively identified by matching with empirical molecular formulae and mass fragments. The manufacturing procedure for PRZA was standardized. This protocol can be used for PRZA industrial production. The bioactivity assay results of raw PR and PRZA (produced using the standardized protocol) support the common practice for the clinical applications of these two decoction pieces. Moreover, raw PR and PRZA showed different chemical profiles."

According to the news reporters, the research concluded: "Further studies are warranted to establish the relationship between the alteration of chemical profiles and the changes of medicinal properties caused by processing."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.09.038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shenzhen, People's Republic of China, Asia, Ethnopharmacology, Drugs and Therapies, Research Institute.

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Reports Outline Fatty Acid Desaturases Findings from Southwestern Medical Center (Discovery of tumor-specific irreversible inhibitors of stearoyl CoA desaturase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Fatty Acid Desaturases have been published. According to news reporting originating from Dallas, Texas, by NewsRx correspondents, research stated, "A hallmark of targeted cancer therapies is selective toxicity among cancer cell lines. We evaluated results from a viability screen of over 200,000 small molecules to identify two chemical series, oxalamides and benzothiazoles, that were selectively toxic at low nanomolar concentrations to the same 4 of 12 human lung cancer cell lines."

Our news editors obtained a quote from the research from Southwestern Medical Center, "Sensitive cell lines expressed cytochrome P450 (CYP) 4F11, which metabolized the compounds into irreversible inhibitors of stearoyl CoA desaturase (SCD). SCD is recognized as a promising biological target in cancer and metabolic disease. However, SCD is essential to sebocytes, and accordingly SCD inhibitors cause skin toxicity. Mouse sebocytes did not activate the benzothiazoles or oxalamides into SCD inhibitors, providing a therapeutic window for inhibiting SCD in vivo."

According to the news editors, the research concluded: "We thus offer a strategy to target SCD in cancer by taking advantage of high CYP expression in a subset of tumors."


The news editors report that additional information may be obtained by contacting P.C. Theodoropoulos, Dept. of Biochemistry, UT Southwestern Medical Center, Dallas, Texas, United States. Additional authors for this research include S.S. Gonzales, S.E. Winterton, C. Rodriguez-Navas, J.S. McKnight, L.K. Morlock, J.M. Hanson, B. Cross, A.E. Owen, Y. Duan, J.R. Moreno, A. Lemoff, H. Mirzaei, B.A. Posner, N.S. Williams, J.M. Ready and D. Nijhawan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nchembio.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Texas, Dallas, Cancer, Oncology, Cell Line, Oxygenases, United States, Oxidoreductases, Enzymes and Coenzymes, Fatty Acid Desaturases, Stearoyl CoA Desaturase, North and Central America.

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Reports Outline Gallbladder Cancer Findings from International Agency for Research on Cancer (Burden of gallbladder cancer in Central and South America)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gallbladder Cancer. According to news reporting out of Lyon, France, by NewsRx editors, research stated, "Rationale and objective: Gallbladder carcinoma (GBC) is a rare neoplasm yet it is the most common malignancy of the biliary tract and its prognosis is poor. Incidence of GBC is high in some areas of Central and South America and the Caribbean."

Our news journalists obtained a quote from the research from International Agency for Research on Cancer, "We described the current burden of GBC in Central and South America (CSA). We obtained GBC incidence data from 48 population-based cancer registries in 13 countries in CSA, and national level cancer death data from the WHO mortality data base for 18 countries. We estimated World population age-standardized incidence and mortality rates per 100,000 persons-years, including distribution and incidence rates by anatomic subsite. GBC rates were the highest in countries located in the Andean region. In 2003-2007, Chile had the highest incidence and mortality rates in CSA (17.1 and 12.9 in females and 7.3 and 6.0 in males, respectively). Females had higher GBC rates than males. The most frequently diagnosed anatomic subsite was gallbladder (60%). Unspecified subsite represented 21% of all cases. Trends in incidence and mortality of GBC remained unchanged in Argentina, Brazil, Chile and Costa Rica in 1998-2008. GBC rates varied extensively across the CSA region reflecting, in part, differences in data quality, coverage and healthcare access. Chile had the highest GBC rates in CSA and the world."

According to the news editors, the research concluded: "The large proportion of unspecified cases indicates low precision in diagnosis/registration and highlights the need to promote and improve cancer registration in the region to better understand the burden of GBC in CSA."

For more information on this research see: Burden of gallbladder cancer in Central and South America. Cancer Epidemiology, 2016;44():S82-S89. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news journalists report that additional information may be obtained by contacting M.S. Sierra, Int Agcy Res Canc, Canc Surveillance Sect, Lyon, France. Additional authors for this research include L. Fernandez, D. Forman and M.S. Sierra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.07.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Gallbladder, Epidemiology, Gallbladder Cancer, Gastroenterology, Oncology, International Agency for Research on Cancer.

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Oncology - Gastric Cancer

Reports Outline Gastric Cancer Study Results from China Medical University and Hospital (Establishment of a gastric cancer subsline with high metastatic potential using a novel microfluidic system)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gastric Cancer is the subject of a report. According to news reporting originating in Shenyang, People's Republic of China, by NewsRx journalists, research stated, "Metastasis is an important hallmark of malignant tumors. In this study, we developed a microfluidic system to screen highly metastatic sublines via differential resolution of cell invasiveness."

The news reporters obtained a quote from the research from China Medical University and Hospital, "The system was composed of a PDMS-glass device connected with a syringe pump and a Petri dish. To facilitate the selection process, a long-term cell invasion driving force based on a chemotactic factor gradient was created using the Petri dish-based liquid supply pattern, and the invasive cells were collected for round-by-round selection via an open region in the chip. Using the system, we established an SGC-7901/B2 subsline from the human gastric cancer SGC-7901 cell line by only two rounds of selection. In vitro assays showed that the SGC-7901/B2 cells were superior to the parental cells in proliferation and invasiveness. Furthermore, an in vivo tumorigenicity assay demonstrated that compared with the parental cells, the subsline had stronger spontaneous metastatic and proliferative capability, which led to a shorter survival duration. Additionally, the protein expression differences including E-cadherin and Smad3 between the subsline and parental cells were revealed."

According to the news reporters, the research concluded: "This microfluidic system is a highly effective tool for selecting highly metastatic subslines, and SGC-7901/B2 cells could serve as a potential model for tumor metastasis research."

For more information on this research see: Establishment of a gastric cancer subsline with high metastatic potential using a novel microfluidic system. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting J. Fang, China Med Univ, Minist Educ, Key Lab Med Cell Biol, Shenyang 110122, People's Republic of China. Additional authors for this research include W.M. Li, Y. Zhang, M. Yu, L.F. Shan, D.Z. Yuan, F.R. Liu and J. Fang.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Gastroenterology, Gastric Cancer, Oncology, China Medical University and Hospital.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hormones - Gastrointestinal Hormones. According to news reporting originating from Dalian, People's Republic of China, by NewsRx correspondents, research stated, "A class of novel quinazoline derivatives bearing various C-4 aniline moieties was synthesized and biologically evaluated as potent epidermal growth factor receptor (EGFR) inhibitors for intervention of non-small-cell lung cancer (NSCLC). Most of these inhibitors are comparable to gefitinib in inhibiting these cancer cell lines, and several of them even displayed superior inhibitory activity."

Funders for this research include National Natural Science Foundation of China, Natural Science Foundation of Liaoning Province.

Our news editors obtained a quote from the research from Dalian Medical University, "In particular, analogue 5b with an IC[50] of 0.10 mm against the EGFR wild-type A431 cells and 5c with an IC[50] of 0.001 mm against the gefitinib-sensitive HCC827 cells (EGFR del E746-A750) was identified as highly active EGFR inhibitors. It was also significant that the discovered analogue 2f, not only has high potency against the gefitinib-sensitive cells (IC[50]=0.031 mm), but also possesses remarkably improved activity against the gefitinib-resistant cells."

According to the news editors, the research concluded: "In addition, the enzymatic assays and the Western blot analysis for evaluating the effects of the typical inhibitors indicated that these molecules strongly interfere with the EGFR target."


The news editors report that additional information may be obtained by contacting C. Wang, College of Pharmacy, Dalian Medical University, Dalian, 116044, People's Republic of China. Additional authors for this research include Y. Sun, X. Zhu, B. Wu, Q. Wang, Y. Zhen, X. Shu, K. Liu, Y. Zhou and X. Ma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbd.12692. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Chemical Biology & Drug Design is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Dalian, Cell Line, Protein Kinases, Membrane Proteins, Drugs and Therapies, Phosphotransferases, People's Republic of China, Epidermal Growth Factor Receptor, Receptor Protein Tyrosine Kinases, Gastrointestinal Hormone Receptors, Intercellular Signaling Peptides and Proteins.
Reports Outline Gastrointestinal Hormones Study Findings from University of Miami [Fluorescent Kinase Probes Enabling Identification and Dynamic Imaging of HER2(+) Cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hormones - Gastrointestinal Hormones. According to news reporting originating in Miami, Florida, by NewsRx journalists, research stated, "The human epidermal growth factor receptor, EGFR/ERBB/HER, family of receptor tyrosine kinases is central to many signaling pathways and a validated chemotherapy target in multiple cancers. While EGFR/ERBB-targeted therapies, including monoclonal antibodies, e.g., trastuzumab, and small molecule kinase inhibitors, such as lapatinib, have been developed, rapid identification and classification of cancer cells is key to identifying the best treatment regime."

Funders for this research include U.S. Department of Health and Human Services, American Cancer Society.

The news reporters obtained a quote from the research from the University of Miami, "We report ERBB2 (also HER2) targeting kinase probes that exhibit a 'turn-on' emission response upon binding. These live cell compatible probes differentiate ERBB2(+) cells from low-level, ERBB2(-) cells by targeting the intracellular ATP-binding pocket of ERBB2 with therapeutic inhibitor-like specificity. Beyond kinase expression levels, probe signal is linked to the phosphotyrosine-correlated activation state of the ERBB2 population."

According to the news reporters, the research concluded: "Additionally, the rapid signaling capability of the probes can report changes in activation state in live cells providing a unique type of complementary information to immunohistochemical assays of receptor kinase populations."


Our news correspondents report that additional information may be obtained by contacting R. Landgraf, University of Miami, Dept. of Biochem & Mol Biol, Miami, FL 33101, United States. Additional authors for this research include W.J. Liu, A.S. Brown, R. Landgraf and J.N. Wilson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.analchem.6b03836. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Gastrointestinal Hormones, Epidermal Growth Factors, Enzymes and Coenzymes, Kinase, University of Miami.

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Reports Outline Gene Therapy Study Findings from State University of New Jersey (Practical Issues with the Use of Stem Cells for Cancer Gene Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biotechnology - Gene Therapy. According to news reporting originating in Piscataway, New Jersey, by NewsRx journalists, research stated, "Stem cell-based drug delivery for cancer therapy has steadily gained momentum in the past decade as several studies have reported stem cells' inherent tropism towards tumors. Since this science is still in its early stages and there are many factors that could significantly impact tumor tropism of stem cells, some contradictory results have been observed."

The news reporters obtained a quote from the research from the State University of New Jersey, "This review starts by examining a number of proof-of-concept studies that demonstrate the potential application of stem cells in cancer therapy. Studies that illustrate stem cells' tumor tropism and discuss the technical difficulties that could impact the therapeutic outcome are also highlighted. The discussion also emphasizes stem cell imaging/tracking, as it plays a crucial role in performing reliable dose-response studies and evaluating the therapeutic outcome of treatment protocols. In each section, the pros and cons associated with each method are highlighted, limitations are underlined, and potential solutions are discussed."

According to the news reporters, the research concluded: "The overall intention is to familiarize the reader with important practical issues related to stem cell cancer tropism and in vivo tracking, underline the shortcomings, and emphasize critical factors that need to be considered for effective translation of this science into the clinic."

For more information on this research see: Practical Issues with the Use of Stem Cells for Cancer Gene Therapy. Stem Cell Reviews, 2015;11(5):688-98. Stem Cell Reviews can be contacted at: Springer, 233 Spring Street, New York, NY 10013, USA. (Springer - www.springer.com; Stem Cell Reviews - www.springerlink.com/content/1550-8943/)

Our news correspondents report that additional information may be obtained by contacting F.S. Nouri, Dept. of Pharmaceutics, Rutgers, The State University of New Jersey, William Levine Hall, Room 222, 160 Frelinghuysen Road, Piscataway, NJ, 08854, United States. Additional authors for this research include D. Banerjee and A. Hatefi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12015-015-9605-9. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Stem Cell Reviews can be contacted at: Springer, 233 Spring Street, New York, NY 10013, USA.

Keywords for this news article include: Biotechnology, Cancer, Genetics, Oncology, Piscataway, New Jersey, Gene Therapy, United States, Article Review, Bioengineering, Stem Cell Research, Drugs and Therapies, North and Central America.

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Life Science Research - Genetics

Reports Outline Genetics Study Findings from University of California School of Medicine (TGFb and BMP Dependent Cell Fate Changes Due to Loss of Filamin B Produces Disc Degeneration and Progressive Vertebrae Fusions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Genetics have been published. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "Spondylocarpotarsal synostosis (SCT) is an autosomal recessive disorder characterized by progressive vertebrae fusions and caused by loss of function mutations in Filamin B (FLNB). FLNB acts as a signaling scaffold by linking the actin cytoskeleton to signal transduction systems, yet the disease mechanisms for SCT remain unclear."

Our news journalists obtained a quote from the research from the University of California School of Medicine, "Employing a Filb knockout mouse, we found morphologic and molecular evidence that the intervertebral discs (IVDs) of Flnb/-mice undergo rapid and progressive degeneration during postnatal development as a result of abnormal cell fate changes in the IVD, particularly the annulus fibrosus (AF). In Flnb/-mice, the AF cells lose their typical fibroblast-like characteristics and acquire the molecular and phenotypic signature of hypertrophic chondrocytes. This change is characterized by hallmarks of endochondral-like ossification including alterations in collagen matrix, expression of Collagen X, increased apoptosis, and inappropriate ossification of the disc tissue. We show that conversion of the AF cells into chondrocytes is coincident with upregulated TGFb signaling via Smad2/3 and BMP induced p38 signaling as well as sustained activation of canonical and noncanonical target genes p21 and Ctgf. These findings indicate that FLNB is involved in attenuation of TGFb/BMP signaling and influences AF cell fate."

According to the news editors, the research concluded: "Furthermore, we demonstrate that the IVD disruptions in Flnb/-mice resemble aging degenerative discs and reveal new insights into the molecular causes of vertebrae fusions and disc degeneration."

For more information on this research see: TGFb and BMP Dependent Cell Fate Changes Due to Loss of Filamin B Produces Disc Degeneration and Progressive Vertebrae Fusions. Plos Genetics, 2016;12(3):e1005936. (Public Library of Science - www.plosgenetics.org; Plos Genetics - www.plosgenetics.org)

Our news journalists report that additional information may be obtained by contacting J. Zieba, Dept. of Human Genetics, David Geffen School of Medicine at the University of California at Los Angeles, Los Angeles, California, United States. Additional authors for this research include K.N. Forlenza, J.S. Khatra, A. Sarukhanov, I. Duran, D. Rigueur, K.M. Lyons, D.H. Cohn, A.E. Merrill and D. Krakow.

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Keywords for this news article include: Genetics, California, Los Angeles, United States, Life Science Research, North and Central America.

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Reports Outline Genetics Study Findings from University of Montreal
(Loss of Bmi1 causes anomalies in retinal development and
degeneration of cone photoreceptors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Genetics. According to news reporting originating from Montreal, Canada, by NewsRx correspondents, research stated, "Retinal development occurs through the sequential but overlapping generation of six types of neuronal cells and one glial cell type. Of these, rod and cone photoreceptors represent the functional unit of light detection and phototransduction and are frequently affected in retinal degenerative diseases."

Our news editors obtained a quote from the research from the University of Montreal, "During mouse development, the Polycomb group protein Bmi1 is expressed in immature retinal progenitors and differentiated retinal neurons, including cones. We show here that Bmi1 is required to prevent postnatal degeneration of cone photoreceptors and bipolar neurons and that inactivation of Chk2 or p53 could improve but not overcome cone degeneration in Bmi1(-/-) mice. The retinal phenotype of Bmi1(-/-) mice was also characterized by loss of heterochromatin, activation of tandem repeats, oxidative stress and Rip3-associated necroptosis. In the human retina, BMI1 was preferentially expressed in cones at heterochromatic foci. BMI1 inactivation in human embryonic stem cells was compatible with retinal induction but impaired cone terminal differentiation."

According to the news editors, the research concluded: "Despite this developmental arrest, BMI1-deficient cones recapitulated several anomalies observed in Bmi1(-/-) photoreceptors, such as loss of heterochromatin, activation of tandem repeats and induction of p53, revealing partly conserved biological functions between mouse and man."


The news editors report that additional information may be obtained by contacting G. Bernier, University of Montreal, Dept. of Ophthalmol, Montreal, PQ H3T 1J4, Canada. Additional authors for this research include V. Plamondon, M. Abdouh, W. Chatoo, A. Flamier, R. Hanna, S.F. Zhou, N. Motoyama, M. Hebert, J. Lavoie and G. Bernier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/dev.125351. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Genetics, p53 Gene, University of Montreal.

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Reports Outline Genetics Study Results from PEBC (Epigenetic inactivation of the p53-induced long noncoding RNA TP53 target 1 in human cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Genetics have been presented. According to news reporting originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Long noncoding RNAs (lncRNAs) are important regulators of cellular homeostasis. However, their contribution to the cancer phenotype still needs to be established."

Financial support for this research came from EC | European Research Council (ERC).

Our news editors obtained a quote from the research from PEBC, "Herein, we have identified a p53-induced lncRNA, TP53TG1, that undergoes cancer-specific promoter hypermethylation-associated silencing. In vitro and in vivo assays identify a tumor-suppressor activity for TP53TG1 and a role in the p53 response to DNA damage. Importantly, we show that TP53TG1 binds to the multifaceted DNA/RNA binding protein YBX1 to prevent its nuclear localization and thus the YBX1-mediated activation of oncogenes. TP53TG1 epigenetic inactivation in cancer cells releases the transcriptional repression of YBX1-targeted growth-promoting genes and creates a chemoresistant tumor. TP53TG1 hypermethylation in primary tumors is shown to be associated with poor outcome."

According to the news editors, the research concluded: "The epigenetic loss of TP53TG1 therefore represents an altered event in an lncRNA that is linked to classical tumoral pathways, such as p53 signaling, but is also connected to regulatory networks of the cancer cell."

For more information on this research see: Epigenetic inactivation of the p53-induced long noncoding RNA TP53 target 1 in human cancer. Proceedings of the National Academy of Sciences of the United States of America, 2016;113(47):E7535-E7544.
Proceedings of the National Academy of Sciences of the United States of America can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC 20418, USA. (National Academy of Sciences - www.nasonline.org; Proceedings of the National Academy of Sciences of the United States of America - www.nasonline.org/publications/pnas/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1608585113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Oncology, Genetics, p53 Gene, Cancer, PEBC.

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Reports Outline Genetics and Development Study Findings from University of Manchester [Transcriptional regulation of the proto-oncogene Zfp521 by SPI1 (PU.1) and HOXC13]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Genetics and Development. According to news reporting out of Manchester, United Kingdom, by NewsRx editors, research stated, "The mouse zinc-finger gene Zfp521 (also known as ecotropic viral insertion site 3; Evi3; and ZNF521 in humans) has been identified as a B-cell proto-oncogene, causing leukemia in mice following retroviral insertions in its promoter region that drive Zfp521 over-expression. Furthermore, ZNF521 is expressed in human hematopoietic cells, and translocations between ZNF521 and PAX5 are associated with pediatric acute lymphoblastic leukemia."

Our news journalists obtained a quote from the research from the University of Manchester, "However, the regulatory factors that control Zfp521 expression directly have not been characterized. Here we demonstrate that the transcription factors SPI1 (PU.1) and HOXC13 synergistically regulate Zfp521 expression, and identify the regions of the Zfp521 promoter required for this transcriptional activity. We also show that SPI1 and HOXC13 activate Zfp521 in a dose-dependent manner. Our data support a role for this regulatory mechanism in vivo, as transgenic mice over-expressing Hoxc13 in the fetal liver show a strong correlation between Hoxc13 expression levels and Zfp521 expression. Overall these experiments provide insights into the regulation of Zfp521 expression in a nononcogenic context."

According to the news editors, the research concluded: "The identification of transcription factors capable of activating Zfp521 provides a foundation for further investigation of the regulatory mechanisms involved in ZFP521-driven cell differentiation processes and diseases linked to Zfp521 mis-expression."


Our news journalists report that additional information may be obtained by contacting K.E. Hentges, University of Manchester, Fac Life Sci, Manchester M13 9PT, Lancs, United Kingdom. Additional authors for this research include S. Al-Dallal, L. Al-Haj, S. Panjwani, A.S. McCartney, S.M. Edwards, P. Manjunath, C. Walker, A. Awgulewitsch and K.E. Hentges.

Keywords for this news article include: Manchester, United Kingdom, Europe, Genetics and Development, Life Science Research, Genetics, University of Manchester.

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Oncology - Glioblastomas

Reports Outline Glioblastomas Study Results from University of Kebangsaan (Silencing of PROS1 induces apoptosis and inhibits migration and invasion of glioblastoma multiforme cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Glioblastomas is the subject of a report. According to news originating from Kuala Lumpur, Malaysia, by NewsRx correspondents, research stated, "Glioblastoma multiforme (GBM) is an aggressive brain tumor and most patients have poor prognosis. Despite many advances in research, there has been no significant improvement in the patient survival rate."

Our news journalists obtained a quote from the research from the University of Kebangsaan, "New molecular therapies are being studied and RNA interference (RNAi) therapy is one of the promising approaches to improve prognosis and increase survival in patients with GBM. We performed a meta-analysis of five different microarray datasets and identified 460 significantly upregulated genes in GBM. Loss-of-function screening of these upregulated genes using LN18 cells was performed to identify the significant target genes for glioma. Further investigations were performed using siRNA in LN18 cells and various functional assays were carried out on the selected candidate gene to understand further its role in GBM. We identified PROSI as a candidate gene for GBM from the meta-analysis and RNAi screening. Knockdown of PROS1 in LN18 cells significantly induced apoptosis compared to siPROS1-untreated cells (p <0.05). Migration in cells treated with siPROS1 was reduced significantly (p <0.05) and this was confirmed with wound-healing assay. PROS1 knockdown showed substantial reduction in cell invasion up to 82% (p <0.01). In addition, inhibition of PROS1 leads to decrease in cellular proliferation by 18%. Knockdown of PROS1 in LN18 cells caused activation of both of the extrinsic and intrinsic apoptotic pathways. It caused major upregulation of FasL which is important for death receptor signaling activation and also downregulation of GAS6 and other members of TAM family of receptors. PROS1 may play an important role in the development of GBM through cellular proliferation, migration and invasion as well as apoptosis."

According to the news editors, the research concluded: "Targeting PROS1 in GBM could be a novel therapeutic strategy in GBM treatment."

For more information on this research see: Silencing of PROS1 induces apoptosis and inhibits migration and invasion of glioblastoma multiforme cells. *International Journal of Oncology*, 2016;49(6):2359-2366. *International Journal of Oncology* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

The news correspondents report that additional information may be obtained from R. Jamal, Univ Kebangsaan Malaysia, UKM Med Mol Biol Inst, Kuala Lumpur 56000, Malaysia. Additional authors for this research include N.A.A. Murad, K. Ibrahim, N.M. Mokhtar, W.Z.W. Ngah, R. Harun and R. Jamal.

Keywords for this news article include: Kuala Lumpur, Malaysia, Asia, Apoptosis, Diagnostics and Screening, Genetics, Glioblastomas, Oncology, University of Kebangsaan.

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Oncology - Gliomas

Reports Outline Gliomas Findings from First Affiliated Hospital (Tumor-suppressive function of long noncoding RNA MALAT1 in glioma cells by downregulation of MMP2 and inactivation of ERK/MAPK signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gliomas have been published. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Metastasis-associated lung adenocarcinoma transcript 1 (MALAT1) is a type of long noncoding RNA. It is associated with metastasis and is a favorable prognostic factor for lung cancer."

Our news editors obtained a quote from the research from First Affiliated Hospital, "Recent studies have shown that MALAT1 plays an important role in other malignancies. But, little is known about the role of MALAT1 in glioma. In this study, quantitative reverse transcription PCR (qRT-PCR) was used to demonstrate that the expression of MALAT1 was lower than that in normal brain tissues. Stable RNA interference-mediated knockdown of MALAT1 in human glioma cell lines (U87 and U251) significantly promoted the invasion and proliferation of the glioma cells by in vitro assays. Conversely, overexpression of MALAT1 caused significant reduction in cell proliferation and invasion in vitro, and tumorigenicity in both subcutaneous and intracranial human glioma xenograft models. Furthermore, MALAT1-mediated tumor suppression in glioma cells may be via reduction of extracellular signal-regulated kinase/mitogen-activated protein kinase (ERK/MAPK) signaling activity and expression of matrix metalloproteinase 2 (MMP2)."

According to the news editors, the research concluded: "Overall data demonstrated the tumor-suppressive role of MALAT1 in glioma by attenuating ERK/MAPK-mediated growth and MMP2-mediated invasiveness."

For more information on this research see: Tumor-suppressive function of long noncoding RNA MALAT1 in glioma cells by downregulation of MMP2 and inactivation of ERK/MAPK signaling. Cell Death & Disease, 2016;7():e2123. (Nature Publishing Group - www.nature.com/cddis/)

The news editors report that additional information may be obtained by contacting Y. Han, Neurosurgery & Brain and Nerve Research Laboratory, The First Affiliated Hospital of Soochow University, Suzhou, Jiangsu, People's Republic of China. Additional authors for this research include Z. Wu, T. Wu, Y. Huang, Z. Cheng, X. Li, T. Sun, X. Xie, Y. Zhou and Z. Du.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2015.407. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Kinase, Jiangsu, Gliomas, Genetics, Oncology, Enzymes and Coenzymes, People's Republic of China.

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Oncology - Gliomas

Reports Outline Gliomas Study Results from Medical University of South Carolina (Delivery of a drug cache to glioma cells overexpressing platelet-derived growth factor receptor using lipid nanocarriers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gliomas. According to news reporting originating from Charleston, South Carolina, by NewsRx correspondents, research stated, "Glioblastoma multiforme is a devastating disease with no curative options due to the difficulty in achieving sufficient quantities of effective chemotherapies into the tumor past the blood-brain barrier. Micelles loaded with temozolomide (TMZ) were designed to increase the delivery of this drug into the brain. pH-responsive micelles composed of distearoyl phosphoethanolamine-PEG-2000-amine and N-palmitoyl homocysteine were surface-functionalized with PDGF peptide and Dylight 680 fluorophore."

Our news editors obtained a quote from the research from the Medical University of South Carolina, "PDGF-micelles containing TMZ have specific uptake and increased killing in glial cells compared with untargeted micelles. In vivo studies demonstrated selective accumulation of PDGF-micelles containing TMZ in orthotopic gliomas implanted in mice."

According to the news editors, the research concluded: "Targeted micelle-based drug carrier systems hold potential for delivery of a wide variety of hydrophobic drugs thereby reducing its systemic toxicity."


The news editors report that additional information may be obtained by contacting K. Miller, Dept. of Radiology & Radiological Sciences, Medical University of South Carolina, 68 President Street, MSC 120, BEB 213, Charleston, SC 29425, United States. Additional authors for this research include S. Dixit, A.L. Bredlau, A. Moore, E. McKinnon and A.M Broome.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/nnm.15.218. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gliomas, Oncology, Charleston, Nanocarriers, United States, South Carolina, Blood Proteins, Nanotechnology, Membrane Proteins, Peptide Receptors, Drugs and Therapies, Emerging Technologies, Growth Factor Receptors, North and Central America, Platelet Derived Growth Factors, Intercellular Signaling Peptides and Proteins.

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Reports Outline Gliomas Study Results from University of Jinan (Tailoring Particle Size of Mesoporous Silica Nanosystem To Antagonize Glioblastoma and Overcome Blood-Brain Barrier)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Gliomas are presented in a new report. According to news originating from Guangzhou, People's Republic of China, by NewsRx correspondents, research stated, "The blood-brain barrier (BBB) is the main bottleneck to prevent some macromolecular substance entering the cerebral circulation, resulting the failure of chemotherapy in the treatment of glioma. Cancer nanotechnology displays potent applications in glioma therapy owing to their penetration across BBB and accumulation into the tumor core."

Funders for this research include National Natural Science Foundation of China, Foundation for High-level Talents in Higher Education of Guangdong, Guangdong Province, Guangdong Frontier and Key Technological Innovation Special Funds, Science Foundation for Distinguished Young Scholars of Guangdong Province.

Our news journalists obtained a quote from the research from the University of Jinan, "In this study, we have tailored the particle size of mesoporous silica nanoparticles (MSNs) through controlling the hydrolysis rate and polycondensation degree of reactants, and optimized the nanosystem that could effectively penetrate BBB and target the tumor tissue to achieve enhanced antiglioma efficacy. The nanoparticle was conjugated with cRGD peptide to enhance its cancer targeting effect, and then used to load antineoplastic doxorubicin. Therefore, the functionalized nanosystem (DOX@MSNs) selectively recognizes and binds to the U87 cells with higher expression level of anb3 integrin, sequentially enhancing the cellular uptake and inhibition to glioma cells, especially the particle size at 40 nm. This particle could rapidly enter cancer cells and was difficult to excrete outside the cells, thus leading to high drug accumulation. Furthermore, DOX@MSNs exhibited much higher selectivity and anticancer activity than free DOX and induced the glioma cells apoptosis through triggering ROS overproduction. Interestingly, DOX@MSNs at about 40 nm exhibited stronger permeability across the BBB, and could disrupt the VM-capability of glioma cells by regulating the expression of E-cadherin, FAK, and MMP-2, thus achieving satisfactory antiglioblastoma efficacy and avoiding the unwanted toxic side effects to normal brain tissue."

According to the news editors, the research concluded: "Taken together, these results suggest that tailoring the particle size of MSNs nanosystem could be an effective strategy to antagonize glioblastoma and overcome BBB."


The news correspondents report that additional information may be obtained from J. Mo, Dept. of Chemistry, Jinan University, Guangzhou 510632, People's Republic of China. Additional authors for this research include L. He, B. Ma and T. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.5b11730. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Gliomas, Oncology,
Reports Outline HIV/AIDS Findings from Loyola University (Dynamic conformational changes in the rhesus TRIM5 alpha dimer dictate the potency of HIV-1 restriction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news reporting originating in Chicago, Illinois, by NewsRx journalists, research stated, "The TRIM5 alpha protein from rhesus macaques (rhTRIM5 alpha) mediates a potent inhibition of HIV-1 infection via a mechanism that involves the abortive disassembly of the viral core. We have demonstrated that alpha-helical elements within the Linker 2 (L2) region, which lies between the SPRY domain and the Coiled-Coil domain, influence the potency of restriction."

The news reporters obtained a quote from the research from Loyola University, "Here, we utilize single-molecule FRET analysis to reveal that the L2 region of the TRIM5 alpha dimer undergoes dynamic conformational changes, which results in the displacement of L2 regions by 25 angstroms relative to each other. Analysis of restriction enhancing or abrogating mutations in the L2 region reveal that restriction defective mutants are unable to undergo dynamic conformational changes and do not assume compact, alpha-helical conformations in the L2 region."

According to the news reporters, the research concluded: "These data suggest a model in which conformational changes in the L2 region mediate displacement of CA bound SPRY domains to induce the destabilization of assembled capsid during restriction."

For more information on this research see: Dynamic conformational changes in the rhesus TRIM5 alpha dimer dictate the potency of HIV-1 restriction. Virology, 2017;500():161-168. Virology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Virology - www.journals.elsevier.com/virology/)

Our news correspondents report that additional information may be obtained by contacting E.M. Campbell, Loyola University, Stritch Sch Med, Dept. of Microbiol & Immunol, Chicago, IL 60611, United States. Additional authors for this research include S. Mukherjee, N. Small, R.F. Pauszek, M. Bradley, J. Sastri, S.L. Robia, D. Millar and E.M. Campbell.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Genetics, HIV-1, Loyola University.

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Reports Outline HIV/AIDS Study Findings from University of Antioquia
(Precursor Forms of Vitamin D Reduce HIV-1 Infection In Vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting from Medellin, Colombia, by NewsRx journalists, research stated, "Although the anti-HIV-1 effects of vitamin D (VitD) have been reported, mechanisms behind such protection remain largely unexplored. The effects of two precursor forms (cholecalciferol/calciole at 0.01, 1 and 100 nM and calcidiol at 100 and 250 nM) on HIV-1 infection, immune activation, and gene expression were analyzed in vitro in cells of Colombian and Italian healthy donors."

The news correspondents obtained a quote from the research from the University of Antioquia, "We quantified levels of released p24 by enzyme-linked immunosorbent assay, of intracellular p24 and cell-surface expression of CD38 and HLA-DR by flow cytometry, and mRNA expression of antiviral and immunoregulatory genes by real-time reverse transcription-polymerase chain reaction. Cholecalciferol decreased the frequency of HIV-1-infected p24(+) CD4(+) T cells and levels of p24 in supernatants in a dose-dependent manner. Moreover, the CD4(+)CD38(+)HLA-DR+ and CD4(+)/CD38(-)/HLA-DR+ subpopulations were more susceptible to infection but displayed the greatest cholecalciferol-induced decreases in infection rate by an X4-tropic strain. Likewise, cholecalciferol at its highest concentration decreased the frequency of CD38(-)/HLA-DR+ but not of CD38(+)HLA-DR+ T-cell subsets. Analyzing the effects of calcidiol, the main VitD source for immune cells and an R5-tropic strain as the most frequently transmitted virus, a reduction in HIV-1 productive infection was also observed. In addition, an increase in mRNA expression of APOBEC3G and PI3 and a reduction of TRIM22 and CCR5 expression, this latter positively correlated with p24 levels, was noted."

According to the news reporters, the research concluded: "VitD reduces HIV-1 infection in T cells possibly by inducing antiviral gene expression, reducing the viral co-receptor CCR5 and, at least at the highest cholecalciferol concentration, by promoting an HIV-1-restrictive CD38(+)HLA-DR2 immunophenotype."

For more information on this research see: Precursor Forms of Vitamin D Reduce HIV-1 Infection In Vitro. Jaids-Journal of Acquired Immune Deficiency Syndromes, 2016;73 (5):497-506. Jaids-Journal of Acquired Immune Deficiency Syndromes can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting M.T. Rugeles, Univ Antioquia UdeA, Fac Med, Grp Inmunovirol, Medellin 050010, Colombia. Additional authors for this research include S. Villegas-Ospina, S. Gonzalez, W. Zapata, I. Saulle, M. Garziano, M. Biasin, M. Clerici and M.T. Rugeles.

Keywords for this news article include: Medellin, Colombia, South America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Genetics, HIV-1, University of Antioquia.

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Immune System Diseases and Conditions - HIV/AIDS

Reports Outline HIV/AIDS Study Findings from University of KwaZulu-Natal (Binding Free Energy Calculations of Nine FDA-approved Protease Inhibitors Against HIV-1 Subtype C I36T↑T Containing 100 Amino Acids Per Monomer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news originating from Durban, South Africa, by NewsRx correspondents, research stated, "In this work, we have investigated the binding affinities of nine FDA-approved protease inhibitor drugs against a new HIV-1 subtype C mutated protease, I36T↑T. Without an X-ray crystal structure, homology modelling was used to generate a three-dimensional model of the protease."

Financial supporters for this research include Neurosciences Research Foundation, Inyuvesi Yakwazulu-Natali, University of the Witwatersrand, Johannesburg.

Our news journalists obtained a quote from the research from the University of KwaZulu-Natal, "This and the inhibitor models were employed to generate the inhibitor/I36T↑T complexes, with the relative positions of the inhibitors being superimposed and aligned using the X-ray crystal structures of the inhibitors/HIV-1 subtype B complexes as a reference. Molecular dynamics simulations were carried out on the complexes to calculate the average binding free energies for each inhibitor using the molecular mechanics generalized Born surface area (MM-GBSA) method. When compared to the binding free energies of the HIV-1 subtype B and subtype C proteases (calculated previously by our group using the same method), it was clear that the I36T↑T proteases mutations and insertion had a significant negative effect on the binding energies of the non-pepditic inhibitors nelfinavir, darunavir and tipranavir. On the other hand, ritonavir, amprenavir and indinavir show improved calculated binding energies in comparison with the corresponding data for wild-type C-SA protease."

According to the news editors, the research concluded: "The computational model used in this study can be used to investigate new mutations of the HIV protease and help in establishing effective HIV drug regimes and may also aid in future protease drug design."


The news correspondents report that additional information may be obtained from H.A. Lockhat, Catalysis and Peptide Research Unit, School of Health Sciences, University of KwaZulu-Natal, Durban, 4001, South Africa. Additional authors for this research include J.R. Silva, C.N. Alves, T. Govender, J. Lameira, G.E. Maguire, Y. Sayed and H.G Kruger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbd.12690. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal Chemical Biology & Drug Design is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.
Keywords for this news article include: Durban, Genetics, HIV/AIDS, Peptides, Protease, Proteins, Amino Acids, RNA viruses, South Africa, Retroviridae, HIV infections, Vertebrate Viruses, Drugs and Therapies, Regulatory Agencies, Primate Lentiviruses, Enzymes and Coenzymes, Immune System Diseases and Conditions, Viral Sexually Transmitted Diseases and Conditions.

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**Reports Outline HIV/AIDS Study Findings from University of Michigan**

(Transcriptional start site heterogeneity modulates the structure and function of the HIV-1 genome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - HIV/AIDS have been published. According to news originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "The promoter in HIV type 1 (HIV-1) proviral DNA contains three sequential guanosines at the U3-R boundary that have been proposed to function as sites for transcription initiation. Here we show that all three sites are used in cells infected with HIV-1 and that viral RNAs containing a single 5' capped guanosine ((Cap)1G) are specifically selected for packaging in virions, consistent with a recent report [Masuda et al. (2015) Sci Rep 5: 17680]."

Financial support for this research came from HHS | NIH | National Institute of General Medical Sciences (NIGMS).

Our news journalists obtained a quote from the research from the University of Michigan, "In addition, we now show that transcripts that begin with two or three capped guanosines ((Cap)2G or (Cap)3G) are enriched on polysomes, indicating that RNAs synthesized from different transcription start sites have different functions in viral replication. Because genomes are selected for packaging as dimers, we examined the in vitro monomer-dimer equilibrium properties of (Cap)1G, (Cap)2G, and (Cap)3G 5'-leader RNAs in the NL4-3 strain of HIV-1. Strikingly, under physiological-like ionic conditions in which the (Cap)1G 5'-leader RNA adopts a dimeric structure, the (Cap)2G and (Cap)3G 5'-leader RNAs exist predominantly as monomers. Mutagenesis studies designed to probe for base-pairing interactions suggest that the additional guanosines of the 2G and 3G RNAs remodel the base of the PolyA hairpin, resulting in enhanced sequestration of dimer-promoting residues and stabilization of the monomer."

According to the news editors, the research concluded: "Our studies suggest a mechanism through which the structure, function, and fate of the viral genome can be modulated by the transcriptionally controlled presence or absence of a single 5' guanosine."

The news correspondents report that additional information may be obtained from A. Telesnitsky, University of Michigan, Sch Med, Dept. of Microbiol & Immunol, Ann Arbor, MI 48109, United States. Additional authors for this research include S. Monti, P.J. Smaldino, V. Van, N.C. Bolden, J.D. Brown, E. Russo, C. Swanson, A. Shuey, A. Telesnitsky and M.F. Summers.

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http://dx.doi.org/10.1073/pnas.1616627113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Genetics, HIV-1, University of Michigan.

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Heart Disorders and Diseases - Heart Attack

Reports Outline Heart Attack Findings from University of British Columbia (Sudden cardiac death: A reappraisal)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news originating from Vancouver, Canada, by NewsRx correspondents, research stated, "Sudden cardiac death (SCD) is still among the leading causes of death in women and men, accounting for over 50% of all fatal cardiovascular events in the United States. Two arrhythmia mechanisms of SCD can be distinguished as follows: shockable rhythms (ventricular fibrillation and pulseless ventricular tachycardia) and non-shockable rhythms including asystole or pulseless electrical activity."

Our news journalists obtained a quote from the research from the University of British Columbia, "The overall prognosis of cardiac arrest due to shockable rhythms is significantly better. While the majority of SCDs is attributed to coronary artery disease or other structural heart disease, no obvious cause can be identified in 5% of all events, and those events are labeled as sudden unexplained deaths (SUD). Those unexplained events are typically caused by rare hereditary electrical disorders or arrhythmogenic cardiomyopathies. A systematic approach to the diagnosis of cardiac arrest followed by tailored therapy based on etiology has emerged in the last 10-15 years, with significant changes of medical practice and risk management of cardiac arrest victims. The aim of this review is to summarize our contemporary understanding of SCD/SUD in adults and to discuss current concepts of management and secondary prevention in cardiac arrest victims."

According to the news editors, the research concluded: "A full discussion of the topic of primary prevention of SCD is beyond the scope of this article."


The news correspondents report that additional information may be obtained from A.D. Krahn, University of British Columbia, Heart Rhythm Serv, Vancouver, BC, Canada.
Additional authors for this research include Z.W.M. Laksrnan and A.D. Krahn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tcm.2016.05.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Heart Disorders and Diseases, Sudden Cardiac Death, Cardiac Arrest, Heart Attack, Cardiology, University of British Columbia.

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Heart Disorders and Diseases - Heart Disease

Reports Outline Heart Disease Findings from Erasmus University (Genetic Research and Women's Heart Disease: a Primer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Disease. According to news reporting originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "Purpose of Review This review provides a brief synopsis of sexual dimorphism in atherosclerosis with an emphasis on genetic studies aimed to better understand the atherosclerotic process and clinical outcomes in women. Such studies are warranted because development of atherosclerosis, impact of several traditional risk factors, and burden of coronary heart disease (CHD) differ between women and men."

Our news editors obtained a quote from the research from Erasmus University, "While most candidate gene studies pool women and men and adjust for sex, some sex-specific studies provide evidence of association between candidate genes and prevalent and incident CHD in women. So far, most genome-wide association studies (GWAS) also failed to consider sex-specific associations. The few GWAS focused on women tended to have small sample sizes and insufficient power to reject the null hypothesis of no association even if associations exist. Few studies consider that sex can modify the effect of gene variants on CHD. Sufficiently large-scale genetic studies in women of different race/ethnic groups, taking into account possible gene-gene and gene-environment interactions as well as hormone-mediated epigenetic mechanisms, are needed. Using the same disease definition for women and men might not be appropriate. Accurate phenotyping and inclusion of relevant outcomes in women, together with targeting the entire spectrum of atherosclerosis, could help address the contribution of genes to sexual dimorphism in atherosclerosis. Discovered genetic loci should be taken forward for replication and functional studies to elucidate the plausible underlying biological mechanisms."

According to the news editors, the research concluded: "A better understanding of the etiology of atherosclerosis in women would facilitate future prevention efforts and interventions."

For more information on this research see: Genetic Research and Women's Heart Disease: a Primer. Current Atherosclerosis Reports, 2016;18(11):38-47. Current Atherosclerosis Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

The news editors report that additional information may be obtained by contacting M. Kavousi, Erasmus University, Medical Center, Dept. of Epidemiol, NL-3000 CA Rotterdam,
Netherlands. Additional authors for this research include L.F. Bielak and P.A. Peyser.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Cardiovascular Diseases and Conditions, Article Review, Risk and Prevention, Heart Disorders and Diseases, Arterial Occlusive Diseases, Arteriosclerosis, Atherosclerosis, Heart Disease, Cardiology, Genetics, Erasmus University.

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Heart Disorders and Diseases - Heart Failure

Reports Outline Heart Failure Study Results from University of Groningen (Worsening renal function and outcome in heart failure patients with reduced and preserved ejection fraction and the impact of angiotensin receptor blocker treatment: data ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Failure is the subject of a report. According to news reporting originating from Groningen, Netherlands, by NewsRx correspondents, research stated, "We investigated the association between worsening renal function (WRF) that occurs during renin-angiotensin-aldosterone system inhibition initiation and outcome in heart failure (HF) patients with preserved ejection fraction (HFPEF) and compared this with HF patients with reduced ejection fraction (HFREF). We examined changes in estimated glomerular filtration rate (GFR) and the relationship between WRF (defined as >= 26.5 mu mol/L and >= 25% increase in serum creatinine from baseline to 6 weeks) and outcome, according to randomized treatment, in patients with HFREF (EF < 45%; n = 1569) and HFPEF (EF = 45%; n = 836) in the CHARM programme."

Our news editors obtained a quote from the research from the University of Groningen, "The primary outcome was cardiovascular death or HF hospitalization. Estimated GFR decreased 9.0+/-21 vs. 4.0+/-21 mL/min/1.73m(2) with candesartan and placebo, respectively, and this was similar in HFREF and HFPEF. WRF developed more frequently with candesartan, 16% vs. 7%, P < 0.001, with similar findings in patients with HFREF and HFPEF. WRF was associated with a higher risk of the primary outcome: multivariable hazard ratio (HR) 1.26, 95% confidence interval 1.03-1.54, P = 0.022, in both treatment groups, and in both HFREF and HFPEF (P for interaction 0.98). In HFREF, WRF was mostly related to HF hospitalization, while in HFPEF, WRF seemed more associated with mortality. GFR decreased more and WRF was more common with candesartan compared with placebo, and this was similar in HFREF and HFPEF. WRF was associated with worse outcomes in HFREF and HFPEF."

According to the news editors, the research concluded: "Although no formal interaction was present, the association between candesartan treatment, WRF, and type of clinical outcome was slightly different between HFREF and HFPEF."

The news editors report that additional information may be obtained by contacting K. Damman, University of Groningen, Groningen University Medical Center, Dept. of Cardiol, NL-9700 RB Groningen, Netherlands. Additional authors for this research include S.D. Solomon, M.A. Pfeffer, K. Swedberg, S. Yusuf, J.B. Young, J.L. Rouleau, C.B. Granger and J.J.V. McMurray.

Keywords for this news article include: Groningen, Netherlands, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, G-Protein-Coupled Receptors, Neuropeptide Receptors, Angiotensin Receptors, Biological Factors, Membrane Proteins, Peptide Receptors, Peptide Proteins, Peptide Hormones, Gastroenterology, Kidney Function, Renal Function, Heart Failure, Oligopeptides, Neuropeptides, Heart Disease, Angiotensins, Nephrology, Cardiology, Autacoids, Peptides, University of Groningen.

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Transplant Medicine - Heart Transplants
Reports Outline Heart Transplants Study Findings from Baylor University College of Medicine (Durable Mechanical Circulatory Support versus Organ Transplantation: Past, Present, and Future)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Transplant Medicine - Heart Transplants are presented in a new report. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "For more than 30 years, heart transplantation has been a successful therapy for patients with terminal heart failure. Mechanical circulatory support (MCS) was developed as a therapy for end-stage heart failure at a time when cardiac transplantation was not yet a useful treatment modality."

Our news editors obtained a quote from the research from the Baylor University College of Medicine, "With the more successful outcomes of cardiac transplantation in the 1980s, MCS was applied as a bridge to transplantation. Because of donor scarcity and limited long-term survival, heart transplantation has had a trivial impact on the epidemiology of heart failure. Surgical implementation of MCS, both for short-and long-term treatment, affords physicians an opportunity for dramatic expansion of a meaningful therapy for these otherwise mortally ill patients."

According to the news editors, the research concluded: "This review explores the evolution of mechanical circulatory support and its potential for providing long-term therapy, which may address the limitations of cardiac transplantation."


The news editors report that additional information may be obtained by contacting J. Anand, Dept. of Surgery, Baylor College of Medicine and Center for Cardiac Support, Texas Heart Institute, Houston, TX 77030, United States. Additional authors for this research include S.K. Singh, D.G. Antoun, W.E. Cohn, O.H. Frazier and H.R Mallidi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/849571. This DOI is a link to an online electronic document that is either free or for purchase.
Reports Outline Helper-Inducer T-Lymphocytes Findings from Seoul National University (Targeting IL-17 in autoimmunity and inflammation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Helper-Inducer T-Lymphocytes have been presented. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "The discovery of two distinct subsets of helper T cells, IFN-gamma-producing Th1 cells and IL-4-producing Th2 cells, about three decades ago enabled us to understand the immunopathology of cell-mediated and allergic inflammatory diseases in humans. The observation that T cell-mediated experimental autoimmune diseases can be induced in mice lacking Th1 and Th2 cell responses prompted many immunologists to hypothesize that there might be additional subsets in helper T cell population which mediate autoimmunity in the absence of Th1 and Th2 cells."

Financial support for this research came from National Research Foundation of Korea.

Our news editors obtained a quote from the research from Seoul National University, "Consequently, multiple independent research groups identified IL-17-expressing ROR gamma t (+)CD4(+) T cell population as a distinct subset of helper T cells which promotes autoimmune tissue inflammation. Subsequent studies have revealed that innate immune cells, including gamma delta T cells, NKT cells and innate lymphoid cells, also produce type 17 cytokines and contribute to tissue inflammation."

According to the news editors, the research concluded: "In this review, we discuss our current understanding on the biology of IL-17 and the therapeutic potential of targeting IL-17 for the treatment of immune disorders in humans."

For more information on this research see: Targeting IL-17 in autoimmunity and inflammation. Archives of Pharmacal Research, 2016;39(11):1537-1547. Archives of Pharmacal Research can be contacted at: Pharmaceutical Soc Korea, 1489-3 Suhcho-Dong, Suhcho-Ku, Seoul 137-071, South Korea. (Springer - www.springer.com; Archives of Pharmacal Research - www.springerlink.com/content/0253-6269/)

The news editors report that additional information may be obtained by contacting Y. Chung, Seoul National University, Coll Pharm, Plus Program BK21, Seoul 08826, South Korea. Additional authors for this research include Y.J. Park and Y. Chung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12272-016-0823-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Inflammation, Article Review, Helper-Inducer T-Lymphocytes, Immunology, Th2 Cells, Seoul National
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Stem Cell Research - Hematopoietic Stem Cells

Reports Outline Hematopoietic Stem Cells Findings from New York University (Hematopoietic Stem Cells Are the Major Source of Multilineage Hematopoiesis in Adult Animals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Stem Cell Research - Hematopoietic Stem Cells have been presented. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Hematopoietic stem cells (HSCs) sustain long-term reconstitution of hematopoiesis in transplantation recipients, yet their role in the endogenous steady-state hematopoiesis remains unclear. In particular, recent studies suggested that HSCs provide a relatively minor contribution to immune cell development in adults."

The news correspondents obtained a quote from the research from New York University, "We directed transgene expression in a fraction of HSCs that maintained reconstituting activity during serial transplantations. Inducible genetic labeling showed that transgene-expressing HSCs gave rise to other phenotypic HSCs, confirming their top position in the differentiation hierarchy. The labeled HSCs rapidly contributed to committed progenitors of all lineages and to mature myeloid cells and lymphocytes, but not to B-1a cells or tissue macrophages. Importantly, labeled HSCs gave rise to more than two-thirds of all myeloid cells and platelets in adult mice, and this contribution could be accelerated by an induced interferon response."

According to the news reporters, the research concluded: "Thus, classically defined HSCs maintain immune cell development in the steady state and during systemic cytokine responses."

For more information on this research see: Hematopoietic Stem Cells Are the Major Source of Multilineage Hematopoiesis in Adult Animals. Immunity, 2016;45(3):597-609. Immunity can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)

Our news journalists report that additional information may be obtained by contacting C.M. Sawai, New York University, Langone Med Center, Dept. of Pathol, New York, NY 10016, United States. Additional authors for this research include S. Babovic, S. Upadhaya, D. Knapp, Y. Lavin, C.M. Lau, A. Goloborodko, J. Feng, J. Fujisaki, L. Ding, L.A. Mirny, M. Merad, C.J. Eaves and B. Reizis.

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Keywords for this news article include: New York City, New York, United States, North and Central America, Hematopoietic Stem Cells, Stem Cell Research, Bone Marrow Cells, Hematopoiesis, Hematology, Genetics, New York University.

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Reports Outline Heparin Therapy Study Findings from Texas Health Presbyterian Hospital Dallas (Managing transitions from oral factor Xa inhibitors to unfractionated heparin infusions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Heparin Therapy have been presented. According to news reporting from Dallas, Texas, by NewsRx journalists, research stated, "Published evidence regarding the effects of oral factor Xa inhibitors on anticoagulation monitoring tests is reviewed with a focus on monitoring concerns that can arise during transitions to i.v. heparin therapy. Assays that measure inhibition of factor Xa activity (i.e., anti-Xa assays) are widely used in U.S. institutions to monitor i.v. heparin therapy and, in some cases, for monitoring other types of anticoagulation therapy."

The news correspondents obtained a quote from the research from Texas Health Presbyterian Hospital Dallas, "Clinicians have raised concerns that the use of anti-Xa assays to monitor heparin levels in hospitalized patients who must be transitioned from oral factor Xa inhibitor therapy to i.v. unfractionated heparin (UFH) infusions could yield unquantifiable or inaccurate results, leading to unnecessary UFH dose reductions and potential treatment failures; the manufacturer labeling of oral factor Xa inhibitors (apixaban, edoxaban, and rivaroxaban) does not provide specific guidance on this issue. Results of a literature review indicated that residual effects of oral factor Xa inhibitor use can result in substantial interference with the currently available chromogenic anti-Xa assays but negligible to moderate effects on global coagulation assays, which measure activated partial thromboplastin time (aPTT) or prothrombin time. Therefore, during the transition from an oral factor Xa inhibitor to i.v. UFH therapy, it may be prudent to consider an aPTT assay for anticoagulation monitoring."

According to the news reporters, the research concluded: "The use of oral factor Xa inhibitors appears to affect the accuracy of anti-Xa assay results, with results of global coagulation assays affected to a lesser degree."

For more information on this research see: Managing transitions from oral factor Xa inhibitors to unfractionated heparin infusions. American Journal of Health-System Pharmacy, 2016;73(24):2037-2041. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

Our news reporters report that additional information may be obtained by contacting A.C. Faust, Texas Hlth Presbyterian Hosp Dallas, Dept. of Pharm, Dallas, TX 75231, United States. Additional authors for this research include D. Kanyer and A.K. Wittkowsky.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp150596. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Blood Coagulation Factors, Serine Endopeptidases, Enzymes and Coenzymes, Drugs and Therapies, Peptide Hydrolases, Heparin Therapy, Blood Proteins, Hematology, Factor Xa, Texas Health Presbyterian Hospital Dallas.

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Reports Outline Human Immunology Study Findings from University of Strasbourg (Innate immune receptors in solid organ transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immunology - Human Immunology. According to news reporting originating in Strasbourg, France, by NewsRx editors, the research stated, "The discovery of Pattern Recognition Receptors (PRRs) followed by that of their role in the early detection of pathogens and the ignition of the innate immune response has been a formidable progress for immunological research in the past 15 years. This has massively fueled investigations aiming at developing better strategies to fight off infectious diseases and/or to prevent their occurrence."

Funders for this research include French government, French National Research Agency.

The news reporters obtained a quote from the research from the University of Strasbourg, "However, infected individuals are for most part outliers in a given population and therefore, the primary function of these receptors should be considered in pathogen-free conditions. Our current understanding indicates that an important physiological function of PRRs resides in their capacity to maintain epithelial homeostasis in response to colonizing commensals. In addition, endogenous host-derived ligands, expressed under stressed, albeit sterile, conditions (called DAMPs for Danger-Associated Molecular Patterns) are also able to trigger PRR signaling. Solid organ transplantation represents a unique situation where both contributions of PRRs signaling can be studied. Indeed, dysbiosis (either caused by antibiotherapy preceding organ transplantation or simply due to the microbiota differences between the transplanted organ and the recipient host) is a characteristic feature of this situation, which is also marked by a massive synthesis and liberation of DAMPs as a result of hypoxia/reperfusion injury."

According to the news reporters, the research concluded: "Therefore, in the transplanted organ, at least two compartments (epithelial and that composed of immune cells) participate in graft rejection/acceptance depending on the activation status of expressed PRRs."

For more information on this research see: Innate immune receptors in solid organ transplantation. Human Immunology, 2016;77(11):1071-1075. Human Immunology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

Our news correspondents report that additional information may be obtained by contacting P. Georgel, Univ Strasbourg, Center Rech Immunol & Hematol, ImmunoRhumatol MolINSERM UMR S1109, LabEx TRANSPLANTEXFHUOMICAREFMTSFac Med, Strasbourg, France.

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Keywords for this news article include: Strasbourg, France, Europe, Human Immunology, Immunology, University of Strasbourg.

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Hyperlipidemia

Reports Outline Hyperlipidemia Findings from Seoul National University
(Parks and Green Areas Are Associated with Decreased Risk for Hyperlipidemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hyperlipidemia are presented in a new report. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "This study aimed to investigate the association between parks and green areas and hyperlipidemia in adults with groups stratified by moderate physical activity as a behavioral modification using the 2009 Korean Community Health Survey data and 212,584 participants enrolled in this study. The geographical codes of study participants were all matched on the basis of the amount of parks and green areas in each administrative district."

Our news journalists obtained a quote from the research from Seoul National University, "Compared with participants living in the highest quartile of parks and green areas (Quartile 4), those living in the lowest quartile of green and park area (Quartile 1) were at an increased risk of physician-diagnosed hyperlipidemia and hyperlipidemia currently under treatment. Participants in the lowest quartile of parks and green areas were likely not to engage in any moderate physical activity. After classifying hyperlipidemia risk depending on the presence of moderate physical activity, those participating in moderate physical activity were less likely to have hyperlipidemia in all quartiles of parks and green areas than those not engaging in moderate physical activity. We found that parks and green areas were associated with decreased hyperlipidemia risk."

According to the news editors, the research concluded: "Physical activity, which may benefit from the presence of parks and green areas, may reduce hyperlipidemia risk."


Our news journalists report that additional information may be obtained by contacting H.J. Kim, Seoul National University, Sch Public Hlth, Seoul 08826, South Korea. Additional authors for this research include J.Y. Min, H.J. Kim and K.B. Min.

Keywords for this news article include: Seoul, South Korea, Asia, Risk and Prevention. Hyperlipidemias, Seoul National University.

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Cardiovascular Diseases and Conditions

Reports Outline Hypertension Findings from University of California
(The Use of Qualitative Methods in Developing Implementation Strategies in Prevention Research for Stroke Survivors in Nigeria)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Hypertension. According to news originating from San Diego, California, by NewsRx correspondents, research stated, "Implementing complex clinical interventions is a key challenge in many global regions. Local communities play a necessary role in enhancing feasibility and strengthening adaptive issues in the design and implementation of stroke interventions in developing countries."

Financial support for this research came from National Institute of Neurological Disorders and Stroke.

Our news journalists obtained a quote from the research from the University of California, "Drawing on the knowledge of physicians, patients, and caregivers, the authors employed qualitative methods as a phase 1 strategy to explore the challenges of stroke management and improve the adaptability and efficient delivery of a multimodal preventive intervention for secondary stroke disease in Nigeria. A total of 22 individual interviews were conducted with healthcare professionals, as well as 12 focus groups with patients and caregivers."

According to the news editors, the research concluded: "Findings revealed four operational domains to improve strategies for phase 2 implementation and intervention: (1) barriers influencing optimal adherence in stroke survivors, (2) patient health beliefs and perceptions of patient health beliefs by others, (3) adoption of the patient report card, and (4) medical action plan and family management strategies."


The news correspondents report that additional information may be obtained from S. Hurst, University of California, Dept. of Family Med & Public Hlth, San Diego, CA 92103, United States. Additional authors for this research include O. Arulogun, M.O. Owolabi, R.O. Akinyemi, E. Uvere, S. Warth, G. Fakunle and B. Oviagele.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12817. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Diego, California, United States, North and Central America, Hypertension, Cardiovascular Diseases and Conditions, University of California.

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Cardiovascular Diseases and Conditions -

Reports Outline Hypertension Study Results from University of Notre Dame (A cross-sectional study of preoperative medication adherence and early postoperative recovery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions -
Hypertension have been published. According to news reporting originating from Sydney, Australia, by NewsRx correspondents, research stated, "To quantify the impact of preoperative medication adherence on recovery length of stays and complication rates. Cross-sectional analytical study."

Our news editors obtained a quote from the research from the University of Notre Dame, "Postanesthetic care unit (PACU) of a single-center tertiary hospital. Surgical patients admitted for surgery at our institution over a 4-month period. A data collection tool was used to collect demographic data, length of stay in recovery, prespecified conditions likely to impact on PACU recovery (chronic pain, insulin-dependent diabetes, epilepsy, hypertension, on a methadone program, and Parkinson disease), medication compliance, and complications in PACU. Differences among categorical variables were assessed for significance using the chi(2) test; continuous parametric data were compared using a time to survival analysis via Kaplan-Meier estimates and Cox proportional hazard regressions to account for possible confounders. Preoperative medication compliance for the prespecified conditions was 65.1%. Patients with a preoperative condition spent more time in the PACU compared to patients without a preoperative condition. Time in PACU was not significantly longer for patients who took their medications compared to those who failed to take their medications. Patients with multiple prespecified conditions were more likely to incur a postoperative complication compared to patients without a prespecified condition. Patients with preoperative hypertension and insulin-dependent diabetes incurred higher complication rates in PACU for medication nonadherence compared to medication adherence. This study taken together with accruing evidence suggests that preoperative medication omission remains an ongoing issue that can influence complication rates in the PACU. Patients with preoperative conditions stay longer in PACU, and medication omission was associated with higher rates of certain postoperative complications in PACU. This identifies patients likely to require more interventions and greater recovery resources."

According to the news editors, the research concluded: "Further research into the impact of medication omission on recovery parameters after discharge from the PACU is warranted."


The news editors report that additional information may be obtained by contacting E. Ben-Menachem, Notre Dame Univ, Sydney, NSW, Australia. Additional authors for this research include E. Demetriou, J. Galvin and E. Ben-Menachem.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.07.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Cardiovascular Diseases and Conditions, Peptide Proteins, Epidemiology, Peptide Hormones, Hypertension, Proinsulin, University of Notre Dame.

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Nutritional and Metabolic Diseases and Conditions ---

Reports Outline Hypoglycemia Study Findings from Veterans Affairs Medical Center (A case of extragastrointestinal stromal tumor complicated by severe hypoglycemia: a unique presentation of a rare tumor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Hypoglycemia. According to news reporting from Indianapolis, Indiana, by NewsRx journalists, research stated, "Non-Islet Cell Tumor Hypoglycemia (NICTH) is a rare paraneoplastic cause of hypoglycemia arising from excess tumor production of insulin-like growth factor. The objective of this report is to describe an unusual case of Extragastrointestinal Stromal Tumor (EGIST) associated NICTH."

The news correspondents obtained a quote from the research from Veterans Affairs Medical Center, "Case presentation: A 64 year-old African female was brought to the emergency room with a 1-month history of recurrent syncope, weight loss, and abdominal bloating. Serum blood glucose was discovered to 39 mg/dL, when insulin, proinsulin, and C-peptide were suppressed. Computed tomography scan revealed a diffuse extraintestinal metastatic disease process, and a biopsy confirmed the diagnosis of an Extragastrointestinal Stromal Tumor (EGIST). IGF-I and II levels were 27 ng/ml and 262 ng/ml respectively, and the ratio of IGF-II to IGF-I was calculated as 9.7:1, suggestive of IGF-II-mediated NICTH. Acutely, the patient's hypoglycemia resolved with dextrose and glucagon infusion. Long-term euglycemia was achieved with prednisone and imatinib therapy. NICTH should be considered when hypoglycemia occurs in the setting of low serum insulin levels."

According to the news reporters, the research concluded: "Whereas definitive treatment of EGIST involves surgical resection, immunotherapy with tyrosine kinase inhibitors and corticosteroids have been shown to alleviate hypoglycemia in cases where surgery is delayed or not feasible."


Our news journalists report that additional information may be obtained by contacting C. Evans-Molina, Roudebush VA Med Center, Indianapolis, IN 46202, United States. Additional authors for this research include S. Taleb and C. Evans-Molina.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Glucose Metabolism Disorders, Peptide Proteins, Peptide Hormones, Hypoglycemia, Proinsulin, Veterans Affairs Medical Center.

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Reports Outline Immunotherapy Study Findings from Tel Aviv University (A Harmonization Study for the Use of 22C3 PD-L1 Immunohistochemical Staining on Ventana's Platform)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Immunotherapy is the subject of a report. According to news reporting from Tel Aviv, Israel, by NewsRx journalists, research stated, "Immunotherapy is a novel treatment for lung cancer. Pembrolizumab (Merck Sharp and Dohme, Kenilworth, NJ) is a monoclonal antibody against programmed cell death 1 that has been approved for use with NSCLC together with a companion diagnostic by Dako (Carpinteria, CA)."

The news correspondents obtained a quote from the research from Tel Aviv University, "Ventana's BenchMark XT (Ventana Medical Systems, Tucson, AZ) is a widely used immunohistochemical (IHC) platform. However, data on its reliability and reproducibility with the 22C3 antibody are scant. We performed a comprehensive calibration of 22C3 programmed cell death ligand 1 (PD-L1) staining on the BenchMark XT platform using Dako's prediluted 22C3 anti-PD-L1 primary antibody with two of Ventana's detection systems. Forty-one random cases of NSCLC were then independently evaluated by two pathologists. Each case was scored using Dako- or Ventana-stained slides. The scores obtained with the two 22C3 Ventana assays were compared with those obtained using the Dako 22C3 IHC platform. The Dako IHC platform stratified eight, seven, and 26 cases as being strongly positive, weakly positive, and negative for PD-L1, respectively, whereas 36 of 41 cases (87.8%) had the same results with Ventana's UltraView 22C3 protocol (Pearson's correlation score 0.91, p<0.0001). Moreover, 35 of 41 cases (85.3%) had the same results with Ventana's OptiView 22C3 protocol (Pearson's correlation score 0.89, p<0.0001). The results of this study demonstrate that the same PD-L1 IHC algorithm can be reliably applied to Ventana's BenchMark XT platform.

Furthermore, we were able to detect all of the strongly positive cases with high interobserver and intraobserver agreement by using the Ventana platform."

According to the news reporters, the research concluded: "These findings suggest that the Ventana platform can be used to stratify patients for pembrolizumab-based immunotherapy."


Our news journalists report that additional information may be obtained by contacting G.W. Vainer, Tel Aviv University, Sackler Sch Med, Tel Aviv, Israel. Additional authors for this research include M. London, J. Kania-Almog, A. Litvin, Y. Zohar, L. Fridel, J. Sandbank, I. Barshak and G.W. Vainer.

Keywords for this news article include: Tel Aviv, Israel, Asia, Drugs and Therapies, Immunoglobulins, Blood Proteins, Immunotherapy, Immunology, Antibodies, Tel Aviv University.

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Influenza A Virus Subtype H1N1

Reports Outline Influenza A Virus Subtype H1N1 Study Findings from Manipal University [Genetic analysis of neuraminidase gene of influenza A(H1N1)pdm09 virus circulating in Southwest India from 2009 to 2012]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Influenza A Virus Subtype H1N1 is now available. According to news reporting from Karnataka, India, by NewsRx journalists, research stated, "Genetic analysis of neuraminidase gene sequences in 23 archived isolates of influenza A (H1N1)pdm09 virus, isolated during the 2009-2012 influenza seasons, was carried out to determine the genetic variability. Amino acid substitutions were observed at the rates of 0.3-0.7% per year."

The news correspondents obtained a quote from the research from Manipal University, "The catalytic site consisting of 8 functional and 11 framework residues were found conserved in 20 isolates and mutated in three (E228G, E278G, and N295T) isolates. To the best of our knowledge the three catalytic site mutants observed in our study have not been reported elsewhere to date. Similarly, mutations in the antigenic sites (K217E, K254E, V267A, and D451E except I263V) are discussed for the first time through this article. The effect of these mutations on drug and antibody binding were analyzed using biochemical and structural studies."

According to the news reporters, the research concluded: "Detailed studies on the neuraminidase gene are sparse and our study may serve as an appropriate platform to gain insights about the evolution of influenza virus, thereby facilitating drugs/vaccines design and development. J. Med. Virol. 89:202-212, 2017."


Our news journalists report that additional information may be obtained by contacting G. Arunkumar, Manipal Univ, ICMR Virol Netowrk Lab Grade 1, Manipal, Karnataka, India. Additional authors for this research include A.A.A. Salam, V.R. Zadeh and G. Arunkumar.

Keywords for this news article include: Karnataka, India, Asia, Enzymes and Coenzymes, Genetics, Influenza A Virus Subtype H1N1, Glycoside Hydrolases, Vertebrate Viruses, Infectious Disease, Orthomyxoviridae, Swine Influenza, Neuraminidase, RNA Viruses, Swine Flu, Manipal University.

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Central Nervous System Diseases and Conditions - …
Reports Outline Intracranial Aneurysm Study Findings from Second Military Medical University [The safety and efficacy of low profile visualized intraluminal support (LVIS) stents in assisting coil embolization of intracranial saccular aneurysms: ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions - Intracranial Aneurysm have been presented. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "The low profile visualized intraluminal support (LVIS) device is a new generation of self expanding braided stents recently introduced into China for stent assisted coiling of intracranial aneurysms. This study assessed the clinical safety and efficacy of the LVIS stent for embolization of intracranial saccular aneurysms."

Our news editors obtained a quote from the research from Second Military Medical University, "Patients with intracranial saccular aneurysms treated using the LVIS device in our center between April 2014 and December 2014 were reviewed. The primary outcomes were procedural safety, target aneurysm recurrence, and mid-term follow-up of clinical and angiographic outcomes. Results 97 patients with intracranial saccular aneurysms were treated using the LVIS stent, with 100% technical success rate. No mortality was observed. One patient had transient deficit (1/97, 1.0%). Immediate angiographic outcome evaluation showed complete occlusion in 28 (28.8%) and neck remnant in 39 (40.2%) of the 97 patients, respectively. Of the 76 (78.35%) patients who underwent angiographic follow-up at a mean of 8.1 months, complete occlusion was achieved in 64 (84.2%) patients. In the remaining patients, neck remnant in nine (11.8%) and residual sac in three (4%) patients were observed. None of the patients had any target aneurysm recurrence, and the mortality rate was 0."

According to the news editors, the research concluded: "The LVIS stent is safe and effective in the treatment of intracranial saccular aneurysms."


The news editors report that additional information may be obtained by contacting Q.H. Huang, Second Military Med Univ, Shanghai Hosp, Dept. of Neurosurg, Shanghai 200433, People's Republic of China. Additional authors for this research include Y.B. Fang, Y. Xu, B. Hong, W.Y. Zhao, J.M. Liu and Q.H. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/neurintsurg-2015-012090. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Intracranial Aneurysm, Embolization, Angiology, Second Military Medical University.

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Central Nervous System Diseases and Conditions -

Reports Outline Intracranial Aneurysm Study Results from University of Toronto (Computational fluid dynamics analysis of flow reduction induced by flow-diverting stents in intracranial aneurysms: a patient-unspecific hemodynamics change ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Intracranial Aneurysm are discussed in a new report. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "Flow-diverter stents (FDSs) have been used effectively to treat large neck and complex saccular aneurysms on the anterior carotid circulation. Intra-aneurysmal flow reduction induces progressive aneurysm thrombosis in most patients."

Our news editors obtained a quote from the research from the University of Toronto, "Understanding the degree of flow modification necessary to induce complete aneurysm occlusion among patients with considerable hemodynamics variability may be important for treatment planning. Patients with incidental intracranial saccular aneurysms who underwent FDS endovascular procedures were included and studied for a 12 months' follow-up period. We used computational fluid dynamics on patient-specific geometries from 3D rotational angiography without and with virtual stent placement and thus compared intra-aneurysmal hemodynamic problems. Receiver operating characteristic analysis was used to estimate the stent: no-stent minimum hemodynamic ratio thresholds that significantly (p=0.05) determined the condition necessary for long-term (12 months) aneurysm occlusion. We included 12 consecutive patients with sidewall aneurysms located in the internal carotid or vertebral artery. The measured porosity of the 12 deployed virtual FDSs was 83 +/- 3% (mean +/- SD). Nine aneurysms were occluded during the 12 months' follow-up, whereas three were not. A significant (p=0.05) area under the curve (AUC) was found for spatiotemporal mean velocity reduction in the aneurysms: AUC=0.889 +/- 0.113 (mean +/- SD) corresponding to a minimum velocity reduction threshold of 0.353 for occlusion to occur. The 95% CI of the AUC was 0.66 to 1.00. The sensitivity and specificity of the method were similar to 99% and similar to 67%, respectively. For both wall shear stress and pressure reductions in aneurysms no thresholds could be determined: AUC=0.63 +/- 0.16 (p=0.518) and 0.67 +/- 0.165 (p=0.405), respectively."

According to the news editors, the research concluded: "For successful FDS treatment the post-stent average velocity in sidewall intracranial aneurysms must be reduced by at least one-third from the initial pre-stent conditions."


The news editors report that additional information may be obtained by contacting V.M. Pereira, University of Toronto, Univ Hlth Network, Dept. of Surg, Div Neurosurg, Toronto, ON, Canada. Additional authors for this research include I. Larrabide, O. Brina, P. Bouillot, G. Erceg, H. Yilmaz, K.O. Lovblad and V.M. Pereira.

The direct object identifier (DOI) for that additional information is:
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Transplant Medicine - Kidney Transplants

Reports Outline Kidney Transplants Findings from Hospital Clinic (Presence of T-275A and C-2152T Polymorphisms of the Promoter Region of Uridine Diphosphate-Glucuronosyltransferase 1A9 Increases Mortality From Digestive Tumors: Results After 10 ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Kidney Transplants have been published. According to news reporting out of Madrid, Spain, by NewsRx editors, research stated, "The aim of this study was to determine the distribution of uridine diphosphate-glucuronosyltransferase 1A9 (UGT1A9) promoter region T-275A and C-2152T single-nucleotide polymorphisms (SNPs) in stable transplant patients and to investigate the impact of these SNPs on the evolution of this population after 10 years of follow-up. White renal transplant recipients (n = 873) were studied."

Our news journalists obtained a quote from the research from Hospital Clinic, "The median time of follow-up was 91.8 months (P25-75 46-146). Amplification with specific 'primers' to delimit the study area was performed for each polymorphism. Amplification was performed with the use of real-time polymerase chain reaction. T-275A promoter mutation was detected in 13% of patients and C-2152T in 12% of patients. Survival analysis was performed on 873 renal transplants, carried out between 2004 and 2013. We found a higher frequency of death from cancer among polymorphism carriers (P = .001)."

According to the news editors, the research concluded: "It appears that carriers of T-275A and C-2152T SNPs of the UGT1A9 gene promoter region show a greater incidence of death from cancer, with a significantly higher cumulative incidence of death from gastrointestinal tumors."

For more information on this research see: Presence of T-275A and C-2152T Polymorphisms of the Promoter Region of Uridine Diphosphate-Glucuronosyltransferase 1A9 Increases Mortality From Digestive Tumors: Results After 10 Years of Follow-up in a Renal Transplant Population. Transplantation Proceedings, 2016;48(9):2947-2949. Transplantation Proceedings can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Transplantation Proceedings - www.journals.elsevier.com/transplantation-proceedings/)

Our news journalists report that additional information may be obtained by contacting A. Shabaka, Hosp Clin San Carlos, Dept. of Nephrol, Madrid 28040, Spain. Additional authors for this research include A. Shabaka, B.R. Cubillo, V. de la Manzanara, I. Perez-Flores, M.A.M. de la Higuera, J. Bautista and A.I. Sanchez-Fructuoso.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.09.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Glucuronosyltransferase, Enzymes and Coenzymes, Phosphorus Compounds, Hexosyltransferases, Transplant Medicine, Kidney Transplants, Organ Transplants, Phosphoric Acids, Renal Transplant, Transplantation, Renal Allograft, Polyphosphates, Diphosphates, Electrolytes, Biomedicine, Nephrology, Genetics, Surgery, Anions, Hospital Clinic.

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Heart Disorders and Diseases - Left Ventricular…

Reports Outline Left Ventricular Hypertrophy Findings from National Center for Scientific Research (CNRS) (Increased mean aliphatic lipid chain length in left ventricular hypertrophy secondary to arterial hypertension A cross-sectional study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Left Ventricular Hypertrophy have been published. According to news reporting from Toulouse, France, by NewsRx journalists, research stated, "About 77.9 million (1 in 4) American adults have high blood pressure. High blood pressure is the primary cause of left ventricular hypertrophy (LVH), which represents a strong predictor of future heart failure and cardiovascular mortality."

The news correspondents obtained a quote from the research from National Center for Scientific Research (CNRS), "Previous studies have shown an altered metabolic profile in hypertensive patients with LVH. The goal of this study was to identify blood metabolomic LVH biomarkers by 1H NMR to provide novel diagnostic tools for rapid LVH detection in populations of hypertensive individuals. This cross-sectional study included 48 hypertensive patients with LVH matched with 48 hypertensive patients with normal LV size, and 24 healthy controls. Two-dimensional targeted M-mode echocardiography was performed to measure left ventricular mass index. Partial least squares discriminant analysis was used for the multivariate analysis of the H-1 NMR spectral data. From the H-1 NMR-based metabolomic profiling, signals coming from methylene (-CH2-) and methyl (-CH3) moieties of aliphatic chains from plasma lipids were identified as discriminant variables. The -CH2/-CH3 ratio, an indicator of the mean length of the aliphatic lipid chains, was significantly higher (P <0.001) in the LVH group than in the hypertensive group without LVH and controls. Receiver operating characteristic curve showed that a cutoff of 2.34 provided a 52.08% sensitivity and 85.42% specificity for discriminating LVH (AUC= 0.703, P-value <0.001)."

According to the news reporters, the research concluded: "We propose the -CH2/-CH3 ratio from plasma aliphatic lipid chains as a biomarker for the diagnosis of left ventricular remodeling in hypertension."

For more information on this research see: Increased mean aliphatic lipid chain length in left ventricular hypertrophy secondary to arterial hypertension A cross-sectional study. Medicine, 2016;95(46):13-21. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier -
Our news journalists report that additional information may be obtained by contacting P. Rouet, UMR UT3 CNRS 5288 Evolutionary Med Obes & Heart F, INI CRCT F CRIN, GREAT Networks, Toulouse 4, France. Additional authors for this research include C. Caubere, R. Harmancey, F. Desmoulin, W.F. Peacock, M. Berry, A. Turkieh, M. Barutaut, M. Galinier, C. Dambrin, C. Polidori, C. Miceli, B. Chamontin, F. Koukoui, J. Roncalli, P. Massabuau, F. Smih and P. Rouet.

Keywords for this news article include: Toulouse, France, Europe, Cardiovascular Diseases and Conditions, Cardiology, Diagnostics and Screening, Heart Disorders and Diseases, Left Ventricular Hypertrophy, Blood Pressure, Hemodynamics, Hypertension, National Center for Scientific Research (CNRS).

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Life Science Research

Reports Outline Life Science Research Findings from University of British Columbia (The Effect of Statins on Blood Gene Expression in COPD)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research. According to news reporting out of Vancouver, Canada, by NewsRx editors, research stated, "COPD is currently the fourth leading cause of death worldwide. Statins are lipid lowering agents with documented cardiovascular benefits."

Our news journalists obtained a quote from the research from the University of British Columbia, "Observational studies have shown that statins may have a beneficial role in COPD. The impact of statins on blood gene expression from COPD patients is largely unknown. Identify blood gene signature associated with statin use in COPD patients, and the pathways underpinning this signature that could explain any potential benefits in COPD. Whole blood gene expression was measured on 168 statin users and 451 non-users from the ECLIPSE study using the Affymetrix Human Gene 1.1 ST microarray chips. Factor Analysis for Robust Microarray Summarization (FARMS) was used to process the expression data. Differential gene expression analysis was undertaken using the Linear Models for Microarray data (Limma) package adjusting for propensity score and surrogate variables. Similarity of the expression signal with published gene expression profiles was performed in ProfileChaser. 25 genes were differentially expressed between statin users and non-users at an FDR of 10%, including LDLR, CXCR2, SC4MOL, FAM108A1, IFI35, FRYL, ABCG1, MYLIP, and DHCR24. The 25 genes were significantly enriched in cholesterol homeostasis and metabolism pathways. The resulting gene signature showed correlation with Huntington's disease, Parkinson's disease and acute myeloid leukemia gene signatures. The blood gene signature of statins' use in COPD patients was enriched in cholesterol homeostasis pathways."

According to the news editors, the research concluded: "Further studies are needed to delineate the role of these pathways in lung biology."

For more information on this research see: The Effect of Statins on Blood Gene Expression in COPD. Plos One, 2015;10(10):e0140022. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)
Our news journalists report that additional information may be obtained by contacting M. Obeidat, The University of British Columbia Centre for Heart Lung Innovation, St Paul's Hospital, Vancouver, BC, Canada. Additional authors for this research include N. Fishbane, Y. Nie, V. Chen, Z. Hollander, S.J. Tebbutt, Y. Bosse, R.T. Ng, B.E. Miller, B. McManus, S. Rennard, P.D. Pare and D.D Sin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0140022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Genetics, Vancouver, British Columbia, Life Science Research, North and Central America.

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Biotechnology - Liposomes

Reports Outline Liposomes Study Findings from Russian Academy of Science (Biopolymer nanovehicles for essential polyunsaturated fatty acids: Structure-functionality relationships)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biotechnology - Liposomes have been published. According to news reporting from Moscow, Russia, by NewsRx journalists, research stated, "Design of stimuli-sensitive (i.e., smart) nano-sized delivery systems for nutraceuticals, having both a nutritional and pharmaceutical value, is very important for the formulation of novel functional food. Omega-3 and omega-6 polyunsaturated fatty acids' (PUFAs) are among the most needed nutraceuticals for the maintenance of good health."

The news correspondents obtained a quote from the research from the Russian Academy of Science, "It is medically proven that in order to get the best effect on the human health the weight ratio of omega-6/omega-3 PUFAs should be within the range between 1/1 and 5/1. Thus, our work was focused on the molecular design of the delivery systems based on the nano-sized complexes formed between covalent conjugate (sodium caseinate + maltodextrin (a dextrose equivalent = 2)) and the combinations of polyunsaturated lipids, which are mutually complementary in the omega-6 and omega-3 PUFAs content: a-linolenic (ALA) + linoleic (LA) acids; liposomes of soy phosphatidylcholine (PC) + ALA; and micelles, of soy lysophosphatidylcholine (LPC) + ALA. For such complex particles the high extent (>95%) of encapsulation of these all combinations of lipids by the conjugate was found along with both the high protection of the lipids against oxidation and their high solubility in an aqueous medium."

According to the news reporters, the research concluded: "To gain a better insight into such functionality of the complex particles a number of their structural (the weight-averaged molar weight, M-w; the radius of gyration, R-G; the hydrodynamic radius, R-h; the architecture; the volume; the density; the zeta-potential; the microviscosity of both the bilayers of PC liposomes and LPC micelles), and thermodynamic (the osmotic second virial coefficient, A(2), reflecting the nature and intensity of both the complex-complex and complex-solvent pair interactions) parameters were measured by a combination of such basic physico-chemical methods as static and dynamic multiangle laser light scattering, particle electrophoresis, atomic-force microscopy and electron spin resonance spectroscopy."

For more information on this research see: Biopolymer nanovehicles for essential
polyunsaturated fatty acids: Structure-functionality relationships. *Food Research International*, 2016;88():70-78. *Food Research International* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Food Research International - www.journals.elsevier.com/food-research-international/)

Our news journalists report that additional information may be obtained by contacting M.G. Semenova, Russian Academy Sci, NM Emanuel Inst Biochem Phys, Moscow 119334, Russia. Additional authors for this research include A.S. Antipova, D.V. Zelikina, E.I. Martirosova, I.G. Plashchina, N.P. Palmina, V.I. Binyukov, N.G. Bogdanova, V.V. Kasparov, E.A. Shumilina and N.S. Ozerova.

Keywords for this news article include: Moscow, Russia, Eurasia, Biotechnology, Liposomes, Russian Academy of Science.

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**Oncology - Liver Cancer**

**Reports Outline Liver Cancer Findings from Chang Gung Memorial Hospital (Thyroid hormone suppresses expression of stathmin and associated tumor growth in hepatocellular carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting originating in Taoyuan, Taiwan, by NewsRx journalists, research stated, "Stathmin (STMN1), a recognized oncoprotein upregulated in various solid tumors, promotes microtubule disassembly and modulates tumor growth and migration activity. However, the mechanisms underlying the genetic regulation of STMN1 have yet to be elucidated."

The news reporters obtained a quote from the research from Chang Gung Memorial Hospital, "In the current study, we report that thyroid hormone receptor (THR) expression is negatively correlated with STMN1 expression in a subset of clinical hepatocellular carcinoma (HCC) specimens. We further identified the STMN1 gene as a target of thyroid hormone (T-3) in the HepG2 hepatoma cell line. An analysis of STMN1 expression profile and mechanism of transcriptional regulation revealed that T-3 significantly suppressed STMN1 mRNA and protein expression, and further showed that THR directly targeted the STMN1 upstream element to regulate STMN1 transcriptional activity. Specific knockdown of STMN1 suppressed cell proliferation and xenograft tumor growth in mice. In addition, T-3 regulation of cell growth arrest and cell cycle distribution were attenuated by overexpression of STMN1. Our results suggest that the oncogene STMN1 is transcriptionally downregulated by T-3 in the liver."

According to the news reporters, the research concluded: "This T-3-mediated suppression of STMN1 supports the theory that T-3 plays an inhibitory role in HCC tumor growth, and suggests that the lack of normal THR function leads to elevated STMN1 expression and malignant growth."


Our news correspondents report that additional information may be obtained by

Keywords for this news article include: Taoyuan, Taiwan, Asia, Microtubule-Associated Proteins, Proto-Oncogene Proteins, Cytoskeletal Proteins, Neoplasm Proteins, Thyroid Hormones, Phosphoproteins, Liver Cancer, Carcinomas, Stathmin, Oncology, Genetics, Chang Gung Memorial Hospital.

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Oncology - Liver Cancer

Reports Outline Liver Cancer Study Results from Chinese University of Hong Kong (Alternative splicing of estrogen receptor alpha in hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news originating from Shenzhen, People's Republic of China, by NewsRx correspondents, research stated, "The role of estrogen receptor alpha (ERa), estrogen receptor beta (ERb) and ERa36 signaling in hepatocellular carcinoma (HCC) is not fully addressed. In this study, three cohorts were included: (i) primary HCC patients (N = 76, cohort P), (ii) colorectal liver metastasis (mCRC) (N = 32, cohort S), and (iii) HCC from The Cancer Genome Atlas (TCGA) (N = 121)."

Our news journalists obtained a quote from the research from the Chinese University of Hong Kong, "The levels of ERa36 and wtER36 were measured and their correlation with clinicopathologic features was determined. WtERa was downregulated and that ERa36 was upregulated in tumor tissues in both cohort P and TCGA data set. ERa36 was downregulated in tumor tissues in cohort S. In cohort P, wtERa was differentially expressed in gender (P < 0.000), age (P = 0.004), tumor number (P = 0.043), tumor size (P = 0.002), intrahepatic recurrence (P = 0.054). ERa36 was unequally expressed in different non-tumor liver status (P = 0.040). WtERa was negatively associated with overall survival (OS) and disease free survival (DFS) in cohort P. Compared with non-tumor tissues, the expression of ERa36 was increased in primary HCC but decreased in secondary HCC, showing opposite expression patterns of ERa36 between primary HCC and secondary HCC. Primary HCC is associated with the decreased WtERa but increased ERa36. The expression pattern of ERa36 is different between primary HCC and secondary HCC, as the former with the increased ERa36 but the latter with the decreased ERa36."

According to the news editors, the research concluded: "Therefore, the expression of ERa36 may be used to differentiate the primary HCC and the secondary one."


The news correspondents report that additional information may be obtained from G.G. Chen, Chinese University of Hong Kong, Shenzhen Res Inst, Shenzhen, People's Republic
Reports Outline Liver Cancer Study Results from University of Rennes (Regulation of Transdifferentiation and Retrodifferentiation by Inflammatory Cytokines in Hepatocellular Carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Liver Cancer are presented in a new report. According to news reporting from Rennes, France, by NewsRx journalists, research stated, "Liver cancers are typically inflammation-associated cancers characterized by close communication between the tumor cells and the tumor environment. This supportive inflammatory environment contributes to the establishment of a pathologic niche consisting of transformed epithelial cells, tumor-educated fibroblasts, endothelial cells, and immunosuppressive immature myeloid cells."

The news correspondents obtained a quote from the research from the University of Rennes, "Stromal and infiltrated immune cells help determine tumor fate, but the tumor cells themselves, including cancer stem cells, also influence the surrounding cells. This bidirectional communication generates an intricate network of signals that promotes tumor growth. Cell plasticity, which includes transdifferentiation and retrodifferentiation of differentiated cells, increases tumor heterogeneity. Plasticity allows non-cancer stem cells to replenish the cancer stem cell pool, initiate tumorigenesis, and escape the effects of therapeutic agents; it also promotes tumor aggressiveness. There is increasing evidence that an inflammatory environment promotes the retrodifferentiation of tumor cells into stem or progenitor cells; this could account for the low efficacies of some chemotherapies and the high rates of cancer recurrence."

According to the news reporters, the research concluded: "Increasing our understanding of the signaling network that connects inflammation with retrodifferentiation could identify new therapeutic targets, and lead to combined therapies that are effective against highly heterogeneous tumors."

For more information on this research see: Regulation of Transdifferentiation and Retrodifferentiation by Inflammatory Cytokines in Hepatocellular Carcinoma. Gastroenterology, 2016;151(4):607-615. Gastroenterology can be contacted at: W B Saunders Co-Elsevier Inc, 1600 John F Kennedy Boulevard, Ste 1800, Philadelphia, PA 19103-2899, USA. (Elsevier - www.elsevier.com; Gastroenterology - www.journals.elsevier.com/gastroenterology/)

Our news journalists report that additional information may be obtained by contacting A. Corlu, University of Rennes, Rennes, France.

Keywords for this news article include: Rennes, France, Europe, Stem Cell Research, Article Review, Inflammation, Liver Cancer, Carcinomas, Cytokines, Oncology,
Reports Outline Liver Transplants Study Results from University of Alberta (Hepatitis C in non-hepatic solid organ transplant candidates and recipients: A new horizon)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Liver Transplants. According to news originating from Edmonton, Canada, by NewsRx correspondents, research stated, "Hepatitis C virus (HCV) infection is estimated to affect 130-150 million people globally which corresponds to 2%-3% of the total world population. It remains the leading indication for liver transplant worldwide and has been demonstrated to negatively impact both patient and graft survival following non-hepatic organ transplantation."

Our news journalists obtained a quote from the research from the University of Alberta, "In the era of interferon-based therapy, although treatment and cure of HCV prior to non-hepatic transplant improved survival, tolerability and low cure rates substantially limited therapy. Interferon (IFN)-based therapy following non-hepatic solid organ transplant, due to the risk of allograft rejection, is generally contraindicated. Rapid advances in IFN-free therapy with direct acting antivirals (DAAs) in the last few years have completely changed the paradigm of hepatitis C therapy. Compared to IFN-based regimens, DAAs have less frequent and less severe adverse effects, shorter durations of therapy, and higher cure rates that are minimally impacted by historically negative predictors of response such as cirrhosis, ethnicity, and post-transplant state. Recent studies have shown that liver transplant (LT) recipients can be safely and effectively treated with DAA combination therapies; although data are limited, many of the principles of therapy in LT may be extrapolated to non-hepatic solid organ transplant recipients."

According to the news editors, the research concluded: "Here we review the data on DAA combination therapies in transplantation, discuss the advantages and disadvantages of pre-vs post-transplant HCV therapy and future directions."


The news correspondents report that additional information may be obtained from S. Belga, Sara Belga, Karen Elizabeth Doucette, Division of Infectious Diseases, Dept. of Medicine, University of Alberta, Edmonton, Alberta T6G 2G3, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i4.1650. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HCV, Biomedicine, Viral, Canada, Alberta, Therapy, Edmonton, Virology, Hepatology, RNA Viruses, Article Review, Gastroenterology, Hepatitis C Virus, Organ Transplants, Transplant Medicine, Liver Transplantation, Flaviviridae Infections, North and Central America, Liver Diseases and Conditions.
Reports Outline Lung Cancer Findings from Harbin Medical University (Gene expression profiling analysis of lung adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news originating from Heilongjiang, People's Republic of China, by NewsRx correspondents, research stated, "The present study screened potential genes related to lung adenocarcinoma, with the aim of further understanding disease pathogenesis. The GSE2514 dataset including 20 lung adenocarcinoma and 19 adjacent normal tissue samples from 10 patients with lung adenocarcinoma aged 45-73 years was downloaded from Gene Expression Omnibus."

Our news journalists obtained a quote from the research from Harbin Medical University, "Differentially expressed genes (DEGs) between the two groups were screened using the t-test. Potential gene functions were predicted using functional and pathway enrichment analysis, and protein-protein interaction (PPI) networks obtained from the STRING database were constructed with Cytoscape. Module analysis of PPI networks was performed through MCODE in Cytoscape. In total, 535 upregulated and 465 downregulated DEGs were identified. These included ATP5D, UQCRC2, UQCR11 and genes encoding nicotinamide adenine dinucleotide (NADH), which are mainly associated with mitochondrial ATP synthesis coupled electron transport, and which were enriched in the oxidative phosphorylation pathway. Other DEGs were associated with DNA replication (PRIM1, MCM3, and RNASEH2A), cell surface receptor-linked signal transduction and the enzyme-linked receptor protein signaling pathway (MAPK1, STAT3, RAF1, and JAK1), and regulation of the cytoskeleton and phosphatidylinositol signaling system (PIP5K1B, PIP5K1C, and PIP4K2B)."

According to the news editors, the research concluded: "Our findings suggest that DEGs encoding subunits of NADH, PRIM1, MCM3, MAPK1, STAT3, RAF1, and JAK1 might be associated with the development of lung adenocarcinoma."

For more information on this research see: Gene expression profiling analysis of lung adenocarcinoma. *Brazilian Journal of Medical and Biological Research*, 2016;49(3):.

The news correspondents report that additional information may be obtained from H. Xu, Dept. of Thoracic Surgery, Harbin Medical University Cancer Hospital, Harbin, Heilongjiang, People's Republic of China. Additional authors for this research include J. Ma, J. Wu, L. Chen, F. Sun, C. Qu, D. Zheng and S. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1590/1414-431X20154861. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Genetics, Oncology, Lung Cancer, Heilongjiang, Adenocarcinoma, Diagnostics and Screening, People's Republic of China.

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Reports Outline Lung Cancer Findings from Zhengzhou University

[MicroRNA-490 regulates lung cancer metastasis by targeting poly r(C)-binding protein 1]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Lung Cancer is the subject of a report. According to news reporting originating in Zhengzhou, People's Republic of China, by NewsRx journalists, research stated, "Lung cancer remains a leading cause of cancer-related mortality, with metastatic progression remaining the single largest cause of lung cancer mortality. Hence, it is imperative to determine reliable biomarkers of lung cancer prognosis."

The news reporters obtained a quote from the research from Zhengzhou University, "MicroRNA-490-3p has been previously reported to be a positive prognostic biomarker for hepatocellular cancer. However, its role in human lung cancer has not yet been elucidated. Here, we report that hsa-miR-490-3p expression is significantly higher in human lung cancer tissue specimens and cell line."

According to the news reporters, the research concluded: "Gain-and loss-of-function studies of hsa-miR-490-3p showed that it regulates cell proliferation and is required for induction of in vitro migration and invasion-the latter being a hallmark of epithelial to mesenchymal transition."

For more information on this research see: MicroRNA-490 regulates lung cancer metastasis by targeting poly r(C)-binding protein 1. Tumor Biology, 2016;37(11):15221-15228. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news correspondents report that additional information may be obtained by contacting J.D. Li, Zhengzhou Univ, Dept. of Thorac Surg, Affiliated Canc Hosp, Zhengzhou 450003, Henan, People's Republic of China. Additional authors for this research include Q.C. Feng, X.D. Wei and Y.K. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5347-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Cancer, Diagnostics and Screening, Lung Neoplasms, Lung Cancer, Oncology, Zhengzhou University.

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& Wellness Week -- A new study on Oncology - Lung Cancer is now available. According to news reporting originating from Moscow, Russia, by NewsRx correspondents, research stated, "The regulation of vascular endothelial growth factors C (VEGF-C) and D (VEGF-D), and their receptor VEGFR3 gene and protein expression by all-trans-retinoic acid (atRA) in A549 lung cancer cells, was investigated."

Our news editors obtained a quote from the research from the Institute of Carcinogenesis, "We showed that atRA treatment increased VEGF-C, VEGF-D, and VEGFR3 protein and mRNA contents in dose-dependent manner. atRA-mediated increase of both ligands and receptor expression correlated with the elevated level of retinoic acid receptor a (RARa) expression, while the level of another atRA receptor, peroxisome proliferator-activated receptor b/d (PPARb/d), was decreased. We demonstrated that the classical counterpart of RARa, retinoid X receptor a (RXRa), was down-regulated in both cytoplasm and nucleus of A549 cells upon atRA addition."

According to the news editors, the research concluded: "On the contrary, the nuclear quantity of another possible RARa counterpart, transcription factor Sp1, was increased after atRA treatment."


The news editors report that additional information may be obtained by contacting N.N. Kalitin, Laboratory of Tumor Cell Genetics, Institute of Carcinogenesis, NN Blokhin Russian Cancer Research Center, Moscow, 115478, Russia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cbin.10587. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: VEGF, Moscow, Russia, Eurasia, Genetics, Oncology, Lung Cancer, Lung Neoplasms, Protein Kinases, Membrane Proteins, Angiogenic Proteins, Phosphotransferases, Growth Factor Receptors, Receptor Protein Tyrosine Kinases, Vascular Endothelial Growth Factors, Intercellular Signaling Peptides and Proteins.

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Oncology - Lung Cancer

Reports Outline Lung Cancer Study Results from German Center Lung Research (Treatment-related experiences and preferences of patients with lung cancer: a qualitative analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lung Cancer. According to news reporting out of Hannover, Germany, by NewsRx editors, research stated, "Lung cancer is one of the most common types of cancer worldwide, and it causes significant challenges for patients due to the poor survival rate and treatment-related side-effects. Because of lung cancer's great burden, identification and use of the patients' preferences can help to improve patients' quality of life."

Financial support for this research came from Bundesministerium fur Bildung und
Our news journalists obtained a quote from the research from German Center Lung Research, "Interviews with patients who have lung cancer were used to ascertain a range of experiences and to make recommendations regarding the improvement of treatment based on these patients' preferences. Because chemotherapy is the common treatment option for lung cancer, we focused on this treatment. The interviews were audio-taped, verbally transcribed and evaluated via content analysis. A total of 18 participants (11 men and 7 women) with small or non-small-cell lung cancer who were receiving chemotherapy in one clinic were interviewed between June and July 2013. Two main aspects with different subthemes were identified during the interviews. One main aspect focused on organizational context, such as the treatment day process, or experiences with different stakeholders, such as with the health insurance company or physicians. The other category referred to experiences that influenced psychosocial factors, including physical and mental experiences. Patients reported different experiences concerning physical, psychological and organizational areas during chemotherapy. Nevertheless, some potential areas for improving care, and therefore the quality of life of patients with lung cancer, could be identified."

According to the news editors, the research concluded: "These improvement measures highlighted that with small, non-time-consuming and inexpensive changes, the treatment for patients with lung cancer can be improved."


Our news journalists report that additional information may be obtained by contacting I. Aumann, German Center Lung Res DZL, Hannover, Germany. Additional authors for this research include K. Kreis, K. Damm, H. Golpon, T. Welte and J.M.G. von der Schulenburg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hex.12417. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hannover, Germany, Europe, Drugs and Therapies, Lung Neoplasms, Chemotherapy, Lung Cancer, Oncology, German Center Lung Research.

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Oncology - Lung Cancer
Reports Outline Lung Cancer Study Results from National Chiayi University (Astaxanthin enhances pemetrexed-induced cytotoxicity by downregulation of thymidylate synthase expression in human lung cancer cells)
multitargeted antifolate agent, has demonstrated clinical activity in non-small cell lung cancer (NSCLC) cells. Increased expression of thymidylate synthase (TS) is thought to be associated with resistance to pemetrexed.

Financial supporters for this research include Ministry of Science and Technology, Taiwan, Ditmanson Medical Foundation Chia-Yi Christian Hospital Research Program.

Our news journalists obtained a quote from the research from National Chiayi University, "Astaxanthin exhibits a wide range of beneficial effects including anti-cancer and anti-inflammatory properties. In this study, we showed that down-regulating of TS expression in two NSCLC cell lines, human lung adenocarcinoma H1650 and squamous cell carcinoma H1703 cells, with astaxanthin were associated with decreased MKK1/2-ERK1/2 activity. Enforced expression of constitutively active MKK1 (MKK1-CA) vector significantly rescued the decreased TS mRNA and protein levels in astaxanthin-treated NSCLC cells. Combined treatment with a MKK1/2 inhibitor (U0126 or PD98059) further decreased the TS expression in astaxanthin-exposed NSCLC cells. Knockdown of TS using small interfering RNA (siRNA) or inhibiting ERK1/2 activity enhanced the cytotoxicity and cell growth inhibition of astaxanthin. Combination of pemetrexed and astaxanthin resulted in synergistic enhancing cytotoxicity and cell growth inhibition in NSCLC cells, accompanied with reduced activation of phospho-MKK1/2, phospho-ERK1/2, and TS expression. Overexpression of MKK1/2-CA reversed the astaxanthin and pemetrexed-induced synergistic cytotoxicity."

According to the news editors, the research concluded: "Our findings suggested that the down regulation of MKK1/2-ERK1/2-mediated TS expression by astaxanthin is an important regulator of enhancing the pemetrexed-induced cytotoxicity in NSCLC cells."


Our news journalists report that additional information may be obtained by contacting Y.W. Lin, Natl Chiayi Univ, Dept. of Biochem Sci & Technol, Chiayi 600, Taiwan. Additional authors for this research include C.L. Wei, J.C. Chen, H.Y. Zheng, W.C. Chen, C.H. Wu, T.J. Wang, Y.S. Peng, P.Y. Chang and Y.W. Lin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.09.031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chiayi, Taiwan, Asia, Enzymes and Coenzymes, Thymidylate Synthase, Methyltransferases, Lung Neoplasms, Lung Cancer, Oncology, Genetics, National Chiayi University.

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Reports Outline Lupus Study Results from Pontifical Catholic University (Contribution of dendritic cells to the autoimmune pathology of systemic lupus erythematosus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Autoimmune Diseases and Conditions - Lupus have been published. According to news originating from Santiago, Chile, by NewsRx correspondents, research stated, "Systemic lupus erythematosus (SLE) is a heterogeneous disease in which excessive inflammation, autoantibodies and complement activation lead to multisystem tissue damage. The contribution of the individual genetic composition has been extensively studied, and several susceptibility genes related to immune pathways that participate in SLE pathogenesis have been identified."

Financial supporters for this research include Fondo Nacional de Desarrollo Cientifico y Tecnologico, Comision Nacional de Investagacion Cientifica y Tecnologica, Vicerrectoria de Investigacion de la Pontificia Universidad Catolica de Chile, Millennium Institute on Immunology and Immunotherapy.

Our news journalists obtained a quote from the research from Pontifical Catholic University, "It has been proposed that SLE takes place when susceptibility factors interact with environmental stimuli leading to a deregulated immune response. Experimental evidence suggests that such events are related to the failure of T-cell and B-cell suppression mediated by defects in cell signalling, immune tolerance and apoptotic mechanism promoting autoimmunity. In addition, it has been reported that dendritic cells (DCs) from SLE patients, which are crucial in the modulation of peripheral tolerance to self-antigens, show an increased ratio of activating/inhibitory receptors on their surfaces. This phenotype and an augmented expression of co-stimulatory molecules is thought to be critical for disease pathogenesis. Accordingly, tolerogenic DCs can be a potential strategy for developing antigen-specific therapies to reduce detrimental inflammation without causing systemic immunosuppression."

According to the news editors, the research concluded: "In this review article we discuss the most relevant data relative to the contribution of DCs to the triggering of SLE."


The news correspondents report that additional information may be obtained from J.P. Mackern-Oberti, Millennium Institute on Immunology and Immunotherapy, Departamento de Genetica Molecular y Microbiologia, Facultad de Ciencias Biologicas, Pontificia Universidad Catolica de Chile, Santiago, Chile. Additional authors for this research include C. Llanos, C.A. Riedel, S.M. Bueno and A.M Kalergis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imm.12504. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antigen Presenting Cells, Chile, Santiago, Genetics, Pathology, Immunology, Inflammation, South America, Article Review, Dendritic Cells, Mononuclear Phagocyte System, Systemic Lupus Erythematosus, Autoimmune Diseases and Conditions.
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Oncology - Lymphoma

Reports Outline Lymphoma Findings from Dana-Farber Cancer Institute (Next-generation sequencing-based detection of circulating tumour DNA After allogeneic stem cell transplantation for lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lymphoma. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Next-generation sequencing (NGS)-based circulating tumour DNA (ctDNA) detection is a promising monitoring tool for lymphoid malignancies. We evaluated whether the presence of ctDNA was associated with outcome after allogeneic haematopoietic stem cell transplantation (HSCT) in lymphoma patients."

Financial supporters for this research include Ted and Eileen Pasquarello Research Fund, Jock and Bunny Adams Education and Research Fund, Conquer Cancer Foundation, National Cancer Institute of the National Institutes of Health.

The news correspondents obtained a quote from the research from Dana-Farber Cancer Institute, "We studied 88 patients drawn from a phase 3 clinical trial of reduced-intensity conditioning HSCT in lymphoma. Conventional restaging and collection of peripheral blood samples occurred at pre-specified time points before and after HSCT and were assayed for ctDNA by sequencing of the immunoglobulin or T-cell receptor genes. Tumour clonotypes were identified in 87% of patients with adequate tumour samples. Sixteen of 19 (84%) patients with disease progression after HSCT had detectable ctDNA prior to progression at a median of 3 <bold>7</bold> months prior to relapse/progression. Patients with detectable ctDNA 3months after HSCT had inferior progression-free survival (PFS) (2-year PFS 58% vs. 84% in ctDNA-negative patients, <bold>P=0</bold>). In multivariate models, detectable ctDNA was associated with increased risk of progression/death (Hazard ratio <bold>3.9</bold>, <bold>P=0</bold>) and increased risk of relapse/progression (Hazard ratio <bold>10.8</bold>, <bold>P=0</bold>)."

According to the news reporters, the research concluded: "Detectable ctDNA is associated with an increased risk of relapse/progression, but further validation studies are necessary to confirm these findings and determine the clinical utility of NGS-based minimal residual disease monitoring in lymphoma patients after HSCT."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjh.14311. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Stem Cell Research, Risk and Prevention, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Cell Transplantation, Transplant Medicine, Cell Transplants, Biomedicine, Hematology, Lymphomas, Oncology, Genetics, Surgery, Dana-Farber Cancer Institute.

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Eye Diseases and Conditions - Macular Degeneration

Reports Outline Macular Degeneration Study Findings from University of Ljubljana (Clinical and genetic heterogeneity in Slovenian patients with BEST disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Eye Diseases and Conditions - Macular Degeneration is the subject of a report. According to news reporting originating in Ljubljana, Slovenia, by NewsRx journalists, research stated, "PurposeTo determine the spectrum of BEST1 mutations and to study the phenotype in Slovenian families with Best vitelliform macular dystrophy (BVMD) to identify genotype-phenotype correlations. MethodsTwenty patients from five families underwent the ophthalmological examination including electrooculogram (EOG; N=17), fundus autofluorescence imaging (N=16) and optical coherence tomography (N=14)."

Financial support for this research came from Javna Agencija za Raziskovalno Dejavnost RS.

The news reporters obtained a quote from the research from the University of Ljubljana, "Mutational screening was performed by direct DNA sequencing of the BEST1 gene. ResultsMutation c.43G >C (p.Gly15Arg) was detected in three patients from family M presenting with different clinical stages of Best disease. Mutation c.313G >C (p.Arg105Gly) was found in families K, ST, S, B and was associated with incomplete clinical penetrance and variable retinal changes, including extramacular and multifocal lesions. In three patients from family K, an atypical form of BVMD was observed; there were additional peripheral lesions outside of the vascular arcades in addition to the typical macular lesions. Multiple alterations between the vitelliruptive and pseudohypopyon stages over a period of 11 years were seen in one patient. ConclusionTwo previously unreported disease-associated variants in the BEST1 gene (p.Gly15Arg and p.Arg105Gly) were found in Slovenian patients with Best disease."

According to the news reporters, the research concluded: "Our data expand the mutation spectrum of the BEST1 gene and further support the broad phenotypic variability observed clinically and with optical coherence tomography (OCT) and AF imaging."


Our news correspondents report that additional information may be obtained by
contacting D. Glavac, Univ Ljubljana, Fac Med, Dept. of Mol Genet, Ljubljana, Slovenia.
Additional authors for this research include M. Jarc-Vidmar, K. Vrabec, M. Ravnik-Glavac, A. Fakin and M. Hawlina.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/aos.13202. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ljubljana, Slovenia, Europe, Optical Coherence Tomography, Eye Diseases and Conditions, Macular Degeneration, Imaging Technology, Genetics, University of Ljubljana.

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Eye Diseases and Conditions - Macular Edema

Reports Outline Macular Edema Study Findings from Kyoto University
(Restoration of foveal photoreceptors after intravitreal ranibizumab injections for diabetic macular edema)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Eye Diseases and Conditions - Macular Edema have been presented. According to news reporting originating from Kyoto, Japan, by NewsRx correspondents, research stated, "Anti-vascular endothelial growth factor drugs are the first-line treatment for diabetic macular edema (DME), although the mechanism of the visual acuity (VA) improvement remains largely unknown. The association between photoreceptor damage and visual impairment encouraged us to retrospectively investigate the changes in the foveal photoreceptors in the external limiting membrane (ELM) and ellipsoid zone (EZ) on spectral-domain optical coherence tomography (SD-OCT) images in 62 eyes with DME treated with intravitreal ranibizumab (IVR) injections."

Our news editors obtained a quote from the research from Kyoto University, "The transverse lengths of the disrupted EZ and ELM were shortened significantly ($P < 0.001$ and $P = 0.044$, respectively) at 12 months. The qualitative investigation also showed restoration of the EZ and ELM lines on SD-OCT images. The EZ at 12 months lengthened in 34 of 38 eyes with discontinuous EZ and was preserved in 16 of 21 eyes with complete EZ at baseline. VA improvement was positively correlated with shortening of the disrupted EZ at 12 months ($rho = 0.463$, $P < 0.001$), whereas the decrease in central subfield thickness was associated with neither VA improvement nor changes in EZ status ($rho = 0.215$, $P = 0.093$ and ($rho = 0.209$, $P = 0.103$, respectively)."

According to the news editors, the research concluded: "These data suggested that photoreceptor restoration contributes to VA improvement after pro re nata treatment with IVR injections for DME independent of resolved retinal thickening."

For more information on this research see: Restoration of foveal photoreceptors after intravitreal ranibizumab injections for diabetic macular edema. Scientific Reports, 2016;6 ():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting T. Murakami, Kyoto University, Dept. of Ophthalmol & Visual Sci, Grad Sch Med, Kyoto, Japan.
Additional authors for this research include K. Suzuma, A. Uji, K. Ishihara, S. Yoshitake, M. Fujimoto, Y. Dodo, T. Yoshitake, Y. Miwa and T. Murakami.

Keywords for this news article include: Kyoto, Japan, Asia, Antiangiogenic Ophthalmic Agents, Retinal Diseases and Conditions, Eye Diseases and Conditions, Ophthalmic Preparations, Monoclonal Antibodies, Retinal Degeneration, Macular Degeneration, Drugs and Therapies, Endocrinology, Biotechnology, Immunotherapy, Macular Edema, Ranibizumab, Diabetes, Kyoto University.

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Magnetic Resonance

Reports Outline Magnetic Resonance Study Findings from Molecular Imaging Program at Stanford (Molecular Magnetic Resonance Imaging of Tumor Response to Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Magnetic Resonance are discussed in a new report. According to news reporting originating from Stanford, California, by NewsRx correspondents, research stated, "Personalized cancer medicine requires measurement of therapeutic efficacy as early as possible, which is optimally achieved by three-dimensional imaging given the heterogeneity of cancer. Magnetic resonance imaging (MRI) can obtain images of both anatomy and cellular responses, if acquired with a molecular imaging contrast agent."

Our news editors obtained a quote from the research from Molecular Imaging Program at Stanford, "The poor sensitivity of MRI has limited the development of activatable molecular MR contrast agents. To overcome this limitation of molecular MRI, a novel implementation of our caspase-3-sensitive nanoaggregation MRI (C-SNAM) contrast agent is reported. C-SNAM is triggered to self-assemble into nanoparticles in apoptotic tumor cells, and effectively amplifies molecular level changes through nanoaggregation, enhancing tissue retention and spin-lattice relaxivity. At one-tenth the current clinical dose of contrast agent, and following a single imaging session, C-SNAM MRI accurately measured the response of tumors to either metronomic chemotherapy or radiation therapy, where the degree of signal enhancement is prognostic of long-term therapeutic efficacy."

According to the news editors, the research concluded: "Importantly, C-SNAM is inert to immune activation, permitting radiation therapy monitoring."

For more information on this research see: Molecular Magnetic Resonance Imaging of Tumor Response to Therapy. *Scientific Reports*, 2015;5():14759. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting A.J. Shuhendler, Molecular Imaging Program at Stanford, Stanford, California 94305, United States. Additional authors for this research include D. Ye, K.D. Brewer, M. Bazalova-Carter, K.H. Lee, P. Kempen, K. Dane Wittrup, E.E. Graves, B. Rutt and J. Rao.

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Keywords for this news article include: Therapy, Stanford, California, United States, Magnetic Resonance, North and Central America.
Oncology - Melanoma

Reports Outline Melanoma Study Findings from University Hospital (Novel Drugs and Combination Therapies for the Treatment of Metastatic Melanoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Melanoma are discussed in a new report. According to news reporting from Staten Island, New York, by NewsRx journalists, research stated, "Metastatic melanoma (MM) still remains as one of the most worrisome cancer known to mankind. In last two decades, treatment of melanoma took a dramatic turn with the discovery of targeted therapy which targets the mutations in mitogen-activated protein kinase (MAPK) pathway and immune checkpoint inhibitors."

The news correspondents obtained a quote from the research from University Hospital, "These new findings have led to emergence of many novel drugs that have been approved by FDA. Targeted therapy drugs such as vemurafenib, trametinib and dabrafenib target the MAPK pathway whereas immunotherapies such as ipilimumab, nivolumab and pembrolizumab block immune checkpoint receptors on T lymphocytes. All these drugs have shown to improve the overall survival in MM. Despite these recent discoveries, treatment of MM remains challenging because of rapid development of resistance to targeted therapy."

According to the news reporters, the research concluded: "This review will discuss recently approved drugs and their adverse effects and also shed light on combination therapy in treatment of melanoma."

For more information on this research see: Novel Drugs and Combination Therapies for the Treatment of Metastatic Melanoma. Journal of Clinical Medicine Research, 2015;8 (2):63-75.

Our news journalists report that additional information may be obtained by contacting A. Vennepureddy, Dept. of Medicine, Staten Island University Hospital, Staten Island, NY 10305, United States. Additional authors for this research include N. Thumallapally, V. Motilal Nehru, J.P. Atallah and T. Terjanian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.14740/jocmr2424w. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York, Genetics, Oncology, Healthcare, Staten Island, United States, Article Review, Combination Therapy, Drugs and Therapies, Metastatic Melanoma, Diseases and Conditions, North and Central America.

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Merkel Cells

Reports Outline Merkel Cells Findings from University of California (Genomic portfolio of Merkel cell carcinoma as determined by comprehensive genomic profiling: implications for targeted therapeutics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Merkel Cells is the subject of a report. According to news reporting out of San Diego, California, by NewsRx editors, research stated, "Merkel cell carcinoma is an ultra-rare cutaneous neuroendocrine cancer for which approved treatment options are lacking. To better understand potential actionability, the genomic landscape of Merkel cell cancers was assessed."

Our news journalists obtained a quote from the research from the University of California, "The molecular aberrations in 17 patients with Merkel cell carcinoma were, on physician request, tested in a Clinical Laboratory Improvement Amendments (CLIA) laboratory (Foundation Medicine, Cambridge, MA) using next-generation sequencing (182 or 236 genes) and analyzed by N-of-One, Inc. (Lexington, MA). There were 30 genes harboring aberrations and 60 distinct molecular alterations identified in this patient population. The most common abnormalities involved the TP53 gene (12/17 [71% of patients]) and the cell cycle pathway (CDKN2A/B, CDKN2C or RB1)(12/17 [71%]). Abnormalities also were observed in the PI3K/AKT/mTOR pathway (AKT2, FBXW7, NF1, PIK3CA, PIK3R1, PTEN or RICTOR) (9/17 [53%]) and DNA repair genes (ATM, BAP1, BRCA1/2, CHEK2, FANCA or MLH1) (5/17 [29%]). Possible cognate targeted therapies, including FDA-approved drugs, could be identified in most of the patients (16/17 [94%]). In summary, Merkel cell carcinomas were characterized by multiple distinct aberrations that were unique in the majority of analyzed cases. Most patients had theoretically actionable alterations."

According to the news editors, the research concluded: "These results provide a framework for investigating tailored combinations of matched therapies in Merkel cell carcinoma patients."

For more information on this research see: Genomic portfolio of Merkel cell carcinoma as determined by comprehensive genomic profiling: implications for targeted therapeutics. Oncotarget, 2016;7(17):23454-67.

Our news journalists report that additional information may be obtained by contacting P.R. Cohen, Dept. of Dermatology, University of California San Diego, San Diego, CA, United States. Additional authors for this research include B.N. Tomson, S.K. Elkin, E. Marchlik, J.L. Carter and R. Kurzrock.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Neurons, Genetics, Oncology, San Diego, California, United States, Mechanoreceptors, Merkel Cell Cancer, Merkel Cell Carcinoma, Sensory Receptor Cells, North and Central America, Peripheral Nervous System.

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Mesylates

Reports Outline Mesylates Findings from Bharathiar University (Gas Chromatographic Method for the Quantitative Determination of a Hydrolytic Degradation Impurity in Busulfan Injectable Products)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mesylates. According to news reporting from Coimbatore, India, by NewsRx journalists, research stated, "An efficient and stability-indicating method has been developed and validated for the quantitative determination of tetrahydrofuran (THF), a hydrolytic degradation impurity, in Busulfan injectable pharmaceutical products by using gas chromatograph equipped with a liquid autosampler and a flame ionization detector. The chromatographic separation was performed on a fused silica capillary (Stabilwax; 60 mlenght x 0.32 mm i.d., 0.5 mu m film thickness) column."

The news correspondents obtained a quote from the research from Bharathiar University, "The methodology was validated in accordance with regulatory guidelines. The proposed method was found to be specific, stable, precise, linear, accurate, robust, and rugged in the concentration range from 4 to 1,080 ppm for THF."

According to the news reporters, the research concluded: "The developed method was successfully applied to determine the THF content in Busulfan injectable pharmaceutical products."


Our news journalists report that additional information may be obtained by contacting H.R. Reddy, Bharathiar Univ, Res & Dev Center, Coimbatore 641046, Tamil Nadu, India. Additional authors for this research include N. Chandrasekhar and C.S. Karigar. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/chromsci/bmw117. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Coimbatore, India, Asia, Alkanesulfonic Acids, Drugs and Therapies, Alkylating Agents, Busulfan Therapy, Butylene Glycols, Pharmaceuticals, Antineoplastics, Sulfur Acids, Mesylates, Bharathiar University. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

Neoplasms

Reports Outline Neoplasms Study Findings from University of Algarve (Salivary gland hybrid tumour revisited: could they represent high-grade transformation in a low-grade neoplasm?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators discuss new findings in Neoplasms. According to news reporting originating from Faro, Portugal, by NewsRx correspondents, research stated, "Salivary gland hybrid tumour, first described in 1996, is a very rare neoplasm for which exact morphological criteria have not been universally agreed upon. In contrast, the concept of high-grade transformation (HGT) in salivary neoplasms has been widely accepted during the last decade, and the number of reported cases is rapidly increasing."

Financial support for this research came from No funding was involved.

Our news editors obtained a quote from the research from the University of Algarve, "A review of the literature revealed 38 cases of hybrid tumour reported in 22 publications. During approximately the same time period, well over 100 cases of HGT in salivary neoplasms have been reported. There are important histological similarities between hybrid tumours and salivary tumours with HGT. In the latter, containing one tumour component of low-grade malignancy and the other of high grade, the two tumour components are not entirely separated and appear to originate in the same area. Virtually, all cases reported as hybrid tumour had no clear lines of demarcation between the two tumour types. We are inclined to suggest that most of the 38 cases of hybrid tumours described in the literature would today better be called tumour with HGT rather than hybrid tumour. The relative proportion of the two components may vary, and the high-grade component is sometimes very small, which emphasises the importance of very generous sampling of the surgical specimen. The molecular genetic mechanisms responsible for HGT, including what used to be called hybrid tumour, remain largely unknown. Abnormalities of a few genes (including p53, C-MYC, cyclin D1, HER-2/neu) have been documented. As insufficient data exist on gene abnormalities in these lesions, conclusions as to whether or not they have a common origin and which mechanisms are involved in transformation cannot be drawn. Due to the small number of cases reported, many of which lack follow-up details; indicators of prognosis of hybrid tumours are not available, but their behaviour seems to be similar to that of tumours with HGT, i.e. an accelerated aggressive course."

According to the news editors, the research concluded: "HGT of salivary gland neoplasms greatly influences macroscopic and microscopic evaluation of the specimen but also, given the high incidence of metastases and morbidity, carries significant treatment implications."

For more information on this research see: Salivary gland hybrid tumour revisited: could they represent high-grade transformation in a low-grade neoplasm? Virchows Archiv, 2016;469(6):643-650. Virchows Archiv can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Virchows Archiv - www.springerlink.com/content/0945-6317/)

The news editors report that additional information may be obtained by contacting H. Hellquist, University of Algarve, Dept. of Biomed Sci & Med, P-8005139 Faro, Portugal. Additional authors for this research include A. Skalova and B. Azadeh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00428-016-2018-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Faro, Portugal, Europe, Neoplasms, Genetics, University of Algarve.

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Nephropathy

Reports Outline Nephropathy Study Findings from RWTH Aachen University (The mucosa-kidney axis in IgA nephropathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nephropathy is the subject of a report. According to news originating from Aachen, Germany, by NewsRx correspondents, research stated, "Links between IgA nephropathy (IgAN) and the mucosa have been recognized since the 1970s. In particular, the observation of visible haematuria induced by respiratory infections in patients with IgAN and the association of IgAN with diseases in which the mucosa plays a part, especially coeliac disease, have been taken as evidence of a mucosa-kidney axis."

Our news journalists obtained a quote from the research from RWTH Aachen University, "Here, we review current evidence that links the mucosa, in particular the gastrointestinal mucosa, and IgA produced by the bone marrow with IgAN. Genome-wide association studies in patients with IgAN have identified risk loci in genes involved in the intestinal mucosal integrity and immune network. Furthermore, the systemic immune response to mucosal antigens in IgAN is increased. Moreover, patients with IgAN have an increased reactivity to dietary proteins associated with subclinical intestinal mucosal inflammation. Associations between IgAN and gastrointestinal diseases have also been reported in a small number of patients, but whether these diseases share a common pathogenesis or whether gastrointestinal inflammation exacerbates IgAN is uncertain. Indeed, mucosal alterations such as infections could activate the innate immune system, aggravate a pre-existing IgAN and promote disease manifestations such as macrohaematuria."

According to the news editors, the research concluded: "Various clinical interventions and trials targeting the mucosa or presumed mucosa-associated mechanisms have so far not yielded consistent findings and the results of ongoing trials are eagerly awaited."


The news correspondents report that additional information may be obtained from J. Floege, Divisions of Nephrology and Immunology, RWTH University of Aachen, Pauwelstrasse 30, D 52057 Aachen, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrneph.2015.208. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aachen, Europe, Germany, Genetics, Nephrology, Nephropathy, Inflammation, Article Review, Gastroenterology.

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**Health and Medicine - Neurooncology**

**Reports Outline Neurooncology Findings from NHS Foundation Trust (Surgical management of posterior fossa metastases)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Health and Medicine - Neurooncology. According to news reporting originating from Liverpool, United Kingdom, by NewsRx correspondents, research stated, "The diagnosis of brain metastases is associated with a poor prognosis reflecting uncontrolled primary disease that has spread to the relative sanctuary of the central nervous system. 20% of brain metastases occur in the posterior fossa and are associated with significant morbidity. The risk of acute hydrocephalus and potential for sudden death means these metastases are often dealt with as emergency cases."

Our news editors obtained a quote from the research from NHS Foundation Trust, "This approach means a full pre-operative assessment and staging of underlying disease may be neglected and a proportion of patients undergo comparatively high risk surgery with little or no survival benefit. This study aimed to assess outcomes in patients to identify factors that may assist in case selection. We report a retrospective case series of 92 consecutive patients operated for posterior fossa metastases between 2007 and 2012. Routine demographic data was collected plus data on performance status, primary cancer site, details of surgery, adjuvant treatment and survival. The only independent positive prognostic factors identified on multivariate analysis were good performance status (if Karnofsky performance score > 70, hazard ratio (HR) for death 0.36, 95% confidence interval (CI) 0.18-0.69), adjuvant whole brain radiotherapy (HR 0.37, 95% CI 0.21-0.65) and adjuvant chemotherapy where there was extracranial disease and non-synchronous presentation (HR 0.51, 95% CI 0.31-0.82). Patients presenting with posterior fossa metastases may not be investigated as thoroughly as those with supratentorial tumours."

According to the news editors, the research concluded: "Staging and assessment is essential however, and in the meantime emergencies related to tumour mass effect should be managed with steroids and cerebrospinal fluid diversion as required."

For more information on this research see: Surgical management of posterior fossa metastases. *Journal of Neuro-Oncology, 2016;130(3):535-542.* Journal of Neuro-Oncology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of Neuro-Oncology - www.springerlink.com/content/0167-594x/)

The news editors report that additional information may be obtained by contacting G.J. Sunderland, Walton Center NHS Fdn Trust, Dept. of Neurosurg, Liverpool L9 7LJ, Merseyside, United Kingdom. Additional authors for this research include M.D. Jenkinson and R. Zakaria.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11060-016-2254-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Liverpool, United Kingdom, Europe, Neurooncology, Health and Medicine, Surgery, Risk and Prevention, NHS Foundation Trust. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Neutral Amino Acids

Reports Outline Neutral Amino Acids Findings from University of Glasgow (A Highly Conserved Bacterial D-Serine Uptake System Links Host Metabolism and Virulence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neutral Amino Acids. According to news reporting from Glasgow, United Kingdom, by NewsRx journalists, research stated, "The ability of any organism to sense and respond to challenges presented in the environment is critically important for promoting or restricting colonization of specific sites. Recent work has demonstrated that the host metabolite D-serine has the ability to markedly influence the outcome of infection by repressing the type III secretion system of enterohaemorrhagic Escherichia coli (EHEC) in a concentration-dependent manner."

The news correspondents obtained a quote from the research from the University of Glasgow, "However, exactly how EHEC monitors environmental D-serine is not understood. In this work, we have identified two highly conserved members of the E. coli core genome, encoding an inner membrane transporter and a transcriptional regulator, which collectively help to 'sense' levels of D-serine by regulating its uptake from the environment and in turn influencing global gene expression. Both proteins are required for full expression of the type III secretion system and diversely regulated prophage-encoded effector proteins demonstrating an important infection-relevant adaptation of the core genome."

According to the news reporters, the research concluded: "We propose that this system acts as a key safety net, sampling the environment for this metabolite, thereby promoting colonization of EHEC to favorable sites within the host."

For more information on this research see: A Highly Conserved Bacterial D-Serine Uptake System Links Host Metabolism and Virulence. Plos Pathogens, 2016;12(1):e1005359. (Public Library of Science - www.plos.org; Plos Pathogens - www.plospathogens.org)

Our news journalists report that additional information may be obtained by contacting J.P. Connolly, Institute of Infection, Immunity and Inflammation, College of Med, Veterinary and Life Sciences, University of Glasgow, Glasgow, UK. Additional authors for this research include M. Gabrielsen, R.J. Goldstone, R. Grinter, D. Wang, R.J. Cogdell, D. Walker, D.G. Smith and A.J Roe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.ppat.1005359. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Serine, Glasgow, Genetics, United Kingdom, Neutral Amino Acids, Bacterial Infections and Mycoses.

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Oncology - Non-Small Cell Lung Cancer

Reports Outline Non-Small Cell Lung Cancer Study Results from University of Chicago (Systemic therapies in the treatment of non-small-cell lung cancer brain metastases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Non-Small Cell Lung Cancer is the subject of a report. According to news reporting originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Non-small-cell lung cancer (NSCLC) brain metastases are common. Even though there are various subsets of NSCLC with molecular alterations, there is a common theme of brain metastases."

Our news editors obtained a quote from the research from the University of Chicago, "Current treatment modalities are suboptimal. Systemic therapies for the treatment of NSCLC brain metastases have been explored and recent advances may pave the way for their successful employment in this patient population. While no specific agents have been associated with a marked benefit, stability of disease as well as radiographic responses have been noted in some patients."

According to the news editors, the research concluded: "Biological activity of systemic therapies in some patients with NSCLC brain metastases raises hope for future advances and supports further investigation for this patient population with limited treatment options."


The news editors report that additional information may be obtained by contacting R.V. Lukas, Dept. of Neurology, University of Chicago, Chicago, IL, United States. Additional authors for this research include P. Kumthekar, S. Rizvi and R. Salgia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.16.17. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, Oncology, United States, Article Review, Lung Neoplasms, North and Central America, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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Life Science Research - Nucleic Acids Research

Reports Outline Nucleic Acids Research Study Findings from University of North Carolina (Selective single cell isolation for genomics using microraft arrays)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Nucleic Acids Research have been published. According to news reporting originating from Chapel Hill, North Carolina, by NewsRx correspondents, research stated, "Genomic methods are used increasingly to
interrogate the individual cells that compose specific tissues. However, current methods for
single cell isolation struggle to phenotypically differentiate specific cells in a heterogeneous
population and rely primarily on the use of fluorescent markers."

Our news editors obtained a quote from the research from the University of North
Carolina, "Many cellular phenotypes of interest are too complex to be measured by this
approach, making it difficult to connect genotype and phenotype at the level of individual cells.
Here we demonstrate that microraft arrays, which are arrays containing thousands of individual
cell culture sites, can be used to select single cells based on a variety of phenotypes, such as cell
surface markers, cell proliferation and drug response. We then show that a common genomic
procedure, RNA-seq, can be readily adapted to the single cells isolated from these rafts. We
show that data generated using micrafts and our modified RNA-seq protocol compared
favorably with the Fluidigm C1. We then used microraft arrays to select pancreatic cancer cells
that proliferate in spite of cytotoxic drug treatment."

According to the news editors, the research concluded: "Our single cell RNA-seq
data identified several expected and novel gene expression changes associated with early drug
resistance."

For more information on this research see: Selective single cell isolation for
Acids Research* can be contacted at: Oxford Univ Press, Great Clarendon St, Oxford OX2 6DP,
England. (Oxford University Press - www.oup.com/; Nucleic Acids Research -
nar.oxfordjournals.org)

The news editors report that additional information may be obtained by contacting
J.J. Yeh, Univ North Carolina Chapel Hill, Dept. of Surg, Chapel Hill, NC 27599, United
States. Additional authors for this research include L.A. Williams, M. DiSalvo, A.T. Brandt, R.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1093/nar/gkw700. This DOI is a link to an online electronic document that
is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States,
North and Central America, Nucleic Acids Research, Life Science Research, Genetics,
University of North Carolina.

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**Proteins - Nucleoproteins**

**Reports Outline Nucleoproteins Study Results from Tokyo Women's Medical University (Action mechanisms of histone deacetylase inhibitors in the treatment of hematological malignancies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- New research on Proteins - Nucleoproteins is the subject of a report.
According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Histone
deacetylases (HDACs) critically regulate gene expression by determining the acetylation status
of histones. Studies have increasingly focused on the activities of HDACs, especially involving
non-histone proteins, and their various biological effects."

Our news journalists obtained a quote from the research from Tokyo Women's
Medical University, "Aberrant HDAC expression observed in several kinds of human tumors makes HDACs potential targets for cancer treatment. Several preclinical studies have suggested that HDAC inhibitors show some efficacy in the treatment of acute myelogenous leukemia with AML1-ETO, which mediates transcriptional repression through its interaction with a complex including HDAC1. Recurrent mutations in epigenetic regulators are found in T-cell lymphomas (TCLs), and HDAC inhibitors and hypomethylating agents were shown to act cooperatively in the treatment of TCLs. Preclinical modeling has suggested that persistent activation of the signal transducer and activator of transcription signaling pathway could serve as a useful biomarker of resistance to HDAC inhibitor in patients with cutaneous TCL. Panobinostat, a pan-HDAC inhibitor, in combination with bortezomib and dexamethasone, has achieved longer progression-free survival in patients with relapsed/refractory multiple myeloma (MM) than the placebo in combination with bortezomib and dexamethasone. Panobinostat inhibited MM cell growth by degrading protein phosphatase 3 catalytic subunit (PPP3CA), a catalytic subunit of calcineurin. This degradation was suggested to be mediated by the blockade of the chaperone function of heat shock protein 90 due to HDAC6 inhibition. Aberrant PPP3CA expression in advanced MM indicated a possible correlation between high PPP3CA expression and the pathogenesis of MM."

According to the news editors, the research concluded: "Furthermore, PPP3CA was suggested as a common target of panobinostat and bortezomib."


Our news journalists report that additional information may be obtained by contacting Y. Imai, Tokyo Women's Medical University, Dept. of Hematol, Tokyo, Japan. Additional authors for this research include Y. Maru and J. Tanaka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cas.13062. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Deacetylase, Article Review, Enzymes and Coenzymes, Multiple Myeloma, Nucleoproteins, Proteins, Histones, Genetics, Tokyo Women's Medical University.

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representative sample of adolescents in grades 7 to 12 (n = 18,200), cross-classified multilevel modeling was used to examine the fixed and random effects of individuals, schools, and neighborhoods on adolescent BMI."

The news reporters obtained a quote from the research from Children's Hospital, "Additionally, the ability of school and neighborhood demographics to explain racial/ethnic disparities in BMI was assessed. There were 18,200 students nested in 128 schools and 2,259 neighborhoods, with 2,757 unique combinations of schools and neighborhoods. In girls, schools (v(ojk) = 0.18, CI: 0.06-0.33) contributed twice that of neighborhoods (u(ojk) = 0.08, CI: 0.01-0.20) to the variance in BMI, while in males, schools (u(ojk) = 0.15, CI: 0.05-0.30) and neighborhoods (v(ojk) = 0.16, CI: 0.05-0.31) had similar contributions. The interaction of the neighborhood and school random effects contributed significantly to the variance of male and female BMI. Characteristics of neighborhoods and schools explained a large portion of the racial/ethnic disparity in female BMI. In an analysis of a nationally representative sample including multiple racial and ethnic groups, the BMI variance of adolescent females was associated with schools more than neighborhoods."

According to the news reporters, the research concluded: "In males, there was no difference in school or neighborhood association with BMI."

For more information on this research see: Disentangling Overlapping Influences of Neighborhoods and Schools on Adolescent Body Mass Index. *Obesity*, 2016;24(12):2570-2577. *Obesity* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news correspondents report that additional information may be obtained by contacting T.K. Richmond, Boston Children's Hosp, Dept. of Med, Div Adolescent Med, Boston, MA 02115, United States. Additional authors for this research include E.C. Dunn, C.E. Milliren, C.R. Evans and S.V. Subramanian.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Obesity, Nutritional and Metabolic Diseases and Conditions, Children's Hospital.

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**Respiratory Tract Diseases and Conditions** - ...

**Reports Outline Obstructive Sleep Apnea Study Results from Fudan University (A Novel Method for Sensitive Determination of Subclinical Left-Ventricular Systolic Dysfunction in Subjects With Obstructive Sleep Apnea)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea is the subject of a report. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "This study was to evaluate the subclinical left-ventricular (LV) systolic dysfunction with 2-dimensional speckle-tracking echocardiography in subjects with obstructive sleep apnea (OSA) with normal left ventricular ejection fraction and without any confounding disease that can cause myocardial dysfunction. Nineteen healthy individuals and 60 subjects with OSA were included in this study."

The news reporters obtained a quote from the research from Fudan University,
According to the severity of disease, OSA subjects were examined in 3 groups: mild, moderate, and severe OSA. LV apical views (for longitudinal strain) and short-axis views (for circumferential strain) were acquired for evaluation. Three-layer longitudinal strain values and circumferential strain values were determined for each view, and averages of these were used in comparison with other groups. Three-layer longitudinal strain values of the subjects with OSA were lower than those of the healthy individuals, and these values were decreased along with the OSA severity. The difference was significant between severe OSA and all other groups. Three-layer circumferential strain values of the OSA subjects were lower than those of the healthy individuals, and the difference was significant between the control group and all other groups. The apnea hypopnea index was found to be correlated with the 3-layer longitudinal strain \((r=-0.74, p<.001; r=-0.72, p<.001; r=-0.69, p=.001)\). Three-layer longitudinal and circumferential LV systolic functions in OSA subjects with normal left ventricular ejection fraction are deteriorated in the subclinical stage.

According to the news reporters, the research concluded: "Two-dimensional speckle-tracking echocardiography can be used as an effective method in the determination of subclinical myocardial dysfunction in subjects with OSA."

For more information on this research see: A Novel Method for Sensitive Determination of Subclinical Left-Ventricular Systolic Dysfunction in Subjects With Obstructive Sleep Apnea. Respiratory Care, 2015;61(3):366-75.

Our news correspondents report that additional information may be obtained by contacting C.Z. Pan, Dept. of Echocardiography, Zhongshan Hospital, Fudan University, Shanghai Institute of Cardiovascular Diseases, Shanghai Institute of Medical Imaging, Shanghai, People's Republic of China. Additional authors for this research include X.H. Shu, Y.L. Liu, H. Shen, W.J. Li, X. Gong, H.Y. Chen, W.P. Zhao, C.Z. Pan and S.Q Li.

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Keywords for this news article include: Asia, Shanghai, Cardiology, Pulmonology, Craniofacial, Cardiovascular, Otolaryngology, Sleep Disorders, Echocardiography, Respiration Disorders, Obstructive Sleep Apnea, People's Republic of China, Sleep Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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Respiratory Tract Diseases and Conditions -...

Reports Outline Obstructive Sleep Apnea Study Results from State University of Campinas (Morbidity and Mortality Rates After Maxillomandibular Advancement for Treatment of Obstructive Sleep Apnea)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea have been published. According to news reporting out of Campinas, Brazil, by NewsRx editors, research stated, "To compare morbidity and mortality rates in obstructive sleep apnea (OSA) versus dentofacial deformity (DFD) patients undergoing equivalent maxillofacial surgical procedures. Patients with OSA who underwent
maxillomandibular advancement with genial tubercle advancement in the Massachusetts General Hospital Department of Oral and Maxillofacial Surgery from December 2002 to June 2011 were matched to patients with DFD undergoing similar maxillofacial procedures during the same period."

Our news journalists obtained a quote from the research from the State University of Campinas, "They were compared regarding demographic variables, medical comorbidities, perioperative management, intraoperative complications, early and late postoperative complications, and mortality rate. A study group of 28 patients with OSA and a control group of 26 patients with DFD were compared. The patients with OSA were older (41.9 +/- 12.5 years vs 21.7 +/- 8.6 years), had a higher American Society of Anesthesiologists classification (2.0 +/- 0.5 vs 1.3 +/- 0.6), and had a higher body mass index (29.6 +/- 4.7 kg/m(2) vs 23.0 +/- 3.1 kg/m (2)). They also had a greater number of medical comorbidities (2.4 +/- 2.3 vs 0.7 +/- 1.0). More OSA patients than DFD patients had complications (28 [100%] vs 19 [73%], P = .003), and the total number of complications in the OSA group was higher (108 vs 33, P< .001). Of the complications, 13.9% in the OSA group and 3.0% in the DFD group were classified as major. The absolute risk of a complication was 3.9 for the OSA group versus 1.3 for the DFD group. The relative risk of complications in OSA patients compared with DFD patients was 3.0. No difference in mortality rate was found. The patients in the OSA group were older, had more comorbidities, and ultimately had a greater number of early, late, minor, and major complications than those in the DFD group. The incidence of death in both groups was zero."

According to the news editors, the research concluded: "Maxillomandibular advancement appears to be a safe procedure regarding mortality rate, but OSA patients should be counseled preoperatively regarding the relative increased risk of complications."


Our news journalists report that additional information may be obtained by contacting L.A. Passeri, Campinas State University, Sch Med Sci, Dept. of Surg, Oral & Maxillofacial Surg, Campinas, SP, Brazil. Additional authors for this research include J.G. Choi, L.B. Kaban and E.T. Lahey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.joms.2016.04.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Campinas, Brazil, South America, Respiratory Tract Diseases and Conditions, Surgery, Risk and Prevention, Epidemiology, Sleep Diseases and Conditions, Obstructive Sleep Apnea, Respiration Disorders, Sleep Disorders, Otolaryngology, Craniofacial, Pulmonology, State University of Campinas.

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Oncology

Reports Outline Oncology Study Findings from University of Insubria (RNASET2 silencing affects miRNAs and target gene expression pattern in a human ovarian cancer cell model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology. According to news reporting from Varese, Italy, by NewsRx journalists, research stated, "Ribonucleases (RNases) are hydrolytic enzymes endowed with the ability to either process or degrade ribonucleic acids. Among the many biological functions assigned to RNases, a growing attention has been recently devoted to the control of cancer growth, in the attempt to bring novel therapeutic approaches to clinical oncology."

The news correspondents obtained a quote from the research from the University of Insubria, "Indeed, several enzymes belonging to different ribonuclease families have been reported in the last decade to display a marked oncosuppressive activity in a wide range of experimental models. The human RNASET2 gene, the only member of the highly conserved T2/Rh/S family of endoribonucleolytic enzymes described in our species, has been shown to display oncosuppressive roles in both in vitro and in vivo models representing several human malignancies. In the present study, we extend previous findings obtained in ovarian cancer models to shed further light on the cell-autonomous roles played by this gene in the context of its oncosuppressive role and to show that RNASET2 silencing can significantly affect the transcriptional output in one of the most thoroughly investigated human ovarian cancer cell lines."

According to the news reporters, the research concluded: "Moreover, we report for the first time that RNASET2-mediated changes in the cell transcriptome are in part mediated by its apparent ability to affect the cell's microRNA expression pattern."


Our news journalists report that additional information may be obtained by contacting F. Acquati, University of Insubria, Dept. of Biotechnol & Life Sci, Varese, Italy. Additional authors for this research include D. Scaldaferri, M. Fabbri, L. Monti, M. Lualdi, E. Pedrini, L. Gribaldo, R. Taramelli and F. Acquati.

Keywords for this news article include: Varese, Italy, Europe, Cancer, Genetics, Oncology, University of Insubria.

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Oncology - Osteosarcomas

Reports Outline Osteosarcomas Study Findings from Hebei Medical University (The tumor suppressor miR-124 inhibits cell proliferation and invasion by targeting B7-H3 in osteosarcoma)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Osteosarcomas is now available. According to news originating from Shijiazhuang, People's Republic of China, by NewsRx correspondents, research stated, "Our previous studies have shown that the expression level of B7 homolog 3 (B7-H3) was correlated with clinical staging and prognosis of osteosarcoma (OS) patients, and its silencing inhibited the proliferation and invasion of OS cells in vitro. However, its overexpression mechanism behind was far from elucidated."

Our news journalists obtained a quote from the research from Hebei Medical University, "On the basis of bioinformatics and the preliminary screening data, we hypothesized that miR-124 might play an important role in OS development and as a lead candidate for modulating B7-H3 expression. In this study, we found that miR-124 was downregulated significantly in OS tumor tissue, compared to normal adjacent tissues (NATs). Lower miR-124 expression levels were associated with advanced Enneking stage, lower tumor differentiation, and common pulmonary metastasis. The 5-year overall survival rate in the miR-124 upregulated group was 61.5 %, while with low miR-124 expression, only 11.8 % survived. Further studies in vitro showed that B7-H3 was a direct target of miR-124. Overexpression of miR-124 decreased B7-H3 mRNA and protein level and inhibited B7-H3 3'-UTR reporter activity. Treatment of OS cells with miR-124 mimics induced the inhibition of cell growth and invasion in vitro, which could be abrogated by transfected by B7-H3 expression vector."

According to the news editors, the research concluded: "Our findings highlight the potential application of miR-124 as a novel onco-miRNA in OS, and its oncogenic effects are mediated chiefly through downregulation of B7-H3, thus suggesting a model for identifying miR-124 that can be exploited to improve the therapeutic potential efficacy of mAb targeting to B7-H3."


The news correspondents report that additional information may be obtained from B.E. Shan, Hebei Medical University, Hosp 4, Canc Res Inst, Shijiazhuang, Hebei, People's Republic of China. Additional authors for this research include F.B. Kang, N. Sun, J. Wang, W. Chen, D. Li and B.E. Shan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5386-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shijiazhuang, People's Republic of China, Asia, Cell Proliferation, Tumor Suppression, Osteosarcomas, Orthopedics, Oncology, Genetics, Hebei Medical University.

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Membrane Proteins - Pattern Recognition Receptors

Reports Outline Pattern Recognition Receptors Study Findings from Oregon Health and Science University (Mesenchymal Stromal Cell-derived Extracellular Vesicles Promote Myeloid-biased Multipotent Hematopoietic Progenitor Expansion via Toll-Like ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Membrane Proteins - Pattern Recognition Receptors have been published. According to news originating from Portland, Oregon, by NewsRx correspondents, research stated, "Mesenchymal stromal cells (MSCs) present in the bone marrow microenvironment secrete cytokines and angiogenic factors that support the maintenance and regenerative expansion of hematopoietic stem and progenitor cells (HSPCs). Here, we tested the hypothesis that extracellular vesicles (EVs) released by MSCs contribute to the paracrine crosstalk that shapes hematopoietic function."

Our news journalists obtained a quote from the research from Oregon Health and Science University, "We systematically characterized EV release by murine stromal cells and demonstrate that MSC-derived EVs prompt a loss of HSPC quiescence with concomitant expansion of murine myeloid progenitors. Our studies reveal that HSPC expansion by MSC EVs is mediated via the MyD88 adapter protein and is partially blocked by treatment with a TLR4 inhibitor. Imaging of fluorescence protein-tagged MSC EVs corroborated their cellular co-localization with TLR4 and endosomal Rab5 compartments in HSPCs. The dissection of downstream responses to TLR4 activation reveals that the mechanism by which MSC EVs impact HSPCs involves canonical NF-kappa B signaling and downstream activation of Htf-1a and CCL2 target genes."

According to the news editors, the research concluded: "Our aggregate data identity a previously unknown role for MSC-derived EVs in the regulation of hematopoiesis through innate immune mechanisms and illustrate the expansive cell-cell crosstalk in the bone marrow microenvironment."


The news correspondents report that additional information may be obtained from P. Kurre, Oregon Health Sciences University, Pediat Canc Biol Program, Portland, OR 97239, United States. Additional authors for this research include S.C. Verghese, Y.M. Yoon, O. Taratula, D.L. Marks and P. Kurre.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.745653. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Portland, Oregon, United States, North and Central America, Pattern Recognition Receptors, Connective Tissue Cells, Toll-Like Receptors, Membrane Proteins, Immune System, Bone Research, Stromal Cells, Hematopoietic, Bone Marrow, Hematology, Immunology, Genetics, Oregon Health and
Reports Outline Penicillins Study Findings from University of Notre Dame (In Vitro and In Vivo Synergy of the Oxadiazole Class of Antibacterials with beta-Lactams)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Penicillins are presented in a new report. According to news reporting originating in Notre Dame, Indiana, by NewsRx journalists, research stated, "The oxadiazole antibacterials target the bacterial cell wall and are bactericidal. We investigated the synergism of ND-421 with the commonly used beta-lactams and non-beta-lactam antibiotics by the checkerboard method and by time-kill assays."

The news reporters obtained a quote from the research from the University of Notre Dame, "ND-421 synergizes well with beta-lactam antibiotics, and it also exhibits a long postantibiotic effect (4.7 h). We also evaluated the in vivo efficacy of ND-421 in a murine neutropenic thigh infection model alone and in combination with oxacillin. ND-421 has in vivo efficacy by itself in a clinically relevant infection model (1.49 log(10) bacterial reduction for ND-321 versus 0.36 log(10) for linezolid with NRS119) and acts synergistically with beta-lactam antibiotics in vitro and in vivo, and the combination of ND-421 with oxacillin is efficacious in a mouse neutropenic thigh methicillin-resistant Staphylococcus aureus (MRSA) infection model (1.60 log(10) bacterial reduction)."

According to the news reporters, the research concluded: "The activity of oxacillin was potentiated in the presence of ND-421, as the strain would have been resistant to oxacillin otherwise."

For more information on this research see: In Vitro and In Vivo Synergy of the Oxadiazole Class of Antibacterials with beta-Lactams. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5581-5588. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting M.L. Chang, University of Notre Dame, Dept. of Chem & Biochem, Notre Dame, IN 46556, United States. Additional authors for this research include J.E. Meisel, D.R. Ding, V.A. Schroeder, W.R. Wolter, S. Mobashery and M.L. Chang.

Keywords for this news article include: Notre Dame, Indiana, United States, North and Central America, Bacterial Infections and Mycoses, Beta-Lactam Antibiotics, Drugs and Therapies, Organic Chemicals, Sulfur Compounds, beta-Lactams, Penicillins, Oxacillin, Amides, University of Notre Dame.
Peptides and Proteins

Reports Outline Peptides and Proteins Study Findings from National Heart Lung and Blood Institute (Peptide affinity analysis of proteins that bind to an unstructured region containing the transactivating domain of the osmoprotective ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Peptides and Proteins. According to news originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "NFAT5 is a transcription factor originally identified because it is activated by hypertonicity and that activation increases expression of genes that protect against the adverse effects of the hypertonicity. However, its targets also include genes not obviously related to tonicity."

Our news journalists obtained a quote from the research from National Heart Lung and Blood Institute, "The transactivating domain of NFAT5 is contained in its COOH-terminal region, which is predicted to be unstructured. Unstructured regions are common in transcription factors particularly in transactivating domains where they can bind co-regulatory proteins essential to their function. To identify potential binding partners of NFAT5 from either cytoplasmic or nuclear HEK293 cell extracts, we used peptide affinity chromatography followed by mass spectrometry. Peptide aptamerbaits consisted of overlapping 20 amino acid peptides within the predicted COOH-terminal unstructured region of NFAT5. We identify a total of 351 unique protein preys that associate with at least one COOH-terminal peptide bait from NFAT5 in either cytoplasmic or nuclear extracts from cells incubated at various tonicities (NaCl varied). In addition to finding many proteins already known to associate with NFAT5, we found many new ones whose function suggest novel aspects of NFAT5 regulation, interaction, and function. Relatively few of the proteins pulled down by peptide baits from NFAT5 are generally involved in transcription, and most, therefore, are likely to be specifically related to the regulation of NFAT5 or its function."

According to the news editors, the research concluded: "The novel associated proteins are involved with cancer, effects of hypertonicity on chromatin, development, splicing of mRNA, transcription, and vesicle trafficking."

For more information on this research see: Peptide affinity analysis of proteins that bind to an unstructured region containing the transactivating domain of the osmoprotective transcription factor NFAT5. *Physiological Genomics*, 2016;48(11):835-849. *Physiological Genomics* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news correspondents report that additional information may be obtained from M.B. Burg, National Heart Lung & Blood Institute, Syst Biol Center, Div Intramural Res, Bethesda, MD 20892, United States. Additional authors for this research include X. Zhang, Y. Izumi, K. Ramkisson, G.H. Wang, M. Gucek, X.J. Wang, M.B. Burg and J.D. Ferraris.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/physiolgenomics.00100.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Peptides and Proteins, Transcription Factors, Amino Acids, Genetics, Proteins, Peptides, National Heart Lung and Blood Institute.

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Reports Outline Pharmaceutical Research Study Results from Ben-Gurion University of the Negev (Segmental-dependent permeability throughout the small intestine following oral drug administration: Single-pass vs. Doluisio approach to in-situ rat ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Pharmaceutical Research. According to news reporting originating from Beer Sheva, Israel, by NewsRx correspondents, research stated, "Intestinal drug permeability is position dependent and pertains to a specific point along the intestinal membrane, and the resulted segmental-dependent permeability phenomenon has been recognized as a critical factor in the overall absorption of drug following oral administration. The aim of this research was to compare segmental-dependent permeability data obtained from two different rat intestinal perfusion approaches: the single-pass intestinal perfusion (SPIP) model and the closed-loop (Doluisio) rat perfusion method."

Our news editors obtained a quote from the research from the Ben-Gurion University of the Negev, "The rat intestinal permeability of 12 model drugs with different permeability characteristics (low, moderate, and high, as well as passively and actively absorbed) was assessed in three small intestinal regions: the upper jejunum, mid-small intestine, and the terminal ileum, using both the SPIP and the Doluisio experimental methods. Excellent correlation was evident between the two approaches, especially in the upper jejunum (R-2 = 0.95). Significant regional-dependent permeability was found in half of drugs studied, illustrating the importance and relevance of segmental-dependent intestinal permeability. Despite the differences between the two methods, highly comparable results were obtained by both methods, especially in the medium-high P-eff range."

According to the news editors, the research concluded: "The SPIP and the Doluisio method are both equally useful in obtaining crucial segmental-dependent intestinal permeability data."


The news editors report that additional information may be obtained by contacting A. Dahan, Ben Gurion University of the Negev, Fac Hlth Sci, Sch Pharm, Dept. of Clín Pharmacol, Beer Sheva, Israel. Additional authors for this research include M. Zur, A. Beig, N. Fine, Y. Cohen, M. Gonzalez-Alvarez, M. Merino-Sanjuan, I. Gonzalez-Alvarez, M. Bermejo and A. Dahan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.09.061. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beer Sheva, Israel, Asia, Pharmaceutical
Reports Outline Pharmacogenetics Study Findings from University of Auckland (CYP2C19 and CYP2D6 genotypes in Pacific peoples)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Pharmacogenetics are presented in a new report. According to news reporting from Auckland, New Zealand, by NewsRx editors, the research stated, "The study of pharmacogenetic variants in populations which reside in Oceania has been focused mainly on CYP2C19 and CYP2D6. Statements about the high prevalence of CYP2C19 no function genotype in Pacific Islanders' can be found in the literature."

The news correspondents obtained a quote from the research from the University of Auckland, "This review article summarizes the published information about these pharmacogenes in this geographical region and highlights the differences observed between Melanesian and Polynesian populations. It is not appropriate to combine the prevalence data of pharmacogenetic variants, particularly CYP2C19, across this region."

According to the news reporters, the research concluded: "Indeed, apocryphal assumptions about CYP2C19 no function alleles and possible effect on the therapeutic activity of clopidogrel are unhelpful and reiterate the importance of assessing the individual patient rather than relying on inappropriate ethnicity-based assumptions for drug dosing decisions."


Our news journalists report that additional information may be obtained by contacting N.A. Helsby, University of Auckland, Sch Med Sci, Auckland, New Zealand.

Keywords for this news article include: Auckland, New Zealand, Australia and New Zealand, Pharmaceuticals, Article Review, Pharmacogenetics, University of Auckland.

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Reports Outline Pharmacokinetics Study Results from Chengdu University (y Effect of Chemical Profiling Change of Processed Magnolia officinalis on the Pharmacokinetic Profiling of Honokiol and Magnolol in Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacokinetics. According to news reporting originating from Chengdu, People's Republic of China, by NewsRx correspondents,
research stated, "The stem of Magnoliae officinalis (MO) cortex is always preliminarily processed before being applied in traditional Chinese medicine. The definite bioavailability of honokiol (HO) and magnolol (MA) in processed MO (PMO) and the effect of chemical profiling change on the pharmacokinetics of HO and MA are always a greater challenge compared with those of MO."

Our news editors obtained a quote from the research from Chengdu University, "Compared with that of MO, the pharmacokinetic profiling of HO and MA in the PMO was significantly changed and the mean T-max of HO and MA was increased by 31 and 50% (P < 0.05), respectively; the mean AUC(0-t) and C-max of HO were increased by 36 and 24% (P < 0.05), respectively. Subsequently, the chemical profiling of MO and PMO was investigated by a simple and rapid LC-Q/TOF-MS coupled with multivariate analysis method. Principal component analysis and hierarchical cluster analysis of the chromatographic data demonstrated that the chemical profiling of PMO was significantly different from that of MO. Eight marker components including six alkaloids (magnocurarine, magnoflorine, roemerine and three unidentified peaks) and two lignans (obovatol and MA) were screened out by partial least-squares discriminant analysis."

According to the news editors, the research concluded: "The results indicated that the changes of eight marker components of PMO may have an effect on the pharmacokinetic profiles of HO and MA."


The news editors report that additional information may be obtained by contacting Z.G. Wang, Chengdu Univ, Sch Med & Nursing, Metabon Synergy Innovat Lab, Chengdu 610106, People's Republic of China. Additional authors for this research include Z.G. Wang, W. Hua, Y. You and L. Zou.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Pharmacokinetics, Pharmaceuticals, Chengdu University.

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**Pharmacology**

**Reports Outline Pharmacology Findings from University of York (Are Non-Pharmacological Interventions Effective in Reducing Drug Use and Criminality? A Systematic and Meta-Analytical Review with an Economic Appraisal of These Interventions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pharmacology have been published. According to news reporting from York, United Kingdom, by NewsRx journalists, research stated, "The numbers of incarcerated people suffering from drug dependence has steadily risen since the 1980s and only a small proportion of these receive appropriate treatment. A systematic review to evaluate the effectiveness and economic evidence of non-pharmacological interventions for drug
using offenders was conducted."

The news correspondents obtained a quote from the research from the University of York, "Cochrane Collaboration criteria were used to identify trials across 14 databases between 2004 and 2014. A series of meta-analyses and an economic appraisal were conducted. 43 trials were identified showing to have limited effect in reducing re-arrests RR 0.97 (95% CI 0.89-1.07) and drug use RR 0.90 (95% CI 0.80-1.00) but were found to significantly reduce re-incarceration RR 0.70 (95% CI 0.57-0.85). Therapeutic community programs were found to significantly reduce the number of re-arrests RR 0.70 (95% CI 0.56-0.87). 10 papers contained economic information. One paper presented a cost-benefit analysis and two reported on the cost and cost effectiveness of the intervention. We suggest that therapeutic community interventions have some benefit in reducing subsequent re-arrest."

According to the news reporters, the research concluded: "We recommend that economic evaluations should form part of standard trial protocols."


Our news journalists report that additional information may be obtained by contacting A.E. Perry, University of York, Dept. of Hlth Sci, Mental Hlth & Addict Res Grp, York YO10 5DD, N Yorkshire, United Kingdom. Additional authors for this research include R. Woodhouse, M. Neilson, M.M. St James, J. Glanville, C. Hewitt and D. Trepel.

Keywords for this news article include: York, United Kingdom, Europe, Therapy, Article Review, Drugs and Therapies, Legal Issues, Pharmacology, University of York.

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Drugs and Therapies - Pharmacy Practice

Reports Outline Pharmacy Practice Findings from University of Mississippi (Understanding pharmacist success in practice: A scoping review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmacy Practice. According to news originating from Jackson, Mississippi, by NewsRx correspondents, research stated, "The objective was to identify literature providing a description of characteristics contributing to pharmacists' individual level success in providing advanced patient care. An interpretive scoping review was conducted to synthesize knowledge and address the study objective."

Our news journalists obtained a quote from the research from the University of Mississippi, "Searches were undertaken in Ovid MEDLINE (1946-2015), EMBASE (1974-2015), and International Pharmaceutical Abstracts (1970-2015). Not applicable. Specific keywords used in the search included: motivation, attitude, career, clinical competence, certification, pursuit of an expanded scope of practice, pharmacist, and success. This was not intended to be an exhaustive list, and every effort was made to be inclusive as the search
revealed additional words and phrases of interest. A total of 93 articles were initially identified, 10 articles met inclusion criteria and were retained for full-text analysis. Most of the included articles were published in the United States (70%). One-third of the articles conducted semi-structured interviews, one-third of the articles were editorials or commentaries, and the remaining articles collected data using surveys, knowledge assessments, and observation. Content analysis of the extracted definitions of success yielded 2 themes; 'what successful pharmacists do' and 'what successful pharmacists should be.' Conclusion: Professional organizations representing pharmacy have made significant strides in advocating for pharmacists’ provision of advanced patient care.

According to the news editors, the research concluded: "If pharmacists are to successfully provide advanced patient care a more specific and practically-oriented understanding that accounts for individual and environmental factors of how to achieve individual level success is needed.


The news correspondents report that additional information may be obtained from M.M. Rosenthal, University of Mississippi, Sch Pharm, Dept. of Pharm Adm, Jackson, MS 38677, United States. Additional authors for this research include A.S. Crumby, Z. Shahpurwala, J. Hall, T.L. Charrois and M.M. Rosenthal.

Keywords for this news article include: Jackson, Mississippi, United States, North and Central America, Pharmacy Practice, Drugs and Therapies, Article Review, University of Mississippi.

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**Phenothiazines**

**Reports Outline Phenothiazines Findings from Department of Psychology (Methylene Blue Facilitates Memory Retention in Zebrafish in a Dose-Dependent Manner)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Phenothiazines is now available. According to news reporting from Hattiesburg, Mississippi, by NewsRx journalists, research stated, "Methylene blue (MB) is an FDA-grandfathered drug with memory-enhancing effects at low doses, but opposite effects at high doses. We investigated the effects of four MB doses (0.1, 0.5, 5.0, or 10.0M) on zebrafish memory retention in the T-maze task."

The news correspondents obtained a quote from the research from the Department of Psychology, "After training fish to swim into a certain arm of the T-maze, the fish were placed into a tank containing one of the four MB doses or a control tank containing blue food dye. Subsequently, fish were placed into the T-maze for memory retention testing. Results indicated that MB produced hormetic dose-response effects on memory. Fish that received the 0.5M dose performed significantly better at the T-maze than those that received higher doses. Fish who received 5.0M did not exhibit a significant difference in performance from control fish, and the fish that received the 10.0M dose performed significantly worse than lower doses."
According to the news reporters, the research concluded: "These findings support the utility of zebrafish in comparative research and their potential value for testing of MB and other neuropsychopharmacological treatments in animal models of memory disorders."

For more information on this research see: Methylene Blue Facilitates Memory Retention in Zebrafish in a Dose-Dependent Manner. Zebrafish, 2016;13(6):489-494. Zebrafish can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Zebrafish - www.liebertpub.com/overview/zebrafish/122/)

Our news journalists report that additional information may be obtained by contacting D.J. Echevarria, Univ Southern Mississippi, Dept. of Psychol, Hattiesburg, MS 39406, United States. Additional authors for this research include E.M. Caramillo and F. Gonzalez-Lima.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/zeb.2016.1282. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hattiesburg, Mississippi, United States, North and Central America, Urinary Antiinfectives, Drugs and Therapies, Methylene Blue, Phenothiazines, Antidotes, Department of Psychology.

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Life Science Research - Physiology

Reports Outline Physiology Study Results from Lund University (Emerging roles of the myocardin family of proteins in lipid and glucose metabolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Life Science Research - Physiology. According to news reporting from Lund, Sweden, by NewsRx journalists, research stated, "Members of the myocardin family bind to the transcription factor serum response factor (SRF) and act as coactivators controlling genes of relevance for myogenic differentiation and motile function. Binding of SRF to DNA is mediated by genetic elements called CArG boxes, found often but not exclusively in muscle and growth controlling genes."

The news correspondents obtained a quote from the research from Lund University, "Studies aimed at defining the full spectrum of these CArG elements in the genome (i.e. the CArGome) have in recent years, unveiled unexpected roles of the myocardin family proteins in lipid and glucose homeostasis. This coactivator family includes the protein myocardin (MYOCD), the myocardin-related transcription factors A and B (MRTF-A/MKL1 and MRTF-B/MKL2) and MASTR (MAMSTR). Here we discuss growing evidence that SRF-driven transcription is controlled by extracellular glucose through activation of the Rho-kinase pathway and actin polymerization. We also describe data showing that adipogenesis is influenced by MLK activity through actions upstream of peroxisome proliferator-activated receptor, with consequences for whole body fat mass and insulin sensitivity. The recently demonstrated involvement of myocardin coactivators in the biogenesis of caveolae, Omega-shaped membrane invaginations of importance for lipid and glucose metabolism, is finally discussed. These novel roles of myocardin proteins may open the way for new unexplored strategies to combat
metabolic diseases such as diabetes, which, at the current incidence, is expected to reach 333 million people worldwide by 2025. This review highlights newly discovered roles of myocardin-related transcription factors in lipid and glucose metabolism as well as novel insights into their well-established role as mediators of stretch-dependent effects in smooth muscle. As co-factors for serum response factor (SRF), MKLs regulates transcription of genes involved in the contractile function of smooth muscle cells. In addition to mechanical stimuli, this regulation has now been found to be promoted by extracellular glucose levels in smooth muscle. Recent reports also suggest that MKLs can regulate a subset of genes involved in the formation of lipid-rich invaginations in the cell membrane called caveolae."

According to the news reporters, the research concluded: "Finally, a potential role of MKLs in non-muscle cells has been discovered as they negatively influence adipocyte differentiation."


Our news journalists report that additional information may be obtained by contacting S. Albinsson, Lund University, Dept. of Expt Med Sci, Lund, Sweden. Additional authors for this research include K.G. Stenkula, C. Rippe, A. Alajbegovic, M.F. Gomez and S. Albinsson.

Keywords for this news article include: Lund, Sweden, Europe, Physiology, Life Science Research, Genetics, Article Review, Genetics, Lund University.

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Lung Diseases and Conditions - Pneumonia

**Reports Outline Pneumonia Findings from Army General Hospital**

**Healthcare-associated Pneumonia: Clinical Features and Retrospective Analysis Over 10 Years**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Pneumonia have been published. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Healthcare-associated pneumonia (HCAP) is associated with drug-resistant pathogens and high mortality, and there is no clear evidence that this is due to inappropriate antibiotic therapy. This study was to elucidate the clinical features, pathogens, therapy, and outcomes of HCAP, and to clarify the risk factors for drug-resistant pathogens and prognosis."

Our news journalists obtained a quote from the research from Army General Hospital, "Retrospective observational study among hospitalized patients with HCAP over 10 years. The primary outcome was 30-day all-cause hospital mortality after admission. Demographics (age, gender, clinical features, and comorbidities), dates of admission, discharge and/or death, hospitalization costs, microbiological results, chest imaging studies, and CURB-65 were analyzed. Antibiotics, admission to Intensive Care Unit (ICU), mechanical ventilation, and pneumonia prognosis were recorded. Patients were dichotomized based on CURB-65 (low-vs. high-risk). Among 612 patients (mean age of 70.7 years), 88.4% had at least one comorbidity."
Commonly detected pathogens were *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, and coagulase-negative staphylococci. Initial monotherapy with β-lactam antibiotics was the most common initial therapy (50%). Mean age, length of stay, hospitalization expenses, ICU admission, mechanical ventilation use, malignancies, and detection rate for *P. aeruginosa*, and *Staphylococcus aureus* were higher in the high-risk group compared with the low-risk group. CURB-65 (≥3), malignancies, and mechanical ventilation were associated with an increased mortality. Logistic regression analysis showed that cerebrovascular diseases and being bedridden were independent risk factors for HCAP. Initial treatment of HCAP with broad-spectrum antibiotics could be an appropriate approach.

According to the news editors, the research concluded: "CURB-65 (≥)3, malignancies, and mechanical ventilation may result in an increased mortality."


Our news journalists report that additional information may be obtained by contacting L.A. Chen, Dept. of Respiratory Medicine, Chinese People's Liberation Army General Hospital, Beijing 100853, People's Republic of China. Additional authors for this research include G.X. Zhang, D.Y. She, Z.X. Liang, R.T. Wang, Z. Yang, L.A. Chen and J.C Cui.

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Publisher contact information for the *Chinese Medical Journal* is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Antibacterial Agents, Antibiotics, Antimicrobials, Beijing, Pneumonia, Pulmonology, Epidemiology, Patient Care, Drug Resistance, Hospitalization, Clinical Research, Infectious Disease, Drugs and Therapies, Risk and Prevention, People's Republic of China, Clinical Trials and Studies, Lung Diseases and Conditions.

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macrolones, a novel class of macrolide antibiotics, against key respiratory pathogens was evaluated in vitro and in vivo."

Our news journalists obtained a quote from the research from the University of Zagreb, "MIC values against Streptococcus pneumoniae, Streptococcus pyogenes, Staphylococcus aureus, and Haemophilus influenzae strains sensitive to macrolide antibiotics and with defined macrolide resistance mechanisms were determined. The propensity of macrolones to induce the expression of inducible erm genes was tested by the triple-disk method and incubation in the presence of subinhibitory concentrations of compounds. In vivo efficacy was assessed in a murine model of S. pneumoniae-induced pneumonia, and pharmacokinetic (PK) profiles in mice were determined. The in vitro antibacterial profiles of macrolones were superior to those of marketed macrolide antibiotics, including the ketolide telithromycin, and the compounds did not induce the expression of inducible erm genes. They acted as typical protein synthesis inhibitors in an Escherichia coli transcription/translation assay. Macrolones were characterized by low to moderate systemic clearance, a large volume of distribution, a long half-life, and low oral bioavailability. They were highly efficacious in a murine model of pneumonia after intraperitoneal application even against an S. pneumoniae strain with constitutive resistance to macrolide-lincosamide-streptogramin B antibiotics."

According to the news editors, the research concluded: "Macrolones are the class of macrolide antibiotics with an outstanding antibacterial profile and reasonable PK parameters resulting in good in vivo efficacy."

For more information on this research see: Macrolones Are a Novel Class of Macrolide Antibiotics Active against Key Resistant Respiratory Pathogens In Vitro and In Vivo. Antimicrobial Agents and Chemotherapy, 2016;60(9):5337-5348. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting H.C. Paljetak, University of Zagreb, Sch Med, Center Translat & Clin Res, Zagreb, Croatia. Additional authors for this research include D. Verbanac, J. Padovan, M. Dominis-Kramaric, Z. Kelneric, M. Peric, M. Banjanac, G. Ergovic, N. Simon, J. Broskey, D.J. Holmes and V.E. Habera.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00524-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zagreb, Croatia, Europe, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Respiratory Tract Infections, Antibacterial Agents, Drugs and Therapies, Infectious Disease, Antimicrobials, Antibiotics, Pulmonology, Macrolides, Pneumonia, Lactones, Genetics, University of Zagreb.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Liver Diseases and Conditions - Portal Hypertension are discussed in a new report. According to news reporting out of Nottingham, United Kingdom, by NewsRx editors, research stated, "Hepatic venous pressure gradient (HVPG) measurement is currently the only validated technique to accurately evaluate changes in portal pressure. In this study, we evaluate the use of non-contrast quantitative magnetic resonance imaging (MRI) as a surrogate measure of portal pressure."

Our news journalists obtained a quote from the research from the University of Nottingham, "Thirty patients undergoing HVPG measurement were prospectively recruited. MR parameters of longitudinal relaxation time (T-1), perfusion of the liver and spleen (by arterial spin labelling), and blood flow in the portal, splanchnic and collateral circulation (by phase contrast MRI) were assessed. We estimated the liver stiffness measurement (LSM) and enhanced liver fibrosis (ELF) score. The correlation of all non-invasive parameters with HVPG was evaluated. The mean (range) HVPG of the patients was 9.8 (1-22) mmHg, and 14 patients (48%) had clinically significant portal hypertension (CSPH, HVPG 10 mmHg). Liver T1 relaxation time, splenic artery and superior mesenteric artery velocity correlated significantly with HVPG. Using multiple linear regression, liver T1 and splenic artery velocity remained as the two parameters in the multivariate model significantly associated with HVPG (R = 0.90, p <0.001). This correlation was maintained in patients with CSPH (R = 0.85, p<0.001). A validation cohort (n = 10) showed this linear model provided a good prediction of HVPG. LSM and ELF score correlated significantly with HVPG in the whole population but the correlation was absent in CSPH. MR parameters related to both hepatic architecture and splanchnic haemodynamics correlate significantly with HVPG. This proposed model, confirmed in a validation cohort, could replace the invasive HVPG measurement. Lay summary: In patients with cirrhosis, the development and progression of portal hypertension is related to worse outcomes. However, the standard technique of assessing portal pressure is invasive and not widely used in clinical practice. Here, we have studied the use of non-invasive MRI in evaluating portal pressure. The MRI measures of liver architecture and blood flow in the splenic artery correlated well with portal pressure."

According to the news editors, the research concluded: "Therefore, this non-invasive method can potentially be used to assess portal pressure in clinical trials and monitoring treatment in practice."


Our news journalists report that additional information may be obtained by contacting G.P. Aithal, University of Nottingham, Nottingham NG7 2UH, United Kingdom. Additional authors for this research include E. Cox, C. Bradley, R. Scott, A. Austin, R. O'Neill, G. Ramjas, S. Travis, H. White, R. Singh, P. Thurley, I.N. Guha, S. Francis and G.P. Aithal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jhep.2016.07.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nottingham, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Liver Diseases and Conditions, Portal Hypertension, Gastroenterology, Splenic Artery, Hepatology, University of Nottingham.

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Peptide Proteins - Posterior Pituitary Hormones

Reports Outline Posterior Pituitary Hormones Study Findings from Tamagawa University (Relationship between Salivary Oxytocin Levels and Generosity in Preschoolers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Peptide Proteins - Posterior Pituitary Hormones are discussed in a new report. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "This study examined the association between salivary oxytocin (sOT) levels and generosity in preschoolers."

The news reporters obtained a quote from the research from Tamagawa University, "Fifty preschoolers played two dictator games (DG) by deciding how to allocate 10 chocolates between themselves and another child, who was either from the same class as the participant (ingroup member), or an unknown child from another class (outgroup member). sOT levels were assessed in saliva collected from the children immediately prior to the DG tasks. While sOT levels were negatively associated with allocations made to both ingroup and outgroup members by boys, among girls sOT levels were positively related to allocations made to ingroup members, and unrelated to allocations made to outgroup members."

According to the news reporters, the research concluded: "These results suggest sex differences in the association between salivary oxytocin and generosity."

For more information on this research see: Relationship between Salivary Oxytocin Levels and Generosity in Preschoolers. Scientific Reports, 2016:6():1-7. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting H. Takagishi, Tamagawa Univ, Brain Sci Inst, Machida, Tokyo 1948610, Japan. Additional authors for this research include J. Schug, K. Nishina, T. Takahashi, H. Okada and H. Takagishi.

Keywords for this news article include: Tokyo, Japan, Asia, Posterior Pituitary Hormones, Peptide Proteins, Peptide Hormones, Oxytocin, Tamagawa University.

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Oncology - Prostate Cancer

Reports Outline Prostate Cancer Findings from Thomas Jefferson University (c-Src, Insulin-Like Growth Factor I Receptor, G-Protein-Coupled Receptor Kinases and Focal Adhesion Kinase are Enriched Into Prostate Cancer Cell Exosomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Prostate Cancer have been presented.
According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "It is well known that Src tyrosine kinase, insulin-like growth factor 1 receptor (IGF-IR), and focal adhesion kinase (FAK) play important roles in prostate cancer (PrCa) development and progression. Src, which signals through FAK in response to integrin activation, has been implicated in many aspects of tumor biology, such as cell proliferation, metastasis, and angiogenesis."

Our news editors obtained a quote from the research from Thomas Jefferson University, "Furthermore, Src signaling is known to crosstalk with IGF-IR, which also promotes angiogenesis. In this study, we demonstrate that c-Src, IGF-IR, and FAK are packaged into exosomes (Exo), c-Src in particular being highly enriched in Exo from the androgen receptor (AR)-positive cell line C4-2B and AR-negative cell lines PC3 and DU145. Furthermore, we show that the active phosphorylated form of Src (Src(pY416)) is co-expressed in Exo with phosphorylated FAK (FAK(pY861)), a known target site of Src, which enhances proliferation and migration. We further demonstrate for the first time exosomal enrichment of G-protein-coupled receptor kinase (GRK) 5 and GRK6, both of which regulate Src and IGF-IR signaling and have been implicated in cancer. Finally, Src(pY416) and c-Src are both expressed in Exo isolated from the plasma of prostate tumor-bearing TRAMP mice, and those same mice have higher levels of exosomal c-Src than their wild-type counterparts."

According to the news editors, the research concluded: "In summary, we provide new evidence that active signaling molecules relevant to PrCa are enriched in Exo, and this suggests that the Src signaling network may provide useful biomarkers detectable by liquid biopsy, and may contribute to PrCa progression via Exo. J. Cell. Biochem. 118: 66-73, 2017."


The news editors report that additional information may be obtained by contacting L.R. Languino, Thomas Jefferson University, Sidney Kimmel Canc Center, Dept. of Canc Biol, Philadelphia, PA 19107, United States. Additional authors for this research include B. Zerlanko, A. Singh, H.M. Lu, R.V. Iozzo, J.L. Benovic and L.R. Languino.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Intracellular Signaling Peptides and Proteins, G-Protein-Coupled Receptor Kinases, Protein-Serine-Threonine Kinases, G-Protein-Coupled Receptors, Cytoplasmic Structures, Cell Surface Receptors, Cell-Matrix Junctions, Enzymes and Coenzymes, Cellular Structures, Phosphotransferases, Prostatic Neoplasms, Transport Vesicles, Membrane Proteins, Peptide Proteins, Peptide Hormones, Focal Adhesions, Prostate Cancer, Cell Membrane, Angiogenesis, Organelles, Proinsulin, Exosomes, Oncology, Thomas Jefferson University.

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Oncology - Prostate Cancer

Reports Outline Prostate Cancer Study Findings from Rosalind Franklin University of Medicine and Science (Racial Disparities in Prostate Cancer Mortality in the 50 Largest US Cities)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Prostate Cancer is the subject of a report. According to news reporting originating from North Chicago, Illinois, by NewsRx correspondents, research stated, "This paper presents race-specific prostate cancer mortality rates and the corresponding disparities for the largest cities in the US over two decades. The 50 largest cities in the US were the units of analysis."

Our news editors obtained a quote from the research from the Rosalind Franklin University of Medicine and Science, "Data from two 5-year periods were analyzed: 1990-1994 and 2005-2009. Numerator data were abstracted from national death files where the cause was malignant neoplasm of prostate (prostate cancer) (ICD9 = 185 and ICD10 = C61). based denominators were obtained from US Census data. To measure the racial disparity, we calculated non-Hispanic Black: non-Hispanic White rate ratios (RRs), rate differences (RDs), and corresponding confidence intervals for each 5-year period. We also calculated correlation and unadjusted regression coefficients for 11 city-level variables, such as segregation and median income, and the RDs. At the final time point (2005-2009), the US and all 41 cities included in the analyses had a RR greater than 1 (indicating that the Black rate was higher than the White rate) (range = 1.13 in Minneapolis to 3.24 in Los Angeles), 37 of them statistically significantly so. The US and 26 of the 41 cities saw an increase in the Black: White RR between the time points. The level of disparity within a city was associated with the degree of Black segregation. This analysis revealed large disparities in Black: White prostate cancer mortality in the US and many of its largest cities over the past two decades. The data show considerable variation in the degree of disparity across cities, even among cities within the same state."

According to the news editors, the research concluded: "This type of specific city-level data can be used to motivate public health professionals, government officials, cancer control agencies, and community-based organizations in cities with large or increasing disparities to demand more resources, focus research efforts, and implement effective policy and programmatic changes in order to combat this highly prevalent condition."


The news editors report that additional information may be obtained by contacting M.R. Benjamins, Rosalind Franklin Univ Med & Sci, Chicago Med Sch, North Chicago, IL 60064, United States. Additional authors for this research include B.R. Hunt, S.M. Raleigh, J.L. Hirschtick and M.M. Hughes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.07.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: North Chicago, Illinois, United States, North and Central America, Cancer, Epidemiology, Prostatic Neoplasms, Prostate Cancer,
Reports Outline Prostate Cancer Study Results from Shandong University (LncRNA PVT1 regulates prostate cancer cell growth by inducing the methylation of miR-146a)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting originating from Shandong, People's Republic of China, by NewsRx correspondents, research stated, "Prostate cancer is the third most common causes of death from cancer in men. Our previous study demonstrated that lncRNA PVT1 was overexpressed and played an oncogenic role in the progression of prostate cancer."

Financial supporters for this research include National Natural Science Foundation of China, National Science Foundation of Shandong.

Our news editors obtained a quote from the research from Shandong University, "However, the molecular mechanism of modulating the prostate cancer tumorigenesis was still unknown. In this study, we aim to investigate the interaction between PVT1 and miR-146a in prostate cancer and reveal the potential mechanism in prostate cancer carcinogenesis. The expression level of miR-146a was assessed by quantitative RT-PCR. The correlation analysis and methylation status analysis was made to confirm the interaction between PVT1 and miR-146a. Biological function analysis was performed through gain-of-function and loss-of-function strategies. Our results showed that miR-146a was downregulated and negatively correlated with PVT1 level in prostate cancer. PVT1 mediated miR-146a expression by inducing the methylation of CpG Island in its promoter. miR-146a overexpression eliminated the effects of PVT1 knockdown on prostate cancer cells. PVT1 regulated prostate cancer cell viability and apoptosis depending on miR-146a. Our study suggested a regulatory relationship between lncRNA PVT1 and miR-146a during the process of the prostate cancer tumorigenesis. PVT1 regulated prostate cancer cell viability and apoptosis depending on miR-146a."

According to the news editors, the research concluded: "It would contribute to the diagnosis, treatment and prognosis of prostate cancer."


The news editors report that additional information may be obtained by contacting Q. Sun, Shandong University, Dept. of Pathol, Qian Fo Shan Hosp, Jinan 250014, Shandong, People's Republic of China. Additional authors for this research include L. Fang, Y.X. Cheng and Q. Sun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.900. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shandong, People's Republic of China, Asia,
Reports Outline Prostate Cancer Study Results from University of California (Rectourethral Fistulas Secondary to Prostate Cancer Treatment: Management and Outcomes from a Multi-Institutional Combined Experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Prostate Cancer is the subject of a report. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated, "Rectourethral fistula is a known complication of prostate cancer treatment. Reports in the literature on rectourethral fistula repair technique and outcomes are limited to single institution series."

The news reporters obtained a quote from the research from the University of California, "We examined the variations in technique and outcomes of rectourethral fistula repair in a multi-institutional setting. We retrospectively identified patients who underwent rectourethral fistula repair after prostate cancer treatment at 1 of 4 large volume reconstructive urology centers, including University of California-San Francisco, University College London Hospitals, Lahey Clinic and Devine-Jordan Center for Reconstructive Surgery, in a 15-year period. We examined the types of prostate cancer treatment, technical aspects of rectourethral fistula repair and outcomes. After prostate cancer treatment 201 patients underwent rectourethral fistula repair. The fistula developed in 97 men (48.2%) after radical prostatectomy alone and in 104 (51.8%) who received a form of energy ablation. In the ablation group 84% of patients underwent bowel diversion before rectourethral fistula repair compared to 65% in the prostatectomy group. An interposition flap or graft was placed in 91% and 92% of the 2 groups, respectively. Concomitant bladder neck contracture or urethral stricture developed in 26% of patients in the ablation group and in 14% in the prostatectomy group. Postoperatively the rates of urinary incontinence and complications were higher in the energy ablation group at 35% and 25% vs 16% and 11%, respectively. The ultimate success rate of fistula repair in the energy ablation and radical prostatectomy groups was 87% and 99% with 92% overall success. Rectourethral fistulas due to prostate cancer therapy can be reconstructed successfully in a high percent of patients."

According to the news reporters, the research concluded: "This avoids permanent urinary diversion in these complex cases."


Our news correspondents report that additional information may be obtained by contacting C.R. Harris, University of California, San Francisco General Hospital, Dept. of Urol, San Francisco, CA 94110, United States. Additional authors for this research include J.W. McAninch, A.R. Mundy, L.N. Zinman, G.H. Jordan, D. Andrich, A.J. Vanni, R. Virasoro and
B.N. Breyer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.juro.2016.08.080. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Male Urologic Surgical Procedures, Prostatic Neoplasms, Prostate Cancer, Prostatectomy, Men's Health, Oncology, Surgery, University of California.

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Psychiatric Disorders

Reports Outline Psychiatric Disorders Study Findings from M. Andrews and Colleagues (Early Therapeutic Alliance, Treatment Retention, and 12-Month Outcomes in a Healthy Lifestyles Intervention for People with Psychotic Disorders)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Psychiatric Disorders. According to news originating from Newcastle, Australia, by NewsRx correspondents, research stated, "Engaging and retaining individuals with psychotic disorders in psychosocial treatments is difficult. Early therapeutic alliance, treatment retention, and 12-month outcomes were examined in a subsample of smokers with a psychotic disorder (N = 178) participating in a healthy lifestyles study comparing a telephone versus face-to-face delivered intervention."

Our news journalists obtained a quote from the research, "Therapeutic alliance was assessed using the Agnew Relationship Measure; primary outcomes were treatment retention and changes in symptoms and health behaviors. Contrary to expectations, early alliance did not predict treatment retention. However, elements of both client-and therapist-rated alliance predicted some clinical outcomes (e.g., higher confidence in the therapeutic alliance at session 1 predicted improvements in 12-month depression)."

According to the news editors, the research concluded: "Some modest interactions between early alliance and intervention condition were also identified (e.g., clients initially with lower self-perceived initiative, or higher therapist-perceived bonding benefited preferentially from the telephone-delivered intervention), highlighting the need to further examine the interplay between therapeutic alliance and treatment modality."

For more information on this research see: Early Therapeutic Alliance, Treatment Retention, and 12-Month Outcomes in a Healthy Lifestyles Intervention for People with Psychotic Disorders. Journal of Nervous and Mental Disease, 2016;204(12):894-902. Journal of Nervous and Mental Disease can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Nervous and Mental Disease - journals.lww.com/jonmd/pages/default.aspx)

The news correspondents report that additional information may be obtained from T.J. Lewin, Hunter New England Mental Hlth, Newcastle, NSW, Australia. Additional authors for this research include A.L. Baker, S.A. Halpin, T.J. Lewin, R. Richmond, F.J. Kay-Lambkin, S.L. Filia, D. Castle, J.M. Williams, V. Clark and R. Callister.

Keywords for this news article include: Newcastle, Australia, Australia and New
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Rectal Cancer. According to news reporting originating from Hong Kong, People's Republic of China, by NewsRx correspondents, research stated, "To review the clinical outcome of locally advanced rectal cancer treated with neoadjuvant chemoradiation followed by definitive surgery with or without adjuvant chemotherapy and to elucidate the prognostic factors for treatment outcome. This historical cohort study was conducted at a tertiary public hospital in Hong Kong."

Our news editors obtained a quote from the research from the Chinese University of Hong Kong, "All patients who had undergone neoadjuvant chemoradiation for locally advanced rectal cancer in our department from November 2005 to October 2014 were recruited. Local recurrence-free survival, distant metastasis free survival, disease free survival, and overall survival of patients were documented. A total of 135 patients who had received neoadjuvant chemoradiation during the study period were reviewed. There were 130 patients who had completed neoadjuvant chemoradiation and surgery. The median follow-up time was 35.1 months. The 3- and 5-year local recurrence free survival, distant metastasis free survival, disease free survival, as well as overall survival rates were 91.8% and 86.7%, 73.9% and 72.1%, 70.1% and 64.6%, as well as 86.5% and 68.4%, respectively. The rate of pathological complete response was 13.8%. The T and N downstaging rate was 49.2% and 63.1%, respectively. The rate of conversion from threatened circumferential resection margin to clearance of margin was 90.6%. Of the 42 cases that were initially deemed to require abdominal perineal resection, 15 (35.7%) were converted to sphincter-sparing surgery. The treatment outcome of neoadjuvant chemoradiation for locally advanced rectal cancer was comparable with overseas data in terms of local control rate and overall survival."

According to the news editors, the research concluded: "This strategy may increase the chance of achieving a clear surgical margin by downstaging the tumour, especially in patients who presented with threatened circumferential margin."

For more information on this research see: Clinical outcome of neoadjuvant chemoradiation in locally advanced rectal cancer at a tertiary hospital. *Hong Kong Medical Journal*, 2016;22(6):546-555. *Hong Kong Medical Journal* can be contacted at: Hong Kong Acad Medicine Press, 9, F, Room 901, 99 Wong Chuk Hang Rd, Aberdeen, Hong Kong, 00000, Peoples R China.

The news editors report that additional information may be obtained by contacting W.W.K. Yeung, Chinese University of Hong Kong, Dept. of Clin Oncol, Prince of Wales Hospital, Shatin, Hong Kong, People's Republic of China. Additional authors for this research include B.B.Y. Ma, J.F.Y. Lee, S.S.M. Ng, M.H.Y. Cheung, W.M. Ho, M.W.K. Tsang, S. Chu, D.C.M. Lam and F.K.F. Mo.

Keywords for this news article include: Hong Kong, People's Republic of China,
Reports Outline Retinal Vein Occlusion Findings from Eye Research Institute (Ambulatory Blood Pressure Patterns In Patients With Retinal Vein Occlusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Eye Diseases and Conditions - Retinal Vein Occlusion. According to news originating from Fort Worth, Texas, by NewsRx correspondents, research stated, "Failure of blood pressure (BP) to dip during sleep (nondipper pattern) is associated with cardiovascular disease and stroke. The prevalence and degree of nondipping and masked hypertension in patients with retinal vein occlusion (RVO), which is associated with stroke, has not been previously examined."

Our news journalists obtained a quote from the research from Eye Research Institute, "We measured clinic and 24-hour ambulatory BPs in 22 patients with RVO and 20 control participants without known eye disease matched by age and sex. Mean BP dipping, defined as the ratio of difference in mean awake and sleep systolic BPs to mean awake systolic BP, and masked and nocturnal hypertension were compared between groups. Mean 24-hour ambulatory BP was 144/79 mmHg among those with RVO and 136/77 mmHg among controls. Patients with RVO had an almost 2-fold higher prevalence of nondipping pattern (80.8% [95% confidence interval, 52.8-94.1] vs. 50.4% [95% confidence interval, 26.1-74.5]; P = 0.008). Average sleep systolic BP dip in patients with RVO was 6.1% versus 11.9% in controls (P = 0.004). More patients with RVO had masked hypertension by ambulatory BPs than controls (71% vs. 50%), but this difference was not statistically significant. Our data suggest an association between RVO and nondipper BP pattern."

According to the news editors, the research concluded: "Ambulatory BP monitoring may be useful in the evaluation of patients with RVO by identifying those who may benefit from more aggressive BP control."

For more information on this research see: Ambulatory Blood Pressure Patterns In Patients With Retinal Vein Occlusion. Retina-The Journal of Retinal and Vitreous Diseases, 2016;36(12):2304-2310. Retina-The Journal of Retinal and Vitreous Diseases can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news correspondents report that additional information may be obtained from S.H. Chavala, Univ North Texas Hlth Sci Center, North Texas Eye Res Inst, Fort Worth, TX 76107, United States. Additional authors for this research include J.N. Ulrich, A.J. Viera, A. Parlin, S. Fekrat and S.H. Chavala.

Keywords for this news article include: Fort Worth, Texas, United States, North and Central America, Cardiovascular Diseases and Conditions, Retinal Diseases and Conditions, Eye Diseases and Conditions, Embolism and Thrombosis, Retinal Vein Occlusion, Venous Thrombosis, Retinal Vessels, Blood Pressure, Hemodynamics, Hypertension, Eye Research.
Institute.

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Salicylic Acids

Reports Outline Salicylic Acids Study Results from Boston University
(Spectral biomarkers for chemoprevention of colonic neoplasia: a placebo-controlled double-blinded trial with aspirin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Salicylic Acids. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "A major impediment to translating chemoprevention to clinical practice has been lack of intermediate biomarkers. We previously reported that rectal interrogation with low-coherence enhanced backscattering spectroscopy (LEBS) detected microarchitectural manifestations of field carcinogenesis."

The news correspondents obtained a quote from the research from Boston University, "We now wanted to ascertain if reversion of two LEBS markers spectral slope (SPEC) and fractal dimension (FRAC) could serve as a marker for chemopreventive efficacy. We conducted a multicentre, prospective, randomised, double-blind placebo-controlled, clinical trial in subjects with a history of colonic neoplasia who manifested altered SPEC/FRAC in histologically normal colonic mucosa. Subjects (n=79) were randomised to 325 mg aspirin or placebo. The primary endpoint changed in FRAC and SPEC spectral markers after 3 months. Mucosal levels of prostaglandin E2 (PGE2) and UDP-glucuronosyltransferase (UGT)1A6 genotypes were planned secondary endpoints. At 3 months, the aspirin group manifested alterations in SPEC (48.9%, p=0.055) and FRAC (55.4%, p=0.200) with the direction towards non-neoplastic status. As a measure of aspirin's pharmacological efficacy, we assessed changes in rectal PGE2 levels and noted that it correlated with SPEC and FRAC alterations (R=-0.55, p=0.01 and R=0.57, p=0.009, respectively) whereas there was no significant correlation in placebo specimens. While UGT1A6 subgroup analysis did not achieve statistical significance, the changes in SPEC and FRAC to a less neoplastic direction occurred only in the variant consonant with epidemiological evidence of chemoprevention."

According to the news reporters, the research concluded: "We provide the first proof of concept, albeit somewhat underpowered, that spectral markers reversion mirrors antineoplastic efficacy providing a potential modality for titration of agent type/dose to optimise chemopreventive strategies in clinical practice."

For more information on this research see: Spectral biomarkers for chemoprevention of colonic neoplasia: a placebo-controlled double-blinded trial with aspirin. Gut, 2015();. (BMJ Publishing Group - group.bmj.com/; Gut - gut.bmj.com/)

Our news journalists report that additional information may be obtained by contacting H.K. Roy, Dept. of Medicine, Boston University Medical Center, Boston, Massachusetts, United States. Additional authors for this research include V. Turzhitsky, R. Wali, A.J. Radosevich, B. Jovanovic, G. Della'Zanna, A. Umar, D.T. Rubin, M.J. Goldberg, L. Bianchi, M. De La Cruz, A. Bogojevic, I.B. Helenowski, L. Rodriguez, R. Chatterton, S. Skripkauskas and Page.

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http://dx.doi.org/10.1136/gutjnl-2015-309996. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiplatelet Agents, Pharmaceuticals, Boston, Neoplasia, Epidemiology, Massachusetts, United States, Benzoic Acids, Hydroxy Acids, Aspirin Therapy, Chemoprevention, Salicylic Acids, Carboxylic Acids, Organic Chemicals, Drugs and Therapies, Coagulation Modifiers, North and Central America, Platelet Aggregation Inhibitors.

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**Mental Health Diseases and Conditions - Schizophrenia**

**Reports Outline Schizophrenia Findings from Mustafa Kemal University (DNA Methylation of BDNF Gene in Schizophrenia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mental Health Diseases and Conditions - Schizophrenia is now available. According to news reporting originating in Hatay, Turkey, by NewsRx journalists, research stated, "Although genetic factors are risk factors for schizophrenia, some environmental factors are thought to be required for the manifestation of disease. Epigenetic mechanisms regulate gene functions without causing a change in the nucleotide sequence of DNA."

The news reporters obtained a quote from the research from Mustafa Kemal University, "Brain-derived neurotrophic factor (BDNF) is a neurotrophin that regulates synaptic transmission and plasticity. It has been suggested that BDNF may play a role in the pathophysiology of schizophrenia. It is established that methylation status of the BDNF gene is associated with fear learning, memory, and stressful social interactions. In this study, we aimed to investigate the DNA methylation status of BDNF gene in patients with schizophrenia. The study included 49 patients (33 male and 16 female) with schizophrenia and 65 unrelated healthy controls (46 male and 19 female). Determination of methylation pattern of CpG islands was based on the principle that bisulfite treatment of DNA results in conversion of unmethylated cytosine residues into uracil, whereas methylated cytosine residues remain unmodified. Methylation-specific PCR was performed with primers specific for either methylated or unmethylated DNA. There was no significant difference in methylated or un-methylated status for BDNF promoters between schizophrenia patients and controls. The mean duration of illness was significantly lower in the hemi-methylated group compared to the non-methylated group for BDNF gene CpG island-1 in schizophrenia patients."

According to the news reporters, the research concluded: "Although there were no differences in BDNF gene methylation status between schizophrenia patients and healthy controls, there was an association between duration of illness and DNA methylation."

For more information on this research see: DNA Methylation of BDNF Gene in Schizophrenia. *Medical Science Monitor*, 2016;22():397-402.

Our news correspondents report that additional information may be obtained by contacting U.S. Copoglu, Dept. of Psychiatry, School of Medicine, Mustafa Kemal University, Hatay, Turkey. Additional authors for this research include M. Igci, E. Bozgeyik, M.H. Kokacya, Y.Z. Igci, R. Dokuyucu, M. Ari and H.A Savas.

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that is either free or for purchase.

Keywords for this news article include: Hatay, Turkey, Eurasia, Genetics, Psychiatry, DNA Research, Epidemiology, Schizophrenia, Risk and Prevention, Mental Health Diseases and Conditions.

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Science

Reports Outline Science Findings from Fudan University (LEGO: a novel method for gene set over-representation analysis by incorporating network-based gene weights)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Pathway or gene set over-representation analysis (ORA) has become a routine task in functional genomics studies. However, currently widely used ORA tools employ statistical methods such as Fisher's exact test that reduce a pathway into a list of genes, ignoring the constitutive functional non-equivalent roles of genes and the complex gene-gene interactions."

Our news journalists obtained a quote from the research from Fudan University, "Here, we develop a novel method named LEGO (functional Link Enrichment of Gene Ontology or gene sets) that takes into consideration these two types of information by incorporating network-based gene weights in ORA analysis. In three benchmarks, LEGO achieves better performance than Fisher and three other network-based methods. To further evaluate LEGO's usefulness, we compare LEGO with five gene expression-based and three pathway topology-based methods using a benchmark of 34 disease gene expression datasets compiled by a recent publication, and show that LEGO is among the top-ranked methods in terms of both sensitivity and prioritization for detecting target KEGG pathways. In addition, we develop a cluster-and-filter approach to reduce the redundancy among the enriched gene sets, making the results more interpretable to biologists."

According to the news editors, the research concluded: "Finally, we apply LEGO to two lists of autism genes, and identify relevant gene sets to autism that could not be found by Fisher."

For more information on this research see: LEGO: a novel method for gene set over-representation analysis by incorporating network-based gene weights. Scientific Reports, 2016;6 ():18871. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting X. Dong, State Key Laboratory of Genetic Engineering, Dept. of Biostatistics and Computational Biology, School of Life Sciences, Fudan University, Shanghai 200436, People's Republic of China. Additional authors for this research include Y. Hao, X. Wang and W. Tian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18871. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Science, Shanghai, Genetics, People's Republic of China.
Reports Outline Science Findings from Yale University (Adolescents growing up amidst intractable conflict attenuate brain response to pain of outgroup)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Science are discussed in a new report. According to news reporting originating in New Haven, Connecticut, by NewsRx journalists, research stated, "Adolescents’ participation in intergroup conflicts comprises an imminent global risk, and understanding its neural underpinnings may open new perspectives. We assessed Jewish-Israeli and Arab-Palestinian adolescents for brain response to the pain of ingroup/outgroup protagonists using magnetoencephalography (MEG), one-on-one positive and conflictual interactions with an outgroup member, attitudes toward the regional conflict, and oxytocin levels."

Financial supporters for this research include Fetzer foundation, German-Israel Foundation.

The news reporters obtained a quote from the research from Yale University, "A neural marker of ingroup bias emerged, expressed via alpha modulations in the somatosensory cortex (S1) that characterized an automatic response to the pain of all protagonists followed by rebound/enhancement to ingroup pain only. Adolescents’ hostile social interactions with outgroup members and uncompromising attitudes toward the conflict influenced this neural marker. Furthermore, higher oxytocin levels in the Jewish-Israeli majority and tighter brain-to-brain synchrony among group members in the Arab-Palestinian minority enhanced the neural ingroup bias."

According to the news reporters, the research concluded: "Findings suggest that in cases of intractable intergroup conflict, top-down control mechanisms may block the brain’s evolutionary-ancient resonance to outgroup pain, pinpointing adolescents’ interpersonal and sociocognitive processes as potential targets for intervention."


Our news correspondents report that additional information may be obtained by contacting R. Feldman, Yale University, Child Study Center, New Haven, CT 06520, United States. Additional authors for this research include A. Goldstein, M. Influs, S. Masalha, O. Zagoory-Sharon and R. Feldman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1612903113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Science, Hormones, Oxytocin, Yale University.
Reports Outline Science Study Results from Swiss Federal Institute of Technology (Foa1 is essential for development and functional integrity of the subthalamic nucleus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Science are presented in a new report. According to news originating from Zurich, Switzerland, by NewsRx correspondents, research stated, "Inactivation of transcription factor Foxa1 in mice results in neonatal mortality of unknown cause. Here, we report that ablation of Foxa1 causes impaired development and loss of the subthalamic nucleus (STN)."

Our news journalists obtained a quote from the research from the Swiss Federal Institute of Technology, "Functional deficits in the STN have been implicated in the etiology of Huntington's and Parkinson's disease. We show that neuronal ablation by Synapsin1-Cre-mediated Foxa1 deletion is sufficient to induce hyperlocomotion in mice. Transcriptome profiling of STN neurons in conditional Foxa1 knockout mice revealed changes in gene expression reminiscent of those in neurodegenerative diseases. We identified Ppargc1a, a transcriptional co-activator that is implicated in neurodegeneration, as a Foxa1 target. These findings were substantiated by the observation of Foxa1-dependent demise of STN neurons in conditional models of Foxa1 mutant mice. Finally, we show that the spontaneous firing activity of Foxa1-deficient STN neurons is profoundly impaired."

According to the news editors, the research concluded: "Our data reveal so far elusive roles of Foxa1 in the development and maintenance of STN function."

For more information on this research see: Foxa1 is essential for development and functional integrity of the subthalamic nucleus. Scientific Reports, 2016;6():1-15. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from M. Stoffel, Swiss Fed Inst Technol, Inst Mol Hlth Sci, CH-8903 Zurich, Switzerland. Additional authors for this research include H.C. Johannssen, T. Rulicke, H.U. Zeilhofer and M. Stoffel.

Keywords for this news article include: Zurich, Switzerland, Europe, Science, Genetics, Swiss Federal Institute of Technology.

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Blood Diseases and Conditions - Sepsis

Reports Outline Sepsis Study Findings from Wayne State University (Daptomycin Improves Outcomes Regardless of Vancomycin MIC in a Propensity-Matched Analysis of Methicillin-Resistant Staphylococcus aureus Bloodstream Infections)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Diseases and Conditions - Sepsis have been published. According to news reporting originating from Detroit, Michigan, by NewsRx correspondents, research stated, "Vancomycin remains the mainstay treatment for methicillin-resistant Staphylococcus aureus (MRSA) bloodstream infections (BSIs) despite increased treatment failures. Daptomycin has been shown to improve clinical outcomes in patients with BSIs caused by MRSA isolates with vancomycin MICs of > 1 mg/liter, but these studies relied on automated testing systems."

Financial support for this research came from Merck & Co., Inc.

Our news editors obtained a quote from the research from Wayne State University, "We evaluated the outcomes of BSIs caused by MRSA isolates for which vancomycin MICs were determined by standard broth microdilution (BMD). A retrospective, matched cohort of patients with MRSA BSIs treated with vancomycin or daptomycin from January 2010 to March 2015 was completed. Patients were matched using propensity-adjusted logistic regression, which included age, Pitt bacteremia score, primary BSI source, and hospital of care. The primary endpoint was clinical failure, which was a composite endpoint of the following metrics: 30-day mortality, bacteremia with a duration of > 7 days, or a change in anti-MRSA therapy due to persistent or worsening signs or symptoms. Secondary endpoints included MRSA-attributable mortality and the number of days of MRSA bacteremia. Independent predictors of failure were determined through conditional backwards-stepwise logistic regression with vancomycin BMD MIC forced into the model. A total of 262 patients were matched. Clinical failure was significantly higher in the vancomycin cohort than in the daptomycin cohort (45.0% versus 29.0%; P = 0.007). All-cause 30-day mortality was significantly higher in the vancomycin cohort (15.3% versus 6.1%; P = 0.024). These outcomes remained significant when stratified by vancomycin BMD MIC. There was no significant difference in the length of MRSA bacteremia. Variables independently associated with treatment failure included vancomycin therapy (adjusted odds ratio [aOR] = 2.16, 95% confidence interval [CI] = 1.24 to 3.76), intensive care unit admission (aOR = 2.46, 95% CI = 1.34 to 4.54), and infective endocarditis as the primary source (aOR = 2.33, 95% CI = 1.16 to 4.68)."

According to the news editors, the research concluded: "Treatment of MRSA BSIs with daptomycin was associated with reduced clinical failure and 30-day mortality; these findings were independent of vancomycin BMD MIC."


The news editors report that additional information may be obtained by contacting M.J. Rybak, Wayne State University, Sch Med, Dept. of Internal Med, Div Infect Dis, Detroit, MI 48201, United States. Additional authors for this research include E.J. Zasowski, A.M. Casapao, A.M. Lagnf, J.L. Nagel, C.T. Nguyen, J.A. Hallesy, M.T. Compton, K.S. Kaye, D.P. Levine, S.L. Davis and M.J. Rybak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00227-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Methicillin-Resistant Staphylococcus aureus, Gram-Positive Endospore-
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Intracellular Signaling Peptides and Proteins - Sirtuins

Reports Outline Sirtuins Study Findings from Karolinska Institute (Sirtuins are Unaffected by PARP Inhibitors Containing Planar Nicotinamide Bioisosteres)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Intracellular Signaling Peptides and Proteins - Sirtuins is now available. According to news reporting originating in Stockholm, Sweden, by NewsRx journalists, research stated, "PARP-family ADP-ribosyltransferases (PARPs) and sirtuin deacetylases all use NAD(+) as cosubstrate for ADP-ribosyl transfer. PARP inhibitors are important research tools and several are being evaluated in cancer treatment."

Financial supporters for this research include Stiftelsen for Strategisk Forskning, IngaBritt och Arne Lundbergs Forskningsstiftelse, Arne Lundbergs Research Foundation, Karolinska Institutet.

The news reporters obtained a quote from the research from Karolinska Institute, "With the exception of a few tankyrase inhibitors, all current PARP inhibitors mimic the nicotinamide moiety in NAD(+) and block the nicotinamide binding pocket. We report here that while the activities of the four human sirtuin isoforms SIRT1, SIRT2, SIRT3 and SIRT6 are blocked by sirtuin inhibitor Ex527 in vitro, they are unaffected by the seven clinical and commonly used PARP inhibitors niraparib, olaparib, rucaparib, talazoparib, veliparib, PJ34, and XAV939. These findings indicate that PARP inhibitors containing planar nicotinamide mimetics do not bind to sirtuin cofactor sites."

According to the news reporters, the research concluded: "A simple commercially available assay can be used to rule out interference of novel PARP inhibitors with sirtuin NAD (+) binding."

For more information on this research see: Sirtuins are Unaffected by PARP Inhibitors Containing Planar Nicotinamide Bioisosteres. Chemical Biology & Drug Design, 2015;87(3):478-82. Chemical Biology & Drug Design can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA. (Wiley-Blackwell - www.wiley.com; Chemical Biology & Drug Design - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1747-0285)

Our news correspondents report that additional information may be obtained by contacting T. Ekblad, Dept. of Medical Biochemistry and Biophysics, Karolinska Institutet, 17177, Stockholm, Sweden.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12680. This DOI is a link to an online electronic document that
Reports Outline Smith-Magenis Syndrome Study Findings from National Institutes of Health (Delayed Diagnosis in a House of Correction: Smith-Magenis Syndrome Due to a De Novo Nonsense RAI1 Variant)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Diseases and Conditions - Smith-Magenis Syndrome are presented in a new report. According to news originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "We report a 25-year-old female confirmed to have Smith-Magenis syndrome (SMS) due to a de novo RAI1 variant. Her past history is significant for developmental and intellectual delay, early and escalating maladaptive behaviors, and features consistent with significant sleep disturbance, the etiology of which was not confirmed for over two decades."

Financial supporters for this research include Intramural Research Program of the National Human Genome Research Institute, National Institutes of Health, Intramural Research Program of the National Institute of Mental Health, National Institutes of Health, Jerome Lejeune Foundation.

Our news journalists obtained a quote from the research from the National Institutes of Health, "The diagnosis of SMS was initially suspected in 1998 (at age 12 years), but that was 5 years before the initial report of RAI1 variants as causative of the SMS phenotype; cytogenetic fluorescence in situ hybridization studies failed to confirm an interstitial deletion of 17p11.2. Re-evaluation for suspected SMS was pursued with RAI1 sequencing analysis in response to urgent parental concerns of escalating behaviors and aggression with subsequent incarceration of the subject for assault of a health professional. Genetic analysis revealed a de novo RAI1 (NM_030665.3) nonsense variant, c.5536C>T; p.Q1846X. This case illustrates the importance of confirming the SMS diagnosis, which is associated with cognitive and functional impairment, as well as significant psychiatric comorbidities and behavioral problems. The diagnosis was particularly relevant to the legal discussion and determination of her competence to stand trial."

According to the news editors, the research concluded: "As other similar cases may exist, this report will help to increase awareness of the possibility of a very late diagnosis of SMS, with the need for re-evaluation of individuals suspected to have SMS who were initially evaluated prior to the identification of the RAI1 gene."

The news correspondents report that additional information may be obtained from A.C.M. Smith, NHGRI, Off Clin Director, National Institutes of Health, Bethesda, MD 20895, United States. Additional authors for this research include T. Vilboux, C. Ciccone, K. Boulier, R.E. Schnur, W.A. Gahl, M. Huizing, G. Laje and A.C.M. Smith.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37602. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Diseases and Conditions, Genetics, Smith-Magenis Syndrome, Legal Issues, National Institutes of Health.

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**Stem Cell Research**

**Reports Outline Stem Cell Research Findings from ShanghaiTech University (SUMO regulates somatic cyst stem cell maintenance and directly targets the Hedgehog pathway in adult Drosophila testis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Stem Cell Research are presented in a new report. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "SUMO (Small ubiquitin-related modifier) modification (SUMOylation) is a highly dynamic post-translational modification (PTM) that plays important roles in tissue development and disease progression. However, its function in adult stem cell maintenance is largely unknown."

The news reporters obtained a quote from the research from ShanghaiTech University, "Here, we report the function of SUMOylation in somatic cyst stem cell (CySC) self-renewal in adult Drosophila testis. The SUMO pathway cell-autonomously regulates CySC maintenance. Reduction of SUMOylation promotes premature differentiation of CySCs and impedes the proliferation of CySCs, which leads to a reduction in the number of CySCs. Consistent with this, CySC clones carrying a mutation of the SUMO-conjugating enzyme are rapidly lost. Furthermore, inhibition of the SUMO pathway phenocopies disruption of the Hedgehog (Hh) pathway, and can block the proliferation of CySCs induced by Hh activation. Importantly, the SUMO pathway directly regulates the SUMOylation of Hh pathway transcription factor Cubitus interruptus (Ci), which is required for promoting CySC proliferation."

According to the news reporters, the research concluded: "Thus, we conclude that SUMO directly targets the Hh pathway and regulates CySC maintenance in adult Drosophila testis."


Our news correspondents report that additional information may be obtained by

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/dev.130773. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Stem Cell Research, Genetics, Cysts, ShanghaiTech University.

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Stilbenes

Reports Outline Stilbenes Findings from Central University (Chitosan-modified PLGA polymeric nanocarriers with better delivery potential for tamoxifen)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Stilbenes. According to news reporting originating from Rajasthan, India, by NewsRx correspondents, research stated, "Breast cancer is believed as the second most common cause of cancer-related deaths in women for which tamoxifen is frequently prescribed. Despite many promises, tamoxifen is associated with various challenges like low hydrophilicity, poor bioavailability and dose-dependent toxicity."

Our news editors obtained a quote from the research from Central University, "Therefore, it was envisioned to develop tamoxifen-loaded chitosan-PLGA micelles for potential safe and better delivery of this promising agent. The chitosan-PLGA copolymer was synthesised and characterised by Fourier Transform-Infrared, Ultraviolet-visible and Nuclear Magnetic Resonance spectroscopic techniques. The drug-loaded nanocarrier was characterised for drug-pay load, micrometrics, surface charge and morphological attributes. The developed system was evaluated for in-vitro drug release, haemolytic profile, cellular-uptake, anticancer activity by cytotoxicity assay and dermatokinetic studies. The developed nano-system was able to substantially load the drug and control the drug release. The in-vitro cytotoxicity offered by the system was significantly enhanced vis-a-vis plain drug, and there was no substantial haemolysis. The IC50 values were significantly decreased and the nanocarriers were uptaken by MCF-7 cells, noticeably. The carrier was able to locate the drug in the interiors of rat skin in considerable amounts to that of the conventional product."

According to the news editors, the research concluded: "This approach is promising as it provides a biocompatible and effective option for better delivery of tamoxifen."


The news editors report that additional information may be obtained by contacting K. Raza, Cent Univ Rajasthan, Sch Chem Sci & Pharm, Dept. of Pharm, Bandar Sindri 305817, Rajasthan, India. Additional authors for this research include N. Thotakura, R. Kumar, P.
Kumar, B. Singh, D. Chitkara and K. Raza.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.08.080. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rajasthan, India, Asia, Selective Estrogen Receptor Modulators, Emerging Technologies, Drugs and Therapies, Benzene Derivatives, Antineoplastics, Nanotechnology, Nanocarriers, Tamoxifen, Stilbenes, Hormones, Central University.

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Subcellular Fractions

Reports Outline Subcellular Fractions Study Results from Wistar Institute (A neuronal network of mitochondrial dynamics regulates metastasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Subcellular Fractions are presented in a new report. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "The role of mitochondria in cancer is controversial. Using a genome-wide shRNA screen, we now show that tumours reprogram a network of mitochondrial dynamics operative in neurons, including syntaphilin (SNPH), kinesin KIF5B and GTPase Miro1/2 to localize mitochondria to the cortical cytoskeleton and power the membrane machinery of cell movements."

Our news journalists obtained a quote from the research from Wistar Institute, "When expressed in tumours, SNPH inhibits the speed and distance travelled by individual mitochondria, suppresses organelle dynamics, and blocks chemotaxis and metastasis, in vivo. Tumour progression in humans is associated with downregulation or loss of SNPH, which correlates with shortened patient survival, increased mitochondrial trafficking to the cortical cytoskeleton, greater membrane dynamics and heightened cell invasion."

According to the news editors, the research concluded: "Therefore, a SNPH network regulates metastatic competence and may provide a therapeutic target in cancer."


Our news journalists report that additional information may be obtained by contacting D.C. Altieri, Wistar Inst Anat & Biol, Tumor Microenvironm & Metastasis Program, Philadelphia, PA 19104, United States. Additional authors for this research include J.H. Seo, A. Aguinaldo, E. Wait, K.G. Bryant, A.V. Kossenkov, J.E. Hayden, V. Vaira, A. Morotti, S. Ferrero, S. Bosari, D.I. Gabrilovich, L.R. Languino, A.R. Cohen and D.C. Altieri.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Subcellular Fractions, Cellular Structures, Intracellular Space, Mitochondria, Organelles, Cytoplasm, Genetics, Wistar Institute.

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Central Nervous System Diseases and Conditions - …

Reports Outline Subdural Hematoma Study Results from Department of Neurosurgery (Spontaneously rapid and complete resolution of acute subdural hemorrhage in a 1-year-old patient)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Subdural Hematoma are discussed in a new report. According to news reporting originating in Agri, Turkey, by NewsRx journalists, research stated, "Acute subdural hematoma is one of the neurosurgical emergencies that could lead to mortality, thus needing urgent surgical intervention in most of the cases. A 1-year-old female patient was admitted to the emergency department after she fell from a 2-m height."

The news reporters obtained a quote from the research from the Department of Neurosurgery, "She had 5 x 2-cm acute traumatic subdural hematoma diagnosed with computed tomographic (CT) scan of the head. She was rushed to the operating room for a need of possible surgical intervention. Her vital signs improved before she was operated on. A new CT scan was obtained. The CT scan revealed complete resolution of the subdural hematoma. Spontaneous resolution is rarely seen in acute traumatic subdural hematoma patients, and complete resolution could take several weeks."

According to the news reporters, the research concluded: "In the presented case report, complete resolution occurred in approximately an hour."


Our news correspondents report that additional information may be obtained by contacting S. Cevik, Agri State Hosp, Dept. of Neurosurg, Agri, Turkey. Additional authors for this research include S. Cevik, C. Soyalp, H. Hanimoglu and A.F. Bektas.

Keywords for this news article include: Agri, Turkey, Eurasia, Central Nervous System Diseases and Conditions, Subdural Hematoma, Department of Neurosurgery.

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Biological Factors - Synthetic Prostaglandins E

Reports Outline Synthetic Prostaglandins E Study Results from Liverpool Women’s Hospital (Short versus Standard Mifepristone and Misoprostol Regimen for Second- and Third-Trimester Termination of Pregnancy for Fetal Anomaly)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biological Factors - Synthetic Prostaglandins E have been presented. According to news reporting out of Liverpool, United Kingdom, by NewsRx editors, research stated, "Termination of pregnancy requires a 48-hour ‘window’ between mifepristone and misoprostol. Shorter durations have been used in first-trimester termination, but there are few data available in later termination for fetal anomaly."

Our news journalists obtained a quote from the research from Liverpool Women's Hospital, "We reviewed all terminations for fetal anomaly at (>)=13 weeks from May 2013 to May 2014. Cases were managed using a short ( (<)=12 h) or standard ( (>)=36 h) mifepristone-to-misoprostol interval. Two hundred and twenty women underwent a termination of pregnancy for fetal anomaly during the study period, of which 119 were included for analysis. Sixty-six (55%) women were managed according to the short regimen and 53 (45%) women with the standard regimen. The short regimen resulted in a shorter mifepristone-to-delivery interval but was less likely to result in delivery within 12 h of misoprostol. Delivery rates at 24 h were equivocal. There was no difference in blood loss, vaginal delivery rates, complications or bed nights. The short regimen did require more doses of misoprostol. Feticide or previous uterine scar had no effect on outcomes."

According to the news editors, the research concluded: "There was no significant difference in clinical outcome for women managed with a short ( (<)=12 h) or a standard ( (>)=36 h) regimen for medical termination of pregnancy for fetal anomaly, suggesting that either regimen could be offered."


Our news journalists report that additional information may be obtained by contacting A. Sharp, Dept. of Women and Children's Health Research, University Department, Liverpool Women's Hospital, Liverpool, UK. Additional authors for this research include K. Navaratnam, P. Abreu and Z. Alfirevic.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000436963. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Hormones, Liverpool, Misoprostol, Mifepristone, United Kingdom, Biological Factors, Synthetic Prostaglandins E.

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Reports Outline Thoracic Surgical Procedures Findings from St. Anne's University Hospital (Resting End-Tidal Carbon Dioxide Predicts Respiratory Complications in Patients Undergoing Thoracic Surgical Procedures)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Surgery - Thoracic Surgical Procedures have been
published. According to news reporting originating in Brno, Czech Republic, by NewsRx journalists, research stated, "Ventilatory efficiency (\(\dot{V}/\dot{V}\text{CO}_2\) slope [minute ventilation to carbon dioxide output slope]) has been shown to predict morbidity and mortality in lung resection candidates. Patients with increased \(\dot{V}/\dot{V}\text{CO}_2\) during exercise also exhibit an increased \(\dot{V}/\dot{V}\text{CO}_2\) ratio and a decreased endtidal CO2 at rest."

The news reporters obtained a quote from the research from St. Anne's University Hospital, "This study hypothesized that ventilatory values at rest predict respiratory complications and death in patients undergoing thoracic surgical procedures. Inclusion criteria for this retrospective, multicenter study were thoracotomy and cardiopulmonary exercise testing as part of routine preoperative assessment. Respiratory complications were assessed from the medical records (from the hospital stay or from the first 30 postoperative days). For comparisons, Student's t test or the Mann-Whitney U test was used. Logistic regression and receiver operating characteristic analyses were performed for evaluation of measurements associated with respiratory complications. Data are summarized as mean +/- SD; p< 0.05 is considered significant. Seventy-six subjects were studied. Post-operatively, respiratory complications developed in 56 (74%) patients. Patients with postoperative respiratory complications had significantly lower resting tidal volume (0.8 +/- 0.3 vs 0.9 +/- 0.3L; p = 0.03), lower rest end-tidal CO2 (28.1 +/- 4.3vs 31.5 +/- 4.2 mm Hg; p< 0.01), higher resting \(\dot{V}/\dot{V}\text{CO}_2\) over dot(E)/(V) over dot(CO2) ratio (45.1 +/- 7.1 vs 41.0 +/- 6.4; p = 0.02), and higher \(\dot{V}/\dot{V}\text{CO}_2\) slope (34.9 +/- 6.4 vs 31.2 +/- 4.3; p = 0.01). Logistic regression (age and sex adjusted) showed resting end-tidal CO2 to be the best predictor of respiratory complications (odds ratio: 1.21; 95% confidence interval: 1.06 to 1.39; area under the curve: 0.77; p = 0.01)."

According to the news reporters, the research concluded: "Resting end-tidal CO2 may identify patients at increased risk for postoperative respiratory complications of thoracic surgical procedures."


Our news correspondents report that additional information may be obtained by contacting I. Cundrle, St Annes Univ Hosp, Dept. of Anesthesiol & Intens Care, Brno 65691, Czech Republic. Additional authors for this research include Z. Tothova, Z. Merta, A. Taskova, P. Homolka, M. Vasakova, J. Skrickova, V. Sramek, L.J. Olson and I. Cundrle.

Keywords for this news article include: Brno, Czech Republic, Europe, Cardiovascular Surgical Procedures, Operative Surgical Procedures, Thoracic Surgical Procedures, Cardiac Surgical Procedures, Inorganic Carbon Compounds, Carbon Dioxide, Chemicals, Surgery, St. Anne's University Hospital.

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Reports Outline Tissue Engineering Findings from University of Tampere (Human Adipose Stem Cells Differentiated on Braided Polylactide Scaffolds Is a Potential Approach for Tendon Tissue Engineering)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Biomedical Engineering - Tissue Engineering are discussed in a new report. According to news reporting originating from Tampere, Finland, by NewsRx correspondents, research stated, "Growing number of musculoskeletal defects increases the demand for engineered tendon. Our aim was to find an efficient strategy to produce tendon-like matrix in vitro."

Our news editors obtained a quote from the research from the University of Tampere, "To allow efficient differentiation of human adipose stem cells (hASCs) toward tendon tissue, we tested different medium compositions, biomaterials, and scaffold structures in preliminary tests. This is the first study to report that medium supplementation with 50 ng/mL of growth and differentiation factor-5 (GDF-5) and 280 mM l-ascorbic acid are essential for tenogenic differentiation of hASCs. Tenogenic medium™ was shown to significantly enhance tendon-like matrix production of hASCs compared to other tested media groups. Cell adhesion, proliferation, and tenogenic differentiation of hASCs were supported on braided poly(l/d)lactide (PLA) 96l/4d copolymer filament scaffolds in TM condition compared to foamed poly(l-lactide-co-e-caprolactone) (PLCL) 70L/30CL scaffolds. A uniform cell layer formed on braided PLA 96/4 scaffolds when hASCs were cultured in TM compared to maintenance medium (MM) condition after 14 days of culture. Furthermore, total collagen content and gene expression of tenogenic marker genes were significantly higher in TM condition after 2 weeks of culture. The elastic modulus of PLA 96/4 scaffold was more similar to the elastic modulus reported for native Achilles tendon. Our study showed that the optimized TM is needed for efficient and rapid in vitro tenogenic extracellular matrix production of hASCs."

According to the news editors, the research concluded: "PLA 96/4 scaffolds together with TM significantly stimulated hASCs, thus demonstrating the potential clinical relevance of this novel and emerging approach to tendon injury treatments in the future."

For more information on this research see: Human Adipose Stem Cells Differentiated on Braided Polylactide Scaffolds Is a Potential Approach for Tendon Tissue Engineering. Tissue Engineering Part a, 2016;22(5-6):513-23.

The news editors report that additional information may be obtained by contacting K. Vuornos, 1 Adult Stem Cells, BioMediTech, University of Tampere, Tampere, Finland. Additional authors for this research include M. Bjørninen, E. Talvitie, K. Paakinaho, M. Kellomaki, H. Huhtala, S. Miettinen, R. Seppanen-Kajiansinkko and S. Haimi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/ten.tea.2015.0276. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Tissue Engineering, Biomedical Engineering, Biomedicine, Europe, Tampere, Finland, Genetics, Bioengineering, Stem Cell Research.

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Reports Outline Tissue Engineering Study Findings from Duke University [Tissue-engineered 3-dimensional (3D) microenvironment enhances the direct reprogramming of fibroblasts into cardiomyocytes by microRNAs]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biomedical Engineering - Tissue Engineering is now available. According to news reporting originating from Durham, North Carolina, by NewsRx correspondents, research stated, "We have recently shown that a combination of microRNAs, miR combo, can directly reprogram cardiac fibroblasts into functional cardiomyocytes in vitro and in vivo. Reprogramming of cardiac fibroblasts by miR combo in vivo is associated with improved cardiac function following myocardial infarction."

Our news editors obtained a quote from the research from Duke University, "However, the efficiency of direct reprogramming in vitro is relatively modest and new strategies beyond the traditional two-dimensional (2D) culture should be identified to improve reprogramming process. Here, we report that a tissue-engineered three-dimensional (3D) hydrogel environment enhanced miR combo reprogramming of neonatal cardiac and tail-tip fibroblasts. This was associated with significantly increased MMPs expression in 3D vs. 2D cultured cells, while pharmacological inhibition of MMPs blocked the effect of the 3D culture on enhanced miR combo mediated reprogramming."

According to the news editors, the research concluded: "We conclude that 3D tissue-engineered environment can enhance the direct reprogramming of fibroblasts to cardiomyocytes via a MMP-dependent mechanism."

For more information on this research see: Tissue-engineered 3-dimensional (3D) microenvironment enhances the direct reprogramming of fibroblasts into cardiomyocytes by microRNAs. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting N. Bursac, Duke University, Dept. of Biomed Engn, Durham, NC 27708, United States. Additional authors for this research include S. Dal-Pra, M. Mirotou, T.M. Jayawardena, C.P. Hodgkinson, N. Bursac and V.J. Dzau.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Connective Tissue Cells, Biomedical Engineering, Tissue Engineering, Bioengineering, Cardiomyocyte, Biotechnology, Fibroblasts, Biomedicine, Cardiology, Duke University.

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**Proteins - Transcription Factors**

**Reports Outline Transcription Factors Study Findings from University of Toulouse (Foxo3 Transcription Factor Drives Pathogenic T Helper 1 Differentiation by Inducing the Expression of Eomes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Proteins - Transcription Factors are discussed in a new report. According to news reporting out of Toulouse, France, by NewsRx editors, research stated, "The transcription factor Foxo3 plays a crucial role in myeloid cell function but its role in lymphoid cells remains poorly defined. Here, we have shown that Foxo3 expression was increased after T cell receptor engagement and played a specific role in the polarization of CD4(+) T cells toward pathogenic T helper 1 (Th1) cells producing interferon-gamma (IFN-gamma) and granulocyte monocyte colony stimulating factor (GM-CSF)."

Our news journalists obtained a quote from the research from the University of Toulouse, "Consequently, Foxo3-deficient mice exhibited reduced susceptibility to experimental autoimmune encephalomyelitis. At the molecular level, we identified Eomes as a direct target gene for Foxo3 in CD4(+) T cells and we have shown that lentiviral-based overexpression of Eomes in Foxo3-deficient CD4(+) T cells restored both IFN-gamma and GM-CSF production."

According to the news editors, the research concluded: "Thus, the Foxo3-Eomes pathway is central to achieve the complete specialized gene program required for pathogenic Th1 cell differentiation and development of neuroinflammation."

For more information on this research see: Foxo3 Transcription Factor Drives Pathogenic T Helper 1 Differentiation by Inducing the Expression of Eomes. *Immunity*, 2016;45(4):774-787. *Immunity* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)

Our news journalists report that additional information may be obtained by contacting A.S. Dejean, Univ Toulouse, UPS, CPTP, F-31300 Toulouse, France. Additional authors for this research include M.F. Michielletto, M. Benamar, N. Carrie, I. Bernard, X.H. Nguyen, Y. Lippi, F. Duguet, R.S. Liblau, S.M. Hedrick, A. Saoudi and A.S. Dejean.

Keywords for this news article include: Toulouse, France, Europe, Transcription Factors, Proteins, Genetics, University of Toulouse.

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**Enzymes and Coenzymes - Transferases**

**Reports Outline Transferases Study Findings from Takeda Pharmaceutical (Pharmacological characterization of a series of aryl-sulfonamide derivatives that potently and selectively inhibit monoacylglycerol acyltransferase 2)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Transferases. According to news reporting from Fujisawa, Japan, by NewsRx journalists,
research stated, "Monoacylglycerol acyltransferase (MGAT) 2 is an endoplasmic reticulum membrane enzyme that catalyzes the synthesis of diacylglycerol (DAG) from fatty acyl-CoA and monoacylglycerol as substrates. It is important for the resynthesis of triacylglycerol in the intestine."

The news correspondents obtained a quote from the research from Takeda Pharmaceutical, "We have identified a series of ary1-sulfonamide MGAT2 inhibitors and demonstrated pharmacological inhibition of MGAT2 improved hyperlipidemia, obesity, and diabetes in animal models. However, its mechanism of action has not been elucidated in molecular and cellular levels. In the present study, we have characterized a series of ary1 sulfonamide derivatives that potently and selectively inhibit human MGAT2 and determined their pharmacological profiles. Analyses on the molecular mechanism of a representative ary1-sulfonamide MGAT2 inhibitor revealed a reversible inhibitory activity and a binding activity to MGAT2. The ary1 sulfonamide derivatives exhibited potenti inhibitory activities against both human and mouse intestinal MGAT activities, which were correlated to those determined using recombinant human and mouse MGAT enzymes. We have developed a cellular assay using Liquid Chromatography-Mass Spectrometry and confirmed that the ary1-sulfonamide derivatives suppressed DAG synthesis in the cellular context."

According to the news reporters, the research concluded: "We have thus elucidated their pharmacological profiles and provided the fundamental clues for understanding the molecular and cellular actions of the ary1-sulfonamide MGAT2 inhibitors."

For more information on this research see: Pharmacological characterization of a series of ary1-sulfonamide derivatives that potently and selectively inhibit monoacylglycerol acyltransferase 2. European Journal of Pharmacology, 2016;791():569-577. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting R. Adachi, Takeda Pharmaceut Co Ltd, Res, Fujisawa, Kanagawa 2518555, Japan. Additional authors for this research include T. Ishii, K. Ogawa, S. Matsumoto, T. Satou, J. Sakamoto, K. Sato and T. Kawamoto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fujisawa, Japan, Asia, Enzymes and Coenzymes, Acyltransferases, Pharmacology, Sulfonamides, Transferases, Sulfones, Therapy, Takeda Pharmaceutical.

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Nutritional and Metabolic Diseases and Conditions --

Reports Outline Type 2 Diabetes Findings from Florida Hospital
(Adipose tissue natriuretic peptide receptor expression is related to insulin sensitivity in obesity and diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases
and Conditions - Type 2 Diabetes. According to news reporting from Orlando, Florida, by NewsRx journalists, research stated, "Cardiac natriuretic peptides (NPs) bind to two receptors (NPRA—mediator of signaling; NPRC—clearance receptor) whose ratio, NPRR (NPRA/NPRC), determines the NP bioactivity. This study investigated the relationship of NP receptor gene expression in adipose tissue and muscle with obesity and glucose intolerance."

Financial supporters for this research include Florida Hospital Translational Research Institute for Metabolism and Diabetes, Research Institute for Dental Sciences, Shahid Beheshti University of Medical Sciences, Takeda Pharmaceuticals USA, Inc.

The news correspondents obtained a quote from the research from Florida Hospital, "Prospectively, the study also assessed whether changes in NP receptor expression and thermogenic gene markers accompanied improvements of insulin sensitivity. A cross-sectional study of subjects with a wide range of BMI and glucose tolerance (n = 50) was conducted, as well as a randomized 12-week trial of subjects with type 2 diabetes mellitus (T2DM) treated with pioglitazone (n = 9) or placebo (n = 10). NPRR mRNA was significantly lower in adipose tissue of subjects with obesity when compared with lean subjects (P (<=) 0.001). NPRR decreased with progression from normal glucose tolerance to T2DM (p < 0.01) independently of obesity. Treatment of subjects with T2DM with pioglitazone increased NPRR in adipose tissue (P (<=) 0.01) in conjunction with improvements in insulin sensitivity and increases of the thermogenic markers PPARg coactivator-1a and uncoupling protein 1 (P (<=) 0.01). Decreased adipose tissue NPRR was associated with obesity, glucose intolerance, and insulin resistance. This relationship was not observed for skeletal muscle NPRR."

According to the news reporters, the research concluded: "Pharmacological improvement of insulin sensitivity in subjects with T2DM was tied to improvement in NPRR and increased expression of genes involved in thermogenic processes."

For more information on this research see: Adipose tissue natriuretic peptide receptor expression is related to insulin sensitivity in obesity and diabetes. *Obesity*, 2016;24(4):820-8. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news journalists report that additional information may be obtained by contacting Z. Kovacova, Translational Research Institute for Metabolism and Diabetes, Florida Hospital, Orlando, Florida, United States. Additional authors for this research include W.G. Tharp, D. Liu, W. Wei, H. Xie, S. Collins and R.E Pratley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21418. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Orlando, Florida, Genetics, Bariatrics, Proinsulin, Proteomics, United States, Hyperglycemia, Overnutrition, Type 2 Diabetes, Peptide Hormones, Peptide Proteins, Membrane Proteins, Peptide Receptors, Diet and Nutrition, Glucose Intolerance, Nutrition Disorders, Risk and Prevention, Natriuretic Peptides, Obesity and Diabetes.

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Reports Outline Type 2 Diabetes Study Results from Zhongshan Ophthalmic Center (Association of monocyte chemoattractant protein-1 gene 2518A/G polymorphism with diabetic retinopathy in type 2 diabetes mellitus: A meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "The relationship between monocyte chemoattractant protein-1 (MCP-1) 2518 A/G polymorphism and diabetic retinopathy (DR) attracted intense interest recently, but the reported results are controversial. A meta-analysis was performed to assess the MCP-1 polymorphism associated with DR susceptibility in type 2 diabetes mellitus."

Our news journalists obtained a quote from the research from Zhongshan Ophthalmic Center, "Eligible studies were identified from PubMed, Embase, Web of science, Chinese Biomedical database, and references of retrieved articles. Pooled odds ratios (ORs) with their 95% confidence intervals (95% CI) were calculated by fixed or random-effects models. Six studies involving 3415 patients without DR and 3468 with any DR were included in the final meta-analysis. Each 5 studies evaluated the associations of MCP-1 polymorphism and any DR and proliferative DR (PDR), respectively. Meta-analysis in fixed model demonstrated a significant association between MCP-1 polymorphism and any DR under the homozygous model (OR = 1.36; 95% CI: 1.15-1.62, P< 0.001), heterozygous model (OR = 1.20; 95% CI: 1.02-1.42, P = 0.031), dominant model (OR = 1.28; 95% CI: 1.10-1.50, P = 0.002), recessive model (OR = 1.17; 95% CI: 1.05-1.31, P = 0.004), and allelic model (OR = 1.16; 95% CI: 1.07-1.25, P< 0.001). Furthermore, a significant association of MCP-1 polymorphism and DR progression from non-proliferative DR to proliferative DR was identified under heterozygous model (OR = 1.45; 95% CI: 1.04-2.02, P = 0.030). Sensitivity analyses did not draw different findings."

According to the news editors, the research concluded: "Meta-analysis of existing data suggested that MCP-1 2518 A/G polymorphism affected the risk of presence and progression of DR in type 2 diabetes mellitus."


Our news journalists report that additional information may be obtained by contacting W.Y. Huang, Sun Yat Sen University State Key Lab Ophthalmol, Zhongshan Ophthalm Center, Guangzhou 510060, Guangdong, People's Republic of China. Additional authors for this research include M. He and W.Y. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.diabres.2016.07.016. This DOI is a link to an online electronic document that is either free or for purchase.
Reports Outline Ulcerative Colitis Study Findings from Institute of Digestive Diseases (Expression of Transcription Factor FOXO3a is Decreased in Patients with Ulcerative Colitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Inflammatory Bowel Diseases and Conditions - Ulcerative Colitis have been published. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Ulcerative colitis (UC) is associated with differential expression of genes involved in inflammation and tissue remodeling, including FOXO3a, which encodes a transcription factor known to promote inflammation in several tissues. However, FOXO3a expression in tissues affected by UC has not been examined."

The news correspondents obtained a quote from the research from the Institute of Digestive Diseases, "This study investigated the effects of FOXO3a on UC pathogenesis. FOXO3a expression, in 23 patients with UC and in HT29 cells treated with tumor necrosis factor-a (TNF-a) for various durations, was detected by quantitative real-time polymerase chain reaction and Western blotting analysis. Enzyme-linked immunosorbent assay was used to quantify interleukin (IL)-8 expression in FOXO3a-silenced HT29 cells treated with TNF-a for various durations. The messenger RNA and protein expression of FOXO3a were significantly lower in UC tissues than those in normal subjects (p <0.01). TNF-a treatment for 0, 0.5, 1, 6, and 24 h induced FOXO3 degradation in HT29 cells. FOXO3a silencing increased IL-8 levels in HT29 cells treated with TNF-a for 6 h (p <0.05)."

According to the news reporters, the research concluded: "FOXO3a may play an important role in the intestinal inflammation of patients with UC."


Our news journalists report that additional information may be obtained by contacting Y.S. Yang, Dept. of Gastroenterology and Hepatology, Institute of Digestive Diseases, Chinese People's Liberation Army General Hospital, Beijing 100853, People's Republic of China. Additional authors for this research include J. Yang, Y.S. Yang, Y. Liu, L.M. Liu and Y. Xu.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.167314. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Chinese Medical Journal is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Beijing, Genetics, Proteins, HT29 Cells, Inflammation, Gastroenteritis, Tumor Cell Line, Gastroenterology, Ulcerative Colitis, Transcription Factors, People's Republic of China, Colonic Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.

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Urinary Tract

Reports Outline Urinary Tract Study Results from Zhejiang University
(Performance of the Sysmex UF-1000i urine analyser in the rapid diagnosis of urinary tract infections in hospitalized patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Urinary Tract is the subject of a report. According to news reporting originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "Urinary tract infections (UTIs) are the second most frequently encountered nosocomial infectious diseases, and they greatly increase the cost of medical care and prolong the duration of hospital stays. We aimed to evaluate the performance of the Sysmex UF-1000i analyser for the rapid prediction of UTIs in hospitalized patients with or without indwelling catheters at a comprehensive teaching hospital that encounters complex disease types."

Financial support for this research came from Medical Science and Technology Planning Project of Zhejiang Province in China.

Our news editors obtained a quote from the research from Zhejiang University, "Urine specimens (n = 1016) were cultured and examined for WBC, RBC, bacteria (BACT) and yeast-like cell (YLC) count using the Sysmex UF-1000i. The results were compared with the urine culture results. Receiver operating characteristic curve analysis was applied to determine BACT and YLC cutoff values for bacterial and fungal UTIs independently. The diagnostic ability of the UF-1000i was also compared for patients with and without indwelling catheters. A cutoff value of 38.7/mu L was acceptable for ruling out bacterial UTIs. In this setting, we achieved a sensitivity of 90%, a negative predictive value of 94.5%, a false negative rate of 2.85% (29 cases), and avoided culturing in 52% of the samples. The BACT count presented a larger area under the curve for patients with indwelling catheters than for those without (0.939 vs. 0.861); however, no significant difference in the diagnostic ability of the two curves was found."

According to the news editors, the research concluded: "The Sysmex UF-1000i analyser could be a reliable method for excluding bacterial UTIs in hospitalized patients with or without urinary catheters and could help clinicians determine whether antibiotic therapy is necessary."

For more information on this research see: Performance of the Sysmex UF-1000i urine analyser in the rapid diagnosis of urinary tract infections in hospitalized patients. Journal
Immunization - Vaccines
Reports Outline Vaccines Study Results from National Institute for Communicable Diseases (Variability at the FCGR locus: characterization in Black South Africans and evidence for ethnic variation in and out of Africa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immunization - Vaccines are presented in a new report. According to news reporting from Johannesburg, South Africa, by NewsRx journalists, research stated, "This study set out to comprehensively investigate all known functional FcgR variants in South African Black and Caucasian individuals. Population diversity was further assessed using data from the 1000 Genomes Project."

The news correspondents obtained a quote from the research from National Institute for Communicable Diseases, "In our cohort, Black South Africans neither possessed the haplotypes previously associated with increased surface densities of FcgRIIb and FcgRIIIa nor the FCGR2C haplotype recently associated with increased vaccine efficacy in the RV144 HIV-1 vaccine trial (despite 48.7% bearing the c.134-96T tag allele). Moreover, Africans (South Africans, Luhya Kenyans and Yoruba Nigerians) lack the FCGR2C c.798+1G splice-site allele required for the expression of functional FcgRIIc. Although the presence or absence of surface FcgRIIc did not affect natural killer cell-mediated antibody-dependent cellular cytotoxicity capability, this may be significant for other FcgRIIc-mediated functions. Overall, allele distribution and linkage disequilibrium in Africans and Caucasians differed in a manner that would suggest a differentially maintained balance of FcgR-mediated cell activation in these populations. Finally, significant variation observed among different African populations precludes the use of any one African population as a proxy for FcgR diversity in Africans."

According to the news reporters, the research concluded: "The findings of this study highlight further ethnic variation at the FCGR gene locus, in particular for FCGR2C, a gene with increasingly recognized clinical significance."

For more information on this research see: Variability at the FCGR locus:

Our news journalists report that additional information may be obtained by contacting R. Lassaunier, Centre for HIV and STIs, National Institute for Communicable Diseases, National Health Laboratory Service, Johannesburg, South Africa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gene.2015.60. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Vaccines, Johannesburg, South Africa, Immunization, Biological Products.

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**Varicose Veins**

**Reports Outline Varicose Veins Findings from Erzincan University (Effects of Fentanyl and Morphine on Shivering During Spinal Anesthesia in Patients Undergoing Endovenous Ablation of Varicose Veins)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Varicose Veins. According to news reporting originating in Erzincan, Turkey, by NewsRx journalists, research stated, "We sought to investigate the effect of morphine and fentanyl on shivering when used adjunctively with bupivacaine during spinal anesthesia in patients undergoing varicose vein surgery on an outpatient basis. The study included a total of 90 patients, aged 25-45 years, ASA I-II, scheduled to undergo endovenous laser ablation under spinal anesthesia for lower extremity venous insufficiency/varicose vein disease."

The news reporters obtained a quote from the research from Erzincan University, "Patients were randomly allocated into 3 groups: Group M (morphine group) received 5 mg 0.5% hyperbaric bupivacaine + 0.1 mg morphine, Group F (fentanyl group) received 5 mg 0.5% hyperbaric bupivacaine + 25 ?g fentanyl, and Group C (control group) received 5 mg 0.5% hyperbaric bupivacaine + physiologic saline. The level of sensory blockade was assessed with pin-prick test and the level of motor blockade was assessed with Bromage scale at 5-min intervals. Shivering grade and time to first postoperative analgesic requirement was recorded. Level and time of sensory block showed a slight but insignificant increase in the Morphine Group and Fentanyl Group. Time of postoperative analgesic requirement was significantly longer in patients who received morphine (p <0.05). Shivering was significantly less common in patients who received morphine and fentanyl than in patients who are in the Control Group (p <0.02)."

According to the news reporters, the research concluded: "Morphine or fentanyl may be used as adjunctives to spinal anesthesia to prevent shivering in patients undergoing venous surgery."

For more information on this research see: Effects of Fentanyl and Morphine on Shivering During Spinal Anesthesia in Patients Undergoing Endovenous Ablation of Varicose Veins. *Medical Science Monitor*, 2016;22():469-73.
Our news correspondents report that additional information may be obtained by contacting D. Onk, Department of Anesthesiology and Reanimation, Erzincan University, Erzincan, Turkey. Additional authors for this research include T. Akarsu Ayazoglu, U. Kuyrukliyildiz, M. Aksut, Z. Bedir, I. Kupeli, O.A. Onk and A. Alagol.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.897256. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turkey, Eurasia, Surgery, Erzincan, Anilides, Angiology, Analgesics, Anesthesia, Bupivacaine, Pain Medicine, Varicose Veins, Cardiovascular Diseases and Conditions.

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Cardiovascular Diseases and Conditions - Venous...

Reports Outline Venous Thromboembolism Findings from Institute of Epidemiology (Testosterone treatment and risk of venous thromboembolism: population based case-control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Venous Thromboembolism are presented in a new report. According to news reporting out of Frankfurt, Germany, by NewsRx editors, research stated, "To determine the risk of venous thromboembolism associated with use of testosterone treatment in men, focusing particularly on the timing of the risk. Population based case-control study."

Our news journalists obtained a quote from the research from the Institute of Epidemiology, "Setting 370 general practices in UK primary care with linked hospital discharge diagnoses and in-hospital procedures and information on all cause mortality. Participants 19215 patients with confirmed venous thromboembolism (comprising deep venous thrombosis and pulmonary embolism) and 909 530 age matched controls from source population including more than 2.22 million men between January 2001 and May 2013. Exposure of interest Three mutually exclusive testosterone exposure groups were identified: current treatment, recent (but not current) treatment, and no treatment in the previous two years. Current treatment was subdivided into duration of more or less than six months. Rate ratios of venous thromboembolism in association with current testosterone treatment compared with no treatment were estimated using conditional logistic regression and adjusted for comorbidities and all matching factors. The adjusted rate ratio of venous thromboembolism was 1.25 (95% confidence interval 0.94 to 1.66) for current versus no testosterone treatment. In the first six months of testosterone treatment, the rate ratio of venous thromboembolism was 1.63 (1.12 to 2.37), corresponding to 10.0 (1.9 to 21.6) additional venous thromboembolisms above the base rate of 15.8 per 10 000 person years. The rate ratio after more than six months' treatment was 1.00 (0.68 to 1.47), and after treatment cessation it was 0.68 (0.43 to 1.07). Increased rate ratios within the first six months of treatment were observed in all strata: the rate ratio was 1.52 (0.94 to 2.46) for patients with pathological hypogonadism and 1.88 (1.02 to 3.45) for those without it, and 1.41 (0.82 to 2.41) for those with a known risk factor for venous thromboembolism and 1.91 (1.13 to 3.23) for those without one."

According to the news editors, the research concluded: "Starting testosterone treatment was associated with an increased risk of venous thromboembolism, which peaked..."
within six months and declined thereafter."


Our news journalists report that additional information may be obtained by contacting C. Martinez, Inst Epidemiol Stat & Informat GmbH, D-60388 Frankfurt, Germany. Additional authors for this research include S. Suissa, S. Rietbrock, A. Katholing, B. Freedman, A.T. Cohen and D.J. Handelsman.

Keywords for this news article include: Frankfurt, Germany, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Venous Thromboembolism, Risk and Prevention, Hematology, Hospital, Institute of Epidemiology.

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Heart Disorders and Diseases - Ventricular Tachycardia

Reports Outline Ventricular Tachycardia Findings from Brigham and Women's Hospital (Substrate-Based Ablation Versus Ablation Guided by Activation and Entrainment Mapping for Ventricular Tachycardia: A Systematic Review and Meta-Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Ventricular Tachycardia. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Substrate vs. Activation/Entrainment Guided VT Ablation. Substrate-based ablation for scar-related ventricular tachycardia (VT) has gained prominence: however, there is limited data comparing it to ablation guided predominantly by activation and entrainment mapping of inducible and hemodynamically tolerated VTs."

Our news journalists obtained a quote from the research from Brigham and Women's Hospital, "We compared the acute procedural efficacy and outcomes of predominantly substrate-based ablation versus ablation guided predominantly by activation and entrainment mapping. Database searches through April 2016 identified 6 eligible studies (enrolling 403 patients, with 1 randomized study) comparing the 2 strategies. The relative risk of VT recurrence at follow-up was assessed as the primary outcome using a random-effects meta-analysis. Secondary endpoints of acute success (based on noninducibility of VT), procedural complications, and mortality were assessed using weighted mean difference with the random effects model. At a median follow-up of 18 months, the relative risk (RR) of VT recurrence was not significantly different with substrate-based versus activation/entrainment guided VT ablation (0.72, 95% confidence interval [CI] 0.44-1.18, P = 0.2). Acute success (RR 1.02, 95% CI 0.95-1.1, P = 0.6), procedural complications (RR 0.8, 95% CI 0.35-1.82, P = 0.5) cardiovascular mortality and total mortality did not differ significantly (RR 0.83, 95% CI 0.38-1.79, P = 0.6 and RR 0.76, 95% CI 0.36-1.59, P = 0.5, respectively)."

According to the news editors, the research concluded: "This meta-analysis demonstrates similar acute procedural efficacy, and complications, VT recurrence and mortality rates when comparing a predominantly substrate-based ablation strategy to a strategy guided
predominantly by activation and entrainment mapping of inducible and hemodynamically tolerated VTs."


Our news journalists report that additional information may be obtained by contacting W.G. Stevenson, Brigham & Women's Hospital, Div Cardiovasc, Boston, MA 02115, United States. Additional authors for this research include S.H. Baldinger, J. Romero, A. Fujii, S.N. Mahida, U.B. Tedrow and W.G. Stevenson.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Hemodynamics, Article Review, Heart Disorders and Diseases, Ventricular Tachycardia, Cardiac Arrhythmias, Heart Disease, Cardiology, Brigham and Women's Hospital.

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Gram-Negative Bacteria - Vibrionaceae

Reports Outline Vibrionaceae Study Results from University of Pittsburgh (Vibrio cholerae LeuO Links the ToxR Regulon to Expression of Lipid A Remodeling Genes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Vibrionaceae have been presented. According to news reporting originating in Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "Vibrio cholerae is an intestinal pathogen that causes the diarrheal disease cholera. Colonization of the intestine depends upon the expression of genes that allow V. cholerae to overcome host barriers, including low pH, bile acids, and the innate immune system."

Financial support for this research came from HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID).

The news reporters obtained a quote from the research from the University of Pittsburgh, "ToxR is a major contributor to this process. ToxR is a membrane-spanning transcription factor that coordinates gene expression in response to environmental cues. In previous work we showed that ToxR upregulated leuO expression in response to bile salts. LeuO is a LysR family transcription factor that contributes to acid tolerance, bile resistance, and biofilm formation in V. cholerae. Here, we investigated the function of ToxR and LeuO in cationic antimicrobial peptide (CAMP) resistance. We report that ToxR and LeuO contribute to CAMP resistance by regulating carRS transcription. CarRS is a two-component regulatory system that positively regulates almEFG expression. AlmEFG confers CAMP resistance by glycinylation of lipid A. We found that the expression of carRS and almEFG and the polymyxin B MIC increased in mutants lacking toxRS or leuO. Conversely, leuO overexpression decreased..."
the polymyxin B MIC. Furthermore, we found that LeuO directly bound to the carRS promoter and that ToxR-dependent activation of leuO transcription regulated carRS transcription in response to bile salts. Our results suggest that LeuO functions downstream of ToxR to modulate carRS expression in response to environmental cues."

According to the news reporters, the research concluded: "This study extends the functional role of ToxR and LeuO in environmental adaptation to include cell surface remodeling and CAMP resistance."

For more information on this research see: Vibrio cholerae LeuO Links the ToxR Regulon to Expression of Lipid A Remodeling Genes. *Infection and Immunity*, 2016;84 (11):3161-3171. *Infection and Immunity* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Infection and Immunity - iai.asm.org)

Our news correspondents report that additional information may be obtained by contacting J.E. Bina, University of Pittsburgh, Sch Med, Dept. of Microbiol & Mol Genet, Pittsburgh, PA 15260, United States. Additional authors for this research include M.F. Howard, V.M. Ante and J.E. Bina.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/IAI.00445-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Gram-Negative Facultatively Anaerobic Rods, Digestive System Diseases and Conditions, Gram-Negative Bacteria, Lipopolysaccharides, Gammaproteobacteria, Lipid A, Genetics, Vibrio cholerae, Proteobacteria, Vibrionaceae, Cholera, University of Pittsburgh.

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Skin Diseases and Conditions - Vitiligo

**Reports Outline Vitiligo Study Results from University of Massachusetts**

(Understanding mechanisms of autoimmunity through translational research in vitiligo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Skin Diseases and Conditions - Vitiligo have been published. According to news reporting originating in Worcester, Massachusetts, by NewsRx journalists, research stated, "Vitiligo is an autoimmune disease of the skin that leads to life altering depigmentation and remains difficult to treat. However, clinical observations and translational studies over 30-40 years have led to the development of an insightful working model of disease pathogenesis: Genetic risk spanning both immune and melanocyte functions is pushed over a threshold by known and suspected environmental factors to initiate autoimmune T cell mediated killing of melanocytes."

Financial support for this research came from NIH.

The news reporters obtained a quote from the research from the University of Massachusetts, "While under cellular stress, melanocytes appear to signal innate immunity to activate T cells. Once the autoimmune T cell response is established, the IFN--y-STAT1-CXCL10 signaling axis becomes the primary inflammatory pathway driving both progression
and maintenance of vitiligo. This pathway is a tempting target for both existing and developing pharmaceuticals, but further detailing how melanocytes signal their own demise may also lead to new therapeutic targets. Research in vitiligo may be the future key to understand the pathogenesis of organ-specific autoimmunity, as vitiligo is common, reversible, progresses over the life of the individual, has been relatively well-defined, and is quite easy to study using translational and clinical approaches.

According to the news reporters, the research concluded: "What is revealed in these studies can lead to innovative treatments and also help elucidate the principles that underlie similar organ-specific autoimmune diseases, especially in cases where the target organ is less accessible."

For more information on this research see: Understanding mechanisms of autoimmunity through translational research in vitiligo. Current Opinion in Immunology, 2016;43():81-88. Current Opinion in Immunology can be contacted at: Current Biology Ltd, 84 Theobalds Rd, London WC1X 8RR, England. (Elsevier - www.elsevier.com; Current Opinion in Immunology - www.journals.elsevier.com/current-opinion-in-immunology/)

Our news correspondents report that additional information may be obtained by contacting J.E. Harris, University of Massachusetts, Sch Med, Div Dermatol, Dept. of Med, Worcester, MA 01605, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.coi.2016.09.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Worcester, Massachusetts, United States, North and Central America, Melanocytes, Article Review, Immunology, Epidemiology, Skin and Connective Tissue Diseases and Conditions, Skin Diseases and Conditions, Pigmentation Disorders, Hypopigmentation, Dermatology, Vitiligo, Genetics, University of Massachusetts.

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Gram-negative Bacteria - Acinetobacter

Reports Summarize Acinetobacter Study Results from University of Maryland (Structural Diversity in the Type IV Pili of Multidrug-resistant Acinetobacter)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Acinetobacter have been published. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Acinetobacter baumannii is a Gram-negative coccobacillus found primarily in hospital settings that has recently emerged as a source of hospital-acquired infections. A. baumannii expresses a variety of virulence factors, including type IV pili, bacterial extracellular appendages often essential for attachment to host cells."

According to the news editors, the research concluded: "Comparisons of genomic
and structural data with pilin proteins from other species of soil gammaproteobacteria suggest that these structural differences stem from evolutionary pressure that has resulted in three distinct classes of type IVa pilins, each found in multiple species."


The news correspondents report that additional information may be obtained from E.J. Sundberg, University of Maryland, Sch Med, Dept. of Microbiol & Immunol, Baltimore, MD 21201. United States. Additional authors for this research include E. Lillehoj, C.M. Harding, J.W. Labonte, X.T. Zuo, C.A. Rapp, R.S. Munson, S.E. Goldblum, M.F. Feldman, J.J. Gray and E.J. Sundberg.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Bacteria, Gammaproteobacteria, Proteobacteria, Moraxellaceae, Acinetobacter, Hospital, Genetics, University of Maryland.

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**Gram-Negative Bacteria - Acinetobacter baumannii**

**Reports Summarize Acinetobacter baumannii Findings from School of Pharmacy and Pharmaceutical Science (Comparative pharmacodynamics of four different carbapenems in combination with polymyxin B against carbapenem-resistant Acinetobacter ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Acinetobacter baumannii are presented in a new report. According to news originating from Buffalo, New York, by NewsRx correspondents, research stated, "The objective of this study was to determine the comparative pharmacodynamics of four different carbapenems in combination with polymyxin B (PMB) against carbapenem-resistant Acinetobacter baumannii isolates using time-kill experiments at two different inocula. Two A. baumannii strains (03-149-1 and N16870) with carbapenem minimum inhibitory concentrations (MICs) ranging from 8 to 64 mg/L were investigated in 48-h time-kill experiments using starting inocula of 10^6 CFU/mL and 10^8 CFU/mL. Concentration arrays of ertapenem, doripenem, meropenem and imipenem at 0.25x, 0.5x, 1x, 1.5x and 2x published maximum serum concentration (C-max) values (C-max concentrations of 12, 21, 48 and 60 mg/L, respectively) were investigated in the presence of 1.5 mg/L PMB."

Our news journalists obtained a quote from the research from the School of Pharmacy and Pharmaceutical Science, "Use of carbapenems without PMB resulted in drastic re-growth. All carbapenem combinations were able to achieve a>= 3 log(10) CFU/mL reduction by 4 h against both strains at 10^6 CFU/mL, whereas maximum reductions against strain 03-149-1 at 10^8 CFU/mL were 1.0, 3.2, 2.2 and 3.3 log(10) CFU/mL for ertapenem, doripenem, meropenem and imipenem, respectively. None of the combinations were capable of reducing 10^8 CFU/mL of N16870 by >= 2 log(10) CFU/mL. Ertapenem combinations consistently
displayed the least activity, whereas doripenem, meropenem and imipenem combinations had similar activities that were poorly predicted by carbapenem MICs."

According to the news editors, the research concluded: "As doripenem, meropenem, or imipenem displayed similar pharmacodynamics in combination, the decision of which carbapenem to use in combination with PMB may be based on toxicodynamic profiles if drastic discordance in MICs is not present."


The news correspondents report that additional information may be obtained from B.T. Tsuji, SUNY Buffalo, Sch Pharm & Pharmaceut Sci, Buffalo, NY 14215, United States. Additional authors for this research include J.S. Gall, J.B. Bulitta, V. Thamlikitkul, C.B. Landersdorfer, A. Forrest, R.L. Nation, J. Li and B.T. Tsuji.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.07.024. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Buffalo, New York, United States, North and Central America, Gram-Negative Aerobic Rods and Cocci, Antimicrobial Cationic Peptides, Pore Forming Cytotoxic Proteins, Gram-Negative Aerobic Bacteria, Beta-Lactam Antibiotics, Acinetobacter baumannii, Gram-Negative Bacteria, Drugs and Therapies, Gammaproteobacteria, Membrane Proteins, Cyclic Peptides, Proteobacteria, Antinfectives, Moraxellaceae, beta-Lactams, Thienamycins, Carbenapenems, Polymyxin B, Polymyxins, Ertapenem, Meropenem, Doripenem, Imipenem, Amides, School of Pharmacy and Pharmaceutical Science.

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Heart Disorders and Diseases - Acute Coronary...

**Reports Summarize Acute Coronary Syndrome Findings from Third Military Medical University (Higher Plasma Concentrations of Platelet Microparticles in Patients With Acute Coronary Syndrome: A Systematic Review and Meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Acute Coronary Syndrome have been published. According to news reporting originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "Platelet microparticles (PMP), shedding on platelet activation, have been proposed as key components in the procoagulant and proinflammatory process. The aim of this study was to clarify the correlation between plasma PMP concentration and the presence of acute coronary syndrome (ACS)."

Our news editors obtained a quote from the research from Third Military Medical University, "We searched for potential relevant studies in PubMed, EMBASE, the Cochrane..."
Library, and Web of Science databases before December 2015. After screening for eligibility, 11 observational studies that tested the plasma concentration of PMP in patients with ACS were retrieved for comprehensive review, quality assessment, and data extraction. Seven studies (64%) provided explicit information between healthy controls and patients with ACS. Five studies (45%) addressed the plasma levels of PMP between patients with ACS and patients with stable angina. Moreover, 5 studies (45%) compared changes in PMP concentration before and after percutaneous coronary intervention (PCI) in patients with ACS. The results showed a significant difference in plasma PMP levels between the patients with ACS and healthy controls, with the pooled standardized mean difference of 1.95 (95% confidence intervals, 0.87-3.02; \( P < 0.0001 \)). And the plasma concentration of PMP in patients with ACS was higher before PCI than after PCI (standardized mean difference, -0.97; 95% confidence interval, -1.91 to -0.03; \( P = 0.043 \)). Four of the five studies described that patients with ACS had higher plasma PMP concentration than patients with stable angina, but there was no significant difference between these 2 patient cohorts. PMP is a promising biomarker for the development of ACS."

According to the news editors, the research concluded: "Moreover, PCI, the most common treatment for ACS, could effectively decrease the plasma concentration of PMP, indicating PMP as a prognostic factor."


The news editors report that additional information may be obtained by contacting H.Y. Hu, Third Military Medical University, Southwest Hosp, Dept. of Cardiol, Chongqing 400038, People's Republic of China. Additional authors for this research include W.B. Zhao, Y. Chen and H.Y. Hu.

Keywords for this news article include: Chongqing, People's Republic of China, Asia, Percutaneous Coronary Intervention, Vascular Diseases and Conditions, Heart Disorders and Diseases, Surgery, Article Review, Acute Coronary Syndrome, Myocardial Ischemia, Heart Disease, Cardiology, Third Military Medical University.

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Acute Kidney Injury

Reports Summarize Acute Kidney Injury Findings from Nanjing Medical University (Meta-analysis for outcomes of acute kidney injury after cardiac surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Acute Kidney Injury are discussed in a new report. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "This study aimed to investigate the outcomes of acute kidney injury (AKI) after cardiac surgery by the meta-analysis. Electronic databases PubMed and Embase were searched for relative studies from December 2008 to June 2015."

The news correspondents obtained a quote from the research from Nanjing Medical
University, "For eligible studies, the R software was conducted to meta-analyze outcomes of AKI patients (AKI group) and none-AKI patients after cardiac surgery (NO AKI group). The chi-square-based Q test and I-2 statistic were used for heterogeneity analysis. P<0.1 or I-2 >50% revealed significant heterogeneity among studies, and then a random effects model was used; otherwise a fixed effect model was performed. Egger's test was performed for publication bias assessment. Subgroup analysis was performed by stratifying AKI definitions and study type. Totally 17 studies with 9656 subjects (2331 in the AKI group and 7325 in the NO AKI group) were enrolled. Significantly higher renal replacement therapy (RRT) (OR=23.67, 95% CI: 12.58-44.55), mortality (OR=6.27, 95% CI: 3.58-11.00), serum creatinine (SMD=1.42, 95% CI: 1.01-1.83), and hospital length of stay (LOS) (SMD=0.45, 95% CI: 0.02-0.88) were shown in the AKI group compared with patients in the NO AKI group. Subgroup analysis showed that results of only 3 subgroups were reversed indicating that the definition of AKI did not affect its outcomes. Publication bias was only found among studies involving mortality and serum creatinine, but the 2 outcomes were not reversed after correction."

According to the news reporters, the research concluded: "This meta-analysis confirmed the worse outcomes of AKI in patients after cardiac surgery, including higher RRT rates, mortality, and longer hospital LOS than those of NO AKI patients."

For more information on this research see: Meta-analysis for outcomes of acute kidney injury after cardiac surgery. Medicine, 2016;95(49):415-421. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting X. Chen, Nanjing Medical University, Nanjing Hosp 1, Dept. of Thorac & Cardiovasc Surg, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include L. Hong, X.W. Mu, C. Zhang and X. Chen.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Acute Kidney Injury, Cardiac Surgery, Cardiology, Hospital, Nanjing Medical University.

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Oncology - Acute Myeloid Leukemia

Reports Summarize Acute Myeloid Leukemia Findings from Haukeland University Hospital (Targeting of cell metabolism in human acute myeloid leukemia--more than targeting of isocitrate dehydrogenase mutations and PI3K/AKT/mTOR signaling?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Acute Myeloid Leukemia. According to news reporting from Bergen, Norway, by NewsRx journalists, research stated, "Targeting of cellular metabolism has emerged as a possible strategy in the treatment of human malignancies, and several experimental studies suggest that this therapeutic approach should also be considered in acute myeloid leukemia (AML). Clinical studies of metabolic intervention in AML patients with isocitrate dehydrogenase mutations have shown promising results."

Funders for this research include Helse Vest, Solveig and Ove Lundes Foundation, Bergens Forskningsstiftelse, Kreftforeningen.

The news correspondents obtained a quote from the research from Haukeland
University Hospital, "Moreover, metabolic targeting of the PI3K/AKT/mTOR signaling pathway as an anticancer strategy has been extensively studied. In this review, we focus on other emerging therapeutic alternatives for metabolic inhibition in human AML, in particular targeting of glycolysis and the AMP kinase signaling pathway. Pharmacological drugs for these metabolic interventions are already available and they seem to have an acceptable toxicity, even when used in combination with conventional chemotherapy."

According to the news reporters, the research concluded: "Future clinical studies of these therapeutic strategies should focus on the following: (i) heterogeneity of patients and the possibility that this treatment is most effective only for certain subsets of patients, (ii) toxic effects in AML patients with an existing disease-induced bone marrow failure prior to treatment, and (iii) whether this strategy should be used as part of a potentially curative treatment and/or as disease-stabilizing treatment to prolong survival in elderly or unfit patients."


Our news journalists report that additional information may be obtained by contacting M. Hauge, Dept. of Medicine, Haukeland University Hospital, Bergen, Norway. Additional authors for this research include 0. Bruserud and K.J Hatfield.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ejh.12690. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bergen, Norway, Europe, Genetics, Oncology, Hematology, Therapeutics, Article Review, Carboxylic Acids, Organic Chemicals, Enzymes and Coenzymes, Acute Myeloid Leukemia, Alcohol Oxidoreductases, Isocitrate Dehydrogenase.

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**Oncology - Acute Myeloid Leukemia**

**Reports Summarize Acute Myeloid Leukemia Study Results from Ohio State University (Inherited variation in OATP1B1 is associated with treatment outcome in acute myeloid leukemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Acute Myeloid Leukemia is the subject of a report. According to news originating from Columbus, Ohio, by NewsRx correspondents, research stated, "Using broad interrogation of clinically relevant drug absorption, distribution, metabolism, and excretion (ADME) genes on the DMET platform, we identified a genetic variant in SLCO1B1 (rs2291075; c.597C >T), encoding the transporter OATP1B1, associated with event-free (p=0.006, hazard ratio=1.74) and overall survival (p=0.012, hazard ratio=1.85) in children with de novo acute myeloid leukemia (AML). Lack of SLCO1B1 expression in leukemic blasts suggested the association might be due to an inherited rather than a somatic effect. rs2291075 was in strong linkage with known functional variants rs2306283 (c.388A >G) and rs4149056 (c.521T >C)."
Financial supporters for this research include National Institutes of Health Cancer Center, American Lebanese Syrian Associated Charities (ALSAC).

Our news journalists obtained a quote from the research from Ohio State University, "Functional studies in vitro determined that four AML-directed chemotherapeutics (cytarabine, daunorubicin, etoposide, and mitoxantrone) are substrates for OATP1B1 and the mouse ortholog Oatp1b2. In vivo pharmacokinetic studies using Oatp1b2-deficient mice further confirmed our results."

According to the news editors, the research concluded: "Collectively, these findings demonstrate an important role for OATP1B1 in the systemic pharmacokinetics of multiple drugs used in the treatment of AML and suggest that inherited variability in host transporter function influences the effectiveness of therapy."

For more information on this research see: Inherited variation in OATP1B1 is associated with treatment outcome in acute myeloid leukemia. Clinical Pharmacology and Therapeutics, 2016;99(6):651-60. (Nature Publishing Group - www.nature.com/; Clinical Pharmacology and Therapeutics - www.nature.com/clpt/)

The news correspondents report that additional information may be obtained from C.D. Drenberg, College of Pharmacy Division of Pharmaceutics and Pharmaceutical Chemistry, Ohio State University, Columbus, Ohio, United States. Additional authors for this research include S.W. Paugh, S.B. Pounds, L. Shi, S.J. Orwick, L. Li, S. Hu, A.A. Gibson, R.C. Ribeiro, J.E. Rubnitz, W.E. Evans, A. Sparreboom and S.D Baker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cpt.315. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Columbus, Genetics, Oncology, Hematology, United States, Acute Myeloid Leukemia, North and Central America.

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Oncology - Acute Myeloid Leukemia

Reports Summarize Acute Myeloid Leukemia Study Results from University of Texas [Whole-arm translocation of der(5;17)(p10;q10) with concurrent TP53 mutations in acute myeloid leukemia (AML) and myelodysplastic syndrome (MDS): A unique ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Acute Myeloid Leukemia is the subject of a report. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Der(5;17)(p10;q10) is a recurrent but rare aberration reported in myeloid neoplasms (MNs). We report 48 such patients including 19 acute myeloid leukemia (AML) and 29 myelodysplastic syndrome (MDS), to characterize their clinicopathological features."

Financial support for this research came from Jiangsu Health International Exchange Program (China).

Our news editors obtained a quote from the research from the University of Texas, "There were 29 men and 19 women, with a median age of 61 years (range, 18-80). 62.5%
patients had therapy-related diseases (t-MNs), 70.8% had multilineage dysplasia and 83.3% showed complex karyotypes. In 39 patients tested, FLT3, NPM1, CEBPA, KIT were all wild type and NRAS, KRAS, IDH1, APC, TET2 mutations were detected in single case(s) respectively. TP53 mutations were identified in 8 of 10 cases (80%) tested. Median disease-free survival (DFS) and overall survival (OS) were 3 and 10 months, respectively and did not differ between AML or MDS cases, or between de novo versus therapy related cases, or between the groups with or without complex karyotypes. In 19 patients who achieved complete remission after chemotherapy, and in 9 patients who underwent stem cell transplantation, the OS was better (14 and 17.5 months, P= 0.0128 and P= 0.0086, respectively). The der(5;17)(p10;q10) represents a unique molecular-cytogenetic subgroup in t-MNs and, associated with complex karyotypes.

According to the news editors, the research concluded: "TP53 inactivation, resulting from 17p deletion coupled with TP53 mutation, likely contributes to the poor clinical outcome of these patients."


The news editors report that additional information may be obtained by contacting X.Y. Lu, Univ Texas MD Anderson Canc Center, Dept. of Hematopathol, Houston, TX 77030, United States. Additional authors for this research include S.Y. Hao, K.P. Patel, H.M. Kantarjian, G. Garcia-Manero, C.C. Yin, L.J. Medeiros, P. Lin and X.Y. Lu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.04.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Hematologic Diseases and Conditions, Bone Marrow Diseases and Conditions, Myelodysplastic Syndromes, Acute Myeloid Leukemia, Leukemia, Genetics, Hematology, Oncology, University of Texas.

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Proteins - Albumins

Reports Summarize Albumins Findings from Mashhad University of Medical Sciences (Induction of a balanced Th1/Th2 immune responses by co-delivery of PLGA/ovalbumin nanospheres and CpG ODNs/PEI-SWCNT nanoparticles as TLR9 agonist in BALB/c mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Proteins - Albumins are discussed in a new report. According to news reporting originating in Mashhad, Iran, by NewsRx journalists, research stated. "To develop effective and safe vaccines with reduced dose of antigen and adjuvant, intelligent delivery systems are required. Many delivery systems have been developed to enhance the biological activity of cytosine-phosphorothioate-guanine oligodeoxynucleotides..."
(CpG ODN) as both immunotherapeutic agents and vaccine adjuvants."

Funders for this research include Ferdowsi University of Mashhad, Mashhad University of Medical Sciences, Mashhad, Iran, Iranian Nanotechnology Initiative Council.

The news reporters obtained a quote from the research from the Mashhad University of Medical Sciences, "In this study we designed a novel CpG ODN delivery system based on single-walled carbon nanotube (SWCNT) functionalized with polyethylenimine (PEI) and alkylcarboxylated PEI (AL-PEI). The physicochemical characteristics, cytotoxicity and cellular uptake studies of these carriers were performed. All carriers were conjugated with CpG ODN followed by co-delivery with ovalbumin (OVA) encapsulated into poly (lactic-co-glycolic acid) nanospheres (PLGA NSs) to enhance the induction of immune responses. The effect of these formulations on antibody (IgG1, IgG2a) and cytokine (IL-1 beta, IFN-gamma, IL-4) production was evaluated in an in vivo experiment. The results showed that all nano-adjuvant formulations had a strong influence in up-regulation of IFN-g and IL-4 in parallel with high IgG1-IgG2a isotype antibody titers in mice. In particular, SWCNT-AL-PEI nano-adjuvant formulation generated a balanced Th1 and Th2 immune response with more biased toward Th1 response without exhibiting any inflammatory and toxic effects."

According to the news reporters, the research concluded: "Therefore this nano-adjuvant formulation could be used as an efficient prophylactic immune responses agent."


Our news correspondents report that additional information may be obtained by contacting M. Ramezani, Mashhad Univ Med Sci, Sch Pharm, Pharmaceut Res Center, Mashhad, Iran. Additional authors for this research include M. Hashemi, M. Maleki, K. Abnous, G. Hashemitabar, M. Ramezani and A. Haghparast.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.065. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mashhad, Iran, Asia, Emerging Technologies, Dietary Egg Proteins, Nanotechnology, Nanoparticle, Nanosphere, Ovalbumin, Albumins, Serpins, Mashhad University of Medical Sciences.

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Lung Diseases and Conditions - Allergic...

Reports Summarize Allergic Bronchopulmonary Aspergillosis Findings from Sheffield Children's Hospital (Antifungal therapies for allergic bronchopulmonary aspergillosis in people with cystic fibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Allergic Bronchopulmonary Aspergillosis. According to news reporting out of Sheffield, United
Kingdom, by NewsRx editors, research stated, "Allergic bronchopulmonary aspergillosis (ABPA) is an allergic reaction to colonisation of the lungs with the fungus Aspergillus fumigatus and affects around 10% of people with cystic fibrosis. ABPA is associated with an accelerated decline in lung function."

Our news journalists obtained a quote from the research from Sheffield Children's Hospital, "High doses of corticosteroids are the main treatment for ABPA; although the long-term benefits are not clear, their many side effects are well-documented. A group of compounds, the azoles, have activity against Aspergillus fumigatus and have been proposed as an alternative treatment for ABPA. Of this group, itraconazole is the most active. A separate antifungal compound, amphotericin B, has been employed in aerosolised form to treat invasive infection with Aspergillus fumigatus, and may have potential for the treatment of ABPA. Antifungal therapy for ABPA in cystic fibrosis needs to be evaluated. This is an update of a previously published review. The review aimed to test the hypotheses that antifungal interventions for the treatment of ABPA in cystic fibrosis: 1. improve clinical status compared to placebo or standard therapy (no placebo); 2. do not have unacceptable adverse effects. If benefit was demonstrated, we aimed to assess the optimal type, duration and dose of antifungal therapy. Search methods We searched the Cochrane Cystic Fibrosis and Genetic Disorders Group Trials Register which comprises references identified from comprehensive electronic database searches, handsearches of relevant journals and abstract books of conference proceedings. In addition, pharmaceutical companies were approached. Date of the most recent search of the Group's Trials Register: 29 September 2016. Selection criteria Published or unpublished randomised controlled trials, where antifungal treatments have been compared to either placebo or no treatment, or where different doses of the same treatment have been used in the treatment of ABPA in people with cystic fibrosis. Data collection and analysis Four trials were identified by the searches; none of which was judged eligible for inclusion in the review. No completed randomised controlled trials were included. Authors’ conclusions At present, there are no randomised controlled trials to evaluate the use of antifungal therapies for the treatment of ABPA in people with cystic fibrosis, although trials in people who do not have cystic fibrosis have shown clinical and serological evidence of improvement and a reduction in the use of corticosteroids with no increase in adverse effects."

According to the news editors, the research concluded: "Trials with clear outcome measures are needed to properly evaluate this potentially useful treatment for cystic fibrosis."

For more information on this research see: Antifungal therapies for allergic bronchopulmonary aspergillosis in people with cystic fibrosis. Cochrane Database of Systematic Reviews, 2016;(11):483-494. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting H.E. Elphick, Sheffield Children's Hospital, Resp Unit, Sheffield S10 2TH, S Yorkshire, United Kingdom.

Keywords for this news article include: Sheffield, United Kingdom, Europe, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Allergic Bronchopulmonary Aspergillosis, Pancreatic Diseases and Conditions, Bacterial Infections and Mycoses, Lung Diseases and Conditions, Clinical Trials and Studies, Therapy, Article Review, Aspergillus fumigatus, Drugs and Therapies, Clinical Research, Cystic Fibrosis, Antifungals, Allergies, Genetics, Sheffield Children's Hospital.

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Reports Summarize Alzheimer Disease Findings from Aarhus University
(Stereological investigation of the CA1 pyramidal cell layer in untreated and lithium-treated 3xTg-AD and wild-type mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting originating in Aarhus, Denmark, by NewsRx journalists, research stated, "Pyramidal neuron loss in the hippocampal CM region is a very early hallmark of Alzheimer disease (AD). Lithium might be a therapeutic strategy for AD due to its neuroprotective and neurotrophic properties."

Financial supporters for this research include Eliza H, State of Sao Paulo Research Support Foundation, University of Sao Paulo, Alzira Denise Hertzog Silva Benevolent Association, Stereology Laboratory.

The news reporters obtained a quote from the research from Aarhus University, "This study used modern stereological techniques to investigate possible CM pyramidal neuron loss in 11-month-old triple transgenic AD (3xTg-AD) mice, and also the effects of therapeutic and subtherapeutic lithium doses on the number and density of CA1 pyramidal neurons and volume of CA1 pyramidal layer in 3xTg-AD and wild-type mice treated from 3 toil months of age. 3xTg-AD mice displayed CM pyramidal layer atrophy that is likely due to reduced neuronal volume because of the absence of neuronal loss. Both lithium treatments of 3xTg-AD mice, which already expressed AD-like pathology, had no effect on CM atrophy. However, lithium treatment of wild-type mice, at low (subtherapeutic) doses, induced a significant increase in total CM pyramidal neuron number that led to a significant increase in total CA1 pyramidal layer volume. The lithium-induced increase in CM neuron number is highly consistent with previous evidence that adult neurogenesis can be exogenously induced in the CM pyramidal layer with impact on total CA1 neuron number, thus raising the possibility of the chronic use of low-dose lithium as a strategy to help compensate for neuronal loss in CM and perhaps other typically non-neurogenic brain regions in various neurological diseases."

According to the news reporters, the research concluded: "With regard to AD, low-dose lithium intervention must be initiated as early as possible in the course of neuropathology for beneficial effects to occur."

For more information on this research see: Stereological investigation of the CA1 pyramidal cell layer in untreated and lithium-treated 3xTg-AD and wild-type mice. Annals of Anatomy-Anatomischer Anzeiger, 2017;209():51-60. Annals of Anatomy-Anatomischer Anzeiger can be contacted at: Elsevier Gmbh, Urban & Fischer Verlag, Office Jena, P O Box 100537, 07705 Jena, Germany.

Our news correspondents report that additional information may be obtained by contacting E.L. Schaeffer, Aarhus University, Inst Biomed, DK-8000 Aarhus C, Denmark. Additional authors for this research include S. Catanozi, M.J. West and W.F. Gattaz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.aanat.2016.10.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aarhus, Denmark, Europe, Neurodegenerative Diseases and Conditions, Central Nervous System, Alzheimer Disease, Pyramidal Cells, Cerebral Cortex, Prosencephalon, Brain Research, Telencephalon,
Reports Summarize Alzheimer Disease Findings from P.R. Manzine and Co-Authors (BACE1 levels are increased in plasma of Alzheimer's disease patients compared with matched cognitively healthy controls)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting from Sao Carlos, Brazil, by NewsRx journalists, research stated, "BACE1 is the secretase that acts in A beta production in Alzheimer's disease (AD). We investigated mRNA expression in total blood and the levels of plasma protein BACE1 in AD patients compared with cognitively healthy subjects."

The news correspondents obtained a quote from the research, "Probable AD (n = 47) and non-AD control group (n = 32) were evaluated for mRNA expression for BACE1 using reverse transcription-qPCR. A subsample of n = 21 AD and n = 20 non-AD had plasma BACE1 levels analyzed, using ELISA. No differences were found on BACE1 mRNA between groups. However, higher levels of BACE1 were detected in plasma of AD patients. Blood-based diagnostic tools are desired to improve AD diagnosis."

According to the news reporters, the research concluded: "BACE1 plasma levels could provide an additional diagnostic tool for AD in association with neuropsychological tests."

For more information on this research see: BACE1 levels are increased in plasma of Alzheimer's disease patients compared with matched cognitively healthy controls. Personalized Medicine, 2016;13(6):531-540. Personalized Medicine can be contacted at: Future Medicine Ltd, Unitec House, 3RD Floor, 2 Albert Place, Finchley Central, London, N3 1QB, England.

Our news journalists report that additional information may be obtained by contacting P.R. Manzine, Dept. of Gerontol, BR-13565905 Sao Carlos, SP, Brazil. Additional authors for this research include M.D. Souza and M.R. Cominetti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/pme-2016-0033. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Carlos, Brazil, South America, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Hematology, Diagnostics and Screening, Brain Diseases and Conditions, Alzheimer Disease, Tauopathies, Dementia, Genetics, Plasma, Blood.

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Neurodegenerative Diseases and Conditions ->

Reports Summarize Alzheimer Disease Findings from Russian Academy of Science [AChE and the amyloid precursor protein (APP) - Cross-talk in Alzheimer's disease]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting from St. Petersburg, Russia, by NewsRx journalists, research stated, "The amyloid precursor protein (APP) and acetylcholinesterase (AChE) are multi-faceted proteins with a wide range of vital functions, both crucially linked with the pathogenesis of Alzheimer's disease (AD). APP is the precursor of the Ab peptide, the pathological agent in AD, while AChE is linked to its pathogenesis either by increasing cholinergic deficit or exacerbating Ab fibril formation and toxicity."

The news correspondents obtained a quote from the research from the Russian Academy of Science, "As such, both proteins are the main targets in AD therapeutics with AChE inhibitors being currently the only clinically available AD drugs. In our studies we have demonstrated an important inter-relation in functioning of these proteins. Both can be released from the cell membrane and we have shown that AChE shedding involves a metalloproteinase-mediated mechanism which, like the a-secretase dependent cleavage of APP, is stimulated by cholinergic agonists. Overexpression of the neuronal specific isoform APP695 in neuronal cells substantially decreased levels of the AChE mRNA, protein and catalytic activity accompanied by a similar decrease in mRNA levels of the AChE membrane anchor, PRiMA (proline rich membrane anchor). We further established that this regulation does not involve APP processing and its intracellular domain (AICD) but requires the E1 region of APP, specifically its copper-binding domain. On the contrary, siRNA knock-down of APP in cholinergic SN56 cells resulted in a significant upregulation of AChE mRNA levels."

According to the news reporters, the research concluded: "Hence APP may influence AChE physiology while released AChE may regulate amyloidogenesis through multiple mechanisms suggesting novel therapeutic targets."


Our news journalists report that additional information may be obtained by contacting N.N. Nalivaeva, Russian Academy Sci, Sechenov Inst Evolutionary Physiol & Biochem, St Petersburg 194223, Russia.

Keywords for this news article include: St. Petersburg, Russia, Eurasia, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Brain Diseases and Conditions, Alzheimer Disease, Tauopathies, Proteins, Dementia, Genetics, Amyloid, Russian Academy of Science.

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Reports Summarize Aneurysm Findings from Georg-August-University
(Unenhanced Time-of-Flight MR Angiography versus Gadolinium-
Enhanced Time-of-Flight MR Angiography in the Follow-Up of Coil-
Embolized Aneurysms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Aneurism. According to news reporting out of Gottingen, Germany, by NewsRx editors, research stated, "Coil embolization of ruptured and unruptured aneurysms has emerged as a widely accepted alternative to clipping. Unfortunately, coil-embolized aneurysms need a long-term imaging follow-up to confirm the stability of the occlusion status."

Our news journalists obtained a quote from the research from Georg-August-University, "We investigated whether contrast-enhanced time-of-flight (ToF) magnetic resonance angiography (MRA) ( gadolinium [Gd-ToF]) provides any diagnostic benefit over conventional ToF MRA (nonenhanced [NE]-ToF) in this context. From October 2013 to January 2015, all patients who were regularly scheduled for their follow-up after coil embolization were examined with Gd-ToF and NE-ToF angiography. The general visibility of the occlusion result was compared between the two MRAs as well as with the last digital subtraction angiography (DSA) available. Subgroups of interest (follow-up after stent-assisted coil embolization, cases with already known aneurysm remnants) were also analyzed. A total of 70 patients (44 female) harboring 74 treated aneurysms were examined. The reproducibility of the DSA result in terms of therapeutic relevance was 100%. In 10 of 74 cases (14%), the aneurysm status was more difficult to judge in the NE-ToF images (p = 0.02), and the visualization of small vessels was significantly better in the Gd-ToF (p = 0.003). NE-ToF did not fail to show any aneurysm remnants but were more difficult to depict in 35% of the cases (p = 0.09). Regarding the aneurysms that were coiled with stent assistance, there was no significant difference in terms of the visualization (p = 0.1)."

According to the news editors, the research concluded: "Gd-ToF angiography is in general not superior to NE-ToF for the follow-up of coil-embolized aneurysms."


Our news journalists report that additional information may be obtained by contacting A. Mohr, Georg August Univ Gottingen, University Medical Center, Dept. of Neuroradiol, D-37075 Gottingen, Germany. Additional authors for this research include V. Malinova, K. Kallenberg, M. Knauth and A. Mohr.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0036-1582014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gottingen, Germany, Europe, Cardiovascular Diseases and Conditions, Lanthanoid Series Elements, Embolization, Cardiology, Angiography, Gadolinium, Angiology, Aneurysm, Georg-August-University.
Reports Summarize Angiotensin II Inhibitors Study Results from Federal University (Olmesartan Prevented Intra-articular Inflammation Induced by Zymosan in Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Angiotensin II Inhibitors have been published. According to news reporting from Natal, Brazil, by NewsRx journalists, research stated, "The objective of this study was to study the effect of olmesartan medoxomil (OLM), an antihypertensive drug, on intra-articular inflammation induced by zymosan (Zy) in Wistar rats. Intra-articular inflammation was induced in the right knees of rats by 1 mg Zy dissolved in saline."

The news correspondents obtained a quote from the research from Federal University, "The animals were divided into the following groups: saline only (oral saline and intra-articular saline); Zy only (intra-articular Zy and oral saline), and intra-articular Zy and oral OLM (5, 15, or 30 mg/kg) or diclofenac sodium (SD; 100mg/kg). Twenty-four hours after Zy injection, synovial fluid was collected for total leukocyte counts, blood was collected for biochemical measurements, and synovial tissue was collected for histopathology, immunohistochemistry, immunofluorescence and myeloperoxidase (MPO), malonaldehyde (MDA), and non-protein sulphhydryl (NPSH) assays. OLM doses of 15 and 30 mg/kg had protective effects, as evidenced by improved histopathological parameters of synovium, reduced total leukocyte counts, reduced MPO and MDA levels, and increased NPSH group levels compared with the Zy group. OLM reduced immunostaining for cyclooxygenase 2, tumour necrosis factor and interleukin 17 and increased immunostaining for superoxide dismutase and glutathione peroxidase. SD produced similar results. The drugs studied caused no change in biochemical parameters of the animals."

According to the news reporters, the research concluded: "OLM showed protective effects in this model of Zy-induced intra-articular inflammation."


Our news journalists report that additional information may be obtained by contacting C. de Medeiros, Univ Fed Rio Grande do Norte, Dept. of Biophys & Pharmacol, Post Grad Program Biotechnol RENORBIOState Univ, Post Grad Program Biol SciPost Grad Program HLth, BR-59072970 Natal, RN, Brazil. Additional authors for this research include M.S.S. de Menezes, A.A. de Araujo, R.F. de Araujo and C. de Medeiros.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1248/bpb.b16-00296. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Natal, Brazil, South America, Angiotensin II Inhibitors, Cardiovascular Agents, Drugs and Therapies, Biochemicals, Biochemistry, Inflammation, Olmesartan, Chemicals, Federal University.
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**Drugs and Therapies - Antineoplastics**

**Reports Summarize Antineoplastics Study Results from Martin-Luther-University (2016 Updated MASCC/ESMO consensus recommendations: Emetic risk classification and evaluation of the emetogenicity of antineoplastic agents)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antineoplastics have been published. According to news reporting originating in Halle, Germany, by NewsRx journalists, research stated, "Employing the same framework as in previous guideline updates, antineoplastic agents were classified into four emetic risk categories. The classification of the emetogenic level of new antineoplastic agents, especially for the oral drugs, represents an increasing challenge."

The news reporters obtained a quote from the research from Martin-Luther-University, "Accurate reporting of emetogenicity of new antineoplastic agents in the absence of preventive antiemetic treatment is rarely available. A systematic search was conducted for drugs approved after 2009 until June 2015 using EMBASE and PubMed. The search term was 'drug name.' The restrictions were language (English records only), date (2009 to 2015), and level of evidence ('clinical trial'). From January 2009 to June 2015, 42 new antineoplastic agents were identified and a systematic search was conducted to identify relevant studies to help define emetic risk levels. The reported incidence of vomiting varied across studies for many agents, but there was adequate evidence to allow 41 of the 42 new antineoplastic agents to be classified according to emetogenic risk. No highly emetogenic agents were identified. Seven moderately emetogenic agents, 26 low emetogenic, agents and eight minimal emetogenic agents were identified and classified accordingly. The MASCC/ESMO update committee also recommended reclassification of the combination of an anthracycline and cyclophosphamide (AC) as highly emetogenic. Despite several limitations, we have attempted to provide a reasonable approximation of the emetic risk associated with new antineoplastic agents through a comprehensive search of the available literature."

According to the news reporters, the research concluded: "Hopefully by the next update, more precise information on emetic risk will have been collected during new agent development process."

For more information on this research see: 2016 Updated MASCC/ESMO consensus recommendations: Emetic risk classification and evaluation of the emetogenicity of antineoplastic agents. *Supportive Care in Cancer*, 2017;25(1):271-275. *Supportive Care in Cancer* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news correspondents report that additional information may be obtained by contacting K. Jordan, Martin Luther Univ Halle Wittenberg, Dept. of Hematol Oncol, D-06120 Halle, Germany. Additional authors for this research include A. Chan, R.J. Gralla, F. Jahn, B. Rapoport, D. Warr and P.J. Hesketh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3332-x. This DOI is a link to an online electronic
Reports Summarize Antiretrovirals Findings from Novartis Institutes for Biomedical Research (Assessment of pharmacokinetic drug-drug interaction between pradigastat and atazanavir or probenecid)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antiretrovirals is the subject of a report. According to news reporting out of Cambridge, Massachusetts, by NewsRx editors, research stated, "Pradigastat, a novel diacylglycerol acyltransferase-1 inhibitor, has activity in common metabolic diseases associated with abnormal accumulation of triglycerides. In vitro studies suggest that glucuronidation is the predominant metabolism pathway for elimination of pradigastat in humans and confirmed the role of uridine 5'-diphosphoglucuronosyltransferase (UGT) enzymes, UGT1A1, -1A3, and -2B7."

Financial support for this research came from Novartis Healthcare Pvt Ltd.

Our news journalists obtained a quote from the research from Novartis Institutes for Biomedical Research, "The in vitro studies using atazanavir as a selective inhibitor of UGT1A1 and -1A3 indicated that these enzymes contribute &sim;55% toward the overall glucuronidation pathway. Therefore, a clinical study was conducted to assess the potential for drug interaction between pradigastat and probenecid (purported general UGT inhibitor) or atazanavir (selective UGT1A1, -1A3 inhibitor). The study included 2 parallel cohorts, each with 3 sequential treatment periods and 22 healthy subjects per cohort. The 90%CI of the geometric mean ratios for Cmax,ss and AUCt,ss of pradigastat were within 0.80-1.25 when administered in combination with probenecid. However, the Cmax,ss and AUCt,ss of pradigastat decreased by 31% (90%CI: 0.62-0.78) and 26% (0.67-0.82), respectively, when administered in combination with atazanavir. This magnitude of decrease in pradigastat steady-state exposure is not considered clinically relevant."

According to the news editors, the research concluded: "Pradigastat was well tolerated by all subjects, either alone or in combination with atazanavir or probenecid."

For more information on this research see: Assessment of pharmacokinetic drug-drug interaction between pradigastat and atazanavir or probenecid. Journal of Clinical Pharmacology, 2015;56(3):355-64. Journal of Clinical Pharmacology can be contacted at: SAGE Publications, USA , 2455 Teller Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com; Journal of Clinical Pharmacology - jcp.sagepub.com)

Our news journalists report that additional information may be obtained by contacting A. Mendonza, Novartis Institutes for BioMedical Research, Cambridge, MA, United States. Additional authors for this research include I. Hanna, D. Meyers, P. Koo, S. Neelakantham, B. Zhu, T. Majumdar, S. Rebello, G. Sunkara and J. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcph.595. This DOI is a link to an online electronic document that is either free or for purchase.
Reports Summarize Apoptosis Study Results from Peking Union Medical College (ISG12a inhibits HCV replication and potentiates the anti-HCV activity of IFN-alpha through activation of the Jak/STAT signaling pathway independent of autophagy and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Apoptosis. According to news reporting originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "Interferon stimulated (sensitive) genes (ISGs) are the effector molecules downstream of type interferon (IFN) signaling pathways in host innate immunity. ISG12a can be induced by IFN-alpha."

Our news editors obtained a quote from the research from Peking Union Medical College, "Although ISG12a has been reported to inhibit the replication of HCV, the exact mechanism remains to be determined. In this study, we investigated the possible mechanisms of ISG12a anti-HCV property by exploring the production of type I IFN and the activation of Janus kinase signal transducer and activator of transcription (Jak/STAT) signaling pathway, apoptosis and autophagy in Huh7.5.1 cells transiently transfected with ISG12a over-expression plasmid. Interestingly, we found that ISG12a inhibited HCV replication in both Con1b replicon and the HCV JFH1-based cell culture system and potentiated the anti-HCV activity of IFN-alpha. ISG12a promoted the production of IFN alpha/beta and activated the type I IFN signaling pathway as shown by increased p-STAT1 level, higher Interferon sensitive response element (ISRE) activity and up-regulated ISG levels. However, ISG12a over-expression did not affect cell autophagy and apoptosis."

According to the news editors, the research concluded: "Data from our current study collectively indicated that ISG12a inhibited HCV replication and potentiated the anti-HCV activity of IFN-alpha possibly through induced production of type I IFNs and activation of Jak/STAT signaling pathway independent of autophagy and cell apoptosis."

For more information on this research see: ISG12a inhibits HCV replication and potentiates the anti-HCV activity of IFN-alpha through activation of the Jak/STAT signaling pathway independent of autophagy and apoptosis. *Virus Research*, 2017;227():231-239. *Virus Research* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Virus Research - www.journals.elsevier.com/virus-research/)

The news editors report that additional information may be obtained by contacting S.L. Li, Peking Union Med College, Prov Key Lab Transfus Transmitted Infect Dis Sich, Chengdu 610052, Sichuan, People's Republic of China. Additional authors for this research...

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Interferons, Cytokines, Apoptosis, Genetics, Peking Union Medical College.

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Science - Applied Sciences

Reports Summarize Applied Sciences Study Results from University of Technology (Numerical Study of Photoacoustic Pressure for Cancer Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Science - Applied Sciences is now available. According to news reporting out of Troyes, France, by NewsRx editors, research stated, "A commonly used therapy for cancer is based on the necrosis of cells induced by heating through the illumination of nanoparticles embedded in cells. Recently, the photoacoustic pressure shock induced by the illumination pulse was proved and this points to another means of cell destruction."

Our news journalists obtained a quote from the research from the University of Technology, "The purpose of this study is to propose a model of the photoacoustic pressure in cells. The numerical resolution of the problem requires the accurate computation of the electromagnetism, the temperature and the pressure around the nanostructures embedded in a cell. Here, the problem of the interaction between an electromagnetic excitation and a gold nanoparticle embedded in a cell domain is solved."

According to the news editors, the research concluded: "The variations of the thermal and photoacoustic pressures are studied in order to analyze the pressure shock wave inducing the collapse of the cell's membrane in cancer therapy."

For more information on this research see: Numerical Study of Photoacoustic Pressure for Cancer Therapy. Applied Sciences-Basel, 2016;6(11):668-676. Applied Sciences-Basel can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting T. Grosges, Univ Technol Troyes, INRA, Grp Automat Mesh Generat & Adv Methods, UTT Gamma3, F-10004 Troyes, France.

Keywords for this news article include: Troyes, France, Europe, Applied Sciences, Science, Oncology, Therapy, Cancer, University of Technology.

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Life Science Research - Applied Toxicology

Reports Summarize Applied Toxicology Findings from VIT University (Natural remedies for non-steroidal anti-inflammatory drug-induced toxicity)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Applied Toxicology. According to news reporting from Tamil Nadu, India, by NewsRx journalists, research stated, "The liver is an important organ of the body, which has a vital role in metabolic functions. The non-steroidal anti-inflammatory drug (NSAID), diclofenac causes hepato-renal toxicity and gastric ulcers."

The news correspondents obtained a quote from the research from VIT University, "NSAIDs are noted to be an agent for the toxicity of body organs. This review has elaborated various scientific perspectives of the toxicity caused by diclofenac and its mechanistic action in affecting the vital organ. This review suggests natural products are better remedies than current clinical drugs against the toxicity caused by NSAIDs. Natural products are known for their minimal side effects, low cost and availability."

According to the news reporters, the research concluded: "On the other hand, synthetic drugs pose the danger of adverse effects if used frequently or over a long period."


Our news journalists report that additional information may be obtained by contacting S.E. Prince, VIT Univ, Sch Biosci & Technol, Vellore 632014, Tamil Nadu, India.

Keywords for this news article include: Tamil Nadu, India, Asia, Applied Toxicology, Life Science Research, Article Review, VIT University.

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Cardiovascular Diseases and Conditions -...

Reports Summarize Atherosclerosis Study Results from Radboud University (Innate immune cell activation and epigenetic remodeling in symptomatic and asymptomatic atherosclerosis in humans in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting out of Nijmegen, Netherlands, by NewsRx editors, research stated, "We have recently reported that monocytes can undergo functional and transcriptional reprogramming towards a long-term pro-inflammatory phenotype after brief in vitro exposure to atherogenic stimuli such as oxidized LDL. This process is termed 'trained immunity', and is mediated by epigenetic remodeling and a metabolic switch towards increased aerobic glycolysis."

Our news journalists obtained a quote from the research from Radboud University, "We hypothesize that trained immunity contributes to atherogenesis. Therefore, we investigated the inflammatory phenotype and epigenetic remodeling of monocytes from patients with and without established atherosclerosis. Monocytes were isolated from 20 patients with severe symptomatic coronary atherosclerosis (total plaque score >4 on coronary computed tomography angiography) and 17 patients with asymptomatic carotid atherosclerosis and matched controls for both groups. Ex vivo stimulation, RNA analysis and chromatin immunoprecipitation were
performed. Monocytes from patients with symptomatic atherosclerosis have a higher production of pro-inflammatory cytokines upon LPS stimulation than healthy controls (TNF alpha 499 +/- 102 vs. 267 +/- 45 pg/ml, p = 0.01). This was associated with lower histone 3 lysine 4 trimethylation (H3K4me3) (19% vs. 33%, p = 0.002), and lower H3K27me3 (0.005% vs. 0.8%, p< 0.0001) on the TNF alpha promoter. Furthermore, relative mRNA expression of the glycolytic rate limiting enzymes hexokinase 2 and 6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 3 was higher in patients (0.7 +/- 0.2 vs. 0.3 +/- 0.1 resp. 1.7 +/- 0.2 vs. 1.0 +/- 0.1, p = 0.007 resp. 0.003) compared to control individuals. Interestingly, this pro-inflammatory phenotype was only present in patients with symptomatic atherosclerosis, and not in patients with asymptomatic carotid atherosclerosis."

According to the news editors, the research concluded: "Circulating monocytes of patients with symptomatic, but not asymptomatic, atherosclerosis have a pro-inflammatory phenotype and increased expression of glycolytic enzymes, associated with epigenetic remodeling at the level of histone methylation."

For more information on this research see: Innate immune cell activation and epigenetic remodeling in symptomatic and asymptomatic atherosclerosis in humans in vivo. Atherosclerosis, 2016;254():228-236. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting N.P. Riksen, Radboud University, Medical Center, Dept. of Internal Med, NL-6500 HB Nijmegen, Netherlands. Additional authors for this research include I. van den Munckhof, T. Nielen, E. Lamfers, C. Dinarello, J. Rutten, J. de Graaf, L.A.B. Joosten, M.G. Netea, M.E.R. Gomes and N.P. Riksen.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Cardiovascular Diseases and Conditions, Mononuclear Phagocyte System, Arterial Occlusive Diseases, Hemic and Immune Systems, Mononuclear Leukocytes, Bone Marrow Cells, Arteriosclerosis, Atherosclerosis, Cell Research, Blood Cells, Immunology, Phagocytes, Angiology, Monocytes, Genetics, Radboud University.

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Heart Disorders and Diseases - Atrial Fibrillation

Reports Summarize Atrial Fibrillation Study Results from Grigore T. Popa University of Medicine and Pharmacy (The Interplay between Cardiomyocytes and Non-cardiomyocytes in Postoperative Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting out of Iasi, Romania, by NewsRx editors, research stated, "Postoperative atrial fibrillation is a common complication after cardiac surgery, and changes in atrial structure may be the substrate for atrial fibrillation. In this study, including 10 coronary patients admitted at the Cardiovascular Disease Institute in 2012, we attempted to identify histopathological and immunohistological changes in right atrial tissue that might explain the development of postoperative atrial fibrillation."
Our news journalists obtained a quote from the research from the Grigore T. Popa University of Medicine and Pharmacy, "Atrial tissue samples from patients in the atrial fibrillation group were compared with samples from patients who remained in postoperative sinus rhythm. Lesions identification requires microscopic examination using special histological techniques and immunohistochemistry. Atrial tissue from 10 patients who underwent elective coronary artery bypass grafting was sampled. Histological and immunohistochemical methods were used for revealing atrial lesions. Five patients developed postoperative atrial fibrillation. Both groups of patients developed degenerative and adaptive lesions, but in different degrees, values recorded in postoperative atrial fibrillation being much higher than in postoperative sinus rhythm. Abnormalities in atrial biopsies can indicate the morphological substrate for postoperative atrial fibrillation development."

According to the news editors, the research concluded: "The same lesions, with various degrees of intensity, make the difference between the severely ischemic myocardium in postoperative atrial fibrillation hearts compared to mild ischemia in postoperative sinus rhythm hearts."

For more information on this research see: The Interplay between Cardiomyocytes and Non-cardiomyocytes in Postoperative Atrial Fibrillation. Revista De Chimie, 2016;67 (10):2012-2014. Revista De Chimie can be contacted at: Chiminform Data S A, Calea Plevnei Nr 139, Sector 6, Bucharest R-77131, Romania.

Our news journalists report that additional information may be obtained by contacting C.E. Lupusoru, Gr T Popa Univ Med & Pharm, Fac Med, Dept. of Morphofunct Sci, Iasi 700115, Romania. Additional authors for this research include C.E. Lupusoru, D. Baran, C. Cimpeanu, I. Jelihovschi, R.G. Ursu, R.E. Haliga and R.V. Lupusoru.

Keywords for this news article include: Iasi, Romania, Europe, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Cardiomyocyte, Heart Disease, Cardiology, Grigore T. Popa University of Medicine and Pharmacy.

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Heart Disorders and Diseases - Atrial Fibrillation

Reports Summarize Atrial Fibrillation Study Results from Wenzhou Medical University (Resolution of massive left atrial appendage thrombi with rivaroxaban before balloon mitral commissurotomy in severe mitral stenosis A case report and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting out of Zhejiang, People's Republic of China, by NewsRx editors, research stated, "Data on nonvitamin K antagonist oral anticoagulant being used for the treatment of LAA thrombi are limited only in nonvalvular atrial fibrillation. There are no data on the antithrombotic efficacy and safety of nonvitamin K antagonist oral anticoagulant in the resolution of left atrial appendage (LAA) thrombi in patients with rheumatic mitral stenosis."

Our news journalists obtained a quote from the research from Wenzhou Medical University, "Patient concerns: A 49-year-old woman with known rheumatic mitral stenosis and atrial fibrillation was referred for percutaneous transvenous mitral commissurotomy because of..."
progressive dyspnea on exertion over a period of 3 months. Diagnoses: Transesophageal echocardiography (TEE) demonstrated a large LAA thrombus protruding into left atria cavity before the procedure. Direct factor Xa (FXa) inhibitor rivaroxaban (20 mg/d) was started for the patient. After 3 weeks of rivaroxaban treatment TEE showed a relevantly decreased thrombus size, and a complete thrombus resolution was achieved after 5 weeks of anticoagulant therapy with the FXa inhibitor. To the best of our knowledge, this is the first documented case of large LAA thrombus resolution with nonvitamin K antagonist oral anticoagulant in severe mitral stenosis, and in which percutaneous transvenous mitral commissurotomy was performed subsequently. Lessons: The report indicated that rivaroxaban could be a therapeutic option for mitral stenosis patients with LAA thrombus."

According to the news editors, the research concluded: "Further study is required before the routine use of rivaroxaban in patients with rheumatic mitral stenosis and atrial fibrillation."

For more information on this research see: Resolution of massive left atrial appendage thrombi with rivaroxaban before balloon mitral commissurotomy in severe mitral stenosis A case report and literature review. Medicine, 2016;95(49):468-471. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting C. Peng, Wenzhou Med Univ, Dept. of Cardiol, Affiliated Hosp 2, Wenzhou, Zhejiang, People's Republic of China. Additional authors for this research include J.F. Lin and C. Peng.

Keywords for this news article include: Zhejiang, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Stenosis, Article Review, Mitral Commissurotomy, Drugs and Therapies, Atrial Fibrillation, Cardiac Arrhythmias, Hematologic Agents, Anticoagulants, Heart Disease, Thrombosis, Angiology, Surgery, Wenzhou Medical University.

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**Reports Summarize Basilar Aneurysm Study Results from Strasbourg University Hospital (Spontaneous thrombosis of a basilar tip aneurysm after ventriculoperitoneal shunting)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Diseases and Conditions - Basilar Aneurysm. According to news reporting originating in Strasbourg, France, by NewsRx journalists, research stated, "We present a case of a large unruptured basilar tip aneurysm with concomitant hydrocephalus."

The news reporters obtained a quote from the research from Strasbourg University Hospital, "Complete thrombosis of the aneurysm was observed after ventriculoperitoneal shunting. Analyzing preoperative and postoperative MRI and DSA images, we identified reduced intracranial pressure and widening of the aneurysm-artery inclination angle as possible factors influencing spontaneous thrombosis."
According to the news reporters, the research concluded: "To the best of our knowledge, this is the first report of aneurysm thrombosis occurring after CSF diversion."


Our news correspondents report that additional information may be obtained by contacting R. Pop, Strasbourg Univ Hosp, Dept. of Intervent Neuroradiol, Strasbourg, France. Additional authors for this research include S. Chibarro, M. Manisor, F. Proust and R. Beaujeux.

Keywords for this news article include: Strasbourg, France, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Basilar Tip Aneurysm, Basilar Aneurysm, Hematology, Neurology, Strasbourg University Hospital.

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**Drugs and Therapies - Beta-Adrenergic Blocking…**

**Reports Summarize Beta-Adrenergic Blocking Agents Findings from Dalian University (Carvedilol suppresses cartilage matrix destruction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Beta-Adrenergic Blocking Agents have been presented. According to news originating from Liaoning, People's Republic of China, by NewsRx correspondents, research stated, "Collagen type II (col II) and aggrecan, the main components of the extracellular matrix (ECM) in human joint cartilage, have been reported to be reduced by chronic production of inflammatory cytokine interleukin (IL)-beta in arthritic joints. Carvedilol, a licensed medicine, has been used for treatment of hypertension, congestive heart failure and coronary disease in clinics."

Our news journalists obtained a quote from the research from Dalian University, "In this study, we investigated the effects of Carvedilol on the expression of col II and aggrecan. Our results demonstrate that treatment with Carvedilol didn't change the expression of aggrecan or col II at mRNA levels in SW1353 chondrocytes. However, the expression of aggrecan and Col II at protein levels were significantly reduced by IL-beta treatment, which were reversed by Carvedilol in a dose dependent manner, suggesting the inhibitory effects of Carvedilol on the expression of aggrecan and Col II are at post-translational modification levels. In addition, it was shown that IL-beta treatment highly induced MMP-1 and MMP-13 expression in SW1353 chondrocytes at both gene and protein expression levels, which were restored by Carvedilol in a dose dependent manner. Mechanistically, exposure to IL-beta increased phosphorylation of IKK-alpha/beta and degradation of IKB-a in SW1353 chondrocytes, which were suppressed by pretreatment with Carvedilol. Administration of Carvedilol inhibited IL-beta-induced translocation of NF-KB p65 from cytosol to nucleus manner. Notably, a luciferase reporter assay showed that IL-beta severely increased NE KB luciferase activity, which was markedly suppressed by Carvedilol treatment."

According to the news editors, the research concluded: "Our results suggest that Carvedilol might be a potential therapeutic agent for chondro-protective therapy."
For more information on this research see: Carvedilol suppresses cartilage matrix destruction. *Biochemical and Biophysical Research Communications*, 2016;480(3):309-313. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news correspondents report that additional information may be obtained from D.W. Zhao, Dalian Univ, Affiliated Zhongshan Hosp, Dept. of Orthopaed, Dalian 116001, Liaoning, People's Republic of China. Additional authors for this research include B.Y. Liu, B.J. Wang, Y.P. Liu, Y. Zhang, F.D. Tian, B.R. Li and D.W. Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Liaoning, People's Republic of China, Asia, Beta-Adrenergic Blocking Agents, Extracellular Matrix Proteins, Proteochondroitin Sulfates, Enzymes and Coenzymes, Cardiovascular Agents, Drugs and Therapies, Carvedilol Therapy, Pharmaceuticals, C-Type Lectins, Glycoproteins, Luciferases, Aggrecans, Genetics, Dalian University.

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**Life Science Research - Biological Macromolecules**

**Reports Summarize Biological Macromolecules Findings from School of Chemistry and Chemical Engineering (Response surface methodology for the synthesis of an Auricularia auriculajudae polysaccharides-CDDP complex)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Biological Macromolecules have been published. According to news originating from Harbin, People's Republic of China, by NewsRx correspondents, research stated, "A self-assembly method was used to synthesize the Auricularia auriculajudae polysaccharides (AAPs)cisplatin (cis-dichlorodiammine platinum (II), CDDP) complexes. Response surface methodology (RSM) was used to optimize the synthesis conditions."

Our news journalists obtained a quote from the research from the School of Chemistry and Chemical Engineering, "The effects of four independent factors: pH (X-1: 1-9), time (X-2: 0.5-3 h), temperature (X-3: 20-70 degrees C), and amount of CDDP (X-4: 2-22 mg) on the platinum content in AAPs-CDDP complexes were evaluated. The RSM results showed that the optimal synthesis conditions were: X-1: 7.7, X-2: 1.83 h, X-3: 56.93 degrees C, and X-4: 6.02 mg. Verification tests showed no significant differences between the practical and the predictive values for each response. Under the optimal conditions, platinum content was 47.0 mg/g, without significant differences with the predicted value (47.1 mg/g). The FT-IR analysis and H-1 NMR spectra of AAPs-CDDP complexes showed that the AAPs combined with CDDP using the hydroxyl group on the polysaccharide's chains. In addition, the microphotograph of the AAPs and AAPs-CDDP complexes suggested that an AAPs-CDDP complex was formed."

According to the news editors, the research concluded: "The MTT assay in vitro
indicated that AAPs-CDDP complexes exhibited significant anti-tumor activity against Hela and LoVo cells."


The news correspondents report that additional information may be obtained from Z.Y. Wang, Harbin Inst Technol, Sch Chem & Chem Engn, Dept. of Food Sci, Harbin, People's Republic of China. Additional authors for this research include H. Zhang, Z.Y. Wang, S.M. Liu and J.M. Regenstein.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.06.066. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Harbin, People's Republic of China, Asia, Biological Macromolecules, Life Science Research, School of Chemistry and Chemical Engineering.

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**Blood Pressure**

**Reports Summarize Blood Pressure Study Results from University College (Blood Pressure and the Capacity-Load Model in 8-Year-Old Children from Nepal: Testing the Contributions of Kidney Size and Intergenerational Effects)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Blood Pressure have been presented. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Growth patterns in early life are increasingly linked with subsequent cardio-metabolic risk, but the underlying mechanisms require elucidation. We have developed a theoretical model of blood pressure, treating it as a function of homeostatic metabolic capacity, and antagonistic metabolic load."

Our news editors obtained a quote from the research from University College, "We sought to differentiate prenatal and postnatal components of metabolic capacity, and to identify intergenerational contributions to offspring capacity and load. We followed up at 8 years a cohort of children originally recruited into a randomized trial of maternal micronutrient supplementation in pregnancy. Maternal anthropometry was measured at recruitment. Offspring anthropometry was measured at birth, 2 years and 8 years. Offspring blood pressure, kidney size, and body composition were measured at 8 years. Regression analysis was used to investigate potential associations of maternal phenotype, birth phenotype, and current body composition with kidney size and blood pressure. Blood pressure was positively associated with body fat, but negatively associated with birth weight and relative leg length. Kidney size was positively associated with birth weight but not with relative leg length. Adjusting for adiposity, blood
pressure was independently negatively associated with birth weight, relative leg length, and kidney length. Maternal height and BMI predicted offspring size at birth and at 8 years, but not blood pressure. Our data provide support for the capacity-load model of blood pressure in Nepalese children. Fetal and postnatal growth and kidney dimensions all contribute to metabolic capacity."

According to the news editors, the research concluded: "Maternal phenotype contributed to offspring capacity and load, but these associations did not propagate to blood pressure."


The news editors report that additional information may be obtained by contacting J.C.K. Wells, UCL Inst Child Hlth, Childhood Nutr Res Center, London, United Kingdom. Additional authors for this research include D. Devakumar, C.S. Grijalva-Eternod, D.S. Manandhar, A. Costello and D. Osrin.

Keywords for this news article include: London, United Kingdom, Europe, Blood Pressure, Risk and Prevention, Hemodynamics, University College.

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**Musculoskeletal Diseases and Conditions - Bone…**

**Reports Summarize Bone Resorption Study Results from Nagasaki University (Glucocorticoid Signaling and Bone Biology)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Musculoskeletal Diseases and Conditions - Bone Resorption is the subject of a report. According to news reporting from Nagasaki, Japan, by NewsRx editors, the research stated, "Since glucocorticoids remain an effective therapeutic option for the treatment of many inflammatory and autoimmune diseases, glucocorticoid-induced osteoporosis is the most common form of secondary osteoporosis. Fractures may occur in as many as 30-50 % of patients receiving chronic glucocorticoid therapy."

The news correspondents obtained a quote from the research from Nagasaki University, "Under physiological conditions, glucocorticoids are required for normal bone development due to their regulation of osteoblast differentiation, possibly via the Wnt/beta-catenin pathway and TSC22D3. However, serum levels of endogenous corticosterone are elevated in aged mice and glucocorticoids exert negative effects on the survival of osteoblasts and osteocytes as well as angiogenesis. Glucocorticoid treatments impair bone formation and enhance bone resorption. Excess glucocorticoids induce osteoblast and osteocyte apoptosis by increasing pro-apoptotic molecules, reactive oxygen species, and endoplasmic reticulum stress and suppressing the Wnt/beta-catenin path-way. Autophagy protects osteocytes from glucocorticoid-induced apoptosis, but passed some threshold, the process of autophagy leads the cells to apoptosis. Excess glucocorticoids impair osteoblastogenesis by inducing Wnt antagonists, including Dkk1, Sost, and sFRP-1. However, the findings are controversial and the involvement of Wnt antagonists requires further study. Excess glucocorticoids reduce the
phosphorylation of Akt and GSK3 beta, which enhances the degradation of beta-catenin. Excess glucocorticoids have been shown to modulate the expression of miRNAs, including miR-29a, miR-34a-5p, and miR-199a-5p, which regulate the proliferation and differentiation of osteoblast lineage cells.

According to the news reporters, the research concluded: "Excess glucocorticoids also enhance bone resorption by reducing OPG expression, increasing Rankl expression and reactive oxygen species, and prolonging the life span of osteoclasts; however, they also suppress the bone-degrading capacity of osteoclasts by disturbing the organization of the cytoskeleton."

For more information on this research see: Glucocorticoid Signaling and Bone Biology. Hormone and Metabolic Research, 2016;48(11):755-763. Hormone and Metabolic Research can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

Our news journalists report that additional information may be obtained by contacting T. Komori, Nagasaki University, Dept. of Cell Biol, Unit Basic Med Sci, Grad Sch Biomed Sci, Nagasaki 8528588, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0042-110571. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nagasaki, Japan, Asia, Musculoskeletal Diseases and Conditions, Metabolic Bone Diseases and Conditions, Osteocytes, Article Review, Armadillo Domain Proteins, Connective Tissue Cells, Adrenal Cortex Hormones, Transcription Factors, Drugs and Therapies, Glucocorticoids, Bone Resorption, Bone Research, beta Catenin, Osteoporosis, Osteoblasts, Apoptosis, Catenins, Nagasaki University.

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Brachytherapy

Reports Summarize Brachytherapy Study Results from Taussig Cancer Institute (Outcomes for prostate glands > 60 cc treated with low-dose-rate brachytherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Brachytherapy have been presented. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "We sought to analyze whether outcomes of biochemical relapse free survival (bRFS), late genitourinary (GU), and late gastrointestinal toxicity are different for prostate cancer patients with small (<= 60 cc) vs. large (>60 cc) prostates following low dose-rate brachytherapy. The bRFS outcomes for 2076 low- or intermediate-risk prostate cancer patients from 1996 to 2012 were determined from a review of a prospectively maintained database."

The news reporters obtained a quote from the research from Taussig Cancer Institute, "All patients were treated with I-125 monotherapy without androgen deprivation therapy. Biochemical failure was defined per the Phoenix definition. related factors and dosimetric values were examined in Cox regression analyses for bRFS and late toxicity. Late toxicity was scored according to a modified Common Terminology Criteria for Adverse Events version 4.0 scale. The median followup for all patients was 55 months. The 5-year bRFS rates for all
patients, prostates >60 cc, and prostates cc were 93.4% (95% confidence interval [CI]: 92.1%, 94.7%), 96.7% (95% CI: 94.4%, 98.9%), and 92.9% (95% CI: 91.4%, 94.3%), respectively. On multivariable analysis, prostate size >60 cc was significantly associated with improved bRFS (p = 0.01), as were initial prostate-specific antigen and biopsy Gleason score (p < 0.0001 and p = 0.0002, respectively). Patients with prostates >60 cc had significantly higher rates of Grade 3-4 late GU toxicity at 5 years than patients with smaller prostates; 7.2% (95% CI: 4.0%, 10.4%) and 3.2% (95% CI: 2.3%, 4.1%), respectively (p = 0.0007). The overall late gastrointestinal toxicity rate for all patients was 0.7% at 5 years with no significant difference between the two groups."

According to the news reporters, the research concluded: "Implantation of large prostates >60 cc results in favorable bRFS outcomes and is associated with increased but acceptable rates of Grade 3 and higher late GU toxicities."


Our news correspondents report that additional information may be obtained by contacting R.D. Tendulkar, Cleveland Clinic, Taussig Canc Inst, Dept. of Radiat Oncol, Cleveland, OH 44106, United States. Additional authors for this research include J.A. Kittel, C.A. Reddy, J.P. Ciezki, E.A. Klein, K.L. Stephans and R.D. Tendulkar.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Drugs and Therapies, Gastroenterology, Brachytherapy, Biochemicals, Biochemistry, Radiotherapy, Chemicals, Therapy, Taussig Cancer Institute.

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**Oncology - Breast Cancer**

**Reports Summarize Breast Cancer Findings from Northwestern University (Cytologic atypia in the contralateral unaffected breast is related to parity and estrogen-related genes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "The contralateral unaffected breast (CUB) of women with unilateral breast cancer provides a model for the study of breast tissue-based risk factors. Using random fine needle aspiration (rFNA), we have investigated hormonal and gene expression patterns related to atypia in the CUBs of newly diagnosed breast cancer patients."

Financial support for this research came from Lynn Sage Cancer Research Foundation.

Our news journalists obtained a quote from the research from Northwestern University, "83 women underwent rFNA of the CUB. Cytologic analysis was performed using the Masood Score (MS), atypia was defined as MS > 14. RNA was extracted using 80% of the sample. The expression of 20 hormone related genes was quantified using Taqman Low Density Arrays. Statistical analysis was performed using 2-tailed t tests and linear regression."
Cytological atypia was more frequent in multiparous women (P = 0.0392), and was not associated with any tumor-related features in the affected breast. Masood Score was higher with shorter interval since last pregnancy (R = 0.204, P = 0.0417), higher number of births (R = 0.369, P = 0.0006), and estrogen receptor (ER) negativity of the index cancer (R = -0.203, P = 0.065). Individual cytologic features were associated with aspects of parity. Specifically, anisonucleosis was correlated with shorter interval since last pregnancy (R = 0.318, P = 0.0201), higher number of births (R = 0.382, P = 0.0004), and ER status (R = -0.314, P = 0.0038). Eight estrogen-regulated genes were increased in atypical samples (P < 0.005), including TFF1, AGT, PDZK1, PGR, GREB1, PRLR, CAMK2B, and CCND1. Cytologic atypia, and particularly anisonucleosis, is associated with recent and multiple births and ER negative status of the index tumor.

According to the news editors, the research concluded: "Atypical samples showed increased expression of estrogen-related genes, consistent with the role of estrogen exposure in breast cancer development."


Our news journalists report that additional information may be obtained by contacting S.A. Khan, Northwestern University, Feinberg Sch Med, Robert H Lurie Comprehens Canc Center, Chicago, IL 60611, United States. Additional authors for this research include J. Wang, O. Lee, E. Revesz, N. Taft, D. Ivancic, N.M. Hansen, K.P. Bethke, C. Zalles and S.A. Khan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.suronc.2015.12.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Cancer, Risk and Prevention, Genetics, Women's Health, Endocrinology, Breast Cancer, Estrogens, Oncology, Hormones, Northwestern University.

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TNBC controls (with 'zero' disease-free interval and overall survival). This original observation suggests, for the first time, that both the cFOS and TGF-beta 1 may be considered as a pair of biomarkers for an early assessment of poor prognosis for TNBC patients."

According to the news editors, the research concluded: "The possible clinical implication of this observation is discussed."


Our news journalists report that additional information may be obtained by contacting V. Ivanovic, University of Belgrade, Inst Nucl Sci Vinca, Dept. of Radiobiol & Mol Genet, Belgrade, Serbia. Additional authors for this research include N. Dedovic-Tanic, Z. Milovanovic, S. Lukic, S. Nikolic, V. Baltic, B. Stojiljkovic, M. Demajo, V. Mandusic and B. Dimitrijevic.

Keywords for this news article include: Belgrade, Serbia, Europe, Women's Health, Breast Cancer, Oncology, University of Belgrade.

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**Cachexia**

**Reports Summarize Cachexia Study Results from University of Ottawa (CCAAT/enhancer binding protein beta protects muscle satellite cells from apoptosis after injury and in cancer cachexia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cachexia. According to news reporting originating in Ottawa, Canada, by NewsRx journalists, research stated, "CCAAT/enhancer binding protein beta (C/EBPb), a transcription factor expressed in muscle satellite cells (SCs), inhibits the myogenic program and is downregulated early in differentiation. In a conditional null model in which C/EBPb expression is knocked down in paired box protein 7+ (Pax7+) SCs, cardiotoxin (CTX) injury is poorly repaired, although muscle regeneration is efficient in control littermates."

The news reporters obtained a quote from the research from the University of Ottawa, "While myoblasts lacking C/EBPb can differentiate efficiently in culture, after CTX injury poor regeneration was attributed to a smaller than normal Pax7+ population, which was not due to a failure of SCs to proliferate. Rather, the percentage of apoptotic SCs was increased in muscle lacking C/EBPb. Given that an injury induced by BaCl2 is repaired with greater efficiency than controls in the absence of C/EBPb, we investigated the inflammatory response following BaCl2 and CTX injury and found that the levels of interleukin-1b (IL-1b), a proinflammatory cytokine, were robustly elevated following CTX injury and could induce C/EBPb expression in myoblasts. High levels of C/EBPb expression in myoblasts correlated with resistance to apoptotic stimuli, while its loss increased sensitivity to thapsigargin-induced cell death. Using cancer cachexia as a model for chronic inflammation, we found that C/EBPb expression was increased in SCs and myoblasts of tumor-bearing cachectic animals. Further, in cachectic conditional knockout animals lacking C/EBPb in Pax7+ cells, the SC compartment was reduced because of increased apoptosis, and regeneration was impaired."
According to the news reporters, the research concluded: "Our findings indicate that the stimulation of C/EBPβ expression by IL-1β following muscle injury and in cancer cachexia acts to promote SC survival, and is therefore a protective mechanism for SCs and myoblasts in the face of inflammation."

For more information on this research see: CCAAT/enhancer binding protein beta protects muscle satellite cells from apoptosis after injury and in cancer cachexia. *Cell Death & Disease*, 2016;7():e2109. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

Our news correspondents report that additional information may be obtained by contacting F. Marchildon, Graduate Program in Cellular and Molecular Medicine, Faculty of Medicine, University of Ottawa, Ottawa, Ontario, Canada. Additional authors for this research include D. Fu, N. Lala-Tabbert and N. Wiper-Bergeron.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2016.4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ottawa, Canada, Cancer, Ontario, Cachexia, Genetics, Oncology, Apoptosis, Inflammation, Nuclear Proteins, DNA Binding Proteins, North and Central America, CCAAT Enhancer Binding Protein beta, Basic Leucine Zipper Transcription Factors.

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**Oncology - Cancer Epidemiology**

**Reports Summarize Cancer Epidemiology Findings from International Agency for Research on Cancer (Cancer patterns and trends in Central and South America)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Cancer Epidemiology are presented in a new report. According to news originating from Lyon, France, by NewsRx correspondents, research stated, "Rationale and objective: Cancer burden is increasing in Central and South America (CSA). We describe the current burden of cancer in CSA."

Our news journalists obtained a quote from the research from International Agency for Research on Cancer, "We obtained regional and national-level cancer incidence data from 48 population-based registries (13 countries) and nation-wide cancer mortality data from the WHO (18 countries). We estimated world population age-standardized incidence and mortality rates per 100,000 person-years. The leading cancers diagnosed were prostate, lung, breast, cervix, colorectal, and stomach, which were also the primary causes of cancer mortality. Countries of high/very high human development index (HDI) in the region experienced a high burden of prostate and breast cancer while medium HDI countries had a high burden of stomach and cervical cancers. Between countries, incidence and mortality from all cancers combined varied by 2-3-fold. French Guyana, Brazil, Uruguay, and Argentina had the highest incidence of all cancers while Uruguay, Cuba, Argentina, and Chile had the highest mortality. Incidence of colorectum, prostate and thyroid cancers increased in Argentina, Brazil, Chile and Costa Rica from 1997 to 2008, while lung, stomach and cervical cancers decreased. CSA carries a double-burden of cancer, with elevated rates of infection- and lifestyle-related cancers. Encountered
variation in cancer rates between countries may reflect differences in registration practices, healthcare access, and public awareness. Resource-dependent interventions to prevent, early diagnose, and treat cancer remain an urgent priority."

According to the news editors, the research concluded: "There is an overwhelming need to improve the quality and coverage of cancer registration to guide and evaluate future cancer control policies and programs."

For more information on this research see: Cancer patterns and trends in Central and South America. *Cancer Epidemiology*, 2016;44():S23-S42. *Cancer Epidemiology* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news correspondents report that additional information may be obtained from M.S. Sierra, Int Agcy Res Canc, Sect Canc Surveillance, Lyon, France. Additional authors for this research include I. Soerjomataram, S. Antoni, M. Laversanne, M. Pineros, E. de Vries and D. Forman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.07.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Cancer Epidemiology, Cancer, Diagnostics and Screening, Epidemiology, Oncology, International Agency for Research on Cancer.

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**Cardiology**

**Reports Summarize Cardiology Study Results from Mayo Clinic**

(Synchronous ventricular pacing with direct capture of the atrioventricular conduction system: Functional anatomy, terminology, and challenges)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting originating in Rochester, Minnesota, by NewsRx journalists, research stated, "Right ventricular apical pacing is associated with an increased incidence of heart failure, atrial fibrillation, and overall mortality. As a result, pacing the ventricles in a manner that closely mimics normal AV conduction with an intact His-Purkinje system has been explored."

The news reporters obtained a quote from the research from Mayo Clinic, "Recently, the sustainable benefits of selective His-bundle stimulation have been demonstrated and proposed as the preferred method of ventricular stimulation for appropriate patients. Ideally, conduction system pacing should be selective without myocardial capture, overcome distal bundle branch block when present, and not compromise tricuspid valve function. Contemporary literature on conduction system pacing is confusing largely because of inconsistent terminology and, at times, anatomically inaccurate terms used interchangeably for nonsynonymous anatomic sites. In this review, we discuss the functional anatomy of AV conduction access with specific emphasis on terminology, relationship to the membranous septum, tricuspid valve tissue, and proximity to atrial or ventricular myocardium."
According to the news reporters, the research concluded: "The potential benefits of each specific site as well as associated unique difficulties with those sites are described."


Our news correspondents report that additional information may be obtained by contacting S.J. Asirvatham, Mayo Clinic, Dept. of Pediat & Adolescent Med, Rochester, MN, United States. Additional authors for this research include Y.M. Cha and S.J. Asirvatham.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.08.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cardiology, Article Review, Mayo Clinic.

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**Cardiovascular Diseases and Conditions - Cavernous…**

**Reports Summarize Cavernous Hemangioma Findings from Istanbul University (Diffuse Cavernous Hemangioma of the Colon)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Cavernous Hemangioma is now available. According to news reporting originating in Istanbul, Turkey, by NewsRx journalists, research stated, "A 70-year-old man was admitted to our clinic with a history of rectal bleeding and constipation, his colonoscopy revealed varicosities and bluish nodular lesions of the rectum (Figure 1). Abdominal CT showed multiple nodular lesions beginning from the distal descending colon and extending to the rectum, calcifications suggesting phleboliths were also seen in these lesions."

The news reporters obtained a quote from the research from Istanbul University, "A contrast enhanced pelvic MRI demonstrated multiple tubular lesions showing hyperintensity on T2-weighted images and hypointensity on T1-weighted images, consistent with the affected areas on the CT scan (Figure 2). It was a diffuse cavernous hemangioma, which mostly affects the rectosigmoid colon in the gastrointestinal tract, and can clinically mimic internal hemorrhoids, ulcerative colitis or cancer (1). Gastrointestinal hemangioma is a rare benign vascular neoplasm, and might be associated with a congenital disorder like Osler-Weber-Rendu disease, Maffucci's syndrome, Klippel-Trenaunay syndrome, or the congenital blue rubber bleb nevus syndrome (2). Even though there are different medical treatment options targeting VEGF and FGF-mediated pathways such as bevacizumab and thalidomide, and endoscopic approaches like sclerotherapy and electrocautery; complete resection of the hemangioma is the only curative treatment method (1, 3)."

According to the news reporters, the research concluded: "Therefore, the patient was referred to department of surgery for a definitive treatment, and lost to follow-up."

Belgica can be contacted at: Univ Catholique Louvain-Ucl, Clin Univ Saint Luc, Ave Hippocrate 10, Brussels, B-1200, Belgium.

Our news correspondents report that additional information may be obtained by contacting S. Mirioglu, Istanbul University, Istanbul Fac Med, Dept. of Internal Med, TR-34093 Istanbul, Turkey. Additional authors for this research include B. Cavus, R. Iliaz and F. Besisik.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Cardiovascular Diseases and Conditions, Cavernous Hemangioma, Gastroenterology, Ophthalmology, Dermatology, Istanbul University.

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Respiratory Tract Diseases and Conditions - Central...

Reports Summarize Central Sleep Apnea Study Results from University Health Network (Sleep Apnea and Left Atrial Phasic Function in Heart Failure With Reduced Ejection Fraction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Respiratory Tract Diseases and Conditions - Central Sleep Apnea. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "The study aim was to determine whether phasic left atrial (LA) function of patients with heart failure with reduced ejection fraction differs between those with obstructive sleep apnea (OSA) and central sleep apnea (CSA). Participation in the Adaptive Servo Ventilation for Therapy of Sleep Apnea in Heart Failure (ADVENT-HF) trial requires 2-dimensional echocardiographic documentation of left ventricular ejection fraction <= 45% and a polysomnographic apnea hypopnea index (AHI) >= 15 events per hour."

Our news journalists obtained a quote from the research from University Health Network, "Of initial enrollees, we identified 132 patients in sinus rhythm (82 with predominantly OSA and 50 with CSA). To determine LA reservoir (expansion index; EI), conduit (passive emptying index; PEI), and booster function (active emptying index), we blindly quantified maximum and minimum LA volume and LA volume before atrial contraction. Each of EI (P = 0.004), PEI (P < 0.001), and active emptying index (P = 0.045) was less in participants with CSA compared with those with OSA, whereas average left ventricular ejection fraction and LA and left ventricular volumes were similar. Multivariable analysis identified an independent relationship between central AHI and LA EI (P = 0.040) and PEI (P = 0.005). In contrast, the obstructive AHI was unrelated to any LA phasic index, and slopes relating central AHI to EI and PEI differed significantly from corresponding relationships with obstructive AHI (P = 0.018; P = 0.006). In these ADVENT-HF patients with heart failure with reduced ejection fraction, all 3 components of LA phasic function (reservoir, conduit, and contractile) were significantly reduced in those with CSA compared with participants with OSA. The severity of CSA, but not OSA associated inversely and independently with LA reservoir and conduit function."

According to the news editors, the research concluded: "Impaired LA phasic function might be consequential to or could exacerbate CSA."

For more information on this research see: Sleep Apnea and Left Atrial Phasic Function in Heart Failure With Reduced Ejection Fraction. Canadian Journal of Cardiology, 2016;32(12):1402-1410. Canadian Journal of Cardiology can be contacted at: Elsevier
Reports Summarize Chemometrics Findings from Norwegian University of Life Sciences (ROSA-a fast extension of partial least squares regression for multiblock data analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemometrics. According to news reporting from As, Norway, by NewsRx journalists, research stated, "We present the response-oriented sequential alternation (ROSA) method for multiblock data analysis. ROSA is a novel and transparent multiblock extension of the partial least squares regression (PLSR)."

The news correspondents obtained a quote from the research from the Norwegian University of Life Sciences, "According to a 'winner takes all' approach, each component of the model is calculated from the block of predictors that most reduces the current residual error. The suggested algorithm is computationally fast compared with other multiblock methods because orthogonal scores and loading weights are calculated without deflation of the predictor blocks. Therefore, it can work effectively even with a large number of blocks included. The ROSA method is invariant to block scaling and ordering."

According to the news reporters, the research concluded: "The ROSA model has the same attributes (vectors of scores, loadings, and loading weights) as PLSR and is identical to PLSR modeling for the case with only one block of predictors."


Our news journalists report that additional information may be obtained by contacting U.G. Indahl, Norwegian University of Life Science, Dept. of Math Sci & Technol, N-
Reports Summarize Chronic Disease Study Results from D. Hennessy and Co-Researchers (Out-of-pocket spending on drugs and pharmaceutical products and cost-related prescription non-adherence among Canadians with chronic disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Disease Attributes - Chronic Disease have been published. According to news reporting out of Ottawa, Canada, by NewsRx editors, research stated, "Approximately one-third of Canadians' prescription medication costs are paid directly out-of-pocket. This study attempts to determine if out-of-pocket expenditures of more than 5% of household income on drugs and pharmaceutical products are associated with cost-related prescription non-adherence among people with cardiovascular-related chronic conditions."

Our news journalists obtained a quote from the research, "The data are from the survey on Barriers to Care for People with Chronic Health Conditions. Three categories of out-of-pocket spending on drugs and pharmaceutical products as a percentage of household income were identified: 0%, more than 0% to less than 5%, and 5% or more. Log-binomial regression was used to examine associations between category of out-of-pocket spending and cost-related prescription non-adherence. In 2012, about 80% of people aged 40 or older who lived in British Columbia, Alberta, Saskatchewan or Manitoba and had cardiovascular-related chronic conditions reported out-of-pocket spending on drugs and pharmaceutical products; 4.8% reported out-of-pocket spending of at least 5% of their household income. These individuals were significantly older, more often lived in households with incomes less than $30,000, and more often reported multiple morbidities than did people whose out-of-pocket spending on drugs and pharmaceutical products was less than 5% of household income. When the results were adjusted for age and sex, people whose spending amounted to 5% or more of household income were almost three times as likely (prevalence ratio rate = 2.6) to report cost-related prescription non-adherence than were those spending less than 5%. Spending at least 5% of household income on drugs and pharmaceutical products was significantly associated with cost-related prescription non-adherence."

According to the news editors, the research concluded: "Additional data are required to determine if even lower levels of spending put individuals at risk of cost-related non-adherence."

For more information on this research see: Out-of-pocket spending on drugs and pharmaceutical products and cost-related prescription non-adherence among Canadians with chronic disease. Health Reports, 2016;27(6):3-8. Health Reports can be contacted at: Statistics Canada, 100 Tunneys Pasture Driveway, Ottawa, Ontario K1A 0T6, Canada.

Our news journalists report that additional information may be obtained by contacting D. Hennessy, STAT Canada, Hlth Anal Div, Ottawa, ON, Canada. Additional authors for this research include C. Sanmartin, P. Ronksley, R. Weaver, D. Campbell, B.
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Reports Summarize Citalopram Therapy Findings from University of Copenhagen (Structure-activity relationship studies of citalopram derivatives: examining substituents conferring selectivity for the allosteric site in the 5-HT transporter)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Citalopram Therapy have been presented. According to news reporting originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "The 5-HT transporter (SERT) is a target for antidepressant drugs. SERT possesses two binding sites: the orthosteric (S1) binding site, which is the presumed target for current SERT inhibitors, and an allosteric (S2) site for which potential therapeutic effects are unknown."

Our news editors obtained a quote from the research from the University of Copenhagen, "The antidepressant drug citalopram displays high-affinity S1 binding and low-affinity S2 binding. To elucidate a possible therapeutic role of allosteric inhibition of SERT, a drug that specifically targets the allosteric site is required. The purpose of this study was to find a compound having higher selectivity towards the S2 site. We performed a systematic structure-activity relationship study based on the scaffold of citalopram and the structurally closely related congener, talopram, which shows low-affinity S1 binding in SERT. The role of the four chemical substituents, which distinguish citalopram from talopram in conferring selectivity towards the S1 and S2 site, respectively, was assessed by determining the binding of 14 citalopram/talopram analogous to the S1 and S2 binding sites in SERT using membranes of COS7 cells transiently expressing SERT. The structure-activity relationship study revealed that dimethyl citalopram possesses the highest affinity for the allosteric site relative to the S1 site in SERT and has approximately twofold selectivity for the allosteric site relative to the S1 site in SERT."

According to the news editors, the research concluded: "The compound could be a useful lead for future synthesis of drugs with high affinity and high selectivity towards the allosteric binding site."


The news editors report that additional information may be obtained by contacting M.A. Larsen, Dept. of Neuroscience and Pharmacology, Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark. Additional authors for this
Clinical Research - Clinical Trials and Studies

Reports Summarize Clinical Trials and Studies Findings from University of Munster (Corneal Densitometry as a Novel Technique for Monitoring Amiodarone Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Clinical Research - Clinical Trials and Studies is the subject of a report. According to news reporting out of Munster, Germany, by NewsRx editors, research stated, "The clinical efficacy and toxicity of amiodarone may be determined more effectively by tissue deposition than by levels of the agent in serum. Therefore, corneal densitometry might be useful for therapeutic monitoring."

Our news journalists obtained a quote from the research from the University of Munster, "The aim of the study is to evaluate Scheimpflug corneal densitometry in patients with amiodarone keratopathy (AK). Comparative case series. Sixty-six patients receiving amiodarone therapy and 66 healthy controls were consecutively enrolled in this study. Patients were examined using the Oculus Pentacam (Wetzlar, Germany). Densitometry data from different corneal layers and different annuli were extracted, analyzed, and compared with densitometry values of healthy controls. Duration of treatment, cumulative dose, Orlando stage (slit-lamp biomicroscopy), and serum concentrations of amiodarone and N-desethylamiodarone also were determined, and the correlation to different densitometry data was evaluated. The total corneal light backscatter at total corneal thickness and at total diameter was significantly higher in the amiodarone group compared with the control group (AK group: 28.3 +/- 5.2; control group: 24.4 +/- 4.2; P< 0.001). Upon dividing the corneal surface into different layers at total thickness, the differences were significant in all layers (P < 0.001). The serum concentrations of the metabolite N-desethylamiodarone correlate with densitometry values, especially in the 0-to 2-mm annulus in the anterior layer (r = 0.419; P = 0.001), whereas the cumulative dose and duration of treatment correlate significantly with the densitometry values in the 0-to 2-mm annulus at total thickness (P = 0.014 and P = 0.022, respectively). Corneal densitometry is a useful, objective method for quantifying AK and can help in monitoring amiodarone therapy."

According to the news editors, the research concluded: "The serum concentration of the active metabolite N-desethylamiodarone correlates with the extent of keratopathy in the anterior layer, whereas chronic changes in the stroma correlate with the cumulative dose and duration of treatment."

Our news journalists report that additional information may be obtained by contacting M. Alnawaiseh, University of Munster, Medical Center, Dept. of Ophthalmol, D-48149 Munster, Germany. Additional authors for this research include L. Zumhagen, S. Zumhagen, L. Schulte, A. Rosentreter, F. Schubert, N. Eter and G. Moennig.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ophtha.2016.08.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munster, Germany, Europe, Amiodarone Therapy Hydrochloride, Clinical Trials and Studies, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Clinical Research, Pharmaceuticals, University of Munster.

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Clinical Research - Clinical Trials and Studies

Reports Summarize Clinical Trials and Studies Study Results from University Hospital (Nuclear Factor of Activated T Cells-Regulated Gene Expression as Predictive Biomarker of Personal Response to Calcineurin Inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting from Heidelberg, Germany, by NewsRx journalists, research stated, "Calcineurin inhibitors (CNIs) represent the most widely used immunosuppressive agents in kidney transplantation. Both CNIs show a narrow therapeutic window; thus, monitoring is necessary to balance efficacy and toxicity."

The news correspondents obtained a quote from the research from University Hospital, "Several approaches have been undertaken to measure the biological effects of CNI-based immunosuppression. A quantitative analysis of gene expression was established to calculate the functional effects of calcineurin inhibition, the assessment of nuclear factor of activated T cells (NFAT)-regulated gene expression. This assay is based on the quantitative analysis of interleukin-2, interferon-g, and granulocyte macrophage colony-stimulating factor gene expression in whole blood samples collected at the time cyclosporine A/tacrolimus troughs (C0) and 2 hours after oral uptake (C2). In this comprehensive review, analytical aspects of the assay and also clinical benefits and limitations are presented and discussed. Several observational studies underline the beneficial effect of NFAT-regulated gene expression as biomarker of personal response on CNI therapy, especially in infectious complications, malignancies, and acute rejection episodes. Data are more comprehensive in cyclosporine A compared with tacrolimus therapy. However, results on prospective interventional studies are sparse. A randomized controlled study evaluating the opportunity for NFAT-guided immunosuppression is ongoing. NFAT-regulated gene expression is a promising biomarker in CNI therapy concerning infectious complications, malignancies, and acute rejection."
According to the news reporters, the research concluded: "Prospective interventional studies and randomized controlled studies are ongoing to confirm the encouraging results."

For more information on this research see: Nuclear Factor of Activated T Cells-Regulated Gene Expression as Predictive Biomarker of Personal Response to Calcineurin Inhibitors. *Therapeutic Drug Monitoring*, 2016;38 Suppl 1():S50-6. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting C. Sommerer, Departments of *Nephrology and †Immunology, University Hospital Heidelberg, Im Neuenheimer Feld 305, Heidelberg, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FTD.0000000000000234. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Genetics, Esterases, Heidelberg, Hydrolases, Calcineurin, Article Review, Clinical Research, Drugs and Therapies, Enzymes and Coenzymes, Clinical Trials and Studies, Phosphoprotein Phosphatases, Intracellular Signaling Peptides and Proteins.

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**Drugs and Therapies - Clopidogrel Therapy**

**Reports Summarize Clopidogrel Therapy Study Results from Shenzhen University (Effect of Ginkgo Biloba Extract on the Pharmacokinetics and Metabolism of Clopidogrel in Rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Clopidogrel Therapy. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "Ginkgo biloba extract (GBE), a traditional herbal product used worldwide as both medicine and supplement, is often supplied with clopidogrel for the treatment of cerebrovascular diseases. The aim of the current study was to explore the effect of GBE on the metabolism and pharmacokinetics of clopidogrel."

Our news journalists obtained a quote from the research from Shenzhen University, "The in vitro study using rat liver microsomes revealed that GBE significantly induced the conversion of clopidogrel into its active metabolite. The effect of GBE on the pharmacokinetics of clopidogrel was also investigated in vivo. Compared to rats without GBE pretreatment, administration of 4 mg/kg, 20 mg/kg, and 100 mg/kg of GBE significantly decreased the C-max and the AUC(0-infinity) of clopidogrel in a dose-dependent manner. As expected, pretreatment of high dose GBE significantly increased the C-max and AUC(0-infinity) of the clopidogrel active metabolite. However, no marked change was observed following medium and low dose of GBE, suggesting that the biotransformation of clopidogrel was altered differently by high dose of GBE."

According to the news editors, the research concluded: "Our study suggested that the awareness of the potential herb-drug interactions between GBE and clopidogrel should be increased in clinical practice."

For more information on this research see: Effect of Ginkgo Biloba Extract on the

Our news journalists report that additional information may be obtained by contacting C.S. Xu, Shenzhen Univ, Sch Med, Dept. of Pharm, Shenzhen 518060, Guangdong, People's Republic of China. Additional authors for this research include Y.F. Mo, X.M. Chen, L.Z. Zhang, C.F. Liao, Y. Song and C.S. Xu.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Platelet Aggregation Inhibitors, Coagulation Modifiers, Drugs and Therapies, Antiplatelet Agents, Clopidogrel Therapy, Fibrinolytic Agents, Pharmacokinetics, Pharmaceuticals, Shenzhen University.

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**Oncology - Colon Cancer**

### Reports Summarize Colon Cancer Findings from Hospital del Mar (Acquired RAS or EGFR mutations and duration of response to EGFR blockade in colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Colon Cancer are presented in a new report. According to news reporting originating in Barcelona, Spain, by NewsRx journalists, research stated, "Blockade of the epidermal growth factor receptor (EGFR) with the monoclonal antibodies cetuximab or panitumumab is effective in a subset of colorectal cancers (CRCs), but the emergence of resistance limits the efficacy of these therapeutic agents. At relapse, the majority of patients develop RAS mutations, while a subset acquires EGFR extracellular domain (ECD) mutations."

The news reporters obtained a quote from the research from Hospital del Mar, "Here we find that patients who experience greater and longer responses to EGFR blockade preferentially develop EGFR ECD mutations, while RAS mutations emerge more frequently in patients with smaller tumour shrinkage and shorter progression-free survival. In circulating cell-free tumour DNA of patients treated with anti-EGFR antibodies, RAS mutations emerge earlier than EGFR ECD variants. Subclonal RAS but not EGFR ECD mutations are present in CRC samples obtained before exposure to EGFR blockade."

According to the news reporters, the research concluded: "These data indicate that clonal evolution of drug-resistant cells is associated with the clinical outcome of CRC patients treated with anti-EGFR antibodies."


Our news correspondents report that additional information may be obtained by contacting C. Montagut, Hosp del Mar, Canc Res Program, FIMIM, Medical Res Inst, Barcelona 08003, Spain. Additional authors for this research include S. Arena, G. Siravegna, L.
Oncology - Colon Cancer

Reports Summarize Colon Cancer Findings from Leiden University (Are disseminated tumor cells in bone marrow and tumor-stroma ratio clinically applicable for patients undergoing surgical resection of primary colorectal cancer? The Leiden MRD ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting out of Leiden, Netherlands, by NewsRx editors, research stated, "Current TNM staging does not appropriately identify high-risk colorectal cancer (CRC) patients. The aim of this study was to evaluate whether the presence of disseminated tumor cells (DTCs) in the bone marrow (BM) and the presence of stroma in the primary tumor, i.e., the tumor-stroma ratio (TSR), in patients undergoing surgical resection of primary CRC provides information relevant for disease outcome."

Financial supporters for this research include ZonMw, Sixth Framework Programme.

Our news journalists obtained a quote from the research from Leiden University, "Patients with primary CRC (n = 125), consecutively admitted for curative resection between 2001 and 2007, were included in the study. All patients underwent BM aspiration before surgery. Detection of tumor cells was performed using immunocytochemical staining for cytokeratin (CK-ICC). The TSR was determined on diagnostic H&E stained sections of primary tumors. DTCs were detected in the BM of 23/125 patients (18 %). No association was found between BM status and overall survival (HR 0.97 (95 % CI 0.45-2.09), p = 0.93). Also, no significant difference was found in their 5-year survival rate (resp. 72 % and 68 % for BM-positive versus BM-negative patients). The TSR was found to be associated with a worse overall survival (HR 2.16, 95 % CI 1.02-4.57, p = 0.04) with 5-year survival rates of 84 % versus 62 % for stroma-low and stroma-high patients, respectively. No relation was found between the presence of DTCs and TSR. Our data indicate that the presence of DTCs in the BM of CRC patients is not associated with disease outcome."

According to the news editors, the research concluded: "The TSR was, however, found to be associated with a worse overall survival, which indicates that for CRC the tumor microenvironment plays an important role in its behavior and prognosis."

For more information on this research see: Are disseminated tumor cells in bone marrow and tumor-stroma ratio clinically applicable for patients undergoing surgical resection of primary colorectal cancer? The Leiden MRD study. Cellular Oncology, 2016;39(6):537-544. Cellular Oncology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Cellular Oncology - www.springerlink.com/content/2211-3428/)

Our news journalists report that additional information may be obtained by
contacting W.E. Mesker, Leiden University, Medical Center, Dept. of Surg, NL-2333 ZA Leiden, Netherlands. Additional authors for this research include G.W. van Pelt, A.M. van Leeuwen, J.M. Willems, R. Tollenaar, G.J. Liefers and W.E. Mesker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13402-016-0296-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leiden, Netherlands, Europe, Colorectal Research, Gastroenterology, Immune System, Bone Research, Colon Cancer, Bone Marrow, Oncology, Leiden University.

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Oncology - Colon Cancer

Reports Summarize Colon Cancer Study Results from Institute for Cancer Research and Treatment (IRCCS) (MM-151 overcomes acquired resistance to cetuximab and panitumumab in colorectal cancers harboring EGFR extracellular domain mutations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting from Candiolo, Italy, by NewsRx journalists, research stated, "The anti-epidermal growth factor receptor (EGFR) antibodies cetuximab and panitumumab are used to treat RAS wild-type colorectal cancers (CRCs), but their efficacy is limited by the emergence of acquired drug resistance. After EGFR blockade, about 20% of CRCs develop mutations in the EGFR extracellular domain (ECD) that impair antibody binding and are associated with clinical relapse."

The news correspondents obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "We hypothesized that EGFR ECD-resistant variants could be targeted by the recently developed oligoclonal antibody MM-151 that binds multiple regions of the EGFR ECD. MM-151 inhibits EGFR signaling and cell growth in preclinical models, including patient-derived cells carrying mutant EGFR. Upon MM-151 treatment, EGFR ECD mutations decline in circulating cell-free tumor DNA (ctDNA) of CRC patients who previously developed resistance to EGFR blockade."

According to the news reporters, the research concluded: "These data provide molecular rationale for the clinical use of MM-151 in patients who become resistant to cetuximab or panitumumab as a result of EGFR ECD mutations."

For more information on this research see: MM-151 overcomes acquired resistance to cetuximab and panitumumab in colorectal cancers harboring EGFR extracellular domain mutations. Science Translational Medicine, 2016;8(324):324ra14.

Our news journalists report that additional information may be obtained by contacting S. Arena, Candiolo Cancer Institute-Fondazione del Piemonte per l'Oncologia (FPO), IRCCS, Candiolo, Torino 10060, Italy FIRC Institute of Molecular Oncology (IFOM), Milano 20139, Italy Dept. of Oncology, University of Torino, Candiolo, Torino 10060, Italy. Additional authors for this research include G. Siravegna, B. Mussolin, J.D. Kearns, B.B. Wolf, S. Misale, L. Lazzari, A. Bertotti, L. Trusolino, A.A. Adjei, C. Montagut, F. Di Nicolantonio, R. Nering and A. Bardelli.
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Keywords for this news article include: Antineoplastic Monoclonal Antibodies, Biotechnology, Pharmaceuticals, Italy, Europe, Candiolo, Genetics, Oncology, Cetuximab, Panitumumab, Colon Cancer, EGFR Inhibitors, Protein Kinases, Gastroenterology, Membrane Proteins, Colorectal Research, Drugs and Therapies, Phosphotransferases, Tyrosine Kinase Inhibitors.

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Reports Summarize Congenital Heart Disease Findings from Tokyo Women's Medical University (Vitamin D Kinetics and Parathyroid Gland Function in Patients with Congenital Heart Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Congenital Diseases and Conditions - Congenital Heart Disease. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "It has been recently reported that vitamin D deficiency may contribute to systemic illnesses that accompany chronic heart failure. These reports also suggest the serum levels of parathormone, which activates vitamin D in the liver, can be a useful marker of heart failure."

Our news editors obtained a quote from the research from Tokyo Women's Medical University, "This study was designed to evaluate the clinical implications of vitamin D and parathormone levels in patients with congenital heart diseases and chronic heart failure. We measured 25-hydroxyvitamin D and parathormone serum levels in 103 adult patients with congenital heart diseases (age range 20-89 years). Of 103 patients, 54 were in New York Heart Association functional classes II or III. Their clinical data regarding cardiothoracic ratio, fractional shortening of the systemic ventricle, brain natriuretic peptide plasma levels, and pulse oximetry were also evaluated. Of 54 patients with chronic heart failure, 50 (93%) exhibited vitamin D deficiency (25-hydroxyvitamin D serum levels <50 nmol/L) or elevation of parathormone (serum levels >65 pg/mL). These two parameters were inversely correlated. In multivariate analyses including age, gender, 25-hydroxyvitamin D, parathormone, pulse oximetry, cardiothoracic ratio, calcium, phosphorus, glomerular filtration rate, albumin, creatine kinase, end-diastolic diameter and fractional shortening of the systemic ventricle, and ratio of early diastolic transmitral flow velocity to mitral annular velocity, only the parathormone serum levels (P <.01) remained independently associated with brain natriuretic peptide plasma levels. Moreover, in multivariate analyses including the same variables minus parathormone serum levels, both pulse oximetry (P <.01) and glomerular filtration rate (P <.01) remained independently associated with parathormone levels. Vitamin D deficiency and secondary hyperparathyroidism are common in patients with congenital heart diseases and heart failure."

According to the news editors, the research concluded: "Serum parathormone and 25-hydroxyvitamin D levels correlated with several clinical heart failure markers, suggesting that vitamin D deficiency may deteriorate heart function in congenital heart disease patients."

For more information on this research see: Vitamin D Kinetics and Parathyroid Gland Function in Patients with Congenital Heart Disease. Congenital Heart Disease, 2016;11
Reports Summarize Coronavirus Findings from University of Tokyo (Identification of Nafamostat as a Potent Inhibitor of Middle East Respiratory Syndrome Coronavirus S Protein-Mediated Membrane Fusion Using the Split-Protein-Based Cell-Cell ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Coronavirus. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Middle East respiratory syndrome (MERS) is an emerging infectious disease associated with a relatively high mortality rate of approximately 40%. MERS is caused by MERS coronavirus (MERS-CoV) infection, and no specific drugs or vaccines are currently available to prevent MERS-CoV infection."

Financial support for this research came from Japan Agency for Medical Research and Development (AMED).

Our news editors obtained a quote from the research from the University of Tokyo, "MERS-CoV is an enveloped virus, and its envelope protein (S protein) mediates membrane fusion at the plasma membrane or endosomal membrane. Multiple proteolysis by host proteases, such as furin, transmembrane protease serine 2 (TMPRSS2), and cathepsins, causes the S protein to become fusion competent. TMPRSS2, which is localized to the plasma membrane, is a serine protease responsible for the proteolysis of S in the post-receptor-binding stage. Here, we developed a cell-based fusion assay for S in a TMPRSS2-dependent manner using cell lines expressing Renilla luciferase (RL)-based split reporter proteins. S was stably expressed in the effector cells, and the corresponding receptor for S, CD26, was stably coexpressed with TMPRSS2 in the target cells. Membrane fusion between these effector and target cells was quantitatively measured by determining the RL activity. The assay was optimized for a 384-well format, and nafamostat, a serine protease inhibitor, was identified as a potent inhibitor of S-mediated membrane fusion in a screening of about 1,000 drugs approved for use by the U.S. Food and Drug Administration. Nafamostat also blocked MERS-CoV infection in vitro."

According to the news editors, the research concluded: "Our assay has the potential
to facilitate the discovery of new inhibitors of membrane fusion of MERS-CoV as well as other viruses that rely on the activity of TMPRSS2."

For more information on this research see: Identification of Nafamostat as a Potent Inhibitor of Middle East Respiratory Syndrome Coronavirus S Protein-Mediated Membrane Fusion Using the Split-Protein-Based Cell-Cell Fusion Assay. *Antimicrobial Agents and Chemotherapy*, 2016;60(11):6532-6539. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting J. Inoue, University of Tokyo, Inst Med Sci, Div Cellular & Mol Biol, Dept. of Canc Biol, Tokyo, Japan. Additional authors for this research include S. Matsuyama, X. Li, M. Takeda, Y. Kawaguchi, J. Inoue and Z. Matsuda.

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Keywords for this news article include: Tokyo, Japan, Asia, Enzymes and Coenzymes, Neutral Amino Acids, Coronaviridae, RNA Viruses, Nidovirales, Coronavirus, Protease, Virology, Serine, Viral, University of Tokyo.

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**DNA Research**

**Reports Summarize DNA Research Findings from University of British Columbia (Dosage Mutator Genes in Saccharomyces cerevisiae: A Novel Mutator Mode-of-Action of the Mph1 DNA Helicase)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on DNA Research is the subject of a report. According to news originating from Vancouver, Canada, by NewsRx correspondents, research stated, "Mutations that cause genome instability are considered important predisposing events that contribute to initiation and progression of cancer. Genome instability arises either due to defects in genes that cause an increased mutation rate (mutator phenotype), or defects in genes that cause chromosome instability (CIN)."

Our news journalists obtained a quote from the research from the University of British Columbia, "To extend the catalog of genome instability genes, we systematically explored the effects of gene overexpression on mutation rate, using a forward-mutation screen in budding yeast. We screened similar to 5100 plasmids, each overexpressing a unique single gene, and characterized the five strongest mutators, MPH1 (mutator phenotype 1), RRM3, UBP12, PIF1, and DNA2. We show that, for MPH1, the yeast homolog of Fanconi Anemia complementation group M (FANCM), the overexpression mutator phenotype is distinct from that of mph1 Delta. Moreover, while four of our top hits encode DNA helicases, the overexpression of 48 other DNA helicases did not cause a mutator phenotype, suggesting this is not a general property of helicases. For Mph1 overexpression, helicase activity was not required for the mutator phenotype; in contrast Mph1 DEAH-box function was required for hypermutation. Mutagenesis by MPH1 overexpression was independent of translesion synthesis..."
(TLS), but was suppressed by overexpression of RAD27, a conserved flap endonuclease. We propose that binding of DNA flap structures by excess Mph1 may block Rad27 action, creating a mutator phenotype that phenocopies rad27 Delta.

According to the news editors, the research concluded: "We believe this represents a novel mutator mode-of-action and opens up new prospects to understand how upregulation of DNA repair proteins may contribute to mutagenesis."

For more information on this research see: Dosage Mutator Genes in Saccharomyces cerevisiae: A Novel Mutator Mode-of-Action of the Mph1 DNA Helicase. Genetics, 2016;204 (3):975-986,196-198. Genetics can be contacted at: Genetics Society America, 9650 Rockville Ave, Bethesda, MD 20814, USA. (Cell Press - www.cell.com; Genetics - www.cell.com/trends/genetics/home)

The news correspondents report that additional information may be obtained from P. Hieter, University of British Columbia, Michael Smith Labs, Vancouver, BC V6T 1Z4, Canada. Additional authors for this research include S. Duffy, R. Segovia, P.C. Stirling and P. Hieter.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1534/genetics.116.192211. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Mutagenesis, Genetics, Genetics, Saccharomyces cerevisiae, Enzymes and Coenzymes, Saccharomycetaceae, Saccharomycetales, Life Sciences, DNA Research, Helicase, University of British Columbia.

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**Nutritional and Metabolic Diseases and Conditions - ...**

**Reports Summarize Diabetic Foot Study Results from University of Manchester (Development of a Novel Collagen Wound Model To Simulate the Activity and Distribution of Antimicrobials in Soft Tissue during Diabetic Foot Infection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Diabetic Foot are presented in a new report. According to news originating from Manchester, United Kingdom, by NewsRx correspondents, research stated, "Diabetes has major implications for public health, with diabetic foot ulcers (DFUs) being responsible for significant morbidity and mortality. A key factor in the development of nonhealing ulcers is infection, which often leads to the development of biofilm, gangrene, and amputation."

Financial support for this research came from Biotechnology and Biological Sciences Research Council (BBSRC) (Sparking Impact).

Our news journalists obtained a quote from the research from the University of Manchester, "A novel approach to treating DFUs is the local release of antibiotics from calcium sulfate beads. We have developed a novel model system to study and compare the release and efficacy of antibiotics released locally, using collagen as a substrate for biofilm growth and incorporating serum to mimic the biochemical complexity of the wound environment. We found that our soft-tissue model supports the growth of a robust Pseudomonas aeruginosa biofilm, and that this was completely eradicated by the introduction of calcium sulfate beads loaded with
tobramycin or gentamicin. The model also enabled us to measure the concentration of these antibiotics at different distances from the beads and in simulated wound fluid bathing the collagen matrix. We additionally found that a multidrug-resistant Staphylococcus aureus biofilm, nonsusceptible to antibiotics, nonetheless showed an almost 1-log drop in viable counts when exposed to calcium sulfate beads combined with antibiotics. Together, these data suggest that locally applied antibiotics combined with calcium sulfate provide surprising efficacy in diabetic foot infections and offer an effective alternative approach to infection management."

According to the news editors, the research concluded: "Our study additionally establishes our new system as a biochemically and histologically relevant model that may be used to study the effectiveness of a range of therapies locally or systemically for infected DFUs."

For more information on this research see: Development of a Novel Collagen Wound Model To Simulate the Activity and Distribution of Antimicrobials in Soft Tissue during Diabetic Foot Infection. Antimicrobial Agents and Chemotherapy, 2016;60(11):6880-6889. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from C.B. Dobson, University of Manchester, Fac Biol Med & Hlth, Medical Device Biol Grp, Manchester, Lancs, United Kingdom. Additional authors for this research include A.M. Lovering, F.L. Bowling and C.B. Dobson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01064-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Manchester, United Kingdom, Europe, Skin and Connective Tissue Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Vascular Diseases and Conditions, Extracellular Matrix Proteins, Skin Diseases and Conditions, Diabetes Complications, Diabetic Angiopathies, Antibacterial Agents, Inorganic Chemicals, Drugs and Therapies, Diabetic Neuropathy, Calcium Compounds, Diabetes Mellitus, Sulfur Compounds, Calcium Sulfate, Antimicrobials, Endocrinology, Diabetic Foot, Sulfur Acids, Antibiotics, Skin Ulcers, Foot Ulcer, Leg Ulcer, Minerals, Collagen, University of Manchester.

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Our news editors obtained a quote from the research from the University of Missouri, "Chemical derivatization of hydrophilic agents with lipophilic pro-moieties can significantly elevate drug diffusion across absorptive membranes. Moreover, the desired linkage (ester vs. amide) may be selected to improve stability in vivo. Importantly, an appropriate selection of pro-moiet (targeting ligand) may promote drug specificity and selectivity. In this review article, an attempt has been made to summarize lipophilic prodrugs employed to improve delivery and efficacy of a wide range of poorly permeable but highly potent therapeutic agents."

According to the news editors, the research concluded: "In addition, a brief overview on recent application of lipophilic prodrugs to promote encapsulation of hydrophilic agents in nano-sized drug carriers has been provided."


The news editors report that additional information may be obtained by contacting A.K. Mitra, University of Missouri Curators' Professor of Pharmacy, Chair, Division of Pharmaceutical Sciences, Vice-Provost for Interdisciplinary Research, University of Missouri-Kansas City, 2464 Charlotte Street, Kansas City, MO 64108, United States. Additional authors for this research include M. Patel, Y. Sheng and A.K. Mitra.

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Keywords for this news article include: Missouri, Kansas City, United States, Drugs and Therapies, Drug Delivery Systems, North and Central America.

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### Drugs and Therapies - Drug Delivery Systems

**Reports Summarize Drug Delivery Systems Study Results from Free University (Tailored dendritic core-multishell nanocarriers for efficient dermal drug delivery: A systematic top-down approach from synthesis to preclinical testing)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Drug Delivery Systems have been presented. According to news reporting from Berlin, Germany, by NewsRx journalists, research stated, "Drug loaded dendritic core-multishell (CMS) nanocarriers are of especial interest for the treatment of skin diseases, owing to their striking dermal delivery efficiencies following topical applications. CMS nanocarriers are composed of a polyglycerol core, connected by amide-bonds to an inner alkyl shell and an outer methoxy poly(ethylene glycol) shell."

Financial support for this research came from SFB 1112.

The news correspondents obtained a quote from the research from Free University, "Since topically applied nanocarriers are subjected to biodegradation, the application of conventional amide-based CMS nanocarriers (10-A-18-350) has been limited by the potential production of toxic polyglycerol amines. To circumvent this issue, three tailored ester-based CMS nanocarriers (10-E-12-350, 10-E-15-350, 10-E-18-350) of varying inner alkyl chain length
were synthesized and comprehensively characterized in terms of particle size, drug loading, biodegradation and dermal drug delivery efficiency. Dexamethasone (DXM), a potent drug widely used for the treatment of inflammatory skin diseases, was chosen as a therapeutically relevant test compound for the present study. Ester- and amide-based CMS nanocarriers delivered DXM more efficiently into human skin than a commercially available DXM cream. Subsequent in vitro and in vivo toxicity studies identified CMS (10-E-15-350) as the most biocompatible carrier system. The anti-inflammatory potency of DXM-loaded CMS (10-E-15-350) nanocarriers was assessed in TNF alpha supplemented skin models, where a significant reduction of the pro-inflammatory cytokine IL-8 was seen, with markedly greater efficacy than commercial DXM cream."

According to the news reporters, the research concluded: "In summary, we report the rational design and characterization of tailored, biodegradable, ester-based CMS nanocarriers, and their subsequent stepwise screening for biocompatibility, dermal delivery efficiency and therapeutic efficacy in a top-down approach yielding the best carrier system for topical applications."

For more information on this research see: Tailored dendritic core-multishell nanocarriers for efficient dermal drug delivery: A systematic top-down approach from synthesis to preclinical testing. Journal of Controlled Release, 2016;242():50-63. Journal of Controlled Release can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news journalists report that additional information may be obtained by contacting S. Hedtrich, Free University of Berlin, Inst Pharm Pharmacol & Toxicol, Berlin, Germany. Additional authors for this research include C. Gerecke, A. Elpelt, N. Zhang, M. Unbehauen, V. Kral, E. Fleige, F. Paulus, R. Haag, M. Schafer-Korting, B. Kleuser and S. Hedtrich.

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Keywords for this news article include: Berlin, Germany, Europe, Skin and Connective Tissue Diseases and Conditions, Skin Diseases and Conditions, Drug Delivery Systems, Emerging Technologies, Drugs and Therapies, Nanotechnology, Nanocarriers, Free University.

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RNA Viruses - Encephalitis Virus

Reports Summarize Encephalitis Virus Study Results from University of Florida (Evaluation of the Honey-Card Technique for Detection of Transmission of Arboviruses in Florida and Comparison With Sentinel Chicken Seroconversion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on RNA Viruses - Encephalitis Virus have been published. According to news reporting from Vero Beach, Florida, by NewsRx journalists, research stated, "Zoonotic mosquito-borne viruses, such as the West Nile virus (WNV) and
eastern equine encephalitis virus (EEEV), are major public health threats in the United States. Early detection of virus transmission and targeted vector management are critical to protect humans against these pathogens."

The news correspondents obtained a quote from the research from the University of Florida, "Sentinel chickens and pool screening of mosquitoes, the most widely used methods of arbovirus early detection, have technical time-lags that compromise their early-detection value. The exploitation of sugar-feeding by trapped mosquitoes for arbovirus surveillance may represent a viable alternative to other methods. Here we compared effectiveness of sugar-impregnated nucleic-acid preserving substrates (SIPS) and sentinel chicken program for detecting WNV, EEEV, and St. Louis encephalitis virus in gravid traps, CO2-baited light traps, and resting traps at 10 locations in two Florida counties. In St. Johns County, comparable numbers of EEEV detections were made by SIPS traps (18) and sentinel chickens (22), but fewer WNV detections were made using SIPS (1) than sentinel chickens (13). In Volusia County, seven arbovirus detections were made via the sentinel chicken program (one EEEV and six WNV), whereas only one arbovirus detection (WNV) was made using SIPS. CO2-baited light traps captured > 90% of total mosquitoes, yet yielded < 30% of arbovirus detections. Resting traps and gravid traps captured a fraction of total mosquitoes, yet yielded roughly equivalent numbers of arbovirus detections, as did light traps."

According to the news reporters, the research concluded: "Challenges to successful deployment of SIPS include optimization of traps for collecting all vector species, increasing sugar-feeding rates of trapped vectors, and developing tractable methods for arbovirus detection."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/jme/tjw106. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vero Beach, Florida, United States, North and Central America, Encephalitis Viruses, Vertebrate Viruses, Arboviruses, RNA Viruses, Mosquitoes, Genetics, University of Florida.

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Enterovirus

Reports Summarize Enterovirus Study Results from Chang Gung University (Enterovirus 71 induces dsRNA/PKR-dependent cytoplasmic redistribution of GRP78/BiP to promote viral replication)
"GRP78/BiP is an endoplasmic reticulum (ER) chaperone protein with the important function of maintaining ER homeostasis, and the overexpression of GRP78/BiP alleviates ER stress. Our previous studies showed that infection with enterovirus 71 (EV71), a (+)RNA picornavirus, induced GRP78/BiP upregulation; however, ectopic GRP78/BiP overexpression in ER downregulates virus replication and viral particle formation."

Our news journalists obtained a quote from the research from Chang Gung University, "The fact that a virus infection increases GRP78/BiP expression, which is unfavorable for virus replication, is counterintuitive. In this study, we found that the GRP78/BiP protein level was elevated in the cytoplasm instead of in the ER in EV71-infected cells. Cells transfected with polyinosinic-polycytidylic acid, a synthetic analog of replicative double-stranded RNA (dsRNA), but not with viral proteins, also exhibited upregulation and elevation of GRP78/BiP in the cytosol. Our results further demonstrate that EV71 infections induce the dsRNA/protein kinase R-dependent cytosolic accumulation of GRP78/BiP. The overexpression of a GRP78/BiP mutant lacking a KDEL retention signal failed to inhibit both dithiothreitol-induced eIF2a phosphorylation and viral replication in the context of viral protein synthesis and viral titers."

According to the news editors, the research concluded: "These data revealed that EV71 infection might cause upregulation and aberrant redistribution of GRP78/BiP to the cytosol, thereby facilitating virus replication."

For more information on this research see: Enterovirus 71 induces dsRNA/PKR-dependent cytoplasmic redistribution of GRP78/BiP to promote viral replication. Emerging Microbes & Infections, 2016;5():e23. (Nature Publishing Group - www.nature.com/; Emerging Microbes & Infections - www.nature.com/emi/)

The news correspondents report that additional information may be obtained from J.R. Jheng, Graduate Institute of Biomedical Sciences and Dept. of Biochemistry and Molecular Biology, College of Medicine, Chang Gung University, Taoyuan 333, Taiwan. Additional authors for this research include S.C. Wang, C.R. Jheng and J.T Horng.

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Keywords for this news article include: Asia, Taiwan, Taoyuan, Genetics, Virology, Cytoplasm, Viral RNA, Enterovirus, RNA Viruses, Picornaviridae, Virus Replication, Intracellular Space, Microbiological Processes, Virus Physiological Phenomena, Virus Physiological Processes.

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**Environmental Research**

**Reports Summarize Environmental Research Study Results from Polytechnic University (Removal of pharmaceutical industry pollutants by coal-based activated carbons)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Environmental Research. According to news reporting originating in Manresa, Spain, by NewsRx journalists, research stated, "Several studies have demonstrated the presence of pollutants from the pharmaceutical industry in surface and groundwater. The main inputs of pollutants come from households, hospitals and the industry and many of these compounds are not completely removed by WWTPs."

The news reporters obtained a quote from the research from Polytechnic University, "The purpose of this research is to study the adsorption of paracetamol, phenol and salicylic acid using coal-based activated carbons. A lignite from Mequinenza (M) and an anthracite from Coto Minero Narcea (CN) from Spain were chemically activated with alkaline agents obtaining two activated carbons (MAC and CNAC). Two commercial activated carbons widely used in water treatment (F400 and NPK) were selected for comparison purposes. The activated carbons were characterized and the results showed a high surface BET (1839 m(2) g(-1)) and total pore volume (0.83 cm(3) g(-1)) on CNAC while MAC was characterized by high sulphur content (6%). Vapour isotherms indicated a chemical interaction between the surface functional groups of MAC and the water molecules. The highest uptake of the three pharmaceutical compounds was achieved by CNAC. MAC showed a high affinity for anion salicylates (at pH 4-8)."

According to the news reporters, the research concluded: "The maximum adsorption capacity of the pollutants onto the activated carbons followed the order salicylic acid > phenol > paracetamol which can be explained by hydrophobicity."


Our news correspondents report that additional information may be obtained by contacting J. Llado, Univ Politecn Cataluna, Dept. of Min Ind & TIC Engn EMIT, Manresa 08242, Spain. Additional authors for this research include M. Sole-Sardans, C. Lao-Luque, E. Fuente and B. Ruiz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.psep.2016.09.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Manresa, Spain, Europe, Environmental Research, Polytechnic University.

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Oncology - Epithelial Cancer

Reports Summarize Epithelial Cancer Study Results from Institute for Cancer Research and Treatment (IRCCS) (Mesenchymal Stem/Stromal Cells in Stromal Evolution and Cancer Progression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Epithelial Cancer. According to news reporting from Naples, Italy, by NewsRx journalists, research stated, "The study of cancer biology has mainly focused on malignant epithelial cancer cells, although tumors also contain a
stromal compartment, which is composed of stem cells, tumor-associated fibroblasts (TAFs), endothelial cells, immune cells, adipocytes, cytokines, and various types of macromolecules comprising the extracellular matrix (ECM). The tumor stroma develops gradually in response to the needs of epithelial cancer cells during malignant progression initiating from increased local vascular permeability and ending to remodeling of desmoplastic loosely vascularized stromal ECM."

The news correspondents obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "The constant bidirectional interaction of epithelial cancer cells with the surrounding microenvironment allows damaged stromal cell usage as a source of nutrients for cancer cells, maintains the stroma renewal thus resembling a wound that does not heal, and affects the characteristics of tumor mesenchymal stem/stromal cells (MSCs). Although MSCs have been shown to coordinate tumor cell growth, dormancy, migration, invasion, metastasis, and drug resistance, recently they have been successfully used in treatment of hematopoietic malignancies to enhance the effect of total body irradiation-hematopoietic stem cell transplantation therapy."

According to the news reporters, the research concluded: "Hence, targeting the stromal elements in combination with conventional chemotherapeutics and usage of MSCs to attenuate graft-versus-host disease may offer new strategies to overcome cancer treatment failure and relapse of the disease."

For more information on this research see: Mesenchymal Stem/Stromal Cells in Stromal Evolution and Cancer Progression. Stem Cells International, 2015;2016():4824573. (Hindawi Publishing - www.hindawi.com; Stem Cells International - www.hindawi.com/journals/sci/)

Our news journalists report that additional information may be obtained by contacting F. Cammarota, IRCCS SDN, Via Emanuele Gianturco 113, 80431 Naples, Italy. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/4824573. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Naples, Europe, Oncology, Hematology, Hematopoietic, Stromal Cells, Article Review, Epithelial Cancer, Connective Tissue Cells.

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Drugs and Therapies - Ethnopharmacology

Reports Summarize Ethnopharmacology Study Results from Nanjing University (Antitumor activity of Annona squamosa seed oil)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Ethnopharmacology have been published. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Custard apple (Annona squamosa Linn.) is an edible tropical fruit, and its seeds have been used to treat 'malignant sore' (cancer) and other usage as insecticide. A comparison of extraction processes, chemical composition analysis and antitumor activity of A. squamosa seed oil (ASO) were investigated."

The news reporters obtained a quote from the research from Nanjing University,
"The optimal extraction parameters of ASO were established by comparing percolation, soxhlet, ultrasonic and SFE-CO2 extraction methods. The chemical composition of fatty acid and content of total annonaceous acetogenins (ACGs) of ASO was tested by GC-MS and colorimetric assay, and anti-tumor activity of ASO was tested using H-22 xenografts bearing mice. The optimal extraction parameters of ASO were obtained as follows: using soxhlet extraction method with extraction solvent of petroleum ether, temperature of 80 degrees C, and extraction time of 90 min. Under these conditions, the yield of ASO was 22.65%. GC-MS analysis results showed that the main chemical compositions of fatty acid of ASO were palmitic acid (9.92%), linoleic acid (20.49%), oleic acid (56.50%) and stearic acid (9.14%). The total ACGs content in ASO was 41.00 mg/g. ASO inhibited the growth of H-22 tumor cells in mice with a maximum inhibitory rate of 53.54% by oral administration. Furthermore, it was found that ASO exerted an antitumor effect via decreasing interleukin-6 (IL-6), janus kinase (JAK) and phosphorylated signal transducers and activators of transcription (p-Stat3) expression. The results demonstrated that ASO suppressed the H-22 solid tumor development may due to its main chemical constituents unsaturated fatty acid and ACGs via IL-6/Jak/Stat3 pathway."

According to the news reporters, the research concluded: "ASO may be a potential candidate for the treatment of cancer."


Our news correspondents report that additional information may be obtained by contacting Y. Chen, Nanjing Univ Chinese Med, Coll Pharm, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include Y.Y. Chen, Y.Y. Shi, C.Y. Ma, X.N. Wang, Y. Li, Y.J. Miao, J.W. Chen and X. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.036. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Ethnopharmacology, Drugs and Therapies, Therapy, Nanjing University.

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**Drugs and Therapies - Fexofenadine Therapy**

**Reports Summarize Fexofenadine Therapy Findings from University of Warmia & Mazury (Cytokine production by PBMC and serum from allergic and non-allergic subjects following in vitro histamine stimulation to test fexofenadine and osthole ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Fexofenadine Therapy are discussed in a new report. According to news reporting originating from Olsztyn, Poland, by NewsRx correspondents, research stated, "FXF is a third-generation antihistamine drug and osthole is assumed a natural antihistamine alternative. This paper compares peripheral blood mononuclear cell (PBMC) incubation with FXF and osthole, by studying FXF, osthole and
Our news editors obtained a quote from the research from the University of Warmia & Mazury, "Mabtech kits determined the interleukins IL-1 beta, IL-4, IL-10, IL-13 and TNF-alpha. The influence of the above active substances on cytokine secretion in PBMC's and serum was assessed: cytokines were IL-1 beta, IL-4, IL-10, IL-13 and TNF-alpha; and cytokine levels secreted by untreated PBMCs in pure culture medium formed the absolute control (ctrl). We determined that osthole affects PBMC cytokine secretion to almost precisely the same extent as FXF (IL-1 beta, IL-4, IL-10 and TNF). In addition osthole had greater IL-13 blocking ability than FXF. Moreover, we observed significantly decreased IL-4 level in histamine/osthole treatment compared to histamine alone. Meanwhile, FXF not significantly decrease the level of IL-4 increased by histamine. This data indicates osthole's strong role in allergic inflammation."

According to the news editors, the research concluded: "All results confirm our hypothesis that osthole is a natural histamine antagonist and therefore can be beneficially used in antihistamine treatment of conditions such as allergies."

For more information on this research see: Cytokine production by PBMC and serum from allergic and non-allergic subjects following in vitro histamine stimulation to test fexofenadine and osthole anti-allergic properties. European Journal of Pharmacology, 2016;791():763-772. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news editors report that additional information may be obtained by contacting N.K. Kordulewska, University of Warmia & Mazury, Olsztyn, Warminsko Mazur, Poland. Additional authors for this research include E. Kostyra, A. Cieslinska, E. Fiedorowicz and B. Jarmolowska.

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Keywords for this news article include: Olsztyn, Poland, Europe, Intercellular Signaling Peptides and Proteins, Fexofenadine Therapy, Biogenic Monoamines, Drugs and Therapies, Biological Factors, Pharmaceuticals, Ethylamines, Cytokines, Allergies, Histamine, Autacoids, University of Warmia & Mazury.

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Oncology - Gastric Cancer

Reports Summarize Gastric Cancer Findings from Tianjin Medical University (Direct targeting of HGF by miR-16 regulates proliferation and migration in gastric cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gastric Cancer. According to news reporting out of Tianjin, People's Republic of China, by NewsRx editors, research stated, "MicroRNAs (miRNAs) have been reported to be involved in each stage of tumor development in various types of cancers. We have previously showed that miR-16 is down-regulated in cancer and acts as a tumor suppressor."

Funders for this research include National Natural Science Foundation of China,

Our news journalists obtained a quote from the research from Tianjin Medical University, "Other studies indicated that hepatocyte growth factor (HGF)/c-Met is implicated in proliferation, migration, and other pathophysiological processes. However, little is known about the relationship between miR-16 and HGF/c-Met in gastric cancer (GC). In the present study, we used bioinformatics tools and related experiments to search for miRNAs targeting HGF. Here, we found that miR-16 suppressed HGF protein expression by directly targeting 3'-untranslated region (UTR) of HGF mRNA. Subsequently, it was illustrated the down-regulation of miR-16 promotes, while overexpressed of miR-16 significantly inhibits cell proliferation and migration by negatively regulating HGF/c-Met pathway. Moreover, the biological role of HGF in GC cells was determined by using HGF siRNA and HGF-overexpressing plasmid, respectively."

According to the news editors, the research concluded: "To conclude, our results provide a potential target by using miR-16 for the future clinical treatment of GC."

For more information on this research see: Direct targeting of HGF by miR-16 regulates proliferation and migration in gastric cancer. *Tumor Biology*, 2016;37(11):15175-15183. *Tumor Biology* can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting G.H. Ying, Tianjin Med Univ, Canc Inst & Hosp, Natl Clin Res Center Canc, Dept. of Gastrointestinal OncolKey Lab Canc Prevent, Tianjin 300060, People's Republic of China. Additional authors for this research include H.Y. Zhang, X.Y. Wang, Y.J. Qu, J.J. Duan, R. Liu, T. Deng, T. Ning, L. Zhang, M. Bai, L.K. Zhou, X. Wang, S.H. Ge, G.H. Ying and Y. Ba.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5390-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Gastroenterology, Gastric Cancer, Oncology, Genetics, Tianjin Medical University.

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Financial supporters for this research include National Science Foundation (NSF), Fralin Life Science Institute, Virginia Polytechnic Institute and State University (VT).

The news correspondents obtained a quote from the research from the Korea Advanced Institute of Science and Technology (KAIST), "Per2 binding prevents Mdm2-mediated ubiquitination of p53 and, therefore, its degradation, and oscillations in the peaks of Per2 and p53 were expected to correspond. However, our findings showed that Per2 and p53 rhythms were significantly out-of-phase relative to each other in cell lysates and in purified cytoplasmic fractions. These seemingly conflicting experimental data motivated the use of a combined theoretical and experimental approach focusing on the role played by Per2 in dictating the phase of p53 oscillations. Systematic modeling of all possible regulatory scenarios predicted that the observed phase relationship between Per2 and p53 could be simulated if (i) p53 was more stable in the nucleus than in the cytoplasm, (ii) Per2 associates to various ubiquitinated forms of p53, and (iii) Per2 mediated p53 nuclear import. These predictions were supported by a sevenfold increase in p53's half-life in the nucleus and by in vitro binding of Per2 to the various ubiquitinated forms of p53. Last, p53's nuclear shuttling was significantly favored by ectopic expression of Per2 and reduced because of Per2 down-regulation."

According to the news reporters, the research concluded: "Our combined theoretical/mathematical approach reveals how clock regulatory nodes can be inferred from oscillating time course data."


Our news journalists report that additional information may be obtained by contacting! J.K. Kim, Korea Adv Inst Sci & Technol, Dept. of Math Sci, Daejeon 34131, South Korea. Additional authors for this research include J.K. Kim, J. Liu, M. Vila-Caballer, P.E. Stauffer, J.J. Tyson and C.V. Finkielstein.

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Keywords for this news article include: Daejeon, South Korea, Asia, Genetics, p53 Gene, Korea Advanced Institute of Science and Technology (KAIST).

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**Oncology - Glioblastomas**

**Reports Summarize Glioblastomas Findings from Capital Medical University (IDH mutation and MGMT promoter methylation are associated with the pseudoprogression and improved prognosis of glioblastoma multiforme patients who have undergone ...)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Glioblastomas have been published. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "This study aimed to investigate the potential association between IDH mutation and O-6-methyl-guanine methyl transferase (MGMT) gene promoter methylation and pseudoprogression disease (psPD) in glioblastoma multiforme (GBM) patients after concurrent temozolomide (TMZ)-based chemoradio-therapy. A total of 157 GBM patients who received concurrent TMZ-based chemoradiotherapy were included in this retrospective study."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Capital Medical University. "The association between psPD and a number of demographic and genetic factors, including IDH mutation and MGMT promoter methylation, were analyzed based on logistic regression, Cox regression, and multivariate analysis. Of the 157 GBM patients, 145 (92.36%) patients, including 38 patients with psPD, 38 patients with early progression (ePD), and 69 patients with non-progression (non-PD), were followed up for six to 56 months. We identified a higher rate of MGMT promoter methylation and IDH1 mutation in psPD patients compared with ePD patients (P = 0.002). In addition, MGMT promoter methylation and IDH1 mutation predicted a high probability of psPD development in GBM patients (P = 0.001 and P< 0.001, respectively). MGMT promoter methylation, IDH1 mutation, Karnofsky performance score (KPS) >= 70, and psPD were associated with a significantly longer overall survival of GBM patients (P = 0.001, 0.001, 0.002, and P< 0.001, respectively). Both of MGMT promoter methylation and IDH mutation had a cumulative effect on the OS of GBM patients. GBM patients with psPD (39.2 +/- 2.1 months, P< 0.001) had a longer median survival (MS) than GBM patients with ePD (11.9 +/- 1.1 months) or with non-PD (24.4 +/- 2.4 months). MGMT promoter methylation and IDH1 mutation were associated with PsPD and predicted a longer median survival in GBM patients after TMZ-based chemoradiotherapy."

According to the news editors, the research concluded: "Genetic analyses of the MGMT promoter and IDH1 may allow us to effectively treat GBM patients."

For more information on this research see: IDH mutation and MGMT promoter methylation are associated with the pseudoprogression and improved prognosis of glioblastoma multiforme patients who have undergone concurrent and adjuvant temozolomide-based chemoradiotherapy. Clinical Neurology and Neurosurgery, 2016;151():31-36. Clinical Neurology and Neurosurgery can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Clinical Neurology and Neurosurgery - www.journals.elsevier.com/clinical-neurology-and-neurosurgery/)

Our news journalists report that additional information may be obtained by contacting X.Z. Li, Capital Med Univ, Beijing Tiantan Hosp, Dept. of Neurosurg, Beijing 100050, People's Republic of China. Additional authors for this research include J.Y. Li, G. Cheng, P.N. Zhang and X.Z. Li.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Drugs and Therapies, Epidemiology, Temozolomide Therapy, Alkylating Agents, Pharmaceuticals, Antineoplastics, Glioblastomas, Oncology, Genetics, Capital Medical University.

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Reports Summarize Gliomas Study Results from Fudan University (miR-491 regulates glioma cells proliferation by targeting TRIM28 in vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gliomas. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "MicroRNAs are significantly involved in tumorigenesis and progression of glioma. However, the critical part they play in glioma have not been fully elaborated. miR-491 and Tripartite motif containing 28 (TRIM28) are reported to aberrantly express in glioblastoma multiforme (GBM)."

Our news journalists obtained a quote from the research from Fudan University, "Here, we detected miR-491 and TRIM28 expression and function in glioma cells. We analyzed miR-491 expressions in 20 primary human GBM tissues and 6 control brain tissues by qRT-PCR assays and searched for The Cancer Genome Atlas (TCGA) database. Then we predicted possible mRNA target of miR-491 by TargetScan/MicroRNA and confirmed it via luciferase reporter assays. Knock-down of miR-491 and transfection of pLenti-TRIM28 were performed in U251 and U87 cells. Proliferation ability was examined by MTT and clone formation assays. miR-491 expression was obviously reduced in GBM cells and tissues. There was a positive correlation between the down-regulation of miR-491 and poor prognosis. Spearman's correlation analysis demonstrated that miR-491 expression was negatively correlated with TRIM28 protein level. Possible mRNA binding sites of miR-491 predicted by TargetScan/MicroRNA were proved by luciferase assays. Clone formation and MTT assays indicated that up-regulation of miR-491 inhibited the proliferation of glioma cells."

According to the news editors, the research concluded: "MiR-491 regulates glioma cells proliferation in vitro by targeting TRIM28."


Our news journalists report that additional information may be obtained by contacting L. Chen, Fudan University, Shanghai Med College, Dept. of Neurosurg, Shanghai, People's Republic of China. Additional authors for this research include S.Y. Cai, J.J. Cai, L.C. Chen, Y. Yao, L. Chen and Y. Mao.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Enzymes and Coenzymes, Luciferases, Oncology, Genetics, Gliomas, Fudan University. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Reports Summarize Granulocytes Findings from Huazhong Agricultural University [Acute Exposure to Tris(1,3-dichloro-2-propyl) Phosphate (TDCIPP) Causes Hepatic Inflammation and Leads to Hepatotoxicity in Zebrafish]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immunology - Granulocytes is the subject of a report. According to news reporting out of Wuhan, People's Republic of China, by NewsRx editors, research stated, "Tris(1,3-dichloro-2-propyl) phosphate (TDCIPP) has been frequently detected in environmental media and has adverse health effect on wildlife and humans. It has been implicated to have hepatotoxicity, but its molecular mechanisms remain unclear."

Our news journalists obtained a quote from the research from Huazhong Agricultural University, "In the present study, adult male zebrafish were exposed to TDCIPP and global hepatic gene expression was examined by RNA-Seq and RT-qPCR in order to understand the molecular mechanisms of TDCIPP-induced hepatotoxicity. Our results indicated that TDCIPP exposure significantly up-regulated the expression of genes involved in endoplasmic reticulum stress and Toll-like receptor (TLR) pathway, implying an inflammatory response, which was supported by up-regulation of inflammation-related biomaker genes. Hepatic inflammation was further confirmed by histological observation of increase of infiltrated neutrophils and direct observation of liver recruitment of neutrophils labeled with Ds-Red fluorescent protein of Tg (lysC:DsRed) zebrafish upon TDCIPP exposure. To further characterize the hepatotoxicity of TDCIPP, the expression of hepatotoxicity biomaker genes, liver histopathology and morphology were examined. The exposure to TDCIPP significantly up-regulated the expression of several biomarker genes for hepatotoxicity (gck, gsr and nqo1) and caused hepatic vacuolization and apoptosis as well as increase of the liver size."

According to the news editors, the research concluded: "Collectively, our results suggest that exposure to TDCIPP induces hepatic inflammation and leads to hepatotoxicity in zebrafish."

For more information on this research see: Acute Exposure to Tris(1,3-dichloro-2-propyl) Phosphate (TDCIPP) Causes Hepatic Inflammation and Leads to Hepatotoxicity in Zebrafish. Scientific Reports, 2016;6():19045. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting C. Liu, College of Fisheries, Huazhong Agricultural University, Wuhan 430070, People's Republic of China. Additional authors for this research include G. Su, J.P. Giesy, R.J. Letcher, G. Li, I. Agrawal, J. Li, L. Yu, J. Wang and Z. Gong.

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Keywords for this news article include: Asia, Wuhan, Anions, Genetics, Immunology, Phagocytes, Phosphates, Neutrophils, Granulocytes, Inflammation, Gastroenterology, Phosphoric Acids, Hemic and Immune Systems, People's Republic of China.

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Immunology - Granulocytes

Reports Summarize Granulocytes Study Results from University of Oxford (Blood eosinophils and inhaled corticosteroid/long-acting b-2 agonist efficacy in COPD)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immunology - Granulocytes are discussed in a new report. According to news reporting originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "We performed a review of studies of fluticasone propionate (FP)/salmeterol (SAL) (combination inhaled corticosteroid (ICS)/long-acting b2-agonist (LABA)) in patients with COPD, which measured baseline (pretreatment) blood eosinophil levels, to test whether blood eosinophil levels (>=2%) were associated with a greater reduction in exacerbation rates with ICS therapy. Three studies of (>=)1-year duration met the inclusion criteria."

Our news editors obtained a quote from the research from the University of Oxford, "Moderate and severe exacerbation rates were analysed according to baseline blood eosinophil levels (<2% vs (>=)2%). At baseline, 57-75% of patients had (>=)2% blood eosinophils. Changes in FEV1 and St George's Respiratory Questionnaire (SGRQ) scores were compared by eosinophil level. For patients with (>=)2% eosinophils, FP/SAL was associated with significant reductions in exacerbation rates versus tiotropium (INSPIRE: n=719, rate ratio (RR)=0.75, 95% CI 0.60 to 0.92, p=0.006) and versus placebo (TRISTAN: n=1049, RR=0.63, 95% CI 0.50 to 0.79, p<0.001). No significant difference was seen in the <2% eosinophil subgroup in either study (INSPIRE: n=550, RR=1.18, 95% CI 0.92 to 1.51, p=0.186; TRISTAN: n=354, RR=0.99, 95% CI 0.67 to 1.47, p=0.957, respectively). In SCO30002 (n=373), no significant effects were observed (FP or FP/SAL vs placebo). No relationship was observed in any study between eosinophil subgroup and treatment effect on FEV1 and SGRQ."

According to the news editors, the research concluded: "Baseline blood eosinophil levels may represent an informative marker for exacerbation reduction with ICS/LABA in patients with COPD and a history of moderate/severe exacerbations."

For more information on this research see: Blood eosinophils and inhaled corticosteroid/long-acting b-2 agonist efficacy in COPD. Thorax, 2015;71(2):118-25. (BMJ Publishing Group - group.bmj.com/; Thorax - thorax.bmj.com/)

The news editors report that additional information may be obtained by contacting I.D. Pavord, Respiratory Medicine Unit, Nuffield Dept. of Clinical Medicine, University of Oxford, Oxford, UK. Additional authors for this research include S. Lettis, N. Locantore, S. Pascoe, P.W. Jones, J.A. Wedzicha and N.C Barnes.

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Keywords for this news article include: Oxford, Europe, Therapy, Immunology, Blood Cells, Eosinophils, Granulocytes, United Kingdom, Corticosteroids, Hemic and Immune Systems.

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Heart Disorders and Diseases - Heart Attack

Reports Summarize Heart Attack Study Results from K. Chaikriangkrai and Co-Researchers (Prognostic Value of Coronary Artery Calcium Score in Acute Chest Pain Patients Without Known Coronary Artery Disease: Systematic Review and Meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Coronary artery calcium score (CACS) is a well-established test for risk stratifying asymptomatic patients. Recent studies also indicate that CACS may accurately risk stratify stable patients presenting to the emergency department (ED) with acute chest pain; however, many were underpowered."

The news correspondents obtained a quote from the research, "The purpose of this systematic review and meta-analysis is to evaluate the prognostic value and accuracy of a zero (normal) CACS for identifying patients at acceptable low risk for future cardiovascular events who might be safely discharged home from the ED. We searched multiple databases for longitudinal studies of CACS in symptomatic patients without known coronary artery disease that reported major adverse cardiovascular events (MACEs), including death and myocardial infarction. Pooled risk ratios, sensitivity, specificity, and likelihood ratios were analyzed. Eight studies evaluated 3,556 patients, with a median follow-up of 10.5 months. Pooled prevalence of zero CACS was 60%. Patients with CACS=0 had a significantly lower risk of cardiovascular events compared with those with CACS greater than 0 (MACEs: relative risk 0.06, 95% confidence interval 0.04 to 0.11, I-2=0%; death/myocardial infarction: relative risk 0.19; 95% confidence interval 0.08 to 0.47, I-2=0%). The pooled event rates for CACS=0 (MACEs 0.8%/year; death/myocardial infarction 0.5%/year) were significantly lower than for CACS greater than 0 (MACEs 14.6%/year; death/myocardial infarction 3.5%/year). Analysis of summary testing parameters showed a sensitivity of 96%, specificity of 60%, positive likelihood ratio of 2.36, and negative likelihood ratio of 0.07. Acute chest pain patients without history of coronary artery disease, ischemic ECG changes, or increased cardiac enzyme levels commonly have a CACS of zero, with a very low subsequent risk of MACEs or death or myocardial infarction."

According to the news reporters, the research concluded: "This meta-analysis proffers the potential role of initial CACS testing for avoiding unnecessary hospitalization and further cardiac testing in acute chest pain patients with a CACS of zero."


Our news journalists report that additional information may be obtained by contacting S.M. Chang, Houston Methodist DeBakey Heart & Vasc Center, Houston, TX 77030, United States. Additional authors for this research include G.P.S. Shantha, H.Y. Jhun, P. Ungprasert, G. Sigurdsson, F. Nabi, J.J. Mahmarian and S.M. Chang.

The direct object identifier (DOI) for that additional information is:
Liver Diseases and Conditions - Hepatitis B Virus

Reports Summarize Hepatitis B Virus Study Results from Bassett Medical Center (Hepatitis B virus infection and risk of gallstones: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Hepatitis B Virus. According to news reporting originating from Cooperstown, New York, by NewsRx correspondents, research stated, "Background/objectivesGallstone disease and its complications are common, particularly in Western populations. Recent studies have reported a significantly increased risk of gallstones among hepatitis C virus-infected patients."

Our news editors obtained a quote from the research from Bassett Medical Center, "However, the data on patients with hepatitis B virus (HBV) infection are still limited. This meta-analysis was carried out with the aim of summarizing all available evidence. Patients and methodsA literature search was performed using MEDLINE and the EMBASE database from inception to May 2016. Studies that reported relative risks, odd ratios, or hazard ratios comparing the risk of gallstones among HBV-infected patients versus patients without HBV infection were included. Pooled odds ratio (OR) and 95% confidence interval (CI) were calculated using a random-effect, generic inverse-variance method. ResultsNine studies fulfilled our eligibility criteria and were included in the analysis. We found no significant association between HBV infection and the risk of gallstones, with a pooled OR of 1.10 (95% CI, 0.91-1.33). The statistical heterogeneity was moderate, with an I-2 of 69%. Subgroup analysis was carried out."

According to the news editors, the research concluded: "The pooled OR of cross-sectional studies was 1.01 (95% CI, 0.91-1.12; I-2 0%), whereas the pooled OR of case-control studies was 1.53 (95% CI, 0.85-2.74; I-2 80%). ConclusionA significant association between HBV infection and the risk of gallstones was not observed in this study."

For more information on this research see: Hepatitis B virus infection and risk of gallstones: a systematic review and meta-analysis. European Journal of Gastroenterology & Hepatology, 2016;28(12):1437-1442. European Journal of Gastroenterology & Hepatology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; European Journal of Gastroenterology & Hepatology - journals.lww.com/eurojgh/pages/default.aspx)

The news editors report that additional information may be obtained by contacting K. Wijarnpreecha, Bassett Med Center, Dept. of Internal Med, Cooperstown, NY 13326, United
States. Additional authors for this research include C. Thongprayoon, P. Panjawatanan, W. Manatsathit and P. Ungprasert.

Keywords for this news article include: Cooperstown, New York, United States, North and Central America, Liver Diseases and Conditions, Article Review, Digestive System Diseases and Conditions, Biliary Tract Diseases and Conditions, Gallbladder Diseases and Conditions, Infectious Disease and Conditions, Hepadnaviridae Infections, Cholecystolithiasis, Risk and Prevention, Hepatitis B Virus, Orthohepadnavirus, Gastroenterology, Cholelithiasis, DNA Viruses, Gallstones, Hepatology, Virology, Viral, HBV, Bassett Medical Center.

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Liver Diseases and Conditions - Hepatitis C Virus

Reports Summarize Hepatitis C Virus Study Results from University of Auckland (High Efficacy of ABT-493 and ABT-530 Treatment in Patients With HCV Genotype 1 or 3 Infection and Compensated Cirrhosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Liver Diseases and Conditions - Hepatitis C Virus is the subject of a report. According to news reporting from Auckland, New Zealand, by NewsRx journalists, research stated, "The combination of ABT-493 (NS3/4A protease inhibitor) plus ABT-530 (NS5A inhibitor) has shown high rates of sustained virologic response at post-treatment week 12 (SVR12) in noncirrhotic patients infected with hepatitis C virus (HCV) genotypes (GTs) 1-6. We describe 2 open-label phase 2 studies investigating the efficacy and safety of ABT-493 plus ABT-530 with or without ribavirin (RBV) in GT1-or GT3-infected patients with compensated cirrhosis."

The news correspondents obtained a quote from the research from the University of Auckland, "Patients with GT1 infection received 200 mg ABT-493 plus 120 mg ABT-530 for 12 weeks. Patients with GT3 infection were randomized 1:1 to receive 300 mg ABT-493 plus 120 mg ABT-530 with or without once-daily 800 mg RBV for 12 weeks; treatment-experienced patients who were not treated with RBV received 16 weeks of therapy. Efficacy was measured by SVR12, defined as an HCV-RNA level less than 25 IU/mL. Adverse events and laboratory parameters were evaluated throughout the study. Twenty-seven patients with GT1 infection and 55 patients with GT3 infection were enrolled. The majority were treatment-naive (84%) and male (65%). In patients with GT1 infection, SVR12 was achieved by 96% (26 of 27; 95% confidence interval [CI], 82-99) of patients, with 1 relapse. Among GT3-infected patients, SVR12 was achieved in 96% (27 of 28; 95% CI, 82-99) of patients in the RBV-free arm (1 relapse), and in 100% (27 of 27; 95% CI, 88-100) in the RBV-containing arm. The most common adverse events were headache, fatigue, and nausea. Laboratory abnormalities were rare; no patient discontinued treatment."

According to the news reporters, the research concluded: "In cirrhotic HCV GT1-or GT3-infected patients, ABT-493 plus ABT-530 with or without RBV achieved SVR12 rates of 96%-100% and was well tolerated."

For more information on this research see: High Efficacy of ABT-493 and ABT-530 Treatment in Patients With HCV Genotype 1 or 3 Infection and Compensated Cirrhosis. Gastroenterology, 2016;151(4):651-659,157. Gastroenterology can be contacted at: W B Saunders Co-Elsevier Inc, 1600 John F Kennedy Boulevard, Ste 1800, Philadelphia, PA 19103-
Our news journalists report that additional information may be obtained by contacting E. Gane, University of Auckland, Auckland 1023, New Zealand. Additional authors for this research include F. Poordad, S. Wang, A. Asatryan, P.Y. Kwo, J. Lalezari, D.L. Wyles, T. Hassanein, H. Aguilar, B. Maliakkal, R. Liu, C.W. Lin, T.I. Ng, J. Kort and F.J. Mensa.

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Keywords for this news article include: Auckland, New Zealand, Australia and New Zealand, Digestive System Diseases and Conditions, Liver Diseases and Conditions, Flaviviridae Infections, Hepatitis C Virus, RNA Viruses, Hepatology, Cirrhosis, Fibrosis, Genetics, Virology, Viral, HCV, University of Auckland.

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The news correspondents report that additional information may be obtained from E. Hahn, University of Saarland, Saarbrucken, Germany. Additional authors for this research include J. Gottschling, W. Bleidorn, C. Kandler, M. Spengler, A.E. Kornadt, W. Schulz, R. Schunck, T. Baier, K. Krell, V. Lang, F. Lenau, A.L. Peters, M. Diewald, R. Riemann and F.M. Spinath.

Keywords for this news article include: Saarbrucken, Germany, Europe, Human Genetics, Genetics, Genetics, University of Saarland.

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Reports Summarize Hypokalemia Findings from Chinese People's Liberation Army General Hospital (Preoperative Diagnosis of Juxtaglomerular Cell Tumors in Eight Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Hypokalemia are presented in a new report. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to improve the diagnostic efficiency for juxtaglomerular cell tumors (JCTs) and to determine whether clinical and magnetic resonance imaging features can help to differentiate JCTs from clear cell renal cell carcinoma (ccRCC). The clinical features of eight patients with JCTs and 27 patients with ccRCCs were analyzed."

The news reporters obtained a quote from the research from Chinese People's Liberation Army General Hospital, "A flow diagram for young people with hypertension was applied to facilitate the diagnosis. Clinical presentations were analyzed, including age, hypertension, and hypokalemia. The results of our study produced a flow diagram that narrowed the scope of diagnosis. The statistical results demonstrated that patients with a renal mass aged 14 to 30 years, had grade 3 hypertension, or had moderate hypokalemia had a greater possibility of having a JCT than a ccRCC (P < .0000, P < .01, P < .0005, respectively)."

According to the news reporters, the research concluded: "In addition, the flow diagram and magnetic resonance imaging features were useful to distinguish JCTs from other renal tumors."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12810. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia,
Cardiovascular Diseases and Conditions - Hypotension

Reports Summarize Hypotension Study Results from Army Medical Center (Dialysate-induced hypocalcemia presenting as acute intradialytic hypotension: A case report, safety review, and recommendations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Hypotension are presented in a new report. According to news reporting originating from El Paso, Texas, by NewsRx correspondents, research stated, "Intradialytic hypotension is the most common complication associated with hemodialysis. We describe a case of severe intradialytic hypotension during routine chronic dialysis, the presenting symptom of hypocalcemia due to a procedural error involving a zero calcium liquid acid dialysate concentrate."

Our news editors obtained a quote from the research from Army Medical Center, "Although human factors were the root cause of this event, we discuss physical and procedural controls that may help to minimize the risk of human error. Citrate anticoagulation for renal replacement therapy is increasingly used, particularly in acute kidney injury. Thus, zero calcium liquid acid dialysate is more likely to be stocked by dialysis units that serve both inpatients and outpatients. Providers in such units must maintain the utmost vigilance for human error involving these concentrates, as it is likely that the reported literature does not accurately reflect the frequency of such adverse events occurring during dialysis."

According to the news editors, the research concluded: "Structured and universal reporting of errors to allow systematic analysis of hemodialysis device related hazards would allow identification of engineering controls that could prevent such potentially catastrophic clinical errors."


The news editors report that additional information may be obtained by contacting J.S. Thurlow, Nephrology Service, Dept. of Medicine, William Beaumont Army Medical Center, El Paso, Texas, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hdi.12386. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Texas, El Paso, Hypotension, Hemodialysis, Hypocalcemia, United States, Endocrinology, Article Review, Renal Dialysis, North and Central America, Water Electrolyte Imbalance, Calcium Metabolism Disorders, Cardiovascular Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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Membrane Proteins - Ion Channels

Reports Summarize Ion Channels Study Results from University College (Nav1.7 and other voltage-gated sodium channels as drug targets for pain relief)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Membrane Proteins - Ion Channels. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "Chronic pain is a massive clinical problem. We discuss the potential of subtype selective sodium channel blockers that may provide analgesia with limited side effects."

Financial supporters for this research include Medical Research Council, Wellcome Trust.

The news reporters obtained a quote from the research from University College, "Sodium channel subtypes have been linked to human pain syndromes through genetic studies. Gain of function mutations in Nav1.7, 1.8 and 1.9 can cause pain, whilst loss of function Nav1.7 mutations lead to loss of pain in otherwise normal people. Intriguingly, both human and mouse Nav1.7 null mutants have increased opioid drive, because naloxone, an opioid antagonist, can reverse the analgesia associated with the loss of Nav1.7 expression. We believe there is a great future for sodium channel antagonists, particularly Nav1.7 antagonists in treating most pain syndromes. This review deals with recent attempts to develop specific sodium channel blockers, the mechanisms that underpin the Nav1.7 null pain-free phenotype and new routes to analgesia using, for example, gene therapy or combination therapy with subtype specific sodium channel blockers and opioids."

According to the news reporters, the research concluded: "The use of selective Nav1.7 antagonists together with either enkephalinase inhibitors or low dose opioids has the potential for side effect-free analgesia, as well as an important opioid sparing function that may be clinically very significant."

For more information on this research see: Nav1.7 and other voltage-gated sodium channels as drug targets for pain relief. Expert Opinion On Therapeutic Targets, 2016;20 (8):975-83.

Our news correspondents report that additional information may be obtained by contacting E.C. Emery, a Molecular Nociception Group, Dept. of Medicine, WIBR, University College London, London WC1E 6BT, UK. Additional authors for this research include A.P. Luiz and J.N. Wood.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1517/14728222.2016.1162295. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, Ion Channels, United Kingdom, Pain Management, Sodium Channels, Carrier Proteins, Membrane Proteins, Drugs and Therapies.

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Reports Summarize Kidney Transplants Study Results from Tokyo Women's Medical University (Two cases of kidney transplantation-associated thrombotic microangiopathy successfully treated with eculizumab)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Kidney Transplants. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Transplantation-associated thrombotic microangiopathy (TA-TMA) is relatively rare and requires immediate intervention to avoid irreversible organ damage or death; however, consensus regarding the treatment approach is lacking. Atypical haemolytic uraemic syndrome (aHUS) is a rare disease caused by dysregulation of the alternative complement pathway resulting in TMA. aHUS is histologically similar to TA-TMA; approximately 60% of TA-TMA patients have complement dysregulation."

The news correspondents obtained a quote from the research from Tokyo Women's Medical University, "Eculizumab, a humanized anti-C5 monoclonal antibody, inhibits terminal membrane-attack complex formation and TMA progression. Eculizumab has been successfully used to treat aHUS post-transplant. We present two cases of kidney TA-TMA due to unknown causes, suspected antibody-mediated rejection, or calcineurin inhibitor (CNI)-related toxicity that developed on day 1 or 2 post-kidney transplantation. Low platelet count and haemoglobin level with red cell fragments were detected. Despite steroid pulse, plasma exchange (PE), and intravenous immunoglobulin therapy, TA-TMA did not improve; therefore, eculizumab was administered despite no genetic testing. Laboratory data, including renal function, improved immediately. TA-TMA treatment primarily involves PE initiation or CNI discontinuation; eculizumab can be used to safely treat TA-TMA and then be ceased in the short term."

According to the news reporters, the research concluded: "Therefore, eculizumab administration might be beneficial for kidney TA-TMA as early as the diagnosis of refractory to PE."


Our news journalists report that additional information may be obtained by contacting M. Okumi, Tokyo Women's Medical University, Dept. of Urol, Tokyo, Japan. Additional authors for this research include M. Okumi, K. Unagami, T. Kanzawa, A. Sawada, K. Kawanishi, K. Omoto, H. Ishida and K. Tanabe.

Keywords for this news article include: Tokyo, Japan, Asia, Antineoplastic Monoclonal Antibodies, Thrombotic Microangiopathy, Drugs and Therapies, Transplant Medicine, Immunologic Agents, Kidney Transplants, Organ Transplants, Medical Devices, Transplantation, Biotechnology, Biomedicine, Eculizumab, Genetics, Tokyo Women's Medical University.

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Reports Summarize Kidney Transplants Study Results from University of Miami Miller School of Medicine (Lower tacrolimus trough levels are associated with subsequently higher acute rejection risk during the first 12 months after kidney ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Kidney Transplants is now available. According to news reporting originating in Miami, Florida, by NewsRx journalists, research stated, "The premise that lower TAC trough levels are associated with subsequently higher first BPAR risk during the first 12 mo post-transplant was recently questioned. Using our prospectively followed cohort of 528 adult, primary kidney transplant recipients (pooled across four randomized trials) who received reduced TAC dosing plus an IMPDH inhibitor, TAC trough levels measured at seven time points, 7, 14 days, 1, 2, 3, 6 and 9 months post-transplant, were utilized along with Cox's model to determine the multivariable significance of TAC level (t) (a continuous time-dependent covariate equaling the most recently measured TAC level prior to time t) on the hazard rate of developing first BPAR during the first 12 months post-transplant."

The news reporters obtained a quote from the research from the University of Miami Miller School of Medicine, "The percentage developing BPAR during the first 12 months post-transplant was 10.2% (54/528). In univariable analysis, lower TAC level(t) was associated with a significantly higher BPAR rate (p=0.00006), and its significance was maintained even after controlling for 2 significant baseline predictors (African-American/Hispanic Recipient and Developed DGF) in Cox's model (multivariable p=0.0003). Use of a cutpoint, TAC level(t) <4.0 vs. (>=)4.0 ng/ml, yielded an even greater association with BPAR rate (univariable and multivariable p<0.000001), with an estimated hazard ratio of 6.33."

According to the news reporters, the research concluded: "These results suggest that TAC levels <4.0 ng/ml should be avoided during the first 12 months post-transplant when TAC is used in combination with fixed-dose mycophenolate with or without corticosteroids and induction therapy."

For more information on this research see: Lower tacrolimus trough levels are associated with subsequently higher acute rejection risk during the first 12 months after kidney transplantation. Transplant International, 2015;29(2):216-26. Transplant International can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA. (Wiley-Blackwell - www.wiley.com/; Transplant International - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1432-2277)

Our news correspondents report that additional information may be obtained by contacting J.J. Gaynor, Miami Transplant Institute, Dept. of Surgery, University of Miami Miller School of Medicine, Miami, FL, United States. Additional authors for this research include G. Ciancio, G. Guerra, J. Sageshima, D. Roth, M.J. Goldstein, L. Chen, W. Kupin, A. Mattiazzi, L. Tueros, S. Flores, L. Hanson, P. Ruiz, R. Vianna and G.W Burke.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tri.12699. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Transplant International can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.
Reports Summarize Levothyroxine Therapy Findings from Oregon Health and Science University (Effect of Thyroid Function Variations Within the Laboratory Reference Range on Health Status, Mood, and Cognition in Levothyroxine-Treated Subjects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Levothyroxine Therapy have been published. According to news reporting originating in Portland, Oregon, by NewsRx journalists, research stated, "There has been recent debate within the thyroid field regarding whether current upper limits of the thyrotropin (TSH) reference range should be lowered. This debate can be better informed by investigation of whether variations in thyroid function within the reference range have clinical effects."

The news reporters obtained a quote from the research from Oregon Health and Science University, "One important target organ for thyroid hormone is the brain, but little is known about variations in neurocognitive measures within the reference range for thyroid function. This was a cross-sectional study of 132 otherwise healthy hypothyroid subjects receiving chronic replacement therapy with levothyroxine (LT4) who had TSH levels across the full span of the laboratory reference range (0.34-5.6 mU/L). Subjects underwent detailed tests of health status, mood, and cognitive function, with an emphasis on memory and executive functions. Subjects with low-normal (<= 2.5 mU/L) and high-normal (>2.5 mU/L) TSH levels did not differ on most tests of health status, mood, or cognitive function, and there were no correlations between TSH, free T4, or free T3 levels and most outcomes. There was, however, a suggestion that thyroid function affected performance on the Iowa Gambling Task, which mimics real life decision-making. Subjects with low-normal TSH levels made more advantageous decisions than those with high-normal TSH levels. Variations in thyroid function within the laboratory reference range do not appear to have clinically relevant effects on health status, mood, or memory in LT4 treated subjects. However, decision making, which encompasses many executive functions, may be affected."

According to the news reporters, the research concluded: "Unless further studies strengthen this finding, these data do not support narrowing the TSH reference range."

For more information on this research see: Effect of Thyroid Function Variations Within the Laboratory Reference Range on Health Status, Mood, and Cognition in Levothyroxine-Treated Subjects, Thyroid, 2016;26(9):1173-1184. Thyroid can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Thyroid - www.liebertpub.com/overview/thyroid/55/)

Our news correspondents report that additional information may be obtained by contacting M.H. Samuels, Oregon Health Sciences University, Div Endocrinol Diabet & Clin Nutr, Portland, OR 97239, United States. Additional authors for this research include I.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1089/thy.2016.0141. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Portland, Oregon, United States, North and Central America, Levothyroxine Therapy, Drugs and Therapies, Antithyroid Agents, Anticoagulants, Thyroid Drugs, Hormones, Oregon Health and Science University.

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Biotechnology - Liposomes

Reports Summarize Liposomes Study Results from National Heart Lung and Blood Institute (Mammalian Nonmuscle Myosin II Binds to Anionic Phospholipids with Concomitant Dissociation of the Regulatory Light Chain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Biotechnology - Liposomes are presented in a new report. According to news originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "Mammalian cells express three Class II nonmuscle myosins (NM): NM2A, NM2B, and NM2C. The three NM2s have well established essential roles in cell motility, adhesion, and cytokinesis and less well defined roles in vesicle transport and other processes that would require association of NM2s with cell membranes."

Financial support for this research came from National Heart, Lung, and Blood Institute.

Our news journalists obtained a quote from the research from National Heart Lung and Blood Institute, "Previous evidence for the mechanism of NM2-membrane association includes direct interaction of NM2s with membrane lipids and indirect interaction by association of NM2s with membrane-bound F-actin or peripheral membrane proteins. Direct binding of NM2s to phosphatidylserine-liposomes, but not to phosphatidylcholine-liposomes, has been reported, but the molecular basis of the interaction between NM2s and acidic phospholipids has not been previously investigated. We now show that filamentous, full-length NM2A, NM2B, and NM2C and monomeric, non-filamentous heavy meromyosin bind to liposomes containing one or more acidic phospholipids (phosphatidylserine, phosphatidylinositol 4,5-diphosphate, and phosphatidylinositol 3,4,5-triphosphate) but do not bind to 100% phosphatidylcholine-liposomes. Binding of NM2s to acidic liposomes occurs predominantly through interaction of the liposomes with the regulatory light chain (RLC) binding site in the myosin heavy chain with concomitant dissociation of the RLC. Phosphorylation of myosin-bound RLC by myosin light chain kinase substantially inhibits binding to liposomes of both filamentous NM2 and non-filamentous heavy meromyosin; the addition of excess unbound RLC, but not excess unbound essential light chain, competes with liposome binding."

According to the news editors, the research concluded: "Consistent with the in vitro data, we show that endogenous and expressed NM2A associates with the plasma membrane of HeLa cells and fibrosarcoma cells independently of F-actin."

For more information on this research see: Mammalian Nonmuscle Myosin II Binds to Anionic Phospholipids with Concomitant Dissociation of the Regulatory Light Chain.
Reports Summarize Liver Cancer Findings from Itabashi Chuo Medical Center (Early Prediction of the Outcome Using Tumor Markers and mRECIST in Unresectable Hepatocellular Carcinoma Patients Who Underwent Transarterial chemoembolization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "We examined early predictors of the outcome in hepatocellular carcinoma (HCC) patients after transarterial chemoembolization (TACE). We analyzed 116 patients with unresectable HCC treated with initial TACE. alpha-Fetoprotein (AFP) or des-gamma-carboxy prothrombin (DCP) response was assessed in patients who had baseline AFP levels >= 200 ng/ml or DCP >= 60 mAU/ml; a positive response was defined as a reduction of >50% compared to baseline 1 month after TACE."

Our news journalists obtained a quote from the research from Itabashi Chuo Medical Center, "A baseline AFP level 200 ng/ml was associated with a poor overall survival (OS) (29.4 vs. 6.1 months; p<0.0001). AFP response had no significantly prognostic effects on the OS. Conversely, although the baseline DCP did not influence the OS, DCP responders showed a significantly better OS than nonresponders (67.0 vs. 19.8 months, p = 0.020). The baseline AFP (p = 0.004) and initial tumor response evaluated by the modified Response Evaluation Criteria in Solid Tumors (mRECIST) (p = 0.012) were found to be independent predictors of the OS. The combination of the baseline AFP and initial assessment by mRECIST allowed stratification of the OS."

According to the news editors, the research concluded: "The combination of the baseline AFP level and mRECIST is useful for the early prediction of the OS in HCC patients who underwent TACE."

For more information on this research see: Early Prediction of the Outcome Using Tumor Markers and mRECIST in Unresectable Hepatocellular Carcinoma Patients Who Underwent Transarterial chemoembolization. Oncology, 2016;91(6):317-330. Oncology can be
The news correspondents report that additional information may be obtained from T. Ichikawa, Itabashi Chuo Med Center, Dept. of Gastroenterol & Hepatol, Tokyo, Japan. Additional authors for this research include N. Machida, H. Sasaki, A. Tenmoku, H. Kaneko, R. Negishi, I. Oi and M.A. Fujino.

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Keywords for this news article include: Tokyo, Japan, Asia, Chemoembolization, Liver Cancer, Carcinomas, Oncology, Itabashi Chuo Medical Center.

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Oncology - Liver Cancer

Reports Summarize Liver Cancer Findings from Third Military Medical University (Effect of ST2825 on the proliferation and apoptosis of human hepatocellular carcinoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Liver Cancer is the subject of a report. According to news reporting out of Chongqing, People's Republic of China, by NewsRx editors, research stated, "The purpose of this study was to investigate the effect of ST2825, an inhibitor of myeloid differentiation factor 88 (MyD88), on the proliferation and apoptosis of human hepatocellular carcinoma (HCC) cells as well as the potential mechanism and clinical significance of ST2825 in the treatment of HCC. Immunohistochemical staining with an MyD88 antibody was performed on tissues from 80 human HCC patients and adjacent normal tissues."

Our news journalists obtained a quote from the research from Third Military Medical University. "In the in vitro experiment, human HCC HepG-2 cells cultured in vitro were divided into the following groups: blank, control (1% DMSO), low-dose (2 mM), medium-dose (10 mM), and high-dose ST2825 (20 mM). Cell apoptosis was detected by the Annexin V-FITC assay, and HepG-2 cell proliferation was detected by the MTT assay. The expression of IkB, p65, cyclin D1, caspase-3, and bcl-2 in the cells after a 48-h treatment was assayed by western blot analysis. MyD88 expression in the HCC tissue was significantly higher than that in the adjacent normal tissue (p <0.05). The proliferation and apoptosis rates of control HCC cells displayed no significant differences compared with those of the blank group (p >0.05). Compared with the control, ST2825 significantly inhibited the proliferation of and promoted the apoptosis of HCC cells. Moreover, ST2825 significantly decreased bcl-2 expression, increased cleaved caspase-3 expression (p <0.05), and reduced p65 nuclear expression (p <0.05) in a dose-dependent manner."

According to the news editors, the research concluded: "ST2825 inhibits the proliferation of and promotes the apoptosis of HCC cells, thereby suggesting that ST2825 may be a new drug for HCC treatment."

For more information on this research see: Effect of ST2825 on the proliferation and apoptosis of human hepatocellular carcinoma cells. Genetics and Molecular Research
Our news journalists report that additional information may be obtained by contacting Y. Deng, Dept. of Hepatobiliary Surgery Institute, Southwest Hospital, Third Military Medical University, Chongqing, People's Republic of China. Additional authors for this research include J. Sun and L.D Zhang.

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Keywords for this news article include: Asia, Caspase, Genetics, Oncology, Chongqing, Apoptosis, Liver Cancer, Enzymes and Coenzymes, Hepatocellular Carcinoma, People's Republic of China.

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Reviews Summarize Liver Transplants Findings from French National Institute of Health and Medical Research (INSERM) (Role of Sorafenib in Patients With Recurrent Hepatocellular Carcinoma After Liver Transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Transplant Medicine - Liver Transplants. According to news reporting from Creteil, France, by NewsRx journalists, research stated, "The management of hepatocellular carcinoma (HCC) recurrence after liver transplantation (LT) is challenging, especially if it is not treatable by surgery or embolization. The present study aims to compare the survival rates of liver transplanted patients receiving sorafenib or best supportive care (BSC) for HCC recurrence not amenable to curative intent treatments."

The news correspondents obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "This is a retrospective comparative study on a prospectively maintained database. Liver transplanted patients with untreated HCC recurrence receiving BSC (n = 18) until 2007 or sorafenib (n = 15) thereafter were compared. No group difference was observed for demographic characteristics at the time of transplantation and at the time of HCC recurrence. On the explant pathology of the native liver, 81.2% patients were classified within the Milan criteria, and 53.1% presented with microvascular invasion. Hepatocellular carcinoma recurrence was diagnosed 17.8 months (standard deviation: 14.5) after LT, with 17 (53.1%) patients presenting with early recurrence (≤ 12 months). The 1-year survival from untreated progression of HCC recurrence was 23.9% for the BSC and 60% for the sorafenib group (P = .002). The type of treatment (sorafenib vs BSC) was the sole independent predictor of survival (hazard ratio: 2.98; 95% confidence interval: 1.09-8.1; P = .033). In the sorafenib group, 8 (53.3%) patients required dose reduction, and 2 (13.3%) patients discontinued the treatment due to intolerable side effects."

According to the news reporters, the research concluded: "Sorafenib improves survival and is superior to the BSC in cases of untreatable posttransplant hepatocellular carcinoma recurrence."

For more information on this research see: Role of Sorafenib in Patients With Recurrent Hepatocellular Carcinoma After Liver Transplantation. Progress in Transplantation,

Our news journalists report that additional information may be obtained by contacting D. Azoulay, INSERM, Unit 955, Creteil, France. Additional authors for this research include F. Landi, M. Nencioni, A. Palen, E. Lahat, C. Salloum, P. Compagnon, C. Lim, C. Costentin, J. Calderaro, A. Luciani, C. Feray and D. Azoulay.

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Keywords for this news article include: Creteil, France, Europe, Digestive System Surgical Procedures, Oncology, Epidemiology, Liver Transplantation, Transplant Medicine, Liver Transplants, Organ Transplants, Liver Cancer, Biomedicine, Carcinomas, Surgery, French National Institute of Health and Medical Research (INSERM).

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**Cardiovascular Diseases and Conditions - Malignant...**

**Reports Summarize Malignant Hypertension Findings from Institute for Clinical and Experimental Medicine (Intrarenal alterations of the angiotensin-converting enzyme type 2/angiotensin 1-7 complex of the renin-angiotensin system do not alter the ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Malignant Hypertension have been published. According to news reporting from Prague, Czech Republic, by NewsRx journalists, research stated, "The role of the intrarenal renin-angiotensin system (RAS) in the pathophysiology of malignant hypertension is not fully understood. Accumulating evidence indicates that the recently discovered vasodilator axis of the RAS, angiotensin-converting enzyme (ACE) type 2 (ACE2)/angiotensin 1-7 (ANG 1-7), constitutes an endogenous system counterbalancing the hypertensiogenic axis, ACE/angiotensin II (ANG II)/AT1 receptor."

Funders for this research include Internal Grant Agency of the Ministry of Health the Czech Republic, Ministerstvo Zdravotnictvi Ceske Republiky, European Commission.

The news correspondents obtained a quote from the research from Institute for Clinical and Experimental Medicine, "This study aimed to evaluate the role of the intrarenal vasodilator RAS axis in the pathophysiology of ANG II-dependent malignant hypertension in Cyp1a1-Ren-2 transgenic rats. ANG II-dependent malignant hypertension was induced by 13? days' dietary administration of indole-3-carbinol (I3C), a natural xenobiotic that activates the mouse renin gene in Cyp1a1-Ren-2 transgenic rats. It was hypothesized that pharmacologically-induced inhibition of the ACE2/ANG 1-7 complex should aggravate, and activation of this axis should attenuate, the course of ANG II-dependent malignant hypertension. Blood pressure (BP) was monitored by radiotelemetry. ACE2 inhibitor (DX 600, 0.2?mg/day) and ACE2 activator (DIZE, 1?mg/day) were administrated via osmotic minipumps. Even though ACE2 inhibitor significantly decreased and ACE2 activator increased intrarenal ANG 1-7 concentrations, the course of BP, as well as of albuminuria, cardiac hypertrophy and renal glomerular damage, were not altered. It was shown that intrarenal alterations in the ACE2/ANG 1-7 complex did not..."
significantly modify the course of malignant hypertension in I3C-induced Cyp1a1-Ren-2 transgenic rats."

According to the news reporters, the research concluded: "Thus, in our experimental setting alterations of this intrarenal vasodilator complex of the RAS do not significantly modify the form of malignant hypertension that clearly depends on the inappropriately increased activity of the ACE/ANG II/AT1 receptor axis."


Our news journalists report that additional information may be obtained by contacting Z. Huskova, Centre for Experimental Medicine, Institute for Clinical and Experimental Medicine, Prague, Czech Republic. Additional authors for this research include L. Kopkan, L. Cervenkova, Š. Doleželova, Z. Vanourkova, P. Škaroupkova, A. Nishiyama, E. Kompanowska-Jezierska, J. Sadowski, H.J. Kramer and L. Cervenka.

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Keywords for this news article include: Renin, Prague, Genetics, Autacoids, Angiotensins, Neuropeptides, Oligopeptides, Czech Republic, Peptide Hormones, Peptide Proteins, Biological Factors, Peptide Hydrolases, Enzymes and Coenzymes, Malignant Hypertension, Proprotein Convertases, Aspartic Acid Endopeptidases, Cardiovascular Diseases and Conditions.

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Mass Spectrometry

Reports Summarize Mass Spectrometry Study Results from Uppsala University (Identification of transformation products from b-blocking agents formed in wetland microcosms using LC-Q-ToF)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mass Spectrometry have been published. According to news originating from Uppsala, Sweden, by NewsRx correspondents, research stated, "Identification of degradation products from trace organic compounds, which may retain the biological activity of the parent compound, is an important step in understanding the long-term effects of these compounds on the environment. Constructed wetlands have been successfully utilized to remove contaminants from wastewater effluent, including pharmacologically active compounds."

Our news journalists obtained a quote from the research from Uppsala University, "However, relatively little is known about the transformation products formed during wetland treatment. In this study, three different wetland microcosm treatments were used to determine the biotransformation products of the β-adrenergic receptor antagonists atenolol, metoprolol and propranolol. LC/ESI-Q-ToF run in the MS(E) and MS/MS modes was used to identify and
characterize the degradation products through the accurate masses of precursor and product ions. The results were compared with those of a reference standard when available. Several compounds not previously described as biotransformation products produced in wetlands were identified, including propranolol-O-sulfate, 1-naphthol and the human metabolite N-deaminated metoprolol. Transformation pathways were significantly affected by microcosm conditions and differed between compounds, despite the compounds' structural similarities. Altogether, a diverse range of transformation products in wetland microcosms were identified and elucidated using high resolving MS."

According to the news editors, the research concluded: "This work shows that transformation products are not always easily predicted, nor formed via the same pathways even for structurally similar compounds."


The news correspondents report that additional information may be obtained from A. Svan, Division of Analytical Pharmaceutical Chemistry, Uppsala University, BMC Box 574, SE-751 23, Uppsala, Sweden. Additional authors for this research include M. Hedeland, T. Arvidsson, J.T. Jasper, D.L. Sedlak and C.E Pettersson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jms.3737. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Uppsala, Mass Spectrometry.

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Oncology - Melanoma
Reports Summarize Melanoma Findings from Sapienza University (A Case of Sinonasal Melanoma With Unusual Primary Exon 17 KIT D820G Mutation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Melanoma are presented in a new report. According to news originating from Rome, Italy, by NewsRx correspondents, research stated, "SINONASAL melanomas are rare neoplasms with poor prognosis that may harbor KIT and NRAS genes mutations. Molecular alterations represent possible targets of tailored therapeutic approaches."

Our news journalists obtained a quote from the research from Sapienza University, "We describe the case of a 74-year-old patient with primary melanoma of the nasal cavity. Mutational analysis of KIT demonstrated a point missense mutation D820G in exon 17. This represents, to our knowledge, the first case of sinonasal melanoma harboring this specific KIT mutation. Although KIT mutations confer sensibility to thyrosine-kinase inhibitor, it has been proved that this is strongly dependent on the region in which this alteration occurs."

According to the news editors, the research concluded: "Thus it seems very important to perform an accurate gene mutational analysis to provide a biological rationale to
the tailored therapy."

For more information on this research see: A Case of Sinonasal Melanoma With Unusual Primary Exon 17 KIT D820G Mutation. *Applied Immunohistochemistry & Molecular Morphology*, 2016;24(10):E94-E97. *Applied Immunohistochemistry & Molecular Morphology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

The news correspondents report that additional information may be obtained from E. Pilozzi, Roma La Sapienza University, Dept. of Clin & Mol Med, Rome, Italy. Additional authors for this research include A. Bartolazzi, F. Fochetti, E. Duranti, S. Scarpino, M. Valeriani, P. Moriconi and L. Ruco.

Keywords for this news article include: Rome, Italy, Europe, Genetics, Oncology, Melanoma, Sapienza University.

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**Oncology - Melanoma**

**Reports Summarize Melanoma Findings from University of Saskatchewan (E valuation of beta-cyclodextrin-modified gemini surfactant-based delivery systems in melanoma models)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Melanoma. According to news reporting from Saskatoon, Canada, by NewsRx journalists, research stated, "Novel drug delivery systems are developed to improve the biological behavior of poorly soluble drugs and to improve therapeutic outcomes. In melanoma therapy, the goal is efficient drug delivery and mitigation of drug resistance."

The news correspondents obtained a quote from the research from the University of Saskatchewan, "Melphalan (Mel), a currently used therapeutic agent for melanoma, requires solvent system for solubilization, leading to poor chemical stability. Moreover, drug resistance often renders the drug inefficient in clinical setting. A novel beta-cyclodextrin-modified gemini surfactant (CDgemini) delivery system was developed to incorporate Mel in order to improve its physicochemical and biological behavior. Melphalan nanoparticles (Mel-NP) showed optimal particle size in the 200-250 nm range for endocytosis and induced significantly higher cell death compared with Mel (50% of inhibitory concentration [IC50] of 36 mu M for the complexes vs 82 mu M for Mel). The CDgemini delivery system did not alter the pathway of the cellular death triggered by Mel and caused no intrinsic toxicity to the cells. The Mel-NP complexes induced significant cell death in melanoma cells that were rendered resistant to Mel."

According to the news reporters, the research concluded: "These findings demonstrate in principle the applicability of the CDgemini delivery system as safe and efficient alternative to the current melanoma therapy, especially in chemoresistant cases."

Our news journalists report that additional information may be obtained by contacting I. Badea, University of Saskatchewan, Coll Pharm & Nutr, Drug Design & Discovery Res Grp, Saskatoon, SK, Canada. Additional authors for this research include W. Mohammed-Saeid, H. Getson, C. Roy, M. Poorghorban, J.M. Chitanda, R. Verrall and I. Badea.

Keywords for this news article include: Saskatoon, Saskatchewan, Canada, North and Central America, Drugs and Therapies, Drug Resistance, Oncology, Melanoma, University of Saskatchewan.

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Otorhinolaryngologic Diseases and Conditions -

Reports Summarize Meniere's Disease Findings from Imperial College
(Intratympanic methylprednisolone versus gentamicin in patients with unilateral Meniere's disease: a randomised, double-blind, comparative effectiveness trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Otorhinolaryngologic Diseases and Conditions - Meniere's Disease. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Meniere's disease is characterised by severe vertigo attacks and hearing loss. Intratympanic gentamicin, the standard treatment for refractory Meniere's disease, reduces vertigo, but damages vestibular function and can worsen hearing."

Financial support for this research came from Meniere's Society.

Our news journalists obtained a quote from the research from Imperial College, "We aimed to assess whether intratympanic administration of the corticosteroid methylprednisolone reduces vertigo compared with gentamicin. In this double-blind comparative effectiveness trial, patients aged 18-70 years with refractory unilateral Meniere's disease were enrolled at Charing Cross Hospital (London, UK) and Leicester Royal Infirmary (Leicester, UK). Patients were randomly assigned (1:1) by a block design to two intratympanic methylprednisolone (62.5 mg/mL) or gentamicin (40 mg/mL) injections given 2 weeks apart, and were followed up for 2 years. All investigators and patients were masked to treatment allocation. The primary outcome was vertigo frequency over the final 6 months (18-24 months after injection) compared with the 6 months before the first injection. Analyses were done in the intention-to-treat population, and then per protocol. This trial is registered with ClinicalTrials.gov, number NCT00802529. Between June 19, 2009, and April 15, 2013, 256 patients with Meniere's disease were screened, 60 of whom were enrolled and randomly assigned: 30 to gentamicin and 30 to methylprednisolone. In the intention-to-treat analysis (ie, all 60 patients), the mean number of vertigo attacks in the final 6 months compared with the 6 months before the first injection (primary outcome) decreased from 19.9 (SD 16.7) to 2.5 (5.8) in the gentamicin group (87% reduction) and from 16.4 (12.5) to 1.6 (3.4) in the methylprednisolone group (90% reduction; mean difference -0.9, 95% CI -3.4 to 1.6). Patients whose vertigo did not improve after injection (ie, non-responders) after being assessed by an unmasked clinician were eligible for additional injections given by a masked clinician (eight patients in the gentamicin group vs 15 in the methylprednisolone group). Two non-responders switched from methylprednisolone to gentamicin. Both drugs were well tolerated with no safety concerns. Six patients reported one adverse event each: three in the gentamicin group and three in the methylprednisolone group.
The most common adverse event was minor ear infections, which was experienced by one patient in the gentamicin group and two in the methylprednisolone group. Methylprednisolone injections are a non-ablative, effective treatment for refractory Meniere's disease."

According to the news editors, the research concluded: "The choice between methylprednisolone and gentamicin should be made based on clinical knowledge and patient circumstances."


Our news journalists report that additional information may be obtained by contacting A.M. Bronstein, Imperial Coll London, Div Brain Sci, Neurootol Unit, London W6 8RF, United Kingdom. Additional authors for this research include K. Agarwal, Q. Arshad, M. Hariri, P. Rea, B.M. Seemungal, J.F. Golding, J.P. Harcourt and A.M. Bronstein.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S0140-6736(16)31461-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Otorhinolaryngologic Diseases and Conditions, Nervous System Diseases and Conditions, Vestibular Diseases and Conditions, Labyrinth Diseases and Conditions, Ear Diseases and Conditions, Methylprednisolone Therapy, Ophthalmic Antiinfectives, Adrenal Cortical Steroids, Ophthalmic Preparations, Endolymphatic Hydrops, Drugs and Therapies, Meniere's Disease, Aminoglycosides, Pharmaceuticals, Glucocorticoids, Otolaryngology, Antibiotics, Gentamicin, Audiology, Hormones, Vertigo, Imperial College.

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Life Science Research - Molecular Biology

Reports Summarize Molecular Biology Study Results from Emory University (Arl13b regulates Shh signaling from both inside and outside the cilium)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Molecular Biology have been published. According to news originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "The regulatory GTPase Arl13b localizes to primary cilia, where it regulates Sonic hedgehog (Shh) signaling. Missense mutations in ARL13B can cause the ciliopathy Joubert syndrome (JS), and the mouse null allele is embryonic lethal."

Our news journalists obtained a quote from the research from Emory University, "We used mouse embryonic fibroblasts as a system to determine the effects of Arl13b mutations on Shh signaling. We tested seven different mutants-three JS-causing variants, two point mutants predicted to alter guanine nucleotide handling, one that disrupts cilia localization, and one that prevents palmitoylation and thus membrane binding-in assays of transcriptional and nontranscriptional Shh signaling. We found that mutations disrupting Arl13b's palmitoylation site, cilia localization signal, or GTPase handling altered the Shh response in distinct assays of
transcriptional or nontranscriptional signaling. In contrast, JS-causing mutations in Arl13b did not affect Shh signaling in these same assays, suggesting that these mutations result in more subtle defects, likely affecting only a subset of signaling outputs. Finally, we show that restricting Arl13b from cilia interferes with its ability to regulate Shh-stimulated chemotaxis, despite previous evidence that cilia themselves are not required for this nontranscriptional Shh response."

According to the news editors, the research concluded: "This points to a more complex relationship between the ciliary and nonciliary roles of this regulatory GTPase than previously envisioned."

For more information on this research see: Arl13b regulates Shh signaling from both inside and outside the cilium. *Molecular Biology of the Cell*, 2016;27(23):3780-3790. *Molecular Biology of the Cell* can be contacted at: Amer Soc Cell Biology, 8120 Woodmont Ave, Ste 750, Bethesda, MD 20814-2755, USA.

The news correspondents report that additional information may be obtained from T. Caspary, Emory University, Dept. of Human Genet, Atlanta, GA 30322, United States. Additional authors for this research include M.F. Bijlsma, A.I. Ivanova, S.K. Suciu, R.A. Kahn and T. Caspary.

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Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Molecular Biology, Life Science Research, Enzymes and Coenzymes, Genetics, GTPase, Emory University.

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Myeloid Cells

**Reports Summarize Myeloid Cells Findings from Research Center**

(Depletion of CLL-associated patrolling monocytes and macrophages controls disease development and repairs immune dysfunction in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Myeloid Cells have been presented. According to news reporting originating from Heidelberg, Germany, by NewsRx correspondents, research stated, "Chronic lymphocytic leukemia (CLL) is characterized by apoptosis resistance and a dysfunctional immune system. Previous reports suggested a potential role of myeloid cells in mediating these defects."

Our news editors obtained a quote from the research from Research Center, "However, the composition and function of CLL-associated myeloid cells have not been thoroughly investigated in vivo. Using the Em-TCL1 mouse model, we observed severe skewing of myeloid cell populations with CLL development. Monocytes and M2-like macrophages infiltrated the peritoneal cavity of leukemic mice. Monocytes also accumulated in the spleen in a CCR2-dependent manner, and were severely skewed toward Ly6C(low) patrolling or nonclassical phenotype. In addition, the percentage of MHC-II(hi) dendritic cells and macrophages significantly dropped in the spleen. Gene expression profiling of CLL-associated monocytes revealed aberrantly high PD-L1 expression and secretion of multiple
inflammatory and immunosuppressive cytokines like interleukin-10, tumor necrosis factor-a and CXCL9. In vivo myeloid cell depletion using liposomal Clodronate resulted in a significant control of CLL development accompanied by a pronounced repair of innate immune cell phenotypes and a partial resolution of systemic inflammation. In addition, CLL-associated skewing of T cells toward antigen-experienced phenotypes was repaired."

According to the news editors, the research concluded: "The presented data suggest that targeting nonmalignant myeloid cells might serve as a novel immunotherapeutical strategy for CLL."

For more information on this research see: Depletion of CLL-associated patrolling monocytes and macrophages controls disease development and repairs immune dysfunction in vivo. Leukemia, 2015;30(3):570-9. (Nature Publishing Group - www.nature.com/; Leukemia - www.nature.com/leu/)

The news editors report that additional information may be obtained by contacting B.S. Hanna, Division of Molecular Genetics, German Cancer Research Center (DKFZ), Heidelberg, Germany. Additional authors for this research include F. McClanahan, H. Yazdanparast, N. Zaborsky, V. Kalter, P.M. Roßner, A. Benner, C. Durr, A. Egle, J.G. Gribben, P. Lichter and M. Seiffert.

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Keywords for this news article include: Europe, Germany, Genetics, Monocytes, Heidelberg, Immunology, Blood Cells, Macrophages, Cell Research, Myeloid Cells, Bone Marrow Cells, Mononuclear Leukocytes, Connective Tissue Cells, Hemic and Immune Systems, Mononuclear Phagocyte System.

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Gram-Negative Bacteria - Neisseria lactamica

Reports Summarize Neisseria lactamica Findings from Children's University Hospital (Resolution of a Protracted Serogroup B Meningococcal Outbreak with Whole-Genome Sequencing Shows Interspecies Genetic Transfer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gram-Negative Bacteria - Neisseria lactamica. According to news reporting originating in Dublin, Ireland, by NewsRx journalists, research stated, "A carriage study was undertaken (n = 112) to ascertain the prevalence of Neisseria spp. following the eighth case of invasive meningococcal disease in young children (5 to 46 months) and members of a large extended indigenous ethnic minority Traveller family (n = 123), typically associated with high-occupancy living conditions. Nested multilocus sequence typing (MLST) was employed for case specimen extracts."

Financial support for this research came from Wellcome.

The news reporters obtained a quote from the research from Children's University Hospital, "Isolates were genome sequenced and then were assembled de novo and deposited into the Bacterial Isolate Genome Sequencing Database (BIGSdb). This facilitated an expanded MLST approach utilizing large numbers of loci for isolate characterization and discrimination."
A rare sequence type, ST-6697, predominated in disease specimens and isolates that were carried (n = 8/14), persisting for at least 44 months, likely driven by the high population density of houses (n = 67/112) and trailers (n = 45/112). Carriage for Neisseria meningitidis (P < 0.05) and Neisseria lactamica (P < 0.002) (2-sided Fisher's exact test) was more likely in the smaller, more densely populated trailers. Meningococcal carriage was highest in 24-to 39-year-olds (45%, n = 9/20). Evidence of horizontal gene transfer (HGT) was observed in four individuals cocolonized by Neisseria lactamica and Neisseria meningitidis. One HGT event resulted in the acquisition of 26 consecutive N. lactamica alleles. This study demonstrates how housing density can drive meningococcal transmission and carriage, which likely facilitated the persistence of ST-6697 and prolonged the outbreak.

According to the news reporters, the research concluded: "Whole-genome MLST effectively distinguished between highly similar outbreak strain isolates, including those isolated from person-to-person transmission, and also highlighted how a few HGT events can distort the true phylogenetic relationship between highly similar clonal isolates."

For more information on this research see: Resolution of a Protracted Serogroup B Meningococcal Outbreak with Whole-Genome Sequencing Shows Interspecies Genetic Transfer. *Journal of Clinical Microbiology*, 2016;54(12):2891-2899. *Journal of Clinical Microbiology* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.

Our news correspondents report that additional information may be obtained by contacting R.M. Mulhall, Temple St Childrens Univ Hosp, Irish Meningitis & Sepsis Reference Lab, Dublin, Ireland. Additional authors for this research include C. Brehony, L. O'Connor, K. Meyler, K.A. Jolley, J. Bray, D. Bennett, M.C.J. Maiden and R. Cunney. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/JCM.00881-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dublin, Ireland, Europe, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Neisseriaceae, Epidemiology, Gram-Negative Bacteria, Neisseria meningitidis, Neisseria lactamica, Betaproteobacteria, Proteobacteria, Meningococcal, Genetics, Children's University Hospital.

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**Surgery - Neurosurgery**

**Reports Summarize Neurosurgery Findings from University of Minnesota (Three-dimensional assessment of the effects of high-density embolization material on the absorbed dose in the target for Gamma Knife radiosurgery of arteriovenous ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Surgery - Neurosurgery is now available. According to news reporting originating in Minneapolis, Minnesota, by NewsRx journalists, research stated, "Arteriovenous malformation (AVM) is an intracranial vascular disorder. Gamma Knife radiosurgery (GKRS) is used in conjunction with intraarterial embolization to eradicate the nidus of AVMs."

The news reporters obtained a quote from the research from the University of
Minnesota, "Clinical results indicate that patients with prior embolization tend to gain less benefit from GKRS. The authors hypothesized that this was partly caused by dosimetric deficiency. The actual dose delivered to the target may be smaller than the intended dose because of increased photon attenuation by high-density embolic materials. The authors performed a phantom-based study to quantitatively evaluate the 3D dosimetric effect of embolic material on GKRS. A 16-cm-diameter and 12-cm-long cylindrical phantom with a 16-cm-diameter hemispherical dome was printed by a 3D printer. The phantom was filled with radiologically tissue-equivalent polymer gel. To simulate AVM treatment with embolization, phantoms contained Onyx 18. The material was injected into an AVM model, which was suspended in the polymer gel. The phantom was attached to a Leksell frame by standard GK fixation method, using aluminum screws, for imaging. The phantom was scanned by a Phillips CT scanner with the standard axial-scanning protocol (120 kV and 1.5-mm slice thickness). CT-based treatment planning was performed with the GammaPlan treatment planning system (version 10.1.1). The plan was created to cover a fictitious AVM target volume near the embolization areas with eleven 8-mm shots and a prescription dose of 20 Gy to 50% isodose level. Dose distributions were computed using both tissue maximum ratio (TMR) 10 and convolution dose-calculation algorithms. These two 3D dose distributions were compared using an in-house program. Additionally, the same analysis method was applied to evaluate the dosimetric effects for 2 patients previously treated by GKRS. The phantom-based analyses showed that the mean dose difference between TMR 10 and convolution doses of the AVM target was no larger than 6%. The difference for GKRS cases was 5%. There were small areas where a large dose difference was observed on the isodose line plots, and those differences were mostly at or in the vicinity of the embolization materials. The results of both the phantom and patient studies showed a dose reduction no larger than 5% due to the embolization material placed near the target."

According to the news reporters, the research concluded: "Although the comparison of 3D dose distributions indicated small local effects of the embolic material, the clinical impact on the obliteration rate is expected to be small."

For more information on this research see: Three-dimensional assessment of the effects of high-density embolization material on the absorbed dose in the target for Gamma Knife radiosurgery of arteriovenous malformations. *Journal of Neurosurgery*, 2016;125():123-128. *Journal of Neurosurgery* can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

Our news correspondents report that additional information may be obtained by contacting Y. Watanabe, University of Minnesota, Dept. of Radiat Oncol, Minneapolis, MN 55455, United States. Additional authors for this research include D. Sandhu, L. Warmington, S. Moen and R. Tummala.

Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Neurosurgery, Surgery, Embolization, Angiology, University of Minnesota.

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Reports Summarize Non-Small Cell Lung Cancer Findings from I. Sullivan and Co-Authors (Treatment modalities for advanced ALK-rearranged non-small-cell lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Non-Small Cell Lung Cancer is the subject of a report. According to news reporting originating from Villejuif, France, by NewsRx correspondents, research stated, "The ALK gene plays a key role in the pathogenesis of non-small-cell lung cancer (NSCLC). Patients with NSCLC harboring an ALK-rearrangement represent the second oncogene addiction to be identified in this disease."

Our news editors obtained a quote from the research, "Crizotinib was the first ALK inhibitor showing pronounced clinical activity, and is now a reference treatment for ALK-positive NSCLC disease. However, despite initial impressive responses to crizotinib, acquired resistance almost invariably develops within 12 months. The pressing need for effective second-line agents has prompted the rapid development of next-generation ALK inhibitors."

According to the news editors, the research concluded: "These agents, notably ceritinib and alectinib as the most developed, have a higher potency against ALK than crizotinib, along with activity against tumors harboring crizotinib-resistant mutations and potentially improved CNS penetration."

For more information on this research see: Treatment modalities for advanced ALK-rearranged non-small-cell lung cancer. Future Oncology, 2016;12(7):945-61.

The news editors report that additional information may be obtained by contacting I. Sullivan, Medical Oncology Department, Gustave Roussy, 114 Rue Edouard Vaillant, 94805 Villejuif Cedex, France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.16.15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: France, Europe, Genetics, Oncology, Villejuif, Article Review, Lung Neoplasms, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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Reports Summarize Non-Small Cell Lung Cancer Findings from Institute for Cancer Research and Treatment (IRCCS) (KRAS mutations affect prognosis of non-small-cell lung cancer patients treated with first-line platinum containing chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Non-Small Cell Lung Cancer are presented in a new report. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "KRAS mutations seem to indicate a poor outcome in Non-
Small-Cell Lung Cancer (NSCLC) but such evidence is still debated. The aim of this planned ancillary study within the TAILOR trial was to assess the prognostic value of KRAS mutations in advanced NSCLC patients treated with platinum-based first-line chemotherapy.

Our news editors obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Patients (N=540), enrolled in the study in 52 Italian hospitals, were centrally genotyped twice in two independent laboratories for EGFR and KRAS mutational status. Of these, 247 patients were eligible and included in the present study. The primary endpoint was overall survival (OS) according to KRAS mutational status in patients harboring EGFR wild-type. Sixty (24.3%) out of 247 patients harbored KRAS mutations. Median OS was 14.3 months and 10.6 months in wild-type and mutated KRAS patients, respectively (unadjusted Hazard Ratio [HR]=1.41, 95% Confidence Interval [CI]: 1.03-1.94 p=0.032; adjusted HR=1.39, 95% CI: 1.00-1.94 p=0.050).

According to the news editors, the research concluded: "This study, with all consecutive patients genotyped, indicates that the presence of KRAS mutations has a mild negative impact on OS in advanced NSCLC patient treated with a first-line platinum-containing regimen."

For more information on this research see: KRAS mutations affect prognosis of non-small-cell lung cancer patients treated with first-line platinum containing chemotherapy. *Oncotarget, 2015;6(32):34014-22.*

The news editors report that additional information may be obtained by contacting M. Marabese, Oncology Department, IRCCS - Istituto di Ricerche Farmacologiche Mario Negri, Milan, Italy. Additional authors for this research include M. Ganzinelli, M.C. Garassino, F.A. Shepherd, S. Piva, E. Caiola, M. Macerelli, A. Bettini, C. Lauricella, I. Floriani, G. Farina, F. Longo, L. Bonomi, M.A. Fabbri, S. Veronese, S. Marsoni, M. Broggini and Rulli.

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Keywords for this news article include: Milan, Italy, Europe, Genetics, Oncology, Chemotherapy, Lung Neoplasms, Drugs and Therapies, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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**Oncology - Non-Small Cell Lung Cancer**

**Reports Summarize Non-Small Cell Lung Cancer Study Results from M.S. Anker and Co-Researchers (Resting heart rate is an independent predictor of death in patients with colorectal, pancreatic, and non-small cell lung cancer: results of a ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news reporting originating in Gottingen, Germany, by NewsRx journalists, research stated, "Patients with advanced cancer have been shown to suffer from abnormal cardiac function and impaired exercise capacity that may contribute to their impaired quality of life. As tachycardia is considered as a sign of potential early cardiac damage, we sought to determine whether resting heart rate and other ECG-derived variables have prognostic
The news reporters obtained a quote from the research, "From 2005 to 2010, we enrolled 145 patients with histologically confirmed cancer (36 colorectal, 72 pancreatic, and 37 non-small cell lung cancer patients) and 59 healthy controls. During a mean follow-up of 27 months, 82 patients (57%) died from any cause. The mean resting heart rate of healthy subjects was 70+/-13 b.p.m., and that of cancer patients was 79+/-14 b.p.m. (P < 0.0001). As a sensitivity analysis, we excluded control subjects taking a beta-blocker, but resting heart rate remained increased in cancer patients vs. controls (P < 0.0001). Resting heart rate >= 75 b.p.m. [hazard ratio (HR) 1.84, 95% confidence interval (CI) 1.16-2.94; P = 0.01] significantly predicted survival in univariable analyses and remained an independent predictor of survival in a multivariate model (HR 1.67, 95% CI 1.01-2.78; P = 0.04). Furthermore, the heart rate stayed significant in a second model that included age and sex as well."

According to the news reporters, the research concluded: "The present study is the first to show that resting heart rate independently of haemoglobin and tumour stage predicts survival in patients with advanced colorectal, pancreatic, and non-small cell lung cancer, and may therefore represent a therapeutic target."


Our news correspondents report that additional information may be obtained by contacting S. von Haehling, Univ Med Gottingen UMG, Dept. of Cardiol & Pneumol, Innovat Clin Trials, Gottingen, Germany. Additional authors for this research include N. Ebner, B. Hildebrandt, J. Springer, M. Sinn, H. Riess, S.D. Anker, U. Landmesser, W. Haverkamp and S. von Haehling.

Keywords for this news article include: Gottingen, Germany, Europe, Non-Small Cell Lung Cancer, Colorectal Research, Gastroenterology, Cardiovascular, Lung Neoplasms, Cardiology, Pancreas, Oncology.

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**Oncology - Non-Small Cell Lung Cancer**

**Reports Summarize Non-Small Cell Lung Cancer Study Results from Research Hospital (Retrospective analysis of third-line chemotherapy in advanced non-small cell lung cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news originating from Van, Turkey, by NewsRx correspondents, research stated, "First-and second-line chemotherapies have been demonstrated to be effective in treatment of patients with inoperable, advanced non-small cell lung cancer (NSCLC), although the role of third-line chemotherapy remains unclear. The present investigation assessed treatment outcomes in patients with advanced NSCLC who received third-line and higher chemotherapy."
Our news journalists obtained a quote from the research from Research Hospital, "This retrospective study included consecutive patients with advanced NSCLC who received at least three lines of systemic chemotherapy. A total of 72 patients who had received third-line or higher chemotherapy were included in the analysis. The median age of patients was 49 years (range 41-76), and there were 13 (18.1%) women and 59 (81.9%) men. Estimated median survival was 26 months. Moreover, overall survival was significantly longer in patients for whom disease control was achieved after second-line chemotherapy compared to those with disease progression (34 vs. 17 months, respectively). Survival after third-line treatment was significantly longer in the group with Eastern Cooperative Oncology Group (ECOG) performance status 0-1 at the beginning of third-line therapy compared to patients with a status of 2-3. In patients with advanced stage NSCLC, administration of third-line and higher systemic chemotherapy may be associated with increase in overall survival."

According to the news editors, the research concluded: "Furthermore, greater increases in overall survival were also observed in patients for whom disease control was achieved after second-line therapy and in those with ECOG performance status of 0-1 before third-line treatment."


The news correspondents report that additional information may be obtained from A.M. Tatli, Dept. of Medical Oncology, Van Training and Research Hospital, Van, Turkey. Additional authors for this research include D. Arslan, M. Uysal, S.S. Goksu, S.G. Gunduz, H.S. Coskun, M. Ozdogan, B. Savas and H.S Bozcuk.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.146092. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Van, Turkey, Eurasia, Oncology, Chemotherapy, Lung Neoplasms, Drugs and Therapies, Post Trial Research, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer, Clinical Trials and Studies.

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Reports Summarize Obesity Hypoventilation Syndrome Findings from CIBERES (The Effect of Supplemental Oxygen in Obesity Hypoventilation Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Respiratory Tract Diseases and Conditions - Obesity Hypoventilation Syndrome have been published. According to news reporting originating from Madrid, Spain, by NewsRx correspondents, research stated, "Low flow supplemental oxygen is commonly prescribed to patients with obesity hypoventilation syndrome (OHS). However, there is a paucity of data regarding its efficacy and safety."

Our news editors obtained a quote from the research from CIBERES, "The objective of this study was to assess the medium-term treatment efficacy of adding supplemental oxygen therapy to commonly prescribed treatment modalities in OHS. In this post hoc analysis of a
previous randomized controlled trial, we studied 302 sequentially screened OHS patients who were randomly assigned to noninvasive ventilation, continuous positive airway pressure, or lifestyle modification. Outcomes at 2 mo included arterial blood gases, symptoms, quality of life, blood pressure, polysomnography, spirometry, 6-min walk distance, and hospital resource utilization. Statistical analysis comparing patients with and without oxygen therapy in the three treatment groups was performed using an intention-to-treat analysis. In the noninvasive ventilation group, supplemental oxygen reduced systolic blood pressure although this could be also explained by a reduction in body weight experienced in this group. In the continuous positive airway pressure group, supplemental oxygen increased the frequency of morning confusion. In the lifestyle modification group, supplemental oxygen increased compensatory metabolic alkalosis and decreased the apnea-hypopnea index during sleep. Oxygen therapy was not associated with an increase in hospital resource utilization in any of the groups. After 2 mo of follow-up, chronic oxygen therapy produced marginal changes that were insufficient to consider it, globally, as beneficial or deleterious. Because supplemental oxygen therapy did not increase hospital resource utilization, we recommend prescribing oxygen therapy to patients with OHS who meet criteria with close monitoring."

According to the news editors, the research concluded: "Long-term studies examining outcomes such as incident cardiovascular morbidity and mortality are necessary."

For more information on this research see: The Effect of Supplemental Oxygen in Obesity Hypoventilation Syndrome. *Journal of Clinical Sleep Medicine*, 2016;12(10):1379-1388. *Journal of Clinical Sleep Medicine* can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.6194. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Nutritional and Metabolic Diseases and Conditions, Respiratory Tract Diseases and Conditions, Continuous Positive Airway Pressure, Obesity Hypoventilation Syndrome, Positive-Pressure Respiration, Respiratory Insufficiency, Obstructive Sleep Apnea, Respiration Disorders, Sleep Apnea Syndromes, Respiratory Therapy, Nutrition Disorders, Diet and Nutrition, Sleep Disorders, Blood Pressure, Overnutrition, Hemodynamics, Chalcogens, Bariatries, Dyssomnias, Hospital, CIBERES.

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**Reports Summarize Obesity Study Results from Deakin University (Can policy ameliorate socioeconomic inequities in obesity and obesity-related behaviours? A systematic review of the impact of universal policies on adults and children)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Obesity is the subject of a report. According to news reporting originating from Geelong, Australia, by NewsRx correspondents, research stated, "This systematic review examined the impact of universal policies on socioeconomic inequities in obesity, dietary and physical activity behaviours among adults and children. PRISMA-Equity guidelines were followed."

Our news editors obtained a quote from the research from Deakin University, "Database searches spanned from 2004 to August 2015. Eligible studies assessed the impact of universal policies on anthropometric, dietary or physical activity-related outcomes in adults or children according to socioeconomic position. Thirty-six studies were included. Policies were classified as agentic, agento-structural or structural, and their impact on inequities was rated as positive, neutral, negative or mixed according to the dominant associations observed. Most policies had neutral impacts on obesity-related inequities regardless of whether they were agentic (60% neutral), agento-structural (68% neutral) or structural (67% neutral). The proportion of positive impacts was similar across policy types (10% agentic, 18% agento-structural and 11% structural), with some differences for negative impacts (30% agentic, 14% agento-structural and 22% structural). The majority of associations remained neutral when stratified by participant population, implementation level and socioeconomic position measures and by anthropometric and behavioural outcomes. Fiscal measures had consistently neutral or positive impacts on inequities."

According to the news editors, the research concluded: "Findings suggest an important role for policy in addressing obesity in an equitable manner and strengthen the case for implementing a broad complement of policies spanning the agency-structure continuum."


The news editors report that additional information may be obtained by contacting D.L. Olstad, Deakin University, Sch Exercise & Nutr Sci, IPAN, Geelong, Vic, Australia. Additional authors for this research include M. Teychenne, L.M. Minaker, D.R. Taber, K.D. Raine, C.I.J. Nykiforuk and K. Ball.

Keywords for this news article include: Geelong, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Deakin University.

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Oncology - Oral Cancer

Reports Summarize Oral Cancer Study Results from Barretos Cancer Hospital (Tapirira guianensis Aubl. Extracts Inhibit Proliferation and Migration of Oral Cancer Cells Lines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Oral Cancer. According to
news reporting originating from Barretos, Brazil, by NewsRx correspondents, research stated, "Cancer of the head and neck is a group of upper aerodigestive tract neoplasms in which aggressive treatments may cause harmful side effects to the patient. In the last decade, investigations on natural compounds have been particularly successful in the field of anticancer drug research."

Our news editors obtained a quote from the research from Barretos Cancer Hospital, "Our aim is to evaluate the antitumor effect of Tapirira guianensis Aubl. extracts on a panel of head and neck squamous cell carcinoma (HNSCC) cell lines. Analysis of secondary metabolites classes in fractions of T. guianensis was performed using Nuclear Magnetic Resonance (NMR). Mutagenicity effect was evaluated by Ames mutagenicity assay. The cytotoxic effect, and migration and invasion inhibition were measured. Additionally, the expression level of apoptosis-related molecules (PARP, Caspases 3, and Fas) and MMP-2 was detected using Western blot. Heterogeneous cytotoxicity response was observed for all fractions, which showed migration inhibition, reduced matrix degradation, and decreased cell invasion ability. Expression levels of MMP-2 decreased in all fractions, and particularly in the hexane fraction. Furthermore, overexpression of FAS and caspase-3, and increase of cleaved PARP indicates possible apoptosis extrinsic pathway activation."

According to the news editors, the research concluded: "Antiproliferative activity of T. guianensis extract in HNSCC cells lines suggests the possibility of developing an anticancer agent or an additive with synergic activities associated with conventional anticancer therapy."


Keywords for this news article include: Barretos, Brazil, South America, Drugs and Therapies, Mouth Neoplasms, Cancer Therapy, Oral Cancers, Oncology, Barretos Cancer Hospital.

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Musculoskeletal Diseases and Conditions - …

Reports Summarize Osteopetrosis Findings from Shandong University
(Characterization of a Relatively Malignant Form of Osteopetrosis Caused by a Novel Mutation in the PLEKHM1 Gene)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Musculoskeletal Diseases and Conditions - Osteopetrosis are presented in a new report. According to news reporting originating from Shandong, People's Republic of China, by NewsRx correspondents, research stated, "Osteopetrosis (OMIM: 611497), literally 'stone bone,' is a group of inherited bone disorders characterized by increased skeletal mass due to defective osteoclast function. A patient who reported a history of frequent
fractures, weakness and fatigue was admitted to our hospital in 2011.”

Our news editors obtained a quote from the research from Shandong University, "The patient presented with the typical features of osteopetrosis: fractures after minor trauma, early tooth loss, anemia, hepatosplenomegaly, and a generalized increase in bone mineral density (BMD). Aside from his father's complaint of excessive tooth loss, his mother, two sisters, son, and daughter were healthy. Blood samples of the family members were drawn for genetic analyses. The entire coding region and adjacent splice sites of the pleckstrin homology domain-containing family M (with RUN domain) member 1 (PLEKHM1) gene were sequenced. One mutation, a heterozygous deletion mutation in exon 11 (c.3051_3052delCA), was identified in the patient but not in his relatives. The mutation leads to a translation product with a highly impaired Rubicon homology domain. Co-immunoprecipitation and immunofluorescence analyses using HEK293 cells showed that overexpression of a PLEKHM1 CA-deletion mutant resulted in a dramatic decrease in the interaction between PLEKHM1 and the small GTPase Rab7 compared to wild-type PLEKHM1. The normal processes of endocytosis and autophagy were disturbed in cells expressing the mutant (transfected HEK293 and U937 cells), as indicated by epidermal growth factor receptor (EGFR) degradation and an altered LC3-I/II ratio, respectively, which may lead to a defect in osteoclast function."

According to the news editors, the research concluded: "A four-year follow-up study of the patient showed that the PLEKHM1-dependent osteopetrosis was relatively malignant, with significant symptoms of pancytopenia and hepatosplenomegaly."


The news editors report that additional information may be obtained by contacting C. Xu, Shandong University, Shandong Prov Hosp, Dept. of Endocrinol & Metab, Jinan, Shandong, People's Republic of China. Additional authors for this research include F. Yan, J. Guo, X.Y. Lin, H.Q. Zhang, Q.B. Guan, H. Wang, L. Fang, L. Gao, J.J. Zhao and C. Xu.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Stomatognathic Diseases and Conditions, Periodontal Diseases and Conditions, Dental Diseases and Conditions, Mouth Diseases and Conditions, Tooth Diseases and Conditions, Bone Diseases and Conditions, Bone Research, Genetics, Osteochondrodysplasias, Osteosclerosis, Osteopetrosis, Tooth Loss, Dentistry, Shandong University.

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Pacemakers

Reports Summarize Pacemakers Findings from University of Washington (Concomitant Use of the Subcutaneous Implantable Cardioverter Defibrillator and a Permanent Pacemaker)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Pacemakers. According to news reporting
out of Seattle, Washington, by NewsRx editors, research stated, "The subcutaneous implantable cardioverter defibrillator (S-ICD) is a novel implanted defibrillator for the prevention of sudden cardiac death that avoids intravascular access. Use of this device is limited by its inability to provide backup pacing."

Our news journalists obtained a quote from the research from the University of Washington, "Combined use of the S-ICD with a permanent pacemaker may be the optimal choice in certain situations though experience with the use of both devices together remains limited. We reviewed our single-center experience with the S-ICD from March 2011 to November 2015. Four patients with concomitant use of the S-ICD and a permanent pacemaker were identified. Clinical indication for device therapy, operative details, and subsequent follow-up was reviewed. During implantation, S-ICD sensing of paced morphologies was evaluated at maximal voltage output. After S-ICD implant, if feasible, the upper rate was adjusted to <= 50% of the S-ICD tachycardia zone to minimize risk of inappropriate shocks. After a mean follow-up of over 1 year, no adverse events occurred, including no inappropriate shock, lead malfunction, or device infection. One patient had a total of eight appropriate shocks, while another individual had no inappropriate shocks despite having a unipolar pacing lead. In unique situations, combined use of the S-ICD and a permanent pacemaker may be preferable to alternative options."

According to the news editors, the research concluded: "In our experience, this approach was successful in varying conditions including complex congenital heart disease, recurrent device infection, and limited vascular access."

For more information on this research see: Concomitant Use of the Subcutaneous Implantable Cardioverter Defibrillator and a Permanent Pacemaker. PACE-Pacing and Clinical Electrophysiology, 2016;39(11):1240-1245. PACE-Pacing and Clinical Electrophysiology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting J.M. Prutkin, University of Washington, Dept. of Med, Div Cardiol, Seattle, WA, United States. Additional authors for this research include K.K. Patton and J.M. Prutkin.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Medical Devices, Defibrillators, Cardio Device, Pacemakers, University of Washington.

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**Oncology - Pancreatic Cancer**

**Reports Summarize Pancreatic Cancer Study Results from University of Glasgow (mTORC2 Signaling Drives the Development and Progression of Pancreatic Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Pancreatic Cancer. According to news reporting from Glasgow, United Kingdom, by NewsRx journalists, research stated, "MTOR signaling controls several critical cellular functions and is deregulated in many cancers, including pancreatic cancer. To date, most efforts have focused on inhibiting the mTORC1 complex."
The news correspondents obtained a quote from the research from the University of Glasgow, "However, clinical trials of mTORC1 inhibitors in pancreatic cancer have failed, raising questions about this therapeutic approach. We employed a genetic approach to delete the obligate mTORC2 subunit Rictor and identified the critical times during which tumorigenesis requires mTORC2 signaling. Rictor deletion resulted in profoundly delayed tumorigenesis. Whereas previous studies showed most pancreatic tumors were insensitive to rapamycin, treatment with a dual mTORC1/2 inhibitor strongly suppressed tumorigenesis. In late-stage tumor-bearing mice, combined mTORC1/2 and PI3K inhibition significantly increased survival."

According to the news reporters, the research concluded: "Thus, targeting mTOR may be a potential therapeutic strategy in pancreatic cancer."

For more information on this research see: mTORC2 Signaling Drives the Development and Progression of Pancreatic Cancer. Cancer Research, 2016;76(23):6911-6923. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)


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Keywords for this news article include: Glasgow, United Kingdom, Europe, Pancreatic Neoplasms, Pancreatic Cancer, Gastroenterology, Oncology, Genetics, Pancreas, University of Glasgow.

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Reports Summarize Pharmacokinetics Study Results from Wenzhou Medical University (Determination of Apremilast in Rat Plasma by UPLC-MS-MS and Its Application to a Pharmacokinetic Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Pharmacokinetics are presented in a new report. According to news reporting from Wenzhou, People's Republic of China, by NewsRx journalists, research stated, "A rapid, sensitive and selective ultra-performance liquid chromatography-tandem mass spectrometry (UPLC-MS-MS) was developed and validated for the determination and pharmacokinetic investigation of apremilast in rat plasma. Sample preparation was accomplished through a simple one-step deproteinization procedure with 0.2 mL of acetonitrile to a 0.1 mL plasma sample."

The news correspondents obtained a quote from the research from Wenzhou Medical University. "Plasma samples were separated by UPLC on an Acquity UPLC BEH C18 column using a mobile phase consisting of acetonitrile-0.1% formic acid in water with gradient elution.
The total run time was 3.0 min, and the elution of apremilast was at 1.27 min. The detection was performed on a triple quadrupole tandem mass spectrometer in the multiple reaction-monitoring mode using the respective transitions m/z 461.3 -> 257.1 for apremilast and m/z 237.2 -> 194.2 for carbamazepine (internal standard). The calibration curve was linear over the range of 0.1-100 ng/mL with a lower limit of quantitation of 0.1 ng/mL. The mean recovery of apremilast in plasma was in the range of 83.2-87.5%. Both intraday and interday precision were <9.6%.

According to the news reporters, the research concluded: "This method was successfully applied in the pharmacokinetic study after oral administration of 6.0 mg/kg apremilast in rats."


Our news journalists report that additional information may be obtained by contacting X.X. Lai, Wenzhou Med Univ, Affiliated Hosp 1, Wenzhou 325000, People's Republic of China. Additional authors for this research include Z. Wang, S.J. Wang, T. Li, Y.Y. Pan and X.X. Lai.

Keywords for this news article include: Wenzhou, People's Republic of China, Asia, Pharmacokinetics, Pharmaceuticals, Wenzhou Medical University.

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Pharmacology

Reports Summarize Pharmacology Findings from A. Mayburd and Co-Author (Predicting High-Impact Pharmacological Targets by Integrating Transcriptome and Text-Mining Features)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pharmacology have been published. According to news reporting out of Moscow, Russia, by NewsRx editors, research stated, "Novel, 'outside of the box' approaches are needed for evaluating candidate molecules, especially in oncology. Throughout the years of 2000-2010, the efficiency of drug development fell to barely acceptable levels, and in the second decade of this century, levels have improved only marginally."

Our news journalists obtained a quote from the research, "This dismal condition continues despite unprecedented progress in the development of a variety of high-throughput tools, computational methods, aggregated databases, drug repurposing programs and innovative chemistries. Here we tested a hypothesis that the economic impact of targeting a particular gene product is predictable a priori by employing a combination of transcriptome profiles and quantitative metrics reflecting existing literature. To extract classification features, the gene expression patterns of a posteriori high-impact and low-impact anti-cancer target sets were compared. To minimize the possible bias of text-mining, the number of manuscripts published prior to the first clinical trial or relevant review paper, as well as its first derivative in this interval, were collected and used as quantitative metrics of public interest. By combining the gene expression and literature mining features, a 4-fold enrichment in high-impact targets was
produced, resulting in a favourable ROC curve analysis for the top impact targets. The dataset was enriched by the highest impact anticancer targets, while demonstrating drastic differences in economic value between high and low-impact targets. Known anti-cancer products of EGFR, ERBB2, CYP19A1/aromatase, MTOR, PTGS2, tubulin, VEGFA, BRAF, PGR, PDGFRA, SRC, REN, CSF1R, CTLA4 and HSP90AA1 genes received the highest scores for predicted impact, while microsomal steroid sulfatase, anticoagulant protein C, p53, CDKN2A, c-Jun, and TNSFS11 were highlighted as most promising research-stage targets. A significant cost reduction may be achieved by a priori impact assessment of targets and ligands before their development or repurposing.

According to the news editors, the research concluded: "Expanding a suite of combinational treatments could also decrease the costs, while achieving a higher impact per developed ligand."


Our news journalists report that additional information may be obtained by contacting A. Baranova, Atlas Biomed Grp, Moscow, Russia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18433/J3SC8X. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Moscow, Russia, Eurasia, Genetics, Pharmacology, Therapy.

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Pharmacology

Reports Summarize Pharmacology Study Results from University of Florida (Systems pharmacology to predict drug safety in drug development)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Pharmacology. According to news originating from Orlando, Florida, by NewsRx correspondents, research stated, "Ensuring that drugs are safe and effective is a very high priority for drug development and the US Food and Drug Administration review process."

Our news journalists obtained a quote from the research from the University of Florida, "This is especially true today because of faster approval times and smaller clinical trials, especially in oncology and rare diseases. In light of these trends, systems pharmacology is seen as an essential strategy to understand and predict adverse drug events during drug development by analyzing interactions between drugs and multiple targets rather than the traditional 'one-drug-one-target' approach."

According to the news editors, the research concluded: "This commentary offers an overview of the current trends and challenges of using systems pharmacology to reduce the risks of unintended adverse events."

The news correspondents report that additional information may be obtained from M.N. Trame, University of Florida, Center Pharmacometr & Syst Pharmacol, Dept. of Pharmaceut, Orlando, FL, United States. Additional authors for this research include K. Biliouris, L.J. Lesko and J.T. Mettetal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejps.2016.05.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Orlando, Florida, United States, North and Central America, Drugs and Therapies, Drug Development, Pharmaceuticals, Pharmacology, University of Florida.

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**Photodynamics**

**Reports Summarize Photodynamics Study Results from Beihang University (Synthesis and conjugation of Sr2MgSi2O7:Eu2+, Dy3+ water soluble afterglow nanoparticles for photodynamic activation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Photodynamics are discussed in a new report. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "The applications of afterglow particles for photodynamic activation and biological imaging have become a topical research area. For these applications, it is critical to have water soluble nanoparticles."

Funders for this research include U.S. Army Medical Research Acquisition Activity (USAMRAA), NSF and DHS joint ARI program, National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Beihang University, "However, the synthesis of water soluble afterglow nanoparticles like Sr2MgSi2O7:Eu2+, Dy3+ is a challenging issue because most afterglow materials are very complicated in composition that cannot be synthesized by simple chemical routes. Here, for the first time, Sr2MgSi2O7:Eu2+, Dy3+ water soluble and stable nanoparticles are synthesize using a modified Sol-Gel method followed by the grinding and coating with APTES. The surface coating of the afterglow with APTES and the conjugation with PpIX and folic acid not only improve their water solubility but also enhance the PpIX luminescence by 10 times. More importantly, these strategies make it possible to produce singlet oxygen under X-ray irradiation, which is a very important result for deep cancer treatment. In addition, the surface coating and conjugation largely increase the cell uptake and greatly reduce their dark cytotoxicity."

According to the news reporters, the research concluded: "All these results indicate the methods reported here for afterglow nanoparticle synthesis, coating and conjugation are
successful, and consequently, the prepared Sr2MgSi2O7:Eu2+, Dy3+/PPIX/Folic acid nano-conjugates are promising for X-ray induced photodynamic therapy on cancer treatment."

For more information on this research see: Synthesis and conjugation of Sr2MgSi2O7:Eu2+, Dy3+ water soluble afterglow nanoparticles for photodynamic activation. *Photodiagnosis and Photodynamic Therapy*, 2016;16():90-99. *Photodiagnosis and Photodynamic Therapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Photodiagnosis and Photodynamic Therapy - www.journals.elsevier.com/photodiagnosis-and-photodynamic-therapy/)

Our news correspondents report that additional information may be obtained by contacting J.Y. Zhang, Beihang Univ, Dept. of Phys, Beijing 100191, People's Republic of China. Additional authors for this research include L. Ma, J.Y. Zhang, S.K. Sahi, L.H. Rashidi, B. Bui and W. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pdpdt.2016.08.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Emerging Technologies, Nanotechnology, Biotechnology, Photodynamics, Nanoparticle, Beihang University.

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Liver Diseases and Conditions - Portal Hypertension

Reports Summarize Portal Hypertension Study Results from Hacettepe University (Outcomes of partial splenic embolization in patients with massive splenomegaly due to idiopathic portal hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Liver Diseases and Conditions - Portal Hypertension are discussed in a new report. According to news reporting from Ankara, Turkey, by NewsRx journalists, research stated, "To determine the outcomes of partial splenic embolization (PSE) for massive splenomegaly due to idiopathic portal hypertension (IPH). In this prospective study, we evaluated the characteristics and prognosis of consecutive patients with IPH who underwent PSE for all indications at a single medical center between June 2009 and January 2015."

The news correspondents obtained a quote from the research from Hacettepe University, "The inclusion criteria were: presence of hypersplenism, massive splenomegaly, and resultant pancytopenia. The exclusion criteria were: presence of other diseases causing portal hypertension. During the post-PSE period, the patients were hospitalized. All patients underwent abdominal computed tomography imaging 4 wk post-PSE to determine total splenic and noninfarcted splenic volumes. A total of 11 patients, with median age of 33.27 +/- 4.8 years, were included in the study. Mean spleen size was 22.9 cm (21-28 cm), and severe hypersplenism was diagnosed in all patients before PSE. Post-PSE, leukocyte and platelet counts increased significantly, reaching peak levels in the second week with gradual decreases thereafter. Liver function tests did not exhibit significant changes during post-intervention follow-up. All patients developed post-embolization syndrome, and one patient experienced serious complications; all complications were successfully treated with conservative therapy and no death occurred."
According to the news reporters, the research concluded: "Our findings showed that PSE has a lower complication rate than previously-reported surgical complication rates, which supports this intervention as a viable alternative for high-risk operable patients with severe hypersplenism."


Our news journalists report that additional information may be obtained by contacting O. Ozturk, Hacettepe University, Dept. of Gastroenterol., Sch Med, TR-06100 Ankara, Turkey. Additional authors for this research include G. Eldem, B. Peynircioglu, T. Kav, A. Gormez, B.E. Cil, F. Balkanci, C. Sokmensuer and Y. Bayraktar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i43.9623. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ankara, Turkey, Eurasia, Cardiovascular Diseases and Conditions, Lymphatic Diseases and Conditions, Splenic Diseases and Conditions, Liver Diseases and Conditions, Portal Hypertension, Hypersplenism, Embolization, Splenomegaly, Hepatology, Angiology, Hacettepe University.

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**Oncology - Prostate Cancer**

**Reports Summarize Prostate Cancer Findings from J.F. Zheng and Co-Authors (The up-regulation of long non-coding RNA CCAT2 indicates a poor prognosis for prostate cancer and promotes metastasis by affecting epithelial-mesenchymal transition)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Prostate Cancer have been presented. According to news originating from Xianyang, People's Republic of China, by NewsRx correspondents, research stated, "Recently, long noncoding RNAs (lncRNAs) have been shown to have critical regulatory roles in human cancer biology. LncRNA CCAT2 is a novel identified lncRNA that was previously reported to be up regulated in different cancers, however, its role in prostate cancer remains unclear."

Our news journalists obtained a quote from the research, "The aim of this study was to investigate the expression and role of lncRNA CCAT2 in prostate cancer. The expression levels of lncRNA CCAT2 in PCa tissues and cell lines (DU145 and 22RV1) were evaluated by quantitative real-time PCR (qRT-PCR), and its association with prognosis of patients was analyzed by statistical analysis. Furthermore, the effect of CCAT2 on proliferation, migration, and invasion was studied in PCa cells. We found that the expression level of CCAT2 was higher in PCa tissues and cells compared to adjacent non-tumor tissues and normal prostate stromal immortalized cells WPMY-1. Kaplan-Meier survival analysis revealed that patients with high CCAT2 expression level had poorer overall survival and progression-free survival than those
with low CCAT2 expression. Furthermore, multivariate analysis showed that the status of CCAT2 expression was an independent prognostic indicator for this disease. We also found that knockdown of CCAT2 could inhibit cell growth, migration, and invasion in vitro. In addition, knockdown of CCAT2 stimulated epithelial-mesenchymal transition (EMT) through abrogating N-cadherin, vimentin expression and intensifying the expression levels of E-cadherin.

According to the news editors, the research concluded: "Our data suggested that IncRNA CCAT2 was a novel molecule involved in PCa progression, which provided a potential prognostic biomarker and therapeutic target for new therapies in patients with prostate cancer."

For more information on this research see: The up-regulation of long non-coding RNA CCAT2 indicates a poor prognosis for prostate cancer and promotes metastasis by affecting epithelial-mesenchymal transition. *Biochemical and Biophysical Research Communications*, 2016;480(4):508-514. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)


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Keywords for this news article include: Xianyang, People's Republic of China, Asia, Prostatic Neoplasms, Prostate Cancer, Oncology.

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**Skin Diseases and Conditions - Psoriasis**

**Reports Summarize Psoriasis Findings from University of Sao Paulo [Biological therapies (immunomodulatory drugs), worsening of psoriasis and rebound effect: new evidence of similitude]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Skin Diseases and Conditions - Psoriasis are presented in a new report. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, the research stated, "Employing the secondary action or adaptative reaction of the organism as therapeutic response, homeopathy uses the treatment by similitude (similia similibus curentur) administering to sick individuals the medicines that caused similar symptoms in healthy individuals. Such homeostatic or paradoxical reaction of the organism is scientifically explained through the rebound effect of drugs, which cause worsening of symptoms after withdrawal of several palliative treatments."

Our news journalists obtained a quote from the research from the University of Sao Paulo, "Despite promoting an improvement in psoriasis at the beginning of the treatment, modern biological therapies provoke worsening of the psoriasis (rebound psoriasis) after discontinuation of drugs. Exploratory qualitative review of the literature on the occurrence of
the rebound effect with the use of immunomodulatory drugs [T-cell modulating agents and
tumor necrosis factor (TNF) inhibitors drugs] in the treatment of psoriasis. Several researches
indicate the rebound effect as the mechanism of worsening of psoriasis with the use of
efalizumab causing the suspension of its marketing authorization in 2009, in view of some
severe cases. Other studies also have demonstrated the occurrence of rebound psoriasis with the
use of alefacept, etanercept and infliximab."

According to the news editors, the research concluded: "As well as studied in other
classes of drugs, the rebound effect of biologic agents supports the principle of similitude
(primary action of the drugs followed by secondary action and opposite of the organism)."

For more information on this research see: Biological therapies (immunomodulatory
drugs), worsening of psoriasis and rebound effect: new evidence of similitude. Homeopathy,
2016;105(4):344-355. Homeopathy can be contacted at: Elsevier Sci Ltd, The Boulevard,
Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com;
Homeopathy - www.journals.elsevier.com/homeopathy/)

Our news journalists report that additional information may be obtained by
contacting M.Z. Teixeira, University of Sao Paulo, Fac Med, Dept. of Internal Med, Sao Paulo,
Brazil.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.homp.2016.09.002. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, Skin Diseases and Conditions, Article Review, Papulosquamous Skin Diseases and Conditions, Dermatology, Psoriasis, University of Sao Paulo.

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Oncology - Rectal Cancer

Reports Summarize Rectal Cancer Findings from Fourth Military Medical University (Comparison of non-Gaussian and Gaussian diffusion models of diffusion weighted imaging of rectal cancer at 3.0 T MRI)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Rectal Cancer have been published. According to news reporting originating from Shaanxi, People's Republic of China, by NewsRx correspondents, research stated, "Water molecular diffusion in vivo tissue is much more complicated. We aimed to compare non-Gaussian diffusion models of diffusion-weighted imaging (DWI) including intra-voxel incoherent motion (IVIM), stretched-exponential model (SEM) and Gaussian diffusion model at 3.0 T MRI in patients with rectal cancer, and to determine the optimal model for investigating the water diffusion properties and characterization of rectal carcinoma."

Our news editors obtained a quote from the research from Fourth Military Medical University. "Fifty-nine consecutive patients with pathologically confirmed rectal adenocarcinoma underwent DWI with 16 b-values at a 3.0 T MRI system. DWI signals were fitted to the mono-exponential and non-Gaussian diffusion models (IVIM-mono, IVIM-bi and SEM) on primary tumor and adjacent normal rectal tissue. Parameters of standard apparent
diffusion coefficient (ADC), slow- and fast-ADC, fraction of fast ADC (f), a value and distributed diffusion coefficient (DDC) were generated and compared between the tumor and normal tissues. The SEM exhibited the best fitting results of actual DWI signal in rectal cancer and the normal rectal wall (R-2 = 0.998, 0.999 respectively). The DDC achieved relatively high area under the curve (AUC = 0.980) in differentiating tumor from normal rectal wall. Non-Gaussian diffusion models could assess tissue properties more accurately than the ADC derived Gaussian diffusion model.

According to the news editors, the research concluded: "SEM may be used as a potential optimal model for characterization of rectal cancer."

For more information on this research see: Comparison of non-Gaussian and Gaussian diffusion models of diffusion weighted imaging of rectal cancer at 3.0 T MRI. Scientific Reports, 2016:6():1-9. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting J.S. Zhang, Fourth Military Medical University, Xijing Hosp, Dept. of Radiol, Xian, Shaanxi, People's Republic of China. Additional authors for this research include S.S. Wang, D.D. Wen, J. Zhang, X.C. Wei, W.L. Ma, W.W. Zhao, M. Wang, G.S. Wu and J.S. Zhang.

Keywords for this news article include: Shaanxi, People's Republic of China, Asia, Gastroenterology, Rectal Cancer, Oncology, Fourth Military Medical University.

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Eye Diseases and Conditions - Retinoblastoma

Reports Summarize Retinoblastoma Study Results from All India Institute of Medical Sciences [Multimodal Therapy for Stage III Retinoblastoma (International Retinoblastoma Staging System) A Prospective Comparative Study]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Eye Diseases and Conditions - Retinoblastoma are discussed in a new report. According to news originating from New Delhi, India, by NewsRx correspondents, research stated, "To compare the efficacy of 2 chemotherapeutic drug combinations as part of multimodal therapy for orbital retinoblastoma. Prospective, comparative, study."

Our news journalists obtained a quote from the research from the All India Institute of Medical Sciences, "Patients with stage III retinoblastoma (International Retinoblastoma Staging System). Demographic and clinical features were recorded at presentation. Treatment consisted of a multimodal protocol with neoadjuvant chemotherapy, enucleation, orbital external-beam radiotherapy, and adjuvant chemotherapy. For chemotherapy, patients were randomized into 2 groups: group A patients were treated with vincristine, etoposide, and carboplatin (VEC) and group B patients were treated with carboplatin and etoposide, alternating with cyclophosphamide, idarubicin, and vincristine. Treatment outcomes and adverse effects were recorded. Efficacy parameters were compared between the groups. Survival probability, cause of death, and chemotherapy-related toxicity. A total of 54 children were recruited (27 in each group). The mean +/- SD follow-up was 21.3 +/- 11.34 months. The overall Kaplan-Meier
survival probability was 80% (95% confidence interval [CI], 0.67-0.89) and 42% (95% CI, 0.24-0.59) at 1 year and 4 years, respectively. There were 9 deaths in group A and 15 deaths in group B. The Kaplan-Meier survival probability at 1 year was similar between the groups: 81% (95% CI, 0.60-0.91) and 79% (95% CI, 0.58-0.9) for groups A and B, respectively. At 4 years, the survival probability for group A was higher (63% [95% CI, 0.41-0.79] vs. 25% [95% CI, 0.08-0.46] for groups A and B, respectively), with a strong trend of better survival in group A over time (P = 0.05). The major cause of death was central nervous system relapse (8 patients in group A and 7 patients in group B). Two patients in group B died of sepsis after febrile neutropenia. Grade 3 and grade 4 hematologic toxicities were more common in group B, with a significant difference in grade 4 neutropenia (P = 0.002). This study compared the outcomes of VEC chemotherapy with a 5-drug combination of vincristine and carboplatin, alternating with cyclophosphamide, idarubicin, and vincristine, for stage III retinoblastoma."

According to the news editors, the research concluded: "The VEC combination was found to be more effective and may be recommended as neoadjuvant and adjuvant chemotherapy."


The news correspondents report that additional information may be obtained from B. Chawla, All India Inst Med Sci, Rajendra Prasad Center Ophthalm Sci, New Delhi, India. Additional authors for this research include F. Hasan, R. Seth, S. Pathy, R. Pattebahadur, S. Sharma, A. Upadhyaya and R. Azad.

Keywords for this news article include: New Delhi, India, Asia, Drugs and Therapies, Epidemiology, Retinal Diseases and Conditions, Clinical Trials and Studies, Eye Diseases and Conditions, Carboplatin Therapy, Vincristine Therapy, Mitotic Inhibitors, Alkylating Agents, Clinical Research, Retinal Neoplasms, Pharmaceuticals, Antineoplastics, Retinoblastoma, Ophthalmology, Eye Neoplasms, Chemotherapy, Oncology, All India Institute of Medical Sciences.

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Mental Health Diseases and Conditions - Schizophrenia

Reports Summarize Schizophrenia Findings from Shanxi Medical University (Altered expression of mRNA profiles in blood of early-onset schizophrenia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mental Health Diseases and Conditions - Schizophrenia is now available. According to news reporting originating in Taiyuan, People's Republic of China, by NewsRx journalists, research stated, "To identify gene expression abnormalities in schizophrenia (SZ), we generated whole-genome gene expression profiles using microarrays on peripheral blood mononuclear cells (PBMCs) from 18 early-onset SZ cases and 12 controls. We detected 84 transcripts differentially expressed by diagnostic status, with 82 genes being upregulated and 2 downregulated."
The news reporters obtained a quote from the research from Shanxi Medical University. "We identified two SZ associated gene coexpression modules (green and red), including 446 genes. The green module is positively correlated with SZ, encompassing predominantly up-regulated genes in SZ; while the red module was negatively correlated with disease status, involving mostly nominally down-regulated genes in SZ. The olfactory transduction pathway was the most enriched pathways for the genes within the two modules. The expression levels of several hub genes, including AKT1, BRCA1, CCDC134, UBD, and ZIC2 were validated using real-time quantitative PCR."

According to the news reporters, the research concluded: "Our findings indicate that mRNA coexpression abnormalities may serve as a promising mechanism underlying the development of SZ."

For more information on this research see: Altered expression of mRNA profiles in blood of early-onset schizophrenia. *Scientific Reports*, 2016;6():16767. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting Y. Xu, Dept. of Psychiatry, First Hospital, First Clinical Medical College of Shanxi Medical University, Taiyuan, People's Republic of China. Additional authors for this research include Y. Yao Shugart, G. Wang, Z. Cheng, C. Jin, K. Zhang, J. Wang, H. Yu, W. Yue, F. Zhang and D. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep16767. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiyuan, Genetics, Psychiatry, Schizophrenia, People's Republic of China, Mental Health Diseases and Conditions.

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Science

**Reports Summarize Science Findings from University of Texas Southwestern (Multistep regulation of autophagy by WNK1)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news reporting originating in Dallas, Texas, by NewsRx journalists, research stated, "The with-no-lysine (K) (WNK) kinases are an atypical family of protein kinases that regulate ion transport across cell membranes. Mutations that result in their overexpression cause hypertension-related disorders in humans."

Financial supporters for this research include HHS | NIH | National Institute of General Medical Sciences (NIGMS), Welch Foundation, Cancer Prevention and Research Institute of Texas (CPRIT), HHS | NIH | National Cancer Institute (NCI).

The news reporters obtained a quote from the research from the University of Texas Southwestern, "Of the four mammalian WNKs, only WNK1 is expressed throughout the body. We report that WNK1 inhibits autophagy, an intracellular degradation pathway implicated in several human diseases. Using small-interfering RNA-mediated WNK1 knockdown, we show autophagosome formation and autophagic flux are accelerated. In cells with reduced WNK1, basal and starvation-induced autophagy is increased. We also show that depletion of WNK1
stimulates focal class III phosphatidylinositol 3-kinase complex (PI3KC3) activity, which is required to induce autophagy. Depletion of WNK1 increases the expression of the PI3KC3 upstream regulator unc-51-like kinase 1 (ULK1), its phosphorylation, and activation of the kinase upstream of ULK1, the AMP-activated protein kinase. In addition, we show that the N-terminal region of WNK1 binds to the UV radiation resistance-associated gene (UVRAG) in vitro and WNK1 partially colocalizes with UVRAG, a component of a PI3KC3 complex. This colocalization decreases upon starvation of cells. Depletion of the SPS/STE20-related proline-alanine-rich kinase, a WNK1-activated enzyme, also induces autophagy in nutrient-replete or -starved conditions, but depletion of the related kinase and WNK1 substrate, oxidative stress responsive 1, does not.

According to the news reporters, the research concluded: "These results indicate that WNK1 inhibits autophagy by multiple mechanisms."


Our news correspondents report that additional information may be obtained by contacting M.H. Cobb, Univ Texas Southwestern Med Center Dallas, Harold C Simmons Comprehens Canc Center, Dallas, TX 75390, United States. Additional authors for this research include A.Y. Lee, C. Wichaidit, A. Lorente-Rodriguez, A.M. Shah, S. Stippec, A.W. Whitehurst and M.H. Cobb.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1617649113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Science, Enzymes and Coenzymes, Genetics, Kinase, University of Texas Southwestern.

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Science - Separation Science
Reports Summarize Separation Science Findings from Northwest Institute of Plateau Biology (Application of chromatography technology in the separation of active alkaloids from Hypecoum leptocarpum and their inhibitory effect on fatty acid ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science - Separation Science have been published. According to news reporting out of Xining, People's Republic of China, by NewsRx editors, research stated, "A method that involved the combination of pH-zone-refining counter-current chromatography and semipreparative reversed-phase liquid chromatography has been established for the preparative separation of alkaloids from Hypecoum leptocarpum. From 1.2 g of crude sample, 31 mg N-feruloyltyramine, 27 mg oxohydrastinine, 47 mg hydroprotopine, 25
mg leptopidine, and 18 mg hypecocarpine have been obtained.

Financial supporters for this research include Key Project of Chinese Ministry of Education, Bureau of Science and Technology, Qinghai Provincial Natural Science Foundation, State Key Laboratory Breeding Base.

Our news journalists obtained a quote from the research from the Northwest Institute of Plateau Biology, "The structure of the new compound, hypecocarpine, is confirmed based on the analysis of spectroscopic data, including NMR, UV, and IR spectroscopy and positive electrospray ionization mass spectrometry. The known chemical structures were characterized on the basis of (1) H and (13) C NMR spectroscopy. The purities of the five alkaloids are all over 92.7% as determined by high-performance liquid chromatography. The alkaloids' cytotoxicity in breast cancer cells is assessed by using a Cell Counting Kit assay and their inhibitory effect on fatty acid synthase expression is assessed by a Western blot assay."

According to the news editors, the research concluded: "These results suggest that leptopidine could suppress growth and induce cytotoxicity in breast cancer cells and that the cytotoxicity of leptopidine may be related to its inhibitory effect on fatty acid synthase expression."


Our news journalists report that additional information may be obtained by contacting Q. Zhang, Key Laboratory of Tibetan Medicine Research, Northwest Institute of Plateau Biology, Chinese Academy of Sciences, Xining, People's Republic of China. Additional authors for this research include G. Luan, T. Ma, N. Hu, Y. Suo, X. Wang, X. Ma and C. Ding.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jssc.201500848. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Xining, Synthase, Technology, Separation Science, Enzymes and Coenzymes, People's Republic of China.

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Heart Disorders and Diseases - Takotsubo...

Reports Summarize Takotsubo Cardiomyopathy Findings from School of Medicine (Severe respiratory depression and bradycardia before induction of anesthesia and onset of Takotsubo cardiomyopathy after cardiopulmonary resuscitation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Takotsubo Cardiomyopathy is the subject of a report. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "A 69-year-old woman undergoing treatment for hypertension and epilepsy was scheduled to undergo cataract surgery. All preoperative examination results were within normal limits."
Our news journalists obtained a quote from the research from the School of Medicine, "Despite being tense, she walked to the operating room. Approximately 2 minutes after an intravenous line was established by an anesthesia resident, severe hypoxia and bradycardia developed, and she lost consciousness. Cardiopulmonary resuscitation was initiated immediately, and after 1 minute, she regained consciousness, and her breathing and circulation recovered. After admission to the intensive care unit, emergency coronary angiography was performed. The blood flow in all the coronary arteries was normal. However, a decrease in the apical left ventricular wall motion and an increase in the basal wall motion were observed. Based on these findings, Takotsubo cardiomyopathy was diagnosed. The wall motion gradually improved and the patient was discharged from the hospital on postoperative day 15. The respiratory depression and bradycardia were thought to be due to an inadvertent bolus of remifentanil. We surmised that the patient had received a slight amount of retained medication when the anesthesia resident established the intravenous line, which caused severe respiratory depression."

According to the news editors, the research concluded: "It is important to note that adverse effects such as severe respiratory depression and bradycardia can be caused by even small doses of remifentanil."


The news correspondents report that additional information may be obtained from Y. Furuichi, Nippon Med Sch, Dept. of Anesthesiol, Bunkyo Ku, Tokyo 1138603, Japan. Additional authors for this research include A. Hamada, K. Nakazato, K. Kobayashi and A. Sakamoto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.08.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Cardiovascular Diseases and Conditions, Cardiopulmonary Resuscitation, Heart Disorders and Diseases, Left Ventricular Dysfunction, Takotsubo Cardiomyopathy, Emergency Treatment, Cardiac Arrhythmias, Cardiomyopathies, Pain Medicine, Heart Disease, Bradycardia, Anesthesia, Cardiology, School of Medicine.

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Terpenes

Reports Summarize Terpenes Study Results from School of Medicine (The Emerging Role of the Cannabinoid Receptor Family in Peripheral and Neuro-immune Interactions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Terpenes. According to news reporting originating in Dublin, Ireland, by NewsRx journalists, research stated, "The classical
endogenous cannabinoid (CB) system is composed of the endocannabinoid signalling molecules, 2-arachidonoyl glycerol (2-AG) and anandamide (AEA) and their G-protein coupled receptors (GPCR), CB1 and CB2 which together constitutes the endocannabinoid system (ECS). However, putative, novel lipid-sensing CB receptors have recently been identified, including the orphan GPR55 and GPR18 receptors that are regulated by cannabinoid-like molecules and interact with CB system."

The news reporters obtained a quote from the research from the School of Medicine, "CB receptors and associated orphan GPCRs are expressed at high levels in the immune and/or central nervous systems (CNS) and regulate a number of neurophysiological processes, including key events involved in neuroinflammation. As such, these receptors have been identified as emerging therapeutic targets for a number of brain disorders in which neuroinflammation is a key feature, including multiple sclerosis (MS) and Alzheimer's disease (AD)."

According to the news reporters, the research concluded: "This review will consider the role of the wider cannabinoid receptor superfamily in mediating immune function with a focus on the immune processes that contribute to neuroinflammatory conditions."


Our news correspondents report that additional information may be obtained by contacting V.A. Campbell, School of Medicine and Trinity College Institute of Neuroscience, Trinity College Dublin, The University of Dublin, Dublin, Ireland. Additional authors for this research include J. Penman, A.J. Irving and V.A Campbell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1389450117666160112113703. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dublin, Europe, Ireland, Terpenes, CB1 Receptor, CB2 Receptor, Membrane Proteins, Neuroinflammation, Drugs and Therapies, Cannabinoid Receptors, G Protein Coupled Receptors.

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**Drugs and Therapies - Toxicology and Pharmacology**

**Reports Summarize Toxicology and Pharmacology Study Results from L.A. Cox and Co-Researchers (How accurately and consistently do laboratories measure workplace concentrations of respirable crystalline silica?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Toxicology and Pharmacology are presented in a new report. According to news reporting originating from Denver, Colorado, by NewsRx editors, the research stated, "Permissible exposure limits (PELs) for respirable crystalline silica (RCS) have recently been reduced from 0.10 to 0.05 mg/m(3). This raises an important question: do current laboratory practices and standards for assessing RCS concentrations permit reliable discrimination between workplaces that are in compliance and
workplaces that are not? To find out, this paper examines recent laboratory performance in quantifying RCS amounts on filters sent to them to assess their proficiency."

Financial support for this research came from The National Stone, Sand, and Gravel Association (NSSGA).

Our news editors obtained a quote from the research, "A key finding is that accredited laboratories do not reliably (e.g., with 95% confidence) estimate RCS quantities to within a factor of 2. Thus, laboratory findings indicating that RCS levels are above or below a PEL provide little confidence that this is true. The current accreditation standard only requires laboratories to achieve estimates within three standard deviations of the correct (reference) value at least two thirds of the time, rather than a more usual standard such as within 25% of the correct value at least 95% of the time."

According to the news editors, the research concluded: "Laboratory practices may improve as the new PEL is implemented, but they are presently essentially powerless to discriminate among RCS levels over most of the range of values that have been tested, leaving employers and regulators without a reliable means to ascertain when workplace RCS levels are above or below the PEL."

For more information on this research see: How accurately and consistently do laboratories measure workplace concentrations of respirable crystalline silica? Regulatory Toxicology and Pharmacology, 2016;81():268-274. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news editors report that additional information may be obtained by contacting L.A. Cox, Cox Associates, Denver, CO 80218, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.09.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Denver, Colorado, United States, North and Central America, Toxicology and Pharmacology, Drugs and Therapies.

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**Mycobacterium Infections - Tuberculosis**

**Reports Summarize Tuberculosis Findings from Johns Hopkins University (Evolving strategies for dose optimization of linezolid for treatment of tuberculosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections - Tuberculosis. According to news reporting originating in Baltimore, Maryland, by NewsRx editors, the research stated, "The role of linezolid (LZD) in the management of drug resistant tuberculosis is evolving. Optimizing its usage to maximize efficacy while minimizing its toxicity requires greater understanding of the relationships between drug exposure and bacterial killing, resistance suppression and toxicity."

The news reporters obtained a quote from the research from Johns Hopkins University, "Recent non-clinical and clinical studies provide some useful insights and are
reviewed here. Because LZD toxicity is dose- and duration-dependent, and is driven by elevated trough concentrations and prolonged exposure to concentrations inhibiting mitochondrial protein synthesis, several innovative dosing strategies can be employed to optimize its usage. These strategies, which are not mutually exclusive, may include giving higher doses more intermittently, giving higher daily doses for shorter durations, and giving lower total durations. For example, one approach may involve daily doses of 900-1200 mg for the first 1-3 months of treatment, followed by intermittent (e.g., thrice-weekly) dosing of 1200 mg."

According to the news reporters, the research concluded: "Trials to evaluate regimens based on such strategies are required."


Our news correspondents report that additional information may be obtained by contacting E. Nuernberger, Johns Hopkins University, Sch Med, Dept. of Med, Center TB Res, Baltimore, MD 21287, United States.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Drugs and Therapies, Antiinfectives, Antibiotics, Linezolid, Johns Hopkins University.

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**Nutritional and Metabolic Diseases and Conditions -…**

**Reports Summarize Type 2 Diabetes Study Results from University of California (The relationship of social support with treatment adherence and weight loss in Latinos with type 2 diabetes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting from La Jolla, California, by NewsRx journalists, research stated, "Little is known about the effects of social support on weight loss in Latinos. This study determined whether sex moderated and treatment adherence mediated the association between social support and weight loss."

Financial supporters for this research include Department of Health and Human Services, National Institutes of Health, National institute of Diabetes and Digestive and Kidney Diseases, National Heart, Lung, and Blood Institute, National Institute of Nursing Research, National Center on Minority Health and Health Disparities, Centers for Disease Control and Prevention, Intramural Research Program of the National Institute of Diabetes and Digestive and Kidney Diseases, The Johns Hopkins Medical Institutions Bayview General Clinical Research Center, Massachusetts General Hospital Mallinckrodt General Clinical Research Center, University of Colorado Health Sciences Center General Clinical Research Center, Clinical Nutrition Research Unit, University of Tennessee at Memphis General Clinical Research Center, University of Pittsburgh General Clinical Research Center, NIH, VA Puget Sound Health Care System Medical Research Service, Department of Veterans Affairs, Frederic C.
The news correspondents obtained a quote from the research from the University of California, "Data from 278 Latino males and females with type 2 diabetes in the Intensive Lifestyle Intervention of the Look AHEAD trial were analyzed. Multivariable modeling tested for moderation and parallel multiple mediator modeling simultaneously tested the mediating effects of adherence to physical activity, diet, and session attendance on the relationship between baseline social support and percent weight loss at 1 year. Social support for physical activity (having family and friends join in physical activity) was related to weight loss. Adherence to physical activity was related to both social support for physical activity and weight loss. Sex did not moderate these relationships. Adherence to physical activity completely mediated the relationship between social support for physical activity and weight loss."

According to the news reporters, the research concluded: "Increasing companionship for physical activity may be an effective intervention strategy to promote behaviors important for weight loss among Latinos."

For more information on this research see: The relationship of social support with treatment adherence and weight loss in Latinos with type 2 diabetes. *Obesity*, 2016;24(3):568-75. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news journalists report that additional information may be obtained by contacting B. Marquez, Dept. of Family Medicine & Public Health, University of California San Diego, La Jolla, California, United States. Additional authors for this research include A. Anderson, R.R. Wing, D.S. West, R.L. Newton, M. Meacham, H.P. Hazuda, A. Peters, M.G. Montez, S.T. Broyles, M. Walker and G. Evans-Hudsnall.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21382. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, Type 2 Diabetes, Risk and Prevention, North and Central America, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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**Reports Summarize Type 2 Diabetes Study Results from Xiamen University (Changes in blood monocyte Toll-like receptor and serum surfactant protein A reveal a pathophysiological mechanism for community-acquired pneumonia in patients with type 2 ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news reporting originating in Xiamen, People's Republic of China, by NewsRx journalists, research stated, "The lung is one of the target organs of microangiopathy in diabetes mellitus (DM); patients with type 2 diabetes mellitus (T2DM) are vulnerable to pneumonia, and a variety of pathophysiological mechanisms has been described. This study aimed to determine the pathophysiological mechanism of community-
acquired pneumonia (CAP) in T2DM patients."

The news reporters obtained a quote from the research from Xiamen University, "A total of 90 individuals was included in this study comprised of three groups (n=30): healthy control, T2DM and T2DM+ CAP groups. Toll-like receptor (TLR)2 and 4 protein and messenger RNA expression in peripheral blood monocytes (PBMC) was assessed by western blot and reverse transcription-polymerase chain reaction, respectively, and surfactant protein A (SP-A) levels were examined in serum samples by enzyme-linked immunosorbent assay. In T2DM and T2DM+CAP groups, levels of both TLR2/4 protein and mRNA in PBMC were decreased compared with controls (p <0.05), with lower levels observed in the T2DM+CAP group in comparison with T2DM patients (p <0.05). The serum SP-A levels in T2DM+CAP individuals were significantly higher than the values obtained for T2DM patients (p <0.05). It also showed apparent increases when compared with that in controls although no statistical significance was detected."

According to the news reporters, the research concluded: "In T2DM patients with pneumonia, TLR2/4 levels in PBMC and serum SP-A were altered, maybe playing an important role in the susceptibility to pneumonia in T2DM patients."


Our news correspondents report that additional information may be obtained by contacting Y. Que, Dept. of Endocrinology and Metabolism, Zhongnanshan Hospital Xiamen University, Xiamen, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imj.12978. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Xiamen, Genetics, Monocytes, Pneumonia, Immunology, Blood Cells, Pulmonology, Cell Research, Type 2 Diabetes, Bone Marrow Cells, Membrane Proteins, Infectious Disease, Risk and Prevention, Toll Like Receptors, Mononuclear Leukocytes, Hemic and Immune Systems, People's Republic of China, Glucose Metabolism Disorders.

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Liver Diseases and Conditions - Hepatitis C Virus

Reports by M. Gambato and Co-Researchers Describe Recent Advances in Hepatitis C Virus (Hepatitis C Virus RNA Persists in Liver Explants of Most Patients Awaiting Liver Transplantation Treated With an Interferon-Free Regimen)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases and Conditions - Hepatitis C Virus have been presented. According to news originating from Barcelona, Spain, by NewsRx correspondents, research stated, "We assessed the presence of hepatitis C virus (HCV) RNA in liver explants from 39 patients awaiting liver transplantation who were treated with an
interferon-free regimen and had undetectable serum HCV RNA at the time of liver transplantation."

Our news journalists obtained a quote from the research, "Interestingly, HCV RNA was detected in most liver explants (67%). Patients with HCV RNA-positive explants had received shorter courses of treatment, and HCV RNA was undetectable in serum for shorter periods before transplantation compared to patients with HCV RNA-negative explants (P =.014 and P =.013, respectively)."

According to the news editors, the research concluded: "Levels of HCV RNA in explants were significantly higher in patients with a relapse of HCV infection than patients who responded to treatment (P =.016), but most patients (85%) with residual HCV-RNA in the explant achieved a sustained virologic response after receiving their liver transplant."


The news correspondents report that additional information may be obtained from X. Forns, Univ Barcelona??Liver Unit, IDIBAPSCIBEREHD, Barcelona, Spain. Additional authors for this research include S. Perez-del-Pulgar, C. Hedskog, E.S. Svarovskaia, D. Brainard, J. Denning, M.P. Curry, M. Charlton, N. Caro-Perez, M.C. Londono, G. Koutsoudakis and X. Forns.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.gastro.2016.06.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Flaviviridae Infections, Hepatitis C Virus, Gastroenterology, Interferons, RNA Viruses, Hepatology, Cytokines, Viral RNA, Genetics, Virology, HCV.

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**Drugs and Therapies - Diclofenac Therapy**

**Reports by M. Rowcliffe and Co-Researchers Describe Recent Advances in Diclofenac Therapy (Topical diclofenac does not affect the antiplatelet properties of aspirin as compared to the intermediate effects of oral diclofenac: A prospective, ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Diclofenac Therapy have been published. According to news reporting out of Amherst, New York, by NewsRx editors, research stated, "Nonsteroidal anti-inflammatory drugs (NSAIDs) adversely interact with aspirin, diminishing its antiplatelet effect and potentially placing patients at an increased risk for recurrent thrombotic events. This crossover study aimed to determine whether the topical NSAID diclofenac epolamine 1.3% patch or oral diclofenac 50 mg interfered with the
Financial support for this research came from Dent Family Foundation.

Our news journalists obtained a quote from the research, "Twelve healthy men and women aged 18-50 were included. Participants were randomized into 5 treatment arms: aspirin, diclofenac potassium 50 mg, diclofenac patch, diclofenac potassium plus ASA 325 mg, and diclofenac patch plus aspirin. Platelet responsiveness was determined using whole-blood impedance aggregation (WBA) to collagen 1 mg/mL and arachidonic acid (AA) 0.5 mM and was sampled every 2 hours. No significant difference in platelet function was observed following the diclofenac patch and aspirin vs aspirin alone. Oral diclofenac produced a mixed effect with significant reduction in platelet inhibition at hour 2 and hour 8 following aspirin administration."

According to the news editors, the research concluded: "Topical diclofenac does not significantly interfere with the antiplatelet effects of aspirin and may be a safer alternative to the oral formulation."

For more information on this research see: Topical diclofenac does not affect the antiplatelet properties of aspirin as compared to the intermediate effects of oral diclofenac: A prospective, randomized, complete crossover study. Journal of Clinical Pharmacology, 2015;56 (4):422-8. Journal of Clinical Pharmacology can be contacted at: SAGE Publications, USA , 2455 Teller Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com; Journal of Clinical Pharmacology - jcp.sagepub.com)

Our news journalists report that additional information may be obtained by contacting M. Rowcliffe, Dental Neurologic Institute, Amherst, NY, United States. Additional authors for this research include B. Nezami, E.S. Westphal, M. Rainka, M. Janda, V. Bates and F. Gengo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcph.615. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Clinical Pharmacology is: SAGE Publications, USA , 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Antiplatelet Agents, Pharmaceuticals, NSAID, Amherst, New York, United States, Benzoic Acids, Hydroxy Acids, Phenylacetates, Aspirin Therapy, Salicylic Acids, Carboxylic Acids, Organic Chemicals, Diclofenac Therapy, Drugs and Therapies, Coagulation Modifiers, Ophthalmic Preparations, North and Central America.

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(CIA) is highly variable between patients undergoing similar chemotherapy regimens. A decrease of the scalp skin temperature seems to be an important factor, but data on the optimum temperature reached by scalp cooling to prevent CIA are lacking."

Our news journalists obtained a quote from the research, "This study investigated the relation between scalp skin temperature and its efficacy to prevent CIA. In this explorative study, scalp skin temperature was measured during scalp cooling in 62 breast cancer patients undergoing up to six cycles of anthracycline containing chemotherapy. Scalp skin temperature was measured by using two thermocouples at both temporal sides of the head. The primary end-point was the need for a wig or other head covering. Maximal cooling was reached after 45 min and was continued for 90 min after chemotherapy infusion. The scalp skin temperature after 45 min cooling varied from 10 degrees C to 31 degrees C, resulting in a mean scalp skin temperature of 19 degrees C (SEM: 0.4). Intrapersonal scalp skin temperatures during cooling were consistent for each chemotherapy cycle (ANOVA: P = 0.855). Thirteen out of 62 patients (21%) did not require a wig or other head covering. They appeared to have a significantly lower mean scalp skin temperature (18 degrees C; SEM: 0.7) compared to patients with alopecia (20 degrees C; SEM: 0.5) (P = 0.01). The efficacy of scalp cooling during chemotherapy is temperature dependent."

According to the news editors, the research concluded: "A precise cutoff point could not be detected, but the best results seem to be obtained when the scalp temperature decreases below 18 degrees C."

For more information on this research see: Results of scalp cooling during anthracycline containing chemotherapy depend on scalp skin temperature. Breast, 2016;30 ():105-110. Breast can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Breast - www.journals.elsevier.com/breast/)

Our news journalists report that additional information may be obtained by contacting M.M.C. Komen, Noordwest Ziekenhuisgrp, Dept. of Internal Med & Med Oncol, NL-1815 JD Alkmaar, Netherlands. Additional authors for this research include C.H. Smorenburg, J.W.R. Nortier, T. van der Ploeg, C.J.G. van den Hurk and J.J.M. van der Hoeven.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.breast.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Alkmaar, Netherlands, Europe, Skin and Connective Tissue Diseases and Conditions, Skin Diseases and Conditions, Hair Diseases and Conditions, Drugs and Therapies, Anthracyclines, Hypotrichosis, Hydrocarbons, Naphthacenes, Chemotherapy, Alopecia.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Clinical Pharmacology and Toxicology are presented in a new report. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "In this survey, the correlation between adverse drug reactions (ADRs) in human and animal toxicities was investigated for 393 medicines which were approved in Japan from September 1999 to March 2013. ADRs were collected from each Japanese package insert."

The news correspondents obtained a quote from the research, "Comparable animal toxicities with ADRs were collected by thorough investigation of common technical documents. The results of this survey show that hypertension and/or hypotension were mainly observed in medicines affecting the central nervous system. Hypertension was also observed in antipyretics, analgesics, anti-inflammatory agents, vasoconstrictors and agents using antibody. Concordance between human ADRs and animal toxicities was analysed. True-positive rate for hypertension and hypotension is 0.29 and 0.52, respectively. Positive likelihood ratio and inverse negative likelihood ratio are 1.98 and 1.21, respectively, in hypertension and 1.67 and 1.44, respectively, in hypotension. Concordance between human ADRs and animal toxicities is not so high in hypertension and hypotension. Identified mechanisms as on-target for hypertension and hypotension are 29.8% and 30.5%, respectively. More than half of the causative factors of hypertension and hypotension were unable to be elucidated. Our results show that the intake of medicines is often linked to blood pressure variations that are not predicted in animal toxicity studies."

According to the news reporters, the research concluded: "Improvement of drug development processes may be necessary to provide safer medicines because current animal toxicity studies are insufficient to predict all ADRs in human beings."


Our news journalists report that additional information may be obtained by contacting T. Nagayama, Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association, Tokyo, Japan. Additional authors for this research include M. Nishida, M. Hizue, Y. Ogino and M. Fujiyoshi. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bcpt.12494. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Drugs and Therapies, Clinical Pharmacology and Toxicology.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Chronic Lymphocytic Leukemia. According to news reporting originating in Coimbra, Portugal, by NewsRx journalists, research stated, "The V delta 1(+) subset of gamma delta T lymphocytes is a promising candidate for cancer immunotherapy, but the lack of suitable expansion/differentiation methods has precluded therapeutic application. We set out to develop and test (preclinically) a V delta 1(+) T-cell-based protocol that is good manufacturing practice compatible and devoid of feeder cells for prompt clinical translation."

The news reporters obtained a quote from the research, "Experimental design: We tested multiple combinations of clinical-grade agonist antibodies and cytokines for their capacity to expand and differentiate (more than 2-3 weeks) V delta 1(+) T cells from the peripheral blood of healthy donors and patients with chronic lymphocytic leukemia (CLL). We characterized the phenotype and functional potential of the final cellular product, termed Delta One T (DOT) cells, in vitro and in vivo (xenograft models of CLL). We describe a very robust two-step protocol for the selective expansion (up to 2,000-fold in large clinical-grade cell culture bags) and differentiation of cytotoxic V delta 1(+) (DOT) cells. These expressed the natural cytotoxicity receptors, NKp30 and NKp44, which synergized with the T-cell receptor to mediate leukemia cell targeting in vitro. When transferred in vivo, DOT cells infiltrated tumors and peripheral organs, and persisted until the end of the analysis without showing signs of loss of function; indeed, DOT cells proliferated and produced abundant IFN gamma and TNF alpha, but importantly no IL17, in vivo. Critically, DOT cells were capable of inhibiting tumor growth and preventing dissemination in xenograft models of CLL."

According to the news reporters, the research concluded: "We provide a clinical-grade method and the preclinical proof of principle for application of a new cellular product, DOT cells, in adoptive immunotherapy of CLL."

For more information on this research see: Delta One T Cells for Immunotherapy of Chronic Lymphocytic Leukemia: Clinical-Grade Expansion/Differentiation and Preclinical Proof of Concept. Clinical Cancer Research, 2016;22(23):5795-5804. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

Our news correspondents report that additional information may be obtained by contacting B. Silva-Santos, Lymphact Lymphocyte Activat Technol, Coimbra, Portugal. Additional authors for this research include D.V. Correia, A. Fernandes-Platzgummer, C.L. da Silva, M.G. da Silva, D.R. Anjos and B. Silva-Santos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-16-0597. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Coimbra, Portugal, Europe, Chronic Lymphocytic Leukemia, Drugs and Therapies, Xenotransplantation, Biotechnology, Immunotherapy, Xenografts, Hematology, Oncology.

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Reports from A.R. Boobis and Colleagues Advance Knowledge in Toxicology and Pharmacology (Classification schemes for carcinogenicity based on hazard - identification have become outmoded and serve neither science nor society)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Toxicology and Pharmacology. According to news originating from Cheshire, United Kingdom, by NewsRx correspondents, research stated, "Classification schemes for carcinogenicity based solely on hazard-identification such as the IARC monograph process and the UN system adopted in the EU have become outmoded. They are based on a concept developed in the 1970s that chemicals could be divided into two classes: carcinogens and non carcinogens."

Our news journalists obtained a quote from the research, "Categorization in this way places into the same category chemicals and agents with widely differing potencies and modes of action. This is how eating processed meat can fall into the same category as sulfur mustard gas. Approaches based on hazard and risk characterization present an integrated and balanced picture of hazard, dose response and exposure and allow informed risk management decisions to be taken. Because a risk-based decision framework fully considers hazard in the context of dose, potency, and exposure the unintended downsides of a hazard only approach are avoided, e.g., health scares, unnecessary economic costs, loss of beneficial products, adoption of strategies with greater health costs, and the diversion of public funds into unnecessary research. An initiative to agree upon a standardized, internationally acceptable methodology for carcinogen assessment is needed now."

According to the news editors, the research concluded: "The approach should incorporate principles and concepts of existing international consensus-based frameworks including the WHO IPCS mode of action framework."

For more information on this research see: Classification schemes for carcinogenicity based on hazard - identification have become outmoded and serve neither science nor society. Regulatory Toxicology and Pharmacology, 2016;82():158-166. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news correspondents report that additional information may be obtained from J.E. Doe, Parker Doe LLP, Carpenter Court, Stockport SK7 2DH, Cheshire, United Kingdom. Additional authors for this research include S.M. Cohen, V.L. Dellarco, J.E. Doe, P.A. Fenner-Crisp, A. Moretto, T.P. Pastoor, R.S. Schoeny, J.G. Seed and D.C. Wolf.

Keywords for this news article include: Cheshire, United Kingdom, Europe, Toxicology and Pharmacology, Drugs and Therapies, Chemicals.

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Reports from A.R. Molina and Co-Researchers Add New Data to Findings in Liver Transplts (Influence of Body Mass Index on Venous Thrombotic Complications of Liver Transplants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Transplant Medicine - Liver Transplants. According to news originating from Granada, Spain, by NewsRx correspondents, research stated, "To analyze venous thrombotic complications in transplanted patients as a function of their body mass index (BMI). This single-center, observational retrospective study of individuals undergoing liver transplantation between January 2008 and December 2014 analyzed the frequency of pretransplant portal thrombosis, post-transplant venous complications (early and late portal thrombosis), deep vein thrombosis, pulmonary thromboembolism and the survival outcomes as a function of World Health Organization BMI class."

Our news journalists obtained a quote from the research, "Liver transplantation was performed in 208 patients during the study period. No statistically significant differences in study variables were found as a function of BMI in bivariate analyses (P < .05), and Kaplan-Meier survival analysis results were also nonsignificant. No differences in the rate of venous thrombotic complications or survival were found as a function of the BMI class of these liver transplant recipients."

According to the news editors, the research concluded: "These findings are in line with previous reports that complication rates are not higher in obese patients and support the proposal that obesity should not be considered a contraindication for liver transplantation based on the risk of venous complications."


The news correspondents report that additional information may be obtained from A.R. Molina, Virgen Nieves Univ & Hosp Complex, Unit HepatobiliaryPancreat Surg & Liver Transplan, Granada, Spain. Additional authors for this research include A.R. Vilchez, M.B. Dominguez, A.N. Garcia, C.M. San Miguel, A.R.R. Gonzalez and Y.S. Fundora.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Granada, Spain, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Liver Transplantation, Transplant Medicine, Liver Transplants, Organ Transplants, Biomedicine, Hematology.

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Environmental Water Research

Reports from Aalborg University Provide New Insights into Environmental Water Research (Evaluation of a membrane bioreactor system as post-treatment in waste water treatment for better removal of micropollutants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Environmental Water Research is the subject of a report. According to news reporting from Aalborg, Denmark, by NewsRx journalists, research stated, "Organic micropollutants (OMPs) such as pharmaceuticals are persistent pollutants that are only partially degraded in waste water treatment plants (WWTPs). In this study, a membrane bioreactor (MBR) system was used as a polishing step on a full-scale WWTP, and its ability to remove micropollutants was examined together with the development and stability of the microbial community."

Funders for this research include Danish Council for Strategic Research, CONACYT.

The news correspondents obtained a quote from the research from Aalborg University, "Two stages of operation were studied during a period of 9 months, one with (S1) and one without (S2) the addition of exogenous OMPs. Ibuprofen and naproxen had the highest degradation rates with values of 248 μg/g(VSS).h and 71 μg/g(VSS).h, whereas diclofenac was a more persistent OMP (7.28 μg/g(VSS).h). Mineralization of C-14-labeled OMPs in batch kinetic experiments indicates that higher removal rates (similar to 0.8 ng/mg(TSS).h) with a short lag phase can be obtained when artificial addition of organic micropollutants was performed. Similar microbial populations dominated S1 and S2, despite the independent operations. Hydrogenophaga, Nitrospira, p55-a5, the actinobacterial Tetrasphaera, Propionicimonas, Fodinicola, and Candidatus Microthrix were the most abundant groups in the polishing MBR."

According to the news reporters, the research concluded: "Finally, potential microbial candidates for ibuprofen and naproxen degradation are proposed."


Our news journalists report that additional information may be obtained by contacting J.L. Nielsen, Aalborg Univ, Dept. of Chem & Biosci, Center Microbial Communities, DK-9220 Aalborg, Denmark. Additional authors for this research include N. de Jonge, M.L. Nielsen, H.R. Andersen, V. Borregaard, K. Jewel, T.A. Ternes and J.L. Nielsen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.watres.2016.10.046. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aalborg, Denmark, Europe, Environmental Water Research, Aalborg University.

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Reports from Aarhus University Add New Data to Findings in Cyclohexanes (Gene expression related to serotonergic and glutamatergic neurotransmission is altered in the flinders sensitive line rat model of depression: Effect of ketamine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cyclohexanes is now available. According to news originating from Risskov, Denmark, by NewsRx correspondents, research stated, "Major depressive disorder (MDD) is associated with dysfunctional serotonergic and glutamatergic neurotransmission, and the genetic animal model of depression Flinders Sensitive Line (FSL) rats display alterations in these systems relatively to their control strain Flinders Resistant Line (FRL). However, changes on transcript level related to serotonergic and glutamatergic signaling have only been sparsely studied in this model."

Our news journalists obtained a quote from the research from Aarhus University, "The non-competitive N-methyl-D-aspartate (NMDA) receptor antagonist ketamine has fast-onset antidepressant properties, and recent data implicate serotonergic neurotransmission in ketamine's antidepressant-like activities in rodents. Here, we investigated the transcript levels of 40 genes involved in serotonergic and glutamatergic neurotransmission in FSL and FRL rats in response to a single dose of ketamine (15 mg/kg; 90 min prior to euthanization). Using real-time quantitative polymerase chain reaction, we studied the effect of ketamine in the hippocampus, whereas strain differences were investigated in both hippocampus and frontal cortex. The expression of genes involved in serotonergic and glutamatergic neurotransmission were unaffected by a single dose of ketamine in the hippocampus. Relative to FRL rats, FSL rats displayed enhanced hippocampal transcript levels of 5-HT(2c), and P11, whereas the expression was reduced for 5-HT(2a), Nr2a, and Mglur2. In the frontal cortex, we found higher transcript levels of 5-HT(2c) and Mglur2, whereas the expression of 5-HT(2a) was reduced in FSL rats. Thus, ketamine is not associated with hippocampal alterations in serotonergic or glutamatergic genes at 90 min after an antidepressant dose."

According to the news editors, the research concluded: "Furthermore, FSL rats display serotonergic and glutamatergic abnormalities on gene expression level that partly may resemble findings in MDD patients."


The news correspondents report that additional information may be obtained from B. Elfving, Aarhus University, Dept. of Clin Med, Translat Neuropsychiat Unit, Risskov, Denmark. Additional authors for this research include H.K.M. Uller, C. Sanchez, G. Wegener and B. Elfving.

Keywords for this news article include: Risskov, Denmark, Europe, Glutamates, Genetics, Glutamic Acid, Hydrocarbons, Cyclohexanes, Ketamine, Aarhus University.

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Reports from Aarhus University Add New Data to Findings in Pharmacoepidemiology and Drug Safety (Determining prescription durations based on the parametric waiting time distribution)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Pharmacoepidemiology and Drug Safety have been published. According to news reporting originating from Aarhus, Denmark, by NewsRx correspondents, research stated, "The purpose of the study is to develop a method to estimate the duration of single prescriptions in pharmacoepidemiological studies when the single prescription duration is not available. We developed an estimation algorithm based on maximum likelihood estimation of a parametric two-component mixture model for the waiting time distribution (WTD)."

Our news editors obtained a quote from the research from Aarhus University, "The distribution component for prevalent users estimates the forward recurrence density (FRD), which is related to the distribution of time between subsequent prescription redemptions, the inter-arrival density (IAD), for users in continued treatment. We exploited this to estimate percentiles of the IAD by inversion of the estimated FRD and defined the duration of a prescription as the time within which 80% of current users will have presented themselves again. Statistical properties were examined in simulation studies, and the method was applied to empirical data for four model drugs: non-steroidal anti-inflammatory drugs (NSAIDs), warfarin, bendroflumethiazide, and levothyroxine. Simulation studies found negligible bias when the data-generating model for the IAD coincided with the FRD used in the WTD estimation (Log-Normal). When the IAD consisted of a mixture of two Log-Normal distributions, but was analyzed with a single Log-Normal distribution, relative bias did not exceed 9%. Using a Log-Normal FRD, we estimated prescription durations of 117, 91, 137, and 118 days for NSAIDs, warfarin, bendroflumethiazide, and levothyroxine, respectively. Similar results were found with a Weibull FRD."

According to the news editors, the research concluded: "The algorithm allows valid estimation of single prescription durations, especially when the WTD reliably separates current users from incident users, and may replace ad-hoc decision rules in automated implementations."


The news editors report that additional information may be obtained by contacting H. Stovring, Aarhus University, Dept. of Public Hlth, Biostat, DK-8000 Aarhus C, Denmark. Additional authors for this research include A. Pottegard and J. Hallas.

Keywords for this news article include: Aarhus, Denmark, Europe, Pharmacoepidemiology and Drug Safety, Drugs and Therapies, Epidemiology, Aarhus University.

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Reports from Aarhus University Advance Knowledge in Heart Attack (Clinical predictors of shockable versus non-shockable rhythms in patients with out-of-hospital cardiac arrest)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Attack. According to news reporting originating from Aarhus, Denmark, by NewsRx correspondents, research stated, "To identify factors associated with a non-shockable rhythm as first recorded heart rhythm. Patients >= 18 years old suffering out-of-hospital cardiac arrest between 2001 and 2012 were identified in the population-based Danish Cardiac Arrest Registry."

Our news editors obtained a quote from the research from Aarhus University, "Danish administrative registries were used to identify chronic diseases (within 10 years) and drug prescriptions (within 180 days). A multivariable logistic regression model, including patient related and cardiac arrest related characteristics, was used to estimate odds ratios (OR) for factors associated with non-shockable rhythm. A total of 29,863 patients were included: 6600 (22.1%) patients with a shockable rhythm and 23,263 (77.9%) patients with a non-shockable rhythm. A non-shockable rhythm was associated with female gender, arrest in private home, unwatched arrest, no bystander CPR, and longer time to first rhythm analysis compared to patients with shockable rhythm. In the adjusted multivariable regression model, pre-existing non-cardiovascular disease and drug prescription were associated with a non-shockable rhythm e.g. chronic obstructive lung disease (OR 1.44 [95% CI: 1.32-1.58]); and the prescription for antidepressants (OR 1.49 [95% CI: 1.35-1.65]), antipsychotics (OR 2.30 [95% CI: 1.96-2.69]) analgesics (OR 1.32 [95% CI: 1.23-1.41]), corticosteroids (OR 1.64 [95% CI: 1.44-1.85]), and antibiotics (OR 1.59 [95% CI: 1.40-1.81]). In contrast, the prescription of cardiovascular drugs and a history of cardiovascular disease e.g. ischemic heart disease was associated with a lower risk of non-shockable rhythm (OR 0.66 [95% CI: 0.60-0.71])."

According to the news editors, the research concluded: "This study demonstrate that non-cardiovascular disease and medication prescription are associated with a non-shockable rhythm while cardiovascular disease and medication prescription are associated with a shockable rhythm as first recorded rhythm in patients with OHCA."


The news editors report that additional information may be obtained by contacting A. Granfeldt, Aarhus University, Dept. of Anesthesiol & Intens Care, DK-8000 Aarhus C, Denmark. Additional authors for this research include M. Wissenberg, S.M. Hansen, F.K. Lippert, T. Lang-Jensen, O.M. Hendriksen, C. Torp-Pedersen, E.F. Christensen and C.F. Christiansen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.08.024. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aarhus, Denmark, Europe, Cardiovascular
Parkinson's Disease

Reports from Aarhus University Hospital Describe Recent Advances in Parkinson's Disease (Adjustment disorder and risk of Parkinson's disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Parkinson's disease is now available. According to news reporting from Aarhus, Denmark, by NewsRx journalists, research stated, "It has been postulated that stress is part of the etiological process of Parkinson's disease (PD). The risk of PD was examined in a cohort of patients with adjustment disorders, a diagnosis made in the presence of a severe response to a stressful life event."

Funders for this research include National Institute of Mental Health, Lundbeck and Novo Nordisk Foundations, Aarhus Universitets Forskningsfond.

The news correspondents obtained a quote from the research from Aarhus University Hospital, "Using Danish medical registries, PD occurrence was examined in a nationwide population-based cohort of patients with adjustment disorder diagnosed between 1995 and 2011. The standardized incidence ratio of PD was calculated as the ratio of observed to expected cases, stratified by time and potential risk factors, including depression and anxiety. Our adjustment disorder cohort (67,786 patients) was followed for a median of 8 years (interquartile range 4, 12.6 years). During follow-up, 119 patients developed PD, versus 64 expected, corresponding to a standardized incidence ratio of 1.84 (95% confidence interval 1.53, 2.20). Consistent results were observed after stratification on potential risk factors, including depression and anxiety."

According to the news reporters, the research concluded: "Adjustment disorder, a diagnosis made in the presence of severe response to stressful life events, was associated with an increased risk of PD."


Our news journalists report that additional information may be obtained by contacting E. Svensson, Dept. of Clinical Epidemiology, Aarhus University Hospital, Aarhus, Denmark. Additional authors for this research include D.K. Farkas, J.L. Gradus, T.L. Lash and H.T Sorensen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.12933. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aarhus, Europe, Denmark, Epidemiology, Movement Disorders, Parkinson's Disease, Risk and Prevention, Adjustment Disorders, Parkinsonian Disorders, Brain Diseases and Conditions, Basal Ganglia Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.
Reports from Aix-Marseille University Advance Knowledge in Antibiotics (Molecular mechanisms of polymyxin resistance: knowns and unknowns)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antibiotics is now available. According to news reporting originating from Marseille, France, by NewsRx correspondents, research stated, "Colistin, also referred to as polymyxin E, is an effective antibiotic against most multidrug-resistant Gram-negative bacteria and is currently used as a last-line drug for treating severe bacterial infections. Colistin resistance has increased gradually for the last few years, and knowledge of its multifaceted mechanisms is expanding."

Financial supporters for this research include Centre National de la Recherche Scientifique, Institut hospitalo-universitaire.

Our news editors obtained a quote from the research from Aix-Marseille University, "This includes the newly discovered plasmid-mediated colistin resistance gene mcr-1, which has been detected in over 20 countries within 3 months of its first report. We previously reported all of the known mechanisms of polymyxin resistance in our first review in 2014, but an update seems necessary in 2016, considering the significant recent discoveries that have been made in this domain."

According to the news editors, the research concluded: "This review provides an update about what is already known, what is new, and some unresolved questions with respect to colistin resistance."


The news editors report that additional information may be obtained by contacting J.M. Rolain, Aix Marseille Univ, URMITE, CNRS IRD UMR 6236, Mediterrane InfectFac Med & Pharm, Marseille, France. Additional authors for this research include L. Hadjadj, J.M. Rolain and A.O. Olaitan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.06.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Marseille, France, Europe, Antimicrobial Cationic Peptides, Pore Forming Cytotoxic Proteins, Drugs and Therapies, Membrane Proteins, Cyclic Peptides, Antibiotics, Polymyxins, Colistin, Aix-Marseille University.
**Reports from Aix-Marseille University Describe Recent Advances in Acinetobacter baumannii [Acquisition of a High Diversity of Bacteria during the Hajj Pilgrimage, Including Acinetobacter baumannii with bla(OXA-72) and Escherichia coli with ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Acinetobacter baumannii have been presented. According to news reporting originating from Marseille, France, by NewsRx correspondents, research stated, "Pilgrims returning from the Hajj (pilgrimage to Mecca) can be carriers of multidrug-resistant bacteria (MDR). Pharyngeal and rectal swab samples were collected from 98 pilgrims before and after they traveled to the Hajj in 2014 to investigate the acquisition of MDR bacteria."

Our news editors obtained a quote from the research from Aix-Marseille University, "The bacterial diversity in pharyngeal swab samples was assessed by culture with selective media. There was a significantly higher diversity of bacteria in samples collected after the return from the Hajj than in those collected before (P = 0.0008). Surprisingly, Acinetobacter baumannii strains were isolated from 16 pharyngeal swab samples (1 sample taken during the Hajj and 15 samples taken upon return) and 26 post-Hajj rectal swab samples, while none were isolated from samples taken before the Hajj. Testing of all samples by real-time PCR targeting bla(OXA-51) gave positive results for only 1% of samples taken during the Hajj, 21/90 (23.3%) pharyngeal swab samples taken post-Hajj, and 35/90 (38.9%) rectal swab samples taken post-Hajj. One strain of A. baumannii isolated from the pharynx was resistant to imipenem and harbored a bla(OXA-72) carbapenemase gene. Multilocus sequence typing analysis of 43 A. baumannii isolates revealed a huge diversity of 35 sequence types (STs), among which 18 were novel STs reported for the first time in this study. Moreover, we also found one Escherichia coli isolate, collected from a rectal swab sample from a pilgrim taken after the Hajj, which harbored bla(NDM-5), bla(CTX-M-15), bla(TEM-1), and aadA2 (ST2659 and ST181)."

According to the news editors, the research concluded: "Pilgrims are at a potential risk of acquiring and transmitting MDR Acinetobacter spp. and carbapenemase-producing Gram-negative bacteria during the Hajj season."

For more information on this research see: Acquisition of a High Diversity of Bacteria during the Hajj Pilgrimage, Including Acinetobacter baumannii with bla(OXA-72) and Escherichia coli with bla(NDM-5) Carbapenemase Genes. *Antimicrobial Agents and Chemotherapy*, 2016;60(10):5942-5948. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting J.M. Rolain, Aix Marseille Univ, Fac Med & Pharm, CNRS IRD, URMITEUMR 6236Mediterranee Infect, Marseille, France. Additional authors for this research include P. Gautret, K. Griffiths, K. Belhouchat, Z. Memish, D. Raoult and J.M. Rolain.

Keywords for this news article include: Marseille, France, Europe, Carbapenems, Risk and Prevention, Genetics, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Acinetobacter baumannii, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Escherichia coli, Proteobacteria, Moraxellaceae, beta-Lactams, Aix-
Cardiovascular Research

Reports from Aix-Marseille University Describe Recent Advances in Cardiovascular Research (WES/WGS Reporting of Mutations from Cardiovascular "Actionable" Genes in Clinical Practice: A Key Role for UMD Knowledgebases in the Era of Big Databases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Research have been published. According to news reporting originating in Marseille, France, by NewsRx journalists, research stated, "High-throughput next-generation sequencing such as whole-exome and whole-genome sequencing are being rapidly integrated into clinical practice. The use of these techniques leads to the identification of secondary variants for which decisions about the reporting or not to the patient need to be made."

The news reporters obtained a quote from the research from Aix-Marseille University, "The American College of Medical Genetics and Genomics recently published recommendations for the reporting of these variants in clinical practice for 56 'actionable' genes. Among these, seven are involved in Marfan Syndrome And Related Disorders (MSARD) resulting from mutations of the FBN1, TGFBR1 and 2, ACTA2, SMAD3, MYH11 and MYLK genes. Here, we show that mutations collected in UMD databases for MSARD genes (UMD-MSARD) are rarely reported, including the most frequent ones, in global scale initiatives for variant annotation such as the NHLBI GO Exome Sequencing Project (ESP), the Exome Aggregation Consortium (ExAC), and ClinVar. The predicted pathogenic mutations reported in global scale initiatives but absent in locus-specific databases (LSDBs) mainly correspond to rare events. UMD-MSARD databases are therefore the only resources providing access to the full spectrum of known pathogenic mutations."

According to the news reporters, the research concluded: "They are the most comprehensive resources for clinicians and geneticists to interpret MSARD-related variations not only primary variants but also secondary variants."


Our news correspondents report that additional information may be obtained by contacting G. Collod-Beroud, Aix Marseille Univ, INSERM, GMGF, Marseille, France. Additional authors for this research include D. Salgado, J.P. Desvignes, G. Rai, N. Hanna, P. Arnaud, C. Guien, M. Martinez, L. Faivre, G. Jondeau, C. Boileau, S. Zaffran, C. Beroud and G. Collod-Beroud.

Keywords for this news article include: Marseille, France, Europe, Cardiovascular Research, Cardiology, Genetics, Cardiovascular, Aix-Marseille University.

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Heart Disorders and Diseases - Bradycardia

Reports from Akdeniz University Provide New Insights into Bradycardia (The efficacy of transcutaneous cardiac pacing in ED)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Bradycardia. According to news reporting from Antalya, Turkey, by NewsRx journalists, research stated, "Transcutaneous cardiac pacing (TCP) is a rapid, time-saving, and noninvasive ventricular stimulation that is tolerated by conscious patients despite the painful intervention for treatment of symptomatic brady-cardias. The goal of this study was to determine the efficacy of TCP in unstable bradycardia patients in emergency department (ED)."

The news correspondents obtained a quote from the research from Akdeniz University, "This single-central, observational clinical study was conducted on patients older than 18 years who presented with acute unstable bradycardia to the tertiary care university ED. Primary outcome measure was to determine the efficacy of TCP in unstable bradycardia patients in the emergency settings. Efficacy of TCP was to determine changes of clinically significant vital signs and electrocardiography. Of 349 patients who visited the ED presenting with bradycardia, 89 patients who met the criteria were included in the study. There was a statistically significant difference between before and after the first administration TCP in mean systolic (71.2 [64.8-77.6] and 105.3 [97.6-112.9 mm Hg]) and diastolic blood pressure (42.9 [38.8-47.0] and 61.0 [56.4-65.5] mm Hg) and median heart rate (40 [39-42] and 74 [71-78] beats/min, P<.0001)."

According to the news reporters, the research concluded: "Transcutaneous cardiac pacing is a clinically effective treatment modality in patients with atropine-resistant unstable bradycardia."


Our news journalists report that additional information may be obtained by contacting F. Bektas, Akdeniz University, Fac Med, Dept. of Emergency Med, TR-07059 Antalya, Turkey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.07.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antalya, Turkey, Eurasia, Heart Disorders and Diseases, Cardiac Arrhythmias, Heart Disease, Bradycardia, Cardiology, Akdeniz University.

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Reports from Akita University Provide New Insights into Vasculitis (Different Expression Patterns of Toll-Like Receptor mRNAs in Blood Mononuclear Cells of IgA Nephropathy and IgA Vasculitis with Nephritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current research results on Cardiovascular Diseases and Conditions - Vasculitis have been published. According to news originating from Akita, Japan, by NewsRx correspondents, research stated, "Mucosal immunity may play a key role in IgA nephropathy (IgAN) and IgA vasculitis with nephritis (IgAVN). IgAVN is characterized by the presence of non-thrombocytopenic palpable purpura, associated with glomerulonephritis with IgA-dominant immune deposits."

Our news journalists obtained a quote from the research from Akita University, "Recent studies have shown the up-regulation of Toll-like receptors (TLRs) in patients with IgAN or IgAVN. Among TLRs that mediate innate immune reactions, TLR2, TLR4, and TRL5 recognize bacterial components, while TLR3, TLR7, and TLR9 recognize viral components. Here we compared the expression levels of TLR mRNAs in peripheral blood mononuclear cells (PBMCs) from 49 IgAN patients, 20 IgAVN patients, and 20 patients with thin basement membrane nephropathy (TBMN), unrelated to immune-mediated pathogenesis, as a control. The real-time RT-PCR analysis revealed the significantly higher expression levels of TLR2, TLR3, TLR5, TLR7, and TLR9 mRNAs in PBMCs of IgAN and IgAVN patients, compared to TBMN patients. Importantly, TLR4 mRNA levels were significantly higher in IgAN patients than in IgAVN patients, while its expression levels were comparable in IgAVN patients and TBMN patients. In contrast, TLR5 and TLR9 mRNA levels were significantly higher in IgAVN patients than in IgAN patients. In IgAN patients, expression levels of TLR2, TLR3, TLR5, or TLR9 mRNA were correlated with proteinuria levels, and TLR4 mRNA levels were correlated with serum IgA levels. In IgAVN patients, however, there was no such correlation. The up-regulated expression of TLR mRNAs in PBMCs may be related to the development of IgAN and IgAVN."

According to the news editors, the research concluded: "The distinct expression patterns between these two diseases may reflect their different pathogenetic mechanisms."


The news correspondents report that additional information may be obtained from A. Komatsuda, Akita University, Grad Sch Med, Dept. of Hematol Nephrol & Rheumatol, Akita, Akita 0108543, Japan. Additional authors for this research include A. Komatsuda, H. Kaga, R. Sato, M. Togashi, S. Okuyama, H. Wakui and N. Takahashi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1620/tjem.240.199. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Akita, Japan, Asia, Cardiovascular Diseases and Conditions, Pattern Recognition Receptors, Toll-Like Receptors, Membrane Proteins, Nephropathy, Nephrology, Immunology, Vasculitis, Genetics, Akita University.
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Oncology - Acute Myeloid Leukemia

Reports from Albert Einstein College of Medicine Advance Knowledge in Acute Myeloid Leukemia (New IDH1 mutant inhibitors for treatment of acute myeloid leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Acute Myeloid Leukemia. According to news reporting out of Bronx, New York, by NewsRx editors, research stated, "Neomorphic mutations in isocitrate dehydrogenase 1 (IDH1) are driver mutations in acute myeloid leukemia (AML) and other cancers. We report the development of new allosteric inhibitors of mutant IDH1."

Our news journalists obtained a quote from the research from the Albert Einstein College of Medicine, "Crystallographic and biochemical results demonstrated that compounds of this chemical series bind to an allosteric site and lock the enzyme in a catalytically inactive conformation, thereby enabling inhibition of different clinically relevant IDH1 mutants. Treatment of IDH1 mutant primary AML cells uniformly led to a decrease in intracellular 2-HG, abrogation of the myeloid differentiation block and induction of granulocytic differentiation at the level of leukemic blasts and more immature stem-like cells, in vitro and in vivo. Molecularly, treatment with the inhibitors led to a reversal of the DNA cytosine hypermethylation patterns caused by mutant IDH1 in the cells of individuals with AML."

According to the news editors, the research concluded: "Our study provides proof of concept for the molecular and biological activity of novel allosteric inhibitors for targeting different mutant forms of IDH1 in leukemia."


Our news journalists report that additional information may be obtained by contacting U.C. Okoye-Okafor, Dept. of Cell Biology, Albert Einstein College of Medicine, Bronx, New York, United States. Additional authors for this research include B. Bartholdy, J. Cartier, E.N. Gao, B. Pietrak, A.R. Rendina, C. Rominger, C. Quinn, A. Smallwood, K.J. Wiggall, A.J. Reif, S.J. Schmidt, H. Qi, H. Zhao, G. Joberty, M. Faeth-Savitski, M. Bantscheff and Drewes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nchembio.1930. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bronx, New York, Genetics, Oncology, Hematology, United States, Acute Myeloid Leukemia, North and Central America.

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Liver Diseases and Conditions - Hepatitis B Virus

Reports from American Red Cross Describe Recent Advances in Hepatitis B Virus (Development of a multisystem surveillance database for transfusion-transmitted infections among blood donors in the United States)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Liver Diseases and Conditions - Hepatitis B Virus. According to news reporting from Rockville, Maryland, by NewsRx journalists, research stated, "The frequency of positive test results for transfusion-transmitted infections (TTIs) among blood donors is an important index of safety; thus, appropriate monitoring is critical, particularly when there are changes in policies affecting donor suitability. Testing algorithms from three large blood systems were reviewed and consensus definitions for a surveillance-positive result for hepatitis B virus (HBV), hepatitis C virus (HCV), human immunodeficiency virus (HIV), and human T-cell lymphotropic virus (HTLV) established."

The news correspondents obtained a quote from the research from American Red Cross, "In addition, information on each donation, including donor demographics and location, was collected. Combined data were analyzed to characterize the epidemiology of TTIs by person, place, and time. Data from 14.8 million donations were collected for 2011 to 2012, representing more than 50% of the US blood supply. Surveillance-positive rates per 10,000 donations were as follows: HBV, 0.76; HCV, 2.0; HIV, 0.28; and HTLV 0.34. Rates did not vary between the 2 years, although there was variation within a year. With the exception of HTLV, rates were higher among males, and all rates were higher among first-time donations. Window-period donations (those positive only in nucleic acid tests) were infrequent (HBV, 13; HCV, 60; HIV, 14) during the 2-year period. Frequencies of surveillance-positive results varied by donor age and residence location. We demonstrated that standardized data from multiple major US blood systems can be combined and analyzed for change. However, TTI frequencies are low, impacting their sensitivity to change."

According to the news reporters, the research concluded: "Furthermore, observed fluctuations in TTI frequencies may be secondary to changes in blood donor demographics rather than necessarily reflecting the immediate impact of policy modification."


Keywords for this news article include: Rockville, Maryland, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Liver Diseases and Conditions, Epidemiology, Digestive System Diseases and Conditions, Immune System Diseases and Conditions, Infectious Disease and Conditions, Human Immunodeficiency Virus, Hepadnaviridae Infections, Flaviviridae Infections, Transfusion Medicine, Primate
Reports from American University Add New Data to Findings in Brain Injuries (A Quantification of the Injury-Induced Changes in Central Aromatase, Oestrogenic Milieu and Steroid Receptor Expression in the Zebra Finch)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Brain Injuries. According to news reporting originating in Washington, District of Columbia, by NewsRx journalists, research stated, "In songbirds and mammals, brain injury results in the up-regulation of aromatase (oestrogen synthase) expression in astroglia. The resulting presumed synthesis of neural oestradiol (E2) has neuroprotective effects including a decrease in neurodegeneration, neuroinflammation and apoptosis."

Financial support for this research came from National Institutes of Health.

The news reporters obtained a quote from the research from American University, "The development of therapeutic tools that exploit oestrogenic neuroprotection in the treatment of neurotrauma requires a precise quantification of the endogenous changes in neural aromatase and E2 following brain injury. Surprisingly, the expected increase in neural oestrogens following brain injury has not been demonstrated. Furthermore, we are just beginning to unravel the mechanisms behind the protective effects of centrally synthesised E2. In the present study, levels of aromatase immunoprotein, neural E2 and steroid receptor mRNA were quantified in adult male and female zebra finches 48?h following a unilateral penetrating brain injury. Both aromatase and E2 were up-regulated in the injured hemisphere of the brain compared to the uninjured hemisphere, demonstrating for the first time a robust increase in neural E2 levels following injury. We did not detect an effect of injury on mRNA expression of the oestrogen receptors (ER)-a, ER-b or GPER-1, but observed a significant decrease in androgen receptor transcription in the injured lobe relative to the contralateral uninjured hemisphere. We conclude that mechanical damage causes a dramatic increase in local aromatisation, and the resultant high levels of central E2 are available to modulate steroid sensitive targets."

According to the news reporters, the research concluded: "Studies using alternate methods of receptor detection and/or time points may be necessary to understand the complete suite of mechanisms underlying the neuroprotective effects of induced oestrogen synthesis in this animal model."


Our news correspondents report that additional information may be obtained by
contacting C.J. Mehos, Dept. of Biology and Center for Behavioral Neuroscience, American University, Washington, DC, United States. Additional authors for this research include L.H. Nelson and C.J Saldanha.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jne.12348. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Aromatase, Washington, Cytochromes, Heme-proteins, United States, Brain Injuries, Oxidoreductases, Steroid Receptors, District of Columbia, Steroid Hydroxylases, Craniocerebral Trauma, Enzymes and Coenzymes, North and Central America, Mixed Function Oxygenases, Cytoplasmic and Nuclear Receptors.

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Oncology - Lymphoma

Reports from Asahi General Hospital Highlight Recent Findings in Lymphoma (Residual FDG uptake of primary thyroid lymphoma after treatment may overestimate residual lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lymphoma have been published. According to news reporting originating in Chiba, Japan, by NewsRx journalists, research stated, "To assess F-18-fluorodeoxyglucose positron emission tomography/computed tomography (F-18-FDG PET/CT) images in primary thyroid lymphoma (PTL) patients before and after treatment. We conducted a retrospective review of data for ten patients (four men, six women) of mean age 65 (range 48-88) years, with histopathologically confirmed malignant thyroid lymphoma who underwent pre-treatment and post-treatment F-18-FDG PET between January 2005 and December 2014."

The news reporters obtained a quote from the research from Asahi General Hospital, "Thyroid uptake was assessed by the 5-point scale score based on maximum intensity projection images. Four of the ten patients were judged to have a complete metabolic response (scores 1-3) and four to have a partial metabolic response (PMR; scores 4-5). Three of the four PMR patients had a good outcome with a treatment-free interval and overall survival of at least 53.0 months, although two of these three patients showed residual FDG uptake in the thyroid for more than 2 years after completion of treatment. Two of the ten patients were considered to have progressive metabolic disease."

According to the news reporters, the research concluded: "In patients with PTL, residual FDG uptake in the thyroid after treatment that corresponds to a PMR may not always indicate a poor outcome."

For more information on this research see: Residual FDG uptake of primary thyroid lymphoma after treatment may overestimate residual lymphoma. Annals of Nuclear Medicine, 2016;30(10):756-759. Annals of Nuclear Medicine can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Annals of Nuclear Medicine - www.springerlink.com/content/0914-7187/)

Our news correspondents report that additional information may be obtained by contacting H. Fujii, Asahi Gen Hosp, Dept. of Radiol, Asahi, Chiba 2892511, Japan. Additional authors for this research include M. Nakadate, H. Tanaka, N. Harata, S. Oota, J. Isogai and K.
Reports from Asia University Provide New Insights into Cancer Therapy
(Hericium erinaceus Inhibits TNF-a-Induced Angiogenesis and ROS Generation through Suppression of MMP-9/NF-kB Signaling and Activation of Nrf2-Mediated Antioxidant Genes in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Cancer Therapy. According to news reporting originating in Taichung, Taiwan, by NewsRx journalists, research stated, "Hericium erinaceus (HE) is an edible mushroom that has been shown to exhibit anticancer and anti-inflammatory activities. We investigated the antiangiogenic and antioxidant potentials of ethanol extracts of HE in human endothelial (EA.hy926) cells upon tumor necrosis factor-a-(TNF-a-) stimulation (10 ng/mL)."

Funders for this research include Ministry of Science and Technology, Taiwan, National Science Council, China Medical University, Taiwan.

The news reporters obtained a quote from the research from Asia University, "The underlying molecular mechanisms behind the pharmacological efficacies were elucidated. We found that noncytotoxic concentrations of HE (50-200 mg/mL) significantly inhibited TNF-a-induced migration/invasion and capillary-like tube formation of endothelial cells. HE treatment suppressed TNF-a-induced activity and/or overexpression of matrix metalloproteinase-9 (MMP-9) and intercellular adhesion molecule-1 (ICAM-1). Furthermore, HE downregulated TNF-a-induced nuclear translocation and transcriptional activation of nuclear factor-kB (NF-kB) followed by suppression of I-kB (inhibitor-kB) degradation. Data from fluorescence microscopy illustrated that increased intracellular ROS production upon TNF-a-stimulation was remarkably inhibited by HE pretreatment in a dose-dependent manner. Notably, HE triggered antioxidant gene expressions of heme oxygenase-1 (HO-1), g-glutamylcysteine synthetase (g-GCLC), and glutathione levels, which may contribute to inhibition of ROS. Increased antioxidant status was associated with upregulated nuclear translocation and transcriptional activation of NF-E2 related factor-2 (Nrf2) in HE treated cells."

According to the news reporters, the research concluded: "Our findings conclude that antiangiogenic and anti-inflammatory activities of H. erinaceus may contribute to its anticancer property through modulation of MMP-9/NF-kB and Nrf2-antioxidant signaling pathways."

For more information on this research see: Hericium erinaceus Inhibits TNF-a-Induced Angiogenesis and ROS Generation through Suppression of MMP-9/NF-kB Signaling and Activation of Nrf2-Mediated Antioxidant Genes in Human EA.hy926 Endothelial Cells. Oxidative Medicine and Cellular Longevity, 2015;2016();8257238. (Hindawi Publishing -
Our news correspondents report that additional information may be obtained by contacting H.C. Chang, Dept. of Biotechnology and Bioinformatics, Asia University, Taichung 41354, Taiwan. Additional authors for this research include H.L. Yang, J.H. Pan, M. Korivi, J.Y. Pan, M.C. Hsieh, P.M. Chao, P.J. Huang, C.T. Tsai and Y.C Hseu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/8257238. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antioxidants, Taiwan, Taichung, Genetics, Cancer Therapy, Endothelial Cells, Protective Agents, Drugs and Therapies.

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Urinary Tract

**Reports from Baqiyatallah University of Medical Sciences Advance Knowledge in Urinary Tract [Distribution of virulence genes and genotyping of CTX-M-15-producing Klebsiella pneumoniae isolated from patients with community-acquired urinary tract ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Urinary Tract. According to news reporting originating from Tehran, Iran, by NewsRx correspondents, research stated, "Klebsiella pneumoniae is one of the most important agents of community-acquired urinary tract infection (CA-UTI). In addition to extended-spectrum beta-lactamases (ESBLs), a number of virulence factors have been shown to play an important role in the pathogenesis of K. pneumoniae, including capsule, siderophores, and adhesins."

Our news editors obtained a quote from the research from the Baqiyatallah University of Medical Sciences, "Little is known about the genetic diversity and virulence content of the CTX-M-15-producing K. pneumoniae isolated from CA-UTI in Iran. A total of 152 K. pneumoniae isolates were collected from CA-UTI patients in Tehran from September 2015 through April 2016. Out of 152 isolates, 40 (26.3%) carried bla(CTX-m-15). PCR was performed for detection of virulence genes in CTX-M-15-producing isolates. Furthermore, all of these isolates were subjected to multiple-locus variable-number of tandem repeat (VNTR) analysis (MLVA). Using MLVA method, 36 types were identified. CIX-M-15-producing K. pneumoniae isolates were grouped into 5 clonal complexes (CCs). Of these isolates, mrkD was the most prevalent virulence gene (95%), followed by kpn (60%), rmpA (37.5%), irp (35%), and magA (2.5%). No correlation between MLVA types or CCs and virulence genes or antibiotic resistance patterns was observed."

According to the news editors, the research concluded: "Overall, it is thought that CTX-M-15-producing K. pneumoniae strains isolated from CA-UTI have arisen from different clones."

For more information on this research see: Distribution of virulence genes and genotyping of CTX-M-15-producing Klebsiella pneumoniae isolated from patients with community-acquired urinary tract infection (CA-UTI). *Microbial Pathogenesis*, 2016;100 ():244-249. *Microbial Pathogenesis* can be contacted at: Academic Press Ltd- Elsevier Science
The news editors report that additional information may be obtained by contacting H. Memariani, Baqiyatallah Univ Med Sci, Mol Biol Res Center, Tehran, Iran. Additional authors for this research include H. Memariani, R. Sorouri and M. Memariani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.micpath.2016.10.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Gram-Negative Facultatively Anaerobic Rods, Klebsiella pneumoniae, Genetics, Community-Acquired Infection, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Proteobacteria, Urinary Tract, Baqiyatallah University of Medical Sciences.

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Chemistry - Biochemistry

Reports from Baylor University College of Medicine Highlight Recent Findings in Biochemistry (Conditional knockout of retinal determination genes in differentiating cells in Drosophila)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Chemistry - Biochemistry. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "Conditional gene knockout in postmitotic cells is a valuable technique which allows the study of gene function with spatiotemporal control. Surprisingly, in contrast to its long-term and extensive use in mouse studies, this technology is lacking in Drosophila."

Funders for this research include National Eye Institute, Retina Research Foundation.

The news reporters obtained a quote from the research from the Baylor University College of Medicine, "Here, we use a novel method for generating complete loss of eyes absent (eya) or sine oculis (so) function in postmitotic cells posterior to the morphogenetic furrow (MF). Specifically, genomic rescue constructs with flippase recognition target (FRT) sequences flanking essential exons are used to generate conditional null alleles. By removing gene function in differentiating cells, we show that eya and so are dispensable for larval photoreceptor differentiation, but are required for differentiation during pupal development. Both eya and so are necessary for photoreceptor survival and the apoptosis caused by loss of eya or so function is likely a secondary consequence of inappropriate differentiation. We also confirm their requirement for cone cell development and reveal a novel role in interommatidial bristle (IOB) formation. In addition, so is required for normal eye disc morphology. This is the first report of a knockout method to study eya and so function in postmitotic cells."

According to the news reporters, the research concluded: "This technology will open the door to a large array of new functional studies in virtually any tissue and at any stage of development or in adults."

Our news correspondents report that additional information may be obtained by contacting G. Mardon, Baylor College of Medicine, Program Cell & Mol Biol, Houston, TX 77030, United States. Additional authors for this research include A. Eblimit, M. Pulikkathara, S. Corr, R. Chen and G. Mardon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/febs.13772. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Biochemistry, Chemistry, Technology, Genetics, Baylor University College of Medicine.

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**Drugs and Therapies - Toxicology and Pharmacology**

**Reports from Beijing Academy of Agriculture and Forestry Science Add New Data to Findings in Toxicology and Pharmacology [Residue behavior and dietary intake risk assessment of three fungicides in tomatoes (Lycopersicon esculentum Mill.) under ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Toxicology and Pharmacology are discussed in a new report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "The residue behavior and dietary intake risk of three fungicides (pyrimethanil, iprodione, kresoxim-methyl) in tomatoes (Lycopersicon esculentum Mill.) grown in greenhouse were investigated. A simple, rapid analytical method for the quantification of fungicide residues in tomatoes was developed using gas chromatography coupled with mass spectrum detection (GC-MSD)."

Financial supporters for this research include National Natural Science Foundation of China, Platform Project of Beijing Academy of Agricultural and Forestry Sciences, Innovation Team in BAAFS.

Our news journalists obtained a quote from the research from the Beijing Academy of Agriculture and Forestry Science, "The fortified recoveries were ranged from 87% to 103% with relative standard deviations (RSDs) varied from 4.7% to 12.1%. The results indicated that the dissipation rate of the studied fungicides in tomatoes followed first order kinetics with half lives in the range of 8.6-11.5 days. The final residues of all the fungicides in tomatoes were varied from 0.241 to 0.944 mg/kg. The results of dietary intake assessment indicated that the dietary intake of the three fungicides from tomatoes consumption for Chinese consumers were acceptable."

According to the news editors, the research concluded: "This study would provide more understanding of residue behavior and dietary intake risk by these fungicides used under greenhouse conditions."

For more information on this research see: Residue behavior and dietary intake risk assessment of three fungicides in tomatoes (Lycopersicon esculentum Mill.) under greenhouse conditions. Regulatory Toxicology and Pharmacology, 2016;81():284-287. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525
Reports from Beijing Institute of Transfusion Medicine Highlight Recent Findings in Cardiology (Energy metabolism regulated by HDAC inhibitor attenuates cardiac injury in hemorrhagic rat model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "A disturbance of energy metabolism reduces cardiac function in acute severe hemorrhagic patients. Alternatively, adequate energy supply reduces heart failure and increases survival."

Our news journalists obtained a quote from the research from the Beijing Institute of Transfusion Medicine, "However, the approach to regulating energy metabolism conductive to vital organs is limited, and the underlying molecular mechanism remains unknown. This study assesses the ability of histone deacetylase inhibitors (HDACIs) to preserve cardiac energy metabolism during lethal hemorrhagic injury. In the lethally hemorrhagic rat and hypoxic myocardial cells, energy metabolism and heart function were well maintained following HDACI treatment, as evident by continuous ATP production with normal cardiac contraction. Valproic acid (VPA) regulated the energy metabolism of hemorrhagic heart by reducing lactate synthesis and protecting the mitochondrial ultrastructure and respiration, which were attributable to the inhibition of lactate dehydrogenase A activity and the increased myeloid cell leukemia-1 (mcl-1) gene expression, ultimately facilitating ATP production and consumption. MCL-1, the key target of VPA, mediated this cardioprotective effect under acute severe hemorrhage conditions."

According to the news editors, the research concluded: "Our results suggest that HDACIs promote cardioprotection by improving energy metabolism during hemorrhagic injury and could therefore be an effective strategy to counteract this process in the clinical setting."

For more information on this research see: Energy metabolism regulated by HDAC inhibitor attenuates cardiac injury in hemorrhagic rat model. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiology, Genetics, Beijing Institute of Transfusion Medicine.

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Proteins - Eye Proteins

Reports from Biomedical Research Foundation Add New Data to Findings in Eye Proteins (Desmin and alpha B-crystallin interplay in the maintenance of mitochondrial homeostasis and cardiomyocyte survival)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Proteins - Eye Proteins are presented in a new report. According to news reporting originating from Athens, Greece, by NewsRx correspondents, research stated, "The association of desmin with the alpha-crystallin.-chain (alpha B-crystallin; encoded by CRYAB), and the fact that mutations in either one of them leads to heart failure in humans and mice, suggests a potential compensatory interplay between the two in cardioprotection. To address this hypothesis, we investigated the consequences of alpha B-crystallin overexpression in the desmin-deficient (Des(-/-)) mouse model, which possesses a combination of the pathologies found in most cardiomyopathies, with mitochondrial defects as a hallmark."

Our news editors obtained a quote from the research from Biomedical Research Foundation, "We demonstrated that cardiac-specific alpha B-crystallin overexpression ameliorates all these defects and improves cardiac function to almost wild-type levels. Protection by alpha B-crystallin overexpression is linked to maintenance of proper mitochondrial protein levels, inhibition of abnormal mitochondrial permeability transition pore activation and maintenance of mitochondrial membrane potential (Delta psi(m))."

According to the news editors, the research concluded: "Furthermore, we found that both desmin and alpha B-crystallin are localized at sarcoplasmic reticulum (SR)-mitochondria-associated membranes (MAMs), where they interact with VDAC, Mic60 - the core component of mitochondrial contact site and cristae organizing system (MICOS) complex - and ATP synthase, suggesting that these associations could be crucial in mitoprotection at different levels."


The news editors report that additional information may be obtained by contacting Y. Capetanaki, Biomed Res Fdn, Academy Athens, Center Basic Res, Athens 11527, Greece. Additional authors for this research include E. Soumaka, I. Kloukina, M. Tsikitis, M.

Keywords for this news article include: Athens, Greece, Europe, Intermediate Filament Proteins, Cardiomyocyte, Eye Proteins, Crystallins, Cardiology, Genetics, Desmin, Biomedical Research Foundation.

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Heart Disorders and Diseases - Heart Failure

Reports from Brooks College of Health Describe Recent Advances in Heart Failure (Associations between heart failure and physical function in US adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Failure. According to news originating from Jacksonville, Florida, by NewsRx correspondents, research stated, "There is a paucity of nationally representative data in the area of heart failure (HF) and physical function (PF). Examine the relationship(s) between HF and PF in a nationally representative sample of United States (US) adults."

Our news journalists obtained a quote from the research from the Brooks College of Health, "Cross-section analysis of US adults. Sample (n = 6623) included adult (>= 40 years of age) participants from the 1999-2006 National Health and Nutrition Examination Survey. Participants reporting HF answered questions related to their abilities to accomplish specific upper extremity and lower extremity tasks, and household chores. Prevalence estimates of reporting much difficulty or the inability to stand from an armless chair was 9.9% and 4.3% (P = 0.002) in those with and without HF, respectively. Similar estimates were revealed for much difficulty or inability to lift or carry 10 pounds (16.8% and 8.6%, P = 0.0004) and much difficulty or inability to do household chores (13.3% and 6.1%, P = 0.0008). Following adjustments participants reporting HF had significantly greater odds of reporting much difficulty or the inability to stand from an armless chair [odds ratio (OR) 1.93; 95% confidence intervals (CI) 1.25, 2.96], much difficulty or the inability to lift or carry 10 lbs (OR 1.90; 95% CI 1.36, 2.65) and much difficulty or inability to do household chores (OR 2.06; 95% CI 1.41, 3.02) compared with participants not reporting HF."

According to the news editors, the research concluded: "Findings suggest US adults reporting HF are more likely to report poorer PF."


The news correspondents report that additional information may be obtained from J.R. Churilla, Univ North Florida, Dept. of Clin & Appl Movement Sci Exercise Sci, Brooks Coll Hlth, Jacksonville, FL 32224, United States. Additional authors for this research include M.R. Richardson, S.O. Pinkstaff, B.J. Fletcher and G.F. Fletcher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/qjmed/hcw042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jacksonville, Florida, United States, North
Reports from Brown University Provide New Insights into Enterococcus faecium (Homologous Recombination within Large Chromosomal Regions Facilitates Acquisition of beta-Lactam and Vancomycin Resistance in Enterococcus faecium)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - Enterococcus faecium. According to news reporting from Providence, Rhode Island, by NewsRx journalists, research stated, "The transfer of DNA between Enterococcus faecium strains has been characterized both by the movement of well-defined genetic elements and by the large-scale transfer of genomic DNA fragments. In this work, we report on the whole-genome analysis of transconjugants resulting from mating events between the vancomycin-resistant E. faecium C68 strain and the vancomycin-susceptible D344RRF strain to discern the mechanism by which the transferred regions enter the recipient chromosome."

The news correspondents obtained a quote from the research from Brown University, "Vancomycin-resistant transconjugants from five independent matings were analyzed by whole-genome sequencing. In all cases but one, the penicillin binding protein 5 (pbp5) gene and the Tn5382 vancomycin resistance transposon were transferred together and replaced the corresponding pbp5 region of D344RRF. In one instance, Tn5382 inserted independently downstream of the D344RRF pbp5 gene. Single nucleotide variant (SNV) analysis suggested that entry of donor DNA into the recipient chromosome occurred by recombination across regions of homology between donor and recipient chromosomes, rather than through insertion sequence-mediated transposition. The transfer of genomic DNA was also associated with the transfer of C68 plasmid pLRM23 and another putative plasmid. Our data are consistent with the initiation of transfer by cointegration of a transferable plasmid with the donor chromosome, with subsequent circularization of the plasmid-chromosome cointegrant in the donor prior to transfer."

According to the news reporters, the research concluded: "Entry into the recipient chromosome most commonly occurred across regions of homology between donor and recipient chromosomes."

For more information on this research see: Homologous Recombination within Large Chromosomal Regions Facilitates Acquisition of beta-Lactam and Vancomycin Resistance in Enterococcus faecium. Antimicrobial Agents and Chemotherapy, 2016;60 (10):5777-5786. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting M. Garcia-Solache, Brown University, Rhode Island Hospital, Dept. of Med, Warren Alpert Med Sch, Providence, RI 02903, United States. Additional authors for this research include F. Lebreton, R.E. McLaughlin, J.D. Whiteaker, M.S. Gilmore and L.B. Rice.
Reports from Brussels Free University Describe Recent Advances in Antibiotics (Evaluation of total body weight and body mass index cut-offs for increased cefazolin dose for surgical prophylaxis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antibiotics are presented in a new report. According to news reporting out of Brussels, Belgium, by NewsRx editors, research stated, "French and American guidelines recommend increased dosage regimens of cefazolin (CFZ) for surgical prophylaxis in patients with a body mass index (BMI) >= 35 kg/m(2) or with a total bodyweight (TBW) >= 120 kg. The objective of this study was to evaluate the accuracy of these cut-offs in identifying patients who require CFZ dose adjustment."

Our news journalists obtained a quote from the research from Brussels Free University, "A pharmacokinetic study was conducted in patients of varying TBW and BMI who received 2 g of CFZ intravenously for prophylaxis prior to digestive surgery. Adequacy of therapy, defined as a serum concentration of unbound CFZ (fCFZ) >= 4 mg/L, was evaluated 180 min (T-180) and 240 min (T-240) after the start of CFZ infusion. Possible factors associated with insufficient fCFZ levels were also assessed. A P-value of < 0.05 was considered statistically significant. A total of 63 patients were included in the study, categorised according to BMI (< 35 kg/m(2), 20 patients; and >= 35 kg/m(2), 43 patients) and TBW (< 120 kg, 41 patients; and >= 120 kg, 22 patients). All patients had adequate drug levels at T-180 but only 40/63 patients (63%) had adequate levels at T-240. At T-240, therapy was adequate in 15/20 patients (75%) and 25/43 patients (58%) with BMI < 35 kg/m(2) and >= 35 kg/m(2), respectively (P = 0.20), and in 28/41 patients (68%) and 12/22 patients (55%) with TBW < 120 kg and = 120 kg, respectively (P = 0.28). No factor associated with insufficient fCFZ was identified."

According to the news editors, the research concluded: "Current BMI and TBW cut-offs are poor indicators of which patients could benefit from increased CFZ dosage regimens."


Our news journalists report that additional information may be obtained by contacting M. Hites, Brussels Free University, CUB Erasme Hosp, Dept. of Infect Dis, B-1070 Brussels, Belgium. Additional authors for this research include G. Deprez, F. Wolff, B. Ickx, A. Verleije, J. Closset, P. Loi, J. Prevost, F.S. Taccone, J. Racape, F. Cotton and F. Jacobs.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.ijantimicag.2016.08.019. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, First Generation
Cephalosporins, Beta-Lactam Antibiotics, Drugs and Therapies, Organic Chemicals,
Antiinfectives, Cefazolin, Amides, Brussels Free University.

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Drugs and Therapies - Health-System Pharmacy

Reports from C. Walko et al Highlight Recent Findings in Health-System
Pharmacy (Precision medicine in oncology: New practice models and
roles for oncology pharmacists)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- New research on Drugs and Therapies - Health-System Pharmacy is the
subject of a report. According to news originating from Lexington, Kentucky, by NewsRx
correspondents, research stated, "Three different precision medicine practice models developed
by oncology pharmacists are described, including strategies for implementation and
recommendations for educating the next generation of oncology pharmacy practitioners.
Oncology is unique in that somatic mutations can both drive the development of a tumor and
serve as a therapeutic target for treating the cancer."

Our news journalists obtained a quote from the research, "Precision medicine
practice models are a forum through which interprofessional teams, including pharmacists,
discuss tumor somatic mutations to guide patient-specific treatment. The University of
Wisconsin, Indiana University, and Moffit Cancer Center have implemented precision medicine
practice models developed and led by oncology pharmacists. Different practice models,
including a clinic, a clinical consultation service, and a molecular tumor board (MTB), were
adopted to enhance integration into health systems and payment structures. Although the
practice models vary, commonalities of three models include leadership by the clinical
pharmacist, specific therapeutic recommendations, procurement of medications for off-label use,
and a research component. These three practice models function as interprofessional training
sites for pharmacy and medical students and residents, providing an important training resource
at these institutions. Key implementation strategies include interprofessional involvement,
institutional support, integration into clinical workflow, and selection of model by payer mix.
MTBs are a pathway for clinical implementation of genomic medicine in oncology and are an
emerging practice model for oncology pharmacists."

According to the news editors, the research concluded: "Because pharmacists must
be prepared to participate fully in contemporary practice, oncology pharmacy residents must be
trained in genomic oncology, schools of pharmacy should expand precision medicine and
genomics education, and opportunities for continuing education in precision medicine should be
made available to practicing pharmacists."

For more information on this research see: Precision medicine in oncology: New
practice models and roles for oncology pharmacists. American Journal of Health-System
Pharmacy, 2016;73(23):1935-1942. American Journal of Health-System Pharmacy can be
contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD
Reports from C.L.M. Storrer et al Highlight Recent Findings in Alveolar Bone Loss (Effect of alendronate on the progression of periodontitis induced by Porphyromonas gingivalis and Fusobacterium nucleatum: a study in rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Alveolar Bone Loss. According to news reporting from Curitiba, Brazil, by NewsRx journalists, research stated, "The study aimed to investigate the effect of alendronate (ALN) on the inhibition of alveolar bone loss in experimental periodontitis in Wistar rats. Periodontitis was induced by oral inoculation of Porphyromonas gingivalis with Fusobacterium nucleatum."

Financial support for this research came from Positivo University.

The news correspondents obtained a quote from the research, "The rats (n = 80) were randomized as follows: negative control (n = 10); positive control (n = 10); ALN groups: test 8 (n = 10), test 12 (n = 10), and test 16 (n = 10); and placebo groups: control 8 (n = 10), control 12 (n = 10), and control 16 (n = 10). Two milligrams per kilogram of ALN or placebo was administered twice weekly for 8, 12, and 16 weeks. Bone loss was determined by morphological and histological analyses. One independent, blinded examiner (ICC, 0.91) performed the measurements. The distance from the cement enamel junction to the alveolar bone crest of the second lower molar was measured: distal-vestibular (d), furca (f), mesial-vestibular (h), and area. Histometry was performed on the second contralateral molar. Sections (6 μm) were used to determine the furcation bone area (A-FB). The following statistical analyses were conducted: Mann-Whitney and Kruskal-Wallis. PC group developed periodontitis (p < 0.0001). Morphometric analysis determined that ALN was effective in T8 for linear measurements d, f, and h (p < 0.05). No significant differences occurred at test 8, test 12, and test 16. Analysis of A-FB revealed no significant differences between the ALN and placebo groups at 8 and 16 weeks (p > 0.05). ALN was effective against bone loss in relation to A-FB after 12 weeks (p < 0.0001). According to the methodology used, the results suggest that oral administration of ALN could influence alveolar bone loss in rats submitted to experimental periodontitis."

According to the news reporters, the research concluded: "ALN could be a potential therapeutic approach when associated with periodontal treatment."

For more information on this research see: Effect of alendronate on the progression

Our news journalists report that additional information may be obtained by contacting C.L.M. Storrer, Univ Positivo, Grad Program Clin Dental, BR-81280330 Curitiba, PR, Brazil. Additional authors for this research include T.M. Deliberador, A.F. Giovanini, V. Crivellaro, J.C. Zielak and G.A. Romito.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00784-016-1769-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Curitiba, Brazil, South America, Musculoskeletal Diseases and Conditions, Stomatognathic Diseases and Conditions, Periodontal Diseases and Conditions, Gram-Negative Anaerobic Bacteria, Mouth Diseases and Conditions, Bone Diseases and Conditions, Alendronate Therapy Sodium, Porphyromonas gingivalis, Fusobacterium nucleatum, Gram-Negative Bacteria, Drugs and Therapies, Periodontal Atrophy, Alveolar Bone Loss, Bisphosphonates, Pharmaceuticals, Bone Resorption, Bacteroidaceae, Diphosphonates, Bone Research, Bacteroidetes, Periodontitis, Hormones.

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Immunology - Antigen-Presenting Cells

Reports from CNIC Advance Knowledge in Antigen-Presenting Cells [Optimal Generation of Tissue-Resident but Not Circulating Memory T Cells during Viral Infection Requires Crosspriming by DNGR-1(+) Dendritic Cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Antigen-Presenting Cells have been published. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "Despite the crucial role of tissue-resident memory T (Trm) cells in protective immunity, their priming remains poorly understood. Here, we have shown differential priming requirements for Trm versus circulating memory CD8(+) T cells."

Our news journalists obtained a quote from the research from CNIC, "In vaccinia cutaneous- infected mice, DNGR-1-mediated crosspresentation was required for optimal Trm cell priming but not for their skin differentiation or for circulating memory T cell generation. DNGR-1(+) dendritic cells (DCs) promoted T-bet transcription-factor induction and retention of CD8(+) T cells in the lymph nodes (LNs). Inhibition of LN egress enhanced Trm cell generation, whereas genetic or antibody blockade of DNGR-1 or specific signals provided during priming by DNGR-1(+) DCs, such as interleukin-12 (IL-12), IL-15, or CD24, impaired Trm cell priming. DNGR-1 also regulated Trm cell generation during influenza infection. Moreover, protective immunity depended on optimal Trm cell induction by DNGR-1(+) DCs."

According to the news editors, the research concluded: "Our results reveal specific priming requirements for CD8(+) Trm cells during viral infection and vaccination."
For more information on this research see: Optimal Generation of Tissue-Resident but Not Circulating Memory T Cells during Viral Infection Requires Crosspriming by DNGR-1 (+) Dendritic Cells. *Immunity*, 2016;45(4):847-860. *Immunity* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Immunity - www.journals.elsevier.com/immunity/)

The news correspondents report that additional information may be obtained from S. Iborra, Center Nacl Invest Cardiovasc Carlos III CNIC, Madrid 28029, Spain. Additional authors for this research include M. Martinez-Lopez, S.C. Khouili, M. Enamorado, F.J. Cueto, R. Conde-Garrosa, C. del Fresno and D. Sancho.

Keywords for this news article include: Madrid, Spain, Europe, Mononuclear Phagocyte System, Antigen-Presenting Cells, Dendritic Cells, Immunology, Genetics, CNIC.

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Life Science Research - Cell Biology

**Reports from CNIO Advance Knowledge in Cell Biology (Extracellular Vesicles in Cancer: Cell-to-Cell Mediators of Metastasis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Cell Biology have been published. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "Tumor-secreted extracellular vesicles (EVs) are critical mediators of intercellular communication between tumor cells and stromal cells in local and distant microenvironments."

Financial supporters for this research include National Cancer Institute, Department of Defense, Hartwell Foundation, Manning Foundation, Sohn Foundation, STARR Consortium, POETIC Consortium, James Paduano Foundation, Alex’s Lemonade Stand Foundation, Champalimaud Foundation, 5th District AHEPA Cancer Research Foundation, Daedalus Fund, MINECO, AXA, Asociacion Espanola Contra el Cancer, WHRI Academy, Worldwide Cancer Research, Jose Carreras Leukemia Foundation, Physician-Scientist Program, NIH.

Our news journalists obtained a quote from the research from CNIO, "Accordingly, EVs play an essential role in both primary tumor growth and metastatic evolution. EVs orchestrate multiple systemic pathophysiological processes, such as coagulation, vascular leakiness, and reprogramming of stromal recipient cells to support pre-metastatic niche formation and subsequent metastasis."

According to the news editors, the research concluded: "Clinically, EVs may be biomarkers and novel therapeutic targets for cancer progression, particularly for predicting and preventing future metastatic development."


The news correspondents report that additional information may be obtained from H. Peinado, Spanish Natl Canc Res Center CNIO, Microenvironment & Metastasis Lab, Dept. of Mol Oncol, Madrid 28029, Spain. Additional authors for this research include B.K. Thakur, J.M. Weiss, H.S. Kim, H. Peinado and D. Lyden.
Reports from Cancer Center Advance Knowledge in Prostate Cancer
(Androgen-glucocorticoid interactions in the era of novel prostate cancer therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news originating from Stanford, California, by NewsRx correspondents, research stated, "Great strides have been made in the treatment of castration-resistant prostate cancer (CRPC) with the development of new antiandrogens (enzalutamide) and more potent androgen synthesis inhibitors (abiraterone) that have both improved patient outcomes. These new drugs have also helped unravel the complex biology of androgen-androgen receptor driven prostate cancer and brought into prominence various mechanisms triggering the development of drug resistance and tumor cell survival despite use of androgen deprivation therapy (ADT)."

Our news journalists obtained a quote from the research from Cancer Center, "The complex role of glucocorticoids in the treatment, management and progression of patients with CRPC is integral to these advances. Historically, glucocorticoid treatment has resulted in both subjective and objective responses in patients with advanced-stage prostate cancer. With the use of these new therapeutic agents, however, unexpected glucocorticoid-related mechanisms that can cause iatrogenic stimulation of prostate cancer growth have emerged, which might contribute to drug resistance and disease progression despite optimal ADT. For example, the upregulation of glucocorticoid receptors (GRs) during enzalutamide therapy results in glucocorticoid-GR-mediated regulation of androgen target genes, leading to escape from enzalutamide blockade."

According to the news editors, the research concluded: "Thus, understanding the biological role of glucocorticoids in patients with prostate cancer is of major importance in the era of new and evolving antiandrogen therapies."


The news correspondents report that additional information may be obtained from S. Narayanan, Stanford Cancer Centre, 875 Blake Wilbur Drive, Stanford, California 94305, United States. Additional authors for this research include S. Srinivas and D. Feldman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrurol.2015.254. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stanford, Genetics, Oncology, Androgens, California, United States, Article Review, Drug Resistance, Glucocorticoids, Prostate Cancer,
Oncology - Pancreatic Cancer

Reports from Cancer Center Describe Recent Advances in Pancreatic Cancer (Meta-analyses of treatment standards for pancreatic cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Pancreatic Cancer. According to news reporting originating from Los Angeles, California, by NewsRx correspondents, research stated, "Pancreatic cancer is the most lethal common cancer with an estimated 5-year survival rate of 6-7% (across all stages). The only potential curative therapy is surgical resection in those with localized disease."

Our news editors obtained a quote from the research from Cancer Center, "Adjuvant (postoperative) therapy confers a survival advantage over postoperative observation alone. Neoadjuvant (preoperative) therapy offers the potential to downstage initially unresectable tumors for resection, sterilize resection margins and decrease locoregional recurrence, and identify a subset of patients with aggressive disease for whom surgery will not be beneficial. Induction chemotherapy followed by consolidation chemoradiation is another recommended approach in those with locally advanced disease. For those who cannot be downstaged, cannot tolerate surgery, or were diagnosed with metastatic disease, treatment remains palliative with chemotherapy being a critical component of this approach. Recently, intensive combination chemotherapy has been shown to improve survival rates in comparison to gemcitabine alone in advanced disease. The past few decades have afforded an accumulation of high-level evidence regarding neoadjuvant, adjuvant and palliative therapies in pancreatic cancer. There are numerous reviews discussing recent retrospective studies, prospective studies and randomized controlled trials in each of these areas. However, reviews of optimal and recommended treatment strategies across all stages of pancreatic cancer that focus on the highest levels of hierarchical evidence, such as meta-analyses, are limited. The discussion of novel therapeutics is beyond the scope of this review."

According to the news editors, the research concluded: "However, an extensive and the most current collection of meta-analyses of first-line systemic and locoregional treatment options for all stages of pancreatic cancer to date has been accumulated."

For more information on this research see: Meta-analyses of treatment standards for pancreatic cancer. Molecular and Clinical Oncology, 2015;4(3):315-325.

The news editors report that additional information may be obtained by contacting J. Gong, Dept. of Internal Medicine, Samuel Oschin Cancer Center, Cedars-Sinai Medical Center, Los Angeles, CA 90048, United States. Additional authors for this research include R. Tuli, A. Shinde and A.E Hendifar.

Keywords for this news article include: Surgery, Oncology, California, Los Angeles, Chemotherapy, United States, Gastroenterology, Clinical Research, Pancreatic Cancer, Drugs and Therapies, Post Trial Research, Pancreatic Neoplasms, North and Central America, Clinical Trials and Studies.

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Reports from Capital Medical University Describe Recent Advances in Nasal Polyps (Role of IFN-g, IL-13, and IL-17 on mucociliary differentiation of nasal epithelial cells in chronic rhinosinusitis with nasal polyps)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nose Diseases and Conditions - Nasal Polyps is now available. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Mucociliary dysfunction is a prominent pathophysiological feature of chronic rhinosinusitis with nasal polyps (CRSwNP); however, the precise mechanisms underlying mucociliary dysfunction are still unclear. The aim of this study was therefore to evaluate the effects of IFN-g, IL-13, and IL-17 on human nasal mucociliary differentiation and ciliary beat frequency (CBF) in patients with CRSwNP."

Financial supporters for this research include Program for Changjiang Scholars and Innovative Research Team, National Science Fund for the Major International Joint Research Program, National Natural Science Foundation of China, Natural Science Foundation of Beijing Municipality, Ministry of Health Foundation, Beijing Municipal Administration of Hospitals Clinical Medicine Development of Special Funding Support, Capital Health Research and Development of Special, Specialized Research Fund for the Doctoral Program of Higher Education of China, Special Fund of Sanitation Elite Reconstruction of Beijing, Beijing Health Bureau Program for high level talents.

Our news journalists obtained a quote from the research from Capital Medical University, "Human nasal epithelial cells from tissue of patients with CRSwNP and control subjects were established as air-liquid interface (ALI) primary cultures. Confluent cultures were incubated with 10 ng/mL each of IFN-g, IL-13, or IL-17 for 14 days and assessed for expression of specific morphological markers and factors associated with mucociliary differentiation, the percentage of ciliated and goblet cells, and CBF. In comparison with control subjects, percentage of ciliated cells and CBF were decreased; while percentage of goblet cells, FOXJ1, and MUC5AC mRNA expression were increased in nasal polyp-derived epithelial cultures. Treatment with IFN-g and IL-13 significantly decreased the expression of b-tubulin IV (specific cilia marker), ciliated cell number, and expression of FOXJ1 and DNAI2, in epithelial cultures derived from both CRSwNP patients and control subjects. Furthermore, while both IFN-g and IL-13 treatment significantly decreased the CBF of cells from both CRSwNP patients and control subjects, IL-13 additionally significantly increased goblet cell number and the expression of MUC5AC and CLCA1, in these cultures. IL-17 treatment did not significantly affect ciliated or goblet cell differentiation, CBF, nor MUC5AC and CLCA1 expression, but increased both MUC5B mRNA and protein expression in these cultures."

According to the news editors, the research concluded: "The demonstration that IFN-g and IL-13 both significantly reduce ciliated cell differentiation and CBF in CRSwNP patients, and IL-13 additionally induces significant goblet cell hyperplasia and MUC5AC mucin expression, as well as IL-17 significantly increases MUC5B mucin expression, suggests that these inflammatory cytokines may be potential therapeutic targets in the management of CRSwNP."
For more information on this research see: Role of IFN-γ, IL-13, and IL-17 on mucociliary differentiation of nasal epithelial cells in chronic rhinosinusitis with nasal polyps. *Clinical & Experimental Allergy*, 2016;46(3):449-60. (Wiley-Blackwell - www.wiley.com/clinical & Experimental Allergy - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2222)

The news correspondents report that additional information may be obtained from J. Jiao, Dept. of Otolaryngology, Head and Neck Surgery, Beijing TongRen Hospital, Capital Medical University, Beijing, People's Republic of China. Additional authors for this research include S. Duan, N. Meng, Y. Li, E. Fan and L. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cea.12644. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Genetics, Goblet Cells, Nasal Polyps, Epithelial Cells, Intestinal Mucosa, Cell Differentiation, People's Republic of China, Nose Diseases and Conditions, Respiratory Tract Diseases and Conditions, Otorhinolaryngologic Diseases and Conditions.

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**Transplant Medicine - Kidney Transplants**

**Reports from Careggi University Hospital Describe Recent Advances in Kidney Transplants (1,25 Dihydroxyvitamin D circulating levels, calcitriol administration, and incidence of acute rejection, CMV infection, and polyoma virus infection in ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Transplant Medicine - Kidney Transplants. According to news originating from Florence, Italy, by NewsRx correspondents, research stated, "Observation that 1,25-Dihydroxyvitamin-D3 has an immunomodulatory effect on innate and adaptive immunity raises the possible effect on clinical graft outcome. Aim of this study was to evaluate the correlation of biopsy-proven acute rejection, CMV infection, BKV infection, with 1,25-Dihydroxyvitamin-D3 deficiency and the benefit of calcitriol supplementation before and during the transplantation."

Our news journalists obtained a quote from the research from Careggi University Hospital, "Risk factors and kidney graft function were also evaluated. All RTRs received induction therapy with basiliximab, cyclosporine, mycophenolic acid, and steroids. During the first year, the incidence of BPAR (4% vs 11%, P=.04), CMV infection (3% vs 9%, P=.04), and BKV infection (6% vs 19%, P=.04) was significantly lower in users compared to controls. By multivariate Cox regression analysis, 1,25-Dihydroxyvitamin-D3 deficiency and no calcitriol exposure were independent risk factors for BPAR (HR=4.30, P<.005 and HR=3.25, P<.05), for CMV infection (HR=2.33, P<.05 and HR=2.31, P=.001), and for BKV infection (HR=2.41, P<.05 and HR=2.45, P=.001). After one year, users had a better renal function: eGFR was 62.5 +/- 6.7mL/min vs 51.4 +/- 7.6mL/min (P <.05). Only one user developed polyomavirus-associated nephropathy vs 15 controls. Two users lost their graft vs 11 controls. 1,25(OH)2-D3 deficiency circulating levels increased the risk of BPAR, CMV infection, BKV infection after kidney transplantation."

According to the news editors, the research concluded: "Administration of calcitriol
is a way to obtain adequate 1,25(OH)2-D3 circulating levels."

For more information on this research see: 1,25 Dihydroxyvitamin D circulating levels, calcitriol administration, and incidence of acute rejection, CMV infection, and polyoma virus infection in renal transplant recipients. Clinical Transplantation, 2016;39(10):1347-1359. Clinical Transplantation can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Clinical Transplantation - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1399-0012)

The news correspondents report that additional information may be obtained from L. Moscarelli, Careggi Univ Hosp, Renal Unit, Florence, Italy. Additional authors for this research include G. Antognoli, E. Buti, E. Dervishi, F. Fani, L. Caroti, A. Tsalouchos, E. Romoli, G. Ghiandai and E. Minetti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12829. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Florence, Italy, Europe, Topical Antipsoriatrics, Dermatological Agents, Risk and Prevention, Drugs and Therapies, Transplant Medicine, Calcitriol Therapy, Kidney Transplants, Organ Transplants, Renal Transplant, Pharmaceuticals, Transplantation, Renal Allograft, Biomedicine, Nephrology, Surgery, Careggi University Hospital.

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Eye Diseases and Conditions - Conjunctivitis

Reports from Carthage University Describe Recent Advances in Conjunctivitis (Molecular detection and characterization through analysis of the hexon and fiber genes of Adenoviruses causing conjunctivitis in Tunisia, North Africa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Eye Diseases and Conditions - Conjunctivitis. According to news reporting originating from Tunis, Tunisia, by NewsRx correspondents, research stated, "Human adenoviruses (HAdVs) are common causes of conjunctivitis. This study describes the epidemiological features and characterizes by phylogenetic analysis HAdVs isolated from patients with conjunctivitis in Tunisia, North Africa."

Our news editors obtained a quote from the research from Carthage University, "Data on out-patients presenting with conjunctivitis during 2 years (2012-2013) were analyzed. Conjunctival swabs obtained from 240 patients were assessed for the presence of HAdVs by PCR amplification on the fiber and hexon genes. Positive PCR products, together with those of nine viral isolates from previous years, were sequenced and analyzed phylogenetically. Conjunctivitis represented 11.5% of all reasons of consultations with a slight increase between mid-March and mid-June. Sixty-five percent of samples (n=156) revealed positive by at least one PCR test. PCR amplification in the hexon gene was slightly more sensitive as compared to the fiber gene. Genotyping in the two genomic regions gave concordant results for almost all isolates. HAdV-D8 was the most predominant genotype (87.6%) and was detected continuously from 2000 to 2013. Minor co-circulating genotypes including HAdV-E4, HAdV-B3, HAdV-
B55, and HAdV-D37 were identified; most of them were detected by amplification in the hexon gene."

According to the news editors, the research concluded: "This work reports molecular data on adenoviral conjunctivitis from a region where such information is scarce and contributes to a better knowledge of the worldwide distribution of causative genotypes. It revealed a predominance and endemic circulation of HAdV-D8, a genotype that was mainly reported from epidemic keratoconjunctivitis. It shows that PCR amplification in two different genomic regions enhances the sensitivity of HAdV detection in clinical samples and the identification of minor genotypes. J. Med. Virol. 89:304-312, 2017."


The news editors report that additional information may be obtained by contacting N. Fedaoui, Univ Carthage, Fac Sci Bizerte, Tunis, Tunisia. Additional authors for this research include N. Ben Ayed, A. Ben Yahia, W. Hammami, L. Matri, L. Nacef and H. Triki.

Keywords for this news article include: Tunis, Tunisia, Africa, Eye Diseases and Conditions, Epidemiology, Genetics, Conjunctival Diseases and Conditions, Conjunctivitis, Ophthalmology, Carthage University.

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Heart Disorders and Diseases - Atrial Fibrillation

Reports from Case Western Reserve University Add New Data to Findings in Atrial Fibrillation (Impact of Voltage Mapping to Guide Whether to Perform Ablation of the Posterior Wall in Patients With Persistent Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting from Cleveland, Ohio, by NewsRx journalists, research stated, "Fibrosis as a substrate for atrial fibrillation (AF) has been shown in numerous preclinical models. Voltage mapping enables in vivo assessment of scar in the left atrium (LA), which can be targeted with catheter ablation."

The news correspondents obtained a quote from the research from Case Western Reserve University, "We hypothesized that using the presence or absence of low voltage to guide ablation beyond pulmonary vein antral isolation (PVAI) will improve atrial arrhythmia (AF/AT)-free survival in persistent AF. Single-center retrospective analysis of 2 AF ablation strategies: (1) standard ablation (SA) versus (2) voltage-guided ablation (VGA). PVAI was performed in both groups. With SA, additional lesions beyond PVAI were performed at the discretion of the operator. With VGA, additional lesions to isolate the LA posterior wall were performed if voltage mapping of this region in sinus rhythm showed scar (LA voltage <0.5 mV). AF-/AT-free endpoint was defined as no sustained AF/AT seen off antiarrhythmic medications after a 2-month postablation blanking period. Seventy-six patients underwent SA and 65
underwent VGA. Patients were well matched for comorbidities, LVEF, and left atrial size. Posterior wall ablation was performed in 57% of patients with SA compared to 42% with VGA. VGA ablation increased 1-year AF-/AT-free survival in patients when compared to SA (80% vs. 57%; p=0.005). In a multivariate analysis, VGA was the only independent predictor of AF-/AT-free survival (hazard ratio of 0.30; p=0.002). The presence of LA posterior wall scar may be an important ablation target in persistent AF."

According to the news reporters, the research concluded: "A prospective randomized trial is needed to confirm these data."


Our news journalists report that additional information may be obtained by contacting M.J. Cutler, Heart and Vascular Center, MetroHealth Campus, Case Western Reserve University, Cleveland, Ohio, United States. Additional authors for this research include J. Johnson, K. Abozguia, S. Rowan, W. Lewis, O. Costantini, A. Natale and O. Ziv.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jce.12830. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Cardiovascular Electrophysiology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Ohio, Cleveland, United States, Heart Disease, Atrial Fibrillation, Cardiac Arrhythmias, North and Central America, Heart Disorders and Diseases.

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Neutral Amino Acids

Reports from Case Western Reserve University Add New Data to Findings in Neutral Amino Acids (Phosphorylation at Connexin43 Serine-368 Is Necessary for Myocardial Conduction During Metabolic Stress)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neutral Amino Acids. According to news originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Connexin43 (Cx43) phosphorylation alters gap junction localization and function. In particular, phosphorylation at serine-368 (S368) has been suggested to alter gap junctional conductance, but previous reports have shown inconsistent results for both timing and functional effects of S368 phosphorylation."

Financial support for this research came from NIH.

Our news journalists obtained a quote from the research from Case Western Reserve University, "The objective of this study was to determine the functional effects of isolated S368
phosphorylation. We evaluated wild-type Cx43 (AdCx43) and mutations simulating permanent phosphorylation (Ad368E) or preventing phosphorylation (Ad368A) at S368. Function was assessed by optical mapping of electrical conduction in patterned cultures of neonatal rat ventricular myocytes, under baseline and metabolic stress (MS) conditions. Baseline conduction velocity (CV) was similar for all groups. In the AdCx43 and Ad368E groups, MS moderately decreased CV. Ad368A caused complete conduction block during MS. Triton-X solubility assessment showed no change in Cx43 location during conduction impairment. Western blot analysis showed that Cx43-S368 phosphorylation was present at baseline, and that it decreased during MS. Our data indicate that phosphorylation at S368 does not affect CV under baseline conditions, and that preventing S368 phosphorylation makes Cx43 hypersensitive to MS.

According to the news editors, the research concluded: "These results show the critical role of S368 phosphorylation during stress conditions."


The news correspondents report that additional information may be obtained from M.M. Nassal, Heart and Vascular Research Center and Dept. of Physiology & Biophysics, Case Western Reserve University, Cleveland, OH, United States. Additional authors for this research include A.A. Werdich, X. Wan, M. Hoshi, I. Deschene, D.S. Rosenbaum and J.K Donahue.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jce.12833. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the Journal of Cardiovascular Electrophysiology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Ohio, Serine, Cleveland, United States, Neutral Amino Acids, North and Central America.

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Ebola Virus

Reports from Centers for Disease Control and Prevention Highlight Recent Findings in Ebola Virus (Ebola Virus Disease Diagnostics, Sierra Leone: Analysis of Real-time Reverse Transcription-Polymerase Chain Reaction Values for Clinical Blood and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Ebola Virus have been published. According to news reporting originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "During the Ebola virus outbreak of 2013-2016, the Viral Special Pathogens Branch field laboratory in Sierra Leone tested approximately 26 000 specimens between August 2014 and October 2015."

Our news editors obtained a quote from the research from Centers for Disease Control and Prevention, "Analysis of the B2M endogenous control Ct values showed its utility
in monitoring specimen quality, comparing results with different specimen types, and interpretation of results. For live patients, blood is the most sensitive specimen type and oral swabs have little diagnostic utility."

According to the news editors, the research concluded: "However, swabs are highly sensitive for diagnostic testing of corpses."


Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Diagnosis, Diagnostics and Screening, Epidemiology, Viral Hemorrhagic Diseases and Conditions, Virus Diseases and Conditions, Enzymes and Coenzymes, Mononegavirales, Viral Disease, RNA Viruses, Filoviridae, Ebola Virus, Polymerase, Virology, Centers for Disease Control and Prevention.

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**Oncology - Colon Cancer**

Reports from Central Hospital Advance Knowledge in Colon Cancer (Enhanced expression of long non-coding RNA Sox2ot promoted cell proliferation and motility in colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating in Xinxiang, People's Republic of China, by NewsRx journalists, research stated, "Colorectal cancer (CRC) is one of the most common carcinomas throughout the world. Although the diagnostic and therapeutic strategies have made some progression in the treatment of CRC patients, the mortality of CRC remains relatively high."

The news reporters obtained a quote from the research from Central Hospital, "Hence, it is an urgency to find out the detailed mechanisms of how CRC occurs. LncRNA Sox2ot expression was explored in CRC tissues and cell lines by using quantitative real-time PCR (qRT-PCR). Cell proliferation, migration and invasion ability was measured following downregulated expression of IncRNA Sox2ot by siRNA in CRC cells. Furthermore, western blot was used to detected the expression of Cyclin B1, Cdc 25C, N-cadherin, and E-cadherin in si-Sox2ot transfected CRC cells. We found that IncRNA Sox2ot was increased in CRC tissues and cell lines. High expression of Sox2ot was associated with the progression of CRC patients. Decreased Sox2ot expression inhibited the proliferation capacity and caused cell cycle arrested in G0/G1 phase in CRC cells. The key cell cycle regulators Cyclin B1 and Cdc 25C were consistently downregulated by knockdown of Sox2ot. Furthermore, knockdown of Sox2ot
suppressed cell migration and invasion and decreased the expression of mesenchymal protein N-cadherin, while it increased the expression of epithelial protein E-cadherin in CRC cells."

According to the news reporters, the research concluded: "LncRNA Sox2ot could promoted CRC cell proliferation and motility and associated with the outcome of CRC patients, suggesting Sox2ot could serve as a potential therapeutic target in the treatment of CRC."


Our news correspondents report that additional information may be obtained by contacting S.J. Liu, Xinxiang Cent Hosp, Dept. of Gen Surg, Xinxiang 453000, People's Republic of China. Additional authors for this research include B. Xu and D.H. Yan.

Keywords for this news article include: Xinxiang, People's Republic of China, Asia, Cell Adhesion Molecules, Colorectal Research, Cell Proliferation, Membrane Proteins, Gastroenterology, Cell Research, Glycoproteins, Colon Cancer, Cadherins, Oncology, Central Hospital.

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**Peptides - Glycopeptides**

**Reports from Central South University Advance Knowledge in Glycopeptides (p53 activates miR-192-5p to mediate vancomycin induced AKI)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peptides - Glycopeptides. According to news reporting from Changsha, People's Republic of China, by NewsRx journalists, research stated, "Pathogenic role of p53 in AKI remains controversial and the underlying mechanism is unclear. Here, we tested whether the inhibition of p53 may ameliorate vancomycin (VAN) induced acute kidney injury (AKI)."

The news correspondents obtained a quote from the research from Central South University, "Mice with p53 knock out (p53-KO) were resistant to VAN induced AKI, indicated by the analysis of renal function, histology, and apoptosis. Mechanistically, AKI was associated with the upregulation of several known p53 target genes, including Bax and p21, and this association was attenuated in p53-KO mice. Furthermore, the expression of miR-192-5p was significantly decreased in the p53-KO kidney tissues. In human renal tubular epithelial cell line (HK-2), VAN induced p53 accumulation and miR192-5p expression. Both apoptosis of HK-2 cells and expression of miR-192-5p were also suppressed by pifithrin-alpha. Anti-miR-192-5p significantly blocked VAN-induced apoptosis and caspase activity in HK-2 cells. Consistently, in vivo inhibition of miR-192-5p also suppressed VAN induced AKI."

According to the news reporters, the research concluded: "Thus, we provided clinical and genetic evidence that p53 was associated with the development of VAN induced AKI through upregulation of miR-192-5p."

For more information on this research see: p53 activates miR-192-5p to mediate vancomycin induced AKI. *Scientific Reports*, 2016;6():1-11. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW,
Reports from Chang Gung University Describe Recent Advances in Chronic Hepatitis B Virus (Clinical Relapse After Cessation of Tenofovir Therapy in Hepatitis B e Antigen-Negative Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Chronic Hepatitis B Virus is now available. According to news reporting from Taoyuan, Taiwan, by NewsRx journalists, research stated, "Of the hepatitis B e antigen-negative chronic hepatitis B patients with more than 1 year of sustained hepatitis B virus (HBV) suppression during therapy, the 1-year clinical relapse rate after cessation of entecavir therapy was 45%, of which 25.6% occurred within 6 months. The events after cessation of another preferred drug tenofovir were investigated."

The news correspondents obtained a quote from the research from Chang Gung University, "A retrospective-prospective study was conducted in 85 hepatitis B e antigen-negative chronic hepatitis B patients with sustained HBV suppression who had stopped tenofovir therapy and were monitored every 1 to 3 months for a median duration of 39 weeks (range, 4-133 wk). Clinical relapse occurred in 38 patients, 57.9% and 86.8% within 3 and 6 months, respectively, with an estimated 1-year cumulative incidence of 52%. The optimal duration of therapy and consolidation therapy were calculated to be 3 and 2 years, respectively. Of the relapsers, 81.6% and 57.9% showed an alanine aminotransferase level greater than 5 and 10 times the upper limit of normal, respectively, 23.7% showed a bilirubin level of 2 mg/dL or greater, and 2 developed hepatic decompensation. Relapsers had significantly higher pretherapy baseline hepatitis B surface antigen level, more prior anti-HBV therapy experience, later alanine aminotransferase level normalization, and a shorter duration of treatment and consolidation therapy. Cox regression analyses showed that treatment for more than 3 years combined with consolidation therapy for more than 2 years was an independent significant manageable factor of clinical relapse (adjusted hazard ratio, 0.387; P = .008). With this combination, the clinical relapse rate was reduced to 30%. Clinical relapses occurred mostly within 6 months, with high alanine aminotransferase and serum bilirubin levels."

According to the news reporters, the research concluded: "Closer monitoring, monthly in the first 3 to 6 months, with timely re-treatment is mandatory for a safe cessation of tenofovir therapy."

For more information on this research see: Clinical Relapse After Cessation of Tenofovir Therapy in Hepatitis B e Antigen-Negative Patients. Clinical Gastroenterology and
**Reports from Changhai Hospital Describe Recent Advances in Cytokines (MicroRNA-126a Directs Lymphangiogenesis Through Interacting With Chemokine and Flt4 Signaling in Zebrafish)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Intercellular Signaling Peptides and Proteins - Cytokines is the subject of a report. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "MicroRNA-126 (miR-126) is an endothelium-enriched miRNA and functions in vascular integrity and angiogenesis. The application of miRNA as potential biomarker and therapy target has been widely investigated in various pathological processes."

Our news journalists obtained a quote from the research from Changhai Hospital, "However, its role in lymphatic diseases had not been widely explored. We aimed to reveal the role of miR-126 in lymphangiogenesis and the regulatory signaling pathways for potential targets of therapy. Approach and Results-Loss-of-function studies using morpholino oligonucleotides and CRISPR/Cas9 (clustered regularly interspaced short palindromic repeats/CRISPR-associated protein 9) system showed that silencing of miR-126a severely affected the formation of parachordal lymphangioblasts and thoracic duct in zebrafish embryos, although their development in miR-126b knockdown embryos was normal. Expression analyses by in situ hybridization and immunofluorescence indicated that miR-126a was expressed in lymphatic vessels, as well as in blood vessels. Time-lapse confocal imaging assay further revealed that knockdown of miR-126a blocked both lymphangiogenic sprouts budding from the posterior cardinal vein and lymphangioblasts extension along horizontal myoseptum. Bioinformatics analysis and in vivo report assay identified that miR-126a upregulated Cxcl12a by targeting its 5’ untranslated region. Moreover, loss-and gain-of-function studies revealed that Cxcl12a signaling acted downstream of miR-126a during parachordal lymphangioblast extension, whereby Flt4 signaling acts as a cooperator of miR-126a, allowing it to modulate lymphangiogenic sprout formation. These findings demonstrate that miR-126a directs lymphatic
endothelial cell sprouting and extension by interacting with Cxcl12a-mediated chemokine signaling and Vegfc-Flt4 signal axis."

According to the news editors, the research concluded: "Our results suggest that these key regulators of lymphangiogenesis may be involved in lymphatic pathogenesis of cardiovascular diseases."

For more information on this research see: MicroRNA-126a Directs Lymphangiogenesis Through Interacting With Chemokine and Flt4 Signaling in Zebrafish. Arteriosclerosis Thrombosis and Vascular Biology, 2016;36(12):2381-2393. Arteriosclerosis Thrombosis and Vascular Biology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting X.X. Zhao, Changhai Hosp, Dept. of Cardiol, Shanghai, People's Republic of China. Additional authors for this research include R.F. Zhu, F.F. Li, Y.L. Liang, C. Wang, Y.W. Qin, S. Huang, X.X. Zhao and Q. Jing.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, G-Protein-Coupled Receptors, Inflammation Mediators, Chemokine Receptors, Chemotactic Factors, Biological Factors, Cytokine Receptors, Membrane Proteins, Chemokines, Immunology, Cytokines, Changhai Hospital.

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Cardiology

Reports from Children's Medical Center Describe Recent Advances in Cardiology (Smaller-Sized Expanded Polytetrafluoroethylene Conduits With a Fan-Shaped Valve and Bulging Sinuses for Right Ventricular Outflow Tract Reconstruction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiology. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "One of the critical factors limiting conduit longevity in right ventricular outflow tract (RVOT) reconstruction with homografts and xenografts is the small size of the conduit. The aim of our study was to assess the outcome of using smaller-sized expanded polytetrafluoroethylene (ePTFE) conduits with a fan-shaped valve and bulging sinuses for RVOT reconstruction."

Our news editors obtained a quote from the research from Children's Medical Center, "This retrospective review examined 303 patients who underwent RVOT reconstruction with ePTFE conduits at 63 Japanese hospitals between 2003 and 2014. Inclusion criteria were a conduit size less than or equal to 16 mm and the use of operative treatment as the primary correction for underlying heart disease. Patients undergoing palliative procedures were excluded. Median follow-up was 1.7 years. Freedom from conduit replacement and freedom from conduit reintervention were 90.1% +/- 4.8% and 77.2% +/- 5.6%, respectively. The most common indication for conduit reintervention was pulmonary artery (PA) bifurcation stenosis (82%). Modeling z-scores as a dichotomous variable revealed that freedom from conduit reintervention for PA bifurcation stenosis was significantly decreased for conduits with a z-score greater than or equal to 1.4 compared with z-scores less than 1.4 (p=0.036). There were 30 patients (9.9%) who experienced at least moderate conduit stenosis and 21 patients (6.9%) with..."
at least moderate conduit insufficiency. Univariate Cox regression analysis showed that conduit size was a significant factor for conduit stenosis (p=0.006). Excellent midterm outcomes were achieved with ePTFE valved conduits, even when using smaller sizes."

According to the news editors, the research concluded: "Conduit z-scores around 1.4 were optimal for RVOT reconstruction in younger patients."


The news editors report that additional information may be obtained by contacting E. Yamashita, Tokyo Metropolitan Children's Med Center, Dept. of Pediat Cardiovascular Surg, Tokyo, Japan. Additional authors for this research include M. Yamagishi, T. Miyazaki, Y. Maeda, Y. Yamamoto, K. Nato, S. Asada, H. Hongu and H. Yaku.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.03.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Cardiology, Angiology, Stenosis, Children's Medical Center.

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Reports from Children's Memorial Hermann Hospital Highlight Recent Findings in Twin-to-Twin Transfusion Syndrome (Aortic distensibility as a surrogate for intertwin pulse pressure differences in monochorionic pregnancies with and without ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pregnancy Complications - Twin-to-Twin Transfusion Syndrome. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Twin-twin transfusion syndrome (TTTS) complicates 10-15% of monochorionic diamniotic (MCDA) twin pregnancies. The donor response to hypovolemia allows the transfer of vasoactive mediators to the recipient, causing increased recipient afterload and hypertension."

Our news editors obtained a quote from the research from Children's Memorial Hermann Hospital, "Our objective was to apply a novel speckle-tracking technique to measure the aortic fractional area change (AFAC) during the cardiac cycle in MCDA twins with and without TTTS, and identify intertwin differences in AFAC and parameters of cardiac function. High-frame rate four-chamber views of the fetal heart, including the mid-thoracic aorta, were collected prospectively in MCDA twin pairs referred to our center between June 2014 and April 2015. Using speckle-tracking software, the endovascular border of the aorta was traced manually during systole, with guidance on cardiac cycle timing by anatomical M-mode. AFAC, defined as the difference between maximum and minimum area divided by minimum area, expressed as a percentage, was calculated offline and averaged over three cardiac cycles. Tissue
Doppler and displacement were used to measure long-axis cardiac function. Intra- and interclass correlation coefficients were used to test observer variability. Fifty-one MCDA twin pregnancies were included, comprising uncomplicated MCDA (n=14), TTTS Stages 1/2 (n=21) and TTTS Stages 3/4 (n=16). Median gestational age was 20.4 (range, 16.2-27.5) weeks. Mean +/- SD heart rate was 142.6 +/- 7.2 bpm with no significant intertwin pair differences. AFAC was significantly higher in recipients than in donors of TTTS pairs (Stages 1/2: 72.3 +/- 29.9% vs 43.7 +/- 19.3%, P<0.001; Stages 3/4: 75.2 +/- 29.2% vs 42.5 +/- 18.4%, P=0.002), consistent with higher recipient pulse pressure. No intertwin differences in AFAC were seen in uncomplicated MCDA pairs. Inter-and intraclass correlation coefficients for AFAC were 0.894 and 0.888. AFAC correlated significantly with combined cardiac output (r=0.252, P=0.011) and left and right E/E' ratio (left: r=0.302, P=0.004; right: r=0.247, P=0.030).

According to the news editors, the research concluded: "AFAC is a quantifiable and reproducible method to assess aortic distensibility and is a promising tool to monitor the response to prelaser therapeutic interventions in pregnancies with TTTS."


The news editors report that additional information may be obtained by contacting H.M. Gardiner, UT Hlth McGovern Med Sch, Dept. of Obstet Gynecol & Reprod Sci, Childrens Mem Hermann Hosp, Fetal Center, Houston, TX, United States. Additional authors for this research include F.A. Osei, K.J. Moise, A. Johnson, R. Papanna, M. Bebbington and H.M. Gardiner.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Twin-to-Twin Transfusion Syndrome, Pregnancy Complications, Fetofetal Transfusion, Cardiology, Angiology, Children's Memorial Hermann Hospital.

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Hematology - Blood Coagulation Factors
Reports from Chinese Academy of Sciences Advance Knowledge in Blood Coagulation Factors (Determination of the platelet-derived growth factor BB by a competitive thrombin-linked aptamer-based Fluorometric assay)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematology - Blood Coagulation Factors is the subject of a report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "The authors describe a competitive aptamer based assay for detection of the platelet-derived growth factor BB (PDGF-BB; used as a model protein). The assay is making use of thrombin (a serine protease) as an enzyme label for reporting signals."

Financial support for this research came from National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from the Chinese
Academy of Sciences, "It is taking advantage of a highly selective aptamer and of the fairly specific enzymatic activity of thrombin in terms of cleaving artificial fluorogenic peptide substrates. In a first step, the surface of wells of microplates is coated with PDGF-BB. On addition of a sample containing PDGF-BB, free and bound PDGF-BB compete with each other for binding to a DNA probe that consists of an aptamer sequence for PDGF-BB and a 29-mer aptamer sequence for thrombin. After washing, thrombin is added and will attach to the DNA probe that bound to the PDGF-BB on the microplates. Following addition of a fluorogenic peptide substrate, the bound thrombin will catalyze the cleavage of the substrate to generate a fluorescent product whose fluorescence intensity is measured at excitation/emission wavelengths of 370/440 nm. Fluorescence intensity decreases with increasing PDGF-BB concentration in the sample because less thrombin will bind to the PDGF-BB coated surface of the microplate. Under optimal conditions, PDGF-BB can be quantified in the 0.125 to 3 nM concentration range."

According to the news reporters, the research concluded: "This assay was successfully applied to the determination of PDGF-BB in spiked 100-fold diluted human serum."

For more information on this research see: Determination of the platelet-derived growth factor BB by a competitive thrombin-linked aptamer-based Fluorometric assay. *Microchimica Acta*, 2016;183(12):3229-3235. *Microchimica Acta* can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria. (Springer - www.springer.com; Microchimica Acta - www.springerlink.com/content/0026-3672/)

Our news journalists report that additional information may be obtained by contacting Q. Zhao, Chinese Academy Sci. Res Center Ecoenvironn Sci, State Key Lab Environm Chem & Ecotoxicol, Beijing 100085, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00604-016-1978-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Platelet-Derived Growth Factors, Blood Coagulation Factors, Serine Endopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Blood Proteins, Hematology, Thrombin, Chinese Academy of Sciences.

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**Drugs and Therapies - Chemotherapy**

**Reports from Chinese Academy of Sciences Provide New Insights into Chemotherapy (Intracellularly Acid-Switchable Multifunctional Micelles for Combinational Photo/Chemotherapy of the Drug-Resistant Tumor)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Chemotherapy have been published. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "The intrinsic or acquired drug resistance is the main challenge for cancer chemotherapy today. So far, many nanosized drug delivery systems (NDDS) have been exploited to combat cancer drug resistance."

Financial supporters for this research include Ministry of Science and Technology of
the People's Republic of China, Youth Innovation Promotion Association of the Chinese Academy of Sciences, National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from the Chinese Academy of Sciences, "However, the therapy efficacy of current NDDS is severely impaired by the limited tumor penetration of the nanoparticles due to the existence of physiological and pathological barriers in the solid tumor. In this study, we report on the design and fabrication of intracellularly acid-switchable multifunctional micelles for combinational photo-and chemotherapy of the drug-resistant tumor. The micelles were composed of a pH-responsive diblock copolymer, a photosensitizer, and a polymeric prodrug of doxorubicin. The micelle displayed silenced fluorescence and photoactivity during the blood circulation and switched to an active state in weakly acid conditions (i.e., pH (<=) 6.2) in the endocytic vesicles to dramatically induce a 7.5-fold increase of the fluorescence signal for fluorescence imaging. Upon near-infrared (NIR) laser irradiation, the micelle induced notable reactive oxygen species generation to trigger cytosol release of the chemotherapeutics and perform photodynamic therapy (PDT). Moreover, the micelle efficiently converted the NIR light to local heat for enhancing tumor penetration of the anticancer drug, tumor specific photothermal therapy, and photoacoustic (PA) imaging. Furthermore, the micelles could generate amplified magnetic resonance (MR) signal in an acidic microenvironment to perform MR imaging."

According to the news editors, the research concluded: "Collectively, this study presents a robust nanoplatform for multimodal imaging and combinational therapy of the drug-resistant tumor, which might provide an insight for developing polymer-based NDDS for cancer therapy."


The news correspondents report that additional information may be obtained from T. Wang, State Key Laboratory of Drug Research & Center of Pharmaceutics, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai 201203, People's Republic of China. Additional authors for this research include D. Wang, H. Yu, M. Wang, J. Liu, B. Feng, F. Zhou, Q. Yin, Z. Zhang, Y. Huang and Y. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.5b07706. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Shanghai, Oncology, Chemotherapy, Drug Resistance, Drugs and Therapies, People's Republic of China.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Esophageal Cancer is now available. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Naked cuticle homolog 2 (NKD2) was found to be frequently methylated in human breast and gastric cancers. However, the epigenetic changes and mechanisms of NKD2 in human esophageal cancer remain unclear."

Financial supporters for this research include National Basic Research Program of China, National High-Tech R&D Program of China, National Key Scientific Instrument Special Program of China, National Science Foundation of China.

Our news journalists obtained a quote from the research from Chinese People's Liberation Army General Hospital, "Nine esophageal cancer cell lines and 154 cases of primary esophageal cancer samples were analyzed using methylation-specific polymerase chain reaction, immunohistochemical analysis, Western blot, and xenograft mouse models. Loss of NKD2 expression and complete methylation were found in KYSE150 and TE1 cells. Reduced NKD2 expression and partial methylation of the promoter region were observed in KYSE30, KYSE70, ICYSE410, KYSE140, and COL0680 cells. High levels of NKD2 expression and unmethylation were detected in KYSE450 and TE8 cells. Reexpression of NKD2 was induced by 5-aza-2'-deoxycytidine in cells in which NKD2 was not expressed or cells in which NKD2 expression was reduced. NKD2 was methylated in 53.2% of human primary esophageal cancer samples (82 of 154), and promoter region hypermethylation was significantly associated with reduced expression of NKD2 (p < 0.01). NKD2 methylation was associated with tumor, node, and metastasis stage and lymph node metastasis (p < 0.01). Our results suggest that NKD2 is regulated by promoter region methylation and that methylation of NKD2 may serve as a prognostic marker in esophageal cancer. Our further studies demonstrate that NKD2 suppresses cell proliferation, colony formation, cell invasion, and migration and also induces G1/S checkpoint arrest in esophageal cancer cells. NKD2 suppressed xenograft tumor growth and inhibited Wnt signaling in human esophageal cancer cells. NKD2 is frequently methylated in human esophageal cancer, and the expression of NKD2 is regulated by promoter region methylation."

According to the news editors, the research concluded: "NKD2 suppresses esophageal cancer progression by inhibiting Wnt signaling both in vitro and in vivo."


Our news journalists report that additional information may be obtained by contacting M.Z. Guo, Chinese Peoples Liberat Army Gen Hosp, Dept. of Gastroenterol & Hepatol, Beijing 100853, People's Republic of China. Additional authors for this research include W.L. Yang, Y.S. Jin, M.Y. Zhang, T. He, Q.M. Zhan, J.G. Herman, G.L. Zhong and M.Z. Guo.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Xenotransplantation, Esophageal Cancer, Gastroenterology, Biotechnology, Xenografts, Oncology, Chinese People's Liberation Army General Hospital.
Reports from Chung Shan Medical University Provide New Insights into Pneumonia (Utility of Plasma Osteopontin Levels in Management of Community-Acquired Pneumonia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Pneumonia. According to news reporting originating from Taichung, Taiwan, by NewsRx correspondents, research stated, "Osteopontin (OPN) is an essential cytokine involved in immune cell recruitment and an important regulator of inflammation. The purpose of this study was to examine differences in OPN plasma levels between before and after antibiotic treatment in hospitalized adult patients with community-acquired pneumonia (CAP)."

Our news editors obtained a quote from the research from Chung Shan Medical University, "OPN levels were measured in 93 patients with CAP and 54 healthy controls using a commercial enzyme-linked immunosorbent assay (ELISA). The CURB-65, Pneumonia Severity Index (PSI), and Acute Physiology and Chronic Health Evaluation II (APACHE II) scores were used to determine the CAP severity in patients upon initial hospitalization. A decline in the number of white blood cells (WBCs) and neutrophils, and decreases in the levels of OPN and C-reactive protein (CRP) were observed after antibiotic treatment. Only the plasma level of OPN, but not CRP, was correlated with the severity of CAP based on the PSI (r = 0.514, p< 0.001), CURB-65 (r = 0.396, p< 0.001), and APACHE II scores (r = 0.473, p< 0.001). The OPN level also showed a significant correlation with the length of hospital stay (r = 0.210, p = 0.044)."

According to the news editors, the research concluded: "Plasma level of OPN may act as diagnostic adjuvant biomarkers for CAP and further play a role in clinical assessment of the severity of CAP, which could potentially guide the development of treatment strategies."

For more information on this research see: Utility of Plasma Osteopontin Levels in Management of Community-Acquired Pneumonia. International Journal of Medical Sciences, 2016;13(9):673-679. International Journal of Medical Sciences can be contacted at: Ivyspring Int Publ, PO Box 4546, Lake Haven, Nsw 2263, Australia.

The news editors report that additional information may be obtained by contacting S.F. Yang, Chung Shan Medical University, Dept. of Med Res, Taichung, Taiwan. Additional authors for this research include W.Y. Hung, K.J. Bai, S.F. Yang and M.H. Chien.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7150/ijms.16175. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taichung, Taiwan, Asia, Intercellular Signaling Peptides and Proteins, Respiratory Tract Diseases and Conditions, Extracellular Matrix Proteins, Lung Diseases and Conditions, Respiratory Tract Infections, Infectious Disease, Osteopontin, Pulmonology, Hematology, Cytokines, Pneumonia, Plasma, Blood, Chung Shan Medical University.

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Cardiology

Reports from Cleveland Clinic Add New Data to Findings in Cardiology (Etomidate and the Risk of Complications After Cardiac Surgery: A Retrospective Cohort Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiology is now available. According to news reporting originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "To compare incidence of atrial arrhythmia, duration of care, and major complications after cardiac surgery between patients who received etomidate and those who received other induction agents. Retrospective cohort study utilizing propensity score matching."

Our news editors obtained a quote from the research from Cleveland Clinic, "A single academic, tertiary care hospital. Eight thousand nine hundred seventy-eight patients undergoing coronary artery bypass grafting (CABG), valve, or combined valve/CABG surgery requiring cardiopulmonary bypass between January 2005 and December 2010. Patients were divided into those who received etomidate at anesthetic induction and those who received another induction agent. Patients given etomidate were propensity-score matched to patients given other induction agents in a 2:1 ratio. Of 8,978 patients who underwent CABG, valve, or combined valve/surgery, 6,313 received etomidate and 2,665 received other induction agents. Among these, the authors successfully matched 4,094 etomidate patients with 2,524 non-etomidate patients. The authors did not find a significant association between receiving etomidate and odds of experiencing postoperative atrial arrhythmia (odds ratio [98.3% confidence interval] of 1.07 [0.92, 1.23], p = 0.29). Etomidate was not associated significantly with either intensive care unit or hospital stay. Etomidate was associated significantly with use of packed red blood cells (odds ratio [99.6% confidence interval] of 1.32 [1.02, 1.70], p = 0.002), but not with use of fresh frozen plasma, platelets, or cryoprecipitate. None of the other complications differed significantly between the groups."

According to the news editors, the research concluded: "Etomidate was not associated with increased incidence of postoperative atrial arrhythmia or increased intensive care unit or hospital stay."


The news editors report that additional information may be obtained by contacting A. Turan, Cleveland Clinic, Dept. of Outcomes Res, Inst Anesthesiol, Cleveland, OH 44195, United States. Additional authors for this research include N. Makarova, J. You, D.I. Sessler, D.G. Anthony, Y. Kasuya, E.G. Soltesz and A. Turan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.jvca.2016.04.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Cardiac Surgery, Arrhythmia, Cardiology, Hospital, Cleveland Clinic.
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Oncology - Prostate Cancer

Reports from Cleveland Clinic Add New Data to Findings in Prostate Cancer (Molecular Analysis of Low Grade Prostate Cancer Using a Genomic Classifier of Metastatic Potential)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "We determined how frequently histological Gleason 3 + 3 = 6 tumors have the molecular characteristics of disease with metastatic potential. We analyzed prostatectomy tissue from 337 patients with Gleason 3 + 3 disease."

Our news journalists obtained a quote from the research from Cleveland Clinic, "All tissue was re-reviewed in blinded fashion by genitourinary pathologists using 2005 ISUP (International Society of Urological Pathology) Gleason grading criteria. A previously validated Decipher ® metastasis signature was calculated in each case based on a locked model. To compare patient characteristics across pathological Gleason score categories we used the Fisher exact test or the ANOVA F test. The distribution of Decipher scores among different clinicopathological groups was compared with the Wilcoxon rank sum test. The association of Decipher score with adverse pathology features was examined using logistic regression models. The significance level of all statistical tests was 0.05. Of men with Gleason 3 + 3 = 6 disease only 269 (80%) had a low Decipher score with intermediate and high scores in 43 (13%) and 25 (7%), respectively. Decipher scores were significantly higher among pathological Gleason 3 + 3 = 6 specimens from cases with adverse pathological features such as extraprostatic extension, seminal vesicle involvement or positive margins (p < 0.001). The median Decipher score in patients with margin negative pT2 disease was 0.23 (IQR 0.09-0.42) compared to 0.30 (IQR 0.17-0.42) in patients with pT3 disease or positive margins (p = 0.005). Using a robust and validated prognostic signature we found that a small but not insignificant proportion of histological Gleason 6 tumors harbored molecular characteristics of aggressive cancer."

According to the news editors, the research concluded: "Molecular profiling of such tumors at diagnosis may better select patients for active surveillance at diagnosis and trigger appropriate intervention during followup."


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document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Pathology, Epidemiology, Prostatic Neoplasms, Prostate Cancer, Oncology, Cleveland Clinic.

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Heart Disorders and Diseases - Atrioventricular Block

Reports from Cleveland Clinic Advance Knowledge in Atrioventricular Block (Incidence and predictors of right ventricular pacing-induced cardiomyopathy in patients with complete atrioventricular block and preserved left ventricular systolic block...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrioventricular Block. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "Right ventricular (RV) pacing may worsen left ventricular cardiomyopathy in patients with reduced left ventricular ejection fraction (LVEF) and advanced atrioventricular block. The objectives of this study were to calculate incidence and identify predictors of RV pacing-induced cardiomyopathy (PICM) in complete heart block (CHB) with preserved LVEF and to describe outcomes of subsequent cardiac resynchronization therapy (CRT) upgrade."

The news reporters obtained a quote from the research from Cleveland Clinic, "An analysis of consecutive patients receiving permanent pacemaker (PPM) from 2000 to 2014 for CHB with LVEF >50% was performed. PICM was defined as CRT upgrade or post-PPM LVEF <= 40%. PICM association was determined via multivariable regression analysis. CRT response was defined by LVEF increase >= 10% or left ventricular end-systolic volume decrease >= 15%. Of the 823 study patients, 101 (12.3%) developed PICM over the mean follow-up of 4.3 +/- 3.9 years, with post-PPM LVEF being 33.7% +/- 7.4% in patients with PICM vs 57.6% +/- 6.1% in patients without PICM (P < .001). In multivariable analysis, lower pre-PPM LVEF (hazard ratio [HR] 1.047 per 1% LVEF decrease; 95% confidence interval [CI] 1.002-1.087; P = .042) and RV pacing % both as a continuous (HR 1.011 per 1% RV pacing; 95% CI 1.002-1.02; P = .021) and as a categorical (<20% or >= 20% RV pacing) (HR 6.76; 95% CI 2.08-22.0; P = .002) variable were independently associated with PICM. Only 29 patients with PICM (28.7%) received CRT upgrade despite an 84% responder rate (LVEF increase 18.5% +/- 8.1% and left ventricular end-systolic volume decrease 45.1% +/- 15.0% in responders). CRT upgrade was associated with greater post-PPM LVEF decrease, lower post-PPM LVEF, and post-PPM LVEF <35% (P = .006, P = .004, and P = .004, respectively). PICM is not uncommon in patients receiving PPM for CHB with preserved LVEF and is strongly associated with RV pacing burden >20%.

According to the news reporters, the research concluded: "CRT response rate is high in PICM, but is perhaps underutilized."

For more information on this research see: Incidence and predictors of right ventricular pacing-induced cardiomyopathy in patients with complete atrioventricular block and preserved left ventricular systolic function. Heart Rhythm, 2016;13(12):2272-2278. Heart Rhythm can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-
Reports from Cleveland Clinic Provide New Insights into Aortic Dissection (Stent Grafting Acute Aortic Dissection: Comparison of DeBakey Extent IIIA Versus IIIB)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Aortic Dissection are discussed in a new report. According to news originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Thoracic endovascular aortic repair (TEVAR) with stent grafting is effective for acute dissection in selected patients, but most remain at risk for reintervention. The effect of the extent of dissection on outcome is unclear."

Our news journalists obtained a quote from the research from Cleveland Clinic, "Objectives of this study were to compare characteristics, outcomes, and aortic remodeling after TEVAR between patients with DeBakey extent IIIA and IIIB dissection. From 2005 to 2013, 520 patients presented with acute aortic syndrome. TEVAR was performed in 108 (41 IIIA, 67 IIIB) during the acute phase. Detailed three-dimensional computed tomography imaging analysis was performed in all patients. Patients with IIIA dissection were older (69.9 +/- 10 vs 59.5 +/- 13 years; p< 0.001) and more likely to have had prior cardiovascular operations (p = 0.01) than IIIB. The most common indication for TEVAR was ischemia in IIIB (66%), and pain (34%) in IIIA. Rupture was more common in IIIA (24.3% vs 1.5%; p< 0.001). Aortic diameters were similar between groups, but IIIB patients had smaller true/false lumen ratio (0.89 +/- 1.08 vs 1.76 +/- 1.27; p = 0.003). Stent graft coverage was 152 +/- 42 mm for IIIA vs 212 +/- 85 mm for IIIB (p < 0.001). Additional branch stents were used in 20 IIIB patients (30%), and 7 had infrarenal stenting. Early mortality and complications were similar between groups, except for renal failure (4.4% IIIIB vs 0% IIIA; p = 0.04). Mean follow-up was 30 +/- 28 months. Estimated survival at 1, 3 and 5 years was 84%, 65%, and 38% for IIIA, and 70%, 66%, and 59% for IIIB, respectively, with no significant difference. Significant expansion of the true lumen occurred in both groups after stenting, and the aortic and false lumen diameter increased only at the level of the abdominal aorta in IIIB patients. The false lumen was thrombosed in 91% of IIIA vs 62% of IIIB patients at the mid-descending aorta. Intervention was required in 15% (6 of 39) of IIIA and
in 26% (15 of 58) of IIIB patients. In patients requiring TEVAR for acute dissection, patient factors and aortic morphology differ by the extent of the dissection. Aortic remodeling after TEVAR was better in patients with limited extent (IIIA) dissection than in patients with extensive (IIIB) dissection.

According to the news editors, the research concluded: "Despite these differences, very little difference was noted in early and late outcomes, which may be explained by differences in patient characteristics."


The news correspondents report that additional information may be obtained from A. Arafat, Cleveland Clinic, Inst Heart & Vasc, Aorta Center, Dept. of Cardiovasc Med, Cleveland, OH 44106, United States. Additional authors for this research include E.E. Roselli, J.J. Idrees, K. Feng, L. Banaszak, M. Eagleton, V. Menon and L.G. Svensson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atheracsur.2016.04.085. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Aortic Dissection, Cardiology, Angiology, Cleveland Clinic.

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**Reports from Columbia University Add New Data to Findings in Bisphosphonates (Differential Effects of Teriparatide and Zoledronic Acid on Bone Mineralization Density Distribution at 6 and 24 Months in the SHOTZ Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Bisphosphonates have been presented. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "The Skeletal Histomorphometry in Patients on Teriparatide or Zoledronic Acid Therapy (SHOTZ) study assessed the progressive effects of teriparatide (TPTD) and zoledronic acid (ZOL) on bone remodeling and material properties in postmenopausal women with osteoporosis. Previously, we reported that biochemical and histomorphometric bone formation indices were significantly higher in patients receiving TPTD versus ZOL."

Our news journalists obtained a quote from the research from Columbia University, "Here we report bone mineralization density distribution (BMDD) results based on quantitative backscattered electron imaging (qBEI). The 12-month primary study was randomized and double blind until the month 6 biopsy, then open label. Patients (TPTD, n = 28; ZOL, n = 31) were then eligible to enter a 12-month open-label extension with their original treatment: TPTD 20 mu g/d (subcutaneous injection) or ZOL 5 mg/yr (intravenous infusion). A second biopsy was collected from the contralateral side at month 24 (TPTD, n = 10; ZOL, n = 10). In
cancellous bone, ZOL treatment was associated at 6 and 24 months with significantly higher average degree of mineralization (Ca-MEAN, +2.2%, p = 0.018; +3.9%, p = 0.009, respectively) and with lower percentage of low mineralized areas (Ca-LOW, -34.6%, p = 0.029; -33.7%, p = 0.025, respectively) and heterogeneity of mineralization Ca-WIDTH (-12.3%, p = 0.003; -9.9%, p = 0.012, respectively), indicating higher mineralization density and more homogeneous mineral content versus TPTD. Within the ZOL group, significant changes were found in all parameters from month 6 to 24, indicating a progressive increase in mineralization density. In sharp contrast, mineralization density did not increase over time with TPTD, reflecting ongoing deposition of new bone. Similar results were observed in cortical bone. In this study, TPTD stimulated new bone formation, producing a mineralized bone matrix that remained relatively heterogeneous with a stable mean mineral content. ZOL slowed bone turnover and prolonged secondary mineralization, producing a progressively more homogeneous and highly mineralized bone matrix."

According to the news editors, the research concluded: "Although both TPTD and ZOL increase clinical measures of bone mineral density (BMD), this study shows that the underlying mechanisms of the BMD increases are fundamentally different."


Keywords for this news article include: New York City, New York, United States, North and Central America, Parathyroid Hormone and Analogs, Drugs and Therapies, Peptide Proteins, Zoledronic Acid, Bisphosphonates, Pharmaceuticals, Bone Research, Teriparatide, Hormones, Columbia University.

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Amphetamines
Reports from Columbia University Advance Knowledge in Amphetamines (Mechanisms of amphetamine action illuminated through optical monitoring of dopamine synaptic vesicles in Drosophila brain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Amphetamines have been published. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "Amphetamines elevate extracellular dopamine, but the underlying mechanisms remain uncertain. Here we show in rodents that acute pharmacological inhibition of the vesicular monoamine transporter (VMAT) blocks amphetamine-induced locomotion and self-administration without impacting cocaine-induced behaviours."
Our news journalists obtained a quote from the research from Columbia University, "To study VMAT's role in mediating amphetamine action in dopamine neurons, we have used novel genetic, pharmacological and optical approaches in Drosophila melanogaster. In an ex vivo whole-brain preparation, fluorescent reporters of vesicular cargo and of vesicular pH reveal that amphetamine redistributes vesicle contents and diminishes the vesicle pH-gradient responsible for dopamine uptake and retention. This amphetamine-induced deacidification requires VMAT function and results from net H(+) antiport by VMAT out of the vesicle lumen coupled to inward amphetamine transport. Amphetamine-induced vesicle deacidification also requires functional dopamine transporter (DAT) at the plasma membrane."

According to the news editors, the research concluded: "Thus, we find that at pharmacologically relevant concentrations, amphetamines must be actively transported by DAT and VMAT in tandem to produce psychostimulant effects."

For more information on this research see: Mechanisms of amphetamine action illuminated through optical monitoring of dopamine synaptic vesicles in Drosophila brain. Nature Communications, 2016;7():10652. (Nature Publishing Group - www.nature.com/; Nature Communications - www.nature.com/ncomms/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/ncomms10652. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Therapy, Amphetamines, Pharmacology, New York City, United States, Catecholamines, Biogenic Amines, Phenethylamines, Adrenergic Agent, Organic Chemicals, Dopamine Hydrochloride, North and Central America, Adrenergic Uptake Inhibitor, Central Nervous System Stimulants.

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University, "Fetuses with additional congenital anomalies and those with incomplete follow-up were excluded. Prenatal diagnostic accuracy and short-term survival were analyzed for the different types of TGA. The TGA type was correctly ascertained prenatally in 93.3%. Most fetuses were diagnosed with simple TGA (62.7%). There were 6 discrepancies: 5 fetuses with simple TGA had postnatally TGA + ventricular septal defect (VSD; n=3) or TGA + VSD + coarctation of the aorta (n=2), and 1 fetus with TGA + VSD postnatally showed severe left ventricular outflow tract obstruction. The mortality rate was 6.6%; it was higher in complex versus simple forms (12.8 vs. 1.9%, p=0.038), and in cases with intramural coronary artery versus those without (60 vs. 3.5%, p<0.001). We found no relationship between the arrangement of the great arteries and coronary arterial abnormalities. Simple TGA has a better outcome than the complex forms."

According to the news reporters, the research concluded: "A discrepancy rate of 7% with potential influence on the prognosis of survival between the prenatal diagnosis of the TGA type and the definitive diagnosis was found."

For more information on this research see: Transposition of the Great Arteries in Fetal Life: Accuracy of Diagnosis and Short-Term Outcome. *Fetal Diagnosis and Therapy*, 2016;40(4):268-276. (Karger - www.karger.com/: Fetal Diagnosis and Therapy - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224239)

Our news journalists report that additional information may be obtained by contacting P. Dominguez-Manzano, Pediatric Heart Institute, Dept. of Pediatrics, Hospital Universitario '12 de Octubre', Facultad de Medicina, Universidad Complutense de Madrid, Madrid, Spain. Additional authors for this research include A. Mendoza, I. Herraiz, D. Escribano, V. Roman, J.M. Aguilar and A. Galindo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444296. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Madrid, Europe, Cardiology.

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Heart Disorders and Diseases - Hypertrophic…

Reports from Concord Repatriation General Hospital Provide New Insights into Hypertrophic Cardiomyopathy (Fixed left ventricular outflow tract obstruction mimicking hypertrophic obstructive cardiomyopathy: pitfalls in diagnosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Hypertrophic Cardiomyopathy. According to news reporting originating from Sydney, Australia, by NewsRx correspondents, research stated, "We present a case series that highlights the diagnostic challenges with left ventricular hypertrophy (LVH) and left ventricular outflow tract obstruction (LVOTO). Fixed structural lesions causing LVOTO with secondary LVH may mimic hypertrophic obstructive cardiomyopathy (HOCM)."

Our news editors obtained a quote from the research from Concord Repatriation General Hospital, "Management of these two entities is critically different. Misdiagnosis and failure to recognize fixed left ventricular outflow tract (LVOT) lesions may result in morbidity
as a result of inappropriate therapy and delay of definitive surgical treatment."

According to the news editors, the research concluded: "It is thus necessary to identify the correct type and level of obstruction in the LVOT by careful correlation of clinical examination, Doppler evaluation, and advanced imaging findings."


The news editors report that additional information may be obtained by contacting J. Yiannikas, Concord Repatriation General Hospital, Dept. of Cardiol, Sydney, NSW, Australia. Additional authors for this research include D. Briege, R. Chard and J. Yiannikas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/echo.13356. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Hypertrophic Cardiomyopathy, Obstructive Cardiomyopathy, Cardiomyopathies, Heart Disease, Cardiology, Concord Repatriation General Hospital.

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**Genetics - Human Mutation**

**Reports from Copenhagen University Hospital Describe Recent Advances in Human Mutation (Germline Chromothripsis Driven by L1-Mediated Retrotransposition and Alu/Alu Homologous Recombination)***

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics - Human Mutation. According to news reporting from Glostrup, Denmark, by NewsRx journalists, research stated, "Chromothripsis (CTH) is a phenomenon where multiple localized double-stranded DNA breaks result in complex genomic rearrangements. Although the DNA-repair mechanisms involved in CTH have been described, the mechanisms driving the localized 'shattering' process remain unclear."

Funders for this research include Lundbeck Foundation, American Cancer Society, University of Copenhagen.

The news correspondents obtained a quote from the research from Copenhagen University Hospital, "High-throughput sequence analysis of a familial germline CTH revealed an inserted SVAE retrotransposon associated with a 110-kb deletion displaying hallmarks of L1-mediated retrotransposition. Our analysis suggests that the SVAE insertion did not occur prior to or after, but concurrent with the CTH event. We also observed L1-endonuclease potential target sites in other breakpoints. In addition, we found four Alu elements flanking the 110-kb deletion and associated with an inversion. We suggest that chromatin looping mediated by homologous Alu elements may have brought distal DNA regions into close proximity facilitating DNA cleavage by catalytically active L1-endonuclease."
According to the news reporters, the research concluded: "Our data provide the first evidence that active and inactive human retrotransposons can serve as endogenous mutagens driving CTH in the germline."


Our news journalists report that additional information may be obtained by contacting L. Nazaryan-Petersen, Applied Human Molecular Genetics, Kennedy Center, Dept. of Clinical Genetics, Copenhagen University Hospital, Rigshospitalet, Glostrup, 2600, Denmark. Additional authors for this research include B. Bertelsen, M. Bak, L. Jonson, N. Tommerup, D.C. Hancks and Z. Tumer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/humu.22953. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Denmark, Glostrup, Genetics, Human Mutation.

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Mental Health Diseases and Conditions - Bipolar...

Reports from D. Dima and Colleagues Advance Knowledge in Bipolar Disorders (The polygenic risk for bipolar disorder influences brain regional function relating to visual and default state processing of emotional information)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Mental Health Diseases and Conditions - Bipolar Disorders are discussed in a new report. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Genome-wise association studies have identified a number of common single-nucleotide polymorphisms (SNPs), each of small effect, associated with risk to bipolar disorder (BD). Several risk-conferring SNPs have been individually shown to influence regional brain activation thus linking genetic risk for BD to altered brain function."

Financial supporters for this research include Psychiatric Research Trust, National Institute of Mental Health, NARSAD Young Investigator Grant, European Union's Horizon 2020 Research and Innovation Programme, National Institute for Health Research.

Our news editors obtained a quote from the research, "The current study examined whether the polygenic risk score method, which models the cumulative load of all known risk-conferring SNPs, may be useful in the identification of brain regions whose function may be related to the polygenic architecture of BD. We calculated the individual polygenic risk score for BD (PGR-BD) in forty-one patients with the disorder, twenty-five unaffected first-degree relatives and forty-six unrelated healthy controls using the most recent Psychiatric Genomics Consortium data. Functional magnetic resonance imaging was used to define task-related brain activation patterns in response to facial affect and working memory processing. We found significant effects of the PGR-BD score on task-related activation irrespective of diagnostic
There was a negative association between the PGR-BD score and activation in the visual association cortex during facial affect processing. In contrast, the PGR-BD score was associated with failure to deactivate the ventromedial prefrontal region of the default mode network during working memory processing. These results are consistent with the threshold-liability model of BD, and demonstrate the usefulness of the PGR-BD score in identifying brain functional alternations associated with vulnerability to BD.

According to the news editors, the research concluded: "Additionally, our findings suggest that the polygenic architecture of BD is not regionally confined but impacts on the task-dependent recruitment of multiple brain regions."


The news editors report that additional information may be obtained by contacting D. Dima, SLaM NHS Trust, London, United Kingdom. Additional authors for this research include S. de Jong, G. Breen and S. Frangou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.10.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Mental Health Diseases and Conditions, Manic-Depressive Illness, Risk and Prevention, Bipolar Disorders, Psychiatry, Genetics.

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**Clinical Research - Clinical Trials and Studies**

**Reports from D.F. Abbas and Colleagues Advance Knowledge in Clinical Trials and Studies (Simultaneous Administration Compared With a 24-Hour Mifepristone-Misoprostol Interval in Second-Trimester Abortion A Randomized Controlled Trial)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Research - Clinical Trials and Studies. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "To compare outcomes with simultaneous administration of mifepristone and misoprostol with a regimen in which the drugs are administered at a 24-hour interval for second-trimester abortion. In this placebo-controlled, double-blind trial, participants were randomized to receive mifepristone either 24 hours before or at the same time as misoprostol."

The news correspondents obtained a quote from the research, "Participants were hospitalized to receive 400 micrograms buccal misoprostol at 3-hour intervals up to 48 hours or until uterine expulsion. The primary outcome was the proportion of women who experienced uterine expulsion within 24 hours after the first misoprostol dose and this required 504 women to examine our hypothesis that this rate would be 85% in the 24-hour interval arm compared with 70% in the simultaneous arm. Secondary outcomes included total abortion time from mifepristone and misoprostol. From February 2013 to April 2014, 509 women were enrolled."
Women in the 24-hour interval arm were more likely to abort within 24 hours (94.4% compared with 85.0%, relative risk 1.11, 95% confidence interval [CI] 1.05-1.18). At 48 hours, the rate was similar in the two arms (96.8% [24-hour interval] and 95.7% [simultaneous], relative risk 1.01, 95% CI 0.97-1.04). Median misoprostol dosing time was shorter in the 24-hour interval arm (7.7 compared with 13 hours; P<.001) and consistent with the median misoprostol doses required (three compared with five; P<.001). Median time from mifepristone to uterine expulsion was longer in the 24-hour interval arm (32.3 compared with 13 hours; P<.001). Both regimens had high acceptability rates and reported similar side effects and pain scores. Administering mifepristone and misoprostol simultaneously results in lower expulsion rates within 24 hours of taking misoprostol, longer median misoprostol treatment times, and requires more misoprostol doses. At 48 hours, both regimens work equally well."

According to the news reporters, the research concluded: "Simultaneous dosing results in less total time from the first clinical contact to complete abortion."

For more information on this research see: Simultaneous Administration Compared With a 24-Hour Mifepristone-Misoprostol Interval in Second-Trimester Abortion A Randomized Controlled Trial. Obstetrics and Gynecology, 2016;128(5):1077-1083. Obstetrics and Gynecology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Obstetrics and Gynecology - journals.lww.com/greenjournal/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting D.F. Abbas, Gynu Hlth Projects, New York, NY 10010, United States. Additional authors for this research include J. Blum, N.T.N. Ngoc, N.T.B. Nga, H.T.K. Chi, R. Martin and B. Winikoff.

Keywords for this news article include: New York City, New York, United States, North and Central America, Progesterone Receptor Modulators, Clinical Trials and Studies, Synthetic Prostaglandins E, Genitourinary Tract Agents, Mifepristone Therapy, Drugs and Therapies, Misoprostol Therapy, Biological Factors, Uterotonic Agents, Clinical Research, Pharmaceuticals, Hormones.

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**Reports from Dalian University of Technology Highlight Recent Findings in Mesenchymal Stem Cells (Synergistic effect of bioactive lipid and condition medium on cardiac differentiation of human mesenchymal stem cells from different tissues)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Stem Cell Research - Mesenchymal Stem Cells. According to news reporting originating in Dalian, People's Republic of China, by NewsRx journalists, research stated, "Human umbilical cord mesenchymal stem cells (hUCMSCs) and human adipose tissue mesenchymal stem cells (hATMSCs) have the potential to differentiate into cardiomyocytes, making them promising therapeutic candidates for treating damaged cardiac tissues. Currently, however, the differentiated cells induced from hUCMSCs or hATMSCs can hardly display functional characteristics similar to cardiomyocytes."

Funders for this research include National Natural Science Foundation of China,
Fundamental Research Funds for the Central Universities, UK Engineering and Physical Sciences Research Council, Technology and Strategy Board.

The news reporters obtained a quote from the research from the Dalian University of Technology, "In this study, we have investigated the effects of bioactive lipid sphingosine-1-phosphate (S1P) on cardiac differentiations of hUCMSCs and hATMSCs in condition medium composed of cardiac myocytes culture medium or 5-azacytidine. Cardiac differentiations were identified through immunofluorescence staining, and the results were observed with fluorescence microscopy and confocal microscopy. Synergistic effects of S1P and condition medium on cell viability were evaluated by MTT assays. Functional characteristics similar to cardiomyocytes were evaluated through detecting calcium transient. The differentiated hUCMSCs or hATMSCs in each group into cardiomyocytes showed positive expressions of cardiac specific proteins, including a-actin, connexin-43 and myosin heavy chain-6 (MYH-6). MTT assays showed that suitable differentiation time was 14 days and that the optimal concentration of S1P was 0.5 mM. Moreover, incorporation of S1P and cardiac myocytes culture medium gave rise to calcium transients, an important marker for displaying in vivo electrophysiological properties."

According to the news reporters, the research concluded: "This feature was not observed in the S1P-5-azacytidine group, indicating the possible lack of cellular stimuli such as transforming growth factor-beta, TGF-b."


Our news correspondents report that additional information may be obtained by contacting L. Jiang, Dalian R&D Center for Stem Cell and Tissue Engineering, Faculty of Chemical Environmental and Biological Science and Technology, Dalian University of Technology, Dalian, People's Republic of China. Additional authors for this research include Y. Wang, F. Pan, X. Zhao, H. Zhang, M. Lei, T. Liu and J.R Lu.

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Keywords for this news article include: Asia, Dalian, Cardiology, Cardiomyocyte, Stem Cell Research, Mesenchymal Stem Cells, People's Republic of China.

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between markers of genetic variation, or gene-gene interactions, are believed to play an important role in the etiology of many multifactorial diseases and other complex phenotypes. Unfortunately, detecting gene-gene interactions is extremely challenging due to the large number of potential interactions and ambiguity regarding marker coding and interaction scale."

Our news journalists obtained a quote from the research from Dartmouth College, "For many data sets, there is insufficient statistical power to evaluate all candidate gene-gene interactions. In these cases, a global test for gene-gene interactions may be the best option. Global tests have much greater power relative to multiple individual interaction tests and can be used on subsets of the markers as an initial filter prior to testing for specific interactions. In this paper, we describe a novel global test for gene-gene interactions, the global epistasis test (GET), that is based on results from random matrix theory. As we show via simulation studies based on previously proposed models for common diseases including rheumatoid arthritis, type 2 diabetes, and breast cancer, our proposed GET method has superior performance characteristics relative to existing global gene-gene interaction tests."

According to the news editors, the research concluded: "A glaucoma GWAS data set is used to demonstrate the practical utility of the GET method."


The news correspondents report that additional information may be obtained from H.R. Frost, Dartmouth College, Geisel Sch Med, Dept. of Biomed Data Sci, Hanover, NH 03755, United States. Additional authors for this research include C.I. Amos and J.H. Moore.

Keywords for this news article include: Hanover, New Hampshire, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Diagnostics and Screening, Epidemiology, Genetics, Non-Insulin Dependent Diabetes Mellitus, Risk and Prevention, Type 2 Diabetes, Dartmouth College.

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Aneuploidy
Reports from Dartmouth-Hitchcock Medical Center Highlight Recent Findings in Aneuploidy (Human embryo mosaicism: did we drop the ball on chromosomal testing?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Aneuploidy. According to news reporting originating in Lebanon, New Hampshire, by NewsRx journalists, research stated, "There are newly recognized challenges presented by the occurrence of mosaicism in the context of trophectoderm (TE) biopsy for pre-implantation genetic screening (PGS) in in vitro fertilization (IVF) embryos. Chromosomal mosaicism, known to be significantly higher in IVF embryos than in later prenatal samples, may contribute to errors in diagnosis."

The news reporters obtained a quote from the research from Dartmouth-Hitchcock Medical Center, "In particular, PGS may result in discarding embryos diagnosed as aneuploid but in which the inner cell mass may be completely or mainly euploid, thus representing a false
positive diagnosis. Although less likely, some embryos diagnosed as euploid could be mosaic and contain some aneuploid cells, possibly impacting their implantation potential. The ability of current diagnostic techniques to detect mosaicism is limited by the number and location of TE cells in the biopsy and by the methodology used for chromosomal assessment. The clinical consequences of mosaicism are dependent on the chromosome(s) involved, the developmental stage at which the mosaicism evolved, and whether TE biopsy accurately reflects the status of the inner cell mass that forms the fetus. Consequently, in patients with no euploid embryos identified on PGS, it may be appropriate to consider the transfer of diagnosed aneuploid embryos if the TE biopsy result is a non-viable chromosomal monosomy or triploidy that could not result in a birth. It should be acknowledged in consent forms that mosaicism has the potential to impact test results and that its detection may be below the resolution of the genetic tests being used."

According to the news reporters, the research concluded: "This concept represents a major shift in current IVF practice and ought to be considered given the data, or lack thereof, of the impact of mosaicism on IVF/PGS outcomes."


Our news correspondents report that additional information may be obtained by contacting N. Esfandiari, Dartmouth Hitchcock Medical Center, Geisel Sch Med, Dept. of OB GYN, Div Reprod Endocrinol & Infertil, Lebanon, NH 03766, United States. Additional authors for this research include M.E. Bunnell and R.F. Casper.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0797-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lebanon, New Hampshire, United States, North and Central America, Aneuploidy, Diagnostics and Screening, Genetics, Dartmouth-Hitchcock Medical Center.

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Animal Diseases and Conditions - Bluetongue

Reports from Department of Agriculture Advance Knowledge in Bluetongue (Effect of Culicoides sonorensis salivary proteins on clinical disease outcome in experimental bluetongue virus serotype 8 infection of Dorset sheep)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Animal Diseases and Conditions - Bluetongue are discussed in a new report. According to news reporting from Manhattan, Kansas, by NewsRx journalists, research stated, "The severity of bluetongue clinical disease in ruminants varies greatly depending on the outbreak serotype/strain, animal species/breed, and immune status of the herd. To predict disease risk from any of the 26 bluetongue virus (BTV) serotypes identified to date, experimental animal susceptibility studies are often conducted."
The news correspondents obtained a quote from the research from the Department of Agriculture, "Although sheep are the most susceptible livestock species in the US, infection of domestic breeds by injection of field isolates rarely produces the level of clinical disease observed in natural Culicoides midge-transmitted outbreaks. Thus, outbreak risk assessments based on experimental animal infections can underestimate the severity posed by a potential outbreak with a given virus serotype or strain. The aim of this study was to determine whether secreted Culicoides salivary proteins injected simultaneously with virus, to more closely mimic midge-delivered virus, would affect clinical disease outcome in a BTV-8 sheep susceptibility study. Eight sheep were intradermally inoculated with BTV-8; 4 received virus mixed with secreted Culicoides salivary proteins (BTV-8 + Cu SP), 4 received virus alone. Clinical signs were monitored daily for type, severity and duration. In sheep receiving the BTV-8 + Cu SP inoculum, clinical signs were more varied, more severe, and duration was three times longer compared to sheep receiving virus alone."

According to the news reporters, the research concluded: "These results suggest that Culicoides salivary proteins may play a contributing role in BTV pathology and that use of these proteins in experimental animal infections may allow development of a more robust target-host animal model."

For more information on this research see: Effect of Culicoides sonorensis salivary proteins on clinical disease outcome in experimental bluetongue virus serotype 8 infection of Dorset sheep. *Veterinaria Italiana*, 2015;51(4):379-84.

Our news journalists report that additional information may be obtained by contacting B.S. Drolet, Dept. of Agriculture, Agricultural Research Service, Arthropod-Borne Animal Diseases Research Unit, 1515 College Ave, Manhattan, KS, 66502, United States. Additional authors for this research include L.M. Reister, C.J. Lehiy, P.A. Van Rijn and R.A Bowen.

Keywords for this news article include: Kansas, Peptides, Proteins, Virology, Manhattan, Orbivirus, Amino Acids, RNA Viruses, Epidemiology, United States, Bluetongue Virus, Risk and Prevention, Arbovirus Infections, RNA Virus Infections, Reoviridae Infections, North and Central America, Sheep Diseases and Conditions, Animal Diseases and Conditions.

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**Drugs and Therapies - Glucagon Therapy**

**Reports from Department of Anesthesiology Highlight Recent Findings in Glucagon Therapy (Glucagon-induced hypertensive emergency: a case report)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Glucagon Therapy are presented in a new report. According to news reporting originating from New Haven, Connecticut, by NewsRx correspondents, research stated, "Glucagon is well acknowledged as a sphincter of Oddi relaxant for both diagnostic and therapeutic uses in choledocho lithiasis, and an empiric treatment for beta-blocker overdose. Although it has been implicated in inducing cardiovascular crises in patients with asymptomatic pheochromocytoma, adverse effects in other patient populations have not been characterized."

Our news editors obtained a quote from the research from the Department of...
Anesthesiology, "This case report describes a patient with hypertension controlled on beta blockers who, after glucagon administration during an intraoperative cholangiography, experienced hypertensive emergency despite adequate pain control. Nitroglycerin acted as a key agent to decrease the patient's blood pressure as well as a secondary relaxant of the sphincter of Oddi. The patient had no radiographic evidence of pheochromocytoma."

According to the news editors, the research concluded: "As out-of-operating room and intraoperative uses of glucagon continue to increase, perioperative physicians should be aware of its potential hemodynamic effects even in healthy populations."


The news editors report that additional information may be obtained by contacting A. Legler, Yale New Haven Med Center, Dept. of Anesthesiol, New Haven, CT 06504, United States. Additional authors for this research include R.K. Kim and N. Chawla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.08.033. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Glucagon Therapy Hydrochloride, Glucose Elevating Agents, Drugs and Therapies, Peptide Proteins, Peptide Hormones, Pharmaceuticals, Proglucagon, Department of Anesthesiology.

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Hydrochloric Acid

Reports from Department of Biochemistry & Molecular Biology Highlight Recent Findings in Hydrochloric Acid (Occupational exposures at a polyvinyl chloride production facility are associated with significant changes to the plasma metabolome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hydrochloric Acid are presented in a new report. According to news reporting from Louisville, Kentucky, by NewsRx journalists, research stated, "Occupational vinyl chloride (VC) exposures have been associated with toxicant-associated steatohepatitis and liver cancer. Metabolomics has been used to clarify mode of action in drug-induce liver injury but has not been performed following VC exposures."

The news correspondents obtained a quote from the research from the Department of Biochemistry & Molecular Biology, "Plasma samples from 17 highly exposed VC workers without liver cancer and 27 unexposed healthy volunteers were obtained for metabolite extraction and GC/MS and LC/MS2 analysis. Following ion identification/quantification, Ingenuity pathway analysis was performed. 613 unique named metabolites were identified. Of these, 189 metabolites were increased in the VC exposure group while 94 metabolites were decreased. Random Forest analysis indicated that the metabolite signature could separate the groups with 94% accuracy. VC exposures were associated with increased long chain (including
arachidonic acid) and essential (including linoleic acid) fatty acids. Occupational exposure increased lipid peroxidation products including monohydroxy fatty acids (including 13-HODE); fatty acid dicarboxylates; and oxidized arachidonic acid products (including 5,9, and 15-HETE). Carnitine and camitine esters were decreased, suggesting peroxisomal/mitochondrial dysfunction and alternate modes of lipid oxidation. Differentially regulated metabolites were shown to interact with extracellular-signal-regulated kinase 1/2 (ERK1/2), Akt, AMP activated protein kinase (AMPK), and the N-Methyl-D-aspartate (NMDA) receptor. The top canonical pathways affected by occupational exposure included tRNA charging, nucleotide degradation, amino acid synthesis/degradation and urea cycle. Methionine and homocysteine was increased with decreased cysteine, suggesting altered 1-carbon metabolism. Occupational exposure generated a distinct plasma metabolome with markedly altered lipid and amino acid metabolites.

According to the news reporters, the research concluded: "ERK1/2, Akt, AMPK, and NMDA were identified as protein targets for vinyl chloride toxicity."

For more information on this research see: Occupational exposures at a polyvinyl chloride production facility are associated with significant changes to the plasma metabolome. Toxicology and Applied Pharmacology, 2016;313():47-56. Toxicology and Applied Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Toxicology and Applied Pharmacology - www.journals.elsevier.com/toxicology-and-applied-pharmacology/)

Our news journalists report that additional information may be obtained by contacting M. Cave, Dept. of Biochem & Mol Biol, Louisville, KY 40202, United States. Additional authors for this research include J.I. Beier, K.C. Falkner, B. Wheeler, C.J. McClain and M. Cave.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Louisville, Kentucky, United States, North and Central America, Enzymes and Coenzymes, Hydrochloric Acid, Chlorides, Genetics, Kinase, Anions, Department of Biochemistry & Molecular Biology.

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systolic dysfunction.”

Our news journalists obtained a quote from the research from the Department of Cardiology, "Because of anemia after initial treatment, we added intravenous deferoxamine followed by oral deferiprone to less frequent erythrocytapheresis, which normalized systolic function within 1 year. Repeated cardiac magnetic resonance imaging revealed improvement of the T2* relaxation time."

According to the news editors, the research concluded: "This report illustrates the beneficial effect of iron chelators in individuals with HFE hemochromatosis and poor tolerance of erythrocytapheresis."


Our news journalists report that additional information may be obtained by contacting M. Kubanek, IKEM, Dept. of Cardiol, Prague 14021, Czech Republic. Additional authors for this research include B. Krizova, M. Kubanek, S. Frankova, V. Melenovsky, J. Tintera, D. Kautznerova, J. Maluskova, M. Jirsa and J. Kautzner.

Keywords for this news article include: Prague, Czech Republic, Europe, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Inborn Errors Metal Metabolism, Heart Disorders and Diseases, Iron Metabolism Disorders, Hydroxamic Acids, Cardiomyopathies, Hemochromatosis, Iron Overload, Heart Disease, Deferoxamine, Cardiology, Genetics, Department of Cardiology.

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Health and Medicine - Cardiovascular Interventions

Reports from Department of Cardiology Describe Recent Advances in Cardiovascular Interventions (Early experience of percutaneous paravalvular leak closure using a novel Occlutech occluder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Health and Medicine - Cardiovascular Interventions. According to news reporting originating in Istanbul, Turkey, by NewsRx journalists, research stated, "Paravalvular regurgitation is an important complication of mitral valve replacement. Although surgical repair is mostly recommended, it is associated with significant morbidity."

The news reporters obtained a quote from the research from the Department of Cardiology, "On the other hand, percutaneous closure is a less invasive alternative approach. Percutaneous approaches to treatment of paravalvular prosthetic regurgitation have emerged recently. One of them is the Occlutech Paravalvular Leak Device. The aim of this study was to evaluate early and midterm outcomes of percutaneous paravalvular leak closure utilising a novel occluder. Twenty-one consecutive symptomatic patients who had moderate or severe paravalvular prosthetic regurgitation on transoesophageal echocardiography were included in the study. All the patients were clinically evaluated and found inoperable for surgery. They
underwent transapical repair with the Occlutech Paravalvular Leak Device. The patients were followed for 17?5 months. Attempts were made to rectify 41 defects in 21 patients with 100% success. Mean procedure time was 76?40 min and fluoroscopy time was 44?37 min. Early post-procedural outcome was uneventful in all cases, with (>=)1 grade reduction in regurgitation in all of the patients. There was no mortality during hospital stay. There was one case of haemothorax in one patient and one case of pneumothorax in another. Post-implantation 90-day follow-up data were obtained for 19 patients, and 12-month data were obtained for 12 patients. No deaths due to any cause, stroke or surgery for prosthetic impingement, worsening or relapse of paravalvular leak during follow-up were recorded. One patient underwent reintervention and was treated successfully with the same occluder 11 months after the index procedure."

According to the news reporters, the research concluded: "The novel Occlutech Paravalvular Leak Device, which was designed specifically for mitral and aortic paravalvular regurgitation, is an additional, useful tool in the device armamentarium for the treatment of PVL."


Our news correspondents report that additional information may be obtained by contacting O. Goktekin, Dept. of Cardiology, Bezmialem University, Istanbul, Turkey. Additional authors for this research include M.A. Vatankulu, H. Ozhan, Y. Ay, M. Ergelen, A. Tasal, C. Aydin, Z. Ismail, I. Ates and Z. Hijazi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4244/EIJV11I10A237. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turkey, Eurasia, Surgery, Istanbul, Health and Medicine, Cardiovascular Interventions.

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**Heart Disorders and Diseases - Heart Failure**

**Reports from Department of Cardiovascular Medicine Provide New Insights into Heart Failure (Subspecialisation in cardiology care and outcome: should clinical services be redesigned, again?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Failure are discussed in a new report. According to news reporting out of Bedford Park, Australia, by NewsRx editors, research stated, "Inpatient management of cardiac patients by cardiologists results in reduced mortality and hospitalisation. With increasing subspecialisation of the field because of growing management complexity and use of technological innovations, the impact of sub-specialisation on patient outcomes is unclear."

Our news journalists obtained a quote from the research from the Department of Cardiovascular Medicine, "To investigate whether management by subspecialty cardiologists impacts the outcomes of patients with subspecialty-specific diseases. All patients admitted to a tertiary centre over nine years with a diagnosis of heart failure, acute coronary syndrome (ACS) or primary arrhythmia were reviewed. The outcomes of these patients managed by cardiologists
subspecialised in their admission diagnosis (heart failure specialists, interventionalists and electrophysiologists) were compared with those treated by general cardiologists. Heart failure was diagnosed in 1704 patients, ACS in 7763 and arrhythmia in 4398. There was no difference in length of stay (LOS) (p=0.26), mortality (p=0.57) or cardiovascular readmissions (p=0.50) in heart failure patients treated by general cardiologists compared with subspecialists. In ACS patients, subspecialty management was associated with reduced LOS, cardiovascular readmissions and mortality (all p<0.05). This reduction in mortality was seen mainly in lower risk patients (p <0.05). There was a reduction in LOS and cardiovascular readmissions in arrhythmia patients receiving subspecialty management (both p<0.05) but no difference in mortality (p=0.14). ACS patients managed by interventionalists were more likely to undergo coronary intervention (p <0.05). Electrophysiologists more frequently referred patients for catheter ablation and pacemaker implantation than general cardiologists (p <0.05). The benefits of subspecialty care seem attributable to the appropriate selection of patients who would benefit from technological innovations in care."

According to the news editors, the research concluded: "These results suggest that the development of healthcare systems which align cardiovascular disease with the subspecialist may be more effective."


Our news journalists report that additional information may be obtained by contacting B. Pathik, Dept. of Cardiovascular Medicine, Flinders Medical Centre, Bedford Park, South Australia, Australia. Additional authors for this research include C.G. De Pasquale, A.D. McGavigan, A. Sinhal, J. Vaile, P.A. Tideman, D. Jones, C. Bridgman, J.B. Selvanayagam, W. Heddle and D.P Chew.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imj.12909. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Arrhythmia, Cardiology, Bedford Park, Heart Disease, Heart Failure, Australia and New Zealand, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Reports from Department of Emergency and Critical Care Advance Knowledge in Disseminated Intravascular Coagulation (Efficacy and safety of anticoagulant therapy in three specific populations with sepsis: a meta-analysis of randomized controlled ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematologic Diseases and Conditions - Disseminated Intravascular Coagulation is the subject of a report. According to news reporting originating from Osaka, Japan, by NewsRx correspondents, research stated, "ESSENTIALS: Most anticoagulant therapy has failed to demonstrate a survival benefit in the overall sepsis
population. We conducted separate meta-analyses of anticoagulant therapy in three different populations."

Our news editors obtained a quote from the research from the Department of Emergency and Critical Care, "Survival benefit was observed only in the septic disseminated intravascular coagulation (DIC) population. Further randomized controlled trials should focus on specific populations with septic DIC. Although many preclinical trials have indicated the effectiveness and safety of anticoagulant therapy as an adjuvant therapy against sepsis, there is little evidence to support its effectiveness to reduce mortality in the overall population with sepsis in clinical situations. However, several studies suggested that specific anticoagulant therapy may potentially reduce mortality in patients with sepsis-induced disseminated intravascular coagulation (DIC). We investigated whether the survival benefit of anticoagulant therapy might pertain to the coagulopathic population with sepsis. We conducted separate meta-analyses of randomized controlled trials for anticoagulant therapy in three different populations: (i) overall population with sepsis, (ii) population with sepsis-induced coagulopathy, and (iii) population with sepsis-induced DIC. We searched MEDLINE, Scopus, and the Cochrane Central Register of Controlled Trials comparing anticoagulant therapy with placebo or no intervention in sepsis patients. We measured all-cause mortality as the primary outcome and bleeding complications as the secondary outcome. We analyzed 24 trials enrolling 14,767 patients. There were no significant reductions in mortality in the overall sepsis population and the population with sepsis-induced coagulopathy. Otherwise, we observed significant reductions in mortality (risk ratio 0.72, 95% confidence interval 0.62-0.85) in the population with sepsis-induced DIC. As adverse events, bleeding complications tended to increase similarly with anticoagulant therapy in all three populations."

According to the news editors, the research concluded: "Although associated with an increased risk of bleeding, anticoagulant therapy resulted in no survival benefits in the overall sepsis population and even the population with sepsis-induced coagulopathy; beneficial effects on mortality were observed only in the population with sepsis-induced DIC."


The news editors report that additional information may be obtained by contacting Y. Umemura, Dept. of Emergency and Critical Care, Osaka General Medical Center, Osaka, Japan. Additional authors for this research include K. Yamakawa, H. Ogura, H. Yuhara and S. Fujimi. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jth.13230. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Anticoagulants, Osaka, Japan, Sepsis, Septicemia, Thrombophilia, Article Review, Clinical Research, Hematologic Agents, Drugs and Therapies, Risk and Prevention, Bloodstream Infection, Hemorrhagic Disorders, Clinical Trials and Studies, Blood Diseases and Conditions, Hematologic Diseases and Conditions.

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Digestive System Diseases and Conditions -

Reports from Department of Gastroenterology Highlight Recent Findings in Inflammatory Bowel Disease (Characterisation and therapeutic manipulation of the gut microbiome in inflammatory bowel disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Digestive System Diseases and Conditions - Inflammatory Bowel Disease is the subject of a report. According to news reporting originating in Melbourne, Australia, by NewsRx journalists, research stated, "Inflammatory bowel diseases are thought to develop as a result of dysregulation of the relationship that exists between the gut microbiota, host genetics and the immune system. The advent of culture-independent techniques has revolutionised the ability to characterise the role of the gut microbiota in health and disease based on the microbiota's genetic make-up."

The news reporters obtained a quote from the research from the Department of Gastroenterology, "Inflammatory bowel diseases are characterised by dysbiosis which is an imbalance between pro-and anti-inflammatory bacteria and a reduction in bacterial diversity. Emerging data suggest that it is not only the presence of the gut microbiota but the functional activity of the microbiota that appears to play an important role in health and disease. Current strategies to manipulate therapeutically the gut microbiota using dietary modification, prebiotics, probiotics, antibiotics and faecal microbiota transplantation aim to restore the balance to a state of normobiosis."

According to the news reporters, the research concluded: "However, the ability of such strategies to correct dysbiosis and thereby achieve therapeutic benefit is yet to be fully characterised."


Our news correspondents report that additional information may be obtained by contacting J. Schulberg, Dept. of Gastroenterology, Austin Hospital, Melbourne, Victoria, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imj.13003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Therapy, Genetics, Melbourne, Article Review, Gastroenteritis, Australia and New Zealand, Inflammatory Bowel Disease, Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.

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RNA Viruses - Norovirus

Reports from Department of Internal Medicine Advance Knowledge in Norovirus (Clinical outcome of norovirus infection in renal transplant patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on RNA Viruses - Norovirus is the subject of a report. According to news reporting originating from Berlin, Germany, by NewsRx correspondents, research stated, "Transplant patients are at increased risk for developing severe norovirus (NoV) infections with secondary complications such as rejection episodes and acute transplant failure. This single-center retrospective study included all kidney transplant patients tested positive for NoV RNA between January 2007 and December 2011."

Our news editors obtained a quote from the research from the Department of Internal Medicine, "Data were compared to a control group of 528 kidney transplant patients without NoV infection. Sixty-five kidney transplant patients were recorded NoV RNA positive. Of these, 26 patients (40%) presented with acute transplant failure (AKI). In 43 patients (66.2%), dose reduction in immunosuppression was performed, and of 22 patients receiving tacrolimus, four patients (18.2%) showed toxic trough levels above 15ng/mL at time of diagnosis. In three patients (4.6%), indicated therapeutic procedures had to be postponed due to prolonged severe diarrhea. Ten patients (15.4%) developed chronic NoV infection. One-year patient and graft survival in NoV patients and controls was 92.3% and 96.4%, respectively (n.s.). Compared to controls, eGFR was already significantly lower before NoV infection and loss of eGFR relative to baseline over 12 and 36months was significantly higher in NoV-infected patients. In particular, patients initially presenting with AKI experienced a long-term loss of transplant function."

According to the news editors, the research concluded: "Risk factors for NoV infection were immunosuppression containing steroids and antirejection therapy."


The news editors report that additional information may be obtained by contacting S. Brakemeier, Charite Campus Mitte, Dept. of Internal Med, Div Nephrol, Berlin, Germany. Additional authors for this research include S.I. Taxeidi, M. Durr, J. Hofmann, D. Schmidt, F. Bachmann, J. Gaedeke and K. Budde.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12820. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berlin, Germany, Europe, Kidney, Risk and Prevention, Transplant Medicine, Kidney Transplants, Organ Transplants, Renal Transplant, Transplantation, Renal Allograft, Caliciviridae, Biomedicine, RNA Viruses, Nephrology, Norovirus, Virology, Genetics, Surgery, Viral, Department of Internal Medicine.

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Reports from Department of Radiation Oncology Describe Recent Advances in Melanoma (Prognostic factors for melanoma brain metastases treated with stereotactic radiosurgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Melanoma is now available. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "Stereotactic radiosurgery (SRS) is routinely used to treat brain metastases from melanoma due to their radioresistant nature. The median survival for these patients is 4-6 months, according to earlier studies."

Our news journalists obtained a quote from the research from the Department of Radiation Oncology, "The aim of this study was to evaluate prognostic factors that influence survival in patients with metastatic melanoma to the brain treated with SRS. This retrospective analysis included all patients with melanoma brain metastases treated with SRS at the University of Southern California between 1994 and 2015. For the entire cohort, the authors performed a multivariable Cox regression analysis with an end point of survival. Covariates included number of lesions, total intracranial tumor volume, age, sex, and treatment date prior to 2005 or 2005 onward. In the subset of patients with > 1 lesion, additional multivariable Cox regression was performed, with covariates of Karnofsky Performance Scale, Graded Prognostic Assessment, Recursive Partitioning Analysis, timing of metastases (synchronous/metachronous), change in lesion number, and previous whole-brain radiation therapy or resection in addition to the previously mentioned covariates. Overall survival (OS) was calculated from the day SRS was performed to the date of last follow-up or date of death. A total of 401 patients were available for analysis. The median follow-up was 35.1 months for patients alive at the time of analysis, and the median OS was 7.7 months for the entire cohort (95% CI 6.7-8.3 months). In the entire cohort, greater number of brain lesions, higher total intracranial tumor volume, age > 50 years, treatment prior to 2005, and male sex were found to be statistically significant factors associated with worse survival. The strongest risk factors for decreased OS were tumor volume > 10 cm(3) and >= 5 lesions, with hazard ratios for risk of death of 1.7 and 2.2, respectively. In the subset of patients with > 1 lesion, tumor volume > 10 cm(3) and no resection were the only factors significantly associated with decreased OS, with hazard ratios of 1.9 and 2.0 (hazard ratio of 0.49 for resection), respectively. This study suggests that greater lesion number, higher intracranial tumor volume, older age, treatment prior to 2005, and male sex have prognostic significance for decreased OS in patients with melanoma brain metastases treated with SRS."

According to the news editors, the research concluded: "Additionally, in the subset of patients with > 1 lesion, only higher total tumor volume and no resection were associated with worse survival."

For more information on this research see: Prognostic factors for melanoma brain metastases treated with stereotactic radiosurgery. *Journal of Neurosurgery*, 2016;125():31-39. *Journal of Neurosurgery* can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

Our news journalists report that additional information may be obtained by contacting S.X. Bian, Univ Southern Calif, Keck Sch Med, Dept. of Radiat Oncol, Los Angeles, CA, United States. Additional authors for this research include D. Routman, J. Liu, D.Y. Yang, S. Groshen, G. Zada, N. Trakul, M.K. Wong, C. Yu and E.L. Chang.
Autoimmune Diseases and Conditions - Rheumatoid...

Reports from Department of Rheumatology Add New Data to Findings in Rheumatoid Arthritis (Risk of postoperative infections and the discontinuation of TNF inhibitors in patients with rheumatoid arthritis: A meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Autoimmune Diseases and Conditions - Rheumatoid Arthritis are presented in a new report. According to news reporting originating from Echirolles, France, by NewsRx correspondents, research stated, "To determine whether continuation of tumor necrosis factor inhibitors (TNFi) before surgery increases the risk of surgical site infection (SSI) in rheumatoid arthritis (RA) patients. A systematic review of the literature was conducted from January 2000 to May first 2014, using the databases of PubMed, Cochrane review, Embase, and manual research of abstracts presented in scientific congresses."

Our news editors obtained a quote from the research from the Department of Rheumatology, "Most included studies were retrospective. We compared the risk of SSI in the case of discontinuation of TNFi versus continuing TNFi treatment before a surgery. Six studies, with a total of 2743 patients (1360 in the group continuing TNFi agent and 1383 in the group discontinuing TNFi) were included. There was a decreased risk of SSI in patients stopping TNFi (relative risk [RR] = 0.62 [95% confidence interval [CI] 0.43-0.89], P = 0.99, I-2 = 0%). Concerning overall complications, there was also a decreased risk in patients discontinuing TNFi treatment (RR = 0.60 [95% CI 0.42-0.87], P = 0.26, I-2 = 25%)."

According to the news editors, the research concluded: "This meta-analysis showed an increased risk of SSI in patients under TNF inhibitor, and a decreased risk of SSI in case of interruption of treatment during the perioperative time."


The news editors report that additional information may be obtained by contacting M. Clay, Grenoble Teaching Hosp, Hopital Sud, Dept. of Rheumatol, F-38130 Echirolles, France. Additional authors for this research include A. Mazouyes, M. Gilson, P. Gaudin and A. Baillet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jbspin.2015.10.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Echirolles, France, Europe, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Rheumatoid Arthritis, Surgery, Department of Rheumatology.
Reports from Dixie Regional Medical Center Advance Knowledge in Blood Transfusion (Bilirubin levels and phototherapy use before and after neonatal red blood cell transfusions)

Transfusion Medicine - Blood Transfusion

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Transfusion Medicine - Blood Transfusion is the subject of a report. According to news reporting out of St. George, Utah, by NewsRx editors, research stated, "Our previous retrospective study suggested that red blood cell (RBC) transfusion of preterm neonates can be associated with an increase in bilirubin, but this has not been tested prospectively. We studied neonates before and after RBC transfusions, recording serial bilirubin levels and whether they qualified for phototherapy."

Our news journalists obtained a quote from the research from Dixie Regional Medical Center, "Because lysed RBCs release plasma-free hemoglobin (Hb), a precursor to bilirubin, we also measured plasma free Hb and bilirubin from the donor blood. We studied 50 transfusions given to 39 neonates. Gestation ages of transfused neonates, at birth, were 26 (24-29) weeks (median [interquartile range]); birthweights were 750 (620-1070) g. The study transfusion was given on Day of Life 9.9 (3.4-19.2). In 20% (10/50) phototherapy was being administered at the beginning of and during the transfusion. In these patients neither the 4- to 6- nor the 24- to 36-hour-posttransfusion bilirubin levels were significantly higher than before transfusion. However, in 30% of the others (12/40) phototherapy was started (or restarted) after the transfusion and 15% had a posttransfusion bilirubin increase of at least 2.5 mg/dL. These neonates received donor blood with a higher plasma-free Hb (p < 0.05). Neonates commonly qualify for phototherapy after transfusion. A minority (15% in this series) have a posttransfusion bilirubin increase of at least 2.5 mg/dL."

According to the news editors, the research concluded: "We speculate that neonates qualifying for a RBC transfusion, who are judged to be at high risk for bilirubin-induced neurotoxicity, might benefit from checking their serum bilirubin level after the transfusion and providing donor blood with low plasma-free Hb levels."


Our news journalists report that additional information may be obtained by contacting P.D. Carroll, Dixie Reg Med Center, Neonatol, St George, UT, United States. Additional authors for this research include R.D. Christensen, V.L. Baer, M.J. Sheffield, E. Gerday and S.J. Ilstrup.

Keywords for this news article include: St. George, Utah, United States, North and Central America, Transfusion Medicine, Drugs and Therapies, Biological Factors, Blood Transfusion, Medical Devices, Bile Pigments, Photomedicine, Phototherapy, Blood Cells, Hematology, Bilirubin, Therapy, Plasma, Dixie Regional Medical Center.
Reports from Dongguk University Highlight Recent Findings in Angiotensin II Inhibitors (Alteration of the intravenous and oral pharmacokinetics of valsartan via the concurrent use of gemfibrozil in rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Angiotensin II Inhibitors have been presented. According to news reporting originating in Goyang, South Korea, by NewsRx journalists, research stated, "The present study aimed to examine the potential pharmacokinetic drug interaction between valsartan and gemfibrozil. Compared with the control given valsartan (10 mg/kg) alone, the concurrent use of gemfibrozil (10 mg/kg) significantly (p <0.05) increased the oral exposure of valsartan in rats."

The news reporters obtained a quote from the research from Dongguk University, "In the presence of gemfibrozil, the C-max and AUC of oral valsartan increased by 1.7- and 2.5-fold, respectively. Consequently, the oral bioavailability of valsartan was significantly higher (p <0.05) in the presence of gemfibrozil compared with that of the control group. Furthermore, the intravenous pharmacokinetics of valsartan (1 mg/kg) was also altered by pretreatment with oral gemfibrozil (10 mg/kg). The plasma clearance of valsartan was decreased by two-fold in the presence of gemfibrozil, while the plasma half-life was not altered. In contrast, both the oral and intravenous pharmacokinetics of gemfibrozil were not affected by the concurrent use of valsartan. The cellular uptake of valsartan and gemfibrozil was also investigated by using cells overexpressing OATP1B1 or OATP1B3. Gemfibrozil and gemfibrozil 1-O-beta glucuronide inhibited the cellular uptake of valsartan with IC50 values (\mu M) of 39.3 and 20.4, respectively, in MDCK/OATP1B1, while they were less interactive with OATP1B3. The cellular uptake of gemfibrozil was not affected by co-incubation with valsartan in both cells."

According to the news reporters, the research concluded: "Taken together, the present study suggests the potential drug interaction between valsartan and gemfibrozil, at least in part, via the OATP1B1-mediated transport pathways during hepatic uptake."


Our news correspondents report that additional information may be obtained by contacting H.K. Han, Dongguk Univ Seoul, Coll Pharm, Plus Project Team BK21, Goyang 410820, South Korea. Additional authors for this research include B.J. Kim, L.X. Mo and H.K. Han.

Keywords for this news article include: Goyang, South Korea, Asia, Antihyperlipidemic Agents, Angiotensin II Inhibitors, Fibric Acid Derivatives, Cardiovascular Agents, Drugs and Therapies, Gemfibrozil Therapy, Organic Chemicals, Valsartan Therapy, Pharmacokinetics, Carboxylic Acids, Pharmaceuticals, Pentanoic Acids, Clofibric Acid, Dongguk University.
Digestive System Diseases and Conditions - Crohn's...

Reports from E.D. Deeks and Colleagues Advance Knowledge in Crohn's Disease (Certolizumab Pegol: A Review in Inflammatory Autoimmune Diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Crohn's Disease. According to news reporting originating from Auckland, New Zealand, by NewsRx editors, the research stated, "Certolizumab pegol (Cimzia(A®)) is a subcutaneously administered polyethylene glycolylated (PEGylated) antigen-binding fragment of a recombinant human monoclonal antibody that selectively neutralizes TNF alpha. The drug is indicated for a variety of inflammatory autoimmune diseases, including Crohn's disease (CD), rheumatoid arthritis (RA), psoriatic arthritis (PsA) and axial spondyloarthritis (axSpA), based on its benefit in these settings in well-designed clinical trials."

Our news editors obtained a quote from the research, "In these studies, certolizumab pegol (as first- or subsequent-line therapy) reduced the severity of CD when used as an induction or maintenance therapy, and improved the signs/symptoms and slowed the radiographic progression of RA (with or without concomitant methotrexate), PsA and axSpA. Certolizumab pegol is generally well tolerated, with upper respiratory tract infections, rash and urinary tract infections being among the most frequent adverse reactions."

According to the news editors, the research concluded: "Thus, certolizumab pegol is an effective option for the management of these autoimmune diseases."


The news editors report that additional information may be obtained by contacting E.D. Deeks, Springer, Auckland 0754, New Zealand.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40259-016-0197-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Auckland, New Zealand, Australia and New Zealand, Digestive System Diseases and Conditions, Musculoskeletal Diseases and Conditions, Tumor Necrosis Factor (TNF) Inhibitors, Immune System Diseases and Conditions, Certolizumab Pegol, Article Review, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Monoclonal Antibodies, Rheumatoid Arthritis, Drugs and Therapies, Immunologic Agents, Crohn's Disease, Biotechnology, Immunology.

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Reports from E.D. Deeks et al Highlight Recent Findings in Clinical Dermatology (Deoxycholic Acid: A Review in Submental Fat Contouring)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Dermatology - Clinical Dermatology.

According to news reporting from Auckland, New Zealand, by NewsRx editors, the research stated, "Deoxycholic acid is a secondary bile acid involved in dietary fat emulsification/solubilization that causes adipocyte lysis when injected into subcutaneous fat tissue. A 10 mg/mL injectable solution of synthetic deoxycholic acid (Kybella™; Belkyra™) is indicated in various countries, including the USA and several within Europe/the EU, to improve the appearance of moderate to severe convexity or fullness associated with submental fat (SMF) in adults, where it is currently the only approved treatment for fat below the chin."

The news correspondents obtained a quote from the research, "In several phase III trials conducted in this setting, injecting deoxycholic acid 2 mg/cm(2) into the SMF reduced the convexity/fullness of moderate to severe SMF relative to placebo (with a single treatment comprising up to 50 injections, and up to six treatments given at least 1 month apart). These SMF benefits (which were measured subjectively by clinicians and recipients, as well as objectively, 12 weeks after the last treatment session) generally occurred without detriment to skin laxity and were largely maintained over extended follow-up (e.g. 2 years after treatment). Deoxycholic acid injections are generally well tolerated, with adverse events usually involving the treatment area, being mild to moderate in severity and resolving within approximately one treatment interval. However, not all patients with SMF may be suitable for deoxycholic acid therapy, making patient selection key to achieving desired aesthetic outcomes."

According to the news reporters, the research concluded: "Thus, deoxycholic acid injections are an effective and generally well tolerated, minimally invasive option for the treatment of moderate to severe SMF in select adults."


Our news journalists report that additional information may be obtained by contacting E.D. Deeks, Springer, Auckland 0754, New Zealand.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40257-016-0231-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Auckland, New Zealand, Australia and New Zealand, Clinical Dermatology, Dermatology, Article Review.

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Reports from Eli Lilly Advance Knowledge in Immunoglobulins (Therapeutic Antibody Engineering To Improve Viscosity and Phase Separation Guided by Crystal Structure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Immunoglobulins have been published. According to news reporting originating from Indianapolis, Indiana, by NewsRx correspondents, research stated, "Antibodies at high concentrations often reveal unanticipated biophysical properties suboptimal for therapeutic development. The purpose of this work was to explore the use of point mutations based on crystal structure information to improve antibody physical properties such as viscosity and phase separation (LLPS) at high concentrations."

Our news editors obtained a quote from the research from Eli Lilly, "An IgG4 monoclonal antibody (Mab4) that exhibited high viscosity and phase separation at high concentration was used as a model system. Guided by the crystal structure, four CDR point mutants were made to evaluate the role of hydrophobic and charge interactions on solution behavior. Surprisingly and unpredictably, two of the charge mutants, R33G and N35E, showed a reduction in viscosity and a lower propensity to form LLPS at high concentration compared to the wild-type (WT), while a third charge mutant S28K showed an increased propensity to form LLPS compared to the WT. A fourth mutant, F102H, had reduced hydrophobicity, but unchanged viscosity and phase separation behavior. We further evaluated the correlation of various biophysical measurements including second virial coefficient (A2), interaction parameter (kD), weight-average molecular weight (WAMW), and hydrodynamic diameters (DH), at relatively low protein concentration (4 to 15 mg/mL) to physical properties, such as viscosity and liquid-liquid phase separation (LLPS), at high concentration. Surprisingly, kD measured using dynamic light scattering (DLS) at low antibody concentration correlated better with viscosity and phase separation than did A2 for Mab4."

According to the news editors, the research concluded: "Our results suggest that the high viscosity and phase separation observed at high concentration for Mab4 are mainly driven by charge and not hydrophobicity."

For more information on this research see: Therapeutic Antibody Engineering To Improve Viscosity and Phase Separation Guided by Crystal Structure. Molecular Pharmaceutics, 2016;13(3):915-23. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news editors report that additional information may be obtained by contacting C.K. Chow, Biotechnology Discovery Research, Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, Indiana 46285, United States. Additional authors for this research include B.W. Allan, Q. Chai, S. Atwell and J. Lu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00817. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Immunology, Engineering, Indianapolis, United States, Blood Proteins, Immunoglobulins, North and Central America.

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Reports from Erasmus University Medical Center Add New Data to Findings in Pharmacokinetics (Facilitating the implementation of pharmacokinetic-guided dosing of prophylaxis in haemophilia care by discrete choice experiment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Pharmacokinetics are discussed in a new report. According to news originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, 'Patients', parents' and providers' preferences with regard to medical innovations may have a major impact on their implementation. To evaluate barriers and facilitators for individualized pharmacokinetic (PK)-guided dosing of prophylaxis in haemophilia patients, parents of young patients, and treating professionals by discrete choice experiment (DCE) questionnaire.'

Funders for this research include ZonMw, Novartis, Dutch Organization for Health Research and Development, ASPIRE, Pfizer, Baxter International, Bayer Schering Pharma and Sanquin, CSL Behring, Eurocept, Novo Nordisk.

Our news journalists obtained a quote from the research from Erasmus University Medical Center, "The study population consisted of patients with haemophilia currently or previously on prophylactic treatment with factor concentrate (n=114), parents of patients aged 12-18 years (n=19) and haemophilia professionals (n =91). DCE data analysis was performed, taking preference heterogeneity into account. Overall, patients and parents, and especially professionals were inclined to opt for PK-guided dosing of prophylaxis. In addition, if bleeding was consequently reduced, more frequent infusions were acceptable. However, daily dosing remained an important barrier for all involved. 'Reduction of costs for society' was a facilitator for implementation in all groups. To achieve implementation of individualized PK-guided dosing of prophylaxis in haemophilia, reduction of bleeding risk and reduction of costs for society should be actively discussed as they are motivating for implementation; daily dosing is still reported to be a barrier for all groups.'"

According to the news editors, the research concluded: "The knowledge of these preferences will enlarge support for this innovation, and aid in the drafting of implementable guidelines and information brochures for patients, parents and professionals."


The news correspondents report that additional information may be obtained from J. Lock, Dept. of Paediatric Haematology, Erasmus University Medical Centre - Sophia Children's Hospital, Rotterdam, Netherlands. Additional authors for this research include E.W. de Bekker-Grob, G. Urhan, M. Peters, K. Meijer, P. Brons, F.J. van der Meer, M.H. Driessens, P.W. Collins, K. Fijnvandraat, F.W. Leebeek and M.H Cnossen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hae.12851. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Europe, Rotterdam, Netherlands, Pharmacokinetics, Risk and Prevention.
Reports from Exponent Add New Data to Findings in Environmental Health Research (Systematic review and meta-analysis of glyphosate exposure and risk of lymphohematopoietic cancers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Environmental Health - Environmental Health Research have been presented. According to news originating from Menlo Park, California, by NewsRx correspondents, research stated, "This systematic review and meta-analysis rigorously examines the relationship between glyphosate exposure and risk of lymphohematopoietic cancer (LHC) including NHL, Hodgkin lymphoma (HL), multiple myeloma (MM), and leukemia. Meta-relative risks (meta-RRs) were positive and marginally statistically significant for the association between any versus no use of glyphosate and risk of NHL (meta-RR=1.3, 95% confidence interval (CI)=1.0-1.6, based on six studies) and MM (meta-RR=1.4, 95% CI=1.0-1.9; four studies)."

Our news journalists obtained a quote from the research from Exponent, "Associations were statistically null for HL (meta-RR=1.1, 95% CI=0.7-1.6; two studies), leukemia (meta-RR=1.0, 95% CI=0.6-1.5; three studies), and NHL subtypes except B-cell lymphoma (two studies each). Bias and confounding may account for observed associations. Meta-analysis is constrained by few studies and a crude exposure metric, while the overall body of literature is methodologically limited and findings are not strong or consistent."

According to the news editors, the research concluded: "Thus, a causal relationship has not been established between glyphosate exposure and risk of any type of LHC."


The news correspondents report that additional information may be obtained from E.T. Chang, a Center for Epidemiology and Computational Biology, Health Sciences Practice, Exponent, Inc, Menlo Park, California and Alexandria, Virginia, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/03601234.2016.1142748. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Oncology, Menlo Park, California, United States, North and Central America, Environmental Health Research.

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Nutritional and Metabolic Diseases and Conditions - …

Reports from Faculty of Medicine Describe Recent Advances in Dyslipidemias (Retinal oximetry during treatment of retina vein occlusion by ranibizumab in patients with high blood pressure and dyslipidemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Dyslipidemias have been published. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "- In the present study, we examined retinal vascular oxygen saturation in patients with retinal vein occlusion (RVO), high blood pressure (HBP) and dyslipidemia, before and during intravitreal vascular endothelial growth factor (VEGF) injection (ranibizumab). - We retrospectively reviewed the medical records of six patients with visual acuity (VA) reduced by macular edema (ME) secondary to RVO with HBP and dyslipidemia, who underwent intravitreal anti-VEGF injection between October 2014 and February 2015 in the department of ophthalmology of Francois-Quesnay Hospital at Mantes-la-Jolie (France)."

The news reporters obtained a quote from the research from the Faculty of Medicine, "The main inclusion criterion was the presence of RVO with ME and decreased VA. The primary end-point was improvement of retinal venous oxygen saturation in patients with RVO before and 3 months after intravitreal ranibizumab injection. Secondary outcomes were improvement of retinal arterial oxygen saturation, improvement of best-corrected visual acuity (BCVA) on the Early Treatment Diabetic Retinopathy Study (ETDRS) scale, regression of ME measured by the central macular thickness (CMT) in nm and studying the correlation between blood pressure (BP) and retinal venous oxygen saturation before and after ranibizumab. - Six eyes of six patients were included. Before treatment, the mean (standard deviation [SD]) of the retinal venous saturation (%) was 38.1 +/- 14.2. Three months after the injections, the mean (SD) of the retinal venous saturation (%) increased statistically significantly 49.2 +/- 11 (P=0.03)."

According to the news reporters, the research concluded: "- In this study, retinal venous oxygen saturation in patients with RVO, HBP and dyslipidemia was partially normalized during intravitreal ranibizumab treatment."


Our news correspondents report that additional information may be obtained by contacting C. Keilani, Pierre & Marie Curie Paris VI, Fac Med, Dept. of Vasc Neurol, Hopital Univ Pitie Salpetriere, F-75013 Paris, France. Additional authors for this research include A. Halalchi, D.W. Djeugue, A. Regis and S. Abada.

Keywords for this news article include: Paris, France, Europe, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Blood Pressure, Dyslipidemias, Hypertension, Chalcogens, Faculty of Medicine.

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Oncology - Non-Hodgkin Lymphoma

Reports from Faculty of Sciences Advance Knowledge in Non-Hodgkin Lymphoma (Early manifestation of mild cognitive impairment in B-cell non-Hodgkin's lymphoma patients receiving CHOP and rituximab-CHOP chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Non-Hodgkin Lymphoma is the subject of a report. According to news reporting originating in New Delhi, India, by NewsRx journalists, research stated, "Existing evidence suggests that pro-inflammatory cytokines increases during chemotherapy which plays an intermediary role in Chemotherapy related cognitive impairment (CRCI) and thyroid dysregulation. Previous studies suggest that thyroid hormones are essential for neuronal development and neurotransmitter release."

The news reporters obtained a quote from the research from the Faculty of Sciences, "CHOP regimen has been the backbone of Non-Hodgkin's lymphoma (NHL) treatment from a decade but rituximab addition to CHOP (R-CHOP) has improved cure rates. However, their adverse event profile on behavior is not well studied on patients. In this study total 68 NHL patients were enrolled and divided equally in 2 groups as CHOP receiving (n = 34) and R-CHOP receiving (n = 34). Effects of R-CHOP and CHOP regimen on thyroid function, pro-inflammatory cytokines and cognitive function were determined at four time points that was from one day before 1st (TP0), 2nd (TP1), 3rd (TP2) and 4th (TP3) cycle of chemotherapy. Results indicated significant increase in levels of pro-inflammatory cytokines after each time point from TP0 to TP3 of chemotherapy. Thyroid hormone levels i.e. T3, T4 were found significantly decreased and TSH was increased after each time point of both groups. MMSE score was found significantly decreased after each cycle of both groups. However, an inverse association was found between IL-1 beta levels with TSH by applying correlation coefficient. Cognitive function was decreased in patients with decreased T3 and T4 levels and increased TSH."

According to the news reporters, the research concluded: "To conclude, patients receiving R-CHOP regimen were found to have more increased IL-6 and IL-1 beta with more cognitive decline and thyroid abnormality as comparison to CHOP receiving patients."

For more information on this research see: Early manifestation of mild cognitive impairment in B-cell non-Hodgkin's lymphoma patients receiving CHOP and rituximab-CHOP chemotherapy. *Naunyn-Schmiedebergs Archives of Pharmacology*, 2016;389(12):1253-1265. *Naunyn-Schmiedebergs Archives of Pharmacology* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

Our news correspondents report that additional information may be obtained by contacting N.B. Agarwal, Jamia Hamdard, Fac Sci, Center Translat & Clin Res, New Delhi 110062, India. Additional authors for this research include K. Garg, D. Bhurani and N.B. Agarwal.

Keywords for this news article include: New Delhi, India, Asia, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Non-Hodgkin Lymphoma, Drugs and Therapies, Chemotherapy, Hematology, Cytokines, Lymphomas, Oncology, Faculty of Sciences.

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**Biological Factors - Metalloporphyrins**

**Reports from Federal University Add New Data to Findings in Metalloporphyrins (Protein aggregation as a cellular response to oxidative stress induced by heme and iron)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biological Factors - Metalloporphyrins.

According to news originating from Rio de Janeiro, Brazil, by NewsRx correspondents, research stated, "Hemolytic diseases include a variety of conditions with diverse etiologies in which red blood cells are destroyed and large amounts of heme proteins are released. Heme has been described as a potent proinflammatory molecule that is able to induce multiple innate immune responses, such as those triggered by TLR4 and the NLRP3 inflammasome, as well as necroptosis in macrophages."

Our news journalists obtained a quote from the research from Federal University, "The mechanisms by which eukaryotic cells respond to the toxic effects induced by heme to maintain homeostasis are not fully understood, however. Here we describe a previously uncharacterized cellular response induced by heme: the formation of p62/SQTM1 aggregates containing ubiquitinated proteins in structures known as aggresome-like induced structures (ALIS). This action is part of a response driven by the transcription factor NRF2 to the excessive generation of reactive oxygen species induced by heme that results in the expression of genes involved in antioxidant responses, including p62/SQTM1. Furthermore, we show that heme degradation by HO-1 is required for ALIS formation, and that the free iron released on heme degradation is necessary and sufficient to induce ALIS. Moreover, ferritin, a key protein in iron metabolism, prevents excessive ALIS formation. Finally, in vivo, hemolysis promotes an increase in ALIS formation in target tissues."

According to the news editors, the research concluded: "Our data unravel a poorly understood aspect of the cellular responses induced by heme that can be explored to better understand the effects of free heme and free iron during hemolytic diseases such as sickle cell disease, dengue fever, malaria, and sepsis."


The news correspondents report that additional information may be obtained from L.H. Travassos, Federal University of Rio de Janeiro, Inst Biofis Carlos Chagas Filho, Lab Imunoreceptores & Sinalizacao, BR-21941902 Rio De Janeiro, RJ, Brazil. Additional authors for this research include F.F. Dutra, M.S. Siqueira, H.A. Paula-Neto, J. Dahan, E. Kiarely, L.A.M. Carneiro, M.T. Bozza and L.H. Travassos.

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Keywords for this news article include: Rio de Janeiro, Brazil, South America, Biological Factors, Hemolytic Disease, Metalloporphyrins, Hematology, Genetics, Heme,
Reports from Federal University Add New Data to Findings in Obesity (Chewing in adolescents with overweight and obesity: An exploratory study with behavioral approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news reporting originating from Diadema, Brazil, by NewsRx correspondents, research stated, "Physiological and behavioral aspects of masticatory function may have an impact on nutritional status, which has been little studied. The aim was to perform a comprehensive evaluation of objective, subjective and behavioral aspects of masticatory function in 231 adolescents, aged 14-17 years and compare these parameters between normal-weight (n = 115) and adolescents with overweight/obesity (n = 116)."

Our news editors obtained a quote from the research from Federal University, "Objective aspects were examined by the Oro-facial Myofunctional Evaluation-expanded protocol (OMES-e), determining the masticatory type, chewing time/frequency, abnormal movements, and other; masticatory performance (color changeable chewing gum) and bite force were also explored. The subjective and behavioral evaluations were assessed using the Quality of Mastication Function Questionnaire, which explores the masticatory behavior and frequency/intensity of difficulty in chewing different types of foods. Results were submitted to normality tests, Chi-square, unpaired t-test and Mann-Whitney. A multiple linear regression model was used to evaluate which of the variables under study contributed to the variation in Percent Body Fat (alpha = 0.05). The results showed that OMES-e total score differed significantly between groups, that is, individuals with overweight showed more changes in oro-facial myofunctional aspects than normal-weight ones. Unilateral mastication was more frequent among females with overweight/obesity. They also showed greater difficulty on Habits and Fruit domains, reporting the need of adding sauce to the meal to facilitate swallowing and peeling and cutting fruit (apples) in small pieces in order to better chew them. OMES-e total score also showed a significant relationship with Percent Body Fat. Masticatory performance evaluated by chewing gum and bite force did not differ between groups."

According to the news editors, the research concluded: "This study showed that adolescents with excess weight presented changes in masticatory behavior and greater difficulty in performing the masticatory function comparing to normal-weight ones."


The news editors report that additional information may be obtained by contacting P.M. Castelo, Federal University of Sao Paulo, Dept. of Biol Sci, UNIFESP, BR-09913030 Diadema, SP, Brazil. Additional authors for this research include D.S. Araujo, K.G.D. Scudine, D.G.D. Prado, D. Lima and P.M. Castelo.
Oncology - Breast Cancer

Reports from Federal University Provide New Insights into Breast Cancer (Physical activity, fatigue and quality of life in breast cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting out of Natal, Brazil, by NewsRx editors, research stated, "to evaluate the relationship between levels of physical activity, fatigue and quality of life (QOL) in women diagnosed with breast cancer. 215 women between the ages of 40 and 65 years were recruited at a cancer clinic."

Our news journalists obtained a quote from the research from Federal University, "Physical activity levels were assessed by using the International Physical Activity Questionnaire (IPAQ), fatigue levels by using the revised Piper scale, and QOL by means of EORTC QLQ-C30 and WHOQOL-Bref. Statistical analysis was performed using Minitab statistical software, version 16. the mean age of subjects was 52.66 years (SD=8.6); patients were mostly white (58.14%) and overweight (55.81%). Most women were fatigued (72.09%) while physically active women showed lower symptoms of fatigue (p <0.001). Mean scores for QOL were significantly lower among fatigued women (p <0.001). More active women scored higher on all scales of QOL (EORTC), especially for functional capacity (p <0.001), compared with the sedentary patients. A significant association was found between level of physical activity and overall QOL (WHOQOL-Bref) for all domains (p <0.001). Climacteric symptoms ranged from mild to strong and did not show any statistically significant results; however, the most active women had the fewest symptoms."

According to the news editors, the research concluded: "Physical activity appears to positively influence fatigue and QOL in women diagnosed with breast cancer."


Our news journalists report that additional information may be obtained by contacting A.C. Canario, Health Sciences Graduate Program, Universidade Federal do Rio Grande do Norte, Natal, RN, Brazil. Additional authors for this research include P.U. Cabral, L.C. de Paiva, G.L. Florencio, M.H. Spyrides and A.K Goncalves.

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Keywords for this news article include: Natal, Brazil, Oncology, South America, Breast Cancer, Women's Health, Quality of Life, Diagnostics and Screening.
Reports from First Affiliated Hospital Highlight Recent Findings in Experimental Autoimmune Encephalomyelitis [Enhanced Neuroprotective Effects of Combination Therapy with Bone Marrow-Derived Mesenchymal Stem Cells and Ginkgo biloba Extract...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Autoimmune Diseases and Conditions - Experimental Autoimmune Encephalomyelitis have been published. According to news reporting originating from Dalian, People's Republic of China, by NewsRx correspondents, research stated, "We investigated whether Ginkgo biloba extract (EGb761) can provide neuroprotective effects and enhance the efficacy of bone marrow-derived mesenchymal stem cells (BMSCs) in a rat model of experimental autoimmune encephalomyelitis (EAE). We examined the synergistic action of BMSCs combined with EGb761 treatment in EAE rats."

Our news editors obtained a quote from the research from First Affiliated Hospital, "The immunized rats received an intravenous injection of BMSCs or intraperitoneal administration of EGb761 or both on the day of the onset of clinical symptoms and for the following 21 days. Clinical severity scores were recorded daily and histopathological examination of the spinal cord and cytokine concentrations in the serum were studied on days 14 and 31 postimmunization. Our results showed that combined treatment with BMSCs and EGb761 further decreased the disease severity, maximal clinical score and number of infiltrated mononuclear cells, especially CD3-positive T cells. We observed that the demyelination score and the density of axonal loss in the spinal cord were significantly reduced in mice receiving the combination therapy. The serum concentrations of the phosphorylated neurofilament heavy chain, tumor necrosis factor-a and interferon-g were reduced in the combination-treatment group."

According to the news editors, the research concluded: "Our results suggest that combined treatment with BMSCs and EGb761 have a synergistic effect in rats with EAE by inhibiting the secretion of proinflammatory cytokines, demyelination and protecting axons and neurons."

For more information on this research see: Enhanced Neuroprotective Effects of Combination Therapy with Bone Marrow-Derived Mesenchymal Stem Cells and Ginkgo biloba Extract (EGb761) in a Rat Model of Experimental Autoimmune Encephalomyelitis. Neuroimmunomodulation, 2015;23(1):41-57. (Karger - www.karger.com/; Neuroimmunomodulation - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224176)

The news editors report that additional information may be obtained by contacting F. Hao, Dept. of Neurology, The First Affiliated Hospital of Dalian Medical University, Dalian, People's Republic of China. Additional authors for this research include A. Li, H. Yu, M. Liu, Y. Wang, J. Liu and Z. Liang.

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Keywords for this news article include: Asia, Dalian, Bone Marrow, Encephalitis, Bone Research, Immune System, Stem Cell Research, Combination Therapy, Drugs and Therapies, Mesenchymal Stem Cells, People's Republic of China, Brain Diseases and Conditions, Central Nervous System Infections, Autoimmune Diseases and Conditions.

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Congenital Diseases and Conditions - Congenital...

Reports from Florida Hospital Describe Recent Advances in Congenital Heart Disease (Prevalence of Noncardiac and Genetic Abnormalities in Neonates Undergoing Cardiac Operations: Analysis of The Society of Thoracic Surgeons Congenital Heart ...

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Congenital Diseases and Conditions - Congenital Heart Disease. According to news reporting out of Orlando, Florida, by NewsRx editors, research stated, "Among patients with congenital heart disease (CHD), the coexistence of noncardiac congenital anatomic abnormalities (NC), genetic abnormalities (GA), and syndromes (S) may influence therapeutic strategies and outcomes. The appreciated prevalence of these abnormalities has risen because increased screening and improved diagnostic precision enable identification of these comorbidities in a larger fraction of neonates with CHD."

Our news journalists obtained a quote from the research from Florida Hospital, "We examined the contemporary prevalence and distribution of NC/GA/S across diagnostic groups among neonates undergoing cardiac operations using a large nationally representative clinical registry. The Society of Thoracic Surgeons Congenital Heart Surgery Database (STS-CHSD) was queried to identify neonates (<= 30 days) who underwent index cardiac operations from 2010 to 2013. The fundamental cardiac diagnosis was used to identify 10 diagnostic groups. The prevalence of NC/GA/S was reported across each group. The cohort included 15,576 index neonatal operations from 112 centers. Overall, 18.8% (2,894 of 15,376) of operations were performed in neonates with NC/GA/S. Patients with atrioventricular septal defect (212 of 357 [59.4%]), interrupted aortic arch (248 of 567 [43.7%]), truncus arteriosus (204 of 554 [36.8%]), and tetralogy of Fallot (417 of 1,383 [30.2%]) had the highest prevalence of NC/GA/S abnormalities, whereas those with transposition of the great arteries (111 of 2,778 [4.0%]) had the lowest prevalence. The most commonly identified NC/GA/S included heterotaxy (597 of 15,376 [3.9%]), DiGeorge syndrome or 22q11 deletion (550 of 15,376 [3.6%]), Down syndrome or trisomy 21 (318 of 15,376 [2.1%]), intestinal malrotation (220 of 15,376 [1.4%]), and Turner syndrome or 45XO (189 of 15,376 [1.2%]). The prevalence of NC/GA/S varies widely across CHD diagnostic groups."

According to the news editors, the research concluded: "This information may be useful for patient counseling, recommendations for screening for anomalies and genetic disorders, and perioperative management."


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Keywords for this news article include: Orlando, Florida, United States, North and Central America, Cardiology, Diagnostics and Screening, Congenital Diseases and Conditions, Heart Disorders and Diseases, Congenital Heart Disease, Heart Surgery, Genetics, Florida Hospital.

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Oncology - Bone Cancer

Reports from Fourth Military Medical University Highlight Recent Findings in Bone Cancer (The analgesic effect of rolipram is associated with the inhibition of the activation of the spinal astrocytic JNK/CCL2 pathway in bone cancer pain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Bone Cancer are presented in a new report. According to news reporting originating in Shaanxi, People's Republic of China, by NewsRx journalists, research stated, "Bone cancer pain (BCP) is one of the most difficult and intractable tasks for pain management, which is associated with spinal 'neuron-astrocytic' activation. The activation of the c-Jun N-terminal kinase (JNK)/chemokine (C-C motif) ligand (CCL2) signaling pathway has been reported to be critical for neuropathic pain."

The news reporters obtained a quote from the research from Fourth Military Medical University, "Rolipram (ROL), a selective phosphodiesterase 4 inhibitor, possesses potent anti-inflammatory and anti-nociceptive activities. The present study aimed to investigate whether the intrathecal administration of ROL has an analgesic effect on BCP in rats, and to assess whether the inhibition of spinal JNK/CCL2 pathway and astrocytic activation are involved in the analgesic effects of ROL. The analgesic effects of ROL were evaluated using the Von Frey and Hargreaves tests. Immunofluorescence staining was used to determine the number of c-Fos immunoreactive neurons, and the expression of spinal astrocytes and microglial activation on day 14 after tumor cell inoculation. Enzyme-linked immunosorbent assay (ELISA) was used to detect the expression of pro-inflammatory cytokines [interleukin (IL)-1, IL-6 and tumor necrosis factor (TNF)-] and chemokines (CCL2), and western blot analysis was then used to examine the spinal phosphodiesterase 4 (PDE4), ionized calcium binding adapter molecule-1 (IBA-1) and JNK levels on day 14 after tumor cell inoculation. The results revealed that ROL exerted a short-term analgesic effect in a dose-dependent manner, and consecutive daily injections of ROL exerted continuous analgesic effects. In addition, spinal 'neuron-astrocytic' activation was suppressed and was associated with the downregulation of spinal IL-1, IL-6 and TNF-expression, and the inhibition of PDE4B and JNK levels in the spine was also observed. In addition, the level of CCL2 was decreased in the rats with BCP. The JNK inhibitor, SP600125,
decreased CCL2 expression and attenuated pain behavior. Following co-treatment with ROL and SP600125, no significant increases in thermal hyperalgesia and CCL2 expression were observed compared with the ROL group."

According to the news reporters, the research concluded: "Thus, our findings suggest that the analgesic effects of ROL in BCP are mainly mediated through the inhibition of 'neuron-astrocytic' activation, which occurs via the suppression of spinal JNK/CCL2 signaling."

For more information on this research see: The analgesic effect of rolipram is associated with the inhibition of the activation of the spinal astrocytic JNK/CCL2 pathway in bone cancer pain. *International Journal of Molecular Medicine*, 2016;38(5):1433-1442. *International Journal of Molecular Medicine* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

Our news correspondents report that additional information may be obtained by contacting S.X. Wu, Fourth Military Medical University, Collaborat Innovat Center Brain Sci, Xian 710032, Shaanxi, People's Republic of China. Additional authors for this research include L. Bai, H.H. Wu, J. Yang, G.H. Cai, X. Wang, S.X. Wu and W. Ma.

Keywords for this news article include: Shaanxi, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Monocyte Chemoattractant Proteins, Neurologic Manifestations, Inflammation Mediators, Enzymes and Coenzymes, Chemotactic Factors, Phosphodiesterases, Biological Factors, Chemokine CCL2, Bone Research, Pain Medicine, CC Chemokines, Bone Cancer, Analgesics, Cytokines, Oncology, Fourth Military Medical University.

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**DNA Research**

**Reports from Fred Hutchinson Cancer Research Center Provide New Insights into DNA Research (Unexpected DNA context-dependence identifies a new determinant of Chi recombination hotspots)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on DNA Research have been presented. According to news reporting out of Seattle, Washington, by NewsRx editors, research stated, "Homologous recombination occurs especially frequently near special chromosomal sites called hotspots. In Escherichia coli, Chi hotspots control RecBCD enzyme, a protein machine essential for the major pathway of DNA break-repair and recombination."

Our news journalists obtained a quote from the research from Fred Hutchinson Cancer Research Center, "RecBCD generates recombinogenic single-stranded DNA ends by unwinding DNA and cutting it a few nucleotides to the 3' side of 5' GCTGGTGG 3', the sequence historically equated with Chi. To test if sequence context affects Chi activity, we deep-sequenced the products of a DNA library containing 10 random base-pairs on each side of the Chi sequence and cut by purified RecBCD. We found strongly enhanced cutting at Chi with certain preferred sequences, such as A or G at nucleotides 4-7, on the 3' flank of the Chi octamer. These sequences also strongly increased Chi hotspot activity in E. coli cells."

According to the news editors, the research concluded: "Our combined enzymatic and genetic results redefine the Chi hotspot sequence, implicate the nuclease domain in Chi recognition, indicate that nicking of one strand at Chi is RecBCD's biologically important
reaction in living cells, and enable more precise analysis of Chi's role in recombination and genome evolution."


Our news journalists report that additional information may be obtained by contacting G.R. Smith, Fred Hutchinson Canc Res Center, Div Basic Sci, Seattle, WA 98109, United States. Additional authors for this research include S.K. Amundsen and G.R. Smith.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/nar/gkw541. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, DNA Research, Genetics, Fred Hutchinson Cancer Research Center.

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**Ebola Virus**

**Reports from French National Institute of Health and Medical Research (INSERM) Advance Knowledge in Ebola Virus [Experimental Treatment with Favipiravir for Ebola Virus Disease (the JIKI Trial): A Historically Controlled, Single-Arm ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Ebola Virus are presented in a new report. According to news reporting originating in Bordeaux, France, by NewsRx journalists, research stated, "Ebola virus disease (EVD) is a highly lethal condition for which no specific treatment has proven efficacy. In September 2014, while the Ebola outbreak was at its peak, the World Health Organization released a short list of drugs suitable for EVD research."

The news reporters obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "Favipiravir, an antiviral developed for the treatment of severe influenza, was one of these. In late 2014, the conditions for starting a randomized Ebola trial were not fulfilled for two reasons. One was the perception that, given the high number of patients presenting simultaneously and the very high mortality rate of the disease, it was ethically unacceptable to allocate patients from within the same family or village to receive or not receive an experimental drug, using a randomization process impossible to understand by very sick patients. The other was that, in the context of rumors and distrust of Ebola treatment centers, using a randomized design at the outset might lead even more patients to refuse to seek care. Therefore, we chose to conduct a multicenter non-randomized trial, in which all patients would receive favipiravir along with standardized care. The objectives of the trial were to test the feasibility and acceptability of an emergency trial in the context of a large Ebola outbreak, and to collect data on the safety and effectiveness of favipiravir in reducing mortality and viral load in patients with EVD. The trial was not aimed at directly informing future guidelines on Ebola treatment but at quickly gathering standardized preliminary data to optimize the design of future studies. Inclusion criteria were positive Ebola virus reverse
transcription PCR (RT-PCR) test, age (>=) 1 y, weight (>=) 10 kg, ability to take oral drugs, and informed consent. All participants received oral favipiravir (day 0: 6,000 mg; day 1 to day 9: 2,400 mg/d). Semi-quantitative Ebola virus RT-PCR (results expressed in 'cycle threshold' [Ct]) and biochemistry tests were performed at day 0, day 2, day 4, end of symptoms, day 14, and day 30. Frozen samples were shipped to a reference biosafety level 4 laboratory for RNA viral load measurement using a quantitative reference technique ( genome copies/milliliter).

Outcomes were mortality, viral load evolution, and adverse events. The analysis was stratified by age and Ct value. A 'target value' of mortality was defined a priori for each stratum, to guide the interpretation of interim and final analysis. Between 17 December 2014 and 8 April 2015, 126 patients were included, of whom 111 were analyzed (adults and adolescents, (>=)13 y, n= 99; young children, (<=)6 y, n=12). Here we present the results obtained in the 99 adults and adolescents. Of these, 55 had a baseline Ct value (>=) 20 (Group A Ct (>=) 20), and 44 had a baseline Ct value <20 (Group A Ct <20). Ct values and RNA viral loads were well correlated, with Ct=20 corresponding to RNA viral load=7.7 log10 genome copies/ml. Mortality was 20% (95% CI 11.6%-32.4%) in Group A Ct (>=) 20 and 91% (95% CI 78.8%-91.1%) in Group A Ct <20. Both mortality 95% CIs included the predefined target value (30% and 85%, respectively). Baseline serum creatinine was (>=)110 mmol/l in 48% of patients in Group A Ct (>=) 20 ( (>=) 300 mmol/l in 14%) and in 90% of patients in Group A Ct <20 ( (>=)300 mmol/l in 44%). In Group A Ct (>=) 20, 17% of patients with baseline creatinine (>=)110 mmol/l died, versus 97% in Group A Ct <20. In patients who survived, the mean decrease in viral load was 0.33 log10 copies/ml per day of follow-up. RNA viral load values and mortality were not significantly different between adults starting favipiravir within <72 h of symptoms compared to others. Favipiravir was well tolerated. In the context of an outbreak at its peak, with crowded care centers, randomizing patients to receive either standard care or standard care plus an experimental drug was not felt to be appropriate. We did a non-randomized trial. This trial reaches nuanced conclusions. On the one hand, we do not conclude on the efficacy of the drug, and our conclusions on tolerance, although encouraging, are not as firm as they could have been if we had used randomization. On the other hand, we learned about how to quickly set up and run an Ebola trial, in close relationship with the community and non-governmental organizations; we integrated research into care so that it improved care; and we generated knowledge on EVD that is useful to further research. Our data illustrate the frequency of renal dysfunction and the powerful prognostic value of low Ct values. They suggest that drug trials in EVD should systematically stratify analyses by baseline Ct value, as a surrogate of viral load."

According to the news reporters, the research concluded: "They also suggest that favipiravir monotherapy merits further study in patients with medium to high viremia, but not in those with very high viremia."

For more information on this research see: Experimental Treatment with Favipiravir for Ebola Virus Disease (the JIKI Trial): A Historically Controlled, Single-Arm Proof-of-Concept Trial in Guinea. Plos Medicine, 2016;13(3):e1001967. (Public Library of Science - www.plos.org; Plos Medicine - www.plosmedicine.org)

Our news correspondents report that additional information may be obtained by contacting D. Sissoko, Inserm, UMR 1219, Universite de Bordeaux, Bordeaux, France. Additional authors for this research include C. Laouenan, E. Folkesson, A.B. M'Lebing, A.H. Beavogui, S. Baize, A.M. Camara, P. Maes, S. Shepherd, C. Danel, S. Carazo, M.N. Conde, J.L. Gala, G. Colin, H. Savini, J.A. Bore, F. Le Marcis, F.R. Koundouno and Petit.

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Keywords for this news article include: France, Europe, Bordeaux, Genetics,
Reports from French National Institute of Health and Medical Research (INSERM) Highlight Recent Findings in Antibiotics (A Population and Developmental Pharmacokinetic Analysis To Evaluate and Optimize Cefotaxime Dosing Regimen in Neonates and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a new report. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "Cefotaxime is one of the most frequently prescribed antibiotics for the treatment of Gram-negative bacterial sepsis in neonates. However, the dosing regimens routinely used in clinical practice vary considerably."

Our news editors obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "The objective of the present study was to conduct a population pharmacokinetic study of cefotaxime in neonates and young infants in order to evaluate and optimize the dosing regimen. An opportunistic sampling strategy combined with population pharmacokinetic analysis using NONMEM software was performed. Cefotaxime concentrations were measured by high-performance liquid chromatography-tandem mass spectrometry. Developmental pharmacokinetics-pharmacodynamics, the microbiological pathogens, and safety aspects were taken into account to optimize the dose. The pharmacokinetic data from 100 neonates (gestational age [GA] range, 23 to 42 weeks) were modeled with an allometric two-compartment model with first-order elimination. The median values for clearance and the volume of distribution at steady state were 0.12 liter/h/kg of body weight and 0.64 liter/kg, respectively. The covariate analysis showed that current weight, GA, and postnatal age (PNA) had significant impacts on cefotaxime pharmacokinetics. Monte Carlo simulations demonstrated that the current dose recommendations underdosed older newborns. A model-based dosing regimen of 50 mg/kg twice a day to four times a day, according to GA and PNA, was established. The associated risk of overdose for the proposed dosing regimen was 0.01%.

According to the news editors, the research concluded: "We determined the population pharmacokinetics of cefotaxime and established a model-based dosing regimen to optimize treatment for neonates and young infants."

For more information on this research see: A Population and Developmental Pharmacokinetic Analysis To Evaluate and Optimize Cefotaxime Dosing Regimen in Neonates and Young Infants. Antimicrobial Agents and Chemotherapy, 2016;60(11):6626-6634. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting E. Jacqz-Aigrain, INSERM, Clin Invest Center CIC1426, Paris, France. Additional authors for this

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01045-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Third Generation Cephalosporins, Beta-Lactam Antibiotics, Drugs and Therapies, Organic Chemicals, Pharmacokinetics, Sulfur Compounds, Pharmaceuticals, Antiinfectives, Cephotaxime, Thiazines, Amides, French National Institute of Health and Medical Research (INSERM).

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Cardiovascular Diseases and Conditions --

Reports from Friedrich-Alexander-University Add New Data to Findings in Atherosclerosis (Role of the receptor Mas in macrophage-mediated inflammation in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news originating from Erlangen, Germany, by NewsRx correspondents, research stated, "Recently, an alternative renin-angiotensin system pathway has been described, which involves binding of angiotensin-(1-7) to its receptor Mas. The Mas axis may counterbalance angiotensin-II-mediated proinflammatory effects, likely by affecting macrophage function."

Financial support for this research came from Deutsche Forschungsgemeinschaft (DFG).

Our news journalists obtained a quote from the research from Friedrich-Alexander-University, "Here we investigate the role of Mas in murine models of autoimmune neuroinflammation and atherosclerosis, which both involve macrophage-driven pathomechanisms. Mas signaling affected macrophage polarization, migration, and macrophage-mediated T-cell activation. Mas deficiency exacerbated the course of experimental autoimmune encephalomyelitis and increased macrophage infiltration as well as proinflammatory gene expression in the spleen and spinal cord. Furthermore, Mas deficiency promoted atherosclerosis by affecting macrophage infiltration and migration and led to increased oxidative stress as well as impaired endothelial function in ApoE-deficient mice. In summary, we identified the Mas axis as an important factor in macrophage function during inflammation of the central nervous and vascular system in vivo."

According to the news editors, the research concluded: "Modulating the Mas axis may constitute an interesting therapeutic target in multiple sclerosis and/or atherosclerosis."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1612668113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Erlangen, Germany, Europe, Cardiovascular Diseases and Conditions, Mononuclear Phagocyte System, Arterial Oclusive Diseases, Connective Tissue Cells, Biological Factors, Peptide Proteins, Peptide Hormones, Arteriosclerosis, Atherosclerosis, Oligopeptides, Neuropeptides, Myeloid Cells, Angiotensins, Inflammation, Macrophages, Immunology, Phagocytes, Autacoids, Peptides, Genetics, Friedrich-Alexander-University.

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Kidney Diseases and Conditions - Chronic Kidney…

Reports from Gazi University Advance Knowledge in Chronic Kidney Disease (Prevalence of Chronic Kidney Disease in Turkish Adults With Obesity and Metabolic Syndrome: A Post Hoc Analysis from Chronic Renal Disease in Turkey Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Kidney Diseases and Conditions - Chronic Kidney Disease. According to news originating from Ankara, Turkey, by NewsRx correspondents, research stated, "Obesity confers an increased risk of chronic kidney disease (CKD), which is increased further by accompanying metabolic abnormalities. To investigate the relationship of the risk of CKD with obesity and metabolic syndrome (MS) in adults by means of post hoc analysis of data from the Chronic Renal Disease in Turkey (CREDIT) study."

Our news journalists obtained a quote from the research from Gazi University, "The anthropometric measurements of a total of 9,100 adult participants in the CREDIT study were included in the analyses. Subjects were classified according to the presence or absence of obesity (body mass index [BMI] > 30) and MS. Logistic regression analyses were used to estimate odds ratio for CKD. Effect modification analyses were also performed. The prevalence of obesity was 20.6% and that of MS was 31.3%. The prevalence of CKD was higher among obese subjects compared to those with a normal BMI (20.5% vs. 14%; P< .001). The odds ratio (OR) for CKD was 1.296 (95% confidence interval [CI], 1.121-1.498) for subjects who were overweight, 1.718 (95% CI, 1.444-2.044) for those with class I obesity, 1.983 (95% CI, 1.489-2.641) for those with class II obesity and 2.799 (95% CI, 1.719-4.557) for subjects with extreme obesity (P <.001 for each subgroup) compared to subjects with a normal BMI. CKD was significantly more prevalent in subjects with MS (21.9% vs. 12.3%, P< .001). The OR for CKD was higher in obese subjects with MS (adjusted OR, 1.321; 95% CI, 1.109-1.573; P = .002)."

According to the news editors, the research concluded: "The stratification of obese individuals based on their metabolic phenotype is important for prevention and treatment of CKD."

The news correspondents report that additional information may be obtained from S.M. Deger, Gazi University, Dept. of Nephrol, Fac Med, Ankara, Turkey. Additional authors for this research include S.M. Deger, K. Ates, B. Altun, T. Ecder, T. Camsari, K. Serdengecti and G. Suleymanlar.

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Keywords for this news article include: Ankara, Turkey, Eurasia, Kidney Diseases and Conditions, Chronic Kidney Disease, Gazi University.

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**Immunology - Immunoglobulins**

**Reports from Genentech, Inc. Advance Knowledge in Immunoglobulins [Custom-Designed Affinity Capture LC-MS F(ab')2 Assay for Biotransformation Assessment of Site-Specific Antibody Drug Conjugates]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Immunoglobulins have been published. According to news reporting out of San Francisco, California, by NewsRx editors, research stated, "Affinity capture liquid chromatography mass spectrometry (LC-MS) intact antibody assay has been widely used for direct drug-to-antibody ratio (DAR) and catabolite characterization of antibody-drug conjugates (ADCs). However, the intact mass spectra of new ADCs, which incorporate new types of linkers and payloads other than maytansines and auristatins, are more complex than those examined previously."

Our news journalists obtained a quote from the research from Genentech, Inc., "The current method has showed some limitations in elucidating certain structural modifications. Herein, we report an alternative analytical approach for ADCs, such as THIOMAB antibody-drug conjugates (TDCs), where the linker drugs are site-specifically conjugated in the Fab region. The newly developed affinity capture LC-MS F(ab')2 assay incorporates affinity capture of human IgGs via binding to the Fab region, followed by on-bead IdeS digestion to remove the Fc domain specifically and uniformly. The resulting F(ab')2 (similar to 100 kDa) fragments contain the key ADC biotransformation information, such as drug-to-antibody ratio and drug metabolism and are more readily analyzed by electrospray ionization LC-MS than the intact ADC (similar to 150 kDa). The reduced size of analytes results in improved mass spectral sensitivity and resolution. In addition, the reduced and optimized sample preparation time, for example, rapid removal of the Fc fragment by IdeS digestion, minimizes assay artifacts of drug metabolism and skewed DAR profiles that may result from the prolonged incubation times (e.g., overnight enzymatic treatment for Fc deglycosylation)."
According to the news editors, the research concluded: "The affinity capture LC-MS F(ab')2 assay provides more detailed and accurate information on ADC biotransformations in vivo, enabling analysis of low-dose, labile, and complex site-specific ADCs with linker-drug conjugated in the Fab region."

For more information on this research see: Custom-Designed Affinity Capture LC-MS F(ab')2 Assay for Biotransformation Assessment of Site-Specific Antibody Drug Conjugates. Analytical Chemistry, 2016;88(23):11340-11346. Analytical Chemistry can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Analytical Chemistry - www.pubs.acs.org/journal/ancham)

Our news journalists report that additional information may be obtained by contacting D. Su, Genentech Inc, San Francisco, CA 94080, United States. Additional authors for this research include C. Ng, M. Khosraviani, S.F. Yu, E. Cosino, S. Kaur and K.Y. Xu.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Drugs and Therapies, Drug Development, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Genentech Inc.

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Health and Medicine - Medicinal Chemistry

Reports from Genentech, Inc. Highlight Recent Findings in Medicinal Chemistry [Discovery of a Potent and Selective in Vivo Probe (GNE-272) for the Bromodomains of CBP/EP300]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Health and Medicine - Medicinal Chemistry. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated, "The single bromodomain of the closely related transcriptional regulators CBP/EP300 is a target of much recent interest in cancer and immune system regulation."

The news reporters obtained a quote from the research from Genentech, Inc., "A co-crystal structure of a ligand-efficient screening hit and the CBP bromodomain guided initial design targeting the LPF shelf, ZA loop, and acetylated lysine binding regions. Structure activity relationship studies allowed us to identify a more potent analogue."

According to the news reporters, the research concluded: "Optimization of permeability and microsomal stability and subsequent improvement of mouse hepatocyte stability afforded 59 (GNE-272, TR-FRET IC50 = 0.02 μM, BRET IC50 = 0.41 μM, BRD4 (1) IC50 = 13 μM) that retained the best balance of cell potency, selectivity, and in vivo PK. Compound 59 showed a marked antiproliferative effect in hematologic cancer cell lines and modulates MYC expression in vivo that corresponds with antitumor activity in an AML tumor model."


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Keywords for this news article include: San Francisco, California, United States, North and Central America, Medicinal Chemistry, Health and Medicine, Genentech Inc.

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Lung Diseases and Conditions - Acute Lung Injury

Reports from General Hospital Add New Data to Findings in Acute Lung Injury (Acute lung injury induced by lipopolysaccharide is inhibited by wogonin in mice via reduction of Akt phosphorylation and RhoA activation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Acute Lung Injury are discussed in a new report. According to news originating from Kaohsiung, Taiwan, by NewsRx correspondents, research stated, "Neutrophil infiltration into the lung is the critical characteristic of acute lung injury (ALI), which is a clinical state with acute inflammatory syndrome. Up to now, there is no effective medicine for ALI."

Financial supporters for this research include Ministry of Science and Technology, Taiwan, Kaohsiung Armed Forces General Hospital of Taiwan.

Our news journalists obtained a quote from the research from General Hospital, "Wogonin has been shown to posses serval biological activities including anti-inflammation, anti-oxidant and anti-carcinoma. Acute lung injury was induced by intratracheal injection of LPS, and wogonin at various concentrations was injected intraperitoneally 30 min prior to LPS. Contents of myeloperoxidase (MPO) and expression of chemokines and adhesion molecules were determined by commercially and ELISA assay kits, respectively. Akt phosphorylation and RhoA activation were measured by western blot and RhoA pull-down activation assay, respectively. Neutrophil infiltration was reduced by wogonin in a concentration-dependent manner in the LPS-induced ALI mice model. LPS-induced proinflammatory cytokines and adhesion molecules were inhibited by wogonin in bronchoalveolar lavage fluid (BALF) with LPS-induced ALI. Furthermore, wogonin suppressed Akt phosphorylation and RhoA activation in lungs in LPS-induced ALI. The similar parallel trend was observed as wogonin reduced LPS-induced neutrophils infiltration, proinflammatory cytokines generation, adhesion molecules expression, Akt phosphorylation, and RhoA activation."

According to the news editors, the research concluded: "These results suggested that the effects of wogonin in LPS-induced ALI were induced by inhibition of Akt phosphorylation and RhoA activation."

For more information on this research see: Acute lung injury induced by lipopolysaccharide is inhibited by wogonin in mice via reduction of Akt phosphorylation and RhoA activation.

The news correspondents report that additional information may be obtained from Y.C. Yeh, Dept. of Internal Medicine, Kaohsiung Armed Forces General Hospital, Kaohsiung, Taiwan. Additional authors for this research include C.P. Yang, S.S. Lee, C.T. Horng, H.Y. Chen, T.H. Cho, M.L. Yang, C.Y. Lee, M.C. Li and Y.H Kuan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jphp.12500. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiwan, Kaohsiung, Endotoxins, Immunology, Phagocytes, Neutrophils, Granulocytes, Bacterial Toxins, Acute Lung Injury, Biological Factors, Lipopolysaccharides, Hemic and Immune Systems, Bacterial Polysaccharides, Lung Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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*Musculoskeletal Diseases and Conditions - Arthritis*

**Reports from General Hospital Advance Knowledge in Arthritis**

**(Tuberculous arthritis of the hip with Staphylococcus aureus superinfection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Musculoskeletal Diseases and Conditions - Arthritis is the subject of a report. According to news reporting originating in Hyogo, Japan, by NewsRx journalists, research stated, "Skeletal tuberculosis (TB) accounts for a small percentage of all cases of TB. It is often difficult to diagnose, especially in the hip joint."

The news reporters obtained a quote from the research from General Hospital, "TB arthritis can be masked by superinfection with other pathogens, leading to a delay in diagnosis and treatment. Trauma or surgery is a reported risk factor of TB arthritis. In contrast, descriptions of TB arthritis after a closed bone fracture are rare. We herein report a case involving an 81-year-old woman with septic arthritis superinfected with methicillin-resistant Staphylococcus aureus (MRSA) and Mycobacterium tuberculosis. Three months before presentation, she sustained a bone fracture of the left femur and was treated conservatively without surgery. She developed a fever at another hospital and was transferred to our institution. Computed tomography revealed the presence of abnormal fluid around the left hip joint. MRSA was detected from the fluid and blood cultures. The patient was diagnosed with MRSA arthritis and treated with antibiotics and surgical drainage. However, her fever persisted, and the abscess further developed and enlarged around the left hip. It was punctured and cultured again. Three weeks later, Mycobacterium tuberculosis was identified from the abscess culture. The septic arthritis was confirmed to have been caused by MRSA and M. tuberculosis. After the initiation of antituberculosis therapy, her fever subsided and the treatment was continued."

According to the news reporters, the research concluded: "This case demonstrates that the diagnosis of TB arthritis can be hindered by the existence of other pathogens and that TB arthritis can occur at a closed fracture site in the hip joint."

For more information on this research see: Tuberculous arthritis of the hip with Staphylococcus aureus superinfection. *Journal of Infection and Chemotherapy*, 2016;22 (11):752-754. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science
Reports from General Hospital Describe Recent Advances in Breast Cancer (Comparison of the Adipose and Luminal Mammary Gland Compartment as Orthotopic Inoculation Sites in a 4T1-Based Immunocompetent Preclinical Model for Triple-Negative Breast ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting from Antwerp, Belgium, by NewsRx journalists, research stated, "Breast tumorigenesis is classically studied in mice by inoculating tumor cells in the fat pad, the adipose compartment of the mammary gland. Alternatively, the mammary ducts, which constitute the luminal mammary gland compartment, also provide a suitable inoculation site to induce breast cancer in murine models."

Financial supporters for this research include Kom op tegen Kanker, Fund for Scientific Research Flanders.

The news correspondents obtained a quote from the research from General Hospital, "The microenvironments in these compartments influence tumor cell progression, yet this effect has not been investigated in an immunocompetent context. Here, we compared both mammary gland compartments as distinct inoculation sites, taking into account the immunological aspect by inoculating 4T1 tumor cells in immunocompetent mice. Following tumor cell inoculation in the adipose compartment of non-pretreated/naive, hormonally pretreated/naive and non-pretreated/lactating mice, the primary tumors developed similarly. However, a slower onset of primary tumor growth was found after inoculations in the luminal compartment of non-pretreated/lactating mice. Despite this difference in tumor development rate, metastasis to the liver and lungs was equally observed and was accompanied by lymphatic spreading of tumor cells and progressive splenomegaly with both inoculation types. Chitinase 3-like 1 (CHI3L1)
and lipocalin 2 (LCN2) served as innovative biomarkers for disease progression showing increased levels in primary tumors and sera of the non-pretreated/lactating inoculation groups. A slower increase in circulating CHI3L1 but not LCN2 levels, was observed after inoculations in the luminal compartment which corroborated the slower tumor development at this inoculation site.

According to the news reporters, the research concluded: "Our results highlight the critical impact of different mammary gland compartments on tumor development in syngeneic murine models and support the use of novel tumor progression biomarkers in an immune-competent environment."


Our news journalists report that additional information may be obtained by contacting J. Steenbrugge, Gen Hosp Sint Augustinus, Translat Canc Res Unit Antwerp, Oncol Res Center, Antwerp, Belgium. Additional authors for this research include K. Breyne, S. Denies, M. Dekimpe, K. Demeyere, O. De Wever, P. Vermeulen, S. Van Laere, N.N. Sanders and E. Meyer.

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Keywords for this news article include: Antwerp, Belgium, Europe, Cancer, Diagnostics and Screening, Women's Health, Breast Cancer, Oncology, General Hospital.

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**Palliative and Supportive Care**

**Reports from Ghent University Describe Recent Advances in Palliative and Supportive Care (Palliative care needs at different phases in the illness trajectory: a survey study in patients with cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Palliative and Supportive Care is the subject of a report. According to news reporting originating in Brussels, Belgium, by NewsRx journalists, research stated, "Despite the growing consensus on the benefits of initiating palliative care early in the disease trajectory, it remains unclear at what point palliative care needs emerge. This study investigates quality of life and unmet palliative care needs at three phases in the cancer trajectory, curative, life-prolonging and most advanced (prognosis <6 months/no further disease-modifying treatment)."

Financial support for this research came from Agentschap voor Innovatie door Wetenschap en Technologie.

The news reporters obtained a quote from the research from Ghent University, "We collected self-reported data from 620 patients with cancer in the University Hospital of Ghent,
Belgium. They completed a questionnaire on quality of life (using the EORTC QLQ-C30) and unmet care needs within the domains of palliative care. We used European reference values of the EORTC QLQ-C30 to compare the mean scores with a norm group. The groups further on in the cancer trajectory reported statistically and clinically poorer functioning compared with earlier phases, also when controlled for the effects of sex, age or type of cancer. Higher symptom burdens for fatigue, pain, dyspnoea and appetite loss were found in groups further into the trajectory, p<.001. Patients in the curative phase experienced physical symptoms and had clinically worse functioning than a European reference group."

According to the news reporters, the research concluded: "This paper demonstrates the ongoing need for oncologists to address the broader palliative care needs of patients from diagnosis onwards."


Our news correspondents report that additional information may be obtained by contacting K. Beernaert, University of Ghent, Brussels, Belgium. Additional authors for this research include K. Pardon, L. Van den Block, D. Devroey, M.D.L. Msc, K. Geboes, V. Surmont, L. Deliens and J. Cohen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ecc.12522. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Palliative and Supportive Care, Oncology, Cancer, Ghent University.

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Cardiovascular Diseases and Conditions -...

Reports from Guangzhou University Describe Recent Advances in Hypertension (Cerebral Targeting of Acupuncture at Combined Acupoints in Treating Essential Hypertension: An Rs-fMRI Study and Curative Effect Evidence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "The study attempted to explore that the synergistic effect of acupoints combination is not a simple superposition of single acupoint's effect by comparing and analyzing the changes of blood pressure (BP), SF-36, and brain regions after acupuncture treatment. 47 patients were randomly divided into LR3+KI3 group, LR3 group, and KI3 group. Subjects received Rs-fMRI scan, BP measurement, and SF-36 questionnaires before and after treatment and short-term acupuncture treatment."

Financial support for this research came from National Key Basic Research and Development Project.
Our news editors obtained a quote from the research from Guangzhou University, "After treatment, there were no significant differences in BP and SF-36 among 3 groups, compared to the case before treatment. SBP of 3 groups decreased, and DBP significantly decreased while vitality and mental health significantly increased in LR3+KI3 group. Both number and scopes of changes of brain regions in LR3+KI3 group were the largest, which mainly included BAs 3, 4, 8, 19, 21, 24, 32, 44, and 45."

According to the news editors, the research concluded: "Acupuncture at LR3+KI3 may auxiliary reduce BP and improve the vitality and mental health of patients, and the changes of brain regions were related to somatesthesia, movement, vision, audition, emotion and mood, language, memory, etc. BAs 4, 9, 10, 24, 31, 32, and 46 may be the targeting brain areas of acupuncture in assisting hypotension. It is suggested that acupoints combination of LR3 + KI3 maybe generates a synergistic effect, and it is not simple sum of single acupoint effect."

For more information on this research see: Cerebral Targeting of Acupuncture at Combined Acupoints in Treating Essential Hypertension: An Rs-fMRI Study and Curative Effect Evidence. Evidence-Based Complementary and Alternative Medicine, 2016();1-12. Evidence-Based Complementary and Alternative Medicine can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Evidence-Based Complementary and Alternative Medicine - www.hindawi.com/journals/ecam/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/5392954. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Essential Hypertension, Nephrology, Guangzhou University.

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Lung Diseases and Conditions - Pulmonary...

Reports from Gyeongsang National University Add New Data to Findings in Pulmonary Emphysema (Severity of pulmonary emphysema and lung cancer: analysis using quantitative lobar emphysema scoring)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Lung Diseases and Conditions - Pulmonary Emphysema. According to news originating from Chang Won, South Korea, by NewsRx correspondents, research stated, "The aim of this study was to determine the relationship between lobar severity of emphysema and lung cancer using automated lobe segmentation and emphysema quantification methods. This study included 78 patients (74 males and 4 females; mean age of 72 years) with the following conditions: pathologically proven lung cancer, available chest computed tomographic (CT) scans for lobe segmentation, and
quantitative scoring of emphysema."

Our news journalists obtained a quote from the research from Gyeongsang National University, "The relationship between emphysema and lung cancer was analyzed using quantitative emphysema scoring of each pulmonary lobe. The most common location of cancer was the left upper lobe (LUL) (n = 28), followed by the right upper lobe (RUL) (n = 27), left lower lobe (LLL) (n = 13), right lower lobe (RLL) (n = 9), and right middle lobe (RML) (n = 1). Emphysema ratio was the highest in LUL, followed by that in RUL, LLL, RML, and RLL. Multivariate logistic regression analysis revealed that upper lobes (odds ratio: 1.77; 95% confidence interval: 1.01-3.11, P = 0.048) and lobes with emphysema ratio ranked the 1st or the 2nd (odds ratio: 2.48; 95% confidence interval: 1.48-4.15, P< 0.001) were significantly and independently associated with lung cancer development."

According to the news editors, the research concluded: "In emphysema patients, lung cancer has a tendency to develop in lobes with more severe emphysema."

For more information on this research see: Severity of pulmonary emphysema and lung cancer: analysis using quantitative lobar emphysema scoring. Medicine, 2016;95(48):188-192. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from K.N. Jeon, Gyeongsang National University, Dept. of Radiol, Changwon Hosp, Chang Won 51472, South Korea. Additional authors for this research include K.N. Jeon, S.J. Lee, H.C. Kim, J.Y. Ha, S.E. Park, H.J. Baek, B.H. Choi, S.B. Cho and J.I. Moon.

Keywords for this news article include: Chang Won, South Korea, Asia, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Pulmonary Emphysema, Lung Neoplasms, Lung Cancer, Oncology, Gyeongsang National University.

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Oncology - Non-Small Cell Lung Cancer

Reports from H. Lee Moffitt Cancer Center and Research Institute Provide New Insights into Non-Small Cell Lung Cancer (ZEB1 Mediates Acquired Resistance to the Epidermal Growth Factor Receptor-Tyrosine Kinase Inhibitors in Non-Small Cell Lung ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news reporting originating in Tampa, Florida, by NewsRx journalists, research stated, "Epithelial-mesenchymal transition (EMT) is one mechanism of acquired resistance to inhibitors of the epidermal growth factor receptor-tyrosine kinases (EGFR-TKIs) in non-small cell lung cancer (NSCLC). The precise mechanisms of EMT-related acquired resistance to EGFR-TKIs in NSCLC remain unclear."

The news reporters obtained a quote from the research from H. Lee Moffitt Cancer Center and Research Institute, "We generated erlotinib-resistant HCC4006 cells (HCC4006ER) by chronic exposure of EGFR-mutant HCC4006 cells to increasing concentrations of erlotinib. HCC4006ER cells acquired an EMT phenotype and activation of the TGF-b/SMAD pathway, while lacking both T790M secondary EGFR mutation and MET gene amplification. We
employed gene expression microarrays in HCC4006 and HCC4006ER cells to better understand the mechanism of acquired EGFR-TKI resistance with EMT. At the mRNA level, ZEB1 (TCF8), a known regulator of EMT, was >20-fold higher in HCC4006ER cells than in HCC4006 cells, and increased ZEB1 protein level was also detected. Furthermore, numerous ZEB1 responsive genes, such as CDH1 (E-cadherin), ST14, and vimentin, were coordinately regulated along with increased ZEB1 in HCC4006ER cells. We also identified ZEB1 overexpression and an EMT phenotype in several NSCLC cells and human NSCLC samples with acquired EGFR-TKI resistance. Short-interfering RNA against ZEB1 reversed the EMT phenotype and, importantly, restored erlotinib sensitivity in HCC4006ER cells. The level of micro-RNA-200c, which can negatively regulate ZEB1, was significantly reduced in HCC4006ER cells. Our results suggest that increased ZEB1 can drive EMT-related acquired resistance to EGFR-TKIs in NSCLC.

According to the news reporters, the research concluded: "Attempts should be made to explore targeting ZEB1 to resensitize TKI-resistant tumors."


Our news correspondents report that additional information may be obtained by contacting T. Yoshida, Dept. of Thoracic Oncology, H Lee Moffitt Cancer Center and Research Institute, Tampa, Florida, United States. Additional authors for this research include L. Song, Y. Bai, F. Kinose, J. Li, K.C. Ohaegbulam, T. Munoz-Antonia, X. Qu, S. Eschrich, H. Uramoto, F. Tanaka, P. Nasarre, R.M. Gemmill, J. Roche, H.A. Drabkin and E.B Haura.

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Keywords for this news article include: Tampa, Florida, Genetics, Oncology, Proteomics, United States, Lung Neoplasms, Protein Kinases, Membrane Proteins, Peptide Receptors, Phosphotransferases, Aromatic Amino Acids, Enzymes and Coenzymes, North and Central America, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer, Epidermal Growth Factor Receptor.

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**Proteins - Heparan Sulfate Proteoglycans**

**Reports from Hackensack University Medical Center Provide New Insights into Heparan Sulfate Proteoglycans (Molecular and clinical profiles of syndecan-1 in solid and hematological cancer for prognosis and precision medicine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Proteins - Heparan Sulfate Proteoglycans have been published. According to news reporting originating in Hackensack, New Jersey, by NewsRx journalists, research stated, "Syndecan-1 (SDC1, CD138) is a key cell surface adhesion molecule essential for maintaining cell morphology and interaction with the surrounding microenvironment. Deregulation of SDC1 contributes to cancer progression by promoting cell
proliferation, metastasis, invasion and angiogenesis, and is associated with relapse through chemoresistance."

The news reporters obtained a quote from the research from Hackensack University Medical Center, "SDC1 expression level is also associated with responses to chemotherapy and with prognosis in multiple solid and hematological cancers, including multiple myeloma and Hodgkin lymphoma. At the tissue level, the expression levels of SDC1 and the released extracellular domain of SDC1 correlate with tumor malignancy, phenotype, and metastatic potential for both solid and hematological tumors in a tissue-specific manner. The SDC1 expression profile varies among cancer types, but the differential expression signatures between normal and cancer cells in epithelial and stromal compartments are directly associated with aggressiveness of tumors and patient's clinical outcome and survival. Therefore, relevant biomarkers of SDC signaling may be useful for selecting patients that would most likely respond to a particular therapy at the time of diagnosis or perhaps for predicting relapse."

According to the news reporters, the research concluded: "In addition, the reciprocal expression signature of SDC between tumor epithelial and stromal compartments may have synergistic value for patient selection and the prediction of clinical outcome."

For more information on this research see: Molecular and clinical profiles of syndecan-1 in solid and hematological cancer for prognosis and precision medicine. Oncotarget, 2015;6(30):28693-715.

Our news correspondents report that additional information may be obtained by contacting M.R. Akl, Genomics and Biomarkers Program, The John Theurer Cancer Center, Hackensack University Medical Center, Hackensack, NJ, United States. Additional authors for this research include P. Nagpal, N.M. Ayoub, S.A. Prabhu, M. Gliksman, B. Tai, A. Hatipoglu, A. Goy and K.S Suh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.4981. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Oncology, Hackensack, New Jersey, Immunology, Syndecan 1, CD Antigens, United States, Article Review, Membrane Proteins, Biological Factors, Membrane Glycoproteins, North and Central America, Heparan Sulfate Proteoglycans.

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Autoimmune Diseases and Conditions - Lupus

Reports from Harvard School of Medicine Add New Data to Findings in Lupus (T cells in Systemic Lupus Erythematosus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Autoimmune Diseases and Conditions - Lupus are presented in a new report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Systemic Lupus Erythematosus is an autoimmune disorder caused by a complex combination of genetic, epigenetic and environmental factors."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Different polymorphisms and epigenetic modifications lead to altered gene expression and function of several molecules which lead to abnormal T cell responses."

Oncotarget
Metabolic and functional alterations result in peripheral tolerance failures and biased differentiation of T cells into pro inflammatory and B cell-helper phenotypes as well as the accumulation of disease-promoting memory T cells."

According to the news editors, the research concluded: "Understanding these T cell alterations and their origins is necessary to develop more accurate patient classification systems and to discover new therapeutic targets."

For more information on this research see: T cells in Systemic Lupus Erythematous. Current Opinion in Immunology, 2016;43():32-38. Current Opinion in Immunology can be contacted at: Current Biology Ltd, 84 Theobalds Rd, London WC1X 8RR, England. (Elsevier - www.elsevier.com; Current Opinion in Immunology - www.journals.elsevier.com/current-opinion-in-immunology/)

The news correspondents report that additional information may be obtained from A. Suarez-Fueyo, Harvard Med Sch, Beth Israel Deaconess Med Center, Dept. of Med, Boston, MA 02115, United States. Additional authors for this research include S.J. Bradley and G.C. Tsokos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.coi.2016.09.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Autoimmune Diseases and Conditions, Article Review, Epidemiology, Systemic Lupus Erythematousus, Genetics, Harvard School of Medicine.

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Cardiovascular Diseases and Conditions - Aneurysm

Reports from Health Science Center Add New Data to Findings in Aneurysm (LVIS Jr 'shelf' technique: an alternative to Y stent-assisted aneurysm coiling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Aneurysm. According to news reporting from Halifax, Canada, by NewsRx journalists, research stated, "Wide-necked bifurcation intracranial aneurysms have traditionally not been amenable to coil embolization with the use of a single stent due to the high risk of coil prolapse. Y-configuration double stent-assisted coil embolization ('Y-stenting') of this aneurysm type has been shown to have generally good clinical outcomes, although the technique is complex with various challenges described in the literature."

The news correspondents obtained a quote from the research from Health Science Center, "The compliant and flexible closed-cell design of braided stents such as the LVIS Jr allows for the creation of a 'shelf' across the aneurysm neck sufficient to prevent coil prolapse. We describe this novel 'shelf' technique and present a small case series of LVIS Jr stent-assisted wide-necked bifurcation intracranial aneurysm coiling in eight patients."

According to the news reporters, the research concluded: "Our small, albeit important, case series demonstrates that the 'shelf' technique is feasible and safe with very good short-term clinical and angiographic outcomes, and may obviate the need for Y-stenting."

For more information on this research see: LVIS Jr 'shelf' technique: an alternative...

Our news journalists report that additional information may be obtained by contacting J.J.S. Shankar, QE II Hlth Sci Center, Dept. of Diagnost Imaging, Div Neuroradiol, Halifax, NS B3H 1E6, Canada.

Keywords for this news article include: Halifax, Nova Scotia, Canada, North and Central America, Cardiovascular Diseases and Conditions, Embolization, Angiology, Aneurysm, Health Science Center.

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Apoptosis

Reports from Hebei Medical University Highlight Recent Findings in Apoptosis (Role of Sirtuin3 in high glucose-induced apoptosis in renal tubular epithelial cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Apoptosis. According to news reporting originating in Shijiazhuang, People's Republic of China, by NewsRx journalists, research stated, "The apoptosis of renal tubular epithelial cells contributes to the pathogenesis of diabetic nephropathy. High glucose-induced mitochondrial oxidative stress is considered to be an important mediator for renal tubular cell apoptosis."

The news reporters obtained a quote from the research from Hebei Medical University, "Sirtuin3(Sirt3), a kind of mitochondria-localized nicotinamide adenine dinucleotide (NAD(+))-dependent protein deacetylase, has been reported to regulate the generation of ROS in mitochondria through regulating acetylation level and activity of several key mitochondrial enzymes. In this study, we investigated the role of Sirt3 on high glucose-induced apoptosis in HK-2 cells. High glucose decreased the protein and mRNA expression of Sirt3 in a time-dependent manner, along with increased cell apoptosis in HK-2 cells. Furthermore, high glucose-induced oxidative stress and apoptosis were reversed by Sirt3 overexpression or antioxidant treatment. Meanwhile, we also found that over expression of Sirt3 or antioxidant could regulate the activity of Akt/FoxO signaling pathway associated with cell apoptosis in diabetic nephropathy."

According to the news reporters, the research concluded: "Our data suggest that Sirt3 overexpression antagonize high glucose-induced apoptosis by controlling ROS accumulation and ROS-sensitive Akt/FoxO signaling pathway in HK-2 cells."

For more information on this research see: Role of Sirtuin3 in high glucose-induced apoptosis in renal tubular epithelial cells. *Biochemical and Biophysical Research Communications*, 2016;480(3):387-393. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)
Our news correspondents report that additional information may be obtained by contacting Y. Li, Hebei Medical University, Hosp 3, Dept. of Nephrol, Shijiazhuang 050051, People's Republic of China. Additional authors for this research include Y. Li, T. Zhang, M.D. Liu and Y.Q. Chi.

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Keywords for this news article include: Shijiazhuang, People's Republic of China, Asia, Epithelial Cells, Nephropathy, Nephrology, Apoptosis, Genetics, Kidney, Hebei Medical University.

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**Reports from Helmholtz-Zentrum Describe Recent Advances in Type 2 Diabetes**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news reporting out of Munich, Germany, by NewsRx editors, research stated, "The exact mechanism of premature atherosclerosis in diabetes is still unclear. Inappropriate activation of the renin-aldosterone-angiotensin system may be an important risk factor for cardiovascular disease."

Funders for this research include German Federal Ministry of Education, Virtual Diabetes Institute, Clinical Cooperation Group Diabetes, Federal Ministry of Health, Ministry of Innovation, German Research Foundation (DFG).

Our news journalists obtained a quote from the research from Helmholtz-Zentrum, "We investigated whether renin and aldosterone are associated with vasoactive peptides midregional-pro atrial natriuretic peptide (MR-proANP) and midregional-pro adrenomedullin (MR-proADM), or with intima media thickness (IMT) as a marker for early atherosclerotic alterations in the general community and in subjects with type 2 diabetes. In 1261 participants in the KORA F4 study, the associations of renin, aldosterone and aldosterone to renin ratio with MR-proANP, MR-proADM and IMT were assessed using linear regression models stratified for the presence of prediabetes and type 2 diabetes. After adjustment for confounding factors, an inverse association of MR-proANP with renin (p = 0.002) and aldosterone (p = 0.021) and a direct association of MR-proADM with renin (p < 0.001) and aldosterone (p = 0.019) were seen in nondiabetic individuals. In diabetic subjects, there was no significant correlation of MR-proANP or MR-proADM with renin or aldosterone. Renin and aldosterone were not directly associated with IMT in non-diabetic subjects and the total cohort, whereas aldosterone was associated with IMT in diabetic participants (p = 0.005). This study shows associations between renin, aldosterone and MR-proANP/MR-proADM plasma levels that are altered in type 2 diabetes."

According to the news editors, the research concluded: "Plasma renin and aldosterone are not independent biomarkers for early atherosclerotic damages of the carotid arteries in the general community."

Our news journalists report that additional information may be obtained by contacting C. Then, Helmholtz Zentrum Munchen, Munich, Germany. Additional authors for this research include M. Rottenkolber, A. Lechner, C. Meisinger, M. Heier, W. Koenig, A. Peters, W. Rathmann, M. Bidlingmaier, M. Reincke and J. Seissler. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.905. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munich, Germany, Europe, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Cardiovascular Diseases and Conditions, Aspartic Acid Endopeptidases, 11-Hydroxycorticosteroids, Adrenal Cortex Hormones, Proprotein Convertases, Enzymes and Coenzymes, Risk and Prevention, Peptide Hydrolases, Atherosclerosis, Type 2 Diabetes, Endocrinology, Aldosterone, Cardiology, Renin, Helmholtz-Zentrum.

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**Biotechnology - Liposomes**

**Reports from Hiroshima University Highlight Recent Findings in Liposomes (Photodynamic Activity of Fullerenes and Other Molecules Incorporated into Lipid Membranes by Exchange)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biotechnology - Liposomes have been published. According to news reporting out of Higashi Hiroshima, Japan, by NewsRx editors, the research stated, "An effective exchange method is described whereby liposomal drug carriers of hydrophobic guest biomolecules are used to incorporate the guests into lipid membranes. The exchange method transfers the guest molecule from a cyclodextrin cavity to a liposome in water."

Our news journalists obtained a quote from the research from Hiroshima University, "Lipid-membrane-incorporated fullerenes (LMICx : x=60 or 70) prepared by the exchange method have much higher liposomal stability and fullerene water solubility than those prepared by conventional methods. The LMIC60 have high photodynamic activities with respect to human cancer cells under 350-500 nm excitation."

According to the news editors, the research concluded: "Furthermore, the LMIC60 bilayers, containing light-harvesting antenna molecules in addition to the C60, showed improved activities at the optimal wavelength for photodynamic therapy."


Our news journalists report that additional information may be obtained by
Digestive System Diseases and Conditions - Colitis

Reports from Hokkaido University Provide New Insights into Colitis (Cytomegalovirus colitis in a patient undergoing postoperative adjuvant chemotherapy for lung adenocarcinoma with uracil-tegafur)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Digestive System Diseases and Conditions - Colitis is the subject of a report. According to news reporting from Hokkaido, Japan, by NewsRx journalists, research stated, "When we examine a patient with symptoms of acute enteritis in the course of chemotherapy with oral fluoropyrimidines such as uracil-tegafur (often referred to as UFT), we usually suspect 5-fluorouracil-induced enterocolitis."

The news correspondents obtained a quote from the research from Hokkaido University, "In case of persistent clinical symptoms despite discontinuation of chemotherapy, cytomegalovirus colitis should be considered in the differential diagnosis of chemotherapy-induced enterocolitis. We herein report the case of a patient who underwent surgery for lung adenocarcinoma followed by postoperative adjuvant chemotherapy with uracil-tegafur and was diagnosed as having cytomegalovirus colitis during the therapy."

According to the news reporters, the research concluded: "In the course of chemotherapy, cytomegalovirus colitis occasionally occurs even though the patient does not experience severe myelosuppression; thus, it is necessary that we recognize its potential occurrence."

For more information on this research see: Cytomegalovirus colitis in a patient undergoing postoperative adjuvant chemotherapy for lung adenocarcinoma with uracil-tegafur. Journal of Infection and Chemotherapy, 2016;22(12):826-829. Journal of Infection and Chemotherapy can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

Our news journalists report that additional information may be obtained by contacting H. Hayashi, Hokkaido University, Grad Sch Med, Dept. of Gastroenterol & Hepatol, Sapporo, Hokkaido, Japan. Additional authors for this research include Y. Komatsu, T. Uchida, N. Abe, K. Ito, K. Hirata, K. Matsuda and A. Fujinaga.

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Keywords for this news article include: Hokkaido, Japan, Asia, Digestive System
Reports from Hospital Center Describe Recent Advances in Colon Cancer (Endogenous erythropoietin and erythropoietin receptors in colorectal cancer; can we answer the questions?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Colon Cancer. According to news reporting out of Rijeka, Croatia, by NewsRx editors, research stated, "Erythropoietin (Epo) is glycoprotein hormone which binds on erythropoietin receptors (EpoR) promoting proliferation and differentiation. Studies have shown that EpoR, apart from erythrocyte precursors, is expressed on no hematopoietic tissue and various tumor cells."

Our news journalists obtained a quote from the research from Hospital Center, "Despite the progress in modern medicine, colorectal carcinoma (CRC) is still the leading cause of increased morbidity and mortality between oncology patients worldwide. Its precursors are benign villous adenomas, which in certain percentage progress to cancer. Anemia of chronic disease is common finding in CRC patients. Some of them are treated with Epo. Epo/EpoR seems to correlate with tumor progression and metastasizing. Therefore, the identification of at-risk group remains a clinical challenge. Vascular endothelial growth factor (VEGF) is a signal protein that stimulates angiogenesis and concentration of VEGF is positive correlated with tumor growth in numerous tumors. The importance of Epo in tumor pathogenesis has led to a growing interest in the potential prognostic value."

According to the news editors, the research concluded: "By our point of view there are many open questions about role of Epo/EpoR in CRC."

For more information on this research see: Endogenous erythropoietin and erythropoietin receptors in colorectal cancer; can we answer the questions? Medical Hypotheses, 2016;96():16-19. Medical Hypotheses can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Medical Hypotheses - www.journals.elsevier.com/medical-hypotheses/)

Our news journalists report that additional information may be obtained by contacting A. Cubranic, Clin Hosp Center Rijeka, Dept. of Gastroenterol, Rijeka 51000, Croatia. Additional authors for this research include R. Dobrila-Dintinjana, A. Redzovic, M. Dintinjana, D. Petranovic and M. Gorcic.

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Keywords for this news article include: Rijeka, Croatia, Europe, Intercellular Signaling Peptides and Proteins, Colony-Stimulating Factor Receptors, Colony Stimulating
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Oncology - Breast Cancer

Reports from Huazhong University of Science and Technology Advance Knowledge in Breast Cancer (Epidemiology of breast cancer: retrospective study in the Central African Republic)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting originating in Wuhan, People's Republic of China, by NewsRx journalists, research stated, "Breast cancer is recognised as a major public health problem in developing countries; however, there is very limited evidence about its epidemiology in the Central African Republic. The aim of this study was to investigate the epidemiological and histopathological characteristics of breast cancer in Bangui."

The news reporters obtained a quote from the research from the Huazhong University of Science and Technology, "This is a retrospective study based on the data collected from pathological anatomy records from 2003 to 2015 in Bangui. A questionnaire was designed to collect information and data was analysed using descriptive and inferential statistical methods. The mean age was 45.83 (SD = 13.5) years. The age group of 45-54 years represented the majority of the study population (29.3%). Over 69.5% of the women were housewives with a moderate economic status (56.9%). Less than 14% of the study population had a level of academic degree and 85.6% lived in cities. The breast cancer prevalence was 15.27%. The age-standardized incidence and death by world population (ASW) were 11.19/100,000 and 9.97/100,000 respectively. 50-54 years were most affected. Left breast cancer is mainly common and the time between first symptoms and consultation is more than 48 months. Most (69%) of the samples analysed were lumpectomy. The most common morphology of breast cancer was invasive ductal carcinoma (64.9%). Scarff Bloom Richardson III was the main grade in both common pathological types, but their proportion showed no significant increase along with time (.2 = 7.06, p = 0.54). Invasion of regional lymph node differed significantly among the pathological type of breast cancer (.2 = 24.6, p = 0.02). Surgery and chemotherapy were appropriate treatment yet 84.5% of the cases died. The findings of this study showed that breast cancer is common and mostly affected women. Epidemiological trends are more or less common to those of developing countries with a predominance of invasive ductal carcinoma. However, most of the women studied live in an urban area and developed the disease in advanced stage."

According to the news reporters, the research concluded: "The establishment of an appropriate framework will effectively contribute to promoting the early detection and reducing the incidence of this disease in the population."


Keywords for this news article include: Wuhan, People's Republic of China, Asia, Women's Health, Breast Cancer, Epidemiology, Oncology, Huazhong University of Science and Technology.

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Oncology - Pancreatic Cancer

Reports from Huazhong University of Science and Technology Describe Recent Advances in Pancreatic Cancer (Blocking NF-kappa B Is Essential for the Immunotherapeutic Effect of Recombinant IL18 in Pancreatic Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Pancreatic Cancer have been published. According to news reporting from Wuhan, People's Republic of China, by NewsRx journalists, research stated, "We sought to find new immune-based treatments for pancreatic cancer. We detected IL18 expression in plasma and specimens from patients with pancreatic cancer."

The news correspondents obtained a quote from the research from the Huazhong University of Science and Technology, "We then investigated whether IL18 had a therapeutic effect for pancreatic cancer in vitro and in vivo and any underlying mechanisms. Higher plasma IL18 was associated with longer overall survival (OS), but higher IL18 in pancreatic cancer tissues was associated with shorter OS and increased invasion and metastasis. Recombinant IL18 alone had no antitumor effect in the syngeneic mice with orthotopically transplanted tumors and promoted tumors in immunocompromised mice; it also facilitated immune responses in vitro and in vivo by augmenting the activity of cytotoxic T cells and NK cells in peripheral blood and lymph nodes. However, IL18 promoted the proliferation and invasion of pancreatic cancer cells, in vitro and in vivo, through the NF-kappa B pathway. Nevertheless, by coadministering IL18 with BAY11-7082, an NF-kappa B inhibitor, we were able to prevent the procancerous effects of IL18 and prolong the survival time of the mice. IL18 has both cancer-promoting and cancer-suppressing functions. Although its single-agent treatment has no therapeutic effect on pancreatic cancer, when combined with the NF-kappa B pathway inhibitor, IL18 improved survival in a murine pancreatic cancer model."

According to the news reporters, the research concluded: "Our study implies the possibility of a combinational immunotherapy that uses IL18 and targets NF-kappa B pathway."

For more information on this research see: Blocking NF-kappa B Is Essential for the Immunotherapeutic Effect of Recombinant IL18 in Pancreatic Cancer. Clinical Cancer Research, 2016;22(23):5939-5950. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research -
Reports from Human Oncology and Pathogenesis Program Add New Data to Findings in Health and Medicine (Loss of BAP1 function leads to EZH2-dependent transformation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine have been published. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "The tumor suppressors BAP1 and ASXL1 interact to form a polycomb deubiquitinase complex that removes monoubiquitin from histone H2A lysine 119 (H2AK119Ub). However, BAP1 and ASXL1 are mutated in distinct cancer types, consistent with independent roles in regulating epigenetic state and malignant transformation."

The news correspondents obtained a quote from the research from Human Oncology and Pathogenesis Program, "Here we demonstrate that Bap1 loss in mice results in increased trimethylated histone H3 lysine 27 (H3K27me3), elevated enhancer of zeste 2 polycomb repressive complex 2 subunit (Ezh2) expression, and enhanced repression of polycomb repressive complex 2 (PRC2) targets. These findings contrast with the reduction in H3K27me3 levels seen with Asxl1 loss. Conditional deletion of Bap1 and Ezh2 in vivo abrogates the myeloid progenitor expansion induced by Bap1 loss alone. Loss of BAP1 results in a marked decrease in H4K20 monomethylation (H4K20me1). Consistent with a role for H4K20me1 in the transcriptional regulation of EZH2, expression of SETD8-the H4K20me1 methyltransferase-reduces EZH2 expression and abrogates the proliferation of BAP1-mutant cells."

According to the news reporters, the research concluded: "Furthermore, mesothelioma cells that lack BAP1 are sensitive to EZH2 pharmacologic inhibition, suggesting a novel therapeutic approach for BAP1-mutant malignancies."


Our news journalists report that additional information may be obtained by contacting L.M. LaFave, Human Oncology and Pathogenesis Program, Memorial Sloan Kettering Cancer Center, New York, New York, United States. Additional authors for this research include W. Beguelin, R. Koche, M. Teater, B. Spitzer, A. Chramiec, E. Papalexi, M.D.
Reports from IIT Advance Knowledge in Antimicrobials (Cyclization Improves Membrane Permeation by Antimicrobial Peptoids)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antimicrobials have been published. According to news reporting from Chicago, Illinois, by NewsRx journalists, research stated, "The peptidomimetic approach has emerged as a powerful tool for overcoming the inherent limitations of natural antimicrobial peptides, where the therapeutic potential can be improved by increasing the selectivity and bioavailability. Restraining the conformational flexibility of a molecule may reduce the entropy loss upon its binding to the membrane."

Financial supporters for this research include Division of Chemistry, Division of Astronomical Sciences, Defense Advanced Research Projects Agency, National Institute of Allergy and Infectious Diseases.

The news correspondents obtained a quote from the research from IIT, "Experimental findings demonstrate that the cyclization of linear antimicrobial peptoids increases their bactericidal activity against Staphylococcus aureus while maintaining high hemolytic concentrations. Surface X-ray scattering shows that macrocyclic peptoids intercalate into Langmuir monolayers of anionic lipids with greater efficacy than for their linear analogues."

According to the news reporters, the research concluded: "It is suggested that cyclization may increase peptoid activity by allowing the macrocycle to better penetrate the bacterial cell membrane."


Our news journalists report that additional information may be obtained by contacting D. Gidalevitz, IIT, Pritzker Inst Biomed Sci & Engn, Dept. of Phys, Center Mol Study Condensed Soft Matter CoSM, Chicago, IL 60616, United States. Additional authors for this research include M.W. Martynowycz, A. Ivankin, M.L. Huang, I. Kuzmenko, M. Meron, B.H. Lin, K. Kirshenbaum and D. Gidalevitz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.langmuir.6b03477. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and
Reports from ISF College of Pharmacy Add New Data to Findings in Diarylheptanoids (Neuroprotective Activity of Curcumin in Combination with Piperine against Quinolinic Acid Induced Neurodegeneration in Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Diarylheptanoids are presented in a new report. According to news originating from Moga, India, by NewsRx correspondents, research stated, "Quinolinic acid (QA) is an excitotoxin that induces Huntington's-like symptoms in animals and humans. Curcumin (CMN) is a well-known antioxidant but the major problem is its bioavailability."

Our news journalists obtained a quote from the research from the ISF College of Pharmacy, "Therefore, the present study was designed to investigate the effect of CMN in the presence of piperine against QA-induced excitotoxic cell death in rats. QA was administered intrastriatally at a dose of 200 nmol/μl saline, bilaterally. CMN (25 and 50 mg/kg/day, p.o.) and combination of CMN (25 mg/kg/day, p.o.) with piperine (2.5 mg/kg/day, p.o.) was administered daily for the next 21 days. Body weight and behavioral parameters were observed on 1st, 7th, 14th and 21st day. On the 22nd day, animals were sacrificed and striatum was isolated for biochemical (LPO, nitrite and GSH), neuroinflammatory (interleukin (IL)-1b, IL-6 and TNF-a) and neurochemical (dopamine, norepinephrine, GABA, glutamate, 5-HT, 3,4-dihydroxyphenylacetic acid and homovanillic acid) estimation. CMN treatment showed beneficial effect against QA-induced motor deficit, biochemical and neurochemical abnormalities in rats. Combination of piperine (2.5 mg/kg/day, p.o.) with CMN (25 mg/kg/day, p.o.) significantly enhanced its protective effect as compared to treatment with CMN alone."

According to the news editors, the research concluded: "This study has revealed that the combination of CMN and piperine showed strong antioxidant and protective effect against QA-induced behavioral and neurological alteration in rats."

For more information on this research see: Neuroprotective Activity of Curcumin in Combination with Piperine against Quinolinic Acid Induced Neurodegeneration in Rats. Pharmacology, 2016;97(3-4):151-60. (Karger - www.karger.com; Pharmacology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224274)

The news correspondents report that additional information may be obtained from S. Singh, Dept. of Pharmacology, ISF College of Pharmacy, Ferozepur Road, Ghal Kalan, Moga, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443896. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Moga, Asia, India, Alkanes, Curcumin, Catechols, Biochemicals, Biochemistry, Hydrocarbons, Mental Health, Diarylheptanoids, Neurodegenerative, Organic Chemicals.

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Amenorrhea

Reports from Indiana University Provide New Insights into Amenorrhea (Association of baseline bleeding pattern on amenorrhea with levonorgestrel intrauterine system use)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Amenorrhea have been presented. According to news reporting out of Bloomington, Indiana, by NewsRx editors, research stated, "This study aims to evaluate the effect of baseline bleeding patterns on rates of amenorrhea reported at 12 months in levonorgestrel (LNG) 52 mg intrauterine system (IUS) users. We also assessed the effect of baseline bleeding patterns at 3 and 6 months postinsertion."

Financial support for this research came from Kennedy Shriver National Institute of Child Health and Human Development.

Our news journalists obtained a quote from the research from Indiana University, "In this secondary analysis of the Contraceptive CHOICE Project, we included participants who had an LNG-IUS inserted within 1 month of enrollment and continued use for 12 months. Using 12-month telephone survey data, we defined amenorrhea at 12 months of use as no bleeding or spotting during the previous 6 months. We used chi-square and multivariable logistic regression to assess the association of baseline bleeding pattern with amenorrhea while controlling for confounding variables. Of 1802 continuous 12-month LNG-IUS users, amenorrhea was reported by 4.9%, 14.8% and 15.4% of participants at 3, 6 and 12 months, respectively. Participants with light baseline bleeding or short duration of flow reported higher rates of amenorrhea at 3 and 6 months postinsertion (p <.03), while LNG-IUS users with heavy or prolonged flow were less likely to report amenorrhea at 3 and 6 months (p <.03). In a multivariable analysis, participants with self-reported heavy bleeding at baseline were less likely to report amenorrhea at 12 months than those who reported moderate bleeding (ORadj, 0.36; 95% CI, 0.16-0.69). Women with heavier menstrual bleeding are less likely than women with moderate flow to report amenorrhea following 12 months of LNG-IUS use. Baseline heavy menstrual flow reduces the likelihood of amenorrhea with LNG-IUS use, information that could impact contraceptive counseling."

According to the news editors, the research concluded: "Anticipatory counseling can improve method satisfaction and continuation, an important strategy to continue to reduce unintended pregnancy and abortion rates."

For more information on this research see: Association of baseline bleeding pattern on amenorrhea with levonorgestrel intrauterine system use. Contraception, 2016;94(5):556-560. Contraception can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Contraception - www.journals.elsevier.com/contraception/)

Our news journalists report that additional information may be obtained by contacting J.F. Peipert, Indiana University, Bloomington, IN 47405, United States. Additional authors for this research include C. McNicholas, T. Madden and J.F. Peipert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.contraception.2016.06.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bloomington, Indiana, United States, North
Reports from Inha University Add New Data to Findings in Diabetes Mellitus (Temporal changes in physiological parameters of systemic inflammatory response syndrome during the three days prior to a diagnosis of sepsis: a case-control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Diabetes Mellitus is the subject of a report. According to news reporting originating in Inchon, South Korea, by NewsRx journalists, research stated, "Aims and objectives. This study was conducted to determine temporal patterns of early changes in physiological parameters of systemic inflammatory response syndrome over three days prior to a diagnosis of sepsis."

The news reporters obtained a quote from the research from Inha University, "Early detection and timely management of systemic inflammatory response syndrome are often not implemented due to a failure to recognise or diagnose systemic inflammatory response syndrome. A retrospective case-control study design was adopted. All 81 study subjects in an intensive care unit were included: 33 case subjects who received a definitive diagnosis of sepsis and 48 control patients who were not diagnosed with systemic inflammatory response syndrome or sepsis. Vital signs (temperatures, heart rates, blood pressures and respiratory rates) and white blood cell count, urine output, serum creatinine concentration, platelet count and serum glucose level data were collected for one, two and three days prior to sepsis diagnosis. Homogeneity test revealed greater proportions of the aged and subjects with diabetes mellitus, hypertension and wound in the case group. Analysis also showed significant intergroup differences in systemic inflammatory response syndrome criteria score, heart rates, platelet counts and blood glucose levels, but no intergroup differences in body temperatures, blood pressures, respiratory rates, urine outputs or serum creatinine levels. A larger proportion of case subjects were fitted with a central venous or Foley catheter. The presence of a wound, hypertension or diabetes mellitus, and the use of an invasive medical device may increase the risk of systemic inflammatory response syndrome. Of the physiological parameters examined, heart rate, platelet counts, and blood glucose levels might serve as significant early signs of systemic inflammatory response syndrome. Relevance to clinical practice."

According to the news reporters, the research concluded: "Caution should be observed whenever diabetic or hypertension patients develop sudden and persistent hyperglycaemia or tachycardia, and nurses should also be aware of the potential for systemic inflammatory response syndrome in patients with a central venous or indwelling urinary catheter."

Our news correspondents report that additional information may be obtained by contacting W.S. Seo, Inha University, Dept. of Nursing, Inchon, South Korea. Additional authors for this research include E.K. Bae, S.Y. Lim, J. Oh, S.Y. Han and W.S. Seo.

Keywords for this news article include: Inchon, South Korea, Asia, Cardiovascular Diseases and Conditions, Diagnostics and Screening, Risk and Prevention, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Blood Diseases and Conditions, Glucose Metabolism Disorders, Bloodstream Infection, Diabetes Mellitus, Hypertension, Septicemia, Sepsis, Inha University.

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Central Nervous System Diseases and Conditions –…

Reports from Inha University Describe Recent Advances in Cerebral Infarction (Sleep Disturbances at 3 Months after Cerebral Infarction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions - Cerebral Infarction have been presented. According to news originating from Incheon, South Korea, by NewsRx correspondents, research stated, "Post-stroke sleep disturbances (PSSD) are common and associated with various adverse outcomes. However, PSSD in the sub-acute stages of stroke have been scarcely studied."

Our news journalists obtained a quote from the research from Inha University, "We aimed to evaluate the characteristics of and the factors related to PSSD in stroke patients 3 months post stroke. A total of 199 patients were evaluated for PSSD at 3 months after stroke. The qualities of nighttime sleep and excessive daytime sleepiness (EDS) were assessed using the Verran Snyder-Halpern sleep scale and Epworth Sleepiness Scale, respectively. Presence of motor dysfunction and post-stroke pain, post-stroke depression, fatigue and social support were evaluated. Eighty-eight patients (44.2%) had poor quality of nighttime sleep. Twenty-eight patients (14.4%) reported EDS. Poor quality of nighttime sleep was independently associated with depression (p=0.044) and EDS (p=0.041) whereas fatigue (p <0.001) and poor nighttime sleep (p=0.045) were independently associated with EDS. Post-stroke pain and social support showed no association with PSSD. We found that the occurrence of PSSD 3 months after stroke is common."

According to the news editors, the research concluded: "Although causality remained to be determined, depression and nighttime sleep disturbances were related, whereas fatigue and nighttime sleep disturbances were related to EDS."


The news correspondents report that additional information may be obtained from M. Suh, Dept. of Nursing, Inha University, Incheon, South Korea. Additional authors for this research include S. Choi-Kwon and J.S Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443763. This DOI is a link to an online electronic document that is
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**Oncology - Renal Cell Carcinoma**

**Reports from Institute Gustave Roussy Advance Knowledge in Renal Cell Carcinoma (Open-label phase 2 trial of first-line everolimus monotherapy in patients with papillary metastatic renal cell carcinoma: RAPTOR final analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Renal Cell Carcinoma have been published. According to news reporting out of Villejuif, France, by NewsRx editors, research stated, "Papillary histology accounts for 10-15% of renal cell carcinoma (RCC), and treatment options for patients with this subtype are limited. The RAPTOR (RAD001 in Advanced Papillary Tumor Program in Europe; ClinicalTrials.gov, NCT00688753) study evaluated first-line everolimus in patients with papillary metastatic RCC (mRCC)."

Financial support for this research came from Novartis Pharmaceuticals.

Our news journalists obtained a quote from the research from Institute Gustave Roussy, "This phase 2 trial enrolled previously untreated patients with type 1 or type 2 papillary mRCC. Papillary histology was confirmed by central review and was performed for every patient. Patients received oral everolimus 10 mg once daily until disease progression or unacceptable toxicity. The primary end-point was progression-free survival (PFS) rate at 6 months among the first 44 patients of the per protocol (PP) population. Secondary end-points included PFS, tumour response, overall survival (OS), and safety. Analysis sets included safety (NZ 92; 100%), intent-to-treat (ITT) (n=88), and PP populations (n = 46). In the safety population, most patients were men (78%) and the mean age was 60 years (range 23-84). Papillary histology was confirmed in 78% of patients (type 1, 32%; type 2, 64%; missing information, 4%). PFS rate at 6 months was 34% (80% confidence interval [CI] 25-45). In the ITT population, median PFS was 4.1 months (95% CI 3.6-5.5), 65% of patients achieved stable disease, and median OS was 21.4 months (95% CI 15.4-28.4). Among patients with type 1 or type 2 histology, median PFS was 7.9 months (95% CI 2.1 -11.0) and 5.1 months (95% CI 3.3-5.5), respectively, and median OS was 28.0 months (95% CI 7.6-not estimable) and 24.2 months (95% CI 15.8-32.8), respectively. Common grade > 2 adverse events were asthenia (13%), anaemia (7%), and fatigue (5%)."

According to the news editors, the research concluded: "Results of this large prospective study in papillary mRCC demonstrated that everolimus provides some clinical benefit to this patient population and highlight the need for central pathological review of this rare tumour."

Reports from Institute for Biology Research Describe Recent Advances in Gastric Cancer (MiR-16 mediates trastuzumab and lapatinib response in ErbB-2-positive breast and gastric cancer via its novel targets CCNJ and FUBP1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news reporting originating from Buenos Aires, Argentina, by NewsRx correspondents, research stated, "ErbB-2 amplification/overexpression accounts for an aggressive breast cancer (BC) subtype (ErbB-2-positive). Enhanced ErbB-2 expression was also found in gastric cancer (GC) and has been correlated with poor clinical outcome."

Our news editors obtained a quote from the research from Institute for Biology Research, "The ErbB-2-targeted therapies trastuzumab (TZ), a monoclonal antibody, and lapatinib, a tyrosine kinase inhibitor, have proved highly beneficial. However, resistance to such therapies remains a major clinical challenge. We here revealed a novel mechanism underlying the antiproliferative effects of both agents in ErbB-2-positive BC and GC. TZ and lapatinib ability to block extracellular signal-regulated kinases 1/2 and phosphatidylinositol-3 kinase (PI3K)/AKT in sensitive cells inhibits c-Myc activation, which results in upregulation of miR-16. Forced expression of miR-16 inhibited in vitro proliferation in BC and GC cells, both sensitive and resistant to TZ and lapatinib, as well as in a preclinical BC model resistant to these agents. This reveals miR-16 role as tumor suppressor in ErbB-2-positive BC and GC. Using genome-wide expression studies and miRNA target prediction algorithms, we identified cyclin J and far upstream element-binding protein 1 (FUBP1) as novel miR-16 targets, which mediate miR-16 antiproliferative effects. Supporting the clinical relevance of our results, we found that high levels of miR-16 and low or null FUBP1 expression correlate with TZ response in ErbB-2-positive primary BCs. These findings highlight a potential role of miR-16 and FUBP1 as biomarkers of sensitivity to TZ therapy."

According to the news editors, the research concluded: "Furthermore, we revealed
miR-16 as an innovative therapeutic agent for TZ-and lapatinib-resistant ErbB-2-positive BC and GC."

For more information on this research see: MiR-16 mediates trastuzumab and lapatinib response in ErbB-2-positive breast and gastric cancer via its novel targets CCNJ and FUBP1. Oncogene, 2016;35(48):6189-6202. Oncogene can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Oncogene - www.nature.com/onc/)


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Keywords for this news article include: Buenos Aires, Argentina, South America, Antineoplastic Monoclonal Antibodies, Tyrosine Kinase Inhibitors, Enzymes and Coenzymes, Drugs and Therapies, Gastroenterology, Antineoplastics, Medical Devices, HER2 Inhibitors, EGFR Inhibitors, Gastric Cancer, Biotechnology, Trastuzumab, Lapatinib, Oncology, Genetics, Institute for Biology Research.

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Central Nervous System Diseases and Conditions - 

Reports from Institute for Cancer Research and Treatment (IRCCS) Add New Data to Findings in Epilepsy (The direct costs of epilepsy in Russia. A prospective cost-of-illness study from a single center in Moscow)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Central Nervous System Diseases and Conditions - Epilepsy is now available. According to news reporting out of Milan, Italy, by NewsRx editors, research stated, "The objective of this study was to investigate prospectively the direct costs of epilepsy in Russia, taking a patient perspective and a bottom-up approach. The study was conducted in adolescents and adults with epilepsy seen in the ambulatory services of a city hospital in Moscow."

Our news journalists obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Patients were assigned to different prognostic categories: newly diagnosed epilepsy; epilepsy in remission for 2+ years; epilepsy in remission for <2 years or with occasional seizures; active, non drug-resistant epilepsy; drug-resistant epilepsy; and drug-resistant epilepsy in surgical candidates. Patients were followed prospectively for 12 months. Demographic and clinical features at admission were collected and correlated with costs. Cost estimates were based on the Russian National Health Service perspective and its implementation in Moscow. Cost items included drugs and laboratory/instrumental tests. The costs per patient were calculated for the entire sample and for each prognostic category."
separately. Univariate and multivariate analyses were performed. Included were 738 patients (393 men, 345 women aged 14-85 years). The median annual cost/patient was an element of 955 (IQR 521-2134; range 51-10,904). The median cost of drugs was an element of 643 (IQR 288-1866; range 0-9660), and the median cost of laboratory/instrumental testing was an element of 202 (IQR 160-270; range 20-1217). Mean costs varied across prognostic categories ranging from an element of 782 in newly diagnosed patients to 3777 in patients with drug-resistant epilepsy. Mean (SD) hospital costs ranged from an element of 646.7 (109.0) in patients with occasional seizures to an element of 950.0 (28.3) in surgical candidates. Independent predictors of total costs were younger age at diagnosis, disability status, generalized seizures, multiple seizure types, seizure severity, and etiology.

According to the news editors, the research concluded: "The cost of epilepsy in Moscow varies significantly depending on disease characteristics and response to drug treatment."

For more information on this research see: The direct costs of epilepsy in Russia. A prospective cost-of-illness study from a single center in Moscow. Epilepsy & Behavior, 2016;64():122-126. Epilepsy & Behavior can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Epilepsy & Behavior - www.journals.elsevier.com/epilepsy-and-behavior)

Our news journalists report that additional information may be obtained by contacting E. Beghi, IRCCS Inst Pharmacol Res Mario Negri, Milan, Italy. Additional authors for this research include M. Mizinova, I. Kaimovsky, O. Danilenko, E. Bianchi and E. Beghi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yebeh.2016.08.031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Nervous System Diseases and Conditions, Diagnostics and Screening, Epidemiology, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Drugs and Therapies, Drug Resistance, Hospital, Seizures, Epilepsy, Institute for Cancer Research and Treatment (IRCCS).

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Mycobacterium Infections - Tuberculosis

Reports from Institute of Applied Microbiology Highlight Recent Findings in Tuberculosis (A Physiologically Based Pharmacokinetic Model of Isoniazid and Its Application in Individualizing Tuberculosis Chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections - Tuberculosis. According to news originating from Aachen, Germany, by NewsRx correspondents, research stated, "Due to its high early bactericidal activity, isoniazid (INH) plays an essential role in tuberculosis treatment. Genetic polymorphisms of N-acetyltransferase type 2 (NAT2) cause a trimodal distribution of INH pharmacokinetics in slow, intermediate, and fast acetylators."

Our news journalists obtained a quote from the research from the Institute of Applied
Microbiology, "The success of INH-based chemotherapy is associated with acetylator and patient health status. Still, a standard dose recommended by the FDA is administered regardless of acetylator type or immune status, even though adverse effects occur in 5 to 33% of all patients. Slow acetylators have a higher risk of development of drug-induced toxicity, while fast acetylators and immune-deficient patients face lower treatment success rates. To mechanistically assess the trade-off between toxicity and efficacy, we developed a physiologically based pharmacokinetic (PBPK) model describing the NAT2-dependent pharmacokinetics of INH and its metabolites. We combined the PBPK model with a pharmacodynamic (PD) model of antimycobacterial drug effects in the lungs. The resulting PBPK/PD model allowed the simultaneous simulation of treatment efficacies at the site of infection and exposure to toxic metabolites in off-target organs. Subsequently, we evaluated various INH dosing regimens in NAT2-specific immunocompetent and immune-deficient virtual populations. Our results suggest the need for acetylator-specific dose adjustments for optimal treatment outcomes. A reduced dose for slow acetylators substantially lowers the exposure to toxic metabolites and thereby the risk of adverse events, while it maintains sufficient treatment efficacies. Vice versa, intermediate and fast acetylators benefit from increased INH doses and a switch to a twice-daily administration schedule."

According to the news editors, the research concluded: "Our analysis outlines how PBPK/PD modeling may be used to design and individualize treatment regimens."

For more information on this research see: A Physiologically Based Pharmacokinetic Model of Isoniazid and Its Application in Individualizing Tuberculosis Chemotherapy. Antimicrobial Agents and Chemotherapy, 2016;60(10):6134-6145. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from H. Cordes, Rhein Westfal TH Aachen, Inst Appl Microbiol IAMB, Aachen Biol & Biotechnol ABT, Aachen, Germany. Additional authors for this research include C. Thiel, H.E. Aschmann, V. Baier, L.M. Blank and L. Kuepfer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00508-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aachen, Germany, Europe, Pharmaceuticals, Risk and Prevention, Nicotinic Acid Derivatives, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Antituberculosis Agents, Gram-Positive Bacteria, Drugs and Therapies, Isoniazid Therapy, Pharmacokinetics, Antiinfectives, Chemotherapy, Hydrazines, Genetics, Institute of Applied Microbiology.

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Enzymes and Coenzymes - ADP Ribose Transferases

Reports from Institute of Cancer Describe Recent Advances in ADP Ribose Transferases [Leveraging an NQO1 Bioactivatable Drug for Tumor-Selective Use of Poly(ADP-ribose) Polymerase Inhibitors]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
Wellness Week -- New research on Enzymes and Coenzymes - ADP Ribose Transferases is the subject of a report. According to news reporting originating from Morgantown, West Virginia, by NewsRx correspondents, research stated, "Therapeutic drugs that block DNA repair, including poly(ADP-ribose) polymerase (PARP) inhibitors, fail due to lack of tumor-selectivity. When PARP inhibitors and beta-lapachone are combined, synergistic antitumor activity results from sustained NAD(P)H levels that refuel NQO1-dependent futile redox drug recycling."

Funders for this research include UTSW SCCC, Institute for Innovations in Medical Technology, CPRIT, NCI, UTSW-MD Anderson SPORE, AACR/PanCan.

Our news editors obtained a quote from the research from the Institute of Cancer, "Significant oxygen-consumption-rate/reactive oxygen species cause dramatic DNA lesion increases that are not repaired due to PARP inhibition. In NQO1(+) cancers, such as non-small-cell lung, pancreatic, and breast cancers, cell death mechanism switches from PARP1 hyperactivation-mediated programmed necrosis with beta-lapachone monotherapy to synergistic tumor-selective, caspase-dependent apoptosis with PARP inhibitors and beta-lapachone."

According to the news editors, the research concluded: "Synergistic antitumor efficacy and prolonged survival were noted in human orthotopic pancreatic and non-small-cell lung xenograft models, expanding use and efficacy of PARP inhibitors for human cancer therapy."

For more information on this research see: Leveraging an NQO1 Bioactivatable Drug for Tumor-Selective Use of Poly(ADP-ribose) Polymerase Inhibitors. *Cancer Cell*, 2016;30(6):940-952. *Cancer Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cancer Cell - www.journals.elsevier.com/cancer-cell/)

The news editors report that additional information may be obtained by contacting E.A. Bey, West Virginia Univ, Dept. of Pharmaceut Sci, Inst Canc, Morgantown, WV 26506, United States. Additional authors for this research include E.A. Motea, Z.R. Moore, J. Yao, Y. Dong, G. Chakrabarti, J.A. Kilgore, M.A. Silvers, P.L. Patidar, A. Cholka, F. Fattah, Y. Cha, G.G. Anderson, R. Kusko, M. Peyton, J.S. Yan, X.J. Xie, V. Sarode, N.S. Williams, J.D. Minna and .

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ccell.2016.11.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Morgantown, West Virginia, United States, North and Central America, Polymerase, Drugs and Therapies, Poly(ADP-ribose) Polymerases, ADP Ribose Transferases, Enzymes and Coenzymes, Glycosyltransferases, Genetics, Institute of Cancer.

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Heart Disorders and Diseases - Heart Failure

Reports from Institute of Cardiology Describe Recent Advances in Heart Failure (Positive Effects of the Reversion of Depression on the Sympathovagal Balance after Telerehabilitation in Heart Failure Patients)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Failure are discussed in a new report. According to news reporting originating in Warsaw, Poland, by NewsRx journalists, research stated, "Autonomic nervous system (ANS) dysfunction appears in the course of both chronic heart failure (CHF) and depression. Comprehensive cardiac rehabilitation (CCR), apart from improving physical capacity, can reduce depressive symptoms and leads to the restoration of ANS function among CHF patients."

The news reporters obtained a quote from the research from the Institute of Cardiology, "The purpose was to evaluate the influence of the reversion of depression (measured by Beck Depression Inventory [BDI] score, cut point <10) and the physical capacity improvement (measured by peak oxygen consumption [peak VO2; ml/kg per minute]) on the sympathovagal balance (measured by low/high frequency ratio [LF/ HF]) after CCR in CHF patients. The study group comprised 111 CHF patients (New York Heart Association II-III; left ventricular ejection fraction <= 40%). Patients were randomized (2:1) to 8-week CCR based on Nordic walking training (five times weekly) at 40-70% of maximal heart rate, training group (TG) n = 77, or to control group (CG) n = 34. The effectiveness of CCR was assessed by changes-delta (Delta) in LF/HF, BDI score, and peak VO2, as a result of comparing these parameters from the beginning and the end of the program. Eventually, 46 patients in TG and 23 patients in CG were eligible for simultaneous ANS and psychological status analysis. Only in TG the LF/HF decreased 2.06 +/- 1.14 versus 1.19 +/- 0.80 (P < 0.0001) and peak VO2 increased 16.83 +/- 3.72 versus 19.14 +/- 4.20 ml/kg per minute (P < 0.0001). Favorable results in CG were not observed. The differences between TG and CG were significant: Delta peak VO2 (P < 0.0001); Delta LF/HF (P = 0.0001). Depressive symptoms were substantially reduced in both groups (TG, P = 0.0006; CG, P = 0.0490). Nevertheless, the greatest improvement of sympathovagal balance was observed in patients whose depression was reversed, thanks to the CCR in comparison to other patients from TG and the entire CG."

According to the news reporters, the research concluded: "Positive effect of the sympatho-parasympathetic balance obtained during the home CCR based on Nordic walking training results from the additive effects of the reversion of depression and physical capacity improvement in CHF patients."


Our news correspondents report that additional information may be obtained by contacting E. Piotrowicz, Telecardiol Center, Inst Cardiol, PL-04628 Warsaw, Poland. Additional authors for this research include W. Piotrowski and R. Piotrowicz.

Keywords for this news article include: Warsaw, Poland, Europe, Autonomic Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Telerehabilitation, Heart Failure, Heart Disease, Telemedicine, Cardiology, Institute of Cardiology.

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Oncology

Reports from Institute of Himalayan Bioresource Technology Highlight Recent Findings in Oncology (Impact of point mutation P29S in RAC1 on tumorigenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology. According to news reporting from Himachal Prades, India, by NewsRx journalists, research stated, "A point mutation (P29S) in the RAS-related C3 botulinum toxin substrate 1 (RAC1) was considered to be a trigger for melanoma, a form of skin cancer with highest mortality rate. In this study, we have investigated the pathogenic role of P29S based on the conformational behavior of RAC1 protein toward guanosine triphosphate (GTP)."

The news correspondents obtained a quote from the research from the Institute of Himalayan Bioresource Technology, "Molecular interaction, molecular dynamics trajectory analysis (RMSD, RMSF, Rg, SASA, DSSP, and PCA), and shape analysis of binding pocket were performed to analyze the interaction energy and the dynamic behavior of native and mutant RAC1 at the atomic level. Due to this mutation, the RAC1 switch I region acquired more flexibility and, to compensate it, the switch II region becomes rigid in their conformational space, as a result of which the interaction energy of the protein for GTP increased. The overall results strongly implied that the changes in atomic conformation of the switch I and II regions in mutant RAC1 protein were a significant reason for its malignant transformation and tumorigenesis."

According to the news reporters, the research concluded: "We raised the opportunity for researchers to design possible therapeutic molecule by considering our findings."

For more information on this research see: Impact of point mutation P29S in RAC1 on tumorigenesis. Tumor Biology, 2016;37(11):15293-15304. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting R. Purohit, CSIR, Inst Himalayan Bioresource Technol, Div Biotechnol, Palampur, Himachal Prades, India. Additional authors for this research include C. Gopalakrishnan and R. Purohit.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5329-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Himachal Prades, India, Asia, Oncology, Genetics, Institute of Himalayan Bioresource Technology.

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Oncology - Breast Cancer

Reports from Institute of Molecular Cell Biology Provide New Insights into Breast Cancer (Transposon mutagenesis identifies genes that cooperate with mutant Pten in breast cancer progression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Triple-negative breast cancer (TNBC) has the worst prognosis of any breast cancer subtype. To better understand the genetic forces driving TNBC, we performed a transposon mutagenesis screen in a phosphatase and tensin homolog (Pten) mutant mice and identified 12 candidate trunk drivers and a much larger number of progression genes."

Financial support for this research came from Cancer Prevention and Research Institute of Texas (CPRIT).

Our news journalists obtained a quote from the research from the Institute of Molecular Cell Biology, "Validation studies identified eight TNBC tumor suppressor genes, including the GATA-like transcriptional repressor TRPS1. Down-regulation of TRPS1 in TNBC cells promoted epithelial-to-mesenchymal transition (EMT) by deregulating multiple EMT pathway genes, in addition to increasing the expression of SERPINE1 and SERPINB2 and the subsequent migration, invasion, and metastasis of tumor cells."

According to the news editors, the research concluded: "Transposon mutagenesis has thus provided a better understanding of the genetic forces driving TNBC and discovered genes with potential clinical importance in TNBC."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1613859113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Singapore, Singapore, Asia, Cancer, Genetics, Women's Health, Breast Cancer, Mutagenesis, Oncology, Institute of Molecular Cell Biology.

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Reports from Institute of Neurology Describe Recent Advances in Neuroscience (Copy number variations and stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nervous System Research - Neuroscience. According to news reporting out of Mangone, Italy, by NewsRx editors, research stated, "Stroke is the third leading cause of death worldwide after heart disease and all forms of cancers. Monogenic disorders, genetic, and environmental risk factors contribute to damaging cerebral blood vessels and, consequently, cause stroke."

Our news journalists obtained a quote from the research from the Institute of Neurology, "Developments in genomic research led to the discovery of numerous copy number variants (CNVs) that have been recently identified as a new tool for understanding the genetic basis of many diseases. This review discusses the current understanding of the types of stroke, the existing knowledge on the involvement of specific CNVs in stroke as well as the limitations of the methods used for detecting CNVs like SNP-microarray."

According to the news editors, the research concluded: "To confirm an unequivocally association between CNVs and stroke and extend the current findings, it would be desirable to use another methodology to detect smaller CNVs or CNVs in genomic regions poorly covered by this technique, for instance, CGH-array."

For more information on this research see: Copy number variations and stroke. *Neurological Sciences*, 2016;37(12):1895-1904. *Neurological Sciences* can be contacted at: Springer-Verlag Italia Srl, Via Decembrio, 28, Milan, 20137, Italy. (Springer - www.springer.com; Neurological Sciences - www.springerlink.com/content/1590-1874/)

Our news journalists report that additional information may be obtained by contacting R. Mazzei, CNR, Inst Neurol Sci, I-87050 Mangone, MS, Italy. Additional authors for this research include R. Mazzei and S. Cavallaro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10072-016-2658-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mangone, Italy, Europe, Neuroscience, Nervous System Research, Genetics, Article Review, Risk and Prevention, Institute of Neurology.

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Health and Medicine - Integrative Medicine

Reports from Integral University Advance Knowledge in Integrative Medicine (Evaluation of cytotoxic potential and apoptotic effect of a methanolic extract of Bauhinia racemosa Lam. against a human cancer cell line, HeLa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Integrative Medicine have
been published. According to news originating from Uttar Pradesh, India, by NewsRx correspondents, research stated, "The tropical medicinal plant Bauhinia racemosa Lam. (family: Caesalpiniaceae) is used within several systems of medicine and is popular among ethnic communities for the treatment of a variety of health problems. The aim of this study was to evaluate the cytotoxic activity and apoptotic effect of the methanolic extract of B. racemosa bark (MEBR) on a cancer cell line, HeLa."

Our news journalists obtained a quote from the research from Integral University, "The cytotoxic activity and apoptotic effects of MEBR were evaluated by methylthiazolyltetrazolium assay and 4',6-diamidino-2-phenylindole staining test respectively on HeLa, a cancer cell line. Changes in mitochondrial membrane potential and intracellular reactive oxygen species (ROS) level were also assessed by 5,5',6,6'-tetrachloro-1,1',3,3'-tetraethylbenzimidazol-carbocyanine iodide and dichlorodihydrofluorescein diacetate staining tests respectively. Total phenolic content was determined by colorimetric principle using gallic acid calibration curve. MEBR exposure of HeLa cells significantly decreased the cell viability (p < 0.001, IC50 = 80 mu g/ml) comparable to that of tamoxifen (p < 0.001, IC50 = 48 mu g/ml) in a concentration dependent manner. It also led to the depolarization of mitochondria and induced production of ROS initiating apoptotic effect in a concentration dependent manner. Total phenolic content was 886.8252 mg gallic acid equivalent per gram dried extract. MEBR seems to possess potent cytotoxic activity against a cancer cell line, HeLa and induces apoptosis."

According to the news editors, the research concluded: "This may provide a novel potent chemotherapeutic agent for human cancer which could be considered for further clinical studies for future drug development."


The news correspondents report that additional information may be obtained from M.A. Rahman, Integral Univ, Fac Pharm, UP CST Sponsored Project Lab, Lucknow 226026, Uttar Pradesh, India. Additional authors for this research include J. Akhtar, Sahabajda and M. Arshad.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.eujim.2016.02.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uttar Pradesh, India, Asia, Integrative Medicine, Health and Medicine, Cytotoxic Activity, Cell Line, Oncology, Therapy, Cancer, Integral University.

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**Pyruvate Kinase Deficiency**

**Reports from Intermountain Healthcare Describe Recent Advances in Pyruvate Kinase Deficiency (Siblings with Severe Pyruvate Kinase Deficiency and a Complex Genotype)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pyruvate Kinase Deficiency. According to news originating from Salt Lake City, Utah, by NewsRx correspondents, research stated, "Siblings presented as neonates with severe jaundice and transfusion-dependent hemolytic anemia."

Our news journalists obtained a quote from the research from Intermountain Healthcare, "Next-generation sequencing revealed both to have three heterozygous mutations in the gene encoding erythrocyte pyruvate kinase (PKLR), plus a heterozygous splice mutation in the beta-spectrin gene (SPTB). In addition, both have a different 5th mutation in a gene encoding other erythrocyte membrane proteins."

According to the news editors, the research concluded: "The asymptomatic parents and all three asymptomatic siblings have different sets of these mutations."


The news correspondents report that additional information may be obtained from R.D. Christensen, Intermountain Healthcare, Women & Newborns Clin Program, Salt Lake City, UT, United States. Additional authors for this research include H.M. Yaish, R.H. Nussenzveig and A.M. Agarwal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37828. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Phosphotransferases (Alcohol Group Acceptor), Kinase, Genetics, Genetics, Pyruvate Kinase Deficiency, Enzymes and Coenzymes, Keto Acids, Hematology, Pyruvates, Intermountain Healthcare.

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**Oncology - Thyroid Cancer**

**Reports from International Agency for Research on Cancer Highlight Recent Findings in Thyroid Cancer (Thyroid cancer burden in Central and South America)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Thyroid Cancer. According to news reporting originating in Lyon, France, by NewsRx journalists, research stated, "Rationale and objective: Incidence of thyroid cancer (TC) is rapidly increasing worldwide, but little is known about the TC burden in Central and South America (CSA). We describe the geographic patterns and trends of TC by sex in CSA."

The news reporters obtained a quote from the research from International Agency for Research on Cancer, "We obtained regional-and national-level incidence data from 48 population-based cancer registries in 13 countries and nationwide cancer deaths from the WHO
mortality database for 18 countries. We estimated world population age-standardized incidence rates (ASRs) and age-standardized mortality rates (ASMRs) per 100,000 person-years. We calculated ASRs by histological subtype. We estimated the annual percentage change (EAPC) to describe time trends. Between CSA countries, TC incidence and mortality rates varied from 8-fold to 12-fold and from 2-fold to 5-fold, respectively. In 2003-2007, the highest TC ASRs in females and males were in Ecuador (16.0 and 3.5, respectively), Brazil (14.4 and 3.4), Costa Rica (12.6 and 2.1) and Colombia (10.7 and 2.5). The highest ASMRs were in Ecuador, Colombia, Mexico, Peru and Panama (0.68-0.91 in females and 0.41-0.48 in males). Papillary TC was the most commonly diagnosed histological subtype, following the same incidence pattern as overall TC. In Argentinean, Brazilian, Chilean and Costa Rican females TC incidence increased by 2.2-17.9% annually, and papillary TC increased by 9.1-15.0% annually, while mortality remained stable between 1997 and 2008. In males, trends in TC were stable. TC occurred more frequently in females than in males."

According to the news reporters, the research concluded: "The overall high incidence and low mortality of TC suggest identification of subclinical disease due to improved detection methods."

For more information on this research see: Thyroid cancer burden in Central and South America. Cancer Epidemiology, 2016;44():S150-S157. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news correspondents report that additional information may be obtained by contacting M.S. Sierra, Int Agcy Res Canc, Sect Canc Surveillance, Lyon, France. Additional authors for this research include I. Soerjomataram and D. Forman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.07.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Cancer, Epidemiology, Thyroid Neoplasms, Thyroid Cancer, Oncology, International Agency for Research on Cancer.

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2012, through December 31, 2013, for adults with a primary diagnosis of PE initiating treatment with rivaroxaban or warfarin."

The news reporters obtained a quote from the research, "Warfarin patients were matched 1:1 to rivaroxaban patients using exact and propensity score matching. Hospital LOS, treatment patterns, and hospitalization costs were evaluated. Matched cohorts included 751 rivaroxaban-treated patients and 751 warfarin-treated patients. Adjusted mean LOS was 3.77 days for rivaroxaban patients (95% CI, 3.66-3.87 days) and 5.48 days for warfarin patients (95% CI, 5.33-5.63 days; P < .001). Mean (SD) LOS was shorter for patients taking rivaroxaban whether admission was for provoked PE (rivaroxaban: 5.2 [5.1] days; warfarin: 7.0 [6.5] days; P < .001) or unprovoked PE (rivaroxaban: 3.4 [2.3] days; warfarin: 5.1 [2.7] days; P < .001). Mean (SD) days from first dose to discharge were 2.5 (1.7) (rivaroxaban) and 4.0 (2.9) (warfarin) when initiated with parenteral anticoagulants (P < .001) and 2.7 (1.7) (rivaroxaban) and 4.0 (2.2) (warfarin) without parenteral anticoagulants (P < .001). The rivaroxaban cohort incurred significantly lower unadjusted mean (SD) hospitalization costs (rivaroxaban: $8473 [9105]; warfarin: $10,291 [9185]; P < .001), confirmed by covariate adjustment with generalized linear modeling estimating predicted mean hospitalization costs of $8266 for rivaroxaban patients (95% CI, $7851-$8681) and $10,511 for warfarin patients (95% CI, $10,031-$10,992; P < .001)."

According to the news reporters, the research concluded: "Patients with PE treated with rivaroxaban incurred significantly lower hospitalization costs by $2245 per admission compared with patients treated with warfarin, which was attributable to cost offsets from 1.71 fewer days of stay in the hospital."

For more information on this research see: Pulmonary Embolism Inpatients Treated With Rivaroxaban Had Shorter Hospital Stays and Lower Costs Compared With Warfarin. Clinical Therapeutics, 2016;37(11):2496-2503. Clinical Therapeutics can be contacted at: Elsevier, 685 Route 202-206, Bridgewater, NJ 08807, USA. (Elsevier - www.elsevier.com; Clinical Therapeutics - www.journals.elsevier.com/clinical-therapeutics/)

Our news correspondents report that additional information may be obtained by contacting J.M. Margolis, Truven Hlth Analyt, Bala Cynwyd, PA 19004, United States. Additional authors for this research include S. Deitelzweig, J. Kline, O. Tran, D.M. Smith, C. Crivera, B. Bookhart and J. Schein.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinthera.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bala Cynwyd, Pennsylvania, United States, North and Central America, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Coumarin and Indandione Derivative, Vascular Diseases and Conditions, Lung Diseases and Conditions, Coumarins and Indandiones, Embolism and Thrombosis, Coagulation Modifiers, Drugs and Therapies, Pulmonary Embolism, Warfarin Therapy, Anticoagulants, Rodenticide, Hospital.

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Reports from J.M. Sanders and Colleagues Advance Knowledge in Antibiotics (Inclusion of Vancomycin as Part of Broad-Spectrum Coverage Does Not Improve Outcomes in Patients with Intra-Abdominal Infections: A Post Hoc Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antibiotics have been published. According to news originating from Fort Worth, Texas, by NewsRx correspondents, research stated, "Management of complicated intra-abdominal infections (cIAIs) includes broad-spectrum antimicrobial coverage and commonly includes vancomycin for the empiric coverage of methicillin-resistant Staphylococcus aureus (MRSA). Ideally, culture-guided de-escalation follows to promote robust antimicrobial stewardship."

Our news journalists obtained a quote from the research, "This study assessed the impact and necessity of vancomycin in cIAI treatment regimens. A post hoc analysis of the Study to Optimize Peritoneal Infection Therapy (STOP-IT) trial was performed. Patients receiving piperacillin-tazobactam (P/T) and/or a carbapenem were included with categorization based on use of vancomycin. Univariate and multivariable analyses evaluated effects of including vancomycin on individual and the composite of undesirable outcomes (recurrent IAI, surgical site infection [SSI], or death). The study cohort included 344 patients with 110 (32%) patients receiving vancomycin. Isolation of MRSA occurred in only eight (2.3%) patients. Vancomycin use was associated with a similar composite outcome, 29.1%, vs. no vancomycin, 22.2% (p=0.17). Patients receiving vancomycin had (mean [standard deviation]) higher Acute Physiology and Chronic Health Evaluation II scores (13.1 [6.6] vs. 9.4 [5.7], p<0.0001), extended length of stay (12.6 [10.2] vs. 8.6 [8.0] d, p<0.001), and prolonged antibiotic courses (9.1 [8.0] vs. 7.1 [4.9] d, p=0.02). After risk adjustment in a multivariate model, no significant difference existed for the measured outcomes. This post hoc analysis reveals that addition of vancomycin occurred in nearly one third of patients and more often in sicker patients."

According to the news editors, the research concluded: "Despite this selection bias, no appreciable differences in undesired outcomes were demonstrated, suggesting limited utility for adding vancomycin to cIAI treatment regimens."

For more information on this research see: Inclusion of Vancomycin as Part of Broad-Spectrum Coverage Does Not Improve Outcomes in Patients with Intra-Abdominal Infections: A Post Hoc Analysis. Surgical Infections, 2016;17(6):694-699. Surgical Infections can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Surgical Infections - www.liebertpub.com/overview/surgical-infections/53/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/sur.2016.095. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fort Worth, Texas, United States, North and
Oncology - Liver Cancer

Reports from James Cook University Advance Knowledge in Liver Cancer (Hepatocellular carcinoma and non-alcoholic steatohepatitis: The state of play)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Liver Cancer. According to news reporting out of Townsville, Australia, by NewsRx editors, research stated, "Hepatocellular carcinoma (HCC) is now the fifth cancer of greatest frequency and the second leading cause of cancer related deaths worldwide. Chief amongst the risks of HCC are hepatitis B and C infection, aflatoxin B1 ingestion, alcoholism and obesity."

Our news journalists obtained a quote from the research from James Cook University, "The latter can promote non-alcoholic fatty liver disease (NAFLD), that can lead to the inflammatory form non-alcoholic steatohepatitis (NASH), and can in turn promote HCC. The mechanisms by which NASH promotes HCC are only beginning to be characterized. Here in this review, we give a summary of the recent findings that describe and associate NAFLD and NASH with the subsequent HCC progression. We will focus our discussion on clinical and genomic associations that describe new risks for NAFLD and NASH promoted HCC."

According to the news editors, the research concluded: "In addition, we will consider novel murine models that clarify some of the mechanisms that drive NASH HCC formation."


Our news journalists report that additional information may be obtained by contacting B. Charrez, Berenice Charrez, Lionel Hebbard, Dept. of Molecular and Cell Biology, James Cook University, Townsville, QLD 4811, Australia. Additional authors for this research include L. Qiao and L. Hebbard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i8.2494. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Oncology, Townsville, Carcinomas, Liver Cancer, Article Review, Australia and New Zealand, Liver Diseases and Conditions, Non Alcoholic Steatohepatitis.

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Lung Diseases and Conditions - Pulmonary...

Reports from Japan Women's University Advance Knowledge in Pulmonary Hypertension (Fluidic Culture and Analysis of Pulmonary Artery Smooth Muscle Cells for the Study of Pulmonary Hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Pulmonary Hypertension is the subject of a report. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "There is an urgent need to develop novel in-vitro models to mimic the disease conditions in pulmonary hypertension (PH)."

Our news journalists obtained a quote from the research from Japan Women's University, "We developed a microfluidic cell culture device for PH studies that withstood high shear stress. Techniques were also developed for cell recovery from the microchannel and mRNA isolation from the collected cells."

According to the news editors, the research concluded: "Using this device, we found that shear stress caused a 7.5-fold increase in the transcription levels of a PH-related molecule, Cyclin D1."


The news correspondents report that additional information may be obtained from K. Sato, Japan Womens Univ, Dept. of Chem & Biol Sci, Fac Sci, Bunkyo Ku, Tokyo 1128681, Japan. Additional authors for this research include M. Nakajima, S. Tokuda and A. Ogawa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2116/analsci.32.1217. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Cardiovascular Diseases and Conditions, Lung Diseases and Conditions, Pulmonary Hypertension, Pulmonary Artery, Muscle Cells, Angiology, Genetics, Japan Women's University. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

Cardiovascular Diseases and Conditions -...

Reports from Jichi Medical University Describe Recent Advances in Hypertension (Add-On Use of Eplerenone Is Effective for Lowering Home and Ambulatory Blood Pressure in Drug-Resistant Hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Hypertension are presented in a new report. According to news reporting from Tochigi, Japan, by NewsRx journalists, research stated, "The authors aimed to investigate the blood pressure (BP)-lowering ability of eplerenone in drug-resistant hypertensive patients. A total of 57 drug-resistant hypertensive patients whose home BP was 135/85 mm Hg were investigated."
The news correspondents obtained a quote from the research from Jichi Medical University. "The patients were randomized to either an eplerenone group or a control group and followed for 12 weeks. The efficacy was evaluated by clinic, home, and ambulatory BP monitoring. Urinary albumin, pulse wave velocity, and flow-mediated vasodilation (FMD) were also evaluated. Home morning systolic BP (148 +/- 15 vs 140 +/- 15 mm Hg) and evening systolic BP (137 +/- 16 vs 130 +/- 16 mm Hg) were significantly lowered in the eplerenone group (n=35) compared with baseline (both P<.05), while unchanged in the control group (n=22). BP reductions in the eplerenone group were most pronounced for ambulatory awake systolic BP (P=.04), awake diastolic BP (P=.004), and 24-hour diastolic BP (P=.02). FMD was significantly improved in the eplerenone group."

According to the news reporters, the research concluded: "In patients with drug-resistant hypertension, add-on use of eplerenone was effective in lowering BP, especially home and ambulatory awake BP."


Our news journalists report that additional information may be obtained by contacting K. Eguchi, Jichi Med Univ, Sch Med, Dept. of Med, Div Cardiovasc Med, Tochigi, Japan. Additional authors for this research include T. Kabutoya, S. Hoshide, S. Ishikawa and K. Kario.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12860. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tochigi, Japan, Asia, Cardiovascular Diseases and Conditions, Aldosterone Receptor Antagonists, Cardiovascular Agents, Drugs and Therapies, Eplerenone Therapy, Drug Resistance, Pharmaceuticals, Blood Pressure, Hypertension, Jichi Medical University. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

Drugs and Therapies - Combination Therapy

Reports from Jikei University Provide New Insights into Combination Therapy (Three-year visual outcomes of intravitreal ranibizumab with or without photodynamic therapy for polypoidal choroidal vasculopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Combination Therapy is now available. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "PurposeTo compare 3-year visual outcomes after intravitreal ranibizumab (IVR) monotherapy and combination therapy of photodynamic therapy (PDT) with IVR for polypoidal choroidal vasculopathy (PCV). MethodsMedical records for 45 eyes in 45 patients (34 men, 11 women; mean age, 73.8years old; range, 62-86years old) with treatment-naive PCV were reviewed retrospectively."

Reports from Jikei University Provide New Insights into Combination Therapy (Three-year visual outcomes of intravitreal ranibizumab with or without photodynamic therapy for polypoidal choroidal vasculopathy)
Our news journalists obtained a quote from the research from Jikei University, "Of the 45 eyes, 20 were treated with IVR monotherapy and 25 with combination therapy. Mean change in best-corrected visual acuity, numbers of injections of IVR and length of treatment-free period from baseline at month 36 were observed. Adverse events were monitored. Results: The change in visual acuity after combination therapy was significantly better than that after IVR monotherapy (p=0.0399). At 36 months, improvement in visual acuity was seen in five eyes (25.0%) in the IVR monotherapy group and 13 eyes (52.0%) in the combination therapy group. The treatment-free period was significantly longer in the combination therapy group (p=0.0008). Additional IVR therapy was required significantly more frequently in the IVR monotherapy group (p=0.0026). Post-treatment subretinal haemorrhage or retinal pigment epithelium tear occurred only in the IVR monotherapy group, in one eye (5.0%) and one eye (5.0%), respectively. Conclusion: Initial therapy consisting of a single session of PDT combined with IVR improves vision in treatment-naive PCV."

According to the news editors, the research concluded: "Compared with IVR monotherapy, this combination therapy may be more effective for PCV."


Our news journalists report that additional information may be obtained by contacting T. Sakai, Jikei Univ, Dept. of Ophthalmol, Sch Med, Tokyo, Japan. Additional authors for this research include K. Okano, H. Kohno and H. Tsuneoka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/aos.13130. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Antiangiogenic Ophthalmic Agents, Ophthalmic Preparations, Choroidal Vasculopathy, Monoclonal Antibodies, Drugs and Therapies, Combination Therapy, Biotechnology, Photodynamics, Immunotherapy, Ranibizumab, Jikei University.

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Peptide Proteins - Proinsulin

Reports from Jilin University Add New Data to Findings in Proinsulin [Effects of Di-(2-ethylhexyl) Phthalate on Lipid Metabolism by the JAK/STAT Pathway in Rats]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Peptide Proteins - Proinsulin is the subject of a report. According to news originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "The most widely used plasticizer, di-(2-ethylhexyl) phthalate (DEHP), is known to affect lipid metabolism and adipogenesis. We studied the effects of dietary DEHP exposure on metabolism in rats as well as the role of the JAK/STAT pathway in this process."
Our news journalists obtained a quote from the research from Jilin University, "Eighty rats were exposed to DEHP (0, 5, 50 and 500 mg/kg/d) through dietary intake for 4 weeks. We then collected blood samples, liver, and adipose tissues to detect modifications in the levels of serum lipids, leptin, adiponectin and insulin. JAK3, STAT5a and PPAR gamma expression were detected at both the gene and protein levels. The activation of JAK3 and STAT5a was also detected. The DEHP-exposed rats had increased body weight, serum lipid, insulin, and leptin levels. Moreover, the JAK3/STAT5a pathway was activated in the adipose tissue; however, this pathway was not activated in the liver. The mRNA of SREBP-1c in the liver was increased significantly among each of the groups, in contrast to the levels found in the mature SREBP-1c protein form. Furthermore, the expression of FABP4, Acox and FASN was decreased in the liver, but increased in adipose tissue."

According to the news editors, the research concluded: "Thus, we conclude that exposure to DEHP reduces the hydrolysis of lipid and promotes triglyceride accumulation by oppositely regulating the activation state of JAK/STAT pathway in the liver and adipose tissue, resulting in the disorder of body lipid metabolism and obesity."


Keywords for this news article include: Changchun, People's Republic of China, Asia, Peptide Proteins, Peptide Hormones, Proinsulin, Genetics, Jilin University.

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Enzymes and Coenzymes - Phosphotransferases...

Reports from Jilin University Advance Knowledge in Phosphotransferases (Alcohol Group Acceptor) [The Role of Deoxycytidine Kinase (dCK) in Radiation-Induced Cell Death]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Enzymes and Coenzymes - Phosphotransferases (Alcohol Group Acceptor) is the subject of a report. According to news reporting out of Changchun, People's Republic of China, by NewsRx editors, research stated, "Deoxycytidine kinase (dCK) is a key enzyme in deoxyribonucleoside salvage and the anti-tumor activity for many nucleoside analogs. dCK is activated in response to ionizing radiation (IR)-induced DNA damage and it is phosphorylated on Serine 74 by the Ataxia-Telangiectasia Mutated (ATM) kinase in order to activate the cell cycle G2/M checkpoint. However, whether dCK plays a role in radiation-induced cell death is less clear."

Our news journalists obtained a quote from the research from Jilin University, "In this study, we genetically modified dCK expression by knocking down or expressing a WT
(wild-type), S74A (abrogates phosphorylation) and S74E (mimics phosphorylation) of dCK. We found that dCK could decrease IR-induced total cell death and apoptosis. Moreover, dCK increased IR-induced autophagy and dCK-S74 is required for it. Western blotting showed that the ratio of phospho-Akt/Akt, phospho-mTOR/mTOR, phospho-P70S6K/P70S6K significantly decreased in dCK-WT and dCK-S74E cells than that in dCK-S74A cells following IR treatment. Reciprocal experiment by co-immunoprecipitation showed that mTOR can interact with wild-type dCK. IR increased polyploidy and decreased G2/M arrest in dCK knock-down cells as compared with control cells."

According to the news editors, the research concluded: "Taken together, phosphorylated and activated dCK can inhibit IR-induced cell death including apoptosis and mitotic catastrophe, and promote IR-induced autophagy through PI3K/Akt/mTOR pathway."

For more information on this research see: The Role of Deoxycytidine Kinase (dCK) in Radiation-Induced Cell Death. International Journal of Molecular Sciences, 2016;17 (11):2469-2484. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting R. Zhong, Jilin University, Sch Public Hlth, Key Lab Radiobiol, Minist Hlth, Changchun 130021, People's Republic of China. Additional authors for this research include R. Xin, Z.Y. Chen, N. Liang, Y. Liu, S.M. Ma and X.D. Liu.

Keywords for this news article include: Changchun, People's Republic of China, Asia, Phosphotransferases (Alcohol Group Acceptor), Enzymes and Coenzymes, Deoxycytidine Kinase, Genetics, Jilin University.

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**Abdominal Aortic Aneurysm**

**Reports from Johns Hopkins University Add New Data to Findings in Abdominal Aortic Aneurysm (Abdominal aortic aneurysm repair in octogenarians is associated with higher mortality compared with nonoctogenarians)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Abdominal Aortic Aneurysm is the subject of a report. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "Age is a well-known independent risk factor for death after abdominal aortic aneurysm (AAA) repair. However, there is significant debate about the utility of AAA repair in older patients."

Our news journalists obtained a quote from the research from Johns Hopkins University, "In this study, mortality outcomes after endovascular AAA repair (EVAR) and open AAA repair (OAR) in octogenarians (aged >= 80 years) were compared with younger patients (aged < 80 years). All patients recorded in the Vascular Quality Initiative database (2002-2012) who underwent infrarenal AAA repair were included. Univariable and multivariable statistics were used to compare perioperative (30-day) and 1-year mortality outcomes between octogenarians vs nonoctogenarians for OAR and EVAR. During the study period, 21,874 patients underwent AAA repair (OAR, 5765; EVAR, 16,109), including 4839 octogenarians (OAR, 765; EVAR, 4074) and 17,035 nonoctogenarians (OAR, 5000; EVAR, 12,035). Octogenarians (mean age, 83.0 +/- 0.1 years) were less frequently male (66% vs 75%) and had a
higher prevalence of congestive heart failure (9.9% vs 7.1%), chronic renal insufficiency (12.2% vs 7.5%), and a history of aortic surgery (14.3% vs 7.7%) compared with nonoctogenarians (P < .01 for all). Intraoperative use of blood transfusions and vasopressors was more common in octogenarians for OAR (blood: 3.3 +/- 4.4 vs 1.8 +/- 3.7 units; vasopressors: 45.2% vs 32.8%) and EVAR (blood: 0.43 +/- 1.7 vs 0.31 +/- 1.6 units; vasopressors: 7.6% vs 5.7%; P < .01 for all). Contrast dye volumes used during EVAR were similar in octogenarians and nonoctogenarians (108 +/- 71 vs 107 +/- 68 mL; P = .18). Perioperative mortality after OAR was 20.1% in octogenarians compared with 7.1% in nonoctogenarians (P < .01). Perioperative mortality after EVAR was 3.8% in the octogenarians compared with 1.6% in nonoctogenarians (P < .01). One-year mortality among octogenarians vs nonoctogenarians was 26% vs 9.7% for OAR and 8.9% vs 4.3% for EVAR (log-rank test, P < .01 for both). Multivariable analysis controlling for baseline and intraoperative differences between groups demonstrated that age >= 80 years increased the risk of 30-day and 1-year mortality after AAA repair by 223% and 187%, respectively (P < .01 for both). AAA repair should be approached with extreme caution in octogenarians.

According to the news editors, the research concluded: "Perioperative and 1-year mortality rates after OAR are particularly high in the older population, suggesting that the appropriate aneurysm size threshold for OAR might be larger due to the greater operative risk in octogenarian patients."


Our news journalists report that additional information may be obtained by contacting M.B. Malas, Johns Hopkins Med Inst, Div Vasc & Endovasc Therapy, Baltimore, MD 21205, United States. Additional authors for this research include T. Obeid, I. Arhuidese, U. Qazi and M.B. Malas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2016.03.440. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiovascular Diseases and Conditions, Surgery, Risk and Prevention, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Cardiology, Johns Hopkins University.

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available. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Using a mouse model of experimental autoimmune myocarditis (EAM), we showed for the first time that IL-23 stimulation of CD4(+) T cells is required only briefly at the initiation of GM-CFS-dependent cardiac autoimmunity. IL-23 signal, acting as a switch, turns on pathogenicity of CD4(+) T cells, and becomes dispensable once autoreactivity is established."

Our news journalists obtained a quote from the research from Johns Hopkins University, "Il23a(-/-) mice failed to mount an efficient Th17 response to immunization, and were protected from myocarditis. However, remarkably, transient IL-23 stimulation ex vivo fully restored pathogenicity in otherwise nonpathogenic CD4(+) T cells raised from Il23a(-/-) donors. Thus, IL-23 may no longer be necessary to uphold inflammation in established autoimmune diseases. In addition, we demonstrated that IL-23-induced GM-CSF mediates the pathogenicity of CD4(+) T cells in EAM. The neutralization of GM-CSF abrogated cardiac inflammation. However, sustained IL-23 signaling is required to maintain IL-17A production in CD4(+) T cells. Despite inducing inflammation in Il23a(-/-) recipients comparable to wild-type (WT), autoreactive CD4(+) T cells downregulated IL-17A production without persistent IL-23 signaling."

According to the news editors, the research concluded: "This divergence on the controls of GM-CSF-dependent pathogenicity on one side and IL-17A production on the other side may contribute to the discrepant efficacies of anti-IL-23 therapy in different autoimmune diseases."


The news correspondents report that additional information may be obtained from L. Wu, W Harry Feinstone Dept. of Molecular Microbiology and Immunology, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, United States. Additional authors for this research include N.L. Diny, S. Ong, J.G. Barin, X. Hou, N.R. Rose, M.V. Talor and D. Cihakova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/eji.201545924. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maryland, Baltimore, Cardiology, Immunology, Myocarditis, Inflammation, United States, Heart Disease, Cardiovascular, Cardiomyopathies, North and Central America, Heart Disorders and Diseases, Autoimmune Diseases and Conditions, Immune System Diseases and Conditions.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Reports from Kaiser Permanente Advance Knowledge in HIV/AIDS**

*(Preexposure Prophylaxis for HIV Prevention in a Large Integrated Health Care System: Adherence, Renal Safety, and Discontinuation)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Researchers detail new data in Immune System Diseases and Conditions - HIV/AIDS. According to news reporting out of Oakland, California, by NewsRx editors, research stated, "Placebo-controlled and open-label studies have demonstrated the safety and efficacy of daily oral preexposure prophylaxis (PrEP) in preventing HIV infection, but data are limited on real-world PrEP use. We conducted a cohort study from July 2012 through June 2015 of Kaiser Permanente Northern California members initiating PrEP."

Our news journalists obtained a quote from the research from Kaiser Permanente, "We assessed pharmacy refill adherence and discontinuation, decreases in estimated glomerular filtration rate (eGFR), and sexually transmitted infection (STI)/HIV incidence. Overall, 972 individuals initiated PrEP, accumulating 850 person-years of PrEP use. Mean adherence was 92% overall. Black race/ethnicity [adjusted risk ratio (aRR) 3.0; 95% confidence interval: 1.7 to 5.1, P<0.001], higher copayments (aRR 2.0; 1.2 to 3.3, P=0.005), and smoking (aRR 1.6; 1.1 to 2.3, P=0.025) were associated with 80% adherence. PrEP was discontinued by 219 (22.5%); female sex (aRR 2.6; 1.5 to 4.6, P<0.001) and drug/alcohol abuse (aRR 1.8; 1.3 to 2.6, P=0.002) were associated with discontinuation. Among 909 with follow-up creatinine testing, 141 (15.5%) had an eGFR,70 mL.min⁻¹.1.73 m⁻² and 5 (0.6%) stopped PrEP because of low eGFR. Quarterly STI positivity was high and increased over time for rectal chlamydia (P<0.001) and urethral gonorrhea (P=0.012). No HIV seroconversions occurred during PrEP use; however, 2 occurred in individuals who discontinued PrEP after losing insurance coverage. PrEP adherence was high in clinical practice, consistent with the lack of HIV seroconversions during PrEP use. Discontinuation because of renal toxicity was rare. STI screening every 6 months, as recommended by current guidelines, may be inadequate."

According to the news editors, the research concluded: "Strategies are needed to increase PrEP access during gaps in insurance coverage."


Our news journalists report that additional information may be obtained by contacting J.L. Marcus, Kaiser Permanente Northern Calif, Div Res, Oakland, CA 94612, United States. Additional authors for this research include L.B. Hurley, C.B. Hare, D.P. Nguyen, T. Phengrasamy, M.J. Silverberg, J.E. Stoltey and J.E. Volk.

Keywords for this news article include: Oakland, California, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Kidney, Risk and Prevention, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, Nephrology, HIV/AIDS, Kaiser Permanente.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating from Kaohsiung, Taiwan, by NewsRx correspondents, research stated, "Pregnancy is a critical time for fetal programming of hypertension. Nitric oxide deficiency during pregnancy causes hypertension in adult offspring."

Our news editors obtained a quote from the research from Kaohsiung Medical University, "We examined whether maternal melatonin or N-acetylcysteine therapy can prevent N-G-nitro-L-arginine-methyl ester induced fetal programming of hypertension in adult offspring. Next, we aimed to identify potential gatekeeper pathways that contribute to N-G nitro-L-arginine-methyl ester-induced programmed hypertension using the next generation RNA sequencing technology. Pregnant Sprague-Dawley rats were assigned to 4 groups: control, N-G-nitro-L-arginine-methyl ester, N-G-nitro-L-arginine-methyl-ester + melatonin, and N-G-nitro-L-arginine-methyl ester+N-acetylcysteine. Pregnant rats received N-G-nitro-L-arginine-methyl ester administration at 60 mg/kg/d subcutaneously during pregnancy alone, with additional 0.01% melatonin in drinking water, or with additional 1% N-acetylcysteine in drinking water during the entire pregnancy and lactation. Male offspring (n = 8/group) were killed at 12 weeks of age. N-G-nitro-L-arginine-methyl ester exposure during pregnancy induced programmed hypertension in adult male offspring, which was prevented by maternal melatonin or N-acetylcysteine therapy. Protective effects of melatonin and N-acetylcysteine against N-G-nitro-L-arginine-methyl ester-induced programmed hypertension were associated with an increase in hydrogen sulfide-generating enzymes and hydrogen sulfide synthesis in the kidneys. Nitric oxide inhibition by N-G nitro-L-arginine-methyl ester in pregnancy caused > 2000 renal transcripts to be modified during nephrogenesis stage in 1-day-old offspring kidney. Among them, genes belong to the renin-angiotensin system, and arachidonic acid metabolism pathways were potentially involved in the N-G nitro-L-arginine-methyl ester-induced programmed hypertension. However, melatonin and N-acetylcysteine reprogrammed the renin-angiotensin system and arachidonic acid pathway differentially. Our results indicated that antioxidant therapy, by melatonin or N-acetylcysteine, in pregnant rats with nitric oxide deficiency can prevent programmed hypertension in male adult offspring. Early intervention with specific antioxidants that target redox imbalance in pregnancy to reprogram hypertension may well allow us to reduce the future burden of hypertension."

According to the news editors, the research concluded: "The roles of transcriptome changes that are induced by N-G-nitro-L-arginine-methyl ester in the offspring kidney require further clarification."


The news editors report that additional information may be obtained by contacting C.N. Hsu, Kaohsiung Medical University, Sch Pharm, Kaohsiung, Taiwan. Additional authors for this research include C.T. Lee, J.Y.H. Chan and C.N. Hsu.

Keywords for this news article include: Kaohsiung, Taiwan, Asia, Cardiovascular Diseases and Conditions, Respiratory Inhalant Products, Free Radical Scavenger, Enzymes and Coenzymes, Essential Amino Acids, Noncarboxylic Acids, Inorganic Chemicals, Drugs
Reports from Karolinska Institute Add New Data to Findings in Heart Attack (Time Trends in Incidence and Mortality of Acute Myocardial Infarction, and All-Cause Mortality following a Cardiovascular Prevention Program in Sweden)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting originating in Stockholm, Sweden, by NewsRx journalists, research stated, "In 1988, a cardiovascular prevention program which combined an individual and a population-based strategy was launched within primary health-care in Sollentuna, a municipality in Stockholm County. The aim of this study was to investigate time trends in the incidence of and mortality from acute myocardial infarction and all-cause mortality in Sollentuna compared with the rest of Stockholm County during a period of two decades following the implementation of a cardiovascular prevention program."

The news reporters obtained a quote from the research from Karolinska Institute, "The average population in Sollentuna was 56,589 (49% men) and in Stockholm County (Sollentuna included) 1,795,504 (49% men) during the study period of 1987-2010. Cases of hospitalized acute myocardial infarction and death were obtained for the population of Sollentuna and the rest of Stockholm County using national registries of hospital discharges and deaths. Acute myocardial infarction incidence and mortality were estimated using the average population of Sollentuna and Stockholm in 1987-2010. During the observation period, the incidence of acute myocardial infarction decreased more in Sollentuna compared with the rest of Stockholm County in women (-22% vs. -7%; for difference in slope <0.05). There was a trend towards a greater decline in Sollentuna compared to the rest of Stockholm County in the incidence of acute myocardial infarction (in men), acute myocardial mortality, and all-cause mortality but the differences were not significant."

According to the news reporters, the research concluded: "During a period of steep decline in acute myocardial infarction incidence and mortality in Stockholm County the municipality of Sollentuna showed a stronger trend in women possibly compatible with favorable influence of a cardiovascular prevention program."

For more information on this research see: Time Trends in Incidence and Mortality of Acute Myocardial Infarction, and All-Cause Mortality following a Cardiovascular Prevention Program in Sweden. Plos One, 2015;10(11):e0140201. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news correspondents report that additional information may be obtained by contacting G. Journath, Unit of Cardiology, Dept. of Medicine, Karolinska Institutet, Stockholm, Sweden. Additional authors for this research include N. Hammar, S. Elofsson, A.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1371/journal.pone.0140201. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Stockholm, Cardiology,
Epidemiology, Heart Attack, Heart Disease, Cardiovascular, Myocardial Ischemia, Myocardial
Infarction, Heart Disorders and Diseases, Vascular Diseases and Conditions.

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Cardiovascular Diseases and Conditions - Venous...

Reports from Karolinska Institute Describe Recent Advances in Venous
Thromboembolism (Development and validation of risk prediction
model for venous thromboembolism in postpartum women:
multinational cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Venous
Thromboembolism are discussed in a new report. According to news originating from
Stockholm, Sweden, by NewsRx correspondents, research stated, "To develop and validate a
risk prediction model for venous thromboembolism in the first six weeks after delivery (early
postpartum). Cohort study. Records from England based Clinical Practice Research Datalink
(CPRD) linked to Hospital Episode Statistics (HES) and data from Sweden based registry."

Our news journalists obtained a quote from the research from Karolinska Institute,
"All pregnant women registered with CPRD-HES linked data between 1997 and 2014 and
Swedish medical birth registry between 2005 and 2011 with postpartum follow-up. MAIN
OUTCOME E Multivariable logistic regression analysis was used to develop a risk prediction
model for postpartum venous thromboembolism based on the English data, which was
externally validated in the Swedish data. 433 353 deliveries were identified in the English
cohort and 662 387 in the Swedish cohort. The absolute rate of venous thromboembolism was
7.2 per 10 000 deliveries in the English cohort and 7.9 per 10 000 in the Swedish cohort.
Emergency caesarean delivery, stillbirth, varicose veins, pre-eclampsia/eclampsia, postpartum
infection, and comorbidities were the strongest predictors of venous thromboembolism in the
final multivariable model. Discrimination of the model was similar in both cohorts, with a C
statistic above 0.70, with excellent calibration of observed and predicted risks. The model
identified more venous thromboembolism events than the existing national English (sensitivity
68% v 63%) and Swedish guidelines (30% v 21%) at similar thresholds. A new prediction
model that quantifies absolute risk of postpartum venous thromboembolism has been developed
and externally validated."

According to the news editors, the research concluded: "It is based on clinical
variables that are available in many developed countries at the point of delivery and could serve
as the basis for real time decisions on obstetric thromboprophylaxis."

For more information on this research see: Development and validation of risk
prediction model for venous thromboembolism in postpartum women: multinational cohort
contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London
Reports from Kerman University of Medical Sciences Highlight Recent Findings in Pruritus (Role of Pregabalin in Management of Pruritus: A Literature Review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Skin Diseases and Conditions - Pruritus have been published. According to news reporting from Kerman, Iran, by NewsRx journalists, research stated, "Pruritus can be one of the distressing symptoms of many dermatologic, systemic, neurologic or psychiatric disorders. In each case, the origin of itch is in the skin and/or the nervous system."

The news correspondents obtained a quote from the research from the Kerman University of Medical Sciences, "Involvement of the nervous system causes neurogenic, psychogenic or neuropathic itch. Itch sensation is transferred to the central nervous system via unmyelinated C-type nerve fibers, and many mediators and receptors engage in the its induction and transmission. Also it has been demonstrated that there are similarities and interactions between neurotransmitters and pathways of pain and itch sensation. Hence, effective drugs in reducing the neuropathic pain such as pregabalin have been studied and used in the management of different itchy conditions. In this narrative review we considered the available published papers dealing with the antipruritic effects of pregabalin. Results of studies conducted in uremic patients show that pregabalin is an effective option in reducing uremic pruritus especially in those who have not responded to antihistamines and topical moisturizers. Data about the effects of pregabalin on other itchy conditions are very limited; however results of the available studies show beneficial effects of this drug in burn patients with more than 5% involvement of the total body surface area, in prurigo nodularis, and in chronic and idiopathic itch. One considerable issue is that the therapeutic effects of pregabalin on uremic pruritus and post burn itch may appear more rapidly than its effects in the other conditions (1-2 weeks vs > 4 weeks). The most reported adverse effects of pregabalin are sedation, dizziness and drowsiness."

According to the news reporters, the research concluded: "Whether pregabalin can be unequivocally considered as an effective and reasonable choice in the management of pruritus with different causes is a question that should be answered through large scale randomized controlled studies."

For more information on this research see: Role of Pregabalin in Management of Pruritus: A Literature Review. Journal of Pharmacy and Pharmaceutical Sciences, 2016;19 (4):465-474. Journal of Pharmacy and Pharmaceutical Sciences can be contacted at: Canadian
Oncology - Non-Small Cell Lung Cancer

Reports from Kinki University Faculty of Medicine Provide New Insights into Non-Small Cell Lung Cancer (Clinical development of nintedanib for advanced non-small-cell lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Non-Small Cell Lung Cancer are discussed in a new report. According to news originating from Osaka, Japan, by NewsRx correspondents, research stated, "Angiogenesis is an essential process in the development, growth, and metastasis of malignant tumors including lung cancer. Several angiogenesis inhibitors have been developed as potential therapies for non-small-cell lung cancer (NSCLC)."

Our news journalists obtained a quote from the research from the Kinki University Faculty of Medicine, "Nintedanib is a small-molecule tyrosine kinase inhibitor that targets receptors for vascular endothelial growth factor, platelet-derived growth factor, and fibroblast growth factor as well as RET (rearranged during transfection) and Flt3. When administered as monotherapy, nintedanib was well tolerated at doses up to 250 mg or 200 mg twice daily in European and Japanese patients, respectively, with liver toxicity featuring prominently among dose-limiting toxicities in both populations. A recent Phase III trial demonstrated that treatment with the combination of nintedanib and docetaxel resulted in a significant and clinically meaningful improvement in both progression-free survival and overall survival compared with docetaxel alone in predefined NSCLC patients with adenocarcinoma tumor histology. Although the incidence of elevated alanine aminotransferase or aspartate aminotransferase as well as of diarrhea was higher in patients treated with nintedanib plus docetaxel, most of these adverse events were manageable with supportive treatment or dose reduction."

According to the news editors, the research concluded: "The results of completed and ongoing clinical trials of nintedanib monotherapy and combination therapy for the treatment of NSCLC are summarized in this study."


The news correspondents report that additional information may be obtained from...
Liver Diseases and Conditions - Hepatitis

Reports from Kirby Institute Provide New Insights into Hepatitis
(Tenofovir-based antiretroviral therapy in HBV-HIV coinfection: results from the TREAT Asia HIV Observational Database)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases and Conditions - Hepatitis have been presented. According to news reporting originating from Sydney, Australia, by NewsRx correspondents, research stated, "The World Health Organization recommends HBV-HIV-coinfected individuals start antiretroviral therapy containing tenofovir. Here we describe first-line tenofovir use and treatment outcomes in coinfected patients in Asia."

Our news editors obtained a quote from the research from Kirby Institute, "HBV surface antigen positive patients enrolled in the TREAT Asia HIV Observational Database who started first-line antiretroviral therapy were included. Logistic regression adjusted for period of treatment initiation was used to determine factors associated with tenofovir use. Generalized estimating equations were used to evaluate factors associated with alanine transaminase levels and CD4(+) T-cell count on treatment. There were 548 eligible patients, of whom 149 (27.2%) started tenofovir. Patients treated in high/high-middle income countries (odds ratio 4.4 versus low/low-middle, 95% CI 2.6, 7.4; P<0.001) and those with elevated baseline alanine transaminase (odds ratio 4.2 versus normal, 95% CI 2.4, 7.2; P<0.001) were more likely to receive tenofovir. Hepatitis C antibody positive patients (odds ratio 0.4 versus negative, 95% CI 0.2, 0.8; P=0.008) were less likely. In those starting antiretroviral therapy with elevated alanine transaminase, mean reduction after tenofovir initiation was 11.2 IU/I (95% CI 0.9, 21.6; P=0.034) lower compared with those using a non-tenofovir-based regimen although this did not significantly increase the chance of alanine transaminase normalization. Tenofovir use was not associated with a superior CD4(+) T-cell response. HBV-HIV-coinfected patients in Asia are most likely to receive tenofovir if they are treated in a high/high-middle income country, have elevated alanine transaminase levels and are hepatitis C antibody negative."

According to the news editors, the research concluded: "Compared to other antiretroviral therapies, tenofovir-based regimens more effectively reduce liver inflammation in HBV-HIV-coinfection but do not result in superior CD4(+) T-cell recovery."

For more information on this research see: Tenofovir-based antiretroviral therapy in HBV-HIV coinfection: results from the TREAT Asia HIV Observational Database. Antiviral Therapy, 2016;21(1):27-35. Antiviral Therapy can be contacted at: Int Medical Press Ltd, 2-4
Oncology - Lung Cancer

Reports from Korea Institute of Radiological and Medical Sciences Highlight Recent Findings in Lung Cancer (TGF-b and Hypoxia/Reoxygenation Promote Radioresistance of A549 Lung Cancer Cells through Activation of Nrf2 and EGFR)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Although many studies have examined the roles of hypoxia and transforming growth factor-beta (TGF-b) separately in the tumor microenvironment, the effects of simultaneous treatment with hypoxia/reoxygenation and TGF-b on tumor malignancy are unclear. Here, we investigated the effects of redox signaling and oncogenes on cell proliferation and radioresistance in A549 human lung cancer cells in the presence of TGF-b under hypoxia/reoxygenation conditions."

Financial supporters for this research include Basic Science Research Program, Nuclear Research & Development Program, Ministry of Science ICT and Future Planning.

The news correspondents obtained a quote from the research from the Korea Institute of Radiological and Medical Sciences, "Combined treatment with TGF-b and hypoxia activated epidermal growth factor receptor (EGFR) and nuclear factor (erythroid-derived 2)-like 2 (Nrf2), a redox-sensitive transcription factor. Interestingly, Nrf2 knockdown suppressed the effects of combined treatment on EGFR phosphorylation. In addition, blockade of EGFR signaling also suppressed induction of Nrf2 following combined treatment with hypoxia and TGF-b, indicating that the combined treatment induced positive crosstalk between Nrf2 and EGFR. TGF-b and hypoxia/reoxygenation increased the accumulation of reactive oxygen species (ROS), while treatment with N-acetyl-l-cysteine abolished the activation of Nrf2 and EGFR. Treatment with TGF-b under hypoxic conditions increased the proliferation of A549 cells compared with that after vehicle treatment. Moreover, cells treated with the combined treatment exhibited resistance..."
to ionizing radiation (IR), and knockdown of Nrf2 increased IR-induced cell death under these conditions."

According to the news reporters, the research concluded: "Thus, taken together, our findings suggested that TGF-b and hypoxia/reoxygenation promoted tumor progression and radioresistance of A549 cells through ROS-mediated activation of Nrf2 and EGFR."

For more information on this research see: TGF-b and Hypoxia/Reoxygenation Promote Radioresistance of A549 Lung Cancer Cells through Activation of Nrf2 and EGFR. Oxidative Medicine and Cellular Longevity, 2016;2016():6823471. (Hindawi Publishing - www.hindawi.com; Oxidative Medicine and Cellular Longevity - www.hindawi.com/journals/oximed/)

Our news journalists report that additional information may be obtained by contacting S.L. Lee, Division of Radiation Cancer Research, Korea Institute of Radiological & Medical Sciences (KIRAMS), 75 Nowon-ro, Nowon-gu, Seoul 01812, South Korea. Additional authors for this research include H. Ryu, A.R. Son, B. Seo, J. Kim, S.Y. Jung, J.Y. Song, S.G. Hwang and J. Ahn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/6823471. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Genetics, Oncology, South Korea, Lung Cancer, Lung Neoplasms, Protein Kinases, Membrane Proteins, Phosphotransferases, Epidermal Growth Factor Receptor, Receptor Protein Tyrosine Kinases, Gastrointestinal Hormone Receptors, Intercellular Signaling Peptides and Proteins.

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Granulocytes

Reports from Korea University Highlight Recent Findings in Granulocytes (Silibinin Inhibits Neutrophilic Inflammation and Mucus Secretion Induced by Cigarette Smoke via Suppression of ERK-SP1 Pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Granulocytes have been published. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Silibinin, the main ingredient of silymarin, has been used as a traditional drug for over 2000 years to treat a range of liver diseases. Recent studies have also demonstrated that silibinin possesses antiinflammatory and anticancer properties."

The news correspondents obtained a quote from the research from Korea University, "In the study, we researched the efficacy of silibinin on the development of COPD using a cigarette smoke (CS)-induced and lipopolysaccharide (LPS)-induced COPD model mice and stimulation of NCI-H292 cells with CS condensate. Silibinin was administered to mice by oral gavage 1 h before CS exposure for 10 days. In in vitro experiment, we evaluated the effect of silibinin on the expression of MUC5AC in H292 cells stimulated with CS condensate. Furthermore, silibinin suppressed the CS and LPS treatment-induced extracellular signal-regulated kinase (ERK) phosphorylation and SP-1 expression. Silibinin also decreased airway inflammation and reduced the expression of MUC5AC and myeloperoxidase. Furthermore, co-
treatment with silibinin and ERK inhibitors considerably decreased the levels of pro-inflammatory mediators, ERK phosphorylation, and SP-1 expression. Taken together, the results indicate that silibinin effectively suppressed the neutrophilic airway inflammation provoked by treatment with LPS and CS, which was closely associated with downregulation of ERK phosphorylation."

According to the news reporters, the research concluded: "Therefore, our searching offers that silibinin has a remedical probable for COPD disease."


Keywords for this news article include: Seoul, South Korea, Asia, Hemic and Immune Systems, Inflammation, Granulocytes, Blood Cells, Neutrophils, Immunology, Phagocytes, Korea University.

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Liver Diseases and Conditions - Hepatitis C Virus

**Reports from Kunming General Hospital Highlight Recent Findings in Hepatitis C Virus (Inhibition of STAT Pathway Impairs Anti Hepatitis C Virus Effect of Interferon Alpha)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Liver Diseases and Conditions - Hepatitis C Virus is the subject of a report. According to news originating from Kunming, People's Republic of China, by NewsRx correspondents, research stated, "Signal transducer and activator of transcription (STAT) pathway plays an important role in antiviral efficacy of interferon alpha (IFN-alpha). IFN-alpha is the main therapeutic against hepatitis C virus (HCV) infection."

Our news journalists obtained a quote from the research from Kunming General Hospital, "We explored effects of IFN-alpha on HCV replication and antiviral gene expression by targeting STAT. In response to IFN-alpha, STAT status, HCV replication, and antiviral gene expression were analyzed in human hepatoma Huh7.5.1 cells before and after cell culture-derived HCV infection. IFN-alpha treatment induced expression and phosphorylation of STAT1 and STAT2 in Huh7.5.1 cells. Pretreatment of Huh7.5.1 cells with a mAb to IFN alpha receptor (TENAR) 2 decreased TEN-alpha-dependent phosphorylation of STAT1 and STAT2, whereas pretreatment with an IFNAR1 mAb increased such phosphorylation, suggesting that IFNAR mediates IFN-alpha-triggered STAT signaling. During HCV infection, STAT1 and STAT2 phosphorylation could be rescued by IFN-alpha and IFN a-induced phosphorylation of STAT1 and STAT2 was impaired. Inhibition of STAT pathway by Jak inhibitor I significantly enhanced HCV RNA replication and viral protein expression. Antiviral genes coding for IFN regulatory
factor 9 and IFN-stimulated gene 15 were up regulated by IFN a during HCV infection but such up-regulation was abrogated by Jak inhibitor I. These results establish that activation of STAT pathway is essential for anti-HCV efficacy of IFN-a.

According to the news editors, the research concluded: "Impairment of IFN-alpha-triggered STAT signaling by HCV may account for evading IFN-a response."

For more information on this research see: Inhibition of STAT Pathway Impairs Anti Hepatitis C Virus Effect of Interferon Alpha. Cellular Physiology and Biochemistry, 2016;40(1-2):77-90. Cellular Physiology and Biochemistry can be contacted at:  Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com/; Cellular Physiology and Biochemistry - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224332)

The news correspondents report that additional information may be obtained from Z.Q. Bian, Kunming Gen Hosp, PLA, Center Infect Dis, Kunming 650032, People's Republic of China. Additional authors for this research include S.F. He, Y. Liu, P. Zhao, Z.Q. Bian and Z.T. Qi.

Keywords for this news article include: Kunming, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Genetics, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Flaviviridae Infections, Biological Factors, Interferon Type I, Hepatitis C Virus, Interferon-alpha, Gastroenterology, Interferons, RNA Viruses, Hepatology, Cytokines, Virology, Viral, HCV, Kunming General Hospital.

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Reports from Kyorin University Provide New Insights into Hypersensitivity (Importance of Water Content of the Stratum Corneum in Mouse Models for Contact Hypersensitivity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immune System Diseases and Conditions - Hypersensitivity. According to news reporting originating from Mitaka, Japan, by NewsRx correspondents, research stated, "Although a marked rise in the prevalence of allergic diseases over the past few decades may be related to environmental factors in industrialized countries, evidence for the protective effect of humidity on the barrier function of the skin is still awaited. We asked whether an increase in the water content of stratum corneum at the site of hapten application had a strong impact on the magnitude of contact hypersensitivity (CHS)."

Our news editors obtained a quote from the research from Kyorin University, "The magnitude of CHS, induced by either lipid-soluble or water-soluble hapten, was inversely correlated with the water content of stratum corneum at the hapten application site in the elicitation phase. An increase in the water content induced by exposure to high humidity for 6 hours was sufficient to ameliorate the magnitude of CHS even in mice with the genetic defect in attenuating the CHS responses, such as flaky tail mice. The reduced CHS was associated with downregulation of IL-1 alpha, IL-4, and IFN-gamma mRNA expression. Epicutaneously applied hapten can penetrate more readily through the stratum corneum with lower water content than that with higher water content, even after tape-stripping."
According to the news editors, the research concluded: "These findings indicate that increased levels of water in the stratum corneum serve to ameliorate the CHS beyond the genetic effects."


The news editors report that additional information may be obtained by contacting Y. Mizukawa, Kyorin University, Dept. of Dermatol, Sch Med, Mitaka, Tokyo 1818611, Japan. Additional authors for this research include Y. Mizukawa, Y. Shimoda, Y. Yamazaki and T. Shiohara.

Keywords for this news article include: Mitaka, Japan, Asia, Immune System Diseases and Conditions, Epidemiology, Hypersensitivity, Genetics, Kyorin University.

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**Reports from Laboratory for Molecular Biology Advance Knowledge in Camptothecin Therapy**

**[Poly(ADP-ribose) polymers regulate DNA topoisomerase I (Top1) nuclear dynamics and camptothecin sensitivity in living cells]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Camptothecin Therapy have been presented. According to news reporting from Kolkata, India, by NewsRx journalists, research stated, "Topoisomerase 1 (Top1) is essential for removing the DNA supercoiling generated during replication and transcription. Anticancer drugs like camptothecin (CPT) and its clinical derivatives exert their cytotoxicity by reversibly trapping Top1 in covalent complexes on the DNA (Top1cc)."

The news correspondents obtained a quote from the research from Laboratory for Molecular Biology, "Poly(ADP-ribose) polymerase (PARP) catalyses the addition of ADP-ribose polymers (PAR) onto Top1. PARP inhibitors enhance the cytotoxicity of CPT in the clinical trials. However, the molecular mechanism by which PARylation regulates Top1 nuclear dynamics is not fully understood. Using live-cell imaging of enhanced green fluorescence tagged-human Top1, we show that PARP inhibitors (Veliparib, ABT-888) delocalize Top1 from the nucleolus to the nucleoplasm, which is independent of Top1-PARP1 interaction. Using fluorescence recovery after photobleaching and subsequent fitting of the data employing kinetic modelling we demonstrate that ABT-888 markedly increase CPT-induced bound/immobile fraction of Top1 (Top1cc) across the nuclear genome, suggesting Top1-PARylation counteracts CPT-induced stabilization of Top1cc. We further show Trp205 and Asn722 of Top1 are critical for subnuclear dynamics. Top1 mutant (N722S) was restricted to the nucleolus in the presence of CPT due to its deficiency in the accumulation of CPT-induced Top1-PARylation and Top1cc formation."

According to the news reporters, the research concluded: "This work identifies ADP-
ribose polymers as key determinant for regulating Top1 subnuclear dynamics.”


Our news journalists report that additional information may be obtained by contacting B.B. Das, Indian Assoc Cultivat Sci, Dept. of Phys Chem, Lab Mol Biol, Kolkata 700032, India. Additional authors for this research include I. Rehman, A. Ghosh, S. Sengupta, P. Majumdar, B. Jana and B.B. Das.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/nar/gkw665. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kolkata, India, Asia, Enzymes and Coenzymes, Camptothecin Therapy, Drugs and Therapies, Topoisomerase, DNA Research, Laboratory for Molecular Biology.

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**Neurology - Neurodegeneration**

**Reports from Lanzhou University Add New Data to Findings in Neurodegeneration (DNA damage preceding dopamine neuron degeneration in A53T human alpha-synuclein transgenic mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neurology - Neurodegeneration. According to news reporting from Lanzhou, People's Republic of China, by NewsRx journalists, research stated, "Defective DNA repair has been linked with age-associated neurodegenerative disorders. Parkinson's disease (PD) is a progressive neurodegenerative disorder caused by genetic and environmental factors."

The news correspondents obtained a quote from the research from Lanzhou University, "Whether damages to nuclear DNA contribute to neurodegeneration of PD still remain obscure. in this study we aim to explore whether nuclear DNA damage induce dopamine neuron degeneration in A53T human α-Synuclein over expressed mouse model. We investigated the effects of X-ray irradiation on A53T-alpha-Syn MEFs and A53T-alpha-Syn transgene mice. Our results indicate that A53T-alpha-Syn MEFs show a prolonged DNA damage repair process and senescence phenotype. DNA damage preceded onset of motor phenotype in A53T-beta-Syn transgenic mice and decrease the number of nigrostriatal dopaminergic neurons."

According to the news reporters, the research concluded: "Neurons of A53T-alpha-Syn transgenic mice are more fragile to DNA damages."

For more information on this research see: DNA damage preceding dopamine neuron degeneration in A53T human alpha-synuclein transgenic mice. *Biochemical and Biophysical Research Communications*, 2016;481(1-2):104-110. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-
Our news journalists report that additional information may be obtained by contacting D.G. Wang, Lanzhou University, Sch Basic Med Sci, Dept. of Anat & Histol, Lanzhou, People's Republic of China. Additional authors for this research include T.Y. Yu, Y.Q. Liu, J. Yan, Y.L. Guo, Y.H. Jing, X.G. Yang, Y.F. Song and Y.X. Tian.

Keywords for this news article include: Lanzhou, People's Republic of China, Asia, Proteins, Epidemiology, Nerve Tissue Proteins, Deoxyribonucleic Acid, Neuron Degeneration, Organic Chemicals, Neurodegeneration, alpha-Synuclein, Biogenic Amines, Catecholamines, DNA Research, Synucleins, Proteomics, DNA Damage, Neurology, Dopamine, Genetics, Lanzhou University.

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Immunology - Immunoglobulins

**Reports from Leiden University Describe Recent Advances in Immunoglobulins (Type I CD20 Antibodies Recruit the B Cell Receptor for Complement-Dependent Lysis of Malignant B Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immunology - Immunoglobulins is the subject of a report. According to news originating from Leiden, Netherlands, by NewsRx correspondents, research stated, "Human IgG1 type I CD20 Abs, such as rituximab and ofatumumab (OFA), efficiently induce complement-dependent cytotoxicity (CDC) of CD20(+) B cells by binding of C1 to hexamerized Fc domains. Unexpectedly, we found that type I CD20 Ab F(ab')2 fragments, as well as C1q-binding-deficient IgG mutants, retained an ability to induce CDC, albeit with lower efficiency than for whole or unmodified IgG."

Our news journalists obtained a quote from the research from Leiden University, "Experiments using human serum depleted of specific complement components demonstrated that the observed lytic activity, which we termed 'accessory CDC,' remained to be dependent on C1 and the classical pathway. We hypothesized that CD20 Ab-induced clustering of the IgM or IgG BCR was involved in accessory CDC. Indeed, accessory CDC was consistently observed in B cell lines expressing an IgM BCR and in some cell lines expressing an IgG BCR, but it was absent in BCR- B cell lines. A direct relationship between BCR expression and accessory CDC was established by transfecting the BCR into CD20(+) cells: OFA-F(ab')(2) fragments were able to induce CDC in the CD20(+)BCR(+) cell population, but not in the CD20(+)BCR(-) population. Importantly, OFA-F(ab')(2) fragments were able to induce CDC ex vivo in malignant B cells isolated from patients with mantle cell lymphoma and Waldenstrom macroglobulinemia. In summary, accessory CDC represents a novel effector mechanism that is dependent on type I CD20 Ab-induced BCR clustering."

According to the news editors, the research concluded: "Accessory CDC may contribute to the excellent capacity of type I CD20 Abs to induce CDC, and thereby to the antitumor activity of such Abs in the clinic."

For more information on this research see: Type I CD20 Antibodies Recruit the B Cell Receptor for Complement-Dependent Lysis of Malignant B Cells. *Journal of Immunology*, 2016;197(12):4829-4837. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association
The news correspondents report that additional information may be obtained from P. Parren, Leiden University, Medical Center, Dept. of Hematol & Blood Transfus, NL-2333 ZA Leiden, Netherlands. Additional authors for this research include M. Voorhorst, J. Schuurman, T. van Meerten, J.M. Bakker, T. Vink, W.J.M. Mackus, E.C.W. Breij, S. Derer, T. Valerius, J.G.J. van de Winkel, P. Parren and F.J. Beurskens.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1600811. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leiden, Netherlands, Europe, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Cell Line, Leiden University.

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Cytometry

Reports from Linkoping University Add New Data to Findings in Cytometry (Platelet Function Determined by Flow Cytometry: New Perspectives?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cytometry have been published. According to news reporting originating from Linkoping, Sweden, by NewsRx correspondents, research stated, "Flow cytometry enables studies of several different aspects of platelet function in response to a variety of platelet agonists. This can be done using only a small volume of whole blood, and also in blood with low platelet counts."

Our news editors obtained a quote from the research from Linkoping University, "These properties, together with the increasing number of flow cytometers available in hospitals worldwide, make flow cytometry an interesting option for laboratories interested in studies of platelet function in different clinical settings. This review focuses on practical issues regarding the use of flow cytometry for platelet function testing. It provides an overview of available activation markers, platelet agonists, and experimental setup issues. The review summarizes previous experience and factors important to consider to perform high-quality platelet function testing by flow cytometry."

According to the news editors, the research concluded: "It also discusses its current use and possibilities and challenges for future use of flow cytometry in clinical settings."

For more information on this research see: Platelet Function Determined by Flow Cytometry: New Perspectives? Seminars In Thrombosis and Hemostasis, 2016;42(3):268-81. (Thieme - www.thieme.com)

The news editors report that additional information may be obtained by contacting S. Ramstrom, Dept. of Clinical and Experimental Medicine, Linkoping University, Linkoping, Sweden. Additional authors for this research include A.L. Sodergren, N. Tynngard and T.L Lindahl.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0035-1570082. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Linkoping, Cytometry,
Reports from Lombardi Comprehensive Cancer Center Highlight Recent Findings in Immunotherapy (Predictive biomarkers for checkpoint inhibitor-based immunotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Immunotherapy are discussed in a new report. According to news reporting originating from Washington, District of Columbia, by NewsRx correspondents, research stated, "The clinical development of checkpoint inhibitor-based immunotherapy has ushered in an exciting era of anticancer therapy. Durable responses can be seen in patients with melanoma and other malignancies."

Our news editors obtained a quote from the research from Lombardi Comprehensive Cancer Center, "Although monotherapy with PD-1 or PD-L1 agents are typically well tolerated, the risk of immune-related adverse events increases with combination regimens. The development of predictive biomarkers is needed to optimise patient benefit, minimise risk of toxicities, and guide combination approaches. The greatest focus has been on tumour-cell PD-L1 expression. Although PD-L1 positivity enriches for populations with clinical benefit, PD-L1 testing alone is insufficient for patient selection in most malignancies. In this Review, we discuss the status of PD-L1 testing and explore emerging data on new biomarker strategies with tumour-infiltrating lymphocytes, mutational burden, immune gene signatures, and multiplex immunohistochemistry."

According to the news editors, the research concluded: "Future development of an effective predictive biomarker for checkpoint inhibitor-based immunotherapy will integrate multiple approaches for optimal characterisation of the immune tumour microenvironment."


The news editors report that additional information may be obtained by contacting G.T. Gibney, MedStar Georgetown Univ Hosp, Lombardi Comprehens Canc Center, Washington, DC 20007, United States. Additional authors for this research include L.M. Weiner and M.B. Atkins.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045%2816%2930406-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Drugs and Therapies, Article Review, Immunotherapy, Genetics, Lombardi Comprehensive Cancer Center.

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Intercellular Signaling Peptides and Proteins...

Reports from Lovelace Respiratory Research Institute Advance Knowledge in Cytokines (Quercetin Inhibits Multiple Pathways Involved in Interleukin 6 Secretion From Human Lung Fibroblasts and Activity in Bronchial Epithelial Cell Transformation ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Intercellular Signaling Peptides and Proteins - Cytokines is now available. According to news originating from Albuquerque, New Mexico, by NewsRx correspondents, research stated, "The interaction between epithelial and stromal cells through soluble factors such as cytokines plays an important role in carcinogenesis. Breaking this cancer-promoting interaction poses an opportunity for cancer prevention."

Our news journalists obtained a quote from the research from Lovelace Respiratory Research Institute, "The tumor-promoting function of interleukin 6 (IL-6) has been documented; however, the underlying mechanisms of this function in lung carcinogenesis are not well elucidated. Here, we show that benzo[a]pyrene diol epoxide (BPDE, the active metabolite of cigarette smoke carcinogen benzo[a]pyrene)-induced human bronchial epithelial cell (HBEC) transformation was enhanced by IL-6 in vitro. The carcinogen/IL-6-transformed cells exhibited higher expression of STAT3 (signal transducer and activator of transcription 3) when compared with cells transformed by BPDE alone. Constitutive STAT3 activation drove cell proliferation and survival through anti-apoptosis gene expression. We further show that quercetin, a dietary compound having preventive properties for lung cancer, decreased BPDE-stimulated IL-6 secretion from human lung fibroblasts through inhibition of the NF-kappa B and ERK pathways. The inhibition was accomplished at clinically achievable concentrations of the compound. Finally, quercetin blocked IL-6-induced STAT3 activation in HBECs, and IL-6 enhancement of HBEC transformation by BPDE was abolished by quercetin treatment."

According to the news editors, the research concluded: "Altogether, our data reveal novel mechanisms for IL-6 in lung carcinogenesis and for the preventive role of quercetin in the process."


The news correspondents report that additional information may be obtained from W.S. Chen, Lovelace Resp Res Inst, Mol Biol & Lung Canc Program, Albuquerque, NM 87108, United States. Additional authors for this research include M.T. Padilla, X.L. Xu, D. Desai, J. Krzeminski, S. Amin and Y. Lin.

Keywords for this news article include: Albuquerque, New Mexico, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Connective Tissue Cells, Epithelial Cells, Carcinogenesis, Benzo(a)pyrene, Interleukin-6, Benzopyrenes, Interleukins, Fibroblasts, Cytokines, Oncology, Genetics, Cancer, Lovelace Respiratory Research Institute.

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Antioxidants

Reports from M. Dattilo and Colleagues Advance Knowledge in Antioxidants (Improvement of gamete quality by stimulating and feeding the endogenous antioxidant system: mechanisms, clinical results, insights on gene-environment interactions and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Antioxidants. According to news reporting out of Lugano, Switzerland, by NewsRx editors, research stated, "Oxidative damage triggers extensive repair in gametes and thereafter in the zygote but it results in clinically relevant damage when affecting the maturation of the gametes chromatin, i.e. padlocking and epigenetic marking. It associates with defective DNA methylation and/or with oxidation of the methyl marks leading to derangement of gamete epigenetics, defects of chromatin condensation and aneuploidy."

Our news journalists obtained a quote from the research, "A proper feed to the one carbon cycle has the potential to stimulate the endogenous antioxidant defences, i.e. glutathione synthesis, and to activate compensative homeostatic mechanisms restoring both the oxy-redox balance and DNA methylation, which are indeed strictly cross-regulated. This has been shown to produce measurable clinical improvements of male reproductive potential in pilot studies herein summarised. However, the effects of dietary habits and of supplementations are variable according to the individual genetic substrate, as genetic variants of several of the concerned enzymes occur with high frequency. Individual risk assessments and personalised interventions are still difficult to implement, in the meantime, a very varied diet may facilitate metabolic compensation in the majority of the cases."

According to the news editors, the research concluded: "This review aims to report on the mechanisms of damage, on the opportunities to modulate the physiologic oxy-redox homeostasis by means of a varied diet or dietary supplements and on the open issues related to the genetic variability of the population."


Our news journalists report that additional information may be obtained by contacting M. Dattilo, Parthenogen, CH-6900 Lugano, Switzerland. Additional authors for this research include D. Giuseppe, C. Ettore and Y. Menezo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0767-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lugano, Switzerland, Europe, Genetics, Article Review, Protective Agents, Antioxidants.
Liver Diseases and Conditions - Hepatitis C Virus

Reports from M. El-Bendary and Colleagues Advance Knowledge in Hepatitis C Virus (Associations of human leucocyte antigen class II-DQB1 alleles with hepatitis C virus infection in Egyptian population: a multicentre family-based study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Hepatitis C Virus is now available. According to news reporting originating in Mansoura, Egypt, by NewsRx journalists, research stated, "Hepatitis C infection is a global pandemic. HLA-DQB1 alleles are believed to have an effective role in immune response against HCV including susceptibility to or protection from this infection."

Financial support for this research came from Science and Technology Development Fund.

The news reporters obtained a quote from the research, "The aim of this study was to investigate the contribution of HLA-DQB1 alleles in the outcome of HCV genotype-4 infection through a family-based association study. Egyptian families with HCV (324) were recruited for this study (324 index positive for RNA-HCV, 225 positive relatives representing chronic hepatitis C cases and 582 family members negative for HCV-RNA [control], 63 of whom spontaneously cleared the virus. All subjects were genotyped for HLA-DQB1 alleles by sequence-specific primers (SSP-PCR) and sequence-based typing (SBT) methods. The frequency of DQB1*02:01:01 carriage was significantly higher in infected patients when compared to controls and those who spontaneously cleared virus (OR=5.47, P<.0001 and OR=6.5234, P<.0001, respectively), and the carriage of the DQB1*03:01:01:01 allele was significantly higher in those who cleared and controls when compared to the infected patients (OR=0.2889, P<.0001 and OR=0.3016, P<.0001, respectively). On the other hand, the frequency of DQB1*06:01:01 and QB1*05:01:01:01 alleles was not associated with infection (comparison of infected and cleared patients showed OR of 2.1598 [P <.01]), but it becomes nonsignificant after adjustments with the Bonferroni formula (P-C >0.05) and OR= 1.3523, P>.05, respectively."

According to the news reporters, the research concluded: "This study shows that clearance of HCV is associated with DQB1*03:01:01:01 allele and chronicity of HCV infection associated with the risk allele: DQB1*02:01:01."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jvh.12573. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mansoura, Egypt, Africa, Liver Diseases and Conditions, Epidemiology, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Hepatitis C Virus, Gastroenterology, Hepatology, Viral RNA, Genetics, Virology, HCV.

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Oncology - Pancreatic Cancer

Reports from M. Seifert and Co-Researchers Add New Data to Findings in Pancreatic Cancer (Inducing a humoral immune response to pancreatic cancer antigen)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Pancreatic Cancer is now available. According to news reporting from Freiburg, Germany, by NewsRx journalists, research stated, "Patients with pancreatic carcinoma have a grim prognosis. Here, we examine the induction of an in vitro antibody response of human B cells to pancreatic carcinoma antigens."

The news correspondents obtained a quote from the research, "Cells of five cultured pancreatic ductal adenocarcinoma lines were lysed and their plasma membrane fragments isolated in an aqueous two-phase-system. The plasma membrane fragments were then added to cultures of isolated peripheral blood mononuclear cells from healthy volunteers for 14 days to act as a tumor antigen. Also, we added combinations of IL-2, IL-4, IL-21, anti-CD40 mAb and varying protein concentrations of the plasma membrane fragments to these cultures. We then tested characteristics and binding of resulting IgG and IgM against aforementioned tumor plasma membrane fragments and their respective cells using ELISAs. The combination of IL-2, IL-4 and anti-CD40 mAb elicited IgM production showing significant binding (p < 0.05) to plasma membrane fragments. PANC-1 antigen and the combination of IL-4, IL-21 and anti-CD40 mAb was able to produce a significant and specific IgG formation against PANC-1 plasma membrane fragments (p < 0.05). Tumor antigen, interleukins and anti-CD40 mAb had a significant impact on the binding capacity of these antibodies (p < 0.05). IgG binding pancreatic carcinoma cells was observed when the tumor antigen concentration was increased during stimulation (p < 0.05). BxPC3 plasma membrane fragments showed inhibitory effects on IgG binding BxPC3 antigens (p < 0.05). A human anti-tumor antibody formation can be induced in vitro using PANC-1 antigens and B cell stimulating agents. This response has the potential to generate antibodies specific to PANC-1 antigens. Precis: The concept presented is novel and a promising approach to eliciting a specific B cell response to tumor antigen."

According to the news reporters, the research concluded: "The method may prove useful in understanding and developing anti-tumor immunity."

For more information on this research see: Inducing a humoral immune response to pancreatic cancer antigen. Cellular Immunology, 2016;310():150-155. Cellular Immunology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Cellular Immunology - www.journals.elsevier.com/cellular-immunology/)
Our news journalists report that additional information may be obtained by contacting M. Seifert, Univ Klin Freiburg, Dept. of Gen & Visceral Surg, Freiburg, Germany. Additional authors for this research include G. Seifert, G. Wolff-Vorbeck, E. Langenmair, U.T. Hopt and U.A. Wittel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cellimm.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Freiburg, Germany, Europe, Tumor Necrosis Factor Receptors, B-Lymphocyte Antigens, Pancreatic Neoplasms, Biological Factors, Membrane Proteins, Pancreatic Cancer, Gastroenterology, Differentiation, CD40 Antigens, CD Antigens, Immunology, Hematology, Carcinomas, Oncology, Pancreas, Plasma, Blood.

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Heptanes

Reports from Mahidol University Add New Data to Findings in Heptanes (Protective Effects of a Diarylheptanoid from Curcuma comosa Against Hydrogen Peroxide-Induced Astroglial Cell Death)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heptanes. According to news reporting from Bangkok, Thailand, by NewsRx journalists, research stated, "Oxidative stress is one of the major mechanisms causing neuronal and astroglial cell death in various neurological disorders such as Alzheimer's disease, Parkinson's disease, and brain ischemia. Two diarylheptanoids, (3R)-1,7-diphenyl-(4E,6E)4,6-heptadien-3-ol (ASPP 049) and (3S)-7-(3,4-dihydroxyphenyl)-1-phenyl-(1E)-1-hepten-3-ol (ASPP 092), isolated from Curcuma comosa were investigated for cytoprotective effects on C6 astroglial cells using hydrogen peroxide (H2O2) exposure as a model of oxidative stress."

The news correspondents obtained a quote from the research from Mahidol University, "ASPP 092 demonstrated free radical scavenging activity comparable to that of vitamin C, while ASPP 049 showed no antioxidant activity. Treatment with H2O2 at 400 mu M for 12 h caused 79% C6 astroglial cell death which was significantly reduced to 37% by pretreatment with ASPP 092 (5 mu M). In addition, ASPP 092 attenuated the increase in reactive oxygen species production and the decrease in total glutathione level induced by H2O2. The mechanism of ASPP 092 protection against H2O2-induced apoptotic signaling appeared to involve prevention of increase in the level of phosphorylated p53 and the Bax/Bcl-2 ratio as well as cleaved caspase-3."

According to the news reporters, the research concluded: "These findings provide new evidence that the diarylheptanoid ASPP 092 from C. comosa possesses antiapoptotic properties and could be further developed as a potential treatment for oxidative stress-related neuronal diseases."

For more information on this research see: Protective Effects of a Diarylheptanoid from Curcuma comosa Against Hydrogen Peroxide-Induced Astroglial Cell Death. Planta Medica, 2016;82(17):1456-1462. Planta Medica can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

Our news journalists report that additional information may be obtained by
contacting N. Jantaratnotai, Mahidol University, Fac Sci, Dept. of Pharmacol, Bangkok 10400, Thailand. Additional authors for this research include P. Piyachaturawat, P. Tuchinda, P. Sanvarinda, Y. Sanvarinda and N. Jantaratnotai.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1055/s-0042-109173. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bangkok, Thailand, Asia, Reactive Oxygen Species, Aromatic Hydrocarbons, Inorganic Chemicals, Hydrogen Peroxide, Organic Chemicals, Diarylheptanoids, Free Radicals, Electrolytes, Peroxides, Elements, Heptanes, Anions, Gases, Ions, Mahidol University.

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Oncology - Cancer Risk

Reports from Makerere University Advance Knowledge in Cancer Risk (Awareness of cervical cancer risk factors and symptoms: cross-sectional community survey in post-conflict northern Uganda)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Cancer Risk. According to news reporting originating from Kampala, Uganda, by NewsRx correspondents, research stated, "Lack of awareness of risk factors and symptoms for cancer may lead to late diagnosis and poor prognosis. We assessed community awareness about cervical cancer risk factors and symptoms and perceptions about prevention and cure of cervical cancer in order to contribute data to inform interventions to improve cervical cancer survival."

Funders for this research include Training Health Researchers into Vocational Excellence (THRiVE) in East Africa, Wellcome Trust.

Our news editors obtained a quote from the research from Makerere University, "Cross-sectional population-based survey. We conducted this study in Gulu, a post-conflict district in Uganda in 2012. The sample included 448 persons aged 18 years and above, selected through a multi-stage stratified cluster sampling process. Data collection methods and analysis We collected data using a pretested structured questionnaire. Logistic regressions were used to determine magnitudes of associations between socio-demographic and outcome variables. Most participants (444/448) had heard about cervical cancer. Known risk factors including multiple sexual partners, human papillomavirus infection, and early onset of sexual activity, were recognized by 88%, 82%, and 78% of respondents respectively. 63% of participants believed that prolonged use of family planning pills and injections caused cervical cancer. The majority of participants recognized symptoms of cervical cancer including intermenstrual bleeding (85%), post-menopausal bleeding (84%), and offensive vaginal discharge (83%). 70% of participants believed that cervical cancer is preventable and 92% believed that it could be cured if diagnosed at an early stage. Recognition of cervical cancer risk factors and symptoms was high among study participants."

According to the news editors, the research concluded: "Targeted interventions including increasing availability of HPV vaccination, population-based cervical screening and diagnostic services can translate high awareness into actual benefits."

For more information on this research see: Awareness of cervical cancer risk factors

The news editors report that additional information may be obtained by contacting A.D. Mwaka, Makerere Univ, Sch Med, Dept. of Med, Coll Hlth Sci, Kampala, Uganda. Additional authors for this research include C.G. Orach, E.M. Were, G. Lyratzopoulos, H. Wabinga and M. Roland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hex.12382. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kampala, Uganda, Africa, Cancer, Epidemiology, Risk and Prevention, Cervical Cancer, Cancer Risk, Oncology, Makerere University.

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*Influenza A Virus Subtype H1N1*

**Reports from Makerere University Advance Knowledge in Influenza A Virus Subtype H1N1 [Whole-genome analysis of influenza A(H1N1)pdm09 viruses isolated in Uganda from 2009 to 2011]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Influenza A Virus Subtype H1N1 have been published. According to news reporting out of Kampala, Uganda, by NewsRx editors, research stated, "We report a whole-genome analysis of 19 influenza A(H1N1)pdm09 isolates from four Ugandan hospitals between 2009 and 2011."

Our news journalists obtained a quote from the research from Makerere University, "The isolates differed from the vaccine strain A/California/07/2009 by three amino acid substitutions P100S, S220T, and I338V in the hemagglutinin and by two amino acid substitutions V106I and N248D in the neuraminidase proteins with consistent mutations in all gene segments distinguishing isolates from the 2009/2010 to 2010/2011 seasons. Phylogenetic analysis showed low genetic evolution, with genetic distances of 0%-1.3% and 0.1%-1.6% for HA and NA genes, respectively."

According to the news editors, the research concluded: "The amino acid substitutions did not lead to antigenic differences from the reference strains."


Our news journalists report that additional information may be obtained by contacting D.K. Byarugaba, Makerere Univ, Walter Reed Project, Kampala, Uganda. Additional authors for this research include B. Erima, M. Millard, H. Kibuuka, L. Kdwago, J. Bwogi, D. Mimbe, J.B. Kiconco, T. Tugume, E.A. Mworori, J. Turner, P.P. Mckenzie, R.R.J. Webby,
Reports from Mayo Clinic Add New Data to Findings in Carcinomas (In vivo anti-tumor activity of the PARP inhibitor niraparib in homologous recombination deficient and proficient ovarian carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Carcinomas are discussed in a new report. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "Poly(ADP-ribose) polymerase (PARP) inhibitors have yielded encouraging responses in high-grade serous ovarian carcinomas (HGSOCs), but the optimal treatment setting remains unknown. We assessed the effect of niraparib on HGSOC patient-derived xenograft (PDX) modeE as well as the relationship between certain markers of homologous recombination (HR) status, including BRCA1/2 mutations and formation of RAD51 foci after DNA damage, and response of these PDX5 to niraparib in vivo."

The news correspondents obtained a quote from the research from Mayo Clinic, "Massively parallel sequencing was performed on HGSOCs to identify mutations contributing to HR deficiency. HR pathway integrity was assessed using fluorescence microscopy-based RAD51 focus formation assays. Effects of niraparib (MK-4827) on treatment-naive PDX tumor growth as monotherapy, in combination with carboplatin/paclitaxel, and as maintenance therapy were assessed by transabdominal ultrasound. Niraparib responses were correlated with changes in levels of poly(ADP-ribose), PARP1, and repair proteins by western blotting. Five PDX models were evaluated in vivo. Tumor regressions were induced by single-agent niraparib in one of two PDX models with deleterious BRCA2 mutations and in a PDX with RAD51C promoter methylation. Diminished formation of RAD51 foci failed to predict response, but Artemis loss was associated with resistance. Niraparib generally failed to enhance responses to carboplatin/paclitaxel chemotherapy, but maintenance niraparib therapy delayed progression in a BRCA2-deficient PDX. Mutations in HR genes are neither necessary nor sufficient to predict response to niraparib."

According to the news reporters, the research concluded: "Assessment of repair status through multiple complementary assays is needed to guide PARP inhibitor therapy, design future clinical trials and identify ovarian cancer patients most likely to benefit from PARP inhibition."

For more information on this research see: In vivo anti-tumor activity of the PARP inhibitor niraparib in homologous recombination deficient and proficient ovarian carcinoma. Gynecologic Oncology, 2016;143(2):379-388. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.08.328. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Drugs and Therapies, Cancer Therapy, Carcinomas, Oncology, Genetics, BRCA2, Mayo Clinic.

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Digestive System Diseases and Conditions - Crohn's

Reports from Mayo Clinic Advance Knowledge in Crohn's Disease (Safety of Long-term Treatment With Certolizumab Pegol in Patients With Crohn's Disease, Based on a Pooled Analysis of Data From Clinical Trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Digestive System Diseases and Conditions - Crohn's Disease have been presented. According to news reporting out of Rochester, Minnesota, by NewsRx editors, research stated, "Treatments for Crohn's disease (CD) have been linked to serious infections, malignancies, and dermatologic complications. We pooled and analyzed clinical trials of certolizumab pegol, a pegylated humanized Fab' fragment against tumor necrosis factor, to quantify safety events in patients with CD."

Our news journalists obtained a quote from the research from Mayo Clinic, "We collected data from 5 placebo-controlled trials, 9 open-label studies, and 1 dose-regimen study, conducted globally through April 2014. A total of 2570 patients with moderate to severe CD were treated with certolizumab pegol, with 4378.1 patient-years of exposure. Data were analyzed in 2 groups: patients from placebo-controlled (PC) trials treated with placebo (n = 875) or certolizumab pegol (n = 919) for 6 to 38 weeks (the PC group) or all patients exposed to certolizumab pegol (n = 2570), for durations of 6 to 362 weeks (the all-studies group). Incidence rates (IRs; incidence/100 patient-years) of adverse events (AEs) were calculated from first dose through 70 days (approximately 5 half-lives) after the last dose. In the PC group, IRs for serious AEs were similar among patients given certolizumab pegol (31.35/100 patient-years) vs placebo (24.33/100 patient-years). IRs of serious infections or malignancies were low among patients receiving short-term treatment with certolizumab pegol (8.49/100 patient-years and 1.01/100 patient-years, respectively, in the PC group) and did not increase with long-term treatment (6.47/100 patient-years and 0.80/100 patient-years, respectively, in the all-studies group). IRs of psoriasis or psoriasiform dermatitis were low in the PC group (1.01/100 patient-years and 0/100 patient-years, respectively); in the placebo group, these IRs were 0.38 per 100 patient-years and 0 per 100 patient-years, respectively. IRs of psoriasis or psoriasiform dermatitis did not increase
with long-term treatment (0.93/100 patient-years and 0.09/100 patient-years, respectively, in the all-studies group). Based on an analysis of data pooled from 15 trials of patients with CD, the safety profile for long-term therapy with certolizumab pegol therapy is similar to that reported from short-term studies."

According to the news editors, the research concluded: "Overall rates of AEs, serious infections, malignancies, and psoriasis did not increase with long-term treatment, suggesting a favorable risk-benefit ratio with long-term certolizumab pegol therapy in CD."

For more information on this research see: Safety of Long-term Treatment With Certolizumab Pegol in Patients With Crohn's Disease, Based on a Pooled Analysis of Data From Clinical Trials. Clinical Gastroenterology and Hepatology, 2016;14(12):1753-1762. Clinical Gastroenterology and Hepatology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Clinical Gastroenterology and Hepatology - www.journals.elsevier.com/clinical-gastroenterology-and-hepatology/)

Our news journalists report that additional information may be obtained by contacting E.V. Loftus, Mayo Clinic, Div Gastroenterol & Hepatol, Rochester, MN, United States. Additional authors for this research include J.F. Colombel, S. Schreiber, C.W. Randall, M. Regueiro, T. Ali, C. Arendt, J. Coarse, M. Spearman and G. Kosutic.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Skin and Connective Tissue Diseases and Conditions, Papulosquamous Skin Diseases and Conditions, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Tumor Necrosis Factor (TNF) Inhibitors, Clinical Trials and Studies, Monoclonal Antibodies, Drugs and Therapies, Certolizumab Pegol, Immunologic Agents, Clinical Research, Gastroenterology, Crohn's Disease, Gastroenteritis, Biotechnology, Dermatology, Dermatitis, Psoriasis, Placebos, Therapy, Mayo Clinic.

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Drugs and Therapies - Smoking Cessation Agents

Reports from Mayo Clinic Describe Recent Advances in Smoking Cessation Agents (Varenicline for Smoking Cessation in Light Smokers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Smoking Cessation Agents have been presented. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "As the prevalence of cigarette smoking has declined, the proportion of smokers who smoke less than 10 cigarettes/day (cpd) has increased. Varenicline may provide an effective pharmacotherapeutic treatment option for increasing smoking abstinence rates among light smokers."

Financial support for this research came from Pfizer.

The news correspondents obtained a quote from the research from Mayo Clinic, "We conducted a randomized, placebo-controlled clinical trial evaluating the efficacy of varenicline for increasing smoking abstinence rates among light smokers (5-10 cpd). Participants received varenicline or placebo for 12 weeks. Outcomes were assessed at 3 and 6 months. Ninety-three participants were randomized. Fifty-two percent of participants terminated the study early. At end-of-treatment (3 months), the point prevalence smoking abstinence rate was 53.3% in the
varenicline group compared to 14.5% in placebo (odds ratio [OR]: 6.69, 95% confidence interval [CI]: 2.48-18.06, \( P < .001 \)), and the prolonged smoking abstinence rate was 40.0% and 8.3%, respectively (OR: 7.33, 95% CI: 2.24-23.98, \( P = .001 \)). At end-of-study (6 months), the point prevalence smoking abstinence rate was 40.0% in the varenicline group compared to 20.8% in placebo (OR: 2.53, 95% CI: 1.01-6.34, \( P = .047 \)), and the prolonged smoking abstinence rate was 31.1% and 8.3%, respectively (OR: 4.97, 95% CI: 1.49-16.53, \( P = .009 \)). The estimated magnitude of the treatment effect remained consistent across the various missing data assumptions and in analyses that adjusted for gender. Nausea and sleep disturbance were more commonly reported in the varenicline group. Varenicline was safe and effective for increasing long-term smoking abstinence rates in a population of predominantly White light cigarette smoker. The efficacy of varenicline in this study was comparable to that observed in heavier smokers. Our findings demonstrate that varenicline is effective for increasing smoking cessation in light smokers."

According to the news reporters, the research concluded: "Our findings have implications for advancing the treatment of light smokers in clinical practice."


Our news journalists report that additional information may be obtained by contacting J.O. Ebbert, Mayo Clinic, Rochester, MN 55905, United States. Additional authors for this research include I.T. Croghan, R.T. Hurt, D.R. Schroeder and J.T. Hays.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/ntr/ntw123. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Smoking Cessation Agents, Drugs and Therapies, Varenicline, Mayo Clinic.

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**Heart Disorders and Diseases - Heart Disease**

**Reports from Mayo Clinic Provide New Insights into Heart Disease (Outcomes After Curative Thoracic Radiotherapy in Patients With Coronary Artery Disease and Existing Cardiac Stents)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Disease is the subject of a report. According to news reporting originating in Rochester, Minnesota, by NewsRx journalists, research stated, "To evaluate outcomes among cancer patients with preexisting coronary artery disease and cardiac stenting who subsequently underwent thoracic radiotherapy (RT). From 1998 to 2012, 147 patients received percutaneous coronary intervention (PCI) and then curative external beam RT (> 30 Gy, except for Hodgkin lymphoma patients) involving the heart and the lungs."

The news reporters obtained a quote from the research from Mayo Clinic, "Heart-
specific and lung-specific dosimetric parameters were correlated to overall survival (OS) and cardiac-specific survival by Cox variate methods. The mean interval between PCI and cancer diagnosis was 1.8 years (range, 0.1 to 14.2 y). Hypertension was present in 105 patients (71%), and hyperlipidemia in 82 (56%). At the time of analysis, 69 patients (47%) were alive, 3 (2%) died of cardiac causes, and 53 (36%) died of cancer. In multivariate analyses, OS since PCI was related to cancer type (P=0.004). Decreased OS since cancer diagnosis was related to older age (P <0.001) and increased percentage of targeted volume or organ receiving 20 Gy or more for lung (P <0.001), even after controlling for sex, cancer type, and stage. However, for non-cancer-specific survival and major adverse cardiac event-free survival, older age and underlying cardiopulmonary comorbidities dominated (rather than heart and lung dosimetric parameters) in predicting worse outcome for these patients with preexisting coronary artery disease who later underwent RT. Cancer type, older age, and preexisting cardiopulmonary comorbidities and risk factors most significantly predicted clinical outcome and survival for these patients with existing coronary stents who subsequently received thoracic RT."

According to the news reporters, the research concluded: "Dosimetric detrimental effects were not significant in our study."

For more information on this research see: Outcomes After Curative Thoracic Radiotherapy in Patients With Coronary Artery Disease and Existing Cardiac Stents. *American Journal of Clinical Oncology-Cancer Clinical Trials*, 2016;39(6):549-555. *American Journal of Clinical Oncology-Cancer Clinical Trials* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news correspondents report that additional information may be obtained by contacting R.C. Miller, Mayo Clinic, Dept. of Radiat Oncol, Rochester, MN 55905, United States. Additional authors for this research include J.J. Liang, K. Chang, P.J. Novotny, A. Prasad and R.C. Miller.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cardiovascular Diseases and Conditions, Percutaneous Coronary Intervention, Surgery, Risk and Prevention, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Arteriosclerosis, Heart Disease, Radiotherapy, Cardiology, Angiology, Oncology, Therapy, Cancer, Mayo Clinic.

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**Reports from Medical College Advance Knowledge in Clostridium difficile (Rifamycin Resistance in Clostridium difficile Is Generally Associated with a Low Fitness Burden)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Positive Bacteria - Clostridium difficile. According to news reporting out of Bryan, Texas, by NewsRx editors, research stated, "We characterized clinically occurring and novel mutations in the beta subunit of RNA polymerase in Clostridium difficile (CdRpoB), conferring rifamycin (including rifaximin) resistance."

Financial supporters for this research include HHS | NIH | National Center for Advancing Translational Sciences (NCATS), HHS | NIH | National Center for Complementary
and Integrative Health (NCCIH), American Society for Microbiology (ASM).

Our news journalists obtained a quote from the research from Medical College, "The Arg(505)Lys substitution did not impose an in vitro fitness cost, which may be one reason for its dominance among rifamycin-resistant clinical isolates. These observations were supported through the structural modeling of CdRpoB."

According to the news editors, the research concluded: "In general, most mutations lacked in vitro fitness costs, suggesting that rifamycin resistance may in some cases persist in the clinic."

For more information on this research see: Rifamycin Resistance in Clostridium difficile Is Generally Associated with a Low Fitness Burden. Antimicrobial Agents and Chemotherapy, 2016;60(9):5604-5607. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting J.G. Hurdle, Texas A&M Hlth Sci Center, Coll Med, Dept. of Microbial & Mol Pathogenesis, Bryan, TX 77807, United States. Additional authors for this research include I. Zamora, K.E. Hevener, S. Adhikari, X.Q. Wu and J.G. Hurdle.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01137-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bryan, Texas, United States, North and Central America, Gram-Positive Endospore-Forming Bacteria, Gram-Positive Endospore-Forming Rods, Gram-Positive Bacteria, Clostridium difficile, Genetics, Medical College.

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Oncology - Non-Small Cell Lung Cancer

Reports from Memorial Sloan-Kettering Cancer Center Highlight Recent Findings in Non-Small Cell Lung Cancer (Cranial irradiation in patients with EGFR-mutant non-small cell lung cancer brain metastases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Non-Small Cell Lung Cancer is now available. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "The most effective treatment approach for brain metastases in patients with non-small cell lung cancer (NSCLC) and activating epidermal growth factor receptor (EGFR) mutations is a current subject of investigation. Cranial irradiation is the standard treatment for brain metastases, but tyrosine kinase inhibitors (TKIs) such as erlotinib have also activity against brain metastases in this subset of patients."

The news correspondents obtained a quote from the research from Memorial Sloan-Kettering Cancer Center, "The combination of TKI and radiotherapy is a promising one, but data is lacking to indicate whether this is superior to erlotinib or whole brain radiation therapy (WBRT) alone. Retrospective data suggest that WBRT achieves more durable intracranial control compared to erlotinib alone."

According to the news reporters, the research concluded: "Randomized, prospective
studies will be necessary to determine whether TKI, cranial irradiation, or both is the optimal initial treatment for brain metastases in EGFR-mutant NSCLC."


Our news journalists report that additional information may be obtained by contacting T.J. Yang, Dept. of Radiation Oncology, Memorial Sloan Kettering Cancer Center, New York, NY 10065, United States.

Keywords for this news article include: Antineoplastics, Genetics, Oncology, Radiotherapy, New York City, United States, Lung Neoplasms, EGFR Inhibitors, Erlotinib Therapy, Membrane Proteins, Cranial Irradiation, Drugs and Therapies, Phosphotransferases, North and Central America, Protein Kinase Inhibitors, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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Transplant Medicine - Cell Transplants

Reports from N. Mirza and Colleagues Advance Knowledge in Cell Transplants [Graft versus self (GvS) against T-cell autoantigens is a mechanism of graft-host interaction]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Transplant Medicine - Cell Transplants are discussed in a new report. According to news reporting from Tubingen, Germany, by NewsRx journalists, research stated, "Graft-versus-host disease (GVHD) represents the major nonrelapse complication of allogeneic hematopoietic cell transplantation. Although rare, the CNS and the eye can be affected."

The news correspondents obtained a quote from the research, "In this study, manifestation in the retina as part of the CNS and T-cell epitopes recognized by the allogeneic T cells were evaluated. In 2 of 6 patients with posttransplantation retina diseases and 6 of 22 patients without ocular symptoms, antigen-specific T-cell responses against retina-specific epitopes were observed. No genetic differences between donor and recipient could be identified indicating T-cell activation against self-antigens (graft versus self). Transplantation of a preexisting immunity and cross-reactivity with ubiquitous epitopes was excluded in family donors and healthy individuals."

According to the news reporters, the research concluded: "In summary, an immunological reaction against retina cells represents a mechanism of graft-versus-host interaction following hematopoietic cell transplantation."

For more information on this research see: Graft versus self (GvS) against T-cell autoantigens is a mechanism of graft-host interaction. Proceedings of the National Academy of Sciences of the United States of America, 2016;113(48):13827-13832. Proceedings of the National Academy of Sciences of the United States of America can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC 20418, USA. (National Academy of Sciences - www.nasonline.org/; Proceedings of the National Academy of Sciences of the United States of America - www.nasonline.org/publications/pnas/)

Our news journalists report that additional information may be obtained by

Keywords for this news article include: Tubingen, Germany, Europe, Cell Transplantation, Transplant Medicine, Cell Transplants, Hematopoietic, Autoantigens, Biomedicine, Hematology, Immunology, Antigens, Genetics, Surgery.

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Chemistry - Biochemistry

Reports from Nanchang University Advance Knowledge in Biochemistry (CUL4A functions as an oncogene in ovarian cancer and is directly regulated by miR-494)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Chemistry - Biochemistry. According to news originating from Nanchang, People's Republic of China, by NewsRx correspondents, research stated, "Cullin 4A (CUL4A), as a well-defined oncogene, has been reported to be upregulated in ovarian cancer clinically. However, the biological functions of CUL4A and the molecular mechanism underlying its upregulation in ovarian cancer remains unknown throughly."

Financial supporters for this research include Science and Technology Foundation of Jiangxi Province, Young Scientist Training Program of Jiangxi Province, Graduate Student Innovation Foundation of Jiangxi Province, China Scholarship Council.

Our news journalists obtained a quote from the research from Nanchang University, "Here, we show that expression of CUL4A is significantly higher in ovarian cancer tissues compared to corresponding non-cancerous tissues. Moreover, silencing of CUL4A by siRNA markedly inhibits cell proliferation, invasion and epithelial-mesenchymal transition (EMT). We identified CUL4A as a novel target gene of miR-494. Further investigations showed that miR-494 was remarkably downregulated and correlated with poor prognosis in ovarian cancer. Overexpression of miR-494 inhibited proliferation, migration, invasion and EMT of ovarian cancer cells by directly suppressing CUL4A expression."

According to the news editors, the research concluded: "Therefore, our findings indicate that miR-494/CUL4A axis is important in the control of ovarian cancer tumorigenesis."

For more information on this research see: CUL4A functions as an oncogene in ovarian cancer and is directly regulated by miR-494. Biochemical and Biophysical Research Communications, 2016;480(4):675-681. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news correspondents report that additional information may be obtained from N. Fang, Nanchang University, Affiliated Hosp 3, Dept. of Gastroenterol, Nanchang 330003, Jiangxi, People's Republic of China. Additional authors for this research include Z.L. Fang, H. Wang, R.F. Jiao, J. Zhou and N. Fang.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.114. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nanchang, People's Republic of China, Asia, Biochemistry, Chemistry, Oncology, Genetics, Cancer, Nanchang University.

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Oncology - Colon Cancer

Reports from Nanchang University Describe Recent Advances in Colon Cancer (Prognostic value of the lymphocyte monocyte ratio in patients with colorectal cancer A meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news reporting originating in Nanchang, People's Republic of China, by NewsRx journalists, research stated, "Inflammation plays a critical role in the pathogenesis and progression of cancer. A low lymphocyte-to-monocyte ratio (LMR) is reported be a poor prognostic factor in multiple malignancies."

The news reporters obtained a quote from the research from Nanchang University, "We performed a meta-analysis to evaluate the prognostic role of preoperative LMR in colorectal cancer (CRC). Studies investigating the prognostic role of preoperative LMR on survival in patients with CRC were systematically searched for in MEDLINE, EMBASE, Cochrane databases from inception up to August 2016. Pooled hazard ratios (HRs) for overall survival (OS), disease-free survival (DFS), and recurrence-free survival (RFS) were calculated using fixed-effects/random-effects models. A total of nine studies comprising 8626 patients with CRC were included in the meta-analysis. The pooled analysis demonstrated that low LMR was significantly associated with decreased OS (HR: 0.63, 95% CI: 0.56-0.70, P<0.001) and DFS/RFS (HR: 0.76, 95% CI: 0.68-0.84, P<0.001). The negative prognostic impact of low LMR on OS was observed in patients with different ethnicity, treatment methods, cut-off values, and across disease stages."

According to the news reporters, the research concluded: "This meta-analysis demonstrates that low preoperative LMR is associated with worse survival in patients with CRC."

For more information on this research see: Prognostic value of the lymphocyte monocyte ratio in patients with colorectal cancer A meta-analysis. Medicine, 2016;95(49):324-328. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting S.B. Zou, Nanchang University, Affiliated Hosp 2, Dept. of Gen Surg, Nanchang, People's Republic of China. Additional authors for this research include K. Wang, R.J. Zhang and S.B. Zou.

Keywords for this news article include: Nanchang, People's Republic of China, Asia, Mononuclear Phagocyte System, Hemic and Immune Systems, Mononuclear Leukocytes, Colorectal Research, Bone Marrow Cells, Gastroenterology, Cell Research, Colon Cancer,
Blood Cells, Lymphocytes, Immunology, Phagocytes, Monocytes, Oncology, Nanchang University.

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Gram-Negative Bacteria - Helicobacter pylori

Reports from Nanjing Medical University Describe Recent Advances in Helicobacter pylori (The Association between Arrhythmia and Helicobacter pylori Infection: A Meta-Analysis of Case-Control Studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Helicobacter pylori are discussed in a new report. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Arrhythmia is a common disease around the world and Helicobacter pylori (H. pylori) is a bacterium infecting 28% to 84% of subjects, depending on the population tested. However, the implication of H. pylori in cardiac arrhythmia is poorly understood."

The news correspondents obtained a quote from the research from Nanjing Medical University, "We performed this meta-analysis with an aim to identify the association between arrhythmia and H. pylori. We searched PubMed, Embase, Web of Science, and the Cochrane library databases to select studies on the association between arrhythmia and H. pylori. In the arrhythmia group, 392 (58.1%) were H. pylori-positive and in the control group 640 (47.8%) were H. pylori-positive. Compared to the controls, the infection rate of H. pylori was higher in patients with arrhythmia than in controls (odds ratio (OR) = 1.797, 95% confidence interval (CI): 1.081-2.988, p< 0.05). Subgroup analysis indicated that H. pylori infection was a risk factor for atrial fibrillation in Asia and Africa."

According to the news reporters, the research concluded: "Therefore, a correlation between H. pylori infection and arrhythmia may exist and H. pylori eradication may decrease the occurrence of arrhythmia, especially in Asia and Africa."


Our news journalists report that additional information may be obtained by contacting J. Yan, Nanjing Medical University, Clin Med Coll 1, Nanjing 210029, Jiangsu, People's Republic of China. Additional authors for this research include Q. She, Y.F. Zhang, C. Cui and G.X. Zhang.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Parasitic Diseases and Conditions, Arrhythmia, Risk and Prevention, Gram-Negative Bacteria, Epsilonproteobacteria, Helicobacter pylori, Proteobacteria, Cardiology, Nanjing Medical University.

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Reports from National Cancer Center Hospital Highlight Recent Findings in Hematopoietic Stem Cells (Analysis of non-relapse mortality and causes of death over 15 years following allogeneic hematopoietic stem cell transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Stem Cell Research - Hematopoietic Stem Cells are presented in a new report. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Allogeneic hematopoietic stem cell transplantation (allo-HSCT) has curative potential against hematological malignancies. However, there are concerns about the associated risk of non-relapse mortality (NRM)."

Our news editors obtained a quote from the research from National Cancer Center Hospital, "We performed a retrospective single-center study to assess changes in outcomes after allo-HSCT and causes of NRM over three 5-year periods. The rates of 2-year NRM and overall survival (OS) were 16% and 59%, respectively. We found a significant decrease in NRM (p <0.001), with 2-year NRM of 26, 14 and 9%, and a significant increase in OS (p=0.005), with 2-year OS of 52%, 58% and 65%, over the three periods (1998-2002, 2003-2007 and 2008-2012), respectively. Of note, a steady improvement was observed in NRM, period by period, among patients aged 50 years or older, patients who underwent HSCT from an unrelated bone marrow donor and patients who underwent HSCT with a reduced-intensity conditioning regimen."

According to the news editors, the research concluded: "Our data showed that the improved NRM can mainly be attributed to a decreased mortality related to infection after starting systemic steroid as GVHD treatment, and a decreased mortality related to organ failure."

For more information on this research see: Analysis of non-relapse mortality and causes of death over 15 years following allogeneic hematopoietic stem cell transplantation. Bone Marrow Transplantation, 2016;51(4):553-9. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

The news editors report that additional information may be obtained by contacting Y. Tanaka, Dept. of Hematopoietic Stem Cell Transplantation, National Cancer Center Hospital, Tokyo, Japan. Additional authors for this research include S. Kurosawa, K. Tajima, T. Tanaka, R. Ito, Y. Inoue, K. Okinaka, Y. Inamoto, S. Fuji, S.W. Kim, R. Tanosaki, T. Yamashita and T. Fukuda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bmt.2015.330. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Bone Marrow Transplantation is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Asia, Biomedicine, Tokyo, Japan, Surgery, Hematology, Bone Marrow Cells, Stem Cell Research, Transplant Medicine, Cell Transplantation, Hematopoietic Stem Cells.

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Reports from National Institute of Cardiology Provide New Insights into Cardiovascular Diseases (Possible role of intronic polymorphisms in the PHACTR1 gene on the development of cardiovascular disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases is the subject of a report. According to news reporting originating from Mexico City, Mexico, by NewsRx correspondents, research stated, "Cardiovascular disease (CVD) is a complex multifactorial and polygenetic disease in which the interaction of numerous genes, genetic variants, and environmental factors plays a major role in its development. In an attempt to demonstrate the association between certain genetic variants and CVD, researchers have run large genomic wild association studies (GWAS) in recent decades."

Financial support for this research came from CONACYT.

Our news editors obtained a quote from the research from the National Institute of Cardiology, "These studies have correlated several genomic variants with the presence of CVD. Recently, certain polymorphisms in the phosphatase and actin regulator 1 (PHACTR1) gene have been shown to be associated with CVD (i.e., coronary artery disease, coronary artery calcification, early onset myocardial infarction, cervical artery dissection and hypertension) in different ethnic groups. It is important to state that all of the described PHACTR1 genetic variants associated with CVD are located in non-translating gene regions known as introns. Thus, the purpose of this article is to hypothesize the effect of certain intronic polymorphisms in the PHACTR1 gene on pathological processes in the cardiovascular system."

According to the news editors, the research concluded: "In addition, we present compelling evidence that supports this hypothesis as well as a methodology that could be used to assess the allelic effect using in vitro and in vivo models, which will ultimately demonstrate the pathophysiological contribution of PHACTR1 intronic polymorphisms to the development of CVD."

For more information on this research see: Possible role of intronic polymorphisms in the PHACTR1 gene on the development of cardiovascular disease. Medical Hypotheses, 2016;97():64-70. Medical Hypotheses can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Medical Hypotheses - www.journals.elsevier.com/medical-hypotheses/)

The news editors report that additional information may be obtained by contacting N. Perez-Hernandez, Natl Inst Cardiol Ignacio Chavez, Dept. of Mol Biol, Mexico City 14080, DF, Mexico. Additional authors for this research include R. Blachman-Braun, A. Pomerantz, G. Vargas-Alarcon, R. Posadas-Sanchez and N. Perez-Hernandez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mehy.2016.10.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mexico City, Mexico, North and Central America, Cardiovascular Diseases and Conditions, Cardiology, Epidemiology, Genetics, Coronary Artery, Angiology, National Institute of Cardiology.

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Oncology - Small Cell Lung Cancer

Reports from National Koranyi Institute of Pulmonology Highlight Recent Findings in Small Cell Lung Cancer [From Bench to Bedside: Attempt to Evaluate Repositioning of Drugs in the Treatment of Metastatic Small Cell Lung Cancer (SCLC)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Small Cell Lung Cancer is the subject of a report. According to news originating from Budapest, Hungary, by NewsRx correspondents, research stated, "Based on in vitro data and results of a recent drug repositioning study, some medications approved by the FDA for the treatment of various non-malignant disorders were demonstrated to have anti-SCLC activity in preclinical models. The aim of our study is to confirm whether use of these medications is associated with survival benefit."

Our news journalists obtained a quote from the research from the National Koranyi Institute of Pulmonology, "Consecutive patients with pathologically confirmed, stage 4 SCLC were analyzed in this retrospective study. Patients that were prescribed statins, aspirin, clomipramine (tricyclic antidepressant; TCA), selective serotonin reuptake inhibitors (SSRIs), doxazosin or prazosin (a1-adrenergic receptor antagonists; ADRA1) were identified. There were a total of 876 patients. Aspirin, statins, SSRIs, ADRA1, and TCA were administered in 138, 72, 20, 28, and 5 cases, respectively. A statistically significant increase in median OS was observed only in statin-treated patients when compared to those not receiving any of the aforementioned medications (OS, 8.4 vs. 6.1 months, respectively; p=0.002). The administration of SSRIs, aspirin, and ADRA1 did not result in a statistically significant OS benefit (median OS, 8.5, 6.8, and 6.0 months, respectively). The multivariate Cox model showed that, besides age and ECOG PS, radiotherapy was an independent survival predictor (Hazard Ratio, 2.151; 95% confidence interval, 1.828-2.525; p<0.001). Results of drug repositioning studies using only preclinical data or small numbers of patients should be treated with caution before application in the clinic."

According to the news editors, the research concluded: "Our data demonstrated that radiotherapy appears to be an independent survival predictor in stage 4 SCLC, therefore confirming the results of other prospective and retrospective studies."


The news correspondents report that additional information may be obtained from Z. Lohinai, National Koranyi Institute of Pulmonology, Budapest, Hungary. Additional authors for this research include P. Dome, Z. Szilagyi, G. Ostoros, J. Moldvay, B. Hegedus, B. Dome and G.J Weiss.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0144797. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiplatelet Agents, Pharmaceuticals, Europe, Hungary, Budapest, Oncology, Radiotherapy, Lung Neoplasms, Aspirin Therapy, Drugs and Therapies, Coagulation Modifiers, Small Cell Lung Cancer, Platelet Aggregation Inhibitors.

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Reports from National Polytechnic Institute Describe Recent Advances in Bradykinin (Early kidney damage induced by subchronic exposure to PM2.5 in rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neuropeptides - Bradykinin. According to news reporting out of Mexico City, Mexico, by NewsRx editors, research stated, "Particulate matter exposure is associated with respiratory and cardiovascular system dysfunction. Recently, we demonstrated that fine particles, also named PM2.5, modify the expression of some components of the angiotensin and bradykinin systems, which are involved in lung, cardiac and renal regulation."

Our news journalists obtained a quote from the research from National Polytechnic Institute, "The endocrine kidney function is associated with the regulation of angiotensin and bradykinin, and it can suffer damage even as a consequence of minor alterations of these systems. We hypothesized that exposure to PM2.5 can contribute to early kidney damage as a consequence of an angiotensin/bradykinin system imbalance, oxidative stress and/or inflammation. After acute and subchronic exposure to PM2.5, lung damage was confirmed by increased bronchoalveolar lavage fluid (BALF) differential cell counts and a decrease of surfactant protein-A levels. We observed a statistically significant increment in median blood pressure, urine volume and water consumption after PM2.5 exposure. Moreover, increases in the levels of early kidney damage markers were observed after subchronic PM2.5 exposure: the most sensitive markers, beta-2-microglobulin and cystatin-C, increased during the first, second, sixth and eighth weeks of exposure. In addition, a reduction in the levels of specific cytokines (IL-1 beta, IL-6, TNF-alpha, IL-4, IL-10, INF-gamma, IL-17a, MIP-2 and RANTES), and up-regulated angiotensin and bradykinin system markers and indicators of a depleted antioxidant response, were also observed. All of these effects are in concurrence with the presence of renal histological lesions and an early pro-fibrotic state. Subchronic exposure to PM2.5 induced an early kidney damage response that involved the angiotensin/bradykinin systems as well as antioxidant and immune imbalance."

According to the news editors, the research concluded: "Our study demonstrates that PM2.5 can induce a systemic imbalance that not only affects the cardiovascular system, but also affects the kidney, which may also overall contribute to PM-related diseases."

For more information on this research see: Early kidney damage induced by subchronic exposure to PM2.5 in rats. Particle and Fibre Toxicology, 2016;13():15-34.

Particle and Fibre Toxicology can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; Particle and Fibre Toxicology - www.particleandfibretoxicology.com)

Our news journalists report that additional information may be obtained by contacting A. De Vizcaya-Ruiz, Inst Politecn Nacl, Center Invest & Estudios Avanzados, Dept. of Toxicol, Mexico City 07360, DF, Mexico. Additional authors for this research include M. Uribe-Ramirez, J. Narvaez-Morales, A. De Vizcaya-Ruiz and O. Barbier.

Keywords for this news article include: Mexico City, Mexico, North and Central America, Intercellular Signaling Peptides and Proteins, Cardiovascular System, Biological Factors, Peptide Proteins, Peptide Hormones, Oligopeptides, Neuropeptides, Angiotensins, Cardiology, Bradykinin, Autacoids, Kinins, National Polytechnic Institute.
Reports from National Yang Ming University Advance Knowledge in Arrhythmogenic Right Ventricular Dysplasia (The Application of Ambulatory Electrocardiographically-Based T-Wave Alternans in Patients with Arrhythmogenic Right Ventricular ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Arrhythmogenic Right Ventricular Dysplasia have been published. According to news reporting originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Patients with arrhythmogenic right ventricular dysplasia/ cardiomyopathy (ARVD/C) carry the risk of ventricular arrhythmias and sudden cardiac death (SCD). This study investigated the prognostic information of modified moving average T-wave alternans (MMA TWA) in patients with ARVD/C."

Our news editors obtained a quote from the research from National Yang Ming University, "A total of 63 consecutive patients (mean age, 44.7 +/- 14.8 years; 38 men) with ARVD/C were enrolled. Baseline characteristics and structural and electrocardiographic parameters were obtained. All patients underwent ambulatory electrocardiographic examination at the time of diagnosis, and MMA TWA data were exported for further analysis. Events were defined as documented SCD or ventricular tachyarrhythmias during clinical follow-up. During a mean follow-up of 28.1 +/- 15.4 months, 19 of 63 (30.2%) patients experienced events, including SCD in 2 patients (10.5%) and ventricular tachyarrhythmias in 17 patients (89.5%). Patients with events had higher TWA within modified V-5 and V-1 channels than did those without events (54.7 +/- 24.9 mu V vs 35.0 +/- 18.3 mu V; P = 0.004; 58.8 +/- 27.6 mu V vs 38.4 +/- 18.6 mu V; P = 0.007, respectively). After multivariate Cox regression analysis, maximal TWA derived from either the modified CM5 or NASA channel predicted the occurrence of events (P < 0.001; hazard ratio, 1.06; 95% confidence interval, 1.03-1.10). At the cutoff value of > 66 mu V, maximal TWA yielded a sensitivity and a specificity of 89.5% and 90.5%, respectively, in predicting SCD or ventricular tachyarrhythmias."

According to the news editors, the research concluded: "The initial analysis of MMA TWA could provide prognostic implications in the prediction of SCD or ventricular tachyarrhythmias in patients with ARVD/C."


The news editors report that additional information may be obtained by contacting S.A. Chen, Natl Yang Ming Univ Taipei, Cardiovasc Res Center, Taipei, Taiwan. Additional authors for this research include Y.J. Lin, E. Chong, S.L. Chang, L.W. Lo, Y.F. Hu, T.C. Tuan, T.F. Chao, J.N. Liao and S.A. Chen.

Keywords for this news article include: Taipei, Taiwan, Asia, Arrhythmogenic Right Ventricular Dysplasia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases,
Reports from New University of Lisbon Add New Data to Findings in Inorganic Chemistry (Inhibition of the STAT3 Protein by a Dinuclear Macrocyclic Complex)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Chemistry - Inorganic Chemistry are discussed in a new report. According to news reporting out of Oeiras, Portugal, by NewsRx editors, research stated, "A new diethylenetriamine-derived macrocycle bearing 2-methylpyridyl arms and containing m-xylyl spacers, L, was prepared, and its dinuclear copper(II) and zinc(II) complexes were used as receptors for the recognition in aqueous solution of a phosphorylated peptide derived from a sequence of the STAT3 protein. A detailed study of the acid-base behavior of L and of its complexation properties as well as of the association of the phosphorylated peptide to the receptor was carried out by potentiometry in aqueous solution at 298.2 K and I=0.10 M in KNO3."

Financial support for this research came from Fundacao para a Ciencia e a Tecnologia.

Our news journalists obtained a quote from the research from the New University of Lisbon, "The data revealed that the receptor forms stable associations with several protonated forms of the substrate, with constant values ranging from 3.32 to 4.25 log units. The affinity of the receptor for the phosphorylated substrate studied is higher at a pH value where the receptor is mainly in the [Cu2L](4+) form and the pY residue of the substrate is in the dianionic form (pH 6.55). These results, also supported by (31)P NMR studies, showed that the phosphopeptide is bound through the phosphoryl group in a bridging mode. Additionally, the receptor inhibited binding between active (phosphorylated) STAT3 and its target DNA sequence in a dose-dependent manner (IC[50] 63 ? 3.4 mM) in human nuclear extracts in vitro."

According to the news editors, the research concluded: "Treatment of whole cells with the inhibitor revealed that it is bioactive in living cells and has oncostatic properties that could be interesting for the fight against cancer and other pathologies involving the STAT3 protein."

For more information on this research see: Inhibition of the STAT3 Protein by a Dinuclear Macrocyclic Complex. Inorganic Chemistry, 2016;55(7):3589-98. (American Chemical Society - www.acs.org; Inorganic Chemistry - www.pubs.acs.org/journal/inocaj)

Our news journalists report that additional information may be obtained by contacting L.M. Mesquita, Instituto de Tecnologia Quimica e Biologica Antonio Xavier, Universidade Nova de Lisboa , Avenida da Republica, 2780-157 Oeiras, Portugal. Additional authors for this research include F. Herrera, C.V. Esteves, P. Lamosa, V. Andre, P. Mateus and R. Delgado.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.inorgchem.6b00116. This DOI is a link to an online electronic
Reports from Northeast Agriculture University Add New Data to Findings in Genistein Therapy [The Cooperative Effect of Genistein and Protein Hydrolysates on the Proliferation and Survival of Osteoblastic Cells (hFOB 1.19)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Genistein Therapy are discussed in a new report. According to news reporting from Harbin, People's Republic of China, by NewsRx journalists, research stated, "Chum salmon skin gelatin, de-isoflavoned soy protein, and casein were hydrolyzed at two degrees of hydrolysis. Genistein, the prepared hydrolysates, and genistein-hydrolysate combinations were assessed for their proliferative and anti-apoptotic effects on human osteoblasts (hFOB 1.19) to clarify potential cooperative effects between genistein and these hydrolysates in these two activities."

The news correspondents obtained a quote from the research from Northeast Agriculture University, "Genistein at 2.5 μg/L demonstrated the highest proliferative activity, while the higher dose of genistein inhibited cell growth. All hydrolysates promoted osteoblast proliferation by increasing cell viability to 102.9%-131.1%. Regarding etoposide-or NaF-induced osteoblast apoptosis, these hydrolysates at 0.05 g/L showed both preventive and therapeutic effects against apoptosis. In the mode of apoptotic prevention, the hydrolysates decreased apoptotic cells from 32.9% to 15.2%-23.7% (etoposide treatment) or from 23.6% to 14.3%-19.6% (NaF treatment). In the mode of apoptotic rescue, the hydrolysates lessened the extent of apoptotic cells from 15.9% to 13.0%-15.3% (etoposide treatment) or from 13.3% to 10.9%-12.7% (NaF treatment). Gelatin hydrolysates showed the highest activities among all hydrolysates in all cases."

According to the news reporters, the research concluded: "All investigated combinations (especially the genistein-gelatin hydrolysate combination) had stronger proliferation, apoptotic prevention, and rescue than genistein itself or their counterpart hydrolysates alone, suggesting that genistein cooperated with these hydrolysates, rendering greater activities in osteoblast proliferation and anti-apoptosis."

For more information on this research see: The Cooperative Effect of Genistein and Protein Hydrolysates on the Proliferation and Survival of Osteoblastic Cells (hFOB 1.19). Molecules, 2016;21(11):1006-1021. Molecules can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting S. Wang, Northeast Agr Univ, Minist Educ, Key Lab Dairy Sci, Harbin 150030, People's Republic of China. Additional authors for this research include Y. Fu and X.H. Zhao.

Keywords for this news article include: Harbin, People's Republic of China, Asia, Connective Tissue Cells, Drugs and Therapies, Mitotic Inhibitors, Etoposide Therapy,
Reports from Northeast Forestry University Add New Data to Findings in Materials Science (Fluorescence Probe Based on an Amino-Functionalized Fluorescent Magnetic Nanocomposite for Detection of Folic Acid in Serum)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science - Materials Science have been published. According to news originating from Harbin, People's Republic of China, by NewsRx correspondents, research stated, "A new fluorescence probe constructed with a multifunctional nanocomposite, Fe3O4ZnS:Mn2+/SiO2NH2, was successfully synthesized and then used to detect folic acid in real serum samples. The nanocomposite was characterized by fluorescence spectroscopy, transmission electron microscopy, Fourier transform infrared spectroscopy, X-ray powder diffraction, and physical property measurement system."

Financial supporters for this research include Ministry of Education of the People's Republic of China, Heilongjiang Province Science Foundation for Youths, Harbin Science and Technology Innovation Talent Research Special Funds.

Our news journalists obtained a quote from the research from Northeast Forestry University, "With the addition of analyte, the Fe3O4ZnS:Mn2+/SiO2NH2 composite and folic acid formed a new complex because cross-linking of the amino and carboxyl groups participated in the condensation reaction. Then, the energy of quantum dots was transferred to the complex and led to quenching of the fluorescence. Moreover, the fluorescence intensity decreased significantly as the concentration of folic acid increased, and the fluorescence quenching ratio F-0/F was related to the folic acid concentration in the range from 0.1 to 5 ng mL(-1). This method was used for detecting folic acid in real serum samples and gave recoveries in the range of 89.0%-96.0%, with relative standard deviations of 1.2%-3.9%. The detection limit was 9.6 ng mL(-1) (S/N = 3)."

According to the news editors, the research concluded: "These satisfactory and simple results showed the great potential of this fluorescence probe in the field of pharmaceutical analysis."


The news correspondents report that additional information may be obtained from L.G. Chen, Northeast Forestry Univ, Dept. of Chem, Coll Sci, Harbin 150040, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b10163. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include: Harbin, People's Republic of China, Asia, Materials Science, Science, Pharmaceuticals, Folic Acid, Northeast Forestry University.

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Gram-Negative Bacteria - Salmonella enterica

Reports from Novartis Animal Health Highlight Recent Findings in Salmonella enterica (Toll-Like Receptor Activation by Generalized Modules for Membrane Antigens from Lipid A Mutants of Salmonella enterica Serovars Typhimurium and Enteritidis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Negative Bacteria - Salmonella enterica. According to news reporting originating from Siena, Italy, by NewsRx correspondents, research stated, "Invasive nontyphoidal Salmonella (iNTS) disease is a neglected disease with high mortality in children and HIV-positive individuals in sub-Saharan Africa, caused primarily by Africa-specific strains of Salmonella enterica serovars Typhimurium and Enteritidis. A vaccine using GMMA (generalized modules for membrane antigens) from S. Typhimurium and S. Enteritidis containing lipid A modifications to reduce potential in vivo reactogenicity is under development."

Our news editors obtained a quote from the research from Novartis Animal Health, "GMMA with penta-acylated lipid A showed the greatest reduction in the level of cytokine release from human peripheral blood monocytes from that for GMMA with wild-type lipid A. Deletion of the lipid A modification genes msbB and pagP was required to achieve pure penta-acylation. Interestingly, DmsbBD pagP GMMA from S. enteritidis had a slightly higher stimulatory potential than those from S. typhimurium, a finding consistent with the higher lipopolysaccharide (LPS) content and Toll-like receptor 2 (TLR2) stimulatory potential of the former. Also, TLR5 ligand flagellin was found in Salmonella GMMA. No relevant contribution to the stimulatory potential of GMMA was detected even when the flagellin protein FliC from S. typhimurium was added at a concentration as high as 10% of total protein, suggesting that flagellin impurities are not a major factor for GMMA-mediated immune stimulation."

According to the news editors, the research concluded: "Overall, the stimulatory potential of S. typhimurium and S. enteritidis DmsbBD pagP GMMA was close to that of Shigella sonnei GMMA, which are currently in phase I clinical trials."

For more information on this research see: Toll-Like Receptor Activation by Generalized Modules for Membrane Antigens from Lipid A Mutants of Salmonella enterica Serovars Typhimurium and Enteritidis. Clinical and Vaccine Immunology, 2016;23(4):304-14. (American Society for Microbiology - www.asm.org; Clinical and Vaccine Immunology - cdli.asm.org)

The news editors report that additional information may be obtained by contacting S. Rondini, Novartis Vaccines Institute for Global Health, Srl, Siena, Italy. Additional authors for this research include M. Caboni, A. Negrea, F. Necchi, R. Alfini, F. Micoli, A. Saul, C.A. MacLennan, S. Rondini and C. Gerke.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/CVI.00023-16. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Antigens, Siena, Italy, Europe, Lipid A, Genetics, Immunology, Salmonellosis, Membrane Proteins, Biological Factors, Enterobacteriaceae, Gammaproteobacteria, Lipopolysaccharides, Salmonella enterica, Toll Like Receptors, Gram Negative Bacteria, Gram-Negative Bacteria, Pattern Recognition Receptors.

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**Oncology - Pancreatic Cancer**

**Reports from Ohio State University Advance Knowledge in Pancreatic Cancer (Treatment-related Hypertension as a Pharmacodynamic Biomarker for the Efficacy of Bevacizumab in Advanced Pancreas Cancer A Pooled Analysis of 4 Prospective Trials of ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Pancreatic Cancer is the subject of a report. According to news reporting originating from Columbus, Ohio, by NewsRx correspondents, research stated, "Phase III studies of bevacizumab in advanced pancreas cancer (APCA) demonstrated no improvement in outcome. No validated biomarkers for bevacizumab efficacy exist."

Our news editors obtained a quote from the research from Ohio State University, "We evaluated bevacizumab-related hypertension (B-HTN) as a biomarker in APCA patients in a pooled analysis from 4 prospective clinical trials of gemcitabine-based therapy combined with bevacizumab. Data were collected from individual databases from 4 prospective, single-arm phase II trials. Patients were grouped according to B-HTN or no hypertension (HTN), and patients with HTN were further grouped according to highest Common Terminology Criteria for Adverse Events grade of HTN: grade 1-2 or grade 3-4. Clinical outcomes of overall survival, time to progression, overall response rate (ORR), and disease control rate (ORR + SD > 16 wk) were compared. A total of 163 patients with stage IV APCA and Eastern Cooperative Oncology Group 0-1 were included. Median age was 59 years (range, 33 to 85 y). Thirty-four patients had B-HTN, and 129 patients had no HTN. Prognostic factors were balanced between groups. Patients with any grade B-HTN had a significantly improved median overall survival (13.1 vs. 8.1 mo, P=0.0006), median time to tumor progression (7.6 vs. 5.5 mo, P=0.0074), ORR (47% vs. 16%, P=0.0001), and disease control rate (85% vs. 59%, P=0.004). There were no differences in outcomes according to HTN grade (1-2 [N=16] vs. 3-4 [N=18]). APCA patients who develop any grade of B-HTN appear to derive benefit from bevacizumab."

According to the news editors, the research concluded: "Additional investigation is needed to identify subgroups of patients who develop B-HTN and are more likely to benefit from bevacizumab."

For more information on this research see: Treatment-related Hypertension as a Pharmacodynamic Biomarker for the Efficacy of Bevacizumab in Advanced Pancreas Cancer A Pooled Analysis of 4 Prospective Trials of Gemcitabine-based Therapy With Bevacizumab. *American Journal of Clinical Oncology-Cancer Clinical Trials*, 2016;39(6):614-618. *American Journal of Clinical Oncology-Cancer Clinical Trials* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news editors report that additional information may be obtained by contacting T.
Oncology - Esophageal Cancer

Reports from Oregon Health and Science University Add New Data to Findings in Esophageal Cancer (Preoperative carboplatin and paclitaxel-based chemoradiotherapy for esophageal carcinoma: results of a modified CROSS regimen utilizing radiation ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Esophageal Cancer are discussed in a new report. According to news reporting originating in Portland, Oregon, by NewsRx journalists, research stated, "Trimodality therapy for resectable esophageal and gastroesophageal junction cancers utilizing pre-operative radiotherapy with concurrent carboplatin and paclitaxel-based chemotherapy is being increasingly utilized secondary to the results of the phase III CROSS trial. However, there is a paucity of reports of this regimen as a component of chemoradiotherapy in North America."

The news reporters obtained a quote from the research from Oregon Health and Science University, "We aim to report on our clinical experience using a modified CROSS regimen with higher radiotherapy doses. Patients with advanced (cT2-cT4 or node positive) esophageal or gastroesophageal junction carcinoma who received preoperative carboplatin/paclitaxel-based chemoradiotherapy with radiation doses of greater than 41.4 Gray (Gy) followed by esophagectomy were identified from an institutional database. imaging, treatment, and tumor response characteristics were analyzed. Twenty-four patients were analyzed. All but one tumor had adenocarcinoma histology. The median radiation dose was 50.4 Gy. Pathologic complete response was achieved in 29% of patients, with all receiving 50.4 Gy. Three early postoperative deaths were seen, due in part to acute respiratory distress syndrome and all three patients received 50-50.4 Gy. With a median follow-up of 9.4 months (23 days-2 years), median survival was 24 months. Trimodality therapy utilizing concurrent carboplatin/paclitaxel with North American radiotherapy doses appeared to have similar pathologic complete response rates compared with the CROSS trial, but may be associated with higher toxicity."

According to the news reporters, the research concluded: "Although the sample size is small and further follow-up is necessary, radiation doses greater than 41.4 Gy may not be warranted secondary to a potentially increased risk of severe radiation-induced acute lung injury."


Our news correspondents report that additional information may be obtained by contacting N. Nabavizadeh, Oregon Health Sciences University, Dept. of Radiat Med, Portland, OR 97239, United States. Additional authors for this research include R. Shukla, D.A. Elliott, T. Mitin, G.M. Vaccaro, J.P. Dolan, R.J. Maggiore, P.H. Schipper, J.G. Hunter, C.R. Thomas and J.M. Holland.

Keywords for this news article include: Portland, Oregon, United States, North and Central America, Therapy, Risk and Prevention, Organoplatinum Compounds, Drugs and Therapies, Carboplatin Therapy, Paclitaxel Therapy, Mitotic Inhibitors, Organic Chemicals, Alkylating Agents, Esophageal Cancer, Gastroenterology, Pharmaceuticals, Antineoplastics, Cycloparaffins, Radiotherapy, Hydrocarbons, Carcinomas, Terpenes, Oncology, Taxoids, Oregon Health and Science University.

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Oncology - Thyroid Cancer

Reports from Osaka City University Highlight Recent Findings in Thyroid Cancer (The Safety and Efficacy of Weekly Paclitaxel Administration for Anaplastic Thyroid Cancer Patients: A Nationwide Prospective Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Thyroid Cancer is now available. According to news reporting out of Osaka, Japan, by NewsRx editors, research stated, "Anaplastic thyroid cancer (ATC) is a rare and extremely aggressive malignancy, with a median survival of less than 6 months due to rapid progression and resistance to multimodal therapies. Effective treatment strategies have not been identified."

Our news journalists obtained a quote from the research from Osaka City University, "A prospective clinical study was performed to objectively evaluate outcomes of treatment with paclitaxel. An investigator-initiated, multicenter, nonrandomized, open-label, single-arm study to evaluate the feasibility and efficacy of weekly paclitaxel (80 mg/m(2)) administration for patients with pathologically confirmed ATC was conducted in a nationwide organization. Feasibility was analyzed in 56 patients. More than one course of treatment was performed in 52 (93%) patients retaining sufficient dose intensity (>84%). No patient had to terminate the treatment because of an adverse event. The median overall survival was 6.7 months [confidence interval 4.4-9.0]. The 6-month survival was 54%. Among the 42 patients with an evaluable lesion, none demonstrated complete remission, 9 (21%) showed partial remission, 22 (52%) achieved stable disease, and 8 (19%) exhibited progressive disease; 3 did not complete the initial treatment course. The objective response rate was 21%, and the clinical benefit rate was 73%. The median time to progression was 1.6 months. Statistically, no additional effect of concomitant radiation was demonstrated in 6 patients receiving combined therapy. Eight
patients, in whom a complete post-treatment surgical removal of the tumor was feasible, survived significantly longer (median 7.6 months [CI 8.1-23.0]) than the other 34 patients in whom the tumor could not be completely removed after chemotherapy (5.4 months [CI 3.0-7.8], p = 0.018). The study demonstrates objective and accurate information concerning the feasibility and efficacy of a standardized treatment with weekly paclitaxel administration for ATC patients.

According to the news editors, the research concluded: "Weekly paclitaxel administration for ATC patients can be of clinical benefit in a neo-adjuvant setting."

For more information on this research see: The Safety and Efficacy of Weekly Paclitaxel Administration for Anaplastic Thyroid Cancer Patients: A Nationwide Prospective Study. *Thyroid*, 2016;26(9):1293-1299. *Thyroid* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Thyroid - www.liebertpub.com/overview/thyroid/55/)

Our news journalists report that additional information may be obtained by contacting N. Onoda, Osaka City University, Grad Sch Med, Dept. of Surg Oncol, Osaka, Japan. Additional authors for this research include K. Sugino, T. Higashiyama, M. Kam mori, K. Toda, K. Ito, A. Yoshida, N. Suganuma, N. Nakashima, S. Suzuki, K. Tsukahara, H. Noguchi, M. Koizumi, T. Nemoto, H. Hara, A. Miyauchi and I. Sugitani.

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Keywords for this news article include: Osaka, Japan, Asia, Clinical Trials and Studies, Drugs and Therapies, Paclitaxel Therapy, Mitotic Inhibitors, Organic Chemicals, Clinical Research, Thyroid Neoplasms, Pharmaceuticals, Antineoplastics, Cycloparaffins, Thyroid Cancer, Hydrocarbons, Oncology, Terpenes, Taxoids, Osaka City University.

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**Nursing - Evidence-Based Nursing**

**Reports from Ottawa Hospital Research Institute Describe Recent Advances in Evidence-Based Nursing (Implementation of Symptom Protocols for Nurses Providing Telephone-Based Cancer Symptom Management: A Comparative Case Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nursing - Evidence-Based Nursing have been published. According to news reporting out of Ottawa, Canada, by NewsRx editors, research stated, "The pan-Canadian Oncology Symptom Triage and Remote Support (COSTaRS) team developed 13 evidence-informed protocols for symptom management."

Our news journalists obtained a quote from the research from Ottawa Hospital Research Institute, "To build an effective and sustainable approach for implementing the COSTaRS protocols for nurses providing telephone-based symptom support to cancer patients. A comparative case study was guided by the Knowledge to Action Framework."

According to the news editors, the research concluded: "Three cases were created for three Canadian oncology programs that have nurses providing telephone support."

Our news journalists report that additional information may be obtained by contacting D. Stacey, Ottawa Hosp Res Inst, Ottawa, ON K1H 8M5, Canada. Additional authors for this research include E. Green, B. Ballantyne, J. Tarasuk, M. Skrutkowski, M. Carley, K. Chapman, C. Kuziemsky, E. Kolari, B. Sabo, A. Saucier, T. Shaw, L. Tardif, T. Truant, G.G. Cummings and D. Howell.

Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Evidence-Based Nursing, Nursing, Oncology, Cancer, Ottawa Hospital Research Institute.

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**Nephrology**

**Reports from Panjab University Advance Knowledge in Nephrology (Bergenin attenuates renal injury by reversing mitochondrial dysfunction in ethylene glycol induced hyperoxaluric rat model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nephrology. According to news originating from Chandigarh, India, by NewsRx correspondents, research stated, "Bergenin, isolated from Bergenia ligulata is a potent antioxidant and antilithiatic agent. Present work was designed to establish the biochemical role of bergenin on mitochondrial dysfunction in the ethylene glycol induced hyperoxaluric rat model."

Financial support for this research came from Indian Council of Medical Research.

Our news journalists obtained a quote from the research from Panjab University, "Bergenin was administrated at a dose of 10 mg/kg body wt i.p. from 14th day of establishing the 28 days hyperoxaluria rat model. a-Tocopherol was given as positive control at a dose of 100 mg/kg body wt i.p. Mitochondrial dysfunction was studied by evaluating the activities of respiratory chain complexes, mitochondrial membrane potential and reactive oxygen species. Histopathological analysis of the kidney tissue was done after Pizzolato staining. Also, expression of monocyte chemoattractant protein -1(MCP-1) and kidney injury marker protein (KIM-1) were studied and the levels of IL-1 beta were evaluated in kidney tissue homogenate. Mitochondrial dysfunction during stone crystallization was evident by decreased activities of electron transport chain complexes I, II and IV and augmented mitochondrial oxidative stress in hyperoxaluric rats. Bergenin treatment significantly (P < 0.05) restored the activities of these complexes. Moreover, it curtailed the lipid peroxidation and up regulated antioxidant levels, ameliorating the state of mitochondrial dysfunction. The protective role of bergenin was also reinforced by reducing IL-1 beta production and expression of KIM-1 and MCP-1 in the renal tissue. The findings of the present study provide evidence that bergenin exerted protective effects in hyperoxaluria through mitochondrial protection that involves attenuation of oxidative stress."
According to the news editors, the research concluded: "Hence, it presented itself as an effective remedy in combating urolithiasis."

For more information on this research see: Bergenin attenuates renal injury by reversing mitochondrial dysfunction in ethylene glycol induced hyperoxaluric rat model. European Journal of Pharmacology, 2016;791():611-621. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news correspondents report that additional information may be obtained from S.K. Singla, Panjab Univ Chandigarh, Dept. of Biochem, Chandigarh 160014, India. Additional authors for this research include D. Gautam, M. Sharma and S.K. Singla.

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Keywords for this news article include: Chandigarh, India, Asia, Ethylene Glycols, Nephrology, Ethylenes, Alkenes, Kidney, Panjab University.

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Heart Disorders and Diseases - Heart Attack

Reports from Paris-Descartes University Highlight Recent Findings in Heart Attack (Use of Neuromuscular Blockers During Therapeutic Hypothermia After Cardiac Arrest: A Nursing Protocol)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Attack. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "Neuromuscular blockers used to prevent shivering during therapeutic hypothermia in comatose patients after out-of-hospital cardiac arrest are associated with adverse events. To assess the influence of a nurse-implemented protocol on use of neuromuscular blockers in patients treated with 24-hour therapeutic hypothermia after out-of-hospital cardiac arrest."

Our news editors obtained a quote from the research from Paris-Descartes University, "A before and after study was done in a 24-bed cardiac arrest center. During the before period, paralysis was maintained by continuous infusion of vecuronium during therapeutic hypothermia. During the after period, a nurse-implemented protocol was used to strictly control use of neuromuscular blockers. The primary outcome measure was duration of infusion of neuromuscular blockers; secondary end points included rates of ventilator-associated pneumonia and intensive care unit mortality. Among the 22 patients in the before group and the 23 patients in the after group, most were men (78%) with a median age of 66 years. Baseline characteristics were similar between the 2 groups. Median duration of sedation was 36 hours, shorter in the after group (34 hours) than in the before group (38 hours; P =.02). Median duration of infusion of neuromuscular blockers was significantly shorter in the after group (6 hours) than in the before group (33 hours; P<.001). Ventilator-associated pneumonia occurred more frequently in the before group (45%) than in the after group (13%; P =.02). Overall intensive care unit mortality rate was 58%, similar in both groups (P =.44)."
According to the news editors, the research concluded: "Use of a nurse-implemented protocol to reduce use of neuromuscular blockers is feasible."

For more information on this research see: Use of Neuromuscular Blockers During Therapeutic Hypothermia After Cardiac Arrest: A Nursing Protocol. *Critical Care Nurse*, 2016;36(6):33-40. *Critical Care Nurse* can be contacted at: Amer Assoc Critical Care Nurses, 101 Columbia, Aliso Viejo, CA 92656, USA.

The news editors report that additional information may be obtained by contacting A. Cariou, Paris Descartes Univ, Crit Care Med, Paris, France. Additional authors for this research include S. Ben Abdallah, A. Marincamp, V. Coic, R. Lauverjat, N. Ericher, W. Bougouin, J.P. Mira, A. Cariou and G. Geri.

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Keywords for this news article include: Paris, France, Europe, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Respiratory Tract Infections, Heart Disorders and Diseases, Infectious Disease, Intensive Care, Cardiac Arrest, Critical Care, Heart Attack, Hypothermia, Pulmonology, Cardiology, Pneumonia, Hospital, Paris-Descartes University.

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**Nosocomial Infections**

**Reports from Pathology and Laboratory Medicine Describe Recent Advances in Nosocomial Infections (Investigation of a suspected nosocomial transmission of blaKPC3-mediated carbapenem-resistant Klebsiella pneumoniae by whole genome sequencing)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nosocomial Infections. According to news reporting originating from Los Angeles, California, by NewsRx correspondents, research stated, "Whole genome sequencing (WGS) was compared to pulse-field gel electrophoresis (PFGE) of XbaI-digested genomic DNA, as methods by which to evaluate a potential transmission of carbapenem-resistant *Klebsiella pneumoniae* between 2 hospital inpatients. PFGE result demonstrated only 1-band difference between the isolates, suggesting probable relatedness."

Our news editors obtained a quote from the research from Pathology and Laboratory Medicine, "In contrast, while WGS data demonstrated the same sequence type and very similar chromosomal sequences, over 20 single nucleotide variants were identified between the isolates, bringing into question whether there was a transmission event. WGS also identified an additional plasmid, with an XbaI restriction site in the isolates of the second patient that was not identified by PFGE."

According to the news editors, the research concluded: "While WGS provided additional information that was not available by PFGE, in this study, neither method could definitively conclude the relatedness between the isolates."

For more information on this research see: Investigation of a suspected nosocomial transmission of blaKPC3-mediated carbapenem-resistant Klebsiella pneumoniae by whole
The news editors report that additional information may be obtained by contacting S. Yang, Pathology & Laboratory Medicine, UCLA, Los Angeles, CA, United States. Additional authors for this research include P. Hemarajata, J. Hindler, K. Ward, H. Adisetiyo, F. Li, G.M. Aldrovandi, N.M. Green, D. Russell, Z. Rubin and R.M. Humphries.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.diagmicrobio.2015.12.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, California, Los Angeles, Carbapenems, beta Lactams, United States, Enterobacteriaceae, Gammaproteobacteria, Klebsiella pneumoniae, Nosocomial Infections, Gram Negative Bacteria, North and Central America, Nosocomial Diseases and Conditions, Gram Negative Facultatively Anaerobic Rods.

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Oncology - Lymphoma

Reports from Peking Union Medical College Advance Knowledge in Lymphoma (Decreased Prognostic Value of International Prognostic Score in Chinese Advanced Hodgkin Lymphoma Patients Treated in the Contemporary Era)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lymphoma. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "The International Prognostic Score (IPS) was developed based on the data of Western advanced Hodgkin lymphoma (HL) patients treated before 1992. Only a few studies ever evaluated the application value of IPS in Chinese population or in patients treated in the contemporary era whose outcomes has improved significantly than before."

Our news editors obtained a quote from the research from Peking Union Medical College, "We conducted a retrospective study involving 208 previously untreated Chinese advanced HL patients, who were admitted to Cancer Hospital Chinese Academy of Medical Sciences from January 1, 1999 to April 30, 2015 and received uniform first-line treatment. The prognostic value of both IPS and the seven IPS factors for freedom-from progression (FFP) and overall survival (OS) was assessed in this population. The statistical methods included Kaplan-Meier methodology, log-rank testing, and Cox proportional hazard regression analysis. With a median follow-up time of 79 months (range, 15-210 months), the 5-year FFP and OS were 78.8% and 86.0% respectively, which improved obviously compared with the original IPS study. The IPS remained prognostic for both FFP (P = 0.041) and OS (P = 0.013), but the range narrowed obviously, with 5-year FFP ranging from 87.2% to 61.5%, 5-year OS ranging from 94.1% to 69.2%, and the separation of survival curves was not as good as before. Only two of the seven IPS factors showed a significant independent prognostic value in the multivariate analysis: Stage IV (for FFP, hazard ratio [HR] = 2.219, 95% confidence interval [CI]: 1.148-3.948, P = 0.016; for OS, HR = 2.491, 95% CI: 1.159-5.355, P = 0.019) and hemoglobin < 105 g/L (for FFP, HR = 2.136, 95% CI: 1.123-4.060, P = 0.021; for OS, HR = 2.345, 95% CI: 1.099-
A simple prognostic score calculated by adding one point each for any of the two factors was prognostic both for FFP (P < 0.001) and OS (P < 0.001) with the survival curves separating very well, but the range still narrowed. The IPS has decreased the prognostic value in Chinese advanced HL patients treated in the contemporary era.

According to the news editors, the research concluded: "More prognostic factors are needed to supplement this original scoring system so as to identify different risk populations more accurately."


The news editors report that additional information may be obtained by contacting Y.K. Shi, Peking Union Med College, Beijing 100021, People's Republic of China. Additional authors for this research include Y. Qin, S.Y. Kang, X.H. He, P. Liu, S. Yang, S.Y. Zhou, C.G. Zhang, L. Gui, J.L. Yang, Y. Sun and Y.K. Shi.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hematology, Lymphomas, Oncology, Peking Union Medical College.

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HbA1c <7.0%, Bp <140/90 mmHg and LDL-C <2.6 mmol/L. Overall, 43.0% of type 2 diabetes patients were overweight and 16.7% were obese; 13.3% of overweight and and 10.1% of obese patients achieved all the 3B target goals. Overweight or obese patients were less likely to achieve 3B goals than those with normal BMIs. More than a half the overweight or obese patients (69.6%) were centrally obese. Patients with abdominal obesity were less likely to achieve cardiometabolic targets than those without abdominal obesity. In multivariate logistic regression analysis, female, higher BMI and waist circumference, smoking, drinking, sedentary lifestyle, and longer diabetes duration were significantly correlated with failure to achieve 3B control goals. Obesity is highly prevalent and associated with poor 3B control in Chinese type 2 diabetes patients.

According to the news editors, the research concluded: "In clinical practice, more attention and resources should focus on weight loss for such patients."


Our news journalists report that additional information may be obtained by contacting X. Zhou, Dept. of Endocrinology and Metabolism, Peking University People's Hospital, Beijing, People's Republic of China. Additional authors for this research include L. Ji, X. Ran, B. Su, Q. Ji, C. Pan, J. Weng, C. Ma, C. Hao, D. Zhang and D. Hu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0144179. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Bariatrics, Epidemiology, Overnutrition, Type 2 Diabetes, Diet and Nutrition, Nutrition Disorders, Risk and Prevention, Obesity and Diabetes, People's Republic of China, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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interval (CI) were calculated based on either a fixed-effects or a random-effects model. In addition, risk of bias was assessed with the use of the Newcastle-Ottawa scale. Sixteen studies were selected, involving almost 8,707 patients. According to the pooled estimates, compared with PLT, SLT was associated with a longer operative time (SMD, 0.28; 95% CI, 0.11-0.46), higher intraoperative blood loss (SMD, 0.41; 95% CI, 0.08-0.75), more postoperative bleeding (OR, 1.95; 95% CI, 1.10-3.45), an increased risk of recurrence (OR, 2.08; 95% CI, 1.24-3.50), and poorer 3-year (OR, 0.86; 95% CI, 0.76-0.98) and 5-year (OR, 0.86; 95% CI, 0.76-0.98) overall survival rates. However, no difference was detected between case and control groups in either rates of postoperative complications or such aspects as perioperative mortality, length of intensive care unit stay, length of hospital stay, and 1-year overall survival rate. The 3-year and 5-year overall survival rates were inferior in SLT, which shows that PLT is a better treatment strategy for transplantable hepatocellular carcinoma (HCC)."

According to the news reporters, the research concluded: "However, considering the severe organ limitation and the feasibility and safety of SLT, it provides a better option for patients with HCC recurrence after curative resection."


Our news journalists report that additional information may be obtained by contacting L. He, Peoples Hosp Deyang City, Dept. of Nursing, Deyang 618000, Sichuan, People's Republic of China. Additional authors for this research include T.T. Geng, L. He and H. Gao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.09.047. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sichuan, People's Republic of China, Asia, Oncology, Risk and Prevention, Liver Cancer, Carcinomas, People's Hospital.

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**Oncology - Skin Cancer**

**Reports from Pohang University of Science and Technology (POSTECH) Advance Knowledge in Skin Cancer (Hyaluronate-Gold Nanorod/DR5 Antibody Complex for Noninvasive Theralnosis of Skin Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Skin Cancer have been published. According to news originating from Gyeongbuk, South Korea, by NewsRx correspondents, research stated, "Noninvasive transdermal delivery is a promising method with distinct advantages including patient compliance over other delivery routes. Here, hyaluronate gold nanorod/death receptor 5 antibody (HA-AuNR/DR5 Ab) complex was developed for transdermal theranosis of skin cancer."

Our news journalists obtained a quote from the research from the Pohang University...
of Science and Technology (POSTECH), "The successful formation of the complex was corroborated by H-1 nuclear magnetic resonance, UV vis spectroscopy, dynamic light scattering, zeta potential, and transmission electron microscopy. In vitro biological activity of the complex was verified by ELISA and MTT assay using HCT116 cancer cells. In addition, in vivo photoacoustic imaging and two-photon microscopy clearly-visualized the transdermal delivery of HA-AuNR/DR5 Ab complex through the inevitable barrier of stratum corneum in the skin. Furthermore, in vivo antitumor effect on skin cancer model mice was confirmed from statistically significant decrease of tumor-reflecting luciferase expression levels and apoptotic signals in terminal deoxynucleotidyl transferase dUTP nick end labeling (TUNEL) assay."

According to the news editors, the research concluded: "Taken together, we could confirm the feasibility of HA-AuNR/DR5 Ab complex as a novel theranostic platform for noninvasive transdermal treatment of skin cancers."

For more information on this research see: Hyaluronate-Gold Nanorod/DR5 Antibody Complex for Noninvasive Theranosis of Skin Cancer. ACS Applied Materials & Interfaces, 2016;8(47):32202-32210. ACS Applied Materials & Interfaces can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Applied Materials & Interfaces - www.pubs.acs.org/journal/aamick)

The news correspondents report that additional information may be obtained from S.K. Hahn, Pohang Univ Sci & Technol POSTECH, Dept. of Mat Sci & Engn, Pohang 37673, Gyeongbuk, South Korea. Additional authors for this research include J.H. Lee, J.S. Kim, J.H. Mun, J.H. Chung, H. Koo, C.H. Kim, S.H. Yun and S.K. Hahn.

Keywords for this news article include: Gyeongbuk, South Korea, Asia, Immunoglobulins, Blood Proteins, Skin Neoplasms, Skin Cancer, Immunology, Antibodies, Oncology, Pohang University of Science and Technology (POSTECH).

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Surgery - Foot and Ankle Surgery

Reports from Pontifical Catholic University Highlight Recent Findings in Foot and Ankle Surgery (Gender-based violence and sexual and reproductive health among low-income youth in three Brazilian cities)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Surgery - Foot and Ankle Surgery. According to news originating from Belo Horizonte, Brazil, by NewsRx correspondents, research stated, "In this article, we investigate how gender-based violence (GBV) affects the sexual and reproductive health of impoverished adolescents and young adults. We analyse data from a 2011 survey of 450 young women and 300 young men aged 15-29, living in poor neighbourhoods of three middle-sized cities in Minas Gerais, Brazil."

Financial support for this research came from CNPq (National Counsel of Technological and Scientific Development) - Edictal CNPq.

Our news journalists obtained a quote from the research from Pontifical Catholic University, "In this survey we used a closed-ended questionnaire to collect data from 150 women and 100 men in each city. Our main goal was to explore the relationship between GBV and young women's autonomy in relation to their sexuality, using indicators appropriate to
Brazil. Our results showed a decreased prevalence of condom use at first intercourse and an increased prevalence of teenage pregnancies among young women who were in a relationship with a controlling and violent partner. Lower condom use was observed mostly among young men who acknowledged being violent and controlling towards a partner and they also were more likely to have made a partner pregnant as teenagers themselves.

According to the news editors, the research concluded: "We conclude that some variables utilized here as indicators of control and violence from a partner and of young women's autonomy can help us to understand how GBV inside relationships affects the reproductive and sexual health of young men and women, and how empowering them can reduce their susceptibility to unwanted pregnancies and HIV and other STI infections."

For more information on this research see: Gender-based violence and sexual and reproductive health among low-income youth in three Brazilian cities. Reproductive Health Matters, 2016;24(47):141-152. Reproductive Health Matters can be contacted at: Elsevier Science BV, PO Box 211, 1000 AE Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Reproductive Health Matters - www.journals.elsevier.com/reproductive-health-matters/)

The news correspondents report that additional information may be obtained from A.S. Chacham, Pontificia Univ Catolica Minas Gerais, Dept. of Social Sci, Belo Horizonte, MG, Brazil. Additional authors for this research include A.B. Simao and A.J. Caetano.

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Keywords for this news article include: Belo Horizonte, Brazil, South America, Foot and Ankle Surgery, Surgery, Pontifical Catholic University.

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Science - Chromatography

Reports from Public Health Institute Add New Data to Findings in Chromatography (Analysis of 25 C NBOMe in Seized Blotters by HPTLC and GC-MS)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science - Chromatography. According to news reporting from Santiago, Chile, by NewsRx journalists, research stated, "Use of unauthorized synthetic drugs is a serious, forensic, regulatory and public health issue. In this scenario, consumption of drug-impregnated blotters is very frequent."

The news correspondents obtained a quote from the research from Public Health Institute, "For decades, blotters have been generally impregnated with the potent hallucinogen known as lysergic acid diethylamide (LSD); however, since 2013 blotter stamps with N-2 methoxybenzyl-substituted phenylethylamine hallucinogen designated as 'NBOMes' have been seized in Chile. To address this issue with readily accessible laboratory equipment, we have developed and validated a new HPTLC method for the identification and quantitation of 25-C-NBOMe in seized blotters and its confirmation by GC-MS. The proposed method was validated according to SWGTOX recommendations and is suitable for routine analysis of seized blotters containing 25-C-NBOMe. With the validated method, we analyzed 15 real samples, in all cases finding 25-C-NBOMe in a wide dosage range (701.0-1943.5 mu g per blotter)."
According to the news reporters, the research concluded: "In this situation, we can assume that NBOMes are replacing LSD as the main hallucinogenic drug consumed in blotters in Chile."


Our news journalists report that additional information may be obtained by contacting B. Duffau, Public Hlth Inst Chile, Drug Anal Sect, Santiago, Chile. Additional authors for this research include C. Camargo, M. Kogan, E. Fuentes and B.K. Cassels.

Keywords for this news article include: Santiago, Chile, South America, Chromatography, Science, Public Health Institute.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Reports from R. Coughlan and Co-Researchers Add New Data to Findings in HIV/AIDS (Key data from the 17th International Workshop on Co-morbidities and Adverse Drug Reactions in HIV)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - HIV/AIDS have been published. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Combination antiretroviral therapy (cART) has significantly reduced HIV-related morbidity and mortality; however, residual inflammation often persists in the absence of detectable viral load."

The news correspondents obtained a quote from the research, "In addition, chronic use of cART and an ageing HIV-positive population present new challenges to treating physicians who must balance the need for good virological control with risk of treatment-related toxicities. Discussions at the 17th International Workshop on Co-morbidities and Adverse Drug Reactions in HIV once again sought a better understanding of the complex relationship between HIV-, treatment- and age-related factors in the development of comorbidities in those infected with HIV."

According to the news reporters, the research concluded: "Key data from the meeting pertaining to inflammatory pathways in HIV, adipose tissue metabolism, cardiovascular disease, bone health, ageing and frailty, neurocognitive dysfunction, pulmonary disease and HCV coinfection are the focus of this report."

For more information on this research see: Key data from the 17th International Workshop on Co-morbidities and Adverse Drug Reactions in HIV. *Antiviral Therapy*, 2016;21 (1):75-89. *Antiviral Therapy* can be contacted at: Int Medical Press Ltd, 2-4 Idol Lane, London EC3R 5DD, England.

Our news journalists report that additional information may be obtained by contacting R. Coughlan, Int Med Press, London, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3851/IMP3031. This DOI is a link to an online electronic document that is...
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Oncology - Liver Cancer

Reports from Regional Hospital Highlight Recent Findings in Liver Cancer (Up-to-7 Criteria for Hepatocellular Carcinoma Liver Transplantation: A Retrospective Analysis of Experiences)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting out of Malaga, Spain, by NewsRx editors, research stated, "The expansion of criteria for hepatocellular carcinoma (HCC) liver transplantation should produce satisfactory outcomes in terms of survival and recurrence. To investigate if the up-to-7 criteria are applicable to liver transplantation for HCC."

Our news journalists obtained a quote from the research from Regional Hospital, "A review of all liver transplantations performed at our unit between January 2002 and December 2010 was conducted (645 patients). The 91 patients of the sample who had HCC were divided into 3 groups: in Milan criteria (MC; n = 74), in up-to-7 criteria (UTSC; n = 12), and outside of up-to-7 criteria (OUTSC; n = 5). A descriptive retrospective study was carried out to analyze the characteristics of liver tumors and recipients and to estimate recurrence and survival rates for this population of patients. The characteristics of transplant recipients of the 3 groups were comparable. Statistically significant differences were observed in the number of tumors (1 +/- 0.65 for MC, 3 +/- 1.05 for UTSC, 6 +/- 4.10 for OUTSC; P < .001), largest tumor size (2.47 +/- 1.12 cm for MC, 3.78 +/- 0.04 cm for UTSC, 4.04 +/- 1.73 cm for OUTSC; P < .001), and recurrence (5.4% for MC; 33.3% for UTSC; 20% for OUTSC; P = .008). Survival rates (MC, UTSC, and OUTSC) at 3 and 5 years were 71.6%, 66.7%, and 60%, and 58.1%, 58.3%, and 40%, respectively, whereas tumor-free survival rates were 70.3%, 58.3%, and 60%, and 58.1%, 50%, and 40%, respectively. Survival in patients with HCC transplanted under up-to-7 criteria is acceptable."

According to the news editors, the research concluded: "However, the expansion of criteria involves an increase in the number of patients included in the waiting list and a higher probability of relapse."


Our news journalists report that additional information may be obtained by contacting F.J.L. Diaz, Reg Hosp, Liver Transplant Unit, Malaga, Spain. Additional authors for this research include J.A.P. Daga, B.S. Perez, J.L.F. Aguilar, C.M. Casado, J.M.A. Narvaez,
Reports from Renmin Hospital of Wuhan University Add New Data to Findings in Gastric Cancer (Long Noncoding RNA H19-Derived miR-675 Enhances Proliferation and Invasion via RUNX1 in Gastric Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gastric Cancer. According to news reporting originating from Hubei, People's Republic of China, by NewsRx correspondents, research stated, "The lncRNA H19 and its mature product miR-675 have recently been shown to be upregulated and promote the progression of gastric cancer. However, the detailed function and underlying molecular mechanism of H19/miR-675 in the carcinogenesis of gastric cancer remains unclear."

Our news editors obtained a quote from the research from the Renmin Hospital of Wuhan University, "In this study, we found that H19 depended on miR-675 to enhance the proliferation and invasion of gastric cancer AGS cells, and the expression of miR-675 was positively correlated with H19 in patients with gastric cancer. Subsequently, the tumor-suppressor runt domain transcription factor 1 (RUNX1) was confirmed to be a downstream molecule of H19/miR-675 axis, since overexpression of H19 or miR-675 significantly decreased RUNX1 expression in AGS cells, and knockdown of H19 or miR-675 enhanced RUNX1 expression. More importantly, a series of assays further demonstrated that introduction of RUNX1 abrogated H19/miR-675-induced Akt/mTOR pathway activation and the following cellular proliferation and invasion of AGS cells. To our knowledge, this is the time to demonstrate that RUNX1 serves as a link between H19/miR-675 axis and Akt/mTOR signaling and is a pivotal mediator in gastric cancer progression induced by H19/miR-675."

According to the news editors, the research concluded: "Thus, our study provides important clues for understanding the key roles of lncRNA-miRNA functional network and identifying new therapeutic targets for gastric cancer."

For more information on this research see: Long Noncoding RNA H19-Derived miR-675 Enhances Proliferation and Invasion via RUNX1 in Gastric Cancer Cells. Oncology Research, 2016;23(3):99-107.

The news editors report that additional information may be obtained by contacting G. Liu, Dept. of Hepatobiliary and Laparoscopic Surgery, Renmin Hospital of Wuhan University, Wuhan, Hubei, People's Republic of China. Additional authors for this research include T. Xiang, Q.F. Wu and W.X Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3727/096504015X14496932933575. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Asia, Hubei, Genetics, Oncology, Gastric Cancer, Gastroenterology, People's Republic of China.

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Pregnancy Complications - Spontaneous Abortion

Reports from Research Center Provide New Insights into Spontaneous Abortion (Success of smoking cessation interventions during pregnancy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pregnancy Complications - Spontaneous Abortion. According to news originating from Montreal, Canada, by NewsRx correspondents, research stated, "Smoking during pregnancy is a modifiable risk factor associated with adverse pregnancy outcomes. Smoking during pregnancy has been shown to increase the risk of spontaneous abortion, prematurity, low birthweight, congenital malformations, and sudden infant death syndrome."

Our news journalists obtained a quote from the research from Research Center, "Despite the fact that it is well known that smoking can lead to adverse pregnancy outcomes, 13-25% of pregnant women overall continue to smoke during this critical period. The objective of the study was to evaluate the effect of gestational use of bupropion and nicotine patch replacement therapy on the risk of the following: (1) smoking cessation, (2) prematurity, and (3) small for gestational age. Women included in the Quebec Pregnancy Cohort who filled the annual autoadministered questionnaire between Jan. 1, 1998, and June 30, 2009, were studied. Smokers before gestation with a pregnancy resulting in a live birth comprised the study population. Three mutually exclusive study groups were formed among those who smoked at the beginning of pregnancy: gestational users of nicotine patch replacement therapy, bupropion, and smokers who did not use nicotine patch replacement therapy or bupropion. Rate of smoking cessation during pregnancy as well as the risk of prematurity and small for gestational age were studied. Of the 1288 women who met inclusion criteria, 900 were smokers, 72 were bupropion users, and 316 were nicotine patch replacement therapy users. Bupropion and nicotine patch replacement therapy use during pregnancy were associated with higher rates of smoking cessation: 81% in the bupropion group; 79% for nicotine patch replacement therapy; and 0% in those not using bupropion or nicotine patch replacement therapy. After discontinuing smoking cessation medications, 60% of bupropion users and 68% of nicotine patch replacement therapy users did not smoke again during and after pregnancy. Adjusting for potential confounders, nicotine patch replacement therapy use was associated with a lower risk of prematurity (adjusted odds ratio, 0.21, 95% confidence interval, 0.13-0.34), and small-for-gestational-age (adjusted odds ratio, 0.61, 95% confidence interval, 0.41-0.90) compared to smoking. Bupropion was associated with a lower risk of prematurity only (adjusted odds ratio, 0.12, 95% confidence interval, 0.03-0.50). Bupropion and nicotine patch replacement therapy have an impact on smoking cessation during and after pregnancy."

According to the news editors, the research concluded: "Nicotine patch replacement therapy also decreased the risk of prematurity and small for gestational age."

For more information on this research see: Success of smoking cessation interventions during pregnancy. American Journal of Obstetrics and Gynecology, 2016;215 (5):170-177. American Journal of Obstetrics and Gynecology can be contacted at: Mosby-
Reports from Research Foundation Add New Data to Findings in Clinical Trials and Studies (Lung Volume Reduction with Vapor Ablation in the Presence of Incomplete Fissures: 12-Month Results from the STEP-UP Randomized Controlled Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting out of Heidelberg, Germany, by NewsRx editors, research stated, "Emphysema patients with collateral ventilation (CV) will not benefit from valve therapy, the most common endoscopic lung volume reduction procedure. A recent randomized controlled trial (STEP-UP) of the alternative bronchoscopic thermal vapor ablation (BTVA) included patients with (CV+) and without interlobar CV (CV-)."

Our news journalists obtained a quote from the research from Research Foundation, "This analysis evaluated the efficacy and safety of the CV+ population following BTVA. A post hoc fissure analysis of the baseline computed tomography of all treatment and control patients was performed with the VIDA Diagnostics Apollo software. A patient was considered to be CV+ if either of the treated upper lobes was adjacent to a fissure that was <90% complete. The primary endpoints, forced expiratory volume in 1 s (FEV 1) and St. George's Respiratory Questionnaire (SGRQ-C), were calculated for these CV+ patients following BTVA and safety results summarized. 78% (35/45) of the patients in the treatment arm and 79% (19/24) of the patients in the control arm were found to be CV+. At 12 months, the FEV 1 improvement of the treatment arm was 9.2%, as compared with a decrease of 5.4% in the control group, resulting in a mean between-group difference of 14.6% (p = 0.0137). The improvement in SGRQ-C of the treatment arm as compared to the control arm was 8.4 points (p = 0.0712). An increase in respiratory related serious adverse events was observed immediately following treatment, but most resolved with routine care. BTVA can achieve safe and clinically meaningful improvement in pulmonary function and quality of life in patients with CV."

According to the news editors, the research concluded: "These randomized controlled trial subgroup results offer proof of a viable solution for CV+ patients."

For more information on this research see: Lung Volume Reduction with Vapor Ablation in the Presence of Incomplete Fissures: 12-Month Results from the STEP-UP

Our news journalists report that additional information may be obtained by contacting D. Gompelmann, German Lung Res Fdn DZL, TLRCH, Heidelberg, Germany. Additional authors for this research include R. Eberhardt, M. Schuhmann, A. Valipour, P.L. Shah, F.J.F. Herth and K. Kontogianni.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000452424. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Heidelberg, Germany, Europe, Clinical Trials and Studies, Clinical Research, Research Foundation.

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Liver Diseases and Conditions - Fatty Liver

**Reports from Research Institute Add New Data to Findings in Fatty Liver (Increased Expression Profile and Functionality of TLR6 in Peripheral Blood Mononuclear Cells and Hepatocytes of Morbidly Obese Patients with Non-Alcoholic Fatty Liver ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Fatty Liver have been published. According to news reporting originating in Santander, Spain, by NewsRx journalists, research stated, "Current evidence suggests that gut dysbiosis drives obesity and non-alcoholic fatty liver disease (NAFLD) pathogenesis. Toll-like receptor 2 (TLR2) and TLR6 specifically recognize components of Gram-positive bacteria."

The news reporters obtained a quote from the research from Research Institute, "Despite the potential implications of TLR2 in NAFLD pathogenesis, the role of TLR6 has not been addressed. Our aim is to study a potential role of TLR6 in obesity-related NAFLD. Forty morbidly obese patients undergoing bariatric surgery were prospectively studied. Cell surface expression of TLR2 and TLR6 was assessed on peripheral blood mononuclear cells (PBMCs) by flow cytometry. Freshly isolated monocytes were cultured with specific TLR2/TLR6 agonists and intracellular production of cytokines was determined by flow-cytometry. In liver biopsies, the expression of TLR2 and TLR6 was analyzed by immunohistochemistry and cytokine gene expression using RT-qPCR. TLR6 expression in PBMCs from non-alcoholic steatohepatitis (NASH) patients was significantly higher when compared to those from simple steatosis. The production of pro-inflammatory cytokines in response to TLR2/TLR6 stimulation was also significantly higher in patients with lobular inflammation. Hepatocyte expression of TLR6 but not that of TLR2 was increased in NAFLD patients compared to normal liver histology. Deregulated expression and activity of peripheral TLR6 in morbidly obese patients can mirror the liver inflammatory events that are well known drivers of obesity-related NASH pathogenesis. Moreover, TLR6 is also significantly overexpressed in the hepatocytes of NAFLD patients compared to their normal counterparts."

According to the news reporters, the research concluded: "Thus, deregulated TLR6
expression may potentiate TLR2-mediated liver inflammation in NAFLD pathogenesis, and also
serve as a potential peripheral biomarker of obesity-related NASH.”

For more information on this research see: Increased Expression Profile and
Functionality of TLR6 in Peripheral Blood Mononuclear Cells and Hepatocytes of Morbidly
Obese Patients with Non-Alcoholic Fatty Liver Disease. *International Journal of Molecular
Sciences*, 2016;17(11):1761-1771. *International Journal of Molecular Sciences* can be
contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by
Pathol Grp, Santander 390008, Spain. Additional authors for this research include P. Iruzubieta,
A. Puente, D. Ramos, C.S. Cruz, A. Estebanez, S. Llerena, C. Alonso-Martín, D. San Segundo,

Keywords for this news article include: Santander, Spain, Europe, Nutritional and
Metabolic Diseases and Conditions, Digestive System Diseases and Conditions, Liver Diseases
and Conditions, Fatty Liver Disease, Nutrition Disorders, Diet and Nutrition,
Gastroenterology, Overnutrition, Inflammation, Hepatocytes, Bariatrics, Cytometry,
Genetics, Obesity, Research Institute.

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**Immunology - Immunoglobulins**

**Reports from Research Institute Highlight Recent Findings in Immunoglobulins [Substitution of Heavy Complementarity Determining Region 3 (CDR-H3) Residues Can Synergistically Enhance Functional Activity of Antibody and Its Binding Affinity to ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immunology - Immunoglobulins. According to news reporting originating from Yongin, South Korea, by NewsRx correspondents, research stated, "To generate a biobetter that has improved therapeutic activity, we constructed scFv libraries via random mutagenesis of several residues of CDR-H3 and -L3 of hu4D5. The scFv clones were isolated from the phage display libraries by stringent panning, and their anti-proliferative activity against HER2-positive cancer cells was evaluated as a primary selection criterion."

Our news editors obtained a quote from the research from Research Institute, "Consequently, we selected AH06 as a biobetter antibody that had a 7.2-fold increase in anti-proliferative activity (IC[50]: 0.81 nM) against the gastric cancer cell line NCI-N87 and a 7.4-fold increase in binding affinity (KD: 60 pM) to HER2 compared to hu4D5. The binding energy calculation and molecular modeling suggest that the substitution of residues of CDR-H3 to W98, F100c, A101 and L102 could stabilize binding of the antibody to HER2 and there could be direct hydrophobic interactions between the aromatic ring of W98 and the aliphatic group of I613 within HER2 domain IV as well as the heavy and light chain hydrophobic interactions by residues F100c, A101 and L102 of CDR-H3. Therefore, we speculate that two such interactions were exerted by the residues W98 and F100c. A101 and L102 may have a synergistic effect on the increase in the binding affinity to HER2. AH06 specifically binds to domain IV of HER2, and it decreased the phosphorylation level of HER2 and AKT."

"Consequently, we selected AH06 as a biobetter antibody that had a 7.2-fold increase in anti-proliferative activity (IC[50]: 0.81 nM) against the gastric cancer cell line NCI-N87 and a 7.4-fold increase in binding affinity (KD: 60 pM) to HER2 compared to hu4D5. The binding energy calculation and molecular modeling suggest that the substitution of residues of CDR-H3 to W98, F100c, A101 and L102 could stabilize binding of the antibody to HER2 and there could be direct hydrophobic interactions between the aromatic ring of W98 and the aliphatic group of I613 within HER2 domain IV as well as the heavy and light chain hydrophobic interactions by residues F100c, A101 and L102 of CDR-H3. Therefore, we speculate that two such interactions were exerted by the residues W98 and F100c. A101 and L102 may have a synergistic effect on the increase in the binding affinity to HER2. AH06 specifically binds to domain IV of HER2, and it decreased the phosphorylation level of HER2 and AKT."
According to the news editors, the research concluded: "Above all, it highly increased the overall level of p27 compared to hu4D5 in the gastric cancer cell line NCI-N82, suggesting that AH06 could potentially be a more efficient therapeutic agent than hu4D5."


The news editors report that additional information may be obtained by contacting S.K. Moon, Bio Medicine Lab, CKD Research Institute, ChongKunDang Pharm, Yongin 446-916, South Korea. Additional authors for this research include S.R. Park, A. Park, H.M. Oh, H.J. Shin, E.J. Jeon, S. Kim, H.J. Park, Y.J. Yeon and Y.J Yoo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.14348/molcells.2016.2235. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antibodies, Antibody Binding Sites, Antigen T Cell Receptors, Yongin, Cancer, Oncology, Immunology, South Korea, Blood Proteins, Immunoproteins, Serum Globulins, Membrane Proteins, Immunoglobulin Fragments, Immunoglobulin Variable Region, Complementarity Determining Regions.

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**Reports from Royal Free Hospital Highlight Recent Findings in Hemophilia A (Congenital factor V and VIII deficiency in women: a systematic review of literature and report of two new cases)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hematologic Diseases and Conditions - Hemophilia A are presented in a new report. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Factor V and factor VIII deficiency (F5F8D) is a rare congenital bleeding disorder. There is a paucity of data in the literature about obstetric and gynaecological problems in women affected by F5F8D."

Our news editors obtained a quote from the research from Royal Free Hospital, "The aim of this review was to examine obstetric complications and gynaecological problems in women with congenital F5F8D and present two new cases. An electronic search was performed to identify the published literature on PUBMED, MEDLINE and EMBASE databases using the following keywords 'congenital factor V and factor VIII deficiency' and 'women or pregnancy'. A total of 23 relevant articles were found and included in this systematic review: 15 case reports and 10 case series dating from 1976 to 2015. A total number of 86 women were identified. Heavy menstrual bleeding was the most common bleeding symptom in women (49%). Recurrent ovulation bleeding and haemorrhagic ovarian cyst were reported in three women. Nineteen pregnancies were reported (including our two case reports). There were no miscarriages. Postpartum bleeding occurred in six (32%) deliveries."

According to the news editors, the research concluded: "Data are very limited on gynaecological and obstetric problems in women with F5F8D. Heavy menstrual bleeding is a
common problem. There is also an increased risk of postpartum haemorrhage. Close collaboration between haemophilia, obstetric and gynaecological teams is important to prevent and manage obstetric and gynaecological bleeding complications."

For more information on this research see: Congenital factor V and VIII deficiency in women: a systematic review of literature and report of two new cases. *Blood Coagulation & Fibrinolysis*, 2016;27(3):237-41. (Lippincott Williams and Wilkins - www.lww.com; Blood Coagulation & Fibrinolysis - journals.lww.com/bloodcoagulation/pages/default.aspx)

The news editors report that additional information may be obtained by contacting D. Spiliopoulos, Katharine Dormandy Haemophilia Centre and Dept. of Obstetrics & Gynaecology, Royal Free Hospital, London, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MBC.0000000000000407. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Factor V, Gynecology, Obstetrics, Hemophilia A, Menstruation, United Kingdom, Article Review, Women's Health, Blood Coagulation Factors, Hematologic Diseases and Conditions.

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**Infectious Diseases**

**Reports from Royal Holloway-University of London Advance Knowledge in Infectious Diseases (The evolution of sex-specific virulence in infectious diseases)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Infectious Diseases are presented in a new report. According to news reporting from Egham, United Kingdom, by NewsRx journalists, research stated, "Fatality rates of infectious diseases are often higher in men than women. Although this difference is often attributed to a stronger immune response in women, we show that differences in the transmission routes that the sexes provide can result in evolution favouring pathogens with sex-specific virulence."

The news correspondents obtained a quote from the research from the Royal Holloway-University of London, "Because women can transmit pathogens during pregnancy, birth or breast-feeding, pathogens adapt, evolving lower virulence in women. This can resolve the long-standing puzzle on progression from Human T-cell Lymphotropic Virus Type 1 (HTLV-1) infection to lethal Adult T-cell Leukaemia (ATL); a progression that is more likely in Japanese men than women, while it is equally likely in Caribbean women and men. We argue that breastfeeding, being more prolonged in Japan than in the Caribbean, may have driven the difference in virulence between the two populations."

According to the news reporters, the research concluded: "Our finding signifies the importance of investigating the differences in genetic expression profile of pathogens in males and females."

Reports from Ruhr University Describe Recent Advances in Atrial Fibrillation (Performance of an Implantable Cardiac Monitor to Detect Atrial Fibrillation: Results of the DETECT AF Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting out of Bad Oeynhausen, Germany, by NewsRx editors, research stated, "DETECTAF Study Results. Reliable detection and monitoring of atrial fibrillation (AF) is essential for accurate clinical decision making, which can now be done continuously with the introduction of implantable cardiac monitors (ICM) The DETECT AF study evaluated the performance of the Confirm DM2102 ICM (St. Jude Medical, St."

Our news journalists obtained a quote from the research from Ruhr University, "Paul, MN, USA) to accurately detect and monitor AF. Ninety patients previously implanted with the ICM and with either suspected or known paroxysmal AF were enrolled at 12 centers in Germany and The Netherlands. At least 2 weeks after ICM implant, patients wore a Holter monitor for 4 days, while the ICM monitored for AF episodes lasting at least 2 minutes. Holter monitor data was analyzed by a blinded, independent core laboratory and compared to the ICM AF detections. Patient and episode sensitivity (SE), specificity (SP), positive predictive value (PPV), and negative predictive (NPV) were calculated using standard analysis and a generalized estimation equation method where appropriate. A total of 79/90 subjects (61% male, 65.7 +/- 9.6 years old) were included in the analysis, totaling 6,894 hours of Holter monitoring. Using a per patient analysis SE was 100%, PPV was 64.0%, SP was 85.7%, and NPV was 100%. Using a per episode analysis, SE was 94.0% and PPV was 64.0%. With an AF duration analysis, the SE was 83.9%, PPV was 97.3%, SP was 99.4% with an NPV of 98.5%.”

According to the news editors, the research concluded: “The SJM Confirm DM2102 can accurately and repeatedly detect paroxysmal AF episodes of at least 2 minutes in length.”


Our news journalists report that additional information may be obtained by contacting G. Nolker, Ruhr University of Bochum, Herz & Diabet Zentrum Nordrhein Westfalen, Bad Oeynhausen, Germany. Additional authors for this research include J. Mayer,
Oncology - Prostate Cancer
Reports from Rutgers State University Provide New Insights into Prostate Cancer (delta-Tocopherol Inhibits Receptor Tyrosine Kinase-Induced AKT Activation in Prostate Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to news reporting from Piscataway, New Jersey, by NewsRx journalists, research stated, "The cancer preventive activity of vitamin E is suggested by epidemiological studies and supported by animal studies with vitamin E forms, g-tocopherol and delta-tocopherol (delta-T). Several recent large-scale cancer prevention trials with high dose of a-tocopherol, however, yielded disappointing results."

The news correspondents obtained a quote from the research from Rutgers State University, "Whether vitamin E prevents or promotes cancer is a serious concern. A better understanding of the molecular mechanisms of action of the different forms of tocopherols would enhance our understanding of this topic. In this study, we demonstrated that delta-T was the most effective tocopherol form in inhibiting prostate cancer cell growth, by inducing cell cycle arrest and apoptosis. By profiling the effects of delta-T on the cell signaling using the phospho-kinase array, we found that the most inhibited target was the phosphorylation of AKT on T308. Further study on the activation of AKT by EGFR and IGFR revealed that delta-T attenuated the EGF/IGF-induced activation of AKT (via the phosphorylation of AKT on T308 induced by the activation of PIK3). Expression of dominant active PIK3 and AKT in prostate cancer cell line DU145 in which PIK3, AKT, and PTEN are wild type caused the cells to be refractory to the inhibition of delta-T, supporting that delta-T inhibits the PIK3-mediated activation of AKT. Our data also suggest that delta-T interferes with the EGF-induced EGFR internalization, which leads to the inhibition of the receptor tyrosine kinase-dependent activation of AKT."

According to the news reporters, the research concluded: "In summary, our results revealed a novel mechanism of delta-T in inhibiting prostate cancer cell growth, supporting the cancer preventive activity delta-T."


Our news journalists report that additional information may be obtained by contacting H. Wang, Rutgers State University, Ernest Mario Sch Pharm, Center Canc Prevent Res, Piscataway, NJ, United States. Additional authors for this research include J. Hong and
Reports from Salford Royal NHS Foundation Trust Provide New Insights into Atherosclerosis (Progress in the treatment of atherosclerotic renovascular disease: the conceptual journey and the unanswered questions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Atherosclerosis are discussed in a new report. According to news reporting originating in Salford, United Kingdom, by NewsRx journalists, research stated, "Over the past decades, management of atherosclerotic renovascular disease (ARVD) has undergone significant progress, in parallel with increased knowledge about the complex pathophysiology of this condition. Modern multi-targeted medical management of atherosclerosis has driven a change in both the natural history and the clinical outcomes of ARVD."

The news reporters obtained a quote from the research from Salford Royal NHS Foundation Trust, "Progression to total renal artery occlusion is a much less common occurrence and while early studies have reported that up to 41% of patients reached renal end-points over a mean follow-up of 44 months, the latest randomized controlled trials have shown that progressive renal impairment occurs in 16-22% of patients, with < 8% of patients reaching end-stage kidney disease (ESKD) over a similar time-frame. However, the results of the latest large ARVD trials investigating the effect of renal stenting upon clinical outcomes have been influenced by selection bias as high-risk patients with clinically significant renal artery stenosis (RAS) have largely been excluded from these studies. Although the neutral results of these trials have shown uncertainty about the role of revascularization in the management of patients with ARVD, there is evidence that revascularization can optimize outcomes in selected patients with a high-risk clinical phenotype."

According to the news reporters, the research concluded: "Future challenges lie in identifying important subgroups of patients with critical RAS and viable kidneys, while continuing to develop strategies to protect the renal parenchyma and hence improve clinical outcomes."


Our news correspondents report that additional information may be obtained by contacting D. Vassallo, Salford Royal NHS Fdn Trust, Dept. of Renal Med, Salford M6 8HD,
Biological Factors - Inflammation Mediators

Reports from San Raffaele Scientific Institute Add New Data to Findings in Inflammation Mediators (NF-kB oscillations translate into functionally related patterns of gene expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biological Factors - Inflammation Mediators have been published. According to news reporting from Milan, Italy, by NewsRx journalists, research stated, "Several transcription factors (TFs) oscillate, periodically relocating between the cytoplasm and the nucleus. NF-kB, which plays key roles in inflammation and cancer, displays oscillations whose biological advantage remains unclear."

The news correspondents obtained a quote from the research from San Raffaele Scientific Institute, "Recent work indicated that NF-kB displays sustained oscillations that can be entrained, that is, reach a persistent synchronized state through small periodic perturbations. We show here that for our GFP-p65 knock-in cells NF-kB behaves as a damped oscillator able to synchronize to a variety of periodic external perturbations with no memory. We imposed synchronous dynamics to prove that transcription of NF-kB-controlled genes also oscillates, but mature transcript levels follow three distinct patterns. Two sets of transcripts accumulate fast or slowly, respectively. Another set, comprising chemokine and chemokine receptor mRNAs, oscillates and resets at each new stimulus, with no memory of the past."

According to the news reporters, the research concluded: "We propose that TF oscillatory dynamics is a means of segmenting time to provide renewing opportunity windows for decision."

For more information on this research see: NF-kB oscillations translate into functionally related patterns of gene expression. Elife, 2016;5():e09100.

Our news journalists report that additional information may be obtained by contacting S. Zambrano, Division of Genetics and Cell Biology, San Raffaele Scientific Institute, Milan, Italy. Additional authors for this research include I. De Toma, A. Piffer, M.E. Bianchi and A. Agresti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7554/eLife.09100. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Genetics, Chemokines, Biological Factors, Inflammation Mediators.

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Reports from School of Medicine Advance Knowledge in Muscular Dystrophy (Identification and Function of Fibrocytes in Skeletal Muscle Injury Repair and Muscular Dystrophy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Muscular Dystrophy have been published. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "We identified and characterized the function of CD45(+)/collagen I+ fibrocytes in acutely injured skeletal muscle of wild-type (WT) and Ccr2(-/-) mice, and in quadriceps and diaphragm muscles of mdx(5cv) mice, a mouse model for Duchenne muscular dystrophy. Fibrocytes were not detected in peripheral blood of WT mice after acute muscle injury or mdx(5cv) mice."

Our news journalists obtained a quote from the research from the School of Medicine, "Fibrocytes were detected in acutely injured muscles and in mdx(5cv) quadriceps and diaphragm muscles. These cells expressed F4/80 and CCR2, and they were mostly Ly6C(lo). They expressed a low level of collagens but a high level of profibrotic growth factors as compared with i.m. fibroblasts. Fibrocyte expression of collagens and profibrotic growth factors was not increased in Ccr2(-/-) mice as compared with WT controls. Fibrocyte expression of both proinflammatory and profibrotic cytokines was significantly higher in mdx(5cv) diaphragm than in mdx(5cv) quadriceps. In cocultures, fibrocytes from the mdx(5cv) diaphragm stimulated a higher level of fibroblast expression of extracellular matrix genes than did those from the mdx (5cv) quadriceps. Our findings suggest that i.m. fibrocytes most likely originate from infiltrating monocytes/macrophages and differentiate within injured muscles. They likely contribute to the normal muscle injury repair by producing growth factors. They do not appear to contribute to the persistent muscle fibrosis associated with poor injury repair in Ccr2(-/-) mice."

According to the news editors, the research concluded: "However, they likely contribute to the persistent inflammation and progressive fibrosis in the mdx(5cv) diaphragm."

For more information on this research see: Identification and Function of Fibrocytes in Skeletal Muscle Injury Repair and Muscular Dystrophy. *Journal of Immunology*, 2016;197 (12):4750-4761. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news correspondents report that additional information may be obtained from L. Zhou, Icahn Sch Med Mt Sinai, Dept. of Neurol, New York, NY 10029, United States. Additional authors for this research include W.M. Zhao, R.M. Ransohoff and L. Zhou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1601308. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Musculoskeletal Diseases and Conditions, Nervous System Diseases and Conditions, Neuromuscular Diseases and Conditions, Muscular Diseases and Conditions, Atrophic Muscular Disorders, Muscular Dystrophies, Muscular Dystrophy, Genetics, School of Medicine.
Reports from School of Medicine Provide New Insights into Ethylamines (Dose-response and Cardiopulmonary Side Effects of the Novel Neuromuscular-blocking Drug CW002 in Man)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Ethylamines have been published. According to news reporting from New Haven, Connecticut, by NewsRx journalists, research stated, "CW002 is a benzylisoquinolinium nondepolarizing neuromuscular-blocking drug found to be inactivated by cysteine in preclinical studies. The current study represents a dose escalation clinical trial designed to describe CW002 potency, duration, cardiopulmonary side effects, and histamine release."

The news correspondents obtained a quote from the research from the School of Medicine, "Healthy subjects anesthetized with sevoflurane/nitrous oxide were divided into five groups (n = 6), each receiving a fixed CW002 dose (0.02, 0.04, 0.06, 0.08, or 0.10 mg/kg), and one group (n = 4) receiving 0.14 mg/kg. Blood pressure and heart rate were continuously recorded along with airway dynamic compliance. Neuromuscular blockade was assessed with mechanomyography at the adductor pollicis. Arterial blood was obtained before and after CW002 injection for analysis of plasma histamine concentration. Potency was estimated from a baseline sigmoid Emax model. ED50 was found to be 0.036 mg/kg (95% CI, 0.020 to 0.053 mg/kg) and ED95 0.077 mg/kg (95% CI, 0.044 to 0.114 mg/kg). At 0.14 mg/kg (1.8 x ED95), 80% twitch depression occurred in 94 +/- 18 s with complete block in 200 +/- 87 s. Clinical recovery (25% of maximum twitch) occurred in 34 +/- 3.4 min, with a 5 to 95% recovery interval of 35.0 +/- 2.7 min. The time to a train-of-four ratio greater than 0.9 ranged from 59 to 86 min. CW002 did not elicit histamine release or significant (greater than 10%) changes in blood pressure, heart rate, or dynamic airway compliance."

According to the news reporters, the research concluded: "In healthy subjects receiving sevoflurane/nitrous oxide, CW002 at 1.8 x estimated ED95 produces a clinical duration less than 40 min, elicits no histamine release, and has minimal cardiopulmonary side effects."

For more information on this research see: Dose-response and Cardiopulmonary Side Effects of the Novel Neuromuscular-blocking Drug CW002 in Man. Anesthesiology, 2016;125(6):1136-1143. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting P.M. Heerdt, Yale Med Sch, Dept. of Anesthesiol, New Haven, CT 06520, United States. Additional authors for this research include H. Sunaga, J.S. Owen, M.T. Murrell, J.K. Malhotra, D. Godfrey, M. Steinkamp, P. Savard, J.J. Savarese and C.A. Lien.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Chemicals, Drugs and Therapies, Biogenic Monoamines, Biological Factors, Blood Pressure, Nitrous Oxide, Hemodynamics, Ethylamines, Heart Rate,
Histamine, Autacoids, School of Medicine.

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Oncology - Liver Cancer

Reports from School of Pharmacy Add New Data to Findings in Liver Cancer (The Antitumor Effect of DYC-279 on Human Hepatocellular Carcinoma HepG2 Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news originating from Zhengzhou, People's Republic of China, by NewsRx correspondents, research stated, "DYC-279 is a newly synthesized compound. In this study, we revealed that DYC-279 could inhibit the proliferation of HepG2 cells in a dose-and time-dependent manner using the CCK-8 test."

Our news journalists obtained a quote from the research from the School of Pharmacy, "FACS showed that DYC-279 induced a G2/M arrest and apoptosis in a dose-dependent manner. Western blot demonstrated that DYC-279-induced G2/M arrest effect was correlated with the inhibition of cyclin-dependent kinase 1 activity, including a concomitant downregulation of cyclinD1 and cdc2 and upregulation of cyclinB1 in HepG2 cells. DYC-279 also significantly increased the ratio of Bax/Bcl-2, and stimulated the released of cytochrome c into cytosol and also activated caspase-9 and caspase-3, suggesting DYC-279 induced apoptosis via mitochondrial apoptotic pathway."

According to the news editors, the research concluded: "These data support that DYC-279 has anticancer properties in HepG2 cells and may be used as a novel effective reagent in the treatment of human liver cancer."


The news correspondents report that additional information may be obtained from P. Junyan, School of Pharmacy, University of Zhengzhou, Zhengzhou, People's Republic of China. Additional authors for this research include Y. Shujuan, G. Shulin, C. Yan and X. Xia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444174. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Caspase, Oncology, Zhengzhou, Carcinomas, Liver Cancer, Enzymes and Coenzymes, People's Republic of China.

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Reports from School of Public Health Add New Data to Findings in Colon Cancer
(Systematic review with meta-analysis: the comparative effectiveness of aspirin vs. screening for colorectal cancer prevention)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Both aspirin use and screening with flexible sigmoidoscopy or guaiac faecal occult blood testing (FOBT) may reduce mortality from colorectal cancer, but comparative effectiveness of these interventions is unknown. To compare aspirin to guaiac FOBT screening with regard to incidence and mortality of colorectal cancer in a network meta-analysis."

Financial supporters for this research include Norges Forskningsrad, Stiftelsen Blanceflor Boncompagni Ludovisi, fodd Bildt, Kreftforeningen, National Institutes of Health. Our news journalists obtained a quote from the research from the School of Public Health, "We searched Medline, EMBASE and the COCHRANE central register (CENTRAL) for relevant randomised trials identified until 31 October 2015. Randomised trials in average-risk populations that reported colorectal cancer mortality, colorectal cancer incidence, or both, with a minimum follow-up of 2 years, and more than 100 randomised individuals were included. Three investigators independently extracted data. We calculated relative risks [RR with 95% predictive intervals (PrIs)] for the comparison of the interventions by frequentist network meta-analyses. The effect of aspirin on colorectal cancer mortality was similar to FOBT (RR 1.03; 95% PrI 0.76-1.39) and flexible sigmoidoscopy (RR 1.16; 95% PrI 0.84-1.60). Aspirin was more effective than FOBT (RR 0.36; 95% PrI 0.22-0.59) and flexible sigmoidoscopy (RR 0.37; 95% PrI 0.22-0.62) in preventing death from or cancer in the proximal colon. Aspirin was equally effective as screening in reducing colorectal cancer incidence, while flexible sigmoidoscopy was superior to FOBT (RR 0.84; 95% PrI 0.72-0.97). Low-dose aspirin seems to be equally effective as flexible sigmoidoscopy or guaiac FOBT screening to reduce colorectal cancer incidence and mortality, and more effective for cancers in the proximal colon."

According to the news editors, the research concluded: "A randomised comparative effectiveness trial of aspirin vs. screening is warranted."


Our news journalists report that additional information may be obtained by contacting L. Emilsson, Harvard TH Chan Sch Public Hlth, Dept. of Epidemiol, Boston, MA, United States. Additional authors for this research include O. Holme, M. Brethauer, N.R. Cook, J.E. Buring, M. Loberg, H.O. Adami, H.D. Sesso, M.J. Gaziano and M. Kalager.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13857. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Aspirin, Article Review, Diagnostics and Screening, Colorectal
Reports from School of Public Health Highlight Recent Findings in School Health (School Health Promotion Policies and Adolescent Risk Behaviors in Israel: A Multilevel Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Education - School Health are discussed in a new report. According to news reporting originating from Haifa, Israel, by NewsRx correspondents, research stated, "Health promotion policies targeting risk-taking behaviors are being implemented across schools in Israel. This study identified the most effective components of these policies influencing cigarette smoking and alcohol consumption among adolescents."

Our news editors obtained a quote from the research from the School of Public Health, "Logistic hierarchical linear model (HLM) analysis of data for 5279 students in 95 Jewish public schools from the Health Behavior in School-Aged Children (HBSC) 2010-2011 survey in Israel enabled simultaneous estimation of the relationship between student-and school-level variables (health promotion policy) to alcohol consumption and smoking behavior. Principals of participating schools also were interviewed to ascertain their degree of adoption and implementation of a health promotion policy. Most of the variance in adolescent risk behaviors is explained by student-level variables: negative perceptions of school, lack of parental support for school issues, and more time spent with friends. Among the school-level policy measures, parental participation in health promotion intervention programs was repeatedly associated with lower rates of risk behaviors, over and above student characteristics. School health promotion policies should focus on parents' involvement in intervention programs and should seek to improve students' perceptions of school and their sense of well-being to promote resilience."

According to the news editors, the research concluded: "Further research is needed to identify additional factors that may increase the effectiveness of school health promotion policies."


The news editors report that additional information may be obtained by contacting R. Tesler, Fac Social Welf & Hlth Sci, Sch Public Hlth, IL-3498838 Haifa, Israel. Additional authors for this research include Y. Harel-Fisch and O. Baron-Epel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/josh.12394. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Haifa, Israel, Asia, School Health,
Cardiology

Reports from Science Institute Describe Recent Advances in Cardiology (Absolute Measurement of Cardiac Injury-Induced microRNAs in Biofluids across Multiple Test Sites)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiology is the subject of a report. According to news reporting out of Washington, District of Columbia, by NewsRx editors, research stated, "Extracellular microRNAs (miRNAs) represent a promising new source of toxicity biomarkers that are sensitive indicators of site of tissue injury. In order to establish reliable approaches for use in biomarker validation studies, the HESI technical committee on genomics initiated a multi-site study to assess sources of variance associated with quantitating levels of cardiac injury induced miRNAs in biofluids using RT-qPCR."

Our news journalists obtained a quote from the research from Science Institute, "Samples were generated at a central site using a model of acute cardiac injury induced in male Wistar rats by 0.5 mg/kg isoproterenol. Biofluid samples were sent to 11 sites for measurement of 3 cardiac enriched miRNAs (miR-1-3p, miR-208a-3p, and miR-499-5p) and 1 miRNA abundant in blood (miR-16-5p) or urine (miR-192-5p) by absolute quantification using calibration curves of synthetic miRNAs. The samples included serum and plasma prepared from blood collected at 4 h, urine collected from 6 to 24 h, and plasma prepared from blood collected at 24 h post subcutaneous injection. A 3 parameter logistic model was utilized to fit the calibration curve data and estimate levels of miRNAs in biofluid samples by inverse prediction. Most sites observed increased circulating levels of miR-1-3p and miR-208a-3p at 4 and 24 h after isoproterenol treatment, with no difference seen between serum and plasma. The biological differences in miRNA levels and sample type dominated as sources of variance, along with outlying performance by a few sites."

According to the news editors, the research concluded: "The standard protocol established in this study was successfully implemented across multiple sites and provides a benchmark method for further improvements in quantitative assays for circulating miRNAs."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/toxsci/kfw143. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Cardiology, Science Institute.

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Oncology - Colon Cancer

Reports from Second Military Medical University Provide New Insights into Colon Cancer (gamma-Aminobutyric acid inhibits the proliferation and increases oxaliplatin sensitivity in human colon cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Gamma-Aminobutyric acid (GABA) is a natural nonprotein amino acid, which broadly exists in many plant parts and is widely used as an ingredient in the food industry. In mammals, it is widely distributed in central nervous system and non-neural tissues."

The news reporters obtained a quote from the research from Second Military Medical University, "In addition to a primary inhibitory neurotransmitter in the central nervous system, endogenous GABA content has been found to be elevated in neoplastic tissues in colon cancer. However, the effect of extraneous GABA on colon cancer has rarely been reported. In this study, we found the inhibitory effects of GABA on the proliferation of colon cancer cells (CCCs). The amino acid also suppressed metastasis of SW480 and SW620 cells. To further study the correlated mechanism, we analyzed the changes in cell cycle distribution and found that GABA suppressed cell cycle progression through G2/M or G1/S phase. Furthermore, RNA sequencing analysis revealed GABA-induced changes in the mRNA expression of 30 genes, including EGR1, MAPK4, NR4A1, Fos, and FosB, in all the three types of CCC. Importantly, GABA enhanced the anti-tumor efficacy of oxaliplatin (OXA) in subcutaneous xenograft tumor model in nude mice. The data suggest that GABA inhibits colon cancer cell proliferation perhaps by attenuating EGR1-NR4A1 axis, EGR1-Fos axis, and by disrupting MEK-EGR1 signaling pathway."

According to the news reporters, the research concluded: "This work reveals the pharmacological value of GABA derived from food and suggests that exogenous GABA might play an auxiliary role in polychemotherapy of colon cancer."

For more information on this research see: gamma-Aminobutyric acid inhibits the proliferation and increases oxaliplatin sensitivity in human colon cancer cells. Tumor Biology, 2016;37(11):14885-14894. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news correspondents report that additional information may be obtained by contacting H.L. Yan, Second Military Med Univ, Changhi Hosp, Dept. of Lab Med, Shanghai 200433, People's Republic of China. Additional authors for this research include A.Y. Du, Y. Xiong, J. Jiang, Y. Zhang, Z.F. Tian and H.L. Yan.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, gamma-Aminobutyric Acid, Central Nervous System, Drugs and Therapies, Oxaliplatin Therapy, Aminobutyric Acids, Alkylating Agents, Pharmaceuticals, Antineoplastics, Colon Cancer, Amino Acids, Oncology, Genetics, Second Military Medical University.
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Oncology - Acute Myeloid Leukemia

Reports from Shaheed Beheshti University of Medical Sciences
Advance Knowledge in Acute Myeloid Leukemia (Expression analysis of BECN1 in acute myeloid leukemia: association with distinct cytogenetic and molecular abnormalities)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Acute Myeloid Leukemia. According to news reporting originating from Tehran, Iran, by NewsRx correspondents, research stated, "In acute myeloid leukemia (AML), it has been shown that AML-derived cells often remain sensitive to autophagy-inducing stimuli, leading to the idea that harnessing the autophagy can be pertinent to AML cytotoxic therapy. Despite this promising notion, to date, there is no comprehensive study addressing autophagy-related genes expression status in AML."

Financial supporters for this research include Shahid Beheshti University of Medical Sciences, Faculty of Medicine.

Our news editors obtained a quote from the research from the Shaheed Beheshti University of Medical Sciences, "As a critical mediator, BECN1 influences the onset and advance of autophagy and several studies have pointed to the BECN1 recurrent allelic deletion and expression variation in a broad range of tumors. To explore this caveat, we chose this alteration-prone gene to investigate in our study. We have analyzed the expression status of BECN1 in a series of 128 de novo AML patients using real-time quantitative polymerase chain reaction (qRT-PCR). In our favorable subgroup, BECN1 expression did not alter (p=0.301), but in intermediate and unfavorable patients, we have had BECN1 low expression compared to the normal controls (p=0.008 and p<0.001, respectively). We found evidence for the association of reduced expression of BECN1 with FLT3-ITD mutation (19 of 27 patients), monosomal karyotype (all of 11 patients), higher age, and WBC count."

According to the news editors, the research concluded: "Overall, remarkable association of reduced expression of BECN1 with FLT3-ITD mutation and monosomal karyotype and their functional relationship is interesting which should be addressed and verified in future studies."


The news editors report that additional information may be obtained by contacting D. Zare-Abdollahi, Dept. of Medical Genetics, Faculty of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran. Additional authors for this research include S. Safari, A. Movaflagh, M. Ghadiani, M. Tabarrae, S. Riazi-Isfahani, S. Gorji, L. Keyvan and L. Gachkar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12454. This DOI is a link to an online electronic document that is either free or for purchase.
Reports from Shanghai Jiao-Tong University Add New Data to Findings in Colon Cancer (Overexpression of LARP1 predicts poor prognosis of colorectal cancer and is expected to be a potential therapeutic target)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "This study investigated the significance of Larelated protein 1 (LARP1) in the development and progression of colorectal cancer (CRC). Quantitative real-time polymerase chain reaction and Western blot analyses were carried out to determine the mRNA and protein expression of LARP1 in CRC tumor tissues and paired adjacent normal mucosa."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "The expression of LARP1 was upregulated in CRC. Immunohistochemical analysis using tissue microarray was performed. A positive correlation between LARP1 and proliferating cell nuclear antigen (PCNA) in the area of proliferation was observed using the Spearman's correlation coefficient test (r = 0.332, P< 0.01). The elevated expression of LARP1 significantly correlated with T stage (P = 0.02), N stage (P = 0.006), M stage (P < 0.001), American Joint Committee on Cancer (AJCC) stage (P = 0.04), differentiation rank (P < 0.001), and PCNA level (P < 0.001). In addition, the inhibitory effect of LARP1 knockdown on CRC cell proliferation was demonstrated using Cell Counting Kit-8 (CCK8) and colony-forming cell (CFC) assays. Multivariate analysis showed that LARP1 was an independent prognostic factor for overall survival (OS; hazard rate (HR) = 0.244; 95 % confidence interval (CI), 0.078-0.769; P = 0.016) and disease-free survival (DFS; HR = 0.281; 95% CI, 0.086-0.917; P = 0.035) in CRC patients."

According to the news editors, the research concluded: "LARP1 plays an important role in the proliferation of colorectal cancer and represents a new prognostic indicator."

For more information on this research see: Overexpression of LARP1 predicts poor prognosis of colorectal cancer and is expected to be a potential therapeutic target. Tumor Biology, 2016;37(11):14585-14594. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news correspondents report that additional information may be obtained from J.W. Fan, Shanghai Jiao Tong University, Sch Med, Shanghai Gen Hosp, Dept. of Gen Surg, Shanghai, People's Republic of China. Additional authors for this research include S.T. Lin, Y.S. Mi, Y. Liu, Y. Ma, H.M. Sun, Z.H. Peng and J.W. Fan.

The direct object identifier (DOI) for that additional information is:
Reports from Shanghai Jiao-Tong University Advance Knowledge in Neurodegenerative Diseases (Isoflurane neurotoxicity involves activation of hypoxia inducible factor-l alpha via intracellular calcium in neonatal rodents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Previously, we found that the inhaled anesthetic isoflurane up-regulated the transcriptional factor hypoxia inducible factor (HIF)-l alpha protein levels during induction of neurodegeneration in the brain of neonatal rats. Here, we investigated the role of HIF-l alpha and the underlying signaling pathway in the neurodegeneration induced by isoflurane in rodent developing brain."

The news reporters obtained a quote from the research from Shanghai Jiao-Tong University, "Primary hippocampal neurons were exposed to isoflurane (0.4 mM) for 12 h. Neuron injury was analyzed by 3-(4,5-dimethyithiazol-2-yl)-2,5-diphenyl-tetra-zolium bromide (MIT) test and quantification of lactate dehydrogenase release. HIF-l alpha gene expression and transcriptional activity, cleaved caspase-3 and phosphoinositide phospholipase C (PLC)-gamma gene expression were quantified. Cytosolic calcium concentration was measured by calcium imagining. The role of HIF-l alpha on juvenile learning and memory impairment induced by isoflurane was studied by fear conditioning and extinction test and Morris water maze test. Isoflurane induced HIF-l alpha gene expression and transcriptional activity in vitro. Furthermore, pharmacological inhibition of HIF-l alpha or knockdown of HIF-la by shRNA counteracted the neurotoxicity of isoflurane. Ca2+ signaling pathways involving PLC-gamma activation are required for isoflurane-evoked HIF-l alpha accumulation. Finally, partial deficiency of HIF-la attenuated isoflurane-induced neurodegeneration in developing brain, and alleviated juvenile learning and memory impairment induced by isoflurane."

According to the news reporters, the research concluded: "HIF-l alpha activation via cytosolic Ca2+ signaling pathway play a role in the mechanism of isoflurane-induced neurodegeneration in neonatal rodents, suggesting HIF-l alpha as a potential therapeutic target for the prevention of the deleterious effects of prolonged exposures to anesthetics."

For more information on this research see: Isoflurane neurotoxicity involves activation of hypoxia inducible factor-l alpha via intracellular calcium in neonatal rodents. Brain Research, 2016;1653():39-50. Brain Research can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Brain Research - www.journals.elsevier.com/brain-research/)

Our news correspondents report that additional information may be obtained by
contacting D.D. Chai, Shanghai Jiao Tong University, Sch Med, Shanghai Peoples Hosp 9, Dept. of Anesthesiol & Pain Med, Shanghai 200001, People's Republic of China. Additional authors for this research include H. Jiang and Q. Li.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Neurodegenerative Diseases, Central Nervous System Agents, Isoflurane, Genetics, Drugs and Therapies, General Anesthetics, Isoflurane Therapy, Neurodegenerative, Pharmaceuticals, Methyl Ethers, Mental Health, Shanghai Jiao-Tong University.

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Heart Disorders and Diseases - Cardiomyopathies

Reports from Shinshu University Add New Data to Findings in Cardiomyopathies (Regression of left ventricular hypertrabeculation is associated with improvement in systolic function and favorable prognosis in adult patients with non-ischemic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Cardiomyopathies have been presented. According to news originating from Matsumoto, Japan, by NewsRx correspondents, research stated, "We sometimes experience regression of left ventricular hypertrabeculation (LVHT), which is compatible with the diagnosis of LV non-compaction cardiomyopathy (LVNC) in adult patients. However, little is known about the association between LVHT regression and LV systolic function in adult patients."

Our news journalists obtained a quote from the research from Shinshu University, "We prospectively examined 23 consecutive adult patients who fulfilled the echocardiographic criteria for LVNC. LV reverse remodeling (RR) was defined as an absolute increase in LV ejection fraction of >10% at 6 months follow-up. LVHT area was calculated by subtraction from the outer edge to the inner edge of the LVHT at end-systole. The mean follow-up period was 61 months. LVRR was observed in 9 patients (39%). The changes in the mean LVHT area showed significant correlation with the changes in LV ejection fraction (r = -0.78, p< 0.0001). Cardiac death occurred in 7 patients (50%) without LVRR, but no patients with LVRR died (log-rank, p = 0.003). Furthermore, composite of cardiac death and hospitalization for heart failure occurred in 10 patients (71%) without LVRR, whereas there was one patient with LVRR (log-rank, p< 0.001). Regression of LVHT is associated with improvement in LV systolic function."

According to the news editors, the research concluded: "LVRR might be associated with a favorable prognosis in patients with LVHT."

For more information on this research see: Regression of left ventricular hypertrabeculation is associated with improvement in systolic function and favorable prognosis in adult patients with non-ischemic cardiomyopathy. Journal of Cardiology, 2016;68(5-6):431-438. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

The news correspondents report that additional information may be obtained from J. Koyama, Shinshu University, Sch Med, Dept. of Cardiovasc Med, Matsumoto, Nagano 3908621, Japan. Additional authors for this research include J. Koyama, A. Kozuka, T. Miura, S. Ebisawa, H. Motoki, A. Okada, A. Izawa and U. Ikeda.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.jjcc.2015.11.008. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Matsumoto, Japan, Asia, Cardiovascular
Diseases and Conditions, Heart Disorders and Diseases, Non-ischemic Cardiomyopathy,
Ischemic Cardiomyopathy, Cardiomyopathies, Heart Disease, Cardiology, Shinshu University.

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Gastroenterology

Reports from Showa University Advance Knowledge in
Gastroenterology (Oxygenated Static Preservation of Donation after
Cardiac Death Liver Grafts Improves Hepatocyte Viability and Function)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Gastroenterology. According to news
reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "Cell therapy,
such as hepatocyte transplantation (HTx), is promising for the treatment of metabolic liver
diseases or as a bridge to orthotopic liver transplantation in patients with fulminant liver failure.
However, one of the limitations of this therapy is the shortage of donors."

The news reporters obtained a quote from the research from Showa University, "The
present study aims to investigate whether the two-layer method (TLM) of cold preservation with
oxygenation improves the viability and activity of hepatocytes from rat donation after cardiac
death (DCD) donors compared with results obtained with the University of Wisconsin (UW)
solution. Moreover, we evaluated the hepatocyte function after culture or transplantation into
the spleen. We used male Sprague-Dawley rats for this study. The DCD model was induced by
phrenotomy after injecting heparin. We assigned rats based on warm ischemia times of 15 and
30 min to groups S and L, respectively. Each group (n=5) was then subdivided as follows: (1)
group S: not preserved (S/N), preserved by TLM for 3 h (S/TLM3) and 12 h (S/TLM12), and in
the UW solution for 3 h (S/UW3) and 12 h (S/UW12), and (2) group L: not preserved (L/N),
preserved by TLM for 3 h (L/TLM3) and 12 h (L/TLM12), and in the UW solution for 3 h
(L/UW3) and 12 h (L/UW12). The cell viability and function of isolated DCD hepatocytes were
analyzed for culture or HTx into the spleen. The viability and ATP levels of DCD hepatocytes
significantly improved after TLM compared with the values after preservation in cold UW
solution in group S/N (p <0.059). The levels of albumin production and urea synthesis by
hepatocytes after culture were significantly higher in groups S/TLM3 and S/TLM12 than in
groups S/UW3 and S/UW12 (p <0.05), respectively. Further, serum albumin levels after HTx
were also markedly higher in groups S/TLM3 and S/TLM12 than in groups S/UW3 and
S/UW12. The morphological features revealed that cultured and transplanted hepatocytes
remained clearly viable and maintained an expression for specific hepatic function, such as the
production of albumin and glycogen."

According to the news reporters, the research concluded: "This novel method of
oxygenated cold preservation of DCD livers can expand the hepatocyte donor pool for HTx and
establish a wider application of this developing technique."

For more information on this research see: Oxygenated Static Preservation of
Donation after Cardiac Death Liver Grafts Improves Hepatocyte Viability and Function.
Reports from Sibley Heart Center Advance Knowledge in Cardiology (Echocardiographic Predictors of Left Ventricular Outflow Tract Obstruction following Repair of Atrioventricular Septal Defect)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "Left ventricular outflow tract obstruction (LVOTO) is a common complication following surgical repair of atrioventricular septal defect (AVSD). We sought to determine predictors of LVOTO based on echocardiograms performed prior to initial repair of AVSD."

Our news journalists obtained a quote from the research from Sibley Heart Center, "Of the 415 children that had repair of AVSD from 2003 to 2012, 17 children were identified with LVOTO that required surgical intervention. Thirty-four patients with repaired AVSD and no LVOTO served as controls. Patient demographics, cardiac surgery type, and echocardiogram results at last follow-up were collected. Off-line analysis of the echocardiogram prior to AVSD repair was done to obtain: left ventricular outflow tract (LVOT) and interventricular septal diameter, chordae across LVOT, aortoseptal angle, left ventricular (LV) inflow/outflow length ratio, inferior displacement of the atrioventricular (AV) valve, atrioventricular valve index (AVVI) and presence of coarctation of the aorta. The LVOTO group had significantly smaller indexed LVOT diameters (P <.001), increased likelihood of chordae crossing the LVOT (P=.010), decreased LV inflow/outflow length ratio (P <.001), decreased AVVI (P5.014) and increased presence of coarctation of the aorta (P=.003) compared to control patients. A multiple logistic regression model including presence of chordae in the LVOT [OR 5.32, 95% CI: (1.24-22.78, P=.024] and an indexed LVOT diameter <= 2.5 cm/m(2) [OR 5.41, 95% CI: (1.15-25.39) P5.032] demonstrated each to be independently associated with the development of LVOT obstruction (area under the receiving operating curve=0.77). Chordae across the LVOT and an indexed LVOT diameter of <= 2.5 cm/m(2) are associated with a higher risk of development of LVOTO following repair of AVSD."

According to the news editors, the research concluded: "Identification of these risk factors on echocardiogram prior to initial AVSD repair can be useful in evaluating for future
risk of LVOTO and the need for closer clinical follow-up."

For more information on this research see: Echocardiographic Predictors of Left Ventricular Outflow Tract Obstruction following Repair of Atrioventricular Septal Defect. *Congenital Heart Disease*, 2016;11(6):554-561. *Congenital Heart Disease* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Congenital Heart Disease - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1747-0803)

The news correspondents report that additional information may be obtained from G.L. Abarbanell, Sibley Heart Center Cardiol, Atlanta, GA, United States. Additional authors for this research include G. Morrow, M.S. Kelleman, K.R. Kanter, W.L. Border and R. Sachdeva.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Angiology, Risk and Prevention, Epidemiology, Atrioventricular Septal Defect, Cardiology, Sibley Heart Center.

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**Oncology - Esophageal Cancer**

**Reports from Sichuan University Advance Knowledge in Esophageal Cancer (Early enteral nutrition compared with parenteral nutrition for esophageal cancer patients after esophagectomy: a meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Esophageal Cancer. According to news reporting out of Chengdu, People's Republic of China, by NewsRx editors, research stated, "Early postoperative enteral nutrition (EN) after esophagectomy in esophageal cancer patient has been reported to be correlated with a better rehabilitation than parenteral nutrition (PN). However, a robust conclusion has not been achieved."

Our news journalists obtained a quote from the research from Sichuan University, "Therefore, we performed a meta-analysis to compare the postoperative EN and PN in patients with esophageal cancer undergoing esophagectomy. Three electronic databases were searched for eligible studies to be included in the meta-analysis. The summary relative risk/weighted mean difference (RR/ WMD) estimates and corresponding 95% confidence interval (CI) were calculated using fixed-and random-effects models. Ten studies met the inclusion criteria. The analysis demonstrated that the early postoperative EN could significantly decrease the pulmonary complications (RR = 0.37, 95% CI = 0.22-0.62, P = 0.00, test for heterogeneity: I-2 = 0.0%, P = 0.89) and anastomotic leakage (RR = 0.46, 95% CI = 0.22-0.96, P = 0.04, test for heterogeneity: I-2 = 0.0%, P = 0.66) compared with PN. On the eighth postoperative day, the EN group had a higher levels of albumin (WMD = 1.84, 95% CI = 0.47-3.21, P = 0.01, test for heterogeneity: I-2 = 84.5%, P = 0.00) and prealbumin (WMD = 12.96, 95% CI = 3.63-22.29, P = 0.01, test for heterogeneity: I-2 = 0.0%, P = 0.63) compared with the PN group. However, there was no difference in digestive complications between these two approaches (RR = 1.30, 95% CI = 0.79-2.13, P = 0.30, test for heterogeneity: I-2 = 0.0%, P = 0.97)."

According to the news editors, the research concluded: "For patients with esophageal cancer following esophagectomy, the early postoperative EN support could decrease the morbidity of severe complications, such as pulmonary complications and anastomotic leakage,
and maintain patients at a better nutritional status than parenteral nutrition support."


Our news journalists report that additional information may be obtained by contacting L.Q. Chen, Sichuan University, West China Hosp, Dept. of Thorac Surg, Chengdu 610041, Sichuan, People's Republic of China. Additional authors for this research include J. Cai, Z.X. Niu and L.Q. Chen.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Parenteral Nutrition, Nutritional Support, Diet and Nutrition, Enteral Nutrition, Esophageal Cancer, Gastroenterology, Feeding Methods, Esophagectomy, Oncology, Surgery, Sichuan University.

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**Viral RNA**

**Reports from Singapore National University Provide New Insights into Viral RNA (RNA-binding protein CPEB1 remolds host and viral RNA landscapes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Viral RNA is the subject of a report. According to news originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Host and virus interactions occurring at the post-transcriptional level are critical for infection but remain poorly understood. Here, we performed comprehensive transcriptome-wide analyses revealing that human cytomegalovirus (HCMV) infection results in widespread alternative splicing (AS), shortening of 3' untranslated regions (3' UTRs) and lengthening of poly(A)-tails in host gene transcripts."

Our news journalists obtained a quote from the research from Singapore National University, "We found that the host RNA-binding protein CPEB1 was highly induced after infection, and ectopic expression of CPEB1 in noninfected cells recapitulated infection-related post-transcriptional changes. CPEB1 was also required for poly(A)-tail lengthening of viral RNAs important for productive infection. Strikingly, depletion of CPEB1 reversed infection related cytopathology and post-transcriptional changes, and decreased productive HCMV titers. Host RNA processing was also altered in herpes simplex virus-2 (HSV-2)-infected cells, thereby indicating that this phenomenon might be a common occurrence during herpesvirus infections."

According to the news editors, the research concluded: "We anticipate that our work may serve as a starting point for therapeutic targeting of host RNA-binding proteins in herpesvirus infections."

For more information on this research see: RNA-binding protein CPEB1 remolds host and viral RNA landscapes. *Nature Structural & Molecular Biology*, 2016;23(12):1101-1110. *Nature Structural & Molecular Biology* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group -
Reports from Soochow University Provide New Insights into Type 2 Diabetes (Increased angiopoietin-like protein 8 levels in patients with type 2 diabetes and cardiovascular disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "In the present study, we recruited 124 patients with type 2 diabetes, among which 22 had a history of cardiovascular disease (CVD)."

Our news journalists obtained a quote from the research from Soochow University, "The study demonstrated that compared with type 2 diabetes without CVD, those with CVD had remarkably higher levels of angiopoietin-like protein 8 (ANGPTL8)."

According to the news editors, the research concluded: "Moreover, the close relationship between ANGPTL8 and CVD was independent of conventional CVD risk factors."


The news correspondents report that additional information may be obtained from J. Hu, Soochow Univ, Affiliated Hosp 2, Dept. of Endocrinol, Suzhou, Jiangsu, People's Republic of China. Additional authors for this research include C. Fang, H.M. Guo and J. Hu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.diabres.2016.08.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Non-Insulin Dependent Diabetes Mellitus, Cardiovascular Diseases and Conditions,
Angiogenic Proteins, Risk and Prevention, Type 2 Diabetes, Angiopoietins, Cardiology, Soochow University.

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**Mycobacterium Infections - Tuberculosis**

**Reports from Southern Medical University Advance Knowledge in Tuberculosis (Microarray analysis of long noncoding RNA and mRNA expression profiles in human macrophages infected with Mycobacterium tuberculosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Mycobacterium Infections - Tuberculosis are discussed in a new report. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Macrophages play a crucial role in the control and elimination of invading Mycobacterium tuberculosis (Mt), and also serve as the major residence for Mt. However, the interaction between macrophages and Mt remains to be clearly determined."

Our news editors obtained a quote from the research from Southern Medical University, "Although long noncoding RNAs (lncRNAs) have emerged as key regulators in many biological processes, their roles in anti-mycobacterial responses of macrophages remain to be elucidated. Here, we applied microarray analysis to examine lncRNA and mRNA expression profiles in human primary macrophages after 72 h of infection with H37Ra or H37Rv. Our results revealed that many lncRNAs were differentially expressed in macrophages after H37Ra or H37Rv infection, indicating a possible role for lncRNAs in immune responses induced by Mt infection and providing important cues for further functional studies. Furthermore, gene ontology (GO) and Kyoto Encyclopedia of Genes and Genomes (KEGG) biological pathway analysis of the differentially expressed mRNAs showed the potential functions and pathways related to the pathogenesis of Mt infection. Finally, two lncRNAs, MIR3945HG V1 and MIR3945HG V2, were identified as novel candidate diagnostic markers for tuberculosis."

According to the news editors, the research concluded: "Our results provide novel insight into the mechanisms of the pivotal Mt-macrophage interactions, and reveal potential targets for diagnostics and the treatment of tuberculosis."


Keywords for this news article include: Guangdong, People's Republic of China, Asia, Mycobacteria, Diagnostics and Screening, Gram-Positive Asporogenous Rods, Mononuclear Phagocyte System, Mycobacterium tuberculosis, Mycobacterium Tuberculosis,
Reports from Southern Medical University Highlight Recent Findings in Crohn's Disease (Involvement of Activated Cdc42 Kinase1 in Colitis and Colorectal Neoplasms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Crohn's Disease have been published. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Activated Cdc42 kinase1 (ACK1) is a non-receptor tyrosine kinase which is critical for cell survival, proliferation, and migration. Genomic amplification of ACK1 has been reported in multiple human cancers."

Our news editors obtained a quote from the research from Southern Medical University, "We aimed to investigate ACK1 protein expression in colorectal mucosa with inflammation and neoplasm, and to evaluate its correlation with disease activity and severity. A total of 250 individuals who underwent total colonoscopy were collected randomly from January 2007 to May 2013 in Nanfang Hospital, Guangzhou, China. Colorectal mucosal biopsy specimens were obtained by endoscopy from 78 patients with ulcerative colitis (UC), 22 with Crohn's disease (CD), 20 with infectious colitis, 26 with non-IBD and noninfectious colitis, 16 with sporadic adenomas, 4 with dysplasia-associated lesions or masses, 10 with sporadic colorectal cancer (CRC), 4 with UC-related CRC, 10 with hyperplastic polyps, and 60 without colonic abnormalities. ACK1 protein levels were determined immunohistochemically. The correlations of ACK1 expression with disease activity and severity were also evaluated. Significantly increased ACK1 expression was observed in epithelial cells of colorectal mucosa with inflammation and dysplasia compared to controls (P <0.05). ACK1 expression correlated with clinical activity in IBD (chi(2)=4.57, P=0.033 for UC; chi(2)=5.68, P=0.017 for CD), as well as grade of dysplasia in preneoplastic lesions (P <0.05). No significant differences in ACK1 expression were found between UC and CD, or between IBD and non-IBD conditions (P >0.05). ACK1 protein is increased extensively in colitis and colorectal dysplasia."

According to the news editors, the research concluded: "ACK1 overexpression may play a role in colorectal inflammation and neoplasms."

For more information on this research see: Involvement of Activated Cdc42 Kinase1 in Colitis and Colorectal Neoplasms. Medical Science Monitor, 2016;22():9-17. Medical Science Monitor can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

The news editors report that additional information may be obtained by contacting F.C. Zhi, Southern Med Univ, Nanfang Hosp, Dept. of Gastroenterol, Guangdong Prov Key Lab Gastroenterol, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include H.X. Gu, X.M. Zhao, L.Y. Huang, S.X. Zhou and F.C. Zhi.

Keywords for this news article include: Guangdong, People's Republic of China,
Oncology - Small Cell Lung Cancer

Reports from Southern Medical University Provide New Insights into Small Cell Lung Cancer (New application of an old drug: Antitumor activity and mechanisms of doxycycline in small cell lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Small Cell Lung Cancer. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Small cell lung cancer (SCLC) remains one of the most aggressive tumors with a poor prognosis. The clinical outcome of SCLC patients has reached its plateau with the existing standard treatment and thus new therapies are urgently required."

Our news editors obtained a quote from the research from Southern Medical University, "Accumulating evidences have indicated that doxycycline, a commonly used antibiotic, has antitumor activity against several malignancies. However, whether doxycycline has antitumor activity in SCLC and its underlying mechanisms remain unclear. Our investigation demonstrated that doxycycline could significantly inhibit the proliferation and colony formulation of SCLC cells (p<0.05). Furthermore, both Hoechst 33258 dye staining and TUNEL assays indicated that doxycycline could induce remarkable apoptosis of H446 cells in a concentration-dependent manner. RT-PCR and western blot assays proved that apoptosis induction effect of doxycycline was achieved via inducing the expression of caspase-3 and bax, as well as attenuating the expression of survivin and bcl-2. Moreover, the wound healing assay and Transwell assay indicated that doxycycline could significantly suppress the migration and invasion of H446 cells in a concentration-dependent manner (p<0.05). ELISA assay proved that the inhibitory effect of doxycycline on the migration and invasion of H446 cells was achieved via decreasing the secretion of MMP-2, MMP-9 and VEGF, as well as increasing the secretion of TIMP-2. Taken together, doxycycline dose-dependently suppressed the proliferation, colony formulation, migration and invasion of SCLC cells, as well as induced apoptosis."

According to the news editors, the research concluded: "These findings encourage further investigations on the potential of doxycycline as a candidate drug for the treatment of SCLC."


The news editors report that additional information may be obtained by contacting S.Q. Wang, Dept. of Pharmacy, Nanfang Hospital, Southern Medical University, Guangzhou, Guangdong 510515, People's Republic of China. Additional authors for this research include B.X. Zhao, Y. Liu, Y.T. Wang, Q.Y. Liang, Y. Cai, Y.Q. Zhang, J.H. Yang, Z.H. Song and G.F
Reports from Spine Institute Provide New Insights into Aneurysm
(Separating the wheat from the chaff: region of interest combined with metal artifact reduction for completion angiography following cerebral aneurysm treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Aneurysm are discussed in a new report. According to news originating from Memphis, Tennessee, by NewsRx correspondents, research stated, "Following complicated endovascular or microsurgical treatments, assessment of radiographic outcome can be challenging due to device resolution and metallic artifact. Two-dimensional and three-dimensional angiography can reveal information about flow and aneurysm obliteration, but may be limited by beam hardening, overlapping vessels, and image degradation in the region of metallic implants."

Our news journalists obtained a quote from the research from Spine Institute, "In this study, we investigated the combination of a collimated volumetric imaging (volume of interest, VOI) protocol followed by metal artifact reduction (MAR) post processing to evaluate the correct positioning of stents, flow diveters, coils, and clips while limiting the radiation dose to the patient. Methods 9 patients undergoing 10 procedures were included in our study. All patients underwent endovascular or surgical treatment of a cerebral aneurysm involving stents, flow diverting stents, coils, and/or clips followed by either immediate or early postoperative evaluation of our protocol. Image datasets corrected for metallic artifacts (VOI-MAR) were judged to be better a statistically significant finding than image datasets only corrected for field of view truncation (VOI alone). Qualitatively, images were more interpretable and informative with regards to device position and apposition to the vessel wall for those cases involving a pipeline, and with regards to encroachment on the parent artery and possible residual aneurysm, in all cases."

According to the news editors, the research concluded: "VOI acquisition combined with MAR post-processing provides for accurate and informative evaluation of cerebral aneurysm treatment while limiting the radiation dose to patients."

The news correspondents report that additional information may be obtained from A.S. Arthur, Semmes Murphey Neurol & Spine Inst, Memphis, TN, United States. Additional authors for this research include C. Nickele, S. Schafer, S. Bauer, B. Scholz, L. Elijovich, D. Hoit, V.T. Doss and A.S. Arthur.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/neurintsurg-2015-011911. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Memphis, Tennessee, United States, North and Central America, Cardiovascular Diseases and Conditions, Intracranial Aneurysm, Angiology, Surgery, Cerebral Aneurysm, Cardiology, Angiography, Spine Institute.

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Proteins - DNA-Binding Proteins

Reports from St. James Hospital Describe Recent Advances in DNA-Binding Proteins (Molecular Mechanisms of Natural Honey Against H. pylori Infection Via Suppression of NF-kappa B and AP-1 Activation in Gastric Epithelial Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Proteins - DNA-Binding Proteins have been published. According to news reporting out of Dublin, Ireland, by NewsRx editors, research stated, "Natural honey has been used as a medicine since ancient times. Honey is widely known for its antibacterial properties against H. pylori; however, the mechanisms of its antibacterial activity are not fully known."

Our news journalists obtained a quote from the research from St. James Hospital, "The present study was performed to examine the molecular mechanisms by which natural honey can inhibit H. pylori infection in gastric epithelial cells. Electrophoretic mobility shift assay was used to measure NF-kappa B- and AP-1-DNA binding activity. Western blotting was used to detect I kappa B-alpha and COX-2 expression. H. pylori induced NF-kappa B and AP-1 DNA-binding activity in gastric epithelial cells. Manuka honey inhibited H. pylori-induced NF-kappa B and AP-1 in a time-and dose dependent manner. Maximum inhibition of H. pylori-induced NF-kappa B and AP-1 by manuka honey was observed at concentrations of 20% at 1-2 h. Pre-treatment of AGS cells with other commercial natural honeys also inhibited H. pylori-induced NF-kappa B and AP-1 DNA-binding activity. Honey prevented H. pylori-induced degradation of IKB-alpha protein and downregulated COX-2 protein levels. Our findings suggest that natural honey exerts its inhibitory effects against H. pylori by inhibiting NF-kappa B and AP-1 activation and downregulation of COX-2 expression."

According to the news editors, the research concluded: "These results provide new mechanistic insights into honey effects in the suppression of H. pylori infection."

For more information on this research see: Molecular Mechanisms of Natural Honey Against H. pylori Infection Via Suppression of NF-kappa B and AP-1 Activation in Gastric Epithelial Cells. Archives of Medical Research. 2016;47(5):340-348. Archives of Medical Research can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Archives of Medical Research -
Reports from St. John's University Add New Data to Findings in Biguanides (Activation of AMP-activated Protein Kinase by Metformin Induces Protein Acetylation in Prostate and Ovarian Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Biguanides. According to news reporting from Queens, New York, by NewsRx journalists, research stated, "AMP-activated protein kinase (AMPK) is an energy sensor and master regulator of metabolism. AMPK functions as a fuel gauge monitoring systemic and cellular energy status."

Financial support for this research came from National Institute of General Medical Sciences.

The news correspondents obtained a quote from the research from St. John's University, "Activation of AMPK occurs when the intracellular AMP/ATP ratio increases and leads to a metabolic switch from anabolism to catabolism. AMPK phosphorylates and inhibits acetyl-CoA carboxylase (ACC), which catalyzes carboxylation of acetyl-CoA to malonyl-CoA, the first and rate-limiting reaction in de novo synthesis of fatty acids. AMPK thus regulates homeostasis of acetylCoA, a key metabolite at the crossroads of metabolism, signaling, chromatin structure, and transcription. Nucleocytosolic concentration of acetyl-CoA affects histone acetylation and links metabolism and chromatin structure. Here we show that activation of AMPK with the widely used antidiabetic drug metformin or with the AMP mimic 5-aminoimidazole-4-carboxamide ribonucleotide increases the inhibitory phosphorylation of ACC and decreases the conversion of acetyl-CoA to malonyl-CoA, leading to increased protein acetylation and altered gene expression in prostate and ovarian cancer cells. Direct inhibition of ACC with allosteric inhibitor 5-(tetradecyloxy)-2-furoic acid also increases acetylation of histones and non-histone proteins. Because AMPK activation requires liver kinase B1, metformin does not induce protein acetylation in liver kinase B1-deficient cells."

According to the news reporters, the research concluded: "Together, our data indicate that AMPK regulates the availability of nucleocytosolic acetyl-CoA for protein acetylation and that AMPK activators, such as metformin, have the capacity to increase protein acetylation and alter patterns of gene expression, further expanding the plethora of metformin's physiological effects."

For more information on this research see: Activation of AMP-activated Protein Kinase by Metformin Induces Protein Acetylation in Prostate and Ovarian Cancer Cells. Journal of Biological Chemistry, 2016;291(48):25154-25166. Journal of Biological Chemistry can be contacted at: Amer Soc Biochemistry Molecular Biology Inc, 9650 Rockville Pike,
Bethesda, MD 20814-3996, USA. (American Society for Biochemistry and Molecular Biology - www.asbmb.org; Journal of Biological Chemistry - www.jbc.org/)

Our news journalists report that additional information may be obtained by contacting A. Vancura, St Johns Univ, Dept. of Biol Sci, Queens, NY 11439, United States. Additional authors for this research include H. Gatla, I. Vancurova and A. Vancura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.742247. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Queens, New York, United States, North and Central America, Intracellular Signaling Peptides and Proteins, Phosphotransferases (Alcohol Group Acceptor), Protein-Serine-Threonine Kinases, AMP-Activated Protein Kinases, Enzymes and Coenzymes, Drugs and Therapies, Hypoglycemic Agents, Antidiabetic Agents, Metformin Therapy, Non-Sulfonylureas, Biguanides, Oncology, Genetics, Cancer, St. John's University.

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Cardiovascular Diseases and Conditions -...

Reports from Stanford University Describe Recent Advances in Arteriosclerosis (Protective Effects of Statins in Cancer: Should They Be Prescribed for High-Risk Patients?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Arteriosclerosis are presented in a new report. According to news reporting originating in Stanford, California, by NewsRx journalists, research stated, "Purpose of Review Statins are one of the most widely prescribed drug classes in the USA. This review aims to summarize recent research on the relationship between statin use and cancer outcomes, in the context of clinical guidelines for statin use in patients with cancer or who are at high risk for cancer."

The news reporters obtained a quote from the research from Stanford University, "A growing body of research has investigated the relationship between statins and cancer with mixed results. Cancer incidence has been more extensively studied than cancer survival, though results are inconsistent as some large meta-analyses have not found an association, while other studies have reported improved cancer outcomes with the use of statins. Additionally, two large studies reported increased all-cancer survival with statin use. Studies on specific cancer types in relation to cancer use have also been mixed, though the most promising results appear to be found in gastrointestinal cancers. Few studies have reported an increased risk of cancer incidence or decreased survival with statin use, though this type of association has been more commonly reported for cutaneous cancers. The overall literature on statins in relation to cancer incidence and survival is mixed, and additional research is warranted before any changes in clinical guidelines can be recommended. Future research areas include randomized controlled trials, studies on specific cancer types in relation to statin use, studies on populations without clinical indication for statins, elucidation of underlying biological mechanisms, and investigation of different statin types."

According to the news reporters, the research concluded: "However, studies seem to suggest that statins may be protective and are not likely to be harmful in the setting of cancer,"
suggesting that cancer patients who already take statins should not have this medication discontinued."

For more information on this research see: Protective Effects of Statins in Cancer: Should They Be Prescribed for High-Risk Patients? *Current Atherosclerosis Reports, 2016;18* (12):28-34. *Current Atherosclerosis Reports* can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

Our news correspondents report that additional information may be obtained by contacting A.G. Wang, Stanford University, Sch Med, Dept. of Obstet & Gynecol, Stanford, CA 94305, United States. Additional authors for this research include H.A. Wakelee, A.K. Aragaki, J.Y. Tang, A.W. Kurian, J.E. Manson and M.L. Stefanick.

Keywords for this news article include: Stanford, California, United States, North and Central America, Arteriosclerosis, Cardiovascular Diseases and Conditions, Cancer, Article Review, Risk and Prevention, Oncology, Stanford University.

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**Drugs and Therapies - Antifungals**

**Reports from Statens Serum Institute Add New Data to Findings in Antifungals (Resistance in human pathogenic yeasts and filamentous fungi: prevalence, underlying molecular mechanisms and link to the use of antifungals in humans and the ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antifungals have been published. According to news reporting originating in Copenhagen, Denmark, by NewsRx editors, the research stated, "Antifungal drug resistance is a multifaceted clinical challenge, and when present, a primary cause of treatment failure in patients with severe fungal infections. Changing epidemiology, increasing resistance rates and a narrow antifungal armamentarium may further underline the required attention on resistance particularly within the most prevalent invasive fungal infections caused by Candida yeasts and Aspergillus moulds."

The news reporters obtained a quote from the research from Statens Serum Institute, "In Denmark, the resistance epidemiology remains to be fully elucidated. This thesis sought to address this demand as well as provide insight into the landscape of underlying molecular resistance mechanisms. Paper I and II both contributed to the understanding of FKS (beta-glucan synthase) mediated echinocandin resistance in Candida species. Paper I covered a unique stepwise acquisition of a homozygous mutation in FKS1 of Candida tropicalis leading to an amino acid change corresponding to a well-known S645P in Candida albicans. Paper II presented a failure case due to Candida krusei displaying high-level echinocandin resistance likely attributable to an acquired D662Y amino acid substitution in FKS1. Intrinsic differences in FKS1 among Candida species may explain why the level of resistance both depends on the mutation as well as the species and cannot be easily translated to the level of clinical resistance. Intrinsic fluconazole resistance in C. krusei further substantiated the clinical implications of acquired echinocandin resistance. Paper III presented a rare multidrug resistance case in a series of isogenic C. albicans isolates, almost covering the entire spectrum of known resistance mechanisms in Candida and involved the proposal of novel resistance mutations. An A61E
change in ERG11 was potentially involved in reduced susceptibility to long-structured azoles. Increased expression levels of azole efflux pumps were probably accredited to novel gain-of-function variants in the transcription factor TAC1 (R688Q and R673L). Echinocandin resistance was induced by the well-known S645P variant of FKS1 and polyene resistance was likely inflicted by a frameshift mutation in ERG2 leading to loss of function of the encoded protein and subsequent ergosterol depletion. The number of acquired resistance cases is increasing in our settings and Paper IV sought to illuminate whether antifungal resistance is overlooked in the current fungaemia programme. This involved the acquisition of post-treatment oral isolates from 193 Candidaemia patients among which 114 received azoles (primarily fluconazole) and 85 received an echinocandin (and some both). Azole exposed patients carried a significantly higher proportion of species less susceptible to fluconazole (primarily Candida glabrata) among colonising Candida compared to baseline blood isolates (P <0.001). A similar trend was seen for echinocandin treated patients although not statistically significant. Interestingly, there was a high frequency of acquired resistance, 29.4% to fluconazole and 21.6% to echinocandins, among colonising C. glabrata isolates post treatment. These figures were both significantly higher compared to baseline blood isolates as well as oral isolates from patients with no or minimal exposure to either drug class. In contrast, acquired resistance among C. albicans oral isolates was rare (<5%). Thus, the oral cavity may be an unrecognized reservoir of resistant Candida species, especially C. glabrata following azole or echinocandin treatment. This underlines the care of which therapeutic stewardship must be taken both for antifungal naive patients, to avoid resistance development, as well as for patients previously exposed to antifungals. Paper VI was a retrospective laboratory based study and aimed to elucidate the prevalence of azole resistance in A. fumigatus isolates from 2010-2014 in Denmark. This study also sought to uncover the underlying resistance mechanisms, primarily attributable to CYP51A mutations, and finally to assess the accumulated genotyping data. Among 1162 A. fumigatus isolates, 94.5% were screened for azole resistance and a significant increasing trend was observed for the number of azole resistant isolates to approximately 6% in 2014 (P <0.001) and 4% in corresponding patients (P <0.05). The underlying resistance mutations were diverse but still dominated by the TR34/L98H resistance mechanism responsible for >50% of all our azole resistant isolates. The genotyping data of resistant and a selection of susceptible A. fumigatus showed high identity to foreign isolates (>15%). This could argue for the hypothesis on clonal expansion, which has previously been suggested for TR34/L98H clones in the Netherlands and India, but could also indicate an insufficient discriminatory power of such analysis. Still, a proposed A. fumigatus outbreak in a haematology ward was unresolved since no genetically identical isolates were recovered from patients and air samples, illustrating the ubiquitous nature of this organism. Overall, the main concerns are a changing Candida epidemiology towards species less susceptible to fluconazole combined with the rapid acquisition of echinocandin resistance, especially among C. glabrata isolates. For A. fumigatus, the concern is the emergence of azole resistant strains in the environment, displaying cross-resistance to clinical azoles, and thus posing unforeseen clinical challenges in the management of invasive aspergillosis. Collectively, these findings call for an increased awareness especially at clinical microbiology laboratories, which ideally would lead to susceptibility testing of all clinically relevant isolates by reference or validated methods."

According to the news reporters, the research concluded: "Moreover, novel diagnostic approaches for non-culturable pathogens are warranted and especially DNA based detection by PCR may serve as a solid complimentary tool for improved diagnostics of invasive fungal infections."

For more information on this research see: Resistance in human pathogenic yeasts and filamentous fungi: prevalence, underlying molecular mechanisms and link to the use of

Our news correspondents report that additional information may be obtained by contacting R.H. Jensen, Statens Serum Inst, Dept. of Microbiol & Infect Control, DK-2300 Copenhagen S, Denmark.

Keywords for this news article include: Copenhagen, Denmark, Europe, Drugs and Therapies, Fluconazole Therapy, Azole Antifungals, Cyclic Peptides, Pharmaceuticals, Antinfectives, Echinocandins, Epidemiology, Genetics, Statens Serum Institute.

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**Cardiovascular Diseases**

**Reports from Sultan Qaboos University Hospital Highlight Recent Findings in Cardiovascular Diseases (Dyslipidaemia in the Middle East: Current status and a call for action)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases have been published. According to news reporting from Muscat, Oman, by NewsRx journalists, research stated, "The increase in the cardiovascular disease (CVD)-associated mortality rate in the Middle East (ME) is among the highest in the world. The aim of this article is to review the current prevalence of dyslipidaemia and known gaps in its management in the ME region, and to propose initiatives to address the burden of dyslipidaemia."

Financial support for this research came from Sanofi.

The news correspondents obtained a quote from the research from Sultan Qaboos University Hospital, "Published literature on the epidemiology of dyslipidaemia in the ME region was presented and discussed at an expert meeting that provided the basis of this review article. The high prevalence of metabolic syndrome, diabetes, familial hypercholesterolaemia (FH) and consanguineous marriages, in the ME region, results in a pattern of dyslipidaemia (low high-density lipoprotein cholesterol and high triglycerides) that is different from many other regions of the world. Early prevention and control of dyslipidaemia is of paramount importance to reduce the risk of developing CVD."

According to the news reporters, the research concluded: "Education of the public and healthcare professionals and developing preventive programs, FH registries and regional guidelines on dyslipidaemia are the keys to dyslipidaemia management in the ME region."


The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.925. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Muscat, Oman, Asia, Cardiovascular Diseases and Conditions, Article Review, Epidemiology, Risk and Prevention, Sultan Qaboos University Hospital.

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Oncology - Lung Cancer
Reports from Sun Yat Sen University Describe Recent Advances in Lung Cancer (PTEN expression is associated with the outcome of lung cancer: evidence from a meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Lung Cancer have been presented. According to news originating from Guangdong, People’s Republic of China, by NewsRx correspondents, research stated, "Various studies examined the relationship between the expression of phosphatase and tensin homolog (PTEN) with the clinical outcome in patients with lung cancer, but yielded conflicting results. EVIDENCE ACQUISITION: Electronic databases updated to January 2016 were searched to find relevant studies."

Our news journalists obtained a quote from the research from Sun Yat Sen University, "A meta-analysis was conducted with eligible studies which quantitatively evaluated the relationship between the expression of PTEN and clinical outcomes of patients with lung cancer. Subgroup and sensitivity analysis were conducted. EVIDENCE SYNTHESIS: A total of 13 studies were included. When compared with high PTEN expression group, the lung cancer patients with reduced PTEN expression exhibited shorter overall survival (hazard ratio=0.40, 95%CI=0.32 similar to 0.52, P<0.001) and shorter progression-free survival (hazard ratio=0.53, 95%CI=0.38 similar to 0.74, P<0.001). In subgroup analysis, among lung cancer patients whose treatments including EGFR TKIs, we observed significant benefits of OS in high PTEN expression group. Reduced PTEN expression may be an indicator for poor prognosis in patients with lung cancer. It could have the same influence for patients whose treatments include EGFR-TKIs."

According to the news editors, the research concluded: "The presence of PTEN expression may define a subset of patients with lung cancer appropriate for investigational therapeutic strategies."

For more information on this research see: PTEN expression is associated with the outcome of lung cancer: evidence from a meta-analysis. Minerva Medica, 2016;107(5):342-351. Minerva Medica can be contacted at: Edizioni Minerva Medica, Corso Bramante 83-85 Int Journals Dept., 10126 Turin, Italy.

The news correspondents report that additional information may be obtained from Y.B. Zhou, Sun Yat Sen UniversityAffiliated Hosp 1, Dept. of Resp Med, Guangzhou 510080, Guangdong, People's Republic of China. Additional authors for this research include W.J. Ou, L.X. Huang, J. Wu, S.L. Li, J.W. Xu, J.L. Feng, B.M. Liu and Y.B. Zhou.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Cancer, Article Review, Lung Neoplasms, Lung Cancer, Oncology, Sun Yat Sen University.
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Heart Disorders and Diseases - Ventricular Fibrillation

Reports from Sun Yat Sen University Describe Recent Advances in Ventricular Fibrillation (Long-term treatment of spontaneously hypertensive rats with PD123319 and electrophysiological remodeling of left ventricular myocardium)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Ventricular Fibrillation. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "To investigate the effects of PD123319, an antagonist of angiotensin II subtype-2 receptor (AT2R), on the electrophysiological characteristics of the left ventricular hypertrophic myocardium in spontaneously hypertensive rats (SHR). A total of twenty-four 10-week-old male SHR were divided into two groups: PD123319 and non-PD123319 groups (n = 12 in each)."

Financial support for this research came from Science and Technology Department of Guangdong Province.

The news correspondents obtained a quote from the research from Sun Yat Sen University, "Twelve 10-week-old Wistar-Kyoto rats served as the control group. Systolic blood pressure, left ventricular mass index (LVMI), ventricular effective refractory period, and ventricular fibrillation threshold were also measured after 8 weeks. I (Na), I (CaL), I (to), and membrane capacitance were measured in the left ventricular myocytes after 8 weeks by whole-cell patch clamp. PD123319 increased LVMI compared with the non-PD123319 group (PD123319 vs. non-PD123319, 3.83 +/- 0.11 vs. 3.60 +/- 0.19 mg/g; P< 0.01). PD123319 also decreased the ventricular fibrillation threshold compared with the non-PD123319 group (PD123319 vs. non-PD123319, 14.75 +/- 0.65 vs. 16.0 +/- 0.86 mA; P< 0.01). PD123319 enhanced membrane capacitance compared with the non-PD123319 group (PD123319 vs. non-PD123319, 283.63 +/- 5.80 vs. 276.50 +/- 4.28 pF; P< 0.05). PD123319 increased the density of I (CaL) compared with the non-PD123319 group (PD123319 vs. non-PD123319, -6.76 +/- 0.48 vs. -6.13 +/- 0.30 pA/pF; P< 0.05). PD123319 decreased the density of I (to) compared with the non-PD123319 group (PD123319 vs. non-PD123319, 11.49 +/- 0.50 vs. 12.23 +/- 0.36 pA/pF; P< 0.05)."

According to the news reporters, the research concluded: "Long-term treatment with PD123319 worsened the development of myocyte hypertrophy and associated electrophysiological alterations in spontaneously hypertensive rat."

For more information on this research see: Long-term treatment of spontaneously hypertensive rats with PD123319 and electrophysiological remodeling of left ventricular myocardium. Naunyn-Schmiedebergs Archives of Pharmacology, 2016;389(12):1333-1340. Naunyn-Schmiedebergs Archives of Pharmacology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

Our news journalists report that additional information may be obtained by contacting Z.B. Huang, Sun Yat Sen University Affiliated Hosp 1, Dept. of Cardiol, Guangzhou 510080, Guangdong, People's Republic of China. Additional authors for this research include K.P. Guan, W.Q. Long, L.Y. Peng, D.X. Wu and Z.B. Huang.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1007/s00210-016-1300-0. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China,
Asia, Heart Disorders and Diseases, Ventricular Fibrillation, Cardiac Arrhythmias,
Cardiovascular, Heart Disease, Cardiology, Sun Yat Sen University.

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Oncology - Breast Cancer

Reports from Sun Yat Sen University Highlight Recent Findings in
Breast Cancer (Clinical features of brain metastases in breast cancer: an
implication for hippocampal-sparing whole-brain radiation therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According
to news originating from Guangdong, People's Republic of China, by NewsRx correspondents,
research stated, "The objectives of this study were to describe the distribution of brain
metastases (BM) in breast cancer patients and investigate the risk factors for perihippocampal
metastases (PHM). Retrospective analysis of the clinicopathological characteristics and patterns
of BM was performed."

Our news journalists obtained a quote from the research from Sun Yat Sen
University, "Associations between clinicopathological characteristics and PHM (the
hippocampus plus 5 mm margin) were evaluated using logistic regression analyses. A total of
1,356 brain metastatic lesions were identified in 192 patients. Patients with 1-3 BM, 4-9 BM,
and >10 BM accounted for 63.0%, 18.8%, and 18.2%, respectively. There were only 7 (3.6%)
patients with hippocampal metastases (HM) and 14 (7.3%) patients with PHM. On logistic
regression, the number of BM was an independent risk factor for PHM. Patients with > 10 BM
had a significantly higher risk of PHM compared with those with,10 BM. Breast cancer subtype
(BCS) was not associated with PHM. The number of BM was significantly correlated with
various BCSs. Patients with hormone receptor (HR)+/human epidermal growth factor receptor 2
(HER2)+, HR-/HER2+, and HR-/HER2-subtypes had a higher probability of >= 10 BM, relative
to patients with an HR+/HER2-subtype. Our study suggests that a low incidence of PHM may
be acceptable to perform hippocampal-sparing whole-brain radiation therapy for breast cancer
patients."

According to the news editors, the research concluded: "Patients with extensive
diffuse metastases (>= 10 BM) were associated with higher odds of PHM."

For more information on this research see: Clinical features of brain metastases in
breast cancer: an implication for hippocampal-sparing whole-brain radiation therapy.
Therapeutics and Clinical Risk Management, 2016;12():1849-1853. Therapeutics and Clinical
Risk Management can be contacted at: Dove Medical Press Ltd, PO Box 300-008, Albany,
Auckland 0752, New Zealand.

The news correspondents report that additional information may be obtained from
Z.Y. He, Sun Yat Sen University Center Canc, State Key Lab Oncol South China, Collaborat
Innovat Center Canc MedDept Radiat Oncol, Guangzhou 510060, Guangdong, People's
Republic of China. Additional authors for this research include J.Y. Sun, Q. Tong, F.Y. Li and
Reports from Sun Yat-Sen University Advance Knowledge in Cancer Therapy (Discovering new mTOR inhibitors for cancer treatment through virtual screening methods and in vitro assays)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cancer Therapy have been published. According to news reporting out of Guangzhou, People's Republic of China, by NewsRx editors, research stated, "Mammalian target of rapamycin (mTOR) is an attractive target for new anticancer drug development. We recently developed in silico models to distinguish mTOR inhibitors and non-inhibitors."

Our news journalists obtained a quote from the research from Sun Yat-Sen University, "In this study, we developed an integrated strategy for identifying new mTOR inhibitors using cascaded in silico screening models. With this strategy, fifteen new mTOR kinase inhibitors including four compounds with IC50 values below 10 mM were discovered. In particular, compound 17 exhibited potent anticancer activities against four tumor cell lines, including MCF-7, HeLa, MGC-803, and C6, with IC50 values of 1.90, 2.74, 3.50 and 11.05 mM. Furthermore, cellular studies and western blot analyses revealed that 17 induces cell death via apoptosis by targeting both mTORC1 and mTORC2 within cells and arrests the cell cycle of HeLa at the G1/G0-phase. Finally, multi-nanosecond explicit solvent simulations and MM/GBSA analyses were carried out to study the inhibitory mechanisms of 13, 17, and 40 for mTOR."

According to the news editors, the research concluded: "The potent compounds presented here are worthy of further investigation."

For more information on this research see: Discovering new mTOR inhibitors for cancer treatment through virtual screening methods and in vitro assays. Scientific Reports, 2016;6():18987. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting L. Wang, Research Center for Drug Discovery &Institute of Human Virology, School of Pharmaceutical Sciences, Sun Yat-Sen University, Guangzhou, 510006, People's Republic of China. Additional authors for this research include L. Chen, M. Yu, L.H. Xu, B. Cheng, Y.S. Lin, Q. Gu, X.H. He and J. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18987. This DOI is a link to an online electronic document that is either free or for purchase.
Reports from Sungkyunkwan University Provide New Insights into Histone Deacetylase Inhibitors (Compound 9a, a novel synthetic histone deacetylase inhibitor, protects against septic injury in mice by suppressing MAPK signalling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Histone Deacetylase Inhibitors is the subject of a report. According to news reporting out of Suwon, South Korea, by NewsRx editors, research stated, "Sepsis is a life-threatening clinical condition characterized by uncontrolled inflammatory responses and is a major cause of death in intensive care units. Histone deacetylase (HDAC) inhibitors have recently exhibited anti-inflammatory properties."

Financial supporters for this research include So-Jin Kim, Korean government.

Our news journalists obtained a quote from the research from Sungkyunkwan University, "MAPK phosphatase (MKP) suppresses MAPK signalling, which plays an important role in inflammatory responses. The purpose of this study was to investigate the protective mechanisms of Compound 9a, a newly synthetized HDAC inhibitor, against septic injury. The anti-inflammatory properties of Compound 9a were assayed in LPS-stimulated RAW264.7 cells. In vivo, polymicrobial sepsis was induced in C57BL/6 mice by caecal ligation and puncture (CLP). The mice were treated with Compound 9a (i.p., 10?mg/kg) 2h before and immediately after CLP. Compound 9a inhibited the increased production of TNF-a, IL-6 and NO in LPS-stimulated RAW264.7 cells. In mice with CLP, Compound 9a improved survival rate, attenuated organ injuries and decreased serum TNF-a and IL-6 levels. CLP increased expression of toll-like receptor 4, phosphorylated (p)-p38, p-JNK and p-ERK proteins, which was attenuated by Compound 9a. Compound 9a decreased MKP-1 association with HDAC1 and enhanced MKP-1 acetylation and enhanced MKP-1 association with p-p38 and p-ERK. Moreover, the inhibitory effects of Compound 9a on serum cytokine levels and phosphorylation of MAPK were abolished by MKP-1 siRNA."

According to the news editors, the research concluded: "Our findings suggest that Compound 9a protected against septic injury by suppressing MAPK-mediated inflammatory signalling."


Our news journalists report that additional information may be obtained by contacting S.J. Kim, School of Pharmacy, Sungkyunkwan University, Suwon, 440-746, South Korea. Additional authors for this research include K.S. Baek, H.J. Park, Y.H. Jung and S.M Lee.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13414. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the British Journal of Pharmacology is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Asia, Suwon, South Korea, Nucleoproteins, Amidohydrolases, Enzyme Inhibitors, Drugs and Therapies, Enzymes and Coenzymes, Histone Deacetylase Inhibitors.

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Oncology - Lymphoma

Reports from Sungkyunkwan University School of Medicine Describe Recent Advances in Lymphoma (Successful Management of Primary Cardiac Lymphoma with Minimal Debulking Surgery Combined with Adjuvant Chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Lymphoma are discussed in a new report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Primary cardiac lymphoma (PCL) is a rare cardiac tumor with poor prognosis. Palliative chemotherapy is still considered to be the standard management tool for PCL."

Our news editors obtained a quote from the research from the Sungkyunkwan University School of Medicine, "A case of a 58-year-old man with a large right-heart tumor is presented. Echocardiography showed no abnormal findings except mild tricuspid stenosis with dynamic obstruction. To prevent sudden right heart failure, we pursued on-pump beating resection. After resection of the tumor near the tricuspid valve and confirmation of normalized hemodynamics by intraoperative transesophageal echocardiography, we decided not to perform a further debulking procedure, such as resection or reconstruction of the atrial/ventricular wall. The postoperative course was uneventful and the patient tolerated six cycles of adjuvant chemotherapy well. Currently, the patient visits the outpatient clinic regularly without definite evidence of lymphoma involvement on follow-up imaging studies. In cases where a rare malignant cardiac tumor is suspected, surgical resection should be considered a diagnostic tool for tissue confirmation, a therapeutic tool for hemodynamic correction, and a preventive strategy for sudden cardiac death."

According to the news editors, the research concluded: "Additionally, a minimal debulking procedure focusing on the area of hemodynamic disturbance appears to be sufficient in PCL cases."

For more information on this research see: Successful Management of Primary Cardiac Lymphoma with Minimal Debulking Surgery Combined with Adjuvant Chemotherapy. The Heart Surgery Forum, 2015;18(6):E242-4.

The news editors report that additional information may be obtained by contacting T.H. Hong, Dept. of Thoracic and Cardiovascular Surgery, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1532/hsf.1317. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Asia, Seoul, Surgery, Oncology, Lymphomas, Cardiology, Hematology, South Korea, Cardiovascular, Échocardiography, Drugs and Therapies, Adjuvant Chemotherapy, Combined Modality Therapy, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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Cardiology

Reports from Technical University Provide New Insights into Cardiology (Relation between detection rate and inappropriate shocks in single versus dual chamber cardioverter-defibrillator--an analysis from the OPTION trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting originating in Munich, Germany, by NewsRx journalists, research stated, "The programming of implantable cardioverter-defibrillators (ICDs) influences inappropriate shock rates. The aim of the study is to analyse rates of patients with appropriate and inappropriate shocks according to detection zones in the OPTION trial."

The news reporters obtained a quote from the research from Technical University, "All patients received dual chamber (DC) ICDs randomly assigned to be programmed either to single chamber (SC) or to DC settings including PARAD+ algorithm. In a post-hoc analysis, rates of patients with inappropriate and appropriate shocks were calculated for shocks triggered at heart rates (≥170 bpm (ventricular tachycardia zone) and at rates (≥200 bpm (ventricular fibrillation zone). In the SC group, higher rates of patients with total and inappropriate shocks were delivered at heart rates (≥170 bpm than at rates (≥200 bpm (total shocks: 21.1% vs. 16.6%; p=0.002; inappropriate shocks: 7.6% vs. 4.5%, p=0.016; appropriate shocks: 15.2% vs. 13.5%; p=n.s.). No such differences were observed in the DC group (total shocks: 14.3% vs. 12.6%; p=n.s.; inappropriate shocks: 3.9% vs. 3.6%; p=n.s.; appropriate shocks: 12.2% vs. 10.4%; p=n.s.)."

According to the news reporters, the research concluded: "The higher frequency of patients with total shocks with SC settings than with DC settings that benefit from PARAD+ was driven by a higher percentage of patients with inappropriate shocks in the VT zone (170-200 bpm) in the SC population."

For more information on this research see: Relation between detection rate and inappropriate shocks in single versus dual chamber cardioverter-defibrillator--an analysis from the OPTION trial. Scientific Reports, 2016;6():21748. (Nature Publishing Group - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting C. Kolb, Deutsches Herzzentrum Munchen, Klinik fur Herz- und Kreislaufkrankungen, Abteilung fur Elektrophysiologie, Faculty of Medicine, Technische Universität Munchen, Munich, Germany. Additional authors for this research include M. Sturmer, D. Babuty, P. Sick, J.M. Davy, G. Molon, J.O. Schwab, G. Mantovani, A. Wickliffe, C. Lennerz, V. Semmler, P.H. Siot and S. Reif.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1038/srep21748. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munich, Europe, Germany, Cardiology, Heart Rate, Hemodynamics, Defibrillators, Medical Devices.

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Oncoogy - Melanoma

Reports from Technical University Provide New Insights into Melanoma
(Tumour stage distribution and survival of malignant melanoma in Germany 2002-2011)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Melanoma have been published. According to news reporting originating from Munich, Germany, by NewsRx correspondents, research stated, "Over the past two decades, there has been a rising trend in malignant melanoma incidence worldwide. In 2008, Germany introduced a nationwide skin cancer screening program starting at age 35."

Our news editors obtained a quote from the research from Technical University, "The aims of this study were to analyse the distribution of malignant melanoma tumour stages over time, as well as demographic and regional differences in stage distribution and survival of melanoma patients. Pooled data from 61 895 malignant melanoma patients diagnosed between 2002 and 2011 and documented in 28 German population-based and hospital-based clinical cancer registries were analysed using descriptive methods, joinpoint regression, logistic regression and relative survival. The number of annually documented cases increased by 53.2% between 2002 (N = 4 779) and 2011 (N = 7 320). There was a statistically significant continuous positive trend in the proportion of stage UICC I cases diagnosed between 2002 and 2011, compared to a negative trend for stage UICC II. No trends were found for stages UICC III and IV respectively. Age (OR 0.97, 95% CI 0.97-0.97), sex (OR 1.18, 95% CI 1.11-1.25), date of diagnosis (OR 1.05, 95% CI 1.04-1.06), 'diagnosis during screening' (OR 3.24, 95% CI 2.50-4.19) and place of residence (OR 1.23, 95% CI 1.16-1.30) had a statistically significant influence on the tumour stage at diagnosis. The overall 5-year relative survival for invasive cases was 83.4% (95% CI 82.8-83.9%)." "

According to the news editors, the research concluded: "No distinct changes in the distribution of malignant melanoma tumour stages among those aged 35 and older were seen that could be directly attributed to the introduction of skin cancer screening in 2008."


The news editors report that additional information may be obtained by contacting O. Schoffer, Technical University of Munich, Dept. of Sport & Hlth Sci, Epidemiol, D-80992 Munich, Germany. Additional authors for this research include S. Schuulein, G. Arand, H. Arnholdt, D. Baaske, R.C. Bargou, N. Becker, M.W. Beckmann, Y. Bodack, B. Bohme, T. Bozkurt, R. Breitsprecher, A. Buchali, E. Burger, U. Burger, K. Dommisch, G. Elsner, K.
Fernschild and U. Flintzer.

Keywords for this news article include: Munich, Germany, Europe, Cancer, Diagnostics and Screening, Epidemiology, Oncology, Melanoma, Technical University.

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Digestive System Diseases and Conditions - Colitis

Reports from Texas A&M University Add New Data to Findings in Colitis (Mango polyphenolics reduce inflammation in intestinal colitis involvement of the miR-126/PI3K/AKT/mTOR axis in vitro and in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Digestive System Diseases and Conditions - Colitis have been presented. According to news reporting from College Station, Texas, by NewsRx journalists, research stated, "This study sought to elucidate the mechanisms underlying the anti-inflammatory effect of mango (Mangifera indica L.) polyphenolics containing gallic acid and gallotannins, and the role of the miR-126/PI3K/AKT/mTOR signaling axis in vitro and in vivo. Polyphenolics extracted from mango (var."

The news correspondents obtained a quote from the research from Texas A&M University, "Keitt) were investigated in lipopolysaccharide (LPS)-treated CCD-18Co cells. Rats received either a beverage with mango polyphenolics or a control beverage, and were exposed to three cycles of 3% dextran sodium sulfate (DSS) followed by a 2-wk recovery period. The mango extract (10mg GAE/L) suppressed the protein expression of NF-B, p-NF-B, PI3K (p85), HIF-1, p70S6K1, and RPS6 in LPS-treated CCD-18Co cells. LPS reduced miR-126 expression, whereas, the mango extract induced miR-126 expression in a dose-dependent manner. The relationship between miR-126 and its target, PI3K (p85), was confirmed by treating cells with miR-126 antagonomiR where mango polyphenols reversed the effects of the antagonomiR. In vivo, mango beverage protected against DSS-induced colonic inflammation (47%, P=0.05) and decreased the Ki-67 labeling index in the central and basal regions compared to the control. Mango beverage significantly attenuated the expression of pro-inflammatory cytokines such as TNF-, IL-1, and iNOS at the mRNA and protein level. Moreover, the expression of PI3K, AKT, and mTOR was reduced, whereas, miR-126 was upregulated by the mango treatment."

According to the news reporters, the research concluded: "These results suggest that mango polyphenols attenuated inflammatory response by modulating the PI3K/AKT/mTOR pathway at least in part through upregulation of miRNA-126 expression both in vitro and in vivo; thus, mango polyphenolics might be relevant as preventive agents in ulcerative colitis."


Our news journalists report that additional information may be obtained by contacting S.U. Mertens-Talcott, Texas A&M University, Dept. of Vet Physiol & Pharmacol, College Stn, TX, United States. Additional authors for this research include N. Banerjee, R.C.
Cardiovascular Diseases and Conditions -…

Reports from Third Military Medical University Add New Data to Findings in Atherosclerosis (Elevated Type II Secretory Phospholipase A2 Increases the Risk of Early Atherosclerosis in Patients with Newly Diagnosed Metabolic Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "A critical association between type II secretory phospholipase A2 (sPLA2-IIa) and established atherosclerotic cardiovascular disease has been demonstrated. However, the contribution of sPLA2-IIa to early atherosclerosis remains unknown."

Our news editors obtained a quote from the research from Third Military Medical University, "This study investigated the association between early-stage atherosclerosis and sPLA2-IIa in metabolic syndrome (MetS) patients. One hundred and thirty-six MetS patients and 120 age-and gender-matched subjects without MetS were included. Serum sPLA2-IIa protein levels and activity were measured using commercial kits. Circulating endothelial activation molecules (vascular cell adhesion molecule-1 (VCAM-1), intercellular adhesion molecule-1 (ICAM-1), E-selectin, and P-selectin), and carotid intima-media thickness (cIMT), were measured as parameters of vascular endothelial dysfunction and early atherosclerosis. MetS patients exhibited significantly higher sPLA2-IIa protein and activity levels than the controls. Both correlated positively with fasting blood glucose and waist circumference in MetS patients. Additionally, MetS patients exhibited strikingly higher levels of endothelial activation molecules and increased cIMT than controls. These levels correlated positively with serum sPLA2-IIa protein levels and activity. Moreover, multivariate analysis showed that high sPLA2-IIa protein and activity levels were independent risk factors of early atherosclerosis in MetS patients."

According to the news editors, the research concluded: "This study demonstrates an independent association between early-stage atherosclerosis and increased levels of sPLA2-IIa, implying that increased sPLA2-IIa may predict early-stage atherosclerosis in MetS patients."

For more information on this research see: Elevated Type II Secretory Phospholipase A2 Increases the Risk of Early Atherosclerosis in Patients with Newly Diagnosed Metabolic Syndrome. Scientific Reports, 2016;6():1-8. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting Z.Y. Song, Third Military Medical University, Southwest Hosp, Dept. of Cardiol, Chongqing 400038, People's Republic of China. Additional authors for this research include C.Y. Zhong,
Oncology - Melanoma

Reports from Thomas Jefferson University Describe Recent Advances in Melanoma [Autologous melanoma cell vaccine using monocyte-derived dendritic cells (NBS20/eltrapulden cel-T)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Melanoma are discussed in a new report. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Targeted therapy and immunotherapy have revolutionized the treatment of advanced melanoma. Despite recent advances, lack of long-term efficacy from targeted therapy and serious immune-related toxicity are major concerns."

The news correspondents obtained a quote from the research from Thomas Jefferson University, "There is unmet need for 'durable' and 'safe' treatment options for advanced melanoma. Cancer vaccine therapy in melanoma has been investigated for many years with modest clinical efficacy. More recently, dendritic cell-based vaccine products have become available for clinical use and have been the focus of investigation. CLBS20 (NBS20/eltrapulden cel-T) is a novel dendritic cell-based vaccine product that has shown promising results in early phase trials in advanced melanoma."

According to the news reporters, the research concluded: "This cancer vaccine approach could play an important role in providing a sustainable survival benefit, targeting cancer cells themselves and avoiding off-target immune-related toxicity."


Our news journalists report that additional information may be obtained by contacting A. Javed, Dept. of Medical Oncology, Thomas Jefferson University, 925 Chestnut street, Philadelphia, PA 19107, United States. Additional authors for this research include S. Sato and T. Sato.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.16.13. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antigen Presenting Cells, Cancer, Therapy, Melanoma, Oncology, Vaccines, Monocytes, Immunology, Blood Cells, Philadelphia, Pennsylvania, Immunization, United States, Cell Research, Myeloid Cells, Article Review, Dendritic Cells, Bone Marrow Cells, Biological Products, Mononuclear Leukocytes, Hemic and Immune Systems.

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Reports from Thomas Jefferson University Highlight Recent Findings in Febrile Seizures (Mesial temporal lobe epilepsy with childhood febrile seizure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Diseases and Conditions - Febrile Seizures. According to news reporting originating in Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "To evaluate the demographic and clinical manifestations of patients with mesial temporal sclerosis and temporal lobe epilepsy (MTS-TLE) with childhood febrile seizure (FS) and establishing the potential differences as compared to those without FS. We also investigated the surgery outcome in these two groups of patients."

The news reporters obtained a quote from the research from Thomas Jefferson University, "In this retrospective study, all patients with a clinical diagnosis of drug-resistant TLE due to mesial temporal sclerosis, who underwent epilepsy surgery at Jefferson Comprehensive Epilepsy Center, were recruited. Patients were prospectively registered in a database from 1986 through 2014. Postsurgical outcome was classified into two groups; seizure-free or relapsed. Clinical manifestations and outcome were compared between patients with MTS-TLE with FS and those without FS. Two hundred and sixty-two patients were eligible for this study. One hundred and seventy patients (64.9%) did not have FS in their childhood, while 92 patients (35.1%) reported experiencing FS in their childhood. Demographic and clinical characteristics of these two groups of patients were not different. Postoperative seizure outcome was not statistically different between these two groups of patients (P = 0.19). When MTS is the pathological substrate of TLE, clinical manifestations and response to surgical treatment of patients are very similar in patients with history of febrile seizure in their childhood compared to those without such an experience."

According to the news reporters, the research concluded: "In other words, when the subgroup of patients with MTS-TLE and drug-resistant seizures is examined history of childhood febrile seizure loses its value as a distinguishing factor in characteristics or predictive factor for surgery outcome."


Our news correspondents report that additional information may be obtained by contacting A.A. Asadi-Pooya, Thomas Jefferson University, Dept. of Neurol, Jefferson Comprehensive Epilepsy Center, Philadelphia, PA 19107, United States. Additional authors for this research include M. Nei, C. Rostami and M.R. Sperling.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ane.12566. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Central Nervous System Diseases and Conditions, Brain Diseases
Lung Diseases and Conditions - Hemoptysis

Reports from Thomas Jefferson University Hospital Add New Data to Findings in Hemoptysis (Management considerations of massive hemoptysis while on extracorporeal membrane oxygenation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Lung Diseases and Conditions - Hemoptysis are presented in a new report. According to news originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Veno-arterial extracorporeal membrane oxygenation (V-A ECMO) is a life-saving procedure in patients with both respiratory and cardiac failure. Bleeding complications are common since patients must be maintained on anticoagulation."

Our news journalists obtained a quote from the research from Thomas Jefferson University Hospital, "Massive hemoptysis is a rare complication of ECMO; however, it may result in death if not managed thoughtfully and expeditiously. A retrospective chart review was performed of consecutive ECMO patients from 7/2010-8/2014 to identify episodes of massive hemoptysis. The management of and the outcomes in these patients were studied. Massive hemoptysis was defined as an inability to control bleeding (>300 mL/day) from the endotracheal tube with conventional maneuvers, such as bronchoscopy with cold saline lavage, diluted epinephrine lavage and selective lung isolation. All of these episodes necessitated disconnecting the ventilator tubing and clamping the endotracheal tube, causing full airway tamponade. During the period of review, we identified 118 patients on ECMO and 3 (2.5%) patients had the complication of massive hemoptysis. One case was directly related to pulmonary catheter migration and the other two were spontaneous bleeding events that were propagated by antiplatelet agents. All three patients underwent bronchial artery embolization in the interventional radiology suite. Anticoagulation was held during the period of massive hemoptysis without any embolic complications. There was no recurrent bleed after appropriate intervention. All three patients were successfully separated from ECMO. Bleeding complications remain a major issue in patients on ECMO. Disconnection of the ventilator and clamping the endotracheal tube with full respiratory and cardiac support by V-A ECMO is safe."

According to the news editors, the research concluded: "Early involvement of interventional radiology to embolize any potential sources of the bleed can prevent re-hemoptysis and enable continued cardiac and respiratory recovery."

For more information on this research see: Management considerations of massive hemoptysis while on extracorporeal membrane oxygenation. Perfusion-Uk, 2016;31(8):653-658. Perfusion-Uk can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England.

The news correspondents report that additional information may be obtained from N. Cavarocchi, Thomas Jefferson University Hospital, Dept. of Surg, Philadelphia, PA 19107, United States. Additional authors for this research include M.A. Harrison, C. Shaw, S.W. Cowan, H. Hirose and N. Cavarocchi.
Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Respiratory Tract Diseases and Conditions, Extracorporeal Membrane Oxygenation, Lung Diseases and Conditions, Respiratory Therapy, Cardiology, Hemothypsis, Thomas Jefferson University Hospital.

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Leiomyosarcomas

Reports from Tianjin Medical University Add New Data to Findings in Leiomyosarcomas (Myxoid leiomyosarcoma of the uterus: a case report and review of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Leiomyosarcomas have been published. According to news reporting originating in Tianjin, People's Republic of China, by NewsRx journalists, research stated, "A para 1, 52-year-old female was admitted with complaints of irregular vaginal bleeding for the previous six months. Ultrasonography revealed a 4x6-cm tumor extending into the uterine cavity and cervical canal."

The news reporters obtained a quote from the research from Tianjin Medical University, "On vaginal examination, a 2x2-cm tumor protruding from the cervical os was found, and an enlarged uterus was palpated. Vaginal intrauterine tumor resection was performed, and the patient was diagnosed with uterine myxoid leiomyosarcoma. A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed, followed by postoperative chemotherapy. Twenty-one months after surgery, the patient died of tumor recurrence."

According to the news reporters, the research concluded: "Uterine myxoid leiomyosarcoma is an extremely rare variant of uterine sarcoma with a poor prognosis and malignant biological behavior."


Our news correspondents report that additional information may be obtained by contacting K. Wen, Tianjin Med Univ, Dept. of Pharmacol, Tianjin 300070, People's Republic of China. Additional authors for this research include Y. Li, Q. Qu and K. Wen.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Leiomyosarcomas, Article Review, Urology, Tianjin Medical University.

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Reports from Tianjin Medical University Describe Recent Advances in Anatomy [Detachment-Based Equilibrium of Anoikic Cell Death and Autophagic Cell Survival Through Adaptor Protein p66(Shc)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Life Science Research - Anatomy is the subject of a report. According to news reporting from Tianjin, People's Republic of China, by NewsRx journalists, research stated, "Anoikis (detachment-induced cell death) confers a tumor-suppressive function in metastatic cancer cells. Autophagy, a conserved self-degradative process, enhances the anoikis resistance of detached cancer cells by maintaining cellular homeostasis."

Financial supporters for this research include National Natural Science Foundation of China, Tianjin University of Science and Technology, Science Foundation of Tianjin Medical University, High Technology Research and Development Program of China ("863" Program).

The news correspondents obtained a quote from the research from Tianjin Medical University, "However, the mechanism of regulating cell fate-decision by balancing anoikis and autophagy has been poorly understood. Our previous studies have shown that the adaptor protein p66(Shc) mediates anoikis through RhoA activation and inhibits tumor metastasis in vivo. We also found that p66(Shc) depletion mitigates nutrient-deprivation-induced autophagy. These findings suggest p66(Shc) may coordinate these two processes. To verify this hypothesis, we investigated the effect of p66(Shc) on the cell death of detached lung cancer cells, and measured autophagy markers and autophagic flux. Results showed that p66(Shc) depletion significantly inhibited anoikis, and reduced the formation of LC3B-II and the degradation of Sequestosome 1 (SQSTM1, p62) in detachment-induced cells. Using monodansylcadaverine (MDC)-LysoTracker double staining and monomeric Cherry (mCherry)-GFP-LC3 assay, we found that the autophagic flux was also mitigated by p66(Shc) depletion. In addition, p66(Shc) knockdown increased the formation of full-length X-linked inhibitor of apoptosis (XIAP)-associated factor 1 (XAF1), which enhances anoikis sensitivity."

According to the news reporters, the research concluded: "P66(Shc) plays an essential role in detachment-equilibrium of anoikic cell death and autophagic cell survival."


Our news journalists report that additional information may be obtained by contacting Z. Cai, Dept. of Biochemistry and Molecular Biology, School of Basic Medical Sciences, Tianjin Medical University, Tianjin, 300070, People's Republic of China. Additional authors for this research include D. Zhao, Y. Sun, D. Gao, X. Li, J. Yang and Z. Ma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ar.23299. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Tianjin, Anatomy, Oncology, Life Science Research, People's Republic of China.

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Oncology - Breast Cancer

Reports from Tianjin Medical University Highlight Recent Findings in Breast Cancer (Advancement of Wnt signal pathway and the target of breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting out of Tianjin, People's Republic of China, by NewsRx editors, research stated, "Wnt/beta-catenin signaling has been proved to play an important role in the development and promotion of cancer metastasis. The activation of Wnt signals can lead to duplicating, updating, metastasizing and relapsing."

Our news journalists obtained a quote from the research from Tianjin Medical University, "The Wnt signaling pathway is mainly divided into the Wnt/beta-catenin pathway and the Wnt/calcium pathway. A better understanding of all the diverse functions of Wnt and their molecular mechanisms has evoked prevailing interest in identifying additional targets related to the Wnt/beta-catenin pathways in breast cancer. A number of new target, related to Wnt/beta-catenin pathways have been identified in recent years, including NOP14, BKCa channels, Emilin2, WISP, MicroRNAs, NRBP1, TRAF4, and Wntless."

According to the news editors, the research concluded: "In this review, we will introduce the new targets related to the Wnt/beta-catenin pathways in breast cancer."

For more information on this research see: Advancement of Wnt signal pathway and the target of breast cancer. Open Life Sciences, 2016;11(1):98-104. Open Life Sciences can be contacted at: De Gruyter Open Ltd, Bogumila Zuga 32A St, 01-811 Warsaw, Poland.

Our news journalists report that additional information may be obtained by contacting Q. Fu, Tianjin Med Univ, General Hospital, Dept. of Gen Surg, Tianjin 300052, People's Republic of China. Additional authors for this research include W. Li, Z.C. Zhao and Q. Fu.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Armadillo Domain Proteins, Proteins, Article Review, Transcription Factors, Women's Health, Breast Cancer, beta Catenin, Catenins, Oncology, Tianjin Medical University.

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Heart Disorders and Diseases - Heart Failure

Reports from Tokyo Women's Medical University Add New Data to Findings in Heart Failure (Effect of Taurine on Hemodiafiltration in Patients With Chronic Heart Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Failure are presented in a new report. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Taurine, an important factor in the living body, is essential for cardiovascular function..."
and development and function of skeletal muscle, retina and central nervous system. In the present study, its effect on cardiovascular function was specifically taken into consideration."

Our news journalists obtained a quote from the research from Tokyo Women's Medical University, "In hemodiafiltration (HDF) patients, the effect of taurine on patients with chronic heart failure (CHF), in whom dry weight was difficult to control, was evaluated. All patients who were subjected to regular HDF for 4 h three times per week at Joban hospital were included in this study. Patients with chronic heart failure, in whom dry weight was difficult to control (N=4), were included in the evaluation of clinical status. X-ray and echocardiography were determined before and after taurine treatment. Almost all patients were taking nitric acid, warfarin, anti-platelet agents and vasopressors. Because vital signs were unstable in chronic heart failure, all cases withheld antihypertensive drugs during HDF. For unstable vital signs during HDF, pulmonary congestion was chronically recognized. After taurine was started, vital signs stabilized and lowering of dry weight was possible. In addition, X-ray and cardiac diastolic failure on echocardiography improved."

According to the news editors, the research concluded: "Taurine was effective for CHF patients on HDF in whom dry weight was difficult to control in spite of various medications."


Our news journalists report that additional information may be obtained by contacting S. Shiohira, Dept. of Medicine IV, Tokyo Women's Medical University, Tokyo, Japan. Additional authors for this research include M. Komatsu, M. Okazaki, T. Naganuma, H. Kawaguchi, K. Nitta and K. Tsuchiya.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1744-9987.12330. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Taurine, Cardiology, Heart Attack, Hydrocarbons, Sulfur Acids, Heart Disease, Hemofiltration, Renal Dialysis, Echocardiography, Sulfur Compounds, Hemodiafiltration, Organic Chemicals, Alkanesulfonic Acids, Chronic Heart Failure, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Cardiovascular Diseases and Conditions - …

Reports from Tufts Medical Center Add New Data to Findings in Atherosclerosis (Effects of Race and Sex on Measured GFR: The Multi-Ethnic Study of Atherosclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Kidney failure disproportionately affects older blacks versus whites. The reasons are unknown and may be related to lower measured glomerular
filtration rate (GFR) and higher levels of albuminuria in community-based population samples."

Financial supporters for this research include National Institutes of Health, Advancing Translational Sciences, NIH, National Heart, Lung and Blood Institute, National Center for Research Resources.

The news correspondents obtained a quote from the research from Tufts Medical Center, "Cross-sectional analysis of a substudy of a prospective cohort. Ancillary study following Multi-Ethnic Study of Atherosclerosis (MESA) visit 5. Predictor: Age, sex, and race. Measured GFR using plasma clearance of iohexol and urine albumin-creatinine ratio (ACR). GFR was measured in 294 participants. Mean age was 71 +/- 9 (SD) years, 47% were black, 48% were women, mean GFR was 73 +/- 19 mL/min/1.73 m(2), and median ACR was 10.0 (IQR, 5.8-20.9) mg/g. Measured GFR was on average 1.02 (95% CI, 0.79-1.24) mL/min/1.73 m (2) lower per year older. Mean GFR indexed for body surface area was not different between blacks versus whites (mean difference, 2.94 [95% CI, -1.37 to 7.26] mL/min/1.73 m(2)), but was lower in women than men (mean difference, -9.34 [95% CI, -13.53 to -5.15] mL/min/1.73 m(2)); this difference persisted and remained significant after adjustment for demographics, clinical characteristics, and measures of body size. The difference between men and women, but not between blacks and whites, was substantially greater when GFR was not indexed for body surface area. ACR was higher in older versus younger participants (mean difference, 3.2% [95% CI, 1.5%-4.8%] per year), but geometric mean ratio of ACR did not differ between blacks versus whites (mean difference, 19.7%; 95% CI, -39.1% to 6.1%) or between men versus women (mean difference, -4.4%; 95% CI, -27.7% to 26.3%). Limitations: This is a study of survivors. People who agreed to participate were younger than those who refused."

According to the news reporters, the research concluded: "In this first community-based study that included blacks and whites, no differences in measured GFR between races were found, suggesting that other factors must account for the disproportionately higher burden of kidney failure in older blacks versus whites."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.ajkd.2016.06.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Epidemiology, Arterial Occlusive Diseases, Arteriosclerosis, Atherosclerosis, Tufts Medical Center.

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Reports from Tulane University Provide New Insights into Angiology (Serum 25-hydroxyvitamin D deficiency predicts poor outcome amongst acute ischaemic stroke patients with low high density lipoprotein cholesterol)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Angiology is the subject of a report. According to news reporting out of New Orleans, Louisiana, by NewsRx editors, research stated, "Background and purposeCurrent observational studies indicate that a lower vitamin D level is associated with a higher risk of poor ischaemic stroke prognosis. Whether this association is affected by lipid levels is unclear."

Financial supporters for this research include Soochow University, National Natural Science Foundation of China, Tulane University, Diboll Private Foundation.

Our news journalists obtained a quote from the research from Tulane University, "Our aim was to examine the effect of serum vitamin D especially its deficiency on the global outcome of ischaemic stroke stratified by individual lipid component level. MethodsA total of 3181 ischaemic patients from China Antihypertensive Trial in Acute Ischaemic Stroke were included in this study and their baseline serum 25-hydroxyvitamin D levels were tested. They were prospectively followed up for death, major disability and vascular events for 3 months after acute ischaemic stroke. A multivariable logistic model was used to evaluate the association between serum 25-hydroxyvitamin D levels and clinical outcomes of ischaemic stroke in the 3-month period of follow-up in all patients and in different lipid-level subgroups. ResultsVitamin D deficiency was associated with poor clinical outcomes only in ischaemic stroke patients with high density lipoprotein cholesterol (HDLC) <1.04 mmol/l rather than all patients. The multivariable adjusted odds ratios (95% confidence intervals) of major disability and composite adverse events were 1.98 (1.08-3.63) and 2.24 (1.22-4.12), respectively. There was a significant interaction effect between vitamin D and HDLC levels on major disability and the composite outcome (P for interaction < 0.05 for both). A significant linear trend existed between 25-hydroxyvitamin D and risk of poor prognosis (P = 0.03)."

According to the news editors, the research concluded: "ConclusionsVitamin D deficiency may be merely an independent risk factor of poor prognosis in ischaemic stroke patients with low HDLC level."


Our news journalists report that additional information may be obtained by contacting T. Xu, Tulane University, Sch Public Hlth & Trop Med, Dept. of Epidemiol, New Orleans, LA 70118, United States. Additional authors for this research include C. Zhong, Y. Peng, C.S. Chen, J. Wang, Z. Ju, Q. Li, D. Geng, Y. Sun, D. Zhang, Y. Zhang, J. Chen, T. Xu, Y. Zhang and J. He.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.13121. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: New Orleans, Louisiana, United States, North and Central America, Cholesterol, Risk and Prevention, Lipoproteins, Cardiology, Angiology, Lipids, Tulane University.

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Immunology - Lymphoid Tissue

Reports from University Clinic Highlight Recent Findings in Lymphoid Tissue (Endobronchial ultrasound elastography strain ratio for mediastinal lymph node diagnosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Lymphoid Tissue. According to news originating from Golnik, Slovenia, by NewsRx correspondents, research stated, "Ultrasound elastography is an imaging procedure that can assess the biomechanical characteristics of different tissues. The aim of this study was to define the diagnostic value of the endobronchial ultrasound (EBUS) elastography strain ratio of mediastinal lymph nodes in patients with a suspicion of lung cancer."

Our news journalists obtained a quote from the research from University Clinic, "The diagnostic values of the strain ratios were compared with the EBUS brightness mode (B-mode) features of selected mediastinal lymph nodes and with their cytological diagnoses. This prospective, single-centre study enrolled patients with an indication for biopsy and mediastinal staging after a non-invasive diagnostic workup of a lung tumour. EBUS with standard B-mode evaluation and elastography with strain ratio measurement were performed before endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA). Thirty-three patients with 80 suspicious mediastinal lymph nodes were included. Malignant infiltration was confirmed in 34 (42.5%) lymph nodes. The area under the receiver operating characteristic curve for the strain ratio was 0.87 (p <0.0001). At a strain ratio (≥) 8, the accuracy for malignancy prediction was 86.25% (sensitivity 88.24%, specificity 84.78%, positive predictive value [PPV] 81.08%, negative predictive value [NPV] 90.70%). The strain ratio is more accurate than conventional B-mode EBUS modalities for differentiating between malignant and benign lymph nodes. EBUS-guided elastography with strain ratio assessment can distinguish malignant from benign mediastinal lymph nodes with greater accuracy than conventional EBUS modalities."

According to the news editors, the research concluded: "This new method may reduce the number of mediastinal EBUS-TBNAs and thus reduce the invasiveness and expense of mediastinal staging in patients with non-small lung cancer (NSCLC)."

For more information on this research see: Endobronchial ultrasound elastography strain ratio for mediastinal lymph node diagnosis. Radiology and Oncology, 2015;49(4):334-40.

The news correspondents report that additional information may be obtained from A. Rozman, University Clinic of Pulmonary and Allergic Diseases Golnik, Golnik, Slovenia. Additional authors for this research include M.M. Malovrh, K. Adamic, T. Subic, V. Kovac and M. Flezar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1515/raon-2015-0020. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include: Golnik, Europe, Slovenia, Immunology, Lymph Nodes, Lymphoid Tissue, Hemic and Immune Systems.

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Reports from University College Highlight Recent Findings in Tuberous Sclerosis (Variants Within TSC2 Exons 25 and 31 Are Very Unlikely to Cause Clinically Diagnosable Tuberous Sclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nervous System Diseases and Conditions - Tuberous Sclerosis have been published. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Inactivating mutations in TSC1 and TSC2 cause tuberous sclerosis complex (TSC). The 2012 international consensus meeting on TSC diagnosis and management agreed that the identification of a pathogenic TSC1 or TSC2 variant establishes a diagnosis of TSC, even in the absence of clinical signs."

Financial supporters for this research include Tuberous Sclerosis Association (UK), TS Alliance (USA), British Heart Foundation, National Institute for Health Research, University College London Hospitals Biomedical Research Centre, Associazione Emma & Ernesto Rulfo per la Genetica Medica, Wellcome Trust.

Our news journalists obtained a quote from the research from University College, "However, exons 25 and 31 of TSC2 are subject to alternative splicing. No variants causing clinically diagnosed TSC have been reported in these exons, raising the possibility that such variants would not cause TSC. We present truncating and in-frame variants in exons 25 and 31 in three individuals unlikely to fulfil TSC diagnostic criteria and examine the importance of these exons in TSC using different approaches. Amino acid conservation analysis suggests significantly less conservation in these exons compared with the majority of TSC2 exons, and TSC2 expression data demonstrates that the majority of TSC2 transcripts lack exons 25 and/or 31 in many human adult tissues. In vitro assay of both exons shows that neither exon is essential for TSC complex function."

According to the news editors, the research concluded: "Our evidence suggests that variants in TSC2 exons 25 or 31 are very unlikely to cause classical TSC, although a role for these exons in tissue/stage specific development cannot be excluded."


The direct object identifier (DOI) for that additional information is:
Nutritional and Metabolic Diseases and Conditions - …

Reports from University Hospital Add New Data to Findings in Diabetes Insipidus (Copeptin in the diagnosis of vasopressin-dependent disorders of fluid homeostasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Diabetes Insipidus is now available. According to news reporting originating in Basel, Switzerland, by NewsRx journalists, research stated, "Copeptin and arginine vasopressin (AVP) are derived from a common precursor molecule and have equimolar secretion and response to osmotic, haemodynamic and stress-related stimuli. Plasma concentrations of copeptin and AVP in relation to serum osmolality are highly correlated."

The news reporters obtained a quote from the research from University Hospital, "The physiological functions of AVP with respect to homeostasis of fluid balance, vascular tonus and regulation of the endocrine stress response are well known, but the exact function of copeptin is undetermined. Quantification of AVP can be difficult, but copeptin is stable in plasma and can be easily measured with a sandwich immunoassay. For this reason, copeptin has emerged as a promising marker for the diagnosis of AVP-dependent fluid disorders. Copeptin measurements can enable differentiation between various conditions within the polyuria-polydipsia syndrome. In the absence of prior fluid deprivation, baseline copeptin levels >20 pmol/l identify patients with nephrogenic diabetes insipidus. Conversely, copeptin levels measured upon osmotic stimulation differentiate primary polydipsia from partial central diabetes insipidus."

According to the news reporters, the research concluded: "In patients with hyponatraemia, low levels of copeptin together with low urine osmolality identify patients with primary polydipsia, and the ratio of copeptin to urinary sodium can distinguish the syndrome of inappropriate antidiuretic hormone secretion from other AVP-dependent forms of hyponatraemia."


Our news correspondents report that additional information may be obtained by contacting M. Christ-Crain, Dept. of Endocrinology, University Hospital Basel, University of Basel, Petersgraben 4, Basel CH-4031, Switzerland.

The direct object identifier (DOI) for that additional information is:
Autoimmune Diseases and Conditions - Rheumatoid...

Reports from University Hospital Add New Data to Findings in Rheumatoid Arthritis (Methotrexate selectively targets human proinflammatory macrophages through a thymidylate synthase/p53 axis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Autoimmune Diseases and Conditions - Rheumatoid Arthritis. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "Methotrexate (MTX) functions as an antiproliferative agent in cancer and an anti-inflammatory drug in rheumatoid arthritis (RA). Although macrophages critically contribute to RA pathology, their response to MTX remains unknown."

The news reporters obtained a quote from the research from University Hospital, "As a means to identify MTX response markers, we have explored its transcriptional effect on macrophages polarised by GM-CSF (GM-Mempty set) or M-CSF (M-Mempty set), which resemble proinflammatory and anti-inflammatory macrophages found in RA and normal joints, respectively. The transcriptomic profile of both human macrophage subtypes exposed to 50 nM of MTX under long-term and short-term schedules were determined using gene expression microarrays, and validated through quantitative real time PCR and ELISA. The molecular pathway involved in macrophage MTX-responsiveness was determined through pharmacological, siRNA-mediated knockdown approaches, metabolomics for polyglutamylated-MTX detection, western blot, and immunofluorescence on RA and normal joints. MTX exclusively modulated gene expression in proinflammatory GM-Mempty set, where it influenced the expression of 757 genes and induced CCL20 and LIF at the mRNA and protein levels. Pharmacological and siRNA-mediated approaches indicated that macrophage subset-specific MTX responsiveness correlates with thymidylate synthase (TS) expression, as proinflammatory TS+ GM-Mempty set are susceptible to MTX, whereas anti-inflammatory TSlow/- M-Mempty set and monocytes are refractory to MTX. Furthermore, p53 activity was found to mediate the TS-dependent MTX-responsiveness of proinflammatory TS+ GM-Mempty set. Importantly, TS and p53 were found to be expressed by CD163(+/+)TNF alpha(+) GM-CSF-polarised macrophages from RA joints but not from normal synovium. Macrophage response to MTX is polarisation-dependent and determined by the TS-p53 axis."

According to the news reporters, the research concluded: "CCL20 and LIF constitute novel macrophage markers for MTX responsiveness in vitro."

For more information on this research see: Methotrexate selectively targets human proinflammatory macrophages through a thymidylate synthase/p53 axis. *Annals of the Rheumatic Diseases*, 2016;75(12):2157-2165. *Annals of the Rheumatic Diseases* can be...

Our news correspondents report that additional information may be obtained by contacting A. Puig-Kroger, Hosp Gen Univ Gregorio Maranon, Inst Invest Sanitaria Gregorio Maranon, Lab Immunometab, Madrid, Spain. Additional authors for this research include B.S. Palacios, L. Estrada-Capetillo, A. Benguria, A. Dopazo, E. Garcia-Lorenzo, S. Fernandez-Arroyo, J. Joven, M.E. Miranda-Carus, I. Gonzalez-Alvaro and A. Puig-Kroger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/annrheumdis-2015-208736. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Autoimmune Diseases and Conditions, Mononuclear Phagocyte System, Methotrexate Therapy Sodium, Small Interference RNAs, Enzymes and Coenzymes, Thymidylate Synthase, Rheumatoid Arthritis, Drugs and Therapies, Methyltransferases, Pharmaceuticals, Antimetabolites, Antineoplastics, Antirheumatics, Antipsoriatics, Biotechnology, Pharmacology, Macrophages, Immunology, Phagocytes, Genetics, p53 Gene, siRNA, University Hospital.

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Oncology - Head and Neck Cancer

Reports from University Hospital Advance Knowledge in Head and Neck Cancer (CT-based follow-up following radiotherapy or radiochemotherapy for locally advanced head and neck cancer; outcome and development of a prognostic model for regional ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Head and Neck Cancer. According to news reporting out of Leuven, Belgium, by NewsRx editors, research stated, "The purpose of this study was to make a prognostic model for regional relapse in head and neck cancer using clinical and CT parameters. 183 patients with lymph node-positive head and neck cancer were treated between 2002 and 2012 with radiotherapy or concurrent chemoradiotherapy."

Our news journalists obtained a quote from the research from University Hospital, "CT studies pre- and post-treatment were reviewed for lymph node size and the presence of necrosis, extracapsular spread (ECS) and calcifications. For every patient, correlations with 3-year regional control (RC), metastasis-free survival (MFS), disease-free survival (DFS) and overall survival (OS) were made. 3-year outcome rates were as follows: local control of 84%, RC of 80%, MFS of 74%, DFS of 61% and OS of 63%. Pre-treatment nodal size and the presence of necrosis were associated with a poorer outcome. This was also the case for post-treatment lymph node size, the presence of necrosis and ECS. We developed a CT-based prognostic model for RC with an area under the curve of 0.78 (95% confidence interval 0.63; 0.85). We reached a good outcome in our patient cohort using a CT-based follow-up approach. A CT-based model was developed, which can aid in predicting RC. Advances in knowledge: A prognostic model is proposed, which can aid in predicting RC and the necessity for post-radiotherapy neck dissection using clinical parameters and parameters derived from the post-
treatment CT study."

According to the news editors, the research concluded: "This is the first article to propose a prognostic model for regional relapse in head and neck cancer based on these parameters."


Our news journalists report that additional information may be obtained by contacting S. Nuyts, KU Leuven Univ Leuven, University Hospital Leuven, Dept. of Radiat Oncol, Leuven, Belgium. Additional authors for this research include O. Vantomme, A. Laenen, R. Hermans and S. Nuyts.

Keywords for this news article include: Leuven, Belgium, Europe, Hemic and Immune Systems, Head and Neck Neoplasms, Head and Neck Cancer, Lymphoid Tissue, Radiotherapy, Lymph Nodes, Immunology, Oncology, Therapy, University Hospital.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**Reports from University Medical Center Advance Knowledge in Atrial Fibrillation (Long-Term Success for the Convergent Atrial Fibrillation Procedure: 4-Year Outcomes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Atrial Fibrillation are discussed in a new report. According to news reporting out of Ljubljana, Slovenia, by NewsRx editors, research stated, "The objective of this single-center study was to report long-term efficacy outcomes of the convergent procedure for the treatment of atrial fibrillation. Outcomes for the convergent procedure were determined by clinical presentation and interrogating implanted loop recorders."

Our news journalists obtained a quote from the research from University Medical Center, "Rhythm status and required interventions for atrial fibrillation recurrence (antiarrhythmic drugs, cardioversions, and repeat ablations) were quantified 1 to 4 years after the procedure. Long-term outcomes, atrial fibrillation burden quantified with continuous monitoring, and patient baseline characteristics were analyzed and reported. Seventy-six consecutive patients with paroxysmal (5%), persistent (16%), or longstanding atrial fibrillation (79%) underwent the convergent procedure between January 2009 and July 2013. Clinical presentation in sinus rhythm at isolated timepoints was 88% at 6 months, 85% at 1 year, 85% at 2 years, 84% at 3 years, and 81% at 4 years of follow-up. Total patients requiring repeat catheter ablation was 18% through 4 years. Single procedure 1-year success (freedom from atrial fibrillation/atrial flutter/atrial tachycardia through 1 year and off antiarrhythmic drugs) was 56%; and long-term success (freedom from atrial fibrillation/atrial flutter/atrial tachycardia through at least 36 months and off antiarrhythmic drugs) was 45%. Four-year outcomes for the convergent procedure are promising and demonstrate the ability to maintain sinus rhythm in a predominantly persistent and longstanding atrial fibrillation population."
According to the news editors, the research concluded: "Increasing the extent of posterior ablation should be evaluated for patients with enlarged atria to account for the potential increase in fibrosis distribution and other atrial remodeling markers that produce arrhythmogenic substrates."


Our news journalists report that additional information may be obtained by contacting B. Gersak, Univ Med Center Ljubljana, Dept. of Cardiovasc Surg, Ljubljana 1000, Slovenia.

Keywords for this news article include: Ljubljana, Slovenia, Europe, Heart Disorders and Diseases, Antiarrhythmic Agents, Drugs and Therapies, Cardiac Arrhythmias, Atrial Fibrillation, Cardiovascular, Atrial Flutter, Heart Disease, Tachycardia, Cardiology, University Medical Center.

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**DNA Research**

**Reports from University of Alabama Advance Knowledge in DNA Research (Poxvirus uracil-DNA glycosylase-An unusual member of the family I uracil-DNA glycosylases)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on DNA Research are presented in a new report. According to news reporting originating in Birmingham, Alabama, by NewsRx journalists, research stated, "Uracil-DNA glycosylases are ubiquitous enzymes, which play a key role repairing damages in DNA and in maintaining genomic integrity by catalyzing the first step in the base excision repair pathway. Within the superfamily of uracil-DNA glycosylases family I enzymes or UNGs are specific for recognizing and removing uracil from DNA."

The news reporters obtained a quote from the research from the University of Alabama, "These enzymes feature conserved structural folds, active site residues and use common motifs for DNA binding, uracil recognition and catalysis. Within this family the enzymes of poxviruses are unique and most remarkable in terms of amino acid sequences, characteristic motifs and more importantly for their novel non-enzymatic function in DNA replication. UNG of vaccinia virus, also known as D4, is the most extensively characterized UNG of the poxvirus family. D4 forms an unusual heterodimeric processivity factor by attaching to a poxvirus-specific protein A20, which also binds to the DNA polymerase E9 and recruits other proteins necessary for replication. D4 is thus integrated in the DNA polymerase complex, and its DNA-binding and DNA scanning abilities couple DNA processivity and DNA base excision repair at the replication fork. The adaptations necessary for taking on the new function are reflected in the amino acid sequence and the three-dimensional structure of D4."

According to the news reporters, the research concluded: "An overview of the current state of the knowledge on the structure-function relationship of D4 is provided here."

For more information on this research see: Poxvirus uracil-DNA glycosylase-An

Our news correspondents report that additional information may be obtained by contacting D. Chattopadhyay, Univ Alabama Birmingham, Dept. of Med, Birmingham, AL 35294, United States. Additional authors for this research include N. Zhukovskaya, G. Bedwell, M. Nuth, R. Gillilan, P.E. Prevelige, R.P. Ricciardi, S. Banerjee and D. Chattopadhyay.

Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Polymerase, Article Review, Enzymes and Coenzymes, N-Glycosyl Hydrolases, DNA Repair Enzymes, DNA Glycosylases, DNA Research, Viral DNA, Genetics, University of Alabama.

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**Reports from University of Ataturk Add New Data to Findings in Paracetamol Therapy (Mitigation of paracetamol-induced reproductive damage by chrysin in male rats via reducing oxidative stress)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Paracetamol Therapy have been published. According to news reporting originating in Erzurum, Turkey, by NewsRx journalists, research stated, "Paracetamol (PRC) is a nonsteroidal anti-inflammatory drug used widely as a painkiller for various diseases and as the symptomatic flu cure in several countries worldwide. PRC toxicity may occur under conditions of the overdose usage."

The news reporters obtained a quote from the research from the University of Ataturk, "Chrysin (CR) is a flavonoid that is naturally present in several plants, honey and propolis. The aim of this study was to investigate the effects of CR (at the doses of 25 mg kg(-1) and 50 mg kg(-1)) pre-treatment over seven consecutive days against PRC-induced reproductive toxicity in male rats. Our results showed that PRC toxicity decreased the sperm motility, and increased dead sperm rate, abnormal sperm cell rate, apoptosis and MDA levels in testicular tissues. Pre-treatment with CR at the dose of 25 and 50 mg kg(-1) for 7 days mitigated side effects of acute PRC toxicity in male reproductive system proportionally in a dose-dependent manner. This possible protection mechanism might be dependent on the antioxidant activity of CR."

According to the news reporters, the research concluded: "Pre-treatment with CR at the dose of 25 and 50 mg kg(-1) for 7 days can be the beneficial against PRC-induced reproductive toxicity proportionally in a dose-dependent manner."


Our news correspondents report that additional information may be obtained by contacting E.H. Aksu, Ataturk University, Fac Vet Med, Dept. of Reprod & Artificial Inseminat,
TR-25240 Erzurum, Turkey. Additional authors for this research include M. Ozkaraca, F.M. Kandemir, A.D. Omur, E. Eldutar, S. Kucukler and S. Comakli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/and.12553. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Erzurum, Turkey, Eurasia, Drugs and Therapies, Paracetamol Therapy, University of Ataturk.

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Reports from University of Auckland Highlight Recent Findings in Proinsulin (A Critical Role for beta-Catenin in Modulating Levels of Insulin Secretion from beta-Cells by Regulating Actin Cytoskeleton and Insulin Vesicle Localization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Peptide Proteins - Proinsulin are discussed in a new report. According to news reporting originating in Auckland, New Zealand, by NewsRx journalists, research stated, "The processes regulating glucose-stimulated insulin secretion (GSIS) and its modulation by incretins in pancreatic beta-cells are only partly understood. Here we investigate the involvement of beta-catenin in these processes."

The news reporters obtained a quote from the research from the University of Auckland, "Reducing beta-catenin levels using siRNA knockdown attenuated GSIS in a range of beta-cell models and blocked the ability of GLP-1 agonists and the depolarizing agent KCl to potentiate this. This could be mimicked in both beta-cell models and isolated islets by short-term exposure to the beta-catenin inhibitory drug pyrvinium. In addition, short-term treatment with a drug that increases beta-catenin levels results in an increase in insulin secretion. The timing of these effects suggests that beta-catenin is required for the processes regulating trafficking and/or release of pre-existing insulin granules rather than for those regulated by gene expression. This was supported by the finding that the overexpression of the transcriptional coactivator of beta-catenin, transcription factor 7-like 2 (TCF7L2), attenuated insulin secretion, consistent with the extra TCF7L2 translocating beta-catenin from the plasma membrane pool to the nucleus. We show that beta-catenin depletion disrupts the intracellular actin cytoskeleton, and by using total internal reflectance fluorescence (TIRF) microscopy, we found that beta-catenin is required for the glucose-and incretin-induced depletion of insulin vesicles from near the plasma membrane."

According to the news reporters, the research concluded: "We find that beta-catenin levels modulate Ca2+-dependent insulin exocytosis under conditions of glucose, GLP-1, or KCl stimulation through a role in modulating insulin secretory vesicle localization and/or fusion via actin remodeling. These findings also provide insights as to how the overexpression of TCF7L2 may attenuate insulin secretion."

For more information on this research see: A Critical Role for beta-Catenin in Modulating Levels of Insulin Secretion from beta-Cells by Regulating Actin Cytoskeleton and Insulin Vesicle Localization. Journal of Biological Chemistry, 2016;291(50):25888-25900. Journal of Biological Chemistry can be contacted at: Amer Soc Biochemistry Molecular
Heart Disorders and Diseases - Heart Disease

Reports from University of Bergen Add New Data to Findings in Heart Disease (Prevention and treatment of cardiovascular disease in Ethiopia: a cost-effectiveness analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Disease. According to news reporting from Bergen, Norway, by NewsRx journalists, research stated, "The coverage of prevention and treatment strategies for ischemic heart disease and stroke is very low in Ethiopia. In view of Ethiopia's meager healthcare budget, it is important to identify the most cost-effective interventions for further scale-up."

The news correspondents obtained a quote from the research from the University of Bergen, "This paper's objective is to assess cost-effectiveness of prevention and treatment of ischemic heart disease (IHD) and stroke in an Ethiopian setting. Fifteen single interventions and sixteen intervention packages were assessed from a healthcare provider perspective. The World Health Organization's Choosing Interventions that are Cost-Effective model for cardiovascular disease was updated with available country-specific inputs, including demography, mortality and price of traded and non-traded goods. Costs and health benefits were discounted at 3% per year. Incremental cost-effectiveness ratios are reported in US$per disability adjusted life year (DALY) averted. Sensitivity analysis was undertaken to assess robustness of our results.

Combination drug treatment for individuals having > 35% absolute risk of a CVD event in the next 10 years is the most cost-effective intervention. This intervention costs US$67 per DALY averted and about US$7 million annually. Treatment of acute myocardial infarction (AMI) (costing US$1000-US$7530 per DALY averted) and secondary prevention of IHD and stroke (costing US$1060-US$10,340 per DALY averted) become more efficient when delivered in integrated packages. At an annual willingness-to-pay (WTP) level of about US$3 million, a package consisting of aspirin, streptokinase, ACE-inhibitor and beta-blocker for AMI has the highest probability of being most cost-effective, whereas as WTP increases to > US$7 million, combination drug treatment to individuals having > 35% absolute risk stands out as the most cost-effective strategy. Cost-effectiveness ratios were relatively more sensitive to halving the effectiveness estimates as compared with doubling the price of drugs and laboratory tests. In Ethiopia, the escalating burden of CVD and its risk factors warrants timely action. We have demonstrated that selected CVD intervention packages could be scaled up at a modest budget..."
increase. The level of willingness-to-pay has important implications for interventions' probability of being cost-effective."

According to the news reporters, the research concluded: "The study provides valuable evidence for setting priorities in an essential healthcare package for CVD in Ethiopia."


Our news journalists report that additional information may be obtained by contacting M.T. Tolla, University of Bergen, Dept. of Global Public Hlth & Primary Hlth Care, Bergen, Norway. Additional authors for this research include O.F. Norheim, S.T. Memirie, S.G. Abdisa, A. Ababulgu, D. Jerene, M. Bertram, K. Strand, S. Verguet and K.A. Johansson.

Keywords for this news article include: Bergen, Norway, Europe, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Heart Disorders and Diseases, Myocardial Ischemia, Heart Disease, University of Bergen.

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Cardiology

Reports from University of British Columbia Describe Recent Advances in Cardiology (Sequential Right and Left Ventricular Assessment in Posttetralogy of Fallot Patients with Significant Pulmonary Regurgitation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiology. According to news originating from Vancouver, Canada, by NewsRx correspondents, research stated, "The natural history of right ventricular (RV) and left ventricular (LV) size and function among adults with tetralogy of Fallot (TOF) repair and hemodynamically significant pulmonary regurgitation (PR) is not known. The main aim of this study was to determine changes in RV and LV size and function over time in an adult population with TOF repair and hemodynamically significant pulmonary regurgitation."

Our news journalists obtained a quote from the research from the University of British Columbia, "Forty patients with repaired TOF and hemodynamically significant PR were included. These patients were identified on the basis of having more than one CMR between January 2008 and 2015. Patients with a prosthetic pulmonary valve or any cardiac intervention between CMR studies were excluded. Rate of progression (ROP) of RV dilation was determined for both indexed right ventricular end-systolic volume (RVESVi) and indexed right ventricular end-diastolic volume (RVEDVi), and calculated as the difference between the last and first volumes divided by the number of years between CMR#1 and CMR#2. Subjects were also divided into two groups based on the distribution of the ROP of RV dilation: Group I-rapid ROP (> 50th percentile) and Group II-slower ROP (<= 50th percentile). The interval between CMR#1 and CMR#2 was 3.961.7 years (range 1-8 years). We did find a significant change in RVEDVi and RVESVi over this time period, although the magnitude of change was small. Nine patients
(23%) had a reduction in right ventricular ejection fraction (RVEF) by greater than 5%, 13 patients (33%) had an increase in RVEDVi by greater than 10 mL/m² and seven patients (18%) had an increase in RVESVi by greater than 10 mL/m². Median ROP for RVEDVi was 1.8 (range 210.4 to 21.8) mL/(m² year); RVESVi 1.1 (range 25.8 to 24.5) mL/(m² year) and RVEF 20.5 (range 28 to 4)/% per year. Patients with a rapid ROP had significantly larger RV volumes at the time of CMR#1 and lower RVEF as compared to the slow ROP group. There was no overall significant change in LVEDVi, LVESVi, or LVEF over this time period. We have demonstrated, in a small population of patients with hemodynamically significant PR, that there is a small increase in RV volumes and decrease in RVEF over a mean 4-year period. We believe it to be reasonable practice to perform CMR at least every 4 years in asymptomatic patients with repaired TOF and hemodynamically significant PR. We found that LV volumes and function remained stable during the study period, suggesting that significant progressive LV changes are less likely to occur over a shorter time period.

According to the news editors, the research concluded: "Our results inform a safe standardized approach to monitoring adults with hemodynamically significant PR post TOF repair and assist in planning allocation of this expensive and limited resource."

For more information on this research see: Sequential Right and Left Ventricular Assessment in Posttetralogy of Fallot Patients with Significant Pulmonary Regurgitation. Congenital Heart Disease, 2016;11(6):606-614. Congenital Heart Disease can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Congenital Heart Disease - onlinelibrary.wiley.com/journal/10.1111/(ISSN) 1747-0803)

The news correspondents report that additional information may be obtained from J. Grewal, University of British Columbia, St Pauls Hosp, Div Cardiol, Pacific Adult Congenital Heart Serv, Vancouver, BC, Canada. Additional authors for this research include R. Raju, B. Precious, A.J. Berger, M.C. Kiess, J.A. Leipsic and J. Grewal.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Right Ventricular, Cardiology, University of British Columbia.

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Enzymes and Coenzymes - ADP Ribose Transferases
Reports from University of Calabria Provide New Insights into ADP Ribose Transferases [Poly(ADP-ribose) polymerase is not involved in the neuroprotection exerted by azithromycin against ischemic stroke in mice]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - ADP Ribose Transferases. According to news reporting originating in Arcavacata di Rende, Italy, by NewsRx journalists, research stated, "Repurposing azithromycin has recently emerged as a promising strategy for the acute treatment of ischemic stroke. The mechanism of neuroprotection depends on the ability of this macrolide to promote polarization of microglia/macrophages towards beneficial M2 phenotypes."

Funders for this research include Fondazione Italiana Sclerosi Multipla, FISM, Ente Cassa di Risparmio di Firenze.
The news reporters obtained a quote from the research from the University of Calabria, "The immunomodulatory and anti-inflammatory effects of azithromycin, well documented in chronic inflammatory airway diseases, have been ascribed to the inhibition of the transcription factors nuclear factor (NF)-kappa B and activator protein (AP) -1. Since these inflammatory transcription factors are positively regulated by poly(ADP-ribose) polymerase (PARP) -1, an enzyme actively involved in ischemic brain injury, we have investigated whether the neuroprotective properties of azithromycin in ischemic stroke involve upstream modulation of PARP-1. Administration of a single dose of this macrolide antibiotic upon reperfusion reduced, to a similar extent in wild type and PARP-1 knockout mice, infarct brain damage produced by transient occlusion of the middle cerebral artery. Moreover, we demonstrated the lack of effects of azithromycin on PARP-dependent death of HeLa cells, as well as on activity of purified PARP-1 and PARP-2."

According to the news reporters, the research concluded: "Thus, azithromycin protects mice against ischemic stroke injury through a mechanism independent of PARP activation."

For more information on this research see: Poly(ADP-ribose) polymerase is not involved in the neuroprotection exerted by azithromycin against ischemic stroke in mice. European Journal of Pharmacology, 2016;791():518-522. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting D. Amantea, University of Calabria, Dept. of Pharm Hlth & Nutr Sci, Sect Preclin & Translat Pharmacol, Arcavacata Di Rende, CS, Italy. Additional authors for this research include M. Muzzi, A. Chiarugi, G. Bagetta and D. Amantea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Arcavacata di Rende, Italy, Europe, Poly (ADP-ribose) Polymerases, ADP Ribose Transferases, Enzymes and Coenzymes, Glycosyltransferases, Azithromycin, Erythromycin, Genetics, Stroke, University of Calabria.

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Atrial Fibrillation
Reports from University of Calgary Provide New Insights into Atrial Fibrillation (Enhanced Cytosolic Ca2+ Activation Underlies a Common Defect of Central Domain Cardiac Ryanodine Receptor Mutations Linked to Arrhythmias)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Atrial Fibrillation. According to news reporting originating from Calgary, Canada, by NewsRx correspondents, research stated, "Recent three-dimensional structural studies reveal that the central domain of ryanodine receptor (RyR) serves as a transducer that converts long-range conformational changes into the gating of the channel pore. Interestingly, the central domain encompasses one of the mutation hotspots
(corresponding to amino acid residues 3778-4201) that contains a number of cardiac RyR (RyR2) mutations associated with catecholaminergic polymorphic ventricular tachycardia (CPVT) and atrial fibrillation (AF)."

Our news editors obtained a quote from the research from the University of Calgary, "However, the functional consequences of these central domain RyR2 mutations are not well understood. To gain insights into the impact of the mutation and the role of the central domain in channel function, we generated and characterized eight disease-associated RyR2 mutations in the central domain. We found that all eight central domain RyR2 mutations enhanced the Ca2+-dependent activation of [H-3]ryanodine binding, increased cytosolic Ca2+-induced fractional Ca2+ release, and reduced the activation and termination thresholds for spontaneous Ca2+ release in HEK293 cells. We also showed that racemic carvedilol and the non-beta-blocking carvedilol enantiomer, ®-carvedilol, suppressed spontaneous Ca2+ oscillations in HEK293 cells expressing the central domain RyR2 mutations associated with CPVT and AF. These data indicate that the central domain is an important determinant of cytosolic Ca2+ activation of RyR2."

According to the news editors, the research concluded: "These results also suggest that altered cytosolic Ca2+ activation of RyR2 represents a common defect of RyR2 mutations associated with CPVT and AF, which could potentially be suppressed by carvedilol or ®-carvedilol."


The news editors report that additional information may be obtained by contacting S.R.W. Chen, University of Calgary, Dept. of Physiol & Pharmacol, Libin Cardiovasc Inst Alberta, Calgary, AB T2N 4N1, Canada. Additional authors for this research include W.T. Guo, B. Sun, D.J. Hunt, J.H. Wei, Y.J. Liu, Y.D. Wang, R.W. Wang, P.P. Jones, T.G. Back and S.R.W. Chen.

Keywords for this news article include: Calgary, Alberta, Canada, North and Central America, Heart Disorders and Diseases, Atrial Fibrillation, Cardiology, Diterpenes, Ryanodine, Genetics, University of Calgary.

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research stated, "Staphylococcus aureus bacteremia (SAB) is a tremendous health burden. Previous studies examining the association of vancomycin MIC and outcomes in patients with SAB have been inconclusive."

Financial support for this research came from HHS | National Institutes of Health (NIH).

The news correspondents obtained a quote from the research from the University of California, "This study evaluated the association between vancomycin MICs and 30- or 90-day mortality in individuals with SAB. This was a prospective cohort study of adults presenting from 2008 to 2013 with a first episode of SAB. Subjects were identified by an infection surveillance system. The main predictor was vancomycin MIC by MicroScan. The primary outcomes were death at 30 and 90 days, and secondary outcomes included recurrence, readmission, or a composite of death, recurrence, and readmission at 30 and 90 days. Covariates included methicillin susceptibility, demographics, illness severity, comorbidities, infectious source, and antibiotic use. Cox proportional-hazards models with propensity score adjustment were used to estimate 30- and 90-day outcomes. Of 429 unique first episodes of SAB, 11 were excluded, leaving 418 individuals for analysis. Eighty-three (19.9%) participants had a vancomycin MIC of 2 µg/ml. In the propensity-adjusted Cox model, a vancomycin MIC of 2 µg/ml compared to < 2 µg/ml was not associated with a greater hazard of mortality or composite outcome of mortality, readmission, and recurrence at either 30 days (hazard ratios [HRs] of 0.86 [95% confidence interval CI, 0.41, 1.80] [P = 0.70] and 0.94 [95% CI, 0.55, 1.58] [P = 0.80], respectively) or 90 days (HRs of 0.91 [95% CI, 0.49, 1.69] [P = 0.77] and 0.69 [95% CI, 0.46, 1.04] [P = 0.08], respectively) after SAB diagnosis."

According to the news reporters, the research concluded: "In a prospective cohort of patients with SAB, vancomycin MIC was not associated with 30- or 90-day mortality or a composite of mortality, disease recurrence, or hospital readmission."

For more information on this research see: Vancomycin MIC Does Not Predict 90-Day Mortality, Readmission, or Recurrence in a Prospective Cohort of Adults with Staphylococcus aureus Bacteremia. Antimicrobial Agents and Chemotherapy, 2016;60(9):5276-5284. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemistry - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting S.M. Baxi, University of California, Sch Public Hlth, Div Epidemio1, Berkeley, CA 94720, United States. Additional authors for this research include A. Clemenzi-Allen, A. Gahbauer, D. Deck, B. Imp, E. Vittinghoff, H.F. Chambers and S. Doernberg.

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Keywords for this news article include: Berkeley, California, United States, North and Central America, Gram-Positive Endospore-Forming Rods, Bacterial Infections and Mycoses, Endospore-Forming Bacteria, Peptides, Epidemiology, Gram-Positive Bacteria, Staphylococcus aureus, Gram-Positive Cocci, Staphylococcaceae, Glycopeptides, Vancomycin, Bacillales, Bacteremia, Sepsis, University of California.

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Polyomavirus

Reports from University of California Add New Data to Findings in Polyomavirus (Intragraft Antiviral-Specific Gene Expression as a Distinctive Transcriptional Signature for Studies in Polyomavirus-Associated Nephropathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Polyomavirus is the subject of a report. According to news reporting from San Francisco, California, by NewsRx journalists, research stated, "Polyomavirus nephropathy (PVAN) is a common cause of kidney allograft dysfunction and loss. To identify PVAN-specific gene expression and underlying molecular mechanisms, we analyzed kidney biopsies with and without PVAN."

The news correspondents obtained a quote from the research from the University of California, "The study included 168 posttransplant renal allograft biopsies (T cell-mediated rejection [TCMR] = 26, PVAN = 10, normal functioning graft = 73, and interstitial fibrosis/tubular atrophy = 59) from 168 unique kidney allograft recipients. We performed gene expression assays and bioinformatics analysis to identify a set of PVAN-specific genes. Validity and relevance of a subset of these genes are validated by quantitative polymerase chain reaction and immunohistochemistry. Unsupervised hierarchical clustering analysis of all the biopsies revealed high similarity between PVAN and TCMR gene expression. Increased statistical stringency identified 158 and 252 unique PVAN and TCMR injury-specific gene transcripts respectively. Although TCMR-specific genes were overwhelmingly involved in immune response costimulation and TCR signaling, PVAN-specific genes were mainly related to DNA replication process, RNA polymerase assembly, and pathogen recognition receptors. A principal component analysis (PCA) using these genes further confirmed the most optimal separation between the 3 different clinical phenotypes. Validation of 4 PVAN-specific genes (RPS15, complement factor D, lactotransferrin, and nitric oxide synthase interacting protein) by quantitative polymerase chain reaction and confirmation by immunohistochemistry of 2 PVAN-specific proteins with antiviral function (lactotransferrin and IFN-inducible transmembrane 1) was done."

According to the news reporters, the research concluded: "Even though PVAN and TCMR kidney allografts share great similarities on gene perturbation, PVAN-specific genes were identified with well-known antiviral properties that provide tools for discerning PVAN and AR as well as attractive targets for rational drug design."

For more information on this research see: Intragraft Antiviral-Specific Gene Expression as a Distinctive Transcriptional Signature for Studies in Polyomavirus-Associated Nephropathy. Transplantation, 2016;100(10):2062-2070. Transplantation can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Transplantation - journals.lww.com/transplantjournal/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting M.M. Sarwal, University of California, Dept. of Surg, San Francisco, CA, United States. Additional authors for this research include O. Bestard, N. Salomonis, S.C. Hsieh, J. Torras, M. Naesens, T.Q. Tran, S. Roedder and M.M. Sarwal.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Enzymes and Coenzymes, Diagnosis, Genetics, Vertebrate
Reports from University of California Describe Recent Advances in Prostate Cancer (Cell type-specific abundance of 4EBP1 primes prostate cancer sensitivity or resistance to PI3K pathway inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Prostate Cancer have been presented. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated, "Pharmacological inhibitors against the PI3K-AKT-mTOR (phosphatidylinositol 3-kinase-AKT-mammalian target of rapamycin) pathway, a frequently deregulated signaling pathway in cancer, are clinically promising, but the development of drug resistance is a major limitation. We found that 4EBP1, the central inhibitor of cap-dependent translation, was a critical regulator of both prostate cancer initiation and maintenance downstream of mTOR signaling in a genetic mouse model. 4EBP1 abundance was distinctly different between the epithelial cell types of the normal prostate."

The news reporters obtained a quote from the research from the University of California, "Of tumor-prone prostate epithelial cell types, luminal epithelial cells exhibited the highest transcript and protein abundance of 4EBP1 and the lowest protein synthesis rates, which mediated resistance to both pharmacologic and genetic inhibition of the PI3K-AKT-mTOR signaling pathway. Decreasing total 4EBP1 abundance reversed resistance in drug-insensitive cells. Increased 4EBP1 abundance was a common feature in prostate cancer patients who had been treated with the PI3K pathway inhibitor BKM120; thus, 4EBP1 may be associated with drug resistance in human tumors."

According to the news reporters, the research concluded: "Our findings reveal a molecular program controlling cell type-specific 4EBP1 abundance coupled to the regulation of global protein synthesis rates that renders each epithelial cell type of the prostate uniquely sensitive or resistant to inhibitors of the PI3K-AKT-mTOR signaling pathway."

For more information on this research see: Cell type-specific abundance of 4EBP1 primes prostate cancer sensitivity or resistance to PI3K pathway inhibitors. *Science Signaling*, 2015;8(403):ra116.

Our news correspondents report that additional information may be obtained by contacting A.C. Hsieh, Dept. of Urology, University of California, San Francisco, San Francisco, CA 94158 USA. Division of Hematology, Oncology and Dept. of Internal Medicine, University of California, San Francisco, San Francisco, CA 94158, United States. Additional authors for this research include H.G. Nguyen, L. Wen, M.P. Edlind, P.R. Carroll, W. Kim and D. Ruggero.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1126/scisignal.aad5111. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Oncology, California, Proteomics, San Francisco, United States, Drug Resistance, Medical Devices, Prostate Cancer, Epithelial...
Reports from University of California Highlight Recent Findings in Chemical Biology (Engineering Soluble Human Paraoxonase 2 for Quorum Quenching)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Chemical Research - Chemical Biology. According to news reporting originating in Riverside, California, by NewsRx journalists, research stated, "Many pathogenic bacteria utilize quorum sensing (QS) systems to regulate the expression of their virulence genes and promote the formation of biofilm, which renders pathogens with extreme resistance to conventional antibiotic treatments. As a novel approach for attenuating antibiotic resistance and in turn fighting chronic infections, enzymatic inactivation of QS signaling molecules, such as N-acyl homoserine lactones (AHLs), holds great promises."

Financial support for this research came from University of California, Riverside. The news reporters obtained a quote from the research from the University of California, "Instead of using bacterial lactonases that can evoke immune response when administered, we focus on the human paraoxonase 2 (huPON2). However, insolubility when heterologously overexpressed hinders its application as anti-infection therapeutics. In this study, huPON2 was engineered for soluble expression with minimal introoduction of foreign sequences. On the basis of structure modeling, degenerate linkers were exploited for the removal of hydrophobic helices of huPON2 without disrupting its folding structure and thus retaining its enzymatic function. High soluble expression levels were achieved with a yield of 76 mg of fully human PON2 variants per liter of culture media. Particularly, two clones, D2 and E3, showed significant quorum quenching (QQ) bioactivities and effectively impeded Pseudomonas aeruginosa swimming and swarming motilities, signs of an early stage of biofilm formation."

According to the news reporters, the research concluded: "In addition, by correlating QQ with luminescence signal readouts, quantitative analysis of QQ toward natural or non-natural AHL-regulator combinations suggested that D2 and E3 exhibited strong lactone hydrolysis activities toward five AHLs of different side chain lengths and modifications widely utilized by a variety of biomedically important pathogens."

For more information on this research see: Engineering Soluble Human Paraoxonase 2 for Quorum Quenching. ACS Chemical Biology, 2016;11(11):3122-3131. ACS Chemical Biology can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Chemical Biology - www.pubs.acs.org/journal/acbcct)

Our news correspondents report that additional information may be obtained by contacting X. Ge, University of California, Dept. of Chem & Environm Engn, Riverside, CA 92521, United States. Additional authors for this research include C. Wang, A. Mulchandani and X. Ge.

The direct object identifier (DOI) for that additional information is:
Reports from University of California Highlight Recent Findings in Gliomas (Hyperpolarized C-13 MR imaging detects no lactate production in mutant IDH1 gliomas: Implications for diagnosis and response monitoring)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gliomas have been published. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "Metabolic imaging of brain tumors using C-13 Magnetic Resonance Spectroscopy (MRS) of hyperpolarized [1-C-13] pyruvate is a promising neuroimaging strategy which, after a decade of preclinical success in glioblastoma (GBM) models, is now entering clinical trials in multiple centers. Typically, the presence of GBM has been associated with elevated hyperpolarized [1-C-13] lactate produced from [1-C-13] pyruvate, and response to therapy has been associated with a drop in hyperpolarized [1-C-13] lactate."

Our news editors obtained a quote from the research from the University of California, "However, to date, lower grade gliomas had not been investigated using this approach. The most prevalent mutation in lower grade gliomas is the isocitrate dehydrogenase 1 (IDH1) mutation, which, in addition to initiating tumor development, also induces metabolic reprogramming. In particular, mutant IDH1 gliomas are associated with low levels of lactate dehydrogenase A (LDHA) and mono-carboxylate transporters 1 and 4 (MCT1, MCT4), three proteins involved in pyruvate metabolism to lactate. We therefore investigated the potential of 13C MRS of hyperpolarized [1-C-13] pyruvate for detection of mutant IDH1 gliomas and for monitoring of their therapeutic response. We studied patient-derived mutant IDH1 glioma cells that underexpress LDHA, MCT1 and MCT4, and wild-type IDH1 GBM cells that express high levels of these proteins. Mutant IDH1 cells and tumors produced significantly less hyperpolarized [1-C-13] lactate compared to GBM, consistent with their metabolic reprogramming. Furthermore, hyperpolarized [1-C-13] lactate production was not affected by chemotherapeutic treatment with temozolomide (TMZ) in mutant IDH1 tumors, in contrast to previous reports in GBM."

According to the news editors, the research concluded: "Our results demonstrate the unusual metabolic imaging profile of mutant IDH1 gliomas, which, when combined with other clinically available imaging methods, could be used to detect the presence of the IDH1 mutation in vivo."

For more information on this research see: Hyperpolarized C-13 MR imaging detects no lactate production in mutant IDH1 gliomas: Implications for diagnosis and response monitoring. *Neuroimage-Clinical*, 2016;12():180-189. *Neuroimage-Clinical* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon,
The news editors report that additional information may be obtained by contacting M.M. Chaumeil, University of California, Dept. of Radiol & Biomed Imaging, San Francisco, CA 94158, United States. Additional authors for this research include M. Radoul, C. Najac, P. Eriksson, P. Viswanath, M.D. Blough, C. Chesnelong, H.A. Luchman, J.G. Cairncross and S.M. Ronen.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Enzymes and Coenzymes, Dehydrogenase, Keto Acids, Pyruvates, Oncology, Genetics, Gliomas, University of California.

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Science

Reports from University of Cambridge Describe Recent Advances in Science (CCT complex restricts neuropathogenic protein aggregation via autophagy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Science are presented in a new report. According to news reporting from Cambridge, United Kingdom, by NewsRx journalists, research stated, "Aberrant protein aggregation is controlled by various chaperones, including CCT (chaperonin containingTCP-1)/TCP-1/TRiC. Mutated CCT4/5 subunits cause sensory neuropathy and CCT5 expression is decreased in Alzheimer's disease."

The news correspondents obtained a quote from the research from the University of Cambridge, "Here, we show that CCT integrity is essential for autophagosome degradation in cells or Drosophila and this phenomenon is orchestrated by the actin cytoskeleton. When autophagic flux is reduced by compromise of individual CCT subunits, various disease-relevant autophagy substrates accumulate and aggregate. The aggregation of proteins like mutant huntingtin, ATXN3 or p62 after CCT2/5/7 depletion is predominantly autophagy dependent, and does not further increase with CCT knockdown in autophagy-defective cells/organisms, implying surprisingly that the effect of loss-of-CCT activity on mutant ATXN3 or huntingtin oligomerization/aggregation is primarily a consequence of autophagy inhibition rather than loss of physiological anti-aggregation activity for these proteins."

According to the news reporters, the research concluded: "Thus, our findings reveal an essential partnership between two key components of the proteostasis network and implicate autophagy defects in diseases with compromised CCT complex activity."


Our news journalists report that additional information may be obtained by contacting D.C. Rubinsztein, University of Cambridge, Cambridge Inst Med Res, Dept. of Med Genet, Addenbrookes Hospital, Cambridge CB2 2XY, United Kingdom. Additional authors for this research include S. Imarisio, F.M. Menzies, M. Jimenez-Sanchez, F.H. Siddiqi, X.T. Wu, M. Renna, C.J. O’Kane, D.C. Crowther and D.C. Rubinsztein.
Reports from University of Central Lancashire Highlight Recent Findings in Health and Medicine (Repetitive task training for improving functional ability after stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Health and Medicine is the subject of a report. According to news reporting from Preston, United Kingdom, by NewsRx journalists, research stated, "Repetitive task training (RTT) involves the active practice of task-specific motor activities and is a component of current therapy approaches in stroke rehabilitation. Primary objective: To determine if RTT improves upper limb function/reach and lower limb function/balance in adults after stroke."

The news correspondents obtained a quote from the research from the University of Central Lancashire, "Secondary objectives: 1) To determine the effect of RTT on secondary outcome measures including activities of daily living, global motor function, quality of life/health status and adverse events. 2) To determine the factors that could influence primary and secondary outcome measures, including the effect of 'dose' of task practice; type of task (whole therapy, mixed or single task); timing of the intervention and type of intervention.

Search methods We searched the Cochrane Stroke Group Trials Register (4 March 2016); the Cochrane Central Register of Controlled Trials (CENTRAL) (the Cochrane Library 2016, Issue 5:1 October 2006 to 24 June 2016); MEDLINE (1 October 2006 to 8 March 2016); Embase (1 October 2006 to 8 March 2016); CINAHL (2006 to 23 June 2016); AMED (2006 to 21 June 2016) and SPORTSDiscus (2006 to 21 June 2016). Selection criteria Randomised/quasi-randomised trials in adults after stroke, where the intervention was an active motor sequence performed repetitively within a single training session, aimed towards a clear functional goal.

Data collection and analysis Two review authors independently screened abstracts, extracted data and appraised trials. We determined the quality of evidence within each study and outcome group using the Cochrane 'Risk of bias' tool and GRADE (Grades of Recommendation, Assessment, Development and Evaluation) criteria. We did not assess follow-up outcome data using GRADE. We contacted trial authors for additional information. We included 33 trials with 36 intervention-control pairs and 1853 participants. The risk of bias present in many studies was unclear due to poor reporting; the evidence has therefore been rated 'moderate' or 'low' when using the GRADE system. There is low-quality evidence that RTT improves arm function (standardised mean difference (SMD) 0.25, 95% confidence interval (CI) 0.01 to 0.49; 11 studies, number of participants analysed = 749), hand function (SMD 0.25, 95% CI 0.00 to 0.51; eight studies, number of participants analysed = 619), and lower limb functional measures (SMD 0.29, 95% CI 0.10 to 0.48; five trials, number of participants analysed = 419). There is moderate-quality evidence that RTT improves walking distance (mean difference (MD) 34.80, 95% CI 18.19 to 51.41; nine studies, number of participants analysed = 610) and functional ambulation (SMD 0.35, 95% CI 0.04 to 0.66; eight studies, number of participants analysed = 525). We found significant differences between groups for both upper-limb (SMD 0.92, 95% CI 0.58 to 1.26; three studies, number of participants analysed = 153) and lower-limb (SMD 0.34,
95% CI 0.16 to 0.52; eight studies, number of participants analysed = 471) outcomes up to six months post treatment but not after six months. Effects were not modified by intervention type, dosage of task practice or time since stroke for upper or lower limb. There was insufficient evidence to be certain about the risk of adverse events. Authors' conclusions There is low-to moderate-quality evidence that RTT improves upper and lower limb function; improvements were sustained up to six months post treatment. Further research should focus on the type and amount of training, including ways of measuring the number of repetitions actually performed by participants.

According to the news reporters, the research concluded: "The definition of RTT will need revisiting prior to further updates of this review in order to ensure it remains clinically meaningful and distinguishable from other interventions."

For more information on this research see: Repetitive task training for improving functional ability after stroke. *Cochrane Database of Systematic Reviews*, 2016;(11):1686-1816. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting L.H. Thomas, University of Central Lancashire, Coll Hlth & Wellbeing, Preston PR1 2HE, Lancs, United Kingdom. Additional authors for this research include L.H. Thomas, J. Coupe, N.E. McMahon, L. Connell, J. Harrison, C.J. Sutton, S. Tishkovskaya and C.L. Watkins.

Keywords for this news article include: Preston, United Kingdom, Europe, Health and Medicine, Article Review, Risk and Prevention, University of Central Lancashire.

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**Oncology - Urothelial Cancer**

**Reports from University of Chicago Highlight Recent Findings in Urothelial Cancer (Clinical Evaluation of Cisplatin Sensitivity of Germline Polymorphisms in Neoadjuvant Chemotherapy for Urothelial Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Urothelial Cancer. According to news reporting originating from Chicago, Illinois, by NewsRx correspondents, research stated, "To identify patients with urothelial cancer most likely to benefit from neoadjuvant chemotherapy, we evaluated germline pharmacogenomic markers for an association with response in 205 patients across 3 institutions. Stage pT0 (26%) and < pT2 (50%) rates were consistent across the respective discovery and replication cohorts."

Financial support for this research came from NIH.

Our news editors obtained a quote from the research from the University of Chicago, "Despite the large effects for 3 polymorphisms in the discovery set, none were associated with achievement of pT0 or < pT2 on replication. Multi-institutional efforts are feasible and will be necessary to achieve advances in urothelial cancer precision medicine. Level 1 evidence has demonstrated increased overall survival with cisplatin-based neoadjuvant chemotherapy for patients with muscle-invasive urothelial cancer. Usage remains low, however, in part because neoadjuvant chemotherapy will not be effective for every patient. To identify the patients most likely to benefit, we evaluated germline pharmacogenomic markers for association with
neoadjuvant chemotherapy sensitivity in 2 large cohorts of patients with urothelial cancer. Patients receiving neoadjuvant cisplatin-based chemotherapy for muscle-invasive urothelial cancer were eligible. Nine germline single nucleotide polymorphisms (SNPs) potentially conferring platinum sensitivity were tested for an association with a complete pathologic response to neoadjuvant chemotherapy (pT0) or elimination of muscle-invasive cancer (<pT2). The data from 205 patients were analyzed-59 patients were included in the discovery set and 146 in an independent replication cohort from 3 institutions. The stage pT0 (26%) and < pT2 (50%) rates were consistent across the discovery and replication populations. Using a multivariate recessive genetic model, rs244898 in RARS (odds ratio, 6.8; 95% confidence interval, 1.8-28.9; P = .006) and rs7937567 in GALNTL4 (odds ratio, 4.8; 95% confidence interval, 1.1-22.6; P = .04) were associated with pT0 in the discovery set. Despite these large effects, neither were associated with achievement of pT0 in the replication set. A third SNP, rs10964552, was associated with stage < pT2 in the discovery set but also failed to replicate. Germline SNPs previously associated with platinum sensitivity were not associated with the neoadjuvant chemotherapy response in a large replication cohort of patients with urothelial cancer."

According to the news editors, the research concluded: "These results emphasize the need for replication when evaluating pharmacogenomic markers and demonstrate that multi-institutional efforts are feasible and will be necessary to achieve advances in urothelial cancer pharmacogenomics."

For more information on this research see: Clinical Evaluation of Cisplatin Sensitivity of Germline Polymorphisms in Neoadjuvant Chemotherapy for Urothelial Cancer. Clinical Genitourinary Cancer, 2016;14(6):511-517. Clinical Genitourinary Cancer can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA. (Elsevier - www.elsevier.com; Clinical Genitourinary Cancer - www.journals.elsevier.com/clinical-genitourinary-cancer/)

The news editors report that additional information may be obtained by contacting P.H. O'Donnell, University Chicago, Chicago, IL 60637, United States. Additional authors for this research include S. Alanee, K.L. Stratton, I.R. Garcia-Grossman, H.Y. Cao, I. Ostrovnya, E.R. Plimack, C. Manschreck, C. Ganshert, N.D. Smith, G.D. Steinberg, J. Vijai, K. Offit, W.M. Stadler and D.F. Bajorin.

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Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin Therapy, Alkylating Agents, Urothelial Cancer, Pharmacogenomics, Pharmaceuticals, Antineoplastics, Biotechnology, Pharmacology, Chemotherapy, Oncology, Genetics, University of Chicago.

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Reports from University of Cincinnati Highlight Recent Findings in Aneurysm (Aneurysm growth and de novo aneurysms during aneurysm surveillance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Aneurysm. According to news reporting out of Cincinnati, Ohio, by NewsRx editors, research stated, "Many low-risk unruptured intracranial aneurysms (UIAs) are followed for growth with surveillance imaging. Growth of UTAs likely increases the risk of rupture."

Our news journalists obtained a quote from the research from the University of Cincinnati, "The incidence and risk factors of UIA growth or de novo aneurysm formation require further research. The authors retrospectively identify risk factors and annual risk for UIA growth or de novo aneurysm formation in an aneurysm surveillance protocol. Over an 11.5-year period, the authors recommended surveillance imaging to 192 patients with 234 UTAs. The incidence of UIA growth and de novo aneurysm formation was assessed. With logistic regression, risk factors for UIA growth or de novo aneurysm formation and patient compliance with the surveillance protocol was assessed. During 621 patient-years of follow-up, the incidence of aneurysm growth or de novo aneurysm formation was 5.0%/patient-year. At the 6-month examination, 5.2% of patients had aneurysm growth and 4.3% of aneurysms had grown. Four de novo aneurysms formed (0.64%/patient-year). Over 793 aneurysm-years of follow-up, the annual risk of aneurysm growth was 3.7%. Only initial aneurysm size predicted aneurysm growth (UIA < 5 mm = 1.6% vs UIA >= 5 mm = 8.7%, p = 0.002). Patients with growing UIAs were more likely to also have de novo aneurysms (p = 0.01). Patient compliance with this protocol was 65%, with younger age predictive of better compliance (p = 0.01). Observation of low-risk UTAs with surveillance imaging can be implemented safely with good adherence. Aneurysm size is the only predictor of future growth."

According to the news editors, the research concluded: "More frequent (semiannual) surveillance imaging for newly diagnosed UTAs and UTAs 5 mm is warranted."

For more information on this research see: Aneurysm growth and de novo aneurysms during aneurysm surveillance. Journal of Neurosurgery. 2016;125(6):1374-1382. Journal of Neurosurgery can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

Our news journalists report that additional information may be obtained by contacting J.C. Serrone, University of Cincinnati, Coll Med, Dept. of Neurosurg, Cincinnati, OH, United States. Additional authors for this research include R.D. Tackla, Y.M. Gozal, D.J. Hanseman, S.L. Gogela, S.M. Vuong, J.A. Kosty, C.A. Steiner, B.M. Krueger, A.W. Grossman and A.J. Ringer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3171/2015.12.JNS151552. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cincinnati, Ohio, United States, North and Central America, Cardiovascular Diseases and Conditions, Epidemiology, Risk and Prevention, Aneurysm, University of Cincinnati.

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Pharmacokinetics

Reports from University of Cincinnati Highlight Recent Findings in Pharmacokinetics (ABCC3 genetic variants are associated with postoperative morphine-induced respiratory depression and morphine pharmacokinetics in children)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacokinetics have been presented. According to news originating from Cincinnati, Ohio, by NewsRx correspondents, research stated, "Respiratory depression (RD) is a serious side effect of morphine and detrimental to effective analgesia. We reported that variants of the ATP binding cassette gene ABCC3 (facilitates hepatic morphine metabolite efflux) affect morphine metabolite clearance."

Our news journalists obtained a quote from the research from the University of Cincinnati, "In this study of 316 children undergoing tonsillectomy, we found significant association between ABCC3 variants and RD leading to prolonged postoperative care unit stay (prolonged RD). Allele A at rs4148412 and allele G at rs729923 caused a 2.36 (95% CI=1.28-4.37, p=0.0061) and 3.7 (95% CI 1.47-9.09, p=0.0050) times increase in odds of prolonged RD, respectively. These clinical associations were supported by increased formation clearance of morphine glucuronides in children with rs4148412 AA and rs4973665 CC genotypes in this cohort, as well as an independent spine surgical cohort of 67 adolescents."

According to the news editors, the research concluded: "This is the first study to report association of ABCC3 variants with opioid-related RD, and morphine metabolite formation (in two independent surgical cohorts). The Pharmacogenomics Journal advance online publication, 26 January."

For more information on this research see: ABCC3 genetic variants are associated with postoperative morphine-induced respiratory depression and morphine pharmacokinetics in children. The Pharmacogenomics Journal, 2016();.

The correspondents report that additional information may be obtained from V. Chidambaran, Dept. of Anesthesia, College of Medicine, University of Cincinnati, Cincinnati, OH, United States. Additional authors for this research include R. Venkatasubramanian, X. Zhang, L.J. Martin, J. Niu, T. Mizuno, T. Fukuda, J. Meller, A.A. Vinks and S. Sadhasivam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.98. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Pharmaceuticals, Genetics, Cincinnati, United States, Pharmacokinetics, North and Central America.

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Drugs and Therapies - Antibiotics

Reports from University of Claude Bernard Provide New Insights into Antibiotics (Delivery system for berberine chloride based on the nanocarrier ZnAl-layered double hydroxide: Physicochemical
characterization, release behavior and evaluation of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antibiotics. According to news reporting out of Villeurbanne, France, by NewsRx editors, research stated, "Layered double hydroxide (LDH) has attracted major interest as one of the most versatile drug delivery systems especially for adsorption capacity and/or controlled delivery property of bioactive agents owing to their combining features of biohybrid. ZnAl synthesized layered double hydroxide can offer a platform to immobilize various types of bioactive compounds, particularly berberine chloride (BBC)."

Our news journalists obtained a quote from the research from the University of Claude Bernard, "However, the immobilization reaction of berberine chloride into ZnAl-LDH was performed by direct co-precipitation method at different ratios of BBC/LDH. BBC-ZnAl-LDH biohybrids were characterized in terms of structure, surface morphology, in vitro drug release profile and antibacterial assay against various bacterial cells. The BBC biomolecules were attached by coordinate bond. Structural and microstructural characterization confirms that interaction of BBC with ZnAl-LDH occurs by adsorption rather than intercalation of BBC within LDH layers. The BBC release profiles from BBC-ZnAl-LDH had a longer release duration compared to the physical mixture, and the drug release seemed faster with the low ratio of BBC/LDH. BBC-ZnAl-LDH can be internalized into bacterial cells. In vitro experiments in PBS medium showed that BBC-ZnAl-LDH biohybrid had higher cytotoxicity and inhibitory effects against three pathogenic bacteria; Staphylococcus aureus CIP 543154, Pseudomonas aeruginosa A22 and Bacillus subtilus ILP 1428B upon the drug release profiles and its destructive potential depends on the loading BBC on the LDH layers."

According to the news editors, the research concluded: "Nonetheless these results prove that the prepared BBC-ZnAl-LDH biohybrids retain the anti-bacterial character of the BBC molecules and are therefore potential modified drug delivery system (DDS)."


Our news journalists report that additional information may be obtained by contacting M.A. Djebbi, Univ Claude Bernard Lyon 1, UMR CNRS 5280, Inst Sci Analyt, F-69100 Villeurbanne, France. Additional authors for this research include A. Elabed, Z. Bouaziz, M. Sadiki, S. Elabed, P. Namour, N. Jaffrezic-Renault and A.B. Amara.  

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.09.089. This DOI is a link to an online electronic document that is either free or for purchase.  

Keywords for this news article include: Villeurbanne, France, Europe, Antibacterial Agents, Inorganic Chemicals, Drugs and Therapies, Hydrochloric Acid, Antimicrobials, Biotechnology, Antibiotics, Hydroxides, Biohybrids, Chlorides, Alkalies, Anions, University of Claude Bernard.

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Nutritional and Metabolic Diseases and Conditions -…

Reports from University of Colorado Advance Knowledge in Obesity (Pharmacokinetic and Pharmacodynamic Evaluation of a Weight-Based Dosing Regimen of Cefoxitin for Perioperative Surgical Prophylaxis in Obese and Morbidly Obese Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting from Aurora, Colorado, by NewsRx journalists, research stated, "The objective of this study was to determine the pharmacokinetics and pharmacodynamics (PK/PD) of a weight-based cefoxitin dosing regimen for surgical prophylaxis in obese patients. Patients received a single dose of cefoxitin at 40 mg/kg based on total body weight."

The news correspondents obtained a quote from the research from the University of Colorado, ‘Cefoxitin samples were obtained over 3 h from serum and adipose tissue, and concentrations were determined by validated high-performance liquid chromatography. Noncompartmental pharmacokinetic analysis was performed, followed by Monte Carlo simulations to estimate probability of target attainment (PTA) for Staphylococcus aureus, Escherichia coli, and Bacteroides fragilis over 4-h periods postdose. Thirty patients undergoing bariatric procedures were enrolled. The body mass index (mean +/- standard deviation [SD]) was 45.9 +/- 8.0 kg/m(2) (range, 35.0 to 76.7 kg/m2); the median cefoxitin dose was 5 g (range, 4.0 to 7.5 g). The mean maximum concentrations were 216.15 +/- 41.80 mu g/ml in serum and 12.62 +/- 5.89 in tissue; the mean tissue/serum ratio was 8% +/- 3%. In serum, weight-based regimens achieved > 90% PTA (goal time during which free [unbound] drug concentrations exceed pathogen MICs [fT > MIC] of 100%) for E. coli and S. aureus over 2 h and for B. fragilis over 1 h; in tissue this regimen failed to achieve goal PTA at any time point. The 40-mg/kg regimens achieved higher PTAs over longer periods in both serum and tissue than did the standard 2-g doses. However, although weight-based cefoxitin regimens were better than fixed doses, achievement of desired pharmacodynamic targets was suboptimal in both serum and tissue."

According to the news reporters, the research concluded: "Alternative dosing regimens and agents should be explored in order to achieve more favorable antibiotic performance during surgical prophylaxis in obese patients."

For more information on this research see: Pharmacokinetic and Pharmacodynamic Evaluation of a Weight-Based Dosing Regimen of Cefoxitin for Perioperative Surgical Prophylaxis in Obese and Morbidly Obese Patients. Antimicrobial Agents and Chemotherapy, 2016;60(10):5885-5893.抗微生物剂和化疗期刊可以联系：American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org

Our news journalists report that additional information may be obtained by contacting P. Moine, Univ Colorado Denver, Sch Med, Dept. of Anesthesiol, Aurora, CO 80204, United States. Additional authors for this research include S.W. Mueller, J.A. Schoen, K.B. Rothchild and D.N. Fish.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00585-16. This DOI is a link to an online electronic document that is either free or for purchase.
Immunology - Immunoproteins

Reports from University of Connecticut Advance Knowledge in Immunoproteins (Effect of Excipients on Liquid-Liquid Phase Separation and Aggregation in Dual Variable Domain Immunoglobulin Protein Solutions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Immunoproteins have been published. According to news originating from Storrs, Connecticut, by NewsRx correspondents, research stated, "Liquid-liquid phase separation (LLPS) and aggregation can reduce the physical stability of therapeutic protein formulations. On undergoing LLPS, the protein-rich phase can promote aggregation during storage due to high concentration of the protein."

Financial support for this research came from AbbVie.

Our news journalists obtained a quote from the research from the University of Connecticut, "Effect of different excipients on aggregation in protein solution is well documented; however data on the effect of excipients on LLPS is scarce in the literature. In this study, the effect of four excipients (PEG 400, Tween 80, sucrose, and hydroxypropyl beta-cyclodextrin (HPbCD)) on liquid-liquid phase separation and aggregation in a dual variable domain immunoglobulin protein solution was investigated. Sucrose suppressed both LLPS and aggregation, Tween 80 had no effect on either, and PEG 400 increased LLPS and aggregation. Attractive protein-protein interactions and liquid-liquid phase separation decreased with increasing concentration of HPbCD, indicating its specific binding to the protein. However, HPbCD had no effect on the formation of soluble aggregates and fragments in this study."

According to the news editors, the research concluded: "LLPS and aggregation are highly temperature dependent; at low temperature protein exhibits LLPS, at high temperature protein exhibits aggregation, and at an intermediate temperature both phenomena occur simultaneously depending on the solution conditions."

For more information on this research see: Effect of Excipients on Liquid-Liquid Phase Separation and Aggregation in Dual Variable Domain Immunoglobulin Protein Solutions. Molecular Pharmaceutics, 2016;13(3):774-83. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news correspondents report that additional information may be obtained from A.S. Raut, Dept. of Pharmaceutical Sciences, University of Connecticut, 69 North Eagleville Road, Unit 3092, Storrs, Connecticut 06269, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00668. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Storrs, Immunology, Connecticut, United
Heart Disorders and Diseases - Heart Attack

Reports from University of Copenhagen Describe Recent Advances in Heart Attack (Association between prehospital physician involvement and survival after out-of-hospital cardiac arrest: A Danish nationwide observational study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "Sudden out-of-hospital cardiac arrest (OHCA) is an important public health problem. While several interventions are known to improve survival, the impact of physician-delivered advanced cardiac life support for OHCA is unclear."

Our news editors obtained a quote from the research from the University of Copenhagen, "We aimed to assess the association between prehospital physician involvement and 30-day survival. Observational study including persons registered with first-time OHCA of any cause in the Danish Cardiac Arrest Registry during 2005-2012. We used logistic regression analysis to assess the association between 30-day survival and involvement of a physician at any time before arrival at the hospital. Secondary outcomes were 1-year survival and return of spontaneous circulation (ROSC) before arrival at the hospital. The associations were explored in three multivariable models: a model with simple adjustment, a model with multiple imputation of missing variables, and a propensity score model where exposed subjects were matched 1:1 with unexposed subjects on a propensity score reflecting the probability of being assigned to the exposure group. 21,165 persons with OHCA during 2005-2012 were included. Overall, 10.8% of OHCA patients with physician involvement and 8.1% of OHCA patients without physician involvement before arrival at hospital were alive after 30 days, crude odds ratio (OR) = 1.37 (95% CI = 1.24-1.51), adjusted OR = 1.18 (95% CI = 1.04-1.34). Physician involvement was also positively associated with ROSC, OR = 1.09 (95% CI = 1.00-1.19); and with 1-year survival, OR = 1.13 (95% CI = 0.99-1.29). In this large population-based observational study, we found prehospital physician involvement after OHCA associated with better 30-day survival."

According to the news editors, the research concluded: "This association was also found for ROSC, but with less certainty for 1-year survival."


The news editors report that additional information may be obtained by contacting A. Hamilton, University of Copenhagen, Hvidovre Hosp, Dept. of Anaesthesiol & Intens Care, Copenhagen, Denmark. Additional authors for this research include J. Steinmetz, M. Wissenberg, C. Torp-Pedersen, F.K. Lippert, L. Hove and N. Lohse.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.08.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Clinical Research, Epidemiology, Heart Disorders and Diseases, Clinical Trials and Studies, Cardiac Arrest, Heart Attack, Cardiology, Hospital, University of Copenhagen.

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Reports from University of Debrecen Highlight Recent Findings in Obesity (Paraoxonase-1 and adipokines: Potential links between obesity and atherosclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating in Debrecen, Hungary, by NewsRx journalists, research stated, "Oxidative stress and chronic low-grade inflammation are major characteristics of obesity-related disorders. The dominance of pro-oxidant and pro-inflammatory mechanisms triggers insulin resistance and enhances the progression of atherosclerosis."

Financial support for this research came from National Research, Development and Innovation.

The news reporters obtained a quote from the research from the University of Debrecen, "Discovered first as an esterase that hydrolyze organophosphates, human paraoxonase-1 is bound to high-density lipoprotein and inhibits the oxidation of lipoproteins and reduces the degree of inflammation, hence it is considered to act against atherosclerosis. In contrast, the majority of the adipokines secreted from the enlarged white adipose tissue promote the atherosclerotic process; and altered adipokine secretion is now regarded as one of the major contributors of increased cardiovascular morbidity and mortality in obesity. In this review, we detail the correlations between paraoxonase-1 and some selected adipokines, namely leptin, adiponectin and chemerin. Adipokine imbalance leads to decreased paraoxonase-1 activity that results in enhanced atherosclerosis; therefore, altered adipokine secretion may be predictive of cardiovascular complications in obesity. As an active organ secreting biological active substances, white adipose tissue may also act as a 'fine-tuner' of immune and endocrine actions attenuating or enhancing reactions triggered by pathogens, inflammation and metabolic stimuli; and obesity, as a chronic noxious state may perturb the proper functioning of this fine-tuning process."

According to the news reporters, the research concluded: "Further investigations are of major importance to elucidate the associations between adipokines and paraoxonase-1 and to establish accurate interventions against obesity-related disorders."

For more information on this research see: Paraoxonase-1 and adipokines: Potential links between obesity and atherosclerosis. Chemico-Biological Interactions, 2016;259():388-393. Chemico-Biological Interactions can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Chemico-Biological Interactions - www.journals.elsevier.com/chemico-
Drugs and Therapies - Antineoplastics

Reports from University of Dundee Describe Recent Advances in Antineoplastics (The Role of Folate Transport in Antifolate Drug Action in Trypanosoma brucei)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antineoplastics have been presented. According to news originating from Dundee, United Kingdom, by NewsRx correspondents, research stated, "The aim of this study was to identify and characterize mechanisms of resistance to antifolate drugs in African trypanosomes. Genome-wide RNAi library screens were undertaken in bloodstream form Trypanosoma brucei exposed to the antifolates methotrexate and raltitrexed."

Our news journalists obtained a quote from the research from the University of Dundee, "In conjunction with drug susceptibility and folate transport studies, RNAi knockdown was used to validate the functions of the putative folate transporters. The transport kinetics of folate and methotrexate were further characterized in whole cells. RNA interference target sequencing experiments identified a tandem array of genes encoding a folate transporter family, TbFT1-3, as major contributors to antifolate drug uptake. RNAi knockdown of TbFT1-3 substantially reduced folate transport into trypanosomes and reduced the parasite's susceptibility to the classical antifolates methotrexate and raltitrexed. In contrast, knockdown of TKFT1-3 increased susceptibility to the non-classical antifolates pyrimethamine and nolatrexed. Both folate and methotrexate transport were inhibited by classical antifolates but not by non-classical antifolates or biopterin."

According to the news editors, the research concluded: "Thus, TbFT1-3 mediates the uptake of folate and classical antifolates in trypanosomes, and TbFT1-3 loss-of-function is a mechanism of antifolate drug resistance."

Enzymes and Coenzymes - Carboxylic Ester...

Reports from University of Eastern Finland Describe Recent Advances in Carboxylic Ester Hydrolases [In Vivo Characterization of the Ultrapotent Monoacylglycerol Lipase Inhibitor ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - Carboxylic Ester Hydrolases. According to news reporting from Kuopio, Finland, by NewsRx journalists, research stated, "Monoacylglycerol lipase (MAGL) is a serine hydrolase that acts as a principal degradative enzyme for the endocannabinoid 2-arachidonoylglycerol (2-AG). In addition to terminating the signaling function of 2-AG, MAGL liberates arachidonic acid to be used as a primary source for neuroinflammatory prostaglandin synthesis in the brain."

The news correspondents obtained a quote from the research from the University of Eastern Finland, "MAGL activity also contributes to cancer pathogenicity by producing precursors for tumor-promoting bioactive lipids. Pharmacological inhibitors of MAGL provide valuable tools for characterization of MAGL and 2-AG signaling pathways. They also hold great therapeutic potential to treat several pathophysiological conditions, such as pain, neurodegenerative disorders, and cancer. We have previously reported piperidine triazole urea, 4-[bis-(benzo[d][1,3]dioxol-5-yl)methyl]-piperidin-1-yl(1H-1,2,4-triazol-1-yl)methanone (JJKK-048), to be an ultra-potent and highly selective inhibitor of MAGL in vitro. Here, we characterize in vivo effects of JJKK-048. Acute in vivo administration of JJKK-048 induced a massive increase in mouse brain 2-AG levels without affecting brain anandamide levels. JJKK-048 appeared to be extremely potent in vivo. Activity-based protein profiling revealed that JJKK-048 maintains good selectivity toward MAGL over other serine hydrolases. Our results are also the first to show that JJKK-048 promoted significant analgesia in a writhing test with a low dose that did not cause cannabimimetic side effects."

According to the news reporters, the research concluded: "At a high dose, JJKK-048 induced analgesia both in the writhing test and in the tail-immersion test, as well as hypomotility and hyperthermia, but not catalepsy."

For more information on this research see: In Vivo Characterization of the Ultrapotent Monoacylglycerol Lipase Inhibitor 4-[bis-(benzo[d][1,3]dioxol-5-yl)methyl]-piperidin-1-yl(1H-1,2,4-triazol-1-yl)methanone (JJKK-048). Journal of Pharmacology and Experimental Therapeutics, 2016;359(1):62-72. Journal of Pharmacology and Experimental Therapeutics
Reports from University of Exeter Add New Data to Findings in Type 2 Diabetes (beta-cell differentiation status in type 2 diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting from Exeter, United Kingdom, by NewsRx journalists, research stated, "Type 2 diabetes (T2D) affects 415 million people worldwide and is characterized by chronic hyperglycaemia and insulin resistance, progressing to insufficient insulin production, as a result of -cell failure. Over time, chronic hyperglycaemia can ultimately lead to loss of -cell function, leaving patients insulin-dependent."

The news correspondents obtained a quote from the research from the University of Exeter, "Until recently the loss of -cell mass seen in T2D was considered to be the result of increased rates of apoptosis; however, it has been proposed that apoptosis alone cannot account for the extent of -cell mass loss seen in the disease, and that a loss of function may also occur as a result of changes in -cell differentiation status. In the present review, we consider current knowledge of determinants of -cell fate in the context of understanding its relevance to disease process in T2D, and also the impact of a diabeticogenic environment (hyperglycaemia, hypoxia, inflammation and dyslipidaemia) on the expression of genes involved in maintenance of -cell identity. We describe current knowledge of the impact of the diabetic microenvironment on gene regulatory processes such alternative splicing, the expression of disallowed genes and epigenetic modifications."

According to the news reporters, the research concluded: "Elucidating the molecular mechanisms that underpin changes to -cell differentiation status and the concomitant -cell failure offers potential treatment targets for the future management of patients with T2D."

For more information on this research see: beta-cell differentiation status in type 2 diabetes. *Diabetes Obesity & Metabolism*, 2016;18(12):1167-1175. *Diabetes Obesity & Metabolism* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting L.W. Harries, University of Exeter, Sch Med, Inst Biomed & Clin Sci, Dept. of Mol Genet, Exeter, Devon, United Kingdom.

Keywords for this news article include: Exeter, United Kingdom, Europe,
Cyclohexanes

Reports from University of Florida College of Medicine Advance Knowledge in Cyclohexanes (Ketamine suppresses hypoxia-induced inflammatory responses in the late-gestation ovine fetal kidney cortex)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cyclohexanes. According to news originating from Gainesville, Florida, by NewsRx correspondents, research stated, "Acute fetal hypoxia is a form of fetal stress that stimulates renal vasoconstriction and ischaemia as a consequence of the physiological redistribution of combined ventricular output. Because of the potential ischaemia-reperfusion injury to the kidney, we hypothesized that it would respond to hypoxia with an increase in the expression of inflammatory genes, and that ketamine (an N-methyl-D-aspartate receptor antagonist) would reduce or block this response."

Our news journalists obtained a quote from the research from the University of Florida College of Medicine, "Hypoxia was induced for 30 min in chronically catheterized fetal sheep (125 ? 3 days), with or without ketamine (3 mg kg(-1)) administered intravenously to the fetus 10 min prior to hypoxia. Gene expression in fetal kidney cortex collected 24 h after the onset of hypoxia was analysed using ovine Agilent 15.5k array and validated with qPCR and immunohistochemistry in four groups of ewes: normoxic control, normoxia + ketamine, hypoxic control and hypoxia + ketamine (n=3-4 per group). Significant differences in gene expression between groups were determined with t-statistics using the limma package for R (P (<=) 0.05). Enriched biological processes for the 427 upregulated genes were immune and inflammatory responses and for the 946 downregulated genes were metabolic processes. Ketamine countered the effects of hypoxia on upregulated immune/inflammatory responses as well as the downregulated metabolic responses. We conclude that our transcriptomics modelling predicts that hypoxia activates inflammatory pathways and reduces metabolism in the fetal kidney cortex, and ketamine blocks or ameliorates this response."

According to the news editors, the research concluded: "The results suggest that ketamine may have therapeutic potential for protection from ischaemic renal damage."


The news correspondents report that additional information may be obtained from E.I. Chang, Dept. of Physiology and Functional Genomics, University of Florida College of Medicine, Gainesville, FL, 32610-0274, United States. Additional authors for this research include M.A. Zarate, M.B. Rabaglino, E.M. Richards, M. Keller-Wood and C.E. Wood.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1113/JP271066. This DOI is a link to an online electronic document that is either free or for purchase.
Skin Diseases and Conditions - Cholesteatoma

Reports from University of Florida Highlight Recent Findings in Cholesteatoma (Efficacy of Antibiotic Prophylaxis Prior to Tympanoplasty for Contaminated Cholesteatoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Skin Diseases and Conditions - Cholesteatoma. According to news reporting out of Gainesville, Florida, by NewsRx editors, research stated, "To evaluate the efficacy of combined antistaphylococcal and antipseudomonal preoperative antibiotics for preventing surgical site infections following tympanoplasty and mastoidectomy with contaminated cholesteatoma. Retrospective chart review."

Our news journalists obtained a quote from the research from the University of Florida, "Medical records of patients who underwent tympanoplasty +/- mastoidectomy for cholesteatoma were reviewed. Only cases considered to have contaminated or dirty surgical fields were included. The primary outcome measure was occurrence of postoperative surgical site infections, perichondritis, pinna abscess, periotic cellulitis, or periotic abscess requiring systemic antibiotic therapy or surgical intervention. The charts of 326 patients who underwent tympanoplasty +/- mastoidectomy were reviewed. Of those, 195 met inclusion criteria. Preoperative antibiotics included clindamycin and ceftazidime or gentamicin. Patients treated with no per-operative antibiotics had a surgical site infection rate of 11%, and those treated with perioperative antibiotics had a rate of 1% (P = 0.02)."

According to the news editors, the research concluded: "Administration of preoperative antibiotics to cover staphylococcal and pseudomonal species may prevent surgical site infections with tympanoplasty mastoidectomy for contaminated cholesteatoma."


Our news journalists report that additional information may be obtained by contacting P.J. Antonelli, University of Florida, Dept. of Otolaryngol Head & Neck Surg, Gainesville, FL, United States.

Keywords for this news article include: Gainesville, Florida, United States, North and Central America, Chemoprevention, Risk and Prevention, Otologic Surgical Procedures, Skin Diseases and Conditions, Antibiotic Prophylaxis, Antibacterial Agents, Drugs and Therapies, Antimicrobials, Premedication, Mastoidectomy, Tympanoplasty, Cholesteatoma, Antibiotics, Keratosis, Surgery, University of Florida.

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Reports from University of Freiburg Highlight Recent Findings in Antimicrobials (Nonwoven Carboxylated Agarose-Based Fiber Meshes with Antimicrobial Properties)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antimicrobials are discussed in a new report. According to news reporting from Freiburg, Germany, by NewsRx journalists, research stated, "Hydrogel forming polysaccharides, such as the seaweed derived agarose, are well suited for wound dressing applications as they have excellent cell and soft tissue compatibility. For wound dressings, fibrous structure is desirable as the high surface area can favor adsorption of wound exudate and promote drug delivery."

Financial supporters for this research include Albert-Ludwigs-Universitat Freiburg, Deutsche Forschungsgemeinschaft.

The news correspondents obtained a quote from the research from the University of Freiburg, "Although electro-spinning offers a straightforward means to produce nonwoven fibrous polymeric structures, processing agarose and its derivatives into fibers through electrospinning is challenging as it has limited solubility in solvents other than water. In this study we describe the processing of carboxylated agarose (CA) fibers with antibacterial properties by electrospinning from a solution of the ionic liquid (IL) 1-butyl-3-methylimidazolium chloride ([Bmim][Cl--(+)]) possessing antimicrobial properties. The extent of carboxylation was found to impact fiber diameter, mesh elastic modulus, fiber swelling, and the loading and release of IL. IL-bearing CA fibers inhibited the growth of Staphylococcus aureus and Pseudomonas aeruginosa, bacteria commonly found in wound exudate."

According to the news reporters, the research concluded: "In sum, nonwoven CA fibers processed from IL are promising as biomaterials for wound dressing applications."

For more information on this research see: Nonwoven Carboxylated Agarose-Based Fiber Meshes with Antimicrobial Properties. Biomacromolecules, 2016;17(12):4021-4026. Biomacromolecules can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Biomacromolecules - www.pubs.acs.org/journal/bomaf6)

Our news journalists report that additional information may be obtained by contacting V.P. Shastri, University of Freiburg, BIOSS Center Biol Signaling Studies, D-79104 Freiburg, Germany. Additional authors for this research include N. Arya, R. Randriantsilefisoa, F. Miessmer, M. Buck, V. Ahmadi, D. Jonas, A. Blencowe and V.P. Shastri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.biomac.6b01401. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Freiburg, Germany, Europe, Drugs and Therapies, Antimicrobials, University of Freiburg.

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Reports from University of Glasgow Advance Knowledge in Heart Failure (Loop diuretics, renal function and clinical outcome in patients with heart failure and reduced ejection fraction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Failure are presented in a new report. According to news reporting out of Glasgow, United Kingdom, by NewsRx editors, research stated, "We aimed to study the relationships of loop diuretic dose with renal function and clinical outcomes in patients with chronic heart failure (HF). Loop diuretic dose at baseline was recorded in patients included in the Controlled Rosuvastatin Multinational Trial in Heart Failure (CORONA)."

Our news journalists obtained a quote from the research from the University of Glasgow, "The relationship to change in estimated glomerular filtration rate (eGFR) over time and to the first occurrence of the composite outcome of cardiovascular (CV) death or hospitalization owing to HF was examined in propensity score matched cohorts. Of the 5011 patients, 2550, 745, and 449 were receiving >80 mg (high), 41-80 mg (medium) and (<=)40 mg (low) of loop diuretics in furosemide equivalent daily dosages, respectively, which were used to assemble 229, 385, and 1045 pairs of propensity-matched high, medium, and low dose cohorts. Compared with matched no loop diuretic groups, eGFR declined 0.3 ? 0.2, 0.3 ? 0.3 and 1.2 ? 0.5 mL/min/1.73 m(2) /year in the low-, medium-, and high-dose groups, respectively. Compared with matched no loop diuretic groups, hazard ratios (HR) (95% confidence intervals) for outcome associated with low-, medium-and high-dose groups were 1.71 (1.41-2.06), 1.99 (1.50-2.64), and 2.94 (1.95-4.41), respectively. Higher loop diuretic dose was particularly associated with increased risk for hospitalization owing to HF: HR 4.80 (2.75-8.37), p<0.001."

According to the news editors, the research concluded: "The use of loop diuretics was associated with a slightly greater rate of decline in eGFR, which did not vary significantly by diuretic dose. Loop diuretic dose was associated with higher risks of (CV) mortality and predominantly hospitalization owing to HF, which appeared to be higher among those receiving higher daily doses."


Our news journalists report that additional information may be obtained by contacting K. Damman, British Heart Foundation Cardiovascular Research Centre, University of Glasgow, Glasgow, UK. Additional authors for this research include J. Kjekshus, J. Wikstrand, J.G. Cleland, M. Komajda, H. Wedel, F. Waagstein and J.J McMurtry.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ejhf.462. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Glasgow, Cardiology, Nephrology, Heart Disease, Heart Failure, United Kingdom, Renal Function, Kidney Function, Gastroenterology, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Reports from University of Gothenburg Highlight Recent Findings in Colon Cancer (Development and validation of the preparedness for Colorectal Cancer Surgery Questionnaire: PCSQ-pre 24)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting originating in Gothenburg, Sweden, by NewsRx journalists, research stated, "The aims of the study were to develop and psychometrically evaluate a patient-reported outcome instrument for the measurement of preoperative preparedness in patients undergoing surgery for colorectal cancer. This study was conducted in two stages: a) instrument development (item generation, construction of items and domains), empirical verification and b) instrument evaluation."

The news reporters obtained a quote from the research from the University of Gothenburg, "A questionnaire with 28 items measuring preparedness for surgery was developed covering four domains and was tested for content validity with an expert panel and with patients. Psychometric testing of the questionnaire was conducted on 240 patients undergoing elective surgery for colorectal cancer. The scale content validity index of the preparedness items was 0.97. The final version consisted of 24 items measuring 4 subscales: Searching for and making use of information, Understanding and involvement in the care process, Making sense of the recovery process and Support and access to medical care. Confirmatory factor analysis revealed good model fit with standardized factor loadings ranging from 0.58 to 0.97. A well-fitting second-order factor model provided support for a total preparedness score with second-order factor loadings ranging from 0.75 to 0.93. The ordinal alpha values of the four latent factors ranged from 0.92 to 0.96, indicating good internal consistency. The polyserial correlations with the total score were 0.64 (p < 0.01) for the overall preparedness question and 0.37 (p < 0.01) for overall well-being."

According to the news reporters, the research concluded: "The Swedish Preparedness for Colorectal Cancer Surgery Questionnaire for use in the preoperative phase demonstrated good psychometric properties based on a sound conceptualization of preparedness."


Our news correspondents report that additional information may be obtained by contacting E. Carlsson, University of Gothenburg, Center Person Center Care GPCC, Gothenburg, Sweden. Additional authors for this research include M. Pettersson, J. Ohlen, R. Sawatzky, F. Smith and F. Friberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejon.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gothenburg, Sweden, Europe, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Surgery, University of Gothenburg. Our reports deliver fact-based news of research and discoveries from around the
Reports from University of Hong Kong Highlight Recent Findings in Leukemia (Nanomechanical measurement of adhesion and migration of leukemia cells with phorbol 12-myristate 13-acetate treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Leukemia. According to news reporting originating from Hong Kong, People's Republic of China, by NewsRx correspondents, research stated, "The adhesion and traction behavior of leukemia cells in their microenvironment is directly linked to their migration, which is a prime issue affecting the release of cancer cells from the bone marrow and hence metastasis. In assessing the effectiveness of phorbol 12-myristate 13-acetate (PMA) treatment, the conventional batch-cell transwell-migration assay may not indicate the intrinsic effect of the treatment on migration, since the treatment may also affect other cellular behavior, such as proliferation or death."

Our news editors obtained a quote from the research from the University of Hong Kong, "In this study, the pN-level adhesion and traction forces between single leukemia cells and their microenvironment were directly measured using optical tweezers and traction-force microscopy. The effects of PMA on K562 and THP1 leukemia cells were studied, and the results showed that PMA treatment significantly increased cell adhesion with extracellular matrix proteins, bone marrow stromal cells, and human fibroblasts. PMA treatment also significantly increased the traction of THP1 cells on bovine serum albumin proteins, although the effect on K562 cells was insignificant. Western blots showed an increased expression of E-cadherin and vimentin proteins after the leukemia cells were treated with PMA. The study suggests that PMA upregulates adhesion and thus suppresses the migration of both K562 and THP1 cells in their microenvironment."

According to the news editors, the research concluded: "The ability of optical tweezers and traction-force microscopy to measure directly pN-level cell-protein or cell-cell contact was also demonstrated."

For more information on this research see: Nanomechanical measurement of adhesion and migration of leukemia cells with phorbol 12-myristate 13-acetate treatment. *International Journal of Nanomedicine*, 2016;11():6533-6545. *International Journal of Nanomedicine* can be contacted at: Dove Medical Press Ltd, PO Box 300-008, Albany, Auckland 0752, New Zealand.

The news editors report that additional information may be obtained by contacting Z.L. Zhou, University of Hong Kong, Dept. of Mech Engn, Hong Kong, Hong Kong, People's Republic of China. Additional authors for this research include J. Ma, M.H. Tong, B.P. Chan, A.S.T. Wong and A.H.W. Ngan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/IJN.S118065. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Emerging Technologies, Nanomechanical, Nanotechnology, Immune System, Bone Research, Bone Marrow, Hematology, Leukemia, Oncology, University of Hong Kong.

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Reports from University of Illinois Advance Knowledge in Charcot-Marie-Tooth Disease (Bicyclic-Capped Histone Deacetylase 6 Inhibitors with Improved Activity in a Model of Axonal Charcot-Marie-Tooth Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nervous System Diseases and Conditions - Charcot-Marie-Tooth Disease are discussed in a new report. According to news reporting originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Charcot-Marie-Tooth (CMT) disease is a disorder of the peripheral nervous system where progressive degeneration of motor and sensory nerves leads to motor problems and sensory loss and for which no pharmacological treatment is available. Recently, it has been shown in a model for the axonal form of CMT that histone deacetylase 6 (HDAC6) can serve as a target for the development of a pharmacological therapy."


Our news editors obtained a quote from the research from the University of Illinois, "Therefore, we aimed at developing new selective and activity-specific HDAC6 inhibitors with improved biochemical properties. By utilizing a bicyclic cap as the structural scaffold from which to build upon, we developed several analogues that showed improved potency compared to tubastatin A while maintaining excellent selectivity compared to HDAC1. Further screening in N2a cells examining both the acetylation of α-tubulin and histones narrowed down the library of compounds to three potent and selective HDAC6 inhibitors. In mutant HSPB1-expressing DRG neurons, serving as an in vitro model for CMT2, these inhibitors were able to restore the mitochondrial axonal transport deficits."

According to the news editors, the research concluded: "Combining structure-based development of HDAC6 inhibitors, screening in N2a cells and in a neuronal model for CMT2F, and preliminary ADMET and pharmacokinetic profiles, resulted in the selection of compound 23d that possesses improved biochemical, functional, and druglike properties compared to tubastatin A."

For more information on this research see: Bicyclic-Capped Histone Deacetylase 6 Inhibitors with Improved Activity in a Model of Axonal Charcot-Marie-Tooth Disease. AcS Chemical Neuroscience, 2015;7(2):240-58. (American Chemical Society - www.acs.org; Acs Chemical Neuroscience - www.pubs.acs.org/journal/acnedm)

The news editors report that additional information may be obtained by contacting S. Shen, Drug Discovery Program, University of Illinois at Chicago, 833 S Wood St, Chicago, Illinois 60612, United States. Additional authors for this research include V. Benoy, J.A. Bergman, J.H. Kalin, M. Frojuello, G. Vistoli, W. Haecck, L. Van Den Bosch and A.P Kozikowski.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1021/acschemneuro.5b00286. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Therapy, Illinois, Dentistry, Biochemicals, Biochemistry, Pharmacology, United States, Nucleoproteins, Amidohydrolases, Polyneuropathies, Histone Deacetylases, Enzymes and Coenzymes, Congenital Abnormalities, North and Central America, Diagnostics and Screening, Charcot Marie Tooth Disease.

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Enzymes and Coenzymes - Ligases

Reports from University of Illinois Advance Knowledge in Ligases (The mitochondrial ubiquitin ligase plays an anti-apoptotic role in cardiomyocytes by regulating mitochondrial fission)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Ligases have been published. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "Apoptosis plays a critical role in the development of myocardial infarction. Cardiomyocytes are enriched with mitochondria and excessive mitochondrial fission can trigger cellular apoptosis."

Financial supporters for this research include National Institutes of Health, American Cancer Society.

Our news journalists obtained a quote from the research from the University of Illinois, "Recently, the mitochondrial ubiquitin ligase (MITOL), localized in the mitochondrial outer membrane, was reported to play an important role in the regulation of mitochondrial dynamics and apoptosis. However, the underlying mechanism of its action remains uncertain. The present study was aimed at uncovering the role of MITOL in the regulation of cardiomyocyte apoptosis. Our results showed that MITOL expression was up-regulated in cardiomyocytes in response to apoptotic stimulation. Mitochondrial ubiquitin ligase overexpression blocked dynamin-related protein 1 accumulation in the mitochondria, and attenuated the mitochondrial fission induced by hydrogen peroxide. Conversely, MITOL knockdown sensitized cardiomyocytes to undergo mitochondrial fission, resulting in subsequent apoptosis."

According to the news editors, the research concluded: "These findings suggest that MITOL plays a protective role against apoptosis in cardiomyocytes, and may serve as a potential therapeutic target for apoptosis-related cardiac diseases."


Our news journalists report that additional information may be obtained by contacting P.F. Li, University of Illinois, Coll Med, Dept. of Microbiol & Immunol, Chicago, IL 60612, United States. Additional authors for this research include L.H.H. Aung, B.S. Prabhakar and P.F. Li.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jcmm.12914. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Enzymes and Coenzymes, Cardiomyocyte, Ubiquitins, Cardiology, Apoptosis, Proteins, Ligases, University of Illinois.

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Clinical Research - Clinical Trials and Studies

Reports from University of Illinois Describe Recent Advances in Clinical Trials and Studies (A Meta-Intervention to Increase Completion of an HIV-Prevention Intervention: Results From a Randomized Controlled Trial in the State of Florida)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news originating from Champaign, Illinois, by NewsRx correspondents, research stated, "A randomized control trial with 722 eligible clients from a health department in the State of Florida was conducted to identify a simple, effective meta-intervention to increase completion of an HIV-prevention counseling program. The overall design involved 2 factors representing an empowering and instrumental message, as well as an additional factor indicating presence or absence of expectations about the counseling."

Our news journalists obtained a quote from the research from the University of Illinois, "Completion of the 3-session counseling was determined by recording attendance. A logistic regression analysis with the 3 factors of empowering message, instrumental message, and presence of mediator measures, as well as all interactions, revealed significant interactions between instrumental and empowering messages and between instrumental messages and presence of mediator measures. Results indicated that (a) the instrumental message alone produced most completion than any other message, and (b) when mediators were not measured, including the instrumental message led to greater completion. The overall gains in completion as a result of the instrumental message were 16%, implying success in the intended facilitation of counseling completion."

According to the news editors, the research concluded: "The measures of mediators did not detect any experimental effects, probably because the effects were happening without much conscious awareness."


The news correspondents report that additional information may be obtained from D. Albarracin, University of Illinois, Dept. of Psychol & Mkt, Champaign, IL 61820, United States. Additional authors for this research include K. Wilson, M.R. Durantini, A. Sunderrajan and W.
Oncology - Colon Cancer

Reports from University of Kansas Provide New Insights into Colon Cancer (Prevalence and survival benefit of adjuvant chemotherapy in stage III colon cancer patients: Comparison of overall and age-stratified results by multivariable modeling ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting from Kansas City, Kansas, by NewsRx journalists, research stated, "Few population-based studies have assessed the effectiveness of adjuvant chemotherapy (ACT) in stage III colon cancer patients according to age. We sought to quantify the prevalence of ACT use and the absolute and relative survival benefit of ACT overall and by age in a population-based cohort."

The news correspondents obtained a quote from the research from the University of Kansas, "Stage III patients with adenocarcinoma of the colon identified by the Georgia Comprehensive Cancer Registry for the years 2000-07 were eligible (final N = 3057). We utilized Poisson regression to obtain adjusted mortality rates (MR) and Cox proportional hazards models to obtain adjusted hazard ratios (HRs) for 5-year overall survival. We evaluated control of confounding by comparing HRs obtained via multivariable modeling (MM), propensity score weighting (PSW), and propensity score matching (PSM). Just over one-third of colon cancer patients did not receive ACT, and the proportion increased with age. Overall, receipt of ACT conferred an absolute (MR difference [No ACT rate-ACT rate] 25.4 deaths/1000 person-years [py], 95% confidence interval [CI]: 19.1-32.7 deaths/1000 py) and relative (MM HR = 0.67, 95% CI: 0.59-0.76) survival benefit. The survival benefit was demonstrated across age groups. MM and propensity score methods yielded highly similar HRs."

According to the news reporters, the research concluded: "Unless contraindicated, efforts to ensure receipt of ACT for stage III colon cancer patients up to 84 years of age are needed to improve the prognosis of patients with node-positive disease."

For more information on this research see: Prevalence and survival benefit of adjuvant chemotherapy in stage III colon cancer patients: Comparison of overall and age-stratified results by multivariable modeling and propensity score methodology in a population-based cohort. Cancer Epidemiology, 2016;44():77-83. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news journalists report that additional information may be obtained by contacting R.B. Hines, University of Kansas, Medical Center, Kansas City, KS 66103, United
States. Additional authors for this research include M. Bimali, A.M. Johnson, A.R. Bayakly and T.C. Collins.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.08.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kansas City, Kansas, United States, North and Central America, Combined Modality Therapy, Adjuvant Chemotherapy, Cancer, Epidemiology, Drugs and Therapies, Colon Cancer, Oncology, University of Kansas.

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Angiology - Blood Coagulation and Fibrinolysis

Reports from University of Karachi Highlight Recent Findings in Blood Coagulation and Fibrinolysis [Anticoagulant, antiplatelet and antianemic effects of Punica granatum (pomegranate) juice in rabbits]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Angiology - Blood Coagulation and Fibrinolysis. According to news reporting originating in Karachi, Pakistan, by NewsRx journalists, research stated, "Pomegranate (Punica granatum L., Punicaceae) is a good source of minerals and phytochemicals with diverse pharmacological activities such as anxiolytic, antidepressant, hypoglycemic, hypolipidemic, and anti-inflammatory activities. Effects of P. granatum on blood parameters and coagulation have, however, been little studied. The aim of the study was to assess the outcome of P. granatum on coagulation and anticoagulation factors at different doses on blood samples of healthy white rabbits."

The news reporters obtained a quote from the research from the University of Karachi, "Blood samples of the animals were collected twice during the study and biochemical assays were performed to assess the effect on hematological, coagulation, anticoagulation, and platelet aggregation. Significant changes were observed in erythrocytes, hemoglobin, and mean corpuscular hemoglobin concentration, while bleeding and thrombin time were also prolonged significantly. There was significant increase in protein C, thrombin antithrombin complex levels, and decrease in platelet aggregation and fibrinogen concentration, in a dose-dependent manner."

According to the news reporters, the research concluded: "The results of hematological and coagulation assays lead to the speculation about a possible antianemic and cardioprotective effect of P."

For more information on this research see: Anticoagulant, antiplatelet and antianemic effects of Punica granatum (pomegranate) juice in rabbits. Blood Coagulation & Fibrinolysis, 2016;27(3):287-93. (Lippincott Williams and Wilkins - www.lww.com; Blood Coagulation & Fibrinolysis - journals.lww.com/bloodcoagulation/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting A. Riaz, Dept. of Pharmacology, Faculty of Pharmacy and Pharmaceutical Sciences, University of Karachi, Karachi, Pakistan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MBC.0000000000000415. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Asia, Karachi, Pakistan, Angiology, Blood Coagulation and Fibrinolysis.

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Neurodegenerative Diseases and Conditions - Motor...

Reports from University of Kebangsaan Advance Knowledge in Motor Neuron Disease (Cell-based therapies for amyotrophic lateral sclerosis/motor neuron disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Neurodegenerative Diseases and Conditions - Motor Neuron Disease are discussed in a new report. According to news reporting from Kuala Lumpur, Malaysia, by NewsRx journalists, research stated, "Amyotrophic lateral sclerosis (ALS), which is also known as motor neuron disease (MND) is a fatal disease associated with rapidly progressive disability, for which no definitive treatment as yet exists. Current treatment regimens largely focus on relieving symptoms to improve the quality of life of those affected."

The news correspondents obtained a quote from the research from the University of Kebangsaan, "Based on data from preclinical studies, cell-based therapy is a promising treatment for ALS/MND. To assess the effects of cell-based therapy for people with ALS/MND, compared with placebo or no additional treatment. Search methods On 21 June 2016, we searched the Cochrane Neuromuscular Specialised Register, CENTRAL, MEDLINE, and Embase. We also searched two clinical trials' registries for ongoing or unpublished studies. Selection criteria We planned to include randomised controlled trials (RCTs), quasi-RCTs and cluster RCTs that assigned people with ALS/MND to receive cell-based therapy versus a placebo or no additional treatment. Co-interventions were allowable, provided that they were given to each group equally. Data collection and analysis We followed standard Cochrane methodology. No studies were eligible for inclusion in the review. We identified four ongoing trials. Authors' conclusions Currently, there is a lack of high-quality evidence to guide practice on the use of cell-based therapy to treat ALS/MND. We need large, prospective RCTs to establish the efficacy of cellular therapy and to determine patient-, disease-and cell treatment-related factors that may influence the outcome of cell-based therapy. The major goals of future research should be to determine the appropriate cell source, phenotype, dose, and route of delivery, as these will be key elements in designing an optimal cell-based therapy programme for people with ALS/MND."

According to the news reporters, the research concluded: "Future research should also explore novel treatment strategies, including combinations of cellular therapy and standard or novel neuroprotective agents, to find the best possible approach to prevent or reverse the neurological deficit in ALS/MND, and to prolong survival in this debilitating and fatal condition."

For more information on this research see: Cell-based therapies for amyotrophic lateral sclerosis/motor neuron disease. Cochrane Database of Systematic Reviews, 2016; (11):2203-2236. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting S.F.A. Wahid, Univ Kebangsaan Malaysia, Medical Center, Dept. of Med, Stem Cell Transplantat Serv, Kuala Lumpur, Malaysia. Additional authors for this research include Z.K.
Reports from University of Kerala Provide New Insights into Atherosclerosis (Quercetin attenuates atherosclerotic inflammation and adhesion molecule expression by modulating TLR-NF-kappa B signaling pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Atherosclerosis are discussed in a new report. According to news originating from Thiruvananthapuram, India, by NewsRx correspondents, research stated, "Adhesion molecules expressed by activated endothelial cells play key role in regulating leukocyte trafficking to sites of inflammation. The present study attempted to explore whether the polyphenolic flavonoid quercetin influence leukocyte endothelial attraction and the involvement of TLR-NF-kappa B signaling pathway in the expression of adhesion molecules involved in the early development of atherosclerosis."

Our news journalists obtained a quote from the research from the University of Kerala, "Quercetin at 25 mu M concentration significantly reduced the HUVEC expression of VCAM-1 and ICAM-1 evidently enhanced by oxLDL. In addition, quercetin significantly downregulated the mRNA expression of MCP-1 and alleviated the nuclear translocation of NF-kappa B p65 subunit in oxLDL induced HUVECs. Western blot and PCR analyses revealed that quercetin significantly attenuated the expression of both protein and mRNA expression of TLR2 and TLR4. Quercetin supplementation significantly decreased the inflammatory mediators like COX, 5-LOX, MPO, NOS, CRP and the mRNA expression of the cytokine; IL-6 in hypercholesterolemic diet (HCD) fed atherosclerotic rats. The results demonstrate that quercetin is effective to regulate the atherosclerotic inflammatory process by inhibiting oxLDL induced endothelial leukocyte adhesion by attenuating the TLR-NF-kappa B signaling pathway in endothelial cells and decrease the inflammatory process induced by HCD in rats."

According to the news editors, the research concluded: "Therefore, quercetin acts as anti-inflammatory and anti-atherogenic agent, which may have implications for strategies attenuating endothelial dysfunction-related atherosclerosis."

For more information on this research see: Quercetin attenuates atherosclerotic inflammation and adhesion molecule expression by modulating TLR-NF-kappa B signaling pathway. Cellular Immunology, 2016;310():131-140. Cellular Immunology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Cellular Immunology - www.journals.elsevier.com/cellular-immunology/)
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Heart Disorders and Diseases - Heart Attack

Reports from University of Ljubljana Advance Knowledge in Heart Attack (Cross-talk between the dipeptidyl peptidase-4 and stromal cell-derived factor-1 in stem cell homing and myocardial repair: Potential impact of dipeptidyl peptidase-4 ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting from Ljubljana, Slovenia, by NewsRx journalists, research stated, "Dipeptidyl peptidase-4 (DPP-4), glycyl-prolyl-naphthylamidase, is a serine protease that catalyzes the hydrolysis of various proline-containing polypeptides. It is involved in the inactivation of glucagon-like peptide-1 (GLP-1) and glucose-dependent insulinotropic polypeptide (GIP), having in this way a profound influence on glucose metabolism."

Funders for this research include Ministry of Education, Science and Technological Development of the Republic of Serbia, Slovenian Research Agency.

The news correspondents obtained a quote from the research from the University of Ljubljana, "During organ damage, stromal and endothelial cells produce a chemokine known as stromal cell-derived factor-1 (SDF-1), a powerful chemoattractant of stem/progenitor cells. SDF-1 binds to a specific α-chemokine receptor (CXCR4) and can be degraded by proteases, including matrix DPP-4/CD26, presented in the circulation, or activated in injured tissues. DPP-4 inhibition has received considerable attention because of its significant therapeutic benefits in the regulation of insulin secretion and tissue insulin sensitivity, the regulation of tumor growth and metastasis, angiogenesis, tissue repair, especially after myocardial infarction, and regulation of endocrine function. Inhibition of circulating proteases appears to maintain the optimal endogenous SDF-1 concentration and may enhance homing of endothelial progenitor cells. In the present article, we present an overview of some basic facts about the role of DPP-4 in glucose homeostasis, the mechanism of its inhibition, and a brief summary of available DPP-4 inhibitors."

According to the news reporters, the research concluded: "Furthermore, since protection against the overactivity of proteases is important for restoring cardiac function and repair after myocardial damage, necrosis and apoptosis, we propose that administration of a DPP-4 inhibitor may also be beneficial following myocardial infarction by the prevention of cleavage of stem cell chemoattractant cytokine SDF-1."

For more information on this research see: Cross-talk between the dipeptidyl peptidase-4 and stromal cell-derived factor-1 in stem cell homing and myocardial repair:

Our news journalists report that additional information may be obtained by contacting M. Anderluh, Univ Ljubljana, Fac Pharm, Dept. of Pharmaceut Chem, SI-1000 Ljubljana, Slovenia. Additional authors for this research include G. Kocic, K. Tomovic, R. Kocic, M. Deljanin-Ilic and A. Smelcetovic.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pharmthera.2016.07.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ljubljana, Slovenia, Europe, Vascular Diseases and Conditions, Heart Disorders and Diseases, Protease, Article Review, Connective Tissue Cells, Inflammation Mediators, Enzymes and Coenzymes, Myocardial Infarction, Dipeptidyl Peptidase, Myocardial Ischemia, Stem Cell Research, Biological Factors, Peptide Proteins, Peptide Hormones, Stromal Cells, Heart Disease, Heart Attack, Proteomics, Proinsulin, Chemokines, University of Ljubljana.

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**Oncology - Breast Cancer**

**Reports from University of Macau Add New Data to Findings in Breast Cancer (A Novel Danshensu Derivative Prevents Cardiac Dysfunction and Improves the Chemotherapeutic Efficacy of Doxorubicin in Breast Cancer Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting out of Macao, People's Republic of China, by NewsRx editors, research stated, "Doxorubicin (Dox) is an anthracycline antibiotic widely used in clinics as an anticancer agent. However, the use of Dox is limited by its cardiotoxicity."

Funders for this research include Research Committee of University of Macau, The Hong Kong Polytechnic University.

Our news journalists obtained a quote from the research from the University of Macau, "We have previously shown that a Danshensu (DSS) derivative, ADTM, displayed strong cardioprotective effects. With improved chemical stability and activity, a novel DSS derivative, D006, based on the structure of ADTM, was synthesized. In the present study, the protective effects of D006, indexed by attenuation of the cardiotoxicity induced by Dox as well as chemosensitizing effects that increase the antitumor activity of Dox, were investigated. Our results showed that D006 was more potent than either parental compound, or their use in combination, in ameliorating Dox-induced toxicity in H9c2 cells. In our zebrafish model, D006, but not DSS, alone significantly preserved the ventricular function of zebrafish after Dox treatment. Moreover, D006 upregulated mitochondrial biogenesis and increased mtDNA copy number after Dox treatment of H9c2 cells. D006 promoted the expression of HO-1 protein in a time-dependent manner while the HO-1 inhibitor, Znpp, reversed the protective effects of D006."
In human breast tumor MCF-7 cells, D006 enhanced Dox-induced cytotoxicity by increasing apoptosis."

According to the news editors, the research concluded: "Our results indicate that a new DSS derivative exhibits promising protective effects against Dox-induced cardiotoxicity both in vivo and in vitro, an effect at least partially mediated by induction of HO-1 expression and the activation of mitochondrial biogenesis. Meanwhile, D006 also potentiated the anti-cancer effects of Dox in breast tumor cells."


Our news journalists report that additional information may be obtained by contacting L. Wang, State Key Laboratory of Quality Research in Chinese Institute of Chinese Medical Sciences, University of Macau, Macao, People's Republic of China. Additional authors for this research include X. Zhang, J.Y. Chan, L. Shan, G. Cui, Q. Cui, Y. Wang, J. Li, H. Chen, Q. Zhang, P. Yu, Y. Han, Y. Wang and S.M Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcb.25253. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Macao, Oncology, Cardiology, Breast Cancer, Women's Health, People's Republic of China.

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**Immunology - Granulocytes**

**Reports from University of Manchester Add New Data to Findings in Granulocytes (The Associations of Blood Kidney Injury Molecule-1 and Neutrophil Gelatinase-Associated Lipocalin with Progression from CKD to ESRD)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology - Granulocytes have been presented. According to news reporting from Salford, United Kingdom, by NewsRx journalists, research stated, "Elevated levels of urinary kidney injury molecule-1 and neutrophil gelatinase-associated lipocalin are associated with negative outcomes in CKD. Our study aimed to explore the prognostic accuracy of blood levels of kidney injury molecule-1 and neutrophil gelatinase-associated lipocalin for progression to ESRD, major adverse cardiovascular events, and death in a large cohort of adult patients with all cause nondialysis-dependent CKD stages 3-5."

The news correspondents obtained a quote from the research from the University of Manchester, "We considered whether these factors improve prediction in relation to traditional biomarkers and clinical parameters. & measurements Kidney injury molecule-1 and neutrophil gelatinase-associated lipocalin were measured on baseline plasma samples from 1982 patients who were recruited to the Chronic Renal Insufficiency Standards Implementation Study between the start of June of 2002 and the start of June of 2013. Associations with study end points were assessed using Cox regression models, receiver operator characteristic curve analyses, and
reclassification statistics. Over a median follow-up of 29.5 months (interquartile range, 14.9-53.5), 21.6% of patients progressed to ESRD, 27% died, and 6.6% suffered a major adverse cardiovascular event. Higher blood levels of kidney injury molecule-1 and neutrophil gelatinase-associated lipocalin were independently associated with a greater risk for ESRD (hazard ratio, 1.25; 95% confidence interval, 1.10 to 1.43; P<0.001 and hazard ratio, 1.35; 95% confidence interval, 1.14 to 1.59; P<= 0.001, respectively, per 1 SD higher biomarker concentration). There was no association with risk for cardiovascular events or death. The addition of biomarkers to our baseline risk model of traditional clinical characteristics and laboratory parameters did not significantly improve model discrimination or risk reclassification. In patients with moderate to severe CKD, kidney injury molecule-1 and neutrophil gelatinase, associated lipocalin blood levels are independent risk factors for progression to ESRD."

According to the news reporters, the research concluded: "Additional studies are needed to establish the utility and cost-effectiveness of these novel biomarkers in the clinical setting."

For more information on this research see: The Associations of Blood Kidney Injury Molecule-1 and Neutrophil Gelatinase-Associated Lipocalin with Progression from CKD to ESRD. Clinical Journal of the American Society of Nephrology, 2016;11(12):2141-2149. Clinical Journal of the American Society of Nephrology can be contacted at: Amer Soc Nephrology, 1725 I St, Nw Ste 510, Washington, DC 20006, USA.

Our news journalists report that additional information may be obtained by contacting H.V. Alderson, University of Manchester, Salford Royal Natl Hlth Serv Fdn Trust, Manchester Academy Hlth Sci Center, Vasc Res Grp, Salford, Lancs, United Kingdom. Additional authors for this research include J.P. Ritchie, S. Pagano, R.J. Middleton, M. Pruijm, N. Vuilleumier and P.A. Kalra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2215/CJN.02670316. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salford, United Kingdom, Europe, Cardiology, Risk and Prevention, Hemic and Immune Systems, Metalloendopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Carrier Proteins, Cardiovascular, Granulocytes, Gelatinases, Blood Cells, Neutrophils, Lipocalins, Immunology, Phagocytes, University of Manchester.

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and transgenic mice overexpressing the human A53T mutation to α-synuclein to examine the influence of increased Fe (days 10-17 postpartum) on the parkinsonian development phenotype of these animals (including abnormal nigral Fe levels and deficits in both cell numbers and locomotor activity), and to explore the impact of the Fe chelator clioquinol in the model."

Financial supporters for this research include National Health and Medical Research Council, Australian Research Council.

Our news journalists obtained a quote from the research from the University of Melbourne, "Both untreated and Fe-loaded A53T mice showed similar levels of nigral cell loss, though 5 months of clioquinol treatment was only able to prevent the loss in the non-Fe-loaded A53T group. Iron levels in the Fe-loaded A53T mice returned to normal at 8 months, though effects of dopamine denervation remained, demonstrated by limited locomotor activity and sustained neuron loss."

According to the news editors, the research concluded: "These data suggest that Fe exposure during a critical developmental window, combined with the overexpression mutant α-synuclein, presents a disease phenotype resistant to intervention using clioquinol later in life."


Our news journalists report that additional information may be obtained by contacting J.L. Billings, The Florey Institute of Neuroscience and Mental Health, The University of Melbourne, Parkville, Victoria 3052, Australia. Additional authors for this research include D.J. Hare, M. Nurjono, I. Volitakis, R.A. Cherny, A.I. Bush, P.A. Adlard and D.I. Finkelstein.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschemneuro.5b00305. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Parkville, Synucleins, Nerve Tissue Proteins, Parkinsonian Disorders, Australia and New Zealand, Musculoskeletal Diseases and Conditions.

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Michigan, "Clonogenic survival assays were used to quantitate the radiosensitivity of cell lines at baseline and after MELK inhibition. The effect of MELK knockdown on DNA damage repair kinetics was determined using gamma H2AX staining. The in vivo effect of MELK knockdown on radiosensitivity was performed using mouse xenograft models. Kaplan-Meier analysis was used to estimate local control and survival information, and a Cox proportional hazards model was constructed to identify potential factors impacting local recurrence-free survival. MELK expression is significantly elevated in breast cancer tissues compared with normal tissue as well as in TNBC compared with non-TNBC. MELK RNA and protein expression is significantly correlated with radioresistance in breast cancer cell lines. Inhibition of MELK (genetically and pharmacologically) induces radiation sensitivity in vitro and significantly delayed tumor growth in vivo in multiple models. Kaplan-Meier survival and multivariable analyses identify increasing MELK expression as being the strongest predictor of radioresistance and increased local recurrence in multiple independent datasets. Here, we identify MELK as a potential biomarker of radioresistance and target for radiosensitization in TNBC."

According to the news editors, the research concluded: "Our results support the rationale for developing clinical strategies to inhibit MELK as a novel target in TNBC."

For more information on this research see: Maternal Embryonic Leucine Zipper Kinase (MELK) as a Novel Mediator and Biomarker of Radioresistance in Human Breast Cancer. Clinical Cancer Research, 2016;22(23):5864-5875. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/

The news editors report that additional information may be obtained by contacting C. Speers, University of Michigan, Dept. of Radiat Oncol, Ann Arbor, MI 48109, United States. Additional authors for this research include S.G. Zhao, V. Kothari, A. Santola, M.L. Liu, K. Wilder-Romans, J. Evans, N. Batra, H. Bartelink, D.F. Hayes, T.S. Lawrence, P.H. Brown, L.J. Pierce and F.Y. Feng.

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Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Branched-Chain Amino Acids, Enzymes and Coenzymes, Essential Amino Acids, Protein Expression, Women's Health, Breast Cancer, Proteomics, Oncology, Genetics, Leucine, Kinase, University of Michigan.

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Bone Research

Reports from University of Michigan Describe Recent Advances in Bone Research (FAK Promotes Osteoblast Progenitor Cell Proliferation and Differentiation by Enhancing Wnt Signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Bone Research are presented in a new report. According to news originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "Decreased bone formation is often associated with increased bone marrow adiposity. The
molecular mechanisms that are accountable for the negative correlation between bone mass and bone marrow adiposity are incompletely understood.

Our news journalists obtained a quote from the research from the University of Michigan, "Focal adhesion kinase (FAK) has critical functions in proliferation and differentiation of many cell types; however, its roles in osteoblast lineage cells are largely unknown. We show herein that mice lacking FAK in Osterix-expressing cells exhibited decreased osteoblast number and low bone mass as well as increased bone marrow adiposity. The decreased bone mass in FAK-deficient mice was accounted for by decreased proliferation, compromised osteogenic differentiation, and increased adipogenic differentiation of bone marrow Osterix-expressing cells resulting from downregulation of Wnt/-catenin signaling due to the reduced expression of canonical Wnt ligands."

According to the news editors, the research concluded: "In contrast, FAK loss in calvarial preosteoblasts had no adverse effect on their proliferation and osteogenic differentiation and these cells had intact Wnt/-catenin signaling."


The news correspondents report that additional information may be obtained from F. Liu, University of Michigan, Sch Dental, Div Prosthodont, Ann Arbor, MI 48109, United States. Additional authors for this research include H.B. Yuan, L. Wang, X.X. Wei, L. Williams, P.H. Krebsbach, J.L. Guan and F. Liu.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Connective Tissue Cells, Focal Adhesion Kinase, Cell Proliferation, Immune System, Bone Research, Bone Marrow, Osteoblasts, Proteins, University of Michigan.

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Drugs and Therapies - Antiretrovirals

Reports from University of Missouri Highlight Recent Findings in Antiretrovirals (Tenofovir Containing Thiolated Chitosan Core/Shell Nanofibers: In Vitro and in Vivo Evaluations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antiretrovirals have been presented. According to news reporting originating from Kansas City, Missouri, by NewsRx correspondents, research stated, "It is hypothesized that thiolated chitosan (TCS) core/shell nanofibers (NFs) can enhance the drug loading of tenofovir, a model low molecular weight and highly water-soluble drug molecule, and improve its mucoadhesivity and in vivo safety. To test this hypothesis, poly(ethylene oxide) (PEO) core with TCS and polylactic acid (PLA) shell NFs are fabricated by a coaxial electrospinning technique."

Financial support for this research came from National Institute of Allergy and Infectious Diseases.
Our news editors obtained a quote from the research from the University of Missouri, "The morphology, drug loading, drug release profiles, cytotoxicity and mucoadhesion of the NFs are analyzed using scanning and transmission electron microscopies, liquid chromatography, cytotoxicity assays on VK2/E6E7 and End1/E6E7 cell lines and Lactobacilli crispatus, fluorescence imaging and periodic acid colorimetric method, respectively. In vivo safety studies are performed in C57BL/6 mice followed by H&E and immunohistochemical (CD45) staining analysis of genital tract. The mean diameters of PEO, PEO/TCS, and PEO/TCS-PLA NFs are 118.56, 9.95, and 99.53 nm, respectively. The NFs exhibit smooth surface. The drug loading (13%-25%, w/w) increased by 10-fold compared to a nanoparticle formulation due to the application of the electrospinning technique. The NFs are noncytotoxic at the concentration of 1 mg/mL. The PEO/TCS-PLA core/shell NFs mostly exhibit a release kinetic following Weibull model (r(2) = 0.9914), indicating the drug release from a matrix system. The core/shell NFs are 40-60-fold more bioadhesive than the pure PEO based NFs. The NFs are nontoxic and noninflammatory in vivo after daily treatment for up to 7 days."

According to the news editors, the research concluded: "Owing to their enhanced drug loading and preliminary safety profile, the TCS core/shell NFs are promising candidates for the topical delivery of HIV/AIDS microbicides such as tenofovir."

For more information on this research see: Tenofovir Containing Thiolated Chitosan Core/Shell Nanofibers: In Vitro and in Vivo Evaluations. *Molecular Pharmaceutics*, 2016;13 (12):4129-4140. *Molecular Pharmaceutics* can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news editors report that additional information may be obtained by contacting B.B.C. Youan, University of Missouri, Div Pharmaceut Sci, Lab Future Nanomed & Theoret Chronopharmaceut, Kansas City, MO 64108, United States. Additional authors for this research include V. Agrahari, M.J. Ezoulin, C. Zhang, S.S. Purohit, A. Molteni, D. Dim, N.A. Oyler and B.B.C. Youan.

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Keywords for this news article include: Kansas City, Missouri, United States, North and Central America, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Emerging Technologies, Drugs and Therapies, Antiretrovirals, Antiinfectives, Nanotechnology, Antivirals, Tenofovir, Nanofiber, University of Missouri.

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**Cardiology**

**Reports from University of Montpellier Describe Recent Advances in Cardiology (Inter-individual variability and modeling of electrical activity: a possible new approach to explore cardiac safety?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news reporting originating in Montpellier, France, by NewsRx journalists, research stated, "Safety pharmacology aims to predict rare side effects of new drugs. We explored whether rare pro-
arrhythmic effects could be linked to the variability of the effects of these drugs on ion currents and whether taking into consideration this variability in computational models could help to better detect and predict cardiac side effects."

The news reporters obtained a quote from the research from the University of Montpellier, "For this purpose, we evaluated how intra-and inter-individual variability influences the effect of hERG inhibition on both the action potential duration and the occurrence of arrhythmias. Using two computer simulation models of human action potentials (endocardial and Purkinje cells), we analyzed the contribution of two biological parameters on the pro-arrhythmic effects of several hERG channel blockers: (i) spermine concentration, which varies with metabolic status, and (ii) L-type calcium conductance, which varies due to single nucleotide polymorphisms or mutations. By varying these parameters, we were able to induce arrhythmias in 1 out of 16 simulations although conventional modeling methods to detect pro-arrhythmic molecules failed."

According to the news reporters, the research concluded: "On the basis of our results, taking into consideration only 2 parameters subjected to intra-and inter-individual variability, we propose that in silico computer modeling may help to better define the risks of new drug candidates at early stages of pre-clinical development."

For more information on this research see: Inter-individual variability and modeling of electrical activity: a possible new approach to explore cardiac safety? Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting J.Y. Le Guennec, University of Montpellier, INSERM, CNRS, U1046UMR 9214, F-34295 Montpellier, France. Additional authors for this research include J. Thireau, A. Ouille, J. Roussel, J. Roy, S. Richard, S. Richard, E. Martel and P. Champeroux.

Keywords for this news article include: Montpellier, France, Europe, Cardiology, Genetics, University of Montpellier.

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Science

Reports from University of North Carolina Describe Recent Advances in Science (Nicotinamide benefits both mothers and pups in two contrasting mouse models of preeclampsia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Science is now available. According to news reporting originating in Chapel Hill, North Carolina, by NewsRx journalists, research stated, "Preeclampsia (PE) complicates similar to 5% of human pregnancies and is one of the leading causes of pregnancy-related maternal deaths. The only definitive treatment, induced delivery, invariably results in prematurity, and in severe early-onset cases may lead to fetal death."

Financial support for this research came from HHS | National Institutes of Health (NIH).

The news reporters obtained a quote from the research from the University of North Carolina, "Many currently available antihypertensive drugs are teratogenic and therefore
precluded from use. Nonteratogenic antihypertensives help control maternal blood pressure in PE, but results in preventing preterm delivery and correcting fetal growth restriction (FGR) that also occurs in PE have been disappointing. Here we show that dietary nicotinamide, a nonteratogenic amide of vitamin B-3, improves the maternal condition, prolongs pregnancies, and prevents FGR in two contrasting mouse models of PE. The first is caused by endotheliosis due to excess levels in the mothers of a soluble form of the receptor for vascular endothelial growth factor (VEGF), which binds to and inactivates VEGF. The second is caused by genetic absence of Ankiryn-repeat-and-SOCS-box-containing-protein 4, a factor that contributes to the differentiation of trophoblast stem cells into the giant trophoblast cells necessary for embryo implantation in mice; its absence leads to impaired placental development. In both models, fetal production of ATP is impaired and FGR is observed. We show here that nicotinamide decreases blood pressure and endotheliosis in the mothers, probably by inhibiting ADP ribosyl cyclase (ADPRC), and prevents FGR, probably by normalizing fetal ATP synthesis via the nucleotide salvage pathway."

According to the news reporters, the research concluded: "Because nicotinamide benefits both dams and pups, it merits evaluation for preventing or treating PE in humans."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1614947113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Science, Genetics, University of North Carolina.

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**Cardiovascular Diseases**

**Reports from University of Oxford Describe Recent Advances in Cardiovascular Diseases (Sympathetic neurons are a powerful driver of myocyte function in cardiovascular disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases. According to news reporting from Oxford, United Kingdom, by NewsRx journalists, research stated, "Many therapeutic interventions in disease states of heightened cardiac sympathetic activity are targeted
to the myocytes. However, emerging clinical data highlights a dominant role in disease progression by the neurons themselves."

The news correspondents obtained a quote from the research from the University of Oxford, "Here we describe a novel experimental model of the peripheral neuro-cardiac axis to study the neuron's ability to drive a myocyte cAMP phenotype. We employed a co-culture of neonatal ventricular myocytes and sympathetic stellate neurons from normal (WKY) and pro-hypertensive (SHR) rats that are sympathetically hyper-responsive and measured nicotine evoked cAMP responses in the myocytes using a fourth generation FRET cAMP sensor. We demonstrated the dominant role of neurons in driving the myocyte ss-adrenergic phenotype, where SHR cultures elicited heightened myocyte cAMP responses during neural activation. Moreover, cross-culturing healthy neurons onto diseased myocytes rescued the diseased cAMP response of the myocyte. Conversely, healthy myocytes developed a diseased cAMP response if diseased neurons were introduced. Our results provide evidence for a dominant role played by the neuron in driving the adrenergic phenotype seen in cardiovascular disease."

According to the news reporters, the research concluded: "We also highlight the potential of using healthy neurons to turn down the gain of neurotransmission, akin to a smart pre-synaptic ss-blocker."

For more information on this research see: Sympathetic neurons are a powerful driver of myocyte function in cardiovascular disease. *Scientific Reports*, 2016;6():1-11. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting D.J. Paterson, University of Oxford, Dept. of Physiol Anat & Genet, Burdon Sanderson Cardiac Sci Center, Oxford, United Kingdom. Additional authors for this research include K. Lefkimmiatis and D.J. Paterson.

Keywords for this news article include: Oxford, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Cardiology, University of Oxford.

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Heart Disorders and Diseases – Atrial Fibrillation

**Reports from University of Oxford Highlight Recent Findings in Atrial Fibrillation (Recent time trends in incidence, outcome and premorbid treatment of atrial fibrillation-related stroke and other embolic vascular events: a population-based ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Atrial Fibrillation are discussed in a new report. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "Prevalence of atrial fibrillation (AF) is increasing, due partly to the ageing population. The Birmingham Atrial Fibrillation Treatment of the Aged (BAFTA) Trial, published in 2007, provided strong evidence of the effectiveness of warfarin at age (≥)80 years, but the impact on incidence of AF-related stroke and peripheral embolic vascular events is uncertain."

Our news journalists obtained a quote from the research from the University of
Oxford, "We studied age-specific incidence and outcome of all AF-related incident strokes and systemic emboli from 2002 to 2012 in the Oxford Vascular Study. Of 3096 acute cerebral or peripheral vascular events, 748 (24.2%) were AF-related. Of the 597 disabling/fatal incident ischaemic strokes, 369 occurred at age (≥)80 years, of which 124 (33.6%) were in non-anticoagulated patients with known prior AF. There was no reduction in incident AF-related events after 2007 at all ages (n=231 vs 211; adjusted RR=1.11, 0.91 to 1.36, p=0.29) or at age (≥)80 (137 vs 135, RR=1.15, 0.94 to 1.40, p=0.17). Scope for improved prevention at older ages was considerable. Among 208 patients with incident AF-related events at age (≥)80 and known prior AF, only 19 (9.1%) were anticoagulated. Of the 189 patients not anticoagulated, 166 (87.8%) had no major disability prior to the event and 167 (88.4%) had a high embolism risk score, of whom 139 (83.2%) were also at low risk of complications. Yet, 125/167 (74.9%) were dead or institutionalised after the event. Potentially preventable embolic events outnumbered warfarin-related intracerebral haemorrhages by about 15-fold (280 vs 19), rising to 50-fold (189 vs 4) at age (≥)80 years. We found no reduction in incidence of AF-related vascular events since publication of the BAFTA trial."

According to the news editors, the research concluded: "A third of all disabling/fatal strokes occur in non-anticoagulated patients with known prior AF."


The news correspondents report that additional information may be obtained from G.S. Yiin, Stroke Prevention Research Unit, Nuffield Dept. of Clinical Neurosciences, University of Oxford, Oxford, Oxfordshire, UK. Additional authors for this research include D.P. Howard, N.L. Paul, L. Li, Z. Mehta and P.M. Rothwell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/jnnp-2015-311947. This DOI is a link to an online electronic document that is either free or for purchase.

**Keywords** for this news article include: Oxford, Europe, Stroke, Heart Disease, United Kingdom, Atrial Fibrillation, Cardiac Arrhythmias, Risk and Prevention, Heart Disorders and Diseases.

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### Proteins - Cell Cycle Proteins

**Reports from University of Paris Provide New Insights into Cell Cycle Proteins (IMP-3 protects the mRNAs of cyclins D1 and D3 from GW182/AGO2-dependent translational repression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Proteins - Cell Cycle Proteins is the subject of a report. According to news reporting out of Palaiseau, France, by NewsRx editors, research stated, "IGF-2 mRNA binding protein 3 (IGF2BP3, IMP-3) is a well-known post-transcriptional regulatory factor of gene expression, mainly involved in embryonic development and oncogenesis."

Our news journalists obtained a quote from the research from the University of Paris, "We have previously demonstrated that a subset of IMP-3 targets, such as the mRNAs of cyclins..."
D1, D3 and G1, are positively regulated by IMP-3, and that this regulation depends on nuclear localization of IMP-3. In the present study, we show that as a first step following a knock-down of IMP-3, the protein levels of the cyclins rapidly decrease, while their mRNAs remain stable and associated with the polyribosomes, though not translated.

According to the news editors, the research concluded: "We have elucidated the molecular mechanisms of this regulation, demonstrating that IMP-3 and its protein partners ILF3/NF90 and PTBP1 bind to the 3'UTRs of the cyclin mRNAs and protect them from the translational repression induced by miRNA-dependent recruitment of AGO2/GW182 complex in human cancer cells."

For more information on this research see: IMP-3 protects the mRNAs of cyclins D1 and D3 from GW182/AGO2-dependent translational repression. International Journal of Oncology, 2016;49(6):2578-2588. International Journal of Oncology can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

Our news journalists report that additional information may be obtained by contacting A. Polesskaya, Univ Paris Saclay, CNRS, Ecole Polytechnic, BIOC, F-91128 Palaiseau, France. Additional authors for this research include T.R. Vargas, J. Kropp, M. Vandamme, G. Pinna and A. Polesskaya.

Keywords for this news article include: Palaiseau, France, Europe, Intracellular Signaling Peptides and Proteins, Cell Cycle Proteins, Genetics, Cyclins, University of Paris.

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Cardiovascular Diseases and Conditions - Aneurysm

Reports from University of Pennsylvania Provide New Insights into Aneurysm (At the Root of the Repair Debate: Outcomes After Elective Aortic Root Replacements for Aortic Insufficiency With Aneurysm)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Aneurysm. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "There is growing interest in aortic valve-sparing and valve repair operations, but the ideal operation and timing of intervention in these generally younger patients undergoing operations for aortic insufficiency (AI) and dilated ascending aorta remains controversial. Root replacements at a single institution from 2002 to 2014 were reviewed."

Our news journalists obtained a quote from the research from the University of Pennsylvania, "Inclusion criteria were age younger than 70 and presence of moderate or greater aortic insufficiency (AI), with or without aortic aneurysm. Of 1,425 root replacements, 220 patients were considered in the final analysis. Moderate AI was present in 87 patients and severe AI in 133 patients. The 30-day mortality was 0% in moderate AI patients and 2% (n = 3) in severe AI patients (p = 0.3). Freedom from reoperation was 95% at 10 years. Severe preoperative AI was associated with worse long-term survival compared with moderate AI (hazard ratio, 2.6; p = 0.04). Patients undergoing root replacement with moderate AI had similar survival compared with the age-and gender-matched United States population (log-rank p = 0.93), whereas patients with severe AI had significantly worse survival (log-rank p = 0.02).

Other multi-variable predictors of decreased long-term survival were age (hazard ratio, 1.1; p = 0.01) and preoperative renal failure (hazard ratio, 6.9; p< 0.01). Elective root replacement
operations in patients younger than 70 are associated with low rates of mortality and reoperation, which should be considered the benchmark operation for aortic valve-sparing or repair operations in similar patients."

According to the news editors, the research concluded: "Worse survival was associated with severe AI and older age, suggesting earlier intervention may be an appropriate therapeutic strategy in selected patients."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.03.071. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Cardiovascular Diseases and Conditions, Aneurysm, University of Pennsylvania.

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Pharmacology

Reports from University of Picardie Highlight Recent Findings in Pharmacology (Recent Advances in Oncogenic Roles of the TRPM7 Chanzyme)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacology have been presented. According to news reporting from Amiens, France, by NewsRx journalists, research stated, "Transient Receptor Potential Melastatin-related 7 (TRPM7) is a non-selective cation channel fused with a functional kinase domain. Physiologically, TRPM7 channel is involved in magnesium homeostasis, cell survival and gastrulation."

The news correspondents obtained a quote from the research from the University of Picardie, "The channel part is responsible for calcium, magnesium, and metal trace entries. Cation current through TRPM7 channel is inhibited by both intracellular magnesium and magnesium complexed with nucleotides. In parallel, the kinase is able to phosphorylate cytoskeleton proteins like myosin chain regulating cell tension and motility. Moreover, TRPM7 kinase domain can be cleaved by caspase and participates to apoptosis signaling. Importantly, TRPM7 channel expression is aberrant in numerous cancers including breast, glioblastoma, nasopharynx, ovarian, and pancreatic. Moreover, TRPM7 high expression is an independent biomarker of poor outcome in breast cancer. Pharmacological modulation or silencing of
TRPM7 strongly affects proliferation, adhesion, migration or invasion in cancer cell lines. Nevertheless, it is still not clear by which mechanism TRPM7 channels may disturb cancer cell hallmarks. In the present review, we will discuss the role of TRPM7 channels in malignancies. In particular, we will distinguish the role of cation signaling from kinase function in order to better understand how TRPM7 channels may play a central role in cancer progression."

According to the news reporters, the research concluded: "We will also discuss the recent advances in pharmacological blockers of TRPM7 and their potential use for cancer therapy."

For more information on this research see: Recent Advances in Oncogenic Roles of the TRPM7 Chanzyme. *Current Medicinal Chemistry*, 2016;23(36):4092-4107. *Current Medicinal Chemistry* can be contacted at: Bentham Science Publ Ltd, Executive Ste Y-2, PO Box 7917, Saif Zone, 1200 Br Sharjah, U Arab Emirates. (Bentham Science Publishers - www.benthamscience.com; Current Medicinal Chemistry - www.benthamscience.com/cmc/index.htm)

Our news journalists report that additional information may be obtained by contacting M. Gautier, Univ Picardie Jules Verne, UFR Sci, SFR CAP Sante FED 4231, LPCM EA4667 Lab Cell & Mol Physiol, F-80039 Amiens, France. Additional authors for this research include M. Perriere, M. Monet, A. Vanlaeys, I. Korchineva, I. Dhennin-Duthille and H. Ouadid-Ahidouch.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/0929867323666160907162002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amiens, France, Europe, Therapy, Article Review, Enzymes and Coenzymes, Pharmacology, Light Metals, Magnesium, Oncology, Genetics, Kinase, Cancer, University of Picardie.

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**Catecholamines**

**Reports from University of Pittsburgh Provide New Insights into Catecholamines (Antiferroptotic activity of non-oxidative dopamine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Catecholamines. According to news reporting originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "Dopamine is a neurotransmitter that has many functions in the nervous and immune systems. Ferroptosis is a non-apoptotic form of regulated cell death that is involved in cancer and neurodegenerative diseases."

Funders for this research include US National Institutes of Health, Natural Science Foundation of Guangdong Province, National Natural Science Funds of China, American Cancer Society Research Scholar Grant.

Our news editors obtained a quote from the research from the University of Pittsburgh, "However, the role of dopamine in ferroptosis remains unidentified. Here, we show that the non oxidative form of dopamine is a strong inhibitor of ferroptotic cell death. Dopamine dose-dependently blocked ferroptosis in cancer (PANC1 and HEY) and non-cancer (MEF and HEK293) cells following treatment with erastin, a small molecule ferroptosis inducer. Notably,
dopamine reduced erastin-induced ferrous iron accumulation, glutathione depletion, and malondialdehyde production. Mechanically, dopamine increased the protein stability of glutathione peroxidase 4, a phospholipid hydroperoxidase that protects cells against membrane lipid peroxidation. Moreover, dopamine suppressed dopamine receptor D4 protein degradation and promoted dopamine receptor D5 gene expression."

According to the news editors, the research concluded: "Thus, our findings uncover a novel function of dopamine in cell death and provide new insight into the regulation of iron metabolism and lipid peroxidation by neurotransmitters."

For more information on this research see: Antiferroptotic activity of non-oxidative dopamine. *Biochemical and Biophysical Research Communications*, 2016;480(4):602-607. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news editors report that additional information may be obtained by contacting D.L. Tang, University of Pittsburgh, Dept. of Surg, Pittsburgh, PA 15213, United States. Additional authors for this research include Y.P. Peng, Y.C. Xie, B.R. Zhou, X.F. Sun, R. Kang and D.L. Tang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.099. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Organic Chemicals, Biogenic Amines, Catecholamines, Oncology, Genetics, Dopamine, Cancer, University of Pittsburgh.

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**Antithrombotics**

**Reports from University of Queensland Describe Recent Advances in Antithrombotics (The role of cGMP and its signaling pathways in kidney disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Antithrombotics have been published. According to news originating from Brisbane, Australia, by NewsRx correspondents, research stated, "Cyclic nucleotide signal transduction pathways are an emerging research field in kidney disease. Activated cell surface receptors transduce their signals via intracellular second messengers such as cAMP and cGMP."

Our news journalists obtained a quote from the research from the University of Queensland, "There is increasing evidence that regulation of the cGMP-cGMP-dependent protein kinase 1-phosphodiesterase (cGMP-cGK1PDE) signaling pathway may be renoprotective. Selective PDE5 inhibitors have shown potential in treating kidney fibrosis in patients with chronic kidney disease (CKD), via their downstream signaling, and these inhibitors also have known activity as antithrombotic and anticancer agents. This review gives an outline of the cGMP-cGK1-PDE signaling pathways and details the downstream signaling and regulatory functions that are modulated by cGK1 and PDE inhibitors with regard to antifibrotic,
antithrombotic, and antitumor activity. Current evidence that supports the renoprotective effects of regulating cGMP-cGK1-PDE signaling is also summarized. Finally, the effects of icariin, a natural plant extract with PDE5 inhibitory function, are discussed."

According to the news editors, the research concluded: "We conclude that regulation of cGMP-cGK1-PDE signaling might provide novel, therapeutic strategies for the worsening global public health problem of CKD."


The news correspondents report that additional information may be obtained from G.C. Gobe, University of Queensland, Sch Med, Translat Res Inst, Center Kidney Dis Res, Brisbane, Qld 4102, Australia. Additional authors for this research include D.W. Johnson and G.C. Gobe.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Antithrombotics, Angiology, Article Review, Antithrombotic, University of Queensland.

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Cardiovascular Diseases and Conditions - ...

Reports from University of Reading Add New Data to Findings in Hypertension (Whey protein lowers blood pressure and improves endothelial function and lipid biomarkers in adults with prehypertension and mild hypertension: results from the ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news reporting from Reading, United Kingdom, by NewsRx journalists, research stated, "Cardiovascular diseases (CVDs) are the greatest cause of death globally, and their reduction is a key public-health target. High blood pressure (BP) affects 1 in 3 people in the United Kingdom, and previous studies have shown that milk consumption is associated with lower BP."

The news correspondents obtained a quote from the research from the University of Reading, "We investigated whether intact milk proteins lower 24-h ambulatory blood pressure (AMBP) and other risk markers of CVD. The trial was a double-blinded, randomized, 3-way-crossover, controlled intervention study. Forty-two participants were randomly assigned to consume 2 X 28 g whey protein/d, 2 X 28 g Ca caseinate/d, or 2 X 27 g maltodextrin (control)/d for 8 wk separated by a 4-wk washout. The effects of these interventions were examined with the use of a linear mixed-model ANOVA. Thirty-eight participants completed the study. Significant reductions in 24-h BP [for systolic blood pressure (SBP): -3.9 mm Hg; for diastolic blood pressure (DBP): -2.5 mm Hg; P = 0.050 for both] were observed after whey-protein consumption compared with control intake. After whey-protein supplementation compared with control intake, peripheral and central systolic pressures [-5.7 mm Hg (P = 0.007) and -5.4 mm Hg (P = 0.012), respectively] and mean pressures [-3.7 mm Hg (P = 0.025) and -4.0 mm Hg (P = 0.019), respectively] were also lowered. Flow mediated dilation (FMD) increased significantly
after both whey protein and calcium-caseinate intakes compared with control intake [1.31% (P < 0.001) and 0.83% (P = 0.003), respectively]. Although both whey protein and calcium caseinate significantly lowered total cholesterol [-0.26 mmol/L (P = 0.013) and -0.20 mmol/L (P = 0.042), respectively], only whey protein decreased triacylglycerol (-0.23 mmol/L; P = 0.025) compared with the effect of the control. Soluble intercellular adhesion molecule 1 and soluble vascular cell adhesion molecule 1 were reduced after whey protein consumption (P = 0.011) and after calcium-caseinate consumption (P = 0.039), respectively, compared with after control intake. The consumption of unhydrolyzed milk proteins (56 g/d) for 8 wk improved vascular reactivity, biomarkers of endothelial function, and lipid risk factors. Whey-protein supplementation also lowered 24-h ambulatory SBP and DBP. These results may have important implications for public health."

According to the news reporters, the research concluded: "This trial was registered at clinicaltrials.gov as NCT02090842."


Our news journalists report that additional information may be obtained by contacting J.A. Lovegrove, University of Reading, Fac Life Sci, Sch Chem Food & Pharm, Inst Cardiovasc & Metab Res, Reading, Berks, United Kingdom. Additional authors for this research include C. Giromini, Y. Chatzidiakou, D.I. Givens and J.A. Lovegrove.

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Keywords for this news article include:  Reading, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Public Health, Risk and Prevention, Clinical Trials and Studies, Clinical Research, Blood Pressure, Hemodynamics, Hypertension, University of Reading.

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Oncology - Liver Cancer

Reports from University of Sherbrooke Advance Knowledge in Liver Cancer [An Unbiased Mass Spectrometry Approach Identifies Glypican-3 as an Interactor of Proprotein Convertase Subtilisin/Kexin Type 9 (PCSK9) and Low Density Lipoprotein Receptor ...]  

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting out of Sherbrooke, Canada, by NewsRx editors, research stated, "The mechanism of LDL receptor (LDLR) degradation mediated by the proprotein convertase subtilisin/kexin type 9 (PCSK9) has been extensively studied; however, many steps within this process remain unclear and still require characterization. Recent studies have shown that PCSK9 lacking its Cys/His-rich domain can still promote LDLR internalization, but the complex does
not reach the lysosome suggesting the presence of an additional interaction partner(s)."

Our news journalists obtained a quote from the research from the University of Sherbrooke, "In this study we carried out an unbiased screening approach to identify PCSK9-interacting proteins in the HepG2 cells' secretome using co-immunoprecipitation combined with mass spectrometry analyses. Several interacting proteins were identified, including glypican-3 (GPC3), phospholipid transfer protein, matrilin-3, tissue factor pathway inhibitor, fibrinogen-like 1, and plasminogen activator inhibitor-1. We then validated these interactions by co-immunoprecipitation and Western blotting. Furthermore, functional validation was examined by silencing each candidate protein in HepG2 cells using short hairpin RNAs to determine their effect on LDL uptake and LDLR levels. Only GPC3 and phospholipid transfer protein silencing in HepG2 cells significantly increased LDL uptake in these cells and displayed higher total LDLR protein levels compared with control cells."

According to the news editors, the research concluded: "Moreover, our study provides the first evidence that GPC3 can modulate the PCSK9 extracellular activity as a competitive binding partner to the LDLR in HepG2 cells."


Our news journalists report that additional information may be obtained by contacting R. Day, University of Sherbrooke, Inst Pharmacol Sherbrooke, Fac Med & Sci Sante, Dept. of SurgUrol Div, Sherbrooke, PQ J1H 5N4, Canada. Additional authors for this research include R. Essalmani, R. Desjardins, N.G. Seidah and R. Day.

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Keywords for this news article include: Sherbrooke, Quebec, Canada, North and Central America, Heparan Sulfate Proteoglycans, Cell Surface Receptors, Membrane Glycoproteins, Proprotein Convertases, Enzymes and Coenzymes, Lipoprotein Receptors, Serine Endopeptidases, Peptide Hydrolases, Membrane Proteins, Serine Proteases, Lipoproteins, Liver Cancer, Subtilisins, Carcinomas, Glypicans, Oncology, Lipids, University of Sherbrooke.

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2 Diabetes have been presented. According to news reporting out of Shizuoka, Japan, by NewsRx editors, research stated, "A high-throughput RapidFire mass spectrometry assay is described for elongation of very long-chain fatty acids family 6 (ElovL6). ElovL6 is a microsomal enzyme that regulates the elongation of C12-16 saturated and monounsaturated fatty acids."

Our news journalists obtained a quote from the research from the University of Shizuoka, "ElovL6 may be a new therapeutic target for fat metabolism disorders such as obesity, type 2 diabetes, and nonalcoholic steatohepatitis. To identify new ElovL6 inhibitors, we developed a high-throughput fluorescence screening assay in 1536-well format. However, a number of false positives caused by fluorescent interference have been identified. To pick up the real active compounds among the primary hits from the fluorescence assay, we developed a RapidFire mass spectrometry assay and a conventional radioisotope assay. These assays have the advantage of detecting the main products directly without using fluorescent-labeled substrates. As a result, 276 compounds (30%) of the primary hits (921 compounds) in a fluorescence ultra-high-throughput screening method were identified as common active compounds in these two assays. It is concluded that both methods are very effective to eliminate false positives. Compared with the radioisotope method using an expensive 14C-labeled substrate, the RapidFire mass spectrometry method using unlabeled substrates is a high accuracy, high-throughput method. In addition, some of the hit compounds selected from the screening inhibited cellular fatty acid elongation in HEK293 cells expressing ElovL6 transiently. This result suggests that these compounds may be promising lead candidates for therapeutic drugs."

According to the news editors, the research concluded: "Ultrahigh-throughput fluorescence screening followed by a RapidFire mass spectrometry assay was a suitable strategy for lead discovery against ElovL6."

For more information on this research see: Lead discovery for mammalian elongation of long chain fatty acids family 6 using a combination of high-throughput fluorescent-based assay and RapidFire mass spectrometry assay. Biochemical and Biophysical Research Communications, 2016;480(4):721-726. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting A. Asai, University of Shizuoka, Grad Sch Pharmaceut Sci. Center Drug Discovery, Suruga Ku, Shizuoka, Shizuoka, Japan. Additional authors for this research include M. Sakurai, F. Teranishi, T. Ikeda, T. Kamiyama and A. Asai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.103. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shizuoka, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Diagnostics and Screening, Non-Insulin Dependent Diabetes Mellitus, Risk and Prevention, Type 2 Diabetes, University of Shizuoka.

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Autoimmune Diseases and Conditions - Experimental...

Reports from University of Strathclyde Provide New Insights into Experimental Autoimmune Encephalomyelitis (MAP kinase phosphatase 2 deficient mice develop attenuated experimental autoimmune encephalomyelitis through regulating dendritic cells ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Experimental Autoimmune Encephalomyelitis. According to news originating from Glasgow, United Kingdom, by NewsRx correspondents, research stated, "Mitogen-activated protein kinase phosphatases (MKPs) play key roles in inflammation and immune mediated diseases. Here we investigated the mechanisms by which MKP-2 modulates central nervous system (CNS) inflammation in experimental autoimmune encephalomyelitis (EAE)."

Our news journalists obtained a quote from the research from the University of Strathclyde, "Our results show that MKP-2 mRNA levels in the spinal cord and lymphoid organs of EAE mice were increased compared with naive controls, indicating an important role for MKP-2 in EAE development. Indeed, MKP-2(-/-) mice developed reduced EAE severity, associated with diminished CNS immune cell infiltration, decreased proinflammatory cytokine production and reduced frequency of CD4(+) and CD8(+) T cells in spleens and lymph nodes. In addition, MKP-2(-/-)-CD11c(+) dendritic cells (DCs) had reduced expression of MHC-II and CD40 compared with MKP-2(+/+) mice. Subsequent experiments revealed that CD4(+) T cells from naive MKP-2(-/-)-mice had decreased cell proliferation and IL-2 and IL-17 production relative to wild type controls. Furthermore, co-culture experiments showed that bone marrow derived DCs of MKP-2(-/-) mice had impaired capability in antigen presentation and T cell activation."

According to the news editors, the research concluded: "While MKP-2 also modulates macrophage activation, our study suggests that MKP-2 is essential to the pathogenic response of EAE, and it acts mainly via regulating the important antigen presenting DC function and T cell activation."

For more information on this research see: MAP kinase phosphatase 2 deficient mice develop attenuated experimental autoimmune encephalomyelitis through regulating dendritic cells and T cells. Scientific Reports, 2016;6():13-25. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from H.R. Jiang, University of Strathclyde, Strathclyde Inst Pharm & Biomed Sci, Glasgow, Lanark, United Kingdom. Additional authors for this research include R. Plevin and H.R. Jiang.

Keywords for this news article include: Glasgow, United Kingdom, Europe, Central Nervous System Diseases and Conditions, Experimental Autoimmune Encephalomyelitis, Autoimmune Diseases and Conditions, Central Nervous System Infections, Brain Diseases and Conditions, Mononuclear Phagocyte System, Antigen-Presenting Cells, Enzymes and Coenzymes, Dendritic Cells, Inflammation, Encephalitis, Immunology, Genetics, Kinase, University of Strathclyde.

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Reports from University of Sydney Advance Knowledge in Hypertension

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Hypertension is now available. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "The objective of this periodic review was to identify, summarize, and appraise studies relating to the implementation of salt reduction strategies that were retrieved between November 2015 and February 2016. From the established MEDLINE search, 56 studies were identified as relevant to the implementation of salt reduction initiatives."

The news reporters obtained a quote from the research from the University of Sydney, "Detailed appraisal was performed on seven studies that evaluated the impact of salt reduction interventions. While study quality varied, all had one or more risks related to bias. There was consistent evidence, from three studies, demonstrating that setting-based structural interventions to improve the nutritional composition of foods were effective in reducing salt but mixed evidence in relation to the effectiveness of behavioral interventions."

According to the news reporters, the research concluded: "The development of an evaluation guidance framework that supports scientific rigor and external validity would aid future design and interpretation of studies evaluating salt reduction interventions, particularly for low-resource countries."


Our news correspondents report that additional information may be obtained by contacting K. Trieu, University of Sydney, George Inst Global Hlth, Sydney, NSW 2050, Australia. Additional authors for this research include R. McLean, C. Johnson, J.A. Santos, T.S. Raj, N.R.C. Campbell and J. Webster.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12909. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Hypertension, Cardiovascular Diseases and Conditions, University of Sydney.

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Reports from University of Tehran Advance Knowledge in Hepatitis B Virus (HBsAg mutations related to occult hepatitis B virus infection in HIV-positive patients result in a reduced secretion and conformational changes of HBsAg)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Hepatitis B Virus. According to news reporting from Tehran, Iran, by NewsRx journalists, research stated, "Occult hepatitis B infection (OBI) is a frequent finding in human immunodeficiency virus (HIV)-infected patients. While several related mutations in the hepatitis B virus (HBV) genome have been reported, their distinct impact on HBsAg synthesis is largely obscure."

The news correspondents obtained a quote from the research from the University of Tehran, "Thirty-one (18%) out of 172 HIV-infected patients, who were selected from HBsAg-negative patients, were positive for HBV-DNA assigned as being OBI-positive. We generated a series of expression constructs of variant HBsAg with a determinant amino acid substitutions including P127L, P127T, S136Y, and P127T+S136Y using site-directed mutagenesis. The expression of variant HBsAg was examined by transient transfection in hepatoma cells, followed by HBsAg immunoassay and immunofluorescence stained with specific anti-HBs antibodies. The potential impact of amino acid substitutions at different positions for conformational changes in the HBsAg was investigated using bioinformatics. All variants comprising either single or combined mutations resulted in significantly reduced HBsAg detection in supernatants and in cell lysates of hepatoma cells transfected with the constructs. Moreover, intracellular immunofluorescence staining of cytoblocks showed perinuclear and cytoplasmic fluorescence of HBsAg constructs with significantly diminished fluorescent intensity in comparison to the wild type. Altered protein conformations by predictive models, indicating an impaired detection by the host's immune response as well as by commercial antibody-based test assays."

According to the news reporters, the research concluded: "Mutations in the a determinant region of HBV as often found in OBI remarkably impair the detection of HBsAg from serum and infected cells, emphasizing the relevance of alternative methods such as HBV-DNA quantification for high-risk groups like HIV-infected individuals. J. Med. Virol. 89:246-256, 2017."

For more information on this research see: HBsAg mutations related to occult hepatitis B virus infection in HIV-positive patients result in a reduced secretion and conformational changes of HBsAg. Journal of Medical Virology, 2017;89(2):246-256. Journal of Medical Virology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Journal of Medical Virology - onlinelibrary.wiley.com/journal/10.1002/(ISSN)1096-9071)

Oncology - Acute Lymphoblastic Leukemia

Reports from University of Texas Add New Data to Findings in Acute Lymphoblastic Leukemia (Adult Acute Lymphoblastic Leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Acute Lymphoblastic Leukemia have been published. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Conventional cytotoxic chemotherapy used to treat acute lymphoblastic leukemia (ALL) results in high cure rates in pediatric patients but is suboptimal in the treatment of adult patients. The 5-year overall survival is approximately 90% in children and 30% to 40% in adults and elderly patients."

The news correspondents obtained a quote from the research from the University of Texas, "Adults with ALL tend to have higher risk factors at diagnosis, more comorbidities, and increasing age that often requires dose reductions. Major advancements have been made in redefining the pathologic classification of ALL, identifying new cytogenetic-molecular abnormalities, and developing novel targeted agents in order to improve survival. The addition of new monoclonal antibodies and tyrosine kinase inhibitors to conventional chemotherapy in the frontline setting has resulted in increased rates of complete remission and overall survival."

According to the news reporters, the research concluded: "These new developments are changing the treatment of adult ALL from a 'one therapy fits all' approach to individualized treatment based on patient's cytogenetic and molecular profile."


Our news journalists report that additional information may be obtained by contacting E.J. Jabbour, Univ Texas MD Anderson Canc Center, Dept. of Leukemia, Houston, TX 77030, United States. Additional authors for this research include H. Kantarjian and E.J. Jabbour.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mayocp.2016.09.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Oncology, Risk and Prevention, Acute Lymphoblastic Leukemia,
Drugs and Therapies - Pharmaceutical Research

Reports from University of Texas Add New Data to Findings in Pharmaceutical Research (Influence of process parameters on the preparation of pharmaceutical films by electrostatic powder deposition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Pharmaceutical Research is the subject of a report. According to news originating from Austin, Texas, by NewsRx correspondents, research stated, "Electrostatic powder deposition (ESPD) has been developed as a solvent-free method to prepare pharmaceutical films. The aim of this work was to investigate the influence of process parameters during (1) electrostatic powder deposition, (2) curing, and (3) removal of the film from the substrate on the properties of the film."

Financial supporters for this research include American Foundation for Pharmaceutical Education Grant Fellowship, National Science Foundation.

Our news journalists obtained a quote from the research from the University of Texas, "Polyethylene oxide (PEO) was used as the model polymer and stainless steel 316 as the substrate. Deposition efficiency (i.e. deposited weight) was measured with varying charging voltage, gun tip to substrate distance, and environmental humidity. Scanning electron microscopy was utilized to assess film formation, and adhesive and mechanical strength of films were measured with varying cure temperature and time. Adhesive strength was measured for films prepared on substrates of varying surface roughness. When deposition was performed at low humidity conditions, 25% RH, process parameters did not significantly affect deposition behavior. At 40% RH, increasing deposition efficiency with decreasing gun tip to substrate distance and increasing voltage (up to 60 kV) was observed. Complete film formation was seen by 30 min at 80 degrees C, compared to lower curing temperatures and times. All films were readily removed from the substrates."

According to the news editors, the research concluded: "The results show the ESPD process can be modified to produce films with good mechanical properties (e.g. tensile strength > 0.06 MPa), suggesting it is a promising dry powder process for preparing pharmaceutical films."


The news correspondents report that additional information may be obtained from L.K. Prasad, Univ Texas Austin, Coll Pharm, Austin, TX 78712, United States. Additional authors for this research include J.S. LaFountaine, J.M. Keen, R.O. Williams and J.W. McGinity.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.014. This DOI is a link to an online electronic
Reports from University of Texas Advance Knowledge in Immunosuppressive Agents (Stability of tacrolimus injection diluted in 0.9% sodium chloride injection and stored in Excel bags)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Immunosuppressive Agents are discussed in a new report. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "The chemical stability and physical compatibility of tacrolimus i.v. infusion solutions prepared in Excel bags and stored at 23 or 4 degrees C for up to nine days were studied. Tacrolimus admixtures (2, 4, and 8 mu g/mL) were prepared in Excel bags using 0.9% sodium chloride injection and stored at 23 degrees C without protection from light or at 4 degrees C in the dark."

Our news editors obtained a quote from the research from the University of Texas, "Test samples were withdrawn from triplicate bag solutions immediately after preparation and at predetermined time intervals (1, 3, 5, 7, and 9 days). Chemical stability was assessed by measuring tacrolimus concentrations using a validated stability indicating high-performance liquid chromatography assay. The physical stability of the admixtures was assessed by visual examination and by measuring turbidity, particle size, and drug content. All test solutions stored at 23 or 4 degrees C had a no greater than 6% loss of the initial tacrolimus concentration throughout the nine-day study period. All test samples of tacrolimus admixtures, under both storage conditions, were without precipitation and remained clear initially and throughout the nine-day observation period. Changes in turbidities were minor; measured particulates remained few in number in all samples throughout the study."

According to the news editors, the research concluded: "Extemporaneously prepared infusion solutions of tacrolimus 2, 4, and 8 mu g/mL in 0.9% sodium chloride injection in Excel bags were chemically and physically stable for at least nine days when stored at room temperature (23 degrees C) without protection from light and when stored in a refrigerator (4 degrees C) in the dark."

For more information on this research see: Stability of tacrolimus injection diluted in 0.9% sodium chloride injection and stored in Excel bags. American Journal of Health-System Pharmacy, 2016;73(24):2083-2088. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting A.L. Myers, Univ Texas MD Anderson Canc Center, Div Pharm, Houston, TX 77030, United States. Additional authors for this research include Y.P. Zhang, J.D. Kawedia, B.R. Shank, M.A. Deaver and M.A. Kramer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp150677. This DOI is a link to an online electronic document that
is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Nasal Lubricants and Irrigations, Immunosuppressive Agents, Drugs and Therapies, Respiratory Agents, Tacrolimus Therapy, Hydrochloric Acid, Sodium Compounds, Sodium Chloride, Pharmaceuticals, Macrolides, Chemicals, Chlorides, Anions, University of Texas.

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Drugs and Therapies - Pharmacology and...

Reports from University of Texas Advance Knowledge in Pharmacology and Experimental Therapeutics (Discriminative Stimulus Effects of Binary Drug Mixtures: Studies with Cocaine, MDPV, and Caffeine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Pharmacology and Experimental Therapeutics is the subject of a report. According to news originating from San Antonio, Texas, by NewsRx correspondents, research stated, "Illicit drug preparations often include more than one pharmacologically active compound. For example, cocaine and synthetic cathinones [e.g., 3,4-methylenedioxypyrovalerone (MDPV)] are often mixed with caffeine before sale."

Our news journalists obtained a quote from the research from the University of Texas, "Caffeine is likely added to these preparations because it is inexpensive and legal; however, caffeine might also mimic or enhance some of the effects of cocaine or MDPV. In these studies, male Sprague-Dawley rats were trained to discriminate 10 mg/kg cocaine from saline, and the discriminative stimulus effects of cocaine, caffeine, and MDPV were evaluated alone and as binary mixtures (cocaine and caffeine, MDPV and caffeine, and cocaine and MDPV) at fixed-dose ratios of 3:1, 1:1, and 1:3 relative to the dose of each drug that produced 50% cocaine-appropriate responding. Dose-addition analyses were used to determine the nature of the drug-drug interactions for each mixture (e.g., additive, supra-additive, or subadditive). Although additive interactions were observed for most mixtures, supra-additive interactions were observed at the 50% effect level for the 1:1 mixture of cocaine and caffeine and at the 80% effect level for all three mixtures of cocaine and caffeine, as well as for the 3:1 and 1:3 mixtures of cocaine and MDPV. These results demonstrate that with respect to cocaine-like discriminative stimulus effects, caffeine can function as a substitute in drug preparations containing either cocaine or MDPV, with enhancements of cocaine-like effects possible under certain conditions."

According to the news editors, the research concluded: "Further research is needed to determine whether similar interactions exist for other abuse-related or toxic effects of drug preparations, including cocaine, synthetic cathinones, and caffeine."


The news correspondents report that additional information may be obtained from G.T. Collins, Univ Texas Hlth Sci Center San Antonio, South Texas Vet Hlth Care Sys, San
Antonio, TX, United States. Additional authors for this research include M. Abbott, K. Galindo, E.L. Rush, K.C. Rice and C.P. France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.234252. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Antonio, Texas, United States, North and Central America, Pharmacology and Experimental Therapeutics, Central Nervous System Stimulants, Caffeine, Drugs and Therapies, Phosphodiesterase Inhibitors, Anorexigenic Agent, University of Texas.

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Cardiovascular Diseases

Reports from University of Texas Southwestern Highlight Recent Findings in Cardiovascular Diseases [A Test in Context Hemoglobin A (1c) and Cardiovascular Disease]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases. According to news reporting originating from Dallas, Texas, by NewsRx correspondents, research stated, "Measurement of glycated hemoglobin (HbA(1c)), the most widely accepted indicator of long-term glycemic exposure, is central for the diagnosis and management of diabetes mellitus. Levels of HbA(1c) track epidemiologically with diabetic complications, and glycemic control, as reflected by HbA(1c) reduction, results in decreased risk of microvascular complications, including diabetic kidney disease, neuropathy, and retinopathy."

Our news editors obtained a quote from the research from the University of Texas Southwestern, "The relationship between HbA(1c) reduction and cardiovascular disease prevention in patients with diabetes is more complex, with data from large randomized trials published over the past decade providing clear evidence that lowering of HbA(1c) per se is an inadequate marker for a therapeutic regimen's impact on cardiovascular outcomes and patient survival. Recent revisions in professional society guidelines moved away from uniform recommendations and toward a more nuanced, patient-centered approach to HbA(1c) therapeutic targets."

According to the news editors, the research concluded: "The context and key evidence underpinning these recent changes are discussed in this paper, alongside a brief overview of HbA(1c) contemporary assays and their limitations."

For more information on this research see: A Test in Context Hemoglobin A(1c) and Cardiovascular Disease. *Journal of the American College of Cardiology*, 2016;68(22):2479-2486. *Journal of the American College of Cardiology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.

The news editors report that additional information may be obtained by contacting M.O. Gore, Univ Texas Southwestern Med Center Dallas, Dept. of Internal Med, Dallas, TX 75390, United States.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Proteins, Article Review, Epidemiology, Cardiovascular Diseases and Conditions, Blood Proteins, Hemeproteins, Hemoglobin A, Hemoglobins, Cardiology,
Reports from University of Tokyo Advance Knowledge in Mononuclear Phagocyte System (Pim-1L Protects Cell Surface-Resident ABCA1 From Lysosomal Degradation in Hepatocytes and Thereby Regulates Plasma High-Density Lipoprotein Level)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Mononuclear Phagocyte System have been published. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "ATP-binding cassette transporter A1 (ABCA1) exerts an atheroprotective action through the biogenesis of high-density lipoprotein in hepatocytes and prevents the formation of foam cells from macrophages. Controlling ABCA1 is a rational approach to improving atherosclerotic cardiovascular disease."

Our news journalists obtained a quote from the research from the University of Tokyo, "Although much is known about the regulatory mechanism of ABCA1 synthesis, the molecular mechanism underpinning its degradation remains to be clearly described. Approach and Results-ABCA1 possesses potential sites of phosphorylation by serine/threonine-protein kinase Pim-1 (Pim-1). Pim-1 depletion decreased the expression of cell surface-resident ABCA1 (csABCA1) and apolipoprotein A-I-mediated [H-3] cholesterol efflux in the human hepatoma cell line HepG2, but not in peritoneal macrophages from mice. In vitro kinase assay, immunoprecipitation, and immunocytochemistry suggested phosphorylation of csABCA1 by the long form of Pim-1 (Pim-1L). Cell surface biotinylation indicated that Pim-1L inhibited lysosomal degradation of csABCA1 involving the liver X receptor beta, which interacts with csABCA1 and thereby protects it from ubiquitination and subsequent lysosomal degradation. Cell surface coimmunoprecipitation with COS-1 cells expressing extracellularly hemagglutinin-tagged ABCA1 showed that Pim-1L-mediated phosphorylation of csABCA1 facilitated the interaction between csABCA1 and liver X receptor beta and thereby stabilized the csABCA1-Pim-1L complex. Mice deficient in Pim-1 kinase activity showed lower expression of ABCA1 in liver plasma membranes and lower plasma high-density lipoprotein levels than control mice. Pim-1L protects hepatic csABCA1 from lysosomal degradation by facilitating the physical interaction between csABCA1 and liver X receptor beta and subsequent stabilization of the csABCA1-Pim-1L complex and thereby regulates the circulating level of high-density lipoprotein."

According to the news editors, the research concluded: "Our findings may aid the development of high-density lipoprotein-targeted therapy."

For more information on this research see: Pim-1L Protects Cell Surface-Resident ABCA1 From Lysosomal Degradation in Hepatocytes and Thereby Regulates Plasma High-Density Lipoprotein Level. *Arteriosclerosis Thrombosis and Vascular Biology*, 2016;36 (12):2304-2314. *Arteriosclerosis Thrombosis and Vascular Biology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by
Reports from University of Toronto Describe Recent Advances in DNA Research (Controlling DNA-nanoparticle serum interactions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on DNA Research have been presented. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "Understanding the interaction of molecularly assembled nanoparticles with physiological fluids is critical to their use for in vivo delivery of drugs and contrast agents. Here, we systematically investigated the factors and mechanisms that govern the degradation of DNA on the nanoparticle surface in serum."

Our news journalists obtained a quote from the research from the University of Toronto, "We discovered that a higher DNA density, shorter oligonucleotides, and thicker PEG layer increased protection of DNA against serum degradation. Oligonucleotides on the surface of nanoparticles were highly resistant to DNase I endonucleases, and degradation was carried out exclusively by protein-mediated exonuclease cleavage and full-strand desorption. These results enabled the programming of the degradation rates of the DNA-assembled nanoparticle system from 0.1 to 0.7 h(-1) and the engineering of superstructures that can release two different preloaded dye molecules with distinct kinetics and half-lives ranging from 3.3 to 9.8 h. This study provides a general framework for investigating the serum stability of DNA-containing nanostructures."

According to the news editors, the research concluded: "The results advance our understanding of engineering principles for designing nanoparticle assemblies with controlled in vivo behavior and present a strategy for storage and multistage release of drugs and contrast agents that can facilitate the diagnosis and treatment of cancer and other diseases."


Our news journalists report that additional information may be obtained by contacting W.C.W. Chan, University of Toronto, Dept. of Chem Engn, Toronto, ON M5S 3E5, Canada. Additional authors for this research include L.Y.T. Chou and W.C.W. Chan.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Emerging Technologies, Nanotechnology, Nanoparticle, DNA Research, Engineering, Genetics, University of Toronto.
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Heart Disorders and Diseases - Heart Attack

Reports from University of Toronto Provide New Insights into Heart Attack (Association of Pre-hospital ECG Administration With Clinical Outcomes in ST-Segment Myocardial Infarction: A Systematic Review and Meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "Delays in reperfusion for patients with myocardial ischemia leads to increased morbidity and mortality. The objective of this review was to identify, evaluate, and critically appraise the evidence on whether pre-hospital electrocardiography (ECG) reduces patient mortality and improves post-ST-segment myocardial infarction patient-oriented outcomes."

Our news journalists obtained a quote from the research from the University of Toronto, "We searched PubMed/MEDLINE, EMBASE, and Cochrane Library (1990-2015) for controlled clinical studies. We also searched conference proceedings, trial registries, and reference lists of narrative and systematic reviews. Two reviewers independently identified and extracted data from studies that compared pre-hospital ECG with standard of care in patients with suspected myocardial infarction who underwent primary percutaneous coronary intervention. Internal validity was assessed using the Newcastle-Ottawa scale. We screened 21,197 citations and included 63 unique studies (plus 22 companion publications). Most studies were of moderate quality. Pre-hospital ECG was associated with significantly fewer deaths (relative risk, 0.68; 95% confidence interval [CI], 0.63-0.74; 45 studies; 71,315 patients; I-2, 0%), reduced time to reperfusion (mean difference, -35.32 minutes; 95% CI, -44.02 to -26.61; 26 studies; 27,524 patients; I-2, 97%), shorter hospital stays (mean difference, -0.63 days; 95% CI, -1.05 to -0.20; 10 studies; 39,275 patients; I-2, 39%), and more patients had first medical contact to device time < 90 minutes than standard of care (relative risk, 1.77; 95% CI, 1.52-2.07; 11 studies; 20,991 patients; I-2, 93%)."

According to the news editors, the research concluded: "Use of pre-hospital ECG is associated with decreased mortality and overall better patient outcomes."


Our news journalists report that additional information may be obtained by contacting R.A. Ducas, University of Toronto, Peter Munk Cardiac Center, Toronto, ON, Canada. Additional authors for this research include C. Labos, D. Allen, M. Golian, M. Jeyaraman, J. Lys, A. Mann, L. Copstein, S. Vokey, R. Rabbani, R. Zarychanski, A.M. Abou-Setta and A.H. Menkis.

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document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Vascular Diseases and Conditions, Heart Disorders and Diseases, Reperfusion, Article Review, Myocardial Infarction, Transfusion Medicine, Myocardial Ischemia, Blood Transfusion, Medical Devices, Heart Disease, Heart Attack, Hospital, University of Toronto.

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Nanotechnology - Nanoparticles

Reports from University of Turin Highlight Recent Findings in Nanoparticles (Enhanced selective sonosensitizing efficacy of ultrasound-based anticancer treatment by targeted gold nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nanotechnology - Nanoparticles is now available. According to news originating from Turin, Italy, by NewsRx correspondents, research stated, "This study investigates cancer targeted gold nanoparticles as ultrasound sensitizers for the treatment of cancer."

Our news journalists obtained a quote from the research from the University of Turin, "The ultrasound sensitizer activity of folate-PEG decorated gold nanoparticles (FA-PEG-GNP) has been studied on human cancer cell lines that overexpress folate receptors (KB and HCT-116) and another that does not (MCF7), at two ultrasound energy densities (8 x 10(-6) J cm(-2) and 8 x 10(-5) J cm(2), for 5 min at 1.866 MHz). FA-PEG-GNP selectively targeted KB and HCT-116 cells and a remarkable reduction in cancer cell growth was observed upon ultrasound exposure, along with significant reactive oxygen species generation and increase in necrotic cells."

According to the news editors, the research concluded: "The combined use of targeting capacity and the ultrasound sensitizing effect, make FA-PEG-GNP promising candidates for the site-specific cancer treatment."


The news correspondents report that additional information may be obtained from R. Canaparo, University of Turin, Dept. of Drug Sci & Technol, I-10125 Turin, Italy. Additional authors for this research include R. Canaparo, L. Racca, F. Foglietta, G. Durando, R. Fantozzi, P. Caliceti, S. Salmasso and L. Serpe.

Keywords for this news article include: Turin, Italy, Europe, Nanoparticles, Emerging Technologies, Nanotechnology, Nanoparticle, Oncology, Cancer, University of Turin.

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Reports from University of Utrecht Highlight Recent Findings in Pharmacoepidemiology (The effect of exposure misclassification in spontaneous ADR reports on the time to detection of product-specific risks for biologicals: a simulation study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Pharmacoepidemiology are discussed in a new report. According to news reporting originating in Utrecht, Netherlands, by NewsRx journalists, research stated, "The availability of accurate product-specific exposure information is essential in the pharmacovigilance of biologicals, because differences in the safety profile may emerge between products containing the same active substance. In spontaneous adverse drug reaction (ADR) reports, drug exposure may, however, be misclassified, that is, attributed to the incorrect product."

Financial support for this research came from College ter Beoordeling van Geneesmiddelen.

The news reporters obtained a quote from the research from the University of Utrecht, "The aim of this study was to explore the effect of exposure misclassification on the time to detection of product-specific risks in spontaneous reporting systems. We used data simulations to explore the effect of exposure misclassification. We simulated an active substance-specific subset of a spontaneous reporting system and used the proportional reporting ratio for signal detection. The effect of exposure misclassification was evaluated in three test cases representing product-specific ADRs that may occur for biologicals and studied in relative terms by varying the model parameters (market share and relative risk). We found that exposure misclassification results in the largest delay in identification of risks that have a weak association (relative risk <2 or 3) with the product of interest and in situations where the product associated with the unique risk has a large (>50%) market share. The absolute public health impact of exposure misclassification, in terms of cases/time to detection, varied considerably across the test cases. Exposure misclassification in ADR reports may result in a delayed detection of product-specific risks, particularly in the detection of weak drug-event associations."

According to the news reporters, the research concluded: "Our findings can help inform the future implementation and refinement of product-specific and batch-specific signal detection procedures."


Our news correspondents report that additional information may be obtained by contacting N.S. Vermeer, Utrecht Institute for Pharmaceutical Sciences (UIPS), Division of Pharmacoepidemiology and Clinical Pharmacology, Utrecht University, Utrecht, Netherlands. Additional authors for this research include H.C. Ebbers, S.M. Straus, H.G. Leufkens, T.C. Egberts and M.L De Bruin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pds.3929. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Europe, Utrecht, Netherlands, Drugs and Therapies, Pharmacoeconomics.

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Oncology - Prostate Cancer

Reports from University of Verona Describe Recent Advances in Prostate Cancer (p16 Expression in Prostate Cancer and Nonmalignant Lesions: Novel Findings and Review of the Literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting from Benevento, Italy, by NewsRx journalists, research stated, "Prostatic specimens occasionally may contain proliferative foci of the small atypical acini that display some but not all features of prostate carcinoma. p504s is the only prostatic cancer (PC)-specific marker that, in combination with basal cell markers, help in the diagnosis of malignant lesions. Very little is known about the diagnostic importance of p16 in primary prostate carcinoma and nonmalignant elements."

The news correspondents obtained a quote from the research from the University of Verona, "We recruited 137 of routinely diagnostic prostatic specimens (between 2009 and 2013), which consisted of 21 prostatectomy, 15 transurethral prostatic resection, and 101 needle biopsy. We evaluated p16, in comparison with p504s, in prostatic carcinoma and benign glands. In this study, both nuclear and cytoplasmatic p16 expression were considered positive. We observed p16 expression in 86% of PC specimens and 16% of benign elements (p=0.001). Interestingly, p16 alone retained a high diagnostic potential in prostatectomy (95%) and in needle biopsy (84%), exhibiting a close association with PC. p504s had a high sensitivity (97%) and predictive negative value (98%) but a low specificity (71%) and predictive positive value (63%). In contrast, p16-positive expression showed a higher specificity (84%) and predictive positive value (74%) than p504s. Two prostatic carcinoma negative for p504s were positive for p16, whereas 7 cases negative for p16 were positive for p504s, and notably none was negative for both markers. In prostatectomy, p16 showed a higher diagnostic accuracy but not on transurethral prostatic resection. In needle biopsies, both markers were complementary, indicating that their combined detection may help in performing an accurate diagnosis."

According to the news reporters, the research concluded: "Our data suggest that p16 expression is significantly enhanced in prostate carcinoma as compared with nonmalignant elements. Our results provide evidence that p16 and p504s together could improve the diagnosis of PC in prostatectomy and needle biopsies."

For more information on this research see: p16 Expression in Prostate Cancer and Nonmalignant Lesions: Novel Findings and Review of the Literature. Applied Immunohistochemistry & Molecular Morphology, 2016;24(3):201-6. (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting A. Remo, *Dept. of Pathology Mater Salutis Hospital, Legnago ‡Dept. of Pathology GB Rossi Hospital, University of Verona, Verona †Dept. of Science and Technology, University
Heart Disorders and Diseases - Heart Failure

Reports from University of Washington Provide New Insights into Heart Failure (Different components of blood pressure are associated with increased risk of atherosclerotic cardiovascular disease versus heart failure in advanced chronic kidney ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Failure are discussed in a new report. According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "Blood pressure is a modifiable risk for cardiovascular disease (CVD). Among hemodialysis patients, there is a U-shaped association between blood pressure and risk of death."

Our news journalists obtained a quote from the research from the University of Washington, "However, few studies have examined the association between blood pressure and CVD in patients with stage 4 and 5 chronic kidney disease. Here we studied 1795 Chronic Renal Insufficiency Cohort (CRIC) Study participants with estimated glomerular filtration rate <30 ml/min per 1.73 m(2) and not on dialysis. The association of systolic (SBP), diastolic (DBP), and pulse pressure with the risk of physician-adjudicated atherosclerotic CVD (stroke, myocardial infarction, or peripheral arterial disease) and heart failure was tested using Cox regression adjusted for demographics, comorbidity and medications. There was a significant association with higher SBP (adjusted hazard ratio 2.04 [95% confidence interval: 1.46-2.84]) for SBP over 140 vs under 120 mmHg, higher DBP (2.52 [1.54-4.11]) for DBP >90 mm Hg versus <80 mm Hg and higher pulse pressure (2.67 [1.82-3.92]) for pulse pressure >68 mm Hg versus <51 mm Hg with atherosclerotic CVD. For heart failure, there was a significant association with higher pulse pressure only (1.42 [1.05-1.92]) for pulse pressure >68 mm Hg versus <51 mmHg, but not for SBP or DBP. Thus, among participants with stage 4 and 5 chronic kidney disease, there was an independent association between higher SBP, DBP, and pulse pressure with the risk of atherosclerotic CVD, whereas only higher pulse pressure was independently associated with a greater risk of heart failure."

According to the news editors, the research concluded: "Further trials are needed to determine whether aggressive reduction of blood pressure decreases the risk of CVD events in patients with stage 4 and 5 chronic kidney disease."

For more information on this research see: Different components of blood pressure are associated with increased risk of atherosclerotic cardiovascular disease versus heart failure in advanced chronic kidney disease. *Kidney International*, 2016;90(6):1348-1356. *Kidney*
The news reporters obtained a quote from the research from the University of the Basque Country, "From December 2003 to February 2016, 777 liver transplantations were performed at our institution, 33 of them (4.2%) with donors 80 years old and above. Our policy for the acceptance of these donors is based on preoperative liver function tests, donor hemodynamic stability, and intraoperative normal gross aspect. Octogenarian grafts were deliberately not assigned to retransplantations or to recipients with multiple previous surgical procedures or extensive portal thrombosis. Mean donor age was 82.7 +/- 2.1 years, with a range between 80 and 88. Only 12.1% suffered hemodynamic instability during the intensive care unit stay. Three donors (9.1%) had a history of diabetes mellitus. The mean Model for End-Stage Liver Disease score among recipients was 14.7 +/- 5.6. Mean cold ischemia time was 302 +/- 61 minutes. After a median follow-up of 18.5 months (range 7.5 to 47.5), no graft developed primary nonfunction. We observed hepatic artery thrombosis in 1 patient (3%) and biliary complications in 4 patients (12.5%). There was 1 case of ischemic-type biliary lesion, although it was related to hepatic artery thrombosis. Patient survival at 1 and 3 years was 90.3%, whereas graft survival was 92.6% and 86.4%, respectively."

According to the news reporters, the research concluded: "Excellent mid-term results can be obtained after liver transplantation with octogenarian donors with strict donor selection and adequate graft allocation."

Our news correspondents report that additional information may be obtained by contacting M. Gastaca, University of the Basque Country, Hepatobiliary Surg & Liver Transplantat Unit, Bilbao, Spain. Additional authors for this research include M. Guerra, L.A. Martinez, P. Ruiz, A. Ventoso, I. Palomares, M. Prieto, A. Matarranz, A. Valdivieso and J.O. de Urbina.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.06.063. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bilbao, Spain, Europe, Cardiovascular Diseases and Conditions, Digestive System Surgical Procedures, Vascular Diseases and Conditions, Embolism and Thrombosis, Liver Transplantation, Transplant Medicine, Liver Transplants, Organ Transplants, Hepatic Artery, Biomedicine, Hematology, Angiology, Surgery, University of the Basque Country.

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**Glycoconjugates**

**Reports from Uppsala University Advance Knowledge in Glycoconjugates (Kinetic Models for Measuring P-glycoprotein Function at the Blood-Brain Barrier with Positron Emission Tomography)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Glycoconjugates have been published. According to news reporting originating in Uppsala, Sweden, by NewsRx editors, the research stated, "P-glycoprotein function is associated with a number of neurodegenerative and psychiatric diseases as well as with pharmacoresistance to for example antiepileptic drugs. The ability to measure P-gp function in vivo would allow for an increased understanding of the mechanisms of disease and treatment."

The news reporters obtained a quote from the research from Uppsala University, "This review assesses the various approaches to in vivo quantification of P-gp function using currently available P-gp tracers and PET in humans. First, the use of compartment models, and their interpretation in terms of P-gp function at the blood-brain barrier, is discussed. Then, the methods that have been used to quantify PET data of the P-gp tracers [C-11] verapamil, [C-11] N-desmethyl-loperamide (dLop), [C-11] laniquidar, [C-11] phenytoin, [C-11] tariquidar and [C-11] elacridar are reviewed."

According to the news reporters, the research concluded: "In summary, the extraction of P-gp substrate PET tracers, which is their plasma to tissue rate constant K-1 corrected for variations in regional cerebral blood flow, is generally considered to be the preferred measure of P-gp function."

For more information on this research see: Kinetic Models for Measuring P-

Our news correspondents report that additional information may be obtained by contacting M. Lubberink, Uppsala University, Uppsala University, Dept. of Surg Sci, Nucl Med PET, Uppsala, Sweden.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1381612822666160804093852. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uppsala, Sweden, Europe, ATP-Dependent Organic Anion Transporters, Blood Brain Barrier, Article Review, ATP-Binding Cassette Transporters, Membrane Transport Proteins, Anion Transport Proteins, Membrane Glycoproteins, Blood-Brain Barrier, Membrane Proteins, Carrier Proteins, P-Glycoproteins, Glycoconjugates, Ion Pumps, Uppsala University.

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**Cardiovascular Diseases and Conditions - Thrombosis**

**Reports from Vancouver General Hospital Advance Knowledge in Thrombosis (Test Characteristics Of Emergency Physician-performed Limited Compression Ultrasound For Lower-extremity Deep Vein Thrombosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Thrombosis. According to news reporting from Vancouver, Canada, by NewsRx journalists, research stated, "The current literature suggests that emergency physician (EP)-performed limited compression ultrasound (LCUS) is a rapid and accurate test for deep vein thrombosis (DVT). Our primary objective was to determine the sensitivity and specificity of LCUS for the diagnosis of DVT when performed by a large heterogeneous group of EPs."

The news correspondents obtained a quote from the research from Vancouver General Hospital, "This was a prospective diagnostic test assessment of LCUS conducted at two urban academic emergency departments. The scanning protocol involved compression at the common femoral, superficial femoral, and popliteal veins. Patients were eligible if undergoing radiology department ultrasound of the lower extremity with moderate or high pretest probability for DVT, or low pretest probability for DVT with a positive D-dimer. The enrolling EP performed LCUS before radiology department ultrasound of the same lower extremity. Sensitivity, specificity, and associated 95% confidence intervals (CIs) were calculated with the radiologist interpretation of the radiology department ultrasound as the criterion standard. A total of 56 EPs enrolled 296 patients for LCUS, with a median age of 50 years and 50% female. Fifty (17%) DVTs were identified by radiology department ultrasound, and another five (2%) cases were deemed indeterminate. The sensitivity and specificity of EP-performed LCUS was 86% (95% CI 73-94%) and 93% (95% CI 89-96%), respectively. A large heterogeneous group of EPs with limited training can perform LCUS with intermediate diagnostic accuracy."
According to the news reporters, the research concluded: "Unfortunately, LCUS performed by EPs with limited ultrasound training is not sufficiently sensitive or specific to rule out or diagnose DVT as a single testing modality."


Our news journalists report that additional information may be obtained by contacting D.J. Kim, Vancouver Gen Hosp, Dept. of Emergency Med, Vancouver, BC V5Z 1M9, Canada. Additional authors for this research include R.L. Byyny, C.A. Rice, J.P. Faragher, K.E. Nordenholz, J.S. Haukoos, M.M. Liao and J.L. Kendall.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Cardiovascular Diseases and Conditions, Diagnostics and Screening, Vascular Diseases and Conditions, Embolism and Thrombosis, Deep Vein Thrombosis, Hematology, Radiology, Vancouver General Hospital.

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**Oncology - Multiple Myeloma**

**Reports from Vanderbilt University School of Medicine Add New Data to Findings in Multiple Myeloma (Evolving paradigms in the treatment of relapsed/refractory multiple myeloma: increased options and increased complexity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Multiple Myeloma. According to news reporting from Nashville, Tennessee, by NewsRx journalists, research stated, "The use of modern therapies such as thalidomide, bortezomib and lenalidomide coupled with upfront high-dose therapy and autologous stem cell transplant (ASCT) has resulted in improved survival in patients with newly diagnosed multiple myeloma (MM). However, patients with relapsed/refractory multiple myeloma (RRMM) often have poorer clinical outcomes and might benefit from novel therapeutic strategies."

The news correspondents obtained a quote from the research from the Vanderbilt University School of Medicine, "Emerging therapies, such as deacetylase inhibitors, monoclonal antibodies and new proteasome inhibitors, appear promising and may change the therapeutic landscape in RRMM. A limited number of studies has shown a benefit with salvage ASCT in patients with RRMM, although there remains ongoing debate about its timing and effectiveness. Improvement in transplant outcomes has re-ignited a debate on the timing and possible role for salvage ASCT and allogeneic stem cell transplant in RRMM."

According to the news reporters, the research concluded: "As the treatment options for management of patients with RRMM become increasingly complex, physicians must consider both disease-and patient-related factors in choosing the appropriate therapeutic approach, with the goal of improving efficacy while minimizing toxicity."

For more information on this research see: Evolving paradigms in the treatment of
relapsed/refractory multiple myeloma: increased options and increased complexity. *Bone Marrow Transplantation*, 2016;51(4):479-91. *Bone Marrow Transplantation* can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news journalists report that additional information may be obtained by contacting R.F. Cornell, Dept. of Medicine, Division of Hematology, Oncology, Vanderbilt University School of Medicine, Nashville, TN, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bmt.2015.307. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Bone Marrow Transplantation* is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Oncology, Nashville, Tennessee, United States, Article Review, Multiple Myeloma, Paraproteinemias, Stem Cell Research, Hemostatic Disorders, Hemorrhagic Disorders, Blood Protein Disorders, North and Central America, Immunoproliferative Disorders, Lymphoproliferative Disorders, Vascular Diseases and Conditions.

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**Surgery - Embolectomy**

**Reports from W.B. Keeling and Co-Researchers Add New Data to Findings in Embolectomy (Outcomes After Surgical Pulmonary Embolectomy for Acute Pulmonary Embolus: A Multi-Institutional Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Surgery - Embolectomy. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Surgical pulmonary embolectomy (SPE) has been sparingly used for the successful treatment of massive and submassive pulmonary emboli. To date, all data regarding SPE have been limited to single-center experiences."

The news correspondents obtained a quote from the research, "The purpose of this study was to document short-term outcomes after SPE for acute pulmonary emboli (PE) at four high-volume institutions. A retrospective review of multiple local Society of Thoracic Surgeons databases of adults undergoing SPE from 1998 to 2014 for acute PE was performed (n = 214). Demographic, operative, and outcomes data were collected and analyzed. Patients were summarily categorized as having either massive or submassive PEs based on the presence or absence of preoperative vasopressors. A total of 214 patients with acute PE were treated by SPE. The mean age was 56.0 +/- 14.5 years, and 92 (43.6%) patients were female. Of those, 176 (82.2%) PEs were submassive and 38 (17.8%) were massive. Fifteen (7.0%) patients underwent concomitant cardiac procedures, with 10 (4.7%) having simultaneous valvular interventions and 5 (2.4%) undergoing concomitant bypass grafting. Cardiopulmonary bypass (CPB) was used for all cases. Cardioplegic arrest was used for 80 (37.4%) patients. The median CPB and aortic cross clamp times were 71.5 (interquartile range [IQR], 47.0-109.5) and 46.0 (IQR, 26.0-74.5), respectively. Notably, only 25 (11.7%) patients died in the hospital. Mortality was highest
among the 28 patients who experienced preoperative cardiac arrest (9, 32.1%). Conclusions. These data represent the first multicenter experience with SPE for acute pulmonary emboli."

According to the news reporters, the research concluded: "Surgical pulmonary embolectomy for acute massive and submassive PE is safe and can be performed with acceptable in-hospital outcomes; the procedure should be included in the multimodality treatment of life-threatening pulmonary emboli."


Our news journalists report that additional information may be obtained by contacting W.B. Keeling, Pavil Holdings Grp, New York, NY, United States. Additional authors for this research include T. Sundt, M. Leacche, Y. Okita, J. Binongo, Y. Lasajanak, L. Aklog and O.M. Lattouf.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.05.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Vascular Surgical Procedures, Embolectomy, Cardiology, Angiology, Hospital, Surgery.

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Oncology - Small Cell Lung Cancer

Reports from Weill Cornell Medical College Describe Recent Advances in Small Cell Lung Cancer (Anatomical Segmentectomy and Wedge Resections Are Associated with Comparable Outcomes for Patients with Small cT1N0 Non-Small Cell Lung Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Small Cell Lung Cancer are presented in a new report. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Sublobar resection is advocated for patients with NSCLC and compromised cardiopulmonary reserve, and for selected patients with early stage disease. Anatomic segmentectomy (AS) has traditionally been considered superior to wedge resection (WR), but well-balanced comparative studies are lacking."

The news reporters obtained a quote from the research from Weill Cornell Medical College, "We hypothesize that WR and AS are associated with comparable oncologic outcomes for patients with cT1N0 NSCLC. A retrospective review of a prospective database was performed (2000-2014) for cT1N0 patients, excluding patients with multiple primary tumors, carcinoid tumors, adenocarcinoma in situ, and minimally invasive adenocarcinoma. Demographic, clinical, and pathological data were reviewed. Overall survival (OS) and disease-free survival (DFS) were estimated using the Kaplan-Meier method and differences compared using log-rank test. Multivariable analysis (MVA) of factors affecting DFS was performed by
Cox regression analysis. For further comparison of the effect of resection type on survival, propensity score matching (i.e., by age, sex, Charlson comorbidity index, percent forced expiratory volume in 1 second (FEV1%), clinical tumor size, and tumor maximum standardized uptake value) was performed to obtain balanced cohorts of patients undergoing WR and AS (n = 76 per group). Two hundred eighty-nine patients met our selection criteria, including WR in 160 and AS in 129. Poor performance status and limited cardiopulmonary reserve were the primary indications for sublobar resection in 76% of WR patients and in 62% of AS patients (p = 0.011). Thirteen patients (4.5%) had pN1/2 disease. Patients undergoing AS were more likely to have nodal sampling/dissection [123 (95%) versus 112 (70%); p<0.001], more stations sampled (3 versus 2; p< 0.001), and more total nodes resected (7 versus 4; p = 0.001). However, there was no difference between patients undergoing WR versus AS in local recurrence [15 versus 14; p = 0.68] or 5-year DFS (51% versus 53%; p = 0.7; median follow-up 34 months). Univariate analysis showed no effect of extent of resection on DFS [hazard ratio 1.07 (95% confidence interval 0.74-1.56); p = 0.696]. MVA showed that only tumor maximum standardized uptake value was associated with worse DFS [hazard ratio 1.07 (95% confidence interval 1.01-1.13); p = 0.016]. In the propensity matched analysis of balanced subgroups, there was also no difference (p = 0.950) in 3- or 5-year DFS in cT1N0 patients undergoing WR (65% and 49%) or AS (68% and 49%). Our data show that WR and AS are comparable oncologic procedures for carefully staged cT1N0 NSCLC patients."

According to the news reporters, the research concluded: "Although AS is associated with a more thorough lymph node dissection, this did not translate to a survival benefit in this patient population with a low rate of nodal metastases."


Keywords for this news article include: New York City, New York, United States, North and Central America, Small Cell Lung Cancer, Cancer, Epidemiology, Lung Neoplasms, Segmentectomy, Oncology, Surgery, Weill Cornell Medical College.

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**Animal Diseases and Conditions - Avian Influenza**

**Reports from Wroclaw University of Technology Add New Data to Findings in Avian Influenza (Bird Flu) [Rapid detection of highly pathogenic A(H7N7) avian influenza virus genetic markers in heterogenic samples utilizing on-chip SSCP-CE method]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Current study results on Animal Diseases and Conditions - Avian Influenza (Bird Flu) have been published. According to news reporting out of Wroclaw, Poland, by NewsRx editors, research stated, "A highly pathogenic avian influenza (HPAI) poses serial threat to humans and animals. Low pathogenic variant of the virus is relatively harmless, but it could evolve into potentially lethal highly pathogenic strain."

Financial support for this research came from National Centre of Research and Development.

Our news journalists obtained a quote from the research from the Wroclaw University of Technology, "In the last decade, the latter was responsible for death of 212 humans and culling over 30 million chickens. Commonly used methods of HPAI variant identification are based on genetic analysis, mainly polymerase chain reaction (PCR) technique. The main drawback of PCR is relatively low detection selectivity of minor HPAI variants in heterogenic samples, as well as its limited application in environmental conditions. Any diagnostic method which could differentiate pathogenicity at the subclinical infection level in mixed samples at the spot of outbreak, will provide significant progress in effective countermeasures development. For this purpose, detection of characteristic genetic mutations of HPAI variant seems to be the most accurate solution. Herein, we present a microchip device for rapid mutation-based detection of low and highly pathogenic strains of avian influenza virus in heterogenic samples utilizing ultrasensitive Single Strand Conformation Polymorphism (SSCP) method combined with Capillary Electrophoresis (CE) and lab-on-a-chip technique. Construction and properties of microdevice are presented in details. Emphasis is placed on simplifying microdevice preparation protocol and reduction of the time of analysis, towards real application in laboratory, as well as outdoor analyses, performed with recently developed lab-in-a-suitcase instrument."

According to the news editors, the research concluded: "Results of detection and differentiation of low and highly pathogenic A(H7N7) avian influenza virus genetic markers are described and discussed."

For more information on this research see: Rapid detection of highly pathogenic A (H7N7) avian influenza virus genetic markers in heterogenic samples utilizing on-chip SSCP-CE method. Sensors and Actuators B-Chemical, 2016;236():926-936. Sensors and Actuators B-Chemical can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland.

Our news journalists report that additional information may be obtained by contacting W. Kubicki, Wroclaw Univ Technol, Fac Microsyst Elect & Photon, Div Microengn & Photovolta, PL-50372 Wroclaw, Poland. Additional authors for this research include B. Pajak, K. Kucharczyk, R. Walczak and J.A. Dziuban.

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Keywords for this news article include: Wroclaw, Poland, Europe, Animal Diseases and Conditions, Epidemiology, Poultry Diseases and Conditions, Bird Diseases and Conditions, Orthomyxoviridae Infections, Avian Influenza (Bird Flu), RNA Virus Infections, Influenza in Birds, Genetics, Wroclaw University of Technology.

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Muscle Cells
Reports from Xi'an Jiao Tong University Add New Data to Findings in Muscle Cells (Activation of AMPK alpha 2 inhibits airway smooth muscle cells proliferation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Muscle Cells is the subject of a report. According to news reporting originating in Shaanxi, People's Republic of China, by NewsRx journalists, research stated, "The aims of the present study were to examine the effect of adenosine monophosphate-activated protein kinase (AMPK) activation on airway smooth muscle cells (ASMCs) proliferation and to address its potential mechanisms. Platelet derived growth factor (PDGF) activated phosphatidylinositol 3-kinase (P13K)/protein kinase B (Alt)/mammalian target of rapamycin (mTOR) signaling pathway, and this in turn up-regulated S-phase kinase-associated protein 2 (Skp2) and consequently reduced cyclin dependent kinase inhibitor 1B (p27) leading to ASMCs proliferation."

The news reporters obtained a quote from the research from Xi'an Jiao Tong University, "Pre-incubation of cells with metformin, an AMPK activator, blocked PDGF-induced activation of mTOR and its downstream targets changes of Skp2 and p27 without changing Alt phosphorylation and inhibited ASMCs proliferation. Transfection of ASMCs with AMPK alpha 2-specific small interfering RNA (siRNA) reversed the effect of metformin on mTOR phosphorylation, Skp2 and p27 protein expression and cell proliferation."

According to the news reporters, the research concluded: "Our study suggests that activation of AMPK, particularly AMPK alpha 2, negatively regulates mTOR activity to suppress ASMCs proliferation and therefore has a potential value in the prevention and treatment of asthma by negatively modulating airway remodeling."


Our news correspondents report that additional information may be obtained by contacting L. Liu, Xi An Jiao Tong Univ, Affiliated Hosp 1, Dept. of Resp & Crit Care Med, Xian 710061, Shaanxi, People's Republic of China. Additional authors for this research include Y.L. Pan, Y. Song, X.F. Su, R. Ke, L. Yang, L. Gao and M.X. Li.

Keywords for this news article include: Shaanxi, People's Republic of China, Asia, Enzymes and Coenzymes, Muscle Cells, Genetics, Kinase, Xi'an Jiao Tong University.

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Genetics
Reports from Xuzhou Medical College Provide New Insights into Genetics (p53 coordinates DNA repair with nucleotide synthesis by suppressing PFKFB3 expression and promoting the pentose phosphate pathway)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics is now available. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Activation of p53 in response to DNA damage is essential for tumor suppression. Although previous studies have emphasized the importance of p53-dependent cell cycle arrest and apoptosis for tumor suppression, recent studies have suggested that other areas of p53 regulation, such as metabolism and DNA damage repair (DDR), are also essential for p53-dependent tumor suppression."

The news reporters obtained a quote from the research from Xuzhou Medical College, "However, the intrinsic connections between p53-mediated DDR and metabolic regulation remain incompletely understood. Here, we present data suggesting that p53 promotes nucleotide biosynthesis in response to DNA damage by repressing the expression of the phosphofructokinase-2 (PFK2) isoform 6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 3 (PFKFB3), a rate-limiting enzyme that promotes glycolysis. PFKFB3 suppression increases the flux of glucose through the pentose phosphate pathway (PPP) to increase nucleotide production, which results in more efficient DNA damage repair and increased cell survival. Interestingly, although p53-mediated suppression of PFKFB3 could increase the two major PPP products, NADPH and nucleotides, only nucleotide production was essential to promote DDR."

According to the news reporters, the research concluded: "By identifying the novel p53 target PFKFB3, we report an important mechanistic connection between p53-regulated metabolism and DDR, both of which play crucial roles in tumor suppression."

For more information on this research see: p53 coordinates DNA repair with nucleotide synthesis by suppressing PFKFB3 expression and promoting the pentose phosphate pathway. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting Y.P. Zhang, Xuzhou Medical College, Inst Canc, Jiangsu Center Collaborat & Innovat Canc Biotherapy, Xuzhou 221002, Jiangsu, People's Republic of China. Additional authors for this research include Y.Z. He, P.L. Leslie, A.P. Tikunov, N. Fenger, J.M. Macdonald and Y.P. Zhang.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Deoxyribonucleic Acid, Tumor Suppression, Phosphoric Acids, DNA Research, Proteomics, DNA Damage, Phosphates, Oncology, Genetics, p53 Gene, Anions, Xuzhou Medical College.

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Oncology - Endometrial Cancer

Reports from Y.L. Wan et al Highlight Recent Findings in Endometrial Cancer (Working together to shape the endometrial cancer research agenda: The top ten unanswered research questions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Endometrial Cancer is the subject of a report. According to news reporting from Southampton, United Kingdom, by NewsRx journalists,
research stated, "Endometrial cancer (EC) is the most common gynaecological cancer in developed nations and its incidence is rising. As a direct consequence, more women are dying from EC despite advances in care and improved survivorship."

Funders for this research include Central Manchester University Hospitals NHS Foundation Trust, Manchester Academic Health Science Centre, The Christie NHS Foundation Trust, British Gynaecological Cancer Society, Macmillan Cancer Support, National Forum of Gynaecological Oncology Nurses, James Lind Alliance, Womb Cancer Support UK, Womb Cancer Voice, Eve Appeal, Wellbeing of Women, Cochrane, National Institute of Health Research, Pelvic Obstetric and Gynaecological Physiotherapists, College of Radiographers, Allied Health Professionals Network.

The news correspondents obtained a quote from the research, "There is a lack of research activity and funding, as well as public awareness about EC. We sought to engage patients, carers and healthcare professionals to identify the most important unanswered research questions in EC. The priority setting methodology was developed by the James Lind Alliance and involved four key stages: gathering research questions; checking these against existing evidence; interim prioritisation; and a final consensus meeting during which the top ten unanswered research questions were agreed using modified nominal group methodology. Our first online survey yielded 786 individual submissions from 413 respondents, of whom 211 were EC survivors or carers, and from which 202 unique unanswered research questions were generated. 253 individuals, including 108 EC survivors and carers, completed an online interim prioritisation survey. The resulting top 30 questions were ranked in a final consensus meeting. Our top ten spanned the breadth of patient experience of this disease and included developing personalised risk scoring, refining criteria for specialist referral, understanding the underlying biology of different types of EC, developing novel personalised treatment and prevention strategies, prognostic and predictive biomarkers, increasing public awareness and interventions for psychological issues."

According to the news reporters, the research concluded: "Having established the top ten unanswered research questions in EC, we hope this galvanises researchers, healthcare professionals and the public to collaborate, coordinate and invest in research to improve the lives of women affected by EC."

For more information on this research see: Working together to shape the endometrial cancer research agenda: The top ten unanswered research questions. Gynecologic Oncology, 2016;143(2):287-293. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.08.333. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Southampton, United Kingdom, Europe, Endometrial Cancer, Women's Health, Gynecology, Oncology.

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Reports from Yildirim Beyazit University Add New Data to Findings in Cardiology (Autonomic Cardiac Activity in Patients with Smoking and Alcohol Addiction by Heart Rate Variability Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting out of Ankara, Turkey, by NewsRx editors, research stated, "Smoking and alcohol addictions are common and worldwide. In the present study, we aimed to investigate the effects of these addictions on cardiac rhythm using heart rate variability (HRV) analysis."

Our news journalists obtained a quote from the research from Yildirim Beyazit University. "Addicts (n=42 men: 22 cigarette; 20 cigarette and alcohol) and age-matched controls (n=34 men) were included in the study. All patients fulfill the criteria for dependence according to DSM-IV-TR. Electrocardiography (ECG) recordings were obtained for a total of 30 minutes. Fagerstrom Nicotine Addiction Test (FNAT) and CAGE questionnaire (Cut down, Annoy, Guilt, Eye opener) was applied to all patients. Almost all HRV parameters were significantly decreased in cigarette and cigarette and alcohol addicts compared with controls (p <0.05). The mean heart rate (bpm) increased in both addict groups compared with control group, and this increase was particularly significant in cigarette and alcohol addicts. The cardiac autonomic balance shifted in favor of sympathetic activity by suppressing the parasympathetic activity in addicts; therefore, the present study shows that smoking and/or alcohol addiction leads to sympathetic activation and parasympathetic inhibition. Reduced vagal activity also predisposes to cardiac arrhythmias."

According to the news editors, the research concluded: "This suggests an increased risk of cardiovascular mortality in subjects with smoking and alcohol addiction."

For more information on this research see: Autonomic Cardiac Activity in Patients with Smoking and Alcohol Addiction by Heart Rate Variability Analysis. Clinical and Investigative Medicine, 2016;39(6):S147-S152. Clinical and Investigative Medicine can be contacted at: Canadian Soc Clinical Investigation, Csci Head Office, 774 Echo Drive, Ottawa, On K1S 5N8, Canada.

Our news journalists report that additional information may be obtained by contacting R. Yuksel, Yildirim Beyazit Univ, Fac Med, Dept. of Physiol, Ankara, Turkey. Additional authors for this research include R.N. Yuksel, T. Sengezer and S. Dane.

Keywords for this news article include: Ankara, Turkey, Eurasia, Heart Rate, Risk and Prevention, Hemodynamics, Cardiology, Yildirim Beyazit University.

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Reports from Yonsei University Advance Knowledge in Cardiovascular Research (Low Dentin Matrix Protein 1 Is Associated With Incident Cardiovascular Events in Peritoneal Dialysis Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Research is now available. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Recent reports demonstrated that dentin matrix protein 1 (DMP1) acts as an inhibitor of vascular calcification and might be a potential biomarker for chronic kidney disease-mineral and bone disorder; however, no clinical investigations regarding DMP1 have been performed in dialysis patients. We investigated the prognostic value of DMP1 on cardiovascular outcomes in prevalent peritoneal dialysis patients."

Our news editors obtained a quote from the research from Yonsei University, "We recruited 223 prevalent peritoneal dialysis patients and divided them into high and low DMP1 groups according to log-transformed plasma DMP1 levels. Lateral lumbar spine radiographs were used for measurement of vascular calcification. Major cardiovascular events were compared between the two groups. A Cox proportional hazards analysis determined DMP1 was independently associated with cardiovascular outcomes. In vitro mouse osteocytes were cultured in media containing indoxyl sulfate (IS), and the expressions of DMP1 were examined. The mean age was 52.1 +/- 11.8 years, and 116 (52.0%) patients were male. The median value of log DMP1 was 0.91 (0.32-2.81ng/mL). The multiple logistic regression analysis indicated that DMP1 levels were independently associated with the presence of vascular calcification after adjustment for multiple confounding factors (odds ratio=0.719; 95% confidence interval [CI] 0.522-0.989; p=0.043). During a mean follow-up duration of 34.6 months, incident cardiovascular events were observed in 41 (18.4%) patients. A Kaplan-Meier plot showed that the low DMP1 group had a significantly higher rate of incident cardiovascular events compared with the high DMP1 group (log-rank test, p=0.026). In addition, multiple Cox analysis showed that low DMP1 was significantly associated with incident cardiovascular events (log 1 increase: hazard ratio=0.855; 95% CI 0.743-0.984; p=0.029) after adjustment for multiple confounding factors. In IS-stimulated osteocytes, mRNA and protein expression levels of DMP1 were significantly decreased compared with control osteocytes. We showed that low DMP1 levels were significantly associated with presence of vascular calcification and were independently associated with the incident cardiovascular events in prevalent peritoneal dialysis patients."

According to the news editors, the research concluded: "DMP1 might be a potential factor contributing to cardiovascular complications in dialysis patients."


Reports from Zagazig University Advance Knowledge in Iron-Deficiency Anemia (Impact of iron deficiency anemia on the function of the immune system in children)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Iron-Deficiency Anemia are discussed in a new report. According to news reporting out of Zagazig, Egypt, by NewsRx editors, research stated, "The importance of iron deficiency as a public health problem is based ultimately on the seriousness of its consequences on health. The most extensively investigated consequences of iron deficiency involve work performance and immune function."

Our news journalists obtained a quote from the research from Zagazig University, "The significance of the effects on work performance is generally accepted. In contrast, data on the influence of iron deficiency on immune function are often perceived as being confusing and contradictory. We aimed to evaluate the effect of iron deficiency anemia on humoral, cellular, nonspecific immunity, and also the effect on the cytokines that are the key factors of many immunologic steps. Forty children with iron deficiency anemia and 20 age and sex-matched healthy children were included. All children were subjected to full medical history, thorough clinical examination, complete blood count, iron indices (serum iron, serum total iron-binding capacity, serum ferritin, and transferrin saturation), immunoglobulin assay (IgA, IgG, and IgM), interleukin (IL)-6 serum level, study of T-lymphocyte subsets, and evaluation of phagocytic function of macrophages and oxidative burst activity of neutrophils. Patients had significantly lower IgG levels, IL-6, phagocytic activity, and oxidative burst of neutrophils than controls, although there was no significant difference between patients and controls with regard to other immunoglobulins and CD4/CD8 ratio. There was significantly positive correlation between serum iron and IL-6 serum level. We concluded that humoral, nonspecific immunity (phagocytic activity and oxidative burst), and the IL-6 are influenced in patients with iron deficiency anemia."

According to the news editors, the research concluded: "Study of these abnormalities after correction of iron deficiency is strongly needed."

For more information on this research see: Impact of iron deficiency anemia on the function of the immune system in children. Medicine, 2016;95(47):161-165. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting T.H. Hassan, Zagazig Univ, Dept. of Pediat, Zagazig 44111, Egypt. Additional authors for this research include M.A. Badr, N.A. Karam, M. Zkaria, H.F. El Saadany, D.M.A.
Cardiovascular Diseases and Conditions - Thrombosis

Reports from Zagazig University Highlight Recent Findings in Thrombosis (Cu-blood flow model through a catheterized mild stenotic artery with a thrombosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Thrombosis is now available. According to news reporting from Zagazig, Egypt, by NewsRx journalists, research stated, "Copper nanoparticles blood flow analysis through a catheterized mild stenotic artery with a thrombosis is presented. The system of coupled governing equations are prescribed and then simplified under mild stenosis assumptions."

The news correspondents obtained a quote from the research from Zagazig University, "The governing equations are solved exactly, and then expressions for temperature, axial velocity, stream function, wall shear stress and resistance impedance are obtained generally for metallic nanoparticles blood flow. Due to the importance of copper nanoparticles in biomedicine, the results for Cu-blood flow model are introduced. The effect of various pertinent flow and geometric parameters on copper-blood flow features in the stenotic region are illustrated and discussed through graphs for catheter and tube models."

According to the news reporters, the research concluded: "Blood trapping is introduced graphically for numerous flow parameters."

For more information on this research see: Cu-blood flow model through a catheterized mild stenotic artery with a thrombosis. Mathematical Biosciences, 2016;282():135-146. Mathematical Biosciences can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Mathematical Biosciences - www.journals.elsevier.com/mathematical-biosciences/)

Our news journalists report that additional information may be obtained by contacting T. Elnaqeeb, Zagazig Univ, Dept. of Math, Fac Sci, Zagazig 44519, Egypt. Additional authors for this research include K.S. Mekheimer and F. Alghamdi.

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Keywords for this news article include: Zagazig, Egypt, Africa, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Emerging Technologies, Nanotechnology, Nanoparticle, Hematology, Zagazig University.

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Reports from Zhengzhou University Describe Recent Advances in Gliomas (Lentivirus-mediated silencing of HSDL2 suppresses cell proliferation in human gliomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gliomas. According to news originating from Zhengzhou, People's Republic of China, by NewsRx correspondents, research stated, "Gliomas are the most common type of malignant brain tumors, and the related prognosis is poor. Though many genes have been identified as factors in the development and progression of gliomas, underlying mechanisms remained unclear."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Zhengzhou University, "It was clear that abnormal lipid metabolism was one of the major hallmarks of cancers. However, few factors associated with lipid metabolism have been reported to be involved in cancer pathogenesis. Hydroxysteroid dehydrogenase-like 2 (HSDL2) is a protein containing sterol carrier protein 2 (SCP2) domain localized in peroxisomes, which indicated that HSDL2 might be a fatty acid regulatory factor. Here, we revealed that HSDL2 was significantly upregulated in gliomas and its expression was positively correlated with glioma grades. Furthermore, lentiviral-mediated HSDL2 knockdown showed that HSDL2 downregulation inhibited the proliferation in two human glioblastoma cell lines U-251 cells and U87 MG cells, induced cell cycle arrest, and promoted cell apoptosis. Our study provided multiple lines of evidence for the causal relationship between HSDL2 overexpression and glioma progression and provided possible mechanisms underlying HSDL2-mediated glioma growth."

According to the news editors, the research concluded: "Taken together, these results indicated that HSDL2 might serve as a potential target for glioma treatment in the future."

For more information on this research see: Lentivirus-mediated silencing of HSDL2 suppresses cell proliferation in human gliomas. Tumor Biology, 2016;37(11):15065-15077. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news correspondents report that additional information may be obtained from R.K. Chen, Zhengzhou Univ, Affiliated Hosp 1, Dept. of Neurosurg, Zhengzhou, Henan, People's Republic of China. Additional authors for this research include Y. Xue, F.D. Yang, X.T. Wei, L.J. Song and X.Z. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5402-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Cell Proliferation, Retroviridae, RNA Viruses, Lentivirus, Genetics, Virology, Oncology, Gliomas, Viral, Zhengzhou University.

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**Reports on Acute Coronary Syndrome Findings from Department of Public Health Provide New Insights (Ventricular fibrillation waveform measures and the etiology of cardiac arrest)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Acute Coronary Syndrome. According to news reporting originating in Seattle, Washington, by NewsRx journalists, research stated, "Early determination of the acute etiology of cardiac arrest could help guide resuscitation or post-resuscitation care. In experimental studies, quantitative measures of the ventricular fibrillation waveform distinguish ischemic from non-ischemic etiology."

The news reporters obtained a quote from the research from the Department of Public Health, "We investigated whether waveform measures distinguished arrest etiology among adults treated by EMS for out-of-hospital ventricular fibrillation between January 1, 2006-December 31, 2014. Etiology was classified using hospital information into three exclusive groups: acute coronary syndrome (ACS) with ST elevation myocardial infarction (STEMI), ACS without ST elevation (non-STEMI), or nonischemic arrest. Waveform measures included amplitude spectrum area (AMSA), centroid frequency (CF), mean frequency (MF), and median slope (MS) assessed during CPR-free epochs immediately prior to the initial and second shock. Waveform measures prior to the initial shock and the changes between first and second shock were compared by etiology group. We a priori chose a significance level of 0.01 due to multiple comparisons. Of the 430 patients, 35% (n = 150) were classified as STEMI, 29% (n = 123) as non-STEMI, and 37% (n = 157) with non-ischemic arrest. We did not observe differences by etiology in any of the waveform measures prior to shock 1 (Kruskal-Wallis Test) (p = 0.28 for AMSA, p = 0.07 for CF, p = 0.63 for MF, and p = 0.39 for MS). We also did not observe differences for change in waveform between shock 1 and 2, or when the two acute ischemia groups (STEMI and non-STEMI) were combined and compared to the non-ischemic group."

According to the news reporters, the research concluded: "This clinical investigation suggests that waveform measures may not be useful in distinguishing cardiac arrest etiology."


Our news correspondents report that additional information may be obtained by contacting T. Rea, Dept. of Public Hlth, Emergency Med Serv, Div Public Hlth Seattle & King Cty, Seattle, WA, United States. Additional authors for this research include J. Coult, J. Blackwood, C. Fahrenbruch, H. Kwok, P. Kudenchuk and T. Rea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.10.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Heart Disorders and Diseases, Ventricular Fibrillation, Acute Coronary Syndrome, Emergency Treatment, Cardiac Arrhythmias, Cardiovascular, Cardiac Arrest,
Reports on Acute Coronary Syndrome from Medical University Provide New Insights (Endothelial lipase plasma levels are increased in both sexes in stable coronary artery disease and only in women with acute coronary syndrome but not associated ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Acute Coronary Syndrome have been published. According to news originating from Graz, Austria, by NewsRx correspondents, research stated, "To investigate whether endothelial lipase (EL) plasma levels are increased in stable coronary artery disease (sCAD) and acute coronary syndrome (ACS) patients, as well as to test the association of EL plasma levels and the severity of CAD and sex. The study was performed as a single-center, cross-sectional, observational research on 72 sCAD and 187 ACS patients in the Sisters of Charity University Hospital Centre, Zagreb, Croatia, between December 1, 2011 and December 1, 2012."

Our news journalists obtained a quote from the research from Medical University, "EL plasma levels were measured using ELISA. EL plasma levels were significantly higher in sCAD patients (median 311.3 pg/mL, interquartile range [IQR] 250.4-422.6 pg/mL) than in ACS patients (median =258.7 pg/mL, IQR = 162.1-356.0 pg/mL; P<0.001). EL levels in female ACS patients were significantly higher (median 314.5 pg/mL, IQR 218.3-420.8 pg/mL) than in male ACS patients (median 225.4 pg/mL, IQR 148.7320 .1 pg/mL; P<0.001) and similar to the EL levels in the sCAD patients. There was no significant correlation between EL plasma levels and the GENSINI score and between EL plasma levels and the number of atherosclerotic coronary artery segments in either the ACS (rho =-0.09, P=0.247; rho =0.12, P=0.106, respectively) or sCAD group (rho = 0.04, P=0.771; rho =0.06, P=0.643, respectively). Our results suggest that EL plasma levels discriminate male but not female patients with different clinical presentations of CAD, as well as female and male ACS patients."

According to the news editors, the research concluded: "EL plasma levels are not significantly correlated with CAD severity."

For more information on this research see: Endothelial lipase plasma levels are increased in both sexes in stable coronary artery disease and only in women with acute coronary syndrome but not associated with the severity of coronary artery disease. Croatian Medical Journal, 2016;57(5):482-492. Croatian Medical Journal can be contacted at: Medicinska Naklada, Vlaska 69, Hr-10000 Zagreb, Croatia.

The news correspondents report that additional information may be obtained from S. Frank, Medical University of Graz, Center Mol Med, Inst Mol Biol & Biochem, Graz, Austria. Additional authors for this research include I. Potocnjak, B. Tiran, T.B. Dzakic, M. Milosevic, V. Degoricija and S. Frank.

Keywords for this news article include: Graz, Austria, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Carboxylic Ester Hydrolases, Arterial Occlusive Diseases, Coronary Artery Disease, Acute
Coronary Syndrome, Enzymes and Coenzymes, Myocardial Ischemia, Arteriosclerosis, Heart Disease, Cardiology, Angiology, Lipase, Medical University.

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**Eye Diseases and Conditions - Age-Related Macular...**

**Reports on Age-Related Macular Degeneration from University of Southampton Provide New Insights** *(A rare penetrant TIMP3 mutation confers relatively late onset choroidal neovascularisation which can mimic age-related macular degeneration)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Eye Diseases and Conditions - Age-Related Macular Degeneration. According to news originating from Southampton, United Kingdom, by NewsRx correspondents, research stated, "To perform a genotype-phenotype correlation for three patients heterozygous for a missense mutation in the tissue inhibitor of metalloproteinase 3 (TIMP3) gene. Retrospective, observational case series."

Our news journalists obtained a quote from the research from the University of Southampton, "The medical records and photographs were reviewed for three patients diagnosed at the time with neovascular age-related macular degeneration (AMD). All were later found to carry a predicted C113G mutation in the TIMP3 gene, other known mutations in which are associated with Sorsby's fundus dystrophy. All three patients developed drusen and bilateral choroidal neovascularisation with subsequent disciform scarring and atrophy. Visual acuity rapidly deteriorated to <6/60 in both eyes. The age of onset varied from 56 to 64 years and the interval to contralateral eye involvement varied from 4 to 6 years. Two of the three patients had a family history of AMD. All three patients were heterozygous for the C113G nucleotide change, resulting in a Ser38Cys change at the N terminus of the TIMP3 protein."

According to the news editors, the research concluded: "This case series suggests the C113G TIMP3 variant may represent a novel highly penetrant mutation causing choroidal neovascularisation of relatively late onset for Sorsby's fundus dystrophy, mimicking early onset AMD."

For more information on this research see: A rare penetrant TIMP3 mutation confers relatively late onset choroidal neovascularisation which can mimic age-related macular degeneration. *Eye*, 2015;30(3):488-91. *Eye* can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Eye - www.nature.com/eye/)

The news correspondents report that additional information may be obtained from A. Warwick, Clinical Neurosciences Research Group, Clinical and Experimental Sciences, Faculty of Medicine, University of Southampton, Southampton, UK. Additional authors for this research include J. Gibson, R. Sood and A. Lotery.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/eye.2015.204. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal *Eye* is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Europe, Genetics, Southampton, United...
Reports on Amniotic Fluid Embolism from Baylor University College of Medicine Provide New Insights (Amniotic Fluid Embolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Pregnancy Complications - Amniotic Fluid Embolism. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Amniotic fluid embolism remains one of the most devastating conditions in obstetric practice with an incidence of approximately 1 in 40,000 deliveries and a reported mortality rate ranging from 20% to 60%." 

The news correspondents obtained a quote from the research from the Baylor University College of Medicine, "The pathophysiology involves an abnormal maternal response to fetal tissue exposure associated with breaches of the maternal-fetal physiologic barrier during parturition. This response and its subsequent injury involve activation of proinflammatory mediators similar to that seen with the classic systemic inflammatory response syndrome."

According to the news reporters, the research concluded: "Maternal treatment is primarily supportive, whereas prompt delivery in the mother who has sustained cardiopulmonary arrest is critical for improved newborn outcome."


Our news journalists report that additional information may be obtained by contacting S.L. Clark, Texas Childrens Hosp, Baylor College of Medicine, Dept. of Obstet & Gynecol, Houston, TX 77030, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ogc.2016.07.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Pregnancy Complications, Amniotic Fluid Embolism, Baylor University College of Medicine.

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Reports on Antibiotics Findings from Sichuan Normal University Provide New Insights (Staurosporine as an agonist for induction of GLUT4 translocation, identified by a pH-sensitive fluorescent IRAP-mOrange2 probe)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news reporting originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "Insulin-stimulated GLUT4 translocation from GLUT4 storage vesicles (GSVs) to the plasma membrane (PM) constitutes a key process for blood glucose control. Therefore, compounds that could promote GLUT4 translocation into the PM represent potential drugs for the treatment of diabetes."

Financial supporters for this research include National Natural Science Foundation of China, Chinese Academy of Sciences, National Key Laboratory of Biomacromolecules. Our news editors obtained a quote from the research from Sichuan Normal University, "In this research, we screened for agonists that induce GLUT4 translocation by using a novel pH-sensitive fluorescent probe, insulin-regulated aminopeptidase (IRAP)-mOrange2. We identified as well as validated one agonist, staurosporine, from a 64,000 compound library. Staurosporine promotes GSVs translocation into the PM and increases glucose uptake through the AMP-activated protein kinase (AMPK) pathway, serving as an effective insulin additive analogue in L6 cells."

According to the news editors, the research concluded: "Our work highlights the convenience and efficiency of this novel pH-sensitive fluorescent probe and reveals the new biological activity of staurosporine as an agonist for GLUT4 translocation and as an effective insulin additive analogue."

For more information on this research see: Staurosporine as an agonist for induction of GLUT4 translocation, identified by a pH-sensitive fluorescent IRAP-mOrange2 probe. Biochemical and Biophysical Research Communications, 2016;480(4):534-538. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.056. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Drugs and Therapies, Peptide Proteins, Peptide Hormones, Antibiotics, Proinsulin, Sichuan Normal University.

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Drugs and Therapies - Antibiotics

Reports on Antibiotics from University of Toyama Provide New Insights (Antibiotic Therapy Increases the Risk of Preterm Birth in Preterm Labor without Intra-Amniotic Microbes, but may Prolong the Gestation Period in Preterm Labor with Microbes, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antibiotics.

According to news reporting originating from Toyama, Japan, by NewsRx correspondents, research stated, "To examine the efficacy of the use of antibiotics in preterm labor (PTL) with intact membranes, after evaluating intra-amniotic microbes by our rapid and bacteria-free polymerase chain reaction (PCR) system. One hundred and four PTL patients before 32 weeks of gestation were recruited."

Our news editors obtained a quote from the research from the University of Toyama, "Until 2012, antibiotics were empirically prescribed based on the clinical severity of PTL. Intra-amniotic microbes in stored samples were evaluated later by our newly established PCR system, and the efficacy of the use of antibiotics in PTL was evaluated. In the amniotic fluid (AF) microbe-negative patients (n=67), antibiotic therapy significantly shortened the gestation period (p <0.0001), whereas in the microbe-positive patients (n=37), appropriate antibiotic therapy (proper antibiotic selection against identified AF microbes) was significantly associated with an increase in gestation period (p <0.0001)."

According to the news editors, the research concluded: "Appropriate antibiotic therapy in PTL with intact membranes prolonged the gestation period."


The news editors report that additional information may be obtained by contacting S. Yoneda, Dept. of Obstetrics and Gynecology, University of Toyama, Toyama, Japan. Additional authors for this research include A. Shiozaki, N. Yoneda, M. Ito, T. Shima, K. Fukuda, T. Ueno, H. Niimi, I. Kitajima, M. Kigawa and S. Saito.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/aji.12484. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the American Journal of Reproductive Immunology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Antibacterial Agents, Antibiotics, Antimicrobials, Japan, Toyama, Drugs and Therapies.

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Reports on Antigens from Johns Hopkins University Provide New Insights (Systematic autoantigen analysis identifies a distinct subtype of scleroderma with coincident cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Antigens have been published. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Scleroderma is a chronic autoimmune rheumatic disease associated with widespread tissue fibrosis and vasculopathy. Approximately two-thirds of all patients with scleroderma present with three dominant autoantibody subsets."

Financial support for this research came from HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID).

The news reporters obtained a quote from the research from Johns Hopkins University, "Here, we used a pair of complementary high-throughput methods for antibody epitope discovery to examine patients with scleroderma with or without known autoantibody specificities. We identified a specificity for the minor spliceosome complex containing RNA Binding Region (RNP1, RNA recognition motif) Containing 3 (RNPC3) that is found in patients with scleroderma without known specificities and is absent in unrelated autoimmune diseases. We found strong evidence for both intra- and intermolecular epitope spreading in patients with RNA polymerase III (POLR3) and the minor spliceosome specificities."

According to the news reporters, the research concluded: "Our results demonstrate the utility of these technologies in rapidly identifying antibodies that can serve as biomarkers of disease subsets in the evolving precision medicine era."


Our news correspondents report that additional information may be obtained by contacting L. Casciola-Rosen, Johns Hopkins University, Sch Med, Div Rheumatol, Baltimore, MD 21224, United States. Additional authors for this research include A.A. Shah, M.Z. Li, Q.K. Xu, A. Rosen, L. Casciola-Rosen and S.J. Elledge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1615990113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Autoantigens, Immunology, Oncology, Genetics, Antigens, Cancer, Johns Hopkins University.

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Reports on Antineoplastics from Central Hospital Provide New Insights (A Simple High-Performance Liquid Chromatography for Determining Lapatinib and Erlotinib in Human Plasma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antineoplastics. According to news originating from Ibaraki, Japan, by NewsRx correspondents, research stated, "Lapatinib and erlotinib are used for cancer treatment, showing large interindividual variability. Therapeutic drug monitoring may be useful for assessing the clinical outcomes and adverse events."

Our news journalists obtained a quote from the research from Central Hospital, "A simple high-performance liquid chromatography UV method was developed for the determination of lapatinib and erlotinib in human plasma. An aliquot of plasma sample spiked with internal standard was treated with acetonitrile to precipitate the proteins. Lapatinib and erlotinib were separated on an octadecylsilyl silica gel column using a mobile phase consisting of acetonitrile, methanol, water, and trifluoroacetic acid (26:26:48:0.1) pumped at a flow rate of 1.0 mL/min. The detection wavelength was set at 316 nm. The calibration curves for lapatinib and erlotinib were linear (r = 0.9999) in the range of 0.125-8.00 mcg/mL. The extraction recoveries for both lapatinib and erlotinib at the plasma concentration of 0.125-8.00 mcg/mL were higher than 89.9% with coefficients of variation less than 3.5%. The coefficients of variation for intraday and interday assays of lapatinib and erlotinib were less than 5.1% and 6.1%, respectively."

According to the news editors, the research concluded: "The present method can be used for blood concentration monitoring for lapatinib or erlotinib in exactly the same conditions."

For more information on this research see: A Simple High-Performance Liquid Chromatography for Determining Lapatinib and Erlotinib in Human Plasma. Therapeutic Drug Monitoring, 2016;38(6):657-662. Therapeutic Drug Monitoring can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

The news correspondents report that additional information may be obtained from M. Ohgami, Ibaraki Cent Hosp, Dept. of Pharm, Kasama, Ibaraki, Japan. Additional authors for this research include M. Homma, Y. Suzuki, K. Naito, M. Yamada, S. Mitsuhashi, F. Fujisawa, H. Kojima, T. Kaburagi, K. Uchiumi, Y. Yamada, H. Bando, H. Hara and K. Takei.

Keywords for this news article include: Ibaraki, Japan, Asia, High-Performance Liquid Chromatography, Tyrosine Kinase Inhibitors, Protein Kinase Inhibitors, Drugs and Therapies, Imaging Technology, Erlotinib Therapy, Antineoplastics, EGFR Inhibitors, HER2 Inhibitors, Hematology, Lapatinib, Plasma, Blood, Central Hospital.

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Antioxidants

Reports on Antioxidants Findings from Daegu Haany University Provide New Insights (Isoliquiritigenin in licorice functions as a hepatic protectant by induction of antioxidant genes through extracellular signal-regulated kinase-mediated ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Antioxidants have been published. According to news originating from Gyongsan, South Korea, by NewsRx correspondents, research stated, "Liver is the major site of biotransformation for exogenous toxins, in having a defense system against oxidative stress as well as cytochrome P450 system. Isoliquiritigenin (isoLQ) is an active component present in Glycyrrhizae radix and has been shown to have various biological activities."

Financial support for this research came from The NRF grant funded by the Korea government [MSIP].

Our news journalists obtained a quote from the research from Daegu Haany University, "This study investigated the effect of isoLQ as a liver protectant against oxidative stress, both in vivo and in vitro, and also its molecular mechanisms. We used tert-butylhydroperoxide-induced hepatocyte damage model and cadmium (Cd)-stimulated liver toxicity animal model, which are assessed by immunoblot and flow cytometry as well as plasma and histopathological parameters. In HepG2 cells, pretreatment of 10 and 30 A mu M isoLQ significantly inhibited the induction of apoptosis and mitochondrial damage, and production of reactive oxygen species. Moreover, isoLQ induced the activation of nuclear factor erythroid 2-related factor-2 (Nrf2), as indicated by an increase in its nuclear translocation and antioxidant response element-luciferase activity. IsoLQ also induced the expression of Nrf2 target phase II enzymes, such as heme oxygenase-1, glutamate-cysteine ligase catalytic subunit and NAD(P) H:quinone oxidoreductase 1. IsoLQ also induced phosphorylation of extracellular stimulus-regulated kinase (ERK), and its activation of Nrf2 was mediated with ERK-dependent phosphorylation of Nrf2, as determined by its chemical inhibitor. In rats, oral treatment of 5 and 20 mg/kg isoLQ prevented Cd-induced acute hepatic damage, as assessed by plasma parameters and semiquantitative histology, such as the modified HAI grading scores and the degenerative regions in hepatic parenchyma."

According to the news editors, the research concluded: "These findings are considered as scientific evidence that isoLQ in licorice has the function of being a hepatic protectant against oxidative damages through ERK-mediated Nrf2 activation."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00394-015-1051-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gyongsan, South Korea, Asia, Enzymes and Coenzymes, Protective Agents, Kinase, Genetics, Antioxidants, Daegu Haany University.

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Drugs and Therapies - Antiretrovirals

Reports on Antiretrovirals from Purdue University Provide New Insights (Nanoscale Infrared, Thermal, and Mechanical Characterization of Telaprevir-Polymer Miscibility in Amorphous Solid Dispersions Prepared by Solvent Evaporation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiretrovirals have been published. According to news reporting originating from West Lafayette, Indiana, by NewsRx correspondents, research stated, "Miscibility is of great interest for pharmaceutical systems, in particular, for amorphous solid dispersions, as phase separation can lead to a higher tendency to crystallize, resulting in a loss in solubility, decreased dissolution rate, and compromised bioavailability. The purpose of this study was to investigate the miscibility behavior of a model poorly water-soluble drug, telaprevir (TPV), with three different polymers using atomic force microscopy-based infrared, thermal, and mechanical analysis."

Funders for this research include Division of Industrial Innovation and Partnerships, U.S. Food and Drug Administration, National Institute of General Medical Sciences.

Our news editors obtained a quote from the research from Purdue University, "Standard atomic force microscopy (AFM) imaging together with nanoscale infrared spectroscopy (AFM-IR), nanoscale thermal analysis (nanoTA), and Lorentz contact resonance (LCR) measurements were used to evaluate the miscibility behavior of TPV with three polymers, hydroxypropyl methylcellulose (HPMC), HPMC acetate succinate (HPMCAS), and poly(vinylpyrrolidone-co-vinyl acetate) (PVPVA), at different drug to polymer ratios. Phase separation was observed with HPMC and PVPVA at drug loadings above 10%. For HPMCAS, a smaller miscibility gap was observed, with phase separation being observed at drug loadings higher than &sim;30-40%. The domain size of phase-separated regions varied from below 50 nm to a few hundred nanometers. Localized infrared spectra, nano-TA measurements, images from AFM-based IR, and LCR measurements showed clear contrast between the continuous and discrete domains for these phase-separated systems, whereby the discrete domains were drug-rich. Fluorescence microscopy provided additional evidence for phase separation. These methods appear to be promising to evaluate miscibility in drug-polymer systems with similar Tgs and submicron domain sizes."

According to the news editors, the research concluded: "Furthermore, such findings are of obvious importance in the context of contributing to a mechanistic understanding of amorphous solid dispersion phase behavior."

For more information on this research see: Nanoscale Infrared, Thermal, and Mechanical Characterization of Telaprevir-Polymer Miscibility in Amorphous Solid Dispersions Prepared by Solvent Evaporation. Molecular Pharmaceutics, 2016;13(3):1123-36. (American
The news editors report that additional information may be obtained by contacting N. Li, Dept. of Industrial and Physical Pharmacy, Purdue University, 575 Stadium Mall Drive, West Lafayette, Indiana 47907, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00925. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiretrovirals, Indiana, Nanoscale, United States, West Lafayette, Nanotechnology, Drugs and Therapies, Emerging Technologies, Atomic Force Microscopy, North and Central America.

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Reports on Apoptosis Findings from Sabanci University Provide New Insights (AMP-Activated Protein Kinase Couples 3-Bromopyruvate-Induced Energy Depletion to Apoptosis via Activation of FoxO3a and Upregulation of Proapoptotic Bcl-2 Proteins)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Apoptosis is now available. According to news originating from Istanbul, Turkey, by NewsRx correspondents, research stated, "Most tumors primarily rely on glycolysis rather than mitochondrial respiration for ATP production. This phenomenon, also known as Warburg effect, renders tumors more sensitive to glycolytic disturbances compared to normal cells. 3-bromopyruvate is a potent inhibitor of glycolysis that shows promise as an anticancer drug candidate."

Our news journalists obtained a quote from the research from Sabanci University, "Although investigations revealed that 3-BP triggers apoptosis through ATP depletion and subsequent AMPK activation, the underlying molecular mechanisms coupling AMPK to apoptosis are poorly understood. We showed that 3-BP leads to a rapid ATP depletion which was followed by growth inhibition and Bax-dependent apoptosis in HCT116 cells. Apoptosis was accompanied with activation of caspase-9 and -3 while pretreatment with a general caspase inhibitor attenuated cell death. AMPK, p38, JNK, and Akt were phosphorylated immediately upon treatment. Pharmacological inhibition and silencing of AMPK largely inhibited 3-BP-induced apoptosis and reversed phosphorylation of JNK. Transcriptional activity of FoxO3a was dramatically increased subsequent to AMPK-mediated phosphorylation of FoxO3a at Ser413. Cell death analysis of cells transiently transfected with wt or AMPK-phosphorylation-deficient FoxO3 expression plasmids verified the contributory role of AMPK-FoxO3a axis in 3-BP-induced apoptosis. In addition, expression of proapoptotic Bcl-2 proteins Bim and Bax were upregulated in an AMPK-dependent manner. Bim was transcriptionally activated in association with FoxO3a activity, while Bax upregulation was abolished in p53-null cells."

According to the news editors, the research concluded: "Together, these data suggest that AMPK couples 3-BP-induced metabolic disruption to intrinsic apoptosis via modulation of FoxO3a-Bim axis and Bax expression."

For more information on this research see: AMP-Activated Protein Kinase Couples

The news correspondents report that additional information may be obtained from C. Bodur, Sabanci Univ, Mol Biol Genet & Bioengn Program, Istanbul 34956, Turkey. Additional authors for this research include B. Karakas, A.C. Timucin, T. Tezil and H. Basaga.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Intracellular Signaling Peptides and Proteins, AMP-Activated Protein Kinases, Enzymes and Coenzymes, Apoptosis, Caspase, Sabanci University.

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**Lung Diseases and Conditions - Asthma**

**Reports on Asthma from University of California Provide New Insights (GSDMB induces an asthma phenotype characterized by increased airway responsiveness and remodeling without lung inflammation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Asthma have been published. According to news originating from La Jolla, California, by NewsRx correspondents, research stated, "Gasdermin B (GSDMB) on chromosome 17q21 demonstrates a strong genetic linkage to asthma, but its function in asthma is unknown. Here we identified that GSDMB is highly expressed in lung bronchial epithelium in human asthma."

Our news journalists obtained a quote from the research from the University of California, "Overexpression of GSDMB in primary human bronchial epithelium increased expression of genes important to both airway remodeling [TGF-beta 1, 5-lipoxygenase (5-LO)] and airway-hyperresponsiveness (AHR) (5-LO). Interestingly, hGSDMB(Zp3-Cre) mice expressing increased levels of the human GSDMB transgene showed a significant spontaneous increase in AHR and a significant spontaneous increase in airway remodeling, with increased smooth muscle mass and increased fibrosis in the absence of airway inflammation. In addition, hGSDMB(Zp3-Cre) mice showed increases in the same remodeling and AHR mediators (TGF-beta 1, 5-LO) observed in vitro in GSDMB-overexpressing epithelial cells. GSDMB induces TGF-beta 1 expression via induction of 5-LO, because knockdown of 5-LO in epithelial cells over-expressing GSDMB inhibited TGF-beta 1 expression."

According to the news editors, the research concluded: "These studies demonstrate that GSDMB, a gene highly linked to asthma but whose function in asthma is previously unknown, regulates AHR and airway remodeling without airway inflammation through a previously unrecognized pathway in which GSDMB induces 5-LO to induce TGF-beta 1 in bronchial epithelium."

For more information on this research see: GSDMB induces an asthma phenotype characterized by increased airway responsiveness and remodeling without lung inflammation. *Proceedings of the National Academy of Sciences of the United States of America*, 2016;113 (46):13132-13137. *Proceedings of the National Academy of Sciences of the United States of America* can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC
The news correspondents report that additional information may be obtained from D.H. Broide, University of California, Dept. of Med, La Jolla, CA 92093, United States. Additional authors for this research include M. Miller, A.K. Beppu, J. Mueller, M.D. McGeough, C. Vuong, M.R. Karta, P. Rosenthal, F. Chouiali, T.A. Doherty, R.C. Kurten, Q. Hamid, H.M. Hoffman and D.H. Broide.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1610433113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Inflammation, Genetics, Asthma, University of California.

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Cardiovascular Diseases and Conditions -

Reports on Atherosclerosis Findings from Southern Medical University Provide New Insights (Identification of novel genes and pathways in carotid atheroma using integrated bioinformatic methods)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Atherosclerosis are discussed in a new report. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "Atherosclerosis is the primary cause of cardiovascular events and its molecular mechanism urgently needs to be clarified. In our study, atheromatous plaques (ATH) and macroscopically intact tissue (MIT) sampled from 32 patients were compared and an integrated series of bioinformatic microarray analyses were used to identify altered genes and pathways."

Our news journalists obtained a quote from the research from Southern Medical University, "Our work showed 816 genes were differentially expressed between ATH and MIT, including 443 that were up-regulated and 373 that were down-regulated in ATH tissues. GO functional-enrichment analysis for differentially expressed genes (DEGs) indicated that genes related to the 'immune response' and 'muscle contraction' were altered in ATHs. KEGG pathway-enrichment analysis showed that up-regulated DEGs were significantly enriched in the 'FceRI-mediated signaling pathway', while down-regulated genes were significantly enriched in the 'transforming growth factor-b signaling pathway'. Protein-protein interaction network and module analysis demonstrated that VAV1, SYK, LYN and PTPN6 may play critical roles in the network. Additionally, similar observations were seen in a validation study where SYK, LYN and PTPN6 were markedly elevated in ATH."

According to the news editors, the research concluded: "All in all, identification of these genes and pathways not only provides new insights into the pathogenesis of atherosclerosis, but may also aid in the development of prognostic and therapeutic biomarkers for advanced atheroma."

Cardiovascular Diseases and Conditions -

Reports on Atherosclerosis Findings from Southern Medical University Provide New Insights (Identification of novel genes and pathways in carotid atheroma using integrated bioinformatic methods)
For more information on this research see: Identification of novel genes and pathways in carotid atheroma using integrated bioinformatic methods. Scientific Reports, 2016;6 ():18764. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting W. Nai, Dept. of Health Management, Southern Medical University, Guangzhou 510515, Guangdong, People's Republic of China. Additional authors for this research include D. Threapleton, J. Lu, K. Zhang, H. Wu, Y. Fu, Y. Wang, Z. Ou, L. Shan, Y. Ding, Y. Yu and M. Dai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18764. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Biotechnology, Genetics, Guangdong, Angiology, Bioengineering, Atherosclerosis, Arteriosclerosis, Applied Bioinformatics, People's Republic of China, Arterial Occlusive Diseases, Cardiovascular Diseases and Conditions.

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Reports on Atherosclerosis Findings from University of Washington Provide New Insights (Cutting Edge: BAFF Overexpression Reduces Atherosclerosis via TACI-Dependent B Cell Activation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news reporting out of Seattle, Washington, by NewsRx editors, research stated, "Patients with systemic lupus erythematosus exhibit accelerated atherosclerosis, a chronic inflammatory disease of the arterial wall. The impact of B cells in atherosclerosis is controversial, with both protective and pathogenic roles described."

Our news journalists obtained a quote from the research from the University of Washington, "For example, natural IgM binding conserved oxidized lipid epitopes protect against atherosclerosis, whereas anti-oxidized lowdensity lipoprotein ( oxLDL) IgG likely promotes disease. Because BAFF promotes B cell class-switch recombination and humoral autoimmunity, we hypothesized that excess BAFF would accelerate atherosclerosis. In contrast, BAFF overexpression markedly reduced hypercholesterolemia and atherosclerosis in hyperlipidemic mice. BAFF-mediated atheroprotection required B cells and was associated with increased protective anti-oxLDL IgM. Surprisingly, high-titer anti-oxLDL IgM production and reduced atherosclerosis was dependent on the BAFF family receptor transmembrane activator and CAML interactor."

According to the news editors, the research concluded: "In summary, we identified a novel role for B cell-specific, BAFF-dependent transmembrane activator and CAML interactor signals in atherosclerosis pathogenesis, of particular relevance to the use of BAFF-targeted therapies in systemic lupus erythematosus."

For more information on this research see: Cutting Edge: BAFF Overexpression Reduces Atherosclerosis via TACI-Dependent B Cell Activation. Journal of Immunology, 2016;197(12):4529-4534. Journal of Immunology can be contacted at: Amer Assoc
Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news journalists report that additional information may be obtained by contacting D.J. Rawlings, University of Washington, Dept. of Immunol, Sch Med, Seattle, WA 98195, United States. Additional authors for this research include N.E. Scharping, H.M. Jacobs, S. Wang, A. Chait and D.J. Rawlings.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1601198. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Cardiovascular Diseases and Conditions, Immunology, Arterial Occlusive Diseases, Arteriosclerosis, Atherosclerosis, University of Washington.

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Heart Disorders and Diseases - Atrial Fibrillation

Reports on Atrial Fibrillation from Tokyo Medical and Dental University Provide New Insights (The impact of B-type natriuretic peptide levels on the suppression of accompanying atrial fibrillation in Wolff-Parkinson-White syndrome patients ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Atrial fibrillation (AF) often coexists with Wolff-Parkinson-White (WPW) syndrome. We compared the efficacy of Kent bundle ablation alone and additional AF ablation on accompanying AF, and examined which patients would still have a risk of AF after successful Kent bundle ablation."

Our news journalists obtained a quote from the research from Tokyo Medical and Dental University, "This retrospective multicenter study included 96 patients (56 15 years, 72 male) with WPW syndrome and AF undergoing Kent bundle ablation. Some patients underwent simultaneous pulmonary vein isolation (PVI) for AF. The incidence of post-procedural AF was examined. Sixty-four patients underwent only Kent bundle ablation (Kent-only group) and 32 also underwent PVI (+PVI group). There was no significant difference in the basic patient characteristics between the groups. Additional PVI did not improve the freedom from residual AF compared to Kent bundle ablation alone (p = 0.53). In the Kent-only group, AF episodes remained in 25.0% during the follow-up (709 days). A univariate analysis showed that age >= 60 years, left atrial dimension >= 38 mm, B-type natriuretic peptide (BNP) >= 40 pg/ml, and concomitant hypertension were predictive factors for residual AF. However, in the multivariate analysis, only BNP >= 40 pg/ml remained as an independent predictive factor (HR = 17.1 and CI: 2.3-128.2; p = 0.006). Among patients with WPW syndrome and AF, Kent bundle ablation alone may have a sufficient clinical impact of preventing recurrence of AF in select patients."

According to the news editors, the research concluded: "Screening the BNP level would help decide the strategy to manage those patients."

For more information on this research see: The impact of B-type natriuretic peptide levels on the suppression of accompanying atrial fibrillation in Wolff-Parkinson-White


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2016.01.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Heart Disorders and Diseases, Natriuretic Peptides, Atrial Fibrillation, Cardiac Arrhythmias, Peptide Proteins, Peptide Hormones, Heart Disease, Tokyo Medical and Dental University.

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**Urogenital Diseases and Conditions - Azoospermia**

**Reports on Azoospermia Findings from Al-Azhar University Provide New Insights (Oestrogen receptors beta genotype in infertile Egyptian men with nonobstructive azoospermia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Urogenital Diseases and Conditions - Azoospermia have been published. According to news reporting originating in Assiut, Egypt, by NewsRx journalists, research stated, "In a prospective study, the polymorphism of oestrogen receptor beta gene was investigated in nonobstructive azoospermia patients. Ninety infertile patients with nonobstructive azoospermia diagnosed after two semen analysis, 2 weeks apart and negative testicular sperm extraction during intracytoplasmic sperm injection, and 60 fertile men as controls were enrolled in the study."

The news reporters obtained a quote from the research from Al-Azhar University, "Semen analysis, hormonal profile and allele-specific PCR reaction were performed to detect variants of the RsaI polymorphism of the oestrogen receptor beta gene for all patients and controls. The mean patient's age was significantly lower than the mean age of the controls (P < 0.05). There was a significant increase in the mean serum levels of FSH, LH, free testosterone and E2 and significant decrease in total testosterone in patients than controls (P < 0.05). In the patients, the frequency of the homozygous GG, heterozygous AG and homozygous AA genotype was 83.3%, 14.3% and 3.3% respectively, whereas their frequencies in the controls were 95%, 5% and 0% respectively (odds ratio 3.8). There is no significant correlation between ER beta polymorphisms and patient's age or pituitar y and sex hormones (P > 0.05)."

According to the news reporters, the research concluded: "Our findings suggested that in Egyptian population, genetic mutation in ER beta is associated with the risk of nonobstructive azoospermia."

For more information on this research see: Oestrogen receptors beta genotype in infertile Egyptian men with nonobstructive azoospermia. *Andrologia*, 2016;48(10):1289-1293.
Reports on Blood Cells from Beijing University of Chemical Technology Provide New Insights (Fatty acid profiling of blood cell membranes by gas chromatography with mass spectrometry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cell Research - Blood Cells. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Fatty acids, which are well-known for their influence on human metabolism and signal transduction, are also a substantial component of cellular membranes and regulate the basic properties and functions of membranes. Owing to their multiple functions, fatty acid profiles of cell membranes are of great interest to those who are studying the relationship between membrane biochemical compositions and functions."

Our news journalists obtained a quote from the research from the Beijing University of Chemical Technology. "A HCl-catalyzed derivation method and a gas chromatography with mass spectrometry analysis method were developed to accurately profile the fatty acids in cell membranes of erythrocytes, leukocytes, and platelets. The detection limits of all 35 fatty acids ranged from 0.58 to 22 ng/mL and the limits of quantitation were between 2.1 and 72 ng/mL. Finally, the established method was used to profile the membrane fatty acids of 44 healthy volunteers from the north and south of China. Results revealed significant differences in the fatty acid profiles from the two regions, particularly those of the erythrocytes."

According to the news editors, the research concluded: "This technique may be applied to cell membrane studies to generate new biological hypotheses concerning fatty acid composition and membrane functions as well as to construct related disease profiles."

Blood Pressure

Reports on Blood Pressure Findings from University College Cork Provide New Insights (Correlation between short-term blood pressure variability and left-ventricular mass index: a meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Pressure have been published. According to news reporting originating in Cork, Ireland, by NewsRx journalists, research stated, "Long-term blood pressure variability (BPV) has been associated with cardiovascular events but the prognostic significance of short-term BPV remains uncertain, including its influence on the presence of target-organ damage, specifically left-ventricular hypertrophy. A meta-analysis exploring the correlation between short-term BPV and left-ventricular mass index was performed."

The news reporters obtained a quote from the research from University College Cork, "Studies were identified by systematic searches in Pubmed and EMBASE. Any summary measure of short-term BPV obtained from ambulatory blood pressure monitoring was included. Twelve studies were included. Average real variability (ARV), s.d., weighted s.d. and coefficient of variation across 24 h/day/night periods were identified as measures of variability. Meta-analysis showed the pooled subgroup correlation coefficients of LVMI with 24 h systolic blood pressure (SBP) s.d., day SBP s.d., weighted s.d. SBP and 24 h ARV SBP were 0.22 (95% confidence interval (CI): 0.12-0.31), 0.19 (95% CI: 0.15-0.25), 0.23 (95% CI: 0.13-0.33), 0.37 (95% CI: 0.01-0.65), respectively."

According to the news reporters, the research concluded: "This meta-analysis suggests there is a weak positive correlation, between BPV and LVMI."

For more information on this research see: Correlation between short-term blood pressure variability and left-ventricular mass index: a meta-analysis. Hypertension Research, 2015;39(3):171-7. (Nature Publishing Group - www.nature.com/; Hypertension Research - www.nature.com/hr/)

Our news correspondents report that additional information may be obtained by contacting J.M. Madden, Dept. of Epidemiology and Public Health, University College Cork, Cork, Ireland. Additional authors for this research include A.M. O’Flynn, A.P. Fitzgerald and P.M. Kearney.

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Keywords for this news article include: Cork, Europe, Ireland, Cardiology,
Reports on Bone Research Findings from Nagasaki University Provide New Insights (Overexpression of BCLXL in Osteoblasts Inhibits Osteoblast Apoptosis and Increases Bone Volume and Strength)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Bone Research is now available. According to news reporting out of Nagasaki, Japan, by NewsRx editors, research stated, "The Bcl2 family proteins, Bcl2 and BclXL, suppress apoptosis by preventing the release of caspase activators from mitochondria through the inhibition of Bax subfamily proteins. We reported that BCL2 overexpression in osteoblasts using the 2.3 kb Col1a1 promoter increased osteoblast proliferation, failed to reduce osteoblast apoptosis, inhibited osteoblast maturation, and reduced the number of osteocyte processes, leading to massive osteocyte death."

Our news journalists obtained a quote from the research from Nagasaki University, "We generated BCLXL (BCL2L1) transgenic mice using the same promoter to investigate BCLXL functions in bone development and maintenance. Bone mineral density in the trabecular bone of femurs was increased, whereas that in the cortical bone was similar to that in wild-type mice. Osteocyte process formation was unaffected and bone structures were similar to those in wild-type mice. A micro-CT analysis showed that trabecular bone volume in femurs and vertebrae and the cortical thickness of femurs were increased. A dynamic bone histomorphometric analysis revealed that the mineralizing surface was larger in trabecular bone, and the bone-formation rate was increased in cortical bone. Serum osteocalcin but not TRAP5b was increased, BrdU-positive osteoblastic cell numbers were increased, TUNEL-positive osteoblastic cell numbers were reduced, and osteoblast marker gene expression was enhanced in BCLXL transgenic mice. The three-point bending test indicated that femurs were stronger in BCLXL transgenic mice than in wild-type mice. The frequency of TUNEL-positive primary osteoblasts was lower in BCLXL transgenic mice than in wild-type mice during cultivation, and osteoblast differentiation was enhanced but depended on cell density, indicating that enhanced differentiation was mainly owing to reduced apoptosis. Increased trabecular and cortical bone volumes were maintained during aging in male and female mice."

According to the news editors, the research concluded: "These results indicate that BCLXL overexpression in osteoblasts increased the trabecular and cortical bone volumes with normal structures and maintained them majorly by preventing osteoblast apoptosis, implicating BCLXL as a therapeutic target of osteoporosis."


Our news journalists report that additional information may be obtained by contacting T. Komori, Nagasaki University, Dept. of Cell Biol, Grad Sch Biomed Sci, Nagasaki, Japan. Additional authors for this research include R. Fukuyama, T. Miyazaki, T. Furuichi, M.
Ito and T. Komori.

Keywords for this news article include: Nagasaki, Japan, Asia, Connective Tissue Cells, Bone Research, Osteoblasts, Osteocytes, Apoptosis, Genetics, Nagasaki University.

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Oncology - Breast Cancer

Reports on Breast Cancer Findings from Guangdong University of Technology Provide New Insights (Moment Stability For Nonlinear Stochastic Growth Kinetics Of Breast Cancer Stem Cells With Time-delays)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "Solid tumors are heterogeneous in composition. Cancer stem cells (CSCs) are a highly tumorigenic cell type found in developmentally diverse tumors that are believed to be resistant to standard chemotherapeutic drugs and responsible for tumor recurrence."

Our news journalists obtained a quote from the research from the Guangdong University of Technology, "Thus understanding the tumor growth kinetics is critical for development of novel strategies for cancer treatment. In this paper, the moment stability of nonlinear stochastic systems of breast cancer stem cells with time-delays has been investigated. First, based on the technique of the variation-of-constants formula, we obtain the second order moment equations for the nonlinear stochastic systems of breast cancer stem cells with time-delays. By the comparison principle along with the established moment equations, we can get the comparative systems of the nonlinear stochastic systems of breast cancer stem cells with time-delays. Then moment stability theorems have been established for the systems with the stability properties for the comparative systems. Based on the linear matrix inequality (LMI) technique, we next obtain a criteria for the exponential stability in mean square of the nonlinear stochastic systems for the dynamics of breast cancer stem cells with time-delays."

According to the news editors, the research concluded: "Finally, some numerical examples are presented to illustrate the efficiency of the results."

For more information on this research see: Moment Stability For Nonlinear Stochastic Growth Kinetics Of Breast Cancer Stem Cells With Time-delays. Discrete and Continuous Dynamical Systems-Series B, 2016;21(8):2473-2489. Discrete and Continuous Dynamical Systems-Series B can be contacted at: Amer Inst Mathematical Sciences-Aims, PO Box 2604, Springfield, MO 65801-2604, USA.

Our news journalists report that additional information may be obtained by contacting C.J. Guo, Guangdong Univ Technol, Sch Appl Math, Guangzhou 510006, Guangdong, People's Republic of China. Additional authors for this research include C.X. Guo, S. Ahmed and X.F. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3934/dcdsb.2016056. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China,
Reports on Breast Cancer Findings from United BioSource Corporation Provide New Insights (A time and motion study of subcutaneous versus intravenous trastuzumab in patients with HER2-positive early breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting from Barcelona, Spain, by NewsRx journalists, research stated, "Within PrefHer (NCT01401166), patients and healthcare professionals (HCPs) preferred subcutaneous (SC) over intravenous (IV) trastuzumab. We undertook a prospective, observational time and motion study to quantify patients' time in infusion chairs and active HCP time in PrefHer."

Financial support for this research came from F. Hoffmann-La Roche Ltd, Basel, Switzerland.

The news correspondents obtained a quote from the research from United BioSource Corporation, "Patients with HER2-positive early breast cancer received four adjuvant cycles of SC trastuzumab (600 mg fixed dose via SC single-use injection device [SID, Cohort 1] or SC handheld syringe [HHS, Cohort 2]) then four cycles of standard IV trastuzumab or the reverse sequence. Generic case report forms for IV and SC management, both in the treatment room and the drug preparation area, were tailored to reflect center practices. Patient chair time and active HCP time were recorded. We compared pooled Cohort 1 + 2 IV with Cohort 1 SC SID and Cohort 2 SC HHS mean times across eight countries and individually within them utilizing a random intercept generalized linear mixed-effects model. Per session, the SC SID saved a mean of 57 min of patient chair time versus IV (range across countries: 47-86; p<0.0001); the SC HHS saved 55 min (40-81; p<0.0001). Active HCP time was reduced by a mean of 13 min per session with the SC SID (range across countries: 4-16; p<0.0001) and 17 min with the SC HHS (5-28; p<0.0001) versus IV."

According to the news reporters, the research concluded: "SC trastuzumab, delivered via SID or HHS, saved patient chair and active HCP times versus IV infusion, supporting a transition to either SC method."


Our news journalists report that additional information may be obtained by contacting E. De Cock, United BioSource Corporation, Barcelona, Spain. Additional authors for this research include X. Pivot, N. Hauser, S. Verma, P. Kritikou, D. Millar and A. Knoop.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.573. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastic Monoclonal Antibodies,
Reports on Cancer Risk Findings from University of Turin Provide New Insights (Skin phenotypes can offer some insight about the association between telomere length and cancer susceptibility)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cancer Risk is the subject of a report. According to news reporting originating in Turin, Italy, by NewsRx journalists, research stated, "The role of telomere biology in cancer has been studied for a wide variety of different cancers but the association with telomere length has been controversial. This is because some cancers have been found to be associated with longer telomeres in circulating white cells whilst other cancer types are more common in individuals with shorter telomeres."

The news reporters obtained a quote from the research from the University of Turin, "Hence, there has been some skepticism as to whether telomere length may be helpful in estimating cancer risk. For melanoma, however, results have been fairly consistent showing that longer telomeres are associated with an increased risk. This link was first discovered because of a link between longer telomeres and a high number of naevi. In contrast, for cutaneous squamous cell carcinomas, the relationship is reversed with higher risk in individuals with shorter telomeres. Differences in skin phenotypes with the presence of high number of naevi versus photoageing with solar elastosis and solar keratoses have already been valuable for dermatologists as the former phenotype is associated with melanoma whilst the latter is more common in patients with squamous cell carcinoma of the skin. The hypothesis is that the differences in cutaneous phenotypes already observed by dermatologists for skin cancers may, in fact, be useful as well for cancer prediction in general as it may reflect underlying telomere biology."

According to the news reporters, the research concluded: "This manuscript will address the evidence for links between telomere biology, skin phenotypes and cancer risk."

For more information on this research see: Skin phenotypes can offer some insight about the association between telomere length and cancer susceptibility. Medical Hypotheses, 2016;97():7-10. Medical Hypotheses can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Medical Hypotheses - www.journals.elsevier.com/medical-hypotheses/)

Our news correspondents report that additional information may be obtained by contacting S. Ribero, University of Turin, Dept. of Med Sci, Turin, Italy. Additional authors for this research include M. Mangino and V. Bataille.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mehy.2016.10.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turin, Italy, Europe, Cell Nucleus Structures, Chromosome Structures, Risk and Prevention, Intranuclear Space, Cancer Risk,
Telomere, Oncology, Melanoma, University of Turin.

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Enzymes and Coenzymes - Carboxy-Lyases

Reports on Carboxy-Lyases Findings from Jichi Medical University Provide New Insights (A female case of aromatic L-amino acid decarboxylase deficiency responsive to MAO-B inhibition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Carboxy-Lyases. According to news reporting originating in Tochigi, Japan, by NewsRx journalists, research stated, "Aromatic L-amino acid decarboxylase (AADC) deficiency is an autosomal recessive disorder, caused by defects in the DDC gene. AADC catalyzes the synthesis of the neurotransmitters dopamine and serotonin from L-dopa and 5-HT respectively."

Funders for this research include Agency of Medical Research and Development, JSPS.

The news reporters obtained a quote from the research from Jichi Medical University, "Most patients are bed ridden for life, with little response to treatment. We now report one female patient who improved her motor and cognitive function after being prescribed a MAO-B inhibitor. A five years old female presented with the typical clinical features of AADC deficiency. She was floppy, with no head control, had intermittent limb dystonia, and an upward deviation of the eyes (oculogyric crisis). This patient possessed compound heterozygous mutations in DDC (p.Trp105Cys, p.Pro129Ser), with a CSF draw indicating abnormal patterns of biogenic amine metabolites, compatible with AADC deficiency. After her diagnosis at 3 years of age, medication with levodopa and vitamin B6 failed to show any efficacy. Subsequent administration with a MAO-B inhibitor improved her psychomotor functions to the extent that at 5 years of age she could walk several meters with support. Our analyses of chemical findings, together with in silica structure predictions, lead us to hypothesize that this patient retained some AADC activity."

According to the news reporters, the research concluded: "In these cases, accurate diagnosis and early treatment should improve patient outcome."

For more information on this research see: A female case of aromatic L-amino acid decarboxylase deficiency responsive to MAO-B inhibition. Brain & Development, 2016;38 (10):959-963. Brain & Development can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Brain & Development - www.journals.elsevier.com/brain-and-development/)

Our news correspondents report that additional information may be obtained by contacting H. Osaka, Jichi Med Univ, Dept. of Pedia, Shimotsuke, Tochigi 3290498, Japan. Additional authors for this research include R. Anzai, C. Ohba, T. Goto, A. Miyauchi, B. Thony, H. Saitsu, N. Matsumoto, H. Osaka and T. Yamagata.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.braindev.2016.06.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tochigi, Japan, Asia, Aromatic-L-Amino-Acid Decarboxylases, Enzymes and Coenzymes, Carboxy-Lyases, Amino Acids, Proteins,
Reports on Carcinomas Findings from Department of Surgery Provide New Insights (Systemic treatment of patients with metachronous peritoneal carcinomatosis of colorectal origin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Carcinomas. According to news reporting out of Eindhoven, Netherlands, by NewsRx editors, research stated, "Combining chemotherapy and targeted therapies has resulted in an enhanced survival in metastatic colorectal cancer (mCRC) patients. However, the result of this palliative treatment in patients with metachronous peritoneal carcinomatosis (PC) remains unknown."

Our news journalists obtained a quote from the research from the Department of Surgery, "The current population-based study aims to investigate the use and effect of palliative systemic treatment in patients with metachronous PC of colorectal origin. Data on metachronous PC were collected between 2010 and 2011 for all patients who were diagnosed with M0 colorectal cancer between 2003 and 2008 in the Dutch Eindhoven Cancer Registry. Patient demographics and detailed data on chemotherapeutic treatment were collected and compared. Ninety-two patients with metachronous PC received chemotherapy in a palliative setting compared to 94 patients without treatment. In 36 patients, Bevacizumab was added to the treatment (39%). Overall survival was 3.4, 13, and 20.3 months in the no treatment, systemic treatment and systemic treatment + Bevacizumab respectively (p <0.001). Male gender was a positive predictor and right sided primary tumor location a negative predictor of receiving bevacizumab. Approximately 40% of patients with metachronous PC received bevacizumab in addition to chemotherapy."

According to the news editors, the research concluded: "Treatment with systemic chemotherapy in combination with bevacizumab may increase survival in a patients with metachronous colorectal PC."

For more information on this research see: Systemic treatment of patients with metachronous peritoneal carcinomatosis of colorectal origin. Scientific Reports, 2015;5();18632. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting T.R. van Oudheusden, Dept. of Surgery, Catharina Hospital, Michelangelolaan 2, 5623 EJ Eindhoven, Netherlands. Additional authors for this research include L.G. Razenberg, Y.R. van Gestel, G.J. Creemers, V.E. Lemmens and I.H de Hingh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18632. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Eindhoven, Netherlands, Europe, Antineoplastic Monoclonal Antibodies, Antineoplastics, Bevacizumab, Cancer, Carcinomas, Chemotherapy, Colorectal Research, Drugs and Therapies, Epidemiology, Gastroenterology, Oncology, Tyrosine Kinase Inhibitors, VEGF VEGFR Inhibitors, VEGFR Inhibitors.

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Cardiology

Reports on Cardiology Findings from University of Helsinki Provide New Insights (Simvastatin Treatment Upregulates Anti-Fibrotic Bone Morphogenetic Protein-7 Expression at Rat Cardiac Allograft Rejection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting from Helsinki, Finland, by NewsRx journalists, research stated, "Bone morphogenetic protein (BMP)-7 mediates ischemic tolerance and anti-fibrotic effects in various organs such as kidney and heart. Recently, reno- and podocyte-protective effects of a potent HMG-CoA reductase inhibitor, pitavastatin, were accompanied by BMP-7 upregulation."

The news correspondents obtained a quote from the research from the University of Helsinki, "Here, we investigated the effect of simvastatin treatment on BMP-7 expression in major MHC-mismatched rat cardiac allografts subjected to ischemia-reperfusion injury and adaptive immune activation at 10 days. We localized Smad2 activity and Reca-1(+) fibroblast specific protein-1(+) immunoreactivity, suggesting endothelial-to-mesenchymal transition, at fibrotic borderline of cardiac allografts at 10 days. Simvastatin donor and recipient combination treatment significantly upregulated cardiac allograft BMP-7 expression when compared to nontreated controls at 10 days."

According to the news reporters, the research concluded: "The beneficial effect of statin treatment on cardiac allograft may in part be mediated through the upregulation of BMP-7."

For more information on this research see: Simvastatin Treatment Upregulates Anti-Fibrotic Bone Morphogenetic Protein-7 Expression at Rat Cardiac Allograft Rejection. Pharmacology, 2016;98(5-6):204-208. Pharmacology can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Pharmacology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224274)

Our news journalists report that additional information may be obtained by contacting E.J. Holmstrom, University of Helsinki, Transplant Lab, FI-00014 Helsinki, Finland. Additional authors for this research include K.B. Lemstrom and R. Tuuminen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000447305. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Helsinki, Finland, Europe, Intercellular Signaling Peptides and Proteins, TGF-beta Superfamily Proteins, Bone Morphogenetic Protein 7, Bone Morphogenetic Proteins, Bone Research, Simvastatin, Lovastatin, Cardiology, University of Helsinki.

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Reports on Cardiology from University of Bergen Provide New Insights (Natriuretic peptide levels taken following unplanned admission to a cardiology department predict the duration of hospitalization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting originating in Bergen, Norway, by NewsRx journalists, research stated, "Natriuretic peptide (NP) levels are routinely employed as useful diagnostic and prognostic tools in the evaluation of patients with heart failure (HF). As hospitalization is the major consumer of healthcare resources, the prognostic power of admission NPs with regard to the duration of hospitalization deserves further investigation."

The news reporters obtained a quote from the research from the University of Bergen, "We assessed retrospectively the association between NP values sampled shortly following unplanned admission and the duration of hospitalization in 2978 patients admitted to a cardiology department. Duration of hospitalization (hours) and survival were determined by interrogation of the electronic medical records system. Associations with peptide levels were estimated using regression models and receiver operating characteristic (ROC) analysis. The results demonstrate a significant positive relationship between NP levels and the duration of hospitalization, after adjusting for age (P < 0.001). The median duration of hospitalization for the lowest BNP and NT-proBNP quintiles were 80 and 97 h, respectively, vs. 224.5 and 236 h for the highest quintiles. Using cut-off levels of 115 pmol/L for BNP and 390 pmol/L for NT-proBNP, the peptides have a positive predictive value of 78% and 85% for a stay > 4 days. During follow-up, NP levels were strongly predictive of all-cause mortality. The results quantify the strong relationship between NP levels taken following an unplanned admission to a cardiology department and the duration of hospitalization. This information permits improved identification of a patient population likely to require a prolonged hospital stay and consume more healthcare resources."

According to the news reporters, the research concluded: "Such patients may require a more aggressive diagnostic, treatment, and management strategy."

For more information on this research see: Natriuretic peptide levels taken following unplanned admission to a cardiology department predict the duration of hospitalization. European Journal of Heart Failure, 2016;18(12):1499-1505. European Journal of Heart Failure can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Oxford University Press - www.oup.com; European Journal of Heart Failure - eurjhf.oxfordjournals.org)

Our news correspondents report that additional information may be obtained by contacting K. Dickstein, University of Bergen, Bergen, Norway. Additional authors for this research include O. Skadberg, I. Dalen and K. Dickstein.

Keywords for this news article include: Bergen, Norway, Europe, Natriuretic Peptides, Peptide Proteins, Peptide Hormones, Cardiology, University of Bergen.

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Cardiovascular Research

Reports on Cardiovascular Research Findings from National Institutes of Health Provide New Insights [Pharmacological mechanisms underlying the cardiovascular effects of the "bath salt" constituent 3,4-methylenedioxypyrovalerone (MDPV)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Research. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Background and Purpose3,4-Methylenedioxypyrovalerone (MDPV) is a synthetic cathinone with stimulatory cardiovascular effects that can lead to serious medical complications. Here, we examined the pharmacological mechanisms underlying these cardiovascular actions of MDPV in conscious rats."

The news reporters obtained a quote from the research from the National Institutes of Health, "Experimental ApproachMale Sprague-Dawley rats had telemetry transmitters surgically implanted for the measurement of BP and heart rate (HR). On test days, rats were placed individually in standard isolation cubicles. Following drug treatment, cardiovascular parameters were monitored for 3h sessions. Key ResultsRacemic MDPV (0.3-3.0mgkg(-1)) increased BP and HR in a dose-dependent manner. The S(+) enantiomer (0.3-3.0mgkg(-1)) of MDPV produced similar effects, while the R(-) enantiomer (0.3-3.0mgkg(-1)) had no effects. Neither of the hydroxylated phase I metabolites of MDPV altered cardiovascular parameters significantly from baseline. Pretreatment with the ganglionic blocker chlorisondamine (1 and 3mgkg(-1)) antagonized the increases in BP and HR produced by 1mgkg(-1) MDPV. The (1)-adrenoceptor antagonist prazosin (0.3mgkg(-1)) attenuated the increase in BP following MDPV, while the -adrenoceptor antagonists propranolol (1mgkg(-1)) and atenolol (1 and 3mgkg(-1)) attenuated the HR increases. Conclusions and ImplicationsThe S(+) enantiomer appeared to mediate the cardiovascular effects of MDPV, while the metabolites of MDPV did not alter BP or HR significantly; MDPV increased BP and HR through activation of central sympathetic outflow."

According to the news reporters, the research concluded: "Mixed-action /-adrenoceptor antagonists may be useful as treatments in counteracting the adverse cardiovascular effects of MDPV."


Our news correspondents report that additional information may be obtained by contacting C.W. Schindler, NIDA, Preclin Pharmacol Sect, National Institutes of Health, Intramural Res Program, Baltimore, MD 21224, United States. Additional authors for this research include E.B. Thorndike, M. Suzuki, K.C. Rice and M.H. Baumann.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiovascular Research, Cardiovascular, Pharmacology, Cardiology, Therapy, National Institutes of Health.

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Reports on Cardiovascular Research Findings from University of Florida Provide New Insights (Angiotensin type 1a receptors in the paraventricular nucleus of the hypothalamus control cardiovascular reactivity and anxiety-like behavior in male ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Research is the subject of a report. According to news reporting originating in Gainesville, Florida, by NewsRx journalists, research stated, "This study tested the hypothesis that deletion of angiotensin type 1a receptors (AT(1a)) from the paraventricular nucleus of hypothalamus (PVN) attenuates anxiety-like behavior, hypothalamic-pituitary-adrenal (HPA) axis activity, and cardiovascular reactivity. We used the Cre/LoxP system to generate male mice with AT(1a) specifically deleted from the PVN."

Financial support for this research came from HHS | NIH | National Heart, Lung, and Blood Institute (NHBLI).

The news reporters obtained a quote from the research from the University of Florida, "Deletion of the AT(1a) from the PVN reduced anxiety-like behavior as indicated by increased time spent in the open arms of the elevated plus maze. In contrast, PVN AT(1a) deletion had no effect on HPA axis activity subsequent to an acute restraint challenge but did reduce hypothalamic mRNA expression for corticotropin-releasing hormone (CRH). To determine whether PVN AT(1a) deletion inhibits cardiovascular reactivity, we measured systolic blood pressure, heart rate, and heart rate variability (HRV) using telemetry and found that PVN AT(1a) deletion attenuated restraint-induced elevations in systolic blood pressure and elicited changes in HRV indicative of reduced sympathetic nervous activity. Consistent with the decreased HRV, PVN AT(1a) deletion also decreased adrenal weight, suggestive of decreased adrenal sympathetic outflow. Interestingly, the altered stress responsivity of mice with AT(1a) deleted from the PVN was associated with decreased hypothalamic microglia and proinflammatory cytokine expression."

According to the news reporters, the research concluded: "Collectively, these results suggest that deletion of AT(1a) from the PVN attenuates anxiety, CRH gene transcription, and cardiovascular reactivity and reduced brain inflammation may contribute to these effects."

For more information on this research see: Angiotensin type 1a receptors in the paraventricular nucleus of the hypothalamus control cardiovascular reactivity and anxiety-like behavior in male mice. *Physiological Genomics*, 2016;48(9):667-676. *Physiological Genomics* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news correspondents report that additional information may be obtained by contacting E.G. Krause, University of Florida, Coll Pharm, Dept. of Pharmacodynam, Gainesville, FL 32611, United States. Additional authors for this research include H. Hiller, J.A. Smith, A.D. de Kloet and E.G. Krause.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/physiolgenomics.00029.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gainesville, Florida, United States, North and Central America, Cardiovascular Research, Biological Factors, Peptide Proteins, Peptide
Hormones, Cardiovascular, Blood Pressure, Oligopeptides, Neuropeptides, Hemodynamics, Angiotensins, Heart Rate, Cardiology, Autacoids, Peptides, Genetics, University of Florida.

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**Cardiovascular Research**

**Reports on Cardiovascular Research Findings from University of Geneva Provide New Insights (Wanting and liking in dysphoria: Cardiovascular and facial EMG responses during incentive processing)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Research is now available. According to news reporting out of Geneva, Switzerland, by NewsRx editors, research stated, "Theories and research on depression point to reduced responsiveness during reward anticipation and in part also during punishment anticipation. They also suggest weaker affective responses to reward consumption and unchanged affective responses to punishment consumption." Financial support for this research came from Swiss National Science Foundation.

Our news journalists obtained a quote from the research from the University of Geneva, "However, studies investigating incentive anticipation using effort mobilization and incentive consumption using facial expressions are scarce. The present studies tested reward and punishment responsiveness in a subclinically depressed sample, manipulating a monetary reward (Study 1) and a monetary punishment (Study 2). Effort mobilization was operationalized as cardiovascular reactivity, while facial expressions were measured by facial electromyographic reactivity. Compared to nondysphorics, dysphorics showed reduced pre-ejection period (PEP) reactivity and blunted self-reported wanting during reward anticipation but reduced PEP reactivity and normal self-reported wanting during punishment anticipation."

According to the news editors, the research concluded: "Compared to nondysphorics, dysphorics showed reduced zygomaticus major muscle reactivity and blunted self reported liking during reward consumption but normal corrugator supercillii muscle reactivity and normal self-reported disliking during punishment consumption."

For more information on this research see: Wanting and liking in dysphoria: Cardiovascular and facial EMG responses during incentive processing. *Biological Psychology, 2016;121():19-29*. Biological Psychology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Biological Psychology - www.journals.elsevier.com/biological-psychology/)

Our news journalists report that additional information may be obtained by contacting J. Franzen, University of Geneva, Geneva, Switzerland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biopsycho.2016.07.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Geneva, Switzerland, Europe, Cardiovascular Research, Cardiovascular, Cardiology, University of Geneva.

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Reports on Cell Science Findings from Nanyang Technological University Provide New Insights (A ternary complex comprising transportin1, Rab8 and the ciliary targeting signal directs proteins to ciliary membranes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science - Cell Science have been published. According to news reporting out of Singapore, Singapore, by NewsRx editors, research stated, "The sensory functions of cilia are dependent on the enrichment of cilium-resident proteins. Although it is known that ciliary targeting signals (CTSs) specifically target ciliary proteins to cilia, it is still unclear how CTSs facilitate the entry and retention of cilium-resident proteins at the molecular level."

Funders for this research include National Medical Research Council, Ministry of Education - Singapore.

Our news journalists obtained a quote from the research from Nanyang Technological University, "We found that non-ciliary membrane reporters can passively diffuse into cilia through the lateral transport pathway, and the translocation of membrane reporters through the ciliary diffusion barrier is facilitated by importin binding motifs and domains. Screening known CTSs of ciliary membrane residents uncovered that fibrocystin, photoreceptor retinol dehydrogenase, rhodopsin and retinitis pigmentosa 2 interact with transportin1 (TNPO1) through previously identified CTSs. We further discovered that a new ternary complex, comprising TNPO1, Rab8 and a CTS, can assemble or disassemble under the guanine nucleotide exchange activity of Rab8."

According to the news editors, the research concluded: "Our study suggests a new mechanism in which the TNPO1-Rab8-CTS complex mediates selective entry into and retention of cargos within cilia."


Our news journalists report that additional information may be obtained by contacting L. Lu, Nanyang Technological University, Sch Biol Sci, Singapore 637551, Singapore.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/jcs.194019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Singapore, Singapore, Asia, Cell Science, Science, Genetics, Nanyang Technological University.

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Reports on Cell Transplants from Mossakowski Medical Research Center Provide New Insights (Induction of Endothelial Phenotype From Wharton's Jelly-Derived MSCs and Comparison of Their Vasoprotective and Neuroprotective Potential With Primary ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Transplant Medicine - Cell Transplants are discussed in a new report. According to news originating from Warsaw, Poland, by NewsRx correspondents, research stated, "Ischemic stroke results in violent impairment of tissue homeostasis leading to severe perturbation within the neurovascular unit (NVU) during the recovery period. The aim of this study was to assess the potential of mesenchymal stem cells (MSCs) originating from Wharton's jelly (WJ) to differentiate into functionally competent cells of endothelial lineage (WJ-EPCs)."

Our news journalists obtained a quote from the research from Mossakowski Medical Research Center, "The protective effect(s) of either primary WJ-MSCs or induced WJ-EPCs was investigated and compared after oxygen-glucose deprivation (OGD) of hippocampal organotypic slices (OHC) in the indirect coculture model. WJ-MSCs, primed in EGM-2 (Lonza commercial medium) under 5% O2, acquired cobblestone endothelial-like morphology, formed capillary-like structures and actively took up DiI-Ac-LDL. Both cell types (WJ-MSCs and WJ-EPCs) were positive for CD73, CD90, CD105, VEGFR-2, and VEGF, but only endothelial-like culture expressed vWF and PECAM-1 markers at significant levels. In the presence of either WJ-MSCs or WJ-EPCs in the compartment below OGD-injured slices, cell death and vascular atrophy in the hypoxia-sensitive CA1 region were substantially decreased. This suggests that a paracrine mechanism may mediate WJ-MSC-and WJ-EPC-dependent protection. Thus, finally, we estimated secretion of the neuro/angio/immunomodulatory molecules IL-6, TGF-b1, and VEGF by these cell cultures. We have found that release of TGF-b1 and IL-6 was TLR ligand [LPS and Poly(I:C)] concentration dependent and stronger in WJ-EPC than WJ-MSC cultures."

According to the news editors, the research concluded: "Simultaneously, the uneven pattern of TLR receptors and modulatory cytokine gene expression was confirmed also on qRT-PCR level, but no significant differences were noticed between WJ-EPC and primary WJ-MSC cultures."

For more information on this research see: Induction of Endothelial Phenotype From Wharton's Jelly-Derived MSCs and Comparison of Their Vasoprotective and Neuroprotective Potential With Primary WJ-MSCs in CA1 Hippocampal Region Ex Vivo. Cell Transplantation, 2015;25(4):715-27.

The news correspondents report that additional information may be obtained from P. Obtulowicz, Mossakowski Medical Research Centre, Polish Academy of Sciences, Warsaw, Poland. Additional authors for this research include W. Lech, L. Strojek, A. Sarnowska and K. Domanska-Janik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3727/096368915X690369. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Warsaw, Poland, Europe, Genetics, Cell Transplants, Transplant Medicine.

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Reports on Cholinergic Receptors from University of Shizuoka Provide New Insights (Urinary Excretion Contributes to Long-Lasting Blockade of Bladder Muscarinic Receptors by Imidafenacin: Effect of Bilateral Ureteral Ligation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Membrane Proteins - Cholinergic Receptors. According to news reporting originating in Shizuoka, Japan, by NewsRx journalists, research stated, "Imidafenacin is a potent and selective antagonist of M-1 and M-3 muscarinic receptors that is safe, efficacious, and well tolerated for controlling the symptoms of overactive bladder (OAB). However, the precise mechanisms responsible for the bladder-selective pharmacological effects of this agent remain unclear."

The news reporters obtained a quote from the research from the University of Shizuoka, "The in vivo pharmacologic effects of imidafenacin result from receptor occupancy. Therefore, the present study was performed to characterize in vivo muscarinic receptor binding by tritium-labeled imidafenacin with high specific activity ([H-3]imidafenacin) in the bladder and other tissues of mice, and to clarify the mechanisms underlying selective binding of imidafenacin to bladder muscarinic receptors. After intravenous injection of [H-3] imidafenacin, its binding to muscarinic receptors in the bladder and other tissues of mice was assessed by a radioligand binding assay. [H-3] Imidafenacin showed a significantly longer duration of binding to muscarinic receptors in the bladder than in other tissues, and muscarinic receptor binding of [H-3] imidafenacin was markedly suppressed in the bladder alone after bilateral ligation of the ureters. After intravenous injection, the [H-3] imidafenacin concentration was markedly higher in the urine than in the plasma, suggesting that urinary excretion may contribute significantly to the selective and long-lasting binding of imidafenacin to bladder muscarinic receptors. These findings suggest that the intra-vesicular concentration of an antimuscarinic agent and its active metabolites may have a substantial influence on its pharmacological effect and duration of action in patients with OAB."

According to the news reporters, the research concluded: "In addition, factors that modulate urine production may influence the efficacy and safety of antimuscarinic agents."


Our news correspondents report that additional information may be obtained by contacting S. Yamada, University of Shizuoka, Grad Sch Pharmaceut Sci, Center Pharma Food Res, Suruga Ku, Shizuoka 4228526, Japan. Additional authors for this research include S. Kuraoka, S. Endo, A. Takahashi, S. Onoue and S. Yamada.

Keywords for this news article include: Shizuoka, Japan, Asia, G-Protein-Coupled Receptors, Intravenous Injections, Cholinergic Receptors, Muscarinic Receptors, Membrane Proteins, Pharmacology, Therapy, University of Shizuoka.
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**Clinical Research - Clinical Trials and Studies**

**Reports on Clinical Trials and Studies Findings from Genentech, Inc. Provide New Insights (Two Phase 1, Randomized, Double-Blind, Placebo-Controlled, Single-Ascending-Dose Studies To Investigate the Safety, Tolerability, and Pharmacokinetics of ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Research - Clinical Trials and Studies. According to news reporting from San Francisco, California, by NewsRx journalists, research stated, "Hospitalized patients with severe influenza are at significant risk for morbidity and mortality. MHAA4549A is a human monoclonal immunoglobulin (Ig) G1 antibody that binds to a highly conserved stalk region of the influenza A virus hemagglutinin protein and neutralizes all tested seasonal human influenza A virus strains."

Financial support for this research came from Genentech (Genentech, Inc.).

The news correspondents obtained a quote from the research from Genentech, Inc., "Two phase 1 trials examined the safety, tolerability, and pharmacokinetics of MHAA4549A in healthy volunteers. Both single ascending-dose trials were randomized, double blinded, and placebo controlled. Trial 1 randomized 21 healthy adults into four cohorts receiving a single intravenous dose of 1.5, 5, 15, or 45 mg/kg MHAA4549A or placebo. Trial 2 randomized 14 healthy adults into two cohorts receiving a single intravenous fixed dose of 8,400 mg or 10,800 mg of MHAA4549A or placebo. Subjects were followed for 120 days after dosing. No subject was discontinued in either trial, and no serious adverse events were reported. The most common adverse event in both studies was mild headache (trial 1, 4/16 subjects receiving MHAA4549A and 1/5 receiving placebo; trial 2, 4/8 subjects receiving MHAA4549A and 2/6 receiving placebo). MHAA4549A produced no relevant time-or dose-related changes in laboratory values or vital signs compared to those with placebo. No subjects developed an antitherapeutic antibody response following MHAA4549A administration. MHAA4549A showed linear serum pharmacokinetics, with a mean half-life of 22.5 to 23.7 days."

According to the news reporters, the research concluded: "MHAA4549A is safe and well tolerated in healthy volunteers up to a single intravenous dose of 10,800 mg and demonstrates linear serum pharmacokinetics consistent with those of a human IgG1 antibody lacking known endogenous targets in humans."

For more information on this research see: Two Phase 1, Randomized, Double-Blind, Placebo-Controlled, Single-Ascending-Dose Studies To Investigate the Safety, Tolerability, and Pharmacokinetics of an Anti-Influenza A Virus Monoclonal Antibody, MHAA4549A, in Healthy Volunteers. *Antimicrobial Agents and Chemotherapy*, 2016;60 (9):5437-5444. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting J.J. Lim, Genentech Inc, San Francisco, CA 94080, United States. Additional authors for this research include R. Deng, M.A. Derby, R. Larouche, P. Horn, M. Anderson, M. Maia, S. Carrier, I. Pelletier, T. Burgess, P. Kulkarni, E. Newton and J.A. Tavel.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00607-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Clinical Trials and Studies, Drugs and Therapies, Influenza Therapy, Influenza A Virus, Clinical Research, Pharmacokinetics, Orthomyxoviridae, Pharmaceuticals, Immunoglobulins, Blood Proteins, RNA Viruses, Immunology, Antibodies, Virology, Viral, Genentech Inc.

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Oncology - Colon Cancer

Reports on Colon Cancer Findings from Tokyo Medical and Dental University Provide New Insights (Overexpression of the S100A2 protein as a prognostic marker for patients with stage II and III colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "We aimed to identify a novel prognostic biomarker related to recurrence in stage II and III colorectal cancer (CRC) patients. Stage II and III CRC tissue mRNA expression was profiled using an Affymetrix Gene Chip, and copy number profiles of 125 patients were generated using an Affymetrix 250K Sty array."

The news correspondents obtained a quote from the research from Tokyo Medical and Dental University, "Genes showing both upregulated expression and copy number gains in cases involving recurrence were extracted as candidate biomarkers. The protein expression of the candidate gene was assessed using immunohistochemical staining of tissue from 161 patients. The relationship between protein expression and clinicopathological features was also examined. We identified 9 candidate genes related to recurrence of stage II and III CRC, whose mRNA expression was significantly higher in CRC than in normal tissue. Of these proteins, the S100A2 calcium-binding protein A2 (S100A2) has been observed in several human cancers. S100A2 protein overexpression in CRC cells was associated with significantly worse overall survival and relapse-free survival, indicating that S100A2 is an independent risk factor for stage II and III CRC recurrence."

According to the news reporters, the research concluded: "S100A2 overexpression in cancer cells could be a biomarker of poor prognosis in stage II and III CRC recurrence and a target for treatment of this disease."

For more information on this research see: Overexpression of the S100A2 protein as a prognostic marker for patients with stage II and III colorectal cancer. International Journal of Oncology, 2016;48(3):975-82.

Our news journalists report that additional information may be obtained by contacting T. Masuda, Dept. of Surgical Oncology, Tokyo Medical and Dental University Graduate School of Medicine, Tokyo 113-8510, Japan. Additional authors for this research include T. Ishikawa, K. Mogushi, S. Okazaki, M. Ishiguro, S. Iida, H. Mizushima, H. Tanaka, H. Uetake and K. Sugihara.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3329. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Genetics, Oncology, Proteomics, Colon Cancer, Gastroenterology, Prognostic Markers, Protein Expression, Colorectal Research, Risk and Prevention, Diagnostics and Screening.

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Oncology - Colon Cancer

Reports on Colon Cancer from Kyushu University Provide New Insights (High expression of the Notch ligand Jagged-1 is associated with poor prognosis after surgery for colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "The importance of Notch signaling in colorectal cancer (CRC) carcinogenesis and progression has previously been presented. Increased expression of Jagged-1 (JAG1), a Notch ligand, in CRC has been revealed, but the detailed prognostic significance of JAG1 in CRC has not been determined."

Our news journalists obtained a quote from the research from Kyushu University, "Protein expression of JAG1 was examined using immunohistochemistry in 158 CRC specimens. Expression of JAG1 and E-cadherin and their associations with clinicopathologic characteristics, overall survival (OS) and relapse-free survival (RFS) were evaluated. Invitro studies using compounds to regulate intracellular signaling and small interfering RNA to silence JAG1 were performed in a colon cancer cell line. JAG1 expression in cancerous tissues was weak, moderate or strong in 32%, 36% and 32% of specimens, respectively, and correlated with histologic type and T stage. In multivariate analysis, JAG1 expression, histologic type and lymphatic invasion independently correlated with OS and RFS. The combination of high JAG1 expression and low E-cadherin expression had an additive effect toward poorer OS and RFS compared with the low JAG1/high E-cadherin expression subtype. A significant correlation between JAG1 expression and KRAS status was detected in groups stratified as high E-cadherin expression. Invitro studies suggested that RAS-MEK-MAP kinase and the Wnt pathways positively regulated JAG1 expression. Gene silencing with siJAG1 indicated that JAG1 promotes the transition from epithelial to mesenchymal characteristics and cell growth."

According to the news editors, the research concluded: "High expression of JAG1 is regulated by various pathways and is associated with poor prognosis through promoting the epithelial to mesenchymal transition and cell proliferation or maintaining cell survival in CRC."


The news correspondents report that additional information may be obtained from E. Oki, Kyushu University, Grad Sch Med Sci, Dept. of Surg & Sci, Fukuoka, Japan. Additional
Connective Tissue Cells

Reports on Connective Tissue Cells Findings from Yale University Provide New Insights (Skin Adipocyte Stem Cell Self-Renewal Is Regulated by a PDGFA/AKT-Signaling Axis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Connective Tissue Cells. According to news originating from New Haven, Connecticut, by NewsRx correspondents, research stated, "Tissue growth and maintenance requires stem cell populations that self-renew, proliferate, and differentiate. Maintenance of white adipose tissue (WAT) requires the proliferation and differentiation of adipocyte stem cells (ASCs) to form postmitotic, lipid-filled mature adipocytes."

Our news journalists obtained a quote from the research from Yale University, "Here we use the dynamic adipogenic program that occurs during hair growth to uncover an unrecognized regulator of ASC self-renewal and proliferation, PDGFA, which activates AKT signaling to drive and maintain the adipogenic program in the skin. Pdgfa expression is reduced in aged ASCs and is required for ASC proliferation and maintenance in the dermis, but not in other WATs. Our molecular and genetic studies uncover PI3K/AKT2 as a direct PDGFA target that is activated in ASCs during WAT hyperplasia and is functionally required for dermal ASC proliferation."

According to the news editors, the research concluded: "Our data therefore reveal active mechanisms that regulate ASC self-renewal in the skin and show that distinct regulatory mechanisms operate in different WAT depots."


The news correspondents report that additional information may be obtained from V. Horsley, Yale University, Dept. of Dermatol, Yale Sch Med, New Haven, CT 06520, United States. Additional authors for this research include B.A. Shook, J. Andrae, B. Holtrup, K. Bollag, C. Betsholtz, M.S. Rodeheffer and V. Horsley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.stem.2016.09.002. This DOI is a link to an online electronic
Our news editors obtained a quote from the research from the University of Ottawa, "In 2014, we conducted a 3-contact, bilingual (English-French) mailed survey to assess the coverage of, time dedicated to and barriers to inclusion of 17 different areas of reproductive health, including abortion. We also asked respondents to speculate on whether or not mifepristone would be incorporated into the curriculum if approved by Health Canada for early abortion. We analyzed our results with descriptive statistics and used inductive techniques to analyze the open-ended questions for content and themes. Sixteen of 23 (70%) program directors or their designees returned our survey. In general, abortion-related topics received less coverage than contraception, ectopic pregnancy management and miscarriage management. Fifty-six percent of respondents reported that their program did not offer information about first-trimester abortion procedures and/or post-abortion care in the didactic curriculum. Respondents expressed interest in incorporating mifepristone/misoprostol into NP education and training. Reproductive health issues receive uneven and often inadequate curricular coverage in Canadian NP programs. Identifying avenues to expand education and training on abortion appears warranted."

According to the news editors, the research concluded: "Embarking on curricular reform efforts is especially important given the upcoming introduction of mifepristone into the Canadian health system for early abortion."

For more information on this research see: Assessing abortion coverage in nurse practitioner programs in Canada: a national survey of program directors. Contraception, 2016;94(5):483-488. Contraception can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www Elsevier.com; Contraception - www journals elsevier com/contraception/)

The news editors report that additional information may be obtained by contacting A.M. Foster, University of Ottawa, Inst Populat Hlth, Ottawa, ON, Canada. Additional authors for this research include G. Arnot, J. El-Haddad and A.M. Foster.

The direct object identifier (DOI) for that additional information is:
Reports on Cytomegalovirus Findings from National Research Center Provide New Insights [Recombinant MHC tetramers for isolation of virus-specific CD8(+) cells from healthy donors: Potential approach for cell therapy of posttransplant ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Herpesvirus Diseases and Conditions - Cytomegalovirus have been presented. According to news reporting out of Moscow, Russia, by NewsRx editors, research stated, "Patients undergoing allogeneic hematopoietic stem cell transplantation have a high risk of cytomegalovirus reactivation, which in the absence of T-cell immunity can result in the development of an acute inflammatory reaction and damage of internal organs. Transfusion of the virus-specific donor T-lymphocytes represents an alternative to a highly toxic and often ineffective antiviral therapy."

Our news journalists obtained a quote from the research from National Research Center, "Potentially promising cell therapy approach comprises transfusion of cytotoxic T-lymphocytes, specific to the viral antigens, immediately after their isolation from the donor's blood circulation without any in vitro expansion. Specific T-cells could be separated from potentially alloreactive lymphocytes using recombinant major histocompatibility complex (MHC) multimers, carrying synthetic viral peptides. Rapid transfusion of virus-specific T-cells to patients has several crucial advantages in comparison with methods based on the in vitro expansion of the cells. About 30% of hematopoietic stem cell donors and 46% of transplant recipients at the National Research Center for Hematology were carriers of the HLA-A*02 allele. Moreover, 94% of Russian donors have an immune response against the cytomegalovirus (CMV). Using recombinant HLA-A*02 multimers carrying an immunodominant cytomegalovirus peptide (NLV), we have shown that the majority of healthy donors have pronounced T-cell immunity against this antigen, whereas shortly after the transplantation the patients do not have specific T-lymphocytes. The donor cells have the immune phenotype of memory cells and can be activated and proliferate after stimulation with the specific antigen. Donor lymphocytes can be substantially enriched to significant purity by magnetic separation with recombinant MHC multimers and are not activated upon cocultivation with the antigen-presenting cells from HLA-incompatible donors without addition of the specific antigen. This study demonstrated that strong immune response to CMV of healthy donors and prevalence of HLA-A*02 allele in the Russian population make it possible to isolate a significant number of virus-specific cells using HLA-A*02-NLV multimers."

According to the news editors, the research concluded: "After the transfusion, these cells should protect patients from CMV without development of allogeneic immune response."

For more information on this research see: Recombinant MHC tetramers for isolation of virus-specific CD8(+) cells from healthy donors: Potential approach for cell therapy..."

Our news journalists report that additional information may be obtained by contacting G.A. Efimov, Minist Healthcare Russian Federat, Natl Res Center Hematol, Moscow 125167, Russia. Additional authors for this research include S.Y. Filkin, P.R. Yefimova, S.A. Sheetikov, N.M. Kapranov, Y.O. Davydova, E.S. Egorov, E.G. Khamaganova, M.Y. Drokov, L.A. Kuzmina, E.N. Parovichnikova, G.A. Efimov and V.G. Savchenko.

Keywords for this news article include: Moscow, Russia, Eurasia, Herpesvirus Diseases and Conditions, Hematopoietic Stem Cells, Mononuclear Leukocytes, Biomedical Engineering, T-Lymphocyte Antigens, Transfusion Medicine, Drugs and Therapies, Risk and Prevention, Stem Cell Research, Biological Factors, Biological Therapy, Blood Transfusion, Betaherpesvirinae, Bone Marrow Cells, Differentiation, Medical Devices, Cytomegalovirus, T-Lymphocytes, Herpesviridae, Biotechnology, CD8 Antigens, Cell Therapy, CD Antigens, Blood Cells, DNA Viruses, Biomedicine, Hematology, Immunology, Virology, Viral, CMV, National Research Center.

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**Musculoskeletal Diseases and Conditions**

**Reports on Dermatomyositis Findings from University of Suleyman Demirel Provide New Insights (A case of Amyopathic Dermatomyositis associated with Interstitial Pulmonary Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Musculoskeletal Diseases and Conditions - Dermatomyositis is the subject of a report. According to news originating from Isparta, Turkey, by NewsRx correspondents, research stated, "Inflammatory myopathies are a heterogeneous group of diseases with unknown etiology characterized by inflammation of the skeletal muscles and proximal muscle weakness. Dermatomyositis (DM) is an idiopathic inflammatory myopathy with characteristic cutaneous findings such as heliotrope rash, Gottron's sign, Gottron's papules, shawl sign and machinist hand."

Our news journalists obtained a quote from the research from the University of Suleyman Demirel, "Amyopathic dermatomyositis (ADM) is a rare but well-recognized clinical subtype of DM, constituting approximately 10-20% of patients with this disease. It generally manifests only pathognomonic skin findings without clinical and laboratory evidence of muscle involvement."

According to the news editors, the research concluded: "In this report, we present a rare case of ADM associated with interstitial pulmonary disease."

For more information on this research see: A case of Amyopathic Dermatomyositis associated with Interstitial Pulmonary Disease. *La Clinica Terapeutica*, 2015;166(6):253-5.

The news correspondents report that additional information may be obtained from Y. Ugan, Departments of Internal Medicine, Division of Rheumatology Suleyman Demirel University Faculty of Medicine, Isparta, Turkey. Additional authors for this research include M. Sahin, A. Dogru, D. Bayram, A.M. Ceyhan and S.E Tunc.

Keywords for this news article include: Turkey, Isparta, Eurasia, Polymyositis,
Reports on Diabetes Findings from University of Porto Provide New Insights (The role of prenatal exposures on body fat patterns at 7 years: Intrauterine programming or birthweight effects?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Diabetes is now available. According to news reporting out of Oporto, Portugal, by NewsRx editors, research stated, "It remains unknown whether the effects of prenatal exposures on child's adiposity reflect entirely intrauterine programming. We aimed to assess the effects of maternal gestational weight gain, diabetes and smoking on the child's body fat patterns, disentangling the direct (through intrauterine programming) and indirect (through birthweight) effects."

Funders for this research include Foundation for Science and Technology, Caloust Gulbenkian Foundation, Epidemiology Research Unit.

Our news journalists obtained a quote from the research from the University of Porto, "We included 4747 singleton 7-year-old children from the Generation XXI birth cohort (Porto, Portugal). At birth, maternal and newborn's characteristics were obtained. Anthropometrics were measured at age 7 years and body fat patterns were identified by principal component analysis. Path analysis was used to quantify direct, indirect and total effects of gestational weight gain, diabetes and smoking on body fat patterns. Pattern 1 was characterized by strong factor loadings with body mass index, fat mass index and waist-to-height ratio (fat quantity) and pattern 2 with waist-to-hip ratio, waist-to-thigh ratio, and waist-to-weight ratio (fat distribution). The positive total effect of maternal gestational weight gain and diabetes on the child's fat quantity was mainly through a direct pathway, responsible for 91.7% and 83.7% of total effects, respectively (beta = 0.022; 95% Confidence Interval (CI): 0.017, 0.027; beta = 0.041; 95% CI: -0.011, 0.093). No effects on fat distribution were found. Maternal prenatal smoking had a positive direct effect on patterns 1 and 2, explaining 94.9% and 76.1% of total effects, respectively. The effects of maternal gestational weight gain, diabetes and smoking on a child's fat quantity seem to be mainly through intrauterine programming."

According to the news editors, the research concluded: "Maternal smoking also showed a positive direct effect on child's fat distribution."

For more information on this research see: The role of prenatal exposures on body fat patterns at 7 years: Intrauterine programming or birthweight effects? *Nutrition Metabolism and Cardiovascular Diseases*, 2016;26(11):1004-1010. *Nutrition Metabolism and Cardiovascular Diseases* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England.

Our news journalists report that additional information may be obtained by contacting A. Oliveira, University of Porto, Sch Med, Dept. of Clin Epidemiol Predict Med & Public Hlth, Oporto, Portugal. Additional authors for this research include M. Severo, R. Gaillard, A.C. Santos, H. Barros and A. Oliveira.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.numecd.2016.06.010. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Oporto, Portugal, Europe, Diabetes,
Epidemiology, University of Porto.

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**Dimethylamines**

**Reports on Dimethylamines Findings from University of Oxford Provide New Insights (Single fixed-dose oral dexketoprofen plus tramadol for acute postoperative pain in adults)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Dimethylamines. According to news reporting originating in Oxford, United Kingdom, by NewsRx journalists, research stated, "Combining two different analgesics in fixed doses in a single tablet can provide better pain relief than either drug alone in acute pain. This appears to be broadly true across a range of different drug combinations, in postoperative pain and migraine headache."

The news reporters obtained a quote from the research from the University of Oxford, "A new combination of dexketoprofen (a nonsteroidal anti-inflammatory drug) plus tramadol (an opioid) has been tested in acute postoperative pain conditions. It is not yet licensed for use. This review is one of a series on oral analgesics for acute postoperative pain. Individual reviews have been brought together in two overviews to provide information about the relative efficacy and harm of the different interventions. To assess the analgesic efficacy and adverse effects of a single fixed-dose of oral dexketoprofen plus tramadol, compared with placebo, for moderate to severe postoperative pain in adults, using methods that permit comparison with other analgesics evaluated in standardised trials using almost identical methods and outcomes. A secondary objective was to compare the combination with the individual analgesics alone.

Search methods We searched the Cochrane Central Register of Controlled Trials (CENTRAL) via CRSO, MEDLINE via Ovid, and Embase via Ovid from inception to 31 May 2016. We also searched the reference lists of retrieved studies and reviews, and two online clinical trial registries. Selection criteria Randomised, double-blind trials of oral dexketoprofen plus tramadol administered as a single oral dose, for the relief of acute postoperative pain in adults, and compared to placebo. Data collection and analysis Two review authors independently considered trials for inclusion in the review, examined issues of study quality and potential bias, and extracted data. For dichotomous outcomes, we calculated risk ratio (RR) and number needed to treat for an additional beneficial outcome (NNT) for dexketoprofen plus tramadol, compared with placebo with 95% confidence intervals (CI). We collected information on the number of participants with at least 50% of the maximum possible pain relief over six hours, the median time to use of rescue medication, and the proportion of participants requiring rescue medication. We also collected information on adverse events and withdrawals. We assessed the quality of the evidence using GRADE and created a 'Summary of findings' table. We also collected information on the number of participants with at least 50% of the maximum possible pain relief over six hours for dexketoprofen alone and tramadol alone. We included three studies with 1853 participants who had undergone surgical removal of impacted wisdom teeth, hip replacement, or hysterectomy. The overall risk of bias across the three included studies was low,
with unclear risk of bias in relation to the size of the three studies. Two studies did not report all our prespecified outcomes, which limited the analyses we could do. The proportion of participants achieving at least 50% pain relief over six hours with dexketoprofen 25 mg plus tramadol 75 mg was 66%, compared to 32% with placebo, giving an NNT of 3.0 (95% CI 2.5 to 3.7) (RR 2.1 (95% CI 1.7 to 2.4); 748 participants; 3 studies) (moderate quality evidence). The response rate with dexketoprofen 25 mg alone was 53% (RR 1.3 (95% CI 1.1 to 1.4); 744 participants; 3 studies) and with tramadol alone was 45% (RR 1.5 (95% CI 1.3 to 1.7); 741 participants; 3 studies) (moderate quality evidence). We downgraded the evidence because of some inconsistency in the results. The median time to use of rescue medication could not be estimated exactly, but was probably eight hours or more, indicating a long duration of effect (moderate quality evidence). We downgraded the evidence because it was not possible to estimate the effect exactly in the two multiple dose studies, resulting in imprecision. Fewer participants used rescue medication with higher doses of active treatment (summary statistic not calculated; 123 participants; 1 study) (very low quality evidence). We downgraded the evidence because the data came from a single study with few participants and events. Adverse events and serious adverse events were not reported consistently for the single dose phase of the studies. In the single dose study, 11% of participants experienced adverse events with dexketoprofen 25 mg plus tramadol 75 mg, which were mostly mild or moderate nausea, vomiting, or dizziness, and typical with these medicines. Rates were lower with placebo and lower doses (very low quality evidence). We downgraded the evidence because the data came from a single study with few participants and events. Information on multiple dosing over three and five days supported a low event rate with the combination. Overall, rates were generally low in all treatment arms, as they were for withdrawals for adverse events or other reasons. Authors' conclusions A single oral dose of dexketoprofen 25 mg plus tramadol 75 mg provided good levels of pain relief with long duration of action to more people than placebo or the same dose of dexketoprofen or tramadol alone. The magnitude of the effect was similar to other good analgesics. Adverse event rates were low."

According to the news reporters, the research concluded: "There is modest uncertainty about the precision of the point estimate for efficacy, but the NNT of 3 is consistent with other analgesics considered effective and commonly used."

For more information on this research see: Single fixed-dose oral dexketoprofen plus tramadol for acute postoperative pain in adults. *Cochrane Database of Systematic Reviews*, 2016;(9):2606-2644. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting S. Derry, University of Oxford, Pain Res & Nuffield Dept. of Clin Neurosci, Nuffield Div Anaesthet, Oxford, United Kingdom. Additional authors for this research include T.E. Cooper and T. Phillips.

Keywords for this news article include: Oxford, United Kingdom, Europe, Pain Management, Article Review, Tramadol Therapy Hydrochloride, Adverse Drug Reactions, Post-Operative Pain, Drugs and Therapies, Pharmaceuticals, Dimethylamines, Pain Medicine, Cyclohexanols, Analgesics, University of Oxford.

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Reports on Drug Delivery Systems Findings from Tezpur University Provide New Insights (Effect of crosslinker on drug delivery properties of curcumin loaded starch coated iron oxide nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Delivery Systems have been published. According to news reporting originating in Tezpur, India, by NewsRx journalists, research stated, "Aminated starch coated iron oxide magnetic nanoparticles loaded with curcumin were synthesized via coprecipitation technique. The nanoparticles were crosslinked by using three different crosslinkers: glutaraldehyde, genipin and citric acid and the effect of crosslinking on different properties of the nanoparticles was evaluated."

The news reporters obtained a quote from the research from Tezpur University, "Characterisation of the nanoparticles was done with FTIR (Fourier Transform Infrared spectroscopy) and XRD (X-Ray Diffraction). Magnetic property study using VSM (Vibrating Sample Magnetometer) showed their superparamagnetic nature. Morphology of the nanoparticles was studied by SEM (Scanning Electron Microscopy) and TEM (Transmission Electron Microscopy). Zeta potential values showed that crosslinking imparted stability to the system. Crosslinking also enhanced drug loading and encapsulation efficiency of the system. Swelling and in vitro studies of the nanoparticles showed that the release of drug was dependent on time, crosslinker nature, crosslinker concentration and pH of the medium. The aminated starch coated nanoparticles also showed good mucoadhesive character. The cell viability assessment by MTT study revealed their compatibility with human lymphocytes cells and their considerable cell growth inhibiting properties with MCF7 and HepG2 cells."

According to the news reporters, the research concluded: "The nanoparticles showed good internalization in HepG2 cells along with considerable ROS formation."


Our news correspondents report that additional information may be obtained by contacting T.K. Maji, Tezpur University, Dept. of Chem Sci, Tezpur 784028, Assam, India. Additional authors for this research include M.K. Das, A. Ramteke and T.K. Maji.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.09.043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tezpur, India, Asia, Drug Delivery Systems, Emerging Technologies, Drugs and Therapies, Organic Chemicals, Diarylheptanoids, Nanotechnology, Hydrocarbons, Nanoparticle, Catechols, Curcumin, Alkanes, Tezpur University.

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Reports on Drug Research Findings from Y.Y. Syed and Co-Researchers Provide New Insights (Eteplirsen: First Global Approval)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Research have been published. According to news originating from Auckland, New Zealand, by NewsRx editors, the research stated, "Eteplirsen (Exondys 51) is an antisense oligonucleotide designed to induce exon 51 skipping that is developed by Sarepta Therapeutics. Intravenous eteplirsen has received accelerated approval from the US FDA for the treatment of Duchenne muscular dystrophy (DMD) in patients with a confirmed mutation of the DMD gene amenable to exon 51 skipping."

Our news journalists obtained a quote from the research, "Eteplirsen has orphan drug designation in the USA and EU, and rare paediatric disease designation in the USA for use in DMD. In the phase III PROMOVI trial, eteplirsen significantly increased dystrophin levels from baseline in muscle tissues of 12 evaluable patients with DMD after 48 weeks of treatment. This finding is supported by data from phase II trials. Long-term treatment with eteplirsen was associated with a decrease in the rate of decline in ambulation and pulmonary function in an open-label extension of a phase II trial. Eteplirsen was generally well tolerated in clinical trials."

According to the news editors, the research concluded: "This article summarizes the milestones in the development of eteplirsen leading to this first approval for DMD."


The news correspondents report that additional information may be obtained from Y.Y. Syed, Springer, Auckland 0754, New Zealand.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40265-016-0657-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Auckland, New Zealand, Australia and New Zealand, Drug Research, Genetics, Drugs and Therapies.

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Emphysema

Reports on Emphysema from Central Hospital Provide New Insights (The impact of emphysema on dosimetric parameters for stereotactic body radiotherapy of the lung)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Emphysema have been presented. According to news reporting out of Mie, Japan, by NewsRx editors, research stated, "The purpose of this study was to evaluate the impact of emphysematous changes in lung on dosimetric parameters in stereotactic body radiation therapy (SBRT) for lung tumor. A total of 72 treatment plans were reviewed, and dosimetric factors [including homogeneity index (HI) and conformity index (CI)]
were evaluated."

Financial support for this research came from Matsusaka Central Hospital.

Our news journalists obtained a quote from the research from Central Hospital, "Emphysematous changes in lung were observed in 43 patients (60%). Patients were divided into three groups according to the severity of emphysema: no emphysema (n = 29), mild emphysema (n = 22) and moderate to severe emphysema groups (n = 21). The HI (P < 0.001) and the CI (P = 0.029) were significantly different in accordance with the severity of emphysema in one-way analysis of variance (ANOVA). The HI value was significantly higher in the moderate to severe emphysema group compared with in the no emphysema (Tukey, P < 0.001) and mild emphysema groups (P = 0.002). The CI value was significantly higher in the moderate to severe emphysema group compared with in the no emphysema group (P = 0.044). In multiple linear regression analysis, the severity of emphysema (P < 0.001) and the mean material density of the lung within the PTV (P < 0.001) were significant factors for HI, and the mean density of the lung within the PTV (P = 0.005) was the only significant factor for CI. The mean density of the lung within the PTV was significantly different in accordance with the severity of emphysema (one-way ANOVA, P = 0.008) and the severity of emphysema (P < 0.001) was one of the significant factors for the density of the lung within the PTV in multiple linear regression analysis."

According to the news editors, the research concluded: "Our results suggest that emphysematous changes in the lung significantly impact on several dosimetric parameters in SBRT, and they should be carefully evaluated before treatment planning."


Our news journalists report that additional information may be obtained by contacting S. Ochiai, Matsusaka Cent Hosp, Dept. of Radiat Oncol, Matsusaka, Mie 5158566, Japan. Additional authors for this research include Y. Nomoto, Y. Yamashita, T. Inoue, S. Murashima, D. Hasegawa, Y. Kurita, Y. Watanabe, Y. Toyomasu, T. Kawamura, A. Takada, N. Li, S. Kobayashi and H. Sakuma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/jrr/rrw060. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mie, Japan, Asia, Radiotherapy, Emphysema, Therapy, Central Hospital.

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**Epidemiology**

**Reports on Epidemiology from Erasmus MC University Medical Center Provide New Insights (Epidemiological trends among the population with chronic HCV infection in the Netherlands)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Epidemiology have been published. According to
news originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "As the field of antiviral therapy for chronic HCV infection is rapidly evolving, this study aimed to assess the epidemiological changes in patient and disease characteristics among individuals with chronic HCV infection. This study included all consecutive patients with chronic HCV monoinfection who were referred between 1990 and 2013 to the Erasmus MC University Medical Center Rotterdam, a large tertiary centre in the Netherlands."

Our news journalists obtained a quote from the research from Erasmus MC University Medical Center, "To identify trends over time, the study population was divided into six equal eras based on date of first visit to the outpatient clinic. A total of 1,779 patients were diagnosed with chronic HCV infection. Mean age increased over time from 43.6 (SD 13.8) years to 51.7 (SD 11.2) years (P <0.001). The number of patients who were referred with cirrhosis increased over time, from 31 (25%) patients in Era 1 to 118 (42%) patients in Era 6 (P <0.001), respectively. More patients were referred with HCV genotype 1a and 3 in the last era, with 27 (48.2%) and 15 (14.0%) patients in Era 1 and 58 (54.2%) and 60 (21.8%) patients in Era 6 (P <0.001 both), respectively. The vast majority of patients (69.5%) were born between 1950 to 1975, with 62.5% of the patients being born between 1945 and 1965. The HCV-infected population is ageing and is more often referred with severe liver disease."

According to the news editors, the research concluded: "This study stresses the importance of urgently implementing national HCV screening programmes in order to be able to decrease the future burden of chronic HCV infection in the Netherlands."


The news correspondents report that additional information may be obtained from R. Maan, Erasmus MC Univ Med Center Rotterdam, Dept. of Gastroenterol & Hepatol, Rotterdam, Netherlands. Additional authors for this research include E. Toes-Zoutendijk, B.J. Veldt, B.E. Hansen, A.J. van der Meer and R.J. de Knegt.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Epidemiology, Erasmus MC University Medical Center.

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Central Nervous System Diseases and Conditions -

Reports on Epilepsy Findings from College of Pharmaceutical Sciences Provide New Insights (Effects of UGT1A6 and GABRA1 on Standardized Valproic Acid Plasma Concentrations and Treatment Effect in Children With Epilepsy in China)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Epilepsy have been published. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Valproic acid (VPA) is a widely used antiepileptic drug with acceptable safety and efficacy in treating pediatric patients with various kinds of seizures. However, interindividual variations in plasma concentrations and treatment effects of patients with epilepsy treated with VPA are observed."
Our news journalists obtained a quote from the research from the College of Pharmaceutical Sciences, "This study aimed to evaluate the effects of various genetic variations on normalized plasma concentration of VPA (NCVPA) and the treatment response in Chinese children with epilepsy administered with VPA. Pediatric patients (3 months to 18 years old) with epilepsy, taking VPA therapy, were enrolled in the study. Important genetic variations of the pharmacokinetic and pharmacodynamic pathways of VPA were evaluated using the MassARRAY system (Sequenom). The associations of genetic variations with NCVPA/drug response and the mean value of NCVPA in responsive and resistant patients were evaluated using SPSS (17.0) and Plink (1.07) software. A total of 111 children with epilepsy (80 responsive and 31 resistant) were enrolled. rs28898617 (UGT1A6, A> G) was associated with an increase in NCVPA (beta = 5.31, 95% confidence interval = 0.78-9.83, P = 0.024); therefore, patients with this variation need a lower dose of VPA. rs2279020 (GABRA1, G> A) was associated with a decreased risk of developing VPA-resistant epilepsy (odds ratio = 0.42, 95% confidence interval = 0.21-0.84, P = 0.014). Similar NCVPA was observed in resistant and responsive patients (P = 0.257). rs28898617 (UGT1A6, A> G) variation was associated with an increase in NCVPA. rs2279020 (GABRA1, G> A) variation was associated with a decreased risk of developing VPA-resistant epilepsy. Resistant and responsive patients to VPA treatment had a similar mean value of NCVPA."

According to the news editors, the research concluded: "The findings may help clinicians to adjust the dose and predict treatment effect for children with epilepsy receiving VPA treatment."

For more information on this research see: Effects of UGT1A6 and GABRA1 on Standardized Valproic Acid Plasma Concentrations and Treatment Effect in Children With Epilepsy in China. *Therapeutic Drug Monitoring*, 2016;38(6):738-743. *Therapeutic Drug Monitoring* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)


Keywords for this news article include: Beijing, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Fatty Acid Derivative Anticonvulsants, Central Nervous System Agents, Brain Diseases and Conditions, Asia, Risk and Prevention, Drugs and Therapies, Organic Chemicals, Carboxylic Acids, Pharmaceuticals, Pentanoic Acids, Valproic Acid, Pediatrics, Epilepsy, Genetics, China, College of Pharmaceutical Sciences.

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**Central Nervous System Diseases and Conditions**

**Reports on Epilepsy Findings from Wenzhou Medical University Provide New Insights (Risk of seizure relapse after antiepileptic drug withdrawal in adult patients with focal epilepsy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System Diseases and Conditions - Epilepsy
are presented in a new report. According to news reporting originating from Zhejiang, People's Republic of China, by NewsRx correspondents, research stated, "The objective of this study was to estimate the risk of a seizure relapse and the high-risk period of recurrence after antiepileptic drug (AED) withdrawal and to determine the predictive factors for a seizure relapse in adult patients with focal epilepsy who were seizure-free for more than 2 years. Using the Wenzhou Epilepsy Follow-Up Registry Database, 200 adult patients with focal epilepsy were recruited, who were undergoing follow-up, met the inclusion criteria of this study, were seizure-free for more than 2 years, began withdrawing between June 2003 and June 2014, and were followed up prospectively for at least 1 year or until a seizure relapse."

Funders for this research include Wenzhou Medical Association, Zhejiang Provincial Key Discipline-Neurobiology.

Our news editors obtained a quote from the research from Wenzhou Medical University, "The risk of recurrence and the time to seizure relapse were analyzed by the Kaplan-Meier method, and the predictive factors were identified by the Cox proportional hazard regression model. A total of 99 patients had an unprovoked relapse during the follow-up period. The relapse rate was 49.5%, and each year, the recurrence probability of 12, 24, 36, 48, 60, 72, and 84 months after AED withdrawal was 24.0%, 20.4%, 83%, 2.7%, 4.6%, 0.97%, and 0.98%, respectively. The two independent risk factors for recurrence after withdrawal in adult patients with focal epilepsy were a longer duration of active epilepsy and a shorter seizure-free period before withdrawal. The high-risk period of a seizure relapse in adult patients with focal epilepsy is the first 2 years after withdrawal, and beyond 5 years after withdrawal, seizures rarely relapse (relapse rate < 1%)."

According to the news editors, the research concluded: "A seizure-free period for less than 4 years before withdrawal is a predictive factor of risk for seizure recurrence after AED withdrawal in adult patients with focal epilepsy."

For more information on this research see: Risk of seizure relapse after antiepileptic drug withdrawal in adult patients with focal epilepsy. Epilepsy & Behavior, 2016;64():233-238. Epilepsy & Behavior can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Epilepsy & Behavior - www.journals.elsevier.com/epilepsy-and-behavior/)

The news editors report that additional information may be obtained by contacting R.Y. Zheng, Wenzhou Med Univ, Dept. of Neurol, Affiliated Hosp 1, Wenzhou City 325015, Zhejiang, People's Republic of China. Additional authors for this research include Q.Y. Zeng, P. Zhu, Y.X. Bao, R.Y. Zheng and H.Q. Xu.

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Keywords for this news article include: Zhejiang, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Risk and Prevention, Drugs and Therapies, Antiepileptics, Seizures, Epilepsy, Wenzhou Medical University.

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Oncology - Epithelial Ovarian Cancer

Reports on Epithelial Ovarian Cancer Findings from University Medical Center Provide New Insights (E-Cadherin fragments as potential mediators for peritoneal metastasis in advanced epithelial ovarian cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Epithelial Ovarian Cancer have been published. According to news reporting originating in Hamburg, Germany, by NewsRx journalists, research stated, "Peritoneal dissemination and retroperitoneal lymph node involvement are main routes for tumor spread of epithelial ovarian cancer (EOC), possibly determined by the intercellular connecting protein E-Cadherin (E-Cad) and its fragments. Tumour tissue of 105 advanced EOC patients was evaluated for protein expression of E-Cad, b-Catenin and Calpain by western blotting and immunohistochemistry."

The news reporters obtained a quote from the research from University Medical Center, "Expression patterns were compared between tumours with solely intraperitoneal (pT3c, pN0; n=41) and tumours with retroperitoneal metastases (pT1a-3c, pN1; n=64). Lysates of the EOC cell line SKOV3 and tumor tissue from the intraperitoneal group were tested for E-Cad expression following Calpain treatment. E-Cad full-length (E-Cad-FL, 120 kDa) and two major fragments at 85 kDa (E-Cad-85) and 23 kDa (E-Cad-23) were detected by western blotting. E-Cad-85 expression was significantly higher in tumours with solely intraperitoneal metastases and correlated strongly with E-Cad-23 and the protease Calpain. Calpain-mediated cleavage was identified as a potential mechanism to generate E-Cad-85 from E-Cad-FL by treating lysates from SKOV3 cells and tumor tissue with this enzyme. Increased cytoplasmic localisation of b-Catenin in tumours with high E-Cad-85 expression corroborates that E-Cad-85 loses the binding site for b-Catenin after fragmentation, enabling tumor cluster formation and peritoneal dissemination. Calpain-mediated E-Cad fragmentation appears to promote intraperitoneal EOC progression."

According to the news reporters, the research concluded: "Understanding these mechanisms might eventually lead to new tailored subtype-specific diagnostic and therapeutic interventions."

For more information on this research see: E-Cadherin fragments as potential mediators for peritoneal metastasis in advanced epithelial ovarian cancer. British Journal of Cancer, 2016;114(2):213-20. (Nature Publishing Group - www.nature.com/; British Journal of Cancer - www.nature.com/bjc/)

Our news correspondents report that additional information may be obtained by contacting F. Trillsch, Dept. of Gynaecology and Gynaecologic Oncology, University Medical Centre Hamburg-Eppendorf, Martinistr 52, Hamburg 20246, Germany. Additional authors for this research include S. Kuerti, C. Eulenburg, E. Burandt, L. Woelber, K. Prieske, K. Eylmann, L. Oliveira-Ferrer, K. Milde-Langosch and S. Mahner.

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Keywords for this news article include: Europe, Hamburg, Germany, Calpain, Oncology, Cadherins, Cell Research, Glycoproteins, Women's Health, Membrane Proteins, Peptide Hydrolases, Enzymes and Coenzymes, Cell Adhesion Molecules, Cysteine
Reports on Exopeptidases from National Human Genome Research Institute Provide New Insights [A single endoplasmic reticulum aminopeptidase-1 protein allotype is a strong risk factor for Behcet's disease in HLA-B(\textstar)51 carriers]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Exopeptidases. According to news originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "Endoplasmic reticulum aminopeptidase-1 (ERAP1) protein is highly polymorphic with numerous missense amino acid variants. We sought to determine the naturally occurring ERAP1 protein allotypes and their contribution to Behcet's disease."

Our news journalists obtained a quote from the research from National Human Genome Research Institute, "Genotypes of all reported missense ERAP1 gene variants with 1000 Genomes Project EUR superpopulation frequency $\geq$ 1% were determined in 1900 Behcet's disease cases and 1779 controls from Turkey. ERAP1 protein allotypes and their contributions to Behcet's disease risk were determined by haplotype identification and disease association analyses. One ERAP1 protein allotype with five nonancestral amino acids was recessively associated with disease ($p=3.13 \times 10^{-6}$, OR 2.55, 95% CI 1.70 to 3.82). The ERAP1 association was absent in individuals who lacked HLA-B(\textstar)51. Individuals who carry HLA-B(\textstar)51 and who are also homozygous for the haplotype had an increased disease odds compared with those with neither risk factor ($p=4.80 \times 10^{-20}$, OR 10.96, 95% CI 5.91 to 20.32). The Behcet's disease-associated ERAP1 protein allotype was previously shown to have poor peptide trimming activity."

According to the news editors, the research concluded: "Combined with its requirement for HLA-B(\textstar)51, these data suggest that a hypoactive ERAP1 allotype contributes to Behcet's disease risk by altering the peptides available for binding to HLA-B(\textstar)51."


The news correspondents report that additional information may be obtained from E.F. Remmers, NHGRI, Inflammatory Dis Sect, Bethesda, MD 20892, United States. Additional authors for this research include M.J. Ombrello, Y. Kirino, B. Erer, I. Tugal-Tutkun, E. Seyahi, Y. Ozyazgan, N.R. Watts, A. Gul, D.L. Kastner and E.F. Remmers.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Hydrolases, Risk and Prevention, Enzymes and Coenzymes, Aminopeptidases, Exopeptidases, National Human Genome Research Institute.

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Facial Diseases and Conditions - Facial Nerve Injuries

Reports on Facial Nerve Injuries from Kagawa Prefectural Central Hospital Provide New Insights (Does a Retromandibular Transparotid Approach for the Open Treatment of Condylar Fractures Result in Facial Nerve Injury?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Facial Diseases and Conditions - Facial Nerve Injuries. According to news reporting from Takamatsu, Japan, by NewsRx journalists, research stated, "The retromandibular transparotid approach (RMA) to condylar fractures of the mandible provides excellent access, but can increase the risk of complications. The aim of this study was to estimate the frequency of facial nerve paralysis (FNP) and associated postoperative complications after open reduction and rigid internal fixation (ORIF) of subcondylar fractures through the RMA."

The news correspondents obtained a quote from the research from Kagawa Prefectural Central Hospital, "This was a retrospective cohort study of patients with condylar fractures requiring ORIF through the RMA. The inclusion criteria were 1) a medical record of surgical treatment of a subcondylar fracture by RMA; 2) preoperative and postoperative radiographs; 3) mental status permitting an adequate neuromotor examination; 4) absence of a post-injury or pretreatment functional facial nerve deficit; and 5) regular postoperative follow-up longer than 6 months with documentation of complications, functional results, and fixation stability. The predictive variables were age, gender, fracture site, fracture pattern, concomitant fractures, etiology, and plate types. The outcome variable was FNP. Univariate, bivariate, and multiple logistic regression statistics were computed. Fifty patients with 55 displaced mandibular subcondylar fractures (35 men, 15 women; mean age, 44.5 yr; range, 17 to 87 yr) met the inclusion criteria. The condylar fracture involved the neck in 35 patients (63.6%) and the base in 20 patients (36.4%). The fracture pattern was deviation in 11 patients (20.0%), displacement in 23 (41.8%), and dislocation in 21 (38.2%). Precise ORIF with double-buttress fixation resulted in immediate functional recovery in all patients. Seven fractures (12.7%) were associated with FNP that resolved completely within 6 months. Further statistical analysis showed that dislocated and displaced condylar neck fractures were significant risk factors for postoperative FNP (P <.05). Other postoperative complications were minimal. The RMA for subcondylar fractures is feasible and safe."

According to the news reporters, the research concluded: "Dislocated condylar neck fractures are associated with a highly increased risk of temporary postoperative FNP as a surgical complication."


Our news journalists report that additional information may be obtained by

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.joms.2016.05.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Takamatsu, Japan, Asia, Nerve Injury, Surgery, Risk and Prevention, Nervous System Diseases and Conditions, Cranial Nerve Diseases and Conditions, Facial Nerve Diseases and Conditions, Facial Diseases and Conditions, Cranial Nerve Injuries, Facial Nerve Injuries, Craniocerebral Trauma, Kagawa Prefectural Central Hospital.

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Digestive System Diseases and Conditions -...

Reports on Gastrointestinal Bleeding from University Hospital Provide New Insights (Spontaneous retroperitoneal hematoma in a patient under anticoagulant agents presenting as upper gastrointestinal bleeding)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Digestive System Diseases and Conditions - Gastrointestinal Bleeding are presented in a new report. According to news reporting out of Murcia, Spain, by NewsRx editors, research stated, "We present the case of a 44-year-old woman with past history of repeated miscarriage and Budd-Chiari syndrome secondary to primary myelofibrosis. Because of this she was under treatment with oral anticoagulant agents."

Our news journalists obtained a quote from the research from University Hospital, "The patient was admitted in hospital as she presented with gastrointestinal bleeding (melena), asthenia and progressive anemia. In an initial upper endoscopy an extrinsic duodenal compression associated with an ulcer on the posterior face of the first portion of duodenum and upper duodenal knee was observed. In the following days a huge spontaneous retroperitoneal hematoma due to anticoagulation was diagnosed by computed tomography. This was treated with a percutaneous drainage and withdrawal of the antithrombotic drugs."

According to the news editors, the research concluded: "The evolution of the patient was initially satisfactory but she suffered subclavian and jugular vein thrombosis, and reintroduction of anticoagulant agents at the lowest therapeutic doses was required."

For more information on this research see: Spontaneous retroperitoneal hematoma in a patient under anticoagulant agents presenting as upper gastrointestinal bleeding. Revista Espanola De Enfermedades Digestivas, 2016;108(12):817-818. Revista Espanola De Enfermedades Digestivas can be contacted at: Aran Ediciones, S A, Castello, 128, 1O, 28006 Madrid, Spain.

Our news journalists report that additional information may be obtained by contacting G. Carrilero-Zaragoza, Hosp Univ Virgen Arrixaca, Dept. of Digest Dis, Murcia 30120, Spain. Additional authors for this research include J. Egea-Valenzuela, M. Moya-Arnau, M. Munoz-Tornero, R. Jijon-Crespin, P. Tomas-Pujante, E. Iglesias-Jorquera, J. Parra-Garcia, E. Sanchez-Velasco, A. Pereniguez-Lopez, M. Miras-Lopez, M. Fuster-Quinonero and
Reports on Genetics from Northwestern University Feinberg School of Medicine Provide New Insights (Role of miR-182 in response to oxidative stress in the cell fate of human fallopian tube epithelial cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Genetics are presented in a new report. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "High grade serous ovarian carcinoma (HGSC) is a DNA instable tumor and its precursor is commonly found originating from the fimbriated end of the fallopian tube secretory epithelial (FTSE) cells. The local stresses via ovulation and related inflammation are risks for HGSC."

Our news journalists obtained a quote from the research from the Northwestern University Feinberg School of Medicine, "In this study, we examined the cellular and molecular responses of FTSE cells to stress. We found that excess intracellular reactive oxygen species (ROS) in normal FTSE cells upregulated a subset of microRNA expression (defined as ROSmiRs). Most ROSmiRs' expression and function were influenced and regulated by p53, and together they drove the cells into stress-induced premature senescence (SIPS). However, ROS-induced miR-182 is regulated by b-catenin, not by p53. In normal FTSE cells, miR-182 overexpression triggers cellular senescence by p53-mediated upregulation of p21. Conversely, in cells with p53 mutations, miR-182 overexpression no longer enhances p21 but functions as an 'Onco-miR'. p53 dysfunction is a prerequisite for miR-182-mediated tumorigenesis. In addition, we found that human follicular fluid could significantly induce intracellular ROS in normal FTSE cells."

According to the news editors, the research concluded: "These findings suggest that ROS and p53 mutations may trigger a series of events, beginning with overexpressing miR-182 by ROS and b-catenin, impairing the DNA damage response, promoting DNA instability, bypassing senescence and eventually leading to DNA instable tumors in FTSE cells."

For more information on this research see: Role of miR-182 in response to oxidative stress in the cell fate of human fallopian tube epithelial cells. Oncotarget, 2015;6(36):38983-98.

Our news journalists report that additional information may be obtained by contacting Y. Liu, Dept. of Pathology, Northwestern University Feinberg School of Medicine, Chicago, IL, United States. Additional authors for this research include W. Qiang, X. Xu, R. Dong, A.M. Karst, Z. Liu, B. Kong, R.I. Drapkin and J.J Wei.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5493. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, Genetics, p53 Gene, United States, Epithelial Cells, North and Central America.

Our reports deliver fact-based news of research and discoveries from around the
Reports on Genomics Findings from Fred Hutchinson Cancer Research Center Provide New Insights (Translational plasticity facilitates the accumulation of nonsense genetic variants in the human population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biotechnology - Genomics is the subject of a report. According to news reporting out of Seattle, Washington, by NewsRx editors, research stated, "Genetic variants that disrupt protein-coding DNA are ubiquitous in the human population, with about 100 such loss-of-function variants per individual. While most loss-of-function variants are rare, a subset have risen to high frequency and occur in a homozygous state in healthy individuals."

Funders for this research include Ellison Medical Foundation, FSH Society.

Our news journalists obtained a quote from the research from Fred Hutchinson Cancer Research Center, "It is unknown why these common variants are well tolerated, even though some affect essential genes implicated in Mendelian disease. Here, we combine genomic, proteomic, and biochemical data to demonstrate that many common nonsense variants do not ablate protein production from their host genes. We provide computational and experimental evidence for diverse mechanisms of gene rescue, including alternative splicing, stop codon readthrough, alternative translation initiation, and C-terminal truncation."

According to the news editors, the research concluded: "Our results suggest a molecular explanation for the mild fitness costs of many common nonsense variants and indicate that translational plasticity plays a prominent role in shaping human genetic diversity."

For more information on this research see: Translational plasticity facilitates the accumulation of nonsense genetic variants in the human population. *Genome Research*, 2016;26(12):1639-1650. *Genome Research* can be contacted at: Cold Spring Harbor Lab Press, Publications Dept, 1 Bungtown Rd, Cold Spring Harbor, NY 11724, USA.

Our news journalists report that additional information may be obtained by contacting R.K. Bradley, Fred Hutchinson Canc Res Center, Div Basic Sci, Seattle, WA 98109, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1101/gr.205070.116. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Genomics, Biotechnology, Genetics, Fred Hutchinson Cancer Research Center.

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Reports on Geriatrics and Gerontology Findings from University of California Provide New Insights (Detained and Distressed: Persistent Distressing Symptoms in a Population of Older Jail Inmates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Aging Research - Geriatrics and Gerontology are presented in a new report. According to news reporting out of San Francisco, California, by NewsRx editors, research stated, "Distressing symptoms are associated with poor function, acute care use, and mortality in older adults. The number of older jail inmates is increasing rapidly, prompting calls to develop systems of care to meet their healthcare needs, yet little is known about multidimensional symptom burden in this population."

Funders for this research include Medical Student Training in Aging Research Program, National Palliative Care Research Center, Department of Medicine, University of California, San Francisco, National Institute on Aging, University of California, University of California, San Francisco.

Our news journalists obtained a quote from the research from the University of California, "This cross-sectional study describes the prevalence and factors associated with distressing symptoms and the overlap between different forms of symptom distress in 125 older jail inmates in an urban county jail. Physical distress was assessed using the Memorial Symptom Assessment Scale. Several other forms of symptom distress were also examined, including psychological (Generalized Anxiety Disorder Scale, Patient Health Questionnaire), existential (Patient Dignity Inventory), and social (Three Item Loneliness Scale). Information was collected on participant sociodemographic characteristics, multimorbidity, serious mental illness (SMI), functional impairment, and behavioral health risk factors through self-report and chart review. Chi-square tests were used to identify factors associated with physical distress. Overlap between forms of distress was evaluated using set theory analysis. Overall, many participants (74%) reported distressing symptoms, including having one or more physical (44%), psychological (37%), existential (54%), or social (45%) symptoms. Physical distress was associated with poor health (multimorbidity, functional impairment, SMI) and low income. Of the 93 participants with any symptom, 49% reported three or more forms of distress."

According to the news editors, the research concluded: "These findings suggest that an optimal model of care for this population would include a geriatrics-palliative care approach that integrates the management of all forms of symptom distress into a comprehensive treatment paradigm stretching from jail to the community."


Our news journalists report that additional information may be obtained by contacting B. Williams, University of California, Div Geriatr, Dept. of Med, San Francisco, CA, United States. Additional authors for this research include C. Ahalt, C. Ritchie, I. Stijacic-Cenzer and B. Williams.

The direct object identifier (DOI) for that additional information is:
Reports on Gliomas Findings from People’s Hospital Provide New Insights (B-cell CLL/lymphoma 3 promotes glioma cell proliferation and inhibits apoptosis through the oncogenic STAT3 pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gliomas is the subject of a report. According to news originating from Guangdong, People’s Republic of China, by NewsRx correspondents, research stated, "Aberrant expression of oncogenes and/or tumor suppressors play fundamental roles in the pathogenesis of glioma. B-cell CLL/lymphoma 3 (BCL3) was previously found to be a putative proto-oncogene in human cancers and the decoy receptor DcR1 is induced in a p50/Bcl3-dependent manner and attenuates the efficacy of temozolomide in glioblastoma cells."

Our news journalists obtained a quote from the research from People's Hospital, "However, its expression status, clinical significance and biological functions in glioma remain largely unknown. In the present study, the levels of BCL3 were overexpressed in glioma compared to normal brain tissues. Furthermore, high expression of BCL3 protein was confirmed by immunoblotting in glioma cells as compared with normal human astrocyte cell line. The positive expression of BCL3 was correlated with adverse prognostic features and reduced overall survival rate of glioma patients. BCL3 silencing resulted in prominent decreased proliferation, cell cycle arrest in G1 phase and increased apoptosis in U251 cells. In contrast, BCL3 overexpression in U87 cells remarkably facilitated proliferative ability and cell cycle progression and induced apoptosis. In vivo studies showed that BCL3 knockdown inhibited the tumor growth of U251 cells in a mouse xenograft model. Mechanistically, BCL3 positively regulated the abundance of STAT3, p-STAT3 and the downstream targets of STAT3 pathway including BCL2, MCL-1 and cyclin D1 in glioma cells. Furthermore, a positive correlation between BCL3 and STAT3 expression was observed in glioma specimens. Notably, we confirmed that STAT3 knockdown abolished the oncogenic roles of BCL3 in glioma."

According to the news editors, the research concluded: "We suggest that BCL3 serves as an oncogene in glioma by modulating proliferation, cell cycle progression and apoptosis, and its oncogenic effects are mediated by the STAT3 signaling pathway."

For more information on this research see: B-cell CLL/lymphoma 3 promotes glioma cell proliferation and inhibits apoptosis through the oncogenic STAT3 pathway. *International Journal of Oncology*, 2016;49(6):2471-2479. *International Journal of Oncology* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

The news correspondents report that additional information may be obtained from L.F. Li, Peoples Hosp Gaozhou, Dept. of Neurosurg, Gaozhou 525200, Guangdong, People's Republic of China. Additional authors for this research include L.F. Li, G.Y. Jiang, H. Zhan and N.N. Wang.
Oncology - Gliomas

Reports on Gliomas from Methodist Hospital Provide New Insights (Monoamine oxidase B levels are highly expressed in human gliomas and are correlated with the expression of HiF-1a and with transcription factors Sp1 and Sp3)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gliomas. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Monoamine oxidases A and B (MAOA and MAOB) are highly expressed in many cancers. Here we investigated the level of MAOB in gliomas and confirmed its high expression."

The news correspondents obtained a quote from the research from Methodist Hospital, "We found that MAOB levels correlated with tumor grade and hypoxia-inducible factor 1-alpha (HiF-1a) expression. HiF-1a was localized to the nuclei in high-grade gliomas, but it was primarily cytosolic in low-grade gliomas and normal human astrocytes. Expression of both glial fibrillary acidic protein (GFAP) and MAOB are correlated to HiF-1a expression levels. Levels of MAOB are correlated by the levels of transcription factor Sp3 in the majority of GBM examined, but this control of MAOB expression by Sp3 in low grade astrocytic gliomas is significantly different from control in the in the majority of glioblastomas. The current findings support previous suggestions that MAOB can be exploited for the killing of cancer cells."

According to the news reporters, the research concluded: "Selective cell toxicity can be achieved by designing non-toxic prodrugs that require MAOB for their catalytic conversion into mature cytotoxic chemotherapeutics."

For more information on this research see: Monoamine oxidase B levels are highly expressed in human gliomas and are correlated with the expression of HiF-1a and with transcription factors Sp1 and Sp3. Oncotarget, 2016;7(3):3379-93.

Our news journalists report that additional information may be obtained by contacting M.A. Sharpe, Dept. of Neurosurgery, Kenneth R Peak Brain and Pituitary Tumor Center, Houston Methodist Hospital, Houston, TX 77030, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6582. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Texas, Houston, Gliomas, Oxidase, Genetics, Oncology, Proteins, United States, Enzymes and Coenzymes, Transcription Factors, North and Central America.

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Reports on HIV/AIDS Findings from University of Milan Provide New Insights (T-cell phenotype and function following a first cART regimen containing either a protease inhibitor or a non-nucleoside reverse transcriptase inhibitor in HIV-infected ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immune System Diseases and Conditions - HIV/AIDS have been presented. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "We aimed to comparatively assess darunavir/ritonavir (DRV/r) and efavirenz (EFV)-based first-line cART regimens in the reconstitution of T-cell phenotype and function in HIV-infected, late presenter subjects. Retrospective, ex vivo study on stored peripheral blood mononuclear cell samples of cART-naïve, HIV-infected individuals with CD4 (+) T-cell counts <50 >250/mu l upon cART initiation with either DRV/r or EFV as third drugs of standard antiretroviral regimens."

Our news journalists obtained a quote from the research from the University of Milan, "CD4(+) and CD8(+) T-cell maturation (CCR7/CD45RA) and proliferation (Ki67), CD8 (+) T-cell activation (CD38/HLA-DR) as well as HIV-and cytomegalovirus (CMV)-specific responses (CD4/CD8/IL-2/IFN-gamma) were studied by flow cytometry at baseline (T0), T3, T6 and T12 months. Soluble inflammatory markers (IL-6 and sCD14) were measured in plasma at T0 and T12. Wilcoxon and Mann-Whitney tests were used for statistics. A total of 19 patients started DRV/r and 15 EFV. Both regimens accounted for suppression of the HIV RNA load (<40 copies/ml), reconstitution of absolute CD4(+) T-cells and CD4(+)/CD8(+) T-cell ratio. All study participants displayed a significant decrease of activated HLA-DR(+)CD38(+) CD8(+) T-cells at all study time points, yet no differences were found between study groups in T-cell activation and maturation phenotype. From a functional standpoint, only individuals receiving DRV/r displayed transitory recovery of HIV-specific IL-2(+) IFN-gamma(-)CD4(+) T-cells (T3: P=0.006) and IL-2-IFN-gamma(+) CD8(+) T-cells (T3: P=0.032). DRV/r- and EFV-based regimens have an equal effect on T-cell phenotype and function in HIV late presenters."

According to the news editors, the research concluded: "A temporary restoration of HIV-specific T-cell immunity early in the course of therapy with DRV/r possibly implies a more effective control over HIV in the first months following a PI/r-based regimen, even at late stage of disease."

For more information on this research see:  T-cell phenotype and function following a first cART regimen containing either a protease inhibitor or a non-nucleoside reverse transcriptase inhibitor in HIV-infected late presenters: results from a retrospective, ex vivo study. Antiviral Therapy, 2016;21(2):133-142. Antiviral Therapy can be contacted at: Int Medical Press Ltd, 2-4 Idol Lane, London EC3R 5DD, England.

The news correspondents report that additional information may be obtained from G. Marchetti, University of Milan, Dept. of Hlth Sci, Clin Infect Dis, San Paolo Hopsital, Milan, Italy. Additional authors for this research include A. Savoldi, E.S. Cannizzo, G.M. Bellistri, R. Termini, M. Garau, D. Mancusi, A.D. Monforte and G. Marchetti.

Keywords for this news article include: Milan, Italy, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Nucleic Acid Synthesis Inhibitors, Reverse Transcriptase Inhibitors, HIV/AIDS and Cytomegalovirus, Opportunistic Infections, Enzymes and Coenzymes, Antiretroviral Agents, Primate
Reports on Head and Neck Cancer Findings from University Medical Center Provide New Insights (Effect of sorafenib on cisplatin-based chemoradiation in head and neck cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Head and Neck Cancer have been published. According to news reporting from Hamburg, Germany, by NewsRx journalists, research stated, "Despite aggressive chemoradiation (CRT) protocols in the treatment of patients with head and neck squamous cell carcinomas (HNSCC), the outcome is still unfavorable. To improve therapy efficacy we had already successfully tested the multikinase inhibitor sorafenib in combination with irradiation (IR) in previous studies on HNSCC cell lines."

The news correspondents obtained a quote from the research from University Medical Center, "In this study we investigated its effect on combined CRT treatment using cisplatin. Radio-and chemosensitivity with and without sorafenib was measured in four HNSCC cell lines and normal fibroblasts (NF) by colony formation assay. Apoptosis and cell cycle analysis were performed by flow cytometry. In HNSCC cells, sorafenib enhanced the antiproliferative effect of cisplatin without affecting apoptosis induction and with only minor effects on cell inactivation. Sorafenib added prior to irradiation enhanced cellular radiosensitivity in three of the tested HNSCC cell lines and caused massive overall cell inactivation when combined with CRT. In contrast, sorafenib did not radiosensitize NF and reduced cisplatin-induced cell inactivation. Cell inactivation by IR and cisplatin is further increased by the addition of sorafenib in HNSCC, but not in NF cells."

According to the news reporters, the research concluded: "Therefore, sorafenib is a promising candidate to improve therapy efficacy for HNSCC."

For more information on this research see: Effect of sorafenib on cisplatin-based chemoradiation in head and neck cancer cells. Oncotarget, 2016;7(17):23542-51.

Our news journalists report that additional information may be obtained by contacting N. Mockelmann, Head and Neck Cancer Center of The University Cancer Center Hamburg (UCCH), Dept. of Otorhinolaryngology and Head and Neck Surgery, University Medical Center Hamburg-Eppendorf, Hamburg, Germany. Additional authors for this research include T. Rieckmann, C.J. Busch, B. Becker, L. Gleißner, K. Hoffer, M. Omniczynski, L. Steinmeister, S. Laban, R. Grenman, C. Petersen, K. Rothkamm, E. Dikomey, R. Knecht and M. Kriegs.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8275. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hamburg, Germany, Europe, Alkylating Agents, Antineoplastics, Cell Line, Chlorine Compounds, Cisplatin Therapy, Drugs and Therapies, Head and Neck Cancer, Head and Neck Neoplasms, Multikinase Inhibitors, Nitrogen
Reports on Hearing Loss from University of Helsinki Central Hospital Provide New Insights (Spondyloocular Syndrome: Novel Mutations in XYLT2 Gene and Expansion of the Phenotypic Spectrum)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hearing Diseases and Conditions - Hearing Loss have been published. According to news reporting originating in Helsinki, Finland, by NewsRx journalists, research stated, "Spondyloocular syndrome is an autosomal-recessive disorder with spinal compression fractures, osteoporosis, and cataract. Mutations in XYLT2, encoding isoform of xylosyltransferase, were recently identified as the cause of the syndrome."

The news reporters obtained a quote from the research from the University of Helsinki Central Hospital, "We report on 4 patients, 2 unrelated patients and 2 siblings, with spondyloocular syndrome and novel mutations in XYLT2. Exome sequencing revealed a homozygous nonsense mutation, NM_022167.3(XYLT2): c.2188C >T, resulting in a premature stop codon (p.Arg730*) in a female patient. The patient presents visual impairment, generalized osteoporosis, short stature with short trunk, spinal compression fractures, and increased intervertebral disc space and hearing loss. We extended our XYLT2 analysis to a cohort of 22 patients with generalized osteoporosis, mostly from consanguineous families. In this cohort, we found by Sanger sequencing 2 siblings and 1 single patient who were homozygous for missense mutations in the XYLT2 gene (p.Arg563Gly and p.Leu605Pro). The patients had osteoporosis, compression fractures, cataracts, and hearing loss. Bisphosphonate treatment in 1 patient resulted in almost complete normalization of vertebral structures by adolescence, whereas treatment response in the others was variable."

According to the news reporters, the research concluded: "This report together with a previous study shows that mutations in the XYLT2 gene result in a variable phenotype dominated by spinal osteoporosis, cataract, and hearing loss."


Our news correspondents report that additional information may be obtained by contacting O. Makitie, Helsinki Univ Hosp, Helsinki, Finland. Additional authors for this research include A. Costantini, N. Coles, M. Pekkinen, E. Heon, Z. Siklar, M. Berberoglu, A. Kampe, E. Kiykim, G. Grigelioniene, B. Tuysuz and O. Makitie.

Keywords for this news article include: Helsinki, Finland, Europe, Musculoskeletal Diseases and Conditions, Metabolic Bone Diseases and Conditions, Nervous System Diseases and Conditions, Compression Fractures, Genetics, Hearing Diseases and Conditions, Ear Diseases and Conditions, Neurologic Manifestations, Sensation Disorders, Hearing Disorders,
Heart Disorders and Diseases - Heart Disease

Reports on Heart Disease from Emory University Provide New Insights [Circulating progenitor cells and coronary microvascular dysfunction: Results from the NHLBI-sponsored Women's Ischemia Syndrome Evaluation - Coronary Vascular Dysfunction Study ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Disease. According to news reporting originating in Atlanta, Georgia, by NewsRx journalists, research stated, "Ischemia stimulates a reparative response resulting in mobilization of circulating progenitor cells (CPCs). We hypothesized that women with chronic myocardial ischemia from coronary microvascular disease (CMD) will mobilize CPCs."

The news reporters obtained a quote from the research from Emory University, "In 123 women with ischemic symptoms and signs but no obstructive coronary artery disease (CAD) enrolled in the Women's Ischemia Syndrome Evaluation - Coronary Vascular Dysfunction Study (WISE-CVD), we measured coronary flow reserve (CFR) in response to intracoronary adenosine. Peripheral blood CPCs were measured using flow cytometry for expression of CD34, CD133, CXCR4, and VEGFR2. Subjects were 53 +/- 11 years, BMI 30 +/- 8; 44% hypertensive, 11% diabetic, 23% hyperlipidemic and 7% smokers. Lower CFR correlated inversely with higher levels of hematopoietic-enriched CD34 +/- (r = 0.23, p = 0.011), CD34 vertical bar/CD133 vertical bar (r = 0.24, p = 0.008), and CD34 vertical bar/CXCR4 vertical bar (r = 0.19, p = 0.036) cells. In multivariable regression analyses, after adjusting for traditional cardiovascular risk factors, lower CFR remained significantly associated with elevated levels of CD34+ (beta = -0.18, p = 0.042), CD34+/CD133+ (beta = -0.24, p = 0.036), and CD34+/CXCR4+ (beta = -0.22, p = 0.050) cells. We found no association between CFR and CD34+/VEGFR2+ cells. In women with non-obstructive CAD, impaired CFR is associated with higher levels of CPCs, suggesting that chronic myocardial ischemia from CMD stimulates CPC mobilization."

According to the news reporters, the research concluded: "The functional significance of elevated CPCs in these subjects requires further investigation as a potential biomarker and treatment target."

For more information on this research see: Circulating progenitor cells and coronary microvascular dysfunction: Results from the NHLBI-sponsored Women's Ischemia Syndrome Evaluation - Coronary Vascular Dysfunction Study (WISE-CVD). Atherosclerosis, 2016;253 ():111-117. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news correspondents report that additional information may be obtained by contacting A.A. Quyyumi, Emory University, Sch Med, Atlanta, GA, United States. Additional authors for this research include S.S. Hayek, P.K. Mehta, Q. Li, E. Mahar, L. Mou, T.S. Kenkre, J.W. Petersen, B. Azarbal, B. Samuels, R.D. Anderson, T. Sedlak, M. Zaya, M. Agarwal, A.
Reports on Heart Failure Findings from Heart and Vascular Institute Provide New Insights (Biomarkers: Their potential in the diagnosis and treatment of heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Failure are presented in a new report. According to news reporting out of Cleveland, Ohio, by NewsRx editors, research stated, "The increasing use of cardiac biomarkers in the diagnosis and management of heart failure (HF) has led to their inclusion in clinical practice guidelines. Studies have demonstrated that natriuretic peptides and cardiac troponins are useful adjuncts in identifying patients with HF at high risk, and we now know that a number of factors influence biomarker levels, including age, renal failure, obesity, and comorbid conditions, and that these factors as well as biomarker assay variability need to be considered when interpreting the results of biomarker testing."

Our news journalists obtained a quote from the research from Heart and Vascular Institute, "The broader use of cardiac biomarker testing has been limited by the lack of consistent data to support a benefit of their use in triaging management decisions, and the majority of drug therapies and titration schedules for HF were developed prior to the availability of biomarkers. Nevertheless, natriuretic peptide testing has been widely adopted, with recent guidelines supporting its use in the diagnosis of acute HF, especially in the setting of clinical uncertainty, as well as in assessing disease severity and prognosis."

According to the news editors, the research concluded: "This review summarizes the data on traditional cardiac biomarkers and describes how the latest investigations have shaped the recommendations in the latest clinical practice guidelines."

For more information on this research see: Biomarkers: Their potential in the diagnosis and treatment of heart failure. Cleveland Clinic Journal of Medicine, 2015;82(12 Suppl 2):S28-35.

Our news journalists report that additional information may be obtained by contacting B. Heil, Dept. of Cardiovascular Medicine, Heart and Vascular Institute, Cleveland Clinic, Cleveland, OH, United States.

Keywords for this news article include: Ohio, Cleveland, Cardiology, United States, Heart Disease, Heart Failure, Article Review, North and Central America, Diagnostics and Screening, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Drugs and Therapies - Hematologic Agents

Reports on Hematologic Agents from University of Debrecen Provide New Insights (A Modular Synthetic Approach to Isosteric Sulfonic Acid Analogues of the Anticoagulant Pentasaccharide Idraparinux)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Hematologic Agents have been presented. According to news reporting out of Debrecen, Hungary, by NewsRx editors, research stated, "Heparin-based anticoagulants are drugs of choice in the therapy and prophylaxis of thromboembolic diseases. Idraparinux is a synthetic anticoagulant pentasaccharide based on the heparin antithrombin-binding domain."

Our news journalists obtained a quote from the research from the University of Debrecen, "In the frame of our ongoing research aimed at the synthesis of sulfonic acid-containing heparinoid anticoagulants, we elaborated a modular pathway to obtain a series of idraparinux-analogue pentasaccharides bearing one or two primary sulfonic acid moieties. Five protected pentasaccharides with different C-sulfonation patterns were prepared by two subsequent glycosylation reactions, respectively, using two monosaccharide and four disaccharide building blocks."

According to the news editors, the research concluded: "Transformation of the protected derivatives into the fully O-sulfated, O-methylated sulfonic acid end-products was also studied."

For more information on this research see: A Modular Synthetic Approach to Isosteric Sulfonic Acid Analogues of the Anticoagulant Pentasaccharide Idraparinux. Molecules, 2016;21(11):1116-1134. Molecules can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting E. Mezo, Univ Debrecen, Dept. of Pharmaceut Chem, H-4032 Debrecen, Hungary. Additional authors for this research include D. Eszenyi, E. Varga, M. Herczeg and A. Borbas.

Keywords for this news article include: Debrecen, Hungary, Europe, Drugs and Therapies, Hematologic Agents, Sulfonic Acids, Anticoagulants, Sulfur Acids, University of Debrecen.

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Liver Diseases and Conditions - Hepatitis C Virus

Reports on Hepatitis C Virus from University of Alberta Provide New Insights [Prevention of hepatitis C virus infection using a broad cross-neutralizing monoclonal antibody (AR4A) and epigallocatechin gallate]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Hepatitis C Virus is now available. According to news originating from Edmonton, Canada, by NewsRx correspondents, research stated, "The anti-hepatitis C virus (HCV) activity of a novel monoclonal antibody
(mAb; AR4A) and epigallocatechin gallate (EGCG) were studied in vitro using a HCV cell culture system and in vivo using a humanized liver mouse model capable of supporting HCV replication. Alone, both exhibit reliable cross-genotype HCV inhibition in vitro, and combination therapy completely prevented HCV infection."

Financial supporters for this research include Canada Excellence in Research Chair program, Swiss National Fund, Lichtenstein Foundation, M.L. and D.R.B. (to M.L.) (to D.R.B), National Institute for Allergy and Infectious Disease, CIHR (D.L.J.T.).

Our news journalists obtained a quote from the research from the University of Alberta, "In vitro AR4A mAb (alone and combined with EGCG) robustly protects against the establishment of HCV genotype 1a infection. EGCG alone fails to reliably protect against an HCV challenge."

According to the news editors, the research concluded: "AR4A mAb represents a safe and efficacious broadly neutralizing antibody against HCV applicable to strategies to safely prevent HCV reinfection following liver transplantation, and it lends further support to the concept of HCV vaccine development. The poor bioavailability of EGCG limits HCV antiviral activity in vitro."


The news correspondents report that additional information may be obtained from D. O'Shea, Transplant Infectious Diseases, Alberta Transplant Institute, Dept. of Medicine, University of Alberta, Edmonton, Alberta, Canada. Additional authors for this research include J. Law, A. Egli, D. Douglas, G. Lund, S. Forester, J. Lambert, M. Law, D.R. Burton, D.L. Tyrrell, M. Houghton, A. Humar and N. Kneteman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/lt.24344. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HCV, Antibodies, Antiretrovirals, Canada, Alberta, Edmonton, Virology, Hepatology, Immunology, RNA Viruses, Blood Proteins, Immunoglobulins, Gastroenterology, Hepatitis C Virus, Drugs and Therapies, Risk and Prevention, Flaviviridae Infections, North and Central America, Liver Diseases and Conditions.

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**Hepatocytes**

**Reports on Hepatocytes from Amway Corp. Provide New Insights [Magnolia officinalis (Hou Po) bark extract stimulates the Nrf2-pathway in hepatocytes and protects against oxidative stress]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hepatocytes have been published. According to news originating from Ada, Michigan, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: The highly aromatic bark of Magnolia officinalis Rehder and EH Wilson, (magnolia bark) has been widely used in traditional Chinese medicine where it is known as Hou Po. Historically the bark of the tree has been used for treating variety of disorders
the most common use of magnolia bark in traditional prescription has been to treat stress and anxiety disorders."

Our news journalists obtained a quote from the research from Amway Corp., "Till date it is not clear regarding the fundamental cellular pathway it modulates. NRF2 signaling has emerged as the central pathway that protects cells from variety of stressors this led us to hypothesize that basis for magnolia bark's effects could be via activating NRF2 pathway. We utilized variety of biochemical procedures like luciferase reporter assay, enzyme induction, gene expression to determine NRF2 inducing activity by magnolia bark extract and its significance. Further we identified the phytochemicals inducing this activity using bio-directed fractionation procedure. In this study, we demonstrate that magnolia bark extract activates Nrf2-dependent gene expression and protects against hydrogen peroxide mediated oxidative stress in hepatocytes. We further identified through HPLC fractionation and mass spectroscopy that magnolol, 4-methoxy honokiol and honokiol are the active phytochemicals inducing the Nrf2-mediated activity."

According to the news editors, the research concluded: "This could be the molecular basis for its numerous beneficial activity."


The news correspondents report that additional information may be obtained from A. Rajgopal, Amway Corp, Analyt Sci, Ada, MI 49355, United States. Additional authors for this research include S.R. Missler and J.D. Scholten.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.10.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ada, Michigan, United States, North and Central America, Hepatocytes, Amway Corp.

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**Hybridomas**

**Reports on Hybridomas from University of Massachusetts Provide New Insights (Effect of amino acid supplementation on titer and glycosylation distribution in hybridoma cell culturesSystems biology-based interpretation using genome-scale ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hybridomas. According to news originating from Lowell, Massachusetts, by NewsRx correspondents, research stated, "Genome-scale flux balance analysis (FBA) is a powerful systems biology tool to characterize intracellular reaction fluxes during cell cultures. FBA estimates intracellular reaction rates by optimizing an objective function, subject to the constraints of a metabolic model and media uptake/excretion rates."
Our news journalists obtained a quote from the research from the University of Massachusetts. "A dynamic extension to FBA, dynamic flux balance analysis (DFBA), can calculate intracellular reaction fluxes as they change during cell cultures. In a previous study by Read et al. (2013), a series of informed amino acid supplementation experiments were performed on twelve parallel murine hybridoma cell cultures, and this data was leveraged for further analysis (Read et al., Biotechnol Prog. 2013;29:745-753). In order to understand the effects of media changes on the model murine hybridoma cell line, a systems biology approach is applied in the current study. Dynamic flux balance analysis was performed using a genome-scale mouse metabolic model, and multivariate data analysis was used for interpretation. The calculated reaction fluxes were examined using partial least squares and partial least squares discriminant analysis. The results indicate media supplementation increases product yield because it raises nutrient levels extending the growth phase, and the increased cell density allows for greater culture performance. At the same time, the directed supplementation does not change the overall metabolism of the cells. This supports the conclusion that product quality, as measured by glycoform assays, remains unchanged because the metabolism remains in a similar state."

According to the news editors, the research concluded: "Additionally, the DFBA shows that metabolic state varies more at the beginning of the culture but less by the middle of the growth phase, possibly due to stress on the cells during inoculation."


The news correspondents report that additional information may be obtained from S. Yoon, Univ Massachusetts Lowell, Dept. of Chem Eng, Lowell, MA 01854, United States. Additional authors for this research include S.Y. Park, C.D. Agarabi, K.A. Brorson and S. Yoon.

Keywords for this news article include: Lowell, Massachusetts, United States, North and Central America, Hybrid Cells, Amino Acids, Clone Cells, Hybridomas, Proteins, Peptides, Genetics, University of Massachusetts.

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Immunology - Immunoglobulins

Reports on Immunoglobulins Findings from University of Sydney Provide New Insights (Aptamers: A promising chemical antibody for cancer therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immunology - Immunoglobulins are discussed in a new report. According to news reporting originating from Westmead, Australia, by NewsRx correspondents, research stated, "Aptamers, also known as chemical antibodies, are single-stranded nucleic acid oligonucleotides which bind to their targets with high specificity and affinity. They are typically selected by repetitive in vitro process termed systematic evolution of
ligands by exponential enrichment (SELEX).

Our news editors obtained a quote from the research from the University of Sydney, "Owing to their excellent properties compared to conventional antibodies, notably their smaller physical size and lower immunogenicity and toxicity, aptamers have recently emerged as a new class of agents to deliver therapeutic drugs to cancer cells by targeting specific cancer-associated hallmarks. Aptamers can also be structurally modified to make them more flexible in order to conjugate other agents such as nano-materials and therapeutic RNA agents, thus extending their applications for cancer therapy."

According to the news editors, the research concluded: "This review presents the current knowledge on the practical applications of aptamers in the treatment of a variety of cancers."

For more information on this research see: Aptamers: A promising chemical antibody for cancer therapy. Oncotarget, 2016;7(12):13446-63.

The news editors report that additional information may be obtained by contacting G. Zhou, Storr Liver Centre, Westmead Millennium Institute for Medical Research, University of Sydney and Westmead Hospital, Westmead, NSW, Australia. Additional authors for this research include G. Wilson, L. Hebbard, W. Duan, C. Liddle, J. George and L. Qiao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7178. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Cancer, Therapy, Westmead, Genetics, Oncology, Immunology, Article Review, Blood Proteins, Immunoglobulins, Australia and New Zealand.

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Lung Diseases and Conditions - Interstitial Lung Disease from University of Lille Provide New Insights (Cardiorespiratory Response to Different Exercise Tests in Interstitial Lung Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lung Diseases and Conditions - Interstitial Lung Disease have been presented. According to news reporting from Lille, France, by NewsRx journalists, research stated, "The 6-min stepper test (6MST) has been used as an alternative to the 6-min walk test (6MWT) to assess exercise tolerance in patients with interstitial lung disease (ILD). Recent data suggest that the tests may involve different energy pathways and cardiorespiratory responses."

The news correspondents obtained a quote from the research from the University of Lille, "We thus aimed to compare the cardiorespiratory responses of ILD patients during the 6MWT and the 6MST. Thirty-one patients with ILD were randomized to perform both tests in the order 6MST -> 6MWT (n = 16) or 6MWT -> 6MST (n = 15). Gas exchange, HR, and pulse O-2 saturation (SpO(2)) were measured continuously, and dyspnoea, leg discomfort, and blood lactate concentration were assessed before and immediately after each test. Oxygen uptake ((V) over dotO(2)) was lower (P = 0.002) and respiratory equivalent ratio for O-2 ((V) over dot(E)/ (V) over dotO(2)) and RER were higher (both P< 0.001) during the 6MST compared with the..."
6MWT. The 6MST was also associated with higher blood lactate concentrations (6MST, 4.16 +/- 1.95 mmol.L-1; 6MWT, 2.84 +/- 1.17 mmol.L-1; P = 0.01), higher leg discomfort scores (6MST 5 +/- 3 points, 6MWT 3 +/- 2 points; P < 0.001), and smaller decreases in SpO(2) (6MST -5% +/- 5%, 6MWT -9% +/- 6%; P < 0.001). ILD patients exhibited greater ventilatory responses and lower arterial O-2 desaturation during the 6MST compared with the 6MWT.

According to the news reporters, the research concluded: "The higher lactate concentrations and perceived muscle fatigue observed during the 6MST may indicate the presence of intertest differences in active muscle metabolism that could contribute to the distinct cardiorespiratory responses."

For more information on this research see: Cardiorespiratory Response to Different Exercise Tests in Interstitial Lung Disease. Medicine and Science in Sports and Exercise, 2016;48(12):2345-2352. Medicine and Science in Sports and Exercise can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Medicine and Science in Sports and Exercise - journals.lww.com/acsm-msse/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting V. Bougault, University of Lille, EA 7369, URePSSS, Multidisciplinary Res Unit Sport Hlth Soc, Lille, France. Additional authors for this research include V. Bougault, A. Gicquello and B. Wallaert.

Keywords for this news article include: Lille, France, Europe, Respiratory Tract Diseases and Conditions, Diagnosis, Diagnostics and Screening, Diagnostic Techniques and Procedures, Lung Diseases and Conditions, Interstitial Lung Disease, Heart Function Tests, Exercise Test, University of Lille.

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death within 30 days of surgery based on the American College of Surgeons National Surgical Quality Improvement Program-defined events. A total of 140,754 anesthetics were identified for the primary analysis. The number of anesthesia handovers was not found to be associated ($P = 0.19$) with increased odds of postoperative mortality and serious complications, as measured by the collapsed composite, with odds ratio for a one unit increase in handovers of 0.957; 95% CI, 0.895 to 1.022, when controlled for potential confounding variables. A total of 8,404 anesthetics were identified for the NSQIP analysis (collapsed composite odds ratio, 0.868; 95% CI, 0.718 to 1.049 for handovers).

According to the news reporters, the research concluded: "In the analysis of intraoperative handovers, anesthesia care transitions were not associated with an increased risk of postoperative adverse outcomes."

For more information on this research see: Intraoperative Care Transitions Are Not Associated with Postoperative Adverse Outcomes. Anesthesiology, 2016;125(4):690-699.

Reports on Ion Channels Findings from L. Lara-Valderrabano and Co-Researchers Provide New Insights (Propylparaben reduces the excitability of hippocampal neurons by blocking sodium channels)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Membrane Proteins - Ion Channels have been published. According to news reporting originating in Mexico City, Mexico, by NewsRx journalists, research stated, "Propylparaben (PPB) is an antimicrobial preservative widely used in food, cosmetics, and pharmaceutics. Virtual screening methodologies predicted anticonvulsant activity of PPB that was confirmed in vivo."

The news reporters obtained a quote from the research, "Thus, we explored the effects of PPB on the excitability of hippocampal neurons by using standard patch clamp techniques. Bath perfusion of PPB reduced the fast-inactivating sodium current (I-Na) amplitude, causing a hyperpolarizing shift in the inactivation curve of the INa, and markedly delayed the sodium channel recovery from the inactivation state. Also, PPB effectively suppressed the riluzole-sensitive, persistent sodium current (I-NaP). PPB perfusion also modified the action potential kinetics, and higher concentrations of PPB suppressed the spike activity. Nevertheless, the modulatory effects of PPB did not occur when PPB was internally applied by whole-cell dialysis. These results indicate that PPB reduces the excitability of CA1
pyramidal neurons by modulating voltage-dependent sodium channels. The mechanistic basis of this effect is a marked delay in the recovery from inactivation state of the voltage sensitive sodium channels."

According to the news reporters, the research concluded: "Our results indicate that similar to local anesthetics and anticonvulsant drugs that act on sodium channels, PPB acts in a use-dependent manner."

For more information on this research see: Propylparaben reduces the excitability of hippocampal neurons by blocking sodium channels. *Neurotoxicology*, 2016;57():183-193. *Neurotoxicology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Neurotoxicology - www.journals.elsevier.com/neurotoxicology/)

Our news correspondents report that additional information may be obtained by contacting E.J. Galvan, Cinvestav Sede Sur, Dept. of Farmacobiol, Mexico City 14330, DF, Mexico. Additional authors for this research include L. Rocha and E.J. Galvan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neuro.2016.09.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mexico City, Mexico, North and Central America, Membrane Proteins, Carrier Proteins, Sodium Channels, Ion Channels, Neurons, Cells.

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**Ischemia**

**Reports on Ischemia Findings from Heart Institute Provide New Insights**

(Subacute limb ischemia induces skeletal muscle injury in genetically susceptible mice independent of vascular density)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Ischemia. According to news reporting from Greenville, North Carolina, by NewsRx journalists, research stated, "The primary preclinical model of peripheral artery disease, which involves acute limb ischemia (ALI), can result in appreciable muscle injury that is attributed to the acuity of the ischemic injury. A less acute model of murine limb ischemia using ameroid constrictors (ACs) has been developed in an attempt to mimic the chronic nature of human disease."

The news correspondents obtained a quote from the research from Heart Institute, "However, there is currently little understanding of how genetics influence muscle injury following subacute arterial occlusion in the mouse. We investigated the influence of mouse genetics on skeletal muscle tissue survival, blood flow, and vascular density by subjecting two different mouse strains, C57BL/6 (BL6) and BALB/c, to ALI or subacute limb ischemia using single (1AC) or double (2AC) AC placement on the femoral artery. Similar to ALI, the 2AC model resulted in significant tissue necrosis and limb perfusion deficits in genetically susceptible BALB/c but not BL6 mice. In the 1AC model, no outward evidence of tissue necrosis was observed, and there were no differences in limb blood flow between BL6 and BALB/c. However, BALB/c mice displayed significantly greater muscle injury, as evidenced by increased inflammation and myofiber atrophy, despite having no differences in CD31(+) and
SMA(+) vascular density and area. BALB/c mice also displayed significantly greater centralized myonuclei, indicating increased muscle regeneration. The susceptibility of skeletal muscle to ischemia-induced injury is at least partly independent of muscle blood flow and vascular density, consistent with a muscle cell autonomous response that is genetically determined."

According to the news reporters, the research concluded: "Further development of preclinical models of peripheral artery disease that more accurately reflect the nature of the human disease may allow more accurate identification of genetic targets for therapeutic intervention."


Our news journalists report that additional information may be obtained by contacting J.M. McClung, Brody Med Center, Diabet & Obes Inst, East Carolina Heart Inst, Greenville, NC, United States. Additional authors for this research include T.J. McCord, K. Southerland, C.A. Schmidt, M.E. Padgett, T.E. Ryan and C.D. Kontos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2015.06.139. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Greenville, North Carolina, United States, North and Central America, Peripheral Artery Disease, Hematology, Angiology, Genetics, Ischemia, Heart Institute.

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Oncology - Liver Cancer

Reports on Liver Cancer from Nantong University Provide New Insights (Modification of p27 with O-linked N-acetylglucosamine regulates cell proliferation in hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "The tumor suppressor p27, which is a member of the Cip/Kip family of Cyclin-dependent kinase inhibitory proteins (CKIs), controls anti-proliferative events. The post-translational addition of O-GlcNAc to p27 occurs in HEK293T and HCC (hepatocellular carcinoma) cell lines, and we identified Ser2, Ser106, Ser110, Thr157, and Thr198 as the glycosylation sites of p27 based on the Q-TOF spectrum."

Our news editors obtained a quote from the research from Nantong University, "Here, immunoprecipitation analysis showed that Ser2 was O-GlcNAcylated and that this modification was associated with the increased phosphorylation of p27 at Ser10, ultimately resulting in p27 accumulation in the cytoplasm and increased p27 ubiquitination. In addition, O-GlcNAcylation at Ser2 suppressed Cyclin/CDK complex-p27 interactions by promoting the nuclear export of p27, thus facilitating cell cycle progression. Cell proliferation was negatively
regulated when Ser2 of p27 was replaced with Ala. Furthermore, western blot and immunohistochemical analyses of HCC tissues and their corresponding nontumorous tissues were performed, and we found that O-GlcNAcylated p27 correlated with cell proliferation in HCC.”

According to the news editors, the research concluded: "Together, our results indicate that the dynamic interplay between O-GlcNAcylation and p27 phosphorylation coordinates and regulates cell proliferation in hepatocellular carcinoma."


The news editors report that additional information may be obtained by contacting R.Z. Ni, Nantong University, Jiangsu Prov Key Lab Inflammat & Mol Drug Target, Nantong 226001, Jiangsu, People's Republic of China. Additional authors for this research include F. Liu, T. Tao, D.M. Zhang, X.J. Liu, G.Z. Zhu, Z.W. Xu, R.Z. Ni and A.G. Shen.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Cell Proliferation, Liver Cancer, Carcinomas, Oncology, Nantong University.

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**Oncology - Lung Cancer**

**Reports on Lung Cancer from Zhejiang University Provide New Insights [Costunolide induces lung adenocarcinoma cell line A549 cells apoptosis through ROS (reactive oxygen species)-mediated endoplasmic reticulum stress]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news reporting originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "Costunolide is an active sesquiterpene lactone derived from many herbal medicines. It has a broad spectrum of bioactivities, including anti-inflammatory and potential anti-tumor effects."

Financial supporters for this research include Key Laboratory of Microbial Biochemistry, Metabolism Engineering of Zhejiang Province, State Agricultural S&T Result Transforming Fund, the Ministry of Science and Technology of China.

Our news editors obtained a quote from the research from Zhejiang University, "The aims of the present study were to evaluate the inhibitory effects of costunolide on A549 cell growth and to explore the underlying molecular mechanisms. Annexin V-FITC/PI flow cytometry analysis revealed that costunolide induced apoptosis. To study the mechanism, we found that costunolide exposure activated the unfolded protein response (UPR) signaling pathways, as shown by the up-regulation of GRP78 and IRE1a and the activation of ASK1 and JNK. Meanwhile, siRNA knockdown of IRE1a significantly attenuated costunolide-induced apoptosis and partly restored the mitochondrial membrane potential. ER stress-activated JNK phosphorylated Bcl-2 at Ser70, which changes the anti-apoptotic function of Bcl-2, resulting in
mitochondrial dysfunction and leading to mitochondrial activation of apoptosis. Furthermore, costunolide induced ROS generation, while the antioxidant N-acetyl cysteine (NAC) effectively blocked ER stress and apoptosis activation, suggesting that ROS acts as an upstream signaling molecule in triggering ER stress and mitochondrial apoptotic pathways. Taken together, our research demonstrates that costunolide exhibits its anti-tumor activity though inducing apoptosis, which is mediated by ER stress."

According to the news editors, the research concluded: "We further confirm that Bcl-2 is a key molecule connecting the ER stress and mitochondrial pathways."


The news editors report that additional information may be obtained by contacting Z. Wang, Institute of Biochemistry, Zhejiang University, Room 345, Hangzhou, 310058, People's Republic of China. Additional authors for this research include X. Zhao and X. Gong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cbin.10564. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Hangzhou, Oncology, Apoptosis, Cell Line, Cytoplasm, Organelles, Lung Cancer, Adenocarcinoma, Cellular Structures, Intracellular Space, Endoplasmic Reticulum, People's Republic of China.

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**Oncology - Melanoma**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Melanoma have been presented. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "To evaluate frequency of conjunctival tumors in all ages and compare benign vs malignant counterparts. Retrospective series. SETTING: Tertiary referral center."

Our news editors obtained a quote from the research from Thomas Jefferson University, "Total of 5002 patients. Clinical features. Differentiation of benign from malignant counterparts. The tumor was benign (52%), premalignant (18%), or malignant (30%). Malignant tumors included melanoma (12%), squamous cell carcinoma (SCC) (9%), lymphoma (7%), and others. Comparison of primary acquired melanosis vs melanoma revealed melanoma with greater median patient age (54 vs 61 years, P< .0001), male sex (35% vs 49%, P< .0001), location in fornix (2% vs 6%, P = .0016) and tarsus (1% vs 4%, P = .0018), larger median basal diameter (6 vs 8 mm, P< .0001) and thickness (< 1 vs 1 mm, P< .0001), and intralesional cysts (0% vs 7%, P< .0001), feeder vessels (10% vs 48%, P< .0001), intrinsic vessels (4% vs 33%, P < .0001), and hemorrhage (< 1% vs 3%, P = .0001). Comparison of conjunctival intraepithelial
neoplasia (CIN) vs SCC revealed SCC with greater diffuse involvement (1% vs 8%, P < .0001) and larger median basal diameter (7 vs 8 mm, P < .0001) and thickness (1 mm vs 2 mm, P < .0001). Comparison of benign reactive lymphoid hyperplasia vs lymphoma revealed lymphoma with greater median patient age (50 vs 61 years, P < .0001), fornix location (32% vs 54%, P < .0001), larger median basal diameter (10 vs 20 mm, P < .0001), and less involvement of nasal region (50% vs 23%, P < .0001). In an ocular oncology practice, conjunctival tumors are benign (52%), premalignant (18%), or malignant (30%).”

According to the news editors, the research concluded: "Malignant tumors tend to occur in older patients and demonstrate greater basal diameter and thickness, compared with benign counterparts."


The news editors report that additional information may be obtained by contacting C.L. Shields, Thomas Jefferson University, Wills Eye Hosp, Ocular Oncol Serv, Philadelphia, PA 19107, United States. Additional authors for this research include A.E. Alset, N.S. Boal, M.G. Casey, A.N. Knapp, J.A. Sugarman, M.A. Schoen, P.S. Gordon, A.M. Douglass, K. Sioufi, E.A.T. Say and J.A. Shields.

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Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Squamous Cell Carcinoma, Hematology, Lymphomas, Oncology, Melanoma, Thomas Jefferson University.

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Biological Factors - Metalloporphyrins

Reports on Metalloporphyrins Findings from University of Illinois Provide New Insights (Nrf2-AKT interactions regulate heme oxygenase 1 expression in kidney epithelia during hypoxia and hypoxia-reoxygenation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Biological Factors - Metalloporphyrins are presented in a new report. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "Ischemia-reperfusion (IR)-induced kidney injury is a major clinical problem, but the underlying mechanisms remain unclear. The transcription factor known as nuclear factor, erythroid 2-like 2 (NFE2L2 or Nrf2) is crucial for protection against oxidative stress generated by prooxidant insults."

Our news journalists obtained a quote from the research from the University of Illinois, "We have previously shown that Nrf2 deficiency enhances susceptibility to IR-induced
kidney injury in mice and that its upregulation is protective. Here, we examined Nrf2 target antioxidant gene expression and the mechanisms of its activation in both human and murine kidney epithelia following acute (2 h) and chronic (12 h) hypoxia and reoxygenation conditions. We found that acute hypoxia modestly stimulates and chronic hypoxia strongly stimulates Nrf2 putative target HMOX1 expression, but not that of other antioxidant genes. Inhibition of AKT1/2 or ERK1/2 signaling blocked this induction; AKT1/2 but not ERK1/2 inhibition affected Nrf2 levels in basal and acute hypoxia-reoxygenation states. Unexpectedly, chromatin immunoprecipitation assays revealed reduced levels of Nrf2 binding at the distal AB1 and SX2 enhancers and proximal promoter of HMOX1 in acute hypoxia, accompanied by diminished levels of nuclear Nrf2. In contrast, Nrf2 binding at the AB1 and SX2 enhancers significantly but differentially increased during chronic hypoxia and reoxygenation, with reaccumulation of nuclear Nrf2 levels. Small interfering-RNA-mediated Nrf2 depletion attenuated acute and chronic hypoxia-inducible HMOX1 expression, and primary Nrf2-null kidney epithelia showed reduced levels of HMOX1 induction in response to both acute and chronic hypoxia.

According to the news editors, the research concluded: "Collectively, our data demonstrate that Nrf2 upregulates HMOX1 expression in kidney epithelia through a distinct mechanism during acute and chronic hypoxia reoxygenation, and that both AKT1/2 and ERK1/2 signaling are required for this process."

For more information on this research see: Nrf2-AKT interactions regulate heme oxygenase 1 expression in kidney epithelia during hypoxia and hypoxia-reoxygenation. American Journal of Physiology-Renal Physiology, 2016;311(5):F1025-F1034. American Journal of Physiology-Renal Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting S.P. Reddy, University of Illinois, Dept. of Pediat, Chicago, IL 60612, United States. Additional authors for this research include C.R. Tamatam, R. Marreddy, N.M. Reddy, S. Noel, H. Rabb and S.P. Reddy.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Enzymes and Coenzymes, Biological Factors, Metalloporphyrins, Oxygenases, Genetics, Heme, University of Illinois.

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Mononuclear Leukocytes
Reports on Mononuclear Leukocytes Findings from Juntendo University Provide New Insights (Pathology of healing: what else might we look at?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mononuclear Leukocytes are presented in a new report. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Several aspects of the article by Morita et al. (Cancer Medicine 5: 1607-18, 2016), examining the spontaneous healing phenomenon with reference to tumor infiltrating lymphocytes (TILs), require clarification. The concept of 'healing', which can perhaps be more accurately termed 'regressive change', remains controversial due to a lack of concrete evidence."

The news correspondents obtained a quote from the research from Juntendo
University, "Since regressive change is characterized by fibrosis and lymphocytes, a cancer nest that appears to lack a distinct basement membrane, surrounded only by lymphocytes, as in Morita et al’s Figure 2F, should be meticulously examined because the appearance may correspond to a tumor having just completed the process of invasion. In our experience, a layer of myoepithelial cells in such foci is often difficult to detect even with immunohistochemistry. Thus, we suggest evaluating the viability of cancer cells within the nest by employing several markers, such as Ki67 and apoptotic markers, to judge whether the tumor is intraductal. It might also be useful to compare cases with versus without regressive change to elucidate the biology of such tumors."

According to the news reporters, the research concluded: "For these reasons, a tumor, floating within a pool of TILs and lacking obvious fibrous bands, might be an interesting material to examine in future studies."


Our news journalists report that additional information may be obtained by contacting Y. Horimoto, Juntendo University, Dept. of Pathol & Oncol, Sch Med, Tokyo, Japan. Additional authors for this research include T. Hayashi and A. Arakawa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.952. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Hemic and Immune Systems, Mononuclear Leukocytes, Blood Cells, Lymphocytes, Immunology, Pathology, Oncology, Cancer, Juntendo University.

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Kidney Diseases and Conditions - Multicystic…

Reports on Multicystic Dysplastic Kidney Findings from Guangzhou Medical University Provide New Insights (Prenatal diagnosis of fetal multicystic dysplastic kidney via high-resolution whole-genome array)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Kidney Diseases and Conditions - Multicystic Dysplastic Kidney are discussed in a new report. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Women with fetal multicystic dysplastic kidneys (MCDK) are commonly referred for genetic counseling, for which identification of the correct etiology is a prerequisite. A total of 72 women with fetal MCDK at Guangzhou Women and Children's Medical Center were examined via invasive prenatal diagnosis from May 2010 to June 2015."

Funders for this research include National Natural Science Foundation of China, Department of Science and Technology of Guangdong Province, Bureau of Science and Technology of Guangzhou Municipal.

The news reporters obtained a quote from the research from Guangzhou Medical
University, "Standard karyotyping analysis was provided to all fetuses, and chromosomal microarray with Affymetrix CytoSan HD arrays was offered to cases whose DNA samples were available. Abnormal karyotypes were detected in 3 of 72 (4.17%) fetuses. Of the 69 (95.8%, 69/72) fetuses with normal karyotypes, 30 (42%, 30/69) underwent chromosome microarray analysis (CMA) testing. The CMA identified pathogenic copy number variations in five fetuses, leading to a pathogenic detection rate of 16.7% (5/30). Well-known microdeletion or microduplication syndromes including renal cysts and diabetes (RCAD) syndrome and Williams-Beuren syndrome (WBS) were identified in three cases. Moreover, four chromosomal imbalanced regions were also identified in our MCDK fetuses: 22q11.1 duplication, 4q35.2 deletion, 22q13.33 duplication and 1p33 duplication. Genes PEX26, ELN, HNF1B, ALG12, FRG1, FRG2 and CYP4A11 were possible candidates for fetal MCDK. The proportions of variants of unknown significance before and after parental analysis were 13.3% (4/30) and 3.3% (1/30), respectively. In the present study, the frequency of chromosomal abnormalities in MCDK fetuses was 4.17% and all rearrangements were imbalanced aberrations. CMA was able to increase the pathogenic detection rate to 16.7% in MCDK fetuses with normal karyotype. Critical regions for RCAD syndrome, WBS and copy number variants of 22q11.1 duplication, 4q35.2 deletion, 22q13.33 duplication and 1p33 duplication were associated with fetal MCDK.

According to the news reporters, the research concluded: "Genes PEX26, ELN, HNF1B, ALG12, FRG1, FRG2 and CYP4A11 were possible candidates for fetal MCDK."


Our news correspondents report that additional information may be obtained by contacting C. Liao, Guangzhou Med Univ, Dept. of Prenatal Diagnost Center, Guangzhou Women & Childrens Med Center, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include F.F. Chen, R. Li, Y.L. Zhang, M. Pan, D.Z. Li and C. Liao.

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Keywords for this news article include: Guangdong, People's Republic of China, Asia, Female Urogenital Diseases and Conditions, Female Kidney Diseases and Conditions, Cystic Kidney Diseases and Conditions, Female Urogenital Abnormalities, Multicystic Dysplastic Kidney, Congenital Abnormalities, Women's Health, Genetics, Guangzhou Medical University.

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Nephrology

Reports on Nephrology Findings from University Hospital Provide New Insights (Therapeutic nuclear shuttling of YB-1 reduces renal damage and fibrosis)
Research findings on Nephrology are discussed in a new report. According to news reporting from Aachen, Germany, by NewsRx journalists, research stated, "Virtually all chronic kidney diseases progress towards tubulointerstitial fibrosis. In vitro, Y-box protein-1 (YB-1) acts as a central regulator of gene transcription and translation of several fibrosis-related genes."

The news correspondents obtained a quote from the research from University Hospital, "However, it remains to be determined whether its pro- or antifibrotic propensities prevail in disease. Therefore, we investigated the outcome of mice with half-maximal YB-1 expression in a model of renal fibrosis induced by unilateral ureteral obstruction. Yb1(+/-) animals displayed markedly reduced tubular injury, immune cell infiltration and renal fibrosis following ureteral obstruction. The increase in renal YB-1 was limited to a YB-1 variant nonphosphorylated at serine 102 but phosphorylated at tyrosine 99. During ureteral obstruction, YB-1 localized to the cytoplasm, directly stabilizing Collal mRNA, thus promoting fibrosis. Conversely, the therapeutic forced nuclear compartmentalization of phosphorylated YB-1 by the small molecule HSc025 mediated repression of the Collal promoter and attenuated fibrosis following ureteral obstruction. Blunting of these effects in Yb1(+/-) mice confirmed involvement of YB-1. HSc025 even reduced tubulointerstitial damage when applied at later time points during maximum renal damage. Thus, phosphorylation and subcellular localization of YB-1 determines its effect on renal fibrosis in vivo."

According to the news reporters, the research concluded: "Hence, induced nuclear YB-1 shuttling may be a novel antifibrotic treatment strategy in renal diseases with the potential of damage reversal."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.kint.2016.07.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aachen, Germany, Europe, Nephrology, Genetics, Kidney, University Hospital.

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Reports on Neurochemistry Findings from Technical University Provide New Insights (Chronic consumption of Annona muricata juice triggers and aggravates cerebral tau phosphorylation in wild-type and MAPT transgenic mice)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neuroscience - Neurochemistry. According to news reporting out of Munich, Germany, by NewsRx editors, research stated, "In the pathogenesis of tauopathies, genetic and environmental factors have been identified. While familial clustering led to the identification of mutations in MAPT encoding the microtubule-associated protein tau, the high incidence of a sporadic tauopathy endemic in Guadeloupe was linked to the plant-derived mitochondrial complex I inhibitor annonacin."

Funders for this research include Deutsche Forschungsgemeinschaft, Marie Curie Incoming Fellowship, French Ministry of Research, Forderverein Neurologie Marburg, Gemeinnutzige Hertie-Stiftung.

Our news journalists obtained a quote from the research from Technical University, "The interaction of both factors was studied in the present work in a realistic paradigm over a period of 12months. Mice over-expressing either human wild-type tau or R406W mutant tau as well as non-transgenic mice received either regular drinking water or commercially available tropical fruit juice made of soursop (Annona muricata L.) as dietary source of neurotoxins. HPLC-MS analysis of this juice identified several Annonaceous acetogenins, mainly annonacin (16.2mg/L), and 41 isoquinoline alkaloids (18.0mg/L, mainly asimilobine and reticuline). After 12month of juice consumption, several brain regions showed an increased number of neurons with phosphorylated tau in the somatodendritic compartment of R406W mice and, to a much lesser extent, of non-transgenic mice and mice over-expressing human wild-type tau. Moreover, juice drinking was associated with a reduction in synaptophysin immunoreactivity, as well as an increase in 3-nitrotyrosine (3NT) reactivity in all three genotypes. The increase in 3NT suggests that Annona muricata juice promotes the generation of reactive nitrogen species."

According to the news editors, the research concluded: "This study provides first experimental evidence that long-lasting oral ingestion of a widely consumed environmental factor can induce somatodendritic accumulation of hyperphosphorylated tau in mice expressing rodent or human wild-type tau, and can accelerate tau pathology in R406W-MAPT transgenic mice."


Our news journalists report that additional information may be obtained by contacting G.U. Hoglinger, Technical University of Munich, Dept. of Neurol, Munich, Germany. Additional authors for this research include M. Haegel, B. Jainsch, H. Xu, G. Respondek, M. Hollerhage, T.W. Rosler, E. Bony, J. Le Ven, V. Guerineau, I. Schmitz-Afonso, P. Champy, W.H. Oertel, E.S. Yamada and G.U. Hoglinger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jnc.13835. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munich, Germany, Europe, Neurochemistry, Neuroscience, Genetics, Technical University.

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Leukocyte Diseases and Conditions - Neutropenia

Reports on Neutropenia from Erasmus University Provide New Insights (Role of genetic variation in docetaxel-induced neutropenia and pharmacokinetics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Leukocyte Diseases and Conditions - Neutropenia are discussed in a new report. According to news reporting originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "Docetaxel is used for treatment of several solid malignancies. In this study, we aimed for predicting docetaxel clearance and docetaxel-induced neutropenia by developing several genetic models."

Our news editors obtained a quote from the research from Erasmus University, "Therefore, pharmacokinetic data and absolute neutrophil counts (ANCs) of 213 docetaxel-treated cancer patients were collected. Next, patients were genotyped for 1936 single nucleotide polymorphisms (SNPs) in 225 genes using the drug-metabolizing enzymes and transporters platform and thereafter split into two cohorts. The combination of SNPs that best predicted severe neutropenia or low clearance was selected in one cohort and validated in the other. Patients with severe neutropenia had lower docetaxel clearance than patients with ANCs in the normal range (P = 0.01). Severe neutropenia was predicted with 70% sensitivity. True low clearance (1 s.d. < mean clearance) was identified in 80% of cases. These models however did not reach statistical significance."

According to the news editors, the research concluded: "To improve the predictive value of these models, the addition of non-genetic influencing factors is needed."


The news editors report that additional information may be obtained by contacting R.H.N. van Schaik, Erasmus University, Medical Center, Dept. of Clin Chem, Rotterdam, Netherlands. Additional authors for this research include M. Smid, A.J. de Graan, S. Elbouazzaoui, P. de Bruijn, F. Eskens, P. Hamberg, J.W.M. Martens, A. Sparreboom, R. de Wit, R.H.N. van Schaik and R.H.J. Mathijssen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.66. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Leukocyte Diseases and Conditions, Drugs and Therapies, Leukocyte Disorders, Mitotic Inhibitors, Docetaxel Therapy, Pharmacokinetics, Pharmaceuticals, Antineoplastics, Agranulocytosis, Neutropenia, Hematology, Leukopenia, Genetics, Erasmus University.

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Oncology - Non-Small Cell Lung Cancer

Reports on Non-Small Cell Lung Cancer Findings from Wake Forest Baptist Medical Center Provide New Insights (Recurrence and Survival After Segmentectomy in Patients With Prior Lung Resection for Early-Stage Non-Small Cell Lung Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news reporting originating from Winston Salem, North Carolina, by NewsRx correspondents, research stated, "Lobectomy is the standard of care for patients with early-stage non-small cell lung cancer (NSCLC). However, the treatment of choice for patients with prior lung resection and a second primary NSCLC has not been established."

Our news editors obtained a quote from the research from Wake Forest Baptist Medical Center, "We compared rates and patterns of recurrence and survival in patients with and without prior lung resection treated by segmentectomy and determined predictors of recurrence. This was a retrospective cohort study of 90 patients who underwent 91 consecutive segmentectomies for early-stage NSCLC between April 2004 and December 2014. Logistic regression was used to determine predictors of recurrence, and Kaplan-Meier curves were used to determine survival. Of the 91 segmentectomies, 21 (23%) had a prior lung cancer resection and 70 (77%) were primary resections. There were 18 recurrences (20%): 9 of 21 (43%) in those with prior lung resection and 9 of 70 (13%) in those without. The 90-day mortality was 0%. The recurrence-free survival and 5-year survival were 61% and 55% in those with prior lung resection and 9 of 70 (13%) in those without. The 90-day mortality was 0%. The recurrence-free survival and 5-year survival were 61% and 55% in those with prior lung resection (p = 0.09) and 84% and 65% in those without (p = 0.4). Close parenchymal margin and number of lymph nodes examined were significant modifiable predictors of recurrence. Segmentectomy is a reasonable option for patients with early-stage NSCLC who have had a prior lung resection."

According to the news editors, the research concluded: "It results in similar survival but trends toward lower recurrence-free survival compared with patients undergoing primary resection."


The news editors report that additional information may be obtained by contacting B.E. Louie, Wake Forest Baptist Med Center, Dept. of Cardiothorac Surg, Winston Salem, NC, United States. Additional authors for this research include B.E. Louie, N. Jackson, A.S. Farivar, R.W. Aye and E. Vallieres.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Winston Salem, North Carolina, United States, North and Central America, Non-Small Cell Lung Cancer, Lung Neoplasms, Segmentectomy, Oncology, Surgery, Wake Forest Baptist Medical Center.

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Reports on Non-Small Cell Lung Cancer from Hebei Medical University Provide New Insights (Detection of cancer specific mutations in early-stage non-small cell lung cancer using cell-free DNA by targeted sequencing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news reporting out of Shijiazhuang, People's Republic of China, by NewsRx editors, research stated, "Non-small cell lung cancer (NSCLC) is a major public health problem worldwide and leads to a high mortality. NSCLC is always diagnosed in late stages because of its unapparent symptoms."

Our news journalists obtained a quote from the research from Hebei Medical University, "However, cell-free DNA (cfDNA) may serve as a new potential biomarker to detect early stage of non-small cell lung cancer. Here we recruited 10 non-small cell lung cancer patients to obtain fresh tumor tissue, peripheral blood lymphocytes (PBLs), and plasma. CfDNAs from 13 elderly people and 7 middle-age smokers were also extracted as controls. Illumina HiSeq X10 was used to perform next generation sequencing to evaluate differences in mutations among different samples. The result indicated that tumor DNA and its matched plasma cfDNA samples showed high concordance in their mutation patterns. Mutation rate of cfDNA was generally lower than that of tumor tissue and higher than that of PBLs. The plasma cfDNA concentration of NSCLC patients (69.2 +/- 46.9 ng/ml) is significantly higher than that of elderly people (32.5 +/- 5.2 ng/ml, t=2.96, p=0.007) and middle-aged smokers (17.9 9.1 ng/ml, t=2.83, p=0.013). Five mutations (PTEN_c.1375A >G, TP53_c.94G >A, STK11_c.816C >T, PIK3CA_c.1633 G>A, PIK3CA_c.2038G >C) were only identified in NSCLC patients but not in healthy people. Our conclusion was that cfDNA has a similar mutation pattern with its matched tumor tissue DNA."

According to the news editors, the research concluded: "A high concentration of cfDNA and tumor specific mutations in cfDNA may serve as potential non-invasive biomarkers to detect early-stage non-small cell lung cancer."


Our news journalists report that additional information may be obtained by contacting B.E. Shan, Hebei Medical University, Hosp 4, Tumor Hosp Hebei Prov, Shijiazhuang 050011, Hebei, People's Republic of China. Additional authors for this research include X.Y. Zhang, L.Q. Wang, Z.Q. Tian, Q.Y. Liu, J.F. Yao, Y.P. Liu, C.B. Li, L. Min and B.E. Shan.

Keywords for this news article include: Shijiazhuang, People's Republic of China, Asia, DNA Research, Diagnostics and Screening, Non-Small Cell Lung Cancer, Lung Neoplasms, Oncology, Genetics, Hebei Medical University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Orlistat Therapy have been published. According to news reporting out of Omaha, Nebraska, by NewsRx editors, research stated, "Fatty acid synthase (FASN), the enzyme that catalyzes de novo synthesis of fatty acids, is expressed in many cancer types. Its potential as a therapeutic target is well recognized, but inhibitors of FASN have not yet been approved for cancer therapy."

Funders for this research include National Cancer Institute, National Center for Research Resources, National Heart, Lung, and Blood Institute, National Institute of Biomedical Imaging and Bioengineering.

Our news journalists obtained a quote from the research from the University of Nebraska Medical Center, "Orlistat (ORL), an FDA-approved lipase inhibitor, is also an effective inhibitor of FASN. However, ORL is extremely hydrophobic and has low systemic uptake after oral administration. Thus, new strategies are required to formulate ORL for cancer treatment as a FASN inhibitor. Here, we report the development of a nanoparticle (NP) formulation of ORL using amphiphilic bioconjugates that are derived from hyaluronic acid (HA), termed Nano-ORL. The NPs were loaded with up to 20 wt % weight of ORL at greater than 95% efficiency. The direct inhibition of the human recombinant thioesterase domain of FASN by ORL extracted from Nano-ORL was similar to that of stock ORL. Nano-ORL demonstrated a similar ability to inhibit cellular FASN activity when compared to free ORL, as demonstrated by analysis of (14)C-acetate incorporation into lipids. Nano-ORL treatment also disrupted mitochondrial function similarly to ORL by reducing adenosine triphosphate turnover in MDA-MB-231 and LNCaP cells. Nano-ORL demonstrated increased potency compared to ORL toward prostate and breast cancer cells. Nano-ORL decreased viability of human prostate and breast cancer cell lines to 55 and 57%, respectively, while free ORL decreased viability to 71 and 79% in the same cell lines. Moreover, Nano-ORL retained cytotoxic activity after a 24 h preincubation in aqueous conditions. Preincubation of ORL dramatically reduced the efficacy of ORL as indicated by high cell viability (>85%) in both breast and prostate cell lines."

According to the news editors, the research concluded: "These data demonstrate that NP formulation of ORL using HA-derived polymers retains similar levels of FASN, lipid synthesis, and ATP turnover inhibition while significantly improving the cytotoxic activity against cancer cell lines."


Our news journalists report that additional information may be obtained by contacting T.K. Hill, Dept. of Pharmaceutical Sciences, Biochemistry and Molecular Biology and the Fred and Pamela Buffett Cancer Center, University of Nebraska Medical Center.
Omaha, Nebraska 68198, United States. Additional authors for this research include A.L. Davis, F.B. Wheeler, S.S. Kelkar, E.C. Freund, W.T. Lowther, S.J. Kridel and A.M Mohs.

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Keywords for this news article include: Pharmaceuticals, Omaha, Cancer, Nebraska, Oncology, Cell Line, United States, Metabolic Agents, Orlistat Therapy, Drugs and Therapies, North and Central America, Peripherally Acting Antiobesity Agents.

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Musculoskeletal Diseases and Conditions - …

Reports on Osteoarthritis Findings from University of Bristol Provide New Insights (Differential effects of altered patterns of movement and strain on joint cell behaviour and skeletal morphogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Musculoskeletal Diseases and Conditions - Osteoarthritis are discussed in a new report. According to news reporting from Bristol, United Kingdom, by NewsRx journalists, research stated, "There is increasing evidence that joint shape is a potent predictor of osteoarthritis (OA) risk; yet the cellular events underpinning joint morphogenesis remain unclear. We sought to develop a genetically tractable animal model to study the events controlling joint morphogenesis."

Financial supporters for this research include Wellcome Trust Dynamic Cell, MRC project, ARUK.

The news correspondents obtained a quote from the research from the University of Bristol, "Zebrafish larvae were subjected to periods of flaccid paralysis, rigid paralysis or hyperactivity. Immunohistochemistry and transgenic reporters were used to monitor changes to muscle and cartilage. Finite Element Models were generated to investigate the mechanical conditions of rigid paralysis. Principal component analysis was used to test variations in skeletal morphology and metrics for shape, orientation and size were applied to describe cell behaviour. We show that flaccid and rigid paralysis and hypermobility affect cartilage element and joint shape. We describe differences between flaccid and rigid paralysis in regions showing high principal strain upon muscle contraction. We identify that altered shape and high strain occur in regions of cell differentiation and we show statistically significant changes to cell maturity occur in these regions in paralysed and hypermobile zebrafish. While flaccid and rigid paralysis and hypermobility affect skeletal morphogenesis they do so in subtly different ways. We show that some cartilage regions are unaffected in conditions such as rigid paralysis where static force is applied, whereas joint morphogenesis is perturbed by both flaccid and rigid paralysis; suggesting that joints require dynamic movement for accurate morphogenesis."

According to the news reporters, the research concluded: "A better understanding of how biomechanics impacts skeletal cell behaviour will improve our understanding of how foetal mechanics shape the developing joint."

For more information on this research see: Differential effects of altered patterns of movement and strain on joint cell behaviour and skeletal morphogenesis. Osteoarthritis and Cartilage, 2016;24(11):1940-1950. Osteoarthritis and Cartilage can be contacted at: Elsevier
Reports on Palliative and Supportive Care Findings from J. Lambden and Co-Researchers Provide New Insights (Accuracy of Oncologists' Life-Expectancy Estimates Recalled by Their Advanced Cancer Patients: Correlates and Outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Palliative and Supportive Care. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Oncologists are often reluctant to discuss life-expectancy estimates with their patients because of concerns about their inaccuracy and limited evidence regarding benefits. Determine oncologist accuracy in predicting their advanced cancer patients' life expectancy and correlates associated with accuracy."

The news correspondents obtained a quote from the research, "Multicenter prospective, longitudinal study of patients with advanced cancer, assessed once at baseline and followed to death. At baseline, patients were asked whether their oncologist had provided them with a life-expectancy estimate. Setting/Subjects: Eighty-five patients with advanced cancer recruited from outpatient cancer clinics. Patients' baseline sociodemographic and time to death, and clinical characteristics were examined to determine their associations with the accuracy of the oncologists' life-expectancy estimates as recalled by their patients. Seventy-four percent (63/85) of patients recalled that physician life-expectancy estimates were accurate to within a year; estimates were most accurate when patients had 9-12 months to live. Factors significantly (p <0.05) positively associated with oncologists' greater accuracy to within a year were the patient's age, recruitment from a community-based oncology clinic, poor performance status, and quality-of-life at baseline. Oncologists' prognoses that were accurate to within a year were associated with greater likelihood of patients, at baseline, acknowledging that they were terminally ill (OR=12.20, 95% CI=2.24-66.59), engaging in an end-of-life discussion (OR=4.22, 95% CI=1.45-12.29), completing a do-not-resuscitate (DNR) order (OR=2.94, 95% CI=1.03-8.41), a lower likelihood of using palliative chemotherapy (OR=0.30, 95% CI=0.11-0.85), and clinical trial enrollment (OR=0.09, 95% CI=0.02-0.50). Oncologists are able to estimate their patients' life expectancy to within a year."
According to the news reporters, the research concluded: "Accuracy to within a year is associated with higher rates of DNR order completion, advance care planning, and lower likelihood of chemotherapy use near death."


Our news journalists report that additional information may be obtained by contacting H.G. Prigerson, Weill Cornell Med, Center Res End Of Life Care, New York, NY 10065, United States. Additional authors for this research include B.H. Zhang, R. Friedlander and H.G. Prigerson.

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Keywords for this news article include: New York City, New York, United States, North and Central America, Palliative and Supportive Care, Health and Medicine, Cancer, Epidemiology, Oncology.

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**Oncology - Pancreatic Cancer**

**Reports on Pancreatic Cancer Findings from M.D. Anderson Cancer Center Provide New Insights (Benefit and risk of primary thromboprophylaxis in ambulatory patients with advanced pancreatic cancer receiving chemotherapy: a systematic review and ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Pancreatic Cancer have been published. According to news originating from Brooklyn, New York, by NewsRx correspondents, research stated, "As vascular thromboembolism (VTE) is a leading cause of death in cancer patients, it has been postulated that primary thromboprophylaxis (PTP) in cancer patients might improve survival by reducing VTE occurrence. We performed a systemic review and meta-analysis of randomized controlled trials (RCTs) to investigate the benefit and risk of PTP with low-molecular-weight heparins (LMWHs) in ambulatory advanced pancreatic cancer (APC) patients receiving chemotherapy."

Our news journalists obtained a quote from the research from M.D. Anderson Cancer Center, "We undertook a literature search using MEDLINE and EMBASE databases through May 2015. RCTs with reduction in symptomatic VTE as a primary or secondary endpoints were included. Mantel-Haenszel method was used to estimate the pooled event-based risk ratio as well as the pooled absolute risk difference with 95% confidence interval (CI). Seven hundred and thirty-eight APC patients were eligible for analysis. PTP lasted 3-6 months. The crude VTE incidence was 2.1 and 11.2% in LMWH and in control groups, respectively (risk ratio, 0.18; 95% CI, 0.083-0.39; p<0.0001). The absolute risk difference in VTE was -0.092 (95% CI, -0.127 to -0.057; p<0.0001), with an estimated number needed to treat of 11 patients to prevent
one symptomatic VTE event. The pooled risk ratio for major bleeding was 1.25 (95% CI, 0.48-3.3, p=0.65). Although these findings are encouraging to deploy PTP in APC patients receiving chemotherapy, uncertainties remain as to its survival benefit, optimal PTP duration, type and dose of LMWH, and costs of care."

According to the news editors, the research concluded: "Therefore, adequately powered randomized phase III studies are warranted to address these questions."

For more information on this research see: Benefit and risk of primary thromboprophylaxis in ambulatory patients with advanced pancreatic cancer receiving chemotherapy: a systematic review and meta-analysis of randomized controlled trials. Blood Coagulation & Fibrinolysis, 2016;27(3):270-4. (Lippincott Williams and Wilkins - www.lww.com; Blood Coagulation & Fibrinolysis - journals.lww.com/bloodcoagulation/pages/default.aspx)

The news correspondents report that additional information may be obtained from N.M. Tun, aDivision of Hematology & Oncology, The Brooklyn Hospital Center, Brooklyn, New York bSection of Thrombosis & Benign Hematology, The University of Texas MD Anderson Cancer Center, Houston, Texas, United States. Additional authors for this research include E. Guevara and T.H Oo.

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Keywords for this news article include: Brooklyn, New York, Oncology, Chemotherapy, United States, Article Review, Gastroenterology, Clinical Research, Pancreatic Cancer, Drugs and Therapies, Pancreatic Neoplasms, North and Central America, Clinical Trials and Studies.

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**Peptides and Proteins**

**Reports on Peptides and Proteins Findings from State University of New York Provide New Insights (The DNA Damage Transducer RNF8 Facilitates Cancer Chemoresistance and Progression through Twist Activation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Peptides and Proteins are presented in a new report.

According to news reporting originating in Stony Brook, New York, by NewsRx journalists, research stated, "Twist has been shown to cause treatment failure, cancer progression, and cancer-related death. However, strategies that directly target Twist are not yet conceivable."

The news reporters obtained a quote from the research from the State University of New York, "Here we reveal that K63-linked ubiquitination is a crucial regulatory mechanism for Twist activation. Through an E3 ligase screen and biochemical studies, we unexpectedly identified that RNF8 functions as a direct Twist activator by triggering K63-linked ubiquitination of Twist. RNF8-promoted Twist ubiquitination is required for Twist localization to the nucleus for subsequent EMT and CSC functions, thereby conferring chemoresistance. Our histological analyses showed that RNF8 expression is upregulated and correlated with disease progression, EMT features, and poor patient survival in breast cancer. Moreover, RNF8
regulates cancer cell migration and invasion and cancer metastasis, recapitulating the effect of Twist."

According to the news reporters, the research concluded: "Together, our findings reveal a previously unrecognized tumor-promoting function of RNF8 and provide evidence that targeting RNF8 is an appealing strategy to tackle tumor aggressiveness and treatment resistance."

For more information on this research see: The DNA Damage Transducer RNF8 Facilitates Cancer Chemoresistance and Progression through Twist Activation. Molecular Cell, 2016;63(6):1021-1033. Molecular Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

Our news correspondents report that additional information may be obtained by contacting C.H. Chan, SUNY Stony Brook, Stony Brook Canc Center, Stony Brook, NY 11794, United States. Additional authors for this research include C.F. Li, D.N. Ruan, S. Powers, P.A. Thompson, M.A. Frohman and C.H. Chan.

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Keywords for this news article include: Stony Brook, New York, United States, North and Central America, Peptides and Proteins, Ubiquitins, Proteins, Oncology, Cancer, State University of New York.

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Peptides and Proteins

Reports on Peptides and Proteins from University of Kent Provide New Insights (Efficient targeting of recombinant proteins to the thylakoid lumen in Chlamydomonas reinhardtii using a bacterial Tat signal peptide)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Peptides and Proteins is the subject of a report. According to news originating from Kent, United Kingdom, by NewsRx correspondents, research stated, "Interest in the exploitation of microalgae for biotechnological applications has increased over the last decade, and microalgae are now viewed as offering a sustainable alternative to traditionally used host chassis. A number of recombinant proteins have been expressed in genetically modified algal strains, with the green alga Chlamydomonas reinhardtii being a particularly popular host strain."

Our news journalists obtained a quote from the research from the University of Kent, "While nuclear transformation is possible with this organism, chloroplast transformation offers more reliable expression, and several proteins have been expressed in the stroma. Here, we present the first utilisation of the thylakoid lumen for recombinant protein production in microalgae. A bacterial export signal peptide was used to efficiently translocate two recombinant proteins, a fluorescent reporter protein (pHRed) and a biopharmaceutical model substrate (scFv) into the thylakoid lumen."

According to the news editors, the research concluded: "This approach expands the
algal chloroplast genetic toolkit and offers a means of expressing proteins that are difficult to
express in the stroma for reasons of toxicity, stability or a requirement for disulphide bonding."

For more information on this research see: Efficient targeting of recombinant
proteins to the thylakoid lumen in Chlamydomonas reinhardtii using a bacterial Tat signal
peptide. *Algal Research-Biomass Biofuels and Bioproducts*, 2016;19():57-62. *Algal Research-
Biomass Biofuels and Bioproducts* can be contacted at: Elsevier Science Bv, PO Box 211, 1000
Ae Amsterdam, Netherlands.

The news correspondents report that additional information may be obtained from C.
Robinson, University of Kent, Sch Biosci, Center Mol Proc, Canterbury CT2 7NJ, Kent, United
Kingdom. Additional authors for this research include C.W. Mullineaux and C. Robinson.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.algal.2016.07.007. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Kent, United Kingdom, Europe, Peptides
and Proteins, Recombinant Proteins, Amino Acids, Proteomics, Genetics, Peptides,
University of Kent.

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**Periodontal Diseases and Conditions - Periodontitis**

**Reports on Periodontitis Findings from Okayama University Provide
New Insights (Visualization of Oxidative Stress Induced by
Experimental Periodontitis in Keap1-Dependent Oxidative Stress
Detector-Luciferase Mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- New research on Periodontal Diseases and Conditions - Periodontitis is the
subject of a report. According to news reporting originating in Okayama, Japan, by NewsRx
journalists, research stated, "The aim of this study was to investigate whether a Keap1-
dependent oxidative stress detector-luciferase (OKD-LUC) mouse model would be useful for
the visualization of oxidative stress induced by experimental periodontitis. A ligature was
placed around the mandibular first molars for seven days to induce periodontitis."

The news reporters obtained a quote from the research from Okayama University,
"Luciferase activity was measured with an intraperitoneal injection of D-luciferin on days 0, 1,
and 7. The luciferase activity in the periodontitis group was significantly greater than that in the
control group at seven days. The expressions of heme oxygenase-1 (HO-1) and malondialdehyde
in periodontal tissue were significantly higher in the periodontitis group than in the control
group. Immunofluorescent analysis confirmed that the nuclear translocation of nuclear factor
erythroid 2-related factor 2 (Nrf2) occurred more frequently in the periodontitis group than in the
control group. This study found that under oxidative stress induced by experimental
periodontitis, the Nrf2/antioxidant defense pathway was activated and could be visualized from
the luciferase activity in the OKD-LUC model."

According to the news reporters, the research concluded: "Thus, the OKD-LUC
mouse model may be useful for exploring the mechanism underlying the relationship between
the Nrf2/antioxidant defense pathway and periodontitis by enabling the visualization of
oxidative stress over time."
For more information on this research see: Visualization of Oxidative Stress Induced by Experimental Periodontitis in Keap1-Dependent Oxidative Stress Detector-Luciferase Mice. *International Journal of Molecular Sciences*, 2016;17(11):2128-2138. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting K. Kataoka, Okayama University, Grad Sch Med Dental & Pharmaceut Sci, Dept. of Prevent Dental, Kita Ku, Okayama 7008558, Japan. Additional authors for this research include D. Ekuni, T. Tomofuji, K. Irie, M. Kunitomo, Y. Uchida, D. Fukuhara and M. Morita.

Keywords for this news article include: Okayama, Japan, Asia, Periodontal Diseases and Conditions, Mouth Diseases and Conditions, Experimental Periodontitis, Enzymes and Coenzymes, Luminescent Proteins, Bioluminescence, Oxidoreductases, Luciferases, Genetics, Okayama University.

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**Reports on Peroxisome Proliferator-Activated Receptors Findings from Harvard School of Medicine Provide New Insights (Molecular Pathways: Dietary Regulation of Stemness and Tumor Initiation by the PPAR-delta Pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Proteins - Peroxisome Proliferator-Activated Receptors are presented in a new report. According to news reporting from Boston, Massachussets, by NewsRx journalists, research stated, "Peroxisome proliferator-activated receptor delta (PPAR-delta) is a nuclear receptor transcription factor that regulates gene expression during development and disease states, such as cancer. However, the precise role of PPAR-delta during tumorigenesis is not well understood."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "Recent data suggest that PPAR-delta may have context-specific oncogenic and tumor-suppressive roles depending on the tissue, cell-type, or diet-induced physiology in question. For example, in the intestine, pro-obesity diets, such as a high-fat diet (HFD), are associated with increased colorectal cancer incidence. Interestingly, many of the effects of an HFD in the stem and progenitor cell compartment are driven by a robust PPAR-delta program and contribute to the early steps of intestinal tumorigenesis. Importantly, the PPAR-delta pathway or its downstream mediators may serve as therapeutic intervention points or biomarkers in colon cancer that arise in patients who are obese."

According to the news reporters, the research concluded: "Although potent PPAR-delta agonists and antagonists exist, their clinical utility may be enhanced by uncovering how PPAR-delta mediates tumorigenesis in diverse tissues and cell types as well as in response to diet."

For more information on this research see: Molecular Pathways: Dietary Regulation of Stemness and Tumor Initiation by the PPAR-delta Pathway. *Clinical Cancer Research*, 2016;22(23):5636-5641. *Clinical Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American
Reports on Pharmacokinetics Findings from Central University Provide New Insights (Promises of a biocompatible nanocarrier in improved brain delivery of quercetin: Biochemical, pharmacokinetic and biodistribution evidences)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Pharmacokinetics. According to news reporting out of Rajasthan, India, by NewsRx editors, research stated, "In various neurological disorders, antioxidants are frequently prescribed along with the specific treatment modalities. One such promising natural flavonoid is quercetin, offering better outcomes than established vitamins E and C. Though with immense promises, various challenges like poor oral-bioavailability (<2%), extensive first-pass metabolism, poor brain permeability, hydrophobic nature and physiological pH instability hinder its proper usage."

Our news journalists obtained a quote from the research from Central University, "Hence, it was planned to prepare quercetin-loaded nano lipidic carriers (NLCs) employing biocompatible components like phospholipids and tocopherol acetate for enhanced brain delivery. The outcomes were also compared with solid lipid nanoparticles (SLNs) of comparable composition. Both the nanocolloids offered better drug loading and controlled drug release with appreciable stability. In vitro antioxidant performance was improved after encapsulation in nanoparticles and the nanoparticles were substantially uptaken by Caco-2 cells. The difference in outcomes was vivid in pharmacokinetic studies, where nanoparticles, esp. NLCs substantially enhanced the relative bioavailability (approx. 6 folds), biological residence (2.5 times) and appreciably retarded the drug clearance (approx. 6 folds). On the other hand, both nanoparticles were able to substantially deliver the drug to brain. NLCs were observed to enhance the brain permeability of drug in a noticeable manner."

According to the news editors, the research concluded: "SLNs/NLCs can offer a better-platform for brain-delivery of quercetin."


Our news journalists report that additional information may be obtained by
contacting K. Raza, Cent Univ Rajasthan, Sch Chem Sci & Pharm, Dept. of Pharm, Bandar Sindri 305817, Rajasthan, India. Additional authors for this research include G. Sharma, R. Kumar, B. Singh, R. Malik, O.P. Katare and K. Raza.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.024. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rajasthan, India, Asia, Emerging Technologies, Pharmacokinetics, Pharmaceuticals, Nanotechnology, Biochemicals, Biochemistry, Nanoparticle, Chemicals, Central University.

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Pharmacokinetics

Reports on Pharmacokinetics Findings from Shenyang Pharmaceutical University Provide New Insights (Pharmacokinetic parameters of three active ingredients hederacoside C, hederacoside D, and alpha-hederin in Hedera helix in rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Pharmacokinetics. According to news reporting from Shenyang, People's Republic of China, by NewsRx journalists, research stated, "In Hedera helix hederacoside C, hederacoside D, and alpha-hederin are three major bioactive saponins and play pivotal roles in the overall biological activity. In this study, a specific and sensitive ultra-high performance liquid chromatography with tandem mass spectrometry method has been developed and validated for the quantification of three major bioactive saponins in rat plasma."

The news correspondents obtained a quote from the research from Shenyang Pharmaceutical University, "Chromatographic separation was performed on a reversed-phase Thermo Hypersil GOLD C-18 column (2.1 mm x 50 mm, 1.9 mu m) using a gradient mobile phase system of acetonitrile-water containing 0.1% formic acid. The assay was successfully applied to study the pharmacokinetic behavior of the three analytes in rats after oral and intravenous administration of a mixture of saponins (hederacoside C, hederacoside D, and.-hederin). Further research was performed to compare the pharmacokinetic behavior of the three analytes after the oral administration of a mixture of saponins and an extract of saponins from Hedera helix, and results showed that double peaks were evident on concentration-time profile for each of the three saponins."

According to the news reporters, the research concluded: "The difference in the pharmacokinetic characteristics of three saponins between a mixture of saponins and an extract of saponins from Hedera helix was found in rat, which would be beneficial for the preclinical research and clinical use of Hedera helix."

Our news journalists report that additional information may be obtained by contacting Z.G. Yu, Shenyang Pharmaceutical University, Sch Pharm, Shenyang 110016, People's Republic of China. Additional authors for this research include J.X. Liu, L. Li, H.Y. Xu, Y.Y. Xing, Y.L. Zhao and Z.G. Yu.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Pharmacokinetics, Pharmaceuticals, Shenyang Pharmaceutical University.

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Pharmacokinetics

Reports on Pharmacokinetics from Center for Disease Control and Prevention Provide New Insights (Co-administration of St. John's wort and hormonal contraceptives: a systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pharmacokinetics have been published. According to news originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "St. John's wort (SJW) is a known strong inducer of the cytochrome P450 (CYP) 3 A4 enzyme, and both the ethinyl estradiol and progestin components of hormonal contraceptives are substrates of CYP3A4."

Our news journalists obtained a quote from the research from Center for Disease Control and Prevention, "This systematic review examined whether the co-administration of SJW and hormonal contraceptives leads to significant safety or efficacy concerns. Systematic review. PubMed and Cochrane Library databases were searched for articles of any comparative study design (clinical or pharmacokinetic) that examined potential interactions between SJW and hormonal contraceptives in women of reproductive age. Of the 48 identified articles, four studies met inclusion criteria and compared use of combined oral contraceptives (COCs) alone to the use of COCs co-administered with SJW. Two studies demonstrated no change in markers of ovulation, but one study demonstrated increased follicular growth and probable ovulation when COCs were co-administered with SJW. Three studies demonstrated an increased risk of breakthrough bleeding with COCs and SJW. Three studies showed changes in at least one pharmacokinetic parameter that suggested a significantly decreased exposure to hormone concentrations when COCs were co-administered with SJW. The only study that did not demonstrate any significant pharmacokinetic differences examined a SJW product containing a low amount of hypericin. Limited evidence showing increased risk of ovulation and breakthrough bleeding raises concern for decreased contraceptive efficacy when COCs are co-administered with SJW."

According to the news editors, the research concluded: "The pharmacokinetic evidence is mixed but suggests that SJW administration may be associated with weak to moderate induction of the metabolism of COCs."


The news correspondents report that additional information may be obtained from
E.N. Berry-Bibee, Center Dis Control & Prevent, Div Reprod Hlth, Atlanta, GA 30333, United States. Additional authors for this research include M.J. Kim, N.K. Tepper, H.E.M. Riley and K.M. Curtis.

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Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Pharmaceuticals, Article Review, Pharmacokinetics, Center for Disease Control and Prevention.

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Pharmacology

Reports on Pharmacology from Jagiellonian University Provide New Insights (The unethical use of ethical rhetoric: the case of flibanserin and pharmacologisation of female sexual desire)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacology have been presented. According to news reporting from Krakow, Poland, by NewsRx journalists, research stated, "The current debate around sexual dysfunctions focuses mostly on the pharmacological regulation of lowered sexual desire in women. The Food and Drug Administration approval of the first drug-Addyi-to treat this condition was preceded by a campaign, in which ethically saturated arguments were used to lobby policy makers."

The news correspondents obtained a quote from the research from Jagiellonian University, "This article provides a critical evaluation of these arguments. In particular, we focus our attention on deceitful and unethical use of moral arguments and concepts. First, we present the context in which hypoactive sexual desire disorder is defined as a serious medical condition, showing how non-medical and non-scientific influences shaped the understanding of the problem. Further, we demonstrate how in current discussions regarding lower sexual interest attention has been shifted from psychosocial to pharmacological solutions and we trace the ethical consequences of such a change. We argue that, in addition to typical detrimental effects of overmedicalisation, there are new serious perils. In particular, we demonstrate that it is highly probable that pharmacologisation of female desire-contrary to the emancipatory declarations of the drug proponents-exerts pressure on women and narrows the range of potential choices they can make."

According to the news reporters, the research concluded: "As a result, it is inconsistent with the very idea of free choice."

For more information on this research see: The unethical use of ethical rhetoric: the case of flibanserin and pharmacologisation of female sexual desire. Journal of Medical Ethics, 2016;42(11):701-704. Journal of Medical Ethics can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Journal of Medical Ethics - jme.bmj.com/)

Our news journalists report that additional information may be obtained by contacting W. Chanska, Jagiellonian University, Coll Med, Dept. of Philosophy & Bioeth, Krakow, Poland.
Reports on Physiology from University of Melbourne Provide New Insights (Programming of maternal and offspring disease: impact of growth restriction, fetal sex and transmission across generations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Life Science Research - Physiology. According to news originating from Parkville, Australia, by NewsRx correspondents, research stated, "Babies born small are at an increased risk of developing myriad adult diseases. While growth restriction increases disease risk in all individuals, often a second hit is required to unmask 'programmed' impairments in physiology."

Our news journalists obtained a quote from the research from the University of Melbourne, "Programmed disease outcomes are demonstrated more commonly in male offspring compared with females, with these sex-specific outcomes partly attributed to different placenta-regulated growth strategies of the male and female fetus. Pregnancy is known to be a major risk factor for unmasking a number of conditions and can be considered a 'second hit' for women who were born small. As such, female offspring often develop impairments of physiology for the first time during pregnancy that present as pregnancy complications. Numerous maternal stressors can further increase the risk of developing a maternal complication during pregnancy. Importantly, these maternal complications can have long-term consequences for both the mother after pregnancy and the developing fetus. Conditions such as preeclampsia, gestational diabetes and hypertension as well as thyroid, liver and kidney diseases are all conditions that can complicate pregnancy and have long-term consequences for maternal and offspring health. Babies born to mothers who develop these conditions are often at a greater risk of developing disease in adulthood. This has implications as a mechanism for transmission of disease across generations."

According to the news editors, the research concluded: "In this review, we discuss the evidence surrounding long-term intergenerational implications of being born small and/or experiencing stress during pregnancy on programming outcomes."


The news correspondents report that additional information may be obtained from M.E. Wlodek, University of Melbourne, Sch Biomed Sci, Fac Med Dental & Hlth Sci, Dept. of Physiol, Parkville, Vic 3010, Australia. Additional authors for this research include M.E. Wlodek, K.M. Moritz and J.S.M. Cuffe.

Keywords for this news article include: Parkville, Australia, Australia and New
Platinum Compounds

Reports on Platinum Compounds from All India Institute of Medical Sciences Provide New Insights (Safety assessment and attenuation of cisplatin induced nephrotoxicity by tuberous roots of Boerhaavia diffusa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Platinum Compounds have been presented. According to news originating from New Delhi, India, by NewsRx correspondents, research stated, "Cisplatin (Cis-diaminedichloroplatinum II) is a chemotherapeutic agent having well documented adverse effect as nephrotoxicity. This study was designed to evaluate the nephroprotective role of Boerhaavia diffusa in cisplatin-induced acute kidney injury."

Our news journalists obtained a quote from the research from the All India Institute of Medical Sciences, "Wistar rats (n = 6) were allocated into six groups constituting normal control, cisplatin-induced, Boerhaavia diffusa root extract in doses 50, 100 and 200 mg/kg and Boerhaavia diffusa per se group, administered orally for a period of ten days. Intraperitoneal injection of cisplatin was administered on day 7, to all groups except normal control and Boerhaavia diffusa per se group. On day 10, cisplatin resulted in substantial nephrotoxicity in Wistar rats with significant (p < 0.001) elevation in serum creatinine and blood urea nitrogen, decline in the concentrations of reduced glutathione and superoxide dismutase, elevation in TNF-alpha level in renal tissues. Boerhaavia diffusa at a dose of 200 mg/kg body weight significantly (p < 0.001) ameliorates increased in serum creatinine, blood urea nitrogen, oxidative stress and inflammatory markers. In parallel to this, it also exhibits antiapoptotic activity through the reduction of active caspase-3 expression in kidneys. Findings indicate that Boerhaavia diffusa is effective in mitigating cisplatin-induced nephrotoxicity and thus, for this the acute and sub-acute toxicity studies conducted to evaluate the safety profile of Boerhaavia diffusa."

According to the news editors, the research concluded: "The no-observed adverse effect level (NOAEL) of tuberous roots of Boerhaavia diffusa root extract was 1000 mg/kg."

For more information on this research see: Safety assessment and attenuation of cisplatin induced nephrotoxicity by tuberous roots of Boerhaavia diffusa. Regulatory Toxicology and Pharmacology, 2016;81():341-352. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news correspondents report that additional information may be obtained from S. Singh, All India Inst Med Sci, Dept. of Pharmacol, New Delhi 110029, India. Additional authors for this research include P. Kalra, T.C. Nag, Y.K. Gupta, S. Singh and A. Panwar.

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Reports on Pneumococcal Disease from University of Bern Provide New Insights (Polysaccharide Capsule Composition of Pneumococcal Serotype 19A Subtypes Is Unaltered among Subtypes and Independent of the Nutritional Environment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pneumococcal Disease have been published. According to news originating from Bern, Switzerland, by NewsRx correspondents, research stated, "Serotype 19A strains have emerged as a cause of invasive pneumococcal disease after the introduction of the 7-valent pneumococcal conjugate vaccine (PCV7), and serotype 19A has now been included in the recent 13-valent vaccine (PCV13). Genetic analysis has revealed at least three different capsular serotype 19A subtypes, and nutritional environment-dependent variation of the 19A capsule structure has been reported."

Financial support for this research came from Swiss National Science Foundation.

Our news journalists obtained a quote from the research from the University of Bern, "Pneumococcal vaccine effectiveness and serotyping accuracy might be impaired by structural differences in serotype 19A capsules. We therefore analyzed the distribution of 19A subtypes collected within a Swiss national surveillance program and determined capsule composition under different nutritional conditions with high-performance liquid chromatography (HPLC), gas chromatography-mass spectrometry (GC-MS), and nuclear magnetic resonance (NMR) spectroscopy. After the introduction of PCV7, a significant relative increase of subtype 19A-II and decrease of 19A-I occurred. Chemical analyses showed no difference in the composition as well as the linkage of 19A subtype capsular saccharides grown in defined and undefined growth media, which is consistent with a trisaccharide repeat unit composed of rhamnose, N-acetyl-mannosamine, and glucose. In summary, our study suggests that no structural variance dependent of the nutritional environment or the subtype exists. The serotype 19A subtype shift observed after the introduction of the PCV7 can therefore not be explained by selection of a capsule structure variant."

According to the news editors, the research concluded: "However, capsule composition analysis of emerging 19A clones is recommended in cases where there is no other explanation for a selective advantage, such as antibiotic resistance or loss or acquisition of other virulence factors."

For more information on this research see: Polysaccharide Capsule Composition of Pneumococcal Serotype 19A Subtypes Is Unaltered among Subtypes and Independent of the Nutritional Environment. Infection and Immunity, 2016;84(11):3152-3160. Infection and Immunity can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Infection and Immunity - iai.asm.org)

The news correspondents report that additional information may be obtained from...
M. Hilty, University of Bern, University Hospital Bern, Inselspital, Dept. of Infect Dis, Bern, Switzerland. Additional authors for this research include L.J. Troxler, S. Rufenacht, P.M. Frey, B. Morand, R. Geyer, K. Muhlemann, S. Hock, W. Thormann, J. Furrer, S. Christen and M. Hilty.

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Keywords for this news article include: Bern, Switzerland, Europe, Immunization, Epidemiology, Pneumococcal Disease, Biological Products, Vaccines, Genetics, University of Bern.

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Hematologic Diseases and Conditions - Polycythemia

Reports on Polycythemia Findings from Tel Aviv University Provide New Insights (Can middle cerebral artery peak systolic velocity predict polycythemia in monochorionic-diamniotic twins? Evidence from a prospective cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematologic Diseases and Conditions - Polycythemia. According to news reporting originating in Tel Aviv, Israel, by NewsRx journalists, research stated, "The antenatal diagnosis of twin anemia-polycythemia sequence (TAPS) in monochorionic-diamniotic (MCDA) twin pregnancies is based on elevated peak systolic velocity in the middle cerebral artery (MCA-PSV) in the donor twin and decreased MCA-PSV in the recipient twin. However, the association between these parameters and polycythemia has not yet been established."

The news reporters obtained a quote from the research from Tel Aviv University, "The aim of this study was to determine whether MCA-PSV can predict polycythemia in MCDA pregnancies. This was a prospective cohort study of MCDA pregnancies recruited at 14-18 weeks' gestation from a single tertiary care center between January 2011 and June 2014. Fetal MCA Doppler waveforms were recorded every 2 weeks from 18 weeks' gestation until delivery. Only those with an MCA-PSV measurement within 1 week of delivery were included in the analysis. Neonatal hematocrit level was determined in all twins from venous blood obtained within 4 h of delivery. Polycythemia was defined as a hematocrit of > 65%, and anemia as a hematocrit of < 45%. TAPS was diagnosed when an intertwin hemoglobin difference of > 8 g/dL and reticulocyte count ratio of > 1.7 were observed. Of 162 MCDA pregnancies followed during the study period, 69 had an MCA-PSV measurement within 1 week of delivery and were included in the study. Twenty-five neonates were diagnosed with polycythemia and nine twin pairs met the criteria for TAPS. In a pooled analysis, MCA-PSV was negatively correlated with neonatal hematocrit (P = 0.017, r = -0.215) and was significantly higher in anemic fetuses than in normal controls (1.15 multiples of the median (MoM) vs 1.02 MoM, respectively; P = 0.001). However, MCA-PSV was similar among polycythemic and normal fetuses (0.95 MoM vs 1.02 MoM, respectively; P = 0.47). Intertwin difference in MCA-PSV (delta MCA-PSV) was positively correlated with intertwin hematocrit difference (P = 0.002, r = 0.394). Moreover, twin pregnancies with an intertwin hematocrit difference of > 24% had a significantly greater delta
MCA-PSV than did those with an intertwin hematocrit difference of = 24% (delta MCA-PSV, 19 vs 5 cm/s; P< 0.001). MCA-PSV is not significantly decreased in polycythemic MCDA twins."

According to the news reporters, the research concluded: "However, delta MCA-PSV is associated with a large intertwin difference in hematocrit, and its use may be better than conventional methods for the risk assessment of TAPS."


Our news correspondents report that additional information may be obtained by contacting Y. Yinon, Tel Aviv University, Tel Hashomer Sackler Sch Med, Sheba Med Center, Dept. of Obstet & Gynecol, Tel Aviv, Israel. Additional authors for this research include B. Weisz, S. Mazaki-Tovi, E. Ashwal, B. Chayen, S. Lipitz and Y. Yinon.

Keywords for this news article include: Tel Aviv, Israel, Asia, Hemic and Lymphatic Diseases and Conditions, Angiology, Diagnostics and Screening, Hematologic Diseases and Conditions, Middle Cerebral Artery, Polycythemia, Anemia, Tel Aviv University.

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Oncology - Prostate Cancer

Reports on Prostate Cancer Findings from National Cancer Institute Provide New Insights (ABO blood type correlates with survival on prostate cancer vaccine therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Prostate Cancer have been presented. According to news reporting originating in Frederick, Maryland, by NewsRx journalists, research stated, "Immunotherapies for cancer are transforming patient care, but clinical responses vary considerably from patient to patient. Simple, inexpensive strategies to target treatment to likely responders could substantially improve efficacy while simultaneously reducing health care costs, but identification of reliable biomarkers has proven challenging."

The news reporters obtained a quote from the research from National Cancer Institute, "Previously, we found that pre-treatment serum IgM to blood group A (BG-A) correlated with survival for patients treated with PROSTVAC-VF, a therapeutic cancer vaccine in phase III clinical trials for the treatment of prostate cancer. These results suggested that ABO blood type might influence efficacy. Unfortunately, blood types were not available in the clinical records for all but 8 patients and insufficient amounts of sera were left for standard blood typing methods. To test the hypothesis, therefore, we developed a new glycan microarray-based method for determining ABO blood type. The method requires only 4 mL of serum, provides 97% accuracy, and allows simultaneous profiling of many other serum anti-glycan antibodies. After validation with 220 healthy subjects of known blood type, the method was then applied to 74 PROSTVAC-VF patients and 37 control patients from a phase II trial. In this retrospective
study, we found that type B and O PROSTVAC-VF patients demonstrated markedly improved clinical outcomes relative to A and AB patients, including longer median survival, longer median survival relative to Halabi predicted survival, and improved overall survival via Kaplan-Meier survival analysis (p=0.006).

According to the news reporters, the research concluded: "Consequently, blood type may provide an inexpensive screen to pre-select patients likely to benefit from PROSTVAC-VF therapy."

For more information on this research see: ABO blood type correlates with survival on prostate cancer vaccine therapy. Oncotarget, 2015;6(31):32244-56.

Our news correspondents report that additional information may be obtained by contacting S.M. Muthana, Chemical Biology Laboratory, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Frederick, MD, United States. Additional authors for this research include J.L. Gulley, J.W. Hodge, J. Schlom and J.C Gildersleeve.

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Keywords for this news article include: Therapy, Maryland, Oncology, Vaccines, Frederick, Immunization, United States, Prostate Cancer, Biological Products, Post Trial Research, Prostatic Neoplasms, North and Central America, Clinical Trials and Studies.

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that in Plan A (beam angles: 0, 60, 120, 240 and 300) less dose was received by both heads of femur."

According to the news editors, the research concluded: "This study suggests that 5 field treatment planning including an anterior, two anterior oblique and two posterior oblique portals to be more proper for 3D conformal radiotherapy in order to spare femoral head with acceptable PTV coverage, and bladder and rectal doses."


The news correspondents report that additional information may be obtained from M. Lashkari, Univ Tehran Med Sci, Inst Canc, Dept. of Radiat Oncol, Radiat Oncol Res Center, Tehran, Iran. Additional authors for this research include M. Lashkari, R. Ghalehtaki, A. Ghasemi, H.D. Manshadi, A. Mir, S. Noorollahi and M. Alamolhoda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.meddos.2016.06.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Computer-Assisted Therapy, Conformal Radiotherapy, Prostatic Neoplasms, Prostate Cancer, Oncology, University of Tehran.

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**Oncology - Prostate Cancer**

**Reports on Prostate Cancer from Huazhong University of Science and Technology Provide New Insights [miR-34C Disrupts the Stemness of Purified CD133(+) Prostatic Cancer Stem Cells]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting originating in Wuhan, People's Republic of China, by NewsRx journalists, research stated, "To find the potential micro-RNA (miRNA) that could determine the fate of prostate cancer stem cells. We compared miRNA expression between our purified CD133(+) prostatic cancer stem cells (PCSCs) and CD133-cells."

The news reporters obtained a quote from the research from the Huazhong University of Science and Technology, "Sphere formation assay and matrigel-based cell invasion assay were applied to determine the stemness of CD133(+) PCSCs after our manipulation of miRNA using miRNA mimic or miRNA inhibitor. In this study, we identified that miR-34C was under-expressed in the purified CD133(+) PCSCs and enforced introduction of miR-34C attenuated the stemness of CD133(+) PCSCs. Clinically, we also observed a negative correlation between miR-34C and CD133."

According to the news reporters, the research concluded: "Our data strongly suggest that miR-34C may play essential role in conferring castration resistance by equilibrating PSCS population."

For more information on this research see: miR-34C Disrupts the Stemness of

Our news correspondents report that additional information may be obtained by contacting Z.Q. Ye, Huazhong University of Science & Technology, Tongji Med College, Tongji Hosp, Dept. of Urol, Wuhan 430030, People's Republic of China. Additional authors for this research include Q. Rao, H.P. Zhang, H. Xu, C.T. Zhang, Q.Y. Zhuang and Z.Q. Ye.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Stem Cell Research, Prostate Cancer, Oncology, Genetics, Huazhong University of Science and Technology.

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**Gram-Negative Bacteria - Pseudomonas aeruginosa**

**Reports on Pseudomonas aeruginosa Findings from Spanish National Research Council (CSIC) Provide New Insights (Purification and characterization of Pseudomonas aeruginosa LasR expressed in acyl-homoserine lactone free Escherichia coli cultures)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Pseudomonas aeruginosa are presented in a new report. According to news originating from Granada, Spain, by NewsRx correspondents, research stated, "Quorum sensing systems are essential for bacterial communication. We report here the purification and characterization of the Pseudomonas aeruginosa LasR quorum sensing regulator purified from lysates of E. coil cultures grown in the absence of added acyl-homoserine lactones (AHL)."

Our news journalists obtained a quote from the research from Spanish National Research Council (CSIC), "We show by isothermal titration calorimetry that LasR recognizes different AHLs with an affinity of approximately 1 mu M. The affinity of LasR for its cognate 3-Oxo-C12-AHL was similar to that of other AHLs, indicating that this regulator has not evolved to preferentially recognize its cognate AHL. The alpha-helical content as determined by CD spectroscopy was found to be in agreement with the corresponding value derived from the homology model. Analytical ultracentrifugation studies show that LasR is a mixture of monomers and dimers and that AHL binding does not alter its oligomeric state. Thermal unfolding studies indicate that LasR has a significant thermal stability and that AHL binding does not significantly alter the unfolding temperature. Two LasR-DNA complexes were observed in electrophoretic mobility shift assays using the hcnABC promoter that has two lux boxes. Taken together, data indicate that the presence of AHLs is not a requisite for correct LasR protein folding. The protein is able to bind AHL ligands in a reversible manner, revising initial concepts of this regulator."

According to the news editors, the research concluded: "The availability of AHL-free protein will permit further studies to determine more precisely its mode of action."

For more information on this research see: Purification and characterization of Pseudomonas aeruginosa LasR expressed in acyl-homoserine lactone free Escherichia coli cultures. *Protein Expression and Purification*, 2017;130():107-114. *Protein Expression and Purification* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San
Reports on Pseudomonas aeruginosa from University of Manitoba Provide New Insights [The role of the temperature-regulated acyltransferase (PA3242) on growth, antibiotic resistance and virulence in Pseudomonas aeruginosa]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Pseudomonas aeruginosa is now available. According to news reporting from Winnipeg, Canada, by NewsRx journalists, research stated, "Pseudomonas aeruginosa (PAO1) is an important opportunistic pathogen that thrives in various environments. It is known that the structural variations of the lipopolysaccharide (LPS), including lipid A moiety play an important role in encountering environmental changes."

Funders for this research include NSFC, PCSIRT.

The news correspondents obtained a quote from the research from the University of Manitoba, "Genes PA3242 and PA0011 have recently been reported to be responsible for secondary-acylation of lipid A in P. aeruginosa. In this study, we confirmed that the PA3242-dependant secondary acylation affects the growth, antibiotic resistance and virulence of PAO1 and functions as a more predominant acyltransferase than PA0011. PA3242 mutant showed inhibited growth at 37 degrees C and inviability at 28 degrees C in rich medium LB. The inactivation of PA3242 leads to more sensitivity to a wide range of antibiotics than PAO1(Delta PA0011). Moreover, the virulence of PAO1(Delta PA3242) was attenuated more significantly than that of PAO1 and PAO1(Delta PA0011). The outer membrane integrity and stability of PAO1(Delta PA3242) were seriously compromised. Furthermore, PAO1(Delta PA3242) lost most of pilus and exhibited severely damaged cell envelope, which is probably responsible for the deficiency of swimming, swarming and twitching. These results partially explained the decreased antibiotic resistance and attenuated virulence of PAO1(Delta PA3242) compared to PAO1(Delta PA0011) and PAO1."

According to the news reporters, the research concluded: "Our study demonstrated that PA3242-dependent secondary acylation of lipid A plays a predominant role in growth,
antibiotic resistance and virulence of PAO1 than PA0011."


Our news journalists report that additional information may be obtained by contacting K.M. Duan, University of Manitoba, Fac Hlth Sci, Dept. of Oral Biol, Winnipeg, MB R3E 0W2, Canada. Additional authors for this research include Z.S. Guo, L. Gao, Q.Q. Guo, L.Y. Wang, Y. Han, K.M. Duan and L.X. Shen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.micpath.2016.09.019. This DOI is a link to an online electronic document that is either free or for purchase. Keywords for this news article include: Winnipeg, Manitoba, Canada, North and Central America, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Gram-Negative Bacteria, Pseudomonas aeruginosa, Enzymes and Coenzymes, Lipopolysaccharides, Gammaproteobacteria, Acryltransferases, Pseudomonadaceae, Proteobacteria, Transfase, Genetics, Lipid A, University of Manitoba.

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Lung Diseases and Conditions - Pulmonary Fibrosis

Reports on Pulmonary Fibrosis Findings from China Pharmaceutical University Provide New Insights (Madecassoside ameliorates bleomycin-induced pulmonary fibrosis in mice through promoting the generation of hepatocyte growth factor via PPAR-g in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lung Diseases and Conditions - Pulmonary Fibrosis have been presented. According to news originating from Nanjing, People's Republic of China, by NewsRx correspondents, research stated, "Madecassoside has potent anti-pulmonary fibrosis (PF) effects when administered p.o., despite having extremely low oral bioavailability. Herein, we explored the mechanism of this anti-PF effect with regard to gut hormones."

Funders for this research include National Natural Science Foundation of China, Priority Academic Program Development of Jiangsu Higher Education Institutions.

Our news journalists obtained a quote from the research from China Pharmaceutical University, "A PF model was established in mice by intratracheal instillation of bleomycin. Haematoxylin and eosin stain and Masson's trichrome stain were used to assess histological changes in the lung. Quantitative-PCR and Western blot detected mRNA and protein levels, respectively, and cytokines were measured by ELISA. Small interfering RNA was used for gene-silencing. EMSA was applied to detect DNA-binding activity. Administration of madecassoside, p.o., but not its main metabolite madecassic acid, exhibited a direct anti-PF effect in mice. However, i.p. madecassoside had no anti-PF effect. Madecassoside increased the expression of hepatocyte growth factor (HGF) in colon tissues, and HGF receptor antagonists attenuated its anti-PF effect. Madecassoside facilitated the secretion of HGF from colonic
epithelial cells by activating the PPAR-g pathway, as shown by an up-regulation of PPAR-g mRNA expression, nuclear translocation and DNA-binding activity both in vitro and in vivo. Also GW9662, a selective PPAR-g antagonist, almost completely prevented the madecassoside-induced increased expression of HGF and amelioration of PF. The potent anti-PF effects induced by p.o. madecassoside in mice are not mediated by its metabolites or itself after absorption into blood. Instead, madecassoside increases the activity of PPAR-g, which subsequently increases HGF expression in colonic epithelial cells."

According to the news editors, the research concluded: "HGF then enters into the circulation and lung tissue to exert an anti-PF effect."


The news correspondents report that additional information may be obtained from Y. Xia, Jiangsu Key Laboratory of Drug Discovery for Metabolic Diseases, Dept. of Pharmacology of Chinese Materia Medica, China Pharmaceutical University, 24 Tong Jia Xiang, Nanjing, 210009, People's Republic of China. Additional authors for this research include Y.F. Xia, Q. Lv, M.F. Yue, S.M. Qiao, Y. Yang, Z.F. Wei and Y. Dai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13421. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the British Journal of Pharmacology is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Asia, Nanjing, Genetics, Bleomycin, Cytokines, Glycopeptides, Gastroenterology, Pulmonary Fibrosis, Hepatocyte Growth Factor, People's Republic of China, Lung Diseases and Conditions, Respiratory Tract Diseases and Conditions, Intercellular Signaling Peptides and Proteins.

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administered enterally. Arthritis-susceptible HLA-DQ8 mice were immunized with type II collagen and treated with P. histicola. Disease incidence, onset, and severity were monitored. Changes in gut epithelial proteins and immune response as well as systemic cellular and humoral immune responses were studied in treated mice. When treated with P. histicola in prophylactic or therapeutic protocols, DQ8 mice exhibited significantly decreased incidence and severity of arthritis compared to controls. The microbial mucosal modulation of arthritis was dependent on regulation by CD103+ dendritic cells and myeloid suppressors (CD11b+Gr-1 + cells) and by generation of Treg cells (CD4+CD25+FoxP31) in the gut, resulting in suppression of antigen-specific Th17 responses and increased transcription of interleukin-10. Treatment with P. histicola led to reduced intestinal permeability by increasing expression of enzymes that produce antimicrobial peptides as well as tight junction proteins (zonula occludens 1 and occludin). However, the innate immune response via Toll-like receptor 4 (TLR-4) and TLR-9 was not affected in treated mice. Our results demonstrate that enteral exposure to P. histicola suppresses arthritis via mucosal regulation.

According to the news reporters, the research concluded: "P. histicola is a unique commensal that can be explored as a novel therapy for RA and may have few or no side effects."

For more information on this research see: Suppression of Inflammatory Arthritis by Human Gut-Derived Prevotella histicola in Humanized Mice. Arthritis & Rheumatology, 2016;68(12):2878-2888. Arthritis & Rheumatology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting V. Taneja, Mayo Clinic, Rochester, MN, United States. Additional authors for this research include J.A. Murray, D.H. Luckey, P.R. Jerald, A. Lamba, R. Patel, H.S. Luthra, A. Mangalam and V. Taneja.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Gram-Negative Bacteria, Rheumatoid Arthritis, Bacteroidaceae, Bacteroidetes, Prevotella, Genetics, Mayo Clinic.

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Our news journalists obtained a quote from the research from Marshall University, "The compounds were first screened against newly transformed schistosomula (NTS) of harvested Schistosoma mansoni cercariae, then against adult worms, and finally, in vivo using the mouse model of S. mansoni infection. At a concentration of 33 μM, incubation with a total of 12 compounds resulted in the mortality of NTS at the 62% to 100% level. Five of these showing 100% inhibition of viability of NTS at 10 μM were selected for further screening for determination of the 50 inhibitory concentrations (IC(50)s) against both NTS and adult worms. Against NTS, all 5 compounds showed IC(50)s comparable to the IC50 of the standard drug, PZQ (0.87 to 9.65 μM for the 5 compounds versus 2.20 μM for PZQ). Three of these, which are the bisquinoline derivative of cyclen and its Fe2+ and Mn2+ complexes, showed micromolar IC(50)s (1.62 μM, 1.34 μM, and 4.12 μM, respectively, versus 0.10 μM for PZQ) against adult worms. In vivo, the worm burden reductions were 12.3%, 88.4%, and 74.5%, respectively, at a single oral dose of 400 mg/kg of body weight."

According to the news editors, the research concluded: "The Fe2+ complex exhibited activity in vivo comparable to that of PZQ, pointing to the discovery of a novel drug lead for schistosomiasis."

For more information on this research see: Discovery of Antischistosomal Drug Leads Based on Tetraazamacrocyclic Derivatives and Their Metal Complexes. Antimicrobial Agents and Chemotherapy, 2016;60(9):5331-5336. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


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Keywords for this news article include: Huntington, West Virginia, United States, North and Central America, Parasitic Diseases and Conditions, Diagnostics and Screening, Drugs and Therapies, Trematode Infections, Schistosomiasis, Helminthiasis, Marshall University.

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Science

Reports on Science from Zuse Institute Berlin Provide New Insights (Acfs: accurate circRNA identification and quantification from RNA-Seq data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Science. According to news reporting originating from Berlin, Germany, by NewsRx correspondents, research stated, "Circular RNAs..."
(circRNAs) are a group of single-stranded RNAs in closed circular form. They are splicing-generated, widely expressed in various tissues and have functional implications in development and diseases.

Our news editors obtained a quote from the research from Zuse Institute Berlin, "To facilitate genome-wide characterization of circRNAs using RNA-Seq data, we present a freely available software package named acfs. Acfs allows de novo, accurate and fast identification and abundance quantification of circRNAs from single-and paired-ended RNA-Seq data. On simulated datasets, acfs achieved the highest F1 accuracy and lowest false discovery rate among current state-of-the-art tools. On real-world datasets, acfs efficiently identified more bona fide circRNAs. Furthermore, we demonstrated the power of circRNA analysis on two leukemia datasets. We identified a set of circRNAs that are differentially expressed between AML and APL samples, which might shed light on the potential molecular classification of complex diseases using circRNA profiles. Moreover, chromosomal translocation, as manifested in numerous diseases, could produce not only fusion transcripts but also fusion circRNAs of clinical relevance."

According to the news editors, the research concluded: "Featured with high accuracy, low FDR and the ability to identify fusion circRNAs, we believe that acfs is well suited for a wide spectrum of applications in characterizing the landscape of circRNAs from non-model organisms to cancer biology."

For more information on this research see: Acfs: accurate circRNA identification and quantification from RNA-Seq data. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting X.T. You, Zuse Inst Berlin, Dept. of Numer Math, D-14195 Berlin, Germany.

Keywords for this news article include: Berlin, Germany, Europe, Science, Genetics, Zuse Institute Berlin.

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people with sickle cell disease suffering from community-acquired pneumonia. This is an update of a previously published Cochrane Review. To determine the efficacy and safety of the antibiotic treatment approaches (monotherapy or combined) for people with sickle cell disease suffering from community-acquired pneumonia. Search methods We searched The Group's Haemoglobinopathies Trials Register (01 September 2016), which comprises references identified from comprehensive electronic database searches and handsearching of relevant journals and abstracts of conference proceedings. We also searched LILACS (1982 to 01 September 2016), African Index Medicus (1982 to 20 October 2016) and WHO ICT Registry (20 October 2016). Selection criteria We searched for published or unpublished randomized controlled trials. Data collection and analysis We intended to summarise data by standard Cochrane methodologies, but no eligible randomized controlled trials were identified. We were unable to find any randomized controlled trials on antibiotic treatment approaches for community-acquired pneumonia in people with sickle cell disease. Authors' conclusions The updated review was unable to identify randomized controlled trials on efficacy and safety of the antibiotic treatment approaches for people with sickle cell disease suffering from community-acquired pneumonia. Randomized controlled trials are needed to establish the optimum antibiotic treatment for this condition. The trials regarding this issue should be structured and reported according to the CONSORT statement for improving the quality of reporting of efficacy and improved reports of harms in clinical research. Trialists should consider including the following outcomes in new trials: number of days to become afebrile; mortality; onset of pain crisis or complications of sickle cell disease following community-acquired pneumonia; diagnosis; hospitalization (admission rate and length of hospital stay); respiratory failure rate; and number of participants receiving a blood transfusion. There are no trials included in the review and we have not identified any relevant trials up to September 2016. According to the news reporters, the research concluded: "We therefore do not plan to update this review until new trials are published."

For more information on this research see: Antibiotics for treating community-acquired pneumonia in people with sickle cell disease. Cochrane Database of Systematic Reviews, 2016;(11):1664-1683. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting A.J. Marti-Carvajal, Iberoamer Cochrane Network, Valencia, Venezuela.

Keywords for this news article include: Valencia, Venezuela, South America, Community-Acquired Infection, Article Review, Risk and Prevention, Respiratory Tract Diseases and Conditions, Hematologic Diseases and Conditions, Lung Diseases and Conditions, Respiratory Tract Infections, Clinical Trials and Studies, Antibacterial Agents, Drugs and Therapies, Infectious Disease, Sickle Cell Anemia, Clinical Research, Antimicrobials, Antibiotics, Pulmonology, Hematology, Pneumonia.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Sinus Arrhythmia have been presented. According to news originating from Moscow, Russia, by NewsRx correspondents, research stated, "In this study, we were focused on the differences between certain circulating cytokine levels in patients with or without sinus arrhythmia, according to the median IL-6 level. All patients were stable with regards to symptoms and therapy for at least one month prior to the measurements conducted within this study."

Our news journalists obtained a quote from the research, "Exclusion criteria were: patients with sleep apnea, asthma, respiratory insufficiency of any genesis, active infection, allergy, inflammatory diseases, cancer, diabetes of any type and treatment with anti-inflammatory drugs. The study was approved by the Institutional Review Board. All recruited patients gave their verbal and written consent for participation in the study. The study group consisted of 74 patients divided into two groups: with (38) and without sinus arrhythmia but with diagnosed coronary artery disease (36). Sinus arrhythmia was confirmed by 24 h Holter monitoring. From all test parameters only cytokines IL-2, IL-8, IL-10, IL-17 and IL-18, showed statistically significant increasing in patients with statistically higher IL-6 levels. It is possible that IL-6 may not be a marker for the selection of patients with sinus arrhythmia or coronary artery disease. The findings indicate that IL-6 represents a reliable indicator for increased expression of IL-2, IL-8, IL-10, IL-17 and IL-18 in patients with sinus arrhythmia or coronary artery disease."

According to the news editors, the research concluded: "Further studies in a large number of patients would be necessary to confirm our observations."

For more information on this research see: Serum interleukin-6: Association with circulating cytokine serum levels in patients with sinus arrhythmia and patients with coronary artery disease. *Cellular Immunology*, 2016;310():178-183. *Cellular Immunology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Cellular Immunology - www.journals.elsevier.com/cellular-immunology/)

The news correspondents report that additional information may be obtained from V.M. Mitrokhin, Russian Natl Res Med Univ, Dept. of Fundamental & Appl Physiol, Moscow 117997, Russia. Additional authors for this research include A.A. Aksyonov, V.M. Mitrokhin, I.B. Lovchikova, M.A. Konoplyannikov, A.V. Konev, A.S. Zotov, R.S. Ovchinnikov, E. Antova, M.I. Mladenov and A. Kamkin.

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Keywords for this news article include: Moscow, Russia, Eurasia, Intercellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Arteriosclerosis, Sinus Arrhythmia, Interleukin-6, Heart Disease, Interleukins, Cardiology, Cytokines, Angiology.

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Reports on Spinal Cord Compression from Academy of Military Medical Sciences Provide New Insights (A validated preoperative score predicting survival and functional outcome in lung cancer patients operated with posterior decompression and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions - Spinal Cord Compression have been presented. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "This study aims to create and validate a score for survival and functional outcome of lung cancer patients with metastatic spinal cord compression (MSCC) after posterior decompressive surgery. The entire cohort of 73 consecutive patients was randomly assigned to a test group (N = 37) and a validation group (N = 36).

Financial support for this research came from Application Study of Capital Clinical Characteristics of China.

Our news journalists obtained a quote from the research from the Academy of Military Medical Sciences, "In the test group, we retrospectively analyzed 10 preoperative characteristics. Characteristics significantly associated with survival on multivariate analysis were included in the score. Patients in the validation group were used to confirm whether the score was reproducible. Postoperative functional outcome was analyzed both in the test and validation groups. On multivariate analysis, preoperative ambulatory status (P = 0.0017), visceral metastases (P = 0.0002), and time developing motor deficits (P = 0.0004) had significant impact on survival and were included in the scoring system. According to the prognostic scores, which ranged from 0 to 6 points, two risk groups were designed: 0-2 and 3-6 points and the median survival was 2.6 months (95 % CI, 1.0-3.8 months) and 10.7 months (95 % CI, 7.1-13.7 months), respectively (P < 0.0001). In the validation group, the corresponding median survival was 2.7 months (95 % CI, 1.6-5.5 months) and 10.8 months (5.8-13.6 months), respectively (P < 0.0001). In addition, the functional outcome was worse in patients with 0-2 points than in patients with 3-6 points both in the test (P = 0.0023) and validation groups (P = 0.0298). Patients with scores of 0-2 points, who have short survival time (life expectancy less than 3 months) and poor functional outcome, appear best treated with radiotherapy or best supportive care alone. Surgery may be no longer in consideration in most of the patients in this group."

According to the news editors, the research concluded: "Patients with score of 3-6 points should be surgical candidates, because survival prognosis (life expectancy more than 10 months) and functional outcome are favorable after surgery."

For more information on this research see: A validated preoperative score predicting survival and functional outcome in lung cancer patients operated with posterior decompression and stabilization for metastatic spinal cord compression. European Spine Journal, 2016;25 (12):3971-3978. European Spine Journal can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Spine Journal - www.springerlink.com/content/0940-6719/)

Our news journalists report that additional information may be obtained by contacting Y.S. Liu, Academy Military Med Sci, Dept. of Orthoped Surg, Affiliated Hosp, Beijing 100071, People's Republic of China. Additional authors for this research include Y.S.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Spinal Cord Diseases and Conditions, Spinal Cord Compression, Lung Neoplasms, Lung Cancer, Oncology, Surgery, Academy of Military Medical Sciences.

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Oncology - Squamous Cell Carcinoma

Reports on Squamous Cell Carcinoma from Kyoto Pharmaceutical University Provide New Insights (Effects of bisphosphonates on human esophageal squamous cell carcinoma cell survival)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Squamous Cell Carcinoma have been presented. According to news reporting out of Kyoto, Japan, by NewsRx editors, research stated, "Esophageal squamous cell carcinoma (ESCC) is one of the most malignant cancers in Japan. Anticancer chemotherapy has been useful for ESCC treatment."

Our news journalists obtained a quote from the research from Kyoto Pharmaceutical University, "However, therapeutic options are limited. Recently, bisphosphonates (BPs), which are osteoporosis drugs, have shown anticancer effects in several cancer cell lines, but the effects against ESCC cell lines are unknown. In this study, we examined the cytotoxic effects of BPs and their mechanisms of cytotoxicity in human ESCC cell lines. A first-generation BP (etidronate), two second-generation BPs (alendronate and pamidronate), and two third-generation BPs (risedronate and zoledronate) were used in this study. All BPs, except etidronate, were cytotoxic, as indicated by increased caspase-3/7 activity and numbers of Annexin-fluorescein isothiocyanate positive cells in ESCC cell lines. From cell cycle analysis, G0/G1-phase arrest was observed upon treatment with second-and third-generation BPs. In addition, Cyclin D1 protein expression levels were decreased by second-and third-generation BP treatment. Although squalene and trans, trans-farnesol minimally affected BP cytotoxicity, treatment with geranylgeraniol inhibited BP cytotoxicity almost completely. We concluded that second-and third-generation BPs are cytotoxic to ESCC cell lines as they induce apoptosis and inhibit the cell cycle through mevalonate pathway inhibition."

According to the news editors, the research concluded: "Therefore, BP treatment may be a beneficial therapy in ESCC patients."


Our news journalists report that additional information may be obtained by contacting T. Minegaki, Kyoto Pharmaceutical University, Fac Pharmaceut Sci, Dept. of Clin Pharm, Kyoto, Japan. Additional authors for this research include S. Fukushima, C. Morioka, H.
Stainless Steel

Reports on Stainless Steel Findings from Northeastern University Provide New Insights (Biological behaviour of human umbilical artery smooth muscle cell grown on nickel-free and nickel-containing stainless steel for stent implantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Stainless Steel. According to news originating from Shenyang, People's Republic of China, by NewsRx correspondents, research stated, "To evaluate the clinical potential of high nitrogen nickel-free austenitic stainless steel (HNNF SS), we have compared the cellular and molecular responses of human umbilical artery smooth muscle cells (HUASMCs) to HNNF SS and 316L SS (nickel-containing austenitic 316L stainless steel). CCK-8 analysis and flow cytometric analysis were used to assess the cellular responses (proliferation, apoptosis, and cell cycle), and quantitative real-time PCR (qRT-PCR) was used to analyze the gene expression profiles of HUASMCs exposed to HNNF SS and 316L SS, respectively."

Our news journalists obtained a quote from the research from Northeastern University, "CCK-8 analysis demonstrated that HUASMCs cultured on HNNF SS proliferated more slowly than those on 316L SS. Flow cytometric analysis revealed that HNNF SS could activate more cellular apoptosis. The qRT-PCR results showed that the genes regulating cell apoptosis and autophagy were up-regulated on HNNF SS. Thus, HNNF SS could reduce the HUASMC proliferation in comparison to 316L SS." According to the news editors, the research concluded: "The findings furnish valuable information for developing new biomedical materials for stent implantation."

For more information on this research see: Biological behaviour of human umbilical artery smooth muscle cell grown on nickel-free and nickel-containing stainless steel for stent implantation. Scientific Reports, 2016;6():18762. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from L. Li, Institute of Biotechnology, Northeastern University, Shenyang, People's Republic of China. Additional authors for this research include L. An, X. Zhou, S. Pan, X. Meng, Y. Ren, K. Yang and Y. Guan.

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Keywords for this news article include: Asia, Nickel, Shenyang, Genetics, Angiology, Apoptosis, Muscle Cells, Stainless Steel, Umbilical Artery, Transition Elements, People's Republic of China.
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**Gram-Positive Bacteria - Staphylococcus aureus**

**Reports on Staphylococcus aureus Findings from Rush University Provide New Insights (Empirical therapy in Methicillin-resistant Staphylococcus Aureus infections: An Up-To-Date approach)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Gram-Positive Bacteria - Staphylococcus aureus is the subject of a report. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "Methicillin-resistant Staphylococcus aureus (MRSA) continues to be an important pathogen worldwide, with high prevalence of infection in both community and hospital settings. Timely and appropriate choice of empirical therapy in the setting of MRSA infection is imperative due to the high rate of associated morbidity and mortality with MRSA infections."

Our news journalists obtained a quote from the research from Rush University, "Initial choices should be made based on the site and severity of the infection, most notably moderate skin and soft tissue infections which may be treated with oral antibiotics (trimethoprim-sulfamethoxazole, clindamycin, doxycycline/minocycline, linezolid) in the outpatient setting, versus choice of parenteral therapy in the inpatient setting of more invasive or severe disease. Though the current recommendations continue to strongly rely on vancomycin as a standard empiric choice in the setting of severe/invasive infections, alternative therapies exist with studies supporting their non-inferiority. This includes the use of linezolid in pneumonia and severe skin and skin structure infections (SSSI) and daptomycin for MRSA bacteremia, endocarditis, SSSIs and bone/joint infections. Additionally, concerns continue to arise in regards to vancomycin, such as increasing isolate MICs, and relatively high rates of clinical failures with vancomycin."

According to the news editors, the research concluded: "Thus, the growing interest in vancomycin alternatives, such as ceftaroline, ceftobiprole, dalbavancin, oritavancin, and tedizolid, and their potential role in treating MRSA infections."

For more information on this research see: Empirical therapy in Methicillin-resistant Staphylococcus Aureus infections: An Up-To-Date approach. *Journal of Infection and Chemotherapy*, 2016;22(6):351-359. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

Our news journalists report that additional information may be obtained by contacting J. Segreti, Rush University, Medical Center, Infect Dis Sect, Chicago, IL 60612, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.02.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Methicillin-Resistant Staphylococcus aureus, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Glycopeptide Antibiotics, Antimicrobial
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Gram-Positive Bacteria - *Staphylococcus aureus*

**Reports on *Staphylococcus aureus* from Gifu University Provide New Insights (Development of a rapid diagnostic method for identification of *Staphylococcus aureus* and antimicrobial resistance in positive blood culture bottles using a ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - *Staphylococcus aureus*. According to news originating from Gifu, Japan, by NewsRx correspondents, research stated, "Blood culturing and the rapid reporting of results are essential for infectious disease clinics to obtain bacterial information that can affect patient prognosis. When gram-positive coccoid cells are observed in blood culture bottles, it is important to determine whether the strain is *Staphylococcus aureus* and whether the strain has resistance genes, such as mecA and blaZ, for proper antibiotic selection."

Our news journalists obtained a quote from the research from Gifu University, "Previous work led to the development of a PCR method that is useful for rapid identification of bacterial species and antimicrobial susceptibility. However, that method has not yet been adopted in community hospitals due to the high cost and methodological complexity. We report here the development of a quick PCR and DNA-chromatography test, based on single-tag hybridization chromatography, that permits detection of *S. aureus* and the mecA and blaZ genes; results can be obtained within 1 h for positive blood culture bottles. We evaluated this method using 42 clinical isolates. Detection of *S. aureus* and the resistance genes by the PCR-DNA-chromatography method was compared with that obtained via the conventional identification method and actual antimicrobial susceptibility testing. Our method had a sensitivity of 97.0% and a specificity of 100% for the identification of the bacterial species. For the detection of the mecA gene of *S. aureus*, the sensitivity was 100% and the specificity was 95.2%. For the detection of the blaZ gene of *S. aureus*, the sensitivity was 100% and the specificity was 88.9%.”

According to the news editors, the research concluded: "The speed and simplicity of this PCR-DNA-chromatography method suggest that our method will facilitate rapid diagnoses."

For more information on this research see: Development of a rapid diagnostic method for identification of *Staphylococcus aureus* and antimicrobial resistance in positive blood culture bottles using a PCR-DNA-chromatography method. *Journal of Infection and Chemotherapy*, 2016;22(6):372-376. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)
The news correspondents report that additional information may be obtained from T. Ohshiro, Gifu University, Grad Sch Med, Dept. of Microbiol, Gifu, Japan. Additional authors for this research include C. Miyagi, Y. Tamaki, T. Mizuno and T. Ezaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.02.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gifu, Japan, Asia, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Gram-Positive Bacteria, Staphylococcus aureus, Gram-Positive Cocci, Staphylococcaceae, DNA Research, Bacillales, Genetics, Gifu University.

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**Stem Cell Research - Stem Cell Factors**

**Reports on Stem Cell Factors from Ahvaz Jundishapur University Provide New Insights (Role of stem cell factor in the placental niche)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Stem Cell Research - Stem Cell Factors. According to news originating from Ahwaz, Iran, by NewsRx correspondents, research stated, "Stem cell factor (SCF) is a cytokine found in hematopoietic stem cells (HSCs) and causes proliferation and differentiation of cells by binding to its receptor (c-kit). It is produced in the yolk sac, fetal liver and bone marrow during the development of the fetus and, together with its signaling pathway, plays an important role in the development of these cells." Our news journalists obtained a quote from the research from Ahvaz Jundishapur University, "The placenta, an important hematopoiesis site before the entry of cells into the liver, is rich in HSCs, with definitive hematopoiesis in a variety of HSC types and embryonic stem cells. Chorionic-plate-derived mesenchymal stem cells (CP-MSCs) isolated from the placenta show stem cell markers such as CD41 and cause the self-renewal of cells under hypoxic conditions. In contrast, hypoxia can result in apoptosis and autophagy via oxidative stress in stem cells. As a hypoxia-induced factor, SCF causes a balance between cell survival and death by autophagy in CP-MSCs. Stromal cells and MSCs have a crucial function in the development of HSCs in the placenta via SCF expression in the placental vascular niche. Defects in hematopoietic growth factors (such as SCF and its signaling pathways) lead to impaired hematopoiesis, resulting in fetal death and abortion. Therefore, an awareness of the role of the SCF/c-kit pathway in the survival, apoptosis and development of stem cells can significantly contribute to the exploration of stem cell production pathways during the embryonic period and in malignancies and in the further generation of these cells to facilitate therapeutic approaches."

According to the news editors, the research concluded: "In this review, we discuss the role of SCF in the placental niche."

For more information on this research see: Role of stem cell factor in the placental niche. *Cell and Tissue Research*, 2016;366(3):523-531. *Cell and Tissue Research* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Cell and Tissue Research - www.springerlink.com/content/0302-766x/)

The news correspondents report that additional information may be obtained from N. Saki, Ahvaz Jundishapur Univ Med Sci, Hlth Res Inst, Thalassemia & Hemoglobinopathy Res
Center, Ahwaz, Iran. Additional authors for this research include S. Shahrabi, M. Shahjahani, S. Azandeh and N. Saki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00441-016-2429-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ahwaz, Iran, Asia, Hematopoietic Cell Growth Factors, Hematology, Article Review, Stem Cell Research, Stem Cell Factors, Hematopoiesis, Proteins, Peptides, Ahvaz Jundishapur University.

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Central Nervous System Diseases and Conditions –…

Reports on Subarachnoid Hemorrhage from University of Heidelberg Provide New Insights (Use of GABAergic sedatives after subarachnoid hemorrhage is associated with worse outcome-preliminary findings)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Subarachnoid Hemorrhage are discussed in a new report. According to news reporting out of Heidelberg, Germany, by NewsRx editors, research stated, "Recent experimental evidence identified GABAergic sedation as a possible cause for deprived neuroregeneration and poor outcome after acute brain injury. Patients with aneurysmal subarachnoid hemorrhage are often sedated, and GABAergic sedation, such as midazolam and propofol, is commonly used."

Our news journalists obtained a quote from the research from the University of Heidelberg, "Retrospective cohort study based on a prospectively established database. Single-center neurointensive care unit. Twenty-nine patients after subarachnoid hemorrhage. Noninterventional study. The relationship between mean GABAergic sedative dose during the acute phase and outcome after 6 months according to the Glasgow Outcome Scale, and initial Glasgow Coma Scale was investigated. Use of GABAergic sedatives was negatively correlated with Glasgow Outcome Scale ($\text{r}^2 = 0.267; \text{P} = .008$). Administration of sedatives was independent of the initial Glasgow Coma Scale. GABAergic sedatives flunitrazepam, midazolam, and propofol were used differently during the first 10 days after ictus. Administration of GABAergic sedation was associated with an unfavorable outcome after 6 months."

According to the news editors, the research concluded: "To avoid bias (mainly through the indication to use sedation), additional experimental and comparative clinical investigation of, for example, non-GABAergic sedation, and clinical protocols of no sedation is necessary."


Our news journalists report that additional information may be obtained by contacting D.N. Hertle, Heidelberg Univ, Dept. of Neurosurg, D-69120 Heidelberg, Germany.
Additional authors for this research include C. Beynon, J.O. Neumann, E. Santos, R. Sanchez-Porras, A.W. Unterberg and O.W. Sakowitz.

Keywords for this news article include: Heidelberg, Germany, Europe, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Neurobehavioral Manifestations, Brain Diseases and Conditions, Neurologic Manifestations, Cerebrovascular Disorders, Intracranial Hemorrhages, Consciousness Disorders, Subarachnoid Hemorrhage, Unconsciousness, Coma, University of Heidelberg.

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Sulfides

Reports on Sulfides Findings from Research Hospital Provide New Insights (Plasma thiols and thiol-disulfide homeostasis in patients with isolated coronary artery ectasia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Sulfides. According to news reporting originating from Ankara, Turkey, by NewsRx correspondents, research stated, "Thiol/disulfide homeostasis has an important role in the antioxidant defense system. Oxidative stress may contribute to the pathogenesis of coronary artery ectasia."

Our news editors obtained a quote from the research from Research Hospital, "The aim of this study was to evaluate plasma thiol levels and thiol/disulfide homeostasis in patients with isolated coronary artery ectasia. Forty-one patients with isolated coronary artery ectasia and 72 patients with normal coronary arteries were included in the study. Markis classification and number of ectatic coronary arteries were recorded. Plasma total thiol levels, native thiol levels and disulfide levels were measured. Thiol/disulfide homeostasis was appraised by calculating thiol/disulfide ratio. Plasma native thiol levels were significantly lower (336.9 (252.9-374.1) vs. 353.1 (327.0-380.0), p = 0.041) and disulfide levels were significantly higher (18.9 +/- 6.3 vs. 16.6 +/- 3.4, p = 0.014) in patients with coronary artery ectasia than control patients. Both native thiol/disulfide and total thiol/disulfide ratio was significantly lower in the coronary artery ectasia group (p < 0.001). Multivariate logistic regression analysis revealed that native thiol levels, disulfide levels and native thiol/disulfide ratio were independently associated with the presence of coronary artery ectasia. Thiol/disulfide ratio was not different according to number of ectatic coronary arteries and there was no association between thiol/ disulfide ratio and Markis classification."


The news editors report that additional information may be obtained by contacting E. Kiziltunc, Numune Educ & Res Hosp, Dept. of Cardiol, TR-06100 Ankara, Turkey. Additional authors for this research include M. Gok, H. Kundi, M. Cetin, C. Topcuoglu, B. Gulkan, H. Cicekcioglu and E. Ornek.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.904. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ankara, Turkey, Eurasia, Inorganic Chemicals, Coronary Artery, Electrolytes, Cardiology, Disulfides, Ions, Research Hospital.

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Systemic Lupus Erythematosus

Reports on Systemic Lupus Erythematosus from Aarhus University Provide New Insights (Follicular T helper cells and IL-21 in Rheumatic Diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Systemic Lupus Erythematosus are discussed in a new report. According to news originating from Aarhus, Denmark, by NewsRx editors, the research stated, "Rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE) are lifelong diseases with increased mortality and chronic pains. They are both characterized by immunological imbalances causing the immune system attack and destroy the bodies own tissues (called autoimmune disease)."

Our news journalists obtained a quote from the research from Aarhus University, "The best treatment, we are currently able to offer these patients, cause significant side-effects and can not prevent significant loss of quality of life. At the heart of the disease mechanisms in RA and SLE are subsets of immune cells called T and B cells. These cell types produce proteins (called antibodies), which under normal circumstances protect the body against disease. In RA and SLE these cells produce antibodies that are directed at the bodies own tissues (called autoantibodies), causing inflammation and tissue damage. The cause of this loss of tolerance is still unknown. Interleukin 21 (IL-21) and is thought to exert key functions in controlling and directing the T and B cell responses leading to formation of antibodies and autoantibodies alike. IL-21 is a signaling molecule secreted by a subpopulation of T cells called follicular T helper (Tfh) cells. IFN alpha is another signaling molecule of key importance in autoimmune disease. Stratification of SLE patients by their responsiveness to IFNa has proven a crucial tool in stratifying patients in terms of disease development and treatment response. The aim of this PhD study is to investigate the role of IL-21 and IFNa, and their effects on Tfh cells and B cells and the formation of autoantibodies in RA and SLE. The first part of this PhD addresses whether plasma levels of IL-21 influence disease activity in rheumatic disease. We further investigate the distribution of IL-21-producing Tfh cells in these patients. We find that IL-21 plasma levels correlate to disease activity and radiological progression in RA, and that the IL-21-producing Tfh cell are increased in the blood and synovial fluid of these patients. These findings support the idea that IL-21 and Tfh cells are linked to the development and perpetuation of these diseases. In the second part of this PhD we investigate how small RNA molecules, called microRNAs, can regulate immunological processes. We find that microRNA-155 can regulate IL-21's capacity to signal, while microRNA-21 is important for survival of T cells. The third, and last part of this PhD, concerns IFNa signaling and its impact on the development of SLE and the formation of autoantibodies. We find that IFNa signaling is altered in a murine model of SLE, and that inhibition of this signaling pathway leads to severe kidney disease. The latter is of key importance as inhibition of IFNa is currently in early trial as a new treatment form for SLE.
patients. In SLE patients, we find that IFNa responsiveness, as measured by a so-called 'IFN signature', is crucial in terms of development of the disease as well as serious complications such as kidney disease and involvement of the central nervous system (CNS). Interferon alpha does this by affecting intracellular signaling responses and the formation of autoantibodies. The data presented in this thesis supports that IL-21 and Tfh cells have a key role in the disease processes characterizing RA and SLE. We further describe a novel mechanism for microRNA-155 and microRNA-21 in regulating immunological processes in these diseases. Finally we show, that IFNa has important functions in the formation of autoantibodies in SLE.

According to the news editors, the research concluded: "This thesis adds new and important knowledge on the interplay between Tfh cells and B cells and their formation of autoantibodies in rheumatic disease. This knowledge will guide and further the development of new treatment strategies to better patient outcome."

For more information on this research see: Follicular T helper cells and IL-21 in Rheumatic Diseases. *Danish Medical Journal*, 2016;63(10):218-236. *Danish Medical Journal* can be contacted at: Danish Medical Assoc, Trondhjemsgade 9, Dk-2100 Copenhagen, Denmark.

The news correspondents report that additional information may be obtained from T.K. Rasmussen, Aarhus University, Dept. of Rheumatol, DK-8000 Aarhus C, Denmark.

Keywords for this news article include: Aarhus, Denmark, Europe, Skin and Connective Tissue Diseases and Conditions, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Rheumatic Diseases and Conditions, Systemic Lupus Erythematosus, Rheumatoid Arthritis, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Genetics, Aarhus University.

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**Cardiovascular Diseases and Conditions - Thrombosis**

**Reports on Thrombosis Findings from Ain Shams University Provide New Insights (Circulating Fibroblast Growth Factor-23 Level and Paraoxonase-1 Lactonase Activity in Chronic Hemodialysis Patients: Their Impact on the Incidence of Native AV ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Thrombosis have been presented. According to news reporting originating from Cairo, Egypt, by NewsRx correspondents, research stated, "Thrombosis of native arteriovenous (AV) fistula is an important cause of complications in hemodialysis (HD) patients. The purpose of this study was to investigate the usefulness of measuring circulating fibroblast growth factor-23 (FGF-23) level and paraoxonase-1 (PON1) lactonase activity as potential predictors of native AV fistula thrombosis in chronic HD patients."

Our news editors obtained a quote from the research from Ain Shams University, "This study included 83 HD patients (48 with thrombosed and 35 with non-thrombosed native AV fistulas) and 38 healthy volunteers. Serum FGF-23 level was measured using the ELISA technique, while serum PON1 lactonase activity was measured spectrophotometrically using gamma-thiobutyrolactone as a substrate. FGF-23 was significantly increased while PON1 lactonase was markedly decreased in both thrombosed and non-thrombosed HD patients."
compared with controls (P < 0.001). FGF-23 was elevated whereas PON1 lactonase was decreased in HD patients with thrombosed native AV fistulas compared with HD patients with non-thrombosed native AV fistulas (P = 0.001 and 0.002, respectively). A significant negative correlation was found between FGF-23 and PON1 lactonase in HD patients with thrombosed native AV fistulas (r = -0.342, P = 0.017).

According to the news editors, the research concluded: "This study shows a potential value of FGF-23 and PON1 lactonase as predictors of native AV fistula thrombosis in HD patients."


The news editors report that additional information may be obtained by contacting S.F. Zohny, Ain Shams University, Dept. of Biochem, Fac Sci, Cairo 11566, Abbassia, Egypt. Additional authors for this research include M. Abd El-Fattah and J.A. Khan.

Keywords for this news article include: Cairo, Egypt, Africa, Intercellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Fibroblast Growth Factors, Embolism and Thrombosis, Enzymes and Coenzymes, Renal Dialysis, Hemodialysis, Fibroblasts, Hematology, Lactonase, Ain Shams University.

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**Biomedical Engineering - Tissue Engineering**

**Reports on Tissue Engineering Findings from University of Pecs Provide New Insights (Increased Wnt5a in squamous cell lung carcinoma inhibits endothelial cell motility)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biomedical Engineering - Tissue Engineering have been published. According to news originating from Pecs, Hungary, by NewsRx correspondents, research stated, "Angiogenesis is important both in normal tissue function and disease and represents a key target in lung cancer (LC) therapy. Unfortunately, the two main subtypes of non-small-cell lung cancers (NSCLC) namely, adenocarcinoma (AC) and squamous cell carcinoma (SCC) respond differently to anti-angiogenic e. g. anti-vascular endothelial growth factor (VEGF)-A treatment with life-threatening side effects, often pulmonary hemorrhage in SCC."

Our news journalists obtained a quote from the research from the University of Pecs, "The mechanisms behind such adverse reactions are still largely unknown, although peroxisome proliferator activator receptor (PPAR) gamma as well as Wnt-s have been named as molecular regulators of the process. As the Wnt microenvironments in NSCLC subtypes are drastically different, we hypothesized that the particularly high levels of non-canonical Wnt5a in SCC might be responsible for alterations in blood vessel growth and result in serious adverse reactions. PPARgamma, VEGF-A, Wnt5a, miR-27b and miR-200b levels were determined in resected adenocarcinoma and squamous cell carcinoma samples by qRT-PCR and TaqMan microRNA assay. The role of PPARgamma in VEGF-A expression, and the role of Wnts in
overall regulation was investigated using PPARgamma knock-out mice, cancer cell lines and fully human, in vitro 3 dimensional (3D), distal lung tissue aggregates. PPARgamma mRNA and protein levels were tested by qRT-PCR and immunohistochemistry, respectively. PPARgamma activity was measured by a PPRE reporter system. The tissue engineered lung tissues expressing basal level and lentivirally delivered VEGF-A were treated with recombinant Wnts, chemical Wnt pathway modifiers, and were subjected to PPARgamma agonist and antagonist treatment. PPARgamma down-regulation and VEGF-A up-regulation are characteristic to both AC and SCC. Increased VEGF-A levels are under direct control of PPARgamma. PPARgamma levels and activity, however, are under Wnt control. Imbalance of both canonical (in AC) and non-canonical (in SCC) Wnts leads to PPARgamma downregulation. While canonical Wnts down-regulate PPARgamma directly, non-canonical Wnt5a increases miR27b that is known regulator of PPARgamma. During carcinogenesis the Wnt microenvironment alters, which can downregulate PPARgamma leading to increased VEGF-A expression."

According to the news editors, the research concluded: "Differences in the Wnt microenvironment in AC and SCC of NSCLC lead to PPARgamma decrease via mechanisms that differentially alter endothelial cell motility and branching which in turn can influence therapeutic response."

For more information on this research see: Increased Wnt5a in squamous cell lung carcinoma inhibits endothelial cell motility. *BMC Cancer*, 2016;16():1-16. *BMC Cancer* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Cancer - www.biomedcentral.com/bmccancer/)

The news correspondents report that additional information may be obtained from J.E. Pongracz, University of Pecs, Humeltis Ltd, Janos Szentagothai Res Center, H-7622 Pecs, Hungary. Additional authors for this research include E. Kiss, M. Meggyes, E. Szabo-Meleg, D. Feller, G. Smuk, T. Laszlo, V. Sarosi, T.F. Molnar, K. Kvell and J.E. Pongracz.

Keywords for this news article include: Pecs, Hungary, Europe, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Squamous Cell Carcinoma, Growth Factor Receptors, Biomedical Engineering, Phosphotransferases, Angiogenic Proteins, Tissue Engineering, Endothelial Cells, Membrane Proteins, Protein Kinases, Bioengineering, Cell Motility, Biotechnology, Lung Cancer, Biomedicine, Carcinomas, Oncology, Genetics, VEGF, University of Pecs.

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people at high risk is recommended by many organizations. The aim of this study was to analyse all-cause mortality and cardiovascular disease (CVD) outcomes in patients with Type 2 diabetes detected by screening or diagnosed clinically.

Financial supporters for this research include Primary Health Care Research Unit, Orebro County Council Research Unit, Family Medicine Research Centre, Orebro Universitet, Akademiska Sjukhuset.

Our news editors obtained a quote from the research from Uppsala University, "A diabetes register was established at the primary healthcare centre in Lax?, Sweden beginning in 1972. The register was based on data from clinical records with information on medical treatment and laboratory data, as well as all-cause mortality, CVD, myocardial infarction and stroke events from national registers until 31 December 2013. A total of 740 patients with new-onset Type 2 diabetes were registered between 1972 and 2001. In addition, an opportunistic diabetes-screening programme involving people aged 35-79 years started in 1983 and was repeated onwards in 5-year cycles. Baseline characteristics showed a significantly higher CVD risk, mainly depending on more prevalent CVD events in the screened compared with the clinically detected group (propensity score 0.59 vs. 0.46, p<0.0001). After mean follow-up periods of 12.9 and 13.6 years for screening detected vs. clinically detected patients, respectively, hazard ratios were as follows: all-cause mortality, 0.99 (p=0.89); CVD, 1.17 (p=0.10); myocardial infarction, 1.08 (p=0.49); and stroke, 1.03 (p=0.83)."

According to the news editors, the research concluded: "No reduction in total mortality or CVD outcomes was found in patients with Type 2 diabetes that was detected by screening compared with those diagnosed clinically."


The news editors report that additional information may be obtained by contacting S.P. Jansson, Dept. of Public Health and Caring Sciences, Uppsala University, Uppsala, Sweden. Additional authors for this research include D.K. Andersson and K. Svardsudd.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/dme.13019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Uppsala, Cardiology, Heart Attack, Heart Disease, Type 2 Diabetes, Myocardial Ischemia, Risk and Prevention, Myocardial Infarction, Diagnostics and Screening, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions, Non Insulin Dependent Diabetes Mellitus.

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According to news reporting from New Delhi, India, by NewsRx journalists, research stated, "Verrucous carcinoma (VC) is a well-differentiated form of squamous cell carcinoma (SCC) with better prognosis. Differences in molecular pathogenesis between the 2 have not been well-characterized."

The news correspondents obtained a quote from the research from the All India Institute of Medical Sciences, "We conducted this study to evaluate immunohistochemical expression of cell-cycle regulatory proteins p53, pRb, p16, and p27 in SCC and VC, compare the expression in these 2 neoplasms, and assess if these markers have any diagnostic or prognostic value. Sixty cases of SCC with and without lymph node metastasis and 31 cases of VC were studied. Immunohistochemical analysis for p53, pRb, p16, and p27 was performed and the results were analyzed. SCC was most frequent in tongue (52%), whereas VC in buccal mucosa (81%). Mean age of SCC patients was significantly lower than in VC. Majority of SCCs were in stage III and IV (63%), whereas VCs were in stage I and II (84%). p53 immunopositivity was more frequent in SCC (65%) than in VC (23%) (P (<=)0.001). VC had lower p53 as compared with well-differentiated SCC and SCC without lymph node metastasis. No significant difference was seen in pRb, p16, and p27 expression. Disease-free survival (DFS) at 1 year for SCC was 57% whereas it was 80% for VC (p=0.02). DFS and overall survival of SCC correlated with nodal status and stage; cell-cycle-associated protein expression had no association with DFS. To conclude, p53 immunexpression differs in SCC and VC, suggesting different pathogenesis, and it may have some utility as an adjunct to morphology to differentiate between the 2."

According to the news reporters, the research concluded: "Expression of cell-cycle-associated proteins does not influence survival in SCC."


Our news journalists report that additional information may be obtained by contacting A.G. Vallonthaiel, *Departments of Pathology †Otorhinolaryngology ‡Biotechnology, All India Institute of Medical Sciences, New Delhi, India. Additional authors for this research include M.K. Singh, A.K. Dinda, A. Kakkar, A. Thakar and S.N Das.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/PAI.0000000000000179. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Genetics, Oncology, p53 Gene, New Delhi, Immunology, Verrucous Cancer, Clinical Research, Verrucous Carcinoma, Clinical Trials and Studies, Oral Squamous Cell Carcinoma.

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Reports on Vertebral Artery Dissection Findings from Jena University Hospital Provide New Insights (Clinical Presentation, Magnetic Resonance Angiography, Ultrasound Findings, and Stroke Patterns in Patients with Vertebral Artery Dissection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Vertebral Artery Dissection are discussed in a new report. According to news reporting out of Jena, Germany, by NewsRx editors, research stated, "Vertebral artery dissection (VAD) is an important cause of ischemic stroke. In this observational study, clinical data, magnetic resonance (MR) and ultrasound (US) imaging findings and ischemic patterns were analyzed."

Our news journalists obtained a quote from the research from Jena University Hospital, "Forty-seven patients with a diagnosis of VAD underwent clinical examination, US, MR of the brain and neck and MR angiography (MRA) of the cervical arteries. Vascular abnormalities and ischemic brain lesions were noted. Data were evaluated separately and compared for spontaneous and traumatic VAD subgroups. The most common overall clinical symptom was vertigo followed by neck pain. In the traumatic subgroup, vertigo was relatively rare (p = 0.022). Most common MRA findings were vessel irregularity and vessel occlusions. Ischemic lesions occurred significantly more frequently after spontaneous than after traumatic VAD (p = 0.009). Unilateral VAD was significantly more common in non-dominant vertebral arteries (p < 0.001). Mortality after trauma was not only due to VAD complications but also due to other trauma-related injuries. The variability of MR and US imaging findings in patients with VAD is illustrated. The algorithm of management should be based on a multimodality approach involving patient history and clinical neurological examination."

According to the news editors, the research concluded: "Several types of vessel abnormalities and ischemic lesion in diverse locations may point to arterial dissection, and the differential diagnosis of VAD must be kept in mind."


Our news journalists report that additional information may be obtained by contacting A. Gunther, Jena Univ Hosp, Hans Berger Clin Neurol, DE-07740 Jena, Germany. Additional authors for this research include O.W. Witte, M. Freesmeyer and R. Drescher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000452303. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jena, Germany, Europe, Central Nervous System Diseases and Conditions, Otorhinolaryngologic Diseases and Conditions, Cardiovascular Diseases and Conditions, Vestibular Diseases and Conditions, Labyrinth Diseases and Conditions, Vascular Diseases and Conditions, Brain Diseases and Conditions, Ear Diseases and Conditions, Vertebral Artery Dissection, Neurologic Manifestations, Cerebrovascular Disorders, Cerebrovascular Trauma, Dissecting Aneurysm, Cardiology,
Enzymes and Coenzymes - Oxidoreductases

Research Conducted at Asahikawa Medical University Has Provided New Information about Oxidoreductases (P450 oxidoreductase deficiency with maternal virilization during pregnancy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Enzymes and Coenzymes - Oxidoreductases are presented in a new report. According to news reporting originating in Asahikawa, Japan, by NewsRx journalists, research stated, "The authors report on a rare case of maternal virilization during pregnancy caused by autosomal recessive P450 oxidoreductase (POR) deficiency. A 24-year-old primigravida developed a deepening voice and hirsutism in the second trimester."

The news reporters obtained a quote from the research from Asahikawa Medical University, "Prenatal ultrasonography failed to detect any fetal abnormality and fetal growth was normal. POR deficiency was suspected, but the mother declined fetal genetic testing. A female neonate was delivered by cesarean section at 41 weeks’ gestation. The neonate had skeletal abnormalities. Mutational analysis of the POR gene demonstrated homozygosity for c.1370 G>A and p.R457H in the patient and heterozygosity in her parents. POR deficiency was confirmed in the neonate. POR deficiency should be suspected in cases of maternal virilization. Maternal urinary estriol, fetal magnetic resonance imaging, and parental genetic testing should be performed."

According to the news reporters, the research concluded: "Parental consent for fetal genetic testing should be sought to ensure prompt diagnosis and early treatment."


Our news correspondents report that additional information may be obtained by contacting T. Miyamoto, Asahikawa Med Univ, Dept. of Obstet & Gynecol, Asahikawa, Hokkaido 0788510, Japan. Additional authors for this research include A. Yamashita, T. Miyamoto, R. Takeguchi, A. Furuya, K. Matsuo, Y. Tanahashi, M. Kawamura and K. Sengoku.

Keywords for this news article include: Asahikawa, Japan, Asia, Enzymes and Coenzymes, Oxidoreductases, Genetics, Asahikawa Medical University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Care have been published. According to news reporting originating in Pisa, Italy, by NewsRx journalists, research stated, "Supportive care in oncology is a primary need for every oncology department nowadays. In 2012, in our institution, a dedicated supportive care service (SCS) was created in order to deal with any need our on-treatment patients might have (e.g. tumor-related or treatment-related symptoms)."

The news reporters obtained a quote from the research from Azienda Ospedaliera University, "We hypothesized that this service had a positive impact on the number of unplanned hospitalizations; to confirm our hypothesis, we decided to review admission data in 2011 and 2012. Using our internal software, we compared admission data in 2011 (that is, the year before the dedicated service was created) and 2012 (when such service began, that is April of that year). We also made an evaluation of the costs of these hospitalizations. Despite an increase of the number of patients treated in our day hospital (+6.5 %), the number of unplanned hospital admissions decreased by 3.2 % (from 17.3 to 14.1 %). The number of patients accessing to emergency room went from 66 to 61 % (a reduction of 5 %)."

According to the news reporters, the research concluded: "The costs of these hospitalizations were reduced by 2.2 %. The introduction of the dedicated SCS in our oncology department caused a net reduction by 3.2 % of the number of unplanned hospitalizations of on-treatment cancer patients."

For more information on this research see: Impact of a supportive care service for cancer outpatients: management and reduction of hospitalizations. Preliminary results of an integrated model of care. Supportive Care in Cancer, 2017;25(1):209-212. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news correspondents report that additional information may be obtained by contacting A. Antonuzzo, Azienda Ospedaliera Universitaria Pisana, Oncol Med Osped 1, Polo Oncol, Pisa, Italy. Additional authors for this research include E. Vasile, A. Sbrana, M. Lucchesi, L. Galli, I.M. Brunetti, G. Musettini, A. Farnesi, E. Biasco, N. Virgili, A. Falcone and S. Ricci.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3403-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pisa, Italy, Europe, Cancer Care, Hospital, Oncology, Cancer, Azienda Ospedaliera University.

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Transplant Medicine - Kidney Transplants

Research Conducted at Barts Health NHS Trust Has Updated Our Knowledge about Kidney Transplants (The characteristics and outcome of bacteraemia in renal transplant recipients and non-transplant renal patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Kidney
Transplants. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "There is lack of outcome data for bacteraemic patients on specialist renal units. We described demographic, clinical, microbiological data and outcomes for bacteraemic adult renal transplant and non-transplant patients at a London Teaching Hospital."

The news correspondents obtained a quote from the research from Barts Health NHS Trust, "We also assessed the appropriateness of empirical antibiotic policy. From December 2012 to November 2013, demographic, clinical and microbiological data were collected on consecutive patients with bacteraemia on a specialist UK renal unit. Empirical anti-microbial policy, based upon sites of infection, was piperacillin/tazobactam and amikacin, or meropenem for graft pyelonephritis, and vancomycin and gentamicin for suspected central venous catheter (CVC) associated infection. Results 113 bacteraemic episodes occurred in 83 patients. One patient had two bacteraemic episodes, one on haemodialysis and another after transplantation so appear in both groups. In the non-transplant group, 30-day mortality was 4/59 (6.8 %), more than the renal transplant group, 0/25 (0 %). While graft pyelonephritis was the predominant cause of bacteraemic episodes in renal transplant patients, 25/36 (69.4 %), there were a variety of other causes in the non-transplant group including uncomplicated line associated bacteraemia, 36/77 (46.8 %), complicated line associated bacteraemia, 11/77 (14.3 %) and bacteraemia unrelated to vascular access sites 19/77 (24.7 %). Overall, commonest isolates were Methicillin-sensitive Staphylococcus aureus 20/77 (26.3 %), and Escherichia coli 28/113 (24.8 %). There were no Methicillin-resistant Staphylococcus aureus isolates and, among Enterobacteriaceae, 15/57 (26.3 %) were extended spectrum beta-lactamase producers. Death only occurred in the non-transplant renal group. Empirical antibiotic treatment with either piperacillin/tazobactam or meropenem was appropriate for renal transplant recipients as most bacteraemic episodes were secondary to graft pyelonephritis."

According to the news reporters, the research concluded: "Vancomycin and gentamicin was appropriate empirical antibiotic treatment for non-transplant patients with CVC associated infections, but not optimal for other sites of infection."

For more information on this research see: The characteristics and outcome of bacteraemia in renal transplant recipients and non-transplant renal patients. Infection, 2016;44 (5):617-622. Infection can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Infection - www.springerlink.com/content/0300-8126/)

Our news journalists report that additional information may be obtained by contacting M. Melzer, Barts Hlth NHS Trust, Royal London Hospital, London E1 2ES, United Kingdom. Additional authors for this research include T. Santhakumaran and C. Welch.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s15010-016-0896-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Gram-Positive Bacteria, Staphylococcus aureus, Transplant Medicine, Kidney Transplants, Staphylococcaceae, Organ Transplants, Renal Transplant, Transplantation, Renal Allograft, Biomedicine, Nephrology, Surgery, Barts Health NHS Trust.

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Research Conducted at Beth Israel Deaconess Medical Center and Harvard University School of Medicine Has Updated Our Knowledge about Androgens (Protein phosphatase 1 suppresses androgen receptor ubiquitylation and degradation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Androgens. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "The phosphoprotein phosphatases are emerging as important androgen receptor (AR) regulators in prostate cancer (PCa). We reported previously that the protein phosphatase 1 catalytic subunit (PP1a) can enhance AR activity by dephosphorylating a site in the AR hinge region (Ser650) and thereby decrease AR nuclear export."

Our news journalists obtained a quote from the research from the Beth Israel Deaconess Medical Center and Harvard University School of Medicine, "In this study we show that PP1a increases the expression of wildtype as well as an S650A mutant AR, indicating that it is acting through one or more additional mechanisms. We next show that PP1a binds primarily to the AR ligand binding domain and decreases its ubiquitylation and degradation. Moreover, we find that the PP1a inhibitor tautomycin increases phosphorylation of AR ubiquitin ligases including SKP2 and MDM2 at sites that enhance their activity, providing a mechanism by which PP1a may suppress AR degradation. Significantly, the tautomycin mediated decrease in AR expression was most pronounced at low androgen levels or in the presence of the AR antagonist enzalutamide. Consistent with this finding, the sensitivity of LNCaP and C4-2 PCa cells to tautomycin, as assessed by PSA synthesis and proliferation, was enhanced at low androgen levels or by treatment with enzalutamide."

According to the news editors, the research concluded: "Together these results indicate that PP1a may contribute to stabilizing AR protein after androgen deprivation therapies, and that targeting PP1a or the AR-PP1a interaction may be effective in castration-resistant prostate cancer (CRPC)."

For more information on this research see: Protein phosphatase 1 suppresses androgen receptor ubiquitylation and degradation. Oncotarget, 2016;7(2):1754-64.

The news correspondents report that additional information may be obtained from X. Liu, Hematology-Oncology Division, Dept. of Medicine, Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, Massachusetts 02215, United States. Additional authors for this research include W. Han, S. Gulla, N.I. Simon, Y. Gao, C. Cai, H. Yang, X. Zhang, J. Liu, S.P. Balk and S. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6434. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Esterases, Hydrolases, Massachusetts, United States, Steroid Receptors, Androgen Receptors, Drugs and Therapies, DNA Binding Proteins, Enzymes and Coenzymes, Transcription Factors, North and Central America, Phosphoprotein Phosphatases.

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Research Conducted at Boston University Has Provided New Information about Drug Delivery Systems (Microvessels-on-a-Chip to Assess Targeted Ultrasound-Assisted Drug Delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Drug Delivery Systems. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Microbubbles have been used in ultrasound-assisted drug delivery to help target solid tumors via blood vessels in vivo; however, studies to understand the phenomena at the cellular level and to optimize parameters for ultrasound or microbubbles in vivo are challenging and expensive to perform. Here, we utilize microfluidic microvessels-on-a-chip that enable visualization of microbubble/ultrasound-dependent drug delivery to microvasculature."

The news correspondents obtained a quote from the research from Boston University, "When exposed to pulsed ultrasound, microbubbles perfused through microvessels-on-a-chip were observed to stably oscillate. Minimal cellular damage was observed for both microbubbles and untargeted doxorubicin-encapsulating liposomes (DOX-liposomes) perfused through chip microvessels. In contrast, passive and ultrasound-assisted perfusion of integrin-targeted DOX-liposomes induced cytotoxicity, which was only significantly enhanced for ultrasound-assisted perfusion when microbubbles were coperfused. These results suggest that stably oscillating microbubbles enhance targeted DOX-liposome internalization/cytotoxicity largely by stimulating integrin receptor endocytosis."

According to the news reporters, the research concluded: "Furthermore, our study demonstrates the utility of our microvessels-on-a-chip as a screening platform for optimizing drug dosage, targeting ligands and drugs."


Our news journalists report that additional information may be obtained by contacting J.Y. Wong, Boston University, Div Mat Sci & Engn, Boston, MA 02215, United States. Additional authors for this research include C. Zhang, S. Kim, G. Moharnedi, C. Beigie, J.O. Nagy, R.G. Holt, R.O. Cleveland, N.L. Jeon and J.Y. Wong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b09071. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Drug Delivery Systems, Drugs and Therapies, Biotechnology, Perfusion, Liposomes, Boston University.

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Atrial Fibrillation

Research Conducted at Broad Institute of MIT and Harvard Has Updated Our Knowledge about Atrial Fibrillation (A Functional Variant Associated with Atrial Fibrillation Regulates PITX2c Expression through TFAP2a)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Atrial Fibrillation is the subject of a report. According to news reporting from Cambridge, Massachusetts, by NewsRx journalists, research stated, "The most significantly associated genetic locus for atrial fibrillation (AF) is in chromosomal region 4q25, where four independent association signals have been identified. Although model-system studies suggest that altered PITX2c expression might underlie the association, the link between specific variants and the direction of effect on gene expression remains unknown for all four signals."

Financial supporters for this research include NIH, George L. Nardi, MD, Memorial Research Fund, People Programme (Marie Curie Actions) of the European Union’s Seventh Framework Programme, Research Executive Agency, German Centre for Cardiovascular Research (DZHK), Doris Duke Charitable Foundation, NIH NHLBI, American Heart Association, Fondation Leducq.

The news correspondents obtained a quote from the research from the Broad Institute of MIT and Harvard, "In the present study, we analyzed the AF-associated region most proximal to PITX2 at 4q25. First, we identified candidate regulatory variants that might confer AF risk through a combination of mammalian conservation, DNase hypersensitivity, and histone modification from ENCODE and the Roadmap Epigenomics Project, as well as through in vivo analysis of enhancer activity in embryonic zebrafish. Within candidate regions, we then identified a single associated SNP, rs2595104, which displayed dramatically reduced enhancer activity with the AF risk allele. CRISPR-Cas9-mediated deletion of the rs2595104 region and editing of the rs2595104 risk allele in human stem-cell-derived cardiomyocytes resulted in diminished PITX2c expression in comparison to that of the non-risk allele. This differential activity was mediated by activating enhancer binding protein 2 alpha (TFAP2a), which bound robustly to the non-risk allele at rs2595104, but not to the risk allele, in cardiomyocytes. In sum, we found that the AF-associated SNP rs2595104 altered PITX2c expression via interaction with TFAP2a."

According to the news reporters, the research concluded: "Such a pathway could ultimately contribute to AF susceptibility at the PITX2 locus associated with AF."


Our news journalists report that additional information may be obtained by contacting P.T. Ellinor, Broad Inst Harvard & MIT, Program Med & Populat Genet, Cambridge, MA 02142, United States. Additional authors for this research include N.R. Tucker, L.C. Weng, S. Clauss, S.A. Lubitz and P.T. Ellinor.

The direct object identifier (DOI) for that additional information is:
Research Conducted at CIBERER Has Provided New Information about Pheochromocytomas (ATRX driver mutation in a composite malignant pheochromocytoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pheochromocytomas have been published. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "Pheochromocytomas (PCCs) and paragangliomas (PGLs) are tumors arising from the adrenal medulla and sympathetic/parasympathetic paraganglia, respectively. Approximately 40% of PCCs/PGLs are due to germline mutations in one of 16 susceptibility genes, and a further 30% are due to somatic alterations in 5 main genes."

Our news journalists obtained a quote from the research from CIBERER, "Recently, somatic ATRX mutations have been found in succinate dehydrogenase (SDH)-associated hereditary PCCs/PGLs. In the present study we applied whole-exome sequencing to the germline and tumor DNA of a patient with metastatic composite PCC and no alterations in known PCC/PGL susceptibility genes. A somatic loss-of-function mutation affecting ATRX was identified in tumor DNA. Transcriptional profiling analysis classified the tumor within cluster 2 of PCCs/PGLs (without SDH gene mutations) and identified downregulation of genes involved in neuronal development and homeostasis (NLGN4, CD99 and CSF2RA) as well as upregulation of Drosha, an important gene involved in miRNA and rRNA processing. CpG island methylator phenotype typical of SDH gene-mutated tumors was ruled out, and SNP array data revealed a unique profile of gains and losses. Finally, we demonstrated the presence of alternative lengthening of telomeres in the tumor, probably associated with the failure of ATRX functions."

According to the news editors, the research concluded: "Somatic variants affecting ATRX may play a driver role in sporadic PCC/PGL."


The news correspondents report that additional information may be obtained from A. Cascon, Center Invest Biomed Red Enfermedades Raras CIBERER, Madrid, Spain. Additional authors for this research include A.M. Tejera, M. Curras-Freixes, L. Remacha, P. Gonzalvo, R. Tonda, R. Leton, M.A. Blasco, M. Robledo and A. Cascon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.04.058. This DOI is a link to an online electronic
Diseases and Conditions - Russell Silver Syndrome

Research Conducted at California State University Has Updated Our Knowledge about Russell Silver Syndrome (Twin Legacies: Victor and Vincent McKusick/Twin Studies: Twinning Rates I; Twinning Rates II; MZ Twin Discordance for Russell-Silver ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Diseases and Conditions - Russell Silver Syndrome have been published. According to news reporting originating in Fullerton, California, by NewsRx editors, the research stated, "The lives of the illustrious monozygotic (MZ) twins, Victor A. and Vincent L. McKusick, are described."

The news reporters obtained a quote from the research from California State University, "Victor earned the distinction as the 'Father of Medical Genetics', while Vincent was a legendary Chief Justice of the Maine Supreme Court. This dual biographical account is followed by two timely reports of twinning rates, a study of MZ twin discordance for Russell-Silver Syndrome (RSS) and a study of twins' language skills."

According to the news reporters, the research concluded: "Twin stories in the news include babies born to identical twin couples, a case of switched identity, the death of Princess Ashraf (Twin) and a new mother of twins who is also Yahoo's CEO."


Our news correspondents report that additional information may be obtained by contacting N.L. Segal, Dept. of Psychology, California State University, Fullerton, CA, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/thg.2016.7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Fullerton, California, Legal Issues, United States, Diseases and Conditions, Russell Silver Syndrome, North and Central America.

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Nanotechnology - Nanomedicine

Research Conducted at Catholic University of Louvain Has Provided New Information about Nanomedicine (To exploit the tumor microenvironment: Since the EPR effect fails in the clinic, what is the future of nanomedicine?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nanotechnology - Nanomedicine. According to news reporting originating from Brussels, Belgium, by NewsRx editors, the research stated, "Tumor targeting by nanomedicine-based therapeutics has emerged as a promising approach to overcome the lack of specificity of conventional chemotherapeutic agents and to provide clinicians the ability to overcome shortcomings of current cancer treatment."

Financial support for this research came from Fonds National de la recherche Scientifique (F.R.S.-FNRS).

Our news editors obtained a quote from the research from the Catholic University of Louvain, "The major underlying mechanism of the design of nanomedicines was the Enhanced Permeability and Retention (EPR) effect, considered as the 'royal gate' in the drug delivery field. However, after the publication of thousands of research papers, the verdict has been handed down: the EPR effect works in rodents but not in humans! Thus the basic rationale of the design and development of nanomedicines in cancer therapy is failing making it necessary to stop claiming efficacy gains via the EPR effect, while tumor targeting cannot be proved in the clinic."

According to the news editors, the research concluded: "It is probably time to dethrone the EPR effect and to ask the question: what is the future of nanomedicines without the EPR effect? The aim of this review is to provide a general overview on (i) the current state of the EPR effect, (ii) the future of nanomedicine and (iii) the strategies of modulation of the tumor microenvironment to improve the delivery of nanomedicine."

For more information on this research see: To exploit the tumor microenvironment: Since the EPR effect fails in the clinic, what is the future of nanomedicine? Journal of Controlled Release, 2016;244():108-121. Journal of Controlled Release can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

The news editors report that additional information may be obtained by contacting F. Danhier, Catholic University of Louvain, Louvain Drug Res Inst, Adv Drug Delivery & Biomat, B-1200 Brussels, Belgium.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jconrel.2016.11.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Emerging Technologies, Article Review, Nanotechnology, Nanomedicine, Catholic University of Louvain.

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Research Conducted at Central South University Has Provided New Information about Congenital Heart Disease (Reduced fetal brain fissures depth in fetuses with congenital heart diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Congenital Diseases and Conditions - Congenital Heart Disease have been presented. According to news reporting originating in Changsha, People's Republic of China, by NewsRx journalists, research stated, "To screen and detect cortex gyration in fetuses with congenital heart disease (CHD) using Ultrasonography (US) during routine obstetric scans. The depth of the Sylvian fissure (SF), parieto-occipital fissure (POF), and calcarine (CF) fissure were prospectively serially measured and compared in 45 fetuses with CHD and 45 normal fetuses."

The news reporters obtained a quote from the research from Central South University, "Cardiac hemodynamic parameters, including aortic valve diameter (AV), pulmonary valve diameter (PV), velocity time integral of the aortic valve (VTIav), and velocity time integral of the pulmonary valve (VTIpv), were recorded. Correlations between the fissure depths and the prenatal cardiac hemodynamic parameters and postnatal neurodevelopmental scores were assessed. SF, POF, and CF were decreased in CHD fetuses compared with the controls in late of pregnancy (P <0.01). The diagnostic category was independently associated with smaller fissure depths in fetuses with CHD (adjusted R-2 = 0.472 for SF, 0.465 for POF, and 0.425 for CF). Correlations were observed between small fissure depths and decreased left heart hemodynamic parameters (AV and VTIav) in fetuses with CHD. The SF depth was positively correlated with the neurodevelopmental scores (P <0.01)."

According to the news reporters, the research concluded: "US can be used to screen for abnormal fetal brain cortex development during routine obstetric scans and to evaluate the maturation progress during close follow-up." For more information on this research see: Reduced fetal brain fissures depth in fetuses with congenital heart diseases. *Prenatal Diagnosis*, 2016;36(11):1047-1053. *Prenatal Diagnosis* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Prenatal Diagnosis - onlinelibrary.wiley.com/journal/10.1002/(ISSN)1097-0223)

Our news correspondents report that additional information may be obtained by contacting S. Zeng, Central South University, Xiangya Hosp 2, Dept. of Ultrasound Diag, Changsha, Hunan, People's Republic of China. Additional authors for this research include Q.C. Zhou, M. Zang, J.W. Zhou, R. Xu, T. Wang and S. Zeng.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Heart Disorders and Diseases, Diagnostics and Screening, Cardiovascular Diseases and Conditions, Congenital Diseases and Conditions, Congenital Heart Disease, Cardiology, Central South University.

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Research Conducted at Central South University Has Provided New Information about Phlebitis (Peripheral intravenous catheters in situ for more than 96h in adults: What factors affect removal?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Phlebitis have been presented. According to news reporting out of Changsha, People's Republic of China, by NewsRx editors, research stated, "Peripheral intravenous catheters (PIVC) are widely used in clinical nursing, but indwelling time remains a subject of debate. This study aimed to assess the risk factors for PIVC phlebitis in adults and provide a basis for indwelling time decisions."

Our news journalists obtained a quote from the research from Central South University, "A total of 189 first-time PIVC patients in the emergency ward were assessed between May and October 2015. Data were retrieved for patient characteristics and PIVC assessment records. This study showed that over two-thirds (67.72%) of PIVCs were removed because of phlebitis, including oedema (37.57%), rubefaction (33.33%), pain (32.28%), slow infusion speed (13.23%) and accidental extrusion (2.12%). PIVC indwelling time in the planned removal group was higher than that obtained for the unplanned removal group: 152.42 (74.58) vs. 94.64 (50.15) h, P<0.001. At indwelling times >96h, 28.57% (n=54) of catheters caused phlebitis, although 23.28% (n=44) showed no phlebitis. PIVC phlebitis was associated with treatment with compound amino acid infusion (OR: 2.624), site at the elbow joint (OR: 3.049), haemoglobin level (OR: 2.492), white cell count (OR: 2.196) and catheter size (OR: 1.837)."

According to the news editors, the research concluded: "Study findings suggest that PIVC might be used for longer durations based on nursing assessments and health education."


Our news journalists report that additional information may be obtained by contacting A.Q. Zhu, Central South University, Dept. of Emergency, Xiangya Hosp 2, Changsha 410011, Hunan, People's Republic of China. Additional authors for this research include T. Wang and S.L. Wen.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Risk and Prevention, Vascular Diseases and Conditions, Peripheral Artery Disease, Vasculitis, Phlebitis, Central South University.

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Research Conducted at Chiang Mai University Has Updated Our Knowledge about Hydrops Fetalis [Ventricular Diastolic Function in Normal Fetuses and Fetuses with Hb Bart’s Disease Assessed by Color M-Mode Propagation Velocity using Cardio-STIC-M ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Pregnancy Complications - Hydrops Fetalis. According to news reporting from Chiang Mai, Thailand, by NewsRx journalists, research stated, "To determine whether ventricular diastolic dysfunction contributes to the pathogenesis of fetal cardiac failure due to fetal anemia using fetal Hb Bart's disease as a live model and cardio-STIC-M as a diagnostic tool. Color cardio-STIC volume datasets were acquired from fetuses at risk for Hb Bart's disease during 18 - 22 weeks of gestation and normal pregnancies and pregnancies with hydrops fetalis caused by Hb Bart's disease at 28 - 32 weeks."

The news correspondents obtained a quote from the research from Chiang Mai University, "The volumes were analyzed off-line for velocity propagation (Vp) of the right and left ventricles to assess ventricular diastolic function using color cardio-STIC-M. The Vp for the right and left ventricles was studied in fetuses at 18 - 22 weeks, including 64 normal fetuses (group 1) and 22 fetuses with Hb Bart's disease (group 2), and in fetuses at 28 - 32 weeks, including 22 normal fetuses (group 3) and 16 fetuses with Hb Bart's hydrops fetalis (group 4). The Vp of the fetuses in group 1 and group 2 was not significantly different. However, the Vp for the right and left ventricles in group 4 was significantly lower than in group 3 (19.02 vs. 9.78, p< 0.001; and 20.24 vs. 13.40, p< 0.001, respectively). The inter-observer variability had fair agreement with the intra-class correlation coefficient of 0.531 (95 % CI 0.393 - 0.646, p< 0.001)."

According to the news reporters, the research concluded: "Hydrops fetalis secondary to fetal anemia is initially caused by hypervolemia rather than ventricular diastolic dysfunction while ventricular diastolic compromise is a late occurring consequence of persistent hypervolemia, different from the mechanism of hydropic changes caused by cardiac causes."

For more information on this research see: Ventricular Diastolic Function in Normal Fetuses and Fetuses with Hb Bart's Disease Assessed by Color M-Mode Propagation Velocity using Cardio-STIC-M (Spatio-Temporal Image Correlation M-Mode). Ultraschall in Der Medizin, 2016;37(5):492-496. Ultraschall in Der Medizin can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany.

Our news journalists report that additional information may be obtained by contacting T. Tongsong, Chiang Mai University, Obstet & Gynecol, Chiang Mai 50200, Thailand. Additional authors for this research include F. Tongprasert, K. Srisupundit, S. Luewan and K. Traisrisilp.

Keywords for this news article include: Chiang Mai, Thailand, Asia, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Blood Group Incompatibility, Pregnancy Complications, Fetal Erythroblastosis, Hydrops Fetalis, Cardiology, Anemia, Edema, Chiang Mai University.

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Research Conducted at China Medical University and Hospital Has Provided New Information about Colon Cancer (Efficacy of Bevacizumab in the First-Line Treatment of Patients with RAS Mutations Metastatic Colorectal Cancer: a Systematic Review ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting originating from Shenyang, People's Republic of China, by NewsRx correspondents, research stated, "Whether patients with RAS mutation metastatic colorectal cancer (mCRC) obtain benefits from bevacizumab added to first-line chemotherapy remains unclear. PubMed, Cochrane Systematic Reviews, the Cochrane Collaboration Central Register of Controlled Clinical Trials, ClinicalTrials.gov, and the American Society of Clinical Oncology and European Society for Medical Oncology databases were searched to identify abstracts for randomized controlled trials (RCTs) evaluating the efficacy of bevacizumab for the first-line treatment of patients with RAS mutations mCRC from inception to the end of April 2016."

Our news editors obtained a quote from the research from China Medical University and Hospital, "Hazard ratios (HRs) for overall survival (OS) and progression-free survival (PFS) were estimated. Ten eligible papers reporting six RCTs were included. In the network meta-analysis of patients with RAS mutations, bevacizumab + chemotherapy prolonged PFS compared with chemotherapy alone (HR 0.75, 95% CI 0.51-1.10), but the difference was not statistically significant. Bevacizumab + chemotherapy did not prolong OS compared with chemotherapy alone (HR 1.10, 95% CI 0.73-1.66)."

According to the news editors, the research concluded: "There was insufficient evidence to definitively state that patients with RAS mutations mCRC could benefit from bevacizumab combined with chemotherapy as first-line treatment."


The news editors report that additional information may be obtained by contacting J.D. Zhang, China Med Univ, Canc Hosp, Liaoning Canc Hosp & Inst, Dept. of Med Oncol, Shenyang 110042, Liaoning Provin, People's Republic of China. Additional authors for this research include P. Yu, J.L. Qu, Y. Chen, Y. Zhou, L.Y. Fu and J.D. Zhang.

Keywords for this news article include: Shenyang, People's Republic of China, Asia, Colorectal Research, Drugs and Therapies, Gastroenterology, Chemotherapy, Colon Cancer, Oncology, Genetics, China Medical University and Hospital.

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Research Conducted at Chinese Academy of Medical Sciences Has Provided New Information about Breast Cancer (Functions of miR-146a and miR-222 in Tumor-associated Macrophages in Breast Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Tumor-associated macrophages (TAMs) play critical roles in promoting tumor progression and invasion. However, the molecular mechanisms underlying TAM regulation remain to be further investigated and may make significant contributions to cancer treatment."

Our news journalists obtained a quote from the research from the Chinese Academy of Medical Sciences, "Mammalian microRNAs (miRNAs) have recently been identified as important regulators of gene expression that function by repressing specific target genes mainly at the post-transcriptional level. However, systematic studies of the functions and mechanisms of miRNAs in TAMs in tumor tissues are rare. In this study, miR-146a and miR-222 were shown to be significantly decreased in TAMs associated with the up-regulated NF-kB p50 subunit. miR-146a promoted the expression of some M2 macrophage phenotype molecules, and miR-146a antagonist transfected RAW264.7 monocyte-macrophage cells inhibited 4T1 tumor growth in vivo. Meanwhile, overexpression of miR-222 inhibited TAM chemotaxis, and miR-222 in TAMs inhibited 4T1 tumor growth by targeting CXCL12 and inhibiting CXCR4. These data revealed that miRNAs influence breast tumor growth by promoting the M2 type polarization or regulating the recruitment of TAMs."

According to the news editors, the research concluded: "These observations suggest that endogenous miRNAs may exert an important role in controlling the polarization and function of TAMs in breast cancer."

For more information on this research see: Functions of miR-146a and miR-222 in Tumor-associated Macrophages in Breast Cancer. *Scientific Reports*, 2015;5():18648. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting Y. Li, National Laboratory of Medical Molecular Biology, Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences &Peking Union Medical College, Beijing 100005, People's Republic of China. Additional authors for this research include L. Zhao, B. Shi, S. Ma, Z. Xu, Y. Ge, Y. Liu, D. Zheng and J. Shi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18648. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Genetics, Oncology, Immunology, Macrophages, Breast Cancer, Myeloid Cells, Women's Health, Connective Tissue Cells, People's Republic of China, Mononuclear Phagocyte System.

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Research Conducted at Chinese People's Liberation Army General Hospital Has Updated Our Knowledge about Conductive Hearing Loss (SIX2 haploinsufficiency causes conductive hearing loss with ptosis in humans)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hearing Diseases and Conditions - Conductive Hearing Loss is now available. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "The ossicles represent one of the most fundamental morphological features in evolutionary biology of the mammalians. The mobile ossicular morphology abnormalities result in the severe conductive hearing loss."

Our news editors obtained a quote from the research from Chinese People's Liberation Army General Hospital, "Development and patterning of the middle ear malformation depend on genetic and environmental causes. However, the genetic basis for the risk of congenital ossicle malformation is poorly understood. We show here nine affected individuals in a Chinese pedigree who had bilateral conductive hearing loss with ptosis. We performed whole-genome sequencing and array comparative genomic hybridization (CGH) analysis on DNA samples from the Chinese pedigree. We confirmed the presence of a novel 60 kb heterozygous deletion in size, encompassing SIX2 in our family. Mutation screening in 169 sporadic cases with external ear and middle ear malformations identified no pathogenic variant or polymorphism. We suggest SIX2 haploinsufficiency as a potential congenital factor could be attributed to developmental malformation of the middle ear ossicles and upper eyelid."

According to the news editors, the research concluded: "To the best of our knowledge, this is the first report to provide a description of copy number variation in the SIX2 gene resulting in syndromic conductive hearing loss."

For more information on this research see: SIX2 haploinsufficiency causes conductive hearing loss with ptosis in humans. Journal of Human Genetics, 2016;61(11):917-922. Journal of Human Genetics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com; Journal of Human Genetics - www.nature.com/jhg/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/jhg.2016.86. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Hearing Diseases and Conditions, Genetics, Nervous System Diseases and Conditions, Ear Diseases and Conditions, Neurologic Manifestations, Conductive Hearing Loss, Sensation Disorders, Hearing Disorders, Otolaryngology, Audiology, Chinese People's Liberation Army General Hospital.

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Research Conducted at Dana-Farber Cancer Institute Has Updated Our Knowledge about Health and Medicine (Targeting EZH2 in cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Health and Medicine is now available. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Recent genomic studies have resulted in an emerging understanding of the role of chromatin regulators in the development of cancer. EZH2, a histone methyl transferase subunit of a Polycomb repressor complex, is recurrently mutated in several forms of cancer and is highly expressed in numerous others."

The news reporters obtained a quote from the research from Dana-Farber Cancer Institute, "Notably, both gain-of-function and loss-of-function mutations occur in cancers but are associated with distinct cancer types. Here we review the spectrum of EZH2-associated mutations, discuss the mechanisms underlying EZH2 function, and synthesize a unifying perspective that the promotion of cancer arises from disruption of the role of EZH2 as a master regulator of transcription."

According to the news reporters, the research concluded: "We further discuss EZH2 inhibitors that are now showing early signs of promise in clinical trials and also additional strategies to combat roles of EZH2 in cancer."

For more information on this research see: Targeting EZH2 in cancer. *Nature Medicine*, 2016;22(2):128-34. (Nature Publishing Group - www.nature.com/nm/)

Our news correspondents report that additional information may be obtained by contacting K.H. Kim, Dept. of Pediatric Oncology, Dana-Farber Cancer Institute, Boston, Massachusetts, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4036. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Cancer, Genetics, Oncology, Massachusetts, United States, Article Review, Health and Medicine, North and Central America.

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Research Conducted at Eastern Virginia School of Medicine Has Provided New Information about Tissue Plasminogen Activator (The Effect of Levonorgestrel on Fibrinolytic Factors in Human Endometrial Endothelial Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Enzymes and Coenzymes - Tissue Plasminogen Activator. According to news reporting originating in Norfolk, Virginia, by
NewsRx journalists, research stated, "The levonorgestrel-releasing intrauterine system is considered a highly effective treatment of heavy menstrual bleeding (HMB). While LNG has established effects on the stromal and glandular compartments of the endometrial tissue, its effect on the endometrial endothelial cells has not been investigated."

The news reporters obtained a quote from the research from the Eastern Virginia School of Medicine, "We examined whether LNG regulates fibrinolytic factors, tissue plasminogen activator (tPA), and urokinase plasminogen activator (uPA) secreted by human endometrial endothelial cells (HEECs) and determined the steroid receptor through which LNG exerts its effect on the endothelium. The HEECs were treated with LNG or progesterone and levels of tPA and plasminogen activator inhibitor 1 (PAI-1) measured. The HEECs were specifically examined for the presence of androgen receptors through Western blot. Levonorgestrel flutamide were added to HEECs and the levels of tPA and uPA were examined. An enzyme-linked immunosorbsent assay performed on culture media confirmed a statistically significant decrease in tPA levels in cells treated with LNG (77.80% +/- 8.0% of control; n = 5, P< .05 vs control) but not progesterone. The androgen receptor (110 kDa) was detected in HEEC lysates. The decrease in tPA was blocked by the addition of flutamide (101.3% +/- 16% of control), a classic nonsteroidal androgen receptor blocker. There was no change in uPA or PAI-1 levels in cells treated with LNG. Levonorgestrel decreases tPA levels through the androgen receptor in HEECs. Thus, LNG inhibits tPA secretion by the endometrial endothelial cell."

According to the news reporters, the research concluded: "This response suggests reduction in HMB with LNG-IUS could reflect an LNG-mediated promotion of hemostasis."


Our news correspondents report that additional information may be obtained by contacting T. Pakrashi, Eastern Virginia Med Sch, Jones Inst Reprod Med, Dept. of Obstet & Gynecol, Norfolk, VA 23507, United States. Additional authors for this research include J.E. Taylor, A. Nelson, D.F. Archer and T. Jacob.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1933719116645193. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Norfolk, Virginia, United States, North and Central America, Tissue Plasminogen Activator, Blood Coagulation Factors, Corpus Luteum Hormones, Plasminogen Activators, Transcription Factors, Enzymes and Coenzymes, DNA-Binding Proteins, Androgen Receptors, Steroid Receptors, Endothelial Cells, Blood Proteins, Beta-Globulins, Levonorgestrel, Progesterone, Sex Hormones, Hematology, Progestins, Eastern Virginia School of Medicine.

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Physical Fitness

Research Conducted at Faculty of Physical Education Has Provided New Information about Physical Fitness (Biological Aging and Physical Fitness in Men Aged 20-70 Years from Krakow, Poland)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Physical Fitness. According to news reporting originating from Krakow, Poland, by NewsRx correspondents, research stated, "The increasing problem of population aging requires appropriate economic and health-related measures to mitigate its negative effects. The aim was to categorize the biological age of men between 20 and 70 years of age and assess its relationship to their physical activity and fitness."

Our news editors obtained a quote from the research from the Faculty of Physical Education, "Data included morphological variables, total body water, the results of five Eurofit motor tests and the percentage of maximum heart rate (HR%), during a cardiovascular test of more than 1,400 20-70 year-old men living in Krakow. Biological age was estimated with regression equations. There were significant and consistent differences in physical fitness profiles between the three established groups of relations between biological and chronological age (biologically younger, equal, and older). These three categories of biological age were generally consistent with the regression analysis of physical fitness results, although declared physical activity seemed to be an independent factor. The selected morphological variables represent a set of characteristics useful for the determination of the biological age."

According to the news editors, the research concluded: "The existing relationship between physical activity and biological age indicates that physical activity may contribute to the inhibition of involutional changes, even if it had only been performed regularly in the past."


The news editors report that additional information may be obtained by contacting L. Kryst, Univ Phys Educ, Dept. of Anthropol, Fac Phys Educ, Krakow, Poland. Additional authors for this research include A. Woronkowicz and L. Kryst.

Keywords for this news article include: Krakow, Poland, Europe, Physical Fitness, Exercise, Faculty of Physical Education.

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Biological Factors - Autacoids

Research Conducted at Federal University Has Provided New Information about Autacoids (Cyclo-Gly-Pro, a cyclic dipeptide, attenuates nociceptive behaviour and inflammatory response in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biological Factors - Autacoids have been presented.
According to news reporting originating in Maceio, Brazil, by NewsRx journalists, research stated, "The present study aimed to investigate the antinociceptive and anti-inflammatory effects of the cyclic dipeptide cyclo-Gly-Pro (CGP) in mice. Antinociceptive activity was assessed by employing different pain models, such as formalin test, acetic acid-induced writhing, hot plate test, and carrageenan-induced hyperalgesia, in mice."

Financial supporters for this research include Conselho Nacional de Desenvolvimento Científico e Tecnológico, Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Fundação de Amparo a Pesquisa do Estado de Alagoas.

The news reporters obtained a quote from the research from Federal University, "The number of c-Fos-immunoreactive cells in the periaqueductal gray (PAG) was evaluated in CGP-treated mice. Anti-inflammatory activity was evaluated using paw oedema induced by carrageenan, compound 48/80, serotonin, and prostaglandin E2 (PGE2) and analyzed by plethysmometry. Quantitation of myeloperoxidase (MPO) in the paw was carried out to analyze the presence of neutrophils in the tissue. Intraperitoneal injection of CGP produced a significant inhibition in both neurogenic and inflammatory phases of formalin-induced pain. The antinociceptive effect of CGP, evaluated in the acetic acid-induced writhing test, was detected for up to 6 h after treatment. Further, in the hot plate test, antinociceptive behaviour was evoked by CGP, and this response was inhibited by naloxone. Animals treated with CGP did not present changes in motor performance. In CGP-treated mice there was an increase in the number of c-Fos-positive neurons in the periaqueductal gray. In another set of experiments, CGP attenuated the hyperalgesic response induced by carrageenan. Furthermore, CGP also reduced the carrageenan-increased MPO activity in paws. In addition, CGP also reduced the paw oedema evoked by compound 48/80, serotonin, and PGE2."

According to the news reporters, the research concluded: "Taken together, these results may support a possible therapeutic application of the cyclic dipeptide cyclo-Gly-Pro toward alleviating nociception and damage caused by inflammation conditions."


Our news correspondents report that additional information may be obtained by contacting J.N. Ferro, Laboratory of Cell Biology, Federal University of Alagoas, Maceio, Brazil. Additional authors for this research include F.L. de Aquino, R.G. de Brito, P.L. dos Santos, J.de S. Quintans, L.C. de Souza, A.F. de Araujo, B.L. Diaz, W. Lucca-Junior, L.J. Quintans-Junior and E. Barreto.

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Keywords for this news article include: Antinociceptive, Maceio, Brazil, Autacoids, Serotonin, Dipeptides, South America, Oligopeptides, Pain Medicine, Biological Factors.

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Drugs and Therapies - Aerosol Medicine and…

Research Conducted at Free University Has Provided New Information about Aerosol Medicine and Pulmonary Drug Delivery (Inhaled Aerosol Distribution in Human Airways: A Scintigraphy-Guided Study in a 3D Printed Model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Aerosol Medicine and Pulmonary Drug Delivery have been published. According to news reporting from Brussels, Belgium, by NewsRx journalists, research stated, "While it is generally accepted that inertial impaction will lead to particle loss as aerosol is being carried into the pulmonary airways, most predictive aerosol deposition models adopt the hypothesis that the inhaled particles that remain airborne will distribute according to the gas flow distribution between airways downstream. Using a 3D printed cast of human airways, we quantified particle deposition and distribution and visualized their inhaled trajectory in the human lung."

The news correspondents obtained a quote from the research from Free University, "The human airway cast was exposed to 6 μm monodisperse, radiolabeled aerosol particles at distinct inhaled flow rates and imaged by scintigraphy in two perpendicular planes. In addition, we also imaged the distribution of aerosol beyond the airways into the five lung lobes. The experimental aerosol deposition patterns could be mimicked by computational fluid dynamic (CFD) simulation in the same 3D airway geometry. It was shown that for particles with a diameter of 6 μm inhaled at flows up to 60 L/min, the aerosol distribution over both lungs and the individual five lung lobes roughly followed the corresponding distributions of gas flow. While aerosol deposition was greater in the main bronchi of the left versus right lung, distribution of deposited and suspended particles toward the right lung exceeded that of the left lung. The CFD simulations also predict that for both 3 and 6 μm particles, aerosol distribution between lung units subtending from airways in generation 5 did not match gas distribution between these units and that this effect was driven by inertial impaction. We showed combined imaging experiments and CFD simulations to systematically study aerosol deposition patterns in human airways down to generation 5, where particle deposition could be spatially linked to the airway geometry."

According to the news reporters, the research concluded: "As particles are negotiating an increasing number of airways in subsequent branching generations, CFD predicts marked deviations of aerosol distribution with respect to ventilation distribution, even in the normal human lung."


Our news journalists report that additional information may be obtained by contacting S. Verbanck, Vrije Univ Brussel, Univ Hosp UZ Brussel, Div Resp, Brussels, Belgium. Additional authors for this research include G. Ghorbaniasl, M.F. Biddiscombe, D. Dragojlovic, N. Ricks, C. Lacor, B. Ilsen, J. de Mey, D. Schuermans, S.R. Underwood, P.J.
Research Conducted at Friedrich-Alexander-University Has Updated Our Knowledge about Inflammatory Bowel Disease (Molecular mechanism of action of anti-tumor necrosis factor antibodies in inflammatory bowel diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Digestive System Diseases and Conditions - Inflammatory Bowel Disease is now available. According to news reporting out of Erlangen, Germany, by NewsRx editors, research stated, "Anti-tumor necrosis factor (TNF) antibodies are successfully used in the therapy of inflammatory bowel diseases (IBD). However, the molecular mechanism of action of these agents is still a matter of debate."

Our news journalists obtained a quote from the research from Friedrich-Alexander-University, "Apart from neutralization of TNF, influence on the intestinal barrier function, induction of apoptosis in mucosal immune cells, formation of regulatory macrophages as well as other immune modulating properties have been discussed as central features. Nevertheless, clinically effective anti-TNF antibodies were shown to differ in their mode-of-action in vivo and in vitro. Furthermore, the anti-TNF agent etanercept is effective in the treatment of rheumatoid arthritis but failed to induce clinical response in Crohn's disease patients, suggesting different contributions of TNF in the pathogenesis of these inflammatory diseases. In the following, we will review different aspects regarding the mechanism of action of anti-TNF agents in general and analyze comparatively different effects of each anti-TNF agent such as TNF neutralization, modulation of the immune system, reverse signaling and induction of apoptosis. We discuss the relevance of the membrane-bound form of TNF compared to the soluble form for the immunopathogenesis of IBD."

According to the news editors, the research concluded: "Furthermore, we review reports that could lead to personalized medicine approaches regarding treatment with anti-TNF antibodies in chronic intestinal inflammation, by predicting response to therapy."


Our news journalists report that additional information may be obtained by contacting R. Atreya, Friedrich Alexander Univ Erlangen Nurnberg, Medical Clin 1, D-91054 Erlangen, Germany. Additional authors for this research include W. Dieterich, M.F. Neurath and...
Research Conducted at Fudan University Has Provided New Information about Ring Cell Cancer (Younger Age Is Associated with Poorer Survival in Patients with Signet-Ring Cell Carcinoma of the Colon without Distant Metastasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Ring Cell Cancer have been published. According to news reporting from Shanghai, People’s Republic of China, by NewsRx journalists, research stated, "In general, younger age is associated with better survival in patients with colon cancer. In this study, we aim to analyze the impact of age on cancer-specific survival (CSS) in patients with signet-ring cell carcinoma (SRCC) of the colon, a particularly aggressive type of colon cancer."

The news correspondents obtained a quote from the research from Fudan University, "Information on patients with SRCC of the colon with no distant metastasis was extracted from the US Surveillance, Epidemiology, and End Results (SEER) database. An X-tile plot was used to determine the optimal cutoff age at diagnosis. A total of 776 patients were included in data analysis. The X-tile program revealed an optimal cutoff at 35 years of age. A higher percentage of stage III disease and a higher percentage of N2 disease were observed in patients <= 35 years of age. The multivariate Cox proportional model demonstrated that patients <= 35 years of age were more likely to have a poorer survival outcome compared with patients aged > 35 years (HR 1.411, 95% CI 1.032-1.929, and P = 0.031)."

According to the news reporters, the research concluded: "In contrast to the association of younger age with better survival in colon cancer patients, younger age (<= 35 years) is associated with poorer survival outcome in patients with SRCC of the colon without distant metastasis."


Our news journalists report that additional information may be obtained by
Oncology - Solid Cancer

Research Conducted at Genentech, Inc. Has Updated Our Knowledge about Solid Cancer (Safety of Onartuzumab in Patients with Solid Tumors: Experience to Date from the Onartuzumab Clinical Trial Program)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Solid Cancer. According to news reporting out of South San Francisco, California, by NewsRx editors, research stated, "Onartuzumab, a recombinant humanized monovalent monoclonal antibody directed against MET, the receptor for the hepatocyte growth factor, has been investigated for the treatment of solid tumors. This publication describes the safety profile of onartuzumab in patients with solid tumors using data from the global onartuzumab clinical development program."

Our news journalists obtained a quote from the research from Genentech, Inc., "Adverse event (AE) and laboratory data from onartuzumab phase II/III studies were analyzed and coded into standardized terms according to industry standards. The severity of AEs was assessed using the NCI Common Toxicity Criteria, Version 4. Medical Dictionary for Regulatory Activities (MedDRA) AEs were grouped using the standardized MedDRA queries (SMQs) 'gastrointestinal (GI) perforation', 'embolic and thrombotic events, venous (VTE)', and 'embolic and thrombotic events, arterial (ATE)', and the Adverse Event Group Term (AEGT) 'edema.' The safety evaluable populations (patients who received at least one dose of study treatment) for each study were included in this analysis. A total of 773 onartuzumab-treated patients from seven studies (phase II, n=6; phase III, n=1) were included. Edema and VTEs were reported in onartuzumab-treated patients in all seven studies. Edema events in onartuzumab arms were generally grade 1-2 in severity, observed more frequently than in control arms and at incidences ranging from 25.4-65.7% for all grades and from 1.2-14.1% for grade 3. Hypoalbuminemia was also more frequent in onartuzumab arms and observed at frequencies between 77.8% and 98.3%. The highest frequencies of all grade and grade (>=)3 VTE events were 30.3% and 17.2%, respectively in onartuzumab arms. The cumulative incidence of all grade ATE events ranged from 0-5.6% (grade (>=)3, 0-5.1%) in onartuzumab arms. The frequency of GI perforation was below 10% in all studies; the highest estimates were observed in studies with onartuzumab plus bevacizumab for all grades (0-6.2%) and grade (>=)3 (0-6.2%)."

According to the news editors, the research concluded: "The frequencies of VTE,
ATE, GI perforation, hypoalbuminemia, and edema in clinical studies were higher in patients receiving onartuzumab than in control arms; these are considered to be expected events in patients receiving onartuzumab."

For more information on this research see: Safety of Onartuzumab in Patients with Solid Tumors: Experience to Date from the Onartuzumab Clinical Trial Program. *Plos One*, 2015;10(10):e0139679. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting R. Morley, Genentech Inc, South San Francisco, CA, United States. Additional authors for this research include A. Cardenas, P. Hawkins, Y. Suzuki, V. Paton, S.C. Phan, M. Merchant, J. Hsu, W. Yu, Q. Xia, D. Koralek, P. Luhn and W. Aldairy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0139679. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Edema, Oncology, California, Solid Cancer, United States, Clinical Research, South San Francisco, North and Central America, Clinical Trials and Studies.

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**Peptides and Proteins**

**Research Conducted at Georg-August-University Has Updated Our Knowledge about Peptides and Proteins [The Oncogenic Fusion Proteins SET-Nup214 and Sequestosome-1 (SQSTM1)-Nup214 Form Dynamic Nuclear Bodies and Differentially Affect Nuclear ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peptides and Proteins. According to news reporting originating from Gottingen, Germany, by NewsRx correspondents, research stated, "Genetic rearrangements are a hallmark of several forms of leukemia and can lead to oncogenic fusion proteins. One example of an affected chromosomal region is the gene coding for Nup214, a nucleoporin that localizes to the cytoplasmic side of the nuclear pore complex (NPC)."

Our news editors obtained a quote from the research from Georg-August-University, "We investigated two such fusion proteins, SET-Nup214 and SQSTM1 (sequestosome)Nup214, both containing C-terminal portions of Nup214. SETNup214 nuclear bodies containing the nuclear export receptor CRM1 were observed in the leukemia cell lines LOUCY and MEGAL. Overexpression of SET-Nup214 in HeLa cells leads to the formation of similar nuclear bodies that recruit CRM1, export cargo proteins, and certain nucleoporins and concomitantly affect nuclear protein and poly(A)(+ ) RNA export. SQSTM1-Nup214, although mostly cytoplasmic, also forms nuclear bodies and inhibits nuclear protein but not poly(A)(+) RNA export. The interaction of the fusion proteins with CRM1 is RanGTP-dependent, as shown in co-immunoprecipitation experiments and binding assays. Further analysis revealed that the Nup214 parts mediate the inhibition of nuclear export, whereas the SET or SQSTM1 part determines the localization of the fusion protein and therefore the extent of the effect. SETNup214 nuclear bodies are highly mobile structures, which are in equilibrium with the nucleoplasm in interphase..."
and disassemble during mitosis or upon treatment of cells with the CRM1-inhibitor leptomycin B. Strikingly, we found that nucleoporins can be released from nuclear bodies and reintegrated into existing NPC."

According to the news editors, the research concluded: "Our results point to nuclear bodies as a means of preventing the formation of potentially insoluble and harmful protein aggregates that also may serve as storage compartments for nuclear transport factors."


The news editors report that additional information may be obtained by contacting R.H. Kehlenbach, Georg August Univ, Gottingen Center Mol Biosci GZMB, D-37073 Gottingen, Germany. Additional authors for this research include A. Mendes, C. Valkova, C. Spillner, B. Fahrenkrog, C. Kaether and R.H. Kehlenbach.

Keywords for this news article include: Gottingen, Germany, Europe, Peptides and Proteins, Nuclear Proteins, Fusion Proteins, Amino Acids, Peptides, Genetics, Georg-August-University.

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**Oncology - Breast Cancer**

**Research Conducted at German Institute of Human Nutrition Potsdam-Rehbrucke Has Provided New Information about Breast Cancer (Evaluating the Applicability of Data-Driven Dietary Patterns to Independent Samples with a Focus on Measurement Tools ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news originating from Nuthetal, Germany, by NewsRx correspondents, research stated, "Diet is a key modifiable risk for many chronic diseases, but it remains unclear whether dietary patterns from one study sample are generalizable to other independent populations. The primary objective of this study was to assess whether data-driven dietary patterns from one study sample are applicable to other populations."

Our news journalists obtained a quote from the research from the German Institute of Human Nutrition Potsdam-Rehbrucke, "The secondary objective was to assess the validity of two criteria of pattern similarity. Six dietary patterns-Western (n = 3), Mediterranean, Prudent, and Healthy from three published studies on breast cancer were reconstructed in a case-control study of 973 breast cancer patients and 973 controls. Three more internal patterns (Western, Prudent, and Mediterranean) were derived from this case-control study's own data. Statistical analysis Applicability was assessed by comparing the six reconstructed patterns with the three internal dietary patterns, using the congruence coefficient (CC) between pattern loadings. In cases where any pair met either of two commonly used criteria for declaring patterns similar (CC >= 0.85 or a statistically significant [P < 0.05] Pearson correlation), then the true similarity
of those two dietary patterns was doublechecked by comparing their associations to risk for breast cancer, to assess whether those two criteria of similarity are actually reliable. Five of the six reconstructed dietary patterns showed high congruence (CC > 0.9) to their corresponding dietary pattern derived from the case-control study's data. Similar associations with risk for breast cancer were found in all pairs of dietary patterns that had high CC but not in all pairs of dietary patterns with statistically significant correlations. Similar dietary patterns can be found in independent samples. The P value of a correlation coefficient is less reliable than the CC as a criterion for declaring two dietary patterns similar."

According to the news editors, the research concluded: "This study shows that diet scores based on a particular study are generalizable to other populations."


The news correspondents report that additional information may be obtained from A. Castello, German Inst Human Nutr Potsdam Rehbrucke, Dept. of Epidemiol, Nuthetal, Germany. Additional authors for this research include B. Buijsse, M. Martin, A. Ruiz, A.M. Casas, J.M. Baena-Canada, R. Pastor-Barriuso, S. Antolin, M. Ramos, M. Munoz, A. Lluch, A. de Juan-Ferre, C. Jara, V. Lope, M.A. Jimeno, E. Arriola-Arellano, E. Diaz, V. Guillem and Carrasc.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jand.2016.05.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nuthetal, Germany, Europe, Breast Ductal Carcinoma, Risk and Prevention, Women's Health, Breast Cancer, Oncology, German Institute of Human Nutrition Potsdam-Rehbrucke.

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the labile beta-diketone moiety in curcumin. Previous work revealed that novel N-alkyl beta-enaminones showed a similar water solubility as compared to curcumin, accompanied by a stronger antiproliferative activity. To extend this beta-enaminone compound library, new analogues were prepared in this work using more polar amines (hydroxyalkylamines and methoxyalkylamines instead of alkylamines) with the main purpose to improve the water solubility without compromising the biological activity of the resulting curcuminoids. Compared to their respective parent compounds, i.e. curcumin and bisdemethoxycurcumin, the bisdemethoxycurcumin N-(hydroxy/methoxy) alkyl enaminone analogues showed better water solubility, antioxidant and anti-proliferative activities. In addition, the curcumin enaminones displayed activities comparable to or better than curcumin, and the water solubility was improved significantly."

According to the news reporters, the research concluded: "The constructed new analogues may thus be of interest for further exploration concerning their impact on oxidative stress related diseases such as cancer."


Our news journalists report that additional information may be obtained by contacting J. Van Camp, University of Ghent, Fac Biosci Engn, Dept. of Food Safety & Food Qual, B-9000 Ghent, Belgium. Additional authors for this research include R. De Vreese, L. Vannecke, C. Grootaert, J. Van Camp and M. D'hooghe.

Keywords for this news article include: Ghent, Belgium, Europe, Organic Chemicals, Diarylheptanoids, Hydrocarbons, Catechols, Curcumin, Alkanes, Ghent University.

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**Intracellular Membranes**

**Research Conducted at Graduate School of Biomedical Sciences Has Provided New Information about Intracellular Membranes (The deadly landscape of pro-apoptotic BCL-2 proteins in the outer mitochondrial membrane)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Intracellular Membranes are presented in a new report. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Apoptosis is a biological process that removes damaged, excess or infected cells through a genetically controlled mechanism. This process plays a crucial role in organismal development, immunity and tissue homeostasis, and alterations in apoptosis contribute to human diseases including cancer and auto-immunity."

Financial supporters for this research include National Institutes of Health, JJR Foundation, William A. Spivak Fund, Fridolin Charitable Trust, American Cancer Society, Irma T. Hirschl Trust, March of Dimes Foundation, Developmental Research Pilot Program
within the Department of Oncological Sciences at Mount Sinai.

Our news journalists obtained a quote from the research from the Graduate School of Biomedical Sciences, "In the past two decades, significant efforts have focused on understanding the function of the BCL-2 proteins, a complex family of pro-survival and pro-apoptotic alpha-helical proteins that directly control the mitochondrial pathway of apoptosis. Diverse structural investigations of the BCL-2 family members have broadened our mechanistic understanding of their individual functions. However, an often over-looked aspect of the mitochondrial pathway of apoptosis is how the BCL-2 family specifically interacts with and targets the outer mitochondrial membrane to initiate apoptosis. Structural information on the relationship between the BCL-2 family and the outer mitochondrial membrane is missing; likewise, knowledge of the biophysical mechanisms by which the outer mitochondrial membrane affects and effects apoptosis is lacking."

According to the news editors, the research concluded: "In this mini-review, we provide a current overview of the BCL-2 family members and discuss the latest structural insights into BAK/BAX activation and oligomerization in the context of the outer mitochondrial membrane and mitochondrial biology."


The news correspondents report that additional information may be obtained from J.E. Chipuk, Icahn Sch Med Mt Sinai, Grad Sch Biomed Sci, New York, NY 10029, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/febs.13624. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Apoptosis, Article Review, Mitochondrial Membranes, Intracellular Membranes, Genetics, Graduate School of Biomedical Sciences.

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**Cardiovascular Diseases and Conditions - Thrombosis**

**Research Conducted at Guy's and St. Thomas' NHS Foundation Trust Has Provided New Information about Thrombosis (Sudden death of a patient with polycystic kidneys due to acute inferior vena cava thrombosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Thrombosis have been published. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "A management algorithm for large renal cyst in autosomal dominant polycystic kidney disease (ADPKD) is lacking despite the potential to cause widespread medical and surgical complications."

Our news journalists obtained a quote from the research from Guy's and St. Thomas'...
NHS Foundation Trust, "We report the case of a 37-year-old gentleman with ADPKD and large (>5 cm diameter) cysts who suffered sudden death due to autopsy-proven inferior vena cava and pulmonary arterial thrombosis. In this article, we discuss the possible pathophysiological factors at play in this catastrophic complication of ADPKD."

According to the news editors, the research concluded: "We also review available literature to establish the prevalence of such a complication and also establish current thoughts and opinions as to the optimal management strategy for giant cysts in the context of ADPKD."


Our news journalists report that additional information may be obtained by contacting R. Tamburrini, Guys & St Thomas Hosp NHS Fdn Trust, London, United Kingdom. Additional authors for this research include Z. Ahmed, J. van der Walt and D. Goldsmith.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0036933014567050. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Sudden Death, Hematology, Vena Cava, Angiology, Genetics, Guy's and St. Thomas' NHS Foundation Trust.

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**Drugs and Therapies - Antibiotics**

**Research Conducted at Hartford Hospital Has Updated Our Knowledge about Antibiotics (Continuous and Prolonged Intravenous beta-Lactam Dosing: Implications for the Clinical Laboratory)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antibiotics have been presented. According to news reporting out of Hartford, Connecticut, by NewsRx editors, research stated, "Beta-lactam antibiotics serve as a cornerstone in the management of bacterial infections because of their wide spectrum of activity and low toxicity."

Our news journalists obtained a quote from the research from Hartford Hospital, "Since resistance rates among bacteria are continuously on the rise and the pipeline for new antibiotics does not meet this trend, an optimization of current beta-lactam treatment is needed. This review provides an overview of optimization through use of prolonged-and continuous-infusion dosing strategies compared with more traditional intermittent infusions."

According to the news editors, the research concluded: "Included is an overview of the scientific basis for using these nontraditional prolonged- and continuous-infusion-based regimens, with a focus on major areas in which the clinical laboratory can support the clinical use of these regimens."

For more information on this research see: Continuous and Prolonged Intravenous beta-Lactam Dosing: Implications for the Clinical Laboratory. *Clinical Microbiology Reviews*, 2016;29(4):759-772. *Clinical Microbiology Reviews* can be contacted at: Amer Soc...
Heart Disorders and Diseases - Heart Disease

Research Conducted at Heart Hospital Has Provided New Information about Heart Disease (The relationship between heart rate and mortality of patients with acute coronary syndromes in the coronary intervention era Meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Disease. According to news reporting from Hubei, People's Republic of China, by NewsRx journalists, research stated, "Most of acute coronary syndromes (ACS) were receiving intervention treatment a high overall rate of coronary angiography in the modern medical practice. Consequently, we conduct a review to determine the heart rate (HR) on the prognosis of ACS in the coronary intervention era."

The news correspondents obtained a quote from the research from Heart Hospital, "PubMed, EMBASE, MEDLINE, and the Cochrane Library was systematically searched up to May 2016 using the search terms 'heart rate,' 'acute coronary syndrome,' 'acute myocardial infarction,' 'ST-elevation myocardial infarction,' 'non-ST-segment elevation.' The outcome of interest was all-cause mortality. All analyses were performed using Review Manager. Database searches retrieved 2324 citations. Eleven studies enrolling 156,374 patients were included. In-hospital mortality was significantly higher in the elevated HR group compared to the lower HR group (pooled RR 2.04, 95% CI 1.80-2.30, P<0.0001). Individuals with elevated admission HR had increased risk of long-term mortality (Pooled RR=1.63, 95% CI 1.27-2.10, P=0.008) compared to lower admission HR. The pooled results showed elevated discharge and resting HR were related to increased mortality of patients with ACS (pooled RR 1.88, 95% CI 1.02-3.47, P=0.04; pooled RR 2.14, 95% CI 1.37-3.33, P<0.0001, respectively)."

According to the news reporters, the research concluded: "Elevated HR may increase the mortality of ACS patients in the percutaneous coronary intervention era."

For more information on this research see: The relationship between heart rate and mortality of patients with acute coronary syndromes in the coronary intervention era Meta-analysis. Medicine, 2016;95(46):266-272. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting X. Su, Wuhan Asian Heart Hosp, Dept. of Cardiol, Wuhan, Hubei, People's Republic of China. Additional authors for this research include Y.Q. Zhan, J.P. Xiang, N. Lu, Z.Q. He, X.
Research Conducted at Henry Ford Hospital Has Provided New Information about Type 2 Diabetes (White matter changes after stroke in type 2 diabetic rats measured by diffusion magnetic resonance imaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting originating from Detroit, Michigan, by NewsRx correspondents, research stated, "Diffusion-related magnetic resonance imaging parametric maps may be employed to characterize white matter of brain. We hypothesize that entropy of diffusion anisotropy may be most effective for detecting therapeutic effects of bone marrow stromal cell treatment of ischemia in type 2 diabetes mellitus rats."

Our news editors obtained a quote from the research from Henry Ford Hospital, "Type 2 diabetes mellitus was induced in adult male Wistar rats. These rats were then subjected to 2 h of middle cerebral artery occlusion, and received bone marrow stromal cell (5 x 10(6), n = 8) or an equal volume of saline (n = 8) via tail vein injection at three days after middle cerebral artery occlusion. Magnetic resonance imaging was performed on day one and then weekly for five weeks post middle cerebral artery occlusion. The diffusion metrics complementarily permitted characterization of axons and axonal myelination. All six magnetic resonance imaging diffusion metrics, confirmed by histological measures, demonstrated that bone marrow stromal cell treatment significantly (p < 0.05) improved magnetic resonance imaging diffusion indices of white matter in type 2 diabetes mellitus rats after middle cerebral artery occlusion compared with the saline-treated rats."

According to the news editors, the research concluded: "Superior to the fractional anisotropy metric that provided measures related to organization of neuronal fiber bundles, the entropy metric can also identify microstructures and low-density axonal fibers of cerebral tissue after stroke in type 2 diabetes mellitus rats."


The news editors report that additional information may be obtained by contacting Q. Jiang, Henry Ford Hospital, Dept. of Neurol, Detroit, MI 48202, United States. Additional authors for this research include J.L. Chen, M. Chopp, L. Li, T. Yan, E. Davoodi-Bojd, Q.J. Li, S.P.N. Davarani and Q. Jiang.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0271678X15622464. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Glucose Metabolism Disorders, Connective Tissue Cells, Middle Cerebral Artery, Risk and Prevention, Type 2 Diabetes, Stromal Cells, Immune System, Endocrinology, Bone Research, Bone Marrow, Angiology, Stroke, Henry Ford Hospital.

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Oncology - Cancer Risk

Research Conducted at Instituto de Salud Carlos III Has Provided New Information about Cancer Risk (Association Between Western and Mediterranean Dietary Patterns and Mammographic Density)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cancer Risk is the subject of a report. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "To examine the association between two dietary patterns (Western and Mediterranean), previously linked to breast cancer risk, and mammographic density. This cross-sectional study included 3,584 women attending population-based breast cancer screening programs and recruited between October 7, 2007, and July 14, 2008 (participation rate 74.5%)."

The news reporters obtained a quote from the research from Instituto de Salud Carlos III, "Collected data included anthropometric measurements; demographic, obstetric, and gynecologic characteristics; family and personal health history; and diet in the preceding year. Mammographic density was blindly assessed by a single radiologist and classified into four categories: less than 10%, 10-25%, 25-50%, and greater than 50%. The association between adherence to either a Western or a Mediterranean dietary pattern and mammographic density was explored using multivariable ordinal logistic regression models with random center-specific intercepts. Models were adjusted for age, body mass index, parity, menopause, smoking, family history, hormonal treatment, and calorie and alcohol intake. Differences according to women's characteristics were tested including interaction terms. Women with a higher adherence to the Western dietary pattern were more likely to have high mammographic density (n=242 [27%]) than women with low adherence (n=169 [19%]) with a fully adjusted odds ratio (ORQ4vsQ1) of 1.25 (95% confidence interval [CI] 1.03-1.52). This association was confined to over-weight-obese women (adjusted ORQ4vsQ1 [95% CI] 1.41 [1.13-1.76]). No association between Mediterranean dietary pattern and mammographic density was observed. The Western dietary pattern was associated with increased mammographic density among overweight-obese women."

According to the news reporters, the research concluded: "Our results might inform specific dietary recommendations for women with high mammographic density."

For more information on this research see: Association Between Western and Mediterranean Dietary Patterns and Mammographic Density. Obstetrics and Gynecology, 2016;128(3):574-581. Obstetrics and Gynecology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott
Our news correspondents report that additional information may be obtained by contacting A. Castello, Inst Salud Carlos III, Natl Center Epidemiol, Canc Epidemiol Unit, Madrid, Spain. Additional authors for this research include N. Ascunce, D. Salas-Trejo, C. Vidal, C. Sanchez-Contador, C. Santamarina, C. Pedraz-Pingarron, M.P. Moreno, B. Perez-Gomez, V. Lope, N. Aragones, J. Vioque and M. Pollan.

Keywords for this news article include: Madrid, Spain, Europe, Risk and Prevention, Epidemiology, Diagnostics and Screening, Breast Cancer Screening, Breast Ductal Carcinoma, Women's Health, Mammography, Cancer Risk, Mammogram, Oncology, Instituto de Salud Carlos III.

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Nutritional and Metabolic Diseases and Conditions –

Research Conducted at International Islamic University Has Updated Our Knowledge about Type 2 Diabetes (Safety profiling of pioglitazone and telmisartan combination by sub-chronic toxicity study in rat)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is the subject of a report. According to news reporting out of Kuala Lumpur, Malaysia, by NewsRx editors, research stated, “It has been reported that the major cause of mortality in diabetes is cardiovascular diseases and contribution of hypertension is significant in this context. Pioglitazone, a thiazolidinedione class of therapeutic agent is used to treat type 2 diabetes mellitus.”

Financial supporters for this research include Ministry of Higher Education, Lincoln University, International Islamic University Malaysia.

Our news journalists obtained a quote from the research from International Islamic University, "Telmisartan, an angiotensin receptor blocker antihypertensive has been reported to have beneficial effect if co-administered with pioglitazone for the management of diabetes complications. The present research work aims to evaluate the safety/toxicity profile of this combination in rat model. The investigation was carried out after co-administering the drugs to the rats for 28 days at three dose levels of 50, 100 and 150 mg/kg covering low to high dose ranges. Various hematological and biochemical parameters were studied in addition to the histopathology of the major organs in order to evaluate the toxicity profile of the combination. Absence of mortality and histopathological changes as well as unaltered hematological and biochemical parameters was observed. This preliminary investigation concludes that the combination of pioglitazone and telmisartan can primarily be stated as safe in animals, even at the dose level which is several folds higher than the intended human dose."

According to the news editors, the research concluded: "Thus, this combination can be explored in future to develop a rational therapy regimen to treat hypertensive diabetic patients." For more information on this research see: Safety profiling of pioglitazone and telmisartan combination by sub-chronic toxicity study in rat. Regulatory Toxicology and Pharmacology, 2016;81():155-161. Regulatory Toxicology and Pharmacology can be contacted
Research Conducted at Johannes Gutenberg-University Has Provided New Information about Granuloma (DNA Damage Signaling Instructs Polyploid Macrophage Fate in Granulomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lymphoproliferative Diseases and Conditions - Granuloma. According to news reporting from Mainz, Germany, by NewsRx journalists, research stated, "Granulomas are immune cell aggregates formed in response to persistent inflammatory stimuli. Granuloma macrophage subsets are diverse and carry varying copy numbers of their genomic information."

Funders for this research include European Union’s Seventh Framework Programme, Research Committee of the Medical Faculty, DFG, German Centre for Infection Research, BMBF, European Research Council, Danish Council for Independent Research, Greek GSRT program of Excellence II, Agence Nationale de la Recherche’, Fondation pour la Recherche Medicale, InCA.

The news correspondents obtained a quote from the research from Johannes Gutenberg-University, "The molecular programs that control the differentiation of such macrophage populations in response to a chronic stimulus, though critical for disease outcome, have not been defined. Here, we delineate a macrophage differentiation pathway by which a persistent Toll-like receptor (TLR)2 signal instructs polyploid macrophage fate by inducing replication stress and activating the DNA damage response. Polyploid granuloma-resident macrophages formed via modified cell divisions and mitotic defects and not, as previously thought, by cell-to-cell fusion. TLR2 signaling promoted macrophage polyploidy and suppressed genomic instability by regulating Myc and ATR."

According to the news reporters, the research concluded: "We propose that, in the presence of persistent inflammatory stimuli, pathways previously linked to oncogene-initiated..."
carcinogenesis instruct a long-lived granuloma-resident macrophage differentiation program that regulates granulomatous tissue remodeling."

For more information on this research see: DNA Damage Signaling Instructs Polyploid Macrophage Fate in Granulomas. Cell, 2016;167(5):1264-1280,236-252. Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell - www.journals.elsevier.com/cell/)


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Keywords for this news article include: Mainz, Germany, Europe, Lymphoproliferative Diseases and Conditions, Lymphatic Diseases and Conditions, Lymphoproliferative Disorders, Mononuclear Phagocyte System, Connective Tissue Cells, Deoxyribonucleic Acid, Myeloid Cells, DNA Research, Macrophages, Dermatology, Proteomics, DNA Damage, Immunology, Phagocytes, Granuloma, Genetics, Johannes Gutenberg-University.

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Our news journalists report that additional information may be obtained by contacting M. Malas, Johns Hopkins University, Dept. of Surg, Sch Med, Baltimore, MD, United States. Additional authors for this research include C. Hicks, E.V. Ratchford, M.J. Salameh and M. Malas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1358863X16643601. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiology, Article Review, Aortic Dissection, Johns Hopkins University.

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**Clinical Research - Clinical Trials and Studies**

**Research Conducted at Johns Hopkins University School of Medicine Has Provided New Information about Clinical Trials and Studies (Recruitment techniques for alcohol pharmacotherapy clinical trials: A cost-benefit analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Alcohol use disorders (AUDs) represent a large public health burden with relatively few efficacious pharmacotherapies. Randomized controlled trials (RCTs) for new AUD therapies can be hampered by ineffective recruitment, leading to increased trial costs."

Our news journalists obtained a quote from the research from the Johns Hopkins University School of Medicine, "The current analyses examined the effectiveness of recruitment efforts during two consecutive outpatient RCTs of novel AUD pharmacotherapies conducted between 2009 and 2012. During an initial phone screen, participants identified an ad source for learning about the study. Qualified persons were then scheduled for in-person screens. The present analyses examined demographic differences amongst the eight ad sources utilized. Recruitment effectiveness was determined by dividing the number of persons meeting criteria for an in-person screen by the total number of callers from each ad source. Cost-effectiveness was determined by dividing total ad source cost by number of screens, participants randomized, and completers. 1,813 calls resulted in 1,005 completed phone screens. The most common ad source was TV (34%), followed by print (29%), word-of-mouth (11%), flyer (8%), internet (5%), radio (5%), bus ad (2%), and billboard (1%). Participants reporting bus ads (46%), billboard (44%), or print ads (34%) were significantly more likely than the other sources to meet criteria to be scheduled for in-person screens. The most cost-effective ad source was print ($2,506 per completer), while bus ad was the least cost-effective ($13,376 per completer). Recruitment in AUD RCTs can be successful using diverse advertising methods."
According to the news editors, the research concluded: "The present analyses favored use of print ads as most cost-effective."

For more information on this research see: Recruitment techniques for alcohol pharmacotherapy clinical trials: A cost-benefit analysis. Addictive Disorders & Their Treatment, 2015;14(4):211-219. (Lippincott Williams and Wilkins - www.lww.com; Addictive Disorders & Their Treatment - journals.lww.com/addictiondisorders/pages/default.aspx)

The news correspondents report that additional information may be obtained from D.A. Tompkins, Johns Hopkins University School of Medicine, Dept. of Psychiatry and Behavioral Sciences, Behavioral Pharmacology Research Unit, Baltimore, MD, United States. Additional authors for this research include J.A. Sides, J.A. Harrison and E.C Strain.

Keywords for this news article include: Maryland, Baltimore, United States, Pharmacotherapy, Clinical Research, North and Central America, Clinical Trials and Studies.

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Oncology - Prostate Cancer

Research Conducted at Kaiser Permanente Has Provided New Information about Prostate Cancer (5-Alpha Reductase Inhibitors and the Risk of Prostate Cancer Mortality in Men Treated for Benign Prostatic Hyperplasia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Prostate Cancer. According to news originating from Pasadena, California, by NewsRx correspondents, research stated, "To compare the risk of prostate cancer mortality among men treated with 5- alpha reductase inhibitors (5-ARIs) with those treated with alpha-adrenergic blockers (ABs) in community practice settings. A retrospective matched cohort (N = 174,895) and nested case-control study (N = 18,311) were conducted in 4 regions of an integrated health care system."

Our news journalists obtained a quote from the research from Kaiser Permanente, "Men 50 years and older who initiated pharmaceutical treatment for benign prostatic hyperplasia between January 1, 1992, and December 31, 2007, and had at least 3 consecutive prescriptions were followed through December 31, 2010. Adjusted subdistribution hazard ratios, accounting for competing risks of death, and matched odds ratios were used to estimate prostate cancer mortality associated with 5-ARI use (with or without concomitant ABs) as compared with AB use. In the cohort study, 1,053 men died of prostate cancer (mean follow-up, 3 years), 15% among 5-ARI users (N = 25,388) and 85% among AB users (N = 149,507) (unadjusted mortality rate ratio, 0.80). After accounting for competing risks, it was found that 5-ARI use was not associated with prostate cancer mortality when compared with AB use (adjusted subdistribution hazard ratio, 0.85; 95% CI, 0.72-1.01). Similar results were observed in the case-control study (adjusted matched odds ratio, 0.95; 95% CI, 0.78-1.17). Among men being pharmacologically treated for benign prostatic hyperplasia, 5-ARI use was not associated with an increased risk of prostate cancer mortality when compared with AB use."

According to the news editors, the research concluded: "The increased prevalence of high-grade lesions at the time of diagnosis noted in our study and the chemoprevention trials may not result in increased prostate cancer mortality."

For more information on this research see: 5-Alpha Reductase Inhibitors and the

The news correspondents report that additional information may be obtained from L.P. Wallner, Kaiser Permanente Southern Calif, Dept. of Res & Evaluat, Pasadena, CA 91125, United States. Additional authors for this research include J.R. DiBello, B.H. Li, S.K. Van Den Eeden, S. Weinmann, D.P. Ritzwoller, J.E. Abell, R. D'Agostino, R.K. Loo, D.S. Aaronson, K. Richert-Boe, R.I. Horwitz and S.J. Jacobsen.

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Keywords for this news article include: Pasadena, California, United States, North and Central America, Male Urogenital Diseases and Conditions, Prostatic Diseases and Conditions, Metastatic Prostate Cancer, Enzymes and Coenzymes, Prostatic Hyperplasia, Risk and Prevention, Prostatic Neoplasms, Prostate Gland, Men's Health, Reductase, Oncology, Kaiser Permanente.

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**Hematologic Diseases and Conditions - Fanconi...**

**Research Conducted at King Saud University Has Updated Our Knowledge about Fanconi Anemia (Clinical characteristics and genetic subtypes of Fanconi anemia in Saudi patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematologic Diseases and Conditions - Fanconi Anemia. According to news reporting originating from Riyadh, Saudi Arabia, by NewsRx correspondents, research stated, "We reviewed our institutional experience from 2011 to 2015 on new cases of Fanconi anemia (FA). Ten unrelated cases were diagnosed during this period."

Our news editors obtained a quote from the research from King Saud University, "Four patients with severe aplastic anemia (SAA) had c.2392C > T (p.Arg798( Star )) BRIPl/FANCI mutation. Another child with SAA had novel c.1475T > C (p.Leu492Pro) FANCC mutation. One individual with SAA and acute myeloid leukemia had c.637_643del ( p.Tyr213Lysfs( Star )6 ) FANCG mutation. Three patients presented with early onset of cancer, two had BRCA2 mutation c.7007G > A (p.Arg2336His) and one had a novel c.3425del ( p.Leu1142Tyrfs( Star )21 ) PALB2 mutation. Another infant with c.3425del PALB2 mutation had clonal aberration with partial trisomy of the long arm of chromosome 17. Mutations in FA downstream pathway genes are more frequent in our series than expected."

According to the news editors, the research concluded: "Our preliminary observation will be confirmed in a large multi-institutional study."

For more information on this research see: Clinical characteristics and genetic subtypes of Fanconi anemia in Saudi patients. *Cancer Genetics*, 2016;209(4):171-176. *Cancer Genetics* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-
Neoplasms

Research Conducted at Korea University Guro Hospital Has Updated Our Knowledge about Neoplasms (Guidelines for the management of myeloproliferative neoplasms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neoplasms. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Polycythemia vera, essential thrombocythemia, and primary myelofibrosis are collectively known as 'Philadelphia-negative classical myeloproliferative neoplasms (MPNs). The discovery of new genetic aberrations such as Janus kinase 2 (JAK2) have enhanced our understanding of the pathophysiology of MPNs. Currently, the JAK2 mutation is not only a standard criterion for diagnosis but is also a new target for drug development."

Our news editors obtained a quote from the research from Korea University Guro Hospital, "The JAK1/2 inhibitor, ruxolitinib, was the first JAK inhibitor approved for patients with intermediate-to high-risk myelofibrosis and its effects in improving symptoms and survival benefits were demonstrated by randomized controlled trials. In 2011, the Korean Society of Hematology MPN Working Party devised diagnostic and therapeutic guidelines for Korean MPN patients. Subsequently, other genetic mutations have been discovered and many kinds of new drugs are now under clinical investigation. In view of recent developments, we have revised the guidelines for the diagnosis and management of MPN based on published evidence and the experiences of the expert panel."

According to the news editors, the research concluded: "Here we describe the epidemiology, new genetic mutations, and novel therapeutic options as well as diagnostic criteria and standard treatment strategies for MPN patients in Korea."

For more information on this research see: Guidelines for the management of myeloproliferative neoplasms. The Korean Journal of Internal Medicine, 2015;30(6):771-88.

The news editors report that additional information may be obtained by contacting C.W. Choi, Division of Oncology-Hematology, Dept. of Internal Medicine, Korea University.
Research Conducted at Kyung Hee University Has Provided New Information about Keratinocytes [Protection on Skin Aging Mediated by Antiapoptosis Effects of the Water Lily (Nymphaea Tetragona Georgi) via Reactive Oxygen Species Scavenging in Human ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Keratinocytes. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "The water lily (WL) is found in Europe, Asia, and North America. WL reportedly has various pharmacological activities that improve the activities of daily life in humans."

Our news journalists obtained a quote from the research from Kyung Hee University, "To our knowledge, no previous study has investigated about the aspect of protection on skin aging due to the mitochondria-mediated antiapoptosis effects of WL rhizome extract (WLRE) on human epidermal keratinocytes. Human epidermal keratinocytes cells were treated with WLRE (100, 200, and 400 mg/ml) for 1 h and then with ultraviolet radiation B (UVB) (50 mJ/cm²) for another 23 h. The levels of lactate dehydrogenase, reactive oxygen species (ROS), MitoTracker, caspase-3, and glutathione were analyzed spectrophotometrically. Also, the levels of B-cell lymphoma 2 (Bcl-2) family proteins were determined with immunohistochemistry or western blotting. We investigated the protective effects of WLRE against UVB-induced mitochondria-mediated apoptosis. WLRE significantly and concentrations-dependently reduced UVB-induced apoptotic cytotoxicity. Furthermore, WLRE decreased ROS generation, mitochondrial dysfunction, Bcl-2-associated X protein levels, and cytochrome c release from mitochondria while increasing Bcl-2 protein levels as assessed. Moreover, WLRE inhibited caspase-3 activity and expression, indicating the inhibition of the apoptotic cascade, and induced increased levels of total glutathione, heme oxygenase 1, and radical-scavenging activity."

According to the news editors, the research concluded: "Together, these results demonstrate that WLRE can protect human epidermal keratinocytes against UVB-induced mitochondria-mediated apoptosis by regulating ROS-eliminating pathways."


The news correspondents report that additional information may be obtained from G. Park, Dept. of Life and Nanopharmaceutical Science, Graduates School and Kyung Hee East-
Research Conducted at Leiden University Has Updated Our Knowledge about Cerebral Amyloid Angiopathy (Early Magnetic Resonance Imaging and Cognitive Markers of Hereditary Cerebral Amyloid Angiopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Central Nervous System Diseases and Conditions - Cerebral Amyloid Angiopathy. According to news reporting from Leiden, Netherlands, by NewsRx journalists, research stated, "Early markers for cerebral amyloid angiopathy are largely unknown. We aimed to identify which magnetic resonance imaging (MRI) (performed at 7 and 3T) and cognitive markers are an early sign in (pre)symptomatic subjects with hereditary cerebral hemorrhage with amyloidosis-Dutch type."

The news correspondents obtained a quote from the research from Leiden University, "Twenty-seven DNA-proven Dutch-type mutation carriers (15 symptomatic and 12 presymptomatic) (mean age of 45.9 years) and 33 controls (mean age of 45.6 years) were included. 7T and 3T MRI was performed, cerebral amyloid angiopathy and small-vessel disease type MRI markers were estimated, and cognitive performance was assessed. Univariate general linear modeling analysis was used to assess the association between MRI markers and cognitive performance on the one hand and on the other, mutation status, adjusted for age, sex, and education. In symptomatic patients, all established cerebral amyloid angiopathy MRI markers (microbleeds, intracerebral hemorrhages, subarachnoid hemorrhages, superficial siderosis, microinfarcts, volume of white matter hyperintensities, and dilated perivascular spaces in centrum semiovale) were increased compared with controls (P < 0.05). In presymptomatic subjects, the prevalence of microinfarcts and median volume of white matter hyperintensities were increased in comparison to controls (P < 0.05). Symptomatic patients performed worse on all cognitive domains, whereas presymptomatic subjects did not show differences in comparison with controls (P < 0.05)."

According to the news reporters, the research concluded: "White matter hyperintensities and microinfarcts are more prevalent among presymptomatic subjects and precede cognitive and neuropsychiatric symptoms and intracerebral hemorrhages."

For more information on this research see: Early Magnetic Resonance Imaging and Cognitive Markers of Hereditary Cerebral Amyloid Angiopathy. Stroke, 2016;47(12):3041-3044. Stroke can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com;
Our news journalists report that additional information may be obtained by contacting J. van der Grond, Leiden University, Medical Center, Dept. of Radiol, Leiden 2300, Netherlands. Additional authors for this research include A.M. van Opstal, G. Labadie, G.M. Terwindt, M.J.H. Wermer, A.G. Webb, H.A.M. Middelkoop, S.M. Greenberg, J. van der Grond and M.A. van Buchem.

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Keywords for this news article include: Leiden, Netherlands, Europe, Nutritional and Metabolic Diseases and Conditions, Central Nervous System Diseases and Conditions, Intracranial Arterial Diseases and Conditions, Cerebral Arterial Diseases and Conditions, Cardiovascular Diseases and Conditions, Brain Diseases and Conditions, Cerebral Amyloid Angiopathy, Cerebrovascular Disorders, Proteostasis Deficiencies, Magnetic Resonance, Amyloidosis, Hemorrhage, Neurology, Proteins, Genetics, Leiden University.

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Drugs and Therapies - Central Nervous System Agents

Research Conducted at London Health Sciences Center Has Provided New Information about Central Nervous System Agents (Real-World, Long-Term Quality of Life Following Therapeutic OnabotulinumtoxinA Treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Central Nervous System Agents. According to news reporting from London, Canada, by NewsRx journalists, research stated, "OnabotulinumtoxinA is an efficacious treatment option for patients with various conditions. Although studies have reported on the efficacy of onabotulinumtoxinA, quality of life (QoL) data are limited."

The news correspondents obtained a quote from the research from London Health Sciences Center, "This study evaluated QoL in patients treated with onabotulinumtoxinA across various therapeutic indications. MDs on BOTOX Utility (MOBILITY) was a prospective, multicenter, observational Canadian study in patients initiating (naive) or receiving ongoing (maintenance) onabotulinumtoxinA treatment. Health utility was the primary outcome measure and was obtained from the Short Form-12 Health Survey using the Short Form-6D at baseline, week 4 posttreatment, and up to five subsequent treatment visits. The safety cohort included patients who received 1 onabotulinumtoxinA treatment. The efficacy cohort included 1062 patients; the majority were Caucasian, female, and on maintenance onabotulinumtoxinA treatment. Adult focal spasticity (n=398), blepharospasm (n=81), cerebral palsy (n=22), cervical dystonia (n=234), hemifacial spasm (n=116), and hyperhidrosis (n=211) patients were included. Baseline health utility was generally higher in maintenance versus naïve patients; however, naïve patients showed the greatest improvements over time. Health utility was generally maintained or trended toward improvement across all cohorts, including maintenance patients who had been treated for up to 22 years before study entry. Eighteen of 1222 patients (2%) in the safety cohort reported 28 treatment-related adverse events; eight were serious in four
patients. MOBILITY is the largest prospective study to date to provide QoL data over a variety of therapeutic indications following treatment with onabotulinumtoxinA."

According to the news reporters, the research concluded: "Although the QoL burden varies by disease, data suggest that long-term treatment may help improve or maintain QoL over time."

For more information on this research see: Real-World, Long-Term Quality of Life Following Therapeutic OnabotulinumtoxinA Treatment. Canadian Journal of Neurological Sciences, 2016;43(5):687-696. Canadian Journal of Neurological Sciences can be contacted at: Cambridge Univ Press, 32 Avenue Of The Americas, New York, NY 10013-2473, USA.

Our news journalists report that additional information may be obtained by contacting M. Jog, London Hlth Sci Center, London, ON, Canada. Additional authors for this research include T. Wein, M. Bhogal, S. Dhani, R. Miller, F. Ismail, R. Beauchamp and G. Trentin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/cjn.2016.262. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Ontario, Canada, North and Central America, Central Nervous System Agents, Skeletal Muscle Relaxants, Drugs and Therapies, Onabotulinumtoxina, Quality of Life, Therapy, London Health Sciences Center.

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Oncology - Breast Cancer

Research Conducted at Ludwig-Maximilians-University Has Updated Our Knowledge about Breast Cancer (Metastatic mammary carcinoma despite histologically negative sentinel lymph nodes: are there any indicators for estimating recurrence and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting originating from Munich, Germany, by NewsRx correspondents, research stated, "This study aimed to identify indicators for an increased frequency of recurrent or metastatic disease in women with mammary carcinoma staged negative for nodal involvement. 202/270 patients (age: mean 57.5, range 24-83 years) with histologically confirmed early stage mammary carcinoma negative for metastasis to the sentinel lymph nodes (SLN) were observed with respect to their clinical course for a mean period of 3.6 years following SLN extirpation."

Our news editors obtained a quote from the research from Ludwig-Maximilians-University, "Forty of 202 patients with negative SLN underwent chemotherapy (38/188 in the recurrence-free group vs. 2/14 in the group with progressive disease) and 79% of both subcollectives did not undergo chemotherapy. Seven of 188 of patients in the recurrence-free group received immunotherapy and none of the patients in the group with disease progression were treated with this modality. One hundred sixty-two of 202 patients with negative SLN underwent hormone therapy, 157/188 in the recurrence-free group and 5/14 in the group with disease progression. One hundred sixty-four of 202 patients with negative nodal status received adjuvant radiation therapy of the affected breast, 156/188 in the recurrence-free group and 8/14
in the group with disease progression. When assessing the risk profile for disease recurrence or the occurrence of metastatic disease, statistically significant differences with respect to disease progression were identified for the parameters chemo-, antibody, hormone, and radiation therapy."

According to the news editors, the research concluded: "The preliminary observations of this study show that even those patients in an early disease stage and with negative SLNs profit from these adjuvant non-surgical therapy options."

For more information on this research see: Metastatic mammary carcinoma despite histologically negative sentinel lymph nodes: are there any indicators for estimating recurrence and metastasis rates? European Journal of Gynaecological Oncology, 2016;37(6):820-826. European Journal of Gynaecological Oncology can be contacted at: IROG Canada, Inc, 4900 Cote St-Luc, Apt#212, Montreal, Quebec H3W 2H3, Canada.

The news editors report that additional information may be obtained by contacting M. Weiss, Ludwig Maximilian Univ Munich, Dept. of Nucl Med, Munich, Germany. Additional authors for this research include S. Siegert, P. Bartenstein and A. Rominger.

Keywords for this news article include: Munich, Germany, Europe, Hemic and Immune Systems, Pathologic Processes, Disease Progression, Disease Attributes, Lymphoid Tissue, Women's Health, Breast Cancer, Lymph Nodes, Immunology, Carcinomas, Hormones, Oncology, Therapy, Ludwig-Maximilians-University.

Our news journalists obtained a quote from the research from the Malaghan Institute of Medical Research, "However, and rather unexpectedly, recent research has demonstrated horizontal cell-to-cell transfer of mitochondria and mitochondrial DNA in several mammalian cell culture systems. Furthermore, unequivocal evidence that mitochondrial DNA transfer occurs in vivo has now been published."

According to the news editors, the research concluded: "While these studies show horizontal transfer of mitochondrial DNA in pathological settings, it is also possible that intercellular mitochondrial transfer is a fundamental physiological process with a role in development and tissue homeostasis."

Our news journalists report that additional information may be obtained by contacting M.V. Berridge, Malaghan Inst Med Res, Canc Cell & Mol Biol Grp, Wellington 6012, New Zealand. Additional authors for this research include M.J. McConnell, C. Grasso, M. Bajzikova, J. Kovarova and J. Neuzil.

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Keywords for this news article include: Wellington, New Zealand, Australia and New Zealand, Cytoplasm, Genetics, Genetics, Subcellular Fractions, Cellular Structures, Intracellular Space, Mitochondria, Organelles, Malaghan Institute of Medical Research.

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Heart Disorders and Diseases - Myocarditis

**Research Conducted at Mayo Clinic Has Provided New Information about Myocarditis (The Quest for New Approaches in Myocarditis and Inflammatory Cardiomyopathy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Myocarditis have been published. According to news reporting out of Jacksonville, Florida, by NewsRx editors, research stated, "Myocarditis is a diverse group of heart-specific immune processes classified by clinical and histopathological manifestations. Up to 40% of dilated cardiomyopathy is associated with inflammation or viral infection."

Our news journalists obtained a quote from the research from Mayo Clinic, "Recent experimental studies revealed complex regulatory roles for several microribonucleic acids and T-cell and macrophage subtypes. Although the prevalence of myocarditis remained stable between 1990 and 2013 at about 22 per 100,000 people, overall mortality from cardiomyopathy and myocarditis has decreased since 2005. The diagnostic and prognostic value of cardiac magnetic resonance has increased with new, higher-sensitivity sequences. Positron emission tomography has emerged as a useful tool for diagnosis of cardiac sarcoidosis. The sensitivity of endomyocardial biopsy may be increased, especially in suspected sarcoidosis, by the use of electrogram guidance to target regions of abnormal signal. Investigational treatments on the basis of mechanistic advances are entering clinical trials."

According to the news editors, the research concluded: "Revised management recommendations regarding athletic participation after acute myocarditis have heightened the importance of early diagnosis."

For more information on this research see: The Quest for New Approaches in Myocarditis and Inflammatory Cardiomyopathy. *Journal of the American College of Cardiology*, 2016;68(21):2348-2364. *Journal of the American College of Cardiology* can be
Research Conducted at Nantong University Has Provided New Information about Plasma (Diagnostic accuracy of peripheral blood Kisspeptin mRNA and plasma CA125 protein for detection of epithelial ovarian cancer in patients who have ever been ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematology - Plasma. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "To evaluate the diagnostic accuracy of peripheral blood kisspeptin (KISS1) mRNA and plasma cancer antigen 125 (CA125) protein of epithelial ovarian cancer (EOC) in previously pregnant patients, we prospectively enrolled 40 EOC patients as cases and 20 uterine fibroids patients with normal ovary as controls. Levels of peripheral blood KISS1 mRNA and plasma CA125 protein was respectively measured by RT-PCR and electrochemiluminescent method, respectively."

Our news journalists obtained a quote from the research from Nantong University, "Receiver operating characteristic curves with area under curve (AUC) were used to evaluate the diagnostic accuracy. Logistic regression analysis was used to obtain a prediction model for combined diagnosis of KISS1 mRNA and CA125 protein. Both KISS1 mRNA and CA125 protein and had good diagnostic accuracy for EOC, early EOC and advanced EOC (AUC > 0.5, P< 0.05). The CA125 protein had higher diagnostic accuracy than KISS1 mRNA for advanced EOC (P = 0.0009). Moreover, the combination of KISS1 mRNA and CA125 protein had higher diagnostic accuracy for EOC than them alone (P < 0.05). However, this combined diagnosis was more effective than KISS1 mRNA alone for the diagnosis of advanced EOC (P = 0.0001), but similar with CA125 protein alone (P = 0.3125). In addition, there was similar diagnostic accuracy among KISS1 mRNA, CA125 protein and prediction model for early EOC (P > 0.05). Peripheral blood KISS1 mRNA was a novel biomarker for detecting EOC in previously pregnant patients."

According to the news editors, the research concluded: "Combination application of KISS1 mRNA and CA125 protein was recommended for the diagnosis of EOC, but not for advanced and early EOC."

For more information on this research see: Diagnostic accuracy of peripheral blood Kisspeptin mRNA and plasma CA125 protein for detection of epithelial ovarian cancer in patients who have ever been pregnant. Neoplasma, 2016;63(6):999-1006. Neoplasma can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

Our news journalists report that additional information may be obtained by
Research Conducted at National Taiwan University Hospital and School of Medicine Has Updated Our Knowledge about Hepatitis C Virus (A phase 3b study of sofosbuvir plus ribavirin in Taiwanese patients with chronic genotype 2 hepatitis C virus ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Hepatitis C Virus. According to news reporting out of Taipei, Taiwan, by NewsRx editors, research stated, "In Taiwan, patients with chronic hepatitis C virus (HCV) infection are currently treated with pegylated interferon-alpha plus ribavirin, but interferon-based regimens can be poorly tolerated, especially by those with advanced liver disease and the elderly. Sofosbuvir, an oral nucleotide analogue inhibitor of HCV NS5B polymerase, is approved in Europe, the USA and Japan for treating chronic HCV infection."

Financial support for this research came from Gilead Sciences.

Our news journalists obtained a quote from the research from the National Taiwan University Hospital and School of Medicine, "This phase 3b study examined the efficacy and safety of sofosbuvir plus ribavirin in Taiwanese patients with chronic genotype 2 HCV infection ? compensated cirrhosis. In this multicentre, open-label, phase 3b (NCT02021643) study, 87 patients (n=43, treatment-naive; n=44, treatment-experienced) received 12 weeks of treatment with sofosbuvir plus weight-based ribavirin. The primary efficacy endpoint was the proportion of patients with sustained virological response 12 weeks after treatment discontinuation (SVR12). Safety and pharmacokinetic data were also collected. All 87 patients (100%; 95% confidence interval, 92-100%) achieved SVR12, including the 13 patients with compensated cirrhosis. The most common treatment-emergent adverse events (AEs) were insomnia (16%, 14/87) and upper respiratory tract infection (16%, 14/87). No grade 3 or grade 4 AE was reported. There was one serious AE (biliary colic), which was deemed unrelated to study treatment. Laboratory abnormalities other than ribavirin-related reductions in haemoglobin were uncommon."

According to the news editors, the research concluded: "The results from this phase 3b study demonstrate that 12 weeks of treatment with the interferon-free regimen sofosbuvir plus ribavirin is effective and well tolerated in both treatment-naive and treatment-experienced Taiwanese patients with chronic genotype 2 HCV infection."

For more information on this research see: A phase 3b study of sofosbuvir plus

Our news journalists report that additional information may be obtained by contacting J.H. Kao, National Taiwan University College of Medicine and Hospital, Taipei, Taiwan. Additional authors for this research include R.N. Chien, T.T. Chang, C.Y. Peng, T.H. Hu, G.H. Lo, H.Y. Wang, J.J. Chen, J.C. Yang, S.J. Knox, L. Han, H. Mo, A. Mathias, D.M. Brainard, I.S. Sheen, Y.C. Hsu, C.J. Chu and W.L. Chuang.

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Publisher contact information for the journal *Liver International* is: Blackwell Munksgaard, 35 Norre Sogade, PO Box 2148, DK-1016 Copenhagen, Denmark.

Keywords for this news article include: HCV, Asia, Antiretrovirals, Antivirals, Taipei, Taiwan, Genetics, Virology, Cytokines, Ribavirin, Hepatology, Interferons, Gastroenterology, Hepatitis C Virus, Influenza Therapy, Purine Nucleosides, Respiratory Agents, Drugs and Therapies, Inhaled Antiinfectives, Liver Diseases and Conditions, Respiratory Inhalant Products.

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**Oncology - Ewing Sarcoma**

**Research Conducted at Nemours Has Provided New Information about Ewing Sarcoma (Vorinostat Enhances Cytotoxicity of SN-38 and Temozolomide in Ewing Sarcoma Cells and Activates STAT3/AKT/MAPK Pathways)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Ewing Sarcoma have been published. According to news reporting from Wilmington, Delaware, by NewsRx journalists, research stated, "Histone deacetylase inhibitors (HDACi) have been evaluated in patients with Ewing sarcoma (EWS) but demonstrated limited activity. To better understand the potential for HDACi in EWS, we evaluated the combination of the HDACi vorinostat, with DNA damaging agents SN-38 (the active metabolite of irinotecan and topoisomerase 1 inhibitor) plus the alkylating agent temozolomide (ST)."

The news correspondents obtained a quote from the research from Nemours, "Drugs were evaluated in sequential and simultaneous combinations in two EWS cell lines. Results demonstrate that cell viability, DNA damage and reactive oxygen species (ROS) production are dependent on the sequence of drug administration. Enhanced cytotoxicity is exhibited in vitro in EWS cell lines treated with ST administered before vorinostat, which was modestly higher than concomitant treatment and superior to vorinostat administered before ST. Drug combinations downregulate cyclin D1 to induce G0/G1 arrest and promote apoptosis by cleavage of caspase-3 and PARP. When ST is administered before or concomitantly with vorinostat there is activation of STAT3, MAPK and the p53 pathway. In contrast, when vorinostat is administered before ST,
there is DNA repair, increased AKT phosphorylation and reduced H2B acetylation. Inhibition of AKT using the small molecule inhibitor MK-2206 did not restore H2B acetylation. Combining ST with the dual ALK and IGF-1R inhibitor, AZD3463 simultaneously inhibited STAT3 and AKT to enhance the cytotoxic effects of ST and further reduce cell growth suggesting that STAT3 and AKT activation were in part mediated by ALK and IGF-1R signaling. In summary, potent antiproliferative and proapoptotic activity were demonstrated for ST induced DNA damage before or simultaneous with HDAC inhibition and cell death was mediated through the p53 pathway."

According to the news reporters, the research concluded: "These observations may aid in designing new protocols for treating pediatric patients with high-risk EWS."


Our news journalists report that additional information may be obtained by contacting V.B. Sampson, Nemours Center for Cancer and Blood Disorders, Nemours, AI duPont Hospital for Children, Wilmington, Delaware, United States. Additional authors for this research include N.S. Vetter, D.F. Kamara, A.B. Collier, R.C. Gresh and E.A Kolb.

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Keywords for this news article include: Antineoplastics, Pharmaceuticals, Delaware, Genetics, Oncology, p53 Gene, Wilmington, Vorinostat, United States, Ewing Sarcoma, Alkylating Agents, Drugs and Therapies, Temozolomide Therapy, North and Central America, Histone Deacetylase Inhibitors.

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Oncology - Glioblastomas

Research Conducted at Neurological Institute Has Provided New Information about Glioblastomas (Phenethyl isothiocyanate alters the gene expression and the levels of protein associated with cell cycle regulation in human glioblastoma GBM 8401 ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Glioblastomas. According to news reporting out of Taichung, Taiwan, by NewsRx editors, research stated, "Glioblastoma is the most common and aggressive primary brain malignancy. Phenethyl isothiocyanate (PEITC), a member of the isothiocyanate family, can induce apoptosis in many human cancer cells."

Financial support for this research came from Taichung Veterans General Hospital, Taichung, Taiwan.

Our news journalists obtained a quote from the research from Neurological Institute, "Our previous study disclosed that PEITC induces apoptosis through the extrinsic pathway, dysfunction of mitochondria, reactive oxygen species (ROS)-induced endoplasmic reticulum (ER) stress, and intrinsic (mitochondrial) pathway in human brain glioblastoma multiforme (GBM) 8401 cells. To the best of our knowledge, we first investigated the effects of PEITC on
the genetic levels of GBM 8401 cells in vitro. PEITC may induce G0/G1 cell-cycle arrest through affecting the proteins such as cdk2, cyclin E, and p21 in GBM 8401 cells. Many genes associated with cell-cycle regulation of GBM 8401 cells were changed after PEITC treatment: 48 genes were upregulated and 118 were downregulated. The cell-division cycle protein 20 (CDC20), Budding uninhibited by benzimidazole 1 homolog beta (BUB1B), and cyclin B1 were downregulated, and clusterin was upregulated in GBM 8401 cells treated with PEITC."

According to the news editors, the research concluded: "These changes of gene expression can provide the effects of PEITC on the genetic levels and potential biomarkers for glioblastoma. ? 2015 Wiley Periodicals, Inc. Environ Toxicol 32:176-187,."


Our news journalists report that additional information may be obtained by contacting Y.C. Chou, Division of Neurosurgical Oncology, Neurological Institute, Taichung Veterans General Hospital, Taichung, 407, Taiwan. Additional authors for this research include M.Y. Chang, M.J. Wang, H.C. Liu, S.J. Chang, T. Harnod, C.H. Hung, H.T. Lee, C.C. Shen and J.G Chung.

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Keywords for this news article include: Asia, Taiwan, Taichung, Genetics, Oncology, Isocyanates, Glioblastomas, Isothiocyanates, Sulfur Compounds.

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Nervous System Diseases and Conditions --

Research Conducted at New York University Has Provided New Information about Headache and Migraine [How Well Does the ICHD 3 (Beta) Help in Real-Life Migraine Diagnosis and Management?]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nervous System Diseases and Conditions - Headache and Migraine have been published. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Classification has played a major role in the diagnosis of primary headache conditions including migraine with and without aura. With many updates and changes, the International Classification of Headache Disorders (ICHD)-3 beta is currently considered as the gold standard for classification of migraine and other headaches."

Our news editors obtained a quote from the research from New York University, "Correct diagnosis of migraine and its subtypes is a first step toward appropriate treatment and crucial to minimizing disability and optimizing health-related quality of life. The ICHD-3 beta version represents the state of the art in migraine diagnosis but is expected to evolve as biological knowledge advances."

According to the news editors, the research concluded: "Future research should focus
Research Conducted at Northwestern University Feinberg School of Medicine Has Updated Our Knowledge about Atrial Fibrillation (Simulation of Daily Snapshot Rhythm Monitoring to Identify Atrial Fibrillation in Continuously Monitored Patients ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "New technologies are diffusing into medical practice swiftly. Hand-held devices such as smartphones can record short-duration (e.g., 1-minute) ECGs, but their effectiveness in identifying patients with paroxysmal atrial fibrillation (AF) is unknown."

Our news journalists obtained a quote from the research from the Northwestern University Feinberg School of Medicine, "We used data from the TRENDS study, which included 370 patients (mean age 71 years, 71% men. CHADS2 score (≥)1 point: mean 2.3 points) who had no documentation of atrial tachycardia (AT)/AF or antiarrhythmic or anticoagulant drug use at baseline. All were subsequently newly diagnosed with AT/AF by a cardiac implantable electronic device (CIED) over one year of follow-up. Using a computer simulation approach (5,000 repetitions), we estimated the detection rate for paroxysmal AT/AF via daily snapshot ECG monitoring over various periods, with the probability of detection equal to the percent AT/AF burden on each day. The estimated AT/AF detection rates with snapshot monitoring periods of 14, 28, 56, 112, and 365 days were 10%, 15%, 21%, 28%, and 50% respectively. The detection rate over 365 days of monitoring was higher in those with CHADS2 scores (≥)2 than in those with CHADS2 scores of 1 (53% vs. 38%), and was higher in those with AT/AF burden (≥)0.044 hours/day compared to those with AT/AF burden <0.044 hours/day (91% vs. 14%; both p<0.05). Daily snapshot ECG monitoring over 365 days detects half of patients who developed AT/AF as detected by CIED, and shorter intervals of monitoring detected fewer AT/AF patients."
According to the news editors, the research concluded: "The detection rate was associated with individual CHADS2 score and AT/AF burden."


Our news journalists report that additional information may be obtained by contacting Y. Yano, Dept. of Preventive Medicine, Northwestern University Feinberg School of Medicine, Chicago, Illinois, United States. Additional authors for this research include P. Greenland, D.M. Lloyd-Jones, E.G. Daoud, J.L. Koehler and P.D Ziegler.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0148914. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stroke, Chicago, Illinois, United States, Heart Disease, Atrial Fibrillation, Cardiac Arrhythmias, Risk and Prevention, North and Central America, Heart Disorders and Diseases.

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**Mycobacterium Infections - Tuberculosis**

**Research Conducted at Norwegian Institute of Public Health Has Provided New Information about Tuberculosis (Armed conflict and population displacement as drivers of the evolution and dispersal of Mycobacterium tuberculosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mycobacterium Infections - Tuberculosis are presented in a new report. According to news originating from Oslo, Norway, by NewsRx correspondents, research stated, "The 'Beijing' Mycobacterium tuberculosis (MtB) lineage 2 (L2) is spreading globally and has been associated with accelerated disease progression and increased antibiotic resistance. Here we performed a phylodynamic reconstruction of one of the L2 sublineages, the central Asian clade (CAC), which has recently spread to western Europe."

Our news journalists obtained a quote from the research from the Norwegian Institute of Public Health, "We find that recent historical events have contributed to the evolution and dispersal of the CAC. Our timing estimates indicate that the clade was likely introduced to Afghanistan during the 1979-1989 Soviet-Afghan war and spread further after population displacement in the wake of the American invasion in 2001. We also find that drug resistance mutations accumulated on a massive scale in MtB isolates from former Soviet republics after the fall of the Soviet Union, a pattern that was not observed in CAC isolates from Afghanistan."

According to the news editors, the research concluded: "Our results underscore the detrimental effects of political instability and population displacement on tuberculosis control and demonstrate the power of phylodynamic methods in exploring bacterial evolution in space and time."

For more information on this research see: Armed conflict and population displacement as drivers of the evolution and dispersal of Mycobacterium tuberculosis.


Keywords for this news article include: Oslo, Norway, Europe, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Gram-Positive Rods, Mycobacteriaceae, Actinobacteria, Genetics, Norwegian Institute of Public Health.

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Eye Diseases and Conditions - Retinitis Pigmentosa

Research Conducted at Oregon Health and Science University Has Provided New Information about Retinitis Pigmentosa (Structure-Function Modeling of Optical Coherence Tomography and Standard Automated Perimetry in the Retina of Patients with ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Eye Diseases and Conditions - Retinitis Pigmentosa have been published. According to news reporting out of Portland, Oregon, by NewsRx editors, research stated, "To assess relationships between structural and functional biomarkers, including new topographic measures of visual field sensitivity, in patients with autosomal dominant retinitis pigmentosa. Spectral domain optical coherence tomography line scans and hill of vision (HOV) sensitivity surfaces from full-field standard automated perimetry were semi-automatically aligned for 60 eyes of 35 patients."

Our news journalists obtained a quote from the research from Oregon Health and Science University, "Structural biomarkers were extracted from outer retina b-scans along horizontal and vertical midlines. Functional biomarkers were extracted from local sensitivity profiles along the b-scans and from the full visual field. These included topographic measures of functional transition such as the contour of most rapid sensitivity decline around the HOV, herein called HOV slope for convenience. Biomarker relationships were assessed pairwise by coefficients of determination (R2) from mixed-effects analysis with automatic model selection. Structure-function relationships were accurately modeled (conditional R(2) >0.8 in most cases). The best-fit relationship models and correlation patterns for horizontally oriented biomarkers were different than vertically oriented ones. The structural biomarker with the largest number of significant functional correlates was the ellipsoid zone (EZ) width, followed by the total photoreceptor layer thickness. The strongest correlation observed was between EZ width and HOV slope distance (marginal R(2)=0.85, p<10(-10)). The mean sensitivity defect at the EZ
edge was 7.6 dB. Among all functional biomarkers, the HOV slope mean value, HOV slope mean distance, and maximum sensitivity along the b-scan had the largest number of significant structural correlates. Topographic slope metrics show promise as functional biomarkers relevant to the transition zone."

According to the news editors, the research concluded: "EZ width is strongly associated with the location of most rapid HOV decline."


Our news journalists report that additional information may be obtained by contacting T.B. Smith, Casey Eye Institute, Oregon Health & Science University, Portland, Oregon, United States. Additional authors for this research include M. Parker, P.N. Steinkamp, R.G. Weleber, N. Smith and D.J Wilson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0148022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oregon, Portland, Genetics, United States, Imaging Technology, Retinal Degeneration, Retinitis Pigmentosa, North and Central America, Diagnostics and Screening, Optical Coherence Tomography, Retinal Diseases and Conditions, Hereditary Eye Diseases and Conditions.

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Life Science Research - Botany

Research Conducted at Osaka Prefecture University Has Provided New Information about Botany (Diversification of sterol methyltransferase enzymes in plants and a role for b-sitosterol in oriented cell plate formation and polarized growth)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Botany.

According to news reporting out of Sakai, Japan, by NewsRx editors, research stated, "Phytosterols are classified into C24-ethylsterols and C24-methylsterols according to the different C24-alkylation levels conferred by two types of sterol methyltransferases (SMTs). The first type of SMT (SMT1) is widely conserved, whereas the second type (SMT2) has diverged in charophytes and land plants."

Financial support for this research came from Grants-in-Aid for Scientific Research. Our news journalists obtained a quote from the research from Osaka Prefecture University, "The Arabidopsis smt2 smt3 mutant is defective in the SMT2 step, leading to deficiency in C24-ethylsterols while the C24-methylsterol pathway is unchanged. smt2 smt3 plants exhibit severe dwarfism and abnormal development throughout their life cycle, with irregular cell division followed by collapsed cell files. Preprophase bands are occasionally formed in perpendicular directions in adjacent cells, and abnormal phragmoplasts with mislocalized KNOLLE syntaxin and tubulin are observed. Defects in auxin-dependent processes are exemplified by mislocalizations of the PIN2 auxin efflux carrier due to disrupted cell
division and failure to distribute PIN2 asymmetrically after cytokinesis. Although endocytosis of PIN2-GFP from the plasma membrane (PM) is apparently unaffected in smt2 smt3, strong inhibition of the endocytic recycling is associated with a remarkable reduction in the level of PIN2-GFP on the PM. Aberrant localization of the cytoplasmic linker associated protein (CLASP) and microtubules is implicated in the disrupted endocytic recycling in smt2 smt3. Exogenous C24-ethylsterols partially recover lateral root development and auxin distribution in smt2 smt3 roots. These results indicate that C24-ethylsterols play a crucial role in division plane determination, directional auxin transport, and polar growth."

According to the news editors, the research concluded: "It is proposed that the divergence of SMT2 genes together with the ability to produce C24-ethylsterols were critical events to achieve polarized growth in the plant lineage."

For more information on this research see: Diversification of sterol methyltransferase enzymes in plants and a role for \(\beta\)-sitosterol in oriented cell plate formation and polarized growth. *The Plant Journal*, 2015;84(5):860-74.

Our news journalists report that additional information may be obtained by contacting M. Nakamoto, Graduate School of Life and Environmental Sciences, Osaka Prefecture University, 599-8531, Sakai, Japan. Additional authors for this research include A.C. Schmit, D. Heintz, H. Schaller and D. Ohta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tpj.13043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Sakai, Japan, Botany, Genetics, Methyltransferases, Enzymes and Coenzymes, Life Science Research.

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Drugs and Therapies - Antiinfectives

**Research Conducted at Pasteur Institute Has Provided New Information about Antiinfectives (Antileishmanial Mechanism of Diamidines Involves Targeting Kinetoplasts)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antiinfectives is now available. According to news reporting originating in Gyeonggi Do, South Korea, by NewsRx journalists, research stated, "Leishmaniasis is a disease caused by pathogenic Leishmania parasites; current treatments are toxic and expensive, and drug resistance has emerged. While pentamidine, a diamidine-type compound, is one of the treatments, its antileishmanial mechanism of action has not been investigated in depth."

Financial support for this research came from National Research Foundation of Korea (NRF).

The news reporters obtained a quote from the research from Pasteur Institute, "Here we tested several diamidines, including pentamidine and its analog DB75, against Leishmania donovani and elucidated their antileishmanial mechanisms. We identified three promising new antileishmanial diamidine compounds with 50% effective concentrations (EC(50)s) of 3.2, 3.4, and 4.5 \(\mu\)M, while pentamidine and DB75 exhibited EC(50)s of 1.46 and 20 \(\mu\)M, respectively. The most potent antileishmanial inhibitor, compound 1, showed strong DNA
binding properties, with a shift in the melting temperature (Delta T-m) of 24.2 degrees C, whereas pentamidine had a Delta T-m value of 2.1 degrees C, and DB75 had a Delta T-m value of 7.7 degrees C. Additionally, DB75 localized in L. donovani kinetoplast DNA (kDNA) and mitochondria but not in nuclear DNA (nDNA). For 2 new diamidines, strong localization signals were observed in kDNA at 1 mu M, and at higher concentrations, the signals also appeared in nuclei. All tested diamidines showed selective and dose-dependent inhibition of kDNA, but not nDNA, replication, likely by inhibiting L. donovani topoisomerase IB."

According to the news reporters, the research concluded: "Overall, these results suggest that diamidine antileishmanial compounds exert activity by accumulating toward and blocking replication of parasite kDNA."

For more information on this research see: Antileishmanial Mechanism of Diamidines Involves Targeting Kinetoplasts. Antimicrobial Agents and Chemotherapy, 2016;60 (11):6828-6836. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting J.H. No, Inst Pasteur Korea, Leishmania Res Lab, Seongnam Si, Gyeonggi Do, South Korea. Additional authors for this research include G. Choi and J.H. No.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01129-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gyeonggi Do, South Korea, Asia, Respiratory Inhalant Products, Inhaled Antiinfectives, Drugs and Therapies, Respiratory Agents, Benzamidines, Pentamidine, Antibiotics, Pasteur Institute.

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Research Conducted at Pfizer Has Provided New Information about Type 2 Diabetes (Benefits and challenges of a QSP approach through case study: Evaluation of a hypothetical GLP-1/GIP dual agonist therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting originating in Cambridge, Massachusetts, by NewsRx journalists, research stated, "Quantitative Systems Pharmacology (QSP) is an emerging science with increasing application to pharmaceutical research and development paradigms."

The news reporters obtained a quote from the research from Pfizer, "Through case study we provide an overview of the benefits and challenges of applying QSP approaches to inform program decisions in the early stages of drug discovery and development."

According to the news reporters, the research concluded: "Specifically, we describe the use of a type 2 diabetes systems model to inform a No-Go decision prior to lead development for a potential GLP-1/GIP dual agonist program, enabling prioritization of..."
exploratory programs with higher probability of clinical success."


Our news correspondents report that additional information may be obtained by contacting C.J. Musante, Pfizer Worldwide Res & Dev, Cardiovasc & Metab Dis Res Unit, Cambridge, MA 02139, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejps.2016.05.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Risk and Prevention, Type 2 Diabetes, Therapy, Pfizer.

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Drugs and Therapies - Drug Resistance

Research Conducted at Pusan National University Has Provided New Information about Drug Resistance (Autotaxin Regulates Maintenance of Ovarian Cancer Stem Cells through Lysophosphatidic Acid-Mediated Autocrine Mechanism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Drug Resistance. According to news originating from Yangsan, South Korea, by NewsRx correspondents, research stated, "Ovarian cancer shows high mortality due to development of resistance to chemotherapy and relapse. Cancer stem cells (CSCs) have been suggested to be a major contributor in developing drug resistance and relapse in ovarian cancer."

Our news journalists obtained a quote from the research from Pusan National University, "In this study, we isolated CSCs through sphere culture of A2780, SKOV3, OVCAR3 epithelial ovarian cancer cells and primary ovarian cancer cells from patients. We identified heat-stable factors secreted from ovarian CSCs stimulated migration and proliferation of CSCs. Mass spectrometry and ELISA analysis revealed that lysophosphatidic acid (LPA) was significantly elevated in CSC culture media compared with non-CSC culture media. Treatment of CSCs with LPA resulted in augmented CSC characteristics such as sphere-forming ability, resistance to anticancer drugs, tumorigenic potential in xenograft transplantation, and high expression of CSC-associated genes, including OCT4, SOX2, and aldehyde dehydrogenase 1. Treatment of CSCs with LPA receptor 1-specific inhibitors or silencing of LPA receptor 1 expression abrogated the LPA-stimulated CSC properties. Autotaxin, an LPA-producing enzyme, is highly secreted from ovarian CSCs, and pharmacological inhibition or knockdown of autotaxin markedly attenuated the LPA-producing, tumorigenic, and drug resistance potentials of CSCs. Clinicopathological analysis showed a significant survival disadvantage of patients with positive staining of autotaxin. In addition, we further identified that AKT1 activity was
upregulated in ovarian CSCs through an LPA-dependent mechanism and silencing of AKT1 expression led to suppression of CSC characteristics."

According to the news editors, the research concluded: "These results suggest that autotaxin-LPA-LPA receptor 1-AKT1 signaling axis is critical for maintaining CSC characteristics through an autocrine loop and provide a novel therapeutic target for ovarian CSCs."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2279. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Yangsan, Genetics, Oncology, South Korea, Drug Resistance, Stem Cell Research, Drugs and Therapies. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

*Kidney Diseases and Conditions - Gitelman Syndrome*

**Research Conducted at Radboud University Has Provided New Information about Gitelman Syndrome (Functionomics of NCC mutations in Gitelman syndrome using a novel mammalian cell-based activity assay)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Kidney Diseases and Conditions - Gitelman Syndrome have been published. According to news reporting originating in Nijmegen, Netherlands, by NewsRx journalists, research stated, "Gitelman syndrome (GS) is an autosomal recessive salt-wasting tubular disorder resulting from loss-of-function mutations in the thiazide-sensitive NaCl cotransporter (NCC). Functional analysis of these mutations has been limited to the use of Xenopus laevis oocytes."

The news reporters obtained a quote from the research from Radboud University, "The aim of the present study was, therefore, to analyze the functional consequences of NCC mutations in a mammalian cell-based assay, followed by analysis of mutated NCC protein expression as well as glycosylation and phosphorylation profiles using human embryonic kidney (HEK) 293 cells. NCC activity was assessed with a novel assay based on thiazide-sensitive iodide uptake in HEK293 cells expressing wild-type or mutant NCC (N59I, R83W, I360T, C421Y, G463R, G731R, L859P, or R861C). All mutations caused a significantly lower NCC activity. Immunoblot analysis of the HEK293 cells revealed that 1) all NCC mutants have decreased NCC protein expression; 2) mutant N59I, R83W, I360T, C421Y, G463R, and L859P have decreased NCC abundance at the plasma membrane; 3) mutants C421Y and L859P display
impaired NCC glycosylation; and 4) mutants N59I, R83W, C421Y, C731R, and L859P show affected NCC phosphorylation."

According to the news reporters, the research concluded: "We developed a mammalian cell-based assay in which NCC activity assessment together with a profiling of mutated protein processing aid our understanding of the pathogenic mechanism of the NCC mutations."


Our news correspondents report that additional information may be obtained by contacting R.J.M. Bindels, Radboud University, Medical Center, Radboud Inst Mol Life Sci, Dept. of Physiol, Nijmegen, Netherlands. Additional authors for this research include R. Vargas-Poussou, S. Verkaart, O.A.Z. Tutakhel, A. Valdez-Ortiz, A. Blanchard, C. Treard, J.G.J. Hoenderop, R.J.M. Bindels and S. Jelen.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Nutritional and Metabolic Diseases and Conditions, Inborn Errors Renal Tubular Transport, Kidney Diseases and Conditions, Protein Expression, Gitelman Syndrome, Proteomics, Genetics, Radboud University.

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**Radiology - Neuroradiology**

**Research Conducted at School of Medicine Has Provided New Information about Neuroradiology (Safety and efficacy of antiplatelet response assay and drug adjustment in coil embolization: a propensity score analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Radiology - Neuroradiology have been presented. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "The purpose of this study was to explore the safety and efficacy of an antiplatelet response assay and drug adjustment to prevent delayed thromboembolic events after stent-assisted coil embolization. A total of 370 patients were enrolled in this study between December 2005 and July 2014."

Our news editors obtained a quote from the research from the School of Medicine, "Of these, 124 patients were placed into the drug resistance test (DRT) group with drug adjustment according to response to an antiplatelet agent, and 246 patients comprised the control group with a standard antiplatelet regimen. The response to the antiplatelet agent was evaluated with the VerifyNow Rapid Platelet Function Assay. Propensity score matching analysis was performed with one-to-multiple matching. Among 370 patients, delayed thromboembolic events occurred in 28 (7.6 %) patients including 25 (10.2 %) in the control group and three (2.4 %) in the DRT group. Antiplatelet response test (p = 0.012), diabetes mellitus (DM) (p = 0.014), and hypertension (HTN) (p < 0.001) were associated with delayed infarction in multivariate analysis. In propensity score matching analysis, 331 patients were
matched (control group (n = 229) vs. DRT group (n = 103)), and antiplatelet response (hazard ratio 0.247, 95% confidence interval 0.070-0.868, p = 0.029) was correlated with delayed infarction. Conversely, the two groups were not significantly different with regard to total (p = 0.368) or major hemorrhagic complications (p = 0.108)."

According to the news editors, the research concluded: "Antiplatelet drug adjustment according to the results of an antiplatelet response assay might be associated with a decreased risk of delayed thromboembolic infarction compared with the standard antiplatelet regimen."


The news editors report that additional information may be obtained by contacting S.C. Hong, Sungkyunkwan University Dept. of Neurosurg, Samsung Med Center, Sch Med, Seoul 135710, South Korea. Additional authors for this research include K.I. Jo, J.Y. Yeon, J.S. Kim, K.H. Kim, P. Jeon and S.C. Hong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00234-016-1742-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Neuroradiology, Radiology, Angiology, Drugs and Therapies, Embolization, School of Medicine.

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Cardiovascular Diseases and Conditions - ...

Research Conducted at School of Medicine Has Updated Our Knowledge about Hypertension (An augmented CO2 chemoreflex and overactive orexin system are linked with hypertension in young and adult spontaneously hypertensive rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news originating from Lebanon, New Hampshire, by NewsRx correspondents, research stated, "Activation of central chemoreceptors by CO2 increases arterial blood pressure (ABP), sympathetic nerve activity and breathing. In spontaneously hypertensive rats (SHRs), high ABP is associated with enhanced sympathetic nerve activity and peripheral chemoreflexes."

Our news journalists obtained a quote from the research from the School of Medicine, "We hypothesized that an augmented CO2 chemoreflex and overactive orexin system are linked with high ABP in both young (postnatal day 30-58) and adult SHRs (4-6 months). Our main findings are as follows. (i) An augmented CO2 chemoreflex and higher ABP in SHRs are measureable at a young age and increase in adulthood. In wakefulness, the ventilatory response to normoxic hypercapnia is higher in young SHRs (mean +/- SEM: 179 +/- 11% increase) than in age-matched normotensive Wistar-Kyoto rats (114 +/- 9% increase), but lower than in adult SHRs (226 +/- 10% increase; P < 0.05). The resting ABP is higher in young SHRs (122 +/- 5 mmHg) than in age-matched Wistar-Kyoto rats (99 +/- 5 mmHg), but lower than in
adult SHRs (152 +/- 4 mmHg; P< 0.05). (ii) Spontaneously hypertensive rats have more orexin neurons and more CO2-activated orexin neurons in the hypothalamus. (iii) Antagonism of orexin receptors with a dual orexin receptor antagonist, almorexant, normalizes the augmented CO2 chemoreflex in young and adult SHRs and the high ABP in young SHRs and significantly lowers ABP in adult SHRs. (iv) Attenuation of peripheral chemoreflexes by hyperoxia does not abolish the augmented CO2 chemoreflex (breathing and ABP) in SHRs, which indicates an important role for the central chemoreflex."

According to the news editors, the research concluded: "We suggest that an overactive orexin system may play an important role in the augmented central CO2 chemoreflex and in the development of hypertension in SHRs."


The news correspondents report that additional information may be obtained from A.H. Li, Geisel Sch Med Dartmouth, Dept. of Physiol & Neurobiol, Lebanon, NH 03756, United States. Additional authors for this research include S.H. Roy and E.E. Nattie.

Keywords for this news article include: Lebanon, New Hampshire, United States, North and Central America, Cardiovascular Diseases and Conditions, Hypertension, School of Medicine.

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**Oncology - Breast Cancer**

**Research Conducted at Second Military Medical University Has Updated Our Knowledge about Breast Cancer (Long noncoding RNA linc00617 exhibits oncogenic activity in breast cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Protein-coding genes account for only 2% of the human genome, whereas the vast majority of transcripts are noncoding RNAs including long noncoding RNAs. LncRNAs are involved in the regulation of a diverse array of biological processes, including cancer progression."

Our news editors obtained a quote from the research from Second Military Medical University, "An evolutionarily conserved lncRNA TUNA, was found to be required for pluripotency of mouse embryonic stem cells. In this study, we found the human ortholog of TUNA, linc00617, was upregulated in breast cancer samples. Linc00617 promoted motility and invasion of breast cancer cells and induced epithelial-mesenchymal-transition (EMT), which was accompanied by generation of stem cell properties. Moreover, knockdown of linc00617 repressed lung metastasis in vivo. We demonstrated that linc00617 upregulated the expression of stemness factor Sox2 in breast cancer cells, which was shown to promote the oncogenic activity of breast cancer cells by stimulating epithelial-to-mesenchymal transition and enhancing the tumor-initiating capacity. Thus, our data indicate that linc00617 functions as an important
regulator of EMT and promotes breast cancer progression and metastasis via activating the transcription of Sox2."

According to the news editors, the research concluded: "Together, it suggests that linc00617 may be a potential therapeutic target for aggressive breast cancer."


The news editors report that additional information may be obtained by contacting Y. Sheng, Second Military Med Univ, Changhai Hosp, Dept. of Breast & Thyroid Surg, Gen Surg, Shanghai 200433, People's Republic of China. Additional authors for this research include L. Zhu, L. Xu, K.Y. Qin, C.Q. Liu, Y. Yu, D.W. Su, K.N. Wu and Y. Sheng.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Women's Health, Breast Cancer, Oncology, Genetics, Second Military Medical University.

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**Drugs and Therapies - Chemotherapy**

**Research Conducted at Soochow University Has Provided New Information about Chemotherapy (Tie2 Expression on Macrophages Is Required for Blood Vessel Reconstruction and Tumor Relapse after Chemotherapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Chemotherapy are discussed in a new report. According to news reporting out of Suzhou, People's Republic of China, by NewsRx editors, research stated, "Tumor relapse after chemotherapy is a major hurdle for successful cancer therapy. Chemotherapeutic drugs select for resistant tumor cells and reshape tumor microenvironment, including the blood supply system."

Our news journalists obtained a quote from the research from Soochow University, "Using animal models, we observed on macrophages in tumor tissue a close correlation between upregulated Tie2 expression and tumor relapse upon chemotherapy. Conditional deletion of Tie2 expression in macrophages significantly prohibited blood supply and regrowth of tumors. Tie2(+) macrophages were derived from tumor-infiltrating Tie2(+)CD11b(+) cells and hypoxia-induced Tie2 expression on these cells. Mechanistically, expression of Tie2 prevented macrophages from apoptosis in stress conditions via the AKT-dependent signaling pathway."

According to the news editors, the research concluded: "Together, these results demonstrate that Tie2 expression by macrophages is necessary and sufficient to promote the reconstruction of blood vessels after chemotherapy, shedding new light on developing novel strategies to inhibit tumor relapse."

For more information on this research see: Tie2 Expression on Macrophages Is Required for Blood Vessel Reconstruction and Tumor Relapse after Chemotherapy. *Cancer Research, 2016;76(23):6828-6838. Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research -
Research Conducted at Soochow University Has Updated Our Knowledge about Adenosine Therapy [Ubiquitin-dependent Turnover of Adenosine Deaminase Acting on RNA 1 (ADAR1) Is Required for Efficient Antiviral Activity of Type I Interferon]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Adenosine Therapy are discussed in a new report. According to news reporting originating from Suzhou, People's Republic of China, by NewsRx correspondents, research stated, "Adenosine deaminase acting on RNA 1 (ADAR1) catalyzes RNA editing of cellular and viral RNAs. Besides RNA editing, ADAR1 has recently been shown to play important roles in maintaining the body balance, including tissue homoeostasis, organ development, and autoimmune regulations, by inhibiting both IFN production and subsequent IFN-activated pathways."

Funders for this research include National Natural Science Foundation of China, The Program of 1000 Young Talents, Jiangsu Provincial Distinguished Young Scholars, Jiangsu Provincial Innovative Research Team, Changjiang scholars and Innovative Research Team in University of Ministry of Education of China, Priority Academic Program Development of Jiangsu Higher Education Institutions.

Our news editors obtained a quote from the research from Soochow University, "Accordingly, the question was raised how IFN signaling induced by viral infections overcomes the inhibitory effect of constitutively expressed ADAR1 (ADAR1-P110) to execute efficient antiviral activity. Here we unexpectedly found that IFN signaling promoted Lys(48)-linked ubiquitination and degradation of ADAR1-P110. Furthermore, we identified the E3 ligase beta transducin repeat-containing protein responsible for IFN-mediated ADAR1-P110 down-regulation. IFN signaling promoted the interaction between beta transducin repeat-containing protein and ADAR1-P110 as well as protein turnover of ADAR1-P110. Moreover, we found that both lysine 574 and 576 are essential for ADAR1-P110 ubiquitination. Critically, we demonstrated that down-regulation of ADAR1-P110 is required for IFN signaling to execute efficient antiviral activity during viral infections."
According to the news editors, the research concluded: "These findings renew the understanding of the mechanisms by which IFN signaling acts to achieve antiviral functions and may provide potential targets for IFN-based antiviral therapy."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.737098. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Suzhou, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Cardiac Stressing Agents, Enzymes and Coenzymes, Nucleoside Deaminases, Antiarrhythmic Agents, Cardiovascular Agents, Adenosine Deaminase, Drugs and Therapies, Radiologic Adjuncts, Radiologic Agents, Adenosine Therapy, Pharmaceuticals, Interferons, Ubiquitins, Proteomics, Hydrolases, Cytokines, Genetics, Soochow University.

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**Kidney Diseases and Conditions - Lupus Nephritis**

**Research Conducted at Sun Yat Sen University Has Updated Our Knowledge about Lupus Nephritis (Nuclear Factor Erythroid 2-related Factor 2 Deficiency Exacerbates Lupus Nephritis in B6/lpr mice by Regulating Th17 Cell Function)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Kidney Diseases and Conditions - Lupus Nephritis. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Lupus nephritis (LN) is the major clinical manifestation of systemic lupus erythematosus. LN is promoted by T helper 17 (Th17) cells, which are the major pro-inflammatory T cell subset contributing to autoimmunity regulation."

The news correspondents obtained a quote from the research from Sun Yat Sen University, "Nuclear factor erythroid 2-related factor 2 (NRF2) is critical for suppressing reactive oxygen species (ROS) and relieving oxidant stress by regulating antioxidant gene expression. Previous studies have demonstrated that Nrf2 deficiency promotes drug-induced or spontaneous LN. However, whether NRF2 regulates Th17 function during LN development is still unclear. In this study, we introduced Nrf2 deficiency into a well-known LN model, the B6/lpr mouse strain, and found that it promoted early-stage LN with altered Th17 activation. Th17 cells and their relevant cytokines were dramatically increased in these double-mutant mice. We also demonstrated that naive T cells from the double-mutant mice showed
significantly increased differentiation into Th17 cells in vitro, with decreased expression of the Th17 differentiation suppressor Socs3 and increased phosphorylation of STAT3. Our results demonstrated that Nrf2 deficiency promoted Th17 differentiation and function during LN development."

According to the news reporters, the research concluded: "Moreover, our results suggested that the regulation of Th17 differentiation via NRF2 could be a therapeutic target for the treatment of subclinical LN patients."


Our news journalists report that additional information may be obtained by contacting Z.F. Huang, Sun Yat Sen UniversityZhongshan Sch Med, Dept. of Biochem, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include H.P. Chen, Q.F. Ding, X.X. Xu, B.L. Yu and Z.F. Huang.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Connective Tissue Diseases and Conditions, Autoimmune Diseases and Conditions, Kidney Diseases and Conditions, Systemic Lupus Erythematosus, Lupus Nephritis, Genetics, Sun Yat Sen University.

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**Drugs and Therapies - Antirheumatics**

**Research Conducted at Tel Aviv University Has Updated Our Knowledge about Antirheumatics (Addition of an immunomodulator can reverse antibody formation and loss of response in patients treated with adalimumab)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antirheumatics is now available. According to news reporting originating in Tel Aviv, Israel, by NewsRx journalists, research stated, "Anti-adalimumab antibodies (AAA) are associated with loss of clinical response (LOR). Addition of an immunomodulator has been shown to reverse immunogenicity and regain response with infliximab monotherapy."

Financial supporters for this research include The Chaim Sheba Medical Center, Rambam Health Care Center, Leona M. and Harry B. Helmsley Charitable Trust.

The news reporters obtained a quote from the research from Tel Aviv University, "Similar data on adalimumab are lacking. To study the impact of immunomodulator addition on the emergence of AAA and LOR among adalimumab therapy patients. The databases of three tertiary medical centres were reviewed to identify patients who developed AAA during adalimumab monotherapy with resultant LOR, and received an immunomodulator as a salvage combination therapy. All sera were prospectively analysed using previously described ELISA assays. Clinical response was determined using appropriate clinical scores. Elimination of AAA, designated as 'sero-reversal', elevation of drug levels and regained clinical response were the sought outcomes. Twenty-three patients (21 Crohn's disease, and 2 ulcerative colitis) developed
AAA with subsequent LOR and were thereafter prescribed an immunomodulator as salvage therapy (thiopurine n = 14, methotrexate n = 9). Eleven patients (48%) underwent sero-reversal with gradual elimination of AAA, increase in drug trough levels and restoration of clinical response (median time to sero-reversal 5 months). In 12 patients (52%), immunogenicity and loss of response could not be reversed. There was no difference between responders and nonresponders in the type of immunomodulators used or baseline clinical characteristics. In almost half of inflammatory bowel disease patients developing anti-adalimumab antibodies and loss of response, established immunogenicity of adalimumab can be gradually reversed by the addition of immunomodulator therapy with restoration of a clinico-biological response."

According to the news reporters, the research concluded: "However, these observations need to be confirmed with larger studies."


Our news correspondents report that additional information may be obtained by contacting B. Ungar, Tel Aviv University, Sheba Med Center Tel Hashomer, Sackler Sch Med, Dept. of Gastroenterol, Tel Aviv, Israel. Additional authors for this research include U. Kopylov, T. Engel, M. Yavzori, E. Fudim, O. Picard, A. Lang, N. Williet, S. Paul, Y. Chowers, A.B.G. Shitrit, R. Eliakim, S. Ben-Horin and X. Roblin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111//apt.13862. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tel Aviv, Israel, Asia, Tumor Necrosis Factor (TNF) Inhibitors, Monoclonal Antibodies, Drugs and Therapies, Immunologic Agents, Immunoglobulins, Pharmaceuticals, Blood Proteins, Antirheumatics, Biotechnology, Immunology, Adalimumab, Therapy, Tel Aviv University.

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Environmental Health - Environmental Research and...
Our news editors obtained a quote from the research from Tsinghua University, "This model classifies noise-induced health impairments into four categories: cardiovascular disease, cognitive impairment, sleep disturbance, and annoyance, and uses disability-adjusted life years (DALYs) as an indicator of damage. Furthermore, the value of a statistical life (VSL) is used to transform DALYs into a monetary value based on the affected demographic characteristics, thereby offering policy makers a reliable theoretical foundation for establishing reasonable standards to compensate residents suffering from construction noise. A practical earthwork project in Beijing is used as a case study to demonstrate the applicability of the proposed model. The results indicate that construction noise could bring significant health risks to the neighboring resident community, with an estimated 34.51 DALYs of health damage and 20.47 million yuan in social costs."

According to the news editors, the research concluded: "In particular, people aged 45-54 are most vulnerable to construction noise, with the greatest health risks being caused by sleep disturbance."

For more information on this research see: DALY-Based Health Risk Assessment of Construction Noise in Beijing, China. *International Journal of Environmental Research and Public Health*, 2016;13(11):105-122. *International Journal of Environmental Research and Public Health* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting J. Xiao, Tsinghua Univ, Sch Civil Engn, Beijing 100084, People's Republic of China. Additional authors for this research include X.D. Li and Z.H. Zhang.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Environmental Research and Public Health, Environmental Health, Asia, Risk and Prevention, China, Tsinghua University.

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**Optic Nerve Diseases**

**Research Conducted at University College Has Provided New Information about Optic Nerve Diseases (A neurodegenerative perspective on mitochondrial optic neuropathies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Optic Nerve Diseases have been published. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Mitochondrial optic neuropathies constitute an important cause of chronic visual morbidity and registrable blindness in both the paediatric and adult population. It is a genetically heterogeneous group of disorders caused by both mitochondrial DNA (mtDNA) mutations and a growing list of nuclear genetic defects that invariably affect a critical component of the mitochondrial machinery."

Financial supporters for this research include Medical Research Council, National Institute for Health Research, Wellcome Trust.

Our news journalists obtained a quote from the research from University College, "The two classical paradigms are Leber hereditary optic neuropathy (LHON), which is a primary mtDNA disorder, and autosomal dominant optic atrophy (DOA) secondary to pathogenic mutations within the nuclear gene OPA1 that encodes for a mitochondrial inner membrane RNA."
protein. The defining neuropathological feature is the preferential loss of retinal ganglion cells (RGCs) within the inner retina but, rather strikingly, the smaller calibre RGCs that constitute the papillomacular bundle are particularly vulnerable, whereas melanopsin-containing RGCs are relatively spared. Although the majority of patients with LHON and DOA will present with isolated optic nerve involvement, some individuals will also develop additional neurological complications pointing towards a greater vulnerability of the central nervous system (CNS) in susceptible mutation carriers. These so-called 'plus' phenotypes are mechanistically important as they put the loss of RGCs within the broader perspective of neuronal loss and mitochondrial dysfunction, highlighting common pathways that could be modulated to halt progressive neurodegeneration in other related CNS disorders.

According to the news editors, the research concluded: "The management of patients with mitochondrial optic neuropathies still remains largely supportive, but the development of effective disease-modifying treatments is now within tantalising reach helped by major advances in drug discovery and delivery, and targeted genetic manipulation."


Our news journalists report that additional information may be obtained by contacting P. Yu-Wai-Man, UCL Inst Ophthalmol, London EC1V 2PD, United Kingdom. Additional authors for this research include M. Votrub, F. Burte, C. La Morgia, P. Barboni and V. Carelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00401-016-1625-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Optic Nerve Diseases and Conditions, Genetics, Article Review, Central Nervous System, Neuropathy, University College.

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Heart Disorders and Diseases - Hypertrophic...

Research Conducted at University Hospital Has Updated Our Knowledge about Hypertrophic Cardiomyopathy (Comparison of hypertrophic cardiomyopathy in Afro-Caribbean versus white patients in the UK)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Hypertrophic Cardiomyopathy are discussed in a new report. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "This study investigated the influence of African/Afro-Caribbean (black) ethnicity on the clinical profile and outcomes in hypertrophic cardiomyopathy (HCM). Methods 425 consecutive patients with HCM (163 black and 262 Caucasians (white); mean age 52.5 +/- 16.6 years) were assessed at three cardiomyopathy centres."
Our news editors obtained a quote from the research from University Hospital, "Repeat assessments were performed every 6-12 months and mean follow-up was 4.3 +/- 3.0 years. The primary outcome was a composite of cardiovascular death, cardiac arrest or appropriate device therapy. A fortuitous diagnosis of HCM was more commonly made in black compared with white patients (31.3% vs 19.1%, p=0.004). An abnormal ECG at presentation was more frequent in black patients (98.2% vs 90.5%, p=0.002), with T-wave inversion being a common feature (91.4% vs 73.0%, p<0.001). Asymmetric septal hypertrophy was the predominant pattern in both ethnic groups; however, apical (22.2% vs 10.7%, p<0.001) and concentric (9.3% vs 1.5%, p<0.001) patterns were more prevalent in black patients. Hypertension was more frequent in black patients (58.3% vs 31.7%, p<0.001). There were no ethnic differences in risk factor profile or primary outcome. Independent predictors of the primary outcome were non-sustained ventricular tachycardia (HR 6.03, 95% CI 3.06 to 11.91, p=0.001) and hypertension at presentation (HR 2.02, 95% CI 1.05 to 3.88, p=0.036), with an additive effect. Black ethnicity is an important determinant of the phenotypic expression of HCM but does not adversely affect outcomes. Apical and concentric hypertrophy are common in black patients and may hinder the identification of HCM in this cohort."

According to the news editors, the research concluded: "Hypertension has an adverse effect on outcome, irrespective of ethnicity."

For more information on this research see: Comparison of hypertrophic cardiomyopathy in Afro-Caribbean versus white patients in the UK. Heart, 2016;102(22):1797-1804. Heart can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Heart - heart.bmj.com/)

The news editors report that additional information may be obtained by contacting S. Sharma, University Hospital Lewisham, Lewisham & Greenwich NHS Trust, London, United Kingdom. Additional authors for this research include M. Papadakis, V.F. Panoulas, K. Prakash, L. Millar, P. Adami, A. Zaidi, S. Gati, M. Wilson, G. Carr-White, M.T.E. Tome, E.R. Behr and S. Sharma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/heartjnl-2016-309843. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Risk and Prevention, Heart Disorders and Diseases, Hypertrophic Cardiomyopathy, Cardiomyopathies, Heart Disease, Hypertension, Cardiology, University Hospital.

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Oncology - Melanoma

Research Conducted at University Hospital Has Updated Our Knowledge about Melanoma (Analysis of BRAF and NRAS Mutation Status in Advanced Melanoma Patients Treated with Anti-CTLA-4 Antibodies: Association with Overall Survival?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Melanoma. According to
news reporting out of Zurich, Switzerland, by NewsRx editors, research stated, "Ipilimumab and tremelimumab are human monoclonal antibodies (Abs) against cytotoxic T-lymphocyte antigen-4 (CTLA-4). Ipilimumab was the first agent to show a statistically significant benefit in overall survival in advanced melanoma patients."

Our news journalists obtained a quote from the research from University Hospital, "Currently, there is no proven association between the BRAFV600 mutation and the disease control rate in response to ipilimumab. This analysis was carried out to assess if BRAFV600 and NRAS mutation status affects the clinical outcome of anti-CTLA-4-treated melanoma patients. This is a retrospective multi-center analysis of 101 patients, with confirmed BRAF and NRAS mutation status, treated with anti-CTLA-4 antibodies from December 2006 until August 2012. The median overall survival, defined from the treatment start date with the anti-CTLA-4. Abs-treatment to death or till last follow up, of BRAFV600 or NRAS mutant patients (n=62) was 10.12 months (95% CI 6.78-13.2) compared to 8.26 months (95% CI 6.02-19.9) in BRAFV600/NRASwt subpopulation (n=39) (p=0.67). The median OS of NRAS mutated patients (n=24) was 12.1 months and although was prolonged compared to the median OS of BRAF mutated patients (n=38, mOS=8.03 months) or BRAFV600/NRASwt patients (n=39, mOS=8.26 months) the difference didn't reach statistical significance (p=0.56). 69 patients were able to complete 4 cycles of anti-CTLA-4 treatment. Of the 24 patients treated with selected BRAF-or MEK-inhibitors, 16 patients received anti-CTLA 4 Abs following either a BRAF or MEK inhibitor with only 8 of them being able to finish 4 cycles of treatment."

According to the news editors, the research concluded: "Based on our results, there is no difference in the median OS in patients treated with anti-CTLA-4 Abs implying that the BRAF/NRAS mutation status alone is not sufficient to predict the outcome of patients treated with anti-CTLA-4 Abs."

For more information on this research see: Analysis of BRAF and NRAS Mutation Status in Advanced Melanoma Patients Treated with Anti-CTLA-4 Antibodies: Association with Overall Survival? Plos One, 2015;10(10):e0139438. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0139438. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Zurich, Europe, Genetics, Melanoma, Oncology, Immunology, Switzerland, Blood Proteins, Immunoglobulins.

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Oncology - Penile Cancer

Research Conducted at University Hospital Has Updated Our Knowledge about Penile Cancer (Racial Disparities Differ for African Americans and Hispanics in the Diagnosis and Treatment of Penile Cancer)
Researchers detail new data in Oncology - Penile Cancer. According to news reporting from Cleveland, Ohio, by NewsRx journalists, research stated, "To evaluate racial disparities in the diagnosis and treatment of penile cancer among a contemporary series of men from a large diverse national data base. Using the 1998-2012 National Cancer Data Base, all men with squamous cell carcinoma (SCC) were stratified by race and ethnicity."

The news correspondents obtained a quote from the research from University Hospital, "Demographic and disease characteristics were compared between groups. Likelihood of undergoing surgery and type of surgery were compared among patients with nonmetastatic disease. Factors influencing disease stage and treatment type were analyzed with univariate and multivariable logistic regressions. Overall survival was examined with Kaplan-Meier and adjusted Cox proportional hazard models. We identified 12,090 men with penile SCC with median age 66 years (range 18-90). Distribution of patients is as follows: 76.8% Caucasian, 10.2% African American (AA), 8.7% Hispanic. On multivariable analysis, Hispanic men are more likely to present with high-risk (>= T1G3) penile SCC (odds ratio [OR] 1.6; confidence interval [CI] 1.20-2.00; P = .001) and tend to undergo penectomy rather than penile-sparing surgery (OR 1.46; CI 1.15-1.85; P = .002) for equal stage SCC compared to Caucasian patients. Whereas AA men are less likely to undergo surgery of any type (OR 0.67; CI 0.51-0.87; P = .003) and have higher mortality rates than Caucasian patients (hazard ratio 1.25; CI 1.10-1.42; P < .001). Hispanic men with penile SCC are more likely to present with high-risk disease and undergo more aggressive treatment than Caucasian patients but have comparable survival."

According to the news reporters, the research concluded: "AA men are less likely to undergo surgical management of their disease and have higher mortality rates."


Our news journalists report that additional information may be obtained by contacting E.A. Slopnick, University Hospital, Case Med Center, Inst Urol, Cleveland, OH 44106, United States. Additional authors for this research include S.P. Kim, J.E. Kiechle, C.M. Gonzalez, H. Zhu and R. Abouassaly.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.06.048. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Squamous Cell Carcinoma, Surgery, Epidemiology, Penile Neoplasms, Penile Cancer, Oncology, University Hospital.

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Neuropathy

Research Conducted at University Medical Center Has Updated Our Knowledge about Neuropathy (Auditory neuropathy--neural and synaptic mechanisms)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neuropathy. According to news reporting out of Gottingen, Germany, by NewsRx editors, research stated, "Sensorineural hearing impairment is the most common form of hearing loss, and encompasses pathologies of the cochlea and the auditory nerve. Hearing impairment caused by abnormal neural encoding of sound stimuli despite preservation of sensory transduction and amplification by outer hair cells is known as 'auditory neuropathy'."

Our news journalists obtained a quote from the research from University Medical Center, "This term was originally coined for a specific type of hearing impairment affecting speech comprehension beyond changes in audibility: patients with this condition report that they 'can hear but cannot understand'. This type of hearing impairment can be caused by damage to the sensory inner hair cells (IHCs), IHC ribbon synapses or spiral ganglion neurons. Human genetic and physiological studies, as well as research on animal models, have recently shown that disrupted IHC ribbon synapse function--resulting from genetic alterations that affect presynaptic glutamate loading of synaptic vesicles, Ca(2+) influx, or synaptic vesicle exocytosis--leads to hearing impairment termed 'auditory synaptopathy'. Moreover, animal studies have demonstrated that sound overexposure causes excitotoxic loss of IHC ribbon synapses. This mechanism probably contributes to hearing disorders caused by noise exposure or age-related hearing loss."

According to the news editors, the research concluded: "This Review provides an update on recently elucidated sensory, synaptic and neural mechanisms of hearing impairment, their corresponding clinical findings, and discusses current rehabilitation strategies as well as future therapies."


Our news journalists report that additional information may be obtained by contacting T. Moser, Institute for Auditory Neuroscience and InnerEarLab, University Medical Center Gottingen, 37099 Gottingen, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrneurol.2016.10. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Germany, Genetics, Gottingen, Neuropathy, Article Review.

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Drugs and Therapies - Electroconvulsive Therapy

Research Conducted at University of Aberdeen Has Updated Our Knowledge about Electroconvulsive Therapy (Differences in Cognitive Outcomes After ECT Depending on BDNF and COMT Polymorphisms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Electroconvulsive Therapy are discussed in a new report. According to news reporting originating in Aberdeen, United Kingdom, by NewsRx journalists, research stated, "The study aimed to explore cognitive
outcomes after electroconvulsive therapy (ECT) depending on which version of common single nucleotide polymorphisms the patient expressed for brain-derived neurotrophic factor (BDNF) and catechol-O-methyltransferase (COMT). A total of 87 patients from the clinical ECT service in Aberdeen, Scotland, were included in the study."

The news reporters obtained a quote from the research from the University of Aberdeen, "Cognitive function testing (using Spatial Recognition Memory task from the Cambridge Neuropsychological Test Automated Battery and Mini-Mental State Examination) and mood ratings (Montgomery-sberg Depression Rating Scale) were performed before ECT, after 4 treatments, at the end of ECT and 1 and 3 months after the end of treatment. These scores were compared depending on BDNF and COMT variant at each time point using the Student t test and using a time series generalized least squares random effects model. No differences were found between the val and met versions of the BDNF or COMT polymorphism in either cognitive or mood outcomes at any time point during ECT treatment or up to 3 months of follow-up. This study did not detect significant differences in cognitive or mood outcomes between patients who have the val66val or met versions of the BDNF polymorphism."

According to the news reporters, the research concluded: "Our results suggest that these polymorphisms will not be helpful in clinical practice for predicting cognitive outcomes after ECT."

For more information on this research see: Differences in Cognitive Outcomes After ECT Depending on BDNF and COMT Polymorphisms. Journal of ECT, 2016;32(4):243-250. Journal of ECT can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of ECT - journals.lww.com/ectjournal/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting D.M. Bennett, University of Aberdeen, Div Appl Med Psychiat, Aberdeen, United Kingdom. Additional authors for this research include J. Currie, G. Fernie, J.S. Perrin and I.C. Reid.

Keywords for this news article include: Aberdeen, United Kingdom, Europe, Electroconvulsive Therapy, Drugs and Therapies, Genetics, University of Aberdeen.

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Hematology - Plasma

Research Conducted at University of Agder Has Updated Our Knowledge about Plasma [In vivo effect of N-ethylmaleimide (NEM) on the measurement of nitrate in plasma]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Plasma. According to news originating from Kristiansand, Norway, by NewsRx correspondents, research stated, "Bioavailability of nitric oxide in the body may be estimated by measuring the concentration of nitrate in plasma. However, it has not been reported whether sequestering of aminothiols in plasma affects the concentration of nitrate in the samples."

Financial support for this research came from University of Agder, Norway Department of Natural Sciences.

Our news journalists obtained a quote from the research from the University of
Agder, "N-ethylmaleimide (NEM) sequesters aminothiols in plasma therefore we tested the in vivo effect of NEM on the concentration nitrate in plasma. Blood samples were collected from 56 healthy subjects in EDTA vials, EDTA vials containing PBS (pH 7.4) and EDTA vials containing NEM dissolved in PBS. Nonparametric statistical tests were used to study the effect of NEM on the concentration of nitrate in plasma measured by the Griess reagent assay and by an HPLC method. The concentration of nitrate in plasma containing NEM dissolved in PBS was lower than plasma containing PBS and plasma without any reagent measured by the Griess reagent assay (p < 0.001 and p< 0.001). Similarly, the concentration of nitrate in plasma containing NEM measured by the Griess reagent assay was significantly lower than nitrate concentration in plasma measured by the HPLC method (p < 0.001)."

According to the news editors, the research concluded: "Our findings suggest that plasma, which contains NEM, may not be suitable for the measurement of nitrate by the Griess reagent assay."


The news correspondents report that additional information may be obtained from M.A. Mansoor, Univ Agder, Dept. of Nat Sci, N-4604 Kristiansand, Norway.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinbiochem.2016.07.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kristiansand, Norway, Europe, Dicarboxylic Acids, Ethylmaleimide, Hematology, Plasma, Blood, University of Agder.

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Drugs and Therapies - Agalsidase Beta Therapy

Research Conducted at University of Alabama Has Updated Our Knowledge about Agalsidase Beta Therapy (Antiproteinuric therapy and Fabry nephropathy: factors associated with preserved kidney function during agalsidase-beta therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Agalsidase Beta Therapy are discussed in a new report. According to news originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "Nephropathy is an important feature of classical Fabry disease, which results in alpha-galactosidase A deficiency and cellular globotriaosylceramide accumulation. We report the safety and efficacy of antiproteinuric therapy with ACE inhibitors or angiotensin II receptor blockers (ARBs) in a study of classical Fabry patients receiving recombinant agalsidase-beta therapy."

Our news journalists obtained a quote from the research from the University of Alabama, "The goal was maintenance of urine protein to creatinine ratio (UPCR) <0.5 g/g or a 50% reduction in baseline UPCR for 24 patients at eight study sites. The change in estimated glomerular filtration rate (eGFR) was assessed over 21 months of treatment. 18 out of 24
patients achieved the UPCR goal with eGFR slopes that were significantly better than six patients who did not achieve the UPCR goal (-3.6 (-4.8 to -1.1) versus -7.0 (-9.0 to -5.6) mL/min/1.73 m(2)/year, respectively, p=0.018). Despite achieving the UPCR goal, 67% (12/18 patients) still progressed with an eGFR slope <-2 mL/min/1.73 m(2)/year. Regression analysis showed that increased age at initiation of agalsidase-beta therapy was significantly associated with worsened kidney outcome. Hypotension and hyperkalaemia occurred in seven and eight patients, respectively, which required modification of antiproteinuric therapy but was not associated with serious adverse events. This study documents the effectiveness of agalsidase-beta (1 mg/kg/2 weeks) and antiproteinuric therapy with ACE inhibitors and/or ARB in patients with severe Fabry nephropathy."

According to the news editors, the research concluded: "Patients had preservation of kidney function if agalsidase-beta treatment was initiated at a younger age, and UPCR maintained at or below 0.5 g/g with antiproteinuric therapy."

For more information on this research see: Antiproteinuric therapy and Fabry nephropathy: factors associated with preserved kidney function during agalsidase-beta therapy. Journal of Medical Genetics, 2015;52(12):860-6. (BMJ Publishing Group - group.bmj.com/; Journal of Medical Genetics - jmg.bmj.com/)

The news correspondents report that additional information may be obtained from D.G. Warnock, Division of Nephrology, Dept. of Medicine, University of Alabama at Birmingham, Birmingham, Alabama, United States. Additional authors for this research include C.P. Thomas, B. Vujkovac, R.C. Campbell, J. Charrow, D.A. Laney, L.L. Jackson, W.R. Wilcox and C. Wanner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/jmedgenet-2015-103471. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Alabama, Genetics, Birmingham, Nephrology, Nephropathy, United States, Metabolic Agents, Lysosomal Enzymes, Drugs and Therapies, Agalsidase Beta Therapy, North and Central America.

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Lung Diseases and Conditions - Lung Injury

Research Conducted at University of Arizona Has Provided New Information about Lung Injury (Bixin protects mice against ventilation-induced lung injury in an NRF2-dependent manner)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Lung Injury have been published. According to news reporting originating in Tucson, Arizona, by NewsRx journalists, research stated, "Mechanical ventilation (MV) is a therapeutic intervention widely used in the clinic to assist patients that have difficulty breathing due to lung edema, trauma, or general anesthesia. However, MV causes ventilator-induced lung injury (VILI), a condition characterized by increased permeability of the alveolar-capillary barrier that results in edema, hemorrhage, and neutrophil infiltration, leading to exacerbated lung inflammation and oxidative stress."

The news reporters obtained a quote from the research from the University of
Arizona, "This study explored the feasibility of using bixin, a canonical NRF2 inducer identified during the current study, to ameliorate lung damage in a murine VILI model. In vitro, bixin was found to activate the NRF2 signaling pathway through blockage of ubiquitylation and degradation of NRF2 in a KEAP1-C151 dependent manner; intraperitoneal (IP) injection of bixin led to pulmonary upregulation of the NRF2 response in vivo. Remarkably, IP administration of bixin restored normal lung morphology and attenuated inflammatory response and oxidative DNA damage following MV. This observed beneficial effect of bixin derived from induction of the NRF2 cytoprotective response since it was only observed in Nrf2(+/+) but not in Nrf2(-/-) mice."

According to the news reporters, the research concluded: "This is the first study providing proof-of-concept that NRF2 activators can be developed into pharmacological agents for clinical use to prevent patients from lung injury during MV treatment."

For more information on this research see: Bixin protects mice against ventilation-induced lung injury in an NRF2-dependent manner. Scientific Reports, 2016;6():18760. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting S. Tao, Dept. of Pharmacology and Toxicology, University of Arizona, Tucson, AZ 85721, United States. Additional authors for this research include M. Rojo de la Vega, H. Quijada, G.T. Wondrak, T. Wang, J.G. Garcia and D.D Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18760. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tucson, Arizona, Genetics, Lung Injury, United States, North and Central America, Lung Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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Coagulation
Research Conducted at University of Birmingham Has Provided New Information about Coagulation [Determinants of Time in Therapeutic Range in Patients Receiving Oral Anticoagulants (A Substudy of IMPACT)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Coagulation are discussed in a new report. According to news reporting originating from Birmingham, United Kingdom, by NewsRx correspondents, research stated, "Implanted cardiac arrhythmia devices can detect atrial tachyarrhythmias (atrial high-rate episodes [AHREs]) that are considered to correlate with atrial fibrillation and risk of stroke. In the IMPACT trial, oral anticoagulation was initiated when AHREs were detected by implanted cardioverter-defibrillators. and withdrawn when they abated, according to a protocol accounting both for AHRE duration as detected by remote device monitoring and stroke risk assessment."

Our news editors obtained a quote from the research from the University of Birmingham, "In this analysis, we ascertained determinants of time in therapeutic range (TTR) among protocol-determined vitamin K antagonist-treated patients during the trial. We enrolled
2,718 patients with at least 1 additional stroke risk factor (CHADS2 score >= 1) at 104 arrhythmia centers. The sex, age <60, medical history, treatments interacting with VKA, tobacco use (2 points) and race (2 points for non-Caucasian) (SAMe-TT2R2) score is a simple clinical-derived score designed to aid decision-making on whether a patient is likely to achieve good anticoagulation control on vitamin K antagonist (e.g., warfarin), which was calculated and related to TTR achieved using the Rosendaal method. We analyzed 229 patients (mean age 66.7 years; mean CHADS(2) score 2.85 [SD 1.11] with mean TTR of 0.536 [SD 0.23] overall. Univariate analysis identified 5 variables associated with differences in mean TTR. Mean TTR was lower in those who were women (p = 0.031), of black race (p = 0.005) and in New York Heart Association class IV (p = 0.014), whereas hemoglobin >13.5 g/dl (p = 0.010) and New York Heart Association class I (p = 0.037) were associated with higher mean TTR. There was a significant difference in mean TTR value between US and non-US sites (Canada and Germany) (mean TTR for US: 0.513 vs non-US: 0.686; p<0.0001). Mean TTR was significantly lower (i = 0.1382, 95% CI 0.0382 to 0.2382) for patients with SAMe-TT2R2 scores of 4 (p = 0.007) and higher (A = 0.0612, 95% CI 0.0005 to 0.1219) for patients with SAMe-TT2R2 scores of 1 (p = 0.048). Linear regression confirmed a significant association between lower SAMe-TT2R2 score and improved anticoagulation control (p = 0.0021) with a 1-unit decrease in SAMe-TT2R2 score associated with an increase in TTR of 0.0404 (95% CI 0.0149 to 0.0659)."

According to the news editors, the research concluded: "Clinical, geographical, and demographic factors were associated with the quality of anticoagulation control as reflected by TTR. Although overall TTR in this population was poor, lower SAMe-TT2R2 scores were associated with better TTR."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjcard.2016.08.047. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Coagulation, Stroke, Epidemiology, Risk and Prevention, Hematology, Therapy, University of Birmingham.

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Drugs and Therapies - Antivirals

Research Conducted at University of Bologna Has Updated Our Knowledge about Antivirals (Plants Producing Ribosome-Inactivating Proteins in Traditional Medicine)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antivirals. According to news reporting out of Bologna, Italy, by NewsRx editors, research stated, "Ribosome-inactivating proteins (RIPs) are enzymes that deadenylate nucleic acids and are broadly distributed in the plant kingdom. Many plants that contain RIPs are listed in the pharmacopoeias of folk medicine all over the world, mostly because of their toxicity."

Our news journalists obtained a quote from the research from the University of Bologna, "This review analyses the position occupied in traditional medicine by plants from which RIPs have been isolated. The overview starts from the antique age of the Mediterranean area with ancient Egypt, followed by the Greek and Roman classic period. Then, the ancient oriental civilizations of China and India are evaluated. More recently, Unani medicine and European folk medicine are examined. Finally, the African and American folk medicines are taken into consideration."

According to the news editors, the research concluded: "A list of RIP-expressing plants, which have been used in folk medicine, is provided with the geographical distribution and the prescriptions that are recommended by traditional healers. Some final considerations are provided on the present utilization of such herbal treatments, both in developing and developed countries, often in the absence of scientific validation. The most promising prospect for the medicinal use of RIP-expressing plants is the conjugation of purified RIPs to antibodies that recognise tumour antigens for cancer therapy."

For more information on this research see: Plants Producing Ribosome-Inactivating Proteins in Traditional Medicine. *Molecules*, 2016;21(11):2074-2100. Molecules can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting L. Polito, University of Bologna, Dept. of Expt Diagnost & Specialty Med DIMES, Alma Mater Studiorum, I-40126 Bologna, Italy. Additional authors for this research include M. Bortolotti, S. Maiello, M.G. Battelli and A. Bologna.  

Keywords for this news article include: Bologna, Italy, Europe, Ribosome Inactivating Proteins, Genetics, Article Review, Enzymes and Coenzymes, N-Glycosyl Hydrolases, Drugs and Therapies, Plant Proteins, Antivirals, University of Bologna.

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Environmental Polution

**Research Conducted at University of Bourgogne Has Provided New Information about Environmental Polution (Occurrence of pharmaceuticals in WWTP effluents and their impact in a karstic rural catchment of Eastern France)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Environmental Polution have been published. According to news reporting out of Besancon, France, by NewsRx editors, research stated, "The occurrence of pharmaceuticals in freshwater ecosystems provokes increasing concern due to their potential risk to non-target organisms and to human health. Pharmaceuticals are used in both human and veterinary medicine and are essentially released into the environment via
wastewater treatment plants (WWTPs) and from livestock."

Our news journalists obtained a quote from the research from the University of Bourgogne, "In this study, 31 pharmaceuticals were analyzed in effluent and surface water upstream and downstream of two WWTPs in the Loue-Doubs rural karstic catchment in Eastern France. Diclofenac (965 and 2476 ng L-1), sulfamethoxazole (655 and 1380 ng L-1) and carbamazepine (566 and 1007 ng L-1) displayed the highest levels in the effluents of both WWTPs. Diclofenac levels were also high in surface water samples 300 and 166 ng L-1 in the River Doubs and the River Loue, respectively, followed by paracetamol (273 and 158 ng L-1) and sulfamethoxazole (126 and 73 ng L-1). In both rivers, the most critical compounds were found to be the antibiotic sulfamethoxazole (risk quotient (RQ) from 23.7 to 51.1) and ofloxacin (RQ from 1.1 to 18.9), which reached levels inducing toxic effects in aquatic organisms. This study showed that WWTP effluents are the major sources of the pharmaceuticals, but raw discharges from human residences, pastures and livestock manure represent significant sources of contamination of surface water and groundwater."

According to the news editors, the research concluded: "The aim of this study was to assist scientists and authorities in understanding occurrence and sources of pharmaceuticals in order to improve water quality management in chalk streams."

For more information on this research see: Occurrence of pharmaceuticals in WWTP effluents and their impact in a karstic rural catchment of Eastern France. *Environmental Science and Pollution Research*, 2016;23(24):25427-25441. Environmental Science and Pollution Research can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Environmental Science and Pollution Research - www.springerlink.com/content/0944-1344/)

Our news journalists report that additional information may be obtained by contacting P.M. Badot, Univ Bourgogne Franche Comte, UMR UFC CNRS Usc INRA 6249, Chrono Environm, F-25030 Besancon, France. Additional authors for this research include F. Degiorgi, A. Bulete, L. Spinner and P.M. Badot.

Keywords for this news article include: Besancon, France, Europe, Environmental Pollution, University of Bourgogne.

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Kidney Diseases and Conditions - Chronic Kidney...

Research Conducted at University of California Has Updated Our Knowledge about Chronic Kidney Disease (Effects of dietary iron intake and chronic kidney disease on fibroblast growth factor 23 metabolism in wild-type and hepcidin knockout mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Kidney Diseases and Conditions - Chronic Kidney Disease. According to news reporting originating in Los Angeles, California, by NewsRx journalists, research stated, "In the setting of normal kidney function, iron deficiency is associated with increased FGF23 production and cleavage, altering circulating FGF23 levels. Our objective was to determine how chronic kidney disease (CKD) and dietary iron intake affect FGF23 production and metabolism in wildtype (WT) and hepcidin knockout (HKO) mice."

The news reporters obtained a quote from the research from the University of
California, "For 8 wk, the mice were fed diets that contained adenine (to induce CKD) or no adenine (control group), with either low-iron (4 ppm) or standard-iron (335 ppm) concentrations. The low-iron diet induced iron deficiency anemia in both the WT and HKO mice. Among the WT mice, in both the control and CKD groups, a low-iron compared with a standard-iron diet increased bone Fgf23 mRNA expression, C-terminal FGF23 (cFGF23) levels, and FGF23 cleavage as manifested by a lower percentage intact FGF23 (iFGF23). Independent of iron status, CKD was associated with inhibition of FGF23 cleavage. Similar results were observed in the HKO control and CKD groups. Dietary iron content was more influential on FGF23 parameters than the presence or absence of hepcidin. In the CKD mice (WT and HKO, total n = 42), independent of the effects of serum phosphate, iron deficiency was associated with increased FGF23 production but also greater cleavage, whereas worse kidney function was associated with increased FGF23 production but decreased cleavage."

According to the news reporters, the research concluded: "Therefore, in both the WT and HKO mouse models, dietary iron content and CKD affected FGF23 production and metabolism."


Our news correspondents report that additional information may be obtained by contacting M.R. Hanudel, University of California, David Geffen Sch Med, Dept. of Pediat, Los Angeles, CA 90095, United States. Additional authors for this research include K. Chua, M. Rappaport, V. Gabayan, E. Valore, D. Goltzman, T. Ganz, E. Nemeth and I.B. Salusky.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Kidney Diseases and Conditions, Chronic Kidney Disease, Iron Deficiency, Hematology, Genetics, University of California.

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**DNA Research**

**Research Conducted at University of California Has Updated Our Knowledge about DNA Research (Structural basis for DNA recognition by STAT6)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in DNA Research. According to news reporting originating from Los Angeles, California, by NewsRx correspondents, research stated, "STAT6 participates in classical IL-4/IL-13 signaling and stimulator of interferon genes-mediated antiviral innate immune responses. Aberrations in STAT6-mediated signaling are linked to development of asthma and diseases of the immune system."

Financial supporters for this research include National Natural Science Foundation of China (NSFC), Ministry of Science and Technology (MOST), Youth Innovation Promotion Association of the Chinese Academy of Sciences (Youth Innovation Promotion Association CAS).
Our news editors obtained a quote from the research from the University of California, "In addition, STAT6 remains constitutively active in multiple types of cancer. Therefore, targeting STAT6 is an attractive proposition for treating related diseases. Although a lot is known about the role of STAT6 in transcriptional regulation, molecular details on how STAT6 recognizes and binds specific segments of DNA to exert its function are not clearly understood. Here, we report the crystal structures of a homodimer of phosphorylated STAT6 core fragment (STAT6(CF)) alone and bound with the N3 and N4 DNA binding site. Analysis of the structures reveals that STAT6 undergoes a dramatic conformational change on DNA binding, which was further validated by performing molecular dynamics simulation studies and small angle X-ray scattering analysis. Our data show that a larger angle at the intersection where the two protomers of STAT meet and the presence of a unique residue, H415, in the DNA-binding domain play important roles in discrimination of the N4 site DNA from the N3 site by STAT6. H415N mutation of STAT6CF decreased affinity of the protein for the N4 site DNA, but increased its affinity for N3 site DNA, both in vitro and in vivo."

According to the news editors, the research concluded: "Results of our structure-function studies on STAT6 shed light on mechanism of DNA recognition by STATs in general and explain the reasons underlying STAT6's preference for N4 site DNA over N3."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1611228113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, DNA Research, Genetics, University of California.

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Mosquito-Borne Diseases - Malaria

**Research Conducted at University of Delhi Has Provided New Information about Malaria (Stearylamine Liposomal Delivery of Monensin in Combination with Free Artemisinin Eliminates Blood Stages of Plasmodium falciparum in Culture and P. berghei ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mosquito-Borne Diseases - Malaria is the subject of a report. According to news reporting originating in New Delhi, India, by NewsRx journalists,
research stated, "The global emergence of drug resistance in malaria is impeding the therapeutic
efficacy of existing antimalarial drugs. Therefore, there is a critical need to develop an efficient
drug delivery system to circumvent drug resistance."

The news reporters obtained a quote from the research from the University of Delhi,
"The anticoccidial drug monensin, a carboxylic ionophore, has been shown to have antimalarial
properties. Here, we developed a liposome-based drug delivery of monensin and evaluated its
antimalarial activity in lipid formulations of soya phosphatidylcholine (SPC) cholesterol (Chol)
containing either stearylamine (SA) or phosphatidic acid (PA) and different densities of
These formulations were found to be more effective than a comparable dose of free monensin in
Plasmodium falciparum (3D7) cultures and established mouse models of Plasmodium berghei
strains NK65 and ANKA. Parasite killing was determined by a radiolabeled [(3)H]hypoxanthine
incorporation assay (in vitro) and microscopic counting of Giemsa-stained infected erythrocytes
(in vivo). The enhancement of antimalarial activity was dependent on the liposomal lipid
composition and preferential uptake by infected red blood cells (RBCs). The antiplasmodial
activity of monensin in SA liposome (50% inhibitory concentration [IC[50], 0.74 nM) and
SPC:Chol-liposome with 5 mol% DSPE-mPEG 2000 (IC[50], 0.39 nM) was superior to that of
free monensin (IC[50], 3.17 nM), without causing hemolysis of erythrocytes. Liposomes
exhibited a spherical shape, with sizes ranging from 90 to 120 nm, as measured by dynamic
light scattering and high-resolution electron microscopy. Monensin in long-circulating
liposomes of stearylamine with 5 mol% DSPE-mPEG 2000 in combination with free
artemisinin resulted in enhanced killing of parasites, prevented parasite recrudescence, and
improved survival."

According to the news reporters, the research concluded: "This is the first report to
demonstrate that monensin in PEGylated stearylamine (SA) liposome has therapeutic potential
against malaria infections."

For more information on this research see: Stearylamine Liposomal Delivery of
Monensin in Combination with Free Artemisinin Eliminates Blood Stages of Plasmodium
falciparum in Culture and P. berghei Infection in Murine Malaria. Antimicrobial Agents and
Chemotherapy, 2015;60(3):1304-18. (American Society for Microbiology - www.asm.org;
Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by
contacting V. Rajendran, Dept. of Biochemistry, University of Delhi South Campus, New Delhi,
India. Additional authors for this research include S. Rohra, M. Raza, G.M. Hasan, S. Dutt and
P.C Ghosh.

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http://dx.doi.org/10.1128/AAC.01796-15. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Asia, Antimalarial Agents, Biotechnology,
India, New Delhi, Liposomes, Peroxides, Artemisinins, Sesquiterpenes, Tropical Disease, Drugs
and Therapies, Protozoan Infections, Plasmodium falciparum, Mosquito Borne Diseases,
Mosquito Bornes Illness, Mosquito-Borne Diseases.

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Research Conducted at University of Dresden Has Provided New Information about Gastric Cancer (Free intraperitoneal tumor cells and outcome in gastric cancer patients: a systematic review and meta-analysis)

Oncology - Gastric Cancer

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news reporting out of Dresden, Germany, by NewsRx editors, research stated, "Despite continuously improving therapies, gastric cancer still shows poor survival in locally advanced stages with local recurrence rates of up to 50% and peritoneal recurrence rates of 17% after curative surgery. We performed a systematic review with meta-analyses to clarify whether positive intraperitoneal cytology (IPC) indicates a high risk of disease recurrence and poor overall survival in gastric cancer."

Our news journalists obtained a quote from the research from the University of Dresden, "Multiple databases were searched in December 2014 to identify studies on the prognostic significance of positive intraperitoneal cytology in gastric cancer, including: Medline, Biosis, Science Citation Index, Embase, CC Med and publisher databases. Hazard ratios (HR) and associated 95% confidence intervals (CI) were extracted from the identified studies. A meta-analysis was performed using a random-effects model on overall survival, disease-free survival and peritoneal recurrence free survival. A total of 64 studies with a cumulative sample size of 12,883 patients were included. Cytology, quantitative real time polymerase chain reaction (PCR) or both were performed in 35; 21 and 8 studies, respectively. Meta analyses revealed free intraperitoneal tumor cells (FITC) to be associated with poor overall survival in univariate (HR 3.27; 95% CI 2.82 -3.78]) and multivariate (HR 2.45; 95% CI 2.04 -2.94) analysis and poor peritoneal recurrence free survival in univariate (4.15; 95% CI 3.10 -5.57) and multivariate (3.09; 95% CI 2.02 -4.71) analysis. Subgroup analysis showed this effect to be independent of the detection method, Western or Asian origin or the time of publication."

According to the news editors, the research concluded: "FITC oder positive peritoneal cytology is associated with poor survival and increased peritoneal recurrence in gastric cancer."

For more information on this research see: Free intraperitoneal tumor cells and outcome in gastric cancer patients: a systematic review and meta-analysis. Oncotarget, 2015;6 (34):35564-78.

Our news journalists report that additional information may be obtained by contacting M. Pecqueux, Dept. of for Visceral, Thoracic and Vascular Surgery, University of Dresden, Dresden, Germany. Additional authors for this research include J. Fritzmann, M. Adamu, K. Tholrud, C. Kahlert, C. Reißfelder, J. Weitz and N.N Rahbari.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5595. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Dresden, Germany, Cytology, Oncology, Article Review, Gastric Cancer, Gastroenterology, Risk and Prevention.

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Research Conducted at University of Faisalabad Has Updated Our Knowledge about Ethnopharmacology (Anti-cholinergic and Ca2+-antagonist mechanisms explain the pharmacological basis for folkloric use of Sisymbrium irio Linn. in gastrointestinal, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Ethnopharmacology. According to news reporting originating in Faisalabad, Pakistan, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Seeds of Sisymbrium irio Linn has been used traditionally in different regions of Pakistan for the treatment of gastrointestinal, airways and vascular system ailments. To insight the pharmacological basis, in vitro study was conducted in order to validate its folkloric uses."

The news reporters obtained a quote from the research from the University of Faisalabad, "70% aqueous-methanolic extract of seeds from S. irio (Si.MEs) was tested on isolated rabbit aorta, jejunum and trachea strip hanged in tissue bath having physiological solutions aerated with carbogen and their responses were measured and recorded via Power Lab. The Si.MEs exhibited the transient spasmogenic effect (0.01-1.0 mg/mL) on spontaneous jejunum contractions, followed by the spasmolytic effect. The addition of atropine resulted in blocking in spasmogenic effect while the spasmolytic effect was originated, suggesting the presence of an antimuscarinic effect. Likewise verapamil, Si.MEs (0.03-5 mg/mL) repressed the high concentration K+(80 mM)-induced contraction and also drifted the Ca2+ concentration-response curves toward right (0.3-3.0 mg/mL), possibly signifying the Ca2+ channel blockade. Furthermore, Si.MEs exhibited nonspecific relaxant effect on carbachol (1 mu M)- and high concentration K+(80 mM)-induced tracheal contractions in a way comparable to dicyclomine, suggesting the coexistence of Ca2+-antagonistic and/or antimuscarinic properties. Additionally, Si.MEs also relaxed the phenylephrine(1 mu M)- and high concentration K+(80 mM)-induced aortic contraction (0.01-3 mg/mL), suggesting blockade of Ca2+ channel. Moreover, oral administration of Si.MEs, as high as 6 g per kg, did not produce lethality among the treated groups of mice."

According to the news reporters, the research concluded: "Aqueous-methanolic extract of seeds from S. irio (Si.MEs) exhibited the bronchodilator and gut modulator (spasmogenic and spasmolytic) activities, probably through dual blockade of muscarinic receptors and Ca2+ channels, whereas, vasodilator effect may be due to Ca2+ channels blockade."


Our news correspondents report that additional information may be obtained by contacting M. Hussain, Univ Faisalabad, Sch Pharm, Faisalabad, Pakistan. Additional authors for this research include H.M. Waqas, S.M. Raza, U. Farooq, M.M. Ahmed and A. Majeed.

The direct object identifier (DOI) for that additional information is:
Research Conducted at University of Giessen Has Provided New Information about Streptococcus pneumoniae (Host-derived extracellular RNA promotes adhesion of Streptococcus pneumoniae to endothelial and epithelial cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Positive Bacteria - Streptococcus pneumoniae have been published. According to news reporting from Giessen, Germany, by NewsRx journalists, research stated, "Streptococcus pneumoniae is the most frequent cause of community-acquired pneumonia. The infection process involves bacterial cell surface receptors, which interact with host extracellular matrix components to facilitate colonization and dissemination of bacteria."

The news correspondents obtained a quote from the research from the University of Giessen, "Here, we investigated the role of host-derived extracellular RNA (eRNA) in the process of pneumococcal alveolar epithelial cell infection. Our study demonstrates that eRNA dose-dependently increased S. pneumoniae invasion of alveolar epithelial cells. Extracellular enolase (Eno), a plasminogen (Plg) receptor, was identified as a novel eRNA-binding protein on S. pneumoniae surface, and six Eno eRNA-binding sites including a C-terminal 15 amino acid motif containing lysine residue 434 were characterized. Although the substitution of lysine 434 for glycine (K434G) markedly diminished the binding of eRNA to Eno, the adherence to and internalization into alveolar epithelial cells of S. pneumoniae strain carrying the C-terminal lysine deletion and the mutation of internal Plg-binding motif were only marginally impaired. Accordingly, using a mass spectrometric approach, we identified seven novel eRNA-binding proteins in pneumococcal cell wall. Given the high number of eRNA-interacting proteins on pneumococci, treatment with RNase1 completely inhibited eRNA-mediated pneumococcal alveolar epithelial cell infection."

According to the news reporters, the research concluded: "Our data support further efforts to employ RNase1 as an antimicrobial agent to combat pneumococcal infectious diseases."


Our news journalists report that additional information may be obtained by contacting D. Zakrzewicz, Univ Giessen & Marburg Lung Center, Fac Med, Dept. of Biochem, D-35392 Giessen, Germany. Additional authors for this research include S. Bergmann, M. Didiasova, B.D. Giaimo, T. Borggrefe, M. Mieth, A.C. Hocke, G. Lochnit, L. Schaefer, S.
Smoking

Research Conducted at University of Hawaii Cancer Center Has Updated Our Knowledge about Smoking (Longitudinal study of e-cigarette use and onset of cigarette smoking among high school students in Hawaii)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Smoking have been presented. According to news reporting from Honolulu, Hawaii, by NewsRx journalists, research stated, "Use of electronic cigarettes (e-cigarettes) is prevalent among adolescents, but there is little knowledge about the consequences of their use. We examined, longitudinally, how e-cigarette use among adolescents is related to subsequent smoking behaviour."

The news correspondents obtained a quote from the research from the University of Hawaii Cancer Center, "Longitudinal school-based survey with a baseline sample of 2338 students (9th and 10th graders, mean age 14.7 years) in Hawaii surveyed in 2013 (time 1, T1) and followed up 1 year later (time 2, T2). We assessed e-cigarette use, tobacco cigarette use, and psychosocial covariates (demographics, parental support and monitoring, and sensation seeking and rebelliousness). Regression analyses including the covariates tested whether e-cigarette use was related to the onset of smoking among youth who had never smoked cigarettes, and to change in smoking frequency among youth who had previously smoked cigarettes. Among T1 never-smokers, those who had used e-cigarettes at T1 were more likely to have smoked cigarettes at T2; for a complete-case analysis, adjusted OR=2.87, 95% CI 2.03 to 4.05, p <0.0001. Among ever-smokers at T1, using e-cigarettes was not related to significant change in their frequency of smoking at T2. Uptake of e-cigarette use among T1 never-users of either product was predicted by age, Caucasian or Native Hawaiian (vs Asian-American) ethnicity, lower parental education and parental support, higher rebelliousness, and perception of e-cigarettes as healthier. Adolescents who use e-cigarettes are more likely to start smoking cigarettes."

According to the news reporters, the research concluded: "This result together with other findings suggests that policies restricting adolescents' access to e-cigarettes may have a rationale from a public health standpoint."

For more information on this research see: Longitudinal study of e-cigarette use and onset of cigarette smoking among high school students in Hawaii. Tobacco Control, 2016;26 (1):34-39. (BMJ Publishing Group - group.bmj.com; Tobacco Control - tobaccocontrol.bmj.com/)

Our news journalists report that additional information may be obtained by contacting T.A. Wills, Prevention and Control Program, University of Hawaii Cancer Center,
Honolulu, Hawaii, United States. Additional authors for this research include R. Knight, J.D. Sargent, F.X. Gibbons, I. Pagano and R.J Williams.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/tobaccocontrol-2015-052705. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hawaii, Smoking, Honolulu, United States, North and Central America.

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Research Conducted at University of Hawaii Has Provided New Information about Gynecologic Oncology (Long non-coding RNAs, ASAP1-IT1, FAM215A, and LINC00472, in epithelial ovarian cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gynecologic Oncology. According to news reporting out of Honolulu, Hawaii, by NewsRx editors, research stated, "Long non-coding RNAs (lncRNAs) are a class of non-protein coding transcripts that has gained significant attention lately due to their important biological actions and potential involvement in cancer. Ovarian cancer is a devastating disease with poor prognosis, and our understanding of IncRNA's involvement in the malignancy is limited."

Our news journalists obtained a quote from the research from the University of Hawaii, "To further our knowledge, we measured the expression of three IncRNAs, ASAP1-IT1, FAM215A, and LINC00472, in tumor samples, and analyzed their associations with disease characteristics and patient survival. Two hundred sixty-six patients diagnosed with primary epithelial ovarian cancers were recruited for the study. Fresh-frozen tumor samples were obtained from the patients at tumor resection and analyzed by RT-qPCR for expression of ASAP1-IT1, FAM215A, and LINC00472. Associations of IncRNA expression with patient survival were determined using Cox proportional hazards regression models. We observed high expression of ASAP1-IT1, FAM215A and LINC00472 more frequently in low grade tumors and early stage disease compared to high grade tumors and late stage disease, respectively. High expression of ASAP1-IT1 and FAM215A were associated with favorable overall survival, and the survival association with ASAP1-IT1 was independent of tumor grade and disease stage. Analyses of online data also demonstrated similar survival associations with ASAP1-IT1 and FAM215A, suggesting that these lncRNAs may be involved in ovarian cancer progression."

According to the news editors, the research concluded: "lncRNAs may play appreciable roles in ovarian cancer and more research is needed to elucidate their biological mechanisms and clinical implications in tumor characterization as well as disease prognosis and treatment."

For more information on this research see: Long non-coding RNAs, ASAP1-IT1, FAM215A, and LINC00472, in epithelial ovarian cancer. Gynecologic Oncology, 2016;143 (3):642-649. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news journalists report that additional information may be obtained by
Research Conducted at University of Lyon Has Updated Our Knowledge about Neutral Amino Acids (A Eukaryotic-like Serine/Threonine Kinase Protects Staphylococci against Phages)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neutral Amino Acids have been published. According to news reporting originating in Villeurbanne, France, by NewsRx journalists, research stated, "Organisms from all domains of life are infected by viruses. In eukaryotes, serine/threonine kinases play a central role in antiviral response."

The news reporters obtained a quote from the research from the University of Lyon, "Bacteria, however, are not commonly known to use protein phosphorylation as part of their defense against phages. Here we identify Stk2, a staphylococcal serine/threonine kinase that provides efficient immunity against bacteriophages by inducing abortive infection. A phage protein of unknown function activates the Stk2 kinase. This leads to the Stk2-dependent phosphorylation of several proteins involved in translation, global transcription control, cell-cycle control, stress response, DNA topology, DNA repair, and central metabolism. Bacterial host cells die as a consequence of Stk2 activation, thereby preventing propagation of the phage to the rest of the bacterial population."

According to the news reporters, the research concluded: "Our work shows that mechanisms of viral defense that rely on protein phosphorylation constitute a conserved antiviral strategy across multiple domains of life."


Our news correspondents report that additional information may be obtained by contacting B. Duclos, University of Lyon, Inst Mol & Supramol Chem & Biochem, CNRS, F-69100 Villeurbanne, France. Additional authors for this research include J.P. Didier, A. Bernheim, A. Sherlock, H. Molina, B. Duclos and D. Bikard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.chom.2016.08.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Villeurbanne, France, Europe, Enzymes and
Research Conducted at University of Maryland School of Medicine Has Provided New Information about Brain Injuries (miR-711 upregulation induces neuronal cell death after traumatic brain injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Central Nervous System Diseases and Conditions - Brain Injuries is the subject of a report. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Traumatic brain injury (TBI) is a leading cause of mortality and disability. MicroRNAs (miRs) are small noncoding RNAs that negatively regulate gene expression at post-transcriptional level and may be key modulators of neuronal apoptosis, yet their role in secondary injury after TBI remains largely unexplored."

The news reporters obtained a quote from the research from the University of Maryland School of Medicine, "Changes in miRs after controlled cortical impact (CCI) in mice were examined during the first 72 h using miR arrays and qPCR. One selected miR (711) was examined with regard to its regulation and relation to cell death; effects of miR-711 modulation were evaluated after CCI and using in vitro cell death models of primary cortical neurons. Levels of miR-711 were increased in the cortex early after TBI and in vitro models through rapid upregulation of miR-711 transcription (pri-miR-711) rather than catabolism. Increases coincided with downregulation of the pro-survival protein Akt, a predicted target of miR-711, with sequential activation of forkhead box O3 (FoxO3)a/glycogen synthase kinase 3 (GSK3)a/b, pro-apoptotic BH3-only molecules PUMA (Bcl2-binding component 3) and Bim (Bcl2-like 11 (apoptosis facilitator)), and mitochondrial release of cytochrome c and AIF. miR-711 and Akt (mRNA) co-immunoprecipitated with the RNA-induced silencing complex (RISC). A miR-711 hairpin inhibitor attenuated the apoptotic mechanisms and decreased neuronal death in an Akt-dependent manner. Conversely, a miR-711 mimic enhanced neuronal apoptosis. Central administration of the miR-711 hairpin inhibitor after TBI increased Akt expression and attenuated apoptotic pathways."

According to the news reporters, the research concluded: "Treatment reduced cortical lesion volume, neuronal cell loss in cortex and hippocampus, and long-term neurological dysfunction. miR-711 changes contribute to neuronal cell death after TBI, in part by inhibiting Akt, and may serve as a novel therapeutic target."

For more information on this research see: miR-711 upregulation induces neuronal cell death after traumatic brain injury. Cell Death and Differentiation, 2015;23(4):654-68. (Nature Publishing Group - www.nature.com/; Cell Death and Differentiation - www.nature.com/cdd/)

Our news correspondents report that additional information may be obtained by contacting B. Sabirzhanov, Dept. of Anesthesiology, University of Maryland School of Medicine, Baltimore, MD, United States. Additional authors for this research include B.A. Stoica, Z. Zhao, D.J. Loane, J. Wu, S.G. Dorsey and A.I Faden.

The direct object identifier (DOI) for that additional information is:
Nutritional and Metabolic Diseases and Conditions ...

Research Conducted at University of Milan Has Provided New Information about Hypercholesterolemia (Drug treatment and adherence of subjects < 40 years with diagnosis of heterozygous familial hypercholesterolemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Hypercholesterolemia. According to news reporting from Milan, Italy, by NewsRx journalists, research stated, "We aimed at describing the therapeutic approach in young adult patients diagnosed with heterozygous familial hypercholesterolemia (HeFH) and their adherence and persistence to treatment. From regional administrative databases, individuals aged <= 40 years, who received exemption for HeFH between January 1, 2003 and December 31, 2011, and concomitantly started statin treatment, were identified."

The news correspondents obtained a quote from the research from the University of Milan, "Within the first year of treatment, we evaluated therapeutic changes, adherence as MPR (medication possession ratio), persistence as continuous drug coverage without gaps >= 60 days, and influencing factors using log binomial models. Of 1404 patients, 42.4% were initially treated with a high-efficacy statin. 23.4% of patients showed at least one treatment change. Mean MPR was 68.7% (29.9), and patients showing continued statin use were 47.0%. Therapy modification was significantly associated with a past cardiovascular event (relative risk, RR [95% confidential interval] 2.28 [1.69-3.09]) and at least one lipid test (RR 1.82 [1.31-2.53]). MPR >= 80% was significantly associated with the first statin prescribed (atorvastatin RR 1.28 [1.09-1.51] and rosuvastatin RR 1.21 [1.01-1.44], vs. simvastatin), a past cardiovascular event (RR 1.33 [1.12-1.59]), at least one therapy change (RR 1.28 [1.15-1.43]), at least a lipid test (RR 1.26 [1.07-1.49]). A similar pattern was observed for persistence. This analysis of young adult HeFH patients showed that therapy change was quite frequent, and probably reflected adjustments according to individual response."

According to the news reporters, the research concluded: "Adherence and persistence were inadequate, even in this population at high cardiovascular risk, and they need to be improved through proper patient education and shared treatment decision-making approach."

For more information on this research see: Drug treatment and adherence of subjects < 40 years with diagnosis of heterozygous familial hypercholesterolemia. *Atherosclerosis*, 2016;254():172-178. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting M. Casula, University of Milan, Dept. of Pharmacol & Biomol Sci, Epidemiol &
Prevent Pharmacol Center SEFAP, I-20133 Milan, Italy. Additional authors for this research include L. Scotti, E. Tragni, L. Merlino, G. Corrao and A.L. Catapano.

Keywords for this news article include: Milan, Italy, Europe, Nutritional and Metabolic Diseases and Conditions, Familial Hypercholesterolemia, Therapy, Drugs and Therapies, Lipid Metabolism Disorders, Hyperlipidemias, Cardiovascular, Dyslipidemias, Cardiology, University of Milan.

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Oncology - Melanoma

Research Conducted at University of Minho Has Updated Our Knowledge about Melanoma (Fluorescent quantification of melanin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Melanoma have been published.

According to news reporting originating in Braga, Portugal, by NewsRx journalists, research stated, "Melanin quantification is reportedly performed by absorption spectroscopy, commonly at 405nm. Here, we propose the implementation of fluorescence spectroscopy for melanin assessment."

Funders for this research include Fundacao para a Ciencia e a Tecnologia, COMPETE 2020, BioTecNorte Operation, European Regional Development Fund.

The news reporters obtained a quote from the research from the University of Minho, "In a typical invitro assay to assess melanin production in response to an external stimulus, absorption spectroscopy clearly overvalues melanin content. This method is also incapable of distinguishing non-melanotic/amelanotic control cells from those that are actually capable of performing melanogenesis. Therefore, fluorescence spectroscopy is the best method for melanin quantification as it proved to be highly specific and accurate, detecting even small variations in the synthesis of melanin."

According to the news reporters, the research concluded: "This method can also be applied to the quantification of melanin in more complex biological matrices like zebrafish embryos and human hair."


Our news correspondents report that additional information may be obtained by contacting T. Matama, University of Minho, CBMA Center Mol & Environm Biol, Braga, Portugal. Additional authors for this research include T. Matama, D. Guimaraes, A. Gomes and A. Cavaco-Paulo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/pcmr.12535. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Braga, Portugal, Europe, Melanoma, Oncology, University of Minho.

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Research Conducted at University of Oxford Has Provided New Information about Ataxia Telangiectasia (MEK inhibitors block growth of lung tumours with mutations in ataxia-telangiectasia mutated)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Ataxia Telangiectasia have been published. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "Lung cancer is the leading cause of cancer deaths, and effective treatments are urgently needed. Loss-of-function mutations in the DNA damage response kinase ATM are common in lung adenocarcinoma but directly targeting these with drugs remains challenging."

Our news journalists obtained a quote from the research from the University of Oxford, "Here we report that ATM loss-of-function is synthetic lethal with drugs inhibiting the central growth factor kinases MEK1/2, including the FDA-approved drug trametinib. Lung cancer cells resistant to MEK inhibition become highly sensitive upon loss of ATM both in vitro and in vivo. Mechanistically, ATM mediates crosstalk between the prosurvival MEK/ERK and AKT/mTOR pathways. ATM loss also enhances the sensitivity of KRAS- or BRAF-mutant lung cancer cells to MEK inhibition."

According to the news editors, the research concluded: "Thus, ATM mutational status in lung cancer is a mechanistic biomarker for MEK inhibitor response, which may improve patient stratification and extend the applicability of these drugs beyond RAS and BRAF mutant tumours."


Keywords for this news article include: Oxford, United Kingdom, Europe, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Immune System Diseases and Conditions, Cerebellar Diseases and Conditions, Metabolic Diseases and Conditions, Vascular Diseases and Conditions, Immunologic Deficiency Syndromes, DNA Repair-Deficiency Disorders, Brain Diseases and Conditions, Neurologic Manifestations, Neurocutaneous Syndromes, Spinocerebellar Ataxias, Ataxia Telangiectasia, Lung Neoplasms, Lung Cancer, Dyskinesias, Neurology, Oncology, Genetics, University of Oxford.

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Research Conducted at University of Pittsburgh Has Provided New Information about Hot Flashes (Menopausal Hot Flashes and Carotid Intima Media Thickness Among Midlife Women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hot Flashes have been presented. According to news reporting out of Pittsburgh, Pennsylvania, by NewsRx editors, research stated, "There has been a longstanding interest in the role of menopause and its correlates in the development of cardiovascular disease (CVD) in women. Menopausal hot flashes are experienced by most midlife women; emerging data link hot flashes to CVD risk indicators."

Our news journalists obtained a quote from the research from the University of Pittsburgh, "We tested whether hot flashes, measured via state-of-the-art physiologic methods, were associated with greater subclinical atherosclerosis as assessed by carotid ultrasound. We considered the role of CVD risk factors and estradiol concentrations in these associations. A total of 295 nonsmoking women free of clinical CVD underwent ambulatory physiologic hot flash assessments; a blood draw; and carotid ultrasound measurement of intima media thickness and plaque. Associations between hot flashes and subclinical atherosclerosis were tested in regression models controlling for CVD risk factors and estradiol. More frequent physiologic hot flashes were associated with higher carotid intima media thickness (for each additional hot flash: beta [SE]=0.004 [0.001]; P=0.0001; reported hot flash: beta [SE]=0.008 [0.002]; P=0.002, multivariable) and plaque (eg, for each additional hot flash, odds ratio [95% confidence interval] plaque index >= 2=1.07 [1.003-1.14]; P=0.04, relative to no plaque, multivariable] among women reporting daily hot flashes; associations were not accounted for by CVD risk factors or by estradiol. Among women reporting hot flashes, hot flashes accounted for more variance in intima media thickness than most CVD risk factors. Among women reporting daily hot flashes, frequent hot flashes may provide information about a woman's vascular status beyond standard CVD risk factors and estradiol."

According to the news editors, the research concluded: "Frequent hot flashes may mark a vulnerable vascular phenotype among midlife women."

For more information on this research see: Menopausal Hot Flashes and Carotid Intima Media Thickness Among Midlife Women. *Stroke*, 2016;47(12):2910-2915. *Stroke* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Stroke - stroke.ahajournals.org/)

Our news journalists report that additional information may be obtained by contacting R.C. Thurston, University of Pittsburgh, Grad Sch Public Hlth, Dept. of Epidemiol, Pittsburgh, PA 15260, United States. Additional authors for this research include Y.F. Chang, E. Barinas-Mitchell, J.R. Jennings, D.P. Landsittel, N. Santoro, R. von Kanel and K.A. Matthews.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1161/STROKEAHA.116.014674. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Endocrine System Diseases and Conditions, Cardiovascular Diseases and Conditions, Ovarian Diseases and Conditions, Arterial Occlusive Diseases, Risk and Prevention, Estradiol Congeners, Gonadal Disorders, Ovarian Neoplasms, Gonadal
Research Conducted at University of Queensland Has Updated Our Knowledge about Atrial Fibrillation (The State of the Art: Atrial Fibrillation Epidemiology, Prevention, and Treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Atrial Fibrillation is now available. According to news reporting from New Orleans, Louisiana, by NewsRx journalists, research stated, "As the most common sustained arrhythmia in adults, atrial fibrillation (AF) is an established and growing epidemic. To provide optimal patient care, it is important for clinicians to be aware of AF's epidemiological trends, methods of risk reduction, and the various available treatment modalities."

The news correspondents obtained a quote from the research from the University of Queensland, "Our understanding of AF's pathophysiology has advanced, and with this new understanding has come advancements in prevention strategies as well as pharmacological and nonpharmacological treatment options. Following PubMed and MEDLINE searches for AF risk factors, epidemiology, and therapies, we reviewed relevant articles (and bibliographies of those articles) published from 2000 to 2016."

According to the news reporters, the research concluded: "This 'state-of-the-art' review provides a comprehensive update on the understanding of AF in the world today, contemporary therapeutic options, and directions of ongoing and future study."


Our news journalists report that additional information may be obtained by contacting D.P. Morin, University of Queensland, Sch Med, Ochsner Clin Sch, New Orleans, LA, United States. Additional authors for this research include M.L. Bernard, C. Madias, P.A. Rogers, S. Thihalolipavan and N.A.M. Estes.

Keywords for this news article include: New Orleans, Louisiana, United States, North and Central America, Epidemiology, Article Review, Risk and Prevention, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, University of Queensland.

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Research Conducted at University of Sassari Has Provided New Information about Query Fever (Mediterranean spotted fever-like illness in Sardinia, Italy: a clinical and microbiological study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Query Fever are presented in a new report. According to news originating from Sassari, Italy, by NewsRx correspondents, research stated, "Rickettioses represent a group of emerging infectious diseases in Europe. Climate changes and the anthropization of rural environment have favored vectors' biological cycle and geographic spread."

Our news journalists obtained a quote from the research from the University of Sassari, "In Sardinia, Mediterranean spotted fever (MSF) is endemic and represents an important public health problem. We investigated the etiology and the clinical presentation of MSF-like illness in northern Sardinia by enrolling patients admitted to the Infectious Disease Unit of the University of Sassari. Diagnostic tests included ELISA, Indirect immunofluorescence (IFI), DNA isolation from blood and from eschar samples with real-time PCR and genotyping. Eighty-seven patients with a mean age of 53 +/- 14 years, of whom 65 (75 %) males, were included in the study. The most common diagnosis was MSF (79 %), followed by Q fever (8 %), and anaplasmosis (2 %). A tache noire was found in 58 % of rickettioses and 28 % of Coxiella burnetii infections. MSF was confirmed in 47 % of the cases by IFI and 43 % by ELISA antibody tests. The isolation of rickettsial DNA from the eschar was positive in 10/13 (77 %) of the cases due to Rickettsia conorii. Using this method, we identified the first case of R. monacensis infection in Italy. In conclusion, antibody-based tests confirmed the diagnosis in less than 50 % of the cases, whereas DNA isolation confirmed the diagnosis in 77 % of tested cases and allowed the identification of a new pathogenic species in Italy."

According to the news editors, the research concluded: "Therefore, DNA isolation should be implemented to better identify the etiology of MSF-like illnesses and help the clinician in the management of patients."

For more information on this research see: Mediterranean spotted fever-like illness in Sardinia, Italy: a clinical and microbiological study. Infection, 2016;44(6):733-738. Infection can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Infection - www.springerlink.com/content/0300-8126/)

The news correspondents report that additional information may be obtained from G. Madeddu, University of Sassari, Dept. of Clin & Expt Med, Infect Dis Unit, I-07100 Sassari, Italy. Additional authors for this research include V. Fiore, F. Mancini, A. Caddeo, A. Ciervo, S. Babudieri, G. Masala, P. Bagella, G. Nunnari, G. Rezza and M.S. Mura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s15010-016-0921-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sassari, Italy, Europe, Genetics, Diagnostics and Screening, Epidemiology, Gram-Negative Bacterial Infections, Query Fever, Q Fever, University of Sassari.

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Enzymes and Coenzymes - Cysteine Endopeptidases

Research Conducted at University of Sonora Has Provided New Information about Cysteine Endopeptidases (Apoptotic activities of cardenolide glycosides from Asclepias subulata)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Cysteine Endopeptidases have been published. According to news reporting from Hermosillo, Mexico, by NewsRx journalists, research stated, "Ethnopharmaceutical relevance: Asclepias subulata Decne. (Apocynaceae) is a shrub occurring in Sonora Arizona desert. The ethnic groups of Sonora, Mexico, Seris and Pimas, use this plant for the treatment of sore eyes, gastrointestinal disorders and cancer."

Financial support for this research came from Consejo Nacional de Ciencia y Tecnología.

The news correspondents obtained a quote from the research from the University of Sonora, "Aim of the study: To determine the cell death pathways that the cardenolide glycosides with anti proliferative activity found in the methanol extract of A. subulata are able to activate. The effect of cardenolide glycosides isolated of A. subulata on induction of apoptosis in cancer cells was evaluated through the measuring of several key events of apoptosis. A549 cells were treated for 12 h with doses of 3.0, 0.2, 3.0 and 1.0 μM of 12, 16-dihydroxicalotropin, calotropin, corotoxigenin 3-O-glucopyranoside and desglucouzarin, respectively. Apoptotic and necrotic cell levels were measured by double staining with annexin V-FITC/PI. Mitochondrial membrane depolarization was examined through JC-1 staining. Apoptosis cell death and the apoptosis pathways activated by cardenolide glycosides isolated of A. subulata were further characterized by the measurement of caspase-3, caspase-8 and caspase-9 activity. Apoptotic assays showed that the four cardenolide glycosides isolated of A. subulata induced apoptosis in A549 cells, which was being evidenced by phosphatidylserine externalization in 18.2%, 17.0%, 23.9% and 22.0% for 12, 16-dihydroxicalotropin, calotropin, corotoxigenin 3-O-glucopyranoside and desglucouzarin, respectively, compared with 4.6% of control cells. Cell death was also associated with a decrease in mitochondrial membrane potential, which was more than 75% in the treated cultures respect to control. The activation of caspase-3 was observed in all cardenolide glycosides-treated cancer cells indicating the caspase-dependent apoptosis of A549 cells. Extrinsic and intrinsic apoptosis pathways were activated by cardenolide glycosides treatment at the doses tested."

According to the news reporters, the research concluded: "In this study was found that cardenolide glycosides, 12, 16-dihydroxicalotropin, calotropin, corotoxigenin 3-O-glucopyranoside and desglucouzarin, isolated from A. subulata induced the cell death trough caspase-dependent apoptosis, which was activated, preferably, by extrinsic pathway."


Our news journalists report that additional information may be obtained by contacting C. Velazquez, Univ Sonora, Div Ciencias Biol & Salud, Dept. of Ciencias Quim Biol, Hermosillo 83000, Sonora, Mexico. Additional authors for this research include C. Velazquez, A. Garibay-Escobar, W. Vilegas, L.A.M. Juarez, N. Gamez-Meza and R.E. Robles-
Zepeda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hermosillo, Mexico, North and Central America, Cysteine Endopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Oncology, Caspases, Cancer, University of Sonora.

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Proteomics
Research Conducted at University of Technology Has Updated Our Knowledge about Proteomics (Systematic Analysis of Protein Interaction Network Associated with Azoospermia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Proteomics are presented in a new report. According to news originating from Johor Baharu, Malaysia, by NewsRx correspondents, research stated, "Non-obstructive azoospermia is a severe infertility factor. Currently, the etiology of this condition remains elusive with several possible molecular pathway disruptions identified in the post-meiotic spermatozoa."

Our news journalists obtained a quote from the research from the University of Technology, "In the presented study, in order to identify all possible candidate genes associated with azoospermia and to map their relationship, we present the first protein-protein interaction network related to azoospermia and analyze the complex effects of the related genes systematically. Using Online Mendelian Inheritance in Man, the Human Protein Reference Database and Cytoscape, we created a novel network consisting of 209 protein nodes and 737 interactions. Mathematical analysis identified three proteins, ar, dazap2, and esr1, as hub nodes and a bottleneck protein within the network. We also identified new candidate genes, CREBBP and BCAR1, which may play a role in azoospermia. The gene ontology analysis suggests a genetic link between azoospermia and liver disease. The KEGG analysis also showed 45 statistically important pathways with 31 proteins associated with colorectal, pancreatic, chronic myeloid leukemia and prostate cancer."

According to the news editors, the research concluded: "Two new genes and associated diseases are promising for further experimental validation."

For more information on this research see: Systematic Analysis of Protein Interaction Network Associated with Azoospermia. International Journal of Molecular Sciences, 2016;17(11):1456-1465. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from S. Sabetian, Univ Teknol Malaysia, Fac Biosci & Med Engn, Dept. of Biol & Hlth Sci, Johor Baharu 81310, Malaysia.

Keywords for this news article include: Johor Baharu, Malaysia, Asia, Proteomics, Genetics, Protein Interaction, University of Technology.

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Research Conducted at University of Texas Has Provided New Information about B-Cell Lymphoma (Prognostic significance of baseline peripheral absolute neutrophil, monocyte and serum 2-microglobulin level in patients with diffuse large b-cell ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - B-Cell Lymphoma is now available. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "There are limited reports that baseline peripheral absolute neutrophil count (ANC), absolute monocyte count (AMC), absolute lymphocyte count (ALC) and serum 2-microglobulin level independently predict survival in patients with diffuse large B-cell lymphoma (DLBCL). To confirm these findings, we analysed these parameters together with components of the International Prognostic Index (IPI) in patients with newly-diagnosed DLBCL."

The news reporters obtained a quote from the research from the University of Texas, "We evaluated baseline clinical features for their ability to predict survival in 817 newly diagnosed, previously untreated patients with DLBCL who received frontline treatments between October 2001 and December 2011. The median age at diagnosis was 58 years. Multivariate analysis identified elevated baseline ANC (P=0.036), AMC (P=0.028) and serum 2-microglobulin level (P <0.001), poor performance status (P <0.001) and high number of extranodal disease sites (P=0.00497) as independent unfavourable predictors of OS; serum 2-microglobulin level was the strongest predictor of survival outcomes among all the parameters. High baseline serum 2-microglobulin, ANC and AMC levels are independent prognostic factors for short overall survival in patients with newly diagnosed DLBCL."

According to the news reporters, the research concluded: "Our new model, based on the above five parameters, better stratifies patients into various risk categories than the IPI for newly diagnosed DLBCL."


Our news correspondents report that additional information may be obtained by contacting A. Rodriguez, Univ Texas MD Anderson Canc Center, Dept. of Lymphoma & Myeloma, Houston, TX, United States. Additional authors for this research include S. Neelapu, L. Feng, W.Q. Bi, T.H. Yang, M. Wang, M.A. Fanale, J.R. Westin, F.B. Hagemeister, L.E. Fayad, J.E. Romaguera, F. Samaniego, F. Turturro, N.H. Fowler, P. McLaughlin, F. Cabanillas, Y. Oki, L.J. Nastoupil and Rodriguez.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Lymphomas, Diagnostics and Screening, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Mononuclear Phagocyte System, Hemic and Immune Systems, Mononuclear Leukocytes, Large B-Cell Lymphoma, Bone Marrow Cells, Cell Research, Myeloid Cells, Granulocytes, Blood Cells, Neutrophils, Immunology, Phagocytes, Hematology, Monocytes, Oncology, University of Texas.
Research Conducted at University of Texas Has Provided New Information about Urothelial Cancer [Nivolumab monotherapy in recurrent metastatic urothelial carcinoma (CheckMate 032): a multicentre, open-label, two-stage, multi-arm, phase 1/2 trial]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Urothelial Cancer is now available. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Few effective treatments exist for patients with advanced urothelial carcinoma that has progressed after platinum-based chemotherapy. We assessed the activity and safety of nivolumab in patients with locally advanced or metastatic urothelial carcinoma whose disease progressed after previous platinum-based chemotherapy."

Financial support for this research came from NIH/NCI Cancer Center Support.

Our news editors obtained a quote from the research from the University of Texas, "In this phase 1/2, multicentre, open-label study, we enrolled patients (age >= 18 years) with urothelial carcinoma of the renal pelvis, ureter, bladder, or urethra at 16 sites in Finland, Germany, Spain, the UK, and the USA. Patients were not selected by PD-L1 expression, but tumour PD-L1 membrane expression was assessed retrospectively. Patients received nivolumab 3 mg/kg intravenously every 2 weeks until disease progression or treatment discontinuation because of unacceptable toxicity or other protocol-defined reasons, whichever occurred later. The primary endpoint was objective response by investigator assessment. All patients who received at least one dose of the study drug were included in the analyses. We report an interim analysis of this ongoing trial. CheckMate 032 is registered with ClinicalTrials.gov, NCT01928394. Between June 5, 2014, and April 24, 2015, 86 patients with metastatic urothelial carcinoma were enrolled in the nivolumab monotherapy group and 78 received at least one dose of treatment. At data cutoff(March 24, 2016), the minimum follow-up was 9 months (median 15.2 months, IQR 12.9-16.8). A confirmed investigator-assessed objective response was achieved in 19 (24.4%, 95% CI 15.3-35.4) of 78 patients. Grade 3-4 treatment-related adverse events occurred in 17 (22%) of 78 patients; the most common were elevated lipase (four [5%]), elevated amylase (three [4%]), and fatigue, maculopapular rash, dyspnoea, decreased lymphocyte count, and decreased neutrophil count (two [3%] each). Serious adverse events were reported in 36 (46%) of 78 patients and eight (10%) had a serious adverse event judged to be treatment related. Two (3%) of 78 patients discontinued because of treatment-related adverse events (grade 4 pneumonitis and grade 4 thrombocytopenia) and subsequently died. Nivolumab monotherapy was associated with a substantial and durable clinical response and a manageable safety profile in previously treated patients with locally advanced or metastatic urothelial carcinoma."

According to the news editors, the research concluded: "These data support further investigation of nivolumab monotherapy in advanced urothelial carcinoma."

For more information on this research see: Nivolumab monotherapy in recurrent metastatic urothelial carcinoma (CheckMate 032): a multicentre, open-label, two-stage, multi-arm, phase 1/2 trial. *Lancet Oncology*, 2016;17(11):1590-1598. *Lancet Oncology* can be
Contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.
(Elsevier - www.elsevier.com; Lancet Oncology - www.journals.elsevier.com/lancet-oncology/)

The news editors report that additional information may be obtained by contacting P. Sharma, Univ Texas MD Anderson Canc Center, Dept. of Immunol, Dept. of Genitourinary Med Oncol, Houston, TX 77030, United States. Additional authors for this research include M.K. Callahan, P. Bono, J. Kim, P. Spiliopoulou, E. Calvo, R.N. Pillai, P.A. Ott, F. de Braud, M. Morse, D.T. Le, D. Jaeger, E. Chan, C. Harbison, C.S. Lin, M. Tschaika, A. Azrilevich and J.E. Rosenberg.

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http://dx.doi.org/10.1016/S1470-2045(16)30496-X. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Clinical Trials and Studies, Adverse Drug Reactions, Drugs and Therapies, Clinical Research, Urothelial Cancer, Carcinomas, Oncology, University of Texas.

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Myeloid Cells

Research Conducted at University of Tokyo Has Updated Our Knowledge about Myeloid Cells (Conditional Rod Photoreceptor Ablation Reveals Sall1 as a Microglial Marker and Regulator of Microglial Morphology in the Retina)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Myeloid Cells have been published. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Neurodegeneration has been shown to induce microglial activation and the infiltration of monocyte-derived macrophages into the CNS, resulting in the coexistence of these two populations within the same lesion, though their distinct features remain elusive. To investigate the impact of rod photoreceptor degeneration on microglial activation, we generated a toxin-mediated genetic model of rod degeneration."

Our news editors obtained a quote from the research from the University of Tokyo, "Rod injury induced microglial proliferation and migration toward the photoreceptors. Bone marrow transplantation revealed the invasion of monocyte-derived macrophages into the retina, with microglia and the infiltrating macrophages showing distinct distribution patterns in the retina. By comparing the gene expression profiles of the activated microglia and infiltrating macrophages, we identified microglia-specific genes, including Ak1, Ctsf, Sall1, Phlda3, and Spns2. An analysis of Sall1gfp knock-in mice showed GFP expression in the microglia of developing and mature healthy retinas. DTA injury induced the expansion of Sall1gfp 1 microglia, whereas Ly6C(+) monocyte-derived macrophages were mostly Sall1gfp(-), supporting the idea that Sall1 is exclusively expressed in microglia within the retinal phagocyte pool. We evaluated the contribution of microglia to the phagocyte pool in rd1 mutant retinas and found that Sall1gfp 1 microglia constituted the majority of phagocytes. A Sall1 deficiency did not affect microglial colonization of the retina and the cortex, but it did change their morphology from a ramified to a more amoeboid appearance. The morphological defects observed in Sall1-deficient microglia were not rescued by the presence of wild-type non-
microglial cells, suggesting that Sall1 functions cell-autonomously in microglia.”

According to the news editors, the research concluded: "Taken together, our data indicate that Sall1 regulates microglial morphology during development."


The news editors report that additional information may be obtained by contacting S. Watanabe, University of Tokyo, Inst Med Sci, Div Mol & Dev Biol, Tokyo, Japan. Additional authors for this research include A. Tsuhako, C.Y. Lai, Y. Baba, M. Otsu, K. Ueno, M. Nagasaki, Y. Suzuki and S. Watanabe.

Keywords for this news article include: Tokyo, Japan, Asia, Mononuclear Phagocyte System, Hemic and Immune Systems, Connective Tissue Cells, Mononuclear Leukocytes, Bone Marrow Cells, Cell Research, Myeloid Cells, Blood Cells, Macrophages, Immunology, Phagocytes, Microglia, Neuroglia, Monocytes, Genetics, University of Tokyo.

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**Heart Disorders and Diseases - Ebstein Anomaly**

**Research Conducted at University of Toronto Has Updated Our Knowledge about Ebstein Anomaly (Contemporary Outcomes and Factors Associated With Mortality After a Fetal or Neonatal Diagnosis of Ebstein Anomaly and Tricuspid Valve Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Ebstein Anomaly have been presented. According to news reporting originating in Toronto, Canada, by NewsRx journalists, research stated, "Ebstein anomaly (EA) and tricuspid valve dysplasia (TVD) are rare anomalies and data on outcomes after a fetal or neonatal EA/TVD diagnosis are conflicting. To examine the outcome and identify markers predictive of mortality, we reviewed our single-centre experience from 2000-2014."

The news reporters obtained a quote from the research from the University of Toronto, "Variables were analyzed separately for cases diagnosed in utero without pregnancy termination and for all live-born patients. Of 47 fetal cases, 8 (17%) died in utero and 10 (21%) as neonates. Independent predictors associated with fetal demise included severe tricuspid regurgitation with a Doppler gradient < 40 mm Hg (odds ratio, 1.22 per mm Hg deduction; P = 0.003) and pulmonary regurgitation (odds ratio, 11.4; P = 0.03) at the baseline examination. A novel prognostic score (range, 0-10) combining the severity of 5 echocardiographic findings was independently associated with overall mortality (hazard ratio [HR], 1.39 per point increase; P = 0.01). Survival rates of 66 live births at 1 month, 1 year, and 5 years were 86%, 82%, and 80% respectively, and 75%, 60%, and 55% remained free from surgery at the same points in time. Factors associated with postnatal death in multivariate analysis included a younger gestational age at birth (HR per week, 1.59; P< 0.001), tricuspid annulus diameter (HR per z-score increase, 1.76; P = 0.004), and no pulmonary forward flow (HR, 4.63; P = 0.03). Our experience with fetal and neonatal EA/TVD shows better survival rates than previously reported."
According to the news reporters, the research concluded: "Mortality after a fetal diagnosis was significantly associated with hemodynamic changes indicative of a circular shunt, including pulmonary and tricuspid regurgitation severe enough to cause diastolic umbilical arterial flow reversal."


Our news correspondents report that additional information may be obtained by contacting M. Jaeggi, University of Toronto, Hospital for Sick Children, Dept. of Paediat, Labatt Family Heart Center, Toronto, ON, Canada. Additional authors for this research include C. Manlhiot, M. Jaeggi, M. Seed, A. Dragulescu, S.M. Schwartz, G. van Arsdell and E.T. Jaeggi.

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Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Heart Disorders and Diseases, Cardiovascular Abnormalities, Congenital Abnormalities, Congenital Heart Defects, Ebstein Anomaly, Heart Disease, University of Toronto.

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**Heart Disorders and Diseases - Heart Attack**

**Research Conducted at University of Toronto Has Updated Our Knowledge about Heart Attack (Anesthesia Technique and Mortality after Total Hip or Knee Arthroplasty A Retrospective, Propensity Score-matched Cohort Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Attack are presented in a new report. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "This propensity score-matched cohort study evaluates the effect of anesthetic technique on a 30-day mortality after total hip or knee arthroplasty. All patients who had hip or knee arthroplasty between January 1, 2003, and December 31, 2014, were evaluated."

Our news editors obtained a quote from the research from the University of Toronto, "The principal exposure was spinal versus general anesthesia. The primary outcome was 30-day mortality. Secondary outcomes were (1) perioperative myocardial infarction; (2) a composite of major adverse cardiac events that includes cardiac arrest, myocardial infarction, or newly diagnosed arrhythmia; (3) pulmonary embolism; (4) major blood loss; (5) hospital length of stay; and (6) operating room procedure time. A propensity score-matched-pair analysis was performed using a nonparsimonious logistic regression model of regional anesthetic use. We identified 10,868 patients, of whom 8,553 had spinal anesthesia and 2,315 had general
anesthesia. Ninety-two percent (n = 2,135) of the patients who had general anesthesia were matched to similar patients who did not have general anesthesia. In the matched cohort, the 30-day mortality rate was 0.19% (n = 4) in the spinal anesthesia group and 0.8% (n = 17) in the general anesthesia group (risk ratio, 0.42; 95% CI, 0.21 to 0.83; P = 0.0045). Spinal anesthesia was also associated with a shorter hospital length of stay (5.7 vs. 6.6 days; P < 0.001).

According to the news editors, the research concluded: "The results of this observational, propensity score-matched cohort study suggest a strong association between spinal anesthesia and lower 30-day mortality, as well as a shorter hospital length of stay, after elective joint replacement surgery."

For more information on this research see: Anesthesia Technique and Mortality after Total Hip or Knee Arthroplasty A Retrospective, Propensity Score-matched Cohort Study. Anesthesiology. 2016;125(4):724-731. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

The news editors report that additional information may be obtained by contacting A. Perlas, University of Toronto, Univ Hlth Network, Toronto Western Hosp, Dept. of Anesthesia, Toronto, ON M5T 2S8, Canada. Additional authors for this research include V.W.S. Chan and S. Beattie.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Vascular Diseases and Conditions, Heart Disorders and Diseases, Orthopedic Procedures, Myocardial Infarction, Myocardial Ischemia, Knee Arthroplasty, Pain Medicine, Heart Disease, Heart Attack, Cardiology, Anesthesia, Hospital, Surgery, University of Toronto.

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Cardiology

Research Conducted at University of Tours Has Updated Our Knowledge about Cardiology (Position paper for management of elderly patients with pacemakers and implantable cardiac defibrillators: Groupe de Rythmologie et Stimulation Cardiaque de la ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting originating from Tours, France, by NewsRx correspondents, research stated, "Despite the increasingly high rate of implantation of pacemakers (PMs) and implantable cardioverter defibrillators (ICDs) in elderly patients, data supporting their clinical and cost-effectiveness in this age stratum are ambiguous and contradictory. We reviewed the data regarding the applicability, safety and effectiveness of conventional pacing, ICDs and cardiac resynchronization therapy (CRT) in elderly patients."

Our news editors obtained a quote from the research from the University of Tours, "Although periprocedural risk may be slightly higher in the elderly, the implantation procedure for PMs and ICDs is still relatively safe in this age group. In older patients with sinus node disease, the general consensus is that DDD pacing with the programming of an algorithm to minimize ventricular pacing is preferred. In very old patients presenting with intermittent or"
suspected atroventricular block, WI pacing may be appropriate. In terms of correcting potentially life-threatening arrhythmias, the effectiveness of ICD therapy is similar in older and younger individuals. However, the assumption of persistent ICD benefit in the elderly population is questionable, as any advantageous effect of the device on arrhythmic death may be attenuated by higher total non-arrhythmic mortality. While septuagenarians and octogenarians have higher annual all-cause mortality rates, ICD therapy may remain effective in selected patients at high risk of arrhythmic death and with minimum comorbidities despite, advanced age. ICD implantation among the elderly, as a group, may not be cost-effective, but the procedure may reach cost-effectiveness in those expected to live more than 5-7 years after implantation. Elderly patients usually experience significant functional improvement after CRT, similar to that observed in middle-aged patients. Management of CRT non-responders remains globally the same, while considering a less aggressive approach in terms of reinterventions (revision of left ventricular [LV] lead placement, addition of a right ventricular or LV lead, LV endocardial pacing configuration)."

According to the news editors, the research concluded: "Overall, physiological age, general status and comorbidities rather than chronological age per se should be the decisive factors in making a decision about device implantation selection for survival and well-being benefit in elderly patients."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.acvd.2016.04.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tours, France, Europe, Medical Devices, Cardio Device, Cardiology, Therapy, University of Tours.

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Genetics - Medical Genetics

Research Conducted at University of Washington Has Provided New Information about Medical Genetics (CADD score has limited clinical validity for the identification of pathogenic variants in noncoding regions in a hereditary cancer panel)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Genetics - Medical Genetics are discussed in a new
According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "Several in silico tools have been shown to have reasonable research sensitivity and specificity for classifying sequence variants in coding regions. The recently developed combined annotation dependent depletion (CADD) method generates predictive scores for single-nucleotide variants (SNVs) in all areas of the genome, including noncoding regions."

Our news journalists obtained a quote from the research from the University of Washington, "We sought for non-coding variants to determine the clinical validity of common CADD scores. We evaluated 12,391 unique SNVs in 624 patient samples submitted for germline mutation testing in a cancer-related gene panel. Stratifying by genomic region, we compared the distributions of CADD scores of rare SNVs, SNVs common in our patient population, and the null distribution of all possible SNVs. The median CADD scores of intronic and nonsynonymous variants were significantly different between rare and common SNVs (P < 0.0001). Despite these different distributions, no individual variants could be identified as plausibly causative among the rare intronic variants with the highest scores. The receiver-operating characteristics (ROC) area under the curve (AUC) for noncoding variants is modest, and the positive predictive value of CADD for intronic variants in panel testing was found to be 0.088."

According to the news editors, the research concluded: "Focused in silico scoring systems with much higher predictive value will be necessary for clinical genomic applications."

For more information on this research see: CADD score has limited clinical validity for the identification of pathogenic variants in noncoding regions in a hereditary cancer panel. Genetics in Medicine, 2016;18(12):1269-1275. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)

The news correspondents report that additional information may be obtained from B.H. Shirts, University of Washington, Dept. of Lab Med, Seattle, WA 98195, United States. Additional authors for this research include S.D. Mooney, S.J. Salipante, S. Scroggins, D. Wu, C.C. Pritchard and B.H. Shirts.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gim.2016.44. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Medical Genetics, Cancer, Diagnostics and Screening, Genetics, Oncology, University of Washington.

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Enzymes and Coenzymes - Cholinesterases

Research Conducted at University of Zagreb Has Updated Our Knowledge about Cholinesterases (A comprehensive evaluation of novel oximes in creation of butyrylcholinesterase-based nerve agent bioscavengers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Enzymes and Coenzymes - Cholinesterases are presented in a new report. According to news reporting originating from Zagreb, Croatia, by NewsRx
correspondents, research stated, "A well-considered treatment of acute nerve agents poisoning involves the exogenous administration of butyrylcholinesterase (BChE, EC 3.1.1.8) as a stoichiometric bioscavenger efficient in preventing cholinergic crises caused by acetylcholinesterase (AChE, EC 3.1.1.7) inhibition. An additional improvement in medical countermeasures would be to use oximes that could reactivate BChE as well to upgrade bioscavenging from stoichiometric to oxime-assisted catalytic."

Funders for this research include Ministry of Science, Education and Sports of the Republic of Croatia, Croatian Science Foundation.

Our news editors obtained a quote from the research from the University of Zagreb, "Therefore, in this paper we investigated the potency of 39 imidazolium and benzimidazolium oximes (36 compounds synthesized for the first time) to be considered as the reactivators specifically designed for reactivation of phosphorylated human BChE. Their efficiency in the reactivation of paraoxon-, VX-, and tabun-inhibited human BChE, as well as human AChE was tested and compared with the efficiencies of HI-6 and obidoxime, used in medical practice today. A comprehensive analysis was performed for the most promising oximes defining kinetic parameters of reactivation as well as interactions with uninhibited BChE. Furthermore, experimental data were compared with computational studies (docking, QSAR analysis) as a starting point in future oxime structure refinement. Considering the strict criteria set for in vivo applications, we determined the cytotoxicity of lead oximes on two cell lines. Among the tested oxime library, one imidazolium compound was selected for preliminary in vivo antidotal study in mice."

According to the news editors, the research concluded: "The obtained protection in VX poisoning outlines its potential in development oxime-assisted OP-bioscavenging with BChE."


The news editors report that additional information may be obtained by contacting I. Primozic, University of Zagreb, Dept. of Chem, Fac Sci, HR-10001 Zagreb, Croatia. Additional authors for this research include N.M. Hrvat, K. Baumann, S.M. Pipercic, S. Makaric, S. Tomic, O. Jovic, T. Hrenar, A. Milicevic, D. Jelic, S. Zunec, I. Primozic and Z. Kovarik.

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Keywords for this news article include: Zagreb, Croatia, Europe, Butyrylcholinesterase, Enzymes and Coenzymes, Cholinesterases, Hydroxylamines, Hydrolases, Poisoning, Oximes, University of Zagreb.

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Drugs and Therapies - Chemotherapy

Research Conducted at Wellesley College Has Provided New Information about Chemotherapy (Bacterial Spheroplasts as a Model for Visualizing Membrane Translocation of Antimicrobial Peptides)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Chemotherapy are presented in a new report. According to news reporting originating in Wellesley, Massachusetts, by NewsRx journalists, research stated, "Studies attempting to characterize the membrane translocation of antimicrobial and cell-penetrating peptides are frequently limited by the resolution of conventional light microscopy."

Financial support for this research came from HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID).

The news reporters obtained a quote from the research from Wellesley College, "This study shows that spheroplasts provide a valuable approach to overcome these limits. Spheroplasts produce less ambiguous images and allow for more systematic analyses of localization."

According to the news reporters, the research concluded: "Data collected with spheroplasts are consistent with studies using normal bacterial cells and imply that a particular peptide may not always follow the same mechanism of action."

For more information on this research see: Bacterial Spheroplasts as a Model for Visualizing Membrane Translocation of Antimicrobial Peptides. Antimicrobial Agents and Chemotherapy, 2016;60(10):6350-6352. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting L.E.O. Darling, Wellesley College, Dept. of Biol Sci, Wellesley, MA 02181, United States. Additional authors for this research include M.A. LaBouyer, L.E.O. Darling and D.E. Elmore.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01008-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wellesley, Massachusetts, United States, North and Central America, Chemotherapy, Drugs and Therapies, Wellesley College.

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Intranuclear Space

Research Conducted at Wistar Institute Has Updated Our Knowledge about Intranuclear Space (EBNA2 Drives Formation of New Chromosome Binding Sites and Target Genes for B-Cell Master Regulatory Transcription Factors RBP-jk and EBF1)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Intranuclear Space are presented in a new report. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "Epstein-Barr Virus (EBV) transforms resting B-lymphocytes into proliferating lymphoblasts to establish latent infections that can give rise to malignancies. We show here that EBV-encoded transcriptional regulator EBNA2 drives the cooperative and combinatorial genome-wide binding of two master regulators of B-cell fate, namely EBF1 and RBP-jk."

Our news journalists obtained a quote from the research from Wistar Institute, "Previous studies suggest that these B-cell factors are statically bound to target gene promoters. In contrast, we found that EBNA2 induces the formation of new binding for both RBP-jk and EBF1, many of which are in close physical proximity in the cellular and viral genome. These newly induced binding sites co-occupied by EBNA2-EBF1-RBP-jk correlate strongly with transcriptional activation of linked genes that are important for B-lymphoblast function. Conditional expression or repression of EBNA2 leads to a rapid alteration in RBP-jk and EBF1 binding. Biochemical and shRNA depletion studies provide evidence for cooperative assembly at co-occupied sites."

According to the news editors, the research concluded: "These findings reveal that EBNA2 facilitate combinatorial interactions to induce new patterns of transcription factor occupancy and gene programming necessary to drive B-lymphoblast growth and survival."


Our news journalists report that additional information may be obtained by contacting F. Lu, The Wistar Institute, Philadelphia, Pennsylvania, United States. Additional authors for this research include H.S. Chen, A.V. Kossenkov, K. DeWispeleare, K.J. Won and P.M Lieberman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.ppat.1005339. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Proteins, Chromosomes, Philadelphia, Pennsylvania, Cell Nucleus, United States, Combinatorial, Intranuclear Space, Cellular Structures, Intracellular Space, Transcription Factors, North and Central America.

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Naphthaleneacetic Acids

Research Conducted at Wroclaw University Has Updated Our Knowledge about Naphthaleneacetic Acids (Synthesis and Formulation of Thermosensitive Drug Carrier for Temperature Triggered Delivery of Naproxen Sodium)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Naphthaleneacetic Acids is the subject of a report. According to news reporting originating in Wroclaw, Poland, by NewsRx journalists, research stated, "Nanospheres and microspheres are known as a multipurpose compounds and are used in
various branches of science. Recent controlled delivery systems for drugs are also based on poly-micro and nanospheres."

The news reporters obtained a quote from the research from Wroclaw University, "In our study we describe an investigation of the influence of thermosensitive polymer N-isopropylacrylamide (NIPA) on the release of the drug naproxen sodium (NS) with a hydrogel hydroxypropyl methylcellulose (HPMC) base. The hydrodynamic diameter (DH) of the obtained polymer was measured by using dynamic light scattering (DLS) at a wavelength of 678 nm. Hydrogel formulations of NS were prepared in a specific way ex tempore. NS was sprinkled on the surface of a distilled water, then polymer soluted in water was added. Afterward, HPMC was affixed to the solution. Prepared samples were stored at room temperature for 24 h. Release tests showed that modification of the cross-linker type influenced the properties of synthesized polymeric particles. The NIPA derivatives obtained via surfactant free precipitation polymerization (SFPP) may be formulated as hydrogel preparations using HPMC. The obtained formulations presented varied half-release times, depending on the type of applied NIPA derivatives in hydrogel formulations. At 18 degrees C, the release rates were lower comparing to the reference HPMC hydrogel, whereas at 42 degrees C, the release rates were significantly higher.""

According to the news reporters, the research concluded: "The synthesized thermosensitive polymers enabled temperature-triggered release of NS."

For more information on this research see: Synthesis and Formulation of Thermosensitive Drug Carrier for Temperature Triggered Delivery of Naproxen Sodium. Molecules, 2016;21(11):781-791. Molecules can be contacted at: Mdp Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news correspondents report that additional information may be obtained by contacting M. Gasztych, Wroclaw University, Pharmaceut Fac, Dept. of Phys Chem, PL-50556 Wroclaw, Poland. Additional authors for this research include A. Gola, K. Justyna and W. Musial.

Keywords for this news article include: Wroclaw, Poland, Europe, Naphthaleneacetic Acids, Drug Delivery Systems, Emerging Technologies, Polyethylene Glycols, Drugs and Therapies, Organic Chemicals, Drug Development, Naproxen Therapy, Pharmaceuticals, Nanotechnology, Nanosphere, Alcohols, Hydrogel, Wroclaw University.

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Oncology - Esophageal Cancer

Research Conducted at Yokohama City University Has Provided New Information about Esophageal Cancer (Evaluation of the Glasgow Prognostic Score in patients receiving chemoradiotherapy for stage III and IV esophageal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Esophageal Cancer. According to news reporting originating from Kanagawa, Japan, by NewsRx correspondents, research stated, "High Glasgow Prognostic scores (GPSs) have been associated with poor outcomes in various tumors, but the values of GPS and modified GPS (mGPS) in patients with
advanced esophageal cancer receiving chemoradiotherapy (CRT) has not yet been reported. We have evaluated these with respect to predicting responsiveness to CRT and long-term survival.

According to the news editors, the research concluded: "However, a multicenter study as same regime with large number of patients will be needed to confirm these outcomes."


The news editors report that additional information may be obtained by contacting J. Kimura, Yokohama City University, Medical Center, Gastroenterol Center, Dept. of Surg, Yokohama, Kanagawa, Japan. Additional authors for this research include C. Kunisaki, H. Makino, T. Oshima, M. Ota, M. Oba, R. Takagawa, T. Kosaka, H.A. Ono, H. Akiyama and I. Endo.

Keywords for this news article include: Kanagawa, Japan, Asia, Esophageal Cancer, Gastroenterology, Oncology, Yokohama City University.

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Drugs and Therapies - Antibiotics

Research Conducted at Zagazig University Has Provided New Information about Antibiotics (Rifaximin and midodrine improve clinical outcome in refractory ascites including renal function, weight loss, and short-term survival)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a new report. According to news reporting originating from Zagazig, Egypt, by NewsRx correspondents, research stated, "Backgrounds and aims The occurrence of refractory ascites in nearly 17% of patients with decompensated cirrhosis is an unresolved issue. Advanced liver disease, functional renal impairment, and vascular insensitivity to vasopressors are the main causes of its refractoriness."

Our news editors obtained a quote from the research from Zagazig University, "Therefore, the aim of this study was to evaluate the impact on diuresis, weight loss, and short-
term survival if midodrine and rifaximin were added to the diuretic therapy (DT).

Materials and methods

The study evaluated the eligibility of 650 patients with cirrhosis and refractory ascites who were selected during the period from November 2011 to May 2015. A total of 50 patients were excluded and finally 600 were selected and divided into the following groups: patients exposed to DT (n=200) as a control group, or DT with midodrine and rifaximin group (n=400). Body weight, mean arterial pressure, and glomerular filtration rate were determined. Plasma renin and aldosterone were also determined. Follow-up was performed after 2, 6, and 12 weeks, and then every 2 months for 24 months. Results

The mean arterial pressure was significantly higher in the midodrine and rifaximin group (P=0.000), and there was a highly significant weight loss after 12 weeks (12.5kg) (P=0.000), a highly significant increase in serum sodium, urine output, and urinary sodium excretion (P=0.000), and creatinine clearance was more reduced in the control group. With rifaximin and midodrine, a complete response occurred in 310 (78%) patients, a partial response in 72 (18%), and no response in 18 (4%) versus 30 (15%), 110 (55%), and 60 (30%) in the control group, respectively (P=0.000).

According to the news editors, the research concluded: "Midodrine and rifaximin significantly reduced paracentesis needs when compared with the controls (18 study patients vs. 75 DT-only patients, P=0.000). Conclusion

Adding rifaximin and midodrine to DT enhanced diuresis in refractory ascites with improved systemic, renal hemodynamics and short-term survival."

For more information on this research see: Rifaximin and midodrine improve clinical outcome in refractory ascites including renal function, weight loss, and short-term survival. European Journal of Gastroenterology & Hepatology, 2016;28(12):1455-1461. European Journal of Gastroenterology & Hepatology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; European Journal of Gastroenterology & Hepatology - journals.lww.com/eurojgh/pages/default.aspx)

The news editors report that additional information may be obtained by contacting A.S. Hanafy, Zagazig Univ, Dept. of Internal Med, Div Hepatogastroenterol, Zagazig, Egypt.

Keywords for this news article include: Zagazig, Egypt, Africa, Adrenergic alpha-Agonist, Vasoconstrictor Agents, Cardiovascular Agents, Drugs and Therapies, Midodrine Therapy, Gastroenterology, Kidney Function, Sympathomimetic, Renal Function, Antineffectives, Ethanolamines, Antibiotics, Nephrology, Rifaximin, Ascites, Zagazig University.

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Hematologic Diseases and Conditions - Anemia

Research Conducted by C. von Heymann and Co-Researchers Has Updated Our Knowledge about Anemia (Does the severity of preoperative anemia or blood transfusion have a stronger impact on long-term survival after cardiac surgery?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematologic Diseases and Conditions - Anemia have been published. According to news reporting out of Berlin, Germany, by NewsRx editors, research stated, "Preoperative anemia and transfusion are associated with increased morbidity
and mortality in cardiac surgery patients. It is unclear which of these factors plays the leading role in poor outcomes after cardiac surgery."

Our news journalists obtained a quote from the research, "The goal of this study was to analyze the influence of anemias of varying severity and intraoperative transfusion on long-term survival, and to characterize their interaction in cardiac surgery patients. This was an observational cohort study conducted at a German university hospital. All patients undergoing cardiac surgery between 2006 and 2011 were screened for eligibility; duration of follow-up was 3 years. A total of 4494 patients were suitable for analysis; data on long-term survival were available for 3131 of these patients. The main outcome measure was survival at the 3-year follow-up. Length of stay and in-hospital mortality were assessed as secondary outcomes. Multivariate Cox regression analyses indicated that both the severity of preoperative anemia (mild anemia: hazard ratio [HR], 1.441; 95% confidence interval [CI], 1.201-1.728; severe anemia: HR, 1.805; 95% CI, 1.336-2.440) and intraoperative transfusion (HR, 1.340; 95% CI, 1.109-1.620) were associated with decreased long-term survival. Long-term survival was worse in anemic patients who received an intraoperative transfusion compared with those who did not receive an intraoperative transfusion. Both preoperative anemia and transfusion are by themselves and in combination associated with decreased long-term survival."

According to the news editors, the research concluded: "When anemic patients require transfusion, our results provide evidence that the risk of death after cardiac surgery may depend to a considerable extent on the severity of preoperative anemia."


Our news journalists report that additional information may be obtained by contacting C. von Heymann, Vivantes Klinikum Friedrichshain, Dept. of Anesthesiol Intens Care Med Emergency Med & Intens, D-10249 Berlin, Germany. Additional authors for this research include L. Kaufner, M. Sander, C. Spies, K. Schmidt, H. Gombotz, K.D. Wernecke and F. Balzer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtcvs.2016.06.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berlin, Germany, Europe, Hemic and Lymphatic Diseases and Conditions, Biological Therapy, Risk and Prevention, Hematologic Diseases and Conditions, Cardiac Surgery, Cardiology, Hospital, Anemia.

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Drugs and Therapies - Drug Resistance

Research Conducted by E. Jagielska and Co-Researchers Has Updated Our Knowledge about Drug Resistance (LytM Fusion with SH3b-Like Domain Expands Its Activity to Physiological Conditions)
New research on Drugs and Therapies - Drug Resistance is the subject of a report. According to news reporting out of Warsaw, Poland, by NewsRx editors, research stated, "Staphylococcus aureus remains one of the most common and at the same time the most dangerous bacteria. The spreading antibiotic resistance calls for intensification of research on staphylococcal physiology and development of new strategies for combating this threatening pathogen."

Our news journalists obtained a quote from the research, "We have engineered new chimeric enzymes comprising the enzymatically active domain (EAD) of autolysin LytM from S. aureus and the cell wall binding domain (CBD) from bacteriocin lysostaphin. They display potent activity in extended environmental conditions. Our results exemplify the possibility of exploring autolytic enzymes in engineering lysins with desired features."

According to the news editors, the research concluded: "Moreover, they suggest a possible mechanism of autolysin physiological activity regulation by local ionic environments in the cell wall."

For more information on this research see: LytM Fusion with SH3b-Like Domain Expands Its Activity to Physiological Conditions. Microbial Drug Resistance, 2016;22(6):461-469. Microbial Drug Resistance can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Microbial Drug Resistance - www.liebertpub.com/overview/microbial-drug-resistance/44/)

Our news journalists report that additional information may be obtained by contacting I. Sabala, Int Inst Mol & Cell Biol Warsaw, PL-02109 Warsaw, Poland. Additional authors for this research include O. Chojnacka and I. Sabala.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/mdr.2016.0053. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Warsaw, Poland, Europe, Drug Resistance, Autolysin, Drugs and Therapies, Enzymes and Coenzymes.

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Research Conducted by G. Choi and Co-Researchers Has Updated Our Knowledge about Nanoparticles (A cost-effective chemiluminescent biosensor capable of early diagnosing cancer using a combination of magnetic beads and platinum nanoparticles)

Nanotechnology - Nanoparticles

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nanotechnology - Nanoparticles. According to news reporting originating from Hagerstown, Maryland, by NewsRx correspondents, research stated, "Using thyroid stimulant hormone (TSH) detection antibody-conjugated horseradish peroxidase (HRP) immobilized on platinum (Pt) nanoparticle, a highly sensitive biosensor designed based on the principle of 1,1'-oxalylidimidazole chemiluminescent enzyme immune assay (ODI CLEIA) was developed for the early diagnosis of thyroid cancer. Trace levels of TSH in human serum was rapidly quantified with the highly sensitive
biosensor.

Our news editors obtained a quote from the research, "The time necessary for the quantification of TSH using the biosensor with ODI CL detection was at least 3 times more rapid than commercially available enzyme immunoassay with colorimetric detection. The linear calibration curve (0.013-12 mU L-1) of biosensor obtained with 3-6% coefficient of variation was wider than that of the commercial product. Also, the limit of detection (LOD=background+3 sigma, 0.005 mU L-1) of biosensor was about 100-fold lower than that of commercial enzyme immunoassay."

According to the news editors, the research concluded: "We expect that the newly developed biosensor, which has excellent accuracy, precision, and reproducibility, can be applied as a new method for the early diagnosis of thyroid cancer."

For more information on this research see: A cost-effective chemiluminescent biosensor capable of early diagnosing cancer using a combination of magnetic beads and platinum nanoparticles. *Talanta*, 2017;162():38-45. *Talanta* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Talanta - www.journals.elsevier.com/talanta/)

The news editors report that additional information may be obtained by contacting J.H. Lee, Luminescent MD LLC, Hagerstown, MD 21742, United States. Additional authors for this research include E. Kim, E. Park and J.H. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.talanta.2016.09.061. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hagerstown, Maryland, United States, North and Central America, Nanoparticles, Emerging Technologies, Nanobiotechnology, Bionanotechnology, Nanotechnology, Bioengineering, Biotechnology, Nanoparticle, Biosensing, Oncology, Cancer.

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**Hearing Diseases and Conditions - Hearing Loss**

**Research Conducted by G. Girotto and Co-Authors Has Provided New Information about Hearing Loss (PSIP1/LEDGF: a new gene likely involved in sensorineural progressive hearing loss)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hearing Diseases and Conditions - Hearing Loss. According to news reporting originating in Trieste, Italy, by NewsRx journalists, research stated, "Hereditary Hearing Loss (HHL) is an extremely heterogeneous disorder. Approximately 30 out of 80 known HHL genes are associated with autosomal dominant forms."

The news reporters obtained a quote from the research, "Here, we identified PSIP1/LEDGF (isoform p75) as a novel strong candidate gene involved in dominant HHL. Using exome sequencing we found a frameshift deletion (c.1554_1555del leading to p.E518Dfs*2) in an Italian pedigree affected by sensorineural mild-to-moderate HHL but also showing a variable eye phenotype (i.e. uveitis, optic neuropathy). This deletion led to a premature stop codon (p.T519X) with truncation of the last 12 amino acids. PSIP1 was recently described as a transcriptional co-activator regulated by miR-135b in vestibular hair cells of the..."
mouse inner ear as well as a possible protector against photoreceptor degeneration. Here, we demonstrate that it is ubiquitously expressed in the mouse inner ear. The PSIP1 mutation is associated with a peculiar audiometric slope toward the high frequencies."

According to the news reporters, the research concluded: "These findings indicate that PSIP1 likely plays an important role in HHL."

For more information on this research see: PSIP1/LEDGF: a new gene likely involved in sensorineural progressive hearing loss. Scientific Reports, 2015;5():18568. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting G. Girotto, University of Trieste-Dept. of Med, Surgical and Health Sciences, Trieste, Italy. Additional authors for this research include D.I. Scheffer, A. Morgan, D. Vozzi, E. Rubinato, M. Di Stazio, E. Muzzi, S. Pensiero, A.B. Giersch, D.P. Corey and P. Gasparini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18568. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, Trieste, Genetics, Audiology, Hearing Loss, Otolaryngology, Hearing Disorders, Sensation Disorders, Neurologic Manifestations, Ear Diseases and Conditions, Hearing Diseases and Conditions, Nervous System Diseases and Conditions.

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**Pheochromocytomas**

**Research Conducted by L.A. Guardo and Co-Authors Has Provided New Information about Pheochromocytomas (Known difficult airway in a patient with pheochromocytoma: a case report)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Pheochromocytomas is now available. According to news reporting from Salamanca, Spain, by NewsRx journalists, research stated, "The manipulation of an airway is always a critical moment in the anesthetic management of patients with pheochromocytoma due to the high incidence of undesirable hemodynamic events in relation with the stimulus represented by the laryngoscopy."

The news correspondents obtained a quote from the research, "A known difficult airway in which it is necessary to carry out an orotracheal intubation while preserving spontaneous ventilation subjects the patient to a stressful situation. The objective is to obtain an acceptable level of comfort and sedation avoiding respiratory depression (Anesthesiol Clin 2015;33:233-40). In this case, we describe the management of a known difficult airway in a patient with a pheochromocytoma and a personal history of arterial hypertension and chronic obstructive pulmonary disease who underwent orotracheal intubation with spontaneous ventilation with Airtraq and with dexmedetomidine as the only sedative agent."

According to the news reporters, the research concluded: "Dexmedetomidine is a useful drug for sedation during orotracheal intubation with spontaneous ventilation in a patient with pheochromocytoma and a chronic respiratory pathology."

For more information on this research see: Known difficult airway in a patient with pheochromocytoma: a case report. Journal of Clinical Anesthesia, 2016;35():411-414. Journal
Blood Pressure

Research Conducted by Q. Wang and Co-Authors Has Provided New Information about Blood Pressure (Environmental ambient temperature and blood pressure in adults: A systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Pressure have been published. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Although many individual studies have examined the association between temperature and blood pressure (BP), they used different methods and also their results were somewhat inconsistent. The aims of this study are to quantitatively summarize previous studies and to systematically assess the methodological issues to make recommendations for future research."

Our news journalists obtained a quote from the research, "We searched relevant empirical studies published before January 2016 concerning temperature and BP among adults using the MEDLINE, Embase and PubMed databases. Mean changes in systolic (SBP) and diastolic blood pressure (DBP) per 1 degrees C reduction in temperature were pooled using a random-effects meta-analysis. Of 23 studies included, 14 were used for meta-analysis. Consistent, statistically significant, inverse associations were observed between ambient temperature (mean, maximum, minimum outdoor temperature and indoor temperature) and BP. An 1 degrees C decrease in mean daily outdoor temperature was associated with an increase in SBP and DBP of 0.26 mm Hg (95% CI: 0.18-0.33) and 0.13 (95% CI: 0.11-0.16), respectively. The increase was greater in people with conditions related to cardiovascular disease. An 1 degrees C decrease in indoor temperature was associated with 0.38 mm Hg (0.18-0.58) increase in SBP, while the effects on DBP were not estimated due to limited studies. Among the previous studies on temperature-BP relationship, temperature and BP measurements are not accurate enough and statistical methods need to be improved. Lower ambient temperatures seem to increase adults' BP and people with conditions related to cardiovascular disease are more susceptible to drops in temperature. Indoor temperature appeared to have a stronger effect on BP than outdoor temperature."

According to the news editors, the research concluded: "To understand temperature-
BP relationship well, a study combining repeated personal temperature exposure and ambulatory BP monitoring, applying improved statistical methods to examine potential non-linear relationship is warranted."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.scitotenv.2016.10.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Cardiology, Article Review, Diagnostics and Screening, Diastolic Blood Pressure, Hemodynamics.

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**Research Conducted by R.V. Soares and Co-Researchers Has Updated Our Knowledge about Epilepsy (Ontogeny of ABC and SLC transporters in the microvessels of developing rat brain)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions - Epilepsy have been presented. According to news reporting from Paris, France, by NewsRx journalists, research stated, "The blood-brain barrier (BBB) is responsible for the control of solutes' concentration in the brain. Tight junctions and multiple ATP-binding cassette (ABC) and SoLute Carrier (SLC) efflux transporters protect brain cells from xenobiotics, therefore reducing brain exposure to intentionally administered drugs."

Financial support for this research came from French Agence Nationale de Recherche.

The news correspondents obtained a quote from the research, "In epilepsy, polymorphisms and overexpression of efflux transporters genes could be associated with pharmacoresistance. The ontogeny of these efflux transporters should also be addressed because their expression during development may be related to different brain exposure to antiepileptic drugs in the immature brain. We detected statistically significant higher expression of Abcb1b and Slc16a1 genes, and lower expression of Abcb1a and Abcg2 genes between the post-natal day 14 (P14) and the adult rat microvessels. P-gP efflux activity was also shown to be lower in P14 rats when compared with the adults. The P-gP proteins coded by rodent genes Abcb1a and Abcb1b are known to have different substrate affinities. The role of the Abcg2 gene is less clear in pharmacoresistance in epilepsy, nonetheless the coded protein Bcrp is frequently associated
with drug resistance. Finally, we observed a higher expression of the Mct1 transporter gene in
the P14 rat brain microvessels."

According to the news reporters, the research concluded: "Accordingly to our results,
we suppose that age may be another factor influencing brain exposure to antiepileptics as a
consequence of different expression patterns of efflux transporters between the adult and
immature BBB."

For more information on this research see: Ontogeny of ABC and SLC transporters
in the microvessels of developing rat brain. Fundamental & Clinical Pharmacology, 2016;30
onlinelibrary.wiley.com/journal/10.1111/(ISSN)1472-8206)

Our news journalists report that additional information may be obtained by
contacting R.V. Soares, Inserm U1129, Paris, France. Additional authors for this research
include T.M. Do, A. Mabondzo, G. Pons and S. Chhun.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/fcp.12175. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Epilepsy, Genetics,
Brain Diseases and Conditions, Central Nervous System Diseases and Conditions.

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Autoimmune Diseases and Conditions - Sjogren's…

Research Conducted by S. Haskett and Co-Researchers Has Updated
Our Knowledge about Sjogren's Syndrome [Identification of Novel CD4
(+) T Cell Subsets in the Target Tissue of Sjogren's Syndrome and Their
Differential Regulation by the ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Autoimmune Diseases and Conditions - Sjogren's
Syndrome are discussed in a new report. According to news originating from Cambridge,
Massachusetts, by NewsRx correspondents, research stated, "Despite being one of the most
common rheumatologic diseases, there is still no disease-modifying drug for primary Sjogren's
syndrome (pSS). Advancing our knowledge of the target tissue has been limited by the low
dimensionality of histology techniques and the small size of human salivary gland biopsies."

Our news journalists obtained a quote from the research, "In this study, we took
advantage of a molecularly validated mouse model of pSS to characterize tissue-infiltrating CD4
(+) T cells and their regulation by the lymphotxin/LIGHT signaling axis. Novel cell subsets
were identified by combining highly dimensional flow and mass cytometry with transcriptomic
analyses. Pharmacologic modulation of the LT beta R signaling pathway was achieved by
treating mice with LTbR-Ig, a therapeutic intervention currently being tested in pSS patients
(Baminercept trial NCT01552681). Using these approaches, we identified two novel CD4(+) T
cell subsets characterized by high levels of PD1: Prdm1(+) effector regulatory T cells expressing
immunoregulatory factors, such as Il10, Areg, Fgl2, and Itgb8, and Il21(+) effector conventional
T cells expressing a pathogenic transcriptional signature. Mirroring these observations in mice,
large numbers of CD4(+)PD1(+) T cells were detected in salivary glands from Sjogren's patients
but not in normal salivary glands or kidney biopsies from lupus nephritis patients."
Unexpectedly, LTB-R-Ig selectively halted the recruitment of PD1(-) naive, but not PD1(+), effector T cells to the target tissue, leaving the cells with pathogenic potential unaffected."

According to the news editors, the research concluded: "Altogether, this study revealed new cellular players in pSS pathogenesis, their transcriptional signatures, and differential dependency on the lymphotixin/LIGHT signaling axis that help to interpret the negative results of the Baminercept trial and will guide future therapeutic interventions."

For more information on this research see: Identification of Novel CD4(+) T Cell Subsets in the Target Tissue of Sjogren's Syndrome and Their Differential Regulation by the Lymphotixin/LIGHT Signaling Axis. *Journal of Immunology*, 2016;197(10):3806-3819. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news correspondents report that additional information may be obtained from M. Mingueneau, Biogen, Immunol Res, Cambridge, MA 02142, United States. Additional authors for this research include J. Ding, W. Zhang, A. Thai, P. Cullen, S.Q. Xu, B. Petersen, G. Kuznetsov, L. Jandreski, S. Hamann, T.L. Reynolds, N. Allaire, T.S. Zheng and M. Mingueneau.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Skin and Connective Tissue Diseases and Conditions, Autoimmune Diseases and Conditions, Immunology, Lacrimal Apparatus Diseases and Conditions, Musculoskeletal Diseases and Conditions, Stomatognathic Diseases and Conditions, Salivary Gland Diseases and Conditions, Rheumatic Diseases and Conditions, Mouth Diseases and Conditions, Joint Diseases and Conditions, Sjogren's Syndrome, Dry Eye Syndrome, Xerostomia.

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**Ebola Virus**

**Research Conducted by S.J. Smither and Co-Authors Has Provided New Information about Ebola Virus (Ebola Virus Makona Shows Reduced Lethality in an Immune-deficient Mouse Model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Ebola Virus. According to news originating from Salisbury, United Kingdom, by NewsRx correspondents, research stated, "Ebola virus Makona (EBOV-Makona; from the 2013-2016 West Africa outbreak) shows decreased virulence in an immune-deficient mouse model, compared with a strain from 1976. Unlike other filoviruses tested, EBOV-Makona may be slightly more virulent by the aerosol route than by the injected route, as 2 mice died following aerosol exposure, compared with no mortality among mice that received intraperitoneal injection of equivalent or higher doses."

Financial support for this research came from United Kingdom Ministry of Defence.

Our news journalists obtained a quote from the research, "Although most mice did not succumb to infection, the detection of an immunoglobulin G antibody response along with observed clinical signs suggest that the mice were infected but able to clear the infection and recover. We hypothesize that this may be due to the growth rates and kinetics of the virus, which appear slower than that for other filoviruses and consequently give more time for an immune
response that results in clearance of the virus."

According to the news editors, the research concluded: "In this instance, the immune-deficient mouse model is unlikely to be appropriate for testing medical countermeasures against this EBOV-Makona stock but may provide insight into pathogenesis and the immune response to virus."


The news correspondents report that additional information may be obtained from M.S. Lever, Dstl, Chem Biol & Radiol Div, Salisbury, Wilts, United Kingdom. Additional authors for this research include L. Eastaugh, S. Ngugi, L. O'Brien, A. Phelps, J. Steward and M.S. Lever.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/infdis/jiw145. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salisbury, United Kingdom, Europe, Viral Hemorrhagic Diseases and Conditions, Epidemiology, Mononegavirales, RNA Viruses, Filoviridae, Ebola Virus, Virology.

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**Oncology - Breast Cancer**

**Research Conducted by S.S. Tiong and Co-Researchers Has Updated Our Knowledge about Breast Cancer (An e-health strategy to facilitate care of breast cancer survivors: A pilot study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting out of Sydney, Australia, by NewsRx editors, research stated, "Innovative e-health strategies are emerging, to tailor and provide convenient, systematic and high-quality survivorship care for an expanding cancer survivor population. This pilot study tests the application of an e-health platform, 'Healthy.me,' in a breast cancer survivor cohort at Liverpool and Macarthur Cancer Therapy Centres, New South Wales, Australia."

Our news journalists obtained a quote from the research, "Fifty breast cancer patients were recruited to use the Healthy.me website, designed by the Centre of Health Informatics at the University of New South Wales, over a 4-month period. Telephone and online questionnaires were used at 1 and 4 months and a face-to-face feedback at study completion, to gather qualitative and quantitative data regarding feasibility of Healthy.me. Healthy.me was reported to be a useful online resource by most users. Usage declined from 76% at 1 month to 48% at 4 months. Breast cancer survivors enjoyed a variety of tailored information regarding health and life-style issues. Positive aspects of Healthy.me were the convenient access to trusted information, and interaction with their peers and healthcare professionals. Barriers to usage contributing to usage decline were lack of reported patient time to re-access information, limited content updates and technical factors. This pilot study suggested the potential of an e-health strategy to facilitate care of breast cancer survivors."
strategy such as Healthy.me in addressing the needs of a growing breast cancer survivor population."

According to the news editors, the research concluded: "Ongoing development of a more robust e-health resource and integration with primary care models is warranted."


Our news journalists report that additional information may be obtained by contacting S.S. Tiong, Cancer Therapy Centre, Liverpool and Campbelltown Hospitals, Sydney, NSW, Australia. Additional authors for this research include E.S. Koh, G. Delaney, A. Lau, D. Adams, V. Bell, P. Sapkota, T. Harris, A. Girgis, A. Przezdziecki, D. Lonergan and E. Coiera.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ajco.12475. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Asia-pacific Journal of Clinical Oncology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Sydney, Oncology, Breast Cancer, Women's Health, Clinical Research, Australia and New Zealand, Clinical Trials and Studies.

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Skin Diseases

Research Data from Boston University Update Understanding of Skin Diseases (A Proteome-Derived Longitudinal Pharmacodynamic Biomarker for Diffuse Systemic Sclerosis Skin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Skin Diseases have been published. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "In this study we systematically investigated alterations in the serum proteome of patients with diffuse cutaneous systemic sclerosis and identified differentially expressed proteins that correlated with disease severity. Our goal was to identify a combination of serum proteins that would provide a biological measure for the extent of skin disease and that could be combined into a longitudinal pharmacodynamic biomarker."

The news correspondents obtained a quote from the research from Boston University, "We found that 16% of the sera proteins analyzed by SOMAscan aptamer technology, from two cohorts of patients with diffuse cutaneous systemic sclerosis, were identified as differentially regulated between diffuse cutaneous systemic sclerosis and controls and correlated with modified Rodnan skin score. This dataset showed tumor necrosis factor-alpha, IFN-gamma, transforming growth factor-beta, and IL-13 as potential upstream regulators of the serum protein patterns in the sera of patients with diffuse cutaneous systemic sclerosis. By ELISA, two analytes (ST2 and Spondin-1) best described longitudinal change in modified Rodnan skin score, using linear mixed models. This model was then validated in three independent cohorts. In this study we discovered a large array of proteins not previously
associated with systemic sclerosis that provide insight into pathogenesis and potential targets for therapeutic intervention."

According to the news reporters, the research concluded: "Furthermore, we show that two of these proteins can be combined to form a robust longitudinal biomarker that might be used in clinical trials to assess changes in diffuse cutaneous systemic sclerosis skin disease over time."


Our news journalists report that additional information may be obtained by contacting L.M. Rice, Boston University, Sch Med, Boston, MA, United States. Additional authors for this research include J.C. Mantero, G. Stifano, J. Ziemek, R.W. Simms, J. Gordon, R. Domsic and R. Lafyatis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jid.2016.08.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Skin and Connective Tissue Diseases and Conditions, Proteome, Diagnostics and Screening, Skin Diseases and Conditions, Pharmacodynamics, Pharmaceuticals, Proteins, Boston University.

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**Abdominal Aortic Aneurysm**  
**Research Data from CNIC Update Understanding of Abdominal Aortic Aneurysm (Quantitative HDL Proteomics Identifies Peroxiredoxin-6 as a Biomarker of Human Abdominal Aortic Aneurysm)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Abdominal Aortic Aneurysm. According to news reporting out of Madrid, Spain, by NewsRx editors, research stated, "High-density lipoproteins (HDLs) are complex protein and lipid assemblies whose composition is known to change in diverse pathological situations. Analysis of the HDL proteome can thus provide insight into the main mechanisms underlying abdominal aortic aneurysm (AAA) and potentially detect novel systemic biomarkers."

Our news journalists obtained a quote from the research from CNIC, "We performed a multiplexed quantitative proteomics analysis of HDLs isolated from plasma of AAA patients (N = 14) and control study participants (N = 7). Validation was performed by western-blot (HDL), immunohistochemistry (tissue), and ELISA (plasma). HDL from AAA patients showed elevated expression of peroxiredoxin-6 (PRDX6), HLA class I histocompatibility antigen (HLA-I), retinol-binding protein 4, and paraoxonase/arylesterase 1 (PON1), whereas alpha-2 macroglobulin and C4b-binding protein were decreased. The main pathways associated with HDL alterations in AAA were oxidative stress and immune-inflammatory responses. In AAA
tissue, PRDX6 colocalized with neutrophils, vascular smooth muscle cells, and lipid oxidation. Moreover, plasma PRDX6 was higher in AAA (N = 47) than in controls (N = 27), reflecting increased systemic oxidative stress. Finally, a positive correlation was recorded between PRDX6 and AAA diameter."

According to the news editors, the research concluded: "The analysis of the HDL proteome demonstrates that redox imbalance is a major mechanism in AAA, identifying the antioxidant PRDX6 as a novel systemic biomarker of AAA."

For more information on this research see: Quantitative HDL Proteomics Identifies Peroxiredoxin-6 as a Biomarker of Human Abdominal Aortic Aneurysm. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/srep/)


Keywords for this news article include: Madrid, Spain, Europe, Cardiovascular Diseases and Conditions, Proteomics, Diagnostics and Screening, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Enzymes and Coenzymes, Peroxiredoxins, Peroxidases, Cardiology, CNIC.

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Oncology - Gastric Cancer

Research Data from Cancer Institute Update Understanding of Gastric Cancer (Cytoreductive surgery and hyperthermic intraperitoneal chemotherapy in gastric cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gastric Cancer have been presented. According to news reporting originating from Chennai, India, by NewsRx correspondents, research stated, "Gastric cancer associated peritoneal carcinomatosis (GCPC) has a poor prognosis with a median survival of less than one year. Systemic chemotherapy including targeted agents has not been found to significantly increase the survival in GCPC."

Our news editors obtained a quote from the research from Cancer Institute, "Since recurrent gastric cancer remains confined to the abdominal cavity in many patients, regional therapies like aggressive cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) have been investigated for GCPC. HIPEC has been used for three indications in GC-as an adjuvant therapy after a curative surgery, HIPEC has been shown to improve survival and reduce peritoneal recurrences in many randomised trials in Asian countries; as a definitive treatment in established PC, HIPEC along with CRS is the only therapeutic modality that has resulted in long-term survival in select groups of patients; as a palliative treatment in advanced PC with intractable ascites, HIPEC has been shown to control ascites and reduce the need for frequent paracentesis."

According to the news editors, the research concluded: "While the results of randomised trials of adjuvant HIPEC from western centres are awaited, the role of HIPEC in the
The treatment of GCPC is still evolving and needs larger studies before it is accepted as a standard of care."


The news editors report that additional information may be obtained by contacting R.A. Seshadri, Ramakrishnan Ayloor Seshadri, Dept. of Surgical Oncology, Cancer Institute (WIA), Chennai 600036, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i3.1114. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Chennai, Surgery, Oncology, Chemotherapy, Article Review, Gastric Cancer, Gastroenterology, Drugs and Therapies.

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**Oncology - Lung Cancer**

**Research Data from China Medical University and Hospital Update Understanding of Lung Cancer (Antitumor effects of deguelin on H460 human lung cancer cells in vitro and in vivo: Roles of apoptotic cell death and H460 tumor xenografts model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Lung Cancer is the subject of a report. According to news reporting originating in Taichung, Taiwan, by NewsRx journalists, research stated, "Deguelin, a naturally occurring rotenoid of the flavonoid family, is known to be an Akt inhibitor, to have chemopreventive activities and anti-tumor effect on several cancers. In this study, investigation to elucidate the effect of deguelin on apoptotic pathways in human lung cancer cells and on the anti-tumor effect in lung cancer xenograft nu/nu mice was performed."

Financial support for this research came from Research grant from China Medical University.

The news reporters obtained a quote from the research from China Medical University and Hospital, "In vitro studies, found that deguelin induced cell morphological changes, and decreased the percentage of viability through the induction of apoptosis in H460 lung cancer cells. Deguelin triggered apoptosis in H460 cells was also confirmed by DAPI staining, DNA gel electrophoresis, and Annexin V-FITC staining and these effects are dose-dependent manners. It was also found that deguelin promoted the Ca production and activation of caspase-3 but decreased the level of DPS in H460 cells. Western blots indicated that the protein levels of cytochrome c, AIF, and pro-apoptotic Bax and Bak protein were increased, but the anti-apoptotic Bcl-2 and Bcl-x were decreased that may have led to apoptosis in H460 cells after exposure to deguelin. It was also confirmed by confocal laser microscope examination that deguelin promoted the release of AIF from mitochondria to cytosol. In vivo studies, found that in immunodeficient nu/nu mice bearing H460 tumor xenografts showed that the deguelin significantly suppressed tumor growth. Deguelin might be a potential therapeutic agent for the treatment of lung cancer in the future."
According to the news reporters, the research concluded: "This finding might fully support a critical event for deguelin via induction of apoptotic cell death and H460 tumor xenografts model against human lung cancer. 2015 Wiley Periodicals, Inc. Environ Toxicol 32:84-98."


Our news correspondents report that additional information may be obtained by contacting Y.C. Hsu, Dept. of Biological Science and Technology, China Medical University, Taichung, 404, Taiwan. Additional authors for this research include J.H. Chiang, C.S. Yu, T.C. Hsia, R.S. Wu, J.C. Lien, K.C. Lai, F.S. Yu and J.G Chung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/tox.22214. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Biotechnology, Taiwan, Taichung, Genetics, Oncology, Apoptosis, Xenografts, Lung Cancer, Cancer Therapy, Lung Neoplasms, Xenotransplantion, Drugs and Therapies.

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**Oncology - Breast Cancer**

**Research Data from China Pharmaceutical University Update**

**Understanding of Breast Cancer (Wogonoside Inhibits Angiogenesis in Breast Cancer Via Suppressing Wnt/beta-Catenin Pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Wogonoside, a main flavonoid component derived from the root of *Scutellaria baicalensis* Georgi, has been reported to have anti-angiogenesis and anti-leukemia activities. However, whether it can inhibit tumor angiogenesis is unclear."

Our news editors obtained a quote from the research from China Pharmaceutical University. "In this study, we investigate the inhibitory effect of wogonoside on angiogenesis in breast cancer and its underlying mechanisms. ELISA assay shows that wogonoside (25, 50, and 100 µM) decreases the secretion of VEGF in MCF-7 cells by 30.0%, 35.4%, and 40.1%, respectively. We find it inhibits angiogenesis induced by the conditioned media from MCF-7 cells in vitro and in vivo by migration, tube formation, rat aortic ring, and chicken chorioallantoic membrane (CAM) assay. Meanwhile, wogonoside can inhibit the growth and angiogenesis of MCF-7 cells xenografts in nude mice. The reduction of tumor weight can be found both in wogonoside (80 mg/kg) and bevacizumab (20 mg/kg) treated group, and the tumor inhibition rate is 42.1% and 48.7%, respectively. In addition, mechanistic studies demonstrate that wogonoside suppresses the activation of Wnt/beta-catenin pathway in MCF-7 cells. Wogonoside (100mM) decreases the intracellular level of Wnt3a, increases the expression of GSK-3 beta, AXIN, and promotes the phosphorylation of beta-catenin for proteasome
degradation significantly. Furthermore, the nuclear accumulation of beta-catenin and the DNA-binding activity of beta-catenin/TCF/Lef complex are inhibited by 49.2% and 28.7%, respectively, when treated with 100mM wogonoside.

According to the news editors, the research concluded: "Taken together, our findings demonstrate that wogonoside is a potential inhibitor of tumor angiogenesis and can be developed as a therapeutic agent for breast cancer."


The news editors report that additional information may be obtained by contacting Q.L. Guo, China Pharmaceutical University, State Key Lab Nat Med, Jiangsu Key Lab Carcinogenesis & Intervent, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include K. Zhao, Y. Hu, Y.X. Zhou, X.W. Luo, X.R. Li, L.B. Wei, Z.Y. Li, Q.D. You, Q.L. Guo and N. Lu.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Armadillo Domain Proteins, Transcription Factors, Women's Health, Breast Cancer, beta Catenin, Catenins, Oncology, Genetics, China Pharmaceutical University.

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Liver Diseases and Conditions - Portal Hypertension

Research Data from Chongqing Medical University Update Understanding of Portal Hypertension (Balloon-occluded retrograde transvenous obliteration versus transjugular intrahepatic portosystemic shunt for treatment of gastric varices due to ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Liver Diseases and Conditions - Portal Hypertension. According to news originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "The aim of this study was to compare the feasibility and safety of both balloon-occluded retrograde transvenous obliteration (BRTO) versus transjugular intrahepatic portosystemic shunt (TIPS) for treatment of gastric varices due to portal hypertension through the method of meta-analysis. PubMed, Embase, and Cochrane Library were searched for both randomized controlled trials and cohort studies concerning BRTO compared with TIPS in the treatment of gastric varices from their inception to April 26, 2015."

Our news journalists obtained a quote from the research from Chongqing Medical University, "The Cochrane network RevMan 5.3 software was used for statistic analysis. The primary markers that need to be evaluated contained technical success rate, hemostasis rate, incidence rate of postoperative rebleeding, incidence rate of hepatic encephalopathy, and postoperative procedure-related complication. Study-specific odds ratios (ORs) were combined to calculate pooled value by using random effects model. Five original studies were included in total. Meta-analysis showed that BRTO and TIPS had no difference in aspects of technical success rate (OR, 0.19; 95% confidence interval [CI], 0.03-1.08; p=0.06), hemostasis rate (OR,
3.41; 95% CI, 0.33-35.40; p=0.30), and incidence rate of postoperative procedure-related complication (OR, 1.98; 95% CI, 0.44-8.84; p=0.37). However, BRTO had a lower incidence rate of post-operative rebleeding (OR, 0.27; 95% CI, 0.09-0.81; p=0.02) and a lower incidence rate of postoperative encephalopathy (OR, 0.05; 95% CI, 0.02-0.13; p<0.00001). Balloon-occluded retrograde transvenous obliteration was a technically feasible as well as a secure method for the treatment of gastric varices originated from portal hypertension.

According to the news editors, the research concluded: "It may have the potential to be an alternative shunt approach of TIPS, when suitable patients selected."


The news correspondents report that additional information may be obtained from Y.B. Wang, Graduate School, Chongqing Medical University, Chongqing, People's Republic of China. Additional authors for this research include J.Y. Zhang, J.P. Gong, F. Zhang and Y. Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13248. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chongqing, Angiology, Hepatology, Portosystemic, Varicose Veins, Portal Hypertension, People's Republic of China, Liver Diseases and Conditions, Cardiovascular Diseases and Conditions.

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clinically symptomatic ventricular arrhythmia."


Our news journalists report that additional information may be obtained by contacting W.Y. Ding, Liverpool Heart & Chest Hosp, Dept. of Cardiol, Liverpool, Merseyside, United Kingdom. Additional authors for this research include R.M. Cooper, J. Hasleton, V. McKay and S. Modi.

Keywords for this news article include: Liverpool, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Left Ventricular Hypertrophy, Hypertrophic Cardiomyopathy, Cardiomyopathies, Heart Disease, Cardiology, Genetics, Department of Cardiology.

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Cardiovascular Diseases and Conditions - No-Reflow…

Research Data from Department of Cardiology Update Understanding of No-Reflow Phenomenon (A simple and rapid method for identification of lesions at high risk for the no-reflow phenomenon immediately before elective coronary stent implantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - No-Reflow Phenomenon are discussed in a new report. According to news reporting out of Miyagi, Japan, by NewsRx editors, research stated, "We aimed to design a rapid and reliable method to identify coronary lesions at high risk for the no-reflow phenomenon before elective coronary stent implantation using integrated backscatter intravascular ultrasound (IB-IVUS). The no-reflow phenomenon occurring during elective percutaneous coronary intervention (PCI) worsens patient prognosis, regardless of whether the phenomenon is transient or persistent."

Our news journalists obtained a quote from the research from the Department of Cardiology, "We retrospectively studied 353 coronary lesions to identify factors potentially promoting the no-reflow phenomenon, including lesion location and severity. We also performed component analysis by two- and three-dimensional IB-IVUS before elective stent implantation. The cutoff values of the true lipid volume and estimated lipid volume (lipid area at the minimal lumen diameter site x total stent length) for the no-reflow phenomenon were determined by receiver operating curve analysis. Type C lesions, regardless of location and a thrombolysis in myocardial flow grade of 0, were risk factors for the no-reflow phenomenon during PCI. The estimated lipid volume was significantly correlated with the true lipid volume (R² = 0.778, p < 0.0001). The cutoff value of the estimated lipid volume for the no-reflow phenomenon was 132.6 mm³ (area under the curve = 0.719), and the predictive value was equivalent to that of the true lipid volume. Lesions with an estimated lipid volume of < 132.6 mm³ had a significantly higher risk of the no-reflow phenomenon during elective stent implantation (odds ratio, 4.35; 95 % confidence interval, 1.67-12.7; p = 0.0024)."
According to the news editors, the research concluded: "The simple and rapid measurement of the estimated lipid volume immediately before stenting during PCI constitutes a reliable predictor of lesions at high risk for the no-reflow phenomenon."

For more information on this research see: A simple and rapid method for identification of lesions at high risk for the no-reflow phenomenon immediately before elective coronary stent implantation. *Heart and Vessels*, 2016;31(12):1904-1914. *Heart and Vessels* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

Our news journalists report that additional information may be obtained by contacting S. Namiuchi, Sendai City Med Center, Dept. of Cardiol, Miyagino Ku, Sendai, Miyagi 9830824, Japan. Additional authors for this research include S. Namiuchi, T. Kawaguchi, T. Nihei, T. Takii, K. Saji, T. Sugie, A. Kato and H. Shimokawa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00380-016-0825-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miyagi, Japan, Asia, Cardiovascular Diseases and Conditions, Percutaneous Coronary Intervention, Surgery, Risk and Prevention, Myocardial Infarction, No-Reflow Phenomenon, Surgical Technology, Myocardial Ischemia, Medical Devices, Coronary Stents, Department of Cardiology.

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**Drugs and Therapies - Paracetamol Therapy**

**Research Data from Department of Emergency Medicine Update Understanding of Paracetamol Therapy (Evidence for the changing regimens of acetylcysteine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Paracetamol Therapy are presented in a new report. According to news reporting originating from Randwick, Australia, by NewsRx correspondents, research stated, "Paracetamol overdose prior to the introduction of acetylcysteine was associated with significant morbidity. Acetylcysteine is now the mainstay of treatment for paracetamol poisoning and has effectively reduced rates of hepatotoxicity and death."

Our news editors obtained a quote from the research from the Department of Emergency Medicine, "The current three-bag intravenous regimen with an initial high loading dose was empirically derived four decades ago and has not changed since. This regimen is associated with a high rate of adverse effects due mainly to the high initial peak acetylcysteine concentration. Furthermore, there are concerns that the acetylcysteine concentration is not adequate for 'massive' overdoses and that the dose and duration may need to be altered. Various novel regimens have been proposed, looking to address these issues. Many of these modified regimens aim to decrease the rate of adverse reactions by slowing the loading dose and thereby decrease the peak concentration. We used a published population pharmacokinetic model of acetylcysteine to simulate these modified regimens. We determined mean peak and 20?h acetylcysteine concentrations and area under the under the plasma concentration-time curve to compare these regimens. Those regimens that resulted in a lower peak acetylcysteine
concentration have been shown in studies to have a lower rate of adverse events. However, these studies were too small to show whether they are as effective as the traditional regimen. Further research is still needed to determine the optimum dose and duration of acetylcysteine that results in the fewest side-effects and treatment failures."

According to the news editors, the research concluded: "Indeed, a more patient-tailored approach might be required, whereby the dose and duration are altered depending on the paracetamol dose ingested or paracetamol concentrations."


The news editors report that additional information may be obtained by contacting A.L. Chiew, Clinical and Experimental Toxicology Unit, Dept. of Emergency Medicine, Prince of Wales Hospital, Randwick, NSW, Australia. Additional authors for this research include G.K. Isbister, S.B. Duffull and N.A Buckley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bcp.12789. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antidotes, Pharmaceuticals, Randwick, Mucolytics, Acetylcysteine, Article Review, Respiratory Agents, Drugs and Therapies, Paracetamol Therapy, Australia and New Zealand, Respiratory Inhalant Products.

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**Bacterial Infections and Mycoses - Bacteremia**

**Research Data from Division of Infectious Diseases Update**

**Understanding of Bacteremia (Risk factors for persistent bacteremia in infants with catheter-related bloodstream infection due to coagulase-negative Staphylococcus in the neonatal ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Bacterial Infections and Mycoses - Bacteremia are presented in a new report. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Coagulase-negative Staphylococcus (CoNS) is the predominant cause of catheter-related bloodstream infections (CRBSI). Infants in neonatal intensive care units (NICU) often suffer from CoNS CRBSI, which are often refractory to treatment."

Our news journalists obtained a quote from the research from the Division of Infectious Diseases, "We sought to evaluate risk factors for developing persistent bacteremia due to CoNS CRBSI in infants, in order to identify those who require early aggressive management. We conducted a retrospective case-control study of infants in the NICU who developed CRBSI due to CoNS. Patient demographics, condition and management of CRBSI were compared between those with persistent and non-persistent bacteremia. Furthermore, prognosis of infants in the NICU after CoNS CRBSI was evaluated. Seventy six episodes of CRBSI, including 17 persistent bacteremia and 59 non-persistent bacteremia, were analyzed. In univariate analyses, persistent bacteremia was significantly associated with corrected age equivalent to gestational age of 22-28 weeks at onset of CRBSI [Odds ratio (OR) = 4.33; P =
According to the news editors, the research concluded: "Early CVC removal should be considered for the treatment of CRBSI due to CoNS in infants with platelet counts of less than 100,000/mu L."

For more information on this research see: Risk factors for persistent bacteremia in infants with catheter-related bloodstream infection due to coagulase-negative Staphylococcus in the neonatal intensive care unit. Journal of Infection and Chemotherapy, 2016;22(12):785-789. The news correspondents report that additional information may be obtained from M. Furuichi, Natl Center Child Hlth & Dev, Dept. of Med Subspecialties, Div Infect Dis, Setagaya Ku, Tokyo 1578535, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.08.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Gram-Positive Endospore-Forming Rods, Risk and Prevention, Epidemiology, Bacterial Infections and Mycoses, Gram-Positive Bacteria, Enzymes and Coenzymes, Gram-Positive Cocci, Staphylococcaceae, Endopeptidases, Staphylococcus, Hydrolases, Bacillales, Bacteremia, Coagulase, Sepsis, Division of Infectious Diseases.

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Cardiovascular Diseases and Conditions - Venous...

Research Data from Faculty of Health Sciences Update Understanding of Venous Thromboembolism (The Role of Platelets in Venous Thromboembolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Venous Thromboembolism have been presented. According to news originating from Murcia, Spain, by NewsRx correspondents, research stated, "Multiple factors contribute to the risk of venous thromboembolism (VTE). Platelets have attracted much interest in arterial cardiovascular disease, whereas their role in VTE has received much less attention."

Our news journalists obtained a quote from the research from the Faculty of Health Sciences, "Recent evidence suggests that platelets may play a more important role in VTE than previously anticipated. This review discusses the mechanisms that link platelets with venous thrombotic disease and their potential applications as novel risk factors for VTE. In addition, animal studies and randomized clinical trials that highlight the potential effect of antiplatelet therapy in venous thrombosis are evaluated to assess the role of platelets in VTE. The clinical
significance of platelets for VTE risk assessment in specific patient cohorts and their role as a suitable therapeutic target for VTE prevention is acknowledged."

According to the news editors, the research concluded: "The role of platelets in VTE is a promising field for future research."

For more information on this research see: The Role of Platelets in Venous Thromboembolism. *Seminars In Thrombosis and Hemostasis*, 2016;42(3):242-51. (Thieme - www.thieme.com)

The news correspondents report that additional information may be obtained from S. Montoro-Garcia, Dept. of Cardiovascular Risk, Faculty of Health Sciences, UCAM Universidad Catolica San Antonio de Murcia, Campus de los Jeronimos, Guadalupe, Murcia, Spain. Additional authors for this research include M. Schindewolf, S. Stanford, O.H. Larsen and T. Thiele.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0035-1570079. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Murcia, Europe, Hematology, Article Review, Risk and Prevention, Venous Thromboembolism, Embolism and Thrombosis, Cardiovascular Diseases and Conditions.

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**Research Data from George Washington University Update**

**Understanding of Alpha Thalassemia (Homozygous alpha-thalassemia: Challenges surrounding early identification, treatment, and cure)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematologic Diseases and Conditions - Alpha Thalassemia are discussed in a new report. According to news reporting out of Washington, District of Columbia, by NewsRx editors, research stated, "The prognosis for homozygous -thalassemia is changing. Prenatal diagnosis and intrauterine transfusions (IUT) reduce maternofetal morbidity and mortality; hematopoietic stem cell transplant (HSCT) is curative."

Our news journalists obtained a quote from the research from George Washington University, "Empiric evidence to support IUT and HSCT to treat homozygous -thalassemia is lacking. The first case of curative HSCT for homozygous -thalassemia was reported in 1997. Nearly 20 years later, five additional reports are published. We review the literature and report an institutional experience with three homozygous -thalassemia patients. The first died shortly after birth. The second underwent HSCT after years of chronic transfusion therapy. The third benefited from IUT and HSCT."

According to the news editors, the research concluded: "These cases exemplify the varied outcomes associated with this condition."

Clinical Research - Clinical Trials and Studies

Research Data from Harvard School of Medicine Update Understanding of Clinical Trials and Studies (Carbon Dioxide-Based versus Saline Tissue Expansion for Breast Reconstruction: Results of the XPAND Prospective, Randomized Clinical Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "AeroForm is a new type of remote-controlled, needle-free, carbon dioxide-based expander involving a potentially faster method of tissue expansion. Results are presented here from the AirXpanders Patient Activated Controlled Tissue Expander pivotal trial comparing AeroForm to saline tissue expanders."

Our news editors obtained a quote from the research from the Harvard School of Medicine, "Women undergoing two-stage breast reconstruction were randomized at 17 U.S. sites in this U.S. Food and Drug Administration-approved investigational device exemption trial. Expansion in the investigational arm was performed by the patient in 10-cc increments up to 30 cc/day of carbon dioxide and in the control arm by the physician with periodic bolus injections of saline. Safety endpoints, expansion and reconstruction times, pain, and satisfaction were assessed. One hundred fifty women were treated: 98 with carbon dioxide expanders (n = 168) and 52 with saline expanders (n = 88). The treatment success rate (all breasts exchanged successfully excluding non-device-related failures) was 96.1 percent for carbon dioxide and 98.8 percent for saline. Median time to full expansion and completion of the second-stage operation was 21.0 and 108.5 days (carbon dioxide) versus 46.0 and 136.5 days (saline), respectively, with a similar rate of overall complications. Ease of use for the carbon dioxide expander was rated high by patients (98 percent) and physicians (90 percent)."

According to the news editors, the research concluded: "The AirXpanders Patient Activated Controlled Tissue Expander trial results demonstrate that a carbon dioxide-based expander is an effective method of tissue expansion with a similar overall adverse event rate compared to saline expanders, and provides a more convenient and expedient expansion."

For more information on this research see: Carbon Dioxide-Based versus Saline Tissue Expansion for Breast Reconstruction: Results of the XPAND Prospective, Randomized Clinical Trial. Plastic and Reconstructive Surgery, 2016;138(6):1161-1170. Plastic and Reconstructive Surgery can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins -
Potassium Compounds

Research Data from Harvard-MIT Division of Health Sciences and Technology Update Understanding of Potassium Compounds (Broad-Spectrum Antimicrobial Effects of Photocatalysis Using Titanium Dioxide Nanoparticles Are Strongly Potentiated by ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Potassium Compounds. According to news reporting out of Cambridge, Massachusetts, by NewsRx editors, research stated, "Photocatalysis describes the excitation of titanium dioxide nanoparticles (a wide-band gap semiconductor) by UVA light to produce reactive oxygen species (ROS) that can destroy many organic molecules. This photocatalysis process is used for environmental remediation, while antimicrobial photocatalysis can kill many classes of microorganisms and can be used to sterilize water and surfaces and possibly to treat infections."

Financial supporters for this research include HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID), National Science Foundation (NSF).

Our news journalists obtained a quote from the research from the Harvard-MIT Division of Health Sciences and Technology, "Here we show that addition of the nontoxic inorganic salt potassium iodide to TiO2 (P25) excited by UVA potentiated the killing of Gram-positive bacteria, Gram-negative bacteria, and fungi by up to 6 logs. The microbial killing depended on the concentration of TiO2, the fluence of UVA light, and the concentration of KI (the best effect was at 100 mM). There was formation of long-lived antimicrobial species (probably hypiodite and iodine) in the reaction mixture (detected by adding bacteria after light), but short-lived antibacterial reactive species (bacteria present during light) produced more killing. Fluorescent probes for ROS (hydroxyl radical and singlet oxygen) were quenched by iodide. Tri-iodide (which has a peak at 350 nm and a blue product with starch) was produced by TiO2-UVA-KI but was much reduced when methicillin-resistant Staphylococcus aureus (MRSA) cells were also present. The model tyrosine substrate N-acetyl tyrosine ethyl ester was iodinated in a light dose-dependent manner."

According to the news editors, the research concluded: "UVA-excited TiO2 in the presence of iodide produces reactive iodine intermediates during illumination that kill microbial cells and long-lived oxidized iodine products that kill after light has ended."

For more information on this research see: Broad-Spectrum Antimicrobial Effects of Photocatalysis Using Titanium Dioxide Nanoparticles Are Strongly Potentiated by Addition of

Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting M.R. Hamblin, Harvard MIT Div Hlth Sci & Technol, Cambridge, MA 02139, United States. Additional authors for this research include H.J. Choi, Y. Kushida, B. Bhayana, Y.G. Wang and M.R. Hamblin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00980-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Emerging Technologies, Potassium Compounds, Potassium Iodide, Titanium Dioxide, Nanotechnology, Light Metals, Nanoparticle, Chemicals, Harvard-MIT Division of Health Sciences and Technology.

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Drugs and Therapies - Cancer Therapy

Research Data from Inje University Update Understanding of Cancer Therapy (An alpha-quaternary chiral lactam derivative, YH-304 as a novel broad-spectrum anticancer agent)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Cancer Therapy are presented in a new report. According to news reporting originating from Gyeongnam, South Korea, by NewsRx correspondents, research stated, "Previously, we reported that alpha-quaternary chiral lactam derivatives have broad spectrum anticancer activity. However, the underlying molecular mechanisms and its relevance are largely unknown."

Our news editors obtained a quote from the research from Inje University, "In the present study, we report progress on alpha-quaternary chiral lactam analogues that address this, focusing on the novel analogue YH-304 as a candidate to broadly target human cancer cells. The effect of YH-304 on cell transformation was assessed by clonogenic assay in non-small cell lung cancer cells (NSCLCs) A549 and 226B. Proapoptotic activity of YH-304 was determined by TUNEL assay and cleaved PARP, cleaved caspase-9, and Bax as markers for apoptosis. The p53-dependency and therapeutic spectrum of YH-304 was assessed by western blot analysis, real-time PCR, and cell viability assays in cells expressing endogenous wild or mutant p53. The effect of YH-304 on angiogenesis in vivo was examined by bFGF-mediated angiogenesis assay in zebrafish. Finally, the effect of YH-304 on AKT and ERK activation (phosphorylation) as a putative mechanism underlying the effect of YH-304 on bFGF-mediated angiogenesis was assessed using western blotting. We found that YH-304 significantly decreases the colony-forming activities of both A549 and 226B cells, inducing cellular apoptosis. Unlike nutlin-3 (p53 pathway activator), YH-304 did not affect the expression levels of p53 and its target gene such as p21 and thus showed p53-independent anticancer activity with broad spectrum. In addition, YH-304 inhibited bFGF-induced angiogenesis in vivo through mediating AKT and ERK signaling pathway, which plays an important role in bFGF activation and angiogenesis."
According to the news editors, the research concluded: "Taken together, our data indicate that YH-304 may represent a novel therapeutic option for the treatment of cancer in a p53-independent manner."


The news editors report that additional information may be obtained by contacting Y. Park, Inje Univ, U Healthcare & Antiaging Research Center uHARC, Gimhae 621749, Gyeongnam, South Korea. Additional authors for this research include H.G. Park, Y. Park and H.J. Lee.

Keywords for this news article include: Gyeongnam, South Korea, Asia, Drugs and Therapies, Cancer Therapy, Angiogenesis, Oncology, Genetics, p53 Gene, Inje University.

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**Research Data from Johns Hopkins University Update Understanding of Hypertension [Effects of the Dietary Approaches to Stop Hypertension (DASH) Diet and Sodium Intake on Serum Uric Acid]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Randomized trial data guiding dietary recommendations to lower serum uric acid (UA), the etiologic precursor of gout, are scarce. We undertook this study to examine the effects of the Dietary Approaches to Stop Hypertension (DASH) diet (a well-established diet that lowers blood pressure) and levels of sodium intake on serum UA."

The news reporters obtained a quote from the research from Johns Hopkins University, "We conducted an ancillary study of a randomized, crossover feeding trial in 103 adults with prehypertension or stage I hypertension. Participants were randomly assigned to receive either the DASH diet or a control diet (typical of the average American diet) and were further fed low, medium, and high levels of sodium for 30 days, each in random order. Body weight was kept constant. Serum UA levels were measured at baseline and following each feeding period. Trial participants were 55% women and 75% black with a mean +/- SD age of 51.5 +/- 9.7 years and a mean +/- SD serum UA level of 5.0 +/- 1.3 mg/dl. The DASH diet reduced serum UA (-0.35 mg/dl [95% confidence interval (95% CI) -0.65, -0.05], P = 0.02), with a higher effect (-1.29 mg/dl [95% CI -2.50, -0.08]) among participants (n = 8) with a baseline serum UA level of >= 7 mg/dl. Increasing sodium intake from the low level decreased serum UA during the medium sodium intake period (-0.3 mg/dl [95% CI -0.5, -0.2], P< 0.001) and during the high sodium intake period (-0.4 mg/dl [ 95% CI -0.6, -0.3], P< 0.001). The DASH diet lowered serum UA, and this effect was greater among participants with hyperuricemia."

According to the news reporters, the research concluded: "Moreover, we found that higher sodium intake decreased serum UA, which enhances our knowledge of urate pathophysiology and risk factors for hyperuricemia."
For more information on this research see: Effects of the Dietary Approaches to Stop Hypertension (DASH) Diet and Sodium Intake on Serum Uric Acid. *Arthritis & Rheumatology*, 2016;68(12):3002-3009. *Arthritis & Rheumatology* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting S.P. Juraschek, Johns Hopkins University, Baltimore, MD, United States. Additional authors for this research include A.C. Gelber, H.K. Choi, L.J. Appel and E.R. Miller.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiovascular Diseases and Conditions, Risk and Prevention, Hypertension, Johns Hopkins University.

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**Heart Disorders and Diseases - Heart Failure**

**Research Data from Maastricht University Update Understanding of Heart Failure (Metabolic support for the heart: complementary therapy for heart failure?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Failure are presented in a new report. According to news originating from Maastricht, Netherlands, by NewsRx correspondents, research stated, "The failing heart has an increased metabolic demand and at the same time suffers from impaired energy efficiency, which is a detrimental combination. Therefore, therapies targeting the energy-deprived failing heart and rewiring cardiac metabolism are of great potential, but are lacking in daily clinical practice."

Our news journalists obtained a quote from the research from Maastricht University, "Metabolic impairment in heart failure patients has been well characterized for patients with reduced ejection fraction, and is coming of age in patients with 'preserved' ejection fraction. Targeting cardiomyocyte metabolism in heart failure could complement current heart failure treatments that do improve cardiovascular haemodynamics, but not the energetic status of the heart."

According to the news editors, the research concluded: "In this review, we discuss the hallmarks of normal cardiac metabolism, typical metabolic disturbances in heart failure, and past and present therapeutic targets that impact on cardiac metabolism."


The news correspondents report that additional information may be obtained from S. Heymans, Maastricht University, Cardiovasc Res Inst Maastricht, NL-6200 MD Maastricht, Netherlands. Additional authors for this research include A.P. Papageorgiou, S. Heymans and M. van Bilsen.

Keywords for this news article include: Maastricht, Netherlands, Europe, Cardiovascular Diseases and Conditions, Complementary Therapy, Article Review, Heart Disorders and Diseases, Heart Failure, Heart Disease, Cardiology, Maastricht University.
Research Data from Mahidol University Update Understanding of Pharmacology (Morus alba L. Stem Extract Attenuates Pain and Articular Cartilage Damage in the Anterior Cruciate Ligament Transection-Induced Rat Model of Osteoarthritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Pharmacology is now available. According to news reporting originating in Bangkok, Thailand, by NewsRx journalists, research stated, "This study was designed to investigate the anti-nociceptive effect of Morus alba stem extract as well as its cartilage protective effect in the anterior cruciate ligament transection (ACLT)-induced rat model of osteoarthritis (OA). The anti-nociceptive effect of this plant extract was determined by measuring hind limb weight bearing, while the severity of cartilage damage to the knee joints was evaluated using the modified Mankin grading system."

The news reporters obtained a quote from the research from Mahidol University, "Oral administration of M. alba stem extract (56 and 560 mg/kg) significantly attenuated joint pain as indicated by a significant (p < 0.05) increase in the values of percent weight borne on the operated hind limb for the OA-induced groups that received M. alba stem extract at 56 and 560 mg/kg when compared to those of the vehicle-treated OA-induced group. In addition, a significant improvement in the Mankin score was also observed in rats treated with 560 mg/kg M. alba stem extract, which was in agreement with its pain-relieving effect."

According to the news reporters, the research concluded: "The results showed that M. alba stem extract exhibited an anti-nociceptive effect as well as cartilage protection in the ACLT-induced rat model of OA, supporting its potential use as a therapeutic treatment for OA."


Our news correspondents report that additional information may be obtained by contacting W. Hemstapat, Mahidol University, Dept. of Pharmacol, Fac Sci, Bangkok 10400, Thailand. Additional authors for this research include S. Lekmeechai, P.P. Pham, W. Himakoun, T. Pitaksuteepong, N.P. Morales and W. Hemstapat.

Keywords for this news article include: Bangkok, Thailand, Asia, Pharmacology, Drugs and Therapies, Mahidol University.

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Research Data from Manipal University Update Understanding of Type 1 Diabetes Mellitus (Small molecules exert anti-apoptotic effect and reduce oxidative stress augmenting insulin secretion in stem cells engineered islets against hypoxia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus have been published. According to news reporting originating in Bangalore, India, by NewsRx journalists, research stated, "Transplantation of pancreatic islets is the most reliable treatment for Type 1 diabetes. However cell death mediated by hypoxia is considered as one of the main difficulties hindering success in islet transplantation."

Financial support for this research came from Manipal University.

The news reporters obtained a quote from the research from Manipal University, "The aim of our experiment was to investigate the role of small molecules in survival of Islet like cell aggregates (ICAs) engineered from umbilical cord matrix under oxygen deprived condition (< 5% O2). ICAs were analyzed for cell death via fluorescein diacetate/propidium iodide (FDA/PI) staining, estimation of Caspase 3 and free radical release in presence and absence of small molecules. The samples were also analyzed for the presence of hypoxia inducible factor 1alpha (HIF1 alpha) at both transcriptional and translational level. The addition of small molecules showed profound defensive effect on ICAs under hypoxic environment as evidenced by their viability and insulin secretion compared to untreated ICAs. The combinations of Eicosapentaenoic acid (EPA), Docosahexaenoic acid(DHA) and metformin and EPA, DHAand gamma amino butyric acid (GABA) acted as anti-apoptotic agents for human ICAs when exposed to 1% O2 for 48 h. The combinations of the small molecules reduced the total reactive oxygen species and malonaldehyde (MDA) levels and enhanced the production of glutathione peroxidise (GPx) enzyme under hypoxic conditions. Finally the increase in HIF1 alpha at both protein and gene level confirmed the defensive effect of the additives in hypoxia."

According to the news reporters, the research concluded: "These results suggest that the combination of small molecules maintained the viability and functionality of the ICAs in hypoxia by up-regulating HIF1 alpha expression and down regulating the Caspase 3 activity."

For more information on this research see: Small molecules exert anti-apoptotic effect and reduce oxidative stress augmenting insulin secretion in stem cells engineered islets against hypoxia. European Journal of Pharmacology, 2016;791():424-432. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting R. Bhonde, Manipal Univ, Sch Regenerat Med, Bangalore 560065, Karnataka, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bangalore, India, Asia, Type 1 Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions, Insulin Dependent Diabetes Mellitus, Enzymes and Coenzymes, Risk and Prevention, Stem Cell Research, Peptide
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Transfusion Medicine - Blood Transfusion

Research Data from McGill University Update Understanding of Blood Transfusion (Role of the deubiquitinating enzyme ubiquitin-specific protease-14 in proteostasis in renal cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transfusion Medicine - Blood Transfusion. According to news reporting originating in Montreal, Canada, by NewsRx journalists, research stated, "Kidney cell injury may be associated with protein misfolding and induction of endoplasmic reticulum (ER) stress. Examples include complement-induced glomerular epithelial cell (GEC)/podocyte injury in membranous nephropathy and ischemia-reperfusion injury."

The news reporters obtained a quote from the research from McGill University, "Renal cell injury can also result from mutations in integral proteins, which lead to their misfolding and accumulation. Certain nephrin missense mutants misfold, accumulate in the ER, and induce ER stress. We examined if enhancement of ubiquitin-proteasome system function may facilitate proteostasis and confer protection against injury. Ubiquitin-specific protease 14 (Usp14) is reported to retard proteasomal protein degradation. Thus inhibition of Usp14 may enhance degradation of misfolded proteins and attenuate cell injury. In GEC, the reporter proteins GFP(u) (a 'misfolded' protein) and CD3 delta (an ER-associated degradation substrate) undergo time-dependent proteasomal degradation. Complement did not affect degradation of CD3 delta-yellow fluorescent protein (YFP), but accelerated degradation of GFP(u), and the Usp14-directed inhibitor IU1 further accelerated this degradation. Conversely, overexpression of Usp14 reduced degradation of GFPu and CD3 delta-YFP. In 293T cells, IU1 did not enhance degradation of disease-associated nephrin missense mutants I171N and S724C, whereas overexpression of Usp14 reduced degradation. IU1 was cyto-protective after injury induced by the ER stressor tunicamycin and in vitro ischemia-reperfusion, but did not affect complement-induced cytotoxicity."

According to the news reporters, the research concluded: "Usp14 controls proteasomal degradation of some misfolded proteins. In addition, a Usp14-directed inhibitor reduces cytotoxicity in the context of global protein misfolding during certain types of renal cell injury."

For more information on this research see: Role of the deubiquitinating enzyme ubiquitin-specific protease-14 in proteostasis in renal cells. American Journal of Physiology-Renal Physiology, 2016;311(5):F1035-F1046. American Journal of Physiology-Renal Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news correspondents report that additional information may be obtained by contacting A.V. Cybulsky, McGill University, Center Hlth, Res Inst, Dept. of Med, Montreal, PQ, Canada. Additional authors for this research include J. Papillon, S.S. Wing and A.V. Cybulsky.
Research Data from Nanjing Medical University Update Understanding of Alzheimer Disease (Different Expression Patterns of Amyloid-b Protein Precursor Secretases in Human and Mouse Hippocampal Neurons: A Potential Contribution to Species ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Extensive loss of hippocampal neurons serves a pathological basis for irreversible cognitive impairment in patients with Alzheimer's disease (AD). However, this characteristic cannot be replicated by transgenic mouse models, and its underlying mechanisms are unclear."

The news reporters obtained a quote from the research from Nanjing Medical University, "Here, we present evidence that different expression patterns of amyloid-b protein precursor (AbPP) secretases in human and mouse hippocampal neurons are a decisive cause of species difference in the susceptibility to Ab pathogenesis. Cell bodies of both pyramidal and granular neurons did not appear to undergo Ab deposits in the 10-month-old transgenic mutant human AbPP/presenilin-1 (PS1) mice. They expressed high levels of non-amyloidogenic a-secretase, and its neuroprotective products soluble AbPPa, but low levels of amyloidogenic b-secretase and g-secretase, and a neurotoxic product, Ab42 peptide. Unlike those found in the mouse, human hippocampal neuronal cell bodies expressed b-secretase and g-secretase, but not a-secretase, which could increase Ab generation, thus undergoing death in response to various pathological conditions. Increased hippocampal neuronal apoptosis at 48 h following local microinjection of a-secretase antibody ADAM10 into the hippocampus of AbPP/PS1 mice further suggests that high a-secretase expression in mouse neuronal cell bodies is a factor in the paucity of neuronal loss in AD-like pathology."

According to the news reporters, the research concluded: "Therefore, selective down-regulation of brain a-secretase in transgenic AD models will better replicate the disease spectrum, including decreased brain soluble AbPPa levels and massive neuronal loss in AD patients, and be beneficial for preclinical therapeutic evaluation of AD."


Our news correspondents report that additional information may be obtained by contacting Z.Q. Xu, Jiangsu Province Key Laboratory of Neurodegeneration, Nanjing Medical
University, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include H. Huang, Y.L. Chen, Y.Y. Gao, J. Xu, C. Marshall, Z.Y. Cai and M. Xiao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3233/JAD-150634. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the *Journal of Alzheimer's Disease* can be contacted at: IOS Press, Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands.

Keywords for this news article include: Asia, Cells, Jiangsu, Amyloid, Neurons, Genetics, Secretase, Proteomics, Alzheimer Disease, Protein Precursors, Enzymes and Coenzymes, People's Republic of China, Neurodegenerative Diseases and Conditions.

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**Chemical Research**

**Research Data from National Center for Radiation Research and Technology Update Understanding of Chemical Research (Novel Sulfonamide Derivatives Carrying a Biologically Active 3,4-Dimethoxyphenyl Moiety as VEGFR-2 Inhibitors)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Chemical Research is the subject of a report. According to news reporting originating in Cairo, Egypt, by NewsRx journalists, research stated, "Novel sulfonamides 3-19 with a biologically active 3,4-dimethoxyphenyl moiety were designed and synthesized. The structures of the synthesized compounds were established using elemental analyses, IR, H-1-NMR, C-13-NMR spectral data and mass spectroscopy."

The news reporters obtained a quote from the research from National Center for Radiation Research and Technology, "All the synthesized compounds were evaluated for their in vitro anticancer activity against four cancer cell lines, namely human hepatocellular carcinoma (HepG2), human medulloblastoma (Daoy), human cervical cancer (HeLa), and human colon cancer (HT-29), by using a 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay and dasatinib as the reference drug. Among the tested derivatives, compounds 4, 10, 16, and 19 showed good activity as cytotoxic agents. The most active derivatives were evaluated for their ability to inhibit vascular endothelial growth factor receptor (VEGFR)-2. Compounds Z-4-(3-(3,4-dimethoxyphenyl)-3-oxoprop-1-enylamino)-N-(5-methyl-1,3,4-thiadiazol-2-yl)-benzenesulfonamide 10 and Z-4-(3-(3,4-dimethoxyphenyl)-3-oxoprop-1-enylamino)-N-(1H-indazol-6-yl)-benzenesulfonamide 19 were more active as VEGFR-2 inhibitors than dasatinib."

According to the news reporters, the research concluded: "Molecular docking of the most active derivatives on the active site of VEGFR-2 revealed that compound 19 exhibited favorable and promising results."


Our news correspondents report that additional information may be obtained by
Drugs and Therapies - Cancer Therapy

Research Data from National Center for Scientific Research (CNRS)
Update Understanding of Cancer Therapy (The anti-tumor NC1 domain of collagen XIX inhibits the FAK/PI3K/Akt/mTOR signaling pathway through avb3 integrin interaction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Cancer Therapy are presented in a new report. According to news reporting originating in Reims, France, by NewsRx journalists, research stated, "Type XIX collagen is a minor collagen associated with basement membranes. It was isolated for the first time in a human cDNA library from rhabdomyosarcoma and belongs to the FACITs family (Fibril Associated Collagens with Interrupted Triple Helices)."

The news reporters obtained a quote from the research from National Center for Scientific Research (CNRS), "Previously, we demonstrated that the NC1 domain of collagen XIX (NC1(XIX)) exerts anti-tumor properties on melanoma cells by inhibiting their migration and invasion. In the present work, we identified for the first time the integrin avb3 as a receptor of NC1(XIX). Moreover, we demonstrated that NC1(XIX) inhibits the FAK/PI3K/Akt/mTOR pathway, by decreasing the phosphorylation and activity of the major proteins involved in this pathway. On the other hand, NC1(XIX) induced an increase of GSK3b activity by decreasing its degree of phosphorylation. Treatments targeting this central signaling pathway in the development of melanoma are promising and new molecules should be developed."

According to the news reporters, the research concluded: "NC1(XIX) seems to have the potential for the design of new anti-cancer drugs."

For more information on this research see: The anti-tumor NC1 domain of collagen XIX inhibits the FAK/PI3K/Akt/mTOR signaling pathway through avb3 integrin interaction. Oncotarget, 2016;7(2):1516-28.

Our news correspondents report that additional information may be obtained by contacting J.B. Oudart, Universite de Reims Champagne-Ardenne, CNRS UMR 7369 (Matrice Extracellulaire et Dynamique Cellulaire, MEDyC), Reims, France. Additional authors for this research include M. Doue, A. Vautrin, B. Brassart, C. Sellier, A. Dupont-Deshorgue, J.C. Monboisse, F.X. Maquart, S. Brassart-Pasco and L. Ramont.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6399. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Reims, France, Europe, Collagen, Integrins, Cancer Therapy, Membrane Proteins, Drugs and Therapies, Immunologic Receptors, Extracellular Matrix Proteins.

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**Lung Diseases and Conditions - Cystic Fibrosis**

**Research Data from National Health Service Lothian Update**

**Understanding of Cystic Fibrosis (Eradication therapy for Burkholderia cepacia complex in people with cystic fibrosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Cystic Fibrosis have been published. According to news reporting originating from Midlothian, United Kingdom, by NewsRx correspondents, research stated, "Chronic infection with Burkholderia cepacia complex species remains a significant problem for clinicians treating people with cystic fibrosis. Colonisation with Burkholderia cepacia complex species is linked to a more rapid decline in lung function and increases morbidity and mortality."

Our news editors obtained a quote from the research from National Health Service Lothian, "There remain no objective guidelines for strategies to eradicate Burkholderia cepacia complex in cystic fibrosis lung disease, as these are inherently resistant to the majority of antibiotics and there has been very little research in this area. This review aims to examine the current treatment options for people with cystic fibrosis with acute of Burkholderia cepacia complex and to identify an evidence-based strategy that is both safe and effective. This is an updated version of the review. To identify whether treatment of Burkholderia cepacia complex infections can achieve eradication, or if treatment can prevent or delay the onset of chronic infection. To establish whether following eradication, clinical outcomes are improved and if there are any adverse effects. Search methods We searched the Cochrane Cystic Fibrosis Trials Register, compiled from electronic database searches and handsearching of journals and conference abstract books. We also searched the reference lists of relevant articles and reviews. Last search: 14 July 2016. We also searched electronic clinical trials registers for the USA and Europe. Date of last search: 14 July 2016. Selection criteria Randomised or quasi-randomised studies in people with cystic fibrosis of antibiotics or alternative therapeutic agents used alone or in combination, using any method of delivery and any treatment duration, to eradicate Burkholderia cepacia complex infections compared to another antibiotic, placebo or no treatment. Data collection and analysis Two authors independently assessed for inclusion in the review the eligibility of 50 studies (70 references) identified by the search of the Group's Trial Register and the other electronic searches. No studies looking at the eradication of Burkholderia cepacia complex species were identified. Authors' conclusions The authors have concluded that there was an extreme lack of evidence in this area of treatment management for people with cystic fibrosis. Without further comprehensive studies, it is difficult to draw conclusions about a safe and effective management strategy for Burkholderia cepacia complex eradication in cystic fibrosis."

According to the news editors, the research concluded: "Thus, while the review could not offer clinicians evidence of an effective eradication protocol for Burkholderia cepacia complex, it has highlighted an urgent need for exploration and research in this area, specifically the need for well-designed multi-centre randomised controlled studies of a variety of (novel)
antibiotic agents.”

For more information on this research see: Eradication therapy for Burkholderia cepacia complex in people with cystic fibrosis. Cochrane Database of Systematic Reviews, 2016;(11):607-630. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting K.H. Regan, NHS Lothian, Edinburgh, Midlothian, United Kingdom.

Keywords for this news article include: Midlothian, United Kingdom, Europe, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Gram-Negative Aerobic Rods and Cocci, Pancreatic Diseases and Conditions, Burkholderiaceae, Article Review, Gram-Negative Aerobic Bacteria, Burkholderia cepacia complex, Lung Diseases and Conditions, Clinical Trials and Studies, Gram-Negative Bacteria, Betaproteobacteria, Clinical Research, Cystic Fibrosis, Proteobacteria, Therapy, National Health Service Lothian.

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Oncology - Rectal Cancer
Research Data from New York University Update Understanding of Rectal Cancer (Role of belly board device in the age of intensity modulated radiotherapy for pelvic irradiation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Rectal Cancer is now available. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Small bowel dose often represents a limiting factor for radiation treatment of pelvic malignancies. To reduce small bowel toxicity, a belly board device (BBD) with a prone position is often recommended."

The news reporters obtained a quote from the research from New York University, "Intensity modulated radiotherapy (IMRT) could reduce dose to small bowel based on the desired dose volume constraints. We investigated the efficacy of BBD in conjunction with IMRT. A total of 11 consecutive patients with the diagnosis of rectal cancer, who were candidates for definitive therapy, were selected. Patients were immobilized with BBD in prone position for simulation and treatment. Supine position computed tomography (CT) data were either acquired at the same time or during a diagnostic scan, and if existed was used. Target volumes (TV) as well as organs at risk (OAR) were delineated in both studies. Three-dimensional conformal treatment (3DCRT) and IMRT plans were made for both scans. Thus for each patient, 4 plans were generated. Statistical analysis was conducted for maximum, minimum, and mean dose to each structure. When comparing the normalized mean Gross TV dose for the different plans, there was no statistical difference found between the planning types. There was a significant difference in small bowel sparing when using prone position on BBD comparing 3DCRT and IMRT plans, favoring IMRT with a 29.6% reduction in dose (p = 0.007). There was also a statistically significant difference in small bowel sparing when comparing supine position IMRT to prone-BBD IMRT favoring prone-BBD IMRT with a reduction of 30.3% (p = 0.002). For rectal cancer when small bowel could be a limiting factor, prone position using BBD along with IMRT provides the best sparing."
According to the news reporters, the research concluded: "We conclude that whenever a dose escalation in rectal cancer is desired where small bowel could be limiting factor, IMRT in conjunction with BBD should be selected."

For more information on this research see: Role of belly board device in the age of intensity modulated radiotherapy for pelvic irradiation. *Medical Dosimetry*, 2016;41(4):300-304. *Medical Dosimetry* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Medical Dosimetry - www.journals.elsevier.com/medical-dosimetry/)

Our news correspondents report that additional information may be obtained by contacting I.J. Das, New York University, Dept. of Radiat Oncol, Langone Med Center, New York, NY 10016, United States. Additional authors for this research include G.K. Bartlett, J.J. Compton, H.R. Cardenes and I.J. Das.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.meddos.2016.07.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Intensity-Modulated Radiotherapy, Conformal Radiotherapy, Gastroenterology, Rectal Cancer, Oncology, Therapy, New York University.

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**Digestive System Diseases and Conditions**

**Research Data from Oita University Update Understanding of Duodenal Ulcers (Vonoprazan, a novel potassium-competitive acid blocker, as a component of first-line and second-line triple therapy for Helicobacter pylori eradication: a phase III, ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Duodenal Ulcers have been published. According to news reporting originating from Oita, Japan, by NewsRx correspondents, research stated, "The objective of this study was to assess the efficacy, safety and tolerability of vonoprazan, a novel potassium-competitive acid blocker, as a component of *Helicobacter pylori* eradication therapy. A randomised, double-blind, multicentre, parallel-group study was conducted to verify the non-inferiority of vonoprazan 20 mg to lansoprazole 30 mg as part of first-line triple therapy (with amoxicillin 750 mg and clarithromycin 200 or 400 mg) in *H pylori*-positive patients with gastric or duodenal ulcer history."

Financial support for this research came from Takeda Pharmaceutical Company.

Our news editors obtained a quote from the research from Oita University, "The first 50 patients failing first-line therapy with good compliance also received second-line vonoprazan-based triple therapy (with amoxicillin 750 mg and metronidazole 250 mg) as an open-label treatment. Of the 650 subjects randomly allocated to either first-line triple therapy, 641 subjects completed first-line therapy and 50 subjects completed second-line therapy. The first-line eradication rate (primary end point) was 92.6% (95% CI 89.2% to 95.2%) with vonoprazan versus 75.9% (95% CI 70.9% to 80.5%) with lansoprazole, with the difference being 16.7% (95% CI 11.2% to 22.1%) in favour of vonoprazan, thus confirming the non-
inferiority of vonoprazan (p <0.0001). The second-line eradication rate (secondary end point) was also high (98.0%; 95% CI 89.4% to 99.9%) in those who received second-line therapy (n=50). Both first-line triple therapies were well tolerated with no notable differences. Second-line triple therapy was also well tolerated."

According to the news editors, the research concluded: "Vonoprazan is effective as part of first-line triple therapy and as part of second-line triple therapy in H pylori-positive patients with a history of gastric or duodenal ulcer."

For more information on this research see: Vonoprazan, a novel potassium-competitive acid blocker, as a component of first-line and second-line triple therapy for Helicobacter pylori eradication: a phase III, randomised, double-blind study. Gut, 2016;65 (9):1439-46. (BMJ Publishing Group - group.bmj.com/; Gut - gut.bmj.com/)

The news editors report that additional information may be obtained by contacting K. Murakami, Dept. of Gastroenterology, Faculty of Medicine, Oita University, Oita, Japan. Additional authors for this research include Y. Sakurai, M. Shiino, N. Funao, A. Nishimura and M. Asaka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/gutjnl-2015-311304. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oita, Asia, Japan, Therapy, Peptic Ulcers, Duodenal Ulcers, Helicobacter pylori, Epsilonproteobacteria, Gram Negative Bacteria, Duodenal Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.

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Biomedical Engineering - Tissue Engineering

Research Data from Polytechnic University Update Understanding of Tissue Engineering (Physical properties imparted by genipin to chitosan for tissue regeneration with human stem cells: A review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biomedical Engineering - Tissue Engineering. According to news reporting originating in Ancona, Italy, by NewsRx journalists, research stated, "Genipin is a fully assessed non-cytotoxic crosslinking compound. The chitosan I genipin physical properties such as morphology, roughness, porosity, hydrophilicity, zeta-potential, surface area and surface energy exert control over cell adhesion, migration, phenotype maintenance and intracellular signaling in vitro, and cell recruitment at the tissue-scaffold interface in vivo."

The news reporters obtained a quote from the research from Polytechnic University, "For example a therapy using fucose vertical bar chitosan vertical bar genipin nanoparticles encapsulating amoxicillin, based on the recognition of fucose by H. pylori, leads to sharply improved clinical results. A bioactive scaffold sensitive to environmental stimuli provides an alternative approach for inducing adipose stem cell chondrogenesis: the expression of specific genes, the accumulation of cartilage-related macromolecules and the mechanical properties are comparable to the original cartilage-derived matrix (CDM), thus making the CDM vertical bar genipin a contraction-free biomaterial suitable for cartilage tissue engineering. For the
regeneration of the cartilage, chitosan vertical bar genipin permits to modulate matrix synthesis and proliferation of chondrocytes by dynamic compression; chondrocytes cultured on the composite substrate produce much more collagen-II and sulfated GAG."

According to the news reporters, the research concluded: "The main advantages gained in the bone regeneration area with chitosan vertical bar genipin are: acceleration of mineral deposition; enhancement of adhesion, proliferation and differentiation of osteoblasts; promotion of the expression of osteogenic differentiation markers; greatly improved viability of human adipose stem cells."


Our news correspondents report that additional information may be obtained by contacting R.A.A. Muzzarelli, Polytechnic Univ Marche, Enzymol, Fac Med, IT-60100 Ancona, Italy. Additional authors for this research include M. El Mehtedi, C. Bottegoni and A. Gigante.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.03.075. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ancona, Italy, Europe, Genetics, Article Review, Biomedical Engineering, Tissue Regeneration, Stem Cell Research, Tissue Engineering, Bioengineering, Biotechnology, Biomedicine, Polytechnic University.

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Drugs and Therapies - Antiretrovirals

Research Data from Radboud University Update Understanding of Antiretrovirals (Pharmacokinetic drug-drug interaction study between raltegravir and citalopram)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antiretrovirals. According to news reporting from Nijmegen, Netherlands, by NewsRx journalists, research stated, "Depression is the most common mental health disorder among HIV-infected patients. When treating HIV-infected patients with a selective serotonin reuptake inhibitor (SSRI), potential drug-drug interactions with antiretroviral agents have to be taken into account."

The news correspondents obtained a quote from the research from Radboud University. "We investigated the two-way pharmacokinetic drug-drug interaction and tolerability of concomitant administration of the SSRI citalopram and the HIV-1 integrase inhibitor raltegravir in healthy volunteers. An open-label, crossover, two-period trial was conducted in 24 healthy volunteers. Subjects received the following treatments: citalopram 20 mg once daily for 2 weeks followed by the combination with raltegravir 400 mg twice daily for 5 days and after a washout period raltegravir 400 mg twice daily for 5 days. Intensive steady-state pharmacokinetic blood sampling was performed. Geometric mean ratios (GMRs) of the
combination versus the reference treatment and 90% CIs were calculated for the area under the plasma concentration-time curve (AUC). CYP2C19 genotyping was performed because it influences N-demethylation of citalopram to desmethylicitalopram. A total of 22 healthy volunteers completed the trial. GMRs (90% CI) were 1.00 (0.98, 1.03) for citalopram AUC(0-24) (h), 0.99 (0.88, 1.12) for desmethylicitalopram AUC(0-24 h) and 0.77 (0.50, 1.19) for raltegravir AUC(0-12) (h). Raltegravir plasma concentration 12 h after intake (C-12 (h)) did not change with concomitant use of citalopram. Within each CYP2C19 phenotype subgroup the citalopram metabolite-to-parent ratio, which is a measure for metabolic enzyme activity, was not influenced by concomitant raltegravir use. Raltegravir does not influence the pharmacokinetics of citalopram and desmethylicitalopram. Citalopram did not change the pharmacokinetics of raltegravir in a clinically meaningful way."

According to the news reporters, the research concluded: "The combination was well tolerated and can be administered without dose adjustments."


Our news journalists report that additional information may be obtained by contacting M.I. Blonk, Radboud University, Dept. of Pharm, Medical Center, Nijmegen, Netherlands. Additional authors for this research include C.C.A. Langemeijer, A.P.H. Colbers, K.E.J. Hootganders, R.H.N. van Schaik and B. Schouwenberg.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Viral Sexually Transmitted Diseases and Conditions, Selective Serotonin Reuptake Inhibitors, Immune System Diseases and Conditions, Integrase Strand Transfer Inhibitor, Psychotherapeutic Agents, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Citalopram Therapy, Pharmacokinetics, Pharmaceuticals, Antidepressants, Antiretrovirals, HIV Infections, Antiinfectives, Propylamines, Retroviridae, RNA Viruses, Raltegravir, Antivirals, Nitriles, HIV/AIDS, Radboud University.

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**Oncology - Rectal Cancer**

**Research Data from Research Institute and Hospital Update**

**Understanding of Rectal Cancer (Adjuvant radiotherapy for the treatment of stage IV rectal cancer after curative resection A propensity score-matched analysis and meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Rectal Cancer have been published. According to news originating from Goyang, South Korea, by NewsRx correspondents, research stated, "The role of pelvic radiotherapy (RT) in stage IV rectal cancer with total mesorectal excision (TME) has not been defined. We evaluated the impact of RT on oncologic outcomes among patients with stage IV rectal cancer who underwent TME and performed a meta-analysis of published studies."

Our news journalists obtained a quote from the research from Research Institute and Hospital, "The records of stage IV rectal cancer patients who underwent TME between August
2001 and December 2011 were reviewed. Patients who received pelvic RT (RT group) and those who did not (non-RT group) were matched using a propensity score. Oncologic outcomes were compared between the groups. A systematic literature search and meta-analysis was conducted. One hundred seventy-six patients were matched with propensity score matching, resulting in 39 patients in each group. The local recurrence-free survival (LRFS) of the RT group was significantly higher than that of the non-RT group (2-year LRFS: 100% vs 83.6%, respectively, P=0.038). The overall survival, disease-free survival, and systemic recurrence were not significantly different between the groups. In the meta-analysis, the RT group had a reduced risk for loco-regional recurrence than the non-RT group (RR: 0.48, 95% confidence interval: 0.29-0.79).

According to the news editors, the research concluded: "Pelvic RT might have benefits for loco-regional control in patients with stage IV rectal cancer who undergo TME."

For more information on this research see: Adjuvant radiotherapy for the treatment of stage IV rectal cancer after curative resection: A propensity score-matched analysis and meta-analysis. Medicine, 2016;95(47):20-26. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)


Keywords for this news article include: Goyang, South Korea, Asia, Combined Modality Therapy, Adjuvant Radiotherapy, Drugs and Therapies, Gastroenterology, Rectal Cancer, Oncology, Research Institute and Hospital.

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Transplant Medicine - Liver Transplants

Research Data from Royal Infirmary Edinburgh NHS Trust Update Understanding of Liver Transplants (Preformed donor-specific HLA antibodies are associated with increased risk of early mortality after liver transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Transplant Medicine - Liver Transplants are presented in a new report. According to news reporting out of Midlothian, United Kingdom, by NewsRx editors, research stated, "There is limited evidence for a negative impact of preformed, donor-specific HLA antibodies (DSA) identified by cross-matching on outcomes after liver transplantation. Three recent studies have suggested an association between preformed DSA detected by Luminex and reduced graft or recipient survival in liver transplant cohorts with a high prevalence of hepatitis C. This study investigated the impact of preformed DSA identified by Luminex in the Scottish liver transplant population."

Financial support for this research came from The Edinburgh Health Foundation.

Our news journalists obtained a quote from the research from Royal Infirmary Edinburgh NHS Trust, "All recipients of liver transplants in Scotland between 2007 and 2015 with samples available for day of transplant antibody testing and donor HLA typing were
included (n=459); 96% of the cohort were white and 19% had a primary diagnosis of hepatitis C. The median follow-up time was 36 months. Preformed DSA were detected in 88 recipients. In multivariate analysis, preformed DSA with a median fluorescent intensity $\geq 10,000$ were associated with recipient mortality at 1 year. There was no association between DSA and overall graft or recipient survival."

According to the news editors, the research concluded: "This study adds to the growing body of evidence supporting a detrimental impact of preformed, high-level DSA in a subset of liver transplant recipients by identifying an association in an ethnically and demographically distinct liver transplant population."


Our news journalists report that additional information may be obtained by contacting J.A. McCaughan, Royal Infirmary Edinburgh NHS Trust, Histocompatibil & Immunogenet Lab, Edinburgh, Midlothian, United Kingdom. Additional authors for this research include V. Robertson, S.J. Falconer, C. Cryer, D.M. Turner and G.C. Oniscu. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12851. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Midlothian, United Kingdom, Europe, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Immunology, Epidemiology, Liver Transplantation, Transplant Medicine, Liver Transplants, Organ Transplants, Gastroenterology, Immunoglobulins, Blood Proteins, Biomedicine, Antibodies, Hepatitis, Royal Infirmary Edinburgh NHS Trust. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

**Oncology - Colon Cancer**

**Research Data from Second Military Medical University Update Understanding of Colon Cancer (Colonoscopy Reduces Colorectal Cancer Incidence and Mortality in Patients With Non-Malignant Findings: A Meta-Analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Colon Cancer are presented in a new report. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Observational studies have shown that colonoscopy reduces colorectal cancer (CRC) incidence and mortality in the general population. We aimed to conduct a meta-analysis quantifying the magnitude of protection by colonoscopy, with screening and diagnostic indications, against CRC in patients with non-malignant findings and demonstrating the potentially more marked effect of screening over diagnostic colonoscopy."

Our news journalists obtained a quote from the research from Second Military Medical University, "PubMed, EMBASE, and conference abstracts were searched through 30
April 2015. The primary outcomes were overall CRC incidence and mortality. Pooled relative risks (RRs) and 95% confidence intervals (CIs) were calculated using random-effect models. Eleven observational studies with a total of 1,499,521 individuals were included. Pooled analysis showed that colonoscopy was associated with a 61% RR reduction in CRC incidence (RR: 0.39; 95% CI: 0.26-0.60; I(2)=93.6%) and a 61% reduction in CRC mortality (RR: 0.39; 95% CI: 0.35-0.43; I(2)=12.0%) in patients with non-malignant findings, although there was high heterogeneity for the outcome of CRC incidence. After excluding one outlier study, there was low heterogeneity for the outcome of incidence (I(2)=44.7%). Subgroup analysis showed that the effect of screening colonoscopy was more prominent, corresponding to an 89% reduction in CRC incidence (RR: 0.11; 95% CI: 0.08-0.15), in comparison with settings involving diagnostic colonoscopy (RR: 0.51; 95% CI: 0.43-0.59; p<0.001). On the basis of this meta-analysis of observational studies, CRC incidence and mortality in patients with non-malignant findings are significantly reduced after colonoscopy."

According to the news editors, the research concluded: "The effect of screening colonoscopy on CRC incidence is more marked than diagnostic colonoscopy."


Our news journalists report that additional information may be obtained by contacting J. Pan, Dept. of Gastroenterology, Digestive Endoscopy Center, Changhai Hospital, Second Military Medical University, Shanghai, People's Republic of China. Additional authors for this research include L. Xin, Y.F. Ma, L.H. Hu and Z.S Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/ajg.2015.418. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shanghai, Oncology, Colon Cancer, Article Review, Gastroenterology, Colorectal Research, Diagnostics and Screening, People's Republic of China.

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**Oncology - Melanoma**

**Research Data from Sharett Institute of Oncology Update**

**Understanding of Melanoma [Clinical Significance of Circulating CD33 (+) CD11b(+)HLA-DR- Myeloid Cells in Patients with Stage IV Melanoma Treated with Ipilimumab]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Melanoma. According to news reporting out of Jerusalem, Israel, by NewsRx editors, research stated, "High levels of circulating myeloid-derived suppressor cells (MDSCs) in various cancer types, including melanoma, were shown to correlate with poor survival. We investigated whether frequencies of circulating CD33(+) CD11b(+)HLA-DR- MDSCs could be used as immune system monitoring biomarkers to predict response and survival of patients with stage IV melanoma treated with anti-CTLA4 (ipilimumab) therapy."

Our news journalists obtained a quote from the research from the Sharett Institute of
Oncology, "Peripheral blood samples from 56 patients and 50 healthy donors (HDs) were analyzed for CD33(+)CD11b(+)HLA-DR- MDSC percentage, NO-, and hROS levels by flow cytometry. We determined whether MDSC levels and suppressive features detected before anti-CTLA4 therapy correlate with the patients' response and overall survival (OS). Patients with melanoma had significantly higher levels of circulating CD33(+)CD11b(+)HLA-DR- MDSCs with suppressive phenotype when compared with HDs. Low levels of MDSCs before CTLA-4 therapy correlated with an objective clinical response, long-term survival, increased CD247 expression in T cells, and an improved clinical status. No predictive impact was observed for lactate dehydrogenase (LDH). Kaplan-Meier and log-rank tests performed on the 56 patients showed that the presence of more than 55.5% of circulating CD33(+)CD11b(+) out of the HLA-DR- cells, were associated with significant short OS (P < 0.003), a median of 6.5 months, in comparison with the group showing lower MDSC frequencies, with a median survival of 15.6 months. Our study suggests the use of CD33(+) CD11b(+)HLA-DR- cells as a predictive and prognostic biomarker in patients with stage IV melanoma treated with anti-CTLA4 therapy."

According to the news editors, the research concluded: "This monitoring system may aid in the development of combinatorial modalities, targeting the suppressive environment in conjunction with ipilimumab, toward facilitating better disease outcomes."

For more information on this research see: Clinical Significance of Circulating CD33(+) CD11b(+)HLA-DR- Myeloid Cells in Patients with Stage IV Melanoma Treated with Ipilimumab. Clinical Cancer Research, 2016;22(23):5661-5672. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting M. Baniyash, Hadassah Med Organization, Sharett Inst Oncol, Jerusalem, Israel. Additional authors for this research include J. Kanterman, Y. Klieger, E. Ish-Shalom, M. Olga, A. Saragovi, H. Shtainberg, M. Lotem and M. Baniyash.

Keywords for this news article include: Jerusalem, Israel, Asia, Myeloid Cells, Diagnostics and Screening, Monoclonal Antibodies, Drugs and Therapies, Biotechnology, Immunotherapy, Ipilimumab, Oncology, Melanoma, Therapy, Sharett Institute of Oncology.

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Arrhythmia

Research Data from Shiga University of Medical Sciences Update Understanding of Arrhythmia (Phenotypic Variability of ANK2 Mutations in Patients With Inherited Primary Arrhythmia Syndromes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Arrhythmia are discussed in a new report. According to news reporting from Shiga, Japan, by NewsRx journalists, research stated, "Mutations in ANK2 have been reported to cause various arrhythmia phenotypes. The prevalence of ANK2 mutation carriers in inherited primary arrhythmia syndrome (IPAS), however, remains unknown in Japanese."

The news correspondents obtained a quote from the research from the Shiga University of Medical Sciences, "Using a next-generation sequencer, we aimed to identify
ANK2 mutations in our cohort of IPAS patients, in whom conventional Sanger sequencing failed to identify pathogenic mutations in major causative genes, and to assess the clinical characteristics of ANK2 mutation carriers. We screened 535 probands with IPAS and analyzed 46 genes including whole ANK2 exons using a bench-top NGS (MiSeq, Illumina) or performed whole-exome-sequencing using HiSeq2000 (Illumina). As a result, 12 of 535 probands (2.2%, aged 0-61 years, 5 males) were found to carry 7 different heterozygous ANK2 mutations. ANK2-W1535R was identified in 5 LQTS patients and 1 symptomatic BrS and was predicted as damaging by multiple prediction software. In total, as to phenotype, there were 8 LQTS, 2 BrS, 1 IVF, and 1 SSS/AF. Surprisingly, 4/8 LQTS patients had the acquired type of LQTS (aLQTS) and suffered torsades de pointes. A total of 7 of 12 patients had documented malignant ventricular tachyarrhythmias.

According to the news reporters, the research concluded: "Various ANK2 mutations are associated with a wide range of phenotypes, including aLQTS, especially with ventricular fibrillation, representing ‘ankyrin-B’ syndrome."


Our news journalists report that additional information may be obtained by contacting S. Ohno, Shiga University of Medical Sciences, Center Epidemiol Res Asia, Otsu, Shiga, Japan. Additional authors for this research include T. Aiba, S. Ohno, D. Shigemizu, J. Ozawa, K. Sonoda, M. Fukuyama, H. Itoh, Y. Miyamoto, T. Tsunoda, T. Makiyama, T. Tanaka, W. Shimizu and M. Horie.

Keywords for this news article include: Shiga, Japan, Asia, Arrhythmia, Cardiology, Genetics, Shiga University of Medical Sciences.

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**Oncology - Breast Cancer**

**Research Data from Sungkyunkwan University Update Understanding of Breast Cancer (High Ki67/BCL2 index is associated with worse outcome in early stage breast cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Breast cancers are heterogeneous, making it essential to recognise several biomarkers for cancer outcome predictions. Ki67 proliferation index and B cell lymphoma 2 (BCL2) proteins are widely used as prognostic indicators in many types of malignancies."

Our news journalists obtained a quote from the research from Sungkyunkwan University, "While Ki67 is a marker of normal or tumour cell proliferation, BCL2 plays a central role in antiproliferative activities. A combination of these two biomarkers with contrary purposes can provide enhanced prognostic accuracy than an analysis using a single biomarker. We evaluated Ki67 and BCL2 expression with 203 cases of breast cancer. The relative expression of each biomarker named as Ki67/BCL2 index was divided into two groups (low vs
high) with the use of area under receiver operating characteristic curves. There were significant correlations between Ki67/BCL2 index and clinicopathological findings such as age, tumour stage, size and necrosis, histological grade, extensive intraductal component, lymphatic and vascular invasion, oestrogen receptor, progesterone receptor, human epithelial growth factor receptor 2 and p53 expression (all p<0.05). In univariate and multivariate analyses, high Ki67/BCL2 index correlated with shorter disease-free survival and overall survival in patients with early stage invasive ductal carcinoma (all p<0.05).

According to the news editors, the research concluded: "The Ki67/BCL2 index should be considered as a prognostic predictor in patients with early stage invasive ductal carcinoma."

For more information on this research see: High Ki67/BCL2 index is associated with worse outcome in early stage breast cancer. *Postgraduate Medical Journal*, 2016;92 (1094):707-714. *Postgraduate Medical Journal* can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com; Postgraduate Medical Journal - pmj.bmj.com/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/postgradmedj-2015-133531. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Cancer, Diagnostics and Screening, Women's Health, Breast Cancer, Oncology, Sungkyunkwan University.

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Oncology - Squamous Cell Carcinoma

Research Data from Sungkyunkwan University Update Understanding of Squamous Cell Carcinoma (Overexpression of beta-Catenin and Cyclin D1 is Associated with Poor Overall Survival in Patients with Stage IA-IIA Squamous Cell Lung Cancer ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Squamous Cell Carcinoma. According to news reporting originating from Suwon, South Korea, by NewsRx correspondents, research stated, "This study was aimed at understanding the effect of beta-catenin and cyclin D1 on overall survival in patients with early-stage NSCLC and at evaluating if the prognostic effect can be modified by adjuvant chemotherapy. We retrospectively analyzed the expression of beta-catenin and cyclin D1 using immunohistochemistry in formalin-fixed paraffin-embedded tissues from 576 patients with early-stage NSCLC."

Our news editors obtained a quote from the research from Sungkyunkwan University, "The median duration of follow-up was 5.1 years. Overexpression of beta-catenin and cyclin D1 was found in 56% and 50% of 576 cases, respectively. Overexpression of 0-
catenin and cyclin D1 was significantly associated with poor overall survival (p = 0.003 and p = 0.0009, respectively; log rank test) in squamous cell carcinomas, not in adenocarcinomas. The prognostic significance of each protein in the squamous cell carcinomas was limited to stages IA, IB, and IIA. In addition, simultaneous overexpression of beta-catenin and cyclin D1 in the squamous cell carcinomas synergistically increased hazard ratios (HRs) 15.79 (95% confidence interval [CI] = 1.09-51.23; p=0.04) for stage IA, 10.30 (95% CI = 2.29-46.41; p = 0.002) for stage 1B, and 3.55 (95% CI = 1.22-10.36; p = 0.02) times for stage 2A compared to those without overexpression of the two proteins, after adjusting for confounding factors. In addition, the effect was not dependent on adjuvant chemotherapy."

According to the news editors, the research concluded: "The present study suggests that simultaneous overexpression of beta-catenin and cyclin D1 may be associated with poor overall survival irrespective of platinum-based adjuvant chemotherapy in stage IA-IIA squamous cell carcinoma of the lung."

For more information on this research see: Overexpression of beta-Catenin and Cyclin D1 is Associated with Poor Overall Survival in Patients with Stage IA-IIA Squamous Cell Lung Cancer Irrespective of Adjuvant Chemotherapy. Journal of Thoracic Oncology, 2016;11(12):2193-2201. Journal of Thoracic Oncology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Thoracic Oncology - journals.lww.com/jto/pages/default.aspx)

The news editors report that additional information may be obtained by contacting D.H. Kim, Sungkyunkwan UniversitySch Med, Samsung Biomed Res Inst, Dept. of Mol Cell Biol, Suwon 440746, South Korea. Additional authors for this research include D. Jin, B.B. Lee, E.Y. Cho, J. Han, Y.M. Shim, H.K. Kim and D.H. Kim.

Keywords for this news article include: Suwon, South Korea, Asia, Intracellular Signaling Peptides and Proteins, Armadillo Domain Proteins, Combined Modality Therapy, Proto-Oncogene Proteins, Squamous Cell Carcinoma, Transcription Factors, Adjuvant Chemotherapy, Cell Cycle Proteins, Drugs and Therapies, Neoplasm Proteins, Lung Neoplasms, beta Catenin, Lung Cancer, Carcinomas, Cyclin D1, Oncology, Catenins, Sungkyunkwan University.

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**Cardiovascular Diseases and Conditions - Vasculitis**

**Research Data from Tallaght Hospital Update Understanding of Vasculitis (Changes in urinary metabolomic profile during relapsing renal vasculitis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Vasculitis. According to news reporting from Dublin, Ireland, by NewsRx journalists, research stated, "Current biomarkers of renal disease in systemic vasculitis lack predictive value and are insensitive to early damage. To identify novel biomarkers of renal vasculitis flare, we analysed the longitudinal urinary metabolomic profile of a rat model of anti-neutrophil cytoplasmic antibody (ANCA) vasculitis."

The news correspondents obtained a quote from the research from Tallaght Hospital, "Wistar-Kyoto (WKY) rats were immunised with human myeloperoxidase (MPO). Urine was
obtained at regular intervals for 181 days, after which relapse was induced by re-challenge with MPO. Urinary metabolites were assessed in an unbiased fashion using nuclear magnetic resonance (NMR) spectroscopy, and analysed using partial least squares discriminant analysis (PLS-DA) and partial least squares regression (PLS-R). At 56 days post-immunisation, we found that rats with vasculitis had a significantly different urinary metabolite profile than control animals; the observed PLS-DA clusters dissipated between 56 and 181 days, and re-emerged with relapse. The metabolites most altered in rats with active or relapsing vasculitis were trimethylamine N-oxide (TMAO), citrate and 2-oxoglutarate. Myo-inositol was also moderately predictive. The key urine metabolites identified in rats were confirmed in a large cohort of patients using liquid chromatography-mass spectrometry (LC-MS).

According to the news reporters, the research concluded: "Hypocitraturia and elevated urinary myo-inositol remained associated with active disease, with the urine myo-inositol: citrate ratio being tightly correlated with active renal vasculitis."


Keywords for this news article include: Dublin, Ireland, Europe, Cardiovascular Diseases and Conditions, Kidney, Diagnostics and Screening, Nephrology, Vasculitis, Tallaght Hospital.

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**Hematology - Blood Coagulation Factors**

**Research Data from Tel Aviv University Update Understanding of Blood Coagulation Factors (Thrombin And Protein C Pathway In Peripheral Nerve Schwann Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hematology - Blood Coagulation Factors. According to news reporting out of Tel Aviv, Israel, by NewsRx editors, research stated, "Thrombin and activated protein C (aPC) bound to the endothelial protein C receptor (EPCR) both activate protease-activated receptor 1 (PAR1) generating either harmful or protective signaling respectively. In the present study we examined the localization of PAR-1 and EPCR and thrombin activity in Schwann glial cells of normal and crushed peripheral nerve and in Schwannoma cell lines."

Our news journalists obtained a quote from the research from Tel Aviv University, "In the sciatic crush model nerves were excised 1 h, 1, 4, and 7 days after the injury. Schwannoma cell lines produced high levels of prothrombin which is converted to active thrombin and expressed both EPCR and PAR-1 which co localized. In the injured sciatic nerve
thrombin levels were elevated as early as 1 h after injury, reached their peak 1 day after injury which was significantly higher (24.4 +/- 4.1 mU/ml) compared to contralateral uninjured nerves (2.6 +/- 7 mU/ml, t-test p< 0.001) and declined linearily reaching baseline levels by day 7. EPCR was found to be located at the microvilli of Schwann cells at the node of Ranvier and in cytoplasm surrounding the nucleus. Four days after sciatic injury, EPCR levels increased significantly (57,785 +/- 16602AU versus 4790 +/- 1294AU in the contralateral uninjured nerves, p< 0.001 by t-test) mainly distal to the site of injury, where axon degeneration is followed by proliferation of Schwann cells which are diffusely stained for EPCR."

According to the news editors, the research concluded: "EPCR seems to be located to cytoplasmic component of Schwann cells and not to compact myelin component, and is highly increased following injury."


Our news journalists report that additional information may be obtained by contacting O. Gera, Tel Aviv University, Dept. of Phys Therapy, Sackler Fac Med, Tel Aviv, Israel. Additional authors for this research include E. Shavit-Stein, D. Bushi, S. Harnof, M. Ben Shimon, R. Weiss, V. Golderman, A. Dori, N. Maggio, K. Finegold and J. Chapman.

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Keywords for this news article include: Tel Aviv, Israel, Asia, Blood Coagulation Factors, Enzymes and Coenzymes, Serine Endopeptidases, Peptide Hydrolases, Enzyme Precursors, Blood Proteins, Glycoproteins, Hematology, Protein C, Thrombin, Tel Aviv University.

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Musculoskeletal Diseases and Conditions - Arthritis

Research Data from Tokyo University of Pharmacy and Life Sciences Update Understanding of Arthritis (Systemic delivery of small interfering RNA targeting nuclear factor kappa B in mice with collagen-induced arthritis using ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Arthritis have been published. According to news reporting from Hachioji, Japan, by NewsRx journalists, research stated, "This study aimed to build an innovative system to deliver a systemic small interfering RNA (siRNA) treatment for rheumatoid arthritis. We combined arginine-histidine-cysteine based oligopeptide-modified polymer micelles with siRNA targeting the nuclear factor kappa B subunit, RelA (siRelA)."

The news correspondents obtained a quote from the research from the Tokyo University of Pharmacy and Life Sciences, "This is a key molecule in the control of inflammation. We tested the cellular uptake of siRNA and its effects on inflammatory cytokine..."
levels in vitro using synoviocytes, and siRNA distribution and therapeutic effects in vivo in mice with collagen-induced arthritis (CIA). These studies showed that arginine-histidine based oligopeptide modified micelles produced effective cellular siRNA uptake and suppressed inflammatory cytokine levels in synoviocytes. In vivo, these micelles produced marked accumulation of siRNAs in arthritic paws in CIA mice, with much less accumulation in healthy mice.”

According to the news reporters, the research concluded: "The siRelA-polymer micelle complexes also produced more effective suppression of RelA mRNA expression and inflammatory cytokine levels in the arthritic paws of CIA mice and reduced their clinical symptom scores and paw thickness."


Our news journalists report that additional information may be obtained by contacting T. Kanazawa, Tokyo Univ Pharm & Life Sci, Sch Pharm, Hachioji, Tokyo 1920392, Japan. Additional authors for this research include T. Endo, N. Arima, H. Ibaraki, Y. Takashima and Y. Seta.

Keywords for this news article include: Hachioji, Japan, Asia, Intercellular Signaling Peptides and Proteins, Musculoskeletal Diseases and Conditions, Extracellular Matrix Proteins, Joint Diseases and Conditions, Essential Amino Acids, Emerging Technologies, Sulfhydryl Compounds, Neutral Amino Acids, Diamino Amino Acids, Sulfur Amino Acids, Cyclic Amino Acids, Basic Amino Acids, Nanotechnology, Oligopeptides, Nanomicelles, Cytokines, Histidine, Arthritis, Cysteine, Collagen, Arginine, Genetics, Tokyo University of Pharmacy and Life Sciences.

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**Adenocarcinomas**

**Research Data from University Hospital Update Understanding of Adenocarcinomas (Positioning of second-line treatment for advanced gastric and gastroesophageal junction adenocarcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Adenocarcinomas. According to news originating from Sabadell, Spain, by NewsRx correspondents, research stated, "Tumors of the upper gastrointestinal tract are increasing in incidence; yet, approaches to the treatment of advanced gastric and/or gastroesophageal junction cancer vary widely, with no internationally agreed first-line regimens."

Financial support for this research came from Eli Lilly and Company.

Our news journalists obtained a quote from the research from University Hospital, "Recent clinical trials have shown that second-line treatment is now possible for selected patients with advanced disease, and current data suggest that the combination of ramucirumab..."
plus paclitaxel may become a standard of care in the second-line setting for metastatic gastric cancer. Several prognostic factors have been identified for overall survival in the second-line setting; this emphasizes the need for careful sequencing of all treatments to ensure that individual patients receive optimum care."

According to the news editors, the research concluded: "This article reviews published data on the treatment of advanced gastric cancer, with a particular emphasis on second-line chemotherapy, and suggests treatment sequences based on current understanding."


The news correspondents report that additional information may be obtained from C. Pericay, Sabadell Univ Hosp, Dept. of Oncol, Sabadell, Spain. Additional authors for this research include F. Rivera, C. Gomez-Martin, I. Nunez, A. Cassinello and E.R. Imedio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.941. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sabadell, Spain, Europe, Adenocarcinomas, Cancer, Article Review, Adenocarcinoma, Oncology, University Hospital.

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**DNA Research**

**Research Data from University Hospital Update Understanding of DNA Research (DNA Damage-Induced HSPC Malfunction Depends on ROS Accumulation Downstream of IFN-1 Signaling and Bid Mobilization)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on DNA Research have been published. According to news reporting out of Ulm, Germany, by NewsRx editors, research stated, "Mouse mutants with an impaired DNA damage response frequently exhibit a set of remarkably similar defects in the HSPC compartment that are of largely unknown molecular basis. Using Mixed-Lineage-Leukemia-5 (Mll5)-deficient mice as prototypical examples, we have identified a mechanistic pathway linking DNA damage and HSPC malfunction."

Our news journalists obtained a quote from the research from University Hospital, "We show that Mll5 deficiency results in accumulation of DNA damage and reactive oxygen species (ROS) in HSPCs. Reduction of ROS efficiently reverses hematopoietic defects, establishing ROS as a major cause of impaired HSPC function. The Ink4a/Arf locus also contributes to HSPC phenotypes, at least in part via promotion of ROS. Strikingly, toxic ROS levels in Mll5(-/-) mice are critically dependent on type 1 interferon (IFN-1) signaling, which triggers mitochondrial accumulation of full-length Bid. Genetic inactivation of Bid diminishes ROS levels and reverses HSPC defects in Mll5(-/-) mice."

According to the news editors, the research concluded: "Overall, therefore, our findings highlight an unexpected IFN-1 > Bid > ROS pathway underlying DNA damage-associated HSPC malfunction."
For more information on this research see: DNA Damage-Induced HSPC Malfunction Depends on ROS Accumulation Downstream of IFN-1 Signaling and Bid Mobilization. *Cell Stem Cell*, 2016;19(6):752-767. *Cell Stem Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell Stem Cell - www.journals.elsevier.com/cell-stem-cell/)

Our news journalists report that additional information may be obtained by contacting H.J. Fehling, University Hospital, Inst Immunol, D-89081 Ulm, Germany. Additional authors for this research include S. Kumar, G. Alli es, J. Bausinger, F. Beckel, H. Hofemeister, M. Mulaw, V. Madan, K. Scharfetter-Kochanek, M. Feuring-Büse, K. Doehner, G. Speit, A.F. Stewart and H.J. Fehling.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.stem.2016.08.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ulm, Germany, Europe, Deoxyribonucleic Acid, DNA Research, Proteomics, DNA Damage, Genetics, University Hospital.

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**Breast Diseases and Conditions - Gynecomastia**

**Research Data from University Hospital Update Understanding of Gynecomastia (Endocrine and molecular investigations in a cohort of 25 adolescent males with prominent/persistent pubertal gynecomastia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Breast Diseases and Conditions - Gynecomastia is now available. According to news reporting originating in Montpellier, France, by NewsRx journalists, research stated, "Pubertal gynecomastia is a common condition observed in up to 65% of adolescent males. It is usually idiopathic and tends to regress within 1-2 years."

The news reporters obtained a quote from the research from University Hospital, "In this descriptive cross-sectional study, we investigated 25 adolescent males with prominent (> B3) and/or persistent (>2 years) pubertal gynecomastia (P/PPG) to determine whether a hormonal/genetic defect might underline this condition. Endocrine investigation revealed the absence of hormonal disturbance for 18 boys (72%). Three patients presented Klinefelter syndrome and three a partial androgen insensitivity syndrome (PAIS) as a result of p.Ala646Asp and p.Ala45Gly mutations of the androgen receptor gene. The last patient showed a 17a-hydroxylase/17,20-lyase deficiency as a result of a compound heterozygous mutation of the CYP17A1 gene leading to p.Pro35Thr(P35T) and p.Arg239Stop(R239X) in the P450c17 protein. Enzymatic activity was analyzed: the mutant protein bearing the premature stop codon R239X showed a complete loss of 17a-hydroxylase and 17,20-lyase activity. The mutant P35T seemed to retain 15-20% of 17a-hydroxylase and about 8-10% of 17,20-lyase activity. This work demonstrates that P/PPG had an endocrine/genetic cause in 28% of our cases. PAIS may be expressed only by isolated gynecomastia as well as by 17a-hydroxylase/17,20-lyase deficiency."

According to the news reporters, the research concluded: "Isolated P/PPG is not always a 'physiological' condition and should thus be investigated through adequate endocrine and genetic investigations, even though larger studies are needed to better determine the real
prevalence of genetic defects in such patients."


Our news correspondents report that additional information may be obtained by contacting F. Paris, Unite d'Endocrinologie-Gynecologie Pediatriques, Departement de Pediatrie, Hopital Arnaud-de-Villeneuve, CHU Montpellier et Universite Montpellier 1, Montpellier, France. Additional authors for this research include L. Gaspari, F. Mrou, P. Philibert, F. Audran, Y. Morel, A. Biaso-Lauber and C. Sultan.

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Keywords for this news article include: France, Europe, Lyases, Genetics, Montpellier, Hydroxylase, Gynecomastia, Endocrine Research, Enzymes and Coenzymes, Skin Diseases and Conditions, Breast Diseases and Conditions.

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**Enterovirus**

**Research Data from University of Agriculture Update Understanding of Enterovirus (Enterovirus 71 inhibits cellular type I interferon signaling by inhibiting host RIG-I ubiquitination)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enterovirus. According to news reporting from Daqing, People's Republic of China, by NewsRx journalists, research stated, "Enterovirus 71 (EV71) is a human pathogen that induces hand, foot, and mouth disease (HFMD) and fatal neurological diseases in young children and infants. Pathogenicity of EV71 is likely related to its ability to evade host innate immunity through inhibiting cellular type I interferon signaling."

Financial supporters for this research include National Natural Science Foundation of China, Technology Research Foundation of Education Department of HeiLongJiang Province, China, China Postdoctoral Science Foundation, Postdoctoral Foundation of HeiLongJiang Provincial Government, Doctor's Research Foundation, HeiLongJiang BaYi Agricultural University, Scientific and Technological Projects from Heilongjiang Agriculture and Reclamation Bureau, Postgraduate Innovation Science Research Project, HeiLongJiang BaYi Agricultural University.

The news correspondents obtained a quote from the research from the University of Agriculture, "However, it is less well understood the molecular events governing this process. In this study, we found that EV71 infection suppressed the induction of antiviral immunity by inhibiting the expression levels of IFN-beta and IFN-stimulated genes (ISGs), such as ISG54 and ISG56, at the late stage of viral infection. At the same time, our results showed that EV71 infection significantly inhibited ubiquitination of RIG-I. In contrast, up regulation of RIG-I ubiquitination promoted expression of IFN-beta and ISGs, suggesting that inhibition of cellular type I interferon signaling was caused by down-regulation of RIG-I ubiquitination during EV71 infection."
According to the news reporters, the research concluded: "These results suggest that inhibition of RIG-I-mediated type I IFN responses by EV71 may contribute to the pathogenesis of viral infection."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.micpath.2016.09.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daqing, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Picornaviridae, Interferons, RNA Viruses, Enterovirus, Ubiquitins, Cytokines, Virology, Genetics, Viral, University of Agriculture.

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**Immune System Diseases and Conditions - HIV/AIDS**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immune System Diseases and Conditions - HIV/AIDS have been presented. According to news reporting out of San Francisco, California, by NewsRx editors, research stated, "The Food and Drug Administration approved pre-exposure prophylaxis (PrEP) to prevent HIV infection, and the Centers for Disease Control and Prevention has presented PrEP as a prevention option for groups at high risk such as men who have sex with men (MSM). Intervention data provide some information on how PrEP affects sexual behavior of MSM in trials, open label extensions, or clinics."

Our news journalists obtained a quote from the research from the University of California, "However, it is unclear whether sexual risk and preventive behavioral patterns are changing in the population as a whole as PrEP becomes more widely available, whether due to PrEP use or other factors. We examined trends in PrEP use, numbers of condomless anal sex partners, consistent condom use, and seroadaptive strategies in San Francisco-a city which has actively promoted PrEP-using data from National HIV Behavioral Surveillance (NHBS). NHBS recruited 1211, 383, 373, and 268 HIV-negative MSM in 2004, 2008, 2011, and 2014, respectively. PrEP use increased from zero in 2004, 2008, and 2011 to 9.6 % in 2014. The proportion of men with no condomless anal sex partners dropped from 60.6 % in 2004, to 58.2 % in 2008, to 54.2 % in 2011, to 40.2 % in 2014. Consistent condom use decreased from 36.8 %
in 2004, and 30.5% in 2008 and 2011, to 18.3% in 2014. PrEP's introduction and scale-up enters in a pre-existing trend of decreasing condom use and increasing sexually transmitted infections among MSM which may be accelerating in recent years."

According to the news editors, the research concluded: "While PrEP use should be scaled up as a prevention option among those who would benefit most, we believe that public health officials need to be realistic about the possibility that condom use could very well continue to decline as PrEP use increases, and to an extent that may not be directly or indirectly offset by PrEP."


Our news journalists report that additional information may be obtained by contacting H.F. Raymond, University of California, Epidemiol & Biostat, San Francisco, CA 94158, United States. Additional authors for this research include J.M. Snowden, W. McFarland and H.F. Raymond.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Immune System Diseases and Conditions, Epidemiology, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Risk and Prevention, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, University of California.

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**Peptide Proteins - Proinsulin**

**Research Data from University of California Update Understanding of Proinsulin (Circadian variation of the pancreatic islet transcriptome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Peptide Proteins - Proinsulin are presented in a new report. According to news originating from Los Angeles, California, by NewsRx correspondents, research stated, "Pancreatic islet failure is a characteristic feature of impaired glucose control in diabetes mellitus. Circadian control of islet function is essential for maintaining proper glucose homeostasis."

Financial support for this research came from HHS | NIH | National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).

Our news journalists obtained a quote from the research from the University of California, "Circadian variations in transcriptional pathways have been described in diverse cell types and shown to be critical for optimization of cellular function in vivo. In the current study, we utilized Short Time Series Expression Miner (STEM) analysis to identify diurnally expressed transcripts and biological pathways from mouse islets isolated at 4 h intervals throughout the 24 h light-dark cycle. STEM analysis identified 19 distinct chronological model profiles, and genes belonging to each profile were subsequently annotated to significantly enriched Kyoto Encyclopedia of Genes and Genomes biological pathways. Several transcriptional pathways essential for proper islet function (e.g., insulin secretion, oxidative phosphorylation), cell survival (e.g., insulin signaling, apoptosis) and cell proliferation (DNA
replication, homologous recombination) demonstrated significant time-dependent variations. Notably, KEGG pathway analysis revealed 'protein processing in endoplasmic reticulum - mmu04141' as one of the most enriched time-dependent pathways in islets."

According to the news editors, the research concluded: "This study provides unique data set on time-dependent diurnal profiles of islet gene expression and biological pathways, and suggests that diurnal variation of the islet transcriptome is an important feature of islet homeostasis, which should be taken into consideration for optimal experimental design and interpretation of future islet studies."

For more information on this research see: Circadian variation of the pancreatic islet transcriptome. Physiological Genomics, 2016;48(9):677-687. Physiological Genomics can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news correspondents report that additional information may be obtained from A.V. Matveyenko, University of California, David Geffen Sch Med, Div Endocrinol, Dept. of Med, Los Angeles, CA 90095, United States. Additional authors for this research include J.Y. Qian, J. Ernst and A.V. Matveyenko.

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Keywords for this news article include: Los Angeles, California, United States, North and Central America, Gastroenterology, Peptide Proteins, Peptide Hormones, Proinsulin, Pancreas, Genetics, University of California.

Our news editors obtained a quote from the research from the University of Chile, "For this, TM4 cells were incubated with different concentrations of these metabolites for 24 h to then evaluate the viability and DNA integrity by MTS and TUNEL assay respectively. The participation of classical oestrogen receptors and the involvement of oxidative stress and apoptotic mechanisms were also evaluated co-incubating TM4 cells with these estradiol metabolites and with the drugs ICI182780, N-acetylcyesteine and Z-VAD-FMK respectively."

Funders for this research include CONICYT/FONDECYT from Chilean Government, Program U-apoya University of Chile.
Only high concentrations of 2OHE(2) and 2ME(2) decreased cell viability inducing DNA fragmentation. In addition, ICI182780 did not block the effect of 2OHE(2) and 2ME(2), while N-Acetylcycteine and Z-VAD-FMK only blocked the effect of 2OHE(2). Moreover, 2OHE(2) but not 2ME(2) induced PARP and caspase-3 cleavage. Finally, lower 2OHE(2) and 2ME(2) concentrations (0.01-0.1-1.0 μmol l(-1)) decreased Sertoli cell viability 48 h post-treatment.

According to the news editors, the research concluded: "Our results support the hypothesis that elevated intratesticular 2OHE(2) or 2ME(2) concentrations could be related to male infertility since 2OHE(2) by apoptosis and 2ME(2) by undetermined mechanisms induce DNA fragmentation in Sertoli cells."

For more information on this research see: 2-hydroxyoestradiol and 2-methoxyoestradiol, two endogenous oestradiol metabolites, induce DNA fragmentation in Sertoli cells.  


The news editors report that additional information may be obtained by contacting A. Parada-Bustamante, University of Chile, Fac Med, Inst Invest Materno Infantil, Santiago 8360160, Chile. Additional authors for this research include C. Molina, M. Florez, J. Bunay, R.D. Moreno, P.A. Orihuela, A. Castro and A. Parada-Bustamante.

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Keywords for this news article include: Santiago, Chile, South America, Endocrine Cells, Sertoli Cells, DNA Research, Genetics, Testis, University of Chile.

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**Oncology - Colon Cancer**

**Research Data from University of Colorado Update Understanding of Colon Cancer (Topoisomerase Ila mediates TCF-dependent epithelial-mesenchymal transition in colon cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting from Aurora, Colorado, by NewsRx journalists, research stated, "Aberrant T-cell factor (TCF) transcription is implicated in the majority of colorectal cancers (CRCs). TCF transcription induces epithelial-mesenchymal transition (EMT), promoting a tumor-initiating cell (TIC) phenotype characterized by increased proliferation, multidrug resistance (MDR), invasion and metastasis."

The news correspondents obtained a quote from the research from the University of Colorado, "The data presented herein characterize topoisomerase Ila (TopoIla) as a required component of TCF transcription promoting EMT. Using chromatin immunoprecipitation (ChIP) and protein co-immunoprecipitation (co-IP) studies, we show that TopoIla forms protein-protein interactions with b-catenin and TCF4 and interacts with Wnt response elements (WREs) and promoters of direct target genes of TCF transcription, including: MYC, vimentin, AXIN2 and LEF1. Moreover, both TopoIla and TCF4 ChIP with the N-cadherin promoter, which is a new discovery indicating that TCF transcription may directly regulate N-cadherin expression."
TopoIIα N-terminal ATP-competitive inhibitors, exemplified by the marine alkaloid neoamphimedine (neo), block TCF activity in vitro and in vivo. Neo effectively inhibits TopoIIα and TCF4 from binding WREs/promoter sites, whereas protein-protein interactions remain intact. Neo inhibition of TopoIIα-dependent TCF transcription also correlates with significant antitumor effects in vitro and in vivo, including the reversion of EMT, the loss of TIC-mediated clonogenic colony formation, and the loss of cell motility and invasion. Interestingly, non-ATP-competitive inhibitors of TopoIIα, etoposide and merbarone, were ineffective at preventing TopoIIα-dependent TCF transcription. Thus, we propose that TopoIIα participation in TCF transcription may convey a mechanism of MDR to conventional TopoIIα inhibitors. However, our results indicate that TopoIIα N-terminal ATP-binding sites remain conserved and available for drug targeting.

According to the news reporters, the research concluded: "This article defines a new strategy for targeted inhibition of TCF transcription that may lead to effective therapies for the treatment of CRC and potentially other Wnt-dependent cancers."

For more information on this research see: Topoisomerase IIA mediates TCF-dependent epithelial-mesenchymal transition in colon cancer. Oncogene, 2016;35(38):4990-9. (Nature Publishing Group - www.nature.com/; Oncogene - www.nature.com/onc/)

Our news journalists report that additional information may be obtained by contacting Q. Zhou, Dept. of Pharmaceutical Sciences, Skaggs School of Pharmacy and Pharmaceutical Sciences, University of Colorado Anschutz Medical Campus, Aurora, CO, United States. Additional authors for this research include A.D. Abraham, L. Li, A. Babalmorad, S. Bagby, J.J. Arcaroli, R.J. Hansen, F.A. Valeriote, D.L. Gustafson, J. Schaack, W.A. Messersmith and D.V LaBarbera.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/onc.2016.29. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aurora, Colorado, Genetics, Oncology, Colon Cancer, United States, Topoisomerase, Enzymes and Coenzymes, North and Central America.

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Cardiovascular Diseases and Conditions -...

Research Data from University of Genoa School of Medicine Update Understanding of Atherosclerosis (Role of neutrophils in atherogenesis: an update)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Atherosclerosis is now available. According to news originating from Genoa, Italy, by NewsRx correspondents, research stated, "The role of neutrophils in the beginning and the progression of the atherosclerotic process did not receive much attention until the last years. On the contrary, recent data, in both the experimental animals and humans, suggest important effects of these cells with possible clinical consequences."

Funders for this research include Universita degli Studi di Genova, European Commission FP7-Research and Innovation I Health.
Our news journalists obtained a quote from the research from the University of Genoa School of Medicine, "This narrative review was based on the papers found on PubMed and MEDLINE up to July 2015. The search terms used were 'neutrophil, atherosclerosis' in combination with 'recruitment, chemokine, plaque destabilization and pathophysiology'. Different models demonstrate the presence and the actions of neutrophils in the early steps of the atherogenesis confirming the fundamental role of these cells in the response of the innate immune system to different pathogens (in this context the modified lipoproteins). However, also the late phases of the atherosclerotic process, in particular the destabilization of a mature plaque, seem to be modulated by the neutrophils, possibly through the interaction with recently discovered biological systems such as the endocannabinoids. The understanding of the mechanisms involved in the modulation exerted by neutrophils in atherosclerosis is pivotal in terms of the complete definition of the overall picture."

According to the news editors, the research concluded: "This approach will certainly give us new targets and new pharmacological opportunities for the anti-inflammatory strategy of the cardiovascular prevention."


The news correspondents report that additional information may be obtained from A. Pende, Clinic of Internal Medicine 1, Dept. of Internal Medicine, University of Genoa School of Medicine, IRCCS Azienda Ospedaliera Universitaria San Martino - IST, Genoa, Italy. Additional authors for this research include N. Artom, M. Bertolotto, F. Montecucco and F. Dallegri.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/eci.12566. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genoa, Italy, Europe, Cardiology, Immunology, Phagocytes, Blood Cells, Neutrophils, Granulocytes, Article Review, Atherosclerosis, Arteriosclerosis, Hemic and Immune Systems, Arterial Occlusive Diseases, Cardiovascular Diseases and Conditions.

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Myeloid Cells

Research Data from University of Guadalajara Update Understanding of Myeloid Cells (Culture supernatants of cervical cancer cells induce an M2 phenotypic profile in THP-1 macrophages)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Myeloid Cells have been published. According to news reporting from Guadalajara, Mexico, by NewsRx journalists, research stated, "Patients with cervical cancer (CxCa) typically present an infiltrate of tumor-associated macrophages, which is associated with a poor prognosis. We found that CxCa cell lines (HeLa, SiHa, and C-33A) secreted factors involved in regulating tumor growth including IL-6, IL-4, PDGF(AA), HGF, VEGF, ANG-2, and TGF-beta 3. We assessed the effects of culture supernatants from
these cell lines on macrophages derived from the THP-1 cell line."

The news correspondents obtained a quote from the research from the University of Guadalajara, "Macrophages treated with culture supernatants from CxCa cells developed an M2-like phenotype with expression of CD163, low nitric oxide release, and high secretion of IL-6, PDGF(AA), HGF, ANG-2, and VEGF. The macrophages continued to produce PDGF(AA), PDGF(BB), and VEGF 48 h after the CxCa cell culture supernatants were removed. The induction of M2 macrophages in vivo favors tumor growth, angiogenesis, tissue remodeling, and metastasis."

According to the news reporters, the research concluded: "These results demonstrated that factors secreted by CxCa cells induced a stable M2 phenotype in THP-1 macrophages."

For more information on this research see: Culture supernatants of cervical cancer cells induce an M2 phenotypic profile in THP-1 macrophages. Cellular Immunology, 2016;310 ():42-52. Cellular Immunology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Cellular Immunology - www.journals.elsevier.com/cellular-immunology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cellimm.2016.07.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guadalajara, Mexico, North and Central America, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Mononuclear Phagocyte System, Growth Factor Receptors, Connective Tissue Cells, Angiogenic Proteins, Membrane Proteins, Myeloid Cells, Macrophages, Immunology, Phagocytes, Oncology, Cancer, VEGF, University of Guadalajara.

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Autoimmune Diseases and Conditions - Experimental…

Research Data from University of New Mexico Update Understanding of Experimental Autoimmune Encephalomyelitis (Nrf2-dysregulation correlates with reduced synthesis and low glutathione levels in experimental autoimmune encephalomyelitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Autoimmune Diseases and Conditions - Experimental Autoimmune Encephalomyelitis are discussed in a new report. According to news reporting originating from Albuquerque, New Mexico, by NewsRx correspondents, research stated, "This study investigates the possible mechanism(s) underlying glutathione (GSH) deficiency in the mouse spinal cord during the course of myelin oligodendrocyte glycoprotein
(35-55) peptide-induced experimental autoimmune encephalomyelitis (EAE), a commonly used animal model of multiple sclerosis. Using the classical enzymatic recycling method and a newly developed immunodot assay, we first demonstrated that total GSH levels (i.e. free GSH plus all its adducts) are reduced in EAE, suggesting an impaired synthesis."

Financial support for this research came from National Institutes of Health.

Our news editors obtained a quote from the research from the University of New Mexico, "The decline in the levels of this essential antioxidant tripeptide in EAE coincides temporally and in magnitude with a reduction in the amount of gamma-glutamylcysteine ligase, the rate-limiting enzyme in GSH synthesis. Other enzymes involved in GSH biosynthesis, whose genes also contain antioxidant-response elements, including glutathione synthetase, cystine/glutamate antiporter, and gamma-glutamyl transpeptidase (gamma-GT) are diminished in EAE as well. Low levels of gamma-glutamylcysteine ligase, glutathione synthetase, and gamma-GT are the consequence of reduced mRNA expression, which correlates with diminished expression of the nuclear factor (erythroid-derived 2)-like 2 (Nrf2) in both the cytosol and nucleus. Interestingly, the low Nrf2 expression does not seem to be caused by increased degradation via Kelch-like ECH-associated protein 1-dependent or Kelch-like ECH-associated protein 1-independent mechanisms (such as glycogen synthetase kinase-3 beta activation), or by reduced levels of Nrf2 mRNA. This suggests that translation of this important transcription factor and/or other still unidentified post-translational processes are altered in EAE."

According to the news editors, the research concluded: "These novel findings are central toward understanding how critical antioxidant and protective responses are lost in inflammatory demyelinating disorders."


The news editors report that additional information may be obtained by contacting O.A. Bizzozero, University of New Mexico, Hlth Sci Center, Dept. of Cell Biol & Physiol, Albuquerque, NM 87131, United States. Additional authors for this research include C.L. Hu, N.I. Perrone-Bizzozero, J.Z. Zheng and O.A. Bizzozero.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jnc.13837. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Albuquerque, New Mexico, United States, North and Central America, Central Nervous System Diseases and Conditions, Experimental Autoimmune Encephalomyelitis, Autoimmune Diseases and Conditions, Central Nervous System Infections, Brain Diseases and Conditions, Enzymes and Coenzymes, Protective Agents, Oligopeptides, Antioxidants, Encephalitis, Glutathione, Synthetase, Peptides, Genetics, Ligases, University of New Mexico.

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Research Data from University of Padua Update Understanding of Angiology (PCSK9 knock-out mice are protected from neointimal formation in response to perivascular carotid collar placement)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Angiology have been published. According to news reporting out of Padua, Italy, by NewsRx editors, research stated, "Proprotein convertase subtilisin kexin type 9 (PCSK9) induces degradation of the low-density lipoprotein-receptor (LDLR). Smooth muscle cells (SMCs) in human atherosclerotic plaques and cultured SMCs express PCSK9."

Our news journalists obtained a quote from the research from the University of Padua, "The present study aimed at defining the role of PCSK9 on vascular response to injury. Carotid neointimal lesions were induced by positioning a non-occlusive collar in PCSK9 knockout (PCSK9(-/-)) and wild type littermate (PCSK9(+/+)) mice. In PCSK9(-/-) mice, we observed a significantly less intimal thickening (p < 0.05), a lower intimal media ratio (p < 0.02), and a tendency to higher lumen area, compared to PCSK9(+/+) mice. When compared with PCSK9(-/-), lesions of PCSK9(+/+) mice had a higher content of SMCs (p < 0.05) and collagen (p < 0.05), while no difference was observed in the accumulation of macrophages. PCSK9 was detectable in both left and right carotids artery in regions occupied by medial and neointimal SMCs. SMCs freshly isolated from PCSK9(-/-), when compared to PCSK9(+/+) cells, showed higher levels of alpha-smooth muscle actin (alpha-SMA; 2.24 +/- 0.36 fold; p< 0.01) and myosin heavy chain II (MHC-II; 8.65 +/- 1.55 fold; p< 0.01), and lower levels of caldesmon mRNA (-54 +/- 14%; p< 0.01). PCSK9(-/-) cells also showed a slower proliferation rate, and an impaired migratory capacity and G1/S progression of the cell cycle. The reconstitution of PCSK9 expression, by retroviral infection of PCSK9(-/-) SMCs, led to a downregulation of a-SMA (-56 +/- 2%; p< 0.01), MHC-II(-45% +/- 25.5 fold: p = 0.06) and calponin (-25% +/- 0.8 fold: p< 0.05) and induction of caldesmon mRNA (1.46 +/- 0.3 fold; p< 0.05). Proliferation rate of SMCs PCSK9(-/-) was significantly lower compared to PCSK9 reconstituted cells."

According to the news editors, the research concluded: "Taken together, the present results suggest that PCSK9, by sustaining SMC synthetic phenotype, proliferation, and migration, may play a pro-atherogenic role in the arterial wall."

For more information on this research see: PCSK9 knock-out mice are protected from neointimal formation in response to perivascular carotid collar placement. Atherosclerosis, 2016;253():214-224. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting N. Ferri, University of Padua, Dipartimento Sci Farmaco, I-35131 Padua, Italy. Additional authors for this research include S. Marchiano, G. Tibolla, R. Baetta, A. Dhyani, M. Ruscica, P. Uboldi, A.L. Catapano and A. Corsini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.910. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Padua, Italy, Europe, Angiology, Genetics,
Research Data from University of Pannonia Update Understanding of Ion Channels (Potential L-Type Voltage-Operated Calcium Channel Blocking Effect of Drotaverine on Functional Models)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Membrane Proteins - Ion Channels are presented in a new report. According to news originating from Veszprem, Hungary, by NewsRx correspondents, research stated, "Drotaverine is considered an inhibitor of cyclic-3’,5’-nucleotide-phosphodiesterase (PDE) enzymes; however, published receptor binding data also support the potential L-type voltage-operated calcium channel (L-VOCC) blocking effect of drotaverine. Hence, in this work, we focus on the potential L-VOCC blocking effect of drotaverine by using L-VOCC-associated functional in vitro models."

Our news journalists obtained a quote from the research from the University of Pannonia, "Accordingly, drotaverine and reference agents were tested on KCl-induced guinea pig tracheal contraction. Drotaverine, like the L-VOCC blockers nifedipine or diltiazem, inhibited the KCl-induced inward Ca2+ - induced contraction in a concentration-dependent fashion. The PDE inhibitor theophylline had no effect on the KCl-evoked contractions, indicating its lack of inhibition on inward Ca2+ flow. Drotaverine was also tested on the L-VOCC-mediated resting Ca2+ refill model. In this model, the extracellular Ca2+ enters the cells to replenish the emptied intracellular Ca2+ stores. Drotaverine and L-VOCC blocker reference molecules inhibited Ca2+ replenishment of Ca2+ -depleted preparations detected by agonist-induced contractions in post-Ca2+ replenishment Ca2+ -free medium. Theophylline did not modify the Ca2+ store replenishment after contraction. It seems that drotaverine, but not theophylline, inhibits inward Ca2+ flux. The addition of CaCl2 to Ca2+ -free medium containing the agonist induced inward Ca2+ flow and subsequent contraction of Ca2+ -depleted tracheal preparations. Drotaverine, similar to the L-VOCC blockers, inhibited inward Ca2+ flow and blunted the slope of CaCl2-induced contraction in agonist containing Ca2+ -free medium with Ca2+ -depleted tracheal preparations."

According to the news editors, the research concluded: "These results show that drotaverine behaves like L-VOCC blockers but, unlike PDE inhibitors using L-VOCC associated in vitro experimental models."


The news correspondents report that additional information may be obtained from A. Guttman, Univ Pannonia, MTA Translat Glyc Res Grp, MUKKI, Veszprem, Hungary. Additional authors for this research include A. Guttman and E.G. Mikus.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.237271. This DOI is a link to an online electronic document.
Whipple's Disease

Research Data from University of Paris Update Understanding of Whipple's Disease (Whipple's arthritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Whipple's disease have been presented. According to news reporting originating from Paris, France, by NewsRx editors, the research stated, "Whipple's disease is a chronic systemic infection that is due to the bacterial agent Tropheryma whippelii and can be cured by appropriate antibiotic therapy. The typical patient is a middle-aged man."

Our news editors obtained a quote from the research from the University of Paris, "Rheumatologists are in a prime position to handle Whipple's disease. The classical presentation combines weight loss and diarrhea, preceded in three-quarters of patients by a distinctive pattern of joint manifestations that run an intermittent course, at least initially. The mean time from joint symptom onset to the diagnosis of Whipple's disease is 6 years. Either oligoarthritis or chronic polyarthritis with negative tests for rheumatoid factors (RFs) develops. If the diagnosis is missed, progression to chronic septic destructive polyarthritis may occur. Spondyloarthritis has also been reported, as well as a few cases of diskitis or, even more rarely, of hypertrophic osteoarthritis. In most patients with the classical form of Whipple's disease, periodic acid-Schiff (PAS) staining of duodenal and jejunal biopsies shows macrophagic inclusions that contain bacteria. However, the involvement of the bowel may be undetectable clinically or, less often, histologically, and even PCR testing of bowel biopsies may be negative. Therefore, when nothing points to bowel disease, rheumatologists should consider T. whipplei infection in middle-aged men with unexplained intermittent oligoarthritis. PCR testing allows the detection of T. whipplei genetic material in joint fluid, saliva, and feces. This test is now a first-line diagnostic investigation, although T. whipplei is a rare cause of unexplained RF-negative oligoarthritis or polyarthritis in males."

According to the news editors, the research concluded: "PCR testing can provide an early diagnosis before the development of severe systemic complications, which are still fatal in some cases."


The news editors report that additional information may be obtained by contacting X. Puechal, University of Paris, Hopital Cochin, Center Reference Malad Autoimmunes Syst Rares, Inst CochinInsermU1016, F-75014 Paris, France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jbspin.2016.07.001. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Paris, France, Europe, Whipple's Disease, Arthritis, Article Review, Diagnostics and Screening, Musculoskeletal Diseases and Conditions, Metabolic Diseases and Conditions, Joint Diseases and Conditions, Malabsorption Syndromes, Whipple Disease, Genetics, University of Paris.

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Central Nervous System Diseases and Conditions - …

Research Data from University of Pavia Update Understanding of Epilepsy (Development and Validation of an HPLC-UV Assay for the Therapeutic Monitoring of the New Antiepileptic Drug Perampanel in Human Plasma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions - Epilepsy have been presented. According to news reporting originating in Pavia, Italy, by NewsRx journalists, research stated, "Perampanel, a new specific non-competitive alpha-amino-3-hydroxy-5-methyl-4-isoxazole-propionic acid receptor antagonist, has been recently approved in the United States and the European Union for the adjunctive treatment of focal seizures and primary generalized tonic-clonic seizures associated with idiopathic generalized epilepsy. A positive relationship between plasma perampanel concentration and improvement in seizure control has been identified in regulatory trials, suggesting that therapeutic drug monitoring could be useful in optimizing clinical response in patients with epilepsy treated with perampanel."

The news reporters obtained a quote from the research from the University of Pavia, "The development of a simple and broadly applicable method for measuring plasma perampanel concentrations is desirable to permit the use of TDM for this drug in clinical practice. A high-performance liquid chromatographic method with ultraviolet detection for the quantitative determination of perampanel in small aliquots of human plasma (200 μL) has been developed and validated. Sample preparation involves a simple precipitation step followed by solvent evaporation. High-performance liquid chromatographic separation is achieved on 2 reverse-phase monolithic columns in sequence connected to an ultraviolet detector (320 nm), using as mobile phase water/acetonitrile (60: 40 vol/vol) mixed with 1 mL/L phosphoric acid, at a flow rate of 1.5 mL/min. Promethazine hydrochloride is used as internal standard. Calibration curves were linear over a perampanel concentration range of 25-1000 ng/mL, with correlation coefficients equal or greater than 0.998 +/- 0.001 and a limit of quantitation set at 25 ng/mL. Intra-and inter-day coefficients of variation did not exceed 7.4%, and the accuracy ranged from 96.4% to 113.3%. No interference was observed from commonly coprescribed drugs."

According to the news reporters, the research concluded: "The present assay is simple, specific, and cost effective with performance characteristics suitable for TDM use."

For more information on this research see: Development and Validation of an HPLC-UV Assay for the Therapeutic Monitoring of the New Antiepileptic Drug Perampanel in Human Plasma. Therapeutic Drug Monitoring, 2016;38(6):744-750. Therapeutic Drug Monitoring can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

Our news correspondents report that additional information may be obtained by
Research Data from University of Pisa Update Understanding of Primary Ciliary Dyskinesia (Gene editing of DNAH11 restores normal cilia motility in primary ciliary dyskinesia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Respiratory Tract Diseases and Conditions - Primary Ciliary Dyskinesia is now available. According to news reporting originating from Pisa, Italy, by NewsRx correspondents, research stated, "Primary ciliary dyskinesia (PCD) is a rare autosomal recessive genetic disorder characterised by dysfunction of motile cilia. Ciliary dysmotility causes poor mucociliary clearance and leads to impairment of pulmonary function and severe respiratory infections."

Our news editors obtained a quote from the research from the University of Pisa, "PCD has no specific therapy. With the aim to permanently restore gene function and normalise ciliary motility, we used gene editing to replace mutated with wild-type sequence in defective cells. The target gene was dynein heavy chain 11 (DNAH11), an essential component of ciliary structure. Airway ciliated cells were collected from two patients with PCD with DNAH11 nonsense mutations and altered ciliary beating and pattern. Repair of the genetic defect was performed ex vivo by site-specific recombination using transcription activator-like effector nucleases (TALENs). In an epithelial cell line engineered to contain the DNAH11 target site, TALENs cleaved over 80% of the mutated DNAH11 sequence and replaced the mutated sequence with wild-type sequence in about 50% of cells. In airway ciliated cells of patients with PCD, site-specific recombination and normalisation of ciliary beating and pattern occurred in 33% and 29% of cells, respectively."

According to the news editors, the research concluded: "This study demonstrates that gene editing can rescue ciliary beating ex vivo, opening up new avenues for treating PCD."

For more information on this research see: Gene editing of DNAH11 restores normal cilia motility in primary ciliary dyskinesia. Journal of Medical Genetics, 2016;53(4):242-9. (BMJ Publishing Group - group.bmj.com/; Journal of Medical Genetics - jmg.bmj.com/)

The news editors report that additional information may be obtained by contacting M. Lai, Retrovirus Center and Virology Section, Dept. of Translational Research, University of Pisa, Pisa, Italy. Additional authors for this research include M. Pifferi, A. Bush, M. Piras, A. Michelucci, M. Di Cicco, A. del Grosso, P. Quaranta, C. Cursi, E. Tantillo, S. Franceschi, M.C. Mazzanti, P. Simi, G. Saggese, A. Boner and M. Pistello.

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Keywords for this news article include: Pisa, Italy, Europe, Genetics, Neurology, Movement Disorders, Kartagener Syndrome, Cell Surface Extensions, Primary Ciliary Dyskinesia, Musculoskeletal Diseases and Conditions, Respiratory Tract Diseases and Conditions, Central Nervous System Diseases and Conditions.

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Lung Diseases and Conditions - Chronic Obstructive...

Research Data from University of Rochester Update Understanding of Chronic Obstructive Pulmonary Disease (Gene expression profiling of epigenetic chromatin modification enzymes and histone marks by cigarette smoke: implications for COPD and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease. According to news reporting originating in Rochester, New York, by NewsRx journalists, research stated, "Chromatin-modifying enzymes mediate DNA methylation and histone modifications on recruitment to specific target gene loci in response to various stimuli. The key enzymes that regulate chromatin accessibility for maintenance of modifications in DNA and histones, and for modulation of gene expression patterns in response to cigarette smoke (CS), are not known."

Financial supporters for this research include NIH NHLBI, American Lung Association.

The news reporters obtained a quote from the research from the University of Rochester, "We hypothesize that CS exposure alters the gene expression patterns of chromatin-modifying enzymes, which then affects multiple downstream pathways involved in the response to CS. We have, therefore, analyzed chromatin-modifying enzyme profiles and validated by quantitative real-time PCR (qPCR). We also performed immunoblot analysis of targeted histone marks in C57BL/6J mice exposed to acute and subchronic CS, and of lungs from nonsmokers, smokers, and patients with chronic obstructive pulmonary disease (COPD). We found a significant increase in expression of several chromatin modification enzymes, including DNA methyltransferases, histone acetyltransferases, histone methyltransferases, and SET domain proteins, histone kinases, and ubiquitinases. Our qPCR validation data revealed a significant downregulation of Dnmt1, Dnmt3a, Dnmt3b, Hdac2, Hdac4, Hat1, Prmt1, and Aurkb. We identified targeted chromatin histone marks (H3K56ac and H4K12ac), which are induced by CS. Thus CS-induced genotoxic stress differentially affects the expression of epigenetic modulators that regulate transcription of target genes via DNA methylation and site-specific histone modifications."

According to the news reporters, the research concluded: "This may have implications in devising epigenetic-based therapies for COPD and lung cancer."

Our news correspondents report that additional information may be obtained by contacting I. Rahman, University of Rochester, Medical Center, Dept. of Environm Med, Rochester, NY 14642, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00253.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, New York, United States, North and Central America, Chronic Obstructive Pulmonary Disease, Lung Diseases and Conditions, Enzymes and Coenzymes, Cancer, Genetics, Nucleoproteins, Lung Neoplasms, Lung Cancer, Chromatin, Oncology, Proteins, Histones, University of Rochester.

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Musculoskeletal Diseases and Conditions -

Research Data from University of Southampton Update Understanding of Osteoarthritis (Demethylation of an NF-kappa B enhancer element orchestrates iNOS induction in osteoarthritis and is associated with altered chondrocyte cell cycle)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Osteoarthritis have been published. According to news originating from Southampton, United Kingdom, by NewsRx correspondents, research stated, "To examine the methylation profile of the nuclear factor (NF)-kappa B enhancer region at -5.8 kb of inducible nitric oxide synthase (iNOS) and the subsequent role in the induction of osteoarthritis (OA) via cell cycle regulation. Percentage methylation was determined by pyrosequencing, gene expression by qRT-PCR and cell proliferation was determined using the 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay."

Our news journalists obtained a quote from the research from the University of Southampton, "Transient transfections were induced to determine the effect of the NF-kappa B enhancer region on cell proliferation and the influence of DNA methylation. In vitro demethylation with 5-aza-dC showed decreased levels of DNA methylation at CpG sites localised at -5.8 kb, which correlated with higher levels of iNOS expression. In vitro methylation of the NF-kappa B enhancer region at -5.8 kb increased the percentage of cells at G0/G1 cell cycle phase. Loss of methylation within this region correlated with, enhanced proliferation and increased number of cells at G2/M phase. OA chondrocytes demonstrated up-regulation of the G0/G1 cell cycle progression markers Cyclin D1 and CDK6 in contrast to control cells. We demonstrate the loss of methylation that occurs at specific CpG sites localised at the -5.8 kb NF-kappa B enhancer region of the iNOS gene in OA chondrocytes permits the binding of this transcription factor activating the expression of iNOS. This results in subsequent altered cell cycle regulation, altered proliferative phenotype and transmission of the pathogenic phenotype to daughter cells."

According to the news editors, the research concluded: "This study indicates that inhibition of cell cycle progression by iNOS enhancer hyper-methylation is capable of reducing pro-inflammatory responses via down-regulation of NF-kappa B with important therapeutic implications in OA."

The news correspondents report that additional information may be obtained from R.O.C. Oreffo, University of Southampton, Sch Med, Bone & Joint Res Grp, Center Human Dev Stem Cells & RegeneratInst Dev Sci, Southampton, Hants, United Kingdom. Additional authors for this research include A. Takahashi and R.O.C. Oreffo.

Keywords for this news article include: Southampton, United Kingdom, Europe, Musculoskeletal Diseases and Conditions, Rheumatic Diseases and Conditions, Joint Diseases and Conditions, Connective Tissue Cells, Transcription Factors, DNA-Binding Proteins, Cell Proliferation, Nuclear Proteins, Osteoarthritis, Chondrocytes, NF-kappa B, Arthritis, Genetics, University of Southampton.

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**Research Data from University of Southern Florida Update**

**Understanding of Neonatal Abstinence Syndrome (Neonatal abstinence syndrome and the gastrointestinal tract)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Infant, Newborn Diseases and Conditions - Neonatal Abstinence Syndrome are presented in a new report. According to news reporting originating from Tampa, Florida, by NewsRx correspondents, research stated, "Development of a healthy gut microbiome is essential in newborns to establish immunity and protection from pathogens. Recent studies suggest that infants who develop dysbiosis may be at risk for lifelong adverse health consequences."

Our news editors obtained a quote from the research from the University of Southern Florida, "Exposure to opioid drugs during pregnancy is a factor of potential importance for microbiome health that has not yet been investigated. Since these infants are born after an entire gestation exposed to mu opioid receptor agonists and have severe gastrointestinal and neurological symptoms, we hypothesize that these infants are at risk for dysbiosis."

According to the news editors, the research concluded: "We speculate that opioid exposure during gestation and development of NAS at birth may lead to a dysbiotic gut microbiome, which may impair normal microbiome succession and development, and impact future health of these children."


The news editors report that additional information may be obtained by contacting D. Maguire, University of Southern Florida, Coll Nursing, Tampa, FL 33612, United States.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mehy.2016.10.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tampa, Florida, United States, North and Central America, Infant, Newborn Diseases and Conditions, Newborn Diseases and Conditions, Neonatal Abstinence Syndrome, Gastroenterology, Infant, University of Southern Florida.

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**Immunology - Granulocytes**

**Research Data from University of Sydney Update Understanding of Granulocytes (Neutrophils recruited to the myocardium after acute experimental myocardial infarct generate hypochlorous acid that oxidizes cardiac myoglobin)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology - Granulocytes have been presented. According to news reporting from Sydney, Australia, by NewsRx journalists, research stated, "Myocardial inflammation following acute myocardial infarct (AMI) is associated with risk of congestive heart failure. Pro-inflammatory neutrophils were recruited to the damaged myocardium 24 h after permanent coronary ligation in rats to induce AMI as judged by the presence of immune-positive myeloperoxidase (MPO) in the tissues; MPO generates the oxidant hypochlorous acid (HOCl)."

The news correspondents obtained a quote from the research from the University of Sydney, "Neutrophils were absent in hearts from Control (untreated) and surgical Sham. Similarly, rats exposed to 1 h coronary ligation (Ischemia) showed no neutrophil infiltrate. Concomitantly, MPO activity increased in left ventricular (LV) homogenates prepared from the AMI group and this was inhibited by paracetamol and the nitroxide TEMPO. The same LV-homogenates showed increased 3-chlorotyrosine/tyrosine ratios (biomarker for MPO-activity). Combined 2D gel/Western blot indicated cardiac myoglobin (Mb) was modified after AMI. Subsequent MALDI-TOF and LC-MS/MS analysis of isolated protein spots revealed increased Mb oxidation in hearts from the AMI group relative to Control, Sham and Ischemia groups. Peptide mass mapping revealed oxidation of Met9 and Met132 to the corresponding sulfoxides yet Cys67 remained unmodified."

According to the news reporters, the research concluded: "Therefore, neutrophil-generated HOCl can oxidize cardiac Mb after AMI and this may impact on its function within the affected myocardium: oxidized Mb maybe a useful marker of myocardial inflammation."

For more information on this research see: Neutrophils recruited to the myocardium after acute experimental myocardial infarct generate hypochlorous acid that oxidizes cardiac myoglobin. *Archives of Biochemistry and Biophysics*, 2016;612():103-114. *Archives of Biochemistry and Biophysics* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Archives of Biochemistry and Biophysics - www.journals.elsevier.com/archives-of-biochemistry-and-biophysics/)

Our news journalists report that additional information may be obtained by contacting P.K. Witting, University of Sydney, Charles Perkins Center, Sydney, NSW 2006, Australia. Additional authors for this research include H.B. Kim, A. Szuchman-Sapir, A.
McMahon, J.M. Dennis and P.K. Witting.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.abb.2016.10.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Hemic and Immune Systems, Reactive Oxygen Species, Noncarboxylic Acids, Chlorine Compounds, Hypochlorous Acid, Muscle Proteins, Inflammation, Granulocytes, Blood Cells, Neutrophils, Cardiology, Immunology, Phagocytes, Chemicals, Myoglobin, Globins, Oxides, University of Sydney.

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Gram-Positive Bacteria - Staphylococcus aureus

Research Data from University of the Pacific Update Understanding of Staphylococcus aureus (Impact of Infectious Diseases Consultation on Clinical Outcomes of Patients with Staphylococcus aureus Bacteremia in a Community Health System)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Positive Bacteria - Staphylococcus aureus are discussed in a new report. According to news reporting originating from Hillsboro, Oregon, by NewsRx correspondents, research stated, "Staphylococcus aureus bacteremia (SAB) causes high rates of morbidity and death. Several studies in academic health settings have demonstrated that consultations from infectious diseases specialists improve the quality of care and clinical outcomes for SAB."

Our news editors obtained a quote from the research from the University of the Pacific, "Few data that describe the impact in resource-limited settings such as community hospitals are available. This retrospective cohort study evaluated the adherence to quality-of-care indicators and the clinical outcomes for SAB in a five-hospital community health system (range of 95 to 272 available beds per hospital), for patients with versus without infectious diseases consultation (IDC). IDC was provided if requested by the attending physician. The primary outcome was the incidence of treatment failure, defined as 30-day in-hospital death or 90-day SAB recurrence. Other outcomes included adherence to quality-of-care indicators. A total of 473 adult patients with SAB were included, with 369 (78%) receiving IDC. We identified substantial differences in baseline characteristics between the IDC group and the no-IDC group, including greater incidences of complicated bacteremia and intravenous drug users in the IDC group, with similar rates of severe illness (measured by Pitt bacteremia scores). Adherence to quality-of-care indicators was greater for patients with IDC (P < 0.001). After adjustment for other predicting variables, IDC was associated with a lower rate of treatment failure (adjusted odds ratio, 0.42 [95% confidence interval, 0.20 to 0.86]; P = 0.018)."

According to the news editors, the research concluded: "IDC provided better quality of care and better clinical outcomes for patients with SAB who were treated at small, resource-limited, community hospitals."

For more information on this research see: Impact of Infectious Diseases Consultation on Clinical Outcomes of Patients with Staphylococcus aureus Bacteremia in a Community Health System. Antimicrobial Agents and Chemotherapy, 2016;60(10):5682-5687.
Research Data from Victoria University Update Understanding of Alkylating Agents (Role of oxidative stress in oxaliplatin-induced enteric neuropathy and colonic dysmotility in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Alkylating Agents are discussed in a new report. According to news reporting originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Background and PurposeOxaliplatin is a platinum-based chemotherapeutic drug used as a first-line therapy for colorectal cancer. However, its use is associated with severe gastrointestinal side-effects resulting in dose limitations and/or cessation of treatment."

Our news editors obtained a quote from the research from Victoria University, "In this study, we tested whether oxidative stress, caused by chronic oxaliplatin treatment, induces enteric neuronal damage and colonic dysmotility. Experimental ApproachOxaliplatin (3mg kg(-1) per day) was administered in vivo to Balb/c mice intraperitoneally three times a week. The distal colon was collected at day 14 of treatment. Immunohistochemistry was performed in wholemount preparations of submucosal and myenteric ganglia. Neuromuscular transmission was studied by intracellular electrophysiology. Circular muscle tone was studied by force transducers. Colon propulsive activity studied in organ bath experiments and faeces were collected to measure water content. Key ResultsChronic in vivo oxaliplatin treatment resulted in increased formation of reactive oxygen species (O-2-), nitration of proteins, mitochondrial membrane depolarisation resulting in the release of cytochrome c, loss of neurons, increased inducible NOS expression and apoptosis in both the submucosal and myenteric plexuses of the colon. Oxaliplatin treatment enhanced NO-mediated inhibitory junction potentials and altered the response of circular muscles to the NO donor, sodium nitroprusside. It also reduced the frequency of colonic migrating motor complexes and decreased circular muscle tone, effects reversed by the NO synthase inhibitor, N-Nitro-L-arginine."

According to the news editors, the research concluded: "Conclusion and
Implications: Our study is the first to provide evidence that oxidative stress is a key player in enteric neuropathy and colonic dysmotility leading to symptoms of chronic constipation observed in oxaliplatin-treated mice.


The news editors report that additional information may be obtained by contacting K. Nurgali, Victoria Univ, Center Chron Dis, Coll Hlth & Biomed, Melbourne, Vic, Australia. Additional authors for this research include S.E. Carbone, V. Stojanovska, A. Rahman, R.M. Gwynne, A.M. Robinson, C.A. Goodman, J.C. Bornstein and K. Nurgali.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Drugs and Therapies, Oxaliplatin Therapy, Alkylating Agents, Pharmaceuticals, Antineoplastics, Neuropathy, Victoria University.

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**Oncology - Solid Cancer**

**Research Data from Wake Forest University Update Understanding of Solid Cancer (Conservation of immune gene signatures in solid tumors and prognostic implications)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Solid Cancer is now available. According to news reporting out of Winston Salem, North Carolina, by NewsRx editors, research stated, "Tumor-infiltrating leukocytes can either limit cancer growth or facilitate its spread. Diagnostic strategies that comprehensively assess the functional complexity of tumor immune infiltrates could have wide-reaching clinical value."

Our news journalists obtained a quote from the research from Wake Forest University, "In previous work we identified distinct immune gene signatures in breast tumors that reflect the relative abundance of infiltrating immune cells and exhibited significant associations with patient outcomes. Here we hypothesized that immune gene signatures agnostic to tumor type can be identified by de novo discovery of gene clusters enriched for immunological functions and possessing internal correlation structure conserved across solid tumors from different anatomic sites. We assembled microarray expression datasets encompassing 5,295 tumors of the breast, colon, lung, ovarian and prostate. Unsupervised clustering methods were used to determine number and composition of gene clusters within each dataset. Immune-enriched gene clusters (signatures) identified by gene ontology enrichment were analyzed for internal correlation structure and conservation across tumors then compared against expression profiles of: 1) flow-sorted leukocytes from peripheral blood and 2) > 300 cancer cell lines from solid and hematologic cancers. Cox regression analysis was used to identify signatures with significant associations with clinical outcome. We identified nine distinct immune-enriched gene signatures conserved across all five tumor types. The signatures differentiated specific leukocyte lineages with moderate discernment overall, and naturally organized into six discrete groups indicative of admixed lineages. Moreover, seven of the
signatures exhibit minimal and uncorrelated expression in cancer cell lines, suggesting that these signatures derive predominantly from infiltrating immune cells. All nine immune signatures achieved statistically significant associations with patient prognosis (p < 0.05) in one or more tumor types with greatest significance observed in breast and skin cancers. Several signatures indicative of myeloid lineages exhibited poor outcome associations that were most apparent in brain and colon cancers. These findings suggest that tumor infiltrating immune cells can be differentiated by immune-specific gene expression patterns that quantify the relative abundance of multiple immune infiltrates across a range of solid tumor types."

According to the news editors, the research concluded: "That these markers of immune involvement are significantly associated with patient prognosis in diverse cancers suggests their clinical utility as pan-cancer markers of tumor behavior and immune responsiveness."

For more information on this research see: Conservation of immune gene signatures in solid tumors and prognostic implications. *BMC Cancer*, 2016;16():1-17. *BMC Cancer* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; BMC Cancer - www.biomedcentral.com/bmccancer/)

Our news journalists report that additional information may be obtained by contacting L.D. Miller, Wake Forest Sch Med, Dept. of Canc Biol, Winston Salem, NC 27157, United States. Additional authors for this research include A. Pullikuth, J.W. Chou, D. Bedognetti and L.D. Miller.

Keywords for this news article include: Winston Salem, North Carolina, United States, North and Central America, Cancer, Genetics, Solid Cancer, Oncology, Wake Forest University.

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**Oncology - Liver Cancer**

**Research Data from Wuhan University Update Understanding of Liver Cancer (Reanalysis of microRNA expression profiles identifies novel biomarkers for hepatocellular carcinoma prognosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Liver Cancer is the subject of a report. According to news reporting originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "The aim of our study is to identify microRNAs (miRNAs) that have significance in the prognosis and pathogenesis of hepatocellular carcinoma (HCC). The miRNAs differentially expressed in HCC were examined by using a human miRNA microarray dataset, and then the acquired candidates were screened by another microarray dataset."

Financial support for this research came from The Natural Science Foundation of China.

Our news editors obtained a quote from the research from Wuhan University, "As a result, we got 25 miRNAs which were aberrantly expressed in cancer and meanwhile predicated distinct prognosis. Among them, miR-139-5p was down-regulated in HCC and its low expression in cancer tissue meant poor prognosis. Additionally, we demonstrated that its low expression was also related to several clinicopathologic characteristics such as vein invasion,
BCLC stage, p-AKT expression, and pIGFR1 expression. In vitro, it has been discovered that treatment of HCC cells with a miR-139-5p mimic lead to inhibition of cell growth and migration. Moreover, luciferase assay showed that KPNA4 was not the direct target of miR-139-5p. Ectopic expression of miR-139-5p has not repressed the expression of KPNA4, but inhibited the nuclear import of NF-kappa B and phosphorylation of Akt."

According to the news editors, the research concluded: "For the first time, we identify 25 deregulated miRNAs that are associated with prognosis and prove that miR-139-5p functions as a tumor suppressor in HCC and its low expression predicts poor prognosis."

For more information on this research see: Reanalysis of microRNA expression profiles identifies novel biomarkers for hepatocellular carcinoma prognosis. Tumor Biology, 2016;37(11):14779-14787. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news editors report that additional information may be obtained by contacting Z.Q. Wang, Wuhan University, Renmin Hosp, Dept. of Gastroenterol, Wuhan 430060, People's Republic of China. Additional authors for this research include Q.S. Ding, Y.X. Li, Q.Q. Liu, W. Wu, L. Wu and H.G. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5369-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Liver Cancer, Carcinomas, Oncology, Wuhan University.

Our news journalists obtained a quote from the research from Zhengzhou University, "A total of 329 patients with BCS and an obstructed IVC were endovascularly treated with balloon dilation and/or stent placement. All patients underwent a CTA examination prior to endovascular treatment, and the data were retrospectively reviewed. The presence of a round, oval, irregular shape or jet sign low-density area without enhancement within the enhanced proximal IVC was considered a sign of a partially obstructed IVC. Digital subtraction angiography was used as the gold standard. The results from the digital subtraction angiography revealed a partially obstructed IVC in 108 BCS patients and a complete obstruction in 221
patients. The CTA discovered a partially obstructed IVC in 99 patients and a completely obstructed IVC in 230 patients. From the CTA results, 15 were false negatives, and six were false positives. The patient-based evaluation yielded an accuracy of 93.6%, a sensitivity of 86.1%, specificity of 97.3%, positive predictive value of 93.9%, and negative predictive value of 93.5% for the detection of BCS patients with a partial IVC obstruction. Computed tomographic angiography offered a high diagnostic accuracy and sensitivity in BCS patients with a partially obstructed IVC.

According to the news editors, the research concluded: "The low-density area within the enhanced proximal IVC above the membrane in artery phase can be considered a reliable indicator of a stenotic IVC in BCS patients."

For more information on this research see: Accuracy of computed tomographic angiography in the diagnosis of patients with inferior vena cava partial obstruction in Budd-Chiari syndrome. *Journal of Gastroenterology and Hepatology*, 2016;31(12):1933-1939.


The news correspondents report that additional information may be obtained from S.Y. Liu, Zhengzhou Univ, Dept. of Intervent, Henan Prov Peoples Hosp, Zhengzhou, People's Republic of China. Additional authors for this research include P. Xiao, H.C. Cao, H.S. Jiang and T.X. Li.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Digestive System Diseases and Conditions, Cardiovascular Diseases and Conditions, Vena Cava, Diagnostics and Screening, Computed Tomographic Angiography, Liver Diseases and Conditions, Hepatic Vein Thrombosis, Embolism and Thrombosis, Budd-Chiari Syndrome, Imaging Technology, Venous Thrombosis, Cardiology, Angiology, Zhengzhou University.

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**Oncology - Non-Small Cell Lung Cancer**

**Research Institute and Hospital Details Findings in Non-Small Cell Lung Cancer (Prognostic Differences in Subgroups of Patients With Surgically Resected T3 Non-Small Cell Lung Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news reporting out of Gyeonggi Do, South Korea, by NewsRx editors, research stated, "This study determined the characteristics and prognosis of each descriptor of T3 non-small cell lung cancer (NSCLC). A total of 3,241 patients underwent an operation for NSCLC between 2001 and 2013, and this study included 461 patients who received complete anatomic resection of T3 NSCLC."

Our news journalists obtained a quote from the research from Research Institute and Hospital, "The T3 descriptors were coded as follows: tumor invading main bronchus within 2 cm of the carina (T3-cent), tumor invading beyond visceral pleura (T3-inv), tumor larger than 7 cm (T3-size), separate tumor nodules (T3-sep), or tumor with combined T3 descriptors (T3-comb). The T3 distribution was as follows: T3-cent, 75 patients (16.3%); T3-inv, 157 patients
(34.1%); T3-size, 132 patients (28.6%); T3-sep, 34 patients (7.4%); and T3comb, 63 patients (13.7%). Subgroup analyses revealed a significant survival benefit in the T3-cent group compared with the other groups (all p < 0.05). The 5-year disease-free survival (DFS) values were 55.4%, 36.7%, 40.9%, 30.3%, and 32.0% in the T3-cent, T3-inv, T3-size, T3-sep, and T3-comb subgroups, respectively. Multivariable analyses revealed that age (p = 0.019), N status (p = 0.001), adjuvant chemotherapy (p < 0.001), and T3 descriptors (T3-cent versus others, p < 0.001) were the most important independent prognostic factors for DFS. Additional analyses were performed to evaluate prognostic factors for DFS in the T3-cent group. Multivariable analysis revealed that bronchoplastic procedures (p = 0.004) was an independent prognostic factor for DFS. Survival for centrally located T3 NSCLC is better than other types of T3 NSCLC.

According to the news editors, the research concluded: "Lung-preserving operations such as bronchoplastic procedures might result in improved survival of these patients."


Our news journalists report that additional information may be obtained by contacting M.S. Kim, Natl Canc Center, Res Inst & Hosp, Center Lung Canc, Goyang 410769, Gyeonggi, South Korea. Additional authors for this research include M.S. Kim, D.H. Moon, H.C. Yang, B. Hwangbo, H.Y. Kim, J.M. Lee and G.K. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.096. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gyeonggi Do, South Korea, Asia, Non-Small Cell Lung Cancer, Lung Neoplasms, Oncology, Research Institute and Hospital.

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**Oncology - MALT Lymphoma**

**Research Results from Aga Khan University Hospital Update**

**Understanding of MALT Lymphoma (MALT lymphoma of the base of the tongue: a rare case entity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - MALT Lymphoma. According to news reporting originating from Karachi, Pakistan, by NewsRx correspondents, research stated, "Lymphoma is a malignant tumor arising from lymphoid tissue, with the majority of cases being in the lymph nodes, however, in 1/4th of cases, these tumours are found in extralymphoid tissue. Lymphoid tissue is also found in organs having mucosa, such as the digestive tract, salivary gland and in tracheal tissue."

Our news editors obtained a quote from the research from Aga Khan University Hospital, "This collection of lymphoid tissue is known as mucosa-associated lymphoid tissue (MALT), and non-Hodgkin lymphoma involving this extralymphoidal lymph tissue is known as
MALT lymphoma. It was first reported by Isaacson and Wright in 1983, however, it was not included as a working diagnosis in clinical use until it was reclassified as 'marginal zone B-cell lymphoma' in a 1994 Revised European American Lymphoma (REAL) classification. It is rarely seen in the head and neck region, and we report the sixth case of MALT lymphoma of the base of the tongue.

According to the news editors, the research concluded: "A 61-year-old man presented with dysphagia and the feeling of a lump in his throat for 5 months."

For more information on this research see: MALT lymphoma of the base of the tongue: a rare case entity. *Bmj Case Reports*, 2016;2016():. (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

The news editors report that additional information may be obtained by contacting H. Iftikhar, Section of Otolaryngology, Dept. of Surgery, Aga Khan University Hospital, Karachi, Pakistan. Additional authors for this research include M.I. Siddiqui and K. Minhas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2015-213830. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Karachi, Pakistan, Oncology, Hematology, Immunology, MALT Lymphoma, Lymphoid Tissue, Gastroenterology, Lymphatic System, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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**Oncology - Glioblastomas**

**Research Results from Columbia University Medical Center Update Knowledge of Glioblastomas (Reassessing the Role of Intra-Arterial Drug Delivery for Glioblastoma Multiforme Treatment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Glioblastomas are discussed in a new report. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "Effective treatment for glioblastoma (GBM) will likely require targeted delivery of several specific pharmacological agents simultaneously. Intra-arterial (IA) delivery is one technique for targeting the tumor site with multiple agents."

Our news journalists obtained a quote from the research from Columbia University Medical Center, "Although IA chemotherapy for glioblastoma (GBM) has been attempted since the 1950s, the predicted benefits remain unproven in clinical practice. This review focuses on innovative approaches to IA drug delivery in treating GBM. Guided by novel in vitro and in vivo optical measurements, newer pharmacokinetic models promise to better define the complex relationship between background cerebral blood flow and drug injection parameters. Advanced optical technologies and tracers, unique nanoparticles designs, new cellular targets, and rational drug formulations are continuously modifying the therapeutic landscape for GBM. Personalized treatment approaches are emerging; however, such tailored approaches will largely depend on effective drug delivery techniques and on the ability to simultaneously deliver multidrug regimens. These new paradigms for tumor-selective drug delivery herald dramatic improvements in the effectiveness of IA chemotherapy for GBM."
According to the news editors, the research concluded: "Therefore, within this context of so-called 'precision medicine,' the role of IA delivery for GBM is thoroughly reassessed."


Our news journalists report that additional information may be obtained by contacting J.A. Ellis, Dept. of Neurological Surgery, Columbia University Medical Center, New York, NY 10032, United States. Additional authors for this research include M. Banu, S.S. Hossain, R. Singh-Moon, S.D. Lavine, J.N. Bruce and S. Joshi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/405735. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oncology, New York City, United States, Glioblastomas, Article Review, Drugs and Therapies, Drug Delivery Systems, North and Central America.

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**Respiratory Tract Diseases and Conditions -…**

**Research Results from Complutense University Update Understanding of Respiratory Acidosis (Readmissions following an initial hospitalization by COPD exacerbation in Spain from 2006 to 2012)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Respiratory Tract Diseases and Conditions - Respiratory Acidosis have been presented. According to news reporting out of Madrid, Spain, by NewsRx editors, research stated, "Hospitalizations are not isolated events in COPD patients. A significant percentage of patients are readmitted during the first month after their discharge."

Our news journalists obtained a quote from the research from Complutense University, "The aim of this study was to elucidate changes in the incidence, comorbidity, length of hospital stay (LOHS), costs and in-hospital mortality (IHM) of patients readmitted following an initial hospitalization by acute exacerbation of COPD (AE-COPD). We selected all patients (>=40 years, hospitalized for AE-COPD between 2006 and 2012 in Spain using the National Hospital Discharge Database. Patient readmissions were defined as inpatient re-hospitalization within 30 days of discharge for AE-COPD. We identified 301 794 discharges of patients having hospital admissions for AE-COPD as their primary diagnosis (82.47% first admissions, 17.53% hospital readmissions). The risk of re-hospitalization was higher in patients aged 65 to 84 years, males, with comorbidities, malnutrition, not obese, respiratory acidosis, treated with non-invasive ventilation (NIV) or discharged to a health/social institutions. Factors associated with IHM among patients readmitted were: older age, increased Charlson Index, malnutrition, not being obese, respiratory acidosis and treatment with NIV. The IHM and hospital costs were significantly higher in readmissions compared with first admissions. We observed that the incidence and mortality of readmissions had significantly decreased from 2006 to 2012. Hospital readmissions within 30 days of discharge for AE-COPD are common in Spain. They have a high..."
impact for COPD patients and health system."

According to the news editors, the research concluded: "However, we have found a downward trend in incidence and mortality of readmissions from 2006 to 2012."


Our news journalists report that additional information may be obtained by contacting J. de Miguel-Diez, Pneumology Department, Hospital General Universitario Gregorio Maranon, Universidad Complutense de Madrid, Madrid, Spain. Additional authors for this research include R. Jimenez-Garcia, V. Hernandez-Barrera, P. Carrasco-Garrido, L. Puente Maestu, L. Ramírez García and A. Lopez de Andres.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/resp.12705. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Madrid, Europe, Hospital, Acid Base Imbalance, Respiratory Acidosis, Respiratory Tract Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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Oncology - Acute Myeloid Leukemia

Research Results from Department of Internal Medicine III Update Knowledge of Acute Myeloid Leukemia (IL-8 as mediator in the microenvironment-leukaemia network in acute myeloid leukaemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Acute Myeloid Leukemia. According to news reporting originating in Munich, Germany, by NewsRx journalists, research stated, "The bone marrow microenvironment is physiologically hypoxic with areas being as low as 1% O2, e.g. the stem cell niche. Acute myeloid leukaemia (AML) blasts misuse these bone marrow niches for protection by the local microenvironment, but also might create their own microenvironment."

The news reporters obtained a quote from the research from the Department of Internal Medicine III, "Here we identify IL-8 as a hypoxia-regulated cytokine in both AML cell lines and primary AML samples that is induced within 48 hours of severe hypoxia (1% O2). IL-8 lacked effects on AML cells but induced migration in mesenchymal stromal cells (MSC), an integral part of the bone marrow. Accordingly, MSC were significantly increased in AML bone marrow as compared to healthy bone marrow. Interestingly, mononuclear cells obtained from healthy bone marrow displayed both significantly lower endogenous and hypoxia-induced production of IL-8. IL-8 mRNA expression in AML blasts from 533 patients differed between genetic subgroups with significantly lower expression of IL-8 in acute promyelocytic leukaemia (APL), while in non APL-AML patients with FLT ITD had the highest IL-8 expression. In this subgroup, high IL-8 expression was also prognostically unfavourable."

According to the news reporters, the research concluded: "Hypoxia as encountered in the bone marrow specifically increases IL-8 expression of AML, which in turn impacts niche
formation. High IL-8 expression might be correlated with poor prognosis in certain AML subsets."

For more information on this research see: IL-8 as mediator in the microenvironment-leukaemia network in acute myeloid leukaemia. Scientific Reports, 2015;5 ():18411. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting A. Kuett, Dept. of Internal Medicine III, Klinikum der Universitat Munchen, Munich, Germany. Additional authors for this research include C. Rieger, D. Perathoner, T. Herold, M. Wagner, S. Sironi, K. Sotlar, H.P. Horny, C. Deniffel, H. Drolle and M. Fiegl.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18411. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munich, Europe, Germany, Genetics, Oncology, Hematology, Bone Marrow, Bone Research, Immune System, Acute Myeloid Leukemia.

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Cardiology

Research Results from Dongguk University Ilsan Hospital Update Understanding of Cardiology (Diastolic Dysfunction and Outcome in Acute Ischemic Stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting out of Goyang, South Korea, by NewsRx editors, research stated, "Left ventricular diastolic dysfunction (DD) is associated with an increased mortality in general population and patients with myocardial infarct. In the present study, we investigated whether DD is associated with outcomes after ischemic stroke."

Our news journalists obtained a quote from the research from Dongguk University Ilsan Hospital, "Five hundred and three acute ischemic stroke patients with normal left ventricular ejection fraction ( (>=)50%) were retrospectively included. Echocardiography and tissue Doppler imaging were used to evaluate and grade diastolic function. Ordinal logistic and Cox regression analyses were used to examine relations between DD and modified Rankin Scale (mRS) score at 3 months and mortality after stroke, respectively. Mean age was 67.2 ? 11.8 years and 63% were men. Among parameters of diastolic function, early mitral inflow velocity/early diastolic mitral annulus velocity (E/e') was independently related with higher mRS score at 3 months and mortality after ischemic stroke. The highest quartile of E/e' (>14) was independently associated with higher mRS score (adjusted OR 3.86, 95% CI 2.27-6.54) as well as with mortality (hazards ratio [HR] 2.87, 95% CI 1.17-7.04) as compared to the lowest quartile of E/e' (<8.8). In addition, moderate-to-severe DD grade was related to higher mRS score (adjusted OR 2.41, 95% CI 1.15-5.06) and mortality (HR 6.63, 95% CI 1.80-24.43) compared to the normal diastolic function. In patients with ischemic stroke, DD is associated with functional outcome at 3 months and mortality."

According to the news editors, the research concluded: "Our data suggest that more
attention should be given to DD in patients with ischemic stroke."

For more information on this research see: Diastolic Dysfunction and Outcome in Acute Ischemic Stroke. *Cerebrovascular Diseases*, 2016;41(3-4):148-55. (Karger - www.karger.com; Cerebrovascular Diseases - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224153)

Our news journalists report that additional information may be obtained by contacting W.S. Ryu, Dept. of Neurology, Dongguk University Ilsan Hospital, Goyang, South Korea. Additional authors for this research include J.B. Park, S.B. Ko, S.S. Hwang, Y.J. Kim, D.E. Kim, S.H. Lee and B.W Yoon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Goyang, Cardiology, South Korea.

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**Oncology - Malignant Pleural Effusion**

**Research Results from Fudan University Update Understanding of Malignant Pleural Effusion (Potential diagnostic value of serum/pleural fluid IL-31 levels for tuberculous pleural effusion)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Malignant Pleural Effusion. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to explore the diagnostic value of IL-31 levels in the pleural fluid and plasma to differentially diagnose tuberculous and malignant pleural effusion. We enrolled 91 cases, including tuberculous pleural effusion (TPE, n=50), malignant pleural effusion (MPE, n=41), other cases including pneumonia with pleural fluid, pulmonary tuberculosis and healthy people as controls."

The news correspondents obtained a quote from the research from Fudan University, "Whole blood was stimulated with the *M. tuberculosis*-specific antigens and plasma was collected. The multiplex bead-based cytokine immunoassay was employed to measure the levels of various cytokines. IL-31 was found to be the most prominent cytokine (p <0.0001), and with an optimal cut-off value of 67.5 pg/mL, the sensitivity and specificity for the diagnosis of TPE were 86% and 100%, respectively. Furthermore, the tuberculosis-specific IL-31 levels in the plasma of TPE patients were higher than that of MPE patients (p=0.0002). At an optimal cut-off value of 23.9 pg/mL, the sensitivity and specificity for the diagnosis of TPE were 92.9% and 85.7%, respectively. Ultimately, the combination of pleural fluid with the plasma tuberculosis-specific IL-31 levels improved the sensitivity and specificity to 94.0% and 95.1%, respectively."

According to the news reporters, the research concluded: "Thus, we identified a novel biomarker for the diagnosis of TPE for clinical application."

For more information on this research see: Potential diagnostic value of serum/pleural fluid IL-31 levels for tuberculous pleural effusion. *Scientific Reports*, 2016;6 ():20607. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by
contacting Y. Gao, Dept. of Infectious Diseases, Huashan Hospital, Fudan University, Shanghai 200040, People's Republic of China. Additional authors for this research include Q. Ou, J. Wu, B. Zhang, L. Shen, S. Chen, X. Weng, Y. Zhang, W. Zhang and L. Shao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep20607. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Blood, Plasma, Shanghai, Oncology, Hematology, Gram Positive Bacteria, Mycobacterium Infections, People's Republic of China, Actinomycetales Infections, Malignant Pleural Effusion, Mycobacterium Tuberculosis.

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Herpesvirus Diseases and Conditions - Herpes...

Research Results from Graduate School Update Knowledge of Herpes Simplex Virus (OASL1 deficiency promotes antiviral protection against genital herpes simplex virus type 2 infection by enhancing type I interferon production)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Herpesvirus Diseases and Conditions - Herpes Simplex Virus is the subject of a report. According to news reporting originating in Daejeon, South Korea, by NewsRx journalists, research stated, "Type I interferon (IFN) interferes with virus replication, promotes antiviral responses, and controls innate and adaptive immune responses to certain viruses. Recently, we reported that 2’-5’oligoadenylate synthetase-like 1 (OASL1) negatively regulates type I IFN production by inhibiting the translation of the type I IFN-regulating master transcription factor, IRF7."

The news reporters obtained a quote from the research from Graduate School, "Notably, while OASL1-deficient mice induce robust production of type I IFN and are resistant to systemic viral infection, the effects of OASL1 during localized viral infection have not been studied. To this end, we investigated the role of OASL1 during mucosal HSV-2 infection of the genital tract. Oasl1(-/-) mice exhibited better survival rates than wild type (WT) mice following intravaginal HSV-2 infection, and suppressed virus replication more efficiently despite comparable recruitment of effector immune cells. Moreover, Ly6C(high) monocytes, and not pDCs or other cell types, displayed enhanced production of type I IFNs in Oasl1(-/-) mice in response to HSV-2 infection. Furthermore, cytotoxic T cell responses including IFN-g production were accelerated in Oasl1(-/-) mice after mucosal HSV-2 infection."

According to the news reporters, the research concluded: "Collectively, these results demonstrate that OASL1 deficiency promotes antiviral immunity against local mucosal viral infection and suggest that OASL1 could be a therapeutic target for treatment of HSV-2 infection of the genital mucosa."

For more information on this research see: OASL1 deficiency promotes antiviral protection against genital herpes simplex virus type 2 infection by enhancing type I interferon production. Scientific Reports, 2016;6():19089. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting J.E. Oh, Laboratory of Host Defenses, Graduate School of Medical Science and
Pregnancy Complications - Preeclampsia

Research Results from Harvard School of Medicine Update Knowledge of Preeclampsia (Analysis of changes in maternal circulating angiogenic factors throughout pregnancy for the prediction of preeclampsia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pregnancy Complications - Preeclampsia. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "To assess whether changes in maternal angiogenic factors throughout pregnancy predict the development of preeclampsia. Placental growth factor (PlGF) and soluble fms-like tyrosine kinase 1 receptor (sFlt-1) were measured in 2355 women at 10, 18, 26 and 35 weeks gestation."

The news reporters obtained a quote from the research from the Harvard School of Medicine, "Receiver operator characteristic analysis was used to calculate test characteristics for changes in analytes between time points. Linear mixed-effects models generated slopes of analytes throughout pregnancy, which in turn were used as predictors in adjusted logistic regression models. Changes in analytes yielded positive predictive values of 9 to 19% and negative predictive values of 93 to 97%. Individuals with lowest quartile slopes in PlGF had sixfold greater odds (95% confidence interval (CI): 3.5, 10.2) of preeclampsia compared with individuals in the highest quartile. With respect to sFlt-1, the highest quartile had 5.1 times greater odds (95% CI: 3.1, 8.4) than the lowest quartile. Measuring the trend in PlGF and sFlt-1 across pregnancy segregates women at increased risk of preeclampsia."

According to the news reporters, the research concluded: "However, changes in these factors throughout pregnancy lack clinically useful predictive power."


Our news correspondents report that additional information may be obtained by contacting M.C. Honigberg, Dept. of Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, United States. Additional authors for this research include D.E. Cantonwine, A.M. Thomas, K.H. Lim, S.I. Parry and T.F McElrath.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/jp.2015.170. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the Journal of Perinatology can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Boston, Obstetrics, Angiogenesis, Preeclampsia, Massachusetts, United States, Women's Health, Risk and Prevention, Pregnancy Complications, North and Central America.

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Oncology - Small Cell Lung Cancer

Research Results from Henan University Update Understanding of Small Cell Lung Cancer (Association between polymorphisms in the XRCC1 gene and the risk of non-small cell lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Small Cell Lung Cancer is now available. According to news reporting originating in Kaifeng, People's Republic of China, by NewsRx journalists, research stated, "Here, we have reported a case-control study investigating the association between XRCC1 codons Arg194Trp, Arg280His, and Arg399Gln and the development of NSCLC. NSCLC patients (N=245) and healthy controls (N=257) were randomly selected from the Huaihe Hospital between March 2012 and August 2014."

The news reporters obtained a quote from the research from Henan University, "DNA extracted from the patient and control blood samples were subjected to polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) to assess the genotyping of XRCC1 Arg194Trp, Arg280His, and Arg399Gln. Multivariate logistic regression analyses revealed an association between the expression of the AA genotype and A allele genotypes and a significantly increased risk of NSCLC, compared to the GG genotype [95% confidence interval (CI); Odd's ratio (OR)=2.82 (1.141-5.86) and 1.67 (1.17-2.37), respectively]. The potential association between the A allele of XRCC1 Arg399Gln and the risk of NSCLC was more evident in smokers (95%CI; OR=1.70; 1.11-2.63)."

According to the news reporters, the research concluded: "The XRCC1 Arg399Gln polymorphism was found to be associated with increased risk of NSCLC, especially in tobacco smokers."


Our news correspondents report that additional information may be obtained by contacting J.C. Han, Dept. of Respiration Medicine, Huaihe Hospital of Henan University, Kaifeng, People's Republic of China. Additional authors for this research include Y.J. Zhang and X.D Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4238/2015.October.21.9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Kaifeng, Genetics, Oncology, Lung

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Oncology - Lung Cancer

Research Results from Kaohsiung Medical University Update
Knowledge of Lung Cancer (Distinct CPT-induced deaths in lung cancer cells caused by clathrin-mediated internalization of CP micelles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news reporting originating from Kaohsiung, Taiwan, by NewsRx correspondents, research stated, "We previously synthesized a chondroitin sulfate-graft-poly(e-caprolactone) copolymer (H-CP) with a high content of poly(e-caprolactone) (18.7 mol%), which self-assembled in water into a rod-like micelle to encapsulate hydrophobic camptothecin (CPT) in the core (micelle/CPT) for tumor-targeted drug delivery. As a result of the recognition of the micelle by CD44, the micelle/CPT entered CRL-5802 cells efficiently and released CPT efficaciously, resulting in higher tumor suppression than commercial CPT-11."

Our news editors obtained a quote from the research from Kaohsiung Medical University, "In this study, H1299 cells were found to have a higher CD44 expression than CRL-5802 cells. However, the lower CD44-expressing CRL-5802 cells had a higher percentage of cell death and higher cellular uptake of the micelle/CPT than the higher CD44-expressing H1299 cells. Examination of the internalization pathway of the micelle/CPT in the presence of different endocytic chemical inhibitors showed that the CRL-5802 cells involved clathrin-mediated endocytosis, which was not found in the H1299 cells. Analysis of the cell cycle of the two cell lines exposed to the micelle/CPT revealed that the CRL-5802 cells arrested mainly in the S phase and the H1299 cells arrested mainly in the G2-M phase. A consistent result was also found in the evaluation of g-H2AX expression, which was about three-fold higher in the CRL-5802 cells than in the H1299 cells. A near-infrared dye, IR780, was encapsulated into the micelle to observe the in vivo biodistribution of the micelle/IR780 in tumor-bearing mice. The CRL-5802 tumor showed a higher fluorescence intensity than the H1299 tumor at any tracing time after 1 h."

According to the news editors, the research concluded: "Thus we tentatively concluded that CRL-5802 cells utilized the clathrin-mediated internalization pathway and arrested in the S phase on exposure to the micelle/CPT; all are possible reasons for the better therapeutic outcome in CRL-5802 cells than in H1299 cells."


The news editors report that additional information may be obtained by contacting Y.S. Liu, School of Pharmacy, Kaohsiung Medical University, Kaohsiung 807, Taiwan. Additional authors for this research include R.Y. Cheng, Y.L. Lo, C. Hsu, S.H. Chen, C.C. Chiu and L.F Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1039/C5NR08345A. This DOI is a link to an online electronic document.
Research Results from Monash University Update Understanding of Polycystic Ovary Syndrome (Polycystic Ovary Syndrome, Obesity, and Pregnancy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Endocrine System Diseases and Conditions - Polycystic Ovary Syndrome. According to news reporting originating in Clayton, Australia, by NewsRx journalists, research stated, "Polycystic ovary syndrome (PCOS) is a common endocrine disorder affecting up to one in five reproductive-aged women. It is underpinned by insulin resistance and hyperandrogenism and is associated with metabolic, reproductive, and psychological features."

The news reporters obtained a quote from the research from Monash University, "Women with PCOS have higher rates of obesity and central adiposity compared with women without PCOS, and weight strongly influences prevalence and clinical severity of PCOS. Women with PCOS may have subfertility and women should be aware of factors affecting fertility, in particular the impact of obesity and age. Once pregnant, women with PCOS have significantly increased risk of pregnancy-related complications including gestational diabetes, hypertensive disorders, premature delivery, and delivery by cesarean section. The offspring of women with PCOS may have increased risk of congenital abnormalities and hospitalization in childhood."

According to the news reporters, the research concluded: "Clinicians should be aware of the increased risk and screen, prevent, and manage accordingly."

For more information on this research see: Polycystic Ovary Syndrome, Obesity, and Pregnancy, Seminars In Reproductive Medicine, 2016;34(2):93-101. (Thieme - www.thieme.com)

Our news correspondents report that additional information may be obtained by contacting A.E. Joham, Monash Centre for Health Research and Implementation, School of Public Health and Preventive Medicine, Monash University, Clayton, Victoria, Australia. Additional authors for this research include S. Palomba and R. Hart.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0035-1571195. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Clayton, Obesity, Bariatrics, Birth Defects, Ovarian Cysts, Overnutrition, Article Review, Women's Health, Gonadal Disorders, Diet and Nutrition, Nutrition Disorders, Risk and Prevention, Congenital Abnormalities, Australia and New Zealand, Polycystic Ovary Syndrome, Adnexal Diseases and Conditions.

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Heart Disorders and Diseases - Angina Pectoris

Research Results from Morbid Obesity Center Update Knowledge of Angina Pectoris (Association between Body Mass Index, Asymmetric Dimethylarginine and Risk of Cardiovascular Events and Mortality in Norwegian Patients with Suspected Stable Angina Pectoris ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Angina Pectoris is the subject of a report. According to news originating from Tonsberg, Norway, by NewsRx correspondents, research stated, "Asymmetric dimethylarginine (ADMA) is associated with increased risk of atherosclerotic cardiovascular disease and mortality through inhibition of nitrogen oxide (NO) synthesis. As positive correlations between serum concentrations of NO and body mass index (BMI) have been observed, we aimed to explore whether the potential associations between plasma ADMA levels and the risk of acute myocardial infarction (AMI) and mortality were modified by BMI."

Our news journalists obtained a quote from the research from Morbid Obesity Center, "Multivariable Cox proportional hazard models were used to estimate the hazard ratios (HR) for AMI, cardiovascular death and all-cause mortality according to baseline plasma ADMA levels in 4122 patients with suspected stable angina pectoris. Analyses were subsequently repeated in patients with BMI below (low BMI) or above (high BMI) median. A total of 2982 patients (72%) were men. Median (range) age, plasma ADMA level and BMI were 62 (21-88) years, 0.54 (0.10-1.25) mmol/L and 26.3 (18.5-54.3) kg/m2, respectively. During a mean (standard deviation) follow-up time of 4.7 (1.4) years, 337 (8%) patients suffered from an AMI, 300 (7%) died, whereof 165 (55%) due to cardiovascular disease. Each 0.1 mmol/L increment in plasma ADMA level was associated with an increased risk of AMI (HR (95% CI) 1.21 (1.08, 1.35) and cardiovascular death 1.30 (1.13, 1.49) in participants with low BMI only. Interactions were significant for AMI (p=0.04) and CV death (p=0.03). BMI did not modify the association between plasma ADMA levels and all-cause mortality."

According to the news editors, the research concluded: "Plasma ADMA levels were associated with risk of AMI and cardiovascular death among patients with low BMI only."

For more information on this research see: Association between Body Mass Index, Asymmetric Dimethylarginine and Risk of Cardiovascular Events and Mortality in Norwegian Patients with Suspected Stable Angina Pectoris. Plos One, 2016;11(3):e0152029. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news correspondents report that additional information may be obtained from H. Borgeraas, Morbid Obesity Center, Vestfold Hospital Trust, Tonsberg, Norway. Additional authors for this research include J.K. Hertel, G.F. Svingen, E.R. Pedersen, R. Seifert, O. Nygard and J. Hjelmesath.

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Keywords for this news article include: Norway, Europe, Tonsberg, Cardiology, Heart Disease, Angina Pectoris, Myocardial Ischemia, Risk and Prevention, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Research Results from Newcastle University Update Knowledge of Obesity (Physical activity attenuates the effect of the FTO genotype on obesity traits in European adults: The Food4Me study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news reporting out of Newcastle upon Tyne, United Kingdom, by NewsRx editors, research stated, "To examine whether the effect of FTO loci on obesity-related traits could be modified by physical activity (PA) levels in European adults. Of 1,607 Food4Me participants randomized, 1,280 were genotyped for FTO (rs9939609) and had available PA data."

Our news journalists obtained a quote from the research from Newcastle University, "PA was measured objectively using accelerometers (TracmorD, Philips), whereas anthropometric measures [BMI and waist circumference (WC)] were self-reported via the Internet. FTO genotype was associated with a higher body weight [b: 1.09 kg per risk allele, (95% CI: 0.14-2.04), p=0.024], BMI [b: 0.54 kg?m(-2) , (0.23-0.83), p<0.0001], and WC [b: 1.07 cm, (0.24-1.90), p=0.011]. Moderate-equivalent PA attenuated the effect of FTO on BMI (P[interaction]=0.020). Among inactive individuals, FTO increased BMI by 1.06 kg?m(-2) per allele (p=0.024), whereas the increase in BMI was substantially attenuated among active individuals (0.16 kg?m(-2) , p=0.388). We observed similar effects for WC (P[interaction]= 0.005): the FTO risk allele increased WC by 2.72 cm per allele among inactive individuals but by only 0.49 cm in active individuals. PA attenuates the effect of FTO genotype on BMI and WC."

According to the news editors, the research concluded: "This may have important public health implications because genetic susceptibility to obesity in the presence of FTO variants may be reduced by adopting a physically active lifestyle."

For more information on this research see: Physical activity attenuates the effect of the FTO genotype on obesity traits in European adults: The Food4Me study. Obesity, 2016;24 (4):962-9. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news journalists report that additional information may be obtained by contacting C. Celis-Morales, Human Nutrition Research Centre, Institute of Cellular Medicine, Newcastle University, Newcastle upon Tyne, UK. Additional authors for this research include C.F. Marsaux, K.M. Livingstone, S. Navas-Carretero, R. San-Cristobal, C.B. O'donovan, H. Forster, C. Woolhead, R. Fallaize, A.L. Macready, S. Kolossa, J. Hallmann, L. Tsirigoti, C.P. Lambrinou, G. Moschonis and God.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21422. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Obesity, Genetics, Bariatrics, Overnutrition, United Kingdom, Diet and Nutrition, Newcastle upon Tyne, Nutrition Disorders, Nutritional and Metabolic Diseases and Conditions.

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Research Results from Seoul National University Update Knowledge of Carcinomas (Mica Nanoparticle, STB-HO Eliminates the Human Breast Carcinoma Cells by Regulating the Interaction of Tumor with its Immune Microenvironment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Carcinomas. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Mica, an aluminosilicate mineral, has been proven to possess anti-tumor and immunostimulatory effects. However, its efficacy and mechanisms in treating various types of tumor are less verified and the mechanistic link between anti-tumor and immunostimulatory effects has not been elucidated."

The news correspondents obtained a quote from the research from Seoul National University, "We sought to investigate the therapeutic effect of STB-HO (mica nanoparticles) against one of the most prevalent cancers, the breast cancer. STB-HO was orally administered into MCF-7 xenograft model or directly added to culture media and tumor growth was monitored. STB-HO administration exhibited significant suppressive effects on the growth of MCF-7 cells in vivo, whereas STB-HO did not affect the proliferation and apoptosis of MCF-7 cells in vitro. To address this discrepancy between in vivo and in vitro results, we investigated the effects of STB-HO treatment on the interaction of MCF-7 cells with macrophages, dendritic cells (DCs) and natural killer (NK) cells, which constitute the cellular composition of tumor microenvironment. Importantly, STB-HO not only increased the susceptibility of MCF-7 cells to immune cells, but also stimulated the immunocytes to eliminate cancer cells."

According to the news reporters, the research concluded: "Our study highlights the possible role of STB-HO in the suppression of MCF-7 cell growth via the regulation of interactions between tumor cells and anti-tumor immune cells."

For more information on this research see: Mica Nanoparticle, STB-HO Eliminates the Human Breast Carcinoma Cells by Regulating the Interaction of Tumor with its Immune Microenvironment. Scientific Reports, 2015;5():17515. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting T.W. Kang, Adult Stem Cell Research Center, College of Veterinary Medicine, Seoul National University, Seoul 151-742, South Korea. Additional authors for this research include H.S. Kim, B.C. Lee, T.H. Shin, S.W. Choi, Y.J. Kim, H.Y. Lee, Y.K. Jung, K.W. Seo and K.S Kang.

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Keywords for this news article include: Asia, Seoul, Oncology, Carcinomas, South Korea, Cancer Therapy, Drugs and Therapies.

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Research Results from Toronto Western Hospital Update
Understanding of Biological Therapy (A Systematic Study of the Effect of Different Molecular Weights of Hyaluronic Acid on Mesenchymal Stromal Cell-Mediated Immunomodulation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biological Therapy is the subject of a report. According to news reporting from Toronto, Canada, by NewsRx journalists, research stated, "Osteoarthritis (OA) is associated with chronic inflammation, and mesenchymal stromal cells (MSCs) have been shown to provide pain relief and reparative effects in clinical investigations. MSCs are often delivered with hyaluronic acid (HA), although the combined mechanism of action is not fully understood; we thus investigated the immunomodulatory effects of combining MSCs with different molecular weights (MW) of HA."

The news correspondents obtained a quote from the research from Toronto Western Hospital, "HAs with MWs of 1.6 MDa (hHA), 150 kDa or 7.5 kDa, were added to MSCs alone or MSC-immune cell co-cultures. Gene expression analyses, flow cytometry and cytokine measurements were assessed to determine the effect of HAs on the MSC interactions with immune cells. MSCs in the presence of HAs, in both normal and lymphocyte-conditioned medium, showed negligible changes in gene expression. While addition of hHA resulted in increased proliferation of activated lymphocytes, both in the presence and absence of MSCs, the overall combined effect was a more regulated, homeostatic one; this was supported by higher ratios of secreted IL10/IFNg and IL10/IL2, in lymphocyte cultures, than with lower MW HAs or no HA, both in the presence and absence of MSCs. In addition, examination of monocyte-derived macrophages showed an increased M2 macrophage frequency (CD14+CD163+CD206+) in the presence of hHA, both with and without MSCs. hHA produces a less pro-inflammatory environment than lower MW HAs."

According to the news reporters, the research concluded: "Moreover, combining hHA with MSCs has an additive effect on the MSC-mediated immunomodulation, suggestive of a more potent combination treatment modality for OA."


Our news journalists report that additional information may be obtained by contacting A. Gomez-Aristizabal, The Arthritis Program, Toronto Western Hospital, Toronto, ON, Canada. Additional authors for this research include K.P. Kim and S. Viswanathan.

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Keywords for this news article include: Canada, Toronto, Ontario, Genetics, Immunology, Stromal Cells, Immunomodulation, Biological Therapy, Connective Tissue Cells, North and Central America.

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Research Results from University Hospital Update Understanding of Iron Deficiency (A fast-track anaemia clinic in the Emergency Department: feasibility and efficacy of intravenous iron administration for treating sub-acute iron deficiency ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Iron Deficiency. According to news reporting out of Madrid, Spain, by NewsRx editors, research stated, "Clinically significant anaemia, requiring red blood cell transfusions, is frequently observed in Emergency Departments (ED). To optimise blood product use, we developed a clinical protocol for the management of iron-deficiency anaemia in a fast-track anaemia clinic within the ED."

Our news journalists obtained a quote from the research from University Hospital, "From November 2010 to January 2014, patients presenting with sub-acute, moderate-to-severe anaemia (haemoglobin [Hb] <11 g/dL) and confirmed or suspected iron deficiency were referred to the fast-track anaemia clinic. Those with absolute or functional iron deficiency were given intravenous (IV) ferric carboxymaltose 500-1,000 mg/week and were reassessed 4 weeks after receiving the total iron dose. The primary study outcome was the haematological response (Hb (>=)12 g/dL and/or Hb increment (>=)2 g/dL). Changes in blood and iron parameters, transfusion rates and IV iron-related adverse drug effects were secondary outcomes. Two hundred and two anaemic patients with iron deficiency (150 women/52 men; mean age, 64 years) were managed in the fast-track anaemia clinic, and received a median IV iron dose of 1,500 mg (1,000-2,000 mg). Gastro-intestinal (44%) or gynaecological (26%) bleeding was the most frequent cause of the anaemia. At follow-up (183 patients), the mean Hb increment was 3.9?2.2 g/dL; 84% of patients were classified as responders and blood and iron parameters normalised in 90%. During follow-up, 35 (17%) patients needed transfusions (2 [range: 1-3] units per patient) because they had low Hb levels, symptoms of anaemia and/or were at risk. Eight mild and one moderate, self-limited adverse drug effects were witnessed. Our data support the feasibility of a clinical protocol for management of sub-acute anaemia with IV iron in the ED. IV iron was efficacious, safe and well tolerated."

According to the news editors, the research concluded: "Early management of anaemia will improve the use of blood products in the ED."


Our news journalists report that additional information may be obtained by contacting M. Quintana-Diaz, Emergency Department, University Hospital La Paz, Madrid, Spain. Additional authors for this research include S. Fabra-Cadenas, S. Gomez-Ramirez, A. Martinez-Virto, J.A. Garcia-Erce and M. Munoz.

Keywords for this news article include: Spain, Madrid, Europe, Hematology, Iron Deficiency, Nutritional and Metabolic Diseases and Conditions.

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Heart Disorders and Diseases - Heart Failure

Research Results from University of Antwerp Update Knowledge of Heart Failure (Circulating Stromal Cell-Derived Factor 1a Levels in Heart Failure: A Matter of Proper Sampling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Failure have been presented. According to news reporting from Antwerp, Belgium, by NewsRx journalists, research stated, "The chemokine Stromal cell-derived factor 1a (SDF1a, CXCL12) is currently under investigation as a biomarker for various cardiac diseases. The correct interpretation of SDF1a levels is complicated by the occurrence of truncated forms that possess an altered biological activity."

The news correspondents obtained a quote from the research from the University of Antwerp, "We studied the immunoreactivities of SDF1a forms and evaluated the effect of adding a DPP4 inhibitor in sampling tubes on measured SDF1a levels. Using optimized sampling, we measured DPP4 activity and SDF1a levels in patients with varying degrees of heart failure. The immunoreactivities of SDF1a and its degradation products were determined with three immunoassays. A one hour incubation of SDF1a with DPP4 at 37°C resulted in 2/3 loss of immunoreactivity in each of the assays. Incubation with serum gave a similar result. Using appropriate sampling, SDF1a levels were found to be significantly higher in those heart failure patients with a severe loss of left ventricular function. DPP4 activity in serum was not altered in the heart failure population. However, the DPP4 activity was found to be significantly decreased in patients with high SDF1a levels. We propose that all samples for SDF1a analysis should be collected in the presence of at least a DPP4 inhibitor. In doing so, we found higher SDF1a levels in subgroups of patients with heart failure."

According to the news reporters, the research concluded: "Our work supports the need for further research on the clinical relevance of SDF1a levels in cardiac disease."


Our news journalists report that additional information may be obtained by contacting L. Baerts, Laboratory of Medical Biochemistry, University of Antwerp, Antwerp, Belgium. Additional authors for this research include Y. Waumans, I. Brandt, W. Jungraithmayr, P. Van der Veken, M. Vanderheyden and I. De Meester.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0141408. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Antwerp, Belgium, Cardiology, Heart Disease, Heart Failure, Stromal Cells, Connective Tissue Cells, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Research Results from University of Bologna Update Understanding of Oxidoreductases (Xanthine oxidoreductase in cancer: more than a differentiation marker)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Enzymes and Coenzymes - Oxidoreductases is now available. According to news originating from Bologna, Italy, by NewsRx correspondents, research stated, "Human xanthine oxidoreductase (XOR) catalyzes the last two steps of purine catabolism and is present in two interconvertible forms, which may utilize O2 or NAD(+) as electron acceptors. In addition to uric acid, XOR products may comprise reactive oxygen and nitrogen species that have many biologic effects, including inflammation, endothelial dysfunction, and cytotoxicity, as well as mutagenesis and induction of proliferation."

Financial support for this research came from Pallotti Legacies for Cancer Research. Our news journalists obtained a quote from the research from the University of Bologna, "XOR is strictly modulated at the transcriptional and post-translational levels, and its expression and activity are highly variable in cancer. Xanthine oxidoreductase (XOR) expression has been negatively associated with a high malignity grade and a worse prognosis in neoplasms of the breast, liver, gastrointestinal tract, and kidney, which normally express a high level of XOR protein. However, the level of XOR expression may be associated with a worse outcome in cancer of low XOR-expressing cells, in relation to the inflammatory response elicited through the tissue damage induced by tumor growth. Xanthine oxidoreductase (XOR) has been implicated in the process of oncogenesis either directly because it is able to catalyze the metabolic activation of carcinogenic substances or indirectly through the action of XOR-derived reactive oxygen and nitrogen species."

According to the news editors, the research concluded: "The role of uric acid is characterized by both oxidant and antioxidant action; thus, it is still debatable whether control of uricemia may be helpful to improve the outcomes of tumor illness."


The news correspondents report that additional information may be obtained from M.G. Battelli, Dept. of Experimental, Diagnostic and Specialty Medicine - DIMES, Alma Mater Studiorum - University of Bologna, General Pathology Unit, Via S Giacomo 14, 40126, Bologna, Italy. Additional authors for this research include L. Polito, M. Bortolotti and A. Bolognesi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.601. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, Cancer, Bologna, Oncology, Article Review, Oxidoreductases, Enzymes and Coenzymes.

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Environmental Microbiology

Research Results from University of Cambridge Update Understanding of Environmental Microbiology (Molecular genetic and physical analysis of gas vesicles in buoyant enterobacteria)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Environmental Microbiology. According to news reporting originating from Cambridge, United Kingdom, by NewsRx correspondents, research stated, "Different modes of bacterial taxis play important roles in environmental adaptation, survival, colonization and dissemination of disease. One mode of taxis is flotation due to the production of gas vesicles."

Financial supporters for this research include BBSRC, Japan Society for the Promotion of Sciences, Cambridge University.

Our news editors obtained a quote from the research from the University of Cambridge, "Gas vesicles are proteinaceous intracellular organelles, permeable only to gas, that enable flotation in aquatic niches. Gene clusters for gas vesicle biosynthesis are partially conserved in various archaea, cyanobacteria, and some proteobacteria, such as the *Enterobacterium*, Serratia sp. ATCC 39006 (S39006). Here we present the first systematic analysis of the genes required to produce gas vesicles in S39006, identifying how this differs from the archaeon Halobacterium salinarum. We define 11 proteins essential for gas vesicle production. Mutation of gvpN or gvpV produced small bicone gas vesicles, suggesting that the cognate proteins are involved in the morphogenetic assembly pathway from bicones to mature cylindrical forms. Using volumetric compression, gas vesicles were shown to comprise 17% of S39006 cells, whereas in *Escherichia coli* heterologously expressing the gas vesicle cluster in a deregulated environment, gas vesicles can occupy around half of cellular volume."

According to the news editors, the research concluded: "Gas vesicle production in S39006 and *E. coli* was exploited to calculate the instantaneous turgor pressure within cultured bacterial cells; the first time this has been performed in either strain."


The news editors report that additional information may be obtained by contacting Y. Tashiro, Dept. of Biochemistry, University of Cambridge, Cambridge, CB2 1QW, UK. Additional authors for this research include R.E. Monson, J.P. Ramsay and G.P Salmond.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1462-2920.13203. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Genetics, Cambridge, United Kingdom, Environmental Microbiology.

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Research Results from University of Dschang Update Knowledge of Vaccines [Improving community based AEFI (Adverse Events Following Immunization) reporting rate through telephone "beep" in a Cameroon health district: a randomized field trial]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immunization - Vaccines is now available. According to news reporting originating in Dschang, Cameroon, by NewsRx journalists, research stated, "AEFIs underreporting is one of different barriers to achieving objectives of pharmaco vigilance of vaccine worldwide. Studies describe it as being related to limited awareness of health personnel and of vaccinees or of their parents."

The news reporters obtained a quote from the research from the University of Dschang, "The objective was to assess the effect of telephone 'beep' on community based reporting rates of AEFIs during routine immunization sessions in a Cameroon Health District. It was a randomized control trial implemented during routine EPI in Biyem-Assi health district (Cameroon). Parents of vaccinated children were randomly assigned: i) to receive the telephone contact of the investigation team and was advised to 'beep'(short phone call not picked up) the investigators team in the case any medical incidence occurs within the 30 days following the immunization (intervention group) or; ii) to return to the health facility in case any medical incidence occurs within the same period (control group). The main outcome was AEFI incidence rate. 236 parents were assigned to the intervention group and 235 to the control group. Of 1192 doses of EPI vaccines administered, 20 AEFIs (392 AEFIs/100000 doses/week) were reported within 30 days after vaccine administration. These included 19 (829 AEFIs/100000 doses/week) AEFIs in the intervention group and 1 (43 AEFIs/100000 doses/week) AEFI in the control group. The AEFIs reporting rate in the intervention group was significantly higher than that in the control group [RR=18.9; CI95 (2.5; 140.0) (p=0.0004)]."

According to the news reporters, the research concluded: "The use of telephone 'beep' significantly increases at affordable cost community based AEFI reporting rate in routine EPI."

For more information on this research see: Improving community based AEFI (Adverse Events Following Immunization) reporting rate through telephone "beep" in a Cameroon health district: a randomized field trial. The Pan African Medical Journal, 2015;22 ():351.

Our news correspondents report that additional information may be obtained by contacting M. Tsafack, Dept. of Biomedical Sciences, University of Dschang, Dschang, Cameroon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.11604/pamj.2015.22.351.8368. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Africa, Dschang, Cameroon, Vaccines, Immunization, Biological Products, Drugs and Therapies, Adverse Drug Reactions.

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Cardiology

Research Results from University of Melbourne Update Understanding of Cardiology [CaMKIIId and cardiomyocyte Ca(2+) signalling new perspectives on splice variant targeting]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news originating from Victoria, Australia, by NewsRx correspondents, research stated, "Control of cardiomyocyte cytosolic Ca(2+) levels is crucial in determining inotropic status and ischemia/reperfusion stress response. Responsive to fluctuations in cellular Ca(2+), Ca(2+)/calmodulin-dependent protein kinase II (CaMKII) is a serine/threonine kinase integral to the processes regulating cardiomyocyte Ca(2+) channels/transporters."

Our news journalists obtained a quote from the research from the University of Melbourne, "CaMKII is primarily expressed either in the dB or dC splice variant forms, which may mediate differential influences on cardiomyocyte function and pathological response mechanisms. Increases in myocyte Ca(2+) levels promote the binding of a Ca(2+)/calmodulin complex to CaMKII, to activate the kinase. Activity is also maintained through a series of post-translational modifications within a critical region of the regulatory domain of the protein. Recent data indicate that the post-translational modification status of CaMKIIIdB/dC variants may have an important influence on reperfusion outcomes. This study provided the first evidence that the specific type of CaMKII post-translational modification has a role in determining target selectivity of downstream Ca(2+) transporters. The study was also able to demonstrate that the phosphorylated form of CaMKII closely co-localizes with CaMKIIIdB in the nuclear/myofilament fraction, contrasting with a co-enrichment of oxidized CaMKII in the membrane fraction with CaMKIIIdC. It has also been possible to conclude that a hyper-phosphorylation of CaMKII (Thr287) in reperfused hearts represents a hyper-activation of the CaMKIIIdB, which exerts anti-arrhythmic actions through an enhanced capacity to selectively increase sarcoplasmic reticulum Ca(2+) uptake and maintain cytosolic Ca(2+) levels."

According to the news editors, the research concluded: "This suggests that suppression of global CaMKIIId may not be an efficacious approach to developing optimal pharmacological interventions for the vulnerable heart."


The news correspondents report that additional information may be obtained from J.R. Bell, Dept. of Physiology, University of Melbourne, Victoria, Australia. Additional authors for this research include A.J. Raaijmakers, J.V. Janssens and L.M Delbridge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1440-1681.12489. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kinase, Victoria, Cardiology, Reperfusion, Cardiomyocyte, Article Review, Medical Devices, Blood Transfusion, Transfusion Medicine, Enzymes and Coenzymes, Australia and New Zealand.

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Research Results from University of Milan Update Knowledge of Science (Embelin binds to human neuroserpin and impairs its polymerisation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "Neuroserpin (NS) is a serpin inhibitor of tissue plasminogen activator (tPA) in the brain. The polymerisation of NS pathologic mutants is responsible for a genetic dementia known as familial encephalopathy with neuroserpin inclusion bodies (FENIB)."

Our news journalists obtained a quote from the research from the University of Milan, "So far, a pharmacological treatment of FENIB, i.e. an inhibitor of NS polymerisation, remains an unmet challenge. Here, we present a biophysical characterisation of the effects caused by embelin (EMB a small natural compound) on NS conformers and NS polymerisation. EMB destabilises all known NS conformers, specifically binding to NS molecules with a 1:1 NS:EMB molar ratio without unfolding the NS fold. In particular, NS polymers disaggregate in the presence of EMB, and their formation is prevented. The NS/EMB complex does not inhibit tPA proteolytic activity."

According to the news editors, the research concluded: "Both effects are pharmacologically relevant: firstly by inhibiting the NS polymerisation associated to FENIB, and secondly by potentially antagonizing metastatic processes facilitated by NS activity in the brain."

For more information on this research see: Embelin binds to human neuroserpin and impairs its polymerisation. Scientific Reports, 2016;6():18769. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from G. Saga, Dipartimento di Bioscienze and CIMAINA, Universita degli Studi di Milano, Milan, Italy. Additional authors for this research include F. Sessa, A. Barbiroli, C. Santambrogio, R. Russo, M. Sala, S. Raccosta, V. Martorana, S. Caccia, R. Noto, C. Moriconi, E. Miranda, R. Grandori, M. Manno, M. Bolognesi and S. Ricagno.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18769. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Science, Genetics.

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Research Results from University of Texas Health Science Center
Update Knowledge of B-Cell Lymphoma (A phosphodiesterase 4B-dependent interplay between tumor cells and the microenvironment regulates angiogenesis in B-cell lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - B-Cell Lymphoma have been published. According to news reporting out of San Antonio, Texas, by NewsRx editors, research stated, "Angiogenesis associates with poor outcome in diffuse large B-cell lymphoma (DLBCL), but the contribution of the lymphoma cells to this process remains unclear. Addressing this knowledge gap may uncover unsuspecting proangiogenic signaling nodes and highlight alternative antiangiogenic therapies."

Our news journalists obtained a quote from the research from the University of Texas Health Science Center, "Here, we identify the second messenger cyclic-AMP (cAMP) and the enzyme that terminates its activity, phosphodiesterase 4B (PDE4B), as regulators of B-cell lymphoma angiogenesis. We first show that cAMP, in a PDE4B-dependent manner, suppresses PI3K/AKT signals to downmodulate vascular endothelial growth factor (VEGF) secretion and vessel formation in vitro. Next, we create a novel mouse model that combines the lymphomagenic Myc transgene with germline deletion of Pde4b. We show that lymphomas developing in a Pde4b-null background display significantly lower microvessel density (MVD) in association with lower VEGF levels and PI3K/AKT activity. We recapitulate these observations by treating lymphoma-bearing mice with the FDA-approved PDE4 inhibitor, Roflumilast. Lastly, we show that primary human DLBCLs with high PDE4B expression display significantly higher MVD. Here, we defined an unsuspected signaling circuitry in which the cAMP generated in lymphoma cells downmodulates PI3K/AKT and VEGF secretion to negatively influence vessel development in the microenvironment."

According to the news editors, the research concluded: "These data identify PDE4 as an actionable antiangiogenic target in DLBCL."

For more information on this research see: A phosphodiesterase 4B-dependent interplay between tumor cells and the microenvironment regulates angiogenesis in B-cell lymphoma. Leukemia, 2015;30(3):617-26. (Nature Publishing Group - www.nature.com/; Leukemia - www.nature.com/leu/)

Our news journalists report that additional information may be obtained by contacting A.N. Suhasini, Division of Hematology and Medical Oncology, Dept. of Medicine, University of Texas Health Science Center at San Antonio, San Antonio, TX, United States. Additional authors for this research include L. Wang, K.N. Holder, A.P. Lin, H. Bhatnagar, S.W. Kim, A.W. Moritz and R.C Aguiar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/leu.2015.302. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: VEGF, Texas, Oncology, Hematology, San Antonio, Angiogenesis, United States, B Cell Lymphoma, B-Cell Lymphoma, Membrane Proteins, Phosphodiesterases, Angiogenic Proteins, Enzymes and Coenzymes, Growth Factor Receptors, North and Central America, Immunoproliferative Disorders, Lymphoproliferative Disorders.
Oncology - Acute Myeloid Leukemia

Research Results from University of Toronto Update Understanding of Acute Myeloid Leukemia (Targeting mitochondrial RNA polymerase in acute myeloid leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Acute Myeloid Leukemia. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "Acute myeloid leukemia (AML) cells have high oxidative phosphorylation and mitochondrial mass and low respiratory chain spare reserve capacity. We reasoned that targeting the mitochondrial RNA polymerase (POLRMT), which indirectly controls oxidative phosphorylation, represents a therapeutic strategy for AML."

Our news journalists obtained a quote from the research from the University of Toronto, "POLRMT-knockdown OCI-AML2 cells exhibited decreased mitochondrial gene expression, decreased levels of assembled complex I, decreased levels of mitochondrially-encoded Cox-II and decreased oxidative phosphorylation. POLRMT-knockdown cells exhibited an increase in complex II of the electron transport chain, a complex comprised entirely of subunits encoded by nuclear genes, and POLRMT-knockdown cells were resistant to a complex II inhibitor theonyltrifluoroacetone. POLRMT-knockdown cells showed a prominent increase in cell death. Treatment of OCI-AML2 cells with 10-50 ?M 2-C-methyladenosine (2-CM), a chain terminator of mitochondrial transcription, reduced mitochondrial gene expression and oxidative phosphorylation, and increased cell death in a concentration-dependent manner. Treatment of normal human hematopoietic cells with 2-CM at concentrations of up to 100 ?Mdid not alter clonogenic growth, suggesting a therapeutic window. In an OCI-AML2 xenograft model, treatment with 2-CM (70 mg/kg, i.p., daily) decreased the volume and mass of tumours to half that of vehicle controls. 2-CM did not cause toxicity to major organs."

According to the news editors, the research concluded: "Overall, our results in a preclinical model contribute to the functional validation of the utility of targeting the mitochondrial RNA polymerase as a therapeutic strategy for AML."


Our news journalists report that additional information may be obtained by contacting F.N. Bralha, Dept. of Pharmacology and Toxicology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. Additional authors for this research include S.U. Liyanage, R. Hurren, X. Wang, M.H. Son, T.A. Fung, F.B. Chingcuanco, A.Y. Tung, A.C. Andreazza, P. Psarianos, A.D. Schimmer, L. Salmena and R.R Laposa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6129. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Toronto, Ontario, Genetics, Oncology, Hematology, Polymerase, Therapeutics, Enzymes and Coenzymes, Acute Myeloid Leukemia, North and Central America.

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Research Results from Wayne State University Update Knowledge of Molecular Pharmaceutics [Poly(amidoamine) Dendrimer-Doxorubicin Conjugates: In Vitro Characteristics and Pseudosolution Formulation in Pressurized Metered-Dose Inhalers]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biotechnology - Molecular Pharmaceutics have been presented. According to news originating from Detroit, Michigan, by NewsRx correspondents, research stated, "Lung cancers are the leading cause of cancer death for both men and women. A series of PEGylated poly(amidoamine) dendrimer-based doxorubicin (DOX) nanocarriers (G3NH2-mPEG-nDOX) were synthesized and their chemistry tailored for the development of novel pseudosolution formulations in propellant-based metered-dose inhalers (pMDIs) with enhanced aerosol characteristics."

Financial supporters for this research include National Cancer Institute, National Institute of Child Health and Human Development, Wayne State University, Division of Materials Research.

Our news journalists obtained a quote from the research from Wayne State University, "A pH-labile bond was used to conjugate DOX to dendrimer for controlled intracellular release. We employed a two-step PEGylation strategy to cover a range of DOX loading and PEGylation density. We investigated the impact of pH, PEGylation density, and DOX payload on the release of DOX from the conjugate. We also determined the cellular internalization of the conjugate, the intracellular release kinetics of DOX from the conjugate, and their ability to kill human alveolar carcinoma cells (A549). The acid-labile conjugates sustained the release of DOX in acidic medium, and also intracellularly, as determined by nuclear colocalization studies with confocal microscopy. Meanwhile, DOX was retained in the conjugate at extracellular physiological conditions, indicating their potential to achieve spatial and temporal controlled release profiles. We also observed that the kinetics of cellular entry of the conjugates with DOX increased significantly compared to free DOX. Due to controlled release, the G3NH2-mPEG-nDOX conjugates showed time-dependent cell kill, but their cell kill ability was comparable to free DOX, which suggests their potential in vivo as compared to free DOX. The conjugates were formulated in pMDIs as pseudosolution formulations, with the help of a minimum amount of cosolvent (ethanol; <0.4%; v/v)."

According to the news editors, the research concluded: "The physical stability and aerosol characteristics of the conjugates were controlled by the PEGylation density of the carriers: the higher the PEG density, the better the dispersibility and the better the deep lung deposition of the conjugates (fine particle fraction up to ca."


The news correspondents report that additional information may be obtained from Q. Zhong, Dept. of Chemical Engineering and Materials Science, College of Engineering, Wayne
State University, 5050 Anthony Wayne Drive, Detroit, Michigan 48202, United States.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1021/acs.molpharmaceut.5b00876. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Detroit, Michigan, United States, Molecular Pharmaceutics, North and Central America.

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Drugs and Therapies - Immunosuppressive Agents

Research Results from Wright State University Boonshoft School of Medicine Update Knowledge of Immunosuppressive Agents (A Randomized 2x2 Factorial Clinical Trial of Renal Transplantation: Steroid-Free Maintenance Immunosuppression with ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Immunosuppressive Agents. According to news reporting out of Dayton, Ohio, by NewsRx editors, research stated, "The two most significant impediments to renal allograft survival are rejection and the direct nephrotoxicity of the immunosuppressant drugs required to prevent it. Calcineurin inhibitors (CNI), a mainstay of most immunosuppression regimens, are particularly nephrotoxic."

Our news journalists obtained a quote from the research from the Wright State University Boonshoft School of Medicine, "Until less toxic antirejection agents become available, the only option is to optimize our use of those at hand. To determine whether intensive rabbit anti-thymocyte globulin (rATG) induction followed by CNI withdrawal would individually or combined improve graft function and reduce graft chronic histopathology-surrogates for graft and, therefore, patient survival. As previously reported, a single large rATG dose over 24 hours was well-tolerated and associated with better renal function, fewer infections, and improved patient survival. Here we report testing whether complete CNI discontinuation would improve renal function and decrease graft pathology. Between April 20, 2004 and 4-14-2009 we conducted a prospective, randomized, non-blinded renal transplantation trial of two rATG dosing protocols (single dose, 6 mg/kg vs. divided doses, 1.5 mg/kg every other day x 4; target enrollment=180). Subsequent maintenance immunosuppression consisted of tacrolimus, a CNI, and sirolimus, a mammalian target of rapamycin inhibitor. We report here the outcome of converting patients after six months either to minimized tacrolimus/sirolimus or mycophenolate mofetil/sirolimus. Primary endpoints were graft function and chronic histopathology from protocol kidney biopsies at 12 and 24 months. CNI withdrawal (on-treatment analysis) associated with better graft function (p <0.001) and lower chronic histopathology composite scores in protocol biopsies at 12 (p=0.003) and 24 (p=0.013) months, without affecting patient (p=0.81) or graft (p=0.93) survival, or rejection rate (p=0.17)."

According to the news editors, the research concluded: "CNI (tacrolimus) withdrawal at six months may provide a strategy for decreased nephrotoxicity and improved long-term function in steroid-free low immunological risk renal transplant patients."

For more information on this research see: A Randomized 2x2 Factorial Clinical Trial of Renal Transplantation: Steroid-Free Maintenance Immunosuppression with Calcineurin

Our news journalists report that additional information may be obtained by contacting R.B. Stevens, Dept. of Surgery, Wright State University Boonshoft School of Medicine, Dayton, Ohio, United States. Additional authors for this research include K.W. Foster, C.D. Miles, A.C. Kalil, D.F. Florescu, J.P. Sandoz, T.H. Rigley, T. Malik and L.E Wrenshall.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0139247. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Dayton, Esterases, Sirolimus, Hydrolases, Tacrolimus, Calcineurin, United States, Drugs and Therapies, Enzymes and Coenzymes, Immunosuppressive Agents, North and Central America, Phosphoprotein Phosphatases, Intracellular Signaling Peptides and Proteins.

Our news editors obtained a quote from the research from Xinxiang Medical University, "The control group comprised sham-operated rats. The rats in the low-and high-dose quercetin groups were administered 100 and 400 mg/kg quercetin, respectively, by gavage. The rats in the control and model groups were administered isometric normal saline once daily for one week. The mRNA and protein levels of TNF-a and IL-1b in the myocardial tissue of rats were detected in each group by real time polymerase chain reaction and enzyme-linked immunosorbent assay. Malondialdehyde (MDA) content in the myocardial tissue and superoxide dismutase (SOD) and catalase (CAT) activities were detected using a colorimetric method. The level of apoptosis was detected by terminal deoxynucleotidyl transferase dUTP nick end labeling. Compared with those in the control group, the mRNA and protein levels of TNF-a, IL-1b and MDA content in the model, low-, and high-dose groups significantly increased. SOD and CAT activities decreased significantly. The cell apoptosis index increased significantly (p <0.05). Compared with those in the model group, the mRNA and protein levels of TNF-a and IL-1b and MDA content in myocardial tissue of rats in the low-dose and high-dose groups decreased significantly. SOD and CAT activities increased significantly. The cell apoptosis index significantly reduced (p <0.05)."
According to the news editors, the research concluded: "Quercetin has significant anti-inflammatory, antioxidant, and anti-apoptotic effects on AMI rats and can effectively protect against myocardium damage."


The news editors report that additional information may be obtained by contacting B. Li, Dept. of Cardiology II, The Third Affiliated Hospital of Xinxiang Medical University, Xinxiang, People's Republic of China. Additional authors for this research include M. Yang, J.W. Liu and G.T Yin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4238/gmr.15017117. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Xinxiang, Genetics, People's Republic of China, Acute Myocardial Infarction.

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Neurologic Manifestations - Pain

Research Results from Zhejiang University Update Understanding of Pain (Oral Administration of Pregabalin in Rats before or after Nerve Injury Partially Prevents Spontaneous Neuropathic Pain and Long Outlasts the Treatment Period)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurologic Manifestations - Pain have been published. According to news reporting out of Zhejiang, People's Republic of China, by NewsRx editors, research stated, "Pregabalin alleviates stimulus-evoked neuropathic pain (NeuP) in some pain patients and rodents in models of painful neuropathies. But it is not known if pregabalin can also alleviate spontaneous NeuP."

Our news journalists obtained a quote from the research from Zhejiang University, "Sciatic and saphenous neurectomy in rats elicits spontaneous self-mutilation of the denervated hindpaw, a behavior that models spontaneous NeuP. We tested if pregabalin (20 or 30 mg/kg/day; twice daily, per os) for 7 days before denervation, or 42 days thereafter, can suppress this behavior. Compared with the vehicle, pregabalin administered in both treatment regimens markedly and significantly delayed autotomy onset and suppressed its levels for weeks after treatment cessation."

According to the news editors, the research concluded: "At doses known to effectively suppress stimulus-evoked pain in rats, pregabalin can prevent development of spontaneous NeuP and suppress it postoperatively."

Our news journalists report that additional information may be obtained by contacting R.R. Wang, Dept. of Pharmacology, School of Basic Medical Sciences, Zhejiang University, Zhejiang, People's Republic of China. Additional authors for this research include G.D. Lou, J. Yu, T.T. Hu, W.W. Hou, Z. Chen, S.H. Zhang and Z. Seltzer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444329. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Zhejiang, Nerve Injury, Neuropathic Pain, Neurologic Manifestations, People's Republic of China.

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Cardiology

Research from Chinese Academy of Medical Sciences Yields New Findings on Cardiology (Multiple Intercostal Space Electrocardiogram Allows Accurate Localization of Outflow Tract Ventricular Arrhythmia Origin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiology. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Multiple intercostal recordings were supposed to get a more comprehensive view of the depolarization vector of the outflow tract ventricular arrhythmia (OT-VA), which may help to identify the OT-VA more accurately. This study was undertaken to develop a more accurate electrocardiogram (ECG) criterion for differentiating between left and right OT-VA origins."

The news correspondents obtained a quote from the research from the Chinese Academy of Medical Sciences, "We studied OT-VA with a left bundle branch block pattern and inferior axis QRS morphology in 47 patients with successful catheter ablation in the right ventricular OT (RVOT; n=37) or aortic coronary cusp (ACC; n=10). Superior and inferior precordial leads were taken together with the routine 12-lead ECG. The ECG during the OT-VA and during sinus beats were analyzed. Transition ratio, transition zone (TZ) index, R/S amplitude ratio, and R-wave duration ratio were measured in the regular, superior, and inferior precordial leads. The combined TZ index, TZ index inferior was significantly smaller, while the V2 inferior transition ratio was significantly larger for ACC origins than RVOT origins (p <0.05). The area under the curve for the combined TZ index by a receiver operating characteristic analysis was 0.974, which was significantly larger than other parameters. A cutoff value (<=0.25 predicted an ACC origin with 94% sensitivity and 100% specificity. This advantage of the parameter over others also held true for a subanalysis of OT-VAs with a lead V3 precordial transition or TZ index=0."

According to the news reporters, the research concluded: "The combined TZ index outperformed other ECG criteria to differentiate left from right OT-VA origins."

Our news journalists report that additional information may be obtained by contacting Z. Liu, Cardiac Arrhythmia Center, State Key Laboratory of Cardiovascular Disease, Fuwai Hospital, National Center for Cardiovascular Diseases, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, People's Republic of China. Additional authors for this research include Y.H. Jia, L. Ren, P.H. Fang, G.B. Zhou, J. He and S. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/pace.12781. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Arrhythmia, Cardiology, People's Republic of China.

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**Drugs and Therapies - Electrochemotherapy**

**Research from Copenhagen University Hospital Reveals New Findings on Electrochemotherapy (Calcium Electroporation: Evidence for Differential Effects in Normal and Malignant Cell Lines, Evaluated in a 3D Spheroid Model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Electrochemotherapy. According to news reporting originating from Herlev, Denmark, by NewsRx correspondents, research stated, "Calcium electroporation describes the use of high voltage electric pulses to introduce supraphysiological calcium concentrations into cells. This promising method is currently in clinical trial as an anti-cancer treatment."

Our news editors obtained a quote from the research from Copenhagen University Hospital, "One very important issue is the relation between tumor cell kill efficacy-and normal cell sensitivity. Using a 3D spheroid cell culture model we have tested the effect of calcium electroporation and electrochemotherapy using bleomycin on three different human cancer cell lines: a colorectal adenocarcinoma (HT29), a bladder transitional cell carcinoma (SW780), and a breast adenocarcinoma (MDA-MB231), as well as on primary normal human dermal fibroblasts (HDF-n). The results showed a clear reduction in spheroid size in all three cancer cell spheroids three days after treatment with respectively calcium electroporation (p <0.0001) or electrochemotherapy using bleomycin (p <0.0001). Strikingly, the size of normal fibroblast spheroids was neither affected after calcium electroporation nor electrochemotherapy using bleomycin, indicating that calcium electroporation, like electrochemotherapy, will have limited adverse effects on the surrounding normal tissue when treating with calcium electroporation. The intracellular ATP level, which has previously been shown to be depleted after calcium electroporation, was measured in the spheroids after treatment. The results showed a dramatic decrease in the intracellular ATP level (p <0.01) in all four spheroid types-malignant as well as normal. In conclusion, calcium electroporation seems to be more effective in inducing cell death in cancer cell spheroids than in a normal fibroblast spheroid, even though intracellular ATP level is depleted in all spheroid types after treatment."

According to the news editors, the research concluded: "These results may indicate an important therapeutic window for this therapy; although further studies are needed in vivo and in patients to investigate the effect of calcium electroporation on surrounding normal tissue..."
when treating tumors."


The news editors report that additional information may be obtained by contacting S.K. Frandsen, Center for Experimental Drug and Gene Electrotransfer, Dept. of Oncology, Copenhagen University Hospital Herlev, 2730 Herlev, Denmark. Additional authors for this research include L. Gibot, M. Madi, J. Gehl and M.P Rols.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0144028. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Herlev, Denmark, Europe, Antibiotics Antineoplastics, Bleomycin, Cancer, Cell Line, Drugs and Therapies, Electrochemotherapy, Glycopeptides, Oncology, Peptides.

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**Enzymes and Coenzymes - Glucosyltransferases**

**Research from Department of Radiology Reveals New Findings on Glucosyltransferases [Glycogen Synthase Kinase-3 (GSK-3)-Targeted Therapy and Imaging]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Glucosyltransferases. According to news originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Glycogen synthase kinase-3 (GSK-3) is associated with various key biological processes, including glucose regulation, apoptosis, protein synthesis, cell signaling, cellular transport, gene transcription, proliferation, and intracellular communication. Accordingly, GSK-3 has been implicated in a wide variety of diseases and specifically targeted for both therapeutic and imaging applications by a large number of academic laboratories and pharmaceutical companies."

Our news journalists obtained a quote from the research from the Department of Radiology, "Here, we review the structure, function, expression levels, and ligand-binding properties of GSK-3 and its connection to various diseases. A selected list of highly potent GSK-3 inhibitors, with IC[50] <20 nM for adenosine triphosphate (ATP)-competitive inhibitors and IC[50] <5 mM for non-ATP-competitive inhibitors, were analyzed for structure activity relationships. Furthermore, ubiquitous expression of GSK-3 and its possible impact on therapy and imaging are also highlighted."

According to the news editors, the research concluded: "Finally, a rational perspective and possible route to selective and effective GSK-3 inhibitors is discussed."

For more information on this research see: Glycogen Synthase Kinase-3 (GSK-3)-Targeted Therapy and Imaging. *Theranostics*, 2016;6(4):571-93.

The news correspondents report that additional information may be obtained from M.K. Pandey, Dept. of Radiology, Mayo Clinic, Rochester, MN, United States.

The direct object identifier (DOI) for that additional information is:
Epidemiology

Research from Fourth Military Medical University Reveals New Findings on Epidemiology (Epidemiological characteristics of the carriers with coexistence of HBsAg and anti-HBs based on a community cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Epidemiology is the subject of a report. According to news reporting from Shaanxi, People's Republic of China, by NewsRx journalists, research stated, "The coexistence of HBsAg and anti-HBs is an atypical serological pattern in HBV infection. There is no epidemiological characteristics of this serological pattern in the community and there is controversy over the molecular mechanisms underlying this pattern."

Funders for this research include China Special Grant for the Prevention and Control of Infection Diseases, National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from Fourth Military Medical University, "We investigated the epidemiological characteristics of the carriers with HBsAg and anti-HBs in a longitudinal community cohort study. The prevalence of this atypical serological pattern was 2.93% (122/4169) in HBsAg-positive populations. The prevalence progressively increased with age from 40 to 70 years old. The rate of HBeAg positive and detectable HBV DNA were both significantly higher in carriers with this pattern than in carriers who were HBsAg positive but anti-HBs negative (26/122 verse 598/4047, p=0.046; 86/122 verse 275/529, p <0.001). After 1 year of follow-up, 85.19% of the carriers still had coexistence HBsAg and anti-HBs, 14.81% of the carriers lost their anti-HBs. Viral sequencing showed that carriers with coexistence of HBsAg and anti-HBs had higher numbers of residue changes within the S gene than carriers who were HBsAg positive but anti-HBs negative (2.42 verse 1.33 changes per 100 residues, p<0.05)."

According to the news reporters, the research concluded: "Hence, the coexistence of HBsAg and anti-HBs is a unique serological pattern which may be associated with an increased risk of adverse clinical outcome and may be related to HBsAg immune variants which have genotypic heterogeneity."

For more information on this research see: Epidemiological characteristics of the carriers with coexistence of HBsAg and anti-HBs based on a community cohort study. Journal of Viral Hepatitis, 2015;23(4):286-93. (Wiley-Blackwell - www.wiley.com/; Journal of Viral Hepatitis - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2893)

Our news journalists report that additional information may be obtained by contacting Z. Pu, Dept. of Epidemiology, School of Public Health, The Fourth Military Medical University, Xi'an, Shaanxi, People's Republic of China. Additional authors for this research
include D. Li, A. Wang, H. Su, Z. Shao, J. Zhang, Z. Ji, J. Gao, B.C. Choi and Y. Yan.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/jvh.12492. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antigens, Shaanxi, Hepatitis, Epidemiology, Risk and Prevention, People's Republic of China.

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Neurology - Neurodegeneration

Research from Genome Institute Reveals New Findings on Neurodegeneration (MiR-375 is Essential for Human Spinal Motor Neuron Development and May Be Involved in Motor Neuron Degeneration)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurology - Neurodegeneration are presented in a new report. According to news originating from Singapore, Singapore, by NewsRx correspondents, research stated, "The transcription factor REST is a key suppressor of neuronal genes in non-neuronal tissues. REST has been shown to suppress proneuronal microRNAs in neural progenitors indicating that REST-mediated neurogenic suppression may act in part via microRNAs."

Financial support for this research came from A*STAR, Singapore.

Our news journalists obtained a quote from the research from Genome Institute, "We used neural differentiation of Rest-null mouse ESC to identify dozens of microRNAs regulated by REST during neural development. One of the identified microRNAs, miR-375, was upregulated during human spinal motor neuron development. We found that miR-375 facilitates spinal motor neurogenesis by targeting the cyclin kinase CCND2 and the transcription factor PAX6. Additionally, miR-375 inhibits the tumor suppressor p53 and protects neurons from apoptosis in response to DNA damage. Interestingly, motor neurons derived from a spinal muscular atrophy patient displayed depressed miR-375 expression and elevated p53 protein levels."

According to the news editors, the research concluded: "Importantly, SMA motor neurons were significantly more susceptible to DNA damage induced apoptosis suggesting that miR-375 may play a protective role in motor neurons."


The news correspondents report that additional information may be obtained from A. Bhinge, Stem Cell and Developmental Biology, Genome Institute of Singapore, Singapore, Singapore. Additional authors for this research include S.C. Namboori, A. Bithell, C. Soldati, N.J. Buckley and L.W Stanton.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1002/stem.2233. This DOI is a link to an online electronic document that is
Nutritional and Metabolic Diseases and Conditions —

Research from King Saud University Yields New Findings on Type 2 Diabetes (Ischemic Stroke and Its Risk Factors in a Registry-Based Large Cross-Sectional Diabetic Cohort in a Country Facing a Diabetes Epidemic)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news reporting out of Riyadh, Saudi Arabia, by NewsRx editors, research stated, "The main aim of this study is to determine the prevalence and risk factors of ischemic stroke among diabetic patients registered in the Saudi National Diabetes Registry (SNDR) database. A cross-sectional sample of 62,681 diabetic patients aged (>=)25 years was used to calculate ischemic stroke prevalence and its risk factors."

Financial support for this research came from King Abdulaziz City for Science and Technology.

Our news journalists obtained a quote from the research from King Saud University, "Univariate and multivariate logistic regression analyses were used to assess the roles of different risk factors. The prevalence of ischemic stroke was 4.42% and was higher in the older age group with longer diabetes duration. Poor glycemic control and the presence of chronic diabetes complications were associated with a high risk of ischemic stroke. History of smoking and type 2 diabetes were more frequent among stroke patients. Obesity significantly decreased the risk for ischemic stroke. Regression analysis for ischemic stroke risk factors proved that age (>=)45 years, male gender, hypertension, coronary artery disease (CAD), diabetes duration (>=)10 years, insulin use, and hyperlipidemia were significant independent risk factors for ischemic stroke. We conclude that ischemic stroke is prevalent among diabetic individuals, particularly among those with type 2 diabetes."

According to the news editors, the research concluded: "Good glycemic, hypertension, and hyperlipidemia control, in addition to smoking cessation, are the cornerstones to achieve a significant reduction in ischemic stroke risk."

For more information on this research see: Ischemic Stroke and Its Risk Factors in a Registry-Based Large Cross-Sectional Diabetic Cohort in a Country Facing a Diabetes Epidemic. Journal of Diabetes Research, 2016;2016():4132589.

Our news journalists report that additional information may be obtained by contacting K. Al-Rubeaan, University Diabetes Center, College of Medicine, King Saud University, PO Box 18397, Riyadh 11415, Saudi Arabia. Additional authors for this research include F. Al-Hussain, A.M. Youssef, S.N. Subhani, A.H. Al-Sharqawi and H.M Ibrahim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/4132589. This DOI is a link to an online electronic document that is either free or for purchase.
Oncology - Breast Cancer

Research from Lund University Yields New Findings on Breast Cancer (Contrasting breast cancer molecular subtypes across serial tumor progression stages: biological and prognostic implications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting originating in Lund, Sweden, by NewsRx journalists, research stated, "The relevance of the intrinsic subtypes for clinical management of metastatic breast cancer is not comprehensively established. We aimed to evaluate the prevalence and prognostic significance of drifts in tumor molecular subtypes during breast cancer progression."

The news reporters obtained a quote from the research from Lund University, "A well-annotated cohort of 304 women with advanced breast cancer was studied. Tissue microarrays of primary tumors and synchronous lymph node metastases were constructed. Conventional biomarkers were centrally assessed and molecular subtypes were assigned following the 2013 St Gallen guidelines. Fine-needle aspirates of asynchronous metastases were transcriptionally profiled and subtyped using PAM50. Discordant expression of individual biomarkers and molecular subtypes was observed during tumor progression. Primary luminal-like tumors were relatively unstable, frequently adopting a more aggressive subtype in the metastases. Notably, loss of ER expression and a luminal to non-luminal subtype conversion was associated with an inferior post-recurrence survival. In addition, ER and molecular subtype assessed at all tumor progression stages were independent prognostic factors for post-recurrence breast cancer mortality in multivariable analyses."

According to the news reporters, the research concluded: "Our results demonstrate that drifts in tumor molecular subtypes may occur during tumor progression, conferring adverse consequences on outcome following breast cancer relapse."


Our news correspondents report that additional information may be obtained by contacting S. Kimbung, Division of Oncology and Pathology, Dept. of Clinical Sciences, Lund University, Lund, Sweden. Additional authors for this research include A. Kovacs, A. Danielsson, P.O. Bendahl, K. Lovgren, M. Frostvik Stolt, N.P. Tobin, L. Lindstrom, J. Bergh, Z. Einbeigi, M. Ferno, T. Hatschek and I. Hedenfalk.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5089. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lund, Sweden, Europe, Oncology, Breast Cancer, Women’s Health, Diagnostics and Screening.
Research from Medical University Reveals New Findings on Butyrophenones (Long-term treatment with haloperidol affects neuropeptide S and NPSR mRNA levels in the rat brain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Butyrophenones is the subject of a report. According to news reporting from Katowice, Poland, by NewsRx journalists, research stated, "The brainstem-derived neuropeptide S (NPS) has a multidirectional regulatory activity, especially as a potent anxiolytic factor. Accumulating data suggests that neuroleptics affect peptidergic signalling in various brain structures."

The news correspondents obtained a quote from the research from Medical University, "However, there is no information regarding the influence of haloperidol on NPS and NPS receptor (NPSR) expression. We assessed NPS and NPSR mRNA levels in brains of rats treated with haloperidol using quantitative real-time polymerase chain reaction. Chronic haloperidol treatment (4 weeks) led to a striking upregulation of NPS and NPSR expression in the rat brainstem. Conversely, the NPSR mRNA expression was decreased in the hippocampus and striatum. This stark increase of NPS in response to haloperidol treatment supports the hypothesis that this neuropeptide is involved in the dopamine-dependent anxiolytic actions of neuroleptics and possibly also in the pathophysiology of mental disorders."

According to the news reporters, the research concluded: "Furthermore, our findings underline the complex nature of potential interactions between dopamine receptors and brain peptidergic pathways, which has potential clinical applications."


Our news journalists report that additional information may be obtained by contacting A. Palasz, 1Dept. of Histology, School of Medicine in Katowice, Medical University of Silesia, Katowice, Poland. Additional authors for this research include E. Rojczyk, M. Golyszyń, L. Filipczyk, J.J. Worthington and R. Wiaderkiewicz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/neu.2015.56. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Acta Neuropsychiatrica is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Poland, Katowice, Genetics, Haloperidol, Neuropeptides, Butyrophenones, Nerve Tissue Proteins.

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Research from Medical University Reveals New Findings on Colon Cancer (Colorectal cancer tumour markers and biomarkers: Recent therapeutic advances)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news reporting from Warsaw, Poland, by NewsRx journalists, research stated, "Colorectal cancer (CRC) is the second most commonly diagnosed cancer among females and third among males worldwide. It also contributes significantly to cancer-related deaths, despite the continuous progress in diagnostic and therapeutic methods."

The news correspondents obtained a quote from the research from Medical University, "Biomarkers currently play an important role in the detection and treatment of patients with colorectal cancer. Risk stratification for screening might be augmented by finding new biomarkers which alone or as a complement of existing tests might recognize either the predisposition or early stage of the disease. Biomarkers have also the potential to change diagnostic and treatment algorithms by selecting the proper chemotherapeutic drugs across a broad spectrum of patients. There are attempts to personalise chemotherapy based on presence or absence of specific biomarkers. In this review, we update review published last year and describe our understanding of tumor markers and biomarkers role in CRC screening, diagnosis, treatment and follow-up."

According to the news reporters, the research concluded: "Goal of future research is to identify those biomarkers that could allow a non-invasive and cost-effective diagnosis, as well as to recognise the best prognostic panel and define the predictive biomarkers for available treatments."


Our news journalists report that additional information may be obtained by contacting G. Lech, Gustaw Lech, Maciej Slodkowski, Ireneusz Wojciech Krasnodebski, Dept. of General, Gastroenterological and Oncological Surgery, Medical University of Warsaw, 02097 Warsaw, Poland. Additional authors for this research include R. Slotwinski, M. Slodkowski and I.W Krasnodebski.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i5.1745. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Warsaw, Poland, Europe, Therapy, Oncology, Cancer Risk, Colon Cancer, Article Review, Gastroenterology, Colorectal Cancer, Colorectal Research, Risk and Prevention, Diagnostics and Screening.

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Research from Michigan State University Reveals New Findings on Diabetic Angiopathies (Role of Acid Sphingomyelinase in Shifting the Balance Between Proinflammatory and Reparative Bone Marrow Cells in Diabetic Retinopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Diabetic Angiopathies. According to news reporting from East Lansing, Michigan, by NewsRx journalists, research stated, "The metabolic insults associated with diabetes lead to low-grade chronic inflammation, retinal endothelial cell damage, and inadequate vascular repair. This is partly due to the increased activation of bone marrow (BM)-derived proinflammatory monocytes infiltrating the retina, and the compromised function of BM-derived reparative circulating angiogenic cells (CACs), which home to sites of endothelial injury and foster vascular repair."

Financial supporters for this research include National Institutes of Health (NIH), NIH.

The news correspondents obtained a quote from the research from Michigan State University, "We now propose that a metabolic link leading to activated monocytes and dysfunctional CACs in diabetes involves upregulation of a central enzyme of sphingolipid signaling, acid sphingomyelinase (ASM). Selective inhibition of ASM in the BM prevented diabetes-induced activation of BM-derived microglia-like cells and normalized proinflammatory cytokine levels in the retina. ASM upregulation in diabetic CACs caused accumulation of ceramide on their cell membrane, thereby reducing membrane fluidity and impairing CAC migration. Replacing sphingomyelin with ceramide in synthetic membrane vesicles caused a similar decrease in membrane fluidity. Inhibition of ASM in diabetic CACs improved membrane fluidity and homing of these cells to damaged retinal vessels."

According to the news reporters, the research concluded: "Collectively, these findings indicate that selective modulation of sphingolipid metabolism in BM-derived cell populations in diabetes normalizes the reparative/proinflammatory cell balance and can be explored as a novel therapeutic strategy for treating diabetic retinopathy."


Our news journalists report that additional information may be obtained by contacting H. Chakravarthy, Dept. of Physiology, Michigan State University, East Lansing, Michigan, United States. Additional authors for this research include S. Navitskaya, S. O'Reilly, J. Gallimore, H. Mize, E. Beli, Q. Wang, N. Kady, C. Huang, G.J. Blanchard, M.B. Grant and J.V Busik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2259. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Michigan, Diabetes, Monocytes, Immunology, East Lansing, United States, Bone Research, Cell Research, Endocrinology, Immune System, Ophthalmology, Bone Marrow Cells, Diabetic Retinopathy, Hematopoietic
Research from Military Medical Academy Reveals New Findings on Antibiotics (Cardiac troponin-I, brain natriuretic peptide and endothelin-1 levels in a rat model of doxorubicin-induced cardiac injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news originating from Etlik, Turkey, by NewsRx correspondents, research stated, "Cardiotoxicity, during or after therapy, is the most serious side effect of doxorubicin (DXR). The risk of developing cardiac impairment increases concomitantly with an increase in the cumulative dose of DXR."

Our news journalists obtained a quote from the research from Military Medical Academy, "The aim was to evaluate the levels of cardiac troponin-I (cTnI), brain natriuretic peptide (BNP) and endothelin-1 (ET-1) in DXR induced cardiac injury. Thirty-nine Wistar albino rats were divided into three groups; a control group and two-study groups that received low-dose DXR (LDD) and high-dose DXR (HDD) in a weekly schedule for reaching a cumulative dose. Serum cTnI level was significantly increased in both LDD and HDD-treated groups. Although serum BNP was not significantly increased either LDD or HDD-treated groups, ET-1 levels was significantly increased in only HDD-treated groups. Histopathologic injury was more evident in HDD-treated group. Serum cTnI was increased even in LDD and parallel to it low cardiac injury induced by DXR. In the low-dose group, BNP and ET-1 levels were not elevated significant as cTnI despite cardiac injury."

According to the news editors, the research concluded: "Thus, cTnI may be a predictive marker in of DXR-induced cardiotoxicity."


The news correspondents report that additional information may be obtained from E. Atas, Dept. of Pediatric Oncology, Gulhane Military Medical Academy, Etlik, 06018, Turkey. Additional authors for this research include E. Kismet, V. Kesik, B. Karaoglu, G. Aydemir, N. Korkmazer, E. Demirkaya, Y. Karsioglu, N. Yurttutan, B. Unay, V. Koseoglu and E. Gokcay.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.144636. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Etlik, Turkey, Eurasia, Antibiotics Antineoplastics, Biopolymers, Brain Natriuretic Peptide, Cardiology, Contractile Proteins, Cytoskeletal Proteins, Doxorubicin Therapy Hydrochloride, Drugs and Therapies, Endothelin 1, Endothelins, Intercellular Signaling Peptides and Proteins, Macromolecular Substances, Microfilament Proteins, Muscle Proteins, Natriuretic Peptides, Nerve Tissue Proteins, Peptide Hormones, Peptide Proteins, Pharmaceuticals, Risk and Prevention, Troponin I.
Research from Moorfields Eye Hospital Yields New Findings on Age-Related Macular Degeneration (A retrospective study of the real-life utilization and effectiveness of ranibizumab therapy for neovascular age-related macular degeneration in the UK)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Eye Diseases and Conditions - Age-Related Macular Degeneration. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "AURA was an international, retrospective, observational study that monitored the real-life use and effectiveness of ranibizumab injections in patients with neovascular age-related macular degeneration (nAMD). This paper reports the findings from the UK."

The news reporters obtained a quote from the research from Moorfields Eye Hospital, "Patients who started treatment with ranibizumab between January 1, 2009, and August 31, 2009, and had documented follow-up to the end of their treatment and/or monitoring or until August 31, 2011, were retrospectively monitored; the diagnosis and subsequent decision to treat was made by the patient's own physician. Assessments included the change in visual acuity (standardized letter count) during the first and second years after start of ranibizumab therapy and resource utilization. Four hundred and ten patients from 13 UK centers were analyzed. The mean (standard deviation [SD]) letter score at baseline was 55.0 (17.8). The mean (SD) change in visual acuity from baseline was +6.0 (15.4) letters at year 1 and +4.1 (16.9) at year 2. Most of the patients (86.6%) completed a 3-month loading phase; the visual improvements were numerically higher in these patients. Over 2 years, the mean (SD) number of clinic visits and injections was 18.4 (5.0) and 9.0 (4.7), respectively. Resource use and visual acuity gains were greater than those observed in the global population, which included other countries enrolled in AURA (Canada, France, Germany, Ireland, Italy, the Netherlands, and Venezuela). When patients were stratified according to severity of nAMD (based on letter count at baseline), the mean change in visual acuity score at years 1 and 2 was also higher for the UK than for the global population across all subgroups. Monitoring and treatment rates were high in the UK, resulting in better visual acuity outcomes compared with other included countries."

According to the news reporters, the research concluded: "This suggests that translation of clinical study outcomes into real-life settings is achievable, but at the expense of higher resource utilization than is currently the norm in most developed countries."

For more information on this research see: A retrospective study of the real-life utilization and effectiveness of ranibizumab therapy for neovascular age-related macular degeneration in the UK. Clinical Ophthalmology, 2016;10():87-96.

Our news correspondents report that additional information may be obtained by contacting P. Hykin, National Institute for Health Research Biomedical Research Centre in Ophthalmology, Moorfields Eye Hospital, London, UK. Additional authors for this research include U. Chakravarthy, A. Lotery, M. McKibbin, J. Napier and S. Sivaprasad.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/OPTH.S92627. This DOI is a link to an online electronic document that is either free or for purchase.
Addiction Research

Research from National Institute on Drug Abuse Reveals New Findings on Addiction Research (A role for sigma receptors in stimulant self-administration and addiction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Addiction Research is now available. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Sigma-1 receptors (s1Rs) are structurally unique intracellular proteins that function as chaperones. s1Rs translocate from the mitochondria-associated membrane to other subcellular compartments, and can influence a host of targets, including ion channels, G-protein-coupled receptors, lipids, and other signaling proteins. Drugs binding to sRs can induce or block the actions of sRs."

Our news journalists obtained a quote from the research from National Institute on Drug Abuse, "Studies indicate that stimulant self-administration induces the reinforcing effects of sR agonists, because of dopamine transporter actions. Once established, the reinforcing effects of sR agonists are independent of dopaminergic mechanisms traditionally thought to be critical to the reinforcing effects of stimulants. Self-administered doses of sR agonists do not increase dopamine concentrations in the nucleus accumbens shell, a transmitter and brain region considered important for the reinforcing effects of abused drugs. However, self-administration of sR agonists is blocked by sR antagonists. Several effects of stimulants have been blocked by sR antagonists, including the reinforcing effects, assessed by a place-conditioning procedure. However, the self-administration of stimulants is largely unaffected by sR antagonists, indicating fundamental differences in the mechanisms underlying these two procedures used to assess the reinforcing effects. When sR antagonists are administered in combination with dopamine uptake inhibitors, an effective and specific blockade of stimulant self-administration is obtained. Actions of stimulant drugs related to their abuse induce unique changes in sR activity and the changes induced potentially create redundant and, once established, independent reinforcement pathways."

According to the news editors, the research concluded: "Concomitant targeting of both dopaminergic pathways and sR proteins produces a selective antagonism of stimulant self-administration, suggesting new avenues for combination chemotherapies to specifically combat stimulant abuse."

For more information on this research see: A role for sigma receptors in stimulant self-administration and addiction. Behavioural Pharmacology, 2016;27(2-3 Spec I):100-15. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

The news correspondents report that additional information may be obtained from J.L. Katz, aPsychobiology bCellular Pathobiology Sections, Intramural Research Program, Dept. of Health and Human Services, National Institute on Drug Abuse, National Institutes of Health,
Baltimore, Maryland, United States. Additional authors for this research include W.C. Hong, T. Hiranita and T.P Su.

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Keywords for this news article include: Pharmaceuticals, Maryland, Baltimore, United States, Mental Health, Article Review, Addiction Medicine, Addiction Research, Dopamine Hydrochloride, North and Central America.

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Nephrology

Research from Novartis Pharma Yields New Findings on Nephrology (Pharmacokinetics of serelaxin in patients with severe renal impairment or end-stage renal disease requiring hemodialysis: A single-dose, open-label, parallel-group study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nephrology are discussed in a new report. According to news originating from Basel, Switzerland, by NewsRx correspondents, research stated, "Serelaxin, a recombinant human relaxin-2 hormone, is in clinical development for treating acute heart failure. This open-label, parallel-group study investigated serelaxin pharmacokinetics (PK) after a single 4-hour intravenous infusion (10 ?g/kg) in patients with severe renal impairment (n=6) or end-stage renal disease (ESRD) requiring hemodialysis (PK on the day of dialysis [n=6] or during dialysis-free interval [n=6]), compared with matched healthy subjects (n=18)."

Financial support for this research came from Novartis Pharma AG, Basel, Switzerland.

Our news journalists obtained a quote from the research from Novartis Pharma, "In all participants, serum serelaxin concentration peaked at the end of infusion and subsequently declined with mean terminal elimination half-life of 6.5-8.8 hours. Compared with healthy subjects, a moderate decrease in serelaxin systemic clearance (37%-52%) and increase in its exposure (30%-115%) were observed in all patients. During the 4-hour hemodialysis in ESRD patients, 30% serelaxin was removed, with hemodialysis clearance constituting approximately 52% of total systemic clearance. Serelaxin was well tolerated with no deaths, serious adverse events (AE), or AE-related discontinuations. Antiserelaxin antibodies were not detected in any participant."

According to the news editors, the research concluded: "Given the shallow dose-response relationship observed with serelaxin in clinical studies and its wide therapeutic window, the observed PK differences in patients with severe renal impairment compared with healthy subjects are unlikely to pose a safety risk and do not warrant a predefined dosage adjustment in such patients."

For more information on this research see: Pharmacokinetics of serelaxin in patients with severe renal impairment or end-stage renal disease requiring hemodialysis: A single-dose, open-label, parallel-group study. Journal of Clinical Pharmacology, 2015;56(4):474-83.

Journal of Clinical Pharmacology can be contacted at: SAGE Publications, USA , 2455 Teller
Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com/; Journal of Clinical Pharmacology - jcp.sagepub.com)

The news correspondents report that additional information may be obtained from M. Dahlke, Novartis Pharma AG, Basel, Switzerland. Additional authors for this research include A. Halabi, J. Canadi, C. Tsubouchi, S. Machineni and Y. Pang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcph.607. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the Journal of Clinical Pharmacology is: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Pharmaceuticals, Basel, Europe, Kidney, Nephrology, Switzerland, Hemodialysis, Renal Disease, Renal Dialysis, Pharmacokinetics.

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Oncology - Breast Cancer

Research from Peking Union Medical College Hospital Yields New Findings on Breast Cancer (Ultrasound-Assisted Thoracic Paravertebral Block Reduces Intraoperative Opioid Requirement and Improves Analgesia after Breast Cancer Surgery: A ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "The contribution of ultrasound-assisted thoracic paravertebral block to postoperative analgesia remains unclear. We compared the effect of a combination of ultrasound assisted-thoracic paravertebral block and propofol general anesthesia with opioid and sevoflurane general anesthesia on volatile anesthetic, propofol and opioid consumption, and postoperative pain intensity in patients having breast cancer surgery."

Our news journalists obtained a quote from the research from Peking Union Medical College Hospital, "Patients undergoing breast cancer surgery were randomly assigned to ultrasound-assisted paravertebral block with propofol general anesthesia (PPA group, n=121) or fentanyl with sevoflurane general anesthesia (GA group, n=126). Volatile anesthetic, propofol and opioid consumption, and postoperative pain intensity were compared between the groups using noninferiority and superiority tests. Patients in the PPA group required less sevoflurane than those in the GA group (median [interquartile range] of 0 [0, 0] vs. 0.4 [0.3, 0.6] minimum alveolar concentration [MAC]-hours), less intraoperative fentanyl requirements (100 [50, 100] vs. 250 [200, 300] mg), less intense postoperative pain (median visual analog scale score 2 [1, 3.5] vs. 3 [2, 4.5]), but more propofol (median 529 [424, 672] vs. 100 [100, 130] mg). Noninferiority was detected for all four outcomes; one-tailed superiority tests for each outcome were highly significant at p<0.001 in the expected directions."

According to the news editors, the research concluded: "The combination of propofol anesthesia with ultrasound-assisted paravertebral block reduces intraoperative volatile anesthetic and opioid requirements, and results in less post operative pain in patients undergoing breast cancer surgery."

For more information on this research see: Ultrasound-Assisted Thoracic...

The news correspondents report that additional information may be obtained from L. Pei, Dept. of Anesthesiology, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences, Beijing, People's Republic of China. Additional authors for this research include Y. Zhou, G. Tan, F. Mao, D. Yang, J. Guan, Y. Lin, X. Wang, Y. Zhang, X. Zhang, S. Shen, Z. Xu, Q. Sun and Y. Huang.

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Keywords for this news article include: Asia, Beijing, Phenols, Surgery, Oncology, Propofol, Anesthesia, Breast Cancer, Pain Medicine, Women's Health, Post Operative Pain, People's Republic of China.

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**Blood Pressure**

**Research from Peking University People's Hospital Reveals New Findings on Blood Pressure (Efficacy and Safety of Fixed-Dose Perindopril Arginine/Amlodipine in Hypertensive Patients Not Adequately Controlled with Amlodipine 5 mg or Perindopril ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Blood Pressure is now available. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "To assess the blood pressure-lowering efficacy and tolerability of perindopril/amlodipine fixed-dose combinations in Chinese patients with mild-to-moderate essential hypertension not adequately controlled with monotherapy alone. In 2 separate double-blind studies, patients received a 4-week run-in monotherapy of amlodipine 5 mg or perindopril 4 mg, respectively."

Our news journalists obtained a quote from the research from Peking University People's Hospital, "Those whose blood pressure was uncontrolled were then randomized to receive the fixed-dose combination of perindopril 5 mg/amlodipine 5 mg (Per/Amlo group) or remain on the monotherapy for 8 weeks. Patients who were uncontrolled at the week 8 (W8) visit were up-titrated for the Per/Amlo combination, or received additional treatment if on monotherapy, for a further 4 weeks. The main efficacy assessment was at 8 weeks. After 8 weeks, systolic blood pressure (SBP; primary criterion) was statistically significantly lower in the Per/Amlo group (vs. Amlo 5 mg, p=0.0095; vs. Per 4 mg, p<0.0001). Uncontrolled patients at W8 who received an up-titration of the Per/Amlo combination showed a further SBP reduction. These changes were mirrored by reassuring reductions in diastolic blood pressure. The fixed-dose combinations were well tolerated."

According to the news editors, the research concluded: "Single-pill combinations of perindopril and amlodipine provide hypertensive patients with a convenient and effective method of reducing blood pressure."

For more information on this research see: Efficacy and Safety of Fixed-Dose

The news correspondents report that additional information may be obtained from D. Hu, Peking University People's Hospital Cardiovascular Disease Research Institute, Beijing, People's Republic of China. Additional authors for this research include Y. Sun, Y. Liao, J. Huang, R. Zhao and K. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441348. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal *Cardiology* is: S. Karger AG, Allschwilerstrasse 10, CH-4009 Basel, Switzerland.

Keywords for this news article include: Asia, Beijing, Arginine, Blood Pressure, Basic Amino Acids, Diamino Amino Acids, Essential Amino Acids, People's Republic of China.

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**Oncology - Colon Cancer**

**Research from Shanghai Jiao-Tong University Yields New Findings on Colon Cancer (LncRNA-ATB mediated E-cadherin repression promotes the progression of colon cancer and predicts poor prognosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Colon Cancer is the subject of a report. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Long non-coding RNA-activated by TGF-b (lncRNA-ATB) promotes the invasion-metastasis cascade in hepatocellular carcinoma via downregulating E-cadherin (E-cad) and inducing epithelial-to-mesenchymal transition (EMT) and is clinically significant in human colon cancer. However, its molecular mechanisms in colon cancer progression remain unclear."

Financial supporters for this research include National Natural Science Foundation of China, Medical Guidance Project of Shanghai Science and Technology Commission.

Our news editors obtained a quote from the research from Shanghai Jiao-Tong University, "This study aimed to elucidate the role of lncRNA-ATB and its clinical value in colon cancer. Expression levels of lncRNA-ATB in colon cancer tissues and colon cancer cell lines were evaluated using quantitative real-time polymerase chain reaction. The clinicopathological significance and prognostic value of lncRNA-ATB were investigated, and roles of lncRNA-ATB in regulating E-cad and other EMT-related markers expression and colon cancer progression were evaluated in vitro. Expression levels of lncRNA-ATB and E-cad in human plasma were evaluated. Long non-coding RNA-activated by TGF-b was upregulated in colon cancer tissues compared with adjacent mucosa (p <0.001). LncRNA-ATB levels were also higher in metastatic cancer tissues (p <0.001). Among the three highly invasive colon cancer cell lines, lncRNA-ATB levels were relatively higher with concurrent low levels of E-cad
compared with levels in the three low-invasive cell lines. LncRNA-ATB expression correlated with pN stage (p < 0.01) and American Joint Committee on Cancer stage (p < 0.01). Striking differences were observed in overall survival and disease-free survival in cases with both high LncRNA-ATB expression and low E-cad expression. Reduction of LncRNA-ATB increased expression of epithelial markers E-cad, ZO-1, and decreased expression of mesenchymal markers ZEB1 and N-cadherin (N-cad), and significantly influenced colon cancer cell progression. Plasma LncRNA-ATB was upregulated in colon cancer patients one month after surgery (p < 0.05).

According to the news editors, the research concluded: "Long non-coding RNA-activated by TGF-b may act on colon tumorigenesis by suppressing E-cad expression and promoting EMT process, and LncRNA-ATB inhibition may provide a promising therapeutic option for suppressing colon cancer progression."

For more information on this research see: Long non-coding RNA-activated by TGF-b may act on colon tumorigenesis by suppressing E-cad expression and promoting EMT process, and LncRNA-ATB inhibition may provide a promising therapeutic option for suppressing colon cancer progression.

Liver Diseases and Conditions - Hepatitis B Virus
Research from Southern Medical University Yields New Findings on Hepatitis B Virus (A comparison of lamivudine vs entecavir for prophylaxis of hepatitis B virus reactivation in allogeneic hematopoietic stem cell transplantation recipients: a ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases and Conditions - Hepatitis B Virus have been presented. According to news reporting from Guangzhou, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to compare the efficacy of lamivudine vs entecavir in the prevention of hepatitis B virus (HBV) reactivation in HBV surface Ag (HBsAg)-positive patients undergoing allogeneic hematopoietic stem cell transplantation (allo-HSCT). A total of 216 consecutive patients were enrolled and retrospectively reviewed."

The news correspondents obtained a quote from the research from Southern Medical University, "Of these patients, 119 received lamivudine and 97 received entecavir. The median
treatment duration to complete virological response in patients with baseline HBV-DNA levels >10(5) copies/mL was 2.0 months in the entecavir group, significantly shorter than that of the lamivudine group. After a median follow-up of 24 months post transplantation, the cumulative incidence rates of HBV reactivation at 6, 12 and 24 months following transplantation were 3.0%, 7.0% and 24.0% in the lamivudine group, and 0%, 0% and 2.0% in the entecavir group, respectively. In addition, entecavir treatment was associated with lower cumulative incidence rates of severe hepatitis caused by HBV reactivation. Mutations leading to drug resistance were detected in 25 patients in the lamivudine group and in only one patient in the entecavir group."

According to the news reporters, the research concluded: "Our data indicate that compared with lamivudine, entecavir has more potent antiviral efficacy and may be a better choice for prophylaxis of HBV reactivation in HBsAg-positive allo-HSCT recipients."

For more information on this research see: A comparison of lamivudine vs entecavir for prophylaxis of hepatitis B virus reactivation in allogeneic hematopoietic stem cell transplantation recipients: a single-institutional experience. Bone Marrow Transplantation, 2016;51(4):581-6. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news journalists report that additional information may be obtained by contacting J. Shang, Dept. of Hematology, Nanfang Hospital, Southern Medical University, Guangzhou, People's Republic of China. Additional authors for this research include H. Wang, J. Sun, Z. Fan, F. Huang, Y. Zhang, Q. Jiang, M. Dai, N. Xu, R. Lin and Q. Liu.

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Publisher contact information for the journal Bone Marrow Transplantation is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: HBV, Asia, Antigens, Antiinfectives, Antiretrovirals, Antivirals, Biomedicine, Surgery, Genetics, Virology, Guangzhou, Entecavir, Hematology, Hepatology, Lamivudine, DNA Viruses, Gastroenterology, Bone Marrow Cells, Hepatitis B Virus, Orthohepadnavirus, Stem Cell Research, Drugs and Therapies, Transplant Medicine.

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Oncology - Colon Cancer

Research from Sun Yat-sen University Cancer Center Reveals New Findings on Colon Cancer (Downregulation of CDC27 inhibits the proliferation of colorectal cancer cells via the accumulation of p21Cip1/Waf1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Colon Cancer. According to news reporting originating from Guangzhou, People's Republic of China, by NewsRx correspondents, research stated, "Dysregulated cell cycle progression has a critical role in tumorigenesis. Cell division cycle 27 (CDC27) is a core subunit of the anaphase-promoting complex/cyclosome, although the specific role of CDC27 in cancer remains unknown."
Our news editors obtained a quote from the research from Sun Yat-sen University Cancer Center, "In our study, we explored the biological and clinical significance of CDC27 in colorectal cancer (CRC) growth and progression and investigated the underlying molecular mechanisms. CDC27 expression is significantly correlated with tumor progression and poor patient survival. Functional assays demonstrated that overexpression of CDC27 promoted proliferation in DLD1 cells, whereas knockdown of CDC27 in HCT116 cells inhibited proliferation both in vitro and in vivo. Further mechanistic investigation showed that CDC27 downregulation resulted in G1/S phase transition arrest via the significant accumulation of p21 in HCT116 cells, and the upregulation of CDC27 promoted G1/S phase transition via the attenuation of p21 in DLD1 cells. Furthermore, we also demonstrated that CDC27 regulated inhibitor of DNA binding 1 (ID1) protein expression in DLD1 and HCT116 cells, and rescue assays revealed that CDC27 regulated p21 expression through modulating ID1 expression. Taken together, our results indicate that CDC27 contributes to CRC cell proliferation via the modulation of ID1-mediated p21 regulation, which offers a novel approach to the inhibition of tumor growth."

According to the news editors, the research concluded: "Indeed, these findings provide new perspectives for the future study of CDC27 as a target for CRC treatment."

For more information on this research see: Downregulation of CDC27 inhibits the proliferation of colorectal cancer cells via the accumulation of p21Cip1/Waf1. *Cell Death & Disease*, 2016;7():e2074. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

The news editors report that additional information may be obtained by contacting L. Qiu, Sun Yat-sen University Cancer Center, State Key Laboratory of Oncology in South China, Collaborative Innovation Center for Cancer Medicine, Guangzhou, People's Republic of China. Additional authors for this research include J. Wu, C. Pan, X. Tan, J. Lin, R. Liu, S. Chen, R. Geng and W. Huang.

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Keywords for this news article include: Asia, Genetics, Oncology, Guangzhou, Colon Cancer, HCT116 Cells, Tumor Cell Line, Gastroenterology, Colorectal Research, People's Republic of China.

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Environmental Epidemiology

**Research from Taipei Medical University Reveals New Findings on Environmental Epidemiology (Soil ingestion rates for children under 3 years old in Taiwan)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Environmental Epidemiology is now available. According to news reporting from Taipei, Taiwan, by NewsRx journalists, research stated, "Soil and dust ingestion rates by children are among the most critical exposure factors in determining risks to children from exposures to environmental contaminants in soil and dust. We believe this is the first published soil ingestion study for children in Taiwan using tracer element methodology."
The news correspondents obtained a quote from the research from Taipei Medical University. "In this study, 66 children under 3 years of age were enrolled from Taiwan. Three days of fecal samples and a 24-h duplicate food sample were collected. The soil and household dust samples were also collected from children's homes. Soil ingestion rates were estimated based on silicon (Si) and titanium (Ti). The average soil ingestion rates were 9.6?19.2 mg/day based on Si as a tracer. The estimated soil ingestion rates based on Si did not have statistically significant differences by children's age and gender, although the average soil ingestion rates clearly increased as a function of children's age category. The estimated soil ingestion rates based on Si was significantly and positively correlated with the sum of indoor and outdoor hand-to-mouth frequency rates. The average soil ingestion rates based on Si were generally lower than the results from previous studies for the US children. Ti may not be a suitable tracer for estimating soil ingestion rates in Taiwan because the Ti dioxide is a common additive in food. To the best of our knowledge, this is the first study that investigated the correlations between soil ingestion rates and mouthing behaviors in Taiwan or other parts of Asia. It is also the first study that could compare available soil ingestion data from different countries and/or different cultures. The hand-to-mouth frequency and health habits are important to estimate the soil ingestion exposure for children."

According to the news reporters, the research concluded: "The results in this study are particularly important when assessing children’s exposure and potential health risk from nearby contaminated soils in Taiwan."


Our news journalists report that additional information may be obtained by contacting L.C. Chien, School of Public Health, Taipei Medical University, Taipei, Taiwan. Additional authors for this research include M.C. Tsou, H.C. Hsi, P. Beamer, K. Bradham, Z.Y. Hseu, S.H. Jien, C.B. Jiang, W. Dang and H. Ozkaynak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/jes.2015.61. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Exposure Science & Environmental Epidemiology is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Taipei, Risk and Prevention, Environmental Epidemiology.

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Cardiovascular Diseases and Conditions -

Research from University Hospital Reveals New Findings on Hypertension (Investigating kidney donation as a risk factor for hypertension and microalbuminuria: findings from the Swiss prospective follow-up of living kidney donors)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news reporting originating in Basel, Switzerland, by NewsRx journalists, research stated, "To assess the role of nephrectomy as a risk factor for the development of hypertension and microalbuminuria. Prospective, long-term follow-up study."

The news reporters obtained a quote from the research from University Hospital, "Swiss Organ Living-Donor Health Registry. All living kidney donors in Switzerland between 1993 and 2009. Data on health status and renal function before 1 year and biennially after donation were collected. Comparison of 1-year and 5-year occurrences of hypertension among normotensive donors with 1-year and 5-year estimates from the Framingham hypertension risk score. Multivariate random intercept models were used to investigate changes of albumin excretion after donation, correcting for repeated measurements and cofactors such as age, male gender and body mass index. A total of 1214 donors contributed 3918 data entries with a completed biennial follow-up rate of 74% during a 10-year period. Mean (SD) follow-up of donors was 31.6 months (34.4). Median age at donation was 50.5 years (IQR 42.2-58.8); 806 donors (66.4%) were women. Donation increased the risk of hypertension after 1 year by 3.64 (95% CI 3.52 to 3.76; p<0.001). Those participants remaining normotensive 1 year after donation return to a risk similar to that of the healthy Framingham population. Microalbuminuria before donation was dependent on donor age but not on the presence of hypertension. After nephrectomy, hypertension became the main driver for changes in albumin excretion (OR 1.19; 95% CI 0.13 to 2.25; p=0.03) and donor age had no effect."

According to the news reporters, the research concluded: "Nephrectomy propagates hypertension and increases susceptibility for the development of hypertension-induced microalbuminuria."

For more information on this research see: Investigating kidney donation as a risk factor for hypertension and microalbuminuria: findings from the Swiss prospective follow-up of living kidney donors. Bmj Open, 2016;6(3):e010869. (BMJ Publishing Group - group.bmj.com/; Bmj Open - bmjopen.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting G.T. Thiel, SOL-DHR (Swiss Organ Living Donor Health Registry), University Hospital in Basel, Switzerland, Basel, Switzerland. Additional authors for this research include C. Nolte, D. Tsinalis, J. Steiger and L.M Bachmann.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bmjopen-2015-010869. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Basel, Europe, Surgery, Angiology, Switzerland, Nephrectomy, Risk and Prevention, Systolic Hypertension, Cardiovascular Diseases and Conditions.

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Cardiovascular Diseases and Conditions - Aneurysm

Research from University of Arizona Reveals New Findings on Aneurysm (2-Photon Characterization of Optical Proteolytic Beacons for Imaging Changes in Matrix-Metalloprotease Activity in a Mouse Model of Aneurysm)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Aneurysm is the subject of a report. According to news reporting originating in Tucson, Arizona, by NewsRx journalists, research stated, "Abdominal aortic aneurysm is a multifactorial disease that is a leading cause of death in developed countries. Matrix-metalloproteases (MMPs) are part of the disease process, however, assessing their role in disease initiation and progression has been difficult and animal models have become essential."

The news reporters obtained a quote from the research from the University of Arizona, "Combining F?rster resonance energy transfer (FRET) proteolytic beacons activated in the presence of MMPs with 2-photon microscopy allows for a novel method of evaluating MMP activity within the extracellular matrix (ECM). Single and 2-photon spectra for proteolytic beacons were determined in vitro. Ex vivo experiments using the apolipoprotein E knockout angiotensin II-infused mouse model of aneurysm imaged ECM architecture simultaneously with the MMP-activated FRET beacons. 2-photon spectra of the two-color proteolytic beacons showed peaks for the individual fluorophores that enable imaging of MMP activity through proteolytic cleavage. Ex vivo imaging of the beacons within the ECM revealed both microstructure and MMP activity. 2-photon imaging of the beacons in aneurysmal tissue showed an increase in proteolytic cleavage within the ECM (p <0.001), thus indicating an increase in MMP activity."

According to the news reporters, the research concluded: "Our data suggest that FRET-based proteolytic beacons show promise in assessing MMP activity within the ECM and will therefore allow future studies to identify the heterogeneous distribution of simultaneous ECM remodeling and protease activity in aneurysmal disease."

For more information on this research see: 2-Photon Characterization of Optical Proteolytic Beacons for Imaging Changes in Matrix-Metalloprotease Activity in a Mouse Model of Aneurysm. Microscopy and Microanalysis, 2016;22(2):349-60. (Cambridge University Press - www.cambridge.org; Microscopy and Microanalysis - journals.cambridge.org/action/displayJournal?jid=MAM)

Our news correspondents report that additional information may be obtained by contacting D.G. Haskett, 1Graduate Interdisciplinary Program of Biomedical Engineering, The University of Arizona, Tucson, AZ 85721, United States. Additional authors for this research include D. Maestas, S.J. Howerton, T. Smith, D.C. Ardila, T. Doetschman, U. Utzinger, D. McGrath, J.O. McIntyre and J.P Vande Geest.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S1431927616000088. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tucson, Arizona, Aneurysm, United States, Metalloproteases, Enzymes and Coenzymes, North and Central America, Cardiovascular Diseases and Conditions.

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Oncology

Research from University of Cincinnati Yields New Findings on Oncology (Impact of molecular profiling on overall survival of patients with advanced ovarian cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology. According to news originating from Cincinnati, Ohio, by NewsRx correspondents, research stated, "Patients with recurrent epithelial ovarian cancer (EOC) have limited treatment options. Studies have reported that biomarker profiling may help predict patient response to available treatments."

Our news journalists obtained a quote from the research from the University of Cincinnati, "This study sought to determine the value of biomarker profiling in recurrent EOC. Patients in the Matched cohort had a median OS of 36 months compared to 27 months for patients in the Unmatched cohort (HR 0.62, 95% CI 0.41-0.96; p<0.03). Individual biomarkers were analyzed, with TUBB3, and PGP prognostic for survival. Biomarker analysis also identified a molecular subtype (positive for at least two of the following markers: ERCC1, RRM1, TUBB3, PGP) with particularly poor overall survival. 224 patients from a commercial registry (NCT02678754) with stage IIIC/IV EOC at diagnosis, or restaged to IIIC/IV EOC at the time of molecular profiling, were retrospectively divided into two cohorts based on whether or not the drugs they received matched their profile recommendations. The Matched cohort received no drugs predicted to be lack-of-benefit while the Unmatched cohort received at least one drug predicted to be lack-of-benefit. Profile biomarker/drug associations were based on multiple test platforms including immunohistochemistry, fluorescent in situ hybridization and DNA sequencing. This report demonstrates the ability of multi-platform molecular profiling to identify EOC patients at risk of inferior survival."

According to the news editors, the research concluded: "It also suggests a potential beneficial role of avoidance of lack-of-benefit therapies which, when administered, resulted in decreased survival relative to patients who received only therapies predicted to be of benefit."


The news correspondents report that additional information may be obtained from T.J. Herzog, University of Cincinnati Cancer Institute, Cincinnati, OH, United States. Additional authors for this research include D. Spetzler, N. Xiao, K. Burnett, T. Maney, A. Voss, S. Reddy, R. Burger, T. Krivak, M. Powell, M. Friedlander and W. McGuire.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7835. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Cancer, Genetics, Oncology, Cincinnati, United States, Risk and Prevention, North and Central America, Diagnostics and Screening.

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Research from University of Erlangen Yields New Findings on Helicobacter pylori (Characterisation of worldwide Helicobacter pylori strains reveals genetic conservation and essentiality of serine protease HtrA)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Helicobacter pylori. According to news reporting from Erlangen, Germany, by NewsRx journalists, research stated, "HtrA proteases and chaperones exhibit important roles in periplasmic protein quality control and stress responses. The genetic inactivation of htrA has been described for many bacterial pathogens."

Financial supporters for this research include German Science Foundation, Austrian Science Fund (FWF).

The news correspondents obtained a quote from the research from the University of Erlangen, "However, in some cases such as the gastric pathogen Helicobacter pylori, HtrA is secreted where it cleaves the tumour-suppressor E-cadherin interfering with gastric disease development, but the generation of htrA mutants is still lacking. Here, we show that the htrA gene locus is highly conserved in worldwide strains. HtrA presence was confirmed in 992 H. pylori isolates in gastric biopsy material from infected patients. Differential RNA-sequencing (dRNA-seq) indicated that htrA is encoded in an operon with two subsequent genes, HP1020 and HP1021. Genetic mutagenesis and complementation studies revealed that HP1020 and HP1021, but not htrA, can be mutated. In addition, we demonstrate that suppression of HtrA proteolytic activity with a newly developed inhibitor is sufficient to effectively kill H. pylori, but not other bacteria. We show that Helicobacter htrA is an essential bifunctional gene with crucial intracellular and extracellular functions. Thus, we describe here the first microbe in which htrA is an indispensable gene, a situation unique in the bacterial kingdom."

According to the news reporters, the research concluded: "HtrA can therefore be considered a promising new target for anti-bacterial therapy."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/mmi.13276. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Serine, Germany, Erlangen, Genetics, Protease, Helicobacter pylori, Neutral Amino Acids, Enzymes and Coenzymes, Epsilonproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria, Parasitic Diseases and Conditions.
Liver Diseases and Conditions - Hepatitis C Virus

Research from University of Paris Yields New Findings on Hepatitis C Virus (ITPA Genotypes Predict Anemia but Do Not Affect Virological Response with Interferon-Free Faldaprevir, Deleobuvir, and Ribavirin for HCV Infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Hepatitis C Virus. According to news reporting out of Clichy, France, by NewsRx editors, research stated, "Whether inosine triphosphatase (ITPA) gene polymorphisms predict anemia during interferon-free therapy in chronic hepatitis C virus (HCV)-infected patients is unknown. We examined the relationship between two ITPA polymorphisms, anemia, and sustained virological response 12 weeks post-treatment (SVR12) in patients receiving the NS3/4A protease inhibitor faldaprevir, the non-nucleoside polymerase inhibitor deleobuvir, and ribavirin."

Our news journalists obtained a quote from the research from the University of Paris, "HCV genotype 1-infected, treatment-na?ve patients (N=362) were randomized and treated in one of five treatment arms with faldaprevir and deleobuvir with or without ribavirin. Two ITPA polymorphisms (rs1127354 and rs6051702) were genotyped and defined as ITPA-deficient (rs1127354 AA or AC; rs6051702 CC or CA) or ITPA-non-deficient (rs1127354 CC; rs6051702 AA) according to their association with ITPA deficiency. Baseline and on-treatment variables associated with anemia and SVR12 were identified using logistic regression. In the pooled ribavirin-containing arms, 10.1% (32/316) of patients experienced on-treatment hemoglobin <10 g/dL, and 32.6% (103/316) experienced on-treatment hemoglobin <10 g/dL or a change from baseline (>=)3.5 g/dL. Of the latter group, 99% (102/103) had the ITPA-non-deficient rs1127354 genotype. Other variables associated with on-treatment hemoglobin <10 g/dL or a decrease (>=)3.5 g/dL were age, baseline hemoglobin, rs6051702 genotype, and plasma ribavirin concentration. In a multivariate analysis, high plasma ribavirin concentration, low baseline hemoglobin, HCV genotype 1b, and IL28B genotype CC were associated with higher SVR12. The ITPA rs1127354 CC and rs6051702 AA genotypes may predict ribavirin-induced anemia during treatment with interferon-free, ribavirin-containing regimens."

According to the news editors, the research concluded: "With this interferon-free regimen, SVR was associated with ribavirin levels, but not with anemia or ITPA genotypes."

For more information on this research see: ITPA Genotypes Predict Anemia but Do Not Affect Virological Response with Interferon-Free Faldaprevir, Deleobuvir, and Ribavirin for HCV Infection. Plos One, 2015;10(12):e0144004. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0144004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HCV, Antiretrovirals, Antivirals, Clichy, France, Europe, Anemia, Virology, Cytokines, Ribavirin, Hepatology, Hemoglobins, Interferons, RNA Viruses, Blood Proteins, Hepatitis C Virus, Influenza Therapy, Purine Nucleosides, Respiratory Agents, Drugs and Therapies, Inhaled Antiinfectives, Flaviviridae Infections.

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Life Science Research

Research from University of Rostock Reveals New Findings on Life Science Research (Functional Characterization and Drug Response of Freshly Established Patient-Derived Tumor Models with CpG Island Methylator Phenotype)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research have been published. According to news reporting originating from Rostock, Germany, by NewsRx correspondents, research stated, "Patient-individual tumor models constitute a powerful platform for basic and translational analyses both in vitro and in vivo. However, due to the labor-intensive and highly time-consuming process, only few well-characterized patient-derived cell lines and/or corresponding xenografts exist."

Our news editors obtained a quote from the research from the University of Rostock, "In this study, we describe successful generation and functional analysis of novel tumor models from patients with sporadic primary colorectal carcinomas (CRC) showing CpG island methylator phenotype (CIMP). Initial DNA fingerprint analysis confirmed identity with the patient in all four cases. These freshly established cells showed characteristic features associated with the CIMP-phenotype (HROC40: APCwt, TP53 mut, KRAS mut; 3/8 marker methylated; HROC43: APC mut, TP53 mut, KRAS mut; 4/8 marker methylated; HROC60: APCwt, TP53 mut, KRASwt; 4/8 marker methylated; HROC183: APC mut, TP53 mut, KRAS mut; 6/8 marker methylated). Cell lines were of epithelial origin (EpCAM+) with distinct morphology and growth kinetics. Response to chemotherapeutics was quite individual between cells, with stage I-derived cell line HROC60 being most susceptible towards standard clinically approved chemotherapeutics (e.g. 5-FU, Irinotecan). Of note, most cell lines were sensitive towards 'non-classical' CRC standard drugs (sensitivity: Gemcitabin >Rapamycin >Nilotinib)."

According to the news editors, the research concluded: "This comprehensive analysis of tumor biology, genetic alterations and assessment of chemosensitivity towards a broad range of (chemo-) therapeutics helps bringing forward the concept of personalized tumor therapy."


The news editors report that additional information may be obtained by contacting C. Maletzki, Molecular Oncology and Immunotherapy, University of Rostock, Rostock, Germany.
Additional authors for this research include M. Huehns, P. Knapp, N. Waukosin, E. Klar, F. Prall and M. Linnebacher.

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Keywords for this news article include: Europe, Rostock, Germany, Genetics, Cell Line, Drugs and Therapies, Life Science Research.

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Addiction Research

Research from University of Sao Paulo Yields New Findings on Addiction Research (Early social isolation increases persistence of alcohol-seeking behavior in alcohol-related contexts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Addiction Research have been published. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, research stated, "Social conditions during rearing are well known to affect adult alcohol consumption, but few experiments have explored the effects of social conditions on behaviors that are related to alcohol dependence, such as the persistence of alcohol seeking. This study compared the effects of isolation (ISO) and interaction (INT) rearing on the persistence of alcohol-seeking behavior."

Our news journalists obtained a quote from the research from the University of Sao Paulo, "Rats were trained to lever press for a solution of 10% alcohol diluted in water. They were then exposed to a two-component multiple schedule of reinforcement (baseline). Responses in one component were reinforced by a higher rate of alcohol delivery (rich component, variable interval 15 s) and responses in the other component were reinforced by a lower rate of delivery (lean component, variable interval 45 s). The persistence of lever pressing in the presence of each stimulus was then assessed during extinction. The results from baseline showed that response rates in rats in both groups were higher in the rich component than in the lean component, but ISO rats responded significantly more than INT rats in both components. The persistence of responding during extinction in ISO rats in both components was also higher than that in INT rats."

According to the news editors, the research concluded: "The results show that effects of ISO are not restricted to alcohol consumption, but also affect persistence of alcohol-seeking behavior, which may reflect differences in the value of drug-related stimuli."

For more information on this research see: Early social isolation increases persistence of alcohol-seeking behavior in alcohol-related contexts. Behavioural Pharmacology, 2016;27(2-3 Spec I):185-91. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting D.M. Cortes-Patino, Experimental Psychology Department, Institute of Psychology, University of Sao Paulo, Sao Paulo, Brazil. Additional authors for this research include C. Serrano and M. Garcia-Mijares.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000213. This DOI is a link to an online electronic
Stem Cell Research - Hematopoietic Stem Cells

Research from University of Ulsan Reveals New Findings on Hematopoietic Stem Cells (Evaluation of parameters obtained from the Sysmex XN-2000 for predicting the recovery of the absolute neutrophil count and platelets after hematopoietic stem ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Stem Cell Research - Hematopoietic Stem Cells. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "We analyzed abilities of parameters from Sysmex XN-2000 (Sysmex, Kobe, Japan) to predict absolute neutrophil count (ANC) and platelet recovery after hematopoietic stem cell transplantation (HSCT) in patients with hematologic malignancies. We prospectively analyzed 911 follow-up peripheral blood samples from 44 HSCT-performed patients and evaluated the performances of the following parameters: WBC, immature granulocyte (IG), hematopoietic stem and progenitor cells (HPC), immature reticulocyte fraction (IRF), immature platelet fraction (IPF), platelet distribution width (PDW), mean platelet volume (MPV), and platelet larger cell ratio (P-LCR)."

The news correspondents obtained a quote from the research from the University of Ulsan, "When compared to four other parameters, the identification of initiation in IG (%)/HPC (%) increase enabled earlier prediction of ANC recovery to >500/mL and >1000/mL with more time benefit of 3.5-6.5 days/2.0-5.0 days and 3.0-6.0 days/2.0-5.0 days, respectively. When compared to IPF (%), the identification of initiation in PDW, MPV, and P-LCR (%) increase enabled earlier prediction of platelet recovery to >20 000/mL and >50 000/mL with more time benefit of 2.5-3.5 days and 2.0-3.0 days, respectively. However, the standard deviation of time benefit obtained from IG (%)//HPC (%)//PDW//MPV//P-LCR (%) was consistently large (3.0-4.3 days). There is a systematic pattern where a rise in most of the studied parameters can be observed in most patients before ANC/platelet recovery."

According to the news reporters, the research concluded: "However, the interindividual variation between the time of rise of these parameters and ANC/platelet recovery is large, and therefore, using these parameters to predict recovery in the individual patient is probably not meaningful in the clinical setting."


Our news journalists report that additional information may be obtained by contacting S.H. Park, Dept. of Laboratory Medicine, University of Ulsan, College of Medicine
Research from University of Ulster Reveals New Findings on Inflammatory Bowel Disease (Natural Nuclear Factor Kappa Beta Inhibitors: Safe Therapeutic Options for Inflammatory Bowel Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Inflammatory Bowel Disease. According to news originating from Coleraine, United Kingdom, by NewsRx editors, the research stated, "Inflammatory bowel disease (IBD) is a chronic and debilitating condition classified as ulcerative colitis and Crohn's disease. IBD usually happens as result of immune dysfunction in the intestinal mucosa resulting in epithelial barrier dysfunction, which leads to exposure of the mucosal immune system to luminal antigenic material."

Our news journalists obtained a quote from the research from the University of Ulster, "This results in activation of inflammation, which is our bodies natural defense system; however, chronic inflammation leads to barrier dysfunction, which triggers a cycle of inflammation and further barrier dysfunction. This barrier breakdown results in the uncontrolled progression of IBD throughout the intestine. Despite the therapeutic advances made over the last decade, the current first line of treatment of IBD is limited to immunosuppressive and anti-inflammatory drugs, which need to be taken regularly and have significant side effects to the patients. Prolonged inflammation may increase the risk of intestinal malignancy. The role of nuclear factor kappa beta (NF-kb) has been established in the regulation of innate immunity and inflammation. NF-kb has also shown to be involved in critical events linking inflammation and cancer development. Recent investigations suggest that the NF-kb signaling cascade may be the central mediator of gastrointestinal inflammation in IBD and malignancies including esophageal, gastric, and colorectal cancers."

According to the news editors, the research concluded: "In this review, the therapeutic potential of natural NF-kb inhibitors as safe therapeutic options for the treatment of IBD will be discussed."

For more information on this research see: Natural Nuclear Factor Kappa Beta Inhibitors: Safe Therapeutic Options for Inflammatory Bowel Disease. *Inflammatory Bowel*
Research from Virginia Commonwealth University Yields New Findings on Lung Cancer (The afatinib resistance of in vivo generated H1975 lung cancer cell clones is mediated by SRC/ERBB3/c-KIT/c-MET compensatory survival signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Lung Cancer are presented in a new report. According to news reporting originating from Richmond, Virginia, by NewsRx correspondents, research stated, "We generated afatinib resistant clones of H1975 lung cancer cells by transient exposure of established tumors to the drug and collected the re-grown tumors. Afatinib resistant H1975 clones did not exhibit any additional mutations in proto-oncogenes when compared to control clones."

Our news editors obtained a quote from the research from Virginia Commonwealth University, "Afatinib resistant H1975 tumor clones expressed less PTEN than control clones and in afatinib resistant clones this correlated with increased basal SRC Y416, ERBB3 Y1289, AKT T308 and mTOR S2448 phosphorylation, decreased expression of ERBB1, ERBB2 and ERBB3 and increased total expression of c-MET, c-KIT and PDGFRb. Afatinib resistant clones were selectively killed by knock down of [ERBB3 + c-MET + c-KIT] but not by the individual or doublet knock down combinations. The combination of the ERBB1/2/4 inhibitor afatinib with the SRC family inhibitor dasatinib killed afatinib resistant H1975 cells in a greater than additive fashion; other drugs used in combination with dasatinib such as sunitinib, crizotinib and amufatinib were less effective. [Afatinib + dasatinib] treatment profoundly inactivated ERBB3, AKT and mTOR in the H1975 afatinib resistant clones and increased ATG13 S318 phosphorylation. Knock down of ATG13, Beclin1 or eIF2a strongly suppressed killing by [ERBB3 + c-MET + c-KIT] knock down, but were only modestly protective against [afatinib + dasatinib] lethality. Thus afatinib resistant H1975 NSCLC cells rely on ERBB1-and SRC-dependent hyper-activation of residual ERBB3 and elevated signaling, due to elevated protein expression, from wild type c-MET and c-KIT to remain alive."

According to the news editors, the research concluded: "Inhibition of ERBB3 signaling via both blockade of SRC and ERBB1 results in tumor cell death."

The news editors report that additional information may be obtained by contacting L. Booth, Departments of Biochemistry and Molecular Biology, Virginia Commonwealth University, Richmond, VA 23298, United States. Additional authors for this research include J.L. Roberts, M. Tavallai, T. Webb, D. Leon, J. Chen, W.P. McGuire, A. Poklepovic and P. Dent.

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Keywords for this news article include: Antineoplastics, Sprycel, Richmond, Virginia, Genetics, Oncology, Lung Cancer, United States, Lung Neoplasms, Dasatinib Therapy, Drugs and Therapies, North and Central America, BCR ABL Tyrosine Kinase Inhibitors.

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**Immunization - Vaccines**

**Research from Xiamen University Yields New Findings on Vaccines (Functional assessment and structural basis of antibody binding to human papillomavirus capsid)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immunization - Vaccines is the subject of a report. According to news reporting out of Fujian, People's Republic of China, by NewsRx editors, research stated, "Persistent high-risk human papillomavirus (HPV) infection is linked to cervical cancer. Two prophylactic virus-like particle (VLP)-based vaccines have been marketed globally for nearly a decade."

Financial supporters for this research include National 863 Program of China, National Natural Science Fund, Fujian Provincial Program for Construction Plan of Science and Technology Innovation Platform, Welcome Trust.

Our news journalists obtained a quote from the research from Xiamen University, "Here, we review the HPV pseudovirion (PsV)-based assays for the functional assessment of the HPV neutralizing antibodies and the structural basis for these clinically relevant epitopes. The PsV-based neutralization assay was developed to evaluate the efficacy of neutralization antibodies in sera elicited by vaccination or natural infection or to assess the functional characteristics of monoclonal antibodies. Different antibody binding modes were observed when an antibody was complexed with virions, PsVs or VLPs. The neutralizing epitopes are localized on surface loops of the L1 capsid protein, at various locations on the capsomere. Different neutralization antibodies exert their neutralizing function via different mechanisms. Some antibodies neutralize the virions by inducing conformational changes in the viral capsid, which can result in concealing the binding site for a cellular receptor like 1A1D-2 against dengue virus, or inducing premature genome release like E18 against enterovirus 71. Higher-resolution details on the epitope composition of HPV neutralizing antibodies would shed light on the structural basis of the highly efficacious vaccines and aid the design of next generation vaccines. In-depth understanding of epitope composition would ensure the development of function-
indicating assays for the comparability exercise to support process improvement or process scale up."

According to the news editors, the research concluded: "Elucidation of the structural elements of the type-specific epitopes would enable rational design of cross-type neutralization via epitope re-engineering or epitope grafting in hybrid VLPs."


Our news journalists report that additional information may be obtained by contacting X. Zhang, State Key Laboratory of Molecular Vaccinology and Molecular Diagnostics, National Institute of Diagnostics and Vaccine Development in Infectious Diseases, Xiamen University, Xiamen, Fujian, People's Republic of China. Additional authors for this research include S. Li, Y. Modis, Z. Li, J. Zhang, N. Xia and Q. Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/rmv.1867. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antibodies, Viral, Fujian, Virion, Genetics, Vaccines, Virology, Immunology, Immunization, Nucleocapsid, Article Review, Blood Proteins, Immunoglobulins, Biological Products, Human Papillomavirus, Papillomavirus Infection, People's Republic of China.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**Researchers at AEMPS Target Atrial Fibrillation (Causes of Death in Anticoagulated Patients With Atrial Fibrillation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "Oral anticoagulation reduces the risk of mortality in atrial fibrillation (AF), but examination of the causes of death is essential to design new strategies to further reduce the high mortality rates observed in this population. The authors sought to analyze and compare causes of death in patients receiving direct oral anticoagulants (DOAC) or warfarin for prevention of stroke and systemic embolism (SE) in AF."

The news reporters obtained a quote from the research from AEMPS, "The authors systematically searched for randomized trials of DOAC versus warfarin for prevention of stroke/SE in AF. The main outcome was mortality and independently adjudicated specific causes of death. The authors used the random effects model of meta-analysis to combine the studies. 71,683 patients from 4 trials were included (134,046 patient-years of follow-up). A total of 6,206 patients (9%) died during follow-up. Adjusted mortality rate was 4.72%/year (95% confidence interval [CI]: 4.19 to 5.28). Cardiac deaths accounted for 46% of all deaths, whereas nonhemorrhagic stroke/SE and hemorrhage-related deaths represented 5.7% and 5.6% of the total mortality, respectively. Compared with patients who were alive, those who died had more frequent history of heart failure (odds ratio [OR]: 1.75; 95% CI: 1.25 to 2.44), permanent/persistent AF (OR: 1.38; 95% CI: 1.25 to 1.52) and diabetes (OR: 1.37; 95% CI:
1.11 to 1.68); were more frequently male (OR: 1.24; 95% CI: 1.13 to 1.37) and older (mean difference 3.2 years; 95% CI: 1.6 to 4.8); and had a lower creatinine clearance (-9.9 ml/min; 95% CI: -11.3 to -8.4). There was a small, but significant, reduction in all-cause mortality with the DOAC versus warfarin (difference -0.42%/year; 95% CI: -0.66 to -0.18), mainly driven by a reduction in fatal bleedings. In contemporary AF trials, most deaths were cardiac-related, whereas stroke and bleeding represented only a small subset of deaths."

According to the news reporters, the research concluded: "Interventions beyond anticoagulation are needed to further reduce mortality in AF."

For more information on this research see: Causes of Death in Anticoagulated Patients With Atrial Fibrillation. *Journal of the American College of Cardiology*, 2016;68(23):2508-2521. *Journal of the American College of Cardiology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.


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Keywords for this news article include: Madrid, Spain, Europe, Heart Disorders and Diseases, Risk and Prevention, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Cardiology, Stroke, AEMPS.

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*Intercellular Signaling Peptides and Proteins - ...*

**Researchers at APHP Release New Data on Cytokines (Interferon-alpha for the therapy of myeloproliferative neoplasms: targeting the malignant clone)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Intercellular Signaling Peptides and Proteins - Cytokines. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "Interferon alpha (IFN-a) has been used for over 30 years to treat myeloproliferative neoplasms (MPNs). IFN-a was shown to induce clinical, hematological, molecular and histopathological responses in small clinical studies."

Our news editors obtained a quote from the research from APHP, "Such combined efficacy has never been achieved with any other drug to date in such a significant proportion of patients. However, toxicity remains a limitation to its broader use despite the development of pegylated forms with better tolerance. Several on going phase 3 studies of peg-IFN-a versus hydroxyurea will help to define its exact place in MPN management. IFN-a efficacy is likely the consequence of a broad range of biological properties, including enhancement of immune response, direct effects on malignant cells and ability to cycle dormant malignant stem cells. However, comprehensive elucidation of its mechanism of action is still lacking. Sustained clinical, molecular and morphological responses after IFN-a discontinuation raised the hope that this drug could eradicate MPN. There is now consistent evidence showing that IFN-a is able to..."
eliminate malignant clones harboring JAK2V617F or Calreticulin mutations. However, the molecular complexity of these diseases could hamper IFN-a efficacy, as the presence of additional non-driver mutations, like in the TET2 gene, could be associated with resistance to IFN-a."

According to the news editors, the research concluded: "Therefore, combined therapy with another targeted agent could be required to eradicate MPN, and the best IFN-a companion for achieving this challenge remains to be determined."

For more information on this research see: Interferon-alpha for the therapy of myeloproliferative neoplasms: targeting the malignant clone. *Leukemia*, 2015;30(4):776-81. (Nature Publishing Group - www.nature.com/; Leukemia - www.nature.com/leu/)

The news editors report that additional information may be obtained by contacting J.J. Kildjian, Centre d'Investigations Cliniques, Hopital Saint-Louis, APHP, Paris, France. Additional authors for this research include S. Giraudier and B. Cassinat.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/leu.2015.326. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Therapy, Genetics, Cytokines, Neoplasms, Article Review, Interferon alpha, Interferon Type I, Biological Factors, Intercellular Signaling Peptides and Proteins.

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Cardiovascular Research

Researchers at Aalborg University Target Cardiovascular Research (Cardiovascular control during whole body exercise)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Research is now available. According to news reporting originating in Aalborg, Denmark, by NewsRx journalists, research stated, "It has been considered whether during whole body exercise the increase in cardiac output is large enough to support skeletal muscle blood flow. This review addresses four lines of evidence for a flow limitation to skeletal muscles during whole body exercise."

The news reporters obtained a quote from the research from Aalborg University, "First, even though during exercise the blood flow achieved by the arms is lower than that achieved by the legs (similar to 160 vs. similar to 385 ml.min(-1).100 g(-1)), the muscle mass that can be perfused with such flow is limited by the capacity to increase cardiac output (42 l/min, highest recorded value). Secondly, activation of the exercise pressor reflex during fatiguing work with one muscle group limits flow to other muscle groups. Another line of evidence comes from evaluation of regional blood flow during exercise where there is a discrepancy between flow to a muscle group when it is working exclusively and when it works together with other muscles. Finally, regulation of peripheral resistance by sympathetic vasoconstriction in active muscles by the arterial baro-reflex is critical for blood pressure regulation during exercise."

According to the news reporters, the research concluded: "Together, these findings indicate that during whole body exercise muscle blood flow is subordinate to the control of blood pressure."
For more information on this research see: Cardiovascular control during whole body exercise. *Journal of Applied Physiology*, 2016;121(2):376-390. *Journal of Applied Physiology* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news correspondents report that additional information may be obtained by contacting S. Volianitis, Aalborg Univ, Dept. of Hlth Sci & Technol, DK-9220 Aalborg Ø, Denmark.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/japplphysiol.00674.2015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aalborg, Denmark, Europe, Cardiovascular Research, Cardiology, Article Review, Cardiovascular, Aalborg University.

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Researchers at Aarhus University have reported new data on obesity and diabetes (Effects of insulin-induced hypoglycaemia on lipolysis rate, lipid oxidation and adipose tissue signalling in human volunteers: a randomised clinical study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Obesity and Diabetes is now available. According to news reporting originating in Aarhus, Denmark, by NewsRx journalists, research stated, "The aims of this study were to determine the role of lipolysis in hypoglycaemia and define the underlying intracellular mechanisms. Nine healthy volunteers were randomised to treatment order of three different treatments (crossover design)."

Financial support for this research came from Aarhus University, the Novo Nordisk Foundation and the KETO Study Group/the Danish Agency for Science Technology and Innovation.

The news reporters obtained a quote from the research from Aarhus University, "Treatments were: (1) saline control; (2) hyperinsulinaemic hypoglycaemia (HH; i.v. bolus of 0.1 U/kg insulin); and (3) hyperinsulinaemic euglycaemia (HE; i.v. bolus of 0.1 U/kg insulin and 20% glucose). Inclusion criteria were that volunteers were healthy, aged > 18 years, had a BMI between 19 and 26 kg/m2, and provided both written and oral informed consent. Exclusion criteria were the presence of a known chronic disease (including diabetes mellitus, epilepsy, ischaemic heart disease and cardiac arrhythmias) and regular use of prescription medication. The data was collected at the medical research facilities at Aarhus University Hospital, Denmark. The primary outcome was palmitic acid flux. Participants were blinded to intervention order, but caregivers were not. Adrenaline (epinephrine) and glucagon concentrations were higher during HH than during both HE and control treatments. NEFA levels and lipid oxidation rates (determined by indirect calorimetry) returned to control levels after 105 min. Palmitate flux was increased to control levels during HH (p = NS) and was more than twofold higher than during HE (overall mean difference between HH vs HE, 114 [95% CI 64, 165 μmol/min]; p< 0.001). In subcutaneous adipose tissue biopsies, we found elevated levels
of hormone-sensitive lipase (HSL) and perilipin-1 phosphorylation 30 min after insulin injection during HH compared with both control and HE. There were no changes in the levels of adipose triglyceride lipase (ATGL), comparative gene identification-58 (CGI-58) or G(0)/G(1) switch gene 2 (G0S2) proteins. Insulin-stimulated phosphorylation of Akt and mTOR were unaffected by hypoglycaemia. Expression of the G0S2 gene increased during HE and HH compared with control, without changes in ATGL (also known as PNPLA2) or CGI-58 (also known as ABHD5) mRNA levels. These findings suggest that NEFAs become a major fuel source during insulin-induced hypoglycaemia and that lipolysis may be an important component of the counter-regulatory response. These effects appear to be mediated by rapid stimulation of protein kinase A (PKA) and HSL, compatible with activation of the beta-adrenergic catecholamine signalling pathway."

According to the news reporters, the research concluded: "ClinicalTrials.gov NCT01919788 The study was funded by Aarhus University, the Novo Nordisk Foundation and the KETO Study Group/Danish Agency for Science Technology and Innovation (grant no. 0603-00479, to NM)."

For more information on this research see: Effects of insulin-induced hypoglycaemia on lipolysis rate, lipid oxidation and adipose tissue signalling in human volunteers: a randomised clinical study. Diabetologia, 2017;60(1):143-152. Diabetologia can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Diabetologia - www.springerlink.com/content/0012-186x/)

Our news correspondents report that additional information may be obtained by contacting T.S. Voss, Aarhus University, Dept. of Endocrinol & Internal Med, DK-8000 Aarhus C, Denmark. Additional authors for this research include M.H. Vendelbo, U. Kampmann, S.B. Pedersen, T.S. Nielsen, M. Johannsen, M.V. Svart, N. Jessen and N. Moller.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00125-016-4126-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aarhus, Denmark, Europe, Nutritional and Metabolic Diseases and Conditions, Enzymes and Coenzymes, Obesity and Diabetes, Lipase, Genetics, Peptide Proteins, Peptide Hormones, Proinsulin, Aarhus University.

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Researchers at Academic Medical Center Have Reported New Data on Vesicular Transport Proteins (Helium postconditioning regulates expression of caveolin-1 and-3 and induces RISK pathway activation after ischaemia/reperfusion in cardiac tissue of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Membrane Proteins - Vesicular Transport Proteins have been presented. According to news reporting out of Amsterdam, Netherlands, by NewsRx editors, research stated, "Caveolae, lipid enriched invaginations of the plasma membrane, are epicentres of cellular signal transduction. The structural proteins of caveolae, caveolins, regulate effector pathways in anaesthetic-induced cardioprotection, including the RISK pathway."

Our news journalists obtained a quote from the research from Academic Medical
Center, "Helium (He) postconditioning (HePoc) is known to mimic anaesthetic conditioning and to prevent damage from myocardial infarction. We hypothesize that HePoc regulates caveolin-1 and caveolin-3 (Cav-1 and Cav-3) expression in the rat heart and activates the RISK pathway. Male Wistar rats (n=8, each group) were subjected to 25 min of cardiac ischaemia followed by reperfusion (I/R) for 5, 15 or 30 min (I/R 5/15/30). The HePoc groups underwent I/R with 70% helium ventilation during reperfusion (IR+He 5/15/30 min). Sham animals received surgical treatment without I/R. After each protocol blood and hearts were retrieved. Tissue was obtained from the area-at-risk (AAR) and non-area-at-risk (NAAR) and processed for western blot analyses and reverse-transcription-real-time-polymerase-chain-reaction (RT-qPCR). Protein analyses revealed increased amounts of Cav-1 and Cav-3 in the membrane of I/R+He15 (AAR: Cav1, P< 0.05; Cav-3, P< 0.05; both vs. I/R15). In serum, Cav-3 was found to be elevated in I/R+He15 (P < 0.05 vs. I/R15). RT-qPCR showed increased expression of Cav-1 in IR+He15 in AAR tissue (P < 0.05 vs. I/R15). Phosphorylation of RISK pathway proteins pERK1/2 (AAR: P < 0.05 vs. I/R15) and pAKT (AAR: P < 0.05; NAAR P< 0.05; both vs. I/R15) was elevated in the cytosolic fraction of I/R+ He15. These results suggest that 15 min of HePoc regulates Cav-1 and Cav-3 and activates RISK pathway kinases ERK1/2 and AKT."

According to the news editors, the research concluded: "These processes might be crucially involved in HePoc mediated cardioprotection."


Our news journalists report that additional information may be obtained by contacting N.C. Weber, Academy Med Center, Lab Expt Intens Care & Anaesthesiol, Dept. of Anaesthesiol, NL-1100 DD Amsterdam, Netherlands. Additional authors for this research include M. Albrecht, G. Oei, R. Steenstra, R.P. Kerindongo, C.J. Zuurbier, H.H. Patel, M.W. Hollmann, B. Preckel and N.C. Weber.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Intracellular Signaling Peptides and Proteins, Signal Transducing Adaptor Proteins, Cardiovascular Surgical Procedures, Vesicular Transport Proteins, Transfusion Medicine, Membrane Proteins, Blood Transfusion, Phosphoproteins, Medical Devices, Reperfusion, Cardiology, Caveolin 1, Caveolins, Ischemia, Genetics, Surgery, Helium, Academic Medical Center.

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**Oncology - T-Cell Lymphoma**

**Researchers at Aichi Cancer Center Hospital Release New Data on T-Cell Lymphoma [Anti-CCR4 Monoclonal Antibody Mogamulizumab Followed by the GDP (Gemcitabine, Dexamethasone and Cisplatin) Regimen in Primary Refractory Angioimmunoblastic T-Cell ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - T-Cell Lymphoma.
According to news reporting originating in Nagoya, Japan, by NewsRx journalists, research stated, "There are few effective options for salvage therapy in elderly patients with relapsed or refractory angioimmunoblastic T-cell lymphoma (AITL). The anti-CCR4 antibody mogamulizumab works via antibody-dependent cytotoxic activity, reduces regulatory T cells, and evokes antitumor immunity in cancer patients."

The news reporters obtained a quote from the research from Aichi Cancer Center Hospital, "We report a 78-year-old patient with refractory AITL receiving a new immunochemotherapy consisting of sequential mogamulizumab administration followed by the GDP (gemcitabine, dexamethasone and cisplatin) regimen. A favorable consolidative effect of the GDP regimen could be observed in the patient who had partial remission after administration of mogamulizumab monotherapy. The regimen showed an acceptable toxicity profile without serious autoimmunity and an expected treatment response for the elderly patient with primary refractory AITL."

According to the news reporters, the research concluded: "This clinical case is the first report of salvage chemotherapy including mogamulizumab for primary refractory AITL described in the literature."


Our news correspondents report that additional information may be obtained by contacting T. Kinoshita, Aichi Canc Center Hosp, Dept. of Hematol & Cell Therapy, Nagoya, Aichi, Japan. Additional authors for this research include K. Yamamoto, Y. Higuchi, H. Yamamoto, T. Saito, H. Taji, Y. Yatabe, S. Nakamura and T. Kinoshita.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444518. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nagoya, Japan, Asia, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Radiation-Sensitizing Agents, Adrenal Cortical Steroids, Immunosuppressive Agents, Ophthalmic Preparations, Dexamethasone Therapy, Drugs and Therapies, Ophthalmic Steroids, Gemcitabine Therapy, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin Therapy, Alkylating Agents, Immunoglobulins, Pharmaceuticals, Antineoplastics, Glucocorticoids, Antimetabolites, T-Cell Lymphoma, Blood Proteins, Immunology, Antibodies, Antivirals, Hematology, Lymphomas, Hormones, Oncology, Aichi Cancer Center Hospital.

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**Gram-Negative Bacteria - Pseudomonas aeruginosa**

Researchers at Aichi Prefectural Institute of Public Health Report Findings in Pseudomonas aeruginosa (Applying a PCR-based open-reading frame typing method for easy genotyping and molecular epidemiological analysis of Pseudomonas aeruginosa)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Pseudomonas aeruginosa are presented in a new report. According to news reporting out of Nagoya, Japan, by NewsRx editors, research stated, "Molecular epidemiological techniques, such as pulsed-field gel electrophoresis (PFGE), or multilocus sequence typing (MLST) have facilitated our understanding of the transmission routes of nosocomial infections by "Pseudomonas aeruginosa. However, they are time consuming and technically demanding."

Financial support for this research came from Ministry of Health, Labour and Welfare.

Our news journalists obtained a quote from the research from the Aichi Prefectural Institute of Public Health, "To perform molecular epidemiological analysis in a standard microbiology laboratory, we aimed to develop a simpler and effective molecular epidemiological technique based on the open-reading frame (ORF) distribution patterns detected by PCR, which we call PCR-based ORF typing (POT). Ten ORFs from genomic islets, five ORFs from genomic islands, and the metallo-b-lactamases (MBLs) blalMP and blavIM were selected by comparing the whole-genome sequences of different Ps. aeruginosa strains (PAO1, PA7, UCBPP-PA14 and LESB58). These 17 ORFs were detected, along with a Ps. aeruginosa marker, using 9-plex and 10-plex PCR systems. The genotypes in the POT were compared to those obtained by using PFGE and MLST. Using the POT method, molecular epidemiological analyses of Ps. aeruginosa can be completed in 4 h."

According to the news editors, the research concluded: "Since this method is very easy to perform, even in standard clinical laboratories, it could be a valuable tool for monitoring daily infection control measures."


Our news journalists report that additional information may be obtained by contacting M. Suzuki, Laboratory of Bacteriology, Aichi Prefectural Institute of Public Health, Nagoya, Japan. Additional authors for this research include K. Yamada, M. Aoki, E. Hosoba, M. Matsumoto, H. Baba and Y. Iinuma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jam.13016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Nagoya, Genetics, Epidemiology, Pseudomonadaceae, Gamma-proteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria, Pseudomonas aeruginosa, Gram Negative Aerobic Bacteria, Gram Negative Aerobic Rods and Cocci.

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Researchers at Albert Einstein College of Medicine Report New Data on Thrombocytopenia (Thrombocytopenia in MDS: epidemiology, mechanisms, clinical consequences and novel therapeutic strategies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hematologic Diseases and Conditions - Thrombocytopenia have been presented. According to news reporting originating from Bronx, New York, by NewsRx correspondents, research stated, "Thrombocytopenia is commonly seen in myelodysplastic syndrome (MDS) patients, and bleeding complications are a major cause of morbidity and mortality. Thrombocytopenia is an independent factor for decreased survival and has been incorporated in newer prognostic scoring systems."

Our news editors obtained a quote from the research from the Albert Einstein College of Medicine, "The mechanisms of thrombocytopenia are multifactorial and involve a differentiation block of megakaryocytic progenitor cells, leading to dysplastic, hypolobated and microscopic appearing megakaryocytes or increased apoptosis of megakaryocytes and their precursors. Dysregulated thrombopoietin (TPO) signaling and increased platelet destruction through immune or nonimmune mechanisms are frequently observed in MDS. The clinical management of patients with low platelet counts remains challenging and approved chemotherapeutic agents such as lenalidomide and azacytidine can also lead to a transient worsening of thrombocytopenia. Platelet transfusion is the only supportive treatment option currently available for clinically significant thrombocytopenia. The TPO receptor agonists romiplostim and eltrombopag have shown clinical activity in clinical trials in MDS. In addition to thrombopoietic effects, eltrombopag can inhibit leukemic cell proliferation via TPO receptor-independent effects. Other approaches such as treatment with cytokines, immunomodulating drugs and signal transduction inhibitors have shown limited activity in selected groups of MDS patients."

According to the news editors, the research concluded: "Combination trials of approved agents with TPO agonists are ongoing and hold promise for this important clinical problem."

For more information on this research see: Thrombocytopenia in MDS: epidemiology, mechanisms, clinical consequences and novel therapeutic strategies. Leukemia, 2015;30(3):536-44. (Nature Publishing Group - www.nature.com/; Leukemia - www.nature.com/leu/)

The news editors report that additional information may be obtained by contacting W. Li, Dept. of Medicine, Albert Einstein College of Medicine, Jacobi Medical Center, Bronx, NY, United States. Additional authors for this research include K. Morrone, S. Kambhampati, B. Will, U. Steidl and A. Verma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/leu.2015.297. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bronx, Therapy, New York, Epidemiology, United States, Article Review, Thrombocytopenia, Blood Platelet Disorders, North and Central America, Hematologic Diseases and Conditions.

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Researchers at Amphia Hospital Target Colon Cancer (What is the Risk of Colorectal Cancer After an Episode of Acute Diverticulitis in Conservatively Treated Patients?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting from Breda, Netherlands, by NewsRx journalists, research stated, "The goal is to find the risk of colorectal cancer after an episode of acute diverticulitis in conservatively treated patients. Secondly, to determine the benefit of colonoscopy in these patients."

The news correspondents obtained a quote from the research from Amphia Hospital, "In the Netherlands, it is a common practice to routinely perform a colonoscopy after an episode of conservatively treated diverticulitis to exclude a malignancy. Yet according to the Dutch guidelines, these patients should not undergo a colonoscopy on a routine basis. The aim of this study is to determine the benefit of a colonoscopy in patients who have been treated for diverticulitis conservatively. This retrospective study includes patients who were diagnosed with acute diverticulitis (Hinchey 0 and I) and were treated conservatively, with or without antibiotics. Only patients who underwent colonoscopy were included for analysis. In addition, the outcome (yes or no colorectal cancer) of colonoscopy was analyzed according to patients' presentation of alarm symptoms for colorectal cancer. Between January 2008 and June 2013, 977 patients were treated conservatively for an episode of acute diverticulitis. Of those, 645 underwent colonoscopy during follow-up. Alarm symptoms for colorectal cancer were present in 205 patients. Nine of them were diagnosed with colorectal cancer (4.4%) versus 1 patient (0.2%, p=0.0002) in the group without alarm symptoms (N=440). This study confirms that routine colonoscopy is not indicated after acute diverticulitis which has been treated conservatively in a large series."

According to the news reporters, the research concluded: "Only in case of alarm symptoms a colonoscopy is mandatory, but even then the actual finding of a colorectal cancer is rare."


Our news journalists report that additional information may be obtained by contacting W. Ramphal, Departments of *Surgery†Gastroenterology, Amphia Hospital, Breda, Netherlands. Additional authors for this research include J.M. Schreinemakers, T.C. Seerden, R.M. Crolla, A.M. Rijken and P.D Gobardhan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MCG.0000000000000373. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Breda, Europe, Oncology, Netherlands, Colon Cancer, Gastroenteritis, Gastroenterology, Colorectal Cancer, Colorectal Research, Risk and Prevention, Acute Diverticulitis, Diagnostics and Screening, Diverticulitis and Diverticulosis, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.
Researchers at Arizona State University Target Amphetamines (Early life stress and chronic variable stress in adulthood interact to influence methamphetamine self-administration in male rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Amphetamines. According to news reporting from Tempe, Arizona, by NewsRx journalists, research stated, "Early life stress interacts with adult stress to differentially modulate neural systems and vulnerability to various psychiatric illnesses. However, the effects of early life stress and adult stress on addictive behaviors have not been sufficiently investigated."

The news correspondents obtained a quote from the research from Arizona State University, "We examined the effects of early life stress in the form of prolonged maternal separation, followed in early adulthood by either 10 days of chronic variable stress or no stress, on methamphetamine self-administration, extinction, and cue-induced reinstatement. We observed that chronic variable stress in adulthood reduced methamphetamine self-administration in rats with a history of early life stress."

According to the news reporters, the research concluded: "These findings add to an emerging body of literature suggesting interactions between early life and early adulthood stressors on adult behavioral phenotypes."

For more information on this research see: Early life stress and chronic variable stress in adulthood interact to influence methamphetamine self-administration in male rats. Behavioural Pharmacology, 2016;27(2-3 Spec 1):182-4. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting C.R. Lewis, Dept. of Psychology, Arizona State University, Tempe, Arizona, United States. Additional authors for this research include K. Staudinger, S.E. Tomek, R. Hernandez, T. Manning and M.F Olive.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000166. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tempe, Arizona, Ethylamines, United States, Methamphetamine, Organic Chemicals, North and Central America.

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Researchers at Autonomous University Detail Findings in Alzheimer Disease (PTEN recruitment controls synaptic and cognitive function in Alzheimer’s models)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been published. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "Dyshomeostasis of amyloid-b peptide (Ab) is responsible for synaptic malfunctions leading to cognitive deficits ranging from mild impairment to full-blown dementia in Alzheimer’s disease. Ab appears to skew synaptic plasticity events toward depression."

The news reporters obtained a quote from the research from Autonomous University, "We found that inhibition of PTEN, a lipid phosphatase that is essential to long-term depression, rescued normal synaptic function and cognition in cellular and animal models of Alzheimer’s disease. Conversely, transgenic mice that overexpressed PTEN displayed synaptic depression that mimicked and occluded Ab-induced depression. Mechanistically, Ab triggers a PDZ-dependent recruitment of PTEN into the postsynaptic compartment. Using a PTEN knock-in mouse lacking the PDZ motif, and a cell-permeable interfering peptide, we found that this mechanism is crucial for Ab-induced synaptic toxicity and cognitive dysfunction."

According to the news reporters, the research concluded: "Our results provide fundamental information on the molecular mechanisms of Ab-induced synaptic malfunction and may offer new mechanism-based therapeutic targets to counteract downstream Ab signaling."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nn.4225. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Madrid, Europe, Dementia, Genetics, Tauopathies, Alzheimer Disease, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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Researchers at Bassett Medical Center Have Reported New Data on Fatty Liver (Short sleep duration and risk of nonalcoholic fatty liver disease: A systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Liver Diseases and Conditions - Fatty Liver are discussed in a new report. According to news reporting out of Cooperstown, New York, by NewsRx editors, research stated, "Nonalcoholic fatty liver disease (NAFLD) is one of the most common causes of chronic liver disease worldwide. Several studies have suggested that short sleep duration could be a risk factor for NAFLD."

Our news journalists obtained a quote from the research from Bassett Medical Center, "However, results of those reports are inconsistent. This meta-analysis was conducted with an attempt to summarize all available data. A comprehensive literature review was performed using MEDLINE and EMBASE database. Studies that reported relative risks, odd ratios or hazard ratios comparing the risk of NAFLD among participants who had short sleep duration versus those with longer sleep duration were included. Pooled risk ratios and 95% confidence interval were calculated using a random-effect, generic inverse variance method. Six studies met the eligibility criteria and were included in the meta-analysis. The risk of NAFLD in participants who had short sleep duration was significantly higher than participants with longer sleep duration with pooled risk ratios of 1.19 (95% confidence interval, 1.04-1.36, I-2 = 0%)."

According to the news editors, the research concluded: "Our study demonstrated a small but significantly increased risk of NAFLD among participants who had short sleep duration."


Our news journalists report that additional information may be obtained by contacting K. Wijarnpreecha, Bassett Med Center, Dept. of Internal Med, Cooperstown, NY, United States. Additional authors for this research include C. Thongprayoon, P. Panjawatanan and P. Ungprasert.

Keywords for this news article include: Cooperstown, New York, United States, North and Central America, Fatty Liver Disease, Article Review, Risk and Prevention, Digestive System Diseases and Conditions, Liver Diseases and Conditions, Bassett Medical Center.

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Researchers at Bayer Pharma AG Target Hormones (Pharmacokinetics, safety and tolerability of the novel, selective mineralocorticoid receptor antagonist finerenone - results from first-in-man and relative bioavailability studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Hormones. According to news reporting originating in Wuppertal, Germany, by NewsRx journalists, research stated, "The safety, tolerability and pharmacokinetics of the selective nonsteroidal mineralocorticoid receptor antagonist finerenone were evaluated in healthy male volunteers in two randomized, single-centre studies. Study 1 was a first-in-man, single-blinded, placebo-controlled, parallel-group, dose-escalation study."

Financial support for this research came from Bayer HealthCare. The news reporters obtained a quote from the research from Bayer Pharma AG, "Fasted participants (n=45) received single oral doses of finerenone 1-40 mg polyethylene glycol (PEG) solution or placebo. Study 2 was a relative bioavailability study comparing a finerenone 10 mg immediate-release (IR) tablet with finerenone 10 mg PEG solution in the fasted state, investigating the effect of a high-fat/high-calorie meal on the pharmacokinetics of the IR tablet and assessing a further dose escalation to finerenone 80 mg (eight finerenone 10 mg IR tablets), in an open-label, fourfold crossover design (n=15). Finerenone was rapidly absorbed from PEG solution (median time to maximum plasma concentration [tmax]: 0.500-1.00 h), exhibited dose-linear pharmacokinetics and was rapidly eliminated from plasma (geometric mean terminal half-life [t\text{\gamma}] : 1.70-2.83 h). Finerenone IR tablets demonstrated similar pharmacokinetics (median tmax : 0.750-2.50 h; geometric mean t\text{\gamma} : 1.89-4.29 h) with, however, enhanced bioavailability versus PEG solution (least-squares mean tablet/solution ratio of 187\% for area under the plasma-concentration curve [AUC] and maximum plasma concentration [Cmax]). High-fat/high-calorie food affected the rate but not the extent of finerenone absorption. Finerenone was well tolerated and did not influence clinical laboratory parameters, blood pressure, heart rate, urinary electrolytes or neurohormones, including serum aldosterone and angiotensin II."

According to the news reporters, the research concluded: "Finnenone has favourable pharmacokinetics and tolerability in healthy men, and is suitable for dosing independent of food intake."


Our news correspondents report that additional information may be obtained by contacting S. Lentini, Clinical Sciences, Clinical Pharmacology, Cardiovascular and Hematology, Bayer Pharma AG, Pharma Research Centre, 42096, Wuppertal, Germany. Additional authors for this research include R. Heinig, N. Kimmeskamp-Kirschbaum and G. Wensing.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/fcp.12170. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Blood, Europe, Plasma, Germany, Hormones, Wuppertal, Hematology, Pharmacokinetics, Steroid Receptors, Drugs and Therapies, DNA Binding Proteins, Transcription Factors, Mineralocorticoid Receptors.

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Oncology - Oropharyngeal Cancer

Researchers at Baylor University College of Medicine Target Oropharyngeal Cancer (Racial disparities in incidence of human papillomavirus-associated oropharyngeal cancer in an urban population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Oropharyngeal Cancer. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "Recent studies suggest that rates of human papillomavirus related oropharyngeal cancer (HPVOPC) in the US are higher in Caucasians than minorities. We hypothesized that this disparity would be less marked in a racially and ethnically diverse population from New York City."

Our news journalists obtained a quote from the research from the Baylor University College of Medicine, "This is a retrospective chart review of 210 patients with biopsied or surgically treated OPC at the Icahn School of Medicine at Mount Sinai (ISMMS) between 1999 and 2013. Polymerase chain reaction (PCR) was used to detect the presence of HPV-DNA in paraffin-embedded tumor blocks. Incidence of HPV-positive cancers was compared between Caucasians and minorities (defined as African Americans, Asians, and Hispanics) using Fisher's exact test. We found a higher incidence of HPV-positive OPC in Caucasians than racial minorities within the ISMMS population (p = 0.002). HPV incidence detected by PCR was 139/165 [84.2%] for Caucasians and 28/45 [62.2%] for minorities. Specifically, there was a higher rate in Caucasians compared to African Americans (p = 0.017), but no significant difference between Caucasians and Hispanics (p = 0.087). We documented a disparity in incidence of HPVOPC amongst racial groups, consistent with previously reported trends from study populations in less urbanized areas."

According to the news editors, the research concluded: "Thus we conclude that the factors underlying racial/ethnic disparities in HPVOPC incidence are likely to be similar across communities with different levels of urbanization and population diversity."


The news correspondents report that additional information may be obtained from A.G. Sikora, Baylor College of Medicine, Dept. of Otolaryngol Head & Neck Surg, Houston, TX 77030, United States. Additional authors for this research include I. Varier, D. Zhang, E.G. Demicco, M.R. Posner, K. Misiukiewicz, E.M. Genden, B.A. Miles, M.S. Teng and A.G. Sikora.
Researchers at Bern University Hospital Target Narcolepsy (Post-H1N1 Flu Vaccination Narcolepsy in Switzerland: A Retrospective Survey in the 30 Sleep-Certified Swiss Centers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nervous System Diseases and Conditions - Narcolepsy is the subject of a report. According to news reporting originating in Bern, Switzerland, by NewsRx journalists, research stated, "Narcolepsy-cataplexy is a sleep-wake disorder and suggested to be immune-mediated, involving genetic and environmental factors. The autoimmune process eventually leads to a loss of hypocretin neurons in the lateral hypothalamus."

The news reporters obtained a quote from the research from Bern University Hospital, "Epidemiological studies in several countries proved an increased incidence of narcolepsy after H1N1 flu vaccination and infection. This survey in 30 sleep centers in Switzerland led to the identification of 9 H1N1-vaccinated children and adults as newly diagnosed narcolepsy."

According to the news reporters, the research concluded: "Clinical features included the abrupt and severe onset of sleepiness, cataplexy and sleep fragmentation."


Our news correspondents report that additional information may be obtained by contacting U. Kallweit, Dept. of Neurology, Bern University Hospital, Bern, Switzerland. Additional authors for this research include J. Mathis, O.G. Jenni, R. Heinzer, J. Haba-Rubio, C.R. Baumann, K. Cervena and C.L Bassetti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444318. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bern, Europe, Genetics, Cataplexy, Dyssomnias, Narcolepsy, Switzerland, Vaccination, Epidemiology, Immunization, Public Health, Sleep Disorders, Disorders of Excessive Somnolence, Nervous System Diseases and Conditions.

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Researchers at Boston University Have Reported New Data on Obesity (A Randomized Trial Examining the Impact of Communicating Genetic and Lifestyle Risks for Obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Genetic testing for obesity is available directly to consumers, yet little is understood about its behavioral impact and its added value to nongenetic risk communication efforts based on lifestyle factors. A randomized trial examined the short-term impact of providing personalized obesity risk information, using a 2 x 2 factorial design."

Our news journalists obtained a quote from the research from Boston University, "Participants were recruited from the Coriell Personalized Medicine Collaborative (CPMC) and randomized to receive (1) no risk information (control), (2) genetic risk, (3) lifestyle risk, or (4) combined genetic/lifestyle risks. Baseline and 3-month follow-up survey data were collected. Analyses examined the impact of risk feedback on intentions to lose weight and self-reported weight. A total of 696 participants completed the study. A significant interaction effect was observed for genetic and lifestyle information on intent to lose weight (P = 0.0150). Those who received genetic risk alone had greater intentions at follow-up, compared with controls (P = 0.0034). The impact of receiving elevated risk information on intentions varied by source and combination of risks presented. Non-elevated genetic risk did not lower intentions. No group differences were observed for self-reported weight."

According to the news editors, the research concluded: "Genetic risk information for obesity may add value to lifestyle risk information depending on the context in which it is presented."

For more information on this research see: A Randomized Trial Examining the Impact of Communicating Genetic and Lifestyle Risks for Obesity. Obesity, 2016;24(12):2481-2490. Obesity can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

The news correspondents report that additional information may be obtained from C. Wang, Boston University, Sch Public Hlth, Dept. of Community Hlth Sci, Boston, MA, United States. Additional authors for this research include E.S. Gordon, T. Norkunas, L. Wawak, C.T. Liu, M. Winter, R.S. Kasper, M.F. Christman, R.C. Green and D.J. Bowen.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Clinical Trials and Studies, Personalized Medicine, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Clinical Research, Overnutrition, Bariatrics, Genetics, Obesity, Boston University.

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Researchers at Brigham and Women's Hospital Have Reported New Data on Tuberculosis [(Re)moving the needle: prospects for all-oral treatment for multidrug-resistant tuberculosis]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mycobacterium Infections - Tuberculosis is now available. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Currently recommended regimens for multidrug-resistant tuberculosis (MDR-TB) contain painful daily injections and are unsuccessful in approximately half of patients. Removal of the injectable agent to fashion all-oral regimens could transform MDR-TB treatment and access to care."

The news reporters obtained a quote from the research from Brigham and Women's Hospital, "To explore evidence for all-oral treatment regimens. We review evidence on drugs that could be included in injection-free MDR-TB regimens. The oral drugs considered have an indication for or are recommended for off-label use for TB or MDR-TB, and have demonstrated bactericidal activity. Drugs with weak bactericidal activity should have limited prior population exposure and evidence of effectiveness in MDR-TB regimens. Bedaquiline, delamanid, and linezolid all display strong bactericidal activity, while clofazimine has weak bactericidal activity. They all have limited prior population exposure and demonstrated effectiveness in MDR-TB regimens. Despite widespread exposure to pyrazinamide and late-generation fluoroquinolones in the population, all are bactericidal and have shown great value when included in treatment regimens for MDR-TB. The evidence supports the use of all oral regimens comprising new and existing drugs for MDR-TB treatment. Existing evidence of bactericidal activity and efficacy for these drugs provides a convincing argument for transitioning MDR-TB treatment towards all-oral regimens."

According to the news reporters, the research concluded: "These new regimens could mitigate the delivery, cost, and adherence challenges inherent to the current standard."


Our news correspondents report that additional information may be obtained by contacting C.D. Mitnick, Brigham & Women's Hospital, Div Global Hlth Equ, Boston, MA 02115, United States. Additional authors for this research include A. Brzezinski, F. Varaine and C.D. Mitnick.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Gram-Positive Bacterial Infections, Multidrug Resistant Tuberculosis, Multidrug-Resistant Tuberculosis, Actinomycetales Infections, Mycobacterium Tuberculosis, Mycobacterium Infections, Multidrug Resistance, Drugs and Therapies, Infectious Disease, Drug Resistance, MDR-TB, Brigham and Women's Hospital.

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Researchers at Brown University Have Reported New Data on Obesity (Inflammatory Obesity Phenotypes, Gender Effects, and Subclinical Atherosclerosis in African Americans The Jackson Heart Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating in Providence, Rhode Island, by NewsRx journalists, research stated, "Reasons for variations in atherosclerotic burden among individuals with similar levels of obesity are poorly understood, especially in African Americans. This study examines whether high-sensitivity C-reactive protein (hsCRP) is useful for discriminating between benign and high-risk obesity phenotypes for subclinical atherosclerosis in African Americans."

The news reporters obtained a quote from the research from Brown University, "Approach and Results-Participants from the Jackson Heart Study (n=4682) were stratified into 4 phenotypes based on the presence of National Heart and Lung and Blood Institute definition of obesity or obesity-equivalent (body mass index >= 30 or body mass index 25-30 with waist circumference >102 cm in men and >88 cm in women) and inflammation by hsCRP >= 2 mg/L. Using multivariate regression models, we conducted cross-sectional analyses of the association between inflammatory obesity phenotypes and subclinical atherosclerosis determined by carotid intima-media thickness or coronary artery calcium scores. Sex-specific analyses were conducted given significant interaction for gender (P=0.03). The prevalence of obesity or equivalent was 65%, of which 30% did not have inflammation. Conversely, 37% of nonobese individuals had inflammation. Among nonobese men, hsCRP >= 2 mg/L identified a subset of individuals with higher carotid intima-media thickness (adjusted mean difference =0.05, 95% confidence interval 0.02, 0.08 mm) compared with their noninflammatory counterparts. Among obese men, hsCRP <2 mg/L identified a subset of individuals with lower coronary artery calcium compared with their inflammatory counterparts. Among women, associations between hsCRP and carotid intima-media thickness or coronary artery calcium were not found."

According to the news reporters, the research concluded: "In the largest African American population-based cohort to date, hsCRP was useful in identifying a subset of nonobese men with higher carotid intima-media thickness, but not in women. hsCRP did not identify a subset of obese individuals with less subclinical atherosclerosis."

For more information on this research see: Inflammatory Obesity Phenotypes, Gender Effects, and Subclinical Atherosclerosis in African Americans The Jackson Heart Study. Arteriosclerosis Thrombosis and Vascular Biology, 2016;36(12):2431-2438. Arteriosclerosis Thrombosis and Vascular Biology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news correspondents report that additional information may be obtained by contacting W.C. Wu, Brown University, Sch Public Hlth, Dept. of Epidemiol, Providence, RI 02912, United States. Additional authors for this research include M.E. Lacy, C. Eaton, A. Correa and W.C. Wu.

Keywords for this news article include: Providence, Rhode Island, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Cardiology, Epidemiology, Nutrition Disorders, Diet and Nutrition, Arteriosclerosis, Coronary Artery, Atherosclerosis, Overnutrition, Inflammation, Bariatrics, Angiology, Obesity, Brown...
Researchers at CNIC Target Cardiomegaly (p38g and d promote heart hypertrophy by targeting the mTOR-inhibitory protein DEPTOR for degradation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Cardiomegaly. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "Disrupted organ growth leads to disease development. Hypertrophy underlies postnatal heart growth and is triggered after stress, but the molecular mechanisms involved in these processes are largely unknown."

The news reporters obtained a quote from the research from CNIC, "Here we show that cardiac activation of p38g and p38d increases during postnatal development and by hypertrophy-inducing stimuli. p38g/d promote cardiac hypertrophy by phosphorylating the mTORC1 and mTORC2 inhibitor DEPTOR, which leads to its degradation and mTOR activation. Hearts from mice lacking one or both kinases are below normal size, have high levels of DEPTOR, low activity of the mTOR pathway and reduced protein synthesis. The phenotype of p38g/d(-/-) mice is reverted by overactivation of mTOR with amino acids, shRNA-mediated knockdown of Deptor, or cardiomyocyte overexpression of active p38g and p38d. Moreover, in WT mice, heart weight is reduced by cardiac overexpression of DEPTOR."

According to the news reporters, the research concluded: "Our results demonstrate that p38g/d control heart growth by modulating mTOR pathway through DEPTOR phosphorylation and subsequent degradation."

For more information on this research see: p38g and d promote heart hypertrophy by targeting the mTOR-inhibitory protein DEPTOR for degradation. *Nature Communications*, 2016;7():10477. (Nature Publishing Group - www.nature.com/; Nature Communications - www.nature.com/ncomms/)

Our news correspondents report that additional information may be obtained by contacting B. Gonzalez-Teran, Fundacion Centro Nacional de Investigaciones Cardiovasculares Carlos III, CNIC, 28029 Madrid, Spain. Additional authors for this research include J.A. Lopez, E. Rodriguez, L. Leiva, S. Martinez-Martinez, J.A. Bernal, L.J. Jimenez-Borreguero, J.M. Redondo, J. Vazquez and G. Sabio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/ncomms10477. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Madrid, Europe, Cardiology, Hypertrophy, Cardiomegaly, Heart Disorders and Diseases.

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Researchers at CSIR Target Breast Cancer (Centchroman Altered the Expressions of Tumor-Related Genes Through Active Chromatin Modifications in Mammary Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting from Uttar Pradesh, India, by NewsRx journalists, research stated, "Centchroman (CC), a female oral contraceptive, has been shown to possess breast anti-cancer activities. Recently, we have shown CC-mediated antimetastatic effect through reversal of epithelial-to-mesenchymal transition (EMT) in breast cancer."

The news correspondents obtained a quote from the research from CSIR, "The loss of tumor suppressor genes (TSGs) has been shown to promote EMT in breast cancer. Therefore, in the present study, we investigated the effect of CC-treatment on the expression of tumor-related genes including both tumor suppressor-and tumor promoter genes in breast cancer. CC treatment resulted in G(0)/G(1) phase cell cycle arrest in human breast cancer MDA-MB-231, SK-BR-3, and ZR-75-1 cells with the concomitant induction of TSGs such as p21 (WAF1/CIP1), p16(INK4a), and p27(Kip1). In addition, CC treatment also resulted in the downregulation of tumor promoter gene, human telomerase reverse transcriptase (hTERT). The induction of TSGs and downregulation of hTERT was found to be correlated with decreased expression levels of histone deacetylases (HDACs) and DNA methyltransferases (DNMTs). Further, mechanistic studies revealed CC-induced global DNA demethylation and alterations in the enrichment of chromatin modification markers at the promoters of p21 and hTERT. These in vitro results were corroborated with in vivo findings in 4T1-syngeneic mouse model, where CC-treatment resulted in tumor growth reduction accompanied with the induction of TSGs and alterations in the expression levels of HDACs, DNMT1, and histone modification markers. Overall, our findings suggest that CC-treatment induces the expression of TSGs and downregulates hTERT through histone modifications and DNA methylation changes."

According to the news reporters, the research concluded: "Therefore, CC could be further developed into a promising drug candidate against breast cancer."


Our news journalists report that additional information may be obtained by contacting S.M. Meeran, CSIR Cent Drug Res Inst, Lab Canc Epigenet, Div Endocrinol, Lucknow 226031, Uttar Pradesh, India. Additional authors for this research include S. Shukla, S. Sinha and S.M. Meeran.

Keywords for this news article include: Uttar Pradesh, India, Asia, Cell Nucleus Structures, Chromosome Structures, Oncology, Genetics, Intranuclear Space, Tumor Suppression, Nucleoproteins, Women's Health, Breast Cancer, Chromatin, Proteins, Histones, CSIR.

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Liver Diseases and Conditions - Hepatitis

Researchers at California Institute of Technology Release New Data on Hepatitis (Reading Out Single-Molecule Digital RNA and DNA Isothermal Amplification in Nanoliter Volumes with Unmodified Camera Phones)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Liver Diseases and Conditions - Hepatitis are discussed in a new report. According to news reporting originating from Pasadena, California, by NewsRx correspondents, research stated, "Digital single-molecule technologies are expanding diagnostic capabilities, enabling the ultrasensitive quantification of targets, such as viral load in HIV and hepatitis C infections, by directly counting single molecules. Replacing fluorescent readout with a robust visual readout that can be captured by any unmodified cell phone camera will facilitate the global distribution of diagnostic tests, including in limited-resource settings where the need is greatest."

Funders for this research include U.S. Department of Defense, U.S. Department of Health and Human Services, Burroughs Wellcome Fund, National Science Foundation.

Our news editors obtained a quote from the research from the California Institute of Technology, "This paper describes a methodology for developing a visual readout system for digital single-molecule amplification of RNA and DNA by (i) selecting colorimetric amplification-indicator dyes that are compatible with the spectral sensitivity of standard mobile phones, and (ii) identifying an optimal ratiometric image-process for a selected dye to achieve a readout that is robust to lighting conditions and camera hardware and provides unambiguous quantitative results, even for colorblind users. We also include an analysis of the limitations of this methodology, and provide a microfluidic approach that can be applied to expand dynamic range and improve reaction performance, allowing ultrasensitive, quantitative measurements at volumes as low as 5 nL. We validate this methodology using SlipChip-based digital single-molecule isothermal amplification with lDNA as a model and hepatitis C viral RNA as a clinically relevant target. The innovative combination of isothermal amplification chemistry in the presence of a judiciously chosen indicator dye and ratiometric image processing with SlipChip technology allowed the sequence-specific visual readout of single nucleic acid molecules in nanoliter volumes with an unmodified cell phone camera."

According to the news editors, the research concluded: "When paired with devices that integrate sample preparation and nucleic acid amplification, this hardware-agnostic approach will increase the affordability and the distribution of quantitative diagnostic and environmental tests."


The news editors report that additional information may be obtained by contacting J. Rodriguez-Manzano, Division of Chemistry and Chemical Engineering, California Institute of Technology, 1200 East California Boulevard, Pasadena, California 91125, United States. Additional authors for this research include M.A. Karymov, S. Begolo, D.A. Selck, D.V. Zhukov, E. Jue and R.F Ismagilov.

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that is either free or for purchase.

Keywords for this news article include: Pasadena, Genetics, Hepatitis, California, United States, Gastroenterology, North and Central America, Diagnostics and Screening, Liver Diseases and Conditions, Infectious Disease and Conditions, Digestive System Diseases and Conditions.

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Drugs and Therapies - Antineoplastics

Researchers at Cambridge University Hospitals NHS Foundation Trust Target Antineoplastics (Photodynamic therapy: current role in the treatment of chorioretinal conditions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antineoplastics have been presented. According to news reporting originating from Cambridge, United Kingdom, by NewsRx editors, the research stated, "Verteporfin photodynamic therapy (vPDT) is a selective vaso-occlusive treatment that targets choroidal vascular abnormalities."

Our news editors obtained a quote from the research from Cambridge University Hospitals NHS Foundation Trust, "It was initially developed to treat neovascular age-related macular degeneration using the 'standard' vPDT protocol (verteporfin 6 mg/m(2), vPDT laser fluence 50 J/cm(2)). vPDT therapy has subsequently evolved as an important treatment modality for a range of other chorioretinal conditions including choroidal haemangioma, central serous chorioretinopathy, polypoidal choroidal vasculopathy, and peripapillary choroidal neovascularisation. Various 'safety-enhanced' vPDT protocols have been devised to optimise treatment outcomes, typically using reduced dose verteporfin (verteporfin 3 mg/m(2)) or reduced fluence vPDT (vPDT laser fluence 25 J/cm(2))."

According to the news editors, the research concluded: "This paper reviews the current role of vPDT therapy in the treatment of chorioretinal conditions."

For more information on this research see: Photodynamic therapy: current role in the treatment of chorioretinal conditions. Eye, 2016;30(2):202-10. Eye can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Eye - www.nature.com/eye/)

The news editors report that additional information may be obtained by contacting D.K. Newman, Dept. of Ophthalmology, Addenbrooke's Hospital, Cambridge University Hospitals NHS Foundation Trust, Cambridge, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/eye.2015.251. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Eye is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Antineoplastics, Biotechnology, Pharmaceuticals, Europe, Cambridge, Photodynamics, United Kingdom, Article Review, Drugs and Therapies, Verteporfin Therapy.

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Researchers at Cancer Center Describe Findings in Gastric Cancer (Subgroup analysis of East Asians in RAINBOW: A phase 3 trial of ramucirumab plus paclitaxel for advanced gastric cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gastric Cancer have been presented. According to news reporting originating from Nagoya, Japan, by NewsRx correspondents, research stated, "East Asia has higher gastric cancer incidence and mortality rates than other regions. We present a subgroup analysis of East Asians in the positive study RAINBOW."

Financial support for this research came from Eli Lilly and Company.

Our news editors obtained a quote from the research from Cancer Center, "Patients with advanced gastric or gastroesophageal junction adenocarcinoma previously treated with platinum and fluoropyrimidine received ramucirumab 8 mg/kg or placebo on days 1 and 15 plus paclitaxel 80 mg/m(2) on days 1, 8, and 15 of a 28-day cycle. Of 665 intention-to-treat patients, 223 were East Asian. Median overall survival was 12.1 months for ramucirumab plus paclitaxel and 10.5 months for placebo plus paclitaxel (hazard ratio: 0.986, 95% confidence interval: 0.727-1.337, p=0.929). Median progression-free survival was 5.5 months for ramucirumab plus paclitaxel and 2.8 months for placebo plus paclitaxel (hazard ratio: 0.628, 95% confidence interval: 0.473-0.834, p=0.001). Objective response rates were 34% for ramucirumab plus paclitaxel and 20% for placebo plus paclitaxel. Grade (>=) 3 neutropenia (60% vs 28%) and leukopenia (34% vs 13%) were higher for ramucirumab plus paclitaxel. The rate of febrile neutropenia was low (4% vs 4%). Special interest adverse events included any grade bleeding/hemorrhage (55% vs 25%), proteinuria (27% vs 7%), and hypertension (22% vs 2%)."

According to the news editors, the research concluded: "Ramucirumab plus paclitaxel significantly improves progression-free survival and response rate, with prolonged median overall survival and an acceptable safety profile in East Asians with advanced gastric cancer."


The news editors report that additional information may be obtained by contacting K. Muro, Dept. of Clinical Oncology, Aichi Cancer Center Hospital, Nagoya, Japan. Additional authors for this research include S.C. Oh, Y. Shimada, K.W. Lee, C.J. Yen, Y. Chao, J.Y. Cho, R. Cheng, R. Carlesi, K. Chandrawansa, M. Orlando and A. Ohtsu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13153. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Nagoya, Taxoids, Oncology, Terpenes, Paclitaxel, Hydrocarbons, Cycloparaffins, Gastric Cancer, Gastroenterology, Clinical Research, Organic Chemicals, Clinical Trials and Studies.

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Researchers at Cancer Center Describe Findings in Pathology
[Pathology of advanced buccal mucosa cancer involving masticator space (T4b)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pathology have been published. According to news reporting originating from Bangalore, India, by NewsRx correspondents, research stated, "Buccal mucosa cancer involving masticator space is classified as very advanced local disease (T4b). The local recurrence rate is very high due to poor understanding of the extent of tumor spread in masticator space and technically difficult surgical clearance."

Our news editors obtained a quote from the research from Cancer Center, "The objective of this study is to understand the extent of tumor spread in masticator space to form basis for appropriate surgical resection. All consecutive patients with T4b-buccal cancer underwent compartment resection, with complete anatomical removal of involved soft-tissue structures. Specimens were systematically studied to understand the extent of invasion of various structures. The findings of clinical history, imaging and pathologic evaluation were compared and the results were evaluated. A total of 45 patients with advanced buccal cancer (T4b) were included in this study. The skin, mandible and lymph nodes were involved in 30, 24 and 17 cases respectively. The pterygoid muscles were involved in 34 cases (medial-pterygoid in 12 and both pterygoids in 22 cases) and masseter-muscle in 32 cases. Average distance for soft-tissue margins after compartment surgery was 2 cm and the margins were positive in 3 cases. The group with involvement of medial pterygoid muscle had safest margin with compartment surgery while it was also possible to achieve negative margins for group involving lateral pterygoid muscle and plates. The involvement of pterygomaxillary fissure was area of concern and margin was positive in 2 cases with one patient developing local recurrence with intracranial extension. At 21 months median follow-up (13-35 months), 38 patients were alive without disease while two developed local recurrence at the skull base. T4b buccal cancers have significant soft-tissue involvement in the masticator space. En bloc removal of all soft-tissues in masticator space is advocated to remove tumor contained within space."

According to the news editors, the research concluded: "The compartment surgery provides an opportunity to achieve negative margins for cancers actually contained within masticator space. It is inappropriate to club all patients with masticator space involvement in one group."

For more information on this research see: Pathology of advanced buccal mucosa cancer involving masticator space (T4b). *Indian Journal of Cancer*, 2015;52(4):611-5.

The news editors report that additional information may be obtained by contacting N.P. Trivedi, Dept. of Head and Neck Oncology, Mazumdar-Shaw Cancer Center, Narayana Hrudayalaya, Bangalore, Karnataka, India. Additional authors for this research include V.D. Kekatpure, G. Shetkar, A. Gangoli and M.A Kuriakose.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178410. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Cancer, Surgery, Oncology,
Researchers at Cancer Center Report Findings in Chemotherapy (Does the use of induction chemotherapy in oral cavity cancer compromise subsequent loco-regional treatment delivery: Results from a matched pair analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Chemotherapy are presented in a new report. According to news reporting originating in Kerala, India, by NewsRx journalists, research stated, "Neoadjuvant chemotherapy is being increasingly used in patients with unresectable oral cavity cancers to make them resectable. However, its impact on locoregional treatment delivery in such setting remains poorly studied."

The news reporters obtained a quote from the research from Cancer Center, "To evaluate the impact of neoadjuvant chemotherapy on delivery of further locoregional treatment. Mono institutional retrospective audit of patients with oral cavity squamous cell cancers treated with neoadjuvant triplet chemotherapy in India. Patients receiving neoadjuvant chemotherapy (n=14) from May 2012 to April 2014 were matched 1:2 to patients undergoing upfront surgery (n=28) based on age (>60 or 60 and less), gender (male or female) and subsite site (tongue and floor of mouth or buccal vestibular complex). Data regarding factors related to the delivery of locoregional treatment and toxicities were compiled. Descriptive analysis in the form of median (range) for continuous variables and frequencies for categorical variables. Patients undergoing neoadjuvant chemotherapy required more extensive resections and had greater operative time (460 vs. 415 min, p<0.001). A greater incidence of locoregional wound complications was seen as a consequence (57.1% vs. 14.3%, P, 0.01). However, toxicities during radiotherapy were not substantially different between the two groups and compliance to radiation was also similar. Total package time of 100 days or less, was maintained in 90% of patients in both groups."

According to the news reporters, the research concluded: "Delivery of neoadjuvant chemotherapy does not impair the ability to deliver locoregional treatment."

For more information on this research see: Does the use of induction chemotherapy in oral cavity cancer compromise subsequent loco-regional treatment delivery: Results from a matched pair analysis. Indian Journal of Cancer, 2015;52(4):632-6.

Our news correspondents report that additional information may be obtained by contacting S. Chakraborty, Dept. of Radiation Oncology, Malabar Cancer Centre, Thalassery, Kerala, India. Additional authors for this research include G. Muttath, S. Babu, S.T. Kumar, J. Jones, S. Sen and S. Chakraborty.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178442. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Kerala, Cancer, Oncology, Chemotherapy, Drugs and Therapies.

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Researchers at Capital Normal University Release New Data on Bovine Serum Albumin (Artificially controlled degradable inorganic nanomaterial for cancer theranostics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Proteins - Bovine Serum Albumin is now available. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Multifunctional nanomaterials for cancer diagnosis and therapy have recently prompted widespread concern. To avoid nanotoxicity, the development of novel degradable functional materials must be our main focus."

Funders for this research include National Natural Science Foundation of China, Scientific Research Base Development Program of the Beijing Municipal Commission of Education, Beijing Municipal Science & Technology Commission, Project of Construction of Innovative Teams and Teacher Career Development for Universities and Colleges under Beijing Municipality, Beijing talent foundation outstanding young individual project, Opening Project of Shanghai Key Laboratory of Magnetic Resonance.

Our news editors obtained a quote from the research from Capital Normal University, "In this study, we firstly developed ethylenediaminetetraacetic acid calcium disodium salt (EDTA)- and bovine serum albumin (BSA)-capped Mn3O4 nanoparticles (MONPs-BSA-EDTA) as a novel inorganic nanomaterials for multifunctional imaging-guided photothermal therapy, which can be degraded in a progress-controlled way by artificially introduced ascorbic acid. The degradation products can also be captured and their excretion accelerated. Careful studies suggested that the toxicity of the MONPs-BSA-EDTA and its degradation products is low. The degradation mechanism also suggests a new method of controlled drug release."

According to the news editors, the research concluded: "The development of artificially controlled degradable inorganic nanomaterials also provides a new way to degrade nanomaterials and minimize ion release, which may have potential applications in cancer theranostics without nanotoxicity."

For more information on this research see: Artificially controlled degradable inorganic nanomaterial for cancer theranostics. *Biomaterials*, 2017;112():204-217. *Biomaterials* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)

The news editors report that additional information may be obtained by contacting J. Zhou, Capital Normal Univ, Dept. of Chem, Beijing 100048, People's Republic of China. Additional authors for this research include G. Zhang, Q.W. Guo, L.Y. Ma, Q. Jia, L.D. Liu and J. Zhou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.10.028. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Emerging Technologies, Bovine Serum Albumin, Nanotechnology, Nanomaterial, Proteins,
Researchers at Cardiff University Target Polymer Therapy (A New Class of Safe Oligosaccharide Polymer Therapy To Modify the Mucus Barrier of Chronic Respiratory Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Polymer Therapy. According to news reporting originating from Cardiff, United Kingdom, by NewsRx correspondents, research stated, "The host-and bacteria-derived extracellular polysaccharide coating of the lung is a considerable challenge in chronic respiratory disease and is a powerful barrier to effective drug delivery. A low molecular weight 12-15-mer alginate oligosaccharide (OligoG CF-5/20), derived from plant biopolymers, was shown to modulate the polyanionic components of this coating."

Funders for this research include European Commission, Cystic Fibrosis Foundation, European Social Fund, AlgiPharma AS.

Our news editors obtained a quote from the research from Cardiff University, "Molecular modeling and Fourier transform infrared spectroscopy demonstrated binding between OligoG CF-5/20 and respiratory mucins. Ex vivo studies showed binding induced alterations in mucin surface charge and porosity of the three-dimensional mucin networks in cystic fibrosis (CF) sputum. Human studies showed that OligoG CF-5/20 is safe for inhalation in CF patients with effective lung deposition and modifies the viscoelasticity of CF-sputum."

According to the news editors, the research concluded: "OligoG CF-5/20 is the first inhaled polymer therapy, represents a novel mechanism of action and therapeutic approach for the treatment of chronic respiratory disease, and is currently in Phase IIb clinical trials for the treatment of CF."

For more information on this research see: A New Class of Safe Oligosaccharide Polymer Therapy To Modify the Mucus Barrier of Chronic Respiratory Disease. Molecular Pharmaceutics, 2016;13(3):863-72. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00794. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Europe, Cardiff, United Kingdom, Cystic Fibrosis, Medical Devices, Polymer Therapy, Drugs and Therapies.
Hematopoietic Research

Researchers at Case Western Reserve University Have Reported New Data on Hematopoietic (Comparison of two apheresis systems during hematopoietic progenitor stem cell collections at a tertiary medical center)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematopoietic. According to news reporting from Cleveland, Ohio, by NewsRx journalists, research stated, "The Spectra Optia is a newer apheresis system developed based on the COBE Spectra platform. COBE Spectra requires more manual control, while Spectra Optia offers greater automation."

The news correspondents obtained a quote from the research from Case Western Reserve University, "The purpose of this study was to compare the two systems during hematopoietic progenitor stem cell (HPSC) collections. A retrospective review of 41 collections performed in 26 subjects at a tertiary medical center between June 1, 2013, and December 31, 2013, was conducted, 11 with the Spectra Optia and 30 with the COBE Spectra. Six patients underwent two consecutive daily collections, first on the Spectra Optia followed by the COBE Spectra. Procedure run time with the Spectra Optia was considerably longer than with the COBE Spectra (283 +/- 11 min vs. 217 +/- 2 min, respectively; p< 0.01). Mean CD34+ cell yields with the Spectra Optia were comparable with those of the COBE Spectra. Products collected with the Spectra Optia had less red blood cell contamination. However, platelet (PLT) attrition was greater with the Spectra Optia. Similar results were obtained in patients who were collected on consecutive days in both systems."

According to the news reporters, the research concluded: "Collections with the Spectra Optia take longer and lead to greater PLT losses during HPSC collections."


Our news journalists report that additional information may be obtained by contacting R.W. Maitta, Case Western Reserve University, Sch Med, Cleveland, OH, United States. Additional authors for this research include J. Li, H.M. Reeves, R. Reyes and R.W. Maitta.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Stem Cell Research, Hematopoietic, Hematology, Hospital, Case Western Reserve University.

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Researchers at Case Western Reserve University Report New Data on Pancreatic Cancer (The role of neoadjuvant therapy in pancreatic cancer: a review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Pancreatic Cancer. According to news reporting originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Controversy remains regarding neoadjuvant approaches in the treatment of pancreatic cancer. Neoadjuvant therapy has several potential advantages over adjuvant therapy including earlier delivery of systemic treatment, in vivo assessment of response, increased resectability rate in borderline resectable patients and increased margin-negative resection rate."

Our news editors obtained a quote from the research from Case Western Reserve University, "At present, there are no randomized data favoring neoadjuvant over adjuvant therapy and multiple neoadjuvant approaches are under investigation. Combination chemotherapy regimens including 5-fluorouracil, irinotecan and oxaliplatin, gemcitabine with or without abraxane, or docetaxel and capecitabine have been used in the neoadjuvant setting. Radiation and chemoradiation have also been incorporated into neoadjuvant strategies, and delivery of alternative fractionation regimens is being explored."

According to the news editors, the research concluded: "This review provides an overview of neoadjuvant therapies for pancreatic cancer."

For more information on this research see: The role of neoadjuvant therapy in pancreatic cancer: a review. Future Oncology, 2016;12(5):669-85.

The news editors report that additional information may be obtained by contacting S. Russo, Dept. of Radiation Oncology, University Hospitals Seidman Cancer Center, Case Comprehensive Cancer Center, Case Western Reserve University, 10900 Euclid Ave, Cleveland, OH 44106, United States. Additional authors for this research include J. Ammori, J. Eads and J. Dorth.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.15.335. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Oncology, Cleveland, United States, Article Review, Gastroenterology, Pancreatic Cancer, Drugs and Therapies, Neoadjuvant Therapy, Pancreatic Neoplasms, North and Central America, Combined Modality Therapy.

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Researchers at Cedars-Sinai Medical Center Release New Data on Gastrointestinal Hormones (Simultaneous blockade of interacting CK2 and EGFR pathways by tumor-targeting nanobioconjugates increases therapeutic efficacy against glioblastoma ...)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hormones - Gastrointestinal Hormones are discussed in a new report. According to news originating from Los Angeles, California, by NewsRx correspondents, research stated, "Glioblastoma multiforme (GBM) remains the deadliest brain tumor in adults. GBM tumors are also notorious for drug and radiation resistance."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from Cedars-Sinai Medical Center, "To inhibit GBMs more effectively, polymalic acid-based blood-brain barrier crossing nanobioconjugates were synthesized that are delivered to the cytoplasm of cancer cells and specifically inhibit the master regulator serine/threonine protein kinase CK2 and the wild-type/mutated epidermal growth factor receptor (EGFR/EGFRvIII), which are overexpressed in gliomas according to The Cancer Genome Atlas (TCGA) GBM database. Two xenogeneic mouse models bearing intracranial human GBMs from cell lines LN229 and U87MG that expressed both CK2 and EGFR at different levels were used. Simultaneous knockdown of CK2 alpha and EGFR/EGFRvIII suppressed their downstream prosurvival signaling. Treatment also markedly reduced the expression of programmed death-ligand 1 (PD-L1), a negative regulator of cytotoxic lymphocytes. Downregulation of CK2 and EGFR also caused deactivation of heat shock protein 90 (Hsp90) co-chaperone Cdc37, which may suppress the activity of key cellular kinases. Inhibition of either target was associated with downregulation of the other target as well, which may underlie the increased efficacy of the dual nanobioconjugate that is directed against both CK2 and EGFR. Importantly, the single nanodrugs, and especially the dual nanodrug, markedly suppressed the expression of the cancer stem cell markers c-Myc, CD133, and nestin, which could contribute to the efficacy of the treatments. In both tumor models, the nanobioconjugates significantly increased (up to 2-fold) animal survival compared with the PBS-treated control group."

According to the news editors, the research concluded: "The versatile nanobioconjugates developed in this study, with the abilities of anticancer drug delivery across biobarriers and the inhibition of key tumor regulators, offer a promising nanotherapeutic approach to treat GBMs, and to potentially prevent drug resistance and retard the recurrence of brain tumors."

For more information on this research see: Simultaneous blockade of interacting CK2 and EGFR pathways by tumor-targeting nanobioconjugates increases therapeutic efficacy against glioblastoma multiforme. *Journal of Controlled Release*, 2016;244():14-23. *Journal of Controlled Release* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

The news correspondents report that additional information may be obtained from J.Y. Ljubimova, Cedars Sinai Med Center, Samuel Oschin Comprehens Canc Center, Los Angeles, CA 90048, United States. Additional authors for this research include P. Rameshwar, A. Galstyana, R.G. Pallavi, W.K. Cavenee, F.B. Furnari, V.A. Ljubimov, A. Chesnokova, A.A. Kramerov, H. Ding, V. Falahatian, L. Mashouf, I. Fox, K.L. Black, E. Holler, A.V. Ljubimov and J.Y. Ljubimova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jconrel.2016.11.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Gastrointestinal Hormone Receptors, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor,
Researchers at Center for Regenerative Therapies Dresden Release New Data on Bone Research (Increased EPO Levels Are Associated With Bone Loss in Mice Lacking PHD2 in EPO-Producing Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Bone Research is now available. According to news reporting from Dresden, Germany, by NewsRx journalists, research stated, "The main oxygen sensor hypoxia inducible factor (HIF) prolyl hydroxylase 2 (PHD2) is a critical regulator of tissue homeostasis during erythropoiesis, hematopoietic stem cell maintenance, and wound healing. Recent studies point toward a role for the PHD2-erythropoietin (EPO) axis in the modulation of bone remodeling, even though the studies produced conflicting results."

The news correspondents obtained a quote from the research from Center for Regenerative Therapies Dresden, "Here, we used a number of mouse strains deficient of PHD2 in different cell types to address the role of PHD2 and its downstream targets HIF-1 alpha and HIF-2 alpha in bone remodeling. Mice deficient for PHD2 in several cell lineages, including EPO-producing cells, osteoblasts, and hematopoietic cells (CD68:cre-PHD2(f/f)) displayed a severe reduction of bone density at the distal femur as well as the vertebral body due to impaired bone formation but not bone resorption. Importantly, using osteoblast-specific (Osx:cre-PHD2(f/f)) and osteoclast-specific PHD2 knock-out mice (Vav:cre-PHD2(f/f)), we show that this effect is independent of the loss of PHD2 in osteoblast and osteoclasts. Using different in vivo and in vitro approaches, we show here that this bone phenotype, including the suppression of bone formation, is directly linked to the stabilization of the alpha-subunit of HIF-2, and possibly to the subsequent moderate induction of serum EPO, which directly influenced the differentiation and mineralization of osteoblast progenitors resulting in lower bone density. Taken together, our data identify the PHD2: HIF-2 alpha: EPO axis as a so far unknown regulator of osteohematology by controlling bone homeostasis."

According to the news reporters, the research concluded: "Further, these data suggest that patients treated with PHD inhibitors or EPO should be monitored with respect to their bone status."


Researchers at Central Hospital Report Findings in Restenosis
(Paclitaxel-coated balloon catheter compared with drug-eluting stent for drug-eluting stent restenosis in routine clinical practice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Restenosis is now available. According to news reporting from Kurashiki, Japan, by NewsRx journalists, research stated, "The aim of this study was to compare the efficacy between paclitaxel-coated balloon (PCB) and drug-eluting stent (DES) implantation for the treatment of DES restenosis in complex situations. Data of patients who received revascularisation for DES restenosis between 2004 and 2011 were collected."

The news correspondents obtained a quote from the research from Central Hospital, "A total of 683 patients with 777 lesions were analysed in this study (306 lesions treated by PCB, 471 lesions by DES). The use of PCB or DES was at the discretion of the operator. Angiographic outcomes at six to eight months and clinical outcomes at 12-month follow-up were compared between groups. The primary outcome was binary restenosis. Cox regression analysis with propensity score adjustment suggested that there were no significant differences between the two groups with respect to binary restenosis, target lesion revascularisation (TLR), and major adverse cardiac events. As for the angiographic endpoints, subgroup analysis was performed for several parameters. There was a significant trend favouring PCB with respect to binary restenosis and TLR in non-focal type lesions and bifurcation lesions. Angiographic and clinical outcomes in the PCB group were similar to those in the repeat DES group."

According to the news reporters, the research concluded: "PCB seemed to offer more favourable results in non-focal type lesions and bifurcation lesions."

For more information on this research see: Paclitaxel-coated balloon catheter compared with drug-eluting stent for drug-eluting stent restenosis in routine clinical practice. *Eurointervention*, 2016;11(10):1098-105.

Our news journalists report that additional information may be obtained by contacting S. Habara, Dept. of Cardiology, Kurashiki Central Hospital, Kurashiki, Japan. Additional authors for this research include K. Kadota, T. Kanazawa, T. Ichinohe, S. Kubo, Y. Hyodo, S. Otsuru, D. Hasegawa, T. Tada, H. Tanaka, Y. Fuku, T. Goto and K. Mitsudo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4244/EIJY15M02_09. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antineoplastics, Pharmaceuticals, Japan, Surgery, Taxoids, Terpenes, Kurashiki, Cardiology, Restenosis, Hydrocarbons, Heart Disease, Cardiovascular, Cycloparaffins, Medical Devices, Balloon Catheter, Organic Chemicals, Mitotic Inhibitors, Paclitaxel Therapy, Drugs and Therapies, Surgical Procedures.

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Researchers at Central Hospital Target Lung Cancer (Drug interaction between erlotinib and phenytoin for brain metastases in a patient with nonsmall cell lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Lung Cancer are discussed in a new report. According to news reporting originating from Ibaraki, Japan, by NewsRx correspondents, research stated, "Erlotinib, a substrate drug metabolized by the CYP3A4 enzyme, is an epidermal growth factor receptor tyrosine kinase inhibitor used to treat nonsmall cell lung cancer (NSCLC). Concomitant use of erlotinib and the antiepileptic drug phenytoin, an inducer of CYP3A4, may result in a drug-drug interaction accompanied by changes in the blood concentrations of both drugs."

Our news editors obtained a quote from the research from Central Hospital, "We determined the blood concentration of each drug to confirm the interaction between phenytoin and erlotinib in a case of NSCLC with brain metastases. The phenytoin blood concentration (8.2-10.0 µg/mL) gradually increased 3-fold (to 24.2 µg/mL) 7 months after the start of erlotinib (150 mg/d) co-administration. The erlotinib blood concentration which was maintained at 0.15-0.37 µg/mL under phenytoin co-administration, increased 12-fold (to 1.77 µg/mL) after the stoppage of phenytoin co-administration."

According to the news editors, the research concluded: "The present case revealed that blood phenytoin increased and blood erlotinib decreased subsequent to the interaction of the 2 drugs in the CYP3A4 metabolic enzyme system."


The news editors report that additional information may be obtained by contacting M. Ohgami, Ibaraki Cent Hosp, Dept. of Pharm, Kasama, Ibaraki 3091793, Japan. Additional authors for this research include T. Kaburagi, A. Kurosawa and M. Homma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.lungcan.2016.08.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ibaraki, Japan, Asia, Central Nervous System Agents, Tyrosine Kinase Inhibitors, Hydantoin Anticonvulsants, Protein Kinase Inhibitors, Group I Antiarrhythmics, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Phenytoin Therapy, Erlotinib Therapy, Pharmaceuticals, Antineoplastics, EGFR Inhibitors, Lung Neoplasms, Lung Cancer, Oncology, Central Hospital.

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Researchers at Central South University Discuss Findings in Gastric Cancer (Repertaxin, an inhibitor of the chemokine receptors CXCR1 and CXCR2, inhibits malignant behavior of human gastric cancer MKN45 cells in vitro and in vivo and enhances ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gastric Cancer have been presented. According to news reporting originating in Changsha, People's Republic of China, by NewsRx journalists, research stated, "Chemokine-mediated activation of G protein-coupled receptors CXCR1/2 promotes tumor growth, invasion, inflammation and metastasis. Repertaxin, a CXCR1/2 small-molecule inhibitor, has been shown to attenuate many of these tumor-associated processes."

The news reporters obtained a quote from the research from Central South University, "The present study aimed to investigate the effects of repertaxin alone and in combination with 5-fluorouracil (5-FU) on the malignant behavior of gastric cancer and the potential mechanisms. Gastric cancer MKN45 cells were treated in vitro with repertaxin and 5-FU, either alone or in combination. Cell cycle progression and apoptosis was completed by flow cytometry. Migration and invasion were also assessed by transwell and wound-healing assay. Western blot analysis and quantitative RT-PCR were performed to determine expression of signaling molecules. MKN45 cells were also grown as xenografts in nude mice. Mice were treated with repertaxin and 5-FU, and tumor volume and weight, angiogenesis, proliferation and apoptosis were monitored. Combination of repertaxin and 5-FU inhibited MKN45 cell proliferation and increased apoptosis better than either agent alone. Similarly, enhanced effect of the combination was also observed in migration and invasion assays. The improved effect of repertaxin and 5-FU was also observed in vivo, as xenograft models treated with both compounds exhibited significantly decreased tumor volume and increased apoptosis."

According to the news reporters, the research concluded: "Repertaxin inhibited malignant behavior of human gastric cancer MKN45 cells in vitro and in vivo and enhances efficacy of 5-fluorouracil. These data provide rationale that targeting CXCR1/2 with small molecule inhibitors may enhance chemotherapeutic efficacy for the treatment of gastric cancer."

For more information on this research see: Repertaxin, an inhibitor of the chemokine receptors CXCR1 and CXCR2, inhibits malignant behavior of human gastric cancer MKN45 cells in vitro and in vivo and enhances efficacy of 5-fluorouracil. International Journal of Oncology, 2016;48(4):1341-52.

Our news correspondents report that additional information may be obtained by contacting J. Wang, Dept. of Pathology, Xiang-ya Hospital, Central South University, Changsha, Hunan, People's Republic of China. Additional authors for this research include W. Hu, K. Wang, J. Yu, B. Luo, G. Luo, W. Wang, H. Wang, J. Li and J. Wen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3371. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Changsha, Oncology, Apoptosis, Immunology, CD Antigens, Gastric Cancer, Gastroenterology, Membrane Proteins, Biological Factors, Cytokine Receptors, Chemokine Receptors, Chemotactic Factors, Inflammation
Researchers at Central South University Target Liver Cancer (Hypoxia-induced NIPP1 activation enhances metastatic potential and predicts poor prognosis in hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Liver Cancer are presented in a new report. According to news originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "Hypoxia is known to promote hepatocellular carcinoma (HCC) invasion and metastasis and nuclear inhibitor of protein phosphatase 1 (NIPP1) overexpression contributes to the malignant phenotype in HCC. The aim of this study was to investigate the role of NIPP1 in HCC development under hypoxia."

Financial support for this research came from National Nature Science Foundation of China.

Our news journalists obtained a quote from the research from Central South University, "We first conducted a study with 106 cases to explore the association of NIPP1 and/or enhancer of zeste homolog 2 (EZH2) expression with poor prognosis in HCC. Then additional 352 independent cases were recruited to validate the results in the first stage. Hypoxia was induced by culturing HCC cells in 1% O2 or of the treatment with hypoxic agent. The expression levels of NIPP1/EZH2 in both HCC tissues and HCC cell lines were detected by RT-PCR, Western blot, or immunohistochemistry. We also studied the effects of the loss of function of NIPP1 and EZH2 on malignant phenotypes, downstream pathway, and inflammatory factors activities using gene silencing strategy. Overall, we found that NIPP1 and EZH2 were overexpressed in both HCC tissue samples and HCC cell lines. High expression of HIPP1 was associated with poor prognosis and clinicopathological features in patients with advanced HCC. HIPP1 expression positively correlated with the expression of hypoxia marker (carbonic anhydrase IX). Hypoxia induced high expression of NIPP1. NIPP1/EZH2 knockdown in HCC cell lines under hypoxia suppressed the malignant phenotypes, reduced the expression of hypoxia-inducible Factor 1 alpha, downstream molecules of EZH2, and inhibit the activity of inflammatory factors."

According to the news editors, the research concluded: "We found that NIPP1 could be activated by hypoxia and contributed to hypoxia-induced invasive and metastatic potential in HCC."

For more information on this research see: Hypoxia-induced NIPP1 activation enhances metastatic potential and predicts poor prognosis in hepatocellular carcinoma. Tumor Biology, 2016;37(11):14903-14914. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news correspondents report that additional information may be obtained from Z.M. Wang, Central South University, Xiangya Hosp, Dept. of Hepatobiliary Surg, Changsha 410078, Hunan, People's Republic of China. Additional authors for this research include Y.M.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1007/s13277-016-5392-4. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Changsha, People's Republic of China, Asia,
Liver Cancer, Carcinomas, Cell Line, Oncology, Central South University.

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Biomedical Engineering - Tissue Engineering

Researchers at Changchun Institute of Applied Chemistry Have
Reported New Data on Tissue Engineering (Injectable Polypeptide
Hydrogels with Tunable Microenvironment for 3D Spreading and
Chondrogenic Differentiation of Bone-Marrow-Derived ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Current study results on Biomedical Engineering - Tissue Engineering have
been published. According to news originating from Changchun, People's Republic of China, by
NewsRx correspondents, research stated, "Bone-marrow-derived mesenchymal stem cells
(BMSCs) possess vast potential for tissue engineering and regenerative medicine. In this study,
an injectable hydrogel comprising poly(L-glutamic acid)-graft-tyramine (PLG-g-TA) with
tunable microenvironment was developed via enzyme-catalyzed cross-linking and used as an
artificial extracellular matrix (ECM) to explore the behaviors of BMSCs during three-
dimensional (3D) culture."

Financial support for this research came from National Natural Science Foundation
of China.

Our news journalists obtained a quote from the research from the Changchun
Institute of Applied Chemistry, "It was found that the mechanical property, porous structure as
well as degradation process of the hydrogels could be tuned by changing the copolymer
concentration. The PLG-g-TA hydrogels showed good cytocompatibility in vitro. After being
subcutaneously injected into the back of rats, the hydrogels degraded gradually within 8 weeks
and exhibited good biocompatibility in vivo. BMSCs were then encapsulated in the polypeptide-
based hydrogels with different copolymer concentration to investigate the influence of 3D
matrix microenvironment on stem cell behaviors. It is intriguing to note that the BMSCs within
the 2% hydrogel showed a well-spread morphology after 24 h and a higher proliferation rate
during 7 days of culture, in contrast to a rounded morphology and lower proliferation rate of
BMSCs in the 4% hydrogel. Furthermore, the hydrogels with different microenvironment also
regulated the matrix biosynthesis and the gene expression of BMSCs. After incubation in the
2% hydrogel for 4 weeks, the BMSCs produced more type II collagen and expressed higher
amounts of chondrogenic markers, compared to the cells in the 4% hydrogel."

According to the news editors, the research concluded: "Therefore, the PLG-g-TA
hydrogels with tunable microenvironment may serve as an efficient 3D platform for guiding the
lineage specification of BMSCs."

For more information on this research see: Injectable Polypeptide Hydrogels with
Tunable Microenvironment for 3D Spreading and Chondrogenic Differentiation of Bone-
Researchers at Changhua Christian Hospital Detail Findings in Liver Cancer (Dioscorea nipponica Attenuates Migration and Invasion by Inhibition of Urokinase-Type Plasminogen Activator through Involving PI3K/Akt and Transcriptional Inhibition of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Liver Cancer have been presented. According to news reporting originating in Changhua, Taiwan, by NewsRx journalists, research stated, "High mortality and morbidity rates for hepatocellular carcinoma (HCC) in Taiwan primarily result from uncontrolled tumor metastasis. In our previous studies, we have reported that Dioscorea nipponica Makino extract (DNE) has anti-metastasis effects on human oral cancer cells."

The news reporters obtained a quote from the research from Changhua Christian Hospital, "However, the effect of DNE on hepatoma metastasis have not been thoroughly investigated and remains poorly understood. To determine the effects of DNE on the migration and invasion in HCC cells we used a wound healing model, Boyden chamber assays, gelatin/casein zymography and Western blotting. Transcriptional levels of matrix metalloproteinase-9 (MMP-9) and urokinase-type plasminogen activator (u-PA) were detected by real-time PCR and promoter assays. In this study, DNE treatment significantly inhibited the migration/invasion capacities of Huh7 cell lines. The results of gelatin/casein zymography and Western blotting revealed that the activities and protein levels of the MMP-9 and u-PA were inhibited by DNE. Tests of the mRNA levels, real-time PCR, and promoter assays evaluated the inhibitory effects of DNE on u-PA expression in human hepatoma cells. A chromatin immunoprecipitation (ChIP) assay showed not only that DNE inhibits u-PA expression, but also the inhibitory effects were associated with the down-regulation of the transcription factors of NF-[Formula: see text]B and SP-1 signaling pathways. Western blot analysis also showed that DNE inhibits PI3K and phosphorylation of Akt."
According to the news reporters, the research concluded: "These results show that u-PA expression may be a potent therapeutic target in the DNE-mediated suppression of HCC invasion/migration. DNE may have potential use as a chemo-preventive agent against liver cancer metastasis."

For more information on this research see: Dioscorea nipponica Attenuates Migration and Invasion by Inhibition of Urokinase-Type Plasminogen Activator through Involving PI3K/Akt and Transcriptional Inhibition of NF-κB and SP-1 in Hepatocellular Carcinoma. The American Journal of Chinese Medicine, 2016;44(1):177-95. The American Journal of Chinese Medicine can be contacted at: World Scientific Publishing Co. Pte. Ltd., 5 Toh Tuck Link, Singapore 596224.

Our news correspondents report that additional information may be obtained by contacting M.J. Hsieh, *Cancer Research Center, Changhua Christian Hospital, Changhua 50006, Taiwan. Additional authors for this research include C.B. Yeh, H.L. Chiou, M.C. Hsieh and S.F. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1142/S0192415X16500129. This DOI is a link to an online electronic document that is either free or for purchase.


Keywords for this news article include: Asia, Pharmaceuticals, Taiwan, Changhua, Genetics, Oncology, Carcinomas, Hematology, Liver Cancer, Thrombolitics, Beta Globulins, Blood Proteins, Enzyme Precursors, Urokinase Therapy, Peptide Hydrolases, Drugs and Therapies, Coagulation Modifiers, Enzymes and Coenzymes, Serine Endopeptidases, Blood Coagulation Factors.

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**Oncology - Pancreatic Cancer**

**Researchers at Chiba University Report Findings in Pancreatic Cancer**

(2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Pancreatic Cancer have been published. According to news reporting from Chiba, Japan, by NewsRx journalists, research stated, "Excessive stroma is a unique property of cancer tissue of the pancreas. The aim of this study was to analyze the relationship of cancer stromal area (SA) and tumor microvessel density (MVD) with prognostic and clinicopathological findings."

The news correspondents obtained a quote from the research from Chiba University, "Pancreatic adenocarcinoma tissues obtained from 104 patients were subjected to cytokeratin 19 and CD31 double immunostaining to identify cancer cells and endothelial cells simultaneously. Stromal area and MVD were assessed in the same sections. Patients were divided into 2 groups for each analysis by the median value of the respective measure. Stromal area negatively correlated with MVD. The low SA group harbored more poorly differentiated carcinoma than the high SA group. Patients of the low SA group showed a higher incidence of hematogenous recurrence. As a consequence, patients in the low SA and the high MVD groups had poorer
prognosis in terms of both disease-free survival and overall survival than their respective groups. Multivariate analysis showed that a low SA was an independent prognostic factor for disease-free and overall survival. Our data indicate that the stroma of pancreatic cancer may play an auxiliary role as a barrier to cancer cell invasion.

According to the news reporters, the research concluded: "The depletion of tumor stroma alone does not suppress pancreatic cancer progression."

For more information on this research see: Low Stromal Area and High Stromal Microvessel Density Predict Poor Prognosis in Pancreatic Cancer. Pancreas, 2016;45(4):593-600. (Lippincott Williams and Wilkins - www.lww.com; Pancreas - journals.lww.com/pancreasjournal/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting T. Nishida, From the Dept. of General Surgery, Graduate School of Medicine, Chiba University, Chiba City, Chiba, Japan. Additional authors for this research include H. Yoshitomi, S. Takano, S. Kagawa, H. Shimizu, M. Ohtsuka, A. Kato, K. Furukawa and M. Miyazaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MPA.0000000000000499. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chiba, Japan, Oncology, Gastroenterology, Pancreatic Cancer, Microvessel Density, Pancreatic Neoplasms.

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Clinical Research - Clinical Trials and Studies

Researchers at China Academy of Chinese Medical Sciences Have Reported New Data on Clinical Trials and Studies (Acupuncture for Smoking Cessation in Hong Kong: A Prospective Multicenter Observational Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Clinical Research - Clinical Trials and Studies are presented in a new report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "This was a prospective multicenter observational study, aiming to explore the effects of acupuncture on smoking cessation in Hong Kong. From March of 2010 to August of 2015, a total of 5202 smokers were recruited based on inclusion criteria and treated with acupuncture for 8 weeks."

Financial supporters for this research include Traditional Chinese Medicine Profession of China, Department of Health of Hong Kong Special Administrative Region.

Our news journalists obtained a quote from the research from the China Academy of Chinese Medical Sciences, "As a result, 2940 subjects finished the study with a drop-out rate of 43.48%. The self-reported 7-day point abstinence rate was 34.00% in Week 8 and 18.40% in Week 52. The exhaled carbon monoxide level and the number of cigarettes smoked per day were reduced significantly after treatment. The time to relapse was calculated to be 38.71 days. In addition, 'cigarettes smoked per day,' 'Fagerstrom Test for Nicotine Dependence,' 'total sessions of acupuncture,' 'whether finished 8 acupuncture treatments in the first month,' and 'total sessions of acupuncture' were believed to be essential factors for abstinence success. It was concluded that acupuncture was a safe method for smoking cessation and was effective in
helping smokers to quit; therefore, acupuncture could be considered as one of the methods to help smokers quit."

According to the news editors, the research concluded: "Further studies regarding the effect differences between acupuncture and medications were needed to clarify the overall benefits of acupuncture."

For more information on this research see: Acupuncture for Smoking Cessation in Hong Kong: A Prospective Multicenter Observational Study. Evidence-Based Complementary and Alternative Medicine, 2016();1-8. Evidence-Based Complementary and Alternative Medicine can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Evidence-Based Complementary and Alternative Medicine - www.hindawi.com/journals/ecam/)

The news correspondents report that additional information may be obtained from J.S. Yang, China Academy Chinese Med Sci, Inst Acupuncture & Moxibust, Beijing, People's Republic of China. Additional authors for this research include Z. Liu, Y. Wu, O. Zhang, M. Chen, L.L. Huang, X.Q. He, G.Y. Wu and J.S. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/2865831. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Clinical Trials and Studies, Clinical Research, Hong Kong, China, Asia, China Academy of Chinese Medical Sciences.

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Oncology - Breast Cancer

Researchers at China Medical University and Hospital Detail Findings in Breast Cancer (Lapatinib increases motility of triple-negative breast cancer cells by decreasing miRNA-7 and inducing Raf-1/MAPK-dependent interleukin-6)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting from Taichung, Taiwan, by NewsRx journalists, research stated, "Lapatinib, a dual epidermal growth factor receptor (EGFR) and HER2 tyrosine kinase inhibitor (TKI), has been approved for HER2-positive breast cancer patients. Nevertheless, its inhibitory effect on EGFR did not deliver clinical benefits for triple-negative breast cancer (TNBC) patients even EGFR overexpression was frequently found in this disease."

The news correspondents obtained a quote from the research from China Medical University and Hospital, "Moreover, lapatinib was unexpectedly found to enhance metastasis of TNBC cells, but the underlying mechanisms are not fully understood. In this study, we explored that the level of interleukin-6 (IL-6) was elevated in lapatinib-treated TNBC cells. Treatment with IL-6 antibody abolished the lapatinib-induced migration. Mechanistically, the signaling axis of Raf-1/mitogen-activated protein kinases (MAPKs), c-Jun N-terminal kinases (JNKs), p38 MAPK, and activator protein 1 (AP-1) was activated in response to lapatinib treatment to induce IL-6 expression. Furthermore, our data showed that microRNA-7 directly binds and inhibits Raf-1 3’UTR activity, and that down-regulation of miR-7 by lapatinib contributes to the
activation of Raf-1 signaling pathway and the induction of IL-6 expression."

According to the news reporters, the research concluded: "Our results not only revealed IL-6 as a key regulator of lapatinib-induced metastasis, but also explored the requirement of miR7/Raf-1/MAPK/AP-1 axis in lapatinib-induced IL-6 expression."

For more information on this research see: Lapatinib increases motility of triple-negative breast cancer cells by decreasing miRNA-7 and inducing Raf-1/MAPK-dependent interleukin-6. Oncotarget, 2015;6(35):37965-78.

Our news journalists report that additional information may be obtained by contacting Y.C. Hsiao, The PhD program for Cancer Biology and Drug Discovery, China Medical University and Academia Sinica, Taichung, Taiwan. Additional authors for this research include M.H. Yeh, Y.J. Chen, J.F. Liu, C.H. Tang and W.C Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5700. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiwan, Taichung, Oncology, Cytokines, Breast Cancer, Interleukin 6, Women's Health, Membrane Proteins, Epidermal Growth Factor Receptor, Receptor Protein Tyrosine Kinases, Gastrointestinal Hormone Receptors, Intercellular Signaling Peptides and Proteins.

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**Apoptosis**

**Researchers at China Pharmaceutical University Report New Data on Apoptosis (Effect of CPU-XT-008, a combretastatin A-4 analogue, on the proliferation, apoptosis and expression of vascular endothelial growth factor and basic fibroblast growth ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Apoptosis is the subject of a report. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "The present study investigated the effect of the combretastatin A-4 analogue CPU-XT-008 on the proliferation, apoptosis and expression of vascular endothelial growth factor (VEGF) and basic fibroblast growth factor (FGF-2) in human umbilical vein endothelial cells (HUVECs). The proliferation capacity of HUVECs was analyzed with a cell viability assay, while their apoptosis and migration abilities were evaluated via flow cytometry and monolayer denudation assay, respectively."

The news correspondents obtained a quote from the research from China Pharmaceutical University, "The mRNA and protein expression levels of VEGF and FGF-2 in these cells were determined by reverse transcription-polymerase chain reaction, and cell-based ELISA, western blotting and immunocytochemistry, respectively. The results demonstrated that CPU-XT-008 inhibited proliferation and migration, and induced apoptosis in HUVECs in a dose-dependent manner. In addition, CPU-XT-008 downregulated the mRNA and protein expression levels of VEGF and FGF-2 in these cells."

According to the news reporters, the research concluded: "These findings suggest that CPU-XT-008 exerts anti-angiogenic effects in HUVECs, which may explain the inhibition of cell proliferation and migration, induction of apoptosis, and reduction in the mRNA and
protein expression levels of VEGF and FGF-2 observed in the present study."

For more information on this research see: Effect of CPU-XT-008, a combretastatin A-4 analogue, on the proliferation, apoptosis and expression of vascular endothelial growth factor and basic fibroblast growth factor in human umbilical vein endothelial cells. Oncology Letters, 2015;11(1):491-499.

Our news journalists report that additional information may be obtained by contacting R. Xiong, School of Life Science and Technology, China Pharmaceutical University, Nanjing, Jiangsu 211198, People's Republic of China. Additional authors for this research include J. Sun, K. Liu, Y. Xu and S. He.

Keywords for this news article include: Asia, VEGF, Jiangsu, Genetics, Apoptosis, Proteomics, Fibroblasts, Protein Kinases, Endothelial Cells, Membrane Proteins, Protein Expression, Angiogenic Proteins, Phosphotransferases, Connective Tissue Cells, Growth Factor Receptors, People's Republic of China, Receptor Protein Tyrosine Kinases.

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Clinical Research - Clinical Trials and Studies

Researchers at Chinese Academy of Medical Sciences Report Findings in Clinical Trials and Studies (Open three-stage transthoracic oesophagectomy versus minimally invasive thoraco-laparoscopic oesophagectomy for oesophageal cancer: protocol for ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Clinical Research - Clinical Trials and Studies are presented in a new report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Oesophageal cancer is the eighth most common cause of cancer worldwide. In 2009 in China, the incidence and death rate of oesophageal cancer was 22.14 per 100 000 person-years and 16.77 per 100 000 person-years, respectively, the highest in the world."

Our news journalists obtained a quote from the research from the Chinese Academy of Medical Sciences, "Minimally invasive oesophagectomy (MIO) was introduced into clinical practice with the aim of reducing the morbidity rate. The mechanisms of MIO may lie in minimising the reaction to surgical injury and inflammation. There are some randomised trials regarding minimally invasive versus open oesophagectomy, with 100-850 subjects enrolled. To date, no large randomised controlled trial comparing minimally invasive versus open oesophagectomy has been reported in China, where squamous cell carcinoma predominated over adenocarcinoma of the oesophagus. This is a 3 year multicentre, prospective, randomised, open and parallel controlled trial, which aims to compare the effectiveness of minimally invasive thoraco-laparoscopic oesophagectomy to open three-stage transthoracic oesophagectomy for resectable oesophageal cancer. Group A patients receive MIO which involves thoracoscopic oesophagectomy and laparoscopic gastric mobilisation with cervical anastomosis. Group B patients receive the open three-stage transthoracic oesophagectomy which involves a right thoracotomy and laparotomy with cervical anastomosis. Primary endpoints include respiratory complications within 30 days after operation. The secondary endpoints include other postoperative complications, influences on pulmonary function, intraoperative data including blood loss, operative time, the number and location of lymph nodes dissected,
Researchers at Chinese Academy of Medical Sciences Report Findings in Porphyrins (Real-Time Fluorescence Tracking of Protoporphyrin Incorporated Thermosensitive Hydrogel and Its Drug Release in Vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Biological Factors - Porphyrins are presented in a new report. According to news originating from Tianjin, People's Republic of China, by NewsRx correspondents, research stated, "Fluorescence imaging in vivo will pave an important way for the evaluation of biomaterials. The major advantage of fluorescence imaging compared to other imaging modalities is the possibility of tracking two or more fluorescence probes simultaneously with multispectral fluorescence imaging."

Financial supporters for this research include Natural Science Foundation of Tianjin City, National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from the Chinese Academy of Medical Sciences, "It is essential to elucidate the location, erosion, drug release and resection of implanted biomaterials in vivo. Herein, a thermosensitive hydrogel with a protoporphyrin core based on a PEG and PCL copolymer (PCL-PEG-PPOR-PEG-PCL) was synthesized by ring-opening polymerization using protoporphyrin as a fluorescence tag. The optical properties

Biological Factors - Porphyrins

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of the hydrogel were investigated by UV-vis and fluorescence spectroscopy in vitro and by fluorescence imaging system in vivo. The hydrogel erosion and drug delivery in vivo were monitored and tracked by multispectral fluorescence imaging system in nude mice. The results show that the thermosensitive hydrogel exhibits fluorescence and injectability in vivo with good biocompatibility. Through the modality of fluorescence imaging, the status of the hydrogel is reflected in situ in vivo including its location and erosion. Multispectral analysis separates the autofluorescence signals from the specific label and provides the ability to locate the drug and carrier.

According to the news editors, the research concluded: "The protoporphyrin incorporated thermosensitive hydrogel can be a potential visible biomedical implant for tissue repair or drug delivery."


The news correspondents report that additional information may be obtained from X. Dong, Tianjin Key Laboratory of Biomedical Materials, Institute of Biomedical Engineering, Chinese Academy of Medical Sciences & Peking Union Medical College, Tianjin 300192, People's Republic of China. Additional authors for this research include C. Wei, T. Liu, F. Lv and Z. Qian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.5b11493. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tianjin, Alcohols, Hydrogel, Protoporphyrins, Organic Chemicals, Biological Factors, Drugs and Therapies, Polyethylene Glycols, People's Republic of China.

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**Oncology - Non-Small Cell Lung Cancer**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Non-Small Cell Lung Cancer have been presented. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Inhibition of heat shock protein (Hsp90) has been proven to be effective in overriding primary and acquired resistance of kinase inhibitors. In this study, we investigated the role of FS-108, a newly developed Hsp90 inhibitor, to overcome gefitinib resistance in EGFR mutant non-small cell lung cancer cells."

Our news editors obtained a quote from the research from the Chinese Academy of Sciences, "Cell proliferation was assessed using the SRB assay. Cell cycle distribution and apoptosis were analyzed by flow cytometry. Protein expression was examined by Western blotting. The in vivo effectiveness of FS-108 was determined in an NCI-H1975 subcutaneous xenograft model. FS-108 triggered obvious growth inhibition in gefitinib-resistant
HCC827/GR6, NCI-H1650 and NCI-H1975 cells through inducing G(2)/M phase arrest and apoptosis. FS-108 treatment resulted in a remarkable degradation of key client proteins involved in gefitinib resistance and further abrogated their downstream signaling pathways. Interestingly, FS-108 alone exerted an identical or superior effect on circumventing gefitinib resistance compared to combined kinase inhibition. Finally, the ability of FS-108 to overcome gefitinib resistance in vivo was validated in an NCI-H1975 xenograft model.

According to the news editors, the research concluded: "FS-108 is a powerful agent that impacts the survival of gefitinib-resistant cells in vitro and in vivo through targeting Hsp90."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/aps.2016.85. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Non-Small Cell Lung Cancer, Enzymes and Coenzymes, Xenotransplantion, Lung Neoplasms, Biotechnology, Xenografts, Oncology, Kinase, Chinese Academy of Sciences.

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Drugs and Therapies - Phytotherapy

Researchers at College of Pharmacy Release New Data on Phytotherapy (Novel Compounds with new Anti-Ulcergenic Activity from Convolvulus pilosellifolius Using Bio-Guided Fractionation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Phytotherapy is the subject of a report. According to news originating from Al Kharj, Saudi Arabia, by NewsRx correspondents, research stated, "Oral administration of the total alcohol extract of Convolvulus pilosellifolius Desr. (250 and 500 md/kg) showed potent anti-ulcergenic activity in absolute ethanol-induced ulcer model in rats; it showed percent protection of control ulcer by 69.2 and 84.6%, respectively, while standard ranitidine (100 mg/kg) exhibited 46.2%. Bio-guided work leads to isolation of two novel compounds (1 and 2), which were identified through H-1, C-13 NMR, HMPC, HMQC and DEPT as: methyl 2-(hydroxymethyl) octanoate, named as amanitate, and 16-amino-9,13-dimethyl-17-(prop-1-en-2-yl)-hexadecahydro-1H-cyclopenta[a]phenanthren-3-ol, named as asmatol."

Our news journalists obtained a quote from the research from the College of Pharmacy, "Both compounds (50 mg/kg) possessed anti-ulcergenic activity with 95.4% and
55.84% protection, respectively. Two known compounds (3 and 4) were also isolated and identified through comparison with authentic samples and confirmed through different NMR techniques as kampeferol and quercetin. These compounds also showed anti-ulcerogenic activity with 78.38% and 5.38% protection, respectively. The cytoprotective mechanism explains the potent anti-ulcerogenic activity of the total alcohol extract and the isolated compounds. The extract was highly safe as the LD50 was more than 5000 mg/kg.

According to the news editors, the research concluded: "These results were well supported by the sub-chronic toxicity study, as the extract (500 mg/kg) administrated orally to rats for 35 consecutive days showed no alteration in the liver and kidney functions."


The news correspondents report that additional information may be obtained from A.S. Awaad, Prince Sattam Bin Abdulaziz Univ, Coll Pharm, Dept. of Pharmacognosy, Al Kharj, Saudi Arabia. Additional authors for this research include A. Al-Refaie, R. El-Meligy, M. Zain, H. Soliman, M.S. Marzoke and N. El-Sayed.

Keywords for this news article include: Al Kharj, Saudi Arabia, Asia, Phytotherapy, Drugs and Therapies, College of Pharmacy.

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Inflammation

Researchers at Columbia University Have Reported New Data on Inflammation (A Novel Link between Inflammation and Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Inflammation. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "Immune checkpoint-blockade treatments targeting PD-1/PD-L1 have revolutionized cancer therapy."

Our news journalists obtained a quote from the research from Columbia University, "Hence, understanding the regulation of PD-L1 expression has major clinical relevance."

According to the news editors, the research concluded: "In this issue of Cancer Cell, Lim et al. report that inflammation-induced and NF-kappa B-driven expression of deubiquitinating enzyme CSN5 leads to PD-L1 stabilization and immune suppression in tumors."

For more information on this research see: A Novel Link between Inflammation and Cancer. Cancer Cell, 2016;30(6):829-830. Cancer Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cancer Cell - www.journals.elsevier.com/cancer-cell/)

Our news journalists report that additional information may be obtained by contacting S. Ghosh, Columbia University, Dept. of Microbiol & Immunol, Coll Phys & Surg, New York, NY 10032, United States.

The direct object identifier (DOI) for that additional information is:
Researchers at Creighton University School of Medicine Release New Data on Type 2 Diabetes (FOXO1 Mediates Vitamin D Deficiency-Induced Insulin Resistance in Skeletal Muscle)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news reporting originating from Omaha, Nebraska, by NewsRx correspondents, research stated, "Prospective epidemiological studies have consistently shown a relationship between vitamin D deficiency, insulin resistance, and type 2 diabetes mellitus (DM2). This is supported by recent trials showing that vitamin D supplementation in prediabetic or insulin-resistant patients with inadequate vitamin D levels improves insulin sensitivity."

Financial support for this research came from National Institutes of Health.

Our news editors obtained a quote from the research from the Creighton University School of Medicine, "However, the molecular mechanisms underlying vitamin D deficiency-induced insulin resistance and DM2 remain unknown. Skeletal muscle insulin resistance is a primary defect in the majority of patients with DM2. Although sustained activation of forkhead box O1 (FOXO1) in skeletal muscle causes insulin resistance, a relationship between vitamin D deficiency and FOXO1 activation in muscle is unknown. We generated skeletal muscle-specific vitamin D receptor (VDR)-null mice and discovered that these mice developed insulin resistance and glucose intolerance accompanied by increased expression and activity of FOXO1. We also found sustained FOXO1 activation in the skeletal muscle of global VDR-null mice. Treatment of C2C12 muscle cells with 1,25-dihydroxyvitamin D (VD3) reduced FOXO1 expression, nuclear translocation, and activity. The VD3-dependent suppression of FOXO1 activation disappeared by knockdown of VDR, indicating that it is VDR-dependent. Taken together, these results suggest that FOXO1 is a critical target mediating VDR-null signaling in skeletal muscle."

According to the news editors, the research concluded: "The novel findings provide the conceptual support that persistent FOXO1 activation may be responsible for insulin resistance and impaired glucose metabolism in vitamin D signaling-deficient mice, as well as evidence for the utility of vitamin D supplementation for intervention in DM2."


The news editors report that additional information may be obtained by contacting S. Chen, Center for Clinical & Translational Science, Creighton University School of Medicine, Omaha, NE, United States. Additional authors for this research include S.A. Villalta and D.K
Researchers at Cukurova University Report New Data on Metabolic Syndrome (Carotid Intima-Media Thickness as the Cardiometabolic Risk Indicator in Patients with Nonfunctional Adrenal Mass and Metabolic Syndrome Screening)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Metabolic Syndrome. According to news originating from Adana, Turkey, by NewsRx correspondents, research stated, "Our purpose was to show the association of adrenal incidentaloma and metabolic syndrome in consideration of the studies and to detect the increase in the carotid intima-media thickness which is regarded as the precursor of atherosclerosis. Eighty-one patients who were diagnosed with adrenal mass were included in the study."

Our news journalists obtained a quote from the research from Cukurova University, "Hormonal evaluation, insulin resistance measurement with the HOMA-IR and 1-mg DST were performed of all patients. The patients were classified as follows: mass size <3 cm (K1) and mass size of at least 3 cm (K2). Echocardiography and carotid intima-media thickness of the patients were measured using B-mode ultrasound. Thirty-three healthy individuals were enrolled as the control group. Mass size of 64.19% K1, while mass size of the remainder (35.81%) K2 was calculated. Five of the patients with adrenal mass were detected to have subclinical Cushing syndrome. The remaining 76 patients were accepted as nonfunctional. It was seen with regard to metabolic and biochemical parameters that plasma glucose (p=0.01), insulin (p=0.00) and triglyceride (p=0.012) values of all patients were significantly high compared to those of the control group. It was detected that measured heart rate (p=0.00), end-diastolic diameter (p=0.02), end-systolic diameter (p=0.014) and carotid intima-media thickness (p=0.00) values of the patients with adrenal mass were significantly higher than those of the healthy control group."

According to the news editors, the research concluded: "We found that the increased insulin resistance, increased risk of cardiovascular disease with the increase in the thickness of carotid intima-media and diastolic disfunction parameters, although the patients with adrenal incidentaloma are nonfunctional."

For more information on this research see: Carotid Intima-Media Thickness as the Cardiometabolic Risk Indicator in Patients with Nonfunctional Adrenal Mass and Metabolic Syndrome Screening. Medical Science Monitor, 2016;22():991-7.

The news correspondents report that additional information may be obtained from M. Evran, Dept. of Internal Medicine, Division of Endocrinology, Cukurova University,
Researchers at Daiichi Sankyo Have Reported New Data on Type 2 Diabetes (A thorough QTc study demonstrates that olmesartan medoxomil does not prolong the QTc interval)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news originating from Edison, New Jersey, by NewsRx correspondents, research stated, "Two studies (ROADMAP and ORIENT) evaluating the renoprotective effects of olmesartan medoxomil (OM) in patients with type 2 diabetes suggested OM is associated with increased cardiovascular mortality. We conducted a thorough QTc study to evaluate the effects of OM on cardiac repolarization."

Our news journalists obtained a quote from the research from Daiichi Sankyo, "A randomized, double-blind, phase 1 study was conducted per E14 Guidance to assess the effects of single doses of OM therapeutic dose (40 mg), OM supratherapeutic dose (160 mg), placebo, or moxifloxacin (MOXI; 400 mg) on QTc in 56 healthy subjects. The primary endpoint was the baseline-adjusted, placebo-corrected QTc interval using Fridericia's formula (DDQTcF) for OM and MOXI. Assay sensitivity was concluded if lower limit of 1-sided 95%CI >5 milliseconds of DDQTcF for MOXI. No threshold pharmacologic effect for OM was concluded if upper limit of 1-sided 95%CI <10 milliseconds for DDQTcF at any timepoint. Pharmacokinetics, ECGs, and safety were assessed. Assay sensitivity was demonstrated. The largest upper limit of the 1-sided 95%CI for DDQTcF was <5 milliseconds for OM. No clinically significant changes were observed in ECGs. Pharmacokinetics and safety profile were consistent with previous data."

According to the news editors, the research concluded: "Therapeutic and supratherapeutic OM doses had no clinically significant effect on cardiac repolarization and were well tolerated."

For more information on this research see: A thorough QTc study demonstrates that olmesartan medoxomil does not prolong the QTc interval. Journal of Clinical Pharmacology, 2015;56(4):484-91. Journal of Clinical Pharmacology can be contacted at: SAGE Publications, USA , 2455 Teller Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com/; Journal of Clinical Pharmacology - jcp.sagepub.com)

The news correspondents report that additional information may be obtained from J. Mendell, Daiichi Sankyo Pharma Development, Edison, NJ, United States. Additional authors for this research include N. Matsushima, T.E. O'Reilly and J. Lee.

The direct object identifier (DOI) for that additional information is:
Researchers at Daini Hospital Target Chronic Kidney Disease (Association between 1,25-dihydroxyvitamin D and left atrial diameter in pre-dialysis chronic kidney disease patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Kidney Diseases and Conditions - Chronic Kidney Disease. According to news reporting out of Nagoya, Japan, by NewsRx editors, research stated, "To investigate the correlation between serum 1,25-dihydroxyvitamin D (1,25D) levels and left atrial diameter (LAD) using echocardiography in pre-dialysis chronic kidney disease (CKD). From an initial population of 487 patients (109 met the exclusion criteria), a total of 378 patients with CKD stage 3a - 5 who had not undergone dialysis or kidney transplantation were included in the study."

Our news journalists obtained a quote from the research from Daini Hospital, "The relationship between serum 1,25D levels and LAD was examined. Moreover, factors that impacted LAD were extracted through stepwise multiple regression analyses. Serum 1,25D levels correlated negatively with LAD, left ventricular end-diastolic diameter, interventricular septum thickness, end-diastolic volume, stroke volume, left ventricular mass index (LVMI), and E/e'. Stepwise multiple regression analyses revealed there was a significant relationship between serum 1,25D levels and LAD (regression coefficient = -0.070, p = 0.001). In the stratified analysis, serum 1,25D levels were associated with LAD in the LVMI < 125 g/m(2) (regression coefficient = -0.067, p = 0.038) and ejection fraction (EF) > 60% groups (regression coefficient = -0.080, p = 0.004)."

According to the news editors, the research concluded: "Serum 1,25D levels were independently associated with LAD in CKD patients; however, the association was not significant in patients with an EF < 60% and LVMI > 125 g/m(2)."

For more information on this research see: Association between 1,25-dihydroxyvitamin D and left atrial diameter in pre-dialysis chronic kidney disease patients. *Clinical Nephrology*, 2016;86(5):229-235. *Clinical Nephrology* can be contacted at: Dustri-Verlag Dr Karl Feistle, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.

Our news journalists report that additional information may be obtained by contacting D. Inaguma, Japanese Red Cross Nagoya Daini Hosp, Dept. of Nephrol, Nagoya, Aichi, Japan. Additional authors for this research include H. Shinjo, A. Tanaka, E. Ito, N. Kamegai, A. Kato, M. Mizutani, H. Shimogushi, Y. Otuka, A. Takeda, M. Hasegawa and Y.
Researchers at Department of Hematology Release New Data on Acute Leukemia (Influence of pre-existing invasive aspergillosis on allo-HSCT outcome: a retrospective EBMT analysis by the Infectious Diseases and Acute Leukemia Working Parties)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Acute Leukemia have been published. According to news reporting originating from Berlin, Germany, by NewsRx correspondents, research stated, "Historically, invasive aspergillosis (IA) has been a major barrier for allogeneic hematopoietic stem cell transplantation (allo-HSCT). The influence of invasive IA on long-term survival and on transplant-related complications has not been investigated in a larger patient cohort under current conditions."

Our news editors obtained a quote from the research from the Department of Hematology, "Our aim was to analyze the long-term outcome of patients undergoing allo-HSCT with a history of prior IA. We used European Society for Blood and Marrow Transplantation database data of first allo-HSCTs performed between 2005 and 2010 in patients with acute leukemia. One thousand one hundred and fifty patients with data on IA before allo-HSCT were included in the analysis. The median follow-up time was 52.1 months. We found no significant impact of IA on major transplant outcome variables such as overall survival, relapse-free survival, non-relapse mortality, cumulative incidence of acute GvHD grade II-IV, chronic GvHD, pulmonary complications and leukemia relapse. However, we found a trend toward lower overall survival (p=0.078, hazard ratio (HR) (95% confidence interval (CI)): 1.16 (0.98, 1.36)) and higher non-relapse mortality (p=0.150, HR (95% CI): 1.19 (0.94, 1.50)) in allo-HSCT recipients with pre-existing IA."

According to the news editors, the research concluded: "Our data suggest that a history of IA should not generally be a contraindication when considering the performance of allo-HSCT in patients with acute leukemia."

For more information on this research see: Influence of pre-existing invasive aspergillosis on allo-HSCT outcome: a retrospective EBMT analysis by the Infectious Diseases and Acute Leukemia Working Parties. Bone Marrow Transplantation, 2015;51(3):418-23. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

The news editors report that additional information may be obtained by contacting O. Penack, Dept. of Hematology, Oncology and Tumorimmunology, Charite University Medicine Berlin, Campus Virchow Klinikum, Allogeneic Stem Cell Transplantation Service, Berlin, Germany. Additional authors for this research include G. Tridello, J. Hoek, G. Socie, D. Blaise, J. Passweg, P. Chevallier, C. Craddock, N. Milpied, H. Veelken, J. Maertens, P. Ljungman, J. Cornelissen, A. Thiebaut-Bertrand, B. Lioure, M. Michallet, S. Iacobelli and.
Researchers at Department of Oral Pathology Discuss Findings in Cancer Risk (Role of podoplanin in potentially malignant disorders and oral squamous cell carcinoma and its correlation with lymphangiogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cancer Risk have been presented. According to news reporting out of Panchkula, India, by NewsRx editors, research stated, "Oral squamous cell carcinoma (OSCC) ranks as one of the most common types of cancer and oral potentially malignant lesions (OPMLs) provides with an overall increased risk for development of carcinoma. As podoplanin expression is attracting interest as a marker for cancer diagnosis and prognosis, this study assesses the role of podoplanin expression in such lesions."

Our news journalists obtained a quote from the research from the Department of Oral Pathology, "Podoplanin expression and lymphatic vessel density (LVD) was determined using D2-40, a marker for podoplanin, in 70 diagnosed cases of potentially malignant lesions and OSCC. Normal epithelium showed negligible podoplanin expression, whereas the expression extended predominantly at the basal layer and the suprabasal layer or above at one or multiple areas in potentially malignant lesions. Podoplanin expression in OSCC showed two different patterns-diffuse and focal. A statistically significant increase in mean LVD was seen from normal epithelium to potentially malignant lesions (p<0.001) and to OSCC (p<0.022) while a non-significant increase was seen (p<0.594) between OPMLs and OSCC. Overall no significant correlation was found between D2-40 epithelial positivity and LVD (p=0.122). This study suggests the utility of podoplanin as a biomarker for cancer risk assessment as it detects the early changes and thus provides an additional value beyond current clinical and histopathological evaluations."

According to the news editors, the research concluded: "Hence, podoplanin is suggested to be a marker of tumor initiation and to a lesser extent of tumor progression."

For more information on this research see: Role of podoplanin in potentially malignant disorders and oral squamous cell carcinoma and its correlation with lymphangiogenesis, Indian Journal of Cancer, 2015;52(4):617-22.

Our news journalists report that additional information may be obtained by contacting S. Parhar, Dept. of Oral Pathology, Swami Devi Dyal Hospital and Dental College, Barwala, Panchkula, India. Additional authors for this research include H. Kaur, A. Vashist and S. Verma.

The direct object identifier (DOI) for that additional information is:
Researchers at Department of Pediatrics Have Reported New Data on Medical Research [The FTO rs9939609 and LEPR rs1137101 mothers-newborns gene polymorphisms and maternal fat mass index effects on anthropometric characteristics in newborns A ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Health and Medicine - Medical Research have been presented. According to news reporting out of Targu Mures, Romania, by NewsRx editors, research stated, "The aim of this study was to assess the impact of mothers' and newborns' fat mass and obesity-associated gene (FTO) rs9939609 and leptin receptor (LEPR) rs1137101 gene polymorphisms on neonatal anthropometric parameters in order to identify a potential risk for developing obesity. We performed a cross-sectional study on 355 mother-newborn couples in an Obstetrics Gynecology Tertiary Hospital from Romania, evaluated with regard to anthropometric parameters, clinical and laboratory parameters besides 2 genetic polymorphisms (FTO rs9939609 and LEPR rs1137101)."

Our news journalists obtained a quote from the research from the Department of Pediatrics, "Newborns with mothers carrying variant AT or AA genotype for FTO rs9939609 presented lower BMI (P=0.012) and lower MUAC (P=0.029). There was a significant interaction effect between newborn and mother LEPR rs1137101 polymorphism on birth weight (P=0.009) and BMI (P=0.007). We noticed significantly increased birth weight and BMI in newborns carriers of AG + GG genotype, coming from mothers with AA genotype (P=0.006). There was no evidence of significant interaction effect between newborn and mother FTO rs9939609 polymorphism on the studied anthropometrical data (P >0.05). In addition, lower BMI scores (P=0.042) were observed in newborns carriers of TT genotype whose mothers had AA + AT genotype. Lower MUAC scores (P=0.041) were noticed in newborns carriers of AA + AT genotype whose mothers had AA + AT genotype for FTO rs9939609 gene polymorphism. Newborns carriers of the AG + GG genotype (P=0.003) of LEPR rs1137101 coming from mothers with increased FMI (upper tertile) had significantly increased BMIs. Presence of the variant A allele of FTO rs9939609 polymorphism in mothers decreased BMI and MUAC in newborns. The impact of LEPR rs1137101 polymorphism on BMI and birth weight in newborns differed depending on the presence/absence of the dominant LEPR allele in mothers. In addition, we noticed that maternal FMI presented a significant positive effect on newborns' BMI by changing the effect of LEPR rs1137101."

According to the news editors, the research concluded: "We can conclude that mothers' FTO rs9939609 and LEPR rs1137101 gene polymorphisms presented an impact on birth weight and newborns' BMI, therefore being involved in the newborns' nutritional status and in the design of a potential protocol."

For more information on this research see: The FTO rs9939609 and LEPR
rs1137101 mothers-newborns gene polymorphisms and maternal fat mass index effects on anthropometric characteristics in newborns A cross-sectional study on mothers-newborns gene polymorphisms-The FTO-LEPR Study (STROBE-compl. Medicine, 2016;95(49):376-385. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting C.O. Marginean, Univ Med & Pharm Tirgu Mures, Dept. of Pediat, Tirgu Mures 540139, Romania. Additional authors for this research include C.O. Marginean, M. Iancu, L.E. Melit, F. Tripon and C. Banescu.

Keywords for this news article include: Targu Mures, Romania, Europe, Medical Research, Health and Medicine, Genetics, Risk and Prevention, Genetics, Department of Pediatrics.

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Drugs and Therapies - Drug Delivery Systems

Researchers at Department of Pharmaceuticals Target Drug Delivery Systems (Citric acid crosslinked cyclodextrin/hydroxypropylmethylcellulose hydrogel films for hydrophobic drug delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Drug Delivery Systems are discussed in a new report. According to news originating from Maharashtra, India, by NewsRx correspondents, research stated, "The present communication deals with preparation of beta-cyclodextrin (beta CD) grafted hydroxypropylmethylcellulose (HPMC) hydrogel films using citric acid as crosslinking agent with the aim of improving the loading and achieving controlled release of hydrophobic weak base (ketoconazole). The hydrogel films were characterized by attenuated total reflectance-fourier transform infrared (ATR-FTIR) spectroscopy, solid state C-13-nuclear magnetic resonance (C-13 NMR) spectroscopy, thermal analysis and scanning electron microscopy (SEM)."

Our news journalists obtained a quote from the research from the Department of Pharmaceuticals, "The films were evaluated for p) content, carboxyl content, swelling ratio, drug loading, drug release and hemolytic assay. ATR-FTIR spectra indicated crosslinking via ester formation whereas C-13 NMR, thermal analysis and SEM confirmed beta CD grafting. The beta CD grafted hydrogel films with high carboxyl content showed maximum swelling and high drug loading. The presence of grafted beta CD helped to retard the release of ketoconazole from the hydrogel films. The hemolytic assay suggested the biocompatible nature of the hydrogel films."

According to the news editors, the research concluded: "Altogether, beta CD grafted HPMC hydrogel films were found to be suitable for delivery of poorly soluble weak bases."

For more information on this research see: Citric acid crosslinked cyclodextrin/hydroxypropylmethylcellulose hydrogel films for hydrophobic drug delivery. International Journal of Biological Macromolecules, 2016;93():75-86. International Journal of Biological Macromolecules can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae
Researchers at Department of Pharmacology Target HIV/AIDS (Prime, Shock, and Kill: Priming CD4 T Cells from HIV Patients with a BCL-2 Antagonist before HIV Reactivation Reduces HIV Reservoir Size)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immune System Diseases and Conditions - HIV/AIDS. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "Understanding how some HIV-infected cells resist the cytotoxicity of HIV replication is crucial to enabling HIV cure efforts. HIV killing of CD4 T cells that replicate HIV can involve HIV protease-mediated cleavage of procaspase 8 to generate a fragment (Casp8p41) that directly binds and activates the mitochondrial proapoptotic protein BAK."

Funders for this research include HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID), HHS | NIH | National Center for Advancing Translational Sciences (NCATS), HHS | NIH | National Cancer Institute (NCI).

The news correspondents obtained a quote from the research from the Department of Pharmacology, "Here, we demonstrate that Casp8p41 also binds with nanomolar affinity to the antiapoptotic protein Bcl-2, which sequesters Casp8p41 and prevents apoptosis. Further, we show that central memory CD4 T cells (TCM) from HIV-infected individuals have heightened expression of BCL-2 relative to procaspase 8, possibly explaining the persistence of HIV-infected TCMdespite generation of Casp8p41. Consistent with this hypothesis, the selective BCL-2 antagonist venetoclax induced minimal killing of uninfected CD4 T cells but markedly increased the death of CD4 T cells and diminished cell-associated HIV DNA when CD4 T cells from antiretroviral therapy (ART)-suppressed HIV patients were induced with aCD3/aCD28 to reactivate HIVex vivo Thus, priming CD4 T cells from ART suppressed HIV patients with a BCL-2 antagonist, followed by HIV reactivation, achieves reductions in cell-associated HIV DNA, whereas HIV reactivation alone does not. HIV infection is incurable due to a long-lived reservoir of HIV(+)+memory CD4 T cells, and no clinically relevant interventions have been identified that reduce the number of these HIV DNA-containing cells. Since postintegration HIV replication can result in HIV protease generation of Casp8p41, which activates BAK, causing
infected CD4 T cell death, we sought to determine whether this occurs in memory CD4 T cells. Here, we demonstrate that memory CD4 T cells can generate Casp8p41 and yet are intrinsically resistant to death induced by diverse stimuli, including Casp8p41. Furthermore, BCL-2 expression is relatively increased in these cells and directly binds and inhibits Casp8p41's proapoptotic effects. Antagonizing BCL-2 with venetoclax derepresses this antagonism, resulting in death, preferentially in HIV DNA containing cells, since only these cells generate Casp8p41."

According to the news reporters, the research concluded: "Thus, BCL-2 antagonism is a clinically relevant intervention with the potential to reduce HIV reservoir size in patients."


Our news journalists report that additional information may be obtained by contacting S.H. Kaufmann, Dept. of Pharmacology, Mayo Clinic, Rochester, Minnesota USA. Division of Oncology Research, Mayo Clinic, Rochester, Minnesota, United States. Additional authors for this research include A.M. Sainski, H. Dai, S. Natesampillai, Y.P. Pang, G.D. Bren, M.C. de Araujo Correia, R. Sampath, S.A. Rizza, D. O'Brien, J.D. Yao, S.H. Kaufmann and A.D Badley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/JVI.03179-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, HIV/AIDS, Protease, Rochester, Minnesota, RNA Viruses, Retroviridae, United States, HIV Infections, Vertebrate Viruses, Primate Lentiviruses, Enzymes and Coenzymes, North and Central America, Immune System Diseases and Conditions, Viral Sexually Transmitted Diseases and Conditions.

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Immunology - Lymphoid Tissue

Researchers at Department of Respiratory Release New Data on Lymphoid Tissue (Endobronchial Ultrasound Elastography for Diagnosing Mediastinal and Hilar Lymph Nodes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Lymphoid Tissue. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Pathophysiologica processes, such as malignancy, can lead to the formation of stiffer tissue in lung cancers. Endobronchial ultrasound (EBUS) elastography is a novel technique for measuring tissue stiffness during EBUS-guided transbronchial needle aspiration (EBUS-TBNA)."

Our news journalists obtained a quote from the research from the Department of Respiratory, "The current study was conducted to investigate the diagnostic value of EBUS elastography for mediastinal and hilar lymph node metastasis in lung cancers. From January 2014 to January 2015, 40 patients suspected of lung cancer were enrolled, and a total of 68 lymph nodes were evaluated by EBUS-TBNA. EBUS-guided elastography of lymph nodes was performed prior to EBUS-TBNA. Standard EBUS characteristics were also described."
Pathological determination of malignant or benign lymph nodes was used as the gold standard for this study. If EBUS-TBNA did not result in a formal pathological diagnosis of malignancy, patients were referred for a surgical procedure. Comparisons of elastography and standard EBUS characteristics were made between benign and malignant lymph nodes. Elastography grading scores and strain ratios showed significant differences between benign and malignant lymph nodes (p=0.000). The elastography strain ratio was more sensitive and specific for determining malignant lymph nodes than elastography grading score or standard EBUS criteria. The receiver operating characteristic curve for the elastography strain ratio showed an area under the curve of 0.933. The best cut-off point of the strain ratio for differentiating malignant from benign lymph nodes was 32.07. The elastography strain ratio had a sensitivity of 88.1%, the specificity of 80.8%, positive predictive value of 88.1%, and negative predictive value of 80.8% for distinguishing malignant from benign nodes. The overall accuracy of elastography strain ratio was 85.3%. The strain ratio of malignant and benign lymph nodes positively correlated with the elastography grading score (r=0.561, p=0.000). EBUS elastography can be effectively used to predict mediastinal and hilar lymph node metastases in lung cancer.

According to the news editors, the research concluded: "This noninvasive technique may thus complement standard EBUS and help guide EBUS-TBNA procedures."


The news correspondents report that additional information may be obtained from X.D. Lyu, Dept. of Respiratory, The First People's Hospital of Nantong, Nantong, Jiangsu 226001, People's Republic of China. Additional authors for this research include M. Huang, J. Zhu, H. Ma and X.D Lyu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.167296. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the *Chinese Medical Journal* is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Jiangsu, Immunology, Lymph Nodes, Lymphoid Tissue, Hemic and Immune Systems, People's Republic of China.

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has been previously shown to stimulate pellicle formation and cellulose biosynthesis. A screen for genes involved in cellulose production under high c-di-GMP intracellular levels led to the identification of insertions in two genes, wssB and wssE, belonging to the Pto DC3000 cellulose biosynthesis operon wssABCDEFGH.

Financial supporters for this research include Spanish Ministerio de Economía y Competitividad (MINECO), Junta de Andalucía, European Regional Development Fund, JAE-doc CSIC contract, Andalusian Knowledge Agency, European Union's Seventh Framework Program, Marie Skłodowska-Curie actions.

The news reporters obtained a quote from the research from the Department of Soil Microbiology and Symbiotic Systems, "Interestingly, beside cellulose-deficient mutants, colonies with a rougher appearance than the wild type also arouse among the transposants. Those mutants carry insertions in amrZ, a gene encoding a transcriptional regulator in different Pseudomonas. Here, we provide evidence that AmrZ is involved in the regulation of bacterial cellulose production at transcriptional level by binding to the promoter region of the wssABCDEFGH operon and repressing cellulose biosynthesis genes. Mutation of amrZ promotes wrinkly colony morphology, increased cellulose production and loss of motility in Pto DC3000. AmrZ regulon includes putative c-di-GMP metabolising proteins, like AdcA and MorA, which may also impact those phenotypes."

According to the news reporters, the research concluded: "Furthermore, an amrZ but not a cellulose-deficient mutant turned out to be impaired in pathogenesis, indicating that AmrZ is a key regulator of Pto DC3000 virulence probably by controlling bacterial processes other than cellulose production."

For more information on this research see: AmrZ regulates cellulose production in Pseudomonas syringae pv. tomato DC3000. Molecular Microbiology, 2015;99(5):960-77. (Wiley-Blackwell - www.wiley.com; Molecular Microbiology - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2958)

Our news correspondents report that additional information may be obtained by contacting H.A. Prada-Ramirez, Dept. of Soil Microbiology and Symbiotic Systems, Estacion Experimental del Zaidin (EEZ-CSIC), Granada, Spain. Additional authors for this research include D. Perez-Mendoza, A. Felipe, F. Martinez-Granero, R. Rivilla, J. Sanjuan and M.T Gallegos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/mmi.13278. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, Granada, Genetics, Pseudomonadaceae, Gammaproteobacteria, Pseudomonas syringae, Gram Negative Bacteria, Gram-Negative Bacteria, Gram Negative Aerobic Bacteria, Gram Negative Aerobic Rods and Cocci.

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Oncology - Acute Myeloid Leukemia

Researchers at Department of Specialty Medicine Target Acute Myeloid Leukemia (Stem Cell Modeling of Core Binding Factor Acute Myeloid Leukemia)
Data detailed on Oncology - Acute Myeloid Leukemia have been presented. According to news reporting from Treviso, Italy, by NewsRx journalists, research stated, "Even though clonally originated from a single cell, acute leukemia loses its homogeneity soon and presents at clinical diagnosis as a hierarchy of cells endowed with different functions, of which only a minority possesses the ability to recapitulate the disease. Due to their analogy to hematopoietic stem cells, these cells have been named 'leukemia stem cells,' and are thought to be chiefly responsible for disease relapse and ultimate survival after chemotherapy."

The news correspondents obtained a quote from the research: "Core Binding Factor (CBF) Acute Myeloid Leukemia (AML) is cytogenetically characterized by either the t(8;21) or the inv(16)/t(16;16) chromosomal abnormalities, which, although being pathognomonic, are not sufficient per se to induce overt leukemia but rather determine a preclinical phase of disease when preleukemic subclones compete until the acquisition of clonal dominance by one of them. In this review we summarize the concepts regarding the application of the 'leukemia stem cell' theory to the development of CBF AML; we will analyze the studies investigating the leukemogenetic role of t(8;21) and inv (16)/t(16;16), the proposed theories of its clonal evolution, and the role played by the hematopoietic niches in preserving the disease."

According to the news reporters, the research concluded: "Finally, we will discuss the clinical implications of stem cell modeling of CBF AML for the therapy of the disease."

For more information on this research see: Stem Cell Modeling of Core Binding Factor Acute Myeloid Leukemia. Stem Cells International, 2016;2016():7625827. (Hindawi Publishing - www.hindawi.com; Stem Cells International - www.hindawi.com/journals/sci/)

Our news journalists report that additional information may be obtained by contacting F. Mosna, Hematology, Dept. of Specialty Medicine, Ospedale Santa Maria di Ca' Foncello, Piazza Ospedale 1, 31100 Treviso, Italy. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/7625827. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, Treviso, Genetics, Oncology, Proteins, Hematology, Hematopoietic, Article Review, Stem Cell Research, Core Binding Factors, Transcription Factors, Acute Myeloid Leukemia.

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Researchers at Department of Surgery Detail Findings in Post-Trial Research (The relationship between serum vitamin D and chronic rhinosinusitis: A systematic review)

Researchers at Department of Surgery Detail Findings in Post-Trial Research (The relationship between serum vitamin D and chronic rhinosinusitis: A systematic review)
respiratory epithelium."

The news correspondents obtained a quote from the research from the Department of Surgery, "Chronic rhinosinusitis (CRS) places a relatively large socioeconomic burden on developed nations, yet remains a difficult disease to treat. VD3, therefore, has become an area of clinical interest because it may provide an adjunctive drug therapy option in CRS, thereby potentially improving the quality of life of these patients. A systematic review of the relationship among serum VD3 levels, CRS phenotype, and disease severity by using outcome assessments. A systematic search was performed by using the PubMed, MEDLINE, and EMBASE databases. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines were followed. Studies that measured serum VD3 levels and correlated the measurements to any subtype of CRS (with or without nasal polyps) were included for qualitative analysis. Seven articles were included (four prospective and three retrospective studies), with a total of 539 patients. There were significantly lower VD3 levels in the polypoid phenotypes of CRS compared with controls. Low VD3 levels were often associated with an increased degree of inflammation. The available evidence indicated that there is a significant relationship between low VD3 levels and polypoid CRS phenotypes."

According to the news reporters, the research concluded: "The association between VD3 levels and disease severity and VD3 potential for drug therapy remains unclear, which warrants further research in the area."


Our news journalists report that additional information may be obtained by contacting P.J. Stokes, Dept. of Surgery, South West Healthcare, Warrnambool, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2500/ajra.2016.30.4267. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Drugs, Warrnambool, Article Review, Post Trial Research, Post-Trial Research, Australia and New Zealand, Clinical Trials and Studies.

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**Drugs and Therapies - Heparin Therapy**

**Researchers at Department of Veterans Affairs Target Heparin Therapy (Specific endothelial heparin-binding EGF-like growth factor deletion ameliorates renal injury induced by chronic angiotensin II infusion)***

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Heparin Therapy are discussed in a new report. According to news reporting originating from Nashville, Tennessee, by NewsRx correspondents, research stated, "Transactivation of EGF receptor (EGFR) by angiotensin II (Ang II) plays important roles in the initiation and progression of chronic kidney diseases. Studies suggest that heparin-binding EGF-like factor (HB-EGF) may be a critical mediator in this process, but its role in vivo has not been investigated."

Our news editors obtained a quote from the research from the Department of Veterans Affairs, "In the current study, we found that in response to Ang II infusion, kidneys
from endothelial HB-EGF deletion mice had significantly reduced EGFR activation compared with controls. Meanwhile, deletion of endothelial HB-EGF expression decreased Ang II infusion related renal injury, as demonstrated by 1) less albuminuria; 2) less glomerulosclerosis; 3) preserved endothelial integrity and decreased podocyte injury, as shown by greater glomerular tuft area and WT1-positive cells, and fewer apoptotic cells measured by cleaved caspase 3 staining; 4) reduced inflammation in the perivascular area and interstitium measured by F4/80 and CD3 immunostaining; and 5) reduced renal fibrosis."

According to the news editors, the research concluded: "Our results suggest that shedding of HB-EGF from endothelium plays an important role in Ang II-induced renal injury by linking Ang II-AT1R with EGFR transactivation. Inhibition of HB-EGF shedding could be a potential therapeutic strategy for chronic kidney disease."


The news editors report that additional information may be obtained by contacting R.C. Harris, Dept. of Vet Affairs, Nashville, TN, United States. Additional authors for this research include L.A. Kloepfer, C. Finney, A. Diedrich and R.C. Harris.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Nerve Tissue Proteins, Drugs and Therapies, Biological Factors, Peptide Proteins, Peptide Hormones, Heparin Therapy, Angiotensin II, Oligopeptides, Neuropeptides, Angiotensins, Nephrology, Autacoids, Peptides, Kidney, Department of Veterans Affairs.

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Cardiovascular Diseases and Conditions...

Researchers at Drexel University Target Hypertension (Changes in the prevalence of hospitalization and comorbidity in US adults with stroke: A three decade cross-sectional and birth cohort analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Little attention was paid to the transition of care for stroke that may partially explain the long-term trend of stroke rates. We aimed to test the trend of hospitalization attributable to stroke in US adults."

Our news editors obtained a quote from the research from Drexel University, "Data from National Hospital Discharge Surveys 1980-2010 in patients aged >= 18 (n = 6,527,304) were analyzed to examine the trend of patients with first-list diagnoses of stroke. Stroke comorbidities were classified in stroke patients with second-to seven-listed diagnoses of coronary heart disease, hypertension, diabetes, arrhythmias, or hyperlipidemia. Stroke trends by survey years and birth cohorts were analyzed using univariate, multivariate, and birth cohorts methods. Of the total study sample, the prevalence of hospitalization due to stroke was 22.99%, 30.00%, and 27.03% in years of 1980-1989, 1990-1999, and 2000-2010 in males, and 17.30%, 22.04%, and 19.34% in females, respectively. Overall, hospitalization rates in stroke patients..."
significantly increased among adults aged <65, and decreased in adults aged >= 65. There was an increase in stroke hospitalization rate in the old adults aged >= 65 in recent birth cohorts. Significant increased trends of comorbid hypertension, diabetes, arrhythmias, and hyperlipidemia were observed from 1980 to 2010. A significant increase in stroke hospitalization rate was observed in adults aged <65 in the past three decades, and in old adults in recent years. Increases in stroke comorbidity rates were observed in all age groups."

According to the news editors, the research concluded: "Findings from the study highlight that both public health and clinical practices face a serious challenge in controlling this unwelcome increased stroke trend."


The news editors report that additional information may be obtained by contacting L.J. Liu, Drexel University, Dept. of Epidemiol & Biostat, Dornsife Sch Public Hlth, Philadelphia, PA 19104, United States. Additional authors for this research include X. Yang, Y. Long, A.K. Mallhi, K. Mehta, E. Veznedaroglu and X.Y. Yin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1747493016660107. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Cardiovascular Diseases and Conditions, Diagnostics and Screening, Epidemiology, Hypertension, Drexel University.

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Oncology - Liver Cancer

Researchers at Edith Cowan University Release New Data on Liver Cancer (Nurse-led hepatocellular carcinoma surveillance clinic provides an effective method of monitoring patients with cirrhosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting originating from Joondalup, Australia, by NewsRx correspondents, research stated, "The aim of this study is to examine the acceptability and effectiveness of a nurse-led hepatocellular carcinoma (HCC) surveillance clinic in high-risk patients with cirrhosis/advanced fibrosis. Early detection of HCC is associated with better treatment outcomes and improved survival."

Our news editors obtained a quote from the research from Edith Cowan University, "International guidelines recommend 6-monthly surveillance of patients at risk of developing HCC. A nurse-led HCC surveillance protocol was established to support patients in adherence to surveillance protocols. The design used was retrospective document analysis. Retrospective analysis of healthcare records of patients referred to the clinic between August 2009 and December 2015. Extracted data included attendance of clinic visits, blood testing, ultrasound or
other imaging, and outcomes. Ultrasound was attended within 6 months in 30.3% of cases and within 7 months in 71.2% of cases. The median time between Nurse-Led Clinic appointments, ultrasound scans and blood testing did not exceed 9 months. First year FibroScans were attended by 82.9% (63/76) patients; endoscopy was indicated for 42 and attended by 35 (83.3%) patients. Lesions were identified in 16 patients (21.5%) and HCC diagnosed in two patients. One patient died because of HCC and one to sub-dural haematoma. Nurse-led HCC surveillance was an effective method of monitoring patients with cirrhosis at high risk of developing HCC. Well-defined protocols enable timely identification of patients with HCC or hepatic decompensation so that management strategies can be implemented without delay."

According to the news editors, the research concluded: "The potential benefits identified by this study warrant further, rigorous evaluation." For more information on this research see: Nurse-led hepatocellular carcinoma surveillance clinic provides an effective method of monitoring patients with cirrhosis. *International Journal of Nursing Practice*, 2016;22():3-10. *International Journal of Nursing Practice* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; International Journal of Nursing Practice - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1440-172X)

The news editors report that additional information may be obtained by contacting N. Leembruggen, Edith Cowan University, Sch Med & Hlth Sci, Joondalup, WA, Australia. Additional authors for this research include N. Leembruggen, R. Tuma, S.L. Chen, S. Rao, N. Kontorinis and W. Cheng.

Keywords for this news article include: Joondalup, Australia, Australia and New Zealand, Fibrosis, Diagnostics and Screening, Risk and Prevention, Epidemiology, Liver Cancer, Carcinomas, Cirrhosis, Oncology, Edith Cowan University.

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**Drugs and Therapies - Vancomycin Resistance**

**Researchers at Edouard Herriot Hospital Report Findings in Vancomycin Resistance (Outbreaks of Vancomycin-Resistant Enterococci in Hospital Settings: A Systematic Review and Calculation of the Basic Reproductive Number)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Vancomycin Resistance. According to news reporting originating in Lyon, France, by NewsRx journalists, research stated, "Vancomycin-resistant enterococci (VRE) have spread worldwide. To systematically review VRE outbreaks and estimate the pooled basic reproductive rate (R0) of VRE."

The news reporters obtained a quote from the research from Edouard Herriot Hospital, "Eligible studies criteria were (1) published within 10 years, (2) report outbreak details, (3) involve 1 center, (4) estimate epidemic duration, and (5) concern adults. Descriptive analysis included number of index cases, secondary cases, and screened patients; infection control measures; and definition of contact patients. R0 was estimated by the equation R 0=(ln2) D/t d+1, with D as the generation time and t d as the doubling time. Thirteen VRE outbreaks were retained from 180 articles and, among them, 10 were kept for R0 calculation. The mean
(range) number of index cases was 2.3 (1-8) and the mean (range) number of secondary cases was 15 (3-56). The mean (range) number of screened patients was 174 (32-509), with pooled VRE prevalence of 5.4% (95% CI, 4.5%-6.3%). Contact precautions were reported in 12 studies (92%), wards were closed in 7 (54%), with cohorting in 6 (46%). Two major screening policies were implemented: (1) a surveillance program in the unit or hospital (7 studies [54%]) and (2) screening of selected contact patients (6 studies [46%]). The pooled R0 of VRE was 1.32 (interquartile range, 1.03-1.46). We discerned considerable heterogeneity in screening policies during VRE outbreaks."

According to the news reporters, the research concluded: "Pooled R0 was higher than 1, confirming the epidemic nature of VRE."

For more information on this research see: Outbreaks of Vancomycin-Resistant Enterococci in Hospital Settings: A Systematic Review and Calculation of the Basic Reproductive Number. Infection Control and Hospital Epidemiology, 2015;37(3):289-94. (University of Chicago Press - press.uchicago.edu; Infection Control and Hospital Epidemiology - /ucp/journals/journal/iche.html)

Our news correspondents report that additional information may be obtained by contacting L. Satilmis, 1Infection Control and Epidemiology Unit, Edouard Herriot Hospital, Hospices Civils de Lyon, Lyon, France. Additional authors for this research include P. Vanhems and T. Benet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/ice.2015.301. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lyon, France, Europe, Hospital, Epidemiology, Glycopeptides, Article Review, Drugs and Therapies, Vancomycin Resistance, Bacterial Drug Resistance, Bacterial Physiological Phenomena.

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Hemophilia

Researchers at Erasmus University Medical Center Release New Data on Hemophilia (Perioperative treatment of hemophilia A patients: blood group O patients are at risk of bleeding complications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hemophilia. According to news originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "ESSENTIALS: Targeting of factor VIII values is a challenge during perioperative replacement therapy in hemophilia. This study aims to identify the extent and predictors of factor VIII underdosing and overdosing."

Financial supporters for this research include Bayer, Baxter International, Pfizer, CSL Behring, Novo Nordisk, Bayer Schering, Novartis.

Our news journalists obtained a quote from the research from Erasmus University Medical Center, "Blood group O predicts underdosing and is associated with perioperative bleeding. To increase quality of care and cost-effectiveness of treatment, refining of dosing is obligatory. Perioperative administration of factor VIII (FVIII) concentrate in hemophilia A may result in both underdosing and overdosing, leading to respectively a risk of bleeding
complications and unnecessary costs. This retrospective observational study aims to identify the extent and predictors of underdosing and overdosing in perioperative hemophilia A patients (FVIII levels <0.05 IU mL(-1)). One hundred nineteen patients undergoing 198 elective, minor, or major surgical procedures were included (median age 40 years, median body weight 75 kg). Perioperative management was evaluated by quantification of perioperative infusion of FVIII concentrate and achieved FVIII levels. Predictors of underdosing and (excessive) overdosing were analyzed by logistic regression analysis. Excessive overdosing was defined as upper target level plus (>=) 0.20 IU mL(-1). Depending on postoperative day, 7-45% of achieved FVIII levels were under and 33-75% were above predefined target ranges as stated by national guidelines. A potential reduction of FVIII consumption of 44% would have been attained if FVIII levels had been maintained within target ranges. Blood group O and major surgery were predictive of underdosing (odds ratio [OR] 6.3, 95% confidence interval [CI] 2.7-14.9; OR 3.3, 95% CI 1.4-7.9). Blood group O patients had more bleeding complications in comparison to patients with blood group non-O (OR 2.02, 95% CI 1.00-4.09). Patients with blood group non-O were at higher risk of overdosing (OR 1.5, 95% CI 1.1-1.9). Additionally, patients treated with bolus infusions were at higher risk of excessive overdosing (OR 1.8, 95% CI 1.3-2.4)."

According to the news editors, the research concluded: "Quality of care and cost-effectiveness can be improved by refining of dosing strategies based on individual patient characteristics such as blood group and mode of infusion."


The news correspondents report that additional information may be obtained from H.C. Hazendonk, Dept. of Pediatric Hematology, Erasmus University Medical Center - Sophia Children's Hospital Rotterdam, Rotterdam, Netherlands. Additional authors for this research include J. Lock, R.A. Mathot, K. Meijer, M. Peters, B.A. Laros-van Gorkom, F.J. van der Meer, M.H. Driessens, F.W. Leebeek, K. Fijnvandraat and M.H Cnossen.

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Keywords for this news article include: Europe, Rotterdam, Hematology, Netherlands, Factor VIII, Hemophilia A, Quality of Care, Risk and Prevention, Blood Coagulation Factors.

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Blood Pressure

Researchers at FUMEC University Report New Data on Blood Pressure (Methods for reliable estimation of pulse transit time and blood pressure variations using smartphone sensors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Blood Pressure have been published. According to news originating from Belo Horizonte, Brazil, by NewsRx correspondents, research stated, "Hypertension is known to affect around one third of adults globally and early diagnosis is
essential to reduce the effects of this affliction. Today's Blood Pressure (BP) monitoring cuffs are obtrusive and inconvenient for performing regular measurements, and continuous non-invasive blood pressure devices are too complex and expensive for ambulatory use."

Financial support for this research came from CAPES.

Our news journalists obtained a quote from the research from FUMEC University, "Hence, there is a strong need for affordable systems that can measure blood pressure (BP) variations throughout the day as this will allow to monitor, diagnose and follow-up not only patients at risk, but also healthy population in general for early diagnosis. A promising method for arterial BP estimation is to measure the Pulse Transit Time (PTT) and derive pressure values from it. However, current methods for measuring this surrogate maker of BP require complex sensing and analysis circuitry and the related medical devices are expensive and inconvenient for the user. In this paper, we present new methods to estimate PIT reliably and subsequently BP, from the baseline sensors of smartphones. This new approach involves determining PIT by simultaneously measuring the time the blood leaves the heart, by recording the heart sound using the standard microphone of the phone, and the time it reaches the finger, by measuring the pulse wave using the phone's camera. We present algorithms that can be executed directly on current smartphones to obtain clean and robust heart sound signals and to extract the pulse wave characteristics. We also present methods to ensure a synchronous capture of the waveforms, which is essential to obtain reliable PIT values with inexpensive sensors. Additionally, we combine Autocorrelation and Fast Fourier Transform (FFT)-based methods for reliably estimating the user heart rate (HR) from his/her heart sounds, and describe how to use the calculate HR to compensate for the camera frame rate variations and to improve the robustness of PTT estimation."

According to the news editors, the research concluded: "Our experiments show that the computational overhead of the proposed processing methods is minimum, which allows real-time feedback to the user, and that the PTT values are fully accurate (beat-to-beat), thereby enabling state-of-the-art smartphones to be used as affordable medical devices."

For more information on this research see: Methods for reliable estimation of pulse transit time and blood pressure variations using smartphone sensors. Microprocessors and Microsystems, 2016;46():84-95. Microprocessors and Microsystems can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Microprocessors and Microsystems - www.journals.elsevier.com/microprocessors-and-microsystems/)

The news correspondents report that additional information may be obtained from A. Dias, FUMEC Univ, Belo Horizonte, MG, Brazil. Additional authors for this research include S. Murali, F. Rincon and D. Atienza.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.micpro.2016.06.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belo Horizonte, Brazil, South America, Blood Pressure, FUMEC University.

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Researchers at Federal University Detail Findings in Sulfur Amino Acids [Ligand Exchange Reaction of Au(I) R-N-Heterocyclic Carbene Complexes with Cysteine]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Sulfur Amino Acids. According to news reporting from Juiz de Fora, Brazil, by NewsRx journalists, research stated, "The chemotherapy with gold complexes has been attempted since the 90s after the clinical success of auranofin, a gold(I) coordination complex. Currently, the organometallics compounds have shown promise in cancer therapy, mainly in those complexes containing N-heterocyclic carbenes (NHC) as a ligand."

Financial support for this research came from Conselho Nacional de Desenvolvimento Cientifico e Tecnologico.

The news correspondents obtained a quote from the research from Federal University, "The present study shows a kinetic analysis of the reaction of six alkyl-substituted NHC with cysteine (Cys), which is taken as an important bionucleophile representative. The first and second ligand exchange processes were analyzed with the complete description of the mechanism and energy profiles. For the first reaction step, which is the rate-limiting step of the whole substitution reaction, the activation enthalpy follows the order 1/Me2 <2/Me3Et <4/n-Bu2 <3/i-Pr2 <6/Cy2 <5/t-Bu2, which is fully explained by steric and electronic features. From a steric point of view, the previous reactivity order is correlated with the r(Au-S) calculated for the transition state structures where S is the sulfur ligand from the Cys entering group. This means that longer r(Au-S) leads to higher activation enthalpy and is consistent with the effectiveness of gold shielding from nucleophile attack by bulkier alkyl-substituted NHC ligand. When electronic effect was addressed we found that higher activation barrier was predicted for strongly electron-donating NHC ligand, represented by the eigenvalue of s-HOMO orbital of the free ligands. The molecular interpretation of the electronic effects is that strong donating NHC forms strong metal-ligand bond."

According to the news reporters, the research concluded: "For the second reaction step, similar structure-reactivity relationships were obtained, however the activation energies are less sensitive to the structure."


Our news journalists report that additional information may be obtained by contacting H.F. Dos Santos, Dept. of Chemistry, NEQC: Nucleo de Estudos em Quimica Computacional, Federal University of Juiz de Fora , Campus Universitario Martelos, 36036-900, Juiz de Fora, Brazil. Additional authors for this research include M.A. Vieira, G.Y. Sanchez Delgado and D. Paschoal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jpca.6b01052. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Cysteine, Juiz de Fora, South America, Sulfur Amino Acids, Neutral Amino Acids, Sulphydryl Compounds.

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Researchers at Federal University Have Reported New Data on Asthma
(The tyrosine kinase inhibitor dasatinib reduces lung inflammation and remodelling in experimental allergic asthma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Asthma is now available. According to news originating from Rio de Janeiro, Brazil, by NewsRx correspondents, research stated, "Asthma is characterized by chronic lung inflammation and airway hyperresponsiveness. Despite recent advances in understanding of its pathophysiology, asthma remains a major public health problem, and new therapeutic strategies are urgently needed."

Funders for this research include European Community's Seventh Framework Programme, Coordination for the Improvement of Higher Level Personnel (CAPES), Carlos Chagas Filho Rio de Janeiro State Research Foundation (FAPERJ), Brazilian Council for Scientific and Technological Development (CNPq).

Our news journalists obtained a quote from the research from Federal University, "In this context, we sought to ascertain whether treatment with the TK inhibitor dasatinib might repair inflammatory and remodelling processes, thus improving lung function, in a murine model of asthma. Animals were sensitized and subsequently challenged, with ovalbumin (OVA) or saline. Twenty-four hours after the last challenge, animals were treated with dasatinib, dexamethasone, or saline, every 12?h for 7 consecutive days. Twenty-four hours after the last treatment, the animals were killed, and data were collected. Lung structure and remodelling were evaluated by morphometric analysis, immunohistochemistry, and transmission electron microscopy of lung sections. Inflammation was assessed by cytometric analysis and ELISA, and lung function was evaluated by invasive whole-body plethysmography. In OVA mice, dasatinib, and dexamethasone led to significant reductions in airway hyperresponsiveness. Dasatinib was also able to attenuate alveolar collapse, contraction index, and collagen fibre deposition, as well as increasing elastic fibre content, in OVA mice. Concerning the inflammatory process, dasatinib reduced inflammatory cell influx to the airway and lung-draining mediastinal lymph nodes, without inducing the thymic atrophy promoted by dexamethasone."

According to the news editors, the research concluded: "In this model of allergic asthma, dasatinib effectively blunted the inflammatory and remodelling processes in asthmatic lungs, enhancing airway repair and thus improving lung mechanics."


The news correspondents report that additional information may be obtained from A.L. da Silva, Laboratory of Pulmonary Investigation, Carlos Chagas Filho Institute of Biophysics, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil. Additional authors for this research include R.F. Magalhaes, V.C. Branco, J.D. Silva, F.F. Cruz, P.S. Marques, T.P. Ferreira, M.M. Morales, M.A. Martins, P.C. Olsen and P.R Rocco.
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Granulosa Cells

Researchers at Federal University Have Reported New Data on Granulosa Cells (Protein expression in human cumulus cells as an indicator of blastocyst formation and pregnancy success)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Granulosa Cells are presented in a new report. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, research stated, "The goal for the present study was to implement a technique for protein extraction and identification in human cumulus cells (CCs). Forty samples of CCs were collected after ovum pick-up from patients undergoing intracytoplasmic sperm injection (ICSI)."

Financial support for this research came from Fundacao de Amparo a Pesquisa do Estado de Sao Paulo - FAPESP.

Our news journalists obtained a quote from the research from Federal University, "Samples were split into the blastocyst group (n = 10), including patients in which all embryos converted into blastocysts, and the non-blastocyst group (n = 10), including patients in which none of the embryos reached the blastocyst stage or the positive-pregnancy (n = 10) and negative-pregnancy group (n = 10). Proteins were extracted and injected into a liquid chromatography system coupled to a mass spectrometer. The spectra were processed and used to search a database. There were 87 different proteins in samples from the blastocyst and non-blastocyst groups, in which 30 were exclusively expressed in the blastocyst group and 17 in the non-blastocyst group. Among the 72 proteins detected in the pregnancy groups, 19 were exclusively expressed in the positive, and 16 were exclusively expressed in the negative-pregnancy group."

According to the news editors, the research concluded: "CC proteomics may be useful for predicting pregnancy success and the identification of patients that should be included in extended embryo culture programs."

Our news journalists report that additional information may be obtained by contacting E. Borges, Univ Fed Sao Paulo UNIFESP, Dept. of Cirurgia, Disciplina Urol Area Reproducao Humana, BR-04039060 Sao Paulo, SP, Brazil. Additional authors for this research include A.S. Setti, E.G. Lo Turco, F.B. Cordeiro, E.C. Cabral, S.S. Cortezzi, E. Ono, R.C.S. Figueira, M.N. Eberlin and E. Borges.

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Keywords for this news article include: Sao Paulo, Brazil, South America, Protein Expression, Endocrine Glands, Granulosa Cells, Cumulus Cells, Proteomics, Gonads, Ovary, Federal University.

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Hormones

Researchers at First Affiliated Hospital Release New Data on Hormones (Melatonin inhibits AP-2b/hTERT, NF-kB/COX-2 and Akt/ERK and activates caspase/Cyto C signaling to enhance the antitumor activity of berberine in lung cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hormones. According to news reporting out of Guangzhou, People's Republic of China, by NewsRx editors, research stated, "Melatonin, a molecule produced throughout the animal and plant kingdoms, and berberine, a plant derived agent, both exhibit antitumor and multiple biological and pharmacological effects, but they have never been combined altogether for the inhibition of human lung cancers. In this study, we investigated the role and underlying mechanisms of melatonin in the regulation of antitumor activity of berberine in lung cancer cells."

Our news journalists obtained a quote from the research from First Affiliated Hospital, "Treatment with melatonin effectively increased the berberine-mediated inhibitions of cell proliferation, colony formation and cell migration, thereby enhancing the sensitivities of lung cancer cells to berberine. Melatonin also markedly increased apoptosis induced by berberine. Further mechanism study showed that melatonin promoted the cleavage of caspase-9 and PARP, enhanced the inhibition of Bcl2, and triggered the releasing of cytochrome C (Cyto C), thereby increasing the berberine-induced apoptosis. Melatonin also enhanced the berberine-mediated inhibition of telomerase reverses transcriptase (hTERT) by down-regulating the expression of AP-2b and its binding on hTERT promoter. Moreover, melatonin enhanced the berberine-mediated inhibition of cyclooxygenase 2 (COX-2) by inhibiting the nuclear translocation of NF-kB and its binding on COX-2 promoter. Melatonin also increased the berberine-mediated inhibition of the phosphorylated Akt and ERK. Collectively, our results demonstrated that melatonin enhanced the antitumor activity of berberine by activating caspase/Cyto C and inhibiting AP-2b/hTERT, NF-kB/COX-2 and Akt/ERK signaling pathways."

According to the news editors, the research concluded: "Our findings provide new insights in exploring the potential therapeutic strategies and novel targets for lung cancer treatment."
For more information on this research see: Melatonin inhibits AP-2b/hTERT, NF-kB/COX-2 and Akt/ERK and activates caspase/Cyto C signaling to enhance the antitumor activity of berberine in lung cancer cells. Oncotarget, 2016;7(3):2985-3001.

Our news journalists report that additional information may be obtained by contacting J.J. Lu, Dept. of Thoracic Surgery, The First Affiliated Hospital, Yat-sen University, Guangzhou, People's Republic of China. Additional authors for this research include L. Fu, Z. Tang, C. Zhang, L. Qin, J. Wang, Z. Yu, D. Shi, X. Xiao, F. Xie, W. Huang and W. Deng.

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Keywords for this news article include: Asia, Therapy, Caspases, Hormones, Guangzhou, Melatonin, Peptide Hydrolases, Enzymes and Coenzymes, Cysteine Endopeptidases, People's Republic of China.

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Oncology - Pancreatic Cancer

Researchers at Florida Hospital Release New Data on Pancreatic Cancer (Intraprocedural increase in heart rate during EUS-guided celiac plexus neurolysis: Clinically relevant or just a physiologic change?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Pancreatic Cancer are presented in a new report. According to news reporting originating in Orlando, Florida, by NewsRx journalists, research stated, "Although EUS-guided celiac plexus neurolysis (EUS-CPN) is performed frequently for palliation of pain in pancreatic cancer, response to treatment is variable. Although intraprocedural increases in heart rate during alcohol injection are observed frequently, their significance and relationship to treatment outcome are unknown."

The news reporters obtained a quote from the research from Florida Hospital, "The objective of this study was to examine whether a correlation exists between an increase in heart rate and treatment outcomes in patients undergoing EUS-CPN for pain relief in pancreatic cancer. This is a prospective observational study of patients with abdominal pain caused by inoperable pancreatic cancer who underwent EUS-CPN. Heart rate change was defined as an increase of >= 15 beats per minute (bpm) for >= 30 seconds during alcohol injection. Main outcome measures were to compare pain, quality of life, opioid use, and survival between heart rate change and no-change groups. Heart rate change was observed in 25 of 51 patients (49.0%) who underwent EUS-CPN over a 12-month period. Although the heart rate change cohort had significantly better adjusted scores for pain (60 vs 73; P = .042) and components of quality of life such as nausea and/or vomiting (65 vs 81; P = .004), financial difficulties (41 vs 57; P = .02), weight loss (45 vs 65; P = .007), and satisfaction with body image (52 vs 62; P = .035), there was no significant difference in postprocedural opioid use or survival between groups."

According to the news reporters, the research concluded: "Because patients with an increase in intraprocedural heart rate experienced significant improvement in pain and quality of life components, this observation must be further explored in order to improve the technique and outcomes of EUS-CPN."

For more information on this research see: Intraprocedural increase in heart rate
Researchers at Florida International University Have Reported New Data on Type 2 Diabetes (Biologic activity of cyclic and caged phosphates: a review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news reporting originating from Miami, Florida, by NewsRx correspondents, research stated, "The recognition in the early 1960s by Morifusa Eto that tri-o-cresyl phosphate (TOCP) is hydroxylated by the cytochrome P450 system to an intermediate that spontaneously cyclizes to a neurotoxic phosphate (saligenin phosphate ester) ignited the interest in this group of compounds. Only the ortho isomer can cyclize and clinically cause OrganoPhosphateInducedDelayedNeurotoxicity (OPIDN); the meta and para isomers of tri-cresyl phosphate are not neuropathic because they are unable to form stable cyclic saligenin phosphate esters."

Our news editors obtained a quote from the research from Florida International University. "This review identifies the diverse biological effects associated with various cyclic and caged phosphates and phosphonates and their possible use. Cyclic compounds that inhibit acetylcholine esterase (AChE), such as salithion, can be employed as pesticides. Others are neurotoxic, most probably because of inhibition of neuropathy target esterase (NTE). Cyclic phosphates that inhibit lipases, the cyclipostins, possibly represent promising therapeutic avenues for the treatment of type 2 diabetes mellitus and/or microbial infections; those compounds inhibiting -lactamase may prevent bacterial resistance against -lactam antibiotics. Naturally occurring cyclic phosphates, such as cyclic AMP, cyclic phosphatidic acid and the ryanodine receptor modulator cyclic adenosine diphosphate ribose, play an important physiological role in signal transduction. Moreover, some cyclic phosphates are GABA-antagonists, while others are an essential component of Molybdenum-containing enzymes. Some cyclic phosphates (cyclophosphamide, ifosfamide) are clinically used in tumor therapy, while the coupling of therapeutic agents with other cyclic phosphates (HepDirect ® Technology) allows drugs to be targeted to specific organs."

According to the news editors, the research concluded: "Possible clinical
applications of these compounds are considered."


The news editors report that additional information may be obtained by contacting G.A. Petroianu, Florida International University, Dept. of Cellular Biol & Pharmacol, Herbert Wertheim Coll Med, Miami, FL 33199, United States. Additional authors for this research include A. Stegmeier-Petroianu and G.A. Petroianu.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Risk and Prevention, Article Review, Bacterial Infections and Mycoses, Enzymes and Coenzymes, Phosphoric Acids, Type 2 Diabetes, Phosphates, Esterases, Anions, Florida International University.

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*Heart Disorders and Diseases - Heart Failure*

**Researchers at Florida International University Target Heart Failure (Left ventricular area on non-contrast cardiac computed tomography as a predictor of incident heart failure The Multi-Ethnic Study of Atherosclerosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Failure. According to news reporting out of Miami, Florida, by NewsRx editors, research stated, "The use of non-contrast cardiac computed tomography measurements to predict heart failure (HF) has not been studied. In the present study we evaluated the prognostic value of left ventricular area adjusted for the body surface area (LVA-BSA) measured by non-contrast cardiac CT to predict incident HF and cardiovascular disease (CVD) events."

Our news journalists obtained a quote from the research from Florida International University, "We studied left ventricular dimensions and calculated LVA-BSA in 6781 participants of the MESA study (mean age: was 62 +/- 10 years, 53% females; 62% non-white) free from prior HF who underwent non-contrast cardiac CT to evaluate the coronary artery calcium score (CAC) at baseline and were followed up for a median of 10.2 years. During follow up, 237 (3.5%) incident HF and 475 (7.0%) CVD events occurred. After adjustment for clinical variables and CAC, LVA-BSA was significantly associated with incident HF (hazard ratio [HR]: 1.10 per 100 mm²/m², p < 0.001) and CVD events (HR: 1.07 per 100 mm²/m², p < 0.001). The area under the ROC curve for the prediction of incident HF improved from 0.787 on a model including only risk factors to 0.798 when CAC was added (p = 0.02), and to 0.816 with the additional inclusion of LVA-BSA (p = 0.007). Similar improvements for the prediction of CVD events were noted."

According to the news editors, the research concluded: "In an ethnically diverse population of asymptomatic individuals free from baseline CVD or HF, the left ventricular area measured by non-contrast cardiac CT is a strong predictor of incident HF events beyond
traditional risk factors and CAC score."


Our news journalists report that additional information may be obtained by contacting K. Nasir, Florida International University, Robert Stempel Coll Public Hlth & Social Work, Dept. of Epidemiol, Miami, FL 33199, United States. Additional authors for this research include R. Blankstein, S.S. Mao, J.J. Rivera, A.G. Bertoni, L.J. Shaw, R.S. Blumenthal, M.J. Budoff and K. Nasir.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Arterial Occlusive Diseases, Risk and Prevention, Computed Tomography, Imaging Technology, Arteriosclerosis, Atherosclerosis, Heart Failure, Heart Disease, Cardiology, Florida International University.

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**Lung Diseases and Conditions - Pulmonary...**

**Researchers at Fourth Military Medical University Report New Data on Pulmonary Hypertension (Role of dynorphin in hypoxic pulmonary hypertension)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Pulmonary Hypertension have been published. According to news originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "Previously study showed kappa-opioid receptor stimulation with exogenous kappa-opioid receptor agonist elicited a protective effect against hypoxic pulmonary hypertension (HPH). However, the effect of endogenous kappa-opioid receptor agonist dynorphin A on HPH remains unclear."

Funders for this research include National Natural Science Foundation of China, Shaanxi Province.

Our news journalists obtained a quote from the research from Fourth Military Medical University, "This study was to determine the role of dynorphin in HPH. Hypoxia for 2 weeks induced HPH. Compared with the HPH group, the HPH + nor-BNI (a selective kappa-opioid receptor antagonist) group showed a significant increase in mean pulmonary arterial pressure (mPAP). Exogenous treatment with dynorphin A 1-13 significantly decreased mPAP in HPH rat. In addition, we evaluated the effect of exogenous kappa-opioid receptor agonist dynorphin A on HPH remains unclear."

Funders for this research include National Natural Science Foundation of China, Shaanxi Province.
that of U50,488H. Dynorphin A 1-13 inhibited the proliferation of pulmonary artery smooth muscle cells (PASMCs) during hypoxia, which was blocked by nor-BNI. kappa-opioid receptor expression increased in PASMCs in both normoxia exposed to dynorphin A 1-13 and during hypoxia. Hypoxia-induced increase was enhanced by dynorphin A 1-13 and abolished by nor-BNI."

According to the news editors, the research concluded: "Endogenous dynorphin A released in the early stage of hypoxia plays a protective effect against HPH via stimulation of kappa-opioid receptor."

For more information on this research see: Role of dynorphin in hypoxic pulmonary hypertension. European Journal of Pharmacology, 2016;791():78-84. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news correspondents report that additional information may be obtained from M.C. Liu, Fourth Military Medical University, Sch Public Hlth, Dept. of Occupat & Environm Hlth, Xian 710032, Shaanxi Province, People's Republic of China. Additional authors for this research include X.J. Liang, Y.G. Zhou, S.M. Zhang, F. Yang, H.T. Guo, R. Fan, N. Feng, M. Jia, Y.M. Wang, M.C. Liu and J.M. Pei.

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Keywords for this news article include: Xi'an, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Lung Diseases and Conditions, G-Protein-Coupled Receptors, Neuropeptide Receptors, Pulmonary Hypertension, Nerve Tissue Proteins, Membrane Proteins, Pulmonary Artery, Opioid Receptors, Opiate Receptors, kappa Receptors, Opioid Peptides, Dynorphins, Angiology, Neurology, Fourth Military Medical University.

Oncology - Glioblastomas

Researchers at Fourth Military Medical University Target Glioblastomas (Toosendanin Exerts an Anti-Cancer Effect in Glioblastoma by Inducing Estrogen Receptor beta-and p53-Mediated Apoptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Glioblastomas. According to news reporting originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "Glioblastoma (GBM) is the most common primary brain tumor with median survival of approximately one year. This dismal poor prognosis is due to resistance to currently available chemotherapeutics; therefore, new cytotoxic agents are urgently needed."

Our news editors obtained a quote from the research from Fourth Military Medical University, "In the present study, we reported the cytotoxicity of toosendanin (TSN) in the GBM U87 and C6 cell lines in vitro and in vivo. By using the MTT (3-(4,5-dimethyl-2-thiazolyl)-2,5-diphenyl-2-H-tetrazolium bromide) assay, flow cytometry analysis, and Western blot, we found that TSN inhibited U87 and C6 cell proliferation and induced apoptosis at a concentration as
low as 10 nM. Administration of TSN also reduced tumor burden in a xenograft model of athymic nude mice. Pharmacological and molecular studies suggested that estrogen receptor beta (ER beta) and p53 were prominent targets for TSN. GBM cell apoptosis induced by TSN was a stepwise biological event involving the upregulation of ER beta and contextual activation of functional p53. Collectively, our study indicates, for the first time, that TSN is a candidate of novel anti-cancer drugs for GBM."

According to the news editors, the research concluded: "Furthermore, ER beta and p53 could act as predictive biomarkers for the sensitivity of cancer to TSN."

For more information on this research see: Toosendanin Exerts an Anti-Cancer Effect in Glioblastoma by Inducing Estrogen Receptor beta-and p53-Mediated Apoptosis. International Journal of Molecular Sciences, 2016;17(11):2331-2345. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting L. Cao, Fourth Military Medical University, Xijing Hosp, Dept. of Tradit Chinese Med, Xian 710032, People's Republic of China. Additional authors for this research include D.D. Qu, H. Wang, S.M. Zhang, C.M. Jia, Z.X. Shi, Z.R. Wang, J. Zhang and J. Ma.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Estrogen Receptor beta, Transcription Factors, DNA-Binding Proteins, Estrogen Receptors, Steroid Receptors, Glioblastomas, Apoptosis, Oncology, Genetics, p53 Gene, Cancer, Fourth Military Medical University.

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Oncology - Cancer Epidemiology

Researchers at Free University Have Reported New Data on Cancer Epidemiology (Quantitative and qualitative assessment of real world data comparative effectiveness research of systemic therapies in lung oncology: A systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Epidemiology. According to news reporting from Amsterdam, Netherlands, by NewsRx journalists, research stated, "The growing interest in comparative effectiveness research (CER) based on data from routine clinical practice also extends towards lung oncology. Although CER studies using real world data (RWD) have the potential to assist clinical decision-making, concerns about the quality and validity of studies with observational data persist."

The news correspondents obtained a quote from the research from Free University, "The primary objective of the present study is to assess the current status of observational CER in the field of lung oncology, both quantitatively as qualitatively. We performed a systematic electronic literature database search in MEDLINE and EMBASE (up to 1 July 2015). The quality of all selected studies was assessed according to the Good ReseArch for Comparative Effectiveness (GRACE) checklist. The first selection included 657 publications. After screening the corresponding abstracts and full-text papers, 38 studies remained. A total of 36 studies included patients with advanced NSCLC. The comparison of the effectiveness of gefitinib versus erlotinib was the main objective in 22% of the studies. The median number of patients
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.07.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Cancer Epidemiology, Oncology, Article Review, Epidemiology, Free University.

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Oncology - Chronic Myelomonocytic Leukemia

Researchers at French National Institute of Health and Medical Research (INSERM) Describe Findings in Chronic Myelomonocytic Leukemia (Mutation allele burden remains unchanged in chronic myelomonocytic leukaemia responding to hypomethylating ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Chronic Myelomonocytic Leukemia is the subject of a report. According to news reporting originating from Villejuif, France, by NewsRx correspondents, research stated, "The cytidine analogues azacytidine and 5-aza-2'-deoxycytidine (decitabine) are commonly used to treat myelodysplastic syndromes, with or without a myeloproliferative component. It remains unclear whether the response to these hypomethylating agents results from a cytotoxic or an epigenetic effect."

Our news editors obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "In this study, we address this question in chronic myelomonocytic leukaemia. We describe a comprehensive analysis of the mutational landscape of these tumours, combining whole-exome and whole-genome sequencing. We identify an average of 14?5 somatic mutations in coding sequences of sorted monocyte DNA and the signatures of three mutational processes. Serial sequencing demonstrates that the response to hypomethylating agents is associated with changes in DNA methylation and gene
expression, without any decrease in the mutation allele burden, nor prevention of new genetic alteration occurrence."

According to the news editors, the research concluded: "Our findings indicate that cytosine analogues restore a balanced haematopoiesis without decreasing the size of the mutated clone, arguing for a predominantly epigenetic effect."

For more information on this research see: Mutation allele burden remains unchanged in chronic myelomonocytic leukaemia responding to hypomethylating agents. Nature Communications, 2016;7():10767. (Nature Publishing Group - www.nature.com/; Nature Communications - www.nature.com/ncomms/)

The news editors report that additional information may be obtained by contacting J. Merlevede, INSERM U1170, Gustave Roussy, 114, rue Edouard Vaillant, 94805 Villejuif, France. Additional authors for this research include N. Droin, T. Qin, K. Meldi, K. Yoshida, M. Morabito, E. Chautard, D. Auboeuf, P. Fenaux, T. Braun, R. Itzykson, S. de Botton, B. Quesnel, T. Commes, E. Jourdan, W. Vainchenker, O. Bernard, N. Pata-Merci and .

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/ncomms10767. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: France, Europe, Genetics, Oncology, Villejuif, Hematology, Chronic Myelomonocytic Leukemia.

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Nephrology

Researchers at French National Institute of Health and Medical Research (INSERM) Report New Data on Nephrology (Treatment of Acute Renal Colic in US and French EDs: Simulated Cases and Real Cases in Acute Pain Management)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nephrology is the subject of a report. According to news reporting out of Toulouse, France, by NewsRx editors, research stated, "To assess the prescribing patterns in acute renal colic in emergency departments in US and France, by comparing physicians' intended prescription practices with actual prescription data in a sample of emergency practitioners. Pharmaco-epidemiological international study in two phases."

Our news journalists obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "First, we surveyed emergency physicians in US and France as to what analgesics they would use for simulated cases of renal colic. We then conducted a retrospective review of actual cases of emergency department patients with pain scores \( \geq 6/10 \) with acute renal colic during a period of 6 months before the survey. We compared nonsteroidal anti-inflammatory drugs (NSAIDs) and opioids used for pain treatment in the two groups, and the differences between the two countries. One hundred six prescribers and 100 patients were included in the study. Comparison between simulated and real cases showed that NSAIDs and opioids were less frequently prescribed in real life (78% vs 99% and 51% vs 100% respectively). Morphine was the most prescribed opioid (96% of simulated cases and 34% of real ones). Acetaminophen use was increased in real life cases (58% vs 0%). Concerning the differences between countries, US physicians are more likely to administer
morphine (64% vs 38%) and French physicians NSAIDs (88% vs 68%). The NSAIDs used are ketorolac in the United States (94% of simulated cases vs 64%) and ketoprofen in France (94% and 88% respectively). We showed clear differences between intended and real analgesic prescription practices for patients suffering from renal colic."

According to the news editors, the research concluded: "Some differences exist for pain perceptions and treatments between US and France."


Our news journalists report that additional information may be obtained by contacting V. Bounes, INSERM UMR 1027 Toulouse, Unite Rech Pharmacoepidemiol, Toulouse, France. Additional authors for this research include B. Valle, F. Concina, D. Lauque, J.L. Ducasse and J.A. Edlow.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.06.107. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toulouse, France, Europe, Non-Steroidal Antiinflammatory Agents, Epidemiology, Nephrology, Kidney, French National Institute of Health and Medical Research (INSERM).

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**Oncology - Liver Cancer**

**Researchers at Fudan University Describe Findings in Liver Cancer (Shizukaol D, a Dimeric Sesquiterpene Isolated from Chloranthus serratus, Represses the Growth of Human Liver Cancer Cells by Modulating Wnt Signalling Pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Natural products have become sources of developing new drugs for the treatment of cancer. To seek candidate compounds that inhibit the growth of liver cancer, components of Chloranthus serratus were tested."

The news correspondents obtained a quote from the research from Fudan University, "Here, we report that shizukaol D, a dimeric sesquiterpene from Chloranthus serratus, exerted a growth inhibition effect on liver cancer cells in a dose-and time-dependent manner. We demonstrated that shizukaol D induced cells to undergo apoptosis. More importantly, shizukaol D attenuated Wnt signalling and reduced the expression of endogenous Wnt target genes, which resulted in decreased expression of b-catenin."

According to the news reporters, the research concluded: "Collectively, this study demonstrated that shizukaol D inhibited the growth of liver cancer cells by modulating Wnt
pathway."


Our news journalists report that additional information may be obtained by contacting L. Tang, State Key Laboratory of Genetic Engineering, School of Life Sciences, Fudan University, Shanghai, People's Republic of China. Additional authors for this research include H. Zhu, X. Yang, F. Xie, J. Peng, D. Jiang, J. Xie, M. Qi and L. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0152012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shanghai, Genetics, Oncology, Liver Cancer, Sesquiterpenes, People's Republic of China.

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**Oncology - Pancreatic Cancer**

**Researchers at Fudan University Discuss Findings in Pancreatic Cancer (Nab-Paclitaxel Plus S-1 Shows Increased Antitumor Activity in Patient-Derived Pancreatic Cancer Xenograft Mouse Models)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Pancreatic Cancer.

According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "To investigate the antitumor activity of nanoparticle albumin-bound paclitaxel (nab-paclitaxel) plus S-1 in patient-derived pancreatic cancer xenograft mouse models and to explore biomarkers that could predict drug efficacy. Ten patient-derived xenograft models were established."

The news reporters obtained a quote from the research from Fudan University, "The third-generation tumor-bearing mice were randomized into 4 treatment groups: (1) control; (2) S-1; (3) nab-paclitaxel; (4) S-1 plus nab-paclitaxel. Resected tumors were tested by immunohistochemistry for the expression of thymidylate synthase, orotate phosphoribosyltransferase (OPRT), dihydropyrimidine dehydrogenase (DPD), secreted protein that is acidic and rich in cysteine, human epidermal growth factor receptor 2 (HER2), collagen-1, and CD31. Tumor growth inhibition of the S-1 group, nab-paclitaxel group, and combination group was 69.52%, 86.63%, 103.56%, respectively (p <0.05). The efficacy of S-1 is better in thymidylate synthase-negative, OPRT-positive, and DPD-negative tumors. The efficacy of nab-paclitaxel is better in HER2-positive tumors. Collagen-1 was decreased and CD31 was increased in tumors treated with nab-paclitaxel and S-1 plus nab-paclitaxel compared with control or S-1. This preclinical study showed that S-1 plus nab-paclitaxel exerted significantly better antitumor activity than S-1 or nab-paclitaxel alone."

According to the news reporters, the research concluded: "Thymidylate synthase, OPRT, and DPD were possibly biomarkers of S-1 and HER2 of nab-paclitaxel."

For more information on this research see: Nab-Paclitaxel Plus S-1 Shows Increased Antitumor Activity in Patient-Derived Pancreatic Cancer Xenograft Mouse Models. *Pancreas,*
Researchers at Fudan University Release New Data on Atrial Fibrillation (Contact force-guided catheter ablation for the treatment of atrial fibrillation: a meta-analysis of randomized, controlled trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Atrial Fibrillation are presented in a new report. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Contact force (CF) sensing technology allows real-time monitoring during catheter ablation for atrial fibrillation (AF). However, the effect of CF sensing technology on procedural parameters and clinical outcomes still needs clarification."

The news correspondents obtained a quote from the research from Fudan University, "Because of the inconsistent results thus far in this area, we performed a meta-analysis to determine whether CF sensing technology can improve procedural parameters and clinical outcomes for the treatment of AF. Studies examining the benefits of CF sensing technology were identified in English-language articles by searching the MEDLINE, Web of Science, and Cochrane Library databases (inception to May 2015). Ten randomized, controlled trials involving 1834 patients (1263 males, 571 females) were included in the meta-analysis (681 in the CF group, 1153 in the control group). Overall, the ablation time was significantly decreased by 7.34 min (95%CI=-12.21 to -2.46; p=0.003, Z test) in the CF group compared with the control group. CF sensing technology was associated with significantly improved freedom from AF after 12 months (OR=1.55, 95%CI=1.20 to 1.99; p=0.0007) and complications were significantly lower in the CF group than in the control group (OR=0.50, 95%CI=0.29 to 0.87; p=0.01). However, fluoroscopy time analysis showed no significantly decreased trend associated with CF-guided catheter ablation (weighted mean difference: -2.59; 95%CI=-9.06 to 3.88; p=0.43). The present meta-analysis shows improvement in ablation time and freedom from AF after 12 months in AF patients treated with CF-guided catheter ablation."

According to the news reporters, the research concluded: "However, CF-guided catheter ablation does not decrease fluoroscopy time."
For more information on this research see: Contact force-guided catheter ablation for the treatment of atrial fibrillation: a meta-analysis of randomized, controlled trials. *Brazilian Journal of Medical and Biological Research*, 2016;49(3):

Our news journalists report that additional information may be obtained by contacting Z. Qi, Dept. of Cardiology, Huashan Hospital, Fudan University, Shanghai, People's Republic of China. Additional authors for this research include X. Luo, B. Wu, H. Shi, B. Jin and Z. Wen.

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**Chemistry - Cell Biochemistry**

**Researchers at Fudan University Release New Data on Cell Biochemistry (Imbalance of Th17/Treg in Different Subtypes of Autoimmune Thyroid Diseases)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Chemistry - Cell Biochemistry are discussed in a new report. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "To clarify the imbalance of Th17/Treg in different subtypes of autoimmune thyroid diseases (AITDs) including Graves' disease(GD), Hashimoto's thyroiditis (HT) and Graves' ophthalmopathy (GO). 47 patients with AITD (including 16 GD, 15 HT, and 16 GO) and 12 healthy controls were enrolled in this study."

The news correspondents obtained a quote from the research from Fudan University, "The percentages of Th17 and Treg cells, the ratio of Th17/Treg, as well as their related transcription factors RORyt and Foxp3 mRNA in peripheral blood mononuclear cells (PBMCs) were measured by flow cytometry and real-time quantitative PCR Results: Compared with those in control group, the percentage of CD41L-17'T cell(Th17) and the mRNA expression of its transcription factor RORyt were higher in PBMCs of AITDs (P <0.05), particularly in HT subgroup (P <0.01). The percentage of CD4+ Foxp(3+) T (Treg) cells and its transcription factor Foxp3 mRNA were significantly decreased in PBMCs of GD (P <0.05). In addition, the ratio of Th17/Treg was elevated in AITD group and GO subgroup (P <0.01). In GO subgroup, the patients with clinical activity score (CAS) above 4.5 had higher percentages of Th17 than those with CAS ranging from 3 to 4.5 (P <0.05)."

According to the news reporters, the research concluded: "Increased Th17 lymphocytes may play a more important role in the pathogenesis of HT and GO while decreased Treg may be greatly involved in GD."

For more information on this research see: Imbalance of Th17/Treg in Different Subtypes of Autoimmune Thyroid Diseases. *Cellular Physiology and Biochemistry*, 2016;40(1-2):245-252. *Cellular Physiology and Biochemistry* can be contacted at: Karger,
Researchers at Fudan University Release New Data on Gliomas (Amino Acid Metabolism Abnormality and Microenvironment Variation Mediated Targeting and Controlled Glioma Chemotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Gliomas. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Energy metabolism abnormality is one of the most significant hallmarks of cancer. As a result, large amino acid transporter 1 (LAT1) is remarkably overexpressed in both blood-brain-barrier and glioma tumor cells, leading a rapid and sufficient substrate transportation. 3CDIT and 4CDIT are originally synthesized by modifying the existing most potent LAT1 substrate. 3CDIT is selected as its higher glioma-targeting ability."

Funders for this research include National Basic Research Program of China, Distinguished Young Scholars, National Natural Science Foundation of China.

Our news editors obtained a quote from the research from Fudan University, "Since the microenvironment variation in tumor cells is another important feature of cancer, a great disparity in adenosine-5'-triphosphate (ATP) and glutathione (GSH) levels between extracellular and intracellular milieu can provide good possibilities for dual-responsive drug release in tumor cells. Doxorubicin (DOX) is successfully intercalated into the ATP aptamer DNA scaffolds, compressed by GSH-responsive polymer pOEI, and modified with 3CDIT to obtain 3CDIT-targeting pOEI/DOX/ATP aptamer nanoparticles (NPs). Enhanced NP accumulation and rapid GSH & ATP dual-responsive DOX release in glioma are demonstrated both in vitro and in vivo. More efficient therapeutic effects are shown with 3CDIT-targeting pOEI/DOX/ATP aptamer NPs than free DOX and no systemic toxicity is observed."

According to the news editors, the research concluded: "Therefore, glioma-targeting delivery and GSH & ATP dual-responsive release guarantee an adequate DOX accumulation within tumor cells and ensure a safe and efficient chemotherapy for glioma."

For more information on this research see: Amino Acid Metabolism Abnormality and Microenvironment Variation Mediated Targeting and Controlled Glioma Chemotherapy. Small, 2016;12(40):5633-5645. Small can be contacted at: Wiley-V C H Verlag GmbH, Postfach
Researchers at Fudan University Report New Data on Cancer Risk
(Protective effect of mild endoplasmic reticulum stress on radiation-induced bystander effects in hepatocyte cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Risk. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Radiation-induced bystander effect (RIBE) has important implications for secondary cancer risk assessment during cancer radiotherapy, but the defense and self-protective mechanisms of bystander normal cells are still largely unclear. The present study found that micronuclei (MN) formation could be induced in the non-irradiated HL-7702 hepatocyte cells after being treated with the conditioned medium from irradiated hepatoma HepG2 cells under either normoxia or hypoxia, where the ratio of the yield of bystander MN induction to the yield of radiation-induced MN formation under hypoxia was much higher than that of normoxia."

Our news journalists obtained a quote from the research from Fudan University, "Nonetheless, thapsigargin induced endoplasmic reticulum (ER) stress and dramatically suppressed this bystander response manifested as the decrease of MN and apoptosis inductions. Meanwhile, the interference of BiP gene, a major ER chaperone, amplified the detrimental RIBE. More precisely, thapsigargin provoked ER sensor of PERK to initiate an instantaneous and moderate ER stress thus defensed the hazard form RIBE, while BiP depletion lead to persistently destroyed homeostasis of ER and exacerbated cell injury."

According to the news editors, the research concluded: "These findings provide new insights that the mild ER stress through BiP-PERK-p-eIF2 alpha signaling pathway has a profound role in protecting cellular damage from RIBE and hence may decrease the potential secondary cancer risk after cancer radiotherapy."

Researchers at Fundeni Clinical Institute Have Reported New Data on
Cell Transplants (Haploidentical Donors: Can Faster Transplantation Be
Life-Saving for Patients with Advanced Disease?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Cell Transplants. According to news reporting out of Bucharest, Romania, by NewsRx editors, research stated, "Haploidentical stem cell transplantation is a therapeutic option for patients without an HLA-matched donor. It is increasingly being used worldwide due to the application of posttransplantation cyclophosphamide and is associated with lower incidence of graft-versus-host disease and treatment-related mortality."

Our news journalists obtained a quote from the research from Fundeni Clinical Institute, "Haploidentical donors are generally available for most patients and stem cells can be rapidly obtained. Delays in transplantation while waiting for unrelated donor cells can be potentially problematic for patients with advanced disease at risk for progression; thus, the use of haploidentical donors, especially in this setting, can be life-saving."

According to the news editors, the research concluded: "Here we reviewed the literature on haploidentical stem cell transplantation performed with posttransplantation cyclophosphamide."


Our news journalists report that additional information may be obtained by contacting A. Tanase, Dept. of Stem Cell Transplantation, Fundeni Clinical Institute, Bucharest, Romania. Additional authors for this research include C. Tomuleasa, A. Marculescu, A. Bardas, A. Colita, C. Orban and S.O Ciurea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443469. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biomedicine, Europe, Romania, Surgery, Bucharest, Stem Cell Research, Transplant Medicine, Cell Transplantation.

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Researchers at General Hospital Report New Data on Clinical Therapeutics (Nemonoxacin has potent activity against gram-positive, but not gram-negative clinical isolates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Clinical Therapeutics are discussed in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "The aim of the current study was to analyze the susceptibility of gram-positive and -negative clinical isolates to a novel des-F(6)-quinolone (nemonoxacin) and other selected antimicrobial agents. Minimal inhibitory concentrations (MICs) were determined by the agar plate dilution method according to NCCLs."

The news correspondents obtained a quote from the research from General Hospital, "Nemonoxacin exhibited greater antimicrobial activity than other quinolones, such as ciprofloxacin, levofloxacin, and moxifloxacin, and other antimicrobials when tested against selected gram-positive organisms. This non-fluorinated quinolone was especially active against streptococci and staphylococci, including multi-resistant Streptococcus pneumoniae and methicillin-resistant Staphylococcus aureus (MRSA). Compared with ciprofloxacin, levofloxacin, and moxifloxacin, and other antimicrobials, nemonoxacin was not highly active against all tested gram-negative clinical isolates, with an MIC90 of 8-32 mg/mL. Nemonoxacin has powerful antibacterial activity against gram-positive strains and has value in treating quinolone-resistant clinical isolates of MSSA, MRSA, and S. pneumoniae infections."

According to the news reporters, the research concluded: "Nemonoxacin should not be the first choice to treat gram-negative clinical isolate infections."

For more information on this research see: Nemonoxacin has potent activity against gram-positive, but not gram-negative clinical isolates. La Clinica Terapeutica, 2015;166 (6):e374-80.

Our news journalists report that additional information may be obtained by contacting Z.X. Li, Dept. of Respiratory Diseases, Second Artillery General Hospital, Beijing 100088, People's Republic of China. Additional authors for this research include Y.N. Liu, R. Wang and A.M Li.

Keywords for this news article include: Asia, Beijing, Drugs and Therapies, Clinical Therapeutics, People's Republic of China.

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Bone Research

Researchers at Goethe-University Have Reported New Data on Bone Research (Low-dose irradiation prior to bone marrow transplantation results in ATM activation and increased lethality in Atm-deficient mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Bone Research is the subject of a report. According to news reporting originating in Frankfurt, Germany, by NewsRx journalists, research stated,
"Ataxia telangiectasia is a genetic instability syndrome characterized by neurodegeneration, immunodeficiency, severe bronchial complications, hypersensitivity to radiotherapy and an elevated risk of malignancies. Repopulation with ATM-competent bone marrow-derived cells (BMDCs) significantly prolonged the lifespan and improved the phenotype of Atm-deficient mice."

The news reporters obtained a quote from the research from Goethe-University, "The aim of the present study was to promote BMDC engraftment after bone marrow transplantation using low-dose irradiation (IR) as a co-conditioning strategy. Atm-deficient mice were transplanted with green fluorescent protein-expressing, ATM-positive BMDCs using a clinically relevant non-myeloablative host-conditioning regimen together with TBI (0.2-2.0 Gy). IR significantly improved the engraftment of BMDCs into the bone marrow, blood, spleen and lung in a dose-dependent manner, but not into the cerebellum. However, with increasing doses, IR lethality increased even after low-dose IR. Analysis of the bronchoalveolar lavage fluid and lung histochemistry revealed a significant enhancement in the number of inflammatory cells and oxidative damage. A delay in the resolution of g-H2AX-expression points to an insufficient double-strand break repair capacity following IR with 0.5 Gy in Atm-deficient splenocytes. Our results demonstrate that even low-dose IR results in ATM activation."

According to the news reporters, the research concluded: "In the absence of ATM, low-dose IR leads to increased inflammation, oxidative stress and lethality in the Atm-deficient mouse model."

For more information on this research see: Low-dose irradiation prior to bone marrow transplantation results in ATM activation and increased lethality in Atm-deficient mice. *Bone Marrow Transplantation*, 2016;51(4):560-7. *Bone Marrow Transplantation* can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news correspondents report that additional information may be obtained by contacting J. Pietzner, Division of Allergy, Pulmonology and Cystic Fibrosis, Dept. of for Children and Adolescents, Children's Hospital, Goethe University, Frankfurt, Germany. Additional authors for this research include B.M. Merscher, P.C. Baer, R.P. Duecker, O. Eickmeier, D. Fußbroich, P. Bader, D. Del Turco, R. Henschler, S. Zielen and R. Schubert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bmt.2015.334. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal *Bone Marrow Transplantation* can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Europe, Germany, Genetics, Frankfurt, Bone Marrow, Bone Research, Immune System.

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**Oncology - Non-Small Cell Lung Cancer**

**Researchers at Graduate School of Medicine Report New Data on Non-Small Cell Lung Cancer (miR-200/ZEB axis regulates sensitivity to nintedanib in non-small cell lung cancer cells)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Non-Small Cell Lung Cancer. According to news reporting out of Bunkyo ku, Japan, by NewsRx editors, research stated, "Nintedanib (BIBF1120) is a multi-targeted angiokinase inhibitor and has been evaluated in idiopathic pulmonary fibrosis and advanced non-small cell lung cancer (NSCLC) patients in clinical studies. In the present study, we evaluated the antitumor effects of nintedanib in 16 NSCLC cell lines and tried to identify microRNA (miRNA) associated with sensitivity to nintedanib."

Our news journalists obtained a quote from the research from the Graduate School of Medicine, "No correlations between FGFR, PDGFR and VEGFR family activation and sensitivity to nintedanib were found. The difference in miRNA expression profiles between 5 nintedanib-sensitive and 5 nintedanib-resistant cell lines was evaluated by miRNA array and quantitative RT-PCR analysis (qRT-PCR). Expression of miR-200b, miR-200a and miR-141 belonging to the miR-200 family which contributes to epithelial-mesenchymal transition (EMT), was significantly lower in 5 nintedanib-resistant than in 5 nintedanib-sensitive cell lines. We examined the protein expression of EMT markers in these 10 NSCLC cell lines. E-cadherin expression was lower, and vimentin and ZEB1 expression were higher in 5 nintedanib-resistant cell lines. PC-1 was the most sensitive of the NSCLC cell lines to nintedanib. We established nintedanib-resistant PC-1 cells (PC-1R) by the stepwise method. PC-1R cells also showed decreased expression of miR-200b, miR-141 and miR-429 and increased expression of ZEB1 and ZEB2. We confirmed that induction of miR-200b or miR-141 enhanced sensitivity to nintedanib in nintedanib-resistant A549 and PC1-R cells. In addition, we evaluated the response to gefitinib in combination with nintedanib after TGF-b1 exposure of A549 cells. Nintedanib was able to reverse TGF-b1-induced EMT and resistance to gefitinib caused by miR-200b and miR-141 upregulation and ZEB1 downregulation. These results suggested that the miR-200/ZEB axis might be predictive biomarkers for sensitivity to nintedanib in NSCLC cells."

According to the news editors, the research concluded: "Furthermore, nintedanib combined with gefitinib might be a novel therapeutic strategy for NSCLC cells with EMT phenotype and resistance to gefitinib."

For more information on this research see: miR-200/ZEB axis regulates sensitivity to nintedanib in non-small cell lung cancer cells. International Journal of Oncology, 2016;48 (3):937-44.

Our news journalists report that additional information may be obtained by contacting N. Nishijima, Dept. of Pulmonary Medicine and Oncology, Graduate School of Medicine, Nippon Medical School, Bunkyo-ku, Tokyo 113-8603, Japan. Additional authors for this research include M. Seike, C. Soeno, M. Chiba, A. Miyanaga, R. Noro, T. Sugano, M. Matsumoto, K. Kubota and A. Gemma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3331. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antineoplastics, Pharmaceuticals, Japan, Oncology, Bunkyo ku, Cell Line, Lung Neoplasms, EGFR Inhibitors, Gefitinib Therapy, Drugs and Therapies, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer, Tyrosine Kinase Inhibitors.

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Researchers at Guilin Medical University Report New Data on Apoptosis (Bauhinia championii Flavone Attenuates Hypoxia-Reoxygenation Induced Apoptosis in H9c2 Cardiomyocytes by Improving Mitochondrial Dysfunction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Apoptosis. According to news reporting out of Guangxi, People's Republic of China, by NewsRx editors, research stated, "This study aimed to determine the effects of Bauhinia championii flavone (BCF) on hypoxia-reoxygenation (H/R) induced apoptosis in H9c2 cardiomyocytes and to explore potential mechanisms. The H/R model in H9c2 cardiomyocytes was established by 6 h of hypoxia and 12 h of reoxygenation."

Our news journalists obtained a quote from the research from Guilin Medical University, "Cell viability was detected by CCK-8 assay. Apoptotic rate was measured by Annexin V/PI staining. Levels of mitochondria-associated ROS, mitochondrial transmembrane potential (Delta Psi m) and mitochondrial permeability transition pores (MPTP) opening were assessed by fluorescent probes. ATP production was measured by ATP assay kit. The release of cytochrome c, translocation of Bax, and related proteins were measured by western blotting. Our results showed that pretreatment with BCF significantly improved cell viability and attenuated the cardiomyocyte apoptosis caused by H/R. Furthermore, BCF increased ATP production and inhibited ROS-generating mitochondria, depolarization of Delta Psi m, and MPTP opening. Moreover, BCF pretreatment decreased Bax mitochondrial translocation, cytochrome c release, and activation of caspase-3, as well as increased the expression of p-PI3K, p-Akt, and the ratio of Bcl-2 to Bax. Interestingly, a specific inhibitor of phosphatidylinositol 3-kinase, LY294002, partly reversed the anti-apoptotic effect of BCF."

According to the news editors, the research concluded: "These observations indicated that BCF pretreatment attenuates H/R-induced myocardial apoptosis strength by improving mitochondrial dysfunction via PI3K/Akt signaling pathway."

For more information on this research see: Bauhinia championii Flavone Attenuates Hypoxia-Reoxygenation Induced Apoptosis in H9c2 Cardiomyocytes by Improving Mitochondrial Dysfunction. Molecules, 2016;21(11):736-747. Molecules can be contacted at: Mdpí Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting P. Liao, Guilin Med Univ, Dept. of Pharmacol, Guilin 541004, Guangxi, People's Republic of China. Additional authors for this research include G.B. Sun, C. Zhang, M. Wang, Y. Sun, Y.H. Zhou, X.B. Sun and J. Jian.

Keywords for this news article include: Guangxi, People's Republic of China, Asia, Cardiomyocyte, Cardiology, Apoptosis, Genetics, Guilin Medical University.

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Researchers at Hallym University Report Findings in Clinical Trial Research (PLK-1 Targeted Inhibitors and Their Potential against Tumorigenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Trial Research. According to news reporting originating from Gangwon Do, South Korea, by NewsRx correspondents, research stated, "Mitotic kinases are the key components of the cell cycle machinery and play vital roles in cell cycle progression. PLK-1 (Polo-like kinase-1) is a crucial mitotic protein kinase that plays an essential role in both the onset of G2/M transition and cytokinesis."

Funders for this research include National Research Foundation of Korea, Hallym University.

Our news editors obtained a quote from the research from Hallym University, "The overexpression of PLK-1 is strongly correlated with a wide spectrum of human cancers and poor prognosis. The (si)RNA-mediated depletion of PLK-1 arrests tumor growth and triggers apoptosis in cancer cells without affecting normal cells. Therefore, PLK-1 has been selected as an attractive anticancer therapeutic drug target. Some small molecules have been discovered to target the catalytic and noncatalytic domains of PLK-1. These domains regulate the catalytic activation and subcellular localization of PLK-1. However, while PLK-1 inhibitors block tumor growth, they have been shown to cause severe adverse complications, such as toxicity, neutropenia, and bone marrow suppression during clinical trials, due to a lack of selectivity and specificity within the human kinome. To minimize these toxicities, inhibitors should be tested against all protein kinases in vivo and in vitro to enhance selectivity and specificity against targets."

According to the news editors, the research concluded: "Here, we discuss the potency and selectivity of PLK-1-targeted inhibitors and their molecular interactions with PLK-1 domains."

For more information on this research see: PLK-1 Targeted Inhibitors and Their Potential against Tumorigenesis. Biomed Research International, 2015;2015():705745.

The news editors report that additional information may be obtained by contacting S. Kumar, Dept. of Biochemistry, Institute of Cell Differentiation and Aging, College of Medicine, Hallym University, Chuncheon, Gangwon-do 200-702, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/705745. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Kinase, Genetics, Gangwon Do, South Korea, Article Review, Enzymes and Coenzymes, Clinical Trial Research.

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Oncology - Breast Cancer

Researchers at Harbin Medical University Describe Findings in Breast Cancer (Identifying the crosstalk of dysfunctional pathways mediated by lncRNAs in breast cancer subtypes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting from Harbin, People's Republic of China, by NewsRx journalists, research stated, "Crosstalk among abnormal pathways widely occurs in human cancer and generally leads to insensitivity to cancer treatment. How long non-coding RNAs (lncRNAs) participate in the regulation of an abnormal pathway crosstalk in human cancer is largely unknown."

The news correspondents obtained a quote from the research from Harbin Medical University, "Here, we proposed a strategy that integrates mRNA and lncRNA expression profiles for systematic identification of lncRNA-mediated crosstalk among risk pathways in different breast cancer subtypes. We identified 12 to 44 crosstalking pathway pairs mediated by 28 to 49 lncRNAs in four breast cancer subtypes. An LncRNA-mediated crosstalking pathway network in each breast cancer subtype was then constructed. We observed a number of breast cancer subtype-specific crosstalks of risk pathways. These subtype-specific lncRNA-mediated pathway crosstalks largely determined subtype-selective functions. Notably, we observed that lncRNAs mediated the crosstalk of pathways by cooperating with known important protein-coding genes, which play core roles in the deterioration of breast cancer. And we also identified key lncRNAs contributing to the crosstalk network in each subtype. As an example, the low expression of LIFR-AS1 was associated with poor survival in LumB subtype, and its cooperated genes IL1R and TGFBR located at the most upstream of the MAPK signaling pathway shared a common cascade path (p38 MAPKs-MEF2C) that can result in proliferation, differentiation and apoptosis."

According to the news reporters, the research concluded: "In summary, we offer an effective way to characterize complex crosstalks mediated by lncRNAs in breast cancer subtypes, which can be applied to other diseases and provide useful information for understanding the pathogenesis of human cancer."

For more information on this research see: Identifying the crosstalk of dysfunctional pathways mediated by lncRNAs in breast cancer subtypes. Molecular Biosystems, 2016;12 (3):711-20. (Royal Society of Chemistry - pubs.rsc.org/en/journals/journalissues/mb)

Our news journalists report that additional information may be obtained by contacting L. Wang, College of Bioinformatics Science and Technology, Harbin Medical University. Harbin, 150081, People's Republic of China. Additional authors for this research include J. Li, H. Zhao, J. Hu, Y. Ping, F. Li, Y. Lan, C. Xu, Y. Xiao and X. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1039/C5MB00700C. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Harbin, Genetics, Oncology, Breast Cancer, Women's Health, People's Republic of China.

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Researchers at Hartford Hospital Release New Data on Antibiotics
(Pharmacodynamic and pharmacokinetic profiling of delafloxacin in a murine lung model against community-acquired respiratory tract pathogens)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antibiotics is now available. According to news reporting from Hartford, Connecticut, by NewsRx journalists, research stated, "Increasing antimicrobial resistance in community-acquired pneumonia (CAP) pathogens has contributed to infection-related morbidity and mortality. Delafloxacin is a novel fluoroquinolone with broadspectrum activity against Gram-positive and-negative organisms, including Streptococcus pneumoniae and methicillin-resistant Staphylococcus aureus (MRSA)."

The news correspondents obtained a quote from the research from Hartford Hospital, "This study aimed to define the pharmacodynamic profile of delafloxacin against CAP pathogens using a neutropenic murine lung infection model. Five S. pneumoniae, 2 methicillin-susceptible S. aureus (MSSA), 2 MRSA and 2 Klebsiella pneumoniae isolates were studied. Delafloxacin doses varied from 0.5 mg/kg/day to 640 mg/kg/day and were given as once-daily to every 3 h regimens over the 24-h treatment period. Efficacy was measured as the change in log(10) CFU at 24 h compared with 0-h controls. Plasma and bronchopulmonary pharmacokinetic studies were conducted. Delafloxacin demonstrated potent in vitro and in vivo activity. Delafloxacin demonstrated high penetration into the lung compartment, as epithelial lining fluid concentrations were substantially higher than free drug in plasma. The ratio of the area under the free drug concentration-time curve to the minimum inhibitory concentration of the infecting organism (fAUC/MIC) was the parameter that best correlated with the efficacy of the drug, and the magnitude required to achieve 1 log(10) CFU reduction was 31.8, 24.7, 0.4 and 9.6 for S. pneumoniae, MRSA, MSSA and K. pneumoniae, respectively. The observed in vivo efficacy of delafloxacin was supported by the high pulmonary disposition of the compound."

According to the news reporters, the research concluded: "The results derived from this pre-clinical lung model support the continued investigation of delafloxacin for the treatment of community-acquired lower respiratory tract infections."


Our news journalists report that additional information may be obtained by contacting D.P. Nicolau, Hartford Hospital, Div Infect Dis, Hartford, CT 06115, United States. Additional authors for this research include J.L. Crandon and D.P. Nicolau.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.08.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hartford, Connecticut, United States, North
Researchers at Harvard School of Medicine Have Reported New Data on Eosinophilic Esophagitis (Allergic skin sensitization promotes eosinophilic esophagitis through the IL-33-basophil axis in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Eosinophilic Esophagitis. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Eosinophilic esophagitis (EoE) is an allergic inflammatory disorder characterized by accumulation of eosinophils in the esophagus. EoE often coexists with atopic dermatitis, a chronic inflammatory skin disease."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "The impaired skin barrier in patients with atopic dermatitis has been suggested as an entry point for allergic sensitization that triggers development of EoE. We sought to define the mechanisms whereby epicutaneous sensitization through a disrupted skin barrier induces development of EoE. To elicit experimental EoE, mice were epicutaneously sensitized with ovalbumin (OVA), followed by intranasal OVA challenge. Levels of esophageal mRNA for T(H)2 cytokines and the IL-33 receptor II1rl1 (St2) were measured by using quantitative PCR. Esophageal eosinophil accumulation was assessed by using flow cytometry and hematoxylin and eosin staining. In vivo basophil depletion was achieved with diphtheria toxin treatment of Mcpt8(DTR) mice, and animals were repopulated with bone marrow basophils. mRNA analysis of esophageal biopsy specimens from patients with EoE was used to validate our findings in human subjects. Epicutaneous sensitization and intranasal challenge of wild-type mice resulted in accumulation of eosinophils and upregulation of T(H)2 cytokines and St2 in the esophagus. Disruption of the IL-33-ST2 axis or depletion of basophils reduced these features. Expression of ST2 on basophils was required to accumulate in the esophagus and transfer experimental EoE. Expression of IL1RL1/ST2 mRNA was increased in esophageal biopsy specimens from patients with EoE. Topical OVA application on unstripped skin induced experimental EoE in filaggrin-deficient flaky tail (ft/ft) mice but not in wild-type control or ft/ft.St2(-/-) mice."

According to the news editors, the research concluded: "Epicutaneous allergic sensitization promotes EoE, and this is critically mediated through the IL-33-ST2-basophil axis."

For more information on this research see: Allergic skin sensitization promotes eosinophilic esophagitis through the IL-33-basophil axis in mice. Journal of Allergy and Clinical Immunology, 2016;138(5):1367-1380,687-691. Journal of Allergy and Clinical Immunology can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Journal of Allergy and Clinical Immunology - www.journals.elsevier.com/journal-of-allergy-and-clinical-immunology/)

The news correspondents report that additional information may be obtained from A.K. Oyoshi, Harvard Med Sch, Dept. of Pediat, Boston, MA, United States. Additional authors for this research include W.S. Lexmond, A. Ohsaki, S. Nurko, H. Karasuyama, E. Fiebiger and
Researchers at Harvard School of Medicine Release New Data on Chronic Kidney Disease (Exploring the genetic basis of early-onset chronic kidney disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Kidney Diseases and Conditions - Chronic Kidney Disease have been published. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "The primary causes of chronic kidney disease (CKD) in children differ from those of CKD in adults. In the USA the most common diagnostic groups of renal disease that manifest before the age of 25 years are congenital anomalies of the kidneys and urinary tract, steroid-resistant nephrotic syndrome, chronic glomerulonephritis and renal cystic ciliopathies, which together encompass >70% of early-onset CKD diagnoses."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "Findings from the past decade suggest that early-onset CKD is caused by mutations in any one of over 200 different monogenic genes. Developments in high-throughput sequencing in the past few years has rendered identification of causative mutations in this high number of genes feasible. Use of genetic analyses in patients with early onset-CKD will provide patients and their families with a molecular genetic diagnosis, generate new insights into disease mechanisms, facilitate aetiology-based classifications of patient cohorts for clinical studies, and might have consequences for personalized approaches to the prevention and treatment of CKD. In this Review, we discuss the implications of next-generation sequencing in clinical genetic diagnostics and the discovery of novel genes in early-onset CKD."

According to the news reporters, the research concluded: "We also delineate the resulting opportunities for deciphering disease mechanisms and the therapeutic implications of these findings."


Our news journalists report that additional information may be obtained by contacting A. Vivante, Dept. of Medicine, Boston Children's Hospital, Harvard Medical School, 300 Longwood Avenue, Boston, Massachusetts 02115, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrneph.2015.205. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers at Harvard School of Medicine Report New Data on Nucleoproteins (Toward development of epigenetic drugs for central nervous system disorders: Modulating neuroplasticity via H3K4 methylation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Proteins - Nucleoproteins is now available. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "The mammalian brain dynamically activates or silences gene programs in response to environmental input and developmental cues. This neuroplasticity is controlled by signaling pathways that modify the activity, localization, and/or expression of transcriptional-regulatory enzymes in combination with alterations in chromatin structure in the nucleus."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Consistent with this key neurobiological role, disruptions in the fine-tuning of epigenetic and transcriptional regulation have emerged as a recurrent theme in studies of the genetics of neurodevelopmental and neuropsychiatric disorders. Furthermore, environmental factors have been implicated in the increased risk of heterogeneous, multifactorial, neuropsychiatric disorders via epigenetic mechanisms. Aberrant epigenetic regulation of gene expression thus provides an attractive unifying model for understanding the complex risk architecture of mental illness. Here, we review emerging genetic evidence implicating dysregulation of histone lysine methylation in neuropsychiatric disease and outline advancements in small-molecule probes targeting this chromatin modification. The emerging field of neuroepigenetic research is poised to provide insight into the biochemical basis of genetic risk for diverse neuropsychiatric disorders and to develop the highly selective chemical tools and imaging agents necessary to dissect dynamic transcriptional-regulatory mechanisms in the nervous system."

According to the news editors, the research concluded: "On the basis of these findings, continued advances may lead to the validation of novel, disease-modifying therapeutic targets for a range of disorders with aberrant chromatin-mediated neuroplasticity."


The news correspondents report that additional information may be obtained from S.J. Haggarty, Harvard Med Sch, Massachusetts General Hospital, Center Human Genet Res, Dept. of PsychiatChem Neurobiol Lab, Boston, MA 02114, United States. Additional authors for this research include J.M. Hooker and S.J. Haggarty.
Researchers at Harvard School of Medicine Target Atherosclerosis (Dendritic Cell KLF2 Expression Regulates T Cell Activation and Proatherogenic Immune Responses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Dendritic cells (DCs) have been implicated as important regulators of innate and adaptive inflammation in many diseases, including atherosclerosis. However, the molecular mechanisms by which DCs mitigate or promote inflammatory pathogenesis are only partially understood."

Our news editors obtained a quote from the research from the Harvard School of Medicine, "Previous studies have shown an important anti-inflammatory role for the transcription factor Kruppel-like factor 2 (KLF2) in regulating activation of various cell types that participate in atherosclerotic lesion development, including endothelial cells, macrophages, and T cells. We used a pan-DC, CD11c-specific cre-lox gene knockout mouse model to assess the role of KLF2 in DC activation, function, and control of inflammation in the context of hypercholesterolemia and atherosclerosis. We found that KLF2 deficiency enhanced surface expression of costimulatory molecules CD40 and CD86 in DCs and promoted increased T cell proliferation and apoptosis. Transplant of bone marrow from mice with KLF2-deficient DCs into Ldlr(-/-) mice aggravated atherosclerosis compared with control mice, most likely due to heightened vascular inflammation evidenced by increased DC presence within lesions, enhanced T cell activation and cytokine production, and increased cell death in atherosclerotic lesions."

According to the news editors, the research concluded: "Taken together, these data indicate that KLF2 governs the degree of DC activation and hence the intensity of proatherogenic T cell responses."

For more information on this research see: Dendritic Cell KLF2 Expression Regulates T Cell Activation and Proatherogenic Immune Responses. Journal of Immunology, 2016;197(12):4651-4662. Journal of Immunology can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news editors report that additional information may be obtained by contacting A.H. Lichtman, Harvard Med Sch, Brigham & Women's Hospital, Dept. of Pathol, Boston, MA 02460, United States. Additional authors for this research include D. Engelbertsen, D.X. Bu, A. Foks, N. Grabie, J.M. Herter, F. Kuperwaser, T. Chen, G. Destefano, P. Jarolim and A.H. Lichtman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1600206. This DOI is a link to an online electronic
Researchers at Health Center Target Heart Attack (Sleep Disruption is Associated with Increased Ventricular Ectopy and Cardiac Arrest in Hospitalized Adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting originating in Newmarket, Canada, by NewsRx journalists, research stated, "To determine whether sleep disruption increases ventricular ectopy and the risk of cardiac arrest in hospitalized patients. Hospital emergency codes (HEC) trigger multiple hospital-wide overhead announcements."

The news reporters obtained a quote from the research from Health Center, "In 2014 an electronic 'code white' program was instituted to protect staff from violent patients. This resulted in an increase in nocturnal HEC. Telemetry data was examined between September 14 and October 2, 2014. The frequency of nocturnal announcements was correlated with changes in frequency of premature ventricular complexes per hour (PVC/h). Cardiac arrest data were examined over a 3-y period. All HEC were assumed to have triggered announcements. The relationship between nocturnal HEC and the incidence of subsequent cardiac arrest was examined. 2,603 hours of telemetry were analyzed in 87 patients. During nights with two or fewer announcements, PVC/h decreased 33% and remained 30% lower the next day. On nights with four or more announcements, PVC/h increased 23% (p <0.001) and further increased 85% the next day (p=0.001). In 2014, following the introduction of the code white program, the frequency of all HEC increased from 1.1/day to 6.2/day (p <0.05). The frequency of cardiac arrest/24 h rose from 0.46/day in 2012-2013 to 0.62/day in 2014 (p=0.001). During daytime hours (06:00-22:00), from 2012 through 2014, the frequency of cardiac arrest following zero, one or at least two nocturnal HEC were 0.331 ± 0.03, 0.396 ± 0.04 and 0.471 ± 0.09 respectively (R(2)=0.99, p=0.03)."

According to the news reporters, the research concluded: "Sleep disruption is associated with increased ventricular ectopy and increased frequency of cardiac arrest."


Our news correspondents report that additional information may be obtained by contacting S.E. Miner, Southlake Regional Health Center, Newmarket, Ontario, Canada. Additional authors for this research include D. Pahal, L. Nichols, A. Darwood, L.E. Nield and Z. Wulffhart.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5665/sleep.5656. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Ontario, Hospital, Newmarket, Cardiology, Heart Attack, Cardiac Arrest, North and Central America, Heart Disorders and Diseases.

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Researchers at Health Science Center Release New Data on Polycythemia Vera [Diagnosis and Management of Polycythemia Vera in a Ferret (Mustela putorius faro)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Myeloproliferative Diseases and Conditions - Polycythemia Vera. According to news reporting originating from Guelph, Canada, by NewsRx correspondents, research stated, "A 5-y-old female ferret (Mustela putorius faro) was evaluated for diarrhea, anorexia, and lethargy for 1 wk. Only mild dehydration was detected on physical examination."

Our news editors obtained a quote from the research from Health Science Center, "CBC analysis revealed marked erythrocytosis with an unremarkable plasma biochemistry panel; follow-up CBC analyses revealed a consistent primary erythrocytosis. Whole-body radiographs and abdominal ultrasonography were unremarkable except for a small nephrolith in the right kidney and a small cyst in the left kidney. The plasma erythropoietin level was 17.0 mIU/mL and considered normal. In light of the diagnostic work-up and consistent erythrocytosis, a diagnosis of polycythemia vera (primary erythrocytosis) was made. The initial presentation of diarrhea resolved after treatment with oral metronidazole (20 mg/kg PO BID for 7 d). Treatment for the polycythemia consisted of a phlebotomy initially followed by chemotherapy with hydroxyurea (10 mg/kg PO BID). During the subsequent 12 mo, the hydroxyurea dose adjusted according to follow-up CBC results, and finding an optimal dosage regimen proved to be challenging. One year after the initial diagnosis, the ferret presented to an emergency clinic for acute and severe hemorrhagic diarrhea and died shortly thereafter. The postmortem diagnosis was acute venous infarction of the small and large intestine."

According to the news editors, the research concluded: "To our knowledge, this report is the first to describe the diagnosis and long-term management of polycythemia vera in a ferret and the use of hydroxyurea for this purpose."

For more information on this research see: Diagnosis and Management of Polycythemia Vera in a Ferret (Mustela putorius faro). Comparative Medicine, 2016;66(6):463-467. Comparative Medicine can be contacted at: Amer Assoc Laboratory Animal Science, 9190 Crestwyn Hills Dr, Memphis, TN 38125, USA.

The news editors report that additional information may be obtained by contacting H. Beaufrere, Ontario Vet College, Hlth Sci Center, Guelph, ON, Canada. Additional authors for this research include H. Beaufrere, L.L. Bassel, S. Wills, D. Laniesses, S.L. Blois and D.A. Smith.

Keywords for this news article include: Guelph, Ontario, Canada, North and Central America, Heart Disorders and Diseases.
Researchers at Heart Center Report New Data on Acute Coronary Syndrome (Cardiovascular Mortality in Chest Pain Patients: Comparison of Natriuretic Peptides With Novel Biomarkers of Cardiovascular Stress)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Acute Coronary Syndrome is now available. According to news reporting from Hamburg, Germany, by NewsRx journalists, research stated, "Natriuretic peptides are the standard biomarker for risk stratification in cardiovascular disease. Novel biomarkers of cardiovascular stress might allow refinement in risk stratification for patients with acute coronary syndrome (ACS)."

The news correspondents obtained a quote from the research from Heart Center, "We tested the performance of these novel biomarkers for cardiovascular risk stratification in patients who presented with ACS. In the AtheroGene study, 873 patients presented with ACS in the emergency department. Biomarkers measured were: B-type natriuretic peptide (BNP), N-terminal pro BNP (NT-proBNP), midregional proatrial natriuretic peptide, midregional proadrenomedullin (MR-proADM), copeptin, and troponin I. The median follow-up time was 4 years and during this time 50 patients died from cardiac causes. Cox regression analysis for the continuous variables NT-proBNP and BNP showed a hazard ratio (HR) of 1.9 and 1.8, respectively, for 1 SD increase (P < 0.001 and P = 0.003) in the fully adjusted model. Novel biomarkers with MR-proADM had an HR of 3.2, followed by midregional proatrial natriuretic peptide with an HR of 1.9 (both P< 0.001), and copeptin with an HR of 1.6 (P < 0.001). C-index revealed MR-proADM as the best discriminator for identifying patients with the outcome with a C-index = 0.8, and C-index was 0.72 for NT-proBNP (P for comparison = 0.017). Integrated discrimination improvement for MR-proADM was 0.059 compared with NT-proBNP (P = 0.016), thus providing background that MR-proADM was better to identify persons with the outcome. Troponin I levels at the time of admission were not significant for risk stratification. In patients who present with ACS the novel biomarker, MR-proADM was the best predictor for outcome."

According to the news reporters, the research concluded: "MR-proADM adds modest information and is useful for risk prediction in ACS patients."


Our news journalists report that additional information may be obtained by contacting D. Westermann, Univ Heart Center, Dept. of Gen & Intervent Cardiol, Hamburg,
Germany. Additional authors for this research include F. Ojeda, T. Zeller, E. Zengin, H.J. Rupprecht, K.J. Lackner, C. Bickel, S. Blankenberg, R.B. Schnabel and D. Westermann.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.05.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hamburg, Germany, Europe, Troponin I, Diagnostics and Screening, Heart Disorders and Diseases, Macromolecular Substances, Acute Coronary Syndrome, Natriuretic Peptides, Peptide Proteins, Peptide Hormones, Cardiovascular, Biopolymers, Chest Pain, Cardiology, Heart Center.

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Hormones - Gastrointestinal Hormones

**Researchers at Hebei Medical University Target Gastrointestinal Hormones (Cholecystokinin-8 inhibits methamphetamine-induced neurotoxicity via an anti-oxidative stress pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hormones - Gastrointestinal Hormones have been published. According to news originating from Shijiazhuang, People's Republic of China, by NewsRx correspondents, research stated, "As a powerful addictive psychostimulant drug, coupled with its neurotoxicity, methamphetamine (METH) abuse may lead to long-lasting abnormalities in brain structure and function. We found that pretreatment of cholecystokinin-8 (CCK-8) inhibited METH-induced brain cellular dopaminergic (DA) damage in the striatum and substantia nigra, and related behavioural deficits and hyperthermia."

Funders for this research include National Natural Science Foundation of China, Training funds for Talent Project in Hebei Province, Natural Science Foundation of Hebei Province.

Our news journalists obtained a quote from the research from Hebei Medical University, "However, the mechanism of CCK-8 action on METH-induced toxicity is not clear. The aim of this study was to explore whether the possible protective effect of CCK-8 on METH-induced neurotoxicity involved anti-oxidative stress mechanisms. The subtypes of CCK receptors mediating the regulatory action of CCK-8 were also investigated. The present results revealed that CCK-8 dose-dependently inhibited METH induced cytotoxic effect by activating the CCK2 receptor subtype in PC12 cells and CCK2 receptor stable transfected-HEK293 cells. Pre-treatment of CCK-8 before METH stimulation significantly attenuated the generation of reactive oxygen species and NADPH oxidase activation in PC12 cells."

According to the news editors, the research concluded: "Our study demonstrated a protective effect of CCK-8 on METH-induced neurotoxicity in vitro and suggested that a possible mechanism of this action was dependent on the activation of the CCK2 receptor to reduce the neurotoxicity and oxidative stress induced by METH stimulation."

For more information on this research see: Cholecystokinin-8 inhibits methamphetamine-induced neurotoxicity via an anti-oxidative stress pathway. *Neurotoxicology*, 2016;57(3):31-38. *Neurotoxicology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Neurotoxicology - www.journals.elsevier.com/neurotoxicology/)
The news correspondents report that additional information may be obtained from C.L. Ma, Hebei Medical University, Dept. of Forens Med, Hebei Key Lab Forens Med, Collaborat Innovat Center Forens Med Mol Identificat, Shijiazhuang 050017, Hebei Province, People's Republic of China. Additional authors for this research include M.L. An, H.Y. Gou, X. Liu, L. Liu, C.L. Ma and B. Cong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neuro.2016.08.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shijiazhuang, People's Republic of China, Asia, Central Nervous System Agents, Gastrointestinal Hormones, Drugs and Therapies, Organic Chemicals, Gastroenterology, Methamphetamine, Cholecystokinin, CNS Stimulants, Neuropeptides, Ethylamines, Anorexiants, Peptides, Proteins, Hebei Medical University.

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Pharmacology

Researchers at Hebrew University Detail Findings in Pharmacology (Comparing Class A GPCRs to bitter taste receptors: Structural motifs, ligand interactions and agonist-to-antagonist ratios)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pharmacology have been published. According to news reporting originating in Rehovot, Israel, by NewsRx journalists, research stated, "G protein-coupled receptors (GPCRs) are seven transmembrane proteins that play a key role in human physiology. The GPCR superfamily comprises about 800 members, classified into several classes, with rhodopsin-like Class A being the largest and most studied thus far."

The news reporters obtained a quote from the research from Hebrew University, "A huge component of the human repertoire consists of the chemosensory GPCRs, including 400 odorant receptors, 25 bitter taste receptors (TAS2Rs), which are thought to guard the organism from consuming poisons, and sweet and umami TAS1R heteromers, which indicate the nutritive value of food. The location of the binding site of TAS2Rs is similar to that of Class A GPCRs. However, most of the known bitter ligands are agonists, with only a few antagonists documented thus far. The agonist-to-antagonist ratios of Class A GPCRs vary, but in general are much lower than for TAS2Rs. For a set of well-studied GPCRs, a gradual change in agonists-to-antagonists ratios is observed when comparing low (10 mM)-and high (10 nM)-affinity ligand sets from ChEMBL and the DrugBank set of drugs. This shift reflects pharmaceutical bias toward the therapeutically desirable pharmacology for each of these GPCRs, while the 10 mM sets possibly represent the native tendency of the receptors toward either agonists or antagonists. Analyzing ligand-GPCR interactions in 56 X-ray structures representative of currently available structural data, we find that the N-terminus, TM1 and TM2 are more involved in binding of antagonists than of agonists. On the other hand, ECL2 tends to be more involved in binding of agonists. This is of interest, since TAS2Rs harbor variations on the typical Class A sequence motifs, including the absence of the ECL2-TM3 disulfide bridge. This suggests an alternative mode of regulation of conformational states for TAS2Rs, with potentially less stabilized inactive state."

According to the news reporters, the research concluded: "The comparison of TAS2Rs and Class A GPCRs structural features and the pharmacology of their ligands
highlights the intricacies of GPCR architecture and provides a framework for rational design of new ligands."

For more information on this research see: Comparing Class A?GPCRs to bitter taste receptors: Structural motifs, ligand interactions and agonist-to-antagonist ratios. *Methods In Cell Biology*, 2015;132():401-27.

Our news correspondents report that additional information may be obtained by contacting A. Di Pizio, Institute of Biochemistry, Food Science and Nutrition, The Robert H Smith Faculty of Agriculture, Food and Environment, The Hebrew University, Rehovot, Israel. Additional authors for this research include A. Levit, M. Slutzki, M. Behrens, R. Karaman and M. Y Niv.

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Keywords for this news article include: Asia, Pharmaceuticals, Israel, Rehovot, Pharmacology.

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**Drugs and Therapies - Pharmaceutical Research**

**Researchers at Heinrich-Heine-University Target Pharmaceutical Research (Impact of sodium lauryl sulfate in oral liquids on e-tongue measurements)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Pharmaceutical Research have been presented. According to news reporting out of Dusseldorf, Germany, by NewsRx editors, research stated, "During development of oral liquid medicines taste assessment is often required to evaluate taste and taste masking. Electronic tongue analysis can provide taste assessment of medicinal products but should only be conducted with medicines that interact with the instrument without damaging the sensor membranes or interfering with their electrical output so that robust data is generated."

Our news journalists obtained a quote from the research from Heinrich-Heine-University, "To explore the impact of a substance deemed unsuitable for electronic tongue analysis the influence of the anionic surfactant sodium lauryl sulfate (SLS), on the performance of the electronic tongue was conducted using electronic tongues equipped with self-developed PVC based sensors. The results showed a significant impact of SLS on all applied sensor types and an alteration of the sensor's sensitivity. Nevertheless, concentration dependent sensor responses could still be obtained and the sensor performance was not impacted negatively."

According to the news editors, the research concluded: "Assessment of unsuitable substances should therefore be evaluated prior to performing electronic tongue analysis so that their impact is understood fully."

Our news journalists report that additional information may be obtained by contacting L.I. Immohr, Heinrich Heine Univ Duesseldorf, Inst Pharmaceut & Biopharmaceut, D-40225 Dusseldorf, Germany. Additional authors for this research include R. Turner and M. Pein-Hackelbusch.

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Keywords for this news article include: Dusseldorf, Germany, Europe, Pharmaceutical Research, Drugs and Therapies, Heinrich-Heine-University.

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Oncology - Prostate Cancer

Researchers at Henry Ford Hospital Target Prostate Cancer (Do Sociodemographic Factors Influence Outcome in Prostate Cancer Patients Treated With External Beam Radiation Therapy?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting originating in Detroit, Michigan, by NewsRx journalists, research stated, "The purpose of this study was to analyze the prognostic significance of sociodemographic factors on biochemical control (bNED) and overall survival (OS) in patients with prostate cancer. Prostate cancer patients treated with definitive external beam radiation therapy (EBRT) +/- hormone therapy from 1997 to 2006 were analyzed in this IRB-approved study."

The news reporters obtained a quote from the research from Henry Ford Hospital, "Patient demographics, treatment (Tx), and clinical outcome were obtained from electronic medical records. Median household income (mHHI) at the census block group level was obtained from the 2000 census data. Data on disease and Tx parameters included Gleason score, pre-Tx prostate specific antigen (PSA), T stage, year of Tx, EBRT dose, and use of hormone therapy. Patients were categorized as having low-risk, intermediate-risk, or high-risk disease. Sociodemographic factors included age, race, marital status, and mHHI. Biochemical failure was defined as nadir PSA + 2 ng/mL. OS was based on death from any cause. A total of 788 consecutive patients were studied with a median follow-up of 7 years (range, 0.4 to 15 y). African Americans comprised 48% of the patients, whereas 46% of patients were white and 6% were other races. Whites had an average mHHI of $60,190 compared with $36,917 for African Americans (P <0.001). After multivariable modeling, only radiation dose was predictive for bNED (P=0.004) or OS (P=0.008). No sociodemographic factors were predictive for either outcome. Higher radiation dose predicted for better biochemical control and OS."

According to the news reporters, the research concluded: "This analysis suggests that sociodemographic factors are not important prognostic factors in determining outcome after EBRT for prostate cancer."

For more information on this research see: Do Sociodemographic Factors Influence Outcome in Prostate Cancer Patients Treated With External Beam Radiation Therapy? American Journal of Clinical Oncology-Cancer Clinical Trials, 2016;39(6):563-567. American Journal of Clinical Oncology-Cancer Clinical Trials can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.
Researchers at Hirosaki University School of Medicine Have Reported New Data on Cytokines (Interferon-Stimulated Gene 15, a Type I Interferon-Dependent Transcript, Is Involved in a Negative Feedback Loop in Innate Immune Reactions in Human ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Intercellular Signaling Peptides and Proteins - Cytokines have been published. According to news originating from Hirosaki, Japan, by NewsRx correspondents, research stated, "Since innate immunity plays a pivotal role in the pathogenesis of glomerulonephritis, the activation of toll-like receptor (TLR) 3/type I interferon (IFN) cascades is important in glomerular inflammation. However, the role of IFN-stimulated gene 15 (ISG15), a type IFN-dependent transcript, in glomerular inflammation is unclear."

Our news journalists obtained a quote from the research from the Hirosaki University School of Medicine, "We, therefore, examined the role of ISG15 in innate immune reactions induced by TLR3 signaling in cultured human mesangial cells (MCs). We treated MCs with polyinosinic-polycytidylic acid (poly IC), an authentic double-stranded RNA, and analyzed the ISG15 expression by reverse transcription-polymerase chain reaction and western blotting. To examine the regulation of ISG15 expression, we subjected MCs to RNA interference (siRNA) against TLR3, IFN-b, ISG56, and melanoma differentiation-associated gene 5 (MDA5). ISG15 expression induced by poly IC in MCs was inhibited by siRNA against TLR3 and IFN-b, whereas silencing of ISG56 or MDA5 had no effect. A knockdown of ISG15 upregulated the expression of ISG56, MDA5, CXCL10 and phosphorylated signal transducers and activators of transcription protein 1 (P-STAT1), while a knockdown of ubiquitin-like modifier activating enzyme 7, a key enzyme that conjugates ISG15 to target proteins, did not affect the expression. Knockdown of ubiquitin specific protease 18, an ISG15 isopeptidase, also upregulated P-STAT1, ISG56, MDA5 and CXCL10. Since unconjugated free ISG15 negatively regulates the phosphorylation of STAT1 and its downstream reactions, ISG15 dysregulation may be involved in the pathogenesis of glomerular inflammation."

According to the news editors, the research concluded: "We believe that suitable interventions in these innate immune cascades is desirable for the future therapeutic strategies for glomerulonephritis."

For more information on this research see: Interferon-Stimulated Gene 15, a Type I Interferon-Dependent Transcript, Is Involved in a Negative Feedback Loop in Innate Immune

The news correspondents report that additional information may be obtained from T. Imaizumi, Dept. of Vascular Biology, Hirosaki University Graduate School of Medicine, Hirosaki University, Hirosaki, Japan. Additional authors for this research include T. Shimada, T. Matsumiya, H. Yoshida, S. Watanabe, K. Tsuruga, S. Kawaguchi, M. Murakami, K. Joh and H. Tanaka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443934. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal *Nephron* is: S. Karger AG, Allschwilerstrasse 10, CH-4009 Basel, Switzerland.

Keywords for this news article include: Asia, Japan, Hirosaki, Genetics, Cytokines, Fibroblasts, Interferons, Inflammation, Urinary Tract, Mesangial Cells, Kidney Glomerulus, Urogenital System, Intercellular Signaling Peptides and Proteins.

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**Peptide Proteins - Proinsulin**

**Researchers at Hiroshima University Have Reported New Data on Proinsulin (Metabolomic profiling reveals differential effects of glucagon-like peptide-1 and insulin on nutrient partitioning in ovine liver)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Peptide Proteins - Proinsulin have been presented. According to news reporting from Higashi Hiroshima, Japan, by NewsRx journalists, research stated, "This study was conducted to identify the insulin-independent actions of glucagon-like peptide-1 (GLP-1 (7-36 amide)) in partitioning nutrient metabolism in ovine liver. Four Suffolk wethers (60.0 +/- 6.7kg body weight (BW)) were used in a repeated-measure design under euglycemic--hyperinsulinemic and hyper -GLP-1 clamps for 150min with intravenous infusion of insulin (0.5mU/kg BW/min; from 0 to 90min), GLP-1 (0.5 mu g/kg BW/min; from 60 to 150min) and both hormones co-administered from 60 to 90min."

The news correspondents obtained a quote from the research from Hiroshima University, "Liver biopsies were collected at 0, 60, 90 and 150 min to represent the metabolomic profiling of baseline, insulin, insulin plus GLP-1, and GLP-1, respectively, and were analyzed for metabolites using Capillary Electrophoresis Time-of-Flight Mass Spectrometer. Metabolomics analysis reveals 51 metabolites as being significantly altered (\(P <0.05\)) by insulin and GLP-1 infusion compared to baseline values. Insulin infusion enhanced glycolysis, lipogenesis, oxidative stress defense and cell proliferation pathways, but reduced protein breakdown, gluconeogenesis and ketogenesis pathways. Conversely, GLP-1 infusion promoted lipolytic and ketogenic pathways accompanied by a lowered lipid clearance from the liver as well as elevated oxidative stress defense and nucleotide degradation."

According to the news reporters, the research concluded: "Despite further research
still being warranted, our data suggest that GLP-1 may exert insulin-antagonistic effects on hepatic lipid and nucleotide metabolism in ruminants.”


Our news journalists report that additional information may be obtained by contacting T. Sugino, Hiroshima University, Grad Sch Biosphere Sci, Res Center Anim Sci, Higashihiroshima, Japan. Additional authors for this research include D. Taniguchi, T. Sugino and T. Obitsu.

Keywords for this news article include: Higashi Hiroshima, Japan, Asia, Gastrointestinal Hormones, Glucagon-Like Peptide 1, Glucagon-Like Peptides, Peptide Proteins, Peptide Hormones, Proglucagon, Proinsulin, Hiroshima University.

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Amyotrophic Lateral Sclerosis

Researchers at Hokkaido University Release New Data on Amyotrophic Lateral Sclerosis (Interaction of RNA with a C-terminal fragment of the amyotrophic lateral sclerosis-associated TDP43 reduces cytotoxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Amyotrophic Lateral Sclerosis are discussed in a new report. According to news reporting originating in Sapporo, Japan, by NewsRx journalists, research stated, "A hallmark of amyotrophic lateral sclerosis (ALS), a devastating neurodegenerative disease, is formation of inclusion bodies (IBs) from misfolded proteins in neuronal cells. TAR RNA/DNA-binding protein 43 kDa (TDP43) is an ALS-causative protein forming IBs in ALS patients."

The news reporters obtained a quote from the research from Hokkaido University, "The relation between localization of the IBs and neurotoxicity remains largely unknown. We characterized aggregation of fluorescently tagged TDP43 and its carboxyl-terminal fragments (CTFs) by analytical fluorescence imaging techniques. Quantitative time-lapse analysis in individual live cells showed that fluorescent-protein-tagged TDP43 was cleaved and a 35 kDa TDP43 CTF (TDP35) formed ubiquitin (Ub)-negative cytoplasmic IBs. Although TDP35 formed mildly toxic Ub-negative IBs in the cytoplasm, TDP25, another type of a TDP43 CTF, efficiently formed sufficiently toxic Ub-positive IBs. One-or two-color fluorescence correlation spectroscopy (FCS/FCCS) revealed that coaggregation of TDP25 with TDP43 was initiated by depletion of the RNA that binds to TDP25. Moreover, nuclear localization tagging TDP25 reduced the rate of neuronal cell death."

According to the news reporters, the research concluded: "These observations point to the need to elucidate the novel sequestration mechanism and details of the toxicity of the misfolded and aggregation-prone TDP43 CTFs (as well as the RNA binding and nuclear retention) in order to identify possible preventive interventions against ALS."

For more information on this research see: Interaction of RNA with a C-terminal
fragment of the amyotrophic lateral sclerosis-associated TDP43 reduces cytotoxicity. Scientific Reports, 2016;6():19230. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting A. Kitamura, Laboratory of Molecular Cell Dynamics, Faculty of Advanced Life Science, Hokkaido University, Sapporo 001-0021, Japan. Additional authors for this research include Y. Nakayama, A. Shibasaki, A. Taki, S. Yuno, K. Takeda, M. Yahara, N. Tanabe and M. Kinjo.

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Keywords for this news article include: Asia, Japan, Sapporo, Genetics, Neurology, Motor Neuron Disease, TDP 43 Proteinopathies, Proteostasis Deficiencies, Amyotrophic Lateral Sclerosis, Spinal Cord Diseases and Conditions, Neuromuscular Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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Researchers at Hokkaido University Release New Data on Liposomes (Topology of Surface Ligands on Liposomes: Characterization Based on the Terms, Incorporation Ratio, Surface Anchor Density, and Reaction Yield)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biotechnology - Liposomes have been presented. According to news reporting out of Hokkaido, Japan, by NewsRx editors, research stated, "The surface topology of ligands on liposomes is an important factor in active targeting in drug delivery systems. Accurately evaluating the density of anchors and bioactive functional ligands on a liposomal surface is critical for ensuring the efficient delivery of liposomes."

Our news journalists obtained a quote from the research from Hokkaido University, "For evaluating surface ligand density, it is necessary to clarify that on the ligand-modified liposomal surfaces, some anchors are attached to ligands but some are not. To distinguish between these situations, a key parameter, surface anchor density, was introduced to specify amount of total anchors on the liposomal surface. Second, the parameter reaction yield was introduced to identify the amount of ligand-attached anchors among total anchors, since the conjugation efficiency is not always the same nor 100%. Combining these independent parameters, we derived: incorporation ratio=surface anchor densityxreaction yield. The term incorporation ratio defines the surface ligand density. Since the surface anchor density represents the density of polyethylene glycol (PEG) on the surfaces in most cases, it also determines liposomal function. It is possible to accurately characterize various PEG and ligand densities and to define the surface topologies."

According to the news editors, the research concluded: "This quantitative methodology can standardize the liposome preparation process and qualify the modified liposomal surfaces."

For more information on this research see: Topology of Surface Ligands on

Our news journalists report that additional information may be obtained by contacting H. Harashima, Hokkaido University, Fac Pharmaceut Sci, Kita Ku, Sapporo, Hokkaido 0600812, Japan. Additional authors for this research include Y. Sato, M. Hyodo and H. Harashima.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1248/bpb.b16-00462. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hokkaido, Japan, Asia, Drug Delivery Systems, Drugs and Therapies, Biotechnology, Liposomes, Hokkaido University.

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**Digestive System Diseases and Conditions - Colitis**

**Researchers at Hong Kong Baptist University Detail Findings in Colitis (Addition of Berberine to 5-Aminosalicylic Acid for Treatment of Dextran Sulfate Sodium-Induced Chronic Colitis in C57BL/6 Mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Colitis. According to news reporting originating in Hong Kong, People's Republic of China, by NewsRx journalists, research stated, "Ulcerative colitis (UC) is a common chronic remitting disease but without satisfactory treatment. Alternative medicine berberine has received massive attention for its potential in UC treatment."

The news reporters obtained a quote from the research from Hong Kong Baptist University, "Conventional therapies with the addition of berberine are becoming attractive as novel therapies in UC. In the present study, we investigated the preclinical activity of a conventional oral 5-aminosalicylic acid (5-ASA) therapy plus berberine in experimental colitis. A subclinical dose of 5-ASA (200 mg/kg/day) alone or 5-ASA plus berberine (20 mg/kg/day) was orally administered for 30 days to C57BL/6 mice with colitis induced by three cycles of 2% dextran sulfate sodium (DSS). The disease severity, inflammatory responses, drug accumulation and potential toxicity of colitis mice were examined. The results showed that comparing to 5-ASA alone, 5-ASA plus berberine more potently ameliorated DSS-induced disease severity, colon shortening, and colon histological injury. Further, the up-regulation in mRNA level of colonic TNF-a as well as NF-kB and JAK2 phosphorylation caused by DSS were more pronouncedly reversed in animals treated with the combination therapy than those treated with 5-ASA alone. Moreover, the addition of berberine to 5-ASA more significantly inhibited lymphocyte TNF-a secretion of DSS mice than 5-ASA alone. In the meanwhile, no extra drug accumulation or potential toxicity to major organs of colitis mice was observed with this combination treatment."

According to the news reporters, the research concluded: "In summary, our studies provide preclinical rationale for the addition of berberine to 5-ASA as a promising therapeutic strategy in clinic by reducing dose of standard therapy."
For more information on this research see: Addition of Berberine to 5-Aminosalicylic Acid for Treatment of Dextran Sulfate Sodium-Induced Chronic Colitis in C57BL/6 Mice. *Plos One*, 2015;10(12):e0144101. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news correspondents report that additional information may be obtained by contacting Y.H. Li, Lab of Brain and Gut Research, Hong Kong Chinese Medicine Research Center, School of Chinese Medicine, Hong Kong Baptist University, Hong Kong, People's Republic of China. Additional authors for this research include M. Zhang, H.T. Xiao, H.B. Fu, A. Ho, C.Y. Lin, Y. Huang, G. Lin and Z.X. Bian.

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Keywords for this news article include: Asia, Antiinfectives, Antituberculosis Agents, Pharmaceuticals, Colitis, Phenols, Genetics, Hong Kong, Hydroxy Acids, Gastroenteritis, Aminosalicylates, Carboxylic Acids, Gastroenterology, Organic Chemicals, Drugs and Therapies, Aminosalicylic Acids, Hydroxybenzoic Acids, People's Republic of China.

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Researchers at Hospital Italiano Release New Data on Cholecystitis [Protocol for extended antibiotic therapy after laparoscopic cholecystectomy for acute calculous cholecystitis (Cholecystectomy Antibiotic Randomised Trial, CHART)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Digestive System Diseases and Conditions - Cholecystitis. According to news reporting originating from Buenos Aires, Argentina, by NewsRx correspondents, research stated, "Acute calculous cholecystitis represents one of the most common complications of cholelithiasis. While laparoscopic cholecystectomy is the standard treatment in mild and moderate forms, the need for antibiotic therapy after surgery remains undefined."

Our news editors obtained a quote from the research from Hospital Italiano, "The aim of the randomised controlled Cholecystectomy Antibiotic Randomised Trial (CHART) is therefore to assess if there are benefits in the use of postoperative antibiotics in patients with mild or moderate acute cholecystitis in whom a laparoscopic cholecystectomy is performed. A single-centre, double-blind, randomised trial. After screening for eligibility and informed consent, 300 patients admitted for acute calculus cholecystitis will be randomised into two groups of treatment, either receiving amoxicillin/clavulanic acid or placebo for 5 consecutive days. Postoperative evaluation will take place during the first 30 days. Postoperative infectious complications are the primary end point. Secondary end points are length of hospital stay, readmissions, need of reintervention (percutaneous or surgical reinterventions) and overall mortality. The results of this trial will provide strong evidence to either support or abandon the use of antibiotics after surgery, impacting directly in the incidence of adverse events associated with the use of antibiotics, the emergence of bacterial resistance and treatment costs. This study..."
and informed consent sheets have been approved by the Research Projects Evaluating Committee (CEPI) of Hospital Italiano de Buenos Aires (protocol N? 2111)."

According to the news editors, the research concluded: "The results of the trial will be reported in a peer-reviewed publication."

For more information on this research see: Protocol for extended antibiotic therapy after laparoscopic cholecystectomy for acute calculous cholecystitis (Cholecystectomy Antibiotic Randomised Trial, CHART). *Bmj Open*, 2015;5(11):e009502. (BMJ Publishing Group - group.bmj.com/; Bmj Open - bmjopen.bmj.com/)

The news editors report that additional information may be obtained by contacting P. Pellegrini, Dept. of General Surgery, Hospital Italiano de Buenos Aires, Buenos Aires, Argentina. Additional authors for this research include J.P. Campana, A. Dietrich, J. Goransky, J. Glinka, D. Giunta, L. Barcan, F. Alvarez, O. Mazza, R. Sanchez Claria, M. Palavecino, G. Arbues, V. Ardiles, E. de Santibanes, J. Pekolj and M. de Santibanes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bmjopen-2015-009502. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibacterial Agents, Antibiotics, Antimicrobials, Surgery, Hospital, Argentina, Buenos Aires, South America, Cholecystitis, Gastroenterology, Drugs and Therapies, Laparoscopic Cholecystectomy, Biliary Tract Surgical Procedures, Gallbladder Diseases and Conditions, Biliary Tract Diseases and Conditions.

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**Transplant Medicine - Liver Transplants**

**Researchers at Hospital Universitario 12 de Octubre Target Liver Transpls (Trabecular bone score in patients with liver transplants after 1 year of risedronate treatment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Liver Transplants. According to news reporting originating from Madrid, Spain, by NewsRx correspondents, research stated, "The aim of this study was to analyse the effect of risedronate on Trabecular Bone Score in liver transplant patients with low bone mass, during 1-year follow-up. In this retrospective cohort study, trabecular bone score (TBS) was calculated from dual X-ray absorptiometry images of the lumbar spine (LS), collected from a prospective randomized open-label 1-year trial performed in liver recipient patients."

Financial support for this research came from Fundacion Mutua Madrilena.

Our news editors obtained a quote from the research from Hospital Universitario 12 de Octubre, "A total of 89 patients with osteopenia or osteoporosis were randomized to receive RIS plus calcium and vitamin D3 or calcium and vitamin D3. TBS was low in both groups at baseline, 6 and 12 months. Baseline TBS at the LS showed degraded microarchitecture in 22.8% of patients, partially degraded in 40.3%, and normal values in 36.8% of the patients. After 1 year of treatment, no difference in TBS was observed between both groups. No correlations were found between bone mineral density (BMD) and TBS values at any follow-up time point. No relationship was found between BMD, TBS or immunosuppressive drugs with incidental fracture. No significant effect in TBS was observed in liver transplant patients treated with RIS..."
or calcium and vitamin D3 after 1 year of follow-up."

According to the news editors, the research concluded: "In these patients, the clinical usefulness of this new tool should be established."


The news editors report that additional information may be obtained by contacting M.S. Librizzi, Metabolic Bone Disease Unit, Endocrinology Service, Hospital Universitario 12 de Octubre, Madrid, Spain. Additional authors for this research include S. Guadalix, G. Martinez-Diaz Guerra, G. Allo, D. Lora, C. Jimenez and F. Hawkins.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tri.12725. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Transplant International is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Antihypocalcemic, Antiresorptive, Biomedicine, Spain, Madrid, Europe, Hormones, Bone Research, Bisphosphonates, Organ Transplants, Drugs and Therapies, Risedronate Therapy, Transplant Medicine, Liver Transplantation.

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Health and Medicine - Urology

Researchers at Human Oncology and Pathogenesis Program Have Reported New Data on Urology (A river model to map convergent cancer evolution and guide therapy in RCC)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Health and Medicine - Urology are discussed in a new report. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Intratumoural heterogeneity in clear cell renal cell carcinoma (ccRCC) complicates identification and validation of biomarkers and thwarts attempts to improve precision medicine. Efforts to depict intratumoural heterogeneity and to pinpoint strategies for disease control resulted in the creation of the trunk-branch model of mutational cancer evolution, which emphasizes targeting trunk mutations."

The news correspondents obtained a quote from the research from Human Oncology and Pathogenesis Program, "However, most patients with ccRCC receiving current therapeutics that target these mutations, such as inhibitors of vascular endothelial growth factors, eventually develop resistance. A novel paradigm might improve depiction of cancer evolution and advise therapeutic selection: the river model is based on findings from multiregion sequencing in samples from exceptional responders to mTOR inhibitors. The accumulating data on genotypic and phenotypic convergence in renal cell carcinoma and other malignancies can be used to examine how a mutable river model might best describe clinically significant phenotype-convergent events that could guide effective cancer control."
According to the news reporters, the research concluded: "This model originates from studying exceptional responders and its generalizability awaits validation."


Our news journalists report that additional information may be obtained by contacting E.Y. Wei, Human Oncology and Pathogenesis Program, 1275 York Avenue, Box 20, New York, NY 10065, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrurol.2015.260. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Therapy, Urology, Genetics, Oncology, New York City, United States, Article Review, Health and Medicine, North and Central America.

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**Digestive System Diseases and Conditions**

**Researchers at Imperial College Target Inflammatory Bowel Disease (Dendritic Cell-T-Cell Circuitry in Health and Changes in Inflammatory Bowel Disease and Its Treatment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Inflammatory Bowel Disease have been published. According to news reporting out of London, United Kingdom, by NewsRx editors, the research stated, "Dendritic, antigen-presenting cells (DCs) determine not only whether lymphocytes produce different types of immune response but also tissue-homing profiles of lymphocytes they stimulate. For example, in health, mucosal DC stimulate T cells focused to home to the mucosa; DC/T-cell circuitry thus targets immune responses to specific tissue locations."

Our news journalists obtained a quote from the research from Imperial College, "Therapies being introduced for inflammatory bowel disease (IBD) include antibodies to gut-homing molecules such as a4b7 (Vedolizumab) used ostensibly to block gut-homing lymphocytes. However, such lymphocytes are dependent on the tissue specificity of DC that stimulated them. In health, blood DCs have the potential to home to multiple tissues including gut (a4b7+) and skin (CLA+). DCs have become gut-specific within the intestinal microenvironment stimulated partially by local retinoid to express a4b7 (mucosal homing marker) and/or CCR9 (ileal homing marker) in the absence of skin-specific indicators. They spread veiled extensions, sample their environment, acquire/process antigens, produce cytokines and initiate innate immunity. Myeloid DC also traffic to draining lymph nodes where compartmentalization of adaptive immune responses is determined by DCs from the site of antigen exposure which dictate the homing profiles of lymphocytes they stimulate. In IBD, site and activity of disease are reflected in changes in homing/activation of gut DCs and T-cells they stimulate and also, in greater gut specificity and activation of blood DC. Homing potential of DC can be modulated toward mucosa or skin by vitamins A and D, respectively. Infliximab or interleukin-6 can divert homing profiles toward skin, perhaps predisposing to skin involvement.
in IBD. Probiotic bacteria or their products can also change homing profiles of gut DC toward skin homing and away from gut."

According to the news editors, the research concluded: "Development of gut focused inflammation and its treatment relies on changes in DC tissue specificity; therefore, removal or diversion of gut-homing DC as well as T-cells is likely to be critical in prevention of gut-focused inflammation in IBD."


Our news journalists report that additional information may be obtained by contacting S.C. Knight, Imperial College London, Antigen Presentation Research Group, London, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442926. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antigen Presenting Cells, London, Europe, Immunology, Blood Cells, Lymphocytes, Inflammation, United Kingdom, Article Review, Dendritic Cells, Gastroenteritis, Mononuclear Leukocytes, Hemic and Immune Systems, Inflammatory Bowel Disease, Mononuclear Phagocyte System, Bowel Diseases and Conditions.

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Researchers at Imperial College Target Pharmacoepidemiology (Literature review of visual representation of the results of benefit-risk assessments of medicinal products)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Pharmacoepidemiology is now available. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "The PROTECT Benefit-Risk group is dedicated to research in methods for continuous benefit-risk monitoring of medicines, including the presentation of the results, with a particular emphasis on graphical methods. A comprehensive review was performed to identify visuals used for medical risk and benefit-risk communication."

Funders for this research include Innovative Medicines Initiative Joint Undertaking, European Union's Seventh Framework Programme, EFPIA.

Our news journalists obtained a quote from the research from Imperial College, "The identified visual displays were grouped into visual types, and each visual type was appraised based on five criteria: intended audience, intended message, knowledge required to understand the visual, unintentional messages that may be derived from the visual and missing information that may be needed to understand the visual. Sixty-six examples of visual formats were identified from the literature and classified into 14 visual types. We found that there is not one single visual format that is consistently superior to others for the communication of benefit-risk information. In addition, we found that most of the drawbacks found in the visual formats could be considered general to visual communication, although some appear more relevant to specific
formats and should be considered when creating visuals for different audiences depending on the exact message to be communicated. We have arrived at recommendations for the use of visual displays for benefit-risk communication. The recommendation refers to the creation of visuals. We outline four criteria to determine audience-visual compatibility and consider these to be a key task in creating any visual."

According to the news editors, the research concluded: "Next we propose specific visual formats of interest, to be explored further for their ability to address nine different types of benefit-risk analysis information."


The news correspondents report that additional information may be obtained from C.E. Hallgreen, School of Public Health, Imperial College London, London, UK. Additional authors for this research include S. Mt-Isa, A. Lieftucht, L.D. Phillips, D. Hughes, S. Talbot, A. Asiimwe, G. Downey, G. Genov, R. Hermann, R. Noel, R. Peters, A. Micaleff, I. Tzoulaki and D. Ashby.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pds.3880. This DOI is a link to an online electronic document that is either free or for purchase.

**Keywords for this news article include:** London, Europe, United Kingdom, Article Review, Drugs and Therapies, Risk and Prevention, Pharmacoepidemiology.

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**Chemistry**

**Researchers at Indian Institute of Technology Have Reported New Data on Chemistry (Metal Ion Ornamented Ultrafast Light-Sensitive Nanogel for Potential in Vivo Cancer Therapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Chemistry is the subject of a report. According to news reporting originating in Kharagpur, India, by NewsRx journalists, research stated, "A smart, ultrafast, light-responsive nanogel is a potential carrier for on-demand and immediate delivery of therapeutic agents. Here, a novel branched pentaerythritol poly(caprolactone)-b-poly(acrylic acid)-based smart, light-responsive nanogel has been fabricated by using ferric ion (Fe3+) as a cross-linker."

Financial supporters for this research include University Grants Commission, Board of Research in Nuclear Sciences.

The news reporters obtained a quote from the research from the Indian Institute of Technology, "The mentioned block copolymer has been synthesized by combining both the ring opening and atom transfer radical polymerization techniques. Branched structure of the polymer offers a minute amount (1.5 mol %) of Fe3+ sufficient for nanogel formation. The nanogel looks like a spherically shaped human brain holding the water molecule as like cerebrospinal fluid in the brain. The particle size of the nanogel has been tailored (between 30 and 450 nm) by separately varying both the molar concentration of Fe3+ and polymer chain length. The highly
negative zeta potential (-46 mV) of the nanogel promotes its impressive colloidal stability and prolongs the circulation vivo. Nanogels securely hold the DOX molecules (maximum drug loading capacity: 26.2%). Exposure of light onto the nanogel (in the presence of lactic acid) produces immediate initiation of de-cross-linking followed by the release of DOX molecules (85.2% at 120 min). The nanogel shows significantly high uptake and acute toxicity against a cancerous cell line (C6 glioma) in vitro."

According to the news reporters, the research concluded: "Administration of the DOX-loaded nanogel on the C6 glioma rat model (in vivo) offered tremendous inhibition (similar to 91%) of tumor growth without any toxic side effects (confirmed by histopathology)."


Our news correspondents report that additional information may be obtained by contacting S. Chattopadhyay, Indian Inst Technol, Rubber Technol Center, Kharagpur, W Bengal 721302, India. Additional authors for this research include G. Dey, R. Bharti, P. Mandal, M. Mandal and S. Chattopadhyay.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.chemmater.6b03440. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kharagpur, India, Asia, Chemistry, Oncology, Therapy, Cancer, Indian Institute of Technology.

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high proportion of 17 b-estradiol-treated HaCaT cells in S phase compared with vehicle-treated cells. Western blot analysis demonstrated the activation of Akt, Erk and upregulation of PCNA in HaCaT cells treated with 17 b-estradiol. Interestingly, Erk activation occurred prior to Akt activation. Upregulation of PCNA expression, elevated proliferation and high S phase fraction of HaCaT cell by 17 b-estradiol could be reversed by an Akt or Erk inhibitor. Moreover, Erk inhibition reversed 17 b-estradiol-induced Akt activation, whereas an Akt inhibitor exhibited no effect on Erk, further suggesting that Erk was on the upstream while Akt on the downstream of the signaling pathway.

According to the news reporters, the research concluded: "This study demonstrates that one of the critical mechanisms underlying 17 b-estradiol promoting skin wound healing is through regulation of keratinocyte proliferation via Erk/Akt signaling pathway."


Our news journalists report that additional information may be obtained by contacting T. Zhou, State Key Laboratory of Trauma, Burns and Combined Injury, Chongqing Key Laboratory for Proteomics Disease, Institute of Burn Research, Southwest Hospital, the Third Military Medical University, Chongqing, People's Republic of China. Additional authors for this research include Z. Yang, Y. Chen, Y. Chen, Z. Huang, B. You, Y. Peng and J. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443048. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chongqing, Keratinocytes, Gonadal Hormones, Estradiol Congeners, People's Republic of China.

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carcinoma (FaDu) cells and nonmalignant epithelial cells, demonstrating that the presence of additional a-TOS significantly enhances its antiproliferative activity; however, a range of selective concentrations is observed. These NPs induce apoptosis of FaDu cells by activating the mitochondria death pathway (via caspase-9). Both loaded and unloaded NPs act via complex II and produce high levels of reactive oxygen species that trigger apoptosis. Additionally, these NPs effectively suppress the vascular endothelial growth factor (VEGF) expression of human umbilical vein endothelial cells (HUVECs).

According to the news reporters, the research concluded: "These results open the possibility to use this promising nanoformulation as an a-TOS delivery system for the effective cancer treatment, effectively resolving the current limitations of free a-TOS administration."


Our news journalists report that additional information may be obtained by contacting R. Palao-Suay, Group of Biomaterials, Dept. of Polymeric Nanomaterials and Biomaterials, Institute of Polymer Science and Technology, CSIC, C, Juan de la Cierva, 3, 28006, Madrid, Spain. Additional authors for this research include L. Rodriganez, M.R. Aguilar, C. Sanchez-Rodriguez, F. Parra, M. Fernandez, J. Parra, J. Riestra-Ayora, R. Sanz-Fernandez and J. San Roman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/mabi.201500265. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Madrid, Europe, Cancer, Oncology, Nanotechnology, Emerging Technologies.

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Neuroinflammation

Researchers at Institute of Science and Technology Discuss Findings in Neuroinflammation (Extracts from Dendropanax morbifera Leaves Have Modulatory Effects on Neuroinflammation in Microglia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neuroinflammation. According to news reporting from Daegu, South Korea, by NewsRx journalists, research stated, "Dendropanax morbifera (D. morbifera), a species endemic to Korea, is largely distributed throughout the southern part of the country. Its leaves, stems, roots, and seeds have been used as a form of alternative medicine for various diseases and neurological disorders including paralysis, stroke, and migraine."

The news correspondents obtained a quote from the research from the Institute of Science and Technology, "However, the molecular mechanisms that underlie the remedial effects of D. morbifera remain largely unknown. In this paper, extracts from D. morbifera leaves were prepared using ethyl acetate as a solvent (abbreviated as DMLE). The modulatory effects of DMLE on neuroinflammation were studied in a lipopolysaccharide (LPS)-stimulated BV2 murine microglial cell line. Production of pro-inflammatory cytokines, activation of mitogen-
activated protein kinases (MAPKs) and nuclear factor-kappa B (NF-κB), and different M1/M2 activation states of microglia were examined. DMLE treatment suppressed the production of pro-inflammatory cytokines including tumor necrosis factor (TNF-α), interleukin-6 (IL-6), and nitric oxide (NO) in LPS-stimulated BV2 cells. DMLE treatment also attenuated the activation of MAPKs and NF-κB. In a novel discovery, we found that DMLE up-regulated the marker genes representing an alternative, anti-inflammatory M2 polarization, while suppressing the expression of the classical, pro-inflammatory M1 activation state genes. Here, we uncovered the cellular mechanisms underlying the beneficial effects of D. morbifera against neuroinflammation using BV2 microglia cells. These results strongly suggest that DMLE was able to counter the effects of LPS on BV2 cells via control of microglia polarization states."

According to the news reporters, the research concluded: "Additionally, study results indicated that DMLE may have therapeutic potential as a neuroinflammation-suppressing treatment for neurodegenerative diseases."


Our news journalists report that additional information may be obtained by contacting H.J. Shim, * Dept. of Brain and Cognitive Sciences, Daeug Gyeongbuk Institute of Science and Technology (DGIST), Daegu 711-873, South Korea. Additional authors for this research include S. Park, J.W. Lee, H.J. Park, S.H. Baek, E.K. Kim and S.W Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1142/S0192415X16500087. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *The American Journal of Chinese Medicine* is: World Scientific Publishing Co. Pte. Ltd., 5 Toh Tuck Link, Singapore 596224.

Keywords for this news article include: Asia, Daegu, Genetics, Microglia, Neuroglia, South Korea, Neuroinflammation.

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**Mycobacterium Infections - Tuberculosis**

**Researchers at International Center for Genetic Engineering and Biotechnology Target Tuberculosis (Global Urine Metabolomics in Patients Treated with First-Line Tuberculosis Drugs and Identification of a Novel Metabolite of Ethambutol)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mycobacterium Infections - Tuberculosis is the subject of a report. According to news reporting originating in New Delhi, India, by NewsRx journalists, research stated, "Population level variation of drug metabolism phenotype (DMP) has great implications in treatment outcome, drug-related side effects, and resistance development. In this study, we used a gas chromatography-time of flight-mass spectrometry (GC-TOF-MS)-based untargeted urine metabolomics approach to understand the DMP of a tuberculosis (TB) patient cohort (n=20) from Tripura, a state in the northeastern part of India."
The news reporters obtained a quote from the research from International Center for Genetic Engineering and Biotechnology. "Urine samples collected at different postdose time points (2 h, 6 h, 12 h, 24 h, 36 h, and 48 h) from these newly diagnosed TB patients receiving first-line anti-TB drugs were analyzed, and we have successfully detected three of the four first-line drugs, viz, isoniazid (INH), ethambutol (ETB), and pyrazinamide (PZA). The majority of their known metabolites, acetyl-isoniazid (AcINH), isonicotinic acid (INA), isonicotinuric acid (INTA), 2,2’-(ethylenediimino)-dibutyric acid (EDBA), 5-hydroxyprazinamide (5OH-PZA), pyrazinoic acid (POA), and 5-hydroxypyrazinoic acid (5OH-POA), were also detected. Analyzing the variation in abundances of drugs and their known metabolites and calculating the metabolic ratios in these samples, we offer comprehensive DMP information on this small patient cohort that represents Tripura, India. The majority (75%) of these patients are found to be slow acetylators of INH. The average metabolic ratios of POA/PZA and 5OH-POA/POA are 3.16 ± 3.03 and 6.09 ± 6.15, respectively. Employing correlation analysis of the metabolomics metadata and a manual prediction of drug catabolism, we have proposed 2-aminobutyric acid (AABA) as a novel metabolite of ETB."

According to the news reporters, the research concluded: "These observations indicate the usefulness of GC-MS-based metabolomics to characterize the DMP at a population level and also to identify novel drug metabolites."

For more information on this research see: Global Urine Metabolomics in Patients Treated with First-Line Tuberculosis Drugs and Identification of a Novel Metabolite of Ethambutol. Antimicrobial Agents and Chemotherapy, 2016;60(4):2257-64. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting M.K. Das, Immunology group, International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi, India. Additional authors for this research include R. Arya, S. Debnath, R. Debnath, A. Lodh, S.C. Bishwal, A. Das and R.K Nanda.

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Keywords for this news article include: Asia, Antiinfectives, Antituberculosis Agents, Pharmaceuticals, India, New Delhi, Polyamines, Ethylenediamines, Organic Chemicals, Infectious Disease, Drugs and Therapies, Gram Positive Bacteria, Mycobacterium Infections, Actinomycetales Infections, Mycobacterium Tuberculosis, Ethambutol Therapy Hydrochloride.

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**Biotechnology - Genomics**

**Researchers at Iwate University Target Genomics (Effects of dietary forage and calf starter on ruminal pH and transcriptomic adaptation of the rumen epithelium in Holstein calves during the weaning transition)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology - Genomics. According to news reporting from Morioka, Japan, by NewsRx journalists, research stated, "We investigated the relationship between ruminal pH and transcriptomic adaptation of the rumen epithelium (RE) of calves fed calf starter with and without forage during the weaning transition."
Holstein calves were assigned to groups fed calf starter either with forage (HAY group, n< 3) or without forage (CON group, n< 4).

Financial support for this research came from a KAKENHI Grant-in-Aid for Scientific Research from the Japan Society for the Promotion of Science.

The news correspondents obtained a quote from the research from Iwate University, "Ruminal pH was measured continuously, and rumen fluid and epithelium were collected 3 wk after weaning. mRNA expression profiles of the RE were examined by one-color microarray. Differentially expressed genes (DEGs) were investigated using the Ingenuity Pathway Analysis (IPA). Mean and maximum ruminal pH were significantly (P < 0.05) higher, and the duration of pH < 5.8 during 1 day was significantly (P < 0.05) shorter, in the HAY group. The proportion of ruminal acetate and the acetate-to-propionate ratio were significantly (P < 0.05) lower in the CON group. DEGs encoding transcription regulators (SREBP1), insulin-like growth factor binding proteins (IGFBP7 and CTGF), ketogenic enzymes (HMGCL, BDH1, and BDH2), and a transporter (SLC16A3) were identified (P < 0.05) between the two groups. A growth factor (TGFβ1) and signaling pathway (EGF and EGFR) were activated as upstream regulators. These results suggest that dietary forage alleviates ruminal acidosis, and the decrease in ruminal pH may damage the RE, leading to changes in gene expression to repair the damage."

According to the news reporters, the research concluded: "Furthermore, rumen development may be regulated by growth factor (TGFβ1) and signaling pathways (EGF and IGFBP) for adaptation to feeding on calf starter with and without forage during the weaning transition."

For more information on this research see: Effects of dietary forage and calf starter on ruminal pH and transcriptomic adaptation of the rumen epithelium in Holstein calves during the weaning transition. **Physiological Genomics**, 2016;48(11):803-809. Physiological Genomics can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Heart Disorders and Diseases - Atrial Fibrillation

Researchers at Jikei University Target Atrial Fibrillation (Filling defects of the left atrial appendage on multidetector computed tomography: their disappearance following catheter ablation of atrial fibrillation and the detection of LAA ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation
have been published. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "Filling defects of the left atrial appendage (LAA) on multidetector computed tomography (MDCT) are known to occur, not only due to LAA thrombi formation, but also due to the disturbance of blood flow in the LAA of patients with atrial fibrillation (AF). The purpose of this study was to evaluate the impact of the maintenance of sinus rhythm via ablation on the incidence of LAA filling defects on MDCT in patients with AF."

The news reporters obtained a quote from the research from Jikei University, "A total of 459 consecutive patients were included in the present study. Prior to ablation, MDCT and transesophageal echocardiography (TEE) were performed. AF ablation was performed in patients without LAA thrombi confirmed on TEE. The LAA filling defects were evaluated on MDCT at 3 months after ablation. LAA filling defects were detected on MDCT in 51 patients (11.1 %), among whom the absence of LAA thrombi was confirmed in 42 patients using TEE. The LAA Doppler velocity in patients with LAA filling defects was lower than that of patients without filling defects (0.61 +/- A 0.19 vs. 0.47 +/- A 0.21 m/s; P< 0.0001). The sensitivity, specificity and negative predictive value of MDCT in the detection of thrombi were 100, 91 and 100 %, respectively. No LAA filling defects were observed on MDCT at 3 months after ablation in any of the patients, including the patients in whom filling defects were noted prior to the procedure. MDCT is useful for evaluating the presence of LAA thrombi and the blood flow of the LAA."

According to the news reporters, the research concluded: "The catheter ablation of AF not only suppresses AF, but also eliminates LAA filling defect on MDCT suggesting the improvement of LAA blood flow."

For more information on this research see: Filling defects of the left atrial appendage on multidetector computed tomography: their disappearance following catheter ablation of atrial fibrillation and the detection of LAA thrombi by MDCT. Heart and Vessels, 2016;31(12):2014-2024. Heart and Vessels can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00380-016-0819-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Heart Disorders and Diseases, Heart Catheterization, Computed Tomography, Atrial Fibrillation, Cardiac Arrhythmias, Imaging Technology, Electrocoagulation, Catheter Ablation, Heart Disease, Jikei University.

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Researchers at Jilin University Report Findings in Antiepileptics
(Simultaneous determination of ten antiepileptic drugs in human plasma by liquid chromatography and tandem mass spectrometry with positive/negative ion-switching electrospray ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antiepileptics have been presented. According to news reporting from Changchun, People's Republic of China, by NewsRx journalists, research stated, "A simple, rapid, and high-throughput liquid chromatography with tandem mass spectrometry method for the simultaneous quantitation of ten antiepileptic drugs in human plasma has been developed and validated. The method required only 10 mL of plasma."

The news correspondents obtained a quote from the research from Jilin University, "After simple protein precipitation using acetonitrile, the analytes and internal standard diphenhydramine were separated on a Zorbax SB-C18 column (50 ? 4.6 mm, 2.7 mm) using acetonitrile/water as the mobile phase at a flow rate of 0.9 mL/min. The total run time was 6 min for each sample. The validation results of specificity, matrix effects, recovery, linearity, precision, and accuracy were satisfactory. The lower limit of quantification was 0.04 mg/mL for carbamazepine, 0.02 mg/mL for lamotrigine, 0.01 mg/mL for oxcarbazepine, 0.4 mg/mL for 10-hydroxycarbazepine, 0.1 mg/mL for carbamazepine-10,11-epoxide, 0.15 mg/mL for levetiracetam, 0.06 mg/mL for phenytoin, 0.3 mg/mL for valproic acid, 0.03 mg/mL for topiramate, and 0.15 mg/mL for phenobarbital. The intraday precision and interday precision were less than 7.6%, with the accuracy ranging between -8.1 and 7.9%. The method was successfully applied to therapeutic drug monitoring of 1237 patients with epilepsy after administration of standard antiepileptic drugs."

According to the news reporters, the research concluded: "The method has been proved to meet the high-throughput requirements in therapeutic drug monitoring."


Our news journalists report that additional information may be obtained by contacting L. Yin, School of Life Science, Jilin University, Changchun, People's Republic of China. Additional authors for this research include T. Wang, M. Shi, Y. Zhang, X. Zhao, Y. Yang and J. Gu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jssc.201501067. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antiepileptics, Changchun, Therapeutics, Drugs and Therapies, People's Republic of China.

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Researchers at Johns Hopkins University Have Reported New Data on Cystic Fibrosis (Sources of Variation in Sweat Chloride Measurements in Cystic Fibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cystic Fibrosis are discussed in a new report. According to news reporting originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Expanding the use of cystic fibrosis transmembrane conductance regulator (CFTR) potentiators and correctors for the treatment of cystic fibrosis (CF) requires precise and accurate biomarkers. Sweat chloride concentration provides an in vivo assessment of CFTR function, but it is unknown the degree to which CFTR mutations account for sweat chloride variation."

Our news editors obtained a quote from the research from Johns Hopkins University, "To estimate potential sources of variation for sweat chloride measurements, including demographic factors, testing variability, recording biases, and CFTR genotype itself. A total of 2,639 sweat chloride measurements were obtained in 1,761 twins/siblings from the CF Twin-Sibling Study, French CF Modifier Gene Study, and Canadian Consortium for Genetic Studies. Variance component estimation was performed by nested mixed modeling. Across the tested CF population as a whole, CFTR gene mutations were found to be the primary determinant of sweat chloride variability (56.1% of variation) with contributions from variation over time (e.g., factors related to testing on different days; 13.8%), environmental factors (e.g., climate, family diet; 13.5%), other residual factors (e.g., test variability; 9.9%), and unique individual factors (e.g., modifier genes, unique exposures; 6.8%) (likelihood ratio test, P<0.001). Twin analysis suggested that modifier genes did not play a significant role because the heritability estimate was negligible (H^2 = 0; 95% confidence interval, 0.0-0.35). For an individual with CF, variation in sweat chloride was primarily caused by variation over time (58.1%) with the remainder attributable to residual/random factors (41.9%). Variation in the CFTR gene is the predominant cause of sweat chloride variation; most of the non-CFTR variation is caused by testing variability and unique environmental factors."

According to the news editors, the research concluded: "If test precision and accuracy can be improved, sweat chloride measurement could be a valuable biomarker for assessing response to therapies directed at mutant CFTR."


The news editors report that additional information may be obtained by contacting J.M. Collaco, Johns Hopkins University, Sch Med, Baltimore, MD 21287, United States. Additional authors for this research include S.M. Blackman, K.S. Raraigh, H. Corvol, J.M. Rommens, R.G. Pace, P.Y. Boelle, J. McGready, P.R. Sosnay, L.J. Strug, M.R. Knowles and G.R. Cutting.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Anions, Diagnostics and Screening, Epidemiology, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Lung Diseases and Conditions, Hydrochloric Acid, Cystic Fibrosis, Environment,
Researchers at Johns Hopkins University Report New Data on Proinsulin (The TORC1-activated Proteins, p70S6K and GRB10, Regulate IL-4 Signaling and M2 Macrophage Polarization by Modulating Phosphorylation of Insulin Receptor Substrate-2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peptide Proteins - Proinsulin.

According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "Lung M2 macrophages are regulators of airway inflammation, associated with poor lung function in allergic asthma. Previously, we demonstrated that IL-4-induced M2 gene expression correlated with tyrosine phosphorylation of the insulin receptor substrate-2 (IRS-2) in macrophages."

Financial support for this research came from National Heart, Lung, and Blood Institute.

The news correspondents obtained a quote from the research from Johns Hopkins University, "We hypothesized that negative regulation of IRS-2 activity after IL-4 stimulation is dependent upon serine phosphorylation of IRS-2. Herein, we describe an inverse relationship between tyrosine phosphorylation (Tyr(P)) and serine phosphorylation (Ser(P)) of IRS-2 after IL-4 stimulation. Inhibiting serine phosphatase activity increased Ser(P)-IRS-2 and decreased Tyr(P)-IRS-2 leading to reduced M2 gene expression (CD200R, CCL22, MMP12, andTGM2).

We found that inhibition of p70S6K, downstream of TORC1, resulted in diminished Ser(P)-IRS-2 and prolonged Tyr(P)IRS-2 as well. Inhibition of p70S6K increased expression of CD200R and CCL22 indicating that p70S6K negatively regulates some, but not all, human M2 genes. Knocking down GRB10, another negative regulatory protein downstream of TORC1, enhanced both Tyr(P)-IRS-2 and increased expression of all four M2 genes. Furthermore, GRB10 associated with IRS-2, NEDD4.2 (an E3-ubiquitin ligase), IL-4R alpha, and gamma C after IL-4 stimulation. Both IL-4R alpha and gamma C were ubiquitinated after 30 min of IL-4 treatment, suggesting that GRB10 may regulate degradation of the IL-4 receptor-signaling complex through interactions with NEDD4.2."

According to the news reporters, the research concluded: "Taken together, these data highlight two novel regulatory proteins that could be therapeutically manipulated to limit IL-4-induced IRS-2 signaling and polarization of M2 macrophages in allergic inflammation."


Our news journalists report that additional information may be obtained by contacting N.M. Heller, Johns Hopkins University, Sch Med, Dept. of Anesthesiol & Crit Care
Researchers at Johns Hopkins University Target Solid Cancer
(Association of PD-1/PD-L axis expression with cytolytic activity, mutational load, and prognosis in melanoma and other solid tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Solid Cancer have been published. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Programmed cell death protein-1 (PD-1)/programmed death ligand-1 (PD-L1) checkpoint blockade has led to remarkable and durable objective responses in a number of different tumor types. A better understanding of factors associated with the PD-1/PD-L axis expression is desirable, as it informs their potential role as prognostic and predictive biomarkers and may suggest rational treatment combinations."

Funders for this research include W. W. Smith Charitable Trust, Melanoma Research Alliance (MRA), Bristol-Myers Squibb (BMS), 5 Diagnostics, Sidney Kimmel Cancer Center, National Cancer Institute NIH, The Commonwealth Foundation, Moving for Melanoma of Delaware, Stand Up to Cancer.

Our news journalists obtained a quote from the research from Johns Hopkins University, "In the current study, we analyzed PD-L1, PD-L2, PD-1, and cytolytic activity (CYT) expression, as well as mutational density from melanoma and eight other solid tumor types using The Cancer Genome Atlas database. We found that in some tumor types, PD-L2 expression is more closely linked to Th1/IFNG expression and PD-1 and CD8 signaling than PD-L1. In contrast, mutational load was not correlated with a Th1/IFNG gene signature in any tumor type. PD-L1, PD-L2, PD-1, CYT expression, and mutational density are all positive prognostic features in melanoma, and conditional inference modeling revealed PD-1/CYT expression (i.e., an inflamed tumor microenvironment) as the most impactful feature, followed by mutational density."

According to the news editors, the research concluded: "This study elucidates the highly interdependent nature of these parameters, and also indicates that future biomarkers for antiPD-1/PD-L1 will benefit from tumor-type-specific, integrated, mRNA, protein, and genomic approaches."

For more information on this research see: Association of PD-1/PD-L axis

The news correspondents report that additional information may be obtained from J.M. Taube, Johns Hopkins University, Sch Med, Sidney Kimmel Comprehens Canc Center, Dept. of Pathol, Baltimore, MD 21287, United States. Additional authors for this research include H. Wang, J. Sunshine, G.J. Kaunitz, T.R. Cottrell, H. Xu, J. Esandrio, R.A. Anders, L. Cope, D.M. Pardoll, C.G. Drake and J.M. Taube.

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Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Oncology, Diagnostics and Screening, Solid Cancer, Melanoma, Genetics, Johns Hopkins University.

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**Oncology - Non-Small Cell Lung Cancer**

**Researchers at Juntendo University Target Non-Small Cell Lung Cancer**

(The impact on the prognosis of unsuspected N2 disease in non-small-cell lung cancer: indications for thorough mediastinal staging in the modern era)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Non-Small Cell Lung Cancer. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Predicting the prognosis of advanced non-small-cell lung cancer (NSCLC) patients who present with clinically unsuspected N2 is very different due to the heterogeneity of this cohort. Thus, this study was undertaken to identify the clinicopathological features and survival of patients with clinical N0 or N1 and pathological N2, namely, unsuspected N2."

The news correspondents obtained a quote from the research from Juntendo University, "Among 239 patients with pathological N2 NSCLC, we reviewed the cases of 92 (38.5 %) patients who showed unsuspected N2. The prognosis was investigated using the Kaplan-Meier method and a Cox regression model. The 5-year overall survival (5yOS) of the patients with unsuspected N2 was 51.2 %. Based on a multivariate analysis, age and 18F-fluorodeoxyglucose (FDG) uptake in the lymph nodes were significant prognostic factors of unsuspected N2 (p = 0.0081, 0.0228, respectively). The 5yOS of PET-negative unsuspected N2 (n = 68) was 58.9 %, whereas that of PET-positive unsuspected N2 (n = 24) was 29.7 % (p = 0.0026). Furthermore, the 5yOS of PET-negative unsuspected N2 was significantly better than that of both clinical and pathological N2 s (i.e., suspected N2; n = 60; 5yOS, 42.1 %; p = 0.0051), while no significant difference was observed between PET-positive unsuspected N2 and suspected N2 (p = 0.6325). A preoperative evaluation of the lymph nodes by PET/CT has a
potential benefit in predicting the prognosis.'"

According to the news reporters, the research concluded: "A thorough evaluation of the lymph nodes is, therefore, needed if the lymph nodes show an FDG uptake, even in cases that show a clinical N0 status on thin section CT scans.'"


Our news journalists report that additional information may be obtained by contacting K. Suzuki, Juntendo University, Sch Med, Dept. of Gen Thorac Surg, Bunkyo Ku, Tokyo 1138431, Japan. Additional authors for this research include A. Hattori, T. Matsunaga, K. Takamochi, S. Oh and K. Suzuki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00595-016-1372-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Non-Small Cell Lung Cancer, Hemic and Immune Systems, Lymphoid Tissue, Lung Neoplasms, Lymph Nodes, Immunology, Oncology, Juntendo University.

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**Bacterial RNA**

**Researchers at KRIIBB Report New Data on Bacterial RNA (Bacterial RNAs activate innate immunity in Arabidopsis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Bacterial RNA have been published. According to news reporting originating in Daejeon, South Korea, by NewsRx journalists, research stated, "The common molecular patterns of microbes play a critical role in the regulation of plant innate immunity. However, little is known about the role of nucleic acids in this process in plants.'"

Financial supporters for this research include BioNano Health-Guard Research Center, Ministry of Science, ICT and Future Planning, Rural Development Administration, Korea Research Institute of Bioscience and Biotechnology.

The news reporters obtained a quote from the research from KRIIBB, "We pre-infiltrated Arabidopsis leaves with total RNAs from Pseudomonas syringae pv. tomato DC3000 (Pto DC3000) and subsequently inoculated these plants with the same bacterial cells. Total Pto DC3000 RNAs pre-infiltrated into Arabidopsis leaves elicited plant immune responses against Pto DC3000. However, sheared RNAs and RNase A application failed to induce immunity, suggesting that intact bacterial RNAs function in plant innate immunity. This notion was supported by the positive regulation of superoxide anion levels, callose deposition, two mitogen-activated protein kinases and defense-related genes observed in bacterial RNA-pre-treated leaves. Intriguingly, the Pto DC3000 population was not compromised in known pattern recognition receptor mutants for chitin, flagellin and elongation factor-Tu (EF-Tu). Plant defense-related mutant analyses further revealed that bacterial RNA-elicited innate immunity was normally required for salicylic and jasmonic acid signaling. Notably, among total RNAs,
the abundant bacterial RNA species 16S and 23S ribosomal RNAs were the major determinants of this response."

According to the news reporters, the research concluded: "Our findings provide evidence that bacterial RNA serves as a microbe-associated molecular pattern in plants."


Our news correspondents report that additional information may be obtained by contacting B. Lee, Molecular Phytophagy Laboratory, Superbacteria Research Center, KRIIB, Daejeon, 305-806, South Korea. Additional authors for this research include Y.S. Park, S. Lee, G.C. Song and C.M Ryu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/nph.13717. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Daejeon, Genetics, South Korea, Bacterial RNA.

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**Nervous System Diseases and Conditions - Seizures**

**Researchers at Kangwon National University School of Medicine Target Seizures (Inflammatory markers associated with seizures)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nervous System Diseases and Conditions - Seizures are presented in a new report. According to news reporting out of Chuncheon, South Korea, by NewsRx editors, research stated, "Seizures can produce systemic changes, including elevated body temperature, white blood cell count, and C-reactive protein levels, which raises concern for potential infection. We describe seizure-induced inflammation-like responses and discuss how these changes may be distinguished from those associated with infection."

Our news journalists obtained a quote from the research from the Kangwon National University School of Medicine, "We prospectively investigated 140 consecutive visits to the emergency room, in which patients presented with seizures. We defined elevated body temperature, white blood cell count, or C-reactive protein levels as inflammation-like responses. We investigated the occurrence of inflammation-like responses, characteristics of the seizures, neurological status at the initial visit, outcomes, and clinical findings to determine the presence of infection. We ascertained whether the patients had infection or not based on the overall information post-discharge. An inflammation-like response was observed in 56.3% of all visits and 19.3% were diagnosed with concurrent infection. Among the visits with inflammation-like response, 34.7% were shown to have an infection. Increases in body temperature and C-reactive protein levels were milder (<39°C and <6?mg/dl, respectively) in patients without infection compared to those with infection, whereas there was no difference in leukocytosis, with regard to the presence or absence of infection. Increased body temperature occurred only in cases of generalized tonic-clonic seizures, whereas leukocytosis and elevated C-reactive protein levels were reported in patients with any type of seizure. Body temperatures returned to normal within eight hours in uncomplicated cases. Seizures frequently induce an increase in body temperature, white blood cell count, or C-reactive protein levels, making it challenging to distinguish these
changes from those associated with infection."

According to the news editors, the research concluded: "Nonetheless, elevated body temperature in the absence of generalized tonic-clonic seizures, above 39.7°C, or persisting for more than eight hours after recovery of consciousness, and C-reactive protein levels above 6?mg/dl warrant close observation and consideration for concurrent infection."


Our news journalists report that additional information may be obtained by contacting H.S. Sohn, Dept. of Neurology, Kangwon National University School of Medicine, Chuncheon, South Korea. Additional authors for this research include S.K. Kim and S.Y Lee.

Keywords for this news article include: Asia, Albumins, Seizures, Chuncheon, Immunology, Proteomics, South Korea, Blood Cells, Inflammation, Immunoproteins, C Reactive Protein, Acute Phase Proteins, Neurologic Manifestations, Nervous System Diseases and Conditions.

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**Obstructive Sleep Apnea**

**Researchers at Kaohsiung Chang Gung Memorial Hospital Target Obstructive Sleep Apnea (Whole Genome DNA Methylation Analysis of Obstructive Sleep Apnea: IL1R2, NPR2, AR, SP140 Methylation and Clinical Phenotype)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Obstructive Sleep Apnea. According to news reporting originating from Kaohsiung, Taiwan, by NewsRx correspondents, research stated, "We hypothesized that DNA methylation patterns may contribute to disease severity or the development of hypertension and excessive daytime sleepiness (EDS) in patients with obstructive sleep apnea (OSA). Illumina’s (San Diego, CA, USA) DNA methylation 27-K assay was used to identify differentially methylated loci (DML)."

Our news editors obtained a quote from the research from Kaohsiung Chang Gung Memorial Hospital, "DNA methylation levels were validated by pyrosequencing. A discovery cohort of 15 patients with OSA and 6 healthy subjects, and a validation cohort of 72 patients with sleep disordered breathing (SDB). Microarray analysis identified 636 DMLs in patients with OSA versus healthy subjects, and 327 DMLs in patients with OSA and hypertension versus those without hypertension. In the validation cohort, no significant difference in DNA methylation levels of six selected genes was found between the primary snoring subjects and OSA patients (primary outcome). However, a secondary outcome analysis showed that interleukin-1 receptor 2 (IL1R2) promoter methylation (-114 cytosine followed by guanine dinucleotide sequence [CpG] site) was decreased and IL1R2 protein levels were increased in the patients with SDB with an oxygen desaturation index >30. Androgen receptor (AR) promoter methylation (-531 CpG site) and AR protein levels were both increased in the patients with SDB with an oxygen desaturation index >30. Natriuretic peptide receptor 2 (NPR2) promoter methylation (-608/-618 CpG sites) were decreased, whereas levels of both NPR2 and serum C type natriuretic peptide protein were increased in the SDB patients with EDS. Speckled protein..."
140 (SP140) promoter methylation (-194 CpG site) was increased, and SP140 protein levels were decreased in the patients with SDB and EDS. IL1R2 hypomethylation and AR hypermethylation may constitute an important determinant of disease severity, whereas NPR2 hypomethylation and SP140 hypermethylation may provide a biomarker for vulnerability to EDS in OSA."

According to the news editors, the research concluded: "A commentary on this article appears in this issue on page 723."


The news editors report that additional information may be obtained by contacting Y.C. Chen, Division of Pulmonary and Critical Care Medicine, Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine, Kaohsiung, Taiwan. Additional authors for this research include T.W. Chen, M.C. Su, K.D. Chen, C.W. Liou, P. Tang, T.Y. Wang, J.C. Chang, C.C. Wang, H.C. Lin, C.H. Chin, K.T. Huang, M.C. Lin and C.C Hsiao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5665/sleep.5620. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiwan, Genetics, Kaohsiung, Pulmonology, Craniofacial, DNA Research, Hypertension, Otolaryngology, Sleep Disorders, Respiration Disorders, Obstructive Sleep Apnea, Sleep Diseases and Conditions, Cardiovascular Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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**Autoimmune Diseases and Conditions - Rheumatoid...**

**Researchers at Karolinska University Hospital Discuss Findings in Rheumatoid Arthritis (Is rheumatoid arthritis an autoimmune disease?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Autoimmune Diseases and Conditions - Rheumatoid Arthritis. According to news originating from Stockholm, Sweden, by NewsRx correspondents, research stated, "Rheumatoid arthritis (RA) is not a homogenous disease entity but a syndrome with different causes and abnormalities with shared clinical manifestations. One major subset is anticitrullinated protein antibody (ACPA)-positive RA, which represents the larger fraction of RA patients and where autoantibodies and HLA class II association implicate an autoimmune condition."

Our news journalists obtained a quote from the research from Karolinska University Hospital, "In the past few years, the specificity of the ACPA response and the possibility to subdivide patients based on ACPA subgroups have received much attention whereas the effector functions of the autoantibodies and underlying lymphocytes have not. The review, based on HLA, will discuss the generation of the autoreactive citrulline-specific T-cell repertoire, highlight our current understanding of T-cell specificities and effector functions of both the T cells and ACPAs. Dividing RA into subsets has only influenced clinical practice to a limited degree, that is, by indicating a better response to therapies modulating adaptive immunity, such
as rituximab, in the ACPA+ disease subset."

According to the news editors, the research concluded: "A more detailed understanding of the immune reactions underlying various subsets of RA may, however, change our view on RA therapeutics and prevention with the assumption that autoimmune variants of RA should be both curable and preventable."

For more information on this research see: Is rheumatoid arthritis an autoimmune disease? *Current Opinion In Rheumatology*, 2016;28(2):181-8. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Rheumatology - journals.lww.com/co-rheumatology/pages/default.aspx)

The news correspondents report that additional information may be obtained from K. Chemin, Rheumatology Unit, Dept. of Medicine, Karolinska University Hospital Solna, Karolinska Institutet, Stockholm, Sweden. Additional authors for this research include L. Klareskog and V. Malmstrom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/BOR.0000000000000253. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Stockholm, Immunology, Article Review, Rheumatoid Arthritis, Joint Diseases and Conditions, Autoimmune Diseases and Conditions, Immune System Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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**Heart Disorders and Diseases - Heart Failure**

**Researchers at Karolinska University Hospital Have Reported New Data on Heart Failure (Cardioprotection and lifespan extension by the natural polyamine spermidine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Failure. According to news reporting originating in Stockholm, Sweden, by NewsRx journalists, research stated, "Aging is associated with an increased risk of cardiovascular disease and death. Here we show that oral supplementation of the natural polyamine spermidine extends the lifespan of mice and exerts cardioprotective effects, reducing cardiac hypertrophy and preserving diastolic function in old mice."

The news reporters obtained a quote from the research from Karolinska University Hospital, "Spermidine feeding enhanced cardiac autophagy, mitophagy and mitochondrial respiration, and it also improved the mechano-elastic properties of cardiomyocytes in vivo, coinciding with increased titin phosphorylation and suppressed subclinical inflammation. Spermidine feeding failed to provide cardioprotection in mice that lack the autophagy-related protein Atg5 in cardiomyocytes. In Dahl salt-sensitive rats that were fed a high-salt diet, a model for hypertension-induced congestive heart failure, spermidine feeding reduced systemic blood pressure, increased titin phosphorylation and prevented cardiac hypertrophy and a decline in diastolic function, thus delaying the progression to heart failure. In humans, high levels of dietary spermidine, as assessed from food questionnaires, correlated with reduced blood pressure and a lower incidence of cardiovascular disease."
According to the news reporters, the research concluded: "Our results suggest a new and feasible strategy for protection against cardiovascular disease."

For more information on this research see: Cardioprotection and lifespan extension by the natural polyamine spermidine. *Nature Medicine*, 2016;22(12):1428-1438,91-96. *Nature Medicine* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/nm/)


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Keywords for this news article include: Stockholm, Sweden, Europe, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Heart Disorders and Diseases, Organic Chemicals, Biogenic Amines, Blood Pressure, Cardiomyocyte, Heart Failure, Heart Disease, Hemodynamics, Cardiomegaly, Polyamines, Spermidine, Putrescine, Karolinska University Hospital.

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**Oncology - Kidney Cancer**

**Researchers at Keimyung University Report Findings in Kidney Cancer (Galangin sensitizes TRAIL-induced apoptosis through down-regulation of anti-apoptotic proteins in renal carcinoma Caki cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Kidney Cancer. According to news reporting originating in Daegu, South Korea, by NewsRx journalists, research stated, "Galangin, bioflavonoids, has been shown anti-cancer properties in various cancer cells. In this study, we investigated whether galangin could enhance TRAIL-mediated apoptosis in TRAIL resistant renal carcinoma Caki cells."

The news reporters obtained a quote from the research from Keimyung University, "Galangin alone and TRAIL alone had no effect on apoptosis, while combined treatment with galangin and TRAIL significantly induced apoptosis in renal carcinoma (Caki, ACHN and A498) but not normal cells (normal mouse kidney cells and human normal mesangial cells). Galangin induced down-regulation of Bcl-2 protein at the transcriptional level via inhibition of NF-kB activation but not p53 pathway. Furthermore, galangin induced down-regulation of cFLIP, Mcl-1 and survivin expression at the post-translational levels, and the over-expression of Bcl-2, cFLIP, Mcl-1 and survivin markedly reduced galangin-induced TRAIL sensitization. In addition, galangin increased proteasome activity, but galangin had no effect on expression of proteasome subunits (PSMA5 and PSMD4)."

According to the news reporters, the research concluded: "Our investigation suggests
that galangin is a potent candidate for sensitizer of TRAIL resistant cancer cell therapy."

For more information on this research see: Galangin sensitizes TRAIL-induced apoptosis through down-regulation of anti-apoptotic proteins in renal carcinoma Caki cells. *Scientific Reports*, 2016;6():18642. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting M.A. Han, Dept. of Immunology, School of Medicine, Keimyung University, 2800 Dalgubeoldaero, Dalseo-Gu, Daegu 704-701, South Korea. Additional authors for this research include D.H. Lee, S.M. Woo, B.R. Seo, K.J. Min, S. Kim, J.W. Park, S.H. Kim, Y.H. Choi and T.K Kwon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18642. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Daegu, Oncology, Apoptosis, Nephrology, South Korea, Renal Cancer, Kidney Cancer, Renal Carcinoma.

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**Nutritional and Metabolic Diseases and Conditions**

**Researchers at King Saud University Report New Data on Diabetic Nephropathy (Ruboxistaurin attenuates diabetic nephropathy via modulation of TGF-b1/Smad and GRAP pathways)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Diabetic Nephropathy have been published. According to news reporting from Riyadh, Saudi Arabia, by NewsRx journalists, research stated, "To investigate whether ruboxistaurin (a selective PKC-b inhibitor) mediates renoprotective effect via interference with TGF-b1/Smad-GRAP cross-signalling. Diabetes was induced in rats by a single intraperitoneal injection of streptozotocin (55 mg/kg)."

Financial supporters for this research include King Abdulaziz City for Science and Technology, Research Center of the Center for Female Scientific and Medical Colleges, Deanship of Scientific Research, King Faisal Specialist Hospital and Research Centre.

The news correspondents obtained a quote from the research from King Saud University, "Then, the diabetic rats were treated with ruboxistaurin (10 mg/kg, p.o) for 6 weeks. Valsartan (15 mg/kg, p.o) was used as a positive control. After 6 weeks of treatment, diabetic nephropathy biomarkers were assessed. TGF-b1, Smad2, and Smad3 mRNA and protein levels were detected using qPCR and western blot analysis. Data showed that serum creatinine, kidney/body weight ratio and urinary albumin excretion significantly increased in diabetic rats. These changes were significantly attenuated by treatment with ruboxistaurin. A significant up-regulation of TGF-b1, Smad2 and Smad3 mRNA expression was observed in diabetic rats, which was alleviated by administration of ruboxistaurin. Furthermore, immunoblotting showed a significant improvement in protein levels of TGF-b1 (p <0.01), Smad2/3 (p <0.01) and p-Smad3 (p <0.001) in diabetic rats treated with ruboxistaurin compared to untreated. Importantly, the reduction in GRAP protein expression in diabetic kidney was prevented by treatment with ruboxistaurin."
According to the news reporters, the research concluded: "These data suggest that the renoprotective effect of ruboxistaurin is possibly due to down-regulation of TGF-b1/Smad pathway and normalization of GRAP protein expression."


Our news journalists report that additional information may be obtained by contacting A.S. Al-Onazi, Dept. of Pharmacology and Toxicology, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia. Additional authors for this research include N.M. Al-Rasheed, H.A. Attia, N.M. Al-Rasheed, R.M. Ahmed, M.A. Al-Amin and C. Poizat.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jphp.12504. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Riyadh, Genetics, Nephrology, Proteomics, Saudi Arabia, Endocrinology, Diabetes Mellitus, Protein Expression, Diabetic Nephropathy, Diabetes Complications, Nutritional and Metabolic Diseases and Conditions.

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**Health and Medicine - Sexual and Reproductive Health**

**Researchers at Kirby Institute Report New Data on Sexual and Reproductive Health (Is sexual content in new media linked to sexual risk behaviour in young people? A systematic review and meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Health and Medicine - Sexual and Reproductive Health have been presented. According to news reporting out of Sydney, Australia, by NewsRx editors, research stated, "Social networking and digital media increasingly have an impact on the lives of young people. We undertook a systematic review and meta-analysis of studies that examined the relationship between exposure to sexually explicit websites (SEWs) and 'sexting' (i.e. sending semi-nude or nude photos from a mobile phone) and the sexual attitudes and practices of young people."

Our news journalists obtained a quote from the research from Kirby Institute, "In accordance with the Preferred Reporting Items for Systematic Reviews and Meta Analyses statement, Medline, EMBASE and PsycINFO were searched for papers that described the statistical association between viewing SEWs or sexting by young people (defined as 10-24 years) and their sexual attitudes and behaviours. Fourteen studies, all cross-sectional in design, met the inclusion criteria. Six studies (10 352 participants) examined young people's exposure to SEWs and eight (10 429 participants) examined sexting. There was substantial variation across studies in exposure and outcome definitions. Meta-analyses found that SEW exposure was correlated with condomless sexual intercourse (odds ratio (OR) 1.23, 95% confidence interval (CI): 1.08-1.38, two studies); sexting was correlated with ever having had sexual intercourse (OR 5.58, 95% CI: 4.46-6.71, five studies), recent sexual activity (OR 4.79, 95% CI: 3.55-6.04, two studies), alcohol and other drug use before sexual intercourse (OR 2.65, 95% CI: 1.99-3.32, two studies) and multiple recent sexual partners (OR 2.79, 95% CI: 1.95-3.63, two studies)."
Most studies had limited adjustment for important potential confounders. Cross-sectional studies show a strong association between self-reported exposure to sexual content in new media and sexual behaviours in young people."

According to the news editors, the research concluded: "Longitudinal studies would provide a greater opportunity to adjust for confounding, and better insight into the causal pathways underlying the observed associations."


Our news journalists report that additional information may be obtained by contacting L.W. Smith, Univ New South Wales, Kirby Inst, Sydney, NSW 2052, Australia. Additional authors for this research include B. Liu, L. Degenhardt, J. Richters, G. Patton, H. Wand, D. Cross, J.S. Hocking, S.R. Skinner, S. Cooper, C. Lumby, J.M. Kaldor and R. Guy.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Sexual and Reproductive Health, Health and Medicine, Kirby Institute.

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Neuropathic Pain

Researchers at Kitasato University School of Medicine Target Neuropathic Pain (Elevation of Microglial Basic Fibroblast Growth Factor Contributes to Development of Neuropathic Pain after Spinal Nerve Ligation in Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Neuropathic Pain are discussed in a new report. According to news reporting originating from Sagamihara, Japan, by NewsRx correspondents, research stated, "Reverse transcriptase-polymerase chain reaction (RT-PCR) and immunohistological analysis of spinal cord and pain behavior analysis in a rat neuropathic pain model were conducted to examine the function of microglial basic fibroblast growth factor (bFGF) in the development of neuropathic pain. To investigate the role of bFGF in spinal microglia during the development of allodynia following spinal nerve ligation in rats."

Our news editors obtained a quote from the research from the Kitasato University School of Medicine, "Evidence suggests that the production of bFGF by spinal cord glial cells is increased in response to peripheral nerve injury. Although an association between bFGF and astrocytes has been widely reported, the relationship between bFGF and microglia, particularly with respect to the development of neuropathic pain, remains poorly understood. Spinal nerve ligation rats were used. After surgery, bFGF expression in the spinal cord was investigated using RT-PCR and immunohistochemistry. Neutralizing antibodies to bFGF were injected intrathecally into rats after spinal nerve ligation. Spinal cords were used for RT-PCR analysis and pain behavior was analyzed using the von Frey test. bFGF mRNA expression was significantly increased in the spinal cord 6 hours after spinal nerve ligation compared with untreated rats. Immunohistochemical analysis revealed that bFGF co-localized with ionized calcium-binding adaptor molecule 1, a microglial marker, and myeloperoxidase. Neutralizing
antibodies to bFGF attenuated mechanical allodynia and myeloperoxidase mRNA expression. bFGF increased in spinal microglia during the development allodynia after spinal nerve ligation."

According to the news editors, the research concluded: "Thus, controlling bFGF release from microglia during the acute stage of peripheral nerve injury may suppress the progression of allodynia."

For more information on this research see: Elevation of Microglial Basic Fibroblast Growth Factor Contributes to Development of Neuropathic Pain after Spinal Nerve Ligation in Rats. Spine, 2016;41(3):E108-15. (Lippincott Williams and Wilkins - www.lww.com; Spine - journals.lww.com/spinejournal/pages/default.aspx)

The news editors report that additional information may be obtained by contacting H. Fujimaki, *Dept. of Orthopedic Surgery, Kitasato University School of Medicine, Sagamihara, Kanagawa, Japan†Dept. of Laboratory Animal Science, Kitasato University School of Medicine, Sagamihara, Kanagawa, Japan. Additional authors for this research include G. Inoue, K. Uchida, M. Miyagi, W. Saito, A. Sato and M. Takaso.

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Keywords for this news article include: Asia, Japan, Surgery, Genetics, Ligation, Microglia, Neuroglia, Sagamihara, Fibroblasts, Spinal Cord, Myeloperoxidase, Neuropathic Pain, Enzymes and Coenzymes, Central Nervous System, Connective Tissue Cells, Neurologic Manifestations, Operative Surgical Procedures.

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Angiogenesis

Researchers at Kobe University Report New Data on Angiogenesis (PKN3 is the major regulator of angiogenesis and tumor metastasis in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Angiogenesis is now available. According to news reporting out of Kobe, Japan, by NewsRx editors, research stated, "PKN, a conserved family member related to PKC, was the first protein kinase identified as a target of the small GTPase Rho. PKN is involved in various functions including cytoskeletal arrangement and cell adhesion."

Furthermore, the enrichment of PKN3 mRNA in some cancer cell lines as well as its requirement in malignant prostate cell growth suggested its involvement in oncogenesis. Despite intensive research efforts, physiological as well as pathological roles of PKN3 in vivo remain elusive. Here, we generated mice with a targeted deletion of PKN3. The PKN3 knockout (KO) mice are viable and develop normally. However, the absence of PKN3 had an impact on angiogenesis as evidenced by marked suppressions of micro-vessel sprouting in ex vivo aortic ring assay and in vivo corneal pocket assay. Furthermore, the PKN3 KO mice exhibited an impaired lung metastasis of melanoma cells when administered from the tail vein. Importantly, PKN3 knock-down by small interfering RNA (siRNA) induced a glycosylation defect of cell-
surface glycoproteins, including ICAM-1, integrin b1 and integrin a5 in HUVECs."

According to the news editors, the research concluded: "Our data provide the first in vivo genetic demonstration that PKN3 plays critical roles in angiogenesis and tumor metastasis, and that defective maturation of cell surface glycoproteins might underlie these phenotypes."

For more information on this research see: PKN3 is the major regulator of angiogenesis and tumor metastasis in mice. Scientific Reports, 2016;6():18979. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting H. Mukai, Biosignal Research Center, Kobe University, Kobe 657-8501, Japan. Additional authors for this research include A. Muramatsu, R. Mashud, K. Kubouchi, S. Tsujimoto, T. Hongu, Y. Kanaho, M. Tsubaki, S. Nishida, G. Shioi, S. Danno, M. Mehruba, R. Satoh and R. Sugiura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18979. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kobe, Asia, Japan, Genetics, Angiogenesis, Glycoproteins, Glycoconjugates.

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Diarylethanoloids

Researchers at Konkuk University Have Reported New Data on Diarylethanoloids (Complexation of curcumin with 2-aminoethyl diphenyl borate and implications for spatiotemporal fluorescence monitoring)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Diarylethanoloids have been presented. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "In this study, we successfully determined spatiotemporal distribution of curcumin in mice via simple and fast fluorescence detection of native curcumin and stabilized curcumin. We used 2-aminoethyl diphenyl borate (DPBA) as a stabilizer of curcumin, which binds to curcumin and enhances its aqueous stability."

Financial supporters for this research include Ministry of Education, Science and Technology, Agri-Bio Industry Technology Development Program.

Our news journalists obtained a quote from the research from Konkuk University, "After intravenous injection, curcumin and DPBA-curcumin complexes showed similar fluorescence intensities in the brain, pancreas, lungs, and kidneys at 15 min. However, stabilized DPBA-curcumin complexes exhibited much stronger fluorescent signals at metabolically active sites such as liver tissues than native curcumin. After incubation for 1-3 h, native curcumin showed significantly rapid reduction of fluorescent signals, compared to DPBA-curcumin complexes, probably due to degradation and reduction. In addition, complicate extraction procedures inhibited precise fluorescent monitoring of unstable curcumin, which result in different biodistribution of curcumin before and after extraction."

According to the news editors, the research concluded: "Direct fluorescent
monitoring could allow evaluation of in vivo distribution and fate of curcumin, which could be also applied to diverse natural polyphenols with fluorescent signals."


The news correspondents report that additional information may be obtained from H. Mok, Konkuk University, Dept. of Biosci & Biotechnol, Seoul 143701, South Korea. Additional authors for this research include H. Jung, G. Yu, Y. Chong and H. Mok.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.073. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Organic Chemicals, Diarylheptanoids, Hydrocarbons, Catechols, Curcumin, Alkanes, Konkuk University.

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Hematology - Plasma

Researchers at Korea Basic Science Institute Target Plasma [Investigation of relative metabolic changes in the organs and plasma of rats exposed to X-ray radiation using HR-MAS (1)H NMR and solution (1)H NMR]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematology - Plasma are discussed in a new report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Excess exposure to ionizing radiation generates reactive oxygen species and increases the cellular inflammatory response by modifying various metabolic pathways. However, an investigation of metabolic perturbations and organ-specific responses based on the amount of radiation during the acute phase has not been conducted."

Funders for this research include Korea Basic Science Institute, National Research Council of Science and Technology, Ministry of Science, ICT and Future Planning, Korea.

Our news editors obtained a quote from the research from Korea Basic Science Institute, "In this study, high-resolution magic-angle-spinning (HR-MAS) NMR and solution NMR-based metabolic profiling were used to investigate dose-dependent metabolic changes in multiple organs and tissues--including the jejunum, spleen, liver, and plasma--of rats exposed to X-ray radiation. The organs, tissues, and blood samples were obtained 24, 48, and 72 h after exposure to low-dose (2 Gy) and high-dose (6 Gy) X-ray radiation and subjected to metabolite profiling and multivariate analyses. The results showed the time course of the metabolic responses, and many significant changes were detected in the high-dose compared with the low-dose group. Metabolites with antioxidant properties showed acute responses in the jejunum and spleen after radiation exposure. The levels of metabolites related to lipid and protein metabolism were decreased in the jejunum. In addition, amino acid levels increased consistently at all post-
irradiation time points as a consequence of activated protein breakdown. Consistent with these changes, plasma levels of tricarboxylic acid cycle intermediate metabolites decreased. The liver did not appear to undergo remarkable metabolic changes after radiation exposure.

According to the news editors, the research concluded: "These results may provide insight into the major metabolic perturbations and mechanisms of the biological systems in response to pathophysiological damage caused by X-ray radiation."


The news editors report that additional information may be obtained by contacting W.G. Jang, Integrated Metabolomics Research Group, Western Seoul Center, Korea Basic Science Institute, Seoul, South Korea. Additional authors for this research include J.Y. Park, J. Lee, E. Bang, S.R. Kim, E.K. Lee, H.J. Yun, C.M. Kang and G.S Hwang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/nbm.3485. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Blood, Plasma, Hematology, South Korea.

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Oncology - Liver Cancer

Researchers at Korea University School of Medicine Target Liver Cancer (The management and prognosis of patients with hepatocellular carcinoma: what has changed in 20 years?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Liver Cancer are discussed in a new report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "There has been remarkable progress in the management of hepatocellular carcinoma (HCC) during the last several decades, but its effect on the prognosis of HCC patient needs clarification. We analysed the changes that affected prognosis of HCC patients diagnosed over two different eras."

Funders for this research include Korea Healthcare Technology R&D Project, Ministry of Health and Welfare.

Our news editors obtained a quote from the research from the Korea University School of Medicine, "A retrospective study of 1318 patients diagnosed with HCC from 1986 to 2012 was conducted. Analysis was done according to two cohorts, cohort 1 (patients diagnosed with HCC from 1986 to 1992) and cohort 2 (patients diagnosed from 2006 to 2012). Hepatitis B virus was the most common cause of liver disease for both cohorts (66.2% and 66.0%). The proportion of patients with Barcelona Clinic Liver Cancer stage 0/A was significantly lower in cohort 1 than in cohort 2 (14.4% vs. 39.5%, p<0.001). The proportions of patients diagnosed during surveillance and general health check-up were significantly higher in cohort 2 than in cohort 1 (28.6% vs. 10.6% and 26.3% vs. 7.9%, respectively) while those diagnosed during
symptomatic evaluation was significantly higher in cohort 1 than in cohort 2 (45.1 vs. 81.4%, p <0.001). Surgical resection rate was similar between the two cohorts (26.1% vs 26%) while the transcatheter arterial chemoembolization rate which was the highest in cohort 1 (40.6%) was overtaken by radiofrequency ablation in cohort 2 (55%) at BCLC stage 0/A. Median survival duration in cohort 2 was significantly longer than cohort 1 (65.0 vs. 7.9 months, p<0.001)."

According to the news editors, the research concluded: "Implementation of national cancer surveillance and the advancement of treatment modalities have likely led to early detection of HCC and improvements in prognosis over the last 20 years."


The news editors report that additional information may be obtained by contacting S.Y. Yim, Division of Gastroenterology and Hepatology, Dept. of Internal Medicine, Korea University College of Medicine, Seoul, South Korea. Additional authors for this research include Y.S. Seo, C.H. Jung, T.H. Kim, J.M. Lee, E.S. Kim, B. Keum, Y.K. Jong, H. An, J.H. Kim, H.J. Yim, D.S. Kim, Y.T. Jeen, J.E. Yeon, H.S. Lee, H.J. Chun, K.S. Byun, S.H. Um, C.D. Kim and H.S Ryu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/liv.12960. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Liver International is: Blackwell Munksgaard, 35 Norre Sogade, PO Box 2148, DK-1016 Copenhagen, Denmark.

Keywords for this news article include: Asia, Seoul, Oncology, Carcinomas, South Korea, Epidemiology, Liver Cancer, Diagnostics and Screening.

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Aromatic Amino Acids

Researchers at Kumamoto University Target Aromatic Amino Acids (Nuclear magnetic resonance analysis of the conformational state of cancer mutant of fibroblast growth factor receptor 1 tyrosine kinase domain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Aromatic Amino Acids. According to news reporting originating in Kumamoto, Japan, by NewsRx journalists, research stated, "Tyrosine kinases are key enzymes that play critical roles in growth signaling, the abnormal activation of which is associated with various human cancers. Activation of tyrosine kinases is mediated by tyrosine phosphorylation in the activation-loop, which transforms the catalytic domain to the active state conformation."

Funders for this research include Scientific Research on Innovative Areas, Creation of Innovation Centers for Advanced Interdisciplinary Research Areas Program, JSPS KAKENHI, Takeda Science Foundation.
The news reporters obtained a quote from the research from Kumamoto University, "Cancer mutations are supposed to transform the conformation of the catalytic domain into the active-form independent of the phosphorylation state of the activation-loop. Here, we report structural and biophysical analyses of cancer mutations of the tyrosine kinase domain of fibroblast growth factor receptor 1 (FGFR1)."

According to the news reporters, the research concluded: "Based on the nuclear magnetic resonance analyses, phosphorylation of the activation-loop exhibited cooperative structural transition in the activation-loop, C-helix and P-loop regions, whereas cancer mutations induced structural transformation at either one or two of these regions."

For more information on this research see: Nuclear magnetic resonance analysis of the conformational state of cancer mutant of fibroblast growth factor receptor 1 tyrosine kinase domain. Genes To Cells, 2016;21(4):350-7. (Wiley-Blackwell - www.wiley.com/; Genes To Cells - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2443)

Our news correspondents report that additional information may be obtained by contacting Y. Kobashigawa, Dept. of Analytical and Biophysical Chemistry, Faculty of Life Sciences, Kumamoto University, Kumamoto, 862-0973, Japan. Additional authors for this research include S. Amano, K. Yōza, R. Himeno, S. Amemiya, H. Morioka, M. Yokogawa, H. Kumeta, J. Schlessinger and F. Inagaki.

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Keywords for this news article include: Asia, Japan, Cancer, Kumamoto, Genetics, Oncology, Proteomics, Tyrosine Kinase, Membrane Proteins, Peptide Receptors, Magnetic Resonance, Aromatic Amino Acids, Enzymes and Coenzymes, Fibroblast Growth Factor Receptors.

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Apoptosis
Researchers at Kyung Hee University Release New Data on Apoptosis (Blockage of STAT3 Signaling Pathway by Morusin Induces Apoptosis and Inhibits Invasion in Human Pancreatic Tumor Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Apoptosis have been published. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Signal transducer and activator of transcription 3 (STAT3) is an oncogenic transcription factor implicated in carcinogenesis. Here, we investigated the role of morusin, the major prenylfлавonoid, isolated from Chinese herbal medicine in abrogating the constitutive STAT3 activation in human pancreatic tumor cells."

Our news journalists obtained a quote from the research from Kyung Hee University, "The effect of morusin on STAT3 activation, associated protein kinases, STAT3-regulated gene products, cellular proliferation, and apoptosis was examined. Morusin specifically inhibited constitutive STAT3 activation both at tyrosine residue 705 and serine residue 727 in 4 pancreatic tumor cells. The inhibition of STAT3 was mediated through the suppression of activation of upstream JAK1, JAK2, and c-Src kinases. Morusin led to the accumulation of the
cells in different phases of the cell cycle and caused induction of apoptosis and loss of mitochondrial membrane potential. Morusin downregulated the expression of various STAT3-regulated gene products; this correlated with induction of caspase-3 activation and anti-invasive effects. Treatment with the protein tyrosine phosphatase inhibitor pervanadate reversed the morusin-induced downregulation of STAT3, thereby suggesting the involvement of a protein tyrosine phosphatase."

According to the news editors, the research concluded: "Morusin is a novel blocker of STAT3 activation and thus may have potential in negative regulation of growth and metastasis of pancreatic tumor cells."

For more information on this research see: Blockage of STAT3 Signaling Pathway by Morusin Induces Apoptosis and Inhibits Invasion in Human Pancreatic Tumor Cells. Pancreas, 2016;45(3):409-19. (Lippincott Williams and Wilkins - www.lww.com; Pancreas - journals.lww.com/pancreasjournal/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting C. Kim, From the College of Korean Medicine, Kyung Hee University, Seoul, South Korea. Additional authors for this research include J.H. Kim, E.Y. Oh, D. Nam, S.G. Lee, J. Lee, S.H. Kim, B.S. Shim and K.S. Ahn.

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Keywords for this news article include: Asia, Seoul, Genetics, Pancreas, Tyrosine, Apoptosis, South Korea, Gastroenterology, Aromatic Amino Acids.

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Macropinocytosis

Researchers at Lanzhou Veterinary Research Institute Target Macropinocytosis (Productive Entry of Foot-and-Mouth Disease Virus via Macropinocytosis Independent of Phosphatidylinositol 3-Kinase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Macropinocytosis have been presented. According to news originating from Lanzhou, People's Republic of China, by NewsRx correspondents, research stated, "Virus entry is an attractive target for therapeutic intervention. Here, using a combination of electron microscopy, immunofluorescence assay, siRNA interference, specific pharmacological inhibitors, and dominant negative mutation, we demonstrated that the entry of foot-and-mouth disease virus (FMDV) triggered a substantial amount of plasma membrane ruffling."

Our news journalists obtained a quote from the research from Lanzhou Veterinary Research Institute, "We also found that the internalization of FMDV induced a robust increase in fluid-phase uptake, and virions internalized within macropinosomes colocalized with phase uptake marker dextran. During this stage, the Rac1-Pak1 signaling pathway was activated. After specific inhibition on actin, Na(+)/H(+) exchanger, receptor tyrosine kinase, Rac1, Pak1, myosin II, and protein kinase C, the entry and infection of FMDV significantly decreased. However, inhibition of phosphatidylinositol 3-kinase (PI3K) did not reduce FMDV internalization but increased the viral entry and infection to a certain extent, implying that FMDV entry did not
require PI3K activity. Results showed that internalization of FMDV exhibited the main hallmarks of macropinocytosis. Moreover, intracellular trafficking of FMDV involves EEA1/Rab5-positive vesicles. The present study demonstrated macropinocytosis as another endocytic pathway apart from the clathrin-mediated pathway."

According to the news editors, the research concluded: "The findings greatly expand our understanding of the molecular mechanisms of FMDV entry into cells, as well as provide potential insights into the entry mechanisms of other picornaviruses."

For more information on this research see: Productive Entry of Foot-and-Mouth Disease Virus via Macropinocytosis Independent of Phosphatidylinositol 3-Kinase. Scientific Reports, 2016;6():19294. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from S.C. Han, State Key Laboratory of Veterinary Etiological Biology and OIE, National Foot and Mouth Disease Reference Laboratory, Lanzhou Veterinary Research Institute, Chinese Academy of Agricultural Sciences, Lanzhou, Gansu, People's Republic of China. Additional authors for this research include H.C. Guo, S.Q. Sun, Y. Jin, Y.Q. Wei, X. Feng, X.P. Yao, S.Z. Cao, D. Xiang Liu and X.T Liu.

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Keywords for this news article include: Asia, Kinase, Lanzhou, Genetics, Aphthovirus, RNA Viruses, Picornaviridae, Macropinocytosis, Enzymes and Coenzymes, People's Republic of China, Foot and Mouth Disease Virus, Foot and Mouth Diseases Virus.

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DNA Research

Researchers at Lipscomb University Release New Data on DNA Research [Examination of the Impact of Copper(II) a-(N)-Heterocyclic Thiosemicarbazone Complexes on DNA Topoisomerase Ila]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on DNA Research are presented in a new report. According to news reporting originating in Nashville, Tennessee, by NewsRx journalists, research stated, "Type II DNA topoisomerases resolve topological knots and tangles in DNA that result from routine cellular processes and are effective targets for anticancer therapeutics. To this end, thiosemicarbazones have been identified as having the ability to kill cancer cells from several cell lines."

Financial supporters for this research include College of Pharmacy and Health Sciences, Lipscomb University, Office of the Provost, Tennessee Technological University.

The news reporters obtained a quote from the research from Lipscomb University, "Literature evidence suggests that at least some thiosemicarbazones have an impact on topoisomerase II activity. However, the mechanism is not as clearly defined. Therefore, we set out to analyze the activity of four a-(N)-heterocyclic thiosemicarbazone compounds against topoisomerase Ila. The ligands, acetylpyridine-ethylthiosemicarbazone (APY-ETSC) and acetylpyrazine-methylthiosemicarbazone (APZ-MTSC), and their copper(II) [Cu(II)] complexes
[Cu(APY-ETSC)Cl] and [Cu(APZ-MTSC)Cl] were examined for the ability to impact the catalytic cycle of human topoisomerase IIa. Both [Cu(APY-ETSC)Cl] and [Cu(APZ-MTSC)Cl] were more effective at inhibiting DNA relaxation compared with the ligands alone. Further, both [Cu(APY-ETSC)Cl] and [Cu(APZ-MTSC)Cl] increased double-stranded DNA cleavage levels without inhibiting topoisomerase IIa-mediated DNA ligation. The Cu(II) complexes inactivate enzyme activity over time suggesting a critical interaction with the enzyme. Additionally, we found that the Cu(II)-thiosemicarbazone complexes do not significantly impact DNA cleavage by the catalytic core of the enzyme. This evidence is supported by the fact that both [Cu(APY-ETSC)Cl] and [Cu(APZ-MTSC)Cl], and to a lesser extent the ligands, inhibit topoisomerase IIa-mediated ATP hydrolysis. Based upon kinetic analysis, the Cu(II) complexes appear to be noncompetitive inhibitors of the ATPase domain of topoisomerase IIa.

According to the news reporters, the research concluded: "Taken together, our results provide evidence that Cu(II) complexes of a-(N)-heterocyclic thiosemicarbazones catalytically inhibit the enzyme through the ATPase domain but also promote double-stranded DNA cleavage by the enzyme."

For more information on this research see: Examination of the Impact of Copper(II) a-(N)-Heterocyclic Thiosemicarbazone Complexes on DNA Topoisomerase IIa. Chemical Research In Toxicology, 2016;29(4):649-58. (American Chemical Society - www.acs.org; Chemical Research In Toxicology - www.pubs.acs.org/journal/crtoec)

Our news correspondents report that additional information may be obtained by contacting J.T. Wilson, Dept. of Pharmaceutical Sciences, Lipscomb University College of Pharmacy and Health Sciences, Nashville, Tennessee 37204-3951, United States. Additional authors for this research include X. Jiang, B.C. McGill, E.C. Lisic and J.E Deweese.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.chemrestox.5b00471. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: ATPase, Genetics, Nashville, Tennessee, DNA Research, United States, Topoisomerase, Sulfur Compounds, Thiosemicarbazones, Enzymes and Coenzymes, North and Central America.

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Oncology - Prostate Cancer

Researchers at Lister Hospital Release New Data on Prostate Cancer [The Role of Positron Emission Tomography With (68)Gallium (Ga)-Labeled Prostate-specific Membrane Antigen (PSMA) in the Management of Patients With Organ-confined and Locally ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to news originating from Stevenage, United Kingdom, by NewsRx correspondents, research stated, "The role of positron emission tomography (PET) with (68)Gallium (Ga)-labeled prostate-specific membrane antigen (PSMA) imaging for prostate cancer is gaining prominence. Current imaging strategies, despite having progressed significantly, have limitations, in particular their ability to diagnose metastatic lymph node involvement."

Our news journalists obtained a quote from the research from Lister Hospital,
"Preliminary results of PET with Ga-68-labeled PSMA have shown encouraging results, particularly in the recurrent prostate cancer setting. Furthermore, the ability of PET with Ga-68-labeled PSMA of playing a dual diagnostic and therapeutic setting (theranostics) is currently being investigated as well."

According to the news editors, the research concluded: "PET with Ga-68-labeled PSMA certainly has a role to play in bridging some of the voids in contemporary prostate cancer imaging tools."

For more information on this research see: The Role of Positron Emission Tomography With (68)Gallium (Ga)-Labeled Prostate-specific Membrane Antigen (PSMA) in the Management of Patients With Organ-confined and Locally Advanced Prostate Cancer Prior to Radical Treatment and After Radical Prost. Urology, 2016;95():11-15. Urology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

The news correspondents report that additional information may be obtained from B.P. Rai, Lister Hosp, Hertfordshire & South Bedfordshire Urol Canc Center, Dept. of Urol, Stevenage, Herts, United Kingdom. Additional authors for this research include R.P. Baum, A. Patel, R. Hughes, R. Alonzi, T. Lane, J. Adshead and N. Vasdev.

Keywords for this news article include: Stevenage, United Kingdom, Europe, Cancer, Article Review, Prostatic Neoplasms, Prostate Cancer, Oncology, Lister Hospital.

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Oncology - Leukemia

Researchers at Loma Linda University School of Medicine Target Leukemia (Fine-tuning patient-derived xenograft models for precision medicine approaches in leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Leukemia have been published. According to news reporting from Loma Linda, California, by NewsRx journalists, research stated, "Many leukemias are characterized by well-known mutations that drive oncogenesis. Mice engineered with these mutations provide a foundation for understanding leukemogenesis and identifying therapies."

The news correspondents obtained a quote from the research from the Loma Linda University School of Medicine, "However, data from whole genome studies provide evidence that malignancies are characterized by multiple genetic alterations that vary between patients, as well as inherited genetic variation that can also contribute to oncogenesis. Improved outcomes will require precision medicine approaches-targeted therapies tailored to malignancies in each patient. Preclinical models that reflect the range of mutations and the genetic background present in patient populations are required to develop and test the combinations of therapies that will be used to provide precision medicine therapeutic strategies. Patient-derived xenografts (PDX) produced by transplanting leukemia cells from patients into immune deficient mice provide preclinical models where disease mechanisms and therapeutic efficacy can be studied in vivo in context of the genetic variability present in patient tumors. PDX models are possible because many elements in the bone marrow microenvironment show cross-species activity between mice and humans. However, several cytokines likely to impact leukemia cells are
species-specific with limited activity on transplanted human leukemia cells. In this review we discuss the importance of PDX models for developing precision medicine approaches to leukemia treatment."

According to the news reporters, the research concluded: "We illustrate how PDX models can be optimized to overcome a lack of cross-species cytokine activity by reviewing a recent strategy developed for use with a high-risk form of B-cell acute lymphoblastic leukemia (B-ALL) that is characterized by overexpression of CRLF2, a receptor component for the cytokine, TSLP."

For more information on this research see: Fine-tuning patient-derived xenograft models for precision medicine approaches in leukemia. Journal of Investigative Medicine, 2016;64(3):740-4. (Lippincott Williams and Wilkins - www.lww.com; Journal of Investigative Medicine - journals.lww.com/jinvestigativemed/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting O.L. Francis, Dept. of Pathology and Human Anatomy, Center for Health Disparities and Molecular Medicine, Loma Linda University School of Medicine, Loma Linda, California, United States. Additional authors for this research include T.A. Milford, C. Beldiman and K.J Payne.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/jim-2016-000076. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Genetics, Leukemia, Oncology, Loma Linda, California, Hematology, Xenografts, United States, Xenotransplantation, North and Central America.

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Researchers at Los Angeles Biomedical Research Institute Detail Findings in Hypertriglyceridemia (Effects of eicosapentaenoic acid and docosahexaenoic acid on lipoproteins in hypertriglyceridemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Hypertriglyceridemia. According to news reporting out of Torrance, California, by NewsRx editors, research stated, "The treatment of hypertriglyceridemia (HTG) with o-3 fatty acid preparations adds a novel therapy to reduce cardiovascular disease. This review examines the effects of eicosapentaenoic acid (EPA) and docosahexaenoic acid on lipoproteins and the cardioprotective effects in HTG."

Our news journalists obtained a quote from the research from Los Angeles Biomedical Research Institute, "The evidence that o-3 fatty acid therapy at prescription strength is effective and safe at lowering triglyceride levels is growing. Although EPA/docosahexaenoic acid formulations did lower triglyceride levels, an increase in low-density lipoproteins was observed and outcome data were mixed. More recent trials have shown that decreased levels of low-density lipoprotein can be achieved with EPA preparations. Although the cardiovascular outcomes data are not fully available, meta-analysis of available data reports protection against vascular disease. The addition of o-3 fatty acid treatment should be considered in patients with
severe HTG as well as high-risk patients for atherosclerotic disease."

According to the news editors, the research concluded: "Emerging data are supportive, but long-term outcome studies are still underway."

For more information on this research see: Effects of eicosapentaenoic acid and docosahexaenoic acid on lipoproteins in hypertriglyceridemia. Current Opinion In Endocrinology, Diabetes, and Obesity, 2016;23(2):145-9.

Our news journalists report that additional information may be obtained by contacting A.A. Patel, Los Angeles Biomedical Research Institute, Harbor-UCLA Medical Center, Torrance, California, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MED.0000000000000233. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Torrance, California, Cardiology, Lipoproteins, United States, Dyslipidemias, Article Review, Cardiovascular, Hyperlipidemias, Hypertriglyceridemia, North and Central America, Lipid Metabolism Disorders, Nutritional and Metabolic Diseases and Conditions.

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Lung Diseases and Conditions - Asthma

Researchers at Lund University Release New Data on Asthma (Osteopontin binds and modulates functions of eosinophil-recruiting chemokines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Asthma. According to news reporting out of Lund, Sweden, by NewsRx editors, research stated, "Allergic asthma is characterized by eosinophilic inflammation and airway obstruction. There is also an increased risk of pulmonary infection caused by Streptococcus pneumoniae, in particular during severe asthma where high levels of the glycoprotein, osteopontin (OPN), are present in the airways."

Financial supporters for this research include Vetenskapsradet, Swedish Heart and Lung Foundation, Medical Faculty of Lund University, Swedish Government Funds for Clinical Research (ALF), Stiftelsen for Strategisk Forskning, Fysiografen Sallskapet, Foundations of Th. C. Bergh, and Alfred Osterlund.

Our news journalists obtained a quote from the research from Lund University, "Eosinophils can be recruited by chemokines activating the receptor CCR3 including eotaxin-1/CCL11, eotaxin-2/CCL24, eotaxin-3/CCL26, RANTES/CCL5, and MEC/CCL28. In addition to inducing chemotaxis, several of these molecules have defensin-like antibacterial properties. This study set out to elucidate the functional consequences of OPN binding to eosinophil-recruiting chemokines. Antibacterial activities of the chemokines were investigated using viable count assays and electron microscopy. Binding studies were performed by means of surface plasmon resonance. The potential interference of OPN with antibacterial, receptor-activating, and lipopolysaccharide-neutralizing abilities of these chemokines was investigated. We found that OPN bound all eosinophil-recruiting chemokines with high affinity except for CCL5. The eosinophil-recruiting chemokines all displayed bactericidal activity against S. pneumoniae, but
only CCL26 and CCL28 retained high antibacterial activity in the presence of sodium chloride at physiologic concentrations. Preincubation of the chemokines with OPN strongly inhibited their antibacterial activity against S. pneumoniae but did not affect their ability to activate CCR3. All chemokines investigated showed LPS-neutralizing activity that was impaired by OPN only in the case of CCL24. The data suggest that OPN may impair host defense activities of the chemokines without affecting their eosinophil-recruiting properties."

According to the news editors, the research concluded: "This could be one mechanism explaining the increased vulnerability to acquire pneumococcal infection in parallel with sustained allergic inflammation in asthma."


Our news journalists report that additional information may be obtained by contacting A. Gela, Division of Respiratory Medicine & Allergology, Dept. of Clinical Sciences, Skane University Hospital, Lund University, Lund, Sweden. Additional authors for this research include G. Kasetty, M. Morgelin, A. Bergqvist, J.S. Erjefalt, J.E. Pease and A. Egesten.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/all.12771. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lund, Sweden, Europe, Asthma, Immunology, Blood Cells, Eosinophils, Osteopontin, Granulocytes, Membrane Proteins, Biological Factors, Cytokine Receptors, Chemokine Receptors, Chemotactic Factors, Inflammation Mediators, Hemic and Immune Systems, G Protein Coupled Receptors, Respiratory Hypersensitivity.

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**Intracellular Signaling Peptides and Proteins**

**Researchers at M.D. Anderson Cancer Center Target Apoptosis Regulatory Proteins (Genetic characterization of two gain-of-function alleles of the effector caspase DrICE in Drosophila)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Intracellular Signaling Peptides and Proteins - Apoptosis Regulatory Proteins are presented in a new report. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Caspases are the executioners of apoptosis. Although much is known about their physiological roles and structures, detailed analyses of missense mutations of caspases are lacking."

Our news editors obtained a quote from the research from M.D. Anderson Cancer Center, "As mutations within caspases are identified in various human diseases, the study of caspase mutants will help to elucidate how caspases interact with other components of the apoptosis pathway and how they may contribute to disease. DrICE is the major effector caspase in Drosophila required for developmental and stress-induced cell death. Here, we report the isolation and characterization of six de novo drICE mutants, all of which carry point mutations affecting amino acids conserved among caspases in various species. These six mutants behave
as recessive loss-of-function mutants in a homozygous condition. Surprisingly, however, two of the newly isolated drICE alleles are gain-of-function mutants in a heterozygous condition, although they are loss-of-function mutants homozygously. Interestingly, they only behave as gain-of-function mutants in the presence of an apoptotic signal. These two alleles carry missense mutations affecting conserved amino acids in close proximity to the catalytic cysteine residue. This is the first time that viable gain-of-function alleles of caspases are described in any intact organism and provides a significant exception to the expectation that mutations of conserved amino acids always abolish the pro-apoptotic activity of caspases."

According to the news editors, the research concluded: "We discuss models about how these mutations cause the gain-of-function character of these alleles."

For more information on this research see: Genetic characterization of two gain-of-function alleles of the effector caspase DrICE in Drosophila. *Cell Death and Differentiation*, 2015;23(4):723-32. (Nature Publishing Group - www.nature.com/; Cell Death and Differentiation - www.nature.com/cdd/)

The news editors report that additional information may be obtained by contacting Y. Wu, The University of Texas MD Anderson Cancer Center, Houston, TX, United States. Additional authors for this research include J.L. Lindblad, J. Garnett, H.E. Kamber Kaya, D. Xu, Y. Zhao, E.R. Flores, J. Hardy and A. Bergmann.

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Keywords for this news article include: Texas, Houston, Genetics, Amino Acids, United States, Effector Caspases, Cysteine Proteases, Peptide Hydrolases, Enzymes and Coenzymes, Cysteine Endopeptidases, North and Central America, Apoptosis Regulatory Proteins, Intracellular Signaling Peptides and Proteins.

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**Implantable Cardioverter Defibrillator**

**Researchers at Marche Polytechnic University Report New Data on Implantable Cardioverter Defibrillator [Implantable cardioverter-defibrillator programming and electrical storm: Results of the OBSERVational registry On long-term outcome of ICD ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Implantable Cardioverter Defibrillator. According to news originating from Ancona, Italy, by NewsRx correspondents, research stated, "Electrical storm (ES) is defined as 3 or more episodes of ventricular fibrillation (VF) or ventricular tachycardia (VT) within 24 hours and is associated with increased cardiac and all-cause mortality. The purpose of this study was to test whether aggressive implantable cardioverter-defibrillator (ICD) programming can be associated with ES."

Our news journalists obtained a quote from the research from Marche Polytechnic University. "The OBSERVational registry On long-term outcome of ICD patients (OBSERO-ICD) is a multicenter, retrospective registry enrolling all consecutive patients undergoing ICD implantation from 2010 to 2012 in 5 Italian high-volume arrhythmia centers. Clinical history and risk factors were collected for all patients, as were ICD therapy-related variables such as
detection zones and delays. The total number of arrhythmic episodes and therapies delivered by the ICD were collected throughout out-of-hospital visits and remote monitoring. The registry enrolled 1319 consecutive patients, of whom 62 (4.7%) experienced at least 1 ES during follow-up (median 39 months). Patients who experienced ES had a significantly lower VF detection zone (P = .002), more frequently had antitachycardia pacing therapies programmed off during capacitor charge (P = .001), and less frequently had an ICD set with delayed therapies for VT zones (P = .042) and VF zone (P = .036). Patients who experienced ES had a significantly higher incidence of death and heart failure-related death compared to patients with no ventricular arrhythmias and patients with unclustered VTs/VFs (P = .025 and P < .001, respectively). Patients with ES had a more aggressive ICD programming setup, including lower VF detection rates, shorter detection times, and no antitachycardia pacing therapies during capacitor charge.

According to the news editors, the research concluded: "This kind of ICD programming potentially could increase the likelihood of ES and the related risk of death."


The news correspondents report that additional information may be obtained from F. Guerra, Marche Polytechnic Univ, Univ Hosp Umberto I Lancisi Salesi, Cardiol & Arrhythmol Clin, Ancona, Italy. Additional authors for this research include P. Palmisano, G. Dell’Era, M. Ziacchi, E. Ammendola, P. Bonelli, F. Patani, C. Cupido, C. Devecchi, M. Accogli, E. Occhetta, L. Santangelo, M. Biffi, G. Boriani and A. Capucci.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.06.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ancona, Italy, Europe, Implantable Cardioverter Defibrillator, Defibrillators, Risk and Prevention, Medical Devices, Cardiology, Surgery, Marche Polytechnic University.

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Atrial Fibrillation

Researchers at Massachusetts General Hospital Have Reported New Data on Atrial Fibrillation (Atrial Fibrillation Genetics: Is There a Practical Clinical Value Now or in the Future?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Atrial Fibrillation. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Atrial fibrillation (AF) is the most common sustained arrhythmia and has significant clinical impact. Over the last decade, our understanding of the genetics of AF has expanded dramatically."

Our news journalists obtained a quote from the research from Massachusetts General Hospital, "After a heritable predisposition for AF was identified, many investigators have in turn identified both common and rare variants associated with AF. Ongoing work is focused on
translating these variants into disease pathways and novel therapeutic modalities."

According to the news editors, the research concluded: "In this review, we focus on our understanding of the current concepts behind the genetics of AF and outline a vision for the incorporation of genetic data into clinical practice."


The news correspondents report that additional information may be obtained from W.J. Hucker, Massachusetts General Hospital, Cardiovasc Res Center, Boston, MA 02114, United States. Additional authors for this research include H. Saini, S.A. Lubitz and P.T. Ellinor.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.02.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Heart Disorders and Diseases, Article Review, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Genetics, Massachusetts General Hospital.

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**Nanotechnology and Microtechnology**

**Researchers at Massachusetts General Hospital Have Reported New Data on Nanotechnology and Microtechnology (A Size-Selective Intracellular Delivery Platform)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nanotechnology and Microtechnology have been presented. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Identifying and separating a subpopulation of cells from a heterogeneous mixture are essential elements of biological research. Current approaches require detailed knowledge of unique cell surface properties of the target cell population."

Funders for this research include National Institutes of Health, National Cancer Institute.

The news correspondents obtained a quote from the research from Massachusetts General Hospital, "A method is described that exploits size differences of cells to facilitate selective intracellular delivery using a high throughput microfluidic device. Cells traversing a constriction within this device undergo a transient disruption of the cell membrane that allows for cytoplasmic delivery of cargo. Unique constriction widths allow for optimization of delivery to cells of different sizes. For example, a 4 µm wide constriction is effective for delivery of cargo to primary human T-cells that have an average diameter of 6.7 µm. In contrast, a 6 or 7 µm wide constriction is best for large pancreatic cancer cell lines BxPc3 (10.8 µm) and PANC-1 (12.3 µm). These small differences in cell diameter are sufficient to allow for selective delivery of cargo to pancreatic cancer cells within a heterogeneous mixture containing T-cells."
According to the news reporters, the research concluded: "The application of this approach is demonstrated by selectively delivering dextran-conjugated fluorophores to circulating tumor cells in patient blood allowing for their subsequent isolation and genomic characterization."


Our news journalists report that additional information may be obtained by contacting A.S. Liss, Massachusetts General Hospital, Dept. of Surg, Boston, MA 02114, United States. Additional authors for this research include A. Sharei, V.A. Adalsteinsson, N. Cho, T. Kamath, C. Ruiz, J. Kirkpatrick, N. Patel, M. Mino-Kenudson, S.P. Thayer, R. Langer, K.F. Jensen, A.S. Liss and J.C. Love.

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Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Nanotechnology and Microtechnology, Genetics, Massachusetts General Hospital.

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RNA Viruses - Mosaic Viruses

Researchers at Massachusetts Institute of Technology Release New Data on Mosaic Viruses (Tobacco Mosaic Virus Delivery of Phenanthriplatin for Cancer therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on RNA Viruses - Mosaic Viruses. According to news reporting from Cambridge, Massachusetts, by NewsRx journalists, research stated, "Phenanthriplatin, cis-[Pt(NH3)2Cl(phenanthridine)](NO3), is a cationic monofunctional DNA-binding platinum(II) anticancer drug candidate with unusual potency and cellular response profiles. Its in vivo efficacy has not yet been demonstrated, highlighting the need for a delivery system."

Financial supporters for this research include Division of Chemistry, National Center for Advancing Translational Sciences, National Cancer Institute, National Institute of General Medical Sciences, Mt. Sinai Health Care Foundation.

The news correspondents obtained a quote from the research from the Massachusetts Institute of Technology, "Here we report tobacco mosaic virus (TMV) as a delivery system for phenanthriplatin. TMV forms hollow nanotubes with a polyanionic interior surface; capitalizing on this native structure, we developed a one-step phenanthriplatin loading protocol. Phenanthriplatin release from the carrier is induced in acidic environments. This delivery system, designated PhenPt-TMV, exhibits matched efficacy in a cancer cell panel compared to free phenanthriplatin. In vivo tumor delivery and efficacy were confirmed by using a mouse model of triple negative breast cancer. Tumors treated with PhenPt-TMV were 4? smaller than tumors treated with free phenanthriplatin or cisplatin, owing to increased accumulation of
phenanthriplatin within the tumor tissue."

According to the news reporters, the research concluded: "The biology-derived TMV delivery system may facilitate translation of phenanthriplatin into the clinic."


Our news journalists report that additional information may be obtained by contacting Y.R. Zheng, Dept. of Chemistry, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139, United States. Additional authors for this research include Y.R. Zheng, I.A. Riddell, S. Shukla, S.G. Awuah, S.J. Lippard and N.F Steinmetz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.5b07360. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Cancer, Therapy, Genetics, Oncology, Cambridge, RNA Viruses, Tobamovirus, Massachusetts, United States, Plant Viruses, Mosaic Viruses, Tobacco Mosaic Virus, North and Central America.

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**Cardiovascular Diseases and Conditions - Aneurysm**

**Researchers at Mayo Clinic Have Reported New Data on Aneurysm (Clinical interpretation of high-resolution vessel wall MRI of intracranial arterial diseases)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Aneurysm have been published. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Intracranial arterial pathology has traditionally been evaluated with luminal imaging. Recently, high-resolution vessel wall imaging (HR-VWI) with MRI has facilitated submillimetre evaluation of the arterial walls."

Our news editors obtained a quote from the research from Mayo Clinic, "This technique can help differentiate various causes of intracranial steno-occlusive disease, identify culprit atherosclerotic plaques with a recent cerebral infarct, locate vessel wall pathology in areas with minimal or no narrowing on luminal imaging, predict aneurysm stability and identify a ruptured aneurysm when multiple aneurysms are present. Interpretation of HR-VWI examinations requires a solid understanding of the pathophysiology, clinical features, serum and cerebrospinal fluid laboratory findings, treatment administered and fundamental patterns of VWI abnormalities that may be encountered with the intracranial vasculopathies."

According to the news editors, the research concluded: "This pictorial essay aimed to illustrate the essential findings of common conditions encountered with HR-VWI including intracranial atherosclerosis, moyamoya disease, intracranial vasculitis, varicella zoster vasculopathy, reversible cerebral vasoconstriction syndrome and aneurysms."

The news editors report that additional information may be obtained by contacting V.T. Lehman, Mayo Clin College, Dept. of Radiol, Grad Med Educ, Rochester, MN, United States. Additional authors for this research include W. Brinjikji, D.F. Kallmes, J. Huston, G. Lanzino, A.A. Rabinstein, A. Makol and M. Mossa-Bosha.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cardiovascular Diseases and Conditions, Pathology, Aneurysm, Mayo Clinic.

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Oncology

Researchers at Mayo Clinic Release New Data on Oncology
(Chromoplectic TPM3-ALK rearrangement in a patient with inflammatory myofibroblastic tumor who responded to ceritinib after progression on crizotinib)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology. According to news reporting out of Rochester, Minnesota, by NewsRx editors, research stated, "Inflammatory myofibroblastic tumors (IMTs) are rare sarcomas that can occur at any age. Surgical resection is the primary treatment for patients with localized disease; however, these tumors frequently recur."

Our news journalists obtained a quote from the research from Mayo Clinic, "Less commonly, patients with IMTs develop or present with metastatic disease. There is no standard of care for these patients and traditional cytotoxic therapy is largely ineffective. Most IMTs are associated with oncogenic ALK, ROS1 or PDGFR beta fusions and may benefit from targeted therapy. We sought to understand the genomic abnormalities of a patient who presented for management of metastatic IMT after progression of disease on crizotinib and a significant and durable partial response to the more potent ALK inhibitor ceritinib. The residual IMT was resected based on the recommendations of a multidisciplinary tumor sarcoma tumor board and analyzed by whole-genome mate pair sequencing. Analysis of the residual, resected tumor identified a chromoplectic TPM3-ALK rearrangement that involved many other known oncogenes and was confirmed by rtPCR. In our analysis of the treatment-resistant, residual IMT, we identified a complex pattern of genetic rearrangements consistent with chromoplexy. Although it is difficult to know for certain if these chromoplectic rearrangements preceded treatment, their presence suggests that chromoplexy has a role in the oncogenesis of IMTs."

According to the news editors, the research concluded: "Furthermore, this patient's remarkable response suggests that ceritinib should be considered as an option after progression on crizotinib for patients with metastatic or unresectable IMT and ALK mutations."


Our news journalists report that additional information may be obtained by
Researchers at Mayo Clinic Report New Data on DNA Research (Epigenetic Studies Point to DNA Replication/Repair Genes as a Basis for the Heritable Nature of Long Term Complications in Diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics - DNA Research is now available. According to news reporting out of Rochester, Minnesota, by NewsRx editors, research stated, "Metabolic memory (MM) is defined as the persistence of diabetic (DM) complications even after glycemic control is pharmacologically achieved. Using a zebrafish diabetic model that induces a MM state, we previously reported that, in this model, tissue dysfunction was of a heritable nature based on cell proliferation studies in limb tissue and this correlated with epigenetic DNA methylation changes that paralleled alterations in gene expression."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from Mayo Clinic, "In the current study, control, DM, and MM excised fin tissues were further analyzed by MeDIP sequencing and microarray techniques. Bioinformatics analysis of the data found that genes of the DNA replication/DNA metabolism process group (with upregulation of the apex1, mcm2, mcm4, orc3, lig1, and dnmt1 genes) were altered in the DM state and these molecular changes continued into MM. Interestingly, DNA methylation changes could be found as far as 6-13 kb upstream of the transcription start site for these genes suggesting potential higher levels of epigenetic control."

According to the news editors, the research concluded: "DNA methylation changes in members of the DNA replication/repair process group best explain the heritable nature of cell proliferation impairment found in the zebrafish DM/MM model. These results are consistent with human diabetic epigenetic studies and provide one explanation for the persistence of long term tissue complications as seen in diabetes."

For more information on this research see: Epigenetic Studies Point to DNA Replication/Repair Genes as a Basis for the Heritable Nature of Long Term Complications in Diabetes. *Journal of Diabetes Research*, 2016;2016():2860780.

Our news journalists report that additional information may be obtained by contacting A.A. Leontovich, Division of Biomedical Statistics and Informatics, Mayo Clinic, 200 First Street SW, Rochester, MN 55905, United States. Additional authors for this research include R.V. Intine and M.P Sarras.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/2860780. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers at Mayo Graduate School Release New Data on Dementia (MAPT haplotype H1G is associated with increased risk of dementia with Lewy bodies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Dementia have been published. According to news reporting out of Jacksonville, Florida, by NewsRx editors, research stated, "The MAPT H1 haplotype has been associated with several neurodegenerative diseases. We were interested in exploring the role of MAPT haplotypic variation in risk of dementia with Lewy bodies (DBL)."

Financial supporters for this research include Little Family Foundation, Mangurian Foundation, NINDS, Alzheimer's Disease Research Center, Mayo Clinic Study of Aging.

Our news journalists obtained a quote from the research from Mayo Graduate School, "We genotyped six MAPT haplotype tagging SNPs and screened 431 clinical DBL cases, 347 pathologically defined high-likelihood DBL cases, and 1049 controls. We performed haplotypic association tests and detected an association with the protective H2 haplotype in our combined series (odds ratio [OR] = 0.75). We fine-mapped the locus and identified a relatively rare haplotype, H1G, that is associated with an increased risk of DBL (OR = 3.30, P = .0017). This association was replicated in our pathologically defined series (OR = 2.26, P = .035). These results support a role for H1 and specifically H1G in susceptibility to DBL."

According to the news editors, the research concluded: "However, the exact functional variant at the locus is still unknown, and additional studies are warranted to fully explain genetic risk of DBL at the MAPT locus."

For more information on this research see: MAPT haplotype H1G is associated with increased risk of dementia with Lewy bodies. *Alzheimers & Dementia*, 2016;12(12):1297-1304. *Alzheimers & Dementia* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jalz.2016.05.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jacksonville, Florida, United States, North and Central America, Neurodegenerative Diseases and Conditions, Article Review, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Risk and
Researchers at McGill University Report New Data on HIV/AIDS (The M184I/V and K65R nucleoside resistance mutations in HIV-1 prevent the emergence of resistance mutations against dolutegravir)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immune System Diseases and Conditions - HIV/AIDS is now available. According to news reporting from Montreal, Canada, by NewsRx journalists, research stated, "Recommended treatments for newly diagnosed HIV-positive individuals now focus on the integrase strand transfer inhibitors, raltegravir (RAL), elvitegravir (EVG) and dolutegravir (DTG). In treatment-naive individuals, cases of RAL-based and EVG-based virological failure, although rare, are associated with the occurrence of resistance mutations in integrase and/or reverse transcriptase coding sequences."

The news correspondents obtained a quote from the research from McGill University, "In such cases, common resistance substitutions in reverse transcriptase that were associated with nucleos(t)ide reverse transcriptase inhibitors included M184I/V and K65R and these occurred together with various mutations in integrase. In some instances, these mutations in reverse transcriptase preceded the emergence of mutations in integrase. In contrast, no resistance substitutions in either integrase or reverse transcriptase have been observed to date in viruses isolated from treatment-naive individuals who experienced treatment failure with DTG-based regimens. The objective of this study was to determine the effects of the M184I/V and K65R substitutions in reverse transcriptase on the ability of HIV-1 to become resistant against RAL, EVG or DTG. We performed tissue culture selection experiments using reverse transcriptase inhibitor-resistant viruses containing resistance substitutions at positions K65R, M184I or M184V in the presence of increasing concentrations of RAL, EVG or DTG and monitored changes in integrase sequences by genotyping. Selections using EVG and RAL led to the emergence of resistance mutations in integrase. In contrast, only the wild-type virus was able to acquire resistance mutations for DTG."

According to the news reporters, the research concluded: "Resistance mutations against nucleos(t)ide reverse transcriptase inhibitors antagonized the development of HIV-1 resistance against DTG but not RAL or EVG."

For more information on this research see: The M184I/V and K65R nucleoside resistance mutations in HIV-1 prevent the emergence of resistance mutations against dolutegravir. *Aids*, 2016;30(15):2267-2273. *Aids* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting M.A. Wainberg, McGill University, Dept. of Microbiol & Immunol, Fac Med, Montreal, PQ, Canada. Additional authors for this research include R.I. Ibanescu, H.T. Pham, B. Brenner, T. Mesplede and M.A. Wainberg.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions - HIV/AIDS.
Researchers at Medical College Release New Data on Cancer Research (Increasing Role of Image-Guided Ablation in the Treatment of Musculoskeletal Tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Research have been published. According to news originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "In the last decade, percutaneous treatment of musculoskeletal (MSK) tumors has become more established in routine clinical care while also undergoing a number of advancements. Ablative techniques to palliate painful skeletal metastases have gained wide acceptance, while goals for ablation have evolved to include local control of oligometastases and desmoid tumors."

Our news journalists obtained a quote from the research from Medical College, "Bone consolidation or augmentation is now frequently used in conjunction with or instead of ablation of skeletal tumors to stabilize pathologic fractures or prevent further morbidity that could result from fractures caused by tumor progression. These procedures have traditionally been performed with cement injection, although additional percutaneous consolidation or stabilization devices have been developed. Techniques to monitor the ablation zone and adjacent structures intraprocedurally are now applied to increase the number of tumors amenable to treatment. These include methods to depict, displace, or monitor critical structures adjacent to targeted MSK tumors."

According to the news editors, the research concluded: "Finally, the role of ablation in the comprehensive care of patients with MSK tumors continues to change with the evolving triage of patients between radiation therapy, surgical resection and stabilization, and percutaneous ablative and consolidative management."

For more information on this research see: Increasing Role of Image-Guided Ablation in the Treatment of Musculoskeletal Tumors. *Cancer Journal*, 2016;22(6):401-410. *Cancer Journal* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news correspondents report that additional information may be obtained from A.N. Kurup, Mayo Clinic, Coll Med, Dept. of Radiol, Rochester, MN 55905, United States.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cancer Research, Oncology, Article Review, Medical College.

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Researchers at Medical University Report Findings in Opioid Dependence (DISC1 as a Possible Genetic Contribution to Opioid Dependence in a Polish Sample)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Opioid Dependence is the subject of a report. According to news reporting from Warsaw, Poland, by NewsRx journalists, research stated, "Disrupted-in-schizophrenia 1 (DISC1) has been linked to vulnerability to a variety of psychiatric disorders and neuropsychiatric phenotypes. However, DISC1 has not been frequently examined as a potential risk factor for substance dependence."

The news correspondents obtained a quote from the research from Medical University, "An association between opioid dependence and DISC1 rs2738888 polymorphism has been recently reported. In addition, opioid dependence was associated with rs6419156 located close to the protein phosphatase 3 catalytic subunit alpha isoform (PPP3CA) gene. The aim of the present study was to examine the associations between opioid dependence with rs2738888 and rs6419156 in an independent sample. The selected polymorphisms were genotyped in a sample of 392 individuals (69.9% male) diagnosed as alcohol-and/or opioid-dependent. A control group (n=257; 67.7% male) was derived from the Polish National Health Survey (N=14,350). The frequency of rs2738888 C allele was higher in controls than in opioid-dependent cases (OR=0.65, p=.045). Phenotypic-oriented analyses performed within opioid-dependent individuals revealed the association between lifetime suicide attempt and rs2738888. The C allele of rs2738888 had a protective effect on lifetime suicide attempt in opioid-dependent patients (OR=0.25, p=.003). Rs6419156 was not associated with substance dependence in the examined sample. The DISC1 may play an important role in vulnerability to opioid dependence."

According to the news reporters, the research concluded: "In addition, DISC1 may also be a genetic risk factor for suicide attempt in opioid-dependent individuals."

For more information on this research see: DISC1 as a Possible Genetic Contribution to Opioid Dependence in a Polish Sample. Journal of Studies On Alcohol and Drugs, 2016;77 (2):220-6.

Our news journalists report that additional information may be obtained by contacting S. Fudalej, Dept. of Psychiatry, Medical University of Warsaw, Warsaw, Poland. Additional authors for this research include A. Jakubczyk, M. Kadera, J. Piwonski, W. Bielecki, W. Drygas, K. Wasilewska, M. Ilgen, A. Bohnert, K. Barry, R. Ploski, F.C. Blow and M. Wojnar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.15288/jsad.2016.77.220. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Warsaw, Poland, Europe, Suicide, Genetics, Mental Health, Opioid Dependence, Drugs and Therapies, Risk and Prevention. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Transplant Medicine - Liver Transplants

Researchers at Medical University Report New Data on Liver Transplts (The use of nonsteroidal anti-inflammatory drugs and analgesics by liver transplant recipients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Transplant Medicine - Liver Transplants. According to news reporting originating in Warsaw, Poland, by NewsRx journalists, research stated, "This study aimed to assess the reasons and the frequency of the use of over-the-counter (OTC) nonsteroidal anti-inflammatory drugs (NSAIDs) or analgesics by liver transplant recipients (LTR). Patient awareness of possible drug-related side-effects was also assessed."

The news reporters obtained a quote from the research from Medical University, "NSAIDs and analgesics available without prescription belong to the most commonly used class of drugs. However, use of these drugs might be complicated by toxic adverse effects (AEs). Patients at risk for AEs include the transplant recipients. This was a descriptive study. An anonymous survey was carried out in 73 randomly selected LTR, who represented 10% of all LTR at our centre. There were 64% of the patients who confirmed taking NSAIDs or analgesics; 16% of these patients took these drugs at least several times a week and 10% took them daily. For 39% of patients, the only way to manage their pain were OTC NSAIDs or analgesics. As many as 36% of patients were unaware of the risks associated with the use of these drugs. Ninety per cent of LTR consider physicians the most trusted source of drugs information. Our study shows that two-thirds of LTR take OTC NSAIDs or analgesics and one-third are unaware of the AEs associated with these drugs. Therefore, both transplant nurses and doctors should educate their patients about the use and possible AE of these drugs. Considering the high NSAIDs consumption rates, the side effects of these drugs should always be suspected. Especially in patients taking these drugs and referring to medical advisors with specific symptoms, such as: abdominal pain, anaemia, elevated serum creatinine concentration or liver enzymes activity. Awareness of the scale of the problem enables health professionals to cooperate in educating patients."

According to the news reporters, the research concluded: "Such practices may reduce uncontrolled abuse of these drugs and related health care costs."


Our news correspondents report that additional information may be obtained by contacting M. Mulka-Gierek, Dept. of Immunology, Transplantology and Internal Diseases, Medical University of Warsaw, Warsaw, Poland. Additional authors for this research include B. Foroncvez, M. Florczak, L. Paczek, M. Krawczyk and K. Mucha.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13112. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biomedicine, Warsaw, Poland, Europe, Analgesics, Pain Medicine, Organ Transplants, Drugs and Therapies, Transplant Medicine, Liver Transplantation, Non Steroidal Antiinflammatory Agents.
Researchers at Medical University Target Enzymes and Coenzymes (Effect of Evodiamine on CYP Enzymes in Rats by a Cocktail Method)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Enzymes and Coenzymes are presented in a new report. According to news reporting originating in Wenzhou, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to assess the influence of evodiamine on the activities of the drug-metabolizing enzymes cytochrome P450 (CYP) 1A2, CYP2C9, CYP2C19, CYP2D6 and CYP3A4 in rats. The activities of CYP1A2, CYP2C9, CYP2C19, CYP2D6 and CYP3A4 were measured using specific probe drugs."

The news reporters obtained a quote from the research from Medical University, "After pretreatment for 1 week with evodiamine or physiological saline (control group) by oral administration, probe drugs phenacetin (5.0 mg/kg; CYP1A2 activity), tolbutamide (1.0 mg/kg; CYP2C9 activity), omeprazole (10 mg/kg; CYP2C19 activity), metoprolol (20 mg/kg; CYP2D6 activity) and midazolam (10 mg/kg; CYP3A4 activity) were administered to rats by oral administration. The blood was then collected at different times for ultra-performance liquid chromatography-tandem mass spectrometry analysis. The data showed that evodiamine exhibits an inhibitory effect on CYP1A2, CYP2C9 and CYP2D6 by increasing t(1/2), Cmax and AUC (0-∞), and decreasing CL/F compared with those of the control group. However, no significant changes in CYP2C19 and CYP3A4 activities were observed."

According to the news reporters, the research concluded: "The results indicated that evodiamine could inhibit CYP1A2, CYP2C9 and CYP2D6, which may affect the disposition of medicines primarily dependent on these pathways. Our work may be the basis of related herb-drug interactions in the clinic."


Our news correspondents report that additional information may be obtained by contacting Y.T. Zhang, The Second Affiliated Hospital & Yuying Children's Hospital of Wenzhou Medical University, Wenzhou, People's Republic of China. Additional authors for this research include D.F. Zhang, N.Y. Ge, G.H. Zhu, C. Hao, Y. Zhang and R.J Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443178. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Wenzhou, Enzymes and Coenzymes, People's Republic of China.

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Researchers at Medical University Target Heart Attack (Interindividual variability of atorvastatin treatment influence on the MPO gene expression in patients after acute myocardial infarction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Attack. According to news reporting originating from Warsaw, Poland, by NewsRx correspondents, research stated, "Myeloperoxidase (MPO) and C-reactive protein (CRP) may play critical roles in generation of oxidative stress and the development of the systemic inflammatory response. The aim of the study was to determine the effect of atorvastatin therapy on the MPO gene expression and its plasma level in relation to lipids level lowering and an anti-inflammatory response in patients after acute myocardial infarction."

Our news editors obtained a quote from the research from Medical University, "The research material was represented by 112 samples. Thirty-eight patients with first AMI receiving atorvastatin therapy (40 mg/day) and followed up for one month were involved in the study. The relative MPO gene expression in peripheral blood mononuclear cells (PBMCs) was examined using RT-qPCR in 38 patients before-, 38 patients after-therapy and in 36 patients as the control group. The plasma concentrations of MPO and serum concentrations of biochemical parameters were determined using commercially available diagnostic tests. After one month of atorvastatin therapy, in 60.5% patients a decrease of MPO gene expression, whereas in 39.5% patients an increase, was observed. The plasma MPO levels behaved in the same way as the MPO gene expression. However, the serum lipids and CRP concentrations were significantly lower after one month of atorvastatin therapy in both groups of patients -with decreased and increased MPO gene expression. Atorvastatin exhibited a different effect on MPO gene expression and its plasma level. Short-term atorvastatin therapy resulted in lipid lowering and anti-inflammatory activity in patients after AMI, independently of its effect on MPO gene expression."

According to the news editors, the research concluded: "The molecular mechanisms of this phenomenon are not yet defined and require further research."


The news editors report that additional information may be obtained by contacting G. Sygitowicz, Dept. of Medical Laboratory Diagnostics, Medical University of Warsaw, Warsaw, Poland. Additional authors for this research include A. Maciejak, J. Piniewska-Juraszek, M. Pawlak, M. Gora, B. Burzynska, M. Dluzniewski, G. Opolski and D. Sitkiewicz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18388/abp.2015_1014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antihyperlipidemic Agents, Blood, Warsaw, Poland, Europe, Plasma, Genetics, Angiology, Hematology, Atorvastatin, Heart Attack, Heart Disease, Clinical Research, Drugs and Therapies, Myocardial Ischemia, Myocardial Infarction, Clinical Trials and Studies, Heart Disorders and Diseases, Vascular Diseases and Conditions.

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Researchers at Medical University of South Carolina Report New Data on Multiple Myeloma (Systemic therapy with oncolytic myxoma virus cures established residual multiple myeloma in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Multiple Myeloma. According to news originating from Charleston, South Carolina, by NewsRx correspondents, research stated, "Multiple myeloma is an incurable malignancy of plasma B-cells. Traditional chemotherapeutic regimes often induce initial tumor regression; however, virtually all patients eventually succumb to relapse caused by either reintroduction of disease during autologous transplant or expansion of chemotherapy resistant minimal residual disease."

Our news journalists obtained a quote from the research from the Medical University of South Carolina, "It has been previously demonstrated that an oncolytic virus known as myxoma can completely prevent myeloma relapse caused by reintroduction of malignant cells during autologous transplant. The ability of this virus to treat established residual disease in vivo, however, remained unknown. Here we demonstrate that intravenous administration of myxoma virus into mice bearing disseminated myeloma results in the elimination of 70-90% of malignant cells within 24 hours. This rapid debulking was dependent on direct contact of myxoma virus with residual myeloma and did not occur through destruction of the hematopoietic bone marrow niche. Importantly, systemic myxoma therapy also induced potent antimyeloma CD8(+) T cell responses which localized to the bone marrow and were capable of completely eradicating established myeloma in some animals."

According to the news editors, the research concluded: "These results demonstrate that oncolytic myxoma virus is not only effective at preventing relapse caused by reinfusion of tumor cells during stem cell transplant, but is also potentially curative for patients bearing established minimal residual disease."

For more information on this research see: Systemic therapy with oncolytic myxoma virus cures established residual multiple myeloma in mice. Molecular Therapy-Oncolytics, 2016;3():1-8. Molecular Therapy-Oncolytics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

The news correspondents report that additional information may be obtained from E. Bartee, Medical University of South Carolina, Dept. of Microbiol & Immunol, Charleston, SC 29425, United States. Additional authors for this research include M.Y. Bartee, B. Bogen and X.Z. Yu.

Keywords for this news article include: Charleston, South Carolina, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Blood Protein Disorders, Hemorrhagic Disorders, Hemostatic Disorders, Vertebrate Viruses, DNA Tumor Viruses, Chordopoxvirinae, Multiple Myeloma, Paraproteinemias, Leporipoxvirus, Immune System, Bone Research, Myxoma Virus, Bone Marrow, DNA Viruses, Hematology, Poxviridae, Oncology, Therapy, Myxomas, Medical University of South Carolina.

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Researchers at Memorial Hospital Detail Findings in Head and Neck Cancer (Efficacy of second-line erlotinib in patients postprogression of first-line chemotherapy in head and neck cancers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Head and Neck Cancer is the subject of a report. According to news reporting out of Maharashtra, India, by NewsRx editors, research stated, "Oral tyrosine kinase inhibitor (gefitinib and erlotinib) have been used in the palliative treatment of head and neck cancers with limited success. In this report, we aim to quantify the symptomatic benefit, progression-free survival (PFS) and overall survival (OS) when erlotinib is given as second-line treatment in Head and neck cancers."

Our news journalists obtained a quote from the research from Memorial Hospital, "This was a post-hoc retrospective analysis of a randomized study comparing metronomic chemotherapy with cisplatin. A patient who progressed on chemotherapy and had a PS0-2 were offered second-line chemotherapy. Patients who had received erlotinib (150 mg PO OD) as second line treatment were selected for this analysis. Erlotinib was discontinued in case of either progression of disease or if the patient had intolerable side effects. Patient were monitored 1-week after the start of erlotinib and subsequently at monthly intervals. The toxicity was recorded in accordance with CTCAE version 4.02 (NCI,USA) and the response were graded in accordance with RECIST version 1.1. All of these patients were followed-up till death. Twenty-three patients were identified. The median age of these patients at the start of the second line was 47 years (interquartile range 40.5-51.75 years). The primary site of distribution was oral cavity primary in 17 patients (77.3%) and nonoral cavity primary in 05 (22.7%) patients. The immediate last chemotherapy regimen received was cisplatin in 9 patients (40.9%) and metronomic chemotherapy in 13 patients (59.1%). Symptomatic benefits post second-line erlotinib was seen in 18 patients (81.8%). The most common adverse events (any grade) seen were anemia in 20 patients (90.9%), rash in 10 patients (45.5%) and diarrhea in 7 patients (31.8%).The best radiological response documented were a partial response in 04 patients (19.2%). The median estimated PFS and OS were 110 days (95% confidence interval [CI]: 61-175 days) and 156 days (95% CI: 126-185 days) respectively."

According to the news editors, the research concluded: "Erlotinib single agent has promising activity in the second line and needs to be explored in future studies."


Our news journalists report that additional information may be obtained by contacting V. Noronha, Dept. of Medical Oncology, Tata Memorial Hospital, Mumbai, Maharashtra, India. Additional authors for this research include A. Karpe, V. Noronha, A. Joshi, V. Muddu, A. Bhattacharjee, S. Dhumal and K. Prabhash.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178374. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Oncology, Maharashtra, Chemotherapy, Drugs and Therapies, Head and Neck Cancer, Head and Neck Neoplasms.

Our reports deliver fact-based news of research and discoveries from around the
Researchers at Memorial Sloan-Kettering Cancer Center Target Angiosarcomas (Targeted massively parallel sequencing of angiosarcomas reveals frequent activation of the mitogen activated protein kinase pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Angiosarcomas is now available. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Angiosarcomas are rare malignant mesenchymal tumors of endothelial differentiation. The clinical behavior is usually aggressive and the prognosis for patients with advanced disease is poor with no effective therapies."

Our news journalists obtained a quote from the research from Memorial Sloan-Kettering Cancer Center, "The genetic bases of these tumors have been partially revealed in recent studies reporting genetic alterations such as amplifications of MYC (primarily in radiation-associated angiosarcomas), inactivating mutations in PTPRB and R707Q hotspot mutations of PLCG1. Here, we performed a comprehensive genomic analysis of 34 angiosarcomas using a clinically-approved, hybridization-based targeted next-generation sequencing assay for 341 well-established oncogenes and tumor suppressor genes. Over half of the angiosarcomas (n=18, 53%) harbored genetic alterations affecting the MAPK pathway, involving mutations in KRAS, HRAS, NRAS, BRAF, MAPK1 and NF1, or amplifications in MAPK1/CRKL, CRAF or BRAF. The most frequently detected genetic aberrations were mutations in TP53 in 12 tumors(35%) and losses of CDKN2A in9 tumors (26%). MYC amplifications were generally mutually exclusive of TP53 alterations and CDKN2A loss and were identified in 8 tumors (24%), most of which (n=7, 88%) arose post-irradiation. Previously reported mutations in PTPRB (n=10, 29%) and one (3%) PLCG1 R707Q mutation were also identified. Our results demonstrate that angiosarcomas are a genetically heterogeneous group of tumors, harboring a wide range of genetic alterations."

According to the news editors, the research concluded: "The high frequency of genetic events affecting the MAPK pathway suggests that targeted therapies inhibiting MAPK signaling may be promising therapeutic avenues in patients with advanced angiosarcomas."

For more information on this research see: Targeted massively parallel sequencing of angiosarcomas reveals frequent activation of the mitogen activated protein kinase pathway. Oncotarget, 2015;6(34):36041-52.

The news correspondents report that additional information may be obtained from R. Murali, Dept. of Pathology, Memorial Sloan Kettering Cancer Center, New York, NY, United States. Additional authors for this research include R. Chandramohan, I. Moller, S.L. Scholz, M. Berger, K. Huberman, A. Viale, M. Pirun, N.D. Socci, N. Bouvier, S. Bauer, M. Artl, B. Schilling, T. Schimming, A. Sucker, B. Schwindenhammer, F. Grabelus and Speicher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5936. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Genetics, Oncology, New York City, United States, Angiosarcomas, Enzymes and Coenzymes, North and Central America, Mitogen
Activated Protein Kinases, Intracellular Signaling Peptides and Proteins.

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Trimethyl Ammonium Compounds

Researchers at Memorial Sloan-Kettering Cancer Center Target Trimethyl Ammonium Compounds (L-Carnitine for Treatment of Pegasparaginase-Induced Hepatotoxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Trimethyl Ammonium Compounds have been published. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Similar to pediatric regimens, multiple doses of L-asparaginase (PEG-Asp) are being increasingly used in adults with newly diagnosed acute lymphoblastic leukemia (ALL) with promising results. One of the most common side effects of the drug in adults is high-grade hyperbilirubinemia and transaminitis."

The news reporters obtained a quote from the research from Memorial Sloan-Kettering Cancer Center, "Despite being almost always reversible and may not recur, clinicians may still be reluctant to continue with PEG-Asp in patients with liver toxicity, losing the benefit from multiple doses of the drug. We describe a case of adult ALL who developed PEG-Asp-related high grade liver toxicity. The rising hyperbilirubinemia and transaminitis rapidly and permanently reversed using the amino-acid derivative L-carnitine. This case goes in line with similar observations in animal models and humans."

According to the news reporters, the research concluded: "L-Carnitine may show therapeutic benefit in PEG-Asp-related hepatotoxicity and should be considered in clinical trials of the drug."


Our news correspondents report that additional information may be obtained by contacting R. Alshiekh-Nasany, Memorial Sloan Kettering Cancer Center, New York, NY, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442342. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Carnitine, New York City, United States, Gastroenterology, North and Central America, Trimethyl Ammonium Compounds.

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Researchers at Merck & Company Have Reported New Data on Clostridium difficile (Disease Progression and Resolution in Rodent Models of Clostridium difficile Infection and Impact of Antitoxin Antibodies and Vancomycin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Positive Bacteria - Clostridium difficile have been published. According to news originating from Kenilworth, New Jersey, by NewsRx correspondents, research stated, "Clostridium difficile causes infections of the colon in susceptible patients. Specifically, gut dysbiosis induced by treatment with broad-spectrum antibiotics facilitates germination of ingested C. difficile spores, expansion of vegetative cells, and production of symptom-causing toxins TcdA and TcdB."

Our news journalists obtained a quote from the research from Merck & Company, "The current standard of care for C. difficile infections (CDI) consists of administration of antibiotics such as vancomycin that target the bacterium but also perpetuate gut dysbiosis, often leading to disease recurrence. The monoclonal antitoxin antibodies actoxumab (anti-TcdA) and bezlotoxumab (anti-TcdB) are currently in development for the prevention of recurrent CDI. In this study, the effects of vancomycin or actoxumab/bezlotoxumab treatment on progression and resolution of CDI were assessed in mice and hamsters. Rodent models of CDI are characterized by an early severe phase of symptomatic disease, associated with high rates of morbidity and mortality; high intestinal C. difficile burden; and a disrupted intestinal microbiota. This is followed in surviving animals by gradual recovery of the gut microbiota, associated with clearance of C. difficile and resolution of disease symptoms over time. Treatment with vancomycin prevents disease initially by inhibiting outgrowth of C. difficile but also delays microbiota recovery, leading to disease relapse following discontinuation of therapy. In contrast, actoxumab/bezlotoxumab treatment does not impact the C. difficile burden but rather prevents the appearance of toxin-dependent symptoms during the early severe phase of disease, effectively preventing disease until the micro-biota (the body's natural defense against C. difficile) has fully recovered."

According to the news editors, the research concluded: "These data provide insight into the mechanism of recurrence following vancomycin administration and into the mechanism of recurrence prevention observed clinically with actoxumab/bezlotoxumab."

For more information on this research see: Disease Progression and Resolution in Rodent Models of Clostridium difficile Infection and Impact of Antitoxin Antibodies and Vancomycin. Antimicrobial Agents and Chemotherapy, 2016;60(11):6471-6482. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from A.G. Therien, Merck & Co Inc, Kenilworth, NJ, United States. Additional authors for this research include P. Thommes, A. Sattar, D. Corbett, A. Flattery, Z. Zhang, T. Black, L.D. Hernandez and A.G. Therien.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00974-16. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers at Mie University School of Medicine Have Reported New Data on Soft Tissue Sarcomas (The value of trabectedin in the treatment of soft tissue sarcoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Soft Tissue Sarcomas have been presented. According to news reporting out of Mie, Japan, by NewsRx editors, research stated, "Soft tissue sarcomas (STSs) are a group of rare tumors accounting for less than 1% of all adult malignant tumors, a heterogeneous group of more than 50 histological subtypes. Five percent to 30% of STS patients experience local recurrence and 10%-38% present with clinically detectable metastases."

Our news journalists obtained a quote from the research from the Mie University School of Medicine, "Doxorubicin either alone or in combination with ifosfamide has been used as first-line chemotherapy for advanced disease. After failure of first-line chemotherapy, high-dose ifosfamide, gemcitabine + docetaxel, and dacarbazine may be applicable, although high-level evidence is lacking. Trabectedin is a synthetic, marine-derived alkylating agent derived from the Caribbean tunicate, Ecteinascidia turbinata. Several clinical trials have shown that trabectedin has a favorable toxicity profile and is an alternative therapeutic option in adult patients with advanced STS who have not responded to treatment with doxorubicin and ifosfamide. Several clinical trials also recommend the 24-hour intravenous infusion every 3 weeks regimen. The most frequently reported grade 3/4 adverse events were neutropenia and elevated serum levels of AST/ALT. Steroid pretreatment is an effective way of reducing the extent of hepatotoxicity, and steroids are now given routinely before trabectedin administration."

According to the news editors, the research concluded: "Further studies are ongoing to evaluate the efficacy and safety of combination therapy of trabectedin with other agents."


Our news journalists report that additional information may be obtained by contacting T. Nakamura, Dept. of Orthopaedic Surgery, Mie University Graduate School of Medicine, Mie, Japan. Additional authors for this research include A. Matsumine and A. Sudo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/TCRM.S84789. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mie, Asia, Antineoplastics, Pharmaceuticals, Japan, Oncology, Article Review, Alkylating Agents, Clinical Research, Ifosfamide Therapy,
Researchers at Mustafa Kemal University Have Reported New Data on Herpes Simplex Virus (Antiviral Activity of Hatay Propolis Against Replication of Herpes Simplex Virus Type 1 and Type 2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Herpesvirus Diseases and Conditions - Herpes Simplex Virus. According to news reporting originating in Hatay, Turkey, by NewsRx journalists, research stated, "Propolis is a bee product widely used in folk medicine and possessing many pharmacological properties. In this study we aimed to investigate: i) the antiviral activities of Hatay propolis samples against HSV-1 and HSV-2 in HEp-2 cell line, and ii) the presence of the synergistic effects of propolis with acyclovir against these viruses."

The news reporters obtained a quote from the research from Mustafa Kemal University, "All experiments were carried out in HEp-2 cell cultures. Proliferation assays were performed in 24-well flat bottom microplates. We inoculated 1x10^5 cells per ml and RPMI 1640 medium with 10% fetal calf serum into each well. Studies to determine cytotoxic effect were performed. To investigate the presence of antiviral activity of propolis samples, different concentrations of propolis (3200, 1600, 800, 400, 200, 100, 75, 50, and 25 mg/mL) were added into the culture medium. The amplifications of HSV-1 and HSV-2 DNA were performed by real-time PCR method. Acyclovir (Sigma, USA) was chosen as a positive control. Cell morphology was evaluated by scanning electron microscopy (SEM). The replication of HSV-1 and HSV-2 was significantly suppressed in the presence of 25, 50, and 100 mg/mL of Hatay propolis. We found that propolis began to inhibit HSV-1 replication after 24 h of incubation and propolis activity against HSV-2 was found to start at 48 h following incubation. The activity of propolis against both HSV-1 and HSV-2 was confirmed by a significant decrease in the number of viral copies. We determined that Hatay propolis samples have important antiviral effects compared with acyclovir."

According to the news reporters, the research concluded: "In particular, the synergy produced by antiviral activity of propolis and acyclovir combined had a stronger effect against HSV-1 and HSV-2 than acyclovir alone."

For more information on this research see: Antiviral Activity of Hatay Propolis Against Replication of Herpes Simplex Virus Type 1 and Type 2. Medical Science Monitor, 2016;22():422-30.

Our news correspondents report that additional information may be obtained by contacting A. Yildirim, Dept. of Histology and Embryology, Mustafa Kemal University, Medical Faculty, Hatay, Turkey. Additional authors for this research include G.G. Duran, N. Duran, K. Jenedi, B.S. Bolgul, M. Miraloglu and M. Muz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.897282. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiinfectives, Hatay, Turkey, Eurasia, Acyclovir, Purine Nucleosides, Topical Antivirals, Drugs and Therapies, Herpes Simplex Virus,
Researchers at Nagoya University Have Reported New Data on Atrial Fibrillation (An ECG Index of P-Wave Force Predicts the Recurrence of Atrial Fibrillation after Pulmonary Vein Isolation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Atrial Fibrillation are presented in a new report. According to news reporting originating in Nagoya, Japan, by NewsRx journalists, research stated, "Although several prognostic factors of atrial fibrillation (AF) recurrence after pulmonary vein isolation (PVI) have been investigated, the accurate prediction of AF recurrence remains difficult. We propose an electrocardiogram (ECG) index, the P-wave force (PWF), which is the product of the amplitude of the negative terminal phase of the P wave in the V1 electrode and the filtered P-wave duration, obtained by a signal-averaged P-wave analysis."

The news reporters obtained a quote from the research from Nagoya University, "This study was conducted to evaluate the impact of the PWF on the recurrence of AF after PVI. We retrospectively evaluated 79 paroxysmal AF patients (64 +/- 9 years, 56 males) who underwent PVI by cryoballoon ablation. Standard 12-lead ECG and a P-wave signal-averaged electrocardiogram (SAECG) were recorded the day before and 1 month after the PVI procedure. During the mean follow-up of 10.2 months, AF recurred in 11 (14%) patients. The PWF 1 month after ablation was significantly higher in the recurrence group compared to that in the nonrecurrence group (8.8 +/- 3.1 mVms vs 6.5 +/- 2.9 mVms, P = 0.017). The patients with a PWF value >= 9.3 mVms had a significantly greater risk of recurrence after the ablation compared to the patients with a PWF value <9.3 mVms (log-rank test, P<0.001). Higher PWF after cryoballoon ablation was associated with poor prognosis during follow-up."

According to the news reporters, the research concluded: "The PWF may be a useful and noninvasive marker to predict the recurrence of AF.""

For more information on this research see: An ECG Index of P-Wave Force Predicts the Recurrence of Atrial Fibrillation after Pulmonary Vein Isolation. PACE-Pacing and Clinical Electrophysiology, 2016;39(11):1191-1197. PACE-Pacing and Clinical Electrophysiology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting Y. Inden, Nagoya University, Grad Sch Med, Dept. of Cardiol, Nagoya, Aichi, Japan. Additional authors for this research include Y. Inden, M. Ando, Y. Kamikubo, T. Ito, Y. Mizutani, H. Kato, A. Fujii, S. Yanagisawa, M. Hirai and T. Murohara.

Keywords for this news article include: Nagoya, Japan, Asia, Angiology, Risk and Prevention, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Pulmonary Veins, Heart Disease, Nagoya University.

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Researchers at Nagoya University Target Caenorhabditis elegans
(Chaperone complex BAG2-HSC70 regulates localization of
Caenorhabditis elegans leucine-rich repeat kinase LRK-1 to the Golgi)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Caenorhabditis elegans are discussed in a new report.
According to news originating from Nagoya, Japan, by NewsRx correspondents, research stated,
"Mutations in LRRK2 are linked to autosomal dominant forms of Parkinson's disease. We
identified two human proteins that bind to LRRK2: BAG2 and HSC70, which are known to
form a chaperone complex."

Financial supporters for this research include Ministry of Education, Culture and
Science of Japan, Daiko Foundation.

Our news journalists obtained a quote from the research from Nagoya University,
"We characterized the role of their Caenorhabditis elegans homologues, UNC-23 and HSP-1, in
the regulation of LRK-1, the sole homologue of human LRRK2. In C.elegans, LRK-1
determines the polarized sorting of synaptic vesicle (SV) proteins to the axons by excluding SV
proteins from the dendrite-specific transport machinery in the Golgi. In unc-23 mutants, SV
proteins are localized to both presynaptic and dendritic endings in neurons, a phenotype also
observed in lrk-1 deletion mutants. Furthermore, we isolated mutations in the hsp-1 gene that
can suppress the unc-23, but not the lrk-1 defect. We show that UNC-23 determines LRK-1
localization to the Golgi apparatus in cooperation with HSP-1."

According to the news editors, the research concluded: "These results describe a
chaperone-dependent mechanism through which LRK-1 localization is regulated."

For more information on this research see: Chaperone complex BAG2-HSC70
regulates localization of Caenorhabditis elegans leucine-rich repeat kinase LRK-1 to the Golgi.
onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2443)

The news correspondents report that additional information may be obtained from T.
Fukuzono, Division of Biological Science, Graduate School of Science, Nagoya University,
Chikusa-ku, Nagoya, 464-8602, Japan. Additional authors for this research include S.I.
Matsumoto and N. Hisamoto.

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http://dx.doi.org/10.1111/gtc.12338. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Asia, Japan, Nagoya, Kinase, Leucine,
Genetics, Rhabditidae, Life Sciences, Enzymes and Coenzymes, Essential Amino Acids,
Caenorhabditis elegans, Branched Chain Amino Acids.

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Researchers at Nanjing Medical University Report Findings in Oncology (Tumor-derived exosomes in cancer progression and treatment failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology. According to news originating from Nanjing, People's Republic of China, by NewsRx correspondents, research stated, "Exosomes have diameter within the range of 30-100 nm and spherical to cup-shaped nanoparticles with specific surface molecular characteristics, such as CD9 and CD63. These vesicles are present in nearly all human body fluids, including blood plasma/serum, saliva, breast milk, cerebrospinal fluid, urine, semen, and particularly enriched in tumor microenvironment."

Our news journalists obtained a quote from the research from Nanjing Medical University, "Exosomes contain multiple proteins, DNA, mRNA, miRNA, long non-coding RNA, and even genetic materials of viruses/prions. These materials are biochemically and functionally distinct and can be transferred to a recipient cell where they regulate protein expression and signaling pathways. Recently, exosomes are demonstrated to have a close relationship with tumor development and metastasis. Exosomes influence therapeutic effect in cancer patients. In this review, we describe the biogenesis, composition, and function of exosomes."

According to the news editors, the research concluded: "The mechanism on how tumor-derived exosomes contribute to cancer progression and clinical treatment failure is also described, with special focus on their potential applications in cancer therapy."

For more information on this research see: Tumor-derived exosomes in cancer progression and treatment failure. Oncotarget, 2015;6(35):37151-68.

The news correspondents report that additional information may be obtained from S. Yu, Research Center for Clinical Oncology, Nanjing Medical University Affiliated Cancer Hospital, Jiangsu Cancer Hospital and Jiangsu Institute of Cancer Research, Nanjing, Jiangsu Province, People's Republic of China. Additional authors for this research include H. Cao, B. Shen and J. Feng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Nanjing, Genetics, Oncology, Article Review, People's Republic of China.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Multiple Myeloma have been published. According to news reporting originating from Nantong, People's Republic of China, by NewsRx correspondents, research stated, "Cell adhesion-mediated drug resistance (CAM-DR) is one of the mechanisms underlying the drug resistance in multiple myeloma (MM). Ubiquitin-specific protease 14 (USP14) is downregulated in the apoptotic model and upregulated in the adhesive model of MM."

Financial supporters for this research include National Natural Science Foundation of China, Natural Science Foundation of Jiangsu Province.

Our news editors obtained a quote from the research from Nantong University, "This study was undertaken to determine the role of USP14 in CAM-DR of MM cells. We examined the expression of USP14 in the apoptotic model of MM. The mechanism of USP14 in the process of apoptosis was further explored by flow cytometry assay and co-immunoprecipitation. We then performed the cell co-culture and adhesion assay and cell viability assay to investigate the effect of USP14 on adhesive rate and drug resistance in MM. We discovered that USP14 played a negative role in cell apoptosis, which is correlated with Bcl-xl. Moreover, overexpression of USP14 in MM cell adhesion model could enhance the ability of cell adhesion by regulating Wnt-signaling pathways, thereby promoting the CAM-DR in MM."

According to the news editors, the research concluded: "USP14 participates in CAM-DR of MM through acting as a bridge between Bcl-xl apoptotic pathway and Wnt-signaling pathways and may be represented as a good candidate for pursuing clinical trials in MM."


The news editors report that additional information may be obtained by contacting X. Xu, Dept. of Pathology, Affiliated Cancer Hospital of Nantong University, Nantong, Jiangsu Province, People's Republic of China. Additional authors for this research include J. Liu, C. Shen, L. Ding, F. Zhong, Y. Ouyang, Y. Wang and S. He.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ejh.12729. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nantong, Oncology, Protease, Ubiquitins, Drug Resistance, Multiple Myeloma, Paraproteinemias, Drugs and Therapies, Hemostatic Disorders, Enzymes and Coenzymes, Hemorrhagic Disorders, Blood Protein Disorders, People's Republic of China, Immunoproliferative Disorders, Lymphoproliferative Disorders.

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Oncology - Epithelial Ovarian Cancer

Researchers at Nantong University Release New Data on Epithelial Ovarian Cancer (Expression of preoperative KISS1 gene in tumor tissue with epithelial ovarian cancer and its prognostic value)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Oncology - Epithelial Ovarian Cancer are discussed
in a new report. According to news originating from Jiangsu, People's Republic of China, by
NewsRx correspondents, research stated, "Our study aimed to elucidate the role of Kisspeptin
(KISS1) in tumor tissues of patients with epithelial ovarian cancer (EOC) and investigate the
prognostic value of this biomarker. Forty EOC patients and 20 uterine fibroids female patients
with healthy ovaries undergoing cytoreductive surgery between January 2010 and January 2014
in our hospital were enrolled in this study."

Our news journalists obtained a quote from the research from Nantong University,
"KISS1 expression in tumor and normal tissues was detected. Correlations between clinic-
pathologic variables and KISS1 expression in EOC tissues and the prognostic value of KISS1
for overall survival were evaluated. During the follow-up of 11.2 to 62.1 months, the overall
survival rate and mean survival time were 28.9% (11/38) and 38.35 +/- 2.84 months.
Preoperative KISS1 mRNA was higher in tumor tissue than in normal tissue (P <0.001), and it
was associated with histologic grade of tumor, surgical FIGO stage, metastasis, and residual
tumor size (all P<0.05). Multivariate survival analysis indicated significant influence of residual
tumor size (HR=2.357, P=0.039) and preoperative KISS1 mRNA (HR= 0.0001, P<0.001) on
mean survival time. Patients with low KISS1 mRNA expression had shorter survival time than
those with high expression (P=0.001)."

According to the news editors, the research concluded: "Preoperative KISS1 mRNA
was a potential prognostic biomarker for EOC, and high preoperative KISS1 expression
indicated a favorable prognosis."

For more information on this research see:  Expression of preoperative KISS1 gene
in tumor tissue with epithelial ovarian cancer and its prognostic value. Medicine, 2016;95
(46):176-179. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce
Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine -
www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from
L.P. Chen, Nantong University, Affiliated Hosp 2, Dept. of Obstet & Gynaecol, Nantong,
Jiangsu, People's Republic of China. Additional authors for this research include L.P. Chen,

Keywords for this news article include: Jiangsu, People's Republic of China, Asia,
Cancer, Diagnostics and Screening, Genetics, Epithelial Ovarian Cancer, Women's Health,
Oncology, Nantong University.

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Connective Tissue Cells

Researchers at Nanyang Technological University Release New Data on
Connective Tissue Cells (Conditional knockout of N-WASP in mouse
fibroblast caused keratinocyte hyper proliferation and enhanced wound
closure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- New research on Connective Tissue Cells is the subject of a report.
According to news reporting originating from Singapore, Singapore, by NewsRx
correspondents, research stated, "Neural-Wiskott Aldrich Syndrome Protein (N-WASP) is expressed ubiquitously, regulates actin polymerization and is essential during mouse development. We have previously shown that N-WASP is critical for cell-ECM adhesion in fibroblasts."

Our news editors obtained a quote from the research from Nanyang Technological University, "To characterize the role of N-WASP in fibroblast for skin development, we generated a conditional knockout mouse model in which fibroblast N-WASP was ablated using the Cre recombinase driven by Fibroblast Specific Protein promoter (Fsp-Cre). N-WASP(FKO) (N-WASP(fl/fl); Fsp-cre) were born following Mendelian genetics, survived without any visible abnormalities for more than 1 year and were sexually reproductive, suggesting that expression of N-WASP in fibroblast is not critical for survival under laboratory conditions. Histological sections of N-WASP(FKO) mice skin (13 weeks old) showed thicker epidermis with higher percentage of cells staining for proliferation marker (PCNA), suggesting that N-WASP deficient fibroblasts promote keratinocyte proliferation. N-WASP(FKO) mice skin had elevated collagen content, elevated expression of FGF7 (keratinocyte growth factor) and TGF beta signaling proteins. Wound healing was faster in N-WASP(FKO) mice compared to control mice and N-WASP deficient fibroblasts were found to have enhanced collagen gel contraction properties."

According to the news editors, the research concluded: "These results suggest that N-WASP deficiency in fibroblasts improves wound healing by growth factor-mediated enhancement of keratinocyte proliferation and increased wound contraction in mice."

For more information on this research see: Conditional knockout of N-WASP in mouse fibroblast caused keratinocyte hyperproliferation and enhanced wound closure. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting T. Thanabalu, Nanyang Technological University, Sch Biol Sci, Singapore 637551, Singapore. Additional authors for this research include P. Kalailigam, K.W. Tan, H.B. Tan, M.K. Sng, J.S.K. Chan, N.S. Tan and T. Thanabalu.

Keywords for this news article include: Singapore, Singapore, Asia, Connective Tissue Cells, Keratinocytes, Fibroblasts, Genetics, Nanyang Technological University.

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Hematologic Diseases and Conditions - Sideroblastic

Researchers at National Center for Nanoscience and Technology Release New Data on Sideroblastic Anemia (Functional Analysis of GLRX5 Mutants Reveals Distinct Functionalities of GLRX5 Protein)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hematologic Diseases and Conditions - Sideroblastic Anemia are presented in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Glutaredoxin 5 (GLRX5) is a 156 amino acid mitochondrial protein that plays an essential role in mitochondrial iron-sulfur cluster transfer. Mutations in this protein were reported to result in sideroblastic anemia and variant nonketotic hyperglycinemia in human."
Financial supporters for this research include National Basic Research Program of China, MoST 973 program, National Distinguished Youth Scholar Grant of China.

The news correspondents obtained a quote from the research from National Center for Nanoscience and Technology, "Recently, we have characterized a Chinese congenital sideroblastic anemia patient who has two compound heterozygous missense mutations (c. 301 A>C and c. 443 T>C) in his GLRX5 gene. Herein, we developed a GLRX5 knockout K562 cell line and studied the biochemical functions of the identified pathogenic mutations and other conserved amino acids with predicted essential functions. We observed that the K101Q mutation (due to c. 301 A>C mutation) may prevent the binding of [Fe-S] to GLRX5 protein, while L148S (due to c. 443 T>C mutation) may interfere with [Fe-S] transfer from GLRX5 to iron regulatory protein 1 (IRP1), mitochondrial aconitase (m-aconitase) and ferrochelatase. We also demonstrated that L148S is functionally complementary to the K51del mutant with respect to Fe/S-ferrochelatase, Fe/S-IRP1, Fe/S-succinate dehydrogenase, and Fe/S-m-aconitase biosynthesis and lipoylation of pyruvate dehydrogenase complex and a-ketoglutarate dehydrogenase complex. Furthermore, we demonstrated that the mutations of highly conserved amino acid residues in GLRX5 protein can have different effects on downstream Fe/S proteins."

According to the news reporters, the research concluded: "Collectively, our current work demonstrates that GLRX5 protein is multifunctional in [Fe-S] protein synthesis and maturation and defects of the different amino acids of the protein will lead to distinct effects on downstream Fe/S biosynthesis."


Our news journalists report that additional information may be obtained by contacting G. Liu, CAS Key Laboratory for Biomedical Effects of Nanomaterials and Nanosafety, National Center for Nanoscience and Technology, No11 Zhongguancun Beiyitiao, Beijing, 100190, People's Republic of China. Additional authors for this research include Y. Wang, G.J. Anderson, C. Camaschella, Y. Chang and G. Nie.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcb.25267. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Genetics, Dehydrogenase, Ferrochelatase, Sideroblastic Anemia, Enzymes and Coenzymes, People's Republic of China, Hematologic Diseases and Conditions.

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Researchers at National Central University Target Acidosis
(Involvement of TRPV1 and TDAG8 in Pruriception Associated with Noxious Acidosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Acidosis have been presented. According to news reporting from Taoyuan, Taiwan, by NewsRx
journalists, research stated, "Itch and pain are closely related but are distinct sensations. Intradermal injection of acid generates pain in both rodents and humans; however, few studies have addressed the intriguing question of whether acid (protons) can evoke itch like other algogens by spatial contrast activation of single nociceptors."

The news correspondents obtained a quote from the research from National Central University, "Here, we report that (i) citric acid (0.2 mol/L) pH-dependently induced a scratching response in mice when applied intradermally to nape or cheek skin, (ii) acidified buffer elevated intracellular calcium levels in dorsal root ganglion pruriceptors, and (iii) injection of intradermal citric acid (pH 3.0) into the nape induced a pruritogen-like but not algogen-like c-Fos immunoreactivity pattern in the cervical spinal cord. Using pharmacological and genetic approaches, we identified potential acid-sensing channels/receptors involved in acidic citrate-evoked itch. TRPV1, but neither ASIC3 nor TRPA1, is involved in the acidic citrate-induced scratching response. Furthermore, one of the proton-sensing G-protein-coupled receptors, TDAG8, was highly (similar to 71%) expressed in Nppb(+) dorsal root ganglion pruriceptors. Itch induced by acidic citrate, but not alpha-methyl-5-hydroxytryptamine, chloroquine, compound 48/80, or bile acid, was markedly decreased in TDAG8(-/-) mice. In a heterologous expression system, TDAG8 potentiated the acid-induced calcium response by regulating TRPV1."

According to the news reporters, the research concluded: "Thus, protons could evoke pruriception by acting on TDAG8 to regulate TRPV1 activation with its mechanism of future therapeutic relevance."


Our news journalists report that additional information may be obtained by contacting W.H. Sun, Natl Cent Univ, Dept. of Life Sci, Taoyuan, Taiwan. Additional authors for this research include M. Steinhoff, A. Ikoma, Y.C. Chang, Y.R. Cheng, R.C. Kopparaju, S. Ishii, W.H. Sun and C.C. Chen.

Keywords for this news article include: Taoyuan, Taiwan, Asia, Nutritional and Metabolic Diseases and Conditions, Acid-Base Imbalance, Acidosis, Genetics, National Central University.

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Diabetes

Researchers at National Heart Lung and Blood Institute Target Diabetes (Identifying Probable Diabetes Mellitus Among Hispanics/latinos From Four Us Cities: Findings From The Hispanic Community Health Study/study of Latinos)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Diabetes is the subject of a report. According to news reporting originating in Bethesda, Maryland, by NewsRx journalists, research stated, "The aim of this study was to compare the ability of American Diabetes Association (ADA) diagnostic
criteria to identify U.S. Hispanics/Latinos from diverse heritage groups with probable diabetes mellitus and assess cardiovascular risk factor correlates of those criteria."

The news reporters obtained a quote from the research from National Heart Lung and Blood Institute, "Cross-sectional analysis of data from 15,507 adults from 6 Hispanic/Latino heritage groups, enrolled in the Hispanic Community Health Study/Study of Latinos. The prevalence of probable diabetes mellitus was estimated using individual or combinations of ADA-defined cut points. The sensitivity and specificity of these criteria at identifying diabetes mellitus from ADA-defined prediabetes and normoglycemia were evaluated. Prevalence ratios of hypertension, abnormal lipids, and elevated urinary albumin-creatinine ratio for unrecognized diabetes mellitus-versus prediabetes and normoglycemia were calculated. Among Hispanics/Latinos (mean age, 43 years) with diabetes mellitus, 39.4% met laboratory test criteria for probable diabetes, and the prevalence varied by heritage group. Using the oral glucose tolerance test as the gold standard, the sensitivity of fasting plasma glucose (FPG) and hemoglobin A1c-alone or in combination-was low (18, 23, and 33%, respectively) at identifying probable diabetes mellitus. Individuals who met any criterion for probable diabetes mellitus had significantly higher (P <.05) prevalence of most cardiovascular risk factors than those with normoglycemia or prediabetes, and this association was not modified by Hispanic/Latino heritage group. FPG and hemoglobin A1c are not sensitive (but are highly specific) at detecting probable diabetes mellitus among Hispanics/Latinos, independent of heritage group."

According to the news reporters, the research concluded: "Assessing cardiovascular risk factors at diagnosis might prompt multitarget interventions and reduce health complications in this young population."

For more information on this research see: Identifying Probable Diabetes Mellitus Among Hispanics/Latinos From Four Us Cities: Findings From The Hispanic Community Health Study/study Of Latinos. Endocrine Practice, 2016;22(10):1151-1160. Endocrine Practice can be contacted at: Amer Assoc Clinical Endocrinologists, 245 Riverside Avenue, Ste 200, Jacksonville, FL 32202, USA.

Our news correspondents report that additional information may be obtained by contacting M.L. Aviles-Santa, National Heart Lung & Blood Institute, Bethesda, MD 20892, United States. Additional authors for this research include N. Schneiderman, P.J. Savage, R.C. Kaplan, Y.P. Teng, C.M. Perez, E.L. Suarez, J.W. Cai, A.L. Giachello, G.A. Talavera and C.C. Cowie.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Risk and Prevention, Diabetes Mellitus, Community Health, Cardiovascular, Endocrinology, Cardiology, National Heart Lung and Blood Institute.

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Oncology - Breast Cancer

Researchers at National Hospital Organization Target Breast Cancer (Impact of Expression of Vimentin and Axl in Breast Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting from Fukuoka, Japan, by NewsRx journalists, research stated, "The
receptor tyrosine kinase Axl has been reported to be a downstream effector of epithelial-to-mesenchymal transition and to be regulated by vimentin expression in preclinical models. Coexistence of vimentin-positive and Axl-high expression was significantly associated with triple-negative breast cancer and poor prognosis."

Financial support for this research came from Ministry of Education, Culture, Sports, Science, and Technology.

The news correspondents obtained a quote from the research from National Hospital Organization, "Vimentin and AA expression might contribute to the aggressive phenotype in breast cancer patients. The association between Axl and vimentin protein expression has been observed in several cell lines. However, the clinical importance of Axl and vimentin expression in breast cancer have not been fully determined. The expressions of Axl and vimentin were evaluated by immunohistochemistry in a total of 343 patients with invasive ductal carcinoma. The relationships between expression of Axl and vimentin and clinicopathologic characteristics and prognosis were analyzed. Axl expression was classified into high (n = 170) and low (n = 173) expression groups. Axl expression alone was not associated with any clinicopathologic factor or prognosis. Coexistence of vimentin-positive and Axl-high expression was observed in 10.5% (n = 36). Vimentin-positive and AA-high tumors were associated with triple-negative breast cancers (P = .0396) and with poor prognosis in terms of both recurrence-free survival (P = .0126) and overall survival (P = .0005) compared to the other groups, including vimentin-positive and Axl-low tumors, vimentin-negative and Axl-high tumors, and vimentin-negative and Axl-low tumors. Multivariate analysis showed that coexistence of vimentin-positive and Axl-high expression was an independent poor prognostic factor for recurrence-free survival (hazard ratio, 2.78; 95% confidence interval, 1.23-5.68; P = .0158) and overall survival (hazard ratio, 3.72; 95% confidence interval, 1.51-8.47; P = .0059). Coexistence of vimentin-positive and Axl-high expression is a poor prognostic factor for primary breast cancer."

According to the news reporters, the research concluded: "Vimentin and Axl expression might contribute to the aggressive phenotype in breast cancer."

For more information on this research see: Impact of Expression of Vimentin and Axl in Breast Cancer. Clinical Breast Cancer, 2016;16(6):520-526. Clinical Breast Cancer can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA. (Elsevier - www.elsevier.com; Clinical Breast Cancer - www.journals.elsevier.com/clinical-breast-cancer/)

Our news journalists report that additional information may be obtained by contacting E. Tokunaga, Natl Hosp Organization Kyushu Canc Center, Dept. of Breast Oncol, Fukuoka, Japan. Additional authors for this research include E. Tokunaga, Y. Inoue, N. Yamashita, H. Saeki, S. Okano, H. Kitao, E. Oki, Y. Oda and Y. Maehara.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clbc.2016.06.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fukuoka, Japan, Asia, Intermediate Filament Proteins, Women's Health, Breast Cancer, Oncology, Vimentin, National Hospital Organization.

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Researchers at National Hospital for Neurology and Neurosurgery Release New Data on Guillain-Barre Syndrome (Pharmacological treatment other than corticosteroids, intravenous immunoglobulin and plasma exchange for Guillain-Barre syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Autoimmune Diseases and Conditions - Guillain-Barre Syndrome are discussed in a new report. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Plasma exchange and intravenous immunoglobulin, but not corticosteroids, are beneficial in Guillain-Barre syndrome (GBS). The efficacy of other pharmacological agents is unknown."

Our news editors obtained a quote from the research from National Hospital for Neurology and Neurosurgery, "This review was first published in 2011 and updated in 2013 and 2016. To assess the effects of pharmacological agents other than plasma exchange, intravenous immunoglobulin and corticosteroids for GBS. Search methods On 18 January 2016, we searched the Cochrane Neuromuscular Specialised Register, Cochrane Central Register of Controlled Trials, MEDLINE, and Embase for treatments for GBS. We also searched clinical trials registries. Selection criteria We included all randomised controlled trials (RCTs) or quasi-RCTs of acute GBS (within four weeks from onset) of all types and degrees of severity, and in individuals of all ages. We discarded trials that investigated only corticosteroids, intravenous immunoglobulin or plasma exchange. We included other pharmacological treatments or combinations of treatments compared with no treatment, placebo or another treatment. We also identified a number of non-randomised studies during the search, the results of which we considered in the Discussion. Data collection and analysis We followed standard Cochrane methodology. We identified no new trials during this update of the review. In previous versions of this review we identified only very low quality evidence for four different interventions published in four studies. Each study had a high risk of bias in at least one respect. One RCT with 19 participants comparing interferon beta-1a and placebo showed no clinically important difference in any outcome between groups. Another with 10 participants comparing brain-derived neurotrophic factor and placebo showed no clinically important difference in any outcome between groups. A third with 37 participants comparing cerebrospinal fluid filtration and plasma exchange also showed no clinically important difference in any outcome between groups. In a fourth with 43 participants, the risk ratio for an improvement by one or more disability grade after eight weeks was greater with the Chinese herbal medicine tripterygium polyglycoside than with corticosteroids (risk ratio 1.47; 95% confidence interval 1.02 to 2.11); other outcomes in this trial showed no difference. Serious adverse events were uncommon with each of these treatments and in the control groups. Authors' conclusions The quality of the evidence was very low. Three small RCTs, comparing interferon beta-1a or brain-derived neurotrophic factor with placebo, and cerebrospinal fluid filtration with plasma exchange, showed no significant benefit or harm for any of the interventions. A fourth small trial showed that the Chinese herbal medicine, tripterygium polyglycoside, hastened recovery in people with GBS to a greater extent than corticosteroids, but this result needs confirmation."

According to the news editors, the research concluded: "We were unable to draw any useful conclusions from the few observational studies we identified."

For more information on this research see: Pharmacological treatment other than corticosteroids, intravenous immunoglobulin and plasma exchange for Guillain-Barre syndrome.
**Cochrane Database of Systematic Reviews**, 2016;(11):2887-2936. **Cochrane Database of Systematic Reviews** can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting R.A. Hughes, National Hospital for Neurology & Neurosurgery, MRC Center Neuromuscular Dis, London WC1N 3BG, United Kingdom. Additional authors for this research include R.A. Hughes, R.D. Hadden and R. Brassington.

Keywords for this news article include: London, United Kingdom, Europe, Autoimmune Diseases and Conditions of the Nervous System, Peripheral Nervous System Diseases and Conditions, Neuromuscular Diseases and Conditions, Demyelinating Diseases and Conditions, Intravenous Immunoglobulins, Clinical Trials and Studies, Therapy, Article Review, Guillain-Barre Syndrome, Guillain-Barre Syndrome, Polyradiculoneuropathy, Blood Transfusion, Clinical Research, Immunoglobulin G, Polynephropathies, Plasma Exchange, Serum Globulins, Plasmapheresis, Immunoproteins, Blood Proteins, Pharmacology, Immunology, Antibodies, National Hospital for Neurology and Neurosurgery.

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**Ebola Virus**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Ebola Virus is the subject of a report. According to news reporting out of Hamilton, Montana, by NewsRx editors, research stated, "Antiviral therapeutics with existing clinical safety profiles would be highly desirable in an outbreak situation, such as the 2013-2016 emergence of Ebola virus (EBOV) in West Africa. Although, the World Health Organization declared the end of the outbreak early 2016, sporadic cases of EBOV infection have since been reported."

Financial supporters for this research include National Institute of Allergy and Infectious Diseases, National Institutes of Health.

Our news journalists obtained a quote from the research from the National Institutes of Health, "Alisporivir is the most clinically advanced broad-spectrum antiviral that functions by targeting a host protein, cyclophilin A (CypA). A modest antiviral effect of alisporivir against contemporary (Makona) but not historical (Mayinga) EBOV strains was observed in tissue culture. However, this effect was not comparable to observations for an alisporivir-susceptible virus, the flavivirus tick-borne encephalitis virus."

According to the news editors, the research concluded: "Thus, EBOV does not depend on (CypA) for replication, in contrast to many other viruses pathogenic to humans."


Our news journalists report that additional information may be obtained by
Researchers at National Institutes of Health Sciences Report New Data on Myeloid Cells (Cell Type-Specific Responses of Peripheral Blood CD14-Positive Monocytes to Liposome-Encapsulated Immunostimulatory siRNA)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Myeloid Cells. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "RNA interference via small interfering RNA (siRNA) has many potential therapeutic applications, and liposomal-based systems are useful for improving the pharmacokinetics of siRNAs, including their intracellular release and distribution. However, for the successful translation of this technology into clinical applications, it is important to understand how liposomal encapsulation changes the cellular uptake and immunostimulatory adverse effects of siRNAs."

Our news editors obtained a quote from the research from the National Institutes of Health Sciences, "Here we evaluated the cellular uptake and innate immune activation by an immunostimulatory siRNA encapsulated within a liposome carrier in commercially available human peripheral blood mononuclear cells (PBMCs). We found considerable lot-to-lot variation in cytokine production by the PBMCs. Flow cytometric analysis in conjunction with intracellular staining of tumor necrosis factor-alpha (TNF-alpha) revealed that after treating PBMCs with the liposomal siRNA, approximately 5% of the cells produced TNF-alpha and more than 90% of the TNF-alpha-producing cells were positive for CD14 expression. We also showed that peripheral blood CD14(+) monocytes in the cytokine release assay had low inter-lot variabilities in TNF-alpha production, suggesting that the peripheral blood CD14(+) monocyte-based cytokine release assay is a specific means of alleviating the lot-to-lot variability in the cytokine release profiles of commercially available PBMCs."

According to the news editors, the research concluded: "Our results also show that the peripheral blood CD14(+) monocyte-based cytokine release assay can be used to identify the siRNA recognition receptors that mediate individual cytokine production."

For more information on this research see: Cell Type-Specific Responses of Peripheral Blood CD14-Positive Monocytes to Liposome-Encapsulated Immunostimulatory siRNA. Biological & Pharmaceutical Bulletin, 2016;39(11):1859-1867. Biological & Pharmaceutical Bulletin can be contacted at: Pharmaceutical Soc Japan, 2-12-15 Shibuya,
Researchers at National Sun Yat Sen University Target Hepatitis C Virus
(Four weeks of paritaprevir/ritonavir/ombitasvir plus dasabuvir encountering dengue fever resulted in sustained virological response in an HCV patient A case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Hepatitis C Virus is now available. According to news originating from Kaohsiung, Taiwan, by NewsRx correspondents, research stated, "Direct antiviral agent (DAA) has been the standard of care for patients with hepatitis C virus (HCV) infection. Twelve weeks of paritaprevir/ritonavir/ombitasvir plus dasabuvir (PROD) with or without ribavirin has shown to have a sustained virological response at post-treatment 12 weeks (SVR12) rate of > 90% in HCV genotype 1 (HCV-1) patients."

Our news journalists obtained a quote from the research from National Sun Yat Sen University, "We report a HCV-1b patient who received only 25 days of PROD treatment. The patient early terminated treatment due to dengue fever but eventually achieved SVR12. It may attribute to low baseline viral loads and extraordinarily rapid suppression of HCV after treatment day1. The finding may shed light for possible response-guided-therapy for so-called ultra-super-responders in the DAA era."

According to the news editors, the research concluded: "Whether the dengue virus, the Flaviviridae family as with HCV, enhanced the HCV clearance remains unclear and needs further exploration."

For more information on this research see: Four weeks of paritaprevir/ritonavir/ombitasvir plus dasabuvir encountering dengue fever resulted in sustained virological response in an HCV patient A case report. Medicine, 2016;95(47):101-102.
Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from M.L. Yu, Natl Sun Yat Sen Univ, Inst Biomed Sci, Kaohsiung, Taiwan. Additional authors for
Researchers at National University Report New Data on Proinsulin

( Targeting genes in insulin-associated signalling pathway, DNA damage, cell proliferation and cell differentiation pathways by tocotrienol-rich fraction in preventing cellular ... )

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peptide Proteins - Proinsulin. According to news originating from Kuala Lumpur, Malaysia, by NewsRx correspondents, research stated, "Tocotrienols have been known for their antioxidant properties besides their roles in cellular signalling, gene expression, immune response and apoptosis. This study aimed to determine the molecular mechanism of tocotrienol-rich fraction (TRF) in preventing cellular senescence of human diploid fibroblasts (HDFs) by targeting the genes in senescence-associated signalling pathways."

Our news journalists obtained a quote from the research from National University, "Real time quantitative PCR (qRT-PCR) was utilized to evaluate the expression of genes involved in these pathways. Our findings showed that SOD1 and CCS-1 were significantly down-regulated in pre-senescent cells while CCS-1 and PRDX6 were up-regulated in senescent cells (p <0.05). Treatment with TRF significantly down-regulated SOD1 in pre-senescent and senescent HDFs, up-regulated SOD2 in senescent cells, CAT in young HDFs, GPX1 in young and pre-senescent HDFs, and CCS-1 in young, pre-senescent and senescent HDFs (p <0.05). TRF treatment also caused up-regulation of FOXO3A in all age groups of cells (p <0.05). The expression of TP53, PAK2 and CDKN2A was significantly increased in senescent HDFs and treatment with TRF significantly down-regulated TP53 in senescent cells (p <0.05). MAPK14 was significantly up-regulated (p <0.05) in senescent HDFs while no changes was observed on the expression of JUN. TRF treatment, however, down-regulated MAPK14 in young and senescent cells and up-regulated JUN in young and pre-senescent HDFs (p <0.05)."

According to the news editors, the research concluded: "TRF modulated the expression of genes involved in senescence-associated signalling pathways during replicative senescence of HDFs."

For more information on this research see: Targeting genes in insulin-associated signalling pathway, DNA damage, cell proliferation and cell differentiation pathways by tocotrienol-rich fraction in preventing cellular senescence of human diploid fibroblasts. La Clinica Terapeutica, 2015;166(6):e365-73.

The news correspondents report that additional information may be obtained from L.W. Durani, Dept. of Biochemistry, Faculty of Medicine, Level 17, Preclinical Building,
Researchers at Netherlands Cancer Institute Discuss Findings in Nuclear Medicine (Intraoperative 3D Navigation for Single or Multiple 125I-Seed Localization in Breast-Preserving Cancer Surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Nuclear Medicine have been published. According to news originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Mammographic screening has led to the identification of more women with nonpalpable breast cancer, many of them to be treated with breast-preserving surgery. To accomplish radical tumor excision, adequate localization techniques such as radioactive seed localization (RSL) are required."

Our news journalists obtained a quote from the research from Netherlands Cancer Institute, "For RSL, a radioactive I-seed is implanted central in the tumor to enable intraoperative localization using a g-probe. In case of extensive tumor or multifocal carcinoma, multiple I-seeds can be used to delineate the involved area. Preoperative imaging is performed different from surgical positioning; therefore, exact I-seed depth remains unknown during surgery. Twenty patients (mean age, 56.8 years) with 25 implanted I-seeds scheduled for RSL were included. Sixteen patients had 1 I-seed implanted in the primary lesion, 3 patients had 2 I-seeds, and 1 patient had 3 I-seeds. Freehand SPECT localized I-seeds by measuring g-counts from different directions, all registered by an optical tracking system. A reconstruction and visualization algorithm enabled 3-dimensional (3D) navigation toward the I-seeds. Freehand SPECT visualized all I-seeds in primary tumors and provided preincision depth information. The deviation, mean (SD), between the freehand SPECT depth and the surgical depth estimation was 1.9 (2.1) mm (range, 0-7 mm). Three-dimensional freehand SPECT was especially useful identifying multiple implanted I-seeds because the conventional g-probe has more difficulty discriminating I-seeds transcutaneous. Freehand SPECT with 3D navigation is a valuable tool in RSL for both single and multiple implanted I-seeds in breast-preserving cancer surgery."

According to the news editors, the research concluded: "Freehand SPECT provides continuous updating 3D imaging with information about depth and location of the I-seeds contributing to adequate excision of nonpalpable breast cancer."


The news correspondents report that additional information may be obtained from B. Pouw, From the Departments of *Nuclear Medicine and †Surgical Oncology, Netherlands
Researchers at Northern Hospital Report New Data on Heart Disease
(Radiation dose difference between state of the art myocardial perfusion scintigraphy and computed tomography coronary angiography in patients undergoing evaluation for suspected ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Disease. According to news reporting from Melbourne, Australia, by NewsRx journalists, research stated, "Minimisation of radiation exposure with cardiac imaging reduces the potential of secondary side effects. Radiation exposure from myocardial perfusion scintigraphy and computed tomography coronary angiography (CTCA) was compared."

The news correspondents obtained a quote from the research from Northern Hospital, "Overall doses were low with both modalities. Doses were lower in the CTCA group, but by only a small difference of 1.1 mSv."

According to the news reporters, the research concluded: "Radiation exposure should not be the primary consideration when choosing between these two modalities."


Our news journalists report that additional information may be obtained by contacting I.M. Tsay, Cardiology Department, The Northern Hospital, Melbourne, Victoria, Australia. Additional authors for this research include I. Subiakto, M. Asrar Ul Haq, A.V. Castles, K. Allman, U. Hayat, N. Rudd, P. Barlis and W. van Gaal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imj.12969. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Cardiology, Angiography, Heart Disease, Arteriosclerosis, Imaging Technology, Computed Tomography, Myocardial Ischemia, Coronary Artery Disease, Australia and New Zealand, Arterial Occlusive Diseases, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Researchers at Northwick Park Hospital Report New Data on Genitourinary Tract Agents (The role of carbetocin in the prevention and management of postpartum haemorrhage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Genitourinary Tract Agents have been published. According to news reporting out of Harrow, United Kingdom, by NewsRx editors, research stated, “Carbetocin is a new synthetic analogue of oxytocin.”

Our news journalists obtained a quote from the research from Northwick Park Hospital, "It has a longer half life than oxytocin."

According to the news editors, the research concluded: "This review examines the current evidence for the use of carbetocin as an alternative to oxytocin, as a first-line agent in the pharmacological management of the third stage of labour."


Our news journalists report that additional information may be obtained by contacting D.N. Lucas, Northwick Park Hospital, Dept. of Anaesthet, Harrow, Middx, United Kingdom. Additional authors for this research include M.R. Nel and D.N. Lucas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijoa.2016.10.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Harrow, United Kingdom, Europe, Peptide Proteins, Article Review, Posterior Pituitary Hormones, Genitourinary Tract Agents, Drugs and Therapies, Uterotonic Agents, Peptide Hormones, Oxytocin Therapy, Pharmaceuticals, Northwick Park Hospital.

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Researchers at Norwegian University of Science and Technology (NTNU) Report Findings in Ulcerative Colitis (Expression of CCL20 and Its Corresponding Receptor CCR6 Is Enhanced in Active Inflammatory Bowel Disease, and TLR3 Mediates CCL20 ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Inflammatory Bowel Diseases and Conditions - Ulcerative...
Colitis have been presented. According to news reporting from Trondheim, Norway, by NewsRx journalists, research stated, "The chemokine CCL20 and its receptor CCR6 are putative drug targets in inflammatory bowel disease, and CCL20 is a novel IBD predilection gene. Previous findings on the CCL20 response in these diseases are divergent."

The news correspondents obtained a quote from the research from the Norwegian University of Science and Technology (NTNU), "This study was undertaken to examine CCL20 and CCR6 during active and inactive disease, and mechanisms for CCL20 regulation by the innate immune system. As TLR3 has recently emerged as a possible mediator of CCL20 production, we hypothesised that this TLR plays an important role in enterocytic CCL20 production. A large microarray study on colonic pinch biopsies from active and inactive ulcerative colitis and Crohn's disease provided background information. CCL20 and CCR6 were localized and their expression levels assessed in biopsies using in situ hybridization and immunohistochemistry. Regulation of CCL20 was studied in the HT29 cell line using a panel of pattern recognition receptor ligands followed by a TLR3 siRNA assay. CCL20 and CCR6 mRNA abundances were increased during active inflammation (CCL20 5.4-fold in ulcerative colitis and 4.2-fold in Crohn's disease; CCR6 1.8 and 2.0, respectively). CCL20 and CCR6 mRNA positive immune cells in lamina propria were more numerous, and CCL20 immunoreactivity increased massively in the epithelial cells during active inflammation for both diseases. TLR3 stimulation potently induced upregulation and release of CCL20 from HT29 cells, and TLR3 silencing reduced CCL20 mRNA and protein levels. The CCL20-CCR6 axis is involved during active inflammation in both ulcerative colitis and Crohn's disease."

According to the news reporters, the research concluded: "The epithelial cells seem particularly involved in the CCL20 response, and results from this study strongly suggest that the innate immune system is important for activation of the epithelium, especially through TLR3."

For more information on this research see: Expression of CCL20 and Its Corresponding Receptor CCR6 Is Enhanced in Active Inflammatory Bowel Disease, and TLR3 Mediates CCL20 Expression in Colonic Epithelial Cells. *Plos One*, 2015;10(11):e0141710. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting H.K. Skovdahl, Centre of Molecular Inflammation Research, Norwegian University of Science and Technology, Trondheim, Norway. Additional authors for this research include A.v. Granlund, A.E. Østvik, T. Bruland, I. Bakke, S.H. Torp, J.K. Damas and A.K Sandvik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0141710. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Norway, Europe, Genetics, Trondheim, Immunology, Inflammation, Crohn's Disease, Gastroenteritis, Epithelial Cells, Gastroenterology, Ulcerative Colitis, Hemic and Immune Systems, Colonic Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.

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Researchers at Ohio State University Have Reported New Data on Human Genetics (Noncoding RNA: Current Deep Sequencing Data Analysis Approaches and Challenges)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Genetics - Human Genetics are discussed in a new report. According to news reporting out of Columbus, Ohio, by NewsRx editors, research stated, "One of the most significant biological discoveries of the last decade is represented by the reality that the vast majority of the transcribed genomic output comprises diverse classes of noncoding RNAs (ncRNAs) that may play key roles and/or be affected by many biochemical cellular processes (i.e., RNA editing), with implications in human health and disease."

Our news journalists obtained a quote from the research from Ohio State University, "With 90% of the human genome being transcribed and novel classes of ncRNA emerging (tRNA-derived small RNAs and circular RNAs among others), the great majority of the human transcriptome suggests that many important ncRNA functions/processes are yet to be discovered. An approach to filling such vast void of knowledge has been recently provided by the increasing application of next-generation sequencing (NGS), offering the unprecedented opportunity to obtain a more accurate profiling with higher resolution, increased throughput, sequencing depth, and low experimental complexity, concurrently posing an increasing challenge in terms of efficiency, accuracy, and usability of data analysis software."

According to the news editors, the research concluded: "This review provides an overview of ncRNAs, NGS technology, and the most recent/popular computational approaches and the challenges they attempt to solve, which are essential to a more sensitive and comprehensive ncRNA annotation capable of furthering our understanding of this still vastly uncharted genomic territory."


Our news journalists report that additional information may be obtained by contacting D. Veneziano, Ohio State University, Dept. of Canc Biol & Genet, Center Comprehens Canc, Columbus, OH 43210, United States. Additional authors for this research include S. Di Bella, G. Nigita, A. Lagana, A. Ferro and C.M. Croce.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/humu.23066. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Human Genetics, Genetics, Article Review, Ohio State University.

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Researchers at Ohio State University Have Reported New Data on Molecular Oral Microbiology (Periodontal and peri-implant diseases: identical or fraternal infections?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Molecular Oral Microbiology have been published. According to news reporting originating from Columbus, Ohio, by NewsRx correspondents, research stated, "Peri-implant diseases (peri-implantitis and peri-implant mucositis) are bacterially driven infections. Peri-implantitis leads to aggressive bone resorption and eventual loss of the implant."

Our news editors obtained a quote from the research from Ohio State University, "Traditionally, peri-implantitis was regarded as microbially similar to periodontitis, and translocation of periodontal pathogens into the peri-implant crevice was considered as a critical factor in disease causation. However, evidence is emerging to suggest that the peri-implant and periodontal ecosystems differ in many important ways. The purpose of this review is to examine the evidence supporting microbial congruence and discordance in these two communities. Current evidence suggests that osseointegrated implants truly create unique microenvironments that force microbial adaptation and selection."

According to the news editors, the research concluded: "Further studies that revisit the 'microbial reservoir' hypothesis and identify species that play an etiologic role in peri-implant disease and examine their transmission from teeth are needed."

For more information on this research see: Periodontal and peri-implant diseases: identical or fraternal infections? Molecular Oral Microbiology, 2016;31(4):285-301.


The news editors report that additional information may be obtained by contacting P.S. Kumar, Ohio State University, Coll Dental, Div Periodontol, Columbus, OH 43210, United States. Additional authors for this research include D.N. Reed, J.D. Walters and P.S. Kumar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/omi.12124. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Molecular Oral Microbiology, Life Science Research, Genetics, Article Review, Ohio State University.

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Biotechnology - Biologics

Researchers at Okayama University Target Biologics (Tumor-specific delivery of biologics by a novel T-cell line HOZOT)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biotechnology - Biologics. According
to news reporting from Okayama, Japan, by NewsRx journalists, research stated, "Cell-in-cell' denotes an invasive phenotype in which one cell actively internalizes in another. The novel human T-cell line HOZOT, established from human umbilical cord blood, was shown to penetrate a variety of human cancer cells but not normal cells."

The news correspondents obtained a quote from the research from Okayama University, "Oncolytic viruses are emerging as biological therapies for human cancers; however, efficient viral delivery is limited by a lack of tumor-specific homing and presence of pre-existing or therapy-induced neutralizing antibodies. Here, we report a new, intriguing approach using HOZOT cells to transmit biologics such as oncolytic viruses into human cancer cells by cell-in-cell invasion. HOZOT cells were successfully loaded via human CD46 antigen with an attenuated adenovirus containing the fiber protein of adenovirus serotype 35 (OBP-401/F35), in which the telomerase promoter regulates viral replication. OBP-401/F35-loaded HOZOT cells were efficiently internalized into human cancer cells and exhibited tumor-specific killing by release of viruses, even in the presence of anti-viral neutralizing antibodies. Moreover, intraperitoneal administration of HOZOT cells loaded with OBP-401/F35 significantly suppressed peritoneally disseminated tumor growth in mice."

According to the news reporters, the research concluded: "This unique cell-in-cell property provides a platform for selective delivery of biologics into human cancer cells, which has important implications for the treatment of human cancers."

For more information on this research see: Tumor-specific delivery of biologics by a novel T-cell line HOZOT. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com ; Scientific Reports - www.nature.com/srep/)


Keywords for this news article include: Okayama, Japan, Asia, Genetically-Engineered Proteins, Genetic Engineering, Oncolytic Viruses, Biotechnology, Cell Line, Biologics, Oncology, Cancer, Viral, Okayama University.

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clinical outcomes for patients with moderate-advanced chronic periodontitis treated with: scaling and root planing (SRP), SRP with amoxicillin and metronidazole (A+M), SRP with Azithromycin (Az)."

Financial support for this research came from Australian Periodontology Research Foundation (APRF).

The news reporters obtained a quote from the research from Oral Health Center, "Thirty-seven non-smokers with generalized moderate to advanced chronic periodontitis were divided into three treatment groups: SRP, A+M and Az. Patients received the medications after the last SRP session and were reviewed three months later. Changes in clinical parameters were compared between the groups. Separate analyses were executed for: 'all sites', 'molar sites', 'sites with different PPD severities' and 'number of sites with shallow, moderate and deep PPD'. The three groups exhibited improvements in most clinical parameters. At three months, A+M showed a higher reduction in PPD compared to Az in the 'all sites analysis'. Molars exhibited better reduction in BOP and PPD with A+M than SRP. Pocket depth of the 4-6 mm category reduced more in the A+M than SRP. A+M experienced a higher increase in the number of sites with PPD 1-3 mm than Az."

According to the news reporters, the research concluded: "Adjunctive systemic antibiotics in the initial phase of treatment may result in improved clinical outcomes."


Our news correspondents report that additional information may be obtained by contacting A. Saleh, Oral Health Centre of Western Australia, Nedlands, Western Australia, Australia. Additional authors for this research include J. Rincon, A. Tan and M. Firth.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/adj.12415. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the Australian Dental Journal can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Nedlands, Amoxicillin, Ampicillins, Penicillins, Azithromycin, Erythromycin, Metronidazole, Nitroimidazoles, Sulfur Compounds, Drugs and Therapies, Chronic Periodontitis, Beta Lactam Antibiotics, Australia and New Zealand, Mouth Diseases and Conditions, Periodontal Diseases and Conditions.

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Inflammation

Researchers at Osaka University Graduate School of Medicine Discuss Findings in Inflammation (Placental examination: prognosis after delivery of the growth-restricted fetus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Inflammation have been published. According to
news reporting out of Osaka, Japan, by NewsRx editors, research stated, "This article describes the role of placental examination in the prognostic evaluation of fetal growth restriction (FGR) infants. A new comprehensive placental classification system was reported."

Our news journalists obtained a quote from the research from the Osaka University Graduate School of Medicine, "Maternal underperfusion, fetal thrombotic vasculopathy (FTV), villitis (including villitis of unknown etiology and infectious villitis), inflammation, and immature/dysmature villi are important factors affecting FGR prognosis, whereas genomic imprinting is a key factor affecting growth and diseases, as well as placental abnormality. We discuss the role of placental examination in determining FGR prognosis. Maternal underperfusion, fetal thrombotic vasculopathy, and villitis (including villitis of unknown etiology and infectious villitis) are the most important findings affecting FGR prognosis. Although limited, data have suggested an association of inflammation and immature/dysmature villi with postnatal growth in FGR infants. Placental size also contributes postnatally through fetal programming."

According to the news editors, the research concluded: "In addition, placental imprinting can be a key of pre and postnatal growth and diseases, including imprinting disorders, as well as placental abnormalities such as placental mesenchymal dysplasia."

For more information on this research see: Placental examination: prognosis after delivery of the growth-restricted fetus. Current Opinion In Obstetrics & Gynecology, 2016;28 (2):95-100. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Obstetrics & Gynecology - journals.lww.com/co-obgyn/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting M. Tachibana, aDept. of Pediatrics, Osaka University Graduate School of Medicine, Suita bDept. of Pathology and Laboratory Medicine, Osaka Medical Center and Research Institute for Maternal and Child Health, Izumi, Osaka, Japan. Additional authors for this research include M. Nakayama and Y. Miyoshi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/GCO.0000000000000249. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Osaka, Japan, Genetics, Inflammation, Article Review.

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Researchers at Osaka University Graduate School of Medicine Report Findings in Stem Cell Research (A glycoproteomic approach to identify novel glycomarkers for cancer stem cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Stem Cell Research have been published. According to news reporting out of Suita, Japan, by NewsRx editors, research stated, "Most cancers consist of heterogeneous populations of cells with substantial differences in tumorigenicity. Cells that possess self-renewal and tumor-initiating properties are often called cancer stem cells (CSCs)."

Our news journalists obtained a quote from the research from the Osaka University
Graduate School of Medicine, "Since CSCs underlie tumor recurrence and metastasis and are resistant to current anti-cancer therapies, novel therapeutic strategies to efficiently target this subset of cells are needed. Aberrant glycosylation is one of the hallmarks of cancer. Many cancer-associated glycans have been reported to be involved in tumor progression and metastasis, and are used as tumor markers. Over the past several years, we have identified characteristic glycans on CSCs by utilizing recent advances in glycoproteomic technologies."

According to the news editors, the research concluded: "In this review, we would like to summarize a series of our recent studies and discuss possible applications of glycomarkers for CSCs."


Our news journalists report that additional information may be obtained by contacting A. Sawanobori, Dept. of Molecular Biochemistry & Clinical Investigation, Osaka University Graduate School of Medicine, Suita, Japan. Additional authors for this research include K. Moriwaki, S. Takamatsu, Y. Kamada and E. Miyoshi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pmic.201500472. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Suita, Japan, Cancer, Oncology, Article Review, Stem Cell Research.

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Oncology - Breast Cancer

Researchers at Oxford Brookes University Release New Data on Breast Cancer (Breast cancer osteomimicry and its role in bone specific metastasis; an integrative, systematic review of preclinical evidence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "Metastasis accounts for most of the deaths from breast cancer and the preference of invasive breast cancer metastasising to bone has been widely reported. However, the biological basis of breast cancer osteotropism is not fully understood."

Our news journalists obtained a quote from the research from Oxford Brookes University, "This paper provides, for the first time, an integrative, systematic review of evidence of molecular factors that have functional roles in the homing of metastatic breast cancer to the bone. Pubmed, Web of Science and EBSCOhost were searched using keywords and synonyms for molecular, metastasis, breast cancer and bone to identify articles published between January 2004 and August 2016. 4491 potentially relevant citations were retrieved. 63 articles met the inclusion criteria, which were primary studies reporting evidence of molecular factors that have functional roles in predisposing breast cancer bone metastasis in vivo. 12 of those 63 articles that additionally met quality criteria were included in the review. Extracted data were tabulated and key findings that indicated biological mechanisms involved in breast cancer metastasis to..."
bone were synthesised. 15 proteins expressed by breast cancer cells were identified as factors that mediate breast cancer bone metastasis: ICAM-1, cadherin-11, osteoactivin, bone sialoprotein, CCN3, IL-11, CCL2, CITED2, CXCR4, CTGF, OPN, CX(3)CR1, TWIST1, adrenomedullin and Enpp1. Upregulation or overexpression of one or more of them by breast cancer cells resulted in increased breast cancer metastasis to bone in vivo, except for CCL2 where bone-metastatic cells showed a reduced expression of this factor. All factors identified, here expressed by breast cancer cells, are proteins that are normally expressed in the bone microenvironment and linked to physiologic bone functions. All have a functional role in one of more of the following: cell proliferation and differentiation, bone mineralization and remodelling, cell adhesion and/or chemokine signalling. Six of them (cadherin-11, ICAM-1, OPN, CX3CR1, CCN3 and osteoactivin) have a reported function in cell adhesion and another eight (CCN3, osteoactivin, Enpp1, IL-11, CTGF, TWIST1, adrenomedullin and CITED2) are reported to be involved in cell proliferation and differentiation. This review collates and synthesises published evidence to increase our understanding of the biology of breast cancer osteomimicry in the development of bone metastasis.

According to the news editors, the research concluded: "Findings of this review suggest that changes in expression of proteins in breast cancer cells that confer osteomimicry facilitate homing to bone to enable the development of bone metastasis."


The news correspondents report that additional information may be obtained from S.A. Brooks, Oxford Brookes University, Dept. of Biol & Med Sci, Oxford OX3 0BP, United Kingdom. Additional authors for this research include S.A. Brooks and V. Lavender.

Keywords for this news article include: Oxford, United Kingdom, Europe, Cell Proliferation, Article Review, Women's Health, Bone Research, Breast Cancer, Oncology, Oxford Brookes University.

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Eye Diseases and Conditions - Optic Atrophy

Researchers at Paracelsus Medical University Report New Data on Optic Atrophy (Disturbed mitochondrial and peroxisomal dynamics due to loss of MFF causes Leigh-like encephalopathy, optic atrophy and peripheral neuropathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Eye Diseases and Conditions - Optic Atrophy have been published. According to news originating from Salzburg, Austria, by NewsRx correspondents, research stated, "Mitochondria are dynamic organelles which undergo continuous fission and fusion to maintain their diverse cellular functions. Components of the fission machinery are partly shared between mitochondria and peroxisomes, and inherited defects in two such components (dynamin-related protein (DRP1) and ganglioside-induced
differentiation-associated protein 1 (GDAP1)) have been associated with human disease."

Our news journalists obtained a quote from the research from Paracelsus Medical University, "Deficiency of a third component (mitochondrial fission factor, MFF) was recently reported in one index patient, rendering MFF another candidate disease gene within the expanding field of mitochondrial and peroxisomal dynamics. Here we investigated three new patients from two families with pathogenic mutations in MFF. The patients underwent clinical examination, brain MRI, and biochemical, cytological and molecular analyses, including exome sequencing. The patients became symptomatic within the first year of life, exhibiting seizures, developmental delay and acquired microcephaly. Dysphagia, spasticity and optic and peripheral neuropathy developed subsequently. Brain MRI showed Leigh-like patterns with bilateral changes of the basal ganglia and subthalamic nucleus, suggestive of impaired mitochondrial energy metabolism. However, activities of mitochondrial respiratory chain complexes were found to be normal in skeletal muscle. Exome sequencing revealed three different biallelic loss-of-function variants in MFF in both index cases. Western blot studies of patient-derived fibroblasts indicated normal content of mitochondria and peroxisomes, whereas immunofluorescence staining revealed elongated mitochondria and peroxisomes. Furthermore, increased mitochondrial branching and an abnormal distribution of fission-mediating DRP1 were observed. Our findings establish MFF loss of function as a cause of disturbed mitochondrial and peroxisomal dynamics associated with early-onset Leigh-like basal ganglia disease."

According to the news editors, the research concluded: "We suggest that, even if laboratory findings are not indicative of mitochondrial or peroxisomal dysfunction, the co-occurrence of optic and/or peripheral neuropathy with seizures warrants genetic testing for MFF mutations."

For more information on this research see: Disturbed mitochondrial and peroxisomal dynamics due to loss of MFF causes Leigh-like encephalopathy, optic atrophy and peripheral neuropathy. Journal of Medical Genetics, 2016;53(4):270-8. (BMJ Publishing Group - group.bmj.com/; Journal of Medical Genetics - jmg.bmj.com/)

The news correspondents report that additional information may be obtained from J. Koch, Dept. of Pediatrics, Paracelsus Medical University Salzburg, Salzburg, Austria. Additional authors for this research include R.G. Feichtinger, P. Freisinger, M. Pies, F. Schrodol, A. Iuso, W. Sperl, J.A. Mayr, H. Prokisch and T.B Haack.

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Keywords for this news article include: Austria, Salzburg, Genetics, Seizures, Organelles, Microbodies, Peroxisomes, Mitochondria, Optic Atrophy, Cellular Structures, Intracellular Space, Cytoplasmic Vesicles, Peripheral Neuropathy, Subcellular Fractions, Cytoplasmic Structures, Neurologic Manifestations, Eye Diseases and Conditions.

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Researchers at Pediatric Research Institute Have Reported New Data on Neuroblastomas (Combating autophagy is a strategy to increase cytotoxic effects of novel ALK inhibitor entrectinib in neuroblastoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Neuroblastomas. According to news reporting originating in Padua, Italy, by NewsRx journalists, research stated, "Neuroblastoma (NB) is a threatening childhood malignancy. Its prognosis is affected by several morphological, and biological characteristics, including the constitutive expression of ALK tyrosine kinase."

The news reporters obtained a quote from the research from Pediatric Research Institute, "In this study we examined the therapeutic potential of a novel ALK inhibitor, entrectinib, in obliterating NB tumor cells. Entrectinib showed the growth-inhibitory effects on NB cells with a 50% inhibitory concentration range of 0.03-5 mM. In the ALK-dependent cells, entrectinib mediated G1-arrest, which was associated with modified expression of multiple cell-cycle regulators. Down-regulation of Ki-67, and attenuated phosphorylation of ERK1/2, and STAT3, correlated with observed antiproliferative capacity of entrectinib. Initial cytostatic activity of entrectinib was followed by concentration-dependent apoptotic cell death, and Caspase-3 activation. However, we delineated a reduced sensitivity of ALK mutated NB cells to entrectinib, and demonstrated strong activation of autophagy in SH-SY5YF1174L NB cell line. Abrogation of autophagy by chloroquine increased significantly the toxicity of entrectinib, as confirmed by enhanced death rate, and PARP protein cleavage in SH-SY5YF1174L cells. In aggregate, our data show that entrectinib inhibits proliferation, and induces G1-arrest, and apoptosis in NB cells."

According to the news reporters, the research concluded: "We propose entrectinib for further consideration in treatment of NB, and recommend pharmacological inhibition of autophagy to be explored for a combined therapeutic approach in NB patients that might develop resistance to entrectinib."

For more information on this research see: Combating autophagy is a strategy to increase cytotoxic effects of novel ALK inhibitor entrectinib in neuroblastoma cells. Oncotarget, 2016;7(5):5646-63.

Our news correspondents report that additional information may be obtained by contacting S. Aveic, Neuroblastoma Laboratory, Pediatric Research Institute, Citta della Speranza, Padua, Italy. Additional authors for this research include M. Pantile, A. Seydel, M.R. Esposito, C. Zanon, G. Li and G.P Tonini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6778. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Padua, Italy, Europe, Genetics, Oncology, Hematology, Neuroblastomas.

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Researchers at Peking Union Medical College Hospital Release New Data on Non-Small Cell Lung Cancer (Relationship between circulating tumour cell count and prognosis following chemotherapy in patients with advanced non-small-cell lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "This study investigated whether circulating tumor cells (CTC) are detectable in patients with non-small cell lung cancer (NSCLC) and whether CTC count could provide prognostic information or serve as an indicator of patient response to chemotherapy. We enrolled 46 patients with newly diagnosed or recurrent NSCLC."

Financial support for this research came from Peking Union Medical College Hospital.

Our news journalists obtained a quote from the research from Peking Union Medical College Hospital, "CTC were measured at baseline in all patients and in 23 patients, CTC were also measured before every chemotherapy cycle. The relationship between CTC count and tumor size was analysed. CTC were present in 40 patients (87%); among them, 29 (63%) had a CTC count of (>=)3 cells/3.2 mL, 17 (37%) had a CTC count of (>=)5 cells/3.2 mL and 7 (15.2%) had a CTC count of (>=)8 cells/3.2 mL. The median progression-free survival (PFS) and overall survival (OS) were 7.3 months and 16 months, respectively. A CTC count of more than eight prior to chemotherapy was a strong predictor of reduced PFS (p=0.018) and OS (p=0.026). A multivariate analysis indicated that baseline CTC count was an independent negative prognostic factor for survival. However, no correlation was observed between CTC count and tumor size after two chemotherapy cycles, its relationship with chemotherapy response still needs to be defined."

According to the news editors, the research concluded: "Baseline CTC count is an independent negative prognostic factor for NSCLC; The relationship of CTC and survival after chemotherapy still needs to be defined."


Our news journalists report that additional information may be obtained by contacting Z. Zhang, Dept. of Respiratory Medicine, Peking Union Medical College Hospital, Peking Union Medical College, Chinese Academy of Medical Sciences, Beijing, People's Republic of China. Additional authors for this research include Y. Xiao, J. Zhao, M. Chen, Y. Xu, W. Zhong, J. Xing and M. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/resp.12696. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Oncology, Chemotherapy, Lung Neoplasms, Drugs and Therapies, People's Republic of China, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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Researchers at Peking Union Medical College Hospital Report Findings in Colon Cancer (Molecular spectrum of KRAS, NRAS, BRAF and PIK3CA mutations in Chinese colorectal cancer patients: analysis of 1,110 cases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Mutations in genes such as KRAS, NRAS, BRAF and PIK3CA have become an important part of colorectal carcinoma evaluation. The aim of this study was to screen for mutations in these genes in Chinese patients with colorectal cancer (CRC) and to explore their correlations with certain clinicopathological parameters."

Our news journalists obtained a quote from the research from Peking Union Medical College Hospital, "We tested mutations in the KRAS (exons 2, 3 and 4), NRAS (exons 2, 3 and 4), PIK3CA (exon 20) and BRAF (exon 15) genes using reverse transcriptase-polymerase chain reaction (RT-PCR) and Sanger sequencing in a large cohort of 1,110 Chinese CRC patients who underwent surgical resection at one of three major teaching hospitals located in different regions of China. The prevalence rates of KRAS, NRAS, BRAF and PIK3CA mutations were 45.4%, 3.9%, 3.1% and 3.5%, respectively. Mutant KRAS was associated with the mucinous subtype and greater differentiation, while mutant BRAF was associated with right-sided tumors and poorer differentiation."

According to the news editors, the research concluded: "Our results revealed differences in the genetic profiles of KRAS, NRAS, PIK3CA and BRAF at mutation hotspots between Chinese CRC patients and those of Western countries, while some of these gene features were shared among patients from other Asian countries."

For more information on this research see: Molecular spectrum of KRAS, NRAS, BRAF and PIK3CA mutations in Chinese colorectal cancer patients: analysis of 1,110 cases. Scientific Reports, 2015;5():18678. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting J. Zhang, Dept. of Pathology, Peking Union Medical College Hospital, Chinese Academy of Medical Science, Beijing, People's Republic of China. Additional authors for this research include J. Zheng, Y. Yang, J. Lu, J. Gao, T. Lu, J. Sun, H. Jiang, Y. Zhu, Y. Zheng, Z. Liang and T. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18678. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Genetics, Oncology, Colon Cancer, Epidemiology, Gastroenterology, Colorectal Research, People's Republic of China.

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Researchers at Peking Union Medical College Target Pheochromocytomas (The Roles of PI3K/AKT/mTOR and MAPK/ERK Signaling Pathways in Human Pheochromocytomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pheochromocytomas. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "The roles of PI3K/AKT/mTOR and MAPK/ERK pathways involved in the pathogenesis of pheochromocytoma and paraganglioma (PPGL) were demonstrated mostly by in vitro studies with rat or mouse cells and were mainly studied at transcriptional level. This study aimed to investigate the effect of these pathways on the proliferation of human PPGL cells and the activation of these pathways in PPGLs."

Financial supporters for this research include National Key Program of Clinical Science of China, Scientific Research Foundation for the Returned Overseas Chinese Scholars.

The news correspondents obtained a quote from the research from Peking Union Medical College, "Human PPGL cells were treated with sunitinib and inhibitors of PI3K (LY294002), MEK1/2 (U0126), and mTORC1/2 (AZD8055). Cell proliferation was detected by MTT assay. Protein phosphorylation was detected by Western blotting. Inmost PPGLs, AKT, ERK1/2, and mTOR were activated. LY294002 (10 mu M), U0126 (10 mu M), AZD8055 (1 mu M), and sunitinib (1 mu M) inhibited PPGL cell proliferation in ten primary cultures of tissues, including four from patients with gene mutations. MEK1/2 inhibitor decreased mTOR phosphorylation. Inhibition of mTOR reduced phosphorylation of AKT and ERK1/2. Sunitinib inhibited phospho-ERK1/2 and phospho-mTOR. Our study suggested that PI3K/AKT/mTOR and MAPK/ERK signaling pathways play vital roles in human PPGL and are activated in most PPGLs."

According to the news reporters, the research concluded: "Inhibiting multiple pathways might be a novel therapeutic approach for PPGLs."


Our news journalists report that additional information may be obtained by contacting A.L. Tong, Peking Union Med College, Beijing 100730, People's Republic of China. Additional authors for this research include A.L. Tong, F. Wang, Y.Y. Cui, C.Y. Li, Y.S. Zhang and Z.L. Yan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/5286972. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Pheochromocytomas, Tyrosine Kinase Inhibitors, VEGF - VEGFR Inhibitors, Multikinase Inhibitors, Drugs and Therapies, Cell Proliferation, VEGFR Inhibitors, Pheochromocytoma, Antineoplastics, Endocrinology, Sunitinib, Genetics, Peking Union Medical College.

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Researchers at Peking University Describe Findings in Antipsychotics
(A pharmacogenomic study revealed an association between SLC6A4 and risperidone-induced weight gain in Chinese Han population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antipsychotics. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "We carried out a pharmacogenomic study in order to identify susceptible genes for antipsychotics induced weight gain within the Chinese Han population. We enrolled 216 patients with schizophrenia in our study."

Our news editors obtained a quote from the research from Peking University, "All of them underwent risperidone monotherapy, and fulfilled 4-week follow-up. Weight gain was measured before treatment and 4 weeks later. Seven hundred and sixty-eight SNPs from 85 genes were calculated for association with weight gain percentage. Fifty-seven SNPs located at 16 genes with a p-value less than 0.05.4 SNPs located on serotonin transporter gene (solute carrier family 6, member 4, SLC6A4) remained significant after multistest correction (rs3813034, p=0.000357, q=0.08, rs1042173, rs4325622, rs9303628, p=0.000451, q=0.08)."

According to the news editors, the research concluded: "SLC6A4 might be susceptible gene for risperidone-induced weight gain within the Chinese Han population."

For more information on this research see: A pharmacogenomic study revealed an association between SLC6A4 and risperidone-induced weight gain in Chinese Han population. Pharmacogenomics, 2015;16(17):1943-9. (Nature Publishing Group - www.nature.com/tpj/)

The news editors report that additional information may be obtained by contacting F. Wang, Peking University Sixth Hospital (Institute of Mental Health), Beijing 100191, People's Republic of China. Additional authors for this research include W. Mi, W. Ma, C. Ma, Y. Yang, H. Zhang, B. Du, K. Li, C. Liu, L. Wang, T. Lu, H. Zhang, L. Lv, D. Zhang and W. Yue.

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Keywords for this news article include: Asia, Biotechnology, Pharmaceuticals, Beijing, Genetics, Pharmacology, Pharmacogenomics, Drugs and Therapies, Risperidone Therapy, Atypical Antipsychotics, Psychotherapeutic Agents, People's Republic of China.

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Drugs and Therapies - Radiotherapy

Researchers at Peking University Report New Data on Radiotherapy (I-125 interstitial brachytherapy for the treatment of myoepithelial carcinoma of the oral and maxillofacial region)
According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "This study evaluated the treatment of myoepithelial carcinoma (MC) of the oral and maxillofacial region with radioactive iodine (I-125) seed implantation. Twenty-seven patients with MC in the oral and maxillofacial region were treated with I-125 seed implantation between March 2006 and October 2012."

Our news journalists obtained a quote from the research from Peking University, "Thirteen of the 27 patients (8/8 patients with primary disease and 5/19 patients with recurrent disease) were treated on an adjuvant setting after resections, and the other 14 patients were treated by brachytherapy after a recurrence precluding a surgical resection for salvage. The sites of the MC were the parotid for 18 patients, oral cavity for 2 patients, and base of skull for 7 patients. Recurrence-free survival (RFS), overall survival (OS) rates, and side effects were retrospectively reviewed. Patients were followed for 6-105 months (median 37 months). The 3- and 5-year RFS rates were 51.9% and 46.1%, respectively. The 3- and 5-year OS rates were 68.6% and 51.5%, respectively. The OS and RFS were significantly better among the 8 patients treated upfront in comparison with the 19 patients treated for salvage at relapse. The OS was worst for the 7 patients with base of skull region disease. No severe complications were observed during followup. This study showed I-125 brachytherapy is a feasible and effective modality for the treatment of MC."

According to the news editors, the research concluded: "These findings should be interpreted cautiously due to the small number of patients and the relatively short followup."


The news correspondents report that additional information may be obtained from J.G. Zhang, Peking University, Sch & Hosp Stomatol, Dept. of Oral & Maxillofacial Surg, Beijing, People's Republic of China. Additional authors for this research include X.M. Lv, Y. Shi, Y. Zhang, G.Y. Yu and J.G. Zhang.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Drugs and Therapies, Brachytherapy, Radiotherapy, Peking University.

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Oncology - Esophageal Cancer

Researchers at People's Hospital Release New Data on Esophageal Cancer (miR-200a-3p promotes the proliferation of human esophageal cancer cells by post-transcriptionally regulating cytoplasmic collapsin response mediator protein-1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Esophageal Cancer have been published. According to news reporting originating in Zhengzhou, People's Republic of China, by NewsRx journalists, research stated, "The dysregulation of cytoplasmic collapsin response
mediator protein 1 (CRMP1) has been reported in lung cancer, medulloblastoma and esophageal cancer. However, the role of CRMP1 and its regulatory mechanisms in esophageal cancer remain unclear."

The news reporters obtained a quote from the research from People's Hospital, "In this study, we demonstrated that CRMP1 expression was downregulated in esophageal cancer tissues and that there were differences in its expression levels in different esophageal cancer cell lines. We found that CRMP1 overexpression inhibited the proliferation of esophageal cancer cells, whereas the silencing of CRMP1 promoted cell proliferation. We performed an analysis of potential microRNA (miRNA or miR) target sites using a commonly used prediction algorithm (TargetScan). The algorithm predicted that miR-200a-3p targets the 3 untranslated region (3UTR) of CRMP1. Further experiments confirmed this prediction. In addition, we found that miR-200a-3p promoted the proliferation of esophageal cancer cells."

According to the news reporters, the research concluded: "Thus, our findings indicate that miR-200a-3p promotes the proliferation of human esophageal cancer cells by post-transcriptionally regulating CRMP1."


Our news correspondents report that additional information may be obtained by contacting Y.Z. Zang, Peoples Hosp Henan Prov, Dept. of Otolaryngol, Zhengzhou 450003, Henan, People's Republic of China. Additional authors for this research include Y. Tai, B.L. Wan and X.D. Jia.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Intracellular Space, Esophageal Cancer, Gastroenterology, Cytoplasm, Oncology, People's Hospital.

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samples were obtained pre-and post-treatment to analyse pharmacokinetics and pharmacodynamic changes in CD14(+) CD16(+) monocytes, urinary N-terminal telopeptide (uNTX), alanine/aspartate aminotransferases (ALT/AST) and creatine kinase (CK); tissue biopsy samples were taken to evaluate macrophage populations and T cells using immunohistochemistry. Clinical efficacy assessments included the Cutaneous Lupus Erythematosus Disease Area and Severity Index (CLASI). Among 28 randomized/analysed patients, peak/trough plasma concentrations increased in a greater-than-dose-proportional manner with dose increases from 100 to 150 mg. Statistically significant differences were observed between active treatment and placebo groups in changes from baseline in CD14(+) CD16(+) cells, uNTX, ALT, AST and CK levels at most time-points. The numbers, density and activation states of tissue macrophages and T cells did not change from baseline to treatment end. No between-group differences were seen in CLASI. Patients receiving PD-0360324 reported significantly more adverse events than those receiving placebo, but no serious adverse events."

According to the news reporters, the research concluded: "In patients with CLE, 100 and 150 mg PD-0360324 every 2 weeks for 3 months suppressed a subset of circulating monocytes and altered activity of some tissue macrophages without affecting cell populations in CLE skin lesions or improving clinical end-points."

For more information on this research see: Monoclonal antibody against macrophage colony-stimulating factor suppresses circulating monocytes and tissue macrophage function but does not alter cell infiltration/activation in cutaneous lesions or clinical outcomes in patients with cutaneous lupus er. *Clinical & Experimental Immunology*, 2015;183(2):258-70. (Wiley-Blackwell - www.wiley.com/; Clinical & Experimental Immunology - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2249)

Our news correspondents report that additional information may be obtained by contacting K. Masek-Hammerman, Drug Safety Research and Development, Pfizer, Andover, MA, United States. Additional authors for this research include E. Peeva, A. Ahmad, S. Menon, M. Afsharvand, R. Peng Qu, J.B. Cheng, J. Syed, Y. Zhan, S.P. O'Neil, S. Pleasic-Williams, L.A. Cox and D. Beidler.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cei.12705. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Andover, Cytokines, Monocytes, Immunology, Blood Cells, Dermatology, Massachusetts, United States, Cell Research, Glycoproteins, Myeloid Cells, Blood Proteins, Immunoglobulins, Bone Marrow Cells, Biological Factors, Mononuclear Leukocytes, Connective Tissue Cells, Hemic and Immune Systems.

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**Disease Attributes - Chronic Disease**

**Researchers at Public Health Agency of Canada Describe Findings in Chronic Disease (Advancing health equity to improve health: the time is now)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Current study results on Disease Attributes - Chronic Disease have been published. According to news reporting from Ottawa, Canada, by NewsRx journalists, research stated, "Health inequities, or avoidable inequalities in health between groups of people, are increasingly recognized and tackled to improve public health. Canada's interest in health inequities goes back over 40 years, with the landmark 1974 Lalonde report, and continues with the 2011 Rio Political Declaration on Social Determinants of Health, which affirmed a global political commitment to implementing a social determinants of health approach to reducing health inequities."

The news correspondents obtained a quote from the research from the Public Health Agency of Canada, "Research in this area includes documenting and tracking health inequalities, exploring their multidimensional causes, and developing and evaluating ways to address them. Inequalities can be observed in who is vulnerable to infectious and chronic diseases, the impact of health promotion and disease prevention efforts, how disease progresses, and the outcomes of treatment. Many programs, policies and projects with potential impacts on health equity and determinants of health have been implemented across Canada. Recent theoretical and methodological advances in the areas of implementation science and population health intervention research have strengthened our capacity to develop effective interventions."

According to the news reporters, the research concluded: "With the launch of a new health equity series this month, the journals Canada Communicable Disease Report and Health Promotion and Chronic Disease Prevention in Canada will continue to reflect and foster analysis of social determinants of health and focus on intervention studies that advance health equity."

For more information on this research see: Advancing health equity to improve health: the time is now. Health Promotion and Chronic Disease Prevention In Canada, 2016;36 (2):17-20.

Our news journalists report that additional information may be obtained by contacting B. Jackson, Social Determinants and Science Integration Directorate, Health Promotion and Chronic Disease Prevention Branch, Public Health Agency of Canada, Ottawa, Ontario, Canada.

Keywords for this news article include: Ottawa, Canada, Ontario, Chronic Disease, Disease Attributes, Risk and Prevention, North and Central America.

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**Acetanilides**

**Researchers at Qinghai University Discuss Findings in Acetanilides (Pharmacokinetics of Lidocaine Hydrochloride Metabolized by CYP3A4 in Chinese Han Volunteers Living at Low Altitude and in Native Han and Tibetan Chinese Volunteers Living at ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Acetanilides have been presented. According to news originating from Xining, People's Republic of China, by NewsRx correspondents, research stated, "To investigate the pharmacokinetics of lidocaine hydrochloride metabolized by cytochrome P450 3A4 (CYP3A4) in Chinese Han volunteers living at low altitude (LA) and in native Han and Tibetan Chinese volunteers living at high altitude, lidocaine hydrochloride 10 mg was given by intramuscular injection to 3 groups: Han volunteers living at LA, and native
Han and Tibetan volunteers living at a high altitude. Blood samples were collected before the (baseline) study drug was given and at 0.25, 0.5, 1.0, 1.5, 2.0, 3.0, 4.0, 6.0, 8.0 h after study drug administration."

Our news journalists obtained a quote from the research from Qinghai University, "Lidocaine hydrochloride in plasma was determined by RP-HPLC. Pharmacokinetics parameters of lidocaine hydrochloride showed that there were no significant difference between the native Han and Tibetan volunteers, but the t(1/2) was 29.8 and 29.8% higher in 2 groups, respectively, than in the LA group. To study related mechanism, the effects of exposure to chronic high-altitude hypoxia (CHH) on the activity and expression of CYP3A1 were examined in rats. Rats were divided into LA, chronic moderate altitude hypoxia, and CHH groups. CHH caused significant decreases in the activity and protein and mRNA expression of rat CYP3A1 in vivo."

According to the news editors, the research concluded: "This study found significant changes in the disposition of lidocaine hydrochloride in native healthy Tibetan and Han Chinese subjects living at a high altitude in comparison to healthy Han Chinese subjects living at LA, it might be due to significant decreases in the activity and protein and mRNA expression of CYP3A4 under CHH condition."


The news correspondents report that additional information may be obtained from J. Zhang, College of Eco-Environmental Engineering, Qinghai University, Xining, People's Republic of China. Additional authors for this research include J. Zhu, X. Yao, Y. Duan, X. Zhou, M. Yang and X. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443332. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antiarrhythmic Agents, Pharmaceuticals, Xining, Acetanilides, Pharmacokinetics, Lidocaine Therapy, Drugs and Therapies, Cardiovascular Agents, Ophthalmic Anesthetics, Ophthalmic Preparations, People's Republic of China, Local Injectable Anesthetics.

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Transplant Medicine - Kidney Transplants

Researchers at Queen Elizabeth Hospital Target Kidney Transplants (Cardiovascular, muscular and perceptual contributions to physical fatigue in prevalent kidney transplant recipients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Transplant Medicine - Kidney Transplants are presented in a new report. According to news reporting from Birmingham, United Kingdom, by NewsRx journalists, research stated, "Physical fatigue is debilitating and common among kidney transplant recipients (KTRs). This study investigated the mechanistic aetiology of physical fatigue in this setting through examinations of muscle mass, muscular and cardiovascular
function, and perceived exertion."

Funders for this research include British Renal Society, West Midlands Strategic Health Authority.

The news correspondents obtained a quote from the research from Queen Elizabeth Hospital, "The incidence of physical fatigue, its association with quality of life (QoL), and the predictors of perceived exertion, were evaluated. This single-centre observational cross-sectional study enrolled 55 KTRs. Muscle mass was quantified using dual-energy x-ray absorptiometry. Muscular function was assessed by jumping mechanography. Cardiovascular function (maximal oxygen consumption and oxygen pulse) was estimated during submaximal exercise testing, with perceived exertion determined using age-adjusted Borg scale-ratings. Physical fatigue was measured using Multi-Dimensional Fatigue Inventory-20. QoL was assessed using Medical Outcomes Study Short Form-36. Demographic, clinical, nutritional, psychosocial and behavioural predictors of perceived exertion were assessed. Of clinical importance, increased perceived exertion was the only independent predictor of physical fatigue (p=0.001), with no association found between physical fatigue and muscular or cardiovascular parameters. Physical fatigue occurred in 22% of KTRs, and negatively impacted on QoL (p <0.001). Predictors of heightened perception included anxiety (p <0.05) and mental fatigue (p <0.05)."

According to the news reporters, the research concluded: "Perception is a key determinant of physical fatigue in KTRs, paving the way for future interventions."


Our news journalists report that additional information may be obtained by contacting W. Chan, Dept. of Nephrology & Kidney Transplantation, Queen Elizabeth Hospital Birmingham, Birmingham, UK. Additional authors for this research include D. Jones, J.A. Bosch, J. McPhee, N. Crabtree, P.G. McTernan, O. Kaur, N. Inston, S. Moore, A. McClean, L. Harper, A.C. Phillips and R. Borrows.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tri.12727. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Transplant International is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Biomedicine, Europe, Surgery, Birmingham, Cardiology, United Kingdom, Cardiovascular, Transplantation, Organ Transplants, Kidney Transplants, Transplant Medicine.

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Speech, Language and Learning Disabilities and…

Researchers at Radboud University Medical Center Discuss Findings in Learning Disorders (Healthy living according to adults with intellectual disabilities: towards tailoring health promotion initiatives)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Speech, Language and Learning Diseases and Conditions - Learning Disorders is now available. According to news reporting out of Nijmegen, Netherlands, by NewsRx editors, research stated, "A healthy lifestyle can prevent several health problems experienced by adults with intellectual disabilities (ID). For the development of effective and usable health promoting interventions for people with ID, the perspective of the intended audience should be taken into account."

Our news journalists obtained a quote from the research from Radboud University Medical Center, "The aim of this qualitative study was to gain insight into the perspectives of people with mild to moderate ID on healthy living. Qualitative study. Five semi-structured focus groups were conducted with a total of 21 adults with mild to moderate ID in the Netherlands. Discussions focused on three main themes: (1) perceptions of own health, (2) what participants consider as healthy living and (3) factors experienced to be related to the ability to live healthily. Interviews were analysed thematically resulting in two main domains: (1) perceptions of what is healthy and unhealthy and (2) factors that participants experience to be related to their ability to live healthily. For participants, healthy living entails more than healthy food and exercising: feeling healthy, happiness and level of independence are perceived as important as well. Factors experienced to relate to their ability to live healthily were (a lack of) motivation, support from others and environmental factors such as available health education, (a lack of) facilities and a (n) (dis)advantageous location of work or residence. This qualitative study shows that adults with mild to moderate ID have a good understanding of what being healthy and living healthily constitute. As they face several difficulties in their attempts to live healthily, existing health promotion programmes for people with ID must be tailored to individual preferences and motivations and adapted for individual physical disabilities."

According to the news editors, the research concluded: "Moreover, because of their dependency on others, tailoring should also be focused on the resources and hindering factors in their physical and social environment."


Our news journalists report that additional information may be obtained by contacting N.M. Kuijken, Radboud University Medical Center, Radboud Institute for Health Sciences, Dept. of Primary and Community Care, Nijmegen, Netherlands. Additional authors for this research include J. Naaldenberg, M.W. Nijhuis-van der Sanden and H.M van Schrojenstein-Lantman de Valk.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jir.12243. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Learning Disorders, Speech, Language and Learning Diseases and Conditions.

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Researchers at Radboud University Report New Data on Breast Cancer (Health risks for ataxia-telangiectasia mutated heterozygotes: a systematic review, meta-analysis and evidence-based guideline)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting originating from Nijmegen, Netherlands, by NewsRx correspondents, research stated, "Ataxia-telangiectasia (AT) is an autosomal recessive neurodegenerative disorder with immunodeficiency and an increased risk of developing cancer, caused by mutations in the ataxia-telangiectasia mutated (ATM) gene. Logically, blood relatives may also carry a pathogenic ATM mutation."

Our news editors obtained a quote from the research from Radboud University, "Female carriers of such a mutation have an increased risk of breast cancer. Other health risks for carriers are suspected but have never been studied systematically. Consequently, evidence-based guidelines for carriers are not available yet. We systematically analyzed all literature and found that ATM mutation carriers have a reduced life expectancy because of mortality from cancer and ischemic heart diseases (RR 1.7, 95% CI 1.2-2.4) and an increased risk of developing cancer (RR 1.5, 95% CI 0.9-2.4), in particular breast cancer (RR women 3.0, 95% CI 2.1-4.5), and cancers of the digestive tract. Associations between ATM heterozygosity and other health risks have been suggested, but clear evidence is lacking. Based on these results, we propose that all female carriers of 40-50 years of age and female ATM c.7271T >G mutation carriers from 25 years of age onwards be offered intensified surveillance programs for breast cancer."

According to the news editors, the research concluded: "Furthermore, all carriers should be made aware of lifestyle factors that contribute to the development of cardiovascular diseases and diabetes."


The news editors report that additional information may be obtained by contacting M. Willemsen, Radboud University, Medical Center, Donders Inst Brain Cognit & Behav, Dept. of Neurol Pediat Neurol, Nijmegen, Netherlands. Additional authors for this research include N. Roeleveld, C.M.R. Weemaes, M.C.J. Jongmans, G.O. Janssens, A.M.R. Taylor, N. Hoogerbrugge and M. Willemsen.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Dermatology, Article Review, Epidemiology, Genetics, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Cerebellar Diseases and Conditions, Metabolic Diseases and Conditions, Vascular Diseases and Conditions, DNA Repair-Deficiency Disorders, Brain Diseases and Conditions, Neurologic Manifestations, Neuromuscular Syndromes, Spinocerebellar Ataxias, Breast Ductal Carcinoma, Ataxia Telangiectasia, Risk and Prevention, Women's Health, Breast Cancer, Dyskinesias, Neurology, Oncology, Radboud University.

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Researchers at Radboud University Target Nephrology (International Multi-Specialty Delphi Survey: Identification of Diagnostic Criteria for Hepatic and Renal Cyst Infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nephrology is now available. According to news reporting originating in Nijmegen, Netherlands, by NewsRx journalists, research stated, "Cyst infection is one of the complications of autosomal dominant polycystic kidney disease and polycystic liver disease. The diagnosis is typically made on a mix of clinical, laboratory and imaging abnormalities but the importance of individual items is uncertain."

The news reporters obtained a quote from the research from Radboud University, "We aimed to perform a Delphi survey amongst physicians to achieve consensus on diagnostic criteria. We retrieved diagnostic items from the literature and conducted physician and patient interviews. All items were combined to create the online questionnaire. Participants rated each item during 3 consecutive rounds. Items were rated for diagnostic helpfulness for hepatic and renal cyst infection on a 9-point scale with anchors, from extremely unimportant (n = 1) to extremely important (n = 9). We determined consensus with the disagreement index. The median rating of each item was calculated and categorized into inappropriate (<= 3.4), uncertain (3.5-6.4) or appropriate (>= 6.5). By combining all items that reached an appropriate consensus rating, we developed a diagnostic algorithm based on expert consensus. We invited 58 physicians to participate in the survey. In total, 35 (60%) responded to round 1 of which 91% (n = 32) and 86% (n = 30) responded to round 2 and 3, respectively. The final panel included 23 nephrologists, 5 hepatologists, a nuclear medicine specialist and an infectious disease physician from 11 countries (male 67%, mean age 47 +/- 11 years, median clinical experience 21 years).

The panel rated the diagnostic helpfulness of 59 potential items. Ultimately, 22 hepatic and 26 renal items were rated appropriate, including positive blood cultures and fluorodeoxyglucose positron-emission CT imaging. Ultrasonography and absence of intracystic bleeding were amongst those deemed uncertain or inappropriate. Subsequently, by combining items rated appropriate, we developed a clinical tool to diagnose hepatic and renal cyst infection. We identified diagnostic items for hepatic and renal cyst infection and developed an expert-based diagnostic algorithm, which may aid physicians in the diagnostic work-up."

According to the news reporters, the research concluded: "A prospective study is necessary to validate this algorithm."


Our news correspondents report that additional information may be obtained by contacting J.P.H. Drenth, Radboud University, Medical Center, Dept. of Gastroenterol & Hepatol, NL-6500 HB Nijmegen, Netherlands. Additional authors for this research include A.J.M. Darding, R.G.L. de Sevaux, A. Alam, C.P. Bleeker-Rovers, M. Bobot, E. Corneec-Le Gall, T.J.G. Gevers, Z. Hassoun, E. Meijer, M. Mrug, F. Nevens, L.F. Onuchic, Y. Pei, G.B.
Researchers at Radboud University Target Noonan Syndrome
(Perceived Motor Problems in Daily Life: Focus Group Interviews with People with Noonan Syndrome and Their Relatives)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Noonan Syndrome have been published. According to news reporting out of Nijmegen, Netherlands, by NewsRx editors, research stated, "Studies from a patient perspective on motor performance problems in Noonan syndrome in daily life are lacking. The aims of this study were to provide insight into the motor performance problems that people with Noonan syndrome and/or their relatives experienced, the major consequences they suffered, the benefits of interventions they experienced, and the experiences with healthcare professionals they mentioned."

Our news journalists obtained a quote from the research from Radboud University, "We interviewed 10 adults with Noonan syndrome (two were joined by their parent), and 23 mothers (five of whom had Noonan syndrome), nine fathers (one of whom had Noonan syndrome) and one cousin who reported on 28 children with Noonan syndrome. People with Noonan syndrome reported particular problems related to pain, decreased muscle strength, fatigue, and clumsiness, which had an evident impact on functioning in daily life. Most participants believed that problems with motor performance improved with exercise, appropriate physiotherapy guidance, and other supportive interventions. Nevertheless, people with Noonan syndrome and/or their relatives did not feel heard and supported and experienced no understanding of their problems by healthcare professionals. This was the first study from a patient perspective that described the motor performance problems in people with Noonan syndrome, the major consequences in daily life, the positive experiences of interventions and the miscommunication with healthcare professionals. To achieve optimal support, healthcare professionals, as well as people with Noonan syndrome and/or their relatives themselves, should be aware of these frequently presented problems with motor performance."

According to the news editors, the research concluded: "Research on these different aspects is needed to better understand and support people with Noonan syndrome."

Researchers at Razi University Have Reported New Data on Gastric Cancer (PIGF knockdown inhibited tumor survival and migration in gastric cancer cell via PI3K/Akt and p38MAPK pathways)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gastric Cancer. According to news reporting from Kermanshah, Iran, by NewsRx journalists, research stated, "The molecular signalling of placental growth factor (PIGF), a member of the vascular endothelial growth factor family, was not uncovered in human adenocarcinoma gastric cell line (AGS). The purpose of this study was to examine the inhibitory effects of PIGF knockdown on cell proliferation, apoptosis and migration through p38 mitogen-activated protein kinase (p38MAPK) and PI3K pathways in human adenocarcinoma gastric cell line (AGS)."

The news correspondents obtained a quote from the research from Razi University, "To study PIGF knockdown effect, AGS cells were treated with 40 pmol of small interfering RNA (siRNA) related to PIGF gene and also a scrambled siRNA as control. Trypan Blue and Anexin V staining of AGS cells treated with PIGF-specific siRNA showed induction of apoptosis. Wound healing assay and zymography indicated that cellular migration and matrix metalloproteinases activities were reduced in response to PIGF knockdown. Phosphorylation of Akt and p38MAPK was reduced in AGS cells treated with PIGF-specific siRNA, PIGF knockdown decreased transcripts of PI3K, Akt, p38MAPK, PCNA, Caspase-3, OCT3/OCT4 and CD44, but elevated p53 and SOX2 transcripts."

According to the news reporters, the research concluded: "Our results indicated that PIGF knockdown decreased migration and induced apoptosis through PI3K/Akt1 and p38MAPK signal transduction in AGS cells."


Our news journalists report that additional information may be obtained by contacting H. Akrami, Dept. of Biology, Faculty of Science, Razi University, Kermanshah, Iran.
Additional authors for this research include F. Mahmoodi, S. Havasi and A. Sharifi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cbf.3176. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Iran, Asia, Genetics, Oncology, Apoptosis, Kermanshah, Gastric Cancer, Gastroenterology.

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**Parkinson's Disease**

**Researchers at Research Foundation Describe Findings in Parkinson's Disease (Autophagy and Alpha-Synuclein: Relevance to Parkinson's Disease and Related Synucleopathies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Parkinson's disease are presented in a new report. According to news reporting originating from Athens, Greece, by NewsRx correspondents, research stated, "Evidence from human postmortem material, transgenic mice, and cellular/animal models of PD link alpha-synuclein accumulation to alterations in the autophagy lysosomal pathway. Conversely, alpha-synuclein mutations related to PD pathogenesis, as well as post-translational modifications of the wild-type protein, result in the generation of aberrant species that may impair further the function of the autophagy lysosomal pathway, thus generating a vicious cycle leading to neuronal death."

Financial support for this research came from ARISTEIA I (GSRT) grant.

Our news editors obtained a quote from the research from Research Foundation, "Moreover, PD-linked mutations in lysosomal-related genes, such as glucocerebrosidase, have been also shown to contribute to alpha-synuclein accumulation and related toxicity, indicating that lysosomal dysfunction may, in part, account for the neurodegeneration observed in synucleinopathies. In the current review, we summarize findings related to the inter-relationship between alpha-synuclein and lysosomal proteolytic pathways, focusing especially on recent experimental strategies based on the manipulation of the autophagy lysosomal pathway to counteract alpha-synuclein-mediated neurotoxicity in vivo."

According to the news editors, the research concluded: "Pinpointing the factors that regulate alpha-synuclein association to the lysosome may represent potential targets for therapeutic interventions in PD and related synucleinopathies."


The news editors report that additional information may be obtained by contacting M. Xilouri, Division of Basic Neurosciences, Biomedical Research Foundation of the Academy of Athens, Athens, Greece. Additional authors for this research include O.R. Brekk and L. Stefanis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/mds.26477. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Athens, Greece, Europe, Genetics, Article Review, alpha Synuclein, Movement Disorders, Parkinson's Disease, Nerve Tissue Proteins, Parkinsonian Disorders, Brain Diseases and Conditions, Basal Ganglia Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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Adrenal Gland Diseases and Conditions -

Researchers at Research Hospital Report Findings in Hypoaldosteronism (Relative hypoaldosteronism in a patient with Wolcott-Rallison syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Adrenal Gland Diseases and Conditions - Hypoaldosteronism are presented in a new report. According to news reporting originating in Istanbul, Turkey, by NewsRx journalists, research stated, "Wolcott-Rallison syndrome is an autosomal recessive, multisystem disorder with onset of diabetes in the neonatal period or early infancy. A 9-year-old girl with diabetes and growth failure from 2 months of age presented with ketoacidosis and multiple organ failure."

Financial support for this research came from Wellcome Trust.

The news reporters obtained a quote from the research from Research Hospital, "Evaluation for short stature revealed epiphyseal dysplasia. A homozygous mutation in the EIF2AK3 gene confirmed the clinical diagnosis of Wolcott-Rallison syndrome. She was euthyroid. Biochemical evaluation for potential adrenal dysfunction because of persistently elevated serum potassium (range 5.9-6.3 meq/l) and low serum sodium levels (range 128-130 meq/l) 2 weeks after resolution of ketoacidosis yielded normal findings with respect to basal corticotropin (31 pg/ml) and cortisol (18.7 mg/dl) levels. Estimated GFR-Schwartz (36.9 ml/min/1.73 m(2) ) was consistent with stage 3 chronic renal failure. The transtubular potassium gradient was 1.39 (normal value in hyperkalemic states: >4.1). The plasma aldosterone (upright: 241.3 pmol/l) was within normal ranges, and plasma renin [39 pg/ml (range 5.41-34.53 pg/ml)] was slightly elevated. The patient was diagnosed as having relative hypoaldosteronism and was started on a sodium-rich diet and low potassium. Failure to respond to the dietary intervention prompted a trial of oral fludrocortisone with subsequent normalization of electrolyte levels. This is the first case report of Wolcott-Rallison syndrome complicated with relative hypoaldosteronism."

According to the news reporters, the research concluded: "Further research is needed to probe the causal inference of relative hypoaldosteronism with chronic renal failure in patients with Wolcott-Rallison syndrome."


Our news correspondents report that additional information may be obtained by contacting A. Ucar, Dept. of Pediatric Endocrinology and Diabetes, Sisli Etfal Training and Research Hospital, Istanbul, Turkey. Additional authors for this research include Y. Aydemir, A. Dogan and E. Tuncez.
Researchers at Research Institute Discuss Findings in Cell Biology (Tango assay for ligand-induced GPCR-b-arrestin2 interaction: Application in drug discovery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Cell Biology. According to news reporting originating from Uttar Pradesh, India, by NewsRx correspondents, research stated, "G protein-coupled receptors (GPCRs) are widely known to modulate almost all physiological functions and have been demonstrated over the time as therapeutic targets for wide gamut of diseases. The design and implementation of high-throughput GPCR-based assays that permit the efficient screening of large compound libraries to discover novel drug candidates are essential for a successful drug discovery endeavor."

Our news editors obtained a quote from the research from Research Institute, "Usually, GPCR-based functional assays depend primarily on the measurement of G protein-mediated second messenger generation. However, with advent of advanced molecular biology tools and increased understanding of GPCR signal transduction, many G protein-independent pathways such as b-arrestin translocation are being utilized to detect the activity of GPCRs. These assays provide additional information on functional selectivity (also known as biased agonism) of compounds that could be harnessed to develop pathway-selective drug candidates to reduce the adverse effects associated with given GPCR target."

According to the news editors, the research concluded: "In this chapter, we describe the basic principle, detailed methodologies and assay setup, result analysis and data interpretations of the b-arrestin2 Tango assay, and its comparison with cell-based G protein-dependent GPCR assays, which could be employed in a simple academic setup to facilitate GPCR-based drug discovery."


The news editors report that additional information may be obtained by contacting S. Dogra, Division of Pharmacology, CSIR-Central Drug Research Institute, Lucknow, Uttar Pradesh, India. Additional authors for this research include C. Sona, A. Kumar and P.N Yadav.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/bs.mcb.2015.11.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Cell Biology, Uttar Pradesh, Drugs and Therapies, Life Science Research.

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Researchers at Research Institute Have Reported New Data on Hematopoietic (Hematopoietic derived cells do not contribute to osteogenesis as osteoblasts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematopoietic is now available. According to news reporting from Columbus, Ohio, by NewsRx journalists, research stated, "Despite years of extensive investigation, the cellular origin of heterotopic ossification (HO) has not been fully elucidated. We have previously shown that circulating bone marrow-derived osteoblast progenitor cells, characterized by the immunophenotype CD45-/CD44+/CXCR4+, contributed to the formation of heterotopic bone induced by bone morphogenetic protein (BMP)-2."

The news correspondents obtained a quote from the research from Research Institute, "In contrast, other reports have demonstrated the contribution of CD45+ hematopoietic derived cells to HO. Therefore, in this study, we developed a novel triple transgenic mouse strain that allows us to visualize CD45+ cells with red fluorescence and mature osteoblasts with green fluorescence. These mice were generated by crossing CD45-Cre mice with Z/RED mice that express DsRed, a variant of red fluorescent protein, after Cre-mediated recombination, and then crossing with Co12.3GFP mice that express green fluorescent protein (GFP) in mature osteoblasts. Utilizing this model, we were able to investigate if hematopoietic derived cells have the potential to give rise to mature osteoblasts. Analyses of this triple transgenic mouse model demonstrated that DsRed and GFP did not co-localize in either normal skeletogenesis, bone regeneration after fracture, or HO. This indicates that in these conditions hematopoietic derived cells do not differentiate into mature osteoblasts. Interestingly, we observed the presence of previously unidentified DsRed positive bone lining cells (red BLCs) which are derived from hematopoietic cells but lack CD45 expression. These red BLCs fail to produce GFP even under in vitro osteogenic conditions."

According to the news reporters, the research concluded: "These findings indicate that, even though both osteoblasts and hematopoietic cells are developmentally derived from mesoderm, hematopoietic derived cells do not contribute to osteogenesis in fracture healing or HO."

For more information on this research see: Hematopoietic derived cells do not contribute to osteogenesis as osteoblasts. Bone, 2017;94():1-9. Bone can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Bone - www.journals.elsevier.com/bone/)

Our news journalists report that additional information may be obtained by contacting S. Otsuru, Nationwide Childrens Hosp, Res Inst, Center Childhood Canc & Blood Dis, Columbus, OH 43205, United States. Additional authors for this research include K.M. Overholt, T.S. Olson, T.J. Hofmann, A.J. Guess, V.M. Velazquez, T. Kaito, M. Dominici and E.M. Horwitz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bone.2016.10.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbus, Ohio, United States, North and
Researchers at Research Institute Report New Data on Parkinson's Disease (Medical Management of Parkinson's Disease after Initiation of Deep Brain Stimulation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Parkinson's disease are presented in a new report. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "In this review, we have gathered all the available evidence to guide medication management after deep brain stimulation (DBS) in Parkinson's disease (PD). Surprisingly, we found that almost no study addressed drug-based management in the postoperative period."

Our news editors obtained a quote from the research from Research Institute, "Dopaminergic medications are usually reduced, but whether the levodopa or dopamine agonist is to be reduced is left to the personal preference of the treating physician. We have summarized the pros and cons of both approaches. No study on the management of cognitive problems after DBS has been done, and only a few studies have explored the pharmacological management of such DBS-resistant symptoms as voice (amantadine), balance (donepezil) or gait disorders (amantadine, methylphenidate). As for the psychiatric problems so frequently reported in PD patients, researchers have directed their attention to the complex interplay between stimulation and reduction of dopaminergic drugs only recently."

According to the news editors, the research concluded: "Studies addressing medical management following DBS are still needed and will certainly contribute to the ultimate success of DBS procedures."

For more information on this research see: Medical Management of Parkinson's Disease after Initiation of Deep Brain Stimulation. *Canadian Journal of Neurological Sciences*, 2016;43(5):626-634. *Canadian Journal of Neurological Sciences* can be contacted at: Cambridge Univ Press, 32 Avenue Of The Americas, New York, NY 10013-2473, USA.

The news editors report that additional information may be obtained by contacting A. Fasano, Krembil Res Inst, Toronto, ON, Canada. Additional authors for this research include S. Appel-Cresswell, M. Jog, M. Zurowski, S. Duff-Canning, M. Cohn, M. Picillo, C.R. Honey, M. Panisset and R.P. Munhoz.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Neurodegenerative Diseases and Conditions, Article Review, Central Nervous System Diseases and Conditions, Basal Ganglia Diseases and Conditions, Brain Diseases and Conditions, Parkinsonian Disorders, Parkinson's Disease, Movement Disorders, Research Institute.

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Researchers at Rockefeller University Report Findings in Psoriasis (A Randomized, Placebo-Controlled Study of SRT2104, a SIRT1 Activator, in Patients with Moderate to Severe Psoriasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Skin Diseases and Conditions - Psoriasis have been published. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Activation of Sirtuin (silent mating type information regulation 2 homolog) 1, or SIRT1, is an unexplored therapeutic approach for treatment of inflammatory diseases. We randomized 40 patients with moderate-to-severe psoriasis (4:1) to three escalating doses of SRT2104, a selective activator of SIRT1, or placebo."

Our news editors obtained a quote from the research from Rockefeller University, "Across all SRT2104 groups, 35% of patients (p <0.0001) achieved good to excellent histological improvement based on skin biopsies taken at baseline and day 84 but was not consistently in agreement with PASI. Improvement in histology was associated with modulation of IL-17 and TNF-a signaling pathways and keratinocyte differentiation target genes. 27 subjects (69%) across all treatment groups, including placebo, experienced at least one treatment emergent adverse event. The majority of AEs were either mild or moderate. Most common were headache (8%), dizziness (8%), upper respiratory tract infection (8%), and psoriatic arthropathy (8%). Average drug exposure increased in a dose-dependent manner for escalating doses of SRT2104 and had high intra-subject variability in exposure (AUC %CV: 51?89%)."

According to the news editors, the research concluded: "Given the interesting signals of clinical activity, impact on gene expression and the generally favorable safety profile seen in this study, further investigation of SIRT1 activators for the treatment of psoriasis is warranted."

For more information on this research see: A Randomized, Placebo-Controlled Study of SRT2104, a SIRT1 Activator, in Patients with Moderate to Severe Psoriasis. Plos One, 2015;10(11):e0142081. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news editors report that additional information may be obtained by contacting J.G. Krueger, Laboratory for Investigative Dermatology, The Rockefeller University, New York, New York, United States. Additional authors for this research include M. Suarez-Farinas, I. Cueto, A. Khacherian, R. Matheson, L.C. Parish, C. Leonardi, D. Shortino, A. Gupta, J. Haddad, G.P. Vlasuk and E.W Jacobson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0142081. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Therapy, Genetics, Placebos, Psoriasis, Dermatology, New York City, United States, Clinical Research, North and Central America, Clinical Trials and Studies, Papulosquamous Skin Diseases and Conditions.

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Researchers at Roswell Park Cancer Institute Target Prostate Cancer (Therapeutic Rationales, Progresses, Failures, and Future Directions for Advanced Prostate Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting out of Buffalo, New York, by NewsRx editors, research stated, "Patients with localized prostate cancer (PCa) have several therapeutic options with good prognosis. However, survival of patients with high-risk, advanced PCa is significantly less than patients with early-stage, organ-confined disease."

Our news journalists obtained a quote from the research from Roswell Park Cancer Institute, "Testosterone and other androgens have been directly linked to PCa progression since 1941. In this review, we chronicle the discoveries that led to modern therapeutic strategies for PCa. Specifically highlighted is the biology of androgen receptor (AR), the nuclear receptor transcription factor largely responsible for androgen-stimulated and castrate-recurrent (CR) PCa. Current PCa treatment paradigms can be classified into three distinct but interrelated categories: targeting AR at pre-receptor, receptor, or post-receptor signaling. The continuing challenge of disease relapse as CR and/or metastatic tumors, destined to occur within three years of the initial treatment, is also discussed."

According to the news editors, the research concluded: "We conclude that the success of PCa therapies in the future depends on targeting molecular mechanisms underlying tumor recurrence that still may affect AR at pre-receptor, receptor, and post-receptor levels."


Our news journalists report that additional information may be obtained by contacting K.M. Wadosky, Departments of Cancer Genetics and Urology, Center for Genetics and Pharmacology, Roswell Park Cancer Institute, Elm and Carlton Streets, Buffalo, NY, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7150/ijbs.14090. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Buffalo, New York, Genetics, Oncology, United States, Article Review, Prostate Cancer, Prostatic Neoplasms, North and Central America.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiology is now available. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "This study was to investigate the relationship among aortic artery calcification (AAC), cardiac valve calcification (CVC), and mortality in maintenance hemodialysis (MHD) patients. All MHD patients in Shanghai Ruijin Hospital in July 2011 were included."

Our news journalists obtained a quote from the research from Rui Jin Hospital, "To follow up for 42 months, clinical data, predialysis blood tests, echocardiography, and lateral lumbar X-ray plain radiography results were collected. Plasma FGF23 level was measured using a C-terminal assay. Totally, 110 MHD patients were involved in this study. Of which, 64 (58.2%) patients were male, the mean age was 55.2 ± 1.4 years old, and the median dialysis duration was 29.85 (3.0-225.5) months. About 25.5% of the 110 MHD patients had CVC from echocardiography while 61.8% of the patients had visible calcification of aorta from lateral lumbar X-ray plain radiography. After 42 months follow-up, 25 (22.7%) patients died. Kaplan-Meier analysis showed that patients with AAC or CVC had a significant greater number of all-cause and cardiovascular deaths than those without. In multivariate analyses, the presence of AAC was a significant factor associated with all-cause mortality (hazard ratio [HR]: 3.149, p= 0.025) in addition to lower albumin level and lower 25-hydroxy Vitamin D (25(OH)D) level. The presence of CVC was a significant factor associated with cardiovascular mortality (HR: 3.800, p=0.029) in addition to lower albumin level and lower 25(OH)D level. Lateral lumbar X-ray plain radiography and echocardiography are simple methods to detect AAC and CVC in dialysis patients. The presence of AAC and CVC was independently associated with mortality in MHD patients."

According to the news editors, the research concluded: "Regular follow-up by X-ray and echocardiography could be a useful method to stratify mortality risk in MHD patients."


The news correspondents report that additional information may be obtained from N. Chen, Dept. of Nephrology, Ruijin Hospital Affiliated to Shanghai Jiao Tong University, Shanghai 200025, People's Republic of China. Additional authors for this research include Z.J. Chen, X.B. Ma, B. Ding, H.W. Ling, Z.W. Shi and N. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.167315. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the Chinese Medical Journal is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Shanghai, Diagnosis, Cardiology, Hemodialysis, Cardiovascular, Renal Dialysis, Echocardiography, Risk and Prevention, Heart Function Tests, People's Republic of China, Diagnostic Techniques and Procedures.

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Researchers at Russian Federation Report New Data on Stem Cell Research (Regulation of Adipose Tissue Stem Cells Angiogenic Potential by Tumor Necrosis Factor-Alpha)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Stem Cell Research. According to news reporting from Moscow, Russia, by NewsRx journalists, research stated, "Tissue regeneration requires coordinated 'teamwork' of growth factors, proteases, progenitor and immune cells producing inflammatory cytokines. Mesenchymal stem cells (MSC) might play a pivotal role by substituting cells or by secretion of growth factors or cytokines, and attraction of progenitor and inflammatory cells, which participate in initial stages of tissue repair."

Financial support for this research came from Russian Federation Ministry of Health.

The news correspondents obtained a quote from the research from Russian Federation, "Due to obvious impact of inflammation on regeneration it seems promising to explore whether inflammatory factors could influence proangiogenic abilities of MSC. In this study we investigated effects of TNF-a on activity of adipose-derived stem cells (ADSC). We found that treatment with TNF-a enhances ADSC proliferation, F-actin microfilament assembly, increases cell motility and migration through extracellular matrix. Exposure of ADSC to TNF-a led to increased mRNA expression of proangiogenic factors (FGF-2, VEGF, IL-8, and MCP-1), inflammatory cytokines (IL-1b, IL-6), proteases (MMPs, uPA) and adhesion molecule ICAM-1. At the protein level, VEGF, IL-8, MCP-1, and ICAM-1 production was also up-regulated. Pre-incubation of ADSC with TNF-a-enhanced adhesion of monocytes to ADSC but suppressed adherence of ADSC to endothelial cells (HUVEC). Stimulation with TNF-a triggers ROS generation and activates a number of key intracellular signaling mediators known to positively regulate angiogenesis (Akt, small GTPase Rac1, ERK1/2, and p38 MAP-kinases). Pre-treatment with TNF-a-enhanced ADSC ability to promote growth of microvessels in a fibrin gel assay and accelerate blood flow recovery, which was accompanied by increased arteriole density and reduction of necrosis in mouse hind limb ischemia model."

According to the news reporters, the research concluded: "These findings indicate that TNF-a plays a role in activation of ADSC angiogenic and regenerative potential."


Our news journalists report that additional information may be obtained by contacting E.S. Zubkova, Russian Cardiology Research and Production Complex, Moscow, Russia. Additional authors for this research include I.B. Beloglagova, P.I. Makarevich, M.A. Boldyreva, O.Y. Sukhareva, M.V. Shestakova, K.V. Dergilev, Y.V. Parfyonova and M.Y Menshikov.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcb.25263. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Moscow, Russia, Eurasia, Genetics, Protease, Cytokines, Monokines, Angiogenesis, Glycoproteins, Blood Proteins, Membrane Proteins, Stem Cell Research, Enzymes and Coenzymes, Tumor Necrosis Factor alpha,
Heart Valves

Researchers at San Carlo Hospital Release New Data on Heart Valves (Effective percutaneous "edge-to-edge" mitral valve repair with mitraclip in a patient with acute post-MI regurgitation not related to papillary muscle rupture)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Valves. According to news reporting originating in Potenza, Italy, by NewsRx journalists, research stated, "A 65-year-old woman was admitted to our institution for rest dyspnea and hypotension. EKG showed sinus tachycardia with signs of infero-posterior STEMI. 2D-echocardiogram showed severe left ventricular systolic dysfunction with a-diskynesia of the inferior and posterior walls and severe functional mitral regurgitation (MR)."

The news reporters obtained a quote from the research from San Carlo Hospital, "The patient underwent urgent coronary angiography that showed 3-vessels disease with total occlusion of both first obtuse marginal (OM) branch of the left circumflex artery and right coronary artery (RCA) and critical stenosis of left anterior descending (LAD). Because of extremely high surgical risk, we performed a staged totally percutaneous approach. First, we reopened the presumed culprit vessels (RCA and OM) and then, after 48 hr, we performed angioplasty of the LAD. Since revascularization provided no significant improvement in respiratory and hemodynamic parameters we performed a percutaneous mitral repair with Mitraclip. MR grade was reduced from severe to trivial with rapid improvement of the respiratory and hemodynamic parameters. The post-procedural course was uneventful and the patient was discharged 7 days later. At the 30-day and 6-month follow-up the patient remained asymptomatic in NYHA I functional class with no recurrence of MR. Acute MR due to post-AMI mechanical complications is generally considered a contraindication to MitraClip implantation for several reasons."

According to the news reporters, the research concluded: "However, the present report shows that, in selected cases, the Mitraclip system may be successfully used to reduce the severity of acute MR secondary to AMI and may allow to reverse cardiogenic shock and/or refractory pulmonary congestion related to the acute regurgitation."


Our news correspondents report that additional information may be obtained by contacting G. Tarsia, Heart and Great Vessels Department, San Carlo Hospital, Potenza, Italy. Additional authors for this research include C. Smaildone and M.F Costantino.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ccd.26416. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers at Sapienza-University Report New Data on Medical Genetics (Which BRCA genetic testing programs are ready for implementation in health care? A systematic review of economic evaluations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics - Medical Genetics have been published. According to news originating from Rome, Italy, by NewsRx correspondents, research stated, "There is considerable evidence regarding the efficacy and effectiveness of BRCA genetic testing programs, but whether they represent good use of financial resources is not clear. Therefore, we aimed to identify the main health-care programs for BRCA testing and to evaluate their cost-effectiveness."

Our news journalists obtained a quote from the research from Sapienza-University, "We performed a systematic review of full economic evaluations of health-care programs involving BRCA testing. Nine economic evaluations were included, and four main categories of BRCA testing programs were identified: (i) population-based genetic screening of individuals without cancer, either comprehensive or targeted based on ancestry; (ii) family history (FH)-based genetic screening, i.e., testing individuals without cancer but with FH suggestive of BRCA mutation; (iii) familial mutation (FM)-based genetic screening, i.e., testing individuals without cancer but with known familial BRCA mutation; and (iv) cancer-based genetic screening, i.e., testing individuals with BRCA-related cancers. Currently BRCA1/2 population-based screening represents good value for the money among Ashkenazi Jews only. FH-based screening is potentially very cost-effective, although further studies that include costs of identifying high-risk women are needed. There is no evidence of cost-effectiveness for BRCA screening of all newly diagnosed cases of breast/ovarian cancers followed by cascade testing of relatives, but programs that include tools for identifying affected women at higher risk for inherited forms are promising."

According to the news editors, the research concluded: "Cost-effectiveness is highly sensitive to the cost of BRCA1/2 testing."

For more information on this research see: Which BRCA genetic testing programs are ready for implementation in health care? A systematic review of economic evaluations. Genetics in Medicine, 2016;18(12):1171-1180. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)

The news correspondents report that additional information may be obtained from P. Villari, Sapienza Univ Rome, Dept. of Public Hlth & Infect Dis, Rome, Italy. Additional authors for this research include C. Marzuillo, C. De Vito, M. Di Marco, E. Pitini, M.R. Vacchio and P. Villari.

The direct object identifier (DOI) for that additional information is:
Researchers at Sapporo Medical University Have Reported New Data on Liver Cancer (Insulin-like growth factor-related components and the risk of liver cancer in a nested case-control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Liver Cancer are presented in a new report. According to news reporting from Hokkaido, Japan, by NewsRx journalists, research stated, "Insulin-like growth factor-1 (IGF1) is a potent mitogen. IGF-binding protein-3 (IGFBP3) binds and inhibits IGF1."

Financial support for this research came from Daiwa Securities Health Foundation, Japan.

The news correspondents obtained a quote from the research from Sapporo Medical University, "High circulating IGF1 levels and low IGFBP3 levels are associated with increased risk of several cancers. We examined relationships between serum levels of these factors and hepatoma risk in a case-control study nested in a prospective cohort study (the Japan Collaborative Cohort Study (JACC Study)). A baseline survey was conducted from 1988 to 1990, and 39,242 subjects donated blood samples. Participants diagnosed with hepatoma by 1997 were considered cases for nested case-control studies. Ninety-one cases and 263 sex-and age-matched controls were analyzed. A conditional logistic model was used to estimate odds ratios (ORs) for the incidence of hepatoma associated with serum IGF1 and IGFBP3 levels. Neither IGF1 nor the molar ratio of IGF1/IGFBP3 was correlated with hepatoma risk. After adjustment for hepatitis viral infection, body mass index, smoking, and alcohol intake, a higher molar difference of (IGFBP3 - IGF1) was associated with a decreased hepatoma risk more than IGFBP3 alone (p for trend <0.001 and = 0.003, respectively). People in the highest quartile had a lower risk (OR = 0.098; 95 % confidence interval = 0.026-0.368). In subgroup analyses of males and females, the molar difference was associated with a decreased hepatoma risk (p for trend <0.05). In non-elderly individuals, the difference was inversely correlated with the incidence of hepatoma (p for trend <0.01)."

According to the news reporters, the research concluded: "The molar difference of (IGFBP3 -IGF1) may be inversely associated with the incidence of hepatoma."

For more information on this research see: Insulin-like growth factor-related components and the risk of liver cancer in a nested case-control study. Tumor Biology, 2016;37 (11):15125-15132. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting Y. Adachi, Sapporo Med Univ, Dept. of Gastroenterol Rheumatol & Clin Immunol,
Chuo Ku, Sapporo, Hokkaido 0608543, Japan. Additional authors for this research include M. Nojima, M. Mori, Y. Matsunaga, N. Akutsu, S. Sasaki, T. Endo, Y. Kurozawa, K. Wakai and A. Tamakoshi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5360-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hokkaido, Japan, Asia, Liver Diseases and Conditions, Risk and Prevention, Peptide Proteins, Peptide Hormones, Gastroenterology, Liver Cancer, Proinsulin, Hepatomas, Oncology, Sapporo Medical University.

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Drugs and Therapies - Chemical Biology and Drug Design

Researchers at School of Materials Science Target Chemical Biology and Drug Design (Chemical RNA Editing for Genetic Restoration: The Relationship between the Structure and Deamination Efficiency of Carboxyvinyldeoxyuridine Oligodeoxynucleotides)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Chemical Biology and Drug Design are discussed in a new report. According to news reporting out of Ishikawa, Japan, by NewsRx editors, research stated, "Oligodeoxynucleotides containing 5-carboxyvinyl-2'-deoxyuridine ((CV) U-containing ODNs) for successful site-specific transition of cytosine to uridine by photo-cross-linking have three parts: the complementary sequence, hairpin loop and the 5'-terminal photoresponsive nucleobase (CV) U. Photo-cross-linking with (CV) U-containing ODNs was performed using UV (366 nm) irradiation, followed by heat treatment for deamination."

Financial supporters for this research include Japan Society for the Promotion of Science of Japan, Ministry of Health, Labour and Welfare.

Our news journalists obtained a quote from the research from the School of Materials Science, "The cross-linked nucleotide was cleaved by photosplitting (UV, 312 nm). The products were analyzed using restriction fragment length polymorphism and fluorescence measurements. In previous studies, we have successfully performed site-directed photochemical base substitution toward a synthetic single-stranded 100-mer ODN target (ss100-nt) and in vitro-synthesized full-length blue fluorescent protein mRNA as targets. Although the efficiency of C-to-U site-specific transition strongly depends on the sequence and structure of (CV) U-containing ODNs, the relationship between (CV) U-containing ODNs and the deamination efficiency of targeted editing remains unclear. Therefore, in this study, we attempted to identify the optimal sequence and primary structure of (CV) U-containing ODNs for site-directed specific transition. To evaluate the structure-deamination efficiency relationship, a series of eight (CV) U-containing ODNs were designed and studied."

According to the news editors, the research concluded: "We showed that the optimal deamination efficiency was achieved with ODNs having a complementary sequence length slightly more than 14 nt and a hairpin length of 9 nt."

For more information on this research see: Chemical RNA Editing for Genetic Restoration: The Relationship between the Structure and Deamination Efficiency of
Researchers at School of Medicine Detail Findings in Kidney Cancer
(Comparative efficacy and safety of first-line treatments in patients with metastatic renal cell cancer: a network meta-analysis based on phase 3 RCTs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Kidney Cancer are discussed in a new report. According to news reporting originating in Nanjing, People's Republic of China, by NewsRx journalists, research stated, "It is impossible to conduct head-to-head trials of all the therapies to determine optimal treatment in the rapidly advancing era of therapies for metastatic renal cell carcinoma (mRCC). In this network meta-analysis, we aimed to compare efficacy and safety of first-line treatments for mRCC."

The news reporters obtained a quote from the research from the School of Medicine, "We searched PubMed, Embase, the Cochrane Central Register of Controlled Trials, and unpublished studies were also sought through 'clinicaltrials.gov' from their inception through January 31, 2016. A database search identified 1253 articles, with 11 studies meeting the eligibility criteria. A total of 7597 patients in twelve different treatment arms were assessed. Network meta-analysis showed sunitinib had a significantly longer PFS than IFN-a (SMD=-5.68; 95%CI: -10.76,-0.86; p<0.001) and placebo (SMD=-6.71; 95%CI: -12.65,-0.79; p<0.001), meanwhile, pazopanib had a significantly longer PFS compared with placebo (SMD=5.13; 95% CI: 0.43, 10.09; p<0.001). The cumulative ranking probability curve indicated that sunitinib had the highest probability of being the best treatment modality in terms of PFS and it also had the highest probability of being the safest drugs as the first-line treatment when it came to SAE."

According to the news reporters, the research concluded: "Thus, sunitinib might be the best choice of first-line treatment for patients with mRCC because it has the most favorable balance between efficacy and safety."

For more information on this research see: Comparative efficacy and safety of first-

Our news correspondents report that additional information may be obtained by contacting X. Chang, Dept. of Urology, The Affiliated Nanjing Drum Tower Hospital, Medical School of Nanjing University, Nanjing, People's Republic of China. Additional authors for this research include F. Zhang, T. Liu, R. Yang, C. Ji, X. Zhao, L. Xu, G. Liu and H. Guo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7511. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nanjing, People's Republic of China, Asia, Antineoplastics, Drugs and Therapies, Kidney Cancer, Multikinase Inhibitors, Nephrology, Oncology, Renal Cancer, Renal Carcinoma, Sunitinib, Tyrosine Kinase Inhibitors, VEGF VEGFR Inhibitors, VEGFR Inhibitors.

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**Lung Diseases and Conditions - Asthma**

**Researchers at School of Medicine Report Findings in Asthma (Polygonum multiflorum Decreases Airway Allergic Symptoms in a Murine Model of Asthma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Asthma have been published. According to news reporting originating from Taichung, Taiwan, by NewsRx correspondents, research stated, "The root of Polygonum multiflorum (also called He-Shou-Wu in Chinese) is a common herb and medicinal food in Asia used for its anti-aging properties. Our study investigated the therapeutic potential of an extract of the root of Polygonum multiflorum (PME) in allergic asthma by using a mouse model."

Our news editors obtained a quote from the research from the School of Medicine, "Feeding of 0.5 and 1 mg/mouse PME inhibited ovalbumin (OVA)-induced allergic asthma symptoms, including airway inflammation, mucus production, and airway hyper-responsiveness (AHR), in a dose-dependent manner. To discern PME's mechanism of action, we examined the profile and cytokine production of inflammatory cells in bronchial alveolar lavage fluid (BALF). We found that eosinophils, the main inflammatory cell infiltrate in the lung of OVA-immunized mice, significantly decreased after PME treatment. Th2 cytokine levels, including interleukin (IL)-4, IL-5, IL-13, eotaxin, and the proinflammatory cytokine tumor necrosis factor (TNF)-[Formula: see text], decreased in PME-treated mice. Elevated mRNA expression of Th2 transcription factor GATA-3 in the lung tissue was also inhibited after oral feeding of PME in OVA-immunized mice."

According to the news editors, the research concluded: "Thus, we conclude that PME produces anti-asthma activity through the inhibition of Th2 cell activation."


The news editors report that additional information may be obtained by contacting
Researchers at School of Medicine Target Eicosanoids (Rostral Ventrolateral Medulla EP3 Receptor Mediates the Sympathoexcitatory and Pressor Effects of Prostaglandin E-2 in Conscious Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biological Factors - Eicosanoids. According to news reporting from Greenville, North Carolina, by NewsRx journalists, research stated, "Whereas few studies have dealt with the central sympathoexcitatory action of the inflammatory prostanoid prostaglandin E-2 (PGE(2)), there is no information on the expression and cardiovascular function of different PGE(2) (EP) receptors in one of the major cardiovascular-regulating nuclei, the rostral ventrolateral medulla (RVLM). The current study aimed at filling this knowledge gap as well as elucidating the implicated molecular mechanisms."

The news correspondents obtained a quote from the research from the School of Medicine, "To achieve these goals, we showed the expression of EP2, EP3, and EP4 receptors in the RVLM and investigated their cardiovascular roles in conscious rats, ex vivo as well as in cultured PC12 cells. Intra-RVLM PGE(2) significantly increased blood pressure and sympathetic dominance (spectral analysis). Studies with selective EP receptor subtype agonists and antagonists showed that these PGE(2)-evoked responses were only replicated by intra-RVLM activation of the EP3 receptor with its agonist sulprostone. The RVLM of PGE(2)-treated rats exhibited increases in c-Fos expression and extracellular signal-regulated kinase 1/2 and neuronal nitric oxide synthase phosphorylation along with oxidative stress, and PGE(2) increased L-glutamate release in PC12 cells (surrogates of RVLM neurons). Abrogation of the PGE(2)-evoked pressor and biochemical responses only occurred following EP3 receptor blockade (N-[(5-Bromo-2-methoxyphenyl)sulfonyl]3-[2-(2-naphthalenylmethyl)phenyl]-2-propenamide, L-798106)."

According to the news reporters, the research concluded: "These findings suggest the dependence of RVLM PGE(2)-mediated sympathoexcitatory/pressor response on local EP3 receptor signaling in conscious rats, and highlight central EP3 receptor blockade as a potential therapeutic modality for hypertension management."

Biological Factors - Eicosanoids

Researchers at School of Medicine Target Eicosanoids (Rostral Ventrolateral Medulla EP3 Receptor Mediates the Sympathoexcitatory and Pressor Effects of Prostaglandin E-2 in Conscious Rats)

Our news journalists report that additional information may be obtained by contacting A.A. Abdel-Rahman, East Carolina Univ, Sch Med, Dept. of Pharmacol, Greenville, NC 27858, United States.

Keywords for this news article include: Greenville, North Carolina, United States, North and Central America, Biological Factors, Cardiovascular, Prostaglandins, Eicosanoids, Cardiology, School of Medicine.

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**Life Science Research - Chemical Biology**

**Researchers at Scripps Research Institute Target Chemical Biology (Synthetic RORgt Agonists Enhance Protective Immunity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Chemical Biology have been published. According to news reporting originating in Jupiter, Florida, by NewsRx journalists, research stated, "The T cell specific RORgt isoform RORgt has been shown to be the key lineage-defining transcription factor to initiate the differentiation program of TH17 and TC17 cells, cells that have demonstrated antitumor efficacy. RORgt controls gene networks that enhance immunity including increased IL17 production and decreased immune suppression."

Financial support for this research came from National Institute of Mental Health.

The news reporters obtained a quote from the research from Scripps Research Institute, "Both synthetic and putative endogenous agonists of RORgt have been shown to increase the basal activity of RORgt enhancing TH17 cell proliferation. Here, we show that activation of RORgt using synthetic agonists drives proliferation of TH17 cells while decreasing levels of the immune checkpoint protein PD-1, a mechanism that should enhance antitumor immunity while blunting tumor associated adaptive immune resistance. Interestingly, putative endogenous agonists drive proliferation of TH17 cells but do not repress PD-1. These findings suggest that synthetic agonists of RORgt should activate TC17/TH17 cells (with concomitant reduction in the Tregs population), repress PD-1, and produce IL17 in situ (a factor associated with good prognosis in cancer)."

According to the news reporters, the research concluded: "Enhanced immunity and blockage of immune checkpoints has transformed cancer treatment; thus such a molecule would provide a unique approach for the treatment of cancer."


Our news correspondents report that additional information may be obtained by contacting M.R. Chang, Dept. of Molecular Therapeutics, The Scripps Research Institute, 130 Scripps Way, Jupiter, Florida 33458, United States. Additional authors for this research include
Researchers at Second Military Medical University Release New Data on Pancreatic Cancer (Association between vitamin A, retinol and carotenoid intake and pancreatic cancer risk: Evidence from epidemiologic studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Pancreatic Cancer. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Pancreatic cancer is a devastating disease with poor prognosis. The association between vitamin A, retinol and carotenoid intake and the risk of pancreatic cancer occurrence remains controversial, and therefore it is necessary to make a meta-analysis to clarify the association between vitamin A, retinol and carotenoid intake and pancreatic cancer risk."

The news correspondents obtained a quote from the research from Second Military Medical University, "In the present study, PubMed and EMBASE databases were used to identify qualified studies. The association between dietary vitamin A, retinol and carotenoids was estimated by pooled odds ratios (ORs) and corresponding 95% confidence intervals (CIs). It was found that there was an inverse correlation between vitamin A, beta-carotene and lycopene intake and the risk of pancreatic cancer (for vitamin A, pooled OR = 0.85, 95% CI = 0.74-0.97, P = 0.015; for beta-carotene, pooled OR = 0.78, 95% CI = 0.66-0.92, P = 0.003; for lycopene, pooled OR = 0.84, 95% CI = 0.73-0.97, P = 0.020), which was more prominent in case-control study subgroup."

According to the news reporters, the research concluded: "Dietary vitamin A, beta-carotene and lycopene might inversely correlate with pancreatic cancer."

For more information on this research see: Association between vitamin A, retinol and carotenoid intake and pancreatic cancer risk: Evidence from epidemiologic studies. Scientific Reports, 2016;6():1-12. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting H. Jiang, Second Military Med Univ, Changhi Hosp, Dept. of Pathol, Shanghai, People's Republic of China. Additional authors for this research include Y.S. Gao, X.S. Zhi, N. Ta, H. Jiang and J.M. Zheng.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Pancreatic Neoplasms, Biological Pigments, Risk and Prevention, Biological Factors, Organic Chemicals, Pancreatic Cancer, Gastroenterology, Cycloparaffins, beta Carotene,
 Researchers at Second Military Medical University Target Heart Failure (Blockade of receptor for advanced glycation end products protects against systolic overload-induced heart failure after transverse aortic constriction in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Failure have been presented. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Heart failure is the consequence of sustained, abnormal neurohormonal and mechanical stress and remains a leading cause of death worldwide. The aim of this work was to identify whether blockade of receptor for advanced glycation end products (RAGE) protected against systolic overload-induced heart failure and investigate the possible underlying mechanism."

Our news journalists obtained a quote from the research from Second Military Medical University, "It was found that RAGE mRNA and protein expression was up-regulated in cardiac tissues from mice subjected to pressure overload by transverse aortic constriction (TAC). Importantly, inhibition of RAGE by treatment with soluble RAGE (sRAGE) or FPS-ZM1 (a high-affinity RAGE-specific inhibitor) for 8 weeks attenuated cardiac remodeling (including cardiac hypertrophy and fibrosis), and dysfunction in mice exposed to TAC. Furthermore, treatment of TAC mice with sRAGE or FPS-ZM1 enhanced phosphorylation of AMPK and reduced phosphorylation of mTOR and protein expression of NF kappa B p65 in cardiac tissues. In addition, treatment of TAC mice with sRAGE or FPS-ZM1 abated oxidative stress, attenuated endoplasmic reticulum stress, and suppressed inflammation in cardiac tissues."

According to the news editors, the research concluded: "These data demonstrated the benefits of blocking RAGE on the progression of systolic overload-induced heart failure in mice, which was possibly through modulating AMPK/mTOR and NF kappa B pathways."

For more information on this research see: Blockade of receptor for advanced glycation end products protects against systolic overload-induced heart failure after transverse aortic constriction in mice. European Journal of Pharmacology, 2016;791():535-543. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news correspondents report that additional information may be obtained from X.X. Zhao, Second Military Med Univ, Changhai Hosp, Dept. of Cardiovasol, Shanghai 200433, People's Republic of China. Additional authors for this research include M.L. Yu, Z.G. Zhang, Y.H. Yu, Q. Chen, W. Zhang and X.X. Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.07.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia,
Researchers at Semmelweis University Target Liver Volume
(Identification of cofactors influencing hypertrophy of the future liver remnant after portal vein embolization-the effect of collaterals on embolized liver volume)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hepatology - Liver Volume have been published. According to news reporting originating in Hamburg, Germany, by NewsRx journalists, research stated, "The purpose of this retrospective study was to monitor hypertrophy of future liver remnant following portal vein embolization (PVE) before planned extended right hepatectomy. However, because individual responses to PVE are highly variable, our focus was to identify cofactors of successful hypertrophy."

The news reporters obtained a quote from the research from Semmelweis University, "28 patients with primary or secondary liver tumours, mean age 64.1 +/- 12.9 years, underwent PVE. Volumetric analysis of hypertrophy before and after PVE (median 39.0 +/- 15.7 days) was performed. The embolized liver segments were investigated for occurrence of reperfusion of their portal branches. Blood parameters before PVE were additionally investigated. Patients were divided into responders (21/28) and non-responders (7/28) by post-PVE standardized future liver remnant being above or below 25%, respectively. No significant differences between the groups were found regarding biometric and volumetric parameters before PVE. In the entire group after PVE, the mean absolute increase of Segments 2 and 3 was 196.0 +/- 84.7 cm(3) and the median relative increase was 46.6 +/- 98.8%. The formation of left to right hepatic portoportal collaterals exhibited a negative correlation to successful hypertrophy (p = 0.004) as well as low plasma total protein (p = 0.019). Successful embolization of Segment IV showed only a trend to significance (p = 0.098). Cofactors associated with a favourable outcome regarding hypertrophy were the absence of collaterals in the control CT scans and high plasma total protein. Advances in knowledge: Portoportal collaterals negatively influence hypertrophy after PVE."

According to the news reporters, the research concluded: "On the other hand, plasma total protein is a positive prognostic indicator on hypertrophy of the liver in our cohort."


Our news correspondents report that additional information may be obtained by contacting M. Zeile, Semmelweis University, Fac Med, Hamburg, Germany. Additional authors for this research include A. Bakal, J.E. Volkmer, G.A. Stavrou, P. Dautel, J. Hoeltje, A. Stang, K.J. Oldhafer and R. Bruning.
Keywords for this news article include: Hamburg, Germany, Europe, Gastroenterology, Embolization, Liver Volume, Portal Vein, Hypertrophy, Hepatology, Angiology, Semmelweis University.

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Stroke

Researchers at Seoul National University Hospital Release New Data on Stroke (Novel echocardiographic indicator for potential cardioembolic stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Stroke are presented in a new report. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "In many cardioembolic strokes (CSs), the specific embolic source is uncertain. Despite the high mortality of CS, not enough attention is paid to its potential source."

Funders for this research include Korea Health Industry Development Institute, Ministry of Health and Welfare, Republic of Korea, National Research Foundation of Korea, Ministry of Science, ICT and Future Planning.

Our news journalists obtained a quote from the research from Seoul National University Hospital, "Although atrial fibrillation (AF) is the most common source of embolism, more complex and dynamic multiplicities may influence CS. The aim of this study was to evaluate novel indicators of transthoracic echocardiography (TTE) that have additional value for detecting CS. In total, 1878 patients with acute ischaemic stroke who had TTE during admission were identified. Of the patients with undetermined etiology, 93 patients with incomplete evaluations were excluded. Thereafter, two stroke neurologists reviewed all of the magnetic resonance images to assess cardioembolic lesion patterns. The patients were classified into two groups: potential cardioembolic stroke (PCS) and non-PCS. Amongst a total of 1601 patients, 518 (32.4%) had PCS. About half of the patients with PCS had AF. Patients with PCS were more likely to have larger left ventricular (LV) end-diastolic diameters, larger LV end-systolic diameters, larger left atrial sizes, increased E/A ratios and reduced LV ejection fractions. After adjusting for multiple clinical and TTE variables including AF, an E/A ratio (>=)1.5 had a significant predictive value for PCS (odds ratio 2.89, 95% confidence interval 1.57-5.31, p <0.01)."

According to the news editors, the research concluded: "An E/A ratio (>=)1.5 is independently associated with PCS after adjusting for multiple covariates including AF and provides incremental prognostic information for detecting PCS."


The news correspondents report that additional information may be obtained from Y. Kim, Dept. of Neurology, Seoul National University Hospital, Seoul, South Korea. Additional authors for this research include T.J. Kim, J.B. Park, S. Lee, Y.J. Kim, J.S. Lee and S.H Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.12909. This DOI is a link to an online electronic document that is
Researchers at Seoul National University Target Heart Attack (The role of prehospital advanced airway management on outcomes for out-of-hospital cardiac arrest patients: a meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Attack have been presented. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "The objective of this meta-analysis was to compare the benefits of prehospital advanced airway management (AAM) and basic airway management (BAM) for out-of-hospital cardiac arrest (OHCA) patients. Two investigators performed a systematic review of PubMed, EMBASE, and the Cochrane Database to identify all peer-reviewed articles relevant to this meta-analysis."

Our news journalists obtained a quote from the research from Seoul National University, "We included all articles describing emergency medical system-treated nontraumatic OHCAs; specifically, all articles that described intervention of the prehospital AAM type were considered. The primary outcome was survival to discharge, whereas the secondary outcome was neurologic recovery after an OHCA event. For subgroup analysis, we compared the clinical outcome of endotracheal intubation (ETI), a specific type of AAM, vs BAM. We reviewed 1452 studies, 10 of which satisfied all the inclusion criteria and involved 17380 patients subjected to AAM and 67525 subjected to BAM. Based on the full random effects model, patients who received AAM had lower odds of survival (odds ratio [OR], 0.51; 95% confidence interval [CI], 0.29-0.90) compared with BAM. Subgroup analysis for ETI vs BAM showed no significant association with respect to survival (OR, 0.44; 95% CI, 0.16-1.23). There were no significant differences in the odds of neurologic recovery between AAM and BAM (OR, 0.64; 95% CI, 0.03-1.37). Our results reveal decreased survival odds for OHCA patients treated with AAM by emergency medical service personnel compared with BAM."

According to the news editors, the research concluded: "However, the role of prehospital AAM, especially ETI, on achieving neurologic recovery remains unclear."


Our news journalists report that additional information may be obtained by contacting S. Jeong, Seoul National University, Biomed Res Inst, Lab Emergency Med Serv, Seoul 110744, South Korea. Additional authors for this research include K.O. Ahn and S.D. Shin.
Researchers at Shanghai Jiao-Tong University Have Reported New Data on Antineoplastics (Self-Delivery Nanoparticles of Amphiphilic Methotrexate-Gemcitabine Prodrug for Synergistic Combination Chemotherapy via Effect of Deoxyribonucleotide Pools)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antineoplastics is the subject of a report. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "The distinct and complementary biochemical mechanisms of folic acid analog methotrexate (MTX) and cytidine analog gemcitabine (GEM) make their synergistic combination effective. Unfortunately, such a combination faces severe pharmacokinetic problems and several transportation barriers."

Financial support for this research came from Ministry of Science and Technology of the People's Republic of China.

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "To overcome these problems, a new strategy of amphiphilic small molecule prodrug (ASMP) is developed to improve their synergistic combination effect. The ASMP was prepared by the amidation of the hydrophilic GEM with the hydrophobic MTX at a fixed ratio. Owing to its inherent amphiphilicity, the MTX-GEM ASMP self-assembled into stable nanoparticles (ASMP-NPs) with high drug loading capacity (100%), in which the MTX and GEM could self-deliver without any carriers and release synchronously in cancer cells. In vitro studies showed that the MTX-GEM ASMP-NPs could greatly improve the synergistic combination effects by the reason of arresting more S phase of the cell cycle and reducing levels of deoxythymidine triphosphate (dTTP), deoxyadenosine triphosphate (dATP), and deoxycytidine triphosphate (dCTP). The stronger synergistic effects caused the higher cell cytotoxicity and apoptotic ratio, and circumvented the multidrug resistance (MDR) of tumor cells."

According to the news editors, the research concluded: "Additionally, MTX-GEM ASMP-NPs could achieve the same anticancer effect with the greatly reduced dosage compared with the free drugs according to the dose-reduction index (DRI) values of MTX and GEM in MTX-GEM ASMP-NPs, which may be beneficial for reducing the side effects."

The news correspondents report that additional information may be obtained from X.Y. Zhu, Shanghai Jiao Tong University, State Key Lab Met Matrix Composites, Sch Chem & Chem Engn, Shanghai 200240, People's Republic of China. Additional authors for this research include P. Huang, M.X. Hu, W. Huang, X.Y. Zhu and D.Y. Yan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.bioconchhem.6b00503. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Radiation-Sensitizing Agents, Methotrexate Therapy Sodium, Immunosuppressive Agents, Emerging Technologies, Drugs and Therapies, Gemcitabine Therapy, Antineoplastics, Antimetabolites, Pharmaceuticals, Antirheumatics, Antipsoriatrics, Nanotechnology, Chemotherapy, Nanoparticle, Antivirals, Shanghai Jiao-Tong University.

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Drugs and Therapies - Antiretrovirals

Researchers at Sichuan University Report Findings in Antiretrovirals (Lack of Efficacy of Ulinastatin Therapy During Cardiopulmonary Bypass Surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antiretrovirals. According to news reporting originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "It was believed that inflammatory response induced by cardiopulmonary bypass (CPB) was blamed for complications after cardiac surgery. To improve the outcome, many pharmacological interventions have been applied to attenuate inflammatory response during CPB."

Our news editors obtained a quote from the research from Sichuan University, "The objective of this study was to investigate the effect of ulinastatin (urinary trypsin inhibitor [UTI]) on outcome after CPB surgery. Totally, 208 patients undergoing elective valves replacement between November 2013 and September 2014 were divided into Group U (n=70) and Group C (n=138) based on they received UTI or not. Categorical variables were compared between groups using Fisher's exact test, and continuous variables using unpaired Student's t-test or Mann-Whitney U-test. One-way analysis of variance and Dunnett's or Tukey's tests were used to compare values at different time points within the same group. The risk of outcomes was estimated and adjusted by multivariable logistic regression, propensity scoring, and mixed-effect models for all measured variables. Both the serious complications in total, including death, acute lung injury, acute respiratory distress syndrome and acute kidney injury, and the other complications, including hemodialysis, infection, re-incubation, and tracheotomy were similar between the two groups (p >0.05). After adjusted by multivariable logistic regression and the propensity score, UTI still cannot be found any benefit to improve any outcomes after cardiac surgery. Also, no statistical differences with regard to duration of postoperative mechanical ventilation, the length of Intensive Care Unit and hospital stays (p >0.05)."

According to the news editors, the research concluded: "UTI did not improve postoperative outcomes in our patients after cardiopulmonary bypass surgery."

For more information on this research see: Lack of Efficacy of Ulinastatin Therapy
Researchers at Sichuan University Target Gastrointestinal Neoplasms (A lower dosage of imatinib in patients with gastrointestinal stromal tumors with toxicity of the treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Digestive System Diseases and Conditions - Gastrointestinal Neoplasms have been presented. According to news originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "This study investigated the efficiency and safety of imatinib in the lower dose (300 mg/d) in patients with gastrointestinal stromal tumor (GIST) who cannot tolerate imatinib in the standard dose (400 mg/d). Steady-state imatinib trough concentration (Cmin) values in 18 patients with GIST who were taking 300mg/d or 400mg/d imatinib were measured."

Our news journalists obtained a quote from the research from Sichuan University, "The clinical features, toxicity data, and follow-up data were collected. Around 18 patients with GIST were investigated in which 9 patients received 300mg/d imatinib. The mean imatinib Cmin value of the 18 patients was 1841ng/mL (1018-3897ng/mL). The difference between the patients treated with 400mg/d (n=9) and those treated with 300mg/d (n=9), which have imatinib Cmin values of 2122 +/- 1003ng/mL and 1559 +/- 478ng/mL, respectively, was not significant (P=0.148). In total, 12 of the 18 patients had complete resection of the primary tumor, 8 of whom received postoperative imatinib 300mg/d. After the average follow-up of 15.4 months, no recurrence was documented. Of the 6 patients with unresected GIST, 1 received imatinib 300mg/d for 13 months. The tumor size of this patient continued to decrease. In contrast to patients treated with imatinib 400mg/d, patients treated with imatinib 300mg/d notably exhibited lesser drug-related side effects."

According to the news editors, the research concluded: "Patients with GIST who exhibited intolerance to the standard dose of imatinib (400 mg/d), a lower dose of 300mg/d could provide not only sufficient plasma Cmin and good disease control but also the alleviation
of the side effects."

For more information on this research see: A lower dosage of imatinib in patients with gastrointestinal stromal tumors with toxicity of the treatment. *Medicine, 2016;95(49):202-206. Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from B. Zhang, Sichuan University, Dept. of Gastrointestinal Surg, West China Hosp, Chengdu, Sichuan, People's Republic of China. Additional authors for this research include J. Xiang, S. Tang, J. Chen, Q. Yu and B. Zhang.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, BCR-ABL Tyrosine Kinase Inhibitors, Gastrointestinal Stromal Tumors, Digestive System Neoplasms, Gastrointestinal Neoplasms, Protein Kinase Inhibitors, Drugs and Therapies, Gastroenterology, Imatinib Therapy, Antineoplastics, Sichuan University.

Our news correspondents report that additional information may be obtained from B. Zhang, Sichuan University, Dept. of Gastrointestinal Surg, West China Hosp, Chengdu, Sichuan, People's Republic of China. Additional authors for this research include J. Xiang, S. Tang, J. Chen, Q. Yu and B. Zhang.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, BCR-ABL Tyrosine Kinase Inhibitors, Gastrointestinal Stromal Tumors, Digestive System Neoplasms, Gastrointestinal Neoplasms, Protein Kinase Inhibitors, Drugs and Therapies, Gastroenterology, Imatinib Therapy, Antineoplastics, Sichuan University.

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Lung Diseases and Conditions - Pulmonary...

Researchers at Soochow University Release New Data on Pulmonary Hypertension (Risk factors for pulmonary hypertension in patients receiving maintenance peritoneal dialysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Pulmonary Hypertension is the subject of a report. According to news reporting originating from Suzhou, People's Republic of China, by NewsRx correspondents, research stated, "We investigated the risk factors for pulmonary hypertension (PH) in patients receiving maintenance peritoneal dialysis (MPD). A group of 180 end-stage renal disease patients (124 men and 56 women; mean age: 56.43?8.36) were enrolled in our study, which was conducted between January 2009 and June 2014."

Our news editors obtained a quote from the research from Soochow University, "All of the patients received MPD treatment in the Dialysis Center of the Second Affiliated Hospital of Soochow University. Clinical data, laboratory indices, and echocardiographic data from these patients were collected, and follow-ups were scheduled bi-monthly. The incidence and relevant risk factors of PH were analyzed. The differences in measurement data were compared by t-test and enumeration data were compared with the ch2 test. Among the 180 patients receiving MPD, 60 were diagnosed with PH. The remaining 120 were regarded as the non-PH group. Significant differences were observed in the clinical data, laboratory indices, and echocardiographic data between the PH and non-PH patients (all p<0.05). Furthermore, hypertensive nephropathy patients on MPD showed a significantly higher incidence of PH compared with non-hypertensive nephropathy patients (p <0.05). Logistic regression analysis showed that the proportion of internal arteriovenous fistula, C-reactive protein levels, and ejection fraction were the highest risk factors for PH in patients receiving MPD."

According to the news editors, the research concluded: "Our study shows that there is a high incidence of PH in patients receiving MPD and hypertensive nephropathy patients have
an increased susceptibility to PH."

For more information on this research see: Risk factors for pulmonary hypertension in patients receiving maintenance peritoneal dialysis. *Brazilian Journal of Medical and Biological Research*, 2016;49(3);.

The news editors report that additional information may be obtained by contacting Y. Zeng, Dept. of Nephrology, The Second Affiliated Hospital of Soochow University, Suzhou, People's Republic of China. Additional authors for this research include D.D. Yang, S. Feng, H.Y. Shen, Z. Wang, S. Jiang, Y.B. Shi and J.X Fu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1590/1414-431X20154733. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Suzhou, Nephrology, Nephropathy, Renal Dialysis, Peritoneal Dialysis, Risk and Prevention, Pulmonary Hypertension, People's Republic of China, Lung Diseases and Conditions, Cardiovascular Diseases and Conditions.

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**Oncology - Colon Cancer**

**Researchers at Southern Medical University Report New Data on Colon Cancer (Analysis of the predictive efficiency of MOP on adverse prognosis and the pathogenesis of S100P-mediated invasion and metastasis of colon adenocarcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Elevated expression of S100P has been detected in several tumor types. To analyze the potential use of S100P for the prediction of colorectal cancer (CRC) metastasis and prognosis, S100P expression was detected in 125 patients with colon adenocarcinoma by immunohistochemistry, followed by correlation and survival analysis."

Our news editors obtained a quote from the research from Southern Medical University, "High S100P expression was correlated with metastasis, as demonstrated by clinically relevant data, and predicted poor survival more effectively than preoperative serum carcinoembryonic antigen (CEA) and carbohydrate antigen 19-9 (CA19-9) levels in colon adenocarcinoma. Stable S100P knockdown CRC cell lines were established to elucidate the relationship between S100P expression and tumor progression in vitro and in vivo. S100P knockdown resulted in reductions in the invasiveness and metastasis of CRC cells. Xenograft growth in nude mice also demonstrated that down-regulated S100P dramatically inhibited peritoneal metastasis of CRC cells. S100P promoted the invasion and metastasis of CRC by activating RAGE/ERK signaling and promoting the epithelial mesenchymal transition (EMT). RAGE was found to be crucial for S100P-mediated EMT in colon cancer. Knockdown of RAGE in S100P-overexpressing colon cancer cells dramatically suppressed EMT process."

According to the news editors, the research concluded: "Our results indicate that overexpression of S100P is related with an invasive and metastatic phenotype of CRC which is EMT-involved and RAGE dependent."

For more information on this research see: Analysis of the predictive efficiency of


Keywords for this news article include: Guangdong, People's Republic of China, Asia, Cancer, Genetics, Gastroenterology, Adenocarcinoma, Colon Cancer, Oncology, Southern Medical University.

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Nutritional and Metabolic Diseases and Conditions —

**Researchers at Southern Medical University Report New Data on Obesity (The effects of resveratrol intervention on risk markers of cardiovascular health in overweight and obese subjects: a pooled analysis of randomized controlled trials)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Potential effects of resveratrol consumption on cardiovascular disease risk factors and body weight in overweight/obese adults have not been fully elucidated. Our present analysis was to evaluate the effects of resveratrol consumption on risk markers related to cardiovascular health in overweight/obese Individuals."

Our news editors obtained a quote from the research from Southern Medical University, "Multiple literature databases were systematically searched, and 21 studies were included. Effect sizes were expressed as weighted mean difference (WMD) and 95% confidence interval (CI), and heterogeneity was assessed with the I2 test. Publication bias and subgroup analyses were also performed. There were variations in reporting quality of included studies. Resveratrol intervention significantly lowered total cholesterol (WMD, -0.19 mmol/L; 95% CI, -0.32 to -0.06; P = 0.004), systolic blood pressure (WMD, -2.26 mmHg; 95% CI, -4.82 to -0.49; P = 0.02), and fasting glucose (WMD, -0.22 mmol/L; 95% CI, -0.42 to -0.03; P = 0.03). Heterogeneity was noted for these outcomes (35.6%, 38.7% and 71.4%, respectively). Our subgroup analysis showed significant reductions in total cholesterol, systolic blood pressure, diastolic blood pressure, glucose, and insulin in subjects ingesting higher dose of resveratrol (>= 300 mg/day)."

According to the news editors, the research concluded: "Our finding provides evidence that daily resveratrol consumption might be a candidate as an adjunct to pharmacological management to better prevent and control cardiovascular disease in overweight/obese individuals."

For more information on this research see: The effects of resveratrol intervention on risk markers of cardiovascular health in overweight and obese subjects: a pooled analysis of


Keywords for this news article include: Guangdong, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Clinical Trials and Studies, Clinical Research, Blood Pressure, Hemodynamics, Bariatriics, Obesity, Southern Medical University.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Researchers at Southwest University Report New Data on HIV/AIDS (Sensitive detection of HIV gene by coupling exonuclease III-assisted target recycling and guanine nanowire amplification)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting originating in Chongqing, People's Republic of China, by NewsRx journalists, research stated, "In this work, a simple, label-free electrochemical biosensor was constructed with the combination of exonuclease III (Exo III)-assisted target recycling and guanine nanowire amplification for the detection of HIV gene. The presence of target DNA leads to target recycling process, which could obtain a digestion product named as help DNA with the assistance of Exo III."

Financial supporters for this research include National Natural Science Foundation of China, Innovation Foundation of Chongqing City for Postgraduate, Municipal Natural Science Foundation of Chongqing City.

The news reporters obtained a quote from the research from Southwest University, "The released help DNA can hybridize with the G-quadruplex sequence-locked hairpin probe. Then, the active G-quadruplex sequence could form G-quadruplex structure in the presence of IC, which could trigger the formation of guanine nanowire with the help of Mg2+. The hemin/G-quadruplex repeat units could effectively catalyze the H2O2-mediated oxidation of 3,3',5,5'-tetramethyl benzidine dihydrochloride (TMB 2HCl) accompanied by a change in color of the reaction solution and an increased electrochemical current signal in the presence of hemin. The developed amplification strategy provides a sensitive and selective approach for the detection of target DNA with a detection limit of 3.6 pM."

According to the news reporters, the research concluded: "Furthermore, the proposed DNA sensor has a promising potential for biosensing in real settings."

For more information on this research see: Sensitive detection of HIV gene by coupling exonuclease III-assisted target recycling and guanine nanowire amplification. *Sensors and Actuators B-Chemical*, 2017;238():1017-1023. *Sensors and Actuators B-Chemical* can be
contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland.

Our news correspondents report that additional information may be obtained by contacting H.Q. Luo, Southwest University, Key Lab Ecoenvironm Three Gorges Reservoir Reg, Minist Educ, Sch Chem & Chem Engn, Chongqing 400715, People's Republic of China. Additional authors for this research include Z.F. Gao, H.Q. Luo and N.B. Li.

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Keywords for this news article include: Chongqing, People's Republic of China, Asia, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Enzymes and Coenzymes, Primate Lentiviruses, Chemicals, Genetics, Vertebrate Viruses, Electrochemicals, HIV Infections, DNA Research, Exonucleases, Retroviridae, RNA Viruses, Esterases, HIV/AIDS, Hemin, Southwest University.

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Oncology - Liver Cancer

Researchers at Stanford University Hospital Target Liver Cancer (Hepatocellular Carcinoma Screening and Surveillance: Practice Guidelines and Real-Life Practice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Hepatocellular carcinoma (HCC) is the seventh most common malignancy worldwide. HCC meets all the criteria established by the World Health Organization for performing surveillance on those at-risk for developing cancer."

Our news journalists obtained a quote from the research from Stanford University Hospital, "Although there are consensus guidelines in the United States, Europe, and Asia for HCC surveillance, it is unclear if these guidelines are regularly implemented in routine practice to optimize real-life clinical outcomes. We reviewed the current literature on the adherence to current HCC practice guidelines by the American Association for the Study of Liver Diseases (2009), the European Association for the Study of the Liver (2012), and the Asia Pacific Association for the Study of the Liver (2010) for screening/surveillance and outcomes of optimal versus poor adherence. We performed PubMed search for relevant articles regarding HCC surveillance and screening worldwide. Currently, HCC screening is underutilized to a large extent. In most studies, the adherence to HCC screening and surveillance is suboptimal. Various patient, provider, and health care system factors may have all contributed to such nonadherence. Strategies to improve HCC screening and surveillance are urgently needed for early HCC detection and improved survival of HCC patients. Further research is needed to elucidate the various medical and/or cultural knowledge, belief, and practice patterns that can lead to barriers to HCC screening and surveillance at both patient and provider levels."

According to the news editors, the research concluded: "These data will help focus and target advocacy and educational efforts to improve HCC surveillance at all levels: patients, providers, and health care system/government."

For more information on this research see: Hepatocellular Carcinoma Screening and
Researchers at State University of New York Release New Data on Colitis (Alkaline ceramidase 3 deficiency aggravates colitis and colitis-associated tumorigenesis in mice by hyperactivating the innate immune system)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Digestive System Diseases and Conditions - Colitis is now available. According to news reporting originating in Stony Brook, New York, by NewsRx journalists, research stated, "Increasing studies suggest that ceramides differing in acyl chain length and/or degree of unsaturation have distinct roles in mediating biological responses. However, still much remains unclear about regulation and role of distinct ceramide species in the immune response."

The news reporters obtained a quote from the research from the State University of New York, "Here, we demonstrate that alkaline ceramidase 3 (Acer3) mediates the immune response by regulating the levels of C18:1-ceramide in cells of the innate immune system and that Acer3 deficiency aggravates colitis in a murine model by augmenting the expression of pro-inflammatory cytokines in myeloid and colonic epithelial cells (CECs). According to the NCBI Gene Expression Omnibus (GEO) database, ACER3 is downregulated in immune cells in response to lipopolysaccharides (LPS), a potent inducer of the innate immune response. Consistent with these data, we demonstrated that LPS downregulated both Acer3 mRNA levels and its enzymatic activity while elevating C(18:1)-ceramide, a substrate of Acer3, in murine immune cells or CECs. Knocking out Acer3 enhanced the elevation of C(18:1)-ceramide and the expression of pro-inflammatory cytokines in immune cells and CECs in response to LPS challenge. Similar to Acer3 knockout, treatment with C(18:1)-ceramide, but not C18:0-ceramide, potentiated LPS-induced expression of pro-inflammatory cytokines in immune cells. In the mouse model of dextran sulfate sodium-induced colitis, Acer3 deficiency augmented colitis-associated elevation of colonic C(18:1)-ceramide and pro-inflammatory cytokines. Acer3 deficiency aggravated diarrhea, rectal bleeding, weight loss and mortality. Pathological analyses revealed that Acer3 deficiency augmented colonic shortening, immune cell infiltration, colonic..."
epithelial damage and systemic inflammation. Acer3 deficiency also aggravated colonic dysplasia in a mouse model of colitis-associated colorectal cancer."

According to the news reporters, the research concluded: "Taken together, these results suggest that Acer3 has an important anti-inflammatory role by suppressing cellular or tissue C(18:1)-ceramide, a potent pro-inflammatory bioactive lipid and that dysregulation of ACER3 and C(18:1)-ceramide may contribute to the pathogenesis of inflammatory diseases including cancer."

For more information on this research see: Alkaline ceramidase 3 deficiency aggravates colitis and colitis-associated tumorigenesis in mice by hyperactivating the innate immune system. Cell Death & Disease, 2016;7():e2124. (Nature Publishing Group - www.nature.com/cddis/

Our news correspondents report that additional information may be obtained by contacting K. Wang, Dept. of Medicine, State University of New York at Stony Brook University, Stony Brook, NY, United States. Additional authors for this research include R. Xu, A.J. Snider, J. Schrandt, Y. Li, A.B. Bialkowska, M. Li, J. Zhou, Y.A. Hannun, L.M. Obeid, V.W. Yang and C. Mao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2016.36. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Colitis, New York, Genetics, Ceramides, Cytokines, Immunology, Stony Brook, United States, Amidohydrolases, Gastroenteritis, Gastroenterology, Alkaline Ceramidase, Enzymes and Coenzymes, Hemic and Immune Systems, North and Central America, Colonic Diseases and Conditions, Digestive System Diseases and Conditions.

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Hematology - Blood Coagulation Factors

Researchers at State University of New York Upstate Medical University Report New Data on Blood Coagulation Factors (Fibrinogen Reduction and Motor Function Improvement by Hematopoietic Growth Factor Treatment in Chronic Stroke in Aged Mice: A ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematology - Blood Coagulation Factors are discussed in a new report. According to news reporting originating from Syracuse, New York, by NewsRx correspondents, research stated, "Stroke is a serious medical condition that causes long-term neurological disability in mainly elderly adults worldwide. Lack of therapy to improve functional recovery in the chronic phase of stroke is a major challenge for stroke research."

Our news editors obtained a quote from the research from the State University of New York Upstate Medical University, "Combining two hematopoietic growth factors, stem cell factor (SCF) and granulocyte-colony stimulating factor (G-CSF), our previous studies have demonstrated the neurovascular restorative efficacy of this treatment in the chronic phase of experimental stroke. Elevated plasma fibrinogen has been thought to serve as a predictor for ischemic stroke. Here we have determined the treatment frequency in reducing plasma
fibrinogen and in restoring motor function in aged mice with chronic stroke. Our findings show that SCF + G-CSF treatment in chronic stroke decreases plasma fibrinogen and improves motor function in aged mice. No differences have been found between a 2-week treatment regimen and 7-day treatment in the plasma fibrinogen assay, while the 7-day treatment regimen displays a better recovery pattern with regard to motor function.

According to the news editors, the research concluded: "This study provides new insight into understanding the potential contribution of SCF + G-CSF in both reducing the risk of recurrent ischemic stroke and enhancing stroke recovery."


The news editors report that additional information may be obtained by contacting Y. Liu, Dept. of Neurosurgery, State University of New York Upstate Medical University, Syracuse, NY, United States. Additional authors for this research include M. Popescu, S. Longo, M. Gao, D. Wang, S. McGillis and L. R. Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3727/096368916X690791. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Syracuse, New York, Fibrinogen, Hematology, United States, Hematopoietic, Protein Precursors, Drugs and Therapies, Risk and Prevention, Acute Phase Proteins, Coagulation Modifiers, North and Central America, Blood Coagulation Factors.

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Peptides and Proteins

Researchers at Stockholm University Report New Data on Peptides and Proteins (Particle-based N-linked glycan analysis of selected proteins from biological samples using nonglycosylated binders)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peptides and Proteins have been published. According to news reporting from Stockholm, Sweden, by NewsRx journalists, research stated, "Glycosylation is one of the most common and important post-translational modifications, influencing both the chemical and the biological properties of proteins. Studying the glycosylation of the entire protein population of a sample can be challenging because variations in the concentrations of certain proteins can enhance or obscure changes in glycosylation."

The news correspondents obtained a quote from the research from Stockholm University. "Furthermore, alterations in the glycosylation pattern of individual proteins, exhibiting larger variability in disease states, have been suggested as biomarkers for different types of cancer, as well as inflammatory and neurodegenerative diseases. In this paper, we present a rapid and efficient method for glycosylation analysis of individual proteins focusing on changes in the degree of fucosylation or other alterations to the core structure of the glycans, such as the presence of bisecting N-acetylgalcosamines and a modified degree of branching. Streptavidin-coated magnetic beads are used in combination with genetically engineered immunoaffinity binders, called VHH antibody fragments. A major advantage of the VHHs is
that they are nonglycosylated; thus, enzymatic release of glycans from the targeted protein can be performed directly on the beads. After deglycosylation, the glycans are analyzed by MALDI-TOF-MS. The developed method was evaluated concerning its specificity, and thereafter implemented for studying the glycosylation pattern of two different proteins, alpha-1-antitrypsin and transferrin, in human serum and cerebrospinal fluid."

According to the news reporters, the research concluded: "To our knowledge, this is the first example of a protein array-type experiment that employs bead-based immunoaffinity purification in combination with mass spectrometry analysis for fast and efficient glycan analysis of individual proteins in biological fluid."

For more information on this research see: Particle-based N-linked glycan analysis of selected proteins from biological samples using nonglycosylated binders. Journal of Pharmaceutical and Biomedical Analysis, 2017;132():125-132. Journal of Pharmaceutical and Biomedical Analysis can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www Elsevier.com; Journal of Pharmaceutical and Biomedical Analysis - www journals.elsevier.com/journal-of-pharmaceutical-and-biomedical-analysis/)

Our news journalists report that additional information may be obtained by contacting G. Thorsen, Stockholm University, Dept. of Environm Sci & Analyt Chem, Stockholm, Sweden. Additional authors for this research include I. Karlsson, L. Ndreu, A. Quaranta, M. Pijnappel and G. Thorsen.

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Keywords for this news article include: Stockholm, Sweden, Europe, Peptides and Proteins, Amino Acids, Genetics, Proteins, Peptides, Stockholm University.

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Drugs and Therapies - Chemotherapy

Researchers at Sun Yat-Sen University Cancer Center Report New Data on Chemotherapy (The effect of chemotherapy on programmed cell death 1/programmed cell death 1 ligand axis: some chemotherapeutical drugs may finally work through immune ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Chemotherapy have been presented. According to news reporting originating in Guangzhou, People's Republic of China, by NewsRx journalists, research stated, "Most tumors are immunogenic which would trigger some immune response. Chemotherapy also has immune potentiating mechanisms of action."

The news reporters obtained a quote from the research from Sun Yat-Sen University Cancer Center, "But it is unknown whether the immune response is associated with the efficacy of chemotherapy and the development of chemoresistance. Recently, there is a growing interest in immunotherapy, among which the co-inhibitory molecules, programmed cell death 1/programmed cell death 1 ligand (PD-1/PD-L1) leads to immune evasion."

According to the news reporters, the research concluded: "Since some reports showed that conventional chemotherapeutics can induce the expression of PD-L1, we try to
summarize the effect of chemotherapy on PD-1/PD-L1 axis and some potential molecules relevant to PD-1/PD-L1 in chemoresistance in this review.

For more information on this research see: The effect of chemotherapy on programmed cell death 1/programmed cell death 1 ligand axis: some chemotherapeutical drugs may finally work through immune response. *Oncotarget*, 2016;7(20):29794-803.

Our news correspondents report that additional information may be obtained by contacting M. Luo, State Key Laboratory of Oncology in South China, Collaborative Innovation Center for Cancer Medicine, Guangdong Esophageal Cancer Institute, Sun Yat-Sen University Cancer Center, Guangzhou, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7631. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Guangzhou, Chemotherapy, Article Review, Drugs and Therapies, People's Republic of China.

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**Oncology - Lung Cancer**

**Researchers at Sun Yat-Sen University Have Reported New Data on Lung Cancer (Aberrantly expressed miR-582-3p maintains lung cancer stem cell-like traits by activating Wnt/b-catenin signalling)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lung Cancer. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Cancer stem cells (CSCs) are involved in tumorigenesis, tumor recurrence and therapy resistance and Wnt signalling is essential for the development of the biological traits of CSCs. In non-small cell lung carcinoma (NSCLC), unlike in colon cancer, mutations in b-catenin and APC genes are uncommon; thus, the mechanism underlying the constitutive activation of Wnt signalling in NSCLC remains unclear."

The news reporters obtained a quote from the research from Sun Yat-Sen University, "Here we report that miR-582-3p expression correlates with the overall-and recurrence-free-survival of NSCLC patients, and miR-582-3p has an activating effect on Wnt/b-catenin signalling. miR-582-3p overexpression simultaneously targets multiple negative regulators of the Wnt/b-catenin pathway, namely, AXIN2, DKK3 and SFRP1. Consequently, miR-582-3p promotes CSC traits of NSCLC cells in vitro and tumorigenesis and tumor recurrence in vivo. Antagonizing miR-582-3p potently inhibits tumor initiation and progression in xenografted animal models."

According to the news reporters, the research concluded: "These findings suggest that miR-582-3p mediates the constitutive activation of Wnt/b-catenin signalling, likely serving as a potential therapeutic target for NSCLC."

For more information on this research see: Aberrantly expressed miR-582-3p maintains lung cancer stem cell-like traits by activating Wnt/b-catenin signalling. *Nature Communications*, 2015;6():8640. (Nature Publishing Group - www.nature.com/; Nature Communications - www.nature.com/ncomms/)

Our news correspondents report that additional information may be obtained by
Researchers at Sun Yat-Sen University Target Drug Targets (Chemical Structure Similarity Search for Ligand-based Virtual Screening: Methods and Computational Resources)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Targets have been published. According to news reporting out of Guangzhou, People's Republic of China, by NewsRx editors, research stated, "For many years the assumption that 'Chemical compounds with similar structures may have similar activities' has been a foundation for lead identification. The similarity can be computed based upon topological, steric, electronic, and/or physical properties."

Our news journalists obtained a quote from the research from Sun Yat-Sen University, "The chemical structure similarity search differs from the chemical substructure search in that the former requires assessment of the properties of each compound and thus no filter can be applied for skipping structures before they are assessed to accelerate the computation. The latter can be accelerated by pre-screening compounds and omitting those that miss one (or more) specified fragments from the query. Moreover, three-dimensional similarity search requires superimposing many conformation pairs for each compound in the library. This makes 3-D similarity search algorithms time-consuming, and in general requires high performance computing (HPC) resources."

According to the news editors, the research concluded: "This review will summarize recent progress in the techniques for HPC-supported two and three-dimensional chemical structure similarity search algorithms, and their applications in ligand-based virtual screening."


Our news journalists report that additional information may be obtained by contacting Q. Gu, Research Center for Drug Discovery (RCDD), Sun Yat-Sen University, 132 East Circle at University City, Guangzhou 510006, People's Republic of China. Additional authors for this research include C. Liao, Z. Liu, A.T. Hagler, Q. Gu and J. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1389450116666151102095555. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers at Sungkyunkwan University School of Medicine Target Gastric Cancer [Prospective phase II trial of pazopanib plus CapeOX (capecitabine and oxaliplatin) in previously untreated patients with advanced gastric cancer]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Gastric Cancer are presented in a new report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "We designed a single-arm, open label phase II study to determine the efficacy and toxicity of the combination of pazopanib with CapeOX (capecitabine and oxaliplatin) in metastatic /recurrent advanced gastric cancer (AGC) patients. Previously untreated AGC patients received capecitabine (850 mg/m² bid, day 1-14) plus oxaliplatin (130 mg/m², day 1) in combination with pazopanib (800 mg, day 1-21) every three weeks."

Our news editors obtained a quote from the research from the Sungkyunkwan University School of Medicine, "Treatment was continued until progression of the disease or intolerable toxicity was observed. In all, 66 patients were treated with pazopanib plus CapeOx. The median age of the patients was 51.5 years (range, 23.0-77), and the median ECOG performance status was 1 (0-1). Among all 66 patients, one complete response and 37 partial responses were observed (overall response rate, 62.4%; 95% confidence interval (CI), 45.7-73.5% accounting for the 2-stage design of this trial). Stable disease was observed in 23 patients (34.8%), revealing a 92.4% disease control rate. The median progression free survival and overall survival were 6.5 months (95% CI, 5.6-7.4) and 10.5 months (95% CI, 8.1-12.9), respectively. Thirty-four patients (51.5%) experienced a treatment-related toxicity of grade 3 or more. The most common toxicities of grade 3 or more were neutropenia (15.1%), anemia (10.6%), thrombocytopenia (10.6%), anorexia (7.6%), nausea (3.0%), and vomiting (3.0%). There were no treatment-related deaths."

According to the news editors, the research concluded: "The combination of pazopanib and CapeOX showed moderate activity and an acceptable toxicity profile as a first-line treatment in metastatic / recurrent AGC patients (ClinicalTrials)."

For more information on this research see: Prospective phase II trial of pazopanib plus CapeOX (capecitabine and oxaliplatin) in previously untreated patients with advanced gastric cancer. Oncotarget, 2016;7(17):24088-96.

The news editors report that additional information may be obtained by contacting S.T. Kim, Division of Hematology-Oncology, Dept. of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea. Additional authors for this research include J. Lee, S.J. Lee, S.H. Park, S.H. Jung, Y.S. Park, H.Y. Lim, W.K. Kang and J.O Park.

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Keywords for this news article include: Asia, Seoul, Oncology, South Korea, Gastric Cancer, Gastroenterology, Clinical Research, Clinical Trials and Studies.

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Peptide Proteins - Peptide Hormones

Researchers at Taipei Medical University Have Reported New Data on Peptide Hormones (B-Type Natriuretic Peptide Modulates Pulmonary Vein Arrhythmogenesis: A Novel Potential Contributor to the Genesis of Atrial Tachyarrhythmia in Heart Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Peptide Proteins - Peptide Hormones are discussed in a new report. According to news reporting out of Taipei, Taiwan, by NewsRx editors, research stated, "BNP Modulates PV Electrophysiology. Heart failure (HF) plays a critical role in the genesis of atrial fibrillation (AF)."

Our news journalists obtained a quote from the research from Taipei Medical University, "A high B-type natriuretic peptide (BNP) level occurs in patients with HF and in patients with AF. However, the role of BNP in the pathophysiology of AF is not clear. The purposes of this study were to evaluate the effects of BNP on pulmonary vein (PV) arrhythmogenesis. Whole-cell patch clamp and fluorescence were used to study the action potential, ionic currents, and calcium homeostasis in isolated single rabbit PV cardiomyocytes before and after a BNP infusion, with or without ODQ (10 mu M), milrinone (50 mu M), or ouabain (1 mu M). BNP increased PV spontaneous activity by 28.2 +/- 7.5% at 100 nM and by 23.8 +/- 9.1% at 300 nM. Similar to those with BNP, milrinone 50 mu M increased the PV beating rate from 3.0 +/- 0.2 to 3.6 +/- 0.3 Hz (P < 0.0005, n = 7). In the presence of ODQ application, BNP didn't change PV spontaneous activity. BNP (100 nM) increased calcium transients (F/F-0 from 1.6 +/- 0.1 to 1.9 +/- 0.2, n = 20, P< 0.05) and increased the pacemaker current (0.4 +/- 0.1 to 1.0 +/- 0.2 pA/pF, n = 17, P< 0.0005) in PV cardiomyocytes. Moreover, BNP (100 nM) increased the transient inward current, sodium currents, sodium-calcium exchanger currents, and L-type calcium current; but reduced late sodium currents and the Na-K pump in PV cardiomyocytes. BNP increases PV arrhythmogenesis, which may contribute to the genesis of atrial tachyarrhythmogenesis in HF."

According to the news editors, the research concluded: "Cyclic GMP activation, phosphodiesterase 3 inhibition and Na+/K+-ATPase inhibition might participate in the BNP modulation of PV electrophysiology."


Our news journalists report that additional information may be obtained by contacting Y.J. Chen, Taipei Medical University, Grad Inst Clin Med, Coll Med, Taipei, Taiwan. Additional authors for this research include Y.C. Chen, Y.A. Chen, Y.H. Yeh, S.A.
Researchers at Tarbiat Modares University Release New Data on Mesenchymal Stem Cells (Inhibition of breast tumor growth and abnormal angiogenesis in mice treated with endothelial cells and their progenitor mesenchymal stem cells derived from ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Stem Cell Research - Mesenchymal Stem Cells. According to news originating from Tehran, Iran, by NewsRx correspondents, research stated, "Incorporation of endothelial cells or their progenitor cells into newly sprouting blood vessels can contribute to tissue vascularization after ischemic injury. However, the interaction of the stem cells-derived endothelial cells with angiogenesis within tumors is not well understood."

Our news journalists obtained a quote from the research from Tarbiat Modares University, "The aim of this study was to examine the efficiency of endothelial-like cells derived from MSCs in controlling breast tumor growth associated with abnormal angiogenesis. For this purpose, Balb/c mouse model of breast carcinoma was developed and subjected to intra tumor (I.T)/intra venous (I.V) therapy with undifferentiated MSCs or endothelial cells derived from them. The homing of the stem cells was approved by measuring different markers as well as tracing green fluorescence protein (GFP)-labeled MSCs in the tumors. Tumor growth was measured following cell therapy using a digital caliper. At the end of treatment period (30 days) the angiogenesis markers; VEGFR2 expression as well as micro-vessel density (MVD) using CD31 were estimated in tumor tissues. Stem cell transplantation to mice bearing breast tumors resulted in tumor growth suppression in all experimental groups. The endothelial markers; CD31 and VEGFR2 were down regulated following I.T delivery of the endothelial cells. Accordingly, angiogenesis was suppressed following I.T administration of endothelial cells which was associated with increased focal necrosis in the tumors."

According to the news editors, the research concluded: "Data show that endothelial cells directly injected into tumors is more efficient compared to undifferentiated MSCs in controlling tumor-associated angiogenesis and tumor growth."

For more information on this research see: Inhibition of breast tumor growth and abnormal angiogenesis in mice treated with endothelial cells and their progenitor mesenchymal stem cells derived from bone marrow. Neoplasma, 2016;63(6):911-924. Neoplasma can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

The news correspondents report that additional information may be obtained from A. Allameh, Tarbiat Modares Univ, Fac Med Sci, Dept. of Clin Biochem, Tehran, Iran. Additional authors for this research include A. Allameh, S.M. Tavangar, Z.M. Hassan and M. Soleimani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4149/neo_2016_610. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers at Technical University Release New Data on Escherichia coli (Design of a covalently linked human interleukin-10 fusion protein and its secretory expression in Escherichia coli)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Escherichia coli is now available. According to news reporting out of Dresden, Germany, by NewsRx editors, research stated, "Wild-type human interleukin-10 (hIL-10) is a non-covalent homodimer with a short half-life, thus limiting its therapeutic applications in vivo. To avoid loss of function due to dimer dissociation, we designed a synthetic hIL-10 analog by bridging both monomers via a 15 amino acid-long peptide spacer in a C-terminal to N-terminal fashion."

Financial supporters for this research include Bundesministerium fur Bildung und Forschung, Technische Universität Dresden.

Our news journalists obtained a quote from the research from Technical University, "For secretory expression in Escherichia coli, a 1156 bp fragment was generated from template vector pAZ1 by fusion PCR encoding a T7 promoter region and the signal sequence of the E. coli outer membrane protein F fused in frame to two tandem E. coli codon-optimized mature hIL-10 genes connected via a 45 nucleotide linker sequence. The construct was cloned into pUC19 for high-level expression in E. coli BL21 (DE3). The mean concentrations of hIL-10 fusion protein in the periplasm and supernatant of E. coli at 37 A degrees C growth temperature were 130 +/- 40 and 2 +/- 1 ng/ml, respectively. The molecular mass of the recombinant protein was assessed via matrix-assisted laser desorption ionization time-of-flight (MALDI-TOF) analysis, indicating correct processing of the signaling sequence in E. coli."

According to the news editors, the research concluded: "In vitro biological activity was shown by phosphorylation of signal transducer and activator of transcription protein 3 and suppression of tumor necrosis factor alpha secretion in lipopolysaccharide-stimulated macrophages."

For more information on this research see: Design of a covalently linked human interleukin-10 fusion protein and its secretory expression in Escherichia coli. *Applied Microbiology and Biotechnology*, 2016;100(24):10479-10493. *Applied Microbiology and Biotechnology* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Applied Microbiology and Biotechnology - www.springerlink.com/content/0175-7598/)

Our news journalists report that additional information may be obtained by contacting F. Gunzer, Technical University of Dresden, Inst Med Microbiol & Hyg, D-01307 Dresden, Germany. Additional authors for this research include C. Buttner, W. Rudolph, K. Zimmermann, F. Gunzer and C. Pohlmann.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00253-016-7667-5. This DOI is a link to an online electronic
Researchers at Technical University Target Biological Pigments (Stress responses of human retinal pigment epithelial cells to glyoxal)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biological Factors - Biological Pigments is now available. According to news reporting originating in Dresden, Germany, by NewsRx journalists, research stated, "Intracellular formation of advanced glycation end products (AGEs) is a crucial pathological process in retinal diseases such as age-related macular degeneration (AMD) or diabetic retinopathy (DR). Glyoxal is a physiological metabolite produced during formation of AGEs and has also been shown to derive from photodegraded bisretinoid fluorophores in aging retinal pigment epithelial (RPE) cells."

Financial support for this research came from Deutsche Forschungsgemeinschaft (DFG).

The news reporters obtained a quote from the research from Technical University, "Flow cytometry was combined with either: 1) immunocytochemical staining to detect glyoxal induced formation of N-epsilon-carboxymethyllysine (CML)-modifications of intracellular proteins (AGEs) and changes in the production of stress response proteins; or 2) vital staining to determine apoptosis rates (annexin V binding), formation of intracellular reactive oxygen species (ROS), mitochondrial membrane potential (MMP), and changes in intracellular pH upon treatment of cells with glyoxal. The percentage of apoptotic cells was further quantified by flow cytometry after staining of fixed cells with propidium iodide to determine cells with a subdiploid (fragmented) DNA content. Apoptosis related activation of caspase 3 was determined by Western blotting. Glyoxal induced changes in VEGF-A(165a) mRNA expression and protein production were determined by real-time PCR and by flow cytometry after immunocytochemical staining. Increasing glyoxal concentrations resulted in enhanced formation of AGEs, such as CML modifications of proteins. This was associated with elevated levels of intracellular reactive oxygen species, a depolarized MMP, and a decreased intracellular pH, resulting in an increased number of apoptotic cells. Apoptosis related caspase 3 activation increased in a dose dependent manner after glyoxal incubation. In consequence, the cells activated compensatory mechanisms and increased the levels of the anti-oxidative and stress-related proteins heme oxygenase-1, osteopontin, heat shock protein 27, copper/zinc superoxide dismutase, manganese superoxide dismutase, and cathepsin D. Furthermore, VEGF-A(165a) mRNA expression and VEGF-A protein production were significantly increased after incubation with glyoxal in ARPE-19 cells."

According to the news reporters, the research concluded: "The glyoxal-induced oxidative stress and apoptosis in ARPE-19 cells may provide a suitable in vitro model for studying RPE cellular reactions to AGEs that occur in AMD or in DR."

For more information on this research see: Stress responses of human retinal...

Our news correspondents report that additional information may be obtained by contacting M. Valtink, Technical University of Dresden, Fac Med Carl Gustav Carus, Inst Anat, D-01307 Dresden, Germany. Additional authors for this research include M. Valtink, A. Frenzel, D. Goetze, L. Knels, H. Morawietz and R.H.W. Funk.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00417-016-3463-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dresden, Germany, Europe, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Growth Factor Receptors, Enzymes and Coenzymes, Angiogenic Proteins, Biological Pigmens, Biological Factors, Membrane Proteins, Epithelial Cells, Retinal Pigmens, Dismutase, Cytometry, Apoptosis, Aldehydes, Genetics, Caspase, Glyoxal, VEGF, Technical University.

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**Hormones**

**Researchers at Third Military Medical University Report New Data on Hormones (Melatonin prevents abnormal mitochondrial dynamics resulting from the neurotoxicity of cadmium by blocking calcium-dependent translocation of Drp1 to the mitochondria)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hormones. According to news reporting originating in Chongqing, People's Republic of China, by NewsRx journalists, research stated, "Cadmium (Cd) is a persistent environmental toxin and occupational pollutant that is considered to be a potential risk factor in the development of neurodegenerative diseases. Abnormal mitochondrial dynamics are increasingly implicated in mitochondrial damage in various neurological pathologies."

Financial support for this research came from National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Third Military Medical University, "The aim of this study was to investigate whether the disturbance of mitochondrial dynamics contributed to Cd-induced neurotoxicity and whether melatonin has any neuroprotective properties. After cortical neurons were exposed to 10 mM cadmium chloride (CdCl2) for various periods (0, 3, 6, 12, and 24 hr), the morphology of their mitochondria significantly changed from the normal tubular networks into punctuated structures within 3 hr. Following this pronounced mitochondrial fragmentation, Cd treatment led to signs of mitochondrial dysfunction, including excess reactive oxygen species (ROS) production, decreased ATP content, and mitochondrial membrane potential (▵Ψm) loss. However, 1 mM melatonin pretreatment efficiently attenuated the Cd-induced mitochondrial fragmentation, which improved the turnover of mitochondrial function. In the brain tissues of rats that were intraperitoneally given 1 mg/kg CdCl2 for 7 days, melatonin also ameliorated excessive
mitochondrial fragmentation and mitochondrial damage in vivo. Melatonin's protective effects were attributed to its roles in preventing cytosolic calcium ([Ca(2+)]i) overload, which blocked the recruitment of Drp1 from the cytoplasm to the mitochondria. Taken together, our results are the first to demonstrate that abnormal mitochondrial dynamics is involved in cadmium-induced neurotoxicity."

According to the news reporters, the research concluded: "Melatonin has significant pharmacological potential in protecting against the neurotoxicity of Cd by blocking the disbalance of mitochondrial fusion and fission."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jpi.12310. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Anticonvulsants, Antioxidants, Cadmium, Adjuvant, Hormones, Chongqing, Melatonin Therapy, Drugs and Therapies, Risk and Prevention, Transition Elements, Free Radical Scavenger, People's Republic of China.

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Genetic Diseases and Conditions - Down Syndrome

Researchers at Third Military Medical University Target Down Syndrome (Two kinds of common prenatal screening tests for Down's syndrome: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetic Diseases and Conditions - Down Syndrome. According to news originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "As the chromosomal examination of foetal cells for the prenatal diagnosis of Down's syndrome (DS) carries a risk of inducing miscarriage, serum screening tests are commonly used before invasive procedures. In this study, a total of 374 records from PubMed, EMBASE, and the ISI Science Citation Index databases were reviewed."

Our news journalists obtained a quote from the research from Third Military Medical University, "As a result of duplication, insufficient data, and inappropriate article types, 18 independent articles containing 183,998 samples were used in the final systematic review and meta-analysis of the diagnostic performance of the serum triple screening test (STS) and the integrated screening test (INS). Data extracted from the selected studies were statistically analysed, and the presence of heterogeneity and publication bias was assessed using specific
software. The overall sensitivity, specificity, positive likelihood ratio, negative likelihood ratio, diagnostic odds ratio, and the area under the curve for the STS were 0.77 (95% confidence interval=0.73-0.81), 0.94 (0.94-0.94), 9.78 (6.87-13.93), 0.26 (0.22-0.31), 44.72 (30.77-65.01), and 0.9064, respectively. For the INS, these values were 0.93 (0.90-0.95), 0.93 (0.93-0.93), 22.38 (12.47-40.14), 0.08 (0.05-0.11), 289.81 (169.08-496.76), and 0.9781, respectively. These results indicate that the INS exhibits better diagnostic value for DS."

According to the news editors, the research concluded: "However, further research is needed to identify other biomarkers to improve prenatal screening tests."

For more information on this research see: Two kinds of common prenatal screening tests for Down's syndrome: a systematic review and meta-analysis. *Scientific Reports*, 2016;6 ():18866. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from Y. Yao, Dept. of Laboratory Medicine, Southwest Hospital, Third Military Medical University of PLA, Chongqing 400038, People's Republic of China. Additional authors for this research include Y. Liao, M. Han, S.L. Li, J. Luo and B. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18866. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chongqing, Down Syndrome, Article Review, Mental Retardation, Chromosome Disorders, Congenital Abnormalities, Diagnostics and Screening, Neurologic Manifestations, People's Republic of China, Neurobehavioral Manifestations, Genetic Diseases and Conditions, Nervous System Diseases and Conditions.

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Autoimmune Diseases and Conditions - Multiple

Researchers at Tianjin Medical University General Hospital Target Multiple Sclerosis (Expression Profile of Long Noncoding RNAs in Peripheral Blood Mononuclear Cells from Multiple Sclerosis Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Autoimmune Diseases and Conditions - Multiple Sclerosis is now available. According to news reporting originating in Tianjin, People's Republic of China, by NewsRx journalists, research stated, "Long noncoding RNAs (lncRNAs) play a key role in regulating immunological functions. Their impact on the chronic inflammatory disease multiple sclerosis (MS), however, remains unknown."

Financial supporters for this research include National Natural Science Foundation of China, Youth Top-notch Talent Support Program, National Key Clinical Specialty Construction Project of China.

The news reporters obtained a quote from the research from Tianjin Medical University General Hospital, "We investigated the expression of lncRNAs in peripheral blood mononuclear cells (PBMCs) of patients with MS and attempt to explain their possible role in the process of MS. For this study, we recruited 26 patients with MS according to the revised McDonald criteria. Then, we randomly chose 6 patients for microarray analysis. Microarray assays identified outstanding differences in lncRNA expression, which were verified through
real-time PCR. LncRNA functions were annotated for target genes using Gene Ontology (GO) and Kyoto Encyclopedia of Genes and Genomes (KEGG) analyses, and regulatory relationships between lncRNAs and target genes were analyzed using the 'cis' and 'trans' model. There were 2353 upregulated lncRNAs, 389 downregulated lncRNAs, 1037 upregulated mRNAs, and 279 downregulated mRNAs in patients with MS compared to healthy control subjects (fold change > 2.0). Real-time PCR results of six aberrant lncRNAs were consistent with the microarray data. The coexpression network comprised 864 lncRNAs and 628 mRNAs. Among differentially expressed lncRNAs, 10 lncRNAs were predicted to have 10 cis-regulated target genes, and 33 lncRNAs might regulate their trans target genes. We identified a subset of dysregulated lncRNAs and mRNAs. The differentially expressed lncRNAs may be important in the process of MS."

According to the news reporters, the research concluded: "However, the specific molecular mechanisms and biological functions of these lncRNAs in the pathogenesis of MS need further study."

For more information on this research see: Expression Profile of Long Noncoding RNAs in Peripheral Blood Mononuclear Cells from Multiple Sclerosis Patients. Cns Neuroscience & Therapeutics, 2016;22(4):298-305. Cns Neuroscience & Therapeutics can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA. (Wiley-Blackwell - www.wiley.com; Cns Neuroscience & Therapeutics - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1755-5949)

Our news correspondents report that additional information may be obtained by contacting F. Zhang, Dept. of Neurology, Tianjin Neurological Institute, Tianjin Medical University General Hospital, Tianjin, People's Republic of China. Additional authors for this research include C. Gao, X.F. Ma, X.L. Peng, R.X. Zhang, D.X. Kong, A.R. Simard and J.W Hao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cns.12498. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Cns Neuroscience & Therapeutics can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Tianjin, Genetics, Multiple Sclerosis, People's Republic of China, CNS Demyelinating Autoimmune Disease, Demyelinating Diseases and Conditions, Autoimmune Diseases and Conditions of the Nervous System.

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Blood Diseases and Conditions - Sepsis

Researchers at Tianjin Medical University Report New Data on Sepsis (Clinical prognostic factors for time to positivity in cancer patients with bloodstream infections)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Blood Diseases and Conditions - Sepsis. According to news reporting originating in Tianjin, People's Republic of China, by NewsRx journalists, research stated, "Time to positivity (TTP) has been used in recent years as a simple and rapid method for the additional characterization of the degree of bacteremia. However,
prognostic factors for TTP in cancer patients with bloodstream infections have rarely been studied."

Funders for this research include National Natural Science Foundation of China, Chinese National High Tech (863) Program, Specialized Research Fund for Doctoral Program of Higher Education of China.

The news reporters obtained a quote from the research from Tianjin Medical University, "The aim of this study was to investigate the clinical factors for TTP involving various isolated organisms in cancer patients. We analyzed 386 episodes of bloodstream infections (BSIs) in patients with or without cancer during a 19 month period. Information on age, gender, tumor type, ICU stay, organisms, multidrug resistance (MDR), TTP and outcome was collected. Multivariate logistic regression analysis was performed. The mean TTP of Enterobacteriaceae in patients with hepatocellular carcinoma, gastroenterological cancer, and lung cancer was shorter than in non-cancer patients (9.86 +/- 3.22, 10.05 +/- 3.47, 8.85 +/- 2.78 vs 13.11 +/- 5.37 h). The mean TTP of nonfermentative bacilli in patients with lung cancer (12.37 +/- 5.96 h) and hematologic diseases (8.72 +/- 4.21 h) was also shorter than in non-cancer patients (20.74 +/- 2.46 h), and the mean TTP of Staphylococcus isolates was significantly different between non-cancer patients (22.06 +/- 3.71 h) and hematologic disease patients (11.93 +/- 5.44 h). The presence of a benign tumor was a significant prognostic factor for a long TTP only in the Staphylococci group (OR 0.076, 95 % CI 0.014-0.412), according to multivariate analysis. MDR (OR 2.178, 95 % CI 1.196-4.239) was an independent significant predictor in the Enterobacteriaceae group, with a short TTP, and it was also a significant clinical factor for a long TTP in nonfermentative bacilli and the Staphylococci group (OR 5.037, 95 % CI 1.065-23.82; OR 0.167, 95 % CI 0.059-0.474). Time to positivity provides useful diagnostic and prognostic information for the differentiation of frequently isolated organisms."

According to the news reporters, the research concluded: "This information may help clinicians to use the correct antibiotics in a timely manner to treat cancer patients with BSIs based on clinical factor analysis."

For more information on this research see: Clinical prognostic factors for time to positivity in cancer patients with bloodstream infections. Infection, 2016;44(5):583-588. Infection can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Infection - www.springerlink.com/content/0300-8126/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s15010-016-0890-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Blood Diseases and Conditions, Bloodstream Infection, Septicemia, Oncology, Cancer, Sepsis, Tianjin Medical University.

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Researchers at Tianjin University Target Transport Vesicles (Blood Exosomes Endowed with Magnetic and Targeting Properties for Cancer Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transport Vesicles. According to news reporting from Tianjin, People's Republic of China, by NewsRx journalists, research stated, "Exosomes are a class of naturally occurring nanoparticles that are secreted endogenously by mammalian cells. Clinical applications for exosomes remain a challenge because of their unsuitable donors, low scalability, and insufficient targeting ability."

Funders for this research include Ministry of Science and Technology of the People's Republic of China, National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from Tianjin University, "In this study, we developed a dual-functional exosome-based superparamagnetic nanoparticle cluster as a targeted drug delivery vehicle for cancer therapy. The resulting exosome-based drug delivery vehicle exhibits superparamagnetic behavior at room temperature, with a stronger response to an external magnetic field than individual superparamagnetic nanoparticles. These properties enable exosomes to be separated from the blood and to target diseased cells. In vivo studies using murine hepatoma 22 subcutaneous cancer cells showed that drug-loaded exosome-based vehicle delivery enhanced cancer targeting under an external magnetic field and suppressed tumor growth."

According to the news reporters, the research concluded: "Our developments overcome major barriers to the utility of exosomes for cancer application."


Our news journalists report that additional information may be obtained by contacting H. Qi, Tianjin Key Laboratory of Composite and Functional Materials, School of Material Science and Engineering, Tianjin University, Tianjin 300072, People's Republic of China. Additional authors for this research include C. Liu, L. Long, Y. Ren, S. Zhang, X. Chang, X. Qian, H. Jia, J. Zhao, J. Sun, X. Hou, X. Yuan and C. Kang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.5b06939. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Tianjin, Therapy, Exosomes, Oncology, Organelles, Nanoparticle, Nanotechnology, Transport Vesicles, Emerging Technologies, Cytoplasmic Structures, People's Republic of China.

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Researchers at Tokyo Medical and Dental University Report New Data on Autoimmune Diseases and Conditions [Intravital imaging of Ca(2+) signals in lymphocytes of Ca(2+) biosensor transgenic mice: indication of autoimmune diseases before the ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immune System Diseases and Conditions - Autoimmune Diseases and Conditions is the subject of a report. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Calcium ion (Ca(2+)) signaling is a typical phenomenon mediated through immune receptors, such as the B-cell antigen receptor (BCR), and it is important for their biological activities. To analyze the signaling of immune receptors together with their in vivo dynamics, we generated stable transgenic mice with the F? ster/fluorescence resonance energy transfer (FRET)-based Ca(2+) indicator yellow cameleon 3.60 (YC3.60), based on the Cre/loxP system (YC3.60(flox))."

The news correspondents obtained a quote from the research from Tokyo Medical and Dental University, "We successfully obtained mice with specific YC3.60 expression in immune or nerve cells as well as mice with ubiquitous expression of this indicator. We established five-dimensional (5D) (x, y, z, time, and Ca(2+)) intravital imaging of lymphoid tissues, including the bone marrow. Furthermore, in autoimmune-prone models, the CD22(-/-) and C57BL/6-lymphoproliferation (lpr)/lpr mouse, Ca(2+) fluxes were augmented, although they did not induce autoimmune disease."

According to the news reporters, the research concluded: "Intravital imaging of Ca(2+) signals in lymphocytes may improve assessment of the risk of autoimmune diseases in model animals."

For more information on this research see: Intravital imaging of Ca(2+) signals in lymphocytes of Ca(2+) biosensor transgenic mice: indication of autoimmune diseases before the pathological onset. Scientific Reports, 2016;6():18738. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting S. Yoshikawa, Dept. of Immune Regulation, Tokyo Medical and Dental University, Tokyo, 113-8519, Japan. Additional authors for this research include T. Usami, J. Kikuta, M. Ishii, T. Sasano, K. Sugiyama, T. Furukawa, E. Nakasho, H. Takayanagi, T.F. Tedder, H. Karasuyama, A. Miyawaki and T. Adachi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18738. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Genetics, Biosensing, Immunology, Blood Cells, Lymphocytes, Bioengineering, Bionanotechnology, Nanobiotechnology, Risk and Prevention, Mononuclear Leukocytes, Hemic and Immune Systems, Autoimmune Diseases and Conditions, Immune System Diseases and Conditions.

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Researchers at Tokyo Medical and Dental University Report New Data on HIV/AIDS (Fate of HIV-1 cDNA intermediates during reverse transcription is dictated by transcription initiation site of virus genomic RNA)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immune System Diseases and Conditions - HIV/AIDS. According to news originating from Bunkyo ku, Japan, by NewsRx correspondents, research stated, "Retroviral reverse transcription is accomplished by sequential strand-transfers of partial cDNA intermediates copied from viral genomic RNA. Here, we revealed an unprecedented role of 5'-end guanosine (G) of HIV-1 genomic RNA for reverse transcription."

Our news journalists obtained a quote from the research from Tokyo Medical and Dental University, "Based on current consensus for HIV-1 transcription initiation site, HIV-1 transcripts possess a single G at 5'-ends (G1-form). However, we found that HIV-1 transcripts with additional Gs at 5'-ends (G2-and G3-forms) were abundantly expressed in infected cells by using alternative transcription initiation sites. The G2-and G3-forms were also detected in the virus particle, although the G1-form predominated. To address biological impact of the 5'-G number, we generated HIV clone DNA to express the G1-form exclusively by deleting the alternative initiation sites. Virus produced from the clone showed significantly higher strand-transfer of minus strong-stop cDNA (-sscDNA). The in vitro assay using synthetic HIV-1 RNAs revealed that the abortive forms of -sscDNA were abundantly generated from the G3-form RNA, but dramatically reduced from the G1-form. Moreover, the strand-transfer of -sscDNA from the G1-form was prominently stimulated by HIV-1 nucleocapsid."

According to the news editors, the research concluded: "Taken together, our results demonstrated that the 5'-G number that corresponds to HIV-1 transcription initiation site was critical for successful strand-transfer of -sscDNA during reverse transcription."

For more information on this research see: Fate of HIV-1 cDNA intermediates during reverse transcription is dictated by transcription initiation site of virus genomic RNA. *Scientific Reports*, 2015;5():17680. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from T. Masuda, Dept. of Immunotherapeutics, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Yushima, Bunkyo-ku, Tokyo 113-8519, Japan. Additional authors for this research include Y. Sato, Y.L. Huang, S. Koi, T. Takahata, A. Hasegawa, G. Kawai and M. Kannagi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep17680. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Genetics, HIV/AIDS, Bunkyo ku, Viral RNA, RNA Viruses, Retroviridae, HIV Infections, Vertebrate Viruses, Primate Lentiviruses, Immune System Diseases and Conditions, Viral Sexually Transmitted Diseases and Conditions.

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Researchers at Tufts Medical Center Have Reported New Data on Pericardial Effusion (Pericarditis and Pericardial Effusions in End-Stage Renal Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Pericardial Effusion are discussed in a new report. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Pericarditis and pericardial effusions are not uncommon in patients with end-stage renal disease (ESRD). Etiologies include those found in the general population along with two entities unique to patients with kidney disease, namely uremic and dialysis-associated pericarditis."

Our news editors obtained a quote from the research from Tufts Medical Center, "Uremic pericarditis has been arbitrarily defined as pericarditis that develops before or within 8 weeks of initiation of dialysis, while dialysis-associated pericarditis is used to define pericarditis in patients on dialysis for more than 8 weeks. Retention of uremic toxins is likely a major contributor to uremic and dialysis-associated pericarditis although their exact cause is not known. Indeed, whether they are actually distinct entities is uncertain. Symptoms and signs of pericarditis differ in patients with ESRD compared to the non-ESRD population. Management has not been well studied and ranges from initiation and intensification of dialysis to percutaneous or open drainage for large effusions."

According to the news editors, the research concluded: "This review covers the literature on this topic but emphasizes that most of the data are old and of relatively poor quality, and therefore additional research is needed."


The news editors report that additional information may be obtained by contacting M.J. Sarnak, Tufts Med Center, Div Nephrol, Boston, MA 02111, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/sdi.12517. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Renal Disease, Article Review, Heart Disorders and Diseases, End Stage Renal Disease, Pericardial Effusion, Heart Disease, Pericarditis, Nephrology, Cardiology, Kidney, Tufts Medical Center.

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Researchers at Tufts University Have Reported New Data on Peptides and Proteins (Proteomic analysis of the gamma human papillomavirus type 197 E6 and E7 associated cellular proteins)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Peptides and Proteins are discussed in a new report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Gamma HPV197 was the most frequently identified HPV when human skin cancer specimens were analyzed by deep sequencing (Arroyo Muhr et al., Int. J. Cancer 136: 2546-55, 2015). To gain insight into the biological activities of HPV197, we investigated the cellular interactomes of HPV197 E6 and E7."

Our news journalists obtained a quote from the research from Tufts University, "HPV197 E6 protein interacts with a broad spectrum of cellular LXXLL domain proteins, including UBE3A and MAML1. HPV197 E6 also binds and inhibits the TP53 tumor suppressor and interacts with the CCR4-NOT ubiquitin ligase and deadenlyation complex. Despite lacking a canonical retinoblastoma (RB1) tumor suppressor binding site, HPV197 E7 binds RB1 and activates E2F transcription."

According to the news editors, the research concluded: "Hence, HPV197 E6 and E7 proteins interact with a similar set of cellular proteins as E6 and E7 proteins encoded by HPVs that have been linked to human carcinogenesis and/or have transforming activities in vitro."

For more information on this research see: Proteomic analysis of the gamma human papillomavirus type 197 E6 and E7 associated cellular proteins. Virology, 2017;500():71-81. Virology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Virology - www.journals.elsevier.com/virology/)

The news correspondents report that additional information may be obtained from K. Munger, Tufts University, Sch Med, Dept. of Dev Mol & Chem Biol, Boston, MA 02111, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.virol.2016.10.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Peptides and Proteins, Human Papillomavirus, Tumor Suppression, Amino Acids, Proteomics, Oncology, Virology, Genetics, Proteins, Peptides, Viral, Tufts University.

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Cardiology

Researchers at Turgut Ozal University Report New Data on Cardiology (Potential beneficial effects of foot bathing on cardiac rhythm)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiology. According to news reporting
from Ankara, Turkey, by NewsRx journalists, research stated, "Foot bathing therapy is a simple technique that induces sensations of comfort and relaxation. The aim of this study was to examine the effect of foot bathing therapy on heart rate variability (HRV) parameters in a healthy population."

The news correspondents obtained a quote from the research from Turgut Ozal University, "Participants were twenty healthy female subjects (median age= 20.67 years, SD= 1.04). The recording ECG was applied for 5 minutes before and for 5 minutes after foot bathing therapy of 10 minutes. Subjects rested for 10 minutes without recording ECG in order to stabilize autonomic parameters. The digital signals were then transferred to a laptop and analyzed using LabChart ® software (MLS310/7 HRV Module). Almost all HRV parameters increased and heart (pulse) rate and LF/HF ratio decreased after foot bathing therapy compared with before foot bathing therapy."

According to the news reporters, the research concluded: "These results indicate for the first time in humans that foot bathing might induce a state of balance between sympathetic and parasympathetic systems and might be helpful to prevent possible cardiac arrhythmias."

For more information on this research see: Potential beneficial effects of foot bathing on cardiac rhythm. Clinical and Investigative Medicine, 2016;39(6):S48-S51. Clinical and Investigative Medicine can be contacted at: Canadian Soc Clinical Investigation, Csci Head Office, 774 Echo Drive, Ottawa, On K1S 5N8, Canada.

Our news journalists report that additional information may be obtained by contacting S. Dane, Turgut Ozal Univ, Sch Med, Dept. of Physiol, Ankara, Turkey. Additional authors for this research include S.S. Hartiningsih, M.G. Izgi, S. Bay, K. Unlu, M.O. Tatar, A.M. Alparslan, M. Ozeri and S. Dane.

Keywords for this news article include: Ankara, Turkey, Eurasia, Cardiology, Therapy, Turgut Ozal University.

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Liver Diseases and Conditions - Hepatitis

Researchers at Turkiye Yuksek Ihtisas Hospital Have Reported New Data on Hepatitis (Long term efficacy of pegylated interferone in the treatment of delta hepatitis: a single center experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Liver Diseases and Conditions - Hepatitis is the subject of a report. According to news reporting originating in Ankara, Turkey, by NewsRx journalists, research stated, "Currently there is no satisfactory treatment of chronic HDV. We aimed to evaluate the long term efficacy of PEG-interferones."

The news reporters obtained a quote from the research from Turkiye Yuksek Ihtisas Hospital, "Patients who received PEG-interferone for chronic delta hepatitis during a 7-year period were retrospectively analysed. End of treatment response, virologic response at 6 months after treatment, and long term efficacy were evaluated. Predictors of treatment response were determined. The study group consisted of 31 patients. Twenty-three patients received either PEG-interferone alfa-2a (n= 8) or PEG-interferone alfa-2b (n= 15) for at least 48 weeks. Thirteen patients had an end of treatment virologic response (ITT: 56.5%, PP: 68.4%). HDV RNA negativity after 6 months off PEG-interferone treatment was achieved in 12 patients (ITT:
52.1%, PP: 63.1%). The patients were followed for a median duration of 36 months after PEG-interferone treatment (min-max: 12-120 months). Four patients (33.3%) relapsed during the follow-up. Sustained virologic response (ITT) was 34.8% in the long term. Undetectable HDV RNA level at week 24 of treatment and biochemical response were independent predictors of end of treatment response and sustained virologic response in the long term, respectively.

According to the news reporters, the research concluded: "PEG-interferones have an unsatisfactory efficacy on the treatment of HDV because of a considerable relapse in the long term."


Our news correspondents report that additional information may be obtained by contacting I.H. Kalkan, Turkiye Yuksel Ihtisas Hosp, Dept. of Gastroenterol, Ankara, Turkey. Additional authors for this research include A.S. Koksal, I.H. Kalkan, N. Suna, H. Yildiz and S. Kacar.

Keywords for this news article include: Ankara, Turkey, Eurasia, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease Diseases and Conditions, Liver Diseases and Conditions, Gastroenterology, Interferons, Cytokines, Hepatitis, Genetics, Turkiye Yuksel Ihtisas Hospital.

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**Drugs and Therapies - Antibiotics**

**Researchers at United States Navy Report New Data on Antibiotics (Prevalence of Quinolone Resistance in Enterobacteriaceae from Sierra Leone and the Detection of qnrB Pseudogenes and Modified LexA Binding Sites)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news reporting originating from Washington, District of Columbia, by NewsRx correspondents, research stated, "A collection of 74 Enterobacteriaceae isolates found in Bo, Sierra Leone, were tested for quinolone antibiotic susceptibility and resistance mechanisms."

Funders for this research include DOD | Defense Threat Reduction Agency (DTRA), DOD | United States Navy | Office of Naval Research (ONR).

Our news editors obtained a quote from the research from United States Navy, "The majority of isolates (62%) were resistant to quinolones, and 61% harbored chromosomal gyrA and/or parC mutations. Plasmid-mediated quinolone resistance genes were ubiquitous, with qnrB and aac(6′)-Ib-cr being the most prevalent."

According to the news editors, the research concluded: "Mutated LexA binding sites were found in all qnrB1 genes, and truncated qnrB pseudogenes were found in the majority of Citrobacter isolates."

For more information on this research see: Prevalence of Quinolone Resistance in
Researchers at University College Detail Findings in Rheumatoid Arthritis (Rheumatoid Arthritis and Incidence of Twelve Initial Presentations of Cardiovascular Disease: A Population Record-Linkage Cohort Study in England)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Autoimmune Diseases and Conditions - Rheumatoid Arthritis. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "While rheumatoid arthritis is an established risk factor for cardiovascular disease (CVD), our knowledge of how the pattern of risk varies for different cardiovascular phenotypes is incomplete. The association between rheumatoid arthritis and the initial presentation of 12 types of CVDs were examined in a contemporary population of men and women of a wide age range."

The news reporters obtained a quote from the research from University College, "CALIBER data, which links primary care, hospital and mortality data in England, was analysed. A cohort of people aged (>=)18 years and without history of CVD was assembled and included all patients with prospectively recorded rheumatoid arthritis from January 1997, until March 2010, matched with up to ten people without rheumatoid arthritis by age, sex and general practice. The associations between rheumatoid arthritis and the initial presentation of 12 types of CVDs were estimated using multivariable random effects Poisson regression models. The analysis included 12,120 individuals with rheumatoid arthritis and 121,191 comparators. Of these, 2,525 patients with and 18,146 without rheumatoid arthritis developed CVDs during a median of 4.2 years of follow-up. Patients with rheumatoid arthritis had higher rates of myocardial infarction (adjusted incidence ratio [IRR]=1.43, 95%CI 1.21-1.70), unheralded coronary death (IRR=1.60, 95%CI 1.18-2.18), heart failure (IRR=1.61, 95%CI 1.43-1.83), cardiac arrest (HR=2.26, 95%CI 1.69-3.02) and peripheral arterial disease (HR=1.36, 95%CI..."
1.14-1.62); and lower rates of stable angina (HR=0.83, 95%CI 0.73-0.95). There was no evidence of association with cerebrovascular diseases, abdominal aortic aneurysm or unstable angina, or of interactions with sex or age."

According to the news reporters, the research concluded: "The observed associations with some but not all types of CVDs inform both clinical practice and the selection of cardiovascular endpoints for trials and for the development of prognostic models for patients with rheumatoid arthritis."


Our news correspondents report that additional information may be obtained by contacting M. Pujades-Rodriguez, Farr Institute of Health Informatics Research, University College London, 222 Euston Road, London NW1 2DA, UK. Additional authors for this research include B. Duyx, S.L. Thomas, D. Stogiannis, A. Rahman, L. Smeeth and H. Hemingway.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0151245. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Cardiology, United Kingdom, Risk and Prevention, Rheumatoid Arthritis, Joint Diseases and Conditions, Autoimmune Diseases and Conditions, Cardiovascular Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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**Oncology - Cancer Research**

**Researchers at University College Report Findings in Cancer Research (PARP inhibitors in ovarian cancer: Clinical evidence for informed treatment decisions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Research have been published. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "Ovarian cancer is the fifth leading cause of female cancer deaths in the Western world. Significant progress has been made in the treatment of patients with ovarian cancer, however, the majority of patients experience disease recurrence and new therapies are being sought for such patients."

The news reporters obtained a quote from the research from University College, "Clinical investigation of poly(ADP-ribose) polymerase (PARP) inhibitors for ovarian cancer treatment has demonstrated promising activity in this disease. Here, we review the development of PARP inhibitors and their future role in the treatment of patients with ovarian cancer. Studies of olaparib, the first PARP inhibitor to be approved in Europe and the USA, in patients with recurrent ovarian cancer have demonstrated clinical efficacy with improvements in progression-free survival. In maintenance therapy of platinum-sensitive ovarian cancer there is supporting evidence of clinical benefit from exploratory endpoints that include time to first subsequent treatment and time to second subsequent treatment. Adverse events that should be monitored
following treatment with PARP inhibitors include nausea, vomiting, fatigue and anaemia."

According to the news reporters, the research concluded: "Based on the evidence presented, patients who will receive the greatest benefit from PARP inhibition are those with platinum-sensitive relapsed ovarian cancer and a BRCA mutation."

For more information on this research see: PARP inhibitors in ovarian cancer: Clinical evidence for informed treatment decisions. British Journal of Cancer, 2015;113 Suppl ():S10-6. (Nature Publishing Group - www.nature.com/; British Journal of Cancer - www.nature.com/bjc/)

Our news correspondents report that additional information may be obtained by contacting J.A. Ledermann, UCL Cancer Institute, University College London and UCL Hospitals Biomedical Research Centre, 90 Tottenham Court Road, London W1T 4TJ, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bjc.2015.395. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, Oncology, United Kingdom, Article Review, Cancer Research.

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Heart Disorders and Diseases - Endocarditis

Researchers at University Hospital Describe Findings in Endocarditis (Incidence and clinical impact of infective endocarditis after transcatheter aortic valve implantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Endocarditis are discussed in a new report. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "To describe the characteristics of infective endocarditis (IE) after transcatheter aortic valve implantation (TAVI). This study was performed using the GAMES database, a national prospective registry of consecutive patients with IE in 26 Spanish hospitals."

The news reporters obtained a quote from the research from University Hospital, "Of the 739 cases of IE diagnosed during the study, 1.3% were post-TAVI IE, and these 10 cases, contributed by five centres, represented 1.1% of the 952 TAVIs performed. Mean age was 80 years. All valves were implanted transfemorally. IE appeared a median of 139 days after implantation. The mean age-adjusted Charlson comorbidity index was 5.45. Chronic kidney disease was frequent (five patients), as were atrial fibrillation (five patients), chronic obstructive pulmonary disease (four patients), and ischaemic heart disease (four patients). Six patients presented aortic valve involvement, and four only mitral valve involvement; the latter group had a higher percentage of prosthetic mitral valves (0% vs. 50%). Vegetations were found in seven cases, and four presented embolism. One patient underwent surgery. Five patients died during follow-up: two of these patients died during the admission in which the valve was implanted. IE is a rare but severe complication after TAVI which affects about 1% of patients and entails a relatively high mortality rate."

According to the news reporters, the research concluded: "IE occurred during the first year in nine of the 10 patients."

Our news correspondents report that additional information may be obtained by contacting M. Martinez-Selles, Hospital General Universitario Gregorio Maranon, Madrid, Spain. Additional authors for this research include E. Bouza, P. Diez-Villanueva, M. Valerio, M.C. Farinas, A.J. Munoz-Garcia, J. Ruiz-Morales, J. Galvez-Acebal, I. Antorrena, J.M. de la Hera Galarza, E. Navas and P. Munoz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4244/EIJY15M02_05. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Madrid, Europe, Cardiology, Heart Disease, Infective Endocarditis, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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**Kidney Diseases and Conditions - Chronic Kidney Disease**

**Researchers at University Hospital Discuss Findings in Chronic Kidney Disease [Baseline Characteristics and Prescription Patterns of Standard Drugs in Patients with Angiographically Determined Coronary Artery Disease and Renal Failure (CAD-REF ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Kidney Diseases and Conditions - Chronic Kidney Disease have been published. According to news reporting from Muenster, Germany, by NewsRx journalists, research stated, "Chronic kidney disease (CKD) is strongly associated with coronary artery disease (CAD). We established a prospective observational nationwide multicenter registry to evaluate current treatment and outcomes in patients with both CKD and angiographically documented CAD."

The news correspondents obtained a quote from the research from University Hospital, "In 32 cardiological centers 3,352 CAD patients with (>=)50% stenosis in at least one coronary artery were enrolled and classified according to their estimated glomerular filtration rate and proteinuria into one of five stages of CKD or as a control group. 2,723 (81.2%) consecutively enrolled patients suffered from CKD. Compared to controls, CKD patients had a higher prevalence of diabetes, hypertension, peripheral artery diseases, heart failure, and valvular heart disease (each p<0.001). Myocardial infarctions (p=0.02), coronary bypass grafting, valve replacements and pacemaker implantations had been recorded more frequently (each p<0.001). With advanced CKD, the number of diseased coronary vessels and the proportion of patients with reduced left ventricular ejection fraction (LVEF) increased significantly (both p<0.001). Percutaneous coronary interventions were performed less frequently (p <0.001) while coronary bypass grafting was recommended more often (p=0.04) with advanced CKD. With regard to standard drugs in CAD treatment, prescriptions were higher in our registry than in previous reports, but beta-blockers (p=0.008), and angiotensin-converting-enzyme inhibitors and/or angiotensin-receptor blockers (p <0.001) were given less often in higher CKD stages. In contrast, in the subgroup of patients with moderately to severely
reduced LVEF the prescription rates did not differ between CKD stages. In-hospital mortality increased stepwise with each CKD stage ($p=0.02$). In line with other studies comprising CKD cohorts, patients' morbidity and in-hospital mortality increased with the degree of renal impairment.

According to the news reporters, the research concluded: "Although cardiologists' drug prescription rates in CAD-REF were higher than in previous studies, they were still lower especially in advanced CKD stages compared to cohorts treated by nephrologists."

For more information on this research see: Baseline Characteristics and Prescription Patterns of Standard Drugs in Patients with Angiographically Determined Coronary Artery Disease and Renal Failure (CAD-REF Registry). *Plos One*, 2016;11(2):e0148057. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting H. Reinecke, Division of Vascular Medicine, Dept. of Cardiovascular Medicine, University Hospital Muenster, Muenster, Germany. Additional authors for this research include G. Breithardt, C. Engelbertz, R.E. Schmieder, M. Fobker, H.O. Pinnschmidt, B. Schmitz, P. Bruland, K. Wegscheider, H. Pavenstadt and E. Brand.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0148057. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Muenster, Hospital, Angiology, Autacoids, Cardiology, Nephrology, Angiotensins, Heart Disease, Arteriosclerosis, Biological Factors, Drugs and Therapies, Myocardial Ischemia, Heart Bypass Surgery, Chronic Kidney Disease, Coronary Artery Bypass, Coronary Artery Disease, Arterial Occlusive Diseases.

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**Mammary Gland Biology and Neoplasia**

**Researchers at University Hospital Have Reported New Data on Mammary Gland Biology and Neoplasia (Epithelial Plasticity During Human Breast Morphogenesis and Cancer Progression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mammary Gland Biology and Neoplasia is now available. According to news reporting from Reykjavik, Iceland, by NewsRx journalists, research stated, "Understanding the complex events leading to formation of an epithelial-based organ such as the breast requires a detailed insight into the crosstalk between epithelial and stromal compartments. These interactions occur both through heterotypic cellular interactions and between cells and matrix components."

Financial support for this research came from Icelandic Centre for Research.

The news correspondents obtained a quote from the research from University Hospital, "While in vivo models may partially capture these complex interactions, there is a need for in vitro models to study these events. In this review we discuss cell-cell interactions in breast development focusing on the stem cell niche and branching morphogenesis. Given the recent understanding that the basic developmental events underlying branching morphogenesis are closely related to pathways important to cancer progression, i.e. epithelial plasticity and
epithelial to mesenchymal transition (EMT), we will also discuss aspects relevant to cancer progression. In cancer, the adoption of mesenchymal phenotype by the malignant cells allows stromal invasion and subsequent intravasation to blood- or lymphatic vessels, a route that is a prerequisite for metastasis. A number of publications have demonstrated that tumor initiating cells, sometimes referred to as cancer stem cells adopt an EMT phenotype that renders them more resistant to apoptosis and drug therapy. The mechanism behind this phenomenon is currently unknown but this may partially explain relapse in breast cancer patients.

According to the news reporters, the research concluded: "Increased understanding of branching morphogenesis in the breast gland and the regulation of EMT and its reverse process mesenchymal to epithelial transition (MET) may hold the keys for future development of methods/drugs that neutralize the invading properties of cancer cells."


Our news journalists report that additional information may be obtained by contacting T. Gudjonsson, University Hospital, Dept. of Lab Hematol, Landspitali, Reykjavik, Iceland. Additional authors for this research include E. Briem, J.T. Bergthorsson and T. Gudjonsson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10911-016-9366-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Reykjavik, Iceland, Europe, Mammary Gland Biology and Neoplasia, Cancer, Article Review, Oncology, University Hospital.

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**Heart Disorders and Diseases - Heart Disease**

**Researchers at University Hospital Release New Data on Heart Disease (Assessing the cardiology community position on transradial intervention and the use of bivalirudin in patients with acute coronary syndrome undergoing invasive management: ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Disease are presented in a new report. According to news reporting from Bern, Switzerland, by NewsRx journalists, research stated, "Our aim was to report on a survey initiated by the European Association of Percutaneous Cardiovascular Interventions (EAPCI) collecting the opinion of the cardiology community on the invasive management of acute coronary syndrome (ACS), before and after the MATRIX trial presentation at the American College of Cardiology (ACC) 2015 Scientific Sessions. A web-based survey was distributed to all individuals registered on the EuroIntervention mailing list (n=15,200)."

The news correspondents obtained a quote from the research from University Hospital, "A total of 572 and 763 physicians responded to the pre- and post-ACC survey,
respectively. The radial approach emerged as the preferable access site for ACS patients undergoing invasive management with roughly every other responder interpreting the evidence for mortality benefit as definitive and calling for a guidelines upgrade to class I. The most frequently preferred anticoagulant in ACS patients remains unfractionated heparin (UFH), due to higher costs and greater perceived thrombotic risks associated with bivalirudin. However, more than a quarter of participants declared the use of bivalirudin would increase after MATRIX. The MATRIX trial reinforced the evidence for a causal association between bleeding and mortality and triggered consensus on the superiority of the radial versus femoral approach.

According to the news reporters, the research concluded: "The belief that bivalirudin mitigates bleeding risk is common, but UFH still remains the preferred anticoagulant based on lower costs and thrombotic risks."


Our news journalists report that additional information may be obtained by contacting M. Valgimigli, University Hospital Bern, Dept. of Cardiol, Bern, Switzerland. Additional authors for this research include R.A. Byrne, A. Baumbach, M. Haude, S. Windecker and M. Valgimigli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4244/EIJY15M12_01. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bern, Switzerland, Europe, Heart Disorders and Diseases, Risk and Prevention, Vascular Diseases and Conditions, Acute Coronary Syndrome, Myocardial Ischemia, Heart Disease, Cardiology, University Hospital.

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**Parkinson's Disease**

**Researchers at University Hospital Release New Data on Parkinson's Disease (DAT imaging and clinical biomarkers in relatives at genetic risk for LRRK2 R1441G Parkinson's disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Parkinson's disease is now available. According to news reporting from San Sebastian, Spain, by NewsRx journalists, research stated, "The objective of this study was to study motor and nonmotor symptoms and striatal dopaminergic denervation, as well as the relationship between them, in a cohort of asymptomatic relatives of patients with Parkinson's disease (PD) with the R1441G-leucine-rich repeat kinase 2 mutation. Asymptomatic relatives of patients with PD and this mutation were tested for the presence of the mutation and evaluated for striatal, putamenal, and caudate dopaminergic transporters using (123)I-2b-carbomethoxy-3b-(4-iodophenyl)-N-(3-fluoropropyl)-nortropane single-photon emission computed tomography binding ratios."

The news correspondents obtained a quote from the research from University Hospital, "Clinical and neuropsychological evaluations including timed motor tests, a smell
identification test, and global cognition, attention, executive, visuospatial, and memory functions as well as depression, constipation, and rapid eye movement sleep behavior disorder were also assessed. Twenty-seven carriers and 19 noncarriers were studied. Compared with noncarriers, mutation carriers had significantly lower (123)I-2b-carbomethoxy-3b-(4-iodophenyl)-N-(3-fluoropropyl)-nortropan mean striatal \( p=0.03 \), mean putamenal \( p=0.01 \), and lowest putamenal \( p=0.01 \) binding ratios. Multiple linear regression analysis showed that the carrier status and the execution of timed tests significantly predicted striatal (123)I-2b-carbomethoxy-3b-(4-iodophenyl)-N-(3-fluoropropyl)-nortropane binding. The proportion of variation accounted for by the regression model of these variables was 69\% for the putamen and 53\% for the caudate nucleus. Asymptomatic carriers of the R1441G-leucine-rich repeat kinase 2 mutation have evidence of dopaminergic nigrostriatal denervation, mainly in the putamen, which is associated with a decline in the execution of complex motor tests."

According to the news reporters, the research concluded: "These tests could be early indicators of the ongoing dopaminergic deficit in this group at risk of PD."


Our news journalists report that additional information may be obtained by contacting A. Bergareche, Neurology Service, Hospital Universitario Donostia, San Sebastian, Spain. Additional authors for this research include M.C. Rodriguez-Oroz, A. Estanga, A. Gorostidi, A. Lopez de Munain, T. Castillo-Trivino, J. Ruiz-Martinez, E. Mondragon, C. Gaig, F. Lomena, C. Sarasqueta, E. Tolosa and J.F Marti-Masso.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/mds.26478. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, Kinase, Putamen, Cerebrum, Genetics, Neostriatum, San Sebastian, Telencephalon, Movement Disorders, Parkinson's Disease, Risk and Prevention, Enzymes and Coenzymes, Parkinsonian Disorders, Diagnostics and Screening, Brain Diseases and Conditions, Basal Ganglia Diseases and Conditions.

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Cardiovascular Diseases and Conditions - Venous...

Researchers at University Hospital Release New Data on Venous Thromboembolism (Thrombin Generation Assay in Hospitalized Nonsurgical Patients: A New Tool to Assess Venous Thromboembolism Risk?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Venous Thromboembolism is now available. According to news reporting originating in Nantes, France, by NewsRx journalists, research stated, "Assessment of venous thromboembolism (VTE) risk is important to determine optimal primary prophylaxis in hospitalized patients. The Padua score helps to recognize patients with high VTE risk, but quantifying a VTE risk is often challenging in medical patients."
The news reporters obtained a quote from the research from University Hospital, "Thrombin generation assay (TGA) reflects the pro-/anticoagulant balance and thus could help to better quantify VTE risk in medical hospitalized patients. To analyze the relation between TGA and VTE risk according to Padua score in medical hospitalized patients. Between May and October 2013, 105 patients were included in an unselected cohort group of patients admitted to an internal medicine department in a large, university hospital. Within the 36 hours after admission and before any anticoagulant therapy, Padua score was calculated and sample for TGA was collected for each patient. Thrombin generation assay (velocity, peak, and endogenous thrombin potential [ETP]) was performed with 1 and 5 picomol/l (pM) tissue factor (TF) reagent. In patients with high Padua score (n = 29), velocity, peak, and ETP differed from patients with low Padua score. This difference was present at 1 and 5 pM TF, in ETP (P < .0001 and P = .003 respectively), in peak (P < .0001 in both conditions), and in velocity (P < .0001). According to multivariate analysis, myeloid disorders, older age, higher body mass index, myocardial infarction, C-reactive protein >5 mg/L, reduced mobility with bed rest significantly increased velocity 1 pM TF value."

According to the news reporters, the research concluded: "Single thrombin generation measurement could help to identify patients at risk of VTE in medical hospitalized patients."


Our news correspondents report that additional information may be obtained by contacting O. Espitia, Univ Hosp Nantes, Dept. of Internal Med, Nantes, France. Additional authors for this research include M. Fouassier, J.B. Hardouin, M.A. Pistorius, C. Agard, B. Planchon, M. Trossaert and P. Pottier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1076029615599441. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nantes, France, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Blood Coagulation Factors, Embolism and Thrombosis, Venous Thromboembolism, Serine Endopeptidases, Enzymes and Coenzymes, Risk and Prevention, Peptide Hydrolases, Hematology, Thrombin, University Hospital.

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stated, "Prostate Cancer (PCa) is an important age-related disease being the most common cancer malignancy and the second leading cause of cancer mortality in men in Western countries. Initially, PCa progression is androgen receptor (AR)-and androgen-dependent."

Our news journalists obtained a quote from the research from University Hospital, "Eventually advanced PCa reaches the stage of Castration-Resistant Prostate Cancer (CRPC), but remains dependent on AR, which indicates the importance of AR activity also for CRPC. Here, we discuss various pathways that influence the AR activity in CRPC, which indicates an adaptation of the AR signaling in PCa to overcome the treatment of PCa. The adaptation pathways include interferences of the normal regulation of the AR protein level, the expression of AR variants, the crosstalk of the AR with cytokine tyrosine kinases, the Src-Akt-, the MAPK-signaling pathways and AR corepressors. Furthermore, we summarize the current treatment options with regard to the underlying molecular basis of the common adaptation processes of AR signaling that may arise after the treatment with AR antagonists, androgen deprivation therapy (ADT) as well as for CRPC, and point towards novel therapeutic strategies."

According to the news editors, the research concluded: "The understanding of individualized adaptation processes in PCa will lead to individualized treatment options in the future."

For more information on this research see: Adaptive responses of androgen receptor signaling in castration-resistant prostate cancer. Oncotarget, 2015;6(34):35542-55.

The news correspondents report that additional information may be obtained from S. Perner, Section for Prostate Cancer Research, Institute of Pathology, Center for Integrated Oncology Cologne, Bonn, University Hospital of Bonn, Bonn, Germany. Additional authors for this research include M.V. Cronauer, A.J. Schrader, H. Klocker, Z. Culig and A. Baniahmad.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.4689. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bonn, Europe, Germany, Oncology, Article Review, Prostate Cancer, Steroid Receptors, Androgen Receptors, Drugs and Therapies, Prostatic Neoplasms, DNA Binding Proteins, Transcription Factors.

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**Neuroscience - Neurochemistry**

**Researchers at University Hospital Report New Data on Neurochemistry (The mitochondrial kinase PINK1: functions beyond mitophagy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neuroscience - Neurochemistry. According to news originating from Aachen, Germany, by NewsRx correspondents, research stated, "Mutations in the genes encoding the mitochondrial kinase PINK1 and the E3 ubiquitin ligase Parkin cause autosomal recessive Parkinson's disease (PD). Pioneering work in Drosophila melanogaster revealed that the loss of PINK1 or Parkin function causes similar phenotypes including dysfunctional mitochondria."

Financial supporters for this research include Deutsche Forschungsgemeinschaft, Michael J. Fox Foundation for Parkinson's Research, Deutsches Zentrum fur Neurodegenerative Erkrankungen, Munich Cluster for Systems Neurology, Bundesministerium fur Bildung und
Forschung.

Our news journalists obtained a quote from the research from University Hospital, "Further research showed that PINK1 can act upstream of Parkin in a mitochondrial quality control pathway to induce removal of damaged mitochondria in a process called mitophagy. Albeit the PINK1/Parkin-induced mitophagy pathway is well established and has recently been elucidated in great detail, its pathophysiological relevance is being debated. Mounting evidence indicates that PINK1 has additional functions, for example, in regulating complex I activity and maintaining neuronal viability in response to stress."

According to the news editors, the research concluded: "Here, we discuss mitophagy-dependent and -independent functions of PINK1 and their possible role in PD pathogenesis."


The news correspondents report that additional information may be obtained from A. Voigt, Rhein Westfal TH Aachen, University Hospital, Dept. of Neurol, Aachen, Germany. Additional authors for this research include L.A. Berlemann and K.F. Winklhofer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jnc.13655. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aachen, Germany, Europe, Neurochemistry, Neuroscience, Kinase, Article Review, Enzymes and Coenzymes, Genetics, University Hospital.

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**Cardiovascular Diseases and Conditions - Aneurysm**

**Researchers at University Hospital Target Aneurysm (Management of true visceral artery aneurysms in 31 cases)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Aneurysm are discussed in a new report. According to news reporting originating from Erlangen, Germany, by NewsRx correspondents, research stated, "True visceral artery aneurysms (VAA) should be treated under elective conditions in dependency on maximum diameter. In this respect, the traditional accepted threshold is 2 cm, whereas VAA sizing less than 2 cm should conservatively be observed without invasive treatment."

Our news editors obtained a quote from the research from University Hospital, "The aim of this study was to review differences in the treatment outcome over three decades. This was a retrospective review of all treated VAAs at one institution from 1985 to 2015. Patients demographics, aneurysm characteristics, management and outcome were recorded with special regard to differences in the course of time. Thirty-one true VAA in 29 patients (74% female) were repaired (5 ruptured, 26 intact). Mean diameter was 30.27 +/- 11 mm for intact and 38.0 +/- 8.5 mm for ruptured VAA (rVAA) (P = NS). Most patients were asymptomatic (67.8% asymptomatic, 16.1% symptomatic without rupture and 16.1% with rupture). There was a vice-
versa situation in chosen treatment techniques between the first (1985-2000) and the second (2001-2015) time period [first period: 75% open repair (OR) and 25% endovascular repair (ER); second period: 27% OR and 73% ER; P = 0.009]. OR included aneurysm ligation and resection with (end-to-end-anastomosis, graft interposition or without blood flow reconstruction), while ER was exclusively coil embolization with sacrifice of all parent afferent and efferent arteries. Immediate technical success was 81% for all procedures. There was a trend toward higher technical success rate of VAA being treated in second time period, but we found no significant differences (69% in the first, 93% in the second; P = 0.101). Conversion to OR due to technical failures was necessary after 3 endovascular repairs (20%). The overall 30-day-mortality rate decreases in the course of time (25% in the first and 0% in the second period; P = 0.038). Furthermore, there was a lower 30-day mortality rate after ER of all VAA (elective and urgent repair) (20% after OR, 0% after ER; P = 0.038). There was no decrease in 30-day mortality rate of rVAA (100% in the first and 20% in the second period; P = NS). In the fact of medical progress and a growing number of endovascular procedures, this study presents a decrease in mortality rate after elective aneurysm repair over three decades."

According to the news editors, the research concluded: "This might become an argument to reduce the 2-cm threshold in highly selected individuals."


The news editors report that additional information may be obtained by contacting S. Regus, University Hospital, Dept. of Vasc Surg, D-91054 Erlangen, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jviscsurg.2016.03.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Erlangen, Germany, Europe, Cardiovascular Diseases and Conditions, Angiology, Epidemiology, Aneurysm, University Hospital.

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Drugs and Therapies - Antiretrovirals

Researchers at University Hospital Target Antiretrovirals (Treatment of autochthonous acute hepatitis E with short-term ribavirin: a multicenter retrospective study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antiretrovirals. According to news originating from Toulouse, France, by NewsRx correspondents, research stated, "Hepatitis E virus (HEV) genotypes 3 and 4 cause sporadic cases of infection in developed countries. Being elderly and having an underlying liver disease are the main risk factors for death in this population."

Our news journalists obtained a quote from the research from University Hospital, "Chronic infection has been described in immunocompromised patients. Ribavirin is now the antiviral treatment of choice in solid-organ-transplant recipients with chronic HEV infection."
We hypothesized that early short-term treatment of acute HEV infection may be useful for patients with risk factors or undergoing chemotherapy. Between July 2010 and January 2014, 21 patients diagnosed with acute HEV infection were treated with ribavirin, at 600-800 mg/day for up to 3 months. All serum samples were positive for HEV RNA. Nine patients were treated for severe hepatitis. Six patients were aged >70 years. Four patients were receiving an immunosuppressive therapy for an autoimmune disease and two patients were undergoing chemotherapy for a malignancy. Two patients received a fixed-dose regimen. For all other patients, ribavirin was stopped when HEV became undetectable in the serum. The median duration of ribavirin treatment was 26 days. Two patients developed severe anaemia. Two patients with encephalopathy died. One patient relapsed transiently. All patients were cleared of HEV and regained normalized liver-enzyme levels. Immunosuppressive treatment and chemotherapy could be resumed. Treatment of acute HEV infection using ribavirin seems safe and effective.

According to the news editors, the research concluded: "Short-term treatment tailored to viraemia may be the best regimen for this indication."


The news correspondents report that additional information may be obtained from J.M. Peron, Service d'Hepato-gastroenterologie, Hopital Purpan, Centre Hospitalier Universitaire de Toulouse, Universite Paul Sabatier Toulouse III, Toulouse, France. Additional authors for this research include F. Abravanel, M. Guillaume, R. Gerolami, J. Nana, R. Anty, A. Pariente, C. Renou, C. Bureau, M.A. Robic, L. Alric, J.P. Vinel, J. Izopet and N. Kamar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/liv.12911. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal *Liver International* is: Blackwell Munksgaard, 35 Norre Sogade, PO Box 2148, DK-1016 Copenhagen, Denmark.

Keywords for this news article include: Antiretrovirals, Antivirals, France, Europe, Toulouse, Genetics, Hepatitis, Ribavirin, Chemotherapy, Gastroenterology, Influenza Therapy, Purine Nucleosides, Respiratory Agents, Drugs and Therapies, Risk and Prevention, Inhaled Antimfectives, Liver Diseases and Conditions, Respiratory Inhalant Products.

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**Transfusion Medicine - Blood Transfusion**

**Researchers at University Hospital Target Blood Transfusion (Coagulation management in trauma-associated coagulopathy: allogenic blood products versus coagulation factor concentrates in trauma care)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transfusion Medicine - Blood Transfusion. According to news reporting originating in Frankfurt, Germany, by NewsRx
journalists, research stated, "Coagulation management by transfusion of allogenic blood products and coagulation factors are competing concepts in current trauma care. Rapid and adequate therapy of trauma-associated coagulopathy is crucial to survival of severely injured patients."

The news reporters obtained a quote from the research from University Hospital, "Standard coagulation tests such as prothrombin time and activated partial thromboplastin time are commonly used, but these tests are inappropriate for monitoring and guiding therapy in trauma patients. Coagulation factor-based treatment showed promising results, but randomized trials have not yet been performed. In addition, viscoelastic tests are needed to guide therapy, although there is in fact limited evidence for these in tests in trauma care. Regarding transfusion therapy with allogenic blood products, plasma transfusion has been associated with improved survival in trauma patients following massive transfusion. In contrast, patients not requiring massive transfusion seem to be at risk for suffering complications with increasing volumes of plasma transfused. The collective of trauma patients is heterogeneous. Despite the lack of evidence, there are strong arguments for individualized patient treatment with coagulation factors for some indications and to abstain from the use of fresh frozen plasma."

According to the news reporters, the research concluded: "In patients with severe trauma and major bleeding, plasma, platelets, and red blood cells should be considered to be administered at a ratio of 1:1:1."


Our news correspondents report that additional information may be obtained by contacting M. Klages, Dept. of Anesthesiology, Intensive Care Medicine and Pain Therapy, University Hospital Frankfurt, Frankfurt, Main, Germany. Additional authors for this research include K. Zacharowski and C.F Weber.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/ACO.0000000000000304. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Plasma, Germany, Therapy, Frankfurt, Hematology, Article Review, Medical Devices, Blood Transfusion, Transfusion Medicine.

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Eye Diseases and Conditions - Retinitis Pigmentosa

Researchers at University Hospital Target Retinitis Pigmentosa (Panel-based NGS Reveals Novel Pathogenic Mutations in Autosomal Recessive Retinitis Pigmentosa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Eye Diseases and Conditions - Retinitis Pigmentosa is the subject of a report. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "Retinitis pigmentosa (RP) is a group of inherited progressive retinal dystrophies (RD) characterized by photoreceptor degeneration. RP is highly heterogeneous both clinically and genetically, which complicates the identification of causative genes and
mutations."

The news reporters obtained a quote from the research from University Hospital, "Targeted next-generation sequencing (NGS) has been demonstrated to be an effective strategy for the detection of mutations in RP. In our study, an in-house gene panel comprising 75 known RP genes was used to analyze a cohort of 47 unrelated Spanish families pre-classified as autosomal recessive or isolated RP. Disease-causing mutations were found in 27 out of 47 cases achieving a mutation detection rate of 57.4%. In total, 33 pathogenic mutations were identified, 20 of which were novel mutations (60.6%). Furthermore, not only single nucleotide variations but also copy-number variations, including three large deletions in the USH2A and EYS genes, were identified. Finally seven out of 27 families, displaying mutations in the ABCA4, RP1, RP2 and USH2A genes, could be genetically or clinically reclassified."

According to the news reporters, the research concluded: "These results demonstrate the potential of our panel-based NGS strategy in RP diagnosis."

For more information on this research see: Panel-based NGS Reveals Novel Pathogenic Mutations in Autosomal Recessive Retinitis Pigmentosa. Scientific Reports, 2016;6 ():19531. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting R. Perez-Carro, Dept. of Genetics, Instituto de Investigacion Sanitaria-Fundacion Jimenez Diaz University Hospital (IIS-FJD, UAM), Madrid, Spain. Additional authors for this research include M. Corton, I. Sanchez-Navarro, O. Zurita, N. Sanchez-Bolivar, R. Sanchez-Alcudia, S.H. Lelieveld, E. Aller, M.A. Lopez-Martinez, M.I. Lopez-Molina, P. Fernandez-San Jose, F. Blanco-Kelly, R. Riveiro-Alvarez and Gilisse.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19531. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Madrid, Europe, Genetics, Retinal Degeneration, Retinitis Pigmentosa, Retinal Diseases and Conditions, Hereditary Eye Diseases and Conditions.

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Brasil, "This study describes the development and validation of two real-time reverse-transcription polymerase chain reactions (RT-qPCR) for the specific detection of Mass and BR genotypes in allantoic fluids and clinical samples. Genotype-specific primers, combined with a generic probe targeted to the S1 gene, originated Mass RT-qPCR and BR RT-qPCR-specific assays. Analytical sensitivity and linearity of these assays were determined in comparison with an IBV generic real-time RT-PCR based on the 5' untranslated region (5'UTR RT-qPCR). Mass RT-qPCR detected five Mass field isolates, three vaccine samples, and one coinfected sample (BR and Mass) while BR RT-qPCR detected 16 BR field isolates. Both assays were linear (R(2) >0.98), reproducible, and as sensitive as the classical 5'UTR RT-qPCR used to detect IBV. In the analysis of 141 IBV clinical samples, 8 were positive for Mass RT-qPCR, 76 for BR RT-qPCR, and 2 for both assays. In the remaining 55 samples, 25 were positive only for 5'UTR RT-qPCR and 30 were negative for the three assays."

According to the news editors, the research concluded: "Both assays were able to detect Mass and BR genotypes, allowing rapid and easy IBV molecular typing from allantoic fluids and clinical samples."

For more information on this research see: A Real-Time Reverse-Transcription Polymerase Chain Reaction for Differentiation of Massachusetts Vaccine and Brazilian Field Genotypes of Avian Infectious Bronchitis Virus. Avian Diseases, 2016;60(1):16-21.

The news correspondents report that additional information may be obtained from A.P. Fraga, A Laboratorio de Diagnostico Molecular, Universidade Luterana do Brasil - ULBRA, Canoas, 92425-900, Rio Grande do Sul, Brazil. Additional authors for this research include N. Ikuta, A.S. Fonseca, F.R. Spilki, E. Balestrin, C.D. Rodrigues, C.W. Canal and V.R Lunge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1637/11262-081815-RegR.1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Genetics, Vaccines, Diagnosis, Polymerase, Coronavirus, Diagnostics, Nidovirales, Pulmonology, RNA Viruses, Immunization, South America, Coronaviridae, Rio Grande do Sul, Vertebrate Viruses, Biological Products, Enzymes and Coenzymes, Infectious Bronchitis Virus, Respiratory Tract Infections.

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Researchers at University Medical Center Report New Data on Heart Failure (Epidemiology of heart failure: the prevalence of heart failure and ventricular dysfunction in older adults over time. A systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news originating from Utrecht, Netherlands, by NewsRx correspondents, research stated, "The 'epidemic' of heart failure seems to be changing, but precise prevalence estimates of heart failure and left ventricular dysfunction (LVD) in older adults, based on adequate echocardiographic assessment, are scarce. Systematic reviews including recent studies on the prevalence of heart failure and LVD are lacking."
Financial support for this research came from Hartstichting.

Our news journalists obtained a quote from the research from University Medical Center, "We aimed to assess the trends in the prevalence of LVD, and heart failure with reduced (HFrEF) and preserved ejection fraction (HFpEF) in the older population at large. A systematic electronic search of the databases Medline and Embase was performed. Studies that reported prevalence estimates in community-dwelling people (>=60 years old were included if echocardiography was used to establish the diagnosis. In total, 28 articles from 25 different study populations were included. The median prevalence of systolic and 'isolated' diastolic LVD was 5.5% (range 3.3-9.2%) and 36.0% (range 15.8-52.8%), respectively. A peak in systolic dysfunction prevalence seems to have occurred between 1995 and 2000. 'All type' heart failure had a median prevalence rate of 11.8% (range 4.7-13.3%), with fairly stable rates in the last decade and with HFpEF being more common than HFrEF [median prevalence 4.9% (range 3.8-7.4%) and 3.3% (range 2.4-5.8%), respectively]. Both LVD and heart failure remain common in the older population at large. The prevalence of diastolic dysfunction is on the rise and currently higher than that of systolic dysfunction."

According to the news editors, the research concluded: "The prevalence of the latter seems to have decreased in the 21st century."


The news correspondents report that additional information may be obtained from E.E. van Riet, Julius Centre for Health Sciences and Primary care, University Medical Centre Utrecht, PO Box 85500, 3508 AB Utrecht, Netherlands. Additional authors for this research include A.W. Hoes, K.P. Wagenaar, A. Limburg, M.A. Landman and F.H Rutten.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ejhf.483. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Utrecht, Cardiology, Netherlands, Epidemiology, Heart Disease, Heart Failure, Article Review, Ventricular Dysfunction, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Oncology - Neuroectodermal Tumors

Researchers at University Medical Center Report New Data on Neuroectodermal Tumors (Pediatric Primitive Neuroectodermal Tumors of the Central Nervous System Differentially Express Granzyme Inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Neuroectodermal Tumors is the subject of a report. According to news reporting originating in Utrecht, Netherlands, by NewsRx journalists, research stated, "Central nervous system (CNS) primitive neuroectodermal tumors (PNETs) are malignant primary brain tumors that occur in young infants. Using current standard therapy, up to 80% of the children still dies from recurrent disease."
The news reporters obtained a quote from the research from University Medical Center, "Cellular immunotherapy might be key to improve overall survival. To achieve efficient killing of tumor cells, however, immunotherapy has to overcome cancer-associated strategies to evade the cytotoxic immune response. Whether CNS-PNETs can evade the immune response remains unknown. We examined by immunohistochemistry the immune response and immune evasion strategies in pediatric CNS-PNETs. Here, we show that CD4+, CD8+, gd-T-cells, and Tregs can infiltrate pediatric CNS-PNETs, although the activation status of cytotoxic cells is variable. Pediatric CNS-PNETs evade immune recognition by downregulating cell surface MHC-I and CD1d expression. Intriguingly, expression of SERPINB9, SERPINB1, and SERPINB4 is acquired during tumorigenesis in 29%, 29%, and 57% of the tumors, respectively."

According to the news reporters, the research concluded: "We show for the first time that brain tumors express direct granzyme inhibitors (serpins) as a potential mechanism to overcome cellular cytotoxicity, which may have consequences for cellular immunotherapy."

For more information on this research see: Pediatric Primitive Neuroectodermal Tumors of the Central Nervous System Differentially Express Granzyme Inhibitors. Plos One, 2016;11(3):e0151465. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news correspondents report that additional information may be obtained by contacting J.F. Vermeulen, Dept. of Pathology, University Medical Center Utrecht, 3584CX, Utrecht, Netherlands. Additional authors for this research include W. van Hecke, W.G. Spliet, J. Villacorta Hidalgo, P. Fisch, R. Broekhuizen and N. Bovenschen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0151465. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Utrecht, Oncology, Granzymes, Pediatrics, Netherlands, Immunotherapy, Peptide Hydrolases, Drugs and Therapies, Enzymes and Coenzymes, Serine Endopeptidases, Central Nervous System Disorders, Primitive Neuroectodermal Tumors.

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assay. The IC[50] was calculated using a dose-response analysis. Immunohistochemistry (IHC) was performed on ascites cells and tumor. Expression of R-spondin 2 (RSPO2), RSPO3, PORCN, WLS, AXIN2, and three previously characterized RSPO fusion transcripts were assessed using Taqman assays. Sixty ascites samples were analyzed for response to WNT974. The ascites samples that showed a decrease in ATP concentration after treatment demonstrated no difference from the untreated cells in percent viability with trypan blue staining. Flow cytometry demonstrated fewer cells in the G2 phase and more in the G1 and S phases after treatment with WNT974. Combination therapy with WNT974 and carboplatin resulted in a higher percentage of samples that showed (>=)30% reduction in ATP concentration than either single drug treatment. IHC analysis of Wnt pathway proteins suggests cell cycle arrest rather than cytotoxicity after WNT974 treatment. QPCR indicated that RSPO fusions are not prevalent in ovarian cancer tissues or ascites. However, higher PORCN expression correlated to sensitivity to WNT974 (p=0.0073)."

According to the news editors, the research concluded: "WNT974 produces cytostatic effects in patient ascites cells with primary ovarian cancer through inhibition of the Wnt/b-catenin pathway. The combination of WNT974 and carboplatin induces cytotoxicity plus cell cycle arrest in a higher percentage of ascites samples than with single drug treatment. RSPO fusions do not contribute to WNT974 sensitivity; however, higher PORCN expression indicates increased WNT974 sensitivity."

For more information on this research see: Targeting the Wnt/b-catenin pathway in primary ovarian cancer with the porcupine inhibitor WNT974. Laboratory Investigation, 2015;96(2):249-59. (Nature Publishing Group - www.nature.com/; Laboratory Investigation - www.nature.com/labinvest/)

The news editors report that additional information may be obtained by contacting J.D. Boone, Dept. of Obstetrics and Gynecology, Division of Gynecologic Oncology, University of Alabama at Birmingham, Birmingham, AL, United States. Additional authors for this research include R.C. Arend, B.E. Johnston, S.J. Cooper, S.A. Gilchrist, D.K. Oelschlager, W.E. Grizzle, G. McGwin, A. Gangrade, J.M. Straughn and D.J Buchsbaum.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/labinvest.2015.150. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Pharmaceuticals, Cancer, Alabama, Ascites, Oncology, Birmingham, United States, Alkylating Agents, Carboplatin Therapy, Drugs and Therapies, North and Central America.

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Friedreich's Ataxia

Researchers at University of Alabama Release New Data on Friedreich's Ataxia (Alleviating GAA Repeat Induced Transcriptional Silencing of the Friedreich's Ataxia Gene During Somatic Cell Reprogramming)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Friedreich's ataxia. According to news originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "Friedreich's ataxia (FRDA) is the most common autosomal recessive ataxia. This severe
neurodegenerative disease is caused by an expansion of guanine-adenine-adenine (GAA) repeats located in the first intron of the frataxin (FXN) gene, which represses its transcription."

Our news journalists obtained a quote from the research from the University of Alabama, "Although transcriptional silencing is associated with heterochromatin-like changes in the vicinity of the expanded GAAAs, the exact mechanism and pathways involved in transcriptional inhibition are largely unknown. As major remodeling of the epigenome is associated with somatic cell reprogramming, modulating chromatin modification pathways during the cellular transition from a somatic to a pluripotent state is likely to generate permanent changes to the epigenetic landscape. We hypothesize that the epigenetic modifications in the vicinity of the GAA repeats can be reversed by pharmacological modulation during somatic cell reprogramming. We reprogrammed FRDA fibroblasts into induced pluripotent stem cells (iPSCs) in the presence of various small molecules that target DNA methylation and histone acetylation and methylation. Treatment of FRDA iPSCs with two compounds, sodium butyrate (NaB) and Parnate, led to an increase in FXN expression and correction of repressive marks at the FXN locus, which persisted for several passages. However, prolonged culture of the epigenetically modified FRDA iPSCs led to progressive expansions of the GAA repeats and a corresponding decrease in FXN expression. Furthermore, we uncovered that differentiation of these iPSCs into neurons also results in resilingencing of the FXN gene."

According to the news editors, the research concluded: "Taken together, these results demonstrate that transcriptional repression caused by long GAA repeat tracts can be partially or transiently reversed by altering particular epigenetic modifications, thus revealing possibilities for detailed analyses of silencing mechanism and development of new therapeutic approaches for FRDA."

For more information on this research see: Alleviating GAA Repeat Induced Transcriptional Silencing of the Friedreich's Ataxia Gene During Somatic Cell Reprogramming. Stem Cells and Development, 2016;25(23):1788-1800. Stem Cells and Development can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Stem Cells and Development - www.liebertpub.com/overview/stem-cells-and-development/125/)

The news correspondents report that additional information may be obtained from J.S. Butler, Univ Alabama Birmingham, UAB Stem Cell Inst, Dept. of Biochem & Mol Genet, Birmingham, AL 35294, United States. Additional authors for this research include Y.J. Li, J.S. Butler and M. Napierala.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/scd.2016.0147. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Friedreich's Ataxia, Nervous System Diseases and Conditions, Genetics, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Mitochondrial Diseases and Conditions, Spinal Cord Diseases and Conditions, Cerebellar Diseases and Conditions, Metabolic Diseases and Conditions, Spinocerebellar Degenerations, Brain Diseases and Conditions, Neurologic Manifestations, Friedreich Ataxia, Dyskinesias, Neurology, University of Alabama.

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Researchers at University of Alabama Release New Data on Gliomas
(Identification of Small Molecule Inhibitors of Human Cytochrome c Oxidase That Target Chemoresistant Glioma Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gliomas. According to news reporting originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "The enzyme cytochrome c oxidase (CcO) or complex IV (EC 1.9.3.1) is a large transmembrane protein complex that serves as the last enzyme in the respiratory electron transport chain of eukaryotic mitochondria. CcO promotes the switch from glycolytic to oxidative phosphorylation (OXPHOS) metabolism and has been associated with increased self-renewal characteristics in gliomas."

Our news editors obtained a quote from the research from the University of Alabama, "Increased CcO activity in tumors has been associated with tumor progression after chemotherapy failure, and patients with primary glioblastoma multiforme and high tumor CcO activity have worse clinical outcomes than those with low tumor CcO activity. Therefore, CcO is an attractive target for cancer therapy. We report here the characterization of a CcO inhibitor (ADDA 5) that was identified using a high throughput screening paradigm. ADDA 5 demonstrated specificity for CcO, with no inhibition of other mitochondrial complexes or other relevant enzymes, and biochemical characterization showed that this compound is a non-competitive inhibitor of cytochrome c. When tested in cellular assays, ADDA 5 dose-dependently inhibited the proliferation of chemosensitive and chemoresistant glioma cells but did not display toxicity against non-cancer cells. Furthermore, treatment with ADDA 5 led to significant inhibition of tumor growth in flank xenograft mouse models. Importantly, ADDA 5 inhibited CcO activity and blocked cell proliferation and neurosphere formation in cultures of glioma stem cells, the cells implicated in tumor recurrence and resistance to therapy in patients with glioblastoma."

According to the news editors, the research concluded: "In summary, we have identified ADDA 5 as a lead CcO inhibitor for further optimization as a novel approach for the treatment of glioblastoma and related cancers."


The news editors report that additional information may be obtained by contacting C.E. Griguer, Univ Alabama Birmingham, Div Infect Dis, Center Free Radical Biol, Birmingham, AL 35294, United States. Additional authors for this research include T. Markert, L.J. Ross, E.L. White, L. Rasmussen, W. Zhang, M. Everts, D.R. Moellering, S.M. Bailey, M.J. Suto and C.E. Griguer.

Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Small Molecule Inhibitors, Enzymes and Coenzymes, Drugs and Therapies, Glioblastomas, Hemeproteins, Cytochromes, Proteins, Oncology, Oxidase, Gliomas, University of Alabama.
Researchers at University of Alberta Hospital Describe Findings in Laboratory Hematology [The use of serial outpatient complete blood count (CBC) results to derive biologic variation: a new tool to gauge the acceptability of hematology testing]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematology - Laboratory Hematology. According to news reporting from Edmonton, Canada, by NewsRx journalists, research stated, "Most estimates of biologic variation (sb ) are based on periodically acquiring and storing specimens from reference subjects, followed by analysis within a tightly controlled analytic run. We demonstrate that reliable estimates of sb can be derived for virtually all constituents of the CBC from previously obtained paired patient results and summary QC data."

The news correspondents obtained a quote from the research from the University of Alberta Hospital, "A laboratory data repository provided all of the outpatient CBC results measured over 20.5 months at a large Canadian referral laboratory. These CBC measurements were taken on one of four Beckman Coulter LH analyzers. A total of 1852 different patients had CBCs repeated at least twice within 84 h. We tabulated the pairs of intrapatient constituents that were separated by 0-6, 6-12, 12-18,? 72-78, and 78-84 h. The standard deviations of duplicates (SDD) of the paired data were then regressed against time. The y-intercept represents the sum of sb and short-term analytic variation (sa ): y0=(s(2) a +s(2) b )/(1/2). The short-term imprecision was determined from normal range Coulter quality control specimens. Patient sb for hematocrit, MCH, absolute monocytes, and absolute neutrophils are extremely close to those determined by biologic variation experiments using healthy volunteers. Most of the other estimates of sb tended to be slightly lower than literature estimates. We describe a novel approach to deriving sb."

According to the news reporters, the research concluded: "The ratio of the sb to sa (a measure of sigma) indicates that the Beckman Coulter LH is extremely suitable for CBC monitoring of outpatients as well as for inpatients, whose sb is generally higher."


Our news journalists report that additional information may be obtained by contacting G. Cembrowski, University of Alberta Hospital, Edmonton, AB, Canada. Additional authors for this research include K. Topping, K. Versluys, D. Tran, M. Malick, D. Holmes and G. Clarke.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12443. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers at University of Amsterdam Target Vascular Health (Fractional flow reserve-guided percutaneous coronary intervention: where to after FAME 2?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Vascular Medicine - Vascular Health. According to news reporting originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Fractional flow reserve (FFR) is a well-validated clinical coronary physiological parameter derived from the measurement of coronary pressures and has drastically changed revascularization decision-making in clinical practice. Nonetheless, it is important to realize that FFR is a coronary pressure-derived estimate of coronary blood flow impairment."

Our news editors obtained a quote from the research from the University of Amsterdam, "It is thereby not the same as direct measures of coronary flow impairment that determine the occurrence of signs and symptoms of myocardial ischemia. This consideration is important, since the FAME 2 study documented a limited discriminatory power of FFR to identify stenoses that require revascularization to prevent adverse events. The physiological difference between FFR and direct measures of coronary flow impairment may well explain the findings in FAME 2."

According to the news editors, the research concluded: "This review aims to address the physiological background of FFR, its ambiguities, and its consequences for the application of FFR in clinical practice, as well as to reinterpret the diagnostic and prognostic characteristics of FFR in the light of the recent FAME 2 trial outcomes."

For more information on this research see: Fractional flow reserve-guided percutaneous coronary intervention: where to after FAME 2? Vascular Health and Risk Management, 2015;11():613-22.

The news editors report that additional information may be obtained by contacting T.P. van de Hoef, AMC Heartcentre, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands. Additional authors for this research include M. Meuwissen and J.J Piek.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/VHRM.S68328. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Amsterdam, Netherlands, Article Review, Vascular Health, Vascular Medicine.

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Researchers at University of Arizona Have Reported New Data on Heart Disease (Genetics-Current and Future Role in the Prevention and Management of Coronary Artery Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Disease. According to news reporting from Phoenix, Arizona, by NewsRx editors, the research stated, "Purpose of Review The purpose of this study is to review genetic risk variants for coronary artery disease (CAD) and how they will change the management and prevention of CAD currently and in the future. Through the efforts of international consortia, 58 genetic risk variants for CAD of genome-wide significance have been replicated in appropriate independent populations."

The news correspondents obtained a quote from the research from the University of Arizona, "Only one third of these variants mediate their risk through known conventional risk factors for CAD. Thus, unknown mechanisms contribute to CAD. Secondly, the genetic risk is proportional to the total number of risk variants rather than the intensity of any risk factor. Thirdly, the availability of the genetic risk variants enables one to perform Mendelian randomization (MR) studies since they are randomized at conception, not confounded, fixed for life, and can be used to determine if a risk factor is causative or just a marker. MR can also be used to determine the safety and efficacy of a gene product targeted for drug therapy. Genetic risk variants have been shown to successfully risk stratify for CAD in both primary and secondary preventions. Contrary to dogma, MR documents that plasma HDL-C is not protective of CAD. The use of genetic risk score (GRS) for CAD is shown to be more effective in risk stratifying for CAD than the Framingham risk score and independent of the conventional risk factors including family history. Furthermore, the GRS predicts the response to statin therapy in primary and secondary preventions."

According to the news reporters, the research concluded: "The use of GRS could represent a paradigm shift in the prevention of CAD."

For more information on this research see: Genetics-Current and Future Role in the Prevention and Management of Coronary Artery Disease. Current Atherosclerosis Reports, 2016;18(12):79-86. Current Atherosclerosis Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

Our news journalists report that additional information may be obtained by contacting R. Roberts, University of Arizona, Coll Med Phoenix, Phoenix, AZ 85004, United States.

Keywords for this news article include: Phoenix, Arizona, United States, North and Central America, Cardiovascular Diseases and Conditions, Risk and Prevention, Article Review, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Arteriosclerosis, Heart Disease, Cardiology, Angiology, Genetics, University of Arizona.

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**Drugs and Therapies - Cancer Therapy**

**Researchers at University of Arizona Target Cancer Therapy (Cardiovascular adverse effects of targeted antiangiogenic drugs: mechanisms and management)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cancer Therapy have been published. According to news reporting originating from Tucson, Arizona, by NewsRx correspondents, research stated, "Anticancer treatment has evolved enormously over the last decade. Drugs targeting receptor tyrosine kinases, VEGFR and EGFR have changed the treatment landscape of certain cancers and have shifted the theme of anticancer therapy toward personalized care."

Our news editors obtained a quote from the research from the University of Arizona, "However, these newer agents also come with unique side-effect profiles not seen with conventional chemotherapy including serious cardiovascular adverse effects. Hence, meticulous understanding of the adverse effects is crucial in maximizing clinical benefits and minimizing detrimental effects of these newer drugs."

According to the news editors, the research concluded: "We have reviewed the cardiovascular adverse effects of anti-VEGF therapy in this article."

For more information on this research see: Cardiovascular adverse effects of targeted antiangiogenic drugs: mechanisms and management. *Future Oncology*, 2016;12(8):1067-80.

The news editors report that additional information may be obtained by contacting S. Sundararajan, Division of Hematology & Oncology, Dept. of Medicine, University of Arizona, Tucson, AZ, United States. Additional authors for this research include A. Kumar, M. Poongkunran, A. Kannan and N.J Vogelzang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.16.4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tucson, Arizona, Cardiology, United States, Article Review, Cancer Therapy, Cardiovascular, Drugs and Therapies, North and Central America.

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**Bone Research**

**Researchers at University of Bern Have Reported New Data on Bone Research [Pre-coating deproteinized bovine bone mineral (DBBM) with bone-conditioned medium (BCM) improves osteoblast migration, adhesion, and differentiation in vitro]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Bone Research. According to news reporting out of Bern, Switzerland, by NewsRx editors, research stated, "Autogenous bone grafting has remained the gold standard for bone augmentation procedures with ability to release..."
growth factors to the surrounding microenvironment. Recent investigations have characterized these specific growth factors released by autogenous bone chips with further isolation into a 'bone-conditioned medium' (BCM).

Our news journalists obtained a quote from the research from the University of Bern, "The aim of the present investigation was to utilize autologous growth factors from bone chips (BCM) in combination with deproteinized bovine bone mineral (DBBM) and investigate the ability for BCM to enhance osteoblast behavior. Mouse ST2 cells were seeded on (1) DBBM particles alone or (2) DBBM + BCM. Thereafter, samples were compared for cell recruitment, adhesion, proliferation, and real-time PCR for osteoblast differentiation markers including Runx2, collagen 1 alpha 2 (COL1A2), alkaline phosphatase (ALP), and osteocalcin (OCN). Alizarin red staining was used to assess mineralization. Coating BCM on DBBM particles improved cell migration of ST2 cells and significantly enhanced a 2-fold increase in cell adhesion. While no significant increase in cell proliferation was observed, BCM significantly increased mRNA levels of COL1A2, ALP, and OCN at 3 days post seeding. Furthermore, a 3-fold increase in alizarin red staining was observed on DBBM particles pre-coated with BCM. Pre-coating DBBM with BCM enhanced the osteoconductive properties of DBBM by mediating osteoblast recruitment, attachment, and differentiation towards bone-forming osteoblasts. Future animal study is necessary to further characterize the added benefit of BCM as an autogenous growth factor source for combination therapies."

According to the news editors, the research concluded: "The application of BCM in combination with biomaterials may serve as an autogenous growth factor source for bone regeneration."


Our news journalists report that additional information may be obtained by contacting R.J. Miron, University of Bern, Sch Dental Med, Lab Oral Cell Biol, Bern, Switzerland. Additional authors for this research include M. Fujioka-Kobayashi, D.D. Bosshardt, R. Gruber, D. Buser and R.J. Miron. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00784-016-1747-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bern, Switzerland, Europe, Connective Tissue Cells, Bone Research, Osteoblasts, University of Bern.

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**Drugs and Therapies - Androgens and Anabolic…**

**Researchers at University of Bologna Release New Data on Androgens and Anabolic Steroids (Disposition of Stanozolol in Plasma After Intra-articular Administration in the Horse)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
Our news journalists obtained a quote from the research from the University of Bologna, "After aseptically preparing the injection site, 1 mL of an aqueous suspension containing 5 mg of stanozolol was injected into both the right and left tarsal joints of 12 horses; the two remaining animals were not treated and were used as a control group. Five milliliters of blood was collected immediately before stanozolol administration (t0) and at 1, 2, 4, 6, 12, 18, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144, 156, and 168 hours after injection. The plasma concentration was determined by liquid chromatography tandem mass spectrometry (LC-MS/MS) after solid phase extraction. The maximum plasma concentration was 1.7 ng/mL (range, 0.5-3.0 ng/mL), measured at 6 hours (range, 4-12 hours). The plasma elimination half life varied between 4 and 12 hours, whereas the plasma clearance per fraction of dose absorbed was in the 257.85-820.88 L/h range. The results of the present study make a preliminary contribution toward understanding the elimination profile of intra-articularly administered stanozolol in the horse."

According to the news editors, the research concluded: "The drug passes rapidly into the systemic circulation, is eliminated rapidly, and is detected in plasma for no more than 36 hours after local administration."


The news correspondents report that additional information may be obtained from A. Barbarossa, University of Bologna, Dept. of Vet Med Sci, Bologna, Italy. Additional authors for this research include A. Zaghini, G. Fedrizzi, A. Sala, S. Babbini and A. Barbarossa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jevs.2016.07.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bologna, Italy, Europe, Androgens and Anabolic Steroids, Drugs and Therapies, Sex Hormones, Stanozolol, University of Bologna.

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Proteomics

Researchers at University of Brescia Target Proteomics (Acute Footshock Stress Induces Time-Dependent Modifications of AMPA/NMDA Protein Expression and AMPA Phosphorylation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Proteomics are presented in a new report. According to news...
reporting originating in Brescia, Italy, by NewsRx journalists, research stated, "Clinical studies on patients with stress-related neuropsychiatric disorders reported functional and morphological changes in brain areas where glutamatergic transmission is predominant, including frontal and prefrontal areas. In line with this evidence, several preclinical works suggest that glutamate receptors are targets of both rapid and long-lasting effects of stress."

The news reporters obtained a quote from the research from the University of Brescia, "Here we found that acute footshock-(FS-) stress, although inducing no transcriptional and RNA editing alterations of ionotropic AMPA and NMDA glutamate receptor subunits, rapidly and transiently modulates their protein expression, phosphorylation, and localization at postsynaptic spines in prefrontal and frontal cortex. In total extract, FS-stress increased the phosphorylation levels of GluA1 AMPA subunit at Ser(845) immediately after stress and of GluA2 Ser(880) 2 h after start of stress. At postsynaptic spines, stress induced a rapid decrease of GluA2 expression, together with an increase of its phosphorylation at Ser(880), suggesting internalization of GluA2 AMPA containing receptors. GluN1 and GluN2A NMDA receptor subunits were found markedly upregulated in postsynaptic spines, 2 h after start of stress."

According to the news reporters, the research concluded: "These results suggest selected time-dependent changes in glutamatergic receptor subunits induced by acute stress, which may suggest early and transient enhancement of AMPA-mediated currents, followed by a transient activation of NMDA receptors."

For more information on this research see: Acute Footshock Stress Induces Time-Dependent Modifications of AMPA/NMDA Protein Expression and AMPA Phosphorylation. Neural Plasticity, 2016;2016():7267865. (Hindawi Publishing - www.hindawi.com; Neural Plasticity - www.hindawi.com/journals/np/)

Our news correspondents report that additional information may be obtained by contacting D. Bonini, Biology and Genetic Division, Dept. of Molecular and Translational Medicine, University of Brescia, 25123 Brescia, Italy. Additional authors for this research include C. Mora, P. Tornese, N. Sala, A. Filippini, L. LaVia, M. Milanese, S. Calza, G. Bonanno, G. Racagni, M. Gennarelli, M. Popoli, L. Musazzi and A. Barbon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/7267865. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, Brescia, Genetics, Proteomics, Protein Expression.

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Researchers at University of British Columbia Discuss Findings in Atherosclerosis (So Much Cholesterol: the unrecognized importance of smooth muscle cells in atherosclerotic foam cell formation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Atherosclerosis are discussed in a new report. According to news reporting originating from Vancouver, Canada, by NewsRx correspondents, research stated, "Smooth muscle cells (SMCs) form the thickened intimal layer in atherosclerosis-prone arteries in early life, and provide the
initial site for retention and uptake of atherogenic lipoproteins. Here we review current knowledge regarding the importance of SMCs in the deposition of cholesterol in atherosclerotic plaque.

Our news editors obtained a quote from the research from the University of British Columbia, "SMCs were found to comprise at least 50% of total foam cells in human coronary artery atherosclerosis, and exhibit a selective loss of expression of the cholesterol efflux promoter ATP-binding cassette transporter A1. Cholesterol loading induced a loss of SMC gene expression and an increase in macrophage and proinflammatory marker expression by cultured mouse and human arterial SMCs, with reversal of these effects upon removal of the excess cholesterol. Mice engineered to track all cells of SMC lineage indicated that, at most, SMCs make up about one-third of total cells in atherosclerotic plaque in these animals. SMCs appear to be the origin of the majority of foam cells in human atherosclerotic plaque."

According to the news editors, the research concluded: "Recent studies suggest a renaissance of research on the role of SMCs in atherosclerosis is needed to make the next leap forward in the prevention and treatment of this disease."

For more information on this research see: So Much Cholesterol: the unrecognized importance of smooth muscle cells in atherosclerotic foam cell formation. Current Opinion In Lipidology, 2016;27(2):155-61. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Lipidology - journals.lww.com/co-lipidology/pages/default.aspx)

The news editors report that additional information may be obtained by contacting J.A. Dubland, Division of Endocrinology and Metabolism, Centre for Heart Lung Innovation, Providence Healthcare Research Institute, St Paul's Hospital, University of British Columbia, Vancouver, British Columbia, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MOL.0000000000000279. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Genetics, Vancouver, Cardiology, Foam Cells, Immunology, Cholesterol, Macrophages, Muscle Cells, Article Review, Atherosclerosis, British Columbia, Arteriosclerosis, Hemic and Immune Systems, North and Central America, Arterial Occlusive Diseases, Cardiovascular Diseases and Conditions.

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Oncology - Carcinomas

Researchers at University of Cairo Detail Findings in Carcinomas (The Predictive and Prognostic Role of Topoisomerase Ila and Tissue Inhibitor of Metalloproteinases 1 Expression in Locally Advanced Breast Carcinoma of Egyptian Patients Treated ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Carcinomas. According to news originating from Cairo, Egypt, by NewsRx correspondents, research stated, "Locally advanced breast cancer (LABC) is a heterogeneous entity that remains a clinical challenge. Anthracycline-based neoadjuvant chemotherapy has emerged as the standard of care for those patients."

Our news journalists obtained a quote from the research from the University of Cairo, "However, it is associated with serious side effects including cardiotoxicity. This study
aimed to evaluate the prognostic and predictive role of topoisomerase IIa (TOP2a) and tissue inhibitor of metalloproteinases 1 (TIMP-1) in Egyptian LABC patients after anthracycline-based neoadjuvant chemotherapy. This retrospective study was conducted on 84 LABC cases. Immunohistochemical expression of TOP2a and TIMP-1 was evaluated in pretreatment needle core biopsies. Results were correlated with clinicopathologic parameters, response to neoadjuvant chemotherapy in postoperative specimens, disease-free survival and overall survival (OS). Positive TOP2a expression was detected in 57/84 (67.9%) cases. It was significantly associated with good response to chemotherapy in breast (p=0.048) and lymph node (p=0.06) as well as prolonged OS (p=0.04). It tended to be the most independent prognostic factor for OS (p=0.06). Positive TIMP-1 expression was detected in 48/84 (57.1%) cases. It was significantly associated with poor response to chemotherapy in breast (p=0.02). The 2T profile (TOP2a+ and TIMP-1-) was significantly associated with good response to chemotherapy in breast (p=0.006)."

According to the news editors, the research concluded: "TOP2a and TIMP-1 are important predictive and prognostic factors in LABC patients who received anthracycline-based chemotherapy."

For more information on this research see: The Predictive and Prognostic Role of Topoisomerase IIa and Tissue Inhibitor of Metalloproteinases 1 Expression in Locally Advanced Breast Carcinoma of Egyptian Patients Treated With Anthracycline-based Neoadjuvant Chemotherapy. *Applied Immunohistochemistry & Molecular Morphology, 2016;24 (3):167-78.* (Lippincott Williams and Wilkins - www.lww.com; Applied Immunohistochemistry & Molecular Morphology - journals.lww.com/appliedimmunohist/pages/default.aspx)

The news correspondents report that additional information may be obtained from H.S. El Rebey, *Pathology Department, Faculty of Medicine, Menofia University, Shebin El Kom †Pathology Dept. of ‡Oncology Department, National Cancer Institute, Cairo University, Cairo, Egypt. Additional authors for this research include H.A. Aiad, I.L. Abulkheir, N.Y. Asaad, M.M. El-Wahed, F.M. Abulkasem and S.F Mahmoud.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/PAI.0000000000000154. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cairo, Egypt, Africa, Oncology, Carcinomas, Immunology, Chemotherapy, Hydrocarbons, Naphthalenes, Topoisomerase, Anthracyclines, Drugs and Therapies, Enzymes and Coenzymes.

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Researchers at University of Cairo Release New Data on Chromatography (Stability-Indicating Method and LC-MS-MS Characterization of Forc...
its stressed degradation products."

Our news journalists obtained a quote from the research from the University of Cairo, "Sobosbuvir was subjected to hydrolysis (acidic, alkaline and neutral), oxidation, photolysis and thermal stress, as per international conference on harmonization (ICH) conditions. The drug showed degradation under oxidative, photolysis, acid and base hydrolysis stress conditions. However, it was stable under thermal and neutral hydrolysis stress conditions. Chromatographic separation of the drug from its degradation products was performed on Inertsil ODS-3 C-18 (250mm x 4.6mm i.d., 5 μm) column using a green mobile phase of methanol: water 70:30 (v/v). The degradation products were characterized by LC-MS-MS and the fragmentation pathways were proposed. The developed method was validated as per ICH guidelines."

According to the news editors, the research concluded: "No previous method was reported regarding the degradation behavior of sofosbuvir."


Our news journalists report that additional information may be obtained by contacting M. Nebsen, Cairo University, Fac Pharm, Analyt Chem Department, Cairo 11562, Egypt.

Keywords for this news article include: Cairo, Egypt, Africa, Chromatography, Science, University of Cairo.

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Oncology - Ovarian Cancer

Researchers at University of California Discuss Findings in Ovarian Cancer (Protein-Specific Differential Glycosylation of Immunoglobulins in Serum of Ovarian Cancer Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Ovarian Cancer. According to news reporting out of Davis, California, by NewsRx editors, research stated, "Previous studies indicated that glycans in serum may serve as biomarkers for diagnosis of ovarian cancer; however, it was unclear to which proteins these glycans belong. We hypothesize that protein-specific glycosylation profiles of the glycans may be more informative of ovarian cancer and can provide insight into biological mechanisms underlying glycan aberration in serum of diseased individuals."

Financial support for this research came from Ovarian Cancer Research Fund.

Our news journalists obtained a quote from the research from the University of California, "Serum samples from women diagnosed with epithelial ovarian cancer (EOC, n=84) and matched healthy controls (n=84) were obtained from the Gynecologic Oncology Group. Immunoglobulin (IgG, IgA, and IgM) concentrations and glycosylation profiles were quantified using multiple reaction monitoring mass spectrometry. Differential and classification analyses
were performed to identify aberrant protein-specific glycopeptides using a training set. All findings were validated in an independent test set. Multiple glycopeptides from immunoglobulins IgA, IgG, and IgM were found to be differentially expressed in serum of EOC patients compared with controls. The protein-specific glycosylation profiles showed their potential in the diagnosis of EOC. In particular, IgG-specific glycosylation profiles are the most powerful in discriminating between EOC case and controls."

According to the news editors, the research concluded: "Additional studies of protein-and site-specific glycosylation profiles of immunoglobulins and other proteins will allow further elaboration on the characteristics of biological functionality and causality of the differential glycosylation in ovarian cancer and thus ultimately lead to increased sensitivity and specificity of diagnosis."


Our news journalists report that additional information may be obtained by contacting L.R. Ruhaak, Dept. of Chemistry, University of California, Davis, California 95616, United States. Additional authors for this research include K. Kim, C. Stroble, S.L. Taylor, Q. Hong, S. Miyamoto, C.B. Lebrilla and G. Leiserowitz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jproteome.5b01071. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Davis, Oncology, California, Gynecology, United States, Ovarian Cancer, Women's Health, North and Central America.

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Atrial Septal Defects

Researchers at University of California Have Reported New Data on Atrial Septal Defects (Preprocedural Transthoracic Echocardiography Can Predict Amplatzer Septal Occluder Device Size for Transcatheter Atrial Septal Defect Closure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Atrial Septal Defects are presented in a new report. According to news originating from San Diego, California, by NewsRx correspondents, research stated, "To evaluate whether preprocedural transthoracic echocardiography (TTE) can be used to predict Amplatzer septal occluder (ASO) size for device closure of atrial septal defect (ASD). Retrospective review of patients who underwent ASD device closure at our institution between August 2006 and August 2013 was performed."

Our news journalists obtained a quote from the research from the University of California, "Patients with complex congenital heart disease, devices other than the ASO, multiple devices, or inadequate TTE images were excluded. Those who had transesophageal echocardiography (TEE) guided device placement were evaluated. A blinded observer reviewed their preprocedural TTE images and applied a scaled formula to predict device size. A total of 186 patients underwent ASO placement during the study period, 87 had TEE guidance, of which
45 met inclusion criteria. The mean predicted device size by the scaled formula was 18.0 +/- 5.11 mm, compared to the mean implanted device size of 18.8 +/- 5.22 mm. The mean absolute difference between each predicted and final deployed device size was 1.44 mm with 95% CI [1.08, 1.81]. The Pearson correlation showed that the predicted device size had a positive correlation coefficient of 0.94."

According to the news editors, the research concluded: "Preprocedural TTE assessment of ASD size using a scaling formula in patients with adequate TTE windows can accurately predict ASO device size and aid in device selection."


The news correspondents report that additional information may be obtained from S.P. Sah, University of California, Dept. of Pediat, Sch Med, Div CardiolRady Childrens Hosp, San Diego, CA 92103, United States. Additional authors for this research include S. Bartakian, H. El-Said, D.P. Molkara, B. Printz and J.W. Moore.

Keywords for this news article include: San Diego, California, United States, North and Central America, Atrial Septal Defects, Atrial Septal Defect, Echocardiography, Cardiovascular, Cardiology, University of California.

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Life Science Research - Molecular and Cellular Biology

Researchers at University of California Have Reported New Data on Molecular and Cellular Biology (Characterization of Hippo Pathway Components by Gene Inactivation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Life Science Research - Molecular and Cellular Biology. According to news reporting from La Jolla, California, by NewsRx journalists, research stated, "The Hippo pathway is important for regulating tissue homeostasis, and its dysregulation has been implicated in human cancer. However, it is not well understood how the Hippo pathway becomes dysregulated because few mutations in core Hippo pathway components have been identified."

Funders for this research include NIH, UCSD Pharmacology training grant.

The news correspondents obtained a quote from the research from the University of California, "Therefore, much work in the Hippo field has focused on identifying upstream regulators, and a complex Hippo interactome has been identified. Nevertheless, it is not always clear which components are the most physiologically relevant in regulating YAP/TAZ. To provide an overview of important Hippo pathway components, we created knockout cell lines for many of these components and compared their relative contributions to YAP/TAZ regulation in response to a wide range of physiological signals."

According to the news reporters, the research concluded: "By this approach, we provide an overview of the functional importance of many Hippo pathway components and
demonstrate NF2 and RHOA as important regulators of YAP/TAZ and TAOK1/3 as direct kinases for LATS1/2."


Our news journalists report that additional information may be obtained by contacting K.L. Guan, University of California, Moores Canc Center, La Jolla, CA 92093, United States. Additional authors for this research include Z.P. Meng, K.C. Lin, B.A. Lin, A.W. Hong, J.V. Chun and K.L. Guan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.10.034. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Molecular and Cellular Biology, Life Science Research, Genetics, Genetics, University of California.

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**Oncology - Cancer Care**

**Researchers at University of California Release New Data on Cancer Care (What do adolescents and young adults want from cancer resources? Insights from a Delphi panel of AYA patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cancer Care have been presented. According to news reporting from Los Angeles, California, by NewsRx journalists, research stated, "Cancer treatment programs and community-based support organizations are increasingly producing information and support resources geared to adolescent and young adult patients (AYAs); however, systematically-derived knowledge about user preferences for these resources is lacking. The primary purpose of this study was to generate findings from informed AYA cancer patients that resource developers can use to create products consistent with AYAs' expressed preferences for information and support."

Funders for this research include SeventyK, Teen Cancer America.

The news correspondents obtained a quote from the research from the University of California, "Utilizing a modified Delphi technique, AYA cancer patients identified barriers to optimal AYA cancer care, cancer resources that address their needs, and specific characteristics of cancer resources they find helpful. The Delphi panel consisted of a convenience sample of 21 patients aged 18-39 years, who were diagnosed with cancer between ages 15-39 and were no more than 8 years out from cancer treatment at the time of the study. Survey data were collected in three consecutive and iterative rounds over the course of 6 months in 2015. Findings indicated that AYA patients prefer resources that reduce feelings of loneliness, create a sense of community or belonging, and provide opportunities to meet other AYA patients. Among the top barriers to optimal cancer care, AYAs identified a lack of cancer care providers specializing in AYA care, a lack of connection to an AYA patient community, and their own lack of ability to navigate the health system. Participants also described aspects of cancer information and
supportive care resources that they believe address AYAs' concerns. Information derived from this study will help developers of cancer information and support resources to better reach their intended audience. From the point of view of AYA cancer patients, optimal cancer care and utilization of information and support resources requires that cancer support programs foster meaningful connections among AYA patients. Results also suggest that patient resources should equip AYAs with practical knowledge and skills necessary to navigate the health system and advocate for themselves."

According to the news reporters, the research concluded: "Given patient interest in social media, future research should further investigate optimizing online resources to serve the AYA cancer population."

For more information on this research see: What do adolescents and young adults want from cancer resources? Insights from a Delphi panel of AYA patients. Supportive Care in Cancer, 2017;25(1):119-126. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news journalists report that additional information may be obtained by contacting C.K. Cheung, University of California, Luskin Sch Public Affairs, Dept. of Social Welf, Los Angeles, CA 90095, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3396-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Cancer Care, Oncology, Cancer, University of California. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

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**Cardiovascular Diseases and Conditions - Venous...**

**Researchers at University of California Release New Data on Venous Thromboembolism (If some is good, more is better: An enoxaparin dosing strategy to improve pharmacologic venous thromboembolism prophylaxis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Venous Thromboembolism is now available. According to news originating from San Diego, California, by NewsRx correspondents, research stated, "Empiric enoxaparin dosing is inadequate for most trauma patients, leading to below target initial anti-Xa levels and requiring dose adjustment for optimal venous thromboembolism prophylaxis. We hypothesize that patient factors affecting initial anti-Xa levels can be identified based on drug pharmacokinetics, allowing creation of a new dosing protocol that will provide a higher percentage of in-target (0.2-0.4 IU/mL) patients at initial anti-Xa level assessment."

Our news journalists obtained a quote from the research from the University of California, "Records of 318 trauma patients were evaluated, and NONMEM and PSN software were used to analyze 11 variables for their effects on anti-Xa levels. Computer modeling was used to select a new dosing protocol, which was implemented on the trauma service as a quality improvement project. The first 145 patients appropriately enrolled were assessed for response
and complications. Only 29.5% of the pre-intervention group had initial anti-Xa levels in the appropriate prophylactic range (Fig. 1). Levels were most strongly influenced by patient weight, outweighing contributions from all other variables. A new regimen for initial dosing was therefore designed with three weight-defined categories for ease of administration. The post-intervention group showed an increase in in-target initial anti-Xa levels to 74.5% (p < 0.001), with a corresponding decrease in subprophylactic patients from 68.0% to 20.7%. There was an increase in supraphylactic levels to 4.8%, but no supraphylactic patients had hemorrhagic complications. Implementation of a new, categorized, weight-based enoxaparin dosing protocol was safe and significantly improved the percentage of trauma patients with in-target anti-Xa levels on initial assessment."

According to the news editors, the research concluded: "Further studies are needed to determine whether such dosing decreases venous thromboembolism rates."

For more information on this research see: If some is good, more is better: An enoxaparin dosing strategy to improve pharmacologic venous thromboembolism prophylaxis. Journal of Trauma and Acute Care Surgery, 2016;81(6):1095-1100. Journal of Trauma and Acute Care Surgery can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

The news correspondents report that additional information may be obtained from R. Coimbra, University of California, Div Trauma Surg Crit Care Burns & Acute Care Surg, San Diego, CA 92103, United States. Additional authors for this research include T.W. Costantini, J. Lane, K. Box and R. Coimbra.

Keywords for this news article include: San Diego, California, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Venous Thromboembolism, Coagulation Modifiers, Drugs and Therapies, Fibrinolytic Agents, Enoxaparin Therapy, Anticoagulants, Hematology, Heparins, University of California.

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Neurodegenerative Diseases and Conditions -

Researchers at University of California Report New Data on Huntington Disease (Allele-Specific Reduction of the Mutant Huntingtin Allele Using Transcription Activator-Like Effectors in Human Huntington's Disease Fibroblasts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Neurodegenerative Diseases and Conditions - Huntington Disease is the subject of a report. According to news reporting out of Sacramento, California, by NewsRx editors, research stated, "Huntington's disease (HD) is an autosomal dominant neurodegenerative disorder caused by an abnormal expansion of CAG repeats. Although pathogenesis has been attributed to this polyglutamine expansion, the underlying mechanisms through which the huntingtin protein functions have yet to be elucidated."

Our news journalists obtained a quote from the research from the University of California, "It has been suggested that postnatal reduction of mutant huntingtin through protein
interference or conditional gene knockout could prove to be an effective therapy for patients suffering from HD. For allele-specific targeting, transcription activator-like effectors (TALE) were designed to target single-nucleotide polymorphisms (SNP) in the mutant allele and packaged into a vector backbone containing KRAB to promote transcriptional repression of the disease-associated allele. Additional TALEs were packaged into a vector backbone containing heterodimeric FokI and were designed to be used as nucleases (TALEN) to cause a CAG-collapse in the mutant allele. Human HD fibroblasts were treated with each TALE-SNP or TALEN. Allele-expression was measured using a SNP-genotyping assay and mutant protein aggregation was quantified with Western blots for anti-ubiquitin. The TALE-SNP and TALEN significantly reduced mutant allele expression (p <0.05) when compared to control transfections while not affecting expression of the nondisease allele.

According to the news editors, the research concluded: "This study demonstrates the potential of allele-specific gene modification using TALE proteins, and provides a foundation for targeted treatment for individuals suffering from Huntington's or other genetically linked diseases."

For more information on this research see: Allele-Specific Reduction of the Mutant Huntingtin Allele Using Transcription Activator-Like Effectors in Human Huntington's Disease Fibroblasts. Cell Transplantation, 2016;25(4):677-86.

Our news journalists report that additional information may be obtained by contacting K.D. Fink, Stem Cell Program and Institute for Regenerative Cures, University of California Davis Health Systems, Sacramento, CA, United States. Additional authors for this research include P. Deng, J. Gutierrez, J.S. Anderson, A. Torrest, A. Komarla, S. Kalomoiris, W. Cary, J.D. Anderson, W. Gruenloh, A. Duffy, T. Tempkin, G. Annett, V. Wheelock, D.J. Segal and J.A Nolta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3727/096368916X690863. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chorea, Dementia, Genetics, Sacramento, California, Dyskinesias, Fibroblasts, United States, Huntington Disease, Movement Disorders, Cognition Disorders, North and Central America, Brain Diseases and Conditions, Basal Ganglia Diseases and Conditions, Neurodegenerative Diseases and Conditions.

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Researchers at University of California School of Medicine Report Findings in Type 2 Diabetes [Lipoprotein(a): novel target and emergence of novel therapies to lower cardiovascular disease risk]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is the subject of a report. According to news reporting originating in La Jolla, California, by NewsRx editors, the research stated, "This article summarizes recent observations on the role of lipoprotein(a) [Lp(a)] as a risk factor mediating cardiovascular disease. Lp(a) is a highly prevalent cardiovascular risk factor, with levels above 30 mg/dl affecting 20-30% of the global population."
The news reporters obtained a quote from the research from the University of California School of Medicine, "Up until now, no specific therapies have been developed to lower Lp(a) levels. Three major levels of evidence support the notion that elevated Lp(a) levels are a causal, independent, genetic risk factor for cardiovascular disease: epidemiologic studies and meta-analyses, genome-wide association studies and Mendelian randomization studies. Recent studies also have noted that individuals with low levels of Lp(a) are associated with a higher risk of incident type 2 diabetes mellitus, and conversely individuals with high levels have a lower risk, but this association does not appear to be causal. Novel therapies to lower Lp(a) include PCSK9 inhibitors and antisense oligonucleotides directly preventing translation of apolipoprotein(a) mRNA. With this robust and expanding clinical database, a reawakening of interest in Lp(a) as clinical risk factor is taking place."

According to the news reporters, the research concluded: "Trials are underway with novel drugs that substantially lower Lp(a) and may reduce its contribution to cardiovascular disease."

For more information on this research see: Lipoprotein(a): novel target and emergence of novel therapies to lower cardiovascular disease risk. Current Opinion In Endocrinology, Diabetes, and Obesity, 2016;23(2):157-64.

Our news correspondents report that additional information may be obtained by contacting S. Tsimikas, Vascular Medicine Program, Sulpizio Cardiovascular Center, University of California San Diego School of Medicine, La Jolla, California, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MED.0000000000000237. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lipids, La Jolla, Genetics, California, Cardiology, Epidemiology, Lipoproteins, United States, Article Review, Type 2 Diabetes, Risk and Prevention, North and Central America, Cardiovascular Diseases and Conditions, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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Biotechnology - Liposomes

Researchers at University of California Target Liposomes (Novel Application of Cellulose Paper As a Platform for the Macromolecular Self-Assembly of Biomimetic Giant Liposomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology - Liposomes. According to news reporting out of Merced, California, by NewsRx editors, research stated, "We report a facile and scalable method to fabricate biomimetic giant liposomes by using a cellulose paper-based materials platform."

Financial supporters for this research include National Aeronautics and Space Administration, National Science Foundation.

Our news journalists obtained a quote from the research from the University of California, "Termed PAPYRUS for Paper-Abetted lipid hYdRation in aqUeous Solutions, the method is general and can produce liposomes in various aqueous media and at elevated temperatures. Encapsulation of macromolecules and production of liposomes with membranes
of complex compositions is straightforward."

According to the news editors, the research concluded: "The ease of manipulation of paper makes practical massive parallelization and scale-up of the fabrication of giant liposomes, demonstrating for the first time the surprising usefulness of paper as a platform for macromolecular self-assembly."

For more information on this research see: Novel Application of Cellulose Paper As a Platform for the Macromolecular Self-Assembly of Biomimetic Giant Liposomes. ACS Applied Materials & Interfaces, 2016;8(47):32102-32107. ACS Applied Materials & Interfaces can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Applied Materials & Interfaces - www.pubs.acs.org/journal/aamick)

Our news journalists report that additional information may be obtained by contacting A.B. Subramaniam, University of California, Sch Engn, Merced, CA 95343, United States. Additional authors for this research include M. Xu, J. Pazzi, M. Garcia-Ojeda and A.B. Subramaniam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b11960. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Merced, California, United States, North and Central America, Emerging Technologies, Nanobiotechnology, Bionanotechnology, Nanotechnology, Bioengineering, Biotechnology, Biomimetics, Liposomes, University of California.

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**Oncology - Breast Cancer**

**Researchers at University of Cambridge Release New Data on Breast Cancer (Incorporating truncating variants in PALB2, CHEK2, and ATM into the BOADICEA breast cancer risk model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting out of Cambridge, United Kingdom, by NewsRx editors, research stated, "The proliferation of gene panel testing precipitates the need for breast cancer (BC) risk model that incorporates the effects of mutations in several genes and family history (FH). We extended the BOADICEA model to incorporate the effects of truncating variants in PALB2, CHEK2, and ATM."

Our news journalists obtained a quote from the research from the University of Cambridge, "The BC incidence was modeled via the explicit effects of truncating variants in BRCA1/2, PALB2, CHEK2, and ATM and other unobserved genetic effects using segregation analysis methods. The predicted average BC risk by age 80 for an ATM mutation carrier is 28%, 30% for CHEK2, 50% for PALB2, and 74% for BRCA1 and BRCA2. However, the BC risks are predicted to increase with FH burden. In families with mutations, predicted risks for mutation-negative members depend on both FH and the specific mutation. The reduction in BC risk after negative predictive testing is greatest when a BRCA1 mutation is identified in the family, but for women whose relatives carry a CHEK2 or ATM mutation, the risks' decrease
slightly. The model may be a valuable tool for counseling women who have undergone gene panel testing for providing consistent risks and harmonizing their clinical management.

According to the news editors, the research concluded: "A Web application can be used to obtain BC risks in clinical practice(http://ccge.medschl.cam.ac.uk/boadicea/)." For more information on this research see: Incorporating truncating variants in PALB2, CHEK2, and ATM into the BOADICEA breast cancer risk model. *Genetics in Medicine*, 2016;18(12):1190-1198. *Genetics in Medicine* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com; Genetics in Medicine - www.nature.com/gim/)

Our news journalists report that additional information may be obtained by contacting A.C. Antoniou, University of Cambridge, Center Canc Genet Epidemiol, Dept. of Public Hlth & Primary Care, Strangeways Res Lab, Cambridge, United Kingdom. Additional authors for this research include A.P. Cunningham, M. Tischkowitz, J. Simard, P.D. Pharoah, D.F. Easton and A.C. Antoniou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gim.2016.31. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, United Kingdom, Europe, Cancer, Diagnostics and Screening, Genetics, Breast Ductal Carcinoma, Risk and Prevention, Women's Health, Breast Cancer, Cancer Risk, Oncology, BRCA1, University of Cambridge. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

**Phagocytosis**

**Researchers at University of Cambridge Target Phagocytosis (Retinoid X receptor activation reverses age-related deficiencies in myelin debris phagocytosis and remyelination)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Phagocytosis is the subject of a report. According to news reporting originating in Cambridge, United Kingdom, by NewsRx journalists, research stated, "The efficiency of central nervous system remyelination declines with age. This is in part due to an age-associated decline in the phagocytic removal of myelin debris, which contains inhibitors of oligodendrocyte progenitor cell differentiation."

The news reporters obtained a quote from the research from the University of Cambridge, "In this study, we show that expression of genes involved in the retinoid X receptor pathway are decreased with ageing in both myelin-phagocytosing human monocytes and mouse macrophages using a combination of in vivo and in vitro approaches. Disruption of retinoid X receptor function in young macrophages, using the antagonist HX531, mimics ageing by reducing myelin debris uptake. Macrophage-specific RXRa (Rxra) knockout mice revealed that loss of function in young mice caused delayed myelin debris uptake and slowed remyelination after experimentally-induced demyelination. Alternatively, retinoid X receptor agonists partially restored myelin debris phagocytosis in aged macrophages. The agonist bexarotene, when used in concentrations achievable in human subjects, caused a reversion of the gene expression profile in multiple sclerosis patient monocytes to a more youthful profile and enhanced myelin debris phagocytosis by patient cells."
According to the news reporters, the research concluded: "These results reveal the retinoid X receptor pathway as a positive regulator of myelin debris clearance and a key player in the age-related decline in remyelination that may be targeted by available or newly-developed therapeutics."

For more information on this research see: Retinoid X receptor activation reverses age-related deficiencies in myelin debris phagocytosis and remyelination. *Brain*, 2015;138(Pt 12):3581-97. (Oxford University Press - www.oup.com; Brain - brain.oxfordjournals.org)

Our news correspondents report that additional information may be obtained by contacting R.J. Franklin, 1 Wellcome Trust-MRC Cambridge Stem Cell Institute and Dept. of Clinical Neurosciences, University of Cambridge, Cambridge, CB2 0AH, UK. Additional authors for this research include A.G. de la Fuente, A.H. Crawford, E. Linehan, V. Nunez, K.R. Johnson, T. Wu, D.C. Fitzgerald, M. Ricote, B. Bielekova and R.J Franklin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/brain/awv289. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Genetics, Cambridge, Monocytes, Immunology, Macrophages, Phagocytosis, Myeloid Cells, United Kingdom, DNA Binding Proteins, Retinoid X Receptors, Transcription Factors, Connective Tissue Cells, Retinoic Acid Receptors, Mononuclear Phagocyte System.

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17-Hydroxycorticosteroids

**Researchers at University of Cape Town Release New Data on 17-Hydroxycorticosteroids (Salivary Cortisol and Cortisone do not Appear to be Useful Biomarkers for Monitoring Hydrocortisone Replacement in Addison's Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on 17-Hydroxycorticosteroids is now available. According to news originating from Cape Town, South Africa, by NewsRx correspondents, research stated, "Salivary cortisol has been used to monitor hydrocortisone replacement in patients with Addison's disease (AD). Since salivary cortisol is metabolised to salivary cortisone, it may be an adjunctive analyte to assess adequacy of hydrocortisone replacement in patients with AD."

Our news journalists obtained a quote from the research from the University of Cape Town, "We aimed to characterise the exposure of salivary cortisol and cortisone in patients and healthy controls. We measured salivary cortisol and cortisone by liquid chromatography-tandem mass spectrometry and constructed a day curve (08:00 until 24:00 h) with 16 time points in 25 AD patients taking their usual hydrocortisone dose and in 26 healthy controls. The median (interquartile range) area under the curve (AUC) for cortisol was not different for patients, compared with controls [55.63 (32.91-151.07) nmol* min* l(-1) vs. 37.49 (27.41-52.00) nmol* min* l(-1); p = 0.098, respectively], whereas the peak cortisol C-max was higher in patients [32.61 (5.75-146.19) nmol/l vs. 8.96 (6.96-12.23) nmol/l; p = 0.013], compared with controls. The AUC for cortisone [23.65 (6.10-54.76) nmol* min* l(-1) vs. 227.73 (200.10-280.52) nmol* min* l(-1); p<= 0.001, respectively], and peak cortisone C-max was lower in patients than in controls [11.11 (2.91-35.85) nmol/l vs. 33.12 (25.97-39.95) nmol/l; p = 0.002]. The AUC for
salivary cortisol and salivary cortisone were not correlated with any measures of hydrocortisone dose. The time-course and AUC of salivary cortisol were similar between Addison’s patients and healthy controls. Patients had substantially lower salivary cortisone AUC, compared to healthy controls.

According to the news editors, the research concluded: "Salivary cortisol AUC and pharmacokinetics were not related to hydrocortisone dose and thus are not likely useful markers for the adequacy of hydrocortisone replacement."

For more information on this research see: Salivary Cortisol and Cortisone do not Appear to be Useful Biomarkers for Monitoring Hydrocortisone Replacement in Addison’s Disease. Hormone and Metabolic Research, 2016;48(12):814-821. Hormone and Metabolic Research can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

The news correspondents report that additional information may be obtained from I.L. Ross, University of Cape Town, Dept. of Med, Div Endocrinol, Cape Town, South Africa. Additional authors for this research include M. Lacerda, T.S. Pillay, D.J. Blom, G. Johannsson, J.A. Dave, N.S. Levitt, D. Haarburger and J.S. van der Walt.

Keywords for this news article include: Cape Town, South Africa, Africa, 11-Hydroxycorticosteroids, 17-Hydroxycorticosteroids, Adrenal Cortical Steroids, Adrenal Cortex Hormones, Hydrocortisone Therapy, Dermatological Agents, Drugs and Therapies, Topical Steroids, Pharmaceuticals, Glucocorticoids, Cortisone, University of Cape Town.

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Mycobacterium Infections - Tuberculosis

Researchers at University of Cape Town Release New Data on Tuberculosis (Bioluminescent Reporters for Rapid Mechanism of Action Assessment in Tuberculosis Drug Discovery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Mycobacterium Infections - Tuberculosis. According to news reporting originating from Cape Town, South Africa, by NewsRx correspondents, research stated, "The tuberculosis (TB) drug discovery pipeline is fueled by compounds identified in whole-cell screens against the causative agent, Mycobacterium tuberculosis. Phenotypic screening enables the selection of molecules that inhibit essential cellular functions in live, intact bacilli grown under a chosen in vitro condition."

Financial supporters for this research include HHS | National Institutes of Health (NIH), Howard Hughes Medical Institute (HHMI), Foundation for the National Institutes of Health (FNIH), National Research Foundation (NRF), South African Medical Research Council (SAMRC).

Our news editors obtained a quote from the research from the University of Cape Town, "However, deducing the mechanism of action (MOA), which is important to avoid promiscuous targets, often requires significant biological resources in a lengthy process that risks decoupling medicinal chemistry and biology efforts. Therefore, there is a need to develop methods enabling rapid MOA assessment of putative 'actives' for triage decisions. Here, we describe a modified version of a bioluminescence reporter assay that allows non-destructive detection of compounds targeting either of two macromolecular processes in M. tuberculosis:
cell wall biosynthesis or maintenance of DNA integrity. Coupling the luxCDABE operon from
Photorhabdus luminescens to mycobacterial promoters driving expression of the iniBAC operon
(PiniB-LUX) or the DNA damage-inducible genes, recA (PrecA-LUX) or radA (PradALUX),
provided quantitative detection in real time of compounds triggering expression of any of these
promoters over an extended 10- to 12-day incubation. Testing against known anti-TB agents
confirmed the specificity of each reporter in registering the MOA of the applied antibiotic in M.
tuberculosis, independent of bactericidal or bacteriostatic activity. Moreover, profiles obtained
for experimental compounds indicated the potential to infer complex MOAs in which multiple
cellular processes are disrupted."

According to the news editors, the research concluded: "These results demonstrate
the utility of the reporters for early triage of compounds based on the provisional MOA and
suggest their application to investigate polypharmacology in known and experimental anti-B
agents."

For more information on this research see: Bioluminescent Reporters for Rapid
Mechanism of Action Assessment in Tuberculosis Drug Discovery. Antimicrobial Agents and
Chemotherapy, 2016;60(11):6748-6757. Antimicrobial Agents and Chemotherapy can be
contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.
(American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy -
aac.asm.org)

The news editors report that additional information may be obtained by contacting
D.F. Warner, University of Cape Town, Inst Infect Dis & Mol Med, Cape Town, South Africa.
Additional authors for this research include A. Moosa, C.E. Barry, H.I.M. Boshoff, V. Mizrahi
and D.F. Warner.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1128/AAC.01178-16. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Cape Town, South Africa, Africa,
Mycobacterium Infections, Diagnostics and Screening, Drugs and Therapies, Mycobacterium
Tuberculosis, Actinomycetales Infections, Gram-Positive Bacteria, Genetics, University of
Cape Town.

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Methyl Ethers

Researchers at University of Cincinnati Target Methyl Ethers (Long-term
Fate Mapping to Assess the Impact of Postnatal Isoflurane Exposure on
Hippocampal Progenitor Cell Productivity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Researchers detail new data in Methyl Ethers. According to news reporting
originating from Cincinnati, Ohio, by NewsRx correspondents, research stated, "Exposure to
isoflurane increases apoptosis among postnatally generated hippocampal dentate granule cells.
These neurons play important roles in cognition and behavior, so their permanent loss could
explain deficits after surgical procedures."

Our news editors obtained a quote from the research from the University of
Cincinnati, "To determine whether developmental anesthetis exposure leads to persistent
deficits in granule cell numbers, a genetic fate-mapping approach to label a cohort of postnatally generated granule cells in Gli1-CreER(T2)::GFP bitransgenic mice was utilized. Green fluorescent protein (GFP) expression was induced on postnatal day 7 (P7) to fate map progenitor cells, and mice were exposed to 6 h of 1.5% isoflurane or room air 2 weeks later (P21). Brain structure was assessed immediately after anesthesia exposure (n = 7 controls and 8 anesthesia-treated mice) or after a 60-day recovery (n = 8 controls and 8 anesthesia-treated mice). A final group of C57BL/6 mice was exposed to isoflurane at P21 and examined using neurogenesis and cell death markers after a 14-day recovery (n = 10 controls and 16 anesthesia-treated mice). Isoflurane significantly increased apoptosis immediately after exposure, leading to cell death among 11% of GFP-labeled cells. Sixty days after isoflurane exposure, the number of GFP-expressing granule cells in treated animals was indistinguishable from control animals. Rates of neurogenesis were equivalent among groups at both 2 weeks and 2 months after treatment. These findings suggest that the dentate gyrus can restore normal neuron numbers after a single, developmental exposure to isoflurane. The authors' results do not preclude the possibility that the affected population may exhibit more subtle structural or functional deficits."

According to the news editors, the research concluded: "Nonetheless, the dentate appears to exhibit greater resiliency relative to nonneurogenic brain regions, which exhibit permanent neuron loss after isoflurane exposure."

For more information on this research see: Long-term Fate Mapping to Assess the Impact of Postnatal Isoflurane Exposure on Hippocampal Progenitor Cell Productivity. Anesthesiology, 2016;125(6):1159-1170. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

The news editors report that additional information may be obtained by contacting S.C. Danzer, University of Cincinnati, Neurosci Grad Program, Cincinnati, OH, United States. Additional authors for this research include D.Y. Tong, R.D. Hofacer, A.W. Loepke, Q.Q. Lian and S.C. Danzer.

Keywords for this news article include: Cincinnati, Ohio, United States, North and Central America, Green Fluorescent Protein, Neurogenetics, Pain Medicine, Methyl Ethers, Anesthesia, Isoflurane, Genetics, Proteins, University of Cincinnati.

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Oncology - Squamous Cell Carcinoma

Researchers at University of Colorado Have Reported New Data on Squamous Cell Carcinoma (Cancer Stem Cells in Squamous Cell Carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Squamous Cell Carcinoma have been presented. According to news reporting from Aurora, Colorado, by NewsRx journalists, research stated, "Cancer stem cells (CSCs) are found in many cancer types, including squamous cell carcinoma (SCC). CSCs initiate cancer formation and are linked to metastasis and resistance to therapies."

The news correspondents obtained a quote from the research from the University of
Colorado, "Studies have revealed that several distinct CSC populations coexist in SCC and that tumor initiation and metastatic potential of these populations can be uncoupled. Therefore, it is critical to understand CSC biology to develop novel CSC-targeted therapies for patients with SCC with poor prognoses."

According to the news reporters, the research concluded: "This review compares the properties of CSCs in SCC with normal stem cells in the skin, summarizes current advances and characteristics of CSCs, and considers the challenges for CSC-targeted treatment of SCC."


Our news journalists report that additional information may be obtained by contacting X.J. Wang, Univ Colorado Denver, Dept. of Pathol, Aurora, CO 80045, United States. Additional authors for this research include A. Strait, A. Jimeno and X.J. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jid.2016.07.033. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Stem Cell Research, Article Review, Squamous Cell Carcinoma, Carcinomas, Oncology, Cancer, University of Colorado.

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**Oncology - Colon Cancer**

**Researchers at University of Colorado Release New Data on Colon Cancer (Antitumor activity of a potent MEK inhibitor, TAK-733, against colorectal cancer cell lines and patient derived xenografts)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting originating in Aurora, Colorado, by NewsRx journalists, research stated, "CRC is a significant cause of cancer mortality, and new therapies are needed for patients with advanced disease. TAK-733 is a highly potent and selective investigational novel MEK allosteric site inhibitor."

The news reporters obtained a quote from the research from the University of Colorado, "In a preclinical study of TAK-733, a panel of CRC cell lines were exposed to varying concentrations of the agent for 72 hours followed by a sulforhodamine B assay. Twenty patient-derived colorectal cancer xenografts were then treated with TAK-733 in vivo. Tumor growth inhibition index (TGII) was assessed to evaluate the sensitivity of the CRC explants to TAK-733 while linear regression was utilized to investigate the predictive effects of genotype on the TGII of explants. Fifty-four CRC cell lines were exposed to TAK-733, while 42 cell lines were deemed sensitive across a broad range of mutations. Eighty-two percent of the cell lines within the sensitive subset were BRAF or KRAS/NRAS mutant, whereas 80% of the cell lines within the sensitive subset were PIK3CA WT. Twenty patient-derived human tumor CRC explants were then treated with TAK-733. In total, 15 primary human tumor explants were
found to be sensitive to TAK-733 (TGII (<=) 20%), including 9 primary human tumor explants that exhibited tumor regression (TGII >100%). Explants with a BRAF/KRAS/NRAS mutant and PIK3CA wild-type genotype demonstrated increased sensitivity to TAK-733 with a median TGII of -6%. MEK-response gene signatures also correlated with responsiveness to TAK-733 in KRAS-mutant CRC. The MEK inhibitor TAK-733 demonstrated robust antitumor activity against CRC cell lines and patient-derived tumor explants."

According to the news reporters, the research concluded: "While the preclinical activity observed in this study was considerable, single-agent efficacy in the clinic has been limited in CRC, supporting the use of these models in an iterative manner to elucidate resistance mechanisms that can guide rational combination strategies."

For more information on this research see: Antitumor activity of a potent MEK inhibitor, TAK-733, against colorectal cancer cell lines and patient derived xenografts. Oncotarget, 2015;6(33):34561-72.

Our news correspondents report that additional information may be obtained by contacting C.H. Lieu, Dept. of Medicine, Division of Medical Oncology, University of Colorado Anschutz Medical Campus, Aurora, CO, United States. Additional authors for this research include P.J. Klauck, P.K. Henthorn, J.J. Tentler, A.C. Tan, A. Spreafico, H.M. Selby, B.C. Britt, S.M. Bagby, J.J. Arcaroli, W.A. Messersmith, T.M. Pitts and S.G Eckhardt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5949. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Aurora, Colorado, Genetics, Oncology, Cell Line, Xenografts, Colon Cancer, United States, Cancer Therapy, Gastroenterology, Xenotransplantation, Colorectal Research, Drugs and Therapies, North and Central America.

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Intranuclear Space

Researchers at University of Connecticut School of Medicine Report New Data on Intranuclear Space (Ethical and practical challenges in providing noninvasive prenatal testing for chromosome abnormalities: an update)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Intranuclear Space. According to news reporting out of Farmington, Connecticut, by NewsRx editors, research stated, "Noninvasive prenatal testing (NIPT) through the analysis of cell-free DNA in maternal plasma has rapidly changed screening for fetal chromosome abnormalities. We review practical and ethical challenges associated with the transition, progress in their resolution, and identify new emerging difficulties."

Our news journalists obtained a quote from the research from the University of Connecticut School of Medicine, "NIPT is an advanced screening test for trisomies 21, 18, and 13 that was initially limited to women at high risk for an affected pregnancy. It is now recognized as suitable for all women. The testing has been expanded to include sex chromosome abnormalities and some microdeletion syndromes. Some ethicists are concerned about inclusion
of disorders that have less severe phenotypes. Clinical providers have experienced difficulty in maintaining an up-to-date knowledge about the scope of NIPT, differences between tests, who should be offered the testing, performance of tests, reasons for false-positive results, and optimal patient management following positive results. Some of the practical difficulties associated with the introduction can be attributed to this knowledge gap. There remain some important ethical issues associated with NIPT."

According to the news editors, the research concluded: "We believe that the same ethical and legal principles that were considered in the justification of conventional prenatal screening can be used to assess the appropriateness of additional NIPT applications."

For more information on this research see: Ethical and practical challenges in providing noninvasive prenatal testing for chromosome abnormalities: an update. Current Opinion In Obstetrics & Gynecology, 2016;28(2):119-24. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Obstetrics & Gynecology - journals.lww.com/co-obgyn/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting P. Benn, aDept. of Genetics and Genome Sciences bDept. of Community Medicine and Healthcare, University of Connecticut School of Medicine, Farmington, Connecticut, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/GCO.0000000000000254. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Farmington, Connecticut, Chromosomes, Cell Nucleus, United States, Article Review, Intranuclear Space, Cellular Structures, Intracellular Space, North and Central America.

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Oncology - Neuroblastomas

Researchers at University of Copenhagen Release New Data on Neuroblastomas [PKA, novel PKC isoforms, and ERK is mediating PACAP auto-regulation via PAC(1)R in human neuroblastoma NB-1 cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Neuroblastomas. According to news originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "The neuropeptide PACAP is expressed throughout the central and peripheral nervous system where it modulates diverse physiological functions including neuropeptide gene expression. We here report that in human neuroblastoma NB-1 cells PACAP transiently induces its own expression."

Our news journalists obtained a quote from the research from the University of Copenhagen, "Maximal PACAP mRNA expression was found after stimulation with PACAP for 3 h. PACAP auto-regulation was found to be mediated by activation of PACAP specific PAC(1)R as PACAP had >100-fold higher efficacy than VIP, and the PAC(1)R selective agonist Maxadilan potently induced PACAP gene expression. Experiments with pharmacological kinase inhibitors revealed that both PICA and novel but not conventional PKC isozymes were involved.
in the PACAP auto regulation. Inhibition of MAPK/ERK kinase (MEK) also impeded the induction, and we found that PICA, novel PKC and ERK acted in parallel and were thus not part of the same pathways. The expression of the transcription factor EGRI previously ascribed as target of PACAP signalling was found to be transiently induced by PACAP and pharmacological inhibition of either PKC or MEKI/2 abolished PACAP mediated EGRI induction. In contrast, inhibition of PICA mediated increased PACAP mediated EGRI induction. Experiments using siRNA against EGR1 to lower the expression did however not affect the PACAP auto-regulation indicating that this immediate early gene product is not part of PACAP auto-regulation in NB-I cells. We here reveal that in NB-1 neuroblastoma cells, PACAP induces its own expression by activation of PAC(1)R, and that the signalling is different from the PAC(1)R signalling mediating induction of VIP in the same cells."

According to the news editors, the research concluded: "PACAP auto-regulation depends on parallel activation of PICA, novel PKC isoforms, and ERIC, while EGR1 does not seem to be part of the PACAP auto-regulation."


The news correspondents report that additional information may be obtained from B. Georg, University of Copenhagen, Bispebjerg Hospital, Fac Hlth & Med Sci, Dept. of Clin Biochem, Copenhagen, Denmark. Additional authors for this research include B. Falktoft and J. Fahrenkrug.

Keywords for this news article include: Copenhagen, Denmark, Europe, Enzymes and Coenzymes, Kinase, Genetics, Neuroblastomas, Neuropeptides, Pharmacology, Hematology, Oncology, Therapy, University of Copenhagen.

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Digestive System Diseases and Conditions - Peritonitis

Researchers at University of Copenhagen Release New Data on Peritonitis (Pathology and Molecular Characterization of Escherichia Coli Associated With the Avian Salpingitis-Peritonitis Disease Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Digestive System Diseases and Conditions - Peritonitis is the subject of a report. According to news reporting from Frederiksberg, Denmark, by NewsRx journalists, research stated, "Outbreaks of salpingitis and peritonitis cause major economic losses due to high mortality, reduced egg-production, and culling. The aim of the present study was to characterize, in detail, lesions associated with increased mortality in layers due to avianpathogenic Escherichia coli (APEC) and to investigate the population structure of the E. coli involved, which is important for selection of optimal treatment and prophylactic strategies."

The news correspondents obtained a quote from the research from the University of Copenhagen, "Among 322 layers received from eight farms with increased mortality due to E.
coli, three lesion types were observed; sepsis-like lesions, chronic salpingitis and peritonitis, and chronic salpingitis and peritonitis associated with sepsis-like lesions. One hundred isolates of *E. coli* obtained in pure culture from the different lesion types were selected for genetic characterization. Six out of 10 submissions (two farms with two submissions) were considered clonal as defined by more than 85% of the typed isolates of *E. coli* belonging to the same sequence-type (ST). B2 was the most-prevalent phylogroup, including the clonal complex of ST95. The most-important virulence genes of *E. coli* were demonstrated from both clonal and nonclonal outbreaks, and major differences as to phylogeny and virulence genes were not observed between the lesion types. Cannibalism was more-often observed during polyclonal outbreaks. A new pathotype of APEC is suggested based upon lesions and route of infection, high similarity of virulence genes including plasmid-associated genes, and high frequency of ST95 and other isolates belonging to phylogroup B2."

According to the news reporters, the research concluded: "Compared to the best-known pathotypes of *E. coli*, this needs further investigations, including infection experiments to show if single virulence factors can be pointed out that are specific for the salpingitis-peritonitis pathotype and possibly not found in other pathotypes of E."

For more information on this research see: Pathology and Molecular Characterization of Escherichia Coli Associated With the Avian Salpingitis-Peritonitis Disease Syndrome. *Avian Diseases*, 2016;60(1):1-7.

Our news journalists report that additional information may be obtained by contacting R. Heidemann Olsen, A University of Copenhagen, Dept. of Veterinary Disease Biology, Faculty of Health and Medical Sciences, Stigbojen 4, DK-1870 Frederiksberg C, Denmark. Additional authors for this research include M. Bisgaard, J.P. Christensen, S. Kabell and H. Christensen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1637/11237-071715-Reg.1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Denmark, Genetics, Pathology, Nephrology, Peritonitis, Epidemiology, Frederiksberg, Escherichia Coli, Enterobacteriaceae, Gammaproteobacteria, Gram Negative Bacteria, Peritoneal Diseases and Conditions, Digestive System Diseases and Conditions.

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Heart Disorders and Diseases - Hypertrophic…

Researchers at University of Defense Have Reported New Data on Hypertrophic Cardiomyopathy (Identification of Novel Biomarker Candidates for Hypertrophic Cardiomyopathy and Other Cardiovascular Diseases Leading to Heart Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Hypertrophic Cardiomyopathy. According to news reporting out of Hradec Kralove, Czech Republic, by NewsRx editors, research stated, "In-depth proteome discovery analysis represents new strategy in an effort to identify novel reliable specific protein markers for hypertrophic cardiomyopathy and other life threatening cardiovascular diseases."
Our news journalists obtained a quote from the research from the University of Defense, "To systematically identify novel protein biomarkers of cardiovascular diseases with high mortality we employed an isobaric tag for relative and absolute quantitation (iTRAQ) proteome technology to make comparative analysis of plasma samples obtained from patients suffering from nonobstructive hypertrophic cardiomyopathy, stable dilated cardiomyopathy, aortic valve stenosis, chronic stable coronary artery disease and stable arterial hypertension. We found 128 plasma proteins whose abundances were uniquely regulated among the analyzed cardiovascular pathologies. 49 of them have not been described yet."

According to the news editors, the research concluded: "Additionally, application of statistical exploratory analyses of the measured protein profiles indicated the relationship in pathophysiology of the examined cardiovascular pathologies."

For more information on this research see: Identification of Novel Biomarker Candidates for Hypertrophic Cardiomyopathy and Other Cardiovascular Diseases Leading to Heart Failure. *Physiological Research*, 2016;65(5):751-762. *Physiological Research* can be contacted at: Acad Sciences Czech Republic, Inst Physiology, Videnska 1083, Prague 4 142 20, Czech Republic.

Our news journalists report that additional information may be obtained by contacting J. Stulik, Univ Def, Fac Military Hlth Sci, Dept. of Mol Pathol & Biol, Hradec Kralove 50001, Czech Republic. Additional authors for this research include P. Rehulka, A.M. Fucikova, J. Stulik and R. Pudil.

Keywords for this news article include: Hradec Kralove, Czech Republic, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Hypertrophic Cardiomyopathy, Cardiomyopathies, Heart Disease, Heart Failure, Cardiology, University of Defense.

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Clinical Research - Clinical Trials and Studies

Researchers at University of Edinburgh Describe Findings in Clinical Trials and Studies (Implications of the BIA-102474-101 study for review of first-into-human clinical trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Clinical Research - Clinical Trials and Studies have been presented. According to news reporting out of Edinburgh, United Kingdom, by NewsRx editors, research stated, "Over the past 10 years, thousands of first-into-human (FIH) clinical trials have been performed in Europe, with few severe adverse events (SAEs). Each has received detailed prior safety review at both the local clinical research facility and at national drug regulatory authority level."

Our news journalists obtained a quote from the research from the University of Edinburgh, "The recent fatal SAE in the BIA-102474-101 clinical trial shows the limitations of this process. Although criticized for not sequentially dosing subjects both within and between cohorts -as recommended by the European Medicines Agency for high-risk compounds after the TeGenero clinical trial disaster in 2006 -BIA-102474-101 was not considered to be high risk. Indeed, compounds with similar mechanisms of action had previously been taken through phase I and II trials without incident, and higher doses had been safely given for longer durations to
nonhuman primates. If the available data are comprehensive and accurate, and further investigation does not reveal unreported warning signs, this study has serious implications for ongoing and future review of FIH clinical trials. All preclinical study documents and clinical data collected during the BIA-102474-101 trial should be made available urgently so that lessons can be learnt. In the meantime, reviewers and clinical researchers should always ask for information on drug and target interactions and full reports of preclinical toxicity studies, and plan sequential dosing with longer delays between patients and cohorts, particularly if late SAEs might be anticipated. The use of individual patient pharmacokinetic and dynamic data should guide sequential dosing."

According to the news editors, the research concluded: "A process for systematic risk assessment, like that currently used in the Netherlands, should be applied routinely to all trials with novel compounds."


Our news journalists report that additional information may be obtained by contacting M. Eddleston, Pharmacology, Toxicology, & Therapeutics, University, BHF Centre for Cardiovascular Science, University of Edinburgh, Edinburgh, UK. Additional authors for this research include A.F. Cohen and D.J Webb.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bcp.12920. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Edinburgh, United Kingdom, Clinical Research, Pre Trial Research, Clinical Trials and Studies.

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**Neurodegenerative Diseases and Conditions -...**

**Researchers at University of Edinburgh Discuss Findings in Amyotrophic Lateral Sclerosis (Maturation and electrophysiological properties of human pluripotent stem cell-derived oligodendrocytes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Neurodegenerative Diseases and Conditions - Amyotrophic Lateral Sclerosis is the subject of a report. According to news reporting from Edinburgh, United Kingdom, by NewsRx journalists, research stated, "Rodent-based studies have shown that the membrane properties of oligodendrocytes play prominent roles in their physiology and shift markedly during their maturation from the oligodendrocyte precursor cell (OPC) stage. However, the conservation of these properties and maturation processes in human oligodendrocytes remains unknown, despite their dysfunction being implicated in human neurodegenerative diseases such as multiple sclerosis (MS) and amyotrophic lateral sclerosis (ALS)."

Financial supporters for this research include The Wellcome Trust, Euan MacDonald Centre, Multiple Sclerosis Trials Collaboration, Department of Biotechnology, Government of India (NAV), Patrick Wild Centre/RS Macdonald Trust, Royal Society of
Edinburgh/Caledonian Research Fund Personal Research Fellowship.

The news correspondents obtained a quote from the research from the University of Edinburgh, "Here, we have defined the membrane properties of human oligodendrocytes derived from pluripotent stem cells as they mature from the OPC stage, and have identified strong conservation of maturation-specific physiological characteristics reported in rodent systems. We find that as human oligodendrocytes develop and express maturation markers, they exhibit a progressive decrease in voltage-gated sodium and potassium channels and a loss of tetrodotoxin-sensitive spiking activity. Concomitant with this is an increase in inwardly rectifying potassium channel activity, as well as a characteristic switch in AMPA receptor composition. All these steps mirror the developmental trajectory observed in rodent systems. Oligodendrocytes derived from mutant C9ORF72-carrying ALS patient induced pluripotent stem cells did not exhibit impairment to maturation and maintain viability with respect to control lines despite the presence of RNA foci, suggesting that maturation defects may not be a primary feature of this mutation."

According to the news reporters, the research concluded: "Thus, we have established that the development of human oligodendroglia membrane properties closely resemble those found in rodent cells and have generated a platform to enable the impact of human neurodegenerative disease-causing mutations on oligodendrocyte maturation to be studied."


Our news journalists report that additional information may be obtained by contacting M.R. Livesey, Centre for Integrative Physiology, University of Edinburgh, Edinburgh, UK. Additional authors for this research include D. Magnani, E.M. Cleary, N.A. Vasistha, O.T. James, B.T. Selvaraj, K. Burr, D. Story, C.E. Shaw, P.C. Kind, G.E. Hardingham, D.J. Wyllie and S. Chandran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2273. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Genetics, Edinburgh, United Kingdom, Stem Cell Research, Pluripotent Stem Cells, TDP 43 Proteinopathies, Proteostasis Deficiencies, Amyotrophic Lateral Sclerosis, Neurodegenerative Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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Cardiovascular Diseases and Conditions

Researchers at University of Edinburgh Release New Data on Hypertension (Sunlight Has Cardiovascular Benefits Independently of Vitamin D)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news reporting out of Edinburgh, United Kingdom, by NewsRx editors, the research stated, "High blood pressure (BP) is the leading risk
factor for disability adjusted life years lost globally. Epidemiological data show a correlation between increased sun exposure and reduced population BP and cardiovascular mortality."

Our news journalists obtained a quote from the research from the University of Edinburgh, "Individuals with high serum vitamin D levels are at reduced risk of hypertension, cardiovascular disease and metabolic syndrome, yet multiple trial data show that oral vitamin D supplementation has no effect on these endpoints. Sunlight is a risk factor for skin cancers, but no link has been shown with increased all-cause mortality. Cohort studies from Scandinavia show a dose-dependent fall in mortality with increased sun-seeking behaviour. Skin contains significant stores of nitrogen oxides, which can be converted to NO by UV radiation and exported to the systemic circulation. Human studies show that this pathway can cause arterial vasodilatation and reduced BP. Murine studies suggest the same mechanism may reduce metabolic syndrome. Sunlight has beneficial effects on cardiovascular risk factors independently of vitamin D. All-cause mortality should be the primary determinant of public health messages."

According to the news editors, the research concluded: "Sunlight is a risk factor for skin cancer, but sun avoidance may carry more of a cost than benefit for overall good health."


Our news journalists report that additional information may be obtained by contacting R.B. Weller, Medical Research Council Centre for Inflammation Research, University of Edinburgh, Queen's Medical Research Institute, Edinburgh, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441266. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Edinburgh, Angiology, Cardiology, Healthcare, Epidemiology, United Kingdom, Article Review, Blood Pressure, Metabolic Syndrome, Risk and Prevention, Systolic Hypertension, Cardiovascular Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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**Drugs and Therapies - Aromatase Inhibitors**

**Researchers at University of Florence Report New Data on Aromatase Inhibitors (TRPA1 Mediates Aromatase Inhibitor-Evoked Pain by the Aromatase Substrate Androstenedione)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Aromatase Inhibitors have been published. According to news reporting out of Florence, Italy, by NewsRx editors, research stated, "Aromatase inhibitors (AI) induce painful musculoskeletal symptoms (AIMSS), which are dependent upon the pain transducing receptor TRPA1. However, as the AI concentrations required to engage TRPA1 in mice are higher than those found in the plasma of patients, we hypothesized that additional factors may cooperate to induce AIMSS."

Our news journalists obtained a quote from the research from the University of Florence, "Here we report that the aromatase substrate androstenedione, unique among several
steroid hormones, targeted TRPA1 in peptidergic primary sensory neurons in rodent and human cells expressing the native or recombinant channel. Androstenedione dramatically lowered the concentration of letrozole required to engage TRPA1. Notably, addition of a minimal dose of androstenedione to physiologically ineffective doses of letrozole and oxidative stress byproducts produces AIMSS-like behaviors and neurogenic inflammatory responses in mice. Elevated androstenedione levels cooperated with low letrozole concentrations and inflammatory mediators were sufficient to provoke AIMSS-like behaviors.

According to the news editors, the research concluded: "The generation of such painful conditions by small quantities of simultaneously administered TRPA1 agonists justifies previous failure to identify a precise link between AIs and AIMSS, underscoring the potential of channel antagonists to treat AIMSS."

For more information on this research see: TRPA1 Mediates Aromatase Inhibitor-Evoked Pain by the Aromatase Substrate Androstenedione. *Cancer Research*, 2016;76(23):7024-7035. *Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting P. Geppetti, University of Florence, Dept. of Hlth Sci, I-50139 Florence, Italy. Additional authors for this research include R. Tonello, S. Materazzi, R. Nassini, C. Fusi, E. Coppi, S. Li Puma, I.M. Marone, L.R. Sadofsky, A.H. Morice, T. Susini, A. Terreni, G. Moneti, M. Di Tommaso, P. Geppetti and S. Benemei.

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Keywords for this news article include: Florence, Italy, Europe, Mixed Function Oxygenases, Neurologic Manifestations, Enzymes and Coenzymes, Steroid Hydroxylases, Aromatase Inhibitors, Drugs and Therapies, Enzyme Inhibitors, Androstenedione, 17-Ketosteroids, Oxidoreductases, Hemeproteins, Cytochromes, Pain, University of Florence.

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Researchers at University of Georgia Report New Data on Compartment Syndrome (Comparison of NIRS, serum biomarkers, and muscle damage in a porcine balloon compression model of acute compartment syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Diseases and Conditions - Compartment Syndrome have been presented. According to news reporting originating in Athens, Georgia, by NewsRx journalists, research stated, "Near-infrared spectroscopy (NIRS) has been shown to aid in the diagnosis of extremity acute compartment syndrome (ACS), offering continuous real-time capability to monitor perfusion in extremities. Porcine models of ACS have been developed to attempt to aid in the understanding of the development of ACS and provide better methods of diagnosing ACS."

The news reporters obtained a quote from the research from the University of
Georgia, "The objective of the present study was to assess and correlate NIRS, tibial intracompartmental pressure (TICP), tibial intracompartmental perfusion pressure (TIPP), serum markers of inflammation and muscle injury in a balloon compression model of ACS. Six swine were used. Balloon catheters were inflated below the cranial tibial muscle. Systolic, diastolic, and mean arterial pressures; compartmental pressures; and oximetry were measured before, during, and after balloon inflation/deflation. Cranial tibial muscle was collected for muscle damage scoring. Serum creatine kinase, myoglobin, tumor necrosis factor, IL-1, and IL-6 were measured. Data analysis included comparing differences in TICP, NIRS, and TIPP measurements as well as creatine kinase, myoglobin, tumor necrosis factor, IL-1, and IL-6 levels between time points. Pearson correlations were calculated for muscle degeneration and edema and NIRS. Increases in TICP and decreases in TIPP were found. Near-infrared spectroscopy detected significant changes in tissue oxygenation at all the same time points. Myoglobin significantly increased from 45.7 13.0 ng/mL (baseline) to 219.5 +/- 57.3-ng/mL (balloon deflation) and continued to increase over the duration of the study. Creatine kinase significantly increased 2 hours after balloon deflation. Cranial tibial muscle degeneration, necrosis, and edema scores were higher in the test than the control legs. Near-infrared spectroscopy of the compartment provided a reliable, sensitive measure of both an increase and decrease in TICP and TIPP in this porcine balloon model of ACS. Creatine kinase and myoglobin significantly increased following balloon removal."

According to the news reporters, the research concluded: "Significant correlations between muscle degeneration, edema, hemorrhage, and NIRS were found."

For more information on this research see: Comparison of NIRS, serum biomarkers, and muscle damage in a porcine balloon compression model of acute compartment syndrome. Journal of Trauma and Acute Care Surgery, 2016;81(5):876-881. Journal of Trauma and Acute Care Surgery can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting S.C. Budsberg, University of Georgia, Coll Vet Med, Dept. of Small Anim Med & Surg, Athens, GA 30602, United States. Additional authors for this research include M.S. Shuler, M. Hansen, E. Uhl and B.A. Freedman.

Keywords for this news article include: Athens, Georgia, United States, North and Central America, Phosphotransferases (Nitrogenous Group Acceptor), Musculoskeletal Diseases and Conditions, Cardiovascular Diseases and Conditions, Muscular Diseases and Conditions, Enzymes and Coenzymes, Compartment Syndrome, Muscle Proteins, Creatine Kinase, Amino Acids, Guanidines, Myoglobin, Globins, Edema, University of Georgia.

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Biomedical Engineering - Regenerative Medicine

Researchers at University of Groningen Release New Data on Regenerative Medicine (Human Salivary Gland Stem Cells Functionally Restore Radiation Damaged Salivary Glands)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biomedical Engineering - Regenerative Medicine
have been published. According to news originating from Groningen, Netherlands, by NewsRx correspondents, research stated, "Adult stem cells are often touted as therapeutic agents in the regenerative medicine field, however data detailing both the engraftment and functional capabilities of solid tissue derived human adult epithelial stem cells is scarce. Here we show the isolation of adult human salivary gland (SG) stem/progenitor cells and demonstrate at the single cell level in vitro self-renewal and differentiation into multilineage organoids."

Financial supporters for this research include Netherlands Organisation for Health Research and Development, Netherlands Institute for Regenerative Medicine, Dutch Cancer Society.

Our news journalists obtained a quote from the research from the University of Groningen, "We also show in vivo functionality, long-term engraftment, and functional restoration in a xenotransplantation model. Indeed, transplanted human salisphere-derived cells restored saliva production and greatly improved the regenerative potential of irradiated SGs. Further selection for c-Kit expression enriched for cells with enhanced regenerative potencies. Interestingly, interaction of transplanted cells with the recipient SG may also be involved in functional recovery. Thus, we show for the first time that salispheres cultured from human SGs contain stem/progenitor cells capable of self-renewal and differentiation and rescue of saliva production."

According to the news editors, the research concluded: "Our study underpins the therapeutic promise of salisphere cell therapy for the treatment of xerostomia."


The news correspondents report that additional information may be obtained from S. Pringle, Dept. of Cell Biology, University of Groningen, University Medical Centrum Groningen, Groningen, Netherlands. Additional authors for this research include M. Maimets, M. van der Zwaag, M.A. Stokman, D. van Gosliga, E. Zwart, M.J. Witjes, G. de Haan, R. van Os and R.P Coppes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2278. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Biomedical Engineering, Biomedicine, Europe, Groningen, Netherlands, Bioengineering, Stem Cell Research, Regenerative Medicine.

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Oncology - Acute Myeloid Leukemia

Researchers at University of Heidelberg Release New Data on Acute Myeloid Leukemia (Pretreatment d-2-hydroxyglutarate serum levels negatively impact on outcome in IDH1-mutated acute myeloid leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Acute Myeloid Leukemia. According to news reporting out of Heidelberg, Germany, by NewsRx editors, research stated,
"Mutations in isocitrate dehydrogenases (IDHs) 1 and 2 frequently occur in acute myeloid leukemia (AML) and result in the production of the oncometabolite d-2-hydroxyglutarate (D2HG). D2HG has been shown to promote leukemogenesis even in the absence of mutated IDH, but the prognostic significance of pretreatment serum D2HG levels in patients with IDH-mutated AML is unclear."

Our news journalists obtained a quote from the research from the University of Heidelberg. "We measured D2HG serum levels in 84 patients with IDH-mutated AML treated in the prospective, randomized multicenter AML2003 trial of the German Study Alliance Leukemia. Multivariate Cox regression showed D2HG levels to negatively impact on event-free survival (EFS) as a continuous variable in the entire IDH(mut) cohort (p=0.04), with no effect on overall survival (OS). In a subgroup analysis, the negative impact of D2HG on EFS was found to be restricted to patients with mutations in IDH1 (p=0.003), adjusted for age, leukocyte count, serum lactate dehydrogenase and European LeukemiaNet risk score."

According to the news editors, the research concluded: "We thus conclude that pretreatment D2HG serum levels may yield prognostic information in patients with IDH1-mutated, but not in IDH2-mutated AML, possibly due to different subcellular localizations of IDH1 and IDH2."

For more information on this research see: Pretreatment d-2-hydroxyglutarate serum levels negatively impact on outcome in IDH1-mutated acute myeloid leukemia. Leukemia, 2015;30(4):782-8. (Nature Publishing Group - www.nature.com/; Leukemia - www.nature.com/leu/)

Our news journalists report that additional information may be obtained by contacting J. Balss, Dept. of Neuropathology, University of Heidelberg, Heidelberg, Germany. Additional authors for this research include C. Thiede, T. Bochtler, J.G. Okun, M. Saadati, A. Benner, S. Pusch, G. Ehninger, M. Schaich, A.D. Ho, A. von Deimling, A. Kramer and C.E Heilig.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/leu.2015.317. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Genetics, Oncology, Heidelberg, Hematology, Acute Myeloid Leukemia.

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Heidelberg, "Here we analyze the potential of radiomics, an emerging field of research that aims to utilize the full potential of medical imaging. A total of 4,842 quantitative MRI features were automatically extracted and analyzed from the multiparametric tumor of 172 patients (allocated to a discovery and validation set with a 2:1 ratio) with recurrent glioblastoma prior to bevacizumab treatment. Leveraging a high-throughput approach, radiomic features of patients in the discovery set were subjected to a supervised principal component (superpc) analysis to generate a prediction model for stratifying treatment outcome to antiangiogenic therapy by means of both progression-free and overall survival (PFS and OS). The superpc predictor stratified patients in the discovery set into a low or high risk group for PFS (HR = 1.60; P = 0.017) and OS (HR = 2.14; P< 0.001) and was successfully validated for patients in the validation set (HR = 1.85, P = 0.030 for PFS; HR = 2.60, P = 0.001 for OS)."

According to the news editors, the research concluded: "Our radiomic-based superpc signature emerges as a putative imaging biomarker for the identification of patients who may derive the most benefit from antiangiogenic therapy, advances the knowledge in the noninvasive characterization of brain tumors, and stresses the role of radiomics as a novel tool for improving decision support in cancer treatment at low cost."

For more information on this research see: Large-scale Radiomic Profiling of Recurrent Glioblastoma Identifies an Imaging Predictor for Stratifying Anti-Angiogenic Treatment Response.  
Clinical Cancer Research, 2016;22(23):5765-5771.
Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

The news correspondents report that additional information may be obtained from P. Kickingereder, Heidelberg Univ, Medical Center, Dept. of Neuroradiol, Heidelberg, Germany. Additional authors for this research include M. Gotz, J. Muschelli, A. Wick, U. Neuberger, R.T. Shinohara, M. Sill, M. Nowosielski, H.P. Schlemmer, A. Radbruch, W. Wick, M. Bendszus, K.H. Maier-Hein and D. Bonekamp.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-16-0702. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Heidelberg, Germany, Europe, Angiogenesis, Diagnostics and Screening, Glioblastomas, Oncology, University of Heidelberg.

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gentleman who had a progressively enlarging tender pulsatile swelling on the right side of
neck."

Our news journalists obtained a quote from the research from the University of Hong Kong, "Emergency computed tomography scan showed a large mycotic aneurysm arising from the right common carotid artery, and he underwent emergency open exploration with interposition bypass graft. Bacteroides fragilis species, which signified gastrointestinal-related sepsis, was isolated from the thrombus culture. Subsequently search of systemic septic source showed an early rectal adenocarcinoma."

According to the news editors, the research concluded: "This is the first case in the world's literature of a patient who had B. fragilis mycotic carotid aneurysm as a presenting complaint of his occult rectal malignancy."


The news correspondents report that additional information may be obtained from Y.C. Chan, University of Hong Kong, Medical Center, Dept. of Surg, Div Vasc & Endovasc Surg, Hong Kong, Hong Kong, People's Republic of China.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Common Carotid Artery, Colorectal Research, Gastroenterology, Angiology, Aneurysm, University of Hong Kong.

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**Gram-Positive Bacteria - Staphylococcus**

**Researchers at University of Hong Kong Report New Data on Staphylococcus (Emergence of ileS2-Carrying, Multidrug-Resistant Plasmids in Staphylococcus lugdunensis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Positive Bacteria - Staphylococcus. According to news reporting out of Hong Kong, People's Republic of China, by NewsRx editors, research stated, "Of 137 Staphylococcus lugdunensis isolates collected from two nephrology centers in Hong Kong, 10 (7.3%) and 3 (2.2%) isolates had high-level and low-level mupirocin resistance, respectively."

Our news journalists obtained a quote from the research from the University of Hong Kong, "Isolates with high-level resistance contained the plasmid-mediated ileS2 gene, while isolates with low-level resistance contained the mutation V588F within the chromosomal ileS gene. All but one of the ileS2-positive isolates belong to the predominating clone HKU1."

According to the news editors, the research concluded: "Plasmids carrying the ileS2 gene were mosaic and also cocarry multiple other resistance determinants."

For more information on this research see: Emergence of ileS2-Carrying, Multidrug-Resistant Plasmids in Staphylococcus lugdunensis. *Antimicrobial Agents and Chemotherapy*, 2016;60(10):6411-6414. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for
Researchers at University of Illinois Have Reported New Data on Salicylic Acids (Development of Poly Unsaturated Fatty Acid Derivatives of Aspirin for Inhibition of Platelet Function)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Salicylic Acids. According to news reporting out of Urbana, Illinois, by NewsRx editors, research stated, "The inhibition of platelet aggregation is key to preventing conditions such as myocardial infarction and ischemic stroke. Aspirin is the most widely used drug to inhibit platelet aggregation."

Our news journalists obtained a quote from the research from the University of Illinois, "Aspirin absorption can be improved further to increase its permeability across biologic membranes via esterification or converting the carboxylic acid to an anhydride. There are several reports indicating that omega-3 and omega-6 fatty acids such as linoleic acid, eicosapentaenoic acid (EPA), and docosahexaenoic acid (DHA) separately inhibit platelet aggregation. Herein, we synthesize anhydride conjugates of aspirin with linoleic acid, EPA, and DHA to form aspirin anhydrides that are expected to have higher permeability across cellular membranes. These aspirin-fatty acid anhydrides inhibited platelet aggregation in washed human platelets and platelet-rich plasma in a dose-dependent manner. In particular, the aspirin-DHA anhydride displayed similar effectiveness to aspirin. Platelet aggregation studies conducted in the presence of various platelet agonists indicated that the aspirin-lipid conjugates act through inhibition of the cyclooxygenase (COX)thromboxane synthase (TXAS) pathway. Hence, we performed detailed biochemical studies using purified COX-1 as well as TXAS stabilized in nanoscale lipid bilayers of nanodiscs to confirm results from the platelet aggregation studies. We show that although all of the aspirin conjugates act through the COX-TXAS pathway by inhibiting COX-1, the parent fatty acids do not act via this pathway."

According to the news editors, the research concluded: "Finally, we studied the hydrolysis of these compounds in buffer and human plasma, and we demonstrate that all of the aspirin-fatty acid conjugates hydrolyze to the parent molecules aspirin and fatty acid in a controlled manner."

For more information on this research see: Development of Poly Unsaturated Fatty Acid Derivatives of Aspirin for Inhibition of Platelet Function. *Journal of Pharmacology and Experimental Therapeutics*, 2016;359(1):134-141. *Journal of Pharmacology and Experimental Therapeutics* can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.
Our news journalists report that additional information may be obtained by contacting A. Das, University of Illinois, Beckman Inst Adv Sci, Center Biophys & Quantitat Biol, Dept. of Comparat BiosciDept Biochem & BioengnDiv N, Urbana, IL 61802, United States. Additional authors for this research include R. Adili, R. Kulmacz, M. Holinstat and A. Das.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.234781. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Urbana, Illinois, United States, North and Central America, Platelet Aggregation Inhibitors, Coagulation Modifiers, Drugs and Therapies, Antiplatelet Agents, Organic Chemicals, Carboxylic Acids, Aspirin Therapy, Pharmaceuticals, Salicylic Acids, Benzoic Acids, Hydroxy Acids, Anhydrides, Angiology, University of Illinois.

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Drugs and Therapies - Antibiotics

Researchers at University of Iowa Hospitals Report New Data on Antibiotics (Infection control in the operating room: is it more than a clean dish?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news reporting from Iowa City, Iowa, by NewsRx editors, the research stated, "Healthcare-associated infections (HCAIs) are driven by a complex interplay between host defenses, pathogen traits, and pathogen transmission. A better understanding of each of these factors is required to extend infection control beyond antibiotic therapy to improvements in basic preventive measures that can achieve sustained HCAI reductions."

The news correspondents obtained a quote from the research from the University of Iowa Hospitals, "The purpose of this article is to review recent advancements in our understanding of these issues for the operating room environment. The importance and implications of intraoperative bacterial transmission have been solidified, and hyper transmissible, virulent, and antibiotic resistant bacterial strains have been characterized. As a result, a best practice for improved intraoperative infection control has been delineated. Little advancement has been made in our understanding of the efficacy of higher inspired oxygen concentrations, improved postoperative glucose control, perioperative normothermia, and prophylactic antibiotic selection, timing, and dose for HCAI prevention. Recent work has led to the development of evidence-based hand hygiene, environmental cleaning, patient decolonization, and intravascular catheter design and handling improvement strategies. Evidence suggests that a best practice for postoperative infection control is a multimodal program that utilizes these interventions to target patient, provider, and environmental reservoirs in parallel."

According to the news reporters, the research concluded: "The development of novel diagnostic tools for targeted attenuation of hyper virulent, transmissible and resistant strains/strain characteristics is indicated to improve patient decolonization efforts."

For more information on this research see: Infection control in the operating room: is
Researchers at University of Jordan Target Asthma (Statins in Asthma: A Closer Look into the Pharmacological Mechanism of Action)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Asthma. According to news reporting from Irbid, Jordan, by NewsRx journalists, research stated, "The effect of stains in asthma is mediated through targeting several signaling molecules that are involved in the development of asthma phenotype. In vitro and in vivo studies revealed that statins reduce airway smooth muscle cells proliferation and inflammatory mediators' release."

The news correspondents obtained a quote from the research from the University of Jordan, "Statins reduce chemokine release and mucus production from airway epithelial cells besides attenuating subepithelial fibrosis and eosinophils recruitment. In acute and chronic allergen driven animal models of asthma, statins reduce airway hyper-responsiveness, inflammation and remodeling. However, the effectiveness of statins in clinical trials results in contradictory conclusions based on study design and treatment protocol."

According to the news reporters, the research concluded: "Therefore, more clinical trials are needed to evaluate their role in asthma patients."


Our news journalists report that additional information may be obtained by contacting N.A. Al-Sawalha, Jordan University of Science & Technology, Coll Pharm, Irbid 22110, Jordan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000449062. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Irbid, Jordan, Asia, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Clinical Trials and Studies, Therapy, Article Review, Clinical Research, Pharmacology, Asthma, University of Jordan.
Researchers at University of Kragujevac Target Colon Cancer (Real-time monitoring of cytotoxic effects of electroporation on breast and colon cancer cell lines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting from Kragujevac, Serbia, by NewsRx journalists, research stated, "To study the effects of electroporation on different cell lines. Material: The effects of electroporation on human breast cancer (MDA-MB-231), human colon cancer (SW-480 and HCT-116), human fibroblast cell line (MRC-5), primary human aortic smooth muscle cells (hAoSMC) and human umbilical vein endothelial cells (HUVEC) were studied."

Financial support for this research came from Ministry of Education, Science and Technological Development of the Republic of Serbia.

The news correspondents obtained a quote from the research from the University of Kragujevac, "Real-time technology was used for cell viability monitoring. Acridine orange/ethidium bromide assay was applied for cell death type determination. A numerical model of electroporation has been proposed. Electroporation induced inhibition of cell viability on dose (voltage) dependent way. The electroporation treatment 375-437.5 V cm(-1) caused irreversible electroporation of cancer cells and reversible electroporation of healthy cells. The application of lower voltage rating (250 V cm(-1)) led to apoptosis as the predominant type of cell death, whereas the use of higher voltage (500 V cm(-1)) mainly caused necrosis. Electroporation represents a promising method in cancer treatment. Different cancer cell lines had different response to the identical electroporation treatment. Electroporation 375-437.5 V cm(-1) selectively caused permanent damage of cancer cells (SW-480), while healthy cells (MRC-5, hAoSM and HUVEC) recovered after 72 h. The type of cell death is dependent of electroporation conditions."

According to the news reporters, the research concluded: "The proposed numerical model is useful for the analysis of phenomena related to electroporation treatment."

For more information on this research see: Real-time monitoring of cytotoxic effects of electroporation on breast and colon cancer cell lines. Bioelectrochemistry, 2017;113():85-94. Bioelectrochemistry can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland. (Elsevier - www.elsevier.com; Bioelectrochemistry - www.journals.elsevier.com/bioelectrochemistry/)

Our news journalists report that additional information may be obtained by contacting D.M. Cvetkovic, University of Kragujevac, Fac Sci, Inst Biol & Ecol, Kragujevac, Serbia. Additional authors for this research include M.N. Zivanovic, M.G. Milutinovic, T.R. Djukic, M.D. Radovic, A.M. Cvetkovic, N.D. Filipovic and N.D. Zdravkovic.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bioelechem.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kragujevac, Serbia, Europe, Numerical Modeling, Colon Cancer, Mathematics, Cell Line, Oncology, University of Kragujevac.
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Drugs and Therapies - Antiretrovirals

Researchers at University of KwaZulu-Natal Have Reported New Data on Antiretrovirals (HIV-1 Drug Resistance by Ultra-Deep Sequencing Following Short Course Zidovudine, Single-Dose Nevirapine, and Single-Dose Tenofovir with Emtricitabine for ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiretrovirals have been published. According to news reporting out of Durban, South Africa, by NewsRx editors, research stated, "Antiretroviral drug resistance following pMTCT strategies remains a significant problem. With rapid advancements in next generation sequencing technologies, there is more focus on HIV drug-resistant variants of low frequency, or the so-called minority variants."

Our news journalists obtained a quote from the research from the University of KwaZulu-Natal, "In South Africa, AZT monotherapy for pMTCT, similar to World Health Organization option A, has been used since 2008. In 2010, a single dose of co-formulated TDF/FTC was included in the strategy for prevention of resistance conferred by single-dose nevirapine (sd NVP). The study was conducted in KwaZulu-Natal, South Africa, among pMTCT participants who received AZT monotherapy from 14 weeks of gestation, intrapartum AZT and sd NVP, and postpartum sd TDF/FTC. Twenty-six specimens collected at 6 weeks post-delivery were successfully sequenced using 454 ultra-deep sequencing. Non-nucleoside reverse transcriptase inhibitor (NNRTI) resistance was detected in 17 of 26 (65%) patients, 2 (7%) had Thymidine analogue mutations, and 3 (11%) had K65R. Of the 17 patients with NNRTI resistance, 11 (65%) had high-level NNRTI resistance, whereas 6 (35%) had intermediate NNRTI resistance. The levels of NNRTI resistance are much higher than would be expected, given the inclusion of antepartum AZT and postpartum TDF/FTC. This high level of NNRTI resistance could impact future NNRTI-containing treatment for a large proportion of pMTCT-exposed women."

According to the news editors, the research concluded: "The detection of Thymidine analogue mutations highlights the need to understand the clinical impact of these on AZT-containing antiretroviral treatment in women exposed to AZT monotherapy."


Our news journalists report that additional information may be obtained by contacting R. Samuel, University of KwaZulu Natal, Natl Hlth Lab Serv, Dept. of Virol, Durban, South Africa. Additional authors for this research include M.N. Julian, R. Paredes, R. Parboosing, P. Moodley, L. Singh, A. Naidoo and M. Gordon.

Keywords for this news article include: Durban, South Africa, Africa, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Viral Sexually Transmitted Diseases and Conditions,
Researchers at University of Lille Report New Data on Ventricular Fibrillation (Long-term outcome of implantable cardioverter-defibrillator implantation in secondary prevention of sudden cardiac death)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Ventricular Fibrillation have been presented. According to news reporting originating in Lille, France, by NewsRx journalists, research stated, "Background.-Little is known about the long-term outcomes of patients who receive an implantable cardioverter-defibrillator (ICD) for purely secondary prevention indications. Aims.-To assess the rates and predictors of appropriate therapies over a very long-term followup period in this population."

The news reporters obtained a quote from the research from the University of Lille, "Methods.-Between June 2003 and August 2006, 239 consecutive patients with structural left ventricular disease and a secondary prophylaxis indication for ICD therapy (survivors of life threatening ventricular tachyarrhythmias) were prospectively enrolled. An extended follow-up of these patients was carried out. The primary endpoint was the occurrence of appropriate device therapy. Secondary endpoints were all-cause death, electrical storm and inappropriate therapy. Results.-The study population consisted of 239 patients (90% men; mean age 64 +/- 12 years; 72% ischaemic cardiomyopathy; left ventricular ejection fraction 37 +/- 12%). During a median follow-up of 7.8 (3.5-9.3) years, appropriate device therapy occurred in 139 (58.2%) patients. Death occurred in 141 patients (59%), electrical storm in 73 (30.5%) and inappropriate therapy in 42 (17.6%). Multivariable analysis identified patients whose presenting arrhythmia was ventricular fibrillation as being less likely to require appropriate device therapy than those whose presenting arrhythmia was ventricular tachycardia (sub-hazard ratio 0.62, 95% confidence interval 0.40-0.97; P=6.04). Independent predictors of all-cause death were age at implantation (P < 0.0001), wide QRS complexes (P = 0.024), creatinine concentration (P=0.0002) and B-type natriuretic peptide at implantation (P=0.0001). Conclusion.- Secondary prevention ICD recipients exhibit a high risk of appropriate device therapy and death over prolonged follow-up."

According to the news reporters, the research concluded: "Patients who presented initially with ventricular fibrillation were less likely to require the delivery of appropriate device therapy."

For more information on this research see: Long-term outcome of implantable cardioverter-defibrillator implantation in secondary prevention of sudden cardiac death. Archives of Cardiovascular Diseases, 2016;109(10):517-526. Archives of Cardiovascular Diseases can be contacted at: Elsevier Masson, Via Paleocapa 7, 20121 Milano, Italy. (Elsevier - www.elsevier.com; Archives of Cardiovascular Diseases - www.journals.elsevier.com/archives-of-cardiovascular-diseases/)

Our news correspondents report that additional information may be obtained by
Researchers at University of Ljubljana Detail Findings in Breast Cancer (gKlotho is a novel marker and cell survival factor in a subset of triple negative breast cancers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting originating in Ljubljana, Slovenia, by NewsRx journalists, research stated, "Over the last decade, breast cancer mortality has declined. However, triple negative breast cancer (TNBC) remains a challenging problem mostly due to early recurrence and lack of molecularly driven treatments."

The news reporters obtained a quote from the research from the University of Ljubljana, "There is a critical need to identify subgroups of TNBC with common molecular features that can be therapeutically targeted. Here we show that in contrast to Klotho and bKlotho, the third member of the Klotho protein family, gKlotho, is overexpressed in more than 60% of TNBCs and correlates with poorer disease progression. Furthermore, we find that gKlotho is expressed in a subset of TNBC cell lines promoting cell growth. Importantly, we demonstrate that in these cells gKlotho is necessary for cell survival and that its depletion leads to constitutive ERK activation, cell cycle arrest and apoptosis. Interestingly, we observe increased oxidative stress in gKlotho-depleted cells suggesting that gKlotho enables cancer cells to cope with an oxidative environment and that cells become dependent on its expression to maintain this survival advantage."

According to the news reporters, the research concluded: "These findings indicate that gKlotho might be a potential marker for patients that would benefit from treatments that alter oxidative stress and constitutes a novel drug target for a subset of TN breast cancers."

For more information on this research see: gKlotho is a novel marker and cell survival factor in a subset of triple negative breast cancers. Oncotarget, 2016;7(3):2611-28.

Our news correspondents report that additional information may be obtained by contacting N. Trošt, Institute of Biochemistry, Faculty of Medicine, University of Ljubljana, Ljubljana, Slovenia. Additional authors for this research include S. Pena-Llopis, S. Koirala, J. Stojan, P.R. Potts, K. Fon Tacer and E.D Martinez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Slovenia, Oncology, Ljubljana,
Researchers at University of Manchester Target Anterior Pituitary Hormones (Effect of summer daylight exposure and genetic background on growth in growth hormone-deficient children)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hormones - Anterior Pituitary Hormones. According to news reporting originating from Manchester, United Kingdom, by NewsRx correspondents, research stated, "The response to growth hormone in humans is dependent on phenotypic, genetic and environmental factors. The present study in children with growth hormone deficiency (GHD) collected worldwide characterised gene-environment interactions on growth response to recombinant human growth hormone (r-hGH)."

Our news editors obtained a quote from the research from the University of Manchester, "Growth responses in children are linked to latitude, and we found that a correlate of latitude, summer daylight exposure (SDE), was a key environmental factor related to growth response to r-hGH. In turn growth response was determined by an interaction between both SDE and genes known to affect growth response to r-hGH. In addition, analysis of associated networks of gene expression implicated a role for circadian clock pathways and specifically the developmental transcription factor NANOG."

According to the news editors, the research concluded: "This work provides the first observation of gene-environment interactions in children treated with r-hGH."


The news editors report that additional information may be obtained by contacting C. De Leonibus, Institute of Human Development, University of Manchester and Royal Manchester Children's Hospital, Central Manchester University Hospitals NHS Foundation Trust, Manchester Academic Health Science Centre, Manchester, UK. Additional authors for this research include P. Chatelain, C. Knight, P. Clayton and A. Stevens.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.67. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Genetics, Manchester, United Kingdom, Growth Hormones, Peptide Hormones, Anterior Pituitary Hormones.

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Researchers at University of Massachusetts Report New Data on Oncology Nursing (Advantages and Limitations of Wearable Activity Trackers: Considerations for Patients and Clinicians)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nursing - Oncology Nursing.

According to news reporting out of Amherst, Massachusetts, by NewsRx editors, research stated, "Exercise, light physical activity, and decreased sedentary time all have been associated with health benefits following cancer diagnoses. Commercially available wearable activity trackers may help patients monitor and self-manage their behaviors to achieve these benefits."

Our news journalists obtained a quote from the research from the University of Massachusetts, "This article highlights some advantages and limitations clinicians should be aware of when discussing the use of activity trackers with cancer survivors. Limited research has assessed the accuracy of commercially available activity trackers compared to research-grade devices. Because most devices use confidential, proprietary algorithms to convert accelerometry data to meaningful output like total steps, assessing whether these algorithms account for differences in gait abnormalities, functional limitations, and different body morphologies can be difficult. Quantification of sedentary behaviors and light physical activities present additional challenges. The global market for activity trackers is growing, which presents clinicians with a tremendous opportunity to incorporate these devices into clinical practice as tools to promote activity."

According to the news editors, the research concluded: "This article highlights important considerations about tracker accuracy and usage by cancer survivors."

For more information on this research see: Advantages and Limitations of Wearable Activity Trackers: Considerations for Patients and Clinicians. Clinical Journal of Oncology Nursing, 2016;20(6):606-610. Clinical Journal of Oncology Nursing can be contacted at: Oncology Nursing Soc, 125 Enterprise Dr, Pittsburgh, PA 15275, USA.

Our news journalists report that additional information may be obtained by contacting R.K. Walker, University of Massachusetts, Coll Nursing, Amherst, MA 01003, United States. Additional authors for this research include A.M. Hickey and P.S. Freedson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1188/16.CJON.606-610. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amherst, Massachusetts, United States, North and Central America, Oncology Nursing, Nursing, Oncology, Cancer, University of Massachusetts.

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Researchers at University of Medicine and Dentistry of New Jersey (UMDNJ) Have Reported New Data on Arteriovenous Fistula
(Endovascular Management of Spinal Dural Arteriovenous Fistulas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Arteriovenous Fistula is now available. According to news reporting from Newark, New Jersey, by NewsRx journalists, research stated, "Spinal vascular malformations, although rare, cause devastating disease. These malformations are commonly categorized as follows: spinal arteriovenous malformations (AVMs), dural arteriovenous fistulas (DAVFs), spinal hemangiomas, cavernous angiomas, and aneurysms."

The news correspondents obtained a quote from the research from the University of Medicine and Dentistry of New Jersey (UMDNJ), "Spinal DAVFs (SDAVFs), or type 1 spinal AVMs, occur most frequently, representing similar to 60 to 80% of vascular malformations of the spinal cord. While previously microsurgical treatment was considered the gold standard in the treatment of SDAVFs, recent advancements in technology-advancements of magnetic resonance imaging as a screening examination, contrast-enhanced magnetic resonance angiography, multidetector computed tomography as preangiographic evaluations, digital subtraction angiography, diagnostic catheters, and embolization materials-have made endovascular treatment a possible option."

According to the news reporters, the research concluded: "We review the treatment of SDAVFs, primarily discussing the endovascular management of these lesions."


Our news journalists report that additional information may be obtained by contacting C.J. Prestigiacomo, Rutgers New Jersey Med Sch, Dept. of Neurol & Neurosci, Newark, NJ, United States. Additional authors for this research include D.R. Hansberry, A. Meleis, B.A. Lieber, C.D. Gandhi and C.J. Prestigiacomo.

Keywords for this news article include: Newark, New Jersey, United States, North and Central America, Cardiovascular Diseases and Conditions, Cardiology, Article Review, Surgery, Vascular Diseases and Conditions, Cardiovascular Abnormalities, Arteriovenous Malformations, Congenital Abnormalities, Vascular Malformations, Arteriovenous Fistula, Vascular Fistula, Angiography, Angiology, University of Medicine and Dentistry of New Jersey (UMDNJ).

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Researchers at University of Medicine and Dentistry of New Jersey (UMDNJ) Report New Data on Dermatology (Basal cell naevus syndrome: an update on genetics and treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Health and Medicine - Dermatology. According to news reporting out of Newark, New Jersey, by NewsRx editors, research stated, "Basal cell naevus syndrome is an autosomal dominant disorder that stems from mutations in multiple genes, most commonly patched 1 (PTCH1). The classic triad of symptoms consists of basal cell carcinomas, jaw keratocysts and cerebral calcifications, although there are many other systemic manifestations."

Our news journalists obtained a quote from the research from the University of Medicine and Dentistry of New Jersey (UMDNJ), "Because of the broad range of symptoms and development of several types of tumours, early diagnosis and close monitoring are essential to preserve quality of life. Targeting treatment is often difficult because of tumor prevalence. Newer inhibitors of the hedgehog signalling pathway and proteins involved in proliferative growth have shown therapeutic promise. In addition, preventive medications are being devised."

According to the news editors, the research concluded: "We propose a method for determining appropriate treatment for cutaneous tumours."


Our news journalists report that additional information may be obtained by contacting A.M. John, Dept. of Dermatology, Rutgers New Jersey Medical School, Newark, NJ, 07103, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjd.14206. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Newark, Genetics, New Jersey, Dermatology, United States, Article Review, Health and Medicine, North and Central America. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

Researchers at University of Melbourne Discuss Findings in Heart Failure (Comorbidity of atrial fibrillation and heart failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Failure. According to news originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Atrial fibrillation (AF) and heart failure (HF) are evolving epidemics, together responsible for substantial human suffering and health-care expenditure. Ageing, improved cardiovascular survival, and epidemiological transition form the basis for their increasing global
Our news journalists obtained a quote from the research from the University of Melbourne, "Although we now have a clear picture of how HF promotes AF, gaps remain in our knowledge of how AF exacerbates or even causes HF, and how the development of HF affects the outcome of patients with AF. New data regarding HF with preserved ejection fraction and its unique relationship with AF suggest a possible role for AF in its aetiology, possibly as a trigger for ventricular fibrosis. Deciding on optimal treatment strategies for patients with both AF and HF is increasingly difficult, given that results from trials of pharmacological rhythm control are arguably obsolete in the age of catheter ablation. Restoring sinus rhythm by catheter ablation seems successful in the medium term and improves HF symptoms, functional capacity, and left ventricular function. Long-term studies to examine the effect on rates of stroke and death are ongoing."

According to the news editors, the research concluded: "Guidelines continue to evolve to keep pace with this rapidly changing field."

For more information on this research see: Comorbidity of atrial fibrillation and heart failure. Nature Reviews Cardiology, 2015;13(3):131-47. (Nature Publishing Group - www.nature.com/nature.com/nature.com/nature.com/nrcardio/)

The news correspondents report that additional information may be obtained from L.H. Ling, Dept. of Cardiovascular Medicine, University of Melbourne and The Alfred Hospital, Royal Parade, Melbourne, Victoria 3181, Australia. Additional authors for this research include P.M. Kistler, J.M. Kalman, R.J. Schilling and R.J Hunter.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrcardio.2015.191. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Cardiology, Epidemiology, Heart Disease, Heart Failure, Article Review, Catheter Ablation, Electrocoagulation, Atrial Fibrillation, Cardiac Arrhythmias, Australia and New Zealand, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Researchers at University of Miami Have Reported New Data on Anesthesia (Case report: management of differential diagnosis and treatment of severe anaphylaxis in the setting of spinal anesthesia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Anesthesia. According to news reporting originating in Miami, Florida, by NewsRx journalists, research stated, "The purpose of this case report is to educate fellow anesthesiologists of a complicated differential diagnosis for sudden cardiovascular collapse after spinal anesthesia. We report a case where anaphylaxis occurred while under spinal anesthesia and resulted in difficult resuscitation."

The news reporters obtained a quote from the research from the University of Miami, "A 58-year-old woman undergoing bilateral knee replacements under spinal anesthesia experienced sudden seizure and cardiovascular collapse from acute anaphylactic shock while administering a cephalosporin. Local anesthetic toxicity, high spinal, and anaphylaxis were..."
considered due to overlapping of symptoms. Successful resuscitation required prolonged advanced cardiac life support with substantially larger doses of epinephrine. Anaphylactic shock under spinal anesthesia is an acute and life-threatening complication, worsened by the spinal-induced sympathectomy, and aggressive resuscitation is warranted. Despite the presence of overlapping symptoms of differential diagnoses, rapid identification of the cause of cardiovascular collapse is crucial given that resuscitation treatment modalities may conflict.

According to the news reporters, the research concluded: "Timing of antibiotic administration should be adjusted for spinal anesthesia cases to allow time to detect possible anaphylaxis."


Our news correspondents report that additional information may be obtained by contacting B.M. Osman, University of Miami, Miller Sch Med, Dept. of Anesthesiol, Miami, FL 33136, United States. Additional authors for this research include J.M. Maga and S.M. Baquero.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.07.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Emergency Treatment, Cardiovascular, Resuscitation, Pain Medicine, Cardiology, Anesthesia, University of Miami.

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Acetanilides

Researchers at University of Miami Release New Data on Acetanilides (Understanding the large solubility of lidocaine in 1-n-butyl-3-methylimidazolium based ionic liquids using molecular simulation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Acetanilides is the subject of a report. According to news reporting from Oxford, Ohio, by NewsRx journalists, research stated, "Room temperature ionic liquids have been proposed as replacement solvents in a wide range of industrial separation processes. Here, we focus on the use of ionic liquids as solvents for the pharmaceutical compound lidocaine."

Financial supporters for this research include Miami University College of Engineering and Computing, Miami University Committee on Faculty Research.

The news correspondents obtained a quote from the research from the University of Miami, "We show that the solubility of lidocaine in seven common 1-n-butyl-3-methylimidazolium based ionic liquids is greatly enhanced relative to water. The predicted solubility is greatest in [BMIM](+)[CH3CO[2](-), which we find results from favorable hydrogen bonding between the lidocaine amine hydrogen and the [CH3CO][2](-) oxygen, favorable electrostatic interactions between the lidocaine amide oxygen with the [BMIM](+)}
aromatic ring hydrogens, while lidocaine does not interfere with the association of [BMIM](+) with [CH3CO[2]](-).

According to the news reporters, the research concluded: "Additionally, by removing functional groups from the lidocaine scaffold while maintaining the important amide group, we found that as the van der Waals volume increases, solubility in [BMIM](+)[CH3CO[2]](-) relative to water increases."

For more information on this research see: Understanding the large solubility of lidocaine in 1-n-butyl-3-methylimidazolium based ionic liquids using molecular simulation. The Journal of Chemical Physics, 2016;144(8):084501.

Our news journalists report that additional information may be obtained by contacting R.T. Ley, Dept. of Chemical, Paper and Biomedical Engineering, Miami University, Oxford, Ohio 45056, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1063/1.4942025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Antiarrhythmic Agents, Pharmaceuticals, Oxford, Solvents, Acetanilides, United States, Ionic Liquids, Lidocaine Therapy, Drugs and Therapies, Cardiovascular Agents, Ophthalmic Anesthetics, Ophthalmic Preparations, North and Central America, Local Injectable Anesthetics.

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Age-Related Macular Degeneration

Researchers at University of Miami Target Age-Related Macular Degeneration (Heritability of Choroidal Thickness in the Amish)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Age-Related Macular Degeneration. According to news reporting out of Miami, Florida, by NewsRx editors, research stated, "To evaluate the heritability of choroidal thickness and its relationship to age-related macular degeneration (AMD). Cohort study. Six hundred eighty-nine individuals from Amish families with early or intermediate AMD."

Our news journalists obtained a quote from the research from the University of Miami, “Ocular coherence tomography was used to quantify choroidal thickness, and fundus photography was used to classify eyes into categories using a modified Clinical Age-Related Maculopathy Staging (CARMs) system. Repeatability and heritability of choroidal thickness and its phenotypic and genetic correlations with the AMD phenotype (CARMs category) were estimated using a generalized linear mixed model (GLMM) approach that accounted for relatedness, repeated measures (left and right eyes), and the effects of age, gender, and refraction. Heritability of choroidal thickness and its phenotypic and genetic correlation with the AMD phenotype (CARMs category). Phenotypic correlation between choroidal thickness and CARMs category was moderate (Spearman's rank correlation, rs = -0.24; n = 1313 eyes) and significant (GLMM posterior mean, -4.27; 95% credible interval [CI], -7.88 to -0.79; P = 0.02) after controlling for relatedness, age, gender, and refraction. Eyes with advanced AMD had thinner choroids than eyes without AMD (posterior mean, -73.8; 95% CI, -94.7 to -54.6; P<0.001; n = 1178 eyes). Choroidal thickness was highly repeatable within individuals (repeatability, 0.78; 95% CI, 0.68 to 0.89) and moderately heritable (heritability, 0.40; 95% CI,
0.14 to 0.51), but did not show significant genetic correlation with CARMS category, although the effect size was moderate (genetic correlation, -0.18; 95% CI, -0.49 to 0.16). Choroidal thickness also varied with age, gender, and refraction. The CARMS category showed moderate heritability (heritability, 0.49; 95% CI, 0.26 to 0.72). We quantify the heritability of choroidal thickness for the first time, highlighting aheritable, quantitative trait that is measurable in all individuals regardless of AMD affection status, and moderately phenotypically correlated with AMD severity. Choroidal thickness therefore may capture variation not captured by the CARMS system. However, because the genetic correlation between choroidal thickness and AMD severity was not significant in our data set, genes associated with the 2 traits may not overlap substantially."

According to the news editors, the research concluded: "Future studies should therefore test for genetic variation associated with choroidal thickness to determine the overlap in genetic basis with AMD."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ophtha.2016.09.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Age-Related Macular Degeneration, Genetics, University of Miami.

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**Meniere’s Disease**

**Researchers at University of Michigan Target Meniere's Disease (SLC44A2 single nucleotide polymorphisms, isoforms, and expression: Association with severity of Meniere’s disease?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Meniere's disease. According to news reporting originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "SLC44A2 was discovered as the target of an antibody that causes hearing loss. Knockout mice develop age related hearing loss, loss of sensory cells and spiral ganglion neurons."

Financial support for this research came from NIH.

Our news editors obtained a quote from the research from the University of Michigan, "SLC44A2 has polymorphic sites implicated in human disease. Transfusion related acute lung injury (TRALI) is linked to rs2288904 and genome wide association studies link rs2288904 and rs9797861 to venous thromboembolism (VTE), coronary artery disease and
stroke. Here we report linkage disequilibrium of rs2288904 with rs3087969 and the association of these SLC44A2 SNPs with Meniere's disease severity. Tissue-specific isoform expression differences suggest that the N-terminal domain is linked to different functions in different cell types. Heterozygosity at rs2288904 CGA/CAA and rs3087969 GAT/GAC showed a trend for association with intractable Meniere's disease compared to less severe disease and to controls."

According to the news editors, the research concluded: "The association of SLC44A2 SNPs with VTE suggests that thrombi affecting cochlear vessels could be a factor in Meniere's disease."

For more information on this research see: SLC44A2 single nucleotide polymorphisms, isoforms, and expression: Association with severity of Meniere's disease? Genomics, 2016;108(5-6):201-208. Genomics can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Genomics - www.journals.elsevier.com/genomics/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygeno.2016.11.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Otorhinolaryngologic Diseases and Conditions, Labyrinth Diseases and Conditions, Ear Diseases and Conditions, Endolymphatic Hydrops, Meniere's Disease, Otolaryngology, Audiology, Genetics, University of Michigan.

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Hormones - Estradiol Congeners

Researchers at University of Milan Have Reported New Data on Estradiol Congeners (Hormonal influence on the effect of mirabegron treatment for overactive bladder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hormones - Estradiol Congeners are presented in a new report. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "The aim of this study was to evaluate if levels of gonadotropic and sex steroidal hormones influence the efficacy of mirabegron in the treatment of overactive bladder. We included 58 female participants who received treatment with mirabegron 50 mg once daily and provided a blood sample for hormone profiling before treatment was initiated."

Our news journalists obtained a quote from the research from the University of Milan, "Serum hormone concentrations for estradiol, progesterone, testosterone, FSH, LH, TSH, and T4 were analyzed. Urinary Distress Inventory (UDI), (overactive bladder domain: UDIOAB), and the short form Pelvic Floor Impact Questionnaire (PFIQ-7) were used to assess subjective outcomes. There were significant overall improvements in UDI, UDIOAB, and the
PFIQ from baseline to the 2 months of follow-up (P = 0.001, 0.001, and 0.008, respectively). The magnitude of the mean difference of improvements was similar between pre-and postmenopausal women. Estrogen levels were nonsignificantly lower in participants who experienced an improvement in UDI and UDIOAB at 2 months of follow-up as compared with those that did not (P = 0.7). There were no other clinically relevant differences in hormone levels in relation to improvements in UDI, UDIOAB, or PFIQ. In logistic regression analysis there were no associations between UDIOAB outcomes and age, previous use of anticholinergic drugs, parity, menopause, and local estrogen treatment. Estradiol, gonadotropic hormones, thyroid hormones, and testosterone levels did not influence the clinical effects of mirabegron in women with overactive bladder.

According to the news editors, the research concluded: "Menopause status should not be a determinant for mirabegron treatment."


The news correspondents report that additional information may be obtained from D. Altman, Univ Milano Bicocca, Dept. of Stat & Quantitat Methods, Milan, Italy. Additional authors for this research include C. Elmer, K.E. Andersson and D. Altman.

Keywords for this news article include: Milan, Italy, Europe, Estradiol Congeners, Gonadal Hormones, Women's Health, Endocrinology, Estrogens, University of Milan.

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Anions

Researchers at University of Milan Release New Data on Anions (Iron citrate reduces high phosphate-induced vascular calcification by inhibiting apoptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Anions is the subject of a report. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "High phosphate-induced vascular calcification (VC) and iron deficiency-induced anemia are two major contributors of cardiovascular morbidity and mortality in patients affected by chronic kidney disease (CKD). Since phosphate (Pi) control and iron replacement are common therapies in CKD, the aim of our study was to investigate the effect of iron on high Pi-induced VC in rat vascular smooth muscle cells (VSMCs)."

Our news editors obtained a quote from the research from the University of Milan, "We treated VSMCs with 5 mM Pi and iron citrate (Fe3+) to evaluate Ca deposition by Alizarin Red destaining, DNA fragmentation by ELISA, gene expression by RT-PCR and protein expression by Western blot. Pretreatment with Fe3+ prevents high Pi-induced calcium (Ca) deposition concentration-dependently, with 90.1% inhibition at 50 mu M (0.716 +/- 0.04 vs. 0.071 +/- 0.01, OD/mg protein; Pi vs. Pi + Fe3+, p< 0.01). We found that 50 mM Fe3+ completely prevents high Pi-induced apoptosis measured as DNA fragmentation (1.51 +/- 0.08 vs. 1.03 +/- 0.06, Pi vs. Pi + Fe3+: p< 0.01), through the prevention of the downregulation of the
According to the news editors, the research concluded: "Iron citrate inhibits high Pi-induced Ca deposition by prevention of apoptosis, induction of autophagy, and partially affecting osteoblastic differentiation."


The news editors report that additional information may be obtained by contacting M. Cozzolino, University of Milan, Dept. of Hlth Sci, Div Renal, Milan, Italy. Additional authors for this research include F. Elli, P. Braudotti, M. Falleni, D. Tosi, G. Bulfamante, G.A. Block and M. Cozzolino.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.09.071. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Risk and Prevention, Protein Expression, Phosphoric Acids, Proteomics, Phosphates, Apoptosis, Genetics, Anions, University of Milan.

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According to the news reporters, the research concluded: "Our studies show that the cellular effects of NEDD8 inhibition can be manipulated based on the p53 status and that NEDD8 inhibitors can be used in a p53-based cyclotherapy protocol to specifically target cancer cells devoid of wild type p53 function, while healthy cells will be protected from the induced toxicity."

For more information on this research see: The use of the NEDD8 inhibitor MLN4924 (Pevonedistat) in a cyclotherapy approach to protect wild-type p53 cells from MLN4924 induced toxicity. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting B. Delaval, University of Montpellier, Cell Biol Res Montpellier, CRBM, CNRSUMR5237, F-34293 Montpellier 5, France. Additional authors for this research include S. Descamps, B. Delaval and D.P. Xirodimas.

Keywords for this news article include: Montpellier, France, Europe, Genetics, p53 Gene, University of Montpellier.

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Science

Researchers at University of Montreal Target Science (Social status alters immune regulation and response to infection in macaques)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science have been published. According to news originating from Montreal, Canada, by NewsRx correspondents, research stated, "Social status is one of the strongest predictors of human disease risk and mortality, and it also influences Darwinian fitness in social mammals more generally. To understand the biological basis of these effects, we combined genomics with a social status manipulation in female rhesus macaques to investigate how status alters immune function."

Our news journalists obtained a quote from the research from the University of Montreal, "We demonstrate causal but largely plastic social status effects on immune cell proportions, cell type-specific gene expression levels, and the gene expression response to immune challenge. Further, we identify specific transcription factor signaling pathways that explain these differences, including low-status-associated polarization of the Toll-like receptor 4 signaling pathway toward a proinflammatory response."

According to the news editors, the research concluded: "Our findings provide insight into the direct biological effects of social inequality on immune function, thus improving our understanding of social gradients in health."


The news correspondents report that additional information may be obtained from
Researchers at University of Naples Federico II Have Reported New Data on Squamous Cell Carcinoma (Neck dissection versus "watchful-waiting" in early squamous cell carcinoma of the tongue our experience on 127 cases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Squamous Cell Carcinoma. According to news reporting originating from Naples, Italy, by NewsRx correspondents, research stated, "Early oral squamous cell carcinoma (EOSCC) represents about 90% of the oral cancers especially in older males. The etiology is multifactorial, strongly related to tobacco and alcohol abuse, but also infective agents, Human papillomaviruses (HPV16-18), genetic factors and pre-neoplastic lesions seem to be implicated."

Our news editors obtained a quote from the research from the University of Naples Federico II, "There is no consensus in the literature for the treatment of early squamous cell carcinoma of the tongue (stages I-II); both an elective neck dissection policy and a watchful-waiting policy have their proponents in the different centers. The records of 127 patients with EOSCC of the tongue treated in our Department between 2007 and 2011, with cN0 neck staging, who underwent resection of the primary tumor with or without elective neck dissection, were reviewed. We divided the patients into two groups, in Group 1 the 66 patients who received an elective neck dissection 30 days later from the primary surgery have been included, and in Group 2 the 61 patients undergoing 'watchful waiting' observation for the development of nodal metastases have been collected. Statistical calculations were performed using Chi-square and t student test. A significant difference was found between the two groups as concerns tumor stage and pathologic tumor classification (p < 0.001). No significant differences were present between the two groups as concerns mean follow up (P = 0.2), relapse rate (p = 0.3) and relapse-free survival time (p = 0.2). In T1 stage tumors with depth of infiltration <= 4 mm, or low grade (G1-G2), the 'watchful waiting' strategy for cervical metastases is appropriate, given the low regional recurrence rate (15%) and overall survival of 100%.

According to the news editors, the research concluded: "In case of T2 lesions with depth of infiltration => 4 mm or high grade (G3) we prefer to perform the elective neck dissection, with 13% of local recurrence and 100% of survival at 6 years."

For more information on this research see: Neck dissection versus "watchful-waiting" in early squamous cell carcinoma of the tongue our experience on 127 cases. Surgical

The news editors report that additional information may be obtained by contacting P. Bonavolonta, University of Naples Federico II, Dept. of Maxillofacial Surg, Naples, Italy. Additional authors for this research include P. Bonavolonta, F. Maglitto, M. Friscia, G. Iaconetta and L. Califano.

Keywords for this news article include: Naples, Italy, Europe, Otorhinolaryngologic Surgical Procedures, Squamous Cell Carcinoma, Neck Dissection, Carcinomas, Oncology, Genetics, Surgery, University of Naples Federico II.

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Immune System Diseases and Conditions - HIV/AIDS

Researchers at University of New South Wales Target HIV/AIDS (Circulating microRNAs in Sera Correlate with Soluble Biomarkers of Immune Activation but Do Not Predict Mortality in ART Treated Individuals with HIV-1 Infection: A Case Control Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immune System Diseases and Conditions - HIV/AIDS have been presented. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "The use of anti-retroviral therapy (ART) has dramatically reduced HIV-1 associated morbidity and mortality. However, HIV-1 infected individuals have increased rates of morbidity and mortality compared to the non-HIV-1 infected population and this appears to be related to end-organ diseases collectively referred to as Serious Non-AIDS Events (SNAEs)."

The news reporters obtained a quote from the research from the University of New South Wales, "Circulating miRNAs are reported as promising biomarkers for a number of human disease conditions including those that constitute SNAEs. Our study sought to investigate the potential of selected miRNAs in predicting mortality in HIV-1 infected ART treated individuals. A set of miRNAs was chosen based on published associations with human disease conditions that constitute SNAEs. This case: control study compared 126 cases (individuals who died whilst on therapy), and 247 matched controls (individuals who remained alive). Cases and controls were ART treated participants of two pivotal HIV-1 trials. The relative abundance of each miRNA in serum was measured, by RTqPCR. Associations with mortality (all-cause, cardiovascular and malignancy) were assessed by logistic regression analysis. Correlations between miRNAs and CD4+ T cell count, hs-CRP, IL-6 and D-dimer were also assessed. None of the selected miRNAs was associated with all-cause, cardiovascular or malignancy mortality. The levels of three miRNAs (miRs -21, -122 and -200a) correlated with IL-6 while miR-21 also correlated with D-dimer. Additionally, the abundance of miRs -31, -150 and -223, correlated with baseline CD4+ T cell count while the same three miRNAs plus miR-145 correlated with nadir CD4+ T cell count. No associations with mortality were found with any circulating miRNA studied."

According to the news reporters, the research concluded: "These results cast doubt onto the effectiveness of circulating miRNA as early predictors of mortality or the major underlying diseases that contribute to mortality in participants treated for HIV-1 infection."
For more information on this research see: Circulating microRNAs in Sera Correlate with Soluble Biomarkers of Immune Activation but Do Not Predict Mortality in ART Treated Individuals with HIV-1 Infection: A Case Control Study. Plos One, 2015;10(10):e0139981. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0139981. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, HIV/AIDS, Cardiology, RNA Viruses, Retroviridae, Cardiovascular, HIV Infections, Vertebrate Viruses, Primate Lentiviruses, Australia and New Zealand, Immune System Diseases and Conditions, Viral Sexually Transmitted Diseases and Conditions.

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Nutritional and Metabolic Diseases and Conditions ...

Researchers at University of Niigata Target Type 2 Diabetes [The fruit of Acanthopanax senticosus (Rupr. et Maxim.) Harms improves insulin resistance and hepatic lipid accumulation by modulation of liver adenosine monophosphate-activated protein ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news originating from Niigata, Japan, by NewsRx correspondents, research stated, "Obesity-associated insulin resistance is a major risk factor for most metabolic diseases, including dyslipidemia and type 2 diabetes. Acanthopanax senticosus (Rupr. et Maxim.) Harms (Goka) root has been used in traditional Chinese medicine for treatment of diabetes and other conditions; however, little is known about the effects of Goka fruit (GF). Goka fruit is rich in anthocyanin, which has beneficial effects on obesity and insulin resistance via activation of adenosine monophosphate activated protein kinase (AMPK)."

Our news journalists obtained a quote from the research from the University of Niigata, "We hypothesized that GF can improve obesity-associated insulin resistance. The aim of the present study was to investigate whether GF improves insulin resistance in high-fat diet (HFD) induced obese mice. High-fat diet mice treated with GF (500 and 1000 mg/kg) for 12 weeks showed an improved glucose tolerance and insulin sensitivity, as well as reduced plasma insulin and liver lipid accumulation. Moreover, GF administration to HFD mice resulted in down-regulation of fatty acid synthase expression and up-regulation of cholesterol 7-alpha-hydroxylase expression in the liver. Notably, AMPK phosphorylation in the liver increased after GF administration."

According to the news editors, the research concluded: "In summary, GF supplementation improved obesity-associated insulin resistance and hepatic lipid accumulation
through modulation of AMPK activity and lipid metabolism associated gene expression."


The news correspondents report that additional information may be obtained from H. Nishida, Niigata University of Pharmacy & Applied Life Sciences, Fac Appl Life Sci, Niigata, Niigata 9568603, Japan. Additional authors for this research include M. Nishida, M. Saito, A. Tanabe, T. Eitsuka, S.H. Yuan, N. Ikekawa and H. Nishida.

Keywords for this news article include: Niigata, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, phosphotransferases (alcohol group acceptor), Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Glucose Metabolism Disorders, Enzymes and Coenzymes, Obesity and Diabetes, Nutrition Disorders, Risk and Prevention, Insulin Resistance, Diet and Nutrition, Kinase, Genetics, Peptide Proteins, Peptide Hormones, Protein Kinases, Hyperinsulinism, Type 2 Diabetes, Overnutrition, Proinsulin, Bariatrics, University of Niigata.

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**Stroke**

**Researchers at University of North Carolina Report New Data on Stroke (Variants of Rab GTPase-Effector Binding Protein-2 Cause Variation in the Collateral Circulation and Severity of Stroke)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Stroke are discussed in a new report. According to news reporting from Chapel Hill, North Carolina, by NewsRx journalists, research stated, "The extent (number and diameter) of collateral vessels varies widely and is a major determinant, along with arteriogenesis (collateral remodeling), of variation in severity of tissue injury after large artery occlusion. Differences in genetic background underlie the majority of the variation in collateral extent in mice, through alterations in collaterogenesis (embryonic collateral formation)."

The news correspondents obtained a quote from the research from the University of North Carolina, "In brain and other tissues, approximate to 80% of the variation in collateral extent among different mouse strains has been linked to a region on chromosome 7. We recently used congenic (CNG) fine mapping of C57BL/6 (B6, high extent) and BALB/cByJ (BC, low extent) mice to narrow the region to a 737 Kb locus, Dce1. Herein, we report the causal gene. We used additional CNG mapping and knockout mice to narrow the number of candidate genes. Subsequent inspection identified a nonsynonymous single nucleotide polymorphism between B6 and BC within Rabep2 (rs33084087). We then created B6 mice with the BC single nucleotide polymorphism at this locus plus 3 other lines for predicted alteration or knockout of Rabep2 using gene editing. The single amino acid change caused by rs33084087 accounted for the difference in collateral extent and infarct volume between B6 and BC mice attributable to Dce1. Mechanistically, variants of Rabep2 altered collaterogenesis during embryogenesis but had no
effect on angiogenesis examined in vivo and in vitro. Rabep2 deficiency altered endosome trafficking known to be involved in VEGF-A -> VEGFR2 signaling required for collaterogenesis."

According to the news reporters, the research concluded: "Naturally occurring variants of Rabep2 are major determinants of variation in collateral extent and stroke severity in mice."

For more information on this research see: Variants of Rab GTPase-Effector Binding Protein-2 Cause Variation in the Collateral Circulation and Severity of Stroke. Stroke, 2016;47(12):3022-3031. Stroke can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Stroke - stroke.ahajournals.org/)

Our news journalists report that additional information may be obtained by contacting J.E. Faber, University of North Carolina, McAllister Heart Inst, Dept. of Cell Biol Physiol, Chapel Hill, NC 27599, United States. Additional authors for this research include R. Sealock, B.K. Buckley, H. Zhang, L. Xiao, A.C. Dudley and J.E. Faber.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Enzymes and Coenzymes, Genetics, GTPase, Stroke, University of North Carolina.

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Drugs and Therapies - Drug Delivery Systems

Researchers at University of North Carolina Target Drug Delivery Systems (Tumor Microenvironment-Mediated Construction and Deconstruction of Extracellular Drug-Delivery Depots)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Drug Delivery Systems have been presented. According to news originating from Raleigh, North Carolina, by NewsRx correspondents, research stated, "Protein therapy has been considered the most direct and safe approach to treat cancer. Targeting delivery of extracellularly active protein without internalization barriers, such as membrane permeation and endosome escape, is efficient and holds vast promise for anticancer treatment."

Financial support for this research came from National Center for Advancing Translational Sciences.

Our news journalists obtained a quote from the research from the University of North Carolina, "Herein, we describe a 'transformable' core-shell based nanocarrier (designated CS-NG), which can enzymatically assemble into microsized extracellular depots at the tumor site with assistance of hyaluronidase (HAase), an overexpressed enzyme at the tumor microenvironment. Equipped with an acid-degradable modality, the resulting CS-NG can substantially release combinational anticancer drugs-tumor necrosis factor (TNF)-related apoptosis inducing ligand (TRAIL) and antiangiogenic cilenitide toward the membrane of cancer cells and endothelial cells at the acidic tumor microenvironment, respectively."

According to the news editors, the research concluded: "Enhanced cytotoxicity on MDA-MB-231 cells and improved antitumor efficacy were observed using CS-NG, which was attributed to the inhibition of cellular internalization and prolonged retention time in vivo."

The news correspondents report that additional information may be obtained from Q. Hu, Joint Dept. of Biomedical Engineering, University of North Carolina at Chapel Hill and North Carolina State University, Raleigh, North Carolina 27695, United States. Additional authors for this research include W. Sun, Y. Lu, H.N. Bomba, Y. Ye, T. Jiang, A.J. Isaacson and Z. Gu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.nanolett.5b04343. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Raleigh, United States, North Carolina, Cancer Therapy, Drugs and Therapies, Drug Delivery Systems, North and Central America.

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**Drugs and Therapies - Cancer Therapy**

**Researchers at University of Oklahoma Report New Data on Cancer Therapy (Label-Free Real-Time Microarray Imaging of Cancer Protein-Protein Interactions and Their Inhibition by Small Molecules)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Cancer Therapy are presented in a new report. According to news reporting originating from Oklahoma City, Oklahoma, by NewsRx correspondents, research stated, "A rapid optical microarray imaging approach for anticancer drug screening at specific cancer protein-protein interface targets with binding kinetics and validation by a mass sensor is reported for the first time. Surface plasmon resonance imager (SPRi) demonstrated a 3.5-fold greater specificity for interactions between murine double minute 2 protein (MDM2) and wild-type p53 over a nonspecific p53 mutant in a real-time microfluidic analysis."

Financial support for this research came from College of Arts and Sciences, Oklahoma State University.

Our news editors obtained a quote from the research from the University of Oklahoma, "Significant percentage reflectivity changes (D%R) in the SPRi signals and molecular-level mass changes were detected for both the MDM2-p53 interaction and its inhibition by a small-molecule Nutlin-3 drug analogue known for its anticancer property. We additionally demonstrate that synthetic, inexpensive binding domains of interacting cancer proteins are sufficient to screen anticancer drugs by an array-based SPRi technique with excellent specificity and sensitivity."

According to the news editors, the research concluded: "This imaging array, combined with a mass sensor, can be used to study quantitatively any protein-protein interaction and screen for small molecules with binding and potency evaluations."

For more information on this research see: Label-Free Real-Time Microarray Imaging of Cancer Protein-Protein Interactions and Their Inhibition by Small Molecules. *Analytical Chemistry*, 2016;88(6):3130-5. (American Chemical Society - www.acs.org;
Analytical Chemistry - www.pubs.acs.org/journal/ancham)

The news editors report that additional information may be obtained by contacting D.M. Benbrook, Dept. of Obstetrics and Gynecology, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma 73104, United States. Additional authors for this research include Z.H. Al Mubarak, B. Zhang, M. Akinwale, A. Pathiranage, J. Deng, K.D. Berlin, D.M. Benbrook and S. Krishnan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.analchem.5b04234. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Oncology, p53 Gene, Oklahoma City, United States, Cancer Therapy, Drugs and Therapies, North and Central America, Diagnostics and Screening.

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Drugs and Therapies - Alimentary Pharmacology and…

Researchers at University of Orebro Report New Data on Alimentary Pharmacology and Therapeutics (Consensus report: faecal microbiota transfer - clinical applications and procedures)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Alimentary Pharmacology and Therapeutics are presented in a new report. According to news reporting originating from Orebro, Sweden, by NewsRx correspondents, research stated, "Faecal microbiota transplantation or transfer (FMT) aims at replacing or reinforcing the gut microbiota of a patient with the microbiota from a healthy donor. Not many controlled or randomised studies have been published evaluating the use of FMT for other diseases than Clostridium difficile infection, making it difficult for clinicians to decide on a suitable indication."

Financial support for this research came from Seres Therapeutics.

Our news editors obtained a quote from the research from the University of Orebro, "To provide an expert consensus on current clinical indications, applications and methodological aspects of FMT. Well-acknowledged experts from various countries in Europe have contributed to this article. After literature review, consensus has been achieved by repetitive circulation of the statements and the full manuscript among all authors with intermittent adaptation to comments (using a modified Delphi process). Levels of evidence and agreement were rated according to the GRADE system. Consensus was defined a priori as agreement by at least 75% of the authors. Key recommendations include the use of FMT in recurrent C. difficile infection characterised by at least two previous standard treatments without persistent cure, as well as its consideration in severe and severe-complicated C. difficile infection as an alternative to total colectomy in case of early failure of antimicrobial therapy. FMT in inflammatory bowel diseases (IBD), irritable bowel syndrome (IBS) and metabolic syndrome should only be performed in research settings. Faecal microbiota transplantation or transfer is a promising treatment for a variety of diseases in which the intestinal microbiota is disturbed."

According to the news editors, the research concluded: "For indications other than C. difficile infection, more evidence is needed before more concrete recommendations can be
made."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13868. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Örebro, Sweden, Europe, Alimentary Pharmacology and Therapeutics, Drugs and Therapies, University of Örebro.

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**Transport Vesicles**

**Researchers at University of Oslo Report New Data on Transport Vesicles (Bidirectional traffic between the Golgi and the endosomes - machineries and regulation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transport Vesicles is now available. According to news originating from Oslo, Norway, by NewsRx correspondents, research stated, "The bidirectional transport between the Golgi complex and the endocytic pathway has to be finely regulated in order to ensure the proper delivery of newly synthetized lysosomal enzymes and the return of sorting receptors from degradative compartments. The high complexity of these routes has led to experimental difficulties in properly dissecting and separating the different pathways."

Our news journalists obtained a quote from the research from the University of Oslo, "As a consequence, several models have been proposed during the past decades. However, recent advances in our understanding of endosomal dynamics have helped to unify these different views. We provide here an overview of the current insights into the transport routes between Golgi and endosomes in mammalian cells. The focus of the Commentary is on the key molecules involved in the trafficking pathways between these intracellular compartments, such as Rab proteins and sorting receptors, and their regulation."

According to the news editors, the research concluded: "A proper understanding of the bidirectional traffic between the Golgi complex and the endolysosomal system is of uttermost importance, as several studies have demonstrated that mutations in the factors involved in these transport pathways result in various pathologies, in particular lysosome-associated diseases and diverse neurological disorders, such as Alzheimer's and Parkinson's disease."

For more information on this research see: Bidirectional traffic between the Golgi
Researchers at University of Otago Report New Data on Epilepsy (Alterations In Ampa Receptor Subunit Expression In Cortical Inhibitory Interneurons In The Epileptic Stargazer Mutant Mouse)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Epilepsy are discussed in a new report. According to news originating from Dunedin, New Zealand, by NewsRx correspondents, research stated, "Absence seizures arise from disturbances within the corticothalamocortical network, however the precise cellular and molecular mechanisms underlying seizure generation arising from different genetic backgrounds are not fully understood. While recent experimental evidence suggests that changes in inhibitory microcircuits in the cortex may contribute to generation of the hallmark spike-wave discharges, it is still unclear if altered cortical inhibition is a result of interneuron dysfunction due to compromised glutamatergic excitation and/or changes in cortical interneuron number."

Our news journalists obtained a quote from the research from the University of Otago, "The stargazer mouse model of absence epilepsy presents with a genetic deficit in stargazin, which is predominantly expressed in cortical parvalbumin-positive (PV+) interneurons, and involved in the trafficking of glutamatergic AMPA receptors. Hence, in this study we examine changes in (1) the subunit-specific expression of AMPA receptors which could potentially result in a loss of excitation onto cortical PV+ interneurons, and (2) PV+ neuron density that could additionally impair cortical inhibition. Using Western blot analysis we found subunit-specific alterations in AMPA receptor expression in the stargazer somatosensory cortex. Further analysis using confocal fluorescence microscopy revealed that although there are no changes in cortical PV+ interneuron number, there is a predominant loss of GluA1 and 4 containing AMPA receptors in PV+ neurons in stargazers compared to non-epileptic controls. Taken together, these data suggest that the loss of AMPA receptors in PV+ neurons could impair their feed-forward inhibitory output, ultimately altering cortical network oscillations, and contribute to seizure generation in stargazers."

According to the news editors, the research concluded: "As such the feed forward inhibitory interneurons could be potential targets for future therapeutic intervention for some absence epilepsy patients."

For more information on this research see: Alterations In Ampa Receptor Subunit Expression In Cortical Inhibitory Interneurons In The Epileptic Stargazer Mutant Mouse. Neuroscience, 2016;339():124-138. Neuroscience can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England.
Researchers at University of Ottawa Report New Data on Suicide (Child abuse and the prevalence of suicide attempts among those reporting suicide ideation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Suicide have been published. According to news reporting out of Ottawa, Canada, by NewsRx editors, research stated, "Victims of child abuse may be at increased risk of acting on suicide ideation, although this has not been empirically tested. We estimated the risk of suicide attempts associated with child abuse among individuals who reported suicide ideation."

Our news journalists obtained a quote from the research from the University of Ottawa, "Secondary analysis of data from the population-based Canadian Community Health Survey Mental Health (n = 828). This population-based survey included various structured questionnaires, including the Composite International Diagnostic Interview to assess mental illness and suicidal thoughts and behaviours. Approximately 80 % of those who attempted suicide had a history of child abuse. Poor mental health, financial difficulties, poor coping skills, and reporting a suicide plan were also associated with an increased prevalence of attempting suicide; adjusted for these factors, child abuse was associated with a 1.77-fold increased prevalence (95 % CI 0.93, 3.36) of suicide attempts. Most individuals who attempt suicide experience child abuse, and worse health and social functioning."

According to the news editors, the research concluded: "Adopting a life-course perspective to understand trajectories of suicide risk factors may inform prevention and treatment."


Our news journalists report that additional information may be obtained by
Researchers at University of Oxford Report Findings in Clinical Trials and Studies (Targeting the CCL2-CCR2 signaling axis in cancer metastasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news reporting out of Oxford, United Kingdom, by NewsRx editors, research stated, "The CCL2-CCR2 signaling axis has generated increasing interest in recent years due to its association with the progression of cancer. Although first described as a chemotactic molecule with physiological roles in regulating inflammation, recent studies have revealed a pro-tumorigenic function for CCL2 in favoring cancer development and subsequent metastasis."

Our news journalists obtained a quote from the research from the University of Oxford, "CCL2 binds the cognate receptor CCR2, and together this signaling pair has been shown to have multiple pro-tumorigenic roles, from mediating tumor growth and angiogenesis to recruiting and usurping host stromal cells to support tumor progression. The importance of CCL2-CCR2 signaling has been further championed by the establishment of clinical trials targeting this signaling pair in solid and metastatic cancers. Here we review the roles of CCL2-CCR2 signaling in the development and progression of cancer metastasis."

According to the news editors, the research concluded: "We further evaluate the outcome of several clinical trials targeting either CCL2 or CCR2, and discuss the prospects and challenges of manipulating CCL2-CCR2 interaction as a potential approach for combating metastatic disease."

For more information on this research see: Targeting the CCL2-CCR2 signaling axis in cancer metastasis. Oncotarget, 2016;7(19):28697-710.

Our news journalists report that additional information may be obtained by contacting S.Y. Lim, CRUK, MRC Oxford Institute for Radiation Oncology, University of Oxford, Oxford, UK. Additional authors for this research include A.E. Yuzhalin, A.N. Gordon-Weeks and R.J Muschel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7376. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, Europe, Cancer, Oncology, United Kingdom, Article Review, Clinical Research, Clinical Trials and Studies.
Researchers at University of Padova Describe Findings in Atrial Fibrillation (A Randomized Trial of Pharmacogenetic Warfarin Dosing in Na?ve Patients with Non-Valvular Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news originating from Padova, Italy, by NewsRx correspondents, research stated, "Genotype-guided warfarin dosing have been proposed to improve patient's management. This study is aimed to determine whether a CYP2C9-VKORC1-CYP4F2-based pharmacogenetic algorithm is superior to a standard, clinically adopted, pharmacodynamic method."

Our news journalists obtained a quote from the research from the University of Padova, "Two-hundred na?ve patients with non-valvular atrial fibrillation were randomized to trial arms and 180 completed the study. No significant differences were found in the number of out-of-range INRs (INR <2.0 or >3.0) (p=0.79) and in the mean percentage of time spent in the therapeutic range (TTR) after 19 days in the pharmacogenetic (51.9%) and in the control arm (53.2%, p=0.71). The percentage of time spent at INR >4.0 was significantly lower in the pharmacogenetic (0.7%) than in the control arm (1.8%) (p=0.02)."

According to the news editors, the research concluded: "Genotype-guided warfarin dosing is not superior in overall anticoagulation control when compared to accurate clinical standard of care."

For more information on this research see: A Randomized Trial of Pharmacogenetic Warfarin Dosing in Na?ve Patients with Non-Valvular Atrial Fibrillation. Plos One, 2015;10 (12):e0145318. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news correspondents report that additional information may be obtained from V. Pengo, Dept. of Cardiac, Thoracic and Vascular Sciences University of Padova, Padova, Italy. Additional authors for this research include C.F. Zambon, P. Fogar, A. Padoan, G. Nante, M. Pelloso, S. Moz, A.C. Frigo, F. Groppa, D. Bozzato, E. Tiso, E. Gnatta, G. Denas, S. Padayattil Jose, R. Padrini, D. Basso and M. Plebani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0145318. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Anticoagulants, Pharmaceuticals, Italy, Padova, Europe, Rodenticide, Heart Disease, Pharmacogenetics, Warfarin Therapy, Clinical Research, Atrial Fibrillation, Cardiac Arrhythmias, Drugs and Therapies, Coagulation Modifiers, Coumarins and Indandiones, Clinical Trials and Studies, Heart Disorders and Diseases.
Researchers at University of Padua Target Imino Acids [Natural Deep Eutectic Solvents (NADES) as a Tool for Bioavailability Improvement: Pharmacokinetics of Rutin Dissolved in Proline/Glycine after Oral Administration in Rats: Possible ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Imino Acids are presented in a new report. According to news reporting from Padua, Italy, by NewsRx journalists, research stated, "There is a need for innovation in plant-derived pharmaceuticals, food supplements and nutraceutical products regarding the use of more eco-sustainable solvents for their extraction. Furthermore, the poor oral bioavailability of several phytochemicals with health promoting effects stimulates the research in the field of pharmaceutical formulations."

The news correspondents obtained a quote from the research from the University of Padua, "Natural Deep Eutectic Solvents (NADES) are formed by natural compounds, and can be considered as future solvents being especially useful for the preparation of nutraceuticals and food-grade extracts. In this paper various NADES were prepared using sugars, amino acids and organic acids. Rutin (quercetin-3-O-alpha-L-rhamnopyranosyl-(1 -> 6))-beta-D-glucopyranose) was used as a model compound to study NADES. Moreover, the effect of various eutectic mixtures on rutin's water solubility was studied. Proline/glutamic acid (2:1) and proline/choline chloride (1:1) mixtures have a solubility comparable to ethanol. The proline/glutamic acid (2:1) eutectic containing rutin was used in a pharmacokinetic study in Balb/c mice while bioavailability was compared to oral dosing of water suspension. Plasmatic levels of rutin were measured by HPLC-MS/MS showing increased levels and longer period of rutin permanence in plasma of NADES treated animals."

According to the news reporters, the research concluded: "This paper reports the possible use of non-toxic NADES for pharmaceutical and nutraceutical preparations."

For more information on this research see: Natural Deep Eutectic Solvents (NADES) as a Tool for Bioavailability Improvement: Pharmacokinetics of Rutin Dissolved in Proline/Glycine after Oral Administration in Rats: Possible Application in Nutraceuticals. Molecules, 2016;21(11):1699-1709. Molecules can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting M. Faggian, University of Padua, Dept. of Pharmaceut & Pharmacol Sci, I-35131 Padua, Italy. Additional authors for this research include S. Sut, B. Perissutti, V. Baldan, I. Grabnar and S. Dall'Acqua.

Keywords for this news article include: Padua, Italy, Europe, Drug Administration Routes, Oral Administration, Pharmacokinetics, Pharmaceuticals, Amino Acids, Imino Acids, Glycine, Proline, University of Padua.

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Researchers at University of Palermo Target Osteosarcomas (The secreted protein acidic and rich in cysteine is a critical mediator of cell death program induced by WIN/TRAIL combined treatment in osteosarcoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Osteosarcomas is now available. According to news reporting out of Palermo, Italy, by NewsRx editors, research stated, "Secreted protein acidic and rich in cysteine (SPARC) is a multi-functional protein which modulates cell-cell and cell-matrix interactions. In cancer cells, SPARC behaves as a tumor promoter in a number of tumors, but it can also act as a tumor suppressor factor."

Our news journalists obtained a quote from the research from the University of Palermo, "Our previous results showed that the synthetic cannabinoid WIN55,212-2 (WIN), a potent cannabinoid receptor agonist, is able to sensitize osteosarcoma MG63 cells to TNF-related apoptosis-inducing ligand (TRAIL)-induced apoptosis which is accompanied with endoplasmic reticulum (ER)-stress induction and the increase in autophagic markers. In the present investigation, we studied the role of SPARC in WIN/TRAIL-induced apoptosis demonstrating that WIN increased the level of SPARC protein and mRNA in a time-dependent manner. This event was functional to WIN/TRAIL-dependent apoptosis as demonstrated by RNA interfering analysis which indicated that SPARC-silenced cells were less sensitive to cytotoxic effects induced by the combined treatment. Our experiments also demonstrate that SPARC interacts with caspase-8 thus probably favoring its translocation to plasma membrane and the activation of extrinsic apoptotic pathway."

According to the news editors, the research concluded: "To the best of our knowledge, our results are the first to show that WIN-dependent increase in the level of SPARC plays a critical role in sensitizing osteosarcoma cells to TRAIL action."

For more information on this research see: The secreted protein acidic and rich in cysteine is a critical mediator of cell death program induced by WIN/TRAIL combined treatment in osteosarcoma cells. International Journal of Oncology, 2015;48(3):1039-44.

Our news journalists report that additional information may be obtained by contacting A. Notaro, Dept. of Biological, Chemical and Pharmaceutical Sciences and Technologies, Laboratory of Biochemistry, University of Palermo, Polyclinic, Palermo 90128, Italy. Additional authors for this research include S. Sabella, O. Pellerito, R. Vento, G. Calvaruso and M. Giuliano.

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Keywords for this news article include: Italy, Europe, Palermo, Cysteine, Genetics, Oncology, Apoptosis, Orthopedics, Osteosarcomas, Sulfur Amino Acids, Neutral Amino Acids, Sulfhydryl Compounds.

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Researchers at University of Paris Report Findings in Oncology (Genetic polymorphisms associated with increased risk of developing chronic myelogenous leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology. According to news reporting from Paris, France, by NewsRx journalists, research stated, "Little is known about inherited factors associated with the risk of developing chronic myelogenous leukemia (CML). We used a dedicated DNA chip containing 16,561 single nucleotide polymorphisms (SNPs) covering 1,916 candidate genes to analyze 437 CML patients and 1,144 healthy control individuals."

The news correspondents obtained a quote from the research from the University of Paris, "Single SNP association analysis identified 139 SNPs that passed multiple comparisons (1% false discovery rate). The HDAC9, AVEN, SEMA3C, IKBKB, GSTA3, RIPK1 and FGF2 genes were each represented by three SNPs, the PSM family by four SNPs and the SLC15A1 gene by six. Haplotype analysis showed that certain combinations of rare alleles of these genes increased the risk of developing CML by more than two or three-fold. A classification tree model identified five SNPs belonging to the genes PSMB10, TNFRSF10D, PSMB2, PPARD and CYP26B1, which were associated with CML predisposition. A CML-risk-allele score was created using these five SNPs. This score was accurate for discriminating CML status (AUC: 0.61, 95%CI: 0.58-0.64). Interestingly, the score was associated with age at diagnosis and the average number of risk alleles was significantly higher in younger patients. The risk-allele score showed the same distribution in the general population (HapMap CEU samples) as in our control individuals and was associated with differential gene expression patterns of two genes (VAPA and TDRKH)."

According to the news reporters, the research concluded: "We describe haplotypes and a genetic score that are significantly associated with a predisposition to develop CML. The SNPs identified will also serve to drive fundamental research on the putative role of these genes in CML development."

For more information on this research see: Genetic polymorphisms associated with increased risk of developing chronic myelogenous leukemia. Oncotarget, 2015;6(34):36269-77.

Our news journalists report that additional information may be obtained by contacting H. Bruzzi-Giovanelli, Universite Paris Diderot, Sorbonne Paris Cite UMRS 1160 INSERM, Paris, France. Additional authors for this research include J.R. Gonzalez, F. Sigaux, B.O. Villoutreix, J.M. Cayuela, J. Guilhot, C. Preudhomme, F. Guilhot, J.L. Poyet and P. Rousselot.

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Keywords for this news article include: Paris, France, Europe, Genetics, Oncology, Risk and Prevention.

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Prothrombin

Researchers at University of Paris Report Findings in Prothrombin
(Repeat liver retransplantation: rationale and outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Prothrombin. According to news reporting from Villejuif, France, by NewsRx journalists, research stated, "Liver retransplantation remains the only option for recurrent graft failure. The aim of our study is to identify predictive factors involved in patients and graft survival for patients undergoing repeat retransplantation (RRT)."

The news correspondents obtained a quote from the research from the University of Paris, "From January 1985 to December 2012, 2940 liver transplantations were performed in 2477 patients at Paul Brousse Hospital, Villejuif, France. All patients who underwent third, fourth, and fifth transplantation were included in the study and retrospectively analyzed. In the univariate analysis, the factors that were associated with 90-d patient post-operative survival were pre-operative vasopressors support, pre-operative extra hepatic sepsis, primary non-function (PNF) as indication of RRT, recipient's model of end stage liver disease (MELD), urgent RRT, creatinine value at RRT, and prothrombin ratio. The multivariate logistic regression confirmed the role of systemic septic status (OR=12.8, p=0.01) and vasopressor drug support (OR=4.7, p=0.05) as predictors of post-operative mortality. In the univariate analysis, the factors that were associated with patient 10 yr long-term survival (were vasopressor support, systemic septic patient, PNF as indication of RRT, RRT occurred between 1985 and 1999, recipient's MELD, creatinine value at RRT, and prothrombin ratio. The multivariate logistic regression confirmed the role of systemic septic patient (OR=6.4, p=0.03) and the RRT between 1985 and 1999 (OR=3.6, p=0.05) as predictors of long-term mortality. RRT represent a valid alternative in selected patients. Selection should be oriented on patients needing third transplant without extra hepatic sepsis and vasoactive drug support at moment of RRT."

According to the news reporters, the research concluded: "If necessary, fourth and fifth RRT could be performed with a decision made on case-by-case basis, despite a high post-operative mortality."


Our news journalists report that additional information may be obtained by contacting R. Memeo, Centre Hepato-biliaire, Paul Brousse Hospital, Universite Paris Sud, Villejuif, France. Additional authors for this research include A. Laurenzi, G. Pittau, S. Sanchez-Cabus, E. Vibert, R. Adam, D. Azoulay, A.S. Cunha, P. Ichai, F. Saliba, D. Samuel, D. Cherqui and D. Castaing.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12691. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: France, Europe, Villejuif, Hematology, Prothrombin.

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Researchers at University of Parma Release New Data on Clinical Research in Anesthesia (Perineural catheter infection: a systematic review of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Research in Anesthesia have been published. According to news reporting originating in Parma, Italy, by NewsRx journalists, research stated, "Perineural catheter infection is a rare but potentially dramatic complication of continuous peripheral nerve block. Different risk factors have been identified and the incidence of infection is increased in trauma victims, intensive care unit patients, immunodeficient individuals, and diabetic patients."

The news reporters obtained a quote from the research from the University of Parma, "Also, postoperative hyperglycemia, the absence of antibiotic prophylaxis, and catheter lasting more than 48 hours seem to be associated with a greater risk of infection. Skin disinfection and a strict aseptic technique during catheter placement are fundamental. The use of micropore filters, antiseptic dressings, catheter tunneling, and aseptic preparation of the infused drug has all been hypothesized to reduce infection rate, but the existing evidence is conflicting. Infection is a rare complication of continuous peripheral nerve blocks. Severe and even fatal cases have been reported, even if morbidity is generally very low."

According to the news reporters, the research concluded: "The identification of high risk patients and adoption of preventive measures might reduce the incidence of this complication."


Our news correspondents report that additional information may be obtained by contacting D. Nicolotti, Parma Univ Hosp, Dept. of Anesthesia Intens Care & Pain Med 2, I-43126 Parma, Italy. Additional authors for this research include E. Iotti, G. Fanelli and C. Compagnone.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.07.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Parma, Italy, Europe, Clinical Research in Anesthesia, Clinical Research, Article Review, Risk and Prevention, University of Parma.

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Researchers at University of Pennsylvania Report New Data on Type 2 Diabetes (Roles of Fe-S proteins: from cofactor synthesis to iron homeostasis to protein synthesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Fe-S cluster assembly is an essential process for all cells. Impairment of Fe-S cluster assembly creates diseases in diverse and surprising ways."

Our news journalists obtained a quote from the research from the University of Pennsylvania, "In one scenario, the loss of function of lipoic acid synthase, an enzyme with Fe-S cluster cofactor in mitochondria, impairs activity of various lipoamide-dependent enzymes with drastic consequences for metabolism. In a second scenario, the heme biosynthetic pathway in red cell precursors is specifically targeted, and iron homeostasis is perturbed, but lipoic acid synthesis is unaffected. In a third scenario, tRNA modifications arising from action of the cysteine desulfurase and/or Fe-S cluster proteins are lost, which may lead to impaired protein synthesis."

According to the news editors, the research concluded: "These defects can then result in cancer, neurologic dysfunction or type 2 diabetes."


The news correspondents report that additional information may be obtained from A. Dancis, University of Pennsylvania, Perelman Sch Med, Dept. of Med, Div Hematol Oncol, Philadelphia, PA 19104, United States.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Proteomics, Genetics, Risk and Prevention, Protein Synthesis, Medical Devices, Type 2 Diabetes, University of Pennsylvania.

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Drugs and Therapies - Health-System Pharmacy

Researchers at University of Pittsburgh Have Reported New Data on Health-System Pharmacy (Educational strategies to enable expansion of pharmacogenomics-based care)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Health-System Pharmacy is now available. According to news originating from Pittsburgh, Pennsylvania, by NewsRx
correspondents, research stated, "The current state of pharmacogenomics education for pharmacy students and practitioners is discussed, and resources and strategies to address persistent challenges in this area are reviewed. Consensus-based pharmacist competencies and guidelines have been published to guide pharmacogenomics knowledge attainment and application in clinical practice."

Our news journalists obtained a quote from the research from the University of Pittsburgh, "Pharmacogenomics education is integrated into various pharmacy school courses and, increasingly, into Pharm.D. curricula in the form of required standalone courses. Continuing education programs and a limited number of postgraduate training opportunities are available to practicing pharmacists. For colleges and schools of pharmacy, identifying the optimal structure and content of pharmacogenomics education remains a challenge; insufficient numbers of faculty members with pharmacogenomics expertise and the inadequate availability of practice settings for experiential education are other limiting factors. Strategies for overcoming those challenges include providing early exposure to pharmacogenomics through foundational courses and incorporating pharmacogenomics into practice-based therapeutics courses and introductory and advanced pharmacy practice experiences. For practitioner education, online resources, clinical decision support-based tools, and certificate programs can be used to supplement structured postgraduate training in pharmacogenomics. Recently published data indicate successful use of 'shared curricula' and participatory education models involving opportunities for learners to undergo personal genomic testing. The pharmacy profession has taken a leadership role in expanding student and practitioner education to meet the demand for increased pharmacist involvement in precision medicine initiatives."

According to the news editors, the research concluded: "Effective approaches to teaching pharmacogenomics knowledge and driving its appropriate application in clinical practice are increasingly available."

For more information on this research see: Educational strategies to enable expansion of pharmacogenomics-based care. American Journal of Health-System Pharmacy, 2016;73(23):1986-1998. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

The news correspondents report that additional information may be obtained from P.E. Empey, University of Pittsburgh, Inst Precis Med, Pittsburgh, PA 15260, United States. Additional authors for this research include C.L. Aquilante, S. Johnson, D.F. Kisor and P.E. Empey.

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Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Health-System Pharmacy, Drugs and Therapies, University of Pittsburgh.

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Researchers at University of Pittsburgh Release New Data on Ovarian Cancer (Cancer and treatment-related symptoms are associated with mobility disability in women with ovarian cancer: A cross-sectional study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Ovarian Cancer are discussed in a new report. According to news reporting from Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "To examine the prevalence of symptom-related mobility disability and identify specific symptoms and other factors associated with mobility disability among a national sample of ovarian cancer (OC) survivors. Descriptive, correlational secondary analysis of a National Ovarian Cancer Coalition mailed survey of women with a history of OC (n = 713)."

The news correspondents obtained a quote from the research from the University of Pittsburgh, "We used the Symptom Representation Questionnaire (SRQ), the MD Anderson Symptom Inventory (MDASI) Interference Scale, and medical and demographic information to determine prevalence of symptom-related mobility disability. We constructed a multiple linear regression model to determine the relative contributions of specific symptoms and other factors to mobility disability. A majority of the sample (60.0%) reported symptom-related mobility disability. Independent predictors included: > one comorbidity (3 = 0.097, p = 0.006), active OC = 0.111, p = 0.037), abdominal bloating (3 = 0.072, p = 0.045), numbness/tingling (3 = 0.134, p < 0.001), and pain (3 = 0.194, p < 0.001). The model explained 41.5% of the variance in symptom related mobility disability (R2 = 0.415). Unsurprisingly, age (3 = 0.028, p = 0.412) and current chemotherapy (3 = 0.107, p = 0.118) were not significant predictors. Symptom-related mobility disability is common among women with OC and is associated with medical comorbidities, abdominal bloating, fatigue, lack of appetite, numbness/tingling, and pain."

According to the news reporters, the research concluded: "Longitudinal research should clarify the relationship of these symptoms to mobility disability and determine whether effective symptom management minimizes disability."

For more information on this research see: Cancer and treatment-related symptoms are associated with mobility disability in women with ovarian cancer: A cross-sectional study. Gynecologic Oncology, 2016;143(3):578-583. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news journalists report that additional information may be obtained by contacting G. Campbell, University of Pittsburgh, Sch Nursing, Pittsburgh, PA 15261, United States. Additional authors for this research include T. Hagan, S. Gilbertson-White, M. Houze and H. Donovan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gyno.2016.09.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Gynecology, Epidemiology, Women's Health, Ovarian Cancer, Oncology, University of Pittsburgh.
Researchers at University of Primorska Target Ischemia (Chronic exposure to zinc oxide nanoparticles increases ischemic-reperfusion injuries in isolated rat hearts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Ischemia. According to news reporting originating in Koper, Slovenia, by NewsRx journalists, research stated, "The use of zinc oxide nanoparticles (ZnO NPs) in numerous products is increasing, although possible negative implications of their long-term consumption are not known yet. Our aim was to evaluate the chronic, 6-week oral exposure to two different concentrations of ZnO NPs on isolated rat hearts exposed to ischemic-reperfusion injury and on small intestine morphology."

The news reporters obtained a quote from the research from the University of Primorska, "Wistar rats of both sexes (n = 18) were randomly divided into three groups: (1) 4 mg/kg ZnO NPs, (2) 40 mg/kg ZnO NPs, and (3) control. After 6 weeks of treatment, the hearts were isolated, the left ventricular pressure (LVP), the coronary flow (CF), the duration of arrhythmias and the lactate dehydrogenase release rate (LDH) were measured. A histological investigation of the small intestine was performed. Chronic exposure to ZnO NPs acted cardiotoxic dose-dependently. ZnO NPs in dosage 40 mg/kg maximally decreased LVP (3.3-fold) and CF (2.5-fold) and increased the duration of ventricular tachycardia (all P< 0.01) compared to control, whereas ZnO NPs in dosage 4 mg/kg acted less cardiotoxic. Goblet cells in the small intestine epithelium of rats, treated with 40 mg ZnO NPs/kg, were enlarged, swollen and numerous, the intestinal epithelium width was increased. Unexpectedly, ZnO NPs in both dosages significantly decreased LDH. A 6-week oral exposure to ZnO NPs dose-dependently increased heart injuries and caused irritation of the intestinal mucosa."

According to the news reporters, the research concluded: "A prolonged exposure to ZnO NPs might cause functional damage to the heart even with exposures to the recommended daily doses, which should be tested in future studies."


Our news correspondents report that additional information may be obtained by contacting G. Drevensek, Univ Primorska, Fac Math Nat Sci & Informat Technol, Koper 6000, Slovenia. Additional authors for this research include D. Drobne, T. Romih, L.B. Mali, I. Marin, M. Lunder and G. Drevensek.

Keywords for this news article include: Koper, Slovenia, Europe, Cardiovascular Diseases and Conditions, Cardiovascular Surgical Procedures, Ischemia-Reperfusion Injury, Emerging Technologies, Transfusion Medicine, Blood Transfusion, Medical Devices, Zinc Compounds, Nanotechnology, Nanoparticle, Cardiology, Zinc Oxide, Chemicals, Surgery, University of Primorska.
Researchers at University of Queensland Target Membrane Glycoproteins (Xenopus borealis as an alternative source of oocytes for biophysical and pharmacological studies of neuronal ion channels)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Membrane Proteins - Membrane Glycoproteins have been published. According to news reporting originating in St. Lucia, Australia, by NewsRx journalists, research stated, "For the past 30 years, oocytes from Xenopus laevis have been extensively used to express and characterise ion channels in an easily controlled environment. Here we report the first use of oocytes from the closely related species Xenopus borealis as an alternative expression system for neuronal ion channels."

The news reporters obtained a quote from the research from the University of Queensland, "Using the two-electrode voltage-clamp technique, we show that a wide variety of voltage-and ligand-gated ion channels have the same channel properties and pharmacological profiles when expressed in either X. laevis or X. borealis oocytes. Potential advantages of the X. borealis oocytes include a smaller endogenous chloride current and the ability to produce more intense fluorescence signals when studied with voltage-clamp fluorometry. Scanning electron microscopy revealed a difference in vitelline membrane structure between the two species, which may be related to the discrepancy in fluorescence signals observed."

According to the news reporters, the research concluded: "We demonstrate that X. borealis oocytes are a viable heterologous system for expression of neuronal ion channels with some potential advantages over X. laevis oocytes for certain applications."

For more information on this research see: Xenopus borealis as an alternative source of oocytes for biophysical and pharmacological studies of neuronal ion channels. Scientific Reports, 2015;5():14763. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting B. Cristofori-Armstrong, Institute for Molecular Bioscience, The University of Queensland, St Lucia, QLD 4072, Australia. Additional authors for this research include M.S. Soh, S. Talwar, D.L. Brown, J.D. Griffin, Z. Dekan, J.L. Stow, G.F. King, J.W. Lynch and L.D Rash.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep14763. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Therapy, St. Lucia, Ion Channels, Pharmacology, Carrier Proteins, Membrane Proteins, Membrane Glycoproteins, Australia and New Zealand, Membrane Transport Proteins.

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**Heart Disorders and Diseases - Heart Failure**

**Researchers at University of Sao Paulo Have Reported New Data on Heart Failure (Aerobic Exercise and Pharmacological Therapies for Skeletal Myopathy in Heart Failure: Similarities and Differences)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Failure. According to news reporting originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Skeletal myopathy has been identified as a major comorbidity of heart failure (HF) affecting up to 20% of ambulatory patients leading to shortness of breath, early fatigue, and exercise intolerance. Neurohumoral blockade, through the inhibition of renin angiotensin aldosterone system (RAS) and b-adrenergic receptor blockade (b-blockers), is a mandatory pharmacological therapy of HF since it reduces symptoms, mortality, and sudden death."

Funders for this research include National Natural Science Foundation of China, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico.

Our news editors obtained a quote from the research from the University of Sao Paulo, "However, the effect of these drugs on skeletal myopathy needs to be clarified, since exercise intolerance remains in HF patients optimized with b-blockers and inhibitors of RAS. Aerobic exercise training (AET) is efficient in counteracting skeletal myopathy and in improving functional capacity and quality of life. Indeed, AET has beneficial effects on failing heart itself despite being of less magnitude compared with neurohumoral blockade. In this way, AET should be implemented in the care standards, together with pharmacological therapies. Since both neurohumoral inhibition and AET have a direct and/or indirect impact on skeletal muscle, this review aims to provide an overview of the isolated effects of these therapeutic approaches in counteracting skeletal myopathy in HF."

According to the news editors, the research concluded: "The similarities and dissimilarities of neurohumoral inhibition and AET therapies are also discussed to identify potential advantageous effects of these combined therapies for treating HF."


The news editors report that additional information may be obtained by contacting A.V. Bacurau, School of Physical Education and Sport, University of Sao Paulo, 05508-030 Sao Paulo, SP, Brazil. Additional authors for this research include T.F. Cunha, R.W. Souza, V.A. Voltarelli, D. Gabriel-Costa and P.C Brum.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/4374671. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Therapy, Myopathy, Sao Paulo, Cardiology, Pharmacology, South America, Heart Disease, Heart Failure, Article Review, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Researchers at University of Sao Paulo Report Findings in Hematopoietic Stem Cells (Does ex vivo CD34+ positive selection influence outcome after autologous hematopoietic stem cell transplantation in systemic sclerosis patients?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Stem Cell Research - Hematopoietic Stem Cells are discussed in a new report. According to news originating from Ribeirao Preto, Brazil, by NewsRx correspondents, research stated, "This EBMT Autoimmune Disease Working Party study aimed to evaluate the influence of CD34+ positive graft selection (CD34+) on the outcome of systemic sclerosis (SSc) patients after autologous hematopoietic stem cell transplantation (AHSCT). Clinical and laboratory data from 138 SSc patients at diagnosis, before and after AHSCT were retrospectively analyzed."

Our news journalists obtained a quote from the research from the University of Sao Paulo, "CD34+ selection was performed in 47.1% (n=65) patients. By multivariate analysis adjusting for all factors differing between the two groups (without or with CD34+), there was no statistically significant difference in terms of overall survival (hazard ratio (HR): 0.98, 95% confidence interval (CI) 0.40-2.39, p=0.96), PFS (HR: 1.55, 95% CI 0.83-2.88, p=0.17) and incidence of relapse or progression (HR: 1.70, 95% CI 0.85-3.38, p=0.13). We demonstrate that CD34+ does not add benefit to the outcome of SSc patient treated with AHSCT."

According to the news editors, the research concluded: "These findings should be further confirmed by prospective randomized trials."

For more information on this research see: Does ex vivo CD34+ positive selection influence outcome after autologous hematopoietic stem cell transplantation in systemic sclerosis patients? Bone Marrow Transplantation, 2015;51(4):501-5. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

The news correspondents report that additional information may be obtained from M.C. Oliveira, Division of Clinical Immunology, Ribeirao Preto Medical School, University of Sao Paulo, Ribeirao Preto, Brazil. Additional authors for this research include M. Labopin, J. Henes, J. Moore, N.D. Papa, A. Cras, I. Sakellari, R. Schroers, H.U. Scherer, A. Cuneo, S. Kyrucz-Krzemien, T. Daikeler, T. Alexander, J. Finke, M. Badoglio, B. Simoes, J.A. Snowden and D. Farge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bmt.2015.299. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal Bone Marrow Transplantation is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Biomedicine, Brazil, Surgery, Hematology, South America, Ribeirao Preto, Bone Marrow Cells, Stem Cell Research, Transplant Medicine, Cell Transplantation, Hematopoietic Stem Cells.

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Researchers at University of Sao Paulo Report New Data on Human Herpesvirus 8 (Genotypic distribution of HHV-8 in AIDS individuals without and with Kaposi sarcoma Is genotype B associated with better prognosis of AIDS-KS?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Human Herpesvirus Diseases and Conditions - Human Herpesvirus 8 is the subject of a report. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, research stated, "AIDS-associated Kaposi's sarcoma (AIDS-KS) caused by human herpes virus 8 (HHV-8) is the most severe and resistant form of KS tumor. Our aim was to verify whether there is an association between HHV-8 variability and development of AIDS-KS in Brazil by comparing the HHV-8 variability between individuals without and with KS."

Our news journalists obtained a quote from the research from the University of Sao Paulo, "Saliva samples and blood, when available, were analyzed by PCR techniques for detection of the fragments of ORF K1 of HHV-8, which were then genotyped and analyzed regarding the genetic variability. Our study described 106 positive cases for HHV-8 in the saliva from 751 AIDS patients without previous KS. In addition, we performed a phylogenetic analysis of HHV-8 in 34 of the 106 AIDS patients without KS and in 33 of the 37 patients with active KS. The distribution of HHV-8 genotypes A, B, C, and F in AIDS individuals was indistinguishable by comparing non-KS and KS groups, as well as regarding ethnicity. Considering the KS group, genotype B was associated with better prognosis of KS tumor. Interestingly, we found a particular profile of diversity within Glade C and 2 recombinant patterns of HHV-8 in the saliva of AIDS individuals without KS. We emphasize the need to achieve standard genotyping protocol for ORF K1 amplification, thus allowing for substantial detection of HHV-8 variants."

According to the news editors, the research concluded: "Our findings can shed light on the role of HHV-8 variability in the pathogenesis of AIDS-KS."

For more information on this research see: Genotypic distribution of HHV-8 in AIDS individuals without and with Kaposi sarcoma Is genotype B associated with better prognosis of AIDS-KS? *Medicine*, 2016;95(48):60-67. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)


Keywords for this news article include: Sao Paulo, Brazil, South America, Human Herpesvirus Diseases and Conditions, Skin Diseases and Conditions, HIV/AIDS and Kaposi Sarcoma, Opportunistic Infections, Human Herpesvirus 8, Vertebrate Viruses, DNA Tumor Viruses, Herpesviridae, Rhadinovirus, DNA Viruses, Oncology, Genetics, Virology, HHV-8, HHV8, University of Sao Paulo.

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Researchers at University of Sao Paulo Target Ovarian Cancer
(Germline mutations in BRCA1 and BRCA2 in epithelial ovarian cancer patients in Brazil)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Ovarian Cancer. According to news reporting from Sao Paulo, Brazil, by NewsRx journalists, research stated, "Approximately 8-15% epithelial ovarian cancer patients are BRCA1 or BRCA2 germline mutation carriers. Brazilian inhabitants may have peculiar genetic characteristics associated with ethnic diversity, and studies focusing on the entire BRCA1/BRCA2 gene sequencing in Brazilian ovarian cancer patients are still lacking."

The news correspondents obtained a quote from the research from the University of Sao Paulo, "The aim of this study was to evaluate BRCA1/2 mutations, through entire gene sequencing, in a Brazilian population of women with epithelial ovarian cancer. In a cross sectional study performed in one reference centre for cancer treatment in Sao Paulo, Brazil, 100 patients diagnosed with epithelial ovarian cancer unselected for family history of breast and/or ovarian cancer were included. The complete coding sequence of BRCA1/2 genes was evaluated through Next-Generation or capillary sequencing. Large deletions were investigated through Multiplex Ligation-dependent Probe Amplification (MLPA). Nineteen pathogenic mutations (BRCA1: n = 17 and BRCA2: n = 2) featuring 14 different mutations, including two large deletions in BRCA1 (exon 1-2 deleted and exon 5-7 deleted) were identified. Three mutations were detected more than once (c.3331_3334delCAAG, c.5266dupC and c.4484G>T). Two novel frameshift mutations were identified, one in BRCA1 (c.961_962delTG) and one in BRCA2 (c.1963_1963delC). BRCA1/2 mutations were seen in 35.5% of the patients with first and/or second-degree relatives with breast and/or ovarian cancer. Nineteen variants of uncertain significance (VUS) were detected (BRCA1: n = 2 and BRCA2: n = 17), including five distinct missense variants (BRCA1: c.5348 T>C; BRCA2: c.2350A>G, c.3515C>T, c.7534C>T, and c.8351G>A). Among epithelial ovarian cancer patients unselected for family history of cancer, 19% were BRCA1/2 germline mutation carriers. Almost 3/4 of the BRCA mutations, including two large deletions, were detected only once."

According to the news reporters, the research concluded: "Our work emphasizes the need of entire gene sequencing and MLPA screening in Brazil."

For more information on this research see: Germline mutations in BRCA1 and BRCA2 in epithelial ovarian cancer patients in Brazil. *BMC Cancer*, 2016;16():9-16. *BMC Cancer* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Cancer - www.biomedcentral.com/bmccancer/)


Keywords for this news article include: Sao Paulo, Brazil, South America, BRCA2, Genetics, Women's Health, Ovarian Cancer, Gynecology, Oncology, BRCA1, University of
Researchers at University of Seville Report New Data on Squamous Cell Carcinoma (Is there an association between dental implants and squamous cell carcinoma?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Squamous Cell Carcinoma are discussed in a new report. According to news reporting out of Seville, Spain, by NewsRx editors, research stated, "The complications associated with dental implants are numerous, most of them of an inflammatory nature; nevertheless, some isolated cases of oral squamous cell carcinoma (OSCC) have been found in the vicinity of the implants. The objective of the present article is to know whether there is an association between dental implants and the development of OSCC."

Our news journalists obtained a quote from the research from the University of Seville, "A search was carried out in Medline, Tripdatabase and Cochrane with the keywords 'dental implants' AND `squamous cell carcinoma', and 'dental implant complications' AND `squamous cell carcinoma.' The criteria for inclusion were articles published in English that dealt with the possible carcinogenic effects of implants and the possible malign transformation of oral lesions after the insertion of the implants. For the analysis, cases were used in which an OSCC had appeared in the periimplantary mucosa. After an initial search, 269 articles were selected, of which 197 were excluded as not being directly related to the subject. Finally, 45 articles were selected, with 23 of them being used in the analysis. In these, 46 cases of OSCC in the vicinity of implants were discussed. Chronic inflammation in itself can lead to a malign transformation of the oral tissue, while in other cases it is caused and modulated by carcinogens, genetic factors or inherent factors in the patient, or by the dental implants. It is not possible to establish a cause-effect relation between the implants and the development of OSCC. Its presence can be confused with peri-implantitis, so that in the cases where it appears suddenly, does not respond to conventional treatment and/or there is anaesthesia or paresthesia, it is advisable to do a biopsy. It is important to make an adequate selection of the patient and reduce or eliminate the risk factors."

According to the news editors, the research concluded: "The findings of the present review are based on case study level of evidence, so meta-analysis is needed to further draw from these results."

For more information on this research see: Is there an association between dental implants and squamous cell carcinoma? *British Dental Journal*, 2016;221(10):645-649.

*British Dental Journal* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; British Dental Journal - www.nature.com/bdj/)

Our news journalists report that additional information may be obtained by contacting A.O. Salgado-Peralvo, Univ Seville, Family & Community Dental, Seville, Spain. Additional authors for this research include L. Arriba-Fuente, M.V. Mateos-Moreno and A. Salgado-Garcia.

The direct object identifier (DOI) for that additional information is:
Researchers at University of Sfax Target Vibrionaceae (Molecular Detection of the Three Major Pathogenic Vibrio Species from Seafood Products and Sediments in Tunisia Using Real-Time PCR)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Vibrionaceae have been presented. According to news reporting out of Sfax, Tunisia, by NewsRx editors, research stated, "Vibrio spp. have emerged as a serious threat to human health worldwide. V. parahaemolyticus, V. cholerae, and V. vulnificus pose a considerable public health risk in Tunisia because they cause sporadic and epidemic foodborne infections associated with the consumption of raw or undercooked contaminated seafood. More recently, toxR-positive V. alginolyticus was also reported to be a potential source of contaminated seafood."

Our news journalists obtained a quote from the research from the University of Sfax, "A total of 247 samples, including 113 fishes (Labrus viridis, Penaeus kerathurus, Diplodus annularis, Diplodus sparaillon, Scorparna porcus, Sarpa salpa, Dentex dentex, Scorparna scrofa, Sardinella aurita, Trachurus trachurus, Synodus saurus, Pagellus euthrinus, and Metapenaeus monoceros), 83 clams (Ruditapes decussatus species), 30 seawater samples, and 21 sediment samples were analyzed using traditional culture methods (ISO/TS 21872-1; International Organization for Standardization 2007) and a conventional PCR method for Vibrio spp. identification. A rapid, sensitive, and highly reproducible real-time PCR assay was developed to detect the three major Vibrio spp. pathogenic for humans in Tunisian seafood products and sediments. A conventional culture method found 102 (41.3%) of 247 analyzed samples positive for Vibrio spp.; a conventional PCR method found 126 (51%) of the 247 samples positive. Real-time PCR assay found 126 (51.1%) samples positive; V. alginolyticus toxR was the most common, found in 99 (78.57%) of samples, followed by V. parahaemolyticus in 26 (20.63%) and V. cholerae in 1 (0.7%). All culture-positive samples were PCR positive. However, 24 samples that were positive by conventional PCR and real-time PCR were culture negative. Our findings indicate that retail seafood is commonly contaminated with Vibrio spp. and presents a potential risk to human health in Tunisia."

According to the news editors, the research concluded: "These data also indicate that real-time PCR can provide sensitive species-specific detection of Vibrio spp. in seafood without prior isolation and characterization of the bacteria by traditional microbiological methods."

For more information on this research see: Molecular Detection of the Three Major Pathogenic Vibrio Species from Seafood Products and Sediments in Tunisia Using Real-Time PCR. *Journal of Food Protection*, 2016;79(12):2086-2094. *Journal of Food Protection* can be contacted at: Int Assoc Food Protection, 6200 Aurora Ave Suite 200W, Des Moines, IA 50322-2863, USA.
Our news journalists report that additional information may be obtained by contacting R. Gdoura, Univ Sfax, Fac Sci Sfax, Unite Rech Toxicol Microbiol Environm & Sante UR1, Sfax 3000, Tunisia. Additional authors for this research include H. Sellami, H. Nasfi, R. Trabelsi, S. Mansour, T. Attia, S. Nsaibia, T. Vallaey, R. Gdoura and M. Siala.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4315/0362-028X.JFP-16-205. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sfax, Tunisia, Africa, Gram-Negative Facultatively Anaerobic Rods, Vibrionaceae, Risk and Prevention, Gram-Negative Bacteria, Gammaproteobacteria, Proteobacteria, University of Sfax.

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Researchers at University of South Australia Describe Findings in Drug Delivery Systems ("Thunderstruck" Plasma-Polymer-Coated Porous Silicon Microparticles As a Controlled Drug Delivery System)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Drug Delivery Systems. According to news reporting from Adelaide, Australia, by NewsRx journalists, research stated, "Controlling the release kinetics from a drug carrier is crucial to maintain a drug's therapeutic window. We report the use of biodegradable porous silicon microparticles (pSi MPs) loaded with the anticancer drug camphothecin, followed by a plasma polymer overcoating using a loudspeaker plasma reactor."

The news correspondents obtained a quote from the research from the University of South Australia, "Homogenous 'Teflon-like' coatings were achieved by tumbling the particles by playing AC/DC's song 'Thunderstruck'. The overcoating resulted in a markedly slower release of the cytotoxic drug, and this effect correlated positively with the plasma polymer coating times, ranging from 2-fold up to more than 100-fold."

According to the news reporters, the research concluded: "Ultimately, upon characterizing and verifying pSi MP production, loading, and coating with analytical methods such as time-of-flight secondary ion mass spectrometry, scanning electron microscopy, thermal gravimetry, water contact angle measurements, and fluorescence microscopy, human neuroblastoma cells were challenged with pSi MPs in an in vitro assay, revealing a significant time delay in cell death onset."

For more information on this research see: "Thunderstruck" Plasma-Polymer-Coated Porous Silicon Microparticles As a Controlled Drug Delivery System. Acs Applied Materials & Interfaces, 2016;8(7):4467-76. (American Chemical Society - www.acs.org; Acs Applied Materials & Interfaces - www.pubs.acs.org/journal/aamick)

Our news journalists report that additional information may be obtained by contacting S.J. McInnes, ARC Centre of Excellence in Convergent Bio-Nano Science and Technology, Future Industries Institute, University of South Australia, Adelaide, South Australia 5001, Australia. Additional authors for this research include T.D. Michl, B. Delalat, S.A. Al-Bataineh, B.R. Coad, K. Vasiliev, H.J. Grieser and N.H Voelcker.

The direct object identifier (DOI) for that additional information is:
Researchers at University of South Florida Target Proteomics (g-AApeptides: Design, Structure, and Applications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteomics. According to news reporting from Tampa, Florida, by NewsRx journalists, research stated, "The development of sequence-specific peptidomimetics has led to a variety of fascinating discoveries in chemical biology. Many peptidomimetics can mimic primary, secondary, and even tertiary structure of peptides and proteins, and because of their unnatural backbones, they also possess significantly enhanced resistance to enzymatic hydrolysis, improved bioavailability, and chemodiversity."

Financial supporters for this research include Division of Chemistry, National Institute of General Medical Sciences.

The news correspondents obtained a quote from the research from the University of South Florida, "It is known that peptide nucleic acids (PNAs) are peptidic sequences developed for the mimicry of nucleic acids; however, their unique backbone as the molecular scaffold of peptidomimetics to mimic structure and function of bioactive peptides has not been investigated systematically. As such, we recently developed a new class of peptidomimetics, 'g-AApeptides', based on the chiral g-PNA backbone. They are termed g-AApeptides because they are the oligomers of g-substituted-N-acylated-N-aminoethyl amino acids. Similar to other classes of peptidomimetics, g-AApeptides are also resistant to proteolytic degradation and possess the potential to enhance chemodiversity. Moreover, in our scientific journey on the exploration of this class of peptidomimetics, we have discovered some intriguing structures and functions of g-AApeptides. In this Account, we summarize the current development and application of g-AApeptides with biological potential. Briefly, both linear and cyclic (either through head-to-tail or head-to-side-chain cyclization) g-AApeptides with diverse functional groups can be synthesized easily on the solid phase using the synthetic protocol we developed. g-AApeptides could mimic the primary structure of peptides, as they project the same number of side chains as peptides of the same lengths. For instance, they could mimic the Tat peptide to permeate cell membranes and bind to HIV RNA with high specificity and affinity. Certain g-AApeptides show similar activity to the RGD peptide and target integrin specifically on the cell surface. g-AApeptides with function akin to fMLF peptides are also identified. More importantly, we found that g-AApeptides can fold into discrete secondary structures, such as helical and b-turn-like structures. Therefore, they could be rationally designed for a range of biological applications. For instance, g-AApeptides can mimic host-defense peptides and display potent and broad-spectrum activity toward a panel of drug-resistant bacterial pathogens. Meanwhile, because of their stability against proteolysis and their chemodiversity, g-AApeptides are also amenable for combinatorial screening. We demonstrate that, through combinatorial selection, certain g-AApeptides are identified to inhibit Ab40 peptide aggregation, suggesting their
potential use as a molecular probe to intervene in Alzheimer's disease. In addition, a few g-AAPeptides identified from the g-AApeptide library have been shown to bind to the DNA-binding domain of STAT3 and antagonize STAT3/DNA interactions.

According to the news reporters, the research concluded: "Our studies suggest that, with further studies and exploration on both structures and functions, g-AApeptides may emerge to be a new class of peptidomimetics that play an important role in chemical biology and biomedical sciences."


Our news journalists report that additional information may be obtained by contacting Y. Shi, Dept. of Chemistry, University of South Florida , 4202 East Fowler Ave, Tampa, Florida 33620, United States. Additional authors for this research include P. Teng, P. Sang, F. She, L. Wei and J. Cai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.accounts.5b00492. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tampa, Florida, Genetics, Peptides, Proteins, Proteomics, United States, Combinatorial, Chemical Biology, North and Central America.

Nutritional and Metabolic Diseases and Conditions -...

Researchers at University of Sydney Report Findings in Type 2 Diabetes
[Low alanine aminotransferase levels and higher number of cardiovascular events in people with Type 2 diabetes: analysis of the Fenofibrate Intervention and Event Lowering in ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are discussed in a new report. According to news originating from Sydney, Australia, by NewsRx correspondents, research stated, "To determine whether alanine aminotransferase or gamma-glutamyltransferase levels, as markers of liver health and non-alcoholic fatty liver disease, might predict cardiovascular events in people with Type 2 diabetes. Data from the Fenofibrate Intervention and Event Lowering in Diabetes study were analysed to examine the relationship between liver enzymes and incident cardiovascular events (non-fatal myocardial infarction, stroke, coronary and other cardiovascular death, coronary or carotid revascularization) over 5 years."

Funders for this research include Australian branch of the Thessalian Society, Diabetes Research Foundation, University of Sydney, National Health and Medical Research Council, Fournier Laboratories.

Our news journalists obtained a quote from the research from the University of Sydney, "Alanine aminotransferase measure had a linear inverse relationship with the first cardiovascular event occurring in participants during the study period. After adjustment, for every 1 sd higher baseline alanine aminotransferase measure (13.2 U/l), the risk of a cardiovascular event was 7% lower (95% CI 4-13; p=0.02). Participants with alanine
aminotransferase levels below and above the reference range 8-41 U/l for women and 9-59 U/l for men, had hazard ratios for a cardiovascular event of 1.86 (95% CI 1.12-3.09) and 0.65 (95% CI 0.49-0.87), respectively (p=0.001). No relationship was found for gamma-glutamyltransferase.

According to the news editors, the research concluded: "The data may indicate that in people with Type 2 diabetes, which is associated with higher alanine aminotransferase levels because of prevalent non-alcoholic fatty liver disease, a low alanine aminotransferase level is a marker of hepatic or systemic frailty rather than health."

For more information on this research see: Low alanine aminotransferase levels and higher number of cardiovascular events in people with Type 2 diabetes: analysis of the Fenofibrate Intervention and Event Lowering in Diabetes (FIELD) study. Diabetic Medicine, 2015;33(3):356-64. (Wiley-Blackwell - www.wiley.com; Diabetic Medicine - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1464-5491)

The news correspondents report that additional information may be obtained from K.H. Williams, Sydney Medical School, University of Sydney, Sydney, NSW, Australia. Additional authors for this research include D.R. Sullivan, A.S. Veillard, R. O'Brien, J. George, A.J. Jenkins, S. Young, C. Ehnholm, A. Duffield, S.M. Twigg and A.C Keech.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/dme.12972. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Alanine, Cardiology, Amino Acids, Cardiovascular, Type 2 Diabetes, Aminotransferase, Fatty Liver Disease, Glutamyltransferase, Risk and Prevention, Enzymes and Coenzymes, Australia and New Zealand, Liver Diseases and Conditions, Non Insulin Dependent Diabetes Mellitus, Digestive System Diseases and Conditions.

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Physiology, Nutrition and Metabolism

Researchers at University of Sydney Target Physiology, Nutrition and Metabolism (Associations between CD36 gene polymorphisms and metabolic response to a short-term endurance-training program in a young-adult population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Physiology, Nutrition and Metabolism are presented in a new report. According to news reporting originating in Lidcombe, Australia, by NewsRx journalists, research stated, "Recent studies have shown that CD36 gene variants are associated with an increased prevalence of chronic disease. Although a genetic component to trainability has been proven, no data are available specifically on the influence of CD36 on training response."

The news reporters obtained a quote from the research from the University of Sydney, "Two single nucleotide polymorphisms (SNPs) (rs1527479 and rs1984112) were assessed for associations with whole-body substrate oxidation, response to a 75-g dextrose oral glucose tolerance test, fasting plasma lipids, and cardiovascular disease risk factors in a young healthy cohort, both using cross-sectional analysis and following a 4-week endurance-exercise training program. Genotyping was performed using real-time polymerase chain reaction. Cross-
sectional data were collected in 34 individuals (age, 22.7 ± 3.5 years), with 17 completing the training program. At baseline, TT SNP carriers at rs1527479 and wild-type GG carriers at rs1984112 were associated with significantly greater whole-body rate of fat oxidation (Fatox) during submaximal exercise (p <0.05), whilst AA carriers at the same position were associated with elevated triglyceride (TG) levels. A significant genotype × time interaction in Fatox at SNP rs1984112 was identified at rest. Significant genotype × time interactions were present at rs1527479, with TT carriers exhibiting a favourable response to training when compared with C-allele carriers for fasting TG, diastolic blood pressure (DBP), and mean arterial pressure (MAP)."

According to the news reporters, the research concluded: "Cross-sectional assessment identified associations with Fatox and TG. Training response at both SNPs identified 'at-risk' genotypes responding favourably to the training stimulus in Fatox, TG, DBP, and MAP. Although these data show potential pleiotropic influence of CD36 SNPs, assessment in a larger cohort is warranted."


Our news correspondents report that additional information may be obtained by contacting A.F. Jayewardene, a Exercise Health and Performance Faculty Research Group, Faculty of Health Sciences, University of Sydney, Lidcombe, NSW, Australia. Additional authors for this research include Y. Mavros, T. Gwinn, D.P. Hancock and K.B Rooney.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1139/apnm-2015-0430. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Applied Physiology, Nutrition, and Metabolism can be contacted at: National Research Council of Canada, NRC Communications & Corporate Relations, 1200 Montreal Road, Bldg. M-58, Ottawa, Ontario, Canada K1A 0R6.

Keywords for this news article include: Lidcombe, Australia, Australia and New Zealand, Genetics, Physiology, Nutrition and Metabolism, Risk and Prevention.

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Hematology - Blood Coagulation Factors

Researchers at University of Tasmania Target Blood Coagulation Factors [Platelet-activating factor receptor (PAFr) is upregulated in small airways and alveoli of smokers and COPD patients]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Blood Coagulation Factors. According to news reporting originating in Hobart, Australia, by NewsRx journalists, research stated, "PAFr is a cell adhesion site for specific bacteria, notably non-typeable Haemophilus influenzae (NTHi) and Streptococcus pneumoniae. We previously published that..."
PAFr expression is significantly upregulated in the large airways of smokers, especially in COPD."

Financial support for this research came from National Health and Medical Research Council.

The news reporters obtained a quote from the research from the University of Tasmania, "We have now investigated PAFr expression in the epithelium and Rbm of small airways and in the alveolar compartment in smokers and patients with both COPD and small airway disease. We evaluated PAFr expression cross-sectionally in resected lung tissue from: eight smokers with normal lung function (NLFS); 10 with smoking-related small airway narrowing only; eight COPD smokers; 10 COPD ex-smokers, and compared these with nine control tissues. Anti-PAFr immunostaining was quantified using computer-aided image analysis. Significantly increased PAFr expression in small airway epithelium of all clinical groups was found compared with controls (p <0.01). Moreover, epithelial PAFr expression was upregulated in COPD smokers compared with NLFS (p <0.05), but not when compared with COPD ex-smokers or patients with only small airways disease. Smoking history (pack-year) correlated significantly with PAFr expression in the currently smoking individuals, especially in NLFS (r=0.9; p<0.002). An increase above normal in PAFr-expressing cells in the airway epithelial Rbm was only significant in COPD smokers (p <0.007). An upregulation of PAFr-expressing cell in alveolar epithelium was uniformly found in all clinical groups compared with normal control (p <0.01). Epithelial PAFr expression is upregulated in small airways and alveoli in smokers and COPD."

According to the news reporters, the research concluded: "Increased expression of PAFr could be crucial in facilitating acute and chronic respiratory infection with specific respiratory pathogens."


Our news correspondents report that additional information may be obtained by contacting S.D. Shukla, NHMRC Centre of Research Excellence for Chronic Respiratory Disease, School of Medicine, University of Tasmania, Hobart, Tasmania, Australia. Additional authors for this research include H.K. Muller, R. Latham, S.S. Sohal and E.H Walters.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/resp.12709. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hobart, Autacoids, Hematology, Biological Factors, Australia and New Zealand, Blood Coagulation Factors, Platelet Activating Factor.

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**Oncology - Acute Myeloid Leukemia**

**Researchers at University of Texas Release New Data on Acute Myeloid Leukemia (Double minute chromosomes in acute myeloid leukemia, myelodysplastic syndromes, and chronic myelomonocytic leukemia are associated with micronuclei, MYC or MLL ...)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Acute Myeloid Leukemia is now available. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Double minute chromosomes (dmin) are small, paired chromatin bodies that lack a centromere and represent a form of extrachromosomal gene amplification. Dmin are rare in myeloid neoplasms and are generally associated with a poor prognosis."

Our news editors obtained a quote from the research from the University of Texas, "Most studies of dmin in myeloid neoplasms are case reports or small series. In the current study, we present the clinicopathologic and cytogenetic features of 22 patients with myeloid neoplasms harboring dmin. These neoplasms included acute myeloid leukemia (AML) (n = 18), myelodysplastic syndrome (MDS) (n = 3), and chronic myelomonocytic leukemia (CMML) (n = 1). The AML cases consisted of AML with myelodysplasia-related changes (n = 13) and therapy-related AML (n = 5). Dmin were detected in initial pre-therapy samples in 14 patients with AML or CMML; they were acquired during the disease course in 8 patients who had AML or MDS. The presence of dmin was associated with micronuclei (18/18; 100%), complex karyotype (17/22; 77.3%), and amplification of MYC (12/16; 75%) or MLL (4/16; 25%). Immunohistochemical staining for MYC performed on bone marrow core biopsy or clot sections revealed increased MYC protein in all 19 cases tested. Except for one patient, most patients failed to respond to risk-adapted chemotherapies. At last follow up, all patients had died of disease after a median of 5 months following dmin detection."

According to the news editors, the research concluded: "Dmin in myeloid neoplasms commonly harbor MYC or MLL gene amplification and manifest as micronuclei within leukemic blasts. Dmin are often associated, with myelodysplasia or therapy related disease, and complex karyotypes."

For more information on this research see: Double minute chromosomes in acute myeloid leukemia, myelodysplastic syndromes, and chronic myelomonocytic leukemia are associated with micronuclei, MYC or MLL amplification, and complex karyotype. Cancer Genetics, 2016;209(7-8):313-320. Cancer Genetics can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Cancer Genetics - www.journals.elsevier.com/cancer-genetics/)

The news editors report that additional information may be obtained by contacting Y.O. Huh, Univ Texas MD Anderson Canc Center, Dept. of Hematopathol, Houston, TX 77030, United States. Additional authors for this research include G.L. Tang, S.S. Talwalkar, J.D. Khoury, M. Ohanian, C.E. Bueso-Ramos and L.V. Abruzzo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.05.072. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Hematologic Diseases and Conditions, Bone Marrow Diseases and Conditions, Chronic Myelomonocytic Leukemia, Myelodysplastic Syndromes, Acute Myeloid Leukemia, Therapy, Genetics, Hematology, Neoplasms, Oncology, University of Texas.

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Researchers at University of Texas Southwestern Have Reported New Data on Melanoma (Immune-mediated Disease in Ipilimumab Immunotherapy of Melanoma with FDG PET-CT)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology-Melanoma have been published. According to news reporting originating in Dallas, Texas, by NewsRx journalists, research stated, "The purposes of this study were to provide a case-based overview of various immune-mediated side effects detected by 18F-Fluorodeoxyglucose (F-18 FDG) positron emission tomography-computed tomography (PET-CT) in the patients receiving ipilimumab immunotherapy for treatment of malignant melanoma, and discuss the importance of recognizing immune mediated side effects in the use of F-18 FDG PET-CT for monitoring therapeutic effects of ipilimumab on metastatic melanoma. This is a retrospective case series study of the patients diagnosed with melanoma who were subjected to immunomodulating therapy with ipilimumab."

Financial support for this research came from University of Texas Southwestern Medical Center.

The news reporters obtained a quote from the research from the University of Texas Southwestern, "F-18 FDG PET-CT findings were reviewed, and the patients with immune-mediated side effects were selected for further analysis, in conjunction with review of clinical progress notes, the results of laboratory tests, and findings of other imaging tests. Four patients with immune-mediated side effects were identified among the patients being treated with ipilimumab and subjected to F-18 FDG PET-CT for monitoring therapeutic effects. These immune mediated side effects include new findings of abnormal increased FDG uptake associated with immune-mediated pancreatitis and hypophysitis, as well as immune-mediated thyroiditis and colitis reported previously. Various immune-mediated side effects were detected by F-18 FDG PET-CT in the patients subjected to immunomodulating therapy with ipilimumab."

According to the news reporters, the research concluded: "It is essential for the interpreting provider to recognize and differentiate abnormal FDG uptake associated with immune-mediated side effects from hypermetabolic malignant lesions when using F-18 FDG PET-CT for monitoring therapeutic effects of ipilimumab on melanoma lesions."


Our news correspondents report that additional information may be obtained by contacting J.W. Wachsmann, Univ Texas Southwestern Med Center Dallas, Dept. of Radiol, Dallas, TX 75390, United States. Additional authors for this research include R. Ganti and F.Y. Peng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.acra.2016.08.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and
K-Nearest Neighbor

Researchers at University of Toronto Detail Findings in K-Nearest Neighbor (Sample size requirements for knowledge-based treatment planning)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on K-Nearest Neighbor. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "To determine how training set size affects the accuracy of knowledge-based treatment planning (KBP) models. The authors selected four models from three classes of KBP approaches, corresponding to three distinct quantities that KBP models may predict: dose-volume histogram (DVH) points, DVH curves, and objective function weights."

Financial support for this research came from Natural Sciences and Engineering Research Council of Canada (NSERC).

Our news journalists obtained a quote from the research from the University of Toronto, "DVH point prediction is done using the best plan from a database of similar clinical plans; DVH curve prediction employs principal component analysis and multiple linear regression; and objective function weights uses either logistic regression or K-nearest neighbors. The authors trained each KBP model using training sets of sizes n=10, 20, 30, 50, 75, 100, 150, and 200. The authors set aside 100 randomly selected patients from their cohort of 315 prostate cancer patients from Princess Margaret Cancer Center to serve as a validation set for all experiments. For each value of n, the authors randomly selected 100 different training sets with replacement from the remaining 215 patients. Each of the 100 training sets was used to train a model for each value of n and for each KBT approach. To evaluate the models, the authors predicted the KBP endpoints for each of the 100 patients in the validation set. To estimate the minimum required sample size, the authors used statistical testing to determine if the median error for each sample size from 10 to 150 is equal to the median error for the maximum sample size of 200. The minimum required sample size was different for each model. The DVH point prediction method predicts two dose metrics for the bladder and two for the rectum. The authors found that more than 200 samples were required to achieve consistent model predictions for all four metrics. For DVH curve prediction, the authors found that at least 75 samples were needed to accurately predict the bladder DVH, while only 20 samples were needed to predict the rectum DVH. Finally, for objective function weight prediction, at least 10 samples were needed to train the logistic regression model, while at least 150 samples were required to train the K-nearest neighbor methodology. In conclusion, the minimum required sample size needed to accurately train KBP models for prostate cancer depends on the specific model and endpoint to be predicted."

According to the news editors, the research concluded: "The authors' results may provide a lower bound for more complicated tumor sites."

For more information on this research see: Sample size requirements for knowledge-based treatment planning. *Medical Physics*, 2016;43(3):1212-21. *Medical Physics* can be
Researchers at University of Tours Target Breast Cancer (Intrinsic and extrinsic flaws of the nomogram predicting bone-only metastasis in women with early breast cancer: An external validation study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news originating from Tours, France, by NewsRx correspondents, research stated, "The recently developed MDACC nomogram purports to predict the risk of bone-only metastasis in women with early breast carcinoma based on five clinical and pathological characteristics. We set out to externally validate and assess its robustness using a tertiary breast cancer centre database."

Our news journalists obtained a quote from the research from the University of Tours, "All consecutive women treated for early breast cancer in our centre between January 1989 and December 2013 and who had all the nomogram variables documented were eligible for analysis. We identified 1255 eligible women for external validation analysis. The median follow-up was 54 months (range: 1-312) and time to initial metastasis 20 months (range: 1-80). The correspondence between the actual bone-only metastasis and the nomogram predictions implied poor calibration of the nomogram in the validation cohort, be it in the whole cohort or when stratified by breast cancer subtype."

According to the news editors, the research concluded: "This external validation study of the MDACC nomogram showed limitations in its generalizability to a new and independent European patient population."

Researchers at University of Utah Have Reported New Data on Mantle Cell Lymphoma (Ibrutinib in mantle cell lymphoma patients: glass half full? Evidence and opinion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Mantle Cell Lymphoma. According to news reporting originating from Salt Lake City, Utah, by NewsRx correspondents, research stated, "Mantle cell lymphoma (MCL) is a rare subtype of non-Hodgkin's lymphoma typically marked by an aggressive clinical course and a predilection for relapse. The B-cell receptor (BCR) signaling survival pathway is chronically activated in MCL, contributing to its pathogenesis."

Our news editors obtained a quote from the research from the University of Utah, "Ibrutinib is an inhibitor of Bruton's tyrosine kinase, a vital component of this pathway. This article details the current clinical experience with ibrutinib in the treatment of patients with MCL, including completed and published clinical trials and reviews potential adverse events (AEs) and pitfalls associated with ibrutinib therapy. Although most AEs experienced by patients treated with ibrutinib are mild, some can be severe and treatment limiting and may be attributed to off-target effects. Ibrutinib is a very promising agent for patients with MCL with notable response rates. However, when used as a single agent, around one third of patients relapse in the first 2 years of treatment. Recently reported combination therapies have shown significant activity. Emerging data evaluating potential mechanisms of drug resistance and the poor clinical outcomes after treatment failure are also discussed. Further understanding of resistance and its implications not only in relapsed disease but in the frontline setting are needed. Investigation of strategies to overcome resistance remains an area of high unmet clinical need."

According to the news editors, the research concluded: "Evaluation of the impact of shorter treatment duration, effects on minimal residual disease, and incorporation of novel combinations are also warranted."

For more information on this research see: Ibrutinib in mantle cell lymphoma patients: glass half full? Evidence and opinion. Therapeutic Advances In Hematology, 2015;6 (5):242-52. (Sage Publications - www.sagepub.com/; Therapeutic Advances In Hematology - tah.sagepub.com)

The news editors report that additional information may be obtained by contacting D.M. Stephens, Division of Hematology, Dept. of Internal Medicine, Huntsman Cancer
Researchers at University of Utah Release New Data on Blood Coagulation Disorders (Factor V Leiden, prothrombin G20210A, and methylene tetrahydrofolate reductase mutations and stillbirth: the Stillbirth Collaborative Research Network)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematologic Diseases and Conditions - Blood Coagulation Disorders. According to news reporting originating from Salt Lake City, Utah, by NewsRx correspondents, research stated, "An evaluation for heritable thrombophilias is recommended in the evaluation of stillbirth. However, the association between thrombophilias and stillbirth remains uncertain."

Our news editors obtained a quote from the research from the University of Utah, "We sought to assess the association between maternal and fetal/placental heritable thrombophilias and stillbirth in a population-based, case-control study in a geographically, racially, and ethnically diverse population. We conducted secondary analysis of data from the Stillbirth Collaborative Research Network, a population-based case-control study of stillbirth. Testing for factor V Leiden, prothrombin G20210A, methylene tetrahydrofolate reductase C677T and A1298C, and plasminogen activating inhibitor (PAI)-1 4G/5G mutations was done on maternal and fetal (or placental) DNA from singleton pregnancies. Data analyses were weighted for oversampling and other aspects of the design. Odds ratios (OR) were generated from univariate models regressing stillbirth/live birth status on each thrombophilia marker. Results were available for >= 1 marker in 488 stillbirths and 1342 live birth mothers and 405 stillbirths and 990 live birth fetuses. There was an increased odds of stillbirth for maternal homozygous factor V Leiden mutation (2/488; 0.4% vs 1/1380; 0.0046%; OR, 87.44; 95% confidence interval, 7.88-970.92). However, there were no significant differences in the odds of stillbirth for any other maternal thrombophilia, even after stratified analyses. Fetal 4G/4G PAI-1 (OR, 0.63; 95% confidence interval, 0.43-0.91) was associated with decreased odds of stillbirth. Other fetal thrombophilias were similar among groups. Most maternal and fetal thrombophilias were not associated with stillbirth. Maternal factor V Leiden was weakly associated with stillbirth, and the fetal PAI-1 4G/4G polymorphism was associated with live birth."

According to the news editors, the research concluded: "Our data do not support routine testing for heritable thrombophilias as part of an evaluation for possible causes of stillbirth."
Researchers at University of Valencia Target Angina Pectoris
(Cardiovascular and Renal Outcomes of Renin-Angiotensin System Blockade in Adult Patients with Diabetes Mellitus: A Systematic Review with Network Meta-Analyses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Angina Pectoris. According to news reporting originating from Valencia, Spain, by NewsRx correspondents, research stated, "Medications aimed at inhibiting the renin-angiotensin system (RAS) have been used extensively for preventing cardiovascular and renal complications in patients with diabetes, but data that compare their clinical effectiveness are limited. We aimed to compare the effects of classes of RAS blockers on cardiovascular and renal outcomes in adults with diabetes."

Our news editors obtained a quote from the research from the University of Valencia, "Eligible trials were identified by electronic searches in PubMed/MEDLINE and the Cochrane Database of Systematic Reviews (1 January 2004 to 17 July 2014). Interventions of interest were angiotensin-converting enzyme (ACE) inhibitors, angiotensin receptor blockers (ARBs), and direct renin (DR) inhibitors. The primary endpoints were cardiovascular mortality, myocardial infarction, and stroke-singly and as a composite endpoint, major cardiovascular outcome-and end-stage renal disease [ESRD], doubling of serum creatinine, and all-cause mortality-singly and as a composite endpoint, progression of renal disease. Secondary endpoints were angina pectoris and hospitalization for heart failure. In all, 71 trials (103,120 participants), with a total of 14 different regimens, were pooled using network meta-analyses. When compared with ACE inhibitor, no other RAS blocker used in monotherapy and/or combination was associated with a significant reduction in major cardiovascular outcomes: ARB (odds ratio
[OR] 1.02; 95% credible interval [CrI] 0.90-1.18), ACE inhibitor plus ARB (0.97; 95% CrI 0.79-1.19), DR inhibitor plus ACE inhibitor (1.32; 95% CrI 0.96-1.81), and DR inhibitor plus ARB (1.00; 95% CrI 0.73-1.38). For the risk of progression of renal disease, no significant differences were detected between ACE inhibitor and each of the remaining therapies: ARB (OR 1.10; 95% CrI 0.90-1.40), ACE inhibitor plus ARB (0.97; 95% CrI 0.72-1.29), DR inhibitor plus ACE inhibitor (0.99; 95% CrI 0.65-1.57), and DR inhibitor plus ARB (1.18; 95% CrI 0.78-1.84). No significant differences were showed between ACE inhibitors and ARBs with respect to all-cause mortality, cardiovascular mortality, myocardial infarction, stroke, angina pectoris, hospitalization for heart failure, ESRD, or doubling serum creatinine. Findings were limited by the clinical and methodological heterogeneity of the included studies. Potential inconsistency was identified in network meta-analyses of stroke and angina pectoris, limiting the conclusiveness of findings for these single endpoints. In adults with diabetes, comparisons of different RAS blockers showed similar effects of ACE inhibitors and ARBs on major cardiovascular and renal outcomes. Compared with monotherapies, the combination of an ACE inhibitor and an ARB failed to provide significant benefits on major outcomes.

According to the news editors, the research concluded: "Clinicians should discuss the balance between benefits, costs, and potential harms with individual diabetes patients before starting treatment."


The news editors report that additional information may be obtained by contacting F. Catala-Lopez, Dept. of Medicine, University of Valencia, INCLIVA Health Research Institute, Valencia, Spain. Additional authors for this research include D. Macias Saint-Gerons, D. Gonzalez-Bermejo, G.M. Rosano, B.R. Davis, M. Ridao, A. Zaragoza, D. Montero-Corominas, A. Tobias, C. de la Fuente-Honrubia, R. Tabares-Seisdedos and B. Hutton.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pmed.1001971. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Kidney, Valencia, Autacoids, Cardiology, Nephrology, Heart Attack, Hemodynamics, Patient Care, Endocrinology, Heart Disease, Heart Failure, Neuropeptides, Oligopeptides, Renal Disease, ACE Inhibitors, Article Review, Angina Pectoris, Hospitalization, Peptide Hormones, Peptide Proteins, Diabetes Mellitus.

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**Oncology - Pancreatic Cancer**

**Researchers at University of Verona Release New Data on Pancreatic Cancer (Percutaneous ablation of pancreatic cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Pancreatic Cancer have been published. According to news reporting originating from Verona, Italy, by NewsRx correspondents, research stated, "Pancreatic ductal adenocarcinoma is a highly aggressive tumor with an overall 5- year survival rate of less than 5%. Prognosis and treatment depend on whether
the tumor is resectable or not, which mostly depends on how quickly the diagnosis is made."

Our news editors obtained a quote from the research from the University of Verona, "Chemotherapy and radiotherapy can be both used in cases of non-resectable pancreatic cancer. In cases of pancreatic neoplasm that is locally advanced, non-resectable, but non-metastatic, it is possible to apply percutaneous treatments that are able to induce tumor cytoreduction."

According to the news editors, the research concluded: "The aim of this article will be to describe the multiple currently available treatment techniques (radiofrequency ablation, microwave ablation, cryoablation, and irreversible electroporation), their results, and their possible complications, with the aid of a literature review."


The news editors report that additional information may be obtained by contacting M. D'Onofrio, University of Verona, GB Rossi Hosp, Dept. of Radiol, I-37134 Verona, Italy. Additional authors for this research include V. Ciaravino, R. De Robertis, E. Barbi, R. Salvia, R. Girelli, S. Paiella, C. Gasparini, N. Cardobi and C. Bassi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i44.9661. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Verona, Italy, Europe, Pancreatic Neoplasms, Pancreatic Cancer, Gastroenterology, Oncology, Pancreas, University of Verona.

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Oncology - Breast Cancer

Researchers at University of Vienna Report Findings in Breast Cancer (NF-kB contributes to MMP1 expression in breast cancer spheroids causing paracrine PAR1 activation and disintegrations in the lymph endothelial barrier in vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news originating from Vienna, Austria, by NewsRx correspondents, research stated, "RELA, RELB, CREL, NF-kB1 and NF-kB2, and the upstream regulators NEMO and NIK were knocked-down in lymph endothelial cells (LECs) and in MDA-MB231 breast cancer spheroids to study the contribution of NF-kB in vascular barrier breaching. Suppression of RELA, NF-kB1 and NEMO inhibited 'circular chemo-repellent induced defects' (CCIDs), which form when cancer cells cross the lymphatic vasculature, by ~20-30%." Our news journalists obtained a quote from the research from the University of Vienna, "Suppression of RELB, NF-kB2 and NIK inhibited CCIDs by only ~10-15%. In MDA-MB231 cells RELA and NF-kB1 constituted MMP1 expression, which caused the activation of PAR1 in adjacent LECs. The knock-down of MMP1 in MDA-MB231 spheroids and pharmacological inhibition of PAR1 in LECs inhibited CCID formation by ~30%. Intracellular Ca(2+) release in LECs, which was induced by recombinant MMP1, was suppressed by the
PAR1 inhibitor SCH79797, thereby confirming a functional intercellular axis: RELA/NF-kB1 - MMP1 (MDA-MB231) - PAR1 (LEC). Recombinant MMP1 induced PAR1-dependent phosphorylation of MLC2 and FAK in LECs, which is indicative for their activity and for directional cell migration such as observed during CCID formation. The combined knock-down of the NF-kB pathways in LECs and MDA-MB231 spheroids inhibited CCIDs significantly stronger than knock-down in either cell type alone. Also the knock-down of ICAM-1 in LECs (a NF-kB endpoint with relevance for CCID formation) and knock-down of MMP1 in MDA-MB231 augmented CCID inhibition. This evidences that in both cell types NF-kB significantly and independently contributes to tumour-mediated breaching of the lymphatic barrier."

According to the news editors, the research concluded: "Hence, inflamed tumor tissue and/or vasculature pose an additional threat to cancer progression."

For more information on this research see: NF-kB contributes to MMP1 expression in breast cancer spheroids causing paracrine PAR1 activation and disintegrations in the lymph endothelial barrier in vitro. Oncotarget, 2015;6(36):39262-75.

The news correspondents report that additional information may be obtained from C.H. Nguyen, Dept. of Clinical Pharmacy and Diagnostics, University of Vienna, Vienna, Austria. Additional authors for this research include D. Senfter, J. Basilio, S. Holzner, S. Stadler, S. Krieger, N. Huttary, D. Milovanovic, K. Viola, I. Simonitsch-Klupp, W. Jager, R. de Martin and G. Krupitza.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5741. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vienna, Europe, Austria, Oncology, Breast Cancer, Women's Health.

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myeloid cell recruitment, they failed to mount a CD8(+) immune response. In contrast, Kras-mutant tumors displayed significant expansion of multiple immune cell types, including CD8(+) cells, regulatory T cells, IL-17A-producing lymphocytes, and myeloid cells. A human tissue microarray annotated for KRAS and EGFR mutations validated the finding of reduced CD8(+) content in human lung ADCA."

According to the news reporters, the research concluded: "Taken together, these findings establish a strong foundational knowledge of the immune cell contexture of lung ADCA and SCLC and suggest that molecular and histological traits shape the host immune response to cancer."

For more information on this research see: Lung Cancer Subtypes Generate Unique Immune Responses. *Journal of Immunology*, 2016;197(11):4493-4503. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news journalists report that additional information may be obtained by contacting A.M. Houghton, University of Washington, Div Pulm & Crit Care, Seattle, WA 98109, United States. Additional authors for this research include M.L. Hanke, J. Kargl, H.E. Metz, D. MacPherson and A.M. Houghton.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1600576. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Lung Neoplasms, Lung Cancer, Oncology, Genetics, University of Washington.

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**Lung Diseases and Conditions - Asthma**

**Researchers at University of Western Australia Detail Findings in Asthma (Rhinovirus-induced asthma exacerbations and risk populations)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Asthma is now available. According to news reporting from Perth, Australia, by NewsRx journalists, research stated, "This article discusses recent findings into the mechanisms that determine how viruses trigger asthma exacerbations. Substantial progress has been made in our understanding of the pathogenesis of virus-induced asthma exacerbations."

The news correspondents obtained a quote from the research from the University of Western Australia, "This includes new insights into the role of bacteria, the regulation of interferon responses, and the discovery of innate immune pathways that link viral infections with allergic inflammation. Progress has also been made in elucidating the genetic risk factors for asthma exacerbations, most notably the contribution of the ORMDL3/GSDMB locus on 17q, the mechanisms underlying the farming effect, and the discovery that CDHR3 binds to rhinovirus species C. Asthma exacerbations are heterogeneous conditions that involve the complex interplay between environmental exposures and innate and adaptive immune function..."
in genetically predisposed individuals."

According to the news reporters, the research concluded: "Recent insights into the interrelationships between these factors provide new opportunities for therapeutic intervention."

For more information on this research see: Rhinovirus-induced asthma exacerbations and risk populations. *Current Opinion In Allergy and Clinical Immunology*, 2016;16(2):179-85. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Allergy and Clinical Immunology - journals.lww.com/co-allergy/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting L. Coleman, aTelethon Kids Institute, West Perth bSchool of Paediatrics and Child Health, University of Western Australia, Perth, Western Australia, Australia. Additional authors for this research include I.A. Laing and A. Bosco.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/ACI.0000000000000245. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Perth, Viral, Asthma, Genetics, Virology, Rhinovirus, RNA Viruses, Article Review, Picornaviridae, Risk and Prevention, Australia and New Zealand, Respiratory Hypersensitivity, Bronchial Diseases and Conditions, Obstructive Lung Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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**Membrane Proteins - Ion Channels**

**Researchers at University of Western Australia Target Ion Channels (Evidence for redox sensing by a human cardiac calcium channel)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Membrane Proteins - Ion Channels. According to news originating from Crawley, Australia, by NewsRx correspondents, research stated, "Ion channels are critical to life and respond rapidly to stimuli to evoke physiological responses. Calcium influx into heart muscle occurs through the ion conducting α1C subunit (Cav1.2) of the L-type Ca(2+) channel."

Our news journalists obtained a quote from the research from the University of Western Australia, "Glutathionylation of Cav1.2 results in increased calcium influx and is evident in ischemic human heart. However controversy exists as to whether direct modification of Cav1.2 is responsible for altered function. We directly assessed the function of purified human Cav1.2 in proteoliposomes. Truncation of the C terminus and mutation of cysteines in the N terminal region and cytoplasmic loop III-IV linker did not alter the effects of thiol modifying agents on open probability of the channel. However mutation of cysteines in cytoplasmic loop I-II linker altered open probability and protein folding assessed by thermal shift assay. We find that C543 confers sensitivity of Cav1.2 to oxidative stress and is sufficient to modify channel function and posttranslational folding."

According to the news editors, the research concluded: "Our data provide direct evidence for the calcium channel as a redox sensor that facilitates rapid physiological responses."

For more information on this research see: Evidence for redox sensing by a human cardiac calcium channel. *Scientific Reports*, 2016;6():19067. (Nature Publishing Group -
Researchers at University of les Illes Balears Release New Data on Breast Cancer (The Phytoestrogen Genistein Affects Breast Cancer Cells Treatment Depending on the ERα/ERβ Ratio)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news originating from Palma de Mallorca, Spain, by NewsRx correspondents, research stated, "Genistein (GEN) is a phytoestrogen found in soybeans. GEN exerts its functions through its interaction with the estrogen receptors (ER), ERα and ERβ, and we previously reported that the ERα/ERβ ratio is an important factor to consider in GEN-treated breast cancer cells."

Funders for this research include Fondo de Investigaciones Sanitarias of Instituto de Salud Carlos III, FEDER-Union Europea, Comunitat Autonoma de les Illes Balears, FEDER, Comunitat Autonoma de les Illes Balears cofinanced by Fondo Social Europeo.

Our news journalists obtained a quote from the research from the University of les Illes Balears, "The aim of this study was to investigate the effects of GEN in breast cancer cells with different ERα/ERβ ratio: MCF-7 (high ratio), T47D (low ratio), and MCF-7 overexpressing ERβ (MCF7 + ERβ) treated with cisplatin (CDDP), paclitaxel (PTX) or tamoxifen (TAM). Cell viability, ROS production, autophagy, apoptosis, antioxidant enzymes protein levels, and cell cycle were analyzed. GEN treatment provoked an increase in cell viability in MCF-7 cells and in the antioxidant enzymes protein levels in combination with the cytotoxic agents, decreasing ROS production (CDDP + GEN and TAM+GEN) and autophagy (TAM + GEN) or apoptosis (CDDP + GEN and TAM + GEN). Moreover GEN treatment enhanced the cell cycle S phase entry in CDDP+GEN-and TAM + GEN-treated MCF-7 cells and, in the case of CDDP + GEN, increased the proportion of cells in the G2/M phase and decreased it in the subG0/G1 phase. Otherwise, in the T47D and MCF7 + ERβ cells the combination of GEN with cytotoxic treatments did not cause significant changes in these parameters, even TAM + GEN-treated T47D cells showed less cell viability due to an increment in the autophagy."

According to the news editors, the research concluded: "GEN consumption may be counterproductive in those patients receiving anticancer treatment with a high ERα/ERβ ratio diagnosed breast cancer and it could be harmless or even beneficial in those patients with a lower ERα/ERβ ratio breast cancer cells."

For more information on this research see: The Phytoestrogen Genistein Affects

The news correspondents report that additional information may be obtained from D.G. Pons, Grupo Multidisciplinar de Oncologia Traslacional, Institut Universitari d'Investigacio en Ciencies de la Salut (IUNICS-IdISPa), Universitat de les Illes Balears, E07122 Palma de Mallorca, Illes Balears, Spain. Additional authors for this research include M. Nadal-Serrano, M. Torrens-Mas, J. Oliver and P. Roca.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcb.25268. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, Oncology, Breast Cancer, Women's Health, Palma de Mallorca.

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Endocrine Research

Researchers at Uppsala University Detail Findings in Endocrine Research (Progranulin Stimulates Proliferation of Mouse Pancreatic Islet Cells and Is Overexpressed in the Endocrine Pancreatic Tissue of an MEN1 Mouse Model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Endocrine Research have been presented. According to news originating from Uppsala, Sweden, by NewsRx correspondents, research stated, "Progranulin (PGRN) promotes cell growth and cell cycle progression in several cell types and contributes to tumorigenesis in diverse cancers. We have recently reported PGRN expression in islets and tumors developed in an MEN1 transgenic mouse."

Our news journalists obtained a quote from the research from Uppsala University, "Here we sought to investigate PGRN expression and regulation after exposure to hypoxia as well as its effects on pancreatic islet cells and neuroendocrine tumors (NETs) in MEN1 ((plusminus)) mice. Gene and protein expression were analyzed by quantitative polymerase chain reaction, immunohistochemistry, and Western blot. We also investigated PGRN expression in samples from patients carrying pancreatic NETs associated or not with the multiple endocrine neoplasia 1 syndrome, using enzyme-linked immunosorbent assay and immunohistochemistry analysis. Progranulin is upregulated in tumors and islets of the MEN1 mouse as well as in the serum of patients with pancreatic NETs associated with glucagonoma syndrome. In normal mice islets and pancreatic tumors, PGRN expression was strongly potentiated by hypoxia. Progranulin promotes cell proliferation in islet cells and bTC-6 cells, a process paralleled by activation of the mitogen-activated protein kinase signaling cascade."

According to the news editors, the research concluded: "Our findings identify PGRN as an effective inducer of pancreatic islet cell proliferation and a possible important factor for pancreatic endocrine tumor development."

For more information on this research see: Progranulin Stimulates Proliferation of Mouse Pancreatic Islet Cells and Is Overexpressed in the Endocrine Pancreatic Tissue of an MEN1 Mouse Model. *Pancreas*, 2016;45(4):533-40. (Lippincott Williams and Wilkins -
Researchers at Upstate Medical University Have Reported New Data on Allergies (Impact of a pharmacist-driven beta-lactam allergy interview on inpatient antimicrobial therapy: A pilot project)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immune System Diseases and Conditions - Allergies are discussed in a new report. According to news reporting from Syracuse, New York, by NewsRx journalists, research stated, "To determine the impact of a pharmacist-driven beta-lactam allergy interview on antimicrobial therapy. Tertiary care academic medical center."

The news correspondents obtained a quote from the research from Upstate Medical University, "Practice setting: Clarification of beta-lactam allergy may expand treatment options for patients and potentially improve outcomes, reduce toxicity, and reduce costs. Practice innovation: At our institution, a pilot service using a pharmacy resident and infectious diseases clinical pharmacist was implemented to clarify beta-lactam allergy information and, where appropriate, recommend a change to the patient's antibiotic therapy. Evaluation: Adult patients with a documented beta-lactam allergy who had received non-penicillin antibiotics and who had undergone a beta-lactam allergy interview were identified via pharmacy intervention data. A pharmacist interviewed these patients with the use of an internally developed allergy questionnaire. Recommendations for beta-lactam therapy were made to the patient's primary medical team based on the results of the allergy interview and factors including infection type and culture results. The primary objectives were to determine the percentage of patients successfully switched to beta-lactam therapy as a result of the drug allergy interview, to identify allergy discrepancies between the electronic medical record (EMR) and pharmacist's interview, and to quantify the acceptance rate of the pharmacist's antimicrobial recommendations after drug allergy clarification. Thirty-two patients were interviewed, and 24 were candidates for a beta-lactam recommendation. As a result of the interview, 21 patients (65.6%) were successfully switched from a non-penicillin antibiotic to a cephalosporin, carbapenem, or penicillin. A discrepancy between the EMR-reported allergy and history obtained on interview was identified in 11 patients (34.4%). Medical providers accepted 87.5% of pharmacists' antimicrobial recommendations. A pharmacist-driven beta-lactam allergy interview was effective in switching eligible patients to beta-lactam therapy and identifying discrepancies between EMR-documented allergies and confirmed allergies."
According to the news reporters, the research concluded: "Antimicrobial recommendations were well received by medical providers with a high acceptance rate."


Our news journalists report that additional information may be obtained by contacting J.M. Steele, Upstate Med Univ, Dept. of Med, Med, Syracuse, NY, United States. Additional authors for this research include J.M. Steele and C.D. Miller.

Keywords for this news article include: Syracuse, New York, United States, North and Central America, Immune System Diseases and Conditions, Penicillin Therapy G Potassium, Electronic Medical Records, Information Technology, Drugs and Therapies, Natural Penicillins, Sulfur Compounds, Pharmaceuticals, Antimicrobials, beta-Lactams, Antibiotics, Allergies, Upstate Medical University.

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Immunization - Vaccines

Researchers at Vaccine and Gene Therapy Institute Release New Data on Vaccines (Pre-vaccination inflammation and B-cell signalling predict age-related hyporesponse to hepatitis B vaccination)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immunization - Vaccines are presented in a new report. According to news reporting originating from Port St. Lucie, Florida, by NewsRx correspondents, research stated, "Aging is associated with hyporesponse to vaccination, whose mechanisms remain unclear. In this study hepatitis B virus (HBV)-naive older adults received three vaccines, including one against HBV."

Our news editors obtained a quote from the research from Vaccine and Gene Therapy Institute, "Here we show, using transcriptional and cytometric profiling of whole blood collected before vaccination, that heightened expression of genes that augment B-cell responses and higher memory B-cell frequencies correlate with stronger responses to HBV vaccine. In contrast, higher levels of inflammatory response transcripts and increased frequencies of pro-inflammatory innate cells correlate with weaker responses to this vaccine. Increased numbers of erythrocytes and the haem-induced response also correlate with poor response to the HBV vaccine. A transcriptomics-based pre-vaccination predictor of response to HBV vaccine is built and validated in distinct sets of older adults. This moderately accurate (area under the curve&asymp;65%) but robust signature is supported by flow cytometry and cytokine profiling."

According to the news editors, the research concluded: "This study is the first that identifies baseline predictors and mechanisms of response to the HBV vaccine."

For more information on this research see: Pre-vaccination inflammation and B-cell signalling predict age-related hyporesponse to hepatitis B vaccination. Nature Communications, 2016;7():10369. (Nature Publishing Group - www.nature.com/; Nature Communications - www.nature.com/ncomms/)

The news editors report that additional information may be obtained by contacting S.
Researchers at Vanderbilt University Discuss Findings in Venous Thromboembolism (Venous thromboembolism in hematopoietic stem cell transplant recipients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Venous Thromboembolism. According to news reporting from Nashville, Tennessee, by NewsRx journalists, research stated, "Venous thromboembolism (VTE) is an increasingly recognized problem in the post-hematopoietic stem cell transplantation (HSCT) setting, with a lack of high-quality evidence-based data to recommend best practices. Few patients with hematologic malignancies and even fewer post-HSCT patients were included in randomized trials of VTE prophylaxis and treatment."

The news correspondents obtained a quote from the research from Vanderbilt University, "Prior VTE, GVHD, infections and indwelling venous catheters are risk factors for thrombosis. The increasing use of post-transplant maintenance therapy with lenalidomide in patients with multiple myeloma adds to this risk after autologous HSCT. These patients are also at high risk of bleeding complications because of prolonged thrombocytopenia and managing the competing risks of bleeding and thrombosis can be challenging."

According to the news reporters, the research concluded: "This review aims to provide a practical, clinician-focused approach to the prevention and treatment of VTE in the post-HSCT setting."

For more information on this research see: Venous thromboembolism in hematopoietic stem cell transplant recipients. *Bone Marrow Transplantation*, 2015;51(4):473-8. *Bone Marrow Transplantation* can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news journalists report that additional information may be obtained by contacting S. Chaturvedi, Hematology and Stem Cell Transplantation Section, Division of Hematology, Oncology, Dept. of Medicine, Vanderbilt University Medical Center and Veterans Affairs Medical Center, Nashville, TN, United States. Additional authors for this research include A. Neff, A. Nagler, U. Savani, M. Mohty and B.N Savani.
Researchers at Vanderbilt University Have Reported New Data on Cancer Risk (Pathogenic Helicobacter pylori strains translocate DNA and activate TLR9 via the cancer-associated cag type IV secretion system)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology-Cancer Risk. According to news reporting from Nashville, Tennessee, by NewsRx journalists, research stated, "Helicobacter pylori (H. pylori) is the strongest identified risk factor for gastric cancer, the third most common cause of cancer-related death worldwide. An H. pylori constituent that augments cancer risk is the strain-specific cag pathogenicity island, which encodes a type IV secretion system (T4SS) that translocates a pro-inflammatory and oncogenic protein, CagA, into epithelial cells. However, the majority of persons colonized with CagA+ H. pylori strains do not develop cancer, suggesting that other microbial effectors also have a role in carcinogenesis."

The news correspondents obtained a quote from the research from Vanderbilt University, "Toll-like receptor 9 (TLR9) is an endosome bound, innate immune receptor that detects and responds to hypo-methylated CpG DNA motifs that are most commonly found in microbial genomes. High-expression tlr9 polymorphisms have been linked to the development of premalignant lesions in the stomach. We now demonstrate that levels of H. pylori-mediated TLR9 activation and expression are directly related to gastric cancer risk in human populations. Mechanistically, we show for the first time that the H. pylori cancer-associated cag T4SS is required for TLR9 activation and that H. pylori DNA is actively translocated by the cag T4SS to engage this host receptor. Activation of TLR9 occurs through a contact-dependent mechanism between pathogen and host, and involves transfer of microbial DNA that is both protected as well as exposed during transport."

According to the news reporters, the research concluded: "These results indicate that TLR9 activation via the cag island may modify the risk for malignancy within the context of H. pylori infection and provide an important framework for future studies investigating the microbial-epithelial interface in gastric carcinogenesis."

For more information on this research see: Pathogenic Helicobacter pylori strains translocate DNA and activate TLR9 via the cancer-associated cag type IV secretion system. Oncogene, 2016;35(48):6262-6269. Oncogene can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group -...
Researchers at Vanderbilt University Have Reported New Data on Genetics (Heterozygosity Ratio, a Robust Global Genomic Measure of Autozygosity and Its Association with Height and Disease Risk)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Life Science Research - Genetics. According to news reporting originating in Nashville, Tennessee, by NewsRx journalists, research stated, "Greater genetic variability in an individual is protective against recessive disease. However, existing quantifications of autozygosity, such as runs of homozygosity (ROH), have proved highly sensitive to genotyping density and have yielded inconclusive results about the relationship of diversity and disease risk."

The news reporters obtained a quote from the research from Vanderbilt University, "Using genotyping data from three data sets with >43,000 subjects, we demonstrated that an alternative approach to quantifying genetic variability, the heterozygosity ratio, is a robust measure of diversity and is positively associated with the nondisease trait height and several disease phenotypes in subjects of European ancestry. The heterozygosity ratio is the number of heterozygous sites in an individual divided by the number of nonreference homozygous sites and is strongly affected by the degree of genetic admixture of the population and varies across human populations. Unlike quantifications of ROH, the heterozygosity ratio is not sensitive to the density of genotyping performed."

According to the news reporters, the research concluded: "Our results establish the heterozygosity ratio as a powerful new statistic for exploring the patterns and phenotypic effects of different levels of genetic variation in populations."

For more information on this research see: Heterozygosity Ratio, a Robust Global Genomic Measure of Autozygosity and Its Association with Height and Disease Risk. Genetics, 2016;204(3):893-904,17-25. Genetics can be contacted at: Genetics Society America, 9650 Rockville Ave, Bethesda, MD 20814, USA. (Cell Press - www.cell.com; Genetics -
Researchers at Vanderbilt University Target Hypertension [Redox biology in pulmonary arterial hypertension (2013 Grover Conference Series)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Hypertension. According to news reporting from Nashville, Tennessee, by NewsRx journalists, research stated, "Through detailed interrogation of the molecular pathways that contribute to the development of pulmonary arterial hypertension (PAH), the separate but related processes of oxidative stress and cellular metabolic dysfunction have emerged as being critical pathogenic mechanisms that are as yet relatively untargeted therapeutically. In this review, we have attempted to summarize some of the important existing studies, to point out areas of overlap between oxidative stress and metabolic dysfunction, and to do so under the unifying heading of redox biology."

The news correspondents obtained a quote from the research from Vanderbilt University, "We discuss the importance of precision in assessing oxidant signaling versus oxidant injury and why this distinction matters. We endeavor to advance the discussion of carbon-substrate metabolism beyond a focus on glucose and its fate in the cell to encompass other carbon substrates and some of the murkiness surrounding our understanding of how they are handled in different cell types. Finally, we try to bring these ideas together at the level of the mitochondrion and to point out some additional points of possible cognitive dissonance that warrant further experimental probing. The body of beautiful science regarding the molecular and cellular details of redox biology in PAH points to a future that includes clinically useful therapies that target these pathways."

According to the news reporters, the research concluded: "To fully realize the potential of these future interventions, we hope that some of the issues raised in this review can be addressed proactively."


Our news journalists report that additional information may be obtained by contacting J.P. Fessel, Division of Allergy, Pulmonary and Critical Care Medicine, Dept. of
Researchers at Vikram University Release New Data on Colon Cancer (Study of apoptosis-related interactions in colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting from Ujjain, India, by NewsRx journalists, research stated, "Abnormalities in apoptotic functions contribute to the pathogenesis of colorectal cancer. In this study, molecular interactions behind the apoptotic regulation have been explored."

Financial support for this research came from University Grants Commission. The news correspondents obtained a quote from the research from Vikram University, "For this purpose, enrichment analysis was performed considering microRNAs (miRNAs) that putatively target TP53 and altered during colon cancer. This revealed gene associated with both TP53 and miRNAs. Further analysis showed that a significant molecular interaction between the shortlisted candidates (TP53, miR-143, KRAS, BCL2, and PLK1) exists. Mutation study was conducted to confirm the clinical relevance of candidates. It showed that the mutation extent does not significantly alter survival in patients thus making these candidates suitable as drug targets."

According to the news reporters, the research concluded: "Overall, we showed the importance of interactions between TP53, miR-143, KRAS, BCL2, and PLK1 with respect to colorectal cancer using bioinformatics approach."

For more information on this research see: Study of apoptosis-related interactions in colorectal cancer. Tumor Biology, 2016;37(11):14415-14425. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting H. Arora, Vikram Univ, Sch Studies Zool & Biotechnol, Ujjain, MP, India. Additional authors for this research include R. Qureshi, M. Rizvi, S. Shrivastava and M.S. Parihar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5363-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ujjain, India, Asia, Apoptosis, Article Review, Colorectal Research, Gastroenterology, Colon Cancer, Genetics, Oncology, Vikram University.

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Researchers at Washington University Have Reported New Data on Obesity (Provider Training to Screen and Initiate Evidence-Based Pediatric Obesity Treatment in Routine Practice Settings: A Randomized Pilot Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting originating from St. Louis, Missouri, by NewsRx correspondents, research stated, "This randomized pilot trial evaluated two training modalities for first-line, evidence-based pediatric obesity services (screening and goal setting) among nursing students. Participants (N = 63) were randomized to live interactive training or Web-facilitated self-study training."

Our news editors obtained a quote from the research from Washington University, "Pretraining, post-training, and 1-month follow-up assessments evaluated training feasibility, acceptability, and impact (knowledge and skill via simulation). Moderator (previous experience) and predictor (content engagement) analyses were conducted. Nearly all participants (98%) completed assessments. Both types of training were acceptable, with higher ratings for live training and participants with previous experience (ps <.05). Knowledge and skill improved from pretraining to post-training and follow-up in both conditions (ps <.001). Live training demonstrated greater content engagement (p <.01). The training package was feasible, acceptable, and efficacious among nursing students."

According to the news editors, the research concluded: "Given that live training had higher acceptability and engagement and online training offers greater scalability, integrating interactive live training components within Web-based training may optimize outcomes, which may enhance practitioners' delivery of pediatric obesity services."


The news editors report that additional information may be obtained by contacting R.P. Kolko, Washington University, Dept. of Psychol, St Louis, MO 63130, United States. Additional authors for this research include A.E. Kass, J.F. Hayes, M.D. Levine, J.M. Garbutt, E.K. Proctor and D.E. Wilfley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pedhc.2016.01.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Overnutrition, Pediatrics, Bariatrics, Obesity, Washington University.

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Researchers at Washington University Target Staphylococcus aureus (Impact of Time to Appropriate Therapy on Mortality in Patients with Vancomycin-Intermediate Staphylococcus aureus Infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Positive Bacteria - Staphylococcus aureus have been published. According to news reporting out of St. Louis, Missouri, by NewsRx editors, research stated, "Despite the increasing incidence of vancomycin-intermediate Staphylococcus aureus (VISA) infections, few studies have examined the impact of delay in receipt of appropriate antimicrobial therapy on outcomes in VISA patients. We examined the effects of timing of appropriate antimicrobial therapy in a cohort of patients with sterile-site methicillin-resistant S. aureus (MRSA) and VISA infections."

Our news journalists obtained a quote from the research from Washington University, "In this single-center, retrospective cohort study, we identified all patients with MRSA or VISA sterile-site infections from June 2009 to February 2015. Clinical outcomes were compared according to MRSA/VISA classification, demo-graphics, comorbidities, and antimicrobial treatment. Thirty-day all-cause mortality was modeled with Kaplan-Meier curves. Multivariate logistic regression analysis (MVLRA) was used to determine odds ratios for mortality. We identified 354 patients with MRSA (n = 267) or VISA (n = 87) sterile-site infection. Fifty-five patients (15.5%) were nonsurvivors. Factors associated with mortality in MVLRA included pneumonia, unknown source of infection, acute physiology and chronic health evaluation (APACHE) II score, solid-organ malignancy, and admission from skilled care facilities. Time to appropriate antimicrobial therapy was not significantly associated with outcome. Presence of a VISA infection compared to that of a non-VISA S. aureus infection did not result in excess mortality. Linezolid use was a risk for mortality in patients with APACHE II scores of >= 14. Our results suggest that empirical vancomycin use in patients with VISA infections does not result in excess mortality."

According to the news editors, the research concluded: "Future studies should (i) include larger numbers of patients with VISA infections to confirm the findings presented here and (ii) determine the optimal antibiotic therapy for critically ill patients with MRSA and VISA infections."

For more information on this research see: Impact of Time to Appropriate Therapy on Mortality in Patients with Vancomycin-Intermediate Staphylococcus aureus Infection. Antimicrobial Agents and Chemotherapy, 2016;60(9):5546-5553. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting J.P. Burnham, Washington University, Sch Med, Div Infect Dis, St Louis, MO 63110, United States. Additional authors for this research include C.A.D. Burnham, D.K. Warren and M.H. Kollef.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00925-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North

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Life Science Research - Molecular and Cellular Biology

Researchers at Wuhan University Release New Data on Molecular and Cellular Biology (Polo-like Kinase-1 Regulates Myc Stabilization and Activates a Feedforward Circuit Promoting Tumor Cell Survival)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Life Science Research - Molecular and Cellular Biology is now available. According to news reporting out of Wuhan, People's Republic of China, by NewsRx editors, research stated, "MYCN amplification in human cancers predicts poor prognosis and resistance to therapy. However, pharmacological strategies that directly target N-Myc, the protein encoded by MYCN, remain elusive."

Our news journalists obtained a quote from the research from Wuhan University, "Here, we identify a molecular mechanism responsible for reciprocal activation between Polo-like kinase-1 (PLK1) and N-Myc. PLK1 specifically binds to the SCF Fbw7 ubiquitin ligase, phosphorylates it, and promotes its autopolyubiquitination and proteasomal degradation, counteracting Fbw7-mediated degradation of N-Myc and additional substrates, including cyclin E and Mcl1. Stabilized N-Myc in turn directly activates PLK1 transcription, constituting a positive feedforward regulatory loop that reinforces Myc-regulated oncogenic programs. Inhibitors of PLK1 preferentially induce potent apoptosis of MYCN-amplified tumor cells from neuroblastoma and small cell lung cancer and synergistically potentiate the therapeutic efficacies of Bcl2 antagonists."

According to the news editors, the research concluded: "These findings reveal a PLK1-Fbw7-Myc signaling circuit that underlies tumorigenesis and validate PLK1 inhibitors, alone or with Bcl2 antagonists, as potential effective therapeutics for MYC-overexpressing cancers."

For more information on this research see: Polo-like Kinase-1 Regulates Myc Stabilization and Activates a Feedforward Circuit Promoting Tumor Cell Survival. Molecular Cell, 2016;64(3):493-506. Molecular Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

Our news journalists report that additional information may be obtained by contacting G.L. Qing, Wuhan University, Medical Res Inst, Wuhan 430071, People's Republic of China. Additional authors for this research include M. Yue, H.X. Su, P. Ren, J. Jiang, F. Li, Y.F. Hu, H.N. Du, H.D. Liu and G.L. Qing.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.09.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia,
Researchers at Yale University School of Medicine Describe Findings in Type 2 Diabetes (Metabolic syndrome: genetic insights into disease pathogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting from New Haven, Connecticut, by NewsRx journalists, research stated, "Metabolic syndrome (MetS) is a cluster of interrelated and heritable metabolic traits, which collectively impart unsurpassed risk for atherosclerotic cardiovascular disease and type 2 diabetes. Considerable work has been done to understand the underlying disease mechanisms by elucidating its genetic cause."

The news correspondents obtained a quote from the research from the Yale University School of Medicine, "Genome-wide association studies have been widely utilized albeit with modest success in identifying variants that are associated with more than two metabolic traits. Another limitation of this approach is the inherent small effect of the common variants, a major barrier for dissecting their cognate pathways. Modest advances in this venue have been also made by genetic studies of kindreds at the extreme ends of quantitative distributions. These efforts have led to the discovery of a number of disease genes with large effects that underlie the association of diverse traits of this syndrome. Substantial progress has been made over the last decade in identification of genetic risk factors associated with the various traits of MetS. The heterogeneity and multifactorial heritability of MetS, however, has been a challenge toward understanding the factors underlying the association of these traits."

According to the news reporters, the research concluded: "Genetic investigations of outlier kindreds or homogenous populations with high prevalence for the disease can potentially improve our knowledge of the disease pathophysiology."

For more information on this research see: Metabolic syndrome: genetic insights into disease pathogenesis. Current Opinion In Lipidology, 2016;27(2):162-71. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Lipidology - journals.lww.com/co-lipidology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting M.D. Ziki, Dept. of Internal Medicine and Genetics, Yale University School of Medicine, New Haven, Connecticut, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MOL.0000000000000276. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, New Haven, Healthcare, Connecticut, United States, Article Review, Type 2 Diabetes, Metabolic Syndrome, Risk and Prevention, North and Central America, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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Researchers at Yokohama City University Graduate School of Medicine Report Findings in Bladder Cancer (Expression of androgen receptor in non-muscle-invasive bladder cancer predicts the preventive effect of androgen deprivation therapy on tumor ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Bladder Cancer are presented in a new report. According to news originating from Yokohama, Japan, by NewsRx correspondents, research stated, "Our recent retrospective study revealed a significantly reduced risk of bladder cancer (BC) recurrence in men who received androgen deprivation therapy (ADT) for their prostate cancer. However, whether androgen receptor (AR) signals contributed to the preventive effect of ADT remained unclear because ADT could reduce serum estrogens as well."

Our news journalists obtained a quote from the research from the Yokohama City University Graduate School of Medicine, "The purpose of this study is to investigate the associations between the expression of AR/estrogen receptors (ERs) and BC recurrence in patients treated with ADT. We immunohistochemically stained 72 BCs and 42 corresponding normal urothelial tissues. AR/ERa/ERb were positive in 44(61%)/22(31%)/39(54%) tumors and 35(83%)/24(57%)/34(81%) corresponding normal urothelial tissues, respectively. There were no statistically significant correlations between AR/ERa/ERb expression and clinicopathological features of BC. With a median follow-up of 31.3 months, 12 (43%) of 28 patients with AR-negative tumor versus 11 (23%) of 44 patients with AR-positive tumor experienced BC recurrence. Thus, patients with AR-positive tumor had a significantly lower risk of BC recurrence (p=0.031), compared with those with AR-negative tumor. Meanwhile, the expression of ERa/ERb in tumors and that of AR/ERa/ERb in normal urothelial tissues were not significantly correlated with BC recurrence. A multivariate analysis revealed AR positivity in tumors as an independent prognosticator (hazard ratio: 0.27; 95% confidence interval: 0.11-0.67) for BC recurrence."

According to the news editors, the research concluded: "These results indicate that ADT prevents BC recurrence via the AR pathway, but not via the ERa/ERb pathways."

For more information on this research see: Expression of androgen receptor in non-muscle-invasive bladder cancer predicts the preventive effect of androgen deprivation therapy on tumor recurrence. Oncotarget, 2016;7(12):14153-60.

The news correspondents report that additional information may be obtained from K. Izumi, Dept. of Urology, Yokohama City University Graduate School of Medicine, Yokohama, Japan. Additional authors for this research include Y. Ito, H. Miyamoto, Y. Miyoshi, J. Ota, M. Moriyama, T. Murai, H. Hayashi, Y. Inayama, K. Ohashi, M. Yao and H. Uemura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7358. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Yokohama, Oncology, Bladder Cancer, Steroid Receptors, Androgen Receptors, Drugs and Therapies, Post Trial Research, Risk and Prevention, DNA Binding Proteins, Transcription Factors, Clinical Trials and Studies.
Researchers at Yokohama City University Graduate School of Medicine Target Small Cell Lung Cancer (Amrubicin for relapsed small-cell lung cancer: a systematic review and meta-analysis of 803 patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Small Cell Lung Cancer have been published. According to news reporting originating from Yokohama, Japan, by NewsRx correspondents, research stated, "Currently, amrubicin is permitted for relapsed small-cell lung carcinoma (SCLC) only in Japan. The efficacy and adverse effects of amrubicin as reported by previous studies varied greatly."

Our news editors obtained a quote from the research from the Yokohama City University Graduate School of Medicine, "The inclusion criterion was a prospective study that was able to provide data for efficacy and safety by the AMR single agent regimen as second-line chemotherapy for a patient with SCLC. Binary data were meta-analyzed with the random-model generic inverse variance method. We included nine articles consisted of 803 patients. The pooled three-, six-, and nine-month progression-free survival were 63% (95% CI 57-69%, I(2)=53%), 28% (95% CI 21-35%, I(2)=71%), and 10% (95% CI 6-14%, I(2)=41%), respectively. The pooled six-, 12-, and 18-month overall survival were 69% (95% CI 61-78%, I(2)=83%), 36% (95% CI 28-44%, I(2)=80%), and 15% (95% CI 8-21%, I(2)=81%), respectively. Amrubicin seemed much more beneficial for Japanese patients. However, compared to the efficacy of topotecan presented in a previous meta-analysis, amrubicin may be a better treatment option than topotecan for both Japanese and Euro-American. Adverse effects by amrubicin were almost exclusively observed to be hematological."

According to the news editors, the research concluded: "Notably, grade III/IV neutropenia incidence was 70% and febrile neutropenia incidence was 12%."

For more information on this research see: Amrubicin for relapsed small-cell lung cancer: a systematic review and meta-analysis of 803 patients. Scientific Reports, 2016;6 ():18999. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting N. Horita, Dept. of Pulmonology, Yokohama City University Graduate School of Medicine, Yokohama, Japan. Additional authors for this research include M. Yamamoto, T. Sato, T. Tsukahara, H. Nagakura, K. Tashiro, Y. Shibata, H. Watanabe, K. Nagai, K. Nakashima, R. Ushio, M. Ikeda, N. Kobayashi, M. Shinkai, M. Kudo and T. Kaneko.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18999. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Yokohama, Oncology, Article Review, Lung Neoplasms, Small Cell Lung Cancer.

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Researchers at Zhejiang University Have Reported New Data on Regenerative Medicine (Coating with spermine-pullulan polymer enhances adenoviral transduction of mesenchymal stem cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Biomedical Engineering - Regenerative Medicine are presented in a new report. According to news reporting out of Hangzhou, People's Republic of China, by NewsRx editors, research stated, "Mesenchymal stem cells (MSCs) are adult stem cells with multilineage potential, which makes them attractive tools for regenerative medicine applications. Efficient gene transfer into MSCs is essential not only for basic research in developmental biology but also for therapeutic applications involving gene-modification in regenerative medicine."

Our news journalists obtained a quote from the research from Zhejiang University, "Adenovirus vectors (Advs) can efficiently and transiently introduce an exogenous gene into many cell types via their primary receptors, the coxsackievirus and adenovirus receptors, but not into MSCs, which are deficient in coxsackievirus and adenovirus receptors expression. To overcome this problem, we developed an Adv coated with a spermine-pullulan (SP) cationic polymer and investigated its physicochemical properties and internalization mechanisms. We demonstrated that the SP coating could enhance adenoviral transduction of MSCs without detectable cytotoxicity or effects on differentiation."

According to the news editors, the research concluded: "Our results argue in favor of the potentiality of the SP-coated Adv as a prototype vector for efficient and safe transduction of MSCs."

For more information on this research see: Coating with spermine-pullulan polymer enhances adenoviral transduction of mesenchymal stem cells. International Journal of Nanomedicine, 2016;11():6763-6769. International Journal of Nanomedicine can be contacted at: Dove Medical Press Ltd, PO Box 300-008, Albany, Auckland 0752, New Zealand.

Our news journalists report that additional information may be obtained by contacting J.Q. Gao, Zhejiang University, Inst Pharmaceut, Hangzhou 310058, Zhejiang, People's Republic of China. Additional authors for this research include X.L. Yao, F. Faiola, B.J. Liu, T.Y. Zhang, Y. Tabata, H. Mizuguchi, S. Nakagawa, J.Q. Gao and R.C.H. Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/IJN.S109897. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Mesenchymal Stem Cells, Biomedical Engineering, Regenerative Medicine, Drugs and Therapies, Biogenic Polyamines, Stem Cell Research, Diet and Nutrition, Spermine Therapy, Biogenic Amines, Bioengineering, Micronutrient, Biotechnology, Biomedicine, Adenovirus, Spermidine, Zhejiang University.

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Researchers at Zhejiang University School of Medicine Target Viral RNA (Bcl6 Sets a Threshold for Antiviral Signaling by Restraining IRF7 Transcriptional Program)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Viral RNA. According to news reporting from Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "The coordination of restraining and priming of antiviral signaling constitute a fundamental aspect of immunological functions. However, we currently know little about the molecular events that can translate the pathogenic cues into the appropriate code for antiviral defense."

The news correspondents obtained a quote from the research from the Zhejiang University School of Medicine, "Our present study reports a specific role of B cell lymphoma (Bcl)6 as a checkpoint in the initiation of the host response to cytosolic RNA viruses. Remarkably, Bcl6 specifically binds to the interferon-regulatory factor (IRF)7 loci and restrains its transcription, thereby functioning as a negative regulator for interferon (IFN)-b production and antiviral responses. The signal-controlled turnover of the Bcl6, most likely mediated by microRNA-127, coordinates the antiviral response and inflammatory sequelae. Accordingly, de-repression of Bcl6 resulted in a phenotypic conversion of macrophages into highly potent IFN-producing cells and rendered mice more resistant to pathogenic RNA virus infection. The failure to remove the Bcl6 regulator, however, impedes the antiviral signaling and exaggerates viral pneumonia in mice."

According to the news reporters, the research concluded: "We thus reveal a novel key molecular checkpoint to orchestrate antiviral innate immunity."

For more information on this research see: Bcl6 Sets a Threshold for Antiviral Signaling by Restraining IRF7 Transcriptional Program. Scientific Reports, 2016;6():18778. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting F. Xu, Dept. of Infectious Diseases, Second Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, Zhejiang 310009, People's Republic of China. Additional authors for this research include Y. Kang, N. Zhuang, Z. Lu, H. Zhang, D. Xu, Y. Ding, H. Yin and L. Shi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18778. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Hangzhou, Genetics, Viral RNA, People's Republic of China.

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Researchers from ANSES Detail New Studies and Findings in the Area of Escherichia coli [Sequence Type 48 Escherichia coli Carrying the bla (CTX-M-1) IncI1/ST3 Plasmid in Drinking Water in France]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Gram-Negative Bacteria - Escherichia coli is the subject of a report. According to news reporting from Lyon, France, by NewsRx journalists, research stated, "Drinking water has rarely been recognized as a source of antimicrobial resistance for humans, and only in low-income countries."

The news correspondents obtained a quote from the research from ANSES, "Here, a sequence type 48 Escherichia coli isolate carrying the bla(CTX-M-1) IncI1/ST3 plasmid was recovered from drinking water in France. This plasmid was similar to other bla(CTX-M-1) IncI1/ST3 plasmids found previously in animals and humans."

According to the news reporters, the research concluded: "Our findings highlight the possible human transfer of extended-spectrum beta-lactamase (ESBL) genes through drinking water in high-income countries."

For more information on this research see: Sequence Type 48 Escherichia coli Carrying the bla(CTX-M-1) IncI1/ST3 Plasmid in Drinking Water in France. Antimicrobial Agents and Chemotherapy, 2016;60(10):6430-6432. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting M. Haenni, ANSES Site Lyon, Unite Antibioresistance & Virulence Bacteriennes, Lyon, France. Additional authors for this research include M. Haenni, C. Ponsin, N. Kieffer, E. Rion and B. Gassilloud.

Keywords for this news article include: Lyon, France, Europe, Gram-Negative Bacteria, Enterobacteriaceae, Escherichia coli, Proteobacteria, Genetics, ANSES.

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Nursing - Clinical Nursing

Researchers from AUT University Discuss Findings in Clinical Nursing
(The condom imperative in anal sex - one size may not fit all: a qualitative descriptive study of men who have sex with men)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nursing - Clinical Nursing have been published. According to news reporting originating in Auckland, New Zealand, by NewsRx journalists, research stated, "Aims and objectives. To explore men who have sex with men's views about condom use when having anal intercourse."

Financial support for this research came from Ministry of Health.

The news reporters obtained a quote from the research from AUT University,
"Internationally, health promotion campaigns use behavioural change strategies to support men who have sex with men to always use condoms when having anal sex with other men. The health promotion message given to this group is consistent and explicitly stated that 'use a condom every time for anal sex regardless of relationship status'. Qualitative analysis of data from a cohort of New Zealand men who have sex with men. A total of 960 useable questionnaires were completed: 571 online and 389 in hard copy. Qualitative data were analysed using a thematic data analytic process. Three themes relating to condom use in men who have sex with men were identified. These are as follows: 'Safer sex is good sex', 'Condom use is good but ...' and 'I use condoms sometimes'. The range of responses towards condom use for anal sex in men who have sex with men in our sample reveal this as a complex public health issue, with not all men who have sex with men willing to consistently use condoms. Relevance to clinical practice. It is important that nurses do not assume that all men who have sex with men are willing to use condoms for anal sex, and should create opportunities for men who have sex with men to raise any concerns about the use of condoms."

According to the news reporters, the research concluded: "In this way, nurses can assist in providing information that may help men who have sex with men to make decisions that will minimise risk of contracting infections associated with sexual activity."


Our news correspondents report that additional information may be obtained by contacting S. Neville, AUT Univ, Dept. of Nursing, Auckland, New Zealand. Additional authors for this research include J. Adams, C. Moorley and D. Jackson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13507. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Auckland, New Zealand, Australia and New Zealand, Clinical Nursing, Nursing, Risk and Prevention, AUT University.

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Heart Disorders and Diseases - Heart Failure

Researchers from Aarhus University Detail Findings in Heart Failure (A rare presentation of cardiac amyloid deposits isolated to intramural vessels)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting out of Aarhus, Denmark, by NewsRx editors, research stated, "The present case illustrates the diagnostic challenges in symptomatic patients with heart failure of unknown etiology. The patients were previously diagnosed with -light chain amyloidosis without cardiac involvement."

Our news journalists obtained a quote from the research from Aarhus University,
"Echocardiography showed heart failure with mildly reduced ejection fraction but no signs of amyloidosis. Coronary angiogram showed normal arteries and 11C-PIB positron emission tomography was negative for amyloid deposits. Exercise testing revealed severe heart failure and reduced coronary flow velocity reserve. Endomyocardial biopsies showed amyloid in the intramural coronary arteries without interstitial amyloid deposits."

According to the news editors, the research concluded: "Hence, the patient was diagnosed with microvascular dysfunction-induced heart failure due to vessel wall amyloidosis."


Our news journalists report that additional information may be obtained by contacting T.S. Clemmensen, Aarhus University, Dept. of Cardiol, Aarhus N, Denmark. Additional authors for this research include H. Molgaard, N.F. Andersen, S. Baerentzen, J. Soerensen and S.H. Poulsen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/echo.13365. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aarhus, Denmark, Europe, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Amyloid, Diagnostics and Screening, Heart Disorders and Diseases, Proteostasis Deficiencies, Heart Failure, Heart Disease, Amyloidosis, Nephrology, Cardiology, Proteins, Aarhus University.

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Cardiology

Researchers from Aarhus University Hospital Report Recent Findings in Cardiology (Relocation of patients after cardiac surgery: is it worth the effort?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting out of Aarhus, Denmark, by NewsRx editors, research stated, "Fast-track protocols may facilitate early patient discharge from the site of surgery through the implementation of more expedient pathways. However, costs may merely be shifted towards other parts of the health care system."

Our news journalists obtained a quote from the research from Aarhus University Hospital, "We aimed to investigate the consequence of patient transfers on overall hospitalisation, follow-up and readmission rate after cardiac surgery. A single-centre descriptive cohort study using prospectively entered registry data. The study included 4,515 patients who underwent cardiac surgery at Aarhus University Hospital during the period 1 April 2006 to 31 December 2012. Patients were grouped and analysed based on type of discharge: Directly from site of surgery or after transfer to a regional hospital. The cohort was obtained from the Western Denmark Heart Registry and matched to the Danish National Hospital Register. Median overall length of stay was 9 days (7.0;14.4). Transferred patients had longer length of stay, median
difference of 2.0 days, p<0.001. Time to first outpatient consultation was 41(30;58) days in transferred patients vs. 45(29;74) days, p<0.001. 18.6% was readmitted within 30 days. Mean time to readmission was 18.4 ? 6.4 days. Median length of readmission was 3(1,6) days. There was no difference in readmissions between groups. Leading cause of readmission was cardiovascular disease with 48%. Transfer of patients does not overtly reduce health care costs, but overall LOS and time to first outpatient consultation are substantially longer in patients transferred to secondary hospitals than in patients discharged directly."

According to the news editors, the research concluded: "Readmission rate is high during the month after surgery, but with no difference between groups."


Our news journalists report that additional information may be obtained by contacting L.S. Hansen, Dept. of Anaesthesiology and Intensive Care, Aarhus University Hospital, Aarhus N, Denmark. Additional authors for this research include V.E. Hjortdal and C.J Jakobsen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/aas.12679. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aarhus, Europe, Denmark, Hospital, Cardiology, Cardiac Surgery.

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Oncology - Prostate Cancer

Researchers from Addenbrooke's Hospital Report Findings in Prostate Cancer (Multiparametric Prostate Magnetic Resonance Imaging and Cognitively Targeted Transperineal Biopsy in Patients With Previous Abdominoperineal Resection and Suspicion of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to news reporting originating in Cambridge, United Kingdom, by NewsRx journalists, research stated, "To report our experience with a combination of prostate magnetic resonance imaging (MRI) and transperineal ultrasound biopsy for evaluating the prostate in patients with elevated prostate specific antigen (PSA) who have previously undergone abdominoperineal resection (APR). We reviewed the records of 11 patients with a history of APR and clinical suspicion of prostate cancer due to elevated PSA levels over a 5-year period."

The news reporters obtained a quote from the research from Addenbrooke's Hospital, "All patients underwent multiparametric MRI at our institution prior to biopsy. MR diagnoses were validated either by transperineal ultrasound biopsy (Likert 3-5) guided by visual registration or clinical follow-up >6 months (Likert 1-2). All 7 cases with highly suspicious lesions (Likert 4-5) on MRI demonstrated cancer-1 case of Gleason 3 + 3 and 6 cases of Gleason >= 3 + 4 disease. Two cases with Likert 3 MR lesions revealed benign tissue upon biopsy. Two patients with no suspicious lesions on MRI were followed-up clinically, with PSA levels
remaining stable over a mean period of 17.5 months (range 7-28 months)."

According to the news reporters, the research concluded: "The use of prebiopsy multiparametric prostate MRI and subsequent cognitively targeted transperineal biopsy guided by visual registration can aid in the diagnostic pathway of patients with APR and a suspicion of prostate cancer."

For more information on this research see: Multiparametric Prostate Magnetic Resonance Imaging and Cognitively Targeted Transperineal Biopsy in Patients With Previous Abdominoperineal Resection and Susicion of Prostate Cancer. Urology, 2016;96():8-14. Urology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

Our news correspondents report that additional information may be obtained by contacting N.L. Hansen, Addenbrookes Hospital, Dept. of Urol, Cambridge, United Kingdom. Additional authors for this research include I. Caglic, L.H. Berman, C. Kastner, A. Doble and T. Barrett.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.04.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, United Kingdom, Europe, Prostate Specific Antigen, Enzymes and Coenzymes, Prostatic Neoplasms, Magnetic Resonance, Prostate Cancer, Oncology, Addenbrooke's Hospital.

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Researchers from Advanced Institute of Convergence Technology Describe Findings in Fabry Disease (alpha-Galactosidase delivery using 30Kc19-human serum albumin nanoparticles for effective treatment of Fabry disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Fabry Disease have been presented. According to news originating from Suwon, South Korea, by NewsRx correspondents, research stated, "Fabry disease is a genetic lysosomal storage disease caused by deficiency of alpha-galactosidase, the enzyme-degrading neutral glycosphingolipid that is transported to lysosome. Glycosphingolipid accumulation by this disease causes multi-organ dysfunction and premature death of the patient."

Our news journalists obtained a quote from the research from the Advanced Institute of Convergence Technology, "Currently, enzyme replacement therapy (ERT) using recombinant alpha-galactosidase is the only treatment available for Fabry disease. To maximize the efficacy of treatment, enhancement of cellular delivery and enzyme stability is a challenge in ERT using alpha-galactosidase. In this study, protein nanoparticles using human serum albumin (HSA) and 30Kc19 protein, originating from silkworm, were used to enhance the delivery and intracellular alpha-galactosidase stability. 30Kc19-HSA nanoparticles loaded with the alpha-galactosidase were formed by desolvation method. 30Kc19-HSA nanoparticles had a uniform spherical shape and were well dispersed in cell culture media. 30Kc19-HSA nanoparticles had negligible toxicity to human cells. The nanoparticles exhibited enhanced cellular uptake and intracellular..."
stability of delivered alpha-galactosidase in human foreskin fibroblast. Additionally, they showed enhanced globotriaosylceramide degradation in Fabry patients’ fibroblasts."

According to the news editors, the research concluded: "It is expected that 30Kc19-HSA protein nanoparticles could be used as an effective tool for efficient delivery and enhanced stability of drugs."

For more information on this research see: alpha-Galactosidase delivery using 30Kc19-human serum albumin nanoparticles for effective treatment of Fabry disease. *Applied Microbiology and Biotechnology*, 2016;100(24):10395-10402. *Applied Microbiology and Biotechnology* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Applied Microbiology and Biotechnology - www.springerlink.com/content/0175-7598/)

The news correspondents report that additional information may be obtained from T.H. Park, Adv Inst Convergence Technol, Suwon, South Korea. Additional authors for this research include H.H. Park, Y. Sohn, J. Ryu, J.H. Park, W.J. Rhee and T.H. Park.

Keywords for this news article include: Suwon, South Korea, Asia, Nutritional and Metabolic Diseases and Conditions, Lysosomal Storage Diseases and Conditions, X-Linked Genetic Diseases and Conditions, Brain Diseases and Conditions, Human Serum Albumin Therapy, Lipid Metabolism Disorders, Serum albumin Therapy, Enzymes and Coenzymes, Emerging Technologies, Acute-Phase Proteins, Glycoside Hydrolases, Drugs and Therapies, alpha-Galactosidase, Sphingolipidoses, Blood Proteins, Galactosidases, Nanotechnology, Fabry Disease, Nanoparticle, Neurology, Albumins, Genetics, Advanced Institute of Convergence Technology.

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**Oncology - Thyroid Cancer**

**Researchers from Affiliated Hospital Detail Findings in Thyroid Cancer (Tall cell variant of papillary thyroid carcinoma: current evidence on clinicopathologic features and molecular biology)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Thyroid Cancer. According to news reporting originating from Nanchong, People's Republic of China, by NewsRx correspondents, research stated, "Tall cell variant (TCV) of papillary thyroid carcinoma (PTC) has been recognized for the past few decades as an entity showing aggressive biological behavior; however, there is considerable controversy regarding the definition, clinical and pathological features of TCV because of its rarity and difficult diagnosis. No clinical features can accurately diagnose TCV."

Our news editors obtained a quote from the research from Affiliated Hospital, "Thus, the results of histocytology, immunohistochemistry and molecular genetics tests have important clinical implications for diagnosis. Given the aggressiveness and the increased recurrence and poor survival rates, more aggressive treatment approach and rigorous follow-up is required for patients with TCV."

According to the news editors, the research concluded: "In the present article, we undertook a comprehensive review to summarize and discuss the various aspects of this variant, from morphology to immunohistochemistry, and molecular abnormalities from a practical and
daily practice-oriented point of view."

For more information on this research see: Tall cell variant of papillary thyroid carcinoma: current evidence on clinicopathologic features and molecular biology. *Oncotarget*, 2016;7(26):40792-40799.

The news editors report that additional information may be obtained by contacting X. Wang, Dept. of General Surgery, Affiliated Hospital of North Sichuan Medical College, Nanchong, People's Republic of China. Additional authors for this research include W. Cheng, C. Liu and J. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8215. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nanchong, Genetics, Oncology, Carcinomas, Article Review, Papillary Thyroid Cancer, People's Republic of China.

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**Oncology - Gliomas**

**Researchers from Affiliated Hospital Detail New Studies and Findings in the Area of Gliomas (Low Expression of CAPON in Glioma Contributes to Cell Proliferation via the Akt Signaling Pathway)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gliomas. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "CAPON is an adapter protein for nitric oxide synthase 1 (NOS1). CAPON has two isoforms in the human brain: CAPON-L (long form of CAPON) and CAPON-S (short form of CAPON)."

The news reporters obtained a quote from the research from Affiliated Hospital, "Recent studies have indicated the involvement of CAPON in tumorigenesis beyond its classical role in NOS1 activity regulation. In this study, we found that the protein levels of CAPON-S, but not than CAPON-L, were significantly decreased in glioma tissues. Therefore, we established lentivirus-mediated stable cell lines with CAPON-S overexpression or down-regulation, and investigated the role of CAPON-S in the proliferation of glioma cells by using CCK8, EdU, and flow cytometry assays. Overexpression of CAPON-S reduced the cell variability and the percentage of EdU-positive cells, and arrested the cells in the G1 phase in glioma cells. Silencing of CAPON by short-hairpin RNA showed the opposite effects. Furthermore, an intracellular signaling array revealed that overexpression of CAPON-S resulted in a remarkable reduction in the phosphorylation of Akt and S6 ribosomal protein in glioma cells, which was further confirmed by Western blot."

According to the news reporters, the research concluded: "These findings suggest that CAPON may function as a tumor suppressor in human brain glioma and that the inactivation of the Akt signaling pathway caused by CAPON-S overexpression may provide insight into the underlying mechanism of CAPON in glioma cell proliferation."

For more information on this research see: Low Expression of CAPON in Glioma Contributes to Cell Proliferation via the Akt Signaling Pathway. *International Journal of Molecular Sciences*, 2016;17(11):1475-1485. *International Journal of Molecular Sciences* can
Researchers from Affiliated Hospital of Nanjing University School of Medicine Report Findings in Ischemia (Endoplasmic reticulum stress of Kupffer cells involved in the conversion of natural regulatory T cells to Th17 cells in liver ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Ischemia have been published. According to news reporting originating in Nanjing, People's Republic of China, by NewsRx journalists, research stated, "Our previous studies have shown that regulatory T cells (Tregs) are reduced and Th17 cells are elevated in liver insults. Recent studies have indicated the critical role of endoplasmic reticulum (ER) stress of Kupffer cells (KCs) in evoking liver inflammation following reperfusion."

The news reporters obtained a quote from the research from the Affiliated Hospital of Nanjing University School of Medicine, "The objective of this study was to investigate the role of ER stress of KCs in the conversion of Tregs to Th17 cells and the effect on liver ischemia-reperfusion injury. The partial warm liver ischemia-reperfusion injury mouse model was adopted. ER stress of KCs and the frequency of Tregs and Th17 cells following reperfusion were analyzed. Apart from depletion and adoptive transfer of KCs, KCs were isolated from ischemic lobes and co-cultured with Tregs to study the effect of KCs on Tregs and Th17 cells. It was found that KCs induced ER stress, decreased natural Tregs (nTregs), and increased Th17 cells after reperfusion. Depletion of KCs modulated the reduction of nTregs and elevation of Th17 cells. Co-culture with stressed KCs led to the reduction in nTregs and elevation of Th17 cells. This effect was suppressed by anti-interleukin-6. Adoptive transfer of these stressed KCs resulted in the reduction in nTregs and elevation of Th17 cells and caused liver injury."

According to the news reporters, the research concluded: "Endoplasmic reticulum stress of KCs contributed to the conversion of nTregs to Th17 cells due to interleukin-6, resulting in the worsening of liver insult."


Our news correspondents report that additional information may be obtained by contacting J. Gao, Dept. of General Surgery, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, People's Republic of China.
Additional authors for this research include Z. Jiang, S. Wang, Y. Zhou, X. Shi and M. Feng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13163. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nanjing, Cytoplasm, Immunology, Organelles, Macrophages, Kupffer Cells, Medical Devices, Blood Transfusion, Cellular Structures, Intracellular Space, Transfusion Medicine, Endoplasmic Reticulum, Hemic and Immune Systems, People's Republic of China, Ischemia Reperfusion Injury, Cardiovascular Diseases and Conditions.

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Hematology - Laboratory Hematology

Researchers from Aga Khan University Hospital Detail Findings in Laboratory Hematology (Analytical performance evaluation of a high-volume hematology laboratory utilizing sigma metrics as standard of excellence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Laboratory Hematology. According to news originating from Karachi, Pakistan, by NewsRx correspondents, research stated, "Around two-thirds of important clinical decisions about the management of patients are based on laboratory test results. Clinical laboratories are required to adopt quality control (QC) measures to ensure provision of accurate and precise results."

Our news journalists obtained a quote from the research from Aga Khan University Hospital, "Six sigma is a statistical tool, which provides opportunity to assess performance at the highest level of excellence. The purpose of this study was to assess performance of our hemotalogical parameters on sigma scale in order to identify gaps and hence areas of improvement in patient care. Twelve analytes included in the study were hemoglobin (Hb), hematocrit (Hct), red blood cell count (RBC), mean corpuscular volume (MCV), red cell distribution width (RDW), total leukocyte count (TLC) with percentages of neutrophils (Neutr%) and lymphocytes (Lymph %), platelet count (Plt), mean platelet volume (MPV), prothrombin time (PT), and fibrinogen (Fbg). Internal quality control data and external quality assurance survey results were utilized for the calculation of sigma metrics for each analyte. Acceptable sigma value of (>=)3 was obtained for the majority of the analytes included in the analysis. MCV, Plt, and Fbg achieved value of <3 for level 1 (low abnormal) control. PT performed poorly on both level 1 and 2 controls with sigma value of <3."

According to the news editors, the research concluded: "Despite acceptable conventional QC tools, application of sigma metrics can identify analytical deficits and hence prospects for the improvement in clinical laboratories."

The news correspondents report that additional information may be obtained from M.S. Shaikh, Section of Hematology, Dept. of Pathology and Laboratory Medicine, Aga Khan University Hospital, Karachi, Pakistan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12468. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the International Journal of Laboratory Hematology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Karachi, Pakistan, Laboratory Hematology.

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**Phenethylamines**

**Researchers from Ain Shams University Report Details of New Studies and Findings in the Area of Phenethylamines (Composite chitosan-transfersomal vesicles for improved transnasal permeation and bioavailability of verapamil)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Phenethylamines. According to news reporting originating in Cairo, Egypt, by NewsRx journalists, research stated, "The creation of composite systems has become an emerging field in drug delivery. Chitosan has demonstrated several pharmaceutical advantages, especially in intranasal delivery."

The news reporters obtained a quote from the research from Ain Shams University, "In this manuscript, a comparative study was conducted between regular vesicles (transfersomes and penetration enhancer vesicles) and composite vesicles (chitosan containing transfersomes and penetration enhancer vesicles) loaded with a model antihypertensive drug; verapamil hydrochloride VRP. Composite vesicles displayed larger particle size than regular vesicles owing to the coating potential of chitosan on the vesicular bilayer as displayed by transmission electron microscopy, with an increased viscosity of composite vesicles and a shift in the zeta potential values from negative to positive. The entrapment efficiency of VRP in the vesicles ranged from 24 to 64%, with best physical stability displayed with transfersomal vesicles prepared using sodium deoxycholate. Chitosan slowed the in vitro release of VRP from the selected formulation but managed to achieve high penetrability across sheep nasal mucosa as displayed by confocal laser microscopy. The chitosan composite transfersomal formulation exhibited absolute bioavailability of 81.83% compared to the oral solution which displayed only 13.04%.

According to the news reporters, the research concluded: "Findings of this manuscript highly recommend chitosan as a promising functional additive in vesicular formulations to improve the intranasal delivery of drugs with low oral bioavailability."

For more information on this research see: Composite chitosan-transfersomal vesicles for improved transnasal permeation and bioavailability of verapamil. *International Journal of Biological Macromolecules*, 2016;93():591-599. *International Journal of Biological Macromolecules* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; International Journal of Biological
Macromolecules - www.journals.elsevier.com/international-journal-of-biological-macromolecules/

Our news correspondents report that additional information may be obtained by contacting M. Nasr, Ain Shams University, Dept. of Pharmaceut & Ind Pharm, Fac Pharm, Cairo, Egypt. Additional authors for this research include M. Nasr, M. Abdel-Mottaleb, A.S. Geneidi and S. Mansour.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.09.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cairo, Egypt, Africa, Calcium Channel Blocking Agents, Group IV Antiarrhythmics, Cardiovascular Agents, Antiarrhythmic Agents, Drugs and Therapies, Phenethylamines, Verapamil, Ain Shams University.

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Genetics - Human Genetics

Researchers from Aix-Marseille University Provide Details of New Studies and Findings in the Area of Human Genetics (Actionable Genes, Core Databases, and Locus-Specific Databases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Genetics - Human Genetics. According to news reporting originating from Marseille, France, by NewsRx correspondents, research stated, "Adoption of next-generation sequencing (NGS) in a diagnostic context raises numerous questions with regard to identification and reports of secondary variants (SVs) in actionable genes. To better understand the whys and wherefores of these questioning, it is necessary to understand how they are selected during the filtering process and how their proportion can be estimated."

Our news editors obtained a quote from the research from Aix-Marseille University, "It is likely that SVs are underestimated and that our capacity to label all true SVs can be improved. In this context, Locus-specific databases (LSDBs) can be key by providing a wealth of information and enabling classifying variants. We illustrate this issue by analyzing 318 SVs in 23 actionable genes involved in cancer susceptibility syndromes identified through sequencing of 572 participants selected for a range of atherosclerosis phenotypes. Among these 318 SVs, only 43.4% are reported in Human Gene Mutation Database (HGMD) Professional versus 71.4% in LSDB. In addition, 23.9% of HGMD Professional variants are reported as pathogenic versus 4.8% for LSDB."

According to the news editors, the research concluded: "These data underline the benefits of LSDBs to annotate SVs and minimize overinterpretation of mutations thanks to their efficient curation process and collection of unpublished data."


The news editors report that additional information may be obtained by contacting G.
Researchers from Albert Einstein College of Medicine Describe Findings in Proinsulin (Genetic Variation near IRS1 is Associated with Adiposity and a Favorable Metabolic Profile in US Hispanics/Latinos)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Peptide Proteins - Proinsulin is now available. According to news originating from Bronx, New York, by NewsRx correspondents, research stated, "Associations of IRS1 genetic variation with adiposity and metabolic profile in U.S. Hispanic/Latino individuals of diverse backgrounds were examined."

Our news journalists obtained a quote from the research from the Albert Einstein College of Medicine, "Previously genome-wide association study-identified IRS1 variants (rs2943650, rs2972146, rs2943641, and rs2943634) as related to body fat percentage (BF%) and multiple metabolic traits were tested among up to 12,730 adults (5,232 men; 7,515 women) from the Hispanic Community Health Study/Study of Latinos. The C-allele (frequency=26%) of rs2943650 was significantly associated with higher BF% overall (beta = 0.34 +/- 0.11% per allele; P=0.002) and in women (beta = 0.41 +/- 0.14% per C-allele; P=0.003), but not in men (beta = 0.28 +/- 0.18% per C-allele; P=0.11), though there was no significant sex difference. Using the inverse normal-transformed data to compare effect sizes, it was found that the association with BF% was stronger in Hispanic/Latino women than that previously reported in European women (beta = 0.054 +/- 0.018SD vs. beta = 0.008 +/- 0.011SD per C-allele; P=0.03). The BF% -increasing allele of rs2943650 was significantly associated with lower levels of fasting insulin, homeostatic model assessment of insulin resistance, hemoglobin A1c, and triglycerides and higher high-density lipoprotein cholesterol (P <0.05). This study confirmed and extended previous findings of IRS1 variation associated with increased adiposity but a favorable metabolic profile in U.S."

According to the news editors, the research concluded: "Hispanics/Latinos, with a relatively stronger genetic effect on BF% in Hispanic/Latino women compared with European women."

For more information on this research see: Genetic Variation near IRS1 is Associated with Adiposity and a Favorable Metabolic Profile in US Hispanics/Latinos. Obesity, 2016:24(11):2407-2413. Obesity can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

The news correspondents report that additional information may be obtained from Q.B. Qi, Albert Einstein College of Medicine, Dept. of Epidemiol & Populat Hlth, Bronx, NY 10467, United States. Additional authors for this research include S.M. Gogarten, L.S. Emery,
Researchers from All India Institute of Medical Sciences Report Findings in Glioblastomas (Therapy and progression--induced O6-methylguanine-DNA methyltransferase and mismatch repair alterations in recurrent glioblastoma multiforme)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Glioblastomas are presented in a new report. According to news reporting originating in New Delhi, India, by NewsRx journalists, research stated, "Despite multimodality treatment protocol including surgical resection, radiotherapy, and chemotherapy in patients with glioblastoma multiforme (GBM), most suffer from treatment failure and tumor recurrence within a few months of initial surgery. The effectiveness of temozolomide (TMZ), the most commonly used chemotherapeutic agent, is largely dependent on the methylation status of the promoter of the gene O6-methylguanine-DNA methyltransferase (MGMT) and the integrity of the mismatch repair (MMR) system."

The news reporters obtained a quote from the research from the All India Institute of Medical Sciences, "Changes in these regulatory mechanisms at the time of recurrence may influence response to therapy. Deciphering the molecular mechanisms of resistance to these drugs may in future lead to improvised patient management. In this article, we provide an update of the spectrum of molecular changes that occur in recurrent GBMs, and thus may have an impact on patient survival and treatment response."

According to the news reporters, the research concluded: "For review, electronic search for the keywords 'Recurrent GBM', 'Recurrent GBM AND MGMT' 'Recurrent glioma AND MGMT', 'Recurrent GBM AND MMR' and 'Recurrent glioma AND MMR', 'Recurrent GBM AND MMR' and 'Recurrent glioma AND MMR' was done on PubMed and relevant citations were screened including cross-references."

For more information on this research see: Therapy and progression--induced O6-methylguanine-DNA methyltransferase and mismatch repair alterations in recurrent glioblastoma multiforme. Indian Journal of Cancer, 2015;52(4):568-73.

Our news correspondents report that additional information may be obtained by contacting C. Sarkar, Dept. of Pathology, All India Institute of Medical Sciences, New Delhi, India. Additional authors for this research include V. Suri, M.C. Sharma and C. Sarkar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178403. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Gliomas, Therapy, Genetics, Oncology, New Delhi, Glioblastomas, Article Review, Methyltransferases, Enzymes and
Coenzymes, One Carbon Group Transferases.

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Cardiology

Researchers from Amirkabir University of Technology Describe Findings in Cardiology (Nanomaterials-based electrochemical immunosensors for cardiac troponin recognition: An illustrated review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news originating from Tehran, Iran, by NewsRx correspondents, research stated, "Cardiac troponins (I and T) have been recommended as the biomarkers of choice for the serological diagnosis and prognosis of Acute Myocardial Infarction (AMI) because of their high sensitivity and specificity. Sensor designing has been developed by nanotechnology revolution presenting faster detection and better reproducibility."

Our news journalists obtained a quote from the research from the Amirkabir University of Technology, "This review highlights the nanotechnology impact on electrochemical immunosensor that have been developed for the determination of cardiac troponin and provides an overview of the various types of nano based diagnostic methods, along with significant advances over the last several years in related technologies. It is critically important to diagnose Cardio Vascular Disease (CVD) at early stages of its progression, which allows successful treatment and recovery of patients."

According to the news editors, the research concluded: "Therefore, it is essential to develop simple and sensitive CVD diagnostic methods that can detect cardiac troponin as biomarker based on different types of nanomaterials and their developmental and implicational aspects at very low concentrations in biological fluids."


The news correspondents report that additional information may be obtained from M. Rabiee, Amirkabir Univ Technol, Fac Biomed Engn, Biomat Grp, Tehran, Iran. Additional authors for this research include M. Rabiee, S.N. Alhosseini, M. Tahriri, S. Yazdanpanah, S.H. Alavi and L. Tayebi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.trac.2016.06.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Microfilament Proteins, Cytoskeletal Proteins, Emerging Technologies, Electrochemicals, Muscle Proteins, Nanotechnology, Nanomaterial, Cardiology, Chemicals, Troponin, Amirkabir University of Technology.

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Researchers from Angers University Hospital Detail Findings in Coronary Vasospasm (Acute coronary vasospasm in a patient with eosinophilic granulomatosis with polyangiitis following NSAID administration A case report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Coronary Vasospasm are presented in a new report. According to news originating from Angers, France, by NewsRx correspondents, research stated, "Eosinophilic with polyangiitis (EGPA, formerly known as Churg-Strauss syndrome) is a rare systemic disease characterized by a small-vessel necrotizing vasculitis. Cardiac manifestations are broad-ranging and are associated with a poor prognosis."

Our news journalists obtained a quote from the research from Angers University Hospital, "Coronary vasospasm is uncommon. Here, we report a case of an acute coronary vasospasm in a patient with EGPA after corticosteroids withdrawal and nonsteroidal antiinflammatory drug (NSAID) introduction. This patient was initially misdiagnosed as bradykinin-mediated angioedema. A 30-year-old man presented with recurrence of abdominal pain and acute dyspnea. NSAID administration for pain during a flare was followed by coronary vasospasms leading to cardiac arrest. Corticosteroid treatment was recently interrupted by the patient. This case reports a rare cardiac complication of EGPA. NSAID might contribute to coronary vasospasm by eosinophilic degranulation in EGPA."

According to the news editors, the research concluded: "Moreover, corticosteroid compliance must be emphasized among patients who display EGPA with high cardiac risk to prevent fatal issues."

For more information on this research see: Acute coronary vasospasm in a patient with eosinophilic granulomatosis with polyangiitis following NSAID administration A case report. Medicine, 2016;95(47):72-74. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from G. Urbanski, Angers Univ Hosp, Internal Med, Angers, France. Additional authors for this research include P. Lozach, C. Belizna, C. Lavigne and G. Urbanski.

Keywords for this news article include: Angers, France, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Hemic and Immune Systems, Myocardial Ischemia, Coronary Vasospasm, Heart Disease, Granulocytes, Blood Cells, Eosinophils, Cardiology, Immunology, Angers University Hospital.

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Clinical Research - Clinical Trials and Studies

Researchers from Aristotle University Report on Findings in Clinical Trials and Studies (Echocardiographic Parameters During Long and Short Interdialytic Intervals in Hemodialysis Patients)
The researchers investigated the interdialytic changes in right and left ventricular function during the 2-and 3-day intervals. Observational study with 2 random crossover sequences of recordings: 3-day followed by 2-day interval or vice versa. 41 stable patients with end-stage renal disease on standard thrice-weekly hemodialysis therapy. Predictor: 3-day (long) versus 2-day (short) interdialytic interval. Interdialytic change in echocardiographic indexes of left and right ventricular function. 2-dimensional echocardiographic and tissue Doppler imaging studies were performed with a Vivid 7 cardiac ultrasound system at the start and end of the 3- and 2-day interdialytic intervals. During both intervals studied, elevations in cardiac output, stroke volume, left ventricular mass index, and peak early diastolic velocities of the left ventricle were evident. Interdialytic weight gain (3.0 +/- 1.7 vs 2.4 +/- 1.3 [SD] kg) and inferior vena cava diameter increase (0.54 +/- 0.3 vs 0.25 +/- 0.3) were higher during the 3-day versus the 2-day interval (P < 0.001). Left ventricular systolic and diastolic function indexes were generally no different between interdialytic intervals. In contrast, interdialytic increases in left and right atrial volume, right ventricular systolic pressure (RVSP; 15.3 +/- 10.2 vs 4.7 +/- 5.2 mm Hg; P< 0.001), and tricuspid regurgitation maximum velocity (0.46 +/- 0.45 vs 0.14 +/- 0.33 m/s; P = 0.001) were significantly greater during the 3- versus the 2-day interval. Multivariable analysis suggested that changes in interdialytic weight gain, right ventricle diastolic function, and pulmonary vascular resistance were determinants of the change in RVSP. Limitations: Observational study design.

According to the news reporters, the research concluded: "Excess volume accumulation over the long interdialytic interval in hemodialysis patients results in higher left and right atrial enlargement and RVSP elevation, which clinically corresponds to pulmonary circulation overload, providing one plausible pathway for the excess mortality risk during this period."


Our news journalists report that additional information may be obtained by contacting K. Tsilonis, Aristotle University, AHEPA Hosp, Dept. of Med 1, Sect Nephrol & Hypertens, Thessaloniki, Greece. Additional authors for this research include P.A. Sarafidis, V. Kamperidis, C. Loutradis, P.I. Georgianos, K. Imprialos, A. Ziakas, G. Sianos, P. Nikolaidis, A.N. Lasaridis and H. Karvounis.

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Keywords for this news article include: Thessaloniki, Greece, Europe, Cardiology, Risk and Prevention, Clinical Trials and Studies, Clinical Research, Renal Dialysis, Hemodialysis, Aristotle University.
Researchers from Arizona State University Detail Findings in Community Psychology (Rural-urban Disparities In Adolescent Risky Behaviors: A Family Social Capital Perspective)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Psychology - Community Psychology are presented in a new report. According to news originating from Tempe, Arizona, by NewsRx correspondents, research stated, "This study examined differences in adolescent risky behaviors between rural communities and urban communities and identified specific factors predicting these differences from a family social capital perspective. Secondary data analysis was conducted using the 2012 state-wide representative youth survey (N = 61,321) in Arizona, United States."

Our news journalists obtained a quote from the research from Arizona State University, "The results mostly confirmed the already documented differences between rural-urban youth and related health disparities. The rates of cigarette use, alcohol use and driving after drinking were higher in rural respondents than those in urban respondents. However, the rate of drug use such as marijuana and methamphetamines was lower in rural respondents. The findings highlighted the importance of family structure, family relationships, and socio-economic status as contributor to these rural/urban differences."

According to the news editors, the research concluded: "These results were discussed from family capital perspective and practice and policy recommendations were provided for the United States and other societies like China that face similar rural-urban disparities in youth behavioral health."


Keywords for this news article include: Tempe, Arizona, United States, North and Central America, Community Psychology, Psychology, Arizona State University.

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Researchers from Asia University Provide Details of New Studies and Findings in the Area of Cell Biology (Deubiquitination and Stabilization of PD-L1 by CSN5)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Life Science Research - Cell Biology. According to news originating from Taichung, Taiwan, by NewsRx correspondents, research stated, "Pro-inflammatory cytokines produced in the tumor microenvironment lead to eradication of anti-tumor immunity and enhanced tumor cell survival. In the current study, we identified tumor necrosis factor alpha (INF-alpha) as a major factor triggering cancer cell immunosuppression against T cell surveillance via stabilization of programmed cell death-ligand 1 (PD-L1)."

Funders for this research include NIH, Cancer Prevention Research Institute of Texas, Patel Memorial Breast Cancer Endowment Fund, National Breast Cancer Foundation, Breast Cancer Research Foundation, University of Texas MD Anderson Cancer Center, China Medical University, Hospital Sister Institution Fund, Ministry of Science and Technology, International Research-intensive Centers of Excellence, Ministry of Health and Welfare, Center for Biological Pathways, Cure Postdoctoral Fellowship, National Research Foundation of Korea.

Our news journalists obtained a quote from the research from Asia University, "We demonstrated that COP9 signalosome 5 (CSN5), induced by NF-kappa B p65, is required for TNF-alpha-mediated PD-L1 stabilization in cancer cells. CSN5 inhibits the ubiquitination and degradation of PD-L1."

According to the news editors, the research concluded: "Inhibition of CSN5 by curcumin diminished cancer cell PD-L1 expression and sensitized cancer cells to anti-CTLA4 therapy."

For more information on this research see: Deubiquitination and Stabilization of PD-L1 by CSN5. Cancer Cell, 2016;30(6):925-939. Cancer Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cancer Cell - www.journals.elsevier.com/cancer-cell/)

The news correspondents report that additional information may be obtained from M.C. Hung, Asia Univ, Dept. of Biotechnol, Taichung 413, Taiwan. Additional authors for this research include C.W. Li, W.Y. Xia, J.H. Cha, L.C. Chan, Y. Wu, S.S. Chang, W.C. Lin, J.M. Hsu, Y.H. Hsu, T. Kim, W.C. Chang, J.L. Hsu, H. Yamaguchi, Q.Q. Ding, Y. Wang, Y. Yang, C.H. Chen, A.A. Sahin, D.H. Yu, G.N. Hortobagyi and M.C. Hung.

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Keywords for this news article include: Taichung, Taiwan, Asia, Cell Biology, Life Science Research, Cancer, Epidemiology, Oncology, Asia University.

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Researchers from AstraZeneca Report on Findings in Ethers (Discovery of indazole ethers as novel, potent, non-steroidal glucocorticoid receptor modulators)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on ethers have been published. According to news reporting from Molndal, Sweden, by NewsRx journalists, research stated, "A structure-based design approach led to the identification of a novel class of indazole ether based, nonsteroidal glucocorticoid receptor (GR) modulators. Several examples were identified that displayed cell potency in the picomolar range, inhibiting LPS-induced TNF-alpha release by primary peripheral blood mononuclear cells (PBMCs)."

The news correspondents obtained a quote from the research from AstraZeneca, "Additionally, an improved steroid hormone receptor binding selectivity profile, compared to classical steroidal GR agonists, was demonstrated. The indazole ether core tolerated a broad range of substituents allowing for modulation of the physiochemical parameters."

According to the news reporters, the research concluded: "A small subset of indazole ethers, with pharmacokinetic properties suitable for oral administration, was investigated in a rat antigen-induced joint inflammation model and demonstrated excellent anti-inflammatory efficacy."


Our news journalists report that additional information may be obtained by contacting M. Hemmerling, AstraZeneca, Resp Inflamm & Autoimmun Innovat Med & Early De, S-43183 Molndal, Sweden. Additional authors for this research include K. Edman, M. Lepisto, A. Eriksson, S. Ivanova, J. Dahmen, H. Rehwinkel, M. Berger, R. Hendrickx, M. Dearman, T.J. Jensen, L. Wissler and T. Hansson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bmcl.2016.10.052. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Molndal, Sweden, Europe, Glucocorticoid Receptors, Adrenal Cortex Hormones, Transcription Factors, DNA-Binding Proteins, Drugs and Therapies, Steroid Receptors, Organic Chemicals, Glucocorticoids, Ethers, AstraZeneca.

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Researchers from Australian Army Malaria Institute Detail New Studies and Findings in the Area of Malaria (The Spiroindolone KAE609 Does Not Induce Dormant Ring Stages in Plasmodium falciparum Parasites)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mosquito-Borne Diseases - Malaria have been published. According to news reporting originating from Brisbane, Australia, by NewsRx correspondents, research stated, "In vitro drug treatment with artemisinin derivatives, such as dihydroartemisinin (DHA), results in a temporary growth arrest (i.e., dormancy) at an early ring stage in Plasmodium falciparum. This response has been proposed to play a role in the recrudescence of P. falciparum infections following monotherapy with artesunate and may contribute to the development of artemisinin resistance in P. falciparum malaria."

Our news editors obtained a quote from the research from Australian Army Malaria Institute, "We demonstrate here that artemether does induce dormant rings, a finding which further supports the class effect of artemisinin derivatives in inducing the temporary growth arrest of P. falciparum parasites. In contrast and similarly to lumefantrine, the novel and fast-acting spiroindolone compound KAE609 does not induce growth arrest at the early ring stage of P. falciparum and prevents the recrudescence of DHA-arrested rings at a low concentration (50 nM)."

According to the news editors, the research concluded: "Our findings, together with previous clinical data showing that KAE609 is active against artemisinin-resistant K13 mutant parasites, suggest that KAE609 could be an effective partner drug with a broad range of antimalarials, including artemisinin derivatives, in the treatment of multidrug-resistant P. falciparum malaria."

For more information on this research see: The Spiroindolone KAE609 Does Not Induce Dormant Ring Stages in Plasmodium falciparum Parasites. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5167-5174. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting M. Chavchich, Australian Army Malaria Inst, Brisbane, Qld, Australia. Additional authors for this research include K. Van Breda, K. Rowcliffe, T.T. Diagana and M.D. Edstein.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.02838-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Mosquito-Borne Diseases, Plasmodium falciparum, Protozoan Infections, Protozoan Parasites, Falciparum Malaria, Tropical Disease, Human Parasites, Sesquiterpenes, Artemisinins, Peroxides, Australian Army Malaria Institute.

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Researchers from Autonomous University Describe Findings in Aedes aegypti [Knockdown Resistance Mutations in Aedes aegypti (Diptera: Culicidae) From Puerto Rico]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mosquito Species - Aedes aegypti. According to news originating from Nuevo Leon, Mexico, by NewsRx correspondents, research stated, "Permethrin resistance is widespread in Aedes aegypti (L.), the main dengue, zika, and chikungunya virus vector in Latin America and the Caribbean. A common mechanism of resistance to pyrethroids-knockdown resistance (kdr)-is conferred through mutations in the insect's voltage-dependent sodium channel."

Our news journalists obtained a quote from the research from Autonomous University, "In this mosquito, around 10 replacement substitutions in the voltage-gated sodium channel gene (vgsc) have been reported in pyrethroid-resistant strains. Two of these mutations, named Ile1,016 and Cys1,534, are widespread in mosquito populations from Latin America and the Caribbean. This study assessed the levels of permethrin resistance and the frequency of two kdr mutations in eight Ae. aegypti populations collected in Puerto Rico in 2013. Permethrin resistance factors ranged from 33-214-fold relative to the New Orleans reference strain. The frequency of kdr mutation Ile1,016 ranged from 0.65 to fixation (1.0), and for Cys1,534 frequencies varied from 0.8 to fixation. Alarmingly, two populations-Carolina and Caguas-reached fixation at both loci."

According to the news editors, the research concluded: "Our results suggest that permethrin effectiveness for Ae. aegypti control is compromised in these collections from Puerto Rico."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/jme/tjw115. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nuevo Leon, Mexico, North and Central America, Organic Chemicals, Mosquito Species, Aedes aegypti, Hydrocarbons, Permethrin, Pyrethrins, Mosquitoes, Terpenes, Genetics, Autonomous University.

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Researchers from Autonomous University Describe Findings in Alzheimer Disease (Simultaneous monitoring of monoamines, amino acids, nucleotides and neuropeptides by liquid chromatography-tandem mass spectrometry and its application to ...

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "The primary functions of adrenal medullary chromaffin cells are the synthesis and storage in their chromaffin vesicles of the catecholamines noradrenaline (NA) and adrenaline (AD), and their subsequent release into the bloodstream by Ca2+-dependent exocytosis under conditions of fear or stress (fight or flight response). Several monoamines, nucleotides and opiates, such as leucine-enkephalin (LENK) and methionine-enkephalin (MENK), are also co-stored and co-released with the catecholamines."

Our news journalists obtained a quote from the research from Autonomous University, "However, other neurotransmitters have not been studied in depth. Here, we present a novel high-resolution liquid chromatography-tandem mass spectrometry approach for the simultaneous monitoring of 14 compounds stored and released in bovine chromaffin cells (BCCs). We validated the analytical method according to the recommendations of the EMA and FDA by testing matrix effect, selectivity, sensitivity, precision, accuracy, stability and carry-over. After testing on six batches of BCCs from different cultures, the method enabled simultaneous quantitative determination of monoamines (AD, NA, dopamine, serotonin, 5-hydroxyindoleacetic acid, histamine and metanephrine), amino acids (L-glutamic acid, gamma-aminobutyric acid), nucleotides (adenosine 5'-diphosphate, adenosine 5'-monophosphate, cyclic adenosine 5'-monophosphate) and neuropeptides (LENK and MENK) in the intracellular content, basal secretion and acetylcholine induced secretion of BCCs. The high-resolution approach used here enabled us to determine the levels of 14 compounds in the same BCC batch in only 16min. This novel approach will make it possible to study the regulatory mechanisms of Ca2+ signaling, exocytosis and endocytosis using different neurotrophic factors and/or secretagogues as stimuli in primary BCC cultures."

According to the news editors, the research concluded: "Our method is actually being applied to human plasma samples of different therapeutic areas where sympathoadrenal axis is involved in stress situations such as Alzheimer's disease, migraine or cirrhosis, to improve diagnosis and clinical practice."


The news correspondents report that additional information may be obtained from A. Ruiz-Nuno, Autonomous University of Madrid, Hosp Univ Princesa, Inst Invest Sanitaria, Serv Farmaco Clin, Madrid, Spain. Additional authors for this research include J. Avendano-Ortiz, R. de Pascual, L. Ruiz-Pascual, A.G. Garcia and A. Ruiz-Nuno.
Keywords for this news article include: Madrid, Spain, Europe, Neurodegenerative Diseases and Conditions, Proteins, Diagnostics and Screening, Cardiac Stressing Agents, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Radiologic Adjuncts, Radiologic Agents, Adenosine Therapy, Alzheimer Disease, Pharmaceuticals, Neuropeptides, Amino Acids, Peptides, Genetics, Autonomous University.

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Angiology
Researchers from Baylor University College of Medicine Discuss Findings in Angiology (Alterations in gait parameters with peripheral artery disease: The importance of pre-frailty as a confounding variable)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Angiology. According to news reporting out of Houston, Texas, by NewsRx editors, research stated, "Although poor walking is the most common symptom of peripheral artery disease (PAD), reported results are inconsistent when comparing gait parameters between PAD patients and healthy controls. This inconsistency may be due to frailty, which is highly prevalent among PAD patients."

Our news journalists obtained a quote from the research from the Baylor University College of Medicine, "To address this hypothesis, 41 participants, 17 PAD (74 +/- 8 years) and 24 aged-matched controls (76 +/- 7 years), were recruited. Gait was objectively assessed using validated wearable sensors. Analysis of covariate (ANCOVA) tests were used to compare gait parameters between PAD and non-PAD groups, considering age, gender, and body mass index as covariates, while stratified based on frailty status. According to the Fried frailty index, 47% of PAD and 50% of control participants were non-frail and the rest were classified as pre-frail. Within non-frail participants, gait speed, body sway during walking, stride length, gait cycle time, double-support, knee range of motion, speed variability, mid-swing speed, and gait initiation were significantly different between PAD and control groups (effect size d = 0.75 +/- 0.43). In the pre-frail group, however, most of the gait differences were diminished except for gait initiation and gait variability. Results suggest that gait initiation is the most sensitive parameter for detecting gait impairment in PAD participants when compared to controls, regardless of frailty status (d = 1.30-1.41; p<0.050)."

According to the news editors, the research concluded: "The observed interaction effect between frailty and PAD on gait parameters confirms the importance of assessing functionality in addition to age to provide more consistency in detecting motor performance impairments due to PAD."

For more information on this research see: Alterations in gait parameters with peripheral artery disease: The importance of pre-frailty as a confounding variable. Vascular Medicine, 2016;21(6):520-527. Vascular Medicine can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England. (Sage Publications - www.sagepub.com/; Vascular Medicine - vmj.sagepub.com)

Our news journalists report that additional information may be obtained by contacting B. Najafi, Baylor College of Medicine, Interdisciplinary Consortium Adv Mot Performance, Div Vase Surg & Endovasc Therapy, Michael DeBakey Dept. of Surg, Houston, TX, United States. Additional authors for this research include H. Stocker, R. Thiede, J. Mohler,
Researchers from Beaujon Hospital Detail New Studies and Findings in the Area of Escherichia coli (Prospective Cohort Study of the Relative Abundance of Extended-Spectrum-Beta-Lactamase-Producing Escherichia coli in the Gut of Patients Admitted ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Escherichia coli have been published. According to news reporting originating in Clichy, France, by NewsRx journalists, research stated, "A total of 458 patients were prospectively included at hospital admission and screened for extended-spectrum-beta-lactamase-producing (ESBL) Escherichia coli carriage in 2007 and in 2010 to 2012."

The news reporters obtained a quote from the research from Beaujon Hospital, "A 4-fold increase in ESBL carriage (3% to 12%), a 5-fold increase in numbers of community patients among ESBL carriers, and a higher number of multiple ESBL strains was found in the 2010 to 2012 period. ESBL E. coli represented the dominant E. coli strain (relative abundance, >50%) in 10/32 (31%) of ESBL carriers."

According to the news reporters, the research concluded: "This represents a major threat in terms of infectious risk and dissemination."

For more information on this research see: Prospective Cohort Study of the Relative Abundance of Extended-Spectrum-Beta-Lactamase-Producing Escherichia coli in the Gut of Patients Admitted to Hospitals. Antimicrobial Agents and Chemotherapy, 2016;60(11):6941-6944. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting V. de Lastours, Hopital Beaujon, AP HP, Serv Med Interne, Clichy, France. Additional authors for this research include D. Chopin, H. Jacquier, C. d'Humieres, C. Burdet, F. Chau, E. Denamur and B. Fantin.

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Keywords for this news article include: Clichy, France, Europe, Gram-Negative Bacteria, Enzymes and Coenzymes, Gammaproteobacteria, Enterobacteriaceae, Escherichia coli, Escherichia Coli, Proteobacteria, Lactamase, Beaujon Hospital.
Researchers from Beckman Research Institute Detail Findings in Prostate Cancer (High-Throughput Screen for Inhibitors of Androgen Receptor-RUNX2 Transcriptional Regulation in Prostate Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Prostate Cancer have been presented. According to news originating from Duarte, California, by NewsRx correspondents, research stated, "Runt-related transcription factor 2 (RUNX2) plays a critical role in prostate cancer progression. RUNX2 interacts with the androgen receptor (AR) and modulates its transcriptional activity in a locus-specific manner."

Our news journalists obtained a quote from the research from Beckman Research Institute, "RUNX2 and AR synergistically stimulate a subset of genes, including the pro-oncogene snail family zinc finger 2 (SNAI2). AR-RUNX2 signaling cooperatively induces invasiveness of prostate cancer cells via SNAI2; and coexpression of AR, RUNX2, and SNAI2 in prostate cancer biopsy samples predicts disease recurrence. Competitive inhibition of AR alone could not disrupt the synergistic activation of SNAI2. We therefore established a phenotypic cell-based screening assay for compounds that could inhibit AR-RUNX2 synergistic activity either directly or indirectly. This assay was used to screen 880 compounds as a proof of concept, resulting in identification of several compounds that disrupted the synergistic stimulation of genes. Further investigation suggested the involvement of epidermal growth factor receptor (EGFR) signaling in AR/RUNX2 synergistic activity."

According to the news editors, the research concluded: "Our assay is amenable to high-throughput screening and can be used to identify inhibitors of the AR-RUNX2 interaction in prostate cancer cells."

For more information on this research see: High-Throughput Screen for Inhibitors of Androgen Receptor-RUNX2 Transcriptional Regulation in Prostate Cancer. *Journal of Pharmacology and Experimental Therapeutics*, 2016;359(2):256-261. *Journal of Pharmacology and Experimental Therapeutics* can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

The news correspondents report that additional information may be obtained from J.O. Jones, City Hope Natl Med Center, Beckman Res Inst, Duarte, CA, United States. Additional authors for this research include B.Y. Tew, G.H. Little, B. Frenkel and J.O. Jones.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.234567. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Duarte, California, United States, North and Central America, Proteins, Diagnostics and Screening, Transcription Factors, DNA-Binding Proteins, Prostatic Neoplasms, Androgen Receptors, Steroid Receptors, Prostate Cancer, Oncology, Genetics, Beckman Research Institute.

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Researchers from Beijing Normal University Detail New Studies and Findings in the Area of Neuroimaging (Effects of craving behavioral intervention on neural substrates of cue-induced craving in Internet gaming disorder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Medical Imaging - Neuroimaging have been presented. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Internet gaming disorder (IGD) is characterized by high levels of craving for online gaming and related cues. Since addiction-related cues can evoke increased activation in brain areas involved in motivational and reward processing and may engender gaming behaviors or trigger relapse, ameliorating cue-induced craving may be a promising target for interventions for IGD."

Our news journalists obtained a quote from the research from Beijing Normal University, "This study compared neural activation between 40 IGD and 19 healthy control (HC) subjects during an Internet-gaming cue-reactivity task and found that IGD subjects showed stronger activation in multiple brain areas, including the dorsal striatum, brainstem, substantia nigra, and anterior cingulate cortex, but lower activation in the posterior insula. Furthermore, twenty-three IGD subjects (CBI+ group) participated in a craving behavioral intervention (CBI) group therapy, whereas the remaining 17 IGD subjects (CBI-group) did not receive any intervention, and all IGD subjects were scanned during similar time intervals. The CBI+ group showed decreased IGD severity and cue-induced craving, enhanced activation in the anterior insula and decreased insular connectivity with the lingual gyrus and precuneus after receiving CBI."

According to the news editors, the research concluded: "These findings suggest that CBI is effective in reducing craving and severity in IGD, and it may exert its effects by altering insula activation and its connectivity with regions involved in visual processing and attention bias."


The news correspondents report that additional information may be obtained from X.Y. Fang, Beijing Normal University, Inst Dev Psychol, Beijing 100875, People's Republic of China. Additional authors for this research include Y.W. Yao, M.N. Potenza, C.C. Xia, J. Lan, L. Liu, L.J. Wang, B. Liu, S.S. Ma and X.Y. Fang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.09.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Neuroimaging, Medical Imaging, Beijing Normal University.

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Researchers from Ben-Gurion University of the Negev Detail New Studies and Findings in the Area of Cardiovascular Diseases (Novel Compounds Targeting the Mitochondrial Protein VDAC1 Inhibit Apoptosis and Protect against Mitochondrial Dysfunction)

According to news reporting out of Beer Sheva, Israel, by NewsRx editors, research stated, "Apoptosis is thought to play a critical role in several pathological processes, such as neurodegenerative diseases (i.e. Parkinson's and Alzheimer's diseases) and various cardiovascular diseases."

Our news journalists obtained a quote from the research from the Ben-Gurion University of the Negev, "Despite the fact that apoptotic mechanisms are well defined, there is still no substantial therapeutic strategy to stop or even slow this process. Thus, there is an unmet need for therapeutic agents that are able to block or slow apoptosis in neurodegenerative and cardiovascular diseases. The outer mitochondrial membrane protein voltage-dependent anion channel 1 (VDAC1) is a convergence point for a variety of cell survival and death signals, including apoptosis. Recently, we demonstrated that VDAC1 oligomerization is involved in mitochondrion-mediated apoptosis. Thus, VDAC1 oligomerization represents a prime target for agents designed to modulate apoptosis. Here, high-throughput compound screening and medicinal chemistry were employed to develop compounds that directly interact with VDAC1 and prevent VDAC1 oligomerization, concomitant with an inhibition of apoptosis as induced by various means and in various cell lines. The compounds protected against apoptosis-associated mitochondrial dysfunction, restoring dissipated mitochondrial membrane potential, and thus cell energy and metabolism, decreasing reactive oxidative species production, and preventing detachment of hexokinase bound to mitochondria and disruption of intracellular Ca2+ levels. Thus, this study describes novel drug candidates with a defined mechanism of action that involves inhibition of VDAC1 oligomerization, apoptosis, and mitochondrial dysfunction."

According to the news editors, the research concluded: "The compounds VBIT-3 and VBIT-4 offer a therapeutic strategy for treating different diseases associated with enhanced apoptosis and point to VDAC1 as a promising target for therapeutic intervention."


Our news journalists report that additional information may be obtained by contacting V. Shoshan-Barmatz, Ben Gurion University of the Negev, Natl Inst Biotechnol Negev, IL-84105 Beer Sheva, Israel. Additional authors for this research include R. Begas-Shvartz, M. Shalev, A. Shteinfer-Kuzmine, A. Gruzman, S. Reina, V. De Pinto and V. Shoshan-Barmatz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.744284. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from Bhabha Atomic Research Center Report Recent Findings in Cardiology (Ga-68 labeled fatty acids for cardiac metabolic imaging: Influence of different bifunctional chelators)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiology is now available. According to news reporting originating from Maharashtra, India, by NewsRx correspondents, research stated, "Development of Ga-68 labeled fatty acids is of immense interest due to the availability of Ga-68 through a generator and its superiority over SPECT based tracers in carrying out dynamic imaging on a PET scanner. Our present work explores the influence of different chelators on the cardiac uptake and pharmacokinetics of the Ga-68-labeled fatty acids."

Our news editors obtained a quote from the research from Bhabha Atomic Research Center, "Two new Ga-68 labeled fatty acids were synthesized by conjugation of 11-aminoundecanoic acid with the bifunctional chelators (BFCs) viz. p-SCN-Bn-DTPA (S-2-(4-isothiocyanatobenzyl)- diethylenetriaminepentaacetic acid) and p-SCN-Bn-NODAGA (S-2-(4-isothiocyanatobenzyl)-1,4,7-triazacyclononane-1-glu taric acid-4,7-acetic acid) and their comparison was carried out with the previously reported Ga-68-NOTA-undecanoic acid. Both the conjugates were radiolabeled with Ga-68 in high yields and purities (> 95%). Their formation was established by preparation and characterization of their inactive analogs with natGa at macroscopic levels. Biodistribution studies of the complexes in Swiss mice showed lower initial myocardial uptake for Ga-68-NODAGA-undecanoic acid (3.8 +/- 0.6% ID/g) and Ga-68-DTPA-undecanoic acid (1.3 +/- 0.5% ID/g) complexes in comparison to previously reported Ga-68-NOTA-undecanoic acid complex (7.4 +/- 0.6% ID/g) complexes in comparison to previously reported Ga-68-NOTA-undecanoic acid complex (7.4 +/- 2.8% ID/g) at 2 min p.i. However, significant retention of the tracer in the myocardium was observed in the case of Ga-68-NODAGA-undecanoic complex, which led to improved heart/non-target ratios of the complex over time in comparison to the other Ga-68 complexes. Similarly, the DTPA complex exhibited increased washout from the liver in comparison to other Ga-68 derivatives. The beta oxidation mechanism in myocytes was investigated by isolating the myocardial extract post intravenous injection of the respective Ga-68 complexes and analyzing them by radio-HPLC, which showed metabolic transformation of the parent fatty acid complex peak in all the three complexes."

According to the news editors, the research concluded: "This study has provided an insight into the design characteristics of Ga-68 labeled fatty acids to achieve the desired myocardial imaging characteristics."


The news editors report that additional information may be obtained by contacting A.
Researchers from Biomedical Center Report New Studies and Findings in the Area of Oxalates (Massive excretion of calcium oxalate from late prepupal salivary glands of Drosophila melanogaster demonstrates active nephridial-like anion transport)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oxalates have been published. According to news reporting from Bratislava, Slovakia, by NewsRx journalists, research stated, "The Drosophila salivary glands (SGs) were well known for the puffing patterns of their polytene chromosomes and so became a tissue of choice to study sequential gene activation by the steroid hormone ecdysone. One well-documented function of these glands is to produce a secretory glue, which is released during pupariation to fix the freshly formed puparia to the substrate."

Funders for this research include Grantova Agentura Ceske Republiky, UNCE, OPPK Grant, BIOCEV, Prvouk/LF1/1, Vedecka Grantova Agentura MŠVVaŠ SR a SAV, EEA-Norwegian FM. The news correspondents obtained a quote from the research from Biomedical Center, "Over the past two decades SGs have been used to address specific aspects of developmentally-regulated programmed cell death (PCD) as it was thought that they are doomed for histolysis and after pupariation are just awaiting their fate. More recently, however, we have shown that for the first 3-4 h after pupariation SGs undergo tremendous endocytosis and vacuolation followed by vacuole neutralization and membrane consolidation. Furthermore, from 8 to 10 h after puparium formation (APF) SGs display massive apocrine secretion of a diverse set of cellular proteins. Here, we show that during the period from 11 to 12 h APF, the prepupal glands are very active in calcium oxalate (CaOx) extrusion that resembles renal or nephridial excretory activity. We provide genetic evidence that Prestin, a Drosophila homologue of the mammalian electrogenic anion exchange carrier SLC26A5, is responsible for the instantaneous production of CaOx by the late prepupal SGs. Its positive regulation by the protein kinases encoded by fray and wnk lead to increased production of CaOx. The formation of CaOx appears to be dependent on the cooperation between Prestin and the vATPase complex as treatment with bafilomycin A(1) or concanamycin A abolishes the production of detectable CaOx."

According to the news reporters, the research concluded: "These data demonstrate that prepupal SGs remain fully viable, physiologically active and engaged in various cellular activities at least until early pupal period, that is, until moments prior to the execution of PCD."

Researchers from Biotechnology Institute Report New Studies and Findings in the Area of Chemotherapy (Characterization of Two Multidrug-Resistant IncA/C Plasmids from the 1960s by Using the MinION Sequencer Device)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemotherapy. According to news originating from Godollo, Hungary, by NewsRx correspondents, research stated, "Two A/C incompatibility group (IncA/C family) plasmids from the 1960s have been sequenced and classified into the A/C2 type 1 group. R16a and IP40a contain novel antibiotic resistance islands and a complete GIsul2 genomic island not previously found in the family."

Financial support for this research came from Orszagos Tudomanyos Kutatasi Alapprogramok (OTKA).

Our news journalists obtained a quote from the research from Biotechnology Institute, "In the 173.1-kb R16a, the 29.9-kb antibiotic resistance island (ARI) is located in a unique backbone position not utilized by ARIs. ARI(R16a) consists of Tn1, Tn6020, and Tn6333, harboring the resistance genes bla(TEM-1D) and aphA1b and a mer module, respectively; a truncated Tn5393 copy; and a gene cluster with unknown function. Plasmid IP40a is 170.4 kb in size and contains a 5.6-kb ARI inserted into the kfrA gene. ARI(IP40a) carrying blaTEM-1D and aphA1b genes is composed of Tn1 with a Tn6023 insertion. Additionally, IP40a harbors single IS2, IS186, and Tn1000 insertions scattered in the backbone; an IS150 copy in GIsul2; and a complete Tn6333 carrying a mer module at the position of ARI (R16a). Loss of resistance markers in R16a, IP40a, and R55 was observed during stability tests. Every phenotypic change proved to be the result of recombination events involving mobile elements. Intramolecular transposition of IS copies that generated IP40a derivatives lacking large parts of the backbone could account for the formation of other family members, too. The MinION platform proved to be a valuable tool in bacterial genome sequencing since it generates long reads that span repetitive elements and facilitates full-length plasmid or chromosome assembly."

According to the news editors, the research concluded: "Nanopore technology enables rapid characterization of large, low-copy-number plasmids and their rearrangement products."
Researchers from Brigham and Women's Hospital Describe Findings in Heart Attack (Effect of stimulus type and temperature on EEG reactivity in cardiac arrest)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Electroencephalogram (EEG) background reactivity is a reliable outcome predictor in cardiac arrest patients post therapeutic hypothermia. However, there is no consensus on modality testing and prior studies reveal only fair to moderate agreement rates."

Funders for this research include NINDS, UCB, Duke Clinical Research Institute, Sunovion, Inc, American Academy of Neurology, The American Brain Foundation, Bristol-Myers Squibb, Daiichi-Sankyo, GlaxoSmithKline, Johnson and Johnson, Bayer HealthCare, Gilead, Eisai, Merck, Lexicon, St. Jude’s Medical, Boston Clinical Research Institute, University of Calgary, Forest Pharmaceuticals.

The news correspondents obtained a quote from the research from Brigham and Women's Hospital, "The aim of this study was to explore different stimulus modalities and report interrater agreements. We studied a multicenter, prospectively collected cohort of cardiac arrest patients who underwent therapeutic hypothermia between September 2014 and December 2015. We identified patients with reactivity data and evaluated interrater agreements of different stimulus modalities tested in hypothermia and normothermia. Of the 60 patients studied, agreement rates were moderate to substantial during hypothermia and fair to moderate during normothermia. Bilateral nipple pressure is more sensitive (80%) when compared to other modalities in eliciting a reactive background in hypothermia. Auditory, nasal tickle, nailbed pressure and nipple pressure reactivity were associated with good outcomes in both hypothermia and normothermia. EEG reactivity varies depending on the stimulus testing modality as well as the temperature during which stimulation is performed, with nipple pressure emerging as the most sensitive during hypothermia for reactivity and outcome determination."
According to the news reporters, the research concluded: "This highlights the importance of multiple stimulus testing modalities in EEG reactivity determination to reduce false negatives and optimize prognostication."


Our news journalists report that additional information may be obtained by contacting T.A. Fantaneanu, Brigham & Women's Hospital, Dept. of Neurol, Boston, MA 02115, United States. Additional authors for this research include B. Tolchin, V. Alvarez, R. Friolet, K. Avery, B.M. Scirica, M. O'Brien, G.V. Henderson and J.W. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinph.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Hypothermia, Diagnostics and Screening, Heart Disorders and Diseases, Cardiac Arrest, Heart Attack, Cardiology, Brigham and Women's Hospital.

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**Heart Disorders and Diseases - Hypertrophic…**

**Researchers from Brigham and Women’s Hospital Detail New Studies and Findings in the Area of Hypertrophic Cardiomyopathy (Evolution of hypertrophic cardiomyopathy in sarcomere mutation carriers)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Hypertrophic Cardiomyopathy have been published. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "The early natural history of sarcomere mutations and the evolution to hypertrophic cardiomyopathy (HCM) are poorly characterised. To describe phenotypic progression, we compared mutation carriers who developed HCM to those who did not during prospective longitudinal investigation."

Financial support for this research came from National Heart, Lung, and Blood Institute.

The news correspondents obtained a quote from the research from Brigham and Women's Hospital, "Sarcomere mutation carriers without baseline left ventricular hypertrophy (LVH) were studied during participation in a pilot clinical trial testing diltiazem versus placebo. 38 participants (mean +/- SD age 15.8 +/- 8.6 years) were followed for a median of 2.9 years (range 1.0-5.1 years) with imaging and biomarker analysis. 4 participants (mean baseline age 13.8 +/- 3.9 years) developed HCM and were compared to those without phenotypic progression. Participants who developed HCM were all children/adolescents and members of families with more highly penetrant mutations. At baseline, participants who developed HCM had a higher left ventricular (LV) ejection fraction (74 +/- 2% vs 69 +/- 1%, p= 0.02), lower global E0 velocity (11.2 +/- 0.5 vs 14.8 +/- 0.4 cm/s, p<0.0001), higher N terminal pro peptide of B-type natriuretic peptide (NT-proBNP) values (208 +/- 72 vs 57 +/- 13 pg/mL, p=0.04),
longer posterior mitral leaflets, and more prevalent ECG abnormalities. During followup, these parameters and cardiac troponin values continued to diverge in participants who developed HCM, although LV wall thickness stabilised. LV relaxation, ECG changes, mitral leaflet length, and serum NT-proBNP concentrations appeared more prominently abnormal at baseline in preclinical sarcomere mutation carriers who imminently progressed to HCM. LVH appears to stabilise within 2 years of onset."

According to the news reporters, the research concluded: "Further investigation is needed to improve our understanding of the evolution of this disease."

For more information on this research see: Evolution of hypertrophic cardiomyopathy in sarcomere mutation carriers. Heart, 2016;102(22):1805-1812. Heart can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Heart - heart.bmj.com/)

Our news journalists report that additional information may be obtained by contacting C.Y. Ho, Brigham & Women's Hospital, Div Cardiovasc, Boston, MA 02115, United States. Additional authors for this research include A.L. Cirino, N.K. Lakdawala, J. Groarke, A.M. Valente, C. Semsarian, S.D. Colan and E.J. Orav.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/heartjnl-2016-310015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Hypertrophic Cardiomyopathy, Cardiomyopathies, Heart Disease, Cardiology, Genetics, Brigham and Women's Hospital.

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Drug Development

Researchers from Bristol-Myers Squibb Discuss Findings in Drug Development (Improving Drug Design: An Update on Recent Applications of Efficiency Metrics, Strategies forReplacing Problematic Elements, and Compounds in Nontraditional Drug Space)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drug Development have been published. According to news reporting out of Wallingford, Connecticut, by NewsRx editors, the research stated, "Drug discovery and development is a complex and lengthy enterprise that suffers from high rates of candidate attrition at all stages of the process. The physical, biological, and toxicological properties of a drug candidate are inextricably linked to its structure, and once a molecule has been synthesized, all subsequent studies along the development path are focused only on assessing and understanding its properties in greater detail."

Our news journalists obtained a quote from the research from Bristol-Myers Squibb, "Unfortunately, a full prediction of the biological properties of a molecule from an analysis of its 2-or 3-dimensional structure is currently beyond our expertise. This backdrop mandates that considerable care be taken at the design stage if a molecule is to be successful in testing a mechanistic concept underlying a disease process and to progress into late stage clinical trials and, ultimately, marketing approval. While there are multiple potential causes of candidate
attrition, an introspective analysis of drug design practices over the past decade has focused attention on the perception that contemporary molecules are unnecessarily obese, burdened by high molecular weight and excessive lipophilicity. This practice is believed to have its roots in the singular pursuit of enhancing potency during lead optimization rather than adopting a more holistic approach to drug design that gives broader consideration to how structural features affect developability properties. In an effort to provide the medicinal chemistry community with practical guideposts to enhancing compound quality in the drug design phase and which can readily be applied, a series of efficiency indices have been proposed that attempt to define aspects of compound quality in the context of a series of physicochemical parameters. Of these metrics, lipophilic ligand efficiency (LLE or LipE), which provides an index of the dependence of the potency of a molecule on its intrinsic lipophilicity, has been characterized as the most robust metric that has potential for broad-based application. In this review, after describing the background literature behind the derivation of efficiency metrics and approaches to assessing compound aesthetics, synopses of some recent practical application in lead optimization campaigns are presented. However, molecules that fall into space beyond that associated with traditional drug-like properties are an important part of the current and future landscape, exemplified by the summary of direct acting hepatitis C virus NS3 and NS5A inhibitors that have transformed clinical therapy for this chronic disease."

According to the news editors, the research concluded: "While drug development in nontraditional drug-like space is more challenging and the rules for compound quality will be different with much still to be understood, careful and disciplined drug design practices will be an essential element of success."


Our news journalists report that additional information may be obtained by contacting N.A. Meanwell, Dept. of Discovery Chemistry, Bristol-Myers Squibb Research & Development, Wallingford, Connecticut 06492, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.chemrestox.6b00043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wallingford, Connecticut, United States, Article Review, Drug Development, Drugs and Therapies, North and Central America.

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Drugs and Therapies - Toxicology and Applied Pharmacology

Researchers from Bristol-Myers Squibb Report Details of New Studies and Findings in the Area of Toxicology and Applied Pharmacology (MicroRNA as biomarkers of mitochondrial toxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Toxicology and Applied Pharmacology have been presented. According to news reporting from Mount Vernon, Iowa, by
NewsRx journalists, research stated, "Mitochondrial toxicity can be difficult to detect as most cells can tolerate reduced activity as long as minimal capacity for function is maintained. However, once minimal capacity is lost, apoptosis or necrosis occurs quickly."

The news correspondents obtained a quote from the research from Bristol-Myers Squibb, "Identification of more sensitive, early markers of mitochondrial toxicity was the objective of this work. Rotenone, a mitochondrial complex I inhibitor, and 3-nitropropionic acid (3-NP), a mitochondrial complex II inhibitor, were administered daily to male Sprague-Dawley rats at subcutaneous doses of 0.1 or 0.3 mg/kg/day and intraperitoneal doses of 5 or 10 mg/kg/day, respectively, for 1 week. Samples of kidney, skeletal muscle (quadriceps femoris), and serum were collected for analysis of mitochondrial DNA (mtDNA) copy number and microRNA (miRNA) expression patterns. MtDNA was significantly decreased with administration of rotenone at 03 mg/kg/day and 3-NP at 5 and 10 mg/kg/day in the quadriceps femoris and with 3-NP at 10 mg/kg/day in the kidney. Additionally, rotenone and 3-NP treatment produced changes to miRNA expression that were similar in direction (i.e. upregulation, downregulation) to those previously linked to mitochondrial functions, such as mitochondrial damage and biogenesis (miR-122, miR-202-3p); regulation of ATP synthesis, abolished oxidative phosphorylation, and loss of membrane potential due to increased reactive oxygen species (ROS) production (miR-338-5p, miR-546, miR-34c); and mitochondrial DNA damage and depletion (miR-546)."

According to the news reporters, the research concluded: "These results suggest that miRNAs may be sensitive biomarkers for early detection of mitochondrial toxicity."

For more information on this research see: MicroRNA as biomarkers of mitochondrial toxicity. Toxicology and Applied Pharmacology, 2016;312():26-33. Toxicology and Applied Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Toxicology and Applied Pharmacology - www.journals.elsevier.com/toxicology-and-applied-pharmacology/)

Our news journalists report that additional information may be obtained by contacting B.R. Baumgart, Bristol Myers Squibb, Dept. of Toxicol, Drug Safety Evaluat, Mt Vernon, IA 47620, United States. Additional authors for this research include K.L. Gray, J. Woicke, R.T. Bunch, T.P. Sanderson and T.R. Van Vleet. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2015.10.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mount Vernon, Iowa, United States, North and Central America, Toxicology and Applied Pharmacology, Drugs and Therapies, Genetics, Bristol-Myers Squibb.

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Membrane Proteins - Immunologic Receptors

Researchers from British Columbia Cancer Research Center Report Findings in Immunologic Receptors (Oncofetal Chondroitin Sulfate Glycosaminoglycans Are Key Players in Integrin Signaling and Tumor Cell Motility)
A new study on Membrane Proteins - Immunologic Receptors is now available. According to news reporting originating in Vancouver, Canada, by NewsRx journalists, research stated, "Many tumors express proteoglycans modified with oncofetal chondroitin sulfate glycosaminoglycan chains (ofCS), which are normally restricted to the placenta. However, the role of ofCS in cancer is largely unknown."

The news reporters obtained a quote from the research from British Columbia Cancer Research Center, "The function of ofCS in cancer was analyzed using the recombinant ofCS-binding VAR2CSA protein (rVAR2) derived from the malaria parasite, Plasmodium falciparum. We demonstrate that ofCS plays a key role in tumor cell motility by affecting canonical integrin signaling pathways. Binding of rVAR2 to tumor cells inhibited the interaction of cells with extracellular matrix (ECM) components, which correlated with decreased phosphorylation of Src kinase. Moreover, rVAR2 binding decreased migration, invasion, and anchorage-independent growth of tumor cells in vitro. Mass spectrometry of ofCS-modified proteoglycan complexes affinity purified from tumor cell lines on rVAR2 columns revealed an overrepresentation of proteins involved in cell motility and integrin signaling, such as integrin-beta 1 (ITGB1) and integrin-alpha 4 (ITGA4). Saturating concentrations of rVAR2 inhibited downstream integrin signaling, which was mimicked by knockdown of the core chondroitin sulfate synthesis enzymes beta-1,3-glucuronyltransferase 1 (B3GAT1) and chondroitin sulfate N-acetylgalactosaminyltransferase 1 (CSGALNACT1). The ofCS modification was highly expressed in both human and murine metastatic lesions in situ and preincubation or early intravenous treatment of tumor cells with rVAR2 inhibited seeding and spreading of tumor cells in mice. This was associated with a significant increase in survival of the animals."

According to the news reporters, the research concluded: "These data functionally link ofCS modifications with cancer cell motility and further highlights ofCS as a novel therapeutic cancer target."

For more information on this research see: Oncofetal Chondroitin Sulfate Glycosaminoglycans Are Key Players in Integrin Signaling and Tumor Cell Motility. Molecular Cancer Research, 2016;14(12):1288-1299. Molecular Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Molecular Cancer Research - mcr.aacrjournals.org/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1541-7786.MCR-16-0103. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Immunologic Receptors, Membrane Proteins, Cell Motility, Integrins, British Columbia Cancer Research Center.

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Researchers from Brock University Describe Findings in Spinal Cord Injury (Non-invasive electrocardiographic assessments of cardiac autonomic modulation in individuals with spinal cord injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Spinal Cord Injury are discussed in a new report. According to news originating from St. Catharines, Canada, by NewsRx correspondents, research stated, "Review. The purpose of this review is to discuss the utility of linear and non-linear heart rate variability (HRV) as well as the QT-variability index (QTVI) as indices of cardiac autonomic control in individuals with spinal cord injury (SCI)."

Our news journalists obtained a quote from the research from Brock University, "Brock University, Department of Kinesiology, St Catharines, Ontario, Canada. Brock-Niagara Centre for Health and Well-being, St Catharines, Ontario, Canada. Literature review. Non-invasive markers determined from the electrocardiogram, such as linear and non-linear HRV, and, more recently, the QTVI have all shown some promise as indices of cardiac autonomic regulation in the SCI population. However, there are inconsistencies in the literature that call to question their true validity in this regard. Studies using pharmacological blockade, sympathetic manoeuvres and exercise suggest that both linear and non-linear HRV reflect cardiac parasympathetic activity, whereas their ability to quantify cardiac sympathetic outflow remains uncertain."

According to the news editors, the research concluded: "The QTVI, although a novel method, correlates with both limbs of the autonomic nervous system and therefore may hold value as a measure of both cardiac sympathetic and parasympathetic activity in individuals with SCI; however, more research is required to confirm its utility."


The news correspondents report that additional information may be obtained from H. Sharif, Dept. of Kinesiology, Brock University, St Catharines, Ontario, Canada. Additional authors for this research include P.J. Millar, A.V. Incognito and D.S Ditor.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/sc.2015.207. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal Spinal Cord is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Canada, Ontario, Cardiology, St. Catharines, Article Review, Spinal Cord Injuries, Nervous System Trauma, North and Central America, Central Nervous System Diseases and Conditions.

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Researchers from Brussels Free University Describe Findings in Tuberculosis (Effects of Lipid-Lowering Drugs on Vancomycin Susceptibility of Mycobacteria)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Mycobacterium Infections - Tuberculosis. According to news reporting out of Brussels, Belgium, by NewsRx editors, research stated, "Tuberculosis is still a cause of major concern, partly due to the emergence of multidrug-resistant strains. New drugs are therefore needed."

Our news journalists obtained a quote from the research from Brussels Free University, "Vancomycin can target mycobacteria with cell envelope deficiency. In this study, we used a vancomycin susceptibility assay to detect drugs hampering lipid synthesis in Mycobacterium bovis BCG and in Mycobacterium tuberculosis. We tested three drugs already used to treat human obesity: tetrahydrolipstatin (THL), simvastatin, and fenofibrate. Only vancomycin and THL were able to synergize on M. bovis BCG and on M. tuberculosis, although mycobacteria could also be inhibited by simvastatin alone. Lipid analysis allowed us to identify several lipid modifications in M. tuberculosis H37Rv treated with those drugs. THL treatment mainly reduced the phthiocerol dimycocerosate (PDIM) content in the mycobacterial cell wall, providing an explanation for the synergy, since PDIM deficiency has been related to vancomycin susceptibility. Proteomic analysis suggested that bacteria treated with THL, in contrast to bacteria treated with simvastatin, tried to recover, inducing, among other reactions, lipid synthesis."

According to the news editors, the research concluded: "The combination of THL and vancomycin should be considered a promising solution in developing new strategies to treat multidrug-resistant tuberculosis."


Our news journalists report that additional information may be obtained by contacting V. Fontaine, Brussels Free University, Unit Pharmaceut Microbiol & Hyg, Brussels, Belgium. Additional authors for this research include F. Laval, M. Daffe, O. Denis, R. Frita, A. Baulard, R. Wattiez, P. Lefevre and V. Fontaine.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00872-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Mycobacterium Tuberculosis, Actinomycetales Infections, Antihyperlipidemic Agents, Glycopeptide Antibiotics, Mycobacterium Infections, Gram-Positive Bacteria, Drugs and Therapies, Simvastatin Therapy, Pharmaceuticals, Antiinfectives, Glycopeptides, Mycobacteria, Vancomycin, Peptides, Brussels Free University.

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Researchers from Brussels Free University Report on Findings in Kidney Function (Chronic kidney disease as major determinant of the renal risk related to on-pump cardiac surgery: a single-center cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gastroenterology - Kidney Function is now available. According to news reporting originating from Brussels, Belgium, by NewsRx correspondents, research stated, "Cardiac surgery-associated acute kidney injury (CSA-AKI) is a common complication and is associated with the poorest outcomes. Therefore, early prediction of CSA-AKI remains a major issue."

Our news editors obtained a quote from the research from Brussels Free University, "Severity scores such as the STS score could estimate the risk of AKI preoperatively. The main objective of this study was to evaluate the risk factors of on-pump CSA-AKI and to assess the performance of the STS score in order to predict CSA-AKI. We identified 252 patients with on-pump cardiac surgery, and the STS score was defined retrospectively. AKI occurred in 14.6% (n = 37/252) of patients and renal replacement therapy was required in 21.6% of AKI (n = 8/37). CSA-AKI was associated with 35.1% in-hospital mortality (vs. 1.4%) and nearly doubled length of stay (14.5 vs. 8.0 d). The risk of CSA-AKI was mainly determined by preoperative morbidities such as chronic kidney disease, peripheral vascular disease, and severe congestive heart failure. Long cardio-pulmonary bypass time was also a determinant. CSA-AKI+patients exhibited higher STS renal risk (5.6% vs. 2.0%; p< 0.0001), resulting in a good discrimination between AKI+and AKI- patients (area under curve [AUC] 0.80). Interestingly, a basal renal function <= 55 ml/ min/ 1.73m(2) was as good as the STS score to predict CSA-AKI (AUC 0.75; P 0.26). On-pump CSA-AKI was observed in nearly 15% of cases and was associated with poorer outcomes."

According to the news editors, the research concluded: "Interestingly, the risk of CSA-AKI could be estimated preoperatively, thanks to the basal renal function, which exhibited an equal performance to the STS score."


The news editors report that additional information may be obtained by contacting J.M. Hougardy, Brussels Free University, Hopital Erasme, Dept. of Nephrol, B-1070 Brussels, Belgium. Additional authors for this research include P. Revercez, A. Pourcelet, B. El Oumeiri, J. Racape, A. Le Moine, F. Vanden Eynden and D. De Backer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/00015458.2016.1156929. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Cardiac Surgery, Risk and Prevention, Gastroenterology, Kidney Function, Renal Function, Cardiology, Nephrology, Brussels Free University.

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Researchers from Cancer Hospital Describe Findings in Pancreaticoduodenectomy (Widespread lymph node recurrence of major duodenal papilla cancer following pancreaticoduodenectomy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Surgery - Pancreaticoduodenectomy. According to news reporting originating in Chengdu, People's Republic of China, by NewsRx journalists, research stated, "Major duodenal papilla cancer (MDPC) represents the primary type of duodenal cancer, and is typically considered a periampullary carcinoma as most tumors arise in this region. This report describes an extremely rare case involving a patient with rapidly and extensively recurrent MDPC following pancreaticoduodenectomy, who achieved complete response by concurrent image-guided radiation and intravenous oxaliplatin plus oral capecitabine therapies."

The news reporters obtained a quote from the research from Cancer Hospital, "The patient was a 50-year-old female who was admitted to our hospital 6 wk after resection for MDPC for evaluation of a nontender and enlarged node in the left side of her neck. After clinical work-up, the patient was diagnosed with postoperatively recurrent MDPC with widespread lymph node metastases at the bilateral cervix, mediastinum, abdominal cavity, and retroperitoneal area. She was administered whole field image-guided radiation therapy along with four cycles of the intravenous oxaliplatin plus oral capecitabine regimen. A complete response by positron emission tomography with 18-fluorodeoxyglucose was observed 4 months after treatment."

According to the news reporters, the research concluded: "The patient continues to be disease-free 2 years after the diagnosis of recurrence."


Our news correspondents report that additional information may be obtained by contacting B.S. Li, Bai-Sen Li, Ming-Yong Xiao, Jian Wang, Dept. of Radiation Oncology, Sichuan Cancer Hospital and Institute, Chengdu 610041, Sichuan Province, People's Republic of China. Additional authors for this research include H. Shi, M. Wen, M.Y. Xiao and J. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v21.i48.13593. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Chengdu, Surgery, Oncology, Immunology, Lymph Nodes, Lymphoid Tissue, Gastroenterology, Pancreaticoduodenectomy, Hemic and Immune Systems, People's Republic of China.

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Researchers from Cancer Institute Detail New Studies and Findings in the Area of Lung Cancer (Lung cancer biomarkers, targeted therapies and clinical assays)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lung Cancer. According to news reporting originating in Charlotte, North Carolina, by NewsRx journalists, research stated, "Until recently, the majority of genomic cancer research has been in discovery and validation; however, as our knowledge of tumor molecular profiling improves, the idea of genomic application in the clinic becomes increasingly tangible, paralleled with the drug development of newer targeted therapies. A number of profiling methodologies exist to identify biomarkers found within the patient (germ-line DNA) and tumor (somatic DNA)."

The news reporters obtained a quote from the research from Cancer Institute, "Subsequently, commercially available clinical assays to test for both germ-line and somatic alterations that are prognostic and/or predictive of disease outcome, toxicity or treatment response have significantly increased. This review aims to summarize clinically relevant cancer biomarkers that serve as targets for therapy and their potential relationship to lung cancer."

According to the news reporters, the research concluded: "In order to realize the full potential of genomic cancer medicine, it is imperative that clinicians understand these intricate molecular pathways, the therapeutic implication of mutations within these pathways, and the availability of clinical assays to identify such biomarkers."


Our news correspondents report that additional information may be obtained by contacting J.N. Patel, Levine Cancer Institute, Carolinas HealthCare System, Charlotte, NC, United States. Additional authors for this research include J.L. Ersek and E.S Kim.

Keywords for this news article include: Genetics, Oncology, Charlotte, Lung Cancer, United States, North Carolina, Article Review, Lung Neoplasms, North and Central America, Diagnostics and Screening.

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Researchers from Capital Medical University Provide Details of New Studies and Findings in the Area of HIV/AIDS and Cytomegalovirus (Frosted branch angiitis in an AIDS patient with cytomegalovirus retinitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Opportunistic Infections - HIV/AIDS and Cytomegalovirus. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "A case of frosted branch angiitis in an AIDS patient with cytomegalovirus (CMV) retinitis is reported."
The news reporters obtained a quote from the research from Capital Medical University. "The use of PCR techniques for CMV DNA detection in intraocular fluid was helpful in this situation."

According to the news reporters, the research concluded: "The appropriate therapy was given promptly due to the timely diagnosis based on this assay."


Our news correspondents report that additional information may be obtained by contacting H.Y. Sun, Capital Med Univ, Natl Clin Key Dept. of Infect Dis, Beijing DiTan Hosp, Beijing 100015, People's Republic of China. Additional authors for this research include J.H. Wu, H.Y. Sun, Q.S. You and D. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijid.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Herpesviruses and Conditions, Retinal Diseases and Conditions, HIV/AIDS and Cytomegalovirus, Eye Diseases and Conditions, Opportunistic Infections, Betaherpesvirinae, Herpesviridae, DNA Viruses, Vasculitis, Retinitis, Virology, Genetics, Viral, Capital Medical University.

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Researchers from Capital Medical University Report Findings in Hermansky-Pudlak Syndrome (NGS-based 100-gene panel of hypopigmentation identifies mutations in Chinese Hermansky-Pudlak syndrome patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Hermansky-Pudlak Syndrome. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Hermansky-Pudlak syndrome (HPS) is a rare recessive disorder characterized by hypopigmentation, bleeding diathesis, and other symptoms due to multiple defects in lysosome-related organelles. Ten HPS subtypes have been identified with mutations in HPS1 to HPS10."

Financial supporters for this research include National Natural Science Foundation of China, Natural Science Foundation of Beijing Municipality, Ministry of Science and Technology of the People's Republic of China.

The news correspondents obtained a quote from the research from Capital Medical University, "Only four patients with HPS-1 have been reported in Chinese population. Using next-generation sequencing (NGS), we have screened 100 hypopigmentation genes and identified four HPS-1, two HPS-3, one HPS-5, and three HPS-6 in Chinese HPS patients with
typical ocular or oculocutaneous albinism and the absence of platelet dense granules together with other variable phenotypes. All these patients except one homozygote were compound heterozygotes. Among these mutations, 14 were previously unreported alleles (four in HPS1, three in HPS3, two in HPS5, five in HPS6). Our results demonstrate the feasibility and utility of NGS-based panel diagnostics for HPS.

According to the news reporters, the research concluded: "Genotyping of HPS subtypes is a prerequisite for intervention of subtype-specific symptoms."


Our news journalists report that additional information may be obtained by contacting A.H. Wei, Capital Med Univ, Beijing Tongren Hosp, Dept. of Dermatol, Beijing, People's Republic of China. Additional authors for this research include Y.F. Yuan, D.Y. Bai, J. Ma, Z.H. Hao, Y.Z. Zhang, J.Y. Yu, Z.Y. Zhou, L. Yang, X.M. Yang, L. Li and W. Li.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Skin Diseases and Conditions, Hermansky-Pudlak Syndrome, Pigmentation Disorders, Hypopigmentation, Gastroenterology, Genetics, Capital Medical University.

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**Heart Disorders and Diseases - Heart Disease**

**Researchers from Capital Medical University Report New Studies and Findings in the Area of Heart Disease [Genetic Polymorphism of CYP2C19 and Inhibitory Effects of Ticagrelor and Clopidogrel Towards Post-Percutaneous Coronary Intervention (PCI) ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Disease have been published. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "The aim of this study was to observe the effects of genetic polymorphism of CYP2C19 on inhibitory effects of ticagrelor (Tic) and clopidogrel (Clo) towards post-percutaneous coronary intervention (PCI) platelet aggregation (IPA) and major cardiovascular events (MACE) in patients with acute coronary syndromes (ACS). From August 2013 to March 2014, 166 patients with ACS undergoing PCI were selected."

Our news journalists obtained a quote from the research from Capital Medical University. "The patients were randomly grouped into the Tic group and the Clo group. IPA was detected by thromboelastography (TEG) at 1 week after taking the pills. Genotyping of CYP2C19 gene was determined by analysis of gene sequence detection. Patients were followed up for 1 month and MACE was observed. The total IPA in the Clo group was significantly
increased compared with the Tic group (P <0.05). The IPAs in the 3 subgroups of Clo group were all significantly increased compared with the 3 subgroups of the Tic group (all P<0.05). MACE was not significantly different between Clo and Tic groups (P >0.05). MACE had no significant difference among the 3 subgroups of the Tic group (P >0.05). MACE in the low metabolism subgroup of the Clo group was significantly increased compared with the fast metabolism subgroup and middle metabolism subgroup of Clo group (P <0.05). MACE was not significant different between the fast metabolism subgroup and the middle metabolism subgroup of the Clo group (P >0.05). MACE in the low metabolism subgroup of the Tic group was significantly decreased compared with the low metabolism subgroup of the Clo group (P <0.05).

According to the news editors, the research concluded: "Ticagrelor has a better effect on inhibition platelet aggregation than Clopidogrel in ACS patients undergoing PCI."

For more information on this research see: Genetic Polymorphism of CYP2C19 and Inhibitory Effects of Ticagrelor and Clopidogrel Towards Post-Percutaneous Coronary Intervention (PCI) Platelet Aggregation in Patients with Acute Coronary Syndromes. Medical Science Monitor, 2016;22():4929-4936. Medical Science Monitor can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

Our news journalists report that additional information may be obtained by contacting X.C. Yang, Capital Med Univ, Chaoyang Hosp, Dept. of Cardiol, Beijing, People's Republic of China. Additional authors for this research include X.C. Yang and S.Y. Bian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.902120. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Percutaneous Coronary Intervention, Vascular Diseases and Conditions, Heart Disorders and Diseases, Acute Coronary Syndrome, Platelet Aggregation, Myocardial Ischemia, Heart Disease, Cardiology, Angiology, Genetics, Surgery, Capital Medical University.

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treatment of acute stroke. Search methods We searched the Cochrane Stroke Group Trials Register (accessed March 2016), the Cochrane Central Register of Controlled Trials (CENTRAL) 2016, Issue 3, part of the Cochrane Library (accessed March 2016), MEDLINE (from 1949 to March 2016), Embase (from 1980 to March 2016), CINAHL (from 1982 to March 2016), AMED (from 1985 to March 2016), and 11 Chinese databases (accessed March 2016). In an effort to identify further published, unpublished, and ongoing trials we searched ongoing trials registers, reference lists, and relevant conference proceedings, and contacted authors and pharmaceutical companies. Selection criteria We included randomized controlled trials (RCTs) investigating GABA receptor agonists versus placebo for people with acute stroke (within 12 hours after stroke onset), with the primary outcomes of efficacy and safety. Data collection and analysis Two review authors independently screened the titles and abstracts of identified records, selected studies for inclusion, extracted eligible data, cross-checked the data for accuracy, and assessed the risk of bias. We included five trials with 3838 participants (3758 analyzed). The methodological quality of the included trials was generally good, with an unclear risk for selection bias only. Four trials (N = 2909) measured death and dependency at three months for chlormethiazole versus placebo; pooled results did not find a significant difference (risk ratio (RR) 1.03, 95% confidence interval (CI) 0.96 to 1.11). One trial (N = 849) measured this outcome for diazepam versus placebo (RR 0.94, 95% CI 0.82 to 1.07). The most frequent adverse events related to chlormethiazole were somnolence (RR 4.56, 95% CI 3.50 to 5.95; two trials; N = 2527) and rhinitis (RR 4.75, 95% CI 2.67 to 8.46; two trials; N = 2527). Authors' conclusions This review provides moderate-quality evidence that fails to support the use of GABA receptor agonists (chlormethiazole or diazepam) for the treatment of people with acute stroke. More well-designed RCTs with large samples of participants with total anterior circulation syndrome are required to determine if there are benefits for this subgroup."

According to the news editors, the research concluded: "Somnolence and rhinitis are frequent adverse events related to chlormethiazole."

For more information on this research see: Gamma aminobutyric acid (GABA) receptor agonists for acute stroke. Cochrane Database of Systematic Reviews, 2016;(10):89-134. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from J. Liu, Capital Med Univ, Xuanwu Hosp, Dept. of Neurol, Beijing 100053, People's Republic of China. Additional authors for this research include L.N. Wang, X. Ma and X.M. Ji.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Otorhinolaryngologic Diseases and Conditions, Respiratory Tract Diseases and Conditions, Chlormethiazole, Article Review, Nose Diseases and Conditions, Respiratory Tract Infections, Clinical Trials and Studies, gamma-Aminobutyric Acid, Amino Acid Receptors, Aminobutyric Acids, Membrane Proteins, Clinical Research, GABA Receptors, Amino Acids, Rhinitis, Stroke, Capital Medical University.

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Aortic Dissection

Researchers from Capital Medical University Report on Findings in Aortic Dissection (Noninvasive Positive-Pressure Ventilation in Treatment of Hypoxemia After Extubation Following Type-A Aortic

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Dissection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Aortic Dissection have been published. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "To assess the efficacy of noninvasive positive pressure ventilation (NPPV) in improving hypoxemia after extubation for Stanford type-A aortic dissection and to compare NPPV using a mask or a helmet. Prospective, interventional study."

Our news editors obtained a quote from the research from Capital Medical University, "Department of Cardiac Surgery of the Beijing Anzhen Hospital, a tertiary university hospital. Patients experiencing hypoxemia within 24 hours after extubation for Stanford type-A aortic dissection. The patients were divided into the following 3 groups: high-flux inhalation of oxygen with a Venturi mask (control patients), NPPV with a mask (mask group), and NPPV with a helmet (helmet group) (n = 25/group). Data for blood gas analysis, vital signs, heart function, and complications were collected before the treatment, after 1 and 6 hours of treatment, and at the end of treatment. The oxygen partial pressure/fraction of inspired oxygenation index or PaO2/FIO(2) ratio and the oxygen partial pressure were higher and carbon dioxide partial pressure was lower in the mask and helmet groups compared with that of control patients. Compared with control patients and the mask group, the helmet group showed a slower heart rate, lower average arterial pressure, and improved left ventricular ejection fraction, leading to a lower incidence of reintubation and a shorter hospital stay."

According to the news editors, the research concluded: "NPPV with a helmet may quickly improve oxygen partial pressure, decrease carbon dioxide partial pressure, decrease the reintubation rate, and effectively shorten the hospital stay after extubation for Stanford type-A aortic dissection."


The news editors report that additional information may be obtained by contacting N. Liu, Capital Med Univ, Beijing Inst Heart Lung & Blood Vessel Dis, Beijing Anzhen Hosp, Center Cardiac Intens Care, Beijing 100029, People's Republic of China. Additional authors for this research include N. Liu, L.Z. Sun, Y. Zhou, Y. Yang, W. Shang and X.M. Li.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Aortic Dissection, Carbon Dioxide, Chalcogens, Cardiology, Chemicals, Hospital, Capital Medical University.

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Researchers from Careggi Hospital Detail Findings in Atrial Fibrillation (Percutaneous left atrial appendage occlusion in patients with non-valvular atrial fibrillation: implantation and up to four years follow-up of the AMPLATZER Cardiac Plug)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Atrial Fibrillation is now available. According to news reporting originating from Florence, Italy, by NewsRx correspondents, research stated, "Percutaneous left atrial appendage occlusion (LAAO) may be considered for stroke prophylaxis in patients with non-valvular atrial fibrillation (NVAF). Data on device implantation safety and feasibility and long-term follow-up are limited."

Our news editors obtained a quote from the research from Careggi Hospital, "LAAO was performed using the AMPLATZER Cardiac Plug (ACP) device in 134 NVAF patients with long-term OAC contraindication, with median (interquartile range) CHA2DS2-VASc and HAS-BLED scores of four (3-5) and three (2-3.75), respectively. Follow-up data were collected over a mean follow-up period of 680 days (range: 42 days to 4.3 years) comprising a total implant experience of 238 patient-years. Device implantation was successful in 95.5% of the procedures and associated with a rate of major procedural complications of 2.2%. At the most recent follow-up, almost all patients were receiving antiplatelet therapy. Ischaemic stroke was observed at an annual rate of 0.8% and the annual rate of any thromboembolic (TE) event was 2.5%. Major bleeding during follow-up occurred at an annual rate of 1.3%. LAAO is a safe and effective stroke prevention therapy in a high-risk NVAF cohort, both at implantation and over longer follow-up periods."

According to the news editors, the research concluded: "The long-term assessed ischaemic stroke rate in patients treated with LAAO is markedly reduced compared to the expected rate based on the patients' risk scores."

For more information on this research see: Percutaneous left atrial appendage occlusion in patients with non-valvular atrial fibrillation: implantation and up to four years follow-up of the AMPLATZER Cardiac Plug, Eurointervention, 2016;11(10):1188-94.

The news editors report that additional information may be obtained by contacting G. Santoro, Interventional Cardiology Unit, Careggi Hospital, Florence, Italy. Additional authors for this research include F. Meucci, M. Stolcova, M. Rezzaghi, F. Mori, C. Palmieri, U. Paradossi, L.E. Pastormerlo, G. Rosso and S. Berti.

Keywords for this news article include: Italy, Europe, Stroke, Florence, Angiology, Cardiology, Heart Disease, Atrial Fibrillation, Cardiac Arrhythmias, Risk and Prevention, Heart Disorders and Diseases.

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Researchers from Carolinas Medical Center Report Recent Findings in Pneumonia (Antifungal use in immunocompetent, critically ill patients with pneumonia does not improve clinical outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Pneumonia. According to news reporting out of Charlotte, North Carolina, by NewsRx editors, research stated, "To determine if treating bronchoalveolar lavage (BAL) culture-positive patients with antifungal therapy impacted mortality compared to not treating due to presumed colonization. We conducted a retrospective study of immunocompetent, critically ill adult patients from 2010 to 2014."

Our news journalists obtained a quote from the research from Carolinas Medical Center, "Patients with a BAL culture-positive for Candida or unspeciated yeast and a clinical suspicion of pneumonia were included. The treatment group received an antifungal agent for at least 5 days, and the control group received either no antifungal therapy or an antifungal agent for less than 48 h. Recruitment occurred in a 2:1 ratio of untreated versus treated patients. Seventy-five patients were included. In-hospital mortality was similar between treated and untreated groups (24% vs. 26%, P = 0.85). Length of stay and duration of mechanical ventilation also did not differ between the two groups. We did not observe a difference in mortality or clinical outcomes in patients treated with antifungal agents."

According to the news editors, the research concluded: "Presumptive antifungal therapy for BAL-positive Candida or yeast in immunocompetent patients did not result in improved clinical outcomes."


Our news journalists report that additional information may be obtained by contacting K.E. Martin, Carolinas Med Center, Charlotte, NC 28203, United States. Additional authors for this research include D.E. Kosmisky, M.A. Templin, T. Huynh, L.H. McCurdy, T.R. Pasquale and K.E. Martin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrtlng.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Charlotte, North Carolina, United States, North and Central America, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Respiratory Tract Infections, Clinical Trials and Studies, Drugs and Therapies, Post-Trial Research, Infectious Disease, Clinical Research, Antifungals, Pulmonology, Pneumonia, Therapy, Carolinas Medical Center.

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Researchers from Catholic University Report Details of New Studies and Findings in the Area of Gastrointestinal Neoplasms (Divergent gastrointestinal stromal tumors in syndromic settings)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Gastrointestinal Neoplasms. According to news originating from Rome, Italy, by NewsRx correspondents, research stated, "The vast majority of gastrointestinal stromal tumors (GISTs) occur as sporadic tumors. Rarely, however, these neoplasms can arise in syndromic contexts."

Financial support for this research came from Universita Cattolica del Sacro Cuore. Our news journalists obtained a quote from the research from Catholic University, "Under these circumstances, GISTs are often multiple and associated with accompanying signs peculiar of the hosting syndrome. Moreover, syndromic GISTs themselves tend to show heterogeneous features depending on the underlying condition. Multiple inflammatory fibroid polyps (IFPs) and a jejunal spindle-cell GIST were resected in a germline PDGFRA-mutant individual. Although the association of IFP and GIST is typical of this genetic setting (PDGFRA mutations can in fact trigger both these tumor types), PDGFRA'mutant GISTs are usually epithelioid and gastric. This discrepancy was settled evidencing a somatic KIT mutation in the GIST. The awareness of possible somatic mutations can be critical in the management of high-risk/ malignant GISTs arising in syndromic settings."

According to the news editors, the research concluded: "GIST features unusual for a given GIST predisposing syndrome are a valuable tool in the hands of physicians for suspecting these 'extra' triggers, which could not be sought for once a diagnosis of GIST-prone syndrome is well established, in a bona fide cost/benefit perspective."


The news correspondents report that additional information may be obtained from R. Ricci, Catholic Univ, Dept. of Pathol, Rome, Italy. Additional authors for this research include M. Martini, T. Cenci, M.E. Riccioni, G. Maria, A. Cassano and L.M. Larocca.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.05.073. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Gastrointestinal Stromal Tumors, Gastroenterology, Genetics, Digestive System Neoplasms, Gastrointestinal Neoplasms, Catholic University.

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Cardiovascular Diseases and Conditions - Systemic…

Researchers from Catholic University Report on Findings in Systemic Vasculitis [The prognostic significance of the Birmingham Vasculitis Activity Score (BVAS) with systemic vasculitis patients transferred to the intensive care unit (ICU)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Systemic Vasculitis. According to news reporting originating in Rome, Italy, by NewsRx journalists, research stated, "Systemic vasculitides represent a heterogeneous group of diseases that share clinical features including respiratory distress, renal dysfunction, and neurologic disorders. These diseases may often cause life-threatening complications requiring admission to an intensive care unit (ICU)."

The news reporters obtained a quote from the research from Catholic University, "The aim of the study was to evaluate the validity and responsiveness of Birmingham Vasculitis Activity Score (BVAS) score to predict survival in patients with systemic vasculitides admitted to ICU. A retrospective study was carried out from 2004 to 2014 in 18 patients with systemic vasculitis admitted to 2 different Rheumatology divisions and transferred to ICU due to clinical worsening, with a length of stay beyond 24 hours. We found that ICU mortality was significantly associated with higher BVAS scores performed in the ward (P=0.01) and at the admission in ICU (P=0.01), regardless of the value of Acute Physiology And Chronic Health Evaluation (APACHE II) scores (P=0.50). We used receiver operator characteristic (ROC) curve analysis to evaluate the possible cutoff value for the BVAS in the ward and in ICU and we found that a BVAS >8 in the ward and that a BVAS > 10 in ICU might be a useful tool to predict in-ICU mortality. BVAS appears to be an excellent tool for assessing ICU modality risk of systemic vasculitides patients admitted to specialty departments."

According to the news reporters, the research concluded: "Our experience has shown that performing the assessment at admission to the ward is more important than determining the evaluation before the clinical aggravation causing the transfer to ICU."

For more information on this research see: The prognostic significance of the Birmingham Vasculitis Activity Score (BVAS) with systemic vasculitis patients transferred to the intensive care unit (ICU). Medicine, 2016;95(48):205-210. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting G. Ferraccioli, Catholic Univ, Fdn Policinico Univ Agostino Gemelli, Sch Med, Div RheumatolInst Rheumatol, Rome, Italy. Additional authors for this research include A. Carbonella, F. Parisi, S.L. Bosello, F. Schiavon, R. Padoan, E. Gremese and G. Ferraccioli.

Keywords for this news article include: Rome, Italy, Europe, Cardiovascular Diseases and Conditions, Risk and Prevention, Vascular Diseases and Conditions, Systemic Vasculitis, Catholic University.

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Researchers from Catholic University of Korea Report New Studies and Findings in the Area of Cardiology (3D printed complex tissue construct using stem cell-laden decellularized extracellular matrix bioinks for cardiac repair)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiology have been presented. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Stem cell therapy is a promising therapeutic method for the treatment of ischemic heart diseases; however, some challenges prohibit the efficacy after cell delivery due to hostile microenvironment of the injured myocardium. 3D printed pre-vascularized stem cell patch can enhance the therapeutic efficacy for cardiac repair through promotion of rapid vascularization after patch transplantation. In this study, stem cell-laden decellularized extracellular matrix bioinks are used in 3D printing of pre-vascularized and functional multi-material structures."

Financial supporters for this research include National Research Foundation of Korea, MSIP, DWC, Research Fund of Seoul St. Mary's Hospital, The Catholic University of Korea.

Our news journalists obtained a quote from the research from the Catholic University of Korea, "The printed structure composed of spatial patterning of dual stem cells improves cell-to-cell interactions and differentiation capability and promotes functionality for tissue regeneration. The developed stem cell patch promoted strong vascularization and tissue matrix formation in vivo. The patterned patch exhibited enhanced cardiac functions, reduced cardiac hypertrophy and fibrosis, increased migration from patch to the infarct area, neo-muscle and capillary formation along with improvements in cardiac functions."

According to the news editors, the research concluded: "Therefore, pre-vascularized stem cell patch provides cardiac niche-like microenvironment, resulting in beneficial effects on cardiac repair."

For more information on this research see: 3D printed complex tissue construct using stem cell-laden decellularized extracellular matrix bioinks for cardiac repair. Biomaterials, 2017;112():264-274. Biomaterials can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.10.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Extracellular Matrix, Extracellular Space, Stem Cell Research, Cardiology, Catholic University of Korea.

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Researchers from Catholic University of Leuven Report Details of New Studies and Findings in the Area of Endotoxins (MMP-3 Deficiency Alleviates Endotoxin-Induced Acute Inflammation in the Posterior Eye Segment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biological Factors - Endotoxins have been presented. According to news reporting from Leuven, Belgium, by NewsRx journalists, research stated, "Matrix metalloproteinase-3 (MMP-3) is known to mediate neuroinflammatory processes by activating microglia, disrupting blood-central nervous system barriers and supporting neutrophil influx into the brain. In addition, the posterior part of the eye, more specifically the retina, the retinal pigment epithelium (RPE) and the blood-retinal barrier, is affected upon neuroinflammation, but a role for MMP-3 during ocular inflammation remains elusive."

The news correspondents obtained a quote from the research from the Catholic University of Leuven, "We investigated whether MMP-3 contributes to acute inflammation in the eye using the endotoxin-induced uveitis (EIU) model. Systemic administration of lipopolysaccharide induced an increase in MMP-3 mRNA and protein expression level in the posterior part of the eye. MMP-3 deficiency or knockdown suppressed retinal leukocyte adhesion and leukocyte infiltration into the vitreous cavity in mice subjected to EIU. Moreover, retinal and RPE mRNA levels of intercellular adhesion molecule 1 (Icam1), interleukin 6 (Il6), cytokine-inducible nitrogen oxide synthase (Nos2) and tumor necrosis factor alpha (Tnf alpha), which are key molecules involved in EIU, were clearly reduced in MMP-3 deficient mice. In addition, loss of MMP-3 repressed the upregulation of the chemokines monocyte chemoattractant protein (MCP)-1 and (C-X-C motif) ligand 1 (CXCL1)."

According to the news reporters, the research concluded: "These findings suggest a contribution of MMP-3 during EIU, and its potential use as a therapeutic drug target in reducing ocular inflammation."

For more information on this research see: MMP-3 Deficiency Alleviates Endotoxin-Induced Acute Inflammation in the Posterior Eye Segment. *International Journal of Molecular Sciences*, 2016;17(11):996-1018. *International Journal of Molecular Sciences* can be contacted at: Mdp Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting I. Van Hove, Catholic University of Leuven, Dept. of Neurosci, Lab Expt Ophthalmol, B-3000 Leuven, Belgium. Additional authors for this research include E. Lefevere, L. De Groef, J. Sergeys, M. Salinas-Navarro, C. Libert, R. Vandenbroucke and L. Moons.

Keywords for this news article include: Leuven, Belgium, Europe, Biological Factors, Bacterial Toxins, Inflammation, Endotoxins, Genetics, Catholic University of Leuven.

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Researchers from Catholic University of Leuven School of Medicine Detail Findings in Thyroid Cancer (Post-Chernobyl incidence of papillary thyroid cancer among Belgian children less than 15 years of age in April 1986: a 30-year surgical ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Thyroid Cancer. According to news reporting originating from Yvoir, Belgium, by NewsRx correspondents, research stated, "We raised the question of a possible relationship in Belgium between the occurrence of papillary thyroid carcinoma (PTC) and age of children (< 15 years) at the time of the Chernobyl nuclear plant accident in April 1986. Referral university centre for endocrine surgery."

Our news editors obtained a quote from the research from the Catholic University of Leuven School of Medicine, "Thirty-year prospective study of the experience of a surgical team with PTC since the Chernobyl accident, taken out of 2349 patients operated on for any thyroid lesions from April 1986 to April 2015, comparing the incidence of PTC by age groups. Main outcome measurement: Comparison of PTC incidence in patients >15 years (group A) and children < 15 years (group B) in April 1986. Out of a total of 2349 patients having undergone thyroid surgery for all types of lesions during 30 year after Chernobyl and born before April 1986, 2164 were > 15 years of age at the time of the nuclear accident (group A) and 175 developed PTC (8.1%) compared to 36 PTC (19.5%) that occurred in 185 children < 15 years of age (group B) in April 1986 (p <0.001). Radiation exposure affected residents of countries (including Belgium) well beyond Ukraine and Belarus. This was demonstrated by a 1990 meteorological report. Over 30 years, there has been a persistent higher incidence of PTC among Belgian children below the age of 15 years at the time of the Chernobyl accident."

According to the news editors, the research concluded: "This relationship with age has even been strengthened by the implementation of more sophisticated immunohistochemical biomarkers diagnostic technology since April 2011."


The news editors report that additional information may be obtained by contacting L.A. Michel, Univ Louvain Med Sch, Mont Godinne Univ Hosp, Serv Surg Endocrinol, B-5100 Yvoir, Belgium. Additional authors for this research include J. Donckier, A. Rosiere, C. Fervaille, J. Lemaire and C. Bertrand.

Keywords for this news article include: Yvoir, Belgium, Europe, Papillary Thyroid Carcinoma, Papillary Thyroid Cancer, Thyroid Neoplasms, Oncology, Catholic University of Leuven School of Medicine.

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Researchers from Cedars-Sinai Heart Institute Describe Findings in Cardiovascular Interventions (Feasibility and safety of balloon-expandable transcatheter aortic valve implantation with moderate or without predilatation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Health and Medicine - Cardiovascular Interventions is now available. According to news reporting originating from Los Angeles, California, by NewsRx correspondents, research stated, "Aortic valve preparation by performing balloon aortic valvuloplasty (BAV) has always been considered mandatory during transcatheter aortic valve implantation (TAVI) procedures. We aimed to investigate the feasibility and safety of performing balloon-expandable TAVI with moderate or with no predilatation (PD)."

Our news editors obtained a quote from the research from Cedars-Sinai Heart Institute, "Overall, 121 patients underwent TAVI with no PD and 392 with moderate PD. TAVI endpoints and adverse events were considered according to the Valve Academic Research Consortium (VARC)-2 definitions. Device success for the entire cohort was 95.1%. Post-dilatation was performed in nine patients in the no PD group (7.4%) and in 40 patients in the moderate PD group (10.2%) (p=0.06). Total fluoroscopy time and the amount of contrast used were lower in the no PD group. All-cause mortality up to 30 days was 3.3% in the no PD group vs. 3.6% in the moderate PD group (p=0.89). VARC-2 defined complication rates at 30 days including cerebrovascular accident (CVA)/transient ischaemic attack (TIA) were similar between groups. Overall, there was no significant difference in survival rates between the two groups (HR 1.33, 95% CI: 0.75-2.35; p=0.34). Balloon-expandable TAVI with moderate or without balloon PD is feasible and safe."

According to the news editors, the research concluded: "The omission of PD in appropriate cases was associated with reduced fluoroscopy time without affecting procedural success."


The news editors report that additional information may be obtained by contacting Y. Abramowitz, Cedars-Sinai Heart Institute, Los Angeles, CA, United States. Additional authors for this research include H. Jilaihawi, T. Chakravarty, M. Kashif, G. Matar, B. Hariri, J. Patel, R.P. Sharma, W. Cheng and R.R Makkar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4244/EIJV11I10A229. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: California, Los Angeles, United States, Health and Medicine, North and Central America, Cardiovascular Interventions.

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Researchers from Center Hospitalier Lyon Sud Report New Studies and Findings in the Area of Cancer Research (Conflicting Signals for Cancer Treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Research have been published. According to news reporting originating in Pierre Benite, France, by NewsRx journalists, research stated, "Next-generation sequencing technologies have provided us with a precise description of the mutational burden of cancers, making it possible to identify targetable oncogene addictions. However, the emergence of resistant clones is an inevitable limitation of therapies targeting these addictions."

The news reporters obtained a quote from the research from Center Hospitalier Lyon Sud, "Alternative approaches to cancer treatment are therefore required. We propose here a novel approach, based on the notion of conflicting signals and on a phenotypic description of cancer cells. 'Phenotype' is an inherently complex notion that we describe in the conceptual framework of the epigenetic landscape, with a view to bridging the gap between theory and practice at the patient's bedside."

According to the news reporters, the research concluded: "By passing from theory to the description of several examples, we will illustrate how this approach can facilitate data analysis and the design of new strategies for cancer treatment."

For more information on this research see: Conflicting Signals for Cancer Treatment. *Cancer Research*, 2016;76(23):6768-6773. *Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

Our news correspondents report that additional information may be obtained by contacting P. Sujobert, Centre Hospitalier Lyon Sud, Hosp Civils Lyon, Lab Hematol, Pierre Benite, France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/0008-5472.CAN-16-1393. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pierre Benite, France, Europe, Cancer Research, Oncology, Genetics, Cancer, Center Hospitalier Lyon Sud.

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Immunology

Researchers from Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV) Report Details of New Studies and Findings in the Area of Immunology (Inflammasomes and its importance in viral infections)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology. According to news reporting originating in Mexico City, Mexico, by NewsRx journalists, research stated, "A complex interplay between pathogen and host determines the immune response during viral infection. A set of cytosolic sensors are expressed by immune cells to detect viral infection."

Financial support for this research came from CONACYT.

The news reporters obtained a quote from the research from the Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV), "NOD-like receptors (NLRs) comprise a large family of intracellular pattern recognition receptors. Members of the NLR family assemble into large multiprotein complexes, termed inflammasomes, which induce downstream immune responses to specific pathogens, environmental stimuli, and host cell damage. Inflammasomes are composed of cytoplasmic sensor molecules such as NLRP3 or absent in melanoma 2 (AIM2), the adaptor protein ASC (apoptosis-associated speck-like protein containing caspase recruitment domain), and the effector protein procaspase-1. The inflammasome operates as a platform for caspase-1 activation, resulting in caspase-1-dependent proteolytic maturation and secretion of interleukin (IL)-1 beta and IL-18. This, in turn, activates the expression of other immune genes and facilitates lymphocyte recruitment to the site of primary infection, thereby controlling invading pathogens. Moreover, inflammasomes counter viral replication and remove infected immune cells through an inflammatory cell death, program termed as pyroptosis. As a countermeasure, viral pathogens have evolved virulence factors to antagonise inflammasome pathways. In this review, we discuss the role of inflammasomes in sensing viral infection as well as the evasion strategies that viruses have developed to evade inflammasome-dependent immune responses."

According to the news reporters, the research concluded: "This information summarises our understanding of host defence mechanisms against viruses and highlights research areas that can provide new approaches to interfere in the pathogenesis of viral diseases."

For more information on this research see: Inflammasomes and its importance in viral infections. Immunologic Research. 2016;64(5-6):1101-1117. Immunologic Research can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA. (Springer - www.springer.com; Immunologic Research - www.springerlink.com/content/0257-277x/)

Our news correspondents report that additional information may be obtained by contacting L. Cedillo-Barron, Center Res & Adv Studies CINVESTAV IPN, Dept. of Mol Biomed, Mexico City 07360, DF, Mexico. Additional authors for this research include M. Leon-Juarez, J. Garcia-Cordero, D.E. Meza-Sanchez and L. Cedillo-Barron.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12026-016-8873-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mexico City, Mexico, North and Central America, Immunology, Caspase, Article Review, Enzymes and Coenzymes, Genetics, Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV).

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Researchers from Centers for Disease Control and Prevention Report Recent Findings in Cardiovascular Research (Modification of the effects of air pollutants on mortality by temperature: A systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Research have been presented. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated. "Temperature extremes and air pollution both pose significant threats to human health, but it remains uncertain whether pollutants’ effects on mortality are modified by temperature levels. In this review, we summarized epidemiologic evidence on the modification by temperature of the acute effects of air pollutants on non-accidental and cardiovascular mortality."

Funders for this research include National Basic Research Program of China, State Key Laboratory for Infectious Disease Prevention and Control.

The news reporters obtained a quote from the research from Centers for Disease Control and Prevention, "The EMBASE, PubMed, ProQuest Dissertations and Theses, and Elsevier Science Direct databases were used to identify papers published up to 2nd December 2014. Studies with appropriate design, exposures and outcome indicators, quantitative estimates and high/intermediate quality were included. Twenty-one studies met the inclusion criteria, of which 12 reported the effects of PM10 on mortality modified by temperature, 10 studied O-3, and the rest examined NO2, SO2, PM2.5, PM10-2.5, CO and black smoke. We divided temperature into low, medium, and high categories as defined in each study. In high temperature days, a 10 μg/m(3) increment in PM10 concentration corresponded to pooled estimates of 0.78% (95% CI: 0.44%, 1.11%) and 1.28% (0.66%, 1.91%) increase in non-accidental and cardiovascular mortality, both statistically significantly higher than the estimates in medium temperature stratum. Pooled effects of O-3 on non-accidental mortality on low and high temperature days were increases of 0.48% (0.28%, 0.69%) and 0.47% (0.32%, 0.63%) respectively, for 10 μg/m(3) increase in exposure, both significantly higher than the increase of 0.20% (0.07%, 0.34%) on medium temperature days. The effect of O-3 on cardiovascular mortality was strongest on high temperature days with pooled estimate of 1.63% (1.14%, 2.13%). No significant interactions between SO2/NO2 and temperature were detected by meta-analysis. Other pollutants were not analyzed due to the lack of suitable studies. In summary, we observed interactions between high temperature and PM10 and O-3 in the effects on non-accidental and cardiovascular mortality."

According to the news reporters, the research concluded: "Low temperature modified the effects of air pollutants but not in a consistent fashion: the effect of PM10 on cardiovascular mortality was diminished but the association between O-3 and non-accidental mortality was strengthened."

For more information on this research see: Modification of the effects of air pollutants on mortality by temperature: A systematic review and meta-analysis. Science of the Total Environment, 2017;575():1556-1570. Science of the Total Environment can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Science of the Total Environment - www.journals.elsevier.com/science-of-the-total-environment/)

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.scitotenv.2016.10.070. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Research, Cardiology, Article Review, Epidemiology, Cardiovascular, Centers for Disease Control and Prevention.

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Oncology - Non-Small Cell Lung Cancer

Researchers from Central Hospital Report Recent Findings in Non-Small Cell Lung Cancer (The impact of epidermal growth factor receptor mutations on patterns of disease recurrence after chemoradiotherapy for locally advanced non-small cell lung...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Non-Small Cell Lung Cancer are discussed in a new report. According to news reporting out of Mie, Japan, by NewsRx editors, research stated, "The purpose of this review was to evaluate the impact of epidermal growth factor receptor (EGFR) mutation status on disease recurrence in patients treated with chemoradiotherapy (CRT) for locally advanced non-small cell lung cancer (NSCLC). A literature search was conducted and a total of three studies were analyzed."

Our news journalists obtained a quote from the research from Central Hospital, "There was no significant difference in the objective response rate between the EGFR mutation group and the EGFR wild-type group (odds ratios [OR] 1.46, 95% CI, 0.79-2.70, P = 0.228), and there was no significant difference in the incidence of disease recurrence (OR 1.37, 95% CI, 0.68-2.75, P = 0.379) between the two groups. There were significant difference in the incidence of local/locoregional progression (LP) (OR 0.35, 95% CI, 0.18-0.71, P = 0.003) and distant progression (DP) (OR 2.97, 95% CI, 1.59-5.54, P< 0.001). Brain metastasis (BM) was one of the main recurrence patterns of DP, and the incidence was significantly higher in the EGFR mutant group (OR 2.75, 95% CI, 1.43-5.31, P = 0.003). There were no statistically significant heterogeneities in these pooled analyses. The patterns of recurrence after CRT for locally advanced NSCLC were different according to EGFR mutation status. LP after CRT in patients with EGFR mutation was less frequent, but the high incidence of DP, especially BM, continued to be the major problem. On the other hand, LP continued to be the major problem in EGFR wild-type patients."

According to the news editors, the research concluded: "In multimodality treatment for inoperable locally advanced NSCLC, we may need to consider different treatment strategies according to EGFR mutation status."

For more information on this research see: The impact of epidermal growth factor receptor mutations on patterns of disease recurrence after chemoradiotherapy for locally...

Our news journalists report that additional information may be obtained by contacting S. Ochiai, Matsusaka Cent Hosp, Dept. of Radiat Oncol, Matsusaka, Mie 5158566, Japan. Additional authors for this research include Y. Nomoto, Y. Watanabe, Y. Yamashita, Y. Toyomasu, T. Kawamura, A. Takada, N. Ii and H. Sakuma.

Keywords for this news article include: Mie, Japan, Asia, Intercellular Signaling Peptides and Proteins, Gastrointestinal Hormone Receptors, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor, Non-Small Cell Lung Cancer, Gastrointestinal Hormones, Epidermal Growth Factors, Growth Factor Receptors, Cancer, Article Review, Phosphotransferases, Membrane Proteins, Peptide Receptors, Protein Kinases, Lung Neoplasms, Oncology, Genetics, Central Hospital.

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**Oncology - Leukemia**

**Researchers from Central South University Describe Findings in Leukemia (STIP Regulates ERK1/2 Signaling Pathway Involved in Interaction with PP1 gamma in Lymphoblastic Leukemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Leukemia is now available. According to news reporting originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "Sip1/Tuftelin Interacting Protein (STIP) is highly conserved from Caenorhabditis elegans to Homo sapiens and has essential biological functions. However, its function in leukemia remains unknown."

Our news editors obtained a quote from the research from Central South University, "Clinic samples and cell model were used in this article to investigate the expression of STIP in lymphoblastic leukemia. The functional research of STIP was performed in ARH-77 by siRNA transfection, immunofluorescence, cell count, cell cycle analysis, qRT-PCR, sub-cellular fractionation assays, immunoprecipitation and western blotting. Here, we found that STIP is more highly expressed in both clinical lymphoblastic leukemia samples and cultured leukemia cells than in normal samples. Knockdown of STIP in B lymphoblastic leukemia ARH-77 cells leads to S phase arrest, lower cell proliferation rates, and suppressed AKT and ERK1/2 signaling pathways. Interestingly, when protein phosphatase was inhibited by Calyculin A, STIP knockdown did not result in the dephosphorylation of p-ERK1/2, suggesting the dependence of STIP on protein phosphatase in the regulation of ERK1/2. Among those protein phosphatase inhibited by Calyculin A, PP1 gamma was found to interact with STIP proven by immunofluorescence and immunoprecipitation assays. The binding of STIP with PP1 gamma may decrease the phosphatase activity of PP1 gamma, resulting in hyper-activated ERK1/2 signaling."

According to the news editors, the research concluded: "In summary, the high expression and activation effect on the ERK1/2 signaling of STIP in lymphoblastic leukemia suggest that STIP would be a potential therapy target or diagnosis marker for leukemia."
For more information on this research see: STIP Regulates ERK1/2 Signaling Pathway Involved in Interaction with PP1 gamma in Lymphoblastic Leukemia. *Current Molecular Medicine*, 2016;16(8):767-775. *Current Molecular Medicine* can be contacted at: Bentham Science Publ Ltd, Executive Ste Y-2, PO Box 7917, Saif Zone, 1200 Br Sharjah, U Arab Emirates. (Bentham Science Publishers - www.benthamscience.com; Current Molecular Medicine - www.benthamscience.com/cmm/index.htm)

The news editors report that additional information may be obtained by contacting X. Zhao, Central South University, Xiangya Hosp. Dept. of Hematol, Changsha 410008, Hunan, People's Republic of China. Additional authors for this research include Y. Wang, H. Chen, L. Fang, Y. Cui, X. Han, D. Wu, H. Li, M. Ye, X. Zhao and J. Liu.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Immunofluorescence, Hematology, Leukemia, Oncology, Central South University.

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Researchers from Central South University Report Details of New Studies and Findings in the Area of Hypertension (Renin-angiotensin-aldosterone system gene polymorphisms in gestational hypertension and preeclampsia: A case-control ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Hypertension is now available. According to news originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "Pregnancy-induced hypertension (PIH, including preeclampsia [PE] and gestational hypertension [GH]) and cardiovascular diseases (CVDs) have some metabolic changes and risk factors in common. Many studies have reported associations between single nucleotide polymorphisms (SNPs) of renin-angiotensin-aldosterone system (RAAS) genes and CVDs (particularly hypertension), and their findings have provided candidate SNPs for research on genetic correlates of PIH."

Our news journalists obtained a quote from the research from Central South University, "We explored the association between hypertension-related RAAS SNPs and PIH in a Chinese population. A total of 130 cases with PE, 67 cases with GH, and 316 controls were recruited. Six candidate SNPs of the RAAS system were selected. Multiple logistic regression analysis adjusting for maternal age, fetal sex, and gestational diabetes mellitus showed significant associations between angiotensinogen (AGT) rs3789678 T/C and GH (p = 0.0088) and between angiotensin II receptor type 1 (AGTR1) rs275645 G/A and PE (p = 0.0082). The study population was further stratified by maternal age (< 30 and >= 30 years), and stratified and crossover analyses were conducted to determine genetic associations in different age groups."

According to the news editors, the research concluded: "Our findings suggest that the impacts of different SNPs might be affected by maternal age; however, the effect of this potential gene-age interaction on PIH needs further exploration."

Researchers from Chang Gung Memorial Hospital Describe Findings in Colon Cancer (Antidepressants and colorectal cancer: A population-based nested case-control study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news originating from Chiayi, Taiwan, by NewsRx correspondents, research stated, "Experimental evidence indicates that serotonin is associated with both proliferative and procarcinogenic effects on colorectal tumors. The present study aims to investigate the associations between antidepressant use and colorectal cancer in an epidemiological sample."

Financial supporters for this research include Tsaotun Psychiatry Center, Chiayi Chang Gung Memorial Hospital.

Our news journalists obtained a quote from the research from Chang Gung Memorial Hospital, "We conducted a population-based case-control study utilizing Taiwan's National Health Insurance Research Database (NHIRD). We identified 49,342 cases with colorectal cancer and 240,985 controls between 1997 and 2008. We conducted conditional logistic regression analyses to assess the association between antidepressant use and colorectal cancer risk. Sensitivity analyses were conducted to assess whether genotoxic antidepressants (i.e. antidepressants which may exert procarcinogenic effects) would increase risk for colorectal cancer. Selective serotonin reuptake inhibitors (adjusted OR=1.00, 95% CI=0.94-1.06), tricyclic antidepressants, serotonin-norepinephrine reuptake inhibitors, and serotonin antagonist and reuptake inhibitors were not associated with increased incidence of colorectal cancer. Monoamine oxidase inhibitors were, however, associated with an increased incidence of colorectal cancer (adjusted OR=1.22, 95% CI=1.06-1.41). Higher cumulative dose of mirtazapine was associated with a decreased incidence of colorectal cancer (adjusted OR=0.39, 95% CI=0.17-0.90). A small sample size of individuals who received mirtazapine, however, precludes definitive conclusions regarding protective effects with mirtazapine. Limitations: We could not discern the effects of obesity and other risk factors for colorectal cancer from the NHIRD. Contemporary first-line antidepressants (i.e. SSRI, SNRI), as well as older agents (i.e."

According to the news editors, the research concluded: "TCA), are not associated with increased incidence of colorectal cancer."

For more information on this research see: Antidepressants and colorectal cancer: A

The news correspondents report that additional information may be obtained from V.C.H. Chen, Chiayi Chang Gung Mem Hosp, Dept. of Psychiat, Chiayi, Taiwan. Additional authors for this research include W.C. Chiu, T.N. Wang, Y.T. Liao, I.C. Chien, Y. Lee, R.S. McIntyre, P.C. Chen and V.C.H. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jad.2016.09.057. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chiayi, Taiwan, Asia, Colorectal Research, Epidemiology, Risk and Prevention, Biological Factors, Organic Chemicals, Colorectal Cancer, Gastroenterology, Biogenic Amines, Colon Cancer, Tryptamines, Cancer Risk, Serotonin, Autacoids, Oncology, Chang Gung Memorial Hospital.

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**Researchers from Chang Gung University Describe Findings in Obesity (Effectiveness of community-based exercise intervention programme in obese adults with metabolic syndrome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Obesity is the subject of a report. According to news reporting originating in Taoyuan, Taiwan, by NewsRx journalists, research stated, "Aims and objectives. The objective of this study was to change the anthropometric, clinical, biochemical indicators and the rate of metabolic syndrome among obese adults in community."

The news reporters obtained a quote from the research from Chang Gung University, "Obesity is an indicator of metabolic syndrome and cardiometabolic diseases. Obesity increases national health care expenditure in Taiwan. The high prevalence of obesity is not only a public health issue but also an economic problem. Changes in lifestyle can help to prevent metabolic syndrome for individuals with obesity. A randomised controlled trial was applied. In this randomised controlled trial by location, 136 metabolically abnormal obese individuals were included. The related indicators with metabolic syndrome were measured at baseline and after six months. The experimental group participated in a six-month community-based programme including provided exercise environments, exercise skills and volunteers’ reminding. The control group was only provided environment and skills. One hundred and thirty-one participants completed this trial. In comparison with the baseline, the intervention group showed a significant increase in high-density lipoprotein cholesterol (2.34 mg/dl), and decrease in body weight (1.09 kg), waist circumference (3.63 cm), systolic blood pressure (10.52 mmHg), diastolic blood pressure (5.21 mmHg), fasting blood glucose (5.84 mg/dl) and body mass index (0.74 kg/m(2)). In the control group, significant decrease in body mass index and waist circumference were discovered. Compared to the changes between the two groups, the results showed there were significant differences in waist circumference, systolic blood pressure, diastolic blood pressure and high-density lipoprotein cholesterol. The community-based
intervention could help to improve high-density lipoprotein cholesterol, reduce body weight, body mass index, waist circumference, blood pressure and fasting blood glucose in metabolically abnormal obese. Relevance to clinical practice. This community-based programme helped metabolically abnormal obese individuals become metabolically healthy. In the future, community nurses will work with village heads and volunteers. They can encourage residents in the communities to have healthy lifestyle.”

According to the news reporters, the research concluded: "As a result, the goal of this programme will be successfully achieved with less time and effort."


Our news correspondents report that additional information may be obtained by contacting S.H. Chang, Chang Gung Univ Sci & Technol, Dept. of Nursing, Taoyuan 33303, Taiwan. Additional authors for this research include M.C. Chen, N.H. Chien and H.F. Lin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13301. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taoyuan, Taiwan, Asia, Nutritional and Metabolic Diseases and Conditions, Clinical Trials and Studies, Nutrition Disorders, Metabolic Syndrome, Diet and Nutrition, Clinical Research, Blood Pressure, Overnutrition, Lipoproteins, Hemodynamics, Healthcare, Bariatrics, Obesity, Lipids, Chang Gung University.

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Liver Diseases and Conditions - Hepatitis B Virus

Researchers from Chang Gung University Report Details of New Studies and Findings in the Area of Hepatitis B Virus (Hepatitis B viremia in completely immunized individuals negative for anti-hepatitis B core antibody)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis B Virus are presented in a new report. According to news originating from Taoyuan, Taiwan, by NewsRx correspondents, research stated, "The presence of anti-hepatitis B virus (HBV) core antibody (anti-HBc) is considered a sensitive lifetime marker of HBV infection. Here, we examined this dogma by investigating the prevalence of hepatitis B viremia in anti-HBc negative complete vaccines in Taiwan."

Our news journalists obtained a quote from the research from Chang Gung University, "A total of 795 participants (1.7-20.0 years old) had completed HBV vaccination in infancy and were anti-HBc negative. Serum samples were available for 460 individuals with isolated anti-HBV surface antibodies (anti-HBs) (HBsAg-negative and anti-HBc negative) and for 245 individuals who tested negative for all 3 markers (triple seronegative). All samples were
submitted for polymerase chain reaction (PCR) targeting both the preS/S and X/pre-C gene regions. Of the 460 participants with isolated anti-HBs, 26 (5.65%) were positive for HBV by 2-target PCR. Of the 245 triple seronegative samples, 12 (4.90%) were positive for HBV DNA. In the former group, the prevalence of viremia was significantly higher in individuals aged 6 to 10 years than in all other ages combined (11.82% vs 3.7%, P=0.001). The anti-HBs titers were significantly lower in participants 6 to 10 years old than in all other ages combined (72.06 vs 99.64mIU/mL, P=0.038). In total, 7 (0.99%) subjects had quantifiable HBV DNA levels (280-18,820IU/mL). Sequence analysis of the S gene revealed vaccine escape like mutations."

According to the news editors, the research concluded: "Hepatitis B viremia can occur in completely vaccinated individuals who are negative for anti-HBc."

For more information on this research see: Hepatitis B viremia in completely immunized individuals negative for anti-hepatitis B core antibody. Medicine, 2016:95(49):628-633. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from C.T. Yeh, Chang Gung University, Mol Med Res Center, Taoyuan, Taiwan. Additional authors for this research include T.Y. Lin, K.H. Liang, W.R. Lin and C.T. Yeh.

Keywords for this news article include: Taoyuan, Taiwan, Asia, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Virus Diseases and Conditions, Hepadnaviridae Infections, Hepatitis B Virus, Orthohepadnavirus, Gastroenterology, Immunoglobulins, Blood Proteins, DNA Viruses, Immunology, Antibodies, Viral DNA, Genetics, Virology, Viremia, Chang Gung University.

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Angiology

Researchers from Chang Gung University Report on Findings in Angiology (Effect of dehydration on the development of collaterals in acute middle cerebral artery occlusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Angiology have been presented. According to news reporting from Taoyuan, Taiwan, by NewsRx journalists, research stated, "Recent large series studies have demonstrated that dehydration is common amongst stroke subjects and is associated with poor outcome. However, the effects of hydration status on the development of collaterals have never been discussed."

Funder for this research include Chang Gung Medical Research Fund, Chang Gung Memorial Hospital, Chiayi, Taiwan.

The news correspondents obtained a quote from the research from Chang Gung University, "In this study, the hypothesis that hydration status is an important factor for developing collaterals after acute middle cerebral artery (MCA) infarction was tested. Eighty-seven patients with acute infarction due to occlusion of the MCA were enrolled. Two collateral markers, posterior cerebral artery (PCA) laterality and fluid-attenuated inversion recovery hyperintense vessels (HVs) were assessed from magnetic resonance imaging. Dehydration status was defined by a nitrogen to creatinine ratio of 15. The associations between
dehydration status and the development of collaterals were estimated. Sixty-one of 87 patients (70.1%) were identified as dehydrated. The development of PCA laterality and HVs shows a significant difference between dehydrated and euhydrated patients. A serum nitrogen to creatinine ratio <15, diastolic blood pressure and the presence of a dense MCA on computed tomography were significantly associated with the development of PCA laterality. A serum nitrogen to creatinine ratio <15, the initial National Institutes of Health Stroke Scale score, the presence of a dense MCA and calcifications of the internal carotid artery on computed tomography were significantly associated with the development of HVs. Dehydration remained an independent negative predictor for the development of PCA laterality and HVs in the multivariate analysis. Hydration status is associated with the development of collateral flow after acute MCA occlusion."

According to the news reporters, the research concluded: "This preliminary study provides an imaging clue that hydration status and early hydration therapy could be important for acute stroke management."


Our news journalists report that additional information may be obtained by contacting S.W. Chang, Dept. of Diagnostic Radiology, Chang Gung Memorial Hospital, Chiayi, College of Medicine, Chang Gung University, Taoyuan, Taiwan. Additional authors for this research include Y.C. Huang, L.C. Lin, J.T. Yang, H.H. Weng, Y.H. Tsai and T.H Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.12841. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiwan, Taoyuan, Angiology, Imaging Technology, Computed Tomography, Middle Cerebral Artery Infarction, Central Nervous System Diseases and Conditions.

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Nutritional and Metabolic Diseases and Conditions –…

Researchers from Chang Gung University Report on Findings in Type 2 Diabetes (Impact of baseline body mass index status on glucose lowering and weight change during sitagliptin treatment for type 2 diabetics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news originating from Kaohsiung, Taiwan, by NewsRx correspondents, research stated, "This study was designed to evaluate the efficacy of sitagliptin in Taiwanese diabetic subjects with different baseline BMI status. This was a single-center, hospital-based, retrospective chart review in subjects (n = 1874) with type 2 diabetes who received sitagliptin."

Our news journalists obtained a quote from the research from Chang Gung University, "Subjects were classified into subgroups depending upon their baseline BMI by
Taiwan national weight classification: normal (BMI < 24 kg/m(2)) (n = 504), overweight (BMI: 24-27 kg/m(2)) (n = 615), and obese (BMI >= 27 kg/m(2)) (n = 755). Changes in HbA1c and weight were evaluated over a 12month treatment period. For all three groups, the HbA1c levels declined over the first three months by about 8%, and subsequently plateaued for the next nine months. Obese subjects were slower in reducing HbA1c compared with normal and overweight subjects (P < 0.05), but at nine months the reduction was similar across groups. Mean body weight increased over the first nine months of sitagliptin therapy in subjects with normal BMI (57.12-58.30 kg), but there was no change in mean body weight in the overweight group. After three months the obese groups had significantly greater loss in body weight compared with the normal group. Baseline BMI status may influence the reduction of HbA1c levels within the first six months of sitagliptin therapy and affect weight change after three months."

According to the news editors, the research concluded: "Being obese was associated with an initial lag in HbA1c reduction and greater weight loss compared with normal and overweight subjects."

For more information on this research see: Impact of baseline body mass index status on glucose lowering and weight change during sitagliptin treatment for type 2 diabetics. Diabetes Research and Clinical Practice, 2016;120():8-14. Diabetes Research and Clinical Practice can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Diabetes Research and Clinical Practice - www.journals.elsevier.com/diabetes-research-and-clinical-practice/)

The news correspondents report that additional information may be obtained from J.F. Chen, Chang Gung University, Coll Med, 123 Ta Pei Rd, Kaohsiung, Taiwan. Additional authors for this research include C.M. Chang, M.C. Kuo, S.C. Tung, C.F. Tsao and C.J. Tsai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.diabres.2016.07.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kaohsiung, Taiwan, Asia, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Dipeptidyl Peptidase 4 Inhibitors, Obesity and Diabetes, Drugs and Therapies, Antidiabetic Agents, Risk and Prevention, Type 2 Diabetes, Sitagliptin, Bariatrics, Chang Gung University.

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Researchers from Charite University Hospital and School of Medicine Report on Findings in Hypercholesterolemia (Clinical characterization and mutation spectrum of German patients with familial hypercholesterolemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Hypercholesterolemia are discussed in a new report. According to news reporting out of Berlin, Germany, by NewsRx editors, research stated, "Autosomal-dominant familial hypercholesterolemia (FH) is characterized by elevated plasma levels of low-density lipoprotein cholesterol (LDL-C) and a dramatically increased risk to develop cardiovascular disease (CVD). Mutations in three major genes have been associated with FH: the LDL receptor gene (LDLR),
the apolipoprotein B gene (APOB), and the proprotein convertase subtilisin/kexin 9 gene (PCSK9)."

Our news journalists obtained a quote from the research from the Charite University Hospital and School of Medicine, "Here we investigated the frequency and the spectrum of FH causing mutations in Germany. We screened 206 hypercholesterolemic patients, of whom 192 were apparently unrelated, for mutations in the coding region of the genes LDLR, PCSK9 and the APOB [c. 10580G > A (p. Arg3527Gln)]. We also categorized the patients according to the Dutch Lipid Clinic Network Criteria (DLCNC) in order to allow a comparison between the mutations identified and the clinical phenotypes observed. Including data from previous studies on German FH patients enabled us to analyse data from 479 individuals. Ninety-eight FH causing variants were found in 92 patients (nine in related patients and 6 patients with two variants and likely two affected alleles), of which 90 were located in the LDLR gene and eight mutations were identified in the APOB gene (c. 10580G > A). No mutation was found in the PCSK9 gene. While 48 of the LDLR mutations were previously described as disease causing, we found 9 new LDLR variants which were rated as 'pathogenic' or 'likely pathogenic' based on the predicted effect on the corresponding protein. The proportions of different types of LDLR mutations and their localization within the gene was similar in the group of patients screened for mutations here and in the combined analysis of 479 patients (current study/cases from the literature) and also to other studies on the LDLR mutation spectrum, with about half of the variants being of the missense type and clustering of mutations in exons 4, 5 and 9. The mutation detection rate in the 35 definite and 45 probable FH patients (according to DLCNC) was 77.1% and 68.9%, respectively. The data show a similar discriminatory power between the DLCNC score (AUC = 0.789 (95% CI 0.721-0.857)) and baseline LDL-C levels (AUC = 0.799 (95% CI = 0.732-0.866)))."

According to the news editors, the research concluded: "This study further substantiates the mutation spectrum for FH in German patients and confirms the clinical and genetic heterogeneity of the disease."

For more information on this research see: Clinical characterization and mutation spectrum of German patients with familial hypercholesterolemia. _Atherosclerosis_, 2016;253 ():88-93. _Atherosclerosis_ can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)


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Keywords for this news article include: Berlin, Germany, Europe, Familial Hypercholesterolemia, Diagnostics and Screening, Genetics, Nutritional and Metabolic Diseases and Conditions, Lipid Metabolism Disorders, Hyperlipidemias, Dyslipidemias, Charite University Hospital and School of Medicine.

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Researchers from Charles University Report Findings in Cardiovascular Research (Obstruction after alcohol septal ablation is associated with cardiovascular mortality events)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Research. According to news reporting out of Prague, Czech Republic, by NewsRx editors, research stated, "Left ventricular outflow tract obstruction (>= 30 mm Hg at rest; LVOTO) is considered a possible risk of long-term outcomes in patients with hypertrophic cardiomyopathy (HCM). However, the influence of LVOTO on the occurrence of cardiovascular mortality events in patients after alcohol septal ablation (ASA) for obstructive HCM remains unresolved."

Our news journalists obtained a quote from the research from Charles University, "We compared the outcomes of patients treated with ASA with residual LVOTO < 30 mm Hg with those with residual LVOTO >= 30 mm Hg at the first postdischarge check-up (1-6 months after the procedure). A total of 270 patients (60 +/- 12 years, median follow-up 5.1 years; 95% CI 4.5 to 5.9 years) treated with a single ASA were included; 208 (77%) and 62 (23%) patients had post-ASA LVOTO < 30 and >= 30 mm Hg at the first postdischarge clinical check-up, respectively (LVOTO 13 +/- 6 vs 50 +/- 27 mm Hg; p<0.01). Freedom from cardiovascular mortality events at 1, 5 and 10 years were 99% (95% CI 96% to 100%) vs 94% (95% CI 85% to 98%), 95% (95% CI 89% to 97%) vs 80% (95% CI 66% to 89%) and 82% (95% CI 69% to 89%) vs 72% (95% CI 55% to 84%) (log-rank test, p<0.01), respectively. In multivariable analysis adjusted for age at ASA, sex, baseline LVOTO and baseline septum thickness, the independent predictors of cardiovascular mortality events were early postdischarge LVOTO >= 30 mm Hg (HR 2.95, 95% CI 1.26 to 6.91; p=0.01) and baseline septum thickness (HR 1.07, 95% CI 1.01 to 1.13; p=0.02)."

According to the news editors, the research concluded: "After ASA for obstructive HCM, LVOTO >= 30 mm Hg at the first postdischarge clinical check-up is associated with significantly higher occurrence of subsequent cardiovascular mortality events."

For more information on this research see: Obstruction after alcohol septal ablation is associated with cardiovascular mortality events. *Heart, 2016;102(22):1793-1796. Heart* can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Heart - heart.bmj.com/)

Our news journalists report that additional information may be obtained by contacting J. Veselka, Charles Univ Prague, Univ Hosp Motol, Sch Med 2, Dept. of Cardiol, Prague, Czech Republic. Additional authors for this research include P. Tomasov, J. Januska, J. Krejci and R. Adlova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/heartjnl-2016-309699. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Prague, Czech Republic, Europe, Cardiovascular Research, Cardiology, Risk and Prevention, Cardiovascular, Charles University.

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Researchers from Chengdu University Report New Studies and Findings in the Area of Breast Cancer (Regulation of epithelial-mesenchymal transition through microRNAs: clinical and biological significance of microRNAs in breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting from Chengdu, People's Republic of China, by NewsRx journalists, research stated, "Breast cancer is a malignant disease to treat among female worldwide due to its high capability to metastasize and mutate. Epithelial-mesenchymal transition is one of the essential processes involved in the metastatic capacity of breast cancer."

Financial support for this research came from National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from Chengdu University, "In the recent time, the studies demonstrate that microRNAs, a kind of small non-coding RNA molecules, could be served as negative regulators in breast cancer, regulating cell cycle, drug resistance, and the process of metastasis in cancer development. With the assistance of microRNA profiling, the study concentrating on the regulatory function of miRNAs in breast cancer could be investigated more effectively and efficiently. More recent studies demonstrate that miRNAs have an important role to play in the EMT process of breast cancer to modulate metastasis."

According to the news reporters, the research concluded: "This small essay is on the purpose of demonstrating the significance and detection of miRNAs in breast cancer EMT process as oncogenes and tumor suppress genes through miRNA profiling according to the reports mainly in the recent 5 years, providing the evidence of efficient target therapy and effective pro-diagnosis focusing on miRNAs expression of breast cancer patients."

For more information on this research see: Regulation of epithelial-mesenchymal transition through microRNAs: clinical and biological significance of microRNAs in breast cancer. Tumor Biology, 2016;37(11):14463-14477. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting J.P. Chen, Chengdu Univ Tradit Chinese Med, Chengdu, People's Republic of China. Additional authors for this research include L. Xiong, H.L. Tang, C. Peng and J.P. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5334-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Cancer, Article Review, Women's Health, Breast Cancer, Oncology, Genetics, Chengdu University.

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Researchers from Children's Hospital Report Details of New Studies and Findings in the Area of Endocrine Cells (Evidence for feasibility of fetal trophoblastic cell-based noninvasive prenatal testing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Endocrine Cells have been published. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "The goal was to develop methods for detection of chromosomal and subchromosomal abnormalities in fetal cells in the mother's circulation at 10-16 weeks' gestation using analysis by array comparative genomic hybridization (CGH) and/or next-generation sequencing (NGS). Nucleated cells from 30 mL of blood collected at 10-16 weeks' gestation were separated from red cells by density fractionation and then immunostained to identify cytokeratin positive and CD45 negative trophoblasts."

Our news journalists obtained a quote from the research from Children's Hospital, "Individual cells were picked and subjected to whole genome amplification, genotyping, and analysis by array CGH and NGS. Fetal cells were recovered from most samples as documented by Y chromosome PCR, short tandem repeat analysis, array CGH, and NGS including over 30 normal male cells, one 47, XXY cell from an affected fetus, one trisomy 18 cell from an affected fetus, nine cells from a trisomy 21 case, three normal cells and one trisomy 13 cell from a case with confined placental mosaicism, and two chromosome 15 deletion cells from a case known by CVS to have a 2.7 Mb de novo deletion."

According to the news editors, the research concluded: "We believe that this is the first report of using array CGH and NGS whole genome sequencing to detect chromosomal abnormalities in fetal trophoblastic cells from maternal blood."


The news correspondents report that additional information may be obtained from A.L. Beaudet, Texas Childrens Hosp, Houston, TX 77030, United States. Additional authors for this research include J.C. Chow, L. U'Ren, E.A. Normand, S. Qdaisat, L. Zhao, D.M. Henke, R. Chen, C.A. Shaw, L. Jackson, Y.P. Yang, L. Vossaert, R.H.V. Needham, E.J. Chang, D. Campton, J.L. Werbin, R.C. Seubert, I.B. Van den Veyver and J Stilwell.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Endocrine Cells, Trophoblasts, Genetics, Children's Hospital.

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Researchers from Children's Research Institute Report New Studies and Findings in the Area of Sickle Cell Anemia (Substance P is increased in patients with sickle cell disease and associated with haemolysis and hydroxycarbamide use)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematologic Diseases and Conditions - Sickle Cell Anemia. According to news reporting originating in Milwaukee, Wisconsin, by NewsRx journalists, research stated, "Sickle cell disease (SCD) pain transitions from acute to chronic for unknown reasons. Chronic elevation of the pain neurotransmitter substance P (SP) sensitizes pain nociceptors."

Funders for this research include American Society of Hematology, Midwest Athletes Against Childhood Cancer and Blood Diseases Fund.

The news reporters obtained a quote from the research from Children's Research Institute, "We evaluated SP levels in controls and SCD patients during baseline and acute pain and investigated associations between SP and age, gender, pain history, haemolysis and hydroxycarbamide (also termed hydroxyurea) use. Plasma SP levels were measured using enzyme-linked immunosorbent assay. Independent samples t-test compared SP levels between: (i) SCD baseline and controls, and (ii) SCD baseline and acute pain. Multivariate linear regression determined associations between SP and age, gender, pain history and hydroxycarbamide use. Spearman correlation determined an association between SP and haemolysis. We enrolled 35 African American controls, 25 SCD baseline and 12 SCD pain patients. SCD patients were 7-19 years old. Mean +/- standard deviation SP level (pg/ml) in SCD baseline was higher than controls (324 +/- 116 vs. 229 +/- 76, P=00009). SP in SCD pain was higher than baseline (781 +/- 434 vs. 324 +/- 116, P=0004). Haemolysis correlated with increased SP: Hb (r=-07, P=00002), reticulocyte count (r=061, P=00016), bilirubin (r=068, P=00216), lactate dehydrogenase (r=062, P=00332), aspartate aminotransferase (r=068, P=0003). Patients taking hydroxycarbamide had increased SP (r=292, P=0007)."

According to the news reporters, the research concluded: "SP could be a mediator of or marker for pain sensitization in SCD and a biomarker and/or target for novel pain treatment."


Our news correspondents report that additional information may be obtained by contacting A.M. Brandow, Children's Hospital of Wisconsin, Childrens Res Inst, Milwaukee, WI, United States. Additional authors for this research include N.J. Wandersee, M. Dasgupta, R.G. Hoffmann, C.A. Hillery, C.L. Stucky and J.A. Panepinto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjh.14300. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milwaukee, Wisconsin, United States, North and Central America, Hematologic Diseases and Conditions, Neurologic Manifestations,
Researchers from China Medical University and Hospital Detail New Studies and Findings in the Area of Multiple Myeloma (Expression and significance of miR-21 in multiple myeloma patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Multiple Myeloma. According to news originating from Liaoning, People's Republic of China, by NewsRx correspondents, research stated, "The aim of the present study is to examine the expression level of peripheral mir-21 in multiple myeloma (MM) patients and to determine its clinical significance. MM patients (30), monoclonal gammopathy of undetermined significance (MGUS) patients (14), and normal controls (20) were recruited to determine the serum level of b2-MG, IgA and IgM, IgG, I, k, TP, ALB, Hb, LDH, and Ca(2+)."

Our news journalists obtained a quote from the research from China Medical University and Hospital, "Gene expression of mir-21 was quantified by SYBR green real-time fluorescent quantitative PCR. We found that the expression level of serum mir-21 in the MM group was significantly higher than the MGUS group and the NC group (p <0.01). According to the ISS installment, the level of mir-21, IgG, k, and ALB in the MM group in stage I differed from that in stages II and III. The level of IgA, b2-MG in stage III was higher as compared with stage I and II (p <0.05 and p<0.01).The levels of mir-21, k, (k+l), IgG, (IgG + IgA + IgM), and b2-MG in MM patients were positively correlated with ALB (p <0.01). Based on the results, miR-21 plays an important role as an oncogene."

According to the news editors, the research concluded: "Mir-21 may be important in the occurrence, development, and disease prognosis of MM."

For more information on this research see: Expression and significance of miR-21 in multiple myeloma patients. *Genetics and Molecular Research [electronic Resource],* 2016;15 (1):.

The news correspondents report that additional information may be obtained from J.H. Wang, The Laboratory Medicine of First Affiliated Hospital of China Medical University, Shenyang, Liaoning, People's Republic of China. Additional authors for this research include W.W. Zhou, B.X. Liu, D.L. Man, Z.D. Yang, F.R. Liu and H. Shang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4238/gmr.15016892. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Liaoning, Genetics, Oncology, Multiple Myeloma, Paraproteinemias, Hemostatic Disorders, Hemorrhagic Disorders, Blood Protein Disorders, People's Republic of China, Vascular Diseases and Conditions, Hematologic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions.

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Researchers from China Medical University and Hospital Report Findings in Oral Cancer (Dithiothreitol enhanced arsenic-trioxide-induced cell apoptosis in cultured oral cancer cells via mitochondrial dysfunction and endoplasmic reticulum stress)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Oral Cancer. According to news reporting originating in Taichung, Taiwan, by NewsRx journalists, research stated, "Arsenic is naturally occurring toxic metalloid and drinking As O containing water are recognized to be related to increased risk of neurotoxicity, liver injury, blackfoot disease, hypertension, and cancer. On the contrary, As O has been an ancient drug used in traditional Chinese medicine with substantial anticancer activities, especially in the treatment of acute promyelocytic leukemia as well as chronic wound healing."

Financial supporters for this research include National Science Council, Ministry of Science and Technology (named from National Science Council), Terry Fox Cancer Research Foundation, Taiwan Ministry of Health and Welfare Clinical Trial and Research Center of Excellence.

The news reporters obtained a quote from the research from China Medical University and Hospital, "However, the cytotoxicity and detail mechanisms of As O action in solid cancer cells, such as oral cancer cells, are largely unknown. In this study, we have primarily cultured four pairs of tumor and nontumor cells from the oral cancer patients and treated the cells with As O alone or combined with dithiothreitol (DTT). The results showed that 0.5 mM As O plus 20 mM DTT caused a significant cell death of oral cancer cells but not the nontumor cells. Also As O plus DTT upregulated Bax and Bak, downregulated Bcl-2 and p53, caused a loss of mitochondria membrane potential in oral cancer cells. On the other way, As O also triggered endoplasmic reticulum stress and increased the levels of glucose-regulated protein 78, calpain 1 and 2. Our results suggest that DTT could synergistically enhance the effects of As O on killing oral cancer cells while nontoxic to the nontumor cells."

According to the news reporters, the research concluded: "The combination is promising for clinical practice in oral cancer therapy and worth further investigations. ? 2015 Wiley Periodicals, Inc. Environ Toxicol 32:17-27.,"


Our news correspondents report that additional information may be obtained by contacting C.W. Tsai, Terry Fox Cancer Research Laboratory, China Medical University Hospital, Taichung, Taiwan. Additional authors for this research include M.D. Yang, T.C. Hsia, W.S. Chang, C.M. Hsu, Y.H. Hsieh, J.G. Chung and D.T Bau.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/tox.22208. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antineoplastics, Pharmaceuticals, Taiwan, Taichung, Oncology, Apoptosis, Chemicals, Cytoplasm, Organelles, Oral Cancers,
Researchers from China Pharmaceutical University Discuss Findings in Steatosis (Long-term Stress with Hyperglucocorticoidemia-induced Hepatic Steatosis with VLDL Overproduction Is Dependent on both 5-HT2 Receptor and 5-HT Synthesis in Liver)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Steatosis is the subject of a report. According to news reporting originating in Nanjing, People's Republic of China, by NewsRx journalists, research stated, "Hepatic triglycerides production and adipose lipolysis are pivotal for long-term stress (LTS) or hyperglucocorticoidemia-induced insulin resistance. 5-hydroxytryptamine (5-HT) has been demonstrated to induce hepatic lipid metabolic abnormality by activating mammalian target of rapamycin (mTOR). In present study, we explored whether 5-HT is involved in LTS effects in liver using restraint stress-exposed rats and cultured primary rat hepatocytes and HepG2 cells."

The news reporters obtained a quote from the research from China Pharmaceutical University, "LTS with hyperglucocorticoidemia induced hepatic 5-HT synthetic increase with tryptophan hydroxylase 1 (Tph1) up-regulation, and 5-HT2 receptor (5-HT2R, including 5-HT2A, 2B receptor) up-regulation in liver and visceral adipose, as well as hepatic mTOR activation with triglycerides and VLDL overproduction with steatosis, and visceral adipose lipolytic increase with high blood free fatty acids (FFAs) level. 5-HT exposure exhibited LTS-like effects in both tissues, and both LTS and 5-HT effects could be abolished significantly by blocking 5-HT2R. In HepG2 cells dexamethasone or palmitate-induced mTOR activation with triglycerides and VLDL overproduction were accompanied by up-regulations of 5-HT synthesis and 5-HT2R, which were significantly abolished by gene silencing Tph1 or 5-HT2R and were almost fully abolished by co-silencing of both, especially on VLDL overproduction. Chemical inhibition of Tph1 or/and 5-HT2R in both hepatocytes exhibited similar abolishment with genetic inhibition on dexamethasone-induced effects. 5-HT-stimulated effects in both hepatocytes were fully abolished by blocking 5-HT2R, while 5-HT itself also up-regulated 5-HT2R."

According to the news reporters, the research concluded: "Up-regulated hepatic 5-HT synthesis and 5-HT2R induced by both glucocorticoid and FFAs are crucial for LTS-induced hepatic steatosis with VLDL overproduction, while 5-HT by acting on 5-HT2R mediates mTOR activation in liver."


Our news correspondents report that additional information may be obtained by contacting J. Fu, 1 Postgraduates of China Pharmaceutical University, Nanjing, People's Republic of China. Additional authors for this research include S. Ma, X. Li, S. An, T. Li, K.
Researchers from Chinese Academy of Fishery Sciences Describe Findings in Clinical Trials and Studies (Comparative Study on Physical-Chemical and Biological Characteristics of Grass Carp Reovirus From Different Genotypes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Clinical Research - Clinical Trials and Studies is now available. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Grass carp reovirus (GCRV) was first isolated in 1983. In China, the virus caused severe hemorrhagic disease with significant losses of fingerling and yearling grass carp, Cyenopharyngodon idellus."

Our news editors obtained a quote from the research from the Chinese Academy of Fishery Sciences, "Clade analysis of the different GCRV isolates from China indicates there are three distinct branches, which represent genotypes I, II, and III. However, little is known about the physical-chemical and biological characteristics of viruses from these three genotypes. In this study, the morphologic characteristics of JX-0901 (genotype I), HZ08 (genotype II), and Hubei grass carp disease reovirus (genotype III) were determined using electron microscopy which revealed morphological similarities but viral particles of the isolates arrayed in different ways. A comparison of selected viruses was performed for physical and chemical properties, including stability under different pH conditions, treatment with ether and trypsin, and repeated freeze-thaw cycles. Three isolates showed similar resistance to treatment with ether or trypsin and were stable between pH 3 and pH 10. The viruses exhibited different proliferation curves in the Grass carp swimming bladder cell. No postinfection mortalities or histological lesions were observed in infected rare minnow. Furthermore, cross-protection assays revealed low cross protection between different genotype viruses."

According to the news editors, the research concluded: "This study contributes to the body of knowledge concerning disease control and vaccine development for grass carp hemorrhagic disease."


The news editors report that additional information may be obtained by contacting
Researchers from Chinese Academy of Medical Sciences Detail Findings in Human Immunology (Association study of rs924080 and rs11209032 polymorphisms of IL23R-IL12RB2 in a Northern Chinese Han population with Behcet's disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Human Immunology. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Two genome-wide association studies (GWAS) have identified the IL-23 receptor- IL-12 receptor beta 2 (1L23R-IL12RB2) as the susceptibility genetic region in Turkish and Japanese population with Behcet's disease (BD). We investigated the association of this region with BD in a Northern Chinese Han population."

The news reporters obtained a quote from the research from the Chinese Academy of Medical Sciences, "A total of 407 patients with BD and 421 healthy controls were genotyped for single nucleotide polymorphisms (SNPs) rs924080 and rs11209032 using the Sequenom MassArray system. Statistically significant associations with BD were detected at two SNPs namely, rs924080 and rs11209032, both, by allele analysis (OR = 1.58, 95% CI = 1.25-2.00, P-c = 2.52 x 10(-4), and OR =1.45, 95% CI = 1.19-1.76, P-c = 3.46 x 10(-4), respectively), and genotype analysis (P-c = 1.22 x 10(-3) and P-c = 1.77 x 10(-3), respectively). Significant differences were observed in the genotype frequency distribution for these SNPs under the additive, dominant and recessive models (all P-c < 0.05). The haplotypes (AT and GC) formed by the two SNPs were associated with BD (all permutation P< 0.05). A meta-analysis also appeared to support the association of the two SNPs with BD."

According to the news reporters, the research concluded: "SNPs (rs924080 and rs11209032) of the IL23R-IL12RB2 region were found to be associated with BD in a Northern Chinese Han population."

For more information on this research see: Association study of rs924080 and rs11209032 polymorphisms of IL23R-IL12RB2 in a Northern Chinese Han population with Behcet's disease. Human Immunology, 2016;77(12):1284-1290. Human Immunology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

Our news correspondents report that additional information may be obtained by contacting F.C. Zhang, Chinese Academy Med Sci, Beijing 100730, People's Republic of China. Additional authors for this research include J.J. Xu, Z.Y. Wu, F. Sun, H. Chen, W.J. Zheng, S.
Cardiovascular Diseases and Conditions - Aneurysm

Researchers from Chinese Academy of Medical Sciences Detail New Studies and Findings in the Area of Aneurysm (Endovascular stenting for extracranial carotid artery aneurysms Experiences and mid-term results)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Aneurysm are presented in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to investigate the safety and effectiveness of endovascular stenting for extracranial carotid artery aneurysms (ECAAs) and evaluate the mid-term outcomes. Twelve consecutive symptomatic patients (mean age 43.8 +/- 14.9 years; 8 men) with ECAAs who were treated with endovascular stenting between 1997 and 2015 were retrospectively analyzed."

The news correspondents obtained a quote from the research from the Chinese Academy of Medical Sciences, "Clinical follow-up data including symptoms and neurological events were obtained from outpatient records. Imaging follow-up with duplex ultrasound and/or computed tomographic angiography (CTA) was performed to examine the aneurysm obliteration and patency of the stents at 3, 6, 12 months and yearly thereafter. A total of 5 true aneurysms and 7 pseudoaneurysms were included in our series. Neurological symptoms (n = 5, 41.7%) and a pulsatile neck mass (n = 5, 41.7%) were the most common presenting symptoms. Endovascular stenting procedures were technically successful in all cases; 3 patients received bare stents, and 9 patients received covered stents. No perioperative neurologic or cardiopulmonary complications occurred. Over a period of follow-ups (mean 21.8 +/- 25.1 months), all patients were alive and free from neurological or other adverse events. All aneurysms were completely excluded except for 1 patient who was exposed to a residual medium leaking into the aneurysm sac. No reintervention was performed in this specific patient because aneurysm growth or significant clinical symptoms did not occur. Recurrent restenosis assessed by CTA imaging at 12 months occurred in 1 (8.3%) patient in our series. Target lesion revascularization for this hemodynamic restenosis was treated with placement of an additional stent. In our series, endovascular stenting for ECAAs was found to be safe, effective, and proved to have promising mid-term results."

According to the news reporters, the research concluded: "Although long-term results need to be further explored, advantages including less procedure-related complications and a shorter recovery time make endovascular stenting an attractive option for ECAAs, especially for the patients who are unfit for traditional open surgery."

For more information on this research see: Endovascular stenting for extracranial carotid artery aneurysms Experiences and mid-term results. Medicine, 2016;95(46):397-403. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www elsevier com; Medicine -
Researchers from Chinese Academy of Medical Sciences Report Details of New Studies and Findings in the Area of Non-Small Cell Lung Cancer (The Efficacy and Safety of Icotinib in Patients with Advanced Non-Small Cell Lung Cancer Previously ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Icotinib is a small molecule targeting epidermal growth factor receptor tyrosine kinase, which shows non-inferior efficacy and better safety comparing to gefitinib in previous phase III trial. The present study was designed to further evaluate the efficacy and safety of icotinib in patients with advanced non-small-cell lung cancer (NSCLC) previously treated with chemotherapy."

Our news editors obtained a quote from the research from the Chinese Academy of Medical Sciences, "Patients with NSCLC progressing after one or two lines of chemotherapy were enrolled to receive oral icotinib (125 mg tablet, three times per day). The primary endpoint was progression-free survival. The secondary endpoints included overall survival, objective response rate, time to progression, quality of life and safety. From March 16, 2010 to October 9, 2011, 128 patients from 15 centers nationwide were enrolled, in which 124 patients were available for efficacy evaluation and 127 patients were evaluable for safety. The median progression-free survival and time to progression were 5.0 months (95% CI 2.9-6.6 m) and 5.4 months (95% CI 3.1-7.9 m), respectively. The objective response rate and disease control rate were 25.8% and 67.7% respectively. Median overall survival exceeded 17.6 months (95% CI 14.2 m-NA) according to censored data. Further follow-up of overall survival is ongoing. The most frequent treatment-related adverse events were rash (26%, 33/127), diarrhea (12.6%, 16/127) and elevation of transaminase (15.7%, 20/127)."

According to the news editors, the research concluded: "In general, this study showed similar efficacy and numerically better safety when compared with that in ICOGEN trial, further confirming the efficacy and safety of icotinib in treating patients with advanced NSCLC previously treated with chemotherapy."

For more information on this research see: The Efficacy and Safety of Icotinib in Patients with Advanced Non-Small Cell Lung Cancer Previously Treated with Chemotherapy: A Single-Arm, Multi-Center, Prospective Study. Plos One, 2015;10(11):e0142500. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)
Researchers from Chinese Peoples' Liberation Army General Hospital Detail New Studies and Findings in the Area of Thrombocytopenia (Efficacy and safety of thrombopoietin receptor agonists in patients with primary immune thrombocytopenia: A ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hematologic Diseases and Conditions - Thrombocytopenia have been presented. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Immune thrombocytopenia (ITP) is an autoimmune disease characterized by increased platelet destruction and impaired platelet production. In this study, we conducted a systematic review and meta-analysis to determine the efficacy and safety of thrombopoietin receptor agonists (TPO-RA) in primary ITP patients."

Our news journalists obtained a quote from the research from Chinese Peoples' Liberation Army General Hospital, "Thirteen randomized controlled trials were included in this study, the pooled results of which demonstrated that TPO-RA significantly increased platelet response and durable response (DR) rates [risk ratio (RR): 2.77, 95% confidence interval (CI): 2.01-3.82, P = 5.9 x 10(-10); RR: 7.52, 95% CI: 3.94-14.35, P = 9.2 x 10(-10); respectively] and that TPO-RA significantly reduced the incidences of any or severe bleeding events (RR: 0.80, 95% CI: 0.67-0.95, P = 0.013; RR: 0.52, 95% CI: 0.27-0.99, P = 0.048; respectively). Moreover, our results indicated that there was a significant reduction in the proportion of patients needing rescue medications in the TPO-RA groups compared with the control groups (RR: 0.50, 95% CI: 0.42-0.59, P = 2.0 x 10(-15)) and that the rates of any or severe adverse events were similar between the TPO-RA and control regimens (RR: 1.01, 95% CI: 0.92-1.10; RR: 0.74, 95% CI: 0.54-1.01; respectively)."

According to the news editors, the research concluded: "These findings demonstrate that TPO-RA are an effective and safe second-line treatment option for primary ITP patients."

For more information on this research see: Efficacy and safety of thrombopoietin receptor agonists in patients with primary immune thrombocytopenia: A systematic review and
Researchers from Chinese University of Hong Kong Report Findings in Type 2 Diabetes (Retinal Information is Independently Associated with Cardiovascular Disease in Patients with Type 2 diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting out of Hong Kong, People's Republic of China, by NewsRx editors, research stated, "To evaluate the association between a series of retinal information and cardiovascular disease (CVD) and to evaluate whether this association is independent of traditional CVD risk factors in type 2 diabetes patients, we undertook an age-sex matched case-control study with 79 CVD cases and 150 non-CVD controls. All the participants underwent standardized physical examinations and retinal imaging."

Our news journalists obtained a quote from the research from the Chinese University of Hong Kong, "Retinal information was extracted from the retinal images using a semi-automatic computer program. Three stepwise logistic regression models were evaluated: model 1 with cardiovascular risk factors only; model 2 with retinal information only and model 3 with both cardiovascular risk factors and retinal information. The areas under the receiver operating characteristic curves (AUCs) were used to compare the performances of different models. Results showed that the AUCs were 0.692 (95%CI: 0.622-0.761) and 0.661 (95%CI: 0.588-0.735) for model 1 and model 2, respectively. In addition, model 3 had an AUC of 0.775 (95% CI: 0.716-0.834). Compared to the previous two models, the AUC of model 3 increased significantly (p <0.05 in both comparisons)."

According to the news editors, the research concluded: "Retinal information is independently associated with CVD in type 2 diabetes. Further work is needed to validate the translational value of applying retinal imaging analysis into clinical practice."

For more information on this research see: Retinal Information is Independently Associated with Cardiovascular Disease in Patients with Type 2 diabetes. Scientific Reports, 2016;6(6):19053. (Nature Publishing Group - www.nature.com; Scientific Reports -
Researchers from Christiana Care Health Systems Describe Findings in Cardiology (Impact of a Multidisciplinary Team Approach Including an Intensivist on the Outcomes of Critically Ill Patients in the Cardiac Care Unit)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting originating in Newark, Delaware, by NewsRx journalists, research stated, "To investigate the impact of integrating a medical intensivist into a cardiac care unit (CCU) multidisciplinary team on the outcomes of CCU patients. We conducted a retrospective cohort study of 2239 CCU admissions between July 1, 2011, and July 1, 2013, which constituted patients admitted in the 12 months before and 12 months after the introduction of intensivists into the CCU multidisciplinary team."

The news reporters obtained a quote from the research from Christiana Care Health Systems, "This team included a cardiologist, a medical intensivist, medical house staff, nurses, a pharmacist, a dietitian, and physical and respiratory therapists. The primary outcome was CCU mortality. Secondary outcomes included hospital mortality, CCU length of stay, hospital length of stay, and duration of mechanical ventilation. After the implementation of a multidisciplinary team approach, there was a significant decrease in both adjusted CCU mortality (3.5% vs 5.9%; P = .01) and hospital mortality (4.4% vs 11.1%; P< .01). A similar impact was observed on adjusted mean CCU length of stay (2.5 +/- 2.0 vs 2.9 +/- 2.0 days; P< .01), adjusted mean hospital length of stay (7.0 +/- 4.5 vs 7.5 +/- 4.5 days; P< .01), and adjusted mean ventilation duration (2.0 +/- 1.0 vs 4.3 +/- 2.5 days; P< .01)."

According to the news reporters, the research concluded: "The implementation of a multidisciplinary team approach in which an intensivist and a cardiologist comanage the critical care of CCU patients is feasible and may result in better patient outcomes."

For more information on this research see: Impact of a Multidisciplinary Team Approach Including an Intensivist on the Outcomes of Critically Ill Patients in the Cardiac Care Unit. *Mayo Clinic Proceedings*, 2016;91(12):1727-1734. *Mayo Clinic Proceedings* can be
Researchers from Chung Ang University Discuss Findings in Angina Pectoris (Percutaneous Coronary Intervention Is More Beneficial Than Optimal Medical Therapy in Elderly Patients with Angina Pectoris)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Angina Pectoris have been presented. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Data comparing the clinical benefits of medical treatment with those of percutaneous coronary intervention (PCI) in an elderly population with angina pectoris are limited. Therefore, we evaluated the efficacy of elective PCI versus optimal medical treatment (OMT) in elderly patients (between 75 and 84 years old) with angina pectoris."

Financial supporters for this research include Ministry of Health, Welfare and Family Affairs, Cardiovascular Research Center.

The news correspondents obtained a quote from the research from Chung Ang University, "One hundred seventy-seven patients with significant coronary artery stenosis were randomly assigned to either the PCI group (n=90) or the OMT group (n=87). The primary outcome was a composite of major adverse events in the 1-year follow-up period that included cardiovascular death, non-fatal myocardial infarction, coronary revascularization, and stroke. Major adverse events occurred in 5 patients (5.6%) of the PCI group and in 17 patients (19.5%) of the OMT group (p=0.015). There were no significant differences between the PCI group and the OMT group in cardiac death [hazard ratio (HR) for the PCI group 0.454; 95% confidence interval (CI) 0.041-5.019, p=0.520], myocardial infarction (HR 0.399; 95% CI 0.039-4.050, p=0.437), or stroke (HR 0.919; 95% CI 0.057-14.709, p=0.952). However, the PCI group showed a significant preventive effect of the composite of major adverse events (HR 0.288; 95% CI 0.106-0.785, p=0.015) and against the need for coronary revascularization (HR 0.157; 95% CI 0.035-0.703, p=0.016)."

According to the news reporters, the research concluded: "Elective PCI reduced major adverse events and was found to be an effective treatment modality in elderly patients with angina pectoris and significant coronary artery stenosis, compared to OMT."

For more information on this research see: Percutaneous Coronary Intervention Is

Our news journalists report that additional information may be obtained by contacting H. Won, Cardiovascular and Arrhythmia Center, College of Medicine, Chung-Ang University, Seoul, South Korea. Additional authors for this research include A.Y. Her, B.K. Kim, Y.H. Kim, D.H. Shin, J.S. Kim, Y.G. Ko, D. Choi, H.M. Kwon, Y. Jang and M.K Hong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3349/ymj.2016.57.2.382. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Therapy, Stenosis, Angiology, Cardiology, South Korea, Heart Attack, Heart Disease, Angina Pectoris, Coronary Artery, Myocardial Ischemia, Myocardial Infarction, Heart Disorders and Diseases, Vascular Diseases and Conditions.

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Health and Medicine - Medical Research

Researchers from Chung Ang University Hospital Detail New Studies and Findings in the Area of Medical Research (Intra-Articular Injections in Patients with Femoroacetabular Impingement: a Prospective, Randomized, Double-blind, Cross-over Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Health and Medicine - Medical Research is now available. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "We evaluated and compared the effectiveness of intra-articular injection of hip joint using hyaluronic acid and steroid in patients with femoroacetabular impingement (FAI). Thirty patients with FAI clinically and radiologically were enrolled and underwent hip injection using steroid (TA) or hyaluronic acid (HA) at 0-weeks with cross-over injection at 2-weeks in patients without clinical response of decrease of pain intensity less than 2-point."

Our news journalists obtained a quote from the research from Chung Ang University Hospital, "Patients were followed up to 12-weeks for pain intensity (Numeric rating scale, NRS: 0-10), hip disability score (HOOS), oral medication and adverse events. In 17 patients without crossover, HOOS at 2-weeks was improved significantly in patients with HA injection (mean increase of HOOS = 13.8 with HA vs. -2.2 with TA, P = 0.031) without difference of NRS (P = 0.943). In 13 patients with cross-over, NRS was significantly improved at 2-weeks with first TA injection (mean decrease of NRS = 1.7 with first TA vs. 0.3 with first HA, P = 0.036), without difference of HOOS (P = 0.431). At 4-weeks, NRS and HOOS were significantly different according to injection drugs (NRS: 0.9 with TA first and HA later vs. 2.7 with HA first and TA later, P = 0.001; mean increase of HOOS: 5.3 with TA first and HA later vs. 10.2 with HA first and TA later, P = 0.032)."

According to the news editors, the research concluded: "Intra-articular hip injection may be effective in FAI, with faster effect of pain improvement by TA and more delayed effect of function improvement by HA."

For more information on this research see: Intra-Articular Injections in Patients with Femoroacetabular Impingement: a Prospective, Randomized, Double-blind, Cross-over Study.
Researchers from Chung Ang University Report New Studies and Findings in the Area of Mononuclear Phagocyte System (Thunbergia alata inhibits inflammatory responses through the inactivation of ERK and STAT3 in macrophages)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Mononuclear Phagocyte System have been published. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Thunbergia alata (Acanthaceae) has been used traditionally to treat various inflammatory diseases such as fever, cough and diarrhea in East African countries including Uganda and Kenya. However, systemic studies elucidating the anti-inflammatory effects and precise mechanisms of action of T. alata have not been conducted, to the best of our knowledge."

Our news editors obtained a quote from the research from Chung Ang University, "To address these concerns, we explored the anti-inflammatory effects of a methanol extract of T. alata (MTA) in macrophages. Non-cytotoxic concentrations of MTA (300 g/ml) inhibited nitric oxide (NO) production in lipopolysaccharide (LPS)-stimulated RAW 264.7 macrophages by transcriptional regulation of inducible NO synthase in a dose-dependent manner. The expression of cyclooxygenase-2, the enzyme responsible for the production of prostaglandin E-2, was unchanged by MTA at the mRNA and protein levels. MTA treatment inhibited interleukin (IL)-6 inflammatory cytokines, including IL-6 and IL-1. Tumor necrosis factor-production and mRNA expression were not regulated by MTA treatment. The decreased production of inflammatory mediators by MTA was followed by the reduced phosphorylation of extracellular signal-regulated kinase (ERK) and signal transducer and activator of transcription 3 (STAT3). MTA treatment had no effect on activity of other mitogen-activated protein kinases (MAPKs), p38, c-Jun N-terminal kinase (JNK), and nuclear factor-B (NF-B)."

According to the news editors, the research concluded: "These results indicate that MTA selectively inhibits the excessive production of inflammatory mediators in LPS-stimulated murine macrophages by reducing the activity of ERK and STAT3, suggesting that MTA plays an important inhibitory role in the modulation of severe inflammation."

For more information on this research see: Thunbergia alata inhibits inflammatory responses through the inactivation of ERK and STAT3 in macrophages. *International Journal of Molecular Medicine*, 2016;38(5):1596-1604. *International Journal of Molecular Medicine* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.
Researchers from Chungnam National University Report Recent Findings in Toxicology and Pharmacology (Subacute toxicity evaluation of KR-33493, FAF1 inhibitor for a new anti-parkinson's disease agent, after oral administration in rats and dogs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Toxicology and Pharmacology are discussed in a new report. According to news reporting from Daejeon, South Korea, by NewsRx journalists, research stated, "KR33493, a newly developed FAS-associated factor 1 (FAF1) inhibitor for Parkinson's disease, is being evaluated in a Phase I clinical trial. In the present study, the subchronic toxicity of KR33493 in Sprague-Dawley (SD) rats and beagle dogs was investigated at various oral doses for 28 and 14 days, respectively."

Financial support for this research came from Chungnam National University.

The news correspondents obtained a quote from the research from Chungnam National University, "During the study, food consumption, body weights, organ weights, gross findings, and mortality were examined; and ophthalmoscopy, electrocardiography, hematology, serum biochemistry, urinalysis, histopathology, and toxicokinetics were performed. In rats, weight gain decreased in both sexes at 500 mg/kg/day, with no significant differences. In dogs, some significant differences compared with the control were found during the trial; however, at the end of recovery periods, these were no longer observed and there was no dose correlation. Some histopathological findings were observed, but these were considered as incidental changes. Since no other significant changes were observed, doses above 500 and 1000 mg/kg KR33493 in rat and dogs, respectively, caused no observed adverse effects."

According to the news reporters, the research concluded: "Therefore, based on these results, the Phase 1 clinical trial for KR33493 was approved by the Korean Food & Drug Administration."


Our news journalists report that additional information may be obtained by contacting S.E. Yoo, Chungnam National University, Grad Sch New Drug Discovery & Dev, Daejeon, South Korea. Additional authors for this research include C. Yu, J.H. Lee, K.S. Moon,
Researchers from College of Medicine Report on Findings in Human Immunodeficiency Virus (Plasmablastic lymphoma in HIV patients: Experience at a tertiary care hospital in eastern India)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Human Immunodeficiency Virus is the subject of a report. According to news reporting originating from West Bengal, India, by NewsRx correspondents, research stated, "Plasmablastic lymphoma (PBL), a rare non-Hodgkin's lymphoma (NHL) variant specifically associated with human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), expresses well-differentiated plasma cell markers like CD138, bright CD38, and MUM1; but not conventional B-cell markers. It occurs at unusual sites like oral cavity and orbit, and has poor survival rates."

Our news editors obtained a quote from the research from the College of Medicine, "This study serves as a review of a clinical experience with six HIV patients with PBL and observes the spectrum of clinical presentations, histopathologies, and 1-year outcomes in PBL patients. This review of six PBL patients was conducted at a tertiary care hospital in eastern India using relevant radiological, histopathological, and immunohistological studies. Incidence of PBL among HIV patients was 0.58% (6/1,028). Mean CD4 count at presentation was 125.5 ± 71.1 cells/mL. Sites of involvement included pleura, lung parenchyma, suprarenal gland, pelvic cavity, and retroorbital space (one each). Immunohistopathology of biopsied sample in each patient revealed PBL (positive plasma cell markers MUM-1/IRF4, CD38, and CD138/syndecan; and negative of B-cell markers CD3, CD20, and CD30). Three (60%) were positive for Epstein Barr virus (EBV) immunoglobulin G (IgG). Five surviving patients received CHOP (cyclophosphamide, doxorubicin, vincristine, prednisone) regimen and attained partial remission (PR) after six cycles. Subsequently, three patients were started on EPOCH (etoposide, cyclophosphamide, doxorubicin, vincristine, prednisone) therapy; two attained near total regression after 6 months (four cycles). Overall, four patients remained alive with good quality of life at the end of 1 year of follow-up. PBL in HIV occurs at unusual sites with varying aggressivity."

According to the news editors, the research concluded: "This study is too small to comment on the long-term outcomes of PBL in HIV; however, coadministration of antiretroviral therapy (ART) with standard chemotherapy may improve survival."


The news editors report that additional information may be obtained by contacting S.
Nutritional and Metabolic Diseases and Conditions - …

Researchers from Columbia University Detail New Studies and Findings in the Area of Amyloidosis (Transthyretin Cardiac Amyloidosis in Older Americans)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Amyloidosis are discussed in a new report. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Wild-type transthyretin cardiac amyloidosis (ATTRwt), formerly called senile cardiac amyloidosis (SCA), is almost exclusively a disorder of older adults. As the population ages, the diagnosis of ATTRwt will increase, making it the most common form of cardiac amyloidosis."

The news reporters obtained a quote from the research from Columbia University, "An important precondition to reduce underdiagnosis and misdiagnosis is to maintain a high index of suspicion for cardiac amyloidosis. Several clues can be gleaned from the clinical history, physical exam, electrocardiography, and noninvasive imaging techniques. Nuclear scintigraphy agents using Tc-99m-phosphate derivatives combined with assessment for monoclonal proteins are eliminating the need for tissue confirmation in ATTR. Morbidity and mortality from ATTRwt cardiac amyloid is high and the emergence of numerous therapies based on a biologic understanding of the pathophysiology of this condition, including drugs to inhibit the synthesis of TTR, stabilize TTR, and degrade or extract amyloid, provides new hope for those afflicted."

According to the news reporters, the research concluded: "This review briefly covers the epidemiology, pathophysiology, and clinical manifestations, as well as diagnostic strategies and treatment, of ATTR in older adults."

For more information on this research see: Transthyretin Cardiac Amyloidosis in Older Americans. *Journal of Cardiac Failure*, 2016;22Q(12):996-1003. *Journal of Cardiac Failure* can be contacted at: Churchill Livingstone Inc Medical Publishers, Curtis Center, Independence Square West, Philadelphia, PA 19106-3399, USA. (Elsevier - www.elsevier.com; Journal of Cardiac Failure - www.journals.elsevier.com/journal-of-cardiac-failure/)

Our news correspondents report that additional information may be obtained by

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Peptide Proteins - Posterior Pituitary Hormones. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Premature cervical remodeling resulting in spontaneous preterm birth may begin with premature failure or relaxation at the internal os (termed 'funneling'). To date, we do not understand why the internal os fails or why funneling occurs in some cases of premature cervical remodeling."

The news reporters obtained a quote from the research from Columbia University, "Although the human cervix is thought to be mostly collagen with minimal cellular content, cervical smooth muscle cells are present in the cervix and can cause cervical tissue contractility. To understand why the internal os relaxes or why funneling occurs in some cases of premature cervical remodeling, we sought to evaluate cervical smooth muscle cell content and distribution throughout human cervix and correlate if cervical smooth muscle organization influences regional cervical tissue contractility. Using institutional review board-approved protocols, nonpregnant women <50 years old undergoing hysterectomy for benign indications were consented. Cervical tissue from the internal and external os were immunostained for smooth muscle cell markers (a-smooth muscle actin, smooth muscle protein 22 calponin) and contraction-associated proteins (connexin 43, cyclooxygenase-2, oxytocin receptor). To evaluate cervical smooth muscle cell morphology throughout the entire cervix, whole cervical slices were obtained from the internal os, midcervix, and external os and immunostained with smooth muscle actin. To correlate tissue structure with function, whole slices from the internal and external os were stimulated to contract with 1 mmol/L of oxytocin in organ baths. In separate samples, we tested if the cervix responds to a common tocolytic, nifedipine. Cervical slices from the internal os were treated with oxytocin alone or oxytocin + increasing doses of nifedipine to generate a dose response and half maximal inhibitory concentration. Student t test was used where appropriate. Cervical tissue was collected from 41 women. Immunohistochemistry showed cervical smooth muscle cells at the internal and external os expressed mature smooth muscle cell markers and contraction-associated proteins. The cervix exhibited a gradient of cervical smooth muscle cells. The area of the internal os contained 50-60% cervical smooth
muscle cells that were circumferentially organized in the periphery of the stroma, which may resemble a sphincter-like pattern. The external os contained approximately 10% cervical smooth muscle cells that were randomly scattered in the tissue. In organ bath studies, oxytocin stimulated the internal os to contract with more than double the force of the external os (1341 +/- 693 vs 523 +/- 536 integrated grams x seconds, respectively, P = .009). Nifedipine significantly decreased cervical tissue muscle force compared to timed vehicle control (oxytocin alone) at doses of 10(-5) mol/L (vehicle 47% +/- 15% vs oxytocin + nifedipine 24% +/- 16%, P = .007), 10(-4) mol/L (vehicle 46% +/- 16% vs oxytocin + nifedipine -4% +/- 20%, P = .003), and 10(-3) mol/L (vehicle 42% +/- 14% vs oxytocin + nifedipine -15% +/- 18%, P = .0006). The half maximal inhibitory concentration for nifedipine was 1.35 x 10(-5) mol/L. Our findings suggest a new paradigm for cervical tissue morphology-one that includes the possibility of a specialized sphincter at the internal os."

According to the news reporters, the research concluded: "This new paradigm introduces novel avenues to further investigate potential mechanisms of normal and premature cervical remodeling."


Our news correspondents report that additional information may be obtained by contacting J.Y. Vink, Columbia University, Medical Center, Dept. of Obstet & Gynecol, New York, NY, United States. Additional authors for this research include S. Qin, C.O. Brock, N.M. Zork, H.M. Feltovich, X.W. Chen, P. Urie, K.M. Myers, T.J. Hall, R. Wapner, J.K. Kitajewski, C.J. Shawber and G. Gallos.

Keywords for this news article include: New York City, New York, United States, North and Central America, Posterior Pituitary Hormones, Peptide Proteins, Peptide Hormones, Muscle Cells, Oxytocin, Columbia University.

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in the literature. To compare a large series of frameless to frame-based stereotactic catheter placements for Ommaya reservoirs, with an aim to compare accuracy and complication rate between the two procedures. A consecutive series of 41 frame-based and 68 frameless Ommaya reservoir placement procedures performed at our institution from 1998 to 2013 was reviewed. Patient demographics, operative accuracy and complication rates for the two techniques were compared. Characteristics of the two groups were similar in diagnoses, age and other related factors. Comparison of frameless to frame-based stereotactic Ommaya catheter placement did not show significant differences in accuracy of placement, overall morbidity or mortality, or in any subcategory of complications."

According to the news reporters, the research concluded: "These findings suggest that frameless stereotactic Ommaya reservoir placement is as safe and accurate as the frame-based technique."


Our news correspondents report that additional information may be obtained by contacting B.C. Kennedy, Dept. of Neurological Surgery, Columbia University, New York, NY, United States. Additional authors for this research include L.T. Brown, R.J. Komotar and G.M McKhann.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442423. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cardiology, New York City, United States, North and Central America.

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searched the Cochrane Central Register of Controlled Trials (CENTRAL), PubMed and ClinicalTrials.gov to 25 March 2016. Selection criteria We included randomised trials of augmentation therapy with alpha-1 antitrypsin compared with placebo or no treatment. Data collection and analysis The two review authors independently selected trials, extracted outcome data and assessed the risk of bias. We included three trials (283 participants in the analyses) that ran for two to three years. All participants were ex-or never-smokers and had genetic variants that carried a high risk of developing COPD. Only one trial reported mortality data (one person of 93 died in the treatment group and three of 87 died in the placebo group). There was no information on harms in the oldest trial. Another trial reported serious adverse events in 10 participants in the treatment group and 18 participants in the placebo group. In the most recent trial, serious adverse events occurred in 28 participants in each group. None of the trials reported mean number of lung infections or hospital admissions. In the two trials that reported exacerbations, there were more exacerbations in the treatment group than in the placebo group, but the results of both trials included the possibility of no difference. Quality of life was similar in the two groups. Forced expiratory volume in one second (FEV1) deteriorated more in participants in the treatment group than in the placebo group but the confidence interval (CI) included no difference (standardised mean difference -0.19, 95% CI -0.42 to 0.05; P = 0.12). For carbon monoxide diffusion, the difference was -0.11 mmol/minute/kPa (95% CI -0.35 to 0.12; P = 0.34). Lung density measured by computer tomography (CT) scan deteriorated significantly less in the treatment group than in the placebo group (mean difference (MD) 0.86 g/L, 95% CI 0.31 to 1.42; P = 0.002). Several secondary outcomes were unreported in the largest and most recent trial whose authors had numerous financial conflicts of interest. Authors' conclusions This review update added one new study and 143 new participants, but the conclusions remain unchanged. Due to sparse data, we could not arrive at a conclusion about the impact of augmentation therapy on mortality, exacerbations, lung infections, hospital admission and quality of life, and there was uncertainty about possible harms.

According to the news reporters, the research concluded: "Therefore, it is our opinion that augmentation therapy with alpha-1 antitrypsin cannot be recommended."

For more information on this research see: Intravenous alpha-1 antitrypsin augmentation therapy for treating patients with alpha-1 antitrypsin deficiency and lung disease. Cochrane Database of Systematic Reviews, 2016;(9):1985-2011. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting P.C. Gotzsche, Rigshospitalet, Nord Cochrane Center, DK-2100 Copenhagen, Denmark.

Keywords for this news article include: Copenhagen, Denmark, Europe, Therapy, Article Review, Risk and Prevention, Respiratory Tract Diseases and Conditions, Connective Tissue Diseases and Conditions, Chronic Obstructive Pulmonary Disease, Alpha 1-Antitrypsin Deficiency, Lung Diseases and Conditions, Acute-Phase Proteins, alpha 1-Antitrypsin, Alphaglobulins, Blood Proteins, Glycoproteins, Hospital, Placebos, Genetics, Serpins, Copenhagen University Hospital.

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Researchers from Copenhagen University Hospital Report New Studies and Findings in the Area of Hyperalgesia (Effects of target-controlled infusion of high-dose naloxone on pain and hyperalgesia in a human thermal injury model: a study protocol ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nervous System Diseases and Conditions - Hyperalgesia. According to news reporting originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "Mu-opioid-receptor antagonists have been extensively studied in experimental research as pharmacological tools uncovering mechanisms of pain modulation by the endogenous opioid system. In rodents, administration of high doses of mu-opioid-receptor antagonists after the resolution of an inflammatory injury has demonstrated reinstatement of nociceptive hypersensitivity indicating unmasking of latent sensitization."

Our news editors obtained a quote from the research from Copenhagen University Hospital, "In a recent human study, pain hypersensitivity assessed as secondary hyperalgesia area (SHA), was reinstated 7 days after a mild thermal injury, in 4 out of 12 subjects after a naloxone infusion. The aims of the present study are first, to replicate our previous findings in a larger-sized study; second, to examine if high sensitizers (subjects presenting with large SHA after a thermal injury) develop a higher degree of hypersensitivity after naloxone challenge than low sensitizers (subjects presenting with restricted SHA after a thermal injury); and third to examine a dose-response relationship between stable naloxone concentrations controlled by target-controlled infusion, and the unmasking of latent sensitization. Healthy participants (n=80) underwent a screening day (day 0) with induction of a thermal skin injury (47 degrees C, 420 seconds, 12.5 cm(2)). Assessment of SHA was performed 1 and 2 hours after the injury. Using an enriched design, only participants belonging to the upper quartile of SHA (Q4, high sensitizers; n=20) and the lower quartile of SHA (Q1, low sensitizers; n=20) continued the study, comprising 4 consecutive days-days 1 to 4. Thermal skin injuries were repeated on day 1 and day 3, whereas day 2 and day 4 (7 days after day 1 and day 3, respectively) were target-controlled infusion days in which the subjects were randomly allocated to receive either naloxone (3.25 mg/kg, 4mg/mL) or placebo (normal saline) intravenous. The primary outcome was SHA assessed by weighted-pin instrument (128mN) 0, 1, 2, and 165 to 169 hours after the thermal injury (day 1-4). The secondary outcomes were pinprick pain thresholds assessed by weighted-pin instrument (8-512mN) at primary and secondary hyperalgesia areas (days 1-4).

The naloxone-induced unmasking of latent sensitization is an interesting model for exploring the transition from acute to chronic pain."

According to the news editors, the research concluded: "The results from the present study may provide valuable information regarding future research in persistent postsurgical pain states."

For more information on this research see: Effects of target-controlled infusion of high-dose naloxone on pain and hyperalgesia in a human thermal injury model: a study protocol A randomized, double-blind, placebo-controlled, crossover trial with an enriched design. Medicine, 2016;95(46):222-229. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)
Researchers from Cukurova University Discuss Findings in Antidepressants (Dipyrone ameliorates behavioural changes induced by unpredictable chronic mild stress: gender differences)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antidepressants. According to news originating from Adana, Turkey, by NewsRx correspondents, research stated, "Antidepressant effects of analgesics have been investigate in both clinical and experimental studies. The purpose of this study was to investigate if the analgesic-antipyretic drug, dipyrone, also had antidepressant-like effects."

Our news journalists obtained a quote from the research from Cukurova University, "Depression-like effects were investigated in an unpredictable chronic mild stress (UCMS) model in both male and female mice. Cage changes, light-dark cycle reversal, cage tilting, wet floor, empty cage, foreign material on the floor and predator sounds were used to induce light stress at different times for six weeks. Dipyrone was administered intraperitoneally beginning from the third week. Splash, rota-rod (RR) and forced swimming (FST) tests were performed at the seventh week as behavioural tests to evaluate the antidepressant-like effects of dipyrone. Coat state score (CSS) and weights of animals were recorded at seventh weeks. Results were analyzed using one or two-way ANOVA followed by the Bonferonni post hoc test. Weight of UCMS-exposed mice did not change compared with controls; however, significant changes were observed in CSS in both sexes of stressed mice (p <0.05). RR latency decreased and immobility time enhanced in FST test in both sexes of stressed mice (p <0.05). Grooming behaviour was not different between the groups in female mice, but different in male mice in the splash test. Dipyrone did not produce a significant change in CSS in the UCMS-exposed group but reversed the latency time and immobility time to normal values in both sexes of mice and augmented the number of grooming behaviour only in stressed male mice."

According to the news editors, the research concluded: "These results indicate that dipyrone produce antidepressant-like effects to some symptoms of UCMS according to gender."

For more information on this research see: Dipyrone ameliorates behavioural changes induced by unpredictable chronic mild stress: gender differences. Clinical and Investigative Medicine, 2016;39(6):S14-S20. Clinical and Investigative Medicine can be contacted at: Canadian Soc Clinical Investigation, Csci Head Office, 774 Echo Drive, Ottawa, On K1S 5N8, Canada.
Researchers from DZHK German Center for Cardiovascular Research Discuss Findings in Takotsubo Cardiomyopathy (Prognostic Usefulness of the Ballooning Pattern in Patients With Takotsubo Cardiomyopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Takotsubo Cardiomyopathy are presented in a new report. According to news originating from Lubeck, Germany, by NewsRx correspondents, research stated, "The aim of the present analysis was to evaluate the prognostic impact of different ballooning patterns in patients with Takotsubo cardiomyopathy (TTC). A total of 285 consecutive patients with TTC were included."

Our news journalists obtained a quote from the research from DZHK German Center for Cardiovascular Research, "Clinical characteristics and short- and long-term outcomes were compared between patients with typical apical ballooning (n = 204) and patients with an atypical ballooning pattern including midventricular and basal ballooning (n = 81). Patients with typical apical ballooning were significantly older (73.3 +/- 10.2 vs 68.4 +/- 10.3 years; p<0.01) and had a higher prevalence of diabetes mellitus (25.5% vs 12.3%; p = 0.02). The initial left ventricular (LV) ejection fraction was significantly lower in case of apical ballooning (41.5 +/- 10.4% vs 46.9 +/- 10.9%; p<0.01) but recovered to normal values in both groups (58.4 +/- 8.0 vs 59.7 +/- 7.0; p = 0.25). Although 28-day mortality did not differ significantly (p = 0.10), typical apical ballooning was associated with an increased 6-month (13.4% vs 1.3%; hazard ratio [HR] 10.81, 95% confidence interval [CI] 1.47 to 79.66; p = 0.02) and long-term mortality rates (28.9% vs 14.5%; HR 2.24, 95% CI 1.17 to 4.71; p = 0.02). A landmark analysis which included only patients who survived the first 6 months after the initial event demonstrated similar mortality rates in patients with typical (17.9%) and atypical (13.3%) ballooning (HR 1.36, 95% CI 0.67 to 2.79; p = 0.40)."

According to the news editors, the research concluded: "In patients with TTC, typical apical ballooning is associated with more severe LV dysfunction at acute presentation and higher mortality rates within the first 6 months after the initial event. After complete recovery of LV function, prognosis is similar in patients with typical and atypical ballooning patterns."


The news correspondents report that additional information may be obtained from I.
Researchers from DZHK German Center for Cardiovascular Research
Report New Studies and Findings in the Area of Gene Therapy (Viral Vector-Based Targeting of mirt-21 in Cardiac Nonmyocyte Cells Reduces Pathologic Remodeling of the Heart)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biotechnology - Gene Therapy is now available. According to news reporting from Munich, Germany, by NewsRx journalists, research stated, "Systemic inhibition of miR-21 has proven effective against myocardial fibrosis and dysfunction, while studies in cardiac myocytes suggested a protective role in this cell type. Considering potential implications for therapy, we aimed to determine the cell fraction where miR-21 exerts its pathological activity."

The news correspondents obtained a quote from the research from DZHK German Center for Cardiovascular Research, "We developed a viral vector-based strategy for gene targeting of nonmyocyte cardiac cells in vivo and compared global to cardiac myocyte-specific and nonmyocyte-specific deletion of miR-21 in chronic left ventricular pressure overload. Murine moloney virus and serotype 9 of adeno-associated virus were engineered to encode improved Cre recombinase for genetic deletion in miR-21(f/f) mice. Pericardial injection of murine moloney virus-improved Cre recombinase to neonates achieved highly selective genetic ablation of miR-21 in nonmyocyte cardiac cells, identified as cardiac fibroblasts and endothelial cells. Upon left ventricular pressure overload, cardiac function was only preserved in mice with miR-21 deficiency in nonmyocyte cardiac cells, but not in mice with global or cardiac myocyte-specific ablation."

According to the news reporters, the research concluded: "Our data demonstrate that miR-21 exerts its pathologic activity directly in cardiac nonmyocytes and encourage further development of antimiR-21 therapy toward cellular tropism."

For more information on this research see: Viral Vector-Based Targeting of mirt-21 in Cardiac Nonmyocyte Cells Reduces Pathologic Remodeling of the Heart. *Molecular Therapy*, 2016;24(11):1939-1948. *Molecular Therapy* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news journalists report that additional information may be obtained by
Researchers from Denver Health Medical Center Report on Findings in Cardiac Arrhythmias (Evaluation and Management of Maternal Cardiac Arrhythmias)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Cardiac Arrhythmias have been published. According to news reporting out of Denver, Colorado, by NewsRx editors, research stated, "Pregnant women often complain of palpitations. The differential diagnosis for new-onset palpitations in pregnancy ranges from benign conditions to life-threatening arrhythmias."

Our news journalists obtained a quote from the research from Denver Health Medical Center, "Maternal arrhythmias can occur in isolation or in the setting of underlying structural heart disease. Optimal management of maternal cardiac arrhythmias includes identification of the specific arrhythmia, diagnosis of comorbid conditions, and appropriate intervention. In general, management of maternal cardiac arrhythmias is similar to that of the general population. Special consideration must be given as to the effects of medications and procedures on both the mother and fetus to optimize outcomes."

According to the news editors, the research concluded: "The importance of multidisciplinary care with cardiology, obstetrics, and anesthesia is emphasized."


Our news journalists report that additional information may be obtained by contacting T.D. Metz, Denver Hlth Med Center, Dept. of Obstet & Gynecol, Denver, CO 80204, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ogc.2016.07.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Denver, Colorado, United States, North and Central America, Heart Disorders and Diseases, Cardiac Arrhythmias, Cardiology, Denver Health Medical Center.

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Mosquito-Borne Diseases - West Nile Fever

Researchers from Department of Biological Science Describe Findings in West Nile Fever (TLR8 Couples SOCS-1 and Restrains TLR7-Mediated Antiviral Immunity, Exacerbating West Nile Virus Infection in Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mosquito-Borne Diseases - West Nile Fever have been published. According to news reporting from Hattiesburg, Mississippi, by NewsRx journalists, research stated, "West Nile virus (WNV) is a neurotropic ssRNA flavivirus that can cause encephalitis, meningitis, and death in humans and mice. Human TLR7 and TLR8 and mouse TLR7 recognize viral ssRNA motifs and induce antiviral immunity."

The news correspondents obtained a quote from the research from the Department of Biological Science, "However, the role of mouse TLR8 in antiviral immunity is poorly understood. In this article, we report that TLR8-deficient (Tlr8(-/-)) mice were resistant to WNV infection compared with wild-type controls. Efficient WNV clearance and moderate susceptibility to WNV-mediated neuronal death in Tlr8(-/-) mice were attributed to overexpression of Tlr7 and IFN-stimulated gene-56 expression, whereas reduced expression of the proapoptotic gene coding Bcl2-associated X protein was observed. Interestingly, suppressor of cytokine signaling (SOCS)-1 directly associated with TLR8, but not with TLR7, indicating a novel role for TLR8 regulation of SOCS-1 function, whereas selective small interfering RNA knockdown of Socs-1 resulted in induced IFN-stimulated gene-56 and Thr7 expression following WNV infection."

According to the news reporters, the research concluded: "Collectively, we report that TLR8 coupling with Socs-1 inhibits TLR7-mediated antiviral immunity during WNV infection in mice."

For more information on this research see: TLR8 Couples SOCS-1 and Restrains TLR7-Mediated Antiviral Immunity, Exacerbating West Nile Virus Infection in Mice. Journal of Immunology, 2016;197(11):4425-4435. Journal of Immunology can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news journalists report that additional information may be obtained by contacting F.W. Bai, Univ Southern Mississippi, Dept. of Biol Sci, Hattiesburg, MS 39406, United States. Additional authors for this research include D. Acharya, L.D. Le, P.H. Wang, D.S. Stokie, A.A. Leis, L. Alexopoulou, T. Town, R.A. Flavell, E. Fikrig and F.W. Bai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1600902. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hattiesburg, Mississippi, United States, North and Central America, Japanese Encephalitis Viruses, West Nile Fever, Immunology, Mosquito-Borne Diseases, Vertebrate Viruses, West Nile Virus, Flaviviridae, RNA Viruses, Flavivirus, Virology, Genetics, Viral, Department of Biological Science.

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Researchers from Department of Cardiology Provide Details of New Studies and Findings in the Area of Heart Attack (Fragmented QRS on Admission Electrocardiography Predicts Long-Term Mortality in Patients with Non-ST-Segment Elevation Myocardial ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting from Istanbul, Turkey, by NewsRx journalists, research stated, "Early diagnosis and identification of high-risk non-ST elevation myocardial infarction (NSTEMI) is an important issue. Fragmented QRS (fQRS) complexes are defined as various RSR' patterns on 12-lead resting electrocardiography (ECG)."

The news correspondents obtained a quote from the research from the Department of Cardiology, "Previous studies revealed that fQRS is related with increased ventricular arrhythmias and cardiovascular mortality. The relation between fQRS and mortality in acute coronary syndromes, mitral valve disease severity and structural heart disease has been shown in different studies. The aim of this study was to investigate relation between fQRS and long-term cardiovascular mortality in NSTEMI patients. Patients who admitted to our emergency unit and diagnosed NSTEMI between 2012 and 2013, 433 patients were included prospectively. fQRS complexes determined in 85 patients. Patients were divided into two groups according to fQRS existence. All patients evaluated for their clinical, laboratory, electrocardiographic, and echocardiographic characteristics. Angiographic features of 315 patients who underwent coronary angiography was also recorded. In-hospital, 30-day and 12-month mortality was compared between these groups. Demographic characteristics and cardiovascular risk factors were similar in both groups except hyperlipidemia. GRACE risk score was higher in patients with fQRS and positively correlated with existence of fQRS. In hospital and 30-days mortality were similar but late mortality was higher in fQRS group. Predictors of late mortality were found to be age, heart rate, male sex in addition to fQRS. We found a relation between fQRS and late mortality."

According to the news reporters, the research concluded: "Fragmented QRS may be seen as a cautionary signal for extensive myocardial damage and thereby increased long-term mortality for patients with NSTEMI."


Our news journalists report that additional information may be obtained by contacting O. Yildirimturk, Siyami Ersek Thorac & Cardiovasc Surg Training & Dept. of Cardiol, Istanbul, Turkey. Additional authors for this research include: O. Yildirimturk, S. Yazici, U.S. Ceylan, A. Erdem, A. Kaya, C. Donmez, S. Akyuz and M. Cetin.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Diagnosis, Risk and Prevention, Epidemiology, Diagnostic Techniques and Procedures, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Heart Function Tests, Electrocardiography, Myocardial Ischemia, Cardiovascular, Heart Disease, Heart Attack,
Researchers from Department of Cardiology Report Findings in Endocarditis (Comparison of prognoses of Staphylococcus aureus left-sided prosthetic endocarditis and prosthetic endocarditis caused by other pathogens)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Endocarditis are presented in a new report. According to news reporting originating in Amiens, France, by NewsRx journalists, research stated, "Staphylococcus aureus prosthetic valve endocarditis (SAPIE) is a serious disease. Our objective was to study the clinical, echocardiographic and prognostic characteristics of left-sided SAPIE, and to compare these characteristics with those of left-sided non-S. aureus prosthetic infective endocarditis (NSAPIE) (i.e. left-sided prosthetic infective endocarditis caused by another germ)."

The news reporters obtained a quote from the research from the Department of Cardiology, "This was a retrospective analysis of 35 cases of SAPIE among 247 cases of left-sided prosthetic valve endocarditis hospitalized at two university hospitals (Amiens and Marseille, France). SAPIE accounted for 14.1% of the cases of left-sided prosthetic valve endocarditis. SAPIE complications included heart failure (in 42.8% of cases), acute renal failure (in 51.4%), sepsis (in 51.4%), neurological events (in 31.4%), systemic embolic event (in 34.2%) and abscess (in 60.0%). In-hospital mortality occurred in 48.5% of SAPIE cases compared with 16% of NSAPIE cases. A comparison of the SAPIE and NSAPIE groups showed a significant difference in terms of 4-year survival (31.8 +/- 7.3% vs 60.1 +/- 4.1%; P= 0.001). Severe sepsis was the only prognostic factor associated with in-hospital mortality (odds ratio 5.7; P=0.03) and. long-term mortality (odds ratio 3.7; P=0.01) in cases of SAPIE. Sepsis-induced multiple organ dysfunction syndrome was the main cause of in-hospital mortality (70.5%). SAPIE is a very serious disease, with elevated in-hospital mortality resulting from sepsis-induced multiple organ dysfunction syndrome."

According to the news reporters, the research concluded: "Emergency surgery is recommended in these cases, when possible, before the occurrence of complications, especially severe sepsis."

For more information on this research see: Comparison of prognoses of Staphylococcus aureus left-sided prosthetic endocarditis and prosthetic endocarditis caused by other pathogens. Archives of Cardiovascular Diseases, 2016;109(10):542-549. Archives of Cardiovascular Diseases can be contacted at: Elsevier Masson, Via Paleocapa 7, 20121 Milano, Italy. (Elsevier - www.elsevier.com; Archives of Cardiovascular Diseases - www.journals.elsevier.com/archives-of-cardiovascular-diseases/)

Our news correspondents report that additional information may be obtained by contacting C. Tribouilloy, CHU Amiens Picardie, Dept. of Cardiol, F-80054 Amiens 1, France. Additional authors for this research include G. Habib, J.P. Remadi, E. Salaun, J.P. Casalta and C. Tribouilloy.

The direct object identifier (DOI) for that additional information is:
Researchers from Department of Cellular Biology Describe Findings in Alzheimer Disease (Overexpression of Metallothionein-1 Modulates the Phenotype of the Tg2576 Mouse Model of Alzheimer's Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Alzheimer's disease (AD) is the most commonly diagnosed dementia, where signs of neuroinflammation and oxidative stress are prominent. In this study we intend to further characterize the roles of the antioxidant, anti-inflammatory, and heavy metal binding protein, metallothionein-1 (MT-1), by crossing Mt1 overexpressing mice with a well-known mouse model of AD, Tg2576 mice, which express the human amyloid-b protein precursor (hAbPP) with the Swedish K670N/M671L mutations."

Our news editors obtained a quote from the research from the Department of Cellular Biology, "Mt1 overexpression increased overall perinatal survival, but did not affect significantly hAbPP-induced mortality and weight loss in adult mice. Amyloid plaque burden in &sim;14-month-old mice was increased by Mt1 overexpression in the hippocampus but not the cortex. Despite full length hAbPP levels and amyloid plaques being increased by Mt1 overexpression in the hippocampus of both sexes, oligomeric and monomeric forms of Ab, which may contribute more to toxicity, were decreased in the hippocampus of females and increased in males. Several behavioral traits such as exploration, anxiety, and learning were altered in Tg2576 mice to various degrees depending on the age and the sex. Mt1 overexpression ameliorated the effects of hAbPP on exploration in young females, and potentiated those on anxiety in old males, and seemed to improve the rate of spatial learning (Morris water maze) and the learning elicited by a classical conditioning procedure (eye-blink test)."

According to the news editors, the research concluded: "These results clearly suggest that MT-1 may be involved in AD pathogenesis."


The news editors report that additional information may be obtained by contacting Y. Manso, Animal Physiology Unit, Dept. of Cellular Biology, Physiology and Immunology,
Researchers from Department of Chemical Engineering Report on Findings in Biotechnology (Controlling the time evolution of mAb N-linked glycosylation, Part I: Microbioreactor experiments)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biotechnology have been published. According to news reporting from Prague, Czech Republic, by NewsRx journalists, research stated, "N-linked glycosylation is of key importance for the efficacy of many biotherapeutic proteins such as monoclonal antibodies (mAbs). Media components and cell culture conditions have been shown to significantly affect N-linked glycosylation during the production of glycoproteins using mammalian cell fed-batch cultures."

The news correspondents obtained a quote from the research from the Department of Chemical Engineering, "These parameters inevitably change in modern industrial processes with concentrated feed additions and cell densities beyond 2 x 10(7) cells/mL. In order to control the time-dependent changes of protein glycosylation, an automated microbioreactor system was used to investigate the effects of culture pH, ammonia, galactose, and manganese chloride supplementation on nucleotide sugars as well as mAb N-linked glycosylation in a time-dependent way. Two different strategies comprising of a single shift of culture conditions as well as multiple media supplementations along the culture duration were applied to obtain changing and constant glycosylation profiles. The different feeding approaches enabled constant glycosylation patterns throughout the entire culture duration at different levels."

According to the news reporters, the research concluded: "By modulating the time evolution of the mAb glycan pattern, not only the endpoint but also the ratios between different glycosylation structures could be modified."


Our news journalists report that additional information may be obtained by
Researchers from Department of Electrophysiology Describe Findings in Atrial Fibrillation [Box Isolation of Fibrotic Areas (BIFA): A Patient-Tailored Substrate Modification Approach for Ablation of Atrial Fibrillation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting out of Zurich, Switzerland, by NewsRx editors, research stated, "Catheter ablation strategies beyond pulmonary vein isolation (PVI) for treatment of atrial fibrillation (AF) are less well defined. Increasing clinical data indicate that atrial fibrosis is a critical common left atrial (LA) substrate in AF patients (pts)."

Our news journalists obtained a quote from the research from the Department of Electrophysiology, "We applied a new substrate modification concept according to the individual fibrotic substrate as estimated from electroanatomic voltage mapping (EAVM) in 41 pts undergoing catheter ablation of AF. First, EAVM during sinus rhythm was done in redo cases of 10 pts with paroxysmal AF despite durable PVI. Confluent low-voltage areas (LVA) were found in all pts and were targeted with circumferential isolation, so-called box isolation of fibrotic areas (BIFA). This strategy led to stable sinus rhythm in 9/10 pts and was transferred prospectively to first procedures of 31 pts with nonparoxysmal AF. In 13 pts (42%), no LVA (<0.5 mV) were identified, and only PVI was performed. In 18 pts (58%), additional BIFA strategies were applied (posterior box in 5, anterior box in 7, posterior plus anterior box in 5, no box in 1 due to diffuse fibrosis). Mean follow-up was 12.5 ± 2.4 months. Single-procedure freedom from AF/atrial tachycardia was achieved in 72.2% of pts and in 83.3% of pts with 1.17 procedures/patient. In approximately 40% of pts with nonparoxysmal AF, no substantial LVA were identified, and PVI alone showed high success rate."

According to the news editors, the research concluded: "In pts with paroxysmal AF despite durable PVI and in approximately 60% of pts with nonparoxysmal AF, individually localized LVA were identified and could be targeted successfully with the BIFA strategy."


Our news journalists report that additional information may be obtained by contacting H. Kottkamp, Hirslanden Hospital, Dept. of Electrophysiology, Zurich, Switzerland. Additional authors for this research include J. Berg, R. Bender, A. Rieger and D. Schreiber.
Researchers from Department of Infectious Disease Detail Findings in Antifungals (Posaconazole Therapeutic Drug Monitoring in a Regional Hospital Setting)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antifungals. According to news reporting out of Wollongong, Australia, by NewsRx editors, research stated, "Posaconazole therapeutic drug monitoring (TDM) is recommended to promote effective antifungal prophylaxis, but its utility has yet to be optimized. Breakthrough invasive fungal infections have been reported with serum concentrations <700 mcg/L, but there is little evidence to determine the optimal serum concentration for efficacy or concentrations associated with toxicity."

Our news journalists obtained a quote from the research from the Department of Infectious Disease, "Challenges for effective monitoring are greater in settings without posaconazole TDM facilities because of the long turnaround time before receipt of results. Thirty-eight TDM episodes were performed on 18 patients in a regional center in Australia during a 30-month period. Australian guidelines recommend a trough serum concentration of <= 700 mcg/L. The response to concentrations below the recommendation threshold (700 mcg/L), the final serum plasma concentration for each patient, and the appropriateness of TDM were evaluated. A total of 19 (50%) concentrations were recorded to be, 700 mcg/L. Of these 19 concentrations, the drug dose was increased on only 4 occasions. Eleven of 18 patients (61%) had initial concentrations,700 mcg/L, with only 3 (27%) among those achieving final concentration <= 700 mcg/L; 5 patients with initial concentrations,700 mcg/L did not have any further TDM testing. Nine of the 18 (50%) patients had a final concentration,700 mcg/L. Five of 7 (71%) patients with initial concentrations >= 700 mcg/L had further TDM with no reasoning documented. The results demonstrate a lack of confidence and consistency in ordering, interpreting, and following up posaconazole concentrations. Therefore, the use of TDM should be carefully considered, especially in regional centers."

According to the news editors, the research concluded: "Such settings should consider the practicalities of posaconazole TDM and try to improve the process to ensure consistency and optimization of patient care."

For more information on this research see: Posaconazole Therapeutic Drug Monitoring in a Regional Hospital Setting. Therapeutic Drug Monitoring. 2016;38(6):804-807. Therapeutic Drug Monitoring can be contacted at: Lippincott Williams & Wilkins, Two
Researchers from Department of Medicine Provide Details of New Studies and Findings in the Area of Thrombocytopenia (Platelets in Critical Illness)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematologic Diseases and Conditions - Thrombocytopenia have been published. According to news reporting originating in Amsterdam, Netherlands, by NewsRx editors, the research stated, "In patients with critical illness, thrombocytopenia is a frequent laboratory abnormality. However frequent this may occur, a low platelet count is not an epiphenomenon, but a marker with further significance."

The news reporters obtained a quote from the research from the Department of Medicine, "It is always important to assess the proper cause for thrombocytopenia in critically ill patients because different underlying disorders may precipitate different diagnostic and therapeutic management strategies. Platelets are part of the first-line defense of the body against bleeding; hence, thrombocytopenia may increase the risk of hemorrhage. In case of systemic inflammatory syndromes, such as the response to sepsis, disseminated intravascular platelet activation may occur. This will contribute to microvascular failure and thereby play a role in the development of organ dysfunction. Platelets are circulating blood cells that will normally not interact with the intact vessel wall but that may swiftly respond to endothelial disruption (which is often part of the pathogenesis of critical illness) by adhering to subendothelial structures, followed by interaction with each other, thereby forming a platelet aggregate. The activated platelet (phospholipid) membrane may form a suitable surface on which further coagulation activation may occur."

According to the news reporters, the research concluded: "A low platelet count is a strong and independent predictor of an adverse outcome in critically ill patients, thereby facilitating a simple and practically risk assessment in these patients and potentially guiding the use of complex or expensive treatment strategies."

For more information on this research see: Platelets in Critical Illness. Seminars In Thrombosis and Hemostasis, 2016;42(3):252-7. (Thieme - www.thieme.com)

Our news correspondents report that additional information may be obtained by contacting M. Levi, Dept. of Medicine, Academic Medical Centre, Meibergdreef, AZ Amsterdam, Netherlands.
Researchers from Department of Medicine Report New Studies and Findings in the Area of Hepatitis C Virus (Eighteen- to 30-year-olds more likely to link to hepatitis C virus care: an opportunity to decrease transmission)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Liver Diseases and Conditions - Hepatitis C Virus are discussed in a new report. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Hepatitis C virus (HCV) infection incidence among 18-to 30-year-olds is increasing and guidelines recommend treatment of active injection drug users to limit transmission. We aimed to: measure linkage to HCV care among 18-to 30-year-olds and identify factors associated with linkage; compare linkage among 18-to 30-year-olds to that of patients >30 years."

Financial supporters for this research include National Institute on Drug Abuse, National Center for Advancing Translational Sciences, National Institutes of Health.

Our news journalists obtained a quote from the research from the Department of Medicine, "We used the electronic medical record at an urban safety net hospital to create a retrospective cohort with reactive HCV antibody between 2005 and 2010. We report seroprevalence and demographics of seropositive patients, and used multivariable logistic regression to identify factors associated with linkage to HCV care. We defined linkage as having evidence of HCV RNA testing after reactive antibody. Thirty two thousand four hundred and eighteen individuals were tested, including 8873 between 18 and 30 years. The seropositivity rate among those ages 18-30 was 10%. In multivariate analysis, among those 18-30, diagnosis location (Outpatient vs Inpatient/ED) (OR 1.78, 95% CI 1.28-2.49) and number of visits after diagnosis (OR 5.30, 95% CI 3.91-7.19) were associated with higher odds of linking to care. When we compared linkage in patients ages 18-30 to that among those older than 30, patients in the 18-30 years age group were more likely to link to HCV care than those in the older cohort even when controlling for gender, ethnicity, socioeconomic status, birthplace, diagnosis location and duration of follow-up. Eighteen-to 30-year-olds are more likely to link to HCV care than their older counterparts."

According to the news editors, the research concluded: "During the interferon-free treatment era, there is an opportunity to prevent further HCV transmission in this population."

Our news journalists report that additional information may be obtained by contacting K.L. Young, Dept. of Medicine, Boston Medical Center, Boston, MA, United States. Additional authors for this research include W. Huang, C.R. Horsburgh, B.P. Linas and S.A Assoumou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jvh.12489. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HCV, Viral, Boston, Genetics, Virology, Hepatology, RNA Viruses, Epidemiology, Massachusetts, United States, Gastroenterology, Hepatitis C Virus, Flaviviridae Infections, North and Central America, Liver Diseases and Conditions, Infectious Disease and Conditions, Digestive System Diseases and Conditions.

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Drugs and Therapies - Antibiotics

Researchers from Department of Microbiology and Immunology Detail New Studies and Findings in the Area of Antibiotics (Protein aggregation as an antibiotic design strategy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antibiotics have been published. According to news reporting originating in Leuven, Belgium, by NewsRx journalists, research stated, "Taking advantage of the xenobiotic nature of bacterial infections, we tested whether the cytotoxicity of protein aggregation can be targeted to bacterial pathogens without affecting their mammalian hosts. In particular, we examined if peptides encoding aggregation-prone sequence segments of bacterial proteins can display antimicrobial activity by initiating toxic protein aggregation in bacteria, but not in mammalian cells."

Financial supporters for this research include VIB, University of Leuven, Funds for Scientific Research Flanders (FWO), Flanders Institute for Science and Technology (IWT), Federal Office for Scientific Affairs of Belgium (Belgian), IUAP, Swedish Foundation for Strategic Research, ERC Starting Independent Researcher Grant.

The news reporters obtained a quote from the research from the Department of Microbiology and Immunology, "Unbiased in vitro screening of aggregating peptide sequences from bacterial genomes lead to the identification of several peptides that are strongly bactericidal against methicillin-resistant Staphylococcus aureus. Upon parenteral administration in vivo, the peptides cured mice from bacterial sepsis without apparent toxic side effects as judged from histological and hematological evaluation. We found that the peptides enter and accumulate in the bacterial cytosol where they cause aggregation of bacterial polypeptides."

According to the news reporters, the research concluded: "Although the precise chain of events that leads to cell death remains to be elucidated, the ability to tap into aggregation-prone sequences of bacterial proteomes to elicit antimicrobial activity represents a rich and unexplored chemical space to be mined in search of novel therapeutic strategies to fight infectious diseases."

Our news correspondents report that additional information may be obtained by contacting N.G. Bednarska, Laboratory of Clinical Bacteriology and Mycology, Dept. of Microbiology and Immunology, KULeuven, Leuven, Belgium. Additional authors for this research include J. van Eldere, R. Gallardo, A. Ganesan, M. Ramakers, I. Vogel, P. Baatsen, A. Staes, M. Goethals, P. Hammarstrom, K.P. Nilsson, K. Gevaert, J. Schymkowitz and F. Rousseau.

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Keywords for this news article include: Antibacterial Agents, Antibiotics, Antimicrobials, Leuven, Europe, Belgium, Genetics, Drugs and Therapies, Bacterial Infections and Mycoses.

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Transplant Medicine - Kidney Transplants

Researchers from Department of Nephrology Provide Details of New Studies and Findings in the Area of Kidney Transplants (Desensitization Protocol in Recipients of Deceased Kidney Donor With Donor-Specific Antibody-Low Titers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Kidney Transplants. According to news reporting from Valencia, Spain, by NewsRx journalists, research stated, "Kidney transplantation is the better option for end-stage renal disease (ESRD), but for patients with human leukocyte antigen (HLA) sensitization, the wait times are significantly longer than for patients without antibodies. Many desensitization protocols have been described involving strong immunosuppression, the use of apheresis, and B-cell modulating therapies."

The news correspondents obtained a quote from the research from the Department of Nephrology, "We have designed a desensitization protocol from day 0 for deceased donor kidney transplantation. Our aim was to present our initial experience with five kidney transplant patients. All patients had a negative complement-dependent cytotoxicity cross-match. The desensitization protocol included five to seven doses of thymoglobulin (1.25 mg/kg) and three sessions of plasmapheresis (PP) within the first week after transplantation, with intravenous immunoglobulin (500 mg/kg) after each PP session and one dose of rituximab on day 8. The presence of donor-specific antibodies (DSA) was analyzed by use of Luminex technology; levels between 1000 and 3000 mean fluorescence intensity were considered for desensitization. The median age was 44 years and median renal replacement therapy time was 9 years. All recipients presented 1 to 3 DSA specificities. There were no severe side effects related to PP, infusion of intravenous immunoglobulin, or rituximab. The median follow-up period was 19.3 months. Median serum creatinine level at last follow-up was 1.7 mg/dL. A kidney biopsy was performed in all patients. Graft and patient survival was 100%. Until now, few data are available concerning whether HLA-incompatible kidney transplantation after desensitization would benefit patients with ERSD."
According to the news reporters, the research concluded: "The desensitization strategy using the combination of PP, low doses of intravenous immunoglobulin, and rituximab at our center resulted in a satisfactory clinical outcome."


Our news journalists report that additional information may be obtained by contacting J.K. Berga, Hosp Dr Peset, Dept. of Nephrol, Valencia 46017, Spain. Additional authors for this research include A.S. Calabuig, E.G. Martinez, N.P. Alcaraz, A.A. Bernabeu, J.C. Albiach, P.M. Vila, S.B. Catalan and L.P. Mateu.

Keywords for this news article include: Valencia, Spain, Europe, Antineoplastic Monoclonal Antibodies, Intravenous Immunoglobulins, Tyrosine Kinase Inhibitors, CD20 Monoclonal Antibodies, Drugs and Therapies, Transplant Medicine, Kidney Transplants, Organ Transplants, Immunoglobulin G, Serum Globulins, Antineoplastics, Medical Devices, Transplantation, Blood Proteins, Immunoproteins, Antirheumatics, Biotechnology, Biomedicine, Immunology, Rituximab, Therapy, Department of Nephrology.

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Herpesvirus Diseases and Conditions - Herpes Zoster

Researchers from Department of Neurology Describe Findings in Herpes Zoster (Detection of varicella-zoster virus DNA during medullary and brainstem relapses in multiple sclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Herpesvirus Diseases and Conditions - Herpes Zoster is now available. According to news reporting from Bergen, Norway, by NewsRx journalists, research stated, "We describe three cases of patients with concomitant acute medullary or brainstem multiple sclerosis (MS) lesions and detectable spinal fluid varicella-zoster virus DNA. Herpes simplex virus PCR was also positive in two of the patients."

The news correspondents obtained a quote from the research from the Department of Neurology, "One patient was re-punctured 2 weeks following the relapse, with negative results. The PCR findings greatly delayed correct diagnosis and treatment in all three patients. Based on our cases, we propose that inflammatory medullary and brainstem lesions could result in viral leakage, and possibly viral reactivation, from destroyed sensory neurons, yielding false-positive cerebrospinal fluid PCR results."

According to the news reporters, the research concluded: "As this can have diagnostic and therapeutic consequences, further studies are warranted to evaluate the clinical relevance of these findings."

For more information on this research see: Detection of varicella-zoster virus DNA during medullary and brainstem relapses in multiple sclerosis. Bmj Case Reports, 2016;2016():. (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

Our news journalists report that additional information may be obtained by
Researchers from Department of Neurology Report Recent Findings in Parkinson’s Disease (Polyneuropathy in levodopa-treated Parkinson's patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Parkinson's disease are presented in a new report. According to news reporting originating from Gdansk, Poland, by NewsRx correspondents, research stated, "Recently published studies show that the prevalence of polyneuropathy (PNP) is higher in patients with Parkinson's disease (PD) than in age-matched controls. Its pathogenesis, however is a matter of controversy."

Our news editors obtained a quote from the research from the Department of Neurology, "The major hypothesis is the toxicity of high concentrations of homocysteine (Hcy) possibly related to levodopa (LD) therapy. The aim of the present study was to determine the prevalence of PNP, independent of other etiologies, and to determine the relationship to demographic and clinical factors in LD-treated Parkinson's patients. A total of 102 patients (51 patients with PD and 51 sex- and age-matched healthy controls) were enrolled in the study. The presence of any risk factors for PNP, ascertained from the history and laboratory tests, was an exclusion criterion. The Toronto Clinical Scoring System (TCSS) was used for clinical assessment of PNP. The objective assessment was based on electroneurography (ENG) studies in which motor nerves (peroneal and tibial nerves) as well as sensory nerves (sural and superficial peroneal nerves) were bilaterally examined. The severity of the disease was determined using the UPDRS scale (Unified Parkinson's Disease Rating Scale) and the Hoehn-Yahr (H-Y) scale. In the PD group, the clinical and neurophysiological indicators of PNP, manifested as a symmetrical and predominantly sensory axonal neuropathy, were more frequent then in the control group and observed in 43.1% vs. 13.7% and 15.7% vs. 2% of subjects respectively. The presence of PNP correlated with age and the severity of PD. Patients with PD and PNP had a higher level of Hcy as compared to PD patients without PNP, however the difference was not statistically significant. The frequency of PNP in PD patients is higher than in controls."

According to the news editors, the research concluded: "The characteristics and discrepancy between the number of patients with clinical and ENG detected PNP may suggest the small fiber neuropathy (SFN) as the dominant form of neuropathy in PD patients."

For more information on this research see: Polyneuropathy in levodopa-treated Parkinson's disease...
Researchers from Department of Radiology Describe Findings in Magnetic Resonance (Can Diffusion-weighted Magnetic Resonance Imaging Predict Survival in Patients with Cervical Cancer? A Meta-Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Magnetic Resonance is the subject of a report. According to news reporting out of Chengdu, People's Republic of China, by NewsRx editors, research stated, "Although diffusion-weighted magnetic resonance imaging (DWI) has been widely used in the diagnosis of cervical cancer, whether it can predict disease recurrence or survival remains inconclusive. This study aimed to systematically evaluate whether DWI can serve as a reliable prognostic predictor in patients with cervical cancer."

Our news journalists obtained a quote from the research from the Department of Radiology, "PubMed, the MEDLINE database and the Cochrane Library were searched for DWI studies with >12 months of prognostic data in patients with cervical cancer. Endpoints included tumor recurrence and death. Methodological quality was assessed using the Quality in Prognostic Studies (QUIPS) tool. Combined estimates of hazard ratios (HRs) were derived. Nine studies involving a total of 796 patients (mean/median age from 45.0 years to 62.9 years) met the inclusion criteria. Methodological quality was relatively high. Eight of the nine studies employed apparent diffusion coefficient (ADC) as an indicator of DWI results. Using disease-free survival (DFS) as an outcome measure, nine studies yielded a combined HR of 1.55 (95% confidence interval (CI): 1.23-1.95), and seven studies that employed pretreatment DWI yielded a combined HR of 1.50 (95% CI: 1.03-2.19), which indicated that unfavorable DWI results were..."
associated with an approximately 1.50-1.55-fold higher risk of tumor recurrence. The two studies investigating the impact of DWI results on overall survival (OS) reported HRs of 7.20 and 2.17, respectively."

According to the news editors, the research concluded: "DWI may serve as a predictor of tumor recurrence in patients with cervical cancer as showed by meta-analysis, and the quantified ADC as a suitable candidate indicator."


Our news journalists report that additional information may be obtained by contacting Y.T. Wang, Sichuan Academy Med Sci, Dept. of Radiol, Chengdu 610072, Sichuan, People's Republic of China. Additional authors for this research include Y.C. Li, L.L. Yin and H. Pu.

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Keywords for this news article include: Chengdu, People's Republic of China, Asia, Magnetic Resonance, Oncology, Cancer, Department of Radiology.

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Therapeutics

Researchers from Department of Safety Assessment Report on Findings in Therapeutics (Safety Lead Optimization and Candidate Identification: Integrating New Technologies into Decision-Making)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Therapeutics. According to news reporting originating from South San Francisco, California, by NewsRx correspondents, research stated, "Discovery toxicology focuses on the identification of the most promising drug candidates through the development and implementation of lead optimization strategies and hypothesis-driven investigation of issues that enable rational and informed decision-making. The major goals are to [a] identify and progress the drug candidate with the best overall drug safety profile for a therapeutic area, [b] remove the most toxic drugs from the portfolio prior to entry into humans to reduce clinical attrition due to toxicity, and [c] establish a well-characterized hazard and translational risk profile to enable clinical trial designs."

Financial support for this research came from Genentech.

Our news editors obtained a quote from the research from the Department of Safety Assessment, "This is accomplished through a framework that balances the multiple considerations to identify a drug candidate with the overall best drug characteristics and provides a cogent understanding of mechanisms of toxicity. The framework components include establishing a target candidate profile for each program that defines the qualities of a successful candidate based on the intended therapeutic area, including the risk tolerance for liabilities;
evaluating potential liabilities that may result from engaging the therapeutic target (pharmacology-mediated or on-target) and that are chemical structure-mediated (off-target); and characterizing identified liabilities. Lead optimization and investigation relies upon the integrated use of a variety of technologies and models (in silico, in vitro, and in vivo) that have achieved a sufficient level of qualification or validation to provide confidence in their use. We describe the strategic applications of various nonclinical models (established and new) for a holistic and integrated risk assessment that is used for rational decision-making."

According to the news editors, the research concluded: "While this review focuses on strategies for small molecules, the overall concepts, approaches, and technologies are generally applicable to biotherapeutics."


The news editors report that additional information may be obtained by contacting D.M. Dambach, Dept. of Safety Assessment, Genentech, Inc , 1 DNA Way, South San Francisco, California 94080, United States. Additional authors for this research include D. Misner, M. Brock, A. Fullerton, W. Proctor, J. Maher, D. Lee, K. Ford and D. Diaz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.chemrestox.5b00396. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: California, Technology, Therapeutics, United States, Article Review, South San Francisco, North and Central America.

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Peripheral Artery Disease

Researchers from Department of Surgery Report Details of New Studies and Findings in the Area of Peripheral Artery Disease (Short stature in men is associated with subclinical peripheral arterial disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Peripheral Artery Disease. According to news originating from Pori, Finland, by NewsRx correspondents, research stated, "Peripheral arterial disease (PAD) affects approximately 202 million individuals around the world and is associated with a high risk of myocardial infarction, stroke and death. Although there is a clear inverse association between adult height and the risk of cardiovascular disease, little is known about the relationship between height and PAD."

Our news journalists obtained a quote from the research from the Department of Surgery, "The aim of our study was to assess the relationship between subclinical PAD and height. In a cross-sectional cardiovascular risk factor study in southwestern Finland, ankle brachial index (ABI) and other risk factors were measured from a total of 972 cardiovascular risk subjects derived from the general population. None of them had previously diagnosed diabetes, cardiovascular or renal disease or intermittent claudication. Subjects with an ABI <= 0.90 were categorized as having subclinical PAD. The average age of the study subjects was 58.1 +/- 6.7 years for men and 58.8 +/- 6.9 years for women. The prevalence of subclinical PAD
was 5% (95% CI 3% - 7%) (23/455) among men and 5% (95% CI 3% - 7%) (26/517) among women. The mean ABI among men and women was 1.09 +/- 0.12 and 1.08 +/- 0.12, respectively. In men, there was an inverse association between height and the prevalence of subclinical PAD (p < 0.001) along with a positive association between height and ABI values (p < 0.001). In a multivariate model, height, age and current smoking status remained independent factors that were associated with subclinical PAD in men, whereas in women, only pulse pressure was associated with subclinical PAD.

According to the news editors, the research concluded: "Short stature in men is associated with subclinical PAD and lower ABI values."

For more information on this research see: Short stature in men is associated with subclinical peripheral arterial disease. Vasa-European Journal of Vascular Medicine, 2016;45 (6):486-490. Vasa-European Journal of Vascular Medicine can be contacted at: Verlag Hans Huber Hogrefe Ag, Laenggass-Strasse 76, Ch-3000 Bern 9, Switzerland.

The news correspondents report that additional information may be obtained from A. Heikkila, Satakunta Hosp Dist, Dept. of Surg, Pori, Finland. Additional authors for this research include M. Venermo, H. Kautiainen, P. Arnio and P. Korhonen.

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Keywords for this news article include: Pori, Finland, Europe, Cardiology, Risk and Prevention, Diagnostics and Screening, Peripheral Artery Disease, Ankle Brachial Index, Cardiovascular, Department of Surgery.

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Central Nervous System Diseases and Conditions —

Researchers from Department of Surgery Report on Findings in Cranial Nerve Injuries (Cranial nerve injury is associated with dual antiplatelet therapy use and cervical hematoma after carotid endarterectomy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Cranial Nerve Injuries are discussed in a new report. According to news reporting out of Florence, Italy, by NewsRx editors, research stated, "To determine predictors of cranial nerve injury (CNI) after carotid endarterectomy (CEA). Consecutive CEAs performed over a 5-year period were enrolled in this study."

Our news journalists obtained a quote from the research from the Department of Surgery, "Outcomes analyzed included 30-day major adverse event rate (composite of stroke, death, and myocardial infarction), death, stroke, disabling stroke, myocardial infarction, cervical hematoma and CNI rate, reoperation, and hospital readmission at 30 days. There were 1258 CEAs were included in the study, 1168 (93%) were performed using an eversion technique. Patients with symptoms comprised 27% of the cohort (n = 340). At 30 days, there were no deaths, 23 major adverse events (1.8%), 11 strokes (0.9%: nine minor, two major), 12 myocardial infarctions (0.9%), 41 cervical hematomas (3.3%), 9 reoperations (0.7%) and 10 hospital readmissions (0.8%). Median duration of stay was 1 day (interquartile range, 1-2 days). CNI rate at discharge was 2.3% (n = 29). Two patients (9%) had more than one cranial nerve
affected. The marginal mandibular branch of the facial nerve was most frequently involved (n = 16; 52%), followed by the hypoglossal (n = 9; 29%), the vagus (n = 4; 13%), and the spinal accessory nerve (n = 2; 6%). Horner's syndrome, consistent with an injury to the cervical sympathetic chain, occurred in 13 patients (1%) who had a true cranial nerve affected as well. The vast majority (94%) of these CNIs and all Horner's syndrome neurapraxias were transient; only the two accessory lesions persisted at their follow-up visit (median, 32 months; range, 8-72 months). Significant predictors for CNI included diabetes (odds ratio [OR], 2.5; 95% confidence interval [CI], 1.0-6.2; P = .048), cervical hematoma (OR, 41.7; 95% CI, 13.8-125.4; P < .001), and dual antiplatelet therapy (OR, 4.4; 95% CI, 1.7-11.4; P = .002). CNI is predominantly a transient complication, but is associated significantly with dual antiplatelet therapy use and the occurrence of a postoperative cervical hematoma."

According to the news editors, the research concluded: "Scrupulous attention to hemostasis might reduce the incidence of CNI."


Our news journalists report that additional information may be obtained by contacting E. Chisci, San Giovanni Dio Hosp, Dept. of Surg, Vasc & Endovasc Surg Unit, I-50124 Florence, Italy. Additional authors for this research include T.F. Rehring, C. Pigozzi, S. Colon, A. Borgheresi, L. Tramacere, L. Ercolini and S. Michelagnoli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2016.04.029. This DOI is a link to an online electronic document that is either free or for purchase.

**Keywords** for this news article include: Florence, Italy, Europe, Autonomic Nervous System Diseases and Conditions, Central Nervous System Diseases and Conditions, Cranial Nerve Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Neurologic Manifestations, Carotid Endarterectomy, Cranial Nerve Injuries, Myocardial Infarction, Craniocerebral Trauma, Myocardial Ischemia, Pupil Disorders, Horner Syndrome, Heart Disease, Nerve Injury, Heart Attack, Angiology, Hospital, Hematoma, Therapy, Surgery, Miosis, Department of Surgery.

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**Gastroenterology**

Researchers from Department of Surgery Report on Findings in Gastroenterology (The role of surgical gastrostomy in the age of endoscopic gastrostomy: a 13 years and 543 patients retrospective study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gastroenterology have been presented. According to news originating from Almada, Portugal, by NewsRx correspondents, research stated, "Percutaneous endoscopic gastrostomy (PEG) became the gold standard for enteral feeding. Currently, surgical
gastrostomy is seldom used."

Our news journalists obtained a quote from the research from the Department of Surgery, "Evaluating the role of surgical gastrostomy in a center with a large experience in PEG. A retrospective study ranged 13 years, collecting from clinical records: age, gender, underlying disease, date of procedure, technique, primary surgery, complications, 30-day mortality. Patients were divided according to indication for gastrostomy: a) neurological; b) head and neck cancer; c) other diseases; and d) drainage. PEG, open surgical and laparoscopic gastrostomies were compared concerning evolution of the number of procedures, characteristics of patients, complications and mortality. We identified 509 PEG, 26 open and 8 laparoscopic surgical gastrostomies. An increasing number of the percutaneous approach over the years was observed, while the number of surgical gastrostomies remains steady (mean: 2.6/year). All percutaneous endoscopic gastrostomies but three were feeding procedures, mostly in neurological patients. All laparoscopic gastrostomies were feeding procedures in head and neck cancer. Most open surgical gastrostomies were secondary procedures, part of more complex surgeries, and frequently for drainage purposes. The open surgical approach displayed more morbidity and mortality, reflecting the severity of underlying diseases. In our institution, open surgical gastrostomy is seldom used, and mostly as part of complex procedures, frequently for drainage purposes. PEG is the choice to most dysphagic patients needing an enteral feeding access."

According to the news editors, the research concluded: "When not feasible, laparoscopic gastrostomy is a suitable alternative."

For more information on this research see: The role of surgical gastrostomy in the age of endoscopic gastrostomy: a 13 years and 543 patients retrospective study. Revista Española De Enfermedades Digestivas, 2016;108(12):776-779. Revista Española De Enfermedades Digestivas can be contacted at: Aran Ediciones, S A, Castello, 128, 1O, 28006 Madrid, Spain.

The news correspondents report that additional information may be obtained from G. Oliveira, Hosp Garcia Orta, Dept. of Surg, Almada, Portugal. Additional authors for this research include C.A. Santos and J. Fonseca.

Keywords for this news article include: Almada, Portugal, Europe, Digestive System Surgical Procedures, Gastroenterology, Gastrostomy, Surgery, Ostomy, Department of Surgery.

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Nervous System Diseases and Conditions - Myoclonus

Researchers from Department of Surgery Report on Findings in Myoclonus (Cerebral hyperperfusion syndrome: A rare postoperative complication of carotid endarterectomy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nervous System Diseases and Conditions - Myoclonus. According to news originating from Joondalup, Australia, by NewsRx correspondents, research stated, "Acute neurological deficits are common presentations to the emergency department. Cerebral hyperperfusion syndrome, a rare phenomenon which can occur within one month following carotid surgical revascularization, may be challenging for the emergency physician to diagnose in the setting of an acute neurological presentation."
Our news journalists obtained a quote from the research from the Department of Surgery, "Carotid arterial disease contributes 15-20% of ischemic cerebrovascular accidents and surgical revascularization is the commonest intervention for preventing stroke in patients with significant carotid disease. However if the patient remains hypertensive postoperatively in the setting of sudden carotid reperfusion following revascularization, they are prone to cerebral hyperperfusion syndrome. Caused by increased, unregulated cerebral blood flow, cerebral hyperperfusion syndrome can result in cerebral edema and intracranial hemorrhage which may manifest in symptoms ranging from headaches, myoclonus, hemiparesis, seizures, reduced consciousness and potentially result in death. The most important facets in management of cerebral hyperperfusion syndrome in the emergency department is early recognition, prompt management and monitoring of hypertension (up to 81% of patients have severe hypertension at onset of neurological symptoms) and early imaging. We report a case of cerebral hyperperfusion syndrome in a woman who had ongoing severe hypertension following carotid endarterectomy. Five days following surgery and after discharge, she presented to the emergency department with worsening right upper limb myoclonus, tremor, weakness and hypertension."

According to the news editors, the research concluded: "Initially treated with anticonvulsants without resolution of symptoms, prompt imaging and management of hypertension in the emergency department resulted in the correct diagnosis and complete resolution of symptoms without any permanent neurological deficits."


The news correspondents report that additional information may be obtained from M. Guirgis, Joondalup Hlth Campus, Dept. of Surg, Joondalup, WA, Australia.

Keywords for this news article include: Joondalup, Australia, Australia and New Zealand, Cardiovascular Diseases and Conditions, Nervous System Diseases and Conditions, Hematologic Diseases and Conditions, Post-Operative Complications, Hyperperfusion Syndrome, Carotid Endarterectomy, Risk and Prevention, Hypertension, Hematology, Angiology, Myoclonus, Surgery, Stroke, Department of Surgery.

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Oncology - Liver Cancer

Researchers from Dokuz Eylul University Detail Findings in Liver Cancer (Role of Fanconi anemia/BRCA pathway genes in hepatocellular carcinoma chemoresistance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Liver Cancer. According to news reporting originating in Izmir, Turkey, by NewsRx journalists, research stated, "To investigate the expression of DNA repair genes and the impact of the breast cancer 1, early onset (BRCA1) protein on chemoresistance of hepatocellular carcinoma (HCC). Microarray gene expression datasets were analyzed using the gene set enrichment analysis method."
The news reporters obtained a quote from the research from Dokuz Eylul University, "BRCA1 protein was tested by Western blotting. Response of HCC cells to inter-strand cross-links was investigated by cell viability assay following exposure to mitomycin C, cisplatin, and melphalan. Effects of BRCA1 ectopic expression were studied in HepG2 cells with BRCA1-expression plasmids. Effects of BRCA1 downregulation were studied in SNU449 cells with BRCA1-specific siRNAs. Response of transfected SNU449 cells to mitomycin C was analyzed by cell viability tests and cell cycle analysis using flow cytometry. Expression of Fanconi anemia and double-stranded DNA break repair genes was significantly upregulated in HCC tumors. This upregulation displayed a gradual amplification during tumor progression. BRCA1 and BRCA2 genes were among consistently upregulated genes. Epithelial-like HCC cells had low BRCA1 expression and low chemoresistance, whereas mesenchymal-like HCC cells had high BRCA1 expression and increased chemoresistance. Ectopic expression of BRCA1 increased the chemoresistance of epithelial-like HepG2 cells. Conversely, BRCA1 knockdown chemosensitized mesenchymal-like SNU449 cells. Chemosensitization of SNU449 cells was due to cell cycle arrest at 4N stage. Increased expression of Fanconi anemia and double-stranded DNA repair genes such as BRCA1 is a novel mechanism of HCC chemoresistance."

According to the news reporters, the research concluded: "However, functional inactivation of BRCA1 expression is sufficient to reverse such chemoresistance."


Our news correspondents report that additional information may be obtained by contacting M. Ozturk, Dokuz Eylul University, Izmir Int Biomed & Genome Inst, Izmir, Turkey. Additional authors for this research include G. Yildiz, M. Bouras, E. Iscan, U. Ekin and M. Ozturk.

Keywords for this news article include: Izmir, Turkey, Eurasia, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Bone Marrow Diseases and Conditions, Metabolic Diseases and Conditions, DNA Repair-Deficiency Disorders, Congenital Anemia, BRCA1, Genetics, Fanconi Anemia, Liver Cancer, Hypoplastic, Carcinomas, Hematology, Oncology, Dokuz Eylul University.

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developed a 2'F modified RNA aptamer Ec3, by Cell-SELEX."

Our news journalists obtained a quote from the research from Dongguk University, "The 31 nucleotide truncated Ec3 demonstrated improved binding and low nano-molar affinity to E. coli. The aptamer developed by us out-performs the commercial antibody and aptamer used for E. coli detection. Ec3(31) aptamer based E. coli detection was done using three different detection formats and the assay sensitivities were determined. Conventional Ec3(31)-biotin-streptavidin magnetic separation could detect E. coli with a limit of detection of 1.3 x 10 (6) CFU/ml. Although, optical analytic technique, biolayer interferometry, did not improve the sensitivity of detection for whole cells, a very significant improvement in the detection was seen with the E. coli cell lysate (5 x 10(4) CFU/ml). Finally we developed Electrochemical Impedance Spectroscopy (EIS) gap capacitance biosensor that has detection limits of 2 x 10(4) CFU/mL of E. coli cells, without any labeling and signal amplification techniques."

According to the news editors, the research concluded: "We believe that our developed method can step towards more complex and real sample application."


The news correspondents report that additional information may be obtained from S. Kim, Dongguk Univ, Dept. of Bioengn, Seoul 04620, South Korea. Additional authors for this research include S. Ren, S.W. Lee, J.K. Kim, H.S. Shin, O.C. Jeong, S. Kim and D.K. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.14348/molcells.2016.0167. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Escherichia coli, Escherichia Coli, Proteobacteria, Genetics, Dongguk University.

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Hormones

Researchers from Dr. Hari Singh Gour University Report Recent Findings in Hormones (Luteinizing hormone-releasing hormone peptide tethered nanoparticulate system for enhanced antitumoral efficacy of paclitaxel)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hormones have been published. According to news reporting out of Sagar, India, by NewsRx editors, research stated, "Paclitaxel (PTX) is an effective anticancer agent used in the therapy of a wide variety of cancers. However, the drug is difficult to formulate due to its low solubility, and therefore, it is administered under slow infusion with castor oil/ethanol solution as surfactant that causes serious side effects."

Our news journalists obtained a quote from the research from Dr. Hari Singh Gour University, "This investigation investigates leutinizing hormone releasing hormone (LHRH)-
tethered nanparticulate system as modality for cancer-specific delivery of PTX and therefore minimizing the adverse effects. LHRH-tethered poly(lactic-co-glycolic acid) copolymer with poly ethylene glycol side chain was synthesized, characterized and employed to formulate PTX-loaded nanparticulate system."

According to the news editors, the research concluded: "The developed nanparticulate appears to be proficient in carrying as well as targeted delivery of PTX with improved therapeutic efficacy and better safety."

For more information on this research see: Luteinizing hormone-releasing hormone peptide tethered nanoparticulate system for enhanced antitumoral efficacy of paclitaxel. *Nanomedicine*, 2016;11(7):797-816. (Elsevier - www.elsevier.com; Nanomedicine - www.journals.elsevier.com/nanomedicine-nanotechnology-biology-and-medicine/)

Our news journalists report that additional information may be obtained by contacting R. Ghanghoria, Pharmaceutics Research Laboratory, Dept. of Pharmaceutical Sciences, Dr Hari Singh Gour University, Sagar 470003 MP, India. Additional authors for this research include R.K. Tekade, A.K. Mishra, K. Chuttani and N.K Jain.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/nnm.16.19. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antineoplastics, Pharmaceuticals, Sagar, India, Taxoids, Terpenes, Hydrocarbons, Cycloparaffins, Peptide Hormones, Peptide Proteins, Organic Chemicals, Mitotic Inhibitors, Paclitaxel Therapy, Pituitary Hormones, Drugs and Therapies, Luteinizing Hormone, Pituitary Gonadotropins.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Researchers from Duke University Describe Findings in HIV/AIDS (Immunization with an SIV-based IDLV Expressing HIV-1 Env 1086 Clade C Elicits Durable Humoral and Cellular Responses in Rhesus Macaques)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting originating from Durham, North Carolina, by NewsRx correspondents, research stated, ""The design of an effective HIV-1 vaccine remains a major challenge. Several vaccine strategies based on viral vectors have been evaluated in preclinical and clinical trials, with largely disappointing results."

Our news editors obtained a quote from the research from Duke University, ""Integrase defective lentiviral vectors (IDLV) represent a promising vaccine candidate given their ability to induce durable and protective immune responses in mice after a single immunization. Here, we evaluated the immunogenicity of a SIV-based IDLV in nonhuman primates. Six rhesus monkeys were primed intramuscularly with IDLV-Env and boosted with the same vector after 1 year. A single immunization with IDLV-Env induced broad humoral and cellular immune responses that waned over time but were still detectable at 1 year postprime. The boost with IDLV-Env performed at 1 year from the prime induced a remarkable increase in both antibodies and T-cell responses. Antibody binding specificity showed a predominant cross-
clade gp120-directed response. Monkeys' sera efficiently blocked anti-V2 and anti-CD4 binding site antibodies, neutralized the tier 1 MW965.26 pseudovirus and mediated antibody-dependent cellular cytotoxicity (ADCC). Durable polyfunctional Env-specific T-cell responses were also elicited. Our study demonstrates that an IDLV-Env-based vaccine induces functional, comprehensive, and durable immune responses in Rhesus macaques."

According to the news editors, the research concluded: "These results support further evaluation of IDLV as a new HIV-1 vaccine delivery platform."

For more information on this research see: Immunization with an SIV-based IDLV Expressing HIV-1 Env 1086 Clade C Elicits Durable Humoral and Cellular Responses in Rhesus Macaques. Molecular Therapy, 2016;24(11):2021-2032. Molecular Therapy can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2016.123. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, HIV-1, Duke University.

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Peripheral Artery Disease

Researchers from Duke University Describe Findings in Peripheral Artery Disease (Concomitant Thoracic Aortobifemoral Bypass With Left Ventricular Assist Device Implantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Peripheral Artery Disease. According to news reporting originating from Durham, North Carolina, by NewsRx correspondents, research stated, "Improved quality of life for patients after left ventricular assist device (LVAD) implantation can be greatly limited by peripheral vascular disease even if heart failure symptoms are resolved by LVAD support. We present a case of concomitant thoracic aortobifemoral bypass and LVAD implantation in a patient with ischemic cardiomyopathy, severe peripheral vascular disease, and multiple previous failed revascularization attempts."

Our news editors obtained a quote from the research from Duke University, "In this patient, we used the LVAD outflow to provide the inflow to the femoral artery bypass graft. This graft has remained patent at a 2-year follow-up, without claudication symptoms. Performing concomitant major vascular operations safely and successfully is feasible in patients with LVADs."
According to the news editors, the research concluded: "Quality of life after ventricular assist device placement can be limited by vascular disease, but it can be markedly improved after vascular surgical intervention."


The news editors report that additional information may be obtained by contacting M. Bishawi, Duke University, Medical Center, Dept. of Surg, Div Cardiothorac Surg, Durham, NC 27710, United States. Additional authors for this research include A.A. Shah, R.L. McCann and C.A. Milano.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.03.050. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Left Ventricular Assist Device, Peripheral Artery Disease, Medical Devices, Surgery, Cardio Device, Cardiology, Hematology, Duke University.

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**Immune System Diseases and Conditions - HIV/AIDS**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immune System Diseases and Conditions - HIV/AIDS. According to news originating from Durham, North Carolina, by NewsRx correspondents, research stated, "HIV-1 is a retrovirus that integrates into host chromatin and can remain transcriptionally quiescent in a pool of immune cells. This characteristic enables HIV-1 to evade both host immune responses and antiretroviral drugs, leading to persistent infection."

Our news journalists obtained a quote from the research from Duke University, "Upon reactivation of proviral gene expression, HIV-1 envelope (HIV-1 Env) glycoproteins are expressed on the cell surface, transforming latently infected cells into targets for HIV-1 Env-specific monoclonal antibodies (mAbs), which can engage immune effector cells to kill productively infected CD4(+) T cells and thus limit the spread of progeny virus. Recent innovations in antibody engineering have resulted in novel immunotherapeutics such as bispecific dual-affinity re-targeting (DART) molecules and other bi- and trispecific antibody designs that can recognize HIV-1 Env and recruit cytotoxic effector cells to kill CD4(+) T cells latently infected with HIV-1."

According to the news editors, the research concluded: "Here, we review these immunotherapies, which are designed with the goal of curing HIV-1 infection."

For more information on this research see: Envelope-specific antibodies and

The news correspondents report that additional information may be obtained from G. Ferrari, Duke University, Duke Human Vaccine Inst, Durham, NC 27710, United States. Additional authors for this research include B.F. Haynes, S. Koenig, J.L. Nordstrom, D.M. Margolis and G.D. Tomaras.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrd.2016.173. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Genetics, Article Review, Drugs and Therapies, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, Immunoglobulins, Blood Proteins, HIV Infections, Retroviridae, RNA Viruses, Immunology, Antibodies, HIV/AIDS, HIV-1, Duke University.

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**Central Nervous System Diseases and Conditions -…**

**Researchers from Emory University Report Findings in Epilepsy (Mechanistic Insight into NMDA Receptor Dysregulation by Rare Variants in the GluN2A and GluN2B Agonist Binding Domains)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "Epilepsy and intellectual disability are associated with rare variants in the GluN2A and GluN2B (encoded by GRIN2A and GRIN2B) subunits of the N-methyl-D-aspartate receptor (NMDAR), a ligand-gated ion channel with essential roles in brain development and function. By assessing genetic variation across GluN2 domains, we determined that the agonist binding domain, transmembrane domain, and the linker regions between these domains were particularly intolerant to functional variation."

Financial supporters for this research include Eunice Kennedy Shriver National Institute of Child Health & Human Development, National Center for Advancing Translational Sciences of the NIH, National Institute of Neurological Disorders and Stroke, Xiangya-Emory Medical Schools Visiting Student Program.

Our news editors obtained a quote from the research from Emory University, "Notably, the agonist binding domain of GluN2B exhibited significantly more variation intolerance than that of GluN2A. To understand the ramifications of missense variation in the agonist binding domain, we investigated the mechanisms by which 25 rare variants in the GluN2A and GluN2B agonist binding domains dysregulated NMDAR activity. When introduced into recombinant human NMDARs, these rare variants identified in individuals with neurologic disease had complex, and sometimes opposing, consequences on agonist binding, channel gating, receptor biogenesis, and forward trafficking. Our approach combined quantitative assessments of these effects to estimate the overall impact on synaptic and non-
synaptic NMDAR function. Interestingly, similar neurologic diseases were associated with both gain-and loss-of-function variants in the same gene. Most rare variants in GluN2A were associated with epilepsy, whereas GluN2B variants were associated with intellectual disability with or without seizures."

According to the news editors, the research concluded: "Finally, discerning the mechanisms underlying NMDAR dysregulation by these rare variants allowed investigations of pharmacologic strategies to correct NMDAR function."

For more information on this research see: Mechanistic Insight into NMDA Receptor Dysregulation by Rare Variants in the GluN2A and GluN2B Agonist Binding Domains. American Journal of Human Genetics, 2016;99(6):1261-1280. American Journal of Human Genetics can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; American Journal of Human Genetics - www.journals.elsevier.com/american-journal-of-human-genetics/)

The news editors report that additional information may be obtained by contacting S.F. Traynelis, Emory University, Sch Med, CFERV, Atlanta, GA 30322, United States. Additional authors for this research include W.J. Chen, G. Wells, P.B. Burger, A. Tankovic, S. Bhattacharya, K.L. Strong, C. Hu, H. Kusumoto, J. Zhang, D.R. Adams, J.J. Millichap, S. Petrovski, S.F. Traynelis and H. Yuan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajhg.2016.10.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Neurologic Disease, Genetics, Epilepsy, Emory University.

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Myeloid Cells

Researchers from Emory University Report Recent Findings in Myeloid Cells (Novel Multifunctional Nanomatrix Reduces Inflammation in Dynamic Conditions in Vitro and Dilates Arteries ex Vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Myeloid Cells have been presented. According to news reporting originating in Atlanta, Georgia, by NewsRx journalists, research stated, "Inflammatory responses play a critical role in tissue-implant interactions, often limiting current implant utility. This is particularly true for cardiovascular devices."

Financial supporters for this research include Howard Hughes Medical Institute, National Institute of Neurological Disorders and Stroke, National Institute of Diabetes and Digestive and Kidney Diseases, National Heart, Lung, and Blood Institute, National Institute of Biomedical Imaging and Bioengineering, University of Alabama at Birmingham, The American Diabetes Association Research Foundation, National Aeronautics and Space Administration, U.S. Department of Energy, National Science Foundation, U.S. Department of Agriculture, American Heart Association.

The news reporters obtained a quote from the research from Emory University, "Existing stent technology does little to avoid or mitigate inflammation or to influence the
vasomotion of the artery after implantation. We have developed a novel endothelium-mimicking nanomatrix composed of peptide amphiphiles that enhances endothelialization while decreasing both smooth muscle cell proliferation and platelet adhesion. Here, we evaluated whether the nanomatrix could prevent inflammatory responses under static and physiological flow conditions. We found that the nanomatrix reduced monocyte adhesion to endothelial cells and expression of monocyte inflammatory genes (TNF-α, MCP-1, IL-1β, and IL-6). Furthermore, the nitric-oxide releasing nanomatrix dramatically attenuated TNF-α-stimulated inflammatory responses as demonstrated by significantly reduced monocyte adhesion and inflammatory gene expression in both static and physiological flow conditions. These effects were abolished by addition of a nitric oxide scavenger. Finally, the nanomatrix stimulated vasodilation in intact rat mesenteric arterioles after constriction with phenylephrine, demonstrating the bioavailability and bioactivity of the nanomatrix, as well as exhibiting highly desired release kinetics.

According to the news reporters, the research concluded: "These results demonstrate the clinical potential of this nanomatrix by both preventing inflammatory responses and promoting vasodilation, critical improvements in stent and cardiovascular device technology."


Our news correspondents report that additional information may be obtained by contacting Y.S. Yoon, School of Medicine, Division of Cardiology, Emory University, Atlanta, Georgia 30322, United States. Additional authors for this research include J.B. Vines, P. Hwang, T. Kim, J.A. Kim, B.C. Brott, Y.S. Yoon and H.W Jun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.6b00565. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, Arteries, Chemicals, Monocytes, Cardiology, Immunology, Technology, Blood Cells, Hemodynamics, Inflammation, Nitric Oxide, Vasodilation, United States, Blood Vessels, Cell Research, Myeloid Cells, Bone Marrow Cells, Mononuclear Leukocytes, Hemic and Immune Systems, North and Central America.

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Cardiovascular Research

Researchers from Erasmus University Detail Findings in Cardiovascular Research (Vitamin D and retinal microvascular damage The Rotterdam Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Research is now available. According to news reporting originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "Vitamin D has been linked to various cardiovascular risk factors including indices of large-vessel disease. However, it remains unclear whether vitamin D is also associated with microvascular damage."

Our news editors obtained a quote from the research from Erasmus University, "In a
community-dwelling population, we studied associations between vitamin D serum levels and retinal microvascular damage defined as retinopathy signs, narrower arterioles, and wider venules. From the population-based Rotterdam Study, we included 5675 participants (age ≥ 45 years) with vitamin D data and gradable retinal photographs. Serum levels of vitamin D were measured using an antibody-based assay. Retinal exudates, microaneurysms, cotton wool spots, and dot/blot hemorrhages were graded on fundus photographs by experienced graders in the whole sample; retinal vascular calibers, that is, arteriolar and venular diameters, were semiautomatically measured in a subsample (n = 2973). We examined the cross-sectional association between vitamin D and retinal microvascular damage using logistic and linear regression models, adjusting for age, sex, and cardiovascular risk factors. We found that persons with lower vitamin D levels were more likely to have retinopathy (adjusted odds ratio per standard deviation (SD) decrease of vitamin D = 1.30; 95% confidence interval (CI): = 1.12-1.49). Furthermore, lower vitamin D levels were associated with wider venular calibers (adjusted mean difference per SD decrease in vitamin D = 1.35; 95% CI = 0.64-2.06). This association was strongest among men (P for interaction = 0.023).

According to the news editors, the research concluded: "Lower levels of vitamin D are associated with retinal microvascular damage, suggesting that the link with cardiovascular risk may partly run through changes in the microvasculature."

For more information on this research see: Vitamin D and retinal microvascular damage The Rotterdam Study. *Medicine*, 2016;95(49):180-185. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting M.K. Ikram, Erasmus University, Medical Center, Dept. of Neurol, Rotterdam, Netherlands. Additional authors for this research include M.A. Ikram, A. Hofman, P. de Jong, A.G. Uitterlinden, C.C.W. Klaver and M.K. Ikram.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Cardiovascular Research, Risk and Prevention, Cardiovascular, Ophthalmology, Retinopathy, Cardiology, Erasmus University.

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Eye Diseases and Conditions - Exfoliation Syndrome

Researchers from Eskisehir Osmangazi University Report on Findings in Exfoliation Syndrome (Comparison of Rotational Thromboelastography Findings in Pseudoexfoliation Syndrome Patients and Healthy Controls)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Eye Diseases and Conditions - Exfoliation Syndrome have been published. According to news reporting originating in Eskisehir, Turkey, by NewsRx journalists, research stated, "Rotational thromboelastography (ROTEM) is a useful test for studying the characteristics of fibrin clot formation. As patients with pseudoexfoliation (PEX) have an increased risk for thrombotic events, clot-forming dysfunction may play a role."

The news reporters obtained a quote from the research from Eskisehir Osmangazi University, "The aim of this study is to compare ROTEM findings in PEX syndrome patients..."
with age-matched and sex-matched healthy controls. A total of 21 patients with PEX syndrome and 22 age-matched and sex-matched healthy controls were included. All study participants underwent detailed ophthalmologic and systemic medical examination, including blood pressure measurement, hemoglobin-hematocrit levels, platelet count, coagulation parameters including prothrombin time, activated partial thromboplastin time, fibrinogen levels, and D-dimer levels. Peripheral blood samples were collected and analyzed with ROTEM Coagulation Analyzer. The mean age of patients with PEX and controls was 66.58.3 and 65.9 +/- 9.5 years, respectively (P= 0.7). The 2 groups did not differ with respect to age, sex, hemoglobin, hematocrit, platelet numbers, prothrombin time, activated partial thromboplastin time, fibrinogen levels, D-dimer levels, and glucose levels. When extrinsic thromboelastometry results were analyzed, PEX patients showed a significantly decreased clotting time when compared with healthy controls (79.8 vs. 98.0 s; P=0.01), indicating faster clot formation. Other ROTEM parameters did now show any difference between the 2 groups. PEX patients showed faster clotting time when compared with healthy controls. This fibrin clot formation dysfunction may lead to vascular thrombotic events in these patients."

According to the news reporters, the research concluded: "Further studies are needed to elucidate the exact underlying mechanism of thrombosis seen in PEX patients."


Our news correspondents report that additional information may be obtained by contacting D.G. Sahin, Eskisehir Osmangazi Univ, Sch Med, Dept. of Hematol, Eskisehir, Turkey. Additional authors for this research include A. Sahin and O.M. Akay.

Keywords for this news article include: Eskisehir, Turkey, Eurasia, Eye Diseases and Conditions, Exfoliation Syndrome, Prothrombin, Hematology, Eskisehir Osmangazi University.

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Hematology - Blood Coagulation Factors

Researchers from Faculty of Medicine Detail Findings in Blood Coagulation Factors (Homozgyosity for a factor XII mutation in one female and one male patient with hereditary angio-oedema)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematology - Blood Coagulation Factors. According to news reporting out of Santo Andre, Brazil, by NewsRx editors, research stated, "Hereditary angio-oedema (HAE) with normal C1 inhibitor is associated with heterozygous mutations in the factor XII gene (FXII-HAE). We report two Brazilian FXII-HAE families segregating the mutation c.983 C>A (p.Thr328Lys)."

Financial supporters for this research include Fundacao de Amparo a Pesquisa do Estado de Sao Paulo, Sao Paulo State Research Foundation, ERA-Net E-RARE-1 research programme.
Our news journalists obtained a quote from the research from the Faculty of Medicine, "In each family, one patient with a homozygous mutation was found. The homozygous female patient in family 1 displayed a severe phenotype. However, this falls within the clinical phenotype spectrum reported for heterozygous female mutation carriers. The homozygous male patient in family 2 also showed a severe phenotype. This finding is intriguing, as to our knowledge, it is the first such report for a male FXII-HAE mutation carrier. In the rare instances in which male mutation carriers are affected, a mild phenotype is typical."

According to the news editors, the research concluded: "The present findings therefore suggest that homozygous FXII-HAE mutation status leads to a severe phenotype in females and males, and to an increased risk of manifest symptoms in the latter."


Our news journalists report that additional information may be obtained by contacting A.S. Grumach, Outpatient Group of Recurrent Infections and Laboratory of Clinical Immunology, Faculty of Medicine ABC, Santo Andre, Brazil. Additional authors for this research include C. Stieber, C.L. Veronez, N. Cagini, R.N. Constantino-Silva, E. Cordeiro, M.M. Nothen, J.B. Pesquero and S. Cichon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/all.12769. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Factor XII, Hematology, Santo Andre, South America, Blood Coagulation Factors.

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Drugs and Therapies - Disulfiram Therapy

Researchers from Faculty of Pharmacy Report Findings in Disulfiram Therapy (An Ophthalmic Formulation of Disulfiram Nanoparticles Prolongs Drug Residence Time in Lens)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Disulfiram Therapy is now available. According to news reporting out of Higashiosaka, Japan, by NewsRx editors, research stated, "Disulfiram (DSF) is a dimer of diethyldithiocarbamate (DDC) that we previously added to a solution of 2-hydroxypropyl-beta-cyclodextrin (DSF solution). We found that the instillation of this DSF solution delayed lens opacification in a hereditary cataractous ICR/f rat."

Our news journalists obtained a quote from the research from the Faculty of Pharmacy, "In this study, we attempted to design an ophthalmic formulation containing DSF nanoparticles for use as a lens targeted drug delivery system (nano-DSF suspension), and investigated the changes in drug content in the lens after the instillation of DSF solution or nanoDSF suspension. The nano-DSF suspension was prepared by a bead mill method to yield a mean particle size of nano-DSF of 181 nm. Following the instillation of 1.4% DSF solution or the nano-DSF suspension, DDC was detected only in the aqueous humor and lens; in both, the area under the curve (AUC) and mean residence time (MRT) for the nano-DSF suspension were
higher than for the DSF solution. In addition, we found that the DDC residence time in the cortex and nucleus of the lens was higher than in the capsule-epithelium. Although DDC was not detected in the cortex and nucleus of lenses following the instillation of the 1.4% DSF solution, the instillation of a 1.4% nano-DSF suspension led to the accumulation of DDC in both areas.

According to the news editors, the research concluded: "It is possible that the instillation of a nano-DSF suspension can supply more DDC into the aqueous humor and lens than a conventional formulation, and these findings provide information significant for the prevention of cataracts and the design of a lens targeted drug delivery system."


Our news journalists report that additional information may be obtained by contacting N. Nagai, Kindai Univ, Fac Pharm, Higashiosaka, Osaka 5778502, Japan. Additional authors for this research include Y. Mano and Y. Ito.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1248/bpb.b16-00592. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Higashiosaka, Japan, Asia, Drugs Used In Alcohol Dependence, Central Nervous System Agents, Emerging Technologies, Drugs and Therapies, Disulfiram Therapy, Carboxylic Acids, Pharmaceuticals, Nanotechnology, Nanoparticle, Disulfides, Carbamates, Ditiocarb, Faculty of Pharmacy.

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Angiogenesis

Researchers from Federal University Describe Findings in Angiogenesis (Chemopreventive effect and angiogenic activity of punicalagin isolated from leaves of Lafoensia pacari A. St.-Hil)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Angiogenesis have been published. According to news reporting out of Goiania, Brazil, by NewsRx editors, research stated, "Punicalagin is the major ellagittannin constituent from leaves of Lafoensia pacari, a Brazilian medicinal plant widely used for the treatment of peptic ulcer and wound healing. Genotoxic, cytotoxic, antigenotoxic, and anticytotoxic effects of punicalagin were assessed using micronucleus (MN) test and comet assay in mice."

Our news journalists obtained a quote from the research from Federal University, "Due to the extensive use of L. pacari in the wound healing process, we also assessed the angiogenic activity of punicalagin using the chick chorioallantoic membrane (CAM) angiogenic assay. The highest dose of punicalagin (50 mg/kg) showed significant cytotoxic effect by MN test and in the co-treatment with cyclophosphamide (CPA), this cytotoxicity was enhanced. Co-treatment, pre-treatment and post-treatment of punicalagin with CPA led to a significant reduction in the number of DNA breaks and in the frequency of CPA-induced MN, indicating
antigenotoxic effect. Using the CAM model, punicalagin exhibited angiogenic activity in all
doses mainly at the lowest concentration (12.5 g/L). Therefore, these findings indicate an
effective chemopreventive role of punicalagin and a high capacity to induce DNA repair."

According to the news editors, the research concluded: "Also, the angiogenic activity
presented by punicalagin in this study could contribute for the processes of tissue repairing and
wound healing."

For more information on this research see: Chemopreventive effect and angiogenic
activity of punicalagin isolated from leaves of Lafaonia pacari A. St.-Hil. Toxicology and
Applied Pharmacology, 2016;310():1-8. Toxicology and Applied Pharmacology can be
contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Toxicology and Applied Pharmacology -
www.journals.elsevier.com/toxicology-and-applied-pharmacology/)

Our news journalists report that additional information may be obtained by
contacting C.C. Carneiro, Univ Fed Goias, Inst Ciencias Biol, BR-74001970 Goiania, Go,
Brazil. Additional authors for this research include S.D. Santos, R.D. Lino, M.T.F. Bara, B.A.
Chaibub, P.R.D. Reis, D.A. Chaves, A.J.R. de Silva, L.S. Silva, D.D.E. Silva and L. Chen-
Chen.

Keywords for this news article include: Goiania, Brazil, South America,
Angiogenesis, Genetics, Federal University.

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Oncology - Osteosarcomas

Researchers from Federal University Detail Findings in Osteosarcomas
(MAPK7 Gene Controls Proliferation, Migration and Cell Invasion in
Osteosarcoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Oncology - Osteosarcomas are discussed in a new
report. According to news reporting out of Sao Paulo, Brazil, by NewsRx editors, research
stated, "Osteosarcomas (OS) are the most common malignant bone tumors, and the
identification of useful tumor biomarkers and target proteins is required to predict the clinical
outcome of patients and therapeutic response as well as to develop novel therapeutic strategies.
In our previous study, MAPK7 has been identified as a candidate oncogene, and a promising
prognostic marker for OS."

Our news journalists obtained a quote from the research from Federal University,
"Sequential activation of protein kinases within the mitogen-activated protein kinase (MAPK)
cascades is a common mechanism of signal transduction in many cellular processes. In this
study, we investigated the behavior of MAPK7 gene in OS cell lines. Technical viability,
proliferation, migration, invasion, and apoptosis were used to evaluate the function of the
MAPK7 gene. We evaluated the behavior of the OS cells with MAPK7 gene silenced, not
silenced, and exposed to the main chemotherapy drugs used in OS treatment. We found that
silenced MAPK7 gene is effective at suppressing cell proliferation, inhibiting cell migration,
and invasion. Furthermore, MAPK7 is an important activator of transcription factors and is the
main expression modulator of other key genes in the MAPK pathway."

According to the news editors, the research concluded: "In summary, our study
suggests that MAPK7 might be a promising therapeutic target for OS."


Our news journalists report that additional information may be obtained by contacting S.R.C. Toledo, Federal University of Sao Paulo, Pediat Oncol Inst IOP GRAACC, Genet Lab, Dept. of Clin & Expt Oncol, Sao Paulo, SP, Brazil. Additional authors for this research include L.J.D. Lopes, A.S. Petrilli and S.R.C. Toledo.

Keywords for this news article include: Sao Paulo, Brazil, South America, Therapy, Genetics, Osteosarcomas, Orthopedics, Oncology, Federal University.

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Mental Health Diseases and Conditions - Affective...

**Researchers from Federal University Provide Details of New Studies and Findings in the Area of Affective Disorders (Liraglutide promotes improvements in objective measures of cognitive dysfunction in individuals with mood disorders: A pilot, ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health Diseases and Conditions - Affective Disorders. According to news reporting from Sao Paulo, Brazil, by NewsRx journalists, research stated, "There is a paucity of treatments that are capable of reliably and robustly improving cognitive function in adults with mood disorders. Glucagon-like peptide-1 is synthesized centrally and its receptors are abundantly expressed in neural circuits subserving cognitive function."

The news correspondents obtained a quote from the research from Federal University, "We aimed to determine the effects of liraglutide, a GLP-1 receptor (GLP-1 R) agonist, on objective measures of cognition in adults with a depressive or bipolar disorder. In this 4-week, pilot, open-label, domain-based study (e.g. cognition), we recruited 19 individuals with major depressive disorder (MDD) or bipolar disorder (BD) and an impairment in executive function. defined as a below-average performance in the Trail Making Test-B (TMTB). Liraglutide 1.8 mg/day was added as an adjunct to existing pharmacotherapy. Participants had significant increases from baseline to week 4 in the TMTB standard score (age am education corrected) (Cohen's d=0.64, p=0.009) and in a composite Z-score comprising multiple cognitive tests (i.e. Digit Symbol Substitution Test, Rey Auditory Verbal Learning Test, Stroop test) (Cohen's d=0.77, p< 0.001). Neither changes in mood rating scales nor metabolic parameters were associated with changes in cognitive performance (all p> 0.05); however baseline insulin resistance (IR) and body mass index (BMI; moderated the changes in the composite Z-score (p= 0.021 and p=0.046, respectively), indicating larger responses in individuals with higher IR and BMI at baseline. There was a significant increase in lipase (p < 0.001), but individual values were above the upper limit of normality. Limitations: Small sample size, open-label design, lack of a placebo group. Liraglutide was safe and well tolerated by a sample of non-diabetic individuals with mood disorders and had beneficial effects on objective measures of cognitive
According to the news reporters, the research concluded: "Larger studies with controlled trial designs are necessary to confirm and expand the results described herein."

For more information on this research see: Liraglutide promotes improvements in objective measures of cognitive dysfunction in individuals with mood disorders: A pilot, open-label study. *Journal of Affective Disorders*, 2017;207():114-120. *Journal of Affective Disorders* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Affective Disorders - www.journals.elsevier.com/journal-of-affective-disorders/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jad.2016.09.056. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, Affective Disorders, Mental Health Diseases and Conditions, Federal University.

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**Researchers from Federal University Report on Findings in Obesity (No difference in acute effects of supplemental v. dietary calcium on blood pressure and microvascular function in obese women challenged with a high-fat meal: a cross-over ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news reporting out of Rio de Janeiro, Brazil, by NewsRx editors, research stated, "Recent studies suggest that supplemental Ca (SC) increases the risk of cardiovascular events, whereas dietary Ca (DC) decreases the risk of cardiovascular events. Although frequently consumed with meals, it remains unclear whether Ca can mitigate or aggravate the deleterious effects of a high-fat meal on cardiovascular risk factors."

Our news journalists obtained a quote from the research from Federal University, "This study aimed to evaluate the effects of SC or DC on blood pressure (BP) and microvascular function (MVF) in the postprandial period in obese women challenged with a high-fat meal. In this cross-over controlled trial, sixteen obese women aged 20-50 years were randomly assigned to receive three test meals (2908 kJ (695 kcal); 48% fat): high DC (HDCM; 547 mg DC), high SC (HSCM; 500 mg SC-calcium carbonate) and low Ca (LCM; 42mg DC). BP was continuously evaluated from 15 min before to 120 min after meals by digital photoplethysmography. Before and 120 min after meals, participants underwent evaluation of serum Ca and microvascular flow after postocclusive reactive hyperaemia (PORH) by laser speckle contrast imaging. Ionised serum Ca rose significantly only after HSCM. Systolic BP..."
increased after the three meals, whereas diastolic BP increased after LCM and HDCM. Hyperaemia peak, hyperaemia amplitude and AUC evaluated after PORH decreased with LCM. After HDCM, there was a reduction in hyperaemia peak and hyperaemia amplitude, whereas HSCM decreased only hyperaemia peak. However, comparative analyses of the effects of three test meals on serum Ca, BP and MVF revealed no significant meal x time interaction."

According to the news editors, the research concluded: "This study suggests that in obese women SC and DC do not interfere with the effects of a high-fat meal on BP and MVF."


Our news journalists report that additional information may be obtained by contacting M. Klein, Federal University of Rio de Janeiro, Inst Nutr, Dept. of Appl Nutr, Rio De Janeiro, Brazil. Additional authors for this research include P.M. Leal, V.P. Antunes, A.F. Sanjuliani and M. Klein.

Keywords for this news article include: Rio de Janeiro, Brazil, South America, Nutritional and Metabolic Diseases and Conditions, Cardiology, Risk and Prevention, Cardiovascular, Blood Pressure, Hemodynamics, Bariatrics, Obesity, Federal University.

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Digestive System Diseases and Conditions - Acid Reflux Disease (Proton Pump Inhibitor Therapy for the Treatment of Laryngopharyngeal Reflux: A Meta-Analysis of Randomized Controlled Trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Digestive System Diseases and Conditions - Acid Reflux Disease are discussed in a new report. According to news originating from Luoyang, People's Republic of China, by NewsRx correspondents, research stated, "To compare the treatment effect of proton pump inhibitor (PPI) therapy and placebo for patients with laryngopharyngeal reflux (LPR). PubMed, Cochrane Library, and EMBASE were searched from the date of conception to August 2014."

Our news journalists obtained a quote from the research from First Affiliated Hospital, "Randomized controlled clinical trials (RCTs) were included in this meta-analysis if they compared the treatment response of PPI therapy and placebo among patients with LPR. The risk difference, the standard mean difference (SMD), and their corresponding 95% confidence intervals (CIs) were calculated for the endpoints evaluated. Fourteen eligible RCTs with 771 participants were identified and analyzed in this meta-analysis. By pooling all eligible data, we found that patients treated with PPI therapy had a significantly higher response rate than those who received placebo (risk difference=0.15; 95% CI, 0.01-0.30). Compared with placebo, PPI therapy could also improve the total reflux symptom index significantly (SMD=1.65; 95% CI,
0.15-3.14), but results of the reflux symptom index varied for specific symptoms. However, PPI therapy did not show any advantage over placebo in the improvement of the reflux finding score (SMD=0.62; 95% CI, -0.96-2.19)."

According to the news editors, the research concluded: "In this meta-analysis of 14 eligible RCTs, we found that in patients with LPR, PPI therapy could improve reflux symptoms significantly compared with placebo."


The news correspondents report that additional information may be obtained from H. Guo, Dept. of Gastroenterology, First Affiliated Hospital to Science and Technology University of Henan, Luoyang, Henan, People's Republic of China. Additional authors for this research include H. Ma and J. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MCG.0000000000000324. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Luoyang, Placebos, Otolaryngology, Clinical Research, Enzyme Inhibitors, Acid Reflux Disease, Drugs and Therapies, Proton Pump Inhibitors, Laryngopharyngeal Reflux, People's Republic of China, Clinical Trials and Studies, Digestive System Diseases and Conditions.

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Carboxylic Acids

**Researchers from Food and Drug Administration Report Findings in Carboxylic Acids (Extraction and Liquid Chromatography-Tandem Mass Spectrometry Detection of 3-Monochloropropanediol Esters and Glycidyl Esters in Infant Formula)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Carboxylic Acids is the subject of a report. According to news reporting originating from College Park, Maryland, by NewsRx correspondents, research stated, "A method was developed for the extraction of fatty acid esters of 3-chloro-1,2-propanediol (3-MCPD) and glycidol from infant formula, followed by quantitative analysis of the extracts using liquid chromatography tandem mass spectrometry (LC-MS/MS). These process-induced chemical contaminants are found in refined vegetable oils, and studies have shown that they are potentially carcinogenic and/or genotoxic, making their presence in edible oils (and processed foods containing these oils) a potential health risk."

Our news editors obtained a quote from the research from Food and Drug Administration, "The extraction procedure involves a liquid liquid extraction, where powdered infant formula is dissolved in water and extracted with ethyl acetate. Following shaking, centrifugation, and drying of the organic phase, the resulting fat extract is cleaned-up using solid-phase extraction and analyzed by LC-MS/MS. Method performance was confirmed by verifying the percent recovery of each 3-MCPD and glycidyl ester in a homemade powdered
According to the news editors, the research concluded: "Based on the validation results, this method is suitable for producing 3-MCPD and glycidyl ester occurrence data in all commercially available varieties of infant formula."


The news editors report that additional information may be obtained by contacting J.K. Leigh, Food & Drug Administration, Center Food Safety & Appl Nutr, College Park, MD 20740, United States.

Keywords for this news article include: College Park, Maryland, United States, North and Central America, Esters, Risk and Prevention, Carboxylic Acids, Food and Drug Administration.

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**Oncology - Colon Cancer**

**Researchers from Fourth Military Medical University Describe Findings in Colon Cancer (High expression of CREPT promotes tumor growth and is correlated with poor prognosis in colorectal cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "CREPT (cell cycle-related and expression elevated protein in tumor) is highly expressed in many kinds of cancer, and has been shown to be prognostic in certain cancers. However, the clinical significance of CREPT in colorectal cancer (CRC) has not been sufficiently investigated."

Financial support for this research came from National Natural Sciences Foundation of China.

Our news journalists obtained a quote from the research from Fourth Military Medical University, "In this study, we examined the CREPT expression in 225 clinical CRC tissues and paired adjacent normal tissues, and analyzed the correlation between CREPT expression and other clinicopathological features. We also evaluated the biological function of CREPT both in vitro and in vivo using knockdown or overexpressing CRC cells. Our results showed that CREPT expressed in 175 of 225 (77.8%) CRC patients and the CREPT expression was significantly associated with tumor differentiation (P = 0.000), Dukes' stages (P = 0.013) and metastasis (P = 0.038). Patients with high CREPT expression tended to have shorter survival time. Multivariate analysis showed that positive CREPT expression can be used as an
independent predictor for CRC prognosis. CREPT knockdown cells showed inhibited cell proliferation and arrested cell cycle, while CREPT overexpressing cells showed increased proliferation and promoted cell cycle. In addition, CREPT overexpression significantly promoted tumor growth in vivo."

According to the news editors, the research concluded: "Mechanism study showed that CREPT may regulate cell proliferation and cell cycle through the regulation on cyclin D3, CDK4 and CDK6."

For more information on this research see: High expression of CREPT promotes tumor growth and is correlated with poor prognosis in colorectal cancer. *Biochemical and Biophysical Research Communications*, 2016;480(3):436-442. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news correspondents report that additional information may be obtained from W.H. Wen, Fourth Military Medical University, Dept. of Immunol, State Key Lab Canc Biol, Xian 710032, People's Republic of China. Additional authors for this research include W.M. Li, B.L. Zuo, Z.Y. Guo, W.J. Xi, M. Wei, P. Chen, W.H. Wen and A.G. Yang.

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Keywords for this news article include: Xi'an, People's Republic of China, Asia, Colorectal Research, Cell Proliferation, Gastroenterology, Colon Cancer, Oncology, Fourth Military Medical University.

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**Oncology**

**Researchers from Fourth Military Medical University Report Findings in Oncology (ALK and ROS1 as targeted therapy paradigms and clinical implications to overcome crizotinib resistance)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology. According to news reporting originating in Xi'an, People's Republic of China, by NewsRx journalists, research stated, "During the past decade, more than 10 targetable oncogenic driver genes have been validated in non-small cell lung cancer (NSCLC). Anaplastic lymphoma kinase (ALK) and ROS1 kinase are two new driver genes implicated in ALK-and ROS1-rearranged NSCLC."

The news reporters obtained a quote from the research from Fourth Military Medical University. "Inhibition of ALK and ROS1 by crizotinib has been reported to be highly effective and well tolerated in these patients. However, resistance to crizotinib emerges years after treatment, and increasing efforts have been made to overcome this issue. Here, we review the biology of ALK and ROS1 and their roles in cancer progression. We also summarize the ongoing and completed clinical trials validating ALK and ROS1 as targets for cancer treatment. In the last section of the review, we will discuss the molecular mechanisms of crizotinib resistance and focus approaches to overcome it."
According to the news reporters, the research concluded: "This review describes an exciting new area of research and may provide new insights for targeted cancer therapies."

For more information on this research see: ALK and ROS1 as targeted therapy paradigms and clinical implications to overcome crizotinib resistance. Oncotarget, 2016;7(11):12289-304.

Our news correspondents report that additional information may be obtained by contacting M. Ye, Dept. of Pulmonary Medicine, Xijing Hospital, Fourth Military Medical University, Xi'an, People's Republic of China. Additional authors for this research include X. Zhang, N. Li, Y. Zhang, P. Jing, N. Chang, J. Wu, X. Ren and J. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6935. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Xi'an, Cancer, Kinase, Therapy, Genetics, Oncology, Article Review, Enzymes and Coenzymes, People's Republic of China.

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Oncology - Non-Small Cell Lung Cancer

Researchers from Free University Describe Findings in Non-Small Cell Lung Cancer (Utilising the EGFR interactome to identify mechanisms of drug resistance in non-small cell lung cancer - Proof of concept towards a systems pharmacology approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Non-Small Cell Lung Cancer is the subject of a report. According to news reporting from Berlin, Germany, by NewsRx journalists, research stated, "Drug treatment of epidermal growth factor receptor (EGFR) positive non-small cell lung cancer has improved substantially by targeting activating mutations within the receptor tyrosine kinase domain. However, the development of drug resistance still limits this approach."

The news correspondents obtained a quote from the research from Free University, "As root causes, large heterogeneity between tumour entities but also within tumour cells have been suggested. Therefore, approaches to identify these multitude and complex mechanisms are urgently required. Affinity purification coupled with high resolution mass spectrometry was applied to isolate and characterise the EGFR interactome from HCC4006 non-small cell lung cancer cells and their variant HCC4006(r)ERLO(0.5) adapted to grow in the presence of therapeutically relevant concentrations of erlotinib. Bioinformatics analyses were carried out to identify proteins and their related molecular functions that interact differentially with EGFR in the untreated state or when incubated with erlotinib prior to EGFR activation. Across all experimental conditions 375 proteins were detected to participate in the EGFR interactome, 90% of which constituted a complex protein interaction network that was bioinformatically reconstructed from literature data. Treatment of HCC4006(r)ERLO(0.5) cells carrying a resistance phenotype to erlotinib was associated with an increase of protein levels of members of the clathrin-associated adaptor protein family AP2 (AP2A1, AP2A2, AP2B1), structural proteins of cytoskeleton rearrangement as well as signalling molecules such as Shc. Validation experiments confirmed activation of the Ras-Raf-Mek-Erk (MAPK)-pathway, of which Shc is an initiating adaptor molecule, in HCC4006(r)ERLO(0.5) cells. Taken together, differential
proteins in the EGFR interactome of HCC4006(r)ERLO(0.5) cells were identified that could be related to multiple resistance mechanisms including alterations in growth factor receptor expression, cellular remodelling processes suggesting epithelial-to-mesenchymal transition as well as alterations in downstream signalling.

According to the news reporters, the research concluded: "Knowledge of these mechanisms is a pivotal step to build an integrative model of drug resistance in a systems pharmacology manner and to be able to investigate the interplay of these mechanisms and ultimately recommend combinatorial treatment strategies to overcome drug resistance."


Keywords for this news article include: Berlin, Germany, Europe, Intercellular Signaling Peptides and Proteins, Gastrointestinal Hormone Receptors, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor, Tyrosine Kinase Inhibitors, Non-Small Cell Lung Cancer, Protein Kinase Inhibitors, Gastrointestinal Hormones, Epidermal Growth Factors, Growth Factor Receptors, Drugs and Therapies, Phosphotransferases, Erlotinib Therapy, Membrane Proteins, Pharmaceuticals, Antineoplastics, EGFR Inhibitors, Drug Resistance, Protein Kinases, Lung Neoplasms, Pharmacology, Oncology, Genetics, Free University.

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DNA Research

Researchers from Free University Discuss Findings in DNA Research (Engineering biodegradable micelles of polyethylenimine-based amphiphilic block copolymers for efficient DNA and siRNA delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on DNA Research is the subject of a report. According to news reporting out of Berlin, Germany, by NewsRx editors, research stated, "Polycationic micelles have shown advantageous properties as nucleic acid delivery vectors both in vitro and in vivo. In contrast to polycationic micelles reported so far, we designed particles integrating a sufficient nucleic acid condensation capability by polycationic polyethylenimine (PEI) segments as well as only a mild cytotoxic behavior."

Funders for this research include German Research Foundation, Helmholtz Association, Federal Ministry of Education and Research, Germany.

Our news journalists obtained a quote from the research from Free University, "The micelles composed of a hydrophobic oligoester core with glycolide units resulting in fast
degradation after cellular internalization in combination with PEG moieties acting as shielding agents. By grafting branched 25 kDa polyethylenimine (PEI25) and poly(ethylene glycol) (PEG) on poly[(ε-caprolactone)-co-glycolide] (CG), amphiphilic PEI-CG-PEI and PEG-CG block copolymers were used to form a series of micelles via self-assembly of PEI-CG-PEI or co-assembly of both copolymers for DNA and siRNA delivery. This modular system enabled a systematic investigation of different parameters and their synergetic effects as different functions were introduced. The polyplex formation and serum stability, cytotoxicity, and transfection activity could be tailored by changing the CG chain length in PEI-based copolymer, incorporating PEG-CG, and varying the N/P ratio. All micelle-based polyplex compositions showed high DNA transfection activity according to reporter gene-expression and an exceptionally high knockdown in siRNA delivery experiments. Remarkably, the GFP expression of >99% cells was successfully knocked down by micelle-mediated siRNA interference, resulting in a decrease of two orders of magnitude in fluorescence intensity. Incorporation of PEG-CG in the micelles reduced the PEI-related cytotoxicity, and markedly enhanced the serum stability of both DNA and siRNA polyplexes. Compared with homo-PEI25, these micelles showed several advantages including the lower toxicity, higher siRNA transfection efficiency and higher polyplex stability in the presence of serum.

According to the news editors, the research concluded: "This study therefore provides an effective approach to tune the structure, property and function of polycationic micelles for efficient DNA and siRNA delivery, which could contribute to the design and development of novel non-viral transfection vectors with superb functionality."

For more information on this research see: Engineering biodegradable micelles of polyethylenimine-based amphiphilic block copolymers for efficient DNA and siRNA delivery. Journal of Controlled Release, 2016;242():71-79. Journal of Controlled Release can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news journalists report that additional information may be obtained by contacting A. Lendlein, Free University of Berlin, Inst Chem & Biochem, D-14195 Berlin, Germany. Additional authors for this research include M. Balk, Z.J. Deng, C. Wischke, M. Gossen, M. Behl, N. Ma and A. Lendlein.

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Keywords for this news article include: Berlin, Germany, Europe, DNA Research, Engineering, Free University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "Trastuzumab was introduced a decade ago and has improved outcomes for HER2-positive breast cancer. We investigated the factors predictive of pathological complete response (pCR), prognostic factors for disease-free survival (DFS), and interactions between pCR and DFS after neoadjuvant treatment."

The news reporters obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "We identified 287 patients with primary HER2-positive breast cancers given neoadjuvant chemotherapy (NAC) between 2002 and 2011. Univariate and multivariate analyses of clinical and pathological factors associated with pCR and DFS were performed. pCR rates differed between patients receiving neoadjuvant trastuzumab treatment or not (47.7% versus 19.3%, p<0.0001). DFS also differed significantly between patients receiving adjuvant trastuzumab or not (hazard ratio=4.84, 95% CI (2.52; 9.31), p<0.001). We analysed 199 patients given neoadjuvant and adjuvant trastuzumab. Multivariate analysis identified older age and hormone receptor-negative tumours as independent predictors of pCR. T stage (hazard ratio=2.55, 95% CI (1.01; 6.48), p=0.05) and strict pCR (hazard ratio=9.15, 95% CI (1.22; 68.83), p=0.03) were independent predictors of DFS. The latter association was significant in the HR-negative subgroup (p=0.02) but not in the HR-positive subgroup (p=0.12). Major pCR and DFS gains in HER2-positive BC were observed since 'trastuzumab' era."

According to the news reporters, the research concluded: "Further improvements rely on the enrollment of accurately selected patients into clinical trials."

For more information on this research see: Pathological complete response and prognosis after neoadjuvant chemotherapy for HER2-positive breast cancers before and after trastuzumab era: results from a real-life cohort. British Journal of Cancer, 2015;114(1):44-52. (Nature Publishing Group - www.nature.com/; British Journal of Cancer - www.nature.com/bjc/)

Our news correspondents report that additional information may be obtained by contacting A.S. Hamy-Petit, Institut Curie, PSL Research University, Translational Research Department, INSERM, U932 Immunity and Cancer, Residual Tumor & Response to Treatment Laboratory (RT2Lab), F-75248, Paris, France. Additional authors for this research include L. Belin, H. Bonsang-Kitzis, C. Paquet, J.Y. Pierga, F. Lerebours, P. Cottu, R. Rouzier, A. Savignoni, M. Lae and F. Reyal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bjc.2015.426. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Oncology, Chemotherapy, Breast Cancer, Women's Health, Drugs and Therapies.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis B Virus are presented in a new report. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "In Sub-Saharan Africa, seroclearance of hepatitis B surface antigen (HBsAg) and hepatitis B ‘e’ antigen (HBeAg), including their quantifiable markers, have rarely been evaluated during long-term antiviral treatment among patients coinfected with HIV and hepatitis B virus (HBV). In this prospective cohort study from two randomized-control trials in Côte d'Ivoire, 161 antiretroviral-naïve HIV-HBV coinfected patients starting lamivudine (n=76) or tenofovir/emtricitabine (n=85) containing antiretroviral therapy were included."

Funders for this research include Agence Nationale de Recherche sur le Sida et les Hepatites, ANRS.

Our news editors obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "HBV DNA was quantified using an in-house assay (detection limit=12 copies/mL) and HBsAg quantification (qHBsAg) using the Elecsys assay. Overall, 33 (20.5%) patients were HBeAg positive, 121 (75.2%) had detectable HBV DNA, and 92/93 (98.9%) harbored HBV genotype E. Median treatment duration was 35.5 months (interquartile range: 24.3-36.4). Among HBeAg-positive patients, cumulative proportion with HBeAg seroclearance was 46.3% (n=14). Overall, cumulative proportion of HBsAg seroclearance was 6.6% (n=10). Lower baseline qHBsAg levels and strong 12-month declines in qHBsAg were significantly associated with HBsAg seroclearance for both HBeAg-negative and HBeAg-positive patients. When taken at certain levels, these determinants provided moderate sensitivity (Se) and specificity (Sp) in predicting HBsAg seroclearance at month 36 ( (<=) 1000 IU/mL at baseline, Se=0.80, Sp=0.80; (>=) 1.0 log10 IU/mL at month 12, Se=0.57, Sp=1.00). Instead, qHBsAg levels (<=) 100 or (<=) 10 IU/mL at month 12 were optimal (both Se=0.90 and Sp=1.00). Detectable HBV-DNA provided fairly high Se and Sp when evaluated at baseline (Se=1.00, Sp=0.80), but not at month 12 (Se=0.80, Sp=0.40)."

According to the news editors, the research concluded: "HBsAg seroclearance rates are not common in patients from Sub-Saharan Africa treated with anti-HBV containing antiretroviral therapy. qHBsAg levels at 12 months of treatment may accurately predict HBsAg seroclearance."


The news editors report that additional information may be obtained by contacting A. Boyd, INSERM, UMR_S1136, Institut Pierre Louis d'Epidemiologie et de Sante Publique, Paris, France. Additional authors for this research include S. Maylin, R. Moh, N. Mahjoub, D. Gabillard, S.P. Eholie, C. Danel, X. Anglaret, F. Zoulim, P.M. Girard, C. Delaugerre and K. Lacombefor.

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Keywords for this news article include: HBV, Antiretrovirals, Paris, France, Europe, Genetics, HIV/AIDS, Virology, Viral DNA, Hepatology, Immunology, DNA Viruses, RNA Viruses, Retroviridae, HIV Infections, Gastroenterology, Hepatitis B Virus, Orthohepadnavirus, Biological Factors, Vertebrate Viruses, Drugs and Therapies, Hepatitis B Antigens, Primate
Researchers from Fudan University Describe Findings in Hypertension (Short sleep duration is associated with increased risk of pre-hypertension and hypertension in Chinese early middle-aged females)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Hypertension are presented in a new report. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study is to investigate the relationship between sleep duration and hypertension in a middle-aged Chinese population. Cross-sectional data of 20,505 individuals aged 35-64 years from Taizhou longitudinal study was used."

Financial supporters for this research include International cooperation project of Ministry of Science and Technology, The National Basic Research Program, National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Fudan University, "Logistic regression models were used to calculate odds ratios (ORs) for the risk of pre-hypertension and hypertension in association with sleep duration. Short sleep duration was associated with high systolic and diastolic blood pressure in comparison with sleep duration of 7-8 h in females. Short sleep duration was also associated with an increased risk of hypertension in females. Age-stratified analysis showed that as compared with sleep duration of 7-8 h, sleep duration < 6 h increased risk of hypertension after controlling for multiple covariates with an OR of 1.766 (1.024-2.775) in early middle-aged females of 35-44 years. More importantly, sleeping less than 6 h is associated with increased risk of pre-hypertension in females of this age category, after controlling for multiple covariates with an OR of 1.769 (1.058-2.958). Sleeping less than 6 h a day is associated with increased risk of pre-hypertension and hypertension in Chinese early middle-aged females."

According to the news reporters, the research concluded: "The high-risk populations require sufficient sleep, which could probably prevent the increased risk of pre-hypertension as well as hypertension."

For more information on this research see: Short sleep duration is associated with increased risk of pre-hypertension and hypertension in Chinese early middle-aged females. *Sleep and Breathing*, 2016;20(4):1355-1362. *Sleep and Breathing* can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Sleep and Breathing - www.springerlink.com/content/1520-9512/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11325-016-1392-2. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from Fudan University Report Recent Findings in Osteonecrosis (Involvement of MicroRNA-210 Demethylation in Steroid-associated Osteonecrosis of the Femoral Head)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Musculoskeletal Diseases and Conditions - Osteonecrosis. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Angiogenesis is an important event in steroid-associated osteonecrosis of the femoral head (SONFH). Here we performed miRNA microarray with SONFH tissues (ONs) and the adjacent normal tissues (NLs) to select the angiogenic miRNA."

Our news journalists obtained a quote from the research from Fudan University, "The results showed that miR-210 was differentially expressed in SONFH versus normal tissues. Unexpectedly, its specific transcription factor, hypoxia-inducible factor-1a, was shown of no significant changes in ONs compared with NLs. Further Bisulfite sequencing revealed that miR-210 is embedded in a CpG island and miR-210 gene has 2 CpG sites with lower methylation percentage in ONs compared with NLs. Additionally, ONs with lower miR-210 gene methylation exhibited higher miR-210 expression. Next, we found that the endothelial cells treated with demethylating agents could significantly increase the expression of miR-210, along with promoted cell viability and differentiation. Some angiogenic genes (VEGF, bFGF, TNF-a and PCNA) were up-regulated as well. In addition, the supernatant of the cells after demethylation treatment displayed an enhanced ability of recruiting new microvessels in vivo."

According to the news editors, the research concluded: "Taken together, our study not only provides novel insights into the regulation of angiogenesis in this disease, but also reveals a therapeutic opportunity for treatment of SONFH patients with demethylating agents."

For more information on this research see: Involvement of MicroRNA-210 Demethylation in Steroid-associated Osteonecrosis of the Femoral Head. Scientific Reports, 2016;6():20046. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from H.F. Yuan, Dept. of Orthopedics, Zhongshan Hospital, Fudan University, Shanghai, People's Republic of China. Additional authors for this research include V.R. Christina, C.A. Guo, Y.W. Chu, R.H. Liu and Z.Q Yan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep20046. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shanghai, Genetics, Oncology, Angiogenesis, Osteonecrosis, People's Republic of China, Bone Diseases and Conditions, Musculoskeletal Diseases and Conditions.
Researchers from Fujian Medical University Provide Details of New Studies and Findings in the Area of Antineoplastics (The mitochondrion interfering compound NPC-26 exerts potent anti-pancreatic cancer cell activity in vitro and in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antineoplastics is now available. According to news reporting originating in Quanzhou, People's Republic of China, by NewsRx journalists, research stated, "The development of novel anti-pancreatic cancer agents is extremely important. Here, we investigated the anti-pancreatic cancer activity by NPC-26, a novel mitochondrion interfering compound."

The news reporters obtained a quote from the research from Fujian Medical University, "We showed that NPC-26 was anti-proliferative and cytotoxic to human pancreatic cancer cells, possibly via inducing caspase-9-dependent cell apoptosis. Pharmacological inhibition or shRNA-mediated silence of caspase-9 attenuated NPC-26-induced pancreatic cancer cell death and apoptosis. Further, NPC-26 treatment led to mitochondrial permeability transition pore (mPTP) opening in the cancer cells, which was evidenced by mitochondrial depolarization, ANT-1(adenine nucleotide translocator-1)-Cyp-D (cyclophilin-D) association and oxidative phosphorylation disturbance. mPTP blockers (cyclosporin and sanglifehrin A) or shRNA-mediated knockdown of key mPTP components (Cyp-D and ANT-1) dramatically attenuated NPC-26-induced pancreatic cancer cell apoptosis. In vivo, NPC-26 intraperitoneal injection significantly suppressed the growth of PANC-1 xenograft tumors in nude mice. Meanwhile, NPC-26 sensitized gemcitabine-mediated anti-pancreatic cancer activity in vivo."

According to the news reporters, the research concluded: "In summary, the results of this study suggest that NPC-26, alone or together with gemcitabine, potently inhibits pancreatic cancer cells possibly via disrupting mitochondrion."

For more information on this research see: The mitochondrion interfering compound NPC-26 exerts potent anti-pancreatic cancer cell activity in vitro and in vivo. Tumor Biology, 2016;37(11):15053-15063. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news correspondents report that additional information may be obtained by contacting Y.Y. Dong, Fujian Med Univ, Hosp Quanzhou 1, Dept. of Surg Oncol, Quanzhou 362000, Fujian, People's Republic of China. Additional authors for this research include Y.H. Zhuang, W.J. Cai, Y. Liu and W.B. Zou.

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Keywords for this news article include: Quanzhou, People's Republic of China, Asia, Enzymes and Coenzymes, Drugs and Therapies, Antimetabolites, Antineoplastics,
Researchers from Gazes Cardiac Research Institute Report Recent Findings in Cardiology (Dasatinib Attenuates Pressure Overload Induced Cardiac Fibrosis in a Murine Transverse Aortic Constriction Model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiology. According to news reporting originating from Charleston, South Carolina, by NewsRx correspondents, research stated, "Reactive cardiac fibrosis resulting from chronic pressure overload (PO) compromises ventricular function and contributes to congestive heart failure. We explored whether nonreceptor tyrosine kinases (NTKs) play a key role in fibrosis by activating cardiac fibroblasts (CFb), and could potentially serve as a target to reduce PO-induced cardiac fibrosis."

Our news editors obtained a quote from the research from Gazes Cardiac Research Institute, "Our studies were carried out in PO mouse myocardium induced by transverse aortic constriction (TAC). Administration of a tyrosine kinase inhibitor, dasatinib, via an intraperitoneally implanted mini-osmotic pump at 0.44 mg/kg/day reduced PO-induced accumulation of extracellular matrix (ECM) proteins and improved left ventricular geometry and function. Furthermore, dasatinib treatment inhibited NTK activation (primarily Pyk2 and Fak) and reduced the level of FSP1 positive cells in the PO myocardium. In vitro studies using cultured mouse CFb showed that dasatinib treatment at 50 nM reduced: (i) extracellular accumulation of both collagen and fibronectin, (ii) both basal and PDGF-stimulated activation of Pyk2, (iii) nuclear accumulation of Ki67, SKP2 and histone-H2B and (iv) PDGF-stimulated CFb proliferation and migration. However, dasatinib did not affect cardiomyocyte morphologies in either the ventricular tissue after in vivo administration or in isolated cells after in vitro treatment. Mass spectrometric quantification of dasatinib in cultured cells indicated that the uptake of dasatinib by CFb was greater that that taken up by cardiomyocytes. Dasatinib treatment primarily suppressed PDGF but not insulin-stimulated signaling (Erk versus Akt activation) in both CFb and cardiomyocytes."

According to the news editors, the research concluded: "These data indicate that dasatinib treatment at lower doses than that used in chemotherapy has the capacity to reduce hypertrophy-associated fibrosis and improve ventricular function."

For more information on this research see: Dasatinib Attenuates Pressure Overload Induced Cardiac Fibrosis in a Murine Transverse Aortic Constriction Model. Plos One, 2015;10 (10):e0140273. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news editors report that additional information may be obtained by contacting S. Balasubramanian, Cardiology Division of the Dept. of Medicine, Gazes Cardiac Research Institute, 114 Doughty Street, Charleston, South Carolina, United States. Additional authors for this research include D.L. Pleasant, H. Kasiganesan, L. Quinones, Y. Zhang, K.P. Sundararaj, S. Roche, R. O'Connor, A.D. Bradshaw and D. Kuppuswamy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0140273. This DOI is a link to an online electronic
Researchers from General Hospital Discuss Findings in Cancer Risk (Unprovoked venous thromboembolism and subsequent cancer risk: a population-based cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cancer Risk. According to news reporting out of Kaohsiung, Taiwan, by NewsRx editors, research stated, "ESSENTIALS: A relationship between unprovoked venous thromboembolism (VTE) and cancer risk was investigated. We collected 27,751 VTE patients and compared them with 110,409 frequency-matched people without VTE."

Funders for this research include Taiwan Ministry of Health and Welfare Clinical Trial, Research Center of Excellence, China Medical University Hospital, Academia Sinica Taiwan Biobank, Stroke Biosignature Project, NRPB Stroke Clinical Trial Consortium, Tseng-Lien Lin Foundation, Taichung, Taiwan, Taiwan Brain Disease Foundation, Taipei, Taiwan, Katsuzo and Kiyo Aoshima Memorial Funds, Japan, China Medical University Hospital Cancer Research Center of Excellence.

Our news journalists obtained a quote from the research from General Hospital, "This cohort study showed significantly higher risks of overall and site-specific cancers in the VTE group. There is an increased risk in the first 6 months after VTE, and VTE can be an indicator of occult cancer. We investigated the relationship between unprovoked venous thromboembolism (VTE) and subsequent cancer risk in Taiwan, focusing on both short-term and long-term cancer development. For the case group, we obtained data on 27,751 patients diagnosed with unprovoked VTE between 1 January 1998, and 31 December 2008. For the comparison group, four people without unprovoked VTE were frequency-matched with each unprovoked VTE patient according to age, sex, and index year. Cox proportional hazards regression models were employed to determine the effects of unprovoked VTE on cancer risk. Overall cancer risk was significantly higher in the unprovoked VTE group than in the comparison group (adjusted hazard ratio=2.26, 95% confidence interval=2.16-2.37). The increased risk was observed in both men and women in various age groups. The patients in the unprovoked VTE group showed a significantly increased risk of cancer at all site-specific cancer sites. Analyses stratified according to follow-up duration revealed that significant differences were more evident between the two groups over a follow-up duration of <0.5 years than over a follow-up duration of (>=) 3 years. Furthermore, the 1-year mortality risk of cancer patients with unprovoked VTE was significantly higher than that for cancer patients in the non-VTE group. The results of this study show that unprovoked VTE is associated with a consistently high risk of subsequent cancer diagnosis. This is particularly true in the first 6 months after VTE."

According to the news editors, the research concluded: "It suggests that unprovoked VTE can be an indicator of occult malignancy."

Our news journalists report that additional information may be obtained by contacting L.M. Sun, Dept. of Radiation Oncology, Zuoying Branch of Kaohsiung Armed Forces General Hospital, Kaohsiung, Taiwan. Additional authors for this research include W.S. Chung, C.L. Lin, J.A. Liang and C.H Kao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jth.13251. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiwan, Oncology, Kaohsiung, Hematology, Cancer Risk, Risk and Prevention, Venous Thromboembolism, Embolism and Thrombosis, Cardiovascular Diseases and Conditions.

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**Oncology - Osteosarcomas**

**Researchers from General Hospital Report Recent Findings in Osteosarcomas (Effect of Unplanned Therapy on the Prognosis of Patients with Extremity Osteosarcoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Osteosarcomas are presented in a new report. According to news originating from Jinan, People's Republic of China, by NewsRx correspondents, research stated, "Unplanned therapy for extremity osteosarcoma can result in erroneous surgical procedures and lack of neoadjuvant chemotherapy before the first operation. Our aim was to compare the prognosis between patients with extremity osteosarcoma who received unplanned therapy and those who received standard treatment."

Our news journalists obtained a quote from the research from General Hospital, "This was a retrospective review of patients with extremity osteosarcoma who received appropriate surgical treatment and neoadjuvant chemotherapy (n = 79) and those who received unplanned therapy (n = 24) between June 2000 and October 2014. Survival rate, local recurrence rate and metastasis rate were compared between the two groups. We found that patients who had unplanned therapy had a higher local recurrence rate (41.7% vs. 21.5%; P = 0.049) and a shorter mean time for recurrence (8.90 vs. 14.59 months; P = 0.018). There was no significant difference between groups in the 5-year survival rate (56.3% vs. 67.8%; P = 0.356), metastasis rate (45.8% vs. 30.4%; P = 0.125) and mean time to metastasis (23.18 vs. 18.24 months; P = 0.396). Our findings suggest that unplanned therapy for extremity osteosarcoma can result in failure of local control."

According to the news editors, the research concluded: "The use of supplementary interventions after unplanned therapy, such as neoadjuvant chemotherapy and limb salvage surgery, may explain the similar survival and metastasis rates between patients receiving unplanned therapy and those receiving standard treatment."

For more information on this research see: Effect of Unplanned Therapy on the Prognosis of Patients with Extremity Osteosarcoma. *Scientific Reports*, 2016;6():1-6.
Researchers from George Washington University Discuss Findings in Neurons (Direct Projections From Hypothalamic Orexin Neurons To Brainstem Cardiac Vagal Neurons)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurons. According to news reporting originating from Washington, District of Columbia, by NewsRx correspondents, research stated, "Orexin neurons are known to augment the sympathetic control of cardiovascular function, however the role of orexin neurons in parasympathetic cardiac regulation remains unclear. To test the hypothesis that orexin neurons contribute to parasympathetic control we selectively expressed channelrhodopsin-2 (ChR2) in orexin neurons in orexin-Cre transgenic rats and examined postsynaptic currents in cardiac vagal neurons (CVNs) in the dorsal motor nucleus of the vagus (DMV)."

Financial support for this research came from NIH.

Our news editors obtained a quote from the research from George Washington University, "Simultaneous photostimulation and recording in ChR2-expressing orexin neurons in the lateral hypothalamus resulted in reliable action potential firing as well as large whole-cell currents suggesting a strong expression of ChR2 and reliable optogenetic excitation. Photostimulation of ChR2-expressing fibers in the DMV elicited short-latency (ranging from 3.2 ms to 8.5 ms) postsynaptic currents in 16 out of 44 CVNs tested. These responses were heterogeneous and included excitatory glutamatergic (63%) and inhibitory GABAergic (37%) postsynaptic currents."

According to the news editors, the research concluded: "The results from this study suggest different sub-population of orexin neurons may exert diverse influences on brainstem CVNs and therefore may play distinct functional roles in parasympathetic control of the heart."

For more information on this research see: Direct Projections From Hypothalamic Orexin Neurons To Brainstem Cardiac Vagal Neurons. *Neuroscience*, 2016;339():47-53.

*Neuroscience* can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Neuroscience - www.journals.elsevier.com/neuroscience/)

The news editors report that additional information may be obtained by contacting O. Dergacheva, George Washington University, Dept. of Physiol & Pharmacol, Washington, DC 20037, United States. Additional authors for this research include A. Yamanaka, A.R. Schwartz,
Researchers from Georgetown University Describe Findings in Pancreatic Cancer (Circulating microRNA profile predicts disease progression in patients receiving second-line treatment of lapatinib and capecitabine for metastatic pancreatic cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Pancreatic Cancer have been presented. According to news reporting out of Washington, District of Columbia, by NewsRx editors, research stated, "Patients exhibiting pancreatic cancer possess poor rates of survival. Therefore, the identification of a biomarker that can be measured non-invasively and be used to predict patient outcomes is required for the successful treatment of pancreatic cancer."

Our news journalists obtained a quote from the research from Georgetown University, "The present study evaluated serum microRNA (miRNA/miR) profiles in patients exhibiting pancreatic cancer, who were treated with lapatinib and capecitabine in a phase II trial. Serum samples were collected for the measurement of a panel of miRNAs (miR-21, miR-210, miR-221 and miR-7) associated with the epidermal growth factor receptor (EGFR)1 and human epidermal growth factor receptor (HER)2 pathways. Preclinically, human pancreatic cancer PANC-1, MIA PaCa-2 and BXPC-3 cell lines were utilized for miRNA and drug resistance studies. In total, 6/17 patients treated experienced disease progression following 2 cycles of treatment [non-responders (NRS)], while another 6/17 patients exhibited a stable disease state and received >4 cycles of treatment [responders (RS); range, 4-22 cycles]. Five patients withdrew from the study due to severe toxicity or mortality. The mean overall survival time was 6.5 vs. 10.4 months for NRS and RS, respectively. Significant upregulation of serum miRNAs at earlier time points (3-6 weeks) was observed in NRS. miRNA levels increased with cancer progression, and lapatinib and 5-fluorouracil (5-FU: the active form of capecitabine) treatment increased the miRNA levels (specifically miR-210 and miR-221) in the treatment-resistant pancreatic cancer PANC-1 and MIA PaCa-2 cell lines. However, lapatinib and 5-FU treatment did not increase the miRNA levels in the treatment-sensitive BXPC-3 cell line. Inhibition of miR-221 increased the sensitivity of the PANC-1 cells to treatment."

According to the news editors, the research concluded: "An increase in specific serum miRNAs was associated with resistance to lapatinib and capecitabine treatment. Additional investigation is required with regard to the application of the miRNA panel investigated in the present study as a potential predictor of patient responses to anti-EGFR/HER2 treatment."

For more information on this research see: Circulating microRNA profile predicts

Our news journalists report that additional information may be obtained by contacting X. Tian, Division of Hematology and Oncology, Lombardi Comprehensive Cancer Center, Georgetown University, Washington, DC 20007, United States. Additional authors for this research include N. Shivapurkar, Z. Wu, J.J. Hwang, M.J. Pishvaian, L.M. Weiner, L. Ley, D. Zhou, X. Zhi, A. Wellstein, J.L. Marshall and A.R He.

Keywords for this news article include: Antimetabolites, Antineoplastics, Pharmaceuticals, Oncology, Lapatinib, Washington, United States, EGFR Inhibitors, HER2 Inhibitors, Gastroenterology, Pancreatic Cancer, Disease Attributes, Disease Progression, Drugs and Therapies, District of Columbia, Capecitabine Therapy, Pancreatic Neoplasms, Pathologic Processes.

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**Nanotechnology**

**Researchers from Georgia Institute of Technology and Emory University Detail Findings in Nanotechnology** *(Cu-Doped PdCu@Au Tripods: A Multifunctional Nanomaterial for Positron Emission Tomography and Image-Guided Photothermal ...)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nanotechnology have been presented. According to news reporting out of Atlanta, Georgia, by NewsRx editors, research stated, "This article reports a facile synthesis of radiolabeled PdCu@Au core-shell tripods for use in positron emission tomography (PET) and image-guided photothermal cancer treatment by directly incorporating radioactive (64)Cu atoms into the crystal lattice. The tripod had a unique morphology determined by the PdCu tripod that served as a template for the coating of Au shell, in addition to well-controlled specific activity and physical dimensions."

Funders for this research include National Cancer Institute, Georgia Institute of Technology, China Scholarship Council.

Our news journalists obtained a quote from the research from the Georgia Institute of Technology and Emory University, "The Au shell provided the nanostructure with strong absorption in the near-infrared region and effectively prevented the Cu and (64)Cu atoms in the core from oxidization and dissolution. When conjugated with D-Ala1-peptide T-amide (DAPTA), the core-shell tripods showed great enhancement in targeting the C-C chemokine receptor 5 (CCR5), a newly identified theranostic target up-regulated in triple negative breast cancer (TNBC). Specifically, the CCR5-targeted tripods with an arm length of about 45 nm showed 2-and 6-fold increase in tumor-to-blood and tumor-to-muscle uptake ratios, respectively, relative to their nontargeted counterpart in an orthotopic mouse 4T1 TNBC model at 24 h postinjection. The targeting specificity was further validated via a competitive receptor blocking study. We also demonstrated the use of these targeted, radioactive tripods for effective photothermal treatment in the 4T1 tumor model as guided by PET imaging. The efficacy of treatment was confirmed by the significant reduction in tumor metabolic activity revealed through the use of (18)F-fluorodeoxyglucose PET/CT imaging."

According to the news editors, the research concluded: "Taken together, we believe
that the (64)Cu-doped PdCu@Au tripods could serve as a multifunctional platform for both PET imaging and image-guided photothermal cancer therapy."

For more information on this research see: &amp;#8310;&amp;#8308;Cu-Doped PdCu@Au Tripods: A Multifunctional Nanomaterial for Positron Emission Tomography and Image-Guided Photothermal Cancer Treatment. Acs Nano, 2016;10(3):3121-31. (American Chemical Society - www.acs.org; Acs Nano - www.pubs.acs.org/journal/anacn3)

Our news journalists report that additional information may be obtained by contacting B. Pang, The Wallace H Coulter Dept. of Biomedical Engineering, Georgia Institute of Technology and Emory University, Atlanta, Georgia 30332, United States. Additional authors for this research include Y. Zhao, H. Luehmann, X. Yang, L. Detering, M. You, C. Zhang, L. Zhang, Z.Y. Li, Q. Ren, Y. Liu and Y. Xia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.5b07968. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Atlanta, Georgia, Oncology, United States, Nanotechnology, North and Central America.

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Researchers from German Cancer Consortium Report Recent Findings in Starvation (FOXO3a orchestrates glioma cell responses to starvation conditions and promotes hypoxia-induced cell death)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Starvation have been published. According to news originating from Frankfurt, Germany, by NewsRx correspondents, research stated, "Forkhead box O (FOXO) transcription factors are homeostatic regulators adjusting diverse cellular processes crucial for metabolism and survival. In gliomas, FOXOs have been shown to modulate cell death, proliferation and differentiation."

Our news journalists obtained a quote from the research from German Cancer Consortium, "Here, we investigated the role of FOXO3a in human malignant gliomas with special regard to starvation conditions. Expression of FOXO3a increased with WHO grade and was accentuated in the perinecrotic niche, colocalizing with hypoxia-inducible factor I alpha (HIF1 alpha) expression. FOXO3a was upregulated in hypoxia and translocation of FOXO3a from the cytoplasm to the nucleus was induced by serum starvation, pharmacological inhibition of protein kinase B (PKB) and hypoxia. Overexpression of FOXO3a induced tumor necrosis factor -related apoptosis-inducing ligand (TRAIL) expression and resulted in spontaneous cell death. Knockdown of FOXO3a (shFOXO3a), on the one hand, enhanced the sensitivity of glioma cells towards H2O2 under normoxia. On the other hand, it decreased consumption of glucose and oxygen, resulting in improved survival during glucose and oxygen deprivation. Mechanistically, in shFOXO3a cells, hypoxia-response element reporter activity, as well as the expression of common HIF1 alpha target genes, was increased, suggesting disinhibited HIF1 alpha signaling. However, glucose transporter 1 (GLUT1) expression was inversely regulated, and this may have been caused by an upregulation of TP53 in shFOXO3a cells. These data
reveal a novel role of FOXO3a-dependent gene regulation in the complex adaptive responses of gliomas towards starvation signals."

According to the news editors, the research concluded: "Strategies that target FOXO3a function may directly or indirectly alter glioma cell behavior and viability in the hypoxic niche."

For more information on this research see: FOXO3a orchestrates glioma cell responses to starvation conditions and promotes hypoxia-induced cell death. *International Journal of Oncology*, 2016;49(6):2399-2410. *International Journal of Oncology* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

The news correspondents report that additional information may be obtained from J.P. Steinbach, Partner Site Frankfurt Mainz, German Canc Consortium DKTK, Frankfurt, Germany. Additional authors for this research include G.D. Maurer, P.N. Harter, J. Rieger and J.P. Steinbach.

Keywords for this news article include: Frankfurt, Germany, Europe, Nutritional and Metabolic Diseases and Conditions, Starvation, Oncology, Genetics, Gliomas, German Cancer Consortium.

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**Heart Disorders and Diseases - Left Ventricular**

**Researchers from German Center Lung Research Report Findings in Left Ventricular Hypertrophy (Cardiomyocyte loss is not required for the progression of left ventricular hypertrophy induced by pressure overload in female mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Left Ventricular Hypertrophy. According to news originating from Hannover, Germany, by NewsRx correspondents, research stated, "Left ventricular (LV) hypertrophy in response to hypertension and increased afterload frequently progresses to heart failure. It is under debate whether the loss of cardiomyocytes contributes to this transition."

Financial support for this research came from Medical University of Graz.

Our news journalists obtained a quote from the research from German Center Lung Research, "To address this question, female C57BL/6 wild-type mice were subjected to transverse aortic constriction (TAC) and developed compensated LV hypertrophy after 1 week, which progressed to heart failure characterized by reduced ejection fraction and pulmonary congestion 4 weeks post-TAC. Quantitative, design-based stereology methods were used to estimate number and mean volume of LV cardiomyocytes. DNA strand breaks were visualized using the TUNEL method 6 weeks post-TAC to quantify the number of apoptotic cell nuclei. The volume of the LV myocardium as well as the cardiomyocyte mean volume increased progressively after TAC. In contrast, the number of LV cardiomyocytes remained constant 1 and 4 weeks post-TAC in comparison to sham-operated mice. Moreover, there was no significant difference in the number of cardiomyocyte nuclei stained for DNA strand breaks at 6 weeks post-TAC."

According to the news editors, the research concluded: "It was concluded that the loss of cardiomyocytes is not required for the transition from compensated hypertrophy to heart
failure induced by TAC in the female murine heart."


The news correspondents report that additional information may be obtained from C. Muhlfeld, German Center Lung Res DZL, Biomed Res Endstage & Obstruct Lung Dis Hannover, Hannover, Germany. Additional authors for this research include C. Grimm, G. Arnstein, J. Kockskamper, S. Sedej and C. Muhlfeld.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/joa.12463. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hannover, Germany, Europe, Cardiovascular Diseases and Conditions, Transverse Aortic Constriction, Heart Disorders and Diseases, Left Ventricular Hypertrophy, Cardiomyocyte, Heart Failure, Heart Disease, Cardiology, Genetics, Surgery, German Center Lung Research.

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**Oncology - Gliomas**

**Researchers from Gifu Pharmaceutical University Report Findings in Gliomas [Glycoprotein nonmetastatic melanoma protein B (GPNMB) promotes the progression of brain glioblastoma via Na+/K+-ATPase]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gliomas. According to news reporting from Gifu, Japan, by NewsRx journalists, research stated, "Glycoprotein nonmetastatic melanoma protein B (GPNMB), which is involved in invasion and metastasis, was found to be overexpressed in various cancers. High levels of GPNMB and Na+/K+-ATPase alpha subunits are associated with a poor prognosis in glioblastoma patients."

The news correspondents obtained a quote from the research from Gifu Pharmaceutical University, "We showed that GPNMB interacts with Na+/K+-ATPase alpha subunits to activate PI3K/Akt and MEK/ERK pathways. However, it remains unclear whether the interaction of GPNMB and Na+/K+-ATPase alpha subunits is involves in progression of glioma. The tumor size induced by the injection of glioma GL261 cells was larger in transgenic mice over expressing GPNMB when compared with wild-type mice. Additionally, the interaction of GPNMB and Na+/K+-ATPase alpha subunits was identified in the murine glioma model and in the tumors of glioblastoma patients. Ouabain, a Na+/K+-ATPase inhibitor, suppressed the glioma growth induced by the injection of glioma cells in the transgenic mice overexpressing GPNMB and blocked the GPNMB-induced migration of glioma cells. These findings indicate that GPNMB promotes glioma growth via Na+/K+-ATPase alpha subunits."

According to the news reporters, the research concluded: "Thus, the interaction between GPNMB and Na+/K+-ATPase alpha subunits represents a novel therapeutic target for the treatment of brain glioblastomas."
For more information on this research see: Glycoprotein nonmetastatic melanoma protein B (GPNMB) promotes the progression of brain glioblastoma via Na+/K+-ATPase. *Biochemical and Biophysical Research Communications*, 2016;481(1-2):7-12. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting H. Hara, Gifu Pharmaceut Univ, Dept. of Biofunct Evaluat, Mol Pharmacol, Gifu 501196, Japan. Additional authors for this research include S. Chiba, H. Yano, N. Nakayama, M. Saio, K. Tsuruma, M. Shimazawa, T. Iwama and H. Hara.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.11.034. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gifu, Japan, Asia, Enzymes and Coenzymes, Glycoconjugates, Glycoproteins, Glioblastomas, Genetics, Oncology, Melanoma, Gliomas, ATPase, Gifu Pharmaceutical University.

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**Oncology**

**Researchers from H. Lee Moffitt Cancer Center and Research Institute Report on Findings in Oncology (A phase I study of indoximod in patients with advanced malignancies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology. According to news reporting out of Tampa, Florida, by NewsRx editors, research stated, "Indoximod is an oral inhibitor of the indoleamine 2,3-dioxygenase pathway, which causes tumor-mediated immunosuppression. Primary endpoints were maximum tolerated dose (MTD) and toxicity for indoximod in patients with advanced solid tumors."

Our news journalists obtained a quote from the research from H. Lee Moffitt Cancer Center and Research Institute, "Secondary endpoints included response rates, pharmacokinetics, and immune correlates. Our 3+3 phase I trial comprised 10 dose levels (200, 300, 400, 600, and 800 mg once/day; 600, 800, 1200, 1600, and 2000 mg twice/day). Inclusion criteria were measurable metastatic solid malignancy, age (>=)18 years, and adequate organ/marrow function. Exclusion criteria were chemotherapy (<=) 3 weeks prior, untreated brain metastases, autoimmune disease, or malabsorption. In 48 patients, MTD was not reached at 2000 mg twice/day. At 200 mg once/day, 3 patients previously treated with checkpoint inhibitors developed hypophysitis. Five patients showed stable disease >6 months. Indoximod plasma AUC and Cmax plateaued above 1200mg. Cmax (~12 mM at 2000 mg twice/day) occurred at 2.9 hours, and half-life was 10.5 hours. C reactive protein (CRP) levels increased across multiple dose levels. Indoximod was safe at doses up to 2000 mg orally twice/day. Best response was stable disease >6 months in 5 patients."

According to the news editors, the research concluded: "Induction of hypophysitis, increased tumor antigen autoantibodies and CRP levels were observed."
Researchers from Hacettepe University School of Medicine Detail Findings in Thyroid Cancer (Genetic Alterations in Differentiated Thyroid Cancer Patients with Acromegaly)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Thyroid Cancer. According to news reporting originating from Ankara, Turkey, by NewsRx correspondents, research stated, "Acromegaly is associated with increased thyroid cancer risk. We aimed to analyze the frequency of point mutations of BRAF and RAS genes, and RET/PTC, PAX8/PPARg gene rearrangements in patients with acromegaly having differentiated thyroid cancers (DTC) and their relation with clinical and histological features. 14 acromegalic patients (8 male, 6 female) with DTC were included."

Our news editors obtained a quote from the research from the Hacettepe University School of Medicine, "BRAF V600E and NRAS codon 61 point mutations, RET/PTC1, RET/PTC3, and PAX8/PPARg gene rearrangements were analyzed in thyroidectomy specimens. We selected 14 non-acromegalic patients with DTC as a control group. 2 patients (14.3%) were detected to have positive BRAF V600E and 3 patients (21.4%) were detected to have NRAS codon 61 mutation. NRAS codon 61 was the most frequent genetic alteration. Patients with positive mutation had aggressive histologic features more frequently than patients without mutations. Comparison of the acromegalic and non-acromegalic patients with DTC revealed that BRAF V600E mutation was more frequent in non-acromegalic patients with DTC (14.2% vs. 64.3%, p=0.02). RET/PTC 1/ 3, PAX8/PPARg gene rearrangements were not detected in any patient. None of the patients including the patients with positive point mutations had recurrence, and local and/or distant metastasis. NRAS codon 61 is the most frequent genetic alteration in this acromegaly series with DTC. Since acromegalic patients have lower prevalence of BRAF V600E mutation, BRAF V600E mutation may not be a causative factor in development of DTC in acromegaly."

According to the news editors, the research concluded: "Despite the relation of BRAF V600E and NRAS codon 61 mutations with aggressive histopathologic features, their impact on tumor prognosis remains to be defined in acromegaly in further studies."
For more information on this research see: Genetic Alterations in Differentiated Thyroid Cancer Patients with Acromegaly. *Experimental and Clinical Endocrinology & Diabetes*, 2015;124(3):198-202. (Thieme - www.thieme.com)

The news editors report that additional information may be obtained by contacting K. Aydin, Dept. of Endocrinology and Metabolism, Hacettepe University School of Medicine, Ankara, Turkey. Additional authors for this research include C. Aydin, S. Dagdelen, G.G. Tezel and T. Erbas.

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Keywords for this news article include: Ankara, Turkey, Eurasia, Genetics, Oncology, Acromegaly, Cancer Risk, Endocrinology, Hyperpituitarism, Thyroid Neoplasms, Risk and Prevention, Papillary Thyroid Cancer, Brain Diseases and Conditions, Pituitary Diseases and Conditions, Hypothalamic Diseases and Conditions, Endocrine Bone Diseases and Conditions.

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**Digestive System Diseases and Conditions - Acid...**

**Researchers from Hamamatsu University School of Medicine Detail New Studies and Findings in the Area of Acid Reflux Disease (Rapid metabolizer genotype of CYP2C19 is a risk factor of being refractory to proton pump inhibitor therapy for reflux ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Acid Reflux Disease. According to news reporting originating in Hamamatsu, Japan, by NewsRx journalists, research stated, "Proton pump inhibitors (PPIs) are mainly metabolized by cytochrome P450 2C19 (CYP2C19) and used as the first-line therapy for gastroesophageal reflux disease (GERD). However, while several studies have examined the influence of CYP2C19 polymorphism on GERD treatment with PPIs, most have had small sample sizes and were conducted in a single center."

The news reporters obtained a quote from the research from the Hamamatsu University School of Medicine, "Here, we used meta-analysis to investigate whether or not the CYP2C19 rapid metabolizer (RM) genotype is a risk factor for GERD patients being refractory to PPI therapy. PubMed and other electronic databases were systematically searched up to August 2014 using the following terms: 'GERD and CYP2C19', 'esophagitis and CYP2C19', and 'non-erosive reflux disease and CYP2C19.' Searches were limited to publications in English, and two investigators evaluated eligible studies and extracted data. The total efficacy rate of PPIs for GERD, including reflux esophagitis (RE) and non-erosive reflux disease, was 56.4% (95% confidence interval [CI]; 53.9-58.9%, 870/1543) in intention-to-treat analysis and 63.8% (95% CI; 61.3-66.2%, 950/1489) in per-protocol analysis. Efficacy rates varied significantly between CYP2C19 genotypes (intention-to-treat analysis: RMs, 52.2% [315/604]; intermediate metabolizers, 56.7% [298/526]; poor metabolizers [PMs], 61.3% [138/225]; p=0.047). Among RE patients, CYP2C19 RMs had an increased risk of being refractory to PPI therapy compared with PMs (odds ratio: 1.661, 95% CI: 1.023-2.659, p=0.040). The present meta-analysis
demonstrates that CYP2C19 RMs with RE have an increased risk of being refractory to PPI therapy compared with PMs.

According to the news reporters, the research concluded: "Individualized dosing regimen with PPIs based on CYP2C19 genotype might be a valid therapeutic strategy for overcoming insufficient gastric acid inhibition."


Our news correspondents report that additional information may be obtained by contacting H. Ichikawa, First Dept. of Medicine, Hamamatsu University School of Medicine, Hamamatsu, Shizuoka, Japan. Additional authors for this research include M. Sugimoto, K. Sugimoto, A. Andoh and T. Furuta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgh.13233. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Genetics, Hamamatsu, Esophagitis, Gastroenteritis, Gastroenterology, Enzyme Inhibitors, Acid Reflux Disease, Drugs and Therapies, Risk and Prevention, Proton Pump Inhibitors, Esophageal Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions.

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### Apoptosis

**Researchers from Harbin Medical University Describe Findings in Apoptosis [Lysine-Specific Demethylase 1 (LSD1) Inhibitor S2101 Induces Autophagy via the AKT/mTOR Pathway in SKOV3 Ovarian Cancer Cells]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Apoptosis have been published. According to news reporting originating in Heilongjiang, People's Republic of China, by NewsRx journalists, research stated, "S2101 is one of the most potent LSD1 inhibitors, which can inhibit ovarian cancer cells viability. This study aimed to detect the mechanism behind the anticancer properties of S2101 in SKOV3 ovarian cells."

The news reporters obtained a quote from the research from Harbin Medical University, "Cell viability was tested by Cell Counting Kit-8 (CCK-8) assay. Cellular apoptosis and autophagy were evaluated by flow cytometric analysis using Annexin-V/PI staining methods and Green fluorescent protein (GFP)-fused-LC3 (GFP-LC3), respectively. Western blotting was performed for analyzing the Bax, Bcl-2, mTOR, p-mTOR, p62, LC3-I, LC3-II, AKT, and p-AKT protein expression. Our results show that the proportion of early apoptotic and late apoptotic cells increased significantly for cells treated with S2101 at a concentration of 100 mu M for 48 h. Treatment of S2101 in SKOV3 cells resulted in upregulation of Bax and downregulation of Bcl-2 in a time-dependent manner, indicating that S2101 can induce...
apoptosis in SKOV3. There was a downward trend in the expression of p62 when the SKOV3 cells were treated with 100 μm S2101 for 12 h, 24 h and 48 h. The conversion of LC3-I to LC3-II was increased significantly at 24 h and 48 h. Autophagy was induced by S2101 in SKOV3 cells, evidenced by an increase in punctuate localization of GFP-LC3 and a change in expression of autophagy-related proteins. S2101 treatment decreased the levels of phosphorylated AKT and mTOR. S2101 inhibits SKOV3 cells viability and induces apoptosis and autophagy.*

According to the news reporters, the research concluded: "The AKT/mTOR signaling pathway was found to be affected by S2101."

For more information on this research see: Lysine-Specific Demethylase 1 (LSD1) Inhibitor S2101 Induces Autophagy via the AKT/mTOR Pathway in SKOV3 Ovarian Cancer Cells. *Medical Science Monitor*, 2016;22():4742-4748. *Medical Science Monitor* can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

Our news correspondents report that additional information may be obtained by contacting J.H. Zheng, Harbin Med Univ, Dept. of Obstet & Gynecol, Affiliated Hosp 1, Harbin, Heilongjiang, People's Republic of China. Additional authors for this research include Y. Jin, M.J. Cui and J.H. Zheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.898825. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Heilongjiang, People's Republic of China, Asia, Green Fluorescent Protein, Enzymes and Coenzymes, Essential Amino Acids, Diamino Amino Acids, Basic Amino Acids, Demethylase, Apoptosis, Proteins, Oncology, Cancer, Lysine, Harbin Medical University.

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**Cardiology**

**Researchers from Harvard School of Medicine Describe Findings in Cardiology (A Systematic Review of Mitral Valve Repair With Autologous Pericardial Leaflet Augmentation for Rheumatic Mitral Regurgitation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiology are discussed in a new report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "A systematic review was conducted to assess the efficacy of mitral valve repair using glutaraldehyde-treated autologous pericardial leaflet augmentation for rheumatic mitral regurgitation (MR). Five retrospective studies were identified, which included 196 patients with moderate or greater MR."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "There was 1 operative death (0.5%). At a mean follow-up of 3.2 +/- 2.2 years, moderate or greater MR reoccurred in 22 patients (11.2%), reoperation was required in 9 (4.6%), and the cumulative survival was 98.9%. Finally, outcomes were similar between the patients who underwent augmentation of the anterior vs the posterior mitral leaflet."

According to the news editors, the research concluded: "Pericardial leaflet
augmentation is a viable technique for the treatment of rheumatic MR."


The news correspondents report that additional information may be obtained from C.G. Mihos, Harvard Med Sch, Massachusetts General Hospital, Cardiac Ultrasound Lab, Boston, MA 02114, United States. Additional authors for this research include A.M. Pineda, R. Capoulade and O. Santana.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiology, Article Review, Pericardial, Harvard School of Medicine.

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Heart Disorders and Diseases - Atrial Fibrillation

Researchers from Harvard School of Medicine Detail New Studies and Findings in the Area of Atrial Fibrillation (Atrial fibrillation associated hospitalizations in patients with end-stage renal disease in the United States, 2003-2012)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting out of Cambridge, Massachusetts, by NewsRx editors, research stated, "Atrial fibrillation (AF) is highly prevalent in patients with end-stage renal disease (ESRD). The clinical and economic burden of AF-associated hospitalizations has not been previously quantified in the ESRD population in the United States."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "The aim of this study was to assess the incidence and outcomes of AF hospitalizations in the US ESRD population. We used the 2003-2012 National Inpatient Sample database to study trends in the incidence and outcomes of AF hospitalizations in ESRD patients. Primary outcomes included hospitalization rate, in-hospital case fatality ratio (CFR), length of stay (LOS), and cost. There were 66,811 primary and 986,742 secondary AF hospitalizations associated with ESRD. The mean age of the patients was 70.9 years, and 45.2% were women. The age-adjusted primary AF hospitalization rate increased from 10.1 to 14.0 per 1000 ESRD patients, while the secondary AF hospitalization rate increased from 164.0 to 212.8 per 1000 ESRD patients (P-trend < 0.05 for both). There was a significant decrease in CFR (2.9%-2.7% for primary AF and 11.3%-7.7% for secondary AF; P-trend <.001 for both), mean LOS (6.0-4.8 days for primary AF and 9.8-7.1 days for secondary AF; P-trend <.001 for both), and mean cost ($14,395-$11,184 for primary AF and $25,545-$17,879 for secondary AF; P-trend <.001 for both). There was a greater than 2-fold increase in the annual number of AF hospitalizations along with a significant increase in AF hospitalization rate in the US ESRD population."
According to the news editors, the research concluded: "There were significant improvements in markers of quality of care, including inhospital CFR, LOS, and cost."


Our news journalists report that additional information may be obtained by contacting N. Kumar, Harvard Med Sch, Cambridge Hlth Alliance, Dept. of Med, Cambridge, MA 02139, United States. Additional authors for this research include R. Khera and N. Garg.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Heart Disorders and Diseases, End Stage Renal Disease, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Nephrology, Kidney, Harvard School of Medicine.

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**Cardiovascular Diseases**

**Researchers from Harvard School of Medicine Report Details of New Studies and Findings in the Area of Cardiovascular Diseases (Thyroid function and cardiovascular disease risk factors in euthyroid adults: a cross-sectional and longitudinal study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Objective and designWe explored the cross-sectional and longitudinal associations of thyroid function within the normal range with cardiovascular disease (CVD) risk factors and adiposity measures. Patients and measurementsA total of 3483 (504% women) participants for the cross-sectional CVD study and 1630 (412% women) participants for the cross-sectional body composition substudy were drawn from the Framingham Third Generation Exam 1; 2912 participants (501% women) for the longitudinal CVD study and 713 participants (359% women) for the longitudinal body composition substudy were drawn from the Framingham Third Generation Exams 1-2."

Financial support for this research came from National Heart, Lung, and Blood Institute.

Our news editors obtained a quote from the research from the Harvard School of Medicine, "Thyroid function was assessed by thyrotropin [thyroid-stimulating hormone (TSH)] and free thyroxine (fT4) concentrations within the reference range at Exam 1. The associations between thyroid function and CVD risk factors were modelled via multivariable-adjusted regression models. Multivariable adjustment included age, sex, current smoking, postmenopausal status and BMI. ResultsCross-sectionally, higher TSH concentration was associated with increased odds of hypertriglyceridaemia [odds ratio (OR)=110], and higher BMI ( = 019 kg/m(2)), total cholesterol ( = 005 mmol/l), triglycerides ( = 0006 mmol/l) and subcutaneous adipose tissue (SAT) volume ( = 388 cm(3)) (all P< 005). Cross-sectionally, fT4 was inversely associated with metabolic and adiposity-related CVD risk factors, including
obesity (OR = 117), hypertriglyceridaemia (OR = 109), BMI ( = 042 kg/m(2)), total cholesterol ( = 005 mmol/l), triglycerides ( = 0002 mmol/l), visceral adipose tissue (VAT) volume ( = -207 cm(3)) and attenuation (017 HU) and VAT/SAT ratio ( = -001) (all P< 005). However, during 61 years of follow-up, baseline TSH and fT4 levels were not longitudinally associated with CVD risk factors and adiposity measures.

According to the news editors, the research concluded: "Conclusions Thyroid function within the normal range is cross-sectionally, but not longitudinally, associated with CVD risk factors and adiposity measures."


The news editors report that additional information may be obtained by contacting C.S. Fox, Harvard Med Sch, Boston, MA, United States. Additional authors for this research include A. Pedley, E. Marqusee, P. Sutherland, U. Hoffmann, J.M. Massaro and C.S. Fox.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cen.13124. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Risk and Prevention, Cardiology, Harvard School of Medicine.

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Eye Diseases

Researchers from Harvard School of Medicine Report Findings in Eye Diseases (Orbital Angiogenesis and Lymphangiogenesis in Thyroid Eye Disease An Analysis of Vascular Growth Factors with Clinical Correlation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Eye Diseases have been published. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "The human orbit is an environment that is vulnerable to inflammation and edema in the setting of autoimmune thyroid disease. Our study investigated the tenet that orbital adipose tissue lacks lymphatic vessels and analyzed the clinicopathologic differences between patients with acute and chronic thyroid eye disease (TED)."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "The underlying molecular mediators of blood and lymphatic vessel formation within the orbital fat also were evaluated. Retrospective cohort study. The study included fat specimens from 26 orbits of 15 patients with TED undergoing orbital decompression. Orbital fat specimens from patients without TED as well as cadaveric orbital fat served as controls. Tissue specimens were processed as formalin-fixed, paraffin-embedded sections or frozen cryosections for immunohistochemistry. Total RNA was extracted and
analyzed via quantitative (real-time) reverse-transcription polymerase chain reaction. Clinicopathologic correlation was made by determining the clinical activity score (CAS) of each patient with TED. Samples were examined for vascular and lymphatic markers including podoplanin, lymphatic vessel endothelial hyaluronan receptor 1 (LYVE-1), and cluster of differentiation 31 (CD31) by immunohistochemistry, as well as for mRNA levels of vascular endothelial growth factor (VEGF), VEGF receptors, semaphorin 3F, neuropilin 1, neuropilin 2, podoplanin, and LYVE-1 by quantitative (real-time) reverse-transcription polymerase chain reaction. Clinicopathologic correlation revealed increased staining of CD31-positive blood vessels in patients with acute TED with a CAS more than 4, as well as rare staining of podoplanin-positive lymphatic vessels within acutely inflamed orbital fat tissue. Additionally, quantitative (real-time) reverse-transcription polymerase chain reaction analysis demonstrated increased expression of VEGF receptor (VEGFR) 2 as well as VEGF signaling molecules VEGF-A, VEGF-C, and VEGF-D. In acute TED, compared with chronic TED and control orbital fat, there is increased blood vessel density, suggesting neovascularization and rare lymphatic vessels suggestive of limited lymphangiogenesis. This proangiogenic and prolymphangiogenic microenvironment is likely the result of the increased expression of VEGFR-2, VEGF-A, VEGF-C, and VEGF-D."

According to the news reporters, the research concluded: "These findings imply that orbital edema in acute TED may be mediated, in part, by both the formation of new, immature blood vessels and the formation of lymphatic capillaries that are functionally incapable of draining interstitial fluid."


Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Eye Diseases and Conditions, Growth Factor Receptors, Enzymes and Coenzymes, Phosphotransferases, Angiogenic Proteins, Membrane Proteins, Lymphatic Vessels, Lymphatic System, Protein Kinases, Diagnostics, Polymerase, Immunology, Diagnosis, Genetics, VEGF, Harvard School of Medicine.

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**Hematopoiesis**

**Researchers from Harvard Stem Cell Institute Detail New Studies and Findings in the Area of Hematopoiesis (Understanding the regulation of vertebrate hematopoiesis and blood disorders - big lessons from a small fish)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- New research on Hematopoiesis is the subject of a report. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Hematopoietic stem cells (HSCs) give rise to all differentiated blood cells. Understanding the mechanisms that regulate self-renewal and lineage specification of HSCs is key for developing treatments for many human diseases."

Our news editors obtained a quote from the research from Harvard Stem Cell Institute, "Zebrafish have emerged as an excellent model for studying vertebrate hematopoiesis. This review will highlight the unique strengths of zebrafish and important findings that have emerged from studies of blood development and disorders using this system. We discuss recent advances in our understanding of hematopoiesis, including the origin of HSCs, molecular control of their development, and key signaling pathways involved in their regulation."

According to the news editors, the research concluded: "We highlight significant findings from zebrafish models of blood disorders and discuss their application for investigating stem cell dysfunction in disease and for the development of new therapeutics."


The news editors report that additional information may be obtained by contacting L.I. Zon, Boston Childrens Hosp, Harvard Stem Cell Inst, Howard Hughes Med Inst, Boston, MA, United States. Additional authors for this research include S. Avagyan, J.M. Gansner and L.I. Zon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/1873-3468.12415. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Hematology, Article Review, Hematopoiesis, Harvard Stem Cell Institute.

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**Oncology - Lung Cancer**

Researchers from Hasselt University Report Recent Findings in Lung Cancer (Postoperative radiotherapy for lung cancer: Is it worth the controversy?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting from Hasselt, Belgium, by NewsRx journalists, research stated, "The role of postoperative radiation therapy (PORT) in patients with completely resected non-small cell lung cancer (NSCLC) with pathologically involved mediastinal lymph nodes (N2) remains unclear. Despite a reduction of local recurrence (LR), its effect on overall survival (OS) remains unproven."

Financial supporters for this research include LCRP, Limburg Sterk Merk, Hasselt University, ziekenhuis Oost-Limburg, Jessa Hospital, Limburg Cancer Foundation, Kom op
The news correspondents obtained a quote from the research from Hasselt University, "Therefore we conducted a review of the current literature. To investigate the benefit and safety of modern PORT, we identified published phase III trials for PORT. We investigated modern PORT in low-risk (ypN0/1 and RO) and high-risk (ypN2 and/or R1/2) patients with stage III-N2 NSCLC treated with induction chemotherapy and resection. Seventeen phase III trials using PORT were selected. Of all PORT N2 studies, 4 were eligible for evaluation of LR, all in high-risk patients only. In these high-risk patients receiving PORT, the mean LR rate at 5 years was 20.9% (95% CI 16-24). Two trials were suitable to assess LR rates after chemotherapy and surgery without PORT. In these low-risk patients, the mean 5-year LR was 33.1% (95% CI 27-39). No significant difference in non-cancer deaths between PORT vs. non-PORT patients was observed in N2 NSCLC. PORT is worth the controversy because data illustrate that PORT may increase the OS."

According to the news reporters, the research concluded: "However, prospective randomized trials are needed to verify this."


Our news journalists report that additional information may be obtained by contacting C. Billiet, Hasselt Univ, Fac Med & Life Sci, B-3500 Hasselt, Belgium. Additional authors for this research include S. Peeters, H. Decaluwe, J. Vansteenkiste, J. Mebis and D. De Ruyscher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ctrv.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hasselt, Belgium, Europe, Clinical Trials and Studies, Therapy, Article Review, Clinical Research, Lung Neoplasms, Radiotherapy, Lung Cancer, Oncology, Hasselt University.

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Researchers from Health Institute Detail Findings in Cholestasis [Liver Transplantation in Polish Children With alpha(1)-Antitrypsin Deficiency: A Single-Center Experience]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Digestive System Diseases and Conditions - Cholestasis are presented in a new report. According to news reporting from Warsaw, Poland, by NewsRx journalists, research stated, "Alpha(1)-Antitrypsin deficiency (ATD) is the most common genetic cause of liver injury in young children. Asymptomatic hepatitis is observed in most patients."

The news correspondents obtained a quote from the research from Health Institute, "However, the course of liver disease due to ATD is unpredictable, and some children develop..."
liver cirrhosis. Liver transplantation (Ltx) dramatically improves their outcome and in some cases is required in the first years of life. The aim of the study was to evaluate the course of the disease in children with ATD treated with Ltx in a single center. We retrospectively reviewed the clinical features (ascites, esophageal varices, esophageal bleeding) and laboratory parameters of liver function in children with ATD who were treated with Ltx. Twenty-two Ltxs were performed in 20 children (13 boys, 7 girls). Median age at transplantation was 12 years (range 0.5 to 17.1). Four children were transplanted in the first 2 years of life and 16 patients were over 7 years old. The indications for Ltx in younger children were progressive cholestasis with coagulopathy and ascites. In older patients, the indications were as follows: liver failure presenting with variceal bleeding in 7 patients, ascites in 5 patients, hypersplenism in all but 1 patient. In the group of children transplanted over 7 years old, the frequency of cholestasis decreased intermittently in the second year of life: 4 patients (25%) compared to 15 patients (94%) and 10 patients (63%) in the neonatal and pre-transplant period, respectively. In the group of children transplanted earlier, cholestasis and hepatitis were maintained until Ltx. Of transplanted patients, 50% were malnourished at the transplantation, and 50% were followed for more than 10 years. Five-year post-transplant survival was 100% (n = 14), and 10-year survival was 90%. Two patients died as adults with biliary post-transplant complications and problems with compliance. Our experience suggests that transient normalization of liver parameters in some patients with ATD do not exclude the liver disease progression to cirrhosis and unfavorable outcome of liver disease in childhood. In our group of patients, median age at transplantation was high compared to other centers.

According to the news reporters, the research concluded: "The long-term prognosis in children after transplantation is very good, but early post-transplant complications and probable problems with compliance in young adults may lead to graft failure."


Our news journalists report that additional information may be obtained by contacting A. Bakula, Childrens Mem Hlth Inst, Gastroenterol Hepatol Nutr Disorders & Paediat, Warsaw, Poland. Additional authors for this research include J. Pawlowska, O. Niewiadomska, I. Jankowska, M. Teisseyre, P. Kalicinski and P. Socha.

Keywords for this news article include: Warsaw, Poland, Europe, Skin and Connective Tissue Diseases and Conditions, Digestive System Diseases and Conditions, Biliary Tract Diseases and Conditions, Infectious Disease and Conditions, Bile Duct Diseases and Conditions, Alpha 1-Antitrypsin Deficiency, Liver Diseases and Conditions, Acute-Phase Proteins, alpha 1-Antitrypsin, Gastroenterology, Alphaglobulins, Blood Proteins, Glycoproteins, Cholestasis, Pediatrics, Hepatitis, Genetics, Ascites, Serpins, Health Institute.

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Researchers from Health Research Institute Detail Findings in Antiarrhythmic Agents (Short-term esmolol attenuates remodeling of the thoracic aorta in hypertensive rats by decreasing concentrations of ADMA down-regulated by oxidative stress)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antiarrhythmic Agents is now available. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "Esmolol produces early regression of left ventricular hypertrophy and improves coronary artery remodeling, although the impact of short-term treatment with this beta-blocker on remodeling in large arteries has not yet been studied. We hypothesized that even a short (48 h) course of esmolol might alter remodeling of the aorta in the spontaneously hypertensive rat (SHR)."

Financial support for this research came from Spanish Health Ministry (Fondo de Investigaciones Sanitarias).

Our news journalists obtained a quote from the research from Health Research Institute, "Fourteen-month-old male SHRs were treated intravenously with vehicle (SHR, n=8) or esmolol (SHR-E, n=8) (300 μg/kg/min). Age matched, vehicle-treated male Wistar-Kyoto rats (WKY, n=8) served as controls. After 48 h, we studied the structure, volume density of elastic fibers, and passive mechanical properties of the aorta. Determination of asymmetrical dimethylarginine concentrations and total protein carbonyls in the aorta were analyzed. Esmolol significantly attenuated abnormal aortic wall thickness, cross-sectional area, wall-to-lumen ratio, volume density of elastic fibers, and wall stiffness. The protective effect of esmolol could be related to a decrease in asymmetrical dimethylarginine levels after down-regulation by oxidative stress."

According to the news editors, the research concluded: "These findings could play a key role in the selection of antihypertensive therapy in patients with hypertension and aortic remodeling."

For more information on this research see: Short-term esmolol attenuates remodeling of the thoracic aorta in hypertensive rats by decreasing concentrations of ADMA down-regulated by oxidative stress. European Journal of Pharmacology, 2016;791():502-509. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news correspondents report that additional information may be obtained from B. Quintana-Villamandos, Hosp Gregorio Maranon, Hlth Res Inst, Dept. of Anesthesiol, Madrid 28007, Spain. Additional authors for this research include M.C. Gonzalez, M.J. Delgado-Martos, L. Condezo-Hoyos, R.H. Boger, N. Luneburg, L. Pazo-Sayos, P.Y. Gutierrez-Arzapalo and E. Delgado-Baeza.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Beta-Adrenergic Blocking Agents, Adrenergic beta-Antagonist, Group II Antiarrhythmics, Cardiovascular Agents, Antiarrhythmic Agents, Drugs and Therapies, Esmolol Therapy, Angiology, Health
Researchers from Health Science Center Report Recent Findings in Antiretrovirals (Population Pharmacokinetics of Tenofovir in HIV-1-Uninfected Members of Serodiscordant Couples and Effect of Dose Reporting Methods)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antiretrovirals. According to news reporting out of Fort Worth, Texas, by NewsRx editors, research stated, "Antiretroviral preexposure prophylaxis (PrEP) with once-daily dosing of tenofovir and tenofovir-emtricitabine was shown to be effective for preventing HIV-1 infection in individuals who had HIV-1-seropositive partners (the Partners PrEP Study). We developed a population pharmacokinetic model for tenofovir and investigated the impacts of different dose reporting methods."

Our news journalists obtained a quote from the research from Health Science Center, "Dosing information was collected as patient-reported dosing information (PRDI) from 404 subjects (corresponding to 1,280 drug concentration records) from the main trial and electronic monitoring-based adherence data collected from 211 subjects (corresponding to 327 drug concentration records) in an ancillary adherence study. Model development was conducted with NONMEM (7.2), using PRDI with a steady-state assumption or using PRDI replaced with electronic monitoring records where available. A two-compartment model with first-order absorption was the best model in both modeling approaches, with the need for an absorption lag time when electronic monitoring-based dosing records were included in the analysis. Age, body weight, and creatinine clearance were significant covariates on clearance, but only creatinine clearance was retained in the final models per stepwise selection. Sex was not a significant covariate on clearance. Tenofovir population pharmacokinetic parameter estimates and the precisions of the parameters from the two final models were comparable with the point estimates of the parameters, differing from 0% to 35%, and bootstrap confidence intervals widely overlapped."

According to the news editors, the research concluded: "These findings indicate that PRDI was sufficient for population pharmacokinetic model development in this study, with a high level of adherence per multiple measures."

For more information on this research see: Population Pharmacokinetics of Tenofovir in HIV-1-Uninfected Members of Serodiscordant Couples and Effect of Dose Reporting Methods. Antimicrobial Agents and Chemotherapy, 2016;60(9):5379-5386. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting A. Chaturvedula, Univ North Texas, Hlth Sci Center, Pharmacotherapy, Fort Worth, TX 76107, United States. Additional authors for this research include A. Chaturvedula, J.E. Haberer, M.J. Fossler, M.E. Sale, D. Bangsberg, J.M. Baeten, C.L. Celum and C.W. Hendrix.
Researchers from Heart Center Report New Studies and Findings in the Area of Heart Bypass Surgery (Long-Term Follow-Up of Patients With Previous Coronary Artery Bypass Grafting Undergoing Percutaneous Coronary Intervention for Chronic Total ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Surgery - Heart Bypass Surgery have been published. According to news reporting out of Bad Krozingen, Germany, by NewsRx editors, research stated, "Successful revascularization of chronic total occlusions (CTOs) has been associated with clinical benefit. Data on outcomes in patients with previous coronary artery bypass grafting (CABG) undergoing percutaneous coronary intervention (PCI) for CTO, however, are scarce."

Our news journalists obtained a quote from the research from Heart Center, "A total of 2,002 consecutive patients undergoing PCI for CTO from January 2005 to December 2013 were divided into patients with and without previous CABG, and outcomes were retrospectively assessed. The primary outcome measure was all-cause mortality. Median follow-up was 2.6 years (interquartile range 1.1 to 3.1). A total of 292 patients (15%) had previous CABG; they were older and had a greater prevalence of comorbidities. Procedural success was achieved in 75% and 84% Of patients in the previous CABG and the non-CABG groups (p <0.001), respectively. All-cause mortality was 16% and 11% in the previous CABG and the non-CABG groups (p = 0.002), and differences were mitigated after adjustment for baseline characteristics (adjusted hazard ratio [HR] 1.22, 95% confidence interval [CI] 0.86 to 1.74, p = 0.27). All-cause death was significantly reduced in patients with procedural success, both in the previous CABG (11% vs 32%, adjusted HR 0.43, 95% CI 0.24 to 0.77, p = 0.005) and the non-CABG groups (10% vs 20%, adjusted HR 0.63, 95% CI 0.45 to 0.86, p = 0.004), with similar mortality benefits associated with successful revascularization in both groups (interaction p = 0.24)."

According to the news editors, the research concluded: "The relative survival benefit of successful recanalization of CTO is independent of previous CABG. However, owing to a greater baseline risk, the absolute survival benefit of successful CTO procedures is more pronounced in patients with previous CABG than in non-CABG patients."

For more information on this research see: Long-Term Follow-Up of Patients With Previous Coronary Artery Bypass Grafting Undergoing Percutaneous Coronary Intervention for Chronic Total Occlusion. American Journal of Cardiology, 2016;118(11):1641-1646.
Researchers from Hebei Medical University Report New Studies and Findings in the Area of Thrombosis (Efficacy and safety of therapeutic anticoagulation for the treatment of isolated calf muscle vein thrombosis - a systematic review and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Thrombosis have been presented. According to news reporting out of Shijiazhuang, People's Republic of China, by NewsRx editors, research stated, "Diverse treatment suggestions range from monitoring with duplex examinations to therapeutic anticoagulation (TA) for managing isolated calf muscle vein thrombosis (ICMVT). However, the small sample sizes and low-level evidence provided by most studies in the literature mean that the benefits of promising new treatment protocols are unclear. Hence, this meta-analysis is intended to assess the efficacy and safety of TA for patients with ICMVT."

Our news journalists obtained a quote from the research from Hebei Medical University, "Articles comparing TA with no anticoagulation (NA) or no therapeutic anticoagulation (NTA) in patients with ICMVT were collected from PubMed, the Cochrane Library, EMBASE, and Web of Science. The risk ratio (RR) and 95% confidence interval (95% CI) were generated for each outcome of interest. The data were pooled using a random-effects or fixed effects model to evaluate differences in outcomes between the TA and control groups. Five of 377 initially identified papers were included. One randomized controlled trial, one non-randomized controlled trial and three retrospective cohort studies (a total of 744 patients, 390 in the TA group and the remaining 354 in the NA or NTA group) were included in this meta-analysis. The occurrence of thrombosis progression was significantly less frequent in those who received TA compared with those receiving NTA (RR = 0.33, 95% CI 0.20 to 0.54, p < 0.01). The rate of complete recanalization was higher, albeit not significantly, in the TA group than in the NTA group (RR = 1.96, 95% CI 1.01 to 3.80, p = 0.05). None of the pooled outcomes were significantly different when comparing the TA and NA groups. This study suggests that TA may result in a significant reduction in the rate of thrombosis progression and a marginally significant increase in the rate of complete recanalization for patients with ICMVT."
According to the news editors, the research concluded: "Further studies are needed to confirm these findings and clarify whether the benefits of TA outweigh the potential harm."

For more information on this research see: Efficacy and safety of therapeutic anticoagulation for the treatment of isolated calf muscle vein thrombosis - a systematic review and meta-analysis. Vasa-European Journal of Vascular Medicine, 2016;45(6):478-485. Vasa-European Journal of Vascular Medicine can be contacted at: Verlag Hans Huber Hogrefe Ag, Laenggass-Strasse 76, Ch-3000 Bern 9, Switzerland.

Our news journalists report that additional information may be obtained by contacting G.Y. Wang, Hebei Medical University, Hosp 4, Shijiazhuang 050011, People's Republic of China. Additional authors for this research include X.H. Hu, X.R. Wang, C.X. Zhou and G.Y. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1024/0301-1526/a000569. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shijiazhuang, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Clinical Trials and Studies, Embolism and Thrombosis, Clinical Research, Hematology, Therapy, Hebei Medical University.

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Oncology - Gliomas

Researchers from Henan University Provide Details of New Studies and Findings in the Area of Gliomas (Long non-coding RNA CCAT1 promotes glioma cell proliferation via inhibiting microRNA-410)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gliomas have been published. According to news originating from Kaifeng, People's Republic of China, by NewsRx correspondents, research stated, "Long non-coding RNAs have been confirmed to play a critical role in various cancers. In the present study, the effect of long non-coding RNA (IncRNA) CCAT1 on glioma cell proliferation and its potential mechanism were investigated."

Our news journalists obtained a quote from the research from Henan University, "Real-time PCR results showed that IncRNA-CCAT1 expression was significantly upregulated in glioma cancer tissues and cell lines compared with controls. After inhibiting CCAT1 expression in glioma cell line U251 with siRNA-CCAT1 (si-CCAT1), the cell viability and cell colony formation were decreased, the cell cycle was arrested in G1 phase, and the cell apoptosis was increased. As reported in bioinformatics software starbase2.0, a total of 22 microRNAs were potentially targeted by CCAT1. It was confirmed that miR-410 was altered most by si-CCAT1. After up-regulating CCAT1 expression in U251 cells, miR-410 level was decreased. Luciferase reporter assay confirmed that CCAT1 targeted miR-410. Correlation analysis showed that CCAT1 expression was negatively related to miR-410 expression in glioma cancer tissues. In addition, down-regulation of miR-410 reversed the inhibitory effect of si-CCAT1 on glioma proliferation."

According to the news editors, the research concluded: "These data demonstrated that IncRNA-CCAT1 promoted glioma cell proliferation via inhibiting miR-410, providing a
For more information on this research see: Long non-coding RNA CCAT1 promotes glioma cell proliferation via inhibiting microRNA-410. Biochemical and Biophysical Research Communications, 2016;480(4):715-720. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news correspondents report that additional information may be obtained from Z.H. Wang, Henan Univ, Huaihe Hosp, Dept. of Internal Neurol, Kaifeng 475000, People's Republic of China. Additional authors for this research include X.Q. Guo, Q.S. Zhang, J.L. Zhang, Y.L. Duan, G.F. Li and D.L. Zheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.047. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kaifeng, People's Republic of China, Asia, Cell Proliferation, Oncology, Genetics, Gliomas, Henan University.

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Tumor Markers - Carcinoembryonic Antigens

Researchers from Henan University of Technology Report Recent Findings in Carcinoembryonic Antigens (Differential pulse voltammetric assay for the carcinoembryonic antigen using a glassy carbon electrode modified with layered molybdenum ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Tumor Markers - Carcinoembryonic Antigens have been published. According to news reporting originating in Zhengzhou, People's Republic of China, by NewsRx editors, the research stated, "A highly sensitive electrochemical aptasensor is described for the determination of carcinoembryonic antigen (CEA). It is based on the use of a hybrid material composed of molybdenum selenide, graphene, and gold nanoparticles (AuNPs)."

Financial supporters for this research include National Natural Science Foundation of China, Youth Backbone Teacher Training Program of Henan University of Technology.

The news reporters obtained a quote from the research from the Henan University of Technology, "The MoSe2-graphene hybrid was prepared by a hydrothermal method and used as the supporting substrate. It was placed on the surface of a glassy carbon electrode onto which the AuNPs were electrochemically deposited. Thiol-labeled aptamer against CEA was immobilized on the electrode via gold-thiol binding. The use of AuNPs coupled to the MoSe2-graphene hybrid allows for a large loading with aptamers. Under optimum conditions and at a working potential of 0.21 V (vs."

According to the news reporters, the research concluded: "SCE), the assay has a linear calibration plot in the 0.1 pg mL(-1) to 100 ng mL(-1) CEA concentration range, with a detection limit of 0.03 pg mL(-1)."

For more information on this research see: Differential pulse voltammetric assay for
the carcinoembryonic antigen using a glassy carbon electrode modified with layered molybdenum selenide, graphene, and gold nanoparticles. *Microchimica Acta*, 2017;184(1):229-235. *Microchimica Acta* can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria. (Springer - www.springer.com; Microchimica Acta - www.springerlink.com/content/0026-3672/)

Our news correspondents report that additional information may be obtained by contacting B.S. He, Henan Univ Technol, Sch Food Sci & Technol, Zhengzhou 450001, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00604-016-2006-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Carcinoembryonic Antigens, Biological Tumor Markers, Cell Adhesion Molecules, Emerging Technologies, Transition Elements, Biological Factors, Gold Nanoparticles, Neoplasm Antigens, Membrane Proteins, Nanotechnology, Cell Research, Glycoproteins, Molybdenum, Immunology, Oncology, Cancer, Henan University of Technology.

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Heart Disorders and Diseases - Endocarditis

Researchers from Henry Ford Hospital Discuss Findings in Endocarditis (False-positive cerebrospinal fluid cryptococcus antigen in Libman-Sacks endocarditis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Endocarditis. According to news reporting originating in Detroit, Michigan, by NewsRx journalists, research stated, "Cryptococcus meningoencephalitis is a serious opportunistic infection associated with high morbidity and mortality in immunocompromised hosts, particularly patients with advanced AIDS disease. The diagnosis is established through cerebrospinal fluid (CSF) cryptococcus antigen detection and cultures."

The news reporters obtained a quote from the research from Henry Ford Hospital, "Cryptococcus antigen testing is usually the initial test of choice due its high sensitivity and specificity along with the quick availability of the results. Case report We hereby report a case of a false-positive CSF cryptococcus antigen assay in a patient with systemic lupus erythematosus presenting with acute confusion. While initial CSF evaluation revealed a positive cryptococcus antigen assay, the patient's symptoms were inconsistent with cryptococcus meningoencephalitis. A repeat CSF evaluation, done 3 days later, revealed a negative CSF cryptococcus antigen assay."

According to the news reporters, the research concluded: "Given the patient's active lupus disease and the elevated antinuclear antibody titers, we believe that the initial positive result was a false positive caused by interference from autoantibodies."

For more information on this research see: False-positive cerebrospinal fluid cryptococcus antigen in Libman-Sacks endocarditis. *Infection*, 2016;44(6):803-805. *Infection* can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Infection - www.springerlink.com/content/0300-8126/)
Researchers from Hokkaido University School of Medicine Report New Studies and Findings in the Area of Gastric Cancer (Concomitant neoplasms in the skin and stomach unveil the role of type IV collagen and E-cadherin in mucin core protein 5AC ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Cancer have been published. According to news reporting originating in Sapporo, Japan, by NewsRx journalists, research stated, "Mucin core protein (MUC) 5AC is a gel-forming glycoprotein that is expressed in different types of tumor cells. MUC5AC expression in cultured cells is regulated through the extracellular matrix and through remodelling by other membranous proteins such as type IV collagen (COL4) and E-cadherin."

The news reporters obtained a quote from the research from the Hokkaido University School of Medicine, "However, it has not been elucidated whether COL4 and E-cadherin affect MUC5AC expression in tumours in vivo. Here, by analysing a single individual with concomitant neoplasms in the skin [extramammary Paget disease (EMPD)] and the stomach (gastric cancer), we show that MUC5AC expression is reduced in COL4 and membranous E-cadherin-expressing EMPD specimens whereas MUC5AC is not abolished in gastric cancer with COL4 negativity and E-cadherin cytoplasmic localization. As the EMPD and gastric cancer specimens were derived from a single patient, each specimen had the same genetic background. These in vivo results support previous in vitro studies which showed that COL4 and E-cadherin downregulated MUC5AC expression."

According to the news reporters, the research concluded: "Our study suggests that concomitant neoplasms in different organs of the same individual can serve as a strong tool for uncovering functional diversity in tumor markers in distinct cancer cells."


Our news correspondents report that additional information may be obtained by contacting H. Hata, Dept. of Dermatology, Hokkaido University Graduate School of Medicine, N15 W7, Kita-ku, Sapporo, 060-8638, Japan. Additional authors for this research include K.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjd.14084. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Mucins, Sapporo, Collagen, Genetics, Oncology, Cadherins, Neoplasms, Mucoproteins, Cell Research, Glycoproteins, Gastric Cancer, Gastroenterology, Membrane Proteins, Cell Adhesion Molecules, Extracellular Matrix Proteins.

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Drugs and Therapies - Antiinfectives

Researchers from Hospital Clinic Report Details of New Studies and Findings in the Area of Antiinfectives (Genomic and in silico analyses of CRBN gene and thalidomide embryopathy in humans)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiinfectives have been published. According to news originating from Porto Alegre, Brazil, by NewsRx correspondents, research stated, "Thalidomide causes Thalidomide Embryopathy (TE), but is largely used to treat several conditions. Investigations with Cereblon, a thalidomide target protein encoded by CRBN gene, have helped to understand thalidomide therapeutic and teratogenic properties."

Funders for this research include INAGEMP, FIPE/HCPA.

Our news journalists obtained a quote from the research from Hospital Clinic, "We sequenced CRBN-thalidomide binding region in 38 TE individuals and 136 Brazilians without congenital anomalies, and performed in silico analyses. Eight variants were identified, seven intronic and one in 3' UTR. TE individuals had rare variants in higher frequency than the non-affected group (p = 0.04). The genotype rsl 620675 CC was related to neurological anomalies in TE individuals (p = 0.004). Bioinformatics analysis suggested this genotype leads to potential alterations in splicing sites and binding to transcription factors. Comparison of the Cereblon-thalidomide binding domains in mammals demonstrated that CRBN is highly conserved across species."

According to the news editors, the research concluded: "All the variants require evaluation in functional assays in order to understand their role in Cereblon-thalidomide binding and complex interactions that lead to TE."

For more information on this research see: Genomic and in silico analyses of CRBN gene and thalidomide embryopathy in humans. Reproductive Toxicology, 2016;66():99-106. Reproductive Toxicology can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Reproductive Toxicology - www.journals.elsevier.com/reproductive-toxicology/)

The news correspondents report that additional information may be obtained from F.S.L. Vianna, Hosp Clin Porto Alegre HCPA, Lab Med Genom, Center Pesquisa Expt, Porto Alegre, RS, Brazil. Additional authors for this research include T.W. Kowalski, L. Tovo-Rodrigues, A. Tagliani-Ribeiro, B.A. Godoy, L.R. Fraga, M.T.V. Sanseverino, M.H. Hutz and
Researchers from Hospital del Mar Describe Findings in Hypertension (Renal volume and cardiovascular risk assessment in normotensive autosomal dominant polycystic kidney disease patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Hypertension is the subject of a report. According to news reporting originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Cardiovascular disease, closely related to an early appearance of hypertension, is the most common mortality cause among autosomal dominant polycystic kidney disease patients (ADPKD). The development of hypertension is related to an increase in renal volume."

Our news editors obtained a quote from the research from Hospital del Mar, "Whether the increasing in the renal volume before the onset of hypertension leads to a major cardiovascular risk in ADPKD patients remains unknown. Observational and cross-sectional study of 62 normotensive ADPKD patients with normal renal function and a group of 28 healthy controls. Renal volume, blood pressure, and renal (urinary albumin excretion), blood vessels (carotid intima media thickness and carotid-femoral pulse wave velocity), and cardiac (left ventricular mass index and diastolic dysfunction parameters) asymptomatic organ damage were determined and were considered as continuous variables. Correlations between renal volume and the other parameters were studied in the ADPKD population, and results were compared with the control group. Blood pressure values and asymptomatic organ damage were used to assess the cardiovascular risk according to renal volume tertiles. Even though in the normotensive range, ADPKD patients show higher blood pressure and major asymptomatic organ damage than healthy controls. Asymptomatic organ damage is not only related to blood pressure level but also to renal volume. Multivariate regression analysis shows that microalbuminuria is only associated with height adjusted renal volume (htTKV). An htTKV above 480 mL/m represents a 10 times higher prevalence of microalbuminuria (4.8% vs 50%, P <0.001). Normotensive ADPKD patients from the 2nd tertile renal volume group (htTKV > 336mL/m) show higher urinary albumin excretion, but the 3rd tertile htTKV (htTKV > 469mL/m) group shows the worst cardiovascular risk profile. Normotensive ADPKD patients show in the early stages of the disease with slight increase in renal volume, higher cardiovascular risk than healthy controls. An htTKV above 468mL/m is associated with the greatest increase in cardiovascular risk of normotensive ADPKD patients with normal renal function."

According to the news editors, the research concluded: "Early strategies to slow the
progression of the cardiovascular risk of these patients might be beneficial in their long-term cardiovascular survival."

For more information on this research see: Renal volume and cardiovascular risk assessment in normotensive autosomal dominant polycystic kidney disease patients. *Medicine*, 2016;95(49):542-548. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting J. Pascual, Hosp del Mar, REDinREN Red Invest Renal, Barcelona, Spain. Additional authors for this research include J. Pascual, A. Radosevic, C. Quintian, M. Ble, L. Molina, S. Mojal, J.A. Ballarin, R. Torra and P. Fernandez-Llama.

Keywords for this news article include: Barcelona, Spain, Europe, Cardiovascular Diseases and Conditions, Gastroenterology, Kidney Function, Renal Function, Blood Pressure, Hemodynamics, Hypertension, Nephrology, Cardiology, Angiology, Genetics, Hospital del Mar.

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**Drugs and Therapies - Chemotherapy**

**Researchers from Hospital of Santa Maria Discuss Findings in Chemotherapy (2016 updated MASCC/ESMO consensus recommendations: Prevention of nausea and vomiting following moderately emetogenic chemotherapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Chemotherapy. According to news originating from Terni, Italy, by NewsRx correspondents, research stated, "An update of the recommendations for the prophylaxis of acute and delayed emesis induced by moderately emetogenic chemotherapy published after the last MASCC/ESMO antiemetic consensus conference in 2009 has been carried out. A systematic literature search using PubMed from January 1, 2009 to January 6, 2015 with a restriction to papers in English was conducted."

Financial support for this research came from ESMO MASCC.

Our news journalists obtained a quote from the research from the Hospital of Santa Maria, "Overall, two randomized phase II and seven randomized phase III studies plus the results of three subgroup analysis of large phase III trials and those of a pilot study have been included. In carboplatin-treated patients, a moderate benefit from adding an NK1 receptor antagonist to dexamethasone and a 5-HT3 receptor antagonist has been shown. However, in oxaliplatin-treated patients, contrasting results about the role of NK1 receptor antagonists have been obtained. At present, it is not possible to suggest a specific 5-HT3 receptor antagonist to use for the prevention of acute emesis in these patients."

According to the news editors, the research concluded: "No routine prophylaxis for delayed emesis is recommended but in patients receiving moderately emetogenic chemotherapy with known potential for delayed emesis (e.g., oxaliplatin, doxorubicin, cyclophosphamide) the use of dexamethasone for days 2-3 can be considered."

For more information on this research see: 2016 updated MASCC/ESMO consensus recommendations: Prevention of nausea and vomiting following moderately emetogenic
chemotherapy. Supportive Care in Cancer, 2017;25(1):289-294. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

The news correspondents report that additional information may be obtained from F. Roila, Hosp Santa Maria, Medical Oncol, I-05100 Terni, Italy. Additional authors for this research include D. Warr, P.J. Hesketh, R. Gralla, J. Herrstedt, K. Jordan, M. Aapro, E. Ballatori and B. Rapoport.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3365-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Terni, Italy, Europe, Drugs and Therapies, Chemotherapy, Hospital of Santa Maria.

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Drugs and Therapies - Drug Delivery Systems

Researchers from Huazhong University of Science and Technology Provide Details of New Studies and Findings in the Area of Drug Delivery Systems (Shear Stress-sensitive Carriers for Localized Drug Delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Drug Delivery Systems are discussed in a new report. According to news originating from Wuhan, People’s Republic of China, by NewsRx correspondents, research stated, "Stenosis of the critical blood vessels, which occurs in a variety of cardiovascular and cerebrovascular diseases, is one of leading causes of death in the world. Vascular stenosis will significantly alter the hemodynamic features in the vessel."

Our news journalists obtained a quote from the research from the Huazhong University of Science and Technology, "Hemodynamic shear stress, one of the most important physical parameters of blood flow, will be dramatically elevated at the stenotic site. When platelets flow through the constricted site, they will sense these abnormally high shear stresses, and then respond by activating, sticking to the vascular wall, and aggregating at these sites. The shear-dependent platelet activation inspired a novel targeting platform-shear stress activated drug targeting delivery. The shear-activated drug delivery systems preferentially release their content under elevated shear stress, providing a novel approach to cure various diseases, in particular, cardiovascular diseases. In this review, we, on one hand, introduced the features of hemodynamic shear stress under both physiological and pathological conditions. On the other hand, we summarized the carriers displaying sensitivity to shear stress, such as liposomes, aggregations, gels, emulsions, in addition to the factors affecting the mechanical properties of them. Lastly, the clinical applications and prospects of this novel drug targeting strategy were discussed."

According to the news editors, the research concluded: "It is hoped that, with a better understanding of shear stress-sensitive carriers and their targeted principle, a novel targeted drug delivery strategy will be one day applied in the clinics of the future."

For more information on this research see: Shear Stress-sensitive Carriers for


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1381612822666160628081419. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Stenosis, Article Review, Drug Delivery Systems, Drugs and Therapies, Hemodynamics, Cardiology, Angiology, Huazhong University of Science and Technology.

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**Oncology - Carcinomas**

**Researchers from Huazhong University of Science and Technology Report Details of New Studies and Findings in the Area of Carcinomas (HSP27 Knockdown Increases Cytoplasmic p21 and Cisplatin Sensitivity in Ovarian Carcinoma Cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Carcinomas have been published. According to news reporting out of Hubei, People's Republic of China, by NewsRx editors, research stated, "Drug resistance is the leading cause of chemotherapy failure in the treatment of ovarian cancer. So far, little is known about the mechanism of chemoresistance in ovarian cancer."

Our news journalists obtained a quote from the research from the Huazhong University of Science and Technology, "In this study, we explored the mechanism that HSP27 was involved in cisplatin resistance of ovarian cancer both in vitro and clinically. HSP27 protein was found to be upregulated and expressed in cisplatin-resistant ovarian cancer cell line C13*, and HSP27 siRNA transfection reversed the chemoresistance of C13*. We found that HSP27 exerted its chemoresistant role by inhibiting p21 transferring from the nucleus to the plasma through the activation of phosphorylated-Akt pathway."

According to the news editors, the research concluded: "These findings have implications for clinical trials aimed at a potential therapeutic target for ovarian tumors that are refractory to conventional treatment."


Our news journalists report that additional information may be obtained by contacting H. Lu, Cancer Biology Medical Centre, Tongji Hospital, Tongji Medical College,
Researchers from Huazhong University of Science and Technology

 Liver Diseases and Conditions - Hepatitis B Virus

Report Recent Findings in Hepatitis B Virus [Multidrug resistance protein 4 is a critical protein associated with the antiviral efficacy of nucleos(t)ide analogues]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Hepatitis B Virus is now available. According to news reporting originating in Wuhan, People's Republic of China, by NewsRx journalists, research stated, "Multidrug resistance protein 4 (MRP4) has been associated with nucleos(t)ide analogue (NA) antiretroviral therapy failure, though is unclear if MRP4 is also correlated with the failure of anti-hepatitis B virus (HBV) therapy. Multidrug resistance protein 4 expression in human peripheral blood mononuclear cells (PBMCs), liver tissues and human hepatoma cell lines was detected by real-time polymerase chain reaction (PCR), western blotting and immunohistochemistry assays."

Financial support for this research came from National Natural Science Foundation of China.

The news reporters obtained a quote from the research from the Huazhong University of Science and Technology, "Supernatant and intracellular HBV DNA levels of MRP4-overexpressing or silenced HepG2.4D14 (wild-type) and HepG2.A64 (entecavir-resistant mutant) cells were measured by quantitative PCR. NA concentrations and HBV mutational analysis were assessed by liquid chromatography/mass spectrometry assays and DNA sequencing. Multivariate analysis was used to assess predictive factors for treatment failure. High expression of MRP4 was found in hepatoma cell lines and PBMCs, and up-or down-regulation of MRP4 expression altered the susceptibility of cells to NAs. MRP inhibitors increased NA intracellular accumulation and decreased extracellular levels. Moreover, MRP4 expression in PBMCs was correlated with that in paired liver tissues. Furthermore, multivariate analysis showed MRP4 mRNA expression to be an independent predictor of NA treatment failure. Multidrug resistance protein 4 is a critical protein associated with the antiviral efficacy of NAs, and combination therapy of NA and MRP inhibitors could reduce the dosage for long-term NA use."

According to the news reporters, the research concluded: "This is the first report to demonstrate that MRP4 expression is an important factor predicting treatment failure in chronic..."
hepatitis B patients and will provide a potential therapeutic target against HBV.


Our news correspondents report that additional information may be obtained by contacting X. Zheng, Huazhong University of Science & Technology, Tongji Med College, Union Hosp, Dept. of Infect Dis, Wuhan 430022, People's Republic of China. Additional authors for this research include H.X. Song, Q. Chen, C.L. Xu, W.J. Zhang, Y.T. Liu, B.J. Wang, D.P. Xu, M.J. Lu, D.L. Yang and X. Zheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/liv.13104. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Hepadnaviridae Infections, Drugs and Therapies, Hepatitis B Virus, Orthohepadnavirus, Gastroenterology, Drug Resistance, DNA Viruses, Viral DNA, Genetics, Therapy, Huazhong University of Science and Technology.

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Influenza A Virus Subtype H1N1

Researchers from Hunan Normal University Report on Findings in Influenza A Virus Subtype H1N1 (Computational screen and experimental validation of anti-influenza effects of quercetin and chlorogenic acid from traditional Chinese medicine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Influenza A Virus Subtype H1N1. According to news reporting originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "The Influenza A virus is a great threat for human health, while various subtypes of the virus made it difficult to develop drugs. With the development of state-of-art computational chemistry, computational molecular docking could serve as a virtual screen of potential leading compound."

Our news editors obtained a quote from the research from Hunan Normal University, "In this study, we performed molecular docking for influenza A H1N1 (A/PR/8/34) with small molecules such as quercetin and chlorogenic acid, which were derived from traditional Chinese medicine. The results showed that these small molecules have strong binding abilities with neuraminidase from H1N1 (A/PR/8/34). Further details showed that the structural features of the molecules might be helpful for further drug design and development. The experiments in vitro, in vivo have validated the anti-influenza effect of quercetin and chlorogenic acid, which indicating comparable protection effects as zanamivir."

According to the news editors, the research concluded: "Taken together, it was proposed that chlorogenic acid and quercetin could be employed as the effective lead
compounds for anti-influenza A H1N1."

For more information on this research see: Computational screen and experimental validation of anti-influenza effects of quercetin and chlorogenic acid from traditional Chinese medicine. *Scientific Reports*, 2016;6():19095. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting Z. Liu, Medical College, Hunan Normal University, Changsha, Hunan 410013, People's Republic of China. Additional authors for this research include J. Zhao, W. Li, L. Shen, S. Huang, J. Tang, J. Duan, F. Fang, Y. Huang, H. Chang, Z. Chen and R. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19095. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Changsha, Swine Flu, Cinnamates, RNA Viruses, Swine Influenza, Chlorogenic Acid, Orthomyxoviridae, Influenza Therapy, Infectious Disease, Vertebrate Viruses, Drugs and Therapies, People's Republic of China, Cyclohexanecarboxylic Acids, Influenza A Virus Subtype H1N1.

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Oncology - Cancer Imaging

Researchers from Hunan University Report New Studies and Findings in the Area of Cancer Imaging (Nature-Inspired Smart DNA Nanodoctor for Activatable In Vivo Cancer Imaging and In Situ Drug Release Based on Recognition-Triggered Assembly of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Imaging have been published. According to news originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "DNA-based activatable theranostic nanoprobes are still unmet for in vivo applications. Here, by utilizing the 'induced-fit effect', a smart split aptamer-based activatable theranostic probe (SATP) was first designed as 'nanodoctor' for cancer-activated in vivo imaging and in situ drug release."

Financial supporters for this research include National Natural Science Foundation of China, Natural Science Foundation of Hunan Province.

Our news journalists obtained a quote from the research from Hunan University, "The SATP assembled with quenched fluorescence and stable drug loading in its free state. Once binding to target proteins on cell surface, the SATP disassembled due to recognition-triggered reassembly of split aptamers with activated signals and freed drugs. As proof of concept, split Sgc8c against CEM cancer was used for theranostic studies. Benefiting from the design without blocking aptamer sequence, the SATP maintained an excellent recognition ability similar to intact Sgc8c. An ‘incubate-and-detect’ assay showed that the SATP could significantly lower background and improve signal-to-background ratio (similar to 4.8 times of ‘always on’ probes), thus affording high sensitivity for CEM cell analysis with 46 cells detected. Also, its high selectivity to target cells was demonstrated in analyzing mixed cell samples and serum samples. Then, using doxorubicin as a model, highly specific drug delivery and cell killing was realized with minimized toxicity to nontarget cells. Moreover, in vivo and ex vivo
investigations also revealed that the SATP was specifically activated by CEM tumors inside mice. Especially, contrast enhanced imaging was achieved in as short as 5 min, thus, laying a foundation for rapid diagnosis and timely therapy."

According to the news editors, the research concluded: "As a biocompatible and target-activatable strategy, the SATP may be widely applied in cancer theranostics."

For more information on this research see: Nature-Inspired Smart DNA Nanodocor for Activatable In Vivo Cancer Imaging and In Situ Drug Release Based on Recognition-Triggered Assembly of Split Aptamer. Analytical Chemistry, 2016;88(23):11699-11706. Analytical Chemistry can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Analytical Chemistry - www.pubs.acs.org/journal/ancham)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.analchem.6b03283. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Cancer, Drugs and Therapies, Cancer Imaging, Oncology, Genetics, Hunan University.

Our news editors obtained a quote from the research from IRCSS, "This requires a deep understanding of the epigenetic mechanisms controlling transcriptional programs in tissue progenitors. This review attempts to elucidate the principle epigenetic regulations responsible of stem cells differentiation. In particular we focus on the current understanding of the epigenetic networks that regulate differentiation of muscle progenitors by the concerted action of chromatin-modifying enzymes and noncoding RNAs. The novel exciting role of exosome-bound microRNA in mediating epigenetic information transfer is also discussed."

According to the news editors, the research concluded: "Finally we show an overview of the epigenetic strategies and therapies that aim to potentiate muscle regeneration
and counteract the progression of Duchenne Muscular Dystrophy (DMD)."

For more information on this research see: Epigenetic Reprogramming of Muscle Progenitors: Inspiration for Clinical Therapies. *Stem Cells International*, 2015;2016():6093601. (Hindawi Publishing - www.hindawi.com; Stem Cells International - www.hindawi.com/journals/sci/)

The news editors report that additional information may be obtained by contacting S. Consalvi, IRCSS, Fondazione Santa Lucia, Via del Fosso di Fiorano 64, 00143 Roma, Italy. Additional authors for this research include M. Sandona and V. Saccone.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/6093601. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Biotechnology, Biomedical Engineering, Biomedicine, Italy, Europe, Genetics, Article Review, Bioengineering, Stem Cell Research, Regenerative Medicine.

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**Oncology - Prostate Cancer**

**Researchers from Imperial College Detail Findings in Prostate Cancer (Diet, body size, physical activity and risk of prostate cancer: An umbrella review of the evidence)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "The existing literature on the relationship between diet, body size, physical activity and prostate cancer risk was summarised by the World Cancer Research Fund Continuous Update Project (CUP). An evaluation of the robustness of this evidence is required to help inform public health policy."

The news reporters obtained a quote from the research from Imperial College, "The robustness of this evidence was evaluated using several criteria addressing evidence strength and validity, including the statistical significance of the random effects summary estimate and of the largest study in a meta-analysis, number of prostate cancer cases, between-study heterogeneity, 95% prediction intervals, small-study effects bias, excess significance bias and sensitivity analyses with credibility ceilings. A total of 248 meta-analyses were extracted from the CUP, which studied associations of 23 foods, 31 nutrients, eight indices of body size and three indices of physical activity with risk of total prostate cancer development, mortality or cancer development by stage and grade. Of the 176 meta-analyses using a continuous scale to measure the exposures, no association presented strong evidence by satisfying all the aforementioned criteria. Only the association of height with total prostate cancer incidence and mortality presented highly suggestive evidence with a 4% higher risk per 5 cm greater height (95% confidence interval, 1.03, 1.05). Associations for body mass index, weight, height, dietary calcium and spirits intake were supported by suggestive evidence."

According to the news reporters, the research concluded: "Overall, the association of diet, body size, physical activity and prostate cancer has been extensively studied, but no association was graded with strong evidence."

Our news correspondents report that additional information may be obtained by contacting K.K. Tsilidis, Imperial Coll London, Dept. of Epidemiol & Biostat, Sch Public Hlth, London W2 1PG, United Kingdom. Additional authors for this research include I. Tzoulaki, D. Karli, E. Evangelou, E. Ntzani, M.J. Gunter, T. Norat, J.P. Ioannidis and K.K. Tsilidis.

Keywords for this news article include: London, United Kingdom, Europe, Metastatic Prostate Cancer, Risk and Prevention, Prostatic Neoplasms, Cancer Risk, Oncology, Imperial College.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Researchers from Imperial College Report Recent Findings in HIV/AIDS (How do HIV-negative individuals in sub-Saharan Africa change their sexual risk behaviour upon learning their serostatus? A systematic review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "To determine whether, and how, sexual behaviour of HIV-negative individuals in sub-Saharan Africa (SSA) changes upon learning their serostatus. We systematically reviewed the published literature using EMBASE and Medline to search for publications between 2004 and 2014."

The news reporters obtained a quote from the research from Imperial College, "We included studies that quantified behaviour change (condom use, number of sexual partners or sex acts) following an HIV test in HIV-negative adults in SSA, and extracted relevant data including study characteristics and measurement type. From 2185 unique citations, n=14 studies representing 22 390 participants met our inclusion criteria. We did not pool data due to marked heterogeneity in study outcome measures. The proportion of participants reporting consistent condom use (n=6) post-testing ranged from 7.6% greater, to 10.6% fewer, while 'no condom use' (n=5) ranged from 40.0% less, to 0.7% more. Condom use in serodiscordant couples increased (n=3). Five studies measured the proportion reporting abstinence, finding an increase of 10.9% to a decrease of 5.3% post-testing. The post-testing change in the mean number of sex acts (n=3) ranged from a relative decrease of 15.7% to a relative increase of 9.4%. Two studies reported relative decreases in the mean number of sexual partners of 35.2% and 14.0%. Three studies examining serodiscordant primary relationships specifically all showed increases in extrarelational sex. With the exception of serodiscordant couples, there is variable evidence that awareness of one's serostatus leads to substantial changes in risk behaviour among HIV-negative individuals."

According to the news reporters, the research concluded: "Further research is needed to estimate the behavioural impact of learning one's serostatus in SSA."
For more information on this research see: How do HIV-negative individuals in sub-Saharan Africa change their sexual risk behaviour upon learning their serostatus? A systematic review. *Sexually Transmitted Infections*, 2016;92(8):571-578. *Sexually Transmitted Infections* can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com; Sexually Transmitted Infections - sti.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting M. Pickles, Imperial Coll London, Dept. of Infect Dis Epidemiol, London, United Kingdom. Additional authors for this research include S. Mishra, N. Condie and M. Pickles.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/sextrans-2015-052354. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Immune System Diseases and Conditions, Article Review, Diagnostics and Screening, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Imperial College.

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**Oncology - Colon Cancer**

Researchers from Indian Institute of Chemical Biology Report on Findings in Colon Cancer (DNA damage-induced ephrin-B2 reverse signaling promotes chemoresistance and drives EMT in colorectal carcinoma harboring mutant p53)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news reporting out of Kolkata, India, by NewsRx editors, research stated, "Mutation in the TP53 gene positively correlates with increased incidence of chemoresistance in different cancers. In this study, we investigated the mechanism of chemoresistance and epithelial-to-mesenchymal transition (EMT) in colorectal cancer involving the gain-of-function (GOF) mutant p53/ephrin-B2 signaling axis."

Our news journalists obtained a quote from the research from the Indian Institute of Chemical Biology, "Bioinformatic analysis of the NCI-60 data set and subsequent hub prediction identified EFNB2 as a possible GOF mutant p53 target gene, responsible for chemoresistance. We show that the mutant p53-NF-Y complex transcriptionally upregulates EFNB2 expression in response to DNA damage. Moreover, the acetylated form of mutant p53 protein is recruited on the EFNB2 promoter and positively regulates its expression in conjunction with coactivator p300. In vitro cell line and in vivo nude mice data show that EFNB2 silencing restores chemosensitivity in mutant p53-harboring tumors. In addition, we observed high expression of EFNB2 in patients having neoadjuvant non-responder colorectal carcinoma compared with those having responder version of the disease. In the course of deciphering the drug resistance mechanism, we also show that ephrin-B2 reverse signaling induces ABCG2 expression after drug treatment that involves JNK-c-Jun signaling in mutant p53 cells. Moreover, 5-fluorouracil-induced ephrin-B2 reverse signaling promotes tumorigenesis through the Src-ERK pathway, and drives EMT via the Src-FAK pathway."
According to the news editors, the research concluded: "We thus conclude that targeting ephrin-B2 might enhance the therapeutic potential of DNA-damaging chemotherapeutic agents in mutant p53-bearing human tumors."

For more information on this research see: DNA damage-induced ephrin-B2 reverse signaling promotes chemoresistance and drives EMT in colorectal carcinoma harboring mutant p53. *Cell Death and Differentiation*, 2015;23(4):707-22. (Nature Publishing Group - www.nature.com; Cell Death and Differentiation - www.nature.com/cdd/)

Our news journalists report that additional information may be obtained by contacting S.K. Alam, Cancer Biology and Inflammatory Disorder Division, CSIR-Indian Institute of Chemical Biology, Kolkata, India. Additional authors for this research include V.K. Yadav, S. Bajaj, A. Datta, S.K. Dutta, M. Bhattacharyya, S. Bhattacharya, S. Debnath, S. Roy, L.A. Boardman, T.C. Smyrk, J.R. Molina, S. Chakrabarti, S. Chowdhury, D. Mukhopadhyay and S. Roychoudhury.

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Keywords for this news article include: Asia, India, Kolkata, Genetics, Oncology, p53 Gene, Ephrin B2, Carcinomas, DNA Damage, Proteomics, Colon Cancer, DNA Research, Gastroenterology, Colorectal Research, Deoxyribonucleic Acid, Intercellular Signaling Peptides and Proteins.

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**Congenital Diseases and Conditions - Congenital...**

**Researchers from Indiana University Detail New Studies and Findings in the Area of Congenital Heart Defects (A Three-Way Interaction among Maternal and Fetal Variants Contributing to Congenital Heart Defects)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Congenital Diseases and Conditions - Congenital Heart Defects is the subject of a report. According to news reporting from Bloomington, Indiana, by NewsRx journalists, research stated, "Congenital heart defects (CHDs) develop through a complex interplay between genetic variants, epigenetic modifications, and maternal environmental exposures. Genetic studies of CHDs have commonly tested single genetic variants for association with CHDs."

Funders for this research include National Institute of Child Health and Human Development, National Center on Birth Defects and Developmental Disabilities, Translational Research Institute through the NIH National Center for Research Resources and the National Center for Advancing Translational Sciences, University of Arkansas for Medical Sciences College of Medicine Children's University Medical Group Fund Grant Program, Arkansas Children’s Hospital Research Institute and the Arkansas Bioscience Institute.

The news correspondents obtained a quote from the research from Indiana University, "Less attention has been given to complex gene-by-gene and gene-by-environment interactions. In this study, we applied a recently developed likelihood-ratio Mann-Whitney (LRMW) method to detect joint actions among maternal variants, fetal variants, and maternal environmental exposures, allowing for high-order statistical interactions. All subjects are
participants from the National Birth Defect Prevention Study, including 623 mother-offspring pairs with CHD-affected pregnancies and 875 mother-offspring pairs with unaffected pregnancies. Each individual has 872 single nucleotide polymorphisms encoding for critical enzymes in the homocysteine, folate, and trans-sulfuration pathways. By using the LRMW method, three variants (fetal rs625879, maternal rs2169650, and maternal rs8177441) were identified with a joint association to CHD risk (nominal P-value=1.13e-07). These three variants are located within genes BHMT2, GSTP1, and GPX3, respectively. Further examination indicated that maternal SNP rs2169650 may interact with both fetal SNP rs625879 and maternal SNP rs8177441.

According to the news reporters, the research concluded: "Our findings suggest that the risk of CHD may be influenced by both the intragenerational interaction within the maternal genome and the intergenerational interaction between maternal and fetal genomes."


Our news journalists report that additional information may be obtained by contacting M. Li, Dept. of Epidemiology and Biostatistics, Indiana University at Bloomington, Bloomington, IN, United States. Additional authors for this research include J. Li, C. Wei, Q. Lu, X. Tang, S.W. Erickson, S.L. MacLeod and C.A Hobbs.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ahg.12139. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Annals of Human Genetics is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Indiana, Genetics, Cardiology, Bloomington, United States, Congenital Heart Defects, North and Central America, Heart Disorders and Diseases, Congenital Diseases and Conditions.

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Oncology - Breast Cancer

Researchers from Institut Universitaire de France Discuss Findings in Breast Cancer (SCN4B acts as a metastasis-suppressor gene preventing hyperactivation of cell migration in breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "The development of metastases largely relies on the capacity of cancer cells to invade extracellular matrices (ECM) using two invasion modes termed 'mesenchymal' and 'amoeboid', with possible transitions between these modes. Here we show that the SCN4B gene, encoding for the beta 4 protein, initially characterized as an auxiliary subunit of voltage-gated sodium channels (Na-V) in excitable tissues, is expressed in normal epithelial cells and that reduced beta 4 protein levels in breast cancer biopsies correlate with high-grade primary and metastatic tumours."
The news reporters obtained a quote from the research from Institut Universitaire de France, "In cancer cells, reducing b4 expression increases RhoA activity, potentiates cell migration and invasiveness, primary tumour growth and metastatic spreading, by promoting the acquisition of an amoeboid-mesenchymal hybrid phenotype. This hyperactivated migration is independent of NaV and is prevented by overexpression of the intracellular C-terminus of b4."

According to the news reporters, the research concluded: "Conversely, SCN4B overexpression reduces cancer cell invasiveness and tumour progression, indicating that SCN4B/beta 4 represents a metastasis-suppressor gene."


Our news correspondents report that additional information may be obtained by contacting S. Roger, Inst Univ France, F-75231 Paris 05, France. Additional authors for this research include V. Driffort, F. Gradek, C. Martinez-Caceres, M. Anchelin, P. Pelegrin, M.L. Cayuela, S. Marionneau-Lambot, T. Oullier, R. Guibon, G. Fromont, J.L. Gutierrez-Pajares, I. Domingo, E. Piver, A. Moreau, J. Burlaud-Gaillard and P.G Frank.

Keywords for this news article include: Paris, France, Europe, Cancer, Genetics, Women's Health, Breast Cancer, Oncology, Institut Universitaire de France.

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Researchers from Institute for Cancer Research and Treatment (IRCCS) Provide Details of New Studies and Findings in the Area of Blood Pressure (Threshold and Target for Blood Pressure Lowering in the Elderly)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Blood Pressure is the subject of a report. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "Purpose of Review Detection of elevated blood pressure values in elderly patients represents a common clinical condition associated with an increased cardiovascular risk. This has been shown to be the case in both systodiastolic and isolated systolic hypertension as well."

Our news editors obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "However, despite the evidence of the benefits of the blood pressure lowering intervention in terms of reduction of cardiovascular morbidity and mortality, at least two issues related to antihypertensive drug treatment in aged individuals are still undefined: (1) the blood pressure threshold at which antihypertensive drug should be initiated and (2) the blood pressure goals of the therapeutic intervention. The present paper will critically review the evidence available so far on these two issues as well as the position of current guidelines and consensus statements. Emphasis will be given to the analysis of the new data of the Systolic Blood Pressure Intervventional Trial (SPRINT), which have recently demonstrated the benefits, even in individuals aged more than 75 years, of a tight blood pressure reduction to systolic blood pressure to 120 mmHg or less. The potential limitations of the trial will be also
critically addressed and the expectations of ongoing clinical studies investigating the issue in elderly patients properly emphasized. Although of interest, the results of the SPRINT trial encompass a number of limitations which limit their applicability to the general elderly hypertensive population."

According to the news editors, the research concluded: "A prudent approach will be to adopt in clinical practice the less intensive and more conservative targets recommended by current guidelines."

For more information on this research see: Threshold and Target for Blood Pressure Lowering in the Elderly. Current Atherosclerosis Reports, 2016;18(12):17-27. Current Atherosclerosis Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

The news editors report that additional information may be obtained by contacting G. Grassi, IRCCS Multimed, Milan, Italy. Additional authors for this research include F. Quarti-Trevano, A. Casati and R. Dell'Oro.

Keywords for this news article include: Milan, Italy, Europe, Cardiology, Article Review, Cardiovascular, Blood Pressure, Hemodynamics, Institute for Cancer Research and Treatment (IRCCS).

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Heart Disorders and Diseases - Heart Failure

Researchers from Institute for Medical Research Describe Findings in Heart Failure (Meta-Analysis of Association Between Mediastinal Radiotherapy and Long-Term Heart Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting originating in Hobart, Australia, by NewsRx journalists, research stated, "This investigation sought to identify and quantify any increased risk of long-term heart failure (HF) after thoracic radiotherapy (RT) for cancer and identify any population covariates that corresponded with increased risk. Electronic databases were systematically searched for studies reporting relative risk, odds ratio, and hazard ratio (HR) for symptomatic HF more than 5 years after RT administration."

The news reporters obtained a quote from the research from Institute for Medical Research, "Clinical characteristics, study design, univariable effect sizes, and associated 95% CIs were extracted. Univariable effect size was pooled and computed in a meta-analysis using random-effects model weighted by inverse variance. Six studies (45,669 patients) with weighted median follow-up duration of 13.9 years were included, each data-linkage study that reported HRs for HF. Pooled HR for long-term HF was significant (HR 1.83 [1.09 to 3.08], p = 0.022), with significant between study heterogeneity (Q 43.38, df = 5, p<0.001, I-2 88.47%). Statistical significance was lost when excluding studies of malignancies other than breast cancer or hematological malignancies and excluding studies with Newcastle-Ottawa scores <8, but the direction of effect and magnitude remained approximately the same. Subgroup and meta-regression analyses demonstrated that study differences in age at time of RT administration and duration of follow-up explained approximately 80% of observed heterogeneity. Earlier
publication date was associated with increased HF risk. Other variables, including female proportion, proportion of adjuvant chemotherapy use, and sample size did not significantly impact the conclusions."

According to the news reporters, the research concluded: "RT approximately doubled the long-term risk of HF. This finding was associated with younger age at time of RT and longer follow-up duration, which explained approximately 80% of interstudy heterogeneity."


Our news correspondents report that additional information may be obtained by contacting M.T. Nolan, Menzies Inst Med Res, Cardiometab Res Unit, Hobart, Tas, Australia. Additional authors for this research include D.J. Russell, K. Negishi and T.H. Marwick.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjcard.2016.08.050. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hobart, Australia, Australia and New Zealand, Cardiovascular Diseases and Conditions, Therapy, Risk and Prevention, Heart Disorders and Diseases, Heart Failure, Heart Disease, Radiotherapy, Cardiology, Institute for Medical Research.

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Drugs and Therapies - Chemical Biology and Drug... Researchers from Institute of Bioorganic Chemistry and Petrochemistry Describe Findings in Chemical Biology and Drug Design (A New, Improved Hybrid Scoring Function for Molecular Docking and Scoring Based on AutoDock and AutoDock Vina)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemical Biology and Drug Design. According to news reporting out of Kyiv, Ukraine, by NewsRx editors, research stated, "Automated docking is one of the most important tools for structure-based drug design that allows prediction of ligand binding poses and also provides an estimate of how well small molecules fit in the binding site of a protein. A new scoring function based on AutoDock and AutoDock Vina has been introduced."

Funders for this research include National Academy of Sciences of Ukraine to the Institute of Bioorganic Chemistry and Petrochemistry, Ontario Institute for Cancer Research, Government of Ontario.

Our news journalists obtained a quote from the research from the Institute of Bioorganic Chemistry and Petrochemistry, "The new hybrid scoring function is a linear combination of the two scoring function components derived from a multiple linear regression fitting procedure. The scoring function was built on a training set of 2412 protein-ligand complexes from pdbbind database (www.pdbbind.org.cn, version 2012). A test set of 313
complexes that appeared in the 2013 version was used for validation purposes. The new hybrid scoring function performed better than the original functions, both on training and test sets of protein-ligand complexes, as measured by the non-parametric Pearson correlation coefficient, R, mean absolute error (MAE), and root-mean-square error (RMSE) between the experimental binding affinities and the docking scores. The function also gave one of the best results among more than 20 scoring functions tested on the core set of the pdbbind database."

According to the news editors, the research concluded: "The new AutoDock hybrid scoring function will be implemented in modified version of AutoDock."


Our news journalists report that additional information may be obtained by contacting V.Y. Tanchuk, Dept. of Bioorganic Mechanisms, Institute of Bioorganic Chemistry and Petrochemistry, National Academy of Sciences of Ukraine, 1 Murmanska Street-94, Kyiv, 02660, Ukraine. Additional authors for this research include V.O. Tanin, A.I. Vovk and G. Poda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12697. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Chemical Biology & Drug Design* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Kyiv, Europe, Ukraine, Drugs and Therapies, Chemical Biology and Drug Design.

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**Transverse Aortic Constriction**

**Researchers from Institute of Health Sciences Discuss Findings in Transverse Aortic Constriction (Ascending aortic adventitial remodeling and fibrosis are ameliorated with Apelin-13 in rats after TAC via suppression of the miRNA-122 and ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Transverse Aortic Constriction have been presented. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Apelin has been proved to be a critical mediator of vascular function and homeostasis. Here, we investigated roles of Apelin in aortic remodeling and fibrosis in rats with transverse aortic constriction (TAC)."

Our news journalists obtained a quote from the research from the Institute of Health Sciences, "Male Sprague-Dawley rats were subjected to TAC and then randomized to daily deliver Apelin-13 (50 μg/kg) or angiotensin type 1 receptor (AT1) blocker Irbesartan (50 mg/kg) for 4 weeks. Pressure overload resulted in myocardial hypertrophy, systolic dysfunction, aortic remodeling and adventitial fibrosis with reduced levels of Apelin in ascending aortas of..."
rat after TAC compared with sham-operated group. These changes were associated with marked increases in levels of miRNA-122, TGF beta 1, CTGF, NFAT5, LGR4, and beta-catenin. More importantly, Apelin and Irbesartan treatment strikingly prevented TAC-mediated aortic remodeling and adventitial fibrosis in pressure overloaded rats by blocking AT1 receptor and miRNA-122 levels and repressing activation of the CTGF-NFAT5 and LGR4-beta-catenin signaling. In cultured primary rat adventitial fibroblasts, exposure to angiotensin II (100 nmol L-1) led to significant increases in cellular migration and levels of TGFI31, CTGF, NFAT5, LGR4 and beta-catenin, which were effectively reversed by pre-treatment with Apelin (100 nmol L-1) and miRNA-122 inhibitor (50 nmol L-1)."

According to the news editors, the research concluded: "Apelin counterregulated against TAC-mediated ascending aortic remodeling and angiotensin II-induced promotion of cellular migration by blocking AT1 receptor and miRNA-122 levels and preventing activation of the TGF beta 1-CTGF-NFAT5 and LGR4-beta-catenin signaling, ultimately contributing to attenuation of aortic adventitial fibrosis. Our data point to Apelin as an important regulator of aortic remodeling and adventitial fibrosis and a promising target for vasoprotective therapies."

For more information on this research see: Ascending aortic adventitial remodeling and fibrosis are ameliorated with Apelin-13 in rats after TAC via suppression of the miRNA-122 and LGR4-beta-catenin signaling. Peptides, 2016;86():85-94. Peptides can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Peptides - www.journals.elsevier.com/peptides/)


Keywords for this news article include: Shanghai, People's Republic of China, Asia, Transverse Aortic Constriction, Armadillo Domain Proteins, Transcription Factors, Biological Factors, Peptide Proteins, Peptide Hormones, Angiotensin II, Oligopeptides, Neuropeptides, Angiotensins, beta Catenin, Autacoids, Peptides, Catenins, Surgery, Institute of Health Sciences.

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Genetics, "We recently identified several miRNAs that either increased or decreased intermediate-term memory when inhibited in the central nervous system, including miR-iab8-3p. We report here a new developmental role for this miRNA. Blocking the expression of miR-iab8-3p during the development of the organism leads to hypertrophy of individual mushroom body neuron soma, a reduction in the field size occupied by axonal projections, and adult intellectual disability. We further identified four potential mRNA targets of miR-iab8-3p whose inhibition modulates intermediate term memory including ceramide phosphoethanolamine synthase, which may account for the behavioral effects produced by miR-iab8-3p inhibition."

According to the news editors, the research concluded: "Our results offer important new information on a microRNA required for normal neurodevelopment and the capacity to learn and remember normally."

For more information on this research see: Developmental inhibition of miR-iab8-3p disrupts mushroom body neuron structure and adult learning ability. Developmental Biology, 2016;419(2):237-249. Developmental Biology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Developmental Biology - www.journals.elsevier.com/developmental-biology/)

The news correspondents report that additional information may be obtained from G.U. Busto, CNRS UPR1142, Neurogenet & Memory Genet & Dev Department, Inst Human Genet, F-34396 Montpellier 5, France. Additional authors for this research include T. Guven-Ozkan, M. Chakraborty and R.L. Davis.

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Keywords for this news article include: Montpellier, France, Europe, Developmental Biology, Life Science Research, Genetics, Institute of Human Genetics.

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Oncology - Cancer Genetics

Researchers from Institute of Medicine Report Findings in Cancer Genetics [A der(11)t(4;11)(q21;p15) in a T-ALL/LBL patient]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Cancer Genetics are presented in a new report. According to news originating from Buenos Aires, Argentina, by NewsRx correspondents, research stated, "Translocation t(4;11)(q21;p15) is a rare recurrent change associated to T-cell acute leukemia. In most cases, this alteration appears as the only abnormality or as part of a simple karyotype."

Financial supporters for this research include National Research Council, National Agency of Scientific and Technical Promotion, National Cancer Institute from Argentina.

Our news journalists obtained a quote from the research from the Institute of Medicine, "In this report, we present the first case of T acute lymphoblastic leukemia/lymphoma (T-ALL/LBL) with the unbalanced translocation der(11)t(4;11)(q21;p15) as part of a very complex karyotype with multiple chromosome abnormalities, most of them not previously described in the literature. FISH (fluorescence in situ hybridization) and spectral karyotype
(HiSKY) analysis confirmed the presence of complex alterations. The patient, a 16-year-old male, showed poor response to treatment and short survival (11 months). A detailed review of previously reported cases with t(4;11)(q21;p15) is also provided.

According to the news editors, the research concluded: "The description of this type of alterations may contribute to the identification of new molecular mechanism associated to neoplastic development."


The news correspondents report that additional information may be obtained from I. Slavutsky, CONICET Academy Nacl Med, Inst Med Expt, Lab Genet Neoplasias Linfoides, Buenos Aires, DF, Argentina. Additional authors for this research include L. Furforo, E.R. Pisarello, M. Maidana, C. Martin, J. Bordone and I. Slavutsky.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.01.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Buenos Aires, Argentina, South America, Cancer Genetics, Oncology, Genetics, Institute of Medicine.

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**Drugs and Therapies - Phytotherapy**

*Researchers from Institute of Medicine Report New Studies and Findings in the Area of Phytotherapy (In Vitro Assessment of Plants Growing in Cuba Belonging to Solanaceae Family Against Leishmania amazonensis)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Phytotherapy have been published. According to news reporting originating in Habana, Cuba, by NewsRx journalists, research stated, "In this study, an in vitro antileishmanial assessment of plant extracts from 12 genera and 46 species growing in Cuba belonging to Solanaceae family was performed. A total of 226 extracts were screened against promastigotes of Leishmania amazonensis, and cytotoxicity of active extracts [median inhibitory concentration (IC50) promastigotes < 100 μg/mL] was determined on peritoneal macrophage from BALB/c mice."

The news reporters obtained a quote from the research from the Institute of Medicine, "Extracts that showed selective index > 5 were then assayed against intracellular amastigote. Metabolomics analysis of promissory extracts was performed using chemical profile obtained by ultra performance liquid chromatography. Only 11 extracts (4.9%) from nine plants were selected as potentially actives: Brunfelsia cestroides A. Rich, Capsicum annuum L., Capsicum chinense Jacq., Cestrum nocturnum L., Nicotiana plumbaginifolia Viv., Solanum havanense Jacq., Solanum myriacanthum Dunal, Solanum nudum Dunal and Solanum seaforthianum And., with IC50 < 50 μg/mL and selectivity index > 5. Metabolomics analysis demonstrated significant differences in the chemical profiles with an average of 42.8 (range 31-88) compounds from m/z 104 to 1477, which demonstrated the complex mixture of compounds.
In addition, no common markers among active extracts were identified."

According to the news reporters, the research concluded: "The results demonstrate the importance of the Solanaceae family to search new antileishmanial agents, particularly in unexplored species of this family."


Our news correspondents report that additional information may be obtained by contacting L. Monzote, Inst Med Trop Pedro Kouri, Dept. of Parasitol, Marianao 13, Habana, Cuba. Additional authors for this research include J. Jimenez, O. Cuesta-Rubio, I. Marquez, Y. Gutierrez, C.Q. da Rocha, M. Marchi, W.N. Setzer and W. Vilegas.

**Keywords for this news article include:** Habana, Cuba, North and Central America, Phytotherapy, Drugs and Therapies, Institute of Medicine.

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**Biotechnology - Liposomes**

**Researchers from Institute of Physical Chemistry Report on Findings in Liposomes (Imidazolium-Based Lipid Analogues and Their Interaction with Phosphatidylycholine Membranes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biotechnology - Liposomes is the subject of a report. According to news originating from Munster, Germany, by NewsRx correspondents, research stated, "4,5-Dialkylated imidazolium lipid salts are a new class of lipid analogues showing distinct biological activities. The potential effects of the imidazolium lipids on artificial lipid membranes and the corresponding membrane interactions was analyzed."

Financial supporters for this research include Deutsche Forschungsgemeinschaft, Alexander von Humboldt-Stiftung, Fundacao para a Ciencia e a Tecnologia.

Our news journalists obtained a quote from the research from the Institute of Physical Chemistry, "Therefore, 1,2-dipalmitoyl-sn-glycero-3-phosphocholine (DPPC) was employed to create an established lipid monolayer model and a bilayer membrane. Mixed monolayers of DPPC and 4,5-dialkylimidazolium lipids differing by their alkyl chain length (C-7, C-11, and C-15) were characterized by surface pressure area (pi-A) isotherms using a Wilhelmy film balance in combination with epifluorescence microscopy. Monolayer hysteresis for binary mixtures was examined by recording triplicate consecutive compression expansion cycles. The lipid miscibility and membrane stability of DPPC/imidazolium lipids were subsequently evaluated by the excess mean molecular area (Delta A(ex)) and the excess Gibbs free energy (Delta G(ex)) of mixing. Furthermore, the thermotropic behavior of mixed liposomes of DPPC/imidazolium lipids was investigated by differential scanning calorimetry (DSC). The C-15-imidazolium lipid (C-15-IMe.HI) forms a thermodynamically favored and kinetically reversible Langmuir monolayer with DPPC and exhibits a rigidification effect on both DPPC monolayer and bilayer structures at low molar fractions (X <= 0.3). However, the
incorporation of the C-11-imidazolium lipid (C-11-Ime.HI) causes the formation of an unstable and irreversible Langmuir-Gibbs monolayer with DPPC and disordered DPPC liposomes. The C-7-imidazolium lipid (C-7-Ime.HI) displays negligible membrane activity. To better understand these results on a molecular level, all-atom molecular dynamics (MD) simulations were performed. The simulations yield two opposing molecular mechanisms governing the different behavior of the three imidazolium lipids: a lateral ordering effect and a free volume/stretching effect. Overall, our study provides the first evidence that the membrane interaction of the C-15 and C-11 derivatives modulates the structural organization of lipid membranes.

According to the news editors, the research concluded: "On the contrary, for the C-7 derivative its membrane activity is too low to contribute to its earlier reported potent cytotoxicity."


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Keywords for this news article include: Munster, Germany, Europe, Biotechnology, Liposomes, Institute of Physical Chemistry.

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**Urologic Diseases and Conditions - Urinary...**

**Researchers from Institute of Urology Provide Details of New Studies and Findings in the Area of Urinary Incontinence (Urinary Incontinence Following Prostate Brachytherapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Urologic Diseases and Conditions - Urinary Incontinence is the subject of a report. According to news originating from Lake Success, New York, by NewsRx correspondents, research stated, "To define the incidence, time course, and risk factors associated with the development of urinary incontinence (UI) following prostate brachytherapy. A total of 2461 men were identified who underwent permanent interstitial prostate brachytherapy with or without external beam radiation therapy."

Our news journalists obtained a quote from the research from the Institute of Urology, "We examined the relationship between clinical-and treatment-related variables with the onset of UI, defined as leakage requiring pad usage, and further classified as stress (SUI) or urge (UUI) predominant, using univariate and Cox proportional hazards regression models. The changes in International Prostate Symptom Score and quality of life domains were assessed
from baseline to last follow, and examined by UI status. Patients were followed for a median of 6.4 years (interquartile range 4.1-9.3), UI was reported in 108 individuals (4.4%), at a median of 1.8 years (interquartile range 5 months-4.4 years): 30 with SUI and 78 with UUI. Seventy-two men (66.7%) reported using 1, 24 (22.2%) using 2, and 12 (11%) using >= 3 pads per day. On multivariate analysis, post-implantation transurethral resection of the prostate, urinary retention, external beam radiation therapy, and higher pretreatment International Prostate Symptom Score were significantly associated with the development of SUI, although transurethral resection of the prostate was the only significant risk factor associated with SUI. Men experiencing UI reported greater declines in urinary quality of life; however, no significant difference was observed between SUI and UUI. UI occurred in 4.4% of patients following prostate brachytherapy and is more commonly urge-predominant in character. Distinct risk factors exist for the development of UUI vs SUI.

According to the news editors, the research concluded: "Urinary leakage requiring pad usage was associated with declines in urinary QOL."

For more information on this research see: Urinary Incontinence Following Prostate Brachytherapy. Urology, 2016;95():151-157. Urology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

The news correspondents report that additional information may be obtained from S.J. Hall, Northwell Hlth Syst, Smith Inst Urol, Lake Success, NY 11042, United States. Additional authors for this research include N.N. Stone, S. Mock, R.G. Stock and S.J. Hall.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.05.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lake Success, New York, United States, North and Central America, Male Urogenital Diseases and Conditions, Urologic Diseases and Conditions, Male Urinary Tract Disorders, Urinary Incontinence, Risk and Prevention, Drugs and Therapies, Urination Disorders, Brachytherapy, Radiotherapy, Men's Health, Therapy, Urology, Institute of Urology.

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Oncology - Breast Cancer

Researchers from Isfahan University of Medical Sciences Detail Findings in Breast Cancer (Targeted delivery of doxorubicin to breast cancer cells by magnetic LHRH chitosan bioconjugated nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting from Esfahan, Iran, by NewsRx journalists, research stated, "The novel dual targeted nanoparticles loaded with doxorubicin (DOX) and magnetic nanoparticles (MNPs) were prepared for treatment of breast cancer. Nanoparticles were produced by a layer-by-layer technique and functionalized with a bioconjugate of chitosan-poly(methyl vinyl ether maleic acid)(PMVMA)-LHRH to target LHRH receptors."

Financial support for this research came from Research Vice Chancellor of Isfahan University of Medical Sciences.
The news correspondents obtained a quote from the research from the Isfahan University of Medical Sciences, "The successful production of chitosan-PMVMA copolymer and its conjugation to LHRH was confirmed by FTIR and (HNMR)-H-1 spectroscopy. Capillary electrophoresis analysis showed 72.51% LHRH conjugation efficiency. Transmission electron microscopy and thermogravimetric analysis showed the entrapment of the MNPs in the core of the nanoparticles and vibrating sample magnetometry confirmed their paramagnetic properties. The iron content of nanoparticles determined by inductively coupled plasma optical emission spectrometry showed to be between 3.5-84%. Particle size, zeta potential, drug entrapment and release efficiency of the nanoparticles were 88.1-182.6 nm, 10-30 mV, 62.3-87.6% and 79.8-83.4%, respectively. No significant protein binding was seen by nanoparticles. The MTT assay showed in LHRH positive cells of MCF-7 the IC50 of the drug reduced to about 2 fold compared to the free drug. By saturation of LHRH receptors the viable MCF7 cells increased significantly after exposure with the targeted nanoparticles."

According to the news reporters, the research concluded: "Therefore, the cellular uptake of the nanoparticles might be done by active endocytosis through the LHRH receptors."


Our news journalists report that additional information may be obtained by contacting J. Varshosaz, Isfahan Univ Med Sci, Novel Drug Delivery Syst Res Center, Esfahan, Iran. Additional authors for this research include F. Hassanzadeh, H.S. Aliabadi, F.R. Khoraskani, M. Mirian and B. Behdadfar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.07.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Esfahan, Iran, Asia, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Emerging Technologies, Drugs and Therapies, Pharmaceuticals, Nanotechnology, Women's Health, Breast Cancer, Nanoparticle, Oncology, Isfahan University of Medical Sciences.

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### Hematologic Diseases and Conditions - Hemophilia

**Researchers from Istanbul University Detail New Studies and Findings in the Area of Hemophilia (Benefits of radial head excision in patients with haemophilia: mid-term functional results)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hematologic Diseases and Conditions - Hemophilia have been presented. According to news reporting originating in Istanbul, Turkey, by NewsRx journalists, research stated, "Recurrent haemarthrosis in haemophilic patients result with arthropathy of the radiocapitellar joint and blockage of the forearm rotation. The aim of this
study is to evaluate the mid-term results of radial head excision with partial synovectomy in severe haemophilic patients retrospectively."

The news reporters obtained a quote from the research from Istanbul University, "Persistent pain and decreased forearm rotation were the main indications for radial head excision. Between 2002 and 2013, radial head excisions were performed for 14 elbows of 14 patients. Eleven patients were haemophilia A, whereas two patients were haemophilia B patients and the remaining one had von Willebrand (Type 3) disease. The mean age of the patients was 29 at the time of the surgery. The mean follow-up was 51 (12-155) months. VAS (visual analogue score) for pain, forearm rotation, qDASH and MEPS (Mayo Elbow Performance Score) were used as the primary outcome parameters. The mean VAS decreased significantly from 6.5 preoperatively to 2.2 at the final follow-up (p=0.0003). The mean forearm rotation increased from 40° to 115° respectively (p=0.0007). In two patients, efficacious rotation increase was not achieved due to distal radioulnar joint problems. The mean qDASH score and MEPS were 18.1 and 87.5 at the latest follow-up, respectively, where four patients had excellent and 10 patients had good results. Radial head excision is a safe and effective procedure for haemophiliac patients with radiocapitellar arthropathy and decreased forearm rotation."

According to the news reporters, the research concluded: "Distal radioulnar joint should be evaluated preoperatively which may impair the results."


Our news correspondents report that additional information may be obtained by contacting A.C. Atalar, Dept. of Orthopaedics and Traumatology, Istanbul Medical Faculty, Istanbul University, Fatih, Istanbul, Turkey. Additional authors for this research include B. Koc, F. Birisik, A. Ersen and B. Zulfikar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hae.12801. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turkey, Eurasia, Istanbul, Hemophilia, Hematologic Diseases and Conditions.

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**Gram-Negative Bacteria - Haemophilus influenzae**

Researchers from JMI Laboratories Discuss Findings in Haemophilus influenzae (In Vitro Activity of Delafloxacin Tested against Isolates of Streptococcus pneumoniae, Haemophilus influenzae, and Moraxella catarrhalis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Haemophilus influenzae. According to news reporting from North Liberty, Iowa, by NewsRx journalists, research stated, "Delafloxacin, an investigational anionic fluoroquinolone, is active against a broad range of Gram-positive and Gram-negative bacteria. In this study, 200 Streptococcus pneumoniae (plus 30 levofloxacin-resistant isolates), 200 Haemophilus
influenzae, and 100 Moraxella catarrhalis isolates selected primarily from the United States (2014) were tested against delafloxacin and comparator agents."

The news correspondents obtained a quote from the research from JMI Laboratories, "Delafloxacin was the most potent agent tested. MIC50 and MIC90 values against all S. pneumoniae isolates were 0.008 and 0.015 \( \mu \text{g/ml} \)."

According to the news reporters, the research concluded: "Delafloxacin susceptibility was not affected by beta-lactamase status against H. influenzae and M. catarrhalis."

For more information on this research see: In Vitro Activity of Delafloxacin Tested against Isolates of Streptococcus pneumoniae, Haemophilus influenzae, and Moraxella catarrhalis. Antimicrobial Agents and Chemotherapy, 2016;60(10):6381-6385. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting R.K. Flamm, JMI Labs, North Liberty, IA 52137, United States. Additional authors for this research include P.R. Rhomberg, M.D. Huband and D.J. Farrell.

Keywords for this news article include: North Liberty, Iowa, United States, North and Central America, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Aerobic Rods and Cocci, Gram-Positive Bacterial Infections, Gram-Negative Aerobic Bacteria, Streptococcal Infections, Streptococcus pneumoniae, Gram-Negative Bacteria, Haemophilus influenzae, Moraxella catarrhalis, Gammaproteobacteria, Gram-Positive Cocci, Streptococcaceae, Pasteurellaceae, Strep Infection, Proteobacteria, Moraxellaceae, JMI Laboratories.

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Skin Diseases and Conditions - Psoriasis

Researchers from Jichi Medical University Discuss Findings in Psoriasis (Effects of maxacalcitol ointment on skin lesions in patients with psoriasis receiving treatment with adalimumab)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Skin Diseases and Conditions - Psoriasis. According to news reporting from Tochigi, Japan, by NewsRx journalists, research stated, "Adalimumab is a biologic that is very effective for treatment of psoriasis. However, recalcitrant or recurrent lesions sometimes occur during treatment."

The news correspondents obtained a quote from the research from Jichi Medical University, "Maxacalcitol is an active vitamin D3 ointment that is effective in treatment of psoriasis. Topical therapy may be beneficial in treatment of recalcitrant or recurrent lesions during treatment with systemic therapy, but there is little evidence on this topic. We investigated the effect of maxacalcitol on skin lesions during treatment with adalimumab in patients with psoriasis. Twelve patients with psoriasis were randomly assigned to two groups after informed consent - treatment with adalimumab only \( (n = 6) \), and treatment with adalimumab and maxacalcitol \( (n = 6) \) - and they were evaluated every 4 weeks for 44 weeks. Exacerbation was defined as an increase of the Psoriasis Area and Severity Index (PASI) score. The interval between adalimumab treatments was elongated to 3-4 weeks from 2 weeks according to the
individual patient's condition. The PASI score was evaluated every 4 weeks, and the frequency of exacerbations was counted. The overall improvement in PASI score was not statistically different between the two groups, but the frequency of exacerbations was significantly less in the maxacalcitol combination group compared with the adalimumab monotherapy group (Mann-Whitney U-test, P< 0.05). The better control of skin lesions in patients who elongated the interval of adalimumab administration was achieved in the maxacalcitol combination group compared with the adalimumab monotherapy group.”

According to the news reporters, the research concluded: "Topical maxacalcitol treatment is effective and useful in controlling skin lesions in patients with psoriasis when used in combination with adalimumab.”


Our news journalists report that additional information may be obtained by contacting M. Komine, Jichi Med Univ, Dept. of Dermatol, Shimotsuke, Tochigi 3290498, Japan. Additional authors for this research include M. Komine, M. Kishimoto, N. Maki, A. Matsumoto, J. Sugai and M. Ohtsuki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1346-8138.13515. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tochigi, Japan, Asia, Papulosquamous Skin Diseases and Conditions, Tumor Necrosis Factor (TNF) Inhibitors, Monoclonal Antibodies, Drugs and Therapies, Immunologic Agents, Pharmaceuticals, Antirheumatics, Biotechnology, Dermatology, Adalimumab, Psoriasis, Jichi Medical University.

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invasion ability of Caco-2 and SW-480 cells. Moreover, ATAD2 silencing suppressed epithelial-mesenchymal transition (EMT), and reduced the expression and enzymatic activity of matrix metalloproteinases (MMPs) in Caco-2 and SW-480 cells. In summary, our results suggest that silencing of ATAD2 inhibits migration and invasion of colorectal cancer cells by suppressing EMT and decreasing the activity of MMPs."

According to the news editors, the research concluded: "Hence, ATAD2 could be considered as a novel molecular marker of metastatic colorectal cancer, and it may provide new insights for clinical diagnosis and treatment of colorectal cancer."

For more information on this research see: Silencing of ATPase family AAA domain-containing protein 2 inhibits migration and invasion of colorectal cancer cells. *Neoplasma*, 2016;63(6):846-855. *Neoplasma* can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

The news correspondents report that additional information may be obtained from C. Zhao, Jilin University, Coll Basic Med Sci, Dept. of Physiol, Changchun 130021, Jilin, People's Republic of China. Additional authors for this research include M. Bi, Z. Yan, D. Sun, L. Ling and C. Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4149/neo_2016_603. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changchun, People's Republic of China, Asia, Enzymes and Coenzymes, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, ATPase, Jilin University.

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**Oncology - Non-Small Cell Lung Cancer**

**Researchers from Jilin University Report Recent Findings in Non-Small Cell Lung Cancer (Upregulation of LncRNA-HIT promotes migration and invasion of non-small cell lung cancer cells by association with ZEB1)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Non-Small Cell Lung Cancer is now available. According to news reporting originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "Lung cancer is the most common solid tumor and the leading cause of cancer-related mortality worldwide. Non-small cell lung cancer (NSCLC) accounts for approximately 80% of all lung cancer cases."

Our news editors obtained a quote from the research from Jilin University, "The main reason of lung cancer-related deaths is due to tumor metastasis. But, the mechanisms of NSCLC metastasis remains poorly understood. LncRNAs play pivotal roles in multiple biological processes. LncRNA-HIT (HOXA transcript induced by TGF beta) was recently identified. LncRNA-HIT promotes cell migration, invasion, tumor growth, and metastasis. However, the detailed role of lncRNA-HIT in NSCLC remains unknown. In this study, for the first time, we revealed a novel role of lncRNA-HIT in the migration and invasion of NSCLC cells. The expression of lncRNA-HIT was significantly upregulated in NSCLC tissues and cell lines, and the expression level of lncRNA-HIT correlates with advanced disease stage and predicts unfavorable prognosis of NSCLC patients. Functional assays demonstrated that..."
IncRNA-HIT markedly increased the ability of NSCLC cells to migrate and invade. Furthermore, the molecular mechanism by which IncRNA-HIT affects NSCLC cells was associated with regulation of ZEB1 stability. IncRNA-HIT functions as a prometastasis oncogene by directly associating with ZEB1 to regulate NSCLC.

According to the news editors, the research concluded: "The interaction of IncRNA-HIT and ZEB1 may be a potential target for NSCLC therapy."


The news editors report that additional information may be obtained by contacting L. Yu, Jilin University, Dept. of Radiotherapy, Hosp 2, Changchun 130041, People's Republic of China. Additional authors for this research include Z.C. Wang, L. Qiu, Y.M. Yang, Y.L. Wang, Z.S. Chen, Z.S. Liu and L. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.948. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changchun, People's Republic of China, Asia, Non-Small Cell Lung Cancer, Lung Neoplasms, Oncology, Genetics, Jilin University.

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Oncology - Prostate Cancer

Researchers from Jilin University Report on Findings in Prostate Cancer (Flavonoids intake and risk of prostate cancer: a meta-analysis of observational studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Prostate Cancer is the subject of a report. According to news reporting originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "The aim of the study was to assess the association between total flavonoids/flavonoid subclasses intake and prostate cancer risk. Several databases were searched to select eligible studies with predefined criteria."

Financial support for this research came from Scientific Research Programs Of Jilin Provincial Health Department.

Our news editors obtained a quote from the research from Jilin University, "Risk ratios (RRs) with 95% confidence intervals (CIs) were used as the effect size. Publication bias and sensitivity analysis were performed. A total of five studies including four prospective cohort studies and one case-control study were included in the meta-analysis. The pooled result demonstrated a significantly increased risk of prostate cancer with higher intake of total flavonoids (RR = 1.12, 95% CI: 1.02-1.23, P = 0.013). However, sensitivity analysis indicated that there lacked a significant association after removing the study of Wang et al. (RR = 1.17, 95% CI: 0.94-1.46). Subgroup analysis stratified by flavonoids subclasses found that higher intake of anthocyanidins and flavan-3-ols were significantly associated with increased prostate cancer risk (RR = 1.12, 95% CI: 1.03-1.21, P = 0.011; RR = 1.21, 95% CI: 1.10-1.32, P<
0.001). Sensitivity analysis also indicated that after removing Wang's study, no significant association between anthocyanidins intake and prostate cancer risk was detected (RR = 1.22, 95% CI: 0.97-1.54)."

According to the news editors, the research concluded: "Higher intake of flavonoids may not be associated with prostate cancer risk."


The news editors report that additional information may be obtained by contacting H. Wang, Jilin University, Hosp 1, Dept. of Androl, Changchun 130021, People's Republic of China. Additional authors for this research include Z. Liang, L. Liu, F. Li and H. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/and.12556. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changchun, People's Republic of China, Asia, Metastatic Prostate Cancer, Risk and Prevention, Prostatic Neoplasms, Cancer Risk, Oncology, Jilin University.

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Gram-Negative Bacteria - Acinetobacter

Researchers from Johann Wolfgang Goethe-University Report Details of New Studies and Findings in the Area of Acinetobacter (Osmotic stress response in Acinetobacter baylyi: identification of a glycine-betaine biosynthesis pathway and regulation ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gram-Negative Bacteria - Acinetobacter. According to news reporting out of Frankfurt, Germany, by NewsRx editors, research stated, "Acinetobacter baylyi, a ubiquitous soil bacterium, can cope with high salinity by uptake of choline as precursor of the compatible solute glycine betaine. Here, we report on the identification of a choline dehydrogenase (BetA) and a glycine betaine aldehyde dehydrogenase (BetB) mediating the oxidation of choline to glycine betaine."

Financial supporters for this research include Deutsche Forschungsgemeinschaft, Stiftung Polytechnische Gesellschaft.

Our news journalists obtained a quote from the research from Johann Wolfgang Goethe-University, "The betAB genes were found to form an operon together with the potential transcriptional regulator betI. The transcription of the betIBA operon and the two recently identified choline transporters was upregulated in response to choline and choline plus salt. The finding that the osmo-independent transporter BetT1 undergoes a higher upregulation in response to choline alone than betT2 suggests that BetT1 does not primarily function in osmoadaptation. Electrophoretic mobility shift assays led to the conclusion that BetI mediates transcriptional regulation of both, the betIBA gene operon and the choline transporters."
According to the news editors, the research concluded: "BetI was released from the DNA in response to choline which together with the transcriptional upregulation of the bet genes in the presence of choline suggests that BetI is a choline sensing transcriptional repressor."


Our news journalists report that additional information may be obtained by contacting A. Scholz, Dept. of Molecular Microbiology & Bioenergetics, Institute of Molecular Biosciences, Johann Wolfgang Goethe University Frankfurt, Frankfurt am Main, Germany. Additional authors for this research include J. Stahl, V. de Berardinis, V. Muller and B. Averhoff.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1758-2229.12382. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Betaine, Choline, Glycine, Genetics, Frankfurt, Amino Acids, Acinetobacter, Dehydrogenase, Ethanolamines, Moraxellaceae, Gammaproteobacteria, Enzymes and Coenzymes, Gram Negative Bacteria, Gram-Negative Bacteria, Trimethyl Ammonium Compounds, Quaternary Ammonium Compounds.

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Oncology - Gastric Cancer

Researchers from Johns Hopkins University Hospital Discuss Findings in Gastric Cancer (Patterns of PD-L1 expression and CD8 T cell infiltration in gastric adenocarcinomas and associated immune stroma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Gastric Cancer. According to news reporting originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Recent data supports a significant role for immune checkpoint inhibitors in the treatment of solid tumours. Here, we evaluate gastric and gastro-oesophageal junction (G/GEJ) adenocarcinomas for their expression of programmed death-ligand 1 (PD-L1), infiltration by CD8+ T cells and the relationship of both factors to patient survival."

Our news editors obtained a quote from the research from Johns Hopkins University Hospital, "Thirty-four resections of primary invasive G/GEJ were stained by immunohistochemistry for PD-L1 and CD8 and by DNA in situ hybridisation for Epstein-Barr virus (EBV). CD8+ T cell densities both within tumours and at the tumour-stromal interface were analysed using whole slide digital imaging. Patient survival was evaluated according to PD-L1 status and CD8 density. 12% of resections showed tumor cell membranous PD-L1 expression and 44% showed expression within the immune stroma. Two cases (6%) were EBV positive, with one showing membranous PD-L1 positivity. Increasing CD8+ densities both
within tumours and immune stroma was associated with increasing percentage of tumor (p=0.027) and stromal (p=0.005) PD-L1 expression. Both tumor and immune stromal PD-L1 expression and high intratumoral or stromal CD8+ T cell density (>500/mm) were associated with worse progression-free survival (PFS) and overall survival (OS). PD-L1 is expressed on both tumor cells and in the immune stroma across all stages and histologies of G/GEJ. Surprisingly, we demonstrate that increasing CD8 infiltration is correlated with impaired PFS and OS. Patients with higher CD8+ T cell densities also have higher PD-L1 expression, indicating an adaptive immune resistance mechanism may be occurring."

According to the news editors, the research concluded: "Further characterisation of the G/GEJ immune microenvironment may highlight targets for immune-based therapy."

For more information on this research see: Patterns of PD-L1 expression and CD8 T cell infiltration in gastric adenocarcinomas and associated immune stroma. *Gut*, 2016;(). (BMJ Publishing Group - group.bmj.com; Gut - gut.bmj.com/)

The news editors report that additional information may be obtained by contacting E.D. Thompson, Dept. of Pathology, The Johns Hopkins Hospital, Baltimore, Maryland, United States. Additional authors for this research include M. Zahurak, A. Murphy, T. Cornish, N. Cuka, E. Abdelfatah, S. Yang, M. Duncan, N. Ahuja, J.M. Taube, R.A. Anders and R.J. Kelly.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/gutjnl-2015-310839. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maryland, Genetics, Oncology, Baltimore, United States, Adenocarcinoma, Gastric Cancer, Gastroenterology, North and Central America.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Researchers from Johns Hopkins University Report Findings in HIV/AIDS (A Medical Care Missed Opportunity: Preexposure Prophylaxis and Young Black Men Who Have Sex With Men)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - HIV/AIDS have been published. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "HIV disproportionately impacts young black men who have sex with men (YBMSM). Preexposure prophylaxis (PrEP) is an effective strategy that can avert new HIV infections in YBMSM."

Our news journalists obtained a quote from the research from Johns Hopkins University, "Barriers exist for YBMSM to access PrEP. We sought to determine factors associated with awareness of and willingness to take PrEP in a sample of YBMSM. Only 8% were currently on PrEP despite many (66%) reporting condomless anal sex, a recent provider visit (54%), disclosing their sexual orientation to their regular medical provider (62%), or a willingness to take PrEP (62%). In bivariate analysis, increased number of lifetime partners, current PrEP use, and disclosure of sexual orientation to a doctor were associated with awareness of PrEP, while condomless anal sex and higher perceived risk was associated with willingness to take PrEP. Sex with females was associated with lower willingness."

According to the news editors, the research concluded: "Providers may be missing
key opportunities to educate YBMSM about PrEP and incorporate PrEP into comprehensive sexual health care."


The news correspondents report that additional information may be obtained from R. Arrington-Sanders, Johns Hopkins University, Sch Med, Dept. of Pediat, Div Gen Pediat & Adolescent Med, Baltimore, MD 21205, United States. Additional authors for this research include A. Morgan, J. Oidtman, I. Qian, D. Celentano and C. Beyrer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jadohealth.2016.08.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Johns Hopkins University.

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Nanotechnology - Nanoparticles

Researchers from Johns Hopkins University Report on Findings in Nanoparticles (Polysaccharide-based nanoparticles for theranostic nanomedicine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nanotechnology - Nanoparticles. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Polysaccharides are natural biological molecules that have numerous advantages for theranostics, the integrated approach of therapeutics and diagnostics. Their derivable reactive groups can be leveraged for functionalization with a nanoparticle-enabling conjugate, therapeutics (small molecules, proteins, peptides, photosensitizers) and/or diagnostic agents (imaging agents, sensors)."

Funders for this research include US National Institutes of Health, US Department of Defense, NRF.

The news reporters obtained a quote from the research from Johns Hopkins University, "In addition, polysaccharides are diverse in size and charge, biodegradable and abundant and show low toxicity in vivo. Polysaccharide-based nanoparticles are increasingly being used as platforms for simultaneous drug delivery and imaging and are therefore becoming popular theranostic nanoparticles. The review focuses on the method of nanoparticle formation (self-assembled, physical or chemical cross-linked) when engineering polysaccharide-based nanoparticles for theranostic nanomedicine."

According to the news reporters, the research concluded: "We highlight recent examples of polysaccharide-based theranostic systems from literature and their potential for use
in the clinic, particularly chitosan-and hyaluronic acid-based NPs."


Our news correspondents report that additional information may be obtained by contacting M. Swierczewska, Russell H Morgan Dept. of Radiology and Radiological Science, Center for Cancer Nanotechnology Excellence, Center for Nanomedicine at the Wilmer Eye Institute, Johns Hopkins University, 400 North Broadway, Baltimore, MD 21231, United States. Additional authors for this research include H.S. Han, K. Kim, J.H. Park and S. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.addr.2015.11.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maryland, Baltimore, Nanomedicine, United States, Article Review, Nanotechnology, Drugs and Therapies, Emerging Technologies, North and Central America.

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**Genetics - Medical Genetics**

**Researchers from Jonkoping University Describe Findings in Medical Genetics (Abnormal primary and permanent dentitions with ectodermal symptoms predict WNT10A deficiency)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics - Medical Genetics have been published. According to news reporting out of Jonkoping, Sweden, by NewsRx editors, research stated, "The WNT10A protein is critical for the development of ectodermal appendages. Variants in the WNT10A gene may be associated with a spectrum of ectodermal abnormalities including extensive tooth agenesis."

Our news journalists obtained a quote from the research from Jonkoping University, "In seven patients with severe tooth agenesis we identified anomalies in primary dentition and additional ectodermal symptoms, and assessed WNT10A mutations by genetic analysis. Investigation of primary dentition revealed peg-shaped crowns of primary mandibular incisors and three individuals had agenesis of at least two primary teeth. The permanent dentition was severely affected in all individuals with a mean of 21 missing teeth. Primary teeth were most often present in positions were succedaneous teeth were missing. Furthermore, most existing molars had taurodontism. Light, brittle or coarse hair was reported in all seven individuals, hyperhidrosis of palms and soles in six individuals and nail anomalies in two individuals. The anomalies in primary dentition preceded most of the additional ectodermal symptoms. Genetic analysis revealed that all seven individuals were homozygous or compound heterozygous for WNT10A mutations resulting in C107X, E222X and F228I."

According to the news editors, the research concluded: "We conclude that tooth agenesis and/or peg-shaped crowns of primary mandibular incisors, severe oligodontia of permanent dentition as well as ectodermal symptoms of varying severity may be predictors of biallelic WNT10A mutations of importance for diagnosis, counselling and follow-up."
For more information on this research see: Abnormal primary and permanent dentitions with ectodermal symptoms predict WNT10A deficiency. *BMC Medical Genetics*, 2016;17():1-7. *BMC Medical Genetics* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Medical Genetics - www.biomedcentral.com/bcmmedgenet/)

Our news journalists report that additional information may be obtained by contacting B. Bergendal, Jonkoping Univ, Sch Hlth & Welf, Jonkoping, Sweden. Additional authors for this research include J. Norderyd, X.L. Zhou, J. Klar and N. Dahl.

Keywords for this news article include: Jonkoping, Sweden, Europe, Medical Genetics, Genetics, Genetics, Jonkoping University.

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**Drugs and Therapies - Coumarins and Indandiones**

**Researchers from Juntendo University Report Recent Findings in Coumarins and Indandiones (Adequate time in therapeutic INR range using triple antithrombotic therapy is not associated with long-term cardiovascular events and major bleeding ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Coumarins and Indandiones have been presented. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "Triple antithrombotic therapy increases the risk of bleeding events in patients undergoing percutaneous coronary intervention (PCI) compared with dual anti-platelet therapy (DAPT). However, whether warfarin control is associated with reduced cardiovascular events and major bleeding events in patients undergoing PCI with triple antithrombotic therapy is uncertain."

Financial support for this research came from Ministry of Health, Labor and Welfare.

The news reporters obtained a quote from the research from Juntendo University, "We investigated 1207 consecutive patients who underwent PCI between 2004 and 2011. Major bleeding complications and major adverse cardiac and cerebrovascular events (MACCE) defined as all cause death, acute coronary syndrome, target vessel revascularization, and stroke were compared between groups of patients who received either triple antithrombotic therapy or DAPT. Triple antithrombotic therapy was administered to 95 (7.9%) patients. The mean international normalized ratio of prothrombin time (PT-INR) was 1.8. The target PT-INR level was set between 1.6 and 2.6 and the ratio (%) of time in the therapeutic range (TTR) was calculated. The median TTR was 78.4% (interquartile range, 67.4-87.6%). Kaplan-Meier survival curves showed that warfarin therapy was not associated with MACCE (p = 0.89) and major bleeding (p = 0.80). Multivariable Cox regression analysis revealed that triple antithrombotic therapy was not an independent predictor of MACCE and major bleeding."

According to the news reporters, the research concluded: "Triple antithrombotic therapy does not increase the occurrence of MACCE and major bleeding complications, if the warfarin dose is tightly controlled with a lower INR."

For more information on this research see: Adequate time in therapeutic INR range using triple antithrombotic therapy is not associated with long-term cardiovascular events and major bleeding complications after drug-eluting stent implantation. *Journal of Cardiology*,
Researchers from KIIT University Describe Findings in Antibodies (The Hha-TomB Toxin-Antitoxin System Shows Conditional Toxicity and Promotes Persister Cell Formation by Inhibiting Apoptosis-Like Death in S. Typhimurium)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Antibodies have been published. According to news reporting originating in Bhubaneswar, India, by NewsRx journalists, research stated, "Toxin-antitoxin (TA) modules are two component 'addictive' genetic elements found on either plasmid or bacterial chromosome, sometimes on both. TA systems perform a wide range of functions like biofilm formation, persistence, programmed cell death, phage abortive infection etc."

The news reporters obtained a quote from the research from KIIT University, "Salmonella has been reported to contain several such TA systems. However, the hemolysin expression modulating protein (Hha) and its adjacent uncharacterized hypothetical protein TomB (previously known as YbaJ), have not been listed as a TA module in Salmonella. In this study we established that Hha and TomB form a bonafide TA system where Hha serves as a toxin while TomB functions as an antitoxin. Interestingly, the toxicity of Hha was conditional causing cell death under acid stress. The antitoxin attenuated the toxicity of Hha by forming a TA complex through stable interactions. The Hha-TomB TA system was found to increase persistence and inhibit programmed cell death under antibiotic stress where a phenotypically diverse population expressing differential level of TA components was observed."

According to the news reporters, the research concluded: "Therefore we propose that Hha and TomB prevent cells from committing suicide thereby promoting persister cell formation."

For more information on this research see: The Hha-TomB Toxin-Antitoxin System Shows Conditional Toxicity and Promotes Persister Cell Formation by Inhibiting Apoptosis-

Our news correspondents report that additional information may be obtained by contacting M. Suar, KIIT Univ, Sch Biotechnol, Bhubaneswar 751024, Odisha, India. Additional authors for this research include P. Paul, C. Padhi, S. Ray, D. Ryan, S. Dash and M. Suar.

Keywords for this news article include: Bhubaneswar, India, Asia, Gram-Negative Bacteria, Immunoglobulins, Serum Globulins, Blood Proteins, Immunoproteins, Immune Sera, Salmonella, Immunology, Antitoxins, Antibodies, Apoptosis, Genetics, KIIT University.

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**Heart Disorders and Diseases - Heart Failure**

**Researchers from Kameda Medical Center Detail Findings in Heart Failure (Renal function on admission modifies prognostic impact of diuretics in acute heart failure: a propensity score matched and interaction analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Failure is the subject of a report. According to news reporting originating in Chiba, Japan, by NewsRx journalists, research stated, "Although intravenous diuretics have been mainstay drugs in patients with acute heart failure (AHF), they have been suggested to have some deleterious effects on prognosis. We postulated that renal function may modify their deleterious effects in AHF patients."

The news reporters obtained a quote from the research from Kameda Medical Center, "The study population consisted of 1094 AHF patients from three hospitals. Renal dysfunction (RD) was defined as estimated glomerular filtration rate (eGFR) < 60 mL/min/1.73 m(2) on admission, and the cohort was divided into a high-dose furosemide (ae <yen >100 mg/48 h) and low-dose furosemide group according to the amount of intravenous furosemide used within 48 h from admission. In the whole cohort, in-hospital mortality rate was higher in the high-dose furosemide group than the low-dose furosemide group (12.5 vs. 6.6 %, respectively, P = 0.001). However, this difference in the in-hospital mortality rates was significant only in the RD subgroup (15.6 vs. 7.0 %, respectively, P< 0.001), and not in the non-RD subgroup (2.5 vs. 5.9 %, respectively, P = 0.384). Propensity score-matched analysis was performed to evaluate the impact of high-dose furosemide on prognosis. After propensity score matching, high-dose furosemide was not associated with in-hospital mortality (OR 1.25, 95 % CI 0.73-2.16, P = 0.408). However, there was a qualitative difference in OR for in-hospital mortality between AHF with RD (OR 1.77, 95 % CI 0.96-3.28, P = 0.068) and without RD (OR 0.23, 95 % CI 0.05-1.10, P = 0.064), and there was a significant interaction between eGFR and prognostic impact of high-dose furosemide (P for OR interaction = 0.013). An inverse relationship was observed between eGFR and OR for in-hospital death in the group treated with high-dose furosemide (decreasing OR with better eGFR). The deleterious effect of diuretics was
significantly modified with renal function in AHF."

According to the news reporters, the research concluded: "This association may be one reason for poorer prognosis of AHF patients complicated with renal impairment."

For more information on this research see: Renal function on admission modifies prognostic impact of diuretics in acute heart failure: a propensity score matched and interaction analysis. Heart and Vessels, 2016;31(12):1980-1987. Heart and Vessels can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

Our news correspondents report that additional information may be obtained by contacting Y. Matsue, Kameda Med Center, Dept. of Cardiol, Chiba, Japan. Additional authors for this research include A. Shiraishi, N. Kagiyama, K. Yoshida, T. Kume, H. Okura, M. Suzuki, A. Matsumura, K. Yoshida and Y. Hashimoto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00380-016-0817-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chiba, Japan, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiovascular Agents, Drugs and Therapies, Furosemide Therapy, Organic Chemicals, Sulfur Compounds, Gastroenterology, Pharmaceuticals, Kidney Function, Sulfanilamides, Loop Diuretics, Renal Function, Heart Failure, Heart Disease, Nephrology, Cardiology, Hospital, Sulfones, Kameda Medical Center.

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Oncology - Liver Cancer

Researchers from Kanazawa Medical University Report Details of New Studies and Findings in the Area of Liver Cancer (Association between transforming growth factor-beta 1-509 C > T variants and hepatocellular carcinoma susceptibility: a ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Liver Cancer are presented in a new report. According to news reporting out of Ishikawa, Japan, by NewsRx editors, research stated, "The transcriptional activity of transforming growth factor-beta (TGF-beta) is increased in subjects with hepatocellular carcinoma (HCC). Recent studies have indicated that the -509C genotype in hepatitis B virus (HBV)-infected subjects and the -509T genotype in hepatitis C virus (HCV)-infected subjects can increase the transcriptional activity of the TGF-beta 1 gene."

Our news journalists obtained a quote from the research from Kanazawa Medical University, "We conducted a meta-analysis to clarify whether these two hepatitis viruses affect the association between TGF-beta 1 C-509T variants and HCC susceptibility. Using data derived from 8 case-control studies available in the PubMed database (5 with Asian and 3 with Caucasian populations), including 1,427 cases and 3,735 controls [1,610 patients with chronic liver disease and 2,125 healthy controls], we calculated pooled odds ratios with corresponding 95% confidence intervals. We used dominant (TT + CT vs. CC), recessive (TT vs. CC + CT), and co-dominant (TT vs. CC and CT vs. CC) genetic models. An overall analysis showed no association between the TGF-beta 1 C-509T variants and HCC susceptibility for all models. In
contrast, a subgroup analysis, based on the infecting hepatitis viruses, provided the following results. Among the cases and controls with chronic liver disease, the TGF-beta 1 C-509T variants were significantly associated with decreased HCC susceptibility for two models with HBV-infected subjects, whereas the variants were significantly associated with increased HCC susceptibility for one model with HCV-infected subjects. Among the cases and healthy controls, there was a significant association between the TGF-beta 1 C-509T variants and increased HCC susceptibility for two models involving HCV-infected subjects. Among the cases and the entire control group, the same results were obtained for all genetic models with HCV-infected subjects.

According to the news editors, the research concluded: "Although further data accumulation is required, our results suggest that these two hepatitis viruses affect the association between TGF-beta 1 C-509T variants and HCC susceptibility in opposite manners."


Our news journalists report that additional information may be obtained by contacting N. Toshikuni, Kanazawa Medical University, Dept. of Hepatol, Uchinada, Ishikawa, Japan. Additional authors for this research include Y. Matsue, T. Minato, N. Hayashi and M. Tsutsumi.

Keywords for this news article include: Ishikawa, Japan, Asia, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Transforming Growth Factor beta, TGF-beta Superfamily Proteins, Liver Diseases and Conditions, Transforming Growth Factors, Hepadnaviridae Infections, Flaviviridae Infections, Chronic Liver Disease, Hepatitis B Virus, Orthohepadnavirus, Hepatitis C Virus, Gastroenterology, Liver Cancer, DNA Viruses, RNA Viruses, Hepatology, Carcinomas, Cytokines, Genetics, Oncology, Virology, Viral, HCV, Kanazawa Medical University.

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Researchers from Kanazawa University Report Details of New Studies and Findings in the Area of Thrombocytopenia [Hypomegakaryocytic thrombocytopenia (HMT): an immune-mediated bone marrow failure characterized by an increased number of ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematologic Diseases and Conditions - Thrombocytopenia is the subject of a report. According to news reporting from Ishikawa, Japan, by NewsRx journalists, research stated, "Patients with mild hypomegakaryocytic thrombocytopenia (HMT) that does not meet the diagnostic criteria for a definite disease entity may potentially progress to aplastic anaemia (AA) that is refractory to therapy. To clarify the clinical picture of HMT, we prospectively followed 25 HMT patients with white blood cell count >30x10(9)/l, haemoglobin level >100g/l and platelet count of <1000x10(9)/l in the absence of morphological and karyotypic abnormalities in the bone marrow."
The news correspondents obtained a quote from the research from Kanazawa University. "Glycosylphosphatidylinositol-anchored protein-deficient blood cells [paroxysmal nocturnal haemoglobinuria (PNH)-type cells] were detected in 7 of the 25 (28%) patients and elevated plasma thrombopoietin (TPO, also termed THPO) levels (>320pg/ml) were observed in 11 (44%) patients. Five (four PNH+ and one PNH-) of six TPOhigh patients who were treated with ciclosporin (CsA) showed improvement. Among the 21 patients who were followed without treatment, thrombocytopenia progressed in four of ten TPOlow patients and four of 11 TPOhigh patients. The 3-year failure-free survival rate of the CsA-treated TPOhigh patients (100%) was significantly higher than that of the untreated TPOhigh patients (20%)."

According to the news reporters, the research concluded: "These results suggest that a significant population of HMT patients has an immune pathophysiology that is similar to AA and may be improved by early therapeutic intervention with CsA."


Our news journalists report that additional information may be obtained by contacting S. Nakao, Kanazawa University, Cellular Transplantat Biol, Grad Sch Med Sci, Kanazawa, Ishikawa, Japan. Additional authors for this research include K. Ishiyama, H. Yamazaki, Y. Zaimoku and S. Nakao.

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Keywords for this news article include: Ishikawa, Japan, Asia, Intercellular Signaling Peptides and Proteins, Hematologic Diseases and Conditions, Colony Stimulating Factors, Blood Platelet Disorders, Bone Marrow Failure, Biological Factors, Thrombocytopenia, Thrombopoietin, Glycoproteins, Immune System, Bone Research, Hematology, Cytokines, Oncology, Plasma, Kanazawa University.

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Cardiovascular Diseases and Conditions -…

Researchers from Kansai Medical University Report Findings in Hypertension (A Practical Training Program for Peripheral Radial Artery Catheterization in Adult Patients A Prospective, Randomized Controlled Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Hypertension is the subject of a report. According to news reporting originating in Osaka, Japan, by NewsRx journalists, research stated, "The main cause of unsuccessful peripheral radial artery catheterization using traditional palpation is imprecisely locating the arterial center. The authors evaluated factors causing disparities between the arterial centers determined by palpation versus ultrasound."
The news reporters obtained a quote from the research from Kansai Medical University. "The authors applied them to create and test a novel catheterization training program. The arterial central axis was determined by ultrasound and palpation in 350 adults. Potential independent predictors of disparity included sex, body mass index, pulse pressure, transverse arterial diameter, subcutaneous arterial depth, chronic hypertension, and experience as an anesthesiologist (less than 3 vs. greater than or equal to 3 yr). Using the results, the authors developed a radial artery catheterization training program. It was tested by enrolling 20 first-year interns, randomized to a training or control group. The time to successful insertion was the primary outcome measure. The success rate and time required for catheterization by palpation were evaluated in 100 adult patients per group. Independent predictors of central axis disparity were pulse pressure, subcutaneous radial artery depth, years of experience, and chronic hypertension. Training improved the catheterization time (training group 56 +/- 2 s vs. control group 109 +/- 2 s; difference -53 +/- 3 s; 95% CI, -70 to -36 s; P< 0.0001) and total success rate (training group 83 of 100 attempts, 83%; 95% CI, 75 to 90 vs. control group 57 of 100, 57%; 95% CI, 47 to 66; odds ratio, 3.7; 95% CI, 2.7 to 5.1). Misjudging the central axis position of the radial artery is common with a weak pulse and/or deep artery."

According to the news reporters, the research concluded: "The authors' program, which focused on both these issues, shortened the time for palpation-guided catheterization and improved success."

For more information on this research see: A Practical Training Program for Peripheral Radial Artery Catheterization in Adult Patients A Prospective, Randomized Controlled Trial. Anesthesiology, 2016;125(4):716-723. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting Y. Nakayama, Kansai Medical University, Dept. of Anesthesiol & Intens Care, Osaka, Japan. Additional authors for this research include Y. Inagaki, Y. Nakajima, D.I. Sessler, N. Mukai, S. Ogawa, T. Mizobe and T. Sawa.

Keywords for this news article include: Osaka, Japan, Asia, Cardiovascular Diseases and Conditions, Clinical Trials and Studies, Clinical Research, Catheterization, Radial Artery, Hypertension, Angiology, Kansai Medical University.

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Liver Diseases and Conditions - Hepatitis C Virus

Researchers from Kaohsiung Medical University Hospital Report Recent Findings in Hepatitis C Virus (Long-term efficacy of Peg-Interferon/Ribavirin with and without Lamivudine therapy for HBeAg-positive hepatitis B and C dual infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis C Virus are presented in a new report. According to news reporting originating in Kaohsiung, Taiwan, by NewsRx journalists, research stated, "The optimal therapeutic strategy for hepatitis B virus (HBV) e antigen (HBeAg)-seropositive and hepatitis C virus (HCV) dually infected patients
remains unknown. We aimed to elucidate the effectiveness of peginterferon (Peg-IFN)/ribavirin (RBV) with and without lamivudine (LAM) combination therapy in the clinical settings."

The news reporters obtained a quote from the research from Kaohsiung Medical University Hospital, "Nine patients seropositive for HBV surface antigen, HBeAg, antibodies to HCV and HCV RNA for >6 months were treated with Peg-IFN/RBV with (n=5) and without (n=4) a 12-month LAM add-on therapy at treatment week 12. The treatment duration of Peg-IFN/RBV was 24 weeks (HCV genotype 1 [HCV-1] with rapid virological response [RVR] or HCV-2) or 48 weeks (HCV-1 without RVR). Primary endpoints included HBeAg loss and HCV-sustained virological response (SVR). All of the nine patients had undetectable HCV RNA at treatment weeks 4 and 12 and end-of-Peg-IFN/RBV therapy. However, SVR was achieved in 100% of patients treated with triple therapy, compared with only 50% in those with Peg-IFN/RBV therapy (p=0.167). The 3-year durability of HCV SVR was 100%. HBeAg loss and HBV DNA <2000 IU/mL at 6 months post-LAM treatment were found in 100% and 40% of patients treated with triple therapy, compared with none of the four patients with Peg-IFN/RBV therapy achieved any HBV responses. Of the five patients with triple therapy, four had persistent HBeAg loss during 3-year follow-up period; one developed HBeAg seroreversion 15 months after treatment. For HBeAg-positive HBV/HCV dually infected patients, Peg-IFN/RBV was effective for HCV eradication."

According to the news reporters, the research concluded: "Add-on LAM might promote HBeAg loss in the clinical setting."


Our news correspondents report that additional information may be obtained by contacting M.L. Yeh, Hepatobiliary Division, Dept. of Internal Medicine and Hepatitis Center, Kaohsiung Medical University Hospital, Kaohsiung, Taiwan. Additional authors for this research include M.Y. Hsieh, C.I. Huang, C.F. Huang, M.H. Hsieh, J.F. Huang, C.Y. Dai, W.L. Chuang and M.L Yu.

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Keywords for this news article include: HCV, Asia, Antiretrovirals, Antivirals, Taiwan, Genetics, Virology, Kaohsiung, Cytokines, Ribavirin, Viral RNA, Hepatology, Lamivudine, DNA Viruses, Interferons, RNA Viruses, Gastroenterology, Hepatitis B Virus, Hepatitis C Virus, Influenza Therapy, Orthohepadnavirus, Purine Nucleosides, Respiratory Agents.

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Ethanol

Researchers from Karnatak University Report Recent Findings in Ethanol (Evaluation of wound healing property of Caesalpinia mimosoides Lam)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Ethanol have been presented. According to news reporting originating in Karnataka, India, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Caesalpinia mimosoides Lam. is one of the important traditional folk medicinal plants in the treatment of skin diseases and wounds used by healers of Uttara Kannada district of Karnataka state (India). However scientific validation of documented traditional knowledge related to medicinal plants is an important path in current scenario to fulfill the increasing demand of herbal medicine."

Funders for this research include UGC, UPE, RFSMS.

The news reporters obtained a quote from the research from Karnatak University, "Aim of the study: The study was carried out to evaluate the claimed uses of Caesalpinia mimosoides using antimicrobial, wound healing and antioxidant activities followed by detection of possible active bio-constituents. Extracts prepared by hot percolation method were subjected to preliminary phytochemical analysis followed by antimicrobial activity using MIC assay. In vivo wound healing activity was evaluated by circular excision and linear incision wound models. The extract with significant antimicrobial and wound healing activity was investigated for antioxidant capacity using DPPH, nitric oxide, antilipid peroxidation and total antioxidant activity methods. Total phenolic and flavonoid contents were also determined by Folin-Ciocalteu, Swain and Hillis methods. Possible bio-active constituents were identified by GC-MS technique. RP-UFLC-DAD analysis was carried out to quantify ethyl gallate and gallic acid in the plant extract. Preliminary phytochemical analysis showed positive results for ethanol and aqueous extracts for all the chemical constituents. The ethanol extract proved potent antimicrobial activity against both bacterial and fungal skin pathogens compared to other extracts. The efficacy of topical application of potent ethanol extract and traditionally used aqueous extracts was evidenced by the complete re-epithelization of the epidermal layer with increased percentage of wound contraction in a shorter period. However, aqueous extract failed to perform a consistent effect in the histopathological assessment. Ethanol extract showed effective scavenging activity against DPPH and nitric oxide free radicals with an expressive amount of phenolic and moderate concentration of flavonoid contents. Ethyl gallate and gallic acid were found to be the probable bio-active compounds evidenced by GCMS and RP-UFLC-DAD analysis."

According to the news reporters, the research concluded: "The study revealed the significant antimicrobial, wound healing and antioxidant activities of tender parts of C. mimosoides and proved the traditional folklore knowledge."


Our news correspondents report that additional information may be obtained by contacting P.B. Bhat, Karnatak Univ, PG Dept. of Studies Bot, Dharwad 580003, Karnataka, India. Additional authors for this research include S. Hegde, V. Upadhya, G.R. Hegde, P.V. Habbu and G.S. Mulgund.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.10.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Karnataka, India, Asia, Protective Agents, Ethanolamines, Nitric Oxide, Antioxidants, Chemicals, Alcohols, Karnatak University.
Researchers from Karolinska Institute Detail New Studies and Findings in the Area of Human Genetics (One CNV Discordance in NRXN1 Observed Upon Genome-wide Screening in 38 Pairs of Adult Healthy Monozygotic Twins)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Genetics - Human Genetics. According to news reporting originating from Stockholm, Sweden, by NewsRx correspondents, research stated, "Monozygotic (MZ) twins stem from the same single fertilized egg and therefore share all their inherited genetic variation. This is one of the unequivocal facts on which genetic epidemiology and twin studies are based."

Our news editors obtained a quote from the research from Karolinska Institute, "To what extent this also implies that MZ twins share genotypes in adult tissues is not precisely established, but a common pragmatic assumption is that MZ twins are 100% genetically identical also in adult tissues. During the past decade, this view has been challenged by several reports, with observations of differences in post-zygotic copy number variations (CNVs) between members of the same MZ pair. In this study, we performed a systematic search for differences of CNVs within 38 adult MZ pairs who had been misclassified as dizygotic (DZ) twins by questionnaire-based assessment. Initial scoring by PennCNV suggested a total of 967 CNV discordances. The within-pair correlation in number of CNVs detected was strongly dependent on confidence score filtering and reached a plateau of r=0.8 when restricting to CNVs detected with confidence score larger than 50. The top-ranked discordances were subsequently selected for validation by quantitative polymerase chain reaction (qPCR), from which one single ~120kb deletion in NRXN1 on chromosome 2 (bp 51017111-51136802) was validated."

According to the news editors, the research concluded: "Despite involving an exon, no sign of cognitive/mental consequences was apparent in the affected twin pair, potentially reflecting limited or lack of expression of the transcripts containing this exon in nerve/brain."

For more information on this research see: One CNV Discordance in NRXN1 Observed Upon Genome-wide Screening in 38 Pairs of Adult Healthy Monozygotic Twins. Twin Research and Human Genetics, 2016;19(2):97-103. (Cambridge University Press - www.cambridge.org; Twin Research and Human Genetics - journals.cambridge.org/action/displayJournal?jid=THG)

The news editors report that additional information may be obtained by contacting P.K. Magnusson, Dept. of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden. Additional authors for this research include D. Lee, X. Chen, J. Szatkiewicz, S. Pramana, S. Teo, P.F. Sullivan, L. Feuk and Y. Pawitan.

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Keywords for this news article include: Sweden, Europe, Stockholm, Epidemiology, Human Genetics.

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Researchers from Karolinska Institute Detail New Studies and Findings in the Area of Toxicology and Pharmacology (Surface passivity largely governs the bioaccessibility of nickel-based powder particles at human exposure conditions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Toxicology and Pharmacology are presented in a new report. According to news reporting from Stockholm, Sweden, by NewsRx journalists, research stated, "The European chemical framework REACH requires that hazards and risks posed by chemicals, including alloys and metals, are identified and proven safe for humans and the environment. Therefore, differences in bioaccessibility in terms of released metals in synthetic biological fluids (different pH (1.5-7.4) and composition) that are relevant for different human exposure routes (inhalation, ingestion, and dermal contact) have been assessed for powder particles of an alloy containing high levels of nickel (Inconel 718, 57 wt% nickel)."

The news correspondents obtained a quote from the research from Karolinska Institute, "This powder is compared with the bioaccessibility of two nickel-containing stainless steel powders (AISI 316L, 10-12% nickel) and with powders representing their main pure alloy constituents: two nickel metal powders (100% nickel), two iron metal powders and two chromium metal powders. Xray photoelectron spectroscopy, microscopy, light scattering, and nitrogen absorption were employed for the particle and surface oxide characterization. Atomic absorption spectroscopy was used to quantify released amounts of metals in solution. Cytotoxicity (Alamar blue assay) and DNA damage (comet assay) of the Inconel powder were assessed following exposure of the human lung cell line A549, as well as its ability to generate reactive oxygen species (DCFH-DA assay). Despite its high nickel content, the Inconel alloy powder did not release any significant amounts of metals and did not induce any toxic response. It is concluded, that this is related to the high surface passivity of the Inconel powder governed by its chromium-rich surface oxide."

According to the news reporters, the research concluded: "Read-across from the pure metal constituents is hence not recommended either for this or any other passive alloy."

For more information on this research see: Surface passivity largely governs the bioaccessibility of nickel-based powder particles at human exposure conditions. Regulatory Toxicology and Pharmacology, 2016;81():162-170. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting Y.S. Hedberg, Karolinska Inst, Inst Environm Med, Unit Work Environm Toxicol, SE-17177 Stockholm, Sweden. Additional authors for this research include G. Herting, S. Latvala, K. Elihn, H.L. Karlsson and I.O. Wallinder.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.08.013. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from Karolinska Institute Report on Findings in Inflammation Mediators (Dysfunctions in the migratory phenotype and properties of circulating immature transitional B cells during HIV-1 infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biological Factors - Inflammation Mediators have been published. According to news reporting originating from Stockholm, Sweden, by NewsRx correspondents, research stated, "The frequency of immature transitional B cells is increased in blood of HIV-1-infected individuals. We investigated whether HIV-1 infection affects expression and function of chemokine receptors important for egress of immature transitional B cells from bone marrow and migration to lymphoid organs."

Our news editors obtained a quote from the research from Karolinska Institute, "This is a cross-sectional study analysing the migratory phenotype and function of immature transitional B cells in HIV-1-infected individuals, in relation to anti-retroviral treatment and age. Frequency of blood immature transitional B cells and their phenotypic characteristics, including chemokine receptors and a maturation marker, were determined by immunostainings. Migratory capacities were studied in a migration assay. The increased frequency of immature transitional B cells in untreated HIV-1 infection was normalized in patients receiving antiretroviral treatment; in our cohorts, age did not have an impact on the frequency of circulating immature transitional B cells. Immature transitional B cells from nontreated patients expressed low levels of CD21 molecule. We found an elevated frequency of CXCR3 and CXCR4 expressing immature transitional B cells in treated and nontreated patients. CXCR4 receptor was unresponsive to CXCL12 ligand in in-vitro migration and internalization assays. In addition, CXCR5 expression was downregulated on immature transitional B cells from infected patients, and these cells migrated poorly in response to CXCR5 ligand. Circulating immature transitional B cells from HIV-1-infected patients are not fully mature, probably due to premature egress from bone marrow; these cells showed a phenotype which could impair entry into secondary lymphoid organs."

According to the news editors, the research concluded: "Changes in migratory capacity of immature transitional B cells may affect B-cell maturation during HIV-1 infection."

For more information on this research see: Dysfunctions in the migratory phenotype and properties of circulating immature transitional B cells during HIV-1 infection. Aids, 2016;30(14):2169-2177. Aids can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx)

The news editors report that additional information may be obtained by contacting F. Chiodi, Karolinska Inst, Dept. of Microbiol Tumor & Cell Biol, S-17177 Stockholm, Sweden. Additional authors for this research include V. Fievez, S. Nozza, L. Lopalco and F. Chiodi.

Keywords for this news article include: Stockholm, Sweden, Europe, Viral Sexually
Researchers from Karolinska University Hospital Detail Findings in Dysphagia (Relief of dysphagia during neoadjuvant treatment for cancer of the esophagus or gastroesophageal junction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Dysphagia have been published. According to news originating from Stockholm, Sweden, by NewsRx correspondents, research stated, "Dysphagia is the main symptom of cancer of the esophagus and gastroesophageal junction and causing nutritional problems and weight loss, often counteracted by insertion of self-expandable metal stents or nutrition via an enteral route. Clinical observations indicate that neoadjuvant therapy may effectively and promptly alleviate dysphagia, making such nutrition supportive interventions redundant before surgical resection."

Our news journalists obtained a quote from the research from Karolinska University Hospital, "The objective of the current study was to carefully study the effects of induction neoadjuvant therapy on dysphagia and its subsequent course and thereby investigate the actual need for alimentary gateways for nutritional support. Thirty-five consecutive patients scheduled for neoadjuvant therapy were recruited and assessed regarding dysphagia and appetite at baseline, after the first cycle of preoperative treatment with either chemotherapy alone or with chemoradiotherapy and before surgery. Platinum-based therapy in combination with 5-fluorouracil was administered intravenously days 1-5 every 3 weeks and consisted of three treatments. Patients receiving combined chemoradiotherapy started radiotherapy on day one of second chemotherapy cycle. They received fractions of 2 Gy/day each up to a total dose of 40 Gy. Watson and Ogilvie dysphagia scores were used to assess dysphagia, while appetite was assessed by the Edmonton Assessment System Visual analogue scale-appetite questionnaire. Patients were evaluated at regular outpatient clinic visits or by telephone. The histological tumor response in the surgical specimen was assessed using the Chirieac scale. Ten patients scheduled for neoadjuvant chemotherapy and 25 patients scheduled for chemoradiotherapy were included in the analysis. There was a significant improvement in dysphagia in both treatment groups, according to both scales, already from baseline to the completion of the first chemotherapy cycle which remained to the end of the neoadjuvant treatment (P < 0.001). Appetite also improved after the first chemotherapy cycle (P = 0.03). Body weight did not change during any type of neoadjuvant therapy. We were unable to demonstrate any association between relief of dysphagia and the degree of histological response to neoadjuvant therapy in the surgical specimen."

According to the news editors, the research concluded: "The present study shows that a platinum - 5FU-based neoadjuvant chemotherapy, with or without concomitant radiotherapy, effectively and promptly relieves dysphagia in patients presenting with cancers of the esophagus or gastroesophageal junction already after the first cycle."

For more information on this research see: Relief of dysphagia during neoadjuvant...
Researchers from Kashan University of Medical Sciences Report Recent Findings in Type 2 Diabetes (The effects of coenzyme Q10 administration on glucose homeostasis parameters, lipid profiles, biomarkers of inflammation and oxidative stress in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are presented in a new report. According to news reporting from Kashan, Iran, by NewsRx journalists, research stated, "Limited data are available indicating the effects of coenzyme Q10 (CoQ10) supplementation on metabolic status of patients with metabolic syndrome (MetS). The present study was conducted to determine the effects of CoQ10 administration on glucose homeostasis parameters, lipid profiles, biomarkers of inflammation and oxidative stress among patients with MetS."

The news correspondents obtained a quote from the research from the Kashan University of Medical Sciences, "This randomized, double-blind, placebo-controlled trial was performed among 60 overweight or obese and type 2 diabetes mellitus patients with coronary heart disease aged 40-85 years old. Participants were randomly allocated into two groups. Group A (n = 30) received 100 mg CoQ10 supplements and group B (n = 30) received placebo for 8 weeks. Fasting blood samples were taken at the beginning of the study and after 8-week intervention to quantify glucose homeostasis parameters, lipid profiles, biomarkers of inflammation and oxidative stress. Compared with the placebo, CoQ10 supplementation resulted in a significant reduction in serum insulin levels (-2.1 +/- A 7.1 vs. +4.1 +/- A 7.8 A mu IU/mL, P = 0.002) and homeostasis model of assessment-insulin resistance (-0.7 +/- A 2.1 vs. +1.0 +/- A 2.0, P = 0.002) and homeostatic model assessment-beta cell function (-5.9 +/- A 22.2 vs. +15.9 +/- A 34.0, P = 0.005). In addition, patients who received CoQ10 supplements had a significant increase in plasma total antioxidant capacity (TAC) concentrations (+26.0 +/- A 105.0 vs. -162.2 +/- A 361.8 mmol/L, P = 0.008) compared with the placebo group. However, after adjustment for the baseline levels, age and baseline BMI, the effect on TAC levels (P = 0.08) disappeared. Additionally, compared with the placebo group, a significant positive trends in plasma glutathione (P = 0.06) and a significant reduction in malondialdehyde (P = 0.08) were
seen among patients who received CoQ10 supplement. We did not observe any significant changes in fasting plasma glucose, lipid concentrations and inflammatory markers."

According to the news reporters, the research concluded: "Overall, daily intake of 100 mg CoQ10 supplements among patients with MetS for 8 weeks had beneficial effects on serum insulin levels, HOMA-IR, HOMA-B and plasma TAC concentrations. www.irct.ir http://www.irct.ir TargetType='URL' IRCT201502245623N35."

For more information on this research see: The effects of coenzyme Q10 administration on glucose homeostasis parameters, lipid profiles, biomarkers of inflammation and oxidative stress in patients with metabolic syndrome. European Journal of Nutrition, 2016;55(8):2357-2364. European Journal of Nutrition can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; European Journal of Nutrition - www.springerlink.com/content/1436-6207/)

Our news journalists report that additional information may be obtained by contacting Z. Asahi, Kashan Univ Med Sci, Res Center Biochem & Nutr Metab Dis, Kashan, Iran. Additional authors for this research include Z. Rezavandi, S.D. Tehrani, A. Farrokhian and Z. Asemi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00394-015-1042-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kashan, Iran, Asia, Nutritional and Metabolic Diseases and Conditions, Enzymes and Coenzymes, Diagnostics and Screening, Non-Insulin Dependent Diabetes Mellitus, Obesity and Diabetes, Risk and Prevention, Metabolic Syndrome, Peptide Proteins, Peptide Hormones, Type 2 Diabetes, Inflammation, Hematology, Healthcare, Proinsulin, Plasma, Blood, Kashan University of Medical Sciences.

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Oncology - Lymphoma

Researchers from Kasturba Medical College Detail Findings in Lymphoma (Distribution of nodal lymphomas in a referral hospital of Mangalore city)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lymphoma. According to news reporting from Mangalore, India, by NewsRx journalists, research stated, "The distribution of different types of lymphoma varies across geographic regions. The present study was done to understand the occurrence of nodal lymphomas in a referral hospital of Mangalore city. Descriptive study."

The news correspondents obtained a quote from the research from Kasturba Medical College, "The present study was conducted on 95 lymph node biopsy specimens, received in a referral hospital of Mangalore city. All cases of nodal lymphoma diagnosed between January 2007 and June 2010 in a referral hospital of Mangalore were selected for the study. The patients age and clinical details were obtained. Immunophenotyping was done for all cases of NHL and selected cases of HL. IPI score for NHL was noted and correlated with the outcome. Chi square test was used. Out of the total 95 cases of nodal lymphoma 37 (39%) were HL while 58 (61%)
were NHL. Classical HL was diagnosed in 35 cases (37%) while 2 cases (2%) were diagnosed NLPHL. B cell lymphoma formed 72% of NHL. Follicular lymphoma accounted for 28% of all NHL. T cell lymphoma formed 28% of NHL. In conclusion the following points are significant about the distribution of lymphomas in a referral hospital of Mangalore city. The incidence of NSHL is higher while national data suggests MCHL as the most common subtype. The incidence of FL as well as T cell NHL is much higher when compared to national incidence."

According to the news reporters, the research concluded: "The epidemiological factors for this high frequency (either genetic or environmental) needs to be studied further."

For more information on this research see: Distribution of nodal lymphomas in a referral hospital of Mangalore city. Indian Journal of Cancer, 2015;52(4):557-61.

Our news journalists report that additional information may be obtained by contacting H. Zubair, Dept. of Pathology, Kasturba Medical College, Mangalore, India. Additional authors for this research include P.R. Muktha, S. Chakraborti and P.R Radha.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178420. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Genetics, Hospital, Oncology, Mangalore, Lymphomas, Hematology, Epidemiology, Diagnostics and Screening, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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Researchers from Kerman University of Medical Sciences Report on Findings in Central Nervous System Agents (Chemical Composition, Anticonvulsant Activity, and Toxicity of Essential Oil and Methanolic Extract of Elettaria cardamomum)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Central Nervous System Agents. According to news reporting from Kerman, Iran, by NewsRx journalists, research stated, "Elettaria cardamomum is an aromatic spice (cardamom) native to the humid Asian areas, which contains some compounds with a potential anticonvulsant activity. Various pharmacological properties such as anti-inflammatory, analgesic, antioxidant, and antimicrobial effects have been related to this plant."

The news correspondents obtained a quote from the research from the Kerman University of Medical Sciences, "This research was conducted to examine the probable protective impact of the essential oil and methanolic extract of E. cardamomum against chemically (pentylentetrazole)and electrically (maximal electroshock)-induced seizures in mice. In addition, neurotoxicity, acute lethality, and phytochemistry of the essential oil and methanolic extract were estimated. The TLC method showed the presence of kaempferol, rutin, and quercetin in the extract, and the concentration of quercetin in the extract was 0.5 μg/mL. The major compounds in the essential oil were 1.8-cineole (45.6%), alpha-terpinyl acetate (33.7%), sabinene (3.8%), 4-terpinen-4-ol (2.4%), and myrcene (2.2%), respectively. The extract and essential oil showed significant neurotoxicity in the rotarod test at the doses of 1.5 g/kg and
0.75mL/kg, respectively. No mortalities were observed up to the doses of 2 g/kg and 0.75mL/kg for the extract and essential oil. The essential oil was effective in both the pentylentetrazole and maximal electroshock models; however, the extract was only effective in the pentylentetrazole model. The study suggested that E. cardamomum methanolic extract had no significant lethality in mice. Both the essential oil and methanolic extract showed movement toxicity.

According to the news reporters, the research concluded: "Anticonvulsant effects of E. cardamomum were negligible against the seizures induced by pentylentetrazole and maximal electroshock."

For more information on this research see: Chemical Composition, Anticonvulsant Activity, and Toxicity of Essential Oil and Methanolic Extract of Elettaria cardamomum. *Planta Medica*, 2016;82(17):1482-1486. *Planta Medica* can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

Our news journalists report that additional information may be obtained by contacting A. Mandegary, Kerman Univ Med Sci, Inst Neuropharmacol, Neurosci Res Center, Kerman, Iran. Additional authors for this research include A. Mandegary, K. Esmaeilpour, H. Najafipour, F. Sharififar, M. Pakravanan and H. Ghazvini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0042-106971. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kerman, Iran, Asia, Nervous System Diseases and Conditions, Central Nervous System Agents, Neurologic Manifestations, Drugs and Therapies, Convulsant Therapy, Anticonvulsants, Seizures, Kerman University of Medical Sciences.

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**Oncology - Acute Lymphoblastic Leukemia**

**Researchers from King Abdul-Aziz University Detail Findings in Acute Lymphoblastic Leukemia (L-Asparaginase Isolated from Phaseolus vulgaris Seeds Exhibited Potent Anti-Acute Lymphoblastic Leukemia Effects In-Vitro and Low Immunogenic ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Acute Lymphoblastic Leukemia are presented in a new report. According to news reporting from Jeddah, Saudi Arabia, by NewsRx journalists, research stated, "Escherichia coli-derived L-asparaginases have been used in the treatment of acute lymphoblastic leukemia (ALL), however, clinical hypersensitivity reactions and silent inactivation due to antibodies against E. coli-asparaginase, lead to inactivation of these preparations in most cases. Therefore, this study was aimed to investigate the cytotoxicity and antitumor effects of a novel L-asparaginase enzyme, isolated from Phaseolus vulgaris seeds (P-Asp) on the ALL cell line (Jurkat)."

The news correspondents obtained a quote from the research from King Abdul-Aziz University. "The immunogenicity of the enzyme was also evaluated in-vivo and results were compared to commercially available enzymes of microbial sources. The data demonstrated that P-Asp has an enhanced anti-proliferative effect on ALL cells as detected by the WST-8 cell viability assay kit. Cells treated with P-Asp also exhibited a higher degree of early apoptosis
compared with asparaginase from Escherichia coli (L-Asp) or its pegylated form Pegasparagase (PEG-ASP) that induced higher rates of late apoptosis and necrosis as detected by an Annexin V/Propidium iodide binding assay. In-vivo experiments indicated that mice treated with P-Asp had less distinct allergenic responses than other bacterial enzyme preparations as indicated by lower serum concentrations of IgG, IgE, IgM and mMCP-1 compared with other treated groups."

According to the news reporters, the research concluded: "P-Asp can be considered as a promising candidate for use in the treatment of ALL."


Our news journalists report that additional information may be obtained by contacting S.A. Mohamed, King Abdulaziz Univ, Dept. of Biochem, Fac Sci, Jeddah 21589, Saudi Arabia. Additional authors for this research include M.F. Elshal, T.A. Kumosani, A.M. Aldahlawi, T.A. Basbrain, F.A. Alshehri and H. Choudhry.

Keywords for this news article include: Jeddah, Saudi Arabia, Asia, Acute Lymphoblastic Leukemia, Enzymes and Coenzymes, Amidohydrolases, Asparaginase, Hematology, Oncology, King Abdul-Aziz University.

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Drugs and Therapies - Antidepressants

Researchers from King's College Discuss Findings in Antidepressants [S-adenosyl methionine (SAMe) for depression in adults]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antidepressants is the subject of a report. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Depression is a recurrent illness with high rates of chronicity, treatment-resistance and significant economic impact. There is evidence in the literature that S-adenosyl methionine (SAMe), a naturally occurring compound in the human body, has antidepressant efficacy."

The news correspondents obtained a quote from the research from King's College, "This product may be an important addition to the armamentarium of antidepressant agents. To assess the effects of SAMe in comparison with placebo or antidepressants for the treatment of depression in adults. Search methods We searched the Cochrane Common Mental Disorders Group's Specialised Register (CCMDCTR Studies and Reference Register), MEDLINE, EMBASE, PsycINFO, international trial registers ClinicalTrials.gov and the World Health Organization trials portal (ICTRP). We checked reference lists, performed handsearching and contacted experts in the field. The CCMDCTR literature search was last updated on 5 February 2016. Selection criteria Randomised controlled trials comparing SAMe with placebo or antidepressants in adults with a diagnosis of major depression. Data collection and analysis Two authors independently performed extraction of data and assessment of risk of bias. We contacted trialists of included studies for additional information. This systematic review included eight trials comparing SAMe with either placebo, imipramine, desipramine or
escitalopram. We accepted trials that used SAMe as monotherapy or as add-on therapy to selective serotonin reuptake inhibitors (SSRIs), and we accepted both oral and parenteral administration. The review involved 934 adults, of both sexes, from inpatient and outpatient settings. The trials were at low risk of reporting bias. We judged the risk of selection, performance, detection and attrition bias as unclear or low, and one study was at high risk of attrition bias. There was no strong evidence of a difference in terms of change in depressive symptoms from baseline to end of treatment between SAMe and placebo as monotherapy (standardised mean difference (SMD) -0.54, 95% confidence interval (CI) -1.54 to 0.46; P = 0.29; 142 participants; 2 studies; very low quality evidence). There was also no strong evidence of a difference in terms of drop-out rates due to any reason between SAMe and placebo, when used as monotherapy (risk ratio (RR) 0.88, 95% CI 0.61 to 1.29; P = 0.52; 142 participants; 2 studies; low quality evidence). Low quality evidence showed that the change in depressive symptoms from baseline to end of treatment was similar between SAMe and imipramine, both as monotherapy (SMD -0.04, 95% CI -0.34 to 0.27; P = 0.82; 619 participants; 4 studies). There was also no strong evidence of a difference between SAMe and a tricyclic antidepressant in terms of drop-outs due to any reason (RR 0.61, 95% CI 0.28 to 1.31; P = 0.2; 78 participants; 3 studies; very low quality evidence). There was little evidence of a difference in terms of change in depressive symptoms from baseline to end of treatment between SAMe and escitalopram, both as monotherapy (MD 0.12, 95% CI -2.75 to 2.99; P = 0.93; 129 participants; 1 study; low quality evidence). There was no strong evidence of a difference between SAMe and escitalopram in terms of drop-outs due to any reason (RR 0.81, 95% CI 0.57 to 1.16; P = 0.26; 129 participants; 1 study; low quality evidence). There was low quality evidence that SAMe is superior to placebo as add-on to SSRIs in terms of change in depressive symptoms from baseline to end of treatment (MD -3.90, 95% CI -6.93 to -0.87; P = 0.01; 73 participants; 1 study). There was no strong evidence of a difference between SAMe and placebo as adjunctive therapy to an SSRI in terms of drop-outs due to any reason (RR 0.70, 95% CI 0.31 to 1.56; P = 0.38; 73 participants; 1 study; very low quality evidence). For all comparisons, secondary outcome measures of response and remission rates were consistent with these primary outcome measures. With regard to all extractable measures of the acceptability of SAMe, the quality of the evidence was low to very low. SAMe was not different from placebo and established antidepressants. The exception was that compared to imipramine, fewer participants experienced troublesome adverse effects when treated with parenteral SAMe. The specific adverse effects were not detailed in most of the included studies. There were two reports of mania/hypomania recorded for 441 participants in the SAMe arm. Authors’ conclusions Given the absence of high quality evidence and the inability to draw firm conclusions based on that evidence, the use of SAMe for the treatment of depression in adults should be investigated further. Future trials should be in the form of large randomised controlled clinical trials of high methodological quality, with particular attention given to randomisation, allocation concealment, blinding and the handling of missing data. Comparator antidepressants from all classes should be used."

According to the news reporters, the research concluded: "Adverse events should be detailed for each participant, bearing in mind that induction of mania is of particular interest."

For more information on this research see: S-adenosyl methionine (SAMe) for depression in adults. Cochrane Database of Systematic Reviews, 2016;(10):1451-1582. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting K. Macritchie, Kings Coll London, Inst Psychiat, Ms Caroline Loveland Center Affect Disorders, London SE5 8AF, United Kingdom. Additional authors for this research
Researchers from Kirby Institute Provide Details of New Studies and Findings in the Area of HIV/AIDS (Hospitalization for Anxiety and Mood Disorders in HIV-Infected and -Uninfected Gay and Bisexual Men)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting out of Sydney, Australia, by NewsRx editors, research stated, "Prevalence of anxiety and mood disorders (AMDs) in HIV-infected individuals has varied widely because of the variety of measurements used and differences in risk factor profiles between different populations. We aimed to examine the relationship between HIV status and hospitalization for AMDs in gay and bisexual men (GBM)."

Our news journalists obtained a quote from the research from Kirby Institute, "HIV-infected (n = 557) and HIV-uninfected (n = 1325) GBM recruited in Sydney, Australia were probabilistically linked to their hospital admissions and death notifications (2000-2012). Random-effects Poisson models were used to assess HIV risk factors for hospitalization. Cox regression methods were used to assess risk factors for mortality. We observed 300 hospitalizations for AMDs in 15.3% of HIV-infected and 181 in 5.4% of HIV-uninfected participants. Being infected with HIV was associated with a 2.5-fold increase in risk of hospitalization for AMDs in GBM. Other risk factors in the HIV-infected cohort included previous hospitalization for HIV-related dementia, a more recent HIV diagnosis, and a CD4 T-cell count above 350 cells per cubic millimeter. Being hospitalized for an AMD was associated with a 5.5-fold increased risk of mortality; this association did not differ by HIV status. An association between substance use and mortality was observed in individuals hospitalized for AMDs. There is a need to provide more effective strategies to identify and treat AMDs in HIV-infected GBM."

According to the news editors, the research concluded: "This research highlights the importance of further examination of the effects of substance use, neurocognitive decline, and AMDs on the health of HIV-infected individuals."


Our news journalists report that additional information may be obtained by
Researchers from Kitasato University Provide Details of New Studies and Findings in the Area of Cardiology (Contributions of Respiration and Heartbeat to the Pulmonary Blood Flow in the Fontan Circulation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiology have been presented. According to news reporting originating in Kanagawa, Japan, by NewsRx journalists, research stated, "In the Fontan circulation, driving forces with respiration, heartbeat, and lower limb muscle pump are relevant. However, the mechanics of these forces has not been proven, and their effects on the Fontan circulation remain unclear."

The news reporters obtained a quote from the research from Kitasato University, "We performed catheter examinations and measured pressure and flow velocity simultaneously in the bilateral pulmonary arteries of 12 Fontan patients 1 year after the operation. The pulmonary pressure and flow velocity data were decomposed into respiratory and heartbeat components by discrete Fourier analysis. We then calculated respiratory and cardiac wave intensity (WI) based on the respiratory and heartbeat components of pressure and flow velocity data. Respiratory WI formed 2 negative peaks, a backward expansion wave during the inspiratory phase, and then a backward compression wave during the expiratory phase. In 2 phrenic nerve palsy cases and 1 case of a patient on a respirator, respiratory WI showed disturbed patterns and a negative pattern, respectively. Cardiac WI showed 2 or 4 negative peaks, the time phase of which matched that of the atrial contractions. WI analysis elucidated that inspiration acts as a sucking driving force and increases the pulmonary blood flow in the Fontan circulation. Respiratory complications compromise efficiency in the Fontan circulation."

According to the news reporters, the research concluded: "It was also revealed that the pulmonary blood flow was mutually dammed up and sucked in by increases and decreases in atrial pressure."


Our news correspondents report that additional information may be obtained by contacting T. Honda, Kitasato University, Sch Med, Dept. of Cardiovasc Surg, Kanagawa, Japan. Additional authors for this research include K. Itatani, M. Takanashi, A. Kitagawa, H.
Researchers from Kobe University Detail Findings in Indomethacin Therapy (Preventative Effects of Sodium Alginate on Indomethacin-induced Small-intestinal Injury in Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Indomethacin Therapy have been published. According to news reporting originating from Hyogo, Japan, by NewsRx correspondents, research stated, "Recent advances in diagnostic technologies have revealed that nonsteroidal anti-inflammatory drugs (NSAIDs) can cause serious mucosal injury in the upper and lower gastrointestinal tract (including the small intestine). A drug to treat NSAID-induced small-intestinal injury (SII) is lacking."

Our news editors obtained a quote from the research from Kobe University, "Sodium alginate is a soluble dietary fiber extracted from brown seaweed and its solution has been used as a hemostatic agent to treat gastrointestinal bleeding due to gastric ulcers. Whether sodium alginate has therapeutic effects on NSAID-induced SII and its mechanism of action are not known. Here, we investigated if administration of two forms (high-molecular-weight (HMW) and low-molecular-weight (LMW)) of sodium alginate could ameliorate indomethacin-induced SII. Pretreatment with HMW sodium alginate or LMW sodium alginate before indomethacin administration improved ulceration and the resultant intestinal shortening was associated with reduced histological severity of mucosal injury and ameliorated mRNA expression of inflammation-related molecules in the small intestine. We found that mRNAs of secretory Muc2 and membrane-associated Muc1, Muc3 and Muc4 were expressed in the small intestine. mRNA expression of Muc1-4 was increased in indomethacin-induced SII, and these increases were prevented by sodium alginate."

According to the news editors, the research concluded: "Thus, administration of sodium alginate could be a therapeutic approach to prevent indomethacin-induced SII."

For more information on this research see: Preventative Effects of Sodium Alginate on Indomethacin-induced Small-intestinal Injury in Mice. *International Journal of Medical Sciences*, 2016;13(9):653-663. *International Journal of Medical Sciences* can be contacted at: Ivyspring Int Publ, PO Box 4546, Lake Haven, Nsw 2263, Australia.

The news editors report that additional information may be obtained by contacting Y. Rikitake, Kobe University, Grad Sch Med, Dept. of Biochem & Mol Biol, Div Signal Transduct, Kobe, Hyogo 6500017, Japan. Additional authors for this research include T. Tanahashi, S. Kawauchi, S. Mizuno and Y. Rikitake.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7150/ijms.16232. This DOI is a link to an online electronic document that is
Researchers from Korea Institute of Radiological and Medical Sciences Provide Details of New Studies and Findings in the Area of Molecular Imaging (Detection of metastatic tumors after g-irradiation using longitudinal molecular imaging and gene ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nanotechnology - Molecular Imaging are presented in a new report. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "A few recent reports have indicated that metastatic growth of several human cancer cells could be promoted by radiotherapy. C6-L cells expressing the firefly luciferase (fLuc) gene were implanted subcutaneously into the right thigh of BALB/c nu/nu mice."

The news correspondents obtained a quote from the research from the Korea Institute of Radiological and Medical Sciences, "C6-L xenograft mice were treated locally with 50-Gy g-irradiation (g-IR) in five 10-Gy fractions. Metastatic tumors were evaluated after g-IR by imaging techniques. Total RNA from non-irradiated primary tumor (NRPT), g-irradiated primary tumor (RPT), and three metastatic lung nodule was isolated and analyzed by microarray. Metastatic lung nodules were detected by BLI and PET/CT after 6-9 weeks of g-IR in 6 (17.1%) of the 35 mice. The images clearly demonstrated high [18F]FLT and [18F]FDG uptake into metastatic lung nodules. Whole mRNA expression patterns were analyzed by microarray to elucidate the changes among NRPT, RPT and metastatic lung nodules after g-IR. In particular, expression changes in the cancer stem cell markers were highly significant in RPT."

According to the news reporters, the research concluded: "We observed the metastatic tumors after g-IR in a tumor-bearing animal model using molecular imaging methods and analyzed the gene expression profile to elucidate genetic changes after g-IR."


Our news journalists report that additional information may be obtained by contacting S.J. Jang, Molecular Imaging Research Center, Korea Institute of Radiological and Medical Sciences (KIRAMS), Seoul 139-706, South Korea. Additional authors for this research include J.H. Kang, Y.J. Lee, K.I. Kim, T.S. Lee, J.G. Choe and S.M Lim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3384. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Genetics, South Korea, Nanotechnology, Molecular Imaging, Emerging Technologies.

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Researchers from Korea University Ansan Hospital Report Details of New Studies and Findings in the Area of Peptic Ulcers (Risk of Vascular Thrombotic Events Following Discontinuation of Antithrombotics After Peptic Ulcer Bleeding)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Peptic Ulcers. According to news reporting out of Gyeonggi Do, South Korea, by NewsRx editors, research stated, "To evaluate whether the risk of cardiovascular events increases when antithrombotics are discontinued after ulcer bleeding. Peptic ulcer bleeding associated with antithrombotics has increased due to the increase in the proportion of elderly population."

Our news journalists obtained a quote from the research from Korea University Ansan Hospital, "Little is known about the long-term effects of discontinuing antithrombotics after peptic ulcer bleeding. The aim of this study was to evaluate whether the risk of cardiovascular events increases when antithrombotics are discontinued after ulcer bleeding. We reviewed the medical records of patients with ulcer bleeding who were taking antiplatelet agents or anticoagulants at the time of ulcer bleeding. Cox-regression model was used to adjust for potential confounders, and analyzed association between discontinuation of antithrombotic drugs after ulcer bleeding and thrombotic events such as ischemic heart disease or stroke. Of the 544 patients with ulcer bleeding, 72 patients who were taking antithrombotics and followed up for >2 months were analyzed. Forty patients discontinued antithrombotics after ulcer bleeding (discontinuation group) and 32 patients continued antithrombotics with or without transient interruption (continuation group). Thrombotic events developed more often in discontinuation group than in the continuation group [7/32 (21.9%) vs. 1/40 (2.5%), p=0.019]. Hazard ratio for thrombotic event when antithrombotics were continuously discontinued was 10.9 (95% confidence interval, 1.3-89.7). There were no significant differences in recurrent bleeding events between the 2 groups. Discontinuation of antithrombotics after peptic ulcer bleeding increases the risk of cardiovascular events."

According to the news editors, the research concluded: "Therefore, caution should be taken when discontinuing antithrombotics after ulcer bleeding."


Our news journalists report that additional information may be obtained by contacting S.Y. Kim, Dept. of Internal Medicine, Division of Gastroenterology and Hepatology, Korea University College of Medicine, Korea University Ansan Hospital, Jeokgeum-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Seoul, South Korea. Additional authors for this research include J.J. Hyun, S.J. Suh, S.W. Jung, Y.K. Jung, J.S. Koo, H.J. Yim, J.J. Park, H.J. Chun and S.W Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MCG.0000000000000354. This DOI is a link to an online electronic
Researchers from Kurume University Report Recent Findings in Hepatomas (Inhibition of hypoxia-inducible factor via upregulation of von Hippel-Lindau protein induces "angiogenic switch off" in a hepatoma mouse model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Hepatomas. According to news reporting originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "Angiogenic switch off is one of the ideal therapeutic concepts in the treatment of cancer. However, the specific molecules which can induce 'angiogenic switch off' in tumor have not been identified yet."

Our news editors obtained a quote from the research from Kurume University, "In this study, we focused on von Hippel-Lindau protein (pVHL) in hepatocellular carcinoma (HCC) and investigated the effects of sulfoglycosyl-acylpropanediol (SQAP), a novel synthetic sulfoglycolipid, for HCC. We examined mutation ratio of VHL gene in HCC using 30 HCC samples and we treated the HCC-implanted mice with SQAP. Thirty clinical samples showed no VHL genetic mutation in HCC. SQAP significantly inhibited tumor growth by inhibiting angiogenesis in a hepatoma mouse model. SQAP induced tumor 'angiogenic switch off' by decreasing hypoxia-inducible factor (HIF)-1, 2 alpha protein via pVHL upregulation. pVHL upregulation decreased HIF alpha protein levels through different multiple mechanisms: (i) increasing pVHL-dependent HIF alpha protein degradation; (ii) decreasing HIF alpha synthesis with decrease of NF-kappa B expression; and (iii) decrease of tumor hypoxia by vascular normalization. We confirmed these antitumor effects of SQAP by the loss-of-function experiments."

According to the news editors, the research concluded: "We found that SQAP directly bound to and inhibited transglutaminase 2. This study provides evidence that upregulation of tumor pVHL is a promising target, which can induce 'angiogenic switch off' in HCC."

For more information on this research see: Inhibition of hypoxia-inducible factor via upregulation of von Hippel-Lindau protein induces "angiogenic switch off" in a hepatoma mouse model. *Molecular Therapy-Oncolytics*, 2015;2():1-11. *Molecular Therapy-Oncolytics* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

The news editors report that additional information may be obtained by contacting H. Iwamoto, Kurume University, Sch Med, Res Center Innovat Canc Therapy, Liver Canc Div, Kurume, Fukuoka, Japan. Additional authors for this research include T. Nakamura, H. Koga, J. Izaguirre-Carbonell, S. Kamisuki, F. Sugawara, M. Abe, K. Iwabata, Y. Ikezono, T. Sakaue, A.
Researchers from Kyoto University Describe Findings in CD Antigens (Regeneration of CD8 alpha beta T Cells from T-cell-Derived iPSC Imparts Potent Tumor Antigen-Specific Cytotoxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - CD Antigens have been published. According to news reporting originating in Kyoto, Japan, by NewsRx journalists, research stated, "Although adoptive transfer of cytotoxic T lymphocytes (CTL) offer a promising cancer therapeutic direction, the generation of antigen-specific CTL from patients has faced difficulty in efficient expansion in ex vivo culture. To resolve this issue, several groups have proposed that induced pluripotent stem cell technology be applied for the expansion of antigen-specific CTL, which retain expression of the same T-cell receptor as original CTL."

The news reporters obtained a quote from the research from Kyoto University, "However, in these previous studies, the regenerated CTL are mostly of the CD8 alpha alpha(+) innate type and have less antigen-specific cytotoxic activity than primary CTL. Here we report that, by stimulating purified iPSC-derived CD4/CD8 double-positive cells with anti-CD3 antibody, T cells expressing CD8 alpha beta were generated and exhibited improved antigen-specific cytotoxicity compared with CD8 alpha alpha(+) CTL. Failure of CD8 alpha beta T-cell production using the previous method was found to be due to killing of double-positive cells by the double-negative cells in the mixed cultures. We found that WT1 tumor antigen-specific CTL regenerated by this method prolonged the survival of mice bearing WT1-expressing leukemic cells."

According to the news reporters, the research concluded: "Implementation of our methods may offer a useful clinical tool."

For more information on this research see: Regeneration of CD8 alpha beta T Cells from T-cell-Derived iPSC Imparts Potent Tumor Antigen-Specific Cytotoxicity. Cancer Research, 2016;76(23):6839-6850. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

Our news correspondents report that additional information may be obtained by contacting H. Kawamoto, Kyoto University, Inst Frontier Life & Med Sci, Immunol Lab, Kyoto, Japan. Additional authors for this research include S. Nagano, H. Ichise, K. Kataoka, D. Yamada, S. Ogawa, H. Koseki, T. Kitawaki, N. Kadowaki, A. Takaori-Kondo, K. Masuda and H. Kawamoto.

Keywords for this news article include: Kyoto, Japan, Asia, T-Lymphocyte Antigens, Biological Factors, Differentiation, CD8 Antigens, CD Antigens, Immunology, Kyoto University.

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Researchers from Kyoto University Discuss Findings in Microtubule-Associated Proteins (Microtubule density and landing rate as parameters to analyze tau protein in the MT-kinesin "gliding" assay)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Proteins - Microtubule-Associated Proteins is now available. According to news reporting originating in Kyoto, Japan, by NewsRx journalists, research stated, "Microtubule-associated protein (MAP) tau is a well-established hallmark of a large group of age related neurodegenerative diseases collectively called tauopathies. Under pathological conditions the equilibrium of tau binding to the MTs is perturbed, either by misregulation in the expression levels of specific tau isoforms or by MAPT gene mutations."

The news reporters obtained a quote from the research from Kyoto University, "Preclinical detection of such misregulated tau proteins in cerebrospinal fluid (CSF) is desirable for differential diagnosis and effective prognosis of neurodegeneration. Conventional tau protein detection methods utilize tau isoform-specific antibodies. Such immuno-based protocols, including enzyme-linked immunosorbent assay (ELISA) and Western blots have appropriate sensitivity and specificity, but often show high variability and are time consuming. Here, we established a non-immuno tau protein detection method utilizing microtubule (MT)-kinesin 'gliding' assay. All the six tau isoforms expressed in the human brain (ON3R, 1N3R, 2N3R, ON4R, 1N4R and 2N4R) and five MAPT gene mutants (V248L, G272V, P301L, V337M and R406W) were studied. The landing rate, binding density and gliding velocity of MTs with respect to each tau type were determined and are proposed as tau detection parameters. The detection parameters depicted the type of tau bound to the MTs. Furthermore, MT landing rate and density were found to be superior to gliding velocity in differentiating tau isoforms and mutants. The 3R vs. 4R isoforms, their admixtures, wild vs. mutant 2N4R and specific mutants were differentiated."

According to the news reporters, the research concluded: "Our data show that MT-kinesin gliding assay provides a convenient, lab-on-a-chip (LOC) compatible and antibody-free protocol for tau protein analysis."

For more information on this research see: Microtubule density and landing rate as parameters to analyze tau protein in the MT-kinesin "gliding" assay. Sensors and Actuators B-Chemical, 2017;238():954-961. Sensors and Actuators B-Chemical can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland.

Our news correspondents report that additional information may be obtained by contacting R. Yokokawa, Kyoto University, Dept. of Micro Engn, Kyoto, Japan. Additional authors for this research include M.C. Tarhan, S.L. Karsten, H. Fujita, H. Shintaku, H. Koteraa and R. Yokokawa.

Keywords for this news article include: Kyoto, Japan, Asia, Microtubule-Associated Proteins, Acid Anhydride Hydrolases, Molecular Motor Proteins, Enzymes and Coenzymes, Cytoskeletal Proteins, tau Proteins, Genetics, Kinesin, Kyoto University.

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Researchers from Kyoto University Report New Studies and Findings in the Area of Type 2 Diabetes (Xanthoangelol and 4-Hydroxyderrcin Suppress Obesity-Induced Inflammatory Responses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been presented. According to news reporting originating in Kyoto, Japan, by NewsRx journalists, research stated, "Obesity-induced inflammation plays a pivotal role in the pathogenesis of insulin resistance and type 2 diabetes. Xanthoangelol (XA) and 4-hydroxyderrcin (4-HD), phytochemicals extracted from Angelica keiskei, have been reported to possess various biological properties."

The news reporters obtained a quote from the research from Kyoto University, "Whether XA and 4-HD alleviate obesity-induced inflammation and inflammation-induced adipocyte dysfunction was investigated. For the in vitro study, a co-culture system composed of macrophages and adipocytes and macrophages stimulated with conditioned medium derived from fully differentiated adipocytes was conducted. For the in vivo study, mice were fed a high-fat diet supplemented with XA for 14 weeks. XA and 4-HD suppressed inflammatory factors in co-culture system. Moreover, treatment of RAW macrophages with XA and 4-HD moderated the suppression of uncoupling protein 1 promoter activity and gene expression in C3H10T1/2 adipocytes, which was induced by conditioned medium derived from LPS-stimulated RAW macrophages. Also, XA and 4-HD inhibited c-Jun N-terminal kinase phosphorylation, nuclear factor-kappa B, and activator protein 1, the last two being transcription activators in activated macrophages. Furthermore, in mice fed the high-fat diet, XA reduced inflammatory factors within the white adipose tissue."

According to the news reporters, the research concluded: "These results suggest that XA and 4-HD might be promising phytochemicals to suppress obesity-induced inflammation and inflammation-induced adipocyte dysfunction."

For more information on this research see: Xanthoangelol and 4-Hydroxyderrcin Suppress Obesity-Induced Inflammatory Responses. *Obesity, 2016;24(11):2351-2360. Obesity can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)


Keywords for this news article include: Kyoto, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Mononuclear Phagocyte System, Nutrition Disorders, Risk and Prevention, Diet and Nutrition, Type 2 Diabetes, Overnutrition, Inflammation, Macrophages, Immunology, Phagocytes, Bariatrics, Genetics, Obesity, Kyoto University.

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Researchers from Kyungpook National University Provide Details of New Studies and Findings in the Area of Phosphates (Suppressive effects of methylthiouracil on polyphosphate-mediated vascular inflammatory responses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Phosphates are discussed in a new report. According to news reporting originating in Daegu, South Korea, by NewsRx journalists, research stated, "Drug repositioning is used to discover drug candidates to treat human diseases, through the application of drugs or compounds that are approved for the treatment of other diseases. This method can significantly reduce the time required and cost of discovering new drug candidates for human diseases."

Financial support for this research came from Ministry of Science, ICT and Future Planning.

The news reporters obtained a quote from the research from Kyungpook National University, "Previous studies have reported pro-inflammatory responses of endothelial cells to the release of polyphosphate (PolyP). In this study, we examined the anti-inflammatory responses and mechanisms of methylthiouracil (MTU), which is an antithyroid drug, and its effects on PolyP-induced septic activities in human umbilical vein endothelial cells (HUVECs) and mice. The survival rates, septic biomarker levels, behaviour of human neutrophils and vascular permeability were determined in PolyP-activated HUVECs and mice. MTU suppressed the PolyP-mediated vascular barrier permeability, up-regulation of inflammatory biomarkers, adhesion/migration of leucocytes, and activation and/or production of nuclear factor-kappa B, tumour necrosis factor-alpha and interleukin-6. Furthermore, MTU demonstrated protective effects on PolyP-mediated lethal death and the levels of the related septic biomarkers."

According to the news reporters, the research concluded: "Therefore, these results indicated the therapeutic potential of MTU on various systemic inflammatory diseases, such as sepsis or septic shock."


Our news correspondents report that additional information may be obtained by contacting M.C. Baek, Kyungpook National University, Sch Med, CMRI, Dept. of Mol Med, Daegu, South Korea. Additional authors for this research include S.K. Ku, S. Jeong, M.C. Baek and J.S. Bae.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jcmm.12925. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daegu, South Korea, Asia, Phosphorus Compounds, Inorganic Chemicals, Phosphoric Acids, Polyphosphates, Electrolytes, Ions, Kyungpook National University.

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Researchers from Kyushu University Report Findings in Chronic Kidney Disease (Cardiorenal Syndrome in End-Stage Kidney Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Kidney Diseases and Conditions - Chronic Kidney Disease have been presented. According to news reporting from Fukuoka, Japan, by NewsRx journalists, research stated, "Cardiorenal syndrome (CRS) in patients with end-stage kidney disease (ESKD) represents mainly cardiovascular disease (CVD) due to various complications associated with renal dysfunction-defined as type 4 CRS by Ronco et al.-because the effect of cardiac dysfunction on the kidneys does not need to be taken into consideration, unlike in non-dialysis dependent chronic kidney disease (CKD). Patients with ESKD are often in a state of chronic inflammation due to the upregulation of proinflammatory cytokines."

The news correspondents obtained a quote from the research from Kyushu University, "Chronic inflammation leads to malnutrition and consequently to vascular endothelial dysfunction and vascular calcification, which is referred to as malnutrition-inflammation-atherosclerosis (MIA) syndrome and acts as a major risk factor for CVD. Anemia also plays a crucial role in CVD, and individuals with erythropoietin-resistant anemia have a particularly high risk of CVD. However, caution is emphasized because not only anemia itself, but also the overtreatment of anemia with erythropoiesis-stimulating agents aimed at elevating hemoglobin to (≥)13 g/dl can also increase the risk of CVD. In CKD-mineral and bone disorder (CKD-MBD), phosphate load triggers the interactions between various factors such as calcium, parathyroid hormone, vitamin D, and fibroblast growth factor 23, promoting vascular calcification and thus becoming a risk factor for CVD."

According to the news reporters, the research concluded: "In addition to traditional atherosclerosis risk factors such as hypertension, diabetes, and dyslipidemia, the involvement of MIA syndrome, anemia, and CKD-MBD accompanying CKD have also become a focus for investigation as major players in CRS in patients with ESKD."


Our news journalists report that additional information may be obtained by contacting K. Tsuruya, Dept. of Integrated Therapy for Chronic Kidney Disease, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan. Additional authors for this research include M. Eriuchi, S. Yamada, H. Hiraoka and T. Kitazono.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441583. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Anemia, Fukuoka, Inflammation, Atherosclerosis, Arteriosclerosis, Risk and Prevention, Chronic Kidney Disease, Arterial Occlusive Diseases, Kidney Diseases and Conditions, Hematologic Diseases and Conditions, Cardiovascular Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions.
Researchers from Kyushu University Report New Studies and Findings in the Area of Multiple Sclerosis (Th1 cells downregulate connexin 43 gap junctions in astrocytes via microglial activation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Autoimmune Diseases and Conditions - Multiple Sclerosis is now available. According to news originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "We previously reported early and extensive loss of astrocytic connexin 43 (Cx43) in acute demyelinating lesions of multiple sclerosis (MS) patients. Because it is widely accepted that autoimmune T cells initiate MS lesions, we hypothesized that infiltrating T cells affect Cx43 expression in astrocytes, which contributes to MS lesion formation."

Our news journalists obtained a quote from the research from Kyushu University, "Primary mixed glial cell cultures were prepared from newborn mouse brains, and microglia were isolated by anti-CD11b antibody-conjugated magnetic beads. Next, we prepared astrocyte-rich cultures and astrocyte/microglia-mixed cultures. Treatment of primary mixed glial cell cultures with interferon (IFN)gamma, interleukin (IL)-4, or IL-17 showed that only IFN gamma or IL-17 at high concentrations reduced Cx43 protein levels. Upon treatment of astrocyte-rich cultures and astrocyte/microglia-mixed cultures with IFN gamma, Cx43 mRNA/protein levels and the function of gap junctions were reduced only in astrocyte/microglia-mixed cultures. IFN gamma-treated microglia-conditioned media and IL-1 beta, which was markedly increased in IFN gamma-treated microglia-conditioned media, reduced Cx43 protein levels in astrocyte-rich cultures. Finally, we confirmed that Th1 cell-conditioned medium decreased Cx43 protein levels in mixed glial cell cultures. These findings suggest that Th1 cell-derived IFN gamma activates microglia to release IL-1 beta that reduces Cx43 gap junctions in astrocytes."

According to the news editors, the research concluded: "Thus, Th1-dominant inflammatory states disrupt astrocytic intercellular communication and may exacerbate MS."

For more information on this research see: Scientific Reports, 2016;6():1-14. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J. Kira, Kyushu University, Neurol Inst, Grad Sch Med Sci, Dept. of Neurol, Fukuoka 8128582, Japan. Additional authors for this research include K. Masaki, R. Yamasaki, J. Kawanokuchi, H. Takeuchi, T. Matsushita, A. Suzumura and J. Kira.

Keywords for this news article include: Fukuoka, Japan, Asia, Autoimmune Diseases and Conditions, Membrane Transport Proteins, Multiple Sclerosis, Membrane Proteins, Carrier Proteins, Connexin 43, Astrocytes, Connexins, Neuroglia, Microglia, Genetics, Kyushu University.

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Researchers from La Trobe University Report Details of New Studies and Findings in the Area of Antimicrobial Cationic Peptides (Nicotiana alata Defensin Chimeras Reveal Differences in the Mechanism of Fungal and Tumor Cell Killing and an ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Membrane Proteins - Antimicrobial Cationic Peptides. According to news originating from Melbourne, Australia, by NewsRx correspondents, research stated, "The plant defensin NaD1 is a potent antifungal molecule that also targets tumor cells with a high efficiency. We examined the features of NaD1 that contribute to these two activities by producing a series of chimeras with NaD2, a defensin that has relatively poor activity against fungi and no activity against tumor cells."

Financial support for this research came from Australian Research Council (ARC).

Our news journalists obtained a quote from the research from La Trobe University, "All plant defensins have a common tertiary structure known as a cysteine-stabilized alpha-beta motif which consists of an alpha helix and a triple-stranded beta-sheet stabilized by four disulfide bonds. The chimeras were produced by replacing loops 1 to 7, the sequences between each of the conserved cysteine residues on NaD1, with the corresponding loops from NaD2. The loop 5 swap replaced the sequence motif (SKILRR) that mediates tight binding with phosphatidylinositol 4,5-bisphosphate [PI(4,5)P-2] and is essential for the potent cytotoxic effect of NaD1 on tumor cells. Consistent with previous reports, there was a strong correlation between PI(4,5)P-2 binding and the tumor cell killing activity of all of the chimeras. However, this correlation did not extend to antifungal activity. Some of the loop swap chimeras were efficient antifungal molecules, even though they bound poorly to PI(4,5)P-2, suggesting that additional mechanisms operate against fungal cells. Unexpectedly, the loop 1B swap chimera was 10 times more active than NaD1 against filamentous fungi."

According to the news editors, the research concluded: "This led to the conclusion that defensin loops have evolved as modular components that combine to make antifungal molecules with variable mechanisms of action and that artificial combinations of loops can increase antifungal activity compared to that of the natural variants."

For more information on this research see: Nicotiana alata Defensin Chimeras Reveal Differences in the Mechanism of Fungal and Tumor Cell Killing and an Enhanced Antifungal Variant. Antimicrobial Agents and Chemotherapy, 2016;60(10):6302-6312. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from M.R. Bleackley, La Trobe University, La Trobe Inst Mol Sci, Dept. of Biochem & Genet, Melbourne, Vic, Australia. Additional authors for this research include J.A.E. Payne, B.M.E. Hayes, T. Durek, D.J. Craik, T.M.A. Shafee, I.K.H. Poon, M.D. Hulett, N.L. van der Weerden and M.A. Anderson.

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Keywords for this news article include: Melbourne, Australia, Australia and New
Researchers from Laboratory of Molecular Microbiology Report Details of New Studies and Findings in the Area of Rabies (Molecular optimization of rabies virus glycoprotein expression in Pichia pastoris)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Rhabdoviridae Infections - Rabies is the subject of a report. According to news reporting originating in Tunis, Tunisia, by NewsRx journalists, research stated, "In this work, different approaches were investigated to enhance the expression rabies virus glycoprotein (RABV-G) in the yeast Pichia pastoris; this membrane protein is responsible for the synthesis of rabies neutralizing antibodies. First, the impact of synonymous codon usage bias was examined and an optimized RABV-G gene was synthesized."

Financial support for this research came from Tunisian Ministry of Scientific Research and Higher Education.

The news reporters obtained a quote from the research from the Laboratory of Molecular Microbiology, "Nevertheless, data showed that the secretion of the optimized RABV-G gene was not tremendously increased as compared with the non-optimized one. In addition, similar levels of RABV-G were obtained when a-factor mating factor from Saccharomyces cerevisiae or the acid phosphatase PHO1 was used as a secretion signal. Therefore, sequence optimization and secretion signal were not the major bottlenecks for high-level expression of RABV-G in P. pastoris. Unfolded protein response (UPR) was induced in clones containing high copy number of RABV-G expression cassette indicating that folding was the limiting step for RABV-G secretion. To circumvent this limitation, co-overexpression of five factors involved in oxidative protein folding was investigated. Among these factors only PDI1, ERO1 and GPX1 proved their benefit to enhance the expression. The highest expression level of RABV-G reached 1230 ng ml(-1)."

According to the news reporters, the research concluded: "Competitive neutralizing assay confirmed that the recombinant protein was produced in the correct conformational form in this host."


Our news correspondents report that additional information may be obtained by contacting S. Ben Azoun, Laboratory of Molecular Microbiology, Vaccinology and Biotechnology Development, Biofermentation Unit, Institut Pasteur de Tunis, 13, place Pasteur BP 74, Tunis, 1002, Tunisia. Additional authors for this research include A.E. Belhaj, R. Gongrich, B. Gasser and H. Kallel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1751-7915.12350. This DOI is a link to an online electronic document.
that is either free or for purchase.

The publisher of the journal *Microbial Biotechnology* can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Africa, Tunisia, Genetics, Virology, Lyssavirus, RNA Viruses, Rabies Virus, Glycoproteins, Glycoconjugates, Vertebrate Viruses, Rhabdoviridae Infections, Mononegavirales Infections.

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**Oncology - Non-Small Cell Lung Cancer**

**Researchers from Leiden University Medical Center Describe Findings in Non-Small Cell Lung Cancer (The positive prognostic effect of stromal CD8+ tumor-infiltrating T cells is restrained by the expression of HLA-E in non-small cell lung ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news reporting out of Leiden, Netherlands, by NewsRx editors, research stated, "Tumor-infiltrating CD8+ T cells are associated with improved clinical outcomes in non-small cell lung cancer (NSCLC). Here we studied their prognostic effect in the context of the expression of HLA molecules that are key in tumor recognition (HLA-A, B and C) or suppression of immunity (HLA-E) as this is still unknown."

Our news journalists obtained a quote from the research from Leiden University Medical Center, "Tumor tissue of 197 patients with resected pulmonary adenocarcinoma was analyzed for the presence of CD8+ T cells and the expression of b2-microglobulin, HLA-A, HLA-B/C and HLA-E. The relation of these parameters with overall survival (OS) was assessed. Loss and low expression of HLA-A or HLA-B/C was found in 44% and 75% of cases respectively. A high CD8+ tumor infiltration was strongly associated with clinical benefit only when the tumors retained good expression of HLA-A and HLA-B/C (p=0.004). In addition, more than 70% of the tumors were found to display a high expression of HLA-E. The expression of HLA-E by tumor cells was an independent negative prognostic factor for OS (p=0.031). Importantly, a dense stromal CD8+ T cell infiltration was strongly associated with improved OS only in HLA-E negative tumors (p=0.005) and its prognostic effect was completely abolished when tumors highly expressed HLA-E (p=0.989). CD8+ T cell infiltration strongly contributes to a better prognosis in NSCLC when the tumor cells retain the expression of classical HLA class I and do not express HLA-E."

According to the news editors, the research concluded: "Therefore, analysis of HLA-A, -B/C and HLA-E expression should be included as biomarkers to predict the response to immunotherapy."

For more information on this research see: The positive prognostic effect of stromal CD8+ tumor-infiltrating T cells is restrained by the expression of HLA-E in non-small cell lung carcinoma. *Oncotarget*, 2016;7(3):3477-88.

Our news journalists report that additional information may be obtained by contacting M. Talebian Yazdi, Dept. of Pulmonology, Leiden University Medical Center, Leiden, Netherlands. Additional authors for this research include S. van Riet, A. van Schadewijk, M. Fiocco, T. van Hall, C. Taube, P.S. Hiemstra and S.H van der Burg.
Researchers from Leonard Davis School of Gerontology Describe Findings in Alzheimer Disease (Interactions between inflammation, sex steroids, and Alzheimer's disease risk factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been presented. According to news reporting originating from Los Angeles, California, by NewsRx correspondents, research stated, "Alzheimer’s disease (AD) is an age-related neurodegenerative disorder for which there are no effective strategies to prevent or slow its progression. Because AD is multifactorial, recent research has focused on understanding interactions among the numerous risk factors and mechanisms underlying the disease."

Our news editors obtained a quote from the research from the Leonard Davis School of Gerontology, "One mechanism through which several risk factors may be acting is inflammation. AD is characterized by chronic inflammation that is observed before clinical onset of dementia. Several genetic and environmental risk factors for AD increase inflammation, including apolipoprotein E4, obesity, and air pollution. Additionally, sex steroid hormones appear to contribute to AD risk, with age-related losses of estrogens in women and androgens in men associated with increased risk. Importantly, sex steroid hormones have anti-inflammatory actions and can interact with several other AD risk factors."

According to the news editors, the research concluded: "This review examines the individual and interactive roles of inflammation and sex steroid hormones in AD, as well as their relationships with the AD risk factors apolipoprotein E4, obesity, and air pollution."


The news editors report that additional information may be obtained by contacting C.J. Pike, Univ Southern Calif, Leonard Davis Sch Gerontol, Los Angeles, CA 90089, United States. Additional authors for this research include V.A. Moser and C.J. Pike.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Air Pollution, Article Review, Brain Diseases and Conditions, Risk and Prevention, Alzheimer Disease, Apolipoproteins, Inflammation, Tauopathies, Hormones, Dementia, Genetics, Leonard Davis School of Gerontology.

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Researchers from Linkoping University Detail New Studies and Findings in the Area of Prostate Cancer (Predictors of early androgen deprivation treatment failure in prostate cancer with bone metastases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting from Linkoping, Sweden, by NewsRx journalists, research stated, "Approximately 15% of men with hormone na?ve metastatic prostate cancer primarily fail to respond to androgen deprivation treatment (ADT). The reason why the response to ADT differs in this subgroup of men with prostate cancer remains unclear."

Financial supporters for this research include Ferring AB, Ferring Laegemidler A/S, Pharmacia AB, Schering-Plough AB.

The news correspondents obtained a quote from the research from Linkoping University, "The aim of this study was to describe the characteristics of these men and to thereby define predictors of early ADT failure in prostate cancer patients with bone metastases. The study was based on 915 men from the prospective randomized multicenter trial (no. 5) conducted by the Scandinavian Prostate Cancer Group comparing parenteral estrogen with total androgen blockade. Early ADT failure was defined as death from metastatic prostate cancer within 12?months after the start of ADT. Multivariate logistic regression models were applied to identify clinical predictors of early ADT failure. Ninety-four (10.3%) men were primarily nonresponders to ADT. Independent predictors of early ADT failure were poor Eastern Cooperative Oncology Group performance status (PS), analgesic consumption, low hemoglobin, and high Soloway score (extent of disease observed on the scan), in where patients with poor PS and/or high analgesic consumption had a threefold risk of early ADT failure. Not significantly factors related to early ADT failure were age, treatment, cardiovascular comorbidity, T category, grade of malignancy, serum estrogen level, and SHBG at enrolment. We analyzed characteristics of a subgroup of patients who primarily failed to respond to ADT."

According to the news reporters, the research concluded: "Four independent clinical predictors of early ADT failure could be defined, and men exhibiting these features should be considered for an alternative treatment."


Our news journalists report that additional information may be obtained by contacting E. Varenhorst, Dept. of Urology and Dept. of Clinical and Experimental Medicine, Linkoping University, Linkoping, Sweden. Additional authors for this research include R. Klaff, A. Berglund, P.O. Hedlund and G. Sandblom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.594. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Oncology, Linkoping, Analgesics, Bone Research, Pain Medicine, Prostate Cancer, Prostatic Neoplasms.
Researchers from Linkoping University Report New Studies and Findings in the Area of Quality of Life (Experiences of incontinence and pelvic floor muscle training after gynaecologic cancer treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Quality of Life. According to news reporting from Linkoping, Sweden, by NewsRx journalists, research stated, "The purpose of the present study is to describe how gynaecological cancer survivors (GCS) experience incontinence in relation to quality of life, their possibilities for physical activity and exercise and their perceptions and experiences of pelvic floor muscle training. This qualitative interview content analysis study included 13 women (48-82 age) with urinary (n = 10) or faecal (n = 3) incontinence after radiation therapy (n = 2), surgery (n = 5) and surgery and radiation therapy (n = 6) for gynaecological cancer, 0.5-21 years ago."

Financial supporters for this research include The Swedish Cancer Society, The Kamprad Family Foundation for Entrepreneurship, Research and Charity, Region Ostergotland, Linkoping University, FORSS (The Research Council of Southeast Sweden).

The news correspondents obtained a quote from the research from Linkoping University. "Symptoms related to incontinence and restrictions in daily activities reduced physical quality of life. Emotions related to incontinence reduced psychological quality of life and social and existential quality of life, due to restrictions in activity and feelings of exclusion. Practical and mental strategies for maintaining quality of life were described, such as always bringing a change of clothes and accepting the situation. Possibilities for sexual and physical activity as well as exercise were also restricted by incontinence. The women had little or no experience of pelvic floor muscle training but have a positive attitude towards trying it. They also described a lack of information about the risk of incontinence. The women were willing to spend both money and time on an effective treatment for their incontinence. Nine out of 10 were willing to spend at least 7 h a week. GCS experienced that incontinence reduced quality of life and limited possibilities for sexual and physical activity as well as exercise. Coping strategies, both practical and emotional, facilitated living with incontinence. The women had a positive attitude towards pelvic floor muscle training."

According to the news reporters, the research concluded: "Lack of information had a negative impact on their way of dealing with the situation."

For more information on this research see: Experiences of incontinence and pelvic floor muscle training after gynaecologic cancer treatment. Supportive Care in Cancer, 2017;25 (1):157-166. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news journalists report that additional information may be obtained by contacting A. Lindgren, Linkoping University, Div Physiotherapy, Dept. of Med & Hlth Sci, S-58183 Linkoping, Sweden. Additional authors for this research include G. Dunberger and A. Enblom.

The direct object identifier (DOI) for that additional information is:
Researchers from Logan College of Chiropractic Report New Studies and Findings in the Area of Myeloid Cells (Progesterone Receptor-Mediated Actions Regulate Remodeling of the Cervix in Preparation for Preterm Parturition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Myeloid Cells is the subject of a report. According to news reporting originating in Loma Linda, California, by NewsRx journalists, research stated, "This study determined whether a progesterone (P) receptor (PR)-mediated mechanism regulates morphological characteristics associated with prepartum cervix remodeling at term and with preterm birth. With focus on the transition from a soft to ripe cervix, the cervix stroma of untreated controls had reduced cell nuclei density/area and less organized extracellular collagen, while the density of macrophages/area, but not neutrophils, increased just 2 days before birth (day 17 vs day 15 or 16.5 postbreeding)."

The news reporters obtained a quote from the research from the Logan College of Chiropractic, "Preterm birth was induced within 24 hours of treatment on day 16 postbreeding with PR antagonist or ovariectomy (Ovx). Pure or mixed PR antagonists increased the density of macrophages in the cervix within 8 hours (day 16.5 postbreeding), in advance of preterm birth. However, neither PR antagonists nor P withdrawal after Ovx affected the densities of cell nuclei and neutrophils or extracellular collagen compared to the same day controls an indication that the cervix was sufficiently remodeled for birth to occur. To block the effect of systemic P withdrawal, Ovx pregnant mice were given a PR agonist, either pure or mixed. These treatments forestalled preterm birth and prevented further morphological remodeling of the cervix. The resulting increase in macrophage density in cervix stroma following Ovx was only blocked by a pure PR agonist."

According to the news reporters, the research concluded: "These findings support the hypothesis that inflammatory processes in the prepartum cervix that include residency of macrophages, cellular hypertrophy, and extracellular collagen structure are regulated by genomic actions of PR in a final common mechanism both at term and with induced preterm birth."


Our news correspondents report that additional information may be obtained by contacting S.M. Yellon, Loma Linda Logan College of Chiropractic, Sch Med, Dept. of Basic Sci, Div Physiol, Loma Linda, CA 92350, United States. Additional authors for this research

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1933719116650756. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Loma Linda, California, United States, North and Central America, Extracellular Matrix Proteins, Mononuclear Phagocyte System, Hemic and Immune Systems, Connective Tissue Cells, Progesterone Receptors, Corpus Luteum Hormones, Transcription Factors, DNA-Binding Proteins, Steroid Receptors, Myeloid Cells, Granulocytes, Neutrophils, Macrophages, Immunology, Phagocytes, Collagen, Genetics, Logan College of Chiropractic.

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Oncology - Cancer Care

Researchers from London Health Sciences Center Describe Findings in Cancer Care (Patient- and family-centered care: a qualitative exploration of oncologist perspectives)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cancer Care have been presented. According to news reporting originating from London, Canada, by NewsRx correspondents, research stated, "Increasingly, patient- and family-centered care (PFCC) is recognized as a valuable component of healthcare reform with rich opportunities for improvement within oncology. Shifting toward PFCC requires physician buy-in; however, research examining their perspectives on PFCC is lacking."

Our news editors obtained a quote from the research from London Health Sciences Center, "We sought to explore oncologists' perspectives on PFCC to identify factors that influence their ability to practice PFCC. We conducted semi-structured interviews with 18 oncologists (8 radiation, 4 medical, 4 surgical, 2 hematologist-oncologists) at a single Canadian academic cancer institution. Interview data were analyzed using thematic analysis and principles drawn from grounded theory. Subsequently, focus groups consisting of the interviewed participants were facilitated to confirm and elaborate on our findings. Constant comparisons were used to identify recurring themes. Three dominant themes emerged. First, physicians displayed cautious engagement in their approach to PFCC. We conducted semi-structured interviews with 18 oncologists. Collectively, participants understood the general principles of PFCC. However, there was a limited understanding of the value, implications, and motivation for improving PFCC which may create reluctance with physician buy-in. Second, both individual and system barriers to practicing PFCC were identified. A lack of physician acknowledgement and engagement and competing responsibilities emerged as provider-level challenges. System barriers included impaired clinic workflow, physical infrastructure constraints, and delays in access to care. Third, physicians were able to identify existing and potential PFCC behaviors that were feasible within existing system constraints."

According to the news editors, the research concluded: "Advancing PFCC will require continued physician education regarding the value of PFCC, acknowledgement and preservation of effective patient- and family-centered strategies, and creative solutions to address the system constraints to delivering PFCC."
For more information on this research see: Patient- and family-centered care: a qualitative exploration of oncologist perspectives. *Supportive Care in Cancer*, 2017;25(1):213-219. *Supportive Care in Cancer* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

The news editors report that additional information may be obtained by contacting G.S. Bauman, London Hlth Sci Center, London, ON, Canada. Additional authors for this research include G.S. Bauman, C.J. Watling and K. Hahn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3414-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Ontario, Canada, North and Central America, Cancer Care, Oncology, London Health Sciences Center.

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**Clinical Research - Clinical Trials and Studies**

Researchers from Maastricht University Report New Studies and Findings in the Area of Clinical Trials and Studies [Time-to-event versus ten-year-absolute-risk in cardiovascular risk prevention - does it make a difference? Results from the ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news originating from Maastricht, Netherlands, by NewsRx correspondents, research stated, "The concept of shared-decision-making is a well-established approach to increase the participation of patients in medical decisions. Using lifetime risk or time-to-event (TTE) formats has been increasingly suggested as they might have advantages, e.g. in younger patients, to better show consequences of unhealthy behaviour."

Our news journalists obtained a quote from the research from Maastricht University, "In this study, the most-popular ten-year risk illustration in the decision-aid-software arriba™ (emoticons), is compared within a randomised trial to a new-developed TTE illustration, which is based on a Markov model. Thirty-two General Practitioners (GPs) took part in the study. A total of 304 patients were recruited and counseled by their GPs with arriba™, and randomized to either the emoticons or the TTE illustration, followed by a patient questionnaire to figure out the degree of shared-decision-making (PEF-FB9, German questionnaire to measure the participation in the shared decision-making process, primary outcome), as well as the decisional conflict, perceived risk, accessibility and the degree of information, which are all secondary outcomes. Regarding our primary outcome PEF-FB9 the new TTE illustration is not inferior compared to the well-established emoticons taking the whole study population into account. Furthermore, the non-inferiority of the innovative TTE could be confirmed for all secondary outcome variables. The explorative analysis indicates even advantages in younger patients (below 46 years of age). The TTE format seems to be as useful as the well-established emoticons. For certain patient populations, especially younger patients, the TTE may be even superior to demonstrate a cardiovascular risk at early stages."

According to the news editors, the research concluded: "Our results suggest that
time-to-event illustrations should be considered for current decision support tools covering cardiovascular prevention."


The news correspondents report that additional information may be obtained from C.C. Adarkwah, Maastricht University, CAPHRI Sch Public Hlth & Primary Care, Dept. of Hlth Serv Res, Maastricht, Netherlands. Additional authors for this research include N. Jegan, M. Heinzel-Gutenbrunner, F. Kuhne, U. Siebert, U. Popert, N. Donner-Banzhoff and S. Kurwitz.

Keywords for this news article include: Maastricht, Netherlands, Europe, Clinical Trials and Studies, Clinical Research, Cardiovascular, Cardiology, Maastricht University.

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Researchers from Maharishi Markandeshwar University Report New Studies and Findings in the Area of Melanoma (Immunogenic decapptide in melanoma immunotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Melanoma. According to news reporting originating from Haryana, India, by NewsRx correspondents, research stated, "Melanoma is a cancer associated with melanocytes of epidermis. There has been a consistent increase in the number of melanoma patients because of the depletion of the ozone layer which makes it of paramount importance to explore the immunogenic potential of various peptides in melanoma therapy."

Our news editors obtained a quote from the research from Maharishi Markandeshwar University, "In the current study, a mutated decapptide (ELAGIGILTV) epitope ID 12941 was taken from the melanoma antigen recognized by T-cells. This epitope displayed relatively better affinity for histocompatibility leukocyte antigen influencing the proliferation of cytotoxic T-cells. Immunogenicity of the oligopeptide can be further intensified by its simultaneous binding to the programmed death receptor of the T lymphocytes. We have used the molecular dynamics (MD) simulation approach to reveal the dynamics of the decapptide and its consequences to immunogenic effects. The dynamics have ensembled various conformations of the peptide which have been clustered in their representative conformers. During the dynamics, the peptide was found to fold to its conformation with a minimum free energy. Moreover, multiple analysis of the MD trajectory has provided many physiochemical features involved in the biological activity to improve the immunogenicity of this antigenic peptide."

According to the news editors, the research concluded: "The manuscript concludes by proposing this decapptide as a potential vaccine for the melanoma cancer."

For more information on this research see: Immunogenic decapptide in melanoma immunotherapy. *Journal of Molecular Modeling*, 2016;22(11):133-139. *Journal of Molecular
Researchers from Mahidol University Report on Findings in Anterior Pituitary Hormones (Prolactin receptor and osteogenic induction of prolactin in human periodontal ligament fibroblasts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hormones - Anterior Pituitary Hormones. According to news reporting from Bangkok, Thailand, by NewsRx journalists, research stated, "Prolactin is an important hormone involved in the interaction between maternal, extraembryonic, and fetal tissues that remains in high levels during the entire duration of pregnancy. Although many systemic alterations occur during pregnancy, such as hormonal changes, that are known to be associated with periodontitis and tooth loss, PRL function in human periodontal ligament fibroblasts (HPDLF) had never been studied."

Financial supporters for this research include Thailand Research Fund, Mahidol University, Office of Higher Education Commission under the National Research Universities Initiative.

The news correspondents obtained a quote from the research from Mahidol University, "Herein, we investigated the role of PRL in the regulation of HPDLF proliferation and differentiation. HPDLF were cultured in differentiating medium with various concentrations of PRL. The present study demonstrated that HPDLF and primary human PDL cells that were extracted for orthodontic purpose expressed both short and long isoforms of PRLR mRNA and its proteins. An incubation with of high concentration of PRL (600 and 1,000 ng/mL) modestly decreased the HPDLF number. In contrast, PRL at a non-reproductive level (10 ng/mL) and pregnant level (100 ng/mL) significantly upregulated the markers of osteogenesis, such as RUNX2, BMP2, and POSTN, but not SOX9. Mineral nodule formation was induced, whereas proteoglycan accumulation was reduced by PRL suggesting that HPDLF were undergoing differentiation into preosteoblastic cells."

According to the news reporters, the research concluded: "The presence of hPRLR in human PDL together with PRL-induced upregulation of osteogenic markers strongly suggested a direct regulatory role of PRL in PDL and periodontal tissue development."

Researchers from Manipal University Report Recent Findings in Central Nervous System Stimulants [Standardised extract of safed musli (Chlorophytum borivilianum) increases aphrodisiac potential besides being safe in male Wistar rats]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Central Nervous System Stimulants have been published. According to news reporting from Karnataka, India, by NewsRx journalists, research stated, "The standardised extract of root of safed musli (Chlorophytum borivilianum) was evaluated for its aphrodisiac potential and safety profile on reproductive system. Wistar albino rats were trained to provide sexual experience under a dim red light (10 W) in a glass tank."

The news correspondents obtained a quote from the research from Manipal University. "Male and female rats were placed periodically in the glass tank in a particular order, that is male followed by introduction of the receptive female. Dosing of extract was carried out for 54 days at 125 and 250 mg kg(-1) p.o to male rats. On 14th and 28th days, the animals were observed from the cage side for sexual behaviours. Safed musli at both dose levels enhanced sexual vigour and libido which might be useful for treatment of sexual dysfunction in male till 28th day. Safety profile was assessed after 54 days of drug treatment, where both doses showed an increase in sperm count and increase in sperm motility. Thus, it can be stated that both doses possessed the spermatogenic potential, which would be highly beneficial in treating oligospermia or low sperm count."

According to the news reporters, the research concluded: "After 54 days of study, there was increase in sperm abnormality (%) at both doses, but not more than 10%, which indicated that this formulation will not induce infertility."


Our news journalists report that additional information may be obtained by
Researchers from Mayo Clinic Report Details of New Studies and Findings in the Area of Endometrial Cancer (Disparities in Surgical Care Among Women With Endometrial Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Endometrial Cancer. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "To analyze contemporary U.S. use of minimally invasive surgery for the treatment of endometrial cancer and associated inpatient complications and costs. In this retrospective cohort study, the National Inpatient Sample database was analyzed in patients with nonmetastatic endometrial cancer who underwent hysterectomy during 2012-2013."

The news correspondents obtained a quote from the research from Mayo Clinic, "Hierarchical multiple logistic regression and propensity score matching were used to compare complications among patients treated with open compared with minimally invasive hysterectomy surgery. Cost of care was also compared using generalized linear modeling. We identified 9,799 patients; 52.4% underwent open and 47.6% minimally invasive hysterectomy. Many patients (43.4%) were treated at low-volume hospitals (less than 10 endometrial cancer cases annually). Patients were less likely to undergo open surgery in high-volume compared with low-volume hospitals (51.8% compared with 58.1%, respectively; adjusted odds ratio [OR] 0.35, 95% confidence interval [CI] 0.13-0.94) and more likely to undergo open surgery in rural compared with urban teaching hospitals (75.6% compared with 51.1%, respectively; adjusted OR 14.34, 95% CI 9.66-21.27), government compared with nonprofit hospitals (61.3% compared with 51.1%, respectively; adjusted OR 1.66, 95% CI 1.15-2.39), and 'other' race (60.5%; adjusted OR 2.39, 95% CI 1.99-2.87) compared with white race (49.2%, referent). Open surgery was associated with increased perioperative complications (adjusted OR 2.80, 95% CI 2.48-3.17) and a $1,243 increase in cost per case compared with-minimally invasive approaches (P <.001). Using minimally invasive surgery for 80% of study patients may have averted 2,733 complications and saved approximately $19 million. Most U.S. women with endometrial cancer continue to be treated with open hysterectomy surgery despite increased complication rates and financial costs associated with this approach."

According to the news reporters, the research concluded: "A disparity in endometrial cancer surgical care exists that is affected by patient race and hospital geography and cancer volumes."

For more information on this research see: Disparities in Surgical Care Among Women With Endometrial Cancer. *Obstetrics and Gynecology*, 2016;128(3):526-534. *Obstetrics and Gynecology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and
Researchers from Mayo Clinic Report Recent Findings in Heart Disease (Association between coronary microvascular function and the vasa vasorum in patients with early coronary artery disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Disease is the subject of a report. According to news originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "The vasa vasorum (VV) plays a role in the initial phase of atherosclerosis, and abnormalities in microvascular function may be sensitive measures of the early development of atherosclerosis. The current study was designed to access the association between coronary microvascular function and VV density in patients undergoing cardiac catheterization."

Our news journalists obtained a quote from the research from Mayo Clinic, "Twenty-four patients with early coronary artery disease underwent endothelium-dependent (coronary blood flow, CBF) and endothelium-independent (coronary flow velocity reserve, CFVR) coronary microvascular function testing, and optical coherence tomography (OCT) imaging of the left anterior descending coronary artery (LAD). Using an intracoronary Doppler guidewire, CBF was examined by evaluating changes in blood flow in response to acetylcholine and CFVR in response to adenosine. VV density (VV volume/vessel volume x 100, % VV) of the proximal 10 mm of the LAD was quantified by OCT. The median values (Q1, Q3) of CFVR, % changes in CBF in response to acetylcholine, and the % VV were 2.70 (2.30, 2.90), -16.82 (-42.34, 54.52), and 2.62 (2.35, 3.35), respectively. % VV correlated inversely with CBF (r = -0.614, p = 0.001) and directly with CFVR (r = 0.423, p = 0.040). Multivariate analysis showed that only % VV was significantly correlated with CBF and the association was independent of other clinical variables, Framingham risk score, body mass index, and a family history of coronary heart disease. This study demonstrates that VV density has negative correlation with endothelium-dependent microvascular function in patients with early coronary atherosclerosis."

According to the news editors, the research concluded: "These observations link adventitial VV structure and function to microvascular dysfunction in early coronary atherosclerosis."

For more information on this research see: Association between coronary microvascular function and the vasa vasorum in patients with early coronary artery disease.
Researchers from McGill University Discuss Findings in Cell Biology (Genetic Drivers of Epigenetic and Transcriptional Variation in Human Immune Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Cell Biology have been published. According to news reporting originating from Montreal, Canada, by NewsRx correspondents, research stated, "Characterizing the multifaceted contribution of genetic and epigenetic factors to disease phenotypes is a major challenge in human genetics and medicine. We carried out high-resolution genetic, epigenetic, and transcriptomic profiling in three major human immune cell types (CD14(+) monocytes, CD16(+) neutrophils, and naive CD4(+) T cells) from up to 197 individuals."

Our news editors obtained a quote from the research from McGill University, "We assess, quantitatively, the relative contribution of cis-genetic and epigenetic factors to transcription and evaluate their impact as potential sources of confounding in epigenome-wide association studies. Further, we characterize highly coordinated genetic effects on gene expression, methylation, and histone variation through quantitative trait locus (QTL) mapping and allele-specific (AS) analyses. Finally, we demonstrate colocalization of molecular trait QTLs at 345 unique immune disease loci."

According to the news editors, the research concluded: "This expansive, high-resolution atlas of multi-omics changes yields insights into cell-type-specific correlation between diverse genomic inputs, more generalizable correlations between these inputs, and defines molecular events that may underpin complex disease risk."

For more information on this research see: Genetic Drivers of Epigenetic and Transcriptional Variation in Human Immune Cells. Cell, 2016;167(5):1398-1414,521-544. Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell - www.journals.elsevier.com/cell/)

The news editors report that additional information may be obtained by contacting T.
Researchers from McGill University Discuss Findings in Pharmacology
[D-Lysergic Acid Diethylamide (LSD) as a Model of Psychosis: Mechanism of Action and Pharmacology]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pharmacology have been published. According to news originating from Montreal, Canada, by NewsRx correspondents, research stated, "D-Lysergic Acid Diethylamide (LSD) is known for its hallucinogenic properties and psychotic-like symptoms, especially at high doses. It is indeed used as a pharmacological model of psychosis in preclinical research."

Our news journalists obtained a quote from the research from McGill University, "The goal of this review was to understand the mechanism of action of psychotic-like effects of LSD. We searched Pubmed, Web of Science, Scopus, Google Scholar and articles' reference lists for preclinical studies regarding the mechanism of action involved in the psychotic-like effects induced by LSD. LSD's mechanism of action is pleiotropic, primarily mediated by the serotonergic system in the Dorsal Raphe, binding the 5-HT2A receptor as a partial agonist and 5-HT1A as an agonist. LSD also modulates the Ventral Tegmental Area, at higher doses, by stimulating dopamine D-2, Trace Amine Associate receptor 1 (TAAR(1)) and 5-HT2A. More studies clarifying the mechanism of action of the psychotic-like symptoms or psychosis induced by LSD in humans are needed. LSD's effects are mediated by a pleiotropic mechanism involving serotonergic, dopaminergic, and glutamatergic neurotransmission."

According to the news editors, the research concluded: "Thus, the LSD-induced psychosis is a useful model to test the therapeutic efficacy of potential novel antipsychotic drugs, particularly drugs with dual serotonergic and dopaminergic (DA) mechanism or acting on TAAR(1) receptors."

For more information on this research see: D-Lysergic Acid Diethylamide (LSD) as a Model of Psychosis: Mechanism of Action and Pharmacology. International Journal of Molecular Sciences. 2016;17(11):2676-2695. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from D. De Gregorio, McGill University, Neurobiol Psychiat Unit, Montreal, PQ H3A 1A1, Canada. Additional authors for this research include S. Comai, L. Posa and G. Gobbi.
Researchers from McMaster University Describe Findings in Coumarins and Indandiones (Bleeding with direct oral anticoagulants vs warfarin: clinical experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Coumarins and Indandiones. According to news reporting from Hamilton, Canada, by NewsRx journalists, research stated, "The risk of bleeding in the setting of anticoagulant therapy continues to be re-evaluated following the introduction of a new generation of direct oral anticoagulants (DOACs)."

The news correspondents obtained a quote from the research from McMaster University, " Interruption of DOAC therapy and supportive care may be sufficient for the management of patients who present with mild or moderate bleeding, but in those with life-threatening bleeding, a specific reversal agent is desirable."

According to the news reporters, the research concluded: "We review the phase 3 clinical studies of dabigatran, rivaroxaban, apixaban, and edoxaban in patients with nonvalvular atrial fibrillation, in the context of bleeding risk and management."


Our news journalists report that additional information may be obtained by contacting J. Eikelboom, McMaster University, Div Hematol & Thromboembolism, Dept. of Med, Hamilton, ON, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.09.046. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hamilton, Ontario, Canada, North and Central America, Drugs and Therapies, Article Review, Risk and Prevention, Coumarin and Indandione Derivative, Coumarins and Indandiones, Coagulation Modifiers, Warfarin Therapy, Anticoagulants, Rodenticide, McMaster University.

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Researchers from McMaster University Discuss Findings in Celiac Disease (Duodenal Bacteria From Patients With Celiac Disease and Healthy Subjects Distinctly Affect Gluten Breakdown and Immunogenicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Celiac Disease. According to news reporting originating in Hamilton, Canada, by NewsRx journalists, research stated, "Partially degraded gluten peptides from cereals trigger celiac disease (CD), an autoimmune enteropathy occurring in genetically susceptible persons. Susceptibility genes are necessary but not sufficient to induce CD, and additional environmental factors related to unfavorable alterations in the microbiota have been proposed."

The news reporters obtained a quote from the research from McMaster University, "We investigated gluten metabolism by opportunistic pathogens and commensal duodenal bacteria and characterized the capacity of the produced peptides to activate gluten-specific T-cells from CD patients. We colonized germ-free C57BL/6 mice with bacteria isolated from the small intestine of CD patients or healthy controls, selected for their in vitro gluten-degrading capacity. After gluten gavage, gliadin amount and proteolytic activities were measured in intestinal contents. Peptides produced by bacteria used in mouse colonizations from the immunogenic 33-mer gluten peptide were characterized by liquid chromatography tandem mass spectrometry and their immunogenic potential was evaluated using peripheral blood mononuclear cells from celiac patients after receiving a 3-day gluten challenge. Bacterial colonizations produced distinct gluten-degradation patterns in the mouse small intestine. Pseudomonas aeruginosa, an opportunistic pathogen from CD patients, exhibited elastase activity and produced peptides that better translocated the mouse intestinal barrier. P aeruginosa - modified gluten peptides activated gluten-specific T-cells from CD patients. In contrast, Lactobacillus spp. from the duodenum of non-CD controls degraded gluten peptides produced by human and P aeruginosa proteases, reducing their immunogenicity. Small intestinal bacteria exhibit distinct gluten metabolic patterns in vivo, increasing or reducing gluten peptide immunogenicity."

According to the news reporters, the research concluded: "This microbe - gluten - host interaction may modulate autoimmune risk in genetically susceptible persons and may underlie the reported association of dysbiosis and CD."

For more information on this research see: Duodenal Bacteria From Patients With Celiac Disease and Healthy Subjects Distinctly Affect Gluten Breakdown and Immunogenicity. Gastroenterology, 2016;151(4):670-683. Gastroenterology can be contacted at: W B Saunders Co-Elsevier Inc. 1600 John F Kennedy Boulevard, Ste 1800, Philadelphia, PA 19103-2899, USA. (Elsevier - www.elsevier.com; Gastroenterology - www.journals.elsevier.com/gastroenterology/)


Keywords for this news article include: Hamilton, Ontario, Canada, North and
Researchers from Medical College Describe Findings in Medulloblastomas (An analysis of medulloblastoma: 10 year experience of a referral institution in South India)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Medulloblastomas. According to news reporting from Tamil Nadu, India, by NewsRx journalists, research stated, "Medulloblastoma is an embryonal tumor with aggressive behavior and is more commonly seen in children than adults. The aim of this study was to determine the epidemiological patterns of medulloblastoma in a tertiary care center in Southern India."

The news correspondents obtained a quote from the research from Medical College, "It is a retrospective study, in which the records of all the clinically diagnosed medulloblastoma cases in the last 10 years (2002-2012) were analyzed. A total of 58 cases were found, with the mean age at diagnosis being 10 years. There was a slight predilection for the male sex (58.62%). The first presenting symptom was mostly related to raise intracranial pressure and the mean duration of symptoms was 200 days. Nearly, 89.6% of patients were in Stage 0 and had a central tumor location. Multimodality treatment included surgery followed by craniospinal irradiation up to 36 gray followed by posterior fossa boost up to 54 gray. Median radiation therapy duration was 6.5 weeks and concurrent single agent vincristine was the most common chemotherapy used. Most of the patients showed only a partial response to treatment, mainly because of large tumors at presentation, which could be attributed to the lack of awareness, delayed medical attention and poor follow-up. Early diagnosis and treatment is the key to management of medulloblastoma, which still needs to be achieved. Bulky tumors have a poor outcome, efforts should be aimed at complete surgery and giving risk stratification based treatment."

According to the news reporters, the research concluded: "Resources need to be allocated to make more conformal methods of radiotherapy available, which will decrease the growth abnormalities and cognitive impairments."


Our news journalists report that additional information may be obtained by contacting S. Gaur, Dept. of Radiation Oncology, Barnard Institute of Radiation Oncology, Rajiv Gandhi Government General Hospital and Madras Medical College, Chennai, Tamil Nadu, India. Additional authors for this research include S.S. Kumar and P. Balasubramaniam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178404. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Surgery, Oncology, Tamil Nadu, Epidemiology, Medulloblastomas.
Researchers from Medical College Detail Findings in Cholinergic Muscle Stimulants [Hopeahainol A binds reversibly at the acetylcholinesterase (AChE) peripheral site and inhibits enzyme activity with a novel higher order concentration dependence]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cholinergic Muscle Stimulants have been published. According to news originating from Jacksonville, Florida, by NewsRx correspondents, research stated, "Natural product inhibitors of AChE are of interest both because they offer promise as inexpensive drugs for symptomatic relief in Alzheimer's disease and because they may provide insights into the structural features of the AChE catalytic site. Hopeahainol A is an uncharged polyphenol AChE inhibitor from the stem bark of Hopea hainanensis with a constrained, partially dearomatized bicyclic core."

Financial supporters for this research include Columbia University, National Institutes of Health, Bristol-Myers Squibb, Eli Lilly, Research Corporation for Science Advancement.

Our news journalists obtained a quote from the research from Medical College, "Molecular modeling indicates that hopeahainol A binds at the entrance of the long but narrow AChE active site gorge because it is too bulky to be accommodated within the gorge without severe distortion of the gorge as depicted in AChE crystal structures. We conducted inhibitor competition experiments in which AChE inhibition was measured with hopeahainol A together with either edrophonium (which binds at the base of the gorge) or thioflavin T (which binds to the peripheral or P-site near the gorge mouth). The results agreed with the molecular modeling and indicated that hopeahainol A at lower concentrations (< 200 μM) bound only to the P-site, as hopeahainol A and thioflavin T were unable to form a ternary complex with AChE while hopeahainol A and edrophonium did form a ternary complex with essentially no competition between them. Inhibition increased to a striking extent at higher concentrations of hopeahainol A, with plots analogous to classic Dixon plots showing a dependence on hopeahainol A concentrations to the third- or fourth order. The inhibition at higher hopeahainol A concentrations was completely reversed on dilution and blocked by bound edrophonium."

According to the news editors, the research concluded: "We hypothesize that bound hopeahainol A induces conformational changes in the AChE active site that allow binding of additional hopeahainol A molecules, a phenomenon that would be unprecedented for a reversible inhibitor that apparently forms no covalent bonds with AChE."

For more information on this research see: Hopeahainol A binds reversibly at the acetylcholinesterase (AChE) peripheral site and inhibits enzyme activity with a novel higher order concentration dependence. Chemico-Biological Interactions, 2016;259():78-84. Chemico-Biological Interactions can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Chemico-Biological Interactions - www.journals.elsevier.com/chemico-biological-interactions/)

The news correspondents report that additional information may be obtained from T.L. Rosenberry, Mayo Clinic, Dept. of Pharmacol, Coll Med, Jacksonville, FL 32224, United
Researchers from Medical College Discuss Findings in Eosinophilia (BCR-JAK2 fusion in a myeloproliferative neoplasm with associated eosinophilia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Leukocyte Diseases and Conditions - Eosinophilia. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "Janus kinase 2 (JAK2) is located on chromosome 9 at band p24 and JAK2V617F is the most common mutation in Philadelphia chromosome-negative myeloproliferative neoplasms (PhMPN). However, rearrangement of JAK2 is a rare event."

The news correspondents obtained a quote from the research from Medical College, "We report a case of myeloproliferative neoplasm, unclassifiable (MPN-U) with BCR-JAK2 fusion confirmed by molecular studies. Conventional chromosome analysis (CC) revealed t (9;22)(p24;q11.2) and fluorescence in situ hybridization (FISH) showed a JAK2 gene rearrangement in 88% of interphase nuclei. The BCR-JAK2 fusion was confirmed by multiplex reverse transcriptase polymerase chain reaction (RT-PCR) and demonstrated two in-frame 5'BC/I3'JAK2 transcripts with BCR exon 1 juxtaposed to JAK2 exon 15 and exon 17, respectively. Our results, together with literature review, reveal BCR-JAK2 fusions as oncogenic genetic alterations that are associated with myeloid or lymphoid neoplasms and are frequently characterized by eosinophilia. Further, patients with BCR-JAK2 are candidates for JAK2 inhibitor therapy."

According to the news reporters, the research concluded: "Given the distinct clinical and pathological characteristics, we believe that hematological neoplasms harboring BCR-JAK2 should be included as an additional distinct entity to the current WHO category of 'myeloid and lymphoid neoplasms with eosinophilia and abnormalities of PDGFRA, PDGFRB, or FGFR', and testing for a JAK2 fusion should be pursued in neoplasms with a karyotypic 9p24 abnormality."


Our news journalists report that additional information may be obtained by

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Leukocyte Diseases and Conditions, Genetics, Genetics, Hematologic Diseases and Conditions, Leukocyte Disorders, Eosinophilia, Medical College.

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Researchers from Medical University Describe Findings in Vitamin D Deficiency (Association of vitamin D receptor gene polymorphisms and serum 25-hydroxyvitamin D levels with Crohn's disease in Chinese patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Vitamin D Deficiency are presented in a new report. According to news reporting originating in Wenzhou, People's Republic of China, by NewsRx journalists, research stated, "The vitamin D receptor (VDR) regulates immune responses and inflammation through binding with 1,25-dihydroxyvitamin D, the active form of vitamin D. The serum 25-hydroxyvitamin D (25(OH)D) level clinically reflects vitamin D status in the human body."

Funders for this research include Natural Science Foundation of Zhejiang Province, Zhejiang Provincial Health Bureau.

The news reporters obtained a quote from the research from Medical University, "We investigated the association of VDR polymorphisms and 25(OH)D levels in Chinese patients with Crohn's disease (CD). Vitamin D receptor polymorphisms (FokI, BsmI, ApaI, and TaqI) were genotyped by SNaPshot. Serum 25(OH)D levels were measured by electrochemiluminescence immunoassay. A total of 297 patients with CD and 446 controls were recruited. Compared with controls, mutant alleles and genotypes of BsmI and TaqI were less prevalent in patients with CD (all p<0.05/4=0.0125). The AAC haplotype formed by BsmI, ApaI, and TaqI was also less prevalent in patients with CD (p=0.004). Furthermore, 124 patients and 188 controls were randomly selected for measurements of 25(OH)D levels. Average 25(OH)D level was lower in patients with CD than in controls (15.46 ± 8.11 vs 21.64 ± 9.45 ng/mL, p<0.001) and negatively linked to CD activity index (b=-0.829, p<0.001), platelet count (b=-0.253, p<0.001) and neutrophil percentage (b=-0.136, p=0.005) in patients with CD. The ApaI mutant genotype and vitamin D deficiency (<20 ng/mL) were independently associated with CD (p=0.009, p<0.001, respectively). In patients with CD, vitamin D deficiency interacted with FokI, ApaI, and TaqI mutant genotypes (p=0.027, p=0.024, and p=0.040, respectively). Vitamin D receptor (BsmI, ApaI, and TaqI) mutations and lower 25(OH)D levels are associated with CD in Chinese patients."

According to the news reporters, the research concluded: "Moreover, VDR (FokI, ApaI, and TaqI) mutations and vitamin D deficiency may have a combined impact on CD."

For more information on this research see: Association of vitamin D receptor gene polymorphisms and serum 25-hydroxyvitamin D levels with Crohn's disease in Chinese patients.
Researchers from Medical University Detail Findings in Apoptosis and Cell Death (Conditional knockdown of BCL2A1 reveals rate-limiting roles in BCR-dependent B-cell survival)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Life Science Research - Apoptosis and Cell Death. According to news reporting from Innsbruck, Austria, by NewsRx journalists, research stated, "Bcl2 family proteins control mitochondrial apoptosis and its members exert critical cell type and differentiation stage-specific functions, acting as barriers against autoimmunity or transformation. Anti-apoptotic Bcl2a1/Bfl1/A1 is frequently deregulated in different types of blood cancers in humans but its physiological role is poorly understood as quadruplication of the Bcl2a1 gene locus in mice hampers conventional gene targeting strategies."

The news correspondents obtained a quote from the research from Medical University, "Transgenic overexpression of A1, deletion of the A1-a paralogue or constitutive knockdown in the hematopoietic compartment of mice by RNAi suggested rate-limiting roles in lymphocyte development, granulopoiesis and mast cell activation. Here we report on the consequences of conditional knockdown of A1 protein expression using a reverse transactivator (rtTA)-driven approach that highlights a critical role for this Bcl2 family member in the maintenance of mature B-cell homeostasis. Furthermore, we define the A1/Bim (Bcl-2 interacting mediator of cell death) axis as a target of key kinases mediating B-cell receptor (BCR)-dependent survival signals, such as, spleen tyrosine kinase (Syk) and Brutons tyrosine kinase (Btk)."

According to the news reporters, the research concluded: "As such, A1 represents a putative target for the treatment of B-cell-related pathologies depending on hyperactivation of BCR-emanating survival signals and loss of A1 expression accounts, in part, for the pro-apoptotic effects of Syk-or Btk inhibitors that rely on the 'BH3-only' protein Bim for cell
killing."


Our news journalists report that additional information may be obtained by contacting M. Sochalska, Division of Developmental Immunology, Biocenter, Medical University Innsbruck, Innsbruck, Austria. Additional authors for this research include E. Ottina, S. Tuzlak, S. Herzog, M. Herold and A. Villunger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cdd.2015.130. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Austria, Genetics, Proteins, Innsbruck, Proteomics, Tyrosine Kinase, Enzymes and Coenzymes, Life Science Research, Apoptosis and Cell Death.

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**Genetics - Medical Genetics**

**Researchers from Medical University Detail Findings in Medical Genetics (SETD5 Loss-of-Function Mutation as a Likely Cause of a Familial Syndromic Intellectual Disability with Variable Phenotypic Expression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics - Medical Genetics have been published. According to news reporting out of Warsaw, Poland, by NewsRx editors, research stated, "Loss-of-function de novo mutations in the SETD5 gene, encoding a putative methyltransferase, are an important cause of moderate/severe intellectual disability as evidenced by the results of sequencing large patient cohorts."

Financial support for this research came from National Science Centre (NCN).

Our news journalists obtained a quote from the research from Medical University, "We present the first familial case of a SETD5 mutation contributing to a phenotype of congenital heart defects and dysmorphic features, with variable expression, in two siblings and their father. Interestingly, the father demonstrated only mild intellectual impairment."

According to the news editors, the research concluded: "Family based exome sequencing combined to careful parental phenotyping may reveal a more complex clinical picture in newly recognized syndromes."


Our news journalists report that additional information may be obtained by...
Researchers from Medical University Discuss Findings in Melanosis (Comparison of efficacy of products containing azelaic acid in melasma treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Skin Diseases and Conditions - Melanosis have been presented. According to news originating from Katowice, Poland, by NewsRx correspondents, research stated, "Melasma is one of the most frequently diagnosed hyperpigmentation changes on the skin of women's faces. Nearly 30% of women using oral estrogen therapy struggle with this problem."

Financial support for this research came from Medical University of Silesia in Katowice.

Our news journalists obtained a quote from the research from Medical University, "A common way of reducing melasma is the application of azelaic acid products. Comparison of efficacy of three dermocosmetic products, containing azelaic acid, in the reduction in melasma for women aged 35-55. A group of 60 women diagnosed with melasma were divided into three even, twenty-person subgroups. Each subgroup was assigned one dermocosmetic product containing azelaic acid. For 24 weeks, the patients applied the assigned product twice a day. The level of the colorant within the hyperpigmentation was marked before the treatment, after 1 month, after 3 months, and after 6 months of therapy. The pigmentation was measured using Mexameter ® (Courage + Khazaka electronic, Germany). In addition, during each inspection, the patients' level of hydration, elasticity, and intensity of erythema was checked using Corneometer ®, Reviscometer ®. All dermocosmetics containing azelaic acid that were applied significantly contributed to the reduction in pigment in the pigmentary lesion. The largest decrease in the amount of pigment was observed in the first 3 months of use of the products. A combination containing 20% azelaic acid and mandelic acid, phytic acid, 4N-butyl resorcinol, and ferulic acid proved to be the most effective dermocosmetic III (Sesderma, Valencia, Spain). Dermocosmetics containing azelaic acid significantly contribute to the clearing of melasma."

According to the news editors, the research concluded: "The effect depends on the treatment time, the acid concentration, and addition of other components."

Researchers from Memorial Sloan-Kettering Cancer Center Detail New Studies and Findings in the Area of Multiple Myeloma (Upfront plerixafor plus G-CSF versus cyclophosphamide plus G-CSF for stem cell mobilization in multiple myeloma: efficacy ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Multiple Myeloma have been published. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Cyclophosphamide plus G-CSF (C+G-CSF) is one of the most widely used stem cell (SC) mobilization regimens for patients with multiple myeloma (MM). Plerixafor plus G-CSF (P+G-CSF) has demonstrated superior SC mobilization efficacy when compared with G-CSF alone and has been shown to rescue patients who fail mobilization with G-CSF or C+G-CSF."

Our news journalists obtained a quote from the research from Memorial Sloan-Kettering Cancer Center, "Despite the proven efficacy of P+G-CSF in upfront SC mobilization, its use has been limited, mostly due to concerns of high price of the drug. However, a comprehensive comparison of the efficacy and cost effectiveness of SC mobilization using C+G-CSF versus P+G-CSF is not available. In this study, we compared 111 patients receiving C+G-CSF to 112 patients receiving P+G-CSF. The use of P+G-CSF was associated with a higher success rate of SC collection defined as &\#10878;5 × 10^6 CD34+ cells/kg (94 versus 83%, p=0.013) and less toxicities. Thirteen patients in the C+G-CSF arm were hospitalized owing to complications while none in the P+G-CSF group. C+G-CSF was associated with higher financial burden as assessed using institutional-specific costs and charges (p <0.001) as well as using Medicare reimbursement rates (p=0.27)."

According to the news editors, the research concluded: "Higher rate of hospitalization, increased need for salvage mobilization, and increased G-CSF use account for these differences."

For more information on this research see: Upfront plerixafor plus G-CSF versus cyclophosphamide plus G-CSF for stem cell mobilization in multiple myeloma: efficacy and cost analysis study. Bone Marrow Transplantation, 2016;51(4):546-52. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow
Researchers from Memorial Sloan-Kettering Cancer Center Discuss Findings in Thyroid Cancer (Nodal metastases in thyroid cancer: prognostic implications and management)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Thyroid Cancer are discussed in a new report. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "The significance of cervical lymph node metastases in differentiated thyroid cancer has been controversial and continues to evolve. Current staging systems consider nodal metastases to confer a poorer prognosis, particularly in older patients."

Our news journalists obtained a quote from the research from Memorial Sloan-Kettering Cancer Center, "Increasingly, the literature suggests that characteristics of the metastatic lymph nodes such as size and number are also prognostic. There is a growing trend toward less aggressive treatment of low-volume nodal disease."

According to the news editors, the research concluded: "The aim of this review is to summarize the current literature and discuss prognostic and management implications of lymph node metastases in differentiated thyroid cancer."

For more information on this research see: Nodal metastases in thyroid cancer: prognostic implications and management. Future Oncology, 2016;12(7):981-94.

Our news journalists report that additional information may be obtained by contacting L.Y. Wang, Dept. of Surgery, Head & Neck Service, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10065, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.16.10. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from Memorial Sloan-Kettering Cancer Center Report Findings in Mucositis (Role of Gabapentin in Managing Mucositis Pain in Patients Undergoing Radiation Therapy to the Head and Neck)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Digestive System Diseases and Conditions - Mucositis is now available. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Oral mucositis (OM) is a painful and debilitating side effect that affects 80%-100% of patients undergoing radiation therapy for head and neck cancer. This dose-limiting side effect may potentially lead to pain, dehydration, malnutrition, infection, and treatment breaks."

The news reporters obtained a quote from the research from Memorial Sloan-Kettering Cancer Center, "Treatment breaks can lead to decreased disease control and suboptimal patient outcomes. No primary prevention exists for OM, and management is focused on pain control. Compelling evidence exists that OM pain has somatic and neuropathic components. This article reviews the existing literature on the use of gabapentin (Neurontin®) as a co-analgesic in treating the neuropathic pain in OM. A literature search was performed using CINAHL® and PubMed with the search terms gabapentin and oral mucositis. The selected articles were briefly screened for relevance, and three were included in this review. No systematic reviews exist on the role of gabapentin for neuropathic pain in radiation-induced OM. Two retrospective studies concluded that gabapentin reduced escalation of opioid doses and unplanned treatment breaks. One retrospective study demonstrated favorable swallowing outcomes."

According to the news reporters, the research concluded: "Pain and OM are nursing-sensitive outcomes that can be significantly affected by evidence-based nursing interventions."

For more information on this research see: Role of Gabapentin in Managing Mucositis Pain in Patients Undergoing Radiation Therapy to the Head and Neck. *Clinical Journal of Oncology Nursing*, 2016;20(6):623-628. *Clinical Journal of Oncology Nursing* can be contacted at: Oncology Nursing Soc, 125 Enterprise Dr, Pittsburgh, PA 15275, USA.

Our news correspondents report that additional information may be obtained by contacting C.A. Milazzo-Kiedaisch, Mem Sloan Kettering Canc Center, New York, NY 10021, United States. Additional authors for this research include J. Itano and P.R. Dutta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1188/16.CJON.623-628. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Digestive System Diseases and Conditions, Gamma-aminobutyric Acid Analogs, Central Nervous System Agents, Clinical Trials and Studies, Neurologic Manifestations, Drugs and Therapies, Post-Trial Research, Gabapentin Therapy, Radiation Therapy, Anticonvulsants, Pharmaceuticals, Neuropathy, Mucositis, Pain, Memorial Sloan-
Researchers from Memorial Sloan-Kettering Cancer Center Report Findings in Vascular Malformations (Vascular malformation with phleboliths involving the parotid gland: A case report with a review of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Vascular Malformations is the subject of a report. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Phleboliths within the parotid gland are exceedingly rare. We report a case of a venous malformation with multiple phleboliths that involved the left parotid gland and extended into the extraparotid tissue in a 43-year-old woman."

Our news editors obtained a quote from the research from Memorial Sloan-Kettering Cancer Center, "We also review 13 similar cases that have been reported since 1948, and we highlight the significance of distinguishing phleboliths from sialoliths because management of the two can be entirely different. Phleboliths in and around the salivary glands primarily affect the parotid and submandibular glands in adult women. Patients can present with recurrent, intermittent swelling that may be associated with food intake and hyposalivation."

According to the news editors, the research concluded: "Any sialolithiasis located outside of its most common location in the submandibular glands must be investigated thoroughly before surgery."

For more information on this research see: Vascular malformation with phleboliths involving the parotid gland: A case report with a review of the literature. Ear, Nose, & Throat Journal, 2015;94(10-11):E1-5.

The news editors report that additional information may be obtained by contacting C. Ho, Dept. of Pathology, Memorial Sloan Kettering Cancer Center, New York, NY, United States. Additional authors for this research include B.L. Judson and M.L Prasad.

Keywords for this news article include: New York City, United States, Article Review, Vascular Malformations, Congenital Abnormalities, North and Central America, Cardiovascular Abnormalities, Cardiovascular Diseases and Conditions.

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Researchers from Metabolic and Atherosclerosis Research Center Report on Findings in Hypercholesterolemia (What role will proprotein convertase subtilisin/kexin type 9 inhibitors play in hyperlipidemia management?)

Nutritional and Metablic Diseases and Conditions - ...
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Hypercholesterolemia. According to news reporting originating from Cincinnati, Ohio, by NewsRx editors, the research stated, "This article summarizes the role that the recently approved proprotein convertase subtilisin/kexin type 9 (PCSK9) monoclonal antibodies (mAbs) will play in LDL cholesterol management. The discovery of PCSK9 in 2003 and its association with a rare form of autosomal-dominant hypercholesterolemia quickly led to the understanding of the role of circulating PCSK9 in regulating the recycling of the LDL receptor and LDL cholesterol (LDL-C) and impact on cardiovascular disease."

Our news editors obtained a quote from the research from Metabolic and Atherosclerosis Research Center, "Development of monoclonal antibodies that bind and inhibit PCSK9 entered clinical development in late 2009 and demonstrated substantial LDL-C reductions as monotherapy, added to statins, in heterozygous familial hypercholesterolemia and patients intolerant of statins. Large and comprehensive trials over the last 5 years also indicated good tolerability and safety and resulted in the 2015 regulatory approval in the USA and Europe for the marketing of two mAbs, evolocumab and alirocumab, for the treatment of LDL-C."

According to the news editors, the research concluded: "The background, clinical trials and approved indications for the current PCSK9 inhibitors are reviewed along with their likely role in the management of LDL-C and cardiovascular disease prevention."

For more information on this research see: What role will proprotein convertase subtilisin/kexin type 9 inhibitors play in hyperlipidemia management? Current Opinion In Endocrinology, Diabetes, and Obesity, 2016;23(2):97-105.

The news editors report that additional information may be obtained by contacting E.A. Stein, Metabolic and Atherosclerosis Research Center, Cincinnati, Ohio, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MED.0000000000000242. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Genetics, Cincinnati, Cardiology, Subtilisins, United States, Dyslipidemias, Article Review, Hyperlipidemias, Serine Proteases, Peptide Hydrolases, Hypercholesterolemia, Enzymes and Coenzymes, Serine Endopeptidases, Proprotein Convertases, North and Central America, Lipid Metabolism Disorders.

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Cardiology

Researchers from Midwestern University Report Details of New Studies and Findings in the Area of Cardiology (Sex-Dependent Effects of Dietary Genistein on Echocardiographic Profile and Cardiac GLUT4 Signaling in Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting out of Glendale, Arizona, by NewsRx editors, research stated, "This study aimed to determine whether genistein diet resulted in changes in cardiac function, using echocardiography, and expression of key proteins involved in glucose uptake by the myocardium. Intact male and female C57BL/6J mice (aged 4-6 weeks) were fed either 600
mg genistein/kg diet (600 G) or 0 mg genistein/kg diet (0G) for 4 weeks."

Our news journalists obtained a quote from the research from Midwestern University, "Echocardiography data revealed sex-dependent differences in the absence of genistein: compared to females, hearts from males exhibited increased systolic left ventricle internal dimension (LVIDs), producing a decrease in function, expressed as fractional shortening (FS). Genistein diet also induced echocardiographic changes in function: in female hearts, 600G induced a 1.5-fold (P < 0.05) increase in LVIDs, resulting in a significant decrease in FS and whole heart surface area when compared to controls (fed 0G). Genistein diet increased cardiac GLUT4 protein expression in both males (1.5-fold, P< 0.05) and females (1.76-fold, P < 0.05). However, no effects on the expression of notable intracellular signaling glucose uptake-regulated proteins were observed."

According to the news editors, the research concluded: "Our data indicate that consumption of genistein diet for 4 weeks induces echocardiographic changes in indices of systolic function in females and has beneficial effects on cardiac GLUT4 protein expression in both males and females."

For more information on this research see: Sex-Dependent Effects of Dietary Genistein on Echocardiographic Profile and Cardiac GLUT4 Signaling in Mice. Evidence-Based Complementary and Alternative Medicine, 2016();1-10. Evidence-Based Complementary and Alternative Medicine can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Evidence-Based Complementary and Alternative Medicine - www.hindawi.com/journals/ecam/)

Our news journalists report that additional information may be obtained by contacting L. Al-Nakkash, Midwestern Univ, Dept. of Physiol, Glendale, AZ 85308, United States. Additional authors for this research include J.B. Martin, T. Lawmaster, K. Arthur, T.L. Broderick and L. Al-Nakkash.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/1796357. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Glendale, Arizona, United States, North and Central America, Protein Expression, Echocardiography, Cardiovascular, Cardiology, Proteomics, Midwestern University.

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Brachytherapy

Researchers from Misericordia Hospital Discuss Findings in Brachytherapy (Recurrences and toxicity after adjuvant vaginal brachytherapy in Stage I-II endometrial cancer: A monoinstitutional experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Brachytherapy is the subject of a report. According to news reporting originating in Perugia, Italy, by NewsRx journalists, research stated, "To evaluate the incidences of vaginal recurrence and toxicity after vaginal brachytherapy in Stage I-II endometrial cancer. Between 2003 and 2012, 150 high-intermediate-risk Stage I and 7 Stage II
patients, median age 64 years, underwent surgery, with or without lymphadenectomy, and 3D brachytherapy: 7 Gy, at 5 mm depth from applicator surface, for 3-week fractions."

The news reporters obtained a quote from the research from Misericordia Hospital, "The effects of age, grading, number of excised lymph nodes and pathologic stage on loco-regional relapse (LRR), metastases, and tumor-related death were investigated. Vaginal toxicity was evaluated during followup visits. At 83 months of median followup, 144 patients were disease free, 2 in relapse, 7 deceased from disease, and 4 from other causes. One vaginal (0.6%), five nodal (3.2%), three pelvic over the vaginal cuff (1.9%), and one distant recurrences were seen (0.6%). The 5-year probability of LRR-free, distant metastasis-free and cause-specific survivals for all patients were 93.6% (95% confidence interval [CI]: 88.1-96.7), 97.8% (95% CI: 93.2-99.3), and 96.5% (95% CI: 93.5-99.5) and for Stage I 95.7% (95% CI: 92.2-9.1), 99.3% (95% CI: 98.0-100), and 97.7% (95% CI: 95.2-100), respectively. At multivariate analysis, Stage II disease and more than 12 lymph nodes sampled were associated with LRR (hazard ratio [HR]: 3.88; 95% CI: 1.390-10.878; p = 0.010 and HR: 6.952; 95% CI: 1.591-30.385; p = 0.010) and Stage II with metastasis and tumor-related death (HR: 23.057; 95% CI: 2.296-231.485; p = 0.008 and HR: 4.324; 95% CI: 1.223-15.290; p = 0.023). Vaginal acute and chronic toxicity was 16% and 55.4%, respectively, all only Grades 1-2. For high-to-intermediate-risk Stage I endometrial cancer, 3D vaginal brachytherapy achieved good local control and low toxicity."

According to the news reporters, the research concluded: "In Stage II, patients brachytherapy could be administered after complete surgical staging."


Our news correspondents report that additional information may be obtained by contacting E. Perrucci, Santa Maria Misericordia Hosp, Dept. of Oncohematogastroenterol Sci, Radiat Oncol Sect, Perugia, Italy. Additional authors for this research include V. Lancellotta, V. Bini, C. Zucchetti, C. Mariucci, G. Montesi, S. Saccia, I. Palumbo and C. Aristei.

Keywords for this news article include: Perugia, Italy, Europe, Drugs and Therapies, Brachytherapy, Radiotherapy, Oncology, Therapy, Cancer, Misericordia Hospital.

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Central Nervous System

Researchers from Missouri State University Report Recent Findings in Central Nervous System (Elevated Levels Of Calcitonin Gene-related Peptide In Upper Spinal Cord Promotes Sensitization Of Primary Trigeminal Nociceptive Neurons)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System. According to news reporting originating in Springfield, Missouri, by NewsRx journalists, research stated, "Orofacial pain conditions including temporomandibular disorder (TMD) and migraine are characterized by peripheral and central sensitization of trigeminal nociceptive neurons. The goal of this study was to investigate the role of calcitonin gene-related peptide (CGRP) in promoting..."
bidirectional signaling within the trigeminal system to mediate sensitization of primary nociceptive neurons."

Financial support for this research came from National Institutes of Health.

The news reporters obtained a quote from the research from Missouri State University, "Adult male Sprague-Dawley rats were injected intercisternally with CGRP or co-injected with the receptor antagonist CGRP(8-37) or KT 5720, a protein kinase A (PKA) inhibitor. Nocifensive head withdrawal response to mechanical stimulation was investigated using von Frey filaments. Expression of PKA, glial fibrillary acidic protein (GFAP), and ionized calcium-binding adapter molecule 1 (Iba1) in the spinal cord and phosphorylated extracellular signal-regulated kinase (P-ERK) in the ganglion was studied using immunohistochemistry. Some animals were co-injected with CGRP and Fast Blue dye and the ganglion was imaged using fluorescent microscopy. CGRP increased nocifensive responses to mechanical stimulation when compared to control. Co-injection of CGRP(8-37) or KT 5720 with CGRP inhibited the nocifensive response. CGRP stimulated PKA and GFAP expression in the spinal cord, and PERK in ganglion neurons. Seven days post injection, Fast Blue was observed in ganglion neurons and satellite glial cells. Our results demonstrate that elevated levels of CGRP in the upper spinal cord promote sensitization of primary nociceptive neurons via a mechanism that involves activation of PKA centrally and P-ERK in ganglion neurons."

According to the news reporters, the research concluded: "Our findings provide evidence of bidirectional signaling within the trigeminal system that facilitate increased neuron-glial communication within the ganglion associated with trigeminal sensitization."


Our news correspondents report that additional information may be obtained by contacting P.L. Durham, Missouri State Univ, Center Biomed & Life Sci, Springfield, MO 65897, United States. Additional authors for this research include J.L. Hawkins and P.L. Durham.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neuroscience.2016.10.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Springfield, Missouri, United States, North and Central America, Calcitonin Gene-Related Peptides, Central Nervous System, Enzymes and Coenzymes, Peptide Proteins, Peptide Hormones, Neuropeptides, Spinal Cord, Proteomics, Neurons, Kinase, Cells, Missouri State University.

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Inhibition

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "The bone-conserved metastatic phenotype of prostate cancer is a prototype of nonrandom metastatic behavior. Adhesion of prostate cancer cells to fibronectin via the integrin a5 (ITGA5) has been proposed as a candidate bone marrow niche localization mechanism."

Our news journalists obtained a quote from the research from Molecular Oncology Research Institute, "We hypothesized that the mechanisms whereby ITGA5 regulates the adhesion-mediated survival of prostate cancer cells will define novel therapeutic approaches. ITGA5 shRNA reduced expression of BCL-2 family members and induced apoptosis in PC-3 cells. In these PTEN-mutant cells, pharmacologic inhibition of the PI3K signaling pathway in combination with ITGA5 knockdown enhanced apoptosis. Chemical parsing studies with BH3 mimetics indicated that PI3K/Akt inhibition in combination with BCL-XL-specific inhibition induces synergistic apoptosis specifically in PTEN-mutant prostate cancer cells, whereas single-agent PI3K/Akt inhibitors did not. Given the importance of PTEN loss in the progression of prostate and other cancers, synthetic lethality induced by combinatorial PI3K/Akt and BCL-XL inhibition represents a valuable therapeutic strategy. Synthetic lethality in PTEN-mutant prostate cancer cells with combined PI3K/Akt and BCL-XL inhibition. PTENmutant prostate cancer cells expressing ITGA5 bind to fibronectin in the putative bone marrow niche and transduce survival signals to BCL-XL."

According to the news editors, the research concluded: "Additional PTEN-regulated signals independent of the PI3K/Akt pathway likely feed into the BCL-XL-regulated survival program to explain synthetic lethality observed with the combination."

For more information on this research see: Synthetic Lethality in PTEN-Mutant Prostate Cancer Is Induced by Combinatorial PI3K/Akt and BCL-XL Inhibition. Molecular Cancer Research, 2016;14(12):1176-1181. Molecular Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Molecular Cancer Research - mcr.aacrjournals.org/)

The news correspondents report that additional information may be obtained from P. Mathew, Tufts Med Center, Mol Oncol Res Inst, Dept. of Hematol Oncol, Boston, MA, United States. Additional authors for this research include R. Joshi and P. Mathew.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Prostatic Neoplasms, Prostate Cancer, Immune System, Combinatorial, Bone Research, Combinatoric, Bone Marrow, Apoptosis, Oncology, Molecular Oncology Research Institute.

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Viral RNA

Researchers from Montana State University Report Findings in Viral RNA (Programmed Self-Assembly of an Active P22-Cas9 Nanocarrier System)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Viral RNA have been presented. According to news reporting originating from Bozeman, Montana, by NewsRx correspondents, research stated, "Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) RNA-guided endonucleases are powerful new tools for targeted genome engineering. These nucleases provide an efficient and precise method for manipulating eukaryotic genomes; however, delivery of these reagents to specific cell-types remains challenging."

Funders for this research include MJ Murdock Charitable Trust, American Heart Association, Office of Experimental Program to Stimulate Competitive Research, Amgen, National Institute of General Medical Sciences, National Science Foundation.

Our news editors obtained a quote from the research from Montana State University, "Virus-like particles (VLPs) derived from bacteriophage P22, are robust supramolecular protein cage structures with demonstrated utility for cell type-specific delivery of encapsulated cargos. Here, we genetically fuse Cas9 to a truncated form of the P22 scaffold protein, which acts as a template for capsid assembly as well as a specific encapsulation signal for Cas9. Our results indicate that Cas9 and a single-guide RNA are packaged inside the P22 VLP, and activity assays indicate that this RNA-guided endonuclease is functional for sequence-specific cleavage of dsDNA targets."

According to the news editors, the research concluded: "This work demonstrates the potential for developing P22 as a delivery vehicle for cell specific targeting of Cas9."

For more information on this research see: Programmed Self-Assembly of an Active P22-Cas9 Nanocarrier System. Molecular Pharmaceutics, 2016;13(3):1191-6. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news editors report that additional information may be obtained by contacting S. Qazi, Dept. of Microbiology and Immunology, Montana State University, Bozeman, Montana 59717, United States. Additional authors for this research include H.M. Miettinen, R.A. Wilkinson, K. McCoy, T. Douglas and B. Wiedenheit.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00822. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bozeman, Montana, Viral RNA, United States, North and Central America.

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Heart Disorders and Diseases - Heart Disease

Researchers from Morristown Medical Center Report Recent Findings in Heart Disease (Bleeding Events Before Coronary Angiography in Patients With Non-ST-Segment Elevation Acute Coronary Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Disease. According to news reporting from Morristown, New Jersey, by NewsRx journalists, research stated, "Upstream administration of antithrombotic drugs to patients with non-ST-segment elevation acute coronary syndromes before coronary angiography is a common practice
despite an incomplete understanding of the risks and benefits. The authors analyzed the incidence of bleeding and ischemic events occurring before angiography and assessed their association with antithrombotic drugs and mortality risk."

The news correspondents obtained a quote from the research from Morristown Medical Center, "All patients from the ACUITY (Acute Catheterization and Urgent Intervention Triage Strategy) trial with planned angiography after enrollment were included. Bleeding events were classified according to the ACUITY scale as major or nonmajor bleeding. Kaplan-Meier and Cox proportional hazards analyses were performed. Of 13,726 patients, 275 (2.0%) bled before angiography, including 52 (0.4%) with major bleeding. Forty-four (0.3%) experienced myocardial infarction. The median time from randomization to coronary angiography was 4.5 h (interquartile ratio [IQR]: 1.7 to 19.7 h) for patients who did not bleed while waiting for angiography and 27.9 h (IQR: 21.9 to 65.6 h) for patients who bled while waiting for angiography (p < 0.001). Bleeding events accrued linearly over time, reaching 10.4% at 96 h post-randomization. Independent predictors of bleeding before angiography included age (adjusted hazard ratio [HR]: 1.03 per year of age; 95% confidence interval [CI]: 1.01 to 1.04; p < 0.001), renal insufficiency (adjusted HR: 1.48; 95% CI: 1.07 to 2.04; p = 0.02), and use of multiple antithrombotic drugs (adjusted HR: 1.33; 95% CI: 1.14 to 1.56; p< 0.001). Bleeding before coronary angiography was associated with longer hospitalization (4.8 days [IQR: 3.0 to 8.9 days] vs. 3.0 days [IQR: 1.9 to 5.9 days]; p < 0.001). Patients who bled before angiography were more likely to die within 1 year than patients who did not bleed (8.5% vs. 4.1%; p< 0.001; adjusted HR: 1.89 (95% CI: 1.23 to 2.90; p = 0.004). Upstream antithrombotic treatment of patients with non-ST-segment elevation acute coronary syndromes awaiting coronary angiography is associated with excess bleeding with mortality implications."

According to the news reporters, the research concluded: "Bleeding avoidance strategies before angiogram, including early angiography, may negate the need to prolong upstream antithrombotic treatment and improve the overall risk-benefit balance for these patients."


Our news journalists report that additional information may be obtained by contacting P. Genereux, Morristown Med Center, Morristown, NJ, United States. Additional authors for this research include A.J. Kirtane, S.J. Pocock, G.M. Ayele, E.N. Deliargyris, R. Mehran, G.W. Stone and P. Genereux.

Keywords for this news article include: Morristown, New Jersey, United States, North and Central America, Diagnostic Techniques and Procedures, Cardiovascular Diagnostic Techniques, Vascular Diseases and Conditions, Angiology, Risk and Prevention, Heart Disorders and Diseases, Acute Coronary Syndrome, Coronary Angiography, Heart Function Tests, Myocardial Ischemia, Antithrombotic, Heart Disease, Cardiology, Diagnosis, Morristown Medical Center.

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Researchers from Mukogawa Women's University Describe Findings in Hydro-Lyases (Reduced Production of Hydrogen Sulfide and Sulfane Sulfur Due to Low Cystathionine beta-Synthase Levels in Brain Astrocytes of Stroke-Prone Spontaneously ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Hydro-Lyases. According to news reporting out of Nishinomiya, Japan, by NewsRx editors, research stated, "Stroke-prone spontaneously hypertensive rats (SHRSP/Izm; SHRSP) develop severe hypertension and die of cerebral stroke. However, the genetic mechanisms underlying their stroke susceptibility have not been clarified yet."

Our news journalists obtained a quote from the research from Mukogawa Women's University, "In this study, we used astrocytes from the newborn brain cortex of spontaneously hypertensive rats (SHR/Izm; SHR) and SHRSP to find the difference of genetic characteristics. Astrocytes are known to have functions of vasodilation and nutrient uptake for neurons in the brain. The continuous generation of hydrogen peroxide (H2O2) dose-dependently causes cell death in astrocytes, and SHRSP was more vulnerable than SHR. We found that the total thiols decreased in SHRSP astrocytes but the total glutathione (GSH) did not change. Hydrogen sulfide (H2S), which is known to protect cells through anti-oxidant and vasodilatory effects, is produced by cystathionine beta-synthase (CBS) in astrocytes. We found that H2S production was significantly decreased in SHRSP as compared to SHR. This was caused by the decreasing expression of mRNA, protein and enzyme activity of CBS in astrocytes. We also found that astrocyte cell death from oxidative stress could be prevented by GYY4137 H2S donor. H2S is also known to cause protein S-sulfhydration to modify enzyme activity. Sulfane sulfur in astrocytes was significantly lower in SHRSP and decreased by CBS inhibitor."

According to the news editors, the research concluded: "We showed that astrocytes in SHRSP vulnerable to oxidative stress may be caused by reduction of H2S through lower expression and activity of CBS."


Our news journalists report that additional information may be obtained by contacting S. Juman, Mukogawa Womens Univ, Sch Pharm & Pharmacut Sci, Nishinomiya, Hyogo 6638179, Japan. Additional authors for this research include Y. Nara, N. Yasui, H. Negishi, H. Okuda, N. Takado and T. Miki.

Keywords for this news article include: Nishinomiya, Japan, Asia, Cystathionine beta-Synthase, Dicarboxylic Amino Acids, Enzymes and Coenzymes, Noncarboxylic Acids, Diamino Amino Acids, Inorganic Chemicals, Sulfur Amino Acids, Hydrogen Sulfide, Sulfur Compounds, Hydro-Lyases, Chalcogens, Astrocytes, Neuroglia, Elements, Genetics, Stroke, Gases, Mukogawa Women's University.

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Researchers from NHS Foundation Trust Discuss Findings in Arteriovenous Malformation (Novel use of 4D-CTA in imaging of intranidal aneurysms in an acutely ruptured arteriovenous malformation: is this the way forward?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Arteriovenous Malformation have been published. According to news reporting out of Liverpool, United Kingdom, by NewsRx editors, research stated, "Ruptured arteriovenous malformation (AVM) is a frequent cause of intracranial hemorrhage. The presence of associated aneurysms, especially intranidal aneurysms, is considered to increase the risk of re-hemorrhage."

Our news journalists obtained a quote from the research from NHS Foundation Trust, "We present two cases where an intranidal aneurysm was demonstrated on four-dimensional CT angiography (time-resolved CT angiography) (4D-CTA). These features were confirmed by digital subtraction angiography (catheter arterial angiogram)."

According to the news editors, the research concluded: "This is the first report of an intranidal aneurysm demonstrated by 4D-CTA. 4D-CTA can offer a comprehensive evaluation of the angioarchitecture and flow dynamics of an AVM for appropriate classification and management."


Our news journalists report that additional information may be obtained by contacting A. Chandran, Walton Center NHS Fdn Trust, Dept. of Neuroradiol, Liverpool L9 7LJ, Merseyside, United Kingdom. Additional authors for this research include M. Radon, S. Biswas, K. Das, M. Puthuran and H. Nahser.

Keywords for this news article include: Liverpool, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Cardiovascular Abnormalities, Arteriovenous Malformations, Congenital Abnormalities, Vascular Malformations, Cardiology, Angiography, Hemorrhage, Aneurysm, NHS Foundation Trust.

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Connective Tissue Cells

Researchers from Nagoya City University Report New Studies and Findings in the Area of Connective Tissue Cells [A New Splice Variant of Large Conductance Ca2+-activated K+ (BK) Channel Subunit Alters Human Chondrocyte Function]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Connective Tissue Cells. According to news reporting from Nagoya, Japan, by NewsRx journalists, research stated, "Large conductance Ca2+-activated K+ (BK) channels play essential roles in both excitable and non-excitabile cells. For example, in chondrocytes, agonist-induced Ca2+ release from intracellular store activates BK channels, and this hyperpolarizes these cells, augments Ca2+ entry, and forms a positive feedback mechanism for Ca2+ signaling and stimulation-secretion coupling."

The news correspondents obtained a quote from the research from Nagoya City University, "In the present study, functional roles of a newly identified splice variant in the BK channel subunit (BKe2) were examined in a human chondrocyte cell line, OUMS-27, and in a HEK293 expression system. Although BKe2 lacks exon2, which codes the intracellular S0-S1 linker (Glu-127-Leu-180), significant expression was detected in several tissues from humans and mice. Molecular image analyses revealed that BKe2 channels are not expressed on plasma membrane but can traffic to the plasma membrane after forming hetero-tetramer units with wild-type BK (BKWT). Single-channel current analyses demonstrated that BK hetero-tetramers containing one, two, or three BKe2 subunits are functional. These hetero-tetramers have a smaller single channel conductance and exhibit lower trafficking efficiency than BKWT homotetramers in a stoichiometry-dependent manner. Site-directed mutagenesis of residues in exon2 identified Helix2 and the linker to S1 (Trp-158-Leu-180, particularly Arg-178) as an essential segment for channel function including voltage dependence and trafficking. BKe2 knockdown in OUMS-27 chondrocytes increased BK current density and augmented the responsiveness to histamine assayed as cyclooxygenase-2 gene expression."

According to the news reporters, the research concluded: "These findings provide significant new evidence that BKe2 can modulate cellular responses to physiological stimuli in human chondrocyte and contribute under pathophysiological conditions, such as osteoarthritis."


Our news journalists report that additional information may be obtained by contacting Y. Imaizumi, Nagoya City University, Grad Sch Pharmaceut Sci, Dept. of Mol & Cellular Pharmacol, Mizuho Ku, Nagoya, Aichi 4678603, Japan. Additional authors for this research include S. Ohya, H. Yamamura, W.R. Giles and Y. Imaizumi.

Keywords for this news article include: Nagoya, Japan, Asia, Connective Tissue Cells, Chondrocytes, Genetics, Nagoya City University.

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**Reproductive Medicine - Male Infertility**

**Researchers from Nanjing Medical University Report Details of New Studies and Findings in the Area of Male Infertility (Common SNP in hsa-miR-196a-2 increases hsa-miR-196a-5p expression and predisposes to idiopathic male infertility in Chinese ...)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Reproductive Medicine - Male Infertility. According to news reporting from Nanjing, People's Republic of China, by NewsRx journalists, research stated, "MicroRNA plays an important role in spermatogenesis. Whether pre-miRNAs polymorphisms are associated with idiopathic male infertility remains obscure."

The news correspondents obtained a quote from the research from Nanjing Medical University. "In this study, 1378 idiopathic infertile males and 486 fertile controls were included between 2006 and 2014. Genotype of three polymorphisms (hsa-mir-146a rs2910164, hsa-mir-196a-2 rs11614913, and hsa-mir-499 rs3746444) and expression of miRNA in seminal plasma were examined by TaqMan method. The role of hsa-miR-196a-5p in cell proliferation, apoptosis and cell cycle were also examined in GC-2 cells. Our results demonstrated that rs11614913 of hsa-miR-196a-2 was significantly associated with idiopathic infertility (TT vs. CT: p=0.014; TT vs. CC: p=0.005; TT vs. CT + CC: p=0.003). In following stratified analysis, we found that rs11614913 exhibited a significantly higher risk of asthenospermia, oligozoospermia and azoospermia. However, no significant association was observed between the other two polymorphisms and idiopathic male infertility risk. In a genotype-expression correlation analysis, rs11614913 CC was significantly associated with elevated expression of hsa-miR-196a-5p (p <0.05). Additionally, apoptosis levels were significantly increased in hsa-miR-196a-5p mimic treated GC-2 cells, while decreased in hsa-miR-196a-5p inhibitor treated GC-2 cells."

According to the news reporters, the research concluded: "Our data revealed a significant relationship between hsa-miR-196a-2 polymorphism and idiopathic male infertility."

For more information on this research see: Common SNP in hsa-miR-196a-2 polymorphism and idiopathic male infertility. In a genotype-expression correlation analysis, rs11614913 CC was significantly associated with elevated expression of hsa-miR-196a-5p (p <0.05). Additionally, apoptosis levels were significantly increased in hsa-miR-196a-5p mimic treated GC-2 cells, while decreased in hsa-miR-196a-5p inhibitor treated GC-2 cells."

According to the news reporters, the research concluded: "Our data revealed a significant relationship between hsa-miR-196a-2 polymorphism and idiopathic male infertility.

For more information on this research see: Common SNP in hsa-miR-196a-2 polymorphism and idiopathic male infertility. Scientific Reports, 2016;6():19825. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting J. Lu, State Key Laboratory of Reproductive Medicine, Dept. of Reproduction, Nanjing Maternal and Child Health Care Hospital Affiliated to Nanjing Medical University, Nanjing 210004, People's Republic of China. Additional authors for this research include H. Gu, Q. Tang, W. Wu, B. Yuan, D. Guo, Y. Wei, H. Sun, Y. Xia, H. Ding, L. Hu, D. Chen, J. Sha and X. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19825. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Nanjing, Genetics, Men's Health, Male Infertility, Risk and Prevention, Reproductive Medicine, People's Republic of China, Male Genital Diseases and Conditions, Male Urogenital Diseases and Conditions, Male Reproductive Diseases and Conditions.

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Oncology - Cancer Risk

Researchers from Nanjing Medical University Report Recent Findings in Cancer Risk (CXC motif chemokine receptor 4 gene polymorphism and cancer risk)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cancer Risk is the subject of a report. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Previous epidemiological studies have reported the relationship between CXC motif chemokine receptor 4 (CXCR4) synonymous polymorphism (rs2228014), and risk of cancer, but the results remained conflicting and controversial. Therefore, this study was devised to evaluate the genetic effects of the rs2228014 polymorphism on cancer risk in a large meta-analysis."

The news correspondents obtained a quote from the research from Nanjing Medical University, "The computer-based databases (EMBASE, Web of Science, and PubMed) were searched for all relevant studies evaluating rs2228014 and susceptibility to cancer. In the analysis, pooled odds ratios (ORs) with its corresponding 95% confidence intervals (CIs) were calculated in 5 genetic models to assess the genetic risk. Egger regression and Begg funnel plots test were conducted to appraise the publication bias. Data on rs2228014 polymorphism and overall cancer risk were available for 3684 cancer patients and 5114 healthy controls participating in 11 studies. Overall, a significantly increased risk of cancer was associated with rs2228014 polymorphism in homozygote model (OR=2.01, 95% CI: 1.22-3.33) and in recessive model (OR=1.97, 95% CI: 1.23-3.16). When stratified by ethnicity, the results were positive only in Asian populations (homozygote model: OR=1.36, 95% CI: 1.13-1.65; homozygote model: OR=2.43, 95% CI: 1.21-4.91; dominant model: OR=1.47, 95% CI: 1.13-1.90; recessive model: OR=2.25, 95% CI: 1.13-4.48; and allele model: OR=1.48, 95% CI: 1.10-1.99). Besides, in the subgroup analysis by source of control, the result was significant only in population-based control (homozygote model: OR=2.39, 95% CI: 1.06-5.40; recessive model: pooled OR=2.24, 95% CI: 1.02-4.96). In general, our results first indicated that the rs2228014 polymorphism in CXCR4 gene is correlated with an increased risk of cancer, especially among Asian ethnicity."

According to the news reporters, the research concluded: "Large, well-designed epidemiological studies are required to verify the current findings."

For more information on this research see: CXC motif chemokine receptor 4 gene polymorphism and cancer risk. Medicine, 2016;95(49):65-70. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)


Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Epidemiology, Risk and Prevention, Genetics, G-Protein-Coupled Receptors, Inflammation Mediators, Chemokine Receptors, Chemotactic Factors, Biological Factors, Cytokine Receptors, Membrane Proteins, CD Antigens, Cancer Risk, Immunology, Chemokines, Cytokines, Oncology, Nanjing Medical University.

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Researchers from Nanjing Medical University Report Recent Findings in Clopidogrel Therapy (Interleukin-10 does not modulate clopidogrel platelet response in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Clopidogrel Therapy have been published. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "ESSENTIALS: It is unclear whether interleukin-10 (IL-10) could affect clopidogrel metabolism and response. The bioactivation of and response to clopidogrel were determined between mice with or without IL-10."

Funders for this research include National Natural Science Foundation of China, Department of Science and Technology of the Province of Jiangsu, Natural Science Foundation of the Province of Jiangsu, Nanjing First Hospital, China, Ministry of Human Resource and Social Security of China.

Our news journalists obtained a quote from the research from Nanjing Medical University, "Maximum clopidogrel active metabolite levels were the major driver of platelet response to clopidogrel. IL-10 did not modulate maximum levels of clopidogrel active metabolite and its antiplatelet effects. Elevated plasma interleukin-10 (IL-10) levels were observed in patients who responded less to clopidogrel (a prodrug that is required for further metabolic bioactivation in the liver). However, no data are currently available suggesting whether there is such an association. To systematically explore possible differences in the formation of and response to clopidogrel active metabolite (CAM) in mice with or without IL-10 gene expression. A single oral dose of clopidogrel (10 mg kg(-1)) was given to IL-10 knockout (KO) mice and wild-type (WT) control mice, respectively, and pharmacokinetic parameters of clopidogrel and CAM were calculated. Moreover, adenosine diphosphate-induced whole-blood platelet aggregation was measured in mice receiving 0, 5, 10, or 20 mg kg(-1) of clopidogrel, respectively. Compared with IL-10 KO mice, WT mice had significantly lower area under the plasma concentration-time curve (AUC) of CAM as a result of a shorter mean elimination half-life but had significantly higher AUC of clopidogrel due to slower systemic clearance and smaller volume of distribution. Although AUC of CAM was significantly lower in WT mice than in KO mice, antiplatelet effects of clopidogrel did not differ significantly between the two mouse groups, as their maximum plasma concentrations (Cmax) of CAM were not significantly different."

According to the news editors, the research concluded: "IL-10 expression level affects AUC rather than Cmax of CAM, but the Cmax of CAM is the major driver of antiplatelet effects of clopidogrel in mice."


The news correspondents report that additional information may be obtained from Q. Yin, General Clinical Research Center, Nanjing First Hospital, Nanjing Medical University, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include T. Tai, J.Z. Ji, Q.Y. Mi, M.R. Zhang, W.J. Huang, C.C. Cao and H.G Xie.

The direct object identifier (DOI) for that additional information is:
Researchers from Nanjing Medical University Report Recent Findings in Lung Cancer (Adverse events risk associated with anti-VEGFR agents in the treatment of advanced nonsmall-cell lung cancer A meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lung Cancer. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "To perform this meta-analysis, we investigated the risk of the most clinically relevant adverse events related to antivascular endothelial growth factor receptor (VEGFR) agents in advanced nonsmall-cell lung cancer (NSCLC). A comprehensive literature search for studies published up to October 2015 was performed."

The news correspondents obtained a quote from the research from Nanjing Medical University, "Prospective randomized controlled phase II/III clinical trials that comparing therapy with or without anti-VEGFR agents for advanced NSCLC were included for analysis. Summary relative risk (RR) and 95% confidence intervals (CIs) were calculated using random effects or fixed effects according to the heterogeneity among included trials. A total of 11,701 patients from 18 clinical trials were included for analysis. Pooled RR showed that the use of anti-VEGFR agents significantly increased the risk of developing hypertension (RR 4.71, 95% CI 3.29-6.73, P < 0.001) and fatal adverse events (RR 1.33, 95% CI 1.12-1.58, P = 0.001). No statistically significant differences were found for gastrointestinal (GI) perforation (P = 0.41), arterial or venous thromboembolic events (P = 0.49 and P = 0.16, respectively), or hemorrhagic events (P = 0.81). Sensitive analysis indicated that the significance estimate of pooled RR of fatal adverse event (FAEs) was not significantly influenced by omitting any single study."

According to the news reporters, the research concluded: "The use of anti-VEGFR agents in advanced NSCLC does significantly increase the risk of hypertension and fatal adverse events, but not for arterial or venous thromboembolic events, GI perforation, or hemorrhagic events."

For more information on this research see: Adverse events risk associated with anti-VEGFR agents in the treatment of advanced nonsmall-cell lung cancer A meta-analysis. Medicine, 2016;95(48):15-21. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting Q.Q. Wu, Nanjing Medical University, Huaian Peoples Hosp 1, Dept. of Thorac Surg, Huaian 223300, Jiangsu, People's Republic of China. Additional authors for this research
Researchers from Nanjing University Discuss Findings in Non-Small Cell Lung Cancer (Inhibition of autophagy by andrographolide resensitizes cisplatin-resistant non-small cell lung carcinoma cells via activation of the Akt/mTOR pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Non-Small Cell Lung Cancer are presented in a new report. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "Resistance to cisplatin is a major obstacle for the success of non-small cell lung cancer therapy. The mechanisms underlying cisplatin resistance are not fully understood."

Funders for this research include National Natural Science Foundation of China, Natural Science Foundation of Jiangsu Province.

Our news journalists obtained a quote from the research from Nanjing University, "In this study, we found that the increase of basal autophagy accompanied the development of cisplatin resistance. Meanwhile the blockade of the Akt/mTOR pathway occurred in the process. Inhibition of this pathway was induced by cisplatin treatment in the resistant non-small cell lung carcinoma cells. Andrographolide, a natural diterpenoid, promoted the activation of the Akt/mTOR signaling by downregulating PTEN and suppressed autophagy, which subsequently resensitized the resistant cells to cisplatin-mediated apoptosis. Cisplatin treatment in combination with andrographolide significantly prevented the growth of the resistant cells in vivo."

According to the news editors, the research concluded: "These results highlight the involvement of autophagy in cisplatin-resistance development and suggest that inhibition of autophagy via tuning the Akt/mTOR signaling could be a promising strategy in the therapy for cisplatin-resistant non-small cell lung cancer."

For more information on this research see: Inhibition of autophagy by andrographolide resensitizes cisplatin-resistant non-small cell lung carcinoma cells via activation of the Akt/mTOR pathway. Toxicology and Applied Pharmacology, 2016;310();78-86. Toxicology and Applied Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Toxicology and Applied Pharmacology - www.journals.elsevier.com/toxicology-and-applied-pharmacology/)

Our news journalists report that additional information may be obtained by contacting Y. Shen, Nanjing University, Sch Life Sci, State Key Lab Pharmaceut Biotechnol, Nanjing 210093, Jiangsu, People's Republic of China. Additional authors for this research
Researchers from Nanjing University Report Findings in Applied Materials & Interfaces (Highly Sensitive Colorimetric Cancer Cell Detection Based on Dual Signal Amplification)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Materials Research - Applied Materials & Interfaces is the subject of a report. According to news reporting out of Nanjing, People's Republic of China, by NewsRx editors, research stated, "Facile and efficient detection of cancer cells at their preclinical stages is one of the central challenges in cancer diagnostics. A direct, rapid, highly sensitive and specific biosensor for detection of cancer biomarkers is desirable in early diagnosis and prognosis of cancer."

Funders for this research include Ministry of Science and Technology of the People's Republic of China, National Natural Science Foundation of China, Priority Academic Program Development of Jiangsu Higher Education Institutions.

Our news journalists obtained a quote from the research from Nanjing University, "In this work, we developed, for the first time, an easy and intuitive dispersion-dominated colorimetric strategy for cancer cell detection based on combining multi-DNA released from an aptamer scaffold with cyclic enzymatic amplification, which was triggered by aptamer DNA conformational switch and demonstrated by non-cross-linking gold nanoparticles (Au NPs) aggregation. First, five kinds of messenger DNAs (mDNAs) were aligned on the cancer cell aptamers modified on magnetic beads (MBs) to form mDNAs-Apt-MBs biocompatible nanosensors. In the presence of target cells, the aptamer would bind to the receptors on the cell membranes, and mDNAs would be released, resulting in the first amplification that one biological binding event would cause the release of multiple kinds of mDNAs simultaneously. After magnetic separation, the released mDNAs were introduced into the cyclic enzymatic amplification to cleave more single strand DNA (ssDNA) fragments. Instead of modification of Au NPs, these fragments and mDNAs could be adsorbed on the surface of Au NPs to prevent particle aggregation and ensure the stability and color of solution in high salt environments. The linear response for HL-60 cells in a concentration range from 10 to 10(4) cells was obtained with a detection limit of four cells in buffer solution. Moreover, the feasibility of the proposed strategy was demonstrated in a diluted serum sample."

According to the news editors, the research concluded: "This dual signal
amplification method can be extended to other types of cancer cells, which has potential application in point-of-care cancer diagnosis."


Our news journalists report that additional information may be obtained by contacting T. Yu, State Key Laboratory of Analytical Chemistry for Life Science and Collaborative Innovation Center of Chemistry for Life Sciences, School of Chemistry and Chemical Engineering, Nanjing University, Nanjing 210023, People's Republic of China. Additional authors for this research include P.P. Dai, J.J. Xu and H.Y Chen.

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Keywords for this news article include: Asia, Cancer, Nanjing, Genetics, Oncology, Materials Research, People's Republic of China, Applied Materials & Interfaces.

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**Oncology - Colon Cancer**

**Researchers from Nanjing University Report New Studies and Findings in the Area of Colon Cancer (Andrographolide reversed 5-FU resistance in human colorectal cancer by elevating BAX expression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "5-FU is the first line therapy for colorectal cancer, however, treatment effect is often hampered by the development of drug resistance or toxicity at high doses. Andrographolide is a natural diterpenoid from Andrographis paniculata which has anti-bacterial, anti-antiviral and anti-inflammation activities."

Financial supporters for this research include National Natural Science Foundation of China, Key Personel of Jiangsu Province, Jiangsu Province Clinical Science and Technology Projects, Priority Academic Program Development of Jiangsu Higher Education Institutions.

Our news editors obtained a quote from the research from Nanjing University, "In the current study, we test the hypothesis that Andrographolide reverses 5-FU resistance in colorectal cancer and examine the underlying mechanism. In vitro and vivo studies indicated that Andrographolide treatment significantly re-sensitizes HCT116/5-FUR cells (HCT116 cells which are 5-FU resistant) to cytotoxicity of 5-FU. Mechanism analysis showed that Andrographolide/5-FU co-treatment elevated apoptosis level of HCT116/5-FUR cells with highly increased level of BAX. By using biotin-Andrographolide pull down and cellular thermal shift assay, we found out that Andrographolide can directly target to BAX. Andrographolide-BAX interaction prevented BAX degradation, enhancing mitochondria-mediated apoptosis thus reversed 5-FU resistance while BAX silence diminished this effect. Further, by analyzing patient samples who received 5-FU involved chemotherapy, we found that expression level of BAX is
correlated with PFS. Our results here provide a novel combination treatment strategy, especially for patients with 5-FU-resistant tumors expressing low level of BAX."

According to the news editors, the research concluded: "Meanwhile, we also proposed that BAX expression may be a predicted and prognosis marker of 5-FU involved chemotherapy."


The news editors report that additional information may be obtained by contacting Q. Xu, Nanjing University, Sch Life Sci, State Key Lab Pharmaceut Biotechnol, Nanjing 210093, Jiangsu, People's Republic of China. Additional authors for this research include W.J. Guo, L.L. Li, Z. Fu, W. Liu, J. Gao, Y.Q. Shu, Q. Xu, Y. Sun and Y.H. Gu.

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Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Nanjing University.

Researchers from Nantong University Report on Findings in Liver Cancer (High expression of TRIM44 is associated with enhanced cell proliferation, migration, invasion, and resistance to doxorubicin in hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Liver Cancer. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Dysregulation of TRIM44 has been reported to be involved in tumorigenesis, but its role in hepatocellular carcinoma (HCC) remains unclear. In the present study, we investigated the clinicopathological and biological significance of TRIM44 in HCC."

Financial supporters for this research include National Natural Science Foundation of China, Science and Technology Planning Project of Nantong.

The news reporters obtained a quote from the research from Nantong University, "We found that TRIM44 mRNA and protein expression was upregulated in HCC compared with matched normal tissues. Intriguingly, we also found that TRIM44 expression was significantly correlated with tumor size (P < 0.001), vascular invasion (P < 0.001), intrahepatic metastasis (P < 0.001), distant metastasis (P < 0.001), and Ki-67 expression (P < 0.001). Kaplan-Meier analysis showed that high TRIM44 staining was significantly correlated with shorter overall survival (P < 0.001). TRIM44 was an independent predictor of overall survival in patients with HCC. Furthermore, we found that ectopic expression of TRIM44 could promote cell proliferation via accelerating the G1/S phase transition in HCC. Moreover, overexpression of
TRIM44 could enhance the invasive and migratory capacity of HCC cells. Meanwhile, we found that high expression of TRIM44 could enhance resistance of HCC cells to doxorubicin via accelerating NF-kappa B activation.

According to the news reporters, the research concluded: "Our results suggest that TRIM44 may be a novel prognostic indicator and potential therapeutic target of HCC."

For more information on this research see: High expression of TRIM44 is associated with enhanced cell proliferation, migration, invasion, and resistance to doxorubicin in hepatocellular carcinoma. *Tumor Biology*, 2016;37(11):14615-14628. *Tumor Biology* can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news correspondents report that additional information may be obtained by contacting X.D. Chen, Nantong University, Affiliated Canc Hosp, Dept. of Pathol, Nantong 226361, Jiangsu, People's Republic of China. Additional authors for this research include Y.X. Wu, X.B. Miao, C.S. Li, H.B. Yin, S.Y. Yang, X.Y. Lu, Y.S. Liu, Y.L. Chen, R. Shen, X.D. Chen and S. He.

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Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Drugs and Therapies, Cell Proliferation, Pharmaceuticals, Liver Cancer, Carcinomas, Oncology, Genetics, Nantong University.

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*Digestive System Diseases and Conditions - …

Researchers from National Cancer Center Report Recent Findings in Colorectal Neoplasms (Sensitivity of 2-[F-18]fluoro-2-deoxyglucose positron emission tomography for advanced colorectal neoplasms: a large-scale analysis of 7505 asymptomatic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Digestive System Diseases and Conditions - Colorectal Neoplasms is now available. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "The sensitivity of 2-[F-18]fluoro-2-deoxyglucose positron emission tomography (FDG-PET) for advanced colorectal neoplasms among healthy subjects is not yet fully understood. The present study aimed to clarify the sensitivity by analyzing large-scale data from an asymptomatic screening population."

Our news journalists obtained a quote from the research from National Cancer Center, "A total of 7505 asymptomatic screenees who underwent both FDG-PET and colonoscopy at our Cancer Screening Division between February 2004 and March 2013 were analyzed. FDG-PET and colonoscopy were performed on consecutive days, and each examination was interpreted in a blinded fashion. The results of the two examinations were compared for each of the divided six colonic segments, with those from colonoscopy being set as the reference. The relationships between the sensitivity of FDG-PET and clinicopathological features of advanced neoplasms were also evaluated. Two hundred ninety-one advanced
neoplasms, including 24 invasive cancers, were detected in 262 individuals. Thirteen advanced neoplasms (advanced adenomas) were excluded from the analysis because of the coexistence of lesions in the same colonic segment. The sensitivity, specificity, and positive and negative predictive values of FDG-PET for advanced neoplasms were 16.9% [95% confidence interval (CI) 12.7–21.8%], 99.3% [95% CI 99.2–99.4%], 13.5% [95% CI 10.1–17.6%], and 99.4% [95% CI 99.3–99.5%], respectively. The sensitivity was lower for lesions with less advanced histological grade, of smaller size, and flat-type morphology, and for those located in the proximal part of the colon. FDG-PET is believed to be difficult to use as a primary screening tool in population-based colorectal cancer screening because of its low sensitivity for advanced neoplasms."

According to the news editors, the research concluded: "Even when it is used in opportunistic cancer screening, the limit of its sensitivity should be considered."


The news correspondents report that additional information may be obtained from M. Sekiguchi, Natl Canc Center, Endoscopy Div, Chuo Ku, Tokyo 1040045, Japan. Additional authors for this research include Y. Kakugawa, T. Terauchi, M. Matsumoto, H. Saito, Y. Muramatsu, Y. Saito and T. Matsuda.

Keywords for this news article include: Tokyo, Japan, Asia, Cancer, Diagnostics and Screening, Epidemiology, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Rectal Diseases and Conditions, Digestive System Neoplasms, Gastrointestinal Neoplasms, Colorectal Neoplasms, Intestinal Neoplasms, Colorectal Research, Gastroenterology, Oncology, National Cancer Center.

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**Oncology - Liver Cancer**

**Researchers from National Cancer Institute Describe Findings in Liver Cancer (Drug-eluting beads versus conventional chemoembolization for the treatment of unresectable hepatocellular carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Liver Cancer have been presented. According to news reporting out of Milan, Italy, by NewsRx editors, research stated, "Solid demonstrations of superior efficacy of drug-eluting beads transarterial chemoembolization with respect to conventional chemoembolization in hepatocellular carcinoma patients are lacking. The aim of the study was to compare these two techniques in two large cohorts of unresectable hepatocellular carcinoma patients."

Funders for this research include National Cancer Institute institutional grants on Hepato-Oncology, Italian Association for Cancer Research (AIRC).

Our news journalists obtained a quote from the research from National Cancer Institute, "A single center series of 249 early/intermediate hepatocellular carcinoma patients
who underwent 'on demand' chemoembolization in the period 2007-2011 was analyzed. Overall survival, time to progression, tumor response rate, and safety were compared between 104 patients who underwent conventional chemoembolization and 145 who underwent drug-eluting beads chemoembolization. Time-to-event data were analyzed using the Cox univariate and multivariate regression. The two cohorts resulted balanced for liver function and tumor stages. Objective response rate was 85.3% after conventional and 74.8% after drug-eluting beads chemoembolization (p=0.039), and median time to progression was 17 (95% confidence interval: 14-21) versus 11 months (9-12), respectively (p <0.001). Treatment regimen was the sole independent predictor of progression at multivariate analysis (hazard ratio=2.01; 1.45-2.80; p<0.001). Median survival was 39 (32-47) and 32 (24-39) months in the two groups, respectively (hazard ratio=1.33; 0.94-1.87; p=0.10), but conventional chemoembolization was significantly associated with a survival advantage in patients with bilobar neoplasia, portal hypertension and alpha fetoprotein above normal limits. No significant differences in severe adverse events were found."

According to the news editors, the research concluded: "In a large series of Western hepatocellular carcinoma patients, drug-eluting beads chemoembolization with 100-300 µm particles did not seem to improve survival in comparison with conventional chemoembolization, which in turn provided better tumor responses and time to progression."


Our news journalists report that additional information may be obtained by contacting A. Facciorusso, Gastroenterology, Surgery and Liver Transplantation Unit, Fondazione Istituto Nazionale Tumori IRCCS-National Cancer Institute, Milan, Italy. Additional authors for this research include L. Mariani, C. Sposito, C. Spreafico, M. Bongini, C. Morosi, T. Cascella, A. Marchiano, T. Camerini, S. Bhoori, F. Brunero, M. Barone and V. Mazzaferro.

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Keywords for this news article include: Milan, Italy, Europe, Oncology, Carcinomas, Liver Cancer, Chemoembolization.

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**Pharmacokinetics**

**Researchers from National Cancer Institute Detail Findings in Pharmacokinetics (Effects of UGT1A1 genotype on the pharmacokinetics, pharmacodynamics, and toxicities of belinostat administered by 48-hour continuous infusion in patients with ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Pharmacokinetics is the subject of a report. According to news originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "The
Histone deacetylase inhibitor belinostat is eliminated through glucuronidation by UGT1A1. Polymorphisms that reduce UGT1A1 function could result in increased belinostat exposure and toxicities."

Our news journalists obtained a quote from the research from National Cancer Institute, "We wanted to determine which single-nucleotide polymorphisms alter belinostat exposure and toxicity. In a phase 1 trial (belinostat over 48 hours in combination with cisplatin and etoposide), belinostat (400, 500, 600, or 800 mg/m(2) /24 h, 48-hour continuous infusion) was administered to patients with cancer in combination with cisplatin and etoposide (n=25). Patients were genotyped for UGT1A1 variants associated with reduced function: UGT1A1*6, UGT1A1*28, and UGT1A1*60. End points were associations between UGT1A1 genotype and belinostat pharmacokinetics (PK), toxicities, and global protein lysine acetylation (AcK). Belinostat AUC was increased (p=.003), and t1/2 increased (p=.0009) in UGT1A1*28 and UGT1A1*60 carriers who received more than 400 mg/m(2) /24 h. The incidence of grades 3-4 thrombocytopenia (p=.0081) was associated with UGT1A1 polymorphisms. The US Food and Drug Administration-approved package insert recommends dose adjustment of belinostat for UGT1A1*28. However, our data suggest dose adjustment is also necessary for UGT1A1*60."

According to the news editors, the research concluded: "UGT1A1 polymorphisms were associated with increased systemic belinostat exposure, increased AcK, and increased incidence of toxicities, particularly at doses >400 mg/m(2) /24 h."

For more information on this research see: Effects of UGT1A1 genotype on the pharmacokinetics, pharmacodynamics, and toxicities of belinostat administered by 48-hour continuous infusion in patients with cancer. *Journal of Clinical Pharmacology*, 2015;56(4):461-73. *Journal of Clinical Pharmacology* can be contacted at: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com; Journal of Clinical Pharmacology - jcp.sagepub.com)

The news correspondents report that additional information may be obtained from A.K. Goey, Clinical Pharmacology Program, National Cancer Institute, National Institutes of Health, Bethesda, MD, United States. Additional authors for this research include T.M. Sissung, C.J. Peer, J.B. Trepel, M.J. Lee, Y. Tomita, S. Ehrlirk, C. Bryla, S. Balasubramaniam, R. Piekasr, S.M. Steinberg, S.E. Bates and W.D Figg.

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The publisher's contact information for the *Journal of Clinical Pharmacology* is: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Pharmaceuticals, Cancer, Bethesda, Maryland, Genetics, Oncology, United States, Pharmacokinetics, North and Central America.

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Genetics - Medical Genetics

Researchers from National Cancer Institute Report New Studies and Findings in the Area of Medical Genetics (Research participant interest in primary, secondary, and incidental genomic findings)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics - Medical Genetics have been published. According to news reporting out of Rockville, Maryland, by NewsRx editors, research stated, "To define the frequency with which adult research participants consent to be offered clinically validated research genetic test results (RR) and incidental findings (IF). Consents were obtained from 506 adults enrolled in one of three studies within the National Cancer Institute Clinical Genetics Branch's Familial Cancer Research Program."

Our news journalists obtained a quote from the research from National Cancer Institute, "A cross-sectional analysis was performed involving the choices indicated on study consents regarding receipt of RR and IF. Ninety-seven percent opted to receive RR and IF. Participants who declined (n = 16) included two cancer survivors who were mutation-positive (1 = RR and 1 = both), eight who knew their primary mutation status (3 = RR; 4 = IF; 1 = both), three nonbloodline relatives (1 = RR; 2 = both), one untested but with the syndromic phenotype (1 = IF), and two parents of an affected child (2 = both). We speculate that these individuals either already had sufficient information, were not prepared to learn more, or felt that the information would not change their personal health-care decision making. Adult research participants from families at high genetic risk for cancer overwhelmingly indicated their preference to receive both RR and IF."

According to the news editors, the research concluded: "Future research will seek to identify the reasons for declining RR and IF and to study the impact of receipt of RR and IF on personal medical decision making."

For more information on this research see: Research participant interest in primary, secondary, and incidental genomic findings. Genetics in Medicine, 2016;18(12):1218-1225. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)

Our news journalists report that additional information may be obtained by contacting J.T. Loud, National Cancer Institute, Clin Genet Branch, Div Canc Epidemiol & Genet, National Institutes of Health, Rockville, MD 20850, United States. Additional authors for this research include R.C. Bremer, P.L. Mai, J.A. Peters, N. Giri, D.R. Stewart, M.H. Greene, B.P. Alter and S.A. Savage.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gim.2016.36. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rockville, Maryland, United States, North and Central America, Medical Genetics, Cancer, Risk and Prevention, Genetics, Oncology, National Cancer Institute.

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Life Science Research - Molecular and Cellular Biology

Researchers from National Cancer Institute Report New Studies and Findings in the Area of Molecular and Cellular Biology (Direct Regulation of Alternative Splicing by SMAD3 through PCBP1 Is Essential to the Tumor-Promoting Role of TGF-beta)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Life Science Research - Molecular and Cellular Biology have been presented. According to news reporting out of Bethesda, Maryland, by NewsRx editors, research stated, "In advanced stages of cancers, TGF-beta promotes tumor progression in conjunction with inputs from receptor tyrosine kinase pathways. However, mechanisms that underpin the signaling cooperation and convert TGF-beta from a potent growth inhibitor to a tumor promoter are not fully understood."

Our news journalists obtained a quote from the research from National Cancer Institute, "We report here that TGF-beta directly regulates alternative splicing of cancer stem cell marker CD44 through a phosphorylated T179 of SMAD3-mediated interaction with RNA-binding protein PCBP1. We show that TGF-beta and EGF respectively induce SMAD3 and PCBP1 to colocalize in SC35-positive nuclear speckles, and the two proteins interact in the variable exon region of CD44 pre-mRNA to inhibit spliceosome assembly in favor of expressing the mesenchymal isoform CD44s over the epithelial isoform CD44E."

According to the news editors, the research concluded: "We further show that the SMAD3-mediated alternative splicing is essential to the tumor-promoting role of TGF-beta and has a global influence on protein products of genes instrumental to epithelial-to-mesenchymal transition and metastasis."

For more information on this research see: Direct Regulation of Alternative Splicing by SMAD3 through PCBP1 Is Essential to the Tumor-Promoting Role of TGF-beta. Molecular Cell, 2016;64(3):549-564. Molecular Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

Our news journalists report that additional information may be obtained by contacting Y.E. Zhang, National Cancer Institute, Lab Cellular & Mol Biol, Center Canc Res, Bethesda, MD 20892, United States. Additional authors for this research include K.M. Sixt, S.J. Gao, X. Xu, J. Huang, R. Weigert, M. Zhou and Y.E. Zhang.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Molecular and Cellular Biology, Life Science Research, Genetics, National Cancer Institute.

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Pharmacokinetics

Researchers from National Cancer Institute Report New Studies and Findings in the Area of Pharmacokinetics (UGT1A1 genotype-dependent dose adjustment of belinostat in patients with advanced cancers using population pharmacokinetic modeling and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Pharmacokinetics is now available. According to news reporting originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "Belinostat is a second-generation zinc-binding histone deacetylase inhibitor that is approved for peripheral T-cell lymphoma and is currently being studied in small cell lung cancer and other advanced carcinomas as a 48-hour continuous intravenous infusion. Belinostat is predominantly metabolized by UGT1A1, which is polymorphic."
Financial support for this research came from Boeing.

Our news editors obtained a quote from the research from National Cancer Institute, "Preliminary analyses revealed a difference in belinostat clearance based on UGT1A1 genotype. A 2-compartment population pharmacokinetic (PK) model was developed and validated that incorporated the UGT1A1 genotype, albumin, and creatinine clearance on the clearance parameter; body weight was a significant covariate on volume. Simulated doses of 600 and 400 mg/m²/24 h given to patients considered extensive or impaired metabolizers, respectively, provided equivalent AUCs. This model and subsequent simulations supported additional PK/toxicity and pharmacogenomics/toxicity analyses to suggest a UGT1A1 genotype-based dose adjustment to normalize belinostat exposure and allow for more tolerable therapy."

According to the news editors, the research concluded: "In addition, global protein lysine acetylation was modeled with PK and demonstrated a reversible belinostat exposure/response relationship, consistent with previous reports."

For more information on this research see: UGT1A1 genotype-dependent dose adjustment of belinostat in patients with advanced cancers using population pharmacokinetic modeling and simulation. Journal of Clinical Pharmacology, 2015;56(4):450-60. Journal of Clinical Pharmacology can be contacted at: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com; Journal of Clinical Pharmacology - jcp.sagepub.com)

The news editors report that additional information may be obtained by contacting C.J. Peer, Clinical Pharmacology Program, National Cancer Institute, National Institutes of Health, Bethesda, MD, United States. Additional authors for this research include A.K. Goey, T.M. Sissung, S. Erlich, M.J. Lee, Y. Tomita, J.B. Trepel, R. Piekarz, S. Balasubramaniam, S.E. Bates and W.D Figg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcph.627. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Clinical Pharmacology is: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Pharmaceuticals, Cancer, Bethesda, Maryland, Oncology, United States, Pharmacokinetics, North and Central America.

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Heart Disorders and Diseases - Heart Attack

Researchers from National Cerebral and Cardiovascular Center Describe Findings in Heart Attack (Lipoprotein apheresis is essential for managing pregnancies in patients with homozygous familial hypercholesterolemia: Seven case series and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Attack is the subject of a report. According to news reporting out of Osaka, Japan, by NewsRx editors, research stated, "For patients with homozygous familial hypercholesterolemia (HoFH), atherogenic lipoprotein changes and increased stress on cardiovascular system during pregnancy may pose substantial risk for both the mother and her fetus. Although lipoprotein apheresis (LA) is
reported as the most effective therapy to control LDL-C levels during pregnancy in HoFH patients, only case reports have been published, and there is no guidance for management."

Financial support for this research came from Sapienza University of Rome.

Our news journalists obtained a quote from the research from National Cerebral and Cardiovascular Center, "We report twelve pregnancies and ten deliveries in seven patients with HoFH, and compare the clinical outcomes between patients who received LA during pregnancy and those who did not. One patient who refused LA during pregnancy died from acute myocardial infarction after delivery. Another patient whose adherence to LA was poor also died of myocardial infarction during pregnancy. One patient who initiated LA at the age of 18 had to discontinue LA due to severe symptoms of angina pectoris during pregnancy. Another had symptoms of nausea, hypotension, and bradycardia with increased levels of serum bradykinin during a dextran sulfate cellulose absorption-based LA procedure. Although two of the other three patients had already had coronary artery disease by the time of pregnancy, early initiation of LA from childhood and good adherence to it during pregnancy resulted in the delivery of healthy infants without adverse effects. LA is essential for managing pregnancy safely in patients with HoFH."

According to the news editors, the research concluded: "Increasing numbers of documented cases, including ours, will be helpful to guide future therapeutic decisions."

For more information on this research see: Lipoprotein apheresis is essential for managing pregnancies in patients with homozygous familial hypercholesterolemia: Seven case series and discussion. *Atherosclerosis*, 2016;254():179-183. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting M. Ogura, Natl Cerebral & Cardiovasc Center Res Inst, Dept. of Mol Innovat Lipidol, Osaka, Japan. Additional authors for this research include H. Makino, C. Kamiya, J. Yoshimatsu, H. Soran, R. Eatough, G. Perrone, M. Harada-Shiba and C. Stefanutti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.10.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Vascular Diseases and Conditions, Familial Hypercholesterolemia, Heart Disorders and Diseases, Lipid Metabolism Disorders, Myocardial Infarction, Myocardial Ischemia, Hyperlipidemias, Dyslipidemias, Heart Disease, Lipoproteins, Heart Attack, Lips, National Cerebral and Cardiovascular Center.

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**Oncology - Lung Cancer**

Researchers from National Dong Hwa University Report Findings in Lung Cancer (Excavatolide B inhibits nonsmall cell lung cancer proliferation by altering peroxisome proliferator activated receptor gamma expression and PTEN/AKT/NF-Kb expression)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting from Hualien, Taiwan, by NewsRx journalists, research stated, "Marine organisms are proven to be rich source of secondary metabolites that can be used to treat various diseases. Excavatolide B (Exc.B), the most abundant metabolite was found in the marine coral Briareum excavatum exhibits cytotoxic effects against lung cancer cell."

Financial support for this research came from National Science Council.

The news correspondents obtained a quote from the research from National Dong Hwa University, "Treatment of the A549 cells with Exc.B significantly reduced its cell viability and induced cell cycle arrest at subG1 phase in a dose-and time-dependent manner, respectively. Apoptosis induction by Exc.B was further confirmed by decreased pro-caspase 3 expressions and increased proteolytic cleavage of poly (ADP-ribose) polymerase (PARP) expression. Furthermore, Exc.B increased reactive oxygen species (ROS) and reactive nitrogen species (RNS) and also decreased the antioxidant enzymes such as, Catalase, GPx, SOD, GST, and GSH. The proteomic analysis data revealed that total thirty six proteins were altered by Exc.B. STRING database showed that most of the altered proteins have no interaction between each other. Based on these data, KSR1, RuVBL2, PPAR-g, and Tenascin X proteins were chosen to validate the 2DE data by Western blotting. Additional experiments demonstrated that Exc.B induced PTEN expression and inhibited pAKT and NF-kB expression."

According to the news reporters, the research concluded: "These results provide a novel insight into mechanisms underlying the inhibition of A549 cells growth by excavatolide B. ? 2016 Wiley Periodicals, Inc. Environ Toxicol 32:290-301."


Our news journalists report that additional information may be obtained by contacting B.K. Velmurugan, Dept. of Life Science and Institute of Biotechnology, National Dong Hwa University, Hualien, 974, Taiwan. Additional authors for this research include H.H. Yang, P.J. Sung and C.F Weng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/tox.22235. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiwan, Hualien, Oncology, Proteins, Organelles, Lung Cancer, Microbiotics, Lung Neoplasms, Intracellular Space, Cytoplasmic Vesicles, Cytoplasmic Structures, Cytoplasmic and Nuclear Receptors, Peroxisome Proliferator Activated Receptors.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mental Health Diseases and Conditions - Bipolar Disorders have been published. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "The intronic single-nucleotide polymorphism rs10994336 of the ankyrin 3 gene (ANK3) is one of the genome-wide supported risk variants for bipolar disorder (BD), and the T-allele of rs10761482 is also reported to have relevance to BD. We investigated the effect of ANK3 rs10761482 genetic variation on brain structure."

The news reporters obtained a quote from the research from the National Institute of Neuroscience, "Subjects were 43 BD patients and 229 healthy volunteers. We evaluated the effects of ANK3 rs10761482 genetic variation on diagnosis, and of the genotype-by-diagnosis interaction on the brain structure and the degree of age-related brain atrophy on magnetic resonance imaging data evaluated by voxel-based morphometry. BD patients showed significantly lower fractional anisotropy value in the bilateral parietal regions, left fronto-occipital fasciculus, and corpus callosum, compared to healthy subjects. Further, we found considerable decreases of fractional anisotropy in the forceps minor in non-T-allele BD patients compared with the T-carrier patient group. We also found significant lessening of age-related brain atrophy in the T-allele carrier groups compared with the non-T-allele carrier groups in the area around the cerebrospinal space, cingulate cortices, and cerebellum. Our results suggest the influence of the ANK3 on age-related brain atrophy."

According to the news reporters, the research concluded: "The ankyrin 3 genotype may be associated with pathogenesis of age-related neurodegeneration, and, in part, of BD."


Our news correspondents report that additional information may be obtained by contacting M. Ota, Natl Center Neurol & Psychiat, Natl Inst Neurosci, Dept. of Mental Disorder Res, Kodaira, Tokyo 1878502, Japan. Additional authors for this research include H. Hori, N. Sato, F. Yoshida, K. Hattori, T. Teraishi and H. Kunugi.

Keywords for this news article include: Tokyo, Japan, Asia, Mental Health Diseases and Conditions, Genetics, Manic-Depressive Illness, Bipolar Disorders, Psychiatry, National Institute of Neuroscience.

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Neurodegenerative Diseases and Conditions -

Researchers from National Institute of Sensory Organs Report Findings in Amyotrophic Lateral Sclerosis (Significance of optineurin mutations in glaucoma and other diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurodegenerative Diseases and Conditions - Amyotrophic Lateral Sclerosis are presented in a new report. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Glaucoma is one of the leading causes of bilateral
blindness, affecting nearly 57 million people worldwide. Glaucoma is characterized by a progressive loss of retinal ganglion cells and is often associated with intraocular pressure (IOP)."

Financial supporters for this research include Japanese Ministry of Health, Labour and Welfare, Japan Agency for Medical Research and Development, Japan Society for the Promotion of Science.

The news correspondents obtained a quote from the research from the National Institute of Sensory Organs, "Normal tension glaucoma (NTG), marked by normal IOP but progressive glaucoma, is incompletely understood. In 2002, Sarfarazi et al. identified FIP-2 gene mutations responsible for hereditary NTG, renaming this gene 'optineurin' (OPTN). Further investigations by multiple groups worldwide showed that OPTN is involved in several critical cellular functions, such as NF-κB regulation, autophagy, and vesicle transport. Recently, OPTN mutations were found to cause amyotrophic lateral sclerosis (ALS). Surprisingly, a mutation in the OPTN interacting protein, i.e., the duplication of TANK binding protein 1 (TBK1) gene, also can cause both NTG and ALS. These phenotypically distinct neuronal diseases are now merging into one common pathological mechanism by these two genes. TBK1 inhibition has emerged as a potential therapy for NTG. In this manuscript, we focus on the OPTN E50K mutation, the most common mutation for NTG, to describe the molecular mechanism of NTG by expressing a mutant Optn gene in cells and genetically modified mice. Patient iPS cells were developed and differentiated into neural cells to observe abnormal behavior and the impact of the E50K mutation. These in vitro studies were further extended to identify the inhibitors BX795 and amlexanox, which have the potential to reverse the disease-causing phenomenon in patient's neural cells."

According to the news reporters, the research concluded: "Here we show for the first time that amlexanox protects RGC5 in Optn E50K knock-in mice."


Our news journalists report that additional information may be obtained by contacting T. Iwata, Natl Hosp Organization Tokyo Med Center, Natl Inst Sensory Organs, Div Mol & Cellular Biol, Tokyo, Japan. Additional authors for this research include M. Nakayama, D. Iejima, K. Kawase and T. Iwata.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.preteyeres.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Neurodegenerative Diseases and Conditions, Eye Diseases and Conditions, Genetics, Amyotrophic Lateral Sclerosis, Proteostasis Deficiencies, TDP-43 Proteinopathies, Glaucoma, National Institute of Sensory Organs.

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Researchers from National Institute of Technology Report Details of New Studies and Findings in the Area of Apoptosis (Bacopa monnieri-Induced Protective Autophagy Inhibits Benzo[a]pyrene-Mediated Apoptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Apoptosis is now available. According to news reporting out of Rourkela, India, by NewsRx editors, research stated, "Benzo[a]pyrene (B[a]P) is capable of inducing oxidative stress and cellular injuries leading to cell death and associates with a significant risk of cancer development. Prevention of B[a]P-induced cellular toxicity with herbal compound through regulation of mitochondrial oxidative stress might protect cell death and have therapeutic benefit to human health."

Our news journalists obtained a quote from the research from the National Institute of Technology, "In this study, we demonstrated the cytoprotective role of Bacopa monnieri (BM) against B[a]P-induced apoptosis through autophagy induction. Pretreatment with BM rescued the reduction in cell viability in B[a]P-treated human keratinocytes (HaCaT) cells indicating the cytoprotective potential of BM against B[a]P. Moreover, BM was found to inhibit B[a]P-mediated reactive oxygen species (ROS)-induced apoptosis activation in HaCaT cells. Furthermore, BM was found to preserve mitochondrial membrane potential and inhibited release of cytochrome c in B[a]P-treated HaCaT cells. Bacopa monnieri induced protective autophagy; we knocked down Beclin-1, and data showed that BM was unable to protect from B[a]P-induced mitochondrial ROS-mediated apoptosis in Beclin-1-deficient HaCaT cells. Moreover, we established that B[a]P-induced damaged mitochondria were found to colocalize and degraded within autolysosomes in order to protect HaCaT cells from mitochondrial injury."

According to the news editors, the research concluded: "B[a]P-induced apoptosis was rescued by BM treatment and provided cytoprotection through Beclin-1-dependent autophagy activation."


Our news journalists report that additional information may be obtained by contacting S.K. Bhutia, Natl Inst Technol, Dept. of Life Sci, Rourkela 769008, Odisha, India. Additional authors for this research include P.P. Naik, A. Nayak, P.K. Panda, S. Mukhopadhyay, N. Sinha and S.K. Bhutia.

Keywords for this news article include: Rourkela, India, Asia, Benzopyrenes, Risk and Prevention, Benzo(a)pyrene, Apoptosis, National Institute of Technology.

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Nutritional and Metabolic Diseases and Conditions...

Researchers from National Institutes of Health Detail New Studies and Findings in the Area of Smith-Lemli-Opitz Syndrome (Modeling Smith-Lemli-Opitz syndrome with induced pluripotent stem cells reveals a causal role for Wnt/b-catenin defects in...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Smith-Lemli-Opitz Syndrome is the subject of a report. According to news reporting originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "Smith-Lemli-Opitz syndrome (SLOS) is a malformation disorder caused by mutations in DHCR7, which impair the reduction of 7-dehydrocholesterol (7DHC) to cholesterol. SLOS results in cognitive impairment, behavioral abnormalities and nervous system defects, though neither affected cell types nor impaired signaling pathways are fully understood."

Our news editors obtained a quote from the research from the National Institutes of Health, "Whether 7DHC accumulation or cholesterol loss is primarily responsible for disease pathogenesis is also unclear. Using induced pluripotent stem cells (iPSCs) from subjects with SLOS, we identified cellular defects that lead to precocious neuronal specification within SLOS derived neural progenitors. We also demonstrated that 7DHC accumulation, not cholesterol deficiency, is critical for SLOS-associated defects. We further identified downregulation of Wnt/b-catenin signaling as a key initiator of aberrant SLOS iPSC differentiation through the direct inhibitory effects of 7DHC on the formation of an active Wnt receptor complex."

According to the news editors, the research concluded: "Activation of canonical Wnt signaling prevented the neural phenotypes observed in SLOS iPSCs, suggesting that Wnt signaling may be a promising therapeutic target for SLOS."

For more information on this research see: Modeling Smith-Lemli-Opitz syndrome with induced pluripotent stem cells reveals a causal role for Wnt/b-catenin defects in neuronal cholesterol synthesis phenotypes. *Nature Medicine*, 2016;22(4):388-96. (Nature Publishing Group - www.nature.com/nm/)

The news editors report that additional information may be obtained by contacting K.R. Francis, Program in Genomics of Differentiation, The Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health (NIH), Bethesda, Maryland, United States. Additional authors for this research include A.N. Ton, Y. Xin, P.E. O'Halloran, C.A. Wassif, N. Malik, I.M. Williams, C.V. Cluzeau, N.S. Trivedi, W.J. Pavan, W. Cho, H. Westphal and F.D Porter.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4067. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Neurons, Bethesda, Maryland, Genetics, United States, Dyslipidemias, Adult Stem Cells, Stem Cell Research, North and Central America, Lipid Metabolism Disorders, Smith Lemli Opitz Syndrome, Smith-Lemli-Opitz Syndrome, Inborn Errors Lipid Metabolism, Induced Pluripotent Stem Cells, Inborn Errors Steroid Metabolism.

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Researchers from National Institutes of Health Provide Details of New Studies and Findings in the Area of Adrenal Cortical Steroids (Effects of Systemically Administered Hydrocortisone on the Human Immunome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Adrenal Cortical Steroids. According to news reporting originating in Bethesda, Maryland, by NewsRx journalists, research stated, "Corticosteroids have been used for decades to modulate inflammation therapeutically, yet there is a paucity of data on their effects in humans. We examined the changes in cellular and molecular immune system parameters, or 'immunome', in healthy humans after systemic corticosteroid administration."

The news reporters obtained a quote from the research from the National Institutes of Health, "We used multiplexed techniques to query the immunome in 20 volunteers at baseline, and after intravenous hydrocortisone (HC) administered at moderate (250 mg) and low (50 mg) doses, to provide insight into how corticosteroids exert their effects. We performed comprehensive phenotyping of 120 lymphocyte subsets by high dimensional flow cytometry, and observed a decline in circulating specific B and T cell subsets, which reached their nadir 4-8 hours after administration of HC. However, B and T cells rebounded above baseline 24 hours after HC infusion, while NK cell numbers remained stable. Whole transcriptome profiling revealed down regulation of NF-kB signaling, apoptosis, and cell death signaling transcripts that preceded lymphocyte population changes, with activation of NK cell and glucocorticoid receptor signaling transcripts."

According to the news reporters, the research concluded: "Our study is the first to systematically characterize the effects of corticosteroids on the human immunome, and we demonstrate that HC exerts differential effects on B and T lymphocytes and natural killer cells in humans."

For more information on this research see: Effects of Systemically Administered Hydrocortisone on the Human Immunome. Scientific Reports, 2016;6():23002. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting M.J. Olnes, Trans-NIH Center for Human Immunology, Autoimmunity and Inflammation (CHI), National Institutes of Health (NIH), Bethesda, MD, 20892, United States. Additional authors for this research include Y. Kotliarov, A. Biancotto, F. Cheung, J. Chen, R. Shi, H. Zhou, E. Wang, J.S. Tsang and R. Nussenblatt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep23002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Bethesda, Maryland, United States, Glucocorticoids, Topical Steroids, Drugs and Therapies, Dermatological Agents, Hydrocortisone Therapy, Adrenal Cortex Hormones, North and Central America, 11 Hydroxycorticosteroids, 17 Hydroxycorticosteroids, Adrenal Cortical Steroids.

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Researchers from National Institutes of Health Report Details of New Studies and Findings in the Area of Science (WRN regulates pathway choice between classical and alternative non-homologous end joining)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Werner syndrome (WS) is an accelerated ageing disorder caused by WRN protein deficiency."

The news reporters obtained a quote from the research from the National Institutes of Health, "Many features seen in WS can be explained by the diverse functions of WRN in DNA metabolism."

According to the news reporters, the research concluded: "However, the origin of the large genomic deletions and telomere fusions are not yet understood."


Our news correspondents report that additional information may be obtained by contacting V.A. Bohr, NIA, Lab Mol Gerontol, Biomed Res Center, National Institutes of Health, Baltimore, MD 21224, United States. Additional authors for this research include H.M. Lu, J.K. de Freitas, J. Tian, D.L. Croteau and V.A. Bohr.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Science, Genetics, National Institutes of Health.

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Researchers from National Institutes of Health Report Recent Findings in Vitamin D Deficiency (Vitamin D Deficiency Is Associated With Endothelial Dysfunction and Increases Type I Interferon Gene Expression in a Murine Model of Systemic Lupus ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Vitamin D Deficiency is now available. According to news reporting originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "Patients with systemic lupus erythematosus (SLE) have an increased risk of cardiovascular disease (CVD) and impaired endothelial repair. Although vitamin D deficiency is associated with increased CVD risk in the general population, a causal relationship has not been demonstrated."

Our news editors obtained a quote from the research from the National Institutes of Health, "We aimed to determine whether vitamin D deficiency directly modulates endothelial
dysfunction and immune responses in a murine model of SLE. Vitamin D deficiency was induced in lupus-prone MRL/lpr mice by dietary restriction for 6 weeks. Endothelium-dependent vasorelaxation was quantified using aortic ring myography, and endothelial repair mechanisms were assessed by evaluating the phenotype and function of bone marrow endothelial progenitor cells (EPCs) and with the use of an in vivo Matrigel plug model. Lupus disease activity was determined by evaluating expression of interferon-stimulated genes (ISGs) in splenic tissue, positivity for serum autoantibodies, and renal histology. To validate the findings, expression of ISGs was also measured in whole blood from vitamin D-deficient and vitamin D-sufficient patients with SLE. Vitamin D deficiency resulted in impaired endothelium-dependent vasorelaxation and decreases in neoangiogenesis without a change in the total number of EPCs. There were no differences in anti-double-stranded DNA titers, proteinuria, or glomerulonephritis (activity or chronicity) between vitamin D-deficient or sufficient mice. Vitamin D deficiency was associated with a trend toward increased ISG expression both in mice and in patients with SLE."

According to the news editors, the research concluded: "These findings indicate that vitamin D deficiency is associated with hampered vascular repair and reduced endothelial function, and may modulate type I interferon responses."

For more information on this research see: Vitamin D Deficiency Is Associated With Endothelial Dysfunction and Increases Type I Interferon Gene Expression in a Murine Model of Systemic Lupus Erythematosus. Arthritis & Rheumatology, 2016;68(12):2929-2935. Arthritis & Rheumatology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting M.J. Kaplan, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include A.Z. Rosenberg, C.K. Smith, J.C. Sergeant, G.I. Rice, T.A. Briggs, I.N. Bruce and M.J. Kaplan.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Intercellular Signaling Peptides and Proteins, Angiology, Risk and Prevention, Genetics, Cardiovascular Diseases and Conditions, Autoimmune Diseases and Conditions, Deficiency Diseases and Conditions, Systemic Lupus Erythematosus, Vitamin D Deficiency, Nutrition Disorders, Malnutrition, Avitaminosis, Endothelium, Interferons, Cytokines, National Institutes of Health.

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Perceptual Diseases and Conditions - Prosopagnosia

Researchers from National Neurology Institute Report Findings in Prosopagnosia [Congenital Prosopagnosia Is Associated With A Genetic Variation In The Oxytocin Receptor (oxtr) Gene: An Exploratory Study]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Perceptual Diseases and Conditions - Prosopagnosia. According to news originating from Pavia, Italy, by NewsRx correspondents, research stated, "Face-recognition deficits, referred to with the term prosopagnosia (i.e., face
blindness), may manifest during development in the absence of any brain injury (from here the term congenital prosopagnosia, CP). It has been estimated that approximately 2.5% of the population is affected by face-processing deficits not depending on brain lesions, and varying a lot in severity."

Financial supporters for this research include FIRB, Italian Ministry of Education, University and Research.

Our news journalists obtained a quote from the research from National Neurology Institute, "The genetic bases of this disorder are not known. In this study we tested for genetic association between single-nucleotide polymorphisms (SNPs) in the oxytocin receptor gene (OXTR) and CP in a restricted cohort of Italian participants. We found evidence of an association between the common genetic variants rs53576 and rs2254298 OXTR SNPs and prosopagnosia. This association was also found when including an additional group of German individuals classified as prosopagnosic in the analysis."

According to the news editors, the research concluded: "Our preliminary data provide initial support for the involvement of genetic variants of OXTR in a relevant cognitive impairment, whose genetic bases are still largely unexplored."


The news correspondents report that additional information may be obtained from Z. Cattaneo, Brain Connect Center, C Mondino Natl Neurol Inst, Pavia, Italy. Additional authors for this research include R. Daini, M. Malaspina, F. Manai, M. Lillo, V. Fermi, S. Schiavi, B. Suchan and S. Comincini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neuroscience.2016.09.040. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pavia, Italy, Europe, Nervous System Diseases and Conditions, Perceptual Diseases and Conditions, Neurobehavioral Manifestations, Posterior Pituitary Hormones, Pituitary Hormone Receptors, G-Protein-Coupled Receptors, Neurologic Manifestations, Neuropeptide Receptors, Perceptual Disorders, Oxytocin Receptors, Membrane Proteins, Peptide Proteins, Peptide Hormones, Prosopagnosia, Genetics, National Neurology Institute.

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Central Nervous System Diseases and Conditions -…

Researchers from Neurological Institute Detail New Studies and Findings in the Area of Moyamoya Disease (Research Progresses in Understanding the Pathophysiology of Moyamoya Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Moyamoya Disease. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "The pathogenesis of moyamoya disease (MMD) is still
unknown. The detection of inflammatory molecules such as cytokines, chemokines and growth factors in MMD patients' biological fluids supports the hypothesis that an abnormal angiogenesis is implicated in MMD pathogenesis."

Our news journalists obtained a quote from the research from Neurological Institute, "However, it is unclear whether these anomalies are the consequences of the disease or rather causal factors as well as these mechanisms remain insufficient to explain the pathophysiology of MMD. The presence of a family history in about 9-15% of Asian patients, the highly variable incidence rate between different ethnic and sex groups and the age of onset support the role of genetic factors in MMD pathogenesis. However, although some genetic loci have been associated with MMD, few of them have been replicated in independent series. Recently, RNF213 gene was shown to be strongly associated with MMD occurrence with a founder effect in East Asian patients. However, the mechanisms leading from RNF213 mutations to MMD clinical features are still unknown. The research on pathogenic mechanism of MMD is in its infancy. MMD is probably a complex and heterogeneous disorder, including different phenotypes and genotypes, in which more than a single factor is implicated."

According to the news editors, the research concluded: "Since the diagnosis of MMD is rapidly increasing worldwide, the development of more efficient stratifying risk systems, including both clinical but also biological drivers became imperative to improve our ability of predict prognosis and to develop mechanism-tailored interventions."


The news correspondents report that additional information may be obtained from A. Bersano, Cerebrovascular Disease Unit, IRCCS Foundation C. Besta, Neurological Institute, Milan, Italy. Additional authors for this research include S. Guey, G. Bedini, S. Nava, D. Herve, P. Vajkoczy, T. Tatlisumak, M. Sareela, A. van der Zwan, C.J. Klijn, K.P. Braun, A. Kronenburg, F. Acerbi, M.M. Brown, L. Calviere, C. Cordonnier, H. Henon, L. Thines and Kh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442298. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milan, Italy, Europe, Genetics, Article Review, Moyamoya Disease, Cerebrovascular Disorders, Arterial Occlusive Diseases, Brain Diseases and Conditions, Cardiovascular Diseases and Conditions, Carotid Artery Diseases and Conditions, Cerebral Arterial Diseases and Conditions, Intracranial Arterial Diseases and Conditions.

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Hematology - Blood Coagulation Factors

Researchers from New York University Detail New Studies and Findings in the Area of Blood Coagulation Factors (A novel approach to the management of carotid blowout syndrome: the use of thrombin in a case of failed covered stenting)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematology - Blood Coagulation Factors is now available. According to news originating from Brooklyn, New York, by NewsRx correspondents, research stated, "Acute hemorrhage relating to an expanding pseudoaneurysm of the carotid artery is referred to as carotid blowout syndrome (CBS). CBS is associated with a high morbidity and mortality."

Our news journalists obtained a quote from the research from New York University, "We describe the case of a patient who presented with dysphagia and a pulsatile mass in the neck. Imaging revealed a pseudoaneurysm originating from the bifurcation of the distal right common carotid artery. On neuroangiography the patient lacked sufficient collaterals to allow for vessel sacrifice. A decision was made to use covered stents to prevent flow into the pseudoaneurysm while maintaining vessel patency. Despite placement of multiple covered stents there was residual slow filling of the pseudoaneurysm. We augmented this therapy with direct percutaneous thrombin injection into the pseudoaneurysm. This resulted in complete thrombosis of the pseudoaneurysm."

According to the news editors, the research concluded: "For recalcitrant lesions in which the usual methods of stopping blood flow to the pseudoaneurysmal sac fail, an adjuvant approach with thrombin should be considered."


The news correspondents report that additional information may be obtained from N. Sablani, New York University, Medical Center, Dept. of Internal Med, Brooklyn, NY, United States. Additional authors for this research include G. Jain, M.M. Hasan, K. Sivakumar, S. Feuerwerker, K. Arcot and J. Farkas.

Keywords for this news article include: Brooklyn, New York, United States, North and Central America, Blood Coagulation Factors, Serine Endopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Hematology, Angiology, Thrombin, New York University.

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Researchers from New York University Detail New Studies and Findings in the Area of Sexual and Reproductive Health (Contextual factors in geosocial-networking smartphone application use and engagement in condomless anal intercourse among gay, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Health and Medicine - Sexual and Reproductive Health are discussed in a new report. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Geosocial-networking smartphone applications (apps) have been used increasingly by men who have sex with men (MSM) to meet new sexual partners. The purpose of this study was to examine associations between contexts of
app use (e.g. using apps when drinking) and condomless anal intercourse among a sample of MSM who use these apps."

Our news journalists obtained a quote from the research from New York University, "MSM (n = 174) in New York City were recruited through Grindr, a geosocial-networking app popular among MSM, using broadcast advertisements asking MSM to complete an Internet-based survey about their app use and sexual behaviours. Log-binomial regression models were fit to assess the association between each of the six app-use contexts (e.g. using apps when lonely, when drinking) and engagement in condomless insertive and receptive anal intercourse with one or more partners in the past 3 months. Engagement in condomless receptive and insertive anal intercourse with one or more partners in the preceding 3 months was common (39.7% and 43.1% respectively) and was associated with several app-use contexts. For example, significant associations (P < 0.05) were observed between alcohol and other drug use when using these apps and engagement in condomless receptive and insertive anal intercourse."

According to the news editors, the research concluded: "Given that 57.5% of respondents had engaged in condomless anal intercourse in the preceding 3 months and the associations of app-use contexts with condomless sexual behaviours, these findings suggest that reductions in substance use may lead to safer sexual practices among MSM who use apps to meet sexual partners."


The news correspondents report that additional information may be obtained from W.C. Goedel, New York University, Coll Arts & Sci, Dept. of Sociol, New York, NY 10003, United States.

Keywords for this news article include: New York City, New York, United States, North and Central America, Sexual and Reproductive Health, Health and Medicine, New York University.

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Life Science Research - Biosocieties

Researchers from New York University Report Details of New Studies and Findings in the Area of Biosocieties (Big data, small kids: Medico-scientific, familial and advocacy visions of human brains)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Life Science Research - Biosocieties is the subject of a report. According to news originating from New York City, New York, by NewsRx editors, the research stated, "On the basis of anthropological fieldwork in a US pediatric neuroscience laboratory, this article traces the recent move from studies of individual diagnostic pathologies like ADHD, Tourette or autism spectrum disorder to the rapid creation of innovative interdisciplinary research coalitions and collaborations that both produce and utilize big data techniques in order to map the human connectome. By analogy with the human genome,
connectome studies require new ways to imagine and image complex and multivalent neurocircuits in which brain scans of those with and without diagnoses provide data points, open to recombination with other forms of data."

Our news journalists obtained a quote from the research from New York University, "Emergent expert understandings of the connectome are only minimally related to what families who enroll their diagnosed children in fMRI studies understand. Likewise, young adult self-advocates with the same diagnoses on which the neuroscientists are now working use 'brain talk' to stake their own ethical claims."

According to the news editors, the research concluded: "I argue that this epistemological gap among medico-scientific, familial and advocacy visions of human brains provides a mobile space of creativity as well as misunderstanding."


The news correspondents report that additional information may be obtained from R. Rapp, New York University, Dept. of Anthropol, New York, NY 10011, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1057/biosoc.2015.33. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Biosocieties, Life Science Research, Genetics, New York University.

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**Drugs and Therapies - Antimicrobials**

**Researchers from Nicolaus Copernicus University Describe Findings in Antimicrobials (Antimicrobial properties of biosynthesized silver nanoparticles studied by flow cytometry and related techniques)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antimicrobials have been published. According to news reporting from Torun, Poland, by NewsRx journalists, research stated, "This work reports the effect of silver bionanoparticles (Bio(AgNPs) synthesized by Actinobacteria CGG 11n on selected Gram (+) and Gram (-) bacteria. Flow cytometry, classical antibiogram method and fluorescent microscopy approach was used for evaluation of antimicrobial activity of Bio(AgNPs) and their combination with antibiotics."

The news correspondents obtained a quote from the research from Nicolaus Copernicus University, "Furthermore, the performed research specified the capacity of flow cytometry method as an alternative to the standard ones and as a complementary method to electromigration techniques. The study showed antibacterial activity of both BioAgNPs and the combination of antibiotics/BioAgNPs against all the tested bacteria strains in comparison with a diffusion, dilution and bioautographic methods."

According to the news reporters, the research concluded: "The synergistic effect of
antibiotics/BioAgNPs combination (e.g. kanamycin, ampicillin, neomycin and streptomycin) was found to be more notable against *Pseudomonas aeruginosa* representing a prototype of multi-drug resistant 'superbugs' for which effective therapeutic options are very limited."


Our news journalists report that additional information may be obtained by contacting V. Railean-Plugaru, Dept. of Environmental Chemistry and Bioanalytics, Faculty of Chemistry, Nicolaus Copernicus University, Torun, Poland. Additional authors for this research include P. Pomastowski, K. Rafinska, M. Wypij, W. Kupczyk, H. Dahm, M. Jackowski and B. Buszewski.

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Keywords for this news article include: Antibacterial Agents, Antibiotics, Antimicrobials, Torun, Poland, Europe, Cytometry, Nanoparticle, Nanotechnology, Drugs and Therapies, Emerging Technologies.

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**Drugs and Therapies - Mitotic Inhibitors**

**Researchers from Ningxia Medical University Describe Findings in Mitotic Inhibitors (CD44 Receptor Targeting and Endosomal pH-Sensitive Dual Functional Hyaluronic Acid Micelles for Intracellular Paclitaxel Delivery)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Mitotic Inhibitors is now available. According to news reporting originating from Yinchuan, People's Republic of China, by NewsRx correspondents, research stated, "A novel CD44 receptor targeting and endosome pH-sensitive dual functional hyaluronic acid deoxycholic acid histidine (HA-DOCA-His) micellar system was designed for intracellular paclitaxel (PTX) delivery. The HA-DOCA-His micelles exhibited desirable endosome pH (5.0-6.0)-induced aggregation and deformation behavior verified by size distribution, critical micellar concentration, and zeta potential changes."

Financial support for this research came from National Natural Science Foundation of China.

Our news editors obtained a quote from the research from Ningxia Medical University, "The HA-DOCA-His micelles presented excellent encapsulation efficiency and loading capacity of 90.0% and 18.9% for PTX, respectively. The PTX release from HA-DOCA-His micelles was pH-dependent, with more rapid PTX release at pH 6.0 and 5.0 than those at pH 7.4 and 6.5. The cellular uptake performance of HA-DOCA-His micelles was enhanced comparing with pH-insensitive HA-DOCA micelles by qualitative and quantitative measurements. HA-DOCA-His micelles could be taken up via CD44-receptor mediated endocytosis, transported into endosomes, and triggered drug release to cytoplasm. In vitro cytotoxicity study exhibited PTX-loaded HA-DOCA-His micelles were more active in tumor
cell growth inhibition in MCF-7 cells at pH 5.8 than those at pH 6.8 and pH 7.4. A superior antitumor efficacy was demonstrated with HA-DOCA-His micelles in a MCF-7 breast tumor model."

According to the news editors, the research concluded: "These indicated that the dual functional HA-DOCA-His micelles combined targeted intracellular delivery and endosomal release strategies could be developed as a promising nanocarrier for anticancer efficacy improvement of PTX."

For more information on this research see: CD44 Receptor Targeting and Endosomal pH-Sensitive Dual Functional Hyaluronic Acid Micelles for Intracellular Paclitaxel Delivery. *Molecular Pharmaceutics*, 2016;13(12):4209-4221. *Molecular Pharmaceutics* can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA.

The news editors report that additional information may be obtained by contacting Y.H. Liu, Ningxia Med Univ, Key Lab Hui Ethn Med Modernizat, Minist Educ, Yinchuan 750004, People's Republic of China. Additional authors for this research include C.M. Zhou, W.P. Wang, J.H. Yang, H. Wang, W. Hong and Y. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.6b00870. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yinchuan, People's Republic of China, Asia, Drugs and Therapies, Paclitaxel Therapy, Mitotic Inhibitors, Organic Chemicals, Pharmaceuticals, Antineoplastics, Cycloparaffins, Hydrocarbons, Terpenes, Taxoids, Ningxia Medical University.

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**Surgery - Hysterectomy**

**Researchers from Northeast Normal University Provide Details of New Studies and Findings in the Area of Hysterectomy (The Association between Endometriosis, Tubal Ligation, Hysterectomy and Epithelial Ovarian Cancer: Meta-Analyses)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Surgery - Hysterectomy. According to news reporting originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "To investigate the association between endometriosis, tubal ligation, hysterectomy and epithelial ovarian cancer. Relevant published literatures were searched in PubMed, ProQuest, Web of Science and Medline databases during 1995-2016."

Our news editors obtained a quote from the research from Northeast Normal University, "Heterogeneity was evaluated by I-2 statistic. Publication bias was tested by funnel plot and Egger's test. Odds ratio and 95% CI were used to assess the association strength. The statistical analyses in this study were accomplished by STATA software package. A total of 40,609 cases of epithelial ovarian cancer and 368,452 controls in 38 publications were included. The result suggested that endometriosis was associated with an increased risk of epithelial ovarian cancer (OR = 1.42, 95% CI = 1.28-1.57), tubal ligation was associated with a decreased
risk of epithelial ovarian cancer (OR = 0.70, 95% CI = 0.60-0.81), while hysterectomy show no relationship with epithelial ovarian cancer (OR = 0.97, 95% CI = 0.81-1.14). A stratified analysis showed there were associations between endometriosis and the increased risk of epithelial ovarian cancer for studies conducted in USA and Europe. Meanwhile, there were associations between tubal ligation and the decreased risk of epithelial ovarian cancer for studies conducted in USA, Asia, Europe and Australia."

According to the news editors, the research concluded: "The result indicated that endometriosis was a risk factor of epithelial ovarian cancer whereas tubal ligation was a protective risk factor of epithelial ovarian cancer, hysterectomy may have no relationship with epithelial ovarian cancer."


The news editors report that additional information may be obtained by contacting C.P. Wang, Northeast Normal Univ, Sch Math & Stat, Changchun 130024, People's Republic of China. Additional authors for this research include Z.Z. Liang, X. Liu, Q. Zhang and S. Li.

Keywords for this news article include: Changchun, People's Republic of China, Asia, Risk and Prevention, Hysterectomy, Oncology, Surgery, Cancer, Northeast Normal University.

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Eye Diseases and Conditions - Age-Related Macular...

Researchers from Northwestern University Detail Findings in Age-Related Macular Degeneration (Macular atrophy in patients with long-term anti-VEGF treatment for neovascular age-related macular degeneration)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Eye Diseases and Conditions - Age-Related Macular Degeneration are discussed in a new report. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "PurposeTo identify the prevalence and progression of macular atrophy (MA) in neovascular age-related macular degeneration (AMD) patients under long-term anti-vascular endothelial growth factor (VEGF) therapy and to determine risk factors. MethodThis retrospective study included patients with neovascular AMD and 30 anti-VEGF injections."

Financial support for this research came from Novartis.

Our news journalists obtained a quote from the research from Northwestern University, "Macular atrophy (MA) was measured using near infrared and spectral-domain optical coherence tomography (SD-OCT). Yearly growth rate was estimated using square-root transformation to adjust for baseline area and allow for linearization of growth rate. Multiple regression with Akaike information criterion (AIC) as model selection criterion was used to estimate the influence of various parameters on MA area. ResultsForty-nine eyes (47 patients, mean age 7714) were included with a mean of 48 +/- 13 intravitreal anti-VEGF injections..."
(ranibizumab: 37 +/- 11, aflibercept: 11 +/- 6, mean number of injections/year 8 +/- 2.1) over a mean treatment period of 6.2 +/- 1.3 years (range 4-8.5). Mean best-corrected visual acuity improved from 57 +/- 17 letters at baseline (= treatment start) to 60 +/- 16 letters at last follow-up. The MA prevalence within and outside the choroidal neovascularization (CNV) border at initial measurement was 45% and increased to 74%. Mean MA area increased from 1.8 +/- 2.7 mm(2) within and 0.5 +/- 0.98 mm(2) outside the CNV boundary to 2.7 +/- 3.4 mm(2) and 1.7 +/- 1.8 mm(2), respectively. Multivariate regression determined posterior vitreous detachment (PVD) and presence/development of intraretinal cysts (IRCs) as significant factors for total MA size (R-2 = 0.16, p=0.02). Macular atrophy (MA) area outside the CNV border was best explained by the presence of reticular pseudodrusen (RPD) and IRC (R-2 = 0.24, p=0.02).

Conclusion: A majority of patients show MA after long-term anti-VEGF treatment.

According to the news editors, the research concluded: "Reticular pseudodrusen (RPD), IRC and PVD but not number of injections or treatment duration seem to be associated with the MA size."


Our news journalists report that additional information may be obtained by contacting M.R. Munk, Northwestern University, Dept. of Ophthalmol, Feinberg Sch Med, Chicago, IL 60611, United States. Additional authors for this research include L. Ceklic, A. Ebneter, W. Huf, S. Wolf and M.S. Zinkernagel.

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**Angiology**

Researchers from Northwestern University Discuss Findings in Angiology (Lack of Association Between Extracranial Carotid and Vertebral Artery Disease and Stroke After Transcatheter Aortic Valve Replacement)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Angiology have been presented. According to news reporting from Chicago, Illinois, by NewsRx journalists, research stated, "Carotid artery stenosis is a risk factor for stroke after surgical aortic valve replacement, but it is unknown whether
carotid and vertebral artery disease impacts the risk of stroke after trans-catheter aortic valve replacement (TAVR). We reviewed 294 consecutive cases of TAVR at a tertiary care medical centre."

The news correspondents obtained a quote from the research from Northwestern University, "Thirty-one patients without preoperative carotid/vertebral duplex ultrasonograms were excluded. Carotid or vertebral artery disease was defined on the basis of >50% stenosis. Outcomes were stroke within 30 days after TAVR, 30-day mortality, and overall survival. Fifty-one patients (19%) had at least 50% stenosis of a carotid or vertebral artery. The carotid and vertebral artery disease group had higher rates of coronary artery disease, previous coronary artery bypass surgery, and peripheral artery disease compared with the control group. Transfemoral access was less common in the carotid and vertebral artery disease group (55% vs 77%; P< 0.01). Stroke occurred in 6.8% of patients (n = 18) within 30 days after TAVR, but no The presence of at least 50% stenosis of a carotid or vertebral artery was not predictive of stroke by logistic regression. There was no difference in 30-day mortality (10% vs 4%; P = 0.11) and overall survival (log-rank test P = 0.84) between the groups. The presence or absence of carotid or vertebral artery stenosis was not significantly related to the occurrence of stroke after TAVR."

According to the news reporters, the research concluded: "Routine screening for carotid and vertebral artery disease before TAVR does not appear justified."


Our news journalists report that additional information may be obtained by contacting J.D. Flaherty, Northwestern University, Feinberg Sch Med, Bluhm Cardiovasc Inst, Chicago, IL 60611, United States. Additional authors for this research include Q.R. Youmans, J.J. Puthumana, R.N. Sweis, M.J. Ricciardi, S.C. Malaisrie, C.J. Davidson and J.D. Flaherty.

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Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Risk and Prevention, Vertebral Artery, Coronary Artery, Cardiology, Angiology, Stenosis, Stroke, Northwestern University.

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Heart Disorders and Diseases – Atrial Fibrillation

Researchers from Northwestern University Feinberg School of Medicine Discuss Findings in Atrial Fibrillation [Targeted Anticoagulation for Atrial Fibrillation Guided by Continuous Rhythm Assessment With an Insertable Cardiac Monitor: The Rhythm ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial
Fibrillation. According to news reporting from Chicago, Illinois, by NewsRx journalists, research stated, "Chronic anticoagulation is recommended for patients with AF and additional stroke risk factors, even during long periods of sinus rhythm. Continuous rhythm assessment with an insertable cardiac monitor (ICM) and use of rapid onset novel oral anticoagulants (NOACs) allow for targeted anticoagulation only around an AF episode, potentially reducing bleeding complications without compromising stroke risk."

Financial support for this research came from NIH.

The news correspondents obtained a quote from the research from the Northwestern University Feinberg School of Medicine, "This multicenter, single-arm study enrolled patients on NOAC with nonpermanent AF and CHADS2 score 1 or 2. After a 60-day run-in with no AF episodes (>=) 1 hour, NOACs were discontinued but reinitiated for 30 days following any AF episode (>=) 1 hour diagnosed through daily ICM transmissions. Major endpoints included time on NOAC, stroke, and bleeding. Among 59 enrollees, 75% were male, age 67 ± 8 years, 76% paroxysmal AF, 69% had prior AF ablation, and mean CHADS2 score 1.3 ± 0.5. Over 466 ± 131 mean days of follow-up there were 24,004 ICM transmissions with a compliance rate of 98.7%. A total of 35 AF episodes (>=) 1 hour occurred in 18 (31%) patients, resulting in a total time on NOAC of 1,472 days. This represents a 94% reduction in the time on NOAC compared to chronic anticoagulation. There were three traumatic bleeds (all on aspirin), three potential transient ischemic attacks (all on aspirin with CHADS2 score of 1), and no strokes or deaths. A targeted strategy of ICM-guided intermittent NOAC administration is feasible."

According to the news reporters, the research concluded: "A large-scale trial is necessary to evaluate the safety of this approach."


Our news journalists report that additional information may be obtained by contacting R. Passman, Northwestern University Feinberg School of Medicine, Chicago, Illinois, United States. Additional authors for this research include P. Leong-Sit, A.C. Andrei, A. Huskin, T.T. Tomson, R. Bernstein, E. Ellis, J.W. Waks and P. Zimetbaum.

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Publisher contact information for the *Journal of Cardiovascular Electrophysiology* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

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Researchers from Northwestern University Report Details of New Studies and Findings in the Area of Gliomas (Mutant IDH1 and thrombosis in gliomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Gliomas are discussed in a new report. According to news reporting originating in Chicago, Illinois, by NewsRx journalists, research stated, "Mutant isocitrate dehydrogenase 1 (IDH1) is common in gliomas, and produces D-2-hydroxyglutarate (D-2-HG). The full effects of IDH1 mutations on glioma biology and tumor microenvironment are unknown."

Funders for this research include National Cancer Institute, Friedberg Charitable Foundation.

The news reporters obtained a quote from the research from Northwestern University, "We analyzed a discovery cohort of 169 World Health Organization (WHO) grade II-IV gliomas, followed by a validation cohort of 148 cases, for IDH1 mutations, intratumoral microthrombi, and venous thromboemboli (VTE). 430 gliomas from The Cancer Genome Atlas were analyzed for mRNAs associated with coagulation, and 95 gliomas in a tissue microarray were assessed for tissue factor (TF) protein. In vitro and in vivo assays evaluated platelet aggregation and clotting time in the presence of mutant IDH1 or D-2-HG. VTE occurred in 26-30% of patients with wild-type IDH1 gliomas, but not in patients with mutant IDH1 gliomas (0%). IDH1 mutation status was the most powerful predictive marker for VTE, independent of variables such as GBM diagnosis and prolonged hospital stay. Microthrombi were far less common within mutant IDH1 gliomas regardless of WHO grade (85-90% in wild-type versus 2-6% in mutant), and were an independent predictor of IDH1 wild-type status. Among all 35 coagulation-associated genes, F3 mRNA, encoding TF, showed the strongest inverse relationship with IDH1 mutations. Mutant IDH1 gliomas had F3 gene promoter hypermethylation, with lower TF protein expression. D-2-HG rapidly inhibited platelet aggregation and blood clotting via a novel calcium-dependent, methylation-independent mechanism. Mutant IDH1 glioma engraftment in mice significantly prolonged bleeding time. Our data suggest that mutant IDH1 has potent antithrombotic activity within gliomas and throughout the peripheral circulation."

According to the news reporters, the research concluded: "These findings have implications for the pathologic evaluation of gliomas, the effect of altered isocitrate metabolism on tumor microenvironment, and risk assessment of glioma patients for VTE."


Our news correspondents report that additional information may be obtained by contacting C. Horbinski, Northwestern University, Dept. of Pathol, Chicago, IL 60611, United States. Additional authors for this research include S.R. Schwarze, L. Khoury, C. Thomas, M.J. Wu, L. Chen, R. Chen, Y.X. Liu, M.A. Schwartz, C. Amidei, P. Kumthekar, C.G. Benjamin, K. Song, C. Dawson, J.M. Rispoli, G. Fatterpekar, J.G. Golfinos, D. Kondziolka, M. Karajannis and P.

The direct object identifier (DOI) for that additional information is:
Researchers from Northwestern University Report Findings in Andersen-Tawil Syndrome (Novel calmodulin mutations associated with congenital long QT syndrome affect calcium current in human cardiomyocytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Andersen-Tawil Syndrome have been presented. According to news reporting originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Calmodulin (CaM) mutations are associated with cardiac arrhythmia susceptibility including congenital long QT syndrome (LQTS). The purpose of this study was to determine the clinical, genetic, and functional features of 2 novel CaM mutations in children with life-threatening ventricular arrhythmias."

Our news editors obtained a quote from the research from Northwestern University, "The clinical and genetic features of 2 congenital arrhythmia cases associated with 2 novel CaM gene mutations were ascertained. Biochemical and functional investigations were conducted on the 2 mutations. A novel de novo CALM2 mutation (D132H) was discovered by candidate gene screening in a male infant with prenatal bradycardia born to healthy parents. Postnatal course was complicated by profound bradycardia, prolonged corrected QT interval (651 ms), 2:1 atrioventricular block, and cardiogenic shock. He was resuscitated and was treated with a cardiac device. A second novel de novo mutation in CALM1 (D132V) was discovered by clinical exome sequencing in a 3-year-old boy who suffered a witnessed cardiac arrest secondary to resuscitation revealed a prolonged corrected QT interval of 574 ms. The Ca2+ affinity of CaM-D132H and CaM-D132V revealed extremely weak binding to the C-terminal domain, with significant structural perturbations noted for D132H. Voltage-damp recordings of human induced pluripotent stem cell-derived cardiomyocytes transiently expressing wild-type or mutant CaM demonstrated that both mutations caused impaired Ca2+-dependent inactivation of voltage-gated Ca2+ current. Neither mutant affected voltage-dependent inactivation. Our findings implicate impaired Ca2+-dependent inactivation in human cardiomyocytes as the plausible mechanism for long QT syndrome associated with 2 novel CaM mutations."

According to the news editors, the research concluded: "The data further expand the spectrum of genotype and phenotype associated with calmodulinopathy."

The news editors report that additional information may be obtained by contacting A.L. George, Northwestern University, Dept. of Pharmacol, Feinberg Sch Med, Chicago, IL 60611, United States. Additional authors for this research include C.N. Johnson, G. Webster, J. Schlaepfer, F. Fellmann, N. Sekarski, L.M. Wren, K.V. Ogorodnik, D.M. Chazin, W.J. Chazin, L. Crotti, Z.A. Bhuiyan and A.L. George.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.hrthm.2016.06.038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Intracellular Signaling Peptides and Proteins, Intracellular Calcium-Sensing Proteins, Heart Disorders and Diseases, Cardiovascular Abnormalities, Congenital Abnormalities, Congenital Heart Defects, Andersen-Tawil Syndrome, Cardiac Arrhythmias, Carrier Proteins, Long QT Syndrome, Cardiomyocyte, Heart Disease, Bradycardia, Calmodulin, Cardiology, Genetics, Northwestern University.

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Oncology - Liver Cancer

Researchers from Northwestern University Report Findings in Liver Cancer (Current Guidelines for the Diagnosis and Management of Hepatocellular Carcinoma: A Comparative Review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting originating from Chicago, Illinois, by NewsRx correspondents, research stated, "The purpose of this article is to review aspects of guidelines pertinent to radiologists involved in the diagnosis or treatment of hepatocellular carcinoma."

Our news editors obtained a quote from the research from Northwestern University, "Early diagnosis and treatment of hepatocellular carcinoma are important because only 10% of patients meet the criteria for curative therapy at the time of diagnosis. Several organizations have developed guidelines for screening, diagnosis, and treatment of hepatocellular carcinoma."

According to the news editors, the research concluded: "Radiologists play a pivotal role in every aspect of these guidelines."

For more information on this research see: Current Guidelines for the Diagnosis and Management of Hepatocellular Carcinoma: A Comparative Review. American Journal of Roentgenology, 2016;207(5):W88-W98. American Journal of Roentgenology can be contacted at: Amer Roentgen Ray Soc, 1891 Preston White Dr, Subscription Fulfillment, Reston, VA 22091, USA.

The news editors report that additional information may be obtained by contacting V. Yaghmai, Northwestern University, Northwestern Mem Hosp, Dept. of Radiol, Feinberg Sch Med, Chicago, IL 60611, United States. Additional authors for this research include A.R. Seyal, F. Sodagari, A. Sahin, F.H. Miller, R. Salem and V. Yaghmai.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.2214/AJR.15.15490. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and
Researchers from Ohio State University Discuss Findings in Acinetobacter baumannii (Correlation of Checkerboard Synergy Testing with Time-Kill Analysis and Clinical Outcomes of Extensively Drug-Resistant Acinetobacter baumannii Respiratory Infections)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Acinetobacter baumannii are discussed in a new report. According to news reporting originating from Columbus, Ohio, by NewsRx correspondents, research stated, "We tested 76 extensively drug-resistant (XDR) Acinetobacter baumannii isolates by the checkerboard method using only wells containing serum-achievable concentrations (SACs) of drugs. Checkerboard results were correlated by time-kill assay and clinical outcomes."

Our news editors obtained a quote from the research from Ohio State University, "Minocycline-colistin was the best combination in vitro, as it inhibited growth in one or more SAC wells in all isolates. Patients who received a combination that inhibited growth in one or more SAC wells demonstrated better microbiological clearance than those who did not (88% versus 30%; P = 0.025)."

According to the news editors, the research concluded: "The checkerboard platform may have clinical utility for XDR A. baumannii infections."


The news editors report that additional information may be obtained by contacting J.M. Balada-Llasat, Ohio State University, Medical Center, Dept. of Pathol, Columbus, OH 43210, United States. Additional authors for this research include K.A. Bauer, S.M. Pouch, K. Thomas, D. Smith, D.A. Goff, P. Pancholi and J.M. Balada-Llasat.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00981-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Acinetobacter baumannii, Gram-Negative Bacteria, Gammaproteobacteria, Drugs and Therapies, Drug Resistance, Proteobacteria, Moraxellaceae, Ohio State University.

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Researchers from Oregon Health and Science University Report Findings in Physiology (SPAK and OSR1 play essential roles in potassium homeostasis through actions on the distal convoluted tubule)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Life Science Research - Physiology. According to news reporting originating from Portland, Oregon, by NewsRx correspondents, research stated, "STE20 (Sterile 20)/SPS-1 related proline/alanine-rich kinase (SPAK) and oxidative stress-response kinase-1 (OSR1) activate the renal cation cotransporters Na+-K+-2Cl(-) cotransporter (NKCC2) and Na+-Cl- cotransporter (NCC) via phosphorylation. Knockout mouse models suggest that OSR1 mainly activates NKCC2, while SPAK mainly activates NCC, with possible cross-compensation."

Our news editors obtained a quote from the research from Oregon Health and Science University, "We tested the hypothesis that disrupting both kinases causes severe polyuria and salt-wasting by generating SPAK/OSR1 double knockout (DKO) mice. DKO mice displayed lower systolic blood pressure compared with SPAK knockout (SPAK-KO) mice, but displayed no severe phenotype even after dietary salt restriction. Phosphorylation of NKCC2 at SPAK/OSR1-dependent sites was lower than in SPAK-KO mice, but still significantly greater than in wild type mice. In the renal medulla, there was significant phosphorylation of NKCC2 at SPAK/OSR1-dependent sites despite a complete absence of SPAK and OSR1, suggesting the existence of an alternative activating kinase. The distal convoluted tubule has been proposed to sense plasma [K+], with NCC activation serving as the primary effector pathway that modulates K+ secretion, by metering sodium delivery to the collecting duct. Abundance of phosphorylated NCC (pNCC) is dramatically lower in SPAK-KO mice than in wild type mice, and the additional disruption of OSR1 further reduced pNCC. SPAK-KO and kidney-specific OSR1 single knockout mice maintained plasma [K+] following dietary potassium restriction, but DKO mice developed severe hypokalaemia. Unlike mice lacking SPAK or OSR1 alone, DKO mice displayed an inability to phosphorylate NCC under these conditions."

According to the news editors, the research concluded: "These data suggest that SPAK and OSR1 are essential components of the effector pathway that maintains plasma [K+]."


The news editors report that additional information may be obtained by contacting J.A. McCormick, Oregon Health Sciences University, Div Nephrol & Hypertens, Dept. of Med, Portland, OR 97239, United States. Additional authors for this research include K.W. Barber, K.I. Lopez-Cayuqueo, A.S. Terker, E.R. Argaiz, B.M. Gassaway, R. Chambrey, G. Gamba, J. Rinehart and J.A. McCormick.

Keywords for this news article include: Portland, Oregon, United States, North and Central America, Physiology, Life Science Research, Enzymes and Coenzymes, Kinase, Oregon Health and Science University.

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Researchers from Osaka Medical College Describe Findings in Liver Cancer (Rosuvastatin as a potential preventive drug for the development of hepatocellular carcinoma associated with non-alcoholic fatty liver disease in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting out of Takatsuki, Japan, by NewsRx editors, research stated, "Hepatocellular carcinoma (HCC) represents approximately 85% of all primary liver cancer cases. Non-alcoholic fatty liver disease (NAFLD) is one of the risk factors for HCC."

Our news journalists obtained a quote from the research from Osaka Medical College, "NAFLD occurs in patients with components of metabolic syndrome, such as type 2 diabetes mellitus, obesity, hypertension and hyperlipidemia. Therefore, hyperlipidemia also represents a patient population at risk for HCC that can readily be identified. Rosuvastatin, a 3-hydroxy-3-methyl-glutaryl coenzyme A (HMG-CoA) reductase inhibitor, has exhibited a more potent affinity for the active site of HMG-CoA reductase than other statins. In addition, the hepatic uptake of rosuvastatin in rats has been found to be more selective and efficient than that with other drugs. Furthermore, the cytoprotective effects of rosuvastatin against ischemic injury have been clearly reported. Thus, in this study, we aimed to determine the role of rosuvastatin as a preventive drug in HCC associated with NAFLD. STAM mice, which developed HCC from NAFLD by being fed a high-fat diet (HFD), were divided into a group in which a HFD was given to the mice for 15 weeks (n=8) and another in which a HFD supplemented with 0.00125% rosuvastatin was given to the mice for 15 weeks (n=8). Rosuvastatin inhibited the development of hepatic tumors in the mice with NAFLD induced by a specific diet both macroscopically and histologically. Rosuvastatin significantly decreased the expression levels of pro-inflammatory cytokines, such as tumor necrosis factor (TNF)-, interleukin (IL)-6 and transforming growth factor (TGF)-1. Tumor aggressiveness is mediated by angiogenic factors. Therefore, we examined the hepatic mRNA expression of vascular endothelial growth factor receptor (VEGFR), epidermal growth factor receptor (EGFR) and platelet-derived growth factor (PDGF). The hepatic expression of these factors significantly decreased in the rosuvastatin-fed mice. Our results thus suggest rosuvastatin that prevents carcinogenesis and improves the hepatic background."

According to the news editors, the research concluded: "Our data suggest that rosuvastatin has potential for use as a preventive drug for the development of HCC associated with NAFLD in mice."

For more information on this research see: Rosuvastatin as a potential preventive drug for the development of hepatocellular carcinoma associated with non-alcoholic fatty liver disease in mice. International Journal of Molecular Medicine, 2016;38(5):1499-1506. International Journal of Molecular Medicine can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

Our news journalists report that additional information may be obtained by contacting S. Fukunishi, Osaka Medical College, Dept. of Internal Med 2, Takatsuki, Osaka 5698686, Japan. Additional authors for this research include S. Fukunishi, M. Ii, K. Nakamura, H. Ohama, Y. Tsuchimoto, A. Asai, Y. Tsuda and K. Higuchi.

Keywords for this news article include: Takatsuki, Japan, Asia, Nutritional and
Researchers from Osaka University Graduate School of Medicine Describe Findings in Therapeutics (Predictors of Survival in Patients With FIGO Stage IVB Cervical Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Therapeutics. According to news originating from Osaka, Japan, by NewsRx correspondents, research stated, "The aim of this study was to identify prognostic factors and establish a model for predicting life expectancy in International Federation of Gynecology and Obstetrics stage IVB cervical cancer patients. The baseline characteristics and outcome data of patients with stage IVB cervical cancer between May 1994 and October 2014 were collected and retrospectively reviewed."

Our news journalists obtained a quote from the research from the Osaka University Graduate School of Medicine, "A Cox proportional hazards regression model was used to identify independent predictors of survival in stage IVB cervical cancer patients. A total of 107 patients were included in our database. The median overall survival (OS) period was 16 months. Multivariate analysis revealed that the metastatic site (hazards ratio, 3.09; 95% confidence interval, 1.94-4.88; p<0.0001) and a white blood cell (WBC) count exceeding 10,000/mL (hazards ratio, 2.02; 95% confidence interval, 1.19-3.30; p=0.0102) were significant prognostic factors in terms of OS. Patient survival was inversely correlated with the number of these prognostic factors possessed. When the patients were divided into 3 prognostic groups, the median OS of the patients with 0, 1, or 2 poor prognostic factors was 26, 12, and 7 months, respectively. Among the patients with WBC counts of less than 10,000/mL, treatment with radiotherapy resulted in improved survival compared with chemotherapy or palliative care alone. In contrast, radiotherapy had minimal effects on survival in patients with WBC counts of greater than 10,000/mL. The metastatic site and an elevated WBC count are significant prognostic factors in patients with stage IVB cervical cancer."

According to the news editors, the research concluded: "Our prognostic model composed of these 2 clinical variables might enable physicians to predict survival more accurately."


The news correspondents report that additional information may be obtained from T. Sasano, Departments of *Obstetrics and Gynecology and †Radiation Oncology, Osaka University Graduate School of Medicine, Osaka, Japan. Additional authors for this research include S. Mabuchi, H. Kuroda, R. Takahashi, K. Kozasa, F. Isohashi, Y. Yoshioka, K. Ogawa.
and T. Kimura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/IGC.0000000000000642. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Osaka, Japan, Cancer, Oncology, Radiotherapy, Therapeutics.

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Oncology - Colon Cancer

Researchers from Osaka University Report New Studies and Findings in the Area of Colon Cancer (Metabolic Adaptation to Nutritional Stress in Human Colorectal Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Colon Cancer are presented in a new report. According to news reporting out of Osaka, Japan, by NewsRx editors, research stated, "Tumor cells respond to their microenvironment, which can include hypoxia and malnutrition, and adapt their metabolism to survive and grow. Some oncogenes are associated with cancer metabolism via regulation of the related enzymes or transporters."

Our news journalists obtained a quote from the research from Osaka University, "However, the importance of metabolism and precise metabolic effects of oncogenes in colorectal cancer remain unclear. We found that colorectal cancer cells survived under the condition of glucose depletion, and their resistance to such conditions depended on genomic alterations rather than on KRAS mutation alone. Metabolomic analysis demonstrated that those cells maintained tricarboxylic acid cycle activity and ATP production under such conditions. Furthermore, we identified pivotal roles of GLUD1 and SLC25A13 in nutritional stress. GLUD1 and SLC25A13 were associated with tumor aggressiveness and poorer prognosis of colorectal cancer."

According to the news editors, the research concluded: "GLUD1 and SLC25A13 may serve as new targets in treating refractory colorectal cancer which survive in malnourishment microenvironments."

For more information on this research see: Metabolic Adaptation to Nutritional Stress in Human Colorectal Cancer. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting M. Mori, Osaka University, Grad Sch Med, Dept. of Canc Profiling Discovery, Suite, Osaka 5650871, Japan. Additional authors for this research include M. Konno, N. Nishida, T. Mizushima, Y. Doki, M. Mori and H. Ishii.

Keywords for this news article include: Osaka, Japan, Asia, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, Osaka University.

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Researchers from Otto-von-Guericke-University Report Recent Findings in Myotomy [Jackhammer esophagus: high-resolution manometry and therapeutic approach using peroral endoscopic myotomy (POEM)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Surgery - Myotomy are discussed in a new report. According to news reporting from Magdeburg, Germany, by NewsRx journalists, research stated, "We present the first report on peroral endoscopic myotomy (POEM) in the treatment of jackhammer esophagus. A 34-year-old female patient was newly diagnosed with a jackhammer esophagus."

The news correspondents obtained a quote from the research from Otto-von-Guericke-University, "After failure of medical treatment, the patient underwent POEM procedure for myotomy of the spastic segment. Postoperatively, a mild emphysema and pneumothorax occurred that required drainage and antibiotic therapy until full recovery. Discharge was possible after 5 days. Six months later, she presented with recurrent but mild pain due to a remnant spastic segment proximal to the myotomy."

According to the news reporters, the research concluded: "Endoscopic balloon dilation was performed twice within 6 weeks with full symptomatic relief of pain and mild symptoms of dysphagia."


Our news journalists report that additional information may be obtained by contacting A. Kandulski, Otto von Guericke Univ, Dept. of Gastroenterol Hepatol & Infect Dis, Magdeburg, Germany. Additional authors for this research include K.H. Fuchs, J. Weigt and P. Malfertheiner.

Keywords for this news article include: Magdeburg, Germany, Europe, Therapy, Myotomy, Surgery, Otto-von-Guericke-University.

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Cardiology

Researchers from PRESTO Report Findings in Cardiology (TRPC3-GEF-H1 axis mediates pressure overload-induced cardiac fibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiology. According to news reporting from Saitama, Japan, by NewsRx journalists, research stated, "Structural cardiac
remodeling, accompanying cytoskeletal reorganization of cardiac cells, is a major clinical outcome of diastolic heart failure. A highly local Ca2+ influx across the plasma membrane has been suggested to code signals to induce Rho GTPase-mediated fibrosis, but it is obscure how the heart specifically decodes the local Ca2+ influx as a cytoskeletal reorganizing signal under the conditions of the rhythmic Ca2+ handling required for pump function.”

The news correspondents obtained a quote from the research from PRESTO, "We found that an inhibition of transient receptor potential canonical 3 (TRPC3) channel activity exhibited resistance to Rho-mediated maladaptive fibrosis in pressure-overloaded mouse hearts. Proteomic analysis revealed that microtubule-associated Rho guanine nucleotide exchange factor, GEF-H1, participates in TRPC3-mediated RhoA activation induced by mechanical stress in cardiomyocytes and transforming growth factor (TGF)beta stimulation in cardiac fibroblasts. We previously revealed that TRPC3 functionally interacts with microtubule-associated NADPH oxidase (Nox) 2, and inhibition of Nox2 attenuated mechanical stretch-induced GEF-H1 activation in cardiomyocytes. Finally, pharmacological TRPC3 inhibition significantly suppressed fibrotic responses in human cardiomyocytes and cardiac fibroblasts."

According to the news reporters, the research concluded: "These results strongly suggest that microtubule-localized TRPC3-GEF-H1 axis mediates fibrotic responses commonly in cardiac myocytes and fibroblasts induced by physico-chemical stimulation."

For more information on this research see: TRPC3-GEF-H1 axis mediates pressure overload-induced cardiac fibrosis. Scientific Reports, 2016;6():1-12. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting M. Nishida, JST, PRESTO, Kawaguchi, Saitama 3320012, Japan. Additional authors for this research include N. Kitajima, T. Kuroda, A. Nishimura, K. Miyano, S. Yasuda, K. Kuwahara, Y. Sato, T. Ide, L. Birnbaumer, H. Sumimoto, Y. Mori and M. Nishida.

Keywords for this news article include: Saitama, Japan, Asia, Connective Tissue Cells, Cardiomyocyte, Fibroblasts, Cardiology, Genetics, PRESTO.

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Our news journalists obtained a quote from the research from Peking Union Medical College, "In this study, HeLa cells were used as a testing model for the treatment of IFN-alpha on cervical cancer. The results indicate that IFN-alpha markedly inhibits the proliferation and induces the apoptosis of HeLa cells. The activation of caspase 3, the up-regulation of both Bim and cleaved poly (ADP-ribose) polymerase (PARP) 1, the down-regulation of Bcl-xL, as well as the release of cytochrome c from mitochondria were significantly induced upon IFN-alpha treatment, indicating that the intrinsic apoptotic pathway could be activated by IFN-alpha treatment. In addition, caspase 4-which is involved in the endoplasmic reticulum (ER) stress-induced apoptosis-was activated in response to IFN-alpha treatment. Knocking down caspase 4 by small interfering RNA (siRNA) markedly reduced the IFN-alpha-mediated cell apoptosis. However, no significant changes in the expressions of caspases 8 and 10 were observed upon IFN-alpha treatment, indicating that the apoptosis caused by IFN-alpha might be independent of the extrinsic apoptotic pathway."

According to the news editors, the research concluded: "These findings suggest that IFN-alpha may possess anti-cervical cancer capacity by activating cell apoptosis via the intrinsic mitochondrial pathway and caspase-4-related ER stress-induced pathway."

For more information on this research see: Interferon alpha Induces the Apoptosis of Cervical Cancer HeLa Cells by Activating both the Intrinsic Mitochondrial Pathway and Endoplasmic Reticulum Stress-Induced Pathway. International Journal of Molecular Sciences, 2016;17(11):1101-1113. International Journal of Molecular Sciences can be contacted at: Mdp Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from W.Y. Shi, Peking Union Med College, Beijing 100005, People's Republic of China. Additional authors for this research include C. Cao and L. Liu.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Cysteine Endopeptidases, Endoplasmic Reticulum, Enzymes and Coenzymes, Cellular Structures, Intracellular Space, Biological Factors, Peptide Hydrolases, Interferon Type I, Interferon-alpha, Interferons, Organelles, Hela Cells, Cytoplasm, Cytokines, Apoptosis, Oncology, Genetics, Caspases, Cancer, Peking Union Medical College.

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Our news journalists obtained a quote from the research from Peking Union Medical College, "Patients presenting with acute flares were asked about common triggers before the flare. 'Early-onset' gout was defined as onset of gout before 40 years and 'late-onset' as onset >= 40 years. Major joint involvement, flare frequency before presentation, the cumulative number of involved joints, proportions of tophi complications at presentation, flare triggers, as well as any metabolic, cardiovascular, cerebrovascular, and renal comorbidities, were compared between the 2 groups. A total of 778 gout patients were enrolled in this study, including 449 (57.7%) in the early-onset group and 329 (42.3%) in the late-onset group. Compared with the late-onset gout patients, the early-onset gout patients had a higher proportion of ankle/mid-foot involvement (62.8% vs 48.2%, P<0.001), more frequent flares before presentation (11.2 +/- 1.17 vs 6.97 +/- 1.03 times per year, P=0.01), higher cumulative number of involved joints (5.2 +/- 0.26 vs 3.8 +/- 0.26, P<0.001), and more likely to have alcohol consumption as a flare trigger (65.2% vs 53.9%, P=0.03); whereas early-onset gout patients had fewer metabolic, cardiovascular, cerebrovascular, or renal complications. Early-and late-onset gout patients had different clinical features.

According to the news editors, the research concluded: "Early-onset seems to be influenced more by lifestyle, while late-onset patients have more complications because of comorbidities."

For more information on this research see: Clinical characteristics of early- and late-onset gout. A cross-sectional observational study from a Chinese gout clinic. Medicine, 2016;95 (47):191-196. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from X.J. Zeng, Peking Union Med College, Beijing 100730, People's Republic of China. Additional authors for this research include W.G. Fang, X.J. Zeng, Y. Zhang, Y. Ma, F. Sheng and X.L. Zhang.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Inborn Errors Purine-Pyrimidine Metabolism, Musculoskeletal Diseases and Conditions, Rheumatic Diseases and Conditions, Joint Diseases and Conditions, Clinical Trials and Studies, Clinical Research, Gouty Arthritis, Cardiovascular, Cardiology, Peking Union Medical College.

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Oncology - Rectal Cancer

Researchers from Peking Union Medical College Report Recent Findings in Rectal Cancer (Interim analysis of postoperative chemoradiotherapy with capecitabine and oxaliplatin versus capecitabine alone for pathological stage II and III rectal ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Rectal Cancer is now available. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated. "The aim of this study is to present an interim analysis of a phase III trial (NCT00714077) of postoperative concurrent capecitabine and radiotherapy with or without..."
oxaliplatin for pathological stage II and III rectal cancer. Patients with pathologically confirmed stage II and III rectal cancer were randomized to either radiotherapy with concurrent capecitabine (Cap-RT group) or with capecitabine and oxaliplatin (Capox-RT group).

The news reporters obtained a quote from the research from Peking Union Medical College, "The primary endpoint was 3-year disease-free survival rate (DFS). The 3-year DFS rate was 73.9% in the Capox-RT group and 71.6% in the Cap-RT group (HR 0.92, p=0.647), respectively. No significant difference was observed in overall survival, cumulative incidence of local recurrence and distant metastasis between the two groups (p >0.05). More grade 3-4 acute toxicity was observed in the Capox-RT group than in the Cap-RT group (38.1% vs. 29.2%, p= 0.041)."

According to the news reporters, the research concluded: "Inclusion of oxaliplatin in the capecitabine-based postoperative regimen did not improve DFS but increased toxicities for pathological stage II and III rectal cancer in this interim analysis."

For more information on this research see: Interim analysis of postoperative chemoradiotherapy with capecitabine and oxaliplatin versus capecitabine alone for pathological stage II and III rectal cancer: a randomized multicenter phase III trial. Oncotarget, 2016;7 (18):25576-84.

Our news correspondents report that additional information may be obtained by contacting Y.R. Feng, Dept. of Radiation Oncology, Cancer Hospital, Chinese Academy of Medical Sciences, Peking Union Medical College, Beijing, People's Republic of China. Additional authors for this research include Y. Zhu, L.Y. Liu, W.H. Wang, S.L. Wang, Y.W. Song, X. Wang, Y. Tang, Y.P. Liu, H. Ren, H. Fang, S.P. Zhang, X.F. Liu, Z.H. Yu, Y.X. Li and J. Jin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8226. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Oncology, Radiotherapy, Rectal Cancer, Gastroenterology, Clinical Research, People's Republic of China, Clinical Trials and Studies.

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Inflammation

Researchers from Peking University Detail New Studies and Findings in the Area of Inflammation [Intermedin(1-53) Protects Against Myocardial Fibrosis by Inhibiting Endoplasmic Reticulum Stress and Inflammation Induced by Homocysteine in ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Inflammation. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Endoplasmic reticulum stress (ERS) and inflammation participate in cardiac fibrosis. Importantly, a novel paracrine/autocrine peptide intermedin(1-53) (IMD1-53) in the heart inhibits myocardial fibrosis in rats."

The news reporters obtained a quote from the research from Peking University, "However, the mechanisms are yet to be fully elucidated. Myocardial fibrosis in apolipoprotein
E-deficient (ApoE(-/-)) mice and neonatal rat cardiac fibroblasts (CFs) were induced using homocysteine (Hcy). IMD1-53 inhibited myocardial fibrosis in vivo and in vitro. Picrosirius red staining showed that IMD1-53 reduced myocardial interstitial collagen deposition in ApoE(-/-) mice treated with Hcy and decreased the expression of myocardial collagen I and III, which was further verified in rat CFs. IMD1-53 attenuated myocardial hypertrophy, as shown by cardiomyocyte cross-sectional area, ratio of heart weight to body weight, and mRNA levels of atrial natriuretic peptide and brain natriuretic peptide. IMD1-53 inhibited the upregulation of ERS hallmarks such as glucose-regulated protein 78 (GRP78), GRP94, activating transcription factor 6 (ATF6), ATF4, inositol-requiring enzyme 1 alpha, spliced-X-box-binding protein-1, protein kinase receptor-like ER kinase, and eukaryotic translation initiation factor 2 alpha in mouse myocardium and rat CFs treated with Hcy. In addition, IMD1-53 decreased the production of inflammatory factors such as tumor necrosis factor-alpha, monocyte chemotactic protein-1, interleukin-6 (IL-6), and IL-1 beta in the mouse myocardium and rat CFs treated with Hcy. Concurrently, IMD1-53 ameliorated the expression of nuclear factor-kappa B, transforming growth factor-beta 1, and c-Jun N-terminal kinase in the mouse myocardium and rat CFs treated with Hcy.

According to the news reporters, the research concluded: "IMD potentially protects against myocardial fibrosis induced by Hcy in ApoE(-/-) mice, possibly via attenuating myocardial ERS and inflammation."


Keywords for this news article include: Beijing, People's Republic of China, Asia, Enzymes and Coenzymes, Sulfur Amino Acids, Apolipoproteins, Lipoproteins, Homocysteine, Inflammation, Aporproteins, Cardiology, Myocardium, Proteomics, Proteins, Peptides, Genetics, Kinase, Heart, Peking University.

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**Oncology - Anaplastic Large Cell Lymphoma**

**Researchers from Peking University Provide Details of New Studies and Findings in the Area of Anaplastic Large Cell Lymphoma (Primary central nervous system ALK-positive anaplastic large cell lymphoma in an adult A rare case report)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Anaplastic Large Cell Lymphoma. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Anaplastic large cell lymphoma (ALCL) is an aggressive non-
Hodgkin lymphoma. It mostly invades lymph nodes with extranodal involvement observed in the soft tissue, bone, and skin."

Our news journalists obtained a quote from the research from Peking University, "Patient concerns: We report a 34-year-old Chinese male patient who presented with headache, diplopia, and vomit. Cerebrospinal fluid (CSF) analysis via lumbar puncture showed elevated CSF pressure, elevated CSF protein concentrations, decreased CSF glucose and chloride concentration significantly, and pleocytosis of 68 to 350 x 10(6)/L, in which lymphocytes and monocytes were predominant. These changes could be suggestive of tuberculous (TB) meningitis. Enhanced magnetic resonance imaging of spinal cord delineated multiple enhancing nodules in spinal cord, cauda equina, and crista membrane, and multiple abnormal enhancing lesions in bilateral lumbar intervertebral foramen. Diagnoses: Spinal dura mater biopsy and paraffin pathology examination revealed anaplastic lymphoma kinase positive ALCL. High-dose methotrexate, cytosine arabinoside craniospinal, and radiotherapy. Last follow-up on September 22, 2015 showed no evidence of tumor recurrence and the lower extremity muscle strength recovered to 4/5. Lessons: ALCL of primary central nervous system is an exceedingly rare tumor, which is usually misdiagnosed as meningitis (especially TB meningitis) according to clinical manifestation and laboratory examination."

According to the news editors, the research concluded: "Thus closely monitoring patient's conditions and timely adjusting therapeutic regimen during treatment are necessary."

For more information on this research see: Primary central nervous system ALK-positive anaplastic large cell lymphoma in an adult A rare case report. Medicine, 2016;95 (49):318-323. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting H. Zhao, Peking University, Hosp 1, Center Liver Dis, Dept. of Infect Dis, Beijing 100034, People's Republic of China. Additional authors for this research include J. Li, N. Huo, Y. Wang, Z. Wu, X. Lin and H. Zhao.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Central Nervous System Diseases and Conditions, Central Nervous System Infections, Lymphatic Diseases and Conditions, Anaplastic Large Cell Lymphoma, Immunoproliferative Disorders, Lymphoproliferative Disorders, Meningitis, Hematology, Lymphomas, Oncology, Cancer, Peking University.

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Amyotrophic Lateral Sclerosis

Researchers from Peking University Third Hospital Detail Findings in Amyotrophic Lateral Sclerosis (Single-nucleotide Polymorphism rs2275294 in ZNF512B is not Associated with Susceptibility to Amyotrophic Lateral Sclerosis in a Large Chinese ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Amyotrophic Lateral Sclerosis. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Amyotrophic lateral sclerosis (ALS) is a fatal neurodegenerative disease that
Our news journalists obtained a quote from the research from Peking University Third Hospital, "Here, we performed a case-control study examining the possible association of rs2275294 with risk of sporadic ALS (SALS) in a large Chinese cohort. To assess this association, we performed a replication study in 953 SALS patients and 1039 age-and gender-matched healthy control subjects, who were recruited from Peking University Third Hospital and the First Affiliated Hospital of Anhui Medical University from January 2004 to December 2013 throughout China. We genotyped the rs2275294 SNP using polymerase chain reaction and direct sequencing. The allele frequency of rs2275294 in ZNF512B was different between Japanese and Chinese. The association in Chinese between ALS patients and controls did not reach statistical significance (p=0.54; odds ratio=0.94; 95% confidence interval=0.76-1.15). The SNP rs2275294 in ZNF512B is not considered to be associated with ALS susceptibility in the Chinese population. Our study highlights genetic heterogeneity in ALS susceptibility in different population."

According to the news editors, the research concluded: "Given our negative results, further replication study involving larger and more homogeneous samples in different ethnicities should be performed in the future."


Our news journalists report that additional information may be obtained by contacting M. Deng, Medical Research Center, Peking University Third Hospital, Beijing 100191, People's Republic of China. Additional authors for this research include T. Liu, J. Chen, X.G. Li, X.X. Liu, W.C. Liu, K. Wang and M. Deng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.171421. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Chinese Medical Journal is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Beijing, Genetics, Hospital, Neurology, Motor Neuron Disease, TDP 43 Proteinopathies, Proteostasis Deficiencies, People's Republic of China, Amyotrophic Lateral Sclerosis, Spinal Cord Diseases and Conditions, Neuromuscular Diseases and Conditions, Neurodegenerative Diseases and Conditions.

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Recreational and Healthcare Contexts, Food ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Obesity have been published. According to news originating from Baton Rouge, Louisiana, by NewsRx correspondents, research stated, "To examine change in county-level adult obesity prevalence between 2004 and 2009 and identify associated community characteristics. Change in county-level adult (>=20 years) obesity prevalence was calculated for a 5-year period (2004-2009)."

Our news journalists obtained a quote from the research from Pennington Biomedical Research Center, "Community measures of economic, healthcare, recreational, food environment, population structure, and education contexts were also calculated. Regression analysis was used to assess community characteristics associated (p <0.01) with change in adult obesity prevalence. Mean?SD change in obesity prevalence was 5.1?2.4%. Obesity prevalence decreased in 1.4% (n=44) and increased in 98% (n=3,060) of counties from 2004-2009. Results showed that both baseline levels and increases in physically inactive adults were associated with greater increases in obesity prevalence, while baseline levels of and increases in physician density and grocery store/supercenter density were related to smaller increases in obesity rates. Baseline levels of the Hispanic population share were negatively linked to changing obesity levels, while places with greater Hispanic population growth saw greater increases in obesity. Most counties in the U.S. experienced increases in adult obesity prevalence from 2004 to 2009."

According to the news editors, the research concluded: "Findings suggest that community-based interventions targeting adult obesity need to incorporate a range of community factors, such as levels of physical inactivity, access to physicians, availability of food outlets, and ethnic/racial population composition."

For more information on this research see: Change in Obesity Prevalence across the United States Is Influenced by Recreational and Healthcare Contexts, Food Environments, and Hispanic Populations. Plos One, 2016;11(2):e0148394. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news correspondents report that additional information may be obtained from C.A. Myers, Pennington Biomedical Research Center, Baton Rouge, Louisiana, 70808, United States. Additional authors for this research include T. Slack, C.K. Martin, S.T. Broyles and S.B Heymsfield.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0148394. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Obesity, Louisiana, Bariatrics, Baton Rouge, United States, Overnutrition, Diet and Nutrition, Nutrition Disorders, North and Central America, Nutritional and Metabolic Diseases and Conditions.

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Oncology - Squamous Cell Carcinoma

Researchers from People's Hospital Describe Findings in Squamous Cell Carcinoma (Association of genetic polymorphisms in PTEN and additional gene-gene interaction with risk of esophageal squamous cell
carcinoma in Chinese Han population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Squamous Cell Carcinoma. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "This study aims to investigate the association of five single nucleotide polymorphisms (SNPs) in the phosphatase and tensin homologue (PTEN) gene and additional role of gene-gene interaction with esophageal squamous cell carcinoma (ESCC), based on a Chinese case-control study. A total of 871 subjects (420 males and 451 females) were selected, including 425 ESCC cases and 446 controls."

Our news editors obtained a quote from the research from People's Hospital, "Five SNPs were selected for genotyping in the case-control study: rs2735343, rs555895, rs2299939, rs17433184 and rs701848. Logistic regression model was used to examine the association between five SNP and ESCC, and additional interaction among five SNP, odds ratio (OR) and 95% confident interval (95%CI) were calculated. All genotypes were distributed according to Hardy-Weinberg equilibrium in controls. The carriers of homozygous mutant of rs2735343 and rs701848 polymorphism revealed increased ESCC risk than those with wild-type homozygotes, and OR (95%CI) were 1.27 (1.09-2.08) and 1.45 (1.17-1.98), respectively. We also found a potential gene-gene interaction between rs2735343 and rs701848 (P = 0.0010), and a potential gene-gene interaction among all five SNP (P = 0.0107) after covariates adjustment. Subjects with TC or CC of rs2735343 and TC or CC of rs701848 genotype have highest ESCC risk, compared to subjects with TT of rs2735343 and TT of rs701848 genotype, OR (95% CI) was 2.76 (1.37-3.45) after covariates adjustment. The carriers of homozygous mutant of rs2735343 and rs701848 polymorphism revealed increased ESCC risk."

According to the news editors, the research concluded: "We also found a potential gene-gene interaction between rs2735343 and rs701848 and a potential gene-gene interaction among all five SNPs."


The news editors report that additional information may be obtained by contacting X. Xu, Yixing Peoples Hosp, Dept. of Gastroenterol, Wuxi 214200, Jiangsu, People's Republic of China. Additional authors for this research include G. Chen, L. Wu and L. Liu.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Squamous Cell Carcinoma, Carcinomas, Oncology, Genetics, People's Hospital.

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Investigators discuss new findings in Drugs and Therapies - Antiretrovirals. According to news originating from Guilin, People's Republic of China, by NewsRx correspondents, research stated, "The study aimed to clarify whether the rtI233V substitution affects adefovir (ADV) resistance. A total of 18,419 patients from Beijing 302 Hospital were investigated."

Our news journalists obtained a quote from the research from People's Hospital, "HBV complete reverse transcriptase region of the polymerase was screened by direct sequencing and verified by clonal sequencing if necessary. Replication-competent wild-type and mutant HBV genomic amplicons were transfected into HepG2 cells for phenotypic analysis of viral replication capacity and drug susceptibility. The rtI233V substitution was detected in 38/5,344 (0.71%) ADV-treated patients and in 8/13,075 patients without receiving ADV (P <0.001). Eight patients with rtI233V +/- rtA181V/rt N236T had virological break-through in the clinical course of ADV treatment. Phenotypic analysis showed that rtI233V mutants from patient 1 and patient 2 exhibited 1.57-fold and 1.51-fold decreased susceptibility to ADV, respectively, compared to wild-type virus; by contrast, rtN236T and rtI233V+N236T mutants from patient 1 had 6.82-fold and 5.28-fold decreased susceptibility to ADV. rtI233V, rtN236T and rtI233V+ N236T mutants had 97.5%, 30.2% and 69.7% of replication capacity compared to wild-type virus in the absence of antivirals and all remained susceptible to lamivudine, entecavir and tenofovir. Viral replication capacity correspondingly decreased after eliminating rtI233V from rtI233V+ N236T mutant and was restored after introducing rtI233V into rtN236T mutant. In clinical practice, switching to entecavir rescue therapy suppressed HBV DNA to an undetectable level for both patients."

According to the news editors, the research concluded: "RtI233V usually emerged in ADV-treated patients with little impact on ADV susceptibility but it effectively restored replication capacity of the rtN236T mutant, suggesting that rtI233V may partly serve as a compensatory mutation associated with ADV resistance."


The news correspondents report that additional information may be obtained from S.Q. Cheng, Third Peoples Hosp Guilin, Dept. of Liver Dis, Guilin, People's Republic of China. Additional authors for this research include S.J. Xin, X.L. Ye, R.J. Chen, Z.H. Xu, X.D. Li, H.Y. Ye, S.Q. Cheng and D.P. Xu.

Keywords for this news article include: Guilin, People's Republic of China, Asia, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Drugs and Therapies, Antiretrovirals, Antiinfectives, Antivirals, Adefovir, Therapy, People's Hospital.

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Researchers from Pfizer Report New Studies and Findings in the Area of Pharmacoepidemiology (Recommendations for benefit-risk assessment methodologies and visual representations)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Pharmacoepidemiology are presented in a new report. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "The purpose of this study is to draw on the practical experience from the PROTECT BR case studies and make recommendations regarding the application of a number of methodologies and visual representations for benefit-risk assessment. Eight case studies based on the benefit-risk balance of real medicines were used to test various methodologies that had been identified from the literature as having potential applications in benefit-risk assessment."

Financial support for this research came from Innovative Medicines Initiative Joint Undertaking.

The news correspondents obtained a quote from the research from Pfizer, "Recommendations were drawn up based on the results of the case studies. A general pathway through the case studies was evident, with various classes of methodologies having roles to play at different stages. Descriptive and quantitative frameworks were widely used throughout to structure problems, with other methods such as metrics, estimation techniques and elicitation techniques providing ways to incorporate technical or numerical data from various sources. Similarly, tree diagrams and effects tables were universally adopted, with other visualisations available to suit specific methodologies or tasks as required. Every assessment was found to follow five broad stages: (i) Planning, (ii) Evidence gathering and data preparation, (iii) Analysis, (iv) Exploration and (v) Conclusion and dissemination. Adopting formal, structured approaches to benefit-risk assessment was feasible in real-world problems and facilitated clear, transparent decision-making. Prior to this work, no extensive practical application and appraisal of methodologies had been conducted using real-world case examples, leaving users with limited knowledge of their usefulness in the real world."

According to the news reporters, the research concluded: "The practical guidance provided here takes us one step closer to a harmonised approach to benefit-risk assessment from multiple perspectives."


Our news journalists report that additional information may be obtained by contacting D. Hughes, Worldwide Safety Strategy, Pfizer, New York, NY, United States. Additional authors for this research include E. Waddingham, S. Mt-Isa, A. Goginsky, E. Chan, G.F. Downey, C.E. Hallgreen, K.S. Hockley, J. Juhaeri, A. Lieftucht, M.A. Metcalf, R.A. Noel, L.D. Phillips, D. Ashby and A. Micaleff.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pds.3958. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, United States, Drugs and Therapies, Pharmacoepidemiology, North and Central America.

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Researchers from Pontifical Catholic University Discuss Findings in HIV/AIDS (Structural domains within the HIV-1 mRNA and the ribosomal protein S25 influence cap-independent translation initiation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news reporting originating from Santiago, Chile, by NewsRx correspondents, research stated, "The 50 leader of the HIV-1 genomic RNA is a multifunctional region that folds into secondary/tertiary structures that regulate multiple processes during viral replication including translation initiation. In this work, we examine the internal ribosome entry site (IRES) located in the 50 leader that drives translation initiation of the viral Gag protein under conditions that hinder cap-dependent translation initiation."

Funders for this research include Fondo Nacional de Desarrollo Cientifico y Tecnologico, Fondo Nacional de Ciencia y Tecnologia del Gobierno de Chile, Iniciativa Cientifica Milenio del Ministerio de Economia, Fomento y Turismo, Proyecto Anillo, National Institutes of Health, UAB Cancer Center HIV-Associated Malignancy pilot research grant, RDCC, Comision Nacional de Investigacion Cientificay Tecnologica, MECESUP-USACH doctoral fellowships, Pontificia Universidad Catolica de Chile followed by a CONICYT fellowship.

Our news editors obtained a quote from the research from Pontifical Catholic University, "We show that activity of the HIV-1 IRES relies on ribosomal protein S25 (eS25). Additionally, a mechanistic and mutational analysis revealed that the HIV-1 IRES is modular in nature and that once the 40S ribosomal subunit is recruited to the IRES, translation initiates without the need of ribosome scanning."

According to the news editors, the research concluded: "These findings elucidate a mechanism of initiation by the HIV-1 IRES whereby a number of highly structured sites present within the HIV-1 50 leader leads to the recruitment of the 40S subunit directly at the site of initiation of protein synthesis."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/febs.13756. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Santiago, Chile, South America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Ribosomal Proteins, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, Genetics, HIV/AIDS, HIV-1, Pontifical Catholic University.
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Cardiology

Researchers from Porto Alegre Hospital Clinic Discuss Findings in Cardiology (Comparing medication adherence tools scores and number of controlled diseases among low literacy patients discharged from a Brazilian cardiology ward)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news reporting out of Porto Alegre, Brazil, by NewsRx editors, research stated, "Adherence to prescribed drug therapy is associated with lower rates of cardiovascular causes of death. In view of the relevance for public health, it is important to understand the relation between medication adherence tools' scores, especially in low literacy patients discharged from a cardiology ward."

Our news journalists obtained a quote from the research from Porto Alegre Hospital Clinic, "We aimed to assess: (a) the association between number of controlled clinical conditions and adherence tools scores, and (b) the correlation between the scores of three instruments to assess adherence. We conducted a prospective study and included patients discharged from a specialized cardiovascular ward in Brazil. The results of the Beliefs about Medicines questionnaire (BMQ), the Adherence to Refills and Medication Scale (ARMS) and the MedTake test were compared. Of 53 included patients, most of them were elderly, and did not complete primary school. On average, there were six health conditions per patient, where two of them were not controlled. ARMS was the only tool that was associated with number of controlled health conditions (r = -0.312, p< 0.05). Moreover, ARMS (average score 15.6 +/- 3.4) had significant correlation with MEDTAKE (r = 0.535, p< 0.01) and BMQ (r = 0.38, p< 0.01). BMQ and MEDTAKE were also positively correlated (r = 0.311, p< 0.05). Clinically, higher ARMS scores (> 12) suggest assumed non-adherence."

According to the news editors, the research concluded: "It is also negatively correlated with the number of controlled clinical conditions in low literacy elderlies with cardiovascular diseases."


Our news journalists report that additional information may be obtained by contacting P.C.B. Okumura, Porto Alegre Hospital Clinic, Div Clin Pharm, BR-90035903 Porto Alegre, RS, Brazil. Additional authors for this research include L.M. Okumura, W.C.T. Reis, R.R. Godoy, B.D. Cata-Preta, T.T. de Souza, M.L.D. Favero and C.J. Correr.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11096-016-0390-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Porto Alegre, Brazil, South America, Cardiovascular, Cardiology, Porto Alegre Hospital Clinic.
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Nosocomial Infections

Researchers from Public Health Agency of Canada Report Details of New Studies and Findings in the Area of Nosocomial Infections (Results from the Canadian Nosocomial Infection Surveillance Program on Carbapenemase-Producing Enterobacteriaceae, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nosocomial Infections is the subject of a report. According to news reporting originating in Winnipeg, Canada, by NewsRx journalists, research stated, "Carbapenemase-producing Enterobacteriaceae (CPE) are increasing globally; here we report on the investigation of CPE in Canada over a 5-year period. Participating acute care facilities across Canada submitted carbapenem-nonsusceptible Enterobacteriaceae from 1 January 2010 to 31 December 2014 to the National Microbiology Laboratory."

The news reporters obtained a quote from the research from the Public Health Agency of Canada, "All CPE were characterized by antimicrobial susceptibilities, pulsed-field gel electrophoresis, multilocus sequence typing, and plasmid restriction fragment length polymorphism analysis and had patient data collected using a standard questionnaire. The 5-year incidence rate of CPE was 0.09 per 10,000 patient days and 0.07 per 1,000 admissions. There were a total of 261 CPE isolated from 238 patients in 58 hospitals during the study period. bla(KPC-3) (64.8%) and bla(NDM-1) (17.6%) represented the highest proportion of carbapenemase genes detected in Canadian isolates. Patients who had a history of medical attention during international travel accounted for 21% of CPE cases. The hospital 30-day all-cause mortality rate for the 5-year surveillance period was 17.1 per 100 CPE cases. No significant increase in the occurrence of CPE was observed from 2010 to 2014."

According to the news reporters, the research concluded: "Nosocomial transmission of CPE, as well as international health care, is driving its persistence within Canada."

For more information on this research see: Results from the Canadian Nosocomial Infection Surveillance Program on Carbapenemase-Producing Enterobacteriaceae, 2010 to 2014. Antimicrobial Agents and Chemotherapy, 2016;60(11):6787-6794. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


Keywords for this news article include: Winnipeg, Manitoba, Canada, North and Central America, Nosocomial Infections, Gram-Negative Facultatively Anaerobic Rods, Nosocomial Diseases and Conditions, Enterobacteriaceae, Epidemiology, Gram-Negative Bacteria, Gammaproteobacteria, Proteobacteria, beta-Lactams, Carbapenems, Genetics, Public Health Agency of Canada.

Our reports deliver fact-based news of research and discoveries from around the
Researchers from Purdue University Report Details of New Studies and Findings in the Area of Cancer Biomarkers (Three-Dimensionally Functionalized Reverse Phase Glycoprotein Array for Cancer Biomarker Discovery and Validation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Biomarkers have been published. According to news originating from West Lafayette, Indiana, by NewsRx correspondents, research stated, "Glycoproteins have vast structural diversity that plays an important role in many biological processes and have great potential as disease biomarkers. Here, we report a novel functionalized reverse phase protein array (RPPA), termed polymer-based reverse phase glycoprotein array (polyGPA), to capture and profile glycoproteomes specifically, and validate glycoproteins."

Funders for this research include Division of Chemistry, National Cancer Institute, National Institute of General Medical Sciences.

Our news journalists obtained a quote from the research from Purdue University, "Nitrocellulose membrane functionalized with globular hydroxyaminodendrimers was used to covalently capture preoxidized glycans on glycoproteins from complex protein samples such as biofluids. The captured glycoproteins were subsequently detected using the same validated antibodies as in RPPA. We demonstrated the outstanding specificity, sensitivity, and quantitative capabilities of polyGPA by capturing and detecting purified as well as endogenous alpha-1-acid glycoprotein (AGP) in human plasma."

According to the news editors, the research concluded: "We further applied quantitative N-glycoproteomics and the strategy to validate a panel of glycoproteins identified as potential biomarkers for bladder cancer by analyzing urine glycoproteins from bladder cancer patients or matched healthy individuals."


The news correspondents report that additional information may be obtained from W.A. Tao, Purdue University, Center Canc Res, West Lafayette, IN 47907, United States. Additional authors for this research include H.A. Aguilar, L.N. Wang, A. Iliuk and W.A. Tao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/jacs.6b10239. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: West Lafayette, Indiana, United States, North and Central America, Cancer, Diagnostics and Screening, Carcinoma Biomarkers, Cancer Biomarkers, Glycoconjugates, Glycoproteins, Oncology, Purdue University.

Our reports deliver fact-based news of research and discoveries from around the
Researchers from Putian University Provide Details of New Studies and Findings in the Area of Liver Cancer (Tissue Levels of Stefin A and Stefin B in Hepatocellular Carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Liver Cancer is the subject of a report. According to news reporting originating from Fujian, People's Republic of China, by NewsRx correspondents, research stated, "Stefins have been reported to be associated with the progression and metastasis of various malignant tumors. However, the expressions of stefins in hepatocellular carcinoma (HCC) have not been well-defined."

Funders for this research include National Natural Science Foundation of China, Scientific Special Foundation of the Education Department of Fujian Province, Science and Technology Projects in Putian City, Research Projects for Young and Middle-aged Teachers of Fujian Province.

Our news editors obtained a quote from the research from Putian University, "In this study, the protein levels of stefin A and stefin B were assessed by immunohistochemical staining, and the mRNA levels were quantified by real-time polymerase chain reaction in 85 primary HCC tissues, 85 surrounding non-cancerous tissues, and 9 normal hepatic tissues. The immunohistochemical staining of cathepsin B and cathepsin D, and the ratio of cathepsins to stefins were assessed. The mRNA expressions of stefin A and stefin B in HCC tissues were significantly higher than surrounding noncancerous tissues and normal hepatic tissues, respectively. A significant positive relationship of stefin A and stefin B was found with node metastasis, tumor size, and Edmondson grade for HCC. Univariate and multivariate analyses revealed that Edmondson grade and stefin B expression were independent factors associated with the risk of lymph node metastasis in HCC. The ratios of cathepsin B to stefin A, cathepsin D to stefin A, cathepsin B to stefin B and cathepsin D to stefin B of the HCC group were significantly higher than that of the surrounding noncancerous group. A significant positive correlation between the ratio of cathepsins to stefins (cathepsin B/stefin A, cathepsin B/stefin B and cathepsin D/stefin B) and node metastasis was demonstrated."

According to the news editors, the research concluded: "We concluded that high expressions of stefin A and stefin B may be an important factor contributing to the development and metastasis of HCC."


The news editors report that additional information may be obtained by contacting Y.Y. Lin, Dept. of Human Anatomy, Histology and Embryology, School of Basic Medical Science, Putian University, Putian, Fujian, People's Republic of China. Additional authors for this research include Z.W. Chen, Z.P. Lin, L.B. Lin, X.M. Yang, L.Y. Xu and Q. Xie.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ar.23311. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from Qilu Hospital of Shandong University Report Recent Findings in Allergic Rhinitis (Role of interleukin-6 polymorphisms in the development of allergic rhinitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - Allergic Rhinitis are presented in a new report. According to news reporting from Jinan, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to investigate the role played by the IL-6 rs1800795 (-174G/C) and rs1800796 (-572G>C) polymorphisms in the susceptibility to allergic rhinitis in a Chinese population. A total of 265 patients with allergic rhinitis and 265 controls from our hospital were enrolled in this study."

The news correspondents obtained a quote from the research from the Qilu Hospital of Shandong University, "The IL-6 rs1800795 and rs1800796 polymorphisms were genotyped by polymerase chain reaction coupled with restriction fragment length polymorphism. The results of the ch(2) statistical analysis revealed significant differences in the allele frequencies of IL-6 rs1800795 between patients with allergic rhinitis and controls (ch(2)=4.52, p=0.03). Multivariate logistic regression analyses revealed that individuals with the C allele of IL-6 rs1800795 were susceptible to increased risk of allergic rhinitis, compared to those expressing the G allele (adjusted OR=1.31; 95%CI=1.01-1.68)."

According to the news reporters, the research concluded: "The results of our study indicated that the IL-6 rs1800795 polymorphism was associated with an increased risk of allergic rhinitis."

For more information on this research see: Role of interleukin-6 polymorphisms in the development of allergic rhinitis. Genetics and Molecular Research [electronic Resource], 2016;15(1):.

Our news journalists report that additional information may be obtained by contacting N. Zhao, ENT Dept. of Qilu Hospital of Shandong University, Jinan, People's Republic of China. Additional authors for this research include H.J. Liu, Y.Y. Sun and Y.Z Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4238/gmr.15016987. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Jinan, Genetics, Allergies, Cytokines, Interleukin 6, Allergic Rhinitis, People's Republic of China, Nose Diseases and Conditions, Respiratory Tract Infections, Immune System Diseases and Conditions, Respiratory Tract Diseases and Conditions, Otorhinolaryngologic Diseases and Conditions.

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Researchers from Queensland University of Technology Describe Findings in Depression (Shared Genetic Factors in the Co-Occurrence of Depression and Fatigue)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health Diseases and Conditions - Depression. According to news reporting originating in Brisbane, Australia, by NewsRx journalists, research stated, "Depression and fatigue have previously been suggested to share an underlying genetic contribution. The present study aims to investigate and characterize the familiality and genetic relationship between depression and fatigue."

The news reporters obtained a quote from the research from the Queensland University of Technology, "The familiality of depression and fatigue was assessed by calculating relative risks, measured by the prevalence ratio, within 643 monozygotic MZ) and 577 dizygotic DZ) twin pairs. Bi-variate twin modeling was utilized to assess the magnitude of shared heritability between depression and fatigue. Finally, the relationship between depression and fatigue was investigated using the co-twin control method, to determine whether the association is explained by causal or non-causal models. We observed an increased risk of fatigue in co-twins of probands with depression and increased risk of depression in co-twins of probands with fatigue. Higher risks were observed in MZ compared to DZ twin pairs, and bivariate heritability analyses indicated significant genetic components for depression and fatigue, with heritability estimates of 48% and 41%, respectively. Importantly, a significant additive genetic correlation of 0.71 [95% CI = 0.51-0.92) and bivariate heritability of 21% [95% CI = 10-35%] was observed between depression and fatigue. Furthermore, results from the co-twin control method indicate a non-causal genetic relationship that likely explains the association between depression and fatigue."

According to the news reporters, the research concluded: "Notably, the contribution of shared genetic factors remained significant, independent of the overlapping symptoms, indicating that the relationship between co-occurring depression and fatigue is primarily due to shared genetic factors rather than overlapping symptomatology."


Our news correspondents report that additional information may be obtained by contacting E.C. Corfield, Queensland University of Technology, Inst Hlth & Biomed Innovat, Fac Hlth, Brisbane, Qld, Australia. Additional authors for this research include N.G. Martin and D.R. Nyholt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/thg.2016.79. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Mental Health Diseases and Conditions, Risk and Prevention, Genetics, Genetics, Depression, Queensland University of Technology.
Nutritional and Metabolic Diseases and Conditions — …

Researchers from Queensland University of Technology Report Recent Findings in Type 1 Diabetes Mellitus (Vision Recovery Despite Retinal Ganglion Cell Loss in Leber's Hereditary Optic Neuropathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus have been published. According to news reporting out of Brisbane, Australia, by NewsRx editors, the research stated, "To report vision recovery in a single case of Leber's hereditary optic neuropathy (LHON) (mtDNA14484/ND6 mutation) with longitudinal documentation of retinal ganglion cell layer by ocular coherence tomography (OCT) that includes the pre-onset, acute, and chronic stages of vision loss. We report LHON in a 16-year-old male patient with Type 1 diabetes and known and documented family history of LHON."

Our news journalists obtained a quote from the research from the Queensland University of Technology, "The patient presented with best-corrected visual acuities of right eye 20-150 and left eye 20-25-. His retinal nerve fiber layer had thickened compared with baseline measures obtained 19 months before the onset of vision loss. Vision rapidly reduced to 'hand movements' vision in each eye over the following 2 months. Despite OCT-documented significant recalcitrant loss of ganglion cell layer, visual acuity remarkably recovered to right eye 20/40+ left eye 20/50+ 16 months after onset of neuropathy. A selective loss of ganglion cells and nerve fiber layer can be documented in LHON."

According to the news editors, the research concluded: "Significant recovery of visual acuity can occur without apparent structural recovery."


Our news journalists report that additional information may be obtained by contacting A.L. Webber, Queensland University of Technology, Sch Optometry & Vis Sci, Brisbane, Qld 4001, Australia.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Type 1 Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions, Optic Nerve Diseases and Conditions, Insulin Dependent Diabetes Mellitus, Retinal Ganglion Cells, Risk and Prevention, Retinal Neurons, Type 1 Diabetes, Neuropathy, Genetics, Queensland University of Technology.

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Researchers from RWTH Aachen University Detail Findings in Microbiology and Biotechnology (Ustilago maydis produces itaconic acid via the unusual intermediate trans-aconitate)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Biotechnology - Microbiology and Biotechnology are presented in a new report. According to news reporting from Aachen, Germany, by NewsRx journalists, research stated, "Itaconic acid is an important biomass-derived chemical building block but has also recently been identified as a metabolite produced in mammals, which has antimicrobial activity. The biosynthetic pathway of itaconic acid has been elucidated in the ascomycetous fungus Aspergillus terreus and in human macrophages."

Financial supporters for this research include SFB 987 ‘Microbial Diversity in Environmental Signal Response’, Excellence Initiative of the German federal and state governments as a part of the Cluster of Excellence ‘Tailor-Made Fuels from Biomass’ (TMFB, E.G.).

The news correspondents obtained a quote from the research from RWTH Aachen University, "In both organisms itaconic acid is generated by decarboxylation of the tricarboxylic acid (TCA) cycle intermediate cis-aconitate. Here, we show that the basidiomycetous fungus Ustilago maydis uses an alternative pathway and produces itaconic acid via trans-aconitate, the thermodynamically favoured isomer of cis-aconitate. We have identified a gene cluster that contains all genes involved in itaconic acid formation. Trans-aconitate is generated from cis-aconitate by a cytosolic aconitate-D-isomerase (Adi1) that belongs to the PrpF family of proteins involved in bacterial propionate degradation. Decarboxylation of trans-aconitate is catalyzed by a novel enzyme, trans-aconitate decarboxylase (Tad1). Tad1 displays significant sequence similarity with bacterial 3-carboxy-cis,cis-muconate lactonizing enzymes (CMLE). This suggests that U. maydis has evolved an alternative biosynthetic pathway for itaconate production using the toxic intermediate trans-aconitate. Overexpression of a pathway-specific transcription factor (Ria1) or a mitochondrial tricarboxylic acid transporter (Mtt1) resulted in a twofold increase in itaconate yield."

According to the news reporters, the research concluded: "Therefore, our findings offer new strategies for biotechnological production of this valuable biomass-derived chemical."


Our news journalists report that additional information may be obtained by contacting E. Geiser, iAMB - Institute of Applied Microbiology, ABBt - Aachen Biology and Biotechnology, RWTH Aachen University, Worringergeweg 1, D-52074, Aachen, Germany. Additional authors for this research include S.K. Przybilla, A. Friedrich, W. Buckel, N. Wierckx, L.M. Blank and M. Bolker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1751-7915.12329. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Microbial Biotechnology* is: Blackwell
Researchers from RWTH Aachen University Report on Findings in Parkinson's Disease (Mice lacking Faim2 show increased cell death in the MPTP mouse model of Parkinson disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Parkinson's disease have been presented. According to news reporting from Aachen, Germany, by NewsRx journalists, research stated, "The death receptor Fas/CD95 mediates apoptotic cell death in response to external stimuli. In neurons, Fas-induced apoptosis is prevented by Fas-apoptotic inhibitory molecule 2 (Faim2)."

Financial support for this research came from Interdisciplinary Center for Clinical Research (IZKF) Aachen.

The news correspondents obtained a quote from the research from RWTH Aachen University, "Mice lacking Faim2 showed increased neurodegeneration in animal models of stroke and bacterial meningitis. We therefore tested the relevance of Faim2 in a classical animal model of Parkinson disease and determined the toxicity of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) in Faim2-deficient mice. Without MPTP treatment, there was no difference in the dopaminergic system between Faim2-deficient mice and control mice. MPTP was applied i.p. in doses of 30mg per kg on five consecutive days. Fourteen days after the last MPTP injection, the number of dopaminergic neurons in the lateral substantia nigra, assayed by stereological counting, was reduced by 39% in control mice and 53% in Faim2-deficient mice. The density of dopaminergic fibers in the dorsal striatum was reduced by 36% in control mice and 69% in Faim2-deficient mice, in the ventral striatum 44% in control mice and 76% in Faim2-deficient mice. Fiber density recovered at 90 days after MPTP with similar density in both groups. Striatal catecholamine levels were reduced by 81-84% in both groups and recovered at 90 days. Faim2 expression was documented in mouse midbrain using quantitative reverse transcription-PCR (qRT-PCR) and found decreased after MPTP administration. Taken together, our findings demonstrate increased degeneration of dopaminergic neurons with Faim2 deficiency, indicating that Fas-induced apoptosis contributes to cell death in the MPTP mouse model."

According to the news reporters, the research concluded: "Along with the decreased expression of Faim2 after MPTP, this finding indicates that boosting Faim2 function might represent a therapeutic strategy for Parkinson disease."


Our news journalists report that additional information may be obtained by contacting B.H. Falkenburger, Rhein Westfälisch Aachen, Aachen, Germany.
Researchers from Rabin Medical Center Report Recent Findings in Obstetrics and Gynecology (Pregnancy Outcome in Women with Decreased Sensation of Fetal Movements at Term According to Parity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Women's Health - Obstetrics and Gynecology is the subject of a report. According to news reporting originating in Petah Tikva, Israel, by NewsRx journalists, research stated, "Decreased sensation of fetal movements (DFM) is a common maternal complaint. Thus, we aimed to evaluate the association between DFM and pregnancy outcome in singleton gestation at term according to parity."

The news reporters obtained a quote from the research from Rabin Medical Center, "A retrospective cohort study of singleton pregnancies at term between 2008 and 2013. Eligibility was limited to women carrying a fetus with no known structural or chromosomnal anomalies, at 37+0/7 to 42+0/7 weeks of gestation. Women presenting to the delivery ward with DFM were compared with women without similar complaints. Overall, 12,564 nulliparous women and 25,292 multiparous women gave birth during the study period; of them, 300 nulliparous women (2.4%) and 525 multiparous women (2.1%) complained of DFM. For nulliparous women, after adjusting for potential confounders, DFM was associated with antepartum fetal death (aOR 4.6 [95% CI 1.1-19.8]), cesarean delivery (CD) (aOR 1.3 [95% CI 1.01-1.8]), 1-minute Apgar score less than 7 (aOR 2.3 [95% CI 1.5-3.5]) and neonatal seizures (aOR 3.2 [95% CI 1.3-8.2]). For multiparous women, DFM was associated with unscheduled CD (aOR 2.7 [95% CI 1.6-4.6]) and CD indicated by intermediate/abnormal fetal heart rate tracing (aOR 4.8 [95% CI 2.8-8.4]). DFM carries different outcomes according to parity."

According to the news reporters, the research concluded: "Although for nulliparous women, DFM is associated with increased risk of CD and immediate adverse perinatal outcome, for multiparous women it is associated with increased risk for CD, with no immediate increased risk for adverse perinatal outcome."


Our news correspondents report that additional information may be obtained by contacting A. Aviram, Helen Schneider Hospital for Women, Rabin Medical Center, Petah Tikva, Israel. Additional authors for this research include A. Shmueli, L. Hiersch, E. Ashwal, A.
Researchers from Ramon y Cajal Hospital Report on Findings in Aortitis (Aortitis With Associated Left Main Coronary Artery Stenosis: Role of Cardiac Computed Tomography)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Aortitis have been published. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "We report on a 49-year-old man who presented to the emergency department with progressive angina. Echocardiography displayed severe aortic regurgitation and aortic valve thickening."

Our news journalists obtained a quote from the research from Ramon y Cajal Hospital, "The suspected diagnosis was acute aortic syndrome. Cardiac computed tomography showed circumferential thickening of the aortic wall and left main coronary artery ostial stenosis. Histologic examination showed diffuse aortic inflammation. No damage of any other organ or vascular structure was reported, and the final diagnosis was nonspecific aortitis."

According to the news editors, the research concluded: "Differential diagnosis, prognosis, and therapeutic strategies are discussed."


The news correspondents report that additional information may be obtained from G.L.A. Salinas, Hosp Ramon & Cajal, Dept. of Cardiol, E-28034 Madrid, Spain. Additional authors for this research include S.F. Santos, I.P. Pagnon, J.M. Hycka, I. Pecharroman, M.S. Fernandez, M.P. Izco, J.J. Jimenez-Nacher, C. Fernandez-Golfin and J.L. Zamorano.

Keywords for this news article include: Madrid, Spain, Europe, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Heart Disorders and Diseases, Computed Tomography, Imaging Technology, Coronary Artery, Cardiology, Vasculitis, Angiology, Stenosis, Aortitis, Ramon y Cajal Hospital.

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Researchers from Regina Elena Cancer Institute Report Findings in Apoptosis (Apoptosis induced by a HIPK2 full-length-specific siRNA is due to off-target effects rather than prevalence of HIPK2-De8 isoform)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Apoptosis have been published. According to news originating from Rome, Italy, by NewsRx correspondents, research stated, "Small interfering RNAs (siRNAs) are widely used to study gene function and extensively exploited for their potential therapeutic applications. HIPK2 is an evolutionary conserved kinase that binds and phosphorylates several proteins directly or indirectly related to apoptosis."

Our news journalists obtained a quote from the research from Regina Elena Cancer Institute, "Recently, an alternatively spliced isoform skipping 81 nucleotides of exon 8 (Hipk2-De8) has been described. Selective depletion of Hipk2 full-length (Hipk2-FL) with a specific siRNA that spares the Hipk2-De8 isoform has been shown to strongly induce apoptosis, suggesting an unpredicted dominant-negative effect of Hipk2-FL over the De8 isoform. From this observation, we sought to take advantage and assessed the therapeutic potential of generating Hipk2 isoform unbalance in tumor-initiating cells derived from colorectal cancer patients. Strong reduction of cell viability was induced in vitro and in vivo by the originally described exon 8-specific siRNA, supporting a potential therapeutic application. However, validation analyses performed with additional exon8-specific siRNAs with different stabilities showed that all exon8-targeting siRNAs can induce comparable Hipk2 isoform unbalance but only the originally reported e8-siRNA promotes cell death."

According to the news editors, the research concluded: "These data show that loss of viability does not depend on the prevalence of Hipk2-De8 isoform but it is rather due to microRNA-like off-target effects."

For more information on this research see: Apoptosis induced by a HIPK2 full-length-specific siRNA is due to off-target effects rather than prevalence of HIPK2-De8 isoform. Oncotarget, 2016;7(2):1675-86.

The news correspondents report that additional information may be obtained from G. Di Rocco, Dept. of Research, Advanced Diagnostics and Technological Innovation, Regina Elena National Cancer Institute, Rome, Italy. Additional authors for this research include A. Verdina, V. Gatti, I. Virdia, G. Toietta, M. Todaro, G. Stassi and S. Soddu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6423. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Genetics, Apoptosis.

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Researchers from Regina Elena National Institute for Cancer Treatment and Research Report Details of New Studies and Findings in the Area of Acute Lymphoblastic Leukemia (Ponatinib Induces a Persistent Molecular Response and Graft-versus-Host ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Acute Lymphoblastic Leukemia have been published. According to news reporting out of Rome, Italy, by NewsRx editors, research stated, "We describe the case of a patient with a Philadelphia-positive (Ph+) acute lymphoblastic leukemia (ALL) treated with dasatinib plus steroids as the first-line therapy who achieved a molecular complete remission and then underwent a matched, unrelated donor allogeneic transplant. Five months after the transplant, he experienced a disease relapse with an T315I mutation, which was resistant to salvage chemotherapy."

Our news journalists obtained a quote from the research from Regina Elena National Institute for Cancer Treatment and Research, "Once the details of the T315I mutation were acquired, we initiated ponatinib treatment at a standard dosage and observed a rapid decrease of minimal residual disease (MRD) at molecular assessment. The bone marrow evaluation after 2, 3, 6, 10 and 13 months was negative for MRD. After starting ponatinib, the patient experienced a skin graft-versus-host disease (GVHD), whereas no occurrence of GVHD was observed after transplant, suggesting that the efficacy of ponatinib could be related not only to the direct antileukemic effect, but also to its ability to promote an indirect graft-versus-leukemia effect."

According to the news editors, the research concluded: "Ponatinib was well tolerated but a thyroid dysfunction mimicking a cardiovascular toxicity was observed and solved with hormonal substitutive treatment."


Our news journalists report that additional information may be obtained by contacting R. Daniela, Regina Elena Inst Canc Res, Hematol & Stem Cell Transplant Unit, IT-00144 Rome, Italy. Additional authors for this research include F. Marchesi, G. De Angelis, L. Elia, E. Salvatorelli, S. Gumenyuk, F. Palombi, F. Pisani, A. Romano, A. Spadea, E. Papa, M. Canfora, W. Arcese and A. Mengarelli.

Keywords for this news article include: Rome, Italy, Europe, Immune System Diseases and Conditions, Acute Lymphoblastic Leukemia, Graft- Versus-Host Disease, Hematology, Genetics, Oncology, Regina Elena National Institute for Cancer Treatment and Research.

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Researchers from Research Foundation Report Details of New Studies and Findings in the Area of Public Health (Shaping Public Health Initiatives in Kidney Diseases: The Peer Kidney Care Initiative)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Public Health. According to news reporting from Minneapolis, Minnesota, by NewsRx journalists, research stated, "While broad-based societal efforts to improve public health have targeted disorders such as cardiovascular disease and cancer for several decades, efforts devoted to kidney disease have developed only more recently. The Peer Kidney Care Initiative, a novel effort designed to address knowledge gaps in the care of patients with kidney disease, examines key disease processes, the roles of geography and seasonality on outcomes, and longitudinal trends in outcomes over time."

The news correspondents obtained a quote from the research from Research Foundation, "Admissions for gastrointestinal bleeds increased approximately 28% between 2004 and 2011 in prevalent patients. Infection with Clostridium difficile increased nearly 70% between 2003 and 2010 in patients within a year of initiation. Admissions for heart failure in prevalent patients decreased approximately 25% between 2004 and 2012, but admissions for volume overload increased a nearly equal amount. Incidence rates varied substantially by geographic region, such that unadjusted rates in the highest region were nearly double than those in the lowest. There was seasonal variation in all-cause mortality of approximately 15-20% in both incident and prevalent patients, suggesting a link between cardiovascular events and seasonally related environmental conditions. New cases of end-stage renal disease fell from 385 per million population in 2003 to 344 in 2012, a decline of approximately 10%."

According to the news reporters, the research concluded: "Peer complements existing kidney disease epidemiologic efforts by examining specific actionable disease entities, exploring geographic variation in care, highlighting the role of seasonality on outcomes, and emphasizing the importance of trending outcomes over time as overall societal progress is being made."


Our news journalists report that additional information may be obtained by contacting J.B. Wetmore, Chronic Disease Research Group, Minneapolis Medical Research Foundation, Minneapolis, MN, United States. Additional authors for this research include D.T. Gilbertson and A.J Collins.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441316. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Minnesota, Cardiology, Minneapolis, Epidemiology, United States, Public Health, Article Review, Cardiovascular, North and Central America.

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Researchers from Research Institute for Clinical Oncology Detail New Studies and Findings in the Area of Cancer Prevention (Biophysical Approach to Mechanisms of Cancer Prevention and Treatment with Green Tea Catechins)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Prevention have been published. According to news reporting from Saitama, Japan, by NewsRx journalists, research stated, "Green tea catechin and green tea extract are now recognized as non-toxic cancer preventives for humans. We first review our brief historical development of green tea cancer prevention."

The news correspondents obtained a quote from the research from Research Institute for Clinical Oncology, "Based on exciting evidence that green tea catechin, (-)-epigallocatechin gallate (EGCG) in drinking water inhibited lung metastasis of B16 melanoma cells, we and other researchers have studied the inhibitory mechanisms of metastasis with green tea catechins using biomechanical tools, atomic force microscopy (AFM) and microfluidic optical stretcher. Specifically, determination of biophysical properties of cancer cells, low cell stiffness, and high deformability in relation to migration, along with biophysical effects, were studied by treatment with green tea catechins. The study with AFM revealed that low average values of Young's moduli, indicating low cell stiffness, are closely associated with strong potential of cell migration and metastasis for various cancer cells. It is important to note that treatments with EGCG and green tea extract elevated the average values of Young's moduli resulting in increased stiffness (large elasticity) of melanomas and various cancer cells."

According to the news reporters, the research concluded: "We discuss here the biophysical basis of multifunctions of green tea catechins and green tea extract leading to beneficial effects for cancer prevention and treatment."

For more information on this research see: Biophysical Approach to Mechanisms of Cancer Prevention and Treatment with Green Tea Catechins. *Molecules*, 2016;21(11):2157-2173. *Molecules* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting M. Suganuma, Saitama Canc Center, Res Inst Clin Oncol, Ina, Saitama 3620806, Japan. Additional authors for this research include A. Takahashi, T. Watanabe, K. Iida, T. Matsuzaki, H.Y. Yoshikawa and H. Fujiki.

Keywords for this news article include: Saitama, Japan, Asia, Risk and Prevention, Article Review, Cancer Prevention, Oncology, Research Institute for Clinical Oncology.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Researchers from Royal Brisbane and Women's Hospital Describe Findings in Cystic Fibrosis (Bayesian Estimation of Tobramycin Exposure in Patients with Cystic Fibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Cystic Fibrosis. According to news reporting out of Brisbane, Australia, by NewsRx editors, research stated, "Fixed tobramycin (mg/kg) dosing is often inappropriate in patients with cystic fibrosis (CF), as pharmacokinetics are highly variable. The area under the concentration-time curve (AUC) is an exposure metric suited to monitoring in this population."

Our news journalists obtained a quote from the research from Royal Brisbane and Women's Hospital, "Bayesian strategies to estimate AUC have been available for over 20 years but are not standard practice in the clinical setting. To assess their suitability for use in clinical practice, three AUC estimation methods using limited sampling were compared to measured true exposure by using intensive sampling tobramycin data. Adults prescribed once daily intravenous tobramycin had eight concentrations taken over 24 h. An estimate of true exposure within one dosing interval was calculated using the trapezoidal method and compared to three alternate estimates determined using (i) a two-sample log-linear regression (LLR) method (local hospital practice); (ii) a Bayesian estimate using one concentration (AUC(1)); and (iii) a Bayesian estimate using two concentrations (AUC(2)). Each method was evaluated against the true measured exposure by a Bland-Altman analysis. Twelve patients with a median (range) age and weight of 25 (18 to 36) years and 66.5 (51 to 76) kg, respectively, were recruited. There was good agreement between the true exposure and the three alternate estimates of AUC, with a mean AUC bias of < 10 mg/liter center dot h in each case, i.e., -8.2 (LLR), 3.8 (AUC(1)), and 1.0 (AUC(2)). Bayesian analysis-based and LLR estimation methods of tobramycin AUC are equivalent to true exposure estimation. All three methods may be suitable for use in the clinical setting; however, a one-sample Bayesian method may be most useful in ambulatory patients for which coordinating blood samples is difficult."

According to the news editors, the research concluded: "Suitably powered, randomized clinical trials are required to assess patient outcomes."

For more information on this research see: Bayesian Estimation of Tobramycin Exposure in Patients with Cystic Fibrosis. Antimicrobial Agents and Chemotherapy, 2016;60 (11):6698-6702. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting M.A. Barras, Royal Brisbane & Womens Hospital, Dept. of Pharm, Brisbane, Qld, Australia. Additional authors for this research include D. Serisier, S. Hennig, K. Jess and R.L.G. Norris.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01131-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brisbane, Australia, Australia and New Zealand, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Respiratory Inhalant Products, Lung Diseases and Conditions, Cystic Fibrosis.
Researchers from Royal College of Surgeons in Ireland Discuss Findings in Cardiovascular Research (Impact analysis studies of clinical prediction rules relevant to primary care: a systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Research is now available. According to news reporting originating in Dublin, Ireland, by NewsRx journalists, research stated, "Following appropriate validation, clinical prediction rules (CPRs) should undergo impact analysis to evaluate their effect on patient care. The aim of this systematic review is to narratively review and critically appraise CPR impact analysis studies relevant to primary care. Primary care. Adults and children."

The news reporters obtained a quote from the research from the Royal College of Surgeons in Ireland, "Studies that implemented the CPR compared to usual care were included. Randomised controlled trial (RCT), controlled before-after, and interrupted time series. Physician behaviour and/or patient outcomes. A total of 18 studies, incorporating 14 unique CPRs, were included. The main study design was RCT (n=13). Overall, 10 studies reported an improvement in primary outcome with CPR implementation. Of 6 musculoskeletal studies, 5 were effective in altering targeted physician behaviour in ordering imaging for patients presenting with ankle, knee and neck musculoskeletal injuries. Of 6 cardiovascular studies, 4 implemented cardiovascular risk scores, and 3 reported no impact on physician behaviour outcomes, such as prescribing and referral, or patient outcomes, such as reduction in serum lipid levels. 2 studies examined CPRs in decision-making for patients presenting with chest pain and reduced inappropriate admissions. Of 5 respiratory studies, 2 were effective in reducing antibiotic prescribing for sore throat following CPR implementation. Overall, study methodological quality was often unclear due to incomplete reporting. Despite increasing interest in developing and validating CPRs relevant to primary care, relatively few have gone through impact analysis."

According to the news reporters, the research concluded: "To date, research has focused on a small number of CPRs across few clinical domains only."

For more information on this research see: Impact analysis studies of clinical prediction rules relevant to primary care: a systematic review. *Bmj Open*, 2016;6(3):e009957. (BMJ Publishing Group - group.bmj.com; Bmj Open - bmjopen.bmj.com)

Our news correspondents report that additional information may be obtained by contacting E. Wallace, HRB Centre for Primary Care Research, Royal College of Surgeons in Ireland, Dublin 2, Ireland. Additional authors for this research include M.J. Uijen, B. Clyne, A. Zarabezadeh, C. Keogh, R. Galvin, S.M. Smith and T. Fahey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bmjopen-2015-009957. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from Royal Melbourne Hospital Report Recent Findings in Pulmonary Hypertension (Normalisation of hypoxaemia following successful percutaneous closure of a bidirectional shunting secundum atrial septal defect without pulmonary ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lung Diseases and Conditions - Pulmonary Hypertension have been presented. According to news reporting originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Atrial septal defects (ASD) are an uncommon cause of dyspnoea."

Our news editors obtained a quote from the research from Royal Melbourne Hospital, "A high index of suspicion is required, and further investigation should be prompted in patients with unexplained hypoxaemia, particularly those with pulmonary hypertension. Hypoxic ASD without pulmonary hypertension are rare, and only a handful of cases have been published."

According to the news editors, the research concluded: "We present a middle-aged man with progressive dyspnoea with a successfully closed ASD without pulmonary hypertension caused by elevated right ventricular pressures secondary to an idiopathic cardiomyopathy."


The news editors report that additional information may be obtained by contacting R.D. Anderson, Royal Melbourne Hospital, Dept. of Cardiol, Melbourne, Vic 3050, Australia. Additional authors for this research include W. Wilson, J. Morton and A. Aggarwal.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Cardiovascular Diseases and Conditions, Non-ischaemic Cardiomyopathy, Heart Disorders and Diseases, Lung Diseases and Conditions, Pulmonary Hypertension, Atrial Septal Defect, Cardiomyopathies, Heart Disease, Cardiology, Angiology, Royal Melbourne Hospital.

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Researchers from Royal North Shore Hospital Provide Details of New Studies and Findings in the Area of Diabetes [Management of patients with diabetes and CKD: conclusions from a "Kidney Disease: Improving Global Outcomes" (KDIGO) Controversies ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Diabetes have been presented. According to news reporting originating from Sydney, Australia, by NewsRx correspondents, research stated, "The prevalence of diabetes around the world has reached epidemic proportions and is projected to increase to 642 million people by 2040. Diabetes is already the leading cause of end-stage kidney disease (ESKD) in most developed countries, and the growth in the number of people with ESKD around the world parallels the increase in diabetes."

Our news editors obtained a quote from the research from Royal North Shore Hospital, "The presence of kidney disease is associated with a markedly elevated risk of cardiovascular disease and death in people with diabetes. Several new therapies and novel investigational agents targeting chronic kidney disease patients with diabetes are now under development."

According to the news editors, the research concluded: "This conference was convened to assess our current state of knowledge regarding optimal glycemic control, current antidiabetic agents and their safety, and new therapies being developed to improve kidney function and cardiovascular outcomes for this vulnerable population."


The news editors report that additional information may be obtained by contacting V. Perkovic, Royal North Shore Hosp, Sydney, NSW, Australia. Additional authors for this research include R. Agarwal, P. Fioretto, B.R. Hemmelgarn, A. Levin, M.C. Thomas, C. Wanner, B.L. Kasiske, D.C. Wheeler and P.H. Groop.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Cardiology, Article Review, Risk and Prevention, Epidemiology, Cardiovascular, Diabetes, Royal North Shore Hospital.

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Heart Disorders and Diseases - Heart Disease

Researchers from Royal Perth Hospital Provide Details of New Studies and Findings in the Area of Heart Disease (Angiographic progression of coronary atherosclerosis in patients with familial hypercholesterolaemia treated with non-statin ...)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Disease. According to news reporting originating in Perth, Australia, by NewsRx journalists, research stated, "Familial hypercholesterolaemia (FH) profoundly increases the risk of coronary artery disease (CAD). We investigated whether diet and a bile-acid sequestrant decrease coronary atherosclerosis in patients with FH."

The news reporters obtained a quote from the research from Royal Perth Hospital, "We identified 26 men with FH and CAD, participating in the St Thomas' Atherosclerosis Regression Study, who had been randomized to receive a fat-modified diet plus cholestyramine (8 g twice daily) (DC, n = 12) or usual care (UC, n = 14), and investigated the relative effects of these treatments on the angiographic progression of coronary atherosclerosis over 39 months. FH was defined as probable/definite according to Dutch Lipid Clinic Network criteria; mean FH score was 8.7 (range 6 - 15) and mean baseline low-density lipoprotein cholesterol (LDL-Ch) concentration was 5.4 (SD 1.4) mmol/L. Coronary atherosclerosis was assessed by serial quantitative angiography as the global changes in mean and minimum absolute width of segments (MAWS and MinAWS, respectively). Mean plasma LDL-Ch concentration fell by 35% with DC and remained significantly (p < 0.001) lower during the trial at 3.78 (SD 0.98) mmol/L compared with UC at 4.89 (1.04). MAWS decreased by 0.252 (SEM 0.072) mm in the UC group and by 0.001 (0.065) mm in the DC group (p = 0.007), with corresponding reductions in MinAWS of 0.290 (0.087) mm and 0.013 (0.058) mm (p = 0.009); these changes were significant after adjusting for baseline variables, including coronary luminal dimensions and lipoprotein(a). Progression was observed in 7 patients (50%) on UC and 3 (25%) on DC (p = 0.19), with regression in no patients (0%) and 3 patients (25%) (p < 0.05), respectively."

According to the news reporters, the research concluded: "This investigation, carried out in the pre-statin era, demonstrates that a prudent diet and cholestyramine could improve the course of coronary atherosclerosis in men with phenotypic FH through sustained reductions in LDL-Ch."


Our news correspondents report that additional information may be obtained by contacting G.F. Watts, Royal Perth Hospital, Dept. of Cardiol, Cardiometab Serv, Lipid Disorders Clin, Perth, WA, Australia. Additional authors for this research include J. Pang, D.C. Chan, J.N.H. Brunt and B. Lewis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.923. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Perth, Australia, Australia and New Zealand, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Arteriosclerosis, Atherosclerosis, Heart Disease, Lipoproteins, Cardiology, Therapy, Lipids, Royal Perth Hospital.

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Researchers from Saga University Describe Findings in Thoracoscopy (Survival outcomes of 220 consecutive patients with three-staged thoracoscopic esophagectomy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Surgical Procedures - Thoracoscopy are discussed in a new report. According to news reporting originating in Saga, Japan, by NewsRx journalists, research stated, "Patients with thoracic esophageal cancer are often treated by minimally invasive esophagectomy. However, the long-term survival benefits of minimally invasive esophagectomy remain unclear."

The news reporters obtained a quote from the research from Saga University, "Two approaches are available for thoracoscopic surgery: one with the patient in the left lateral decubitus position (LLDP), and the other with the patient in the prone position (PP). We investigated the survival benefit of thoracoscopic esophagectomy according to the tumor stage and patient position during the thoracoscopic procedure. We reviewed the records of 220 consecutive patients with esophageal cancer treated from 1998 to 2012. In total, 146 and 74 patients were treated with thoracoscopic esophagectomy in the LLDP and PP, respectively. No patients were initially proposed to be candidates for esophagectomy by thoracotomy during the study period. Data collection was performed with a focus on survival and recurrent disease. Among all the 220 patients, the overall 5-year survival rates were 83.7%, 74.1%, 45.5%, 78.6%, 44.2%, 29.4% and 24.3% in the patients with pStage IA, IB, IIA, IIB, IIIA, IIIB and IIIC disease, respectively. Despite the greater number of dissected mediastinal lymph nodes in the PP procedure, there were no significant differences in the survival curves between the LLDP and PP procedures. The long-term results of thoracoscopic esophagectomy are comparable and acceptable."

According to the news reporters, the research concluded: "The PP procedure was not confirmed to offer a superior survival benefit to the LLDP procedure in this retrospective study."


Our news correspondents report that additional information may be obtained by contacting H. Noshiro, Saga Univ, Dept. of Surg, Fac Med, Saga 8498501, Japan. Additional authors for this research include Y. Yoda, M. Hiraki, H. Kono, S. Miyake, A. Uchiyama and E. Nagai.

Keywords for this news article include: Saga, Japan, Asia, Digestive System Surgical Procedures, Thoracic Surgical Procedures, Gastroenterology, Esophagectomy, Thoracoscopy, Surgery, Saga University.

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Oncology - Acute Myeloid Leukemia

Researchers from Saga University Report Findings in Acute Myeloid Leukemia (Preclinical activity of the novel B-cell-specific Moloney murine leukemia virus integration site 1 inhibitor PTC-209 in acute myeloid leukemia: Implications for ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Acute Myeloid Leukemia have been presented. According to news reporting originating from Saga, Japan, by NewsRx correspondents, research stated, "Curing patients with acute myeloid leukemia (AML) remains a therapeutic challenge. The polycomb complex protein B-cell-specific Moloney murine leukemia virus integration site 1 (BMI-1) is required for the self-renewal and maintenance of leukemia stem cells."

Financial supporters for this research include Ministry of Education, Culture, Sports, Science, and Technology, Princess Takamatsu Cancer Research Fund, Osaka Cancer Research Foundation, National Institutes of Health, Cancer Center Support Grant, Paul and Mary Haas Chair in Genetics.

Our news editors obtained a quote from the research from Saga University, "We investigated the prognostic significance of BMI-1 in AML and the effects of a novel small molecule selective inhibitor of BMI-1, PTC-209. BMI-1 protein expression was determined in 511 newly diagnosed AML patients together with 207 other proteins using reverse-phase protein array technology. Patients with unfavorable cytogenetics according to Southwest Oncology Group criteria had higher levels of BMI-1 compared to those with favorable (p=0.0006) or intermediate cytogenetics (p=0.0061), and patients with higher levels of BMI-1 had worse overall survival (55.3 weeks vs. 42.8 weeks, p=0.046). Treatment with PTC-209 reduced protein level of BMI-1 and its downstream target mono-ubiquitinated histone H2A and triggered several molecular events consistent with the induction of apoptosis, this is, loss of mitochondrial membrane potential, caspase-3 cleavage, BAX activation, and phosphatidylserine externalization. PTC-209 induced apoptosis in patient-derived CD34(+)CD38(low/-) AML cells and, less prominently, in CD34(-) differentiated AML cells. BMI-1 reduction by PTC-209 directly correlated with apoptosis induction in CD34(+) primary AML cells (r=0.71, p=0.022). However, basal BMI-1 expression was not a determinant of AML sensitivity."

According to the news editors, the research concluded: "BMI-1 inhibition, which targets a primitive AML cell population, might offer a novel therapeutic strategy for AML."


The news editors report that additional information may be obtained by contacting Y. Nishida, Division of Medicine, Dept. of Hematology, Respiratory Medicine and Oncology, Saga University, Saga, Japan. Additional authors for this research include A. Maeda, D. Chachad, J. Ishizawa, Y.H. Qiu, S.M. Kornblau, S. Kimura, M. Andreeff and K. Kojima.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cas.12833. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from Salus University Detail Findings in Blindness [The R838S Mutation in Retinal Guanylyl Cyclase 1 (RetGC1) Alters Calcium Sensitivity of cGMP Synthesis in the Retina and Causes Blindness in Transgenic Mice]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Eye Diseases and Conditions - Blindness is the subject of a report. According to news originating from Elkins Park, Pennsylvania, by NewsRx correspondents, research stated, "Substitutions of Arg(838) in the dimerization domain of a human retinal membrane guanylyl cyclase 1 (RetGC1) linked to autosomal dominant cone-rod degeneration type 6 (CORD6) change RetGC1 regulation in vitro by Ca2+. In addition, we find that R838S substitution makes RetGC1 less sensitive to inhibition by retinal degeneration-3 protein (RD3)."

Financial supporters for this research include National Eye Institute, Pennsylvania Department of Health.

Our news journalists obtained a quote from the research from Salus University, "We selectively expressed human R838S RetGC1 in mouse rods and documented the decline in rod vision and rod survival. To verify that changes in rods were specifically caused by the CORD6 mutation, we used for comparison cones, which in the same mice did not express R838S RetGC1 from the transgenic construct. The R838S RetGC1 expression in rod outer segments reduced inhibition of cGMP production in the transgenic mouse retinas at the free calcium concentrations typical for dark-adapted rods. The transgenic mice demonstrated early-onset and rapidly progressed with age decline in visual responses from the targeted rods, in contrast to the longer lasting preservation of function in the non-targeted cones. The decline in rod function in the retina resulted from a progressive degeneration of rods between 1 and 6 months of age, with the severity and pace of the degeneration consistent with the extent to which the Ca2+ sensitivity of the retinal cGMP production was affected. Our study presents a new experimental model for exploring cellular mechanisms of the CORD6-related photoreceptor death."

According to the news editors, the research concluded: "This mouse model provides the first direct biochemical and physiological in vivo evidence for the Ares substitutions in RetGC1 being the culprit behind the pathogenesis of the CORD6 congenital blindness."

Researchers from San Raffaele University Hospital Detail New Studies and Findings in the Area of Takotsubo Cardiomyopathy (Takotsubo Cardiomyopathy Following Pericardiocentesis After Aortic Valve Repair and Ascending Aorta Replacement)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Takotsubo Cardiomyopathy are presented in a new report. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "Takotsubo cardiomyopathy is a reversible cardiomyopathy, which generally develops in menopausal women and is characterized by left ventricle dysfunction with apical ballooning in the absence of coronary artery disease."

Our news journalists obtained a quote from the research from San Raffaele University Hospital, "It is often triggered by a stressful event, and its clinical presentation resembles acute anterior myocardial infarction. This condition is a rare adverse event of cardiac operations, and only a few cases are described in the literature, especially after mitral valve operations."

According to the news editors, the research concluded: "We report the case of a 69-year-old man who underwent aortic valve repair and ascending aorta replacement, followed by pericardial effusion 6 months later, requiring pericardiocentesis resulting in Takotsubo cardiomyopathy."


The news correspondents report that additional information may be obtained from I. Belluschi, San Raffaele Univ Hosp, Dept. of Cardiac Surg, Milan, Italy. Additional authors for this research include M. Cioni, S. Moriggia and O. Alfieri.

Keywords for this news article include: Milan, Italy, Europe, Cardiovascular
Diseases and Conditions, Heart Disorders and Diseases, Left Ventricular Dysfunction, Cardiac Surgical Procedures, Takotsubo Cardiomyopathy, Pericardiocentesis, Cardiomyopathies, Heart Disease, Aortic Valve, Heart Valves, Paracentesis, Angiology, Arteries, Surgery, Aorta, San Raffaele University Hospital.

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Genetics - Genetics and Cancer

Researchers from Santa Chiara Hospital Detail Findings in Genetics and Cancer (Different Prognostic Roles of Tumor Suppressor Gene BAP1 in Cancer: A Systematic Review with Meta-Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics - Genetics and Cancer. According to news reporting out of Trento, Italy, by NewsRx editors, research stated, "Biallelic inactivation of the tumor suppressor gene BRCA1-associated protein 1 (BAP1) has been demonstrated in several cancers, but its prognostic role has not been completely explained. We aimed to investigate the risk associated with loss of BAP1 (BAP1-) for all-cause mortality, cancer-specific mortality and recurrence of disease in subjects with cancer."

Our news journalists obtained a quote from the research from Santa Chiara Hospital, "PubMed and SCOPUS were searched from database inception until 09/15/2015 without language restrictions. Prospective studies reporting data on prognostic parameters in subjects with cancer, comparing participants with presence of BAP1 (BAP1+) vs. BAP1-were included. Data were summarized using risk ratios (RR) for number of deaths/recurrences and hazard ratios (HR) for time-dependent risk related to BAP1-adjusted for potential confounders. From 261 hits, 12 studies (including 13 cohorts) with 3,447 participants (BAP1-: n=697; BAP1+: n=2,750), with a median follow-up over 60 months, were meta-analyzed. Compared to BAP1+, BAP1-significantly increased all-cause mortality, cancer-specific mortality and risk of recurrence in all the tumor types analyzed, except for mesothelioma, in which the presence of BAP1 mutations correlates with a better prognosis. Furthermore, we demonstrated that BAP1 mutated colorectal and renal carcinomas are associated with high-tumor grading (P <0.0001), and that BAP1 mutated is more common in women than in men (P <0.0001)."

According to the news editors, the research concluded: "On the basis of our meta-analysis, we have demonstrated a peculiar role of BAP1 in influencing the prognosis in cancer. Thus, BAP1 could be considered as an important potential target for personalized medicine."


Our news journalists report that additional information may be obtained by contacting C. Luchini, Santa Chiara Hosp, Dept. of Pathol, Trento, Italy. Additional authors for this research include N. Veronese, S. Yachida, L. Cheng, A. Nottegar, B. Stubbs, M. Solmi, P. Capelli, A. Pea, M. Barbareschi, M. Fassan, L. Dwood and A. Scarpa.

Keywords for this news article include: Trento, Italy, Europe, Genetics and Cancer, Oncology, Article Review, Risk and Prevention, Genetics, Tumor Suppression, Cancer, Santa Chiara Hospital.
Researchers from Sao Paulo State University Describe Findings in Angiotensins (Overexpression of AT2R in the solitary-vagal complex improves baroreflex in the spontaneously hypertensive rat)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Angiotensins are discussed in a new report. According to news reporting out of Araraquara, Brazil, by NewsRx editors, research stated, "The aim of this study was to investigate the physiological effects of increased angiotensin II type 2 receptor (AT2R) expression in the solitary-vagal complex (nucleus of the solitary tract/dorsal motor nucleus of the vagus; NTS/DVM) on baroreflex function in non-anaesthetised normotensive (NT) and spontaneously hypertensive rats (SHR). Ten week old NT Holtzman and SHR were microinjected with either an adeno-associated virus expressing AT2R (AAV2-CBA-AT2R) or enhanced green fluorescent protein (control; AAV2-CBA-eGFP) into the NTS/DVM."

Financial supporters for this research include CNPq, FAPESP, PNPD/CAPES, NIH. Our news journalists obtained a quote from the research from Sao Paulo State University, "Baroreflex and telemetry recordings were performed on four experimental groups: 1) NT-eGFP, 2) NT-AT2R, 3) SHR-eGFP and 4) SHR-AT2R (n = 4-7/group). Following in-vivo experimental procedures, brains were harvested for gene expression analysis. Impaired bradycardia in SHR-eGFP was restored in SHR rats over-expressing AT2R in the NTS/DMV. mRNA levels of angiotensin converting enzyme decreased and angiotensin converting enzyme 2 increased in the NTS/DMV of SHR-AT2R compared to SHR-eGFP. Increased levels of pro-inflammatory cytokine mRNA levels in the SHR-eGFP group also decreased in the SHR-AT2R group. AT2R overexpression did not elicit any significant change in mean arterial pressure (MAP) in all groups from baseline to 4 weeks post viral transfection. Both SHR-eGFP and SHR-AT2R showed a significant elevation in MAP compared to the NT-eGFP and NT-AT2R groups. Increased AT2R expression within the NTS/DMV of SHR was effective at improving baroreflex function but not MAP."

According to the news editors, the research concluded: "We propose possible mediators involved in improving baroreflex are in the ANG II/ACE2 axis, suggesting a potential beneficial modulatory effect of AT2R overexpression in the NTS/DMV of neurogenic hypertensive rats."


Our news journalists report that additional information may be obtained by contacting E. Colombari, Sao Paulo State Univ, Sch Dental, Dept. of Physiol & Pathol, Araraquara, SP, Brazil. Additional authors for this research include G.F. Speretta, G.T. Blanch, H.W. Li, C. Sumners, J.V. Menani, E. Colombari and D.S.A. Colombari.
Cardiovascular Diseases and Conditions...

Researchers from Sao Paulo State University Provide Details of New Studies and Findings in the Area of Hypertension (Sodium hydrosulfide prevents hypertension and increases in vascular endothelial growth factor and soluble fms-like tyrosine ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Hypertension. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Sodium hydrosulfide (NaHS) has presented antihypertensive and antioxidant effects and may reduce circulating soluble fms-like tyrosine kinase-1 (sFlt-1). We examined whether NaHS prevents maternal and fetal detrimental changes in a model of hypertension in pregnancy induced by N(G)-nitro-L-arginine methyl ester (L-NAME)."

Financial support for this research came from Fundacao de Amparo a Pesquisa do Estado de Sao Paulo.

Our news journalists obtained a quote from the research from Sao Paulo State University, "Forty pregnant rats were divided into four groups (n = 10 per group): Norm-Preg, Preg + NaHS, HTN-Preg, or HTN-Preg + NaHS. Systolic blood pressure (SBP), number of viable fetuses, litter size, pups, and placentae weights were recorded. Circulating plasma sFlt-1, vascular endothelial growth factor (VEGF), myeloperoxidase (MPO), trolox equivalent antioxidant capacity (TEAC) levels, and biochemical determinants of nitric oxide (NO) formation were assessed. SBP values were elevated in the HTN-Preg group on gestational days 16, 18, and 20. However, HTN-Preg + NaHS group presented lower SBP values on days 18 and 20. Lower number of viable fetuses and litter size were found only in HTN-Preg group compared to other. Reductions in placental weight were found in HTN-Preg and HTN-Preg + NaHS groups. Increases in fetal weight were found only in Preg + NaHS group. Increases in circulating sFlt-1 and VEGF levels were observed only in HTN-Preg group compared to other. Higher MPO and lower TEAC plasma levels were found in HTN-Preg + NaHS and HTN-Preg groups. NO was diminished in HTN-Preg animals, and NaHS treatment increased NO levels only in hypertensive pregnant animals. Treatment with NaHS prevents hypertension in pregnancy and concomitantly reduces circulating plasma sFlt-1 and VEGF levels; this correlates with improved litter size with more viable fetuses and increase in NO levels."

According to the news editors, the research concluded: "However, these beneficial effects presented no relation with oxidative stress."

For more information on this research see: Sodium hydrosulfide prevents hypertension and increases in vascular endothelial growth factor and soluble fms-like tyrosine kinase-1 in hypertensive pregnant rats. Naunyn-Schmiedebergs Archives of Pharmacology,
Researchers from Sapporo City General Hospital Discuss Findings in Nephrology (De novo proliferative glomerulonephritis with monoclonal IgG deposits of the IgG1 kappa subtype in a kidney allograft)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Nephrology have been published. According to news reporting originating in Hokkaido, Japan, by NewsRx journalists, research stated, "Proliferative glomerulonephritis with monoclonal immunoglobulin G (IgG) deposits (PGNMID) has recently been described in cases with glomerular disease. Only 16 cases of recurrent or de novo PGNMID have been reported in the transplanted kidney."

The news reporters obtained a quote from the research from Sapporo City General Hospital, "Here we report a case of de novo PGNMID in a renal allograft diagnosed in the early stage by protocol biopsy. A 41-year-old male with end-stage kidney disease caused by focal glomerular sclerosis received a living-related kidney transplant. The post-transplantation course was stable, except for an early episode of acute T cell-mediated rejection. Mesangial C1q deposition was found on the 3-year protocol biopsy. On the 4-year protocol biopsy, mild mesangioproliferative changes and deposition of IgG, C1q, C3, IgG1, and light chain were evident, confirming the diagnosis of PGNMID of the IgG1 subtype. Furthermore, mild proteinuria was detected at that time. Because a subsequent haematological examination revealed high copy number Epstein-Barr virus (EBV) DNA and free light chain in blood, the posttransplant lymphoproliferative disorder (PTLD) was suspected."

According to the news reporters, the research concluded: "Mycophenolate mofetil (MMF) was discontinued and rituximab was administered for the treatment of PTLD; subsequently, the improvement in proteinuria and serum creatinine was found 2 months after rituximab administration."

For more information on this research see: De novo proliferative glomerulonephritis with monoclonal IgG deposits of the IgG1 kappa subtype in a kidney allograft. Nephrology,
Researchers from School of Chemistry Describe Findings in Drug Delivery Systems (Profluorescent PPV-Based Micellar System as a Versatile Probe for Bioimaging and Drug Delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Drug Delivery Systems. According to news reporting out of Sydney, Australia, by NewsRx editors, research stated, "Although micelles are commonly used for drug delivery purposes, their long-term fate is often unknown due to photobleaching of the fluorescent labels or the use of toxic materials. Here, we present a metal-free, nontoxic, nonbleaching, fluorescent micelle that can address these shortcomings."

Financial supporters for this research include Federaal Wetenschapsbeleid, Agentschap voor Innovatie door Wetenschap en Technologie.

Our news journalists obtained a quote from the research from the School of Chemistry, "A simple, yet versatile, profluorescent micellar system, built from amphiphilic poly (p-phenylenevinylene) (PPV) block copolymers, for use in drug delivery applications is introduced. Polymer micelles made from PPV show excellent stability for up to 1 year and are successfully loaded with anticancer drugs (curcumin or doxorubicin) without requiring introduction of physical or chemical cross-links. The micelles are taken up efficiently by the cells, which triggers disassembly, releasing the encapsulated material."

According to the news editors, the research concluded: "Disassembly of the micelles and drug release is conveniently monitored as fluorescence of the single polymer chains appear, which enables not only to monitor the release of the payload, but in principle also the fate of the polymer over longer periods of time."

For more information on this research see: Profluorescent PPV-Based Micellar System as a Versatile Probe for Bioimaging and Drug Delivery. *Biomacromolecules*, 2016;17 (12):4086-4094. *Biomacromolecules* can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Biomacromolecules - www.pubs.acs.org/journal/bomaf6)

Our news journalists report that additional information may be obtained by contacting M. Stenzel, Univ New South Wales, Sch Chem, CAMD, Sydney, NSW 2052, Australia. Additional authors for this research include H.X. Lu, T. Chang, R. Mamdooh, L. Lutsen, D. Vanderzande, M. Stenzel and T. Junkers.
Researchers from School of Chemistry and Biochemistry Discuss Findings in Proteomics (Simultaneous Time-Dependent Surface-Enhanced Raman Spectroscopy, Metabolomics, and Proteomics Reveal Cancer Cell Death Mechanisms Associated with Gold Nanorod ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Proteomics. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "In cancer plasmonic photothermal therapy (PPTT), plasmonic nanoparticles are used to convert light into localized heat, leading to cancer cell death. Among plasmonic nanoparticles, gold nanorods (AuNRs) with specific dimensions enabling them to absorb near-infrared laser light have been widely used."

Financial support for this research came from Division of Chemistry.

The news correspondents obtained a quote from the research from the School of Chemistry and Biochemistry, "The detailed mechanism of PPTT therapy, however, still remains poorly understood. Typically, surface-enhanced Raman spectroscopy (SERS) has been used to detect time-dependent changes in the intensity of the vibration frequencies of molecules that appear or disappear during different cellular processes. A complete proven assignment of the molecular identity of these vibrations and their biological importance has not yet been accomplished. Mass spectrometry (MS) is a powerful technique that is able to accurately identify molecules in chemical mixtures by observing their m/z values and fragmentation patterns. Here, we complemented the study of changes in SERS spectra with MS-based metabolomics and proteomics to identify the chemical species responsible for the observed changes in SERS band intensities during PPTT. We observed an increase in intensity of the bands at around 1000, 1207, and 1580 cm(-1), which were assigned in the literature to phenylalanine, albeit with dispute. Our metabolomics results showed increased levels of phenylalanine, its derivatives, and phenylalanine-containing peptides, providing evidence for more confidence in the SERS peak assignments. To better understand the mechanism of phenylalanine increase upon PPTT, we combined metabolomics and proteomics results through network analysis, which proved that phenylalanine metabolism was perturbed. Furthermore, several apoptosis pathways were activated via key proteins (e.g., HADHA and ACAT1), consistent with the proposed role of altered phenylalanine metabolism in inducing apoptosis."

According to the news reporters, the research concluded: "Our study shows that the integration of the SERS with MS-based metabolomics and proteomics can assist the assignment of signals in SERS spectra and further characterize the related molecular mechanisms of the cellular processes involved in PPTT."

For more information on this research see: Simultaneous Time-Dependent Surface-Enhanced Raman Spectroscopy, Metabolomics, and Proteomics Reveal Cancer Cell Death

Our news journalists report that additional information may be obtained by contacting R.H. Wu, Georgia Inst Technol, Sch Chem & Biochem, Atlanta, GA 30332, United States. Additional authors for this research include Y. Wu, T.G. Hang, X.L. Zang, H.P. Xiao, Y. Tang, R.H. Wu, F.M. Fernandez and M.A. El-Sayed.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/jacs.6b08787. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Essential Amino Acids, Emerging Technologies, Aromatic Amino Acids, Nanotechnology, Phenylalanine, Nanoparticle, Proteomics, Oncology, Therapy, Cancer, School of Chemistry and Biochemistry.

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**Drugs and Therapies - Codeine Therapy**

**Researchers from School of Health Sciences Describe Findings in Codeine Therapy (Best Practices and Innovations for Managing Codeine Misuse and Dependence)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Codeine Therapy have been published. According to news reporting originating from Waterford, Ireland, by NewsRx correspondents, research stated, "Promoting and ensuring safe use of codeine containing medicines remains a public health issue given the rise in reporting of misuse and dependence particularly in countries where available overthe-counter (OTC). The aim of this unique study was to identify best practices in management of opioid abuse and dependence, particularly codeine, and innovations to meet challenges surrounding safe and compliant use, patient awareness-raising, reducing health harms and enhancing successful treatment of dependence."

Our news editors obtained a quote from the research from the School of Health Sciences, "A mixed methods approach using three data points was used that included: (1) analysis of data from existing scoping reviews to identify potential areas for innovation (2) interviews with key national stakeholders from public health, pharmaceutical, regulatory, primary care and addiction practice in three distinct regulatory regimes (Ireland, United Kingdom and South Africa); and (3) a circular email request for information on potential innovations to members of the European Medicine's Agency European Network of Centres for Pharmacoepidemiology and Pharmacovigilance (ENCEPP). Data from these three sources were analysed to identify best practices and opportunities for innovation. Best practices and potential innovations were identified under the nine headings: (1) manufacture; (2) product information and public education; (3) responsible prescribing; (4) monitoring and surveillance; (5) dispensing, screening and brief interventions in community pharmacies; (6) safety in the workplace and on the road; (7) internet supply of codeine and online support; (8) treatment of codeine dependence; and (9) learning resources and training for health professionals. Challenges
ensuring availability of codeine containing medicines for legitimate therapeutic use, while minimising misuse, dependence and related health harms warrant consideration of new innovations."

According to the news editors, the research concluded: "Most promising innovative potential lies across the products' retail lifecycle from manufacture to prescriber and community pharmacy practitioner."


The news editors report that additional information may be obtained by contacting M.C. Van Hout, Waterford Inst Technol, Sch Hlth Sci, Waterford, Ireland. Additional authors for this research include M. Bergin, C.D. Parry and M.C. Van Hout.

Keywords for this news article include: Waterford, Ireland, Europe, Public Health, Epidemiology, Drugs and Therapies, Antitussive Agents, Codeine Therapy, Opiate Agonist, Analgesics, Narcotic, School of Health Sciences.

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**Query Fever**

**Researchers from School of Medical Sciences Provide Details of New Studies and Findings in the Area of Query Fever (The natural history of acute Q fever: a prospective Australian cohort)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Query Fever. According to news reporting from Sydney, Australia, by NewsRx journalists, research stated, "A detailed description of the natural history of acute Q fever, caused by infection with Coxiella burnetii. Aim: To significantly increase understanding of the illness. Subjects with provisional acute Q fever (n = 115) were recruited from primary care in rural Australia, and followed prospectively by interview and blood collection including for serological confirmation."

The news correspondents obtained a quote from the researchers from the School of Medical Sciences, "A nested series of subjects with prolonged illness (cases), and those without (controls), were investigated in detail. Total phase I and phase II anti-C. burnetii antibodies were detected by complement fixation test; and IgG, IgM and IgA phase I and phase II titres by immunofluorescence. Flow cytometric analysis was conducted to enumerate circulating T cells subsets, B cells, monocytes and natural killer cells. Serological testing confirmed acute Q fever in 73 subjects (63%). The acute illness featured fever, headache, sweats, fatigue and anorexia; and varied widely in severity, causing an average of 8 days in bed and 15 days out of work or other role in the first month of illness. The illness course varied from 2 days to greater than a year. No cases of chronic, localized Q fever infection, such as endocarditis, were identified. Neither severe nor prolonged illness were associated with persistence of C. burnetii DNA, altered patterns of C. burnetii-specific IgG, IgM or IgA antibody production, or altered leucocyte subsets. The severity of acute Q fever alone predicted prolonged duration."

According to the news reporters, the research concluded: "Further studies are
warranted to better understand the pathophysiology of prolonged illness after acute Q fever."


Our news journalists report that additional information may be obtained by contacting B. Cameron, Univ New South Wales, Sch Med Sci, Sydney, NSW, Australia. Additional authors for this research include B. Cameron, H. Li, S. Graves, J. Stenos, I. Hickie, D. Wakefield, U. Vollmer-Conna and A.R. Lloyd.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/qjmed/hcw041. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Gram-Negative Bacterial Infections, Query Fever, Genetics, Q Fever, School of Medical Sciences.

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**Drugs and Therapies - Coagulation Modifiers**

**Researchers from School of Medicine Describe Findings in Coagulation Modifiers (Methods to decrease blood loss during liver resection: a network meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Coagulation Modifiers are discussed in a new report. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Liver resection is a major surgery with significant mortality and morbidity. Specialists have tested various methods in attempts to limit blood loss, transfusion requirements, and morbidity during elective liver resection."

The news correspondents obtained a quote from the research from the School of Medicine, "These methods include different approaches (anterior versus conventional approach), use of autologous blood donation, cardiopulmonary interventions such as hypoventilation, low central venous pressure, different methods of parenchymal transection, different methods of management of the raw surface of the liver, different methods of vascular occlusion, and different pharmacological interventions. A surgeon typically uses only one of the methods from each of these seven categories. The optimal method to decrease blood loss and transfusion requirements in people undergoing liver resection is unknown. To assess the effects of different interventions for decreasing blood loss and blood transfusion requirements during elective liver resection. Search methods We searched the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, Embase, and Science Citation Index Expanded to September 2015 to identify randomised clinical trials. We also searched trial registers and handsearched the references lists of identified trials. Selection criteria We included only randomised clinical trials (irrespective of language, blinding, or publication status) comparing different methods of decreasing blood loss and blood transfusion requirements in people undergoing liver resection. Data collection and analysis Two review authors independently identified trials and collected data. We assessed the risk of bias using Cochrane domains. We
conducted a Bayesian network meta-analysis using the Markov chain Monte Carlo method in WinBUGS 1.4, following the guidelines of the National Institute for Health and Care Excellence Decision Support Unit guidance documents. We calculated the odds ratios (OR) with 95% credible intervals (CrI) for the binary outcomes, mean differences (MD) with 95% CrI for continuous outcomes, and rate ratios with 95% CrI for count outcomes, using a fixed-effect model or random-effects model according to model-fit. We assessed the evidence with GRADE. We identified 67 randomised clinical trials involving a total of 6197 participants. All the trials were at high risk of bias. A total of 5771 participants from 64 trials provided data for one or more outcomes included in this review. There was no evidence of differences in most of the comparisons, and where there was, these differences were in single trials, mostly of small sample size. We summarise only the evidence that was available in more than one trial below. Of the primary outcomes, the only one with evidence of a difference from more than one trial under the pair-wise comparison was in the number of adverse events (complications), which was higher with radiofrequency dissecting sealer than with the clamp-crush method (rate ratio 1.85, 95% CrI 1.07 to 3.26; 250 participants; 3 studies; very low-quality evidence). Among the secondary outcomes, the only differences we found from more than one trial under the pair-wise comparison were the following: blood transfusion (proportion) was higher in the low central venous pressure group than in the acute normovolemic haemodilution plus low central venous pressure group (OR 3.19, 95% CrI 1.56 to 6.95; 208 participants; 2 studies; low-quality evidence); blood transfusion quantity (red blood cells) was lower in the fibrin sealant group than in the control (MD -0.53 units, 95% CrI -1.00 to -0.07; 122 participants; 2; very low-quality evidence); blood transfusion quantity (fresh frozen plasma) was higher in the oxidised cellulose group than in the fibrin sealant group (MD 0.53 units, 95% CrI 0.36 to 0.71; 80 participants; 2 studies; very low-quality evidence); blood loss (MD -0.34 L, 95% CrI -0.46 to -0.22; 237 participants; 4 studies; very low-quality evidence), total hospital stay (MD -2.42 days, 95% CrI -3.91 to -0.94; 197 participants; 3 studies; very low-quality evidence), and operating time (MD -15.32 minutes, 95% CrI -29.03 to -1.69; 192 participants; 4 studies; very low-quality evidence) were lower with low central venous pressure than with control. For the other comparisons, the evidence for difference was either based on single small trials or there was no evidence of differences. None of the trials reported health-related quality of life or time needed to return to work. Authors' conclusions Paucity of data meant that we could not assess transitivity assumptions and inconsistency for most analyses. When direct and indirect comparisons were available, network meta-analysis provided additional effect estimates for comparisons where there were no direct comparisons. However, the paucity of data decreases the confidence in the results of the network meta-analysis. Low-quality evidence suggests that liver resection using a radiofrequency dissecting sealer may be associated with more adverse events than with the clamp-crush method. Low-quality evidence also suggests that the proportion of people requiring a blood transfusion is higher with low central venous pressure than with acute normovolemic haemodilution plus low central venous pressure; very low-quality evidence suggests that blood transfusion quantity (red blood cells) was lower with fibrin sealant than control; blood transfusion quantity (fresh frozen plasma) was higher with oxidised cellulose than with fibrin sealant; and blood loss, total hospital stay, and operating time were lower with low central venous pressure than with control. There is no evidence to suggest that using special equipment for liver resection is of any benefit in decreasing the mortality, morbidity, or blood transfusion requirements (very low-quality evidence). Radiofrequency dissecting sealer should not be used outside the clinical trial setting since there is low-quality evidence for increased harm without any evidence of benefits."

According to the news reporters, the research concluded: "In addition, it should be noted that the sample size was small and the credible intervals were wide, and we cannot rule
Researchers from School of Medicine Report New Studies and Findings in the Area of Gastroenterology (Bisphosphonates as potential adjuvants for patients with cancers of the digestive system)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Health and Medicine - Gastroenterology. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Best known for their anti-resorptive activity in bone, bisphosphonates (BPs) have generated interest as potential antineoplastic agents given their pleiotropic biological effects which include antiproliferative, antiangiogenic and immune-modulating properties. Clinical studies in multiple malignancies suggest that BPs may be active in the prevention or treatment of cancer."

The news correspondents obtained a quote from the research from the School of Medicine, "Digestive tract malignancies represent a large and heterogeneous disease group, and the activity of BPs in these cancers has not been extensively studied. Recent data showing that some BPs inhibit human epidermal growth factor receptor (HER) signaling highlight a potential therapeutic opportunity in digestive cancers, many of which have alterations in the HER axis."

According to the news reporters, the research concluded: "Herein, we review the available evidence providing a rationale for the repurposing of BPs as a therapeutic adjunct in the treatment of digestive malignancies, especially in HER-driven subgroups."


Our news journalists report that additional information may be obtained by contacting C. Ang, Celina Ang, Dept. of Medicine, Division of Hematology, Oncology, Icahn
Researchers from School of Pharmaceutical Science Detail Findings in Gastric Cancer (Auranofin induces apoptosis by ROS-mediated ER stress and mitochondrial dysfunction and displayed synergistic lethality with piperlongumine in gastric cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Gastric Cancer are presented in a new report. According to news reporting from Zhejiang, People's Republic of China, by NewsRx journalists, research stated, "Gastric cancer (GC) is one of the leading causes of cancer mortality in the world. In addressing the need of treatments for relapsed disease, we report the identification of an existing U.S.

The news correspondents obtained a quote from the research from the School of Pharmaceutical Science, "Food and Drug Administration-approved small-molecule drug to repurpose for GC treatment. Auranofin (AF), clinically used to treat rheumatic arthritis, but it exhibited preclinical efficacy in GC cells. By increasing intracellular reactive oxygen species (ROS) levels, AF induces a lethal endoplasmic reticulum stress response and mitochondrial dysfunction in cultured GC cells. Blockage of ROS production reversed AF-induced ER stress and mitochondrial pathways activation as well as apoptosis. In addition, AF displays synergistic lethality with an ROS-generating agent piperlongumine, which is a natural product isolated from the long pepper Piper longum L. Taken together, this work provides a novel anticancer candidate for the treatment of gastric cancer."

According to the news reporters, the research concluded: "More importantly, it reveals that increased ROS generation might be an effective strategy in treating human gastric cancer."

For more information on this research see: Auranofin induces apoptosis by ROS-mediated ER stress and mitochondrial dysfunction and displayed synergistic lethality with piperlongumine in gastric cancer. Oncotarget, 2015;6(34):36505-21.

Our news journalists report that additional information may be obtained by contacting P. Zou, Chemical Biology Research Center, School of Pharmaceutical Sciences, Wenzhou Medical University, Wenzhou, Zhejiang 325035, People's Republic of China. Additional authors for this research include M. Chen, J. Ji, W. Chen, X. Chen, S. Ying, J. Zhang, Z. Zhang, Z. Liu, S. Yang and G. Liang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5364. This DOI is a link to an online electronic document.
Researchers from School of Psychiatry Describe Findings in Bipolar Disorders (Study design and methodology for a multicentre, randomised controlled trial of transcranial direct current stimulation as a treatment for unipolar and bipolar ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Mental Health Diseases and Conditions - Bipolar Disorders are discussed in a new report. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "Transcranial Direct Current Stimulation (tDCS) is a new, non-invasive neuromodulation approach for treating depression that has shown promising efficacy. The aim of this trial was to conduct the first international, multicentre randomised controlled trial of tDCS as a treatment for unipolar and bipolar depression."

Financial support for this research came from Stanley Medical Research Institute.

The news reporters obtained a quote from the research from the School of Psychiatry, "The study recruited 120 participants across 6 sites in the USA and Australia. Participants received active or sham tDCS (2.5 mA, 20 sessions of 30 min duration over 4 weeks), followed by a 4-week open label active treatment phase and a 4-week taper phase. Mood and neuropsychological outcomes were assessed with the primary antidepressant outcome measure being the Montgomery-Asberg Depression Rating Scale (MADRS). A neuropsychological battery was administered to assess safety and examine cognitive effects. The study also investigated the possible influence of genetic polymorphisms on outcomes. The trial was triple-blinded. tDCS treaters and study raters were blinded to each participant's tDCS group allocation in the sham-controlled phase. Specific aspects of tDCS administration, device operation and group allocation were designed to optimise the integrity of blinding. Outcome measures will be tested using a mixed effects repeated measures analysis with the primary factors being Time as a repeated measure, tDCS condition (sham or active) and Diagnosis (unipolar or bipolar). A restricted number of random and fixed factors will be included as required to account for extraneous differences."

According to the news reporters, the research concluded: "As a promising treatment, tDCS has excellent potential for translation into widespread clinical use, being cost effective, portable, easy to operate and well tolerated."

For more information on this research see: Study design and methodology for a multicentre, randomised controlled trial of transcranial direct current stimulation as a treatment for unipolar and bipolar depression. *Contemporary Clinical Trials*, 2016;51():65-71. *Contemporary Clinical Trials* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Contemporary Clinical Trials - www.journals.elsevier.com/contemporary-clinical-trials/)

Our news correspondents report that additional information may be obtained by
Researchers from Scripps Research Institute Report Details of New Studies and Findings in the Area of HIV/AIDS (Potent and Targeted Activation of Latent HIV-1 Using the CRISPR/dCas9 Activator Complex)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - HIV/AIDS have been published. According to news reporting from La Jolla, California, by NewsRx journalists, research stated, "HIV-1 provirus integration results in a persistent latently infected reservoir that is recalcitrant to combined antiretroviral therapy (cART) with lifelong treatment being the only option. The 'shock and kill' strategy aims to eradicate latent HIV by reactivating proviral gene expression in the context of cART treatment."

The news correspondents obtained a quote from the research from Scripps Research Institute, "Gene-specific transcriptional activation can be achieved using the RNA-guided CRISPR-Cas9 system comprising single guide RNAs (sgRNAs) with a nuclease-deficient Cas9 mutant (dCas9) fused to the VP64 transactivation domain (dCas9-VP64). We engineered this system to target 23 sites within the long terminal repeat promoter of HIV-1 and identified a 'hotspot' for activation within the viral enhancer sequence. Activating sgRNAs transcriptionally modulated the latent proviral genome across multiple different in vitro latency cell models including T cells comprising a clonally integrated mCherry-IRES-Tat (LChIT) latency system. We detected consistent and effective activation of latent virus mediated by activator sgRNAs, whereas latency reversal agents produced variable activation responses. Transcriptomic analysis revealed dCas9-VP64/sgRNAs to be highly specific, while the well-characterized chemical activator TNFa induced widespread gene dysregulation."

According to the news reporters, the research concluded: "CRISPR-mediated gene activation represents a novel system which provides enhanced efficiency and specificity in a targeted latency reactivation strategy and represents a promising approach to a 'functional cure' of HIV/AIDS."

For more information on this research see: Potent and Targeted Activation of Latent HIV-1 Using the CRISPR/dCas9 Activator Complex. Molecular Therapy, 2015;24(3):488-98. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)
Researchers from Second Military Medical University Discuss Findings in Immunotherapy (Antitumor Activity of cGAMP via Stimulation of cGAS-cGAMP-STING-IRF3 Mediated Innate Immune Response)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Immunotherapy is now available. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Immunotherapy is one of the key strategies for cancer treatment. The cGAS-cGAMP-STING-IRF3 pathway of cytosolic DNA sensing plays a pivotal role in antiviral defense."

Our news journalists obtained a quote from the research from Second Military Medical University, "We report that the STING activator cGAMP possesses significant antitumor activity in mice by triggering the STING-dependent pathway directly. cGAMP enhances innate immune responses by inducing production of cytokines such as interferon-b, interferon-g, and stimulating dendritic cells activation, which induces the cross-priming of CD8 (+) T cells. The antitumor mechanism of cGAMP was verified by STING and IRF3, which were up-regulated upon cGAMP treatment. STING-deficiency dramatically reduced the antitumor effect of cGAMP. Furthermore, cGAMP improved the antitumor activity of 5-FU, and clearly reduced the toxicity of 5-FU."

According to the news editors, the research concluded: "These results demonstrated that cGAMP is a novel antitumor agent and has potential applications in cancer immunotherapy."

For more information on this research see: Antitumor Activity of cGAMP via Stimulation of cGAS-cGAMP-STING-IRF3 Mediated Innate Immune Response. Scientific Reports, 2016;6():19049. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting T. Li, Dept. of Pharmacology, School of Pharmacy, Second Military Medical University, Shanghai, 200433, People's Republic of China. Additional authors for this research include H. Cheng, H. Yuan, Q. Xu, C. Shu, Y. Zhang, P. Xu, J. Tan, Y. Rui, P. Li and X. Tan.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19049. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shanghai, Genetics, Immunotherapy, Drugs and Therapies, People's Republic of China.

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Cardiology

Researchers from Semmelweis University Report Recent Findings in Cardiology (Fracture and Lung Penetration of a Left Ventricular Lead Stabilized by Retained Stylet)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news reporting out of Budapest, Hungary, by NewsRx editors, research stated, "During cardiac resynchronization therapy (CRT) pacemaker implantation in a 54-year-old female patient, removing the stylet resulted in repeated left ventricular (LV) lead dislodgment. Lead stability was achieved by retaining the stylet within the lead lumen."

Our news journalists obtained a quote from the research from Semmelweis University, "Two years after cardiac resynchronization therapy, a LV lead fracture near the connector pin occurred. The proximal lead segment was removed, and a new connector pin was attached. Two years after that, the same lead fractured in the right atrium with the stylet penetrating the lung. The LV lead and retained stylet were successfully extracted."

According to the news editors, the research concluded: "LV lead dislodgment is a limitation of CRT, but using the retained stylet technique to achieve lead stability is potentially dangerous and is not recommended."


Our news journalists report that additional information may be obtained by contacting B. Merkely, Semmelweis University, Center Heart, H-1122 Budapest, Hungary. Additional authors for this research include G. Duray, K. Huttl and B. Merkely.

Keywords for this news article include: Budapest, Hungary, Europe, Cardiology, Semmelweis University.

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Researchers from Seoul National University Report Findings in Aldehydes (Cystathionine metabolic enzymes play a role in the inflammation resolution of human keratinocytes in response to sub-cytotoxic formaldehyde exposure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Aldehydes is the subject of a report. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Low-level formaldehyde exposure is inevitable in industrialized countries. Although daily-life formaldehyde exposure level is practically impossible to induce cell death, most of mechanistic studies related to formaldehyde toxicity have been performed in cytotoxic concentrations enough to trigger cell death mechanism."

Funders for this research include National Research Foundation of Korea, Korea Healthcare Technology R&D Project, Ministry of Health & Welfare, Seoul National University.

Our news journalists obtained a quote from the research from Seoul National University, "Currently, toxicological mechanisms underlying the sub-cytotoxic exposure to formaldehyde are not clearly elucidated in skin cells. In this study, the genome-scale transcriptional analysis in normal human keratinocytes (NHKs) was performed to investigate cutaneous biological pathways associated with daily life formaldehyde exposure. We selected the 175 upregulated differentially expressed genes (DEGs) and 116 downregulated DEGs in NHKs treated with 200 mu M formaldehyde. In the Gene Ontology (GO) enrichment analysis of the 175 upregulated DEGs, the endoplasmic reticulum (ER) unfolded protein response (UPR) was identified as the most significant GO biological process in the formaldehyde-treated NHKs. Interestingly, the sub-cytotoxic formaldehyde affected NHKs to upregulate two enzymes important in the cellular transsulfuration pathway, cystathionine gamma-lyase (CTH) and cystathionine-beta-synthase (CBS). In the temporal expression analysis, the upregulation of the pro-inflammatory DEGs such as MMP1 and PTGS2 was detected earlier than that of CTH, CBS and other ER UPR genes. The metabolites of CTH and CBS, L-cystathionine and L-cysteine, attenuated the formaldehyde-induced upregulation of pro-inflammatory DEGs, MMP1, PTGS2, and CXCL8, suggesting that CTH and CBS play a role in the negative feedback regulation of formaldehyde-induced pro-inflammatory responses in NHKs."

According to the news editors, the research concluded: "In this regard, the sub-cytotoxic formaldehyde-induced CBS and CTH may regulate inflammation fate decision to resolution by suppressing the early pro-inflammatory response."

For more information on this research see: Cystathionine metabolic enzymes play a role in the inflammation resolution of human keratinocytes in response to sub-cytotoxic formaldehyde exposure. Toxicology and Applied Pharmacology, 2016;310();185-194. Toxicology and Applied Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Toxicology and Applied Pharmacology - www.journals.elsevier.com/toxicology-and-applied-pharmacology/)

Researchers from Shaheed Beheshti University of Medical Sciences Report Details of New Studies and Findings in the Area of Breast Cancer (Breast cancer classification and prognostication through diverse systems along with recent emerging ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating from Tehran, Iran, by NewsRx correspondents, research stated, "Breast cancer is the most common malignancy among women and the second leading cause of mortality due to cancer worldwide. The complexity of breast cancer resembles an intricate ecosystem comprising various cleverly designed interaction levels of internal and external factors to generate a pliable context in the clonal evolution of breast cancer cells."

Our news editors obtained a quote from the research from the Shaheed Beheshti University of Medical Sciences, "Principally, the complex entity can become evident toward delineating a number of significant variations in the specific fields of breast cancer analyses, including the molecular, physiological, and morphological characteristics, clinical presentations, risk factors, the histopathological conditions, and response to systemic therapy regarding the maintenance of tumor as a whole. In hindsight, various classification systems developing based on specific inclusion criteria have indisputably changed both our appreciation of the biological demeanor of breast cancer and the main strategies for designing tailored therapy regimens through the proper evaluation of diagnosis and prognostication of given specimens. Here, we endeavor to provide a general overview of different types of breast cancer classification as well as the clinical acceptance of their applications along with the latest findings in this area."

According to the news editors, the research concluded: "Taken together, the major significance of breast cancer management that can be ascertained by operational convergent points of its stratification areas is owing to the fact that the achievement of individualized and targeted therapy may denounce new horizons of surveillance and treatment strategies in which they may function as a rheostat of specific therapy regimens toward reducing the detected distances between experimental data and operating options in clinical practice."

For more information on this research see: Breast cancer classification and prognostication through diverse systems along with recent emerging findings in this respect; the dawn of new perspectives in the clinical applications. Tumor Biology, 2016;37(11):14479-14499. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)
The news editors report that additional information may be obtained by contacting S. Mohammadi-Yeganeh, Shahid Beheshti Univ Med Sci, Sch Adv Technol Med, Dept. of Biotechnol, Tehran, Iran. Additional authors for this research include S. Mohammadi-Yeganeh and M. Paryan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5349-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Therapy, Article Review, Risk and Prevention, Epidemiology, Women's Health, Breast Cancer, Oncology, Shaheed Beheshti University of Medical Sciences.

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Drugs and Therapies - Antibiotics

Researchers from Shandong University Detail Findings in Antibiotics (A bicyclo-hairpin probe mediated strand displacement amplification strategy for label-free and sensitive detection of bleomycin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antibiotics. According to news reporting originating from Jinan, People's Republic of China, by NewsRx correspondents, research stated, "Monitoring of bleomycin concentration is critical in clinical therapy. Here, a bicyclo-hairpin probe mediated strand displacement amplification strategy was developed for bleomycin detection."

Financial support for this research came from National Natural Sciences Foundation of China.

Our news editors obtained a quote from the research from Shandong University, "Firstly, bleomycin cleaved bicyclo-hairpin probe to release a trigger sequence. Then the trigger sequence initiated strand displacement amplification reaction to produce numerous G-quadruplex forming sequences. Finally, G-quadruplexes bound with N-methyl mesoporphyrin IX molecules and an enhanced fluorescent signal could be detected. In this strategy, a bicyclo-hairpin probe was ingeniously designed for bleomycin detection, which could silence the trigger sequence to reduce non-specific hybridization of detection method. In addition, based on bleomycin-induced DNA scission, a label-free fluorescent sensor for bleomycin detection was established. Our strategy could determine bleomycin sensitively with a detection limit of 0.34 nM. Fluorescent response of detection system toward four different anti-tumor drugs proved that this strategy had admirable selectivity."

According to the news editors, the research concluded: "Satisfactory recoveries in human serum samples revealed that our method had a great potential in real sample assay."

For more information on this research see: A bicyclo-hairpin probe mediated strand displacement amplification strategy for label-free and sensitive detection of bleomycin. Sensors and Actuators B-Chemical, 2017;238():318-324. Sensors and Actuators B-Chemical can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland.

The news editors report that additional information may be obtained by contacting L. Wang, Shandong University, Sch Pharmaceut Sci, Minist Educ, Key Lab Nati Prod Chem Biol, Jinan 250012, People's Republic of China. Additional authors for this research include W. Jiang,
W. Li and L. Wang.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.snb.2016.07.055. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jinan, People's Republic of China, Asia, Antibiotics - Antineoplastics, Drugs and Therapies, Glycopeptides, Bleomycin, Peptides, Shandong University.

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Biotechnology - Xenografts

Researchers from Shanghai Jiao-Tong University Provide Details of New Studies and Findings in the Area of Xenografts (The Marine-Derived Oligosaccharide Sulfate MS80, a Novel Transforming Growth Factor beta 1 Inhibitor, Reverses Epithelial ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Biotechnology - Xenografts. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Metastasis accounts for the majority of cancer-related deaths. Transforming growth factor beta (TGF-beta) is believed to promote late-stage cancer progression and metastasis by inducing epithelial-mesenchymal transition (EMT)."

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "We previously reported that MS80, a novel oligosaccharide sulfate, inhibits TGF-beta 1-induced pulmonary fibrosis by binding TGF-beta 1. In our study MS80 effectively inhibited TGF-beta/Smad signaling in lung cancer cells, breast cancer cells, and model cell lines. In addition, MS80 inhibited TGF-beta 1-induced EMT, motility, and invasion in vitro. Moreover, MS80 significantly inhibited lung metastasis in orthotopic 4T1 xenografts. Notably, the MS80 treatment significantly increased the infiltration of CD8(+) T cells and decreased the infiltration of regulatory T cells in primary tumors and spleens in mice bearing 4T1 xenografts."

According to the news editors, the research concluded: "Therefore, MS80 is a novel and promising candidate for treating metastatic malignancies by targeting TGF-beta 1-induced EMT and mediating immunosuppression."

For more information on this research see: The Marine-Derived Oligosaccharide Sulfate MS80, a Novel Transforming Growth Factor beta 1 Inhibitor, Reverses Epithelial Mesenchymal Transition Induced by Transforming Growth Factor-beta 1 and Suppresses Tumor Metastasis. Journal of Pharmacology and Experimental Therapeutics, 2016;359(1):54-61. Journal of Pharmacology and Experimental Therapeutics can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

The news correspondents report that additional information may be obtained from J. Ai, Shanghai Jiao Tong University, Shanghai Inst Mat Med, State Key Lab Drug Res, Div Antitumor Pharmacol, Shanghai, People's Republic of China. Additional authors for this research include W.J. You, G.Q. Sun, Y.X. Li, B. Chen, J. Ai and H.D. Jiang.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Transforming Growth Factor beta, TGF-beta
Researchers from Shanghai Jiao-Tong University Report Findings in Liver Cancer (NRBP2 Overexpression Increases the Chemosensitivity of Hepatocellular Carcinoma Cells via Akt Signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Liver Cancer is the subject of a report. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Hepatocellular carcinoma is highly resistant to chemotherapy. Research data supported that cancer stem cells (CSC) may be responsible for the chemoresistance and strategies that suppress CSCs stemness could also inhibit the drug resistance."

The news correspondents obtained a quote from the research from Shanghai Jiao-Tong University, "In this study, we found that nuclear receptor binding protein 2 (NRBP2) expression was downregulated in the CD133(+) hepatocellular carcinoma CSCs. Most adjacent noncancerous liver tissue analyzed expressed higher level of NRBP2 compared with cancerous tissue in hepatocellular carcinoma patients, and high NRBP2 expression indicated a better prognosis. Real-time PCR results showed that NRBP2 negatively correlated with stemness-related genes, including Oct3/4, Nanog, Notch1, Ep300, and CD133 mRNA expression. High NRBP2 expression in hepatocellular carcinoma cells downregulated CK19 protein expression, inhibited tumor-sphere formation, and tumorigenesis ability, indicating that high NRBP2 expression restrains the hepatocellular carcinoma cell stemness. Overexpression of NRBP2 reduced the IC50 of sorafenib in hepatocellular carcinoma cells, and NRBP2 expression was negatively correlated with hepatocellular carcinoma cell resistance to the chemotherapy agents, including cisplatin and the Akt signaling inhibitor perifosine. Coimmunoprecipitation results showed that NRBP2 could bind with Annexin A2 (ANXA2) and inhibit ANXA2 expression. Coexpression of ANXA2 restored the chemoresistant ability in NRBP2-overexpressing hepatocellular carcinoma cells. Further analysis showed that NRBP2 downregulated Akt and its downstream signaling target Bad phosphorylation level. ANXA2 coexpression partially restored the Akt phosphorylation. Analysis of the expression of Bcl2 family proteins showed that NRBP2 may increase hepatocellular carcinoma cell chemosensitivity by regulating expression of survival proteins involved in the Akt and Bcl2 pathway."

According to the news reporters, the research concluded: "These results suggest that NRBP2 plays an important role in the tumor progression and chemotherapeutic resistance of hepatocellular carcinoma."

For more information on this research see: NRBP2 Overexpression Increases the Chemosensitivity of Hepatocellular Carcinoma Cells via Akt Signaling. Cancer Research, 2016;76(23):7059-7071. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting J.J. Li, Shanghai Jiao Tong University, Sch Med, State Key Lab Oncogenes &
Researchers from Shanghai University Report Details of New Studies and Findings in the Area of Lung Cancer (Panax notoginseng saponins attenuate lung cancer growth in part through modulating the level of Met/miR-222 axis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Lung Cancer are discussed in a new report. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Panax notoginseng saponins (PNS) are the major chemical constituents of Panax notoginseng (Burkill) F.H. Chen (Araliaceae), a medicinal herb extensively used in China for the treatment of various diseases including cancer."

Financial supporters for this research include Shanghai Institutions of Higher Learning, National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Shanghai University, "PNS have been reported to contribute to the therapeutic effects of Panax notoginseng in disease conditions including lung cancer. Aim of the study: The current study aims to further understand the molecular mechanisms implicated in the pharmacological activities of PNS in attenuating lung cancer growth. Lewis lung carcinoma (LLC) cell line was employed and the impact of PNS treatment on the viability of LLC cells was first examined in vitro. The tumor-suppressive effect of PNS was further validated in vivo by assessing the tumor growth in BALB/c mice inoculated with LLC cells. Whole genome microarray and real-time PCR analyses were performed to examine and verify altered expression of genes associated with PNS treatment. Real-time PCR and western blotting analyses were also carried out to investigate the implication of microRNA (miRNA)-mediated gene expression regulation in the anti-tumor activity of PNS. PNS treatment resulted in selective impairment of the survival of LLC cells. Furthermore, PNS treatment led to attenuated growth of tumors derived from inoculated LLC cells in mice. Bioinformatic analyses of gene expression profiles revealed that multiple pathways associated with tumorigenesis were significantly modulated by PNS treatment in vivo. The expression of an array of genes promoting tumorigenesis and progression including Hgf, Met, Notch3, Scd1, Epas1, Colla1, Raf1, Braf1 and CDK6 was significantly decreased by PNS treatment, whereas the expression of tumor suppressive Rxrg was significantly increased as a result of PNS treatment. The level of miR-222, a miRNA regulated by Met, was significantly decreased by PNS treatment. The expression of tumor suppressor p27 and PTEN, miR-222 target genes, was significantly
increased by PNS treatment. Our work here presented novel evidence demonstrating that multiple mechanisms were implicated in the anti-tumor effects of PNS in lung cancer models. Particularly, PNS treatment significantly modulated the level of Met/miR-222 axis in LLC cells."

According to the news reporters, the research concluded: "Increased understanding of the antitumor mechanisms of PNS may provide further experimental evidence to help optimize the therapeutic modalities for the treatment of lung cancer and other types of cancer."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.040. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Drugs and Therapies, Cancer Therapy, Lung Neoplasms, Lung Cancer, Oncology, Genetics, Shanghai University.

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**Science - Food Science**

**Researchers from Shanxi University Discuss Findings in Food Science (Resveratrol Induces Cancer Cell Apoptosis through MiR-326/PKM2-Mediated ER Stress and Mitochondrial Fission)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Science - Food Science are presented in a new report. According to news originating from Taiyuan, People's Republic of China, by NewsRx correspondents, research stated, "Resveratrol (Res), a natural phytoalexin found in a variety of plants, has significant antitumor activity. Pyruvate kinase M2 (PKM2) has abnormally high expression in various tumor cells, and it has been implicated in the survival of tumors."

Funders for this research include National Natural Science Foundation of China, Natural Science Foundation of Zhejiang Province, Science Foundation for Outstanding Youths of Shanxi Province, Higher Education Institutions of Shanxi Province, Shanxi Province.

Our news journalists obtained a quote from the research from Shanxi University, "However, whether and how Res inhibits PKM2 expression is poorly understood. In the present study, we found that treatment with Res inhibited cell proliferation and induced cell apoptosis. The IC50 values of Res against DLD1, HeLa, and MCF-7 cells were 75 +/- 4.54, 50 +/- 3.65, and 50 +/- 3.32 mu M, respectively. To elucidate mechanisms underlying its antitumor activities, serial experiments were performed. Results showed that reduction of PKM2
expression in tumor cells by Res treatment increased the expression of ER stress and mitochondrial fission proteins but reduced cell viability and the levels of fusion proteins. These phenomena were reversed by artificial overexpression of PKM2. Quantitative analyses showed that the expression of microRNA-326 (miR-326) was increased upon Res treatment. Treatment with the miR-326 mimic reduced PKM2 expression, promoting recovery from ER stress and mitochondrial fission. Overall, these results demonstrate that miR-326/PKM2-mediated ER stress and mitochondrial dysfunction participate in apoptosis induced by Res."

According to the news editors, the research concluded: "These results provide novel insight into the molecular mechanisms by which Res suppresses tumors and further support for the use of Res as an antitumor drug."


The news correspondents report that additional information may be obtained from Z.Y. Li, Shanxi Univ, Inst Biomed Sci, Taiyuan 030006, People's Republic of China. Additional authors for this research include Y.Y. Wang, C.X. Wu, P. Yang, H.Q. Li and Z.Y. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jafc.6b04549. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taiyuan, People's Republic of China, Asia, Food Science, Science, Oncology, Cancer, Shanxi University.

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Musculoskeletal Diseases and Conditions - Osteolysis

Researchers from Shaoxing University Report Details of New Studies and Findings in the Area of Osteolysis (Puerarin Prevents LPS-Induced Osteoclast Formation and Bone Loss via Inhibition of Akt Activation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Musculoskeletal Diseases and Conditions - Osteolysis are discussed in a new report. According to news originating from Shaoxing, People's Republic of China, by NewsRx correspondents, research stated, "Osteolysis induced by chronic Gram-negative bacterial infection underlies many bone diseases such as osteomyelitis, septic arthritis, and periodontitis. Drugs that inhibit lipopolysaccharide (LPS)-induced osteolysis are critically needed for the prevention of bone destruction in infective bone diseases."

Our news journalists obtained a quote from the research from Shaoxing University, "In this study, we assessed the effect of puerarin, a natural isoflavone isolated from Pueraria lobata OHWI root, on LPS-induced osteoclastogenesis and bone loss. Our in vitro study showed that puerarin significantly inhibited LPS-induced osteoclast differentiation from osteoclast precursor RAW264.7 cells. The inhibition occurred through suppressing the production of osteoclast activating factor tumor necrosis factor (TNF)-alpha, interleukin (IL)-1 beta and prostaglandin E-2 (PGE(2)), which led to down-regulating mRNA expression of
osteoclastogenic genes including tartrate-resistant acid phosphatase (TRAP), cathepsin K and matrix metalloprotein 9 (MMP-9). Furthermore, LPS triggered activation of Akt in osteoclast precursor RAW264.7 cells, which was inhibited by puerarin treatment. In vivo, puerarin attenuated LPS-induced bone loss in a murine calvarial osteolysis model. Collectively, puerarin prevents LPS-induced osteoclast formation, function and bone loss, where the inhibition of Akt activation plays an important role."

According to the news editors, the research concluded: "These findings provide evidences that puerarin might be beneficial as a promising candidate drug for the prevention and treatment of bacteria-induced bone destruction disease, and give new insights for understanding its possible mechanism."


The news correspondents report that additional information may be obtained from Y. Zhang, Shaoxing Univ, Coll Med, Shaoxing 312000, People's Republic of China. Additional authors for this research include M. Yan, Q.F. Yu, P.F. Yang, H.D. Zhang, Y.H. Sun, Z.F. Zhang and Y.F. Gao.

Keywords for this news article include: Shaoxing, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Bone Diseases and Conditions, Bone Resorption, Bone Research, Osteoclasts, Macrophages, Osteolysis, Genetics, Shaoxing University.

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Inflammatory Bowel Diseases and Conditions -

Researchers from Sheba Medical Center Report on Findings in Ulcerative Colitis (Combination of Corticosteroids with 5-Aminosalicylic Acids Compared to Corticosteroids Alone for Hospitalized Patients with Active Ulcerative Colitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Inflammatory Bowel Diseases and Conditions - Ulcerative Colitis. According to news originating from Tel Hashomer, Israel, by NewsRx correspondents, research stated, "Although 5-amino-salycilic acids (5-ASA) are often used with corticosteroid treatment in moderate-to severe ulcerative colitis, the value of continuing/initiating 5-ASA in this clinical setting has not been explored. To investigate the impact of a combination 5-ASA+corticosteroid therapy on the outcome of hospitalized patients with acute moderate-severe ulcerative colitis."

Our news journalists obtained a quote from the research from Sheba Medical Center, "We conducted a retrospective study of patients hospitalized with moderate-severe ulcerative colitis in two centers, Israel and South Korea. Patients were classified into those who received 5-ASA and corticosteroids and those who received Corticosteroids alone. Analysis was performed for each hospitalization event. The primary outcome was the rate of treatment failure defined as the need for salvage therapy (cyclosporin-A/infliximab/colectomy). The secondary outcomes were 30 days re-admission rates, in-hospital mortality rates, time to improvement, and
length of hospitalization. We analyzed 209 hospitalization events: 151 patients (72%) received 5-ASA+corticosteroids and 58 (28%) corticosteroids alone. On univariate analysis the combination therapy group had a lower risk for treatment failure (11% vs. 31%, odds ratio 0.28, 95% confidence interval 0.13-0.59, P = 0.001). However, this difference disappeared on multivariate analysis, which showed pre-admission oral corticosteroid treatment to be the most significant factor associated with the need for salvage therapy."

According to the news editors, the research concluded: "A signal for possible benefit of a combination 5-ASA and corticosteroids therapy was found, but was confounded by the impact Of pre-admission corticosteroid treatment."

For more information on this research see: Combination of Corticosteroids with 5-Aminosalicylic Acids Compared to Corticosteroids Alone for Hospitalized Patients with Active Ulcerative Colitis. *Israel Medical Association Journal*, 2016;18(10):613-618. *Israel Medical Association Journal* can be contacted at: Israel Medical Assoc Journal, 2 Twin Towers, 11TH Fl, 35 Jabotinsky St, PO Box 3604, Ramat Gan 52136, Israel.

The news correspondents report that additional information may be obtained from O. Har-Noy, Sheba Med Center Tel Hashomer, Dept. of Gastroenterol, Tel Hashomer, Israel. Additional authors for this research include B. Kim, R. Haiat, T. Engel, B. Ungar, R. Eliakim, W.H. Kim, J.H. Cheon and S. Ben-Horin.

Keywords for this news article include: Tel Hashomer, Israel, Asia, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Clinical Trials and Studies, Post-Trial Research, Ulcerative Colitis, Gastroenterology, Salvage Therapy, Hospitalization, Corticosteroids, Gastroenteritis, Patient Care, Sheba Medical Center.

Our news editors obtained a quote from the research from the Shiraz University of Medical Sciences, "The E2 serum levels in the hCG administration day and third and seventh day after ovum retrieval were measured in control group. The rate of pregnancy was also quantified and compared between the two study groups. There was no significant difference between two study groups regarding baseline characteristics. E2 level decreased significantly in third (1765.34 +/- 680.09; p< 0.001) and seventh (1459.66 +/- 593.80; p< 0.001) days after ovum retrieval (2411.16 +/- 713.52). The authors found that the serum level of E2 was
significantly lower in those who received E2 supplementation at day 3 (p < 0.001) and 7 (p < 0.001). However the pregnancy rate was not significantly different between two study groups (p = 0.849). In the same way, there was no significant difference between two study groups regarding the number of retrieved oocytes (p = 0.563) and number of MII oocytes (p = 0.103). E2 supplementation during the luteal phase in patients with unexplained infertility undergoing IVF, is associated with decreased serum levels of E2 after hCG injection.

According to the news editors, the research concluded: "However the fertility outcome was not affected by E2 supplementation."


The news editors report that additional information may be obtained by contacting S. Shahriver, Shiraz University of Medical Science, Dept. of Obst & Gynecol, Infertil Res Center, Shiraz, Iran. Additional authors for this research include A. Zarei and S. Shahriver.

Keywords for this news article include: Shiraz, Iran, Asia, Female Urogenital Diseases and Conditions, Female Genital Diseases and Conditions, Reproductive Diseases and Conditions, Clinical Trials and Studies, In Vitro Fertilization, Reproductive Medicine, Estradiol Congeners, Female Infertility, Clinical Research, Gonadal Hormones, Women's Health, Obstetrics, Shiraz University of Medical Sciences.

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Drugs and Therapies - Ethnopharmacology

Researchers from Shiraz University of Medical Sciences Report on Findings in Ethnopharmacology (Ethnomedicine for neonatal jaundice: A cross-sectional survey in Qom, Iran)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Ethnopharmacology are presented in a new report. According to news reporting out of Shiraz, Iran, by NewsRx editors, research stated, "Ethnopharmacological relevance: Traditional Medicine ™ is popularly used for neonatal jaundice in Iran. to provides evidence for characteristics of traditional medicine use in the treatment of neonatal jaundice in Qom, Iran."

Financial support for this research came from Shiraz University of Medical Sciences and Qom University of Medical Sciences.

Our news journalists obtained a quote from the research from the Shiraz University of Medical Sciences, "Field surveys were carried out during July 2015 - August 2015 in Qom through structured questionnaire in Persian from 212 parents of children with neonatal jaundice. All plant species recorded for the treatment of neonatal jaundice were sampled. Samples were identified by a botanist and obtained a voucher specimens number and deposited in the Shiraz School of Pharmacy Herbarium. The information such as scientific name, family, local name, parts used and preparation method were provided. The Use Value (UV), Frequency of Citation (FC), Relative Frequency of Citation (RFC) and Relative Family Importance Value (FIV) are also calculated. In total, 165 (78%) of participants reported the use of traditional methods for
their neonates. The use of herbal remedies was the most popular form of these traditional interventions. A total of 8 plant species belonging to 7 families were identified. Cotoneaster nummularioides Pojark. Cichorium intybus L. Alhagi maurorum Medik. Descurainia sophia (L.) Webb ex Prantl were most frequent herbs used by neonates and their feeding mother to treat jaundice. Manna was the most popular plant part and distillation and soaking were most frequent preparation methods in these patients. The use of TM in these patients is associated with their previous experience on TM use and their view on its potential risk."

According to the news editors, the research concluded: "This study provided information on the prevalence, associated factors and characteristics of traditional medicine use along with ethnomedical knowledge from Qom in Iran on neonatal jaundice."


Our news journalists report that additional information may be obtained by contacting M. Heydari, Shiraz University of Medical Science, Res Center Tradit Med & Hist Med, Shiraz, Iran. Additional authors for this research include H. Heydari, A. Saadati, M. Gharehbeglou, J. Tafaroji and A. Akbari.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.10.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shiraz, Iran, Asia, Ethnopharmacology, Drugs and Therapies, Shiraz University of Medical Sciences.

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**Drugs and Therapies - Cancer Therapy**

**Researchers from Sichuan University Report Details of New Studies and Findings in the Area of Cancer Therapy (Small Molecule TH-39 Potentially Targets Hecl/Nek2 Interaction and Exhibits Antitumor Efficacy in K562 Cells via G0/G1 Cell Cycle ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cancer Therapy have been published. According to news originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "Cancer is still a major public health issue worldwide, and new therapeutics with anti-tumor activity are still urgently needed. The anti-tumor activity of TH-39, which shows potent anti-proliferative activity against K562 cells with an IC50 of 0.78 mu M, was investigated using immunoblot, co-immunoprecipitation, the MTT assay, and flow cytometry."

Our news journalists obtained a quote from the research from Sichuan University, "Mechanistically, TH-39 may disrupt the interaction between Hecl and Nek2 in K562 cells. Moreover, TH-39 inhibited cell proliferation in a concentration- and time dependent manner by influencing the morphology of K562 cells and inducing G0/G1 phase arrest. G0/G1 phase arrest was associated with down-regulation of CDK2-cyclin E complex and CDK4/6-cyclin D
complex activities. Furthermore, TH-39 also induced cell apoptosis, which was associated with activation of caspase-3, down-regulation of Bcl-2 expression and up regulation of Bax. TH-39 could also decrease mitochondrial membrane potential (Delta psi m) and increase reactive oxygen species (ROS) accumulation in K562 cells. The results indicated that TH-39 might induce apoptosis via the ROS-mitochondrial apoptotic pathway."

According to the news editors, the research concluded: "This study highlights the potential therapeutic efficacy of the anti-cancer compound TH-39 in treatment-resistant chronic myeloid leukemia."


The news correspondents report that additional information may be obtained from N.Y. Wang, Sichuan University, West China Med Sch, West China Hosp, State Key Lab BiotherapyCollaborat Innovat Center B, Chengdu 610041, Sichuan, People's Republic of China. Additional authors for this research include W. Wei, T.H. Ye, Z.H. Liu, L. Liu, Y. Luo, L.D. Zhang, C. Gao, N.Y. Wang and L.T. Yu.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Erythroid Precursor Cells, Drugs and Therapies, Tumor Cell Line, Cancer Therapy, K562 Cells, Apoptosis, Sichuan University.

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**Acetanilides**

**Researchers from Sichuan University Report Recent Findings in Acetanilides (Effects of Liposomes Charge on Extending Sciatic Nerve Blockade of N-ethyl Bromide of Lidocaine in Rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Acetanilides have been published. According to news reporting originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "N-methyl bromide of lidocaine (QX-314) is a potential local anaesthetic with compromised penetration through cell membranes due to its obligated positive charge. Liposomes have been widely used for drug delivery with promising efficacy and safety."

Our news editors obtained a quote from the research from Sichuan University, "Therefore we investigated the local anaesthetic effects and tissue reactions of QX-314 in combination with anionic, cationic or neutral liposomes in rat sciatic nerve block model, and explored the effects of these liposomes on cellular entry of QX-314 in human embryonic kidney 293 cells. The results demonstrated that anionic liposomes substantially prolonged the duration of sensory (25.7 +/- 8.3 h) and motor (41.4 +/- 6.1 h) blocks of QX-314, while cationic and neutral ones had little effects. Tissue reactions from QX-314 with anionic liposomes were similar to those with commonly used local anaesthetic bupivacaine. Consistent with in vivo results, the anionic liposomes produced the greatest promotion of cellular entry of QX-314 in a
time-dependent manner."

According to the news editors, the research concluded: "Ultra-long lasting nerve blocks were achieved by a mixture of QX-314 and anionic liposomes with a satisfactory safety profile, indicating a potential approach to improve postoperative pain management. The liposome-induced enhancement in cellular uptake of QX-314 may underlie the in vivo effects."


The news editors report that additional information may be obtained by contacting W.S. Zhang, Sichuan University, West China Hosp, Dept. of Anaesthesiol, Chengdu 610041, Sichuan, People's Republic of China. Additional authors for this research include B.W. Ke, X.B. Chen, Y.K. Guan, P. Feng, G. Chen, Y. Kang, W.S. Zhang and Y. Nie.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Local Injectable Anesthetics, Ophthalmic Preparations, Ophthalmic Anesthetics, Drug Delivery Systems, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Lidocaine Therapy, Pharmaceuticals, Biotechnology, Acetanilides, Liposomes, Sichuan University.

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**Oncology - Cancer Prevention**

**Researchers from Sloan Kettering Institute Discuss Findings in Cancer Prevention (The future of clinical cancer genomics)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cancer Prevention have been presented. According to news reporting originating from New York City, New York, by NewsRx editors, the research stated, "The current and future applications of genomics to the practice of preventive oncology are being impacted by a number of challenges."

Our news editors obtained a quote from the research from Sloan Kettering Institute, "These include rapid advances in genomic science and technology that allow massively parallel sequencing of both tumors and the germline, a diminishing of intellectual property restrictions on diagnostic genetic applications, rapid expansion of access to the internet which includes mobile access to both genomic data and tools to communicate and interpret genetic data in a medical context, the expansion of for-profit diagnostic companies seeking to monetize genetic information, and a simultaneous effort to depict medical professionals as barriers to rather than facilitators of understanding one's genome. Addressing each of these issues will be required to bring 'personalized' germline genomics to cancer prevention and care."

According to the news editors, the research concluded: "A profound future challenge will be whether clinical cancer genomics will be 'de-medicalized' by commercial interests and their advocates, or whether the future course of this field can be modulated in a responsible way that protects the public health while implementing powerful new medical tools for cancer prevention and early detection."

For more information on this research see: The future of clinical cancer genomics.
Researchers from Soochow University Discuss Findings in Prostate Cancer (Inhibition of EZH2 by chemo- and radiotherapy agents and small molecule inhibitors induces cell death in castration-resistant prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news reporting out of Changzhou, People's Republic of China, by NewsRx editors, research stated, "Androgen deprivation therapy is the mainstay of treatment of advanced prostate cancer (PCa). However, a significant portion of patients experience disease relapse and tumors ultimately evolve into castration resistant prostate cancer (CRPC), for which there is no cure in the clinic."

Our news journalists obtained a quote from the research from Soochow University, "The Polycomb protein enhancer of zeste homolog 2 (EZH2) is frequently overexpressed in CRPC. It is unclear whether EZH2 can be a therapeutic target in CRPC. Here, we demonstrated that chemo-and radiotherapy agents such as camptothecin (CPT) and g irradiation decrease EZH2 expression in various PCa cell lines. We provided evidence that functional p53 and RB proteins are required for CPT-and irradiation-induced downregulation of EZH2 in CRPC cells. We further showed that the EZH2 inhibitor GSK126 inhibits both Polycomb-dependent and -independent functions of EZH2 in PCa cells. Importantly, we found that inhibition of EZH2 by genetic and pharmacological means sensitizes CRPC cells to CPT-induced apoptotic death and growth inhibition in culture and in mice."

According to the news editors, the research concluded: "Our data suggest that concomitant administration of small molecule inhibitors of EZH2 may significantly increase the anti-tumor efficacy of conventional chemo-and radiotherapies in CRPC."

For more information on this research see: Inhibition of EZH2 by chemo- and radiotherapy agents and small molecule inhibitors induces cell death in castration-resistant prostate cancer. Oncotarget, 2016;7(3):3440-52.
Researchers from Soonchunhyang University Provide Details of New Studies and Findings in the Area of Aneurysm (Direct Carotid Exposure for Neuroendovascular Approaches)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Aneurysm have been presented. According to news reporting originating from Bucheon, South Korea, by NewsRx correspondents, research stated, "The transfemoral approach is a common route for catheterization of the supra-aortic vessels in neuroendovascular therapy. However, in some cases, the patient's anatomy prevents transfemoral catheterization or distal access to the carotid s. In such cases, direct carotid exposure (DCE) for neuroendovascular approaches may be used to treat cerebrovascular diseases."

Our news editors obtained a quote from the research from Soonchunhyang University, "We present 11 cases in which we were unable to perform the distal approach and DCE was the preferred neuroendovascular treatment procedure. DCE was performed on 11 patients with cerebral aneurysm (n = 8), carotid cavernous fistula (CCF) (n = 1), malignant brain tumor (n = 1), and carotid angioplasty and stenting (n = 1). Ten patients were female; one was male. Ages ranged from 63 to 87 years (mean: 71.36 years). Coil embolization was performed on patients with cerebral aneurysm and CCF. The patient with a malignant brain tumor underwent polyvinyl alcohol particle embolization. The only complication was a carotid artery dissection that occurred in one patient during stenting. DCE for neuroendovascular approaches can be used as an alternative for patients with tortuous vasculature access in the femoral route."

According to the news editors, the research concluded: "In such patients, a combination of neuroendovascular treatment and surgery in a hybrid operating room with angiography is preferred."


The news editors report that additional information may be obtained by contacting
Researchers from Sorbonne University Report Recent Findings in Antiretrovirals (Influence of geographic origin, sex, and HIV transmission group on the outcome of first-line combined antiretroviral therapy in France)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antiretrovirals are presented in a new report. According to news originating from Paris, France, by NewsRx correspondents, research stated, "More data are needed on the influence of geographic origin, sex, and the HIV transmission group on biological and clinical outcomes after first-line combined antiretroviral therapy (cART) initiation. We studied antiretroviral-naive HIV-1-infected adults enrolled in the French Hospital Database on HIV cohort in France and who started cART between 2006 and 2011."

Our news journalists obtained a quote from the research from Sorbonne University, "The censoring date of the study was 31 December 2012. According to geographic origin [French natives (FRA) or sub-Saharan Africa/non-French West Indies (SSA/NFW)], sex, and HIV transmission group, we assessed 2-year Kaplan-Meier probabilities and adjusted hazard ratios (aHRs) for plasma viral load undetectability and CD4(+) cell recovery, and 5-year cumulative incidences and aHRs for negative clinical outcomes (AIDS-defining event, serious non-AIDS events, or death). Of 9746 eligible individuals, 7297 (74.9%) were FRA and 2449 (25.1%) were sub-Saharan Africa/non-French West Indies migrants. More migrants (38.1%) than nonmigrants (27.5%) started cART with a CD4(+) cell count less than 200/ml (P < 0.0001). By comparison with FRA MSM, nonhomosexual men, whatever their geographic origin, had lower aHRs for viral undetectability; all patient groups, particularly migrants, had lower aHRs for CD4(+) cell recovery than FRA MSM; aHRs for negative clinical outcome (360 new AIDS-defining events, 1376 serious non-AIDS events, 38 deaths) were also higher in nonhomosexual men, regardless of geographic origin. Preexisting AIDS status, a lower CD4(+) cell count and older age at cART initiation had the biggest impact on changes between the crude and aHRs of clinical outcomes."

According to the news editors, the research concluded: "Compared with FRA MSM, all migrants had a lower likelihood of CD4(+) cell recovery, and nonhomosexual men had a higher likelihood of negative virological and clinical outcomes."

For more information on this research see: Influence of geographic origin, sex, and HIV transmission group on the outcome of first-line combined antiretroviral therapy in France. Aids, 2016;30(14):2235-2246. Aids can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and
Researchers from Southern Medical University Describe Findings in Non-Small Cell Lung Cancer (Randomized Adjuvant Chemotherapy of EGFR-Mutated Non-Small Cell Lung Cancer Patients with or without Icotinib Consolidation Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Non-Small Cell Lung Cancer is now available. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Epidermal growth factor receptor (EGFR) mutations occur in up to 50% of Asian patients with non-small cell lung cancer (NSCLC). Treatment of advanced NSCLC patients with EGFR-tyrosine kinase inhibitor (EGFR-TKI) confers a significant survival benefit."

Our news editors obtained a quote from the research from Southern Medical University, "This study assessed the efficacy and safety of chemotherapy with or without icotinib in patients undergoing resection of stage IB to IIIA EGFR-mutated NSCLC. Patients with surgically resected stage IB (with high risk factors) to IIIA EGFR-mutated NSCLC were randomly assigned (1:1) to one of two treatment plans. One group received four cycles of platinum-based doublet chemotherapy every three weeks, and the other group received platinum-based chemotherapy supplemented with consolidation therapy of orally administered icotinib (125 mg thrice daily) two weeks after chemotherapy. The icotinib treatment continued for four to eight months, or until the occurrence of disease relapse, metastasis or unacceptable icotinib or chemotherapy toxicity. The primary endpoint was disease-free survival (DFS). 41 patients were enrolled between Feb 9, 2011 and Dec 17, 2012. 21 patients were assigned to the combined chemotherapy plus icotinib treatment group, while 20 patients received chemotherapy only. DFS at 12 months was 100% for icotinib-treated patients and 88.9% for chemotherapy-only patients (p=0.122). At 18 months DFS for icotinib-treated vs. chemotherapy-only patients was 95.2% vs. 83.3% (p=0.225), respectively, and at 24 months DFS was 90.5% vs. 66.7% (p=0.066). The adverse chemotherapy effects predominately presented as gastrointestinal reactions and marrow suppression, and there was no significant difference between the two treatment groups. Patients in the chemotherapy plus icotinib treatment group showed favorable tolerance to oral icotinib. The results suggest that chemotherapy plus orally icotinib displayed better DFS compared with chemotherapy only, yet the difference in DFS was not significant."
According to the news editors, the research concluded: "We would think the preliminary result here was promising, and further trials with larger sample sizes might confirm the efficiency of adjuvant TKI in selected patients."

For more information on this research see: Randomized Adjuvant Chemotherapy of EGFR-Mutated Non-Small Cell Lung Cancer Patients with or without Icotinib Consolidation Therapy. *Plos One*, 2015;10(10):e0140794. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news editors report that additional information may be obtained by contacting S. Feng, Dept. of Thoracic Surgery, Nanfang Hospital, Southern Medical University, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include Y. Wang, K. Cai, H. Wu, G. Xiong, H. Wang and Z. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0140794. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Genetics, Oncology, Guangdong, Lung Neoplasms, Protein Kinases, Membrane Proteins, Drugs and Therapies, Phosphotransferases, Risk and Prevention, Adjuvant Chemotherapy, Combined Modality Therapy, People's Republic of China, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer, Epidermal Growth Factor Receptor.

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**Oncology - Breast Cancer**

**Researchers from Southern Medical University Provide Details of New Studies and Findings in the Area of Breast Cancer (Doublecortin-like kinase 1 expression associates with breast cancer with neuroendocrine differentiation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting out of Shenzhen, People's Republic of China, by NewsRx editors, research stated, "Doublecortin-like kinase 1 (DCLK1), a microtubule associated kinase, has recently been proposed to be a putative marker for stemness and adverse prognosis in gastrointestinal cancers. However, it is not clear whether the protein also plays similar roles in breast cancer."

Our news journalists obtained a quote from the research from Southern Medical University, "Here, the expression of DCLK1 was analyzed in a large cohort of invasive breast cancers (IBC) by immunohistochemistry. DCLK1 was associated with favorable clinicopathologic features, namely lower histologic grade, absence of lymphovascular invasion, fibrotic focus, necrosis and lower pN stage (p (<=)0.045). Additionally, independent significant correlations were found with estrogen receptor and neuroendocrine markers (p (<=)0.019), implicating its relationship with IBC with neuroendocrine differentiation (IBC-NED). In the current cohort, IBC-NED showed worse outcome than luminal cancers without NED (hazard ratio=1.756, p=0.041). Interestingly, within the IBC-NED group, DCLK1 was found to be a good prognostic factor (hazard ratio=0.288, p=0.011). These findings were in contrast to those in gastrointestinal cancers, suggesting different functional roles of DCLK1 in different types of..."
cancers. In clinical practice, NED is not routinely assessed; thus IBC-NED are not well studied. Its poor outcome and significant heterogeneity warrants more attention.

According to the news editors, the research concluded: "DCLK1 expression could aid in the prognostication and management of this special cancer subtype."

For more information on this research see: Doublecortin-like kinase 1 expression associates with breast cancer with neuroendocrine differentiation. Oncotarget, 2016;7(2):1464-76.

Our news journalists report that additional information may be obtained by contacting Y.H. Liu, Dept. of Pathology, The Affiliated Baoan Hospital of Southern Medical University, Shenzhen, People's Republic of China. Additional authors for this research include J.Y. Tsang, Y.B. Ni, T. Hlaing, S.K. Chan, K.F. Chan, C.W. Ko, S.S. Mujtaba and G.M Tse.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6386. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Kinase, Shenzhen, Oncology, Breast Cancer, Women's Health, Gastroenterology, Enzymes and Coenzymes, People's Republic of China.

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Oncology - Pancreatic Cancer

Researchers from Southern Medical University Report Details of New Studies and Findings in the Area of Pancreatic Cancer (Twist promotes angiogenesis in pancreatic cancer by targeting miR-497/VEGFA axis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Pancreatic Cancer is the subject of a report. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Angiogenesis is a critical step in the growth and dissemination of malignant diseases, including pancreatic cancer. Twist has been shown to stimulate angiogenesis in the tumor site."

Our news journalists obtained a quote from the research from Southern Medical University, "However, whether Twist contributes to angiogenesis in pancreatic cancer remains unknown. In this paper, we found that the expression of Twist was significantly increased in human pancreatic cancer cell lines and pancreatic cancer specimens. It is also closely engaged to adverse clinical feature, diminished survival and angiogenesis in pancreatic cancer patients. The up-regulation of Twist was found to be promoting cell growth, invasion and tubule formation of human umbilical vein endothelial cells (HUVECs) in vitro. By contrast, the silencing of Twist inhibited orthotopic xenograft tumor growth, metastasis and angiogenesis. Subsequent investigations disclosed that Twist was regulated by miR-497 directly, leading to the increased level of Vascular Endothelial Growth Factor-A (VEGFA). Moreover, gain-of-function and loss-of-function studies demonstrated that miR-497 could suppress the pro-proliferative, angiogenic and metastatic ability of pancreatic cancer cells. The ectopic expression of VEGFA obviously abrogated the anti-angiogenic effect induced by Twist knockdown, whereas the silencing of VEGFA markedly rescued the pro-angiogenic effect of Twist. By analyzing the expression levels of miR-497, Twist was found inversely correlated with miR-497 in pancreatic cancer..."
tissues, and a positive correlation was found between Twist and VEGFA levels in pancreatic cancer specimens."

According to the news editors, the research concluded: "Our results suggested that the Twist/miR-497/VEGFA axis is significantly correlated with metastasis and angiogenesis in pancreatic cancer."

For more information on this research see: Twist promotes angiogenesis in pancreatic cancer by targeting miR-497/VEGFA axis. Oncotarget, 2016;7(18):25801-14.

The news correspondents report that additional information may be obtained from A. Liu, Dept. of Hepatobiliary Surgery, NanFang Hospital of Southern Medical University, Guangzhou, 510515 Guangdong, People's Republic of China. Additional authors for this research include C. Huang, X. Cai, J. Xu and D. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8269. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Oncology, Guangdong, Angiogenesis, Gastroenterology, Pancreatic Cancer, Pancreatic Neoplasms, People's Republic of China.

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Researchers from Southern Medical University Report New Studies and Findings in the Area of Liver Cancer (Hyperthermia enhances 17-DMAG efficacy in hepatocellular carcinoma cells with aggravated DNA damage and impaired G2/M transition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting from Guangdong, People’s Republic of China, by NewsRx journalists, research stated, "Due to the lack of effective treatment, hepatocellular carcinoma (HCC) is one of the malignancies with low survival rates worldwide. Combination of hyperthermia and chemotherapy has shown promising results in several abdominal tumours, but high expression of HSP90 in tumours attenuated the efficacy of hyperthermia."

The news correspondents obtained a quote from the research from Southern Medical University, "Thus a combination of hyperthermia and inhibition of HSP90 might be a feasible therapeutic strategy for HCC. One hepatic cell line (L02) and two HCC cell lines (Huh7 and HepG2) were heated at 42 degrees C for 0, 0.5 or 4 h with or without 100 nM 17-dimethylaminoethylamino17-demethoxygeldanamycin (17-DMAG). HCC cells of the combination group exhibited more G2/M arrest and higher apoptotic rates which might result from suffering from more reactive oxygen species and serious DNA damage. Heat shock/17-DMAG co-treatment of HCC cells also destabilized CDK1, Cyclin B1 and CDC25C with a concomitant decreased proportion of cells in the M phase. Furthermore, co-treatment impaired the interaction of HSP90 alpha with CDC37 and with CDK1, accompanied with decreased soluble CDK1. Combination of 17-DMAG with a 1.5-h whole body hyperthermia treatment attenuated tumour growth in xenograft mice models."

According to the news reporters, the research concluded: "These results suggest hyperthermia sensitize HCC to 17-DMAG, and combination of hyperthermia with 17-DMAG
might be a potential therapeutic strategy for HCC."

For more information on this research see: Hyperthermia enhances 17-DMAG efficacy in hepatocellular carcinoma cells with aggravated DNA damage and impaired G2/M transition. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting F. Zou, Southern Med Univ, Sch Public Hlth, Dept. of Occupat Hlth & Med, Guangzhou 510515, Guangdong, People's Republic of China. Additional authors for this research include X.Q. Zhou, Y.F. He, X.Y. Ke, Y. Wen, F. Zou and X.M. Chen.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Deoxyribonucleic Acid, DNA Research, Liver Cancer, Proteomics, DNA Damage, Carcinomas, Oncology, Genetics, Southern Medical University.

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**Fluids Research**

**Researchers from Southwest Jiaotong University Provide Details of New Studies and Findings in the Area of Fluids Research (Geometry design of herringbone structures for cancer cell capture in a microfluidic device)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Fluids Research. According to news reporting out of Chengdu, People's Republic of China, by NewsRx editors, research stated, "Cancer cell detection with high capture efficiency is important for its extensive clinical applications. Herringbone structures in microfluidic devices have been widely adopted to increase the cell capture performance due to its chaotic effect."

Our news journalists obtained a quote from the research from Southwest Jiaotong University, "Given the fact of laminar flow in microfluidic devices, geometry-based optimization acting as a design strategy is effective and can help researchers reduce repetitive trial experiments. In this work, we presented a computational model to track the cell motion and used normalized capture efficiency to evaluate the tumor cell capture performance under various geometry settings. Cell adhesion probability was implemented in the model to consider the nature of ligand-receptor formation and breakage during cell-surface interactions. A facile approach was introduced to determine the two lumped coefficients of cell adhesion probability through two microfluidic experiments. A comprehensive geometric study was then performed by using this model, and results were explained from the fluid dynamics. Although most of the geometric guides agree with the general criterion concluded in the literature, we found herringbone structures with symmetric arms rather than a short arm-long arm ratio of 1/3 are optimal. This difference mainly comes from the fact that our model considers the particulate nature of cells while most studies in the literature optimize the geometry merely relying on mixing effects."

According to the news editors, the research concluded: "Thus, our computational model implemented with cell adhesion probability can serve as a more accurate and reliable approach to optimize microfluidic devices for cancer cell capture."
For more information on this research see: Geometry design of herringbone structures for cancer cell capture in a microfluidic device. *Microfluidics and Nanofluidics*, 2016;20(11):16-26. *Microfluidics and Nanofluidics* can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Microfluidics and Nanofluidics - www.springerlink.com/content/1613-4982/)

Our news journalists report that additional information may be obtained by contacting J. Yang, Southwest Jiaotong Univ, Sch Mech & Engn, Chengdu 610031, People's Republic of China. Additional authors for this research include S. Sohrabi, J. Xu, J. Yang and Y.L. Liu.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Fluids Research, Oncology, Cancer, Southwest Jiaotong University.

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**Drugs and Therapies - Controlled Release Research**

**Researchers from Southwest Jiaotong University Report New Studies and Findings in the Area of Controlled Release Research (Shape effects of electrospun fiber rods on the tissue distribution and antitumor efficacy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Controlled Release Research. According to news originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "The significant impact of drug-loaded nanocarriers on cancer chemotherapy lies in the ability to specifically target to tumors with alleviated systemic toxicities. In the current study, a versatile and scalable method has been developed to construct fiber rods from electrospun fibers by ultrasonication using encapsulated NaCl nanoparticles as void-precursors."

Financial supporters for this research include National Natural Science Foundation of China, Specialized Research Fund, Fundamental Research Funds.

Our news journalists obtained a quote from the research from Southwest Jiaotong University, "The shape effects of doxorubicin (DOX)-loaded fiber rods with an average diameter of around 500 nm and different lengths are determined on the blood circulation, tumor accumulation and cellular uptake. Compared with microspheres, fiber rods indicate an up to 4-fold higher accumulation in tumors and an up to 3-fold longer terminal half-life of plasma DOX levels after intravenous injection. Fiber rods with shorter lengths show a significantly higher in vitro cytotoxicity to tumor cells, a higher DOX accumulation and cell necrosis in tumors, and a significantly lower metastasis in lungs. Among fiber rods with different lengths, fiber rods with an average length of 2 μm induce significantly higher inhibition on tumor cell proliferation and induction of cell apoptosis, as well as no detectable metastatic nodules in lung sections."

According to the news editors, the research concluded: "Therefore, the shape effects of electrospun fiber rods hold great potential for enhancing systemic circulation and directing biodistribution to improve therapeutic outcomes."

For more information on this research see: Shape effects of electrospun fiber rods on the tissue distribution and antitumor efficacy. *Journal of Controlled Release*, 2016;244():52-62. *Journal of Controlled Release* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae
Researchers from Spanish National Research Council (CSIC) Detail New Studies and Findings in the Area of Retinal and Eye Research (Autophagy in the eye: Development, degeneration, and aging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Health and Medicine - Retinal and Eye Research are discussed in a new report. According to news reporting out of Madrid, Spain, by NewsRx editors, research stated, "Autophagy is a catabolic pathway that promotes the degradation and recycling of cellular components. Proteins, lipids, and even whole organelles are engulfed in autophagosomes and delivered to the lysosome for elimination."

Financial support for this research came from CSIC.

Our news journalists obtained a quote from the research from Spanish National Research Council (CSIC), "In response to stress, autophagy mediates the degradation of cell components, which are recycled to generate the nutrients and building blocks required to sustain cellular homeostasis. Moreover, it plays an important role in cellular quality control, particularly in neurons, in which the total burden of altered proteins and damaged organelles cannot be reduced by redistribution to daughter cells through cell division. Research has only begun to examine the role of autophagy in the visual system. The retina, a light-sensitive tissue, detects and transmits electrical impulses through the optic nerve to the visual cortex in the brain. Both the retina and the eye are exposed to a variety of environmental insults and stressors, including genetic mutations and age-associated alterations that impair their function. 3-lere, we review the main studies that have sought to explain autophagy's importance in visual function. We describe the role of autophagy in retinal development and cell differentiation, and discuss the implications of autophagy dysregulation both in physiological aging and in important diseases such as age associated macular degeneration and glaucoma. We also address the putative role of autophagy in promoting photoreceptor survival and discuss how selective autophagy could provide alternative means of protecting retinal cells."

According to the news editors, the research concluded: "The findings reviewed here underscore the important role of autophagy in maintaining proper retinal function and highlight novel therapeutic approaches for blindness and other diseases of the eye."

For more information on this research see: Autophagy in the eye: Development,

Our news journalists report that additional information may be obtained by contacting P. Boya, CSIC, Center Invest Biol, Dept. of Cellular & Mol Biol, Autophagy Lab, Madrid 28040, Spain. Additional authors for this research include L. Esteban-Martinez, A. Serrano-Puebla, R. Gomez-Sintes and B. Villarejo-Zori.

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Keywords for this news article include: Madrid, Spain, Europe, Retinal and Eye Research, Health and Medicine, Genetics, Spanish National Research Council (CSIC).

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**Drugs and Therapies - Pharmacology**

**Researchers from St. George's University of London Provide Details of New Studies and Findings in the Area of Pharmacology (The calcilytics Calhex-231 and NPS 2143 and the calcimimetic Calindol reduce vascular reactivity via inhibition of ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmacology. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "The present study investigates the effect of commonly used negative and positive allosteric modulators of the calcium-sensing receptor (CaSR) on vascular reactivity. In wire myography studies, increasing [Ca2+](o) from 1 mM to 6 mM induced concentration-dependent relaxations of methoxamine-induced pre-contracted rabbit mesenteric arteries, with 6 mM [Ca2+](o) producing almost complete relaxation."

Funders for this research include British Heart Foundation, UK, Biotechnology and Biological Sciences Research Council.

The news correspondents obtained a quote from the research from the St. George's University of London, "[Ca2+](o)-induced relaxations were attenuated in the presence of the calcilytics Calhex-231 and NPS 2143, and abolished by the removal of the endothelium. In addition to their calcilytic effects, Calhex-231 and NPS 2143 also produced concentration-dependent inhibitions of methoxamine-or KCl-induced precontracted tone, which were unaffected by removal of the endothelium and unopposed in the presence of the calcimimetic Calindol. In vessels with depleted Ca2+ stores, contractions mediated by Ca2+ influx via voltage-gated Ca2+ channels (VGCCs) were inhibited by Calhex231. In freshly isolated single rabbit mesenteric artery smooth muscle cells, Calhex-231 and NPS 2143 inhibited whole-cell VGCC currents. Application of Calindol also inhibited methoxamine-and KCl-induced precontracted tone, and inhibited whole-cell VGCC currents."

According to the news reporters, the research concluded: "In addition to their CaSR-mediated actions in the vasculature, Calhex-231, NPS 2143 and Calindol reduce vascular
contractility via direct inhibition of VGCCs."

For more information on this research see: The calcilytics Calhex-231 and NPS 2143 and the calcimimetic Calindol reduce vascular reactivity via inhibition of voltage-gated Ca2+ channels. European Journal of Pharmacology, 2016;791():659-668. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting H.Z.E. Greenberg, St. George's University London, Vasc Biol Res Center, Inst Cardiovascu Lar & Cell Sci, London SW17 0RE, United Kingdom. Additional authors for this research include K.S. Jahan, J. Shi, W.S.V. Ho and A.P. Albert.

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Keywords for this news article include: London, United Kingdom, Europe, Pharmacology, Drugs and Therapies, St. George's University of London.

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Peptides and Proteins

Researchers from St. James University Report Findings in Peptides and Proteins (Immunogenicity of self tumor associated proteins is enhanced through protein truncation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Peptides and Proteins have been presented. According to news reporting out of Leeds, United Kingdom, by NewsRx editors, research stated, "We showed previously that therapy with Vesicular Stomatitis Virus (VSV) expressing tumor-associated proteins eradicates established tumors. We show here that when cellular cDNA were cloned into VSV which retained their own poly-A signal, viral species emerged in culture which had deleted the cellular poly- A signal and also contained a truncated form of the protein coding sequence."

Our news journalists obtained a quote from the research from St. James University, "Typically, the truncation occurred such that a Tyrosine-encoding codon was converted into a STOP codon. We believe that the truncation of tumor-associated proteins expressed from VSV in this way occurred to preserve the ability of the virus to replicate efficiently. Truncated cDNA expressed from VSV were significantly more effective than full length cDNA in treating established tumors. Moreover, tumor therapy with truncated cDNA was completely abolished by depletion of CD4+ T cells, whereas therapy with full length cDNA was CD8+ T cell dependent. These data show that the type/potency of antitumor immune responses against self-tumor-associated proteins can be manipulated in vivo through the nature of the self protein (full length or truncated)."

According to the news editors, the research concluded: "Therefore, in addition to generation of neoantigens through sequence mutation, immunological tolerance against self-tumor-associated proteins can be broken through manipulation of protein integrity, allowing for rational design of better self-immunogens for cancer immunotherapy."

For more information on this research see: Immunogenicity of self tumor associated proteins is enhanced through protein truncation.
proteins is enhanced through protein truncation. *Molecular Therapy-Oncolytics*, 2016;3():1-8. *Molecular Therapy-Oncolytics* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.


Keywords for this news article include: Leeds, United Kingdom, Europe, Peptides and Proteins, Amino Acids, Proteins, Peptides, Genetics, Therapy, St. James University.

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**Heart Disorders and Diseases – Atrial Fibrillation**

**Researchers from St. Louis University Detail Findings in Atrial Fibrillation (A randomized, prospective pilot comparison of 3 atrial appendage elimination techniques: Internal ligation, stapled excision, and surgical excision)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting from St. Louis, Missouri, by NewsRx journalists, research stated, "Elimination of the left atrial appendage (LAA) attempts to reduce stroke in patients with atrial fibrillation (AF). A retrospective review suggests that various surgical techniques are often unsuccessful and may leave a stump or gap."

The news correspondents obtained a quote from the research from St. Louis University, "In a pilot study, we prospectively evaluated 3 surgical techniques with long-term follow up to define effectiveness. At a single institution, 28 patients undergoing concomitant AF surgery were randomized prospectively into 1 of 3 techniques of LAA elimination: internal suture ligation (IL), external stapled excision (StEx), and surgical excision (SxEx). The success of LAA elimination was assessed by transesophageal echocardiography (TEE) in all patients at the time of surgery. Failure of LAA closure consisted of either a stump (residual appendage tissue > 1 cm in maximum length) or a gap (persistent flow between the left atrium [LA] and the LAA). Failure was treated intraoperatively when recognized. Late follow-up was obtained using a TEE at a mean of 0.4 years in 21/28 (75%) of patients. Early failure was recognized and treated in 1 patient in the IL group (13%), 6 patients in the StEx group (60%), and 2 patients in the SxEx group (20%) (P = .06). On follow-up TEE, 4 of 7 patients in the IL group (57%) had developed gaps, 3 of whom (43%) with greater than mild flow. No patients in the StEx or SxEx groups had a gap (P = .03). In late follow-up, 1 of 7 patients in the IL group (14%) had a stump, compared with 2 of 8 (25%) in the StEx group and 3 of 6 (50%) in the SxEx group (P = .35). The overall failure rate was 57%: 5 of 8 (63%) in the IL group, 6 of 10 (60%) in the StEx group, and 5 of 10 (50%) in the SxEx group (P = .85). No patient had a stroke at any time during follow-up. LAA elimination is often incomplete and goes undetected. If the LAA is eliminated at the time of surgery, then TEE should be used intraoperatively to assess effectiveness and reintervention performed if warranted."

According to the news reporters, the research concluded: "Late assessment for
completeness of closure should be considered before cessation of anticoagulation until more effective LAA techniques can be developed."


Our news journalists report that additional information may be obtained by contacting R. Lee, St. Louis University, Center Comprehens Cardiovasc Care, St Louis, MO 63110, United States. Additional authors for this research include P. Vassallo, J. Kruse, S.C. Malaisrie, V. Rigolin, A.C. Andrei and P. McCarthy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtcvs.2016.06.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Operative Surgical Procedures, Heart Disorders and Diseases, Atrial Fibrillation, Ligation, Surgery, St. Louis University.

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**Oncology - Gastric Cancer**

**Researchers from Stanford University Describe Findings in Gastric Cancer (Genetic predisposition to gastric cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Gastric Cancer are presented in a new report. According to news reporting out of Stanford, California, by NewsRx editors, research stated, "Gastric cancer ranks as the third leading cause of cancer mortality worldwide and confers a 5-year survival of 20%. While most gastric cancers are sporadic, similar to 1%-3% can be attributed to inherited cancer predisposition syndromes."

Our news journalists obtained a quote from the research from Stanford University, "Germline E-cadherin/CDH1 mutations have been identified in families with an autosomal dominant inherited predisposition to diffuse gastric cancer. The cumulative risk of gastric cancer for CDH1 mutation carriers by age 80 years is reportedly 70% for men and 56% for women. Female mutation carriers also have an estimated 42% risk for developing lobular breast cancer by age 80 years. However, most individuals meeting clinical criteria for hereditary diffuse gastric cancer syndrome (HDGC) do not have a germline CDH1 mutation, and germline CDH1 mutation carriers do not all exhibit similar clinical outcomes in terms of age of diagnosis or cancer types. E-cadherin (CDH1) as the one known causative gene for HDGC accounts for only 40% of cases, leaving 60% with an unknown genetic diagnosis."

According to the news editors, the research concluded: "In addition to HDGC, we will review other genetic syndromes with elevated gastric cancer risk, as well as newly implicated alterations in other genes (CTNNA1, DOT1L, FBX024, PRSS1, MAP3K6, MSR1, and INSR) that may affect gastric cancer susceptibility and age-specific penetrance."
Researchers from Stanford University Detail New Studies and Findings in the Area of Ebola Virus (Diagnosis of Ebola Virus Disease: Past, Present, and Future)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Ebola Virus. According to news reporting originating from Palo Alto, California, by NewsRx correspondents, research stated, "Laboratory diagnosis of Ebola virus disease plays a critical role in outbreak response efforts; however, establishing safe and expeditious testing strategies for this high-biosafety-level pathogen in resource-poor environments remains extremely challenging. Since the discovery of Ebola virus in 1976 via traditional viral culture techniques and electron microscopy, diagnostic methodologies have trended toward faster, more accurate molecular assays."

Our news editors obtained a quote from the research from Stanford University, "Importantly, technological advances have been paired with increasing efforts to support decentralized diagnostic testing capacity that can be deployed at or near the point of patient care. The unprecedented scope of the 2014-2015 West Africa Ebola epidemic spurred tremendous innovation in this arena, and a variety of new diagnostic platforms that have the potential both to immediately improve ongoing surveillance efforts in West Africa and to transform future outbreak responses have reached the field. In this review, we describe the evolution of Ebola virus disease diagnostic testing and efforts to deploy field diagnostic laboratories in prior outbreaks."

According to the news editors, the research concluded: "We then explore the diagnostic challenges pervading the 2014-2015 epidemic and provide a comprehensive examination of novel diagnostic tests that are likely to address some of these challenges moving forward."

For more information on this research see: Diagnosis of Ebola Virus Disease: Past, Present, and Future. *Clinical Microbiology Reviews*, 2016;29(4):773-793. *Clinical Microbiology Reviews* can be contacted at: Amer Soc Microbiology, 1752 N St NW,
Researchers from Stanford University Discuss Findings in Biologics (Emerging Strategies for Developing Next-Generation Protein Therapeutics for Cancer Treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biotechnology - Biologics is the subject of a report. According to news originating from Stanford, California, by NewsRx correspondents, research stated, "Protein-based therapeutics have been revolutionizing the oncology space since they first appeared in the clinic two decades ago."

Our news journalists obtained a quote from the research from Stanford University, "Unlike traditional small molecule chemotherapeutics, protein biologics promote active targeting of cancer cells by binding to cell-surface receptors and other markers specifically associated with or overexpressed on tumors versus healthy tissue. While the first approved cancer biologics were monoclonal antibodies, the burgeoning field of protein engineering is spawning research on an expanded range of protein formats and modifications that allow tuning of properties such as target binding affinity, serum half-life, stability, and immunogenicity."

According to the news editors, the research concluded: "In this review we highlight some of these strategies and provide examples of modified and engineered proteins under development as preclinical and clinical-stage drug candidates for the treatment of cancer."


The news correspondents report that additional information may be obtained from J.R. Cochrane, Stanford University, Dept. of Chem Engn, Stanford, CA 94305, United States. Additional authors for this research include M.V.F. Interrante and J.R. Cochrane.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tips.2016.10.005. This DOI is a link to an online electronic document.
Researchers from Stanford University Discuss Findings in Drug Delivery Systems (Engineered knottin peptides as diagnostics, therapeutics, and drug delivery vehicles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Drug Delivery Systems have been presented. According to news reporting out of Stanford, California, by NewsRx editors, research stated, "Inhibitor cystine-knots, also known as knottins, are a structural family of ultra-stable peptides with diverse functions. Knottins and related backbone-cyclized peptides called cyclotides contain three disulfide bonds connected in a particular arrangement that endows these peptides with high thermal, proteolytic, and chemical stability."

Financial support for this research came from NSF Graduate Research Fellowship.

Our news journalists obtained a quote from the research from Stanford University, "Knottins have gained interest as candidates for non-invasive molecular imaging and for drug development as they can possess the pharmacological properties of small molecules and the target affinity and selectively of protein biologics. Naturally occurring knottins are clinically approved for treating chronic pain and GI disorders. Combinatorial methods are being used to engineer knottins that can bind to other clinically relevant targets in cancer, and inflammatory and cardiac disease."

According to the news editors, the research concluded: "This review details recent examples of engineered knottin peptides; their use as molecular imaging agents, therapeutics, and drug delivery vehicles; modifications that can be introduced to improve peptide folding and bioactivity; and future perspectives and challenges in the field."


Our news journalists report that additional information may be obtained by contacting J.R. Cochran, Stanford University, Dept. of Chem Engn, Stanford, CA 94305, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cbpa.2016.08.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stanford, California, United States, North and Central America, Engineering, Article Review, Drug Delivery Systems, Emerging Technologies, Drugs and Therapies, Molecular Imaging, Nanotechnology, Amino Acids,
Researchers from Stanford University Discuss Findings in Lymphoid Leukemia (E2A-PBX1 Remodels Oncogenic Signaling Networks in B-cell Precursor Acute Lymphoid Leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Lymphoid Leukemia are presented in a new report. According to news reporting originating from Stanford, California, by NewsRx correspondents, research stated, "There is limited understanding of how signaling pathways are altered by oncogenic fusion transcription factors that drive leukemogenesis. To address this, we interrogated activated signaling pathways in a comparative analysis of mouse and human leukemias expressing the fusion protein E2A-PBX1, which is present in 5%-7% of pediatric and 50% of pre-B-cell receptor (preBCR(+)) acute lymphocytic leukemia (ALL)."

Our news editors obtained a quote from the research from Stanford University, "In this study, we describe remodeling of signaling networks by E2APBX1 in pre-B-ALL, which results in hyperactivation of the key oncogenic effector enzyme PLC gamma 2. Depletion of PLC gamma 2 reduced proliferation of mouse and human ALLs, including E2A-PBX1 leukemias, and increased disease-free survival after secondary transplantation. Mechanistically, E2A-PBX1 bound promoter regulatory regions and activated the transcription of its key target genes ZAP70, SYK, and LCK, which encode kinases upstream of PLC gamma 2. Depletion of the respective upstream kinases decreased cell proliferation and phosphorylated levels of PLC gamma 2 (pPLC gamma 2). Pairwise silencing of ZAP70, SYK, or LCK showed additive effects on cell growth inhibition, providing a rationale for combination therapy with inhibitors of these kinases. Accordingly, inhibitors such as the SRC family kinase (SFK) inhibitor dasatinib reduced pPLC gamma 2 and inhibited proliferation of human and mouse preBCR(+)/E2A-PBX1 (+) leukemias in vitro and in vivo. Furthermore, combining small-molecule inhibition of SYK, LCK, and SFK showed synergistic interactions and preclinical efficacy in the same setting."

According to the news editors, the research concluded: "Our results show how the oncogenic fusion protein E2A-PBX1 perturbs signaling pathways upstream of PLC gamma 2 and renders leukemias amenable to targeted therapeutic inhibition."

For more information on this research see: E2A-PBX1 Remodels Oncogenic Signaling Networks in B-cell Precursor Acute Lymphoid Leukemia. Cancer Research, 2016;76 (23):6937-6949. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

The news editors report that additional information may be obtained by contacting M.L. Cleary, Stanford University, Sch Med, Dept. of Pathol, Stanford, CA 94305, United States. Additional authors for this research include C.H. Lin, K.H. Han, M.C. Wei, J. Feng, J.H. Kurzer, C. Schneidawind, S.H.K. Wong, M.C. Bassik and M.L. Cleary.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/0008-5472.CAN-16-1899. This DOI is a link to an online electronic document that is either free or for purchase.
Machado-Joseph Disease

Researchers from State University of Campinas Provide Details of New Studies and Findings in the Area of Machado-Joseph Disease (Lithium carbonate and coenzyme Q10 reduce cell death in a cell model of Machado-Joseph disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Machado-Joseph disease is now available. According to news originating from Campinas, Brazil, by NewsRx correspondents, research stated, "Machado-Joseph disease (MJD) or spinocerebellar ataxia type 3 (SCA3) is an autosomal dominant neurodegenerative disorder caused by expansion of the polyglutamine domain of the ataxin-3 (ATX3) protein. MJD/SCA3 is the most frequent autosomal dominant ataxia in many countries."

Our news journalists obtained a quote from the research from the State University of Campinas, "The mechanism underlying MJD/SCA3 is thought to be mainly related to protein misfolding and aggregation leading to neuronal dysfunction followed by cell death. Currently, there are no effective treatments for patients with MJD/SCA3. Here, we report on the potential use of lithium carbonate and coenzyme Q10 to reduce cell death caused by the expanded ATX3 in cell culture. Cell viability and apoptosis were evaluated by MTT assay and by flow cytometry after staining with annexin V-FITC/propidium iodide. Treatment with lithium carbonate and coenzyme Q10 led to a significant increase in viability of cells expressing expanded ATX3 (Q84). In addition, we found that the increase in cell viability resulted from a significant reduction in the proportion of apoptotic cells. Furthermore, there was a significant change in the expanded ATX3 monomeraggregate ratio after lithium carbonate and coenzyme Q10 treatment, with an increase in the monomer fraction and decrease in aggregates."

According to the news editors, the research concluded: "The safety and tolerance of both drugs are well established; thus, our results indicate that lithium carbonate and coenzyme Q10 are good candidates for further in vivo therapeutic trials."

For more information on this research see: Lithium carbonate and coenzyme Q10 reduce cell death in a cell model of Machado-Joseph disease. Brazilian Journal of Medical and Biological Research, 2016;49(12):19-25. Brazilian Journal of Medical and Biological Research can be contacted at: Assoc Bras Divulg Cientifica, Faculdade Medicina, Sala 21, 14049 Ribeirao Preto, Sao Paulo, 00, Brazil.

The news correspondents report that additional information may be obtained from I. Lopes-Cendes, Campinas State University, Fac Ciencias Med, Dept. of Med Genet, Campinas, SP, Brazil. Additional authors for this research include T.C. Pereira, D.B. Dogini, R. Gilioli and I. Lopes-Cendes.

Keywords for this news article include: Campinas, Brazil, South America, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Spinal Cord Diseases and Conditions, Cerebellar Diseases and Conditions, Spinocerebellar

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Gram-Positive Bacteria - Streptococcus

Researchers from State University of Campinas Report Recent Findings in Streptococcus (CovR Regulates Streptococcus mutans Susceptibility To Complement Immunity and Survival in Blood)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - Streptococcus. According to news reporting originating in Piracicaba, Brazil, by NewsRx journalists, research stated, "Streptococcus mutans, a major pathogen of dental caries, may promote systemic infections after accessing the bloodstream from oral niches. In this study, we investigate pathways of complement immunity against S. mutans and show that the orphan regulator CovR (CovR(Sm)) modulates susceptibility to complement opsonization and survival in blood. S. mutans blood isolates showed reduced susceptibility to C3b deposition compared to oral isolates."

Funders for this research include Japan Society for the Promotion of Science (JSPS), Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior (CAPES), Fundacao de Amparo a Pesquisa do Estado de Sao Paulo (FAPESP).

The news reporters obtained a quote from the research from the State University of Campinas, "Reduced expression of covRSm in blood strains was associated with increased transcription of CovR(Sm)-repressed genes required for S. mutans interactions with glucans (gbpC, gbpB, and epsC), sucrose-derived exopolysaccharides (EPS). Consistently, blood strains showed an increased capacity to bind glucan in vitro. Deletion of covR(Sm) in strain UA159 (UA cov) impaired C3b deposition and binding to serum IgG and C-reactive protein (CRP) as well as phagocytosis through C3b/iC3b receptors and killing by neutrophils. Opposite effects were observed in mutants of gbpC, epsC, or gtfBCD (required for glucan synthesis). C3b deposition on UA159 was abolished in C1q-depleted serum, implying that the classical pathway is essential for complement activation on S. mutans. Growth in sucrose-containing medium impaired the binding of C3b and IgG to UA159, UA cov, and blood isolates but had absent or reduced effects on C3b deposition in gtfBCD, gbpC, and epsC mutants. UA cov further showed increased ex vivo survival in human blood in an EPS-dependent way. Consistently, reduced survival was observed for the gbpC and epsC mutants. Finally, UA cov showed an increased ability to cause bacteremia in a rat model."

According to the news reporters, the research concluded: "These results reveal that CovRSm modulates systemic virulence by regulating functions affecting S. mutans susceptibility to complement opsonization."

For more information on this research see: CovR Regulates Streptococcus mutans Susceptibility To Complement Immunity and Survival in Blood. Infection and Immunity, 2016;84(11):3206-3219. Infection and Immunity can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology -
Researchers from State University of New York Provide Details of New Studies and Findings in the Area of Breast Cancer (Clinical outcomes in patients with brain metastases from breast cancer treated with single-session radiosurgery or whole ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting from Buffalo, New York, by NewsRx journalists, research stated, "Gamma Knife radiosurgery (GKRS) is used to treat brain metastases from breast cancer (BMB) as the sole treatment or in conjunction with tumor resection and/or whole brain radiotherapy (WBRT). This study evaluates outcomes in BMB based on treatment techniques and tumor biological features."

The news correspondents obtained a quote from the research from the State University of New York, "The authors reviewed all patients treated with BMB between 2004 and 2014. Patients were identified from a prospectively collected radiosurgery database and institutional tumor registry; 214 patients were identified. Data were collected from aforementioned sources and supplemented with chart review where needed. Independent radiological review was performed for all available brain imaging in those treated with GKRS. Survival analyses are reported using Kaplan-Meier estimates. During the 10-year study period, 214 patients with BMB were treated; 23% underwent GKRS alone, 46% underwent a combination of GKRS and WBRT, and 31% underwent WBRT alone. Median survival after diagnosis of BMB in those treated with GKRS alone was 21 months, and in those who received WBRT alone it was 3 months. In those treated with GKRS plus WBRT, no significant difference in median survival was observed between those receiving WBRT upfront or in a salvage setting following GKRS (19 months vs 14 months, p = 0.63). The median survival of patients with total metastatic tumor volume of <= 7 cm³ versus > 7 cm³ was 20 months vs 7 months (p < 0.001). Human epidermal growth factor receptor-2 (Her-2) positively impacted survival after diagnosis of BMB (19 months vs 12 months, p = 0.03). Estrogen receptor status did not influence survival after diagnosis of BMB. No difference was observed in survival after diagnosis of BMB based on receptor status in those who received WBRT alone. In this single-institution series of BMB, the addition of WBRT to GKRS did not significantly influence..."
survival, nor did the number of lesions treated with GKRS."

According to the news reporters, the research concluded: "Survival after the diagnosis of BMB was most strongly affected by Her-2 positivity and total metastatic tumor volume."

For more information on this research see: Clinical outcomes in patients with brain metastases from breast cancer treated with single-session radiosurgery or whole brain radiotherapy. *Journal of Neurosurgery*, 2016;125():26-30. *Journal of Neurosurgery* can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

Our news journalists report that additional information may be obtained by contacting D. Prasad, SUNY Buffalo, Jacobs Sch Med, Dept. of Neurosurg, Buffalo, NY, United States. Additional authors for this research include R. Elmarzouky, T. O'Connor, R. Plunkett and D. Prasad.

Keywords for this news article include: Buffalo, New York, United States, North and Central America, Women's Health, Breast Cancer, Radiotherapy, Oncology, Therapy, State University of New York.

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**Drugs and Therapies - Ophthalmic Antiinfectives**

**Researchers from Stevens Institute of Technology Describe Findings in Ophthalmic Antiinfectives (Extreme Activity of Drug Nanocrystals Coated with A Layer of Non-Covalent Polymers from Self-Assembled Boric Acid)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Ophthalmic Antiinfectives is now available. According to news reporting from Hoboken, New Jersey, by NewsRx journalists, research stated, "Non-covalent polymers have remarkable advantages over synthetic polymers for wide biomedical applications. In this study, non-covalent polymers from self-assembled boric acid were used as the capping reagent to replace synthetic polymers in drug crystallization."

The news correspondents obtained a quote from the research from the Stevens Institute of Technology, "Under acidic pH, boric acid selfassembled on the surface of drug nanocrystals to form polymers with network-like structures held together by hydrogen bonds. Coating driven by boric acid self-assembly had negligible effects on drug crystallinity and structure but resulted in drug nanocrystals with excellent dispersion properties that aided in the formation of a more stable suspension. Boric acid coating improved drug stability dramatically by preventing drug molecules from undergoing water hydrolysis in a neutral environment. More importantly, the specific reactivity of orthoboric groups to diols in cell glycocalyx facilitated a rapid cross-membrane translocation of drug nanocrystals, leading to efficient intracellular drug delivery, especially on cancer cells with highly expressed sialic acids. Boric acid coated nanocrystals of camptothecin, an anticancer drug with poor aqueous solubility and stability, demonstrated extreme cytotoxic activity (IC50 < 5.0 μg/mL) to cancer cells compared to synthetic polymer coated CPT nanocrystals and free CPT."

According to the news reporters, the research concluded: "Surface coating using non-
covalent polymers from self-assembled boric acid will have wide biomedical applications especially in biomaterials and drug delivery field."


Keywords for this news article include: Hoboken, New Jersey, United States, North and Central America, Genetics, Risk and Prevention, Ophthalmic Antiinfectives, Ophthalmic Compounds, Nanotechnology, Boric Acids, Nanocrystal, Stevens Institute of Technology.

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**Aortic Valve Replacement**

**Researchers from Strasbourg University Hospital Report Findings in Aortic Valve Replacement (Impact of Prosthesis-Patient Mismatch on Long-term Functional Capacity After Mechanical Aortic Valve Replacement)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Aortic Valve Replacement have been published. According to news reporting originating from Strasbourg, France, by NewsRx correspondents, research stated, "The impact of prosthesis-patient mismatch (PPM) after aortic valve replacement (AVR) for aortic stenosis on exercise capacity remains controversial. The aim of this study was to analyze the long-term impact of PPM after mechanical AVR on maximal oxygen uptake (VO2max)."

Our news editors obtained a quote from the research from Strasbourg University Hospital, "The study included 75 patients who had undergone isolated mechanical AVR for aortic stenosis with normal left ventricular (LV) function between 1994 and 2012. Their functional capacity was evaluated on average 4.6 years after AVR by exercise testing, including measurement of their VO2max, and by determining their New York Heart Association functional class and Short Form-36 score. Two groups were defined by measuring the patients' indexed effective orifice area (iEOA) by transthoracic echocardiography: a PPM group (iEOA < 0.85 cm(2)/m(2)) and a no-PPM group (iEOA >= 0.85 cm(2)/m(2)). PPM was present in 37.0% of the patients. The percentage of the predicted VO2max achieved was significantly lower in the PPM group (86.7 +/- 19.5% vs 97.5 +/- 23.0% in the no-PPM group; P = 0.04). Compared with the no-PPM group, the PPM group contained fewer patients in New York Heart Association functional class I and their mean Short Form-36 physical component summary score was significantly lower. The mean transvalvular gradient was significantly higher in the PPM group than in the no-PPM group (P < 0.001). Systolic and diastolic function and LV mass had normalized in both groups."

According to the news editors, the research concluded: "PPM is associated in the
long term with moderate but significant impairment of functional capacity, despite optimal LV reverse remodelling and normalization of LV systolic and diastolic function."


The news editors report that additional information may be obtained by contacting H. Kremer, Strasbourg Univ Hosp, Dept. of Cardiac Surg, Strasbourg, France. Additional authors for this research include E. Epailly, M. Velten, J. Radojevic, B. Eisenmann, H. Kremer and M. Kindo.

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Keywords for this news article include: Strasbourg, France, Europe, Aortic Valve Replacement, Medical Devices, Prosthetics, Angiology, Stenosis, Surgery, Strasbourg University Hospital.

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Oncology - Tongue Cancer

Researchers from Sun Yat Sen University Report Recent Findings in Tongue Cancer (Dysphagia in Tongue Cancer Patients Before and After Surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Tongue Cancer are presented in a new report. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "To define factors influencing postoperative aspiration in tongue cancer patients and to analyze the characteristics of dysphagia before and after surgery. A total of 112 tongue cancer patients participated in this work."

The news reporters obtained a quote from the research from Sun Yat Sen University, "Videofluoroscopic swallowing studies were performed in all patients before and after surgery. A Penetration-Aspiration Scale score of 3 or greater was defined as an aspiration risk. Qualitative data were collected on a frame-by-frame basis from each videofluoroscopic swallowing study and analyzed. Smoking (58.14%, P< .01), tongue resection greater than 50% (38.71%, P< .05), and advanced tumor stage (49.18%, P< .01) were strong risk factors for aspiration. High incidences of inadequate tongue movement, delayed oral transit time, reduced hyoid bone elevation, poor aspiration or penetration, vallecula epiglottica, and residual material in the pyriform sinuses were evident after surgery (all P< .001). The Penetration-Aspiration Scale score was significantly higher after surgery than before surgery. The incidence of silent aspiration increased to 6.25% postoperatively. Smoking, larger tongue resection, and advanced tumor stage were strong risk factors for postoperative aspiration and dysphagia complications in tongue cancer patients. The aspiration rate was higher after surgery."

According to the news reporters, the research concluded: "Further studies should
focus on the prevention and early treatment of dysphagia, especially postoperative aspiration, in tongue cancer patients."


Our news correspondents report that additional information may be obtained by contacting W.L. Chen, Sun Yat Sen UniversitySun Yat Sen Mem Hosp, Dept. of Stomatol, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include W.L. Chen, Z.Q. Huang and Z.H. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.joms.2016.03.031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Digestive System Diseases and Conditions, Deglutition Disorders, Risk and Prevention, Gastroenterology, Tongue Cancer, Dysphagia, Oncology, Surgery, Sun Yat Sen University.

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**Oncology - Neuroblastomas**

**Researchers from Sun Yat Sen University Report on Findings in Neuroblastomas (Low dose of arsenic trioxide inhibits multidrug resistant-related P-glycoprotein expression in human neuroblastoma cell line)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Neuroblastomas. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "This study investigated arsenic trioxide (As203), cisplatin (DDP) and etoposide (Vp16) on the anticancer effects and P-glycoprotein (P-gp) expression in neuroblastoma (NB) SK-N-SH cells. The potential influence of As2O3, DDP and Vp16 currently included in NB routine treatment protocols on cytotoxicity in SK-N-SH cells was measured by flow cytometry and drug half-maximal inhibitory concentration (IC50) was established."

The news reporters obtained a quote from the research from Sun Yat Sen University, "Moreover, chemotherapeutic agent-mediated changes of cellular expression levels of resistant-related P-gp, was monitored using western blotting. The data showed that As2O3, DDP and Vp16 significantly inhibited the growth and survival of the SK-N-SH cells at different concentration. Notably, the levels of apoptosis were upregulated in SK-N-SH cells with an acceleration of the exposure time and the concentration of As2O3, DDP and Vp16. As2O3, DDP and Vp16 were observed with their IC50 values on SK-N-SH cells being 3]2M, 8 and 100 yg/ml, respectively. Flow cytometry analysis showed that As2O3 at low concentrations in SK-N-SH cells led to enhanced accumulation of cell populations in G2/M phase with increasing the exposure time, and increased levels of apoptosis. In contrast, we observed that SK-N-SH cell
populations arrested in S phase by DDP and Vp16. In vitro examination revealed that following pretreatment of SK-N-SH cells with As2O3, the expression of P-gp was not increased. The expression of P-gp downregulation were noted following the group treated by As2O3 at 2 and 3 JIM. Exposed to As2O3 at 3 JIM for 72 h, SK-N-SH cells exhibited lower expression of P-gp than 2/4M As2O3 for 72 h. In contrast, the expression of P-gp was upregulated by DDP and VP16. In summary, SK-N-SH cells were responsive to chemotherapeutic agent-induced apoptosis in a dose-dependent and time-dependent manner."

According to the news reporters, the research concluded: "In particular, ours findings showed that low dose of As2O3 markedly reduced the P-gp expression and increased apoptotic cell death in human NB cell line."


Our news correspondents report that additional information may be obtained by contacting Y. LI, Sun Yat Sen UniversitySun Yat Sen Mem Hosp, Dept. of Pediat Hematol Oncol, Guangzhou 510120, Guangdong, People's Republic of China. Additional authors for this research include Y. LI, X.L. Xiong, K. Qi, C. Zhang, J.P. Fang and H.X. Guo.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, ATP-Dependent Organic Anion Transporters, ATP-Binding Cassette Transporters, Membrane Transport Proteins, Anion Transport Proteins, Arsenic Trioxide Therapy, Membrane Glycoproteins, Drugs and Therapies, Membrane Proteins, Carrier Proteins, P-Glycoproteins, Glycoconjugates, Drug Resistance, Pharmaceuticals, Antineoplastics, Neuroblastomas, Hematology, Cytometry, Chemicals, Apoptosis, Ion Pumps, Cell Line, Oncology, Sun Yat Sen University.

Our news correspondents obtained a quote from the research from Sunway University, "The rate of development of novel antiacanthamoebic chemotherapies of translational value and the lack of interest of the pharmaceutical industry in developing such chemotherapies have been disappointing. On the other hand, the market for contact lenses/contact lens disinfectants is a multi-billion-dollar industry and has been successful and profitable. A better understanding of drugs, their targets, and mechanisms of action will facilitate the development of more-effective
chemotherapies.

According to the news editors, the research concluded: "Here, we review the progress toward phenotypic drug discovery, emphasizing the shortcomings of useable therapies."

For more information on this research see: The Development of Drugs against Acanthamoeba Infections. Antimicrobial Agents and Chemotherapy, 2016;60(11):6441-6450. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from N.A. Khan, Sunway Univ, Fac Sci & Technol, Dept. of Biol Sci, Subang Jaya, Selangor, Malaysia. Additional authors for this research include Y. Aqeel and N.A. Khan.

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Keywords for this news article include: Subang Jaya, Malaysia, Asia, Drugs and Therapies, Article Review, Chemotherapy, Sunway University.

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Cyclohexanes

Researchers from Takeda Pharmaceutical Detail New Studies and Findings in the Area of Cyclohexanes (TAK-063, A PHOSPHODIESTERASE 10A INHIBITOR, MODULATES NEURONAL ACTIVITY IN VARIOUS BRAIN REGIONS IN pHMRI AND EEG STUDIES WITH AND WITHOUT ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cyclohexanes have been published. According to news reporting out of Fujisawa, Japan, by NewsRx editors, research stated. "TAK-063 is a selective phosphodiesterase 10A (PDE10A) inhibitor that produces potent antipsychotic-like and pro-cognitive effects at 0.3 mg/kg (26% PDE10A occupancy in rats) or higher in rodents through the balanced activation of the direct and indirect pathways of striatal medium spiny neurons (MSNs). In this study, we evaluated the specific binding of TAK-063 using in vitro autoradiography (ARG) and the modulation of brain activity using pharmacological magnetic resonance imaging (pHMRI) and electroencephalography (EEG)."

Our news journalists obtained a quote from the research from Takeda Pharmaceutical, "][H-3]TAK-063 significantly accumulated in the caudate-putamen (CPu), ventral pallidum (VP), substantia nigra (SN), hippocampus (Hipp), and amygdala (Amy), but not in the frontal cortex (Fcx), brainstem (Bs), or cerebellum (Cb) in an ARG study using rat brain sections. [H-3]TAK-063 accumulation in the CPu was more than eighteen-fold higher than that in the Hipp and Amy. TAK-063 at 0.3 mg/kg increased the blood oxygenation level-dependent (BOLD) signal in the striatum and Amy, and decreased it in the Fcx in a pHMRI study with anesthetized rats. TAK-063 at 0.3 mg/kg significantly reduced the ketamine-induced increase in EEG gamma power both in awake and anesthetized rats. TAK-063 at 0.2 mg/kg..."
(35% PDE10A occupancy in monkeys) also reduced the ketamine-induced increase in EEG gamma power in awake monkeys. In line with the EEG data, TAK-063 at 0.3 mg/kg reversed the ketamine-induced BOLD signal changes in the cortex, Bs, and Cb in a phMRI study with anesthetized rats.

According to the news editors, the research concluded: "These data suggest that TAK-063 at about 30% PDE10A occupancy modulates activities of multiple brain regions through activation of neuronal circuits in rats and monkeys."

For more information on this research see: TAK-063, A PHOSPHODIESTERASE 10A INHIBITOR, MODULATES NEURONAL ACTIVITY IN VARIOUS BRAIN REGIONS IN phMRI AND EEG STUDIES WITH AND WITHOUT KETAMINE CHALLENGE. Neuroscience, 2016;339():180-190. Neuroscience can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Neuroscience - www.journals.elsevier.com/neuroscience/)

Our news journalists report that additional information may be obtained by contacting H. Kimura, Takeda Pharmaceut Co Ltd, Div Pharmaceut Res, Fujisawa, Kanagawa 2518555, Japan. Additional authors for this research include D. Cash, M. Suzuki, K. Suzuki, M. Bernanos, C. Simmons, S.C.R. Williams and H. Kimura.

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Keywords for this news article include: Fujisawa, Japan, Asia, Central Nervous System Agents, Enzymes and Coenzymes, Drugs and Therapies, General Anesthetics, Phosphodiesterases, Hydrocarbons, Cyclohexanes, Ketamine, Takeda Pharmaceutical.

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Endocrine Cells

Researchers from Tel Aviv University Describe Findings in Endocrine Cells [Impaired function of trophoblast cells derived from translocated hESCs may explain pregnancy loss in women with balanced translocation (11;22)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Endocrine Cells are discussed in a new report. According to news reporting originating in Tel Aviv, Israel, by NewsRx journalists, research stated, "The aim of the study was to study whether the trophoblasts carrying unbalanced translocation 11:22 [t(11;12)] display abnormal expression of trophoblastic genes and impaired functional properties that may explain implantation failure. t(11;22) hESCs and control hESCs were differentiated in vitro into trophoblast cells in the presence of BMP4, and trophoblast vesicles (TBVs) were created in suspension. The expression pattern of extravillous trophoblast (EVT) genes was compared between translocated and control TBVs."

Financial support for this research came from Ministry of Health, Israel.

The news reporters obtained a quote from the research from Tel Aviv University, "The functional properties of the TBVs were evaluated by their attachment to endometrium cells (ECC1) and invasion through trans-well inserts. TBVs derived from control hESCs expressed EVT genes from functioning trophoblast cells. In contrast, TBVs differentiated from the
translocated hESC line displayed impaired expression of EVT genes. Moreover, the number of TBVs that were attached to endometrium cells was significantly lower compared to the controls. Correspondingly, invasiveness of trophoblast-differentiated translocated cells was also significantly lower than that of the control cells. These results may explain the reason for implantation failure in couple carriers of t(11;22)."

According to the news reporters, the research concluded: "They also demonstrate that translocated hESCs comprise a valuable in vitro human model for studying the mechanisms underlying implantation failure."


Our news correspondents report that additional information may be obtained by contacting D. Ben-Yosef, Tel Aviv University, Dept. of Cell & Dev Biol, Sackler Fac Med, Tel Aviv, Israel. Additional authors for this research include D. Ben-Yosef and Y. Kalma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0781-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tel Aviv, Israel, Asia, Trophoblasts, Genetics, Genetics, Endocrine Cells, Tel Aviv University.

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**Lung Diseases and Conditions - Altitude Sickness**

**Researchers from Third Military Medical University Detail New Studies and Findings in the Area of Altitude Sickness (Analysis of High-altitude Syndrome and the Underlying Gene Polymorphisms Associated with Acute Mountain Sickness after a Rapid ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Altitude Sickness is now available. According to news originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "To investigated the objective indicators and potential genotypes for acute mountain sickness (AMS). 176 male subjects were evaluated for symptoms scores and physiological parameters at 3700 m. EPAS1 gene polymorphisms were explored and verified effects of potential genotypes on pulmonary function by inhaled budesonide. The incidence of AMS was 53.98% (95/176)."

Our news journalists obtained a quote from the research from Third Military Medical University, "The individuals who suffered from headache with anxiety and greater changes in heart rate (HR), the forced vital capacity (FVC), and mean flow velocity of basilar artery (Vm-BA), all of which were likely to develop AMS. The rs4953348 polymorphism of EPAS1 gene had a significant correlation with the SaO2 level and AMS, and a significant difference in the AG and GG genotype distribution between the AMS and non-AMS groups. The spirometric parameters were significantly lower, but HR (P = 0.036) and Vm-BA (P = 0.042) significantly
higher in the AMS subjects with the G allele than those with the A allele. In summary, changes in HR (>= 82 beats/min), FVC (<= 4.2 Lt) and Vm-BA (>= 43 cm/s) levels may serve as predictors for diagnosing AMS accompanied by high-altitude syndrome.

According to the news editors, the research concluded: "The A allele of rs4953348 is a protective factor for AMS through HR and Vm-BA compensation, while the G allele may contribute to hypoxic pulmonary hypertension in AMS."

For more information on this research see: Analysis of High-altitude Syndrome and the Underlying Gene Polymorphisms Associated with Acute Mountain Sickness after a Rapid Ascent to High-altitude. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J. Qin, Third Military Medical University, Inst Cardiovasc Dis PLA, Xinqiao Hosp, Chongqing, People's Republic of China. Additional authors for this research include Y. Zeng, G.Z. Chen, S.Z. Bian, Y.Z. Qiu, X. Liu, B.D. Xu, P. Song, J.H. Zhang, J. Qin and L. Huang.

Keywords for this news article include: Chongqing, People's Republic of China, Asia, Lung Diseases and Conditions, Genetics, Altitude Sickness, Third Military Medical University.

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Biological Factors - Autacoids

Researchers from Third Military Medical University Report Findings in Autacoids (Xinqin exhibits the anti-allergic effect through the JAK2/STAT5 signaling pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biological Factors - Autacoids is now available. According to news originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: Xinqin, a polyherbal medicine, is an important traditional Chinese herbal formula used in traditional oriental medicine for treatment of allergic rhinitis (AR). The formula is based on the Chinese Pharmacopoeia. Aim of the study: Previously, Xinqin exhibited potent anti-allergic effect in a guinea pig model of AR."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Third Military Medical University, "In this study, we explored the molecular mechanism of the anti-allergic effect mediated by Xinqin. AR was induced in guinea pigs (Hartley) with toluene-2, 4-disocyanate (TDI) in vivo and in HMC-1 mast cells with A23187/phorbol 12-myristate-13-acetate (PMA) in vitro. The releases of allergic inflammatory mediators such as histamine, leukotriene (LT) D4, immunoglobulin (Ig) E, TNF-alpha, and IL-6 were analyzed for allergy. The mast cell degranulation was displayed in HMC-1 mast cells. The activities of janus protein kinase 2 (JAK2), signal transduction and activator of transcription 5 (STAT5) and suppressor of cytokine signaling 3 (SOCS3) were evaluated by Western blot. Treatment with Xinqin resulted in AR symptoms and decreases in levels of histamine, LTD4, IgE, TNF-alpha, and IL-6 in serum of guinea pig model of AR and in A23187/PMA-stimulated HMC-1 mast cells. Treatment with
Xinqin also inhibited cell degranulation in A23187/PMA-stimulated HMC-1 mast cells. The JAK2/STAT5 signaling pathway could play an important role in the anti-allergic activity mediated by Xinqin. Xinqin exerts the anti-allergic effect by modulating mast cell-mediated allergic responses by down-regulating JAK2/STAT5 signaling pathway."

According to the news editors, the research concluded: "Results from this study provide a mechanistic basis for the application of Xinqin in the treatment of AR."


The news correspondents report that additional information may be obtained from N. Gao, Third Military Medical University, Coll Pharm, Chongqing, People's Republic of China. Additional authors for this research include Y. Xiong, G.B. Li, Q. Tang, M. Cao, J.B. Huang, M. Xing, C.P. Hu, Y. Gong, Q.H. Wang, N. Gao and R. Zhang.

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Keywords for this news article include: Chongqing, People's Republic of China, Asia, Biological Factors, Histamine, Autacoids, Third Military Medical University.

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**Liver Diseases and Conditions - Liver Failure**

**Researchers from Thomas Jefferson University Provide Details of New Studies and Findings in the Area of Liver Failure (Gestational Alloimmune Liver Disease A Devastating Condition Preventable With Maternal Intravenous Immunoglobulin)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Liver Diseases and Conditions - Liver Failure. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "Gestational alloimmune liver disease, a form of profound liver failure in the newborn, is the main underlying cause of the entity formerly known as neonatal hemochromatosis. Antepartum maternal intravenous immunoglobulin (IVIG) has been shown to prevent gestational alloimmune liver disease, which otherwise has a recurrence risk above 90% in subsequent pregnancies."

Our news journalists obtained a quote from the research from Thomas Jefferson University, "A 30-year-old woman, gravida 3 para 0120, presented early in gestation. Her previous pregnancy had been complicated by fetal growth restriction, oligohydramnios, and ultimately fatal fulminant neonatal liver failure. With gestational alloimmune liver disease recognized as the primary diagnosis for the liver failure, we began maternal weekly IVIG therapy. She delivered a healthy newborn at term without evidence of hepatic dysfunction."

According to the news editors, the research concluded: "Recognition of gestational alloimmune liver disease enables antepartum treatment that dramatically alters the course of
For more information on this research see: Gestational Alloimmune Liver Disease A Devastating Condition Preventable With Maternal Intravenous Immunoglobulin. Obstetrics and Gynecology, 2016;128(5):1092-1094. Obstetrics and Gynecology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Obstetrics and Gynecology - journals.lww.com/greenjournal/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting H.B. Anastasio, Thomas Jefferson University, Dept. of Obstet & Gynecol, Philadelphia, PA 19107, United States. Additional authors for this research include M. Grundy, M.L. Birsner and K.J. Blakemore.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Digestive System Diseases and Conditions, Liver Diseases and Conditions, Intravenous Immunoglobulins, Hepatic Insufficiency, Immunoglobulin G, Gastroenterology, Serum Globulins, Immunoproteins, Blood Proteins, Liver Failure, Immunology, Antibodies, Hepatology, Therapy, Thomas Jefferson University.

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Oncology - Lymphoma

Researchers from Tianjin Medical University Cancer Institute and Hospital Discuss Findings in Lymphoma (Evaluation of primary thyroid lymphoma by ultrasonography combined with contrast-enhanced ultrasonography: A pilot study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Lymphoma have been presented. According to news reporting originating from Tianjin, People's Republic of China, by NewsRx correspondents, research stated, "To evaluate the features of primary thyroid lymphoma (PTL) by ultrasonography (US) combined with contrast-enhanced ultrasonography (CEUS). In this retrospective study, 20 patients (8 male and 12 female) with PTL were evaluated by conventional US and among them, 10 patients underwent CEUS examination."

Our news editors obtained a quote from the research from Tianjin Medical University Cancer Institute and Hospital, "The appearance of US features was classified into three types: Diffusive mass type, multiple nodular type and mixed type. The CEUS patterns included diffusive homogeneous enhancement and diffusive heterogeneous enhancement pattern. Parameters of CEUS time-intensive curve were analyzed in primary tumor and involved lymph nodes compared to ipsilateral common carotid artery. Of 20 patients with PTL, 18 presented an enlarging neck mass that grew rapidly with an average duration of 3.2 months, and 17 were associated with Hashimoto's thyroiditis. In conventional US, all patients had marked hypoechoic masses. Among them, 12 patients were diffusive mass type, 6 were multiple nodular type and 2 were mixed type. For CEUS patterns, 8 were diffusive homogeneous enhancement and 2 were diffusive heterogeneous enhancement. Necrosis areas were showed in diffuse heterogeneous pattern which were hardly seen in conventional US. In the quantitative analysis of CEUS parameters, the time to peak of time-intensive curve in the primary tumors or involved lymph nodes was longer than that of the ipsilateral common carotid artery (p=0.004). PTL
mainly demonstrated as a diffusive mass type with marked hypoechogenecity on conventional US and diffusive homogeneous enhancement pattern on CEUS."

According to the news editors, the research concluded: "And the heterogeneous enhancement pattern is also helpful for detecting necrosis areas of PTL."


The news editors report that additional information may be obtained by contacting M. Gao, Dept. of Thyroid and Cervical Tumor, Tianjin Medical University Cancer Institute and Hospital, Key Laboratory of Cancer Prevention and Therapy, Tianjin, People's Republic of China. Additional authors for this research include Y. Li, S. Zhang, X. Li and M. Gao.

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Keywords for this news article include: Asia, Tianjin, Oncology, Angiology, Lymphomas, Hematology, Clinical Research, Common Carotid Artery, People's Republic of China, Clinical Trials and Studies, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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Enzymes and Coenzymes - Glycoside Hydrolases

Researchers from Tianjin University of Science and Technology Report Recent Findings in Glycoside Hydrolases (Multivalent S-sialoside protein conjugates block influenza hemagglutinin and neuraminidase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Enzymes and Coenzymes - Glycoside Hydrolases are presented in a new report. According to news reporting from Tianjin, People's Republic of China, by NewsRx journalists, research stated, "A new class of S-sialoside Human Serum Albumin (HSA) and Bovine Serum Albumin (BSA) conjugates were prepared to enhance the binding affinity to hemagglutinin (HA) and neuraminidase (NA). The valency of glycoconjugates was controlled by the reaction ratio of the S-sialoside monomer and protein."

Financial supporters for this research include Natural Science Foundation of China, International Science & Technology Cooperation Program of China.

The news correspondents obtained a quote from the research from the Tianjin University of Science and Technology, "Hemagglutination inhibition assay showed that these synthetic glycoproteins have higher affinity to HA than the small clusters of sialosides with lower valency, due to multivalent effect and optimized three dimensional presentation of sialosides on the protein platform. The results of fluorescent NA inhibition assay showed that some of the conjugates have moderate NA inhibitory activity, in comparison to the monomer and low valent conjugates with weak or none inhibitory activity. These synthetic sialylated proteins were not cytotoxic with concentrations up to 100 mu M, since the sialylation did not change the secondary structure of protein."

According to the news reporters, the research concluded: "This new kind of conjugates can be used as lead compounds for antiviral drug design and the construction of
pseudo sialoside-protein conjugates library to investigate the carbohydrate-HA/NA recognition process and a platform for the influenza virus capturing.”


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.carres.2016.09.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Enzymes and Coenzymes, Glycoside Hydrolases, Neuraminidase, Influenza, Tianjin University of Science and Technology.

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**Heart Disorders and Diseases - Heart Disease**

**Researchers from Toho University Ohashi Medical Center Report on Findings in Heart Disease (Ischemic Heart Disease in Patients with End-Stage Kidney Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Disease have been published. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "It was recently reported that the severity of coronary and carotid atherosclerosis in patients with end-stage kidney disease (ESKD) has improved over the last two decades. However, the frequency of coronary artery events observed at the initiation of dialysis remains high."

Our news journalists obtained a quote from the research from Toho University Ohashi Medical Center, "Recently, 5 different clinical types of acute myocardial infarction (MI) were introduced in the third universal definition of MI. Type 2 MI, known as secondary MI, is a more heterogeneous entity, where a condition other than coronary artery narrowing contributes to an acute imbalance in oxygen supply and demand. In patients with chronic kidney disease, it has been demonstrated that type 2 MI is more common than type 1 MI, which is associated with coronary occlusive disease. It is suspected that patients with ESKD also often have type 2 MI. Factors associated with incremental increases in oxygen demand may cause myocardial ischemia in ESKD. Significant epicardial coronary narrowing might not be a necessary precursor of myocardial ischemia in ESKD."

According to the news editors, the research concluded: "To prevent ischemic heart
disease and improve prognosis in patients with ESKD, we need to pay attention not only to coronary stenotic lesions, but also to the factors associated with the induction of an imbalance in myocardial oxygen supply and demand."


Our news journalists report that additional information may be obtained by contacting Y. Tanaka, Division of Nephrology, Toho University Ohashi Medical Center, Tokyo, Japan. Additional authors for this research include N. Joki and H. Hase.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441582. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Angiology, Cardiology, Heart Disease, Coronary Artery, Myocardial Ischemia, Myocardial Infarction, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Cardiovascular Diseases and Conditions - Venous...

Researchers from Tongji University Report Details of New Studies and Findings in the Area of Venous Thromboembolism (d-Dimer as a Screening Marker for Venous Thromboembolism After Surgery Among Patients Younger Than 50 With Lower Limb Fractures)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Venous Thromboembolism. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "For the present study, the authors hypothesized that the d-dimer levels would be systematically raised in a postoperative population of patients younger than 50 with lower limb fractures and to define a feasible cutoff value for identification of venous thromboembolism (VTE). Doppler ultrasonography of lower limbs was performed pre- and postoperatively to evaluate for deep vein thrombosis in 150 patients who underwent open reduction and internal fixation (ORIF)."

Our news editors obtained a quote from the research from Tongji University, "Plasma d-dimer levels were assessed 2 days before surgery and on the 3rd, 7th, and 10th days after surgery. Statistical analysis was carried out to define a feasible threshold for the d-dimer levels. Plasma d-dimer levels were found to be systematically raised postoperatively, and they differed between patients with and without VTE significantly. On the third day after surgery, d-dimer levels of more than 3 mg/L indicated VTE with a sensitivity of 88.37% and a specificity of 96.96%, allowing for the definition of a feasible cutoff value. Duration of surgery, duration of tourniquet, ventilation time, and time of postoperative immobility of lower limbs were identified as highly significant risk factors for the development of VTE."

According to the news editors, the research concluded: "Using a threshold of 3 mg/L, the d-dimer levels will screen out VTE with a high degree of sensitivity and specificity in younger patients who have undergone ORIF for lower limb fractures."

The news editors report that additional information may be obtained by contacting M. Cai, Tongji Univ, Shanghai Peoples Hosp 10, Sch Med, Dept. of Orthoped, Shanghai 200072, People's Republic of China. Additional authors for this research include P.F. Zan, J.P. Gong and M. Cai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1076029615588784. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Surgery, Risk and Prevention, Embolism and Thrombosis, Venous Thromboembolism, Hematology, Tongji University.

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**Oncology - Gastric Cancer**

**Researchers from Tongji University School of Medicine Report on Findings in Gastric Cancer (Tumor-suppressive functions of long-chain acyl-CoA synthetase 4 in gastric cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Gastric Cancer is now available. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Long chain acyl CoA synthetase 4 (ACSL4) is a key enzyme in fatty acid metabolism with marked preference for arachidonic acid (AA). Recent reports have implicated its crucial roles in tumorigenesis."

Financial supporters for this research include National Natural Science Foundation of China, Shanghai Natural Science Foundation of China, Specialized Research Fund for the Doctoral Program of Higher Education, Key Disciplines Group Construction Project of Pudong Health Bureau of Shanghai, Outstanding Leaders Training Program of Pudong Health Bureau of Shanghai, Science and technology commission of Shanghai medical guide Foundations.

Our news editors obtained a quote from the research from the Tongji University School of Medicine, "However in gastric cancer (GC), the expression and function of ACSL4 remain unclear. In the present study, we identified ACSL4 as a potential tumor suppressor in GC. The ACSL4 expression in GC samples was evaluated by real-time PCR and immunohistochemistry. The results indicated that the mRNA and protein levels of ACSL4 were frequently downregulated in cancer tissues compared with the adjacent non-cancerous mucosa control tissues. Cell-based functional assays exhibited that ectopic expression of ACSL4 inhibits cell growth, colony formation and cell migration, whereas ACSL4 knockdown enhanced these effects. In a nude mice model, ACSL4 knockdown also promoted subcutaneous xenografts' growth in vivo. Moreover, western blot analysis revealed that ACSL4 expression had a significant effect on FAK and P21 protein level."
According to the news editors, the research concluded: "These findings suggest that ACSL4 plays a tumor-suppressive role and could be a potential therapeutic target in GC."


The news editors report that additional information may be obtained by contacting X. Ye, Dept. of Oncology, Shanghai East Hospital, Tongji University School of Medicine, Shanghai, 200120, People's Republic of China. Additional authors for this research include Y. Zhang, X. Wang, Y. Li and Y. Gao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/iub.1486. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shanghai, Genetics, Oncology, Synthetase, Gastric Cancer, Gastroenterology, Enzymes and Coenzymes, People's Republic of China.

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**Oncology - Cancer Risk**

**Researchers from ToxStrategies Describe Findings in Cancer Risk (Inhalation cancer risk assessment of hexavalent chromium based on updated mortality for Painesville chromate production workers)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cancer Risk is the subject of a report. According to news reporting out of Mission Viejo, California, by NewsRx editors, research stated, "The exposure-response for hexavalent chromium (Cr(VI))-induced lung cancer among workers of the Painesville Ohio chromate production facility has been used internationally for quantitative risk assessment of environmental and occupational exposures to airborne Cr(VI). We updated the mortality of 714 Painesville workers (including 198 short-term workers) through December 2011, reconstructed exposures, and conducted exposure-response modeling using Poisson and Cox regressions to provide quantitative lung cancer risk estimates."

Our news journalists obtained a quote from the research from ToxStrategies, "The average length of follow-up was 34.4 years with 24,535 person-years at risk. Lung cancer was significantly increased for the cohort (standardized mortality ratio (SMR)=186; 95% confidence interval (CI) 145-228), for those hired before 1959, those with >30-year tenure, and those with cumulative exposure >1.41 mg/m(3)-years or highest monthly exposures >0.26 mg/m(3). Of the models assessed, the linear Cox model with unlagged cumulative exposure provided the best fit and was preferred. Smoking and age at hire were also significant predictors of lung cancer mortality."

According to the news editors, the research concluded: "Adjusting for these variables, the occupational unit risk was 0.00166 (95% CI 0.000713-0.00349), and the environmental unit risk was 0.00832 (95% CI 0.00359-0.0174), which are 20% and 15% lower, respectively, than values developed in a previous study of this cohort."

For more information on this research see: Inhalation cancer risk assessment of hexavalent chromium based on updated mortality for Painesville chromate production workers.
Researchers from Tsinghua University Report New Studies and Findings in the Area of Hemorrhagic Fever Virus (Molecular basis for the formation of ribonucleoprotein complex of Crimean-Congo hemorrhagic fever virus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hemorrhagic Fever Virus. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Negative-sense single-strand RNA (-ssRNA) viruses comprise a large family of pathogens that cause severe human infectious diseases. All-ssRNA viruses encode a nucleocapsid protein (NP) to encapsidate the viral genome, which, together with polymerase, forms a ribonucleoprotein complex (RNP) that is packaged into virions and acts as the template for viral replication and transcription."

Funders for this research include National Natural Science Foundation of China, Ministry of Science and Technology.

The news reporters obtained a quote from the research from Tsinghua University, "In our previous work, we solved the monomeric structure of NP encoded by Crimean-Congo hemorrhagic fever virus (CCHFV), which belongs to the Nairovirus genus within the Bunyaviridae family, and revealed its unusual endonuclease activity. However, the mechanism of CCHFV RNP formation remains unclear, due to the difficulty in reconstructing the oligomeric CCHFV NP-RNA complex. Here, we identified and isolated the oligomeric CCHFV NP-RNA complex that formed in expression cells. Sequencing of RNA extracted from the complex revealed sequence specificity and suggested a potential encapsidation signal facilitating the association between NP and viral genome. A cryo-EM reconstruction revealed the ring-
shaped architecture of the CCHFV NP-RNA oligomer, thus defining the interaction between the head and stalk domains that results in NP multimerization. This structure also suggested a modified gating mechanism for viral genome encapsidation, in which both the head and stalk domains participate in RNA binding."

According to the news reporters, the research concluded: "This work provides insight into the distinct mechanism underlying CCHFV RNP formation compared to other ssRNA viruses."


Our news correspondents report that additional information may be obtained by contacting S.F. Sui, Tsinghua Univ, Beijing Adv Innovat Center Struct Biol, Sch Life Sci, State Key Lab Biomembrane, Beijing 100084, People's Republic of China. Additional authors for this research include B.B. Li, Y. Guo, S. Shen, L. Zhao, P.S. Zhang, Y.N. Sun, S.F. Sui, F. Deng and Z.Y. Lou.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Crimean-Congo Hemorrhagic Fever Virus, RNA-Binding Proteins, Ribonucleoproteins, Vertebrate Viruses, Carrier Proteins, Tropical Disease, Viral Genome, RNA Viruses, Nairovirus, Viral RNA, Virology, Genetics, Genomics, Tsinghua University.

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**Biotechnology - Pharmacogenomics**

**Researchers from Tubingen University Hospital Report Recent Findings in Pharmacogenomics (Gene copy number variation analysis reveals dosage-insensitive expression of CYP2E1)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biotechnology - Pharmacogenomics have been published. According to news reporting originating from Tubingen, Germany, by NewsRx correspondents, research stated, "Gene copy number variants (CNVs) of CYP2E1 have been described but not functionally characterized. Here we investigated effects of CNVs on hepatic and lymphoblastoid CYP2E1 expression."

Our news editors obtained a quote from the research from Tubingen University Hospital, "Using available single-nucleotide polymorphism microarray data and quantitative PCR, CYP2E1 gene duplication and deletion carriers were identified. CYP2E1 mRNA, protein and enzyme activity (chlorzoxazone-6-hydroxylation) phenotypes of CYP2E1 were not associated with gene copy number. Analysis of gene expression in lymphoblastoid cell lines in relation to CNV confirmed this finding in an extrahepatic tissue and for other ethnicities. Further analyses identified a linked haplotype cluster with possible influence on gene expression."
expression. In summary, our data suggest a homeostatic, gene dosage-insensitive regulation of CYP2E1 expression by unknown gene dosage compensation mechanisms. This is in striking contrast to well-known structural variations of CYP2A6 and CYP2D6 that have a strong impact on expression and activity."

According to the news editors, the research concluded: "These findings are important in the context of pharmacogenetic prediction."

For more information on this research see: Gene copy number variation analysis reveals dosage-insensitive expression of CYP2E1. Pharmacogenomics Journal, 2016;16 (6):551-558. Pharmacogenomics Journal can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Pharmacogenomics Journal - www.nature.com/tpj/)

The news editors report that additional information may be obtained by contacting U.M. Zanger, Tuebingen Univ Hosp, Tubingen, Germany. Additional authors for this research include K. Klein, S. Winter, E. Schaeffeler and U.M. Zanger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.69. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tubingen, Germany, Europe, Pharmacogenomics, Biotechnology, Genetics, Tubingen University Hospital.

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Peripheral Neuropathy

Researchers from Tufts University Report Recent Findings in Peripheral Neuropathy (Transcobalamin 776C -> G polymorphism is associated with peripheral neuropathy in elderly individuals with high folate intake)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peripheral Neuropathy have been published. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "The 776C -> G polymorphism of the vitamin B-12 transport protein transcobalamin gene (TCN2) (rs1801198; Pro259Arg) is associated with a lower holotranscobalamin concentration in plasma. This effect may reduce the availability of vitamin B-12 to tissues even when vitamin B-12 intake is adequate."

Our news journalists obtained a quote from the research from Tufts University, "Clinical outcomes associated with vitamin B-12 insufficiency could potentially be worsened by high folate intake. We determined the association of the TCN2 776C -> G polymorphism and folate intake with peripheral neuropathy in elders with normal plasma concentrations of vitamin B-12. Participants in this cross-sectional study (n = 171) were from a cohort of community-based, home-bound elderly individuals aged >= 60y who underwent an evaluation by physicians including an assessment for peripheral neuropathy. Participants were administered food-frequency and general health status questionnaires, anthropometric measurements were taken, and a fasting blood sample from each subject was collected. Odds of neuropathy were 3-fold higher for GG genotypes than for CC genotypes (OR: 3.33; 95% CI: 1.15, 9.64). When folate intake was >2 times the Recommended Dietary Allowance (800 mu g), GG genotypes had 6.9-fold higher odds of neuropathy than CC genotypes (OR: 6.9; 95% CI: 1.31, 36.36). There was
no difference between the genotypes in the odds of peripheral neuropathy when folate intake was <= 800 µg (OR: 1.5; 95% CI: 0.18, 12.33)."

According to the news editors, the research concluded: "The TCN2 776C -> G polymorphism is associated with increased odds of peripheral neuropathy in the elderly, even with a normal vitamin B-12 status, especially if their folate intake is >2 times the Recommended Dietary Allowance."


Our news journalists report that additional information may be obtained by contacting L. Paul, Tufts University, Jean Mayer Dept. of Agriculture Human Nutr Res Center Aging, Boston, MA 02111, United States. Additional authors for this research include P.R. Bergethon, W.Q. Qiu, T.M. Scott, P.F. Jacques, J. Selhub and L. Paul.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Peripheral Neuropathy, Carrier Proteins, Transcobalamin, Serum Globulins, Genetics, Tufts University.

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Musculoskeletal Diseases and Conditions -

Researchers from Tulane University Describe Findings in Osteoporosis (Association of 3q13.32 variants with hip trochanter and intertrochanter bone mineral density identified by a genome-wide association study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Musculoskeletal Diseases and Conditions - Osteoporosis. According to news reporting out of New Orleans, Louisiana, by NewsRx editors, research stated, "We performed a GWAS of trochanter and intertrochanter bone mineral density (BMD) in the Framingham Heart Study and replicated in three independent studies. Our results identified one novel locus around the associated variations at chromosomal region 3q13.32 and replicated two loci at chromosomal regions 3p21 and 8q24."

Funders for this research include National Institutes of Health, National Institutes of Health (US), National Natural Science Foundation of China, Natural Science Foundation of Jiangsu Province.

Our news journalists obtained a quote from the research from Tulane University, "Our findings provide useful insights that enhance our understanding of bone development, osteoporosis, and fracture pathogenesis. Hip trochanter (TRO) and intertrochanter (INT) subregions have important clinical relevance to subtrochanteric and intertrochanteric fractures but have rarely been studied by genome-wide association studies (GWASs). Aiming to identify genomic loci associated with BMD variation at TRO and INT regions, we performed a GWAS utilizing the Framingham Heart Study (FHS, N = 6, 912) as discovery sample and utilized the Women's Health Initiative (WHI) African-American subsample (N = 845), WHI Hispanic subsample (N = 446), and Omaha osteoporosis study (N = 971), for replication. Combining the evidence from both the discovery and the replication samples, we identified one novel locus.
around the associated variations at chromosomal region 3q13.32 (rs1949542, discovery p = 6.16 x 10(-8), replication p = 2.86 x 10(-4) for INT-BMD; discovery p = 1.35 x 10(-7), replication p = 4.16 x 10(-4) for TRO-BMD, closest gene RP11-384F7.1). We also replicated two loci at chromosomal regions 3p21 (rs148725943, discovery p = 6.61 x 10(-7), replication p = 5.22 x 10(-4) for TRO-BMD, closest gene CTNNB1) and 8q24 (rs7839059, discovery p = 2.28 x 10(-7), replication p = 1.55 x 10(-3) for TRO-BMD, closest gene TNFRSF11B) that were reported previously. We demonstrated that the effects at both 3q13.32 and 3p21 were specific to the TRO, but not to the femoral neck and spine. In contrast, the effect at 8q24 was common to all the sites."

According to the news editors, the research concluded: "Our findings provide useful insights that enhance our understanding of bone development, osteoporosis, and fracture pathogenesis."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3663-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Orleans, Louisiana, United States, North and Central America, Musculoskeletal Diseases and Conditions, Metabolic Bone Diseases and Conditions, Bone Research, Genetics, Women's Health, Osteoporosis, Tulane University.

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Oncology - Head and Neck Cancer

Researchers from Turgut Ozal University Detail New Studies and Findings in the Area of Head and Neck Cancer (Investigation of MACC1 Gene Expression in Head and Neck Cancer and Cancer Stem Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Head and Neck Cancer is the subject of a report. According to news reporting out of Ankara, Turkey, by NewsRx editors, research stated, "By investigating the MACC1 gene (metastasis-associated in colon cancer 1) in cancer stem cells (CSC) resistant to chemotherapy and in cancer stem cells (CSC) resistant to chemotherapy and in cancer cells (CS) sensitive to chemotherapy we determined a steady expression in both types of cells in head and neck cancer. In conformity with the result we examined if this gene could be a competitor gene for chemotherapy."
Our news journalists obtained a quote from the research from Turgut Ozal University. "According to literature, the MACC1 gene shows a clear expression in head and neck cancer cells [1]. Here we examined MACC1 expression in CSC and investigated it as a possible biomarker. Our experiments were performed in the UT-SCC-74 in primary head and neck cancer cell line. We examined the MACC-1 gene expression by Real Time PCR from both isolated CSC and CS. Expression of MACC-1 gene of cancer stem cells showed an two-fold increase compared with cancer cells. Based on the positive expression of MACC1 in both CS and CSC, this gene may serve as a potential biomarker in head and neck cancer. By comparing the results of this study with the novel features of MACC1, two important hypotheses could be examined. The first hypothesis is that MACC1 is a possible transcription factor in colon cancer, which influences a high expression of CSC in head and neck and affects the expression of three biomarkers of the CSC control group biomarkers."

According to the news editors, the research concluded: "The second hypothesis is that the positive expression of MACC1 in patients with a malignant prognosis of tongue cancer, which belongs to head and neck cancer types, operates a faster development of CSC to cancer cells."

For more information on this research see: Investigation of MACC1 Gene Expression in Head and Neck Cancer and Cancer Stem Cells. *Clinical and Investigative Medicine*, 2016;39(6):S77-S81. *Clinical and Investigative Medicine* can be contacted at: Canadian Soc Clinical Investigation, Csci Head Office, 774 Echo Drive, Ottawa, On K1S 5N8, Canada.

Our news journalists report that additional information may be obtained by contacting E. Gunduz, Turgut Ozal Univ, Fac Med, Dept. of Med Genet, TR-06170 Ankara, Turkey. Additional authors for this research include H. Sahin, K. Akbas, S. Cigdem and E. Gunduz.

Keywords for this news article include: Ankara, Turkey, Eurasia, Stem Cell Research, Diagnostics and Screening, Genetics, Head and Neck Neoplasms, Head and Neck Cancer, Drugs and Therapies, Chemotherapy, Oncology, Turgut Ozal University.

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**Drugs and Therapies - Antiinfectives**

**Researchers from URMITE Provide Details of New Studies and Findings in the Area of Antiinfectives [Assessment of oral ivermectin versus shampoo in the treatment of pediculosis (head lice infestation) in rural areas of Sine-Saloum, Senegal]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antiinfectives is the subject of a report. According to news originating from Dakar, Senegal, by NewsRx correspondents, research stated, "Reports of treatment failure and the emergence of resistance to topical head lice treatments have become increasingly common, driving the need for continued development of new therapeutic options for pediculosis. Ivermectin has been proposed as a potential alternative for the treatment of pediculosis but has not been sufficiently evaluated."

Our news journalists obtained a quote from the research from URMITE, "In this study, the effectiveness of oral ivermectin versus shampoo in the treatment of pediculosis in
Senegal was compared. The study was conducted in two neighboring villages of Sine-Saloum, Senegal: Dielmo (ivermectin trial group; 201 female participants) and Ndiop (shampoo trial group; 239 female participants). In the ivermectin group, patients received two doses of oral ivermectin (400 μg/kg body weight; Mectizan®) 7 days apart. In contrast, the shampoo group received a shampoo treatment based on D-phenothrin (0.23%; Hegor®). At the beginning of the study, 70 (34.8%) of 201 participants in the ivermectin group were infested by head lice versus 145 (60.7%) of 239 participants in the shampoo group. At Day 15 post-treatment, the efficacy of the treatment against head lice reached 41/53 (77.4%) in the ivermectin group (53 patients were tested in this group) versus 42/130 (32.3%) in the shampoo group (130 patients were tested in this group) (P < 10^-7). However, 4 (7.5%) of the 53 females in the ivermectin group exhibited probable ivermectin treatment failure, suggesting the emergence of ivermectin-resistant lice.

According to the news editors, the research concluded: "This study demonstrates that oral ivermectin is highly effective for the treatment of pediculosis compared with shampoo, but also suggests that ivermectin resistance may emerge during treatment."


The news correspondents report that additional information may be obtained from D. Raoult, Campus Int Rech IRD UCAD, IRD, URMITE, UMR 198IRD, Dakar, Senegal. Additional authors for this research include G. Diatta, C. Sokhna, J.M. Rolain and D. Raoult.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.07.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dakar, Senegal, Africa, Drugs and Therapies, Ivermectin Therapy, Pharmaceuticals, Antiinfectives, Anthelmintics, Macrolides, URMITE.

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**Oncology - Lymphoma**

**Researchers from Ulm University Report Details of New Studies and Findings in the Area of Lymphoma (Suppressor of cytokine signaling 1 gene mutation status as a prognostic biomarker in classical Hodgkin lymphoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Lymphoma is now available. According to news reporting from Ulm, Germany, by NewsRx journalists, research stated, "Suppressor of cytokine signaling 1 (SOCS1) mutations are among the most frequent somatic mutations in classical Hodgkin lymphoma (cHL), yet their prognostic relevance in cHL is unexplored. Here, we performed laser-capture microdissection of Hodgkin/Reed-Sternberg (HRS) cells from tumor samples in a cohort of 105 cHL patients."
The news correspondents obtained a quote from the research from Ulm University, "Full-length SOCS1 gene sequencing showed mutations in 61% of all cases (n=64/105). Affected DNA-motifs and mutation pattern suggest that many of these SOCS1 mutations are the result of aberrant somatic hypermutation and we confirmed expression of mutant alleles at the RNA level. Contingency analysis showed no significant differences of patient-characteristics with HRS-cells containing mutant vs. wild-type SOCS1. By predicted mutational consequence, mutations can be separated into those with non-truncating point mutations ('minor' n=49/64=77%) and those with length alteration ('major'; n=15/64=23%). Subgroups did not differ in clinicopathological characteristics; however, patients with HRS-cells that contained SOCS1 major mutations suffered from early relapse and significantly shorter overall survival (p=0.03). The SOCS1 major status retained prognostic significance in uni-(p=0.016) and multivariate analyses (p=0.005)."

According to the news reporters, the research concluded: "Together, our data indicate that the SOCS1 mutation type qualifies as a single-gene prognostic biomarker in cHL."


Our news journalists report that additional information may be obtained by contacting J.K. Lennerz, Ulm University, Institute of Pathology, Ulm, Germany. Additional authors for this research include K. Hoffmann, A.M. Bubolz, D. Lessel, C. Welke, N. Ruther, A. Viardot and P. Moller.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.4829. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ulm, Europe, Germany, Genetics, Oncology, Cytokines, Lymphomas, Hematology, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions, Intercellular Signaling Peptides and Proteins.

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**Veterinary Medicine**

**Researchers from United States Department of Agriculture Report Recent Findings in Veterinary Medicine (Impact of the blood meal on humoral immunity and microbiota in the gut of female Culicoides sonorensis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Veterinary Medicine have been published. According to news originating from Manhattan, Kansas, by NewsRx correspondents, research stated, "Although Culicoides sonorensis is an important vector of orbiviruses causing significant disease in domestic and wild ruminants in the USA, little is known about factors contributing to midge vector competence. In other vectors such as mosquitoes, interactions among the humoral immune response, microbiota, and ingested pathogens within the vector gut directly impact pathogen survival and therefore vectoring potential."

Our news journalists obtained a quote from the research from the United States Department of Agriculture, "We recently described components of the humoral immune
response in the reference transcriptome for adult female C. sonorensis and analysed their
temporal expression profiles across several dietary states (unfed, blood, or sugar fed). Blood
feeding altered the transcription of several humoral immune components of the Immune
deficiency (Imd), dual-oxidase (DUOX), and Janus Kinase and Signal Transducer and Activator
of Transcription (JAK/STAT) pathways. Genes for immune effectors, such as antimicrobial
peptides, were in particular highly induced. Since blood feeding also stimulated proliferation
and diversification of bacterial populations colonising the gut of female midges, we infer that
changes in immune gene expression were a result of fluctuations in gut microbiota."

According to the news editors, the research concluded: "Thus, diet can indirectly (via
microbiota) impact gut immune status and therefore should be carefully considered in
subsequent studies assessing vector competence in biting midges."

For more information on this research see: Impact of the blood meal on humoral
immunity and microbiota in the gut of female Culicoides sonorensis. Veterinaria Italiana,

The news correspondents report that additional information may be obtained from D.
Nayduch, USDA-ARS, Arthropod-Borne Animal Diseases Research Unit, Center for Grain and
Animal Health Research, Manhattan, Kansas, United States. Additional authors for this research
include D. Erram, M.B. Lee, L. Zurek and C.A Saski.

Keywords for this news article include: Kansas, Genetics, Manhattan, United States,
Veterinary Medicine, North and Central America.

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Researchers from University College Report on Findings in Neural Tube
Defects (Inositol for the prevention of neural tube defects: a pilot
randomised controlled trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- New research on Birth Defects - Neural Tube Defects is the subject of a
report. According to news reporting out of London, United Kingdom, by NewsRx editors,
research stated, "Although peri-conceptional folic acid (FA) supplementation can prevent a
proportion of neural tube defects (NTD), there is increasing evidence that many NTD are FA
non-responsive. The vitamin-like molecule inositol may offer a novel approach to preventing
FA-non-responsive NTD."

Our news journalists obtained a quote from the research from University College,
"Inositol prevented NTD in a genetic mouse model, and was well tolerated by women in a small
study of NTD recurrence. In the present study, we report the Prevention of Neural Tube Defects
by Inositol (PONTI) pilot study designed to gain further experience of inositol usage in human
pregnancy as a preliminary trial to a future large-scale controlled trial to evaluate efficacy of
inositol in NTD prevention. Study subjects were UK women with a previous NTD pregnancy
who planned to become pregnant again. Of 117 women who made contact, ninety-nine proved
eligible and forty-seven agreed to be randomised (double-blind) to peri-conceptional
supplementation with inositol plus FA or placebo plus FA. In total, thirty-three randomised
pregnancies produced one NTD recurrence in the placebo plus FA group (n 19) and no
recurrences in the inositol plus FA group (n 14). Of fifty-two women who declined
randomisation, the peri-conceptional supplementation regimen and outcomes of twenty-two further pregnancies were documented. Two NTD recurred, both in women who took only FA in their next pregnancy. No adverse pregnancy events were associated with inositol supplementation."

According to the news editors, the research concluded: "The findings of the PONTI pilot study encourage a large-scale controlled trial of inositol for NTD prevention, but indicate the need for a careful study design in view of the unwillingness of many high-risk women to be randomised."


Our news journalists report that additional information may be obtained by contacting N.D. Greene, 1Newlife Birth Defects Research Centre, Institute of Child Health, University College London, London WC1N 1EH, UK. Additional authors for this research include K.Y. Leung, V. Gay, K. Burren, K. Mills, L.S. Chitty and A.J Copp. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S0007114515005322. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, Inositol, Birth Defects, United Kingdom, Sugar Alcohols, Clinical Research, Neural Tube Defects, Clinical Trials and Studies, Nervous System Malformations, Nervous System Diseases and Conditions.

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Oncology - Esophageal Cancer

Researchers from University Health Network Discuss Findings in Esophageal Cancer (Adjuvant sunitinib following chemoradiotherapy and surgery for locally advanced esophageal cancer: a phase II trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Esophageal Cancer is the subject of a report. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "The prognosis for locally advanced esophageal cancer is poor despite the use of trimodality therapy. In this phase II study, we report the feasibility, tolerability and efficacy of adjuvant sunitinib."

Our news journalists obtained a quote from the research from University Health Network, "Included were patients with stage IIa, IIb or III cancer of the thoracic esophagus or gastroesophageal junction. Neoadjuvant therapy involved Irinotecan (65mg/m(2)) + Cisplatin (30mg/m(2)) on weeks 1 and 2, 4 and 5, 7 and 8 with concurrent radiation (50Gy/25 fractions) on weeks 4-8. Sunitinib was commenced 4-13 weeks after surgery and continued for one year. Sixty-one patients were included in the final analysis, 36 patients commenced adjuvant sunitinib. Fourteen patients discontinued sunitinib due to disease recurrence (39%) within the 12-month period, 12 (33%) discontinued due to toxicity, and 3 (8%) requested cessation of therapy. In the overall population, median survival was 26 months with a 2 and 3-year survival rate of 52% and 35%, respectively. The median survival for the 36 patients treated with sunitinib was 35 months and 2-year survival probability of 68%. In a historical control, a prior
phase II study with the same trimodality therapy (n = 43), median survival was 36 months, with a 2-year survival of 67%.

According to the news editors, the research concluded: "Initiation of adjuvant sunitinib is feasible, but poorly tolerated, with no signal of additional benefit over trimodality therapy for locally advanced esophageal cancer."


Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Clinical Trials and Studies, Tyrosine Kinase Inhibitors, VEGF - VEGFR Inhibitors, Multikinase Inhibitors, Drugs and Therapies, Clinical Research, Esophageal Cancer, VEGFR Inhibitors, Gastroenterology, Antineoplastics, Sunitinib, Oncology, Surgery, Therapy, University Health Network.

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without previous use of IFN alpha-2b) resulting in cancer death. Patients were asked to trade-off the improvement in 5-year DFS and the IFN-related side effects. Utilities for melanoma recurrence (mean 0.60) were significantly lower than for all IFN alpha-2b toxicity scenarios (mean 0.81-0.90). Patients were willing to tolerate mild-to-moderate and severe toxicity for a 50% and 75% chance of 5-year DFS, respectively. Both utilities and threshold benefits were mostly independent from patient characteristics like gender, income, and social situation. Significant impact was only observed by age and previous personal experience with cancer. On average, German patients were willing to trade even severe IFN alpha-2b toxicity for reducing the rate of melanoma recurrence. This result points out the importance of a relapse-free survival for melanoma patients."

According to the news editors, the research concluded: "The utilities measured in our study can be applied to decision-making processes in clinical trials of new adjuvant drugs."

For more information on this research see: Preferences of German melanoma patients for interferon (IFN) alpha-2b toxicities (the DeCOG "GERMELATOX survey") versus melanoma recurrence to quantify patients' relative values for adjuvant therapy. Medicine, 2016;95(46):273-278. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)


Keywords for this news article include: Kiel, Germany, Europe, Intercellular Signaling Peptides and Proteins, Interferons, Cytokines, Oncology, Melanoma, Therapy, University Hospital.

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Drugs and Therapies - Toxicology and Pharmacology

Researchers from University Hospital Describe Findings in Toxicology and Pharmacology (Evaluation of the toxicokinetics and apoptotic potential of ethanol extract from Echinodorus macrophyllus leaves in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Toxicology and Pharmacology. According to news reporting originating from Dourados, Brazil, by NewsRx correspondents, research stated, "This study evaluates the toxicological, genotoxic, mutagenic and apoptotic potential of an in vivo assay from Echinodorus macrophyllus extract (EEM). The acute toxicity test used 02 groups (n = 5) of female Wistar rats: negative control group (saline) and experimental group (2000 mg/kg b.w.""

Our news editors obtained a quote from the research from University Hospital, "EEM), both orally administered (gavage) at single doses and monitored for 14 days. To assess the genotoxic, mutagenic and apoptotic potential, 50 male Swiss mice were divided into 5 groups (n = 10): Group I: negative control (saline solution 0.1 ml/10 g b.w.); Group II: positive
control (cyclophosphamide 100 mg/kg b.w.) intraperitoneally administered; groups III-V received EEM at 500, 1000 and 2000 mg/kg b.w., respectively. Groups I, III-V received oral administrations (gavage). The results showed that there was no acute lethality or any signs of acute toxicity, indicating that LD50 is greater than 2000 mg/kg b.w. The groups treated with EEM showed no genotoxic or mutagenic activity and did not induce apoptosis in the liver and kidney."

According to the news editors, the research concluded: "Therefore, EEM showed no acute toxicity and at doses of 500, 1000 and 2000 mg/kg b.w. absence of genotoxicity, mutagenicity and no apoptotic events were observed."

For more information on this research see: Evaluation of the toxicokinetics and apoptotic potential of ethanol extract from Echinodorus macrophyllus leaves in vivo. Regulatory Toxicology and Pharmacology, 2016:82():32-38. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news editors report that additional information may be obtained by contacting M.E. de Barros, Fed Univ Grande, University Hospital, Dourados, MG, Brazil. Additional authors for this research include M.S.V. da Silva, R.J. Oliveira, J.D. Mota, D.R.H. Brait, L.N.B. de Carvalho, J.M. Vani, C.R. Berno, F.H.S. Araujo and M.E. de Barros.

Keywords for this news article include: Dourados, Brazil, South America, Toxicology and Pharmacology, Drugs and Therapies, University Hospital.

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Oncology - Glioblastomas
Researchers from University Hospital Detail New Studies and Findings in the Area of Glioblastomas (Cilengitide in newly diagnosed glioblastoma: biomarker expression and outcome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Glioblastomas have been published. According to news reporting out of Zurich, Switzerland, by NewsRx editors, research stated, "Integrins avb3 and avb5 regulate angiogenesis and invasiveness in cancer, potentially by modulating activation of the transforming growth factor (TGF)-b pathway. The randomized phase III CENTRIC and phase II CORE trials explored the integrin inhibitor cilengitide in patients with newly diagnosed glioblastoma with versus without O6-methylguanine DNA methyltransferase (MGMT) promoter methylation."

Our news journalists obtained a quote from the research from University Hospital, "These trials failed to meet their primary endpoints. Immunohistochemistry was used to assess the levels of the target integrins of cilengitide, avb3 and avb5 integrins, of avb8 and of their putative target, phosphorylation of SMAD2, in tumor tissues from CENTRIC (n=274) and CORE (n=224). avb3 and avb5 expression correlated well in tumor and endothelial cells, but showed little association with avb8 or pSMAD2 levels. In CENTRIC, there was no interaction between the biomarkers and treatment for prediction of outcome. In CORE, higher avb3 levels in tumor cells were associated with improved progression-free survival by central review and with improved overall survival in patients treated with cilengitide.Integrins avb3, avb5 and avb8
are differentially expressed in glioblastoma."

According to the news editors, the research concluded: "Integrin levels do not correlate with the activation level of the canonical TGF-b pathway. avb3 integrin expression may predict benefit from integrin inhibition in patients with glioblastoma lacking MGMT promoter methylation."

For more information on this research see: Cilengitide in newly diagnosed glioblastoma: biomarker expression and outcome. Oncotarget, 2016;7(12):15018-32.

Our news journalists report that additional information may be obtained by contacting M. Weller, Dept. of Neurology, University Hospital Zurich and University of Zurich, Zurich, Switzerland. Additional authors for this research include L.B. Nabors, T. Gorlia, H. Leske, E. Rushing, P. Bady, C. Hicking, J. Perry, Y.K. Hong, P. Roth, W. Wick, S.L. Goodman, M.E. Hegi, M. Picard, H. Moch, J. Straub and R. Stupp.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7588. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zurich, Europe, Genetics, Oncology, Integrins, Switzerland, Glioblastomas, Membrane Proteins, Immunologic Receptors.

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Autoimmune Diseases and Conditions - Psoriatic…

Researchers from University Hospital Detail New Studies and Findings in the Area of Psoriatic Arthritis [Apremilast, an oral phosphodiesterase 4 inhibitor, in patients with psoriatic arthritis and current skin involvement: a phase III, ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Psoriatic Arthritis. According to news reporting out of Southampton, United Kingdom, by NewsRx editors, research stated, "To evaluate apremilast treatment in patients with active psoriatic arthritis, including current skin involvement, despite prior therapy with conventional disease-modifying antirheumatic drugs and/or biologic agents. Patients (N=505) were randomised (1:1:1) to placebo, apremilast 20 mg twice daily, or apremilast 30 mg twice daily."

Our news journalists obtained a quote from the research from University Hospital, "Rescue therapy with apremilast was designated at week 16 for placebo patients not achieving 20% improvement in swollen and tender joint counts. At week 24, the remaining placebo patients were then randomised to apremilast 20 mg twice daily or 30 mg twice daily. The efficacy and safety of apremilast were assessed over 52 weeks. At week 16, significantly more patients receiving apremilast 20 mg twice daily (28%) and 30 mg twice daily (41%) achieved 20% improvement in American College of Rheumatology response criteria versus placebo (18%; p=0.0295 and p<0.0001, respectively), and mean decrease in the Health Assessment Questionnaire-Disability Index score was significantly greater with apremilast 30 mg twice daily (-0.20) versus placebo (-0.07; p=0.0073). In patients with baseline psoriasis body surface area involvement (>=)3%, significantly more apremilast 30 mg twice daily patients achieved 50% reduction from baseline Psoriasis Area and Severity Index score (41%) versus placebo (24%; p=0.0098) at week 16. At week 52, observed improvements in these measures demonstrated..."
sustained response with continued apremilast treatment. Most adverse events were mild to moderate in severity; the most common were diarrhoea, nausea, headache and upper respiratory tract infection. Apremilast demonstrated clinically meaningful improvements in psoriatic arthritis and psoriasis at week 16; sustained improvements were seen with continued treatment through 52 weeks."

According to the news editors, the research concluded: "Apremilast was generally well tolerated and demonstrated an acceptable safety profile."


Our news journalists report that additional information may be obtained by contacting C.J. Edwards, NIHR Wellcome Trust Clinical Research Facility, University Hospital Southampton, Southampton, UK. Additional authors for this research include F.J. Blanco, J. Crowley, C.A. Birbara, J. Jaworski, J. Aelion, R.M. Stevens, A. Vessey, X. Zhan and P. Bird.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/annrheumdis-2015-207963. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Therapy, Placebos, Psoriasis, Southampton, Dermatology, Rheumatology, United Kingdom, Clinical Research, Phosphodiesterases, Psoriatic Arthritis, Enzymes and Coenzymes, Clinical Trials and Studies, Joint Diseases and Conditions, Autoimmune Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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**Anesthesia**

**Researchers from University Hospital Provide Details of New Studies and Findings in the Area of Anesthesia (Anesthetic considerations in HELLP syndrome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Anesthesia are presented in a new report. According to news reporting from Murcia, Spain, by NewsRx journalists, research stated, "HELLP syndrome (hemolysis, elevated liver enzymes, low platelets) is an obstetric complication with heterogenous presentation and multisystemic involvement. It is characterized by microangiopathic hemolytic anemia, elevated liver enzymes by intravascular breakdown of fibrin in hepatic sinusoids and reduction of platelet circulation by its increased consumption."

The news correspondents obtained a quote from the research from University Hospital, "In terms of these patients' anesthetic management, it is essential to consider some details: (1) effective, safe perioperative management by a multidisciplinary approach, and quick, good communication among clinical specialists to achieve correct patient management; (2) neuroaxial block, particularly spinal anesthesia, is the first choice to do the cesarean if there is only moderate, but not progressive thrombocytopenia; (3) if a general anesthesia is required, it is necessary to control the response to stress produced by intubation, especially in patients with"
either severe high blood pressure or neurological signs, or to prevent major cerebral complications; (4) invasive techniques, e.g., as tracheostomy, arterial, and deep-vein canalization, should be considered; (5) if contraindication for neuroaxial anesthesia exists, rapid sequence intubation with general anesthesia should be regarded as an emergency in patients with full stomach; (6) increased risk of difficult airways should be taken into account. Optimal patient management can be chosen after considering the risks and benefits of each anesthetic technique, and based on good knowledge of these patients' pathophysiological conditions."

According to the news reporters, the research concluded: "Later, close patient monitoring is recommended for potential development of hemorrhagic complications, disseminated intravascular coagulation (DIC), or eclampsia."


Our news journalists report that additional information may be obtained by contacting M. del-Rio-Vellosillo, Dept. of Anesthesia, University Hospital Virgen de la Arrixaca, El Palmar, Murcia, Spain.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/aas.12639. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Murcia, Europe, Anesthesia, Critical Care, Pain Medicine, Article Review, Medical Devices.

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Oncology - Gastric Cancer

Researchers from University Hospital Report Details of New Studies and Findings in the Area of Gastric Cancer (Identification of IL11RA and MELK amplification in gastric cancer by comprehensive genomic profiling of gastric cancer cell lines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gastric Cancer. According to news reporting originating in Belem, Brazil, by NewsRx journalists, research stated, "To identify common copy number alterations on gastric cancer cell lines. Four gastric cancer cell lines (ACP02, ACP03, AGP01 and PG100) underwent chromosomal comparative genome hybridization and array comparative genome hybridization."

The news reporters obtained a quote from the research from University Hospital, "We also confirmed the results by fluorescence in situ hybridization analysis using the bacterial artificial chromosome clone and quantitative real time PCR analysis. The amplification of 9p13.3 was detected in all cell lines by both methodologies. An increase in the copy number of 9p13.3 was also confirmed by fluorescence in situ hybridization analysis. Moreover, the interleukin 11 receptor alpha (IL11RA) and maternal embryonic leucine zipper kinase (MELK) genes, which are present in the 9p13.3 amplicon, revealed gains of the MELK gene in all the cell lines studied. Additionally, a gain in the copy number of IL11RA and MELK was observed in 19.1% (13/68) and 55.9% (38/68) of primary gastric adenocarcinoma samples, respectively."
According to the news reporters, the research concluded: "The characterization of a small gain region at 9p13.3 in gastric cancer cell lines and primary gastric adenocarcinoma samples has revealed MELK as a candidate target gene that is possibly related to the development of gastric cancer."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i43.9506. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belem, Brazil, South America, Gastroenterology, Gastric Cancer, Cell Line, Oncology, Genetics, University Hospital.

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Skin Diseases and Conditions - Psoriasis

Researchers from University Hospital Report Details of New Studies and Findings in the Area of Psoriasis (Anti-tumor necrosis factor-alpha therapy improves endothelial function and arterial stiffness in patients with moderate to severe ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Skin Diseases and Conditions - Psoriasis have been published. According to news reporting originating from Santander, Spain, by NewsRx correspondents, research stated, "The aim of the present study was to determine if the use of the anti-tumor necrosis factor (TNF)-alpha monoclonal antibody adalimumab could improve endothelial function and arterial stiffness in patients with moderate to severe psoriasis. This was a prospective study on a series of consecutive patients with moderate to severe psoriasis who completed 6 months of therapy with adalimumab."

Financial support for this research came from Abbvie.

Our news editors obtained a quote from the research from University Hospital, "Patients with history of cardiovascular events, diabetes mellitus, kidney disease, hypertension or body mass index of 35 kg/m(2) or more were excluded. Assessment of endothelial function by brachial artery reactivity measuring flow-mediated endothelial dependent vasodilatation (FMD%), and carotid arterial stiffness by pulse wave velocity (PWV) was performed at the onset of treatment (time 0) and at month 6. Twenty-nine patients were studied. Anti-TNF-alpha adalimumab therapy yielded a significant improvement of endothelial function. The mean +/- standard deviation (SD) FMD% values increased from 6.19 +/- 2.44% at the onset of
adalimumab to 7.46 +/- 2.43% after 6 months of treatment with this biologic agent (P = 0.008). Likewise, following the use of adalimumab, PWV levels decreased from 6.28 +/- 1.04 m/s at the onset of adalimumab to 5.69 +/- 1.31 m/s at 6 months (P = 0.03)."

According to the news editors, the research concluded: "Patients with moderate to severe psoriasis exhibit improvement of endothelial function and arterial stiffness following anti-TNF-alpha therapy. These findings are of potential relevance due to increased risk of cardiovascular disease in patients with severe psoriasis."


The news editors report that additional information may be obtained by contacting M.A. Gonzalez-Gay, Hosp Univ Marques de Valdecilla, Div Rheumatol, Epidemiol Genet & Atherosclerosis Res Grp Syst In, Santander, Spain. Additional authors for this research include A. Corrales, R. Lopez-Mejias, S. Armesto, M.A. Gonzalez-Lopez, I. Gomez-Acebo, B. Ubilla, S. Remuzgo-Martinez, M.C. Gonzalez-Vela, R. Blanco, J.L. Hernandez, J. Llorca and M.A. Gonzalez-Gay.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1346-8138.13398. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Santander, Spain, Europe, Intercellular Signaling Peptides and Proteins, Papulosquamous Skin Diseases and Conditions, Tumor Necrosis Factor (TNF) Inhibitors, Cardiology, Risk and Prevention, Tumor Necrosis Factor-alpha, Clinical Trials and Studies, Tumor Necrosis Factors, Monoclonal Antibodies, Drugs and Therapies, Immunologic Agents, Membrane Proteins, Clinical Research, Pharmaceuticals, Cardiovascular, Blood Proteins, Cancer Therapy, Antirheumatics, Glycoproteins, Biotechnology, Dermatology, Adalimumab, Monokines, Cytokines, Psoriasis, University Hospital.

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Prostheses

Researchers from University Hospital Report Findings in Prostheses (Complete Transversal Disc Fracture in a Bjork-Shiley Delrin Mitral Valve Prosthesis 43 Years After Implantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Prostheses. According to news reporting from Salamanca, Spain, by NewsRx journalists, research stated, "A patient who underwent previous implantation of a mitral valve replacement with a Bjork-Shiley Delrin (BSD) mitral valve prosthesis during infancy was admitted to our institution 43 years later after an episode of syncope and cardiac arrest. Under extreme hemodynamic instability, a mitral valve prosthetic dysfunction causing massive mitral regurgitation was identified."

The news correspondents obtained a quote from the research from University
Hospital, "The patient underwent an emergent cardiac operation, and a complete disc fracture with partial disc migration was found. Exceptional cases of mechanical prosthetic heart valve fracture exist."

According to the news reporters, the research concluded: "We report the first case of complete transversal disc rupture of a BSD mitral valve prosthesis after the longest period of implantation ever reported in that position."


Our news journalists report that additional information may be obtained by contacting M.E. Arnaiz-Garcia, Univ Hosp Salamanca, Dept. of Cardiol, Intens Med Care Unit, Salamanca, Spain. Additional authors for this research include M.E. Arnaiz-Garcia, M.J. Dalmau-Sorli, J.A. Sastre-Rincon, J. Hernandez-Hernandez, M.E. Perez-Losada, V. Sagredo-Meneses and J. Lopez-Rodriguez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.03.082. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salamanca, Spain, Europe, Prostheses, Medical Devices, Prosthetics, Cardiology, University Hospital.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Researchers from University Nova of Lisboa Detail New Studies and Findings in the Area of HIV/AIDS (HIV-1 Nef Impairs the Formation of Calcium Membrane Territories Controlling the Signaling Nanoarchitecture at the Immunological Synapse)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news reporting out of Lisbon, Portugal, by NewsRx editors, research stated, "The ability of HIV-1 to replicate and to establish long-term reservoirs is strongly influenced by T cell activation. Through the use of membrane-tethered, genetically encoded calcium (Ca2+) indicators, we were able to detect for the first time, to our knowledge, the formation of Ca2+ territories and determine their role in coordinating the functional signaling nanostructure of the synaptic membrane."

Our news journalists obtained a quote from the research from the University Nova of Lisboa, "Consequently, we report a previously unknown immune subversion mechanism involving HIV-1 exploitation, through its Nef accessory protein, of the interconnectivity among three evolutionarily conserved cellular processes: vesicle traffic, signaling compartmentalization, and the second messenger Ca2+. We found that HIV-1 Nef specifically associates with the traffic regulators MAL and Rab11b compelling the vesicular accumulation of Lck. Through its association with MAL and Rab11b, Nef co-opts Lck switchlike function
driving the formation Ca2+ membrane territories, which, in turn, control the fusion of LAT-transporting Rab27 and Rab37 vesicles and the formation of LAT nanoclusters at the immunological synapse. Consequently, HIV-1 Nef disengages TCR triggering from the generation of p-LAT and p-SLP nanoclusters driving TCR signal amplification and diversification."

According to the news editors, the research concluded: "Altogether our results indicate that HIV-1 exploits the interconnectivity among vesicle traffic, Ca2+ membrane territories, and signaling nanoclusters to modulate T cell signaling and function."

For more information on this research see: HIV-1 Nef Impairs the Formation of Calcium Membrane Territories Controlling the Signaling Nanoarchitecture at the Immunological Synapse. *Journal of Immunology*, 2016;197(10):4042-4052. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news journalists report that additional information may be obtained by contacting H. Soares, Univ Nova Lisboa, NOVA Med Sch, Chron Dis Res Center, Immunobiol & Pathogenesis Grp, P-1150082 Lisbon, Portugal. Additional authors for this research include N.P. Martins, R. Henriques and H. Soares.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1601132. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lisbon, Portugal, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Intercellular Junctions, Immunological Synapses, Emerging Technologies, Primate Lentiviruses, Cellular Structures, Vertebrate Viruses, Nanoarchitecture, HIV Infections, Nanotechnology, Cell Membrane, Retroviridae, Nanoclusters, RNA Viruses, Immunology, Genetics, HIV/AIDS, HIV-1, University Nova of Lisboa.

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**Oncology - Pancreatic Cancer**

**Researchers from University Teaching Hospital Provide Details of New Studies and Findings in the Area of Pancreatic Cancer (Second-line therapy for advanced pancreatic cancer: evaluation of prognostic factors and review of current literature)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Pancreatic Cancer. According to news originating from Pisa, Italy, by NewsRx correspondents, research stated, "FOLFIRINOX is a standard first-line treatment for advanced pancreatic cancer (aPC) and no accepted second-line regimen exists. We enrolled 71 aPC patients progressed to modified FOLFIRINOX (mFOLFIRINOX) treated with second-line chemotherapy."

Our news journalists obtained a quote from the research from University Teaching Hospital, "Five partial responses (7.1%) and 19 (27.1%) disease stabilizations were reported. After a median follow-up of 20.1 months, median progression-free survival was 2.5 months (95% CI: 2.1-2.9 months) and median overall survival was 6.2 months (95% CI: 5.3-7.1
months). At multivariate analysis, CA19.9 level (≥) 59 upper normal limit resulted associated with worse survival (hazard ratio: 2.32; 95% CI: 1.12-4.78; p=0.023). Salvage chemotherapy could be useful for a subgroup of aPC patients.

According to the news editors, the research concluded: "Prognostic factors might be helpful to identify patients with greater benefit."


The news correspondents report that additional information may be obtained from C. Caparello, Polo Oncologico, Azienda Ospedaliero-Universitaria Pisana, Istituto Toscano Tumori, Pisa, Italy. Additional authors for this research include C. Vivaldi, L. Fornaro, G. Musettini, G. Pasquini, S. Catanese, G. Masi, M. Lencioni, A. Falcone and E. Vasile.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.16.16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pisa, Italy, Europe, Therapy, Oncology, Article Review, Gastroenterology, Pancreatic Cancer, Pancreatic Neoplasms.

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Drugs and Therapies - Chymotrypsin Therapy

Researchers from University of Adelaide Report New Studies and Findings in the Area of Chymotrypsin Therapy (New Peptidomimetic Boronates for Selective Inhibition of the Chymotrypsin-like Activity of the 26S Proteasome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Chymotrypsin Therapy. According to news originating from Adelaide, Australia, by NewsRx correspondents, research stated, "Proteasome is a large proteinase complex that degrades proteins via its three catalytic activities. Among these activities, the 'chymotrypsin-like' activity has emerged as the focus of drug discovery in cancer therapy."

Financial support for this research came from Australian Research Council.

Our news journalists obtained a quote from the research from the University of Adelaide, "Here, we report new peptidomimetic boronates that are highly specific for the chymotrypsin-like catalytic activity of the proteasome. These new specific proteasome inhibitors were demonstrated to have higher in vitro potency and selective cytotoxicity for cancer cells compared to benchmark proteasome inhibitors: bortezomib and carfilzomib."

According to the news editors, the research concluded: "In breast cancer cell lines, treatment with la or 2a induced accumulation of the high molecular weight polyubiquitinated proteins at similar levels observed for bortezomib and carfilzomib, indicating that cancer cell death caused by la/2a is chiefly due to proteasome inhibition."

For more information on this research see: New Peptidomimetic Boronates for Selective Inhibition of the Chymotrypsin-like Activity of the 26S Proteasome. ACS Medicinal Chemistry Letters, 2016;7(12):1039-1043. ACS Medicinal Chemistry Letters can be contacted
Researchers from University of Agriculture Detail New Studies and Findings in the Area of Trimethyl Ammonium Compounds (Choline supplementation alleviates fluoride-induced testicular toxicity by restoring the NGF and MEK expression in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Trimethyl Ammonium Compounds. According to news reporting originating in Shanxi, People's Republic of China, by NewsRx journalists, research stated, "Fluoride is known to cause male reproductive toxicity, and the elucidation of its underlying mechanisms is an ongoing research focus in reproductive toxicology and epidemiology. Choline, an essential nutrient, has been extensively studied for its benefits in nervous system yet was rarely discussed for its prospective effect in male reproductive system."

Financial supporters for this research include China National Natural Science Foundation, Specialized Research Fund for the Doctoral Program of Higher Education of China, Science and Technology Program of Shanxi Province, Program for Top Young Academic Leaders of Higher Institutions of Shanxi.

The news reporters obtained a quote from the research from the University of Agriculture, "This study aims to explore the potential protective role of choline against NaF-induced male reproductive toxicity via MAPK pathway. The male mice were administrated by 150 mg/L NaF in drinking water, 5.75 g/kg choline in diet, and their combination respectively from maternal gestation to postnatal 15 weeks. The results showed that fluoride exposure reduced body weight growth, lowered sperm count and survival percentages, altered testicular histology, down-regulated the mRNA expressions of NGF, Ras, Raf, and MEK genes in testes, as well as significantly decreased the expressions of both NGF and phosphor-MEK proteins in testes. Examination of data from choline-treated mice revealed that choline supplementation ameliorated these fluoride-induced changes. Taken together, our findings suggest that choline supplementation alleviates fluoride-induced testicular toxicity by restoring the NGF and phosphor-MEK expression."
According to the news reporters, the research concluded: "The suitable dosage and supplementation periods of choline await further exploration."

For more information on this research see: Choline supplementation alleviates fluoride-induced testicular toxicity by restoring the NGF and MEK expression in mice. *Toxicology and Applied Pharmacology*, 2016;310():205-214. *Toxicology and Applied Pharmacology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - wwwElseviercom; Toxicology and Applied Pharmacology - wwwjournalselseviercom/toxicologyandappliedpharmacology/)

Our news correspondents report that additional information may be obtained by contacting J.D. Wang, Shanxi Agr Univ, Shanxi Key Lab Ecol Anim Sci & Environm Vet Med, Taigu 030801, Shanxi, People's Republic of China. Additional authors for this research include Y.F. Zhang, C. Liang, N.S. Wang, H.P. Zheng and J.D. Wang.

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Keywords for this news article include: Shanxi, People's Republic of China, Asia, Quaternary Ammonium Compounds, Trimethyl Ammonium Compounds, Anions, Epidemiology, Hydrofluoric Acid, Ethanolamines, Fluorides, Choline, University of Agriculture.

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Oncology - Cancer Risk

**Researchers from University of Alabama Discuss Findings in Cancer Risk (Metabolic risk factors and mechanisms of disease in epithelial ovarian cancer: A review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cancer Risk is the subject of a report. According to news reporting originating in Birmingham, Alabama, by NewsRx journalists, research stated, "Epithelial ovarian cancer continues to be the deadliest gynecologic malignancy. Patients with both diabetes mellitus and obesity have poorer outcomes, yet research correlating metabolic abnormalities, such as metabolic syndrome, to ovarian cancer risk and outcomes is lacking."

The news reporters obtained a quote from the research from the University of Alabama, "This article reviews the literature regarding metabolic derangements and their relationship to epithelial ovarian cancer, with a focus on potential mechanisms behind these associations. PubMed and Google Scholar were searched for articles in the English language regarding epithelial ovarian cancer, obesity, diabetes mellitus, and metabolic syndrome, with a focus on studies conducted since 1990. Obesity, type II diabetes mellitus, and metabolic syndrome have been associated with poor outcomes in epithelial ovarian cancer. More studies investigating the relationship between metabolic syndrome and epithelial ovarian cancer are needed. A variety of pathologic factors may contribute to cancer risk in patients with metabolic derangements, including altered adipokine and cytokine expression, altered immune responses to tumor cells, and changes in pro-tumorigenic signaling pathways."

According to the news reporters, the research concluded: "More research is needed to
examine the effects of metabolic syndrome on epithelial ovarian cancer risk and mortality, as well as the underlying pathophysiologies in patients with obesity, diabetes mellitus, and metabolic syndrome that may be targeted for therapeutic intervention."

For more information on this research see: Metabolic risk factors and mechanisms of disease in epithelial ovarian cancer: A review. Gynecologic Oncology, 2016;143(3):674-683. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news correspondents report that additional information may be obtained by contacting R.C. Arend, Univ Alabama Birmingham, Dept. of Obstet & Gynecol, Birmingham, AL 35233, United States. Additional authors for this research include A.I. Londono, L.A. Norian and R.C. Arend.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Article Review, Endocrine System Diseases and Conditions, Glucose Metabolism Disorders, Mixed Ovarian Cancer, Nutrition Disorders, Risk and Prevention, Metabolic Syndrome, Diet and Nutrition, Diabetes Mellitus, Women's Health, Overnutrition, Endocrinology, Cancer Risk, Healthcare, Bariatrics, Gynecology, Oncology, Obesity, University of Alabama.

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**Drugs and Therapies - Antineoplastics**

**Researchers from University of Alexandria Describe Findings in Antineoplastics (HPLC Methods for Quantitation of Exemestane-Luteolin and Exemestane-Resveratrol Mixtures in Nanoformulations)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antineoplastics. According to news reporting originating in Alexandria, Egypt, by NewsRx journalists, research stated, "Two HPLC-DAD assays for the simultaneous quantitation of exemestane (EXE) and resveratrol (RES)-Mix 1-and EXE and luteolin (LUT)-Mix 2-in novel breast cancer therapy nanoformulations were developed. Calibration curves 15-30 μg/mL and samples were injected through an Inertsil ODS-3 (250 x 4.6 mm, 5 μm) column."

The news reporters obtained a quote from the research from the University of Alexandria, "The gradient elution for Mix 1 was methanol: 0.05% (v/v) acetic acid in water (60: 40 to 80:20, linear over 2 min), and for Mix 2, it was methanol: water (60: 40 for 4 min, then ramped linearly to 90:10, over 12 min) pumped at 1.5 mL/min for 4 min, then 1 mL/min till the end of run. EXE, RES, LUT and flutamide (internal standard (IS)) were measured at 246, 307, 350 and 300 nm, respectively. For Mix 1, RES, EXE and IS eluted at 3.5, 6.8 and 7.4 min, respectively, while for Mix 2, LUT, EXE and IS eluted at 7.5, 11.4 and 12.7 min, respectively. The mean r(2) for the standard curves was >= 0.99, and percentage coefficient of variation and % error of the mean were <2. Both assays successfully quantitated Mix 1 and Mix 2 in their nanoformulations."
According to the news reporters, the research concluded: "The two developed assays were sensitive and selective for the analysis of EXE-LUT and EXE-RES mixtures in nanoformulations according to International Conference on Harmonization guidelines."


Our news correspondents report that additional information may be obtained by contacting D.A. Hamdy, University of Alexandria, Fac Pharm, Pharmaceut Analyt Chem Department, Alexandria 21521, Egypt. Additional authors for this research include A.O. Elzoghby, N.A. Elgindy and D.A. Hamdy.

Keywords for this news article include: Alexandria, Egypt, Africa, Aromatase Inhibitors, Drugs and Therapies, Exemestane Therapy, Pharmaceuticals, Antineoplastics, Hormones, University of Alexandria.

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**Nursing - Clinical Nursing**

**Researchers from University of Alicante Report Recent Findings in Clinical Nursing (Comparison of menstrual disorders in hospital nursing staff according to shift work pattern)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nursing - Clinical Nursing is the subject of a report. According to news reporting out of Alicante, Spain, by NewsRx editors, research stated, "Aim and objective. To assess the association between work in a rotating shift schedule and menstruation characteristics among nurse staff in a prospective study."

Our news journalists obtained a quote from the research from the University of Alicante, "Rotating shifts have been linked to alterations in the reproductive cycle. In the case of menstrual alterations, the conclusions are not clear. Prospective epidemiological study with follow-up over four months. All the female nurse staff (< 40 years) in a hospital were interviewed, collecting sociodemographic and employment information. They were given a menstrual diary to keep a record of their shifts and characteristics of their menstruation (duration, amount of blood, dysmenorrhoea). They had two types of shifts: (1) Rotating shift schedule (two mornings, two afternoons, one night and two days off) including morning shifts (8:00-15:00), afternoon/evening shifts (15:00-22:00) and night shifts (22:00-8:00), and (2) Day shift schedule including morning shifts (8:00-15:00) and/or afternoon/evening shifts (15:00-22:00). The crude and adjusted odds ratios with 95% confidence interval were calculated using logistic generalised estimating equations (GEE) taking into account the correlations of multiple cycles per worker. One hundred and thirteen workers on the rotating shift and 75 on the day shift participated, and information from 730 menstrual cycles were obtained. There were no differences in prolonged duration, dysmenorrhoea, prolonged duration dysmenorrhoea and excessive bleeding among nurses on rotating shift compared to those on the day shift. For prolonged duration of menstruation, workers with more than five years on the rotating shift showed a slightly lower (nonsignificant) risk compared with those with < 5 years. Nurse staff on
the rotating shift did not show increased risk of having menstrual disorders comparing with day staff. Relevance to clinical practice."

According to the news editors, the research concluded: "Shifts with short rotation cycles and a progressive sequence do not appear to cause menstrual disorders in nurse staff who work rotating shifts."


Our news journalists report that additional information may be obtained by contacting E. Ronda-Perez, University of Alicante, Dept. of Community Nursing Prevent Med & Public Hlth &. Alicante, Spain. Additional authors for this research include J.M. Martinez, V. Baste, B.E. Moen and E. Ronda-Perez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13371. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Alicante, Spain, Europe, Clinical Nursing, Nursing, Epidemiology, Risk and Prevention, Hospital, University of Alicante.

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Digestive System Diseases and Conditions...

Researchers from University of Amsterdam Provide Details of New Studies and Findings in the Area of Pancreatitis (Clinical outcomes and prevalence of cancer in patients with possible groove pancreatitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Digestive System Diseases and Conditions - Pancreatitis. According to news reporting from Amsterdam, Netherlands, by NewsRx journalists, research stated, "Data on non-surgical treatment of groove pancreatitis (GP) and the risk of cancer are lacking. We aimed to determine the prevalence and predictors of cancer in patients in whom the diagnosis GP was considered, and to evaluate symptom improvement after treatment."

The news correspondents obtained a quote from the research from the University of Amsterdam, "Patients referred with possible GP (2001-2014) were retrospectively included. An experienced radiologist reassessed imaging. GP patients received questionnaires evaluating their symptoms. From the 38 possible GP patients, 10 had cancer (26%) and 28 GP (74%). Compared with cancer patients, GP patients more frequently had cysts (2/10 vs. 18/28, P = 0.03), less often jaundice (6/10 vs 3/27, P< 0.01), an abrupt caliber change of the CBD (5/10 vs. 2/28, P< 0.01) or suspicious cytology (5/9 vs 2/20, P = 0.02). Of the 28 GP patients, 14 patients were treated conservatively of whom 12 reported symptom improvement after a median follow-up of 45 months (range 7-127 months). All 6 patients treated endoscopically and 7/8 patients treated surgically reported symptom improvement. Surgery, performed because of treatment failure (3/8) or inability to exclude malignancy (5/8), caused mortality in 1/8 patients. Suspicion of pancreatic cancer should be high in patients presenting with possible GP."
According to the news reporters, the research concluded: "Conservative, endoscopic and surgical treatment can all lead to symptom improvement, suggesting a 'step-up approach' to GP once cancer is excluded."


Our news journalists report that additional information may be obtained by contacting M.G. Besselink, University of Amsterdam, Academy Med Center, Dept. of Surg, Amsterdam, Netherlands. Additional authors for this research include C.Y. Nio, Y. Issa, P. Fockens, J. Verheij, O.R. Busch, T.M. van Gulik, E.A. Rauws, M.A. Boermeester, J.E. van Hooft and M.G. Besselink.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Cancer, Risk and Prevention, Gastroenterology, Pancreatitis, Oncology, University of Amsterdam.

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*Catheterization*

**Researchers from University of Ataturk Report on Findings in Catheterization (Should we change the cannulation site for right subclavian artery cannulation? An experimental study with a newly designed cannula)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Catheterization have been published. According to news reporting out of Izmir, Turkey, by NewsRx editors, research stated, "In this experimental study, we primarily aimed to show the hemodynamic effects and superiority of this newly designed cannula for perfusion compared to standard subclavian cannulation. The new cannula (Figure 1) allows bidirectional axial flow and it directly fits in the brachiocephalic trunk (innominate artery)."

Our news journalists obtained a quote from the research from the University of Ataturk, "We used a cardiopulmonary bypass roller pump, reservoir, 3/8-I/2-I/4-inch Y-connectors and tubing set. Lines were set as seen in Figures 2, 3, 4 and 5. The anatomy of the aorta (ascending, arch, branches, descending) was mimicked, using tubing sets with different sizes and the connectors yielding similar angles and configurations. In this experimental vascular system, systemic vascular resistance was created with partial clamping of the common tubing set. The cannulation sites were created in the subclavian artery and the innominate artery. Perfusion was established with the same pump rate and the same occlusion pressures (systemic vascular resistance). The pressure readings were obtained in the right carotid artery, the left carotid artery and the left subclavian artery. These experimental models of vasculature allowed us to measure pressures-in the carotid system for different cannulation set-ups, using both our newly designed double-outflow cannula, which was introduced via the innominate artery, and the standard arterial cannula, which was introduced via the subclavian artery. Higher pressure
recordings were obtained in the carotid system with the new cannula introduced through innominate artery."

According to the news editors, the research concluded: "Higher cerebral perfusion readings were obtained with our newly designed bidirectional cannula introduced via the innominate artery compared to standard cannulation through the right subclavian artery."

For more information on this research see: Should we change the cannulation site for right subclavian artery cannulation? An experimental study with a newly designed cannula. Perfusion-Uk, 2016;31(8):668-675. Perfusion-Uk can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England.

Our news journalists report that additional information may be obtained by contacting H. Cakir, Izmir Katip Celebi Univ Ataturk Educ & Training H, Dept. of Cardiovasc Surg, Izmir, Turkey. Additional authors for this research include M. Kestelli, I. Yurekli, B. Eygi, S. Iscan, Y. Sac, K. Asar and H. Ogut.

Keywords for this news article include: Izmir, Turkey, Eurasia, Vascular Resistance, Innominate Artery, Subclavian Artery, Catheterization, Hemodynamics, Angiology, Arteries, University of Ataturk.

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Transplant Medicine - Kidney Transplants

Researchers from University of Barcelona Detail New Studies and Findings in the Area of Kidney Transplants (Effect of mammalian target of rapamycin inhibitors on cytomegalovirus infection in kidney transplant recipients receiving polyclonal ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Transplant Medicine - Kidney Transplants have been presented. According to news originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Mammalian target of rapamycin inhibitors (mTORi) prevents cytomegalovirus (CMV) infection in kidney transplant (KT) patients. From May 2010 to December 2013, all KT recipients were retrospectively analysed."

Our news journalists obtained a quote from the research from the University of Barcelona, "Maintenance immunosuppression regimen was divided into mTORi or calcineurin inhibitors (CNI)-based regimen. Since June 2011, CMV-seropositive recipients (R+) treated with high-intensity immunosuppression and mTORi did not receive anti-CMV prophylaxis. We analysed 350 consecutive patients, of which 95 (27%) received mTORi and 255 (73%) CNI-based immunosuppression. A Cox-regression multivariate analysis showed that the use of mTORi-based immunosuppression during all follow-up reduced the risk of CMV infection (HR 0.36, 95% CI 0.15-0.89, P = 0.028) and confirmed in a propensity score-matched cohort (HR 0.4, 95% CI 0.1-0.9, P = 0.047). Early discontinuation of mTORi increased the risk of CMV infection (HR 3.2; 95% CI 1.7-6.0) in univariate analysis. The incidence of CMV infection was not higher among CMV R+ patients on mTORi and requiring high-intensity immunosuppression when CMV prophylaxis was not given. The use of mTORi protected for CMV infection in KT patients, allowing to avoid antiviral prophylaxis for R+ patients receiving high-intensity immunosuppression."

According to the news editors, the research concluded: "The increased risk of CMV

The news correspondents report that additional information may be obtained from C. Cervera, University of Barcelona, Barcelona Hospital Clinic, Div Infect Dis, IDIBAPS, Barcelona, Spain. Additional authors for this research include F. Cofan, C. Hernandez, D. Soy, M.A. Marcos, G. Sanclemente, M. Bodro, A. Moreno, F. Diekmann, J.M. Campistol and F. Oppenheimer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tri.12848. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Herpesvirus Diseases and Conditions, Transplant Medicine, Kidney Transplants, Betaherpesvirinae, Organ Transplants, Cytomegalovirus, Transplantation, Herpesviridae, DNA Viruses, Biomedicine, Virology, Surgery, Viral, University of Barcelona.

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**Autoimmune Diseases and Conditions - Rheumatoid...**

**Researchers from University of Bari Report on Findings in Rheumatoid Arthritis (Early clinical response predicts low disease activity at one year in rheumatoid arthritis patients on treatment with certolizumab in real-life settings. An ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Autoimmune Diseases and Conditions - Rheumatoid Arthritis have been published. According to news reporting from Bari, Italy, by NewsRx journalists, research stated, "The aim of this study was to assess whether good EULAR response assessed at 3 months may predict the achievement of low disease activity (LDA) at 1 year in rheumatoid arthritis (RA) patients on treatment with certolizumab pegol (CZP). From the nationwide Italian registry, we analysed 278 RA patients (age 54.8 +/- 12 years, duration of disease 9.8 +/- 8 years, female 84%) initiating CZP as first line (68%) or >= second line (32%) of biological treatment because of their active disease."

The news correspondents obtained a quote from the research from the University of Bari, "Assessment of disease activity was based on 28 joint Disease Activity Score (DAS28). A reduction of DAS28 > 1.2 (good EULAR response) was assessed at 3 months, and the achievement of LDA (DAS28 <= 3.2) was evaluated at 1 year. Multiple regression models were used to estimate predictors of early good EULAR response or LDA. The percentages of patients attaining good EULAR response were 52% at 3, 65% at 6, and 66% at 12 months. Furthermore, 51.2% (98/192) of the patients reached LDA at 12 months. Patients taking CZP as first biological treatment had adjusted odds ratios (OR) of good EULAR response at 3 months 6 folds higher than in those with >= 1 prior biological drug (OR 6.7, 95% CI 1.97-23.1). While,
the strongest variable correlating with 12 months LDA was the achievement of good EULAR response at 3 months (OR 11.3, 95% CI 13.1-34.8)."

According to the news reporters, the research concluded: "Our findings showed that attaining good EULAR response at 3 months strongly predicted 1 year LDA in RA patients treated with CZP in real-life settings."


Our news journalists report that additional information may be obtained by contacting F. Iannone, University of Bari, Policlinico, Rheumatol Unit, I-70124 Bari, Italy. Additional authors for this research include G. Carlino, A. Marchesoni, P. Sarzi-Puttini, R. Gorla and G. Lapadula.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jbspin.2015.12.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bari, Italy, Europe, Musculoskeletal Diseases and Conditions, Tumor Necrosis Factor (TNF) Inhibitors, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Monoclonal Antibodies, Rheumatoid Arthritis, Drugs and Therapies, Immunologic Agents, Biotechnology, Certolizumab, University of Bari.

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**Immunology**

**Researchers from University of Basel Discuss Findings in Immunology (T-cell metabolism governing activation, proliferation and differentiation; a modular view)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immunology is now available. According to news reporting out of Basel, Switzerland, by NewsRx editors, research stated, "T lymphocytes are a critical component of the adaptive immune system mediating protection against infection and malignancy, but also implicated in many immune pathologies. Upon recognition of specific antigens T cells clonally expand, traffic to inflamed sites and acquire effector functions, such as the capacity to kill infected and malignantly transformed cells and secrete cytokines to coordinate the immune response."

Funders for this research include National Science Foundation, Gebert Ruf Stiftung, Swiss Cancer League.

Our news journalists obtained a quote from the research from the University of Basel, "These processes have significant bioenergetic and biosynthetic demands, which are met by dynamic changes in T-cell metabolism, specifically increases in glucose uptake and metabolism; mitochondrial function; amino acid uptake, and cholesterol and lipid synthesis. These metabolic changes are coordinate by key cellular kinases and transcription factors. Dysregulated T-cell metabolism is associated with impaired immunity in chronic infection and
cancer and conversely with excessive T-cell activity in autoimmune and inflammatory pathologies."

According to the news editors, the research concluded: "Here we review the key aspects of T-cell metabolism relevant to their immune function, and discuss evidence for the potential to therapeutically modulate T-cell metabolism in disease."

For more information on this research see: T-cell metabolism governing activation, proliferation and differentiation; a modular view. *Immunology*, 2017;150(1):35-44.


Our news journalists report that additional information may be obtained by contacting C. Hess, University of Basel, Dept. of Biomed, Immunobiol Lab, CH-4031 Basel, Switzerland. Additional authors for this research include A.V. Burgener, J. Grahlert and C. Hess.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imm.12655. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Basel, Switzerland, Europe, Genetics, Article Review, Immunology, University of Basel.

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**Clinical Research - Clinical Trials and Studies**

**Researchers from University of Bern Discuss Findings in Clinical Trials and Studies (Cerebral Microembolization During Aortic Valve Replacement Using Minimally Invasive or Conventional Extracorporeal Circulation: A Randomized Trial)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Clinical Research - Clinical Trials and Studies are presented in a new report. According to news originating from Bern, Switzerland, by NewsRx correspondents, research stated, "To compare intraoperative cerebral microembolic load between minimally invasive extracorporeal circulation (MiECC) and conventional extracorporeal circulation (CECC) during isolated surgical aortic valve replacement (SAVR), we conducted a randomized trial in patients undergoing primary elective SAVR at a tertiary referral hospital. The primary outcome was the procedural phase-related rate of high-intensity transient signals (HITS) on transcranial Doppler ultrasound."

Our news journalists obtained a quote from the research from the University of Bern, "HITS rate was used as a surrogate of cerebral microembolism in pre-defined procedural phases in SAVR using MiECC or CECC with (+F) or without (-F) an oxygenator with integrated arterial filter. Forty-eight patients were randomized in a 1:1 ratio to MiECC or CECC. Due to intra procedural Doppler signal loss (n=3), 45 patients were included in final analysis. MiECC perfusion regimen showed a significantly increased HITS rate compared to CECC (by a factor of 1.75; 95% confidence interval, 1.19-2.56). This was due to different HITS rates in procedural phases from aortic cross-clamping until declamping [phase 4] (P=0.01), and from aortic declamping until stop of extracorporeal perfusion [phase 5] (P=0.05). Post hoc analysis revealed
that MiECC-F generated a higher HITS rate than CECC+F (P=0.005), CECC-F (P=0.05) in phase 4, and CECC-F (P=0.03) in phase 5, respectively. In open-heart surgery, MiECC is not superior to CECC with regard to gaseous cerebral microembolism. When using MiECC for SAVR, the use of oxygenators with integrated arterial line filter appears highly advisable."

According to the news editors, the research concluded: "Only with this precaution, MiECC confers a cerebral microembolic load comparable to CECC during this type of open heart surgery."


The news correspondents report that additional information may be obtained from G. Erdoes, University of Bern, University Hospital Bern, Dept. of Anesthesiol & Pain Therapy, Inselspital, Bern, Switzerland. Additional authors for this research include F. Kroninger, E. Gygax, H. Jenni, D. Reineke, M. Stucki, N. Hagenbuch, T. Carrel, B. Eberle and G. Erdoes.

Keywords for this news article include: Bern, Switzerland, Europe, Operative Surgical Procedures, Clinical Trials and Studies, Extracorporeal Circulation, Clinical Research, Heart Surgery, Cardiology, University of Bern.

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**Oncology - Multiple Myeloma**

**Researchers from University of Bologna Describe Findings in Multiple Myeloma [The genetic and genomic background of multiple myeloma patients achieving complete response after induction therapy with bortezomib, thalidomide and dexamethasone ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Multiple Myeloma. According to news reporting originating from Bologna, Italy, by NewsRx correspondents, research stated, "The prime focus of the current therapeutic strategy for Multiple Myeloma (MM) is to obtain an early and deep tumor burden reduction, up to the level of complete response (CR). To date, no description of the characteristics of the plasma cells (PC) prone to achieve CR has been reported."

Our news editors obtained a quote from the research from the University of Bologna, "This study aimed at the molecular characterization of PC obtained at baseline from MM patients in CR after bortezomib-thalidomide-dexamethasone (VTD) first line therapy. One hundred and eighteen MM primary tumours obtained from homogeneously treated patients were profiled both for gene expression and for single nucleotide polymorphism genotype. Genomic results were used to obtain a predictor of sensitivity to VTD induction therapy, as well as to describe both the transcription and the genomic profile of PC derived from MM with subsequent optimal response to primary induction therapy. By analysing the gene profiles of CR patients, we identified a 5-gene signature predicting CR with an overall median accuracy of 75% (range: 72%-85%). In addition, we highlighted the differential expression of a series of genes, whose
deregulation might explain patients' sensitivity to VTD therapy."

According to the news editors, the research concluded: "We also showed that a small copy number loss, covering 606Kb on chromosome 1p22.1 was the most significantly associated with CR patients."

For more information on this research see: The genetic and genomic background of multiple myeloma patients achieving complete response after induction therapy with bortezomib, thalidomide and dexamethasone (VTD). Oncotarget, 2016;7(9):9666-79.

The news editors report that additional information may be obtained by contacting C. Terragna, Seragnoli Institute of Hematology, Dept. of Experimental, Diagnostic and Specialty Medicine (DIMES), Bologna University School of Medicine, Bologna, Italy. Additional authors for this research include D. Remondini, M. Martello, E. Zamagni, L. Pantani, F. Patriarca, A. Pezzi, G. Levi, M. Offidani, I. Proserpio, G. De Sabbata, P. Tacchetti, C. Cangialosi, F. Ciambelli, C.V. Vigano, F.A. Dico, B. Santacroce and B.

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Keywords for this news article include: Antiinfectives, Antineoplastics, Pharmaceuticals, Italy, Europe, Bologna, Genetics, Hormones, Oncology, Leprostatics, Phthalimides, Glucocorticoids, Carboxylic Acids, Multiple Myeloma, Paraproteinemias, Organic Chemicals, Bortezomib Therapy, Drugs and Therapies, Ophthalmic Steroids, Thalidomide Therapy, Hemostatic Disorders.

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Central Nervous System Diseases and Conditions - …

Researchers from University of Bonn Describe Findings in Limbic Encephalitis (Suspected antibody negative autoimmune limbic encephalitis: outcome of immunotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Limbic Encephalitis. According to news reporting originating in Bonn, Germany, by NewsRx journalists, research stated, "Whether and when to immunologically treat epilepsy patients with suggested autoantibody (AB)-negative limbic encephalitis (LE) is clinically challenging. Therefore, we evaluated the clinical outcome and eventual outcome predictors of immunotherapy in a group of AB-negative patients with recent-onset temporal lobe epilepsy (TLE), magnetic resonance imaging (MRI) indicators of LE, subjective cognitive decline, and/or psychiatric symptoms."

The news reporters obtained a quote from the research from the University of Bonn, "This retrospective, observational, uncontrolled study monitored 28 TLE patients with suggested AB-negative LE along with methylprednisolone immunotherapy. All patients had seizures, amygdala and/or - hippocampal enlargement, subjective cognitive decline and/or behavioral problems. Eighty-six percent (24/28) were impaired in executive or memory functions, 39% (10/25) depressed, 81% were on antiepileptic drugs when pulse therapy started. After a median follow-up of 18 months, 46% (13/28) of the patients were seizure free (>2 months), 48% (13/27) showed MRI improvements (amygdala and/or hippocampal volume reduction),
cognition improved in 57% (16/28), worsened in 32% (9/28), mood improved in 14% (4/25), and deteriorated in 11% (3/25). Immunotherapy was discontinued in 75% (21/28). Clinical changes did not correlate to each other. Outcomes could not be predicted. Immunological treatment of suggested AB-negative LE showed reasonable seizure control, MRI and cognitive improvements. Treatment success was not predictable from clinical features, nor definitely attributable to immunological treatment.

According to the news reporters, the research concluded: "Lacking biomarkers for the reliable diagnosis of AB-negative LE, we suggest that in presence of mild manifestations, and after initiating antiepileptic drug therapy, negative dynamics in MRI, seizures, cognition, and behavior should be documented before immunosuppressive treatment is initiated."


Our news correspondents report that additional information may be obtained by contacting C. Helmstaedter, University of Bonn, Dept. of Epileptol, Medical Center, D-53105 Bonn, Germany. Additional authors for this research include J. Wagner, G. Widman, M.P. Malter, C.E. Elger and C. Helmstaedter.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ane.12575. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bonn, Germany, Europe, Central Nervous System Viral Diseases and Conditions, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Nervous System Paraneoplastic Syndromes, Autoimmune Diseases and Conditions, Central Nervous System Infections, Virus Diseases and Conditions, Brain Diseases and Conditions, Drugs and Therapies, Limbic Encephalitis, Immunoglobulins, Blood Proteins, Antiepileptics, Immunotherapy, Immunology, Antibodies, Seizures, Epilepsy, University of Bonn.

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Oncology - Gliomas

Researchers from University of Bonn Report New Studies and Findings in the Area of Gliomas [Temozolomide chemotherapy versus radiotherapy in high-risk low-grade glioma (EORTC 22033-26033): a randomised, open-label, phase 3 intergroup study]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gliomas. According to news reporting originating in Bonn, Germany, by NewsRx journalists, research stated, "Background Outcome of low-grade glioma (WHO grade II) is highly variable, reflecting molecular heterogeneity of the disease. We compared two different, single-modality treatment strategies of standard radiotherapy versus primary temozolomide chemotherapy in patients with low-grade glioma, and assessed progression-free survival outcomes and identified predictive molecular factors."
Financial supporters for this research include Canadian Cancer Society Research Institute, National Health and MRC project grant.

The news reporters obtained a quote from the research from the University of Bonn, "For this randomised, open-label, phase 3 intergroup study (EORTC 22033-26033), undertaken in 78 clinical centres in 19 countries, we included patients aged 18 years or older who had a low-grade (WHO grade II) glioma (astrocytoma, oligoastrocytoma, or oligodendroglioma) with at least one high-risk feature (aged >40 years, progressive disease, tumour size >5 cm, tumour crossing the midline, or neurological symptoms), and without known HIV infection, chronic hepatitis B or C virus infection, or any condition that could interfere with oral drug administration. Eligible patients were randomly assigned (1:1) to receive either conformal radiotherapy (up to 50.4 Gy; 28 doses of 1.8 Gy once daily, 5 days per week for up to 6.5 weeks) or dose-dense oral temozolomide (75 mg/m(2) once daily for 21 days, repeated every 28 days [one cycle], for a maximum of 12 cycles). Random treatment allocation was done online by a minimisation technique with prospective stratification by institution, 1p deletion (absent vs present vs undetermined), contrast enhancement (yes vs no), age (<40 vs >= 40 years), and WHO performance status (0 vs >= 1). Treating physicians, and researchers were aware of the assigned intervention. A planned analysis was done after 216 progression events occurred. Our primary clinical endpoint was progression-free survival, analysed by intention-to-treat; secondary outcomes were overall survival, adverse events, neurocognitive function (will be reported separately), health-related quality of life and neurological function (reported separately), and correlative analyses of progression-free survival by molecular markers (1p/19q co-deletion, MGMT promoter methylation status, and IDH1/IDH2 mutations). This trial is closed to accrual but continuing for follow-up, and is registered at the European Trials Registry, EudraCT 2004-002714-11, and at ClinicalTrials.gov, NCT00182819. Between Sept 23, 2005, and March 26, 2010, 707 patients were registered for the study. Between Dec 6, 2005, and Dec 21, 2012, we randomly assigned 477 patients to receive either radiotherapy (n=240) or temozolomide chemotherapy (n=237). At a median follow-up of 48 months (IQR 31-56), median progression-free survival was 39 months (95% CI 35-44) in the temozolomide group and 46 months (40-56) in the radiotherapy group (unadjusted hazard ratio [HR] 1.16, 95% CI 0.9-1.5, p=0.22). Median overall survival has not been reached. Exploratory analyses in 318 molecularly-defined patients confirmed the significantly different prognosis for progression-free survival in the three recently defined molecular low-grade glioma subgroups (IDHmt, with or without 1p/19q co-deletion, IDHmt/codel, or IDH wild type [IDHwt]; p=0.013). Patients with IDHmt/non-codel tumours treated with radiotherapy had a longer progression-free survival than those treated with temozolomide (HR 1.86 [95% CI 1.21-2.87], log-rank p=0.0043), whereas there were no significant treatment-dependent differences in progression-free survival for patients with IDHmt/codel and IDHwt tumours. Grade 3-4 haematological adverse events occurred in 32 (14%) of 236 patients treated with temozolomide and in one (1%) of 228 patients treated with radiotherapy, and grade 3-4 infections occurred in eight (3%) of 236 patients treated with temozolomide and in two (1%) of 228 patients treated with radiotherapy. Moderate to severe fatigue was recorded in eight (3%) patients in the radiotherapy group (grade 2) and 16 (7%) in the temozolomide group. 119 (25%) of all 477 patients had died at database lock. Four patients died due to treatment-related causes: two in the temozolomide group and two in the radiotherapy group. Overall, there was no significant difference in progression-free survival in patients with low-grade glioma when treated with either radiotherapy alone or temozolomide chemotherapy alone."

According to the news reporters, the research concluded: "Further data maturation is needed for overall survival analyses and evaluation of the full predictive effects of different molecular subtypes for future individualised treatment choices."

Our news correspondents report that additional information may be obtained by contacting B.G. Baumert, University of Bonn, Medical Center, Clin Cooperat Unit Neurooncol, MediClin Robert Janker Clin, Bonn, Germany. Additional authors for this research include M.E. Hegi, M.J. van den Bent, A. von Deimling, T. Gorlia, K. Hoang-Xuan, A.A. Brandes, G. Kantor, M.J.B. Taphoorn, M. Ben Hassel, C. Hartmann, G. Ryan, D. Capper, J.M. Kros, S. Kurscheid, W. Wick, R. Enting, M. Reni and Thies.

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Keywords for this news article include: Bonn, Germany, Europe, Temozolomide Therapy, Drugs and Therapies, Alkylating Agents, Pharmaceuticals, Antineoplastics, Radiotherapy, Chemotherapy, Oncology, Genetics, Gliomas, University of Bonn.

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Proteins - Armadillo Domain Proteins

Researchers from University of Bordeaux Provide Details of New Studies and Findings in the Area of Armadillo Domain Proteins [Fzd7 (Frizzled-7) Expressed by Endothelial Cells Controls Blood Vessel Formation Through Wnt/beta-Catenin Canonical ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Armadillo Domain Proteins. According to news reporting originating from Bordeaux, France, by NewsRx correspondents, research stated, "Vessel formation requires precise orchestration of a series of morphometric and molecular events controlled by a multitude of angiogenic factors and morphogens. Wnt/frizzled signaling is required for proper vascular formation."

Our news editors obtained a quote from the research from the University of Bordeaux, "In this study, we investigated the role of the Fzd7 (frizzled-7) receptor in retinal vascular development and its relationship with the Wnt/beta-catenin canonical pathway and Notch signaling. Approach and Results-Using transgenic mice, we demonstrated that Fzd7 is required for postnatal vascular formation. Endothelial cell (EC) deletion of fzd7 (fzd7(ECKO)) delayed retinal plexus formation because of an impairment in tip cell phenotype and a decrease in stalk cell proliferation. Dvl1 (dishevelled) proteins are a main component of Wnt signaling and play a functionally redundant role. We found that Dvl3 depletion in dvl1(-/-) mice mimicked the fzd7(ECKO) vascular phenotype and demonstrated that Fzd7 acted via beta-catenin activation by showing that LiCl treatment rescued impairment in tip and stalk cell phenotypes induced in fzd7 mutants. Deletion of fzd7 or Dvl1/3 induced a strong decrease in Wnt canonical genes and Notch partners' expression. Genetic and pharmacological rescue strategies demonstrated that Fzd7 acted via beta-catenin activation, upstream of Notch signaling to control Dll4 and Jagged1 EC expression."
According to the news editors, the research concluded: "Fzd7 expressed by EC drives postnatal angiogenesis via activation of Dvl/beta-catenin signaling and can control the integrative interaction of Wnt and Notch signaling during postnatal angiogenesis."

For more information on this research see: Fzd7 (Frizzled-7) Expressed by Endothelial Cells Controls Blood Vessel Formation Through Wnt/beta-Catenin Canonical Signaling. *Arteriosclerosis Thrombosis and Vascular Biology*, 2016;36(12):2369-2380. *Arteriosclerosis Thrombosis and Vascular Biology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news editors report that additional information may be obtained by contacting P. Dufourcq, Univ Bordeaux, Biol Cardiovasc Dis, U1034, Bordeaux, France. Additional authors for this research include M.L. Bats, R. Sewduth, S. Jeanningros, B. Jaspard, T. Couffinhal, C. Duplaa and P. Dufourcq.

Keywords for this news article include: Bordeaux, France, Europe, Armadillo Domain Proteins, Blood Vessel Formation, Transcription Factors, Endothelial Cells, Angiogenesis, beta Catenin, Catenins, University of Bordeaux.

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**Oncology - Cancer Genetics**

**Researchers from University of Bremen Describe Findings in Cancer Genetics (Hyperhaploid uterine mesenchymal tumors-a novel genetic subgroup?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Cancer Genetics is now available. According to news reporting from Bremen, Germany, by NewsRx journalists, research stated, "Hyperhaploid karyotypes have been described to occur in subsets of various solid tumors and leukemias. In these cases, monosomy is noted for most of the chromosomes while a few chromosomes still remain disomic."

The news correspondents obtained a quote from the research from the University of Bremen, "Evidence has emerged that at least in some tumor entities these remaining chromosomes are non-randomly selected. In addition, structural alterations can accompany the reduced chromosome number and secondary duplication of the chromosome complement is also a frequent finding. In this report, we describe hyperhaploidy in a case of an endometrial stromal nodule of a 50 year old woman who underwent hysterectomy because of symptomatic uterine fibroids. In addition, we review two other recently described cases of uterine mesenchymal tumors with that type of genetic alteration. Despite some histologic differences, striking similarities between these three cases exist with respect to the chromosomes were retained as disomic."

According to the news reporters, the research concluded: "Thus, the question arises if hyperhaploidy defines a novel genetic subgroup of uterine mesenchymal tumors."

Researchers from University of Brest Detail Findings in Colon Cancer
(Acquisition of anticancer drug resistance is partially associated with cancer sternness in human colon cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news reporting originating in Brest, France, by NewsRx journalists, research stated, "Colorectal cancer (CRC) is one of the most aggressive cancers worldwide. Several anticancer agents are available to treat CRC, but eventually cancer relapse occurs."

The news reporters obtained a quote from the research from the University of Brest, "One major cause of chemotherapy failure is the emergence of drug-resistant tumor cells, suspected to originate from the stem cell compartment. The aim of this study was to ask whether drug resistance was associated with the acquisition of stem cell-like properties. We isolated drug-resistant derivatives of two human CRC cell lines, HT29 and HCT116, using two anticancer drugs with distinct modes of action, oxaliplatin and docetaxel. HT29 cells resistant to oxaliplatin and both HT29 and HCT116 cells resistant to docetaxel were characterized for their expression of genes potentially involved in drug resistance, cell growth and cell division, and by surveying stem cell-like phenotypic traits, including marker genes, the ability to repair cell-wound and to form colonospheres. Among the genes involved in platinum or taxane resistance (MDR1, ABCG2, MRP2 or ATP7B), MDR1 was uniquely overexpressed in all the resistant cells. An increase in the cyclin-dependent kinase inhibitor p21, in cyclin D1 and in CD26, CD166 cancer stem cell markers, was noted in the resistant cells, together with a higher ability to form larger and more abundant colonospheres. However, many phenotypic traits were selectively altered in either HT29- or in HCT116-resistant cells. Expression of EPHB2, ITG beta-1 or Myc was specifically increased in the HT29-resistant cells, whereas only HCT116-resistant cells efficiently repaired cell-wounds. Taken together, our results show that human CRC cells selected for their resistance to anticancer drugs displayed a few stem cell characteristics, a small fraction of which was shared between cell lines."

According to the news reporters, the research concluded: "The occurrence of marked phenotypic differences between HT29- and HCT116-drug resistant cells indicates that the acquired resistance depends mostly on the parental cell characteristics, rather than on the drug type used."


Our news correspondents report that additional information may be obtained by
Researchers from University of Buckingham Report Details of New Studies and Findings in the Area of Obesity [Circulating Levels of the Adipokines Monocyte Chemotactic Protein-4 (MCP-4), Macrophage Inflammatory Protein-1 beta (MIP-1 beta), and ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting out of Buckingham, United Kingdom, by NewsRx editors, research stated, "The aim of the study was to investigate the involvement of the adipokines eotaxin-3, MIP-1 beta, and MCP-4 in obesity and related comorbidities and the modification of their circulating levels after bariatric surgery. Eighty severely obese subjects and 20 normal-weight controls were included in the study."

Our news journalists obtained a quote from the research from the University of Buckingham, "Circulating levels of MCP-4, MIP-1 beta, and eotaxin-3, and the main clinical, biochemical, and instrumental parameters for the evaluation of cardiovascular and metabolic profile were determined in controls and in obese subjects at baseline and 10 months after surgery. Within the obese group at baseline, eotaxin-3 levels were higher in males than females and in smokers than non-smokers and showed a positive correlation with LDL-cholesterol, apolipoprotein B, and leptin. MIP-1 beta showed a positive correlation with age and leptin and a negative correlation with adiponectin and was an independent predictor of increased carotid artery intima-media thickness. MCP-4 levels were higher in obese subjects than controls and showed a positive correlation with body mass index, eotaxin-3, and MIP-1 beta. Bariatric surgery induced a marked decrease in all the 3 adipokines. MCP-4 is a novel biomarker of severe obesity and could have an indirect role in favoring sub-clinical atherosclerosis in obese patients by influencing the circulating levels of eotaxin-3 and MIP-1 beta, which are directly related to the main atherosclerosis markers and risk factors."

According to the news editors, the research concluded: "The reduction of circulating levels of MCP-4, eotaxin-3, and MIP-1 beta could be one of the mechanisms by which bariatric surgery contributes to the reduction of cardiovascular risk in these patients."

For more information on this research see: Circulating Levels of the Adipokines Monocyte Chemotactic Protein-4 (MCP-4), Macrophage Inflammatory Protein-1 beta (MIP-1 beta), and Eotaxin-3 in Severe Obesity and Following Bariatric Surgery. Hormone and Metabolic Research, 2016;48(12):847-853. Hormone and Metabolic Research can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

Our news journalists report that additional information may be obtained by contacting C. Le Jossic-Corcos, Univ Brest, Fac Med, IBSAM, INSERM UBO ECLA UMR1078, F-29200 Brest, France. Additional authors for this research include L. Corcos, S. Durand, B. Simon and C. Le Jossic-Corcos.

Keywords for this news article include: Brest, France, Europe, Drugs and Therapies, Stem Cell Research, Drug Resistance, Cancer Therapy, Colon Cancer, Oncology, Genetics, University of Brest.

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Researchers from University of Cagliari Detail New Studies and Findings in the Area of G-Protein-Coupled Receptors (In vitro and in vivo pharmacological characterization of SSD114, a novel GABAB positive allosteric modulator)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Membrane Proteins - G-Protein-Coupled Receptors have been presented. According to news reporting out of Cagliari, Italy, by NewsRx editors, research stated, "Positive allosteric modulators (PAMs) of the GABA(B) receptor have emerged as a novel approach to the pharmacological manipulation of the GABA(B) receptor, enhancing the effects of receptor agonists with few side effects. Here, we identified N-cyclohexyl-4-methoxy-6-(4 (trifluoromethyl)phenyl)pyrimidin-2-amine (SSD114) as a new compound with activity as a GABA(B) PAM in in vitro and in vivo assays.

Financial supporters for this research include ERAB, Fondazione Banco di Sardegna.

Our news journalists obtained a quote from the research from the University of Cagliari, "SSD114 potentiated GABA-stimulated [S-35]GTP gamma S binding to native GABA (B) receptors, whereas it had no effect when used alone. Its effect on GTP gamma S stimulation was suppressed when GABA-induced activation was blocked with CGP54626, a competitive antagonist of the GABA(B) receptor. SSD114 failed to potentiate WIN55,212,2-, morphine- and quinpirole-induced [S-35]GTP gamma S binding to cortical and striatal membranes, respectively, indicating that it is a selective GABA(B) PAM. Increasing SSD114 fixed concentrations induced a leftward shift of the GABA concentration-response curve, enhancing the potency of GABA rather than its efficacy. SSD114 concentration-response curves in the presence of fixed concentrations of GABA (1,10, and 20 mu M) revealed a potentiating effect on GABA-stimulated binding of [S-35]GTP gamma S to rat cortical membranes, with EC50 values in the low micromolar range. Bioluminescence resonance energy transfer (BRET) experiments in Chinese Hamster Ovary (CHO)-cells expressing GABA(B) receptors showed that SSD114 potentiates the GABA inhibition of adenylyl-cyclase mediated by GABA(B) receptors. Our compound is also effective in vivo potentiating baclofen-induced
sedation/hypnosis in mice, with no effect when tested alone."

According to the news editors, the research concluded: "These findings indicate that SSD114, a molecule with a different chemical structure compared to known GABA(B) PAMs, is a novel GABA(B) PAM with potential usefulness in the GABA(B)-receptor research field."

For more information on this research see: In vitro and in vivo pharmacological characterization of SSD114, a novel GABAB positive allosteric modulator. European Journal of Pharmacology, 2016;791():115-123. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting M.P. Castelli, University of Cagliari, Div Neurosci & Clin Pharmacol, Dept. of Biomed Sci, I-09042 Cagliari, Italy. Additional authors for this research include C. Lobina, D. Giunta, M. Solinas, C. Mugnaini and M.P. Castelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.08.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cagliari, Italy, Europe, G-Protein-Coupled Receptors, Membrane Proteins, GABA-B Receptors, GABA Receptors, University of Cagliari.

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Researchers from University of California Describe Findings in Clinical Trials and Studies (Randomised controlled trial evaluation of Tweet2Quit: a social network quit-smoking intervention)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Clinical Research - Clinical Trials and Studies. According to news reporting from Irvine, California, by NewsRx journalists, research stated, "We evaluated a novel Twitter-delivered intervention for smoking cessation, Tweet2Quit, which sends daily, automated communications to small, private, self-help groups to encourage high-quality, online, peer-to-peer discussions. A 2-group randomised controlled trial assessed the net benefit of adding a Tweet2Quit support group to a usual care control condition of nicotine patches and a cessation website."

The news correspondents obtained a quote from the research from the University of California, "Participants were 160 smokers (4 cohorts of 40/cohort), aged 18-59 years, who intended to quit smoking, used Facebook daily, texted weekly, and had mobile phones with unlimited texting. All participants received 56 days of nicotine patches, emails with links to the smokefree.gov cessation website, and instructions to set a quit date within 7 days. Additionally, Tweet2Quit participants were enrolled in 20-person, 100-day Twitter groups, and received daily discussion topics via Twitter, and daily engagement feedback via text. The primary outcome was sustained abstinence at 7, 30 and 60 days post-quit date. Participants (mean age 35.7 years, 26.3% male, 31.2% college degree, 88.7% Caucasian) averaged 18.0 (SD=8.2) cigarettes per day and 16.8 (SD=9.8) years of smoking. Participants randomised to Tweet2Quit averaged 58.8
tweets/participant and the average tweeting duration was 47.4 days/participant. Tweet2Quit doubled sustained abstinence out to 60 days follow-up (40.0%, 26/65) versus control (20.0%, 14/70), OR=2.67, CI 1.19 to 5.99, p=0.017. Tweeting via phone predicted tweet volume, and tweet volume predicted sustained abstinence (p <0.001). The daily autocommunications caused tweeting spikes accounting for 24.0% of tweets. Tweet2Quit was engaging and doubled sustained abstinence."

According to the news reporters, the research concluded: "Its low cost and scalability makes it viable as a global cessation treatment."

For more information on this research see: Randomised controlled trial evaluation of Tweet2Quit: a social network quit-smoking intervention. Tobacco Control, 2016();. (BMJ Publishing Group - group.bmj.com; Tobacco Control - tobaccocontrol.bmj.com/)

Our news journalists report that additional information may be obtained by contacting C. Pechmann, The Paul Merage School of Business, University of California Irvine, Irvine, California, United States. Additional authors for this research include K. Delucchi, C.M. Lakon and J.J Prochaska.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/tobaccocontrol-2015-052768. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Irvine, California, United States, Clinical Research, North and Central America, Clinical Trials and Studies.

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Oncology - Breast Cancer

Researchers from University of California Detail Findings in Breast Cancer (Comparing Coordinated Versus Sequential Salpingo-Oophorectomy for BRCA1 and BRCA2 Mutation Carriers With Breast Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "Women with breast cancer who carry BRCA mutations must also consider risk-reducing salpingo-oophorectomy (RRSO). Sixty-two patients who knew their mutation carrier status before undergoing breast cancer surgery were given the option to undergo combined breast and RRSO surgeries."

Our news editors obtained a quote from the research from the University of California, "Coordinating RRSO with breast surgery is associated with longer operating times and hospital stays without an increase in complications. Women with breast cancer who carry BRCA1 or BRCA2 mutations must also consider risk-reducing salpingo-oophorectomy (RRSO) and how to coordinate this procedure with their breast surgery. We report the factors associated with coordinated versus sequential surgery and compare the outcomes of each. Patients in our cancer risk database who had breast cancer and a known deleterious BRCA1/2 mutation before undergoing breast surgery were included. Women who chose concurrent RRSO at the time of breast surgery were compared to those who did not. Sixty-two patients knew their mutation carrier status before undergoing breast cancer surgery. Forty-three patients (69%) opted for
coordinated surgeries, and 19 (31%) underwent sequential surgeries at a median follow-up of 4.4 years. Women who underwent coordinated surgery were significantly older than those who chose sequential surgery (median age of 45 vs. 39 years; P = .025). There were no differences in comorbidities between groups. Patients who received neoadjuvant chemotherapy were more likely to undergo coordinated surgery (65% vs. 37%; P = .038). Sequential surgery patients had longer hospital stays (4.79 vs. 3.44 days, P = .01) and longer operating times (8.25 vs. 6.38 hours, P = .006) than patients who elected combined surgery. Postoperative complications were minor and were no more likely in either group (odds ratio, 4.76; 95% confidence interval, 0.56-40.6). Coordinating RRSO with breast surgery is associated with receipt of neoadjuvant chemotherapy, longer operating times, and hospital stays without an observed increase in complications."

According to the news editors, the research concluded: "In the absence of risk, surgical options can be personalized."
MDD."

Our news editors obtained a quote from the research from the University of California, "This study investigated the efficacy of ECT on long-term clinical outcome of comorbid PTSD and MDD. This retrospective nested matched case-control study is inclusive of 22,164 subjects [3,485 with comorbid MDD and PTSD (92 with ECT and 3,393 without ECT) and 18,679 without MDD and PTSD]. Using the clinical global impression scale (CGI) to assess efficacy, more-robust improvement of PTSD and MDD symptoms was observed with ECT (90%), compared to antidepressant-treatment alone (50%) (P = 0.001). During the median of 8 years of follow-up, the death-rate was 8% in subjects without PTSD and MDD, 9.7% in PTSD and MDD treated with ECT and 18% in PTSD and MDD without ECT (P < 0.05). The suicide-rate was 2.2 and 5.9% in PTSD and MDD with and without ECT-treatment, respectively (P < 0.05). Survival-analyses revealed that the relative-risk of cardiovascular and all-cause mortality is not significantly different in patients with comorbid MDD and PTSD treated with ECT, compared to a matched-cohort without PTSD and MDD (P > 0.05). The relative risk of suicidality, all-cause, and cardiovascular mortality was reduced 64, 65, and 46% in MDD and PTSD patients treated with ECT, compared to those without ECT (P < 0.05)."

According to the news editors, the research concluded: "ECT is associated with a significant reduction of symptoms of PTSD and MDD, as well as reduction in risk of suicidality, cardiovascular, and all-cause mortality in MDD and PTSD, an effect more robust than antidepressant-therapy alone."


The news editors report that additional information may be obtained by contacting N. Ahmadi, University of California, David Geffen Sch Med, Los Angeles, CA 90095, United States. Additional authors for this research include L. Moss, E. Simon, C.B. Nemeroff and N. Atre-Vaidya.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Mental Health Diseases and Conditions, Cardiology, Risk and Prevention, Post-Traumatic Stress Disorders, Major Depressive Disorders, Electroconvulsive Therapy, Cardiovascular, Depression, PTSD, University of California.

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journalists, research stated, "Hematopoietic stem cells (HSCs) are capable of giving rise to all blood cell lineages throughout adulthood, and the generation of engraftable HSCs from human pluripotent stem cells is a major goal for regenerative medicine. Here, we describe a functional genome-wide RNAi screen to identify genes required for the differentiation of embryonic stem cell (ESC) into hematopoietic stem/progenitor cells (HSPCs) in vitro."

Funders for this research include National Institute of Allergy and Infectious Diseases (NIAID), National Institute on Drug Abuse (NIDA).

The news correspondents obtained a quote from the research from the University of California, "We report the discovery of novel genes important for the endothelial-to-hematopoietic transition and subsequently for HSPC specification. High-throughput sequencing and bioinformatic analyses identified twelve groups of genes, including a set of 351 novel genes required for HSPC specification. As in vivo proof of concept, four of these genes, Ap2a1, Mettl22, Lrsam1, and Hal, are selected for validation, confirmed to be essential for HSPC development in zebrafish and for maintenance of human HSCs."

According to the news reporters, the research concluded: "Taken together, our results not only identify a number of novel regulatory genes and pathways essential for HSPC development but also serve as valuable resource for directed differentiation of therapy grade HSPCs using human pluripotent stem cells."

For more information on this research see: Identification of novel genes and networks governing hematopoietic stem cell development. EMBO Reports, 2016;17(12):1814-1828. EMBO Reports can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; EMBO Reports - www.nature.com/embor/)

Our news journalists report that additional information may be obtained by contacting T.M. Rana, University of California, Inst Genom Med, La Jolla, CA 92093, United States. Additional authors for this research include C.S. Yang, K.Y. Chang, D.H. Zhang, F.B. Imam and T.M. Rana.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.15252/embr.201642395. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Stem Cell Research, Genetics, Hematopoietic Stem Cells, Biomedical Engineering, Regenerative Medicine, Bone Marrow Cells, Bioengineering, Biotechnology, Biomedicine, Hematology, University of California.

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**Nutritional and Metabolic Diseases and Conditions** …

**Researchers from University of California Report Findings in Type 2 Diabetes (Piperine’s mitigation of obesity and diabetes can be explained by its up-regulation of the metabolic rate of resting muscle)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated, "We identify a target for treating obesity and
type 2 diabetes, the consumption of calories by an increase in the metabolic rate of resting skeletal muscle. The metabolic rate of skeletal muscle can be increased by shifting myosin heads from the super-relaxed state (SRX), with a low ATPase activity, to a disordered relaxed state (DRX), with a higher ATPase activity."

The news reporters obtained a quote from the research from the University of California, "The shift of myosin heads was detected by a change in fluorescent intensity of a probe attached to the myosin regulatory light chain in skinned skeletal fibers, allowing us to perform a high-throughput screen of 2,128 compounds. The screen identified one compound, which destabilized the super-relaxed state, piperine (the main alkaloid component of black pepper). Destabilization of the SRX by piperine was confirmed by single-nucleotide turnover measurements. The effect was only observed in fast twitch skeletal fibers and not in slow twitch fibers or cardiac tissues. Piperine increased ATPase activity of skinned relaxed fibers by 66 +/- 15%. The K-d was similar to 2 mu M. Piperine had little effect on the mechanics of either fully active or resting muscle fibers. Previous work has shown that piperine can mitigate both obesity and type 2 diabetes in rodent models of these conditions. We propose that the increase in resting muscle metabolism contributes to these positive effects."

According to the news reporters, the research concluded: "The results described here show that up-regulation of resting muscle metabolism could treat obesity and type 2 diabetes and that piperine would provide a useful lead compound for the development of these therapies."

For more information on this research see: Piperine's mitigation of obesity and diabetes can be explained by its up-regulation of the metabolic rate of resting muscle. Proceedings of the National Academy of Sciences of the United States of America. 2016;113 (46):13009-13014. Proceedings of the National Academy of Sciences of the United States of America can be contacted at: Natl Acad Sciences, 2101 Constitution Ave NW, Washington, DC 20418, USA. (National Academy of Sciences - www.nasonline.org/; Proceedings of the National Academy of Sciences of the United States of America - www.nasonline.org/publications/pnas/)

Our news correspondents report that additional information may be obtained by contacting R. Cooke, University of California, Dept. of Biochem, San Francisco, CA 94158, United States. Additional authors for this research include N. Naber, E. Pate, M. Canton, C. Reggiani and R. Cooke.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, ATPase, Diagnostics and Screening, Enzymes and Coenzymes, Nutrition Disorders, Risk and Prevention, Diet and Nutrition, Type 2 Diabetes, Overnutrition, Bariatrics, Genetics, Obesity, University of California.

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Musculoskeletal Diseases and Conditions - Arthritis

Researchers from University of California Report New Studies and Findings in the Area of Arthritis [Epipolymorphisms associated with the clinical outcome of autoimmune arthritis affect CD4(+) T cell activation pathways]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Musculoskeletal Diseases and Conditions - Arthritis. According to news reporting from Los Angeles, California, by NewsRx journalists, research stated, "Multifactorial diseases, including autoimmune juvenile idiopathic arthritis (JIA), result from a complex interplay between genetics and environment. Epigenetic mechanisms are believed to integrate such gene-environment interactions, fine-tuning gene expression, and possibly contributing to immune system dysregulation."

The news correspondents obtained a quote from the research from the University of California, "Although anti-TNF therapy has strongly increased JIA remission rates, it is not curative and up to 80% of patients flare upon treatment withdrawal. Thus, a crucial unmet medical and scientific need is to understand the immunological mechanisms associated with remission or flare to inform clinical decisions. Here, we explored the CD4(+) T-cell DNA methyolome of 68 poly-articular and extended oligo-articular JIA patients, before and after anti-TNF therapy withdrawal, to identify features associated with maintenance of inactive disease. Individual CpG sites were clustered in coherent modules without a priori knowledge of their function through network analysis. The methylation level of several CpG modules, specifically those enriched in CpG sites belonging to genes that mediate T-cell activation, uniquely correlated with clinical activity. Differences in DNA methylation were already detectable at the time of therapy discontinuation, suggesting epigenetic predisposition. RNA profiling also detected differences in T-cell activation markers (including HLA-DR) but, overall, its sensitivity was lower than epigenetic profiling. Changes to the T-cell activation signature at the protein level were detectable by flow cytometry, confirming the biological relevance of the observed alterations in methylation."

According to the news reporters, the research concluded: "Our work proposes epigenetic discrimination between clinical activity states, and reveals T-cell-related biological functions tied to, and possibly predicting or causing, clinical outcome."


Our news journalists report that additional information may be obtained by contacting R. Spreafico, University of California, Inst Quantitat & Computat Biosci, Los Angeles, CA 90095, United States. Additional authors for this research include M. Rossetti, J.W. Whitaker, W. Wang, D.J. Lovell and S. Albani.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Joint Diseases and Conditions, Arthritis, Genetics, Therapy, University of California.

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Researchers from University of California Report New Studies and Findings in the Area of Chronic Hepatitis C Virus (Impact of gender and menopausal status on metabolic parameters in chronic hepatitis C infection)

Liver Diseases and Conditions - Chronic Hepatitis C

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Chronic Hepatitis C Virus have been published. According to news originating from San Francisco, California, by NewsRx correspondents, research stated, "Hepatitis C infection (HCV) and menopause are associated with insulin resistance (IR), and IR accelerates HCV-induced liver disease. The relationship between menopause and IR has not been studied in this population."

Funders for this research include NIH/NCATS UCSF-CTSI, UCSF Liver Center.

Our news journalists obtained a quote from the research from the University of California, "This study aimed to assess the impact of menopause on IR and metabolic syndrome in HCV. One hundred and three (69 men, 16 premenopausal, 18 postmenopausal women) noncirrhotic, nondiabetic HCV-infected adults underwent IR measurement via steady-state plasma glucose during a 240-min insulin suppression test. Metabolic syndrome was defined by at least three of five standard laboratory/clinical criteria. The patient characteristics were as follows: mean age 48 years, waist circumference 94.4 ? 12.4 cm and 37.9% Caucasian. SSPG was higher in postmenopausal than premenopausal women or men (mean difference 18, 95% CI -41 to 76 and 35, 95% CI -3 to 72 mg/dL; respectively). After adjusting for waist circumference, female gender, nonwhite race and triglycerides were positively associated and high-density lipoprotein negatively associated with steady-state plasma glucose. Compared to men, both pre-(Coef 48, 95% CI 12-84) and postmenopausal women (Coef 49, 95% CI 17-82) had higher steady-state plasma glucose. Compared to premenopausal women, men (OR 2.0, 95% CI 0.38-10.2) and postmenopausal women (OR 2.9, 95% CI 0.46-18.8) had higher odds of metabolic syndrome, but this was statistically nonsignificant. Both liver inflammation (OR 7.9) and nonwhite race (OR 6.9) were associated with metabolic syndrome. We conclude that women are at increased risk for IR in HCV. There may also be an increased risk of metabolic syndrome postmenopause."

According to the news editors, the research concluded: "Along with lifestyle modification and weight loss, women with metabolic abnormalities represent an especially at-risk group warranting HCV treatment to prevent adverse metabolic outcomes."


The news correspondents report that additional information may be obtained from C.A. Gonzales, Dept. of Medicine, University of California San Francisco, San Francisco, CA, United States. Additional authors for this research include P. Bacchetti and M. Khalili.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jvh.12487. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Menopause, California, Healthcare, Proinsulin, San Francisco, United States, Gender Health, Women's Health, Gastroenterology,
Researchers from University of California Report Recent Findings in Child and Adolescent Development (Sexual Risk-Taking Among Recently Emancipated Female Foster Youth: Sexual Trauma and Failed Family Reunification Experiences)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pediatrics - Child and Adolescent Development. According to news reporting out of Riverside, California, by NewsRx editors, research stated, "Foster youth evidence shows elevated rates of risk behaviors, including sexual risk-taking (e.g., unprotected sex). Some studies have identified child maltreatment, particularly sexual abuse, as a risk for later sexual risk-taking, but none have examined how child welfare placement experiences relate to youth's sexual risk-taking."

Financial support for this research came from William T. Grant Foundation.

Our news journalists obtained a quote from the research from the University of California, "This study investigated relations among child maltreatment, child welfare placements, and sexual risk-taking among 114 recently emancipated female foster youth. Sexual abuse and failed reunifications with parents were associated with greater sexual risk-taking. Moreover, dissociative symptoms exacerbated the relation between sexual abuse and sexual risk-taking."

According to the news editors, the research concluded: "These findings highlight the need for greater consideration of risks associated with emancipated youth's sexual risk-taking and for more research to understand how youth experience unsuccessful family reunifications."


Our news journalists report that additional information may be obtained by contacting A. Gonzalez-Blanks, University of California, Riverside, CA 92507, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jora.12232. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Riverside, California, United States, North and Central America, Child and Adolescent Development, Pediatrics, Risk and Prevention, University of California.

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Researchers from University of California Report Recent Findings in Epithelial Cells (Downregulation of 26S proteasome catalytic activity promotes epithelial-mesenchymal transition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Epithelial Cells. According to news originating from La Jolla, California, by NewsRx correspondents, research stated, "The epithelial-mesenchymal transition (EMT) endows carcinoma cells with phenotypic plasticity that can facilitate the formation of cancer stem cells (CSCs) and contribute to the metastatic cascade. While there is substantial support for the role of EMT in driving cancer cell dissemination, less is known about the intracellular molecular mechanisms that govern formation of CSCs via EMT."

Our news journalists obtained a quote from the research from the University of California, "Here we show that b2 and b5 proteasome subunit activity is downregulated during EMT in immortalized human mammary epithelial cells. Moreover, selective proteasome inhibition enabled mammary epithelial cells to acquire certain morphologic and functional characteristics reminiscent of cancer stem cells, including CD44 expression, self-renewal, and tumor formation. Transcriptomic analyses suggested that proteasome-inhibited cells share gene expression signatures with cells that have undergone EMT, in part, through modulation of the TGF-β signaling pathway. These findings suggest that selective downregulation of proteasome activity in mammary epithelial cells can initiate the EMT program and acquisition of a cancer stem cell-like phenotype."

According to the news editors, the research concluded: "As proteasome inhibitors become increasingly used in cancer treatment, our findings highlight a potential risk of these therapeutic strategies and suggest a possible mechanism by which carcinoma cells may escape from proteasome inhibitor-based therapy."

For more information on this research see: Downregulation of 26S proteasome catalytic activity promotes epithelial-mesenchymal transition. Oncotarget, 2016;7(16):21527-41.

The news correspondents report that additional information may be obtained from A. Banno, Dept. of Medicine, University of California San Diego, La Jolla, CA, United States. Additional authors for this research include D.A. Garcia, E.D. van Baarsel, P.J. Metz, K. Fisch, C.E. Widjaja, S.H. Kim, J. Lopez, A.N. Chang, P.P. Geurink, B.I. Florea, H.S. Overkleeft, H. Ovaa, J.D. Bui, J. Yang and J.T Chang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7596. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, La Jolla, Genetics, Oncology, California, United States, Epithelial Cells, Stem Cell Research, North and Central America.

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Researchers from University of California Report on Findings in Hypertension (White matter disease in midlife is heritable, related to hypertension, and shares some genetic influence with systolic blood pressure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Hypertension are discussed in a new report. According to news reporting originating in La Jolla, California, by NewsRx journalists, research stated, "White matter disease in the brain increases with age and cardiovascular disease, emerging in midlife, and these associations may be influenced by both genetic and environmental factors. We examined the frequency, distribution, and heritability of abnormal white matter and its association with hypertension in 395 middle-aged male twins (61.9 +/- 2.6 years) from the Vietnam Era Twin Study of Aging, 67% of whom were hypertensive."

Financial supporters for this research include National Institute on Aging, National Institute on Alcohol Abuse and Alcoholism.

The news reporters obtained a quote from the research from the University of California, "A multi-channel segmentation approach estimated abnormal regions within the white matter. Using multivariable regression models, we characterized the frequency distribution of abnormal white matter in midlife and investigated associations with hypertension and Apolipoprotein E-epsilon 4 status and the impact of duration and control of hypertension. Then, using the classical twin design, we estimated abnormal white matter heritability and the extent of shared genetic overlap with blood pressure. Abnormal white matter was predominantly located in periventricular and deep parietal and frontal regions; associated with age (t = 1.9, p = 0.05) and hypertension (t= 2.9, p = 0.004), but not Apolipoprotein epsilon 4 status; and was greater in those with uncontrolled hypertension relative to controlled (t= 3.0, p= 0.003) and normotensive (t = 4.0, p= 0.0001) groups, suggesting that abnormal white matter may reflect currently active cerebrovascular effects. Abnormal white matter was highly heritable (a(2) = 0.81) and shared some genetic influences with systolic blood pressure (r(A) = 0.26), although there was evidence for distinct genetic contributions and unique environmental influences."

According to the news reporters, the research concluded: "Future longitudinal research will shed light on factors impacting white matter disease presentation, progression, and potential recovery."

For more information on this research see: White matter disease in midlife is heritable, related to hypertension, and shares some genetic influence with systolic blood pressure. Neuroimage-Clinical, 2016;12():737-745. Neuroimage-Clinical can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England.

Our news correspondents report that additional information may be obtained by contacting C. Fennema-Notestine, University of California, Dept. of Radiol, La Jolla, CA 92093, United States. Additional authors for this research include L.K. McEvoy, R. Notestine, M.S. Panizzon, W.Y.W. Yau, C.E. Franz, M.J. Lyons, L.T. Eyler, M.C. Neale, H. Xian, R.E. McKenzie and W.S. Kremen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from University of Camerino Discuss Findings in Pharmacology (Pharmacological Effects of Capparis spinosa L)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pharmacology have been published. According to news originating from Camerino, Italy, by NewsRx correspondents, research stated, "Medicinal plants have been known as one of the most important therapeutic agents since ancient times. During the last two decades, much attention has been paid to the health-promoting effects of edible medicinal plants, because of multiple beneficial effects and negligible adverse effects. Capparis spinosa L. is one of the most common medicinal plants, used widely in different parts of the world to treat numerous human diseases."

Our news journalists obtained a quote from the research from the University of Camerino, "This paper aims to critically review the available scientific literature regarding the health-promoting effects of C. spinosa, its traditional uses, cultivation protocols and phytochemical constituents. Recently, a wide range of evidence has shown that this plant possesses different biological effects, including antioxidant, anticancer and antibacterial effects. Phytochemical analysis shows that C. spinosa has high quantities of bioactive constituents, including polyphenolic compounds, which are responsible for its health-promoting effects, although many of these substances are present in low concentrations and significant changes in their content occur during processing. In addition, there is negligible scientific evidence regarding any adverse effects. Different health promotion activities, as well as tremendous diversity of active constituents, make C. spinosa a good candidate for discovering new drugs."

According to the news editors, the research concluded: "However these findings are still in its infancy and future experimental and clinical studies are needed."


The news correspondents report that additional information may be obtained from F. Maggi, University of Camerino, Sch Pharm, I-62032 Camerino, Italy. Additional authors for this research include F. Maggi, M. Daglia, S. Habtemariam, L. Rastrelli and S.M. Nabavi.

Keywords for this news article include: Camerino, Italy, Europe, Therapy, Article Review, Pharmacology, University of Camerino.

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Researchers from University of Catania Detail Findings in Multiple Sclerosis (Risk factors in multiple sclerosis: a population-based case-control study in Sicily. Background and methods)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Autoimmune Diseases and Conditions - Multiple Sclerosis have been published. According to news reporting from Catania, Italy, by NewsRx journalists, research stated, "Incidence of multiple sclerosis (MS) has steeply increased over time during the last 30 years in the city of Catania. We carried out a population-based case-control study to evaluate the possible role of both environmental and genetic factors."

The news correspondents obtained a quote from the research from the University of Catania, "From 1975 to 2004 in Catania, 367 MS patients diagnosed according to the Poser's criteria had the onset of disease. A sample of MS patients was randomly selected from this incident cohort. Three controls matched by age and sex were randomly selected from the rosters of 14 GPs. Controls were proportionally selected according to the distribution by municipality of the target population using a multistage sampling methods. All cases and controls underwent a face-to-face interview to record information concerning environmental factors and a blood sample was taken for serological and genetic analysis. 164 MS patients (64 % women; mean age of 46.4 +/- 10.7) and 481 controls (69 % women; mean age of 47.7 +/- 14.8) were enrolled in the study. The distribution of the whole population and the selected controls by municipalities was similar. A blood sample was taken from 150 MS cases and from 337 controls. At the end of the enrolment, we obtained a representative sample of the MS cases and population controls avoiding possible selection bias."

According to the news reporters, the research concluded: "Participation rate was very high also concerning the collection of biological specimens."

For more information on this research see: Risk factors in multiple sclerosis: a population-based case-control study in Sicily. Background and methods. Neurological Sciences, 2016;37(12):1931-1937. Neurological Sciences can be contacted at: Springer-Verlag Italia Srl, Via Decembrio, 28, Milan, 20137, Italy. (Springer - www.springer.com; Neurological Sciences - www.springerlink.com/content/1590-1874/)

Our news journalists report that additional information may be obtained by contacting M. Zappia, University of Catania, Sect Neurosci, Dept. of GF Ingrassia, I-95123 Catania, Italy. Additional authors for this research include S. Messina, E. Bruno, G. Mostile, G. Quattrocchi, L. Raciti, V. Dilibio, R. Cappellani, E. D'Amico, G. Sciacca, S. Lo Fermo, V. Paradisi, F. Patti and M. Zappia.

Keywords for this news article include: Catania, Italy, Europe, Autoimmune Diseases and Conditions of the Nervous System, Demyelinating Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Risk and Prevention, Epidemiology, Multiple Sclerosis, Genetics, University of Catania.

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Researchers from University of Catania Report Details of New Studies and Findings in the Area of Essential Tremor (Pregabalin for essential tremor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Essential Tremor have been published. According to news reporting out of Catania, Italy, by NewsRx editors, research stated, "Essential tremor is one of the most common movement disorders. Treatment primarily consists of pharmacological agents."

Our news journalists obtained a quote from the research from the University of Catania, "While primidone and propranolol are well-established treatments in clinical practice, they may be ineffective in 25% to 55% of patients and can produce serious adverse events in a large percentage of them. For these reasons, it is worth evaluating the treatment alternatives for essential tremor. Some specialists have suggested that pregabalin could be a potentially useful agent, but there is uncertainty about its efficacy and safety. To assess the effects of pregabalin versus placebo or other treatment for essential tremor in adults. Search methods We performed a systematic search without language restrictions to identify all relevant trials up to December 2015. We searched the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, Embase, NICE, ClinicalTrials.gov, and the World Health Organization International Clinical Trials Registry Platform (ICTRP). We handsearched grey literature and examined the reference lists of identified studies and reviews. Selection criteria We included all randomised controlled trials (RCTs) of pregabalin versus placebo or any other treatments. We included studies in which the diagnosis of ET was made according to accepted and validated diagnostic criteria. We excluded studies conducted in patients presenting secondary forms of tremor or reporting only neurophysiological parameters to assess outcomes. Data collection and analysis Two reviewers independently collected and extracted data using a data collection form. We assessed the risk of bias of the body of evidence, and we used inverse variance methods to analyse continuous outcomes and measurement scales. We compared the mean difference between treatment groups, and we combined results for dichotomous outcomes using Mantel-Haenszel methods and risk differences We used Review Manager software for data management and analysis. We only found one study eligible for this review (22 participants). We assessed the risk of bias for most domains as unclear. We graded the overall quality of evidence as very low. Compared to placebo, patients treated with pregabalin showed no significant improvement of motor tasks on the 36-point subscale of the Fahn-Tolosa-Marin Tremor Rating Scale (TRS) (MD -2.15 points; 95% CI -9.16 to 4.86) or on the 32-point functional abilities subscale of the TRS (MD -0.66 points; 95% CI -2.90 to 1.58). The limited evidence showed no difference in study withdrawal (Mantel-Haenszel RD -0.09; 95% CI -0.48 to 0.30) and presentation of adverse events between pregabalin and placebo (Mantel-Haenszel RD 0.18; 95% CI -0.13 to 0.50). Authors' conclusions The effects of pregabalin for treating essential tremor are uncertain because the quality of the evidence is very low."

According to the news editors, the research concluded: "One small study did not highlight any effect of this treatment; however, the high risk of bias and the lack of other studies on this topic limit further conclusion."

For more information on this research see: Pregabalin for essential tremor. Cochrane Database of Systematic Reviews, 2016;(10):135-160. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774,
Researchers from University of Catania Report Recent Findings in Liver Diseases (Intracellular and extracellular miRNome deregulation in cellular models of NAFLD or NASH: Clinical implications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Liver Diseases have been presented. According to news reporting originating from Catania, Italy, by NewsRx correspondents, research stated, "Nonalcoholic fatty liver disease (NAFLD) represents the most common chronic liver disease in industrialized countries. NAFLD has the potential to progress through the inflammatory phase of nonalcoholic steatohepatitis (NASH) to fibrosis, cirrhosis, and hepatocellular carcinoma."

Our news editors obtained a quote from the research from the University of Catania, "Identifying patients at risk for this transition is a relevant clinical challenge. The complexity of these phenotypes in vivo made necessary the development of in vitro models in order to dissect the molecular signalling affected in NAFLD and NASH, but also to identify potential circulating biomarkers. We profiled the expression of 754 cellular and medium-secreted human miRNAs in HepG2 cells after lipotoxic (Palmitate, model of NASH) or not-lipotoxic stimuli (Oleate-Palmitate, model of NAFLD). Results were validated through Single TaqMan assays. We performed computational analysis of miRNA targets and pathways. Oleate-palmitate treatment induced a variation of 2.8% and 10% of total miRNAs in cells and medium, respectively; palmitate treatment caused 10% and 19% intracellular and extracellular miRNA deregulation, respectively. We validated miR-126, miR-150, miR-223, miR-483-3p, miR-1226*, and miR-1290 deregulation. Through computational analysis, we observed that targets of both intracellular and extracellular DE miRNAs were involved in processes associated with the onset and progression of NAFLD and NASH, such as fatty acid metabolism, apoptosis and inflammation."

According to the news editors, the research concluded: "These data would be useful to elucidate the role of miRNAs in the pathogenesis and progression of the NAFLD spectrum, but they also allow the identification of novel potential biomarkers for differential diagnosis to be tested in vivo."

For more information on this research see: Intracellular and extracellular miRNome deregulation in cellular models of NAFLD or NASH: Clinical implications. *Nutrition Metabolism and Cardiovascular Diseases*, 2016;26(12):1129-1139. *Nutrition Metabolism and
Researchers from University of Chicago Detail New Studies and Findings in the Area of Oncology Nursing (Interdisciplinary Pain Education: Moving From Discipline-Specific to Collaborative Practice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nursing - Oncology Nursing. According to news reporting originating in Chicago, Illinois, by NewsRx journalists, research stated, "Pain is a common symptom reported by hospitalized patients with cancer. Cancer pain management requires an interdisciplinary approach for quality patient care."

The news reporters obtained a quote from the research from the University of Chicago, "Although the literature suggests that most cancer pain can be managed with available treatments, many patients continue to experience pain even with opioid prescriptions. Implementation of evidence-based guidelines, such as the National Comprehensive Cancer Network's guidelines for adult cancer pain, promotes collaboration across disciplines and enhances patient care. This article reports the development, implementation, and evaluation of an interdisciplinary pain education program, Oncology Provider Pain Training (OPPT), to improve clinician knowledge and promote collaborative practice. The Kirkpatrick Model was used to design the OPPT program. A multifaceted training approach was used to accommodate the various needs of potential participants. Interdisciplinary educational sessions were held during a one-month period. Knowledge gained, learner reaction, and satisfaction were evaluated using predetermined benchmarks one month following program completion. Satisfaction benchmarks for content, teaching materials, and presenter were met. Although the knowledge gained benchmark was not met, substantial progress toward achievement was made. Additional modifications include increasing discipline-specific content and focus on pain pathophysiology and addressing time constraints."

According to the news reporters, the research concluded: "Inconsistent technology adoption across disciplines may have a negative effect on interdisciplinary educational efforts."

For more information on this research see: Interdisciplinary Pain Education: Moving From Discipline-Specific to Collaborative Practice. *Clinical Journal of Oncology Nursing,*
Researchers from University of Chicago Report Recent Findings in Obesity (The Gut Microbiota The Gateway to Improved Metabolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Obesity is now available. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "Obesity is an emerging global epidemic with profound challenges to world health care economies and societies."

Our news journalists obtained a quote from the research from the University of Chicago, "Traditional approaches to fighting obesity have not shown promise in promoting a decline in obesity prevalence. The gut microbiota is becoming widely appreciated for its role in regulating metabolism and thus represents a target for new therapies to combat obesity and associated comorbidities."

According to the news editors, the research concluded: "This article provides an overview of altered microbial community structure in obesity, dietary impact on the gut microbiota, host-microbe interactions contributing to the disease, and improvements in microbial assemblage after bariatric surgery and with therapies targeting the gut microbiome."


Our news journalists report that additional information may be obtained by contacting E.B. Chang, University Chicago, Dept. of Med, Knapp Center Biomed Discovery, Sect Gastroenterol Hepatol & Nutr, Chicago, IL 60637, United States. Additional authors for this research include J.F. Pierre and E.B. Chang.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Epidemiology, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of Chicago.

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Researchers from University of Chile Describe Findings in Nanocarriers (Potential use of nanocarriers with pentacyclic triterpenes in cancer treatments)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nanotechnology - Nanocarriers are presented in a new report. According to news reporting out of Santiago, Chile, by NewsRx editors, research stated, "Ursolic, oleanolic and betulinic acids are representative pentacyclic triterpenoids found in various plants and fruits."

Our news journalists obtained a quote from the research from the University of Chile, "Despite having marked antitumor potentials, the very poor water solubility of these triterpenes hinders treatment development. Nanotechnology can enhance solubility, stability, bioavailability and phytochemical delivery, improving the therapeutic efficiency of triterpenes."

According to the news editors, the research concluded: "This review focuses on the formulation, characterization and in vitro/in vivo evaluation of several delivery nanosystems used to enhance the physicochemical properties of ursolic, oleanolic and betulinic acids."


Our news journalists report that additional information may be obtained by contacting K. Valdes, University of Chile, Fac Ciencias Quim & Farmaceut, Dept. of Ciencias & Tecnol Farmaceut, Santiago, Chile. Additional authors for this research include J. Morales, L. Rodriguez and G. Gunther.

Keywords for this news article include: Santiago, Chile, South America, Cancer, Article Review, Emerging Technologies, Nanotechnology, Nanocarriers, Oncology, University of Chile.

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Researchers from University of Colorado Report Findings in Fatty Liver

Liver Diseases and Conditions - Fatty Liver

Sevelamer Improves Steatohepatitis, Inhibits Liver and Intestinal Farnesoid X Receptor (FXR), and Reverses Innate Immune Dysregulation in a Mouse Model of Non-alcoholic ...]
lower blood glucose and increase insulin sensitivity by altering bile acid signaling pathways."

Financial supporters for this research include U.S. Department of Veterans Affairs, National Institutes of Health.

Our news journalists obtained a quote from the research from the University of Colorado, "In this study, we assessed the efficacy of sevelamer in treating mice with non-alcoholic fatty liver disease (NAFLD). We also analyzed how sevelamer alters inflammation and bile acid signaling in NAFLD livers. Mice were fed a low-fat or Western diet for 12 weeks followed by a diet-plus-sevelamer regimen for 2 or 12 weeks. At the end of treatment, disease severity was assessed, hepatic leukocyte populations were examined, and expression of genes involved in farnesoid X receptor (FXR) signaling in the liver and intestine was analyzed. Sevelamer treatment significantly reduced liver steatosis and lobular inflammation. Sevelamer-treated NAFLD livers had notably fewer pro-inflammatory infiltrating macrophages and a significantly greater fraction of alternatively activated Kupffer cells compared with controls. Expression of genes involved in FXR signaling in the liver and intestine was significantly altered in mice with NAFLD as well as in those treated with sevelamer. In a mouse model of NAFLD, sevelamer improved disease and counteracted innate immune cell dysregulation in the liver."

According to the news editors, the research concluded: "This study also revealed a dysregulation of FXR signaling in the liver and intestine of NAFLD mice that was counteracted by sevelamer treatment."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.731042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Digestive System Diseases and Conditions, Liver Diseases and Conditions, Fatty Liver Disease, Inflammation, Genetics, University of Colorado.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Angiotensin Converting Enzyme Inhibitors are discussed in a new report. According to news reporting originating in Concepcion, Chile, by NewsRx journalists, research stated, "Rapid stability-indicating LC methods for simultaneous analysis of quinapril and hydrochlorothiazide were developed, validated and compared using evaporative light scattering detection (ELSD) and diode array detection (DAD). For the separation of quinapril, hydrochlorothiazide and its major degradation products, a monolithic column was used and the analytes were eluted within 7 min, applying gradient mobile phase in both methods."

Financial support for this research came from FONDECYT.

The news reporters obtained a quote from the research from the University of Concepcion, "Quinapril was subjected to hydrolytic, oxidative, thermal, humidity and photolytic stress conditions. Degradation products were well resolved from main peaks and from each other, proving the stability-indicating power of the methods. The response with DAD was linear and the response with ELSD was fitted to a power function, for quinapril and hydrochlorothiazide concentrations of 20-160 and 12.5-100 µg mL(-1), respectively. DAD method achieved better precision than ELSD method, the LOQ of DAD was lower and the accuracy of the methods was similar. Quinapril degrade by hydrolysis and thermal stress, showing the formation of quinaprilat and quinapril diketopiperazine as degradants, which were identified by MS-MS. The methods were successfully applied to quantify quinapril and hydrochlorothiazide in commercial tablets."

According to the news reporters, the research concluded: "LC-DAD and LC-ELSD methods are suitable to assess the stability and routine analysis of quinapril and hydrochlorothiazide in pharmaceutical industry."


Our news correspondents report that additional information may be obtained by contacting M. de Diego, Univ Concepcion, Fac Pharm, Concepcion, Chile. Additional authors for this research include R. Godoy, S. Mennickent, C. Vergara, H. Charnock and C. Hernandez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/chromsci/bmw068. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Concepcion, Chile, South America, Angiotensin Converting Enzyme Inhibitors, Quinapril Therapy Hydrochloride, Hydrochlorothiazide Therapy, Cardiovascular Agents, Drugs and Therapies, Thiazide Diuretics, Organic Chemicals, Sulfur Compounds, Pharmaceuticals, Sulfonamides, Sulfones, University of Concepcion.

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Oncology - Breast Cancer

Researchers from University of Connecticut Report Details of New Studies and Findings in the Area of Breast Cancer (Relationships among psychoneurological symptoms and levels of C-reactive protein over 2 years in women with early-stage breast ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting out of Storrs, Connecticut, by NewsRx editors, research stated, "The aim of the present study was to explore clusters of psychoneurological symptoms and inflammation (levels of C-reactive protein) over time in a cohort of women with early-stage breast cancer. Specifically, we examined the relationships among affective symptoms (depression, anxiety, fatigue, sleep disturbances, pain, and perceived stress), domains of cognitive performance, and levels of peripheral C-reactive over a period of 2 years."

Our news journalists obtained a quote from the research from the University of Connecticut, "This was a prospective, longitudinal study of 77 women diagnosed with early-stage breast cancer. Data collection, including symptom questionnaires, performance-based cognitive testing, and blood draws, took place at 5 time points: prior to initiating adjuvant chemotherapy, prior to the fourth chemotherapy treatment, and at 6, 12, and 24 months after the initiation of chemotherapy. Exploratory factor analysis with varimax orthogonal rotation was used to examine the covariance among symptoms at each visit. Using the factor scores and weighted sums, three clusters were identified: global cognition, affective symptoms, and cognitive efficiency. Peripheral levels of C-reactive protein were inversely correlated with the cognitive efficiency factor across time. The findings suggest that objectively measured domains of cognitive function occur independently of other affective symptoms that are commonly reported by women with breast cancer in long-term survivorship."

According to the news editors, the research concluded: "The cognitive efficiency symptom cluster may be amenable to interventions targeted to biological influences that reduce levels of C-reactive protein."

For more information on this research see: Relationships among psychoneurological symptoms and levels of C-reactive protein over 2 years in women with early-stage breast cancer. Supportive Care in Cancer, 2017;25(1):167-176. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news journalists report that additional information may be obtained by contacting A. Starkweather, University of Connecticut, Sch Nursing, Storrs, CT 06269, United States. Additional authors for this research include D.L. Kelly, L. Thacker, M.L. Wright, C.K. Jackson-Cook and D.E. Lyon.

Keywords for this news article include: Storrs, Connecticut, United States, North and Central America, Acute-Phase Proteins, Drugs and Therapies, C-Reactive Protein, C-Reactive Protein, Immunoproteins, Women's Health, Breast Cancer, Chemotherapy, Immunology, Proteomics, Oncology, Albumins, University of Connecticut.

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Researchers from University of Copenhagen Detail Findings in Heart Failure (Clinical and prognostic correlates of pulmonary congestion in coronary computed tomography angiography data sets)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Failure are discussed in a new report. According to news reporting originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "Signs of pulmonary congestion obtained from cardiac computed tomography angiographic (coronary CTA) images have not previously been related to clinical congestion or outcome and the clinical value is, therefore, unknown. Our objective was to test the hypothesis that signs of pulmonary congestion predict clinical heart failure and adverse outcome in patients with myocardial infarction."

Funders for this research include The Danish Council for Strategic Research, Research Fund of Rigshospitalet, A.P Moller and Chastine McKinney Moller Foundation.

Our news editors obtained a quote from the research from the University of Copenhagen, "Coronary CTA was performed before invasive treatment in 400 prospectively included patients with non ST segment elevation myocardial infarction in an observational study. Using a previously described chest computed tomography evaluation algorithm, patients were classified as having 'no congestion', 'mild to moderate congestion' or 'severe congestion'. Using multivariate analyses, presence of pulmonary congestion on coronary CTA images was associated with age, female gender, left ventricular ejection fraction (LVEF) and left atrial size. The diagnostic accuracy for predicting clinical heart failure, defined as Killip class >1 was: sensitivity: 83%, specificity: 69%, positive predictive value: 25%, and negative predictive value: 97%. The median follow-up time was 50 months and the study end-point of death or hospitalization due to heart failure was reached in 68 (16%) patients. In a Cox proportional hazards model with adjustments for known risk factors and Killip class, the presence of 'mild to moderate congestion' and 'severe congestion' was independently associated with adverse outcome (Hazard ratio: 2.6 (95% CI:1.3-5.0) and 3.2 (1.3-7.5))."

According to the news editors, the research concluded: "Signs of pulmonary congestion on coronary CTA images are closely correlated to cardiac dysfunction, predict clinical heart failure, and provide prognostic value independent of LVEF and Killip class."


The news reporters that additional information may be obtained by contacting J.T. Kuhl, University of Copenhagen, Rigshospitalet, Center Heart, Dept. of Cardiol, DK-1168 Copenhagen, Denmark. Additional authors for this research include T.S. Kristensen, A.F. Thomsen, L. Hindso, K.L. Hansen, O.W. Nielsen, H. Kelbaek and K.E. Kofoed.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jcct.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from University of Copenhagen Report Findings in Acute Coronary Syndrome (Depression following acute coronary syndrome: a Danish nationwide study of potential risk factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Acute Coronary Syndrome is the subject of a report. According to news reporting originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "Depression is common following acute coronary syndrome, and thus, it is important to provide knowledge to improve prevention and detection of depression in this patient group. The objectives of this study were to examine: (1) whether indicators of stressors and coping resources were risk factors for developing depression early and later after an acute coronary syndrome and (2) whether prior depression modified these associations."

Funders for this research include The Danish Tryg foundation, The Danish Heart Association.

Our news editors obtained a quote from the research from the University of Copenhagen, "The study was a register-based cohort study, which includes 87,118 patients with a first time diagnosis of acute coronary syndrome during the period 2001-2009 in Denmark. Cox regression models were used to analyse hazard ratios (HRs) for depression. 1.5 and 9.5 % develop early (currency sign30 days) and later (31 days-2 years) depression after the acute coronary syndrome. Among all patients with depression, 69.2 % had first onset depression, while 30.8 % developed a recurrent depression. Most patient characteristics (demographic factors, socioeconomic status, psychosocial factors, health-related behavioural factors, somatic comorbidities, and severity of acute coronary syndrome) were significantly associated with increased HRs for both early and later depressions. Prior depression modified most of these associations in such a way that the association was attenuated in patients with a prior depression. Our results indicate that first time and recurrent depression following acute coronary syndrome have different risk profiles."

According to the news editors, the research concluded: "This is important knowledge that may be used to focus future interventions for prevention and detection."

For more information on this research see: Depression following acute coronary syndrome: a Danish nationwide study of potential risk factors. Social Psychiatry and Psychiatric Epidemiology, 2016;51(11):1509-1523. Social Psychiatry and Psychiatric Epidemiology can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Social Psychiatry and Psychiatric Epidemiology - www.springerlink.com/content/0933-7954/)

The news editors report that additional information may be obtained by contacting...

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00127-016-1275-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Risk and Prevention, Epidemiology, Vascular Diseases and Conditions, Heart Disorders and Diseases, Acute Coronary Syndrome, Myocardial Ischemia, Heart Disease, Cardiology, University of Copenhagen.

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Researchers from University of Copenhagen Report on Findings in Anxiolitics Sedatives and Hypnotics (Buccal absorption of diazepam is improved when administered in bioadhesive tablets-An in vivo study in conscious Gottingen mini-pigs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Anxiolitics Sedatives and Hypnotics are discussed in a new report. According to news reporting out of Copenhagen, Denmark, by NewsRx editors, research stated, "Buccal delivery may be clinically beneficial for compounds with a high gastrointestinal and hepatic first pass metabolism or in situations where a fast systemic absorption is desired. The delivery of a crystalline low soluble compounds, e.g. diazepam, may be limited due to the low volume of saliva available to facilitate solvation in order to drive the permeation of drug through the buccal mucosa."

Our news journalists obtained a quote from the research from the University of Copenhagen, "Therefore, the present study investigated the potential benefits of administering diazepam either as an amorphous or as a crystalline form in mucoadhesive tablets to conscious Gottingen mini-pigs. Presentation of the compound in the amorphous form lead to a very fast absorption, however, the obtained bioavailability was at the same level observed following buccal administration of a commercially immediate release tablet. Addition of chitosan, as a mucoadhesive excipient, resulted in a higher absolute bioavailability compared to tablets without chitosan. The absorption rate for the chitosan-based tablets was significant slower, probably due to the slower diffusion of the compound out of the tablet."

According to the news editors, the research concluded: "In vitro release data was able to predict the variations in t(max), but otherwise no correlation could be found between in vitro and in vivo data."

Our news journalists report that additional information may be obtained by contacting J. Jacobsen, University of Copenhagen, Fac Hlth & Med Sci, Dept. of Pharm, DK-2100 Copenhagen, Denmark. Additional authors for this research include J. Jacobsen, A. Mullertz, E.B. Jorgensen and R. Holm.

Keywords for this news article include: Copenhagen, Denmark, Europe, Anxiolytics Sedatives and Hypnotics, Benzodiazepine Anticonvulsants, Central Nervous System Agents, Drugs and Therapies, Benzodiazepines, Diazepam, University of Copenhagen.

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Oncology - Breast Cancer

Researchers from University of Crete Report New Studies and Findings in the Area of Breast Cancer (IGF-I/EGF and E2 signaling crosstalk through IGF-IR conduit point affects breast cancer cell adhesion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news originating from Iraklion, Greece, by NewsRx correspondents, research stated, "Epidermal growth factor (EGF)/insulin like growth factor-I (IGF-I) and Estradiol (E2) can regulate biological functions of hormone-dependent tumor cells. Fibronectin (FN) is a large glycoprotein abundantly expressed in breast cancer extracellular matrices (ECMs) postulated to be a marker of aggressiveness during cancer pathogenesis."

Financial supporters for this research include European Social Fund, Greek National Funds.

Our news journalists obtained a quote from the research from the University of Crete, "In this study we demonstrate that IGF-I/EGF as well E2 strongly increase the adhesion of the MCF-7 breast cancer cells onto FN. Moreover, IGF-IR is necessary for the IGF-I-/EGF- and E2-induced cell adhesion. Erk1/2 inhibition abolished the IGF-I-/EGF-/E2-induced MCF-7 cell adhesion, suggesting that this regulation of cell adhesion is perpetrated through Erk1/2 downstream signaling. Erk1/2 signaling was shown to modulate IGF-IR status as its inhibition attenuates both IGF-IR expression and activation. Notably, EGF and E2 enhanced the mRNA as well as protein expression of IGF-IR in MCF-7 cells. Confocal microscopy demonstrated that treatment of MCF-7 cells with IGF-I or EGF induced actin reorganization, which was attenuated with Erk1/2 inhibition. Interestingly, IGF-I treatment induced a co-localization of IGF-IR and FAK, which was evident mostly at the cell membranes of MCF-7 cells."

According to the news editors, the research concluded: "In summary, IGF-IR was shown to be a convergence point for the IGF-/EGF- and E2-dependent MCF-7 cell adhesion onto FN."

For more information on this research see: IGF-I/EGF and E2 signaling crosstalk through IGF-IR conduit point affects breast cancer cell adhesion. Matrix Biology, 2016;56():95-113. Matrix Biology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Matrix Biology - www.journals.elsevier.com/matrix-biology/)

The news correspondents report that additional information may be obtained from G.N. Tzanakakis, University of Crete, Sch Med, Lab Anat Histol Embryol, Iraklion, Greece. Additional authors for this research include D. Nikitovic, A. Berdiaki, D. Kletsas, N.K.
Researchers from University of Exeter Detail Findings in Attention Deficit Hyperactivity Disorders (End-user involvement in a systematic review of quantitative and qualitative research of non-pharmacological interventions for attention deficit ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Developmental Diseases and Conditions - Attention Deficit Hyperactivity Disorders have been published. According to news reporting out of Exeter, United Kingdom, by NewsRx editors, research stated, "The benefits of end-user involvement in health-care research are widely recognized by research agencies. There are few published evaluations of end-user involvement in systematic reviews."

Financial supporters for this research include National Institute for Health Research, Exeter NHS Foundation Trust.

Our news journalists obtained a quote from the research from the University of Exeter, "Objectives (i) Describe end-user involvement in a complex mixed-methods systematic review of ADHD in schools, (ii) reflect on the impact of end-user involvement, (iii) highlight challenges and benefits experienced and (iv) provide suggestions to inform future involvement. End-users were involved in all stages of the project, both as authors and as members of an advisory group. In addition, several events were held with groups of relevant end-users during the project. End-user input (i) guided the direction of the research, (ii) contributed to a typology of interventions and outcomes, (iii) contributed to the direction of data analysis and (iv) contributed to the robustness of the syntheses by demonstrating the alignment of interim findings with lived experiences. Challenges included (i) managing expectations, (ii) managing the intensity of emotion, (iii) ensuring that involvement was fruitful for all not just the researcher, (iv) our capacity to communicate and manage the process and (v) engendering a sense of involvement amongst end-users. End-user involvement was an important aspect of this project."

According to the news editors, the research concluded: "To minimize challenges in future projects, a recognition by the project management team and the funding provider that end-user involvement even in evidence synthesis projects is resource intensive is essential to allow appropriate allocation of time and resources for meaningful engagement."

For more information on this research see: End-user involvement in a systematic review of quantitative and qualitative research of non-pharmacological interventions for attention deficit hyperactivity disorder delivered in school settings: reflections on the impacts and challenges. Health Expectations, 2016;19(5):1084-1097. Health Expectations can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-
Researchers from University of G. d'Annunzio Detail Findings in Cardiovascular Research [Lp(a) and cardiovascular risk: Investigating the hidden side of the moon]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Research are discussed in a new report. According to news originating from Chieti, Italy, by NewsRx correspondents, research stated, "This article reports current evidence on the association between Lp(a) and cardiovascular (CV) disease and on pathophysiological mechanisms. The available information on therapy for reduction of lipoprotein(a) is also discussed."

Our news journalists obtained a quote from the research from the University of G. d'Annunzio, "Data synthesis: Although some evidence is conflicting, Lp(a) seems to increase CV risk through stimulation of platelet aggregation, inhibition of tissue factor pathway inhibitor, alteration of fibrin clot structure and promotion of endothelial dysfunction and phospholipid oxidation. Lp(a) 3.5-fold higher than normal increases the risk of coronary heart disease and general CV events, particularly in those with LDL cholesterol >= 130 mg/dl. High Lp(a) values represent also an independent risk factor for ischemic stroke (more relevant in young stroke patients), peripheral artery disease (PAD) and aortic and mitral stenosis. Furthermore, high Lp(a) levels seem to be associated with increased risk of cardiovascular events in patients with chronic kidney disease, particularly in those undergoing percutaneous coronary intervention. Lipoprotein (a) (Lp[a]) seems to significantly influence the risk of cardiovascular events. The effects of statins and fibrates on Lp(a) are limited and extremely variable. Nicotinic acid was shown effective in reducing Lp(a) but, due to its side effects and serious adverse events during clinical trials, it is no longer considered a possible option for treatment. To date, the treatment of choice for high levels of Lp(a) in high CV risk patients is represented by LDL-Apheresis."

According to the news editors, the research concluded: "Thanks to innovative technologies, new selectively inhibiting LPA drugs are being developed and tested."

For more information on this research see: Lp(a) and cardiovascular risk: Investigating the hidden side of the moon. Nutrition Metabolism and Cardiovascular Diseases,
Researchers from University of Geneva Detail New Studies and Findings in the Area of Ischemia (NADPH oxidase 4 deficiency increases tubular cell death during acute ischemic reperfusion injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Ischemia. According to news reporting originating from Geneva, Switzerland, by NewsRx correspondents, research stated, "NADPH oxidase 4 (NOX4) is highly expressed in kidney proximal tubular cells. NOX4 constitutively produces hydrogen peroxide, which may regulate important pro-survival pathways."

Our news editors obtained a quote from the research from the University of Geneva, "Renal ischemia reperfusion injury (IRI) is a classical model mimicking human ischemic acute tubular necrosis. We hypothesized that NOX4 plays a protective role in kidney IRI. In wild type (WT) animals subjected to IRI, NOX4 protein expression increased after 24 hours. NOX4 KO (knock-out) and WT littermates mice were subjected to IRI. NOX4 KO mice displayed decreased renal function and more severe tubular apoptosis, decreased Bcl-2 expression and higher histologic damage scores compared to WT. Activation of NRF2 was decreased in NOX4 KO mice in response to IRI. This was related to decreased KEAP1 oxidation leading to decreased NRF2 stabilization. This resulted in decreased glutathione levels. In vitro silencing of NOX4 in cells showed an enhanced propensity to apoptosis, with reduced expression of NRF2, glutathione content and Bcl-2 expression, similar to cells derived from NOX4 KO mice."

According to the news editors, the research concluded: "Overexpression of a constitutively active form of NRF2 (caNRF2) in NOX4 depleted cells rescued most of this phenotype in cultured cells, implying that NRF2 regulation by ROS issued from NOX4 may play an important role in its anti-apoptotic property."

For more information on this research see: NADPH oxidase 4 deficiency increases tubular cell death during acute ischemic reperfusion injury. Scientific Reports, 2016;6():1-14. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting S.
Researchers from University of Gothenburg Describe Findings in Staphylococcus aureus [Being Met as marked - patients' experiences of being infected with community-acquired methicillin-resistant Staphylococcus aureus (MRSA)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Positive Bacteria - Staphylococcus aureus have been presented. According to news reporting out of Gothenburg, Sweden, by NewsRx editors, research stated, "It is known that patients who acquired methicillin-resistant Staphylococcus aureus (MRSA) in hospitals suffer and feel as plague. Moreover, the patient interaction with nurses and physicians is described as frightening."

Our news journalists obtained a quote from the research from the University of Gothenburg, "Little is known about patient experiences after having acquired CA-MRSA concerning care and everyday life. To reveal and interpret otherwise healthy patients' lived experiences of receiving care and their everyday life after having acquired community MRSA (CA-MRSA). A phenomenological hermeneutic approach guided by Ricouer was conducted. Interviews with twelve patients were transcribed verbatim into a text. The text was analysed in three phases: naive understanding, structural analysis and comprehensive understanding to reveal a possible being in the world. In this study, this referred to what it means to be infected with CA-MRSA. The findings indicate that patients who acquired MRSA experience a changed body image. They suffer from ignorant and frightened behavior from healthcare workers, social contacts, and also of being bullied by colleagues. Despite this, patients assume great responsibility for protecting others. However, knowledgeable staff alleviate suffering and bring peace of mind to the patients. Preventing patient's feelings of being a pest, an outsider living with fear, requires urgent education and understanding about resistant bacteria and how to meet an infected patient."

According to the news editors, the research concluded: "The results describing patients, affected with MRSA, may contribute and touch the readers to better understanding of patient's changed body image and suffering and how to mitigate these feelings."

Our news journalists report that additional information may be obtained by contacting E. Skyman, University of Gothenburg, Dept. of Infect Dis, Inst Biomed, Infect Control Unit, Gothenburg, Sweden. Additional authors for this research include B. Lindahl, I. Bergbom, H.T. Sjostrom and C. Ahren.

Keywords for this news article include: Gothenburg, Sweden, Europe, Methicillin-Resistant Staphylococcus aureus, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Beta-Lactam Antibiotics, Gram-Positive Bacteria, beta-Lactam Resistance, Methicillin Resistance, Penicillin Resistance, Drugs and Therapies, Gram-Positive Cocci, Organic Chemicals, Staphylococcaceae, Drug Resistance, Penicillins, Bacillales, Amides, MRSA, University of Gothenburg.

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Cardiovascular Diseases and Conditions - Thrombosis

Researchers from University of Heidelberg Provide Details of New Studies and Findings in the Area of Thrombosis (Frequency and temporal profile of recanalization after cerebral vein and sinus thrombosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Thrombosis. According to news reporting originating from Heidelberg, Germany, by NewsRx correspondents, research stated, "The temporal course of recanalization and its association with clinical outcome were analysed in our patients with cerebral sinus and/or venous thrombosis (CSVT) and follow-up magnetic resonance imaging (MRI). Between January 1998 and September 2014 all patients from our institutions with CSVT were systematically analysed."

Our news editors obtained a quote from the research from the University of Heidelberg, "Baseline data, treatment characteristics and follow-up MRI were retrospectively recorded. The status of recanalization was assessed as complete (CRec), partial (PRec) or failed recanalization. Clinical follow-up was measured with the modified Rankin Scale. Excellent outcome was defined as modified Rankin Scale 0-1. Ninety-nine patients were identified; 97% of these patients were treated with oral anticoagulation (OAC) and the median (min-max) time of OAC was 7 months (1-84). CRec was achieved in 57.6% (57/99), PRec in 29.3% (29/99) and only 13 (13.1%) patients did not recanalize. The median (min-max) time to PRec was 4 months (0.25-14) and to CRec 6 months (2-34). Median time to last clinical follow-up was 8 months (1-88); 91.8% (89/99) had an excellent outcome at last clinical follow-up and only 2.1% (2/99) died. Only thrombosis of the superior sagittal sinus was independently associated with successful recanalization (odds ratio 16, 95% confidence interval 2-138). No severe haemorrhagic complications and no recurrence of CSVT occurred within clinical follow-up. No association of outcome and recanalization status was found. The recanalization rate of CSVT under OAC was high and the median time to CRec was 6 months. Thrombosis of the superior sagittal sinus is a positive predictor of recanalization."

According to the news editors, the research concluded: "Outcome in this cohort was excellent but no significant association of outcome and recanalization status was found."

The news editors report that additional information may be obtained by contacting C. Herweh, Dept. of Neuroradiology, University of Heidelberg, Heidelberg, Germany. Additional authors for this research include M. Griebe, C. Geisbusch, K. Szabo, E. Neumaier-Probst, M.G. Hennerici, M. Bendszus, P.A. Ringleb and S. Nagel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.12901. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Heidelberg, Hematology, Embolism and Thrombosis, Cardiovascular Diseases and Conditions.

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**Heart Disorders and Diseases - Heart Failure**

**Researchers from University of Helsinki Central Hospital Discuss Findings in Heart Failure (Contemporary management of acute right ventricular failure: a statement from the Heart Failure Association and the Working Group on Pulmonary ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Failure. According to news reporting originating in Helsinki, Finland, by NewsRx journalists, research stated, "Acute right ventricular (RV) failure is a complex clinical syndrome that results from many causes. Research efforts have disproportionately focused on the failing left ventricle, but recently the need has been recognized to achieve a more comprehensive understanding of RV anatomy, physiology, and pathophysiology, and of management approaches."

The news reporters obtained a quote from the research from the University of Helsinki Central Hospital, "Right ventricular mechanics and function are altered in the setting of either pressure overload or volume overload. Failure may also result from a primary reduction of myocardial contractility owing to ischaemia, cardiomyopathy, or arrhythmia. Dysfunction leads to impaired RV filling and increased right atrial pressures. As dysfunction progresses to overt RV failure, the RV chamber becomes more spherical and tricuspid regurgitation is aggravated, a cascade leading to increasing venous congestion. Ventricular interdependence results in impaired left ventricular filling, a decrease in left ventricular stroke volume, and ultimately low cardiac output and cardiogenic shock. Identification and treatment of the underlying cause of RV failure, such as acute pulmonary embolism, acute respiratory distress syndrome, acute decompensation of chronic pulmonary hypertension, RV infarction, or arrhythmia, is the primary management strategy. Judicious fluid management, use of inotropes and vasopressors, assist devices, and a strategy focusing on RV protection for mechanical ventilation if required all play a role in the clinical care of these patients."

According to the news reporters, the research concluded: "Future research should aim to address the remaining areas of uncertainty which result from the complexity of RV haemodynamics and lack of conclusive evidence regarding RV-specific treatment approaches."

Our news correspondents report that additional information may be obtained by contacting V.P. Harjola, Emergency Medicine, Helsinki University, Dept. of Emergency Medicine and Services, Helsinki University Hospital, Helsinki, Finland. Additional authors for this research include A. Mebazaa, J. Celutkiene, D. Bettex, H. Bueno, O. Chioncel, M.G. Crespo-Leiro, V. Falk, G. Filippatos, S. Gibbs, A. Leite-Moreira, J. Lassus, J. Masip, C. Mueller, W. Mullens, R. Naeije, A.V. Nordegraaf and Pari.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ejhf.478. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Finland, Helsinki, Cardiology, Heart Disease, Heart Failure, Article Review, Right Ventricular Function, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes.

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Central Nervous System Diseases and Conditions …

Researchers from University of Helsinki Report Details of New Studies and Findings in the Area of Brain Injuries (Peroxisome proliferator-activated receptor-g coactivator-1a mediates neuroprotection against excitotoxic brain injury in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Brain Injuries. According to news reporting originating from Helsinki, Finland, by NewsRx correspondents, research stated, "Peroxisome proliferator-activated receptor gamma coactivator-1a (PGC-1a) is a transcriptional coactivator involved in the regulation of mitochondrial biogenesis and cell defense. The functions of PGC-1a in physiology of brain mitochondria are, however, not fully understood."

Funders for this research include Suomen Akatemia, Sigrid Juselius, Liv och Halsa, Finska Lakaresallskapet, Svenska Kulturfonden, Magnus Ehrnroothin Saatio, Parkinson Foundation Finland, Minerva Foundation and Progetti di Ateneo, Universita degli Studi di Palermo.

Our news editors obtained a quote from the research from the University of Helsinki, "To address this we have studied wild-type and transgenic mice with a two-fold overexpression of PGC-1a in brain neurons. Data showed that the relative number and basal respiration of brain mitochondria were increased in PGC-1a transgenic mice compared with wild-type mitochondria. These changes occurred concomitantly with altered levels of proteins involved in oxidative phosphorylation (OXPHOS) as studied by proteomic analyses and immunoblottings. Cultured hippocampal neurons from PGC-1a transgenic mice were more resistant to cell degeneration induced by the glutamate receptor agonist kainic acid. In vivo kainic acid induced
excitotoxic cell death in the hippocampus at 48 h in wild-type mice but significantly less so in PGC-1α transgenic mice. However, at later time points cell degeneration was also evident in the transgenic mouse hippocampus, indicating that PGC-1α overexpression can induce a delay in cell death. Immunoblotting showed that X-linked inhibitor of apoptosis protein (XIAP) was increased in PGC-1α transgenic hippocampus with no significant changes in Bcl-2 or Bcl-X.

According to the news editors, the research concluded: "Collectively, these results show that PGC-1α overexpression contributes to enhanced neuronal viability by stimulating mitochondria number and respiration and increasing levels of OXPHOS proteins and the anti-apoptotic protein XIAP."


The news editors report that additional information may be obtained by contacting J. Makela, Medicum, Dept. of Biochemistry and Developmental Biology, Medical Faculty, University of Helsinki, P.O.B. 63, 00014, Haartmaninkatu 8, FIN-00290, Helsinki, Finland. Additional authors for this research include G. Mudo, D.D. Pham, V. Di Liberto, O. Eriksson, L. Louhivuori, C. Bruelle, R. Soliymani, M. Baumann, L. Korhonen, M. Lalowski, N. Belluardo and D. Lindholm.

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Keywords for this news article include: Europe, Finland, Helsinki, Genetics, Organelles, Microbodies, Mitochondria, Brain Injuries, Cellular Structures, Intracellular Space, Cytoplasmic Vesicles, Craniocerebral Trauma, Subcellular Fractions, Cytoplasmic Structures, Apoptosis Regulatory Proteins, Cytoplasmic and Nuclear Receptors.

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**Thrombolysis**

**Researchers from University of Helsinki Report Findings in Thrombolysis (Cutting the Prehospital On-Scene Time of Stroke Thrombolysis in Helsinki A Prospective Interventional Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Thrombolysis. According to news originating from Helsinki, Finland, by NewsRx correspondents, research stated, "Significant portion of the prehospital delay consists of minutes spent on the scene with the patient. We implemented a training program for the emergency medical services personnel with the aim to optimize the on-scene time (OST) and to study the impact of different elements of prehospital practice to the OST duration."

Our news journalists obtained a quote from the research from the University of Helsinki, "In this prospective interventional study, key operational emergency medical service performance variables were analyzed from all thrombolysis candidates transported to the Helsinki University Hospital emergency department. The catchment period was 4 months before
and 4 months after the implementation. One hundred and forty-one patients were managed as thrombolysis candidates before and 148 patients after the training program implementation. The OST duration for the groups was 25 (20.5-31) and 22.5 (18-28.5) minutes, respectively (P < 0.001). Physicist consultations via telephone were associated with a longer (odds ratio 0.546 [0.333-0.893]) and advanced life support training with a shorter OST (odds ratio 1.760 [1.070-2.895]). Implementation of the emergency medical services training program successfully decreased the OST of thrombolysis candidates by 10%.

According to the news editors, the research concluded: "Higher expertise level of the ambulance crew was associated with shorter OST, and decisions to consult a physician via telephone were reflected by longer OST."

For more information on this research see: Cutting the Prehospital On-Scene Time of Stroke Thrombolysis in Helsinki A Prospective Interventional Study. *Stroke*, 2016;47 (12):3038-3040. *Stroke* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Stroke - stroke.ahajournals.org/)

The news correspondents report that additional information may be obtained from T. Puolakka, University of Helsinki, Helsinki Univ Hosp, Emergency Med Serv, Helsinki 00099, Finland. Additional authors for this research include M. Kuisma, S. Lankimaki, J. Puolakka, J. Hallikainen, K. Rantanen and P.J. Lindsberg.

Keywords for this news article include: Helsinki, Finland, Europe, Thrombolysis, Hematology, University of Helsinki.

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Heart Disorders and Diseases - Myocarditis

Researchers from University of Helsinki Report on Findings in Myocarditis (Long-term outcome and its predictors in giant cell myocarditis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Myocarditis. According to news reporting originating from Helsinki, Finland, by NewsRx correspondents, research stated, "There are no studies focusing on prognostic factors in giant cell myocarditis (GCM). We aimed to identify predictors of transplant-free survival in GCM."

Our news editors obtained a quote from the research from the University of Helsinki, "We analysed the details of 46 patients with GCM (31 women, mean age 51 +/-12 years) seen at our hospital since 1991 and followed for the occurrence of cardiac death or transplantation till May 2015. The association of transplant-free survival with patient characteristics, laboratory data on admission, and myocardial histology in the 38 patients diagnosed prior to death or transplantation was examined. Altogether 26 patients died (n = 8) or underwent transplantation (n = 18) a median of 11 months following symptom onset. The 5-year estimate of transplant-free survival was 42% [95% confidence interval (CI) 35-48%]. By Cox regression analysis, the hazard ratio for death or transplantation was 0.87 (95% CI 0.75-0.99) per +5% difference in LVEF, 1.06 (95% CI 1.03-1.10) per+ 1000 ng/L difference in NT-proBNP, and 4.57 (95% CI 1.63-11.28) for cardiac troponin-T above the median of 85 ng/L at presentation. The severity of necrosis and fibrosis in myocardial biopsy, graded by the consensus of two cardiac pathologists..."
as none, mild, moderate, or severe, predicted the outcome with a hazard ratio of 7.17 (95% CI 2.29-22.40) for the presence of either necrosis or fibrosis of at least moderate extent. In GCM, the probability of transplant-free survival is 42% at 5 years from symptom onset."

According to the news editors, the research concluded: "Markers of myocyte injury and cardiac dysfunction help predict the outcome."


The news editors report that additional information may be obtained by contacting K. Ekstrom, University of Helsinki, Cent Hosp, Heart & Lung Center, Helsinki 00029, Finland. Additional authors for this research include J. Lehtonen, R. Kandolin, A. Raisanen-Sokolowski, K. Salmenkivi and M. Kupari.

Keywords for this news article include: Helsinki, Finland, Europe, Heart Disorders and Diseases, Giant Cell Myocarditis, Cardiomyopathies, Cardiovascular, Heart Disease, Giant Cells, Cardiology, University of Helsinki.

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Cardiovascular Diseases

Researchers from University of Hong Kong Report Recent Findings in Cardiovascular Diseases (The smoke-free legislation in Hong Kong: its impact on mortality)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases have been published. According to news reporting out of Hong Kong, People's Republic of China, by NewsRx editors, research stated, "To examine trends in deaths for conditions associated with secondhand smoke exposure over the years prior to and following the implementation of a smoke-free policy in Hong Kong. Time-series study. Death registration data from Hong Kong Special Administrative Region (SAR) Government Census and Statistics Department."

Our news journalists obtained a quote from the research from the University of Hong Kong, "All deaths registered from 1 January 2001 to 31 December 2011. Deaths for conditions associated with passive smoking include cardiovascular disease (CVD), respiratory disease and other causes. There was a decline in the annual proportional change for ischaemic heart disease (IHD), acute myocardial infarction (AMI) and CVD mortality in the year after the intervention for all ages and those aged 65 years or older. There were also clear declines in the cool season peaks for these three conditions in the first postintervention year. There was a further drop in the cool season peak for AMI among all ages in the year after the exemptions ceased. No declines in annual proportional change or changes in seasonal peaks of mortality were found for any of the control conditions. The findings in this study add to the evidence base, as summarised in the Surgeon General's report, extending the impact of effective smoke-free legislation to those aged 65 years or older and to cerebrovascular events in younger age groups."

According to the news editors, the research concluded: "They also reinforced the need for comprehensive, enforced and effective smoke-free laws if the full extent of the health
gains are to be achieved."


Our news journalists report that additional information may be obtained by contacting T.Q. Thach, University of Hong Kong, Sch Public Hlth, Pokfulam 852, Hong Kong, People's Republic of China. Additional authors for this research include S.M. McGhee, J.C. So, J. Chau, E.K.P. Chan, C.M. Wong and A.J. Hedley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/tobaccocontrol-2015-052496. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, University of Hong Kong.

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**Cell Research - Cell Adhesion Molecules**

**Researchers from University of Illinois Provide Details of New Studies and Findings in the Area of Cell Adhesion Molecules (MicroRNA Regulation of Endothelial Junction Proteins and Clinical Consequence)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cell Research - Cell Adhesion Molecules. According to news reporting from Chicago, Illinois, by NewsRx journalists, research stated, "Cellular junctions play a critical role in structural connection and signal communication between cells in various tissues. Although there are structural and functional varieties, cellular junctions include tight junctions, adherens junctions, focal adhesion junctions, and tissue specific junctions such as PECAM-1 junctions in endothelial cells (EC), desmosomes in epithelial cells, and hemidesmosomes in EC."

Financial support for this research came from National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from the University of Illinois, "Cellular junction dysfunction and deterioration are indicative of clinical diseases. MicroRNAs (miRNA) are similar to 20 nucleotide, noncoding RNAs that play an important role in posttranscriptional regulation for almost all genes. Unsurprisingly, miRNAs regulate junction protein gene expression and control junction structure integrity. In contrast, abnormal miRNA regulation of junction protein gene expression results in abnormal junction structure, causing related diseases. The major components of tight junctions include zonula occluden-1 (ZO-1), claudin-1, claudin-5, and occludin. The miRNA regulation of ZO-1 has been intensively investigated. ZO-1 and other tight junction proteins such as claudin-5 and occludin were positively regulated by miR-126, miR-107, and miR21 in different models. In contrast, ZO-1, claudin-5, and occludin were negatively regulated by miR-181a, miR-98, and miR150. Abnormal tight junction miRNA regulation accompanies cerebral middle artery ischemia, brain trauma, glioma metastasis, and so forth. The major components of adherens junctions include..."
VE-cadherin, beta-catenin, plakoglobin, P120, and vinculin. VE-cadherin and beta-catenin were regulated by miR-9, miR-99b, miR-181a, and so forth. These regulations directly affect VE-cadherin-beta-catenin complex stability and further affect embryo and tumor angiogenesis, vascular development, and so forth. miR-155 and miR-126 have been shown to regulate PECAM-1 and affect neutrophil rolling and EC junction integrity. In focal adhesion junctions, the major components are integrin beta 4, paxillin, and focal adhesion kinase (FAK). Integrin beta 4 has been regulated by miR-184, miR-205, and miR-9. Paxillin has been regulated by miR-137, miR-145, and miR-218 in different models. FAK has been regulated by miR-7, miR-138, and miR-135. Deregulation of miRNAs is caused by viral infections, tumorigenesis, and so forth. By regulation of posttranscription, miRNAs manipulate junction protein expression in all cellular processes and further determine cellular fate and development.

According to the news reporters, the research concluded: "Elucidation of these regulatory mechanisms will become a new alternative therapy for many diseases, such as cancers and inflammatory diseases."

For more information on this research see: MicroRNA Regulation of Endothelial Junction Proteins and Clinical Consequence. *Meditators of Inflammation*, 2016;():1-6. *Meditators of Inflammation* can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Mediators of Inflammation - www.hindawi.com/journals/mi/)

Our news journalists report that additional information may be obtained by contacting W.G. Chen, University of Illinois, Coll Med, Dept. of Med, Div Pulm Crit Care Sleep & Allergy, Chicago, IL 60607, United States. Additional authors for this research include H. Peng, V. Mastej and W.G. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/5078627. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Cell Membrane, Article Review, Armadillo Domain Proteins, Cell Adhesion Molecules, Cell-Matrix Junctions, Transcription Factors, Cellular Structures, Membrane Proteins, Focal Adhesions, Cell Research, Glycoproteins, beta Catenin, Cadherins, Catenins, Genetics, University of Illinois.

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Oncology - Colon Cancer

Researchers from University of Kansas Report Recent Findings in Colon Cancer (RNA Binding Protein RBM3 Increases beta-Catenin Signaling to Increase Stem Cell Characteristics in Colorectal Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news reporting out of Kansas City, Kansas, by NewsRx editors, research stated, "Colorectal cancer (CRC) is the second leading cause of cancer deaths in the United States. It arises from loss of intestinal epithelial homeostasis and hyperproliferation of the crypt epithelium."

Our news journalists obtained a quote from the research from the University of
Kansas, "In order to further understand the pathogenesis of CRC it is important to further understand the factors regulating intestinal epithelial proliferation and more specifically, regulation of the intestinal epithelial stem cell compartment. Here, we investigated the role of the RNA binding protein RBM3 in stem cell homeostasis in colorectal cancers. Using a doxycycline (Dox) inducible RBM3 overexpressing cell lines HCT 116 and DLD-1, we measured changes in side population (SP) cells that have high xenobiotic efflux capacity and increased capacity for self-renewal. In both cell lines, RBM3 induction showed significant increases in the percentage of side population cells. Additionally, we observed increases in spheroid formation and in cells expressing DCLK1, LGR5 and CD44(Hi). As the Wnt/beta-catenin signaling pathway is important for both physiologic and cancer stem cells, we next investigated the effects of RBM3 overexpression on beta-catenin activity. RBM3 overexpression increased levels of nuclear beta-catenin as well as TCF/LEF transcriptional activity. In addition, there was inactivation of GSK3 beta leading to decreased beta-catenin phosphorylation. Pharmacologic inhibition of GSK3 beta using (20Z, 30E)-6-Bromoindirubin-30-oxime (BIO) also recapitulates the RBM3 induced beta-catenin activity."

According to the news editors, the research concluded: "We see that RNA binding protein RBM3 induces stemness in colorectal cancer cells through a mechanism involving suppression of GSK3 beta activity thereby enhancing beta-catenin signaling."


Our news journalists report that additional information may be obtained by contacting S. Anant, University of Kansas, Medical Center, Dept. of Mol & Integrat Physiol, Kansas City, KS 66103, United States. Additional authors for this research include D. Subramaniam, J. Balmaceda, B. Roy, D.A. Dixon, S. Umar, S.J. Weir and S. Anant.

Keywords for this news article include: Kansas City, Kansas, United States, North and Central America, Armadillo Domain Proteins, Transcription Factors, RNA-Binding Proteins, Colorectal Research, Stem Cell Research, Carrier Proteins, Gastroenterology, Nucleoproteins, beta Catenin, Colon Cancer, Oncology, Genetics, Catenins, University of Kansas.

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**Oncology - Multiple Myeloma**

**Researchers from University of Kuopio Hospital Detail New Studies and Findings in the Area of Multiple Myeloma (A randomized phase II study of stem cell mobilization with cyclophosphamide+G-CSF or G-CSF alone after lenalidomide-based induction ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Multiple Myeloma are presented in a new report. According to news reporting originating from Kuopio, Finland, by NewsRx correspondents, research stated, "The most common means of mobilizing autologous stem cells is G-CSF alone
or combined with cyclophosphamide (CY) to obtain sufficient CD34+ cells for one to two transplants. There are few prospective, randomized studies investigating mobilization regimens in multiple myeloma (MM), especially after lenalidomide-based induction."

Our news editors obtained a quote from the research from the University of Kuopio Hospital, "We designed this prospective, randomized study to compare low-dose CY 2 g/m2 +G-CSF (arm A) and G-CSF alone (arm B) after lenalidomide-based up-front induction in MM. Of the 80 initially randomized patients, 69 patients were evaluable, 34 and 35 patients in arms A and B, respectively. The primary end point was the proportion of patients achieving a yield of $\geq 3 \times 10^6$/kg CD34+ cells with 1-2 aphereses, which was achieved in 94% and 77% in arms A and B, respectively (p=0.084). The median number of aphereses needed to reach the yield of $\geq 3 \times 10^6$/kg was lower in arm A than in arm B (1 vs. 2, p=0.035). Two patients needed plerixafor in arm A and five patients in arm B (p=0.428)."

According to the news editors, the research concluded: "Although CY-based mobilization was more effective, G-CSF alone was successful in a great majority of patients to reach the defined collection target after three cycles of lenalidomide-based induction."

For more information on this research see: A randomized phase II study of stem cell mobilization with cyclophosphamide+G-CSF or G-CSF alone after lenalidomide-based induction in multiple myeloma. Bone Marrow Transplantation, 2015;51(3):372-6. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

The news editors report that additional information may be obtained by contacting R. Silvennoinen, Dept. of Medicine, Kuopio University Hospital, Kuopio, Finland. Additional authors for this research include P. Anttila, M. Saily, T. Lundan, J. Heiskanen, T.M. Siitonen, S. Kakko, M. Putkonen, H. Ollikainen, V. Terava, A. Kutila, K. Launonen, A. Rasanen, A. Sikio, M. Suominen, P. Bazia, K. Kananen and T. Selander.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bmt.2015.236. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Bone Marrow Transplantation is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Kuopio, Europe, Finland, Oncology, Hydrocarbons, Cyclophosphamide, Multiple Myeloma, Paraproteinemias, Clinical Research, Mustard Compounds, Stem Cell Research, Hemostatic Disorders, Hemorrhagic Disorders, Phosphoramide Mustards, Blood Protein Disorders, Clinical Trials and Studies, Vascular Diseases and Conditions.

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Cardiovascular Diseases and Conditions - Hypotension

Researchers from University of KwaZulu-Natal Detail New Studies and Findings in the Area of Hypotension (Recipes for obstetric spinal hypotension: The clinical context counts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Hypotension is
the subject of a report. According to news reporting from Durban, South Africa, by NewsRx journalists, research stated, "Hypotension following obstetric spinal anesthesia remains a common and important problem. While recent research advances have brought us closer to the perfect recipe for the obstetric spinal anesthesia, these advances have not been translated into practical guidelines able to reduce the unacceptable number of fatalities that occur in environments where resources are limited."

The news correspondents obtained a quote from the research from the University of KwaZulu-Natal, "In South Africa, more than half of anaesthetic deaths are still related to spinal hypotension. A gap exists between the 'perfect recipe', developed from a clinical context rooted in resource-rich research environments, and its application and performance in real-world resource-poor environments - conditions experienced by more than 75% of the world's population."

According to the news reporters, the research concluded: "This review attempts to define this knowledge gap and proposes a research agenda to address the deficiencies."

For more information on this research see: Recipes for obstetric spinal hypotension: The clinical context counts. *SAMJ South African Medical Journal*, 2016;106(9):37-40. *SAMJ South African Medical Journal* can be contacted at: Sa Medical Assoc, Block F Castle Walk Corporate Park, Nossob Street, Erasmuskloof EXT3, Pretoria, 0002, South Africa.

Our news journalists report that additional information may be obtained by contacting D.G. Bishop, University of KwaZulu Natal, Nelson R Mandela Sch Med, Sch Clin Med, Coll Hlth Sci, Durban, South Africa. Additional authors for this research include R.N. Rodseth and R.A. Dyer.

Keywords for this news article include: Durban, South Africa, Africa, Cardiovascular Diseases and Conditions, Hypotension, University of KwaZulu-Natal.

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**Heart Disorders and Diseases - Heart Failure**

**Researchers from University of Leicester Detail New Studies and Findings in the Area of Heart Failure (Plasma growth hormone is a strong predictor of risk at 1 year in acute heart failure)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Failure. According to news reporting from Leicester, United Kingdom, by NewsRx journalists, research stated, "We sought to compare the prognostic utility of growth hormone (GH) with NT-proBNP) and the ADHERE score in a large cohort of acute heart failure (HF) patients, subcategorized into HF with reduced EF <50% (HFrEF) and preserved EF (≥)50% (HFpEF). GH and NTproBNP levels were measured in 537 patients (HFrEF n=415; HFpEF n=122) with acute HF recruited into this prospective cohort study."

Financial supporters for this research include John and Lucille Van Geest Foundation, National Institute for Health Research Leicester Cardiovascular Biomedical Research Unit.

The news correspondents obtained a quote from the research from the University of Leicester, "The main outcome measure was death or HF readmission at 1 year. GH levels were higher in both HFrEF [1.26 (0.54-2.62) vs. 0.8 (0.26-1.94) ng/mL, p<0.001] and HFpEF [1.04
(0.48-2.92) vs. 0.53 (0.18-1.94) ng/mL, p=0.020] patients with the outcome compared with event-free survivors. GH levels were independently predictive for the outcome at 1 year in the entire cohort [HR 1.47, 95% confidence interval (CI) 1.16-1.86, p=0.001] and those with HFrEF (HR 1.54, 95% CI 1.19-1.99, p=0.001) in multivariate Cox hazard analysis. GH improved risk classification as measured by continuous net reclassification improvement (NRI) when added to the ADHERE multivariate logistic model of age, sex, urea, heart rate, and systolic blood pressure, for all patients [NRI 29.6 (12.1-47.1), p=0.001] and HFrEF NRI 21.7 (1.9-41.6), p=0.034] patients, as well as in addition to the ADHERE model combined with NT-proBNP for all patients [NRI 25.4 (7.8-43.1), p=0.005]."

According to the news reporters, the research concluded: "GH offers incremental prognostic information over the ADHERE score clinical predictors and NT-proBNP for risk stratification of acute HF patients."


Our news journalists report that additional information may be obtained by contacting S.S. Bhandari, Dept. of Cardiovascular Sciences, University of Leicester, Leicester, UK. Additional authors for this research include H. Narayan, D.J. Jones, T. Suzuki, J. Struck, A. Bergmann, I.B. Squire and L.L Ng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ejhf.459. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Leicester, Cardiology, Heart Disease, Heart Failure, United Kingdom, Growth Hormones, Peptide Hormones, Anterior Pituitary Hormones, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Researchers from University of Liege Provide Details of New Studies and Findings in the Area of Type 1 Diabetes Mellitus (Practical aspects of gene regulatory inference via conditional inference forests from expression data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus. According to news reporting from Sart Tilman Par Liege, Belgium, by NewsRx journalists, research stated, "Gene regulatory network (GRN) inference is an active area of research that facilitates understanding the complex interplays between biological molecules. We propose a novel framework to create such GRNs, based on Conditional Inference Forests (CIFs) as proposed by Strobl et al."

The news correspondents obtained a quote from the research from the University of Liege, "Our framework consists of using ensembles of Conditional Inference Trees (CITs) and selecting an appropriate aggregation scheme for variant selection prior to network construction. We show on synthetic microarray data that taking the original implementation of CIFs with
conditional permutation scheme (CIFcond) may lead to improved performance compared to Breiman's implementation of Random Forests (RF). Among all newly introduced CIF-based methods and five network scenarios obtained from the DREAM4 challenge, CIFcond performed best. Networks derived from well-tuned CIFs, obtained by simply averaging P-values over tree ensembles (CIFmean) are particularly attractive, because they combine adequate performance with computational efficiency. Moreover, thresholds for variable selection are based on significance levels for P-values and, hence, do not need to be tuned. From a practical point of view, our extensive simulations show the potential advantages of CIFmean-based methods. Although more work is needed to improve on speed, especially when fully exploiting the advantages of CITs in the context of heterogeneous and correlated data, we have shown that CIF methodology can be flexibly inserted in a framework to infer biological interactions.

According to the news reporters, the research concluded: "Notably, we confirmed biologically relevant interaction between IL2RA and FOXP1, linked to the IL-2 signaling pathway and to type 1 diabetes."


Our news journalists report that additional information may be obtained by contacting K. Bessonov, University of Liege, Medical Genom, GIGA R, B-4000 Sart Tilman Par Liege, Belgium.

Keywords for this news article include: Sart Tilman Par Liege, Belgium, Europe, Type 1 Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions, Epidemiology, Genetics, Genetics, Insulin Dependent Diabetes Mellitus, Risk and Prevention, Type 1 Diabetes, University of Liege.

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**Peptide Proteins - Posterior Pituitary Hormones**

**Researchers from University of Liverpool Detail New Studies and Findings in the Area of Posterior Pituitary Hormones (The combination tocolytic effect of magnesium sulfate and an oxytocin receptor antagonist in myometrium from singleton and ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peptide Proteins - Posterior Pituitary Hormones have been published. According to news originating from Liverpool, United Kingdom, by NewsRx correspondents, research stated, "Preterm birth at < 37 weeks of gestation is the most common and costly complication of pregnancy and remains the leading cause of neonatal morbidity, death, and reduced achievement in surviving infants. Magnesium sulfate is 1 class of tocolytics for threatened preterm labor; however, its clinical efficacy has been questioned."

Our news journalists obtained a quote from the research from the University of Liverpool, "Twin pregnancies are at increased risk of preterm delivery compared with singleton gestations, which suggests that there is twin-specific risk to preterm delivery in twins. The prevention strategies that are applied to singleton pregnancies, however, have not been shown to
be effective in twin pregnancies. The purpose of this study was to compare the relaxant effect of magnesium sulfate on spontaneous and oxytocin-augmented contractions of human myometrium from singleton and twin pregnancies and to examine whether the effect of oxytocin on magnesium sulfate's potency could be reversed with the use of the oxytocin receptor antagonist, atosiban. Myometrium was obtained at the time of prelabor cesarean section (36-40 weeks of gestation) from women with singleton (n = 23) or twin (n = 12) pregnancy. Isometric tension recordings were made on myometrial strips that were mounted in organ baths that were superfused with physiologic saline solution. Strips were exposed to rising concentrations of magnesium sulfate, and the effect on spontaneous contractions or stimulated with oxytocin (0.5 nmol/L) and in the presence or absence of atosiban (100 nmol/L) was recorded. The contractile characteristics after each application of magnesium sulfate, which included amplitude of contraction and activity integral, were measured. Concentration-response curves were fitted with the use of nonlinear regression and comparison of the negative logarithm of the 50% reduction in activity values. Magnesium sulfate exerted an equal concentration-dependent inhibitory effect on spontaneous myometrial contractions from both singleton and twin myometrium (P > .05). The application of oxytocin produced a significant rightward shift in the concentration-response curves (P < .0001), but no differences were found between pregnancy groups (P > .05). The addition of atosiban shifted concentration-response curves significantly back to the left for amplitude of contraction and activity integral in singletons (P < .0001). However, only activity integral was significantly reversed in twins (P < .01). Magnesium sulfate is equipotent in suppressing contractions in singleton and twin myometrium. Oxytocin (0.5 nmol/L) significantly reduces the tocolytic potency of magnesium sulfate, which may explain, in part, magnesium sulfate's poor efficacy in vivo; however, this can be reversed partially by the use of an oxytocin receptor antagonist.

According to the news editors, the research concluded: "Combination tocolysis that involves oxytocin receptor antagonists requires further investigation."


The news correspondents report that additional information may be obtained from S. Arrowsmith, University of Liverpool, Harris Wellbeing Preterm Birth Res Center, Dept. of Cellular & Mol Physiol, Liverpool, Merseyside, United Kingdom. Additional authors for this research include J. Neilson and S. Wray.

Keywords for this news article include: Liverpool, United Kingdom, Europe, Membrane Proteins, Risk and Prevention, Posterior Pituitary Hormones, Pituitary Hormone Receptors, G-Protein-Coupled Receptors, Neuropeptide Receptors, Magnesium Compounds, Inorganic Chemicals, Oxytocin Receptors, Magnesium Sulfate, Sulfur Compounds, Peptide Proteins, Peptide Hormones, Sulfur Acids, Light Metals, University of Liverpool.

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Researchers from University of Liverpool Provide Details of New Studies and Findings in the Area of Pneumonia (Impact of feeding and housing systems on disease incidence in dairy calves)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Pneumonia are discussed in a new report. According to news reporting originating in Merseyside, United Kingdom, by NewsRx journalists, research stated, "Contentious issues in calf rearing include milk feeding level and single versus group housing. The current study was performed on a high-producing 170 Holstein cow dairy farm to investigate the impact of nutrition and housing on disease incidence."

The news reporters obtained a quote from the research from the University of Liverpool, "Calves (n=100) were allocated in birth order to one of two commonly used feeding strategies. Group A calves were group housed from birth and fed ad libitum milk replacer (MR) via a computerised machine using a single teat, with weaning commencing at 63 days. Group R calves were initially housed in individual pens receiving 2.5 litres of MR twice daily via a bucket until three weeks of age when they were group housed and fed 3 litres of MR twice daily via a group trough with weaning commencing at 56 days. In total, 80 (80 per cent) calves suffered from at least one incident of disease during the period from birth to 12 weeks. Group A calves had a greater risk of disease than group R calves (diarrhoea: OR 3.86 (95 per cent CI 1.67 to 8.9); pneumonia: OR 5.80 (95 per cent CI 2.33 to 14.44)). There was a 5.1 per cent incidence of failure of passive transfer of Ig assessed via measurement of plasma total protein concentrations at 48 hours of age."

According to the news reporters, the research concluded: "It is hypothesised that the increased diarrhoea risk in group A calves was most likely associated with group housing, while the increased pneumonia risk was associated with the use of a single teat allowing increased transmission of pathogens from calf to calf."

For more information on this research see: Impact of feeding and housing systems on disease incidence in dairy calves. Veterinary Record, 2016;179(20):512-50. Veterinary Record can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Veterinary Record - veterinaryrecord.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting D.H. Grove-White, University of Liverpool, Inst Vet Sci, Wirral CH64 7TE, Merseyside, United Kingdom. Additional authors for this research include C.M. Argo, D. Jones and D.H. Grove-White.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/vr.103895. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Merseyside, United Kingdom, Europe, Lung Diseases and Conditions, Risk and Prevention, Pneumonia, University of Liverpool.

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Researchers from University of Lodz Report Details of New Studies and Findings in the Area of One-Carbon Group Transferases
(Pharmacological inhibition of arginine and lysine methyltransferases induces nuclear abnormalities and suppresses ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - One-Carbon Group Transferases. According to news reporting originating in Lodz, Poland, by NewsRx journalists, research stated, "Posttranslational modifications of histone tails can alter chromatin structure and regulate gene transcription. While recent studies implicate the lysine/arginine protein methyltransferases in the regulation of genes for endothelial metabolism, the role of AMI-1 and AMI-5 compounds in angiogenesis remains unknown."

Financial support for this research came from National Science Centre.

The news reporters obtained a quote from the research from the University of Lodz, "Here, we show that global inhibition of arginine and lysine histone methyltransferases (HMTs) by AMI-5 induced an angiostatic profile in human microvascular endothelial cells and human umbilical vein endothelial cells. Based on FACS analysis, we found that inhibition of HMTs significantly affects proliferation of endothelial cells, by suppressing cell cycle progression in the Go/G1 phase. Immunofluorescent studies of the endothelial cells replication pattern by 5-ethynyl-2'-deoxyuridine incorporation disclosed that AMI-5, and the arginine methyltransferase inhibitor AMI-1, induced heterochromatin formation and a number of nuclear abnormalities, such as formation of micronuclei (MNs) and nucleoplasmic bridges (NPBs), which are markers of chromosomal instability."

According to the news reporters, the research concluded: "In addition to the modification of the cell cycle machinery in response to AMI5 treatment, also endothelial cells migration and capillary-like tube formation processes were significantly inhibited, implicating a stimulatory role of HMTs in angiogenesis."


Our news correspondents report that additional information may be obtained by contacting A. Balcerczyk, University of Lodz, Dept. of Mol Biophys, Lodz, Poland. Additional authors for this research include D. Rybczék, M. Wojtala, L. Pirola, J. Okabe and A. El-Osta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bcp.2016.09.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lodz, Poland, Europe, One-Carbon Group Transferases, Essential Amino Acids, Enzymes and Coenzymes, Diamino Amino Acids, Methyltransferases, Basic Amino Acids, Endothelial Cells, Pharmacology, Angiogenesis, Arginine, Therapy, Lysine, University of Lodz.

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Researchers from University of Lodz Report New Studies and Findings in the Area of Bladder Cancer (Genetic diversity of urinary bladder cancer and the risk of recurrence based on mutation analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Bladder Cancer is the subject of a report. According to news reporting from Lodz, Poland, by NewsRx journalists, research stated, "The aim of the study was to assess the genetic diversity of bladder cancer and determine the suitability of a proposed molecular marker panel to monitor the course of bladder cancer patients. The study involved 185 patients with diagnosed bladder cancer."

The news correspondents obtained a quote from the research from the University of Lodz, "The genetic diversity of the bladder cancer was evaluated by the prevalence of mutations in the TP53, HRAS, FGFR3 and WWOX genes. Mutations were detected in 62.2% of the tumor samples. The most frequently mutated genes were FGFR3 (49.7%) and TP53 (16.2%). No mutation was observed in the WWOX gene. FGFR3 mutations, contrary to TP53, correlated with lower tumor stage and grade, and the presence of multiple tumors. The risk of death was significantly higher in patients with TP53 mutant tumors (HR=3.12; 95%CI: 1.14-7.27; p=0.006) but lower in patients with FGFR3 mutations (HR=0.36; 95%CI: 0.15-0.87; p=0.002). None of the investigated genes was an independent predictor of disease-specific survival, recurrence-free survival or progression-free survival. The results confirm the existence of two alternative pathways of bladder cancer. However the presence of a high percentage of wild type variants in the higher stages of the disease suggest the existence of another pathway of molecular changes leading to the development of bladder cancer."

According to the news reporters, the research concluded: "Molecular analysis may have prognostic value and may facilitate the assignment of patients to appropriate forms of treatment - especially in the case of patients with a T1 tumor, where different mutational patterns were observed in each grade."

For more information on this research see: Genetic diversity of urinary bladder cancer and the risk of recurrence based on mutation analysis. Neoplasma, 2016;63(6):952-960. Neoplasma can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

Our news journalists report that additional information may be obtained by contacting M. Traczyk-Borszynska, Medical Univ Lodz, Dept. of Clin Genet, Lodz, Poland. Additional authors for this research include E. Borkowska, Z. Jablonowski, A. Jedrzejczyk, M. Pietrusinski, B. Kaluzewski, M. Sosnowski and M. Borowiec.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4149/neo_2016_614. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lodz, Poland, Europe, Cancer, Risk and Prevention, Bladder Cancer, Oncology, Genetics, University of Lodz.

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Researchers from University of Louisville Describe Findings in Diabetes (Diabetic Microvascular Disease and Pulmonary Fibrosis: The Contribution of Platelets and Systemic Inflammation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Diabetes have been published. According to news reporting originating in Louisville, Kentucky, by NewsRx journalists, research stated, "Diabetes is strongly associated with systemic inflammation and oxidative stress, but its effect on pulmonary vascular disease and lung function has often been disregarded. Several studies identified restrictive lung disease and fibrotic changes in diabetic patients and in animal models of diabetes."

The news reporters obtained a quote from the research from the University of Louisville, "While microvascular dysfunction is a well-known complication of diabetes, the mechanisms leading to diabetes-induced lung injury have largely been disregarded. We described the potential involvement of diabetes-induced platelet-endothelial interactions in perpetuating vascular inflammation and oxidative injury leading to fibrotic changes in the lung. Changes in nitric oxide synthase (NOS) activation and decreased NO bioavailability in the diabetic lung increase platelet activation and vascular injury and may account for platelet hyperreactivity reported in diabetic patients. Additionally, the Janus kinase/signal transducer and activator of transcription (JAK/STAT) pathway has been reported to mediate pancreatic islet damage, and is implicated in the onset of diabetes, inflammation and vascular injury. Many growth factors and diabetes-induced agonists act via the JAK/STAT pathway. Other studies reported the contribution of the JAK/STAT pathway to the regulation of the pulmonary fibrotic process but the role of this pathway in the development of diabetic lung fibrosis has not been considered."

According to the news reporters, the research concluded: "These observations may open new therapeutic perspectives for modulating multiple pathways to mitigate diabetes onset or its pulmonary consequences."

For more information on this research see: Diabetic Microvascular Disease and Pulmonary Fibrosis: The Contribution of Platelets and Systemic Inflammation. *International Journal of Molecular Sciences*, 2016;17(11):1398-1411. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news correspondents report that additional information may be obtained by contacting R. Jagadapillai, University of Louisville, Sch Med, Dept. of Pediat, Louisville, KY 40292, United States. Additional authors for this research include M.J. Rane, X.Y. Lin, A.M. Roberts, G.W. Hoyle, L. Cai and E. Gozal.

Keywords for this news article include: Louisville, Kentucky, United States, North and Central America, Inflammation, Article Review, Endocrinology, Diabetes, Genetics, University of Louisville.

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Researchers from University of Lubeck Describe Findings in Parkinson's Disease (Genetics of Parkinson's disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Parkinson's disease. According to news reporting originating in Lubeck, Germany, by NewsRx editors, the research stated, "Almost two decades after the identification of SNCA as the first causative gene in Parkinson's disease (PD) and the subsequent understanding that genetic factors play a substantial role in PD development, our knowledge of the genetic architecture underlying this disease has vastly improved. Approximately 5 -10% of patients suffer from a monogenic form of PD where autosomal dominant mutations in SNCA, LRRK2, and VPS35 and autosomal recessive mutations in PINK1, DJ-1, and Parkin cause the disease with high penetrance."

The news reporters obtained a quote from the research from the University of Lubeck, "Furthermore, recent whole-exome sequencing have described autosomal recessive DNAJC6 mutations in predominately atypical, but also cases with typical PD. In addition, several other genes have been linked to atypical Parkinsonian phenotypes. However, the vast majority of PD is genetically complex, i.e. it is caused by the combined action of common genetic variants in concert with environmental factors. By the application of genome-wide association studies, 26 PD risk loci have been established to date. Similar to other genetically complex diseases, these show only moderate effects on PD risk. Increasing this etiologic complexity, many of the involved genetic and environmental risk factors likely interact in an intricate fashion."

According to the news reporters, the research concluded: "This article aims to provide a comprehensive overview of the current knowledge in PD genetics."


Our news correspondents report that additional information may be obtained by contacting C.M. Lill, University of Lubeck, Inst Neurogenet, Genet & Mol Epidemiol Grp, D-23562 Lubeck, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mcp.2016.11.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lubeck, Germany, Europe, Neurodegenerative Diseases and Conditions, Article Review, Risk and Prevention, Epidemiology, Central Nervous System Diseases and Conditions, Basal Ganglia Diseases and Conditions, Brain Diseases and Conditions, Parkinsonian Disorders, Parkinson's Disease, Movement Disorders, Genetics, University of Lubeck.

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Researchers from University of Lyon Discuss Findings in Toxicology and Pharmacology (Optimizing the design of a reproduction toxicity test with the pond snail Lymnaea stagnalis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Toxicology and Pharmacology is the subject of a report. According to news reporting originating from Villeurbanne, France, by NewsRx correspondents, research stated, "This paper presents the results from two ring-tests addressing the feasibility, robustness and reproducibility of a reproduction toxicity test with the freshwater gastropod Lymnaea stagnalis (RENILYS strain). Sixteen laboratories (from inexperienced to expert laboratories in mollusc testing) from nine countries participated in these ring-tests."

Financial supporters for this research include Danish EPA, DEFR, INRA, ONEMA, UBA.

Our news editors obtained a quote from the research from the University of Lyon, "Survival and reproduction were evaluated in L. stagnalis exposed to cadmium, tributyltin, prochloraz and trenbolone according to an OECD draft Test Guideline. In total, 49 datasets were analysed to assess the practicability of the proposed experimental protocol, and to estimate the between-laboratory reproducibility of toxicity endpoint values. The statistical analysis of count data (number of clutches or eggs per individual-day) leading to ECx estimation was specifically developed and automated through a free web-interface. Based on a complementary statistical analysis, the optimal test duration was established and the most sensitive and cost-effective reproduction toxicity endpoint was identified, to be used as the core endpoint."

According to the news editors, the research concluded: "This validation process and the resulting optimized protocol were used to consolidate the OECD Test Guideline for the evaluation of reproductive effects of chemicals in L stagnalis."

For more information on this research see: Optimizing the design of a reproduction toxicity test with the pond snail Lymnaea stagnalis. Regulatory Toxicology and Pharmacology, 2016;81():47-56. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news editors report that additional information may be obtained by contacting S. Charles, University of Lyon, University of Lyon, UMR CNRS 5558, Lab Biometrie & Biol Evolut, F-69100 Villeurbanne, France. Additional authors for this research include V. Ducrot, D. Azam, R. Benstead, D. Brettschneider, K. De Schamphelaere, S.F. Goncalves, J.W. Green, H. Holbech, T.H. Hutchinson, D. Faber, F. Laranjeiro, P. Matthiessen, L. Norrgren, J. Oehlmann, E. Reategui-Zirena and Seeland-F.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Villeurbanne, France, Europe, Toxicology and Pharmacology, Drugs and Therapies, University of Lyon.

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DNA Research

Researchers from University of Malaysia Detail Findings in DNA Research (Gold nanoparticle mediated method for spatially resolved deposition of DNA on nano-gapped interdigitated electrodes, and its application to the detection of the human ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on DNA Research have been presented. According to news reporting originating in Kangar, Malaysia, by NewsRx journalists, research stated, "The authors introduce a method for spatially arranged DNA immobilization on 10-nm gold nanoparticles (GNP) deposited on a silicon substrate carrying nanogapped interdigitated electrodes. The GNPs are covalently bound to the surface via silane chemistry, and the single steps of fabrication are monitored by FTIR spectroscopy and atomic force microscopy."

Financial support for this research came from Ministry of Higher Education, Malaysia.

The news reporters obtained a quote from the research from the University of Malaysia, "This GNP deposition technique is shown to reduce the size of the nanogaps to 130 nm. FTIR also was used to monitor the immobilization of DNA on the surface of the interdigitated electrodes. This method allows DNA to be immobilized in a uniform and homogenous way. The utility of the method is demonstrated by immobilizing probe DNA on the surface and detecting target DNA specific for the human papilloma virus via fluorescence with a detection limit as low as 1 pM."

According to the news reporters, the research concluded: "In our perception, this method for GNP-mediated DNA immobilization enables high-performance sensing of a wide range of target (analyte) DNA."

For more information on this research see: Gold nanoparticle mediated method for spatially resolved deposition of DNA on nano-gapped interdigitated electrodes, and its application to the detection of the human Papillomavirus. Microchimica Acta, 2016;183 (12):3119-3126. Microchimica Acta can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria. (Springer - www.springer.com; Microchimica Acta - www.springerlink.com/content/0026-3672/)

Our news correspondents report that additional information may be obtained by contacting U. Hashim, Univ Malaysia Perlis, Sch Microelect Engn, Kangar, Perlis, Malaysia. Additional authors for this research include U. Hashim, S.C.B. Gopinath and S. Nadzirah.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00604-016-1954-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kangar, Malaysia, Asia, Emerging Technologies, Human Papillomavirus, Gold Nanoparticles, Nanotechnology, DNA Research, Viral DNA, Virology, Genetics, University of Malaysia.

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Researchers from University of Manchester Describe Findings in Pharmacology [First-in-Class Chemical Probes against Poly(ADP-ribose) Glycohydrolase (PARG) Inhibit DNA Repair with Differential Pharmacology to Olaparib]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Pharmacology. According to news reporting originating from Manchester, United Kingdom, by NewsRx correspondents, research stated, "The enzyme poly(ADP-ribose) glycohydrolase (PARG) performs a critical role in the repair of DNA single strand breaks (SSBs). However, a detailed understanding of its mechanism of action has been hampered by a lack of credible, cell-active chemical probes."

Financial support for this research came from Cancer Research UK.

Our news editors obtained a quote from the research from the University of Manchester, "Herein, we demonstrate inhibition of PARG with a small molecule, leading to poly(ADP-ribose) (PAR) chain persistence in intact cells. Moreover, we describe two advanced, and chemically distinct, cell-active tool compounds with convincing on-target pharmacology and selectivity. Using one of these tool compounds, we demonstrate pharmacology consistent with PARG inhibition. Further, while the roles of PARG and poly(ADP-ribose) polymerase (PARP) are closely intertwined, we demonstrate that the pharmacology of a PARG inhibitor differs from that observed with the more thoroughly studied PARP inhibitor olaparib."

According to the news editors, the research concluded: "We believe that these tools will facilitate a wider understanding of this important component of DNA repair and may enable the development of novel therapeutic agents exploiting the critical dependence of tumors on the DNA damage response (DDR)."

For more information on this research see: First-in-Class Chemical Probes against Poly(ADP-ribose) Glycohydrolase (PARG) Inhibit DNA Repair with Differential Pharmacology to Olaparib. ACS Chemical Biology, 2016;11(11):3179-3190. ACS Chemical Biology can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; ACS Chemical Biology - www.pubs.acs.org/journal/acbcct)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschembio.6b00609. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Manchester, United Kingdom, Europe, Enzymes and Coenzymes, Deoxyribonucleic Acid, Pharmaceuticals, Glycohydrolase, DNA Research, Pharmacology, Proteomics, DNA Repair, University of Manchester.

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Researchers from University of Manchester Detail New Studies and Findings in the Area of Kidney Transplants (Renal Allograft Failure After Ipilimumab Therapy for Metastatic Melanoma: A Case Report and Review of the Literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Kidney Transplants is now available. According to news reporting out of Manchester, United Kingdom, by NewsRx editors, research stated, "Transplant recipients are at an increased risk of malignant melanoma, a result of chronic immunosuppression. Ipilimumab is a newer biological agent targeting T lymphocytes to potentiate an immune response against melanoma, and the use of this agent results in a new adverse effect profile that the clinician must be aware of while a patient is on therapy."

Our news journalists obtained a quote from the research from the University of Manchester, "We report the case of a male renal transplant recipient who developed graft failure while treated with ipilimumab and minimal immunosuppressive therapy for metastatic ocular melanoma, with biopsy evidence of glomerulonephritis and acute rejection. We highlight the immunological side effects that can manifest from ipilimumab therapy and conclude that it did influence graft function in this patient."

According to the news editors, the research concluded: "Our case illustrates the importance of weighing the risks and benefits to graft function and long-term survival as well as the importance of considering other treatment modalities in this specific group of melanoma patients."


Our news journalists report that additional information may be obtained by contacting A. Jose, University of Manchester, Manchester, Lancs, United Kingdom. Additional authors for this research include P. Yiannoullou, S. Bhutani, H. Denley, M. Morton, M. Picton, A. Summers, D. van Dehen and T. Augustine.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.07.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Manchester, United Kingdom, Europe, Kidney, Risk and Prevention, Diseases and Conditions, Monoclonal Antibodies, Metastatic Melanoma, Drugs and Therapies, Transplant Medicine, Kidney Transplants, Organ Transplants, Renal Transplant, Transplantation, Renal Allograft, Biotechnology, Immunotherapy, Biomedicine, Nephrology, Healthcare, Ipilimumab, Oncology, Therapy, Surgery, University of Manchester.

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Researchers from University of Manchester Provide Details of New Studies and Findings in the Area of Breast Cancer (Patient-derived Mammosphere and Xenograft Tumour Initiation Correlates with Progression to Metastasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting originating in Manchester, United Kingdom, by NewsRx journalists, research stated, "Breast cancer specific mortality results from tumour cell dissemination and metastatic colonisation. Identification of the cells and processes responsible for metastasis will enable better prevention and control of metastatic disease, thus reducing relapse and mortality."

Financial support for this research came from Breast Cancer Now.

The news reporters obtained a quote from the research from the University of Manchester, "To better understand these processes, we prospectively collected 307 patient-derived breast cancer samples (n = 195 early breast cancers (EBC) and n = 112 metastatic samples (MBC)). We assessed colony-forming activity in vitro by growing isolated cells in both primary (formation) and secondary (self-renewal) mammosphere culture, and tumour initiating activity in vivo through subcutaneous transplantation of fragments or cells into mice. Metastatic samples formed primary mammosphere colonies significantly more frequently than early breast cancers and had significantly higher primary mammosphere colony formation efficiency (0.9 % vs. 0.6 %; p< 0.0001). Tumour initiation in vivo was significantly higher in metastatic than early breast cancer samples (63 % vs. 38 %, p = 0.04). Of 144 breast cancer samples implanted in vivo, we established 20 stable patient-derived xenograft (PDX) models at passage 2 or greater. Lung metastases were detected in mice from 14 PDX models. Mammosphere colony formation in vitro significantly correlated with the ability of a tumour to metastasise to the lungs in vivo (p = 0.05), but not with subcutaneous tumour initiation. In summary, the breast cancer stem cell activities of colony formation and tumour initiation are increased in metastatic compared to early samples, and predict metastasis in vivo."

According to the news reporters, the research concluded: "These results suggest that breast stem cell activity will predict for poor outcome tumours, and therapy targeting this activity will improve outcomes for patients with metastatic disease."


The direct object identifier (DOI) for that additional information is:
Researchers from University of Manitoba Provide Details of New Studies and Findings in the Area of Phenethylamines (Reduction of blood pressure by store-operated calcium channel blockers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Phenethylamines. According to news reporting from Winnipeg, Canada, by NewsRx journalists, research stated, "The voltage-operated Ca(2+) channels (VOCC), which allow Ca(2+) influx from the extracellular space, are inhibited by anti-hypertensive agents such as verapamil and nifedipine. The Ca(2+) entering from outside into the cell triggers Ca(2+) release from the sarcoplasmic reticulum (SR) stores."

Financial support for this research came from St. Boniface Hospital Research Foundation.

The news correspondents obtained a quote from the research from the University of Manitoba, "To refill the depleted Ca(2+) stores in the SR, another type of Ca(2+) channels in the cell membrane, known as store-operated Ca(2+) channels (SOCC), are activated. These SOCCs are verapamil and nifedipine resistant, but are SKF 96465 (SK) and gadolinium (Gd(3+)) sensitive. Both SK and Gd(3+) have been shown to reduce [Ca(2+)]i in the smooth muscle, but their effects on blood pressure have not been reported. Our results demonstrated that both SK and Gd(3+) produced a dose-dependent reduction in blood pressure in rat. The combination of SK and verapamil produced an additive action in lowering the blood pressure. Furthermore, SK, but not Gd(3+) suppressed proliferation of vascular smooth muscle cells in the absence or presence of lysophosphatidic acid (LPA). SK decreased the elevation of [Ca(2+)]i induced by LPA, endothelin-1 (ET-1) and angiotensin II (Ang II), but did not affect the norepinephrine (NE)-evoked increase in [Ca(2+)]i. On the other hand, Gd(3+) inhibited the LPA and Ang II induced change in [Ca(2+)]i, but had no effect on the ET-1 and NE induced increase in [Ca(2+)]i. The combination of verapamil and SK abolished the LPA-or adenosine-5'-triphosphate (ATP)-induced [Ca(2+)]i augmentation."

According to the news reporters, the research concluded: "These results suggest that SOCC inhibitors, like VOCC blocker, may serve as promising drugs for the treatment of hypertension."

For more information on this research see: Reduction of blood pressure by store-operated calcium channel blockers. Journal of Cellular and Molecular Medicine, 2015;19 (12):2763-70. Journal of Cellular and Molecular Medicine can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA. (Wiley-Blackwell - www.wiley.com; Journal of Cellular and Molecular Medicine - onlinelibrary.wiley.com/journal/10.1111/(ISSN) 1582-4934)

Our news journalists report that additional information may be obtained by
contacting Y.J. Xu, Institute of Cardiovascular Sciences, St Boniface Hospital Research Centre, Dept. of Physiology and Pathophysiology, Faculty of Health Sciences, University of Manitoba, Winnipeg, MB, Canada. Additional authors for this research include V. Elimban and N.S Dhalla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jcmm.12684. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Cellular and Molecular Medicine is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Antiarrhythmic Agents, Canada, Winnipeg, Manitoba, Ion Channels, Blood Pressure, Phenethylamines, Carrier Proteins, Membrane Proteins, Verapamil Therapy, Vasodilator Agents, Drugs and Therapies, Cardiovascular Agents, Group IV Antiarrhythmics, North and Central America, Calcium Channel Blocking Agents.

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Gram-Negative Bacteria - Acinetobacter baumannii

Researchers from University of Maryland Provide Details of New Studies and Findings in the Area of Acinetobacter baumannii (Use of Comparative Genomics To Characterize the Diversity of Acinetobacter baumannii Surveillance Isolates in a Health ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Acinetobacter baumannii have been published. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Despite the increasing prevalence of the nosocomial pathogen Acinetobacter baumannii, little is known about which genomic components contribute to clinical presentation of this important pathogen. Most whole-genome comparisons of A. baumannii have focused on specific genomic regions associated with phenotypes in a limited number of genomes."

Financial supporters for this research include National Institutes of Health, DTRA and DOD, HHS | National Institutes of Health (NIH).

The news reporters obtained a quote from the research from the University of Maryland, "In this work, we describe the results of a whole-genome comparative analysis of 254 surveillance isolates of Acinetobacter species, 203 of which were A. baumannii, isolated from perianal swabs and sputum samples collected as part of an infection control active surveillance program at the University of Maryland Medical Center. The collection of surveillance isolates includes both carbapenem-susceptible and -resistant isolates. Based on the whole-genome phylogeny, the A. baumannii isolates collected belong to two major phylogenomic lineages. Results from multilocus sequence typing indicated that one of the major phylogenetic groups of A. baumannii was comprised solely of strains from the international clonal lineage 2. The genomic content of the A. baumannii isolates was examined using large-scale BLAST score ratio analysis to identify genes that are associated with carbapenem-susceptible and -resistant isolates, as well as genes potentially associated with the source of isolation. This analysis revealed a number of genes that were exclusive or at greater frequency in each of these classifications."
According to the news reporters, the research concluded: "This study is the most comprehensive genomic comparison of Acinetobacter isolates from a surveillance study to date and provides important information that will contribute to our understanding of the success of A. baumannii as a human pathogen."

For more information on this research see: Use of Comparative Genomics To Characterize the Diversity of Acinetobacter baumannii Surveillance Isolates in a Health Care Institution. Antimicrobial Agents and Chemotherapy, 2016;60(10):5933-5941. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting D.A. Rasko, University of Maryland, Sch Med, Inst Genome Sci, Baltimore, MD 21201, United States. Additional authors for this research include S.C. Daugherty, S. Nagaraj, J.K. Johnson, A.D. Harris and D.A. Rasko.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00477-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Moraxellaceae, Genetics, Acinetobacter baumannii, Gram-Negative Bacteria, Gammaproteobacteria, Proteobacteria, University of Maryland.

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Hematologic Diseases and Conditions - Anemia

Researchers from University of Maryland Report Details of New Studies and Findings in the Area of Anemia [Clinical Trypanosoma cruzi Disease after Cardiac Transplantation in a Cynomolgus Macaque (Macaca fascicularis)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematologic Diseases and Conditions - Anemia is the subject of a report. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "A cynomolgus macaque received a heterotopic cardiac allograft as part of a transplant study, with monoclonal antibodies targeted to specific immune costimulation molecules (CD154, CD28) but no traditional immunosuppressive therapy after surgery. Clinical anemia was detected on postoperative day (POD) 35 and had worsened (Hgb, 2.3 g/dL; Hct = 7.3%) by POD 47, despite type-matched whole-blood transfusions."

Our news journalists obtained a quote from the research from the University of Maryland, "After a total of 4 blood transfusions, hematologic parameters were improved (Hgb, 5.9 g/dL; Hct, 18.7%). On POD 50, a peripheral blood smear revealed trypomastigotes, and qualitative RT-PCR of whole blood identified the organism as Trypanosoma cruzi. Although clinically stable initially, the macaque soon developed sufficient weight loss to necessitate euthanasia on POD 64. The final diagnosis was clinical anemia due to T. cruzi infection."

According to the news editors, the research concluded: "This study represents the first reported case of Chagas disease after heart transplant in a NHP."
For more information on this research see: Clinical Trypanosoma cruzi Disease after Cardiac Transplantation in a Cynomolgus Macaque (Macaca fascicularis). *Comparative Medicine*, 2016;66(6):494-498. *Comparative Medicine* can be contacted at: Amer Assoc Laboratory Animal Science, 9190 Crestwyn Hills Dr, Memphis, TN 38125, USA.

Our news journalists report that additional information may be obtained by contacting I. Tatarov, University of Maryland, Sch Med, Comparat Med Program & Vet Resources, Baltimore, MD 21201, United States. Additional authors for this research include S. Shipley, I. Tatarov, T.S. Zhang, W.J. Sun, G. Braileanu, L. Burdorf, E. Sievert, A.M. Azimzadeh, L.J. DeTolla and R.N. Pierson.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Hematologic Diseases and Conditions, Biological Therapy, Cardiology, Anemia, University of Maryland.

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**Drugs and Therapies - Antiretrovirals**

**Researchers from University of Maryland Report Recent Findings in Antiretrovirals (HIV drug resistance mutations among patients failing second-line antiretroviral therapy in Rwanda)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antiretrovirals. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "Studies of patients failing second-line antiretroviral therapy (ART) in resource-limited settings (RLS) are few. Evidence suggests most patients who appear to be virologically failing do so not due to drug resistance but to poor adherence, which, if properly addressed, could allow continued use of less expensive first- and second-line regimens."

Our news journalists obtained a quote from the research from the University of Maryland, "Drug resistant mutations (DRMs) were characterized among patients virologically failing second-line ART in Rwanda. A total of 128 adult patients receiving second line ART for at least 6 months were invited to participate; 74 agreed and had HIV-1 viral load (VL) measured. Resistance genotypes were conducted in patients with virological failure (VF; that is, VL >= 1,000 copies/ml). In total, 35 patients met the criteria for VF. The median time on lopinavir/ritonavir-based second-line ART was 2.7 years. Of 30 successful resistance genotype analyses, 13 (43%) had nucleoside reverse transcriptase inhibitor (NRTI) mutation, 18 (60%) had at least 1 non-NRTI mutation and 5 (17%) had at least 1 major protease inhibitor mutation. Eleven (37%) had virus without significant mutations that would be fully sensitive to first-line ART; 12 (40%) had DRM to first-line ART but sensitive to second-line ART. Only 7 patients (23%) demonstrated a DRM profile requiring third-line ART. Among 30 genotyped samples of patients with VF on second-line ART, more than one-third had no significant DRMs, implicating poor adherence as the primary cause of VF. The majority of patients (77%) would not have required third-line ART."

According to the news editors, the research concluded: "These findings reinforce the need for intensive adherence assessment and counselling for patients who appear to be failing second-line ART in RLS."

For more information on this research see: HIV drug resistance mutations among

The news correspondents report that additional information may be obtained from D.J. Riedel, University of Maryland, Sch Med, Div Infect Dis, Baltimore, MD 21201, United States. Additional authors for this research include D.J. Riedel, R. Muhayimpundu, S. Nsanzimana, G. Niyibizi, E. Mutaganzwa, A. Mulindabigwi, C. Baribwira, A. Kiromera, L.L. Jagodzinski, S.A. Peel and R.R. Redfield.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Virus Physiological Phenomena, Viral Drug Resistance, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Antiretrovirals, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Genetics, Therapy, University of Maryland.

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**Pharmacoepidemiology**

**Researchers from University of Massachusetts Report on Findings in Pharmacoepidemiology (Probabilistic bias analysis in pharmacoepidemiology and comparative effectiveness research: a systematic review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Pharmacoepidemiology is the subject of a report.

According to news reporting out of Worcester, Massachusetts, by NewsRx editors, research stated, "We systematically reviewed pharmacoepidemiologic and comparative effectiveness studies that use probabilistic bias analysis to quantify the effects of systematic error including confounding, misclassification, and selection bias on study results. We found articles published between 2010 and October 2015 through a citation search using Web of Science and Google Scholar and a keyword search using PubMed and Scopus."

Our news journalists obtained a quote from the research from the University of Massachusetts, "Eligibility of studies was assessed by one reviewer. Three reviewers independently abstracted data from eligible studies. Fifteen studies used probabilistic bias analysis and were eligible for data abstraction-nine simulated an unmeasured confounder and six simulated misclassification. The majority of studies simulating an unmeasured confounder did not specify the range of plausible estimates for the bias parameters. Studies simulating misclassification were in general clearer when reporting the plausible distribution of bias parameters. Regardless of the bias simulated, the probability distributions assigned to bias parameters, number of simulated iterations, sensitivity analyses, and diagnostics were not discussed in the majority of studies. Despite the prevalence and concern of bias in pharmacoepidemiologic and comparative effectiveness studies, probabilistic bias analysis to quantitatively model the effect of bias was not widely used. The quality of reporting and use of this technique varied and was often unclear."

According to the news editors, the research concluded: "Further discussion and dissemination of the technique are warranted."

For more information on this research see: Probabilistic bias analysis in

Our news journalists report that additional information may be obtained by contacting J.N. Hunnicutt, University of Massachusetts, Sch Med, Grad Sch Biomed Sci, Clin & Populat Hlth Res Program, Worcester, MA, United States. Additional authors for this research include C.M. Ulbricht, S.A. Chrysanthopoulou and K.L. Lapane.

Keywords for this news article include: Worcester, Massachusetts, United States, North and Central America, Therapy, Article Review, Drugs and Therapies, Epidemiology, Pharmacoepidemiology, University of Massachusetts.

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Liver Diseases and Conditions - Hepatitis C Virus

Researchers from University of Massachusetts School of Medicine Describe Findings in Hepatitis C Virus (Structural and Thermodynamic Effects of Macrocyclization in HCV NS3/4A Inhibitor MK-5172)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Liver Diseases and Conditions - Hepatitis C Virus is the subject of a report. According to news reporting from Worcester, Massachusetts, by NewsRx journalists, research stated, "Recent advances in direct-acting antivirals against Hepatitis C Virus (HCV) have led to the development of potent inhibitors, including MK-5172, that target the viral NS3/4A protease with relatively low susceptibility to resistance. MK-5172 has a P2-P4 macrocycle and a unique binding mode among current protease inhibitors where the P2 quinoxaline packs against the catalytic residues H57 and D81."

Financial supporters for this research include National Institute of Allergy and Infectious Diseases, Office of Science, National Institute of General Medical Sciences.

The news correspondents obtained a quote from the research from the University of Massachusetts School of Medicine, "However, the effect of macrocyclization on this binding mode is not clear, as is the relation between macrocyclization, thermodynamic stabilization, and susceptibility to the resistance mutation A156T. We have determined high-resolution crystal structures of linear and P1-P3 macrocyclic analogs of MK-5172 bound to WT and A156T protease and compared these structures, their molecular dynamics, and experimental binding thermodynamics to the parent compound. We find that the 'unique' binding mode of MK-5172 is conserved even when the P2-P4 macrocycle is removed or replaced with a P1-P3 macrocycle. While beneficial to decreasing the entropic penalty associated with binding, the constraint exerted by the P2-P4 macrocycle prevents efficient rearrangement to accommodate the A156T mutation, a deficit alleviated in the linear and P1-P3 analogs."

According to the news reporters, the research concluded: "Design of macrocyclic inhibitors against NS3/4A needs to achieve the best balance between exerting optimal conformational constraint for enhancing potency, fitting within the substrate envelope and allowing adaptability to be robust against resistance mutations."

For more information on this research see: Structural and Thermodynamic Effects of

Our news journalists report that additional information may be obtained by contacting D.I. Soumana, Dept. of Biochemistry and Molecular Pharmacology, University of Massachusetts Medical School, 364 Plantation Street, Worcester, Massachusetts 01605, United States. Additional authors for this research include N. Kurt Yilmaz, K.L. Prachanronarong, C. Aydin, A. Ali and C.A Schiffer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschembio.5b00647. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: HCV, Viral, Genetics, Protease, Virology, Worcester, Hepatology, RNA Viruses, Massachusetts, United States, Hepatitis C Virus, Enzymes and Coenzymes, Flaviviridae Infections, North and Central America, Liver Diseases and Conditions, Digestive System Diseases and Conditions.

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**Vascular Diseases**

**Researchers from University of Melbourne Detail Findings in Vascular Diseases (Fetuin-A-containing calciprotein particles in mineral trafficking and vascular disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Vascular Diseases are presented in a new report. According to news reporting out of Parkville, Australia, by NewsRx editors, research stated, "Calcium and phosphate combine to form insoluble precipitates in both inorganic and organic materials. This property is useful biologically and has been used by numerous organisms to create hard tissues, a process referred to as biomineralisation [1]."

Financial support for this research came from National Health and Medical Research Council (NHMRC).

Our news journalists obtained a quote from the research from the University of Melbourne, "In humans, calcium and phosphate combine to form useful crystal structures largely composed of calcium hydroxyapatite [Ca-10(PO4)(6)(OH)(2)] and these are essential in the growth, maintenance and strength of parts of the skeleton and other structures like teeth. However, it remains unclear how the body achieves the exquisite specificity involved in biomineralisation. In ageing and disease, these pathways are perturbed, resulting in ectopic calcium crystal deposition impairing tissue function and, interestingly, frequently accompanied by simultaneous loss of mineral from sites where it is useful (e.g. bone). One paradigm for this maladaptive situation is renal failure; a situation that we know is associated with vascular stiffening and calcification, along with mineral loss from the skeleton."

According to the news editors, the research concluded: "Mineral trafficking is a loose term used to describe the movements of calcium salts around the body, and new insights into these pathways may explain some of the problems of previous models of bone mineral disease in renal failure and point to potential future therapeutic strategies."

For more information on this research see: Fetuin-A-containing calciprotein
Researchers from University of Messina Discuss Findings in Cerebellar Ataxia [Cerebellar ataxia and severe muscle CoQ(10) deficiency in a patient with a novel mutation in ADCK3]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions - Cerebellar Ataxia have been presented. According to news reporting originating in Messina, Italy, by NewsRx journalists, research stated, "Inherited ataxias are a group of heterogeneous disorders in children or adults but their genetic definition remains still undetermined in almost half of the patients. However, CoQ(10) deficiency is a rare cause of cerebellar ataxia and ADCK3 is the most frequent gene associated with this defect."

The news reporters obtained a quote from the research from the University of Messina, "We herein report a 48 year old man, who presented with dysarthria and walking difficulties. Brain magnetic resonance imaging showed a marked cerebellar atrophy. Serum lactate was elevated. Tissues obtained by muscle and skin biopsies were studied for biochemical and genetic characterization. Skeletal muscle biochemistry revealed decreased activities of complexes I+III and II+III and a severe reduction of CoQ(10), while skin fibroblasts showed normal CoQ(10) levels. A mild loss of maximal respiration capacity was also found by high-resolution respirometry. Molecular studies identified a novel homozygous deletion (c.504del_CT) in ADCK3, causing a premature stop codon. Western blot analysis revealed marked reduction of ADCK3 protein levels. Treatment with CoQ(10) was started and, after 1 year follow-up, patient neurological condition slightly improved. This report suggests the importance of investigating mitochondrial function and, in particular, muscle CoQ(10) levels, in patients with adult-onset cerebellar ataxia."

According to the news reporters, the research concluded: "Moreover, clinical stabilization by CoQ(10) supplementation emphasizes the importance of an early diagnosis."

For more information on this research see: Cerebellar ataxia and severe muscle CoQ(10) deficiency in a patient with a novel mutation in ADCK3. Clinical Genetics, 2016;90 (2):156-160. Clinical Genetics can be contacted at: Wiley-Blackwell, 111 River St, Hoboken
Researchers from University of Michigan Detail New Studies and Findings in the Area of RNA-Directed DNA Polymerase (Structural and functional consequences of a disease mutation in the telomere protein TPP1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - RNA-Directed DNA Polymerase. According to news originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "Telomerase replicates chromosome ends to facilitate continued cell division. Mutations that compromise telomerase function result in stem cell failure diseases, such as dyskeratosis congenita (DC)."

Financial support for this research came from HHS | National Institutes of Health (NIH).

Our news journalists obtained a quote from the research from the University of Michigan, "One such mutation (K170 Delta), residing in the telomerase-recruitment factor TPP1, provides an excellent opportunity to structurally, biochemically, and genetically dissect the mechanism of such diseases. We show through site-directed mutagenesis and X-ray crystallography that this TPP1 disease mutation deforms the conformation of two critical amino acids of the TEL [TPP1’s glutamate (E) and leucine-rich (L)] patch, the surface of TPP1 that binds telomerase. Using CRISPR-Cas9 technology, we demonstrate that introduction of this mutation in a heterozygous manner is sufficient to shorten telomeres in human cells. Our findings rule out dominant-negative effects of the mutation. Instead, these findings implicate reduced TEL patch dosage in causing telomere shortening."

According to the news editors, the research concluded: "Our studies provide mechanistic insight into telomerase-deficiency diseases and encourage the development of gene therapies to counter such diseases."

Researchers from University of Michigan Report Details of New Studies and Findings in the Area of Basal Ganglia (An oxytocin receptor polymorphism predicts amygdala reactivity and antisocial behavior in men)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System - Basal Ganglia. According to news reporting from Ann Arbor, Michigan, by NewsRx journalists, research stated, "Variability in oxytocin (OXT) signaling is associated with individual differences in sex-specific social behavior across species. The effects of OXT signaling on social behavior are, in part, mediated through its modulation of amygdala function."

The news correspondents obtained a quote from the research from the University of Michigan, "Here, we use imaging genetics to examine sex-specific effects of three single-nucleotide polymorphisms in the human oxytocin receptor gene (OXTR; rs1042778, rs53576 and rs2254298) on threat-related amygdala reactivity and social behavior in 406 Caucasians. Analyses revealed that among men but not women, OXTR rs1042778 TT genotype was associated with increased right amygdala reactivity to angry facial expressions, which was uniquely related to higher levels of antisocial behavior among men. Moderated mediation analysis suggested a trending indirect effect of OXTR rs1042778 TT genotype on higher antisocial behavior via increased right amygdala reactivity to angry facial expressions in men. Our results provide evidence linking genetic variation in OXT signaling to individual differences in amygdala function."

According to the news reporters, the research concluded: "The results further suggest that these pathways may be uniquely important in shaping antisocial behavior in men."

Our news journalists report that additional information may be obtained by contacting L.W. Hyde, University of Michigan, Center Human Growth & Dev, Ann Arbor, MI 48109, United States. Additional authors for this research include N.S. Corral-Frias, B. Vannucci, R. Bogdan, A.R. Knodt, A.R. Hariri and L.W. Hyde.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/scan/nsw042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Posterior Pituitary Hormones, Pituitary Hormone Receptors, G-Protein-Coupled Receptors, Neuropeptide Receptors, Central Nervous System, Antisocial Behavior, Oxytocin Receptors, Membrane Proteins, Peptide Proteins, Peptide Hormones, Social Behavior, Brain Research, Prosencephalon, Mental Health, Limbic System, Telencephalon, Basal Ganglia, Amygdala, Genetics, University of Michigan.

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Heart Disorders and Diseases - Heart Failure

Researchers from University of Michigan Report Findings in Heart Failure (Recruitment And Retention Challenges Of Examining Cognitive Dysfunction In Older Adults Hospitalized For Acute Heart Failure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Failure. According to news reporting originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "Barriers to recruiting and retaining acutely ill older adults in clinical research include complexity of illness, fatigue, and early discharge. To describe recruitment and retention challenges of examining cognitive dysfunction in older adults hospitalized for acute heart failure."

Our news editors obtained a quote from the research from the University of Michigan, "An examination of the reasons for recruitment and retention issues within an acute care, university-affiliated health care system. Sixty-two patients refused to participate for a variety of reasons; 11 were ineligible, and 27 participants who completed initial data collection refused to participate further because they were too tired, were being discharged on the day of data collection, or were discharged before the next data collection day. Multiple barriers to the recruitment and retention of older adults hospitalized for acute heart failure were identified."

According to the news editors, the research concluded: "Strategies are needed to augment recruitment and retention efforts, including expanding the number of data collection sites and allocating sufficient support resources."

For more information on this research see: Recruitment And Retention Challenges Of Examining Cognitive Dysfunction In Older Adults Hospitalized For Acute Heart Failure. American Journal of Critical Care, 2016;25(5):418–421. American Journal of Critical Care can be contacted at: Amer Assoc Critical Care Nurses, 101 Columbia, Aliso Viejo, CA 92656, USA.

The news editors report that additional information may be obtained by contacting C. Arslanian-Engoren, University of Michigan, Sch Nursing, Ann Arbor, MI 48109, United States.
Additional authors for this research include B.J. Giordani, D. Algase, A. Schuh, C. Lee and D.K. Moser.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4037/ajcc2016305. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Heart Failure, Heart Disease, Cardiology, University of Michigan.

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Researchers from University of Michigan Report Findings in Plasma
[Comparative analysis of circulating tumor DNA stability In K(3)EDTA, Streck, and CellSave blood collection tubes]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hematology - Plasma are presented in a new report. According to news reporting originating in Ann Arbor, Michigan, by NewsRx journalists, research stated, "Optimal conditions for blood collection for circulating tumor DNA (ctDNA) are still being developed. Although both Streckic and EDTA tubes are commonly used, their ability to stabilize ctDNA as a function of time and temperature post-collection has not been thoroughly studied."

The news reporters obtained a quote from the research from the University of Michigan, "Additionally, the potential utility of CellSave tubes (commonly used for circulating tumor cell) for ctDNA measurements has not been studied. Blood was collected into Streck, EDTA, and CellSave tubes from ten patients with metastatic breast cancer enrolled in the MI-ONCOSEQ tumor sequencing program at the University of Michigan and kept either on ice or at room temperature until plasma isolation. Plasma was processed after 2, 6, and 48 h post-collection. We used droplet digital PCR (ddPCR) to quantify plasma ctDNA and wild-type DNA for six patients who had tumor tissue mutations represented in commercially available ddPCR assays. ctDNA abundance was similar and stable for up to 6 h in all tube types, and there was no effect of storage temperature on the yield for Streck and EDTA tubes. After 48 h, however, one out of four patients with detectable ctDNA showed a 50% decline in ctDNA in the EDTA tube, and three out of six patients showed a 2-3-fold increase in wild-type DNA in the EDTA tube. Streckic, EDTA, and CellSave tubes showed similar performance in preserving ctDNA for up to 6 h before plasma isolation."

According to the news reporters, the research concluded: "Streck and CellSave tubes more consistently stabilized ctDNA and wild-type DNA at 48 h than EDTA tubes."

For more information on this research see: Comparative analysis of circulating tumor DNA stability In K(3)EDTA, Streck, and CellSave blood collection tubes. Clinical Biochemistry, 2016;49(18):1354-1360. Clinical Biochemistry can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Clinical Biochemistry - www.journals.elsevier.com/clinical-biochemistry/)

Our news correspondents report that additional information may be obtained by
Researchers from University of Milan Report Details of New Studies and Findings in the Area of Lymphoma (Multimodal Imaging of Vitreoretinal Lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lymphoma. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "To assess the characteristics and prevalence of fundus abnormalities in vitreoretinal lymphoma (VRL) using multimodal imaging. We retrospectively reviewed chart and imaging studies of patients diagnosed with VRL."

Our news editors obtained a quote from the research from the University of Milan, "All 10 VRL patients (14 eyes) included in the study showed vitreitis, hyperreflective lesions on near-infrared reflectance imaging, and hypoa autofluorescent lesions on fundus autofluorescence. Other findings included hypofluorescent lesions on fluorescein angiography (79%), hypocyanescent lesions on indocyanine green angiography (77%), small retinal pigment epithelium detachments (PEDs) (71%) and large PEDs (36%) on optical coherence tomography (OCT). Outer retinal layer nodularity was identified on OCT in 93% of cases. Small PEDs corresponded to hyperreflective, hyperautofluorescent, hypofluorescent, hypocyanescent lesions. Multiple signs were present on multi modal imaging in VRL eyes. Lymphomatous infiltration created focal PEDs showing abnormal imaging signals. Outer retinal layer nodularity could represent an additional sign of infiltration."

According to the news editors, the research concluded: "Multimodal imaging may guide physicians in the early diagnosis of VRL."


The news editors report that additional information may be obtained by contacting F. Viola, University of Milan, Ophthalmol Unit, Dept. of Clin Sci & Community Hlth, Ca Granda FdnOsped Maggiore Policinico, Milan, Italy. Additional authors for this research include A. Invernizzi, G. Borteselli, M. Pellegrini, E. Tabacchi, G. Staurenghi and F. Viola.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000447412. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from University of Minho Report Details of New Studies and Findings in the Area of Citrobacter freundii (Characterization and genome sequencing of a Citrobacter freundii phage CfP1 harboring a lysin active against ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Citrobacter freundii. According to news reporting originating from Braga, Portugal, by NewsRx correspondents, research stated, "Citrobacter spp., although frequently ignored, is emerging as an important nosocomial bacterium able to cause various superficial and systemic life-threatening infections. Considered to be hard-to-treat bacterium due to its pattern of high antibiotic resistance, it is important to develop effective measures for early and efficient therapy."

Financial supporters for this research include Fundacao para a Ciencia e a Tecnologia, COMPETE 2020.

Our news editors obtained a quote from the research from the University of Minho, "In this study, the first myovirus (vB_CfrM_CfP1) lytic for Citrobacter freundii was microbiologically and genomically characterized. Its morphology, activity spectrum, burst size, and biophysical stability spectrum were determined. CfP1 specifically infects C. freundii, has broad host range (> 85 %; 21 strains tested), a burst size of 45 PFU/cell, and is very stable under different temperatures (-20 to 50 A degrees C) and pH (3 to 11) values. CfP1 demonstrated to be highly virulent against multidrug-resistant clinical isolates up to 12 antibiotics, including penicillins, cephalosporins, carbapenems, and fluoroquinolones. Genomically, CfP1 has a dsDNA molecule with 180,219 bp with average GC content of 43.1 % and codes for 273 CDSs. The genome architecture is organized into function-specific gene clusters typical for tailed phages, sharing 46 to 94 % nucleotide identity to other Citrobacter phages. The lysin gene encoding a predicted D-Ala-D-Ala carboxypeptidase was also cloned and expressed in Escherichia coli and its activity evaluated in terms of pH, ionic strength, and temperature. The lysine optimum activity was reached at 20 mM HEPES, pH 7 at 37 A degrees C, and was able to significantly reduce all C. freundii (> 2 logs) as well as Citrobacter koseri (> 4 logs) strains tested. Interestingly, the antimicrobial activity of this enzyme was performed without the need of pretreatment with outer membrane-destabilizing agents."

According to the news editors, the research concluded: "These results indicate that CfP1 lysin is a good candidate to control problematic Citrobacter infections, for which current antibiotics are no longer effective."

For more information on this research see: Characterization and genome sequencing of a Citrobacter freundii phage CfP1 harboring a lysin active against multidrug-resistant isolates. Applied Microbiology and Biotechnology, 2016;100(24):10543-10553. Applied Microbiology and Biotechnology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.
Researchers from University of Minnesota Describe Findings in Inborn Errors of Metabolism (Inborn Errors of Metabolism Collaborative: large-scale collection of data on long-term follow-up for newborn-screened conditions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Inborn Errors of Metabolism have been published. According to news reporting out of Minneapolis, Minnesota, by NewsRx editors, research stated, "The Inborn Errors of Metabolism Information System (IBEM-IS) collects data on the clinical history of inborn errors of metabolism (IBEMs). The IBEM-IS is accessible to metabolic clinics nationwide and seeks to (i) influence clinical management of affected individuals and (ii) provide information to support public health decision making."

Our news journalists obtained a quote from the research from the University of Minnesota, "Thirty centers in 21 states are enrolling persons with newborn-screened conditions, collecting information on diagnosis and treatment at the time of enrollment and all subsequent visits. Prospective data are collected using electronic capture forms allowing aggregation of information regarding outcomes for individuals affected with IBEMs. A total of 1,893 subjects have been enrolled in the IBEM-IS, and more than 540,000 individual data points have been collected. Data collection has been initiated for subjects with 41 of 46 conditions on the recommended uniform screening panel; 4 conditions have more than 100 subjects enrolled. Median follow-up time for subjects with more than one visit (n = 898) is 1.5 years (interquartile range = 2.2 years). Subjects with critical conditions are more likely to have emergency letters and sick-day plans. Mortality was exclusive to children with critical conditions."

According to the news editors, the research concluded: "Large-scale prospective data can be collected for individuals with rare conditions, permitting enhanced decision making for clinical management and supporting decision making in public health newborn screening programs."

For more information on this research see: Inborn Errors of Metabolism Collaborative: large-scale collection of data on long-term follow-up for newborn-screened
Researchers from University of Minnesota Detail Findings in Medicinal Chemistry (Eeyarestatin I derivatives with improved aqueous solubility)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Medicinal Chemistry. According to news reporting out of Minneapolis, Minnesota, by NewsRx editors, research stated, "Inhibition of p97 (also known as valosin-containing protein (VCP)), has been validated as a promising strategy for cancer therapy. Eeyarestatin I (EerI) blocks p97 through a novel mechanism of action and has favorable anti-cancer activities against cultured cancer cells."

Financial support for this research came from University of Minnesota.

Our news journalists obtained a quote from the research from the University of Minnesota, "However, its poor aqueous solubility severely limits its in vivo applications. To circumvent this problem, we have identified EerI derivatives that possess improved aqueous solubility by introducing a single solubilizing group."

According to the news editors, the research concluded: "These modified compounds preserved endoplasmic reticulum (ER) stress-inducing and antiproliferative activities as well as generally good in vitro metabolic properties, suggesting that these Eerl derivatives could serve as candidates for further optimization."


Our news journalists report that additional information may be obtained by contacting L.Q. Chen, University of Minnesota, Academy Hlth Center, Center Drug Design, Minneapolis, MN 55455, United States. Additional authors for this research include T. Zhang,
Researchers from University of Miyazaki Report Findings in Lymphoma
(New-onset haematoproteinuria in a 63-year-old man with intraperitoneal lymph node enlargement)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lymphoma have been published. According to news originating from Miyazaki, Japan, by NewsRx correspondents, research stated, "A 63-year-old man was referred to our hospital because of renal dysfunction with haematoproteinuria. Intraperitoneal lymph node enlargement was also noted."

Our news journalists obtained a quote from the research from the University of Miyazaki, "M protein was not detected by electrophoresis of his serum and urine; however, an increase in the k/l ratio was detected by free light-chain assay. Percutaneous kidney biopsy was performed, and the patient was diagnosed with proliferative glomerulonephritis with monoclonal immunoglobulin deposits. Lymph node biopsy showed follicular lymphoma. Urinalysis findings improved after treatment of the lymphoma. Proliferative glomerulonephritis with monoclonal immunoglobulin deposits is rarely considered to be associated with haematological disease."

According to the news editors, the research concluded: "We report a case of lymphoma-associated proliferative glomerulonephritis with monoclonal immunoglobulin deposits with light-chain abnormality detected by free light-chain assay, but not by electrophoresis."

For more information on this research see: New-onset haematoproteinuria in a 63-year-old man with intraperitoneal lymph node enlargement. *Bmj Case Reports*, 2016;2016(). (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

The news correspondents report that additional information may be obtained from A. Minakawa, Dept. of Internal Medicine, Division of Circulatory and Body Fluid Regulation, Faculty of Medicine, University of Miyazaki, Miyazaki-City, Miyazaki, Japan. Additional authors for this research include S. Hisanaga, Y. Sato and S. Fujimoto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2016-214366. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Miyazaki, Oncology, Lymphomas, Hematology, Immunology, Lymph Nodes, Immunoproteins, Immunoglobulins, Lymphoid Tissue, Serum Globulins, Hemic and Immune Systems, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.
Researchers from University of Montpellier Report New Studies and Findings in the Area of Mixed Connective Tissue Disease (Clinical association of mixed connective tissue disease and granulomatosis with polyangiitis: a case report and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Connective Tissue Diseases and Conditions - Mixed Connective Tissue Disease are presented in a new report. According to news reporting originating from Montpellier, France, by NewsRx correspondents, research stated, "We report here the case of a 50-years-old man treated for mixed connective tissue disease (MCTD) positive for anti-U1 ribonucleoprotein (U1RNP) antibodies who secondarily developed a granulomatosis with polyangiitis (GPA) associated with anti-proteinase 3 anti-neutrophil cytoplasmic antibodies (PR3-ANCA). We then evaluated the frequency of the association between anti-U1RNP and anti-PR3-ANCA antibodies by a systematic retrospective study in ten European hospitals."

Our news editors obtained a quote from the research from the University of Montpellier, "Overall, out of 11,921 samples analyzed for both auto-antibodies, 18 cases of anti-U1RNP and anti-PR3-ANCA double positivity were found and only one patient presented with both MCTD and GPA symptoms. Our retrospective analysis indicates that anti-U1RNP and anti-PR3-ANCA antibodies double positivity is infrequent and very rarely associated with both MCTD and GPA. Our observation describes for the first time the coexistence of MCTD and severe GPA in a Caucasian patient. Association of anti-U1RNP and ANCA antibodies was rarely reported in the literature. Eleven cases of MCTD and ANCA vasculitis have been reported to date, with only two cases with anti-PR3-ANCA association, and only one vasculitis."

According to the news editors, the research concluded: "The seven other cases reported in the literature presented with an association of MCTD and microscopic polyangiitis which appears to be a more frequent presentation than MCTD associated with GPA."

For more information on this research see: Clinical association of mixed connective tissue disease and granulomatosis with polyangiitis: a case report and systematic screening of anti-U1RNP and anti-PR3 auto-antibody double positivity in ten European hospitals. *Immunologic Research*, 2016;64(5-6):1243-1246. *Immunologic Research* can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA. (Springer - www.springer.com; Immunologic Research - www.springerlink.com/content/0257-277x/)

The news editors report that additional information may be obtained by contacting A. Tubery, University of Montpellier, Lapeyronie Hosp, Dept. of Rheumatol, Montpellier, France. Additional authors for this research include F. Forfenfant, B. Combe, I. Abreu, X. Bossuyt, P. Chretien, S. Desplat-Jego, N. Fabien, S. Hue, C. Johanet, D. Lakomy, T. Vincent and C.I. Daïen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12026-016-8861-3. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from University of Munich Describe Findings in Cushing Syndrome (Pasireotide can induce sustained decreases in urinary cortisol and provide clinical benefit in patients with Cushing's disease: results from an open-ended, open-label ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Adrenal Gland Diseases and Conditions - Cushing Syndrome have been published. According to news reporting from Munich, Germany, by NewsRx journalists, research stated, "Report the efficacy and safety of pasireotide sc in patients with Cushing's disease during an open-ended, open-label extension to a randomized, double-blind, 12-month, Phase III study. 162 patients entered the core study. 58 patients who had mean UFC (<=) ULN at month 12 or were benefiting clinically from pasireotide entered the extension."

The news correspondents obtained a quote from the research from the University of Munich, "Patients received the same dose of pasireotide as at the end of the core study (300-1,200 mg bid). Dose titration was permitted according to efficacy or drug-related adverse events. 40 patients completed 24 months' treatment. Of the patients who entered the extension, 50.0% (29/58) and 34.5% (20/58) had controlled UFC (UFC (<=) ULN) at months 12 and 24, respectively. The mean percentage decrease in UFC was 57.3% (95% CI 40.7-73.9; n=52) and 62.1% (50.8-73.5; n=33) after 12 and 24 months' treatment, respectively. Improvements in clinical signs of Cushing's disease were sustained up to month 24. The most frequent drug-related adverse events in patients who received (>=)1 dose of pasireotide (n=162) from core baseline until the 24-month cut-off were diarrhea (55.6%), nausea (48.1%), hyperglycemia (38.9%), and cholelithiasis (31.5%). No new safety issues were identified during the extension. Reductions in mean UFC and improvements in clinical signs of Cushing's disease were maintained over 24 months of pasireotide treatment. The safety profile of pasireotide is typical for a somatostatin analogue, except for the frequency and degree of hyperglycemia; patients should be monitored for changes in glucose homeostasis."

According to the news reporters, the research concluded: "Pasireotide represents the first approved pituitary-targeted treatment for patients with Cushing's disease."

For more information on this research see: Pasireotide can induce sustained decreases in urinary cortisol and provide clinical benefit in patients with Cushing's disease: results from an open-ended, open-label extension trial. Pituitary, 2015;18(5):604-12. Pituitary can be contacted at: Springer, 233 Spring Street, New York, NY 10013, USA. (Springer - www.springer.com; Pituitary - www.springerlink.com/content/1386-341x/)

Our news journalists report that additional information may be obtained by contacting J. Schopohl, Medizinische Klinik IV, University of Munich, Munich, Germany. Additional authors for this research include F. Gu, R. Rubens, L. Van Gaal, J. Bertherat, M.
Researchers from University of Naples Discuss Findings in Electrolytes (Diseases associated with electrolyte imbalance in the ED: age-related differences)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Electrolytes have been published. According to news reporting out of Naples, Italy, by NewsRx editors, research stated, "The objective of the study is to investigate the prevalence of electrolyte imbalance (EI) in the emergency department (ED) with systemic diseases in different decades of life. We enrolled patients admitted to the ED."

Our news journalists obtained a quote from the research from the University of Naples, "The population study included 7941 patients, subdivided in 3 groups: young group (Y), middle-aged group (MA), and elderly group (E). We observed EI in 13.7% of the whole population. Hyponatremia (hNa\(^+\)) is the most frequent EI (44%) followed by hypokalemia (hK\(^+\)) (39%), hyperkalemia (HK\(^+\)) (13%), and hypernatremia (HNa\(^+\)) (4.4%). In the Y group, the EI occurred in 7.1% of all patients (P<.05 vs MA and E), whereas in the MA group, they were shown in 11.5% of patients and in the E group in 22% of all patients group (P < .05 vs MA and Y). In the Y group, gastrointestinal diseases are the most frequently associated disease (24.6%; P< .05 vs MA and E). In the MA group, the most frequently associated disease was a current cardiovascular disease (29.7%; P< .05 vs Y and E). In the E group, the frequently associated diseases are cardiovascular (22.8%; P< .05 vs Y) and lung diseases (16.7%; P<.05 vs MA and Y). In our study, 13.7% of all patients showed an EI, and only 2% of cases were alone without any associated systemic disease. Most EIs are associated to other systemic diseases."

According to the news editors, the research concluded: "The present data also depict different age-related and disease-associated prevalence patterns of EI, thus highlighting a complex clinical scenario."


Our news journalists report that additional information may be obtained by
Researchers from University of New Hampshire Report Details of New Studies and Findings in the Area of Infectious Diseases (Microbial Genomics of Ancient Plagues and Outbreaks)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Infectious Diseases have been published. According to news reporting originating in Durham, New Hampshire, by NewsRx journalists, research stated, "The recent use of next-generation sequencing methods to investigate historical disease outbreaks has provided us with an unprecedented ability to address important and long-standing questions in epidemiology, pathogen evolution, and human history."

The news reporters obtained a quote from the research from the University of New Hampshire, "In this review, we present major findings that illustrate how microbial genomics has provided new insights into the nature and etiology of infectious diseases of historical importance, such as plague, tuberculosis, and leprosy. Sequenced isolates collected from archaeological remains also provide evidence for the timing of historical evolutionary events as well as geographic spread of these pathogens."

According to the news reporters, the research concluded: "Elucidating the genomic basis of virulence in historical diseases can provide relevant information on how we can effectively understand the emergence and re-emergence of infectious diseases today and in the future."


Our news correspondents report that additional information may be obtained by contacting C.P. Andam, University of New Hampshire, Dept. of Mol Cellular & Biomed Sci, Durham, NH 03824, United States. Additional authors for this research include C.J. Worby, Q.Z. Chang and M.G. Campana.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tim.2016.08.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, New Hampshire, United States, North and Central America, Infectious Diseases and Conditions, Article Review,
Researchers from University of Nice Sophia-Antipolis Report New Studies and Findings in the Area of Vitamin A Deficiency (Oral tolerance is inefficient in neonatal mice due to a physiological vitamin A deficiency)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Vitamin A Deficiency. According to news reporting originating in Nice, France, by NewsRx journalists, research stated, "Increased risk of allergy during early life indicates deficient immune regulation in this period of life. To date, the cause for inefficient neonatal immune regulation has never been elucidated."

The news reporters obtained a quote from the research from the University of Nice Sophia-Antipolis, "We aimed to define the ontogeny of oral tolerance and to identify necessary conditions specific for this stage of life. Ovalbumin (OVA) was administered orally to mice through breast milk and efficiency of systemic tolerance to OVA was assessed in adulthood using a model of allergic airway inflammation. Oral tolerance induction was fully efficient starting third week of life. Inefficiency in neonates was a consequence of abnormal antigen transfer across the gut barrier and retinaldehyde dehydrogenase expression by mesenteric lymph node CD103(+) neonatal dendritic cells, resulting in inefficient T-cell activation. Neonates' serum retinol levels were three times lower than in adult mice, and vitamin A supplementation was sufficient to rescue neonatal defects and allow tolerance induction from birth. The establishment of oral tolerance required the differentiation of Th1 lymphocytes in both vitamin A-supplemented neonates and 3-week-old unsupplemented mice."

According to the news reporters, the research concluded: "This knowledge should guide the design of interventions for allergy prevention that are adapted to the neonatal stage of life such as vitamin A supplementation."

For more information on this research see: Oral tolerance is inefficient in neonatal mice due to a physiological vitamin A deficiency. *Mucosal Immunology*, 2015;9(2):479-91. *Mucosal Immunology* can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Mucosal Immunology - www.nature.com/mi/)

Our news correspondents report that additional information may be obtained by contacting M. Turfkruyer, University of Nice Sophia Antipolis, TIM, EA 6302, Nice, France. Additional authors for this research include A. Rekima, P. Macchiaverni, L. Le Bourhis, V. Muncan, G.R. van den Brink, M.K. Tulic and V. Verhasselt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mi.2015.114. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal *Mucosal Immunology* can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Nice, France, Europe, Allergies,
Researchers from University of Niigata Detail Findings in Chemotherapy (Structural and Mutagenic Analysis of Metallo-beta-Lactamase IMP-18)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Chemotherapy have been published. According to news reporting from Niigata, Japan, by NewsRx journalists, research stated, "IMP-type metallo-beta-lactamases (MBLs) are exogenous zinc metalloenzymes that hydrolyze a broad range of beta-lactams, including carbapenems. Here we report the crystal structure of IMP-18, an MBL cloned from Pseudomonas aeruginosa, at 2.0-angstrom resolution."

The news correspondents obtained a quote from the research from the University of Niigata, "The overall structure of IMP-18 resembles that of IMP-1, with an alpha beta/beta alpha 'folded sandwich' configuration, but the loop that covers the active site has a distinct conformation. The relationship between IMP-18's loop conformation and its kinetic properties was investigated by replacing the amino acid residues that can affect the loop conformation (Lys44, Thr50, and Ile69) in IMP-18 with those occupying the corresponding positions in the well-described enzyme IMP-1. The replacement of Thr50 with Pro considerably modified IMP-18's kinetic properties, specifically those pertaining to meropenem, with the k(cat)/K-m value increased by an order of magnitude."

According to the news reporters, the research concluded: "The results indicate that this is a key residue that defines the kinetic properties of IMP-type beta-lactamases."


Our news journalists report that additional information may be obtained by contacting A. Shimizu-Ibuka, Niigata University of Pharmacy & Applied Life Sciences, Fac Appl Life Sci, Akiha Ku, Niigata, Japan. Additional authors for this research include H. Nonomura, Y. Ishii, N.D. Hanson and A. Shimizu-Ibuka.

Keywords for this news article include: Niigata, Japan, Asia, Chemotherapy, Drugs and Therapies, Enzymes and Coenzymes, Lactamase, University of Niigata.

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Researchers from University of Niigata Detail Findings in RNA-Directed DNA Polymerase (A Combination of delta-Tocotrienol and Ferulic Acid Synergistically Inhibits Telomerase Activity in DLD-1 Human Colorectal Adenocarcinoma Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - RNA-Directed DNA Polymerase. According to news reporting originating in Niigata, Japan, by NewsRx journalists, research stated, "Rice bran is a rich source of functional compounds, including tocotrienol (T3) and ferulic acid (FA). We previously investigated the anti-cancer properties of T3, and reported on the potent inhibitory effects of delta-T3 on angiogenesis and telomerase activity."

The news reporters obtained a quote from the research from the University of Niigata, "In this study, we examined the synergistic suppressive effects of the combination of delta-T3 and FA on telomerase activity in DLD-1 human colorectal adenocarcinoma cells. Co-treatment with delta-T3 and FA significantly decreased cellular telomerase activity compared to treatment with delta-T3 alone, whereas FA alone had no inhibitory effect. Co-treatment with delta-T3 and FA also synergistically down-regulated the expression of human telomerase reverse transcriptase (hTERT), the catalytic subunit of telomerase, indicating that the enzymatic activity of telomerase is controlled at the transcriptional level. FA significantly increased the intracellular concentration of delta-T3, suggesting that FA improved the bioavailability of delta-T3 on telomerase."

According to the news reporters, the research concluded: "FA may be a promising candidate for augmenting the anti-cancer activity of delta-T3."

For more information on this research see: A Combination of delta-Tocotrienol and Ferulic Acid Synergistically Inhibits Telomerase Activity in DLD-1 Human Colorectal Adenocarcinoma Cells. *Journal of Nutritional Science and Vitaminology*, 2016;62(5):281-287. *Journal of Nutritional Science and Vitaminology* can be contacted at: Center Academic Publ Japan, 2-4-16 Yayoi, Bunkyo-Ku, Tokyo, 113-0032, Japan.

Our news correspondents report that additional information may be obtained by contacting T. Eitsuka, Niigata University of Pharmacy & Applied Life Sciences, Fac Appl Life Sci, Niigata 9568603, Japan. Additional authors for this research include N. Tatewaki, H. Nishida, K. Nakagawa and T. Miyazawa.

Keywords for this news article include: Niigata, Japan, Asia, DNA Nucleotidyltransferases, RNA-Directed DNA Polymerase, Enzymes and Coenzymes, Phosphotransferases, Ribonucleoproteins, Carrier Proteins, Telomerase, University of Niigata.

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Researchers from University of North Carolina Describe Findings in Antiretrovirals (Time Preferences Predict Mortality among HIV-Infected Adults Receiving Antiretroviral Therapy in Kenya)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antiretrovirals. According to news reporting from Chapel Hill, North Carolina, by NewsRx journalists, research stated, "Identifying characteristics of HIV-infected adults likely to have poor treatment outcomes can be useful for targeting interventions efficiently. Research in economics and psychology suggests that individuals' intertemporal time preferences, which indicate the extent to which they trade-off immediate vs. future cost and benefits, can influence various health behaviors."

The news correspondents obtained a quote from the research from the University of North Carolina, "While there is empirical support for the association between time preferences and various non-HIV health behaviors and outcomes, the extent to which time preferences predict outcomes of those receiving antiretroviral therapy (ART) has not been examined previously. HIV-infected adults initiating ART were enrolled at a health facility in Kenya. Participants' time preferences were measured at enrollment and used to classify them as having either a low or high discount rate for future benefits. At 48 weeks, we assessed mortality and ART adherence, as measured by Medication Event Monitoring System (MEMS). Logistic regression models adjusting for socio-economic characteristics and risk factors were used to determine the association between time preferences and mortality as well as MEMS adherence (>=90%). Overall, 44% (96/220) of participants were classified as having high discount rates. Participants with high discount rates had significantly higher 48-week mortality than participants with low discount rates (9.3% vs. 3.1%; adjusted odds ratio 3.84; 95% CI 1.03, 14.50). MEMS adherence (>=90%) was similar for participants with high vs. low discount rates (42.3% vs. 49.6%, AOR 0.70; 95% CI 0.40, 1.25). High discount rates were associated with significantly higher risk of mortality among HIV-infected patients initiating ART. Greater use of time preference measures may improve identification of patients at risk of poor clinical outcomes."

According to the news reporters, the research concluded: "More research is needed to further identify mechanisms of action and also to build upon and test the generalizability of this finding."

For more information on this research see: Time Preferences Predict Mortality among HIV-Infected Adults Receiving Antiretroviral Therapy in Kenya. Plos One, 2015;10 (12):e0145245. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting H. Thirumurthy, Dept. of Health Policy and Management, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC, United States. Additional authors for this research include K. Hayashi, S. Linnemayr, R.C. Vreeman, I.P. Levin, D.R. Bangsberg and N.T Brewer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0145245. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiretrovirals, HIV/AIDS, Chapel Hill,
Researchers from University of North Carolina Detail New Studies and Findings in the Area of Antiretrovirals (Neurocognition with maraviroc compared with tenofovir in HIV)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antiretrovirals. According to news originating from Chapel Hill, North Carolina, by NewsRx correspondents, research stated, "The objective was to determine whether maraviroc (MVC) has unique neurocognitive benefits in the context of initial antiretroviral therapy (ART). Randomized, double-blind, placebo-controlled, 48-week trial."

Our news journalists obtained a quote from the research from the University of North Carolina, "Participants were enrolled in US AIDS Clinical Trials Group clinical trial sites. Total 262 ART-naive, chemokine coreceptor 5 tropic HIV, and HIV RNA greater than 1000 copies/ml participants were randomized, 230 participants completed the study. Participants received MVC 150 mg or tenofovir disoproxil fumarate (TDF) 300mg on a background of ritonavir-boosted darunavir and emtricitabine. Main outcome measure(s): The neuropsychological battery of 15 tests done at baseline, week 24 and week 48 assessed seven domains, and were standardized into z-scores then converted into deficit scores and a global deficit score. The 48-week changes from baseline in the neuropsychological scores and the global deficit score were compared by Wilcoxon or Kruskal-Wallis test between arms, and among baseline impairment groups [classified as normal, mild (2 deficit scores >= 1) and moderate (2 deficit scores >= 2)]. It was hypothesized that the MVC arm would have improved neuropsychological performance over TDF. In this double-blind, randomized, placebo-controlled trial, there were no differences in neuropsychological performance between MVC and TDF. Those with moderate neuropsychological impairment at baseline experienced greater ART-mediated neuropsychological improvement than those with mild or no neuropsychological impairment."

According to the news editors, the research concluded: "Improvement in neurocognitive functioning was greater with more baseline impairment but was comparable with MVC or TDF."

For more information on this research see: Neurocognition with maraviroc compared with tenofovir in HIV. *Aids*, 2016;30(15):2315-2321. *Aids* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx)

The news correspondents report that additional information may be obtained from K.R. Robertson, Univ North Carolina Chapel Hill, Chapel Hill, NC, United States. Additional authors for this research include S. Miyahara, A. Lee, T.T. Brown, E.S. Chan, B. Berzins, D. Rusin, J.J. Eron and B.O. Taiwo.

Keywords for this news article include: Chapel Hill, North Carolina, United States,
Researchers from University of Nottingham Describe Findings in Congenital Heart Defects (Cardiac troponin T is necessary for normal development in the embryonic chick heart)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Congenital Diseases and Conditions - Congenital Heart Defects is the subject of a report. According to news reporting out of Nottingham, United Kingdom, by NewsRx editors, research stated, "The heart is the first functioning organ to develop during embryogenesis. The formation of the heart is a tightly regulated and complex process, and alterations to its development can result in congenital heart defects."

Our news journalists obtained a quote from the research from the University of Nottingham, "Mutations in sarcomeric proteins, such as alpha myosin heavy chain and cardiac alpha actin, have now been associated with congenital heart defects in humans, often with atrial septal defects. However, cardiac troponin T (cTNT encoded by gene TNNT2) has not. Using gene-specific antisense oligonucleotides, we have investigated the role of cTNT in chick cardiogenesis. TNNT2 is expressed throughout heart development and in the postnatal heart. TNNT2-morpholino treatment resulted in abnormal atrial septal growth and a reduction in the number of trabeculae in the developing primitive ventricular chamber. External analysis revealed the development of diverticula from the ventricular myocardial wall which showed no evidence of fibrosis and still retained a myocardial phenotype. Sarcomeric assembly appeared normal in these treated hearts. In humans, congenital ventricular diverticulum is a rare condition, which has not yet been genetically associated. However, abnormal haemodynamics is known to cause structural defects in the heart. Further, structural defects, including atrial septal defects and congenital diverticula, have previously been associated with conduction anomalies. Therefore, to provide mechanistic insights into the effect that cTNT knockdown has on the developing heart, quantitative PCR was performed to determine the expression of the shear stress responsive gene NOS3 and the conduction gene TBX3. Both genes were differentially expressed compared to controls. Therefore, a reduction in cTNT in the developing heart results in abnormal atrial septal formation and aberrant ventricular morphogenesis. We hypothesize that alterations to the haemodynamics, indicated by differential NOS3 expression, causes these abnormalities in growth in cTNT knockdown hearts. In addition, the muscular diverticula reported here suggest a novel role for mutations of structural sarcomeric proteins in the pathogenesis of congenital cardiac diverticula."

According to the news editors, the research concluded: "From these studies, we suggest TNNT2 is a gene worthy of screening for those with a congenital heart defect, particularly atrial septal defects and ventricular diverticula."

For more information on this research see: Cardiac troponin T is necessary for normal development in the embryonic chick heart. Journal of Anatomy, 2016;229(3):436-449.
Researchers from University of Occupational and Environmental Health Describe Findings in Hypertrophic Cardiomyopathy (Cumulative Burden of Myocardial Dysfunction in Cardiac Amyloidosis Assessed Using Four-Chamber Cardiac Strain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Hypertrophic Cardiomyopathy are presented in a new report. According to news reporting out of Kitakyushu, Japan, by NewsRx editors, research stated, "The aim of this study was to test the hypothesis that prognosis in patients with cardiac amyloidosis is closely coupled with amyloid burden in all four cardiac chambers. The goal was to evaluate longitudinal strain (LS) in each cardiac chamber and to determine whether LS in specific cardiac chambers is preferentially associated with prognosis over conventional two-dimensional echocardiographic parameters in patients with cardiac amyloidosis."

Our news journalists obtained a quote from the research from the University of Occupational and Environmental Health, "Patients with two phenotypes of left ventricular (LV) hypertrophy (cardiac amyloidosis in 55 patients and nonobstructive hypertrophic cardiomyopathy in 40 patients) and 55 healthy subjects were retrospectively enrolled for the simultaneous assessment of LS of all four cardiac chambers in the apical four-chamber view. Patients with cardiac amyloidosis were followed up to record major adverse cardiovascular events, including cardiac death, heart transplantation, nonfatal myocardial infarction, ventricular tachyarrhythmia, and exacerbation of heart failure requiring hospitalization. LS in each chamber was significantly depressed in patients with both LV hypertrophy phenotypes compared with healthy subjects. Right atrial LS was significantly lower in patients with cardiac amyloidosis than those with nonobstructive hypertrophic cardiomyopathy after adjusting for LV ejection fraction and LV mass index. During a median follow-up period of 10 months, major adverse cardiovascular events developed in 22 patients with cardiac amyloidosis. Four-chamber LS were significantly associated with major adverse cardiovascular events, with incremental value over traditional echocardiographic parameters."

According to the news editors, the research concluded: "Cardiac amyloidosis
involves all cardiac chambers, and thus, chamber-specific strain analysis may be useful to assess the total cumulative burden of cardiac dysfunction."


Our news journalists report that additional information may be obtained by contacting M. Takeuchi, University of Occupational & Environmental Health, Sch Med, Dept. of Lab & Transfus Med, Kitakyushu, Fukuoka 8078555, Japan. Additional authors for this research include M. Obokata, Y. Nagata, T. Ishizu, K. Addetia, K. Aonuma, M. Kurabayashi, R.M. Lang, M. Takeuchi and Y. Otsuji.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.echo.2016.07.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kitakyushu, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Hypertrophic Cardiomyopathy, Proteostasis Deficiencies, Cardiomyopathies, Heart Disease, Amyloidosis, Nephrology, Cardiology, University of Occupational and Environmental Health.

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**Oncology - Cervical Cancer**

Researchers from University of Oklahoma Detail New Studies and Findings in the Area of Cervical Cancer (Is age a prognostic biomarker for survival among women with locally advanced cervical cancer treated with chemoradiation? An NRG ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Cervical Cancer are presented in a new report. According to news reporting originating from Oklahoma City, Oklahoma, by NewsRx correspondents, research stated, "To determine the effect of age on completion of and toxicities following treatment of local regionally advanced cervical cancer (LACC) on Gynecologic Oncology Group (GOG) Phase I-HI trials. An ancillary data analysis of GOG protocols 113, 120, 165, 219 data was performed."

Our news editors obtained a quote from the research from the University of Oklahoma, "Wilcoxon, Pearson, and Kruskal-Wallis tests were used for univariate and multivariate analysis. Log rank tests were used to compare survival lengths. One-thousand-three-hundred-nineteen women were included; 60.7% were Caucasian, 15% were age 60-70 years and an additional 5% were >70; 87% had squamous histology, 55% had stage IIB disease and 34% had IIB disease. Performance status declined with age (p = 0.006). Histology and tumor stage did not significantly differ. Number of cycles of chemotherapy received, radiation treatment time, nor dose modifications varied with age. Notably, radiation protocol deviations..."
and failure to complete brachytherapy (BT) did increase with age (p = 0.022 and p < 0.001 respectively). Only all grade lymphatic (p = 0.006) and grade >= 3 cardiovascular toxicities (p = 0.019) were found to vary with age. A 2% increase in the risk of death for every year increase > 50 for all-cause mortality (HR 1.02; 95% CI, 1.01-1.04) was found, but no association between age and disease specific mortality was found. This represents a large analysis of patients treated for LACC with chemo/radiation, approximately 20% of whom were >60 years of age. Older patients, had higher rates of incomplete brachytherapy which is not explained by collected toxicity data."

According to the news editors, the research concluded: "Age did not adversely impact completion of chemotherapy and radiation or toxicities."


The news editors report that additional information may be obtained by contacting K.N. Moore, University of Oklahoma, Stephenson Oklahoma Canc Center, Div Gynecol Oncol, Oklahoma City, OK 73121, United States. Additional authors for this research include J.J. Java, K.N. Slaughter, P.G. Rose, R. Lanciano, P.A. DiSilvestro, J.T. Thigpen, Y.C. Lee, K.S. Tewari, J. Chino, S.M. Seward, D.S. Miller, R. Salani, D.H. Moore and F.B. Stehman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.08.317. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oklahoma City, Oklahoma, United States, North and Central America, Histology, Diagnostics and Screening, Risk and Prevention, Cervical Cancer, Women's Health, Brachytherapy, Gynecology, Oncology, Therapy, University of Oklahoma.

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**Adolescence**

**Researchers from University of Oslo Report Details of New Studies and Findings in the Area of Adolescence (Associations Between Sibling Relationship Quality and Friendship Quality in Early Adolescence: Looking at the Case of Twins)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Adolescence have been presented. According to news reporting originating in Oslo, Norway, by NewsRx journalists, research stated, "Bidirectional pathways between twin relationship quality and friendship quality were investigated in a large longitudinal twin cohort. We examined negative and positive relationship features in 313 monozygotic (MZ) twins and 238 same-sex dizygotic (DZ) twins from ages 13 to 14 years, using latent structural modeling."

The news reporters obtained a quote from the research from the University of Oslo, "Results showed stronger stability of the twin relationship quality compared to friendship..."
quality. Positive features in the sibling relationship were associated with increased positive features in the relationship with the best friend a year later. In contrast, no significant association between negative sibling relationship features and change in negative friendship quality features was found."

According to the news reporters, the research concluded: "These findings speak to the important role of the sibling relationship in the development of good quality friendship relations in twins."

For more information on this research see: Associations Between Sibling Relationship Quality and Friendship Quality in Early Adolescence: Looking at the Case of Twins. Twin Research and Human Genetics, 2016;19(2):125-35. (Cambridge University Press - www.cambridge.org; Twin Research and Human Genetics - journals.cambridge.org/action/displayJournal?jid=THG)

Our news correspondents report that additional information may be obtained by contacting M. Bekkhus, Dept. of Psychology, University of Oslo, Oslo, Norway. Additional authors for this research include M. Brendgen, N.O. Czaikowski, F. Vitaro, G. Dionne and M. Boivin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/thg.2016.9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Norway, Europe, Genetics, Adolescence.

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Parotid Diseases and Conditions - Mumps

Researchers from University of Ottawa Report Details of New Studies and Findings in the Area of Mumps (Mechanisms of temperature sensitivity of attenuated Urabe mumps virus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Parotid Diseases and Conditions - Mumps. According to news originating from Ottawa, Canada, by NewsRx correspondents, research stated, "Temperature sensitivity is a phenotype often associated with attenuation of viruses. Previously, we purified several mumps variants from an incompletely attenuated Urabe strain live attenuated vaccine."

Financial supporters for this research include National Sciences and Engineering Research Council of Canada, Erica Langley and Daniel Ngo for technical support with sequencing and western blots.

Our news journalists obtained a quote from the research from the University of Ottawa, "Here we characterize one isolate that is sensitive to growth at high temperature. This virus was attenuated in a small animal model of mumps virulence, and we identified unique coding substitutions in the hemagglutinin-neuraminidase (HN), the viral polymerase (L) gene, and a non-coding substitution close to the anti-genome promoter sequences. At the non-permissive temperature, transcription of viral mRNAs and production of the replication intermediate were reduced compared to events at the permissive temperature and to a non-ts virulent Urabe virus. As well, synthesis of viral proteins was also reduced at the higher
According to the news editors, the research concluded: "While the actual sequence substitutions in the virus were unique, the pattern of substitutions in HN, L and genome end sequences is similar to another attenuated Urabe virus previously described by us."

For more information on this research see: Mechanisms of temperature sensitivity of attenuated Urabe mumps virus. *Virus Research*, 2017;227():104-109. *Virus Research* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Virus Research - www.journals.elsevier.com/virus-research/)

The news correspondents report that additional information may be obtained from S.C.B. Schinkel, University of Ottawa, Dept. of Biochem Microbiol & Immunol, Ottawa, ON K1H 8M5, Canada. Additional authors for this research include S. Rubin and K.E. Wright.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.virusres.2016.10.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Stomatognathic Diseases and Conditions, Salivary Gland Diseases and Conditions, Parotid Diseases and Conditions, Mouth Diseases and Conditions, Paramyxoviridae Infections, Rubulavirus Infections, Infectious Disease, Mononegavirales, Paramyxovirinae, RNA Viruses, Mumps Virus, Parotitis, Virology, Genetics, Viral, University of Ottawa.

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**Drugs and Therapies - Glucagon Therapy**

**Researchers from University of Palermo Report Findings in Glucagon Therapy (Influence of glucagon-like peptide 2 on energy homeostasis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Glucagon Therapy have been published. According to news reporting from Palermo, Italy, by NewsRx journalists, research stated, "Glucagon like peptide-2 (GLP-2) is a gastrointestinal hormone released from enteroendocrine L-type cells together with glucagon like peptide-1 in response to dietary nutrients. GLP-2 acts through a specific receptor, the GLP-2 receptor, mainly located in the gut and in the brain."

The news correspondents obtained a quote from the research from the University of Palermo, "Classically, GLP-2 is considered a trophic hormone involved in the maintenance of intestinal epithelial morphology and function. This role has been targeted for therapies promoting repair and adaptive growth of the intestinal mucosa. Recently, GLP-2 has been shown to exert beneficial effects on glucose metabolism specially in conditions related to increased uptake of energy, such as obesity. Several actions of GLP-2 are related to a positive energy balance: GLP-2 increases not only the absorptive surface, but also expression and activity of epithelial brush-border nutrient transporters and digestive enzymes, intestinal blood flow, postprandial chylomicron secretion and it inhibits gastrointestinal motility, providing the opportunity to increase absorption of nutrients. Other actions, including anorexigenic effects, appear in opposition to the energy intake. In this review, we discuss the GLP-2 functions related to energy homeostasis."

According to the news reporters, the research concluded: "GLP-2 could be
considered an hormone causing positive energy balance, which, however has the role to mitigate the metabolic dysfunctions associated with hyper-adiposity."

For more information on this research see: Influence of glucagon-like peptide 2 on energy homeostasis. Peptides, 2016;86():1-5. Peptides can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Peptides - www.journals.elsevier.com/peptides/)

Our news journalists report that additional information may be obtained by contacting F. Mule, University of Palermo, Dipartimento Sci & Tecnol Biol Chim & Farmaceut S, I-90128 Palermo, Italy. Additional authors for this research include A. Amato and F. Mule.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.peptides.2016.09.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Palermo, Italy, Europe, Gastroenterology, Article Review, Glucagon Therapy Hydrochloride, Gastrointestinal Hormones, Glucose Elevating Agents, Glucagon-Like Peptide 2, Glucagon-Like Peptides, Drugs and Therapies, Peptide Proteins, Peptide Hormones, Pharmaceuticals, Proglucagon, Proteomics, University of Palermo.

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Oncology

Researchers from University of Palermo Report on Findings in Oncology (What links BRAF to the heart function? New insights from the cardiotoxicity of BRAF inhibitors in cancer treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology. According to news reporting out of Palermo, Italy, by NewsRx editors, research stated, "The RAS-related signalling cascade has a fundamental role in cell. It activates differentiation and survival."

Our news journalists obtained a quote from the research from the University of Palermo, "It is particularly important one of its molecules, B-RAF. B-RAF has been a central point for research, especially in melanoma. Indeed, it lacked effective therapeutic weapons since the early years of its study. Molecules targeting B-RAF have been developed. Nowadays, two classes of molecules are approved by FDA. Multi-target molecules, such as Sorafenib and Regorafenib, and selective molecules, such as Vemurafenib and Dabrafenib. Many other molecules are still under investigation. Most of them are studied in phase 1 trials. Clinical studies correlate B-RAF inhibitors and QT prolongation. Though this cardiovascular side effect is not common using these drugs, it must be noticed early and recognize its signals. Indeed, Oncologists and Cardiologists should work in cooperation to prevent lethal events, such as fatal arrhythmias or sudden cardiac death."

According to the news editors, the research concluded: "These events could originate from an uncontrolled QT prolongation."

For more information on this research see: What links BRAF to the heart function? New insights from the cardiotoxicity of BRAF inhibitors in cancer treatment. Oncotarget, 2015;6(34):35589-601.

Our news journalists report that additional information may be obtained by
Researchers from University of Paris Discuss Findings in Arsenic (Exposure assessment of arsenic speciation in different rice types depending on the cooking mode)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Arsenic have been published. According to news reporting originating from Maisons Alfort, France, by NewsRx correspondents, research stated, "Total (Ass), inorganic arsenic (As-i=As(III)+As(V)) and dimethylarsonic acid (DMA) were determined in 37 commercial rice samples collected in France. As-t was measured by inductively coupled plasma-mass spectrometry (ICP-MS) whereas anion-exchange chromatography - ICP-MS was used for As; and DMA determination."

Financial support for this research came from French Ministry of Food, Agriculture and Fisheries.

Our news editors obtained a quote from the research from the University of Paris, "Ast in raw rice varied from 0.041 to 0.535 mg kg(-1) whereas As; varied from 0.025 mg kg(-1) (polished Basmati rice) up to 0.471 mg kg(-1) (organic rice duo). The daily intake and associated health risk for different population groups as a function of age and gender was also assessed. The intake varied between 0.002 and 0.184 µg kg(-1) body weight for Ast and 0.002 and 0.153 µg kg(-1) body weight for As;, which do not pose a chronic toxicity risk. Organic wholegrain rice may entail a risk for children in the case of sole consumption at the expense of polished rice. The impact of rice cooking/boiling in terms of the overall toxicological risk related to As species was also investigated."

According to the news editors, the research concluded: "Pre-rinsing and boiling the raw rice by using an excess of water is the most efficient mode to obtain a significant As; removal and further reduction of the toxicological risk for children, particularly for white rice varieties."

For more information on this research see: Exposure assessment of arsenic speciation in different rice types depending on the cooking mode. *Journal of Food Composition and Analysis*, 2016;54():37-47. *Journal of Food Composition and Analysis* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Journal of Food Composition and Analysis - www.journals.elsevier.com/journal-of-food-composition-and-analysis/)

The news editors report that additional information may be obtained by contacting T.
Researchers from University of Paris-Sud Report Recent Findings in Dynamic Light Scattering (Size of monodispersed nanomaterials evaluated by dynamic light scattering: Protocol validated for measurements of 60 and 203 nm diameter nanomaterials ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Dynamic Light Scattering is the subject of a report. According to news reporting originating from Chatenay Malabry, France, by NewsRx correspondents, research stated, "In vivo fate of nanomaterials is influenced by the particle size among other parameters. Thus, Health Agencies have identified the size of nanomaterial as an essential physicochemical property to characterize."

Our news editors obtained a quote from the research from the University of Paris-Sud, "This parameter can be explored by dynamic light scattering (DLS) that is described in the ISO standard 22412: 2008(E) and is one of the methods recognized by Health Agencies. However, no protocol of DLS size measurement has been validated over a large range of size so far. In this work, we propose an extension of validation of a protocol of size measurement by DLS previously validated with certified reference materials (CRM) at 60 and 203 nm. The present work reports robustness, precision and trueness of this protocol that were investigated using CRM at 100 and 400 nm. The protocol was robust, accurate and consistent with the ISO standard over the whole range of size that were considered. Expanded uncertainties were 4.4 and 3.6% for CRM at 100 and 400 nm respectively indicating the reliability of the protocol."

According to the news editors, the research concluded: "The range of application of the protocol previously applied to the size measurement of liposomes and polymer nanoparticles was extended to inorganic nanomaterial including silica nanoparticles."

For more information on this research see: Size of monodispersed nanomaterials evaluated by dynamic light scattering: Protocol validated for measurements of 60 and 203 nm diameter nanomaterials is now extended to 100 and 400 nm. *International Journal of Pharmaceutics*, 2016;515(1-2):245-253. *International Journal of Pharmaceutics* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; International Journal of Pharmaceutics - www.journals.elsevier.com/international-journal-of-pharmaceutics/)

The news editors report that additional information may be obtained by contacting C. Vauthier, Univ Paris Saclay, Univ Paris Sud, CNRS, Inst Galien Paris Sud, Chatenay Malabry, France. Additional authors for this research include J. Botton, C. Merlet, H. Hillaireau, F.X. Legrand, G. Barratt and C. Vauthier.
Researchers from University of Parma Detail Findings in Oxidoreductases (Catalysis and Structure of Zebrafish Urate Oxidase Provide Insights into the Origin of Hyperuricemia in Hominoids)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Oxidoreductases. According to news originating from Parma, Italy, by NewsRx correspondents, research stated, "Urate oxidase (Uox) catalyses the first reaction of oxidative uricolysis, a three-step enzymatic pathway that allows some animals to eliminate purine nitrogen through a water-soluble compound. Inactivation of the pathway in hominoids leads to elevated levels of sparingly soluble urate and puts humans at risk of hyperuricemia and gout."

Our news journalists obtained a quote from the research from the University of Parma, "The uricolytic activities lost during evolution can be replaced by enzyme therapy. Here we report on the functional and structural characterization of Uox from zebrafish and the effects on the enzyme of the missense mutation (F216S) that preceded Uox pseudogenization in hominoids. Using a kinetic assay based on the enzymatic suppression of the spectroscopic interference of the Uox reaction product, we found that the F216S mutant has the same turnover number of the wild-type enzyme but a much-reduced affinity for the urate substrate and xanthine inhibitor. Our results indicate that the last functioning Uox in hominoid evolution had an increased Michaelis constant, possibly near to upper end of the normal range of urate in the human serum (similar to 300 μM)."

According to the news editors, the research concluded: "Changes in the renal handling of urate during primate evolution can explain the genetic modification of uricolytic activities in the hominoid lineage without the need of assuming fixation of deleterious mutations."


The news correspondents report that additional information may be obtained from R. Percudani, University of Parma, Dept. of Life Sci, I-43124 Parma, Italy. Additional authors for this research include A. Liuzzi, B. Fermi, R. Corsini, C. Folli, V. Speranzini, F. Gandolfi, S. Bettati, L. Ronda, L. Cendron, R. Berni, G. Zanotti and R. Percudani.

Keywords for this news article include: Parma, Italy, Europe, Enzymes and Coenzymes, Risk and Prevention, Oxidoreductases, Hyperuricemia, Urate Oxidase, Genetics, University of Parma.

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Researchers from University of Pennsylvania Describe Findings in Obesity (Primary Care Interventions to Reduce Childhood Obesity in Latino Families)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting from Philadelphia, Pennsylvania, by NewsRx editors, the research stated, "Increasing rates of obesity in Latino children call for culturally sensitive primary care interventions. Despite recent efforts to address this growing disparity, little is known about cultural variables that influence obesity management programs in Latino children."

The news correspondents obtained a quote from the research from the University of Pennsylvania, "A literature search was conducted using CINHAL, Scopus, PubMed, and PsycINFO to review the state of the science regarding primary care interventions to decrease obesity in Latino children. The author analyzed the effects of several cultural practices on obesity and made recommendations based on their clinical implications for weight reduction management programs. Obesity in Latino children is a multifactorial problem influenced by family behaviors, cultural perceptions of weight and health, traditional dietary norms, and socioeconomic status. Current practice lags behind national obesity management recommendations and is further hindered by a lack of consideration of the roles of key cultural differences in Latino families. It is imperative to recognize the importance of family preferences and culture when developing weight reduction programs so as to foster long-term behavior changes."

According to the news reporters, the research concluded: "More research assessing the efficacy of culturally competent interventions is necessary to guide national efforts to address this increasing disparity."


Our news journalists report that additional information may be obtained by contacting G. Gonzalez, University of Pennsylvania, Sch Nursing, Dept. of Pediat Primary Care, Philadelphia, PA 19104, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pedhc.2015.11.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of Pennsylvania. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Researchers from University of Pennsylvania Report Findings in Pulmonary Embolism (Risk of pulmonary embolism after a prior negative CT pulmonary angiogram)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Pulmonary Embolism are discussed in a new report. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "With increasing utilization of computed tomography pulmonary angiography (CTPA) for the diagnosis of pulmonary embolism (PE), many patients undergo repeat CTs. The aim of this study is to identify the rate of positive subsequent CTPAs after an initial negative CTPA and whether there is a risk-free period after a negative CTPA."

Our news editors obtained a quote from the research from the University of Pennsylvania, "We evaluated 318 patients with at least 1 subsequent CTPA after an initial negative CTPA, with 786 total CTPAs. We also evaluated a control group of 200 unselected CTPAs. The positive rate in the repeat group was 7% at the first repeat CTPA and 10% per-patient within 1000 days. The positive rate in the control group was 9%(P-not significant). No risk-free period was seen, with a positive rate of 5% within 2 weeks after a negative CTPA. The number of prior negative CTPAs showed a trend towards decreasing rate of the subsequent CTPA being positive, but this did not meet statistical significance. There is no risk-free period after an initial negative CTPA, and therefore, patients with clinical suspicion of PE should be rescanned even after a recent negative study. Even patients with multiple negative prior CTPAs have a measurable risk of subsequent PE."

According to the news editors, the research concluded: "Established clinical prediction scoring systems must be used to triage the patients who need CTPAs."


The news editors report that additional information may be obtained by contacting H.I. Litt, University of Pennsylvania, Dept. of Radiol, Perelman Sch Med, Philadelphia, PA 19104, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajem.2016.07.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Lung Diseases and Conditions, Embolism and Thrombosis, Risk and Prevention, Pulmonary Embolism, University of Pennsylvania.

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Researchers from University of Pittsburgh Report Findings in Attention Deficit Hyperactivity Disorders (Gestational weight gain, prepregnancy body mass index and offspring attention-deficit hyperactivity disorder symptoms and behaviour at age 10)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Developmental Diseases and Conditions - Attention Deficit Hyperactivity Disorders. According to news originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "To assess offspring attention-deficit hyperactivity disorder (ADHD) symptoms and emotional/behavioural impairments at age 10 years in relation to maternal gestational weight gain (GWG) and prepregnancy body mass index (BMI). Longitudinal birth cohort from Magee-Womens Hospital, Pittsburgh, Pennsylvania (enrolled 1983-86)."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from the University of Pittsburgh, "Mother-infant dyads (n=511) were followed through pregnancy to 10 years. Self-reported total GWG was converted to gestational-age-standardised z-scores. Multivariable linear and negative binomial regressions were used to estimate effects of GWG and BMI on outcomes. Child ADHD symptoms were assessed with the Conners' Continuous Performance Test. Child behaviour was assessed by parent and teacher ratings on the Child Behaviour Checklist (CBCL) and Teacher Report Form, respectively. The mean (SD) total GWG (kg) was 14.5 (5.9), and 10% of women had a pregravid BMI (>=)30 kg/m. Prepregnancy obesity (BMI of 30 kg/m²) was associated with increased offspring problem behaviours including internalising behaviours (adjusted b 3.3 points, 95% CI 1.7-4.9), externalising behaviours (adjusted b 2.9 points, 95% CI 1.4-4.6), and attention problems (adjusted b 2.3 points, 95% CI 1.1-3.4) on the CBCL, compared with normal weight mothers (BMI of 22 kg/m²). There were nonsignificant trends towards increased offspring impulsivity with low GWG among lean mothers (adjusted incidence rate ratio 1.2, 95% CI 0.9-1.5) and high GWG among overweight mothers (adjusted incidence rate ratio 1.7, 95% CI 0.9-2.8), but additional outcomes did not differ by GWG z-score. Results were not meaningfully different after excluding high-substance users. In a low-income and high-risk sample, we observed a small increase in child behaviour problems among children of obese mothers, which could have an impact on child behaviour in the population."

According to the news editors, the research concluded: "Maternal obesity is associated with a small increase in child behaviour problems."


The news correspondents report that additional information may be obtained from S.J. Pugh, Dept. of Epidemiology, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, United States. Additional authors for this research include J.A. Hutcheon, G.A. Richardson, M.M. Brooks, K.P. Himes, N.L. Day and L.M Bodnar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1471-0528.13909. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers from University of Pittsburgh Report on Findings in Genetic Epidemiology (A Pipeline for Classifying Relationships Using Dense SNP/SNV Data and Putative Pedigree Information)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics - Genetic Epidemiology. According to news reporting originating in Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "When genome-wide association studies (GWAS) or sequencing studies are performed on family-based datasets, the genotype data can be used to check the structure of putative pedigrees. Even in datasets of putatively unrelated people, close relationships can often be detected using dense single-nucleotide polymorphism/variant (SNP/SNV) data."

Financial support for this research came from COHRA (US) and GENEVA (Guatemala) datasets.

The news reporters obtained a quote from the research from the University of Pittsburgh, "A number of methods for finding relationships using dense genetic data exist, but they all have certain limitations, including that they typically use average genetic sharing, which is only a subset of the available information. Here, we present a set of approaches for classifying relationships in GWAS datasets or large-scale sequencing datasets. We first propose an empirical method for detecting identity by descent segments in close relative pairs using un-phased dense SNP data and demonstrate how that information can assist in building a relationship classifier. We then develop a strategy to take advantage of putative pedigree information to enhance classification accuracy. Our methods are tested and illustrated with two datasets from two distinct populations."

According to the news reporters, the research concluded: "Finally, we propose classification pipelines for checking and identifying relationships in datasets containing a large number of small pedigrees."


Our news correspondents report that additional information may be obtained by contacting Z. Zeng, Dept. of Biostatistics, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, Pennsylvania, United States. Additional authors for this research include D.E. Weeks, W. Chen, N. Mukhopadhyay and E. Feingold.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/gepi.21948. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, Genetic Epidemiology, North and Central America.
Researchers from University of Pittsburgh Report on Findings in Type 1 Diabetes Mellitus (Are Regulatory T Cells Defective in Type 1 Diabetes and Can We Fix Them?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus. According to news reporting originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "Regulatory T cells (Tregs) are critical regulators of peripheral immune tolerance. Treg insufficiency can lead to autoimmune disorders, including type 1 diabetes (T1D)."

Our news editors obtained a quote from the research from the University of Pittsburgh, "Increasing evidence in mouse models of T1D, as well as other autoimmune disorders, suggests that there are defects in Treg-mediated suppression. Indeed, whereas Treg frequency in the peripheral blood of T1D patients is unaltered, their suppressive abilities are diminished compared with Tregs in healthy controls. Although expression of the transcription factor Foxp3 is a prerequisite for Treg development and function, there are many additional factors that can alter their stability, survival, and function. Much has been learned in other model systems, such as tumors, about the mechanism and pathways that control Treg stability and function."

According to the news editors, the research concluded: "This review poses the question of whether we can use these findings to develop new therapeutic approaches that might boost Treg stability, survival, and/or function in T1D and possibly other autoimmune disorders."

For more information on this research see: Are Regulatory T Cells Defective in Type 1 Diabetes and Can We Fix Them? Journal of Immunology, 2016;197(10):3762-3770.

Journal of Immunology can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news editors report that additional information may be obtained by contacting D.A.A. Vignali, University of Pittsburgh, Inst Canc, Tumor Microenvironm Center, Pittsburgh, PA 15232, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1601118. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Type 1 Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions, Article Review, Insulin Dependent Diabetes Mellitus, Risk and Prevention, Type 1 Diabetes, Genetics, University of Pittsburgh.

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Researchers from University of Pretoria Describe Findings in Tuberculosis (Antimycobacterial Activity and Low Cytotoxicity of Leaf Extracts of Some African Anacardiaceae Tree Species)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mycobacterium Infections - Tuberculosis have been published. According to news reporting from Onderstepoort, South Africa, by NewsRx journalists, research stated, "Treatment of tuberculosis (TB) is a challenge because of multidrug-resistant and extremely drug-resistant strains of Mycobacterium tuberculosis. Plant species contain antimicrobial compounds that may lead to new anti-TB drugs."

The news correspondents obtained a quote from the research from the University of Pretoria, "Previous screening of some tree species from the Anacardiaceae family revealed the presence of antimicrobial activity, justifying further investigations. Leaf extracts of 15 Anacardiaceae tree species were screened for antimycobacterial activity using a twofold serial microdilution assay against the pathogenic Mycobacterium bovis and multidrug resistant M. tuberculosis and rapidly growing mycobacteria, Mycobacterium smegmatis, Mycobacterium fortuitum and Mycobacterium aurum. The vaccine strain, M. bovis and an avirulent strain, H37Ra M. tuberculosis, were also used. Cytotoxicity was assessed using a colorimetric assay against Vero kidney, human hepatoma and murine macrophage cells. Four out of 15 crude acetone extracts showed significant antimycobacterial activity with minimum inhibitory concentration varying from 50 to 100 μg/mL. Searsia undulata had the highest activity against most mycobacteria, followed by Protorhus longifolia. M. fortuitum was the strongest predictor of activity against multidrug-resistant TB (correlation coefficient = 0.65). Bioautography against M. aurum and M. fortuitum worked well as indicators of the Rf values of active compounds yielding strong zones of inhibition."

According to the news reporters, the research concluded: "The leaf extracts of S. undulata and P. longifolia had more than ten different antimycobacterial compounds and had low cytotoxicity with LC50 values above 100 μg/mL."


Our news journalists report that additional information may be obtained by contacting P.N. Kabongo-Kayoka, University of Pretoria, Fac Vet Sci, Dept. of Paraclin Sci, Phytomed Programme, ZA-0110 Onderstepoort, South Africa. Additional authors for this research include J.N. Eloff, C.L. Obi and L.J. Mcgaw.

Keywords for this news article include: Onderstepoort, South Africa, Africa, Mycobacterium, Diagnostics and Screening, Gram-Positive Asporogenous Rods, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Gram-Positive Rods, Mycobacteriaceae, Tuberculosis, University of Pretoria.

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Researchers from University of Queensland Describe Findings in Oral Cancer (Knowledge of oral cancer risk factors amongst high-risk Australians: findings from the LESIONS programme)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Oral Cancer. According to news originating from Herston, Australia, by NewsRx correspondents, research stated, "Patient awareness of risk factors associated with cancer has been shown to increase patient presentation for screening and early detection. This study aimed to identify the level of awareness of oral cancer risk factors in a high risk Australian population."

Financial support for this research came from Queensland Government.

Our news journalists obtained a quote from the research from the University of Queensland, "Participants were recruited from the LESIONS programme between April 2012 and April 2014. Demographics were collected via semi-structured interview. A self-administered questionnaire was provided, listing a number of possible oral cancer risk factors. Participants were requested to indicate their level of agreement on a three-point scale. Bivariate and multivariable analysis was performed. A total of 1498 participants took part in the LESIONS programme and were invited to complete the questionnaire. The most common risk factors thought to be associated with oral cancer were smoking (87.5%), poor oral hygiene (67.9%) and family history (61.1%). Only 50.2% of respondents were aware of alcohol consumption as a risk factor. While most participants were aware of the association between smoking and oral cancer, only half were aware of the significant risk alcohol consumption poses. A significant portion of participants also held a number of inaccurate beliefs in relation to oral cancer risk."

According to the news editors, the research concluded: "These findings can benefit both clinicians and public health policy makers in targeting oral cancer education."


The news correspondents report that additional information may be obtained from F. Dost, The University of Queensland Centre for Clinical Research, Herston, Queensland, Australia. Additional authors for this research include L. Do and C.S Farah.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/adj.12408. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the Australian Dental Journal is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Herston, Oncology, Cancer Risk, Epidemiology, Oral Cancers, Mouth Neoplasms, Risk and Prevention, Australia and New Zealand.

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Researchers from University of Rennes Report Recent Findings in Biotheoretics (Recursive Model Identification for the Evaluation of Baroreflex Sensitivity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Life Science Research - Biotheoretics. According to news reporting out of Rennes, France, by NewsRx editors, research stated, "A method for the recursive identification of physiological models of the cardiovascular baroreflex is proposed and applied to the time-varying analysis of vagal and sympathetic activities."

Financial support for this research came from Canada Research Chair in Neonatal Respiratory Physiology.

Our news journalists obtained a quote from the research from the University of Rennes, "The proposed method was evaluated with data from five newborn lambs, which were acquired during injection of vasodilator and vasoconstrictors and the results show a close match between experimental and simulated signals. The model-based estimation of vagal and sympathetic contributions were consistent with physiological knowledge and the obtained estimators of vagal and sympathetic activities were compared to traditional markers associated with baroreflex sensitivity."

According to the news editors, the research concluded: "High correlations were observed between traditional markers and model-based indices."


Our news journalists report that additional information may be obtained by contacting V. Le Rolle, University of Rennes, LTSI, F-35000 Rennes, France. Additional authors for this research include A. Beuchee, J.P. Praud, N. Samson, P. Pladys and A. Hernandez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10441-016-9295-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rennes, France, Europe, Biotheoretics, Life Science Research, Cardiovascular Physiological Phenomena, Hemodynamics, Baroreflex, University of Rennes.

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Researchers from University of Rome Describe Findings in Epithelial Ovarian Cancer [Brain metastases in patients with EOC: Clinico-pathological and prognostic factors. A multicentric retrospective analysis from the MITO group (MITO 19)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Epithelial Ovarian Cancer. According to news reporting originating from Rome, Italy, by NewsRx correspondents, research stated, "Brain metastases (BM) from epithelial ovarian cancer (EOC) are considered a rare and unfavourable event. There is no consensus regarding the best management of these patients."

Our news editors obtained a quote from the research from the University of Rome, "A multicenter retrospective analysis of patients with BM from EOC treated between 1997 and 2014 in 18 institutions of the MITO (Multicenter Italian Trials in Ovarian cancer) group was conducted. Univariate and multivariate analysis were performed. A total of 174 women were identified as having BM from EOC. The median time interval between primary diagnosis of EOC and occurrence of BM was 26 months (range 2-129 months). The median overall survival from primary EOC diagnosis was 48 months (95% CI 39.5-56.4 months) and from diagnosis of BM was 12 months (95% CI 9.6-14.3 months). The majority of enrolled women (81.7%) were classified as sensitive to platinum-based chemotherapy. Four variables were significantly associated with poor overall survival in multivariate analysis: multiple BM [HR: 1.86 (95% CI: 1.22-2.84)], presence of extracranial disease [HR: 1.77 (95% CI: 1.11-2.83)] age [HR: 1.74 (95% CI: 1.17-2.59)], and monotherapy [HR: 2.57 (95% CI: 1.64-3.86)]. On the contrary, residual tumor at primary surgery, FIGO stage at primary diagnosis and platinum sensitivity were found to have no significant impact on survival from diagnosis of brain lesions. Our results suggest that BM is a rare and late manifestation of EOC, with a 12-month life-span expectation."

According to the news editors, the research concluded: "Multiple approach is a positive independent prognostic factor and should be proposed to carefully selected patients."

For more information on this research see: Brain metastases in patients with EOC: Clinico-pathological and prognostic factors. A multicentric retrospective analysis from the MITO group (MITO 19). Gynecologic Oncology, 2016;143(3):532-538. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.09.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Epithelial Ovarian Cancer, Women's Health, Gynecology, Oncology, University of Rome.
Researchers from University of Rome Detail Findings in Membrane Transport Proteins (Two molecular assays for the rapid and inexpensive detection of GJB2 and GJB6 mutations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Carrier Proteins - Membrane Transport Proteins have been published. According to news reporting originating from Rome, Italy, by NewsRx correspondents, research stated, "The hypoacusia can be classified in two clinical forms: Syndromic (SHL) and Nonsyndromic (NSHL). In particular, the NSHL describes the 70-80% of hypoacusia cases and it is mainly due to genetic factors, which are causative of the deafness at the birth."

Our news editors obtained a quote from the research from the University of Rome, "The genetic hypoacusia presents different inheritance patterns: autosomal dominant (20%), autosomal recessive (80%), X-linked (1%), and mitochondrial (1%), respectively. To date, about 35 deafness-causative genes have been identified and most of them codify for connexin transmembrane proteins. Approximately 1:2500 children with NSHL carries mutations in the GJB2 and GJB6 (13q12) genes, which code for connexin 26 (Cx26) and connexin 30 (C30), respectively. In the Caucasian population, the most common mutations are 35delG, M34T and 167delT, and D13S1830. Given the frequency distribution of the four mutations in the Caucasian population and the pathogenic connection with NSHL, the development of accurate, rapid, and 'low-cost' molecular assays should be strongly encouraged. To this purpose, we set up two different molecular assays (namely the Cx26 and Cx26-30 molecular assays) for the fast and inexpensive detection of 35delG, M34T, 167delT, and D13S1830 mutations. Both the molecular approaches showed to be accurate, sensitive, reproducible, and 'low-cost' alternatives for the proper evaluation of the GJB2 and GJB6 genes, which are causative of NSHL."

According to the news editors, the research concluded: "The Cx26 and Cx26-30 molecular assays can be applied to individual, preconception, prenatal, or postnatal screening for the causative-mutations of NSHL."


The news editors report that additional information may be obtained by contacting R. Cascella, Dept. of Biomedicine and Prevention, School of Medicine, University of Rome Tor Vergata, Rome, Italy. Additional authors for this research include C. Strafella, S. Gambardella, G. Longo, P. Borgiani, F. Sangiuluo, G. Novelli and E. Giardina.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/elps.201500346. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Genetics, Connexins, Carrier Proteins, Membrane Transport Proteins.

Our reports deliver fact-based news of research and discoveries from around the
Researchers from University of Saarland Describe Findings in Alzheimer Disease (Tocotrienol Affects Oxidative Stress, Cholesterol Homeostasis and the Amyloidogenic Pathway in Neuroblastoma Cells: Consequences for Alzheimer's Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been published. According to news reporting out of Homburg, Germany, by NewsRx editors, research stated, "One of the characteristics of Alzheimer's disease (AD) is an increased amyloid load and an enhanced level of reactive oxidative species (ROS). Vitamin E has known beneficial neuroprotective effects, and previously, some studies suggested that vitamin E is associated with a reduced risk of AD due to its antioxidative properties."

Our news journalists obtained a quote from the research from the University of Saarland, "However, epidemiological studies and nutritional approaches of vitamin E treatment are controversial. Here, we investigate the effect of alpha-tocotrienol, which belongs to the group of vitamin E, on AD-relevant processes in neuronal cell lines. In line with the literature, alpha-tocotrienol reduced the ROS level in SH-SY5Y cells. In the presence of tocotrienols, cholesterol and cholesterol esters, which have been shown to be risk factors in AD, were decreased. Besides the unambiguous positive effects of tocotrienol, amyloid-beta (A beta) levels were increased accompanied by an increase in the activity of enzymes responsible for A beta production. Proteins and gene expression of the secretases and their components remained unchanged, whereas tocotrienol accelerates enzyme activity in cell-free assays. Besides enhanced A beta production, tocotrienols inhibited A beta degradation in neuro 2a (N2a)-cells."

According to the news editors, the research concluded: "Our results might help to understand the controversial findings of vitamin E studies and demonstrate that besides the known positive neuroprotective properties, tocotrienols also have negative characteristics with respect to AD."

For more information on this research see: Tocotrienol Affects Oxidative Stress, Cholesterol Homeostasis and the Amyloidogenic Pathway in Neuroblastoma Cells: Consequences for Alzheimer's Disease. *International Journal of Molecular Sciences, 2016;17 (11):752-769. International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting M.O.W. Grimm, University of Saarland, Deutsch Inst DemenzPravent DIDP, D-66421 Homburg, Germany. Additional authors for this research include L. Regner, J. Mett, C.P. Stahllmann, P. Schorr, C. Nelke, O. Streidenberger, H. Stoetzel, J. Winkler, S.R. Zaidan, A. Thiel, K. Endres, H.S. Grimm, D.A. Volmer and T. Hartmann.

Keywords for this news article include: Homburg, Germany, Europe, Central Nervous System Diseases and Conditions, Vitamin E, Epidemiology, Risk and Prevention, Neurodegenerative Diseases and Conditions, Brain Diseases and Conditions, Alzheimer Disease, Neuroblastomas, Cholesterol, Tauopathies, Hematology, Oncology, Genetics, Dementia, University of Saarland.

Our reports deliver fact-based news of research and discoveries from around the
Researchers from University of Saarland Discuss Findings in Myeloid Cells [Induction of Glucocorticoid-induced Leucine Zipper (GILZ) Contributes to Anti-inflammatory Effects of the Natural Product Curcumin in Macrophages]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Myeloid Cells. According to news reporting originating from Saarbrucken, Germany, by NewsRx correspondents, research stated, "GILZ (glucocorticoid-induced leucine zipper) is inducible by glucocorticoids and plays a key role in their mode of action. GILZ attenuates inflammation mainly by inhibition of NF-kappa B and mitogen-activated protein kinase activation but does not seem to be involved in the severe side effects observed after glucocorticoid treatment."

Financial support for this research came from Deutsche Forschungsgemeinschaft.

Our news editors obtained a quote from the research from the University of Saarland, "Therefore, GILZ might be a promising target for new therapeutic approaches. The present work focuses on the natural product curcumin, which has previously been reported to inhibit NF-kappa B. GILZ was inducible by curcumin in macrophage cell lines, primary human monocyte-derived macrophages, and murine bone marrow-derived macrophages. The up-regulation of GILZ was neither associated with glucocorticoid receptor activation nor with transcriptional induction or mRNA or protein stabilization but was a result of enhanced translation. Because the GILZ 3'-UTR contains AU-rich elements (AREs), we analyzed the role of the mRNA-binding protein HuR, which has been shown to promote the translation of ARE-containing mRNAs. Our results suggest that curcumin treatment induces HuR expression. An RNA immunoprecipitation assay confirmed that HuR can bind GILZ mRNA. In accordance, HuR overexpression led to increased GILZ protein levels but had no effect on GILZ mRNA expression. Our data employing siRNA in LPS-activated RAW264.7 macrophages show that curcumin facilitates its anti-inflammatory action by induction of GILZ in macrophages. Experiments with LPS-activated bone marrow-derived macrophages from wild-type and GILZ knock-out mice demonstrated that curcumin inhibits the activity of inflammatory regulators, such as NF-kappa B or ERK, and subsequent TNF-kappa production via GILZ."

According to the news editors, the research concluded: "In summary, our data indicate that HuR-dependent GILZ induction contributes to the anti-inflammatory properties of curcumin."


The news editors report that additional information may be obtained by contacting A.K. Kiemer, University of Saarland, Dept. of Pharm, Pharmaceut Biol, D-66041 Saarbrucken, Germany. Additional authors for this research include N. Hachenthal, J.V. Valbuena-Perez, S.
Researchers from University of Sao Paulo Discuss Findings in Human Genetics (Twinning and Multiple Birth Rates According to Maternal Age in the City of Sao Paulo, Brazil: 2003-2014)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Genetics - Human Genetics.

According to news reporting originating in Sao Paulo, Brazil, by NewsRx journalists, research stated, "The present study investigates the twinning rates in the city of Sao Paulo, Brazil, during the years 2003-2014. The data were drawn from the Brazilian Health Department database of Sistema de Informacoes de Nascidos Vivos de Sao Paulo-SINASC (Live Births Information System of Sao Paulo)."

The news reporters obtained a quote from the research from the University of Sao Paulo, "In general, more information is available on the incidence of twinning in developed countries than in developing ones. A total of 24,589 twin deliveries and 736 multiple deliveries were registered in 140 hospitals of Sao Paulo out of a total of 2,056,016 deliveries during the studied time period. The overall average rates of singleton, twin, and multiple births per 1,000 maternities (%) were 987.43, 11.96 (dizygotic (DZ) rate was 7.15 and monozygotic (MZ) 4.42), and 0.36, respectively. We further regressed maternal age and historical time period on percentage of singleton, twin, and multiple birth rates. Our results indicated that maternal age strongly positively predicted twin and multiple birth rates, and negatively predicted singleton birth rates. The historical time period also positively, although weakly, predicted twin birth rates, and had no effect on singleton or multiple birth rates. Further, after applying Weinberg's differential method, we computed regressions separately for the estimated frequencies of DZ and MZ twin rates. DZ twinning was strongly positively predicted by maternal age and, to a smaller degree, by time period, while MZ twinning increased marginally only with higher maternal age. Factors such as increasing body mass index or air pollution can lead to the slight historical increase in DZ twinning rates. Importantly, consistent with previous cross-cultural and historical research, our results support the existence of an age-dependent physiological mechanism that leads to a strong increase in twinning and multiple births, but not singleton births, among mothers of higher age categories."

According to the news reporters, the research concluded: "From the ultimate
perspective, twinning and multiple births in later age can lead to higher individual reproductive success near the end of the reproductive career of the mother."


Our news correspondents report that additional information may be obtained by contacting J.V. Valentova, University of Sao Paulo, Inst Psychol, Dept. of Expt Psychol, BR-05508030 Sao Paulo, Brazil. Additional authors for this research include E.D. Fernandes, T.G. Acquaviva, T.K. Lucci, L.C. Kiehl, M.A.C. Varella, N.L. Segal and J.V. Valentova.

Keywords for this news article include: Sao Paulo, Brazil, South America, Human Genetics, Genetics, University of Sao Paulo.

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**Oncology - Pituitary Cancer**

**Researchers from University of Sao Paulo Report New Studies and Findings in the Area of Pituitary Cancer (P27/CDKN1B Translational Regulators in Pituitary Tumorigenesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Pituitary Cancer have been presented. According to news reporting originating in Sao Paulo, Brazil, by NewsRx journalists, research stated, "In pituitary tumors, P27(CDKN1B) is underexpressed. We aimed to clarify whether translational regulation underlies this phenomenon."

The news reporters obtained a quote from the research from the University of Sao Paulo, "This study evaluated the expression of P27/CDKN1B, its targets (CCNE1, CDK2) and translational regulators (DKC1, RPS13, miR221, miR222) and screened for DKC1 variants in sporadic pituitary adenomas. Samples were obtained during transsphenoidal surgery from 48 patients with pituitary adenomas: 10 ACTH-, 17 GH-secreting, and 21 nonfunctioning (NFPA). The control group comprised 7 normal pituitaries (NP) obtained during autopsies. Gene expression was assessed by RT-PCR and protein expression by immunohistochemistry. The 15 exons of DKC1 were sequenced. P27 protein underexpression was observed in all adenomas subtypes (p = 0.001). CCNE1 mRNA (p = 0.01) overexpression, but not protein, was observed in NFPA. No differential gene expression among groups was observed in CDKN1B regulators RPS13 (p = 0.23) and DKC1 (p = 0.34). The expression of miR221 and miR222 was similar among tumors and NP. Frequent DKC1 variants (SNPs) were found in exon 14 and in the 3'-UTR in similar frequency to NCBI-dsSNP databases. We also observed rare DKC1 variants in 11% of the studied tumor samples, indicating a high prevalence in pituitary adenomas, however, in silico studies failed to indicate deleterious effects. The high frequency of DKC1 variants may influence, in some extent, pituitary tumors development, without clear role in its tumorigenesis."

According to the news reporters, the research concluded: "Our data reinforce the P27 underexpression in pituitary adenomas and provide further evidence of the post-translational
machinery involvement, although this phenomenon cannot be explained either by mis-expression of P27 translational regulators - DKC1, RPS13, miR221, miR222 - or directly by DKC1 mutations."

For more information on this research see: P27/CDKN1B Translational Regulators in Pituitary Tumorigenesis. *Hormone and Metabolic Research*, 2016;48(12):840-846. *Hormone and Metabolic Research* can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany. (Thieme - www.thieme.com)

Our news correspondents report that additional information may be obtained by contacting C.S. Martins, University of Sao Paulo, Ribeirao Preto Med Sch, Dept. of Internal Med, BR-14049900 Sao Paulo, Brazil. Additional authors for this research include R.C. Camargo, F.P. Saggioro, L. Neder, H.R. Machado, A.C. Moreira and M. de Castro.

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Keywords for this news article include: Sao Paulo, Brazil, South America, Pituitary Cancer, Endocrinology, Adenomas, Genetics, Oncology, University of Sao Paulo.

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**Drug Administration Routes**

**Researchers from University of Seoul Report Details of New Studies and Findings in the Area of Drug Administration Routes [Induction of Flavin-Containing Monooxygenase in Mice by Oral Administration of Phellinus baumii (Agaricomycetes) Extract]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drug Administration Routes. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Phellinus baumii is a yellow mushroom long used in alternative medicine in Korea and other central Asian countries. To identify genes affected by a single or 7-day oral administration of a water extract of Ph.

Our news editors obtained a quote from the research from the University of Seoul, "Baumii, mouse liver tissue was analyzed using microarrays. The results showed that 8 and 23 genes were upregulated and 3 and 11 genes downregulated more than 3-fold by single and multiple oral administrations of 100 mg/kg PBE, respectively. Among the upregulated genes, the expression of 3 flavin-containing monooxygenase (Fmo) family genes, Fmo2-4, was upregulated in a concentration-dependent manner. The microarray analysis also showed that single and multiple administrations of PBE increased Fmo3 expression in the mouse liver by 5.1- and 17.6-fold, respectively. To validate the Fmo expression microarray data, polymerase chain reaction was used to confirm the induction of Fmo subclass genes. Mice were orally administered Ph. Baumii extract (PBE), Ph. Baumii water, or Ph. Baumii beta-glucan fraction (PBG) for 7 days, and induction of the expression of the Fmo subclasses in the liver, lung, and kidney was investigated. Fmo2, Fmo3, and Fmo4 expression was induced by both PBE and PBG in the lung, liver, and kidney, respectively. However, no induction of Fmo1 and Fmo5 was detected. To investigate the metabolic acceleration of xenobiotic by PBE, carbendazim was orally administered to mice and its clearance from the blood analyzed. High-performance liquid
chromatography analysis showed accelerated clearance of serum carbendazim by oral administration of PBE for 7 days, as evidenced by the reduced peak plasma concentration, time to reach the peak plasma concentration, and area under the curve values. Moreover, PBE increased the carbendazim clearance rate at the higher concentration. These data indicate that oral administration of PBE resulted in modulation of gene expression: PBE was responsible for the induction of Fmo2, Fmo3, and Fmo4 expression.

According to the news editors, the research concluded: "PBE also accelerated the metabolic clearance of carbendazim in vivo and so could be applied to the detoxification of xenobiotics such as drugs, pesticides, and nicotine."

For more information on this research see: Induction of Flavin-Containing Monooxygenase in Mice by Oral Administration of Phellinus baumii (Agaricomycetes) Extract. *International Journal of Medicinal Mushrooms*, 2016;18(9):793-806. *International Journal of Medicinal Mushrooms* can be contacted at: Begell House Inc, 50 North St, Danbury, CT 06810, USA.

The news editors report that additional information may be obtained by contacting H.W. Kim, Univ Seoul, Dept. of Life Sci, Seoul 02504, South Korea. Additional authors for this research include B.S. Park and H.W. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1615/IntJMedMushrooms.v18.i9.40. This DOI is a link to an online electronic document that is either free or for purchase.

**Keywords for this news article include:** Seoul, South Korea, Asia, Drug Administration Routes, Xenobiotics, Genetics, Enzymes and Coenzymes, Oral Administration, Monooxygenase, University of Seoul.

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**Researchers from University of Shandong Describe Findings in Biological Tumor Markers (Reference Intervals of Alpha-Fetoprotein and Carcinoembryonic Antigen in the Apparently Healthy Population)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biological Factors - Biological Tumor Markers is the subject of a report. According to news reporting originating from Shandong, People's Republic of China, by NewsRx correspondents, research stated, "The aim of this study was to calculate 95% reference intervals and double-sided limits of serum alpha-fetoprotein (AFP) and carcinoembryonic antigen (CEA) according to the CLSI EP28-A3 guideline. Serum AFP and CEA values were measured in samples from 26 000 healthy subjects in the Shuyang area receiving general health checkups."

Our news editors obtained a quote from the research from the University of Shandong, "The 95% reference intervals and upper limits were calculated by using MedCalc. We provided continuous reference intervals from 20 years old to 90 years old for AFP and CEA. The reference intervals were: AFP, 1.31-7.89 ng/ml (males) and 1.01-7.10 ng/ml (females); CEA, 0.51-4.86 ng/ml (males) and 0.35-3.45ng/ml (females). AFP and CEA were significantly positively correlated with age in both males (r=0.196 and r=0.198) and females (r=0.121 and r=0.197). Different races or populations and different detection systems may result in different
According to the news editors, the research concluded: "Continuous reference intervals of age changes are more accurate than age groups."

For more information on this research see: Reference Intervals of Alpha-Fetoprotein and Carcinoembryonic Antigen in the Apparently Healthy Population. *Medical Science Monitor*, 2016;22():4875-4880. *Medical Science Monitor* can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

The news editors report that additional information may be obtained by contacting X.X. Guo, Shandong Univ Tradit Chinese Med, Affiliated Hosp, Dept. of Lab Med, Jinan, Shandong, People's Republic of China. Additional authors for this research include X.X. Guo, X.B. Ma and G.M. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.901861. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Carcinoembryonic Antigens, Biological Tumor Markers, Cell Adhesion Molecules, Biological Factors, alpha-Fetoproteins, Neoplasm Antigens, Membrane Proteins, Fetal Proteins, Cell Research, Glycoproteins, Immunology, Oncology, Cancer, University of Shandong.

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**Immunology - Lymphoid Tissue**

**Researchers from University of South Australia Describe Findings in Lymphoid Tissue (Toward Intraoperative Detection of Disseminated Tumor Cells in Lymph Nodes with Silicon Nanowire Field Effect Transistors)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Lymphoid Tissue have been published. According to news reporting from Mawson Lakes, Australia, by NewsRx journalists, research stated, "Within an hour, as little as one disseminated tumor cell (DTC) per lymph node can be quantitatively detected using an intraoperative biosensing platform based on silicon nanowire field-effect transistors (SiNW FET). It is also demonstrated that the integrated biosensing platform is able to detect the presence of circulating tumor cells (CTCs) in the blood of colorectal cancer patients."

Funders for this research include German Academic Exchange Service, National Health and Medical Research Council, Australian Technology Network of Universities.

The news correspondents obtained a quote from the research from the University of South Australia, "The presence of DTCs in lymph nodes and CTCs in peripheral blood is highly significant as it is strongly associated with poor patient prognosis. The SiNW FET sensing platform out-performed in both sensitivity and rapidity not only the current standard method based on pathological examination of tissue sections but also the emerging clinical gold standard based on molecular assays. The possibility to achieve accurate and highly sensitive analysis of the presence of DTCs in the lymphatics within the surgery time frame has the potential to spare cancer patients from an unnecessary secondary surgery, leading to reduced..."
patient morbidity, improving their psychological wellbeing and reducing time spent in hospital."

According to the news reporters, the research concluded: "This study demonstrates the potential of nanoscale field-effect technology in clinical cancer diagnostics."


Our news journalists report that additional information may be obtained by contacting D.P. Tran, Future Industries Institute, University of South Australia, Mawson Lakes Campus, Mawson Lakes, South Australia 5095, Australia. Additional authors for this research include M.A. Winter, B. Wolfrum, R. Stockmann, C.T. Yang, M. Pourhassan-Moghaddam, A. Offenhausser and B. Thierry.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.5b07136. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Surgery, Oncology, Immunology, Lymph Nodes, Mawson Lakes, Nanotechnology, Lymphoid Tissue, Silicon Nanowires, Emerging Technologies, Hemic and Immune Systems, Australia and New Zealand.

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**Drugs and Therapies - Clinical Pharmacology**

**Researchers from University of South Florida Describe Findings in Clinical Pharmacology (Addressing potential role of magnesium dyshomeostasis to improve treatment efficacy for epilepsy: A reexamination of the literature)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Clinical Pharmacology are discussed in a new report. According to news reporting from Tampa, Florida, by NewsRx journalists, research stated, "Magnesium (Mg(2+)) is an abundant mineral in the body serving many biochemical functions. Magnesium supplementation has been shown to raise seizure threshold in animal and human studies, but the etiological contribution of magnesium deficiency to the onset and maintenance of epilepsy, as well as the degree to which it impacts antiepileptic drug efficacy, remains poorly understood."

The news correspondents obtained a quote from the research from the University of South Florida, "This may be due, at least in part, to the inherent limitations of commonly used serum levels as a measure of functional magnesium status, as well as insufficient data regarding relative bioavailabilities of various magnesium salts and chelates for use with humans. To date, 1 randomized clinical trial has been conducted assessing Mg(2+) supplementation in epilepsy, and findings yielded promising results. Yet a notable dearth in the literature remains, and more studies are needed. To better understand the potential role of magnesium deficiency as a causal factor in epilepsy, more convenient and accurate measurement methods should to be developed and employed in randomized, controlled trials of oral magnesium supplementation in epilepsy."

According to the news reporters, the research concluded: "Findings from such studies have the potential to facilitate far-reaching clinical and economic improvements in
epilepsy treatment standards."

For more information on this research see: Addressing potential role of magnesium dyshomeostasis to improve treatment efficacy for epilepsy: A reexamination of the literature. Journal of Clinical Pharmacology, 2015;56(3):260-5. Journal of Clinical Pharmacology can be contacted at: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com/; Journal of Clinical Pharmacology - jcp.sagepub.com)

Our news journalists report that additional information may be obtained by contacting K.E. Osborn, Dept. of Psychiatry & Behavioral Neurosciences, University of South Florida Morsani College of Medicine, Tampa, FL, United States. Additional authors for this research include R.D. Shytle, A.T. Frontera, J.R. Soible and M.R Schoenberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcph.626. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Clinical Pharmacology is: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Tampa, Florida, Magnesium, Light Metals, United States, Article Review, Drugs and Therapies, Clinical Pharmacology, North and Central America.

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Genetics - Human Genetics

Researchers from University of Southern Denmark Report Recent Findings in Human Genetics (Change in Depression Symptomatology and Cognitive Function in Twins: A 10-Year Follow-Up Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics - Human Genetics is now available. According to news reporting originating in Odense, Denmark, by NewsRx journalists, research stated, "A complex interrelation exists between change in depression symptomatology and cognitive decline. Studies indicate either that depression is a direct risk factor for cognitive change over time, or vice versa."

The news reporters obtained a quote from the research from the University of Southern Denmark, "Longitudinal twin studies provide the possibility to unravel cause and effect of correlated traits. Here, we have applied twin modeling approaches to shed light on the genetic correlation between both level and change of depression symptomatology and cognitive functioning, and to further explore the bidirectionality of any such correlation using assessments of both phenotypes at two occasions 10 years apart. The study included 2,866 Danish twins with a mean age of 56.8 years at intake (range: 45-68 years). Of these, 1,267 were intact pairs. A total number of 1,582 twins (55%), of whom 557 were intact pairs, participated in the follow-up survey. We found stable cross-sectional heritability estimates of approximately 60% for general cognitive abilities and 30% for affective depressive symptoms. There was a considerable decline in the mean cognitive performance over 10 years, whereas the mean affective depression symptoms score was stable and with no genetic contribution to any individual change. Additionally, we saw a small but significant cross-trait correlation at both occasions (-0.11 and -0.09, respectively), but cross-trait cross-occasion analysis revealed no evidence that either of the
According to the news reporters, the research concluded: "Thus, our study was not able to detect any causal association between change in depressive symptomatology and cognitive decline in middle-aged and elderly people over a 10-year interval."


Our news correspondents report that additional information may be obtained by contacting I. Petersen, The Danish Twin Registry, Unit of Epidemiology, Biostatistics and Biodemography, Institute of Public Health, University of Southern Denmark, Odense, Denmark. Additional authors for this research include M. McGue, Q. Tan, K. Christensen and L. Christiansen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/thg.2016.3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Odense, Europe, Denmark, Human Genetics, Risk and Prevention.

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**Stem Cell Research - Hematopoietic Stem Cells**

**Researchers from University of Strasbourg Report Findings in Hematopoietic Stem Cells (Origin of the hematopoietic system in the human embryo)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Stem Cell Research - Hematopoietic Stem Cells have been presented. According to news reporting originating in Strasbourg, France, by NewsRx journalists, research stated, "The continuous generation of blood cells throughout life relies on the existence of hematopoietic stem cells (HSC) generated during embryogenesis. Given the importance of HSC transplantation in cell-based therapeutic approaches, considerable efforts have been made toward understanding the developmental origins of embryonic HSC."

Financial supporters for this research include Etablissement Francais du Sang, Institut National de la Sante et de la Recherche Medicale, Agence Nationale de la Recherche, Fondation ARC pour la Recherche sur le Cancer.

The news reporters obtained a quote from the research from the University of Strasbourg, "Adult-type HSC are first generated in the aorta-gonad-mesonephros (AGM) region between days 27 and 40 of human embryonic development, but an elusive blood-forming potential is present earlier in the underlying splanchnopleura. It is relatively well accepted that the HSC emerge in the AGM through a hemogenic endothelium, but the direct precursor of this cell type remains to be clearly identified. This review is intended to summarize the recent advances made to understand the origins of hematopoietic stem cells in the early human embryo."

According to the news reporters, the research concluded: "In addition, we discuss in detail the discovery of the angiotensin-converting enzyme (ACE) as a novel marker of human
HSC and of prehematopoietic precursors inside the embryo."


Our news correspondents report that additional information may be obtained by contacting M. Tavian, Univ Strasbourg, Etab Francais Sang ALCA, INSERM, UMR S949, F-67065 Strasbourg, France. Additional authors for this research include R. El Omar and M. Tavian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/1873-3468.12389. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Strasbourg, France, Europe, Stem Cell Research, Article Review, Hemic and Immune Systems, Hematopoietic Stem Cells, Hematopoietic System, Bone Marrow Cells, Hematology, University of Strasbourg.

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Materials Research - Applied Materials & Interfaces

Researchers from University of Sydney Detail Findings in Applied Materials & Interfaces (Fabrication of Semiordered Nanopatterned Diamond-like Carbon and Titania Films for Blood Contacting Applications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Materials Research - Applied Materials & Interfaces are discussed in a new report. According to news reporting from Sydney, Australia, by NewsRx journalists, research stated, "Biomaterials with the ability to interface with, but not activate, blood components are essential for a multitude of medical devices. Diamond-like carbon (DLC) and titania (TiO2) have shown promise for these applications; however, both support platelet adhesion and activation."

Financial support for this research came from Australian Research Council.

The news correspondents obtained a quote from the research from the University of Sydney, "This study explored the fabrication of nanostructured DLC and TiO2 thin film coatings using a block copolymer deposition technique that produced semiordered nanopatterns with low surface roughness (5-8 nm Rrms). These surfaces supported fibrinogen and plasma protein adsorption that predominantly adsorbed between the nanofeatures and reduced the overall surface roughness. The conformation of the adsorbed fibrinogen was altered on the nanopatterned surfaces as compared with the planar surfaces to reveal higher levels of the platelet binding region. Planar DLC and TiO2 coatings supported less platelet adhesion than nanopatterned DLC and TiO2. However, platelets on the nanopatterned DLC coatings were less spread indicating a lower level of platelet activation on the nanostructured DLC coatings compared with the planar DLC coatings."

According to the news reporters, the research concluded: "These data indicated that nanostructured DLC coatings may find application in blood contacting medical devices in the

Our news journalists report that additional information may be obtained by contacting D. Nandakumar, Biomedical Engineering, School of AMME, University of Sydney, Sydney, New South Wales 2007, Australia. Additional authors for this research include A. Bendavid, P.J. Martin, K.D. Harris, A.J. Ruys and M.S Lord.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.5b11614. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Materials Research, Australia and New Zealand, Applied Materials & Interfaces.

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Heart Disorders and Diseases - Sinus Tachycardia

Researchers from University of Sydney Detail Findings in Sinus Tachycardia (Inappropriate sinus tachycardia: focus on ivabradine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Sinus Tachycardia are discussed in a new report. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "Inappropriate sinus tachycardia (IST) is an incompletely understood condition, characterised by an elevation in heart rate (HR) accompanied by wide ranging symptoms in the absence of an underlying physiological stimulus. The condition often takes a chronic course with significant adverse effects on quality of life."

The news reporters obtained a quote from the research from the University of Sydney, "Currently, there is no effective treatment for IST. Beta-blockers, generally considered the cornerstone of treatment, are often ineffective and poorly tolerated. Ivabradine is a novel sinus node I-f funny current' inhibitor, which reduces the HR. It has been approved for the treatment of beta-blocker refractory chronic systolic heart failure and chronic stable angina but more recently has shown promise in the treatment of IST."

According to the news reporters, the research concluded: "This review provides an overview of IST prevalence and mechanisms followed by an examination of the evidence for the role and efficacy of ivabradine in the treatment of IST."


Our news correspondents report that additional information may be obtained by contacting A.C. Keech, University of Sydney, NHMRC Clin Trials Center, Sydney, NSW 2006, Australia. Additional authors for this research include J.R. Fulcher, M.J. Kilborn and A.C. Keech.
Researchers from University of Sydney Provide Details of New Studies and Findings in the Area of Mental Health (The Mental Health of British Adults with Intellectual Impairments Living in General Households)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Mental Health have been presented. According to news reporting from Sydney, Australia, by NewsRx journalists, research stated, "People with intellectual disability or borderline intellectual functioning may have poorer mental health than their peers. The present authors sought to (i) estimate the risk of poorer mental health among British adults with and without intellectual impairments and (ii) estimate the extent to which any between-group differences in mental health may reflect between-group differences in rates of exposure to common social determinants of poorer health."

Financial support for this research came from Public Health England.

The news correspondents obtained a quote from the research from the University of Sydney, "The present authors undertook secondary analysis of confidentialized unit records collected in Wave 3 of Understanding Society. British adults with intellectual impairments living in general households are at significantly increased risk of potential mental health problems than their non-disabled peers (e.g. GHQ Caseness OR = 1.77, 95% CI (1.25-2.52), P< 0.001). Adjusting for between-group differences in age, gender and indicators of socio-economic position eliminated this increased risk [GHQ Caseness adjusted OR = 1.06, 95% CI (0.73-1.52), n.s]. Our analyses are consistent with the hypothesis that the increased risk of poor mental health among people with intellectual impairments may be attributable to their poorer living conditions rather than their intellectual impairments per se."

According to the news reporters, the research concluded: "Greater attention should be given to understanding and addressing the impact of exposure to common social determinants of mental health among marginalized or vulnerable groups."


Our news journalists report that additional information may be obtained by contacting E. Emerson, University of Sydney, Center Disabil Res & Policy, Sydney, NSW, Australia. Additional authors for this research include E. Emerson, J. Robertson and S. Baines.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jar.12232. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New
Researchers from University of Sydney Report Details of New Studies and Findings in the Area of Type 2 Diabetes (Impact of Perturbed Pancreatic beta-Cell Cholesterol Homeostasis on Adipose Tissue and Skeletal Muscle Metabolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are presented in a new report. According to news originating from Sydney, Australia, by NewsRx correspondents, research stated, "Elevated pancreatic beta-cell cholesterol levels impair insulin secretion and reduce plasma insulin levels. This study establishes that low plasma insulin levels have a detrimental effect on two major insulin target tissues: adipose tissue and skeletal muscle."

Our news journalists obtained a quote from the research from the University of Sydney, "Mice with increased beta-cell cholesterol levels were generated by conditional deletion of the ATP-binding cassette transporters, ABCA1 and ABCG1, in beta-cells (beta-DKO mice). Insulin secretion was impaired in these mice under basal and high-glucose conditions, and glucose disposal was shifted from skeletal muscle to adipose tissue. The beta-DKO mice also had increased body fat and adipose tissue macrophage content, elevated plasma interleukin-6 and MCP-1 levels, and decreased skeletal muscle mass. They were not, however, insulin resistant. The adipose tissue expansion and reduced skeletal muscle mass, but not the systemic inflammation or increased adipose tissue macrophage content, were reversed when plasma insulin levels were normalized by insulin supplementation. These studies identify a mechanism by which perturbation of beta-cell cholesterol homeostasis and impaired insulin secretion increase adiposity, reduce skeletal muscle mass, and cause systemic inflammation."

According to the news editors, the research concluded: "They further identify beta-cell dysfunction as a potential therapeutic target in people at increased risk of developing type 2 diabetes."

For more information on this research see: Impact of Perturbed Pancreatic beta-Cell Cholesterol Homeostasis on Adipose Tissue and Skeletal Muscle Metabolism. Diabetes, 2016;65(12):3610-3620. Diabetes can be contacted at: Amer Diabetes Assoc, 1701 N Beauregard St, Alexandria, VA 22311-1717, USA. (Elsevier - www.elsevier.com; Diabetes - www.journals.elsevier.com/diabetes-and-metabolic-syndrome-clinical-research-and-reviews/)


Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Mononuclear Phagocyte System, Obesity and Diabetes, Risk and Prevention, Gastroenterology, Peptide Proteins, Peptide Hormones, Type 2 Diabetes, Inflammation,
Researchers from University of Tartu Report Findings in Escherichia coli (Plasmid with Colistin Resistance Gene mcr-1 in Extended-Spectrum-beta-Lactamase-Producing Escherichia coli Strains Isolated from Pig Slurry in Estonia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Escherichia coli. According to news reporting from Tartu, Estonia, by NewsRx journalists, research stated, "A plasmid carrying the colistin resistance gene mcr-1 was isolated from a pig slurry sample in Estonia."

The news correspondents obtained a quote from the research from the University of Tartu, "The gene was present on a 33,311-bp plasmid of the IncX4 group. mcr-1 is the only antibiotic resistance gene on the plasmid, with the other genes mainly coding for proteins involved in conjugative DNA transfer (taxA, taxB, taxC, trbM, and the pilX operon)."

According to the news reporters, the research concluded: "The plasmid pESTMCR was present in three phylogenetically very different Escherichia coli strains, suggesting that it has high potential for horizontal transfer."


Our news journalists report that additional information may be obtained by contacting T. Tenson, University of Tartu, Inst Technol, Tartu, Estonia. Additional authors for this research include K. Telling, M. Laht, P. Kalmus, I. Lutsar, M. Remm, V. Kisand and T. Tenson.

Keywords for this news article include: Tartu, Estonia, Europe, Pore Forming Cytotoxic Proteins, Gram-Negative Bacteria, Enzymes and Coenzymes, Lactamase, Genetics, Enterobacteriaceae, Membrane Proteins, Escherichia coli, Proteobacteria, Polymyxins, Colistin, University of Tartu.

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Researchers from University of Tehran Detail New Studies and Findings in the Area of Clinical Trials and Studies (Minocycline combination therapy with fluvoxamine in moderate-to-severe obsessive-compulsive disorder: A placebo-controlled, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting out of Tehran, Iran, by NewsRx editors, research stated, "Several lines of evidence implicate glutamatergic dysfunction in the pathophysiology of obsessive-compulsive disorder (OCD), presenting this neurotransmitter as a target for the development of novel pharmacotherapy. The objective of this study was to assess the efficacy of minocycline as an augmentative agent to fluvoxamine in the treatment of patients with OCD."

Our news journalists obtained a quote from the research from the University of Tehran, "One hundred and two patients with the diagnosis of moderate-to-severe OCD were recruited to this study. A randomized double-blind trial was designed and patients received either L-carnosine or placebo as adjuvant to fluvoxamine for 10 weeks. The patients randomly received either minocycline 100 mg twice per day or placebo for 10 weeks. All patients received fluvoxamine (100 mg/day) for the first 4 weeks, followed by 200 mg/day for the rest of the trial, regardless of their treatment groups. Participants were evaluated using the Yale-Brown Obsessive Compulsive Scale (Y-BOCS). The main outcome measure was to assess the efficacy of minocycline in improving the OCD symptoms. General linear model repeated measures demonstrated significant effect for time x treatment interaction on the Y-BOCS total scores, F (1.49, 137.93) = 7.1, P = 0.003, and Y-BOCS Obsession subscale score, F(1.54, 141.94) = 9.72, P = 0.001, and near significant effect for the Y-BOCS Compulsion subscale score, F(1.27, 117.47) = 2.92, P = 0.08. A significantly greater rate of partial and complete response was observed in the minocycline group (P < 0.001). The frequency of side-effects was not significantly different between the treatment arms."

According to the news editors, the research concluded: "The results of this study suggest that minocycline could be a tolerable and effective adjuvant in the management of patients with OCD."


Our news journalists report that additional information may be obtained by contacting S. Akhondzadeh, Univ Tehran Med Sci, Roozbeh Hosp, Psychiat Res Center, Tehran, Iran. Additional authors for this research include Z. Abrishami, A. Zeinoddini, F. Rahiminejad, M. Sadeghi, M.R. Najjarzadegan, M.R. Shalbafan and S. Akhondzadeh.

Keywords for this news article include: Tehran, Iran, Asia, Selective Serotonin Reuptake Inhibitors, Obsessive-Compulsive Disorder, Clinical Trials and Studies, Psychotherapeutic Agents, Drugs and Therapies, Combination Therapy, Fluvoxamine Therapy, Clinical Research, Antidepressants, Antinfectives, Mental Health, Tetracyclines, Minocycline, Antibiotics, Antianxiety, Oximes, University of Tehran.
Researchers from University of Tehran Report on Findings in Acute Lymphoblastic Leukemia (Inhibition of tachykinin NK1 receptor using aprepitant induces apoptotic cell death and G1 arrest through Aktp53 axis in pre-B acute lymphoblastic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Acute Lymphoblastic Leukemia are discussed in a new report. According to news originating from Tehran, Iran, by NewsRx correspondents, research stated, "Increasing number of genetic and cancer biology studies indicated a prominent role for tachykinin NK1 receptor (Will) in cancer cell growth and survival. Considering the fact that neoplastic lymphoid precursors in acute lymphoblastic leukemia (ALL) carry a three- to four-fold NK1R expression as compared to normal lymphocytes, using Will antagonist seems to be noteworthy in the treatment of ALL patients."

Our news journalists obtained a quote from the research from the University of Tehran, "In this study, we found that inhibition of Will with aprepitant, a selective high-affinity antagonist of the human NKiR, exerts cytotoxic and anti-proliferative effects against pre-B ALL-derived Nalm-6 cells either as single drug or in combination with doxorubicin. Our data showed that treatment of the cells with the inhibitor resulted in apoptotic cell death, at least partly, through abrogation of PI3K/Akt pathway, as revealed by the reduction of phospho/total Akt ratio. In agreement with the inhibitory effect on Akt, we also found that aprepitant increased the expression level of p21 and p27, which in turn leads to the induction of G1 cell cycle arrest."

According to the news editors, the research concluded: "Overall, this study recommends mechanistic pathways by which inhibition of Will can augment apoptotic cell death through a plausible p53-dependent pathway rather than NF-kappa B-dependened mechanism in pre-B ALL cells; however, further studies are needed to better characterize the application of NK1R inhibition in clinical cancer treatment."

For more information on this research see: Inhibition of tachykinin NK1 receptor using aprepitant induces apoptotic cell death and G1 arrest through Aktp53 axis in pre-B acute lymphoblastic leukemia cells. European Journal of Pharmacology, 2016;791():274-283. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news correspondents report that additional information may be obtained from S. Ahmadian, Univ Tehran, Inst Biochem & Biophys, Tehran, Iran. Additional authors for this research include D. Bashash, S. Ahmadian, A. Safaroghli-Azar, K. Alimoghaddam, A. Ghavamzadeh and S.H. Ghaffari.

Keywords for this news article include: Tehran, Iran, Asia, Intercellular Signaling Peptides and Proteins, Central Nervous System Agents, Antiemetic-Antivertigo Agents, Acute Lymphoblastic Leukemia, Drugs and Therapies, Aprepitant Therapy, Pharmaceuticals, Neuropeptides, Oligopeptides, Tachykinins, Hematology, Oncology, Genetics, Cancer, Kinins, University of Tehran.

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Researchers from University of Tennessee Report Findings in Aneurysm (The first North American use of the Pipeline Flex flow diverter)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Aneurysm are discussed in a new report. According to news reporting out of Memphis, Tennessee, by NewsRx editors, research stated, "Flow diversion for the management of intracranial aneurysms represents a paradigm shift in how aneurysms are managed. The Pipeline embolization device (PED) is, to date, the only flow diverter approved for use in the USA by the Food and Drug Administration."

Our news journalists obtained a quote from the research from the University of Tennessee, "Limitations and complications with new treatment strategies are inevitable, and with the PED there have been reports of complications, most commonly with challenging deployments. Once deployment has been initiated, the device is 'one-way'; it can only be deployed further or removed. Yet, situations arise in which the ability to recapture or reposition the device would be advantageous. A second-generation Pipeline has been developed that addresses these concerns. We report the first use in North America of this second-generation Pipeline device: the Pipeline Flex."

According to the news editors, the research concluded: "We discuss our rationale for using the device, our impressions of its operation, and the relevant literature concerning the current state of flow diversion."


Our news journalists report that additional information may be obtained by contacting A.S. Arthur, University of Tennessee, Center Hlth Sci, Dept. of Neurosurg, Memphis, TN 38163, United States. Additional authors for this research include C. Nickele, D. Hoit, A. Belayev, C.J. Moran and A.S. Arthur.

Keywords for this news article include: Memphis, Tennessee, United States, North and Central America, Cardiovascular Diseases and Conditions, Aneurysm, University of Tennessee.

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Researchers from University of Texas Describe Findings in Glioblastomas (Epigenetic Activation of WNT5A Drives Glioblastoma Stem Cell Differentiation and Invasive Growth)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Glioblastomas. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "Glioblastoma stem cells (GSCs) are implicated in tumor neovascularization, invasiveness, and therapeutic resistance. To illuminate mechanisms governing these hallmark features, we developed a de novo glioblastoma multiforme (GBM) model derived from immortalized human neural stem/progenitor cells (hNSCs) to enable precise system-level comparisons of pre-malignant and oncogene-induced malignant states of NSCs."

Financial supporters for this research include UCSF Brain Tumor SPORE Tissue Bank, NIH, The Ben and Catherine Ivy Foundation Research Award, Clayton Foundation.

Our news journalists obtained a quote from the research from the University of Texas, "Integrated transcriptomic and epigenomic analyses uncovered a PAX6/DLX5 transcriptional program driving WNT5A-mediated GSC differentiation into endothelial-like cells (GdECs). GdECs recruit existing endothelial cells to promote peritumoral satellite lesions, which serve as a niche supporting the growth of invasive glioma cells away from the primary tumor. Clinical data reveal higher WNT5A and GdECs expression in peritumoral and recurrent GBMs relative to matched intratumoral and primary GBMs, respectively, supporting WNT5A-mediated GSC differentiation and invasive growth in disease recurrence."

According to the news editors, the research concluded: "Thus, the PAX6/DLX5-WNT5A axis governs the diffuse spread of glioma cells throughout the brain parenchyma, contributing to the lethality of GBM."

For more information on this research see: Epigenetic Activation of WNT5A Drives Glioblastoma Stem Cell Differentiation and Invasive Growth. Cell, 2016;167(5):1281-1295,270-286. Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell - www.journals.elsevier.com/cell/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cell.2016.10.039. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Cell Differentiation, Stem Cell Research, Glioblastomas, Oncology, Genetics, University of Texas.

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Researchers from University of Texas Medical Branch Detail Findings in Prostaglandin-Endoperoxide Synthases (Bortezomib Effects on Human Microvascular Endothelium in vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Prostaglandin-Endoperoxide Synthases. According to news originating from Galveston, Texas, by NewsRx correspondents, research stated, "Cellular oxidative stress in the endothelium of blood vessels leads to several pathophysiological sequelae, including vascular damage and dysfunction, inflammation and atherosclerosis. Heme oxygenase-1 (HO-1) provides protection against oxidative stress-induced cell death and plays a crucial role in the regulation of cyclooxygenase-2 (COX-2) in endothelial cells."

Our news journalists obtained a quote from the research from the University of Texas Medical Branch, "In the present study, we have investigated the effects of bortezomib, a clinically used proteasome inhibitor, on the regulation of HO-1 and COX-2 in cultured human microvascular endothelial cells (HMECs). Bortezomib treatment of HMECS induced dose-and time-dependent expression of HO-1 and COX-2 mRNA and protein, and triggered nuclear translocation of nuclear factor erythroid 2-related transcription factor (Nrf2)."

According to the news editors, the research concluded: "These findings suggest that HO-1/COX-2-mediated induction of antioxidant mechanisms via Nrf2 activation may contribute to the cytoprotective effects of bortezomib in microvascular endothelium."


The news correspondents report that additional information may be obtained from S.K. Sahni, Univ Texas Med Branch, Inst Human Infect & Immun, Galveston, TX 77555, United States. Additional authors for this research include E.D. Thomasson, R. Shah and S.K. Sahni.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000448757. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Galveston, Texas, United States, North and Central America, Prostaglandin-Endoperoxide Synthases, Enzymes and Coenzymes, Cyclooxygenase 2, Endothelium, Angiology, Genetics, COX-2, University of Texas Medical Branch.

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Researchers from University of Texas Southwestern Discuss Findings in Cardiology (Healthy aging does not compromise the augmentation of cardiac function during heat stress)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting out of Dallas, Texas, by NewsRx editors, research stated, "During heat stress, stroke volume is maintained in young adults despite reductions in cardiac filling pressures. This is achieved by a general augmentation of cardiac function, highlighted by a left and upward shift of the Frank-Starling relation."

Financial supporters for this research include HHS | National Institutes of Health (NIH), U.S. Department of Defense (DOD), American College of Sports Medicine Foundation.

Our news journalists obtained a quote from the research from the University of Texas Southwestern, "In contrast, healthy aged adults are unable to maintain stroke volume during heat stress. We hypothesized that this would be associated with a lack of shift in the Frank-Starling relation. Frank-Starling relations were examined in 11 aged [69 +/- 4 (SD) yr, 4 men/7 women] and 12 young (26 +/- 5 yr, 6 men/6 women) adults during normothermic and heat stress (1.5 degrees C increase in core temperature) conditions. During heat stress, increases in cardiac output were attenuated in aged adults (+ 2.5 +/- 0.3 (95% CI) vs. young: +4.5 +/- 0.5 l/min, P< 0.01) because of an attenuated chronotropic response (+ 30 +/- 4 vs. young: + 42 +/- 5 beats/min, P< 0.01). In contrast to our hypothesis, a leftward shift of the Frank-Starling relation maintained stroke volume during heat stress in aged adults (76 +/- 8 vs. normothermic: 74 +/- 8 ml, P = 0.38) despite reductions in cardiac filling pressure (6.6 +/- 1.1 mmHg, P< 0.01). In a subset of participants, volume loading was used to return cardiac filling pressure during heat stress to normothermic values, which resulted in a greater stroke volume for a given cardiac filling pressure in both groups."

According to the news editors, the research concluded: "These results demonstrate that the Frank-Starling relation shifts during heat stress in healthy young and aged adults, thereby preserving stroke volume despite reductions in cardiac filling pressures."

For more information on this research see: Healthy aging does not compromise the augmentation of cardiac function during heat stress. Journal of Applied Physiology, 2016;121 (4):885-892. Journal of Applied Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting C.G. Crandall, Univ Texas Southwestern Med Center Dallas, Dallas, TX 75390, United States. Additional authors for this research include S.A. Romero, H. Ngo, S. Sarma, W.K. Cornwell, P.Y.S. Poh, D. Stoller, B.D. Levine and C.G. Crandall.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/japplphysiol.00643.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Cardiology, University of Texas Southwestern.

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Researchers from University of Texas Southwestern Medical Center Report Recent Findings in Hypertension (Mechanisms and Treatment of Intradialytic Hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Hypertension is the subject of a report. According to news reporting originating in Dallas, Texas, by NewsRx journalists, research stated, "Intradialytic hypertension is a condition where there is an increase in blood pressure (BP) from pre-to post-hemodialysis; this condition has been recently identified as an independent mortality risk factor in hypertensive hemodialysis patients. The mechanisms and management of intradialytic hypertension have been explored in numerous research studies over the past few years."

The news reporters obtained a quote from the research from the University of Texas Southwestern Medical Center, "Patients with intradialytic hypertension have been found to be more chronically volume overloaded compared to other hemodialysis patients, although no causal role has been established. Patients with intradialytic hypertension have intradialytic vascular resistance surges that likely explain the BP increase during dialysis. Acute intradialytic changes in endothelial cell function have been proposed as etiologies for the increase in vascular resistance, although it is unclear if endothelin-1 or some other vasoconstrictive peptide is responsible. There is an association between dialysate to serum sodium gradients and BP increase during dialysis in patients with intradialytic hypertension, although it is unclear if this is related to endothelial cell activity or acute osmolar changes. In addition to probing the dry weight of patients with intradialytic hypertension, other management strategies include lowering dialysate sodium and changing antihypertensives to include carvedilol or other poorly dialyzed antihypertensives. Hemodialysis patients with intradialytic hypertension have an increased mortality risk compared to patients with modest decreases in BP during dialysis. Intradialytic hypertension is associated with extracellular volume overload in addition to acute increases in vascular resistance during dialysis."

According to the news reporters, the research concluded: "Management strategies should include reevaluation of dry weight and modification of both the dialysate prescription and medication prescription."


Our news correspondents report that additional information may be obtained by contacting P.N. Van Buren, University of Texas Southwestern Medical Center, Dept. of Internal Medicine and Division of Nephrology, Dallas, TX, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441313. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Texas, Dallas, Hemodialysis, Hypertension, United States, Article Review, Renal Dialysis, Risk and Prevention, North and Central America, Cardiovascular Diseases and Conditions.

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Researchers from University of Thessaly Report Details of New Studies and Findings in the Area of Oxygenases [Indoleamine 2,3-dioxygenase, by degrading L-tryptophan, enhances carnitine palmitoyltransferase I activity and fatty acid oxidation, ...]
Researchers from University of Tokushima Report on Findings in Science (Novel human mutation and CRISPR/Cas genome-edited mice reveal the importance of C-terminal domain of MSX1 in tooth and palate development)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Science. According to news reporting originating in Tokushima, Japan, by NewsRx journalists, research stated, "Several mutations, located mainly in the MSX1 homeodomain, have been identified in non-syndromic tooth agenesis predominantly affecting premolars and third molars. We identified a novel frameshift mutation of the highly conserved C-terminal domain of MSX1, known as Msx homology domain 6 (MH6), in a Japanese family with non-syndromic tooth agenesis."

The news reporters obtained a quote from the research from the University of Tokushima, "To investigate the importance of MH6 in tooth development, Msx1 was targeted in mice with CRISPR/Cas system. Although heterozygous MH6 disruption did not alter craniofacial development, homozygous mice exhibited agenesis of lower incisors with or without cleft palate at E16.5. In addition, agenesis of the upper third molars and the lower second and third molars were observed in 4-week-old mutant mice. Although the upper second molars were present, they were abnormally small."

According to the news reporters, the research concluded: "These results suggest that the C-terminal domain of MSX1 is important for tooth and palate development, and demonstrate that CRISPR/Cas system can be used as a tool to assess causality of human disorders in vivo and to study the importance of conserved domains in genes."

For more information on this research see: Novel human mutation and CRISPR/Cas genome-edited mice reveal the importance of C-terminal domain of MSX1 in tooth and palate development. Scientific Reports, 2016;6():1-8. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting A. Yasue, University of Tokushima, Grad Sch, Inst Biomed Sci, Dept. of Orthodont & Dentofacial Orthoped, Tokushima 7708504, Japan. Additional authors for this research include A. Yasue, K. Masuda, T. Naruto, Y. Minegishi, S. Oyadomari, S. Noji, I. Imoto and E. Tanaka.

Keywords for this news article include: Tokushima, Japan, Asia, Science, Genetics, University of Tokushima.

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Researchers from University of Tokyo Report Details of New Studies and Findings in the Area of Endometriosis (Resveratrol Enhances Apoptosis in Endometriotic Stromal Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Uterine Diseases and Conditions - Endometriosis are presented in a new report. According to news originating from Bunkyo ku, Japan, by NewsRx correspondents, research stated, "Resistance to apoptosis, together with inflammatory and invasive activity, contributes to the pathogenesis of endometriosis; therefore, approaches that can safely enhance apoptosis in endometriotic tissue are highly sought after as a means of managing the disease. Although resveratrol (RVT) is known to induce apoptosis or increase sensitivity to apoptotic stimuli in various cancer cell types, its effect on human endometriosis has remained uncertain."

Funders for this research include Ministry of Health, Labor and Welfare, Ministry of Education, Culture, Sports, Science, and Technology.

Our news journalists obtained a quote from the research from the University of Tokyo, "This study aimed to investigate whether RVT induces or enhances apoptosis in human endometriotic stromal cells (ESCs). Endometriotic tissues were collected, during laparoscopies, from women affected by ovarian endometriosis. ESCs were prepared, cultured, and treated with RVT. Apoptosis was assessed by annexin V-PI staining. Survivin mRNA expression in ESCs was examined using RT-PCR. ESCs were pre-treated with or without RVT and then incubated with TNF-a-related-apoptosis-inducing ligand (TRAIL), which is a known pro-apoptotic molecule. RVT alone did not induce apoptosis in ESCs. RVT significantly reduced survivin mRNA expression (p <0.05). Pre-treatment with RVT significantly enhanced TRAIL-induced apoptosis (8.13 ? 0.83% (control) versus 29.19 ? 7.39% (pre-treated with RVT), p<0.05)."

According to the news editors, the research concluded: "This study indicates that RVT suppresses survivin expression and enhances TRAIL-induced apoptosis in ESCs."


The news correspondents report that additional information may be obtained from A. Taguchi, Dept. of Obstetrics and Gynecology, Faculty of Medicine, The University of Tokyo, Bunkyo-ku, Tokyo, Japan. Additional authors for this research include K. Koga, K. Kawana, T. Makabe, F. Sue, M. Miyashita, M. Yoshida, Y. Urata, G. Izumi, M. Tkamura, M. Harada, T. Hirata, Y. Hirota, O. Wada-Hiraike, T. Fujii and Y. Osuga.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/aji.12489. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the American Journal of Reproductive Immunology is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Japan, Genetics, Bunkyo ku, Apoptosis, Endometriosis, Stromal Cells, Women's Health, Connective Tissue Cells, Uterine Diseases and Conditions - Endometriosis.
Researchers from University of Tokyo Report Recent Findings in Science (Osmotic stress induces the phosphorylation of WNK4 Ser575 via the p38MAPK-MK pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Science have been presented. According to news reporting from Bunkyo ku, Japan, by NewsRx journalists, research stated, "The With No lysine [K] (WNK)-Ste20-related proline/alanine-rich kinase (SPAK)/oxidative stress-responsive kinase 1 (OSR1) pathway has been reported to be a crucial signaling pathway for triggering pseudohypoaldosteronism type II (PHAII), an autosomal dominant hereditary disease that is characterized by hypertension. However, the molecular mechanism(s) by which the WNK-SPAK/OSR1 pathway is regulated remain unclear."

The news correspondents obtained a quote from the research from the University of Tokyo, "In this report, we identified WNK4 as an interacting partner of a recently identified MAP3K, apoptosis signal-regulating kinase 3 (ASK3). We found that WNK4 is phosphorylated in an ASK3 kinase activity-dependent manner. By exploring the ASK3-dependent phosphorylation sites, we identified Ser575 as a novel phosphorylation site in WNK4 by LC-MS/MS analysis. ASK3-dependent WNK4 Ser575 phosphorylation was mediated by the p38MAPK-MAPK-activated protein kinase (MK) pathway. Osmotic stress, as well as hypotonic low-chloride stimulation, increased WNK4 Ser575 phosphorylation via the p38MAPK-MK pathway. ASK3 was required for the p38MAPK activation induced by hypotonic stimulation but was not required for that induced by hypertonic stimulation or hypotonic low-chloride stimulation."

According to the news reporters, the research concluded: "Our results suggest that the p38MAPK-MK pathway might regulate WNK4 in an osmotic stress-dependent manner but its upstream regulators might be divergent depending on the types of osmotic stimuli."

For more information on this research see: Osmotic stress induces the phosphorylation of WNK4 Ser575 via the p38MAPK-MK pathway. Scientific Reports, 2016;6 ():18710. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting J. Maruyama, Laboratory of Cell Signaling, Graduate School of Pharmaceutical Sciences, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan. Additional authors for this research include Y. Kobayashi, T. Umeda, A. Vandewalle, K. Takeda, H. Ichijo and I. Naguro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18710. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Kinase, Science, Genetics, Bunkyo ku, Enzymes and Coenzymes.
Researchers from University of Tokyo School of Medicine Describe Findings in Blood Coagulation Factor Inhibitors (Fli1 deficiency contributes to the downregulation of endothelial protein C receptor in systemic sclerosis: a possible role in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematology - Blood Coagulation Factor Inhibitors have been published. According to news reporting originating in Bunkyo ku, Japan, by NewsRx journalists, research stated, "Endothelial protein C receptor (EPCR), expressed predominantly on endothelial cells, plays a critical role in the regulation of the coagulation system and also mediates various cytoprotective effects by binding and activating protein C. So far, the role of EPCR has not been studied in systemic sclerosis (SSc)."

Financial supporters for this research include Ministry of Health, Labour and Welfare, Actelion Pharmaceuticals.

The news reporters obtained a quote from the research from the University of Tokyo School of Medicine, "To investigate the potential contribution of EPCR to the development of SSc. EPCR expression was examined in skin samples and cultivated dermal microvascular endothelial cells by immunostaining, immunoblotting and/or quantitative reverse-transcription polymerase chain reaction. Fli1, binding to the PROCR promoter, was assessed by chromatin immunoprecipitation. Serum EPCR levels were determined by enzyme-linked immunosorbent assay in 65 patients with SSc and 20 healthy subjects. EPCR expression was decreased in dermal small vessels of SSc lesional skin compared with those of healthy control skin. Transcription factor Fli1, deficiency of which is implicated in SSc vasculopathy, occupied the PROCR promoter, and EPCR expression was suppressed in Fli1 small interfering RNA-treated endothelial cells and dermal small vessels of Fli1(plusminus) mice. In patients with SSc, decreased serum EPCR levels were associated with diffuse skin involvement, interstitial lung disease and digital ulcers. Furthermore, serum EPCR levels inversely correlated with plasma levels of plasmin-a2-plasmin inhibitor complex (PIC). Importantly, bosentan significantly reversed circulating EPCR and PIC levels in patients with SSc, and the expression of Fli1 and EPCR in dermal small vessels was elevated in patients treated with bosentan compared with untreated patients."

According to the news reporters, the research concluded: "Endothelial EPCR downregulation due to Fli1 deficiency may contribute to hypercoagulation status leading to tissue fibrosis and impaired peripheral circulation in SSc."


Our news correspondents report that additional information may be obtained by contacting R. Saigusa, Dept. of Dermatology, University of Tokyo Graduate School of Medicine, 7-3-1 Hongo, Bunkyo-ku, Tokyo, 113-8655, Japan. Additional authors for this
Oncology - Breast Cancer

Researchers from University of Toronto Describe Findings in Breast Cancer (Modelling mammography screening for breast cancer in the Canadian context: Modification and testing of a microsimulation model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "Modelling is a flexible and efficient approach to gaining insight into the trade-offs surrounding a complex process like breast screening, which involves more variables than can be controlled in an experimental study. Data and methods: The University of Wisconsin Cancer Intervention and Surveillance Modeling Network (CISNET) breast cancer microsimulation model was adapted to simulate breast cancer incidence and screening performance in Canada."

Our news journalists obtained a quote from the research from the University of Toronto, "The model considered effects of breast density on the sensitivity and specificity of screening. The model's ability to predict age-specific incidence of breast cancer was assessed. Predictions of age-adjusted incidence over calendar years and age-specific incidence of breast cancer in Canadian women are presented. Based on standard screening strategies, ratios of in situ to invasive disease and stage distribution of disease at diagnosis are compared with data from the British Columbia provincial screening program. The adapted model performs well in predicting age-specific incidence and cross-sectional incidence in the absence of screening."

According to the news editors, the research concluded: "The ratios of detection of in situ to invasive cancers and the overall stage distribution of detected cancers are in reasonable agreement with empirical data from British Columbia."

For more information on this research see: Modelling mammography screening for breast cancer in the Canadian context: Modification and testing of a microsimulation model. Health Reports, 2015;26(12):3-8. Health Reports can be contacted at: Statistics Canada, 100 Tunneys Pasture Driveway, Ottawa, Ontario K1A 0T6, Canada.

Our news journalists report that additional information may be obtained by contacting M.J. Yaffe, University of Toronto, Dept. of Med Imaging, Toronto, ON M5S 1A1, Canada. Additional authors for this research include N. Mittmann, P. Lee, A.N.A. Tosteson, A. Trentham-Dietz, O. Alagoz and N.K. Stout.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Diagnostics and Screening, Breast Cancer Screening, Cancer, Epidemiology, Risk and Prevention, Women's Health, Oncology, University of Toronto.
Researchers from University of Toronto Detail New Studies and Findings in the Area of Hypertrophic Cardiomyopathy (Myocardial Dimensions in Children With Hypertrophic Cardiomyopathy: A Comparison Between Echocardiography and Cardiac Magnetic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Hypertrophic Cardiomyopathy. According to news reporting from Toronto, Canada, by NewsRx journalists, research stated, "The primary mode of imaging in hypertrophic cardiomyopathy (HCM) is transthoracic echocardiography (TTE). However, in adults inadequate acoustic windows lead to poor quantification of myocardial thickness compared with cardiac magnetic resonance (CMR) imaging."

The news correspondents obtained a quote from the research from the University of Toronto, "In comparison, children have better acoustic windows and TTE measurements of wall thickness might be more accurate. The aim of this study was to assess the performance of TTE compared with CMR for the assessment of myocardial thickness in children with HCM. Nineteen children (median age, 12.7 years; range, 8.4-18.4 years) with known HCM were studied using TTE and CMR imaging on the same day. The left ventricle was measured off-line using the standard 16-segment model. With CMR imaging 304 (19 x 16) segments were analyzable whereas only 263 were analyzable using echocardiography. Wall thickness measurements according to TTE were greater than those according to CMR imaging in the basal anterolateral, midventricular anterior and anterolateral and apical inferior, lateral and septal segments and smaller for the midventricular inferior and inferoseptal segments. Reproducibility of CMR and TTE measurements was assessed using the intraclass correlation coefficient (ICC). CMR measurements showed excellent intrareader (ICC, 0.929-0.991) and moderate inter-reader (ICC range, 0.512-0.991) reproducibility. TTE measurements revealed moderate intrareader (ICC, 0.575-0.942) and poor inter-reader (ICC range, -1.02 to 0.939) reproducibility. Echocardiography incompletely assesses circumferential myocardial thickness in a proportion of pediatric patients with HCM. Echocardiography under-and overestimates maximum wall thickness compared with CMR, depending on the location."

According to the news reporters, the research concluded: "Measurements using CMR are more reproducible than those obtained using echocardiography."


Our news journalists report that additional information may be obtained by contacting L. Grosse-Wortmann, University of Toronto, Hospital for Sick Children, Dept. of Diagnost Imaging, Toronto, ON, Canada. Additional authors for this research include A. Dragelescu, L. Benson, J. Forsey, M. Shariat, S.J. Yoo, L. Mertens, D. Wong and L. Grosse-
Researchers from University of Toulouse Detail New Studies and Findings in the Area of Acute Myeloid Leukemia (Prognostic impact of viral reactivations in acute myeloid leukemia patients undergoing allogeneic stem cell transplantation in first ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Acute Myeloid Leukemia is now available. According to news reporting originating from Toulouse, France, by NewsRx correspondents, research stated, "Cytomegalovirus (CMV) serological status of donor and recipient as well as CMV reactivation have been associated with a lower risk of relapse in acute myeloid leukemia (AML) patients after allogeneic stem cell transplantation (alloSCT). Since immunosuppression following transplant allows resurgence of many other viruses, we retrospectively evaluated the impact of viral reactivations on relapse and survival in a cohort of 136 AML patients undergoing alloSCT in first remission from sibling (68%) or unrelated (32%) donors."

Our news editors obtained a quote from the research from the University of Toulouse, "Myeloablative and reduced-intensity conditioning regimen were given to 71 and 65 patients, respectively. Including CMV reactivations, at least 1 viral reactivation was recorded in 76 patients. Viral reactivations were associated with a lower risk of relapse (adjusted HR 0.14; 95% CI 0.07-0.30; P< 0.01), better disease-free survival (aHR 0.29; 95% CI 0.16-0.54; P< 0.01) but higher non relapse mortality. This translated into a better overall survival (aHR 0.44; 95%CI 0.25-0.77; P< 0.01) in patients who experienced viral reactivation. Thus, viral reactivations, including but not limited to CMV reactivation, are associated with a better outcome particularly with regard to the risk of relapse in AML patients undergoing alloSCT."

According to the news editors, the research concluded: "New guidelines regarding the choice of donor according to the CMV serostatus are needed."

For more information on this research see: Prognostic impact of viral reactivations in acute myeloid leukemia patients undergoing allogeneic stem cell transplantation in first complete response. Medicine, 2016;95(48):97-102. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting C. Recher, Univ Toulouse III, UMR 1037, Center Rech Cancerol Toulouse, INSERM, Toulouse, France. Additional authors for this research include C. Borel, E. Berard, E. Yon, M. Fort. C.
Researchers from University of Trieste Provide Details of New Studies and Findings in the Area of Liver Cancer (Rapid and cost-effective xenograft hepatocellular carcinoma model in Zebrafish for drug testing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting out of Trieste, Italy, by NewsRx editors, research stated, "We developed a novel, rapid and cost-effective Zebrafish xenograft model of hepatocellular carcinoma (HCC) for drug screening in the disease. Following injection into the yolk sack of Zebrafish larvae of the human HCC cell line JHH6 stained by a vital dye, tumor mass growth was followed by fluorescence microscopy and by human Ki67 quantification."

Financial supporters for this research include “Fondazione Benefica Kathleen Foreman Casali of Trieste”, “Beneficentia Stiftung” of Vaduz Liechtenstein, Italian Minister of Instruction, University and Research (MIUR).

Our news journalists obtained a quote from the research from the University of Trieste, "Tumor induced neo-angiogenesis was evaluated by alkaline phosphatase staining of the vessels, by using the Tg(fli1: EGFP) y(1) strain of Zebrafish and by the quantification of the zebrafish vascular endothelial growth factor and of its receptor. We show that it is feasible to micro-inject JHH6 in Zebrafish larvae, that injected cells can grow for different days and that this induces a marked neo-angiogenesis. Finally, we show that our model allows testing the effects of anti-HCC drugs such as Bortezomib. Compared to more complex HCC mouse models, our model is far less expensive, faster to set up and does not need immunosuppressant treatment. Finally, the model makes use of JHH6, an aggressive form of HCC cell line never tested before in Zebrafish."

According to the news editors, the research concluded: "The possibility to test anti HCC/neo-angiogenesis drugs makes our JHH6 model useful to select therapeutic molecules for a highly vascularized tumor such as HCC."


Our news journalists report that additional information may be obtained by contacting G. Grassi, University of Trieste, Dept. of Life Sci, I-34127 Trieste, Italy. Additional authors for this research include C. Zennaro, B. Dapas, M. Carraro, M. Mariotti and G. Grassi. The direct object identifier (DOI) for that additional information is:
Researchers from University of Tunis Detail New Studies and Findings in the Area of Venoms (Lebein, a snake venom disintegrin, suppresses human colon cancer cells proliferation and tumor-induced angiogenesis through cell cycle arrest, apoptosis ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biological Factors - Venoms. According to news reporting originating in Tunis, Tunisia, by NewsRx journalists, research stated, "Lebein, is an heterodimeric disintegrin isolated from Macrovipera lebetina snake venom that was previously characterized as an inhibitor of ADP-induced platelet aggregation. In this study, we investigated the effect of Lebein on the p53-dependent growth of human colon adenocarcinoma cell lines."

The news reporters obtained a quote from the research from the University of Tunis, "We found that Lebein significantly inhibited LS174 (p53wt), HCT116 (p53wt), and HT29 (p53mut) colon cancer cell viability by inducing cell cycle arrest through the modulation of expression levels of the tumor suppression factor p53, cell cycle regulating proteins cyclin D1, CDK2, CDK4, retinoblastoma (Rb), CDK1, and cyclin-dependent kinase inhibitors p21 and p27. Interestingly, Lebein-induced apoptosis of colon cancer cells was dependent on their p53 status. Thus, in LS174 cells, cell death was associated with PARP cleavage and the activation of caspases 3 and 8 while in HCT116 cells, Lebein induced caspase-independent apoptosis through increased expression of apoptosis inducing factor (AIF). In LS174 cells, Lebein triggers the activation of the MAPK ERK1/2 pathway through induction of reactive oxygen species (ROS). It also decreased cell adhesion and migration to fibronectin through down regulation of 51 integrin. Moreover, Lebein significantly reduced the expression of two angiogenesis stimulators, Vascular Endothelial Growth Factor (VEGF) and Neuropilin 1 (NRP1). It inhibited the VEGF-induced neovascularization process in the quail embryonic CAM system and blocked the development of human colon adenocarcinoma in nude mice."

According to the news reporters, the research concluded: "Overall, our work indicates that Lebein may be useful to design a new therapy against colon cancer."


Our news correspondents report that additional information may be obtained by
Researchers from University of Turin Report Details of New Studies and Findings in the Area of Dihydroxyphenylalanine (Peripheral neuropathy associated with levodopa-carbidopa intestinal infusion: a long-term prospective assessment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Dihydroxyphenylalanine. According to news originating from Torino, Italy, by NewsRx correspondents, research stated, "Subacute and chronic peripheral neuropathies (PNP) have been reported in Parkinson's disease (PD) patients treated with levodopa/carbidopa intestinal gel infusion (LCIG), although several aspects of their incidence and pathogenesis still remain to be clarified. This study main objective is to prospectively report the 2-year incidence of PNP in patients treated with LCIG."

Financial support for this research came from Neurology Unit staff of San Giovanni Battista Hospital, Turin.

Our news journalists obtained a quote from the research from the University of Turin, "The clinical, hematological, nutritional and electrophysiological assessments of 33 consecutive patients have been prospectively collected and evaluated. At baseline (before the start of LCIG therapy), 3/33 (9%) patients showed symptomatic PNP and 7/33 (21%) subclinical PNP. During a follow-up of 24.36 ± 12.18 months, 2/23 patients with normal baseline clinical-electrophysiological assessment developed a subacute PNP, 2/23 developed a chronic PNP and 7/23 developed a subclinical PNP. LCIG was immediately halted in the subacute cases, while the infusion therapy was not interrupted in chronic and subclinical forms. All PNP were supplemented with vitamin B1 and B12, showing a clinical improvement and/or substantial stability at the following evaluations. Higher levodopa-equivalent daily dose (P: 0.024) and homocysteine levels (P: 0.041) were found in chronic PNP, while no correlations were observed with vitamin B12, folate and UPDRS values. A trend towards BMI reduction was observed in both PNP and unaffected subjects and one patient developed a symptomatic PNP associated with a relevant weight loss. Serial clinical-electrophysiological evaluations are mandatory in patients treated with LCIG, given the possible risk of subacute and chronic PNP."

According to the news editors, the research concluded: "No clear causative factors has been recognized in the subacute forms, whilst homocysteine-mediated neurotoxicity seems to underlie the pathogenesis of chronic forms."

For more information on this research see: Peripheral neuropathy associated with levodopa-carbidopa intestinal infusion: a long-term prospective assessment. European Journal
Researchers from University of Ulm Report on Findings in Prostate Cancer (Prognostic Factors for Biochemical Recurrence More than 10 Years after Radical Prostatectomy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Prostate Cancer. According to news reporting originating from Ulm, Germany, by NewsRx correspondents, research stated, "Some patients with long postoperative intervals of undetectable prostate specific antigen are still at risk for biochemical recurrence. Our aims were to identify prognostic factors for late biochemical recurrence, including cancer family history, and evaluate cancer specific mortality."

Our news editors obtained a quote from the research from the University of Ulm, "We identified 10,310 patients after radical prostatectomy without neoadjuvant or adjuvant therapy between 1979 and 2015 in the prospective German Familial Prostate Cancer database. A subgroup of 2,480 patients with more than 10 years of followup (median 12.8) had undetectable prostate specific antigen. Biochemical recurrence, defined as prostate specific antigen 0.2 ng/ml or greater, developing at more than 10 years was defined as late biochemical recurrence. Multiple proportional hazards regression with forward selection was applied to determine prognostic factors for late biochemical recurrence. The Kaplan-Meier estimated biochemical recurrence rate at 10, 15 and 20 years was 34.3%, 44.0% and 52.7%, respectively. Of 2,480 patients with undetectable prostate specific antigen 10 years postoperatively 249 subsequently had biochemical recurrence, of whom 12 died of prostate cancer. The factors associated with late biochemical recurrence were age at surgery (HR 1.04 per year, p = 0.027), prostate specific antigen at diagnosis (HR 1.02 per ng/ml, p = 0.020), pathological Gleason score (categorical 2-6 vs 7 [ 3 + 4], 7, 7 [ 4 + 3] and 8-10, p = 0.002) and pathological tumor stage pT3a or greater (HR 1.50, p = 0.065). From years 10 to 15 and 10 to 20 postoperatively the biochemical recurrence rate increased by 9.7% and 18.4%, respectively. In contrast to a family history of prostate cancer, age at surgery, prostate specific antigen at diagnosis, pathological tumor stage and pathological Gleason score were prognostic factors for late biochemical recurrence."
According to the news editors, the research concluded: "Patients with late biochemical recurrence are still at risk for death from prostate cancer."


The news editors report that additional information may be obtained by contacting K. Herkommer, Univ Ulm, Inst Epidemiol & Med Biometr, Ulm, Germany. Additional authors for this research include M. Kron, J.E. Gschwend and K. Herkommer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.juro.2016.07.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ulm, Germany, Europe, Male Urologic Surgical Procedures, Prostatic Secretory Proteins, Prostate-Specific Antigen, Biological Tumor Markers, Enzymes and Coenzymes, Prostatic Neoplasms, Biological Factors, Peptide Hydrolases, Neoplasm Antigens, Serine Proteases, Prostate Cancer, Endopeptidases, Prostatectomy, Biochemicals, Biochemistry, Men's Health, Kallikreins, Immunology, Chemicals, Oncology, Surgery, University of Ulm.

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Researchers from University of Ulsan Detail New Studies and Findings in the Area of Enzyme Replacement Therapy (Long-term enzyme replacement therapy for Fabry disease: efficacy and unmet needs in cardiac and renal outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Enzyme Replacement Therapy. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Fabry disease is a progressive lysosomal storage disease caused by alpha-galactosidase A deficiency. This condition is characterized by progressive accumulation of glycosphingolipids with functional impairment in various organs, including the kidney, heart and cerebrovascular system."

Our news journalists obtained a quote from the research from the University of Ulsan, "Enzyme replacement therapy (ERT) is essential because it attenuates the disease progression. The present study investigated the long-term efficacy of ERT in 19 Korean Fabry patients (11 adult males, 4 symptomatic female carriers and 4 pediatric males) who had received ERT for 8.1 +/- 2.2 years (range, 5.3-10.5 years). In the 11 adult males, the mean reduction in the estimated glomerular filtration rate (eGFR) was -3.8 +/- 4.5 ml(-1) min 1.73 m(-2). The rate of eGFR decline was significantly lower in patients with lower proteinuria (<1 g per day) before ERT. The left ventricular mass index decreased or was stable throughout the ERT in male patients with or without left ventricular hypertrophy before ERT initiation. In female carriers and pediatric male patients, renal and cardiac functions remained stable with ERT. Arrhythmias were observed in 10 adult males and 1 female patient before ERT and persisted during ERT."
One pediatric patient newly developed arrhythmia despite ERT."

According to the news editors, the research concluded: "Long-term ERT has beneficial effects on the renal and cardiac outcomes of Fabry patients but has limited effect in patients with irreversible organ damage. Identification of patients in the early disease stage and rapid ERT initiation might be the best strategy to improve the natural course of the disease."

For more information on this research see: Long-term enzyme replacement therapy for Fabry disease: efficacy and unmet needs in cardiac and renal outcomes. Journal of Human Genetics, 2016;61(11):923-929. Journal of Human Genetics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Journal of Human Genetics - www.nature.com/jhg/)

Our news journalists report that additional information may be obtained by contacting H.W. Yoo, University of Ulsan, Coll Med, Asan Med Center, Medical Genet CenterChildrens Hosp, Seoul 05505, South Korea. Additional authors for this research include B.H. Lee, J.H. Cho, E. Kang, J.H. Choi, G.H. Kim and H.W. Yoo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/jhg.2016.78. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Enzyme Replacement Therapy, Enzymes and Coenzymes, Pediatrics, Genetics, Drugs and Therapies, Nephrology, Cardiology, Kidney, University of Ulsan.

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Oncology - Rectal Cancer

Researchers from University of Utah Report on Findings in Rectal Cancer (Association of cigarette smoking and microRNA expression in rectal cancer: Insight into tumor phenotype)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Rectal Cancer are presented in a new report. According to news reporting out of Salt Lake City, Utah, by NewsRx editors, research stated, "Smoking is known to influence messenger RNA (mRNA) expression in colorectal cancer (CRC) cases. As microRNAs (miRNAs) are known repressors of mRNAs, we hypothesize that smoking may influence miRNA expression, thus altering mRNA expression."

Our news journalists obtained a quote from the research from the University of Utah, "Our sample consisted of 1447 CRC cases that had normal colorectal mucosa and carcinoma miRNA data and lifestyle data. We examined current smoking, current versus never and former versus never (C/F/N) smoking, and pack-years smoked with miRNA expression in normal mucosa as well as differential miRNA expression between paired normal and carcinoma tissue for colon and rectal tissue to determine associations between smoking and miRNA expression. We adjusted for multiple comparisons using the Benjamini Hochberg false discovery rate (FDR). Significant associations were seen for rectal differential miRNA expression only. We analyzed miRNAs significantly associated with smoking with CIMP and MSI status, using a polytomous logistic regression. Two hundred and thirty-one miRNAs were differentially expressed with current smoking, 172 with C/F/N, and 206 with pack-years smoked; 111 were associated with all three. Forty-three miRNAs were unique to current smoking, 14 were unique
to C/F/N and 57 were unique to pack years smoked. Of the 306 unique miRNAs associated with cigarette smoking, 41 were inversely associated and 200 were directly associated with CIMP high or MSI tumor molecular phenotype for either colon or rectal cancer.

According to the news editors, the research concluded: "Our results suggest that cigarette smoking can alter miRNA expression and, given associations with CIMP high and MSI tumor molecular phenotype, it is possible that smoking influences tumor phenotype through altered miRNA expression."


Our news journalists report that additional information may be obtained by contacting L.E. Mullany, University of Utah, Dept. of Internal Med, Salt Lake City, UT 84108, United States. Additional authors for this research include J.S. Herrick, R.K. Wolff, J.R. Stevens and M.L. Slattery.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.10.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Cancer, Epidemiology, Colorectal Research, Gastroenterology, Rectal Cancer, Oncology, Genetics, University of Utah.

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Cytoskeleton

Researchers from University of Utrecht Discuss Findings in Cytoskeleton (Control of apico-basal epithelial polarity by the microtubule minus-end-binding protein CAMSAP3 and spectraplakin ACF7)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cytoskeleton have been presented. According to news reporting originating in Utrecht, Netherlands, by NewsRx journalists, research stated, "The microtubule cytoskeleton regulates cell polarity by spatially organizing membrane trafficking and signaling processes. In epithelial cells, microtubules form parallel arrays aligned along the apico-basal axis, and recent work has demonstrated that the members of CAMSAP/Patronin family control apical tethering of microtubule minus ends."

The news reporters obtained a quote from the research from the University of Utrecht, "Here, we show that in mammalian intestinal epithelial cells, the spectraplakin ACF7 (also known as MACF1) specifically binds to CAMSAP3 and is required for the apical localization of CAMSAP3-decorated microtubule minus ends. Loss of ACF7 but not of CAMSAP3 or its homolog CAMSAP2 affected the formation of polarized epithelial cysts in three-dimensional cultures. In short-term epithelial polarization assays, knockout of CAMSAP3, but not of CAMSAP2, caused microtubule re-organization into a more radial centrosomal array, redistribution of Rab11-positive (also known as Rab11A) endosomes from the apical cell..."
surface to the pericentrosomal region and inhibition of actin brush border formation at the apical side of the cell."

According to the news reporters, the research concluded: "ACF7 is an important regulator of apico-basal polarity in mammalian intestinal cells and that a radial centrosome-centered microtubule organization can act as an inhibitor of epithelial polarity."


Our news correspondents report that additional information may be obtained by contacting A. Akhmanova, University of Utrecht, Fac Sci, Dept. of Biol, Cell Biol, NL-3584 CH Utrecht, Netherlands. Additional authors for this research include Q.Y. Liu, W. Nijenhuis, S.S. Hua, K. Jiang, M. Baars, S. Remmelzwaal, M. Martin, L.C. Kapitein and A. Akhmanova.

Keywords for this news article include: Utrecht, Netherlands, Europe, Cellular Structures, Intracellular Space, Microtubules, Cytoskeleton, Cytoplasm, Genetics, University of Utrecht.

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**Hematology - Plasma**

Researchers from University of Verona Detail New Studies and Findings in the Area of Plasma (Estimation of the imprecision on clinical chemistry testing due to fist clenching and maintenance during venipuncture)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematology - Plasma are discussed in a new report. According to news reporting from Verona, Italy, by NewsRx journalists, research stated, "An experimental study was planned to assess the influence on routine clinical chemistry parameters of fist making prior to, and maintenance during, venipuncture. Blood was collected from 16 healthy volunteers with two separate sequential procedures, entailing standard venipuncture with hand opened throughout blood collection, or clenching the fist 6 times before venipuncture and maintaining the fist until completion of blood collection."

The news correspondents obtained a quote from the research from the University of Verona, "After separation of lithium-heparin plasma at vacuum tubes with gel separator, 28 routine clinical chemistry parameters and serum indices were measured on Roche Cobas 6000 c501 module. Fist clenching and maintaining were associated with significant variations of 8/26 (31%) analytes tested. Specifically, aspartate aminotransferase (+2.3%), calcium (+2.2%), chloride (+1.0%), creatine kinase (+2.0%), magnesium (+2.3%), potassium (+13.4%), and sodium (+0.7%) increased, whereas phosphate (-5.0%) decreased. All variations except aspartate aminotransferase and creatine kinase exceeded the quality specifications for desirable imprecision. A remarkable increase of free hemoglobin in plasma (i.e., +28.2%) was also observed. The ratio of plasma potassium was significantly associated with that of plasma CK (r = 0.55; p = 0.029), but not with variations of other analytes. No significant correlation was observed between the ratio of free hemoglobin and those of other analytes. The results of our
investigation demonstrate that repeated clenching and maintenance of fist during venipuncture may trigger acute variations of several routine clinical chemistry parameters, which may be attributable to muscle contraction, hemolysis or both."

According to the news reporters, the research concluded: "Accordingly, venipuncture should be performed avoiding fist clenching and maintenance."

For more information on this research see: Estimation of the imprecision on clinical chemistry testing due to fist clenching and maintenance during venipuncture. Clinical Biochemistry, 2016;49(18):1364-1367. Clinical Biochemistry can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Clinical Biochemistry - www.journals.elsevier.com/clinical-biochemistry/)

Our news journalists report that additional information may be obtained by contacting G. Lima-Oliveira, University of Verona, Dept. of Neurosci Biomed & Movement Sci, Lab Clin Biochem, Verona, Italy. Additional authors for this research include G.C. Guidi, G.L. Salvagno, G. Brocco, E. Danese and G. Lippi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinbiochem.2016.07.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Verona, Italy, Europe, Enzymes and Coenzymes, Clinical Chemistry, Aminotransferase, Hematology, Kinase, Plasma, Blood, University of Verona.

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Drugs and Therapies - Adrenal Corticosteroid Inhibitors

Researchers from University of Vienna Report on Findings in Adrenal Corticosteroid Inhibitors (Metal-Free meta-Selective Alkyne Oxyarylation with Pyridine N-Oxides: Rapid Assembly of Metyrapone Analogues)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Adrenal Corticosteroid Inhibitors are discussed in a new report. According to news reporting originating from Vienna, Austria, by NewsRx correspondents, research stated, "An efficient metal-free oxyarylation of electron-poor alkynes with pyridine N-oxides has been developed."

Our news editors obtained a quote from the research from the University of Vienna, "This transformation affords meta-substituted pyridines analogous to the drug metyrapone in high regioselectivities. Density functional theory (DFT) calculations provided important insight into the mechanism."

According to the news editors, the research concluded: "Evaluation of the inhibitory properties revealed the most active CYP11B1 inhibitor of these derivatives, with two-digit nanomolar inhibitory activity akin to that of metyrapone."

Researchers from University of Virginia Report Details of New Studies and Findings in the Area of Neurons (An NXF1 mRNA with a retained intron is expressed in hippocampal and neocortical neurons and is translated into a protein that functions ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Neurons are discussed in a new report. According to news reporting from Charlottesville, Virginia, by NewsRx journalists, research stated, "The Nxf1 protein is a major nuclear export receptor for the transport of mRNA, and it also is essential for export of retroviral mRNAs with retained introns. In the latter case, it binds to RNA elements known as constitutive transport elements (CTEs) and functions in conjunction with a cofactor known as Nxt1."

The news correspondents obtained a quote from the research from the University of Virginia, "The NXF1 gene also regulates expression of its own intron-containing RNA through the use of a functional CTE within intron 10. mRNA containing this intron is exported to the cytoplasm, where it can be translated into the 356-amino acid short Nxf1(sNxf1) protein, despite the fact that it is a prime candidate for non-sense- mediated decay (NMD). Here we demonstrate that sNxf1 is highly expressed in nuclei and dendrites of hippocampal and neocortical neurons in rodent brain. Additionally, we show that sNxf1 localizes in RNA granules in neurites of differentiated N2a mouse neuroblastoma cells, where it shows partial colocalization with Staufen2 isoform SS, a protein known to play a role in dendritic mRNA trafficking."

According to the news reporters, the research concluded: "We also show that sNxf1 forms heterodimers in conjunction with the full-length Nxf1 and that sNxf1 can replace Nxt1 to enhance the expression of CTE-containing mRNA and promote its association with polyribosomes."

For more information on this research see: An NXF1 mRNA with a retained intron is expressed in hippocampal and neocortical neurons and is translated into a protein that functions as an Nxf1 cofactor. *Molecular Biology of the Cell*, 2016;27(24):3903-3912. *Molecular Biology of the Cell* can be contacted at: Amer Soc Cell Biology, 8120 Woodmont Ave, Ste 750, Bethesda, MD 20814-2755, USA.

Our news journalists report that additional information may be obtained by contacting M.L. Hammarskjold, University of Virginia, Sch Med, Dept. of Microbiol Immunol & Canc Biol, Charlottesville, VA 22908, United States. Additional authors for this research
Researchers from University of Virginia Report New Studies and Findings in the Area of Atherosclerosis (Genetic analysis of atherosclerosis identifies a major susceptibility locus in the major histocompatibility complex of mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news reporting originating from Charlottesville, Virginia, by NewsRx correspondents, research stated, "Recent genome-wide association studies (GWAS) have identified over 50 significant loci containing common variants associated with coronary artery disease. However, these variants explain only 26% of the genetic heritability of the disease, suggesting that many more variants remain to be discovered."

Our news editors obtained a quote from the research from the University of Virginia, "Here, we examined the genetic basis underlying the marked difference between SM/J-Apoe(-/-) and BALB/cJ-Apoe(-/-) mice in atherosclerotic lesion formation. 206 female F-2 mice generated from an intercross between the two Apoe(-/-) strains were fed 12 weeks of western diet. Atherosclerotic lesion sizes in the aortic root were measured and 149 genetic markers genotyped across the entire genome. A significant locus, named Ath49 (LOD score: 4.18), for atherosclerosis was mapped to the H2 complex [mouse major histocompatibility complex (MHC)] on chromosome 17. Bioinformatic analysis identified 12 probable candidate genes, including Tnfrsf21, Adgrf1, Adgrf5, Mep1a, and Pla2g7. Corresponding human genomic regions of Ath49 showed significant association with coronary heart disease. Five suggestive loci on chromosomes 1, 4, 5, and 8 for atherosclerosis were also identified. Atherosclerotic lesion sizes were significantly correlated with HDL but not with non-HDL cholesterol, triglyceride or glucose levels in the F2 cohort."

According to the news editors, the research concluded: "We have identified the MHC as a major genetic determinant of atherosclerosis, highlighting the importance of inflammation in atherogenesis."


The news editors report that additional information may be obtained by contacting W.B. Shi, University of Virginia, Dept. of Radiol & Med Imaging, Charlottesville, VA, United
Researchers from University of Warwick Report Recent Findings in Dementia (Expression and purification of tau protein and its frontotemporal dementia variants using a cleavable histidine tag)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Neurodegenerative Diseases and Conditions - Dementia is now available. According to news reporting from Coventry, United Kingdom, by NewsRx journalists, research stated, "Recombinant tau protein is widely used to study the biochemical, cellular and pathological aspects of tauopathies, including Alzheimer's disease and frontotemporal dementia with Parkinsonism linked to chromosome 17 (FTPD-17). Pure tau in high yield is a requirement for in vitro evaluation of the protein's physiological and toxic functions."

Funders for this research include National Centre for the Replacement, Refinement and Reduction of Animals in Research, University of Warwick Chancellor's Scholarship, Biotechnology and Biological Sciences Research Council.

The news correspondents obtained a quote from the research from the University of Warwick, "However, the preparation of recombinant tau is complicated by the protein's propensity to aggregate and form truncation products, necessitating the use of multiple, timeconsuming purification methods. In this study, we investigated parameters that influence the expression of wild type and FTPD-17 pathogenic tau, in an attempt to identify ways to maximise expression yield. Here, we report on the influence of the choice of host strain, induction temperature, duration of induction, and media supplementation with glucose on tau expression in Escherichia coll. We also describe a straightforward process to purify the expressed tau proteins using immobilised metal affinity chromatography, with favourable yields over previous reports."

According to the news reporters, the research concluded: "An advantage of the described method is that it enables high yield production of functional oligomeric and monomeric tau, both of which can be used to study the biochemical, physiological and toxic properties of the protein."

For more information on this research see: Expression and purification of tau protein and its frontotemporal dementia variants using a cleavable histidine tag. *Protein Expression and Purification*, 2017;130():44-54. *Protein Expression and Purification* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Protein Expression and Purification -
Researchers from University of Washington Describe Findings in Myelodysplastic Syndromes (Jumping translocations in myelodysplastic syndromes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hematologic Diseases and Conditions - Myelodysplastic Syndromes have been presented. According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "Jumping translocations (JT) have been identified in numerous malignancies, including leukemia, but infrequently in patients with myelodysplastic syndromes (MDS). The responsible genetic region has been mapped to the JTB gene at 1q21, but breakpoints involving other chromosomal loci, such as 3q and 11q, have been described as well."

Our news journalists obtained a quote from the research from the University of Washington, "We have characterized the pathological and mutational landscape, and the clinical course of 6 new MDS patients with jumping mutations using chromosome genomic array testing (CGAT) and target gene panel next generation sequencing. In addition, we have performed a literature review for other MDS cases with JT's as defined by ISCN 2013."

According to the news editors, the research concluded: "Results support the concept that MDS in patients with jumping translocations has a poor prognosis with a high risk of progression to leukemia, and suggest that these patients warrant aggressive therapy, including HCT, early in the disease course."

For more information on this research see: Jumping translocations in myelodysplastic syndromes. Cancer Genetics, 2016;209(9):395-402. Cancer Genetics can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Cancer Genetics - www.journals.elsevier.com/cancer-genetics/)

The news correspondents report that additional information may be obtained from C.C.S. Yeung, University of Washington, Dept. of Pathol, Seattle, WA 98195, United States.
Researchers from University of Washington Detail Findings in Vascular Diseases (Vessel wall imaging for intracranial vascular disease evaluation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Vascular Diseases are presented in a new report. According to news reporting originating from Seattle, Washington, by NewsRx correspondents, research stated, "Accurate and timely diagnosis of intracranial vasculopathies is important owing to the significant risk of morbidity with delayed and/or incorrect diagnosis both from the disease process and inappropriate therapies. Conventional luminal imaging techniques for analysis of intracranial vasculopathies are limited to evaluation of changes in the vessel lumen."

Our news editors obtained a quote from the research from the University of Washington, "Vessel wall MRI techniques can allow direct characterization of pathologic changes of the vessel wall. These techniques may improve diagnostic accuracy and improve patient outcomes. Extracranial carotid vessel wall imaging has been extensively investigated in patients with atherosclerotic disease and has been shown to accurately assess plaque composition and identify vulnerable plaque characteristics that may predict stroke risk beyond lumina! stenosis alone. This review provides a brief history of vessel wall MRI, an overview of the intracranial vessel wall MRI techniques, its applications, and imaging findings of various intracranial vasculopathies pertinent to the neurointerventionalist, neurologist, and neuroradiologist."

According to the news editors, the research concluded: "We searched MEDLINE, PubMed, and Google for English publications containing any of the following terms: 'intracranial vessel wall imaging', 'intracranial vessel wall', and 'intracranial vessel wall MRI.'"


The news editors report that additional information may be obtained by contacting M. Mossa-Basha, University of Washington, Dept. of Radiol, Seattle, WA 98195, United States. Additional authors for this research include M. Alexander, S. Gaddikeri, C. Yuan and D. Gandhi.

The direct object identifier (DOI) for that additional information is:
Researchers from University of Washington Detail New Studies and Findings in the Area of Penile Cancer (Predictors of Nodal Upstaging in Clinical Node Negative Patients With Penile Carcinoma: A National Cancer Database Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Penile Cancer. According to news reporting out of Seattle, Washington, by NewsRx editors, research stated, "To examine the risk factors associated with upstaging at inguinal lymph node dissection (ILND) in men with penile cancer and clinically negative lymph nodes (cN0) using a large US cancer database. The National Cancer Data Base was queried from 1998 to 2012 to identify men with penile cancer who underwent ILND and had complete clinical or pathologic node status available."

Our news journalists obtained a quote from the research from the University of Washington, "Lymphovascular invasion (LVI) was available after 2010. Multivariate logistic regression evaluated factors (cT stage, grade, LVI) associated with pathologic nodal upstaging in those with cN0 disease. Correlations between clinical and pathologic node status were also calculated with weighted kappa statistics. Complete clinical and pathologic LN status was available for 875 patients. Of these, 461 (53%) were cN0. Upstaging occurred in 111 (24%). When stratified by low, intermediate, and high-risk groups, the proportion with pathologically positive LNs was 16%, 20%, and 27%, respectively (P = .12). On multivariate analysis, limited to men with LVI data available (N = 206), LVI (odds ratio 3.10, 95% confidence interval 1.39-6.92), but not increasing stage (univariate only) or grade (univariate only), was significantly associated with upstaging at ILND. In this analysis, of 461 patients with node-negative penile cancer undergoing ILND, upstaging was observed in 24%. LVI was the strongest independent predictor of occult lymph node disease."

According to the news editors, the research concluded: "These findings corroborate the presence of LVI as the significant risk factor for occult micrometastases and suggest a possible improvement in existing risk stratification groupings, with the presence of LVI, regardless of stage or grade, to be considered high-risk disease."

For more information on this research see: Predictors of Nodal Upstaging in Clinical Node Negative Patients With Penile Carcinoma: A National Cancer Database Analysis. Urology, 2016;96():29-34. Urology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

Our news journalists report that additional information may be obtained by contacting B.R. Winters, University of Washington, Sch Med, Dept. of Urol, Seattle, WA 98195, United States. Additional authors for this research include M.N. Mossanen, S.K. Holt,
Researchers from University of Washington Discuss Findings in Nanoparticles (Approach to Rapid Synthesis and Functionalization of Iron Oxide Nanoparticles for High Gene Transfection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nanotechnology - Nanoparticles. According to news reporting from Seattle, Washington, by NewsRx journalists, research stated, "Surface functionalization of theranostic nanoparticles (NPs) typically relies on lengthy, aqueous postsynthesis labeling chemistries that have limited ability to fine-tune surface properties and can lead to NP heterogeneity. The need for a rapid, simple synthesis approach that can provide great control over the display of functional moieties on NP surfaces has led to increased use of highly selective bioorthogonal chemistries including metal-affinity coordination."

Financial support for this research came from National Cancer Institute.

The news correspondents obtained a quote from the research from the University of Washington, "Here we report a simple approach for rapid production of a superparamagnetic iron oxide NPs (SPIONs) with tunable functionality and high reproducibility under aqueous conditions. We utilize the high affinity complex formed between catechol and Fe(III)) as a means to dock well-defined catechol modified polymer modules on the surface of SPIONs during sonochemical coprecipitation synthesis. Polymer modules consisted of chitosan and poly(ethylene glycol) (PEG) copolymer (CP) modified with catechol (CCP), and CCP functionalized with cationic polyethylenimine (CCP-PEI) to facilitate binding and delivery of DNA for gene therapy."

According to the news reporters, the research concluded: "This rapid synthesis/functionalization approach provided excellent control over the extent of PEI labeling, improved SPION magnetic resonance imaging (MRI) contrast enhancement and produced an efficient transfection agent."


Our news journalists report that additional information may be obtained by contacting Z.R. Stephen, Dept. of Materials Science and Engineering, University of Washington, Seattle, Washington 98195, United States. Additional authors for this research include C.J. Dayringer, J.J. Lim, R.A. Revia, M.V. Halbert, M. Jeon, A. Bakthavatsalam, R.G. Ellenbogen and M. Zhang.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.5b10883. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Genetics, Washington, United States, Nanotechnology, Emerging Technologies, North and Central America.

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Peptides and Proteins

Researchers from University of Washington Report New Studies and Findings in the Area of Peptides and Proteins (Designed proteins induce the formation of nanocage-containing extracellular vesicles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Peptides and Proteins are presented in a new report. According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "Complex biological processes are often performed by self-organizing nanostructures comprising multiple classes of macromolecules, such as ribosomes (proteins and RNA) or enveloped viruses (proteins, nucleic acids and lipids). Approaches have been developed for designing self-assembling structures consisting of either nucleic acids(1,2) or proteins(3-5), but strategies for engineering hybrid biological materials are only beginning to emerge(6,7)."

Our news journalists obtained a quote from the research from the University of Washington, "Here we describe the design of self-assembling protein nanocages that direct their own release from human cells inside small vesicles in a manner that resembles some viruses. We refer to these hybrid biomaterials as 'enveloped protein nanocages' (EPNs). Robust EPN biogenesis requires protein sequence elements that encode three distinct functions: membrane binding, self-assembly, and recruitment of the endosomal sorting complexes required for transport (ESCRT) machinery(8). A variety of synthetic proteins with these functional elements induce EPN biogenesis, highlighting the modularity and generality of the design strategy. Biochemical analyses and cryo-electron microscopy reveal that one design, EPN-01, comprises small (similar to 100 nm) vesicles containing multiple protein nanocages that closely match the structure of the designed 60-subunit self-assembling scaffold(9). EPNs that incorporate the vesicular stomatitis viral glycoprotein can fuse with target cells and deliver their contents, thereby transferring cargoes from one cell to another."

According to the news editors, the research concluded: "These results show how proteins can be programmed to direct the formation of hybrid biological materials that perform complex tasks, and establish EPNs as a class of designed, modular, genetically-encoded nanomaterials that can transfer molecules between cells."


The news correspondents report that additional information may be obtained from N.P. King, University of Washington, Inst Prot Design, Seattle, WA 98195, United States. Additional authors for this research include C. Ogohara, S. Yi, Y. Hsia, U. Nattermann, D.M.
Belnap, N.P. King and W.I. Sundquist.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1038/nature20607. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Peptides and Proteins, Emerging Technologies, Nanotechnology, Amino Acids, Nanocages, Proteins, Peptides, Genetics, University of Washington.

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Pesticides

Researchers from University of Washington Report New Studies and Findings in the Area of Pesticides (Urinary microRNAs as potential biomarkers of pesticide exposure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pesticides have been published. According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "MicroRNAs (miRNAs) are post-transcriptional regulators that silence messenger RNAs. Because miRNAs are stable at room temperature and long-lived, they have been proposed as molecular biomarkers to monitor disease and exposure status."

Funders for this research include National Institutes of Environmental Health Sciences, United States Environmental Protection Agency.

Our news journalists obtained a quote from the research from the University of Washington, "While urinary miRNAs have been used clinically as potential diagnostic markers for kidney and bladder cancers and other diseases, their utility in non-clinical settings has yet to be fully developed. Our goal was to investigate the potential for urinary miRNAs to act as biomarkers of pesticide exposure and early biological response by identifying the miRNAs present in urine from 27 parent/child, farmworker/non-farmworker pairs (16FW/11NFW) collected during two agricultural seasons (thinning and post-harvest) and characterizing the between- and within-individual variability of these miRNA epigenetic regulators. MiRNAs were isolated from archived urine samples and identified using PCR arrays. Comparisons were made between age, households, season, and occupation. Of 384 miRNAs investigated, 297 (77%) were detectable in at least one sample. Seven miRNAs were detected in at least 50% of the samples, and one miRNA was present in 96% of the samples. Principal components and hierarchical clustering analyses indicate significant differences in miRNA profiles between farm worker and non-farmworker adults as well as between seasons. Six miRNAs were observed to be positively associated with farmworkers status during the post-harvest season. Expression of five of these miRNA trended towards a positive dose response relationship with organophosphate pesticide metabolites in farmworkers."

According to the news editors, the research concluded: "These results suggest that miRNAs may be novel biomarkers of pesticide exposure and early biological response."

For more information on this research see: Urinary microRNAs as potential biomarkers of pesticide exposure. Toxicology and Applied Pharmacology, 2016;312():19-25. Toxicology and Applied Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com;
The news correspondents report that additional information may be obtained from E.M. Faustman, University of Washington, Dept. of Environm & Occupat Hlth Sci, Seattle, WA 98195, United States. Additional authors for this research include S.P. Shubin, M.N. Smith, T. Workman, A. Artemenko, W.C. Griffith, B. Thompson and E.M. Faustman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.01.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Agrochemicals, Pesticides, University of Washington.

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Digestive System Diseases and Conditions - Crohn's...

Researchers from University of Western Ontario Describe Findings in Crohn's Disease (Anti-IL-12/23p40 antibodies for induction of remission in Crohn's disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Digestive System Diseases and Conditions - Crohn's Disease. According to news reporting out of London, Canada, by NewsRx editors, research stated, "Ustekinumab (CNTO 1275) and briakinumab (ABT-874) are monoclonal antibodies that target the standard p40 subunit of the cytokines interleukin-12 and interleukin-23 (IL-12/23p40), which are involved in the pathogenesis of Crohn's disease. The objectives of this review were to assess the efficacy and safety of anti-IL-12/23p40 antibodies for induction of remission in Crohn's disease."

Our news journalists obtained a quote from the research from the University of Western Ontario, "Search methods We searched the following databases from inception to 12 September 2016: PubMed, MEDLINE, EMBASE, and the Cochrane Library (CENTRAL). References and conference abstracts were searched to identify additional studies. Selection criteria Randomized controlled trials (RCTs) trials in which monoclonal antibodies against IL-12/23p40 were compared to placebo or another active comparator in patients with active Crohn's disease were included. Data collection and analysis Two authors independently screened studies for inclusion and extracted data. Methodological quality was assessed using the Cochrane risk of bias tool. The primary outcome was failure to induce clinical remission, defined as a Crohn's disease activity index (CDAI) of <150 points. Secondary outcomes included failure to induce clinical improvement, adverse events, serious adverse events, and withdrawals due to adverse events. Clinical improvement was defined as decreases of >= 70 or >= 100 points in the CDAI from baseline. We calculated the risk ratio (RR) and 95% confidence intervals (95% CI) for each outcome. Data were analyzed on an intention-to-treat basis. The overall quality of the evidence supporting the outcomes was evaluated using the GRADE criteria. Six RCTs (n = 2324 patients) met the inclusion criteria. A low risk of bias was assigned to all studies. The two briakinumab trials were not pooled due to differences in doses and time points for analysis. In both studies there was no statistically significant difference in remission rates. One study (n = 79) compared doses of 1 mg/kg and 3 mg/kg to placebo. In the briakinumab group 70% (44/63) of patients failed to enter clinical remission at 6 or 9 weeks compared to 81%(13/16) of placebo
patients (RR 0.86, 95% CI 0.65 to 1.14). Subgroup analysis revealed no significant differences by dose. The other briakinumab study (n = 230) compared intravenous doses of 200 mg, 400 mg and 700 mg with placebo. Eighty-four per cent (154/184) of briakinumab patients failed to enter clinical remission at six weeks compared to 91% (42/46) of placebo patients (RR 0.92, 95% CI 0.83 to 1.03). Subgroup analysis revealed no significant differences by dose. GRADE analyses of the briakinumab studies rated the overall quality of the evidence for the outcome clinical remission as low. Based on the results of these two studies the manufacturers of briakinumab stopped production of this medication. The ustekinumab studies were pooled despite differences in intravenous doses (i.e. 1 mg/kg, 3 mg/kg, 4.5 mg/kg, and 6 mg/kg), however the subcutaneous dose group was not included in the analysis, as it was unclear if subcutaneous was equivalent to intravenous dosing. There was a statistically significant difference in remission rates. At week six, 84% (764/914) of ustekinumab patients failed to enter remission compared to 90% (367/406) of placebo patients (RR 0.92, 95% CI 0.88 to 0.96; 3 studies; high-quality evidence). Subgroup analysis showed a statistically significant difference for the 6.0 mg/kg dose group (moderate-quality evidence). There were statistically significant differences in clinical improvement between ustekinumab and placebo-treated patients. In the ustekinumab group, 55% (502/914) of patients failed to improve clinically (i.e. 70-point decline in CDAI score), compared to 71% (287/406) of placebo patients (RR 0.78, 95% CI 0.71 to 0.85; 3 studies). Subgroup analysis revealed significant differences compared to placebo for the 1 mg/kg, 4.5 mg/kg and 6 mg/kg dosage subgroups. Similarly for a 100-point decline in CDAI, 64% (588/914) of patients in the ustekinumab group failed to improve clinically compared to 78% (318/406) of placebo patients (RR 0.82, 95% CI 0.77 to 0.88; 3 studies; high-quality evidence). Subgroup analysis showed a significant difference compared to placebo for the 4.5 mg/kg and 6.0 mg/kg (high-quality evidence) dose groups. There were no statistically significant differences in the incidence of adverse events, serious adverse events or withdrawal due to adverse events. Sixty-two per cent (860/1386) of ustekinumab patients developed at least one adverse event compared to 64% (407/637) of placebo patients (RR 0.97, 95% CI 0.90 to 1.04; 4 studies; high-quality evidence). Five per cent (75/1386) of ustekinumab patients had a serious adverse event compared to 6% (41/637) of placebo patients (RR 0.83, 95% CI 0.58 to 1.20; 4 studies; moderate-quality evidence). The most common adverse events in briakinumab patients were injection site reactions and infections. Infections were the most common adverse event in ustekinumab patients. Worsening of Crohn's disease and serious infections were the most common serious adverse events. Authors' conclusions High quality evidence suggests that ustekinumab is effective for induction of clinical remission and clinical improvement in patients with moderate to severe Crohn's disease. Moderate to high quality evidence suggests that the optimal dosage of ustekinumab is 6 mg/kg. Briakinumab and ustekinumab appear to be safe. Moderate quality evidence suggests no increased risk of serious adverse events."

According to the news editors, the research concluded: "Future studies are required to determine the long-term efficacy and safety of ustekinumab in patients with moderate to severe Crohn's disease."

For more information on this research see: Anti-IL-12/23p40 antibodies for induction of remission in Crohn's disease. *Cochrane Database of Systematic Reviews*, 2016; (11):2297-2352. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting J.K. MacDonald, University of Western Ontario, Dept. of Med, London, ON, Canada. Additional authors for this research include T.M. Nguyen, R. Khanna and A. Timmer.

Keywords for this news article include: London, Ontario, Canada, North and Central America, Immunology, Article Review, Risk and Prevention, Inflammatory Bowel Diseases
Researchers from University of Wurzburg Report Findings in Antineoplastics (Evaluation of dose-dependent effects of the proteasome inhibitor bortezomib in human platelets)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antineoplastics. According to news reporting from Wurzburg, Germany, by NewsRx journalists, research stated, "Platelets express key proteins of the proteasome system and contain protein ubiquitination pathways. The functional role of the proteasome system in platelets, however, is still subject of studies."

The news correspondents obtained a quote from the research from the University of Wurzburg, "In addition to its role as anticancer drug, the potent and selective proteasome inhibitor bortezomib can be used for experimental proteasome research. Since it is mandatory to know exact dose-effect relationships, we intended to evaluate dose-dependent specific bortezomib effects on basal and on agonist-induced proteasome activity, on levels of poly-ubiquitinated proteins and on platelet aggregation. In washed platelets, unstimulated or stimulated with different agonists and pre-incubated with various bortezomib concentrations, the proteasome activity was determined by a fluorometric assay. The levels of poly-ubiquitinated proteins were assessed by an immunoassay kit. Platelet aggregation was measured by light transmission aggregometry in platelet-rich-plasma. Platelet agonists stimulate both, the proteasome activity and the accumulation of poly-ubiquitinated proteins in platelets. Bortezomib inhibits the basal and the agonist induced proteasome activity and increased the content of poly-ubiquitinated proteins in a concentration dependent manner. Bortezomib concentrations in the nM-range causing complete blockade of platelet proteasome activity do not affect agonist induced platelet aggregation, indicating that the level of platelet proteasome activity is not directly linked with the induction of platelet aggregation."

According to the news reporters, the research concluded: "Bortezomib in the mu M-range may tamper platelet aggregation, possibly due to unspecific and toxic effects."


Our news journalists report that additional information may be obtained by contacting J. Koessler, University of Wurzburg, Inst Transfus Med & Haemotherapy, D-97080 Wurzburg, Germany. Additional authors for this research include J. Etzel, K. Weber, M. Boeck and A. Kobsar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.08.031. This DOI is a link to an online electronic
Researchers from University of Zagreb Detail Findings in Pseudomonas aeruginosa (RpoN Modulates Carbapenem Tolerance in Pseudomonas aeruginosa through Pseudomonas Quinolone Signal and PqsE)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Gram-Negative Bacteria - Pseudomonas aeruginosa is the subject of a report. According to news reporting from Zagreb, Croatia, by NewsRx journalists, research stated, "The ability of Pseudomonas aeruginosa to rapidly modulate its response to antibiotic stress and persist in the presence of antibiotics is closely associated with the process of cell-to-cell signaling. The alternative sigma factor RpoN (sigma(54)) is involved in the regulation of quorum sensing (QS) and plays an important role in the survival of stationary-phase cells in the presence of carbapenems."

The news correspondents obtained a quote from the research from the University of Zagreb, "Here, we demonstrate that a Delta rpoN mutant grown in nutrient-rich medium has increased expression of pqsA, pqsH, and pqsR throughout growth, resulting in the increased production of the Pseudomonas quinolone signal (PQS). The link between pqsA and its role in carbapenem tolerance was studied using a Delta rpoN Delta pqsA mutant, in which the carbapenem-tolerant phenotype of the Delta rpoN mutant was abolished. In addition, we demonstrate that another mechanism leading to carbapenem tolerance in the Delta rpoN mutant is mediated through pqsE. Exogenously supplied PQS abolished the biapenem-sensitive phenotype of the Delta rpoN Delta pqsA mutant, and overexpression of pqsE failed to alter the susceptibility of the Delta rpoN Delta pqsA mutant to biapenem. The mutations in the Delta rpoN Delta rhlR mutant and the Delta rpoN Delta pqsH mutant led to susceptibility to biapenem. Comparison of the changes in the expression of the genes involved in QS in wild-type PAO1 with their expression in the Delta rpoN mutant and the Delta rpoN mutant-derived strains demonstrated the regulatory effect of RpoN on the transcript levels of rhlR, vqsR, and rpoS."

According to the news reporters, the research concluded: "The findings of this study demonstrate that RpoN negatively regulates the expression of PQS in nutrient-rich medium and provide evidence that RpoN interacts with pqsA, pqsE, pqsH, and rhlR in response to antibiotic stress."

For more information on this research see: RpoN Modulates Carbapenem Tolerance in Pseudomonas aeruginosa through Pseudomonas Quinolone Signal and PqsE. Antimicrobial Agents and Chemotherapy, 2016;60(10):5752-5764. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by
Researchers from University of Zurich Describe Findings in Plasma
(Effect of alterations in blood volume with bed rest on glucose tolerance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematology - Plasma is the subject of a report. According to news reporting from Zurich, Switzerland, by NewsRx journalists, research stated, "Bed rest leads to rapid impairments in glucose tolerance. Plasma volume and thus dilution space for glucose are also reduced with bed rest, but the potential influence on glucose tolerance has not been investigated."

Financial support for this research came from University of Zurich, Center for Integrative Human Physiology.

The news correspondents obtained a quote from the research from the University of Zurich, "Accordingly, the aim was to investigate whether bed rest-induced impairments in glucose tolerance are related to a concomitant reduction in plasma volume. This hypothesis was tested mechanistically by restoring plasma volume with albumin infusion after bed rest and parallel determination of glucose tolerance. Fifteen healthy volunteers (age 24 +/- 3 yr, body mass index 23 +/- 2 kg/m(2), maximal oxygen uptake 44 +/- 8 ml.min(-1).kg(-1); means +/- SD) completed 4 days of strict bed rest. Glucose tolerance [oral glucose tolerance test (OGTT)] and plasma and blood volumes (carbon monoxide rebreathing) were assessed before and after 3 days of bed rest. On the fourth day of bed rest, plasma volume was restored by means of an albumin infusion prior to an OGTT. Plasma volume was reduced by 9.9 +/- 3.0% on bed rest day 3 and area under the curve for OGTT was augmented by 55 +/- 67%. However, no association (R-2 = 0.09, P = 0.33) between these simultaneously occurring responses was found. While normalization of plasma volume by matched albumin administration (408 +/- 104 ml) transiently decreased (P < 0.05) resting plasma glucose concentration (5.0 +/- 0.4 to 4.8 +/- 0.3 mmol/l), this did not restore glucose tolerance."

According to the news reporters, the research concluded: "Bed rest-induced alterations in dilution space may influence resting glucose values but do not affect area under the curve for OGTT."

For more information on this research see: Effect of alterations in blood volume with bed rest on glucose tolerance. *Journal of Applied Physiology*, 2016;121(5):1098-1105.
Researchers from University of Zurich Detail Findings in Melanoma (When cancer cannot be cured: A qualitative study on relationship changes in couples facing advanced melanoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Melanoma is now available. According to news reporting originating in Zurich, Switzerland, by NewsRx journalists, research stated, "The aim of this qualitative study was to gain a deeper understanding about couples' relationship changes over time (the first six months) after one partner is diagnosed with an incurable advanced melanoma (stage III or IV). In semistructured interviews, eight patients and their partners were asked separately about potential changes in their relationship since diagnosis."

The news reporters obtained a quote from the research from the University of Zurich, "The same questions were asked again six months later, but focusing on relationship changes over the preceding six months. Some 32 audiotaped interviews were analyzed applying qualitative content analysis. At baseline (t1), relationship changes were mostly reported in terms of caring, closeness/distance regulation, and communication patterns. While changes in caregiving and distance/closeness regulation remained main issues at six months follow-up (t2), greater appreciation of the relationship and limitations in terms of planning spare time also emerged as major issues. Unexpectedly, 50% of patients and partners reported actively hiding their negative emotions and sorrows from their counterparts to spare them worry. Furthermore, qualitative content analysis revealed relationship changes even in those patients and partners who primarily reported no changes over the course of the disease."

According to the news reporters, the research concluded: "Our findings revealed a differentiated and complex picture about relationship changes over time, which also might aid in the development of support programs for couples dealing with advanced cancer, focusing on the aspects of caring, closeness/distance regulation, and communication patterns."

For more information on this research see: When cancer cannot be cured: A qualitative study on relationship changes in couples facing advanced melanoma. Palliative & Supportive Care, 2016;14(6):652-663. Palliative & Supportive Care can be contacted at: Cambridge University Press, 32 Avenue of the Americas, New York, NY 10013-2473. (Cambridge University Press - www.cambridge.org; Palliative & Supportive Care -
Researchers from University of Zurich Provide Details of New Studies and Findings in the Area of Peripheral Artery Disease (beta-Blockers and Vascular Hemodynamics in Patients With Peripheral Arterial Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Peripheral Artery Disease is the subject of a report. According to news reporting originating in Zurich, Switzerland, by NewsRx journalists, research stated, "Aortic augmentation index (AIx) is a marker of central aortic pressure burden and is modulated by antihypertensive drugs. In patients with peripheral arterial disease (PAD) undergoing antihypertensive treatment, aortic pressures parameters, heart rate-adjusted augmentation index (AIx75), and unadjusted AIx were determined."

The news reporters obtained a quote from the research from the University of Zurich, "The (aortic) systolic and diastolic blood pressure did not differ between PAD patients who were taking -blockers (n=61) and those who were not taking -blockers (n=80). In patients taking -blockers, augmentation pressure and pulse pressure were higher than in patients who did not take -blockers (augmentation pressure, P=.02; pulse pressure, P=.005). AIx75 was lower in PAD patients taking -blockers than in patients not taking -blockers (P=.04), while the AIx did not differ between PAD patients taking and not taking -blockers. The present study demonstrates that -blockers potentially affect markers of vascular hemodynamics in patients with PAD."

According to the news reporters, the research concluded: "Because these markers are surrogates of cardiovascular risk, further studies are warranted to clarify the impact of selective -blocker treatment on clinical outcome in patients with PAD."

Researchers from University of the Ryukyus Detail Findings in Bacteremia (Bacteremia due to Citrobacter braakii: A case report and literature review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Bacterial Infections and Mycoses - Bacteremia have been presented. According to news reporting from Okinawa, Japan, by NewsRx journalists, research stated, "Among the Citrobacter genus, the most commonly isolated bacteria from human specimens are Citrobacter freundii and Citrobacter koseri, and previous cases of infection due to Citrobacter braakii have been rarely reported. We present a case of bacteremia due to C. braakii in a 38-year-old woman with cervical cancer."

The news correspondents obtained a quote from the research from the University of the Ryukyus, "She was admitted to our hospital with complaints of a fever, chills, and nausea. Blood culture results showed gram-negative bacilli identified as C. braakii via matrix-assisted laser desorption/ionization time-of-flight mass spectrometry analysis, although biochemical testing findings were suggestive of C. freundii. Since a rare pathogen was detected in the present case and the results of additional biochemical studies were suggestive of both C. braakii and Citrobacter farmeri, genetic analysis was conducted. Finally, the gram-negative bacilli were confirmed as C. braakii, a member of the C. freundii complex since 1993, by 16S ribosomal RNA gene sequencing analysis. The gastrointestinal tract was considered the portal of entry, because the patient had a rectal fistula and other cultures such as urine and vaginal discharge incubated species other than C. braakii. The patient recovered after receiving treatment with ciprofloxacin for 14 days. The epidemiology and clinical characteristics of C. braakii infection are still unknown because of the limitations in accurate identification by using currently available commercial biochemical testing and previously, only 6 cases of C. braakii infection have been reported."

According to the news reporters, the research concluded: "Physicians should focus on this species, because it causes community-acquired infections, although further studies are needed to clarify the clinical characteristics of C. braakii infections."

For more information on this research see: Bacteremia due to Citrobacter braakii: A case report and literature review. Journal of Infection and Chemotherapy, 2016;22(12):819-821. Journal of Infection and Chemotherapy can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)
Our news journalists report that additional information may be obtained by contacting S. Haranaga, University of Ryukyus, Dept. of Infect Dis Resp & Digest Med Control & Preve, Fac Med, Nakagami, Okinawa 9030215, Japan. Additional authors for this research include K. Uechi, M. Hagihara, D. Sakanashi, T. Kinjo, S. Haranaga and J. Fujita.

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Keywords for this news article include: Okinawa, Japan, Asia, Chemicals, Diagnostics and Screening, Epidemiology, Gram-Negative Facultatively Anaerobic Rods, Bacterial Infections and Mycoses, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Proteobacteria, Biochemicals, Biochemistry, Citrobacter, Bacteremia, Genetics, Sepsis, University of the Ryukyus.

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Heart Disorders and Diseases - Cardiomegaly

Researchers from Uppsala University Provide Details of New Studies and Findings in the Area of Cardiomegaly (PDGF-A and PDGF-B induces cardiac fibrosis in transgenic mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Cardiomegaly are presented in a new report. According to news reporting originating in Uppsala, Sweden, by NewsRx journalists, research stated, "Platelet-derived growth factors (PDGFs) and their receptors (PDGFRs) contribute to normal heart development. Deficient or abnormal expression of Pdgf and Pdgfr genes have a negative impact on cardiac development and function."

Financial supporters for this research include Swedish Cancer Foundation, Swedish Science Council, Novo Nordisk Foundation, IngaBritt and Arne Lundberg Foundation, Knut and Alice Wallenberg Foundation, Torsten and Ragnar Soderberg Foundation.

The news reporters obtained a quote from the research from Uppsala University, "The cellular effects of PDGFs in the hearts of Pdgf/Pdgfr mutants and the pathogenesis of the resulting abnormalities are poorly understood, but different PDGF isoforms induce varying effects. Here, we generated three new transgenic mouse types which complete a set of studies, where all different PDGF ligands have been expressed under the same heart specific alpha-myosin heavy chain promoter. Transgenic expression of the natural isoforms of Pdgfa and Pdgfb resulted in isoform specific fibrotic reactions and cardiac hypertrophy. Pdgfa overexpression resulted in a severe fibrotic reaction with up to 8-fold increase in cardiac size, leading to lethal cardiac failure within a few weeks after birth. In contrast, Pdgfb overexpression led to focal fibrosis and moderate cardiac hypertrophy. As PDGF-A and PDGF-B have different affinity for the two PDGF receptors, we analyzed the expression of the receptors and the histology of the fibrotic hearts. Our data suggest that the stronger fibrotic effect generated by Pdgfa overexpression was mediated by Pdgfra in cardiac interstitial mesenchymal cells, i.e. the likely source of extracellular matrix deposition and fibrotic reaction."

According to the news reporters, the research concluded: "The apparent sensitivity of the heart to ectopic PDGFR alpha agonists supports a role for endogenous PDGFRα agonists in the pathogenesis of cardiac fibrosis."

Our news correspondents report that additional information may be obtained by contacting J. Andrae, Uppsala University, Dept. of Immunol Genet & Pathol, Rudbeck Lab, Uppsala, Sweden. Additional authors for this research include P. Lindblom, C. Bondjers, C. Betsholtz and J. Andrae.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yexcr.2016.10.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uppsala, Sweden, Europe, Heart Disorders and Diseases, Cardiomegaly, Cardiology, Genetics, Uppsala University.

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**Neurology - Spasticity**

**Researchers from Valdman Institute of Pharmacology Discuss Findings in Spasticity (Morphine-induced Straub tail reaction in mice treated with serotonergic compounds)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurology - Spasticity have been published. According to news reporting originating from St. Petersburg, Russia, by NewsRx correspondents, research stated, "Constitutively active 5-HT2 receptors have been suggested to contribute to motoneuronal excitability, muscle spasms and spasticity. Accordingly, 5-HT2c receptor inverse agonists have been demonstrated in pilot experiments to reduce spasticity in animal model of spasticity and patients with spinal cord injuries."

Financial support for this research came from Ministry of Health of the Russian Federation.

Our news editors obtained a quote from the research from the Valdman Institute of Pharmacology, "Thus, 5-HT2c receptor inverse agonists may represent a novel class of anti-spasticity agents justifying a search for compounds with robust 5-HT2c receptor inverse agonist activity either among the existing medications or via a dedicated drug discovery program. Morphine-induced Straub tail response in mice is regarded as a model of transient spasticity that may be suitable for supporting such drug discovery efforts. Subcutaneous injection of morphine (10-60 mg/kg) induced a dose-dependent Straub tail reaction in male Swiss mice with maximum response obtained 15-30 min after the morphine administration. When given prior to morphine, 5-HT2B/2c receptor inverse agonists cyproheptadine (1-10 mg/kg, i.p.) and 5B206553 (0.3-3 mg/kg, i.p.) diminished Straub tail reaction dose-dependently without affecting spontaneous locomotor activity. In contrast, 5-HT2B/2c receptor antagonist methysergide (1-5.6 mg/kg, i.p.) and 5-HT2c receptor antagonist 5B242084 (1-5.6 mg/kg, i.p.) as well as 5-HT2A receptor inverse agonist pimavanserin (1-10 mg/kg, i.p.) had no appreciable effects on Straub tail response. Taken together, the findings indicate that constitutive activity of 5-HT2B/2c receptor may be involved in the mechanisms of morphine-induced spasticity."
According to the news editors, the research concluded: "Thus, morphine-induced Straub tail response may be evaluated further as a candidate higher throughput test to identify 5-HT2c receptor inverse agonists with anti-spasticity effects in vivo."

For more information on this research see: Morphine-induced Straub tail reaction in mice treated with serotonergic compounds. European Journal of Pharmacology, 2016;791():1-7. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news editors report that additional information may be obtained by contacting O.A. Dravolina, First Pavlov State Med Univ St Petersburg, Valdman Inst Pharmacol, Dept. of Psychopharmacol, St Petersburg 197022, Russia. Additional authors for this research include O.A. Dravolina, M.A. Tur, M.G. Semina, E.E. Zvartau and A.Y. Bespalov.

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Keywords for this news article include: St. Petersburg, Russia, Eurasia, Spasticity, Neurology, Valdman Institute of Pharmacology.

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Drugs and Therapies - Antiemetic-Antivertigo Agents

Researchers from Valencia Polytechnic University Describe Findings in Antiemetic-Antivertigo Agents [Enhanced photo(geno)toxicity of demethylated chlorpromazine metabolites]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiemetic-Antivertigo Agents have been published. According to news originating from Valencia, Spain, by NewsRx correspondents, research stated, "Chlorpromazine (CPZ) is an anti-psychotic drug widely used to treat disorders such as schizophrenia or manic depression. Unfortunately, CPZ exhibits undesirable side effects such as phototoxic and photoallergic reactions in humans."

Our news journalists obtained a quote from the research from Valencia Polytechnic University, "In general, the influence of drug metabolism on this type of reactions has not been previously considered in photosafety testing. Thus, the present work aims to investigate the possible photo(geno)toxic potential drug metabolites, using CPZ as an established reference compound. In this case, the metabolites selected for the study are demethylchlorpromazine (DMCPZ), didemethylchlorpromazine (DDMCPZ) and chlorpromazine sulfoxide (CPZSO). The demethylated CPZ metabolites DMCPZ and DDMCPZ maintain identical chromophore to the parent drug. In this work, it has been found that the nature of the aminoaalkyl side chain modulates the hydro-phobicity and the photochemical properties (for instance, the excited state lifetimes), but it does not change the photoreactivity pattern, which is characterized by reductive photodehalogenation, triggered by homolytic carbon-chlorine bond cleavage with formation of highly reactive aryl radical intermediates. Accordingly, these metabolites are phototoxic to cells, as revealed by the 3T3 NRU assay; their photo-irritation factors are even higher than that of CPZ. The same trend is observed in photogenotoxicity studies, both with isolated and with cellular DNA, where DMCPZ and DDMCPZ are more active than CPZ itself. In summary, side-
chain demethylation CPZ, as a consequence of Phase I biotransformation, does not result a photodetoxification."

According to the news editors, the research concluded: "Instead, it leads to metabolites that exhibit in an even enhanced photo(genotoxicity)."

For more information on this research see: Enhanced photo(genotoxicity) of demethylated chlorpromazine metabolites. *Toxicology and Applied Pharmacology*, 2016;313 ():131-137. *Toxicology and Applied Pharmacology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Toxicology and Applied Pharmacology - www.journals.elsevier.com/toxicology-and-applied-pharmacology/) The news correspondents report that additional information may be obtained from M.A. Miranda, Valencia Polytechnic University, Inst Tecnol Quim, UPV CSIC, Dept. of Quim, E-46022 Valencia, Spain. Additional authors for this research include G. Garcia-Lainez, D. Limones-Herrero, M.D. Coloma, J. Escobar, M.C. Jimenez, M.A. Miranda and I. Andreu. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.10.024. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Valencia, Spain, Europe, Central Nervous System Agents, Antiemetic-Antivertigo Agents, Phenothiazine Antipsychotics, Phenothiazine Antiemetics, Psychotherapeutic Agents, Chlorpromazine Therapy, Drugs and Therapies, Dopamine Antagonist, Phenothiazines, Genetics, Valencia Polytechnic University.

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Oncology - Lung Cancer

Researchers from Vanderbilt University School of Medicine Describe Findings in Lung Cancer (Chronic NF-kB activation links COPD and lung cancer through generation of an immunosuppressive microenvironment in the lungs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news originating from Nashville, Tennessee, by NewsRx correspondents, research stated, "Nuclear Factor (NF)-kB is positioned to provide the interface between COPD and carcinogenesis through regulation of chronic inflammation in the lungs. Using a tetracycline-inducible transgenic mouse model that conditionally expresses activated IkB kinase b (IKKb) in airway epithelium (IKTA), we found that sustained NF-kB signaling results in chronic inflammation and emphysema by 4 months."

Our news journalists obtained a quote from the research from the Vanderbilt University School of Medicine, "By 11 months of transgene activation, IKTA mice develop lung adenomas. Investigation of lung inflammation in IKTA mice revealed a substantial increase in M2-polarized macrophages and CD4+/CD25+/FoxP3+ regulatory T lymphocytes (Tregs). Depletion of alveolar macrophages in IKTA mice reduced Tregs, increased lung CD8+ lymphocytes, and reduced tumor numbers following treatment with the carcinogen urethane. Alveolar macrophages from IKTA mice supported increased generation of inducible Foxp3+ Tregs ex vivo through expression of TGFb and IL-10. Targeting of TGFb and IL-10 reduced the
ability of alveolar macrophages from IKTA mice to induce Foxp3 expression on T cells."

According to the news editors, the research concluded: "These studies indicate that sustained activation of NF-kB pathway links COPD and lung cancer through generation and maintenance of a pro-tumorigenic inflammatory environment consisting of alternatively activated macrophages and regulatory T cells."

For more information on this research see: Chronic NF-kB activation links COPD and lung cancer through generation of an immunosuppressive microenvironment in the lungs. Oncotarget, 2016;7(5):5470-82.

The news correspondents report that additional information may be obtained from R. Zaynagetdinov, Dept. of Medicine, Division of Allergy, Pulmonary and Critical Care Medicine, Vanderbilt University School of Medicine, Nashville, TN, 37232, United States. Additional authors for this research include T.P. Sherrill, L.A. Gleaves, P. Hunt, W. Han, A.G. McLoed, J.A. Saxon, H. Tanjore, P.M. Gulleman, L.R. Young and T.S Blackwell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6562. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Oncology, Nashville, Tennessee, Immunology, Lung Cancer, Macrophages, Inflammation, United States, Myeloid Cells, Lung Neoplasms, Connective Tissue Cells, North and Central America, Mononuclear Phagocyte System.

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Oncology - Prostate Cancer

Researchers from Viborg Hospital Report Recent Findings in Prostate Cancer (Parkinson's disease and risk of prostate cancer: A Danish population-based case-control study, 1995-2010)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Prostate Cancer have been presented. According to news reporting out of Viborg, Denmark, by NewsRx editors, research stated, "Prostate cancer growth and progression may be linked to neurogenesis and to medical anti-Parkinson treatment, but results are inconclusive. Therefore, we examined the association between Parkinson's disease and risk of prostate cancer in a population based case-control study."

Our news journalists obtained a quote from the research from Viborg Hospital, "We identified 45,429 patients diagnosed with incident prostate cancer during 1997-2010 from the National Cancer Registry. Five age-matched population controls (n = 227,145) were selected for each case. Odds ratios (ORs) adjusted for age and comorbidity for prostate cancer associated with Parkinson's disease were computed using conditional logistic regression. Analyses were stratified by duration of Parkinson's disease and stage of prostate cancer (localized and advanced). In total, 245 patients (0.5%) and 1656 controls (0.7%) had Parkinson's disease. Overall, patients with Parkinson's disease had a 27% lower risk of prostate cancer compared with patients without Parkinson's disease (adjusted OR (ORa) 0.73; 95% confidence interval (CI), 0.63-0.83). Risk of prostate cancer decreased with increasing duration of Parkinson's disease. The odds ratios were slightly lower for advanced prostate cancer (ORa, 0.68; 95% CI,
0.52-0.88) than for localized prostate cancer (ORa 0.76; 95% CI, 0.61-0.93)."

According to the news editors, the research concluded: "Parkinson's disease was associated with a risk reduction overall (27%), which decreased with increasing duration of Parkinson's disease."


Our news journalists report that additional information may be obtained by contacting C.G. Jespersen, Viborg Hosp. Dept. of Urol, DK-8800 Viborg, Denmark. Additional authors for this research include M. Norgaard and M. Borre.

Keywords for this news article include: Viborg, Denmark, Europe, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Basal Ganglia Diseases and Conditions, Brain Diseases and Conditions, Metastatic Prostate Cancer, Parkinsonian Disorders, Cancer, Epidemiology, Parkinson's Disease, Risk and Prevention, Prostatic Neoplasms, Movement Disorders, Oncology, Viborg Hospital.

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Drugs and Therapies - Behavioural Pharmacology
Researchers from Virginia Commonwealth University Discuss Findings in Behavioural Pharmacology (Cocaine-like discriminative stimulus effects of phendimetrazine and phenmetrazine in rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Behavioural Pharmacology. According to news reporting out of Research Triangle Park, North Carolina, by NewsRx editors, research stated, "Phendimetrazine is a clinically available anorectic and candidate medication for the treatment of cocaine addiction. Phendimetrazine can be metabolized to the amphetamine-like monoamine releaser phenmetrazine, but it is unclear if phendimetrazine functions as an inactive prodrug or might have activity on its own."

Our news journalists obtained a quote from the research from Virginia Commonwealth University, "As one method to address this issue, the present study compared the potency and time course of phendimetrazine and phenmetrazine to produce cocaine-like discriminative stimulus effects in adult, male rats (N=5) trained to discriminate cocaine (5.6 mg/kg, intraperitoneally) from saline in a two-key food-reinforced discrimination procedure. We hypothesized that, if metabolism to phenmetrazine was required for phendimetrazine effects, then phendimetrazine would be less potent and have a slower onset and offset of effects than phenmetrazine. Both phendimetrazine and phenmetrazine produced dose-dependent cocaine-like discriminative stimulus effects, and phendimetrazine was 7.8-fold less potent than phenmetrazine. However, the time courses of discriminative stimulus effects produced by phendimetrazine and phenmetrazine were similar, with peak effects at 10 min and offset by 100 min."

According to the news editors, the research concluded: "These results show the effectiveness of phendimetrazine to rapidly produce cocaine-like behavioral effects in rats and
support other nonhuman primate evidence to suggest that metabolism to phenmetrazine may not be required for phendimetrazine effects."

For more information on this research see: Cocaine-like discriminative stimulus effects of phendimetrazine and phenmetrazine in rats. *Behavioural Pharmacology*, 2016;27(2-3 Spec I):192-5. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting C.T. Bauer, aDept. of Pharmacology and Toxicology bInstitute for Drug and Alcohol Studies, Virginia Commonwealth University, Richmond, Virginia cCenter for Drug Discovery, Research Triangle Institute, Research Triangle Park, North Carolina, United States. Additional authors for this research include S.S. Negus, B.E. Blough and M.L. Banks.

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Keywords for this news article include: United States, North Carolina, Drugs and Therapies, Research Triangle Park, Behavioural Pharmacology, North and Central America.

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**Gastroenterology - Colorectal Research**

**Researchers from Virginia Commonwealth University Discuss Findings in Colorectal Research (Primary Care Physicians' Support of Shared Decision Making for Different Cancer Screening Decisions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gastroenterology - Colorectal Research are presented in a new report. According to news reporting originating in Richmond, Virginia, by NewsRx journalists, research stated, "Despite its widespread advocacy, shared decision making (SDM) is not routinely used for cancer screening. To better understand the implementation barriers, we describe primary care physicians' (PCPs') support for SDM across diverse cancer screening contexts."

The news reporters obtained a quote from the research from Virginia Commonwealth University, "Surveys were mailed to a random sample of USA-based PCPs. Using multivariable logistic regression analyses, we tested for associations of PCPs' support of SDM with the US Preventive Service Task Force (USPSTF) assigned recommendation grade, assessed whether the decision pertained to not screening older patients, and the PCPs' autonomous v. controlled motivation-orientation for using SDM. PCPs (n = 278) were, on average, aged 52 years, 38% female, and 69% white. Of these, 79% endorsed discussing screening benefits as very important to SDM; 64% for discussing risks; and 31% for agreeing with patient's opinion. PCPs were most likely to rate SDM as very important for colorectal cancer screening in adults aged 50-75 years (69%), and least likely for colorectal cancer screening in adults aged 85 years (34%). Regression results indicated the importance of PCPs' having autonomous or self-determined reasons for engaging in SDM (e.g., believing in the benefits of SDM) (OR = 2.29, 95% CI, 1.87 to 2.79). PCPs' support for SDM varied by USPSTF recommendation grade (overall contrast, X^2 = 14.7; P = 0.0054), with support greatest for A-Grade recommendations. Support for SDM was lower in contexts where decisions pertained to not screening older patients (OR = 0.45, 95% CI, 0.35
to 0.56). Limitations. It is unknown whether PCPs' perceptions of the importance of SDM behaviors differs with specific screening decisions or the potential limited ability to generalize findings."

According to the news reporters, the research concluded: "Our results highlight the need to document SDM benefits and consider the specific contextual challenges, such as the level of uncertainty or whether evidence supports recommending/not recommending screening, when implementing SDM across an array of cancer screening contexts."

For more information on this research see: Primary Care Physicians' Support of Shared Decision Making for Different Cancer Screening Decisions. Medical Decision Making, 2016;37(1):70-78. Medical Decision Making can be contacted at: Sage Publications Inc, 2455 Teller Rd, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com/; Medical Decision Making - mdm.sagepub.com)

Our news correspondents report that additional information may be obtained by contacting J.E. Lafata, Virginia Commonwealth University, Dept. of Hlth Behav & Policy, Richmond, VA 23219, United States. Additional authors for this research include R.F. Brown, M.P. Pignone, S. Ratliff and L.A. Shay.

Keywords for this news article include: Richmond, Virginia, United States, North and Central America, Cancer, Diagnostics and Screening, Colorectal Research, Gastroenterology, Oncology, Virginia Commonwealth University.

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Drugs and Therapies - Aerosol Medicine and...

Researchers from Virginia Commonwealth University Report Details of New Studies and Findings in the Area of Aerosol Medicine and Pulmonary Drug Delivery (Validating Whole-Airway CFD Predictions of DPI Aerosol Deposition at Multiple Flow Rates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Aerosol Medicine and Pulmonary Drug Delivery are discussed in a new report. According to news originating from Richmond, Virginia, by NewsRx correspondents, research stated, "The objective of this study was to compare aerosol deposition predictions of a new whole-airway CFD model with available in vivo data for a dry powder inhaler (DPI) considered across multiple inhalation waveforms, which affect both the particle size distribution (PSD) and particle deposition. The Novolizer DPI with a budesonide formulation was selected based on the availability of 2D gamma scintigraphy data in humans for three different well-defined inhalation waveforms."

Our news journalists obtained a quote from the research from Virginia Commonwealth University, "Initial in vitro cascade impaction experiments were conducted at multiple constant (square-wave) particle sizing flow rates to characterize PSDs. The whole-airway CFD modeling approach implemented the experimentally determined PSDs at the point of aerosol formation in the inhaler. Complete characteristic airway geometries for an adult were evaluated through the lobar bronchi, followed by stochastic individual pathway (SIP) approximations through the tracheobronchial region and new acinar moving wall models of the alveolar region. It was determined that the PSD used for each inhalation waveform should be based on a constant particle sizing flow rate equal to the average of the inhalation waveform's
peak inspiratory flow rate (PIFR) and mean flow rate [i.e., AVG(PIFR, Mean)]. Using this technique, agreement with the in vivo data was acceptable with <15% relative differences averaged across the three regions considered for all inhalation waveforms. Defining a peripheral to central deposition ratio (P/C) based on alveolar and tracheobronchial compartments, respectively, large flow-rate-dependent differences were observed, which were not evident in the original 2D in vivo data. The agreement between the CFD predictions and in vivo data was dependent on accurate initial estimates of the PSD, emphasizing the need for a combination in vitro-in silico approach."

According to the news editors, the research concluded: "Furthermore, use of the AVG(PIFR, Mean) value was identified as a potentially useful method for characterizing a DPI aerosol at a constant flow rate."


The news correspondents report that additional information may be obtained from P.W. Longest, Virginia Commonwealth University, Dept. of Pharmaceut, Richmond, VA, United States. Additional authors for this research include G. Tian, N. Khajeh-Hosseini-Dalasm and M. Hindle.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/jamp.2015.1281. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Richmond, Virginia, United States, North and Central America, Aerosol Medicine and Pulmonary Drug Delivery, Drugs and Therapies, Virginia Commonwealth University.

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Lung Diseases and Conditions - Asthma

Researchers from Virginia Polytechnic Institute and State University Describe Findings in Asthma (Tollip SNP rs5743899 modulates human airway epithelial responses to rhinovirus infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases and Conditions - Asthma is now available. According to news originating from Blacksburg, Virginia, by NewsRx correspondents, research stated, "Rhinovirus (RV) infection in asthma induces varying degrees of airway inflammation (e. g. neutrophils), but the underlying mechanisms remain unclear. The major goal was to determine the role of genetic variation [ e. g. single nucleotide polymorphisms (SNPs)] of Toll-interacting protein (Tollip) in airway epithelial responses to RV in a type 2 cytokine milieu."

Financial support for this research came from National Institutes of Health. Our news journalists obtained a quote from the research from Virginia Polytechnic Institute and State University, "DNA from blood of asthmatic and normal subjects was
genotyped for Tollip SNP rs5743899 AA, AG and GG genotypes. Human tracheobronchial epithelial (HTBE) cells from donors without lung disease were cultured to determine pro-inflammatory and antiviral responses to IL-13 and RV16. Tollip knockout and wild-type mice were challenged with house dust mite (HDM) and infected with RV1B to determine lung inflammation and antiviral response. Asthmatic subjects carrying the AG or GG genotype (AG/GG) compared with the AA genotype demonstrated greater airflow limitation. HTBE cells with AG/GG expressed less Tollip. Upon IL-13 and RV16 treatment, cells with AG/GG (vs. AA) produced more IL-8 and expressed less antiviral genes, which was coupled with increased NF-κB activity and decreased expression of LC3, a hallmark of the autophagic pathway. Tollip co-localized and interacted with LC3. Inhibition of autophagy decreased antiviral genes in IL-13- and RV16-treated cells. Upon HDM and RV1B, Tollip knockout (vs. wild-type) mice demonstrated higher levels of lung neutrophilic inflammation and viral load, but lower levels of antiviral gene expression."

According to the news editors, the research concluded: "Our data suggest that Tollip SNP rs5743899 may predict varying airway response to RV infection in asthma."

For more information on this research see: Tollip SNP rs5743899 modulates human airway epithelial responses to rhinovirus infection. *Clinical and Experimental Allergy*, 2016;46 (12):1549-1563. *Clinical and Experimental Allergy* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Clinical and Experimental Allergy - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2222)

The news correspondents report that additional information may be obtained from L. Li, Virginia Polytechnic Institute & State Univ, Dept. of Biol Sci, Blacksburg, VA 24061, United States. Additional authors for this research include D. Jiang, D. Francisco, R. Berman, Q. Wu, J.G. Ledford, C.M. Moore, Y. Ito, C. Stevenson, D. Munson, L. Li, M. Kraft and H.W. Chu.

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Keywords for this news article include: Blacksburg, Virginia, United States, North and Central America, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Picornaviridae, Inflammation, RNA Viruses, Rhinovirus, Genetics, Virology, Asthma, Viral, Virginia Polytechnic Institute and State University.

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Glioma has been shown to have no significant effect on progression-free survival. If these treatments have a different effect on health-related quality of life (HRQOL), it might affect the choice of therapy.

Financial supporters for this research include National Cancer Institute grants, Medical Research Council Clinical Trials Unit at University College London from Cancer Research UK, Canadian Cancer Society Research Institute, National Health and Medical Research Council project grant.

The news correspondents obtained a quote from the research from Vrije University, "We postulated that temozolomide compromises HRQOL and global cognitive functioning to a lesser extent than does radiotherapy. We did a prospective, phase 3, randomised controlled trial at 78 medical centres and large hospitals in 19 countries. We enrolled adult patients (aged ≥ 18 years) with histologically confirmed diffuse (WHO grade II) astrocytoma, oligodendroglioma, or mixed oligoastrocytoma, with a WHO performance status of 2 or lower, without previous chemotherapy or radiotherapy, who needed active treatment other than surgery. We randomly assigned eligible patients (1:1) using a minimisation technique, stratified by WHO performance status (0-1 vs 2), age (<40 years vs ≥ 40 years), presence of contrast enhancement on MRI, chromosome 1p status (deleted vs non-deleted vs indeterminate), and the treating medical centre, to receive either radiotherapy (50.4 Gy in 28 fractions of 1.8 Gy for 5 days per week up to 6.5 weeks) or temozolomide chemotherapy (75 mg/m² daily, for 21 of 28 days [one cycle] for 12 cycles). The primary endpoint was progression-free survival (results published separately); here, we report the results for two key secondary endpoints: HRQOL (assessed using the European Organisation for Research and Treatment of Cancer's [EORTC] QLQ-C30 [version 3] and the EORTC Brain Cancer Module [QLQ-BN20]) and global cognitive functioning (assessed using the Mini-Mental State Examination [MMSE]). We did analyses on the intention-to-treat population. This study is closed and is registered at EudraCT, number 2004-002714-11, and at ClinicalTrials.gov, number NCT00182819. Between Dec 6, 2005, and Dec 21, 2012, we randomly assigned 477 eligible patients to either radiotherapy (n=240) or temozolomide chemotherapy (n=237). The difference in HRQOL between the two treatment groups was not significant during the 36 months' follow-up (mean between group difference [averaged over all timepoints] 0.06, 95% CI -4.64 to 4.75, p=0.98). At baseline, 32 (13%) of 239 patients who received radiotherapy and 32 (14%) of 236 patients who received temozolomide chemotherapy had impaired cognitive function, according to the MMSE scores. After randomisation, five (8%) of 63 patients who received radiotherapy and three (6%) of 54 patients who received temozolomide chemotherapy and who could be followed up for 36 months had impaired cognitive function, according to the MMSE scores. No significant difference was recorded between the groups for the change in MMSE scores during the 36 months of follow-up. The effect of temozolomide chemotherapy or radiotherapy on HRQOL or global cognitive functioning did not differ in patients with low-grade glioma."

According to the news reporters, the research concluded: "These results do not support the choice of temozolomide alone over radiotherapy alone in patients with high-risk low-grade glioma."


Our news journalists report that additional information may be obtained by contacting J.C. Reijneveld, Vrije Universiteit Amsterdam, Medical Center, Dept. of Neurol, Brain Tumor Center Amsterdam, Amsterdam, Netherlands. Additional authors for this research...
Researchers from Wakayama Medical University Report on Findings in Heart Attack [Optical frequency domain imaging vs. intravascular ultrasound in percutaneous coronary intervention (OPINION trial): Study protocol for a randomized controlled ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Heart Attack are presented in a new report. According to news originating from Wakayama, Japan, by NewsRx correspondents, research stated, "Optical coherence tomography is becoming increasingly widespread as an adjunctive intravascular diagnostic technique in percutaneous coronary intervention (PCI), because of its ability to visualize coronary structures at high resolution. Several studies have reported that intravascular ultrasound (IVUS) guidance in PCI might be helpful to reduce subsequent stent thrombosis, restenosis, repeat revascularization, myocardial infarction, and cardiac death."

Our news journalists obtained a quote from the research from Wakayama Medical University, "The OPTical frequency domain imaging vs. INtravascular ultrasound in percutaneous coronary InterventiON (OPINION) trial is aimed at evaluating the impact of optical frequency domain imaging (OFDI) guidance in PCI on clinical outcomes compared with IVUS guidance. The OPINION trial is a multicenter, prospective, randomized, controlled, open-label, parallel group, non-inferiority trial in Japan. The eligible patients are randomly assigned to receive either OFDI-guided PCI or IVUS-guided PCI. PCI is performed using the biolimus-eluting stent in accordance with a certain criteria of OFDI and IVUS for optimal stent deployment. All patients will undergo a follow-up angiography at 8 months. The primary endpoint is target vessel failure composed of cardiac death, myocardial infarction attributed to the target vessel, and clinically-driven target vessel revascularization at 12 months."

According to the news editors, the research concluded: "When completed, the OPINION trial will contribute to define the clinical value of the OFDI guidance in PCI."

For more information on this research see: Optical frequency domain imaging vs. intravascular ultrasound in percutaneous coronary intervention (OPINION trial): Study protocol for a randomized controlled trial. Journal of Cardiology, 2016;68(5-6):455-460. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology -
www.journals.elsevier.com/journal-of-cardiology/)

The news correspondents report that additional information may be obtained from T. Akasaka, Wakayama Med Univ, Dept. of Cardiovasc Med, Wakayama 6418509, Japan. Additional authors for this research include T. Shinke, T. Okamura, K. Hibi, G. Nakazawa, Y. Morino, J. Shite, T. Fusazaki, H. Otake, K. Kozuma and T. Akasaka.

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Keywords for this news article include: Wakayama, Japan, Asia, Percutaneous Coronary Intervention, Vascular Diseases and Conditions, Heart Disorders and Diseases, Clinical Trials and Studies, Myocardial Infarction, Myocardial Ischemia, Clinical Research, Intravascular, Heart Disease, Heart Attack, Cardiology, Angiology, Surgery, Wakayama Medical University.

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Drugs and Therapies - Cetirizine Therapy

Researchers from Warsaw University of Technology Report on Findings in Cetirizine Therapy (Tasting cetirizine-based microspheres with an electronic tongue)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Cetirizine Therapy is the subject of a report. According to news originating from Warsaw, Poland, by NewsRx correspondents, research stated, "Nowadays electronic tongues are used for the recognition of variety of samples, but most popular application area is pharmaceutical analysis, including mainly taste masking effects detection and estimation. However, it is noticeable, that among various pharmaceutical formulations still simple masking with the use of sweeteners plays the key role in such investigation."

Financial support for this research came from Priority Axis I.

Our news journalists obtained a quote from the research from the Warsaw University of Technology, "In this work we conduce electronic tongue study of novel drug delivery system microspheres containing cetirizine. Microspheres prepared with the use of two coating agents with different drug to polymer ratio are applied for the observation of change in taste masking and release properties (in vivo and in vitro study) and these results are compared with changes in chemical images recorded by the developed electronic tongue system."

According to the news editors, the research concluded: "High correlation of the electronic tongue results and 'compromise scores' of human panel is presented."

For more information on this research see: Tasting cetirizine-based microspheres with an electronic tongue. Sensors and Actuators B-Chemical, 2017:238():1190-1198. Sensors and Actuators B-Chemical can be contacted at: Elsevier Science Sa, PO Box 564, 1001 Lausanne, Switzerland.

The news correspondents report that additional information may be obtained from P. Ciosek, Warsaw University of Technology, Dept. of Microbioanalyst, PL-00664 Warsaw, Poland. Additional authors for this research include M. Zabadaj, A. Amelian, K. Winnicka, W. Wroblewski and P. Ciosek.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.snb.2016.06.147. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Warsaw, Poland, Europe, Cetirizine Therapy Hydrochloride, Drugs and Therapies, Pharmaceuticals, Warsaw University of Technology.

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**Oncology**

**Researchers from Washington University Describe Findings in Oncology [Signatures of prostate-derived Ets factor (PDEF) in cancer]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology are discussed in a new report. According to news reporting originating in St. Louis, Missouri, by NewsRx editors, the research stated, "The Ets proteins are a family of transcription factors characterized by an evolutionarily conserved DNA-binding domain and have diverse biological functions including tumor suppressor as well as tumor promoter functions. They are regulated via a complex and diverse number of mechanisms and control key cellular processes."

The news reporters obtained a quote from the research from Washington University, "Prostate-derived Ets transcription factor (PDEF), a unique member of the ETS family, is present in tissues with high epithelial content are hormone-regulated, such as prostate, breast, salivary glands, ovaries, colon, airways, and stomach tissues. PDEF (prostate-derived Ets factor) is also referred to as SPDEF (SAM pointed domain containing Ets transcription factor), PSE (mouse homolog), or hPSE (human PSE) in the literature and is the sole member of the PDEF ETS sub-family. The role of PDEF in cancer development is still not fully elucidated though. The present article focuses on the key findings about the PDEF's biological functions, interacting proteins, and its target genes. There is a strong urge to focus on the clinical studies in larger cohort, which elucidate the regulation of PDEF and its target genes, to determine the potential of PDEF as biomarker."

According to the news reporters, the research concluded: "Based on the studies discussed in the present article, one can anticipate that PDEF offers a great potential for developing therapeutics against cancer."


Our news correspondents report that additional information may be obtained by contacting N. Mahajan, Washington University, St Louis, MO 63130, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5326-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Cancer, Article Review, Oncology, Genetics, Washington University.

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Researchers from Washington University Detail Findings in Atrial Fibrillation (Potassium and Magnesium Supplementation Do Not Protect Against Atrial Fibrillation After Cardiac Operation: A Time-Matched Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting originating from St. Louis, Missouri, by NewsRx correspondents, research stated, "Despite a lack of demonstrated efficacy, potassium and magnesium supplementation are commonly thought to prevent postoperative atrial fibrillation (POAF) after cardiac operation. Our aim was to evaluate the natural time course of electrolyte level changes after cardiac operation and their relation to POAF occurrence."

Funders for this research include National Institutes of Health, Barnes-Jewish Hospital Foundation.

Our news editors obtained a quote from the research from Washington University, "Data were reviewed from 2,041 adult patients without preoperative AF who underwent coronary artery bypass grafting, valve operation, or both between 2009 and 2013. In patients with POAF, the plasma potassium and magnesium levels nearest to the first AF onset time were compared with time-matched electrolyte levels in patients without AF. POAF occurred in 752 patients (36.8%). At the time of AF onset or the matched time point, patients with POAF had higher potassium (4.30 versus 4.21 mmol/L, p< 0.001) and magnesium (2.33 versus 2.16 mg/dL, p< 0.001) levels than controls. A stepwise increase in AF risk occurred with increasing potassium or magnesium quintile (p < 0.001). On multivariate logistic regression analysis, magnesium level was an independent predictor of POAF (odds ratio 4.26, p< 0.001), in addition to age, Caucasian race, preoperative beta-blocker use, valve operation, and postoperative pneumonia. Prophylactic potassium supplementation did not reduce the POAF rate (37% versus 37%, p = 0.813), whereas magnesium supplementation was associated with increased POAF (47% versus 36%, p = 0.005). Higher serum potassium and magnesium levels were associated with increased risk of POAF after cardiac operation. Potassium supplementation was not protective against POAF, and magnesium supplementation was even associated with increased POAF risk."

According to the news editors, the research concluded: "These findings help explain the poor efficacy of electrolyte supplementation in POAF prophylaxis."


The news editors report that additional information may be obtained by contacting S.J. Melby, Washington University, Barnes Jewish Hosp, Sch Med, Div Cardiothorac Surg, St Louis, MO 63110, United States. Additional authors for this research include M.R. Schill, J.W. Greenberg, M.R. Moon, R.B. Schuessler, R.J. Damiano and S.J. Melby.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.06.066. This DOI is a link to an online electronic
Researchers from Washington University Provide Details of New Studies and Findings in the Area of Clubfoot (Deletions of 5' HOXC genes are associated with lower extremity malformations, including clubfoot and vertical talus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Clubfoot have been published. According to news reporting out of St. Louis, Missouri, by NewsRx editors, research stated, "Deletions of the HOXC gene cluster result in variable phenotypes in mice, but have been rarely described in humans. To report chromosome 12q13.13 microdeletions ranging from 13 to 175 kb and involving the 5' HOXC genes in four families, segregating congenital lower limb malformations, including clubfoot, vertical talus and hip dysplasia."

Our news journalists obtained a quote from the research from Washington University, "Probands (N=253) with clubfoot or vertical talus were screened for point mutations and copy number variants using multiplexed direct genomic selection, a pooled BAC targeted capture approach. SNP genotyping included 1178 probands with clubfoot or vertical talus and 1775 controls. The microdeletions share a minimal non-coding region overlap upstream of HOXC13, with variable phenotypes depending upon HOXC13, HOXC12 or the HOTAIR IncRNA inclusion. SNP analysis revealed HOXC11 p.Ser191Phe segregating with clubfoot in a small family and enrichment of HOXC12 p.Asn176Lys in patients with clubfoot or vertical talus (rs189468720, p=0.0057, OR=3.8). Defects in limb morphogenesis include shortened and overlapping toes, as well as peroneus muscle hypoplasia. Finally, HOXC and HOXD gene expression is reduced in fibroblasts from a patient with a 5' HOXC deletion, consistent with previous studies demonstrating that dosage of IncRNAs alters expression of HOXD genes in trans. Because HOXD10 has been implicated in the aetiology of congenital vertical talus, variation in its expression may contribute to the lower limb phenotypes occurring with 5' HOXC microdeletions."

According to the news editors, the research concluded: "Identification of 5' HOXC microdeletions highlights the importance of transcriptional regulators in the aetiology of severe lower limb malformations and will improve their diagnosis and management."

For more information on this research see: Deletions of 5' HOXC genes are associated with lower extremity malformations, including clubfoot and vertical talus. _Journal of Medical Genetics_, 2016;53(4):250-5. (BMJ Publishing Group - group.bmj.com/; Journal of Medical Genetics - jmg.bmj.com/)

Our news journalists report that additional information may be obtained by contacting D.M. Alvarado, Dept. of Orthopedic Surgery, Washington University, St Louis, Missouri, United States. Additional authors for this research include K. McCall, J.T. Hecht,
Researchers from Washington University School of Medicine Describe Findings in Heart Failure (One-year follow-up results from AUGMENT-HF: a multicentre randomized controlled clinical trial of the efficacy of left ventricular augmentation with...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Failure. According to news originating from St. Louis, Missouri, by NewsRx correspondents, research stated, "AUGMENT-HF was an international, multicentre, prospective, open-label, randomized, controlled evaluation testing the hypothesis that Algisyl (injectable calcium alginate hydrogel) is superior to standard medical therapy (SMT) for improving functional capacity and clinical outcomes in patients with advanced heart failure (HF). We previously reported results following 6 months of follow-up."

Our news journalists obtained a quote from the research from the Washington University School of Medicine, "This report presents the results from 1 year of extended follow up for this clinical trial. We enrolled 78 patients with advanced HF, randomized (1:1), to Algisyl with SMT or SMT alone as previously reported. Patient inclusion criteria were LVEF (<=)35%, peak VO2 of 9.0-14.5 mL/min/kg and LV end-diastolic diameter (LVEDD) index 30-40 mm/m (2) (LVEDD/body surface area). Patients must have been on stable, evidence-based therapy for HF. A total of 58 patients, mean age 62.3 ? 9.6 years, with ischaemic (57.7%) or non-ischaemic (42.3%) HF completed 12 months of follow-up. Treatment with Algisyl was associated with improved peak VO2 at 12 months; treatment effect vs. control of +2.10 mL/kg/min (95% confidence interval 0.96-3.24, p<0.001). Statistically significant improvements were observed for VO2 at anaerobic threshold, 6-min walk test distance, and NYHA functional class (all p <0.001). Through 12 months of follow-up there were 4 (10.5%) deaths in the control group and 9 (22.5%) deaths in the Algisyl group. Algisyl in addition to SMT was more effective than SMT alone for providing sustained 1-year benefits in exercise capacity, symptoms, and clinical status for patients with advanced HF."

According to the news editors, the research concluded: "These data support larger clinical evaluations of this novel therapy."

Researchers from Washington University School of Medicine Report Details of New Studies and Findings in the Area of Lymphoma (Allogeneic hematopoietic stem cell transplantation in Hodgkin lymphoma: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Lymphoma have been presented. According to news reporting from St. Louis, Missouri, by NewsRx journalists, research stated, "Allogeneic stem cell transplantation (allo-SCT) outcomes in patients with Hodgkin lymphoma (HL) remain poorly defined. We performed a meta-analysis of allo-SCT studies in HL patients."

The news correspondents obtained a quote from the research from the Washington University School of Medicine, "The primary endpoints were 6-month, 1-year, 2-year and 3-year relapse-free survival (RFS) and overall survival (OS). A total of 42 reports (1850 patients) was included. The pooled estimates (95% confidence interval) for 6-month, 1-year, 2-year and 3-year RFS were 77 (59-91)%, 50 (42-57)%, 37 (31-43)% and 31 (25-37)%, respectively. The corresponding numbers for OS were 83 (75-91)%, 68 (62-74)%, 58 (52-64)% and 50 (41-58)%, respectively. There was statistical heterogeneity among studies in all outcomes. In meta-regression, accrual initiation year in 2000 or later was associated with higher 6-month (p=0.012) and 1-year OS (p=0.046), and pre-SCT remission with higher 2-year OS (p=0.047) and 1-year RFS (p=0.016)."

According to the news reporters, the research concluded: "Outcomes of allo-SCT in HL have improved over time, with 5-10% lower non-relapse mortality and relapse rates, and 15-20% higher RFS and OS in studies that initiated accrual in 2000 or later compared with earlier studies. However, there is no apparent survival plateau, demonstrating the need to improve on current allo-SCT strategies in relapsed/refractory HL."

For more information on this research see: Allogeneic hematopoietic stem cell transplantation in Hodgkin lymphoma: a systematic review and meta-analysis. Bone Marrow Transplantation, 2016;51(4):521-8. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)
Our news journalists report that additional information may be obtained by contacting A. Rashidi, BMT and Leukemia Program, Division of Oncology, Washington University School of Medicine, St Louis, MO, United States. Additional authors for this research include M. Ebadi and A.F Cashen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bmt.2015.332. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Bone Marrow Transplantation is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Biomedicine, Surgery, Missouri, Oncology, St. Louis, Lymphomas, Hematology, United States, Article Review, Bone Marrow Cells, Stem Cell Research, Transplant Medicine, Cell Transplantation, Hematopoietic Stem Cells, North and Central America, Immunoproliferative Disorders, Lymphoproliferative Disorders.

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Oncology - Prostate Cancer

Researchers from Wayne State University Describe Findings in Prostate Cancer [The Amino-terminal Domain of the Androgen Receptor Co-opts Extracellular Signal-regulated Kinase (ERK) Docking Sites in ELK1 Protein to Induce Sustained Gene ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news originating from Detroit, Michigan, by NewsRx correspondents, research stated, "The ETS domain transcription factor ELK1 is in a repressive association with growth genes and is transiently activated through phosphorylation by ERK1/2. In prostate cancer (PCa) cells the androgen receptor (AR) is recruited by ELK1, via its amino-terminal domain (A/B), as a transcriptional co-activator, without ELK1 hyper-phosphorylation."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from Wayne State University. "Here we elucidate the structural basis of the interaction of AR with ELK1. The ELK1 polypeptide motifs required for co-activation by AR versus those required for activation of ELK1 by ERK were systematically mapped using a mammalian two-hybrid system and confirmed using a co-immunoprecipitation assay. The mapping precisely identified the two ERK-docking sites in ELK1, the D-box and the DEF (docking site for ERK, FXFP) motif, as the essential motifs for its cooperation with AR(A/B) or WTAR. In contrast, the transactivation domain in ELK1 was only required for activation by ERK. ELK1-mediated transcriptional activity of AR(A/B) was optimal in the absence of ELK1 binding partners, ERK1/2 and serum-response factor. Purified ELK1 and AR bound with a dissociation constant of 1.9 x 10(-8) M. A purified mutant ELK1 in which the D-box and DEF motifs were disrupted did not bind AR. An ELK1 mutant with deletion of the D-box region had a dominant-negative effect on androgen-dependent growth of PCa cells that were insensitive to MEK inhibition."

According to the news editors, the research concluded: "This novel mechanism in which a nuclear receptor impinges on a signaling pathway by co-opting protein kinase docking sites to constitutively activate growth genes could enable rational design of a new class of
targeted drug interventions."


The news correspondents report that additional information may be obtained from M. Ratnam, Wayne State University, Sch Med, Detroit, MI 48201, United States. Additional authors for this research include M. Patki, V. Chari, S. Dakshnamurthy, T. McFall, J. Saxton, B.L. Kidder, P.E. Shaw and M. Ratnam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.745596. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Enzymes and Coenzymes, Transcription Factors, DNA-Binding Proteins, Drugs and Therapies, Prostatic Neoplasms, Androgen Receptors, Steroid Receptors, Kinase, Genetics, Prostate Cancer, Androgens, Oncology, Wayne State University.

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Oncology - Epithelial Ovarian Cancer

Researchers from Wayne State University Report Details of New Studies and Findings in the Area of Epithelial Ovarian Cancer (The Role of Angiogenesis in the Persistence of Chemoresistance in Epithelial Ovarian Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Epithelial Ovarian Cancer are presented in a new report. According to news reporting originating from Detroit, Michigan, by NewsRx correspondents, research stated, "Chemoresistance remains a major challenge in the treatment of ovarian cancer. As part of a survival mechanism, tumor cells have been shown to release proangiogenic factors, such as vascular endothelial growth factor (VEGF), through a mechanism that involves the upregulation of hypoxia-induced factor (HIF)-1."

Our news editors obtained a quote from the research from Wayne State University, "The objective of this study was to compare the expression of VEGF and its receptors (R1 and R2) as well as HIF-1 in chemoresistant epithelial ovarian cancer (EOC) cells to their chemosensitive counterparts and determine their impact on angiogenesis. Two human EOC cell lines, MDAH-2774 and SKOV-3, and their cisplatin- or taxotere-resistant counterparts were used. Total RNA and protein were subjected to real-time reverse transcriptase-polymerase chain reaction, immunoprecipitation/Western blot and enzyme-linked immunosorbent assay to evaluate the expression of VEGF, VEGF receptors (R1 and R2), and HIF-1. Angiogenesis was assessed with an in vitro angiogenesis assay. Data were analyzed using independent Student t tests and chi-square. Both taxotere- and cisplatin-resistant MDAH-2774 and SKOV-3 EOC cell lines manifested a significant decrease in VEGF, VEGF receptors, HIF-1 messenger RNA, and
protein levels as compared to their chemosensitive counterparts. There was a significant decrease in the number and thickness of polygon blood vessel formation in chemoresistant EOC cells compared to chemosensitive counterparts. Cisplatin- and taxotere-resistant EOC cells are characterized by lower VEGF, VEGF receptors, and HIF-1, and decreased angiogenesis."

According to the news editors, the research concluded: "These findings may indicate a decrease in drug delivery at the tumor site, hence allowing the persistence of chemoresistant EOC cells."

For more information on this research see: The Role of Angiogenesis in the Persistence of Chemoresistance in Epithelial Ovarian Cancer. Reproductive Sciences, 2016;23 (11):1484-1492. Reproductive Sciences can be contacted at: Sage Publications Inc, 2455 Teller Rd, Thousand Oaks, CA 91320, USA. (Sage Publications - www.sagepub.com; Reproductive Sciences - rsx.sagepub.com)

The news editors report that additional information may be obtained by contacting G.M. Saed, Wayne State University, Sch Med, Dept. of Obstet & Gynecol, CS Mott Center Human Growth & Dev, Detroit, MI 48201, United States. Additional authors for this research include J. Belotte, N.M. Fletcher, I. Memaj, M.G. Saed, M.P. Diamond and G.M. Saed.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1933719116645191. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Epithelial Ovarian Cancer, Growth Factor Receptors, Phosphotransferases, Angiogenic Proteins, Drugs and Therapies, Membrane Proteins, Cisplatin Therapy, Alkylating Agents, Taxotere Therapy, Protein Kinases, Pharmaceuticals, Antineoplastics, Women's Health, Angiogenesis, Docetaxel, Oncology, Genetics, VEGF, Wayne State University.

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Hip Fracture

Researchers from Weifang Medical University Report Details of New Studies and Findings in the Area of Hip Fracture (Stroke increases the risk of hip fracture: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hip Fracture have been published. According to news reporting originating in Weifang, People's Republic of China, by NewsRx journalists, research stated, "Many studies have investigated the association between stroke and hip fracture risk, but the precise association was still unclear due to insufficient statistical power in single studies with relatively small sample size. Thus, we firstly conducted a meta-analysis of all published studies to precisely estimate the relationship of stroke with hip fracture risk."

The news reporters obtained a quote from the research from Weifang Medical University, "The strength for this relationship was weighed by pooled relative risks (RRs) with 95% confidence intervals (95% CIs) after adjustment for confounding variables. Stratified analyses by study design and ethnicity and sensitivity analysis were also performed. Two investigators independently performed a comprehensive literature search in databases of
PubMed, Embase, and Wanfang for eligible articles. A Bayesian meta-analysis was also performed to get a more precise assessment of the relationship. Eleven relevant studies from 10 publications were finally included into our meta-analysis according to the inclusion criteria. Overall, stroke significantly and independently increased the risk of hip fracture (RR=2.06, 95 % CI 1.68-2.52, P<0.001). Bayesian meta-analysis showed that stroke was also associated with an over two-fold increased risk of hip fracture (RR=2.11, 95 % CI 1.62-2.75). In stratified analysis, stroke could increase the risk of hip fracture in Caucasians (RR=2.36, 95 % CI 1.83-3.05, P<0.001).

According to the news reporters, the research concluded: "These data support the notion that stroke is an independent risk factor for hip fracture, and patients with stroke have a two-fold increased risk of hip fracture than those without stroke."


Our news correspondents report that additional information may be obtained by contacting S. Yan, Weifang Med Univ, Affiliated Hosp, Dept. of Anorectal Surg, Weifang 261000, People's Republic of China. Additional authors for this research include R. Li, Z. Wang, X. Hou, W. Gu, X. Wang, S. Yan and D. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3632-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Weifang, People's Republic of China, Asia, Hip Fractures, Article Review, Risk and Prevention, Weifang Medical University.

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Influenza
Researchers from Weizmann Institute of Science Report Findings in Influenza (Extracellular Matrix Proteolysis by MT1-MMP Contributes to Influenza-Related Tissue Damage and Mortality)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Influenza. According to news reporting originating from Rehovot, Israel, by NewsRx correspondents, research stated, "Mounting an effective immune response, while also protecting tissue integrity, is critical for host survival. We used a combined genomic and proteomic approach to investigate the role of extracellular matrix (ECM) proteolysis in achieving this balance in the lung during influenza virus infection."

Our news editors obtained a quote from the research from the Weizmann Institute of Science, "We identified the membrane-tethered matrix metalloprotease MT1-MMP as a prominent host-ECM-remodeling collagenase in influenza infection. Selective inhibition of MT1-MMP protected the tissue from infection-related structural and compositional tissue damage. MT1-MMP inhibition did not significantly alter the immune response or cytokine expression. The available flu therapeutic Oseltamivir did not prevent lung ECM damage and
was less effective than anti-MT1-MMP in influenza virus Streptococcus pneumoniae coinfection paradigms. Combination therapy of Oseltamivir with anti-MT1-MMP showed a strong synergistic effect and resulted in complete recovery of infected mice."

According to the news editors, the research concluded: "This study highlights the importance of tissue resilience in surviving infection and the potential of such host-pathogen therapy combinations for respiratory infections."

For more information on this research see: Extracellular Matrix Proteolysis by MT1-MMP Contributes to Influenza-Related Tissue Damage and Mortality. Cell Host & Microbe, 2016;20(4):458-470. Cell Host & Microbe can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell Host & Microbe - www.journals.elsevier.com/cell-host-and-microbe/)

The news editors report that additional information may be obtained by contacting I. Amit, Weizmann Inst Sci, Dept. of Immunol, IL-7610001 Rehovot, Israel. Additional authors for this research include Z. Altboum, I. Solomonov, Y. Udi, D.A. Jaitin, M. Klepfish, E. David, A. Zhuravlev, H. Keren-Shaul, D.R. Winter, I. Gat-Viks, M. Mandelboim, T. Ziv, I. Amit and I. Sagi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.chom.2016.09.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rehovot, Israel, Asia, Influenza, Genetics, Weizmann Institute of Science.

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Researchers from Western University Describe Findings in Type 2 Diabetes [Combined hyperlipidemia: familial but not (usually) monogenic]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are presented in a new report. According to news reporting originating in London, Canada, by NewsRx journalists, research stated, "Combined hyperlipidemia (CHL) is a complex phenotype that is commonly encountered clinically and is often associated with the expression of early heart disease. The affixed adjective 'familial' gives the impression that the trait is monogenic, like familial hypercholesterolemia."

The news reporters obtained a quote from the research from Western University, "But despite significant efforts, genetic studies have yielded little evidence of single gene determinants of CHL. Sophisticated linkage studies suggest that individual lipid components of the CHL phenotype -such as elevated LDL and triglyceride -each have several determinants that segregate independently in families. Furthermore, DNA sequencing shows that rare large-effect variants in genes such as LDL receptor (LDLR) and lipoprotein lipase are found in some CHL patients, explaining the elevated LDL cholesterol and triglyceride components, respectively. In addition, multiple common small-effect lipid-altering variants accumulate in an individual's genome, raising the LDL cholesterol and/or triglyceride components by multiple mechanisms. Finally, secondary factors, such as poor diet, obesity, fatty liver or diabetes further modulate the
expression of the biochemically defined CHL phenotype."

According to the news reporters, the research concluded: "Given the current state of genetic understanding, CHL may be best conceptualized as a syndrome with common clinical presentation but multigenic causes, similar to other common conditions such as type 2 diabetes."

For more information on this research see: Combined hyperlipidemia: familial but not (usually) monogenic. *Current Opinion In Lipidology*, 2016;27(2):131-40. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Lipidology - journals.lww.com/co-lipidology/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting A.J. Brahm, Dept. of Medicine, Robarts Research Institute, Schulich School of Medicine and Dentistry, Western University, London, Ontario, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MOL.0000000000000270. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Canada, Ontario, Genetics, Article Review, Hyperlipidemia, Type 2 Diabetes, Risk and Prevention, North and Central America, Non Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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**Researchers from Whitehead Institute for Biomedical Research Report Details of New Studies and Findings in the Area of Rett Syndrome (Jointly reduced inhibition and excitation underlies circuit-wide changes in cortical processing in Rett ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Rett Syndrome are discussed in a new report. According to news reporting out of Cambridge, Massachusetts, by NewsRx editors, research stated, "Rett syndrome (RTT) arises from loss-of-function mutations in methyl-CpG binding protein 2 gene (Mecp2), but fundamental aspects of its physiological mechanisms are unresolved. Here, by whole-cell recording of synaptic responses in MeCP2 mutant mice in vivo, we show that visually driven excitatory and inhibitory conductances are both reduced in cortical pyramidal neurons."

Funders for this research include HHS | NIH | National Institute of Mental Health (NIMH), Simons Foundation (SF), HHS | National Institutes of Health (NIH).

Our news journalists obtained a quote from the research from Whitehead Institute for Biomedical Research, "The excitation-to-inhibition (E/I) ratio is increased in amplitude and prolonged in time course. These changes predict circuit-wide reductions in response reliability and selectivity of pyramidal neurons to visual stimuli, as confirmed by two-photon imaging. Targeted recordings reveal that parvalbumin-expressing (PV+) interneurons in mutant mice have reduced responses. PV-specific MeCP2 deletion alone recapitulates effects of global MeCP2 deletion on cortical circuits, including reduced pyramidal neuron responses and reduced response reliability and selectivity. Furthermore, MeCP2 mutant mice show reduced expression of the cation-chloride cotransporter KCC2 (K+/Cl-exporter) and a reduced KCC2/NKCC1 (Na+/K+/Cl-importer) ratio. Perforated patch recordings demonstrate that the reversal potential
for GABA is more depolarized in mutant mice, but is restored by application of the NKCC1 inhibitor bumetanide. Treatment with recombinant human insulin-like growth factor-I restores responses of PV+ and pyramidal neurons and increases KCC2 expression to normalize the KCC2/NKCC1 ratio. Thus, loss of MeCP2 in the brain alters both excitation and inhibition in brain circuits via multiple mechanisms. Loss of MeCP2 from a specific interneuron subtype contributes crucially to the cell-specific and circuit-wide deficits of RTT."

According to the news editors, the research concluded: "The joint restoration of inhibition and excitation in cortical circuits is pivotal for functionally correcting the disorder."

For more information on this research see: Jointly reduced inhibition and excitation underlies circuit-wide changes in cortical processing in Rett syndrome. *Proceedings of the National Academy of Sciences of the United States of America,* 2016;113(46):E7287-E7296.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1615330113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Central Nervous System Diseases and Conditions, Nervous System Heredodegenerative Disorders, Neurodegenerative Diseases and Conditions, Neurobehavioral Manifestations, X-Linked Mental Retardation, Neurologic Manifestations, Rett Syndrome, Genetics, Whitehead Institute for Biomedical Research.

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Skin Diseases and Conditions - Eczema

**Researchers from Winthrop University Hospital Describe Findings in Eczema (Treatment of Eczema: Corticosteroids and Beyond)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Skin Diseases and Conditions - Eczema have been published. According to news originating from Mineola, New York, by NewsRx correspondents, research stated, "Atopic dermatitis (AD) is a chronic inflammatory skin condition that requires a manifold approach to therapy. The goal of therapy is to restore the function of the epidermal barrier and to reduce skin inflammation."

Our news journalists obtained a quote from the research from Winthrop University Hospital, "This can be achieved with skin moisturization and topical anti-inflammatory agents, such as topical corticosteroids and calcineurin inhibitors. Furthermore, proactive therapy with twice weekly use of both topical corticosteroids and calcineurin inhibitors in previously affected areas has been found to reduce the time to the next eczematous flare. Adjunctive treatment options include wet wrap therapy, anti-histamines, and vitamin D supplementation. Bacterial colonization, in particular Staphylococcus aureus, can contribute to eczematous flares and overt..."
infection. Use of systemic antibiotics in infected lesions is warranted; however, empiric antibiotics use in uninfected lesions is controversial. Local antiseptic measures (i.e., bleach baths) and topical antimicrobial therapies can be considered in patients with high bacterial colonization. Difficult-to-treat AD is a complex clinical problem that may require re-evaluation of the initial diagnosis of AD, especially if the onset of disease occurs in adulthood. It may also necessitate evaluation for contact, food, and inhaled allergens that may exacerbate the underlying AD. There are a host of systemic therapies that have been successful in patients with difficult-to-treat AD, however, these agents are limited by their side effect profiles."

According to the news editors, the research concluded: "Lastly, with further insight into the pathophysiology of AD, new biological agents have been investigated with promising results."

For more information on this research see: Treatment of Eczema: Corticosteroids and Beyond. Clinical Reviews in Allergy & Immunology, 2016;51(3):249-262. Clinical Reviews in Allergy & Immunology can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA.

The news correspondents report that additional information may be obtained from M. Chong, Winthrop Univ Hosp, Rheumatol Allergy & Immunol, Mineola, NY 11501, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12016-015-8486-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mineola, New York, United States, North and Central America, Skin Diseases and Conditions, Therapy, Article Review, Eczematosus Skin Disease, Atopic Dermatitis, Winthrop University Hospital.

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Oncology - Ovarian Cancer

Researchers from Women's College Research Institute Report Recent Findings in Ovarian Cancer (Low-grade serous ovarian cancer: A review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Ovarian Cancer are discussed in a new report. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "Epithelial ovarian cancers can be divided into the more common, aggressive type II cancers and the less common, slow-growing type I cancers. Under this model, serous ovarian carcinomas can be subdivided into high-grade (type II) and low-grade (type I) tumours."

Our news journalists obtained a quote from the research from Women's College Research Institute, "The two-tier system for grading serous ovarian carcinomas is superior to more detailed grading systems in terms of predicting survival. Low-grade serous carcinomas typically present in young women and have a relatively good prognosis, despite being resistant to chemotherapy. Low-grade serous cancers have a high prevalence of KRAS and BRAF mutations, but a low prevalence of TP53 mutations (which are characteristic of high-grade serous cancers). Among women with low-grade serous ovarian cancer, the presence of a KRAS/BRAF mutation is a favorable prognostic factor."
According to the news editors, the research concluded: "Studies of the mitogen-activated protein kinase (MAPK) inhibitor in low-grade serous ovarian cancer suggest that identifying MAPK mutations might eventually be useful in guiding treatment."


Our news journalists report that additional information may be obtained by contacting S.A. Narod, Womens Coll Res Inst, Familial Breast Canc Res Unit, Toronto, ON, Canada. Additional authors for this research include Y. Segev, O. Lavie, R. Auslender, V. Sopik and S.A. Narod.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.08.320. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Cancer, Article Review, Women's Health, Ovarian Cancer, Gynecology, Carcinomas, Oncology, Genetics, Women's College Research Institute.

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**Pharmacology**

**Researchers from Woolcock Institute of Medical Research Provide Details of New Studies and Findings in the Area of Pharmacology (People with insomnia: experiences with sedative hypnotics and risk perception)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Pharmacology are presented in a new report. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "Sedative hypnotics form an important part of managing insomnia and are recommended for short-term use. It is standard practice for clinicians to inform the patient to use medications only 'when required', but the use of these medications is often chronic."

The news reporters obtained a quote from the research from the Woolcock Institute of Medical Research, "Little is known about the impact of standard labelling/instructions on promoting appropriate medication use for managing insomnia. To explore patient medication-taking beliefs, experiences and behavioural practices relating to the use of pharmacological/complementary sleep aids for insomnia. Specialist sleep/psychology clinics and the general community in Sydney, Australia. Semi-structured interviews were conducted with 51 people with insomnia using a schedule of questions to gauge their experiences, beliefs and current practices relating to insomnia medication use. Interviews were audio-recorded, transcribed verbatim and subjected to Framework Analysis to identify emergent themes. Participants held distinctive views about the safety and efficacy of complementary and pharmacological agents but do not intuitively turn to medications to resolve their sleep complaint. Medication use was affirmed through tangible medication-taking cues due to the ambivalence in current instructions and labelling. Practices such as dosage modification,
medication substitution and delaying medication use might be important drivers for psychological dependence. Current labelling and instructions do not necessarily promote the quality use of sedative hypnotics due to the variability in patient interpretations.

According to the news reporters, the research concluded: "Clarifying the timing, quantity and frequency of medication administration as well as insomnia symptom recognition would play a significant role in optimizing the role of pharmacotherapy in the management of insomnia."


Our news correspondents report that additional information may be obtained by contacting J.M.Y. Cheung, Woolcock Inst Med Res, NHMRC Center Res Excellence, CIRUS Center Integrated Res & Understanding Sleep & Sydney, NSW, Australia. Additional authors for this research include D.J. Bartlett, C.L. Armour, J.G. Ellis and B. Saini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hex.12388. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Pharmacology, Therapy, Woolcock Institute of Medical Research.

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Mycobacterium Infections - Tuberculosis

Researchers from World Health Organization Describe Findings in Tuberculosis (Evaluation of the Abbott RealTime MTB and RealTime MTB INH/RIF Assays for Direct Detection of Mycobacterium tuberculosis Complex and Resistance Markers in Respiratory ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mycobacterium Infections - Tuberculosis have been published. According to news reporting out of Gauting, Germany, by NewsRx editors, research stated, "The Abbott RealTime MTB (RT MTB) assay is a new automated nucleic acid amplification test for the detection of Mycobacterium tuberculosis complex (MTBC) in clinical specimens. In combination with the RealTime MTB INH/RIF (RT MTB INH/RIF) resistance assay, which can be applied to RT MTB-positive specimens as an add-on assay, the tests also indicate the genetic markers of resistance to isoniazid (INH) and rifampin (RIF)."

Our news journalists obtained a quote from the research from World Health Organization, "We aimed to evaluate the diagnostic sensitivity and specificity of RT MTB using different types of respiratory and extrapulmonary specimens and to compare performance characteristics directly with those of the FluoroType MTB assay. The resistance results obtained by RT MTB INH/RIF were compared to those from the GenoType MTBDRplus and from phenotypic drug susceptibility testing. A total of 715 clinical specimens were analyzed. Compared to culture, the overall sensitivity of RT MTB was 92.1%; the sensitivity rates for smear-positive and smear-negative samples were 100% and 76.2%, respectively. The
sensitivities of smear-negative specimens were almost identical for respiratory (76.3%) and extrapulmonary (76%) specimens. Specificity rates were 100% and 95.8% for culture-negative specimens and those that grew nontuberculous mycobacteria, respectively. RT MTB INH/RIF was applied to 233 RT MTB-positive samples and identified resistance markers in 7.7% of samples. Agreement with phenotypic and genotypic drug susceptibility testing was 99.5%.

According to the news editors, the research concluded: "RT MTB and RT MTB INH/RIF allow for the rapid and accurate diagnosis of tuberculosis (TB) in different types of specimens and reliably indicate resistance markers. The strengths of this system are the comparably high sensitivity with paucibacillary specimens, its ability to detect INH and RIF resistance, and its high-throughput capacities."


Our news journalists report that additional information may be obtained by contacting S. Hofmann-Thiel, WHO, IML Red, Supranat Reference Lab TB, Gauting, Germany. Additional authors for this research include N. Molodtsov, U. Antonenka and H. Hoffmann.

Keywords for this news article include: Gauting, Germany, Europe, Mycobacteria, Diagnostics and Screening, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Mycobacterium Infections, Gram-Positive Bacteria, Gram-Positive Rods, Mycobacteriaceae, Actinomycetales, Actinobacteria, Genetics, World Health Organization.

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Biotechnology - Biomaterials Research

Researchers from Wuhan University Describe Findings in Biomaterials Research (Drug self-delivery systems for cancer therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biotechnology - Biomaterials Research is now available. According to news reporting from Wuhan, People’s Republic of China, by NewsRx journalists, research stated, "Carrier-assistant drug delivery systems (DDSs) have been rapidly established for cancer therapy and great strides have been made in recent years. However, further development of DDSs is retarded by the aspects such as the low drug carrying capacity, carrier-induced toxicity and immunogenicity, complex synthesis manipulation."

Financial support for this research came from National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from Wuhan University, "Drug self-delivery systems (DSDSs), in which active drugs exhibit nanoscale characteristic to realize intracellular delivery by themselves without the help of nanocarriers, have been rapidly developed to address these issues. In this review, we present a comprehensive summary of the recent advances in DSDSs for cancer therapy. After a brief introduction to the major types of DSDSs and their fabrication strategies, we emphatically discuss some representative achievements of these DSDSs for passive or/and positive targeting therapy,
combinational therapy as well as theranostics."

According to the news reporters, the research concluded: "The design principle is explained and justified, which can cast a new light on developing drug delivery systems for cancer treatments."


Our news journalists report that additional information may be obtained by contacting X.Z. Zhang, Wuhan University, Dept. of Chem, Wuhan 430072, People's Republic of China. Additional authors for this research include A.Q. Zhang, S.X. Cheng, L. Rong and X.Z. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.10.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Biomaterials Research, Biotechnology, Cancer, Article Review, Drugs and Therapies, Oncology, Therapy, Wuhan University.

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**Drugs and Therapies - Cancer Therapy**

**Researchers from Wuhan University Detail New Studies and Findings in the Area of Cancer Therapy (Gossypol with Hydrophobic Linear Esters Exhibits Enhanced Antitumor Activity as an Inhibitor of Antiapoptotic Proteins)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Cancer Therapy is the subject of a report. According to news reporting originating in Wuhan, People's Republic of China, by NewsRx journalists, research stated, "A series of gossypol Schiff bases that were derived from unnatural linear amino acid methyl esters were identified and found to be much more potent than gossypol and ABT-199 in terms of anticancer activity. This is the first example of gossypol Schiff bases with increased activity."

Funders for this research include Natural Science Foundation of Hubei Province, National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Wuhan University, "The investigation of the Schiff base side chain of gossypol revealed that the unique anticancer effect was achieved by the introduction of hydrophobic ester groups. The optimized products showed low micromolar pan antitumor activities against NCI-60 tumor cell lines, which is promising for further drug development. Studies on the preliminary mechanism of action for their cellular activities was also carried out with antiapoptotic protein (Bcl-2 and Mc1-1) inhibition FP assays."

According to the news reporters, the research concluded: "The molecular modeling analysis demonstrated a possible binding mode for these compounds with Bcl-2, which could
explain the binding affinity of the novel gossypol Schiff bases with these proteins."


Our news correspondents report that additional information may be obtained by contacting W. Wang, Wuhan University, Key Lab Combinatorial Biosynth & Drug Discovery, Minist Educ, Sch Pharmaceut Sci, Wuhan 430071, People's Republic of China. Additional authors for this research include S.C. Wu, Y. Yue, S. He, J. Li, J. Tang, W. Wang and H.B. Zhou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsmedchemlett.6b00302. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Drugs and Therapies, Carboxylic Acids, Sesquiterpenes, Cancer Therapy, Gossypol, Esters, Wuhan University.

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**Researchers from Wuhan University Discuss Findings in Chronic Disease (Estimation of the Disease Burden Attributable to 11 Risk Factors in Hubei Province, China: A Comparative Risk Assessment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Disease Attributes - Chronic Disease have been published. According to news reporting originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated. "In order to estimate the health losses caused by common risk factors in the Hubei province, China, we calculated the deaths and disability-adjusted life years (DALYs) attributable to 11 risk factors. We estimated the exposure distributions of risk factors in Hubei Province in 2013 from the monitoring system on chronic disease and related risk factors, combined with relative risk (RR) in order to calculate the population attributable fraction."

Our news editors obtained a quote from the research from Wuhan University, "Deaths and DALYs attributed to the selected risk factors were then estimated together with cause-specific deaths and DALYs. In total, 53.39% of the total deaths and 36.23% of the total DALYs in Hubei were a result of the 11 selected risk factors. The top five risk factors were high blood pressure, smoking, high body mass index, diet low in fruits and alcohol use, accounting for 14.68%, 12.57%, 6.03%, 3.90% and 3.19% of total deaths, respectively, and 9.41%, 7.22%, 4.42%, 2.51% and 2.44% of total DALYs, respectively. These risk factors, especially high blood pressure, smoking and high body mass index, significantly influenced quality of life, causing a large number of deaths and DALYs."

According to the news editors, the research concluded: "The burden of chronic disease could be substantially reduced if these risk factors were effectively controlled, which
would allow people to enjoy healthier lives."


The news editors report that additional information may be obtained by contacting F.F. Cui, Wuhan University, Sch Hlth Sci, Dept. of Epidemiol & Biostat, Wuhan 430071, People's Republic of China. Additional authors for this research include L. Zhang, C.H. Yu, S.B. Hu and Y.Q. Zhang.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Pathologic Processes, Risk and Prevention, Disease Attributes, Chronic Disease, China, Asia, Wuhan University.

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**Drugs and Therapies - Drug Delivery Systems**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Drug Delivery Systems is now available. According to news reporting out of Wuhan, People's Republic of China, by NewsRx editors, research stated, "The biomedical applications of graphene-based materials, including drug delivery, have grown rapidly in the past few years. The aim of this present study is to enhance the efficiency and specificity of anticancer drug delivery and realize intelligently controlled release and targeted delivery."

Financial supporters for this research include National Natural Science Foundation of China, The Special Funds Project of Major New Products of Hubei Province, University-industry Cooperation Projects of The Ministry of Education of Guangdong province, The innovation fund project of the Ministry of Science and Technology of Small and Medium-sized Enterprises, Zhuhai Science and Technology Plan Projects, Wuhan Science and Technology Development, The Fundamental Research Funds for the Central Universities.

Our news journalists obtained a quote from the research from Wuhan University, "Graphene oxide (GO) was first prepared from purified natural graphite according to a modified Hummers' method. Then GO was functionalized with adipic acid dihydrazide to introduce amine groups, and sodium alginate (SA) was covalently conjugated to GO by the formation of amide bonds. The resulting GO-SA conjugate was characterized and used as a carrier to encapsulate the anticancer drug doxorubicin hydrochloride (DOX center dot HCl) to study in vitro release behavior. The maximum loading capacity of DOX on GO-SA was 1.843 mg/mg and the drug release rate under tumor cell microenvironment of pH 5.0 was significantly higher than that under physiological conditions of pH 6.5 and 7.4. Methylthiazol tetrazolium (MTT) assay was applied to evaluate the Hela cells and NIH-3T3 cells cytotoxicity of GO-SA. GO-SA had no obvious toxicity and GO-SA/DOX exhibits notable cytotoxicity to Hela cells."

According to the news editors, the research concluded: "Cell uptake studies indicated
that GO-SA could specifically transport the DOX into Hela cells over-expressing CD44 receptors and showed enhanced toxicity."


Our news journalists report that additional information may be obtained by contacting M. Nie, Wuhan University, Key Lab Oral Biomed, Minist Educ, Sch & Hosp Stomatol, Wuhan 430079, People's Republic of China. Additional authors for this research include H.Y. Ge, S.Q. Zou, Y. Xiao, H.H. Wen, Y. Li, H. Feng and M. Nie.

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Keywords for this news article include: Wuhan, People's Republic of China, Asia, Drug Delivery Systems, Drugs and Therapies, Tumor Cell Line, Cancer Therapy, Hela Cells, Wuhan University.

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**Gram-Negative Bacteria - Acinetobacter baumannii**

**Researchers from Xi'an Jiao Tong University Provide Details of New Studies and Findings in the Area of Acinetobacter baumannii (Extensively drug-resistant Acinetobacter baumannii outbreak cross-transmitted in an intensive care unit and ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Acinetobacter baumannii is now available. According to news reporting out of Xi'an, People's Republic of China, by NewsRx editors, research stated, "Extensively drug-resistant Acinetobacter baumannii (XDRAB) is a great threat in intensive care units (ICUs). The aim of this study was to describe an XDRAB outbreak which was cross-transmitted in the ICU and respiratory intensive care unit (RICU) in a tertiary care hospital from January-March 2013."

Our news journalists obtained a quote from the research from Xi'an Jiao Tong University, "Patient and environmental surveillances were performed. Isolates were tested for antimicrobial susceptibility. Genotypes were analyzed by multilocus sequence typing (MLST). A series of enhanced strategies were implemented to control the outbreak. A total of 11 patients were infected by XDRAB strains during this outbreak. Three patients in the ICU were found positive for XDRAB at the onset of the outbreak. Thereafter, infections were detected in 6 patients in the RICU, followed by reappearance of this strain in the ICU in 2 patients. All A baumannii strains isolated from patients and the environment were extensively drug resistant. MLST revealed them as ST368. After 3 rounds of environmental screening and cleaning, the laminar flow system connecting the ICU and RICU was found as the source of transmission. Successful control of this outbreak was achieved through multifaceted intervention measures."

According to the news editors, the research concluded: "This study suggested the
importance of thorough surveillance and disinfection of the environment, including concealed devices, in preventing the transmission of an outbreak."


Our news journalists report that additional information may be obtained by contacting L. Han, Xi An Jiao Tong Univ, Minist Educ, Key Lab Environm & Genes Related Dis, Xian, People's Republic of China. Additional authors for this research include S.S. Han, W.J. Wu, X. Wang, J. Xu and L. Han.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajic.2016.03.041. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Moraxellaceae, Epidemiology, Acinetobacter baumannii, Gram-Negative Bacteria, Gammaproteobacteria, Drugs and Therapies, Drug Resistance, Proteobacteria, Xi'an Jiao Tong University.

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**Oncology - Liver Cancer**

**Researchers from Xiamen University Report New Studies and Findings in the Area of Liver Cancer (HOX Antisense lincRNA HOXA-AS2 Promotes Tumorigenesis of Hepatocellular Carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Liver Cancer. According to news reporting out of Fujian, People's Republic of China, by NewsRx editors, research stated, "Recent studies reveal that long non-coding RNAs (LncRNAs) play critical roles in the proliferation and migration of human cancer. Previous report has shown that LncRNA HOXA-AS2 was involved in carcinoma processes."

Our news journalists obtained a quote from the research from Xiamen University, "However, the expression and biological function of HOXA-AS2 in hepatocellular carcinoma (HCC) are poorly understood. Quantitative real-time PCR (qRT-PCR) was performed to detect the expression of HOXA-AS2 in HCC tissues and cell lines. The relation between IncRNA HOXA-AS2 expression and clinicopathological characteristics was assessed by chi-square test. The prognosis was analyzed using Kaplan-Meier method, and compared differences between the two groups by log-rank test. The biological function of HOXA-AS2 on HCC cells were determined both in vitro and in vivo. In the present study, we found that HOXA-AS2 expression was increased in HCC tissues and adjacent normal tissues and high HOXA-AS2 expression was associated with bigger tumor size, advanced tumor stage, and shorter survival time. Knockdown of HOXA-AS2 significantly inhibited HCC cell proliferation and invasion and resulted in an increase of apoptosis. Furthermore, inhibition of HOXA-AS2 in HCC cells significantly repressed tumorigenicity in nude mice."

According to the news editors, the research concluded: "Our results indicated that the
inhibition of HOXAAS2 in HCC cells significantly inhibited cell proliferation in vitro and in vivo, which might provide a potential possibility for targeted therapy of HCC."


Our news journalists report that additional information may be obtained by contacting Z.Y. Yin, Xiamen University, Zhongshan Hosp, Fujian Prov Key Lab Chron Liver Dis & Hepatocellu, Dept. of Hepatobiliary Surg, Xiamen, Fujian, People's Republic of China. Additional authors for this research include H.L. Yang, Z.G. Deng, Y.J. Su, Q.L. Fang and Z.Y. Yin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000452545. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fujian, People's Republic of China, Asia, Antisense Technology, Cell Proliferation, Bioengineering, Biotechnology, Liver Cancer, Carcinomas, Oncology, Xiamen University.

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**Oncology**

**Researchers from Yale University School of Medicine Detail New Studies and Findings in the Area of Oncology (Mutation based treatment recommendations from next generation sequencing data: a comparison of web tools)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology is now available. According to news reporting originating from New Haven, Connecticut, by NewsRx correspondents, research stated, "Interpretation of complex cancer genome data, generated by tumor target profiling platforms, is key for the success of personalized cancer therapy. How to draw therapeutic conclusions from tumor profiling results is not standardized and may vary among commercial and academically-affiliated recommendation tools."

Our news editors obtained a quote from the research from the Yale University School of Medicine, "We performed targeted sequencing of 315 genes from 75 metastatic breast cancer biopsies using the FoundationOne assay. Results were run through 4 different web tools including the Drug-Gene Interaction Database (DGidb), My Cancer Genome (MCG), Personalized Cancer Therapy (PCT), and cBioPortal, for drug and clinical trial recommendations. These recommendations were compared amongst each other and to those provided by FoundationOne. The identification of a gene as targetable varied across the different recommendation sources. Only 33% of cases had 4 or more sources recommend the same drug for at least one of the usually several altered genes found in tumor biopsies. These results indicate further development and standardization of broadly applicable software tools that assist in our therapeutic interpretation of genomic data is needed."
According to the news editors, the research concluded: "Existing algorithms for data acquisition, integration and interpretation will likely need to incorporate artificial intelligence tools to improve both content and real-time status."

For more information on this research see: Mutation based treatment recommendations from next generation sequencing data: a comparison of web tools. *Oncotarget*, 2016;7(16):22064-76.

The news editors report that additional information may be obtained by contacting J.M. Patel, Medical Oncology, Yale Cancer Center, Yale School of Medicine, New Haven, CT 06520, United States. Additional authors for this research include J. Knopf, E. Reiner, V. Bossuyt, L. Epstein, M. DiGiovanna, G. Chung, A. Silber, T. Sanft, E. Hofstatter, S. Mougalian, M. Abu-Khalaf, J. Platt, W. Shi, P. Gershkovich, C. Hatzis and L. Pusztai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.8017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Genetics, Oncology, New Haven, Connecticut, United States, North and Central America.

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**Clinical Trials and Studies - Post-Trial Research**

**Researchers from Yale-New Haven Hospital Report Details of New Studies and Findings in the Area of Post-Trial Research (The use of basiliximab-infliximab combination for the treatment of severe gastrointestinal acute GvHD)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Clinical Trials and Studies - Post-Trial Research. According to news reporting originating from New Haven, Connecticut, by NewsRx correspondents, research stated, "After allogeneic stem cell transplant, severe grade III-IV gastrointestinal (GI) acute GvHD is associated with significant morbidity and mortality, and generally results in poor outcomes. Salvage therapy for patients who fail steroid therapy is not well defined in the literature."

Our news editors obtained a quote from the research from Yale-New Haven Hospital, "In the current retrospective study, we reviewed our experience with the combination of basiliximab and infliximab in 21 patients with severe, grade III-IV GI acute GvHD of whom 16 met the definition for steroid-refractory disease. The overall response rate was 76%, with 43% CR at a median time of 21 days after beginning treatment. The survival at 1 year was 24%, with most deaths due to complications from GvHD and recurrence of primary disease. All five of the long-term survivors have chronic GvHD. On the basis of a review of the literature, this regimen does not seem to be significantly more effective than other strategies for severe GI GvHD and seems to be worse than the results reported for basiliximab alone."

According to the news editors, the research concluded: "Future studies of single-agent basiliximab and newer agents are required."

For more information on this research see: The use of basiliximab-infliximab combination for the treatment of severe gastrointestinal acute GvHD. *Bone Marrow Transplantation*, 2015;51(2):273-6. *Bone Marrow Transplantation* can be contacted at: Nature
Researchers from Yamaguchi University Provide Details of New Studies and Findings in the Area of Diabetic Angiopathies (Basigin can be a therapeutic target to restore the retinal vascular barrier function in the mouse model of diabetic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Diabetic Angiopathies. According to news reporting from Yamaguchi, Japan, by NewsRx journalists, research stated, "Despite the advance in medical technology, diabetic retinopathy (DR) is still an intractable disease which leads to the damage of retinal cells and finally the visual loss. Impairment of retinal vascular barrier triggered by an admixture of multiple inflammatory cytokines is a core of pathophysiology of DR."

The news correspondents obtained a quote from the research from Yamaguchi University, "Therefore, the molecules involved commonly in multiple cytokines-induced impairment of vascular barrier would be the targets of curative treatment of DR. Here, we demonstrate that basigin, a transmembrane molecule expressed in neural barrier-forming endothelial cells, is the molecule essential for vascular barrier impairment which is shared by various triggers including VEGF, TNF alpha and IL-1 beta. In vitro data with neural microvascular endothelial cells indicated that stimulation with cytokines decreases the levels of claudin-5 in cell membranes and consequently impairs the barrier function in a manner dependent on the interaction of claudin-5 with basigin and caveolin-1. In addition, the increased vascular permeability in retinas of streptozotocin-induced diabetic mice was shown to be clearly normalized by intravitreous injection of siRNAs specific for basigin."

According to the news reporters, the research concluded: "This study has highlighted basigin as a common essential molecule for various stimuli-induced impairment of retinal vascular barrier, which can be a target for strategies to establish a curative treatment of DR."
For more information on this research see: Basigin can be a therapeutic target to restore the retinal vascular barrier function in the mouse model of diabetic retinopathy. *Scientific Reports*, 2016;6():1-11. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting E. Ikeda, Yamaguchi University, Grad Sch Med, Dept. of Pathol, Ube, Yamaguchi 7558505, Japan. Additional authors for this research include D. Cui, T. Kimura, K.H. Sonoda, T. Ishibashi, S. Matsuda and E. Ikeda.

Keywords for this news article include: Yamaguchi, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Vascular Diseases and Conditions, Retinal Diseases and Conditions, Eye Diseases and Conditions, Diabetic Angiopathies, Diabetic Retinopathy, Ophthalmology, Endocrinology, Cytokines, Diabetes, Therapy, Yamaguchi University.

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**Gram-Negative Bacteria - Klebsiella**

**Researchers from Yang Ming National University Describe Findings in Klebsiella (In vivo evolution of tigecycline-non-susceptible Klebsiella pneumoniae strains in patients: relationship between virulence and resistance)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Klebsiella have been presented. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "Tigecycline resistance among Klebsiella pneumoniae isolates has been increasingly reported. We aimed to investigate the relationship among in vivo acquisition of tigecycline resistance in K. pneumoniae clinical isolates, the underlying molecular mechanisms and bacterial virulence."

Financial supporters for this research include Ministry of Science and Technology in Taiwan, Taipei Veterans General Hospital, Szu-Yuan Research Foundation of Internal Medicine.

The news reporters obtained a quote from the research from Yang Ming National University. "Clinical isolates of K. pneumoniae from the same patient in a medical centre in Taiwan that were initially tigecycline-susceptible (TS) and then became tigecycline-non-susceptible (TNS) were identified. Clinical data were collected. All isolates were subjected to MIC determination by Etest, pulsed-field gel electrophoresis (PFGE), multilocus sequence typing (MLST), virulence factor determination, and growth rate and mouse lethality studies. Quantitative RT-PCR was performed to analyse acrA, oqxA, ramA and rarA expressions. The presence of mutations in acrR, ramR, oqxR and rpsJ were analysed by DNA sequencing. Five isogenic paired isolates were determined by PFGE fingerprinting. TNS K. pneumoniae appeared after treatment with a variety of antibiotics among patients infected with TS K. pneumoniae. TNS K. pneumoniae isolates were associated with upregulation of RamA and/or RarA and the corresponding AcrAB and/or OqxAB efflux pump(s), respectively. Various mutations in negative regulatory genes (ramR and oqxR) accounted for overexpression of ramA and rarA, respectively."
According to the news reporters, the research concluded: "Three of the five paired isolates showed similar growth rates and virulence between TS and TNS isolates. Two TNS K. pneumoniae strains belonging to capsular types K1 and K20 retained their high virulence. Some TNS K. pneumoniae strains derived from TS isolates did not compromise their virulence. Dissemination of these highly pathogenic and resistant strains would be of major concern in the future."


Our news correspondents report that additional information may be obtained by contacting Y.T. Lin, Yang Ming National University, Inst Emergency & Crit Care Med, Taipei, Taiwan. Additional authors for this research include Y.W. Huang, H.H. Huang, T.C. Yang, F.D. Wang and C.P. Fung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.07.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Bacteria, Klebsiella pneumoniae, Gammaproteobacteria, Enterobacteriaceae, Proteobacteria, Genetics, Yang Ming National University.

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median eGFR increased by 28.0 ml/min/1.73m(2) in the LDT group and decreased by 4.3 ml/min/1.73m(2) in the ETV group (p=0.000). The eGFR in 88.5% of patients (23/26) from the LDT group increased > 90 ml/min/1.73m(2). The percentage of patients with an eGFR > 90 ml/min/1.73m(2) increased from 60.0% to 92.3% in the LDT group and from 64.6% to 69.2% in the ETV group. In patients with HBV-related compensated cirrhosis.

According to the news reporters, the research concluded: "LDT treatment was more effective in protecting nephritic function and was associated with a higher drug resistance rate, but did not contribute to a better outcome compared with ETV treatment."

For more information on this research see: Comparison of Telbivudine and Entecavir Therapy on Nephritic Function and Drug Resistance in Patients with Hepatitis B Virus-Related Compensated Cirrhosis. *Cellular Physiology and Biochemistry*, 2016;40(1-2):370-378. *Cellular Physiology and Biochemistry* can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Cellular Physiology and Biochemistry - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224332)

Our news correspondents report that additional information may be obtained by contacting Y.D. Yang, Zhejiang University, Affiliated Hosp 1, Collaborat Innovat Center Diag & Treatment Infect Di, Sch MedDept Infect DisState Key Lab Diagnosis &. Hangzhou 310003, Zhejiang, People's Republic of China. Additional authors for this research include F. Ding, Z.W. Wang, F. Sun, Y.F. Yu, J.K. Zhou, W.F. Xu, J.C. Ni, J.G. Wang and Y.D. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000452552. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Digestive System Diseases and Conditions, Infectious Disease and Conditions, Virus Physiological Phenomena, Liver Diseases and Conditions, Hepadnaviridae Infections, Viral Drug Resistance, Drugs and Therapies, Influenza Therapy, Hepatitis B Virus, Orthohepadnavirus, Gastroenterology, Antiretrovirals, Antiinfectives, Telbivudine, DNA Viruses, Antivirals, Hepatology, Cirrhosis, Entecavir, Fibrosis, Virology, HBV, Zhejiang University.

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**Inflammation**

**Researchers from Zhejiang University Report Recent Findings in Inflammation (Epithelial disruption of Gab1 perturbs surfactant homeostasis and predisposes mice to lung injuries)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Inflammation have been presented. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "GRB2-associated-binding protein 1 (Gab1) belongs to Gab adaptor family, which integrates multiple signals in response to the epithelial growth factors. Recent genetic studies identified genetic variants of human Gab1 gene as potential risk factors of asthmatic inflammation."

Funders for this research include National Natural Science Foundation of China
The news reporters obtained a quote from the research from Zhejiang University, "However, the functions of Gab1 in lungs remain largely unknown. Alveolar type-II cells (AT-IIs) are responsible for surfactant homeostasis and essentially regulate lung inflammation following various injuries (3). In this study, in vitro knockdown of Gab1 was shown to decrease the surfactant proteins (SPs) levels in AT-IIs. We further examined in vivo Gab1 functions through alveolar epithelium-specific Gab1 knockout mice (Gab1(Delta/Delta)). In vivo Gab1 deficiency leads to a decrease in SP synthesis and the appearance of disorganized lamellar bodies. Histological analysis of the lung sections in Gab1(Delta/Delta) mice shows no apparent pathological alterations or inflammation. However, Gab1(Delta/Delta) mice demonstrate inflammatory responses during the LPS-induced acute lung injury. Similarly, in mice challenged with bleomycin, fibrotic lesions were found to be aggravated in Gab1(Delta/Delta). These observations suggest that the abolishment of Gab1 in AT-IIs impairs SP homeostasis, predisposing mice to lung injuries. In addition, we observed that the production of surfactants in AT-IIs overexpressing Gab1 mutants, in which Shp2 phosphatase and PI3K kinase binding sites have been mutated (Gab1(Delta Shp2), Gab1(Delta PI3K)), has been considerably attenuated."

According to the news reporters, the research concluded: "Together, these findings provide the direct evidence about the roles of docking protein Gab1 in lungs, adding to our understanding of acute and interstitial lung diseases caused by the disruption of alveolar SP homeostasis."

For more information on this research see: Epithelial disruption of Gab1 perturbs surfactant homeostasis and predisposes mice to lung injuries. American Journal of Physiology-Lung Cellular and Molecular Physiology, 2016;311(6):L1149-L1159. American Journal of Physiology-Lung Cellular and Molecular Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00107.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Inflammation, Risk and Prevention, Genetics, Zhejiang University.

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Mycobacterium Infections - Tuberculosis

Researchers from Zhejiang University Report on Findings in Tuberculosis (A Group of Novel Serum Diagnostic Biomarkers for Multidrug-Resistant Tuberculosis by iTRAQ-2D LC-MS/MS and Solexa Sequencing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections - Tuberculosis. According to news reporting from Hangzhou, People's Republic of China, by
NewsRx journalists, research stated, "The epidemic of pulmonary tuberculosis (TB), especially multidrug-resistance tuberculosis (MDR-TB) presented a major challenge for TB treatment today. We performed iTRAQ labeling coupled with two-dimensional liquid chromatography-tandem mass spectrometry (2D LC-MS/MS) and Solexa sequencing among MDR-TB patients, drug-sensitive tuberculosis (DS-TB) patients, and healthy controls."

The news correspondents obtained a quote from the research from Zhejiang University. "A total of 50 differentially expressed proteins and 43 differentially expressed miRNAs (fold change >1.50 or <0.60, p<0.05) were identified in the MDR-TB patients compared to both DS-TB patients and healthy controls. We found that 22.00% of differentially expressed proteins and 32.56% of differentially expressed miRNAs were related, and could construct a network mainly in complement and coagulation cascades. Significant differences in CD44 antigen (CD44), coagulation factor XI (F11), kininogen-1 (KNG1), miR-4433b-5p, miR-424-5p, and miR-199b-5p were found among MDR-TB patients, DS-TB patients and healthy controls (p <0.05) by enzyme-linked immunosorbent assay (ELISA) and SYBR green qRT-PCR validation. A strong negative correlation, consistent with the target gene prediction, was found between miR-199b-5p and KNG1 (r=-0.232, p=0.017). Moreover, we established the MDR-TB diagnostic model based on five biomarkers (CD44, KNG1, miR-4433b-5p, miR-424-5p, and miR-199b-5p)."

According to the news reporters, the research concluded: "Our study proposes potential biomarkers for MDR-TB diagnosis, and also provides a new experimental basis to understand the pathogenesis of MDR-TB."

For more information on this research see: A Group of Novel Serum Diagnostic Biomarkers for Multidrug-Resistant Tuberculosis by iTRAQ-2D LC-MS/MS and Solexa Sequencing. *International Journal of Biological Sciences*, 2016;12(2):246-56.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7150/ijbs.13805. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, MDR TB, Hangzhou, Immunology, Epidemiology, CD44 Antigens, Membrane Proteins, Biological Factors, Biological Markers, Infectious Disease, Drugs and Therapies, Multidrug Resistance, Membrane Glycoproteins, Mycobacterium Infections, Diagnostics and Screening, People's Republic of China, Actinomycetales Infections.

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Researchers' Work from Autonomous University Focuses on Rheumatoid Arthritis (STAT4 rs7574865 G/T polymorphism is associated with rheumatoid arthritis and disease activity, but not with anti-CCP antibody levels in a Mexican population)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Rheumatoid Arthritis. According to news reporting originating from Tepic, Mexico, by NewsRx correspondents, research stated, "Rheumatoid arthritis (RA) is a systemic autoimmune disease in whose etiology genetic factors are known to play an important role. Among the genes associated with RA, STAT4 could be an important factor in conducting helper T cells toward the pro-inflammatory Th1 and Th17 lineages."

Funders for this research include Integral Program of Institutional Improvement, Improvement of Quality from Educative Institutions Program.

Our news editors obtained a quote from the research from Autonomous University, "The aim of this study is to determine the association of the STAT4 polymorphism rs7574865 with RA, disease activity, and anti-cyclic citrullinated peptide (CCP) antibody levels in a Mexican population. Genotyping was carried out using the Taqman® system from Applied Biosystems in 140 patients with RA and 150 healthy subjects. Disease activity was evaluated by a rheumatologist using the DAS28 and Spanish-HAQ-DI instruments. Anti-CCP levels were determined by ELISA. Associations of the genotypes of rs7574865 with DAS28, HAQ, and anti-CCP antibody levels with RA were determined. Findings showed that the GT and TT genotypes and the T allele from rs7574865 were all associated as risk factors for RA, independently of their anti-CCP status. An association with moderate-to-high disease activity (DAS28 >= 3.2) was also found. Additionally, patients with the GT or TT genotypes showed lower HAQ values than those who carried the GG genotype. No differences in anti-CCP antibody levels or DAS28 and genotypes were found."

According to the news editors, the research concluded: "This work supports the association of the STAT4 rs7574865 polymorphism with RA and disease activity, but not with anti-CCP antibody levels in a Mexican population."

For more information on this research see: STAT4 rs7574865 G/T polymorphism is associated with rheumatoid arthritis and disease activity, but not with anti-CCP antibody levels in a Mexican population. Clinical Rheumatology, 2016;35(12):2909-2914. Clinical Rheumatology can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - www.springer.com; Clinical Rheumatology - www.springerlink.com/content/0770-3198/)

The news editors report that additional information may be obtained by contacting J.F. Zambrano-Zaragoza, Univ Autonoma Nayarit, Unidad Academy Ciencias Quim Biol & Farmaceuticas, Tepic 63190, Nayarit, Mexico. Additional authors for this research include N. Vibanco-Perez, R.R. Hernandez-Pacheco, A.D. Castro-Zambrano, L. Ortiz-Martinez and J.F. Zambrano-Zaragoza.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10067-016-3320-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tepic, Mexico, North and Central America, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Immunology, Risk and Prevention, Joint Diseases and Conditions, Rheumatoid Arthritis, Immunoglobulins, Blood Proteins, Antibodies, Genetics, Autonomous University.

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Researchers' Work from CSIR Focuses on Reactive Oxygen Species (Selective scavenging of intra-mitochondrial superoxide corrects diclofenac-induced mitochondrial dysfunction and gastric injury: A novel gastroprotective mechanism independent of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Reactive Oxygen Species have been published. According to news originating from Bengal, India, by NewsRx correspondents, research stated, "Non-steroidal anti-inflammatory drugs (NSAIDs) are widely used to treat multiple inflammatory diseases and pain but severe gastric mucosal damage is the worst outcome of NSAID-therapy. Here we report that mitoTEMPO, a mitochondrially targeted superoxide (O$_2^-$(-)) scavenger protected as well as healed gastric injury induced by diclofenac (DCF), the most commonly used NSAID."

Our news journalists obtained a quote from the research from CSIR, "Common existing therapy against gastric injury involves suppression of gastric acid secretion by proton pump inhibitors and histamine H-2 receptor antagonists; however, dyspepsia, vitamin B12 deficiency and gastric microfloral dysbalance are the major drawbacks of acid suppression. Interestingly, mitoTEMPO did not inhibit gastric acid secretion but offered gastroprotection by preventing DCF-induced generation of O$_2^-$(-) due to mitochondrial respiratory chain failure and by preventing mitochondrial oxidative stress (MOS)-mediated mitopathology. MitoTEMPO even restored DCF-stimulated reduced fatty acid oxidation, mitochondrial depolarization and bioenergetic crisis in gastric mucosa. MitoTEMPO also prevented the activation of mitochondrial pathway of apoptosis and MOS-mediated proinflammatory signaling through NF-kappa B by DCF. Furthermore, mitoTEMPO when administered in rats with preformed gastric lesions expedited the healing of gastric injury and the healed stomach exhibited its normal physiology as evident from gastric acid and pepsin secretions under basal or stimulated conditions."

According to the news editors, the research concluded: "Thus, in contrast to the existing antiulcer drugs, mitochondrially targeted O$_2^-$-scavengers like mitoTEMPO may represent a novel class of gastroprotective molecules that does not affect gastric acid secretion and may be used in combination with DCF, keeping its anti-inflammatory action intact, while reducing its gastrodamaging effects."


The news correspondents report that additional information may be obtained from U. Bandyopadhyay, CSIR Indian Inst Chem Biol, Div Infect Dis & Immunol, Kolkata 700032, W Bengal, India. Additional authors for this research include R. De, S. Sarkar, A.A. Siddiqui, S.J. Saha, C. Banerjee, M.S. Iqbal, S. Nag, S. Debsharma and U. Bandyopadhyay.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bcp.2016.09.027. This DOI is a link to an online electronic document.
Researchers' Work from Central South University Focuses on Smoking (Facilitators and Barriers of Smokers' Compliance with Smoking Bans in Public Places: A Systematic Review of Quantitative and Qualitative Literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Smoking. According to news reporting out of Changsha, People's Republic of China, by NewsRx editors, research stated, "Environmental tobacco smoke (ETS) exposure is associated with an increased risk of many diseases. Many countries have ratified a national smoking ban in public places, but studies on factors related to smoking issues in public places post-ban are lacking."

Our news journalists obtained a quote from the research from Central South University, "To identify facilitators and barriers that influenced smokers' compliance with smoking bans in public places. Using PubMed, MEDLINE, and the Web of Science database, we conducted a systematic search of English articles published before June 2015 on factors of smokers' compliance with the smoking bans in public places. A total of 390 references were identified, among which seventeen articles (twelve quantitative studies, two qualitative studies, three mixed-method studies) were included in this review. These studies focused on four types of public places including recreational venues (n = 7), hospital (n = 5), school (n = 4), and workplace (n = 1). Factors at the individual-, interpersonal-, and organizational-level were identified: at the individual level, nicotine dependence, insufficiency of tobacco-related knowledge, and the negative attitudes towards smoking bans were the most commonly identified barriers; at the interpersonal level, the smoking behaviors of people around, close relatives, and friends' approval were the main barriers; and at the organizational level, the main barriers were inefficient implementation of the bans and the inconvenience of the designative smoking areas. This synthesis of the literature provided evidence of the identified barriers and facilitators of smokers' compliance with the smoking bans."

According to the news editors, the research concluded: "It will be beneficial for the policy-maker to consider interventions on multiple levels of factors to overcome the barriers and enhance smokers' compliance with the smoking bans in public places."

For more information on this research see: Facilitators and Barriers of Smokers' Compliance with Smoking Bans in Public Places: A Systematic Review of Quantitative and Qualitative Literature. International Journal of Environmental Research and Public Health, 2016;13(12):786-797. International Journal of Environmental Research and Public Health can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by
Researchers' Work from Cleveland Clinic Focuses on Obstructive Sleep Apnea (Positive Airway Pressure-Induced Conversion of Atrial Fibrillation to Normal Sinus Rhythm in Severe Obstructive Sleep Apnea)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea is the subject of a report. According to news originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Accumulating data implicate obstructive sleep apnea (OSA) as a predisposing factor to the development of atrial fibrillation (AF), the latter representing the most common sustained cardiac arrhythmia. The postulated mechanisms leading to atrial arrhythmogenesis in OSA include alterations in intrathoracic pressures, intermittent hypoxemia, and autonomic nervous system fluctuations."

Our news journalists obtained a quote from the research from Cleveland Clinic, "Although these OSA-related pathophysiologic pathways may result in atrial structural and electrical remodeling, thereby predisposing to AF, there are data to suggest that the immediate influences of respiratory events may trigger arrhythmic events. This case demonstrates an immediate reversal of AF to normal sinus rhythm with optimal continuous positive airway pressure (CPAP) therapy in the background of severe OSA."

According to the news editors, the research concluded: "These findings of immediate benefit of reversal of OSA pathophysiology on cardiac arrhythmia suggest OSA may have acute influences on cardiac electrophysiology."

For more information on this research see: Positive Airway Pressure-Induced Conversion of Atrial Fibrillation to Normal Sinus Rhythm in Severe Obstructive Sleep Apnea. *Journal of Clinical Sleep Medicine*, 2016;12(9):1301-1303. *Journal of Clinical Sleep Medicine* can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.

The news correspondents report that additional information may be obtained from H.K. Walia, Cleveland Clinic, Neurol Inst, Sleep Disorders Center, Cleveland, OH 44195, United States. Additional authors for this research include M.K. Chung, S. Ibrahim and R. Mehra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.6138. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Respiratory Tract Diseases and Conditions, Sleep Diseases and Conditions, Heart Disorders and Diseases, Obstructive Sleep Apnea, Respiration Disorders, Atrial Fibrillation, Cardiac Arrhythmias, Sleep Disorders, Otolaryngology, Heart Disease, Craniofacial, Pulmonology, Cardiology, Cleveland Clinic.
Researchers' Work from Dalian Medical University Focuses on Aromatic Amino Acids [Discovery of Novel Bruton's Tyrosine Kinase (BTK) Inhibitors Bearing a N,9-Diphenyl-9H-purin-2-amine Scaffold]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Aromatic Amino Acids have been published. According to news reporting out of Dalian, People's Republic of China, by NewsRx editors, research stated, "Based on the pyrimidine skeleton of EGFR(T790M) inhibitors, a series of N,9-diphenyl-9H-purin-2-amine derivatives were identified as effective BTK inhibitors."

Our news journalists obtained a quote from the research from Dalian Medical University, "Among these compounds, inhibitors 10d, 10i, and 10j, possessing IC50 values of 0.5, 0.5, and 0.4 nM, displayed anti-BTK kinase activity that was as potent as the reference compounds. In particular, compound 10j suppressed the proliferation of two typical B-cell leukemia cell lines expressing high levels of BTK with concentrations of 7.75 and 12.6 μM. The activity of the subject compound as determined by the CCK-8 method and apoptosis analysis validated that inhibitor 10j is slightly more potent than AVL-292 and ibrutinib."

According to the news editors, the research concluded: "The experimental explorations suggested that 10j could serve as a valuable molecule for control of leukemia developments."


Keywords for this news article include: Dalian, People's Republic of China, Asia, Enzymes and Coenzymes, Aromatic Amino Acids, Tyrosine Kinase, Proteomics, Proteins, Dalian Medical University.

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Researchers' Work from Department of General Surgery Focuses on Thyroid Cancer (Combretastatin A4 Regulates Proliferation, Migration, Invasion, and Apoptosis of Thyroid Cancer Cells via PI3K/Akt Signaling Pathway)
Combretastatin A4 (CA4) is a potential therapeutic candidate for a variety of human cancer treatments. However, the inhibitive effects of CA4 on thyroid cancer cells are still not well-clarified.

This study aimed to investigate the potential effect of CA4 on thyroid cancer cells, as well as underlying mechanism. Human thyroid papillary carcinoma cell line TPC1 was pre-treated with 5 concentrations of CA4 (0, 1, 2, 5, or 10 μM) for 2 h. Cell proliferation was determined by 3-(4, 5-dimethyl-2-thiazolyl)-2, 5-diphenyl -2-H-tetrazolium bromide (MTT) assay. Cell migration and invasion were detected by a modified Boyden chamber assay. Moreover, cell apoptosis was detected by terminal deoxynucleotidyl (TUNEL) staining assay and flow cytometry method. Western blot analysis was performed to determine the expression changes of epithelial-mesenchymal transition (EMT)-related proteins and phosphatidylinositol-3-kinase serine/threonine kinase (PI3K/Akt) signaling pathway proteins. CA4 significantly inhibited the cell proliferation, migration, and invasion, and significantly promoted cell apoptosis in a dose-dependent manner compared with the control group. The EMT-related protein levels of N-Cadherin, Vimentin, Snail1, Slug, Twist1, and ZEB1 were significantly decreased by CA4, while E-cadherin had no significant difference compared with the control group. Moreover, PI3K/Akt signaling pathway protein levels of p-PI3K and p-Akt were significantly decreased, whereas PI3K and Akt had no significant differences compared with the control group. CA4 can inhibit proliferation, migration, and invasion and promote apoptosis of TPC1 cells. These effects might be through the PI3K/Akt signaling pathway.

According to the news editors, the research concluded: "CA4 may be a potential therapeutic target for the treatment of thyroid cancer."

For more information on this research see: Combretastatin A4 Regulates Proliferation, Migration, Invasion, and Apoptosis of Thyroid Cancer Cells via PI3K/Akt Signaling Pathway. Medical Science Monitor, 2016;22():4911-4917. Medical Science Monitor can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.898545. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Enzymes and Coenzymes, Cell Proliferation, Thyroid Neoplasms, Thyroid Cancer, Apoptosis, Oncology, Kinase, Department of General Surgery.

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Researchers’ Work from Eli Lilly Focuses on Pharmacokinetics

[Synthesis and Characterization of a Novel gamma-Aminobutyric Acid Type A (GABA(A)) Receptor Ligand That Combines Outstanding Metabolic Stability, Pharmacokinetics, and Anxiolytic ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Pharmacokinetics is now available. According to news originating from Indianapolis, Indiana, by NewsRx correspondents, research stated, "1,4-Benzodiazepines are used in the treatment of anxiety disorders but have limited long-term use due to adverse effects."

Our news journalists obtained a quote from the research from Eli Lilly, "HZ-166 (2) has been shown to have anxiolytic-like effects with reduced sedative/ataxic liabilities."

According to the news editors, the research concluded: "A 1,3-oxazole KRM-II-81 (9) was discovered from a series of six bioisosteres with significantly improved pharmacokinetic and pharmacodynamic properties as compared to 2. Oxazole 9 was further characterized and exhibited improved anxiolytic-like effects in a mouse marble burying assay and a rat Vogel conflict test."


Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, gamma-Aminobutyric Acid, Aminobutyric Acids, Pharmacokinetics, Pharmaceuticals, Amino Acids, Eli Lilly.

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Pensacola, Florida, by NewsRx editors, the research stated, "The foundation for the celebrated operation on patent ductus arteriosus (PDA) in 1938 was the work on arteriovenous fistula (AVF) during the preceding half century. Galen and Osler wrote about it, and AVF was a major interest of leading surgeons of the late 19th and early 20th centuries, such as William Halsted, Rudolph Matas, Mont Reid, and Emile Holman."

Our news editors obtained a quote from the research from Florida International University, "Nearly all AVFs of the era developed because of penetrating injury to major vessels. Survivors suffered gradual debilitation and faced death from gangrene or rupture. Development of an operation with a reasonable chance for success came only after the development of the cornerstones of modern surgery: suture, needles, anesthesia, and antiseptic and aseptic surgery. The only durable solution was quadruple ligation, ligation of both the vein and artery above and below the site of the fistula, and a technically demanding operation that risked ischemia and gangrene. Techniques pioneered by Alexis Carrel and Bernard Berthelot allowed strategies of early vascular reconstruction that reestablished normal circulation. Seeing patients with AVF with heart failure, Halsted recognized PDA as a naturally occurring AVF. Other surgeons proposed that ligation of PDA would be lifesaving."

According to the news editors, the research concluded: "The struggles to understand and devise operative strategies to deal with AVF were the first steps toward the spectacular advances in cardiovascular surgery that followed."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jsurg.2016.05.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pensacola, Florida, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Operative Surgical Procedures, Cardiovascular Abnormalities, Arteriovenous Malformations, Congenital Abnormalities, Vascular Malformations, Arteriovenous Fistula, Vascular Fistula, Cardiology, Ligation, Surgery, Florida International University.

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Apoptosis

Researchers' Work from Fudan University Focuses on Apoptosis (Exenatide Reduces Tumor Necrosis Factor-a-induced Apoptosis in Cardiomyocytes by Alleviating Mitochondrial Dysfunction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Apoptosis have been published. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists,
research stated, "Tumor necrosis factor-a (TNF-a) plays an important role in progressive contractile dysfunction in several cardiac diseases. The cytotoxic effects of TNF-a are suggested to be partly mediated by reactive oxygen species (ROS)-and mitochondria-dependent apoptosis."

The news reporters obtained a quote from the research from Fudan University, "Glucagon-like peptide-1 (GLP-1) or its analogue exhibits protective effects on the cardiovascular system. The objective of the study was to assess the effects of exenatide, a GLP-1 analogue, on oxidative stress, and apoptosis in TNF-a-treated cardiomyocytes in vitro. Isolated neonatal rat cardiomyocytes were divided into three groups: Control group, with cells cultured in normal conditions without intervention; TNF-a group, with cells incubated with TNF-a (40 ng/ml) for 6, 12, or 24 h without pretreatment with exenatide; and exenatide group, with cells pretreated with exenatide (100 nmol/L) 30 mins before TNF-a (40 ng/ml) stimulation. We evaluated apoptosis by terminal deoxynucleotidyl transferase-mediated dUTP nick end labeling (TUNEL) assay and flow cytometry, measured ROS production and mitochondrial membrane potential (MMP) by specific the fluorescent probes, and assessed the levels of proteins by Western blotting for all the groups. Exenatide pretreatment significantly reduced cardiomyocyte apoptosis as measured by flow cytometry and TUNEL assay at 12 h and 24 h. Also, exenatide inhibited excessive ROS production and maintained MMP. Furthermore, declined cytochrome-c release and cleaved caspase-3 expression and increased bcl-2 expression with concomitantly decreased Bax activation were observed in exenatide-pretreated cultures."

According to the news reporters, the research concluded: "These results suggested that exenatide exerts a protective effect on cardiomyocytes, preventing TNF-a-induced apoptosis; the anti-apoptotic effects may be associated with protection of mitochondrial function."


Our news correspondents report that additional information may be obtained by contacting J.Y. Qian, Dept. of Cardiology, Shanghai Institute of Cardiovascular Diseases, Zhongshan Hospital, Fudan University, Shanghai 200032, People's Republic of China. Additional authors for this research include Z.W. Chen, Y.H. Gao, X.X. Wang, J.Y. Ma, S.F. Chang, J.Y. Qian and J.B Ge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.170259. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the *Chinese Medical Journal* can be contacted at: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Shanghai, Apoptosis, Cytokines, Cytometry, Cardiology, Cardiomyocyte, Membrane Proteins, Tumor Necrosis Factors, People's Republic of China, Intercellular Signaling Peptides and Proteins.

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Researchers' Work from Goethe-University Focuses on NADPH Oxidoreductases NADH (The NADPH Oxidase Nox4 mediates tumour angiogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - NADPH Oxidoreductases NADH. According to news reporting originating in Frankfurt, Germany, by NewsRx journalists, research stated, "The aim of this work was to identify the role of the NADPH oxidase Nox4 for tumor angiogenesis in a slow-growing tumor model in mice. Tumor angiogenesis was studied in tumours induced by the carcinogen 3-methylcholanthrene (MCA) in wild-type and Nox knockout mice."

Financial supporters for this research include Deutsche Forschungsgemeinschaft, Fraunhofer Gesellschaft.

The news reporters obtained a quote from the research from Goethe-University, "Mice were killed when the tumor reached a diameter of 1.5?cm and tumor tissue was used for histological and molecular analysis. 3-methylcholanthrene induced fibrosarcoma in wild-type, Nox1y/-, Nox2y/- and Nox4-/ -mice. Histological analysis of vessel density using anti-CD31 staining showed a significant 38% reduction in tumor vascularization in fibrosarcomas of Nox4-/ -mice. In contrast, tumor angiogenesis was doubled in Nox1 knockout mice, whereas knockout of Nox2 had no effect on tumour-vessel density. As underlying mechanisms, we identified a defect in hypoxia signalling in Nox4-/ -mice. Hypoxia-inducible factor 1-alpha (Hif-1a) accumulation in the tumours was attenuated as was the expression of the Hif-1a-dependent pro-angiogenic genes vascular endothelial growth factor-A, glucose transporter 1 and adrenomedullin."

According to the news reporters, the research concluded: "By regulating the tumour-vessel density through stabilization of Hif-1a and induction of VEGF expression, Nox4 promotes tumor angiogenesis and may represent a novel target for anti-angiogenic tumor therapy."


Our news correspondents report that additional information may be obtained by contacting V. Helfinger, Institute for Cardiovascular Physiology, Goethe-University, Frankfurt, Germany. Additional authors for this research include N. Henke, S. Harenkamp, M. Walter, J. Epah, C. Penski, M. Mittelbronn and K. Schroder.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apha.12625. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Acta Physiologica can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Europe, Germany, Genetics, Frankfurt, Angiogenesis, Flavoproteins, NADPH Oxidase, Enzymes and Coenzymes, NADPH Oxidoreductases NADH.
Researchers' Work from IISER Focuses on Oligopeptides (Glutathione depletion activates the yeast vacuolar transient receptor potential channel, Yvc1p, by reversible glutathionylation of specific cysteines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peptides - Oligopeptides have been published. According to news reporting out of Mohali, India, by NewsRx editors, research stated, "Glutathione depletion and calcium influx into the cytoplasm are two hallmarks of apoptosis. We have been investigating how glutathione depletion leads to apoptosis in yeast."

Our news journalists obtained a quote from the research from IISER, "We show here that glutathione depletion in yeast leads to the activation of two cytoplasmically inward-facing channels: the plasma membrane, Cch1p, and the vacuolar calcium channel, Yvc1p. Deletion of these channels partially rescues cells from glutathione depletion-induced cell death. Subsequent investigations on the Yvc1p channel, a homologue of the mammalian TRP channels, revealed that the channel is activated by glutathionylation. Yvc1p has nine cysteine residues, of which eight are located in the cytoplasmic regions and one on the transmembrane domain. We show that three of these cysteines, Cys-17, Cys-79, and Cys-191, are specifically glutathionylated. Mutation of these cysteines to alanine leads to a loss in glutathionylation and a concomitant loss in calcium channel activity. We further investigated the mechanism of glutathionylation and demonstrate a role for the yeast glutathione S-transferase Gtt1p in glutathionylation. Yvc1p is also deglutathionylated, and this was found to be mediated by the yeast thioredoxin, Trx2p."

According to the news editors, the research concluded: "A model for redox activation and deactivation of the yeast Yvc1p channel is presented."

For more information on this research see:  Glutathione depletion activates the yeast vacuolar transient receptor potential channel, Yvc1p, by reversible glutathionylation of specific cysteines. Molecular Biology of the Cell, 2016;27(24):3913-3925. Molecular Biology of the Cell can be contacted at: Amer Soc Cell Biology, 8120 Woodmont Ave, Ste 750, Bethesda, MD 20814-2755, USA.

Our news journalists report that additional information may be obtained by contacting A.K. Bachhawat, IISER, Dept. of Biol Sci, Mohali 140306, Punjab, India. Additional authors for this research include K.K. Das and A.K. Bachhawat.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1091/mbc.E16-05-0281. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mohali, India, Asia, Transient Receptor Potential Channels, Membrane Proteins, Carrier Proteins, Oligopeptides, Ion Channels, Glutathione, Genetics, Peptides, IISER.

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Gram-Negative Bacteria - Pseudomonas aeruginosa

Researchers' Work from Imperial College Focuses on Pseudomonas aeruginosa (A Novel RNase 3/ECP Peptide for Pseudomonas aeruginosa Biofilm Eradication That Combines Antimicrobial, Lipopolysaccharide Binding, and Cell-Agglutinating Activities)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Pseudomonas aeruginosa have been published. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Eradication of established biofilm communities of pathogenic Gram-negative species is one of the pending challenges for the development of new antimicrobial agents. In particular, Pseudomonas aeruginosa is one of the main dreaded nosocomial species, with a tendency to form organized microbial communities that offer an enhanced resistance to conventional antibiotics."

Financial support for this research came from Ministerio de Economia y Competitividad (MINECO).

The news correspondents obtained a quote from the research from Imperial College, "We describe here an engineered antimicrobial peptide (AMP) which combines bactericidal activity with a high bacterial cell agglutination and lipopolysaccharide (LPS) affinity. The RN3 (5-17P22-36) peptide is a 30-mer derived from the eosinophil cationic protein (ECP), a host defense RNase secreted by eosinophils upon infection, with a wide spectrum of antipathogen activity. The protein displays high biofilm eradication activity that is not dependent on its RNase catalytic activity, as evaluated by using an active site-defective mutant. On the other hand, the peptide encompasses both the LPS-binding and aggregation-prone regions from the parental protein, which provide the appropriate structural features for the peptide's attachment to the bacterial exopolysaccharide layer and further improved removal of established biofilms. Moreover, the peptide's high cationicity and amphipathicity promote the cell membrane destabilization action. The results are also compared side by side with other reported AMPs effective against either planktonic and/or biofilm forms of Pseudomonas aeruginosa strain PAO1. The ECP and its derived peptide are unique in combining high bactericidal potency and cell agglutination activity, achieving effective biofilm eradication at a low micromolar range."

According to the news reporters, the research concluded: "We conclude that the designed RN3(5-17P22-36) peptide is a promising lead candidate against Gram-negative biofilms."


Our news journalists report that additional information may be obtained by contacting D. Pulido, Imperial Coll London, Dept. of Life Sci, London, United Kingdom. Additional authors for this research include G. Prats-Ejarque, C. Villalba, M. Albacar, J.J. Gonzalez-Lopez, M. Torrent, M. Moussaoui and E. Boix.

The direct object identifier (DOI) for that additional information is:
Antibiotics - Cephalosporins

Researchers' Work from Indian Institute of Technology Focuses on Cephalosporins (Deacylation Mechanism and Kinetics of Acyl-Enzyme Complex of Class C b-Lactamase and Cephalothin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Antibiotics - Cephalosporins are presented in a new report. According to news reporting originating in Kanpur, India, by NewsRx journalists, research stated, "Understanding the molecular details of antibiotic resistance by the bacterial enzymes b-lactamases is vital for the development of novel antibiotics and inhibitors. In this spirit, the detailed mechanism of deacylation of the acyl-enzyme complex formed by cephalothin and class C b-lactamase is investigated here using hybrid quantum-mechanical/molecular-mechanical molecular dynamics methods."

Financial supporters for this research include Council of Scientific and Industrial Research, Department of Biotechnology, Ministry of Science and Technology.

The news reporters obtained a quote from the research from the Indian Institute of Technology, "The roles of various active-site residues and substrate in the deacylation reaction are elucidated. We identify the base that activates the hydrolyzing water molecule and the residue that protonates the catalytic serine (Ser64). Conformational changes in the active sites and proton transfers that potentiate the efficiency of the deacylation reaction are presented. We have also characterized the oxyanion holes and other H-bonding interactions that stabilize the reaction intermediates. Together with the kinetic and mechanistic details of the acylation reaction, we analyze the complete mechanism and the overall kinetics of the drug hydrolysis."

According to the news reporters, the research concluded: "Finally, the apparent rate-determining step in the drug hydrolysis is scrutinized."


Our news correspondents report that additional information may be obtained by contacting R. Tripathi, Dept. of Chemistry, Indian Institute of Technology Kanpur, Kanpur 208016, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jpbc.5b11623. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Pharmaceuticals, India, Kanpur, Amides, Lactamase, Thiazines, Cephacetrile, Cephalosporins, Sulfur Compounds, Organic
Musculoskeletal Diseases and Conditions - …

Researchers' Work from Institute for Clinical Research Focuses on Osteoporosis (Nephrolithiasis, bone mineral density, osteoporosis, and fractures: a systematic review and comparative meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Musculoskeletal Diseases and Conditions - Osteoporosis have been presented. According to news reporting originating from Padua, Italy, by NewsRx correspondents, research stated, "Our meta-analysis demonstrates that people with nephrolithiasis have decreased bone mineral density, an increased odds of osteoporosis, and potentially an elevated risk of fractures. People with nephrolithiasis might be at risk of reduced bone mineral density (BMD) and fractures, but the data is equivocal."

Our news editors obtained a quote from the research from Institute for Clinical Research, "We conducted a meta-analysis to investigate if patients with nephrolithiasis have worse bone health outcomes (BMD), osteoporosis, and fractures versus healthy controls (HCs). Two investigators searched major databases for articles reporting BMD (expressed as g/cm(2) or a T-or Z-score), osteoporosis or fractures in a sample of people with nephrolithiasis, and HCs. Standardized mean differences (SMDs), 95 % confidence intervals (CIs) were calculated for BMD parameters; in addition odds (ORs) for case-control and adjusted hazard ratios (HRs) in longitudinal studies for categorical variables were calculated. From 1816 initial hits, 28 studies were included. A meta-analysis of case-control studies including 1595 patients with nephrolithiasis (mean age 41.1 years) versus 3402 HCs (mean age 40.2 years) was conducted. Patients with nephrolithiasis showed significant lower T-scores values for the spine (seven studies; SMD=-0.69; 95 % CI = -0.86 to -0.52; I-2 = 0 %), total hip (seven studies; SMD=-0.82; 95 % CI = -1.11 to -0.52; I-2 = 72 %), and femoral neck (six studies; SMD = -0.67; 95 % CI = -1.00 to -0.34; I-2 = 69 %). A meta-analysis of the case-controlled studies suggests that people with nephrolithiasis are at increased risk of fractures (OR = 1.15, 95 % CI = 1.12-1.17, p< 0.0001, studies = 4), while the risk of fractures in two longitudinal studies demonstrated trend level significance (HR = 1.31, 95 % CI = 0.951.62). People with nephrolithiasis were four times more likely to have osteoporosis than HCs (OR = 4.12, p< 0.0001). Nephrolithiasis is associated with lower BMD, an increased risk of osteoporosis, and possibly, fractures."

According to the news editors, the research concluded: "Future screening/preventative interventions targeting bone health might be indicated."


The news editors report that additional information may be obtained by contacting N. Veronese, Inst Clin Res & Educ Med IREM, Padua, Italy. Additional authors for this research include C. Trevisan, B. Stubbs, B.M. Zanforlini, M. Solmi, C. Luchini, G. Girotti, S. Pizzato, E.
Manzato, G. Sergi, S. Giannini, M. Fusaro and N. Veronese.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3658-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Padua, Italy, Europe, Musculoskeletal Diseases and Conditions, Metabolic Bone Diseases and Conditions, Bone Research, Article Review, Risk and Prevention, Osteoporosis, Institute for Clinical Research.

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Researchers' Work from Jinzhou Medical University Focuses on Type 2 Diabetes (MicroRNA-463-3p/ABCG4: A New Axis in Glucose-Stimulated Insulin Secretion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is the subject of a report. According to news originating from Liaoning, People's Republic of China, by NewsRx correspondents, research stated, "Glucose-stimulated insulin secretion (GSIS) is known to be essential in the control of metabolic fuel homeostasis, though the molecular mechanisms involved remain unclear. MicroRNA (miRNA) 2463-3p and ATP-binding cassette A4 (ABCG4) expression was analyzed by real-time PCR, and the potential role of miRNA-463-3p or ABCG4 was evaluated by overexpressing or silencing such miRNA or genes."

Our news journalists obtained a quote from the research from Jinzhou Medical University, "The miRNA-463-3p inhibited GSIS without affecting cell viability. Further, mechanistic studies demonstrated that ABCG4 was a direct target of microRNA-463-3p and, to this effect, that ABCG4 played an important role in GSIS. The targeting was relevant in pancreatic islet beta-cells, where GSIS through the miRNA-463-3p/ABCG4 axis was observed. Interestingly, in type 2 diabetes human pancreatic islets, expression of miRNA-463-3p and insulin was upregulated and ABCG4 downregulated compared with nondiabetic controls, and their expression levels were closely correlated."

According to the news editors, the research concluded: "The findings collectively establish a link between GSIS and the miRNA-463-3p/ABCG4 axis and represent a promising target for future diabetes mellitus treatments."


The news correspondents report that additional information may be obtained from F. Ren, Jinzhou Med Univ, Dept. of Human Anat, Jinzhou, Liaoning, People's Republic of China. Additional authors for this research include W. Wu, B. Yin, X.F. Liu and F. Ren.

Keywords for this news article include: Liaoning, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Risk and Prevention, Peptide Proteins, Peptide Hormones, Type 2 Diabetes, Proinsulin, Genetics, Jinzhou Medical University.
Researchers' Work from Karlsruhe Institute of Technology Focuses on Immunoglobulins (Fast Targeting and Cancer Cell Uptake of Luminescent Antibody-Nanozeolite Bioconjugates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Immunoglobulins. According to news reporting originating in Karlsruhe, Germany, by NewsRx journalists, research stated, "Understanding the targeted cellular uptake of nanomaterials is an essential step to engineer and program functional and effective biomedical devices. In this respect, the targeting and ultrafast uptake of zeolite nanocrystals functionalized with Cetuximab antibodies (Ctxb) by cells overexpressing the epidermal growth factor receptor are described here."

The news reporters obtained a quote from the research from the Karlsruhe Institute of Technology, "Biochemical assays show that the cellular uptake of the bioconjugate in the targeted cancer cells already begins 15 min after incubation, at a rate around tenfold faster than that observed in the negative control cells. These findings further show the role of Ctxb exposed at the surfaces of the zeolite nanocrystals in mediating the targeted and rapid cellular uptake. By using temperature and pharmacological inhibitors as modulators of the internalization pathways, the results univocally suggest a dissipative uptake mechanism of these nanomaterials, which seems to occur using different internalization pathways, according to the targeting properties of these nanocrystals."

According to the news reporters, the research concluded: "Owing to the ultrafast uptake process, harmless for the cell viability, these results further pave the way for the design of novel theranostic tools based on nanozeolites."


Our news correspondents report that additional information may be obtained by contacting L. De Cola, Karlsruher Inst Technol KIT INT, D-76131 Karlsruhe, Germany. Additional authors for this research include E.A. Prasetyanto, C. Michiels, L. De Cola and D. Bonifazi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201601447. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Karlsruhe, Germany, Europe, Emerging Technologies, Immunoglobulins, Blood Proteins, Nanotechnology, Nanomaterial, Nanozeolite, Nanocrystal, Immunology, Antibodies, Oncology, Cancer, Karlsruhe Institute of Technology.
Researchers’ Work from Karolinska Institute Focuses on Multiple Sclerosis (Hereditary diffuse leukoencephalopathy with spheroids - a volumetric and radiological comparison with multiple sclerosis patients and healthy controls)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Multiple Sclerosis. According to news originating from Stockholm, Sweden, by NewsRx correspondents, research stated, "Hereditary diffuse leukoencephalopathy with spheroids (HDLS) is an autosomal dominant disorder caused by colony-stimulating factor 1 receptor (CSF1R) gene mutations, resulting in demyelination and axonal degeneration with spheroids. The clinical expression is variable, including behavioral changes, cognitive impairment, motor symptoms and parkinsonism."

Financial support for this research came from Bjornsson's Research Foundation, Goteborg, Sweden.

Our news journalists obtained a quote from the research from Karolinska Institute, "Magnetic resonance imaging (MRI) reveals white matter (WM) changes and atrophy. The indistinct phenotype has led to misdiagnoses. This study's aim was to compare brain volumetry and radiological ratings in HDLS with multiple sclerosis (MS) patients and controls. Five HDLS patients with c.2562T >A p.Asn854Lys CSF1R mutation, five age-and gender-matched MS patients and five healthy controls were cross-sectionally studied. All patients were examined neurologically. HDLS patients underwent Mini-Mental State Examination (MMSE). Brain MRI scans were analyzed volumetrically with FreeSurfer and Lesion Segmentation Toolbox and neuroradiologically with the brain MRI scoring system for HDLS. Patients with HDLS had lower brain, grey matter and WM fractions (66.3%; 37.9%; 27.6%) compared with controls (78.5%, p=0.008; 44.4%, p=0.008; 32.0%, p=0.008), but not compared with MS patients (65.7%, p=0.7; 36.8%, p=0.4; 27.3%, p=0.7). Cerebellar WM changes and atrophy were not seen in the HDLS group. The HDLS lesion volume fraction correlated with MMSE scores (r=-0.90, p=0.04). Brain volume fractions in HDLS were lower than in controls and similar to those seen in MS. The cerebellum was relatively spared in HDLS, which may help in differentiating HDLS WM changes from MS."

According to the news editors, the research concluded: "The strong relationship of HDLS lesions with MMSE scores indicates that accumulating WM pathology in HDLS is associated with cognitive decline."


The news correspondents report that additional information may be obtained from T. Granberg, Division of Medical Imaging and Technology, Dept. of Clinical Science, Intervention and Technology, Karolinska Institutet, Stockholm, Sweden. Additional authors for this research include F. Hashim, O. Andersen, C. Sundal and V.D Karrenbauer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.12948. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Sweden, Europe, Genetics, Stockholm, Multiple Sclerosis, CNS Demyelinating Autoimmune Disease, Demyelinating Diseases and Conditions, Autoimmune Diseases and Conditions of the Nervous System.

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Hematologic Diseases and Conditions - Hemolytic...

Researchers' Work from Keio University Hospital Focuses on Hemolytic Anemia (Kinked Graft and Anastomotic Stenosis-Induced Hemolytic Anemia Requiring Reoperation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematologic Diseases and Conditions - Hemolytic Anemia is now available. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "We report a case of hemolytic anemia caused initially by narrowing of a proximal anastomotic site and subsequently by a kinked prosthetic graft after total aortic arch replacement. A 55-year-old man was diagnosed with acute type A aortic dissection by computed tomography (CT)."

Our news journalists obtained a quote from the research from Keio University Hospital, "After total aortic arch replacement, hemolytic anemia and renal dysfunction developed. CT detected narrowing of proximal anastomotic site of the graft. Removing the graft and ascending aortic replacement resolved the signs of hemolytic anemia. However, 50 days after the surgery, severe hemolytic anemia developed again. CT revealed a sharply kinked graft. Total arch replacement was again performed to resect the kinked graft."

According to the news editors, the research concluded: "He was discharged on the 24th postoperative day without hemodialysis."


The news correspondents report that additional information may be obtained from H. Kitahara, Keio Univ Hosp, Dept. of Cardiovasc Surg, Tokyo, Japan. Additional authors for this research include A. Yoshitake, T. Hachiya, K. Okamoto, S. Kawaguchi and H. Shimizu.

Keywords for this news article include: Tokyo, Japan, Asia, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Operative Surgical Procedures, Hemolytic Anemia, Reoperation, Hematology, Angiology, Stenosis, Surgery, Keio University Hospital.

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Palliative and Supportive Care

Researchers' Work from King Hussein Cancer Center Focuses on Palliative and Supportive Care [Impact of outpatient palliative care (PC) on symptom burden in patients with advanced cancer at a tertiary cancer center in Jordan]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Palliative and Supportive Care have been published. According to news originating from Amman, Jordan, by NewsRx correspondents, research stated, "Outpatient palliative care clinics are essential for early symptom management in patients with advanced cancer. Few outpatient programs are available in the Middle East."

Financial support for this research came from King Hussein Cancer Center Intramural Grant.

Our news journalists obtained a quote from the research from King Hussein Cancer Center, "In this prospective study, we examined the symptom changes among cancer patients seen at a palliative care clinic in Jordan. Patients with advanced cancer who had an outpatient palliative care consultation and not delirious were enrolled. The Edmonton Symptom Assessment System (ESAS), Karnofsky Performance Scale (KPS), and Memorial Delirium Assessment Scale (MDAS) were collected at consultation and follow up visit 14-34 days later. We compared symptom changes using paired t test. Among the 182 enrolled patients, the average age was 53 years, 47% were females, and 95% had stage IV cancer. The median duration between the two clinic visits was 21 days (interquartile range 15-28). KPS decreased between visits (mean 68 vs. 66%, P = 0.004). ESAS pain (5.9 vs. 5.1, P = 0.004) and sleep (4.6 vs. 4.1, P = 0.007) improved significantly over time. The remaining ESAS symptoms decreased in intensity, albeit not statistically significant. Among patients who presented with moderate to severe symptom intensity, pain (7 vs. 6, P< 0.0001), fatigue (7 vs. 6, P = 0.003), nausea (7 vs. 4, P< 0.0001), depression (7 vs. 5, P = 0.0008), anxiety (7 vs. 5, P< 0.0001), drowsiness (6 vs. 5, P < 0.001), appetite (7 vs. 6, P = 0.0007), well-being (7 vs. 6, P< 0.0001), dyspnea (6 vs. 5, P = 0.0006), and sleep (7 vs. 5, P< 0.0001) all improved significantly. Our outpatient palliative care consultation was associated with improvement in ESAS, particularly for patients who presented with moderate to severe symptoms."

According to the news editors, the research concluded: "Further studies are needed to examine predictors of symptom response, longer term outcomes, and how to improve access to outpatient palliative care in the Middle East."

For more information on this research see: Impact of outpatient palliative care (PC) on symptom burden in patients with advanced cancer at a tertiary cancer center in Jordan. Supportive Care in Cancer, 2017;25(1):177-183. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

The news correspondents report that additional information may be obtained from O. Shamieh, King Hussein Canc Center, Dept. of Palliat Care, Amman 11941, Jordan. Additional authors for this research include O. Khamash, M. Khraisat, O. Jbouri, M. Awni, A. Al-Hawamdeh, G. Arja, S. Ajarmeh, D. Al-Rimawi and D. Hui.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3395-8. This DOI is a link to an online electronic document that is either free or for purchase.
Researchers' Work from Kobe University Focuses on Psoriasis (Genetic prediction of the effectiveness of biologics for psoriasis treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Skin Diseases and Conditions - Psoriasis is now available. According to news reporting from Hyogo, Japan, by NewsRx journalists, research stated, "Anti-tumor necrosis factor (TNF)-alpha therapy is used for the treatment of psoriasis, with varying outcomes. However, the specific cause of inadequate response or treatment failure remains unknown."

The news correspondents obtained a quote from the research from Kobe University, "The aim of the present study was to identify useful clinical biomarkers for predicting therapeutic responses or to serve as new drug targets for refractory psoriasis cases. We performed a genome-wide association study (GWAS) of 65 psoriasis patients who were prospectively followed after beginning anti-TNF-alpha therapy using Human Omni Express-8 v1.2 Beadchips. Patients were enrolled at the dermatology departments of Kobe University Hospital and six collaborative hospitals. Associations between single nucleotide polymorphisms (SNP) and changes in the Psoriasis Area and Severity Index (PASI) after 12 weeks of treatment were evaluated. After genome data collection and quality control, a total of 731 442 SNPs were identified in 65 Asian psoriasis patients who were treated with adalimumab or infliximab. Here, we present 10 SNPs, such as those in JAG2 and ADRA2A, that were associated with treatment responses to anti-TNF-alpha agents (strongest effect, P< 7.11E-06). This is the first GWAS to examine SNP associated with treatment responses in psoriasis patients. In addition, we identified other SNP that exhibited potential associations with anti-TNF-alpha treatment response, which merit further study."

According to the news reporters, the research concluded: "Of these, rs11096957 on TLR10, which is associated with increased TNF-alpha production, was previously reported to be associated with treatment responses to TNF-alpha inhibitors."


Our news journalists report that additional information may be obtained by contacting C. Nishigori, Kobe University, Grad Sch Med, Fac Med, Div DermatolDept Internal Related, Kobe, Hyogo, Japan. Additional authors for this research include H. Nagai, T. Bito, T. Ikeda, T. Horikawa, A. Adachi, T. Matsubara and C. Nishigori.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1346-8138.13412. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hyogo, Japan, Asia, Papulosquamous Skin Diseases and Conditions, Genetically-Engineered Proteins, Genetic Engineering.
Researchers' Work from Maastricht University Hospital Focuses on Thrombosis (Eliciting patients' preferences for elastic compression stocking therapy after deep vein thrombosis: potential for improving compliance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Thrombosis. According to news reporting originating from Maastricht, Netherlands, by NewsRx correspondents, research stated, "ESSENTIALS: Elastic compression stocking (ECS) therapy is used to prevent post-thrombotic syndrome (PTS). We aimed to elicit patient preferences regarding ECS therapy after deep vein thrombosis."

Financial support for this research came from ZonMw.

Our news editors obtained a quote from the research from Maastricht University Hospital, "The most valued attributes were PTS risk reduction and the ability to put on the ECS independently. Heterogeneous results with respect to education level stress the importance of proper counselling. Elastic compression stocking (ECS) therapy is used for prevention of post-thrombotic syndrome (PTS) after deep vein thrombosis (DVT). Current evidence on its effectiveness is conflicting. Compliance, a major determinant of the effectiveness of ECS therapy, remained largely ignored in former studies. To gain insight into preferences regarding ECS therapy in patients after DVT. A discrete choice experiment was conducted 3 months after DVT in patients enrolled in the IDEAL DVT study, a randomized controlled trial comparing 2 years of ECS therapy with individually tailored duration of ECS therapy for the prevention of PTS. Nine unlabeled, forced-choice sets of two hypothetical types of ECS were presented to each patient. Data were analyzed with multinomial logit models. The respondent sample consisted of 81% (300/369) of invited patients. The most important determinants of preference were PTS risk reduction and putting on the ECS. Patients were willing to increase the duration of therapy by 1 year if this increases the PTS risk reduction with 10%. Patients accepted an increase in the risk of PTS of 29% if they were able to put on the ECS themselves. Preferences were heterogeneous with respect to education level. Reduction of the risk of PTS and the ability to put on the ECS without help are the most important characteristics of ECS therapy. Physicians should pay considerable attention to patient education regarding PTS. In addition, patients should be supported in their ability to put on and take off the ECS independently."

According to the news editors, the research concluded: "These rather simple interventions could improve compliance."


The news editors report that additional information may be obtained by contacting
Researchers' Work from Magee-Women's Research Institute Focuses on Genetics (Signal-Oriented Pathway Analyses Reveal a Signaling Complex as a Synthetic Lethal Target for p53 Mutations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics. According to news reporting out of Pittsburgh, Pennsylvania, by NewsRx editors, research stated, "Defining processes that are synthetic lethal with p53 mutations in cancer cells may reveal possible therapeutic strategies. In this study, we report the development of a signal-oriented computational framework for cancer pathway discovery in this context."

Our news journalists obtained a quote from the research from Magee-Women's Research Institute, "We applied our bipartite graph-based functional module discovery algorithm to identify transcriptomic modules abnormally expressed in multiple tumors, such that the genes in a module were likely regulated by a common, perturbed signal. For each transcriptomic module, we applied our weighted k-pathmerge algorithm to search for a set of somatic genome alterations (SGA) that likely perturbed the signal, that is, the candidate members of the pathway that regulate the transcriptomic module. Computational evaluations indicated that our methods-identified pathways were perturbed by SGA. In particular, our analyses revealed that SGA affecting TP53, PTK2, YWHAZ, and MED1 perturbed a set of signals that promote cell proliferation, anchor-free colony formation, and epithelial-mesenchymal transition (EMT). These proteins formed a signaling complex that mediates these oncogenic processes in a coordinated fashion. Disruption of this signaling complex by knocking down PTK2, YWHAZ, or MED1 attenuated and reversed oncogenic phenotypes caused by mutant p53 in a synthetic lethal manner."

According to the news editors, the research concluded: "This signal-oriented framework for searching pathways and therapeutic targets is applicable to all cancer types, thus potentially impacting precision medicine in cancer."

For more information on this research see: Signal-Oriented Pathway Analyses Reveal a Signaling Complex as a Synthetic Lethal Target for p53 Mutations. Cancer Research, 2016;76(23):6785-6794. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by
Researchers' Work from Medical University Focuses on Kidney Cancer (Gender differences in incidence and outcomes of urothelial and kidney cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Kidney Cancer is now available. According to news originating from Vienna, Austria, by NewsRx correspondents, research stated, "A gender discrepancy exists in the incidence of both urothelial and kidney carcinomas, with more men presenting with these cancers than women. Men have a threefold greater risk of developing bladder cancer than women, but female gender has been identified as an independent adverse prognostic factor for both recurrence and progression of this disease."

Our news journalists obtained a quote from the research from Medical University, "In particular, women with bladder cancer are often diagnosed with a higher tumor stage than men. Conclusive data on the influence of gender on outcomes of patients with upper tract urothelial carcinoma are currently lacking, although men seem to have a higher disease incidence, whereas survival outcomes might be independent of gender. Patients with renal cell carcinoma are more often men and they typically have larger tumours and higher stage and grade disease than women with this cancer. Smoking habits, tumor biology, occupational risk factors and sex steroid hormones and their receptors could have a role in these observed gender disparities. The majority of data support the theory that gender influences incidence and prognosis of urothelial and kidney cancers; men and women are different genetically and socially, making the consideration of gender a key factor in the clinical decision-making process."

According to the news editors, the research concluded: "Thus, the inclusion of this variable in validated prognostic tables and nomograms should be discussed as a matter of importance."


The news correspondents report that additional information may be obtained from I. Lucca, Dept. of Urology, Medical University of Vienna, Vienna General Hospital, Wahringer Gurtel 18-20, A-1090 Vienna, Austria. Additional authors for this research include T. Klatte, H.
Fajkovic, M. de Martino and S.F Shariat.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrurol.2015.232. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vienna, Europe, Austria, Genetics, Oncology, Gender Health, Kidney Cancer, Article Review, Women's Health, Risk and Prevention.

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Oncology - Neuroblastomas

Researchers' Work from National Cancer Institute Focuses on Neuroblastomas (Aurora B kinase is a potent and selective target in MYCN-driven neuroblastoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Neuroblastomas are presented in a new report. According to news reporting from Bethesda, Maryland, by NewsRx journalists, research stated, "Despite advances in multimodal treatment, neuroblastoma (NB) is often fatal for children with high-risk disease and many survivors need to cope with long-term side effects from high-dose chemotherapy and radiation. To identify new therapeutic targets, we performed an siRNA screen of the druggable genome combined with a small molecule screen of 465 compounds targeting 39 different mechanisms of actions in four NB cell lines."

The news correspondents obtained a quote from the research from National Cancer Institute, "We identified 58 genes as targets, including AURKB, in at least one cell line. In the drug screen, aurora kinase inhibitors (nine molecules) and in particular the AURKB-selective compound, barasertib, were the most discriminatory with regard to sensitivity for MYCN-amplified cell lines. In an expanded panel of ten NB cell lines, those with MYCN-amplification and wild-type TP53 were the most sensitive to low nanomolar concentrations of barasertib. Inhibition of the AURKB kinase activity resulted in decreased phosphorylation of the known target, histone H3, and upregulation of TP53 in MYCN-amplified, TP53 wild-type cells. However, both wild-type and TP53 mutant MYCN-amplified cell lines arrested in G2/M phase upon AURKB inhibition. Additionally, barasertib induced endoreduplication and apoptosis. Treatment of MYCN-amplified/TP53 wild-type neuroblastoma xenografts resulted in profound growth inhibition and tumor regression."

According to the news reporters, the research concluded: "Therefore, aurora B kinase inhibition is highly effective in aggressive neuroblastoma and warrants further investigation in clinical trials."

For more information on this research see: Aurora B kinase is a potent and selective target in MYCN-driven neuroblastoma. Oncotarget, 2015;6(34):35247-62.

Our news journalists report that additional information may be obtained by contacting D. Bogen, Oncogenomics Section, Genetics Branch, National Cancer Institute, National Institutes of Health, Bethesda, MD, United States. Additional authors for this research include J.S. Wei, D.O. Azorsa, P. Ormanoglu, E. Buehler, R. Guha, J.M. Keller, L.A. Mathews Griner, M. Ferrer, Y.K. Song, H. Liao, A. Mendoza, B.E. Gryder, S. Sindri, J. He, X. Wen, S. Zhang, J.F. Shern, M.E. Yohe and Taschne.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6208. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kinase, Bethesda, Maryland, Genetics, Oncology, Cell Line, Hematology, United States, Neuroblastomas, Enzymes and Coenzymes, North and Central America, Diagnostics and Screening.

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DNA Research

Researchers' Work from National Center for Nanoscience and Technology Focuses on DNA Research (A Photosensitizer-Loaded DNA Origami Nanosystem for Photodynamic Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on DNA Research have been published. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Photodynamic therapy (PDT) offers an alternative for cancer treatment by using ultraviolet or visible light in the presence of a photosensitizer and molecular oxygen, which can produce highly reactive oxygen species that ultimately leading to the ablation of tumor cells by multifactorial mechanisms. However, this technique is limited by the penetration depth of incident light, the hypoxic environment of solid tumors, and the vulnerability of photobleaching reduces the efficiency of many imaging agents."

Financial supporters for this research include Ministry of Science and Technology of the People's Republic of China, Natural Science Foundation of Beijing Municipality, Medical Research and Materiel Command, U.S. Army Medical Department, National Institute on Minority Health and Health Disparities, National Natural Science Foundation of China, Chinese Academy of Sciences.

Our news journalists obtained a quote from the research from National Center for Nanoscience and Technology, "In this work, we reported a cellular level dual-functional imaging and PDT nanosystem BMEPC-loaded DNA origami for photodynamic therapy with high efficiency and stable photoreactive property. The carbazole derivative BMEPC is a one-and two-photon imaging agent and photosensitizer with large two-photon absorption cross section, which can be fully excited by near-infrared light, and is also capable of destroying targets under anaerobic condition by generating reactive intermediates of Type I photodynamic reactions. However, the application of BMEPC was restricted by its poor solubility in aqueous environment and its aggregation caused quenching. We observed BMEPC-loaded DNA origami effectively reduced the photobleaching of BMEPC within cells. Upon binding to DNA origami, the intramolecular rotation of BMEPC became proper restricted, which intensify fluorescence emission and radicals production when being excited. After the BMEPC-loaded DNA origami are taken up by tumor cells, upon irradiation, BMEPC could generate free radicals and be released due to DNA photocleavage as well as the following partially degradation. Apoptosis was then induced by the generation of free radicals."

According to the news editors, the research concluded: "This functional nanosystem provides an insight into the design of photosensitizer-loaded DNA origami for effective intracellular imaging and photodynamic therapy."

Our news journalists report that additional information may be obtained by contacting X. Zhuang, Laboratory of Controllable Nanopharmaceuticals, CAS Key Laboratory for Biomedical Effects of Nanomaterials and Nanosafety, National Center for Nanoscience and Technology, Beijing 100190, People's Republic of China. Additional authors for this research include X. Ma, X. Xue, Q. Jiang, L. Song, L. Dai, C. Zhang, S. Jin, K. Yang, B. Ding, P.C. Wang and X.J Liang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.5b07671. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Biotechnology, Beijing, Therapy, Genetics, DNA Research, Photodynamics, People's Republic of China.

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**Drugs and Therapies - Antiinfectives**

**Researchers'Work from National Sun Yat Sen University Focuses on Antiinfectives (Characterisation of fosfomycin resistance mechanisms and molecular epidemiology in extended-spectrum beta-lactamase-producing Klebsiella pneumoniae isolates)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antiinfectives is the subject of a report. According to news reporting out of Kaohsiung, Taiwan, by NewsRx editors, research stated, "Although fosfomycin is a treatment option for infections caused by extended-spectrum beta-lactamase (ESBL)-producing Enterobacteriaceae, fosfomycin resistance has been documented. To our knowledge, fosfomycin resistance mechanisms in Klebsiella pneumoniae have not been systematically investigated."

Our news journalists obtained a quote from the research from National Sun Yat Sen University, "A total of 108 ESBL-producing K. pneumoniae isolates collected from Kaohsiung Medical University Hospital, Taiwan, from August 2012 to May 2013 were analysed in this study. Pulsed-field gel electrophoresis (PFGE) revealed 64 pulsotypes and six non-typeable isolates, indicating high genetic diversity. Moreover, pulsotypes V (n = 6), VII (n = 11) and LI (n = 4) belonging to ST11 were major types. Among 30 (27.8%) fosfomycin-non-susceptible isolates, 21 (70%) had a MurA amino acid substitution, and seven new variations increased the fosfomycin minimum inhibitory concentration (MIC) by 8- to 16-fold compared with wild-type MurA in Escherichia coli DH5 alpha.strain. Functionless transporters (GlpT and UhpT) with various mutations were found in 29 isolates (97%). No known fosfomycin-modifying enzymes were detected in this study."

According to the news editors, the research concluded: "The major resistance mechanisms to fosfomycin in K. pneumoniae were amino acid variations in the drug target and transporters."

For more information on this research see: Characterisation of fosfomycin resistance mechanisms and molecular epidemiology in extended-spectrum beta-lactamase-producing...

Our news journalists report that additional information may be obtained by contacting S.P. Tseng, Natl Sun Yat Sen Univ, Dept. of Marine Biotechnol & Resources, Kaohsiung, Taiwan. Additional authors for this research include Y.J. Hsieh, J.E. Lin, J.W. Huang, T.Y. Yang, L. Lin and S.P. Tseng.

Keywords for this news article include: Kaohsiung, Taiwan, Asia, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Bacteria, Urinary Antinfectives, Enzymes and Coenzymes, Klebsiella pneumoniae, Gammaproteobacteria, Drugs and Therapies, Enterobacteriaceae, Sulfur Compounds, Phosphonic Acids, beta-Lactamases, Amidohydrolases, Proteobacteria, Epidemiology, beta-Lactams, Fosfomycin, Genetics, National Sun Yat Sen University.

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**Connective Tissue Diseases and Conditions - Cutis…**

**Researchers' Work from Oita University Focuses on Cutis Laxa**

*(Functional consequence of fibulin-4 missense mutations associated with vascular and skeletal abnormalities and cutis laxa)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Connective Tissue Diseases and Conditions - Cutis Laxa are discussed in a new report. According to news originating from Oita, Japan, by NewsRx correspondents, research stated, "Fibulin-4 is a 60 kDa calcium binding glycoprotein that has an important role in development and integrity of extracellular matrices. It interacts with elastin, fibrillin-1 and collagen IV as well as with lysyl oxidases and is involved in elastogenesis and cross-link formation."

Financial support for this research came from Deutsche Forschungsgemainschaft.

Our news journalists obtained a quote from the research from Oita University, "To date, several mutations in the fibulin-4 gene (FBLN4/EFEMP2) are known in patients whose major symptoms are vascular deformities, aneurysm, cutis laxa, joint laxity, or arachnodactyly. The pathogenetic mechanisms how these mutations translate into the clinical phenotype are, however, poorly understood. In order to elucidate these mechanisms, we expressed fibulin-4 mutants recombinantly in HEK293 cells, purified the proteins in native forms and analyzed alterations in protein synthesis, secretion, matrix assembly, and interaction with other proteins in relation to wild type fibulin-4. Our studies show that different mutations affect these properties in multiple ways, resulting in fibulin-4 deficiency and/or impaired ability to form elastic fibers. The substitutions E126K and C267Y impaired secretion of the protein, but not mRNA synthesis. Furthermore, the E126K mutant showed less resistance to proteases, reduced binding to collagen IV and fibrillin-1, as well as to LTBP1s and LTBP4s. The A397T mutation introduced an extra O-glycosylation site and deleted binding to LTBP1s. We show that fibulin-4 binds stronger than fibrin-3 and -5 to LTBP1s, 3, and 4s, and to the lysyl oxidases LOX and LOXL1; the binding of fibulin-4 to the LOX propeptide was strongly reduced by the mutation..."
E57K."

According to the news editors, the research concluded: "These findings show that different mutations in the fibulin-4 gene result in different molecular defects affecting secretion rates, protein stability, LOX-induced cross-linking, or binding to other ECM components and molecules of the TGF-13 pathway, and thus illustrate the complex role of fibulin-4 in connective tissue assembly."

For more information on this research see: Functional consequence of fibulin-4 missense mutations associated with vascular and skeletal abnormalities and cutis laxa. Matrix Biology, 2016;56():132-149. Matrix Biology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Matrix Biology - www.journals.elsevier.com/matrix-biology/)

The news correspondents report that additional information may be obtained from T. Sasaki, Oita University, Fac Med, Dept. of Biochem 2, Oita 8795593, Japan. Additional authors for this research include F.G. Hanisch, R. Deutzmann, L.Y. Sakai, T. Sakuma, T. Miyamoto, T. Yamamoto, E. Hannappel, M.L. Chu, H. Lanig and K. von der Mark.

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Keywords for this news article include: Oita, Japan, Asia, Skin and Connective Tissue Diseases and Conditions, Genetic Skin Diseases and Conditions, Cutis Laxa, Genetics, Oita University.

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Nephrology

Researchers' Work from Pfizer Focuses on Nephrology (Nephron segment specific microRNA biomarkers of pre-clinical drug-induced renal toxicity: Opportunities and challenges)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nephrology. According to news reporting originating in Andover, Massachusetts, by NewsRx journalists, research stated, "Drug-induced nephrotoxicity is a common drug development complication for pharmaceutical companies. Sensitive, specific, translatable and non-invasive biomarkers of renal toxicity are urgently needed to diagnose nephron segment specific injury."

The news reporters obtained a quote from the research from Pfizer, "The currently available gold standard biomarkers for nephrotoxicity are not kidney specific, lack sensitivity for early detection, and are not suitable for renal damage localization (glomerular vs tubulointerstitial injury). MicroRNAs (miRNAs) are increasingly gaining momentum as promising biomarkers of various organ toxicities, including drug induced renal injury. This is mostly due to their stability in easily accessible biofluids, ease of developing nucleic acids detection compared to protein detection assays, as well as their interspecies translatability. Increasing concordance of miRNA findings by standardizing methodology most suitable for their detection and quantitation, as well as characterization of their expression pattern in a cell type specific manner, will accelerate progress toward validation of these miRNAs as biomarkers in pre-clinical, and clinical settings."
According to the news reporters, the research concluded: "This review aims to highlight the current pre-clinical findings surrounding miRNAs as biomarkers in two important segments of the nephron, the glomerulus and tubules."


Our news correspondents report that additional information may be obtained by contacting R. Nassirpour, Pfizer Worldwide Res & Dev, Drug Safety, Andover, MA 01810, United States. Additional authors for this research include S.K. Ramaiah and L.O. Whiteley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.01.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Andover, Massachusetts, United States, North and Central America, Nephrology, Kidney, Pfizer.

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Drugs and Therapies - Immunotherapy

Researchers' Work from Research Institute Focuses on Immunotherapy (Combination cancer immunotherapies tailored to the tumour microenvironment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Immunotherapy have been presented. According to news reporting originating from Herston, Australia, by NewsRx correspondents, research stated, "Evidence suggests that cancer immunotherapy will be a major part of the combination treatment plan for many patients with many cancer types in the near future. There are many types of immune processes involving different antitumour and tumour-promoting leucocytes, and tumor cells use many strategies to evade the immune response."

Our news editors obtained a quote from the research from Research Institute, "The tumor microenvironment can help determine which immune suppressive pathways become activated to restrain antitumour immunity. This includes immune checkpoint receptors on effector T-cells and myeloid cells, and release of inhibitory cytokines and metabolites. Therapeutic approaches that target these pathways, particularly immune-checkpoint receptors, can induce durable antitumour responses in patients with advanced-stage cancers, including melanoma. Nevertheless, many patients do not have a good response to monotherapy approaches and alternative strategies are required to achieve optimal therapeutic benefit. These strategies include eliminating the bulk of tumor cells to provoke tumour-antigen release and antigen-presenting cell (APC) function, using adjuvants to enhance APC function, and using agents that enhance effector-cell activity."

According to the news editors, the research concluded: "In this Review, we discuss the stratification of the tumor microenvironment according to tumour-infiltrating lymphocytes and PD-L1 expression in the tumour, and how this stratification enables the design of optimal
combination cancer therapies tailored to target different tumor microenvironments."

For more information on this research see: Combination cancer immunotherapies tailored to the tumour microenvironment. *Nature Reviews Clinical Oncology*, 2015;13(3):143-58. (Nature Publishing Group - www.nature.com/; Nature Reviews Clinical Oncology - www.nature.com/nrclinonc/)

The news editors report that additional information may be obtained by contacting M.J. Smyth, Immunology in Cancer and Infection Laboratory, QIMR Berghofer Medical Research Institute, Herston 4006, Queensland, Australia. Additional authors for this research include S.F. Ngiow, A. Ribas and M.W Teng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrclinonc.2015.209. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Herston, Oncology, Immunotherapy, Article Review, Drugs and Therapies, Australia and New Zealand.

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**Drugs and Therapies - Heparin Therapy**

**Researchers' Work from Ruprecht-Karls University Focuses on Heparin Therapy (Biosimilars of low-molecular-weight heparin products: fostering competition or reducing 'biodiversity'?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Heparin Therapy. According to news reporting originating in Mannheim, Germany, by NewsRx journalists, research stated, "The term 'biosimilars' is used to qualify products developed to be similar to an original biological drug. Biosimilars are much more complicated to develop than a generic version of small-molecule drugs and this is especially true for low-molecular-weight heparins (LMWHs)."

The news reporters obtained a quote from the research from Ruprecht-Karls University, "Evidence on the antithrombotic management of acute coronary syndromes (ACS) showed that the introduction into the market of biosimilars approved on the basis of simple biological criteria, without robust data from comparative clinical trials, may be hazardous. Moreover, the mixtures of LMWH polysaccharide chains, some immunoallergic properties and potential contamination during the extraction process raise safety concerns."

According to the news reporters, the research concluded: "As was the case for the biosimilar erythropoietin, there is the risk that only copies of the most commercially successful LMWHs will be marketed, thus jeopardizing the 'biodiversity' now ensured by the presence of several LMWHs, each with unique features that support the use of an individual LMWH as first-choice therapy in certain categories of patients."


Our news correspondents report that additional information may be obtained by contacting J. Harenberg, Clinical Pharmacology, Medical Faculty Mannheim, Ruprecht-Karls
Researchers' Work from School of Science Focuses on Oral Cancer

(From the Genotypic distribution of single nucleotide polymorphisms in oral cancer: global scene)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Oral Cancer is now available. According to news reporting from Maharashtra, India, by NewsRx journalists, research stated, "Globocan 2012 reports the global oral cancer incidence of 300,373 new oral cancer cases annually, contributing to 2.1% of the world cancer burden. The major well-established risk factors for oral cancer include tobacco, betel/areca nut, alcohol and high-risk oncogenic human papilloma virus (HPV) 16/18."

The news correspondents obtained a quote from the research from the School of Science, "However, only 5-10% of individuals with high-risk lifestyle develop oral cancer. Thus, genomic variants in individuals represented as single nucleotide polymorphisms (SNPs) influence susceptibility to oral cancer. With a view to understanding the role of genomic variants in oral cancer, we reviewed SNPs in case-control studies with a minimum of 100 cases and 100 controls. PubMed and HuGE navigator search engines were used to obtain data published from 1990 to 2015, which identified 67 articles investigating the role of SNPs in oral cancer. Single publications reported 93 SNPs in 55 genes, with 34 SNPs associated with a risk of oral cancer. Meta-analysis of data in multiple studies defined nine SNPs associated with a risk of oral cancer."

According to the news reporters, the research concluded: "The genes were associated with critical functions deregulated in cancers, including cell proliferation, immune function, inflammation, transcription, DNA repair and xenobiotic metabolism."

For more information on this research see: Genotypic distribution of single nucleotide polymorphisms in oral cancer: global scene. Tumor Biology, 2016;37(11):14501-14512. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting D. Saranath, NMIMS Deemed To Be Univ, Sunandan Divatia Sch Sci, Dept. of Biol Sci, Bombay 400056, Maharashtra, India.

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Keywords for this news article include: Maharashtra, India, Asia, Cancer, Article Review, Risk and Prevention, Mouth Neoplasms, Oral Cancers, Oncology, Genetics, School of Science.

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**Oncology - Bladder Cancer**

**Researchers' Work from Shantou University Focuses on Bladder Cancer (Comparison of the combination therapy of bacillus Calmette-Guerin and mitomycin C with the monotherapy for non-muscle-invasive bladder cancer: a meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Bladder Cancer. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Urinary bladder cancer is one of the most frequent cancers worldwide. Non-muscle-invasive bladder carcinoma (NMIBC) has a very low curative rate after resection."

Our news journalists obtained a quote from the research from Shantou University, "The meta-analysis aims to compare efficiency of the combination therapy of bacillus Calmette-Guerin (BCG) and mitomycin C (MMC) with each monotherapy on NMIBC treatment. Articles were retrieved in relevant databases up to May, 2016. The Cochrane Collaboration Risk of Bias Tool was used to assess quality of the included studies. Risk ratio (RR) and the 95% confidence interval (CI) were used as the effect size to calculate pooled result. Funnel plot and Egger's test were applied to examine publication bias. Sensitive analysis was performed. Eight randomized controlled trials were included in this meta-analysis. As a result, the BCG+MMC combination therapy had a significantly decreased recurrence rate in NMIBC patients, compared with monotherapy of BCG or MMC (RR = 0.81, 95% CI: 0.72 to 0.92, P< 0.001). However, there were no obvious differences between the two regimens regarding to progression rate, overall mortality and disease-specific mortality (P > 0.050). Subgroup analysis indicated the combination therapy was more advantageous than BCG (RR = 0.73, 95% CI: 0.61 to 0.87) but not MMC monotherapy (P > 0.050), on the reduced recurrence rate. 81mg/week BCG + 30 mg/week MMC had a significant lower progression rate than BCG (RR = 0.44, 95%CI: 0.24 to 0.82)."

According to the news editors, the research concluded: "BCG+MMC combination therapy is more advantageous than BCG to NMIBC patients with reduced recurrence rate."

For more information on this research see: Comparison of the combination therapy of bacillus Calmette-Guerin and mitomycin C with the monotherapy for non-muscle-invasive bladder cancer: a meta-analysis. Neoplasma, 2016;63(6):967-976. Neoplasma can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

The news correspondents report that additional information may be obtained from M. Lin, Shantou University, Coll Med, Affiliated Hosp 1, Dept. of Urol, Shantou, Guangdong, People's Republic of China. Additional authors for this research include D. Liu and M. Lin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4149/neo_2016_616. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China,
Researchers' Work from Sun Yat Sen Memorial Hospital Focuses on Breast Cancer (Comparison of the Therapeutic Efficacy of the Early and the Delayed Use of Vinorelbine-Based Regimens for Patients with Advanced Breast Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "The aim of this study was to evaluate the efficacy of vinorelbine-based regimens as first-, second-and more-line therapies in advanced breast cancer (ABC) and to analyze the best timing of vinorelbine treatment. A total of 71 ABC patients were retrospectively reviewed."

Our news journalists obtained a quote from the research from Sun Yat Sen Memorial Hospital, "Of these, 35 patients were treated with vinorelbine-based regimens as first-line chemotherapy, and 36 patients were treated with vinorelbine-based regimens as second-line or more-line therapy. The primary end point of the study was progression-free survival (PFS). No difference was found in baseline characteristics between the two groups (p > 0.1 for all comparisons). There was a significant difference in the objective response rate (ORR; p = 0.006) and clinical benefit rate (CBR; p = 0.013) between the first-line group and the second-or more-line groups. In the vinorelbine firstline group, the ORR was 68.6% (24 patients), and in the second-line or more-line groups the ORR was 36.1% (13 patients). A significant difference in PFS between the first-line group and the second-line or more-line groups was also observed (p = 0.030). The median PFS in the overall population was 6.3 +/- 1.32 months (95% CI 3.69-8.90). The median PFS was 11.1 +/- 3.76 months (95% CI 3.73-18.47) in the first-line group compared with 5.2 +/- 1.35 months (95% CI 2.54-7.85) in the second-line or more-line groups. In patients treated with vinorelbine-trastuzumab combination as the first-line therapy, a complete response was observed in 1 patient (12.5%) and partial response in 5 patients (62.5%), giving an ORR of 75.0%. Progressive disease was observed in 1 patient (12.5%), and stable disease in 1 patient (12.5%), leading to a CBR of 87.5%. The median PFS was 13.8 +/- 2.75 months (95% CI 8.42-19.18), and median OS was 37.0 +/- 11.6 months (95% CI 14.18-59.82). No significant difference was found in overall survival (OS) between the groups (p = 0.612)."

According to the news editors, the research concluded: "For ABC patients, no significant difference in median OS was found between the early use and delayed use of vinorelbine-based regimens, but the short-term efficacy and PFS of vinorelbine-based regimens were significantly better in the early use group than in the delayed use group."

For more information on this research see: Comparison of the Therapeutic Efficacy of the Early and the Delayed Use of Vinorelbine-Based Regimens for Patients with Advanced Breast Cancer. *Chemotherapy*, 2017;62(1):71-79. *Chemotherapy* can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Chemotherapy
The news correspondents report that additional information may be obtained from Y. Wang, Sun Yat Sen University Breast Tumor Center, Sun Yat Sen Mem Hosp, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include J.Q. Liu, W.J. Jia, S.R. Li, N.Y. Rao, F.X. Su, Q. Liu and H.R. Yao.

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Keywords for this news article include: Guangdong, People's Republic of China, Asia, Drugs and Therapies, Vinorelbine Therapy, Mitotic Inhibitors, Antineoplastics, Women's Health, Breast Cancer, Oncology, Sun Yat Sen Memorial Hospital.

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Cardiology

Researchers’ Work from Taipei Veterans General Hospital Focuses on Cardiology (Light to Moderate Habitual Alcohol Consumption Is Associated with Subclinical Ventricular and Left Atrial Mechanical Dysfunction in an Asymptomatic Population: ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiology. According to news reporting originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "The effects of light to moderate alcohol consumption on cardiac mechanics remain poorly understood. The aim of this study was to investigate the dose-response relationship between alcohol consumption and left ventricular (LV) and left atrial (LA) function using myocardial deformation."

Our news editors obtained a quote from the research from Taipei Veterans General Hospital, "In total 3,946 asymptomatic participants (mean age, 49.7 +/- 10.7 years; 65% men) were consecutively studied using comprehensive echocardiography and two-dimensional speckle-tracking in a cross-sectional, retrospective manner. Global LV longitudinal and circumferential strain and LA strain were assessed and related to habitual alcohol consumption pattern (fewer than one, one to six, or more than six drinks per week) before and after propensity matching. With increasing weekly alcohol consumption, participants displayed greater LV eccentric remodeling, impaired diastolic function, and more attenuated global longitudinal strain, LA strain (adjusted coefficients, -1.07 [95% CI, -1.95 to -0.19] and -3.73 [95% CI, -5.36 to -2.11]), and early diastolic strain rates (adjusted coefficients, 0.07 [95% CI, 0.03-0.11] and 0.33 [95% CI, 0.24-0.42]) for one to six and more than six drinks per week, respectively (P < .05 for all) in a dose-response manner. Participants with recent alcohol abstinence displayed cardiac mechanics intermediate between those of nondrinkers and current drinkers. After propensity matching (n = 1,140), participants currently consuming more than one drink per week continued to have significantly attenuated global longitudinal strain and all LA mechanics compared with those consuming fewer than one drink per week (P < .05 for all). Habitual alcohol consumption, even at light to moderate doses, is associated with both reduced LV and LA mechanics in a dose-dependent manner."
According to the news editors, the research concluded: "Whether such observations are reversible or related to future atrial fibrillation deserves further study."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.echo.2016.07.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Cardiology, Taipei Veterans General Hospital.

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**Oncology - Multiple Myeloma**

**Researchers' Work from University College Focuses on Multiple Myeloma (Multiple myeloma: patient outcomes in real-world practice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Multiple Myeloma are presented in a new report. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "With increasing number of therapies available for the treatment of multiple myeloma, it is timely to examine the course of patients' journeys. We investigated patient characteristics, treatment durations and outcomes, and symptom burden across the treatment pathway in Belgium, France, Germany, Italy, Spain, Switzerland and the UK."

Funders for this research include Amgen, Kim Allcott of Oxford PharmaGenesis.

The news reporters obtained a quote from the research from University College, "In total, 435 physicians retrospectively reviewed 4997 patient charts. Profiles of patients diagnosed with multiple myeloma during the last 12months were similar across countries; bone pain was the most common presentation. Median duration of first-line therapy was 6months, followed by a median treatment-free interval of 10months; both these decreased with increasing lines of therapy, as did time to progression. Depth of response, as assessed by the treating physician, also decreased with each additional line of therapy: 74% of patients achieved at least a very good partial response at first line, compared with only 11% at fifth line. Deeper responses were associated with longer time to progression, although these were physician-judged. Toxicities and co-morbidities increased with later treatment lines, and were more likely to have led to discontinuation of treatment."

According to the news reporters, the research concluded: "These real-world data
Researchers' Work from University College Focuses on Prenatal Research (Intra-familial variability associated with recessive RYR1 mutation diagnosed prenatally by exome sequencing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Health and Medicine - Prenatal Research is now available. According to news reporting from Dublin, Ireland, by NewsRx journalists, research stated, "To determine the underlying molecular aetiology in a non-consanguineous Irish family who have had three fetal losses because of a primary myopathy characterised by fetal akinesia, arthrogryposis multiplex, bilateral pulmonary hypoplasia and reduced muscle bulk. Fetal DNA extracted from amniotic cells was whole genome amplified and subjected to whole exome sequencing."

The news correspondents obtained a quote from the research from University College, "Whole exome sequencing identified compound heterozygous variants in RYR1 as the cause of the lethal myopathy in this family. All three fetuses were compound heterozygous for a paternally inherited missense variant (c.2113G >A; p.Gly705Arg) and a novel maternally inherited truncating frameshift deletion (c.8843del C; p.Ser2948Cysfs*58). This family did not have the classic cores and fibre type disproportion typically associated with RYR1 mutation. The RYR1 exome finding was made during the couple's third pregnancy and enabled prenatal genetic testing to be undertaken. We show that recessive RYR1 mutations can be associated with significant intra-familial variability in clinical presentation which can complicate prediction of clinical outcome. RYR1 mutations can also cause diverse muscle pathologies which thwarts diagnosis."
According to the news reporters, the research concluded: "This study demonstrates the impact that exome-based diagnoses can have for families with lethal disorders."


Our news journalists report that additional information may be obtained by contacting J. Casey, University College Dublin, Sch Med & Med Sci, UCD Academy Center Rare Dis, Dublin, Ireland. Additional authors for this research include K. Flood, S. Ennis, E. Doyle, M. Farrell and S.A. Lynch.

Keywords for this news article include: Dublin, Ireland, Europe, Prenatal Research, Health and Medicine, Genetics, University College.

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**Oncology - Cancer Detection**

Researchers' Work from University Federico II Focuses on Cancer Detection (Biparametric 3T Magnetic Resonance Imaging for prostatic cancer detection in a biopsy-naive patient population: a further improvement of PI-RADS v2?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cancer Detection. According to news reporting out of Naples, Italy, by NewsRx editors, research stated, "To prospectively determine the diagnostic accuracy of a biparametric 3T magnetic resonance imaging protocol (BP-MRI) for prostatic cancer detection, compared to a multiparametric MRI protocol (MP-MRI), in a biopsy naive patient population. Eighty-two untreated patients (mean age 65 +/- 7.6 years) with clinical suspicion of prostate cancer and/or altered prostate-specific antigen (PSA) levels underwent a MP-MRI, including T2-weighted imaging, diffusion-weighted imaging (with the correspondent apparent diffusion coefficient maps) and dynamic contrast enhanced sequence, followed by prostate biopsy."

Our news journalists obtained a quote from the research from University Federico II, "Two radiologists reviewed both the BP-MRI and the MP-MRI protocols to establish a radiological diagnosis. Receiver operating characteristics curves were obtained to determine the diagnostic performance of the two protocols. The mean PSA level was 8.8 +/- 8.1 ng/ml. A total of 34 prostatic tumors were identified, with a Gleason score that ranged from 3 + 3 to 5 + 4. Of these 34 tumors, 29 were located within the peripheral zone and 5 in the transitional zone. BP-MRI and MP-MRI showed a similar performance in terms of overall diagnostic accuracy, with an area under the curve of 0.91 and 0.93, respectively (p = n.s.)."

According to the news editors, the research concluded: "BP-MRI prostate protocol is feasible for prostatic cancer detection compared to a standard MP-MRI protocol, requiring a shorter acquisition and interpretation time, with comparable diagnostic accuracy to the conventional protocol, without the administration of gadolinium-based contrast agent."

For more information on this research see: Biparametric 3T Magnetic Resonance Imaging for prostatic cancer detection in a biopsy-naive patient population: a further improvement of PI-RADS v2?"
Researchers' Work from University Hospital Focuses on Insulin Resistance (Effects of aerobic exercise on ectopic lipids in patients with growth hormone deficiency before and after growth hormone replacement therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Endocrine System Diseases and Conditions - Insulin Resistance. According to news originating from Bern, Switzerland, by NewsRx correspondents, research stated, "Growth hormone replacement therapy (GHRT) increases exercise capacity and insulin resistance while it decreases fat mass in growth hormone-deficient patients (GHD). Ectopic lipids (intramyocellular (IMCL) and intrahepatocellular lipids (IHCL) are related to insulin resistance."

Our news journalists obtained a quote from the research from University Hospital, "The effect of GHRT on ectopic lipids is unknown. It is hypothesized that exercise-induced utilization of ectopic lipids is significantly decreased in GHD patients and normalized by GHRT. GHD (4 females, 6 males) and age/gender/waist-matched control subjects (CS) were studied. VO2max was assessed on a treadmill and insulin sensitivity determined by a two-step hyperinsulinemia-euglycaemic clamp. Visceral (VAT) and subcutaneous (SAT) fat were quantified by MR-imaging. IHCL and IMCL were measured before and after a 2 h exercise at 50-60% of VO2max using MR-spectroscopy (&#8710;IMCL, &#8710;IHCL). Identical investigations were performed after 6 months of GHRT. VO2max was similar in GHD and CS and significantly increased after GHRT; GHRT significantly decreased SAT and VAT. 2 h-exercise resulted in a decrease in IMCL (significant in CS and GHRT) and a significant increase in IHCL in CS and GHD pre and post GHRT. GHRT didn't significantly impact on &8710;IMCL and &8710;IHCL. We conclude that aerobic exercise affects ectopic lipids in patients and controls."

According to the news editors, the research concluded: "GHRT increases exercise capacity without influencing ectopic lipids."

For more information on this research see: Effects of aerobic exercise on ectopic
lipids in patients with growth hormone deficiency before and after growth hormone replacement therapy. *Scientific Reports*, 2016;6():19310. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from E.R. Christ, Division of Endocrinology, Diabetology and Clinical Nutrition, University Hospital of Bern, Inselspital, CH-3010 Bern, Switzerland. Additional authors for this research include A. Egger, S. Allemann, T. Buehler, R. Kreis and C. Boesch.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19310. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bern, Europe, Proinsulin, Switzerland, Endocrinology, Hyperinsulinism, Peptide Hormones, Peptide Proteins, Insulin Resistance, Drugs and Therapies, Growth Hormone Deficiency, Anterior Pituitary Hormones, Hormone Replacement Therapy, Glucose Metabolism Disorders, Endocrine System Diseases and Conditions.

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**Blood Pressure**

**Researchers' Work from University of Arizona Focuses on Blood Pressure (Substituting systolic blood pressure with shock index in the National Trauma Triage Protocol)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Blood Pressure is the subject of a report. According to news reporting out of Tucson, Arizona, by NewsRx editors, research stated, "The National Trauma Triage Protocol (NTTP) is an algorithm that guides emergency medical services providers through four decision steps to identify the patients that would benefit from trauma center care. The NTTP defines a systolic blood pressure (SBP) of less than 90 mm Hg as one of the criteria for trauma center need."

Our news journalists obtained a quote from the research from the University of Arizona, "The aim of our study was to determine the impact of substituting SBP of less than 90 mm Hg with shock index (SI) on triage performance. A 2-year (2011-2012) retrospective analysis of all trauma patients 18 years or older in the National Trauma Databank was performed. Transferred patients, patients dead on arrival, and those with missing data were excluded. Our outcome measure was trauma center need defined by Injury Severity Score greater than 15, need for emergent operation, death in the emergency department, and intensive care unit stay of more than 1 day. Area under the characteristic curve and triage characteristics were compared between SBP of less than 90 mm Hg and SI of more than 1.0. Logistic regression analysis was performed to compare the mortality between patients triaged under current protocol of SBP of less than 90 mm Hg and patients triaged using the new defined protocol (SI >1.0). A total of 505,296 patients were included. Compared with SBP of less than 90 mm Hg, SI of more than 1.0 had a higher sensitivity (44.4% vs. 41.7%) but lower specificity (80.2% vs. 82.4%). The area under the curve was significantly higher for SI of more than 1.0 (0.623 [95% confidence interval, 0.622-.625] vs. 0.620 [95% confidence interval, 0.619-0.622]). Substituting SBP of less than 90 mm Hg with SI of more than 1.0 resulted in a decrease in undertriage rate of 30,233 patients (5.9%) but an increase in overtriage of only 6,386 patients.
(1.3%). Substituting the current criterion of SBP of less than 90 mm Hg in the NTTP with an SI of more than 1.0 results in significant reduction in undertriage rate without causing large increase in overtriage."

According to the news editors, the research concluded: "Because of simplicity of use, better discrimination power, and minimal effect on overtriage rates, future studies should consider exploring the possibility of replacing the current SBP of less than 90 mm Hg criterion with SI of more than 1.0 in the NTTP."

For more information on this research see: Substituting systolic blood pressure with shock index in the National Trauma Triage Protocol. *Journal of Trauma and Acute Care Surgery*, 2016;81(6):1136-1141. *Journal of Trauma and Acute Care Surgery* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting B. Joseph, University of Arizona, Medical Center, Dept. of Surg, Div Trauma Crit Care Burns & Acute Care Surg, Tucson, AZ, United States. Additional authors for this research include A. Azim, P. Rhee, N. Kulvatunyou, K. Ibraheem, A. Tang, T. O'Keeffe, H. Iftikhar, G. Vercruysse and B. Joseph.

Keywords for this news article include: Tucson, Arizona, United States, North and Central America, Diagnostics and Screening, Systolic Blood Pressure, University of Arizona.

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**Drugs and Therapies - Drug Delivery Systems**

**Researchers' Work from University of Copenhagen Focuses on Drug Delivery Systems (Solid cellulose nanofiber based foams - Towards facile design of sustained drug delivery systems)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Drug Delivery Systems have been presented. According to news reporting out of Copenhagen, Denmark, by NewsRx editors, research stated, "Control of drug action through formulation is a vital and very challenging topic within pharmaceutical sciences. Cellulose nanofibers (CNF) are an excipient candidate in pharmaceutical formulations that could be used to easily optimize drug delivery rates."

Our news journalists obtained a quote from the research from the University of Copenhagen, "CNF has interesting physico-chemical properties that, when combined with surfactants, can be used to create very stable air bubbles and dry foams. Utilizing this inherent property, it is possible to modify the release kinetics of the model drug riboflavin in a facile way. Wet foams were prepared using cationic CNF and a pharmaceutically acceptable surfactant (lauric acid sodium salt). The drug was suspended in the wettable foams followed by a drying step to obtain dry foams. Flexible cellular solid materials of different thicknesses, shapes and drug loadings (up to 50 wt%) could successfully be prepared. The drug was released from the solid foams in a diffusion-controlled, sustained manner due to the presence of intact air bubbles which imparted a tortuous diffusion path. The diffusion coefficient was assessed using Franz cells and shown to be more than one order of magnitude smaller for the cellular solids compared to the bubble-free films in the wet state."
According to the news editors, the research concluded: "By changing the dimensions of dry foams while keeping drug load and total weight constant, the drug release kinetics could be modified, e.g. a rectangular box-shaped foam of 8 mm thickness released only 59% of the drug after 24 h whereas a thinner foam sample (0.6 mm) released 78% of its drug content within 8 h. In comparison, the drug release from films (0.009 mm, with the same total mass and an outer surface area comparable to the thinner foam) was much faster, amounting to 72% of the drug within 1 h. The entrapped air bubbles in the foam also induced positive buoyancy, which is interesting from the perspective of gastroretentive drug-delivery."

For more information on this research see: Solid cellulose nanofiber based foams - Towards facile design of sustained drug delivery systems. Journal of Controlled Release, 2016;244():74-82. Journal of Controlled Release can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news journalists report that additional information may be obtained by contacting A.J. Svagan, University of Copenhagen, Dept. of Pharm, DK-2100 Copenhagen, Denmark. Additional authors for this research include J.W. Benjamins, Z. Al-Ansari, D. Bar Shalom, A. Mullertz, L. Wagberg and K. Lobmann.

Keywords for this news article include: Copenhagen, Denmark, Europe, Drug Delivery Systems, Drugs and Therapies, University of Copenhagen.

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Gram-Negative Bacteria - Escherichia coli

Researchers' Work from University of Hyderabad Focuses on Escherichia coli (Molecular Epidemiology and Genome Dynamics of New Delhi Metallo-beta-Lactamase-Producing Extraintestinal Pathogenic Escherichia coli Strains from India)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Escherichia coli are presented in a new report. According to news reporting originating from Andhra Pradesh, India, by NewsRx correspondents, research stated, "The global dissemination and increasing incidence of carbapenem-resistant, Gram-negative organisms have resulted in acute public health concerns. Here, we present a retrospective multicenter study on molecular characterization of metallo-beta-lactamase (MBL)-producing clinical Escherichia coli isolates recovered from extraintestinal infections in two hospitals in Pune, India."

Our news editors obtained a quote from the research from the University of Hyderabad, "We screened a large sample size of 510 E. coli isolates for MBL production wherein we profiled their molecular determinants, antimicrobial resistance phenotypes, functional virulence properties, genomic features, and transmission dynamics. Approximately 8% of these isolates were MBL producers, the majority of which were of the NDM-1 (69%) type, followed by NDM-5 (19%), NDM-4 (5.5%), and NDM-7 (5.5%). MBL producers were resistant to all antibiotics tested except for colistin, fosfomycin, and chloramphenicol, which were effective to various extents. Plasmids were found to be an effective means of dissemination of NDM genes and other resistance traits. All MBL producers adhered to and invaded bladder epithelial (T24) cells and demonstrated significant serum resistance. Genomic
analysis of MBL-producing E. coli isolates revealed higher resistance but a moderate virulence gene repertoire. A subset of NDM-1-positive E. coli isolates was identified as dominant sequence type 101 (ST101) while two strains belonging to ST167 and ST405 harbored NDM-5. A majority of MBL-producing E. coli strains revealed unique genotypes, suggesting that they were clonally unrelated. Overall, the coexistence of virulence and carbapenem resistance in clinical E. coli isolates is of serious concern.

According to the news editors, the research concluded: "Moreover, the emergence of NDM-1 among the globally dominant E. coli ST101 isolates warrants stringent surveillance and control measures."

For more information on this research see: Molecular Epidemiology and Genome Dynamics of New Delhi Metallo-beta-Lactamase-Producing Extraintestinal Pathogenic Escherichia coli Strains from India. Antimicrobial Agents and Chemotherapy, 2016;60 (11):6795-6805. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting N. Ahmeda, University of Hyderabad, Dept. of Biotechnol & Bioinformat, Pathogen Biol Lab, Hyderabad, Andhra Pradesh, India. Additional authors for this research include S. Shaik, A. Mondal, N. Nandanwar, A. Hussain, T. Semmler, N. Kumar, S.K. Tiwari, S. Jadhav, L.H. Wieler and N. Ahmeda.

Keywords for this news article include: Andhra Pradesh, India, Asia, Gram-Negative Bacteria, Enzymes and Coenzymes, Gammaproteobacteria, Enterobacteriaceae, Sulfur Compounds, Escherichia coli, Escherichia Coli, beta-Lactamases, Amidohydrolases, Proteobacteria, Epidemiology, beta-Lactams, Genetics, University of Hyderabad.

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Apoptosis

Researchers' Work from University of New Mexico Focuses on Apoptosis (Cold-inducible RNA binding protein in mouse mammary gland development)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Apoptosis are discussed in a new report. According to news reporting originating in Albuquerque, New Mexico, by NewsRx journalists, research stated, "RNA binding proteins (RBPs) regulate gene expression by controlling mRNA export, translation, and stability. When altered, some RBPs allow cancer cells to grow, survive, and metastasize."

Funders for this research include Dedicated Health Research Funds from the University of New Mexico School of Medicine, MARC, IMSD.

The news reporters obtained a quote from the research from the University of New Mexico, "Cold-inducible RNA binding protein (CIRP) is overexpressed in a subset of breast cancers, induces proliferation in breast cancer cell lines, and inhibits apoptosis. Although studies have begun to examine the role of CIRP in breast and other cancers, its role in normal breast development has not been assessed. We generated a transgenic mouse model overexpressing human CIRP in the mammary epithelium to ask if it plays a role in mammary gland development."
development. Effects of CIRP overexpression on mammary gland morphology, cell proliferation, and apoptosis were studied from puberty through pregnancy, lactation and weaning. There were no gross effects on mammary gland morphology as shown by whole mounts. Immunohistochemistry for the proliferation marker Ki67 showed decreased proliferation during the lactational switch (the transition from pregnancy to lactation) in mammary glands from CIRP transgenic mice. Two markers of apoptosis showed that the transgene did not affect apoptosis during mammary gland involution.”

According to the news reporters, the research concluded: "These results suggest a potential in vivo function in suppressing proliferation during a specific developmental transition."


Our news correspondents report that additional information may be obtained by contacting R.S. Hartley, University of New Mexico, Center Canc, Albuquerque, NM 87131, United States. Additional authors for this research include S. Garcia, J. Vanderhoof, J. Sifuentes, Y. Brandt, Y.H. Wu, X. Guo, T. Mitchell, T. Howard, H.J. Hathaway and R.S. Hartley.

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Keywords for this news article include: Albuquerque, New Mexico, United States, North and Central America, RNA-Binding Proteins, Carrier Proteins, Nucleoproteins, Apoptosis, Genetics, University of New Mexico.

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### Oncology - Colon Cancer

**Researchers' Work from University of Queensland Focuses on Colon Cancer (PI3K/Akt/mTOR pathway dual inhibitor BEZ235 suppresses the stemness of colon cancer stem cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting from St. Lucia, Australia, by NewsRx journalists, research stated, "Colon cancer is one of the most common cancers worldwide with high mortality. A major issue in colon cancer treatment is drug-resistance and metastasis that have been ascribed to the cancer stem cells."

Funders for this research include Australian Research Council, Cancer Council Queensland.

The news correspondents obtained a quote from the research from the University of Queensland, "In this study, colon cancer stem cells were isolated through sphere culture and verified with the cancer stem cell markers CD133, CD44, and CD24. It was demonstrated that the PI3K/Akt/mTOR signalling pathway was highly activated in the colon cancer stem cells and
that inhibition of the PI3K/Akt/mTOR pathway by the inhibitor BEZ235 suppressed the colon cancer stem cell proliferation with reduced stemness indicated by CD133 and Lgr5 expressions. Treatment with insulin as a known activator of the PI3K/Akt pathway increased CD133 expression and decreased the effects of BEZ235 on colon cancer proliferation and survival."

According to the news reporters, the research concluded: "The data presented here collectively suggest that the PI3K/Akt/mTOR pathway underpins the stemness of colon cancer stem cells and BEZ235 is potentially a good drug candidate for treatment of colon cancer drug resistance and metastasis."


Our news journalists report that additional information may be obtained by contacting J. Chen, Australian Institute of Bioengineering and Nanotechnology, University of Queensland, St Lucia, Qld, Australia. Additional authors for this research include R. Shao, F. Li, M. Monteiro, J.P. Liu, Z.P. Xu and W. Gu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1440-1681.12493. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oncology, St. Lucia, Colon Cancer, Drug Resistance, Stem Cell Research, Drugs and Therapies, Australia and New Zealand.

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Cardiovascular Diseases and Conditions - …

Researchers' Work from University of Tokushima Focuses on Atherosclerosis (Combination of n-3 polyunsaturated fatty acids reduces atherogenesis in apolipoprotein E-deficient mice by inhibiting macrophage activation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting originating from Tokushima, Japan, by NewsRx correspondents, research stated, "Eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are major components of n-3 polyunsaturated fatty acids (n-3 PUFAs) which inhibit atherogenesis, although few studies have examined the effects of the combination of EPA and DHA on atherogenesis. The aim of this study was to investigate whether DHA has additional anti-atherosclerotic effects when combined with EPA."

Funders for this research include Support Center for Advanced Medical Sciences, Institute of Biomedical Sciences, Tokushima University Graduate School.

Our news editors obtained a quote from the research from the University of Tokushima, "Male 8-week-old apolipoprotein E-deficient (Apoe(-/-)) mice were fed a western-type diet supplemented with different amounts of EPA and DHA; EPA (2.5%, w/w), low-dose EPA + DHA (2.5%, w/w), or high-dose EPA + DHA (5%, w/w) for 20 weeks. The control group was fed a western-type diet containing no n-3 PUFA. Histological and gene expression
analysis were performed in atherosclerotic lesions in the aorta. To address the mechanisms,
RAW264.7 cells were used. All n-3 PUFA treatments significantly attenuated the development
and destabilization of atherosclerotic plaques compared with the control. The anti-
atherosclerotic effects were enhanced in the high-dose EPA + DHA group (p < 0.001), whereas
the pure EPA group and low-dose EPA + DHA group showed similar results. EPA and DHA
additively attenuated the expression of inflammatory molecules in RAW264.7 cells stimulated
with LPS. DHA or EPA + DHA suppressed LPS-induced toll-like receptor 4 (TLR4)
expression in lipid rafts on RAW264.7 cells (p < 0.05). Lipid raft disruption by methyl-beta-
cyclodextrin suppressed mRNA expression of inflammatory molecules in LPS-
stimulated macrophages. n-3 PUFAs suppressed atherogenesis. DHA combined with EPA had additional
anti-inflammatory effects and inhibited atherogenesis in Apoe(-/-) mice."

According to the news editors, the research concluded: "The reduction of TLR4
expression in lipid rafts in macrophages by DHA might be involved in this mechanism, at least
partially."

For more information on this research see: Combination of n-3 polyunsaturated fatty
acids reduces atherogenesis in apolipoprotein E-deficient mice by inhibiting macrophage
activation. *Atherosclerosis*, 2016;254():142-150. *Atherosclerosis* can be contacted at: Elsevier
Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland.
(Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

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Keywords for this news article include: Tokushima, Japan, Asia, Cardiovascular
Diseases and Conditions, Mononuclear Phagocyte System, Connective Tissue Cells,
Apolipoproteins, Atherosclerosis, Myeloid Cells, Lipoproteins, Apoproteins, Macrophages,
Immunology, Phagocytes, Cardiology, Proteins, Genetics, University of Tokushima.

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resorption, might improve long-term outcome.”

The news correspondents obtained a quote from the research from the University of Twente, "We investigated in allcomers the safety and efficacy of three stents eluting either everolimus, sirolimus, or zotarolimus, often clinically used but never compared, of which the biodegradable polymer everolimus-eluting stent was never before assessed in allcomers. The large-scale, investigator-initiated, multicentre, assessor and patient blinded, three-arm, randomised, BIO-RESORT non-inferiority trial was done at four clinical sites in the Netherlands. All-comer patients were aged 18 years or older, capable of providing informed consent, and required a percutaneous coronary intervention with drug-eluting stent implantation according to clinical guidelines or the operators’ judgment. Exclusion criteria were: participation in another randomised drug or device study before reaching the primary endpoint of that study; planned surgery necessitating interruption of dual antiplatelet therapy within the first 6 months; known intolerance to components of the investigational product or medication required; uncertainty about the adherence to follow-up procedures or an assumed life expectancy of less than 1 year; or known pregnancy. Web-based computer-generated allocation sequences randomly assigned patients (1:1:1) to treatment with very thin strut biodegradable polymer everolimus-eluting or sirolimus-eluting stents (which differ substantially in type, amount, distribution, and resorption speed of their respective coating), or thin strut durable polymer zotarolimus-eluting stents. The primary endpoint was a composite of safety (cardiac death or target vessel-related myocardial infarction) and efficacy (target vessel revascularisation) at 12 months of follow up with a very thin strut biodegradable polymer of either everolimus-eluting or sirolimus-eluting stents, compared with durable polymer zotarolimus-eluting stents, analysed by intention to treat (non-inferiority margin 3.5%). This trial was registered with ClinicalTrials.gov, number NCT01674803. From Dec 21, 2012, to Aug 24, 2015, 3514 patients were enrolled and analysed, of whom 2449 (70%) had acute coronary syndromes, which included 1073 (31%) ST-elevation myocardial infarctions. 12 month follow-up of 3490 (99%) patients (three lost to follow-up; 21 withdrawals) was available. The primary endpoint was met by 55 (5%) of 1172 patients assigned to everolimus-eluting stents, 55 (5%) of 1169 assigned to sirolimus-eluting stents and 63 (5%) of 1173 assigned to zotarolimus-eluting stents. Non-inferiority of the everolimus-eluting stents and sirolimus-eluting stents compared with zotarolimus-eluting stents was confirmed (both -0.7% absolute risk difference, 95% CI -2.4 to 1.1; upper limit of one sided 95% CI 0.8%, p(non-inferiority) < 0.0001). Definite stent thrombosis (defined by the Academic Research Consortium) occurred in four (0.3%) of 1172 patients who were allocated to everolimus-eluting stents, four (0.3%) of 1169 assigned to sirolimus-eluting stents and three (0.3%) of 1173 assigned to zotarolimus-eluting stents. At 12 month follow-up, both very thin strut drug-eluting stents with dissimilar biodegradable polymer coatings (eluting either everolimus or sirolimus) were non-inferior to the durable polymer stent (eluting zotarolimus) in treating allcomers with a high proportion of patients with acute coronary syndromes.”

According to the news reporters, the research concluded: "The absence of a loss of 1 year safety and efficacy with the use of these two biodegradable polymer-coated stents is a prerequisite before assessing their potential longer-term benefits.”


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S0140-6736%2816%2931920-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Enschede, Netherlands, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Arterial Occlusive Diseases, Tyrosine Kinase Inhibitors, Immunosuppressive Agents, Coronary Artery Disease, Acute Coronary Syndrome, Biodegradable Polymers, MTOR Kinase Inhibitors, Drugs and Therapies, Myocardial Ischemia, Sirolimus Therapy, Arteriosclerosis, Pharmaceuticals, Antineoplastics, MTOR Inhibitors, Heart Disease, Cardiology, Macrolides, Everolimus, Angiology, University of Twente.

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Propiophenones
Researchers' Work from Virginia Commonwealth University Focuses on Propiophenones (Methamphetamine-like discriminative stimulus effects of bupropion and its two hydroxy metabolites in male rhesus monkeys)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Propiophenones is now available. According to news reporting from Research Triangle Park, North Carolina, by NewsRx journalists, research stated, "The dopamine transporter (DAT) inhibitor and nicotinic acetylcholine (nACh) receptor antagonist bupropion is being investigated as a candidate 'agonist' medication for methamphetamine addiction. In addition to its complex pharmacology, bupropion also has two distinct pharmacologically active metabolites."

The news correspondents obtained a quote from the research from Virginia Commonwealth University, "However, the mechanism by which bupropion produces methamphetamine-like 'agonist' effects remains unknown. The aim of the present study was to determine the role of DAT inhibition, nACh receptor antagonism, and the hydroxybupropion metabolites in the methamphetamine-like discriminative stimulus effects of bupropion in rhesus monkeys. In addition, varenicline, a partial agonist at the nACh receptor, and risperidone, a dopamine antagonist, were tested as controls. Monkeys (n=4) were trained to discriminate 0.18 mg/kg intramuscular methamphetamine from saline in a two-key food-reinforced discrimination procedure. The potency and time course of methamphetamine-like discriminative stimulus effects were determined for all compounds. Bupropion, methylphenidate, and 2S,3S-hydroxybupropion produced full, at least 90%, methamphetamine-like effects. 2R,3R-Hydroxybupropion, mecamylamine, and nicotine also produced full methamphetamine-like effects, but drug potency was more variable between monkeys. Varenicline produced partial methamphetamine-like effects, whereas risperidone did not. Overall, these results suggest DAT inhibition as the major mechanism of the methamphetamine-like 'agonist' effects of bupropion, although nACh receptor antagonism appeared, at least partially, to contribute."
According to the news reporters, the research concluded: "Furthermore, the contribution of the 2S,3S-hydroxybupropion metabolite could not be completely ruled out."

For more information on this research see: Methamphetamine-like discriminative stimulus effects of bupropion and its two hydroxy metabolites in male rhesus monkeys. *Behavioural Pharmacology*, 2016;27(2-3 Spec I):196-203. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting M.L. Banks, aDept. of Pharmacology and Toxicology bInstitute for Drug and Alcohol Studies, Virginia Commonwealth University, Richmond, Virginia cCenter for Drug Discovery, Research Triangle Institute, Research Triangle Park, North Carolina, United States. Additional authors for this research include D.A. Smith and B.E Blough.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000224. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antidepressants, Antipsychotics, Bupropion, Anorexiants, Ethylamines, United States, North Carolina, CNS Stimulants, Propiophenones, Methamphetamine, Organic Chemicals, Drugs and Therapies, Research Triangle Park, Psychotherapeutic Agents, Smoking Cessation Agents, North and Central America, Central Nervous System Agents.

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Musculoskeletal Diseases and Conditions - Arthritis

**Researchers' Work from Washington University Focuses on Arthritis (Immune-Mediated Protection and Pathogenesis of Chikungunya Virus)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Arthritis. According to news originating from St. Louis, Missouri, by NewsRx correspondents, research stated, "Chikungunya virus (CHIKV) is a re-emerging alphavirus that causes debilitating acute and chronic arthritis."

Our news journalists obtained a quote from the research from Washington University, "Infection by CHIKV induces a robust immune response that is characterized by production of type I IFNs, recruitment of innate and adaptive immune cells, and development of neutralizing Abs. Despite this response, chronic arthritis can develop in some individuals, which may be due to a failure to eliminate viral RNA and Ag and/or persistent immune responses that cause chronic joint inflammation."

According to the news editors, the research concluded: "In this review, based primarily on advances from recent studies in mice, we discuss the innate and adaptive immune factors that control CHIKV dissemination and clearance or contribute to pathogenesis."

For more information on this research see: Immune-Mediated Protection and Pathogenesis of Chikungunya Virus. *Journal of Immunology*, 2016;197(11):4210-4218. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)
The news correspondents report that additional information may be obtained from M.S. Diamond, Washington University, Sch Med, Center Human Immunol & Immunotherapy Programs, St Louis, MO 63110, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1601426. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Musculoskeletal Diseases and Conditions, Joint Diseases and Conditions, Alphavirus, Article Review, Chikungunya Virus, RNA Viruses, Togaviridae, Arthritis, Virology, Genetics, Viral, Washington University.

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**Immunology - Immunoglobulins**

**Researchers' Work from Weill Cornell Medical College Focuses on Immunoglobulins (An MHC-restricted antibody-based chimeric antigen receptor requires TCR-like affinity to maintain antigen specificity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Immunoglobulins have been published. According to news reporting originating from York, New York, by NewsRx correspondents, research stated, "Chimeric antigen receptors (CARs) are synthetic receptors that usually redirect T cells to surface antigens independent of human leukocyte antigen (HLA). Here, we investigated a T cell receptor-like CAR based on an antibody that recognizes HLA-A*0201 presenting a peptide epitope derived from the cancer-testis antigen NY-ESO-1."

Our news editors obtained a quote from the research from Weill Cornell Medical College, "We hypothesized that this CAR would efficiently redirect transduced T cells in an HLA-restricted, antigen-specific manner. However, we found that despite the specificity of the soluble Fab, the same antibody in the form of a CAR caused moderate lysis of HLA-A2 expressing targets independent of antigen owing to T cell avidity. We hypothesized that lowering the affinity of the CAR for HLA-A2 would improve its specificity. We undertook a rational approach of mutating residues that, in the crystal structure, were predicted to stabilize binding to HLA-A2. We found that one mutation (DN) lowered the affinity of the Fab to T cell receptor-range and restored the epitope specificity of the CAR. DN CAR T cells lysed native tumor targets in vitro, and, in a xenogeneic mouse model implanted with two human melanoma lines (A2+/NYESO+ and A2+/NYESO-), DN CAR T cells specifically migrated to, and delayed progression of, only the HLA-A2+/NY-ESO-1+ melanoma."

According to the news editors, the research concluded: "Thus, although maintaining MHC-restricted antigen specificity required T cell receptor-like affinity that decreased potency, there is exciting potential for CARs to expand their repertoire to include a broad range of intracellular antigens."

For more information on this research see: An MHC-restricted antibody-based chimeric antigen receptor requires TCR-like affinity to maintain antigen specificity. *Molecular Therapy-Oncolytics*, 2016;3():1-9. *Molecular Therapy-Oncolytics* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

The news editors report that additional information may be obtained by contacting...
M. Sadelain, Weill Cornell Med College, York, NY 10065, United States. Additional authors for this research include J. Plotkin, G. Jakka, G. Stewart-Jones, I. Riviere, T. Merghoub, J. Wolchok, C. Renner and M. Sadelain.

Keywords for this news article include: York, New York, United States, North and Central America, Immunologic Receptors, Membrane Proteins, Antigen Receptors, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Genetics, Weill Cornell Medical College.

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Oncology - Breast Cancer

Royal Marsden NHS Foundation Trust Details Findings in Breast Cancer (Rates of major complications during neoadjuvant and adjuvant chemotherapy for early breast cancer: An off study population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "To determine the incidence and risk factors for thromboembolic events (TE) and febrile neutropenia (FN) in patients receiving systemic chemotherapy for early breast cancer (EBC). 325 patients received FEC75, FEC100-T or ECaP for EBC in 2013."

Our news editors obtained a quote from the research from Royal Marsden NHS Foundation Trust, "TE occurred in 7.4% and FN in 19.1% of patients. Risk factors for TE were: central venous catheter (p = 0.011). Risk factors for FN were: FEC100-T treatment versus FEC75 and ECaP (p <= 0.001); lower pretreatment neutrophil count (p = 0.009) and poorer performance status (p = 0.012). Two patients died from treatment-related toxicities."

According to the news editors, the research concluded: "In real-world experience, the majority of patients completed adequate treatment, despite significant complications."


The news editors report that additional information may be obtained by contacting A. Ring, Royal Marsden NHS Fdn Trust, Breast Unit, London, United Kingdom. Additional authors for this research include A. Sharp, H. Lote, K. Mohammed, E. Papadimitraki, M. Capelan and A. Ring.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.breast.2016.07.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Combined Modality Therapy, Adjuvant Chemotherapy, Risk and Prevention, Drugs and Therapies, Women's Health, Breast Cancer, Oncology, Royal Marsden NHS Foundation Trust.

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Rutgers School of Dental Medicine Details Findings in Escherichia coli
(Surface display of Aggregatibacter actinomycetemcomitans autotransporter Aae and dispersin B hybrid act as antibiofilm agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Escherichia coli are presented in a new report. According to news reporting originating from Newark, New Jersey, by NewsRx correspondents, research stated, "Among the various proteins expressed by the periodontopathogen Aggregatibacter actinomycetemcomitans, two proteins play important roles for survival in the oral cavity. The autotransporter Aae facilitates the attachment of the pathogen to oral epithelial cells, which act as a reservoir, while the biofilm-degrading glycoside hydrolase dispersin B facilitates the movement of daughter cells from the mature biofilm to a new site."

Funders for this research include USPHS, National Institute of Dental and Craniofacial Research.

Our news editors obtained a quote from the research from the Rutgers School of Dental Medicine, "The objective of this study was to use the potential of these two proteins to control biofilms. To this end, we generated a hybrid construct between the Aae C-terminal translocating domain and dispersin B, and mobilized it into Escherichia coli Rosetta (DE3) pLysS cells. Immunofluorescence analysis of the modified E. coli cells confirmed the presence of dispersin B on the surface. Further, the membrane localization of the displayed dispersin B was confirmed with Western blot analysis. The integrity of the E. coli cells displaying the dispersin B was confirmed through FACS analysis. The hydrolytic activity of the surface-displayed dispersin B was confirmed by using 4-methylumbelliferyl-beta-D-glucopyranoside as the substrate. The detachment ability of the dispersin B surface-displaying E. coli cells was shown using Staphylococcus epidermidis and Actinobacillus pleuropneumoniae biofilms in a microtiter assay."

According to the news editors, the research concluded: "We concluded that the Aae b-domain is sufficient to translocate foreign enzymes in the native folded form and that the method of Aae-mediated translocation of surface displayed enzymes might be useful for control of biofilms."


The news editors report that additional information may be obtained by contacting N. Ramasubbu, Rutgers Sch Dental Med, Dept. of Oral Biol, Newark, NJ, United States. Additional authors for this research include K. DiFranco, M. Shanmugam, P. Gopal, V. Vyas, D.H. Fine, C. Cugini and N. Ramasubbu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/omi.12126. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Newark, New Jersey, United States, North and Central America, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae,
Escherichia coli, Escherichia Coli, Proteobacteria, Genetics, Rutgers School of Dental Medicine.

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**Pharmaceutical Companies**

**SEATTLE GENETICS NOTIFICATION: Faruqi & Faruqi, LLP Encourages Investors Who Suffered Losses In Excess Of $100,000 Investing In Seattle Genetics, Inc. To Contact The Firm**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Faruqi & Faruqi, LLP, a leading national securities law firm, is investigating potential securities fraud at Seattle Genetics, Inc. ("Seattle Genetics" or the "Company") (NASDAQ: SGEN).

The investigation focuses on whether the Company and its executives violated federal securities laws.

Specifically, on December 27, 2016, the Company announced that the U.S. Food and Drug Administration had placed a clinical hold on several early stage trials of the Company's experimental cancer drug, vadastuximab talirine. The clinical holds were initiated to evaluate the potential risk of hepatotoxicity in patients treated with the drug. Seattle Genetics revealed that six acute myeloid leukemia patients had been identified with liver toxicity and that four had died.

On this news, Seattle Genetics' share price fell from $61.86 per share on December 23, 2016 to a closing price of $52.36 on December 27, 2016—a $9.50 or a 15.36% drop.

Request more information now by clicking here: HYPERLINK "http://www.faruqilaw.com"www.faruqilaw.com/SGEN. There is no cost or obligation to you.

Keywords for this news article include: Pharmaceutical Companies, Legal Issues, Seattle Genetics, Faruqi & Faruqi LLP, Biotechnology Companies.

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**Biotechnology Companies**

**SHAREHOLDER ALERT: Bronstein, Gewirtz & Grossman, LLC Announces Investigation of Seattle Genetics, Inc. SGEN**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Attorney Advertising -- Bronstein, Gewirtz & Grossman, LLC is investigating potential claims on behalf of purchasers of Seattle Genetics, Inc. ("Seattle Genetics" or the "Company") (NASDAQ: SGEN). Such investors are advised to obtain additional information and assist the investigation by visiting the firm's site: HYPERLINK "http://www.bgandg.com/sgen"www.bgandg.com/sgen.

The investigation concerns whether Seattle Genetics and certain of its officers and/or directors have violated Sections 10(b) and 20(a) of the Securities Exchange Act of 1934.

On December 27, 2016, Seattle Genetics revealed that the U.S. Food and Drug
Administration ("FDA") had placed a clinical hold or partial clinical hold on some early stage trials of vadastuximab talirine, its experimental cancer drug, to evaluate the potential risk of hepatotoxicity. Seattle Genetics affirmed that six acute myeloid leukemia patients had been identified with liver toxicity and that four had died. Following this news, Seattle Genetics stock dropped $9.50 per share, or 15.36%, to close at $52.36 on December 27, 2016.

If you are aware of any facts relating to this investigation, or purchased Seattle Genetics shares, you can assist this investigation by visiting the firm's site: HYPERLINK "http://www.bgandg.com/sgen" www.bgandg.com/sgen. You can also contact Peretz Bronstein or his Investor Relations Analyst, Yael Hurwitz of Bronstein, Gewirtz & Grossman, LLC: 212-697-6484.

Bronstein, Gewirtz & Grossman, LLC is a corporate litigation boutique. Our primary expertise is the aggressive pursuit of litigation claims on behalf of our clients. In addition to representing institutions and other investor plaintiffs in class action security litigation, the firm's expertise includes general corporate and commercial litigation, as well as securities arbitration. Attorney advertising. Prior results do not guarantee similar outcomes.

Keywords for this news article include: Pharmaceutical Companies, Advertising, Seattle Genetics, Biotechnology Companies, Bronstein Gewirtz & Grossman LLC.

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**SHAREHOLDER ALERT: Lundin Law PC Announces an Investigation of Seattle Genetics, Inc. and Encourages Investors with Losses to Contact the Firm**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Lundin Law PC, a shareholder rights firm, announces that it is investigating claims against Seattle Genetics, Inc. ("Seattle Genetics" or the "Company") (Nasdaq: SGEN) concerning possible violations of federal securities laws.

To get more information about this investigation, please contact Brian Lundin, Esquire, of Lundin Law PC, at 888-713-1033, or via email at brian@lundinlawpc.com.

According to the Complaint, the Company announced that the U.S. Food and Drug Administration had enforced a clinical hold or partial clinical hold on initial stage trials of the Company's experimental cancer drug, vadastuximab talirine, to assess any possible risk of hepatotoxicity. The Company mentioned that six acute myeloid leukemia patients had been identified with liver toxicity and that four had died.

When this news was released to the public, the value of Seattle Genetics dropped, causing investors harm.

Lundin Law PC was founded by Brian Lundin, a securities litigator based in Los Angeles dedicated to upholding shareholders' rights.

This press release may be considered Attorney Advertising in some jurisdictions under the applicable law and ethical rules. View source version on businesswire.com: http://www.businesswire.com/news/home/20161227005283/en/

Keywords for this news article include: Pharmaceutical Companies, Lundin Law PC, Seattle Genetics.
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Pharmaceutical Companies
SHAREHOLDER ALERT: Pomerantz Law Firm Investigates Claims On Behalf of Investors of Seattle Genetics, Inc. - SGEN

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Pomerantz LLP is investigating claims on behalf of investors of Seattle Genetics, Inc. ("Seattle Genetics" or the "Company") (NASDAQ: SGEN). Such investors are advised to contact Robert S. Willoughby at HYPERLINK "mailto:rswilloughby@pomlaw.com" rswilloughby@pomlaw.com or 888-476-6529, ext. 9980. The investigation concerns whether Seattle Genetics and certain of its officers and/or directors have engaged in securities fraud or other unlawful business practices.

On December 27, 2016, Seattle Genetics announced that the U.S. Food and Drug Administration had placed a clinical hold or partial clinical hold on several early stage trials of the Company's experimental cancer drug, vadastuximab talirine, to evaluate the potential risk of hepatotoxicity. Seattle Genetics stated that six acute myeloid leukemia patients had been identified with liver toxicity and that four had died.

On this news, Seattle Genetics stock has fallen as much as $9.95, or 16.07%, to $51.91 on December 27, 2016.

The Pomerantz Firm, with offices in New York, Chicago, Florida, and Los Angeles, is acknowledged as one of the premier firms in the areas of corporate, securities, and antitrust class litigation. Founded by the late Abraham L. Pomerantz, known as the dean of the class action bar, the Pomerantz Firm pioneered the field of securities class actions. Today, more than 80 years later, the Pomerantz Firm continues in the tradition he established, fighting for the rights of the victims of securities fraud, breaches of fiduciary duty, and corporate misconduct. The Firm has recovered numerous multimillion-dollar damages awards on behalf of class members. See HYPERLINK "http://www.pomerantzlaw.com/" www.pomerantzlaw.com

Keywords for this news article include: Pharmaceutical Companies, Legal Issues, Pomerantz LLP, Seattle Genetics, Finance and Investment, Biotechnology Companies.

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Heart Disorders and Diseases - Cardiomyopathies
Salford Royal Hospital Reports Findings in Cardiomyopathies (An Update on Intradialytic Cardiac Dysfunction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Cardiomyopathies have been published. According to news reporting out of Salford, United Kingdom, by NewsRx editors, research stated, "Cardiac dysfunction is a key factor in the high morbidity and mortality rates seen in hemodialysis (HD) patients. Much of the dysfunction is manifest as adverse
changes in cardiac and vascular structure prior to commencing dialysis."

Our news journalists obtained a quote from the research from Salford Royal Hospital, "This adverse vascular remodeling arises as a dysregulation between pro-and antiproliferative signaling pathways in response to hemodynamic and nonhemodynamic factors. The HD procedure itself further promotes cardiomyopathy by inducing hypotension and episodic regional cardiac ischemia that precedes global dysfunction, fibrosis, worsening symptoms, and increased mortality. Drug-based therapies have been largely ineffective in reversing HD-associated cardiomyopathy, in part due to targeting single pathways of low yield. Few studies have sought to establish natural history and there is no framework of priorities for future clinical trials. Targeting intradialytic cardiac dysfunction by altering dialysate temperature, composition, or ultrafiltration rate might prevent the development of global cardiomyopathy, heart failure, and mortality through multiple pathways. Novel imaging techniques show promise in characterizing the physiological response to HD that is a unique model of repetitive ischemia-reperfusion injury. Reducing HD-associated cardiomyopathy may need a paradigm shift from empirical delivery of solute clearance to a personalized therapy balancing solute and fluid removal with microvascular protection."

According to the news editors, the research concluded: "This review describes the evidence for intradialytic cardiac dysfunction outlining cardioprotective strategies that extend to multiple organs with potential impacts on exercise tolerance, sleep, cognitive function, and quality of life."


Our news journalists report that additional information may be obtained by contacting A. Odudu, Salford Royal Hosp, Salford, Lancs, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/sdi.12532. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salford, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiomyopathies, Heart Disease, Cardiology, Salford Royal Hospital.

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Central Nervous System Diseases and Conditions –…

Samsung Medical Center Reports Findings in Moyamoya Disease (Caveolin-1, Ring finger protein 213, and endothelial function in Moyamoya disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions - Moyamoya Disease have been presented. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Moyamoya disease is a unique cerebrovascular occlusive disease of unknown etiology. Ring finger protein 213 (RNF213) was identified as a
susceptibility gene for Moyamoya disease in East Asian countries."

The news correspondents obtained a quote from the research from Samsung Medical Center, "However, the pathogenesis of Moyamoya disease remains unclear. We prospectively analyzed clinical data for 139 patients with Moyamoya disease (108 bilateral Moyamoya disease, 31 unilateral Moyamoya disease), 61 patients with intracranial atherosclerotic stroke, and 68 healthy subjects. We compared the genetic (RNF213 variant) and protein biomarkers for caveolae (caveolin-1), angiogenesis (vascular endothelial growth factor (VEGF) and receptor (VEGFR2), and antagonizing cytokine (endostatin)) and endothelial dysfunction (asymmetric dimethylarginine (ADMA), and nitric oxide and its metabolites (nitrite and nitrate)) between patients with Moyamoya disease and intracranial atherosclerotic stroke. We then performed path analysis to evaluate whether a certain protein biomarker mediates the association between genes and Moyamoya disease. Caveolin-1 level was decreased in patients with Moyamoya disease and markedly decreased in RNF213 variant carriers. Circulating factors such as VEGF and VEGFR2 did not differ among the groups. Markers for endothelial dysfunction were significantly higher in patients with intracranial atherosclerotic stroke but normal in those with Moyamoya disease. Path analysis showed that the presence of the RNF213 variant was associated with caveolin-1 levels that could lead to Moyamoya disease. The level of combined marker of Moyamoya disease (caveolin-1) and intracranial atherosclerotic stroke (ADMA, an endothelial dysfunction marker) predicted Moyamoya disease with good sensitivity and specificity."

According to the news reporters, the research concluded: "Our results suggest that Moyamoya disease is a caveolae disorder but is not related to endothelial dysfunction or dysregulation of circulating cytokines."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1747493016662039. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Central Nervous System Diseases and Conditions, Intracellular Signaling Peptides and Proteins, Intracranial Arterial Diseases and Conditions, Cerebral Arterial Diseases and Conditions, Cardiovascular Diseases and Conditions, Carotid Artery Diseases and Conditions, Signal Transducing Adaptor Proteins, Stroke, Diagnostics and Screening, Vascular Diseases and Conditions, Brain Diseases and Conditions, Vesicular Transport Proteins, Arterial Occlusive Diseases, Cerebrovascular Disorders, Membrane Proteins, Moyamoya Disease, Phosphoproteins, Atherosclerosis, Caveolin 1, Cardiology, Caveolins, Genetics, Samsung Medical Center.

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Central Nervous System Diseases and Conditions...

School of Medicine Details Findings in Spinal Cord Injury (Mice with sclerostin gene deletion are resistant to the severe sublesional bone loss induced by spinal cord injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Spinal Cord Injury. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Bone loss after spinal cord injury (SCI) is rapid, severe, and refractory to interventions studied to date. Mice with sclerostin gene deletion are resistant to the severe sublesional bone loss induced by SCI, further indicating pharmacological inhibition of sclerostin may represent a promising novel approach to this challenging medical problem."

Funders for this research include Veterans Health Administration, Rehabilitation Research and Development Service, Ministry of Science and Technology PRC, Natural Science Foundation of China (NSFC).

Our news editors obtained a quote from the research from the School of Medicine, "The bone loss secondary to spinal cord injury (SCI) is associated with several unique pathological features, including the permanent immobilization, neurological dysfunction, and systemic hormonal alternations. It remains unclear how these complex pathophysiological changes are linked to molecular alterations that influence bone metabolism in SCI. Sclerostin is a key negative regulator of bone formation and bone mass. We hypothesized that sclerostin could function as a major mediator of bone loss following SCI. To test this hypothesis, 10-week-old female sclerostin knockout (SOST KO) and wild type (WT) mice underwent complete spinal cord transection or laminectomy (Sham). At 8 weeks after SCI, substantial loss of bone mineral density was observed at the distal femur and proximal tibia in WT mice but not in SOST KO mice. By mu CT, trabecular bone volume of the distal femur was markedly decreased by 64% in WT mice after SCI. In striking contrast, there was no significant reduction of bone volume in SOST KO/SCI mice compared with SOST KO/sham. Histomorphometric analysis of trabecular bone revealed that the significant reduction in bone formation rate following SCI was observed in WT mice but not in SOST KO mice. Moreover, SCI did not alter osteoblastogenesis of marrow stromal cells in SOST KO mice. Our findings demonstrate that SOST KO mice were protected from the major sublesional bone loss that invariably follows SCI."

According to the news editors, the research concluded: "The evidence indicates that sclerostin is an important mediator of the marked sublesional bone loss after SCI, and that pharmacological inhibition of sclerostin may represent a promising novel approach to this challenging clinical problem."

For more information on this research see: Mice with sclerostin gene deletion are resistant to the severe sublesional bone loss induced by spinal cord injury. *Osteoporosis International*, 2016;27(12):3627-3636. *Osteoporosis International* can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - www.springer.com; Osteoporosis International - www.springerlink.com/content/0937-941x/)

The news editors report that additional information may be obtained by contacting W. Qin, Icahn Sch Med Mt Sinai, Dept. of Med, New York, NY 10029, United States. Additional authors for this research include W. Zhao, X. Li, Y. Peng, L.M. Harlow, J. Li, Y. Qin, J. Pan, Y. Wu, L. Ran, H.Z. Ke, C.P. Cardozo and W.A. Bauman.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3700-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Central Nervous System Diseases and Conditions, Nervous System Trauma, Spinal Cord Injuries, Spinal Cord Injury, Therapy, Genetics, Bone Research, Pharmacology, School of Medicine.

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Angiogenesis

School of Medicine Reports Findings in Angiogenesis (Targeting the angio-proteostasis network: Combining the forces against cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Angiogenesis. According to news reporting out of Aachen, Germany, by NewsRx editors, research stated, "The VEGF family of pro-angiogenic factors has represented a pillar for targeted cancer therapy for more than a decade. In comparison, the field of protein homeostasis (proteostasis) focusing on the Unfolded Protein Response (UPR), an endoplasmic reticulum (ER) stress-induced signaling cascade, has just recently emerged as an attractive anti-cancer approach."

Financial supporters for this research include Ernst Jung Foundation, German Cancer Aid, RWTH START, Interuniversity Attraction Poles, Research Foundation Flanders, FWO, Health Research Board, Institute National du Cancer (INCa).

Our news journalists obtained a quote from the research from the School of Medicine, "Recent findings suggest that both signaling pathways are incontestably interrelated to ensure cell survival. Herein, we summarize recent findings that demonstrate how these two fundamental aspects of cancer cell survival intersect and provide genetic and pharmacological evidence of the interplay between angiogenic factors such as VEGF-A or PIGF and the individual members of the UPR such as IRE1, PERK and ATF6. We further describe how this interaction does not only affect the cancer cells, but also the surrounding microenvironmental niche that is also involved in tumor progression."

According to the news editors, the research concluded: "Furthermore, by summarizing the recent therapeutic implications of both anti-angiogenic and proteostatic approaches, we emphasize how these novel findings could be used synergistically to improve cancer therapy."

For more information on this research see: Targeting the angio-proteostasis network: Combining the forces against cancer. Pharmacology & Therapeutics, 2016;167();1-12. Pharmacology & Therapeutics can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Pharmacology & Therapeutics - www.journals.elsevier.com/pharmacology-and-therapeutics/)

Our news journalists report that additional information may be obtained by contacting B.K. Masouleh, Rhein Westfal TH Aachen, Sch Med, Dept. of Oncol Hematol & Stem Cell Transplantat, Aachen, Germany. Additional authors for this research include M. Vieri, S.E. Logue, J. Panse, A. Geerts, H. Van Vlierberghe, E. Chevet, A.M. Gorman, A. Samali
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pharmthera.2016.07.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aachen, Germany, Europe, Angiogenesis, Article Review, Oncology, Genetics, Cancer, School of Medicine.

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Oncology - Breast Cancer
School of Medicine Reports Findings in Breast Cancer (Management and Outcomes in Metaplastic Breast Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting originating in Athens, Greece, by NewsRx journalists, research stated, "Metaplastic breast cancer (MBC) constitutes a rare clinical entity with special clinicopathologic, immunohistochemical, and molecular features. Resistance to systemic therapies, whether chemotherapy or hormonal therapy, is among its main characteristics, which in turn explains the poor prognosis and renders its management a challenge."

The news reporters obtained a quote from the research from the School of Medicine, "Thus, the scope of the present review is to discuss the current therapeutic strategies for MBC in clinical practice and the corresponding outcomes and to suggest possible directions for future research. Potential novel targeted therapies could provide a hope for better outcomes but limited data are available owing to the rarity of MBC."

According to the news reporters, the research concluded: "As knowledge accumulates on the pathogenesis and genetic characteristics of MBC, emphasis should be given to the implementation of more targeted treatments, which will allow more efficient and individualized management of the disease."

For more information on this research see: Management and Outcomes in Metaplastic Breast Cancer. Clinical Breast Cancer, 2016;16(6):437-443. Clinical Breast Cancer can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA. (Elsevier - www.elsevier.com; Clinical Breast Cancer - www.journals.elsevier.com/clinical-breast-cancer/)

Our news correspondents report that additional information may be obtained by contacting G. Fotopoulos, Sotiria Gen Hosp, Athens Med Sch, Oncol Unit, Dept. of Internal Med 3, Athens 11527, Greece. Additional authors for this research include E.A. Kotteas, I. Ntanas-Stathopoulos, P. Kontogianni and G. Fotopoulos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clbc.2016.06.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Athens, Greece, Europe, Cancer, Article Review, Women's Health, Breast Cancer, Oncology, Genetics, School of Medicine.

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Scripps Florida scientists develop drug discovery approach to predict health impact of endocrine-disruptors

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Breast cancer researchers from the Florida campus of The Scripps Research Institute (TSRI) have developed a novel approach for identifying how chemicals in the environment--called environmental estrogens--can produce infertility, abnormal reproductive development, including "precocious puberty," and promote breast cancer.

Environmental estrogens work by binding to the estrogen receptor, a protein in cells that guides sexual maturation and reproduction. The new research shows how high-resolution imaging techniques could give scientists a window into how exposure to these chemicals may impact public health.

This research method could also be used to speed up the discovery of new drugs for breast cancer and many other diseases, added study senior author Kendall Nettles, associate professor at TSRI.

The study was published online ahead of print in the journal Cell Chemical Biology.

Environmental estrogens control the estrogen receptor's activity by changing its shape, which can mimic the effects of estrogen. These chemicals can also block receptor activity, as seen with the breast cancer therapy tamoxifen.

These changes are often exceedingly small, in the sub-angstrom range (one angstrom is equal to one ten-billionth of a meter). In fact, changes to even a single atom in a chemical or endocrine therapy drug can often drive widely divergent outcomes, but the resolution of the typical crystal structure does not allow visualization of these small changes.

Nettles calls the approach in the new study "super-resolution x-ray crystallography."

X-ray crystallography is a technique that produces a snapshot of the receptor's 3-D atomic structure. Like the images produced by photography or microscopy, x-ray crystal structures have a certain resolution, or level of detail, that can be visualized. With optical microscopy, super-resolution imaging--a discovery for which researchers were awarded the Nobel Prize in 2014--can be achieved by combining many images to produce a sharper picture.

Nettles and his colleagues reasoned that they could use a similar approach with x-ray crystallography to compare molecular snapshots, or structures, and better understand how estrogenic chemicals control receptor activity.

They found that by combining data about structural disturbances from many structures with activity profiles of their ligands (the estrogenic chemicals), researchers can identify the sub-angstrom details that determine endocrine disruption.

"Our novel approach offers a framework for understanding the diverse effects of environmental estrogens and other endocrine disruptors, furthering efforts to develop improved breast cancer therapies," said TSRI Research Associate Jerome C. Nwachukwu, first author of the study. "This approach can also be applied to other allosteric receptors."

Super-resolution x-ray crystallography can also be applied to the large groups of receptors that comprise the targets for most known drugs. With structure-based drug design, chemists can use this new approach to visualize how to modify drug-candidate chemicals to promote the desirable therapeutic profile.

Keywords for this news article include: Chemicals, Women's Health, Endocrine
Seattle Genetics Announces Clinical Hold on Several Phase 1 Trials of Vadastuximab Talirine SGN-CD33A

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Seattle Genetics, Inc. (Nasdaq:SGEN), a global biotechnology company, announced that it has received notice from the U.S. Food and Drug Administration (FDA) that a clinical hold or partial clinical hold has been placed on several early stage trials of vadastuximab talirine (SGN-CD33A) in acute myeloid leukemia (AML). The clinical holds were initiated to evaluate the potential risk of hepatotoxicity in patients who were treated with SGN-CD33A and received allogeneic stem cell transplant either before or after treatment. Six patients have been identified with hepatotoxicity, including several cases of veno-occlusive disease, with four fatal events. Overall, more than 300 patients have been treated with SGN-CD33A in clinical trials across multiple treatment settings. Seattle Genetics is working diligently with the FDA to determine whether there is any association between hepatotoxicity and treatment with SGN-CD33A, to promptly identify appropriate protocol amendments for patient safety and to enable continuation of these trials.

The phase 1/2 trial of SGN-CD33A monotherapy in pre- and post-allogeneic transplant AML patients has been placed on full clinical hold. Two phase 1 trials have been placed on partial clinical hold (no new enrollment, existing patients may continue treatment with re-consent). These studies are SGN-CD33A monotherapy, including a subset of older AML patients in combination with hypomethylating agents, and SGN-CD33A combination treatment with 7+3 chemotherapy in newly diagnosed younger AML patients. No new studies will be initiated until the clinical holds are lifted.

Seattle Genetics’ other ongoing trials of SGN-CD33A, including the phase 3 CASCADE trial in older AML patients and phase 1/2 trial in myelodysplastic syndrome, are proceeding with enrollment. About Vadastuximab Talirine (SGN-CD33A) Vadastuximab talirine (SGN-CD33A; 33A) is a novel investigational ADC targeted to CD33 utilizing Seattle Genetics’ proprietary ADC technology. CD33 is expressed on most AML and MDS blast cells. The CD33 engineered cysteine antibody is stably linked to a highly potent DNA binding agent called a pyrrolobenzodiazepine (PBD) dimer via site-specific conjugation technology (EC-mAb). PBD dimers are significantly more potent than systemic chemotherapeutic drugs and the EC-mAb technology allows uniform drug-loading onto an ADC. The ADC is designed to be stable in the bloodstream and to release its potent cell-killing PBD agent upon internalization into CD33-expressing cells.

Keywords for this news article include: Pharmaceutical Companies, Technology, Gastroenterology, Seattle Genetics Inc., Clinical Research - Clinical Trials and Studies.

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Second Military Medical University Reports Findings in Lymphoid Tissue (Identification of a novel alternative splicing transcript variant of the suppressor of fused: Relationship with lymph node metastasis in pancreatic ductal adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immunology - Lymphoid Tissue are discussed in a new report. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Pancreatic ductal adenocarcinoma (PDAC) is one of the most fatal diseases, and the median survival time is very short. Upregulation of hedgehog signaling pathway activity is a vital factor in pathogenesis of PDAC."

Our news editors obtained a quote from the research from Second Military Medical University, "However, as a negative regulator of hedgehog signaling, it is not very clear what role the suppressor of fused (SUFU) plays in PDAC tissue. In our study for the identification of alternative splicing transcripts of SUFU gene in human PDAC cells, a novel transcript variant of SUFU (SUFUvN) was discovered by 3' rapid amplification of cDNA ends (3'RACE) and cDNA clone. SUFUvN contained an additional new protein-coding exon compared with the transcript variant 1 of SUFU (SUFUv1, NM_016169) published in NCBI website. The sequence of the new protein-coding exon was the same as a fragment of intron between exon 10 and 11 of SUFUv1. Thus, an exon skipping occurred in transcription of SUFUv1. Compared with the expression vector of SUFUvN transfected PDAC cells, the corresponding protein expression encoded by SUFUvN (SUFU isoform N) was detected in PDAC tissue. Furthermore, it was observed that elevated SUFUvN transcription level was related with lymph node metastasis in PDAC tissues, while neither SUFUv1 nor transcript variant 2 of SUFU (SUFUv2, NM_001178133) did."

According to the news editors, the research concluded: "Our data indicate that there exists a novel transcript variant of SUFU which can be transcribed and translated into corresponding protein and its transcription is related with metastasis of lymph nodes in PDAC."


The news editors report that additional information may be obtained by contacting J. Gao, Second Military Med Univ, Changhai Hosp, Dept. of Gastroenterol, Shanghai 200433, People's Republic of China. Additional authors for this research include J. Gao and Z.S. Li.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Hemic and Immune Systems, Gastroenterology, Lymphoid Tissue, Adenocarcinoma, Lymph Nodes, Immunology, Pancreas, Genetics, Second Military Medical University.

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Centro Nacional de Investigaciones Oncologicas CNIO

Secrets of human protein interactions unveiled by massive sequencing and coevolution

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Cells operate like an incredibly well-synchronized orchestra of molecular interactions among proteins. Understanding this molecular network is essential not only to understand how an organism works but also to determine the molecular mechanisms responsible for a multitude of diseases. In fact, it has been observed that protein interacting regions are preferentially mutated in tumours. The investigation of many of these interactions is challenging. However, a study coordinated by Simone Marsili and David Juan, from Alfonso Valencia's team at the CNIO, will advance our knowledge on thousands of them. The work, published in the journal Proceedings of the National Academy of Sciences (PNAS), demonstrates that it is possible to understand a significant number of interactions among human proteins from the evolution of their counterparts in simpler cells, such as bacteria cells.

According to Juan Rodriguez, from the Structural Computational Biology Group at the CNIO and first author of the paper, "the complexity of human beings does not only result from the number of proteins that we have, but primarily from how they interact with each other. However, out of 200,000 protein-protein interactions estimated, only a few thousand have been characterised at the molecular level". It is very difficult to study the molecular properties of many important interactions without reliable structural information. It is this "twilight zone" that, for the first time, CNIO researchers have managed to explore.

FROM BACTERIA TO HUMANS TO UNDERSTAND DISEASES

Although more than 3,000 million years of evolution separate bacteria and humans, the CNIO team has utilized the information accumulated over thousands of bacterial sequences to predict interactions between proteins in humans. "We have used the protein coevolution phenomenon: proteins that interact tend to experience coordinated evolutionary changes that maintain the interaction despite the accumulation of mutations over time," says David Juan. "We have demonstrated that we can use this phenomenon to detect molecular details of interactions in humans that we share with very distant species. What is most interesting is that this allows us to transfer information from bacteria in order to study interactions in humans that we knew almost nothing about," adds Simone Marsili.

These new results may lead to important implications for future research. "A deeper understanding of these interactions opens the door to the modeling of three-dimensional structures that may help us to design drugs targeting important interactions in various types of cancer," explains David Juan. "This knowledge can also improve our predictions of the effects of various mutations linked to tumour development," says Rodriguez.

DATA-BASED SCIENCE

The laboratory of Alfonso Valencia, head of the Structural Biology and Biocomputing Programme, has been working in the field of protein coevolution since the 1990s. This field has significantly advanced in recent years. "Thanks to the amount of biological data that is being generated today, we can use new computational methods that take into account a greater number of factors," explains Valencia. According to the researchers, the pace of innovation in massive experimental techniques is providing additional data, making it possible to design more complex statistical models that provide an ever more complete view of the biological systems, "something particularly important in multifactorial diseases, such as cancer."

This work was supported by the Spanish Ministry of Economy and Competitiveness
and the European Regional Development Fund.

Keywords for this news article include: Genetics, Centro Nacional de Investigaciones Oncologicas CNIO, Centro Nacional de Investigaciones Oncologicas (CNIO).

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Atrial Fibrillation

Shanghai Jiao-Tong University School of Medicine Reports Findings in Atrial Fibrillation (TBX5 mutations contribute to early-onset atrial fibrillation in Chinese and Caucasians)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Atrial Fibrillation. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Atrial fibrillation (AF) is a common arrhythmia with an important heritable aspect. The genetic factors underlying AF have not been fully elucidated."

Financial supporters for this research include National Basic Research Program of China (973 program), National Science Foundation of China, Shanghai Excellent Academic Leaders Project, National Institutes of Health, American Heart Association.

Our news journalists obtained a quote from the research from the Shanghai Jiao-Tong University School of Medicine, "We screened six candidate genes (CAV1, KCNJ2, KCNQ1, NKX2.5, PITX2, and TBX5) for novel mutations in 139 patients of Chinese descent with early-onset AF and 576 controls. Four missense TBX5 mutations, p.R355C, p.Q376R, p.A428S, and p.S372L, were identified in evolutionarily conserved regions. We did not find any mutations in CAV1, KCNJ2, KCNQ1, NKX2.5, and PITX2. These mutations increased the expression of atrial natriuretic peptide (ANP) and connexin-40 (CX40) in the primarily cultured rat atrial myocytes but did not alter the expression of cardiac structural genes, atrial myosin heavy chain-a (MHC-a) and myosin light chain-2a (MLC-2a). Overexpression of p.R355C developed an atrial arrhythmia suggestive of paroxysmal AF in the zebrafish model. To replicate our findings, we screened TBX5 in 527 early-onset AF cases from the Massachusetts General Hospital AF study. A novel TBX5 deletion (DAsp118, p.D118del) was identified, while no TBX5 mutations were identified in 1176 control subjects. Our results provide both genetic and functional evidence to support the contribution of TBX5 gene in the pathogenesis of AF."

According to the news editors, the research concluded: "The potential mechanism of arrhythmia may be due in part to the disturbed expression of ANP and CX40."


Our news journalists report that additional information may be obtained by contacting Y.G. Li, Dept. of Cardiology, Xinhua Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai 200092, People's Republic of China. Additional authors for this research include F. Yang, S.N. Mahida, L. Zhao, X. Chen, M.L. Zhang, Z. Sun, Y. Yao, Y.X. Zhang, G.Y. Zheng, J. Dong, M.J. Feng, R. Zhang, J. Sun, S. Li, Q.S. Wang, H. Cao, E.J. Benjamin, P.T. Ellinor, Y.G. Li and X.L Tian.

The direct object identifier (DOI) for that additional information is:
Shenyang Pharmaceutical University Reports Findings in Drug Delivery Systems (Polysialic acid-modifying liposomes for efficient delivery of epirubicin, in-vitro characterization and in-vivo evaluation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Drug Delivery Systems. According to news reporting originating in Shenyang, People's Republic of China, by NewsRx journalists, research stated, "Polysialic acid (PSA) serves as a hydrophilic polymer and affords conjugated biologically active molecules a longer circulation time in vivo. Furthermore, PSA could potentially target tumor tissues and help achieve better curative effects.”

Financial support for this research came from National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Shenyang Pharmaceutical University, "In this study, PSA was conjugated with octadecyl dimethyl betaine (BS18) to yield a PSA-BS18 conjugate. The PSA-BS18 modified liposomal epirubicin (EPI-SL), had a particle size of 133.63 +/- 0.92 nm, a zeta potential of -26.23 +/- 1.50 mV and an encapsulation efficiency (%EE) of 96.23 +/- 1.16%. In vitro release studies showed that PSA-BS18 could delay EPI release from the modified liposomes. The MTT assay suggested that EPI-SL led to stronger cytotoxic activity than that exhibited by common and PEGylated liposomes. The pharmacokinetic study showed that EPI-SL prolonged the residence time of the EPI in the blood compared with that observed from common liposomes. Biodistribution results obtained from tumor-bearing mice clearly demonstrated that PSA-BS18 increased the accumulation of modified liposomes in tumors compared with that of common liposomes. In the antitumor efficacy study, EPI-SL showed the best antitumor and life-prolonging effects among all of the tested formulations."

According to the news reporters, the research concluded: "These findings strongly indicate EPI-SL might have great potential as an effective approach for anticancer therapy."


Clinical Research - Clinical Trials and Studies

Shinshu University School of Medicine Reports Findings in Clinical Trials and Studies (McGRATH MAC video laryngoscope for insertion of a transoesophageal echocardiography probe: A randomised controlled trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news originating from Matsumoto, Japan, by NewsRx correspondents, research stated, "Transoesophageal echocardiography (TOE) probe insertion in anaesthetised patients can cause pharyngeal and oesophageal injuries. Kim et al. have shown that insertion assisted by a Macintosh laryngoscope can reduce such complications but it may sometimes be difficult to observe the passage of a TOE probe. The McGRATH MAC (McGRATH) has been shown to provide a better view of the glottis, piriform fossa and oesophageal inlet during tracheal intubation than the Macintosh."

Our news journalists obtained a quote from the research from the Shinshu University School of Medicine, "We hypothesised that the McGRATH provided better visualisation of the oesophageal inlet and was useful as an aid to TOE probe placement, possibly reducing the incidence of pharyngeal injury related to insertion, compared with the Macintosh. A randomised controlled trial. The study was conducted in a university hospital from February to December 2014. One hundred patients undergoing elective surgery under intraoperative TOE monitoring were randomised to either a Macintosh group or a McGRATH group. Macintosh and McGRATH were used to visualise the passage of the TOE probe and guide its insertion. Visibility of the oesophageal inlet, the number of TOE insertion attempts and incidence of pharyngeal mucosal injury after the TOE probe had been removed were assessed. The percentage of patients in whom the oesophageal inlet was visible was higher in the McGRATH group (88%) than in the Macintosh group (41%) (p <0.01). The number of TOE probe insertion attempts was significantly smaller in the McGRATH group than in the Macintosh group (p= 0.039). The incidence of pharyngeal mucosal injury was significantly smaller in the McGRATH group (4%) than in the Macintosh group (16%; p=0.042). The McGRATH provided a better view of the oesophageal inlet and was useful as an aid to TOE probe placement, possibly reducing the incidence of pharyngeal injury related to its insertion."

According to the news editors, the research concluded: "University Hospital Medical Information Network in Japan (UMIN) 000012970."

For more information on this research see: McGRATH MAC video laryngoscope for insertion of a transoesophageal echocardiography probe: A randomised controlled trial.
Shoulder pain linked to increased heart disease risk

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- After all the lifting, hauling, and wrapping, worn out gift givers may blame the season's physical strain for any shoulder soreness they are feeling. It turns out there could be another reason. A new study led by investigators at the University of Utah School of Medicine finds that individuals with symptoms that put them at increased risk for heart disease could be more likely to have shoulder problems, including joint pain and rotator cuff injury.

"If someone has rotator cuff problems, it could be a sign that there is something else going on. They may need to manage risk factors for heart disease," says the study's lead author Kurt Hegmann, M.D., M.P.H., Professor of Family and Preventive Medicine and Director of the Rocky Mountain Center for Occupational and Environmental Health. The research was published in the Journal of Occupational and Environmental Medicine.

Repeated physical stress is most frequently blamed for aggravating shoulder joints and the muscles and tendons that surround them. Think about a pitcher who throws a baseball 100 times a day. While physical exertion can certainly be an irritant, accumulating evidence points other factors that could also be at play. Previous research found that people who had an increased risk for heart disease also had a tendency toward carpal tunnel syndrome, Achilles tendinitis, and tennis elbow, all musculoskeletal disorders.

The current study by Hegmann and colleagues adds shoulder problems to the list and takes the connection one step further. The more heart disease risk factors that each of the study participants had racked up - including high blood pressure, high cholesterol, diabetes - the more likely they were to have had shoulder trouble.

36 participants with the most severe collection of risk factors were 4.6 times more likely than those with none of the risk factors to have had shoulder joint pain. They were also nearly six times more likely to have had a second shoulder condition, rotator cuff tendinopathy. Participants with mid-level heart risk were less likely to have had either shoulder condition, at 1.5 to 3-fold. Shared trends bolster that there could be a relationship between heart risk and shoulder problems, but researchers will need to follow up with a prospective study to prove cause and effect.

It may seem like physical strain would be at least just as likely to cause shoulder pain...
but data from the 1,226 skilled laborers who took part in the study suggest otherwise. Ergonomists carefully monitored airbag manufacturers, meat, processors, cabinet makers and skilled laborers. Every forceful twist, push, and pull was factored into a strain index assigned to each worker. But a more straining job did not translate to an uptick in shoulder difficulties. Nor did more time spent doing other physical activities.

"What we think we are seeing is that high force can accelerate rotator cuff issues but is not the primary driver," says Hegmann. "Cardiovascular disease risk factors could be more important than job factors for incurring these types of problems."

He says it's possible that controlling blood pressure and other heart risk factors could alleviate shoulder discomfort, too.

Keywords for this news article include: Cardiology, Hemodynamics, Shoulder Pain, Blood Pressure, Risk and Prevention, Constrictive Pericarditis, University of Utah Health Sciences, Cardiovascular Diseases and Conditions, Musculoskeletal Diseases and Conditions, Heart Disorders and Diseases - Heart Disease.

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**Sichuan University Reports Findings in Abdominal Aortic Aneurysm (Abdominal compartment syndrome after endovascular repair for ruptured abdominal aortic aneurysm leads to acute intestinal necrosis Case report)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Abdominal Aortic Aneurysm. According to news reporting originating in Chengdu, People's Republic of China, by NewsRx journalists, research stated, "Abdominal compartment syndrome (ACS) after endovascular repair (EVAR) of rupture abdominal aortic aneurysm (rAAA) is a rare emergency situation, which has a high mortality. However, the progression of ACS is rapid and the diagnosis is usually been delayed, which increase the difficulties in treatment and affect the prognosis."

The news reporters obtained a quote from the research from Sichuan University, "We describe a case of a severe complication (acute intestinal necrosis) resulting from ACS after endovascular repair of rAAA. Clinical Finding: Anelderlyman, 81 years old, complained a sudden lowerabdominal and backpain without any predisposing cause. Hehad a history of hypertension for 20 years without any regular anti-hypertensive therapy. Physical Examination revealed that the blood pressure was 89/54mmHg, pulse was 120/min, oxygen saturation was 91%. The abdominal ultrasound and the CTA (computed tomography angiography) scan revealed a rAAA. Emergency EVAR under general anesthesia was performed for this patient. Diagnosis: Fourteen hours after endovascular repair, sudden decreased of blood pressure (70/50mmHg) and oxygen saturation (70%) was observed. ACS or bleeding of retroperitoneal space was diagnosed. Abdominal laparotomy was immediately performed. ACS was verified and a severe complication (acute intestinal necrosis) was observed, intestinal resection was performed for this patient. Unfortunately, this patient died after operation because of multi-organ failure in a very short period, which is very rare regarding to this condition. Surgical pathology, diagnosis and management were discussed."
According to the news reporters, the research concluded: "ACS was occurred with a severe complication (acute intestinal necrosis) in a very short period, which is very rare regarding to this condition after EVAR, it reminds us the severe result of ACS and more methods to prevent it happened after surgical management."

For more information on this research see: Abdominal compartment syndrome after endovascular repair for ruptured abdominal aortic aneurysm leads to acute intestinal necrosis Case report. *Medicine*, 2016;95(47):103-106. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting J.C. Zhao, Sichuan University, West China Hosp, Dept. of Vasc Surg, Chengdu, Sichuan, People's Republic of China. Additional authors for this research include J.C. Zhao, B. Huang, D. Yuan, Y. Yang and Y.K. Ma.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Cardiovascular Diseases and Conditions, Muscular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Compartment Syndrome, Cardiology, Angiology, Sichuan University.

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**Neurodegenerative Diseases and Conditions -...**

**Single protein may hold secret to treating Parkinson's disease and more**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New details learned about a key cellular protein could lead to treatments for neurodegenerative diseases, such as Parkinson's, Huntington's, Alzheimer's, and amyotrophic lateral sclerosis (ALS).

At their root, these disorders are triggered by misbehaving proteins in the brain. The proteins misfold and accumulate in neurons, inflicting damage and eventually killing the cells. In a new study, researchers in the laboratory of Steven Finkbeiner, MD, PhD, at the Gladstone Institutes used a different protein, Nrf2, to restore levels of the disease-causing proteins to a normal, healthy range, thereby preventing cell death.

The researchers tested Nrf2 in two models of Parkinson's disease: cells with mutations in the proteins LRRK2 and a-synuclein. By activating Nrf2, the researchers turned on several "house-cleaning" mechanisms in the cell to remove excess LRRK2 and a-synuclein.

"Nrf2 coordinates a whole program of gene expression, but we didn't know how important it was for regulating protein levels until now," explained first author Gaia Skibinski, PhD, a staff research scientist at Gladstone. "Overexpressing Nrf2 in cellular models of Parkinson's disease resulted in a huge effect. In fact, it protects cells against the disease better than anything else we've found."

In the study, published in the Proceedings of the National Academy of Sciences, the scientists used both rat neurons and human neurons created from induced pluripotent stem cells. They then programmed the neurons to express Nrf2 and either mutant LRRK2 or a-synuclein. Using a one-of-a-kind robotic microscope developed by the Finkbeiner laboratory, the
Researchers tagged and tracked individual neurons over time to monitor their protein levels and overall health. They took thousands of images of the cells over the course of a week, measuring the development and demise of each one.

The scientists discovered that Nrf2 worked in different ways to help remove either mutant LRRK2 or a-synuclein from the cells. For mutant LRRK2, Nrf2 drove the protein to gather into incidental clumps that can remain in the cell without damaging it. For a-synuclein, Nrf2 accelerated the breakdown and clearance of the protein, reducing its levels in the cell.

"I am very enthusiastic about this strategy for treating neurodegenerative diseases," said Finkbeiner, a senior investigator at Gladstone and senior author on the paper. "We've tested Nrf2 in models of Huntington's disease, Parkinson's disease, and ALS, and it is the most protective thing we've ever found. Based on the magnitude and the breadth of the effect, we really want to understand Nrf2 and its role in protein regulation better."

The scientists say that Nrf2 itself may be difficult to target with a drug because it is involved in so many cellular processes, so they are now focusing on some of its downstream effects. They hope to identify other players in the protein regulation pathway that interact with Nrf2 to improve cell health and that may be easier to drug.

Keywords for this news article include: Cells, Neurons, Genetics, Proteomics, Synucleins, Movement Disorders, Protein Regulation, Parkinson's Disease, Gladstone Institutes, Nerve Tissue Proteins, Parkinsonian Disorders, TDP-43 Proteinopathies, Proteostasis Deficiencies, Brain Diseases and Conditions, Basal Ganglia Diseases and Conditions.

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Slayback Pharma LLC

Slayback Pharma announces the final approval and launch of Generic Zovirax Acyclovir Ointment 5%

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Slayback Pharma LLC is pleased to announce the launch of Generic Zovirax Ointment (Acyclovir Ointment) 5%, by its out-licensee - Sandoz (Fougera). Slayback had developed the product and out-licensed the sales and marketing rights to Sandoz. The ANDA filed by Sandoz (Fougera) was approved on May 11, 2016.

The product is a generic version of Valeant's Zovirax Ointment (Acyclovir Ointment), which is indicated in the management of initial genital herpes and in limited non-life-threatening mucocutaneous Herpes simplex virus infections in immunocompromised patients. Acyclovir Ointment is contraindicated in patients who develop hypersensitivity to the components of the formulation. Acyclovir Ointment is intended for cutaneous use only and should not be used in the eye.

As per the agreement between Sandoz and Slayback, terms of which remain confidential, Sandoz will continue to pay Slayback a share of the profits generated from the sale of Acyclovir Ointment in the USA.

"Slayback's core focus is the development of complex generics primarily in parenteral and other non-solid pharmaceutical products by connecting the dots across various technologies, science, regulatory and intellectual property traditions. The successful development and approval of a complex generic formulation of Acyclovir Ointment meeting FDA's standards is a testimony to this effort," said Ajay K Singh, Chief Executive Officer of
Southern Medical University Details Findings in Liver Cancer (Ten-year follow-up analysis of chronic hepatitis C patients after getting sustained virological response to pegylated interferon-alpha and ribavirin therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Liver Cancer. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "There is little data on the long-term follow-up outcomes of chronic hepatitis C patients achieving sustained virological response (SVR) after treatment with pegylated interferon- plus ribavirin. We prospectively investigated the overall clinical, biochemical, virological and histological outcomes in a ten-year cohort study of 325 patients with chronic hepatitis C achieving SVR to pegylated interferon- and ribavirin therapy."

Our news editors obtained a quote from the research from Southern Medical University, "Patients underwent consistent clinical, biochemical and virological evaluation every six months, and patients with pretherapy Ishak fibrosis score 2 were invited to accept a second liver biopsy at the last follow-up. Liver biopsy specimens were evaluated using Ishak's scoring system. At the end of follow-up, five patients developed decompensated liver cirrhosis. One patient (0.3%) with pretherapy cirrhosis was diagnosed with hepatocellular carcinoma (HCC). A total of 305 patients (94%) had normal serum ALT and AST levels during the entire period of follow-up. Twenty-seven patients (8%) had conclusive evidence of virological relapse. Among the 117 patients with paired pretherapy and long-term follow-up biopsies, 96 (82%) had a decreased fibrosis score. Ninety-nine (79%) had a decrease in combined inflammation score. Thirty-seven (32%) had normal or nearly normal livers on long-term follow-up biopsy. SVR achieved with PEG-IFN- and RBV combination therapy is durable, while late virological relapse may still occur in some patients."

According to the news editors, the research concluded: "Clinical outcomes for patients who obtain SVR are excellent, although the patients with cirrhosis are still at a low risk of hepatocellular carcinoma."


The news editors report that additional information may be obtained by contacting Y. Zhou, Southern Med Univ, Dept. of Infect Dis, Nanfang Hosp, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include F. Gao, G. Yuan, K.
Specific Technologies and FIND announce strategic collaboration

Blood Diseases and Conditions - Sepsis

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Specific Technologies and FIND announced a collaboration to promote the development of new solutions for diagnosis of bloodstream infections in resource-poor environments.

The development of an infection in the bloodstream is the cause of sepsis, a systemic inflammatory response which can be life threatening. The global burden of sepsis is significant. According to recent estimates, 31.5 million cases occur annually, resulting in some 5.3 million deaths [1]. The great majority of these cases occur in lower- and middle-income countries and rank among the leading causes of maternal and neonatal mortality. Sepsis is thought to account for over 10% of maternal deaths and 70% of the 9 million neonatal and infant deaths that occur annually [2,3]. Survival in low-resource settings largely depends upon rapid detection and administration of appropriate antibiotics, both of which are extremely challenging: current approaches to sepsis diagnosis are labor-intensive and require well-resourced laboratories.

Specific Technologies has developed a system called SpecID for clinical microbiology diagnostics that combines pathogen detection with identification in culture, providing substantial advances to existing methods and taking what now is often a highly manual, three-step, two-day process and translating it into a single labor-free instrument that delivers comparable results within 12 hours. This reduction in technician involvement is suited to low- and middle-income countries where technicians trained to perform Gram stains are often unavailable near the point of blood sample collection.

Under the collaboration between Specific Technologies and FIND, work will be done to expand Specific Technologies' species identification library to include additional pathogens that commonly cause bloodstream infections in low- and middle-income countries (LMICs), develop specifications for adapting SpecID to LMICs, and develop a plan to manufacture and validate a new version of the instrument.

"The wide use of broad spectrum antibiotics to treat suspected sepsis not only increasingly fails to save the patient but is driving the evolution of yet more resistant strains." said Catharina Boehme, FIND CEO. "In the era of antimicrobial resistance, we must aim for rapid diagnosis followed by targeted treatment. Increasing access to rapid blood culture for pathogen identification and drug susceptibility testing is thus a major priority, and the SpecID system holds particular promise to address this need in low-resource settings."

"Our agreement with FIND further highlights the broad demand for the rapid..."
evolution of existing blood culture practices around the world," said Paul Rhodes, Chief Executive Officer of Specific Technologies. "While our blood culture paradigm has been designed for developed world microbiology labs, the labor-free nature of its Gram status and species identification functions make it well suited for the constraints of resource-limited regions."

"We look forward to a long and fruitful partnership with FIND where we can together enable broader testing for this important healthcare challenge that so many areas of the globe cannot access due to the technical requirements of existing testing practices," said Rob Lozuk, President of Specific Technologies.

Keywords for this news article include: Septicemia, Bloodstream Infection, Specific Technologies, Diagnostics and Screening, Blood Diseases and Conditions - Sepsis.

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Ischemia

Stanford University Reports Findings in Ischemia (Transient Receptor Potential Ankyrin 1 Activation within the Cardiac Myocyte Limits Ischemia-reperfusion Injury in Rodents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Ischemia. According to news reporting from Stanford, California, by NewsRx journalists, research stated, "Recent evidence suggests that cross talk exists between cellular pathways important for pain signaling and ischemia-reperfusion injury. Here, the authors address whether the transient receptor potential ankyrin 1 (TRPA1) channel, important in pain signaling, is present in cardiac myocytes and regulates cardiac ischemia-reperfusion injury."

The news correspondents obtained a quote from the research from Stanford University, "For biochemical analysis of TRPA1, techniques including quantitative polymerase chain reaction, Western blot, and immunofluorescence were used. To determine how TRPA1 mediates cellular injury, the authors used an in vivo model of rat cardiac ischemia-reperfusion injury and adult rat-isolated cardiac myocytes subjected to hypoxia-reoxygenation. The authors' biochemical analysis indicates that TRPA1 is within the cardiac myocytes. Further, using a rat in vivo model of cardiac injury, the TRPA1 activators ASP 7663 and optovin reduce myocardial injury (45 +/- 5%* and 44 +/- 8%,* respectively, vs. control, 66 +/- 6% infarct size/area at risk; n = 6 per group; mean +/- SD; * P< 0.001). TRPA1 inhibition also blocked the infarct size-sparing effects of morphine. In isolated cardiac myocytes, the TRPA1 activators ASP 7663 and optovin reduce cardiac myocyte cell death when given during reoxygenation (20 +/- 3%* and 22 +/- 4%* vs. 36 +/- 3%; percentage of dead cells per field, n = 6 per group; mean +/- SD; *P < 0.05). For a rat in vivo model of cardiac injury, the infarct size-sparing effect of TRPA1 activators also occurs during reperfusion. The authors' data suggest that TRPA1 is present within the cardiac myocytes and is important in regulating myocardial reperfusion injury."

According to the news reporters, the research concluded: "The presence of TRPA1 within the cardiac myocytes may potentially explain why certain pain relievers that can block TRPA1 activation, such as cyclooxygenase-2 inhibitors or some nonsteroidal antiinflammatory drugs, could be associated with cardiovascular risk."

For more information on this research see: Transient Receptor Potential Ankyrin 1
Activation within the Cardiac Myocyte Limits Ischemia-reperfusion Injury in Rodents. 

*Anesthesiology*, 2016;125(6):1171-1180. *Anesthesiology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; *Anesthesiology* - journals.lww.com/anesthesiology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting E.R. Gross, Stanford University, Dept. of Anesthesiol Perioperat & Pain Med, Stanford, CA 94305, United States. Additional authors for this research include H. Piplani, S.L. McAllister, C.M. Hurt and E.R. Gross.

Keywords for this news article include: Stanford, California, United States, North and Central America, Cardiovascular Diseases and Conditions, Cardiovascular Surgical Procedures, Ischemia-Reperfusion Injury, Transfusion Medicine, Blood Transfusion, Cardiac Myocytes, Medical Devices, Biochemicals, Biochemistry, Muscle Cells, Myocardium, Cardiology, Chemicals, Surgery, Stanford University.

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*Genetics - Human Genetics*

**Studies Conducted at Aix-Marseille University on Human Genetics Recently Reported (How to Identify Pathogenic Mutations among All Those Variations: Variant Annotation and Filtration in the Genome Sequencing Era)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics - Human Genetics. According to news reporting from Marseille, France, by NewsRx journalists, research stated, "High-throughput sequencing technologies have become fundamental for the identification of disease-causing mutations in human genetic diseases both in research and clinical testing contexts. The cumulative number of genes linked to rare diseases is now close to 3,500 with more than 1,000 genes identified between 2010 and 2014 because of the early adoption of Exome Sequencing technologies."

The news correspondents obtained a quote from the research from Aix-Marseille University, "However, despite these encouraging figures, the success rate of clinical exome diagnosis remains low due to several factors including wrong variant annotation and nonoptimal filtration practices, which may lead to misinterpretation of disease-causing mutations. In this review, we describe the critical steps of variant annotation and filtration processes to highlight a handful of potential disease-causing mutations for downstream analysis. We report the key annotation elements to gather at multiple levels for each mutation, and which systems are designed to help in collecting this mandatory information."

According to the news reporters, the research concluded: "We describe the filtration options, their efficiency, and limits and provide a generic filtration workflow and highlight potential pitfalls through a use case."

For more information on this research see: How to Identify Pathogenic Mutations among All Those Variations: Variant Annotation and Filtration in the Genome Sequencing Era. *Human Mutation*, 2016;37(12):1272-1282. *Human Mutation* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell -
Our news journalists report that additional information may be obtained by contacting D. Salgado, Aix Marseille Univ, INSERM, GMGF, Marseille, France. Additional authors for this research include M.I. Bellgard, J.P. Desvignes and C. Beroud.

Keywords for this news article include: Marseille, France, Europe, Human Genetics, Technology, Article Review, Genetics, Aix-Marseille University.

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Oncology - Bladder Cancer

Studies Conducted at Children's Medical Center on Bladder Cancer Recently Reported (Sarcomatoid Carcinoma of the Bladder in a Child: Case Report of a Successful Treatment Including Gemcitabine and Cisplatin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Bladder Cancer. According to news reporting from Okinawa, Japan, by NewsRx journalists, research stated, "This report describes an unusual case of sarcomatoid carcinoma of the bladder in a 3-year-old girl. Although saving the patient's life is most essential, it is also essential to consider quality of life."

The news correspondents obtained a quote from the research from Children's Medical Center, "The patient underwent neoadjuvant chemotherapy with gemcitabine and cisplatin for bladder preservation. The tumor considerably decreased in size. After 4 courses of chemotherapy, the patient underwent a partial cystectomy followed by postoperative irradiation with 2 courses of chemotherapy. Seventy months after the operation, she remains alive, showing complete remission with normal bladder function."

According to the news reporters, the research concluded: "Chemotherapy resulted in tumor shrinkage and allowed for bladder preservation."


Our news journalists report that additional information may be obtained by contacting T. Higa, Childrens Med Center, Okinawa Prefectural Nanbu Med Center, Dept. of Hematol & Oncol, Arakawa, Okinawa 9011105, Japan. Additional authors for this research include K. Oshiro, T. Kinjyo, Y. Miyazato, T. Nakama, S. Iraha, I. Nakazato, T. Matsuda, N. Hyakuna and N. Kuroda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.05.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Okinawa, Japan, Asia, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Bladder Cancer, Chemotherapy, Carcinomas, Cisplatin, Oncology, Children's Medical Center.
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**Neurodegenerative Diseases and Conditions**

**Studies Conducted at China Pharmaceutical University on Alzheimer Disease Recently Reported (Montelukast ameliorates streptozotocin-induced cognitive impairment and neurotoxicity in mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Extensive studies have demonstrated that neuroinflammation is associated with Alzheimer's disease (AD) and cysteinyl leukotriene receptor 1 (CysLT(1)R) was involved in neuroinflammation. Montelukast, a highly selective CysLT1R antagonist, has been reported to attenuate learning and memory impairments in the amyloid-beta-induced mouse model of AD."

Funders for this research include National Natural Science Foundation of China, Natural Science Foundation of Jiangsu Province, Priority Academic Program Development of Jiangsu Higher Education Institutions (PAPD).

Our news journalists obtained a quote from the research from China Pharmaceutical University, "However, whether montelukast also exerts beneficial effects on streptozotocin (STZ)-induced memory deficits in mice is not well known. In the present study, we aimed to investigate the effects of montelukast on STZ-induced cognitive impairment, neuroinflammation and apoptosis in mice. Our data showed that intra-hippocampal microinfusion of STZ resulted in learning and memory impairments, including increased escape latency during acquisition trials and decreased exploratory activities in the probe trial in Morris watermaze (MWM) task, and decreased number of correct choices and increased latency to enter the shock-free compartment in Y-maze test, and caused neuroinflammatory and apoptotic responses, evidenced by increments of nuclear NF-kappa B p65, TNF-alpha, IL-1 beta, cleaved caspase-3, Bax as well as decreased expression of Bcl-2 in hippocampus. Interestingly, STZ treatment led to up-regulation of protein and mRNA of CysLT(1)R in hippocampus. Of note, consecutive oral administration of montelukast (1 or 2 mg/kg, 3 weeks) remarkably attenuated these effects induced by STZ. However, montelukast had no effect on normal mice. These results suggest that montelukast improves memory impairment and inhibits neuroinflammation and apoptosis in mice exposed to STZ."

According to the news editors, the research concluded: "Montelukast may provide a novel strategy for treating or preventing AD."

For more information on this research see: Montelukast ameliorates streptozotocin-induced cognitive impairment and neurotoxicity in mice. *Neurotoxicology*, 2016;57(2):214-222. *Neurotoxicology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Neurotoxicology - www.journals.elsevier.com/neurotoxicology/)

The news correspondents report that additional information may be obtained from H. Hong, China Pharmaceutical University, Jiangsu Key Lab Drug Discovery Metab Dis, Dept. of Pharmacol, Nanjing 210009, Jiangsu, People’s Republic of China. Additional authors for this research include J.R. Lin, F. Wu, A. Ghosh, S.S. Tang, M. Hu, Y. Long, H.B. Sun and H. Hong.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.neuro.2016.09.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Neurodegenerative Diseases and Conditions, Neuroinflammation, Alzheimer Disease, Genetics, China Pharmaceutical University.

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Catheterization

Studies Conducted at Columbia College on Catheterization Recently Reported (Radial Artery Occlusion After Cardiac Catheterization: Significance, Risk Factors, and Management)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Catheterization have been presented. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Multiple modifiable risk factors have been proposed to decrease the likelihood of developing radial artery occlusion (RAO) in patients who undergo trans radial (TR) catheterization. RAO, the most significant complication for these patients, however, remains poorly identified and under diagnosed owing to its clinical quiescence and lack of clinical guidelines for systematic evaluation of radial artery patency."

The news correspondents obtained a quote from the research from Columbia College, "Currently, only best practices are available. As TR catheterization is becoming more widely adopted across the United States it has become more important to develop concrete strategies for identifying modifiable risk factors, high-risk patients, and better understanding the mechanisms to adequately approach treatment of RAO."

According to the news reporters, the research concluded: "We reviewed the contemporary literature regarding RAO and TR catheterization to provide a simplified method for discerning identifiable risk factors, high-risk groups, and management of RAO after TR catheterization."


Our news journalists report that additional information may be obtained by contacting R. Goswami, Columbia Coll Phys & Surg, Stamford Hosp, New York, NY 10032, United States. Additional authors for this research include C.S. Oliphant, H. Youssef, M. Morsy and R.N. Khouzam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cpcardiol.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Heart Catheterization, Article Review, Epidemiology, Risk and Prevention, Radial Artery, Cardiology, Angiology, Columbia College.
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**Hematologic Diseases and Conditions - Anemia**

**Studies Conducted at Department of Geriatrics on Anemia Recently Reported (Prevalence and predictive importance of anemia in Swedish nursing home residents - a longitudinal study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematologic Diseases and Conditions - Anemia is now available. According to news reporting from Jonkoping, Sweden, by NewsRx journalists, research stated, "Anemia is common in elderly people and especially in nursing home residents. Few studies have been performed on the consequences of anemia in a nursing home population."

The news correspondents obtained a quote from the research from the Department of Geriatrics, "This study explored the prevalence of anemia in nursing homes in Sweden, including risk factors and mortality associated with anemia or hemoglobin (Hb) decline. Three hundred ninety patients from 12 nursing homes were included during 2008-2011. Information about medication, blood samples, questionnaire responses and information about physical and social activities was recorded. The baseline characteristics of the patients were compared for subjects with and without anemia. Vital status was ascertained during the following 7 years from baseline to compare the survival. Hb levels <120 g/L in women and <130 g/L in men were used to define anemia. For 220 of the subjects Hb change during one year was registered and the quartiles in Hb change were compared in terms of baseline characteristics and mortality. The prevalence of anemia at baseline was 52% among men and 32% among women. The men with anemia had a two-year mortality significantly higher (61%) than the men without anemia (29%, p = 0.001) but there was no statistical difference in two-year survival in women. In anemic men there was a higher mortality (Hazard Ratio = 1.58) during a total follow-up period of up to 7 years after adjustment for age, increased B-type natriuretic peptide (BNP) and decreased estimated Glomerular Filtration Rate (eGFR). Among men, but not women, we found baseline correlations between anemia and elevated BNP (>100 ng/L) and severely reduced eGFR (<30 ml/min). When the lowest quartile of Hb change (decline >9 g/L) was compared with the highest (improvement >6 g/L) the mortality was higher in the lowest quartile (p = 0.03). Anemia is common in nursing home residents in Sweden, especially among men for whom it is related to higher mortality. A rapid Hb drop is associated with higher mortality."

According to the news reporters, the research concluded: "Regardless of earlier Hb values, monitoring Hb regularly in a nursing home population seems important for catching rapid Hb decline correlated with higher mortality."


Our news journalists report that additional information may be obtained by contacting B. Westerlind, Cty Hosp Ryhov, Dept. of Geriatr, Jonkoping, Region Jonkopin, Sweden. Additional authors for this research include C.J. Ostgren, S. Molstad and P. Midlov.

Keywords for this news article include: Jonkoping, Sweden, Europe, Hematologic
Heart Disorders and Diseases - Atrial Fibrillation

Studies Conducted at Division of Cardiology on Atrial Fibrillation Recently Reported (The Right to Left Atrial Volume Ratio Predicts Outcomes after Circumferential Pulmonary Vein Isolation of Longstanding Persistent Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news originating from Maebashi, Japan, by NewsRx correspondents, research stated, "We aimed to identify the predictors of clinical outcomes after circumferential pulmonary vein isolation (CPVI) without any substrate modification for longstanding persistent atrial fibrillation (LSP-AF). This study retrospectively analyzed 70 consecutive LSP-AF patients who underwent an initial CPVI and were followed-up for more than 1 year."

Our news journalists obtained a quote from the research from the Division of Cardiology, "The right and left atrial volumes indexed to the body surface areas (right atrial volume index [RAVI] and left atrial volume index [LAVI]) were determined by preacquired contrast-enhanced computed tomography (CT). The % RAVI/LAVI was obtained as 100 x RAVI/LAVI. During a median follow-up period of 15 months (interquartile range, 13-19 months), 21 patients (30%) had arrhythmia recurrences after the CPVI. Antiarrhythmic drugs were continued in 34 patients (48%). In the Cox proportional hazard model, the % RAVI/LAVI was a significant positive predictor of arrhythmia recurrences (hazard ratio, 1.048; P = 0.039). A receiver-operating characteristic analysis demonstrated that at an optimal cutoff of 100.1 for the % RAVI/LAVI, the sensitivity and specificity for predicting arrhythmia recurrences were 85.7% and 71.4%, respectively. The Kaplan-Meier analysis showed that arrhythmia recurrences were less frequent in patients with a % RAVI/LAVI of <100.1 than in those with a % RAVI/LAVI of >= 100.1 (P < 0.0001), and the arrhythmia-free survival rate at 12 months was 89.7% and 45.2%, respectively. The ratio of the RAVI to LAVI on CT may be a useful predictor of clinical outcomes after CPVI of LSP-AF."

According to the news editors, the research concluded: "LSP-AF patients with a less predominant right atrial enlargement relative to the left atrial enlargement may be good candidates for successful treatment with CPVI alone as the ablation strategy for LSP-AF."

For more information on this research see: The Right to Left Atrial Volume Ratio Predicts Outcomes after Circumferential Pulmonary Vein Isolation of Longstanding Persistent Atrial Fibrillation. PACE-Pacing and Clinical Electrophysiology, 2016;39(11):1181-1190. PACE-Pacing and Clinical Electrophysiology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from K. Nakamura, Gunma Prefectural Cardiovasc Center, Div Cardiol, Maebashi, Gumma 3710004, Japan. Additional authors for this research include K. Nakamura, S. Naito, K. Minami, K. Koyama, E. Yamashita, K. Kumagai and S. Oshima.
Studies Conducted at Erasmus University Medical Center on Alzheimer Disease Recently Reported (From ARB to ARNI in Cardiovascular Control)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting from Rotterdam, Netherlands, by NewsRx journalists, research stated, "Coexistence of hypertension, diabetes mellitus and chronic kidney disease synergistically aggravates the risk of cardiovascular and renal morbidity and mortality. These high-risk, multi-morbid patient populations benefit less from currently available anti-hypertensive treatment."

The news correspondents obtained a quote from the research from Erasmus University Medical Center, "Simultaneous angiotensin II type 1 receptor blockade and neprilysin inhibition ('ARNI') with valsartan/sacubitril (LCZ696) might potentiate the beneficial effects of renin-angiotensin-aldosterone inhibition by reinforcing its endogenous counterbalance, the natriuretic peptide system. This review discusses effects obtained with this approach in animals and humans. In animal models of hypertension, either alone or in combination with myocardial infarction or diabetes, ARNI consistently reduced heart weight and cardiac fibrosis in a blood pressure-independent manner. Additionally, LCZ696 treatment reduced proteinuria, focal segmental glomerulosclerosis and retinopathy, thus simultaneously demonstrating favourable effects on microvascular complications. These results were confirmed in patient populations. Besides blood pressure reductions in hypertensive patients and greatly improved (cardiovascular) mortality in heart failure patients, ventricular wall stress and albuminuria were reduced particularly in diabetic patients. The exact underlying mechanism remains unknown, but may involve improved renal haemodynamics and reduced glomerulosclerosis, e.g. related to a rise in natriuretic peptide levels. However, the assays of these peptides are hampered by methodological artefacts. Moreover, since sacubitrilat is largely renally cleared, drug accumulation may occur in patients with impaired renal function and thus hypotension is a potential side effect in patients with chronic kidney disease. Further caution is warranted since neprilysin also degrades endothelin-1 and amyloid beta in animal models."

According to the news reporters, the research concluded: "Accumulation of the latter may increase the risk of Alzheimer's disease."

For more information on this research see: From ARB to ARNI in Cardiovascular Control. *Current Hypertension Reports*, 2016;18(12):11-20. *Current Hypertension Reports* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Current Hypertension Reports - www.springerlink.com/content/1522-6417/)

Our news journalists report that additional information may be obtained by contacting A.H.J. Danser, Erasmus MC, Div Pharmacol & Vasc Med, Dept. of Internal Med, Rotterdam, Netherlands. Additional authors for this research include L.C.W. Roksnoer, E.J.
Kidney Diseases and Conditions - Chronic Kidney

Studies Conducted at General Hospital on Chronic Kidney Disease Recently Reported (Effects of Cardiovascular Events on End-Stage Renal Disease and Mortality in Patients With Chronic Kidney Disease Before Dialysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Kidney Diseases and Conditions - Chronic Kidney Disease have been presented. According to news reporting from Saitama, Japan, by NewsRx journalists, research stated, "Cardiovascular events (CVEs) are major complications in patients with chronic kidney disease (CKD). However, few studies have investigated the effects of CVEs on end-stage renal disease (ESRD) and mortality of pre-dialysis patients."

The news correspondents obtained a quote from the research from General Hospital, "We followed 377 CKD patients who were at stage (≥)G3 at first clinic visit in the Shuwa General Hospital between April 2005 and July 2014. After taking baseline patient data, we evaluated renal survival rates and all-cause and CVE-related mortality in patients with CVEs [(+)CVEs] and without CVEs [(-)CVEs]. A total of 99 CVEs occurred in 93 study patients (57.0% cardiac events, 43.0% cerebrovascular events, and 6.5% peripheral artery disease events). During the study period, 127 patients reached ESRD over a median of 4.51 years' follow-up. Kaplan-Meier analysis found longer renal survival rates in the (-)CVEs group compared with the (+)CVEs group. Forty patients died during the study period over a median of 5.43 years' follow-up. Survival rates for all-cause and CVE-related mortality of (-)CVEs patients were higher than in (+)CVEs patients. After adjustment for sex, age, current smoking, blood pressure, diabetes, estimated glomerular filtration rate, low-density lipoprotein cholesterol, high-density lipoprotein cholesterol, left ventricular hypertrophy, body mass index, albumin, hemoglobin, calcium, phosphate, C-reactive protein, and spot urine protein, the occurrence of CVEs was still a significant risk factor for ESRD (HR 1.516, p=0.017) and all-cause mortality (HR 7.871, p<0.001)."

According to the news reporters, the research concluded: "Our findings suggest that the occurrence of CVEs is a potent risk factor for ESRD and mortality in CKD patients before dialysis."


Our news journalists report that additional information may be obtained by
contacting M. Kuwahara, Dept. of Nephrology, Shuuwa General Hospital, Kasukabe, Saitama, Japan. Additional authors for this research include E. Takehara, Y. Sasaki, H. Azetsu, K. Kusaka, S. Shikuma and W. Akita.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1744-9987.12332. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Lipids, Saitama, Cardiology, Nephrology, Lipoproteins, Renal Disease, Cardiovascular, Risk and Prevention, Chronic Kidney Disease, Kidney Diseases and Conditions.

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**Immune System**

Studiees Conducted at Harvard School of Medicine on Immune System Recently Reported (IL-33 promotes food anaphylaxis in epicutaneously sensitized mice by targeting mast cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System are presented in a new report. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Cutaneous exposure to food allergens predisposes to food allergy, which is commonly associated with atopic dermatitis (AD). Levels of the epithelial cytokine IL-33 are increased in skin lesions and serum of patients with AD."

The news reporters obtained a quote from the research from the Harvard School of Medicine, "Mast cells (MCs) play a critical role in food-induced anaphylaxis and express the IL-33 receptor ST2. The role of IL-33 in patients with MC-dependent food anaphylaxis is unknown. We sought to determine the role and mechanism of action of IL-33 in patients with food-induced anaphylaxis in a model of IgE-dependent food anaphylaxis elicited by oral challenge of epicutaneously sensitized mice. Wild-type, ST2-deficient, and MC-deficient Kit (W-sh/W-sh) mice were epicutaneously sensitized with ovalbumin (OVA) and then challenged orally with OVA. Body temperature was measured by means of telemetry, Il33 mRNA by means of quantitative PCR, and IL-33, OVA-specific IgE, and mouse mast cell protease 1 by means of ELISA. Bone marrow-derived mast cell (BMMC) degranulation was assessed by using flow cytometry. Il33 mRNA expression was upregulated in tape-stripped mouse skin and scratched human skin. Tape stripping caused local and systemic IL-33 release in mice. ST2 deficiency, as well as ST2 blockade before oral challenge, significantly reduced the severity of oral anaphylaxis without affecting the systemic T(H)2 response to the allergen. Oral anaphylaxis was abrogated in Kit(W-sh/W-sh) mice and restored by means of reconstitution with wildtype but not ST2-deficient BMMCs. IL-33 significantly enhanced IgE-mediated degranulation of BMMCs in vitro. IL-33 is released after mechanical skin injury, enhances IgE-mediated MC degranulation, and promotes oral anaphylaxis after epicutaneous sensitization by targeting MCs."

According to the news reporters, the research concluded: "IL-33 neutralization might be useful in treating food-induced anaphylaxis in patients with AD."

For more information on this research see: IL-33 promotes food anaphylaxis in epicutaneously sensitized mice by targeting mast cells. *Journal of Allergy and Clinical
Studies Conducted at Indiana University on Bacteriophages Recently Reported (Virus Matryoshka: A Bacteriophage Particle-Guided Molecular Assembly Approach to a Monodisperse Model of the Immature Human Immunodeficiency Virus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Bacteriophages have been published. According to news reporting originating from Bloomington, Indiana, by NewsRx correspondents, research stated, "Immature human immunodeficiency virus type 1 (HIV-1) is approximately spherical, but is constructed from a hexagonal lattice of the Gag protein. As a hexagonal lattice is necessarily flat, the local symmetry cannot be maintained throughout the structure."

Financial support for this research came from Human Frontier Science Program.

Our news editors obtained a quote from the research from Indiana University, "This geometrical frustration presumably results in bending stress. In natural particles, the stress is relieved by incorporation of packing defects, but the magnitude of this stress and its significance for the particles is not known. In order to control this stress, we have now assembled the Gag protein on a quasi-spherical template derived from bacteriophage P22. This template is monodisperse in size and electron-transparent, enabling the use of cryo-electron microscopy in structural studies. These templated assemblies are far less polydisperse than any previously described virus-like particles (and, while constructed according to the same lattice as natural particles, contain almost no packing defects). This system gives us the ability to study the relationship between packing defects, curvature and elastic energy, and thermodynamic stability. As Gag is bound to the P22 template by single-stranded DNA, treatment of the particles with DNase enabled us to determine the intrinsic radius of curvature of a Gag lattice, unconstrained by DNA or a template. We found that this intrinsic radius is far larger than that of a virion or P22-templated particle."

According to the news editors, the research concluded: "Gag is under elastic strain in
a particle; this has important implications for the kinetics of shell growth, the stability of the shell, and the type of defects it will assume as it grows."


The news editors report that additional information may be obtained by contacting B. Dragnea, Indiana University, Dept. of Chem, Bloomington, IN 47405, United States. Additional authors for this research include L. He, A. Malyutin, S.A.K. Datta, A. Rein, K.M. Bond, M.F. Jarrold, A. Spilotros, D. Svergun, T. Douglas and B. Dragnea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201601712. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bloomington, Indiana, United States, North and Central America, Emerging Technologies, Molecular Assemblies, Bacteriophages, Nanotechnology, Viral DNA, Genetics, Viruses, Indiana University.

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Health and Medicine - Cardiovascular...

Studies Conducted at Johns Hopkins University on Cardiovascular Electrophysiology Recently Reported (Insights from Novel Noninvasive CT and ECG Imaging Modalities on Electromechanical Myocardial Activation in a Canine Model of Ischemic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Cardiovascular Electrophysiology. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "CT ECGI Electromechanical Imaging. The interplay between electrical activation and mechanical contraction patterns is hypothesized to be central to reduced effectiveness of cardiac resynchronization therapy (CRT)."

Our news journalists obtained a quote from the research from Johns Hopkins University, "Furthermore, complex scar substrates render CRT less effective. We used novel cardiac computed tomography (CT) and noninvasive electrocardiographic imaging (ECGI) techniques in an ischemic dyssynchronous heart failure (DHF) animal model to evaluate electrical and mechanical coupling of cardiac function, tissue viability, and venous accessibility of target pacing regions. Ischemic DHF was induced in 6 dogs using coronary occlusion, left bundle ablation and tachy RV pacing. Full body ECG was recorded during native rhythm followed by volumetric first-pass and delayed enhancement CT. Regional electrical activation were computed and overlaid with segmented venous anatomy and scar regions. Reconstructed electrical activation maps show consistency with LBBB starting on the RV and spreading in a 'U-shaped' pattern to the LV. Previously reported lines of slow conduction are seen parall showeel to anterior or inferior interventricular grooves. Mechanical contractiond large septal to lateral wall delay (80 +/- 38 milliseconds vs. 123 +/- 31 milliseconds, P = 0.0001). All animals showed electromechanical correlation except dog 5 with largest scar burden. Electromechanical
decoupling was largest in basal lateral LV segments."

According to the news editors, the research concluded: "We demonstrated a promising application of CT in combination with ECGI to gain insight into electromechanical function in ischemic dyssynchronous heart failure that can provide useful information to study regional substrate of CRT candidates."


The news correspondents report that additional information may be obtained from A.C. Lardo, Johns Hopkins University, Dept. of Biomed Engn, Baltimore, MD, United States. Additional authors for this research include K.H. Schuleri, D.D. Spragg, B.M. Horacek, R.D. Berger, H.R. Halperin and A.C. Lardo.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiovascular Electrophysiology, Health and Medicine, Johns Hopkins University.

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**Gastroenterology - Gastrectomy**

**Studies Conducted at Karolinska University Hospital on Gastrectomy Recently Reported (The surgical management of esophago-gastric junctional cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gastroenterology - Gastrectomy. According to news reporting from Stockholm, Sweden, by NewsRx journalists, research stated, "The best available surgical strategy in the treatment of resectable esophago-gastric junctional (EGJ) cancer is a controversial topic. In this review we evaluate the current literature and scientific evidence examining the surgical treatment of locally advanced EGJ cancer by comparing esophagectomy with gastrectomy, transhiatal with transthoracic esophagectomy, minimally invasive with open esophagectomy, and less extensive with more extensive lymphadenectomy."

Funders for this research include Swedish Research Council, Swedish Cancer Society.

The news correspondents obtained a quote from the research from Karolinska University Hospital. "We also assess endoscopic procedures increasingly used for early EGJ cancer. The current evidence does not favor any of the techniques over the others in terms of oncological outcomes. Health-related quality of life may be better following gastrectomy compared to esophagectomy. Minimally invasive procedures might be less prone to surgical complications. Endoscopic techniques are safe and effective alternatives for early-stage EGJ cancer in the short term, but surgical treatment is the mainstay in fit patients due to the risk of lymph node metastasis. Any benefit of lymphadenectomy extending beyond local or regional nodes is uncertain."
According to the news reporters, the research concluded: "This review demonstrates the great need for well-designed clinical studies to improve the knowledge in how to optimize and standardize the surgical treatment of EGJ cancer."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.suronc.2016.09.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stockholm, Sweden, Europe, Digestive System Surgical Procedures, Gastroenterology, Esophagectomy, Gastrectomy, Oncology, Surgery, Cancer, Karolinska University Hospital.

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**Studies Conducted at Keio University on Cubital Tunnel Syndrome Recently Reported (Cigarette Smoking Is Associated With Cubital Tunnel Syndrome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nervous System Diseases and Conditions - Cubital Tunnel Syndrome have been presented. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "The aim of this study was to validate the potential association between cigarette smoking and cubital tunnel syndrome (CubTS). One hundred patients with CubTS were compared with 100 controls with ulnar abutment syndrome matched for age, gender, and body mass index."

The news correspondents obtained a quote from the research from Keio University, "The smoking status was compared between patients and controls using the sign test and the Wilcoxon signed rank test. Conditional logistic regression was used to calculate the association between CubTS and pack-years smoked. A significant association was found between increased pack-years smoked and CubTS. A significant difference in the number of never smokers and ever smokers was observed between the patients with CubTS and controls. The difference in mean pack-years in the patients and controls was highly significant. A dose-dependent association with pack-years was found between patients and controls."

According to the news reporters, the research concluded: "High cumulative cigarette smoking is associated with CubTS."

Our news journalists report that additional information may be obtained by contacting T. Suzuki, Keio University, Sch Med, Dept. of Orthopaed Surg, Shinjuku Ku, Tokyo, Japan. Additional authors for this research include T. Iwamoto, K. Ochi, K. Mito, T. Nakamura, K. Suzuki, H. Yamada and K. Sato.

Keywords for this news article include: Tokyo, Japan, Asia, Peripheral Nervous System Diseases and Conditions, Neuromuscular Diseases and Conditions, Ulnar Nerve Compression Syndromes, Cubital Tunnel Syndrome, Ulnar Neuropathies, Mononeuropathies, Keio University.

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Heart Disorders and Diseases - Acute Coronary...

Studies Conducted at Kyorin University School of Medicine on Acute Coronary Syndrome Recently Reported (Barthel Index as a Predictor of 1-Year Mortality in Very Elderly Patients Who Underwent Percutaneous Coronary Intervention for Acute ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Acute Coronary Syndrome is now available. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Percutaneous coronary intervention (PCI) is safe and effective in very elderly patients, defined as those who are age (≥)85 years, with acute coronary syndrome (ACS). However, the prognostic factors remain unknown."

Our news journalists obtained a quote from the research from the Kyorin University School of Medicine, "The association between activities of daily living (ADL) and the prognosis after PCI has not yet been investigated. Better ADL is associated with better 1-year prognosis. This retrospective study included 91 consecutive very elderly patients with ACS. We calculated the Barthel Index (BI) as an indicator for ADL. Patients were classified into 2 groups according to BI: high BI (≥85) and low BI (<85). The BI was assessed both on admission (pre-BI) and at discharge (post-BI). In the 91 patients (mean age, 88.2 ± 3.0 years, 52% male), 1-year mortality was 33%. The Cox regression model demonstrated that low pre-BI was not a risk factor for 1-year mortality (hazard ratio: 0.73, 95% confidence interval [CI]: 0.30-1.78, p=0.490). However, post-BI was significantly associated with 1-year mortality (hazard ratio: 0.25, 95% CI: 0.11-0.57, p=0.001). The 1-year mortality of the high and the low post-BI group was estimated as 21% (95% CI: 12%-35%) and 62% (95% CI: 42%-82%), respectively. A 5-unit decrease in post-BI was related to a 1.10-fold increased risk for 1-year mortality (95% CI: 1.05-1.15, p<0.001)."

According to the news editors, the research concluded: "Activities of daily living at discharge, although not before admission, may be a useful predictor for 1-year mortality in very elderly patients undergoing PCI for ACS."


Our news journalists report that additional information may be obtained by
contacting S. Higuchi, Division of Cardiology, Dept. of Internal Medicine II, Kyorin University School of Medicine, Tokyo, Japan. Additional authors for this research include Y. Kabeya, K. Matsushita, H. Taguchi, H. Ishiguro, H. Kohshoh and H. Yoshino.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/clc.22497. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Surgery, Cardiology, Heart Disease, Rehabilitation, Myocardial Ischemia, Risk and Prevention, Acute Coronary Syndrome, Activities of Daily Living, Heart Disorders and Diseases, Vascular Diseases and Conditions, Percutaneous Coronary Intervention.

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Oncology - Pancreatic Cancer

Studies Conducted at La Paz University Hospital on Pancreatic Cancer Recently Reported (Management of pancreatic cancer in the elderly)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Pancreatic Cancer have been published. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "Currently, pancreatic adenocarcinoma mainly occurs after 60 years of age, and its prognosis remains poor despite modest improvements in recent decades. The aging of the population will result in a rise in the incidence of pancreatic adenocarcinoma within the next years."

The news reporters obtained a quote from the research from La Paz University Hospital, "Thus, the management of pancreatic cancer in the elderly population is gaining increasing relevance. Older cancer patients represent a heterogeneous group with different biological, functional and psychosocial characteristics that can modify the usual management of this disease, including pharmacokinetic and pharmacodynamic changes, polypharmacy, performance status, comorbidities and organ dysfunction. However, the biological age, not the chronological age, of the patient should be the limiting factor in determining the most appropriate treatment for these patients. Unfortunately, despite the increased incidence of this pathology in older patients, there is an underrepresentation of these patients in clinical trials, and the management of older patients is thus determined by extrapolation from the results of studies performed in younger patients."

According to the news reporters, the research concluded: "In this review, the special characteristics of the elderly, the multidisciplinary management of localized and advanced ductal adenocarcinoma of the pancreas and the most recent advances in the management of this condition will be discussed, focusing on surgery, chemotherapy, radiation and palliative care."


Our news correspondents report that additional information may be obtained by contacting O. Higuera, Oliver Higuera, Ismael Ghanem, Jaime Feliu, Dept. of Medical Oncology, La Paz University Hospital, 28046 Madrid, Spain. Additional authors for this
Studies Conducted at Macquarie University on Mental Health Recently Reported (Screening for Mental Health Risk in High Schools: The Development of the Youth RADAR)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Mental Health have been presented. According to news reporting from Sydney, Australia, by NewsRx journalists, research stated, "Epidemiological studies indicate that as many as 1 in 5 young people will develop a mental health problem in any given year. Early detection and intervention are needed to reduce the impact that these conditions have both for the young person and for the communities in which they live."

The news correspondents obtained a quote from the research from Macquarie University, "This study reports the development of a new instrument aimed at helping identify students at risk of developing mental health difficulties. Rather than asking about the presence of symptoms of mental health conditions, the RADAR screening tool assesses a student's balance of risk and protective factors associated with the development of mental health problems. The RADAR was evaluated with a sample of 838 participants in high school Years 7-12. A robust internal factor structure was revealed using exploratory and confirmatory factor analysis. Internal consistency was satisfactory for each subscale, ranging from .73 to .90 while the reliability for the total scale was .91. Retest stability, measured over a 12 month period, was found to be strong (r = .72). Convergent validity was demonstrated with reference to standard measures of depression and behavioral problems."

According to the news reporters, the research concluded: "It is concluded that the RADAR is a promising measure for helping mental health professionals and educators decide which students may be at risk of developing mental health problems."

For more information on this research see: Screening for Mental Health Risk in High Schools: The Development of the Youth RADAR. Psychological Assessment, 2016;28 (10):1220-1231. Psychological Assessment can be contacted at: Amer Psychological Assoc, 750 First St NE, Washington, DC 20002-4242, USA. (American Psychological Association - www.apa.org; Psychological Assessment - www.apa.org/pubs/journals/pas/index.aspx)

Our news journalists report that additional information may be obtained by contacting R.M. Rapee, Macquarie University, Center Emot Hlth, Dept. of Psychol, Sydney, NSW 2109, Australia.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Mental Health, Epidemiology, Risk and Prevention, Macquarie University.

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Studies Conducted at Marist College on Caenorhabditis elegans Recently Reported [CRISPR Technology Reveals RAD(51)-ical Mechanisms of Repair in Roundworms: An Educational Primer for Use with "Promotion of Homologous Recombination by SWS-1 in Complex with RAD-51 Paralogs in Caenorhabditis elegans."]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Caenorhabditis elegans is now available. According to news reporting out of Poughkeepsie, New York, by NewsRx editors, research stated, "The mechanisms cells use to maintain genetic fidelity via DNA repair and the accuracy of these processes have garnered interest from scientists engaged in basic research to clinicians seeking improved treatment for cancer patients. Despite the continued advances, many details of DNA repair are still incompletely understood."

Our news journalists obtained a quote from the research from Marist College, "In addition, the inherent complexity of DNA repair processes, even at the most fundamental level, makes it a challenging topic. This primer is meant to assist both educators and students in using a recent paper, Promotion of homologous recombination by SWS-1 in complex with RAD-51 paralogs in Caenorhabditis elegans, to understand mechanisms of DNA repair."

According to the news editors, the research concluded: "The goals of this primer are to highlight and clarify several key techniques utilized, with special emphasis on the clustered, regularly interspaced, short palindromic repeats technique and the ways in which it has revolutionized genetics research, as well as to provide questions for deeper in-class discussion."

For more information on this research see: CRISPR Technology Reveals RAD(51)-ical Mechanisms of Repair in Roundworms: An Educational Primer for Use with "Promotion of Homologous Recombination by SWS-1 in Complex with RAD-51 Paralogs in Caenorhabditis elegans." Genetics, 2016;204(3):883-891. Genetics can be contacted at: Genetics Society America, 9650 Rockville Ave, Bethesda, MD 20814, USA. (Cell Press - www.cell.com; Genetics - www.cell.com/trends/genetics/home)

Our news journalists report that additional information may be obtained by contacting P.M. Checchi, Marist College, Dept. of Biol, Poughkeepsie, NY 12601, United States. Additional authors for this research include N.P. Andrews, S.A. Sloat and P.M. Checchi. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1534/genetics.116.195479. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Poughkeepsie, New York, United States, North and Central America, Caenorhabditis elegans, Deoxyribonucleic Acid, Genetics, Genetics, Life Sciences, DNA Research, Rhabditidae, Technology, Proteomics, DNA Repair, Marist College.

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Oncology - Small Cell Lung Cancer

Studies Conducted at Massachusetts General Hospital on Small Cell Lung Cancer Recently Reported (Clinical Activity of Alectinib in Advanced RET-Rearranged Non-Small Cell Lung Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Small Cell Lung Cancer. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Chromosomal rearrangements involving rearranged during transfection gene (RET) occur in 1% to 2% of NSCLCs and may confer sensitivity to rearranged during transfection (RET) inhibitors. Alectinib is an anaplastic lymphoma kinase tyrosine kinase inhibitor (TKI) that also has anti-RET activity in vitro."

Our news editors obtained a quote from the research from Massachusetts General Hospital, "The clinical activity of alectinib in patients with RET-rearranged NSCLC has not yet been reported. We have described four patients with advanced RET-rearranged NSCLC who were treated with alectinib (600 mg twice daily [n = 3] or 900 mg twice daily [n = 1]) as part of single-patient compassionate use protocols or off label use of the commercially available drug. Four patients with metastatic RET-rearranged NSCLC were identified. Three of the four had received prior RET TKIs, including caboazantinib and experimental RET inhibitors. In total, we observed two (50%) objective radiographic responses after treatment with alectinib (one confirmed and one unconfirmed), with durations of therapy of 6 months and more than 5 months (treatment ongoing), respectively. Notably, one of these two patients had his dose of alectinib escalated to 900 mg twice daily and had clinical improvement in central nervous system metastases. In addition, one patient (25%) experienced a best response of stable disease lasting approximately 6 weeks (the drug discontinued for toxicity). A fourth patient who was RET TKI-naive had primary progression while receiving alectinib. Alectinib demonstrated preliminary antitumor activity in patients with advanced RET-rearranged NSCLC, most of whom had received prior RET inhibitors. Larger prospective studies with longer follow-up are needed to assess the efficacy of alectinib in RET-rearranged NSCLC and other RET-driven malignancies."

According to the news editors, the research concluded: "In parallel, development of more selective, potent RET TKIs is warranted."


The news editors report that additional information may be obtained by contacting J.F. Gainor, Massachusetts General Hospital, Center Canc, Boston, MA, United States. Additional authors for this research include E. Kennedy, L.V. Sequist, P.K. Brastianos, K.E. Goodwin, S. Stevens, A.C. Wanat, L.L. Stober, S.R. Digumarthy, J.A. Engelman, A.T. Shaw and J.F. Gainor.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Small Cell Lung Cancer, Enzymes and Coenzymes, Lung Neoplasms, Oncology, Genetics, Kinase, Massachusetts General Hospital.

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Enzymes and Coenzymes - Cholinesterases

Studies Conducted at Mayo Clinic on Cholinesterases Recently Reported (Physiological roles for butyrylcholinesterase: A BChE-ghrelin axis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Enzymes and Coenzymes - Cholinesterases is the subject of a report. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Butyrylcholinesterase (BChE) has long been regarded as an 'orphan enzyme' with no specific physiological role other than to metabolize exogenous bioactive esters in the diet or in medicines. Human beings with genetic mutations that eliminate all BChE activity appear completely normal, and BChE-knockout mice have been described as 'lacking a phenotype' except for faster weight gain on high-fat diets."

Funders for this research include National Institute on Drug Abuse, Mayo Foundation for Medical Research.

Our news editors obtained a quote from the research from Mayo Clinic, "However, our recent studies with viral gene transfer of BChE in mice reveal that BChE hydrolyzes the so-called 'hunger hormone,' ghrelin, at a rate which strongly affects the circulating levels of this peptide hormone. This action has important consequences for weight gain and fat metabolism. Surprisingly, it also impacts emotional behaviors such as aggression. Overexpression of BChE leads to low ghrelin levels in the blood stream and reduces aggression and social stress in mice. Under certain circumstances these combined effects contribute to increased life-span in group-housed animals."

According to the news editors, the research concluded: "These findings may generalize to humans, as recent clinical studies by multiple investigators indicate that, among patients with severe cardiovascular disease, longevity correlates with increasing levels of plasma BChE activity."


The news editors report that additional information may be obtained by contacting S. Brimijoin, Mayo Clinic, Dept. of Mol Pharmacol & Expt Therapeut, Rochester, MN 55905, United States. Additional authors for this research include V.P. Chen, Y.P. Pang, L. Geng and Y. Gao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cbi.2016.02.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Butyrylcholinesterase, Enzymes and Coenzymes, Peptide Proteins, Peptide Hormones, Cholinesterases, Hydrolases, Genetics, Ghrelin, Mayo Clinic.

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Studies Conducted at Medical College of Wisconsin on Medical Genetics Recently Reported (8q21.11 Microdeletion in Two Patients with Syndromic Peters Anomaly)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Genetics - Medical Genetics. According to news reporting originating in Milwaukee, Wisconsin, by NewsRx journalists, research stated, "Peters anomaly is a form of anterior segment dysgenesis characterized by central ocular opacity and corneo-lenticular adhesions. Isolated and syndromic Peters anomaly can be observed and demonstrate significant genetic heterogeneity."

Financial supporters for this research include National Institutes of Health awards, Children's Hospital of Wisconsin, National Institutes of Health, Clinical and Translational Science Award (CTSA) program.

The news reporters obtained a quote from the research from the Medical College of Wisconsin, "We report the identification of overlapping 8q21.11 deletions in two patients with syndromic Peters anomaly via whole exome sequencing and chromosomal microarray analyses. Microdeletions of 8q21.11 were recently reported in 10 patients with highly variable phenotypes involving craniofacial features, ptosis, intellectual disability, abnormalities of the hands/feet and other defects; sclerocornea and/or microphthalmia were reported in three cases. The two additional cases presented in this report expand the phenotypic spectrum of 8q21.11 microdeletions to include Peters anomaly (seen in both patients) and persistent primary dentition (seen in one patient with a larger deletion). The two novel deletions include the ZFHX4 and PEX2 genes, which were also affected in all three previous cases involving ocular anomalies. Screening of the remaining alleles of ZFHX4 and PEX2 did not identify any additional likely pathogenic variants in either patient, suggesting a dominant mechanism (haploinsufficiency) for the identified deletion."

According to the news reporters, the research concluded: "This report provides further insight into the phenotypes associated with 8q21.11 deletions and, for the first time, reports Peters anomaly as an additional ocular feature; screening for copy number variations of the 8q21.11 region should be considered in patients with Peters anomaly and related syndromic features."


Our news correspondents report that additional information may be obtained by contacting E.V. Semina, Medical College of Wisconsin, Dept. of Ophthalmol, Milwaukee, WI 53226, United States. Additional authors for this research include K.F. Schilter, E. Weh, L.M. Reis and E.V. Semina.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37840. This DOI is a link to an online electronic document that
is either free or for purchase.

Keywords for this news article include: Milwaukee, Wisconsin, United States, North and Central America, Medical Genetics, Genetics, Genetics, Medical College of Wisconsin.

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Respiratory Tract Diseases and Conditions – ...

Studies Conducted at Nanjing Medical University on Obstructive Sleep Apnea Recently Reported (Obstructive Sleep Apnea Increases the Perioperative Risk of Cardiac Valve Replacement Surgery: A Prospective Single-Center Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Respiratory Tract Diseases and Conditions - Obstructive Sleep Apnea. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Sleep apnea is common in patients referred for cardiac valve replacement (CVR). We aimed to determine the association of obstructive sleep apnea (OSA) and central sleep apnea (CSA) with perioperative events in CVR surgery in patients with rheumatic valvular heart disease (RVHD)."

Our news editors obtained a quote from the research from Nanjing Medical University, "Between April 2010 and April 2014, 290 patients with RVHD undergoing CVR were screened for sleep apnea 1 to 7 days before CVR. Baseline medications, cardiac function, sleep parameters, perioperative events, and related risk factors were evaluated. OSA patients had longer duration of intensive care unit (ICU) stay and mechanical ventilation compared with no sleep- disordered breathing and CSA patients. Patients with CSA had a higher rate of pacemaker use and higher first dose of dobutamine in ICU. NYHA Class and the presence of OSA were independently associated with overall worsening of postoperative recovery (ICU stay >= 25 h). Age, NYHA class, and the presence of OSA were independently associated with postoperative respiratory insufficiency (mechanical ventilation = 20 h). Preoperative atrial fibrillation, pulmonary hypertension, and OSA were independently associated with postoperative pacemaker use. RVHD patients with OSA have an increased incidence of perioperative adverse events."

According to the news editors, the research concluded: "OSA was independently associated with overall postoperative recovery, respiratory insufficiency, and higher rate of postoperative pacemaker use, while CSA was not associated with postoperative events."

For more information on this research see: Obstructive Sleep Apnea Increases the Perioperative Risk of Cardiac Valve Replacement Surgery: A Prospective Single-Center Study. Journal of Clinical Sleep Medicine, 2016;12(10):1331-1337. Journal of Clinical Sleep Medicine can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.

The news editors report that additional information may be obtained by contacting S.J. Zhang, Nanjing Medical University, Affiliated Hosp 1, Dept. of Cardiovasc Surg, Nanjing 210029, Jiangsu, People's Republic of China. Additional authors for this research include B.Q. Ni, H. Wang, W.X. Ding, R. Xue, W. Lin, Z. Kai, S.J. Zhang and X.L. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.6182. This DOI is a link to an online electronic document that is

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either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Respiratory Tract Diseases and Conditions, Pacemakers, Risk and Prevention, Sleep Disorders and Conditions, Sleep Diseases and Conditions, Respiratory Insufficiency, Obstructive Sleep Apnea, Respiration Disorders, Central Sleep Apnea, Medical Devices, Otolaryngology, Craniofacial, Pulmonology, Cardiology, Surgery, Nanjing Medical University.

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Lung Diseases and Conditions - Radiation Pneumonitis

Studies Conducted at Nanjing University on Radiation Pneumonitis Recently Reported (TGF-beta 1 rs1982073 polymorphism contributes to radiation pneumonitis in lung cancer patients: a meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lung Diseases and Conditions - Radiation Pneumonitis have been presented. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "Transforming growth factor beta 1 (TGF-beta 1) polymorphism was associated with radiation pneumonitis (RP) susceptibility, but their results have been inconsistent. The PubMed and CNKI were searched for case-control studies published up to January 01, 2016 was Data were extracted and pooled odds ratios (OR) with 95% confidence intervals (CI) were calculated."

Our news journalists obtained a quote from the research from Nanjing University, "In this meta-analysis, we assessed eight publications involving 368 radiation pneumonitis cases and 855 controls of the association between TGF-beta 1 T869C (rs1982073) and G915C (rs1800471) polymorphism and RP susceptibility. Our analysis suggested that TGF-beta 1 T869C rs1982073 polymorphism was associated with lower RP risk for CT combined CC versus TT model (OR = 0.58, 95% CI = 0.43-0.77). However, for the G915C rs1800471 polymorphism, no association was found between the polymorphism and the susceptibility to RP in GC combined CC versus GG model (OR = 0.82, 95% CI = 0.50-1.35)."

According to the news editors, the research concluded: "These results from the meta-analysis suggest that T869C rs1982073 polymorphism of TGF-beta 1 may be associated with RP risk, and there may be no association between G915C polymorphism and RP risk."


Our news journalists report that additional information may be obtained by contacting X.X. Zhu, Nanjing University, Sch Med, Jinling Hosp, Dept. of Radiat Oncol, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include J.S. Shen, X.Q. Ji, B. Li and X.X. Zhu.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Interstitial Lung Diseases and Conditions, Radiation Pneumonitis, Lung Neoplasms, Lung Cancer, Lung Injury, Oncology, Genetics, Nanjing University.
Congenital Abnormalities - Situs Inversus

Studies Conducted at National Center for Child Health and Development on Situs Inversus Recently Reported (Reno- and splenoportal anastomosis for a retransplant patient with situs inversus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Congenital Abnormalities - Situs Inversus. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "PV thrombosis following pediatric LT is a serious complication that may lead to graft loss. LDLT poses limitations with regard to the availability of vein grafts for complex PV reconstructions."

The news correspondents obtained a quote from the research from National Center for Child Health and Development, "We herein report a unique reconstruction of the PV inflow in a one-yr-old boy with situs inversus undergoing re-LDLT. The inflow was derived from the SPV and the RRV. A common channel was created utilizing a donor IMV and the recipient explant LHV as vascular conduits."

According to the news reporters, the research concluded: "With the application of innovative surgical reconstructions, pre-existing portomesenteric thrombosis may be amenable to re-LDLT in the pediatric population."


Our news journalists report that additional information may be obtained by contacting H. Uchida, Natl Center Child Hlth & Dev, Organ Transplantat Center, Tokyo, Japan. Additional authors for this research include A. Fukuda, K. Sasaki, T. Shigeta, Y. Hirata, H. Kanazawa, V.P. Mali, O. Miyazaki, S. Nosaka, S. Sakamoto and K. Mureo.

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Keywords for this news article include: Tokyo, Japan, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Congenital Abnormalities, Embolism and Thrombosis, Situs Inversus, Pediatrics, Hematology, National Center for Child Health and Development.

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Drugs and Therapies - Drug Delivery Systems

Studies Conducted at National Center for Scientific Research (CNRS) on Drug Delivery Systems Recently Reported (Self-Assembler Gold Nanoclusters for Bright Fluorescence Imaging and Enhanced Drug Delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Drug Delivery Systems is the subject of a report. According to news reporting originating from Orsay, France, by NewsRx correspondents, research stated, "Nanoparticles combining enhanced cellular drug delivery with efficient fluorescence detection are important tools for the development of theranostic agents. Here, we demonstrate this concept by a simple, fast, and robust protocol of cationic polymer-mediated gold nanocluster (Au NCs) self-assembly into nanoparticles (NPs) of ca. 120 nm diameter."

Funders for this research include Agence Nationale de la Recherche, Instituto de Salud Carlos III, European Regional Development Fund.

Our news editors obtained a quote from the research from National Center for Scientific Research (CNRS), "An extensive characterization of the monodisperse and positively charged NPs revealed pH-dependent swelling properties, strong fluorescence enhancement, and excellent colloidal and photostability in water, buffer, and culture medium. The versatility of the preparation is demonstrated by using different Au NC surface ligands and cationic polymers. Steady-state and time-resolved fluorescence measurements give insight into the aggregation-induced emission phenomenon (AIE) by tuning the Au NC interactions in the self-assembled nanoparticles using the pH-dependent swelling. In vitro studies in human monocytic cells indicate strongly enhanced uptake of the NPs compared to free Au NCs in endocytic compartments. The NPs keep their assembly structure with quite low cytotoxicity up to 500 mg Au/mL. Enhanced drug delivery is demonstrated by loading peptides or antibodies in the NPs using a one-pot synthesis."

According to the news editors, the research concluded: "Fluorescence microscopy and flow cytometry confirmed intracellular colocalization of the biomolecules and the NP carriers with a respective 1.7-fold and 6.5-fold enhanced cellular uptake of peptides and antibodies compared to the free biomolecules."


The news editors report that additional information may be obtained by contacting A. Yahia-Ammar, NanoBioPhotonics, Institut d'Electronique Fondamentale, Universite Paris-Saclay, Universite Paris-Sud, CNRS, 91400 Orsay, France. Additional authors for this research include D. Sierra, F. Merola, N. Hildebrandt and X. Le Guevel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.5b07596. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Orsay, France, Europe, Nanoparticle, Nanotechnology, Gold Nanoclusters, Drugs and Therapies, Drug Delivery Systems, Emerging Technologies.

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Neurodegenerative Diseases and Conditions – ...

Studies Conducted at National University Hospital on Huntington Disease Recently Reported (Identification of Novel Microsatellite Markers < 1 Mb from the HTT CAG Repeat and Development of a Single-Tube Tridecaplex PCR Panel of Highly Polymorphic …)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neurodegenerative Diseases and Conditions - Huntington Disease. According to news reporting originating in Singapore, Singapore, by NewsRx journalists, research stated, "Preimplantation genetic diagnosis (PGD) of Huntington disease (HD) generally employs linkage analysis of flanking microsatellite markers to complement direct mutation testing, as well as for exclusion testing. Thus far, only 10 linked markers have been developed for use in HD PGD, with a maximum of 3 markers coamplified successfully."

The news reporters obtained a quote from the research from National University Hospital, "We aimed to develop a single-tube multiplex PCR panel of highly polymorphic markers to simplify HD PGD. An in silico search was performed to identify all markers within 1 Mb flanking the huntingtin (HTT) gene. Selected markers were optimized in a single-tube PCR panel, and their polymorphism indices were determined in 2 populations. The panel was tested on 63 single cells to validate its utility in PGD. We identified 102 markers in silico, of which 56 satisfied the selection criteria. After initial testing, 12 markers with potentially high heterozygosity were optimized into a single-tube PCR panel together with a 13th more distally located marker. Analysis of DNA from 183 Chinese and Caucasian individuals revealed high polymorphism indices for all markers (polymorphism information content > 0.5), with observed heterozygosities ranging from 0.5-0.92. All individuals were heterozygous for at least 5 markers, with 99.5% of individuals heterozygous for at least 2 markers upstream and downstream of the HTT CAG repeat."

According to the news reporters, the research concluded: "The tridecaplex marker assay amplified reliably from single cells either directly or after whole genome amplification, thus validating its standalone use in HD exclusion PGD or as a complement to HTT CAG repeat expansion-mutation detection."


Our news correspondents report that additional information may be obtained by contacting S.S. Chong, Natl Univ Hlth Syst, National University Hospital, Clin Cytogenet Serv, Dept. of Lab Med, Singapore, Singapore. Additional authors for this research include M. Chen, C.G. Lee and S.S. Chong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1373/clinchem.2016.255711. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Singapore, Singapore, Asia, Neurodegenerative Diseases and Conditions, Diagnostics and Screening, Central Nervous System Diseases and Conditions, Nervous System Heredodegenerative Disorders, Basal Ganglia Diseases and Conditions, Brain Diseases and Conditions, Cognition Disorders, Huntington Disease, Movement Disorders, Dyskinesias, Dementia, Genetics, Chorea, National University Hospital.

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**Science**

Studies Conducted at Niigata University Graduate School of Medical and Dental Science on Science Recently Reported (Novel kinase fusion transcripts found in endometrial cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science have been published. According to news reporting out of Niigata, Japan, by NewsRx editors, research stated, "Recent advances in RNA-sequencing technology have enabled the discovery of gene fusion transcripts in the transcriptome of cancer cells. However, it remains difficult to differentiate the therapeutically targetable fusions from passenger events."

Our news journalists obtained a quote from the research from the Niigata University Graduate School of Medical and Dental Science, "We have analyzed RNA-sequencing data and DNA copy number data from 25 endometrial cancer cell lines to identify potential therapeutically targetable fusion transcripts, and have identified 124 high-confidence fusion transcripts, of which 69% are associated with gene amplifications. As targetable fusion candidates, we focused on three in-frame kinase fusion transcripts that retain a kinase domain (CPQ-PRKDC, CAPZA2-MET, and VGLL4-PRKG1). We detected only CPQ-PRKDC fusion transcript in three of 122 primary endometrial cancer tissues. Cell proliferation of the fusion-positive cell line was inhibited by knocking down the expression of wild-type PRKDC but not by blocking the CPQ-PRKDC fusion transcript expression. Quantitative real-time RT-PCR demonstrated that the expression of the CPQ-PRKDC fusion transcript was significantly lower than that of wild-type PRKDC, corresponding to a low transcript allele fraction of this fusion, based on RNA-sequencing read counts. In endometrial cancers, the CPQ-PRKDC fusion transcript may be a passenger aberration related to gene amplification."

According to the news editors, the research concluded: "Our findings suggest that transcript allele fraction is a useful predictor to find bona-fide therapeutic-targetable fusion transcripts."

For more information on this research see: Novel kinase fusion transcripts found in endometrial cancer. *Scientific Reports*, 2015;5():18657. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting R. Tamura, Dept. of Obstetrics and Gynecology, Niigata University Graduate School of Medical and Dental Sciences, Niigata, Japan. Additional authors for this research include K. Yoshihara, K. Yamawaki, K. Suda, T. Ishiguro, S. Adachi, S. Okuda, I. Inoue, R.G. Verhaak and T. Enomoto.

The direct object identifier (DOI) for that additional information is:
Studies Conducted at Qingdao University on Cardiovascular Diseases Recently Reported (Pinoresinol Diglucoside Alleviates oxLDL-Induced Dysfunction in Human Umbilical Vein Endothelial Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases is the subject of a report. According to news reporting originating in Shandong, People's Republic of China, by NewsRx journalists, research stated, "Atherosclerotic cardiovascular diseases are the leading causes of morbidity and mortality worldwide. Deposition of oxidized low-density lipoprotein (oxLDL) is one of the initiators and promoters of atherosclerosis."

The news reporters obtained a quote from the research from Qingdao University, "Eucommia lignans were shown to possess antihypertensive effects. This study aimed to investigate the effects of pinoresinol diglucoside (PD), a Eucommia lignan, on oxLDL-induced endothelial dysfunction. HUVECs were treated with oxLDL and/or PD followed by assessing radical oxygen species (ROS), apoptosis, nitrogen oxide (NO), malondialdehyde (MDA), and superoxide dismutase (SOD) activity with specific assays kits, mRNA levels with quantitative real-time polymerase chain reaction (PCR), and protein levels with western blot. PD abolished oxLDL-induced ROS and MDA production, apoptosis, upregulation of lectin-like oxidized LDL receptor-1 (LOX-1), intercellular Adhesion Molecule 1 (ICAM-1), and nuclear factor kappa-light-chain-enhancer of activated B-cells (NF-kappa B), and activation of p38MAPK (mitogen-activated protein kinases)/NF-kappa B signaling. Meanwhile, PD alleviated oxLDL-caused inhibition of SOD activity, eNOS expression, and NO production."

According to the news reporters, the research concluded: "These data demonstrated that PD was effective in protecting endothelial cells from oxLDL-caused injuries, which guarantees further investigation on the clinical benefits of PD on cardiovascular diseases."

For more information on this research see: Pinesinol Diglucoside Alleviates oxLDL-Induced Dysfunction in Human Umbilical Vein Endothelial Cells. Evidence-Based Complementary and Alternative Medicine, 2016();1-10. Evidence-Based Complementary and Alternative Medicine can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Evidence-Based Complementary and Alternative Medicine - www.hindawi.com/journals/ecam/)

Our news correspondents report that additional information may be obtained by contacting J. Yang, Qingdao Univ, Yantai Yuhuangding Hosp, Yantai 264000, Shandong, People's Republic of China. Additional authors for this research include Z.P. Zou, X.F. Wang, X.P. Ji and J. Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/3124519. This DOI is a link to an online electronic document that is either free or for purchase.
Oncology - Small Cell Lung Cancer

Studies Conducted at Research Center on Small Cell Lung Cancer Recently Reported (Immunotherapy for small-cell lung cancer: emerging evidence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Small Cell Lung Cancer. According to news originating from Grosshansdorf, Germany, by NewsRx correspondents, research stated, "Treatment for small-cell lung cancer (SCLC) has changed little over the past few decades; available therapies have failed to extend survival in advanced disease. In recent years, immunotherapy with treatments such as interferons, TNFs, vaccines and immune checkpoint inhibitors has advanced and shown promise in the treatment of several tumor types."

Our news journalists obtained a quote from the research from Research Center, "Immune checkpoint inhibitors such as ipilimumab, nivolumab, pembrolizumab, durvalumab, tremelimumab and ulocuplumab are at the forefront of immunotherapy and have achieved approvals for certain cancer types, including melanoma (ipilimumab, nivolumab and pembrolizumab), non-SCLC (nivolumab and pembrolizumab) and renal cell carcinoma (nivolumab). Clinical trials are investigating different immunotherapies in patients with other solid and hematologic malignancies, including SCLC."

According to the news editors, the research concluded: "We review emerging evidence supporting the use of immunotherapy in SCLC patients."


The news correspondents report that additional information may be obtained from M. Reck, Thoracic Oncology & Clinical Trial Departments, Lung Clinic, Airway Research Center North (ARCN), Members of the German Center for Lung Research (DZL), Grosshansdorf, Germany. Additional authors for this research include D. Heigener and N. Reinmuth.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon-2015-0012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Europe, Germany, Oncology, Ipilimumab, Grosshansdorf, Immunotherapy, Article Review, Lung Neoplasms, Drugs and Therapies, Monoclonal Antibodies, Small Cell Lung Cancer.

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Studies Conducted at Sapienza-University on Assisted Reproduction and Genetics Recently Reported (Freeze/thaw stress induces organelle remodeling and membrane recycling in cryopreserved human mature oocytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Genetics - Assisted Reproduction and Genetics is the subject of a report. According to news reporting from Rome, Italy, by NewsRx journalists, research stated, "Our aim was to evaluate the ultrastructure of human metaphase II oocytes subjected to slow freezing and fixed after thawing at different intervals during post-thaw rehydration. Samples were studied by light and transmission electron microscopy."

The news correspondents obtained a quote from the research from Sapienza-University, "We found that vacuolization was present in all cryopreserved oocytes, reaching a maximum in the intermediate stage of rehydration. Mitochondria-smooth endoplasmic reticulum (M-SER) aggregates decreased following thawing, particularly in the first and intermediate stages of rehydration, whereas mitochondria-vesicle (MV) complexes augmented in the same stages. At the end of rehydration, vacuoles and MV complexes both diminished and M-SER aggregates increased again. Cortical granules (CGs) were scarce in all cryopreserved oocytes, gradually diminishing as rehydration progressed. This study also shows that such a membrane remodeling is mainly represented by a dynamic process of transition between M-SER aggregates and MV complexes, both able of transforming into each other."

According to the news reporters, the research concluded: "Vacuoles and CG membranes may take part in the membrane recycling mechanism."


Our news journalists report that additional information may be obtained by contacting S.A. Nottola, Sapienza Univ, Dept. of Anat Histol Forens Med & Orthopaed, Rome, Italy. Additional authors for this research include E. Albani, G. Coticchio, M.G. Palmerini, C. Lorenzo, G. Scaravelli, A. Borini, P.E. Levi-Setti and G. Macchiarelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0798-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Assisted Reproduction and Genetics, Genetics, Sapienza-University.

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Mycobacterium Infections - Tuberculosis

Studies Conducted at School of Public Health on Tuberculosis Recently Reported (Stringent Response Factors PPX1 and PPK2 Play an Important Role in Mycobacterium tuberculosis Metabolism, Biofilm Formation, and Sensitivity to Isoniazid In Vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mycobacterium Infections - Tuberculosis. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "Mycobacterium tuberculosis remains a global health threat largely due to the lengthy duration of curative antibiotic treatment, contributing to medical nonadherence and the emergence of drug resistance. This prolonged therapy is likely due to the presence of M. tuberculosis persisters, which exhibit antibiotic tolerance."

Financial support for this research came from HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID).

Our news journalists obtained a quote from the research from the School of Public Health, "Inorganic polyphosphate [poly(P)] is a key regulatory molecule in the M. tuberculosis stringent response mediating antibiotic tolerance. The polyphosphate kinase PPK1 is responsible for poly(P) synthesis in M. tuberculosis, while the exopolyphosphatases PPX1 and PPX2 and the GTP synthase PPK2 are responsible for poly(P) hydrolysis. In the present study, we show by liquid chromatography-tandem mass spectrometry that poly(P)-accumulating M. tuberculosis mutant strains deficient in ppx1 or ppk2 had significantly lower intracellular levels of glycerol-3-phosphate (G3P) and 1-deoxy-xylulose-5-phosphate. Real-time PCR revealed decreased expression of genes in the G3P synthesis pathway in each mutant. The ppx1-deficient mutant also showed a significant accumulation of metabolites in the tricarboxylic acid cycle, as well as altered arginine and NADH metabolism. Each poly(P)-accumulating strain showed defective biofilm formation, while deficiency of ppk2 was associated with increased sensitivity to plumbagin and meropenem and deficiency of ppx1 led to enhanced susceptibility to clofazimine. A DNA vaccine expressing ppx1 and ppk2, together with two other members of the M. tuberculosis stringent response, M. tuberculosis rel and sigE, did not show protective activity against aerosol challenge with M. tuberculosis, but vaccine-induced immunity enhanced the killing activity of isoniazid in a murine model of chronic tuberculosis."

According to the news editors, the research concluded: "In summary, poly(P)-regulating factors of the M. tuberculosis stringent response play an important role in M. tuberculosis metabolism, biofilm formation, and antibiotic sensitivity in vivo."

For more information on this research see: Stringent Response Factors PPX1 and PPK2 Play an Important Role in Mycobacterium tuberculosis Metabolism, Biofilm Formation, and Sensitivity to Isoniazid In Vivo. Antimicrobial Agents and Chemotherapy, 2016;60 (11):6460-6470. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting P.C. Karakousis, Johns Hopkins Bloomberg, Sch Public Hlth, Dept. of Int Hlth, Baltimore, MD, United States. Additional authors for this research include N.K. Dutta, C.F. Hung, T.C. Wu, H. Rubin and P.C. Karakousis.

The direct object identifier (DOI) for that additional information is:
Studies Conducted at Shandong University on Gastric Cancer Recently Reported (NTRK2 is an oncogene and associated with microRNA-22 regulation in human gastric cancer cell lines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gastric Cancer is the subject of a report. According to news reporting originating from Jinan, People's Republic of China, by NewsRx correspondents, research stated, "In this study, we examined the roles of neurotrophic tyrosine kinase receptor type 2 (NTRK2) gene in regulating in vitro proliferation and invasion in human gastric cancer. Gene expression of NTRK2 was compared between noncarcinoma gastric epithelial cells and gastric cancer (GC) cells by quantitative RT-PCR (qRT-PCR)."

Our news editors obtained a quote from the research from Shandong University, "NTRK2 was either downregulated or upregulated in MKN-28 and SNU-719 cells. The effect of NTRK2 downregulation or upregulation on GC in vitro development was analyzed by qRT-PCR, western blot, proliferation assay, and invasion assay, respectively. The upstream regulator of NTRK2, microRNA-22 (miR-22), was evaluated by dual-luciferase assay. MiR-22 was then upregulated in MKN-28 and SNU-719 cells to examine its regulation on NTRK2 and its encoded protein, tyrosine kinase receptor B (TrkB). In miR-22-upregulated MKN-28 and SNU-719 cells, NTRK2 was further overexpressed to evaluate functional interaction between miR-22 and NTRK2 in GC. NTRK2 was aberrantly upregulated in GC cell lines than in normal gastric cells. In MKN-28 and SNU-719 cells, NTRK2 downregulation inhibited whereas NTRK2 upregulation promoted GC proliferation and invasion in vitro. MiR-22 was verified to be an inverse upstream regulator of NTRK2. In miR-22-upregulated MKN-28 and SNU-719 cells, NTRK2 overexpression partially reversed the miR-22-induced inhibition on cancer proliferation and invasion."

According to the news editors, the research concluded: "NTRK2 is an oncogene and reversely associated with miR-22 in regulating in vitro cancer development in GC."

For more information on this research see: NTRK2 is an oncogene and associated with microRNA-22 regulation in human gastric cancer cell lines. Tumor Biology. 2016;37 (11):15115-15123. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news editors report that additional information may be obtained by contacting...
F.J. Liu, Shandong University, Qilu Hosp, Dept. of Gen Surg, Jinan 250012, People's Republic of China. Additional authors for this research include Y. Huang, Y.H. Wu, F.J. Liu, D. Sun, K.X. Wang and H. Qu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5337-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jinan, People's Republic of China, Asia, Enzymes and Coenzymes, Gastroenterology, Tyrosine Kinase, Gastric Cancer, Proteomics, Cell Line, Proteins, Oncology, Genetics, Shandong University.

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Oncology - Colon Cancer

Studies Conducted at Shanghai University of Traditional Chinese Medicine on Colon Cancer Recently Reported (Evodiamine Suppresses ABCG2 Mediated Drug Resistance by Inhibiting p50/p65 NF-kB Pathway in Colorectal Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Evodiamine (Evo), extracted from the Chinese herbal medicine Evodia rutaecarpa, has cytotoxic effects on different types of human cancer cells. However, its effects on drug resistance and their molecular mechanism and therapeutic target in colorectal cancer are not well understood."

Funders for this research include National Natural Science Foundation of China, Program of Shanghai Municipal Education Commission, Shanghai Municipal Health Bureau, Program of Science and Technology, Program of Shanghai Clinical TCM Laboratory.

Our news editors obtained a quote from the research from the Shanghai University of Traditional Chinese Medicine, "In the present study, we observed that Evo inhibited cell growth and induced apoptosis in dose-and time-dependent manner in HCT-116/L-OHP cells. Moreover, Evo treatment reduced Rhodamine 123 accumulation and ATPase activity in HCT-116/L-OHP cells, indicating that Evo decreased the efflux function in HCT-116/L-OHP cells. Interestingly, phosphorylation of NF-kB pathway, particularly p50/p65, was also inhibited by Evo treatment. Furthermore the effect of Evo in reversing drug resistance and suppressing phosphorylation of NF-kB pathway were attenuated after treatment with the NF-kB activator (LPS). Additionally, Evo inhibited the tumor growth in a colorectal MDR cancer xenograft model and down regulated p-NF-kB level in vivo. Our study provided the first direct evidence that Evo can attenuate multidrug resistance by blocking p-NF-kB signaling pathway in human colorectal cancer."

According to the news editors, the research concluded: "Evo could be a potential candidate for cancer chemotherapy."

The news editors report that additional information may be obtained by contacting H. Sui, Dept. of Medical Oncology, Shuguang Hospital, Shanghai University of Traditional Chinese Medicine, Shanghai, 201203, People's Republic of China. Additional authors for this research include L.H. Zhou, Y.L. Zhang, J.P. Huang, X. Liu, Q. Ji, X.L. Fu, H.T. Wen, Z.S. Chen, W.L. Deng, H.R. Zhu and Q. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcb.25451. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shanghai, Oncology, Colon Cancer, Drug Resistance, Gastroenterology, Colorectal Research, Drugs and Therapies, People's Republic of China.

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**Studies Conducted at Singapore General Hospital on Cytomegalovirus Recently Reported (Severe gastrointestinal cytomegalovirus disease in two patients with renal vasculitis after immunosuppression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Herpesvirus Diseases and Conditions - Cytomegalovirus have been presented. According to news reporting originating in Singapore, Singapore, by NewsRx journalists, research stated, "Although the use of current immunosuppressive regimens has significantly improved the outcomes of autoimmune renal diseases, infectious complications remain an important clinical concern. Cytomegalovirus (CMV) infection has been shown to be one of the major causes of mortality in this group of patients."

The news reporters obtained a quote from the research from Singapore General Hospital, "We report two cases of renal vasculitis (Granulomatosis with polyangiitis (GPA) and microscopic polyangiitis (MPA)) that developed into severe gastrointestinal CMV disease and manifested with massive small bowel bleeding, resulting in an eventual fatal outcome for one of the patients. Risk factors, pathogenesis, role of immunosuppression in the development of CMV infection, and antiviral treatment are discussed in this review."

According to the news reporters, the research concluded: "These cases highlight the need for further research to evaluate the complex mechanisms between immunosuppression and CMV occurrence as well as the role of antiviral prophylaxis in high-risk patients undergoing immunosuppressive therapies."

For more information on this research see: Severe gastrointestinal cytomegalovirus disease in two patients with renal vasculitis after immunosuppression. *Clinical Nephrology*, 2016;86(3):154-161. *Clinical Nephrology* can be contacted at: Dustri-Verlag Dr Karl Feistle, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.

Our news correspondents report that additional information may be obtained by contacting K.G. Lee, Singapore General Hospital, Dept. of Renal Med, Singapore, Singapore. Additional authors for this research include S.H. Teo, C.C. Lim, A.H.L. Loh, V.A. Chidambaram and J.C.J. Choo.

Keywords for this news article include: Singapore, Singapore, Asia, Cardiovascular Diseases and Conditions, Herpesvirus Diseases and Conditions, Immunosuppression,
Studies Conducted at Sloan Kettering Institute on Familial Dysautonomia Recently Reported (Capturing the biology of disease severity in a PSC-based model of familial dysautonomia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nervous System Diseases and Conditions - Familial Dysautonomia is now available. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Familial dysautonomia (FD) is a debilitating disorder that affects derivatives of the neural crest (NC). For unknown reasons, people with FD show marked differences in disease severity despite carrying an identical, homozygous point mutation in IKBKAP, encoding I kappa B kinase complex-associated protein."

The news correspondents obtained a quote from the research from Sloan Kettering Institute, "Here we present disease-related phenotypes in human pluripotent stem cells (PSCs) that capture FD severity. Cells from individuals with severe but not mild disease show impaired specification of NC derivatives, including autonomic and sensory neurons. In contrast, cells from individuals with severe and mild FD show defects in peripheral neuron survival, indicating that neurodegeneration is the main culprit for cases of mild FD. Although genetic repair of the FD-associated mutation reversed early developmental NC defects, sensory neuron specification was not restored, indicating that other factors may contribute to disease severity. Whole-exome sequencing identified candidate modifier genes for individuals with severe FD."

According to the news reporters, the research concluded: "Our study demonstrates that PSC-based modeling is sensitive in recapitulating disease severity, which presents an important step toward personalized medicine."


Our news journalists report that additional information may be obtained by contacting N. Zeltner, Sloan Kettering Inst, Center Stem Cell Biol, New York, NY 10065, United States. Additional authors for this research include F. Fattahi, N.C. Dubois, N. Saurat, F. Lafaille, L. Shang, B. Zimmer, J. Tchieu, M.A. Soliman, G. Lee, J.L. Casanova and L. Studer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4220. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Autonomic Nervous System Diseases and Conditions, Familial Dysautonomia, Genetics, Sloan Kettering Institute.

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Studies Conducted at St. Boniface General Hospital on Sepsis Recently Reported (Multifaceted antibiotic treatment analysis of methicillin-sensitive Staphylococcus aureus bloodstream infections)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Blood Diseases and Conditions - Sepsis. According to news reporting originating from Winnipeg, Canada, by NewsRx correspondents, research stated, "Given the overall prevalence and poor prognosis of Staphylococcus aureus bloodstream infections (BSIs), the study of treatment strategies to improve patient outcomes is important. The aim of this study was to conduct a multifaceted antibiotic treatment analysis of methicillin-sensitive S. aureus (MSSA) BSI and to characterise optimal early antibiotic therapy (within the first 7 days of drawing the index blood culture) for this serious infection."

Financial support for this research came from Leslie F. Buggey Graduate. Our news editors obtained a quote from the research from St. Boniface General Hospital, "Antibiotic selection was categorised as optimal targeted (intravenous cloxacillin or cefazolin), optimal broad (piperacillin/tazobactam or meropenem), adequate (vancomycin) or inadequate (other antibiotics or oral therapy). A TSE (timing, selection, exposure) score was developed to comprehensively characterise early antibiotic therapy, where higher points corresponded to prompt initiation, optimal antibiotic selection and longer exposure (duration). Amongst 71 cases of complicated MSSA-BSI, end-of-treatment (EOT) response (i.e. clinical cure) was improved when at least adequate antibiotic therapy was initiated within 24 h [71.7% (33/46) vs. 48.0% (12/25); P = 0.047]. Clinical cure was also more likely when therapy included = 4 days of optimal targeted antibiotics within the first 7 days [74.4% (29/39) vs. 50.0% (16/32); P = 0.03]. The TSE score was an informative index of early antibiotic therapy, with EOT cure documented in 72.0% (36/50) compared with 42.9% (9/21) of cases with scores above and below 15.2, respectively (P = 0.02)."

According to the news editors, the research concluded: "In multivariable analysis, lower Charlson comorbidity index, presence of BSI on admission, and optimising early antibiotic therapy, as described above, were associated with clinical cure in patients with MSSA-BSI."


The news editors report that additional information may be obtained by contacting S. Zelenitsky, St Boniface Gen Hosp, Winnipeg, MB R2H 2A6, Canada. Additional authors for this research include R. Ariano, P. Lagace-Wiens and S. Zelenitsky. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Winnipeg, Manitoba, Canada, North and Central America, Gram-Positive Endospore-Forming Rods, Blood Diseases and Conditions, Endospore-Forming Bacteria, Beta-Lactam Antibiotics, Gram-Positive Bacteria,
Studies Conducted at St. Jude Children's Research Hospital on Pharmacogenetics Recently Reported (Evidence and resources to implement pharmacogenetic knowledge for precision medicine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pharmacogenetics have been published. According to news reporting out of Memphis, Tennessee, by NewsRx editors, research stated, "The current state of pharmacogenetic data curation and dissemination is described, and evidence-based resources for applying pharmacogenetic data in clinical practice are reviewed. Implementation of pharmacogenetics in clinical practice has been relatively slow despite substantial scientific progress in understanding linkages between genetic variation and variability of drug response and effect."

Our news journalists obtained a quote from the research from St. Jude Children's Research Hospital, "One factor that has inhibited the adoption of genetic data to guide medication use is a lack of knowledge of how to translate genetic test results into clinical action based on currently available evidence. Other implementation challenges include controversy over selection of appropriate evidentiary thresholds for routine clinical implementation of pharmacogenetic data and the difficulty of compiling scientific data to support clinical recommendations given that large randomized controlled trials to demonstrate the utility of pharmacogenetic testing are not feasible or are not considered necessary to establish clinical utility. Organizations such as the Clinical Pharmacogenetics Implementation Consortium (CPIC) and the Pharmacogenomics Knowledgebase (PharmGKB) systematically evaluate emerging evidence of pharmacogenomic linkages and publish evidence based prescribing recommendations to inform clinical practice. Both CPIC and PharmGKB provide online resources that facilitate the interpretation of genetic test results and provide prescribing recommendations for specific gene-drug pairs."

According to the news editors, the research concluded: "Resources provided by organizations such as CPIC and PharmGKB, which use standardized approaches to evaluate the literature and provide clinical guidance for a growing number of gene-drug pairs, are essential for the implementation of pharmacogenetics into routine clinical practice."

For more information on this research see: Evidence and resources to implement pharmacogenetic knowledge for precision medicine. American Journal of Health-System Pharmacy, 2016;73(23):1977-1985. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting K.E. Caudle, St Jude Childrens Res Hosp, Dept. of Pharmaceut Sci, Memphis, TN 38105, United States. Additional authors for this research include R.S. Gammal, M. Whirl-Carrillo, J.M. Hoffman, M.V. Belling and T.E. Klein.
Studies Conducted at Stanford University on Genetics Recently Reported (Molecular Imaging Biosensor Monitors p53 Sumoylation in Cells and Living Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics is now available. According to news reporting originating in Palo Alto, California, by NewsRx journalists, research stated, "Small molecule mediated stabilization of p53 tumor suppressor protein through sumoylation is a promising new strategy for improving cancer chemotherapy. A molecular tool that monitors pS3 sumoylation status and expedites screening for drugs that enhance pS3 sumoylation would be beneficial."

Funders for this research include National Cancer Institute, Ben and Catherine Ivy Foundation.

The news reporters obtained a quote from the research from Stanford University, "We report a molecularly engineered reporter fragment complementation biosensor based on optical imaging of Firefly luciferase (FLuc), to quantitatively image p53 sumoylation and desumoylation in cells and living mice. We initially characterized this biosensor by successfully imaging sumoylation of several target proteins, achieving significant FLuc complementation for ER alpha (p < 0.01), p53 (p < 0.005), FKBP12 (p < 0.03), ID (p < 0.03), and HDAC1 (p < 0.002). We then rigorously tested the sensitivity and specificity of the biosensor using several variants of p53 and SUMO1, including deletion mutants, and those with modified sequences containing the SUMO-acceptor site of target proteins. Next we evaluated the performance of the biosensor in HepG2 cells by treatment with ginkgoolic acid, a drug that reduces p53 sumoylation, as well as trichostatin A, a potential inducer of p53 sumoylation by enhancement of its nuclear export. Lastly, we demonstrated the in vivo utility of this biosensor in monitoring and quantifying the effects of these drugs on p53 sumoylation in living mice using bioluminescence imaging."

According to the news reporters, the research concluded: "Adoption of this biosensor in future high throughput drug screening has the important potential to help identify new and repurposed small molecules that alter p53 sumoylation, and to preclinically evaluate candidate anticancer drugs in living animals."


Our news correspondents report that additional information may be obtained by
Studies Conducted at Timone Hospital on Glioblastomas Recently Reported (Changes in PlGF and MET-HGF expressions in paired initial and recurrent glioblastoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Glioblastomas. According to news reporting originating in Marseille, France, by NewsRx journalists, research stated, "Angiogenesis is one of the key features of glioblastoma (GB). However, the use of anti-angiogenic therapies directed against vascular endothelial growth factor (VEGF) is limited by primary or acquired resistance."

Financial support for this research came from SIRIC.

The news reporters obtained a quote from the research from Timone Hospital, "MET/HGF and PlGF signaling are involved in potential alternative escape mechanisms to VEGF pathway. Our objective was to explore the potential changes of MET/HGF and PlGF expression, comparing initial diagnosis and recurrence after radiotherapy-temozolomide (RT/TMZ). Paired frozen tumors from both initial and recurrent surgery after radio-chemotherapy were available for 28 patients. RNA expressions of PlGF, MET, and HGF genes were analyzed by RT-qPCR. PlGF expression significantly decreased at recurrence (p = 0.021), and expression of MET showed a significant increase (p = 0.011) at recurrence. RNA expressions of MET and HGF significantly correlated both at baseline and recurrence (baseline: p = 0.005; recurrence: p = 0.019). Evolutive profile (increasing versus decreasing expression at recurrence) of MET was associated with PFS (p = 0.002) and OS (p = 0.022) at recurrence, while the evolutive profile of HGF was associated with PFS at relapse (p = 0.049). Recurrence of GB after chemo-radiation could be associated with a variation in PIGF and MET expression."

According to the news reporters, the research concluded: "These results contribute to suggest a modification of the GB angiogenic process between initial diagnosis and recurrence."

For more information on this research see: Changes in PlGF and MET-HGF expressions in paired initial and recurrent glioblastoma. Journal of Neuro-Oncology, 2016;130 (3):431-437. Journal of Neuro-Oncology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of Neuro-Oncology - www.springerlink.com/content/0167-594x/)

Our news correspondents report that additional information may be obtained by contacting R. Paulmurugan, Stanford University, Sch Med, BioX Program, Mol Imaging Program Stanford, Palo Alto, CA 94304, United States. Additional authors for this research include K. Foygel, R. Devulapally, V. Kumar, S. Malhotra, T.F. Massoud and R. Paulmurugan. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.analchem.6b02048. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Palo Alto, California, United States, North and Central America, Emerging Technologies, Nanobiotechnology, Bionanotechnology, Molecular Imaging, Nanotechnology, Bioengineering, Biotechnology, Biosensing, Genetics, p53 Gene, Stanford University.

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contacting E. Tabouret, Timone Hosp, APHM, Dept. of Neurooncol, F-13005 Marseille, France. Additional authors for this research include E. Denicolai, C. Delfino, T. Graillon, C. Boucard, I. Nanni, L. Padovani, D. Figarella-Branger and O. Chinot.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11060-016-2251-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Marseille, France, Europe, Glioblastomas, Angiogenesis, Oncology, Genetics, Timone Hospital.

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Genetics - Human Genetics

Studies Conducted at Tohoku University School of Medicine on Human Genetics Recently Reported (Recent advances in RASopathies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics - Human Genetics have been published. According to news reporting out of Sendai, Japan, by NewsRx editors, research stated, "RASopathies or RAS/mitogen-activated protein kinase (MAPK) syndromes are a group of phenotypically overlapping syndromes caused by germline mutations that encode components of the RAS/MAPK signaling pathway. These disorders include neurofibromatosis type I, Legius syndrome, Noonan syndrome, Noonan syndrome with multiple lentigines (formerly called LEOPARD syndrome), Costello syndrome, cardiofaciocutaneous (CFC) syndrome, Noonan-like syndrome, hereditary gingival fibromatosis and capillary malformation-arteriovenous malformation."

Our news journalists obtained a quote from the research from the Tohoku University School of Medicine, "Recently, novel gene variants, including RIT1, RRAS, RASA2, A2ML1, SOS2 and LZTR1, have been shown to be associated with RASopathies, further expanding the disease entity. Although further analysis will be needed, these findings will help to better elucidate an understanding of the pathogenesis of these disorders and will aid in the development of potential therapeutic approaches."

According to the news editors, the research concluded: "In this review, we summarize the novel genes that have been reported to be associated with RASopathies and highlight the cardiovascular abnormalities that may arise in affected individuals."


Our news journalists report that additional information may be obtained by contacting Y. Aoki, Dept. of Medical Genetics, Tohoku University School of Medicine, Sendai, Japan. Additional authors for this research include T. Niihori, S. Inoue and Y. Matsubara.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/jhg.2015.114. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *Journal of Human Genetics* is: Springer, 233 Spring Street, New York, NY 10013, USA.
Keywords for this news article include: Asia, Japan, Sendai, Article Review, Human Genetics.

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Glutamic Acid

Studies Conducted at Tokyo University of Science on Glutamic Acid Recently Reported (Galacto-N-biose is neuroprotective against glutamate-induced excitotoxicity in vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Glutamic Acid have been published. According to news originating from Chiba, Japan, by NewsRx correspondents, research stated, "Galacto-N-biose (GNB: Gal beta 1-3GalNAc) is an O-glycan disaccharide core moiety that is a core component of mucin in the gastrointestinal tract; however, the physiological properties of GNB are not well understood. Glutamate excitotoxicity causes neuronal death in acute neurological disorders including stroke, trauma, and neurodegenerative disease."

Our news journalists obtained a quote from the research from the Tokyo University of Science, "Therefore the discovery of drugs to treat glutamate excitotoxicity is an important goal. Here, we report that GNB is neuroprotective against glutamate-induced excitotoxicity. We treated 14-15 days in vitro cultured rat cortical neurons with 0.1-1000 nM GNB together with 30 μm glutamate for various durations. Short-term (3 h) GNB treatments showed a modest neuroprotective effect against glutamate neurotoxicity, however, long-term (24 h) GNB treatment conferred significant neuroprotective effects, as shown by both MTT and immunocytochemical assays. Prolonged GNB treatment did not alter glutamate-induced calcium influx, but did induce antioxidant-related gene expression. Furthermore, GNB treatment did not induce cell death or alter synaptic connections."

According to the news editors, the research concluded: "These data suggest that GNB is a potential candidate drug that protects against glutamate excitotoxicity without affecting cell viability and synaptic connections."

For more information on this research see: Galacto-N-biose is neuroprotective against glutamate-induced excitotoxicity in vitro. European Journal of Pharmacology, 2016;791():711-717. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news correspondents report that additional information may be obtained from Y. Shinoda, Tokyo University of Science, Fac Sci & Technol, Dept. of Appl Biol Sci, Noda, Chiba 2788510, Japan. Additional authors for this research include Y. Nakajima, H. Iguchi, S. Tatsumi, M. Kitaoka, M. Nakajima, T. Takahashi, Y. Fujiwara and T. Furuichi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.10.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chiba, Japan, Asia, Glutamic Acid, Glutamates, Genetics, Tokyo University of Science.

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Studies Conducted at University Hospital on Non-Small Cell Lung Cancer Recently Reported (Molecular Profiling of Circulating Tumour Cells Identifies Notch1 as a Principal Regulator in Advanced Non-Small Cell Lung Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Non-Small Cell Lung Cancer. According to news reporting originating in Santiago de Compostela, Spain, by NewsRx journalists, research stated, "Knowledge on the molecular mechanisms underlying metastasis colonization in Non-Small Cell Lung Cancer (NSCLC) remains incomplete. A complete overview integrating driver mutations, primary tumour heterogeneity and overt metastasis lacks the dynamic contribution of disseminating metastatic cells due to the inaccessibility to the molecular profiling of Circulating Tumour Cells (CTCs)."

The news reporters obtained a quote from the research from University Hospital, "By combining immunoisolation and whole genome amplification, we performed a global gene expression analysis of EpCAM positive CTCs from advanced NSCLC patients. We identified an EpCAM+CTC-specific expression profile in NSCLC patients mostly associated with cellular movement, cell adhesion and cell-to-cell signalling mediated by PI3K/AKT, ERK1/2 and NF-kB pathways. NOTCH1 emerged as a driver connecting active signalling pathways, with a reduced number of related candidate genes (NOTCH1, PTP4A3, LGALS3 and ITGB3) being further validated by RT-qPCR on an independent cohort of NSCLC patients. In addition, these markers demonstrated high prognostic value for Progression-Free Survival (PFS)."

According to the news reporters, the research concluded: "Molecular characterization of EpCAM+ CTCs from advanced NSCLC patients provided with highly specific biomarkers with potential applicability as a 'liquid biopsy' for monitoring of NSCLC patients and confirmed NOTCH1 as a potential therapeutic target to block lung cancer dissemination."

For more information on this research see: Molecular Profiling of Circulating Tumour Cells Identifies Notch1 as a Principal Regulator in Advanced Non-Small Cell Lung Cancer. Scientific Reports, 2016;6():1-9. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting M. Abal, Univ Hosp Santiago SERGAS, Hlth Res Inst Santiago IDIS, Translat Med Oncol, Santiago De Compostela 15706, Spain. Additional authors for this research include M. Alonso-Nocelo, L. Muinelo-Romay, J. Barbazan, M. Vieito, A. Abalo, A. Gomez-Tato, C.D.M. de los Angeles, T. Garcia-Caballero, C. Rodriguez, E. Brozos, F. Baron, R. Lopez-Lopez and M. Abal.

Keywords for this news article include: Santiago de Compostela, Spain, Europe, Non-Small Cell Lung Cancer, Lung Neoplasms, Oncology, Genetics, University Hospital.

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Studies Conducted at University Medical Center, Erlangen on Gliomas Recently Reported (MIF-CD74 signaling impedes microglial M1 polarization and facilitates brain tumorigenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gliomas have been presented. According to news originating from Erlangen, Germany, by NewsRx correspondents, research stated, "Microglial cells in the brain tumor microenvironment are associated with enhanced glioma malignancy. They persist in an immunosuppressive M2 state at the peritumoral site and promote the growth of gliomas."

Our news journalists obtained a quote from the research from University Medical Center, Erlangen, "Here, we investigated the underlying factors contributing to the abolished immune surveillance. We show that brain tumors escape pro-inflammatory M1 conversion of microglia via CD74 activation through the secretion of the cytokine macrophage migration inhibitory factor (MIF), which results in a M2 shift of microglial cells. Interruption of this glioma-microglial interaction through an antibody-neutralizing approach or small interfering RNA (siRNA)-mediated inhibition prolongs survival time in glioma-implanted mice by reinstating the microglial proinflammatory M1 function. We show that MIF-CD74 signaling inhibits interferon (IFN)-gamma secretion in microglia through phosphorylation of microglial ERK1/2 (extracellular signal-regulated protein kinases 1 and 2). The inhibition of MIF signaling or its receptor CD74 promotes IFN-gamma release and amplifies tumor death either through pharmacological inhibition or through siRNA-mediated knockdown. The reinstated IFN-gamma secretion leads both to direct inhibition of glioma growth as well as inducing a M2 to M1 shift in glioma-associated microglia."

According to the news editors, the research concluded: "Our data reveal that interference with the MIF signaling pathway represents a viable therapeutic option for the restoration of IFN-gamma-driven immune surveillance."


The news correspondents report that additional information may be obtained from I.Y. Eyupoglu, Friedrich Alexander Univ Erlangen Nurnberg FAU, Dept. of Neurosurg, Univ Klinikum Erlangen, Fac Med, D-91054 Erlangen, Bayern, Germany. Additional authors for this research include M.A. Schwarz, E. Yakubov, T. Engelhorn, A. Doerfler, M. Buchfelder, R. Bucala, N.E. Savaskan and I.Y. Eyupoglu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/onc.2016.160. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Erlangen, Germany, Europe, Microglia, Epidemiology, Neuroglia, Oncology, Genetics, Gliomas, University Medical Center, Erlangen.

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Lung Diseases and Conditions - Pneumonia

Studies Conducted at University of Amsterdam on Pneumonia Recently Reported (Comparative Analysis of the Host Response to Community-acquired and Hospital-acquired Pneumonia in Critically Ill Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Pneumonia. According to news reporting from Amsterdam, Netherlands, by NewsRx journalists, research stated, "Preclinical studies suggest that hospitalized patients are susceptible to infections caused by nosocomial respiratory pathogens at least in part because of immune suppression caused by the condition for which they were admitted. We aimed to characterize the systemic host response in hospital-acquired pneumonia (HAP) when compared with community-acquired pneumonia (CAP)."

The news correspondents obtained a quote from the research from the University of Amsterdam, "We performed a prospective study in two intensive care units (ICUs) in 453 patients with HAP (n = 222) or CAP (n = 231). Immune responses were determined on ICU admission by measuring 19 plasma biomarkers reflecting organ systems implicated in infection pathogenesis (in 192 patients with HAP and 183 patients with CAP) and by applying genome-wide blood gene expression profiling (in 111 patients with HAP and 110 patients with CAP). Patients with HAP and CAP presented with similar disease severities and mortality rates did not differ up to 1 year after admission. Plasma proteome analysis revealed largely similar responses, including systemic inflammatory and cytokine responses, and activation of coagulation and the vascular endothelium. The blood leukocyte genomic response was greater than 75% common in patients with HAP and CAP, comprising proinflammatory, antiinflammatory, T-cell signaling, and metabolic pathway gene sets. Patients with HAP showed overexpression of genes involved in cell-cell junction remodeling, adhesion, and diapedesis, which corresponded with lower plasma levels of matrix metalloproteinase-8 and soluble E-selectin. In addition, patients with HAP demonstrated underexpression of a type-I interferon signaling gene signature."

According to the news reporters, the research concluded: "Patients with HAP and CAP present with a largely similar host response at ICU admission."


Our news journalists report that additional information may be obtained by contacting L.A. van Vught, University of Amsterdam, Center Infect & Immun, Academy Med Center, Amsterdam, Netherlands. Additional authors for this research include B.P. Scicluna, M.A. Wiewel, A.J. Hoogendijk, P. Klouwenberg, M. Franitza, M.R. Toliat, P. Nurnberg, O.L. Cremer, J. Horn, M.J. Schultz, M.M.J. Bonten and T. van der Poll.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Respiratory Tract Diseases and Conditions, Community-Acquired Infection, Genetics, Lung Diseases and Conditions, Respiratory Tract Infections, Infectious Disease, Pulmonology, Pneumonia, Hospital, University of Amsterdam.

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Studies Conducted at University of California on Chemotherapy Recently Reported (Postmastectomy radiation therapy after neoadjuvant chemotherapy: review and interpretation of available data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Chemotherapy. According to news reporting out of Los Angeles, California, by NewsRx editors, research stated, "Postmastectomy radiotherapy (PMRT) has been shown to decrease locoregional recurrence and improve overall survival in patients with tumors greater than 5 cm or positive nodes. Because neoadjuvant chemotherapy (NAC) can cause significant downstaging, the indications for PMRT in the setting of NAC remain controversial and thus careful consideration of clinical stage at presentation, pathologic response to NAC, and other clinical characteristics, such as grade and biomarker status is required."

Our news journalists obtained a quote from the research from the University of California, "The current review synthesizes both prospective and retrospective data to provide evidence for recommending PMRT after NAC for patients presenting with cT3-4 disease, cN2-3 disease, and residual nodal disease, as well as rationale for omitting PMRT in patients with cT1-2N0-1 disease who achieve a pathologic complete response. Other scenarios, including nodal complete response in the presence of other risk factors, are also explored."

According to the news editors, the research concluded: "The topics of pre-NAC clinical staging and pathologic axillary nodal staging are reviewed, and radiation portal design is briefly discussed."

For more information on this research see: Postmastectomy radiation therapy after neoadjuvant chemotherapy: review and interpretation of available data. Therapeutic Advances In Medical Oncology, 2016;8(1):85-97. (Sage Publications - www.sagepub.com/; Therapeutic Advances In Medical Oncology - tam.sagepub.com)

Our news journalists report that additional information may be obtained by contacting A.U. Kishan, Dept. of Radiation Oncology, David Geffen School of Medicine, University of California, Los Angeles, CA, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1758834015617459. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: California, Los Angeles, Chemotherapy, United States, Article Review, Radiation Therapy, Drugs and Therapies, Risk and Prevention, North and Central America.

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Studies Conducted at University of California on Pharmacy Practice Recently Reported (Developing a process for expansion of community pharmacy residency sites)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmacy Practice. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated, "The development of guidelines for community pharmacy residency site expansion is described. During the past 20 years, community pharmacy residency programs have grown in number."

The news reporters obtained a quote from the research from the University of California, "Most community residencies were initiated and accredited through schools of pharmacy with faculty members dedicated to the oversight and growth. Because of the interest in residency expansion from sites, a systematic process was needed to determine whether a site was resident ready. This need led to the development of a site-readiness tool for community residency expansion. This tool was developed by 2 faculty members serving as residency program directors at 2 schools of pharmacy in North Carolina. The development of this tool resulted in guidance and clarification of residency expectations for potential community sites. The tool also led to improved efficiency in the assessment of readiness for residency site expansion. Development of a tool for residency site readiness increased the overall knowledge of site requirements, resulting in a more efficient process for residency program directors, and aided in the ability to increase the number of community pharmacy residency sites in North Carolina."

According to the news reporters, the research concluded: "The tool described in this article can serve as a guide to sites that have an interest in establishing new programs but are uncertain of the site's readiness and next steps."


Our news correspondents report that additional information may be obtained by contacting V.B. Clinard, University of California, UCSF Sch Pharm, Clin Pharm, Experiential Educ, San Francisco, CA 94143, United States. Additional authors for this research include P. Brown and V.B. Clinard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.japh.2016.06.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Pharmacy Practice, Drugs and Therapies, University of California.

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**Pharmacology**

**Studies Conducted at University of Copenhagen on Pharmacology Recently Reported (N-terminally and C-terminally truncated forms of glucose-dependent insulinotropic polypeptide are high-affinity competitive antagonists of the human GIP receptor)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Pharmacology is the subject of a report. According to
news reporting originating in Copenhagen, Denmark, by NewsRx journalists, research stated, "Glucose-dependent insulino tropic polypeptide (GIP) affects lipid, bone and glucose homeostasis. High-affinity ligands for the GIP receptor are needed to elucidate the physiological functions and pharmacological potential of GIP in vivo."

The news reporters obtained a quote from the research from the University of Copenhagen, "GIP(1-30)NH2 is a naturally occurring truncation of GIP(1-42). Here, we have characterized eight N-terminal truncations of human GIP(1-30)NH2. COS-7 cells were transiently transfected with human GIP receptors and assessed for cAMP accumulation upon ligand stimulation or competition binding with (125) I-labelled GIP(1-42), GIP(1-30)NH2, GIP(2-30)NH2 or GIP(3-30)NH2. GIP(1-30)NH2 displaced (125) I-GIP(1-42) as effectively as GIP (1-42) (Ki 0.75 nM), whereas the eight truncations displayed lower affinities (Ki 2.3-347 nM) with highest affinities for GIP(3-30)NH2 and GIP(5-30)NH2. Only GIP(1-30)NH2 (Emax 100% of GIP(1-42)) and GIP(2-30)NH2 (Emax 20%) were agonists. GIP(2-to 9-30)NH2 displayed antagonism (IC[50] 12-450 nM) and Schild plot analyses identified GIP(3-30)NH2 and GIP(5-30)NH2 as competitive antagonists (Ki 15 nM). GIP(3-30) NH2 was a 26-fold more potent antagonist than GIP(3-42). Binding studies with agonist ((125) I-GIP(1-30)NH2 ), partial agonist ((125) I-GIP(2-30)NH2 ) and competitive antagonist ((125) I-GIP(3-30)NH2 ) revealed distinct receptor conformations for these three ligand classes. The N-terminus is crucial for GIP agonist activity. Removal of the C-terminus of the endogenous GIP(3-42) creates another naturally occurring, more potent, antagonist GIP(3-30)NH2, which like GIP(5-30)NH2, was a high-affinity competitive antagonist."

According to the news reporters, the research concluded: "These peptides may be suitable tools for basic GIP research and future pharmacological interventions."


Our news correspondents report that additional information may be obtained by contacting L.S. Hansen, Dept. of Neuroscience and Pharmacology, Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark. Additional authors for this research include A.H. Sparre-Ulrich, M. Christensen, F.K. Knop, B. Hartmann, J.J. Holst and M.M Rosenkilde.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13384. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the British Journal of Pharmacology can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Europe, Denmark, Therapy, Copenhagen, Pharmacology.

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Studies Conducted at University of Delaware on Breast Cancer Recently Reported (Nanoshell-mediated photothermal therapy can enhance chemotherapy in inflammatory breast cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting originating from Newark, Delaware, by NewsRx correspondents, research stated, "Nanoshell-mediated photothermal therapy (PTT) is currently being investigated as a standalone therapy for the treatment of cancer. The cellular effects of PTT include loss of membrane integrity, so we hypothesized that nanoshell-mediated PTT could potentiate the cytotoxicity of chemotherapy by improving drug accumulation in cancer cells."

Our news editors obtained a quote from the research from the University of Delaware, "In this work, we validated our hypothesis using doxorubicin as a model drug and SUM149 inflammatory breast cancer cells as a model cancer subtype. In initial studies, SUM149 cells were exposed to nano-shells and near-infrared light and then stained with ethidium homodimer-1, which is excluded from cells with an intact plasma membrane. The results confirmed that nanoshell-mediated PTT could increase membrane permeability in SUM149 cells. In complementary experiments, SUM149 cells treated with nanoshells, near-infrared light, or a combination of the two to yield low-dose PTT were exposed to fluorescent rhodamine 123. Analyzing rhodamine 123 fluorescence in cells via flow cytometry confirmed that increased membrane permeability caused by PTT could enhance drug accumulation in cells. This was validated using fluorescence microscopy to assess intracellular distribution of doxorubicin. In succeeding experiments, SUM149 cells were exposed to subtherapeutic levels of doxorubicin, low-dose PTT, or a combination of the two treatments to determine whether the additional drug uptake induced by PTT is sufficient to enhance cell death. Analysis revealed minimal loss of viability relative to controls in cells exposed to subtherapeutic levels of doxorubicin, 15% loss of viability in cells exposed to low-dose PTT, and 35% loss of viability in cells exposed to combination therapy."

According to the news editors, the research concluded: "These data indicate that nanoshell-mediated PTT is a viable strategy to potentiate the effects of chemotherapy and warrant further investigation of this approach using other drugs and cancer subtypes."

For more information on this research see: Nanoshell-mediated photothermal therapy can enhance chemotherapy in inflammatory breast cancer cells. *International Journal of Nanomedicine*, 2015;10():6931-41.

The news editors report that additional information may be obtained by contacting B.L. Fay, Biomedical Engineering, University of Delaware, Newark, DE, United States. Additional authors for this research include J.R. Melamed and E.S Day.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/IJN.S93031. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Newark, Delaware, United States, North and Central America, Antibiotics Antineoplastics, Breast Cancer, Chemotherapy, Doxorubicin Therapy Hydrochloride, Drugs and Therapies, Oncology, Pharmaceuticals, Women's Health.

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Clinical Research - Clinical Trials and Studies

Studies Conducted at University of Iowa on Clinical Trials and Studies Recently Reported (Determining When to Add Nonstatin Therapy A Quantitative Approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news originating from Iowa City, Iowa, by NewsRx correspondents, research stated, "Costs and uncertainty about the benefits of nonstatin therapies limit their use. The authors sought to identify patients who might benefit from the addition of a nonstatin to background statin therapy."

Our news journalists obtained a quote from the research from the University of Iowa, "We performed systematic reviews of subgroup analyses from randomized trials and observational studies with statin-treated participants to determine estimated 10-year absolute risk of atherosclerotic cardiovascular disease (ASCVD) and to define high-risk and very high-risk patients. We used the relative risk reductions for the addition of a nonstatin to lower low-density lipoprotein (LDL-C) used to determine the number needed to treat (NNT) to prevent 1 ASCVD event over 5 years for each patient group and to allow comparisons with 5-year cost analyses. The 10-year ASCVD risk is at least 30% (very high risk) for statin-treated participants with clinical ASCVD and comorbidities, and 20% to 29% (high risk) for those with ASCVD without comorbidities or who have heterozygous familial hypercholesterolemia. Adding ezetimibe to reduce low-density LDL-C by 20% would provide a 5-year NNT <= 50 for very high-risk patients with LDL-C >= 130 mg/dl or for high-risk patients with LDL-C >= 190 mg/dl, and an NNT <= 30 for very high-risk patients with LDL-C >= 160 mg/dl. Adding a PCSK9 monoclonal antibody to lower LDL-C by at least 50% would provide an NNT <= 50 for very high-risk and high-risk patients with LDL-C >= 70 mg/dl, and an NNT <= 30 for very high-risk and high-risk patients with an LDL-C >= 130 mg/dl." According to the news editors, the research concluded: "Adding ezetimibe or PCSK9 monoclonal antibodies to maximally tolerated statin therapy may be cost effective in very high-risk and high-risk patients, depending on baseline LDL-C levels."


The news correspondents report that additional information may be obtained from J.G. Robinson, University of Iowa, Dept. of Med, Iowa City, IA 52242, United States. Additional authors for this research include R. Huijgen, K. Ray, J. Persons, J.J.P. Kastelein and M.J. Pencina.

Keywords for this news article include: Iowa City, Iowa, United States, North and Central America, Clinical Research, Risk and Prevention, Clinical Trials and Studies, Therapy, University of Iowa.

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Gram-Negative Bacteria - Escherichia coli

Studies Conducted at University of Lethbridge on Escherichia coli Recently Reported (RNA modification enzyme TruB is a tRNA chaperone)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gram-Negative Bacteria - Escherichia coli. According to news originating from Lethbridge, Canada, by NewsRx correspondents, research stated, "Cellular RNAs are chemically modified by many RNA modification enzymes; however, often the functions of modifications remain unclear, such as for pseudouridine formation in the tRNA T Psi C arm by the bacterial tRNA pseudouridine synthase TruB. Here we test the hypothesis that RNA modification enzymes also act as RNA chaperones."

Funders for this research include Gouvernement du Canada | Natural Sciences and Engineering Research Council of Canada (Conseil de Recherches en Sciences Naturelles et en Genie du Canada), Canada Foundation for Innovation (Fondation canadienne pour l'innovation).

Our news journalists obtained a quote from the research from the University of Lethbridge, "Using TruB as a model, we demonstrate that TruB folds tRNA independent of its catalytic activity, thus increasing the fraction of tRNA that can be aminoacylated. By rapid kinetic stopped-flow analysis, we identified the molecular mechanism of TruB's RNA chaperone activity: TruB binds and unfolds both misfolded and folded tRNAs thereby providing misfolded tRNAs a second chance at folding. Previously, it has been shown that a catalytically inactive TruB variant has no phenotype when expressed in an Escherichia coli truB KO strain [Gutgsell N, et al. (2000) RNA 6(12): 1870-1881]. However, here we uncover that E. coli strains expressing a TruB variant impaired in tRNA binding and in vitro tRNA folding cannot compete with WT E. coli. Consequently, the tRNA chaperone activity of TruB is critical for bacterial fitness."

According to the news editors, the research concluded: "We prove the tRNA chaperone activity of the pseudouridine synthase TruB, reveal its molecular mechanism, and demonstrate its importance for cellular fitness. We discuss the likelihood that other RNA modification enzymes are also RNA chaperones."


The news correspondents report that additional information may be obtained from U. Kothe, University of Lethbridge, Alberta RNA Res & Training Inst, Dept. of Chem & Biochem, Lethbridge, AB T1K 3M4, Canada. Additional authors for this research include G.R. Veerareddygari and U. Kothe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1607512113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lethbridge, Alberta, Canada, North and
Central America, Gram-Negative Bacteria, Enzymes and Coenzymes, Gammaproteobacteria, Enterobacteriaceae, Escherichia coli, Escherichia Coli, Proteobacteria, Synthase, Genetics, University of Lethbridge.

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Mycobacterium Infections - Tuberculosis

Studies Conducted at University of Liverpool on Tuberculosis Recently Reported (Methods for selecting regimen duration to prevent relapse in drug-susceptible and drug-resistant TB)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mycobacterium Infections - Tuberculosis have been published. According to news reporting originating from Liverpool, United Kingdom, by NewsRx correspondents, research stated, "Predicting the required duration of treatment necessary to yield an acceptable risk of recurrence is a key question facing Phase III trials in both drug-susceptible (DS) and multidrug-resistant tuberculosis (MDR-TB). Data on treatment duration from animal models are increasingly a focus of such studies, but they have not been calibrated against human clinical trials and are lacking in MDR-TB."

Our news editors obtained a quote from the research from the University of Liverpool, "Empirical meta-regression models based on clinical trials in DS-TB suggest that early bacteriological results and treatment duration may have value in predicting relapse, and have been prospectively validated against the results of three large randomised controlled trials in DS-TB. While few trials have been conducted in MDR-TB to date, and observational cohort data should be interpreted carefully due to bias and confounding, these models also appeared to perform well in two recent cohort studies of MDR-TB. Applying these insights in practice may require innovations in clinical trial design, such as more extensive selection, adaptation and use of multiple durations during Phases II and III."

According to the news editors, the research concluded: "While several studies have identified important individual level prognostic variables that could improve the accuracy of relapse prediction, attempts to stratify treatment duration for individual patients based on these factors have so far met with limited success."


The news editors report that additional information may be obtained by contacting G.R. Davies, University of Liverpool, Inst Infect & Global Hlth & Translat Med, Liverpool, Merseyside, United Kingdom.

Keywords for this news article include: Liverpool, United Kingdom, Europe, Drugs and Therapies, Risk and Prevention, Multidrug Resistant Tuberculosis, Clinical Trials and Studies, Mycobacterium Infections, Infectious Disease, Clinical Research, Drug Resistance, MDR-TB, University of Liverpool.

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Studies Conducted at University of Macau on Alzheimer Disease Recently Reported (The Protective Effects of Icariin against the Homocysteine-Induced Neurotoxicity in the Primary Embryonic Cultures of Rat Cortical Neurons)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Neurodegenerative Diseases and Conditions - Alzheimer Disease is the subject of a report. According to news reporting originating in Taipa, People's Republic of China, by NewsRx journalists, research stated, "Icariin, an ingredient in the medicinal herb Epimedium brevicornum Maxim (EbM), has been considered as a potential therapeutic agent for neurodegenerative diseases such as Alzheimer's disease (AD). Hyperhomocysteinaemia is a risk factor for AD and other associated neurological diseases."

The news reporters obtained a quote from the research from the University of Macau, "In this study we aim to investigate whether icariin can reverse homocysteine (Hcy)-induced neurotoxicity in primary embryonic cultures of rat cortical neurons. Our findings demonstrated that icariin might be able restore the cytoskeleton network damaged by Hcy through the modulation of acetyl-alpha-tubulin, tyrosinated-alpha-tubulin, and phosphorylation of the tubulin-binding protein Tau. In addition, icariin downregulated p-extracellular signal-regulated kinase (ERK) which is a kinase targeting tau protein. Furthermore, icariin effectively restored the neuroprotective protein p-Akt that was downregulated by Hcy. We also applied RT2 Profiler PCR Arrays focused on genes related to AD and neurotoxicity to examine genes differentially altered by Hcy or icariin. Among the altered genes from the arrays, ADAM9 was downregulated 15 folds in cells treated with Hcy, but markedly restored by icariin. ADAM family, encoded alpha-secretase, plays a protective role in AD."

According to the news reporters, the research concluded: "Overall, our findings demonstrated that icariin exhibits a strong neuroprotective function and have potential for future development for drug treating neurological disorders, such as AD."

For more information on this research see: The Protective Effects of Icariin against the Homocysteine-Induced Neurotoxicity in the Primary Embryonic Cultures of Rat Cortical Neurons. Molecules, 2016;21(11):2033-2047. Molecules can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news correspondents report that additional information may be obtained by contacting X.A. Li, Macau Univ Sci & Technol, Macau Inst Appl Res Med & Hlth, State Key Lab Qual Res Chinese Med, Taipa, Macau, People's Republic of China. Additional authors for this research include Y.S. Ho, L. Chen and W.L.W. Hsiao.

Keywords for this news article include: Taipa, People's Republic of China, Asia, Neurodegenerative Diseases and Conditions, Kinase, Risk and Prevention, Genetics, Enzymes and Coenzymes, Nerve Tissue Proteins, Microtubule Proteins, Sulfur Amino Acids, Alzheimer Disease, Homocysteine, Tubulin, Neurons, Cells, University of Macau.

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Oncology - Liver Cancer

Studies Conducted at University of Medicine on Liver Cancer Recently Reported (DNA-PKcs: A promising therapeutic target in human hepatocellular carcinoma?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Liver Cancer is the subject of a report. According to news reporting originating from Greifswald, Germany, by NewsRx correspondents, research stated, "Hepatocellular carcinoma (HCC) is a frequent and deadly disease worldwide. The absence of effective therapies when the tumor is surgically unresectable leads to an extremely poor outcome of HCC patients."

Financial support for this research came from Italian Association Against Cancer.

Our news editors obtained a quote from the research from the University of Medicine, "Thus, it is mandatory to elucidate the molecular pathogenesis of HCC in order to develop novel therapeutic strategies against this pernicious tumor. Mounting evidence indicates that suppression of the DNA damage response machinery might be deleterious for the survival and growth of the tumor cells. In particular, DNA dependent protein kinase catalytic subunit (DNA-PKcs), a major player in the non-homologous end joining (NHEJ) repair process, seems to represent a valuable target for innovative anti-neoplastic therapies in cancer. DNA-PKcs levels are strongly upregulated and associated with a poor clinical outcome in various tumor types, including HCC. Importantly, DNA-PKcs not only protects tumor cells from harmful DNA insults coming either from the microenvironment or chemotherapeutic drug treatments, but also possesses additional properties, independent from its DNA repair activity, that provide growth advantages to cancer cells. These properties (metabolic and gene reprogramming, invasiveness and metastasis, resistance to apoptosis, etc.) have started to be elucidated. In the present review, we summarize the physiologic and oncogenic roles of DNA-PKcs, with a special emphasis on liver cancer. In particular, this work focuses on the molecular mechanism whereby DNA-PKcs exerts its pro-tumorigenic activity in cancer cells. In addition, the upstream regulator of DNA-PKcs activation as well as its downstream effectors thus far identified are illustrated."

According to the news editors, the research concluded: "Furthermore, the potential therapeutic strategies aimed at inhibiting DNA-PKcs activity in HCC are discussed."

For more information on this research see: DNA-PKcs: A promising therapeutic target in human hepatocellular carcinoma? DNA Repair, 2016;47():12-20. DNA Repair can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; DNA Repair - www.journals.elsevier.com/dna-repair/)

The news editors report that additional information may be obtained by contacting D.F. Calvisi, Univ Med Greifswald, Inst Pathol, D-17489 Greifswald, Germany. Additional authors for this research include C. Joseph, G. Latte, M. Evert, F. Feo and D.F. Calvisi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.dnarep.2016.10.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Greifswald, Germany, Europe, Cancer, Article Review, DNA Research, Liver Cancer, Carcinomas, Oncology, Genetics, Therapy, University of Medicine.

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Studies Conducted at University of Ottawa on Heart Disease Recently Reported (Transcriptomic Signature of Atherosclerosis in the Peripheral Blood: Fact or Fiction?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Disease. According to news reporting originating from Ottawa, Canada, by NewsRx correspondents, research stated, "The notion that gene expression signatures in blood can serve as biomarkers of disease states is not new. In the case of atherosclerosis, and coronary artery disease in particular, whether changes in gene expression in peripheral blood mononuclear cells reflects disease processes occurring in the vessel wall remains controversial."

Our news editors obtained a quote from the research from the University of Ottawa, "When comparing 15 studies that identified 706 differentially expressed genes, only 23 genes were replicated in 2 to 3 studies, at most. This low level of replication may reflect sample sizes too small to overcome heterogeneity in the response to disease. Genetic differences affect how each person responds to disease and what genes are altered. Recent studies with larger cohorts (over 5000 individuals) that considered the effect of common genetic variants still could not claim disease signature genes as biomarkers suggesting that even larger case-control studies will be required to achieve the required statistical power. On the other hand, out of 7 studies that identified 58 microRNAs, 12 were concordant in 2 or more studies, suggesting that microRNAs may be less affected by genetic differences and more accurately reflect the disease process."

According to the news editors, the research concluded: "Here, we review the current state of knowledge on expression profiling and its utility for predicting coronary artery disease status and mortality."

For more information on this research see: Transcriptomic Signature of Atherosclerosis in the Peripheral Blood: Fact or Fiction? Current Atherosclerosis Reports, 2016;18(12):74-78. Current Atherosclerosis Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

The news editors report that additional information may be obtained by contacting H.H. Chen, University of Ottawa, Dept. of Med, Ottawa, ON, Canada.

Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Cardiology, Article Review, Diagnostics and Screening, Genetics, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Arteriosclerosis, Atherosclerosis, Heart Disease, Angiology, University of Ottawa.

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Studies Conducted at University of Padova on Klinefelter Syndrome Recently Reported (The Klinefelter syndrome is associated with high recurrence of copy number variations on the X chromosome with a potential role in the clinical phenotype)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Genetic Diseases and Conditions - Klinefelter Syndrome are discussed in a new report. According to news originating from Padova, Italy, by NewsRx correspondents, research stated, "The Klinefelter syndrome (KS) is the most frequent sex chromosomal disorder in males, characterized by at least one supernumerary X chromosome (most frequent karyotype 47,XXY). This syndrome presents with a broad range of phenotypes."

Our news journalists obtained a quote from the research from the University of Padova, "The common characteristics include small testes and infertility, but KS subjects are at increased risk of hypogonadism, cognitive dysfunction, obesity, diabetes, metabolic syndrome, osteoporosis, and autoimmune disorders, which are present in variable proportion. Although part of the clinical variability might be linked to a different degree of testicular function observed in KS patients, genetic mechanisms of the supernumerary X chromosome might contribute. Gene-dosage effects and parental origin of the supernumerary X chromosome have been suggested to this regard. No study has been performed analyzing the genetic constitution of the X chromosome in terms of copy number variations (CNVs) and their possible involvement in phenotype of KS. To this aim, we performed a SNP arrays analysis on 94 KS and 85 controls. We found that KS subjects have more frequently than controls X-linked CNVs (39/94, [41.5%] with respect to 12/42, [28.6%] of females, and 8/43, [18.6%] of males, p<0.01). The number of X-linked CNVs in KS patients was 4.58 ? 1.92 CNVs/subject, significantly higher with respect to that found in control females (1.50 ? 1.29 CNVs/subject) and males (1.14 ? 0.37 CNVs/subject). Importantly, 94.4% X-linked CNVs in KS subjects were duplications, higher with respect to control males (50.0%, p<0.001) and females (83.3%, p=0.1). Half of the X-linked CNVs fell within regions encompassing genes and most of them (90%) included genes escaping X-inactivation in the regions of X-Y homology, particularly in the pseudoautosomal region 1 (PAR1) and Xq21.31."

According to the news editors, the research concluded: "This study described for the first time the genetic properties of the X chromosome in KS and suggests that X-linked CNVs (especially duplications) might contribute to the clinical phenotype."

For more information on this research see: The Klinefelter syndrome is associated with high recurrence of copy number variations on the X chromosome with a potential role in the clinical phenotype. Andrology, 2016;4(2):328-34.

The news correspondents report that additional information may be obtained from M.S. Rocca, Unit of Andrology and Reproductive Medicine, Dept. of Medicine, University of Padova, Padova, Italy. Additional authors for this research include V. Pecile, L. Cleva, E. Speltra, R. Selice, A. Di Mambro, C. Foresta and A. Ferlin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/andr.12146. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Padova, Europe, Hypogonadism, Gonadal Disorders, Risk and Prevention, Klinefelter Syndrome, Congenital Abnormalities, Sex
Aortic Stenosis

Studies Conducted at University of Texas Health Science Center on Aortic Stenosis Recently Reported (Natural history of 107 cases of fetal aortic stenosis from a European multicenter retrospective study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Aortic Stenosis are discussed in a new report. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Fetal aortic valvuloplasty (FV) aims to prevent fetal aortic valve stenosis progressing into hypoplastic left heart syndrome (HLHS), which results in postnatal univentricular (UV) circulation. Despite increasing numbers of FVs performed worldwide, the natural history of the disease in fetal life remains poorly defined."

Our news editors obtained a quote from the research from the University of Texas Health Science Center, "The primary aim of this study was to describe the natural history of fetal aortic stenosis, and a secondary aim was to test previously published criteria designed to identify cases of emerging HLHS with the potential for a biventricular (BV) outcome after FV. From a European multicenter retrospective study of 214 fetuses with aortic stenosis (2005-2012), 107 fetuses in ongoing pregnancies that did not undergo FV were included in this study and their natural history was reported. We examined longitudinal changes in Z-scores of aortic and mitral valve and left ventricular dimensions and documented direction of flow across the foramen ovale and aortic arch, and mitral valve inflow pattern and any gestational changes. Data were used to identify fetuses satisfying the Boston criteria for emerging HLHS and estimate the proportion of these that would have been ideal FV candidates. We applied the threshold score whereby a score of 1 was assigned to fetuses for each Z-score meeting the following criteria: left ventricular length and width >0; mitral valve diameter >-2; aortic valve diameter >-3.5; and pressure gradient across either the mitral or aortic valve >20 mmHg. We compared the predicted circulation with known survival and final postnatal circulation (BV, UV or conversion from BV to UV). Among the 107 ongoing pregnancies there were eight spontaneous fetal deaths and 99 livebirths. Five were lost to follow-up, five had comfort care and four had mild aortic stenosis not requiring intervention. There was intention-to-treat in these 85 newborns but five died prior to surgery, before circulation could be determined, and thus 80 underwent postnatal procedures with 44 BV, 29 UV and seven BV-to-UV circulatory outcomes. Of newborns with intention-to-treat, 69/85 (81%) survived >= 30 days. Survival at median 6 years was superior in cases with BV circulation (P = 0.041). Those with a postnatal UV circulation showed a trend towards smaller aortic valve diameters at first scan than did the BV cohort (P=0.076), but aortic valve growth velocities were similar in both cohorts to term. In contrast, the mitral valve diameter was significantly smaller at first scan in those with postnatal UV outcomes (P=0.004) and its growth velocity (P = 0.008), in common with the left ventricular inlet length (P = 0.004) and width (P = 0.002), were reduced significantly by term in fetuses with UV compared with BV outcome. Fetal data, recorded before 30 completed gestational weeks, from 70 treated neonates were evaluated to identify emerging HLHS. Forty-four had moderate or severe left ventricular depression and 38 of these had retrograde flow in the aortic arch and two had left-to-right flow.
at atrial level and reversed a-waves in the pulmonary veins. Thus 40 neonates met the criteria for emerging HLHS and BV circulation was documented in 13 (33%). Of these 40 cases, 12 (30%) had a threshold score of 4 or 5, of which five (42%) had BV circulation without fetal intervention. The natural history in our cohort of fetuses with aortic stenosis and known outcomes shows that a substantial proportion of fetuses meeting the criteria for emerging HLHS, with or without favorable selection criteria for FV, had a sustained BV circulation without fetal intervention."

According to the news editors, the research concluded: "This indicates that further work is needed to refine the selection criteria to offer appropriate therapy to fetuses with aortic stenosis."


The news editors report that additional information may be obtained by contacting H.M. Gardiner, Univ Texas Hlth Sci Center Houston UTHlth, McGovern Med Sch, Childrens Mem Hermann Hosp, Fetal Center, Houston, TX, United States. Additional authors for this research include A. Kovacevic, G. Tulzer, T. Sarkola, U. Herberg, J. Dangel, Ouml, A. hman, J. Bartrons, J.S. Carvalho, H. Jicinska, V. Fesslova, I. Averiss and M. Mellander.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Aortic Valve Stenosis, Aortic Stenosis, Cardiology, Angiology, University of Texas Health Science Center.

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**Drugs and Therapies - Antiinfectives**

**Studies Conducted at University of Warmia & Mazury on Antiinfectives Recently Reported [Content of biogenic amines in Lemna minor (common duckweed) growing in medium contaminated with tetracycline]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antiinfectives is now available. According to news originating from Olsztyn, Poland, by NewsRx correspondents, research stated, "Aquatic plants are continuously exposed to a variety of stress factors. No data on the impact of antibiotics on the biogenic amines in duckweed (Lemna minor) have been available so far, and such data could be significant, considering the ecological role of this plant in animal food chains."

Financial support for this research came from National Science Centre Poland.

Our news journalists obtained a quote from the research from the University of Warmia & Mazury, "In the tissues of control (non stressed) nine-day-old duckweed, the following biogenic amines were identified: tyramine, putrescine, cadaverine, spermidine and spermine. Based on the tetracycline contents and the computed EC values, the predicted toxicity units have been calculated. The obtained results demonstrated phytoxicity caused by tetracycline..."
in relation to duckweed growth rate, yield and the contents of chlorophylls a and b. The
carotenoid content was not modified by tetracycline. It was found that tetracycline as a water
pollutant was a stress factor triggering an increase in the synthesis of amines. Tetracycline at 19,
39 and 78 p.M concentrations increased biogenic amine synthesis by 3.5 times. Although the
content of tyramine increased fourteen times with the highest concentration of the drug (and of
 spermidine only three-fold) the increase of spermidine was numerically the highest. Among the
biogenic amines the most responsive to tetracycline were spermine and tyramine, while the least
affected were putrescine and spermidine. Despite putrescine and spermidine being the least
sensitive, their sum of contents increased five-fold compared to the control."

According to the news editors, the research concluded: "These studies suggest that
tetracycline in water reservoirs is taken up by L. minor as the antibiotic clearly modifies the
metabolism of this plant and it may likely pose a risk."

For more information on this research see: Content of biogenic amines in Lemna
minor (common duckweed) growing in medium contaminated with tetracycline. *Aquatic
Toxicology*, 2016;180():95-102. *Aquatic Toxicology* can be contacted at: Elsevier Science Bv,
PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Aquatic
Toxicology - www.journals.elsevier.com/aquatic-toxicology/)

The news correspondents report that additional information may be obtained from B.
Adomas, University of Warmia & Mazury, Fac Environm Management & Agr, Dept. of
Environm Toxicol, PL-10720 Olsztyn, Poland. Additional authors for this research include L.
Sikorski, A.I. Piotrowicz-Cieslak and B. Adomas.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.aquatox.2016.09.007. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Olsztyn, Poland, Europe, Dermatological
Agents, Drugs and Therapies, Topical Acne Agents, Organic Chemicals, Biogenic Amines,
Antiinfectives, Tetracyclines, Hydrocarbons, Naphthalenes, University of Warmia & Mazury.

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**Support Vector Machines**

Studies Conducted at Wake Forest University on Support Vector
Machines Recently Reported (Baseline Gray- and White-Matter Volume
Predict Successful Weight Loss in the Elderly)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Researchers detail new data in Support Vector Machines. According to
news reporting originating from Winston Salem, North Carolina, by NewsRx correspondents,
research stated, "The purpose of this study was to investigate whether structural brain
phenotypes could be used to predict weight loss success following behavioral interventions in
older adults with overweight or obesity and cardiometabolic dysfunction. A support vector
machine with a repeated random subsampling validation approach was used to classify
participants into the upper and lower halves of the weight loss distribution following 18 months
of a weight loss intervention."

Our news editors obtained a quote from the research from Wake Forest University,
"Predictions were based on baseline brain gray matter and white matter volume from 52
individuals who completed the intervention and a magnetic resonance imaging session. The support vector machine resulted in an average classification accuracy of 72.62% based on gray matter and white matter volume. A receiver operating characteristic analysis indicated that classification performance was robust based on an area under the curve of 0.82. Findings suggest that baseline brain structure was able to predict weight loss success following 18 months of treatment. The identification of brain structure as a predictor of successful weight loss was an innovative approach to identifying phenotypes for responsiveness to intensive lifestyle interventions."

According to the news editors, the research concluded: "This phenotype could prove useful in future research focusing on the tailoring of treatment for weight loss."


The news editors report that additional information may be obtained by contacting P.J. Laurienti, Wake Forest University, Translat Sci Center, Winston Salem, NC 27109, United States. Additional authors for this research include B.M. Paolini, J.H. Burdette, A.P. Marsh, W.J. Rejeski and P.J. Laurienti.

Keywords for this news article include: Winston Salem, North Carolina, United States, North and Central America, Support Vector Machines, Emerging Technologies, Machine Learning, Wake Forest University.

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**Oncology - Prostate Cancer**

**Studies Conducted at Washington State University on Prostate Cancer Recently Reported (Positive and Negative Cross-Talk between Lysophosphatidic Acid Receptor 1, Free Fatty Acid Receptor 4, and Epidermal Growth Factor Receptor in Human Prostate ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting originating from Spokane, Washington, by NewsRx correspondents, research stated, "Lysophosphatidic acid (LPA) is a lipid mediator that mediates cellular effects via G protein-coupled receptors (GPCRs). Epidermal growth factor (EGF) is a peptide that acts via a receptor tyrosine kinase."

Our news editors obtained a quote from the research from Washington State University. "LPA and EGF both induce proliferation of prostate cancer cells and can transactivate each other's receptors. The LPA receptor LPA(1) is particularly important for LPA response in human prostate cancer cells. Previous work in our laboratory has demonstrated that free fatty acid 4 (FFA4), a GPCR activated by omega-3 fatty acids, inhibits responses to both LPA and EGF in these cells. One potential mechanism for the inhibition involves negative interactions between FFA4 and LPA(1), thereby suppressing responses to EGF that require LPA (1). In the current study, we examined the role of LPA(1) in mediating EGF and FFA4 agonist responses in two human prostate cancer cell lines, DU145 and PC-3. The results show that an LPA(1)-selective antagonist inhibits proliferation and migration to both LPA and EGF."
Knockdown of LPA(1) expression, using silencing RNA, blocks responses to LPA and significantly inhibits responses to EGF. The partial response to EGF that is observed after LPA (1) knockdown is not inhibited by FFA4 agonists. Finally, the role of arrestin-3, a GPCR-binding protein that mediates many actions of activated GPCRs, was tested. Knockdown of arrestin-3 completely inhibits responses to both LPA and EGF in prostate cancer cells."

According to the news editors, the research concluded: "Taken together, these results suggest that LPA(1) plays a critical role in EGF responses and that FFA4 agonists inhibit proliferation by suppressing positive cross-talk between LPA(1) and the EGF receptor."


The news editors report that additional information may be obtained by contacting K.E. Meier, Washington State University, Coll Pharm, Dept. of Pharmaceut Sci, Spokane, WA 99210, United States. Additional authors for this research include Z. Liu and K.E. Meier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.233379. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spokane, Washington, United States, North and Central America, Lysophosphatidic Acid Receptors, Lysophospholipid Receptors, Growth Factor Receptors, Prostatic Neoplasms, Membrane Proteins, Peptide Receptors, Prostate Cancer, Oncology, Genetics, Washington State University.

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Skin Diseases and Conditions - Variegate Porphyria

Studies Conducted at Wroclaw University on Variegate Porphyria Recently Reported (Elective cholecystectomy performed on patient with variegate porphyria-Propofol-based total intravenous anesthesia with target-controlled infusion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Skin Diseases and Conditions - Variegate Porphyria is now available. According to news reporting from Wroclaw, Poland, by NewsRx journalists, research stated, "Porphyria is caused by disorders of enzymes that synthetize porphyrins. Both elective and emergency surgical procedures on patient suffering from porphyria may provoke acute symptoms."

The news correspondents obtained a quote from the research from Wroclaw University, "These patients require special anesthetic management since some of commonly used anesthetic agents may also induce acute manifestation of porphyria. We present the case of 53-year-old woman previously diagnosed with porphyria who underwent elective laparoscopic cholecystectomy. Propofol-based total intravenous anesthesia with target-controlled infusion was used. Such conduct proved to be safe regarding clinical symptoms, although biochemical markers were slightly elevated after procedure."
According to the news reporters, the research concluded: "Propofol seems to be the safest hypnotic drug to use in porphyria; however, special care should be taken in such cases."


Our news journalists report that additional information may be obtained by contacting M. Aporowicz, Wroclaw University, Dept. of & Clin Gen Gastroenterol & Endocrine Surg, PL-50369 Wroclaw, Poland. Additional authors for this research include M. Aporowicz, M. Brol, A. Zolnowska and M. Masternak.

Keywords for this news article include: Wroclaw, Poland, Europe, Nutritional and Metabolic Diseases and Conditions, Metabolic Skin Diseases and Conditions, Biliary Tract Surgical Procedures, Central Nervous System Agents, Inborn Errors Metabolism, Drugs and Therapies, General Anesthetics, Variegate Porphyria, Gastroenterology, Propofol Therapy, Cholecystectomy, Pharmaceuticals, Pain Medicine, Anesthesia, Porphyrias, Surgery, Phenols, Wroclaw University.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**Studies Conducted by A. Pilotto et al on Atrial Fibrillation Recently Reported (Warfarin Treatment and All-Cause Mortality in Community-Dwelling Older Adults with Atrial Fibrillation: A Retrospective Observational Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting out of Genoa, Italy, by NewsRx editors, research stated, "To investigate the relationship between warfarin treatment and different strata of all-cause mortality risk assessed using the Multidimensional Prognostic Index (MPI) based on information collected using the Standardized Multidimensional Assessment Schedule for Adults and Aged Persons (SVaMA) in community-dwelling older adults with atrial fibrillation (AF). Retrospective observational study."

Financial supporters for this research include MPI_Age European project, Health and Consumers of the European Innovation Partnership on Active, Healthy Ageing Second Health Programme.

Our news journalists obtained a quote from the research, "Older community-dwelling adults who underwent a SVaMA evaluation establishing accessibility to homecare services and nursing home admission from 2005 to 2013 in the Padova Health District, Italy. Community-dwelling individuals with AF aged 65 and older (N = 1,827). Participants were classified as being at mild (MPI-SVaMA-1), moderate (MPI-SVaMA-2), or severe (MPI-SVaMA-3) risk of mortality using the MPI-SVaMA, a validated prognostic tool based on age, sex, comorbidity, cognitive status, mobility and functional disability, pressure sore risk, and social support. The association between warfarin treatment and mortality was tested using multivariate-and
propensity score-adjusted Cox regression models, controlling for age, sex, all SVaMA domains, concomitant diseases, and drug treatments. Higher MPI-SVaMA scores were associated with lower rates of warfarin treatment and higher 3-year mortality. After adjustment for propensity score quintiles, warfarin treatment was significantly associated with lower 2-year mortality in individuals with MPI-SVaMA-1 (hazard ratio (HR) = 0.64, 95% confidence interval (CI) = 0.50-0.82), MPI-SVaMA-2 (HR = 0.68, 95% CI = 0.55-0.85), and MPI-SVaMA-3 (HR = 0.55, 95% CI = 0.44-0.67). Heterogeneity analyses confirmed that the effect of warfarin treatment was not different between MPI-SVaMA groups (P for heterogeneity = .48). Community-dwelling older adults with AF benefitted from anticoagulation in terms of lower all-cause mortality over a mean follow-up of 2 years, regardless of poor health and functional condition."

According to the news editors, the research concluded: "Although this benefit can be ascribed to the treatment, it may also reflect better overall care."


Our news journalists report that additional information may be obtained by contacting A. Pilotto, EO Galliera Hosp Natl Relevance & High Specializa, Frailty Area, Dept. of Geriatr Care Orthogeriatr & Rehabil, Genoa, Italy. Additional authors for this research include P. Gallina, M. Copetti, A. Pilotto, F. Marcato, A.M. Mello, M. Simonato, G. Logroscino, A. Padovani, L. Ferrucci and F. Panza.

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Keywords for this news article include: Genoa, Italy, Europe, Atrial Fibrillation, Risk and Prevention, Coumarin and Indandione Derivative, Heart Disorders and Diseases, Clinical Trials and Studies, Coumarins and Indandiones, Coagulation Modifiers, Drugs and Therapies, Cardiac Arrhythmias, Clinical Research, Warfarin Therapy, Anticoagulants, Heart Disease, Rodenticide.

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Gastroenterology - Hernias

Studies Conducted by D.S. Mous et al on Hernias Recently Reported (Clinically relevant timing of antenatal sildenafil treatment reduces pulmonary vascular remodeling in congenital diaphragmatic hernia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gastroenterology - Hernias. According to news reporting originating in Brussels, Belgium, by NewsRx journalists, research stated, "Patients with congenital diaphragmatic hernia (CDH) suffer from severe pulmonary hypertension attributable to altered development of the pulmonary vasculature, which is often resistant to vasodilator therapy. Present treatment starts postnatally even though significant differences in the pulmonary vasculature are already present early during pregnancy."
Financial support for this research came from Sophia Foundation for Medical Research.

The news reporters obtained a quote from the research, "We examined the effects of prenatal treatment with the phosphodiesterase-5 inhibitor sildenafil on pulmonary vascular development in experimental CDH starting at a clinically relevant time. The well-established, nitrofen-induced CDH rodent model was treated daily with 100 mg/kg sildenafil from day 17.5 until day 20.5 of gestation (E17.5-20.5). Importantly, this timing perfectly corresponds to the developmental stage of the lung at 20 wk of human gestation, when CDH is detectable by 2D-ultrasonography and/or MRI. At E21.5 pups were delivered by caesarean section and euthanized by lethal injection of pentobarbital. The lungs were isolated and subsequently analyzed using immunostaining, real-time PCR, and volume measurements. Prenatal treatment with sildenafil improved lung morphology and attenuated vascular remodeling with reduced muscularization of the smaller vessels. Pulmonary vascular volume was not affected by sildenafil treatment. We show that prenatal treatment with sildenafil within a clinically relevant period improves pulmonary vascular development in an experimental CDH model."

According to the news reporters, the research concluded: "This may have important implications for the management of this disease and related pulmonary vascular diseases in human."

For more information on this research see: Clinically relevant timing of antenatal sildenafil treatment reduces pulmonary vascular remodeling in congenital diaphragmatic hernia. American Journal of Physiology-Lung Cellular and Molecular Physiology, 2016;311(4):L734-L742. American Journal of Physiology-Lung Cellular and Molecular Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news correspondents report that additional information may be obtained by contacting R.J. Rottier, European Cooperat Sci & Technol COST Act BM1201, Dev Origins Chron Lung Dis, Brussels, Belgium. Additional authors for this research include H.M. Kool, M.J. Buscop-van Kempen, A.H. Koning, O. Dzyubachyk, R.M.H. Wijnen, D. Tibboel and R.J. Rottier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/ajplung.00180.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Congenital Diseases and Conditions, Agents For Pulmonary Hypertension, Congenital Diaphragmatic Hernia, Phosphodiesterase Inhibitors, Genitourinary Tract Agents, Cardiovascular Agents, Drugs and Therapies, Sildenafil Therapy, Vasodilator Agents, Impotence Agents, Gastroenterology, Gynecology, Hernias.

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Proteomics

Studies Conducted by F. Tisato et al on Proteomics Recently Reported
[Electrospray ionization in the study of the interactions between cytotoxic phosphino Cu(I) complexes and selected amino acids and GlyGlyHis peptide model]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteomics. According to news originating from Padua, Italy, by NewsRx correspondents, research stated, "Tetrahedral [Cu(P)(4)][BF4]-type complexes (P = tertiary phosphine) are a class of monopositively charged compounds that have shown notable antitumor activity in both in vitro and in vivo tests. This biological property appears to be related to the peculiar physicochemical characteristics of these compounds."

Our news journalists obtained a quote from the research, "Although thermodynamically stable, they are labile at micromolar concentrations. Such a behavior allows the Cu(I) ion in [Cu(P)(n)](+ assemblies (n < 4) to interact with surrounding molecules, including the rich peptide/protein environment that metal complexes have to face in the physiological milieu on the way to tumor cells. The scope of this investigation was to study the interaction products that originate from the treatment in water/methanol mixtures of representative phosphino Cu(I) compounds with an excess of individual amino acids (AAs) selected on the basis of the donor atom likely involved in metal coordination (i.e. O-glycine, S-methionine, and N-histidine). These interactions have been investigated in electrospray ionization mass spectrometry (ESI-MS), mainly in the positive ion mode [ESI(+)-MS], and the interaction products have been characterized by sequential collisional experiments, performed by an ion trap instrument. Histidine and methionine, but not glycine, were able to mine Cu(I) from [Cu(P)(n)](+) assemblies through the formation of mixed [Cu(P)(AA)](+) and eventually [CuI(AA)(2)](+) adducts. The ability to substitute phosphine(s) by AAs and the strongest affinity for Cu(I) was proved by the study of the energetics of collisional-induced decomposition (CID) reactions [CuI(P)(AA)](+) -> [CuI(AA) + P](+). Among the investigated AAs, histidine displayed the strongest affinity for Cu(I). Transchelation of Cu(I) was similarly observed when [Cu(P)(n)](+) species were treated with the model tripeptide GlyGlyHis (GGH), the most investigated member of the amino terminal Cu(II) and Ni(II) (ATCUN) peptide family. GGH was able to form robust metal adducts not only with Cu(ii) and the related divalent Zn(II) and Ni (II) ions, but also with monovalent ions, including Cu(I) and Ag(I). CID pathways of [CuI(GGH)](+) and [Ag-I(GGH)](+) were qualitatively superimposable and proceeded through losses of neutral fragments. Similar losses of neutral fragments were observed from [Zn-II(GGH)] and [Ni-II(GGH)]."

According to the news editors, the research concluded: "CID pathways of [Cu-II(GGH)](-/+) adducts instead took place mainly through intramolecular electron-transfer reactions comprising the reduction of Cu(II) to Cu(I) and the formation of fragment radical cations."


The news correspondents report that additional information may be obtained from F. Tisato, CNR ICMATE, I-35127 Padua, Italy. Additional authors for this research include V. Peruzzo, G. Zanchetta, S. Tamburini, P. Traldi and M. Porchia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1255/ejms.1441. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Padua, Italy, Europe, Essential Amino Acids, Cyclic Amino Acids, Proteomics, Histidine, Proteins, Peptides.
Studies Conducted by M. Mohsena et al on Public Health Nutrition Recently Reported [Maternal nutritional status (as measured by height, weight and BMI) in Bangladesh: trends and socio-economic association over the period 1996 to 2007]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Public Health Nutrition have been published. According to news reporting from Dhaka, Bangladesh, by NewsRx journalists, research stated, "To analyse trends in maternal nutritional status in Bangladesh over a 12-year period and to examine the associations between nutritional status and socio-economic variables. Maternal nutritional status indicators were height, weight and BMI."

The news correspondents obtained a quote from the research, "Socio-economic variables used were region, residency, education and occupation of the mothers and their husbands, house type, and possession score in the household. Bangladesh Demographic and Health Surveys (1996, 2000, 2004 and 2007) were the source of data. A total of 16 278 mothers were included. All of the socio-economic variables showed significant associations with maternal nutritional status indicators. Regional variation was found to be present; all three indicators were found to be lowest in the Sylhet division. Upward trends in maternal height, weight and BMI were evident from no possessions to four possessions in households, and for no education to higher education of women and their husbands. Bangladeshi mothers measured in 2007 were found to be on average 0.34 cm taller and 3.36 kg heavier than mothers measured in 1996. Between 1996 and 2007 maternal underweight fell from nearly 50% to just over 30% while overweight and obesity increased from about 3% to over 9% (WHO cut-offs) or from 7% to nearly 18% (Asian cut-offs). The study reveals that over the 12-year period in Bangladesh there has been a substantial reduction in maternal underweight accompanied by a considerable increase in obesity."

According to the news reporters, the research concluded: "It is also evident that malnutrition in Bangladesh is a multidimensional problem that warrants a proper policy mix and programme intervention."


Our news journalists report that additional information may be obtained by contacting M. Mohsena, Ibrahim Med College, Dept. of Community Med, Dhaka, Bangladesh. Additional authors for this research include R. Goto and C.G.N. Mascie-Taylor.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S1368980015002839. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dhaka, Bangladesh, Asia, Public Health
Studies Conducted by M.J. Beinema et al on Algorithms Recently Reported (Optimization of vitamin K antagonist drug dose finding by replacement of the international normalized ratio by a bidirectional factor: validation of a new algorithm)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Algorithms. According to news reporting originating in Deventer, Netherlands, by NewsRx journalists, research stated, "ESSENTIALS: We developed a new algorithm to optimize vitamin K antagonist dose finding. Validation was by comparing actual dosing to algorithm predictions."

The news reporters obtained a quote from the research, "Predicted and actual dosing of well performing centers were highly associated. The method is promising and should be tested in a randomized trial. Oral vitamin K antagonists (VKAs) have a narrow therapeutic window and thus require frequent monitoring of its intensity by the international normalized ratio (INR). Improvement of VKA dosing defined as more time in therapeutic range (TTR) can reduce thrombotic disease and bleeding. Computerized decision support programs (CDSs) are used to optimize VKA dosing, but the effects are heterogeneous. CDSs significantly improve the proportion of time in the therapeutic INR range for initiation therapy but not the quality of anticoagulant management in an outpatient setting. One of the major problems of VKA dose finding is that the INR is a ratio and does not present linearity. We developed a new dose-finding algorithm, based on a novel bidirectional factor (BF). This BF is linear transformation of the nonlinear INR. We compared the outcomes of the new algorithm, called BF-N, with dose finding performed at three highly ranked Dutch anticoagulation centers, using both acenocoumarol and phenprocoumon. The outcomes of the BF-N algorithm showed a linear correlation with VKA doses of the three centers (y=1.001x, r(2) 0.999 for acenocoumarol and y=0.999x, r(2) 0.999 for phenprocoumon), with a standard deviation of 3.83%. The rate of automated dosage proposals increased to 100%. The BF-N algorithm performs well in real-life settings and increases the rate of automated dosage proposals. The algorithm can be easily built into existing CDSs. Experienced staff remains necessary for complicated situations."

According to the news reporters, the research concluded: "The new algorithm needs to be evaluated in a prospective trial."


Our news correspondents report that additional information may be obtained by contacting M.J. Beinema, Thrombosis Centre Deventer Hospital, Deventer, Netherlands. Additional authors for this research include F.J. van der Meer, J.R. Brouwers and F.R Rosendaal.

The direct object identifier (DOI) for that additional information is:
Studies by A. Stengel and Co-Authors Describe New Findings in Genetics and Cancer (The 5q Deletion Size in Myeloid Malignancies Is Correlated to Additional Chromosomal Aberrations and to TP53 Mutations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Genetics - Genetics and Cancer have been presented. According to news originating from Munich, Germany, by NewsRx correspondents, research stated, "Deletions in the long arm of chromosome 5 (del(5q)) are recurrent abnormalities in myeloid malignancies. We analyzed del(5q) and accompanying molecular mutations in MDS, MPN and MDS/MPN cases."

Our news journalists obtained a quote from the research, "A high del(5q) frequency was revealed in MDS (1869/11398 cases; 16%), followed by MDS/MPN (37/1107; 3%) and MPN (97/6373; 2%). To investigate potential associations of the del(5q) size with the respective phenotypes, we applied array CGH analyses in selected cohorts of 61 MDS, 22 MDS/MPN and 23 MPN cases. The size varied between 16 and 119 Mb with no differences between the entities. However, MPN and MDS/MPN cases with del(5q) sole showed a significantly smaller del(5q) than cases with additional aberrations. Sequence analysis of 27 genes revealed >= 1 mutation in 91% of patients. The highest mutation frequencies in the total cohort were observed for TP53 (31%), JAK2 (23%) and DNMT3A (18%). The molecular mutation patterns in the del (5q) cohorts were different between the entities but resembled known patterns of cohorts not selected for del(5q). Further, TP53 mutations were significantly more frequent in cases with a larger deletion size (P=0.003)."

According to the news editors, the research concluded: "The results suggest a correlation of large del(5q) with TP53 mutations and with additional chromosomal aberrations possibly contributing to more severe courses of these cases."

For more information on this research see: The 5q Deletion Size in Myeloid Malignancies Is Correlated to Additional Chromosomal Aberrations and to TP53 Mutations. Genes Chromosomes & Cancer, 2016;55(10):777-785. Genes Chromosomes & Cancer can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from A. Stengel, MLL Munich Leukemia Lab, D-81377 Munich, Germany. Additional authors for this research include W. Kern, T. Haferlach, M. Meggendorfer and C. Haferlach.

Keywords for this news article include: Munich, Germany, Europe, Genetics and Cancer, Genetics.

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Studies by H. Cai and Co-Authors Describe New Findings in Thrombosis and Hemostasis (Usefulness of Flow Cytometric Mepacrine Uptake/Release Combined with CD63 Assay in Diagnosis of Patients with Suspected Platelet Dense Granule Disorder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Thrombosis and Hemostasis. According to news reporting from Nancy, France, by NewsRx journalists, research stated, "Dense granule disorder is one of the most common platelet abnormalities, resulting from dense granule deficiency or secretion defect. This study was aimed to evaluate the clinical usefulness of the flow cytometric combination of mepacrine uptake/release assay and CD63 expression detection in the management of patients with suspected dense granule disorder."

The news correspondents obtained a quote from the research, "Over a period of 5 years, patients with abnormal platelet aggregation and/or reduced adenosine triphosphate (ATP) secretion suggestive of dense granule disorder were consecutively enrolled. The flow cytometric assays were systematically performed to further investigate dense granule functionality. Among the 26 included patients, 18 cases showed impaired mepacrine uptake/release and reduced CD63 expression on activated platelets, consistent with d-storage pool deficiency (SPD). Another seven patients showed decrease in mepacrine release and CD63 expression but mepacrine uptake was normal, indicating secretion defect rather than d-SPD. Unfortunately, ATP secretion could not be measured in 7 out of the 26 patients due to insufficient sample and/or severe thrombocytopenia. This test combination provides a rapid and effective method to detect the heterogeneous abnormalities of platelet dense granule by distinguishing between storage and release defects."

According to the news reporters, the research concluded: "This combination is particularly advantageous for severely thrombocytopenic patients and pediatric patients in which only minimal sample is required."

For more information on this research see: Usefulness of Flow Cytometric Mepacrine Uptake/Release Combined with CD63 Assay in Diagnosis of Patients with Suspected Platelet Dense Granule Disorder. *Seminars In Thrombosis and Hemostasis*, 2016;42(3):282-91. (Thieme - www.thieme.com)

Our news journalists report that additional information may be obtained by contacting H. Cai, Service d'Hematologie Biologique, CHRU Nancy, Nancy, France. Additional authors for this research include F. Mullier, B. Frotscher, M.E. Briquel, M. Toussaint, F. Massin, T. Lecompte and V. Latger-Cannard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0035-1564836. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nancy, France, Europe, Thrombosis and Hemostasis, Cardiovascular Diseases and Conditions.

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Studies by M.J. Kilsdonk and Co-Authors Describe New Findings in Cancer Research (Two decades of external peer review of cancer care in general hospitals; the Dutch experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Research have been published. According to news originating from Utrecht, Netherlands, by NewsRx correspondents, research stated, "External peer review was introduced in general hospitals in the Netherlands in 1994 to assess and improve the multidisciplinary team approach in cancer care. This paper aims to explore the value, perceived impact, and (future) role of external peer review in cancer care."

Our news journalists obtained a quote from the research, "Semistructured interviews were held with clinicians, oncology nurses, and managers from fifteen general hospitals that participated in three rounds of peer review over a period of 16?years. Interviewees reflected on the goals and expectations, experiences, perceived impact, and future role of external peer review. Transcriptions of the interviews were coded to discover recurrent themes. Improving clinical care and organization were the main motives for participation. Positive impact was perceived on multiple aspects of care such as shared responsibilities, internal prioritization of cancer care, improved communication, and a clear structure and position of cancer care within general hospitals. Establishing a direct relationship between the external peer review and organizational or clinical impact proved to be difficult. Criticism was raised on the content of the program being too theoretical and organization-focused after three rounds. According to most stakeholders, external peer review can improve multidisciplinary team work in cancer care; however, the acceptance is threatened by a perceived disbalance between effort and visible clinical impact."

According to the news editors, the research concluded: "Leaner and more clinically focused programs are needed to keep repeated peer reviews challenging and worthwhile."


The news correspondents report that additional information may be obtained from M.J. Kilsdonk, Dept. of Research, Netherlands Comprehensive Cancer Organisation, Utrecht, Netherlands. Additional authors for this research include S. Siesling, R. Otter and W.H van Harten.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.612. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Utrecht, Hospital, Oncology, Netherlands, Cancer Research.

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Studies by T. Chita and Co-Authors Describe New Findings in Diabetes
(Urinary tract infections in Romanian patients with diabetes: prevalence, etiology, and risk factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Diabetes. According to news originating from Timisoara, Romania, by NewsRx correspondents, research stated, "Patients with diabetes mellitus (DM) have an increased risk of infections, especially urinary tract infections (UTIs). The aim of this study was to assess the prevalence and etiology of UTIs and identify the risk factors for their development in patients with DM."

Our news journalists obtained a quote from the research, "In this retrospective, noninterventional study, the medical records of 2,465 adult patients with DM who were hospitalized in a Diabetes Clinic were reviewed. Data regarding the presence of UTI and possible associated risk factors were collected and their possible relation was analyzed. The study protocol and procedures were approved by the Ethics Committee of Timisoara Emergency Hospital. All data were collected and analyzed using SPSS v. 17 statistical software. The prevalence of UTIs in patients with DM was 12.0% (297 cases), being higher in females than in males and higher in patients with type 2 DM compared with patients with type 1 DM. In univariate logistic regression analysis, risk factors associated with UTIs were female gender, age, type 2 DM, longer duration of DM, and the presence of chronic kidney disease and coronary artery disease. Multivariate analysis identified age, duration of DM, and metabolic control (hemoglobin A1c levels) as independent risk factors for UTIs. The gram-negative bacilli from the Enterobacteriaceae family were predominant, with Escherichia coli being the most frequent of them (70.4%). UTIs are a frequent condition associated with DM."

According to the news editors, the research concluded: "It is necessary to improve the care and the screening of UTIs in patients with DM to prevent the occurrence of possible associated severe renal complications."

For more information on this research see: Urinary tract infections in Romanian patients with diabetes: prevalence, etiology, and risk factors. Therapeutics and Clinical Risk Management, 2017;13():1-7. Therapeutics and Clinical Risk Management can be contacted at: Dove Medical Press Ltd, PO Box 300-008, Albany, Auckland 0752, New Zealand.

The news correspondents report that additional information may be obtained from B. Timar, Pius Brinzeu Emergency Hosp, Timisoara, Romania. Additional authors for this research include B. Timar, D. Muntean, L. Baditoiu, F. Horhat, E. Hoga, R. Moldovan, R. Timar and M. Licker.

Keywords for this news article include: Timisoara, Romania, Europe, Risk and Prevention, Diabetes Mellitus, Urinary Tract.

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Drugs and Therapies - Fluoxetine Therapy

Studies by X.Y. Wang and Co-Authors Describe New Findings in Fluoxetine Therapy (Repeated acupuncture treatments modulate amygdala resting state functional connectivity of depressive patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Fluoxetine Therapy have been published. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "As a widely-applied alternative therapy, acupuncture is gaining popularity in Western society. One challenge that remains, however, is incorporating it into mainstream medicine."

Financial support for this research came from South Korean Health Ministry.

The news correspondents obtained a quote from the research, "One solution is to combine acupuncture with other conventional, mainstream treatments. In this study, we investigated the combination effect of acupuncture and the antidepressant fluoxetine, as well as its underlying mechanism using resting state functional connectivity (rsFC) in patients with major depressive disorders. Forty-six female depressed patients were randomized into a verum acupuncture plus fluoxetine or a sham acupuncture plus fluoxetine group for eight weeks. Resting-state fMRI data was collected before the first and last treatments. Results showed that compared with those in the sham acupuncture treatment, verum acupuncture treatment patients showed 1) greater clinical improvement as indicated by Montgomery-Asberg Depression Rating Scale (MADRS) and Self-Rating Depression Scale (SDS) scores; 2) increased rsFC between the left amygdala and subgenual anterior cingulate cortex (sgACC)/pregenual anterior cingulate cortex (pgACC); 3) increased rsFC between the right amygdala and left parahippocampus (Para)/putamen (Pu). The strength of the amygdala-sgACC/pgACC rsFC was positively associated with corresponding clinical improvement (as indicated by a negative correlation with MADRS and SDS scores)."

According to the news reporters, the research concluded: "Our findings demonstrate the additive effect of acupuncture to antidepressant treatment and suggest that this effect may be achieved through the limbic system, especially the amygdala and the ACC."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.07.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Selective Serotonin Reuptake Inhibitors, Fluoxetine Therapy Hydrochloride, Psychotherapeutic Agents, Central Nervous System, Drugs and Therapies, Antidepressants, Pharmaceuticals, Brain Research, Prosencephalon, Limbic System, Telencephalon, Basal...
Studies from A.J. Marti-Carvajal et al Further Understanding of Sickle Cell Anemia (Antibiotics for treating osteomyelitis in people with sickle cell disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematologic Diseases and Conditions - Sickle Cell Anemia is now available. According to news reporting out of Valencia, Venezuela, by NewsRx editors, research stated, "Osteomyelitis (both acute and chronic) is one of the most common infectious complications in people with sickle cell disease. There is no standardized approach to antibiotic therapy and treatment is likely to vary from country to country."

Our news journalists obtained a quote from the research, "Thus, there is a need to identify the efficacy and safety of different antibiotic treatment approaches for people with sickle cell disease suffering from osteomyelitis. This is an update of a previously published Cochrane Review. To determine whether an empirical antibiotic treatment approach (monotherapy or combination therapy) is effective and safe as compared to pathogen-directed antibiotic treatment and whether this effectiveness and safety is dependent on different treatment regimens, age or setting. Search methods We searched The Group's Haemoglobinopathies Trials Register, which comprises references identified from comprehensive electronic database searches and handsearching of relevant journals and abstract books of conference proceedings. We also searched the LILACS database (1982 to 20 October 2016), African Index Medicus (20 October 2016), ISI Web of Knowledge (20 October 2016) and World Health Organization International Clinical Trials Registry Platform (20 October 2016). Date of most recent search of the Cochrane Cystic Fibrosis and Genetic Disorders Group's Haemoglobinopathies Trials Register: 18 August 2016. Selection criteria We searched for published or unpublished randomised and quasi-randomised controlled trials. Data collection and analysis Each author intended to independently extract data and assess trial quality by standard Cochrane methodologies, but no eligible randomised controlled trials were identified. This update was unable to find any randomised or quasi-randomised controlled trials on antibiotic treatment approaches for osteomyelitis in people with sickle cell disease. Authors' conclusions We were unable to identify any relevant trials on the efficacy and safety of the antibiotic treatment approaches for people with sickle cell disease suffering from osteomyelitis."

According to the news editors, the research concluded: "Randomised controlled trials are needed to establish the optimum antibiotic treatment for this condition."

For more information on this research see: Antibiotics for treating osteomyelitis in people with sickle cell disease. Cochrane Database of Systematic Reviews, 2016;(11):2141-2156. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting A.J. Marti-Carvajal, Iberoamer Cochrane Network, Valencia, Venezuela.

Keywords for this news article include: Valencia, Venezuela, South America, Musculoskeletal Diseases and Conditions, Infectious Bone Diseases and Conditions, Drugs
Studies from A.M. Saillenfait and Colleagues Provide New Data on Toxicology and Pharmacology (4-Week repeated dose oral toxicity study of N-ethyl-2-pyrrolidone in Sprague Dawley rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Toxicology and Pharmacology. According to news reporting out of Vandoeuvre les Nancy, France, by NewsRx editors, research stated, "The solvent N-ethyl-2-pyrrolidone (NEP) was evaluated in a 4-week repeated dose study in rats. NEP diluted in distilled water was orally administered by gavage to male and female Sprague-Dawley rats at doses of 0 (vehicle control), 5, 50, and 250 mg/kg/day for 28 consecutive days."

Our news journalists obtained a quote from the research, "Transient decreases in the body weight and in the body weight gain of the males was observed during the first days of treatment at the 50 and 250 mg/kg/day doses. There was a marked increase in urine volume at the beginning of treatment in males and female rats at doses of 50 and 250 mg/kg/day. No biologically significant differences were observed in hematological and clinical chemistry values in males and females at necropsy. Histological examination revealed an increase in hyaline droplets in the renal tubules of the kidneys and hepatocellular centrilobular hypertrophy in the liver of males at 250 mg/kg/day. Cytochrome P450 concentration in liver microsomes was slightly increased at 250 mg/kg/day in males."

According to the news editors, the research concluded: "The results of this study demonstrate that NEP has mild to no effects at doses up to 250 mg/kg/day when administered orally to rats for 28 days with males being more susceptible than females."

For more information on this research see: 4-Week repeated dose oral toxicity study of N-ethyl-2-pyrrolidone in Sprague Dawley rats. Regulatory Toxicology and Pharmacology, 2016;81():275-283. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting A.M. Saillenfait, Inst Natl Rech & Secur, F-54519 Vandoeuvre Les Nancy, France. Additional authors for this research include F. Marquet, J.P. Sabate, D. Ndiaye and A.M. Lambert-Xolin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase. Keywords for this news article include: Vandoeuvre les Nancy, France, Europe, Toxicology and Pharmacology, Drugs and Therapies.

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Studies from A.P. Canton and Colleagues Yield New Information about Anterior Pituitary Hormones (Good response to long-term therapy with growth hormone in a patient with 9p trisomy syndrome: A case report and review of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hormones - Anterior Pituitary Hormones are discussed in a new report. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "The 9p trisomy syndrome is a rare condition, clinically characterized by a wide range of dysmorphic features, intellectual disability, and, in most patients, by short stature. Recombinant human growth hormone (rhGH) therapy is still controversial in syndromic disorders, the reason for which it is not currently indicated."

Funders for this research include Sao Paulo Research Foundation (FAPESP), National Council for Scientific and Technological Development (CNPq).

Our news journalists obtained a quote from the research, "Here we report a 7-year-old boy with 9p trisomy syndrome and marked short stature. Results of routine laboratory assessments were normal. IGF1 and IGFBP3 levels were both in the normal range (-1.6 and -0.7 SDS, respectively). GH peak in response to oral clonidine stimulation test was 3.5 mg/L, which is considered a normal response. Chromosomal analysis revealed the karyotype 47,XY, + del(9)(pter-q11:) dn. SNP array data indicated absence of mosaicism [arr 9p24.3-p13.1 (203,861-38,787,480) x3]. By the age of 8.3 years, the patient had persistent short stature (-2.9 SDS) with normal growth velocity (4.9 cm/y; -0.7 SDS), not showing spontaneous catch-up. After 5.6 years of rhGH therapy (50 mg/kg/d), height SDS improved from -2.9 to -1.0. This result suggests that rhGH therapy could be considered for patients with 9p trisomy syndrome who present with short stature. The degree of intellectual disability and the potential for social inclusion should be taken into account when recommending this treatment."

According to the news editors, the research concluded: "Additional studies are needed to establish the benefits of height gain in these patients."


The news correspondents report that additional information may be obtained from A.P. Canton, Unidade de Endocrinologia Genetica, Laboratorio de Endocrinologia Celular e Molecular LIM, 25, Disciplina de Endocrinologia da Faculdade de Medicina da Universidade de Sao Paulo, Sao Paulo, Brazil. Additional authors for this research include M.Y. Nishi, T.K. Furuya, R.A. Roela and A.A Jorge.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37521. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Therapy, Genetics, Sao Paulo, South
Studies from A.V. Ivachtchenko and Co-Researchers Yield New Data on Alzheimer Disease (AVN-211, Novel and Highly Selective 5-HT6 Receptor Small Molecule Antagonist, for the Treatment of Alzheimer's Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news reporting originating in Hallandale Beach, Florida, by NewsRx journalists, research stated, "Within the past decade several novel targets have been indicated as key players in Alzheimer-type dementia and associated conditions, including a 'frightening' memory loss as well as severe cognitive impairments. These proteins are deeply implicated in crucial cell processes, e.g., autophagy, growth and progression, apoptosis, and metabolic equilibrium."

The news reporters obtained a quote from the research, "Since recently, 5-HT6R has been considered as one of the most prominent biological targets in AD drug therapy. Therefore, we investigated the potential procognitive and neuroprotective effects of our novel selective 5-HT6R antagonist, AVN-211. During an extensive preclinical evaluation the lead compound demonstrated a relatively high therapeutic potential and improved selectivity toward 5-HT6R as compared to reference drug candidates. It was thoroughly examined in different in vivo behavioral models directly related to AD and showed evident improvements in cognition and learning. In many cases, the observed effect was considerably greater than that determined for the reported drugs and drug candidates, including memantine, SB-742457, and Lu AE58054, evaluated under the same conditions. In addition, AVN-211 showed a similar or better anxiolytic efficacy than fenobam, rufinamide, lorazepam, and buspirone in an elevated plus-maze model, elevated platform, and open field tests. The compound demonstrated low toxicity and no side effects in vivo, an appropriate pharmacokinetic profile, and stability."

According to the news reporters, the research concluded: "AVN-211 significantly delayed or partially halted the progressive decline in memory function associated with AD, which makes it an interesting drug candidate for the treatment of neurodegenerative and psychiatric disorders. Advanced clinical trials are currently under active discussion and in high priority."

For more information on this research see: AVN-211, Novel and Highly Selective 5-HT6 Receptor Small Molecule Antagonist, for the Treatment of Alzheimer's Disease. Molecular Pharmaceutics, 2016;13(3):945-63. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

Our news correspondents report that additional information may be obtained by contacting A.V. Ivachtchenko, Alla Chem LLC, 1835 East Hallandale Beach Boulevard, #442, Hallandale Beach, Florida 33009, United States. Additional authors for this research include Y. Lavrovsky and Y.A Ivanenkov.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00830. This DOI is a link to an online
Studies from ATTIKON University Hospital Add New Findings in the Area of Bone Disease (Modern Palliative Treatments for Metastatic Bone Disease: Awareness of Advantages, Disadvantages, and Guidance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Bone Disease is the subject of a report. According to news reporting originating from Bologna, Italy, by NewsRx correspondents, research stated, "Metastatic disease is the most common malignancy of the bone. Prostate, breast, lung, kidney, and thyroid cancer account for 80% of skeletal metastases."

Our news editors obtained a quote from the research from ATTIKON University Hospital, "Bone metastases are associated with significant skeletal morbidity including severe bone pain, pathologic fractures, spinal cord or nerve roots compression, and malignant hypercalcemia. These events compromise greatly the quality of life of the patients. The treatment of cancer patients with bone metastases is mostly aimed at palliation. This article aims to present these palliative treatments for the patients with bone metastases, summarize the clinical applications, and review the techniques and results. It gives an extensive overview of the possibilities of palliation in patients with metastatic cancer to the bone. Currently, modern treatments are available for the palliative management of patients with metastatic bone disease. These include modern radiation therapy, chemotheraphy, embolization, electrochemotherapy, radiofrequency ablation, and high-intensity focused ultrasound."

According to the news editors, the research concluded: "As such it is of interest for all physicians with no experience with these developments to make palliative procedures safer and more reliable."


The news editors report that additional information may be obtained by contacting A.F. Mavrogenis, *First Dept. of Orthopaedics, ATTIKON University Hospital, Athens University Medical School, Athens, Greece†Dept. of Orthopaedics, University of Bologna, Istituto Ortopedico Rizzoli, Bologna, Italy. Additional authors for this research include A. Angelini, C. Vottis, E. Pala, T. Calabro, P.J. Papagelopoulos and P. Ruggieri.

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Keywords for this news article include: Italy, Europe, Cancer, Bologna, Oncology, Bone Research, Article Review, Bone Diseases and Conditions, Musculoskeletal Diseases and
Studies from Aarhus University Add New Findings in the Area of Clinical Trials and Studies [Anesthetic strategy during endovascular therapy: General anesthesia or conscious sedation? (GOLIATH - General or Local Anesthesia in Intra Arterial ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news reporting originating in Aarhus, Denmark, by NewsRx journalists, research stated, "Endovascular therapy after acute ischemic stroke due to large vessel occlusion is now standard of care. There is equipoise as to what kind of anesthesia patients should receive during the procedure."

The news reporters obtained a quote from the research from Aarhus University, "Observational studies suggest that general anesthesia is associated with worse outcomes compared to conscious sedation. However, the findings may have been biased. Randomized clinical trials are needed to determine whether the choice of anesthesia may influence outcome. Aim and hypothesis: The objective of GOLIATH (General or Local Anesthesia in Intra Arterial Therapy) is to examine whether the choice of anesthetic regime during endovascular therapy for acute ischemic stroke influence patient outcome. Our hypothesis is that that conscious sedation is associated with less infarct growth and better functional outcome. GOLIATH is an investigator-initiated, single-center, randomized study. Patients with acute ischemic stroke, scheduled for endovascular therapy, are randomized to receive either general anesthesia or conscious sedation. Study outcomes: The primary outcome measure is infarct growth after 48-72 h (determined by serial diffusion-weighted magnetic resonance imaging). Secondary outcomes include 90-day modified Rankin Scale score, time parameters, blood pressure variables, use of vasopressors, procedural and anesthetic complications, success of revascularization, radiation dose, and amount of contrast media. Choice of anesthesia may influence outcome in acute ischemic stroke patients undergoing endovascular therapy. The results from this study may guide future decisions regarding the optimal anesthetic regime for endovascular therapy."

According to the news reporters, the research concluded: "In addition, this study may provide preliminary data for a multicenter randomized trial."


Our news correspondents report that additional information may be obtained by contacting C.Z. Simonsen, Aarhus University, Dept. of Neurol, Aarhus, Denmark. Additional authors for this research include L.H. Sorensen, N. Juul, S.P. Johnsen, A.J. Yoo, G. Andersen and M. Rasmussen.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1747493016660103. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aarhus, Denmark, Europe, Central Nervous System Depressants, Clinical Trials and Studies, Endovascular Therapy, Drugs and Therapies, Clinical Research, Local Anesthesia, Pain Medicine, Anesthetics, Angiology, Aarhus University.

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Oncology - Invasive Carcinoma

Studies from Aarhus University Add New Findings in the Area of Invasive Carcinoma (Co-expression of p16 and p53 characterizes aggressive subtypes of ductal intraepithelial neoplasia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Invasive Carcinoma have been presented. According to news reporting out of Aarhus, Denmark, by NewsRx editors, research stated, "In the USA alone, approximately 61,000 new diagnoses of ductal intraepithelial neoplasia 1c-3 (DIN) are made each year. Around 10-20 % of the patients develop a recurrence, about 50 % of which are invasive."

Our news journalists obtained a quote from the research from Aarhus University, "Prior studies have shown that invasive breast carcinomas positive for p16 or p53 have a higher frequency of recurrence and a more aggressive course; however, the co-expression of these markers across the entire spectrum of DIN and its potential correlation with grade of the lesions has not been studied previously. Immunohistochemical staining for p16 and p53 was evaluated on 262 DIN lesions from 211 cases diagnosed between 1991 and 2008. The lesions ranged from DIN1b (atypical intraductal hyperplasia) to DIN3 (DCIS, grade 3) and included 45 cases with associated invasive carcinoma. Frequency of staining for both p16 and p53 increased with increasing grade of DIN. Strong co-expression was found exclusively in higher grade DIN lesions (DIN2 and DIN3) particularly those associated with periductal stromal fibrosis and lymphocytic infiltrate. Strong co-expression was seen in 8 of 12 DIN3 lesions (67 %) associated with invasive carcinoma."

According to the news editors, the research concluded: "Co-expression of p16 and p53 increases with advancing grade of DIN and is maximal in high grade DIN lesions associated with invasive carcinoma, indicating a more aggressive phenotype. A distinctive variant of DIN with periductal fibrosis and lymphocytic infiltrate invariably falls into the high-grade category, based on either morphology or marker expression. Co-expression of p16/p53 may be of help in distinguishing between high-grade and low-grade DIN lesions."


Our news journalists report that additional information may be obtained by contacting T. Tramm, Aarhus University, Dept. of Pathol, DK-8000 Aarhus C, Denmark.
Studies from Aarhus University in the Area of Cardiology Reported (Risk Associated With Surgery Within 12 Months After Coronary Drug-Eluting Stent Implantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiology are discussed in a new report. According to news reporting originating from Aarhus, Denmark, by NewsRx correspondents, research stated, "Guidelines recommend postponing surgery for at least 6 months after treatment with a drug-eluting stent by percutaneous coronary intervention (DES-PCI). The goal of this study was to evaluate the surgical risk associated with DES-PCI compared with that in nonstented patients without ischemic heart disease (IHD)."

Our news editors obtained a quote from the research from Aarhus University, "Between 2005 and 2012, a total of 22,590 patients underwent DES-PCI in western Denmark. By record-linking the Western Denmark Heart Registry and the Danish National Patient Register, we evaluated 4,303 DES-PCI-treated patients with a surgical procedure and compared them with a control group of patients without previous IHD undergoing similar surgical procedures (n = 20,232). Events of interest were myocardial infarction (MI), cardiac death, and all-cause mortality within 30 days after surgery. Surgery in DES-PCI-treated patients was associated with an increased risk of MI (1.6% vs. 0.2%; odds ratio [OR]: 4.82; 95% confidence interval [CI]: 3.25 to 7.16) and cardiac death (1.0% vs. 0.2%; OR: 5.87; 95% CI: 3.60 to 9.58) but not all-cause mortality (3.1% vs. 2.7%; OR: 1.12; 95% CI: 0.91 to 1.38). When stratified for time from PCI to surgery, only surgery within the first month was associated with a significant increased risk of events. Patients requiring surgery within 12 months after DES-PCI had an increased risk of MI and cardiac death compared with patients without IHD."

According to the news editors, the research concluded: "The increased risk was only present within the first month after DES-PCI, suggesting that surgery might be undertaken earlier than currently recommended."


The news editors report that additional information may be obtained by contacting G. Egholm, Aarhus University, Dept. of Clin Epidemiol, Aarhus, Denmark. Additional authors for this research include S.D. Kristensen, T. Thim, K.K.W. Olesen, M. Madsen, S.E. Jensen, L.O. Jensen, H.T. Sorensen, H.E. Botker and M. Maeng.
Studies from Actel Pharmaceuticals Yield New Information about Epilepsy (Structure-Activity Relationship, Drug Metabolism and Pharmacokinetics Properties Optimization, and in Vivo Studies of New Brain Penetrant Triple T-Type Calcium Channel ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Epilepsy have been published. According to news reporting originating in Allschwil, Switzerland, by NewsRx journalists, research stated, "Despite the availability of numerous antiepileptic drugs, 20-30% of epileptic patients are pharmacoresistant with seizures not appropriately controlled. Consequently, new strategies to address this unmet medical need are required."

The news reporters obtained a quote from the research from Actel Pharmaceuticals, "T-type calcium channels play a key role in neuronal excitability and burst firing, and selective triple T-type calcium channel blockers could offer a new way to treat various CNS disorders, in particular epilepsy. Herein we describe the identification of new 1,4-benzodiazepines as brain penetrant and selective T-type calcium channel blockers. From racemic hit 4, optimization work led to the preparation of pyridodiazepine 31c with improved physicochemical properties, solubility, and metabolic stability."

According to the news reporters, the research concluded: "The racemic mixture was separated by chiral preparative HPLC, and the resulting lead compound (3R,5S)-31c showed promising efficacy in the WAG/Rij-rat model of generalized nonconvulsive absence-like epilepsy."


Our news correspondents report that additional information may be obtained by contacting O. Bezencon, Actel Pharmaceut Ltd, Drug Discovery Chem Biol & Pharmacol, CH-4123 Allschwil, Switzerland. Additional authors for this research include D. Pozzi, G. Jacob, C. Torrisi, K. Colas, B. Braibant, J. Mawet, T. Pfeifer, R. de Kanter, C. Roch, M. Kessler, O. Corminboeuf and O. Bezencon.

Keywords for this news article include: Allschwil, Switzerland, Europe, Central Nervous System Diseases and Conditions, Pharmaceuticals, Drugs and Therapies, Brain Diseases and Conditions, Membrane Transport Proteins, T-Type Calcium Channels, Membrane Glycoproteins, Membrane Proteins, Pharmacokinetics, Carrier Proteins, Ion Channels, Epilepsy, Actel Pharmaceuticals.

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Studies from Agency for Science, Technology and Research Further Understanding of Proinsulin (Brefeldin A-inhibited guanine nucleotide exchange protein 3 is localized in lysosomes and regulates GABA signaling in hippocampal neurons)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Peptide Proteins - Proinsulin are presented in a new report. According to news reporting from Singapore, Singapore, by NewsRx journalists, research stated, "ADP-ribosylation factor (ARF) family of guanine-nucleotide-binding (G) proteins regulates organelle biogenesis, structure and trafficking. The functions of ARF proteins are tightly controlled by guanine nucleotide exchange factors (GEFs) containing a conserved SEC7 domain."

Financial support for this research came from Agency for Science, Technology and Research.

The news correspondents obtained a quote from the research from Agency for Science, Technology and Research, "Based on sequence similarity to brefeldin A-inhibited guanine nucleotide exchange protein (BIG)/GBF of the Arf-GEF family, we recently identified BIG3 as a novel ARF GEF protein with a non-functional catalytic motif in the SEC7 domain. BIG3 is mainly expressed in pancreatic islets and brain. In the islets, depletion of BIG3 increases insulin and glucagon secretion because of enhanced biogenesis of insulin and glucagon granules in the absence of BIG3. Here, we investigate BIG3 functions in the brain, in particular its regulation of neurotransmitter release in hippocampal neurons from wild-type and BIG3 knockout mice. In hippocampal neurons, BIG3 is mainly localized in lysosomes, and its depletion selectively impairs inhibitory synaptic transmission."

According to the news reporters, the research concluded: "Our finding provides novel insights for a cell-specific function of BIG3 in regulating neurotransmission."


Our news journalists report that additional information may be obtained by contacting W.P. Han, ASTAR, Singapore Bioimaging Consortium, Singapore, Singapore. Additional authors for this research include H.Y. Li, W.J. Hong and W.P. Han.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jnc.13859. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Singapore, Singapore, Asia, Cytoplasmic Structures, Cytoplasmic Vesicles, Intracellular Space, Peptide Proteins, Peptide Hormones, Brefeldin A, Macrolides, Proinsulin, Lysosomes, Glucagon, Neurons, Cells, Agency for Science, Technology and Research.
Studies from Ajou University Reveal New Findings on Diabetes (Statins and risk for new-onset diabetes mellitus A real-world cohort study using a clinical research database)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Diabetes have been published. According to news originating from Suwon, South Korea, by NewsRx correspondents, research stated, "Although concern regarding the increased risk for new-onset diabetes mellitus (NODM) after statin treatment has been raised, there has been a lack of evidence in real-world clinical practice, particularly in East Asians. We investigated whether statin use is associated with risk for NODM in Koreans."

Our news journalists obtained a quote from the research from Ajou University, "We conducted a retrospective cohort study using the clinical research database from electronic health records. The study cohort consisted of 8265 statin-exposed and 33,060 matched nonexposed patients between January 1996 and August 2013. Matching at a 1:4 ratio was performed using a propensity score based on age, gender, baseline glucose levels (mg/dL), and hypertension. The comparative risks for NODM with various statins (atorvastatin, fluvastatin, pitavastatin, pravastatin, rosuvastatin, and simvastatin) were estimated by both statin exposure versus matched nonexposed and within-class comparisons. The incidence of NODM among the statin-exposed group (6.000 per 1000 patient-years [PY]) was higher than that of the nonexposed group (3.244 per 1000 PY). The hazard ratio (HR) of NODM after statin exposure was 1.872 (95% confidence interval [CI], 1.432-2.445). Male gender (HR, 1.944; 95% CI, 1.497-2.523), baseline glucose per mg/dL (HR, 1.014; 95% CI, 1.013-1.016), hypertension (HR, 2.232; 95% CI, 1.515-3.288), and thiazide use (HR, 1.337; 95% CI, 1.081-1.655) showed an increased risk for NODM, while angiotensin-converting enzyme inhibitor or angiotensin II receptor blocker showed a decreased risk (HR, 0.774; 95% CI, 0.668-0.897). Atorvastatin-exposed patients showed a higher risk for NODM than their matched nonexposed counterparts (HR, 1.939; 95% CI, 1.278-2.943). However, the risk for NODM was not significantly different among statins in within-class comparisons."

According to the news editors, the research concluded: "An increased risk for NODM was observed among statin users in a practical healthcare setting in Korea."

For more information on this research see: Statins and risk for new-onset diabetes mellitus A real-world cohort study using a clinical research database. Medicine, 2016;95 (46):363-369. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from R.W. Park, Ajou University, Sch Med, Dept. of Biomed Informat, Suwon 16499, South Korea. Additional authors for this research include S.S. Sheen, S. Lee, Y.J. Choi, R.W. Park and H.S. Lim.

Keywords for this news article include: Suwon, South Korea, Asia, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Cardiovascular Diseases and Conditions, Glucose Metabolism Disorders, Angiology,
Apoptosis

Studies from Albert-Ludwigs-University Update Current Data on Apoptosis (The clerodane diterpene casearin J induces apoptosis of T-ALL cells through SERCA inhibition, oxidative stress, and interference with Notch1 signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Apoptosis have been published. According to news originating from Freiburg, Germany, by NewsRx correspondents, research stated, "T-cell acute lymphoblastic leukemia (T-ALL) is an aggressive hematologic malignancy that preferentially affects children and adolescents. Over 50% of human T-ALLs possess activating mutations of Notch1."

Our news journalists obtained a quote from the research from Albert-Ludwigs-University, "The clerodane diterpene casearin J (CJ) is a natural product that inhibits the sarcoendoplasmatic reticulum calcium ATPase (SERCA) pump and induces cell death in leukemia cells, but the molecular mechanism of cytotoxicity remains poorly understood. Here we show that owing to SERCA pump inhibition, CJ induces depletion of the endoplasmic reticulum calcium pools, oxidative stress, and apoptosis via the intrinsic signaling pathway. Moreover, Notch1 signaling is reduced in T-ALL cells with auto-activating mutations in the HD-domain of Notch1, but not in cells that do not depend on Notch1 signaling. CJ also provoked a slight activation of NF-kB, and consistent with this notion a combined treatment of CJ and the NF-kB inhibitor parthenolide (Pt) led to a remarkable synergistic cell death in T-ALL cells."

According to the news editors, the research concluded: "Altogether, our data support the concept that inhibition of the SERCA pump may be a novel strategy for the treatment of T-ALL with HD-domain-mutant Notch1 receptors and that additional treatment with the NF-kB inhibitor parthenolide may have further therapeutic benefits."

For more information on this research see: The clerodane diterpene casearin J induces apoptosis of T-ALL cells through SERCA inhibition, oxidative stress, and interference with Notch1 signaling. Cell Death & Disease, 2016;7():e2070. (Nature Publishing Group - www.nature.com/cddis/)

The news correspondents report that additional information may be obtained from C. De Ford, Dept. of Pharmaceutical Biology and Biotechnology, Albert Ludwigs University Freiburg, Freiburg, Germany. Additional authors for this research include B. Heidersdorf, F. Haun, R. Murillo, T. Friedrich, C. Borner and I. Merfort.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2015.413. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Freiburg, Genetics, Apoptosis, Clerodane Diterpenes.

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Autosomal-Recessive Disease

Studies from Alfaisal University Yield New Data on Autosomal-Recessive Disease (Clinical genomics can facilitate countrywide estimation of autosomal recessive disease burden)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Autosomal-Recessive Disease is the subject of a report. According to news reporting out of Riyadh, Saudi Arabia, by NewsRx editors, research stated, "Most autosomal recessive diseases are rare, but they collectively account for a substantial proportion of disease burden, especially in consanguineous populations. Estimation of this disease burden, however, is hampered by many factors, including lack of countrywide registries."

Our news journalists obtained a quote from the research from Alfaisal University, "Establishing carrier frequency can be a practical surrogate to estimate disease burden, although the requirement of a large representative cohort may be challenging. We propose that the application of clinical genomics in the diagnostic setting offers a unique opportunity to estimate carrier frequency in the population as a secondary benefit. We used a data set of similar to 7,100 patients who underwent genomic testing for various Mendelian disorders to estimate the carrier frequency. We were able to calculate the frequency of 259 confirmed founder recessive mutations. We found the corresponding disease burden to be, at minimum, similar to 7 per 1,000 children born to first-cousin parents, with disorders related to intellectual disability and vision impairment being the most common."

According to the news editors, the research concluded: "Our approach can be utilized to inform the design of new policies for the prevention of genetic disorders and highlights an important secondary benefit of clinical genomics."

For more information on this research see: Clinical genomics can facilitate countrywide estimation of autosomal recessive disease burden. Genetics in Medicine, 2016;18 (12):1244-1249. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gim.2016.37. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Riyadh, Saudi Arabia, Asia, Autosomal-Recessive Disease, Genetics, Alfaisal University.

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Studies from All India Institute of Medical Sciences Have Provided New Information about Myelodysplastic Syndromes (Value of Quantitative assessment of Myeloid Nuclear Differentiation Antigen expression and other flow cytometric parameters in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematologic Diseases and Conditions - Myelodysplastic Syndromes are discussed in a new report. According to news originating from New Delhi, India, by NewsRx correspondents, research stated, "The diagnosis of myelodysplastic syndrome (MDS) based on morphology is particularly difficult in low-grade MDS. Thus, the role of myeloid nuclear differentiation antigen (MNDA) and other flow cytometric (FCM) parameters in MDS was evaluated."

Financial support for this research came from Hematology Education Research Society.

Our news journalists obtained a quote from the research from the All India Institute of Medical Sciences, "Bone marrow aspirates (BMA) collected from 52 patients with unexplained persistent cytopenias were divided into three groups: (i) proven MDS (n=12) based on morphology and/or cytogenetics; (ii) suspected MDS (n=6), noncontributory morphology, and cytogenetics; and (iii) non-MDS (n=34). Sixteen control BMA were studied. Cases were analyzed for MNDA expression (on granulocytes, blasts, monocytes, and lymphocytes) and for seven quantitative parameters: CD34(+) myeloblasts % in nucleated cells, CD34(+) B-cell progenitor% in CD34(+) cells, lymphocyte/myeloblast CD45 MFI ratio, granulocyte/lymphocyte SSC peak channel ratio and the proportion of CD34(+) myeloblasts expressing CD15, CD11b, and CD56. A score of 1 was given to each parameter beyond the cutoff, and score (>=3) was considered FCM positive. MNDA expression on granulocytes and blasts was significantly lower in proven MDS and suspected MDS vs. non-MDS. Quantitative FCM parameters successfully distinguished MDS and suspected MDS from non-MDS."

According to the news editors, the research concluded: "MNDA expression is an independent marker for the evaluation of dyspoiesis and may be added to the standard panel for quantitative assessment by FCM."


The news correspondents report that additional information may be obtained from V. Somasundaram, Dept. of Haematology, IRCH, All India Institute of Medical Sciences, New Delhi, India. Additional authors for this research include S. Soni, A. Chopra, S. Rai, M. Mahapatra, R. Kumar and H. Pati.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12458. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher’s contact information for the International Journal of Laboratory
Studies from Angers University Hospital Provide New Data on Cardiovascular Research (Effects of plantar stimulation on cardiovascular response to orthostatism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Research have been presented. According to news reporting originating from Angers, France, by NewsRx correspondents, research stated, "Walking is a complex locomotor process that involves both spinal cord reflexes and cortical integration of peripheral nerve input. Maintaining an upright body position requires not only neuromuscular activity but also cardiovascular regulation."

Funders for this research include CNES, MEDES.

Our news editors obtained a quote from the research from Angers University Hospital, "We postulated that plantar mechanical stimulation might modulate autonomic nervous system activity and, thereby, impact blood pressure adaptation during standing. Twelve healthy subjects underwent three randomly ordered 45-min 70A degrees-saddle tilt tests while the plantar surfaces of the feet were stimulated using specially engineered Korvit boots in the following modes: (1) no stimulation, (2) disrupted stimulation, and (3) walking mode. Orthostatic tolerance time was measured for each trial. During testing, we obtained an electrocardiogram and measured blood pressure, skin blood flow, and popliteal vein cross-sectional area. We estimated central hemodynamics, baroreflex sensitivity and heart rate variability. Orthostatic tolerance time was not found to differ significantly between test conditions (37.2 +/- 10.4, 40.9 +/- 7.6, and 41.8 +/- 8.2 min, for no stimulation, disrupted stimulation, and walking mode, respectively). No significant differences between treatment groups were observed for stroke volume or cardiac baroreflex sensitivity, both of which decreased significantly from baseline during tilt testing in all groups. Cardiac sympathetic index and popliteal vein cross-sectional area increased at the end of the tilt period in all groups, without significant differences between treatments."

According to the news editors, the research concluded: "Plantar mechanical stimulation is insufficient for immediate modulation of cardiac sympathetic and parasympathetic activity under orthostatic stress."


The news editors report that additional information may be obtained by contacting M.A. Custaud, Angers Univ Hosp, Clin Res Center, Angers, France. Additional authors for this
Oncology - Cancer Care

Studies from Ankara University Describe New Findings in Cancer Care (Severe drug interactions and potentially inappropriate medication usage in elderly cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cancer Care. According to news reporting from Ankara, Turkey, by NewsRx journalists, research stated, "Due to more comorbidities, polypharmacy is common in elderly patients and drug interactions are inevitable. It is also challenging to treat an elderly patient with a diagnosis of cancer."

The news correspondents obtained a quote from the research from Ankara University, "Prevalence and clinical impacts of drug interactions and using potentially inappropriate medications (PIMs) have been studied in geriatric patients. However, these are not well defined in oncology practice. The purpose of this study is to define the prevalence of PIMs and severe drug interactions (SDIs) in elderly cancer patients and investigate the factors associated with them. Patients more than 65 years of age in both inpatient and outpatient clinics were evaluated. disease characteristics, and medications used were collected by self reports and medical records. Drug interactions were checked with Lexicomp® and PIM was defined with 2012 update of Beers criteria. Severe drug interactions are defined with category D or X DIs. Logistic regression was used to compute odds ratios (ORs) and 95% confidence intervals (CIs) for the association between SDIs, PIMs, and clinical parameters. Four hundred and forty-five elderly patients (286 outpatient, 159 inpatient), with a median age of 70 (65-89) were evaluated. SDIs were present in 156 (35.1 %) of patients, 81 (28.3 %), and 75 (47.2 %) for outpatient and inpatients, respectively (p < 0.001). PIMs were present in 117 (26.6 %) of the patients, 40 (14.2 %), and 77(48.4 %) for outpatient and inpatients, respectively (p < 0.001). In multivariate analysis; polypharmacy (ae <yen> 5 drugs), inpatient status and diagnosis of lung cancer were associated with severe DIs. Polypharmacy, inpatient status, and bad performance score (ECOG 3-4) were associated with PIMs. Nearly one third of the elderly cancer patients are exposed to severe drug interactions and PIMs. Clinicians dealing with elderly cancer patients should be more cautious when prescribing/planning drugs to this group of patients."

According to the news reporters, the research concluded: "More strategies should be developed in this group of patients to minimize the medications prescribed and prevent severe DIs."

For more information on this research see: Severe drug interactions and potentially inappropriate medication usage in elderly cancer patients. Supportive Care in Cancer, 2017;25
Kidney Diseases and Conditions - Nephrocalcinosis

Studies from Aristotle University Reveal New Findings on Nephrocalcinosis (Nephrocalcinosis and Renal Failure in Lesch-Nyhan Syndrome: Report of Two Familial Cases and Review of the Literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Kidney Diseases and Conditions - Nephrocalcinosis are discussed in a new report. According to news originating from Thessaloniki, Greece, by NewsRx correspondents, research stated, "Lesch-Nyhan syndrome is an X-linked recessive inborn error of purine metabolism, due to deficiency of the enzyme HPRT (hypoxanthine-guanine phosphoribosyl transferase) and underlying HPRT gene mutations (over 300 mutations identified up to date)."

Our news journalists obtained a quote from the research from Aristotle University, "It is characterized by a wide range of neurological symptoms and signs (mainly a combination of spastic diplegia with choreoathetosis and an overall psychomotor retardation)."

According to the news editors, the research concluded: "Herein, we report of two cousins with Lesch-Nyhan syndrome and a confirmed novel HPRT gene mutation: c. 65T >C, who both developed nephrocalcinosis and renal failure, findings not been previously published in children with HPRT deficiency."


The news correspondents report that additional information may be obtained from D.I. Zafeiriou, Aristotle University, Sch Med, Dept. of Pediat 1, Thessaloniki 54622, Greece. Additional authors for this research include N. Printza, E. Papadimiditriou, S. Batzios, M. Kyriazi, F. Papachristou and D.I. Zafeiriou.

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Keywords for this news article include: Thessaloniki, Greece, Europe, Nutritional and Metabolic Diseases and Conditions, Kidney Diseases and Conditions, Calcium Metabolism Disorders, Kidney, Article Review, Lesch-Nyhan Syndrome, Nephrocalcinosis, Nephrology, Genetics, Aristotle University.

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Genetics

Studies from Asia University Update Current Data on Genetics (TRAF6 Restricts p53 Mitochondrial Translocation, Apoptosis, and Tumor Suppression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Genetics are discussed in a new report. According to news reporting originating from Taichung, Taiwan, by NewsRx correspondents, research stated, "Mitochondrial p53 is involved in apoptosis and tumor suppression. However, its regulation is not well studied."

Financial supporters for this research include Wake Forest School of Medicine, Endowed Professorship Fund, National Institutes of Health, Ministry of Health and Welfare.

Our news editors obtained a quote from the research from Asia University, "Here, we show that TRAF6 E3 ligase is a crucial factor to restrict mitochondrial translocation of p53 and spontaneous apoptosis by promoting K63-linked ubiquitination of p53 at K24 in cytosol, and such ubiquitination limits the interaction between p53 and MCL-1/BAK. Genotoxic stress reduces this ubiquitination in cytosol by S13/T330 phosphorylation-dependent translocation of TRAF6 from cytosol to nucleus, where TRAF6 also facilitates the K63-linked ubiquitination of nuclear p53 and its transactivation by recruiting p300 for p53 acetylation. Functionally, K63-linked ubiquitination of p53 compromised p53-mediated apoptosis and tumor suppression. Colorectal cancer samples with WT p53 reveal that TRAF6 overexpression negatively correlates with apoptosis and predicts poor response to chemotherapy and radiotherapy."

According to the news editors, the research concluded: "Together, our study identifies TRAF6 as a critical gatekeeper to restrict p53 mitochondrial translocation, and such mechanism may contribute to tumor development and drug resistance."


The news editors report that additional information may be obtained by contacting H.K. Lin, Asia Univ, Dept. of Biotechnol, Taichung 41354, Taiwan. Additional authors for this research include C.F. Li, L. Zhang, C.Y. Wu, L.X. Han, G.X. Jin, A.H. Rezaeian, F. Han, C.F. Liu, C. Xu, X.H. Xu, C.Y. Huang, F.J. Tsai, C.H. Tsai, K. Watabe and H.K. Lin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.10.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taichung, Taiwan, Asia, Tumor Suppression, Ubiquitins, Apoptosis, Oncology, Proteins, Genetics, p53 Gene, Asia
Our news journalists obtained a quote from the research from AstraZeneca, "P2Y12 receptor antagonists, thienopyridines and ticagrelor, differ in their mode of action being prodrugs instead of direct acting and irreversibly instead of reversibly binding to P2Y12. These key differences may provide different potential when it comes to additional effects. In addition to P2Y12 receptor blockade, ticagrelor is unique in having the only well-documented additional target of inhibition, the equilibrative nucleoside transporter 1. The current review will address the effects of P2Y12 receptor antagonists beyond platelets and the protection against arterial thrombosis."

According to the news editors, the research concluded: "The discussion will include the potential for thienopyridines and ticagrelor to mediate anti-inflammatory effects, to conserve vascular function, to affect atherosclerosis, to provide cardioprotection and to induce dyspnea."


Our news journalists report that additional information may be obtained by contacting S. Nylander, AstraZeneca R&D, Molndal, Sweden.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13429. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the British Journal of Pharmacology is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Sweden, Europe, Molndal, Pharmacology, Article Review, Drugs and Therapies.

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Pulmonary Vascular Resistance

Studies from Atlantic Health System Yield New Data on Pulmonary Vascular Resistance (Pulmonary Artery Acceleration Time Provides a Reliable Estimate of Invasive Pulmonary Hemodynamics in Children)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pulmonary Vascular Resistance have been published. According to news originating from Morristown, New Jersey, by NewsRx correspondents, research stated, "Pulmonary artery acceleration time (PAAT) is a noninvasive method to assess pulmonary hemodynamics, but it lacks validity in children. The aim of this study was to evaluate the accuracy of Doppler echocardiography-derived PAAT in predicting right heart catheterization (RHC)-derived pulmonary artery pressure (PAP), pulmonary vascular resistance (PVR), and compliance in children."

Our news journalists obtained a quote from the research from Atlantic Health System, "Prospectively acquired and retrospectively measured Doppler echocardiography-derived PAAT and RHC-derived systolic PAP, mean PAP (mPAP), indexed PVR (PVRi), and compliance were compared using regression analysis in a derivation cohort of 75 children (median age, 5.3 years; interquartile range, 1.3-12.6 years) with wide ranges of pulmonary hemodynamics. To account for heart rate variability, PAAT was adjusted for right ventricular ejection time and corrected by the RR interval. Regression equations incorporating PAAT and PAAT/right ventricular ejection time from the derivation cohort were then evaluated for the accuracy of their predictive values for invasive pulmonary hemodynamics in a validation cohort of 50 age-and weight-matched children with elevated PAP and PVR. There were significant inverse correlations between PAAT and RHC-derived mPAP (r = -0.82) and PVRi (r = -0.78) and a direct correlation (r = 0.78) between PAAT and pulmonary compliance in the derivation cohort. For detection of pulmonary hypertension (PVRi > 3 Wood units.m(2) and mPAP > 25 mm Hg), PAAT < 90 msec and PAAT/right ventricular ejection time < 0.31 resulted in sensitivity of 97% and specificity of 95%. In the derivation cohort, the regression equations relating PAAT with mPAP and PVRi were mPAP = 48 - 0.28 x PAAT and PVRi = 9 - 0.07 x PAAT. These PAAT-integrated equations predicted RHC-measured pulmonary hemodynamics in the validation cohort with good correlations (r = 0.88 and r = 0.83, respectively), small biases (<10%), and minimal coefficients of variation (<8%). PAAT inversely correlates with RHC-measured pulmonary hemodynamics and directly correlates with pulmonary arterial compliance in children."

According to the news editors, the research concluded: "The study established PAAT-based regression equations in children to accurately predict RHC-derived PAP and PVR."


The news correspondents report that additional information may be obtained from P.T. Levy, Atlantic Hlth Syst, Goryeb Childrens Hosp, Dept. of Pediat, Morristown, NJ, United States. Additional authors for this research include M.D. Patel, G. Groh, S. Choudhry, J.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.echo.2016.08.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Morristown, New Jersey, United States, North and Central America, Pulmonary Vascular Resistance, Diagnostics and Screening, Echocardiography, Pulmonary Artery, Cardiovascular, Cardiology, Angiology, Atlantic Health System.

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Dysplasia

Studies from Austin Hospital Further Understanding of Dysplasia (Terminal osseous dysplasia with pigmentary defects; Case and brief review of filamin A-related disorders)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on DysplAsia. According to news reporting from Melbourne, Australia, by NewsRx journalists, research stated, "Terminal osseous dysplasia with pigmentary defects (TOD) is an extremely rare X-linked dominant disorder, which is characterised by cutaneous digital fibromas, pigmentary skin defects and skeletal abnormalities."

The news correspondents obtained a quote from the research from Austin Hospital, "A single mutation in the last nucleotide of exon 31 of the filamin A gene (FLNA) has recently been identified as a cause of the disease. We describe a case of an 18-month-old girl with the clinical phenotype of TOD and the disease-specific FLNA mutation confirmed by genetic testing."

According to the news reporters, the research concluded: "This report highlights the importance of recognising this distinct phenotype that can present to a wide variety of health-care professionals, and reviews the spectrum of filamin A disorders."


Our news journalists report that additional information may be obtained by contacting F.K. Bhabha, Austin Hospital, Dermatol, Melbourne, Vic, Australia. Additional authors for this research include M. Walsh, D. Orchard and R. Savarirayan.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Dermatology, Dysplasia, Genetics, Austin Hospital.

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**Drugs and Therapies - Aspirin Therapy**

**Studies from Azienda Ospedaliera University Reveal New Findings on Aspirin Therapy (Statins and Aspirin use in HIV-infected people: gap between European AIDS Clinical Society guidelines and clinical practice: the results from HIV-HY study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Aspirin Therapy. According to news originating from Perugia, Italy, by NewsRx correspondents, research stated, "To investigate the use of statins and acetylsalicylic acid (ASA) in HIV people in clinical practice. A multicenter, nationwide, prospective cohort study, including 1182 consecutive HIV patients was conducted."

Our news journalists obtained a quote from the research from Azienda Ospedaliera University, "Statin and ASA prescription was evaluated in primary and secondary cardiovascular disease prevention, according to the European AIDS Clinical Society (EACS) guidelines. Followed-up patients (998) were mostly males (70.9 %) with a mean age at enrolment of 46.5 years (SD 9.5). The mean time of follow-up was 3.3 years (SD 0.8). At the last follow-up visit, statins would have been recommended for 31.2 % and ASA for 16 % by EACS guidelines. Conversely, only 15.6 and 7.6 % of patients were on statin and ASA treatment, respectively; only 50.3 % of patients treated with statins achieved recommended low-density lipoprotein cholesterol (LDL-c) levels. At the last follow-up visit, agreement between statin therapy and EACS recommendation was 0.58 (95 % CI 0.52-0.63). The corresponding figure for ASA therapy was 0.50 (95 % CI 0.42-0.58), whereas the agreement for ASA therapy in secondary prevention was 0.59 (95 % CI 0.50-0.68). The prescription of statins and ASA in HIV-infected patients remains largely suboptimal, as only about 50 % of patients requiring statins and ASA are properly treated."

According to the news editors, the research concluded: "Higher attention on this relevant issue and further investigation are warranted in this at risk population."


The news correspondents report that additional information may be obtained from G.V. De Socio, Azienda Osped Univ Perugia, Clin Malattie Infett, I-06129 Perugia, Italy. Additional authors for this research include E. Ricci, G. Parruti, L. Calza, P. Maggi, B.M. Celesia, G. Orofino, G. Madeddu, C. Martinelli, B. Menzaghi, L. Taramasso, G. Penco, L. Carenzi, M. Franzetti and P. Bonfanti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s15010-016-0893-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Perugia, Italy, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Platelet Aggregation Inhibitors, Coagulation Modifiers, Primate Lentiviruses, Drugs and Therapies, Antiplatelet Agents, Vertebrate Viruses, Aspirin Therapy, Pharmaceuticals, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Azienda Ospedaliera University.
Silicates

Studies from B. Li and Colleagues Yield New Information about Silicates (Esophagus cancer and occupational exposure to asbestos: results from a meta-analysis of epidemiology studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Silicates is now available. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "The relationship between occupational asbestos exposure and esophagus cancer (EC) is not fully understood. We performed a meta-analysis to quantitatively assess the association."

Our news journalists obtained a quote from the research, "We systematically searched databases of PubMed, EMBASE, and Web of Science for studies with quantitative estimates of asbestos exposure and EC mortality. Pooled standardized mortality ratios (SMRs) and their corresponding 95% confidence intervals (CIs) were calculated. Twenty cohort studies on EC and asbestos exposure were included in this meta-analysis. Overall, occupational exposure to asbestos was associated with an excess risk of EC (SMR = 1.24, 95% CI: 1.13-1.38, P< 0.001), with little evidence of heterogeneity among studies (I-2 = 0.0%, P = 0.682). Being male, exposure to chrysotile or mixed asbestos, working at textile industry, long study follow-up (>= 20 years), Asia, Europe and America cohorts with larger cohort size (>500), and high-exposure group all contribute to significantly higher SMR. Publication bias was not detected (Egger's test P-value = 0.374). This meta-analysis suggested that occupational asbestos exposure might be associated with an increased risk of EC in male."

According to the news editors, the research concluded: "High-exposure level of asbestos could contribute to significantly higher risk of EC mortality."


Our news journalists report that additional information may be obtained by contacting B. Li, Gumei Community Hlth Serv Center, Prevent Care, Shanghai 201102, People's Republic of China. Additional authors for this research include S.P. Tang and K.Z. Wang.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Inorganic Chemicals, Silicon Compounds, Silicon Dioxide, Epidemiology, Silicates, Oncology, Asbestos, Cancer.

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Magnetic hyperthermia is a new type of cancer treatment designed for overcoming resistance to chemotherapy during the treatment of solid, inaccessible human tumors. The main challenge of this technology is increasing the local tumoral temperature with minimal side effects on the surrounding healthy tissue."

The news correspondents obtained a quote from the research, "This work consists of an in vitro study that compared the effect of hyperthermia in response to the application of exogenous heating (EHT) sources with the corresponding effect produced by magnetic hyperthermia (MHT) at the same target temperatures. Human neuroblastoma SH-SY5Y cells were loaded with magnetic nanoparticles (MNPs) and packed into dense pellets to generate an environment that is crudely similar to that expected in solid micro-tumors, and the above-mentioned protocols were applied to these cells. These experiments showed that for the same target temperatures, MHT induces a decrease in cell viability that is larger than the corresponding EHT, up to a maximum difference of approximately 45% at T = 46 degrees C. An analysis of the data in terms of temperature efficiency demonstrated that MHT requires an average temperature that is 6 degrees C lower than that required with EHT to produce a similar cytotoxic effect. An analysis of electron microscopy images of the cells after the EHT and MHT treatments indicated that the enhanced effectiveness observed with MHT is associated with local cell destruction triggered by the magnetic nano-heaters."

According to the news reporters, the research concluded: "The present study is an essential step toward the development of innovative adjuvant anti-cancer therapies based on local hyperthermia treatments using magnetic particles as nano-heaters."

For more information on this research see: Magnetic hyperthermia enhances cell toxicity with respect to exogenous heating. Biomaterials, 2017;114():62-70. Biomaterials can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)

Our news journalists report that additional information may be obtained by contacting G.F. Goya, Facultad Ciencias, Dept. of Fis Mat Condensada, Zaragoza 50009, Spain. Additional authors for this research include M.P. Calatayud, T.E. Torres, M.L. Fanarraga, M.R. Ibarra and G.F. Goya.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.11.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zaragoza, Spain, Europe, Biomaterials Research, Biotechnology.

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Studies from B.A. Cardoso and Co-Researchers in the Area of Antineoplastics Reported (The Bone Marrow-Mediated Protection of Myeloproliferative Neoplastic Cells to Vorinostat and Ruxolitinib Relies on the Activation of JNK and PI3K Signalling ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antineoplastics are presented in a new report. According to news reporting from Lisbon, Portugal, by NewsRx journalists, research stated, "The classical BCR-ABL-negative Myeloproliferative Neoplasms (MPN) are a group of heterogeneous haematological diseases characterized by constitutive JAK-STAT pathway activation. Targeted therapy with Ruxolitinib, a JAK1/2-specific inhibitor, achieves symptomatic improvement but does not eliminate the neoplastic clone."

The news correspondents obtained a quote from the research, "Similar effects are seen with histone deacetylase inhibitors (HDACi), albeit with poorer tolerance. Here, we show that bone marrow (BM) stromal cells (HS-5) protected MPN-derived cell lines (SET-2; HEL and UKE-1) and MPN patient-derived BM cells from the cytotoxic effects of Ruxolitinib and the HDACi Vorinostat. This protective effect was mediated, at least in part, by the secretion of soluble factors from the BM stroma. In addition, it correlated with the activation of signalling pathways important for cellular homeostasis, such as JAK-STAT, PI3K, JNK, MEK-ERK and NF-kB. Importantly, the pharmacological inhibition of JNK and PI3K pathways completely abrogated the BM protective effect on MPN cell lines and MPN patient samples."

According to the news reporters, the research concluded: "Our findings shed light on mechanisms of tumor survival and may indicate novel therapeutic approaches for the treatment of MPN."

For more information on this research see: The Bone Marrow-Mediated Protection of Myeloproliferative Neoplastic Cells to Vorinostat and Ruxolitinib Relies on the Activation of JNK and PI3K Signalling Pathways. Plos One, 2015;10(12):e0143897. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting B.A. Cardoso, Unidade de Investigacao em Patobiologia Molecular, Instituto Portugues de Oncologia de Lisboa-Francisco Gentil, EPE, Lisbon, Portugal. Additional authors for this research include H. Belo, J.T. Barata and A.M Almeida.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0143897. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Lisbon, Europe, Portugal, Vorinostat, Bone Marrow, Bone Research, Immune System, Drugs and Therapies, Histone Deacetylase Inhibitors.

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Studies from Banaras Hindu University Have Provided New Data on Nanohybrids (Superior biomaterials using diamine modified graphene grafted polyurethane)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nanotechnology - Nanohybrids have been published. According to news originating from Uttar Pradesh, India, by NewsRx correspondents, research stated, "Surface modification of graphene oxide has been performed using diamine moieties with varying chain length and subsequently chemically grafted with long chain polyurethane for wrapping up of graphene sheet with large polymer chains. Functionalization of graphene and its subsequent grafting have been verified through spectroscopic measurements like NMR, FTIR and UV-visible spectroscopy and the uniform dispersion of graphene sheet in polyurethane matrix is achieved."

Financial supporters for this research include CSIR, UGC, Council for Scientific and Industrial Research.

Our news journalists obtained a quote from the research from Banaras Hindu University, "Nanohybrids exhibit better thermal and mechanical responses along with greater self-assembly as compared to pure polymer. Nanometer dimension molecular sheet to gradual increased size of the order of tens of nanometer, hundreds of nanometer to micron scale assembly has been captured through XRD, small angle neutron scattering, AFM and optical microscopy, respectively. Nature of self-assembly associated with stronger interactions sustain the release of embedded drug (anticancerous dexamethasone) from nanohybrid and larger size of in homogeneities for longer spacer length further sustain the drug release and thereby able to control the release rate of drug by articulating the chemistry of graphene modifications with suitable spacer length of diamine. Biocompatibility of the nanohybrids is verified with cell line studies using human breast cancer cells MDA-MB-231 in terms of cell viability, cell adhesion, fluorescence image, reactive oxygen species and mitochondrial tracker measurements indicating better responses of nanohybrid vis-a-vis pure polyurethane."

According to the news editors, the research concluded: "Thus, the control release of the dexamethasone drug from the nanohybrids along with better biological responses clearly suggests a novel biomaterial for the drug carrier."

For more information on this research see: Superior biomaterials using diamine modified graphene grafted polyurethane. Polymer, 2016;106():109-119. Polymer can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www elsevier.com; Polymer - www journals elsevier.com/polymer/)

The news correspondents report that additional information may be obtained from P. Maiti, Banaras Hindu Univ, Sch Mat Sci & Technol, Indian Inst Technol, Varanasi 221005, Uttar Pradesh, India. Additional authors for this research include V. Gupta, A. Dwivedi, S.K. Pandey, V.K. Aswal, D. Rana and P. Maiti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.polymer.2016.10.060. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uttar Pradesh, India, Asia, Nanohybrids, Emerging Technologies, Nanotechnology, Nanohybrid, Banaras Hindu University.

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Liver Diseases and Conditions - Liver Cirrhosis

Studies from Baskent University Reveal New Findings on Liver Cirrhosis (High Dose Oral Furosemide with Salt Ingestion in the Treatment of Refractory Ascites of Liver Cirrhosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Liver Diseases and Conditions - Liver Cirrhosis. According to news originating from Adana, Turkey, by NewsRx correspondents, research stated, "We aimed to evaluate and compare the efficacy and safety of high-dose furosemide+salt orally by comparing HSS+furosemide (i.v.) and repeated paracentesis in patients with RA. This was a prospective study of 78 cirrhotic patients with RA, randomized into three groups: Group A (n=25) i.v. furosemide (200-300 mg bid) and 3% hypotonic saline solution (HSS) (once or twice a day); Group B (n= 26) oral furosemide tablets (360-520 mg bid) and salt (2.5 g bid); and, Group C (n= 27) repeated large-volume-paracentesis (RLVP) with albumin infusion."

Our news journalists obtained a quote from the research from Baskent University, "Patients without hyperkalemia were administrated 100 mg of spironolactone/day. During the follow-up; INR, creatinine, and total bilirubin levels were measured to determine the change in MELD (model of end stage liver disease) score. Hepatic encephalopathy (HE), severe episodes of spontaneous bacterial peritonitis (SBP) and pleural effusions (PE) occurred more frequently in Group C. Improvement in Child-Pugh and MELD score was better in Group A and B than Group C. In Group B, improvements were seen in the Child-Pugh and MELD score, reduction in body weight, duration and number of hospitalization. In Groups A and B, remarkable increases in diuresis were observed (706 +/- 116 to 2425 +/- 633 mL and 691 +/- 111 to 2405 +/- 772 mL) and serum sodium levels also improved. HE and SBP were occurred more often in group C (p < 0.002). Hospitalization decreased significantly in Group B (p < 0.001). There was no significant difference in survival among groups."

According to the news editors, the research concluded: "High dose oral furosemide with salt ingestion may be an alternative, effective, safe and well-tolerated method of therapy for RA."

For more information on this research see: High Dose Oral Furosemide with Salt Ingestion in the Treatment of Refractory Ascites of Liver Cirrhosis. Clinical and Investigative Medicine, 2016;39(6):S52-S60. Clinical and Investigative Medicine can be contacted at: Canadian Soc Clinical Investigation, Csci Head Office, 774 Echo Drive, Ottawa, On K1S 5N8, Canada.

The news correspondents report that additional information may be obtained from T. Yakar, Baskent University, Fac Med, Dept. of Gastroenterol, Adana, Turkey. Additional authors for this research include M. Demir, O. Dogan, A. Parlakgumus, B. Ozer and E. Serin.

Keywords for this news article include: Adana, Turkey, Eurasia, Digestive System Diseases and Conditions, Liver Diseases and Conditions, Cardiovascular Agents, Drugs and Therapies, Furosemide Therapy, Organic Chemicals, Sulfur Compounds, Gastroenterology, Hospitalization, Pharmaceuticals, Liver Cirrhosis, Sulfanilamides, Loop Diuretics, Patient Care, Paracentesis, Hepatology, Sulfones, Ascites, Baskent University.

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Studies from Baylor University College of Medicine Update Current Data on Amniotic Fluid Embolism (3 Proposed diagnostic criteria for the case definition of amniotic fluid embolism in research studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Pregnancy Complications - Amniotic Fluid Embolism is the subject of a report. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "Amniotic fluid embolism is a leading cause of maternal mortality in developed countries. Our understanding of risk factors, diagnosis, treatment, and prognosis is hampered by a lack of uniform clinical case definition; neither histologic nor laboratory findings have been identified unique to this condition."

The news reporters obtained a quote from the research from the Baylor University College of Medicine, "Amniotic fluid embolism is often overdiagnosed in critically ill peripartum women, particularly when an element of coagulopathy is involved. Previously proposed case definitions for amniotic fluid embolism are nonspecific, and when viewed through the eyes of individuals with experience in critical care obstetrics, would include women with a number of medical conditions much more common than amniotic fluid embolism. We convened a working group under the auspices of a committee of the Society for Maternal-Fetal Medicine and the Amniotic Fluid Embolism Foundation whose task was to develop uniform diagnostic criteria for the research reporting of amniotic fluid embolism. These criteria rely on the presence of the classic triad of hemodynamic and respiratory compromise accompanied by strictly defined disseminated intravascular coagulopathy. It is anticipated that limiting research reports involving amniotic fluid embolism to women who meet these criteria will enhance the validity of published data and assist in the identification of risk factors, effective treatments, and possibly useful biomarkers for this condition."

According to the news reporters, the research concluded: "A registry has been established in conjunction with the Perinatal Research Branch of the Eunice Kennedy Shriver National Institute of Child Health and Human Development to collect both clinical information and laboratory specimens of women with suspected amniotic fluid embolism in the hopes of identifying unique biomarkers of this condition."


Our news correspondents report that additional information may be obtained by contacting S.L. Clark, Baylor College of Medicine, Houston, TX 77030, United States. Additional authors for this research include R. Romero, G.A. Dildy, W.M. Callaghan, R.M. Smiley, A.W. Bracey, G.D. Hankins, M.E. D'Alton, M. Foley, L.D. Pacheco, R.B. Vadhera, J.P. Herlihy, R.L. Berkowitz and M.A. Belfort.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Risk and Prevention, Diagnostics and Screening, Cardiovascular Diseases
Studies from Baylor University College of Medicine Update Current Data on Reproduction and Fertility (Correlation between Cyr61 expression and clinicopathologic parameters in adenomyosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Reproduction and Fertility have been published. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Adenomyosis, a benign invasion of endometrium, is closely related to endometriosis. Cysteine-rich 61 (Cyr61), a protein present in all endometrial tissues and menstrual effluents, is known to be associated with endometriosis."

The news correspondents obtained a quote from the research from the Baylor University College of Medicine, "However, its relation to adenomyosis has not been determined thus far. Therefore, here, we aimed to investigate the expression of Cyr61 protein in adenomyosis and determine the correlation between Cyr61 expression and clinicopathologic parameters in patients with adenomyosis. One hundred and twenty patients with histologically diagnosed adenomyosis, who underwent hysterectomy for non-endometrial disease were enrolled in this study. Patients were interviewed using a standard questionnaire consisting of sociodemographic characteristics and reproduction history. The severity of dysmenorrhea and menorrhagia was evaluated using the visual analogue scale (VAS) and pictorial blood loss assessment chart (PBAC). Samples of serum, endometrial tissue, and peritoneal fluid were collected, and Cyr61 mRNA levels were determined by RT-PCR. The Cyr61 protein levels in endometrial and ectopic lesions were determined by immunohistochemistry and those in serum and peritoneal fluid, by ELISA. We found that expression of Cyr61 was higher in the ectopic endometrium than in the eutopic endometrium. Cyr61 expression in the endometrium was correlated with age, number of natural labors, PBAC score, VAS score, uterine volume, adenomyosis type, and concurrent endometriosis. The Cyr61 protein level in the ascites was higher than that in serum, and no correlation existed between them."

According to the news reporters, the research concluded: "Our results suggest that the expression of Cyr61 may be indirectly related to the degree of dysmenorrhea and Cyr61 may be involved in the pathogenesis of adenomyosis."

For more information on this research see: Correlation between Cyr61 expression and clinicopathologic parameters in adenomyosis. *Journal of Reproductive Immunology*, 2016;118():42-49. *Journal of Reproductive Immunology* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Journal of Reproductive Immunology - www.journals.elsevier.com/journal-of-reproductive-immunology/)

Our news journalists report that additional information may be obtained by contacting X.M. Guan, Baylor College of Medicine, Dept. of Obstet & Gynecol, Houston, TX 77030, United States. Additional authors for this research include W. Xia, T. Tong, C. Li, W.
Studies from Baylor University Reveal New Findings on Fabry Disease
(Is it Fabry disease?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Fabry Disease have been presented. According to news reporting originating from Dallas, Texas, by NewsRx correspondents, research stated, "Fabry disease is caused by mutations in the GLA gene that lower alpha-galactosidase A activity to less than 25-30% of the mean normal level."

Our news editors obtained a quote from the research from Baylor University, "Several GLA variants have been identified that are associated with relatively elevated residual alpha-galactosidase A. The challenge is to determine which GLA variants can cause clinical manifestations related to Fabry disease. Here, we review the various types of GLA variants and recommend that pathogenicity be considered only when associated with elevated globotriaosylceramide in disease-relevant organs and tissues as analyzed by mass spectrometry."

According to the news editors, the research concluded: "This criterion is necessary to ensure that very costly and specific therapy is provided only when appropriate."

For more information on this research see: Is it Fabry disease? Genetics in Medicine, 2016;18(12):1181-1185. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/gim/)

The news editors report that additional information may be obtained by contacting R. Schiffmann, Baylor Res Inst, Inst Metab Dis, Dallas, TX 75204, United States. Additional authors for this research include M. Fuller, L.A. Clarke and J. Aerts.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gim.2016.55. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Lysosomal Storage Diseases and Conditions, Galactosidases, Article Review, Genetics, X-Linked Genetic Diseases and Conditions, Brain Diseases and Conditions, Lipid Metabolism Disorders, Enzymes and Coenzymes, Sphingolipidoses, Fabry Disease, Neurology, Baylor University.

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Studies from Beijing Institute of Radiation Medicine Further Understanding of Eicosanoids (Timosaponin AIII induces antiplatelet and antithrombotic activity via Gq-mediated signaling by the thromboxane A2 receptor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biological Factors - Eicosanoids is the subject of a report. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "The thromboxane (Tx) A(2) pathway is a major contributor to the amplification of initial platelet activation and is therefore a key drug target. To identify potent small-molecule inhibitors of the thromboxane prostaglandin (TP) receptor, we screened a small steroidal saponin library using U46619-induced rat platelet aggregation assays."

Our news editors obtained a quote from the research from the Beijing Institute of Radiation Medicine, "Timosaponin AIII (TAIII) was identified as a potent inhibitor of U46619-induced rat platelet aggregation and exhibited superior selectivity for the TP receptor versus other G protein-coupled receptors and a PKC activator. TAIII inhibited U46619-induced rat platelet aggregation independent of increases in cAMP and cGMP and the inhibition of TxA2 production. Both PKC and PLC activators restored TAIII-inhibited platelet aggregation, whereas TAIII did not inhibit platelet aggregation induced by co-activation of the G12/13 and Gz pathways. Furthermore, TAIII did not affect the platelet shape change or ROCK2 phosphorylation evoked by low-dose U46619. In vivo, TAIII prolonged tail bleeding time, reduced the mortality of animals with acute pulmonary thromboembolism and significantly reduced venous thrombus weight."

According to the news editors, the research concluded: "Our study suggests that TAIII, by preferentially targeting Gq-mediated PLC/PKC signaling from the TP receptor, induces stronger in vitro antiplatelet activity and in vivo antithrombotic effects and may be an excellent candidate for the treatment of thrombotic disorders."

For more information on this research see: Timosaponin AIII induces antiplatelet and antithrombotic activity via Gq-mediated signaling by the thromboxane A2 receptor. Scientific Reports, 2016;6():1-13. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting Y.W. Cong, Beijing Inst Radiat Med, Beijing Key Lab Radiobiol BKLRB, Dept. of Pathophysiol, Beijing 100850, People's Republic of China. Additional authors for this research include L.M. Wang, R.J. Peng, Y. Zhao, F. Bai, C. Yang, X.L. Liu, D.Q. Wang, B.P. Ma and Y.W. Cong.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Inflammation Mediators, Platelet Aggregation, Biological Factors, Antithrombotic, Thromboxane A2, Thromboxanes, Eicosanoids, Angiology, Autacoids, Beijing Institute of Radiation Medicine.

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Clinical Research - Clinical Trials and Studies

Studies from Bellvitge University Hospital Provide New Data on Clinical Trials and Studies (Cerebrospinal fluid and plasma lopinavir concentrations and viral response in virologically suppressed patients switching to lopinavir/ritonavir ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news reporting from Barcelona, Spain, by NewsRx journalists, research stated, "Lopinavir/ritonavir (LPV/r) monotherapy is used in selected virologically suppressed HIV-infected patients. Some would prefer a once-daily (OD) dose instead of the usual twice-daily dose to favour adherence."

The news correspondents obtained a quote from the research from Bellvitge University Hospital, "However, trough concentrations of the drug in blood and particularly in cerebrospinal fluid (CSF) may not be adequate to maintain viral suppression. Prospective, open-label pilot study to evaluate the efficacy and safety of LPV/r monotherapy OD. HIV1-infected patients, virologically suppressed for at least 6 months were enrolled. HIV viral load (VL) was determined at baseline and at weeks 4, 8, 12, 16, 24, 36 and 48. Lumbar puncture was performed in a subgroup of patients to evaluate CSF VL and CSF LPV concentrations. A total of 21 patients were included. At week 48, 85.7% (n=18) showed viral suppression (VL < 40 copies/ml). Two patients had viral failure (9.5%) and a third was withdrawn from the study because of gastrointestinal symptoms. Nine patients were enrolled in the substudy. CSF VL was < 40 copies/ml in all cases. Median (range) LPV concentration was 9.78 ng/ml (1.93-78.3) in CSF and 1,970 (154-16,700) ng/ml in plasma; the CSF/plasma ratio was 0.004 (0.001-0.186). In this small pilot study, LPV/r monotherapy OD maintained plasma HIV RNA suppression at 48 weeks in most patients, with no cases of CSF viral escape."

According to the news reporters, the research concluded: "However, CSF LPV concentrations were close to the 50% inhibitory concentration threshold in several patients; hence, this intervention should be avoided in patients with advanced immune suppression and/or those individuals presenting with significant comorbidities such as hepatitis C coinfection."


Our news journalists report that additional information may be obtained by contacting J.M. Tiraboschi, Bellvitge Univ Hosp, Dept. of Infect Dis, HIV Unit, Barcelona, Spain. Additional authors for this research include H. Knobel, A. Imaz, J. Villar, E. Ferrer, M. Saumoy, A. Gonzalez, N. Rozas, A. Vila, J. Niubo, J. Curto and D. Podzamczer.

Keywords for this news article include: Barcelona, Spain, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Clinical Trials and Studies, Primate Lentiviruses, Drugs and Therapies, Protease Inhibitors, Vertebrate Viruses, Clinical Research, Antiretrovirals, Antimicrobials, HIV Infections, Retroviridae, RNA Viruses, Hematology, Antivirals, Ritonavir, Thiazoles, Genetics, HIV/AIDS, Plasma, Blood, Bellvitge University Hospital.

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Studies from Bhabha Atomic Research Center Provide New Data on Antineoplastic Monoclonal Antibodies [Doxorubicin enhances (131)I-rituximab induced cell death in Raji cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antineoplastic Monoclonal Antibodies is the subject of a report. According to news reporting originating in Maharashtra, India, by NewsRx journalists, research stated, "There are various therapeutic modalities of treatment for non-Hodgkin's lymphoma, but with certain limitations, hence, investigating the scope of combined therapeutic approach. In this article, cellular toxicity, apoptosis and expression of mitogen-activated protein kinase signaling pathway proteins were investigated in Raji cells preincubated with doxorubicin followed by (131)I-rituximab (rituximab radiolabeled with Iodine-131) treatment."

The news reporters obtained a quote from the research from Bhabha Atomic Research Center, "It was found that the (131)I-rituximab in combination with doxorubicin showed a higher amount of cell toxicity and apoptosis compared to respective controls. Expression of anti-apoptotic protein (B-cell lymphoma-extra-large) was downregulated and cleavage of poly (ADP-ribose) polymerase, a marker of apoptosis was higher in cells treated with doxorubicin (2 mg/mL) and 131 I-rituximab (P (<=) 0.05). Moreover, in these cells the basal level of expression of p42/44 and p38 were increased while its phosphorylation was decreased."

According to the news reporters, the research concluded: "These results suggest that doxorubicin has the potential to sensitize (131)I-rituximab induced cell death in Raji cells."

For more information on this research see: Doxorubicin enhances (131)I-rituximab induced cell death in Raji cells. Journal of Cancer Research and Therapeutics, 2015;11(4):823-9.

Our news correspondents report that additional information may be obtained by contacting G. Samuel, Isotope Applications and Radiopharmaceuticals Division, Bhabha Atomic Research Centre, Mumbai, Maharashtra, India. Additional authors for this research include B.N. Pandey, G. Samuel and M. Venkatesh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.140844. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maharashtra, India, Asia, Antibiotics Antineoplastics, Antineoplastic Monoclonal Antibodies, Antirheumatics, Apoptosis, Biotechnology, CD20 Monoclonal Antibodies, Doxorubicin Therapy Hydrochloride, Drugs and Therapies, Medical Devices, Pharmaceuticals, Rituximab, Tyrosine Kinase Inhibitors.

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Studies from Biomedical Research Foundation Have Provided New Data on Cancer Epidemiology (Effectiveness of patient-targeted interventions to promote cancer screening among ethnic minorities: A systematic review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Epidemiology have been published. According to news reporting originating in Valencia, Spain, by NewsRx journalists, research stated, "Cancer is a major public health problem due to its incidence, morbidity and mortality. A large proportion of cancer cases and deaths could be prevented through the implementation of cancer screening programmes."

The news reporters obtained a quote from the research from Biomedical Research Foundation, "However, there are social inequalities in patient access to these programmes, especially in underserved communities and minority populations. To identify, characterise and analyse the effectiveness of patient-targeted healthcare interventions to promote cancer screening programmes in ethnic minorities. A comprehensive search of bibliographic databases was conducted. The results of our systematic review were reported in accordance with the PRISMA guidelines. Seventeen articles were identified and included in the review. Sixteen of the seventeen studies were conducted in the United States and one was conducted in Israel. Fifteen of the seventeen interventions selected were effective in increasing cancer screening rates. Moreover, five of the seventeen studies found an improvement in cancer knowledge, awareness, self-efficacy, attitudes, intention and perceptions, and three studies found a positive change in health beliefs and barriers. The results show that culturally adapted interventions appear to increase the rate of participation in cancer screening. In addition, the effectiveness of the interventions seems to be related to the use of small media, one-on-one interactions, small group education sessions, reminder strategies, and strategies for reducing structural barriers and out-of-pocket costs. Culturally adapted patient-targeted healthcare interventions can help to reduce racial or ethnic inequalities in access to cancer screening programmes."

According to the news reporters, the research concluded: "Further research is needed to develop interventions to promote adherence to cancer screening programmes with repeat testing and vigorous economic evaluation methodologies."


Our news correspondents report that additional information may be obtained by contacting V. Escriba-Aguir, Hlth Promot & Biomed Res Fdn FISABIO, Valencia, Spain. Additional authors for this research include M. Rodriguez-Gomez and I. Ruiz-Perez.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.07.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Valencia, Spain, Europe, Cancer Epidemiology, Cancer, Article Review, Diagnostics and Screening, Epidemiology,
Studies from Boehringer Ingelheim Pharmaceuticals Have Provided New Data on Steroid Hydroxylases (Selectivity of BI 689648, a Novel, Highly Selective Aldosterone Synthase Inhibitor: Comparison with FAD286 and LCI699 in Nonhuman Primates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Enzymes and Coenzymes - Steroid Hydroxylases are discussed in a new report. According to news reporting originating from Ridgefield, Connecticut, by NewsRx correspondents, research stated, "The mineralocorticoid aldosterone is an important regulator of blood pressure, volume, and electrolyte balance. However, excess aldosterone can be deleterious as a driver of vascular remodeling and tissue fibrosis associated with cardiometabolic diseases."

Our news editors obtained a quote from the research from Boehringer Ingelheim Pharmaceuticals, "Aldosterone synthase (AS) inhibitors (ASI) attenuate the production of aldosterone directly and have been proposed as an alternative to mineralocorticoid receptor antagonists for blocking the pathologic effects of excess aldosterone. Discovery of selective ASIs has been challenging because of the high sequence identity (93%) AS shares with cortisol synthase (CS), and the low identity of rodent AS compared with human (63%). Using cynomolgus (cyno) monkey-based models, we identified BI 689648 [6-(5-methoxymethyl-pyridin-3-yl)-3,4-dihydro-2H-[1,8]naphthyridine-1-carboxylic acid amide], a novel, highly selective ASI that exhibits an in vitro IC50 of 2 nM against AS and 300 nm against CS (150-fold selectivity) compared with the recently described ASIs FAD286 [4-(5,6,7,8-tetrahydroimidazo[1,5-a]pyridin-5-yl) benzonitrile] (3 nM AS; 90 nM CS; 40-fold) and LCI699 (4-[(5R)-6,7-dihydro-5H-pyrrolo[1,2-c]imidazol-5-yl]-3-fluorobenzonitrile) (10 nM AS; 80 nM CS; 8-fold). After oral administration in cyno monkeys, BI 689648 (5 mg/kg) exhibits a peak plasma concentration of similar to 500 nM. For in vivo profiling we used an adrenocorticotropin-challenge model in which BI 689648 was 20-fold more selective compared with FAD286 and LCI699. Because both FAD286 and LCI699 failed to provide adequate selectivity for CS when tested in patients, the desire for more selective molecules to test the ASI hypothesis remains high."

According to the news editors, the research concluded: "Therefore, highly selective aldosterone synthase inhibitors such as BI 689648 represent an important step forward toward developing ASIs with greater potential for clinical success in cardiometabolic diseases."


The news editors report that additional information may be obtained by contacting N.F. Brown, Boehringer Ingelheim Pharmaceut Inc, CardioMetabol Dis Res, Ridgefield, CT.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.236463. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ridgefield, Connecticut, United States, North and Central America, 11-Hydroxycorticosteroids, Mixed Function Oxygenases, Adrenal Cortex Hormones, Enzymes and Coenzymes, Aldosterone Synthase, Steroid Hydroxylases, Oxidoreductases, Hemeproteins, Cytochromes, Boehringer Ingelheim Pharmaceuticals.

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Pharmacokinetics

Studies from Brigham Young University Describe New Findings in Pharmacokinetics (How PEGylation influences protein conformational stability)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacokinetics. According to news reporting originating from Provo, Utah, by NewsRx correspondents, research stated, "PEGylation is an important strategy for enhancing the pharmacokinetic properties of protein therapeutics. The development of chemoselective side-chain modification reactions has enabled researchers to PEGylate proteins with high selectivity at defined locations."

Financial support for this research came from NIH NIGMS.

Our news editors obtained a quote from the research from Brigham Young University, "However, aside from avoiding active sites and binding interfaces, there are few guidelines for the selection of optimal PEGylation sites. Because conformational stability is intimately related to the ability of a protein to avoid proteolysis, aggregation, and immune responses, it is possible that PEGylating a protein at sites where PEG enhances conformational stability will result in PEG-protein conjugates with enhanced pharmacokinetic properties. However, the impact of PEGylation on protein conformational stability is incompletely understood."

According to the news editors, the research concluded: "This review describes recent advances toward understanding the impact of PEGylation on protein conformational stability, along with the development of structure-based guidelines for selecting stabilizing PEGylation sites."


The news editors report that additional information may be obtained by contacting P.B. Lawrence, Brigham Young University, Dept. of Chem & Biochem, Provo, UT 84602, United States.
Heart Disorders and Diseases - Atrial Fibrillation
Studies from Brigham and Women's Hospital Provide New Data on Atrial Fibrillation (Impact of the US Food and Drug Administration's Safety-Related Announcements on the use of Bisphosphonates After Hip Fracture)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "The U.S. Food and Drug Administration (FDA) issued several announcements related to potential risk of bisphosphonates including osteonecrosis of the jaw (2005), atrial fibrillation (2007), and atypical femur fracture (2010)."

The news correspondents obtained a quote from the research from Brigham and Women's Hospital, "We aimed to evaluate the impact of three FDA drug safety announcements on the use of bisphosphonates in patients with hip fracture using claims data from a U.S. commercial health plan (2004-2013). We calculated the proportion of patients in each quarter who received a bisphosphonate or other osteoporosis medication in the 6 months following hospitalization for hip fracture. Segmented logistic regression models examined the time trends. Among 22,598 patients with hip fracture, use of bisphosphonate decreased from 15% in 2004 to 3% in the last quarter of 2013. Prior to the 2007 announcement, there was a 4% increase in the odds of bisphosphonate use every quarter (OR 1.04; 95% CI, 1.02 to 1.07). After the 2007 announcement, there was a 4% decrease in the odds of bisphosphonate use (OR 0.96; 95% CI, 0.93 to 0.99) every quarter. The announcement in 2007 was associated with a significant decline in the rate of change of bisphosphonate uses over time (p <0.001), but no impact on other osteoporosis medication use (p = 0.2). After the 2010 announcement, the odds of bisphosphonate use continued to decrease by 4% (OR 0.96; 95% CI, 0.94 to 0.98) each quarter and the odds of other osteoporosis medication use remained stable over time (OR 0.99; 95% CI, 0.96 to 1.02)."

According to the news reporters, the research concluded: "The FDA safety announcement related to atrial fibrillation in 2007 was significantly associated with a decrease in bisphosphonate use among patients with hip fracture."

Our news journalists report that additional information may be obtained by contacting S.C. Kim, Brigham & Women's Hospital, Div Rheumatol Immunol & Allergy, Boston, MA 02115, United States. Additional authors for this research include D.H. Kim, H. Mogun, W. Eddings, J.M. Polinski, J.M. Franklin and D.H. Solomon.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Government Agencies Offices and Entities, Drugs and Therapies, Musculoskeletal Diseases and Conditions, Metabolic Bone Diseases and Conditions, Heart Disorders and Diseases, Regulatory Agencies, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Hip Fracture, Osteoporosis, Brigham and Women's Hospital.

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Oncology - Breast Cancer

Studies from Brigham and Women's Hospital Yield New Information about Breast Cancer (Preserved vagus nerve stimulator function after radiation therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Epilepsy and breast cancer are both prevalent conditions. A subset of women with medically refractory epilepsy and vagus nerve stimulators (VNS) may later develop breast cancer and may require adjuvant radiation as part of their treatment regimen."

Our news journalists obtained a quote from the research from Brigham and Women's Hospital, "However, to date, little data are available on the effects of radiation on VNS function. Presentation - We present a young woman with tuberous sclerosis, developmental delay, and medically refractory epilepsy who developed left-sided breast cancer. Her epilepsy became controlled with a recent addition of a VNS implanted in her left chest wall. She required adjuvant radiation therapy to her left breast, and this raised the novel question of the safety of radiation on the integrity and functioning of the device, which we explore in this article. This case is the first report of a patient with VNS for epilepsy and breast cancer who received radiation therapy proximal to the device."

According to the news editors, the research concluded: "The device continued to function properly despite the exposure."


The news correspondents report that additional information may be obtained from T.A. Fantaneanu, Brigham & Women's Hospital, Dept. of Neurol, Boston, MA 02115, United States. Additional authors for this research include G. Tillman, E. Garcia, T. Grady and B.A. Dworetzky.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ane.12584. This DOI is a link to an online electronic document that is either free or for purchase.
Studies from Bristol-Myers Squibb Reveal New Findings on Peptides and Proteins (Label-Free Bottom-Up Proteomic Workflow for Simultaneously Assessing the Target Specificity of Covalent Drug Candidates and Their Off-Target Reactivity to Selected ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Peptides and Proteins is the subject of a report. According to news reporting originating from Pennington, New Jersey, by NewsRx correspondents, research stated, "Although designed covalent inhibitors as drug candidates offer several unique advantages over conventional reversible inhibitors, including high potency and the potential for less frequent dosing, there is a general tendency to avoid the covalent mode of action in drug discovery programs due to concerns regarding immune-mediated toxicity that can arise from indiscriminate reactivity with off-target proteins. Therefore, the ability to assess off-target reactivity relative to target specificity is desirable for optimizing covalent drug candidates in the early discovery stage."

Financial support for this research came from Bristol-Myers Squibb.

Our news editors obtained a quote from the research from Bristol-Myers Squibb, "One concern with current surrogate nucleophile trapping approaches is that they employ a simplistic model nucleophile such as glutathione, which may not reliably reflect the covalent interactions with cellular or extracellular proteins. One way to get a more relevant reactivity assessment is to directly measure the ability of an inhibitor to covalently modify nucleophilic amino acids on biologically relevant proteins, both on-and off-target. In this article, we describe a label-free bottom-up proteomic workflow for simultaneous evaluation of target binding and off-target reactivity of covalent drug candidates to selected proteins at the peptide level.  Ibrutinib, a covalent drug targeting the active site of BTK protein, was used as a model compound to demonstrate the feasibility of the workflow. The compound was incubated with a mixture of target protein, Bruton's tyrosine kinase (BTK), and two abundant proteins in blood, hemoglobin (Hb) and human serum albumin (HSA), and then the ibrutinib modification sites were determined utilizing a bottom-up proteomic approach. A non-BTK specific model compound (1) known to modify cysteine residues was also included. By comparing the extent of off-target modifications to the targeted BTK C481 binding in a wide compound concentration range, we were able to determine the concentration where maximum target binding was achieved with minimal off-target reactivity."

According to the news editors, the research concluded: "The generic label-free bottom-up proteomics workflow described in this article should be useful in the rank order assessment of off-target reactivity vs on-target reactivity of covalent drug candidates in the early drug discovery stage."

For more information on this research see: Label-Free Bottom-Up Proteomic...

The news editors report that additional information may be obtained by contacting Y. Yang, Bristol-Myers Squibb Research and Development, 311 Pennington-Rocky Hill Road, Pennington, New Jersey 08534, United States. Additional authors for this research include Y.Z. Shu and W.G Humphreys.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.chemrestox.5b00460. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pennington, New Jersey, Proteomics, Amino Acids, United States, Drug Development, Drugs and Therapies, Peptides and Proteins, North and Central America.

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**Oncology - Lung Cancer**

**Studies from C. Ambrogio and Co-Authors Have Provided New Information about Lung Cancer (Combined inhibition of DDR1 and Notch signaling is a therapeutic strategy for KRAS-driven lung adenocarcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Lung Cancer are presented in a new report. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "Patients with advanced Kirsten rat sarcoma viral oncogene homolog (KRAS)-mutant lung adenocarcinoma are currently treated with standard chemotherapy because of a lack of efficacious targeted therapies. We reasoned that the identification of mediators of Kras signaling in early mouse lung hyperplasias might bypass the difficulties that are imposed by intratumor heterogeneity in advanced tumors, and that it might unveil relevant therapeutic targets."

Our news journalists obtained a quote from the research, "Transcriptional profiling of Kras(G12V)-driven mouse hyperplasias revealed intertumor diversity with a subset that exhibited an aggressive transcriptional profile analogous to that of advanced human adenocarcinomas. The top-scoring gene in this profile encodes the tyrosine kinase receptor DDR1. The genetic and pharmacological inhibition of DDR1 blocked tumor initiation and tumor progression, respectively. The concomitant inhibition of both DDR1 and Notch signaling induced the regression of KRAS;TP53-mutant patient-derived lung xenografts (PDX) with a therapeutic efficacy that was at least comparable to that of standard chemotherapy."

According to the news editors, the research concluded: "Our data indicate that the combined inhibition of DDR1 and Notch signaling could be an effective targeted therapy for patients with KRAS-mutant lung adenocarcinoma."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4041. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Madrid, Europe, Genetics, Oncology, Lung Cancer, Therapeutics, Adenocarcinoma.

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Capillary Electrophoresis

Studies from C. Varadi and Co-Authors Have Provided New Information about Capillary Electrophoresis [Quantitative twoplex glycan analysis using C-12(6) and C-13(6) stable isotope 2-aminobenzoic acid labelling and capillary electrophoresis mass ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Capillary Electrophoresis. According to news reporting from Dublin, Ireland, by NewsRx journalists, research stated, "Capillary electrophoresis (CE) offers excellent efficiency and orthogonality to liquid chromatographic (LC) separations for oligosaccharide structural analysis. Combination of CE with high resolution mass spectrometry (MS) for glycan analysis remains a challenging task due to the MS incompatibility of background electrolyte buffers and additives commonly used in offline CE separations."

The news correspondents obtained a quote from the research, "Here, a novel method is presented for the analysis of 2-aminobenzoic acid (2-AA) labelled glycans by capillary electrophoresis coupled to mass spectrometry (CE-MS). To ensure maximum resolution and excellent precision without the requirement for excessive analysis times, CE separation conditions including the concentration and pH of the background electrolyte, the effect of applied pressure on the capillary inlet and the capillary length were evaluated. Using readily available C-12/13(6) stable isotopologues of 2-AA, the developed method can be applied for quantitative glycan profiling in a twoplex manner based on the generation of extracted ion electropherograms (EIE) for C-12(6) 'light' and C-13(6) 'heavy' 2-AA labelled glycan isotope clusters. The twoplex quantitative CE-MS glycan analysis platform is ideally suited for comparability assessment of biopharmaceuticals, such as monoclonal antibodies, for differential glycomic analysis of clinical material for potential biomarker discovery or for quantitative microheterogeneity analysis of different glycosylation sites within a glycoprotein."

According to the news reporters, the research concluded: "Additionally, due to the low injection volume requirements of CE, subsequent LC-MS analysis of the same sample can be performed facilitating the use of orthogonal separation techniques for structural elucidation or verification of quantitative performance."

For more information on this research see: Quantitative twoplex glycan analysis
using C-12(6) and C-13(6) stable isotope 2-aminobenzoic acid labelling and capillary electrophoresis mass spectrometry. *Analytical and Bioanalytical Chemistry*, 2016;408 (30):8691-8700. *Analytical and Bioanalytical Chemistry* can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Analytical and Bioanalytical Chemistry - www.springerlink.com/content/1618-2642/)

Our news journalists report that additional information may be obtained by contacting J. Bones, NIBRT Natl Inst Bioproc Res & Training, Characterisat & Comparabil Lab, Blackrock, Dublin, Ireland. Additional authors for this research include S. Mittermayr, S. Millan-Martin and J. Bones.

Keywords for this news article include: Dublin, Ireland, Europe, Capillary Electrophoresis, Aminobenzoic Acids.

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**Blood Diseases and Conditions - Sepsis**

**Studies from C.D. Weber et al Have Provided New Data on Sepsis (Classification of soft-tissue injuries in open femur fractures: Relevant for systemic complications?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Blood Diseases and Conditions - Sepsis. According to news reporting out of Aachen, Germany, by NewsRx editors, research stated, "A broad range of systemic complications has been described to occur in patients with open major fractures. Various causes have been claimed to play a role."

Our news journalists obtained a quote from the research, "We therefore surveyed a nationwide trauma registry to assess risk factors associated with closed and various types of open femur fractures. This was a cohort study in a nationwide population-based prospective database. Inclusion criteria for selection from database are as follows: individuals with femur fracture, age 16 years or older, and survival until primary admission. Main groups included closed and open femur fracture. Patient demographics, injury severity (New Injury Severity Score), surgical fracture management, length of stay, and systemic complications (e.g., multiple organ failure [MOF], sepsis, mortality) were collected and statistically analyzed using SPSS statistics. Multivariate regression analysis was performed to stratify subgroups for the degree of open soft-tissue injury according to Gustilo and Anderson. Among 32,582 documented trauma victims (January 1, 2002, to December 31, 2010), a total of 5,761 met the inclusion criteria. Main groups: 4,423 closed (76.8%) and 1,338 open femur fractures (23.2%). Open fractures subgroups were divided into I degrees (334, 28.1%), II degrees (526, 44.3%), and III degrees (328, 27.6%). Open fractures were associated with an increased risk of prehospital hemorrhagic shock (p = 0.01), higher resuscitation requirements (p < 0.001), MOF (p = 0.001), and longer in-hospital (p < 0.001) and intensive care stay (p = 0.001). While New Injury Severity Score values showed a minor increase per subgroup, the prevalence of MOF, sepsis, and mortality multiplied with the degree of open soft-tissue injury. Especially patients with Type III open femur fractures received mass transfusions (28.2%, p < 0.001), and mass transfusions were identified as independent predictor for sepsis (odds ratio [OR], 2.393; 95% confidence interval [CI], 1.821-3.143; p < 0.001) and MOF (OR, 2.966; 95% CI, 2.409-3.651; p < 0.001). Our data also indicate an increased mortality in patients with open femur managed outside Level I trauma centers (OR,
1.358; 95% CI, 1.018-1.812; p = 0.037). Open femur fractures are associated with higher in-hospital complications related to incidence of MOF, associated intensive care unit stay, and hospital days when compared with closed femur fractures. For prevention of in-hospital complications, prompt hemorrhage control, surgical fracture fixation, cautious blood management, and triage to a Level I trauma center must be considered."

According to the news editors, the research concluded: "LEVEL OF EVIDENCE Epidemiologic/prognostic study, level II."

For more information on this research see: Classification of soft-tissue injuries in open femur fractures: Relevant for systemic complications? Journal of Trauma and Acute Care Surgery, 2016;81(5):824-833. Journal of Trauma and Acute Care Surgery can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting C.D. Weber, Harald Tscherne Lab Orthopaed Res, Aachen, Germany. Additional authors for this research include R. Lefering, T. Dienstknecht, P. Kobbe, R.M. Sellei, F. Hildebrand and H.C. Pape.

Keywords for this news article include: Aachen, Germany, Europe, Soft Tissue Injuries, Epidemiology, Surgery, Risk and Prevention, Blood Diseases and Conditions, Bloodstream Infection, Septicemia, Hospital, Sepsis.

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Cholesterol

Studies from C.M. Ballantyne et al in the Area of Cholesterol Described [Icosapent ethyl (eicosapentaenoic acid ethyl ester): Effects on remnant-like particle cholesterol from the MARINE and ANCHOR studies]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cholesterol. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "Remnant-like particle cholesterol (RLP-C) is atherogenic and may increase atherosclerotic cardiovascular disease risk. Icosapent ethyl is a high-purity prescription eicosapentaenoic acid ethyl ester (approved as an adjunct to diet to reduce triglyceride [TG] levels in adult patients with TGs >= 500 mg/dL [= 5.65 mmol/L] at 4 g/day)."

Our news journalists obtained a quote from the research, "In the MARINE and ANCHOR studies, icosapent ethyl reduced TG and other atherogenic lipid parameter levels without increasing low-density lipoprotein cholesterol (LDL-C) levels. This exploratory analysis evaluated the effects of icosapent ethyl on calculated and directly measured RLP-C. MARINE (TGs >= 500 and <= 2000 mg/dL [= 5.65 mmol/L and <= 22.6 mmol/L]) and ANCHOR (TGs >= 200 and < 500 mg/dL [= 2.26 and < 5.65 mmol/L] despite statin-controlled LDL-C) were phase 3, 12-week, double-blind studies that randomized adult patients to icosapent ethyl 4 g/day, 2 g/day, or placebo. This analysis assessed median percent change from baseline to study end in directly measured (immunoseparation assay) RLP-C levels (MARINE, n = 218; ANCHOR, n = 252) and calculated RLP-C levels in the full populations. Icosapent ethyl 4 g/day significantly
reduced directly measured RLP-C levels -29.8% (p = 0.004) in MARINE and -25.8% (p = 0.0001) in ANCHOR versus placebo, and also reduced directly measured RLP-C levels to a greater extent in subgroups with higher versus lower baseline TG levels, in patients receiving statins versus no statins (MARINE), and in patients receiving medium/higher-intensity versus lower-intensity statins (ANCHOR). Strong correlations were found between calculated and directly measured RLP-C for baseline, end-of-treatment, and percent change values in ANCHOR and MARINE (0.73-0.92; p< 0.0001 for all).

According to the news editors, the research concluded: "Icosapent ethyl 4 g/day significantly reduced calculated and directly measured RLP-C levels versus placebo in patients with elevated TG levels from the MARINE and ANCHOR studies."

For more information on this research see: Icosapent ethyl (eicosapentaenoic acid ethyl ester): Effects on remnant-like particle cholesterol from the MARINE and ANCHOR studies. Atherosclerosis, 2016;253():81-87. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news correspondents report that additional information may be obtained from C.M. Ballantyne, Houston Methodist DeBakey Heart & Vasc Center, Houston, TX 77030, United States. Additional authors for this research include H.E. Bays, S. Philip, R.T. Doyle, R.A. Braeckman, W.G. Stirtan, P.N. Soni and R.A. Juliano.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.08.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Cholesterol, Risk and Prevention.

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Y93H. RAMs were identified in GT1 patients at baseline or after dosing with EDP-239 that were similar to those detected in vitro. Baseline RAMs identified at NS5A position 93 in GT1, or positions 28 or 30 in GT1a only, correlated with a reduced treatment response. RAMs at additional positions were also detected and may have contributed to reduced EDP-239 efficacy. The most common GT1a and GT1b RAMs found to persist up to weeks 12, 24, or 48 were those at NS5A positions 28, 30, 31, 58 (GT1a only), and 93."

According to the news editors, the research concluded: "Those RAMs persisting at the highest frequencies up to weeks 24 or 48 were L31M and Q30H/R for GT1a and L31M and Y93H for GT1b."

For more information on this research see: Preclinical and Clinical Resistance Profile of EDP-239, a Novel Hepatitis C Virus NS5A Inhibitor. Antimicrobial Agents and Chemotherapy, 2016;60(10):6216-6226. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from C.M. Owens, ENANTA Pharmaceut Inc, Watertown, MA 02472, United States. Additional authors for this research include B.B. Brasher, A. Polemeropoulos, M.H.J. Rhodin, N. McAllister, K.A. Wong, C.T. Jones, L.J. Jiang, K. Lin and Y.S. Or.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00815-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Watertown, Massachusetts, United States, North and Central America, Liver Diseases and Conditions, Hepatitis.

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Studies from CHUM Reveal New Findings on Antiretrovirals

Antiretroviral therapy suppressed participants with low CD4(+) T-cell counts segregate according to opposite immunological phenotypes]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antiretrovirals. According to news reporting originating from Montreal, Canada, by NewsRx correspondents, research stated, "The failure to increase CD4(+) T-cell counts in some antiretroviral therapy suppressed participants (immunodiscordance) has been related to perturbed CD4(+) T-cell homeostasis and impacts clinical evolution. We evaluated different definitions of immunodiscordance based on CD4(+) T-cell counts (cutoff) or CD4(+) T-cell increases from nadir value (DCD4) using supervised random forest classification of 74 immunological and clinical variables from 196 antiretroviral therapy suppressed individuals."

Our news editors obtained a quote from the research from CHUM, "Unsupervised clustering was performed using relevant variables identified in the supervised approach from 191 individuals. Cutoff definition of CD4(+) cell count 400 cells/ml performed better than any other definition in segregating immunocompartmental and immunodiscordant individuals (85% accuracy), using markers of activation, nadir and death of CD4(+) T cells. Unsupervised
clustering of relevant variables using this definition revealed large heterogeneity between immunodiscordant individuals and segregated participants into three distinct subgroups with distinct production, programmed cell-death protein-1 (PD-1) expression, activation and death of T cells. Surprisingly, a nonnegligible number of immunodiscordant participants (22%) showed high frequency of recent thymic emigrants and low CD4(+) T-cell activation and death, very similar to immunoconcordant participants. Notably, human leukocyte antigen - antigen D related (HLA-DR) PD-1 and CD45RA expression in CD4(+) T cells allowed reproducing subgroup segregation (81.4% accuracy). Despite sharp immunological differences, similar and persistently low CD4(+) values were maintained in these participants over time. A cutoff value of CD4(+) T-cell count 400 cells/ml classified better immunodiscordant and immunoconcordant individuals than any DCD4 classification. Immunodiscordance may present several, even opposite, immunological patterns that are identified by a simple immunological follow-up."

According to the news editors, the research concluded: "Subgroup classification may help clinicians to delineate diverse approaches that may be needed to boost CD4(+) T-cell recovery."

For more information on this research see: Antiretroviral therapy suppressed participants with low CD4(+) T-cell counts segregate according to opposite immunological phenotypes. *Aids*, 2016;30(15):2275-2287. *Aids* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx)

The news editors report that additional information may be obtained by contacting M. Massanella, Center Rech CHUM, Montreal, PQ H2X 0A9, Canada. Additional authors for this research include D. Ouchi, V. Urrea, J. Carrillo, C. Cabrera, J. Villa-Freixa, J. Puig, R. Paredes, E. Negredo, B. Clotet, M. Massanella and J. Blanco.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Interleukin-16 Receptors, T-Lymphocyte Antigens, Drugs and Therapies, Biological Factors, Antiretrovirals, Differentiation, CD4 Antigens, CD Antigens, Immunology, Therapy, CHUM.

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transient ER stress protects cancer cells from undergoing apoptosis, whereas the prolonged stress response further activates many cell death pathways. The present review summarizes the UPR mediated triggering of transcriptional and translational reprogramming, which will provide novel therapeutic strategies towards pro-death mechanisms rather than a cellular adaptation in tumorigenesis. Nonetheless, the current topic also points out the reprogramming of emerging molecular switching events by complex UPR-mediated signaling to trigger apoptosis. The novel agents from various natural, semi-synthetic and synthetic sources that target ER stress signaling pathway to modulate selectively the UPR phenomena with preclinical efficacy are outlined."

According to the news reporters, the research concluded: "Since major emphasis on ER stress-induced transcriptional and translational reprogramming remains to be explored, we believe that the current subject will instigate more attention from the biomedical researchers in this certain research direction."


Our news journalists report that additional information may be obtained by contacting A. Goswami, Indian Inst Integrat Med CSIR, Canc Pharmacol Div, Jammu 180001, J&K, India. Additional authors for this research include D. Nayak, R. Rasool, S. Chakraborty, A. Katoch, H. Amin and A. Goswami.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1566524016666160829152658. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jammu, India, Asia, Drugs and Therapies, Article Review, Cancer Therapy, CSIR.

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history of breast or ovarian cancer, stage I-II at diagnosis, residual disease 10 mm or less after primary debulking surgery, performance status 1 or less, CA125 less than 100, only 1 metastatic site of recurrence, platinum-free interval of more than 12 months, and SCS correlated with better overall survival. In the multivariate model, including propensity score, SCS remained associated with a 66% decrease in the risk of death (hazard ratio, 0.34; 95% CI, 0.15-0.76, p=0.008). Secondary cytoreductive surgery was also linked to longer progression-free survival (hazard ratio, 0.50; 95% CI, 0.30-0.84, p=0.008). There was no evidence of a benefit of SCS in patients with unfavorable prognosis (P for interaction=0.654)."

According to the news editors, the research concluded: "Our results confirm the benefit of SCS in progression-free survival and overall survival in the recurrent setting and suggest that it exists not only for patients with a good prognosis."


Our news journalists report that additional information may be obtained by contacting A.A. da Costa, *Medical Oncology Department, †Gynecology Oncology Dept. of and ‡Oncogenetics Department, AC Camargo Cancer Center, Sao Paulo, SP, Brazil. Additional authors for this research include C.V. Valadares, H. Mantoan, A. Saito, M.M. Salvadori, A.P. Guimaraes, S.M. Sanches, M.I. Achatz and G. Baiocchi.

Keywords for this news article include: Brazil, Cancer, Surgery, Sao Paulo, South America, Risk and Prevention, Gynecologic Oncology.

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Studies from Cancer Hospital Further Understanding of Esophageal Cancer (Long-term results of definitive concurrent chemoradiotherapy using paclitaxel plus oxaliplatin in unresectable locally advanced esophageal cancer: a prospective phase II ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Esophageal Cancer is the subject of a report. According to news reporting from Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "This prospective study aimed at assessing the efficiency and safety of concurrent chemoradiotherapy (CCRT) using paclitaxel (PTX) plus oxaliplatin (OHP) in unresectable locally advanced esophageal cancer patients. Between January 2006 and December 2010, 34 patients with unresectable locally advanced esophageal cancer were enrolled in this study."

The news correspondents obtained a quote from the research from Cancer Hospital, "Radiotherapy was delivered with a daily fraction of 2.0 Gy to a total dose of 60 Gy over 6 weeks. Concurrent PTX (135 mg/m(2), d(1)) and OHP (130 mg/m(2), d(1)) were administered on Day 1 and Day 29 of radiotherapy. Of these patients, 76.5% completed the treatment course with a response rate of 73.5%, including eight (23.5%) patients with complete response and 17 (50.0%) patients with partial response. The median overall survival (OS) time was 23.7 months
(range: 4.0-65.5 months) with 1-, 3- and 5-year OS rates were 64.3%, 36.6% and 25.8%, respectively. The median progression-free survival (PFS) time was 21.2 months with 1-, 3- and 5-year PFS rates were 63.8%, 30.9% and 20.4%, respectively. During the CCRT course, the main grade 3 or greater acute toxicities were leukopenia (38.2%), esophagitis (14.7%), and dysphagia (11.8%), with late toxicity being infrequent."

According to the news reporters, the research concluded: "Although this study did not meet its primary endpoint, the application of CCRT with PTX and OHP in unresectable locally advanced esophageal carcinoma yielded satisfactory clinical outcomes and manageable toxicities."


Our news journalists report that additional information may be obtained by contacting S.X. Wu, Hangzhou Canc Hosp, Dept. of Radiat Oncol, Hangzhou 310002, Zhejiang, People's Republic of China. Additional authors for this research include X.B. Zhang, M. Fang, R.P. Zhao and S.X. Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.897. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Clinical Trials and Studies, Organic Chemicals, Clinical Research, Esophageal Cancer, Gastroenterology, Cycloparaffins, Radiotherapy, Hydrocarbons, Paclitaxel, Oncology, Terpenes, Therapy, Taxoids, Cancer Hospital.

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**Cardiovascular Diseases and Conditions**

**Studies from Capital Medical University Add New Findings in the Area of Hypertension (Salusin-beta contributes to vascular inflammation associated with pulmonary arterial hypertension in rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Hypertension are presented in a new report. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Inflammation is closely linked to pulmonary arterial hypertension (PAH). Salusin-beta, a bioactive peptide, has been reported to participate in vascular inflammation."

The news reporters obtained a quote from the research from Capital Medical University, "We therefore hypothesized that salusin-beta contributes to monocrotaline (MCT)-induced PAH in rats. Male Sprague-Dawley rats were treated with MCT (60 mg kg(-1), single intraperitoneal injection). Salusin-beta expression in the lungs of the MCT-treated rats was evaluated using immunofluorescence staining, western blot, and real-time PCR. For salusin-beta blockade assay, rats injected with MCT were given a chronic infusion of anti-salusin-beta..."
immunoglobulin G (IgG) (salusin-beta blocker, 1.0 mg kg(-1) h(-1)) or isotype-matched control IgG. Four weeks after MCT+anti-salusin-beta treatment, the effects of salusin-beta blockade were determined using hemodynamics, western blot, real-time PCR, and immunohistochemical detection. The effect of salusin-beta on human pulmonary arterial endothelial cell (HPAEC) function was detected by adhesion and tube formation experiments in vitro. Salusin-beta expression was significantly increased in the lungs of the MCT-treated rats, and immunofluorescence results showed that salusin-beta was predominantly expressed in pulmonary macrophages and vascular endothelial cells. Salusin-beta blockade significantly ameliorated PAH by acting against pulmonary vascular remodeling, decreasing macrophage infiltration, and reducing pro-inflammatory cytokine expression and nuclear factor-kappa B (NF-kappa B) activity in the lungs of the MCT-treated rats. In addition, salusin-beta could induce cell adhesion and accelerate angiogenesis by activating the NF-kappa B pathway and promoting pro-inflammatory cytokine expression in the cultured HPAECs. This effect was suppressed by addition of the NF-kappa B inhibitor, N-acetyl-L-cysteine."

According to the news reporters, the research concluded: "Salusin-beta plays a crucial role in the development of MCT-induced PAH models."


Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Transcription Factors, DNA-Binding Proteins, Immunofluorescence, Nuclear Proteins, Inflammation, Hypertension, NF-kappa B, Capital Medical University.

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Central Nervous System Diseases and Conditions -- Studies from Capital Medical University Add New Findings in the Area of Moyamoya Disease (High-resolution Magnetic Resonance Imaging of Moyamoya Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Moyamoya Disease. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "To introduce the imaging characteristics of moyamoya disease (MMD) using high-resolution magnetic resonance imaging (HR-MRI) and to discuss the role of HR-MRI in differentiating MMD from other intracranial artery diseases, especially intracranial atherosclerotic disease (ICAD). This review was based on the data in articles published between 2005 and 2015, which were obtained from PubMed."
Our news journalists obtained a quote from the research from Capital Medical University. "The keywords included HR-MRI, MMD, ICAD, and intracranial artery diseases. Articles related to HR-MRI for MMD or other intracranial artery diseases were selected for review. There are differences between the characteristic patterns of HR-MRI in MMD and ICAD. MMD is associated with inward remodeling, smaller outer diameters, concentric occlusive lesions and homogeneous signal intensity, while ICAD is more likely to be associated with outward remodeling, normal outer diameters, eccentric occlusive lesions, and heterogeneous signal intensity. Other intracranial artery diseases, such as dissection and vasculitis, also have distinctive characteristics in HR-MRI. HR-MRI may become a useful tool for the differential diagnosis of MMD in the future."

According to the news editors, the research concluded: "HR-MRI of MMD provides a more in-depth understanding of MMD, and it is helpful in evaluating pathological changes in the vessel wall and in differentiating MMD from other intracranial artery steno-occlusive diseases, particularly ICAD."


The news correspondents report that additional information may be obtained from D. Zhang, Dept. of Neurosurgery, Beijing Tiantan Hospital, Capital Medical University, Beijing 100050, People's Republic of China. Additional authors for this research include Q. Zhang, Z.Y. Shi, M.Q. Wang and D. Zhang.

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The publisher's contact information for the Chinese Medical Journal is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Beijing, Angiology, Article Review, Moyamoya Disease, Magnetic Resonance, Cerebrovascular Disorders, People's Republic of China, Arterial Occlusive Diseases, Brain Diseases and Conditions, Cardiovascular Diseases and Conditions, Carotid Artery Diseases and Conditions, Cerebral Arterial Diseases and Conditions.

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**Apoptosis**

Studies from Capital Medical University Reveal New Findings on Apoptosis (Cardiac Specific Overexpression of Mitochondrial Omi/HtrA2 Induces Myocardial Apoptosis and Cardiac Dysfunction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Apoptosis. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Myocardial apoptosis is a significant problem underlying ischemic heart disease. We previously reported significantly elevated expression of cytoplasmic Omi/HtrA2, triggers
cardiomyocytes apoptosis."

Our news journalists obtained a quote from the research from Capital Medical University, "However, whether increased Omi/HtrA2 within mitochondria itself influences myocardial survival in vivo is unknown. We aim to observe the effects of mitochondria-specific, not cytoplasmic, Omi/HtrA2 on myocardial apoptosis and cardiac function. Transgenic mice overexpressing cardiac-specific mitochondrial Omi/HtrA2 were generated and they had increased myocardial apoptosis, decreased systolic and diastolic function, and decreased left ventricular remodeling. Transiently or stably overexpression of mitochondria Omi/HtrA2 in H9C2 cells enhance apoptosis as evidenced by elevated caspase-3, -9 activity and TUNEL staining, which was completely blocked by Ucf-101, a specific Omi/HtrA2 inhibitor. Mechanistic studies revealed mitochondrial Omi/HtrA2 overexpression degraded the mitochondrial anti-apoptotic protein HAX-1, an effect attenuated by Ucf-101. Additionally, transfected cells overexpressing mitochondrial Omi/HtrA2 were more sensitive to hypoxia and reoxygenation (H/R) induced apoptosis. Cyclosporine A (CsA), a mitochondrial permeability transition inhibitor, blocked translocation of Omi/HtrA2 from mitochondrial to cytoplasm, and protected transfected cells incompletely against H/R-induced caspase-3 activation. We report in vitro and in vivo overexpression of mitochondrial Omi/HtrA2 induces cardiac apoptosis and dysfunction."

According to the news editors, the research concluded: "Thus, strategies to directly inhibit Omi/HtrA2 or its cytosolic translocation from mitochondria may protect against heart injury."

For more information on this research see: Cardiac Specific Overexpression of Mitochondrial Omi/HtrA2 Induces Myocardial Apoptosis and Cardiac Dysfunction. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting H.R. Liu, Capital Med Univ, Beijing Key Lab Metab Disturbance Related Cardiov, Beijing 100069, People's Republic of China. Additional authors for this research include Y.X. Yuan, X. Liu, W.B. Lau, L. Zuo, X.L. Wang, L. Ma, K. Jiao, J.Y. Shang, W. Wang, X.L. Ma and H.R. Liu.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Subcellular Fractions, Enzymes and Coenzymes, Cellular Structures, Intracellular Space, Mitochondria, Organelles, Cardiology, Cytoplasm, Apoptosis, Genetics, Caspase, Capital Medical University.

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**Heart Disorders and Diseases - Heart Attack**

**Studies from Capital Medical University Update Current Data on Heart Attack (Atrial fibrillation is associated with an increased risk of myocardial infarction: Insights from a meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Attack have been presented. According to news originating from Beijing, People's Republic of China, by NewsRx
correspondents, research stated, "The presence of atrial fibrillation (AF) markedly increases the risk of stroke and mortality in patients. Whether AF is a risk factor for myocardial infarction (MI) is discrepant from current studies."

Our news journalists obtained a quote from the research from Capital Medical University, "The aim of this meta-analysis was to ascertain the association of AF with incident MI. Studies were identified through PubMed, CENTRAL, EMBASE, reviews and reference lists of relevant papers. Results of the MI outcome were presented as hazard ratio (HR) and 95% confidence interval (CI). Statistical analyses were performed with Stata 12.0 (Stata Corp LP, College Station, Texas, USA). Twelve studies, with a total of 169,306 patients, were included in the analysis. AF was associated with a 47% increased risk of MI (HR: 1.47; 95% CI: 1.21-1.80; p = 0.000; I-2 = 84.1%), while in patients free of coronary heart disease at baseline the risk could be increased by 71% (HR: 1.71; 95% CI: 1.36-2.14; p = 0.000; I-2 = 83.1%). Moreover, patients with AF had higher MI risk in the studies with lower mean age (< 60 years) (HR: 1.66; 95% CI: 1.26-2.20; p = 0.000; I-2 = 82.9%) than in the studies with higher mean age (≥ 60 years) (HR: 1.35; 95% CI: 1.00-1.82; p = 0.000; I-2 = 84.9%). Sex difference also existed, and the association between AF and MI was stronger in women (HR: 2.02; 95% CI: 1.60-2.56; p = 0.017; I-2 = 61.0%) than in men (HR: 1.44; 95% CI: 1.13-1.84; p = 0.000; I-2 = 76.1%). AF is associated with an increased risk of incident MI, especially in patients free of coronary heart disease at baseline, young patients and women."

According to the news editors, the research concluded: "The findings need confirmation in well-designed observational trials."

For more information on this research see: Atrial fibrillation is associated with an increased risk of myocardial infarction: Insights from a meta-analysis. Atherosclerosis, 2016;254();1-7. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)


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Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Risk and Prevention, Atrial Fibrillation, Cardiac Arrhythmias, Myocardial Ischemia, Heart Disease, Heart Attack, Cardiology, Stroke, Capital Medical University.

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Studies from Capital Medical University in the Area of Heart Failure Described (Analysis of Renal Artery Stenosis in Patients with Heart Failure: A RASHEF Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Failure. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Previous data are controversial about the association of renal artery stenosis (RAS) with clinical outcome in patients with heart failure. Definition of RAS in previous studies might not be appropriate."

The news reporters obtained a quote from the research from Capital Medical University, "By definition of RAS with renal duplex sonography, we investigated the association of RAS with clinical outcome in patients with heart failure. In this retrospective study, we identified 164 patients with heart failure (New York Heart Association classification (>=)II; left ventricular ejection fraction <50%) who had received renal duplex sonography during hospital stay. RAS was defined as renal-aortic ratio (>=)3.5 or a peak systolic velocity (> =)200 cm/s (or both), or occlusion of the renal artery. Categorical data of patients were compared using the Chi-square test or Fisher's exact test. Cox proportional hazards regression modeling technique was used to investigate the prognostic significance of possible predictors. Finally, 143 patients were enrolled. Median follow-up time was 32 months (1-53 months). Twenty-two patients were diagnosed as RAS by renal duplex sonography, including 13 unilateral RAS (3 left RAS, 10 right RAS) and 9 bilateral RAS. There were more all-cause mortality and cardiovascular death in patients with RAS than patients without RAS. By multivariate analysis, RAS was a significant predictor for all-cause death and cardiovascular death (hazard ratio [HR]=4.155, 95% confidence interval [CI]: 1.546-11.164, p=0.005; and HR=3.483, 95% CI: 1.200-10.104, p=0.022, respectively). As for composite endpoint events, including death, nonfatal myocardial infarction, ischemic stroke or intracranial hemorrhage, rehospitalization for cardiac failure, and renal replacement therapy, only angiotensin-converting enzyme inhibitor or angiotensin-receptor blocker was significant predictor. RAS was not a significant predictor for composite endpoint events."


Our news correspondents report that additional information may be obtained by contacting J.H. Liu, Dept. of Cardiology, Beijing Anzhen Hospital, Capital Medical University, Beijing Institute of Heart, Lung and Blood Vessel Diseases, Beijing 100029, People's Republic of China. Additional authors for this research include Q. Ma, L.H. Zheng, Q. Yong, Y.H. He and J.H Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.167353. This DOI is a link to an online electronic
Studies from Cardiovascular Institute Yield New Data on Hypertrophic Cardiomyopathy (Utility of Real Time 3D Echocardiography for the Assessment of Left Ventricular Mass in Patients with Hypertrophic Cardiomyopathy: Comparison with Cardiac Magnetic Resonance.)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Hypertrophic Cardiomyopathy have been published. According to news reporting originating from Buenos Aires, Argentina, by NewsRx correspondents, research stated, "Patients with hypertrophic cardiomyopathy (HCM) have irregular ventricular shapes with small and sometimes obliterated cavities at end-systole that affect the quantification of left ventricular mass (LVM) by conventional methods, such as M-mode or two-dimensional echocardiography. The goal of this study was to validate the use of real time three-dimensional echocardiography (RT3DE) to quantify LVM using cardiac magnetic resonance imaging (CMR) as a reference, in a large population of patients with different types of HCM."

Our news editors obtained a quote from the research from Cardiovascular Institute, "Forty-eight consecutive patients with HCM had a complete transthoracic examination and CMR performed within 7 days. LVM was calculated by M-mode and RT3DE and compared to CMR that served as gold standard. Left ventricular mass calculated by RT3DE was 195 ± 41 g and 187 ± 49 g by CMR. The correlation between the two methods was moderate, with a Lin index of 0.63 and good linear correlation (r=0.63, p<0.0001). The correlation was high when RT3DE was of high or adequate image quality. The correlation between LVM by M-mode and CMR was poor."

According to the news editors, the research concluded: "Three-dimensional echocardiography is an accurate method for the quantification of LVM in patients with different subtypes of HCM that is in better agreement with CMR reference values than M-mode measurements."


The news editors report that additional information may be obtained by contacting G.P. Avegliano, Dept. of Cardiovascular Imaging, Cardiovascular Institute of Buenos Aires,
Buenos Aires, Argentina. Additional authors for this research include J.P. Costabel, F.M. Asch, A. Sciancalepore, P. Kuschnir, M. Huguet, C. Tobon-Gomez, A.F. Frangi and R. Ronderos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/echo.13096. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Echocardiography* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Argentina, Diagnosis, Cardiology, Buenos Aires, South America, Heart Disease, Cardiomyopathies, Echocardiography, Heart Function Tests, Hypertrophic Cardiomyopathy, Heart Disorders and Diseases, Diagnostic Techniques and Procedures, Cardiovascular Diseases and Conditions.

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**Heart Disorders and Diseases - Heart Disease**

**Studies from Cardiovascular Research Foundation Yield New Data on Heart Disease (Gender Differences in Associations Between Intraprocedural Thrombotic Events During Percutaneous Coronary Intervention and Adverse Outcomes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Heart Disease is the subject of a report. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "Women are frequently reported to have increased morbidity after presentation with acute coronary syndromes and myocardial infarction; however, whether a greater thrombotic tendency contributes to gender differences in clinical outcomes of urgent percutaneous coronary intervention is unknown. Intraprocedural Thrombotic Events (IPTEs) are defined as new or increasing thrombus, abrupt vessel closure, no reflow or slow reflow, or distal embolization at any time during percutaneous coronary intervention."

Our news journalists obtained a quote from the research from Cardiovascular Research Foundation, "IPTEs were evaluated in this pooled analysis of 6,591 patients with stent implantation and blinded quantitative coronary angiography (QCA) analysis, from the ACUITY and HORIZONS-AMI trials. We compared major adverse cardiac events (MACE) at in-hospital, 30-day, and 1-year follow-up and major bleeding at 30 days according to gender and the presence or absence of IPTE. IPTE was identified in 507 patients (7.7%), with 119 of 1,744 (6.8%) occurring in women and 388 of 4,847 (8.0%) in men (p = 0.12). IPTE, but not gender, was independently associated with MACE at in-hospital and 30-day follow-up. At 1-year follow-up, the adjusted hazard of MACE was higher in women and in patients with IPTE; however, the risk of MACE associated with IPTE was similar among women and men. There was no significant interaction between IPTE and gender for 1-year MACE or 30-day bleeding. IPTE predicted major bleeding only in women."

According to the news editors, the research concluded: "In acute coronary syndromes, women have increased risk of adverse outcome at 1 year. IPTEs are common, occur at similar frequency, and are associated with similar degree of increased MACE in both genders at short- and long-term follow-up. Higher thrombotic propensity does not offer a mechanistic explanation for the worse outcomes noted in women."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjcard.2016.08.046. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Heart Disorders and Diseases, Risk and Prevention, Vascular Diseases and Conditions, Acute Coronary Syndrome, Myocardial Ischemia, Heart Disease, Cardiology, Hospital, Cardiovascular Research Foundation.

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**Numerical Analysis**

**Studies from Carleton University Yield New Data on Numerical Analysis (Nonuniform Deposition of Pressurized Metered-Dose Aerosol in Spacer Devices)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Numerical Analysis is now available. According to news reporting from Ottawa, Canada, by NewsRx journalists, research stated, "Pressurized metered-dose inhalers (pMDIs) are commonly used to administer medication to patients suffering from chronic lower respiratory tract diseases such as asthma. Inhaling medication directly from a pMDI can prove difficult for some patients and, as a result, add-on devices (or spacers) have been designed to aid in the delivery of medication."

The news correspondents obtained a quote from the research from Carleton University, "Although spacers increase the percentage of medication that reaches the patient, medication will also nonsymmetrically deposit on the walls of the device and will be lost to the device itself. The deposition of medication, salbutamol sulfate, within a large- and small-volume spacer, has been studied through an experimental and numerical analysis. Experiments were conducted at inspiratory flow rates ranging from 30 to 60 L/min. The amount of deposition of the medication on the walls of the spacer was quantified through an application of spectrophotometry. Computational fluid dynamics was used to quantify the deposition numerically. Simulations were conducted by implementing mean flow and turbulent tracking of particles using unsteady Reynolds-averaged Navier-Stokes (URANS) equations with a shear stress transport turbulence model. Regions of deposition are of interest, as well as how the method of deposition varied for different inhalation flow rates. The deposition of salbutamol sulfate in the Volumatic ® and OptiChamber ® spacers was found to be greater in the lower half as opposed to the upper half of the spacer due to a downward spray angle. With an increased
According to the news reporters, the research concluded: "For the numerical analysis, the results indicated that inertial impaction is the most likely method of deposition for the Volumatic spacer, and turbulence is more likely to cause deposition in the OptiChamber spacer."


Our news journalists report that additional information may be obtained by contacting N. Ogrodnik, Carleton University, Dept. of Mech & Aerosp Engn, Ottawa, ON K1S 5B6, Canada. Additional authors for this research include V. Azzi, E. Sprigge, S. Fiset and E. Matida.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/jamp.2015.1257. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Mathematics, Drugs and Therapies, Numerical Analysis, Carleton University.

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**Surgery - Cesarean Section**

**Studies from Case Western Reserve University Describe New Findings in Cesarean Section (Maternal and neonatal outcomes of attempted vaginal compared with planned cesarean delivery in triplet gestations)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Surgery - Cesarean Section are discussed in a new report. According to news reporting out of Cleveland, Ohio, by NewsRx editors, research stated, "The prevailing obstetric practice of planned cesarean delivery for triplet gestations is largely empiric and data on the optimal route of delivery are limited. The primary objectives of this study are to determine the likelihood of success in an attempted vaginal delivery and assess maternal and neonatal outcomes of attempted vaginal vs planned cesarean delivery of triplets using a multinstitution obstetric cohort."

Our news journalists obtained a quote from the research from Case Western Reserve University. "We performed a retrospective cohort study using data from the Consortium on Safe Labor, identifying triplet pregnancies with delivery at a gestational age >= 28 weeks. Women with a history of cesarean delivery and pregnancies complicated by chromosomal or congenital anomalies, twin-twin transfusion syndrome, or a fetal demise were excluded. The attempted vaginal group included all women with spontaneous or induced labor and excluded all women delivering by prelabor cesarean delivery, including those coded as elective or for fetal malpresentation. Primary maternal outcomes included infection (composite of chorioamnionitis,
endometritis, wound separation, and wound infection), blood transfusion, or transfer to the intensive care unit. Primary neonatal outcomes included neonatal asphyxia, mechanical ventilation, and composite neonatal morbidity, consisting of >= 1 of the following: birth injury, 5-minute Apgar < 4, arterial pH < 7.0 or base excess < -12.0, neonatal asphyxia, or neonatal death. For neonatal outcomes, Poisson regression was performed with clustering to account for correlation between neonates within a triplet pregnancy, controlling for confounders as outcome rates allowed. A sensitivity analysis was performed in the subcohort delivering at gestational age >= 34 weeks in which the attempted vaginal delivery group was restricted to include only women with evidence of induction or augmentation or labor. 188 triplet sets were identified of which 80 sets (240 neonates) met inclusion criteria and 24 sets (30%) had an attempted vaginal delivery. The rate of successful attempted vaginal delivery was 16.7% (4 triplet sets; 12 neonates). No women had a combined mode of delivery. Women attempting vaginal delivery were more likely to have preterm labor (45.8 vs 12.5%, P<.001) and receive antenatal corticosteroids (45.8 vs 21.4%, P =.03), however gestational age at delivery did not differ by mode of delivery. Attempted vaginal delivery was associated with a higher risk of maternal transfusion (20.8% vs 3.6%, P =.01) and neonatal mechanical ventilation (26.4% vs 7.7%; adjusted incidence rate ratio, 1.12; 95% confidence interval, 1.01-1.24). There was no significant difference in the risk of asphyxia or composite neonatal morbidity by mode of delivery. In the subcohort sensitivity analysis, attempted vaginal delivery was associated with an increased risk of composite neonatal morbidity (adjusted incidence rate ratio, 12.44; 95% confidence interval, 1.22-127.20) but not maternal transfusion (22.2% vs 3.5%, P =.06) or neonatal mechanical ventilation (adjusted incidence rate ratio, 1.02; 95% confidence interval, 0.89-1.17). In a multicenter US cohort, attempted vaginal delivery of triplets is associated with higher risks of maternal transfusion and neonatal mechanical ventilation. Composite severe neonatal morbidity may be higher with attempted vaginal delivery although studies with greater power are required. The low probability of successful vaginal delivery raises questions regarding the utility of attempted vaginal delivery in triplet gestations."

According to the news editors, the research concluded: "Our data support planned prelabor cesarean delivery as the preferred mode of delivery for triplet gestations."


Our news journalists report that additional information may be obtained by contacting J.R. Lappen, Case Western Reserve University, Sch Med, Metrohlth Med Center, Div Maternal Fetal Med, Cleveland, OH, United States. Additional authors for this research include D.N. Hackney and J.L. Bailit.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Transfusion Medicine, Blood Transfusion, Cesarean Section, Medical Devices, Women's Health, Gynecology, Obstetrics, Pregnancy, Asphyxia, Genetics, Surgery, Case Western Reserve University.

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Studies from Case Western Reserve University Reveal New Findings on Therapeutics (Female genital alteration: a compromise solution)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Therapeutics is now available. According to news reporting originating from Cleveland, Ohio, by NewsRx correspondents, research stated, "Despite 30 years of advocacy, the prevalence of non-therapeutic female genital alteration (FGA) in minors is stable in many countries. Educational efforts have minimally changed the prevalence of this procedure in regions where it has been widely practiced."

Our news editors obtained a quote from the research from Case Western Reserve University, "In order to better protect female children from the serious and long-term harms of some types of non-therapeutic FGA, we must adopt a more nuanced position that acknowledges a wide spectrum of procedures that alter female genitalia. We offer a revised categorisation for non-therapeutic FGA that groups procedures by effect and not by process. Acceptance of de minimis procedures that generally do not carry long-term medical risks is culturally sensitive, does not discriminate on the basis of gender, and does not violate human rights. More morbid procedures should not be performed."

According to the news editors, the research concluded: "However, accepting de minimis non-therapeutic FGA procedures enhances the effort of compassionate practitioners searching for a compromise position that respects cultural differences but protects the health of their patients."

For more information on this research see: Female genital alteration: a compromise solution. Journal of Medical Ethics, 2016;42(3):148-54. (BMJ Publishing Group - group.bmj.com/; Journal of Medical Ethics - jme.bmj.com/)

The news editors report that additional information may be obtained by contacting K.S. Arora, Dept. of Obstetrics and Gynecology, MetroHealth Medical Center, Cleveland, Ohio USA. Dept. of Bioethics, Case Western Reserve University, Cleveland, Ohio, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/medethics-2014-102375. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Cleveland, Legal Issues, Therapeutics, United States, Risk and Prevention, North and Central America.

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According to news reporting out of Daegu, South Korea, by NewsRx editors, research stated, "Follicular variant papillary thyroid cancer (FVPTC) is the second most common subtype after conventional PTC. We compared ultrasonographic (US) features of FVPTC to those of conventional PTC according to tumor size."

Our news journalists obtained a quote from the research from the Catholic University of Daegu School of Medicine, "We reviewed US findings, pathologic reports, and medical charts of 249 PTC patients with surgically proven disease (83 FVPTCs, 166 conventional PTCs) at our institution from January 2007 to December 2012. FVPTCs were divided into PTC-like and follicular neoplasm (FN)-like based on sonographic characteristics. PTC-like features were defined as having at least one malignant feature (taller-than-wide shape, infiltrative margin, marked hypochochogenicity, and micro-calcifications), whereas FN-like cancers showed oval solid features without malignant features. FVPTCs showed a higher rate of FN-like features than conventional PTCs. Of 166 conventional PTCs, 13 (7.8%) had FN-like features and 153 (92.2%) had PTC-like features, whereas of the 83 FVPTCs, 31 (37.3%) had FN-like features and 52 (62.7%) had PTC-like features. Macro-FVPTCs showed a higher rate of FN-like features than micro-FVPTCs (p <0.001). Of 21 macro-FVPTCs, 18 (85.7%) had FN-like features and 3 (14.3%) had PTC-like features, whereas of the 62 micro-FVPTCs, 13 (21%) had FN-like features and 49 (79%) had PTC-like features. There were no differences in multifocality, extrathyroidal invasion, and lymph node metastasis between PTC-like FVPTCs and FN-like FVPTCs. FVPTCs showed fewer sonographic malignant features than conventional PTCs. In particular, FVPTCs larger than 1 cm had a more frequent benign sonographic appearance." According to the news editors, the research concluded: "Therefore, if fine-needle aspiration result is suspicious for PTC in a nodule larger than 1 cm with no suspicious US features, the possibility of FVPTC might be considered."

For more information on this research see: Ultrasonographic Characteristics of the Follicular Variant Papillary Thyroid Cancer According to the Tumor Size. *Journal of Korean Medical Science*, 2016;31(3):397-402.

Our news journalists report that additional information may be obtained by contacting E.J. Jeon, Dept. of Internal Medicine, Catholic University of Daegu School of Medicine, Daegu, South Korea. Additional authors for this research include Y.J. Jeong, S.H. Park, C.H. Cho, H.S. Shon and E.D Jung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3346/jkms.2016.31.3.397. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Daegu, Oncology, South Korea, Thyroid Neoplasms, Papillary Thyroid Cancer.

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**Leiomyomas**

Studies from Catholic University of Korea Provide New Data on Leiomyomas (Rapid enlargement of endometrial stromal sarcoma after uterine fibroid embolization for presumed adenomyosis: a case report and literature review)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Leiomyomas is now available. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Uterine sarcomas have rarely been diagnosed after uterine artery embolization. It remains unclear whether the diagnostic work-up is required prior to such embolization to prevent a missed diagnosis of sarcomas and a delay in providing definitive treatment."

Our news editors obtained a quote from the research from the Catholic University of Korea, "Because of the rarity and heterogeneity of endometrial stromal neoplasms, little is known about their epidemiology, pathogenesis, and molecular pathology. The authors report a case of low-grade endometrial stromal sarcoma (ESS) diagnosed after uterine fibroid embolization. Although they performed laparoscopic biopsy of the rapidly growing uterine mass, they could not detect the ESS. Although rare, ESS should be considered in the differential diagnosis of uterine fibroid enlargement. It is essential to assess the risk of malignancy by taking into account the patient's clinical symptoms, results of the physical exam, and imaging findings prior to uterine artery embolization."

According to the news editors, the research concluded: "Pathologic diagnosis should include an adequate biopsy sample and the use of molecular genetic testing."


The news editors report that additional information may be obtained by contacting M.J. Kim, Catholic University of Korea, Coll Med, Dept. of Obstet & Gynecol, Seoul, South Korea. Additional authors for this research include H.J. Lee, Y.J. Shin, H.W. Lim, H.N. Lee and M.J. Kim.

Keywords for this news article include: Seoul, South Korea, Asia, Therapeutic Embolization, Article Review, Diagnostics and Screening, Epidemiology, Risk and Prevention, Uterine Artery Embolization, Leiomyomas, Angiology, Oncology, Genetics, Sarcoma, Catholic University of Korea.

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**Clinical Research - Clinical Trials and Studies**

**Studies from Catholic University of Korea in the Area of Clinical Trials and Studies Described (Efficacy and Safety of "URSA Complex" in Subjects with Physical Fatigue: A Multicenter, Randomized, Double-blind, Placebo-controlled Trial)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Fatigue is a common symptom both in diseases status and in healthy subjects. Various supplements and nutraceauticals for relieving of fatigue have been used."

Our news journalists obtained a quote from the research from the Catholic University of Korea, "However, there are a few studies to evaluate the efficacy and the safety of the drug"
for fatigue alleviation, we conducted using URSA Complex to evaluate the efficacy on physical fatigue via score changes in the checklist individual strength (CIS). The study was designed as a multicenter, randomized, double-blind, placebo-controlled trial, with subjects randomized to one of the two arms, receiving either placebo or URSA Complex administered as identical capsules. The primary efficacy endpoints of this clinical trials are the ratio of improving CIS scores <76 points in patients at the end (4 weeks). Secondary efficacy variables are as follows one is an improvement of fatigue and the other is an improvement of the liver enzyme. The fatigue recovery rate in who had improved CIS scores of <76 points were 70.0%, 50.9% in the therapy group and placebo group, respectively (p=0.019). The fatigue recovery rate in CIS score was higher in URSA Complex therapy group than placebo group. The difference between therapy group and placebo group was statistically significant at 4 weeks later, but not 2 weeks. Our results provided that the URSA Complex was effective in alleviating physical fatigue.

According to the news editors, the research concluded: "The adverse event frequency in the therapy groups was similar to that in the placebo group."


Our news journalists report that additional information may be obtained by contacting K.S. Kim, Dept. of Family Medicine, CMC Clinical Research Coordinating Center, Seoul St Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, South Korea. Additional authors for this research include M.J. Kim, S.W. Song, D.Y. Cho, K.C. Park, S.W. Yang, Y.S. Kim and K.S Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0366-6999.173432. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Chinese Medical Journal is: Chinese Medical Association, 42 Dongsi Xidajie, Beijing 100710, Peoples R China.

Keywords for this news article include: Asia, Seoul, Therapy, Placebos, South Korea, Clinical Research, Clinical Trials and Studies.

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**Drugs and Therapies - Olanzapine Therapy**

**Studies from Catholic University of Leuven Describe New Findings in Olanzapine Therapy (A sensitive capillary LC-UV method for the simultaneous analysis of olanzapine, chlorpromazine and their FMO-mediated N-oxidation products in brain ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Olanzapine Therapy is now available. According to news reporting originating from Leuven, Belgium, by NewsRx correspondents, research stated, "A specific and sensitive capillary liquid chromatography-ultraviolet detection (cap-LC-UV) method in combination with a micro-extraction by packed
sorbent (MEPS) sample clean-up procedure has been developed and validated for the simultaneous analysis of chlorpromazine, olanzapine and their flavin-containing monooxygenase (FMO) mediated N-oxides in rat brain microdialysates. Chromatographic separation was obtained on an Acclaim Pepmap RP C18 column with an ID of 300 μm. An injection volume of 20 L was used to inject the largely aqueous samples and was shown to have no influence on the obtained peak shape of the compounds of interest."

Financial supporters for this research include TUBITAK, FWO.

Our news editors obtained a quote from the research from the Catholic University of Leuven, "Optimal conditions for MEPS extraction were obtained on a mixed-mode M1 (80% C8, 20% SCX) cartridge after diluting microdialysate samples with phosphate buffer pH 2.5 (1:3 v/v). The method was validated and lower limits of quantification (LLOQ) were determined at 0.5 nM for all compounds. Linearity was demonstrated between the LLOQ and 1 μM for all compounds (R-2 > 0.995). MEPS recoveries were between 92% and 98%, with intra- and interday variabilities below 15%. The applicability of the developed method was successfully demonstrated by analysing rat brain microdialysates."

According to the news editors, the research concluded: "The capillary LC-UV method in combination with MEPS sample treatment provides a simple, sensitive method to quantify all compounds of interest in 45 min and can be applied for routine therapeutic monitoring and pharmacokinetic studies of olanzapine, chlorpromazine and their respective N-oxides."

For more information on this research see: A sensitive capillary LC-UV method for the simultaneous analysis of olanzapine, chlorpromazine and their FMO-mediated N-oxidation products in brain microdialysates. *Talanta*, 2017;162():268-277. *Talanta* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Talanta - www.journals.elsevier.com/talanta/)

The news editors report that additional information may be obtained by contacting D. Cabooter, Catholic University of Leuven, Pharmaceut Anal, Dept. of Pharmaceut & Pharmacol Sci, B-3000 Leuven, Belgium. Additional authors for this research include D.Y. Ugur, I.T. Yilmaz, E. Sener, A. Van Schepdael, E. Adams, K. Broeckhoven and D. Cabooter.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.talanta.2016.09.053. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leuven, Belgium, Europe, Central Nervous System Agents, Antiemetic-Antivertigo Agents, Phenothiazine Antipsychotics, Phenothiazine Antiemetics, Psychotherapeutic Agents, Atypical Antipsychotics, Chlorpromazine Therapy, Drugs and Therapies, Dopamine Antagonist, Olanzapine Therapy, Pharmaceuticals, Phenothiazines, Catholic University of Leuven.

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**Drugs and Therapies - Chemotherapy**

**Studies from Catholic University of Leuven Have Provided New Data on Chemotherapy (Modulation of the Substitution Pattern of 5-Aryl-2-Aminoimidazoles Allows Fine-Tuning of Their Antibiofilm Activity Spectrum and Toxicity)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Chemotherapy have been presented. According to news reporting originating in Leuven, Belgium, by NewsRx journalists, research stated, "We previously synthesized several series of compounds, based on the 5-aryl-2-aminoimidazole scaffold, that showed activity preventing the formation of Salmonella enterica serovar Typhimurium and Pseudomonas aeruginosa biofilms. Here, we further studied the activity spectrum of a number of the most active N1- and 2N-substituted 5-aryl-2-aminoimidazoles against a broad panel of biofilms formed by monospecies and mixed species of bacteria and fungi."

The news reporters obtained a quote from the research from the Catholic University of Leuven, "An N1-substituted compound showed very strong activity against the biofilms formed by Gram-negative and Gram-positive bacteria and the fungus Candida albicans but was previously shown to be toxic against various eukaryotic cell lines. In contrast, 2N-substituted compounds were nontoxic and active against biofilms formed by Gram-negative bacteria and C. albicans but had reduced activity against biofilms formed by Gram-positive bacteria. In an attempt to develop nontoxic compounds with potent activity against biofilms formed by Gram-positive bacteria for application in antibiofilm coatings for medical implants, we synthesized novel compounds with substituents at both the N1 and 2N positions and tested these compounds for antibiofilm activity and toxicity. Interestingly, most of these N1-, 2N-disubstituted 5-aryl-2-aminoimidazoles showed very strong activity against biofilms formed by Gram-positive bacteria and C. albicans in various setups with biofilms formed by monospecies and mixed species but lost activity against biofilms formed by Gram-negative bacteria. In light of application of these compounds as anti-infective coatings on orthopedic implants, toxicity against two bone cell lines and the functionality of these cells were tested. The N1-, 2N-disubstituted 5-aryl-2-aminoimidazoles in general did not affect the viability of bone cells and even induced calcium deposition."

According to the news reporters, the research concluded: "This indicates that modulating the substitution pattern on positions N1 and 2N of the 5-aryl-2-aminoimidazole scaffold allows fine-tuning of both the antibiofilm activity spectrum and toxicity."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00035-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leuven, Belgium, Europe, Chemotherapy, Drugs and Therapies, Catholic University of Leuven.

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Studies from Catholic University of Louvain Yield New Information about Type 2 Diabetes [A Mechanistic Study on Nanoparticle-Mediated Glucagon-Like Peptide-1 (GLP-1) Secretion from Enteroendocrine L Cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting out of Brussels, Belgium, by NewsRx editors, research stated, "L cells have attracted particular interest because of the pleiotropic effects of their secreted peptides (i.e., glucagon-like peptide (GLP) 1 and 2, peptide YY (PYY)). L cells express different G-protein coupled receptors (GPCRs) that can be activated by endogenous ligands found in the gut lumen."

Financial supporters for this research include European Research Council, Fonds De La Recherche Scientifique - FNRS, Artois-Baillet Latour Foundation.

Our news journalists obtained a quote from the research from the Catholic University of Louvain, "We herein hypothesized that lipid-based nanoparticles could mimic endogenous ligands and thus activate GLP-1 secretion in type 2 diabetes mellitus treatment. To assess this hypothesis, lipid-based nanoparticles (nanostructured lipid carriers (NLC), lipid nanocapsules (LNC), and liposomes) and PLGA nanoparticles were added to the L cells and GLP-1 secretion was quantified. Among these nanoparticles, only NLC resulted effective at inducing GLP-1 secretion in both murine and human L cells in vitro. The mRNA expression of proglucagon showed that this effect was due to an increased GLP-1 secretion and not to an increased GLP-1 synthesis. The mechanism by which NLC triggered GLP-1 secretion by L cells revealed an extracellular interaction of NLC, exerting a physiological GLP-1 secretion."

According to the news editors, the research concluded: "We herein demonstrate that nanomedicine can be used to induce GLP-1 secretion from murine and human L cells."

For more information on this research see: A Mechanistic Study on Nanoparticle-Mediated Glucagon-Like Peptide-1 (GLP-1) Secretion from Enteroendocrine L Cells. Molecular Pharmaceutics, 2016;13(12):4222-4230. Molecular Pharmaceutics can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

Our news journalists report that additional information may be obtained by contacting P.D. Cani, Catholic University of Louvain, WELBIO Walloon Excellence Life Sci & BIOtechnol, Louvain Drug Res Inst, Metab & Nutr Grp, B-1200 Brussels, Belgium. Additional authors for this research include M. Alhouayek, D. Carradori, K. Vanvarenberg, G.G.M. Li, P.D. Cani and V. Preat.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.6b00871. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brussels, Belgium, Europe, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Gastrointestinal Hormones, Glucagon-Like Peptide 1, Glucagon-Like Peptides, Emerging Technologies, Risk and Prevention, Peptide Proteins, Peptide Hormones, Type 2 Diabetes, Nanotechnology, Nanoparticle, Proglucagon, Proteomics, Genetics, Catholic University of
Studies from Cedars-Sinai Heart Institute Add New Findings in the Area of Immunoglobulins (Do Prior Driveline Infections Increase the Risk of Infection in Heart Transplant Patients Treated With Rabbit Antithymocyte Globulin Induction Therapy?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immunology - Immunoglobulins is the subject of a report. According to news reporting originating in Los Angeles, California, by NewsRx journalists, research stated, "The use of mechanical circulatory support devices (MCSDs) has been increasing over the past several years. Driveline infections (DLIs) are one of the most common complications seen in these patients; reportedly, up to 50% of patients with MCSDs can develop this complication."

The news reporters obtained a quote from the research from Cedars-Sinai Heart Institute, "It is believed that the removal of the driveline results in treatment of the localized infection area. MCSD patients are also known to develop circulating antibodies. These circulating antibodies have been associated with poor outcomes after heart transplantation. The use of rabbit antithymocyte globulin (ATG) as induction therapy reportedly decreases the development of circulating antibodies; it is now commonly used in sensitized patients undergoing heart transplantation. It is unknown whether ATG induction therapy immediate posttransplant will increase the risk of infection of those MCSD patients with DLIs. Between 2003 and 2013, we evaluated 57 MCSD patients who subsequently underwent heart transplantation and received ATG induction therapy. Patients were divided into those with previous MCSD DLI and those without, and they were assessed for 1-year freedom from infection (specifically, sternal wound infections). One-year survival and freedom from treated rejection, both cellular and antibody mediated, were also assessed. MCSD patients with DLIs who received ATG induction did not have a lower freedom from any treated infection and from sternal wound infection posttransplant compared with those MCSD patients without DLIs and not treated with ATG induction. There were also no significant differences between the 2 groups in terms of 1-year posttransplant survival and freedom from treated rejection. The use of ATG induction in patients with prior DLIs did not seem to increase the risk for posttransplant infection (eg, sternal wound infection)."

According to the news reporters, the research concluded: "ATG induction can therefore be safely used in this population."


Our news correspondents report that additional information may be obtained by contacting J. Kobashigawa, Cedars Sinai Heart Inst, Los Angeles, CA, United States. Additional
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transproceed.2016.09.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Los Angeles, California, United States, North and Central America, Proteins, Risk and Prevention, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Globulins, Therapy, Cedars-Sinai Heart Institute.

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Lung Diseases and Conditions - Pneumonia

Studies from Cedars-Sinai Medical Center Yield New Data on Pneumonia [Results of the ICTuS 2 Trial (Intravascular Cooling in the Treatment of Stroke 2)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Pneumonia. According to news reporting originating from Los Angeles, California, by NewsRx correspondents, research stated, "Therapeutic hypothermia is a potent neuroprotectant approved for cerebral protection after neonatal hypoxia-ischemia and cardiac arrest. Therapeutic hypothermia for acute ischemic stroke is safe and feasible in pilot trials."

Our news editors obtained a quote from the research from Cedars-Sinai Medical Center, "We designed a study protocol to provide safer, faster therapeutic hypothermia in stroke patients. Safety procedures and 4 degrees C saline infusions for faster cooling were added to the ICTuS trial (Intravascular Cooling in the Treatment of Stroke) protocol. A femoral venous intravascular cooling catheter after intravenous recombinant tissue-type plasminogen activator in eligible patients provided 24 hours cooling followed by a 12-hour rewarm. Serial safety assessments and imaging were performed. The primary end point was 3-month modified Rankin score 0,1. Of the intended 1600 subjects, 120 were enrolled before the study was stopped. Randomly, 63 were to receive hypothermia plus antishivering treatment and 57 normothermia. Compared with previous studies, cooling rates were improved with a cold saline bolus, without fluid overload. The intention-to-treat primary outcome of 90-day modified Rankin Score 0,1 occurred in 33% hypothermia and 38% normothermia subjects, odds ratio (95% confidence interval) of 0.81 (0.36-1.85). Serious adverse events occurred equally. Mortality was 15.9% hypothermia and 8.8% normothermia subjects, odds ratio (95% confidence interval) of 1.95 (0.56-7.79). Pneumonia occurred in 19% hypothermia versus 10.5% in normothermia subjects, odds ratio (95% confidence interval) of 1.99 (0.63-6.98). Intravascular therapeutic hypothermia was confirmed to be safe and feasible in recombinant tissue-type plasminogen activator-treated acute ischemic stroke patients."

According to the news editors, the research concluded: "Protocol changes designed to reduce pneumonia risk appeared to fail, although the sample is small."

For more information on this research see: Results of the ICTuS 2 Trial (Intravascular Cooling in the Treatment of Stroke 2). Stroke, 2016;47(12):2888-2895. Stroke can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Stroke -
The news editors report that additional information may be obtained by contacting P. Lyden, Cedars Sinai Med Center, Dept. of Neurol, Los Angeles, CA 90048, United States. Additional authors for this research include T. Hemmen, J. Grotta, K. Rapp, K. Ernstrom, T. Rzesiewicz, S. Parker, M. Concha, S. Hussain, S. Agarwal, B. Meyer, J. Jurf, I. Altafullah and R. Raman.

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Keywords for this news article include: Los Angeles, California, United States, North and Central America, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Respiratory Tract Infections, Risk and Prevention, Infectious Disease, Intravascular, Hypothermia, Pulmonology, Angiology, Pneumonia, Cedars-Sinai Medical Center.

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Hematologic Diseases and Conditions - Anemia

Studies from Centers for Disease Control and Prevention Add New Findings in the Area of Anemia (The Rural-Urban Difference in BMI and Anemia among Children and Adolescents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematologic Diseases and Conditions - Anemia is the subject of a report. According to news reporting originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "There is growing concern over the double burden of over-and under-nutrition in individuals, especially in children and adolescents, which could dwarf their growth and development. This study aims to explore the rural-urban difference in BMI and anemia among children and adolescents."

Our news editors obtained a quote from the research from Centers for Disease Control and Prevention, "A stratified cluster sampling technique was employed. Dietary data were collected through interviews, and anthropometric values were measured. There were 1534 children and adolescents who participated in this study, including 775 male and 759 female participants. The prevalence of obesity among children living in a city, township and rural area was 10.3%, 8.5% and 5.5%, and that among adolescents was 1.4%, 2.9% and 2.8%. The prevalence of anemia among children and living in a city, township and rural area was 4.3%, 2.5% and 4.5%, while that among adolescents was 6.1%, 3.7% and 11.3%, respectively, with significant difference (chi(2) = 10.824, p = 0.004). The prevalence of being overweight, obesity and anemia was significant when comparing children with adolescents (chi(2) = 37.861, p = 0.000; chi(2) = 19.832, p = 0.000; chi(2) = 8.611, p = 0.003)."

According to the news editors, the research concluded: "Findings of this study indicate the double burden of malnutrition in Zhejiang province, characterized by a high prevalence of being overweight, obesity and anemia among children and a high prevalence of anemia among adolescents living in townships."

For more information on this research see: The Rural-Urban Difference in BMI and Anemia among Children and Adolescents. International Journal of Environmental Research
Studies from Central Hospital Describe New Findings in Liver Cancer  
(Diabetes mellitus may affect the long-term survival of hepatitis B virus-related hepatocellular carcinoma patients after liver transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Liver Cancer have been presented. According to news originating from Tianjin, People's Republic of China, by NewsRx correspondents, research stated, "To determine whether diabetes mellitus (DM) affects prognosis/recurrence after liver transplantation (LT) for hepatitis B virus (HBV)-related hepatocellular carcinoma (HCC). A retrospective study was conducted between January 2000 and August 2013 on 1631 patients with HBV-related HCC who underwent LT with antiviral prophylaxis."

Our news journalists obtained a quote from the research from Central Hospital, "Patient data were obtained from the China Liver Transplant Registry (https://www.cltr.org/). To compare the outcomes and tumor recurrence in the HBV-related HCC patients with or without DM, statistical analyses were conducted using 2 tests, Mann-Whitney tests, the Kaplan-Meier method, log-rank tests and multivariate step-wise Cox regression analysis. Univariate analysis of 1631 patients who underwent LT found overall 1-, 3- and 5-year survival rates of 79%, 73% and 71% respectively in the DM patients, and 84%, 78% and 76% in the non-DM patients respectively. Overall survival rate differences after LT between the two groups were significant (p = 0.041), but recurrence-free survival rates were not (p = 0.096). By stratified analysis, the overall survival rates in DM patients for age > 50 years (p = 0.002), the presence of vascular invasion (p = 0.096), tumors <= 3 cm (p = 0.047), two to three tumor nodules (p = 0.007), Child-Pugh grade B (p = 0.018), and preLT alanine aminotransferase levels between 40 and 80 IU/L (p = 0.017) were significantly lower than in non-DM patients. Additionally, serum a-fetoprotein level > 2000 ng/ml (p = 0.052) was associated with a significant survival difference trend between DM and non-DM patients. Multivariate analysis showed that the presence of DM (p < 0.001, HR = 1.591; 95% CI: 1.239-2.041) was an independent predictor associated with poor survival after LT. HBV-related HCC patients with DM have decreased long-term overall survival and poor LT outcomes."

According to the news editors, the research concluded: "Prevention strategies for HCC patients with DM are recommended."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i43.9571. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Digestive System Diseases and Conditions, Endocrine System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Glucose Metabolism Disorders, Hepadnaviridae Infections, Diabetes Mellitus, Hepatitis B Virus, Orthohepadnavirus, Gastroenterology, Endocrinology, Liver Cancer, DNA Viruses, Carcinomas, Hepatology, Oncology, Virology, Viral, HBV, Central Hospital.

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Oncology - Gastric Cancer

Studies from Central Hospital Provide New Data on Gastric Cancer (Surgical care quality and oncologic outcome after D2 gastrectomy for gastric cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Gastric Cancer. According to news reporting from Jyvaskyla, Finland, by NewsRx journalists, research stated, "To examine the quality of surgical care and long-term oncologic outcome after D2 gastrectomy for gastric cancer. From 1999 to 2008, a total of 109 consecutive patients underwent D2 gastrectomy without routine pancreaticosplenectomy in a multimodal setting at our institution."

The news correspondents obtained a quote from the research from Central Hospital, "Oncologic outcomes together with clinical and histopathologic data were analyzed in relation to the type of surgery performed. Staging was carried out according to the Union for International Cancer Control criteria of 2002. Patients were followed-up for five years at the outpatient clinic. The primary measure of outcome was long-term survival with the quality of surgery as a secondary outcome measure. Clinical data were retrospectively collected from the patient records, and causes of death were obtained from national registries. A total of 109 patients (58 men) with a mean age of 67.4 ± 11.2 years underwent total gastrectomy or gastric resection with D2 lymph node dissection. The tumor stage distribution was as follows: stage I, (27/109) 24.8%; stage II, (31/109) 28.4%; stage III, (41/109) 37.6%; and stage IV, (10/109) 9.2%. Forty patients (36.7%) received chemotherapy or chemoradiotherapy. The five-year overall survival rate for all 109 patients was 45.0%, and was 47.1% for the 104 patients treated with curative R0 resection. The five-year disease-specific survival rates were 53.0% and 55.8%, respectively. In a multivariate analysis, body mass index and tumor stage were independent
prognostic factors for overall survival (both \( p<0.01 \)), whereas body mass index, tumor stage, tumor site, Lauren classification, and lymph node invasion were prognostic factors for cancer-specific survival (all \( p<0.05 \)). Postoperative 30-d mortality was 1.8% and 30-d, surgical (including three anastomotic leaks, two of which were treated conservatively), and general morbidities were 26.6%, 12.8%, and 14.7%, respectively."

According to the news reporters, the research concluded: "D2 dissection is a safe surgical option for gastric cancer, providing quality surgical care and long-term oncologic outcomes that are in line with current Western standards."


Our news journalists report that additional information may be obtained by contacting J. Mrena, Johanna Mrena, Anne Mattila, Ilmo Kellokumpu, Dept. of Surgery, Central Hospital of Central Finland, 40620 Jyvaskyla, Finland. Additional authors for this research include A. Mattila, J. Bohm, I. Jantunen and I. Kellokumpu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v21.i47.13294. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Finland, Surgery, Oncology, Jyvaskyla, Gastrectomy, Gastric Cancer, Gastroenterology, Digestive System Surgical Procedures.

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Studies from Central Manchester NHS Foundation Trust Have Provided New Data on Hypertension (How to Screen for Non-Adherence to Antihypertensive Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypertension have been published. According to news reporting originating in Manchester, United Kingdom, by NewsRx journalists, research stated, "The quality of assessment of non-adherence to treatment in hypertensive is poor. Within this review, we discuss the different methods used to assess adherence to blood-pressure-lowering medications in hypertension patients."

The news reporters obtained a quote from the research from Central Manchester NHS Foundation Trust, "Subjective reports such as physicians' perceptions are inaccurate, and questionnaires completed by patients tend to overreport adherence and show a low diagnostic specificity. Indirect objective methods such as pharmacy database records can be useful, but they are limited by the robustness of the recorded data. Electronic medication monitoring devices are accurate but usually track adherence to only a single medication and can be expensive. Overall, the fundamental issue with indirect objective measures is that they do not fully confirm ingestion of antihypertensive medications. Detection of antihypertensive medications in body fluids using liquid chromatography-tandem mass spectrometry is currently,
in our view, the most robust and clinically useful method to assess non-adherence to blood-pressure-lowering treatment. It is particularly helpful in patients presenting with resistant, refractory or uncontrolled hypertension despite the optimal therapy."

According to the news reporters, the research concluded: "We recommend using this diagnostic strategy to detect non-adherence alongside a no-blame approach tailoring support to address the perceptions (e.g. beliefs about the illness and treatment) and practicalities (e.g. capability and resources) influencing motivation and ability to adhere."

For more information on this research see: How to Screen for Non-Adherence to Antihypertensive Therapy. *Current Hypertension Reports*, 2016;18(12):45-52. *Current Hypertension Reports* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Current Hypertension Reports - www.springerlink.com/content/1522-6417/)

Our news correspondents report that additional information may be obtained by contacting M. Tomaszewski, Cent Manchester NHS Fdn Trust, Manchester Academy Hlth Sci Center, Div Med, Manchester, Lancs, United Kingdom. Additional authors for this research include P. Patel, R. Horne, H. Buchanan, B. Williams and M. Tomaszewski.

Keywords for this news article include: Manchester, United Kingdom, Europe, Therapy, Article Review, Diagnostics and Screening, Cardiovascular Diseases and Conditions, Hypertension, Central Manchester NHS Foundation Trust.

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**Drugs and Therapies - Intron Therapy**

**Studies from Central South University Reveal New Findings on Intron Therapy (In situ genetic correction of F8 intron 22 inversion in hemophilia A patient-specific iPSCs)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Intron Therapy are discussed in a new report. According to news originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "Nearly half of severe Hemophilia A (HA) cases are caused by F8 intron 22 inversion (Inv22). This 0.6-Mb inversion splits the 186-kb F8 into two parts with opposite transcription directions."

Our news journalists obtained a quote from the research from Central South University, "The inverted 5' part (141 kb) preserves the first 22 exons that are driven by the intrinsic F8 promoter, leading to a truncated F8 transcript due to the lack of the last 627 bp coding sequence of exons 23-26. Here we describe an in situ genetic correction of Inv22 in patient-specific induced pluripotent stem cells (iPSCs). By using TALENs, the 627 bp sequence plus a polyA signal was precisely targeted at the junction of exon 22 and intron 22 via homologous recombination (HR) with high targeting efficiencies of 62.5% and 52.9%. The gene-corrected iPSCs retained a normal karyotype following removal of drug selection cassette using a Cre-LoxP system. Importantly, both F8 transcription and FVIII secretion were rescued in the candidate cell types for HA gene therapy including endothelial cells (ECs) and mesenchymal stem cells (MSCs) derived from the gene-corrected iPSCs."

According to the news editors, the research concluded: "This is the first report of an efficient in situ genetic correction of the large inversion mutation using a strategy of targeted
gene addition."

For more information on this research see: In situ genetic correction of F8 intron 22 inversion in hemophilia A patient-specific iPSCs. Scientific Reports, 2016;6():18865. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from Y. Wu, State Key Laboratory of Medical Genetics, School of Life Sciences, Central South University, Changsha, Hunan, People's Republic of China. Additional authors for this research include Z. Hu, Z. Li, J. Pang, M. Feng, X. Hu, X. Wang, S. Lin-Peng, B. Liu, F. Chen, L. Wu and D. Liang.

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Keywords for this news article include: Asia, Pharmaceuticals, Changsha, Genetics, Hematology, Hemophilia A, Intron Therapy, Interferon Alfa 2b, Stem Cell Research, Drugs and Therapies, People's Republic of China.

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Drugs and Therapies - Mitotic Inhibitors

Studies from Central South University in the Area of Mitotic Inhibitors Reported (Genetic variation of CYP3A5 influences paclitaxel/carboplatin-induced toxicity in Chinese epithelial ovarian cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Mitotic Inhibitors have been published. According to news reporting out of Changsha, People's Republic of China, by NewsRx editors, research stated, "Combination chemotherapy with platinum and taxane is the first-line treatment for ovarian cancer. The dose-limiting toxicities of these drugs include neuropathy, leukopenia, and neutropenia, but they exhibit substantial interindividual variability."

Our news journalists obtained a quote from the research from Central South University, "This study investigated the relationship between CYP3A5 polymorphisms and paclitaxel/carboplatin-induced toxicity in Chinese epithelial ovarian cancer patients. Seventy-five patients with epithelial ovarian cancer were recruited. After combination chemotherapy, genotype analysis was conducted, and toxic effects were evaluated according to the Common Toxicity Criteria. A significant association was found between myelosuppression and the CYP3A5*3 genotype. CYP3A5*3/*1 patients showed a significantly higher risk of developing leukopenia (p <.001; Pearson's ch(2) test) and neutropenia (p <.001; Pearson's ch(2) test) than CYP3A5*3/*3 patients. CYP3A5*3/*3 patients had significantly higher median leukocyte and neutrophil nadir counts than CYP3A5*3/*1 patients (p <.001, Mann-Whitney U test). However, we did not observe an association between neuropathy and CYP3A5*3 in this study (p=.64; Pearson's ch(2) test). This is the first study to verify the influence of CYP3A5 polymorphisms on paclitaxel/carboplatin-induced toxicity in Chinese epithelial ovarian cancer patients."

According to the news editors, the research concluded: "Our findings suggest that interindividual variability in paclitaxel/carboplatin-induced myelosuppression can be predicted
by CYP3A5*3 genotyping and that incorporation of CYP3A5*3 genetic data in treatment selection could help to reduce myelosuppression events, thereby individualizing paclitaxel/carboplatin pharmacotherapy."

For more information on this research see: Genetic variation of CYP3A5 influences paclitaxel/carboplatin-induced toxicity in Chinese epithelial ovarian cancer patients. *Journal of Clinical Pharmacology*, 2015;56(3):349-54. *Journal of Clinical Pharmacology* can be contacted at: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA. (SAGE Publications - www.sagepub.com; Journal of Clinical Pharmacology - jcp.sagepub.com)

Our news journalists report that additional information may be obtained by contacting L. Hu, Dept. of Clinical Pharmacology, Xiangya Hospital, Central South University, Changsha, People's Republic of China. Additional authors for this research include Q.L. Lv, Y. Guo, L. Cheng, N.Y. Wu, C.Z. Qin and H.H Zhou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcph.587. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *Journal of Clinical Pharmacology* is: SAGE Publications, USA, 2455 Teller Road, Thousand Oaks, CA 91320, USA.

Keywords for this news article include: Asia, Antineoplastics, Pharmaceuticals, Cancer, Taxoids, Changsha, Genetics, Oncology, Terpenes, Hydrocarbons, Cycloparaffins, Alkylating Agents, Organic Chemicals, Mitotic Inhibitors, Paclitaxel Therapy, Carboplatin Therapy, Drugs and Therapies, Risk and Prevention, Organoplatinum Compounds, People's Republic of China.

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**Oncology - Multiple Myeloma**

**Studies from Chang Gung Memorial Hospital Describe New Findings in Multiple Myeloma (Cyclophosphamide plus granulocyte-colony stimulating factor for hematopoietic stem cell mobilization in patients with multiple myeloma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Multiple Myeloma is now available. According to news originating from Taoyuan, Taiwan, by NewsRx correspondents, research stated, "We retrospectively reviewed the results of cyclophosphamide (3 g/m²), doxorubicin and dexamethasone plus granulocyte-colony stimulating factor (G-CSF) (ID-CY/DOX group), low-dose cyclophosphamide (2 g/m²) plus G-CSF (LD-CY group) and G-CSF alone (G-CSF group) for stem cell mobilization in patients with multiple myeloma. A total of 89 patients with 93 mobilizations were included."

Our news journalists obtained a quote from the research from Chang Gung Memorial Hospital, "Apheresis was started when total white blood cell (WBC) count >10 x 10⁹/L for ID-CY/DOX and LD-CY groups and after eight doses of G-CSF (5 kg twice daily) for G-CSF group. For five mobilizations in ID-CY/DOX group, the rate of successful mobilization (4.0 x 10⁶/kg CD34+ cells) was 80%. For 78 mobilizations in LD-CY group, the successful rate was 80.8%. For 10 mobilizations in the G-CSF group, the successful rate was 50%. The mean yield of CD34+ cells was higher in ID-CY/DOX and LD-CY groups as compared with that in G-CSF
group (P=0.026 and 0.020, respectively). There was no difference in the yield of CD34+ cells between ID-CY/DOX and LD-CY groups (P=0.831). After autologous stem cell transplantation, the days to neutrophil and platelet engraftment were similar in these three groups (P=0.713 and 0.821, respectively).

According to the news editors, the research concluded: "We observed that ID-CY/DOX and LD-CY plus G-CSF for stem cell mobilization resulted in a higher successful rate and higher stem cell yields than G-CSF alone and their engraftment time were similar. Total WBC count >10 x 10(9)/L can be used as a guide to start apheresis in CY-based stem cell mobilization. J. Clin. Apheresis 31:423-428, 2016."


The news correspondents report that additional information may be obtained from P.N. Wang, Chang Gung Memorial Hospital, Div Hematol Oncol, Dept. of Internal Med, Taoyuan, Taiwan. Additional authors for this research include P.N. Wang, M.C. Kuo, Y.H. Hung, H. Chang and T.C. Tang.

Keywords for this news article include: Taoyuan, Taiwan, Asia, Intercellular Signaling Peptides and Proteins, Hemic and Lymphatic Diseases and Conditions, Granulocyte Colony-Stimulating Factor, Hematopoietic Stem Cell Mobilization, Hematologic Diseases and Conditions, Hematopoietic Cell Growth Factors, Vascular Diseases and Conditions, Colony Stimulating Factors, Hemic and Immune Systems, Hematopoietic Stem Cells, Blood Protein Disorders, Phosphoramide Mustards, Hemorrhagic Disorders, Hemostatic Disorders, Biological Factors, Stem Cell Research, Mustard Compounds, Bone Marrow Cells, Cyclophosphamide, Multiple Myeloma, Paraproteinemias, Glycoproteins, Myeloid Cells, Hydrocarbons, Granulocytes, Hematology, Immunology, Leukocytes, Cytokines, Oncology, Chang Gung Memorial Hospital.

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Nutritional and Metabolic Diseases and Conditions ...

Studies from Chang Gung University College of Medicine Provide New Data on Type 2 Diabetes (Diabetic Retinopathy Is Strongly Predictive of Cardiovascular Autonomic Neuropathy in Type 2 Diabetes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting from Kaohsiung, Taiwan, by NewsRx journalists, research stated, "A well-established, comprehensive, and simple test battery was used here to re-evaluate risk factors for cardiovascular autonomic neuropathy (CAN) in type 2 diabetes. One hundred and seventy-four patients with type 2 diabetes were evaluated through the methods of deep breathing and Valsalva maneuver for correlation with factors that might influence the presence and severity of CAN."

The news correspondents obtained a quote from the research from the Chang Gung
University College of Medicine, "The Composite Autonomic Scoring Scale (CASS) was used to grade the severity of autonomic impairment, and CAN was defined as a CASS score (≥)2. Results showed that nephropathy, duration of diabetes, blood pressure, uric acid, and the presence of retinopathy and metabolic syndrome significantly correlated with the CASS score. Age may not be a risk factor for diabetic CAN. However, the effects of diabetes on CAN are more prominent in younger patients than in older ones."

According to the news reporters, the research concluded: "Diabetic retinopathy is the most significant risk factor predictive of the presence of CAN in patients with type 2 diabetes."

For more information on this research see: Diabetic Retinopathy Is Strongly Predictive of Cardiovascular Autonomic Neuropathy in Type 2 Diabetes. Journal of Diabetes Research, 2016;2016():6090749.

Our news journalists report that additional information may be obtained by contacting C.C. Huang, Dept. of Neurology, Kaohsiung Chang Gung Memorial Hospital, Chang Gung University College of Medicine, Kaohsiung 83301, Taiwan. Additional authors for this research include J.J. Lee, T.K. Lin, N.W. Tsai, C.R. Huang, S.F. Chen, C.H. Lu and R.T Liu.

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Keywords for this news article include: Asia, Taiwan, Kaohsiung, Cardiology, Neuropathy, Endocrinology, Ophthalmology, Cardiovascular, Type 2 Diabetes, Risk and Prevention, Diabetic Retinopathy, Diabetic Angiopathies, Eye Diseases and Conditions, Retinal Diseases and Conditions, Vascular Diseases and Conditions, Non Insulin Dependent Diabetes Mellitus.

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compared to those in the nasal tissues of nonsmokers (P=0.02 both) and control patients (P=0.05 and 0.04, respectively)."

According to the news reporters, the research concluded: "Cigarette smoking was associated with an increase in the number of unexpected emergency clinic visits due to acute asthma attack and in the expression of IL-17A in the nasal tissues of patients with airway inflammatory diseases."

For more information on this research see: Association between cigarette smoking and interleukin-17A expression in nasal tissues of patients with chronic rhinosinusitis and asthma. *Medicine, 2016;95(47):209-215.* *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting T.J. Lee, Chang Gung University, Taoyuan, Taiwan. Additional authors for this research include C.H. Wang, C.H. Fu, C.C. Huang, P.H. Chang, Y.W. Chen, C.C. Wu, P.W. Wu and T.J. Lee.

Keywords for this news article include: Taoyuan, Taiwan, Asia, Intercellular Signaling Peptides and Proteins, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Interleukins, Cytokines, Genetics, Asthma, Chang Gung University.

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**Nutritional and Metabolic Diseases and Conditions**

**Studies from Chang Gung University in the Area of Type 2 Diabetes Reported (Rosuvastatin decreases testosterone levels but not sexual function in men with type 2 diabetes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting out of Kaohsiung, Taiwan, by NewsRx editors, research stated, "Statins may decrease serum testosterone levels via decreasing cholesterol, a precursor to testosterone. This case series studied the effects of rosuvastatin on free testosterone levels and sexual function in men with type 2 diabetes."

Financial supporters for this research include Chang Gung University College of Medicine, Kaohsiung Medical University.

Our news journalists obtained a quote from the research from Chang Gung University, "We enrolled 151 men with type 2 diabetes and hypercholesterolemia. Biochemical assessments included serum total cholesterol (TC), low-density lipoprotein (LDL), high-density lipoprotein, triglyceride, prolactin, thyroid-stimulating hormone, luteinizing hormone, follicle stimulating hormone, total testosterone and serum sex hormone binding globulin (SHBG). All parameters were measured before statin treatment, after 6 months of statin treatment, and 6 months after discontinuing statin treatment. The Sexual Health Inventory for Men (SHIM) was also administered at these times. Serum TC and LDL levels were high before statin therapy, decreased after six months of statin therapy, and increased significantly six months after discontinuing statin therapy (198.1 +/- 28.1 mg/dl vs. 147.1 +/- 22.8 mg/dl vs. 205.2 +/- 25.6 mg/dl)."
mg/dl, p-value < 0.001; 121.3 +/- 20.6 mg/dl vs. 75.4 +/- 20.4 mg/dl vs. 124.9 +/- 20 mg/dl, p-value < 0.001). However, serum free testosterone levels calculated from total testosterone and SHBG calculated by formula were higher before statin therapy, obviously decreased after six months of statin therapy, and subsequently increased six months after discontinuing statin therapy (22.4 +/- 3.1 ng/ml vs. 20.9 +/- 2.8 ng/ml vs. 22.6 +/- 2.6 ng/ml p-value = 0.006). SHIM scores did not obviously differ among the three stages (16.3 +/- 4.8 vs. 16.0 +/- 4.9 vs. 16.3 +/- 5.0 p = 0.944). After adjustment for age, serum free testosterone levels correlated with SHIM scores and LDL (r = 0.39, p =< 0.001; r = 0.26, p = 0.02, respectively). SHIM scores did not correlate with TC or LDL.

According to the news editors, the research concluded: "Rosuvastatin reduces free testosterone levels but does not influence sexual function in men with type 2 diabetes."

For more information on this research see:  Rosuvastatin decreases testosterone levels but not sexual function in men with type 2 diabetes.  Diabetes Research and Clinical Practice, 2016;120():81-88.  Diabetes Research and Clinical Practice can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland.  (Elsevier - www.elsevier.com; Diabetes Research and Clinical Practice - www.journals.elsevier.com/diabetes-research-and-clinical-practice/)

Our news journalists report that additional information may be obtained by contacting C.J. Hsieh, Chang Gung University, Coll Med, Kaohsiung, Taiwan.

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Keywords for this news article include:  Kaohsiung, Taiwan, Asia, Nutritional and Metabolic Diseases and Conditions,  Non-Insulin Dependent Diabetes Mellitus,  HMG-CoA Reductase Inhibitor, Antihyperlipidemic Agents, Rosuvastatin Therapy, Drugs and Therapies, Risk and Prevention, Anticholesteremic, Type 2 Diabetes, Lipoproteins, Hormones, Lipids, Chang Gung University.

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Oncology - Colon Cancer

Studies from Changhai Hospital in the Area of Colon Cancer Reported (Inhibition of Growth and Metastasis of Colon Cancer by Delivering 5-Fluorouracil-loaded Pluronic P85 Copolymer Micelles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Hepatic metastasis is the leading cause of mortality of colon cancer, which is still lack of an effective therapy. A new delivery system, pluronic P85 block copolymers, conveying chemotherapeutic agent 5-fluorouracil (5-Fu) for inhibiting growth and metastasis of colon cancer was designed and developed."

Our news journalists obtained a quote from the research from Changhai Hospital, "In this study, we demonstrated that 5-Fu produce strong pesticide effect at lower doses in the present of pluronic P85 compared with control groups. The migration and invasion of HCT116 cells and RKO cells were examined and the results showed that migration and invasion
capacities of HCT116 cells and RKO cells were reduced by administering 5-Fu/P85 copolymer micelles in vitro and in vivo which indicating an effectively activity. Interestingly, the content of CD133 + CXCR4+ cells in HCT116 cancer cells and RKO cells treated by 5-Fu/P85 copolymer micelles was decreased. Importantly, the epithelial-mesenchymal transition (EMT) of CD133 + CXCR4+ cells, which was strongly associated with liver metastasis of colon cancer, was also suppressed by giving 5-Fu/P85 copolymer micelles.

According to the news editors, the research concluded: "The results indicated that 5-Fu/P85 copolymer micelles could inhibit the growth and metastasis of colon cancer, which could be attributed to the decrease of the content of CD133 + CXCR4+ cells and suppression of EMT of CD133 + CXCR4+ cells."

For more information on this research see: Inhibition of Growth and Metastasis of Colon Cancer by Delivering 5-Fluorouracil-loaded Pluronic P85 Copolymer Micelles. Scientific Reports, 2016;6():20896. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting P. Zhu, Dept. of Phamacy, Changhai Hospital, the Second Military Medical University, Shanghai, 200433, People's Republic of China. Additional authors for this research include N. Zhao, D. Sheng, J. Hou, C. Hao, X. Yang, B. Zhu, S. Zhang, Z. Han, L. Wei and L. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep20896. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antimetabolites, Antineoplastics, Pharmaceuticals, Shanghai, Oncology, Colon Cancer, Drugs and Therapies, Fluorouracil Therapy, People's Republic of China.

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Lung Diseases and Conditions - Pulmonary...

Studies from Charles University Have Provided New Data on Pulmonary Hypertension (Depletion of Alveolar Macrophages Attenuates Hypoxic Pulmonary Hypertension but not Hypoxia-Induced Increase in Serum Concentration of MCP-1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Pulmonary Hypertension are discussed in a new report. According to news reporting from Prague, Czech Republic, by NewsRx journalists, research stated, "Exposure to hypoxia, leading to hypoxic pulmonary hypertension (HPH), is associated with activation of alveolar macrophages (AM). However, it remains unclear how AM participate in this process."

The news correspondents obtained a quote from the research from Charles University, "There are studies which imply that the AM product monocyte chemoattractant protein-1 (MCP-1) plays an important role. Thus we tested: 1. if the selective elimination of AM attenuates HPH in rats, 2. the correlation of MCP-1 plasmatic concentrations with the presence and absence of AM during exposure to hypoxia, 3. the direct influence of hypoxia on MCP-1 production in isolated AM. We found that experimental depletion of AM attenuated the chronic
hypoxia-induced increase in mean pulmonary arterial pressure, but did not affect the serum MCP-1 concentrations. Furthermore, the MCP-1 production by AM in vitro was unaffected by hypoxia. Thus we conclude that AM play a significant role in the mechanism of HPH, but MCP-1 release from these cells is most likely not involved in this process."

According to the news reporters, the research concluded: "The increase of MCP-1 accompanying the development of HPH probably originates from other sources than AM."

For more information on this research see: Depletion of Alveolar Macrophages Attenuates Hypoxic Pulmonary Hypertension but not Hypoxia-Induced Increase in Serum Concentration of MCP-1. *Physiological Research, 2016;65(5):763-768.* *Physiological Research* can be contacted at: Acad Sciences Czech Republic, Inst Physiology, Videnska 1083, Prague 4 142 20, Czech Republic.

Our news journalists report that additional information may be obtained by contacting M. Zaloudikova, Charles Univ Prague, Fac Med 2, Dept. of Pathophysiol, Prague 15006, Czech Republic. Additional authors for this research include R. Vytasek, O. Vajnerova, O. Hnilickova, M. Vizek, V. Hampl and J. Herget.

Keywords for this news article include: Prague, Czech Republic, Europe, Cardiovascular Diseases and Conditions, Mononuclear Phagocyte System, Lung Diseases and Conditions, Hemic and Immune Systems, Connective Tissue Cells, Pulmonary Hypertension, Alveolar Macrophages, Myeloid Cells, Immunology, Phagocytes, Charles University.

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**Drugs and Therapies - Antiretrovirals**

Studies from Charles University Have Provided New Information about Antiretrovirals (Role of ABC and Solute Carrier Transporters in the Placental Transport of Lamivudine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antiretrovirals. According to news reporting out of Hradec Kralove, Czech Republic, by NewsRx editors, research stated, "Lamivudine is one of the antiretroviral drugs of choice for the prevention of mother-to-child transmission (MTCT) in HIV-positive women. In this study, we investigated the relevance of drug efflux transporters P-glycoprotein (P-gp) (MDR1 [ABCB1]), BCRP (ABCG2), MRP2 (ABCC2), and MATE1 (SLC47A1) for the transmembrane transport and transplacental transfer of lamivudine."

Funders for this research include Czech Science Foundation (GACR), Grant Agency of Charles University.

Our news journalists obtained a quote from the research from Charles University, "We employed in vitro accumulation and transport experiments on MDCK cells overexpressing drug efflux transporters, in situ-perfused rat term placenta, and vesicular uptake in microvillous plasma membrane (MVM) vesicles isolated from human term placenta. MATE1 significantly accelerated lamivudine transport in MATE1-expressing MDCK cells, whereas no transporter-driven efflux of lamivudine was observed in MDCK-MDR1, MDCK-MRP2, and MDCK-BCRP monolayers. MATE1-mediated efflux of lamivudine appeared to be a low-affinity process (apparent K-m of 4.21 mM and V-max of 5.18 nmol/mg protein/min in MDCK-MATE1 cells). Consistent with in vitro transport studies, the transplacental clearance of lamivudine was not
affected by P-gp, BCRP, or MRP2. However, lamivudine transfer across dually perfused rat placenta and the uptake of lamivudine into human placental MV Mvesicles revealed pH dependency, indicating possible involvement of MATE1 in the fetal-to-maternal efflux of the drug. To conclude, placental transport of lamivudine does not seem to be affected by P-gp, MRP2, or BCRP, but a pH-dependent mechanism mediates transport of lamivudine in the fetal-to-maternal direction.”

According to the news editors, the research concluded: "We suggest that MATE1 might be, at least partly, responsible for this transport."

For more information on this research see: Role of ABC and Solute Carrier Transporters in the Placental Transport of Lamivudine. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5563-5572. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting F. Staud, Charles Univ Prague, Fac Pharm Hradec Královo, Dept. of Pharmacol & Toxicol, Hradec Královo, Czech Republic. Additional authors for this research include J. Reznicek, Z. Ptackova, L. Cerveny, F. Muller, M. Kacerovsky, M.F. Fromm, J.D. Glazier and F. Staud.

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Keywords for this news article include: Hradec Královo, Czech Republic, Europe, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Drugs and Therapies, Antiretrovirals, Antinfectives, Lamivudine, Antivirals, Charles University.

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**Nocardioid**

**Studies from Chiba University Add New Findings in the Area of Nocardioid (Clinical characteristics of pulmonary nocardiosis in immunocompetent patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nocardioid have been published. According to news reporting out of Chiba, Japan, by NewsRx editors, research stated, "Pulmonary nocardiosis is a rare but potentially serious infection typically in immunosuppressed patients (ISPs). It is also known to occur in immunocompetent patients (ICPs)."

Our news journalists obtained a quote from the research from Chiba University, "However, little is currently known regarding the clinical characteristics and radiographic findings of pulmonary nocardiosis specifically in ICPs. In this study, 30 patients with pulmonary nocardiosis were identified and 10 were considered to be colonized. Of all patients with pulmonary nocardiosis, 12 patients were ICPs and 18 were ISPs. Although half of ISPs were infected by Nocardioid nova, ICPs were affected by various Nocardioid species. Compared with ISPs, chest CT findings of ICPs showed a higher prevalence of bronchiectasis (67% vs 6%, p <.01) and centrilobular nodular opacities (67% vs 11%, p<.01), both of which are often seen in
pulmonary nontuberculous mycobacterial disease. Additionally, nontuberculous mycobacterium was isolated from 6 of 21 ICPs with positive Nocardia species culture."

According to the news editors, the research concluded: "Therefore, we recommend that physicians carefully differentiate pulmonary nocardiosis from pulmonary nontuberculous mycobacterial disease in ICPs."

For more information on this research see: Clinical characteristics of pulmonary nocardiosis in immunocompetent patients. *Journal of Infection and Chemotherapy*, 2016;22 (11):738-743. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

Our news journalists report that additional information may be obtained by contacting T. Fujita, Chiba University, Grad Sch Med, Dept. of Respirol, Chiba, Japan. Additional authors for this research include J. Ikari, A. Watanabe and K. Tatsumi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.08.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chiba, Japan, Asia, Gram-Positive Bacteria, Actinomycetales, Nocardiaceae, Chiba University.

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Liver Diseases and Conditions - Fatty Liver

**Studies from Chiba University Graduate School of Medicine Update Current Data on Fatty Liver (Palmitate-induced Regulation of PPARg via PGC1a: a Mechanism for Lipid Accumulation in the Liver in Nonalcoholic Fatty Liver Disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Fatty Liver. According to news reporting originating from Chiba, Japan, by NewsRx correspondents, research stated, "The aim was to examine the effect of free fatty acids on the regulation of PPARg-PGC1a pathway, and the effect of PPARg/PGC1a in NAFLD. The mRNA and protein expression of PGC1a and phospho/total PPARg were examined in Huh7 cells after the palmitate/oleate treatment with/without the transfection with siRNA against PGC1a."

Our news editors obtained a quote from the research from the Chiba University Graduate School of Medicine, "The palmitate content, mRNA and protein expression of PGC1a and PPARg in the liver were examined in the control and NAFLD mice. Palmitate (500 mM), but not oleate, increased protein expression of PGC1a and phospho PPARg (PGC1a, 1.42-fold, p=0.038; phospho PPARg, 1.56-fold, p=0.022). The palmitate-induced PPARg mRNA expression was reduced after the transfection (0.46-fold), and the protein expressions of PGC1a (0.52-fold, p=0.019) and phospho PPARg (0.43-fold, p=0.011) were suppressed in siRNA-transfected cells. The palmitate (12325.8 ? 1758.9 mg/g vs. 6245.6 ? 1182.7 mg/g, p=0.002), and mRNA expression of PGC1a (11.0 vs. 5.5, p=0.03) and PPARg (4.3 vs. 2.2, p=0.0001) in the liver were higher in high-triglyceride liver mice (>15.2 mg/g) than in low-triglyceride liver mice (<15.2 mg/g). The protein expressions of both PGC1a and PPARg were higher in the NAFLD group than in the controls (PGC1a, 1.41-fold, p=0.035; PPARg, 1.39-fold, p=0.042),..."
and were higher in the high-triglyceride liver group (PGC1α, 1.52-fold, p=0.03; PPARγ, 1.22-fold, p=0.05) than in the low-triglyceride liver group."

According to the news editors, the research concluded: "Palmitate appear to up-regulate PPARγ via PGC1α in Huh7 cells, and both PGC1α and PPARγ are up-regulated in the NAFLD mice liver, suggesting an effect on lipid metabolism leading to intrahepatic triglyceride accumulation."

For more information on this research see: Palmitate-induced Regulation of PPARγ via PGC1α: a Mechanism for Lipid Accumulation in the Liver in Nonalcoholic Fatty Liver Disease. International Journal of Medical Sciences, 2016;13(3):169-78.

The news editors report that additional information may be obtained by contacting H. Maruyama, Dept. of Gastroenterology and Nephrology, Chiba University Graduate School of Medicine, 1-8-1, Inohana, Chuou-ku, Chiba, 260-8670, Japan. Additional authors for this research include S. Kiyono, T. Kondo, T. Sekimoto and O. Yokosuka.

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Keywords for this news article include: Asia, Chiba, Japan, Genetics, Proteomics, Protein Expression, Fatty Liver Disease, Liver Diseases and Conditions, Digestive System Diseases and Conditions.

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Heart Disorders and Diseases - Hypoplastic Left...

Studies from Children's Hospital Update Current Data on Hypoplastic Left Heart Syndrome (Norwood Procedure for Palliation of Hypoplastic Left Heart Syndrome: Right Ventricle to Pulmonary Artery Conduit vs Modified Blalock-Taussig Shunt)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Hypoplastic Left Heart Syndrome. According to news reporting from Boston, Massachusetts, by NewsRx editors, the research stated, "Patients with hypoplastic left heart syndrome undergo a series of operations to separate the pulmonary and systemic circulations. The first of at least 3 operations occurs in the newborn period, with a stage I palliation."

The news correspondents obtained a quote from the research from Children's Hospital, "The goal of stage I palliation is to provide pulmonary blood flow and create an unobstructed systemic outflow tract. Advances in surgical techniques and intraoperative and postoperative care have helped decrease morbidity and mortality for patients with hypoplastic left heart syndrome who have the stage I Norwood operation, but the patients continue to be at increased risk for hemodynamic collapse and adverse outcomes."

According to the news reporters, the research concluded: "This article discusses risk factors, surgical approach, postoperative nursing and medical management strategies, differences between and outcomes for the Norwood operation with the right ventricle to pulmonary artery conduit and the Norwood operation with a modified Blalock-Taussig shunt."

For more information on this research see: Norwood Procedure for Palliation of
Hypoplastic Left Heart Syndrome: Right Ventricle to Pulmonary Artery Conduit vs Modified Blalock-Taussig Shunt. *Critical Care Nurse*, 2016;36(6):42-51. *Critical Care Nurse* can be contacted at: Amer Assoc Critical Care Nurses, 101 Columbia, Aliso Viejo, CA 92656, USA.

Our news journalists report that additional information may be obtained by contacting D.M. Beke, Boston Childrens Hosp, Cardiac Intens Care Unit, Boston, MA, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4037/ccn2016861. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Hypoplastic Left Heart Syndrome, Angiology, Risk and Prevention, Heart Disorders and Diseases, Cardiovascular Abnormalities, Congenital Heart Defects, Congenital Abnormalities, Pulmonary Artery, Heart Disease, Children's Hospital.

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Neurodegenerative Diseases and Conditions - ...

Studies from China Pharmaceutical University Further Understanding of Alzheimer Disease (Hypericin inhibits oligomeric amyloid beta 42-induced inflammation response in microglia and ameliorates cognitive deficits in an amyloid beta injection ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurodegenerative Diseases and Conditions - Alzheimer Disease are presented in a new report. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Amyloid beta (A beta) provokes severe inflammation response in the central nervous system, which is a key risk factor for the progression of Alzheimer's disease (AD). Anti-inflammation medications shed light on treating AD."

The news correspondents obtained a quote from the research from China Pharmaceutical University, "In this study, we found hypericin is a potent anti-AD constituent through anti-inflammation. Pretreatment with hypericin (5 mu M and 15 mu M) significantly suppresses oligomeric A beta 42 (oA beta 42)induced expression of interleukin-1 beta (IL-1 beta), interleukin-6 (IL-6), tumor necrosis factor alpha (TNF alpha) and inducible nitric oxide synthase (iNOS) and production of NO in microglia without cytotoxicity. We further found that hypericin ameliorates inflammatory response by suppressing MKL1, which is the essential cofactor of p65 during the transcription process. In an A beta injection AD mouse model, animals orally administrated hypericin (50 mg/kg) for seven days significantly decreased pro-inflammatory cytokines expression and NO production in hippocampus, meanwhile, hypericin improved oA beta 42-induced learning and memory impairment in mice in the Morris water maze test."

According to the news reporters, the research concluded: "Therefore, hypericin could be considered as a potential candidate for treating AD."

For more information on this research see: Hypericin inhibits oligomeric amyloid beta 42-induced inflammation response in microglia and ameliorates cognitive deficits in an amyloid beta injection mouse model of Alzheimer's disease by suppressing MKL1.
Studies from China Pharmaceutical University Provide New Data on Genetics (CPUY201112, a novel synthetic small-molecule compound and inhibitor of heat shock protein Hsp90, induces p53-mediated apoptosis in MCF-7 cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Genetics are discussed in a new report. According to news reporting out of Nanjing, People's Republic of China, by NewsRx editors, research stated, "Heat-shock protein 90 (Hsp90) is highly expressed in many tumor cells and is associated with the maintenance of malignant phenotypes. Targeting Hsp90 has had therapeutic success in both solid and hematological malignancies, which has inspired more studies to identify new Hsp90 inhibitors with improved clinical efficacy."

Our news journalists obtained a quote from the research from China Pharmaceutical University, "Using a fragment-based approach and subsequent structural optimization guided by medicinal chemistry principles, we identified the novel compound CPUY201112 as a potent Hsp90 inhibitor. It binds to the ATP-binding pocket of Hsp90 with a kinetic dissociation (Kd) constant of 27 ± 2.3 nM. It also exhibits potent in vitro antiproliferative effects in a range of solid tumor cells. In MCF-7 cells with high Hsp90 expression, CPUY201112 induces the degradation of Hsp90 client proteins including HER-2, Akt, and c-RAF. We prove that treating MCF-7 cells with CPUY201112 results in cell cycle arrest and apoptosis through the wild-type (wt) p53 pathway. CPUY201112 also synergizes with Nutlin-3a to induce cancer cell apoptosis. CPUY201112 significantly inhibited the growth of MCF-7 xenografts in nude mice without apparent body weight loss."

According to the news editors, the research concluded: "These results demonstrate that CPUY201112 is a novel Hsp90 inhibitor with potential use in treating wild-type p53 related cancers."

For more information on this research see: CPUY201112, a novel synthetic small-molecule compound and inhibitor of heat shock protein Hsp90, induces p53-mediated apoptosis in MCF-7 cells. Scientific Reports, 2016;6():19004. (Nature Publishing Group -
Our news journalists report that additional information may be obtained by contacting X.L. Xu, Jiangsu Key Laboratory of Drug Design and Optimization, China Pharmaceutical University, Nanjing, 210009, People's Republic of China. Additional authors for this research include Q.C. Bao, J.M. Jia, F. Liu, X.K. Guo, M.Y. Zhang, J.L. Wei, M.C. Lu, L.L. Xu, X.J. Zhang, Q.D. You and H.P. Sun.

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Keywords for this news article include: Asia, Nanjing, Genetics, p53 Gene, Apoptosis, Heat Shock Proteins, Molecular Chaperones, People's Republic of China.

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Hydrazines

Studies from China Pharmaceutical University Provide New Data on Hydrazines (Role of Inflammatory and Oxidative Stress, Cytochrome P450 2E1, and Bile Acid Disturbance in Rat Liver Injury Induced by Isoniazid and Lipopolysaccharide Cotreatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hydrazines is the subject of a report. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Isoniazid (INH) remains the core drug in tuberculosis management, but serious hepatotoxicity and potentially fatal liver injury continue to accompany INH consumption. Among numerous theories that have been established to explain INH-induced liver injury, an inflammatory stress theory has recently been widely used to explain the idiosyncrasy."

Financial supporters for this research include National Natural Science Foundation of China (NSFC), Natural Science Foundation of Jiangsu Province (Jiangsu Natural Science Foundation), National “Major Scientific and Technological Special Project for Significant New Drugs” project, Specific Fund for Public Interest Research of Traditional Chinese Medicine, Ministry of Finance.

Our news journalists obtained a quote from the research from China Pharmaceutical University, "Inflammatory stress usually sensitizes tissues to a drug's toxic consequences. Therefore, the present study was conducted to verify whether bacterial lipopolysaccharide (LPS)-induced inflammation may have a role in enhancing INH hepatotoxicity. While single INH or LPS administration showed no major toxicity signs, INH-LPS cotreatment intensified liver toxicity. Both blood biomarkers and histological evaluations clearly showed positive signs of severe liver damage accompanied by massive necrosis, inflammatory infiltration, and hepatic steatosis. Furthermore, elevated serum levels of bile acid associated with the repression of bile acid synthesis and transport regulatory parameters were observed. Moreover, the principal impact of cytochrome P450 2E1 (CYP2E1) on INH toxicity could be anticipated, as its protein expression showed enormous increases in INH-LPS-cotreated animals. Furthermore, the crucial role of CYP2E1 in the production of reactive oxygen species (ROS) was clearly obvious in the repression of hepatic antioxidant parameters."

According to the news editors, the research concluded: "In summary, these results..."
confirmed that this LPS-induced inflammation model might prove valuable in revealing the hepatotoxic mechanisms of INH and the crucial role played by CYP2E1 in the initiation and propagation of INH-induced liver damage, information which could be very useful to clinicians in understanding the pathogenesis of drug-induced liver injury.

For more information on this research see: Role of Inflammatory and Oxidative Stress, Cytochrome P450 2E1, and Bile Acid Disturbance in Rat Liver Injury Induced by Isoniazid and Lipopolysaccharide Cotreatment. Antimicrobial Agents and Chemotherapy, 2016;60(9):5285-5293. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from L.Y. Zhang, China Pharmaceutical University, Jiangsu Key Lab TCM Evaluat & Translat Res, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include H.L. Guo, B.A. Yousef, M. Guerram, A.M. Hamdi, L.Y. Zhang and Z.Z. Jiang.

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Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Nicotinic Acid Derivatives, Bacterial Polysaccharides, Antituberculosis Agents, Lipopolysaccharides, Drugs and Therapies, Biological Factors, Isoniazid Therapy, Gastroenterology, Bacterial Toxins, Pharmaceuticals, Antiinfectives, Inflammation, Hemeproteins, Cytochromes, Endotoxins, Hydrazines, Proteins, China Pharmaceutical University.

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Leukocyte Diseases and Conditions - Neutropenia

Studies from Chinese People's Liberation Army General Hospital Update Current Data on Neutropenia (Piperacillin-tazobactam vs. imipenem-cilastatin as empirical therapy in hematopoietic stem cell transplantation recipients with febrile ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Leukocyte Diseases and Conditions - Neutropenia have been published. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "This randomized, dual-center study compared the efficacy and safety of piperacillin-tazobactam (PTZ) and imipenem-cilastatin (IMP) in hematopoietic stem cell transplantation (HSCT) recipients with febrile neutropenia. HSCT recipients with febrile neutropenia were randomized into two groups receiving either PTZ or IMP as initial empiric antibiotic."

Financial support for this research came from Capital Health Research and Development of Special.

The news correspondents obtained a quote from the research from Chinese People's Liberation Army General Hospital, "Endpoints were defervescence rate after empiric antibiotic for 48 h, success at end of therapy, and side effects. Defervescence within 48 h after empiric antibiotic was observed in 46 patients with PTZ (75.4%) and 59 patients with IMP (95.2%) (p=
0.002). Ten patients (10/46) in the PTZ group and two patients (2/59) in the IMP group switched empiric antibiotics due to recurrent fever (p=0.005). Success of initial antibiotic with modification was achieved in 34 patients with PTZ (55.7%) and 53 patients with IMP (85.5%) at the end of therapy (p=0.001). To treat the bacteremia, seven of 10 patients in the PTZ group and one of eight patients in the IMP group needed to switch the empiric antibiotic (p=0.025). Compared with PTZ, IMP had more gastrointestinal adverse events (p=0.045).

According to the news reporters, the research concluded: "This study demonstrates that IMP had better efficacy than PTZ as an empiric antibiotic for febrile neutropenia in the HSCT setting, but with more gastrointestinal side reactions."


Our news journalists report that additional information may be obtained by contacting Y. Jing, Dept. of Hematology and BMT, Chinese PLA General Hospital, Beijing, People's Republic of China. Additional authors for this research include J. Li, L. Yuan, X. Zhao, Q. Wang, L. Yu, D. Zhou and W. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12685. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antibacterial Agents, Antiinfectives, Antimicrobials, Antipseudomonal Penicillins, Biomedicine, Amides, Beijing, Surgery, Imipenem, Cilastatin, Leukopenia, Ampicillins, Neutropenia, Hydrocarbons, Piperacillin, Thienamycins, Cyclopropanes, Agranulocytosis, Gastroenterology, Sulfur Compounds, Bone Marrow Cells.

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assessed by observing the in vivo manifestations of aGVHD, histologic changes in target organs, and recipient mouse survival. We evaluated the effects of hUC-MSC-EVs on immune cells and inflammatory cytokines by flow cytometry and ProcartaPlex™ Multiplex Immunoassays, respectively. The in vitro effects of hUC-MSC-EVs were determined by mitogen-induced proliferation assays. hUC-MSC-EVs alleviated the in vivo manifestations of aGVHD and the associated histologic changes and significantly reduced the mortality of the recipient mice. Recipients treated with hUC-MSC-EVs had significantly lower frequencies and absolute numbers of CD3(+)CD8(+) T cells; reduced serum levels of IL-2, TNF-alpha, and IFN-gamma; a higher ratio of CD3(+)CD4(+) and CD3(+)CD8(+) T cells; and higher serum levels of IL-10. An in vitro experiment demonstrated that hUC-MSC-EVs inhibited the mitogen-induced proliferation of splenocytes in a dose-dependent manner, and the cytokine changes were similar to those observed in vivo. This study indicated that hUC-MSC-EVs can prevent life-threatening aGVHD by modulating immune responses."

According to the news editors, the research concluded: "These data provide the first evidence that hUC-MSC-EVs represent an ideal alternative in the prophylaxis of aGVHD after allo-HSCT."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/scd.2016.0107. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Immune System Diseases and Conditions, Graft-Versus-Host Disease, Hematopoietic Stem Cells, Connective Tissue Cells, Cell Transplantation, Transplant Medicine, Stem Cell Research, Bone Marrow Cells, Cell Transplants, Stromal Cells, Biomedicine, Hematology, Surgery, Chinese Peoples' Liberation Army General Hospital.

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Gram-Negative Bacteria - Uropathogenic Escherichia coli Described (Siderophore Biosynthesis Governs the Virulence of Uropathogenic Escherichia coli by Coordinate Modulating the Differential Metabolism)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gram-Negative Bacteria - Uropathogenic Escherichia coli have been presented. According to news reporting originating in Chongqing, People's Republic of China, by NewsRx journalists, research stated, "Urinary tract infections impose substantial health burdens on women worldwide. Urinary tract infections often incur a high risk of recurrence and antibiotic resistance, and uropathogenic E. coli accounts for approximately 80% of clinically acquired cases."

Financial supporters for this research include Chongqing University, Ministry of Education of the People's Republic of China, Queensland University of Technology, National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Chongqing University, "The diagnosis of, treatment of, and drug development for urinary tract infections remain substantial challenges due to the complex pathogenesis of this condition. The clinically isolated UPEC 83972 strain was found to produce four siderophores: yersiniabactin, aerobactin, salmochelin, and enterobactin. The biosyntheses of some of these siderophores implies that the virulence of UPEC is mediated via the targeting of primary metabolism. However, the differential modulatory roles of siderophore biosyntheses on the differential metabolomes of UPEC and non-UPEC strains remain incompletely understood. In the present study, we sought to investigate how the differential metabolomes can be used to distinguish UPEC from non-UPEC strains and to determine the associated regulatory roles of siderophore biosynthesis. Our results are the first to demonstrate that the identified differential metabolomes strongly differentiated UPEC from non-UPEC strains. Furthermore, we performed metabolome assays of mutants with different patterns of siderophore deletions; the data revealed that the mutations of all four siderophores exerted a stronger modulatory role on the differential metabolomes of the UPEC and non-UPEC strains relative to the mutation of any single siderophore and that this modulatory role primarily involved amino acid metabolism, oxidative phosphorylation in the carbon fixation pathway, and purine and pyrimidine metabolism. Surprisingly, the modulatory roles were strongly dependent on the type and number of mutated siderophores."

According to the news reporters, the research concluded: "Taken together, these results demonstrated that siderophore biosynthesis coordinately modulated the differential metabolomes and thus may indicate novel targets for virulence-based diagnosis, therapeutics, and drug development related to urinary tract infections."


Our news correspondents report that additional information may be obtained by contacting Q. Su, The Laboratory for Functional Omics and Innovative Chinese Medicine, Innovative Drug Research Center, Chongqing University, Chongqing 401331, People's Republic of China. Additional authors for this research include T. Guan, Y. He and H. Lv.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jproteome.6b00061. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chongqing, Urinary Tract, Enterobacteriaceae, Gammaproteobacteria, Risk and Prevention, Gram Negative Bacteria, Gram-Negative Bacteria, People's Republic of China, Uropathogenic Escherichia coli.

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Peace and Conflict Management

Studies from City University of New York Reveal New Findings on Peace and Conflict Management (When risky decisions are not surprising: An application of prospect theory to the Israeli war decision in 2006)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peace and Conflict Management have been published. According to news reporting originating in Staten Island, New York, by NewsRx editors, the research stated, "On 12 July 2006, Hezbollah operatives crossed into Israel and attacked a military patrol, killing three soldiers and kidnapping two more. In retaliation to this incident Israel launched a military operation that resulted in 34 days of fighting between Hezbollah and Israel."

The news reporters obtained a quote from the research from the City University of New York, "The Israeli retaliation has been deemed to be severe and surprising. Furthermore, a public investigation commission established by the Israeli government implicated key decision-makers, and especially Prime Minister Olmert, as guilty of hasty and irresponsible decision-making."

According to the news reporters, the research concluded: "This article views this case through the lens of prospect theory, showing how the decision was made at the framing stage, and suggesting that this decision was not hasty but, rather, was consistent with the logic of loss-aversion."

For more information on this research see: When risky decisions are not surprising: An application of prospect theory to the Israeli war decision in 2006. Cooperation and Conflict, 2016;51(4):484-503. Cooperation and Conflict can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England. (Sage Publications - www.sagepub.com; Cooperation and Conflict - cac.sagepub.com)

Our news correspondents report that additional information may be obtained by contacting A. Niv-Solomon, CUNY, CSI Dept. of Polit Sci & Global Affairs, Polit Sci & Int Relat, Staten Island, NY, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0010836716640837. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Staten Island, New York, United States, North and Central America, Peace and Conflict Management, Legal Issues, City University of New York.

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Drugs and Therapies - Antiretrovirals

Studies from City of Hope National Medical Center Reveal New Findings on Antiretrovirals (Tunneling nanotubes: an alternate route for propagation of the bystander effect following oncolytic viral infection)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antiretrovirals. According to news reporting out of Duarte, California, by NewsRx editors, research stated, "Tunneling nanotubes (TNTs) are ultrafine, filamentous actin-based cytoplasmic extensions which form spontaneously to connect cells at short and long-range distances. We have previously described long-range intercellular communication via TNTs connecting mesothelioma cells in vitro and demonstrated TNTs in intact tumors from patients with mesothelioma."

Our news journalists obtained a quote from the research from the City of Hope National Medical Center, "Here, we investigate the ability of TNTs to mediate a viral thymidine kinase based bystander effect after oncolytic viral infection and administration of the nucleoside analog ganciclovir. Using confocal microscopy we assessed the ability of TNTs to propagate enhanced green fluorescent protein (eGFP), which is encoded by the herpes simplex virus NV1066, from infected to uninfected recipient cells. Using time-lapse imaging, we observed eGFP expressed in infected cells being transferred via TNTs to noninfected cells; additionally, increasing fluorescent activity in recipient cells indicated cell-to-cell transmission of the eGFP-expressing NV1066 virus had also occurred. TNTs mediated cell death as a form of direct cell-to-cell transfer following viral thymidine kinase mediated activation of ganciclovir, inducing a unique long-range form of the bystander effect through transmission of activated ganciclovir to nonvirus-infected cells. Thus, we provide proof-of-principle demonstration of a previously unknown and alternative mechanism for inducing apoptosis in noninfected recipient cells."

According to the news editors, the research concluded: "The conceptual advance of this work is that TNTs can be harnessed for delivery of oncolytic viruses and of viral thymidine kinase activated drugs to amplify the bystander effect between cancer cells over long distances in stroma-rich tumor microenvironments."

For more information on this research see: Tunneling nanotubes: an alternate route for propagation of the bystander effect following oncolytic viral infection. *Molecular Therapy-Oncolytics*, 2016;3():1-8. *Molecular Therapy-Oncolytics* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

Our news journalists report that additional information may be obtained by contacting Y.M. Fong, City Hope Med Center, Dept. of Surg, Duarte, CA, United States. Additional authors for this research include V. Thayanithy, K. Mojica, P. Wong, J. Carson, P. Rao, Y.M. Fong and E. Lou.

Keywords for this news article include: Duarte, California, United States, North and Central America, Ophthalmic Antiinfectives, Ophthalmic Preparations, Enzymes and Coenzymes, Emerging Technologies, Drugs and Therapies, Purine Nucleosides, Thymidine Kinase, Antiretrovirals, Nanotechnology, Ganciclovir, Proteomics, Antivirals, Proteins, Nanotube, City of Hope National Medical Center.

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**Thyroid Nodule**

**Studies from Cleveland Clinic Add New Findings in the Area of Thyroid Nodule (Utility Of Ultrasound Versus Gene Expression Classifier In Thyroid Nodules With Atypia Of Undetermined Significance)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Thyroid Nodule. According to news reporting originating from Weston, Florida, by NewsRx correspondents, research stated, "Thyroid nodules with fine-needle aspiration (FNA) cytology categorized as atypia of undetermined significance (AUS) often undergo additional diagnostic analysis with the Afinna Gene Expression Classifier (GEC), which classifies these as either high probability of being benign (GEC-B) or suspicious for malignancy (GEC-S). Our goal was to assess the clinical validity and utility of GEC in the evaluation of ALTS cytology and evaluate the performance of ultrasonography (USG) for predicting malignancy in this subset."

Our news editors obtained a quote from the research from Cleveland Clinic, "We conducted a study with a retrospective cohort of patients from January 2012 to January 2014 who had FNA of thyroid nodules >1 cm in size with AUS cytology. Cleveland Clinic Florida has an overall prevalence of ALTS of 5%. A total of 119 cases with nodules >1 cm in size were reported as AUS. Forty-eight (40.3%) had a GEC performed after the first FNA (AUS-1), and 27 of these were GEC-S. Of those 27, 21 went for surgery and 14 (66.6%) had thyroid cancer on hisopathology. The remaining 71 with AUS-1 were sent for a second FNA: 19 nodules were benign and did not undergo further evaluation, while the remaining 52 were reported as AUS for the second consecutive time (AUS-2). AUS-2 samples were sent for GEC. Of these 52 AUS-2, 38 (73.1%) were reported as GEC-S. Thirty-five went for surgery and 32 (91.4%) had confirmed malignancy on histopathology. Positive predictive value (PPV) was 91.4% for AUS-2 and 66.6% for AUS-1. Moreover, AUS-2 nodules that were hypoechoic and solid on USG showed a PM of 92% for malignancy. In our practice, the diagnostic accuracy to predict malignancy with GEC for AUS-1 nodules was poor (PPV, 66.6%). The PPV of GEC testing was markedly higher at 91.4% performed after two consecutive AUS cytologies. AUS-2 nodules that were solid and hypoechoic on USG also had a high probability to be malignant (PPV, 92%). We recommend repeat FNA on AUS-1 nodules rather than proceeding directly to GEC testing."

According to the news editors, the research concluded: "Also, we suggest that among AUS-2 nodules, surgery can be recommended when USG shows solid and hypoechoic features with GEC testing reserved for the remainder."

For more information on this research see: Utility Of Ultrasound Versus Gene Expression Classifier In Thyroid Nodules With Atypia Of Undetermined Significance. *Endocrine Practice*, 2016;22(10):1199-1203. *Endocrine Practice* can be contacted at: Amer Assoc Clinical Endocrinologists, 245 Riverside Avenue, Ste 200, Jacksonville, FL 32202, USA.

The news editors report that additional information may be obtained by contacting C.V. Villabona, Cleveland Clin Florida, Dept. of Endocrinol, Weston, FL 33331, United States. Additional authors for this research include V. Mohan, K.M. Arce, J. Diacovo, A. Aggarwal, J. Betancourt, H. Amer, T. Jose, P. DeSantis and J. Cabral.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4158/EP161231.OR. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Weston, Florida, United States, North and Central America, Surgery, Diagnostics and Screening, Genetics, Thyroid Diseases and Conditions, Endocrine Gland Neoplasms, Thyroid Neoplasms, Thyroid Nodules, Cytology, Cleveland Clinic.

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Studies from Cleveland Clinic Provide New Data on Chemotherapy (Preservation of gonadal function in women undergoing chemotherapy: a review of the potential role for gonadotropin-releasing hormone agonists)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Chemotherapy are discussed in a new report. According to news reporting from Cleveland, Ohio, by NewsRx journalists, research stated, "A cancer diagnosis in women of reproductive age has unique medical and psychosocial ramifications, especially with treatments that are known to cause gonadal toxicity. For patients who undergo chemotherapy, a multidisciplinary team approach is essential to ensure that the patients' reproductive wishes are addressed."

The news correspondents obtained a quote from the research from Cleveland Clinic, "Currently, embryo and oocyte cryopreservation are the standard of care for those who wish to preserve their fertility. The use of gonadotropin-releasing hormone agonists has been a source of debate with numerous studies that have investigated the efficacy on both fertility and ovarian function preservation. This review evaluates the current literature on the use of gonadotropin-releasing hormone agonists for preservation of gonadal function. Assisted reproductive technology is excellent for preservation of fertility but will not protect gonadal function. Protection of gonadal function is critical for the broader issues of health and quality of life as a result of a hypogonadal state."

According to the news reporters, the research concluded: "At this moment, gonadotropin-releasing hormone agonists are the only drug class available to protect gonadal function."


Our news journalists report that additional information may be obtained by contacting T. Falcone, Cleveland Clinic, Dept. of Obstet Gynecol, Cleveland, OH 44195, United States. Additional authors for this research include L.N. Valentine and T. Falcone.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajog.2016.06.053. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Pituitary Hormone-Releasing Hormones, Peptide Proteins, Article Review, Gonadotropin Releasing Hormones, Nerve Tissue Proteins, Gonadotropin Therapy, Drugs and Therapies, Peptide Hormones, Pharmaceuticals, Neuropeptides, Oligopeptides, Gonadotropins, Chemotherapy, Peptides, Cleveland Clinic.

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Studies from Cleveland Clinic Update Current Data on Esophagectomy
[Recommendations for pathologic staging (pTNM) of cancer of the esophagus and esophagogastric junction for the 8th edition AJCC/UICC staging manuals]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Surgery - Esophagectomy are presented in a new report. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "We report analytic and consensus processes that produced recommendations for pathologic stage groups (pTNM) of esophageal and esophagogastric junction cancer for the AJCC/UICC cancer staging manuals, 8th edition. The Worldwide Esophageal Cancer Collaboration provided data for 22,654 patients with epithelial esophageal cancers; 13,300 without preoperative therapy had pathologic assessment after esophagectomy or endoscopic treatment."

The news reporters obtained a quote from the research from Cleveland Clinic, "Risk-adjusted survival for each patient was developed using random survival forest analysis to identify data-driven pathologic stage groups wherein survival decreased monotonically with increasing group, was distinctive between groups, and homogeneous within groups. The AJCC Upper GI Task Force, by smoothing, simplifying, expanding, and assessing clinical applicability, produced consensus pathologic stage groups. For pT1-3N0M0 squamous cell carcinoma (SCC) and pT1-2N0M0 adenocarcinoma, pT was inadequate for grouping; subcategorizing pT1 and adding histologic grade enhanced staging; cancer location improved SCC staging. Consensus eliminated location for pT2N0M0 and pT3N0M0G1 SCC groups, and despite similar survival, restricted stage 0 to pTis, excluding pT1aN0M0G1. Metastases markedly reduced survival; pT, pN, and pM sufficiently grouped advanced cancers. Stage IIA and IIB had different compositions for SCC and adenocarcinoma, but similar survival. Consensus stage IV subgrouping acknowledged pT4N+ and pN3 cancers had poor survival, similar to pM1. Anatomic pathologic stage grouping, based on pTNM only, produced identical consensus stage groups for SCC and adenocarcinoma at the cost of homogeneity in early groups. Pathologic staging can neither direct pre-treatment decisions nor aid in prognostication for treatment other than esophagectomy or endoscopic therapy."

According to the news reporters, the research concluded: "However, it provides a clean, single therapy reference point for esophageal cancer."


Our news correspondents report that additional information may be obtained by contacting T.W. Rice, Cleveland Clinic, Cleveland, OH 44195, United States. Additional authors for this research include H. Ishwaran, W.L. Hofstetter, D.P. Kelsen, C. Apperson-Hansen and E.H. Blackstone.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Squamous Cell Carcinoma, Gastroenterology, Adenocarcinoma,
Studies from Columbia University College of Physicians and Surgeons Describe New Findings in Thromboembolism (A comparison of recommendations for pharmacologic thromboembolism prophylaxis after caesarean delivery from three major guidelines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Thromboembolism have been presented. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "Guidelines for pharmacologic obstetric venous thromboembolism (VTE) prophylaxis from the American Congress of Obstetricians (ACOG), the Royal College of Obstetricians and Gynaecologists (RCOG), and the American College of Chest Physicians (Chest) vary significantly. The objective of this study was to determine the practical implications of these recommendations in terms of prophylaxis rates for a tertiary obstetric population. Cross-sectional. Tertiary referral hospital."

Our news journalists obtained a quote from the research from the Columbia University College of Physicians and Surgeons, "Patients post-operative day 1 after caesarean delivery. This cross-sectional study evaluated rates of pharmacologic prophylaxis for women based on RCOG, ACOG, and Chest recommendations. Medical, obstetric, and demographic risk factors for thromboembolism were reviewed for individual patients. Rates of prophylaxis based on each of the guidelines with 95% confidence intervals were calculated. Recommended pharmacologic prophylaxis. About 293 patients were included in the analysis. Under RCOG guidelines, 85.0% of patients would receive post-caesarean pharmacologic prophylaxis [95% confidence interval (CI) 80.5-88.6%] compared with 1.0% of patients under ACOG guidelines (95% CI 0.3-3.0%) and 34.8% of patients under Chest guidelines (95% CI 29.6-40.4%). Caesarean during labour, obesity, advanced maternal age, pre-eclampsia, and multiple gestation were among the most common risk factors. Recommended prophylaxis differed significantly. Under ACOG recommendations a small minority of patients would receive prophylaxis, whereas under RCOG recommendations a large majority of patients would receive low-molecular-weight heparin. Given the large differences in prophylaxis rates for post-caesarean thromboprophylaxis based on different guidelines, further research is urgently needed to compare the risks and benefits of recommendations."

According to the news editors, the research concluded: "Recommendations from major society guidelines for post-caesarean thromboprophylaxis differ greatly."


Our news journalists report that additional information may be obtained by contacting K.L. Palmerola, Dept. of Obstetrics & Gynecology, Columbia University College of Physicians and Surgeons, New York, NY, United States. Additional authors for this research include M.E. D'Alton, C.O. Brock and A.M Friedman.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1471-0528.13706. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hematology, Obstetrics, Epidemiology, New York City, United States, Women's Health, Thromboembolism, Risk and Prevention, Embolism and Thrombosis, North and Central America, Cardiovascular Diseases and Conditions.

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**Drugs and Therapies - Antidepressants**

**Studies from Columbia University Further Understanding of Antidepressants (LARETH-25 and beta-CD improve central transitivity and central pharmacological effect of the GLP-2 peptide)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antidepressants. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Depression is a common mental disorder. More than 350 million people of all ages suffer from depression worldwide."

Our news editors obtained a quote from the research from Columbia University, "Although a number of antidepressants are available, >20% of patients with major depressive disorder suffer from treatment-resistant depression. Therefore, development of novel therapeutics to overcome this condition is required. We reported that intracerebroventricular administration of glucagon-like peptide-2 (GLP-2) exerts antidepressant-like effects treated with or without adrenocorticotropic hormone. In the present study, we developed a nasal formulation of GLP-2 containing 5% polyoxyethylene (25) lauryl ether and 1% beta-cyclodextrin that enhanced the resistance of GLP-2 to inactivation by dipeptidyl peptidase-4. Intranasal administration of this formulation (60 mg/kg) increased the delivery of GLP-2 to the brain and had antidepressant-like effects on rats."

According to the news editors, the research concluded: "These results suggest the potential of the GLP-2 nasal formulation for use as a novel antidepressant."


The news editors report that additional information may be obtained by contacting M. Horiguchi, Columbia University, Medical Center, Japan Soc Promot Sci, New York, NY 10032, United States. Additional authors for this research include M. Horiguchi, R. Nakamura, S. Sasaki-Hamada, C. Ozawa, T. Funane, R. Ozawa, J.I. Oka and C. Yamashita.

Keywords for this news article include: New York City, New York, United States, North and Central America, Drugs and Therapies, Antidepressants, Pharmacology, Therapy, Columbia University.

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Oncology - Gliomas

Studies from Columbia University Have Provided New Data on Gliomas (Safety, feasibility, and optimization of intra-arterial mitoxantrone delivery to gliomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gliomas have been presented. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Mitoxantrone is a highly cytotoxic antineoplastic drug, however, its poor penetration of the blood-brain barrier has limited its role in the treatment of brain cancers. We hypothesize that intra-arterial (IA) delivery of mitoxantrone may enhance its capacity for regional brain deposition thus expanding its potential as a brain tumor therapy agent."

Financial support for this research came from National Cancer Institute at the National Institutes of Health.

The news reporters obtained a quote from the research from Columbia University, "In this study we assessed the dose-response characteristics as well as the feasibility and safety of mitoxantrone delivery to the brain and specifically to gliomas in a rodent model. We show that delivery optimization utilizing the technique of intra-arterial transient cerebral hypoperfusion (IA-TCH) facilitates achieving the highest peak- and end- brain drug concentrations as compared to intravenous and IA delivery without hypoperfusion. Additionally, we observed significant tumor-specific uptake of mitoxantrone when delivered by the IA-TCH method. No untoward effects of IA-TCH delivery of mitoxantrone were observed. The IA-TCH method is shown to be a safely tolerated and feasible strategy for delivering mitoxantrone to tumors in the glioma model tested."

According to the news reporters, the research concluded: "Additional investigation is warranted to determine if IA-TCH delivery of mitoxantrone produces clinically relevant benefit."

For more information on this research see: Safety, feasibility, and optimization of intra-arterial mitoxantrone delivery to gliomas. Journal of Neuro-Oncology, 2016;130(3):449-454. Journal of Neuro-Oncology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of Neuro-Oncology - www.springerlink.com/content/0167-594x/)

Our news correspondents report that additional information may be obtained by contacting J.A. Ellis, Columbia University, Medical Center, Dept. of Neurol Surg, New York, NY 10027, United States. Additional authors for this research include J. Cooke, R.P. Singh-Moon, M. Wang, J.N. Bruce, C.W. Emala, I.J. Bigio and S. Joshi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11060-016-2253-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Antibiotics - Antineoplastics, Mitoxantrone Therapy, Drugs and Therapies, Pharmaceuticals, Anthraquinones, Oncology, Gliomas, Columbia University.

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Studies from Columbia University Have Provided New Data on Lymphoma (High rate of complete responses to immune checkpoint inhibitors in patients with relapsed or refractory Hodgkin lymphoma previously exposed to epigenetic therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lymphoma. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Options for patients with relapsed or refractory (R/R) classical Hodgkin lymphoma (cHL) after brentuximab vedotin (Bv) and autologous stem cell transplantation (ASCT) are limited. Immune checkpoint inhibitors (ICI) are active in this population but rarely induce complete response (CR)."

The news correspondents obtained a quote from the research from Columbia University, "Ten patients with R/R cHL after ASCT and Bv received pembrolizumab (n = 8) or nivolumab (n = 2). Five had been previously exposed to 5-azacitidine on a phase 1 study. Among nine evaluable patients, seven (78%) achieved CR, one partial response, and one reduction of tumor burden. All five patients who had received 5-azacitidine prior to ICI achieved CR, while only two of four who did not receive prior 5-azacitidine achieved CR. At a median follow-up of 9.9 months [0.5-14.3], eight patients are alive and five are still receiving treatment. We documented an unprecedented CR rate after ICI in patients with R/R cHL."

According to the news reporters, the research concluded: "We hypothesize that hypomethylating agents might have an immune priming effect and enhance the efficacy of ICI."

For more information on this research see: High rate of complete responses to immune checkpoint inhibitors in patients with relapsed or refractory Hodgkin lymphoma previously exposed to epigenetic therapy. *Journal of Hematology & Oncology*, 2016;9():1-4. *Journal of Hematology & Oncology* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; Journal of Hematology & Oncology - www.jhoonline.org)

Our news journalists report that additional information may be obtained by contacting O.A. O'Connor, Columbia University, Div Hematol Oncol, Dept. of Med, Center Lymphoid MalignanciesMed Center, New York, NY 10019, United States. Additional authors for this research include A. Sawas, C.C. Deng, J.E. Amengual, D.S. Colbourn, E.A. Lichtenstein, K.A. Khan, L.H. Schwartz and O.A. O'Connor.

Keywords for this news article include: New York City, New York, United States, North and Central America, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hematology, Lymphomas, Genetics, Oncology, Therapy, Columbia University.

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Studies from Columbia University Yield New Information about Alzheimer Disease (Genomics of Alzheimer's disease: Value of high-throughput genomic technologies to dissect its etiology)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Neurodegenerative Diseases and Conditions - Alzheimer Disease are discussed in a new report. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Late-onset Alzheimer's disease (AD), the most common neurodegenerative disorder in western countries, is clinically defined by progressive worsening in cognitive functions along with function and behavioral impairment. This ultimately results in complete incapacity and death."

Financial supporters for this research include NIH, Department of Defense.

Our news journalists obtained a quote from the research from Columbia University, "AD is a clinically and pathologically heterogeneous disease, and this is reflected by the numerous genetic findings that point to several diverse molecular mechanisms and pathways. Linkage, genome-wide association and next-generation sequencing studies have led to the identification of more than 20 novel susceptibility loci for AD. While these observations have significantly increased the knowledge of pathogenic mechanisms and potential therapeutic targets, a large part of the genetic component underlying AD is still unexplained."

According to the news editors, the research concluded: "This review will summarize and discuss the major genetic findings and their potential impact on AD diagnosis and prediction of prognosis."


The news correspondents report that additional information may be obtained from C. Reitz, Columbia University, Dept. of Epidemiol, New York, NY, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mcp.2016.09.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Brain Diseases and Conditions, Technology, Article Review, Alzheimer Disease, Tauopathies, Dementia, Genetics, Columbia University.

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Heart Disorders and Diseases - Cardiomyopathies

Studies from Comenius University Provide New Data on Cardiomyopathies (Ramipril restores PPAR beta/delta and PPAR gamma expressions and reduces cardiac NADPH oxidase but fails to restore cardiac function and accompanied myosin heavy chain ratio ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Cardiomyopathies are presented in a new report. According to news originating from Bratislava, Slovakia, by NewsRx correspondents, research stated, "We hypothesized that peroxisome proliferator-activated receptors (PPARs) might be involved in a complex protective action of ACE inhibitors (ACEi) in anthracyclines-induced cardiomyopathy. For purpose of study, we compared effects of ramipril on cardiac dysfunction, cardiac failure markers and PPAR isoforms in moderate and severe chronic daunorubicin-induced cardiomyopathy."

Our news journalists obtained a quote from the research from Comenius University, "Male Wistar rats were administered with a single intravenous injection of daunorubicin: 5 mg/kg (moderate cardiomyopathy), or 15 mg/kg (severe cardiomyopathy) or co-administered with daunorubicin and ramipril (1 mg/kg/d, orally) or vehicle for 8 weeks. Left ventricular function was measured invasively under anesthesia. Cardiac mRNA levels of heart failure markers (ANP, Myh6, Myh7, Myh7b) and PPARs (alpha, beta/delta and gamma) were measured by qRT-PCR. Protein expression of NADPH subunit (gp91phox) was measured by Western blot. Moderate cardiomyopathy exhibited only minor cardiac dysfunction what was corrected by ramipril. In severe cardiomyopathy, hemodynamic dysfunction remained unaltered upon ramipril although it decreased the significantly up-regulated cardiac ANP mRNA expression. Simultaneously, while high-dose daunorubicin significantly decreased PPARbeta/delta and PPARgamma mRNA, ramipril normalized these abnormalities. Similarly, ramipril reduced altered levels of oxidative stress-related gp91phox. On the other hand, ramipril was unable to correct both the significantly decreased relative abundance of Myh6 and increased Myh7 mRNA levels, respectively."

According to the news editors, the research concluded: "Ramipril had a protective effect on cardiac function exclusively in moderate chronic daunorubicin-induced cardiomyopathy. Although it normalized abnormal PPARs expression and exerted also additional protective effects also in severe cardiomyopathy, it was insufficient to influence impaired cardiac function probably because of a shift in myosin heavy chain isoform content."

For more information on this research see: "Ramipril restores PPAR beta/delta and PPAR gamma expressions and reduces cardiac NADPH oxidase but fails to restore cardiac function and accompanied myosin heavy chain ratio shift in severe anthracycline-induced cardiomyopathy in rat. European Journal of Pharmacology, 2016;791():244-253. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news correspondents report that additional information may be obtained from J. Klimas, Comenius Univ, Fac Pharm, Dept. of Pharmacol & Toxicol, Bratislava 83232, Slovakia. Additional authors for this research include G. Doka, J. Sranksa, L. Pivackova, E. Malikova, K. Galkova, J. Kyselovic, P. Krenek and J. Klimas.

Keywords for this news article include: Bratislava, Slovakia, Europe, Peroxisome.
Proliferator-Activated Receptors, Cardiovascular Diseases and Conditions, Anthracycline-induced Cardiomyopathy, Heart Disorders and Diseases, Macromolecular Substances, Enzymes and Coenzymes, Transcription Factors, Cytoskeletal Proteins, DNA-Binding Proteins, Contractile Proteins, Myosin Heavy Chains, Cardiomyopathies, Anthracyclines, NADPH Oxidase, Flavoproteins, Heart Disease, Daunorubicin, Biopolymers, PPAR gamma, Cardiology, PPAR-beta, Genetics, Comenius University.

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Immune System Diseases and Conditions - HIV/AIDS

Studies from Curtin University Add New Findings in the Area of HIV/AIDS (Does the Theory of Planned Behaviour Explain Condom Use Behaviour Among Men Who have Sex with Men? A Meta-analytic Review of the Literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immune System Diseases and Conditions - HIV/AIDS is now available. According to news originating from Perth, Australia, by NewsRx correspondents, research stated, "The aim of this meta-analysis was to explore whether the constructs in the theory of planned behaviour (TPB; i.e., attitude, subjective norm, perceived behavioural control, intention) explain condom use behaviour among men who have sex with men (MSM). Electronic databases were searched for studies that measured TPB variables and MSM condom use."

Our news journalists obtained a quote from the research from Curtin University, "Correlations were meta-analysed using a random effects model and path analyses. Moderation analyses were conducted for the time frame of the behavioural measure used (retrospective versus prospective). Attitude, subjective norm and perceived behavioural control accounted for 24.0 % of the variance in condom use intention and were all significant correlates. Intention and PBC accounted for 12.4 % of the variance in condom use behaviour. However, after taking intention into account, PBC was no longer significantly associated with condom use. The strength of construct relationships did not differ between retrospective and prospective behavioural assessments. The medium to large effect sizes of the relationships between the constructs in the TPB, which are consistent with previous meta-analyses with different behaviours or target groups, suggest that the TPB is also a useful model for explaining condom use behaviour among MSM."

According to the news editors, the research concluded: "However, the research in this area is rather small, and greater clarity over moderating factors can only be achieved when the literature expands."

For more information on this research see: Does the Theory of Planned Behaviour Explain Condom Use Behaviour Among Men Who have Sex with Men? A Meta-analytic Review of the Literature. AIDS and Behavior, 2016;20(12):2834-2844. AIDS and Behavior can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; AIDS and Behavior - www.springerlink.com/content/1090-7165/)

The news correspondents report that additional information may be obtained from B.A. Mullan, Curtin University, Sch Psychol & Speech Pathol, Perth, WA 6845, Australia.
Additional authors for this research include B.A. Mullan, J.B.F. de Wit, L.A. Monds, J. Todd and E.J. Kothe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10461-016-1314-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Perth, Australia, Australia and New Zealand, HIV/AIDS, Immune System Diseases and Conditions, Article Review, Curtin University.

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**Bone Research**

**Studies from Curtin University Further Understanding of Bone Research (Bone morphogenetic protein-2 and bone therapy: successes and pitfalls)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Bone Research. According to news reporting from Bentley, Australia, by NewsRx journalists, research stated, "Bone morphogenetic proteins (BMPs), more specifically BMP-2, are being increasingly used in orthopaedic surgery due to advanced research into osteoinductive factors that may enhance and improve bone therapy. There are many areas in therapy that BMP-2 is being applied to, including dental treatment, open tibial fractures, cancer and spinal surgery."

Financial support for this research came from Institutional Academic50 grant.

The news correspondents obtained a quote from the research from Curtin University, "Within these areas of treatment, there are many reports of successes and pitfalls. This review explores the use of BMP-2 and its successes, pitfalls and future prospects in bone therapy. The PubMed database was consulted to compile this review. With successes in therapy, there were descriptions of a more rapid healing time with no signs of rejection or infection attributed to BMP-2 treatment. Pitfalls included BMP-2 'off-label' use, which lead to various adverse effects."

According to the news reporters, the research concluded: "Our search highlighted that optimising treatment with BMP-2 is a direction that many researchers are exploring, with areas of current research interest including concentration and dose of BMP-2, carrier type and delivery."


Our news journalists report that additional information may be obtained by contacting B. Poon, School of Pharmacy, Curtin University, Bentley, WA, Australia. Additional authors for this research include T. Kha, S. Tran and C.R Dass.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jphp.12506. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bentley, Surgery, Therapy, Bone Research, Article Review, Australia and New Zealand, Bone Morphogenetic Protein 2, TGF beta
Studies from Curtin University in the Area of Antimicrobials Described (Is There Potential for Repurposing Statins as Novel Antimicrobials?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antimicrobials have been published. According to news reporting out of Perth, Australia, by NewsRx editors, research stated, "Statins are members of a class of pharmaceutical widely used to reduce high levels of serum cholesterol."

Financial supporters for this research include Science Foundation Ireland (SFI), European Commission (EC), Health Research Board (HRB), Teagasc, Department of Agriculture, Food and the Marine, Irish Research Council for Science, Engineering and Technology (IRCSET), Marine Institute (Foras Na Mara).

Our news journalists obtained a quote from the research from Curtin University, "In addition, statins have so-called 'pleiotropic effects,' which include inflammation reduction, immunomodulation, and antimicrobial effects. An increasing number of studies are emerging which detail the attenuation of bacterial growth and in vitro and in vivo virulence by statin treatment."

According to the news editors, the research concluded: "In this review, we describe the current information available concerning the effects of statins on bacterial infections and provide insight regarding the potential use of these compounds as antimicrobial therapeutic agents."

For more information on this research see: Is There Potential for Repurposing Statins as Novel Antimicrobials? Antimicrobial Agents and Chemotherapy, 2016;60(9):5111-5121. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting F. O'Gara, Curtin University, Sch Biomed Sci, Perth, WA, Australia. Additional authors for this research include C. Adams, F.J. Reen and F. O'Gara.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00192-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Perth, Australia, Australia and New Zealand, Drugs and Therapies, Article Review, Antimicrobials, Curtin University.

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Oncology - Small Cell Lung Cancer

Studies from D. Bernhardt and Co-Authors Have Provided New Information about Small Cell Lung Cancer (Outcome in patients with small cell lung cancer re-irradiated for brain metastases after prior prophylactic cranial irradiation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Small Cell Lung Cancer is the subject of a report. According to news reporting originating from Heidelberg, Germany, by NewsRx correspondents, research stated, "Patients with brain metastases from small-cell lung cancer (SCLC) who underwent prior prophylactic cranial irradiation (PCI) are often treated with a second course of whole brain radiation therapy (Re-WBRT) or stereotactic radiosurgery (SRS) for purposes of palliation in symptomatic patients, hope for increased life expectancy or even as an alternative to untolerated steroids. Up to date there is only limited data available regarding the effect of this treatment."

Financial support for this research came from Medical Faculty of Heidelberg University.

Our news editors obtained a quote from the research, "This study examines outcomes in patients in a single institution who underwent cerebral re-irradiation after prior PCI. We examined the medical records of 76 patients with brain metastases who had initially received PCI between 2008 and 2015 and were subsequently irradiated with a second course of cerebral radiotherapy. Patients underwent re-irradiation using either Re-WBRT (88%) or SRS (17%). The outcomes, including symptom palliation, radiation toxicity, and overall survival (OS) following re-irradiation were analyzed. Survival and correlations were calculated using log-rank, univariate, and multivariate Cox proportional hazards-ratio analyses. Treatment-related toxicity was classified according to CTCAE v4.0. Median OS of all patients was 3 months (range 0-12 months). Median OS after Re-WBRT was 3 months (range 0-12 months). Median OS after SRS was 5 months (range 0-12 months). Karnofsky performance status scale (KPS >= 50%) was significantly associated with improved OS in both univariate (HR 2772; p = 0.009) and multivariate analyses (HR 2613; p = 0.024) for patients receiving Re-WBRT. No unexpected toxicity was observed and the observed toxicity remained consistently low. Symptom palliation was achieved in 40% of symptomatic patients. In conclusion, cerebral re-irradiation after prior PCI is beneficial for symptom palliation and is associated with minimal side effects in patients with SCLC."

According to the news editors, the research concluded: "Our survival data suggests that it is primarily useful in patients with adequate performance status."


The news editors report that additional information may be obtained by contacting D. Bernhardt, Heidelberg Ion Beam Therapy Center HIT, D-69120 Heidelberg, Germany. Additional authors for this research include F. Bozorgmehr, S. Adeberg, N. Opfermann, D. von Eiff, J. Rieker, J. Kappes, R. Foerster, L. Konig, M. Thomas, J. Debus, M. Steins and S. Rieken.

The direct object identifier (DOI) for that additional information is:
Studies from D. D'Ambrosio et al Further Understanding of Multiple Sclerosis (Ponesimod, a selective S1P1 receptor modulator: a potential treatment for multiple sclerosis and other immune-mediated diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Autoimmune Diseases and Conditions - Multiple Sclerosis have been published. According to news reporting originating from Basel, Switzerland, by NewsRx correspondents, research stated, "The first oral treatment for relapsing multiple sclerosis, the nonselective sphingosine-1-phosphate receptor (S1PR) modulator fingolimod, led to identification of a pivotal role of sphingosine-1-phosphate and one of its five known receptors, S1P1R, in regulation of lymphocyte trafficking in multiple sclerosis. Modulation of S1P3R, initially thought to cause some of fingolimod's side effects, prompted the search for novel compounds with high selectivity for S1P1R."

Our news editors obtained a quote from the research, "Ponesimod is an orally active, selective S1P1R modulator that causes dose-dependent sequestration of lymphocytes in lymphoid organs. In contrast to the long half-life/slow elimination of fingolimod, ponesimod is eliminated within 1 week of discontinuation and its pharmacological effects are rapidly reversible. Clinical data in multiple sclerosis have shown a dose-dependent therapeutic effect of ponesimod and defined 20 mg as a daily dose with desired efficacy, and acceptable safety and tolerability. Phase II clinical data have also shown therapeutic efficacy of ponesimod in psoriasis. These findings have increased our understanding of psoriasis pathogenesis and suggest clinical utility of S1P1R modulation for treatment of various immune-mediated disorders. A gradual dose titration regimen was found to minimize the cardiac effects associated with initiation of ponesimod treatment. Selectivity for S1P1R, rapid onset and reversibility of pharmacological effects, and an optimized titration regimen differentiate ponesimod from fingolimod, and may lead to better safety and tolerability. Ponesimod is currently in phase III clinical development to assess efficacy and safety in relapsing multiple sclerosis."

According to the news editors, the research concluded: "A phase II study is also ongoing to investigate the potential utility of ponesimod in chronic graft versus host disease."

For more information on this research see: Ponesimod, a selective S1P1 receptor modulator: a potential treatment for multiple sclerosis and other immune-mediated diseases. Therapeutic Advances In Chronic Disease, 2016;7(1):18-33. (Sage Publications - www.sagepub.com/; Therapeutic Advances In Chronic Disease - taj.sagepub.com)

The news editors report that additional information may be obtained by contacting D. D'Ambrosio, Actelion Pharmaceuticals - Global Clinical Science and Epidemiology, Gewerbestrasse 16, Basel 4056, Switzerland. Additional authors for this research include M.S. Freedman and J. Prinz.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/204062315617354. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Basel, Europe, Psoriasis, Fingolimod, Switzerland, Dermatology, Pharmacology, Article Review, Multiple Sclerosis, Drugs and Therapies, Immunosuppressive Agents, CNS Demyelinating Autoimmune Disease, Demyelinating Diseases and Conditions, Papulosquamous Skin Diseases and Conditions.

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Oncology - Leukemia

Studies from Dana-Farber Cancer Institute Provide New Data on Leukemia (A PI3K p110b-Rac signalling loop mediates Pten-loss-induced perturbation of haematopoiesis and leukaemogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Leukemia. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "The tumor suppressor PTEN, which antagonizes PI3K signalling, is frequently inactivated in haematologic malignancies. In mice, deletion of PTEN in haematopoietic stem cells (HSCs) causes perturbed haematopoiesis, myeloproliferative neoplasia (MPN) and leukaemia."

The news correspondents obtained a quote from the research from Dana-Farber Cancer Institute, "Although the roles of the PI3K isoforms have been studied in PTEN-deficient tumours, their individual roles in PTEN-deficient HSCs are unknown. Here we show that when we delete PTEN in HSCs using the Mx1-Cre system, p110b ablation prevents MPN, improves HSC function and suppresses leukaemia initiation. Pharmacologic inhibition of p110b in PTEN-deficient mice recapitulates these genetic findings, but suggests involvement of both Akt-dependent and -independent pathways. Further investigation reveals that a p110b-Rac signalling loop plays a critical role in PTEN-deficient HSCs."

According to the news reporters, the research concluded: "Together, these data suggest that myeloid neoplasia driven by PTEN loss is dependent on p110b via p110b-Rac-positive-feedback loop, and that disruption of this loop may offer a new and effective therapeutic strategy for PTEN-deficient leukaemia."

For more information on this research see: A PI3K p110b-Rac signalling loop mediates Pten-loss-induced perturbation of haematopoiesis and leukaemogenesis. Nature Communications, 2015;6():8501. (Nature Publishing Group - www.nature.com/; Nature Communications - www.nature.com/ncomms/)

Our news journalists report that additional information may be obtained by contacting H. Yuzugullu, Dept. of Cancer Biology, Dana-Farber Cancer Institute, Boston, Massachusetts 02215, United States. Additional authors for this research include L. Baitisch, T. Von, A. Steiner, H. Tong, J. Ni, L.K. Clayton, R. Bronson, T.M. Roberts, K. Gritsman and J.J Zhao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/ncomms9501. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Genetics, Leukemia, Oncology,
Oncology - Melanoma

Studies from Dana-Farber Cancer Institute Yield New Data on Melanoma (Combined nivolumab and ipilimumab versus ipilimumab alone in patients with advanced melanoma: 2-year overall survival outcomes in a multicentre, randomised, controlled, phase ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Melanoma. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Results from phase 2 and 3 trials in patients with advanced melanoma have shown significant improvements in the proportion of patients achieving an objective response and prolonged progression-free survival with the combination of nivolumab (an anti-PD-1 antibody) plus ipilimumab (an anti-CTLA-4 antibody) compared with ipilimumab alone. We report 2-year overall survival data from a randomised controlled trial assessing this treatment in previously untreated advanced melanoma."

The news correspondents obtained a quote from the research from Dana-Farber Cancer Institute, "In this multicentre, double-blind, randomised, controlled, phase 2 trial (CheckMate 069) we recruited patients from 19 specialist cancer centres in two countries (France and the USA). Eligible patients were aged 18 years or older with previously untreated, unresectable stage III or IV melanoma and an Eastern Cooperative Oncology Group performance status of 0 or 1. Patients were randomly assigned 2:1 to receive an intravenous infusion of nivolumab 1 mg/kg plus ipilimumab 3 mg/kg or ipilimumab 3 mg/kg plus placebo, every 3 weeks for four doses. Subsequently, patients assigned to nivolumab plus ipilimumab received nivolumab 3 mg/kg every 2 weeks until disease progression or unacceptable toxicity, whereas patients allocated to ipilimumab alone received placebo every 2 weeks during this phase. Randomisation was done via an interactive voice response system with a permuted block schedule (block size of six) and stratification by BRAF mutation status. The study funder, patients, investigators, and study site staff were masked to treatment assignment. The primary endpoint, which has been reported previously, was the proportion of patients with BRAF(V600) wild-type melanoma achieving an investigator-assessed objective response. Overall survival was an exploratory endpoint and is reported in this Article. Efficacy analyses were done on the intention-to-treat population, whereas safety was assessed in all treated patients who received at least one dose of study drug. This study is registered with ClinicalTrials.gov, number NCT01927419, and is ongoing but no longer enrolling patients. Between Sept 16, 2013, and Feb 6, 2014, we screened 179 patients and enrolled 142, randomly assigning 95 patients to nivolumab plus ipilimumab and 47 to ipilimumab alone. In each treatment group, one patient no longer met the study criteria following randomisation and thus did not receive study drug. At a median follow-up of 24.5 months (IQR 9.1-25.7), 2-year overall survival was 63.8% (95% CI 53.3-72.6) for those assigned to nivolumab plus ipilimumab and 53.6% (95% CI 38.1-66.8) for those assigned to ipilimumab alone; median overall survival had not been reached in either group (hazard ratio 0.74, 95% CI 0.43-1.26; p=0.26). Treatment-related grade 3-4 adverse events were reported in 51 (54%) of 94 patients who received nivolumab plus ipilimumab compared with nine (20%) of 46 patients who received ipilimumab alone. The most common
treatment-related grade 3-4 adverse events were colitis (12 [13%] of 94 patients) and increased alanine aminotransferase (ten [11%]) in the combination group and diarrhoea (five [11%] of 46 patients) and hypophysitis (two [4%]) in the ipilimumab alone group. Serious grade 3-4 treatment-related adverse events were reported in 34 (36%) of 94 patients who received nivolumab plus ipilimumab (including colitis in ten [11%] of 94 patients, and diarrhoea in five [5%]) compared with four (9%) of 46 patients who received ipilimumab alone (including diarrhoea in two [4%] of 46 patients, colitis in one [2%], and hypophysitis in one [2%]). No new types of treatment-related adverse events or treatment-related deaths occurred in this updated analysis. Although follow-up of the patients in this study is ongoing, the results of this analysis suggest that the combination of first-line nivolumab plus ipilimumab might lead to improved outcomes compared with first-line ipilimumab alone in patients with advanced melanoma.”

According to the news reporters, the research concluded: "The results suggest encouraging survival outcomes with immunotherapy in this population of patients."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045(16)30366-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Clinical Trials and Studies, Adverse Drug Reactions, Monoclonal Antibodies, Drugs and Therapies, Clinical Research, Gastroenterology, Gastroenteritis, Biotechnology, Immunotherapy, Ipilimumab, Genetics, Oncology, Melanoma, Colitis, Dana-Farber Cancer Institute.

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**Drugs and Therapies - Ibuprofen Therapy**

**Studies from De Montfort University in the Area of Ibuprofen Therapy Described (Development of aqueous ternary nanomatrix films: A novel 'green' strategy for the delivery of poorly soluble drugs)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Ibuprofen Therapy is now available. According to news originating from Leicester, United Kingdom, by NewsRx correspondents, research stated, "Aqueous polymeric films have potentially great values in drug development, particularly in controlled drug release and taste masking strategies. However the progressive
polymer-particle coalescence that occurs randomly during film formation, curing and storage may render the film less permeable leading to erratic and unpredictable drug release profile."

Our news journalists obtained a quote from the research from De Montfort University, "The focus of this study was to investigate the impacts of the in situ formation of polymer-drug nanoconjugate, at the interfacial nano-domains of two oppositely charged polymers, on the mechanism of film formation and to prepare aqueous ternary polymer-drugpolymer nanomatrix films as a novel green strategy for the delivery of ibuprofen, a model poorly soluble drug. Composite and Layer-by-Layer films were prepared by aqueous casting technique using the concept of combined polymer-drug self-assembly and polyelectrolyte complexation. The plain and drug-loaded nanomatrix films were characterized using SEM, AFM, FTIR, DSC and TGA. Ibuprofen formed spherical core-shell microstructures (4.55-9.73 μm) in gellan film. However in the presence of cationic dextran (Ddex), nanoconjugates (61.49 + 5.97-447.52 + 37.51 nm) were formed within the core of the film matrix. The composite films exhibited reduced tensile strength and lower elastic modulus with optimal conjugation efficiency of 98.14 +/- 1.19%, which correlates with higher dissolution efficiency (99.76%) compared to 47.37% in layer-by-layer (LbL) films, dictated by Ddex concentration. Generally, the mechanism of drug release was by Fickian diffusion, however anomalous transport or polymer relaxation was also observed at higher concentration of Ddex."

According to the news editors, the research concluded: "This study demonstrated the potential application of aqueous drug-loaded nanomatrix films as controlled drug delivery strategy for ibuprofen, a model poorly soluble drug."


The news correspondents report that additional information may be obtained from A.O. Abioye, De Montfort University, Leicester Sch Pharm, Leicester LE1 9BH, Leics, United Kingdom. Additional authors for this research include D. Armitage and A.O. Abioye.

Keywords for this news article include: Leicester, United Kingdom, Europe, Drugs and Therapies, Ibuprofen Therapy, Pharmaceuticals, De Montfort University.

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**Neurofibromatosis**

**Studies from Department of Anaesthesia and Critical Care Provide New Data on Neurofibromatosis (Neurofibromatosis: Challenge for Anaesthetist)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurofibromatosis are presented in a new report. According to news reporting originating in Jodhpur, India, by NewsRx editors, the research stated, "Neurofibromatosis type 1 (NF-1) is an autosomal dominant neurocutaneous syndrome which is characterized by formation of neurofibromas all over the skin and various other body systems. The anaesthetic management of these patients requires attention to all possible abnormalities
and associated disturbances to prevent any peri-operative complication."

The news reporters obtained a quote from the research from the Department of Anaesthesia and Critical Care, "NF-1-associated complications of the musculoskeletal, respiratory, cardiovascular, central nervous, and gastrointestinal and genitourinary systems present with various degrees of considerations for anaesthesiologists. While evaluating and managing these patients for surgical procedures. NF-1 or von Recklinghausen disease, is an autosomal dominant disease with incidence of approximately 1/3000 births. Gastrointestinal (GI) neoplasms are present in about 2-25% of patients of NF-1. In these patients, neurofibromas are the most frequently (52%) diagnosed benign neoplasms. Patients with NF-1 and GI symptoms are at risk for gastrointestinal neoplasms; symptomatic patients are likely to experience significant morbidity."

According to the news reporters, the research concluded: "This report describes the anaesthetic of a patient with NF-1 and gastric outlet obstruction."

For more information on this research see: Neurofibromatosis: Challenge for Anaesthetist. *Journal of the College of Physicians and Surgeons--pakistan*, 2015;25 Suppl 2 ():S73-5.

Our news correspondents report that additional information may be obtained by contacting P. Sethi, Dept. of Anaesthesia and Critical Care, SNMC, Jodhpur, India.

Keywords for this news article include: Asia, India, Jodhpur, Genetics, Gastroenterology, Neurofibromatosis, Neurofibromatosis, Nerve Sheath Neoplasms, Peripheral Nervous System Neoplasms, Neuromuscular Diseases and Conditions, Peripheral Nervous System Diseases and Conditions.

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**Autoimmune Diseases and Conditions - Lambert-…**

**Studies from Department of Biomedical Sciences Reveal New Findings on Lambert-Eaton Myasthenic Syndrome (Review of the Diagnostic Challenges of Lambert-Eaton Syndrome Revealed Through Three Case Reports)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Lambert-Eaton Myasthenic Syndrome. According to news reporting from Valencia, Spain, by NewsRx journalists, research stated, "Lambert-Eaton syndrome (LES) is a rare immune-mediated disorder characterized by proximal leg weakness, autonomic symptoms and hypoactive tendon reflexes. The paraneoplastic form is associated with small-cell lung cancer in 50-60% of cases, whereas the remaining cases are found in younger adults with a higher likelihood of coexisting autoimmune disease."

The news correspondents obtained a quote from the research from the Department of Biomedical Sciences, "The early recognition of LES is crucial for improving clinical outcomes but remains a major challenge. In this review, we analyze the clinical characteristics and diagnostic considerations in treating LES through a series of three case studies, one of which showed definitive response to pyridostigmine and corticosteroid combination therapy, followed by spontaneous remission. Patients were assessed by image-based screening, serological testing and electrophysiological evaluations, which included respiratory and autonomic testing."
According to the news reporters, the research concluded: "A better understanding of the common pitfalls in the clinical, serological and neurophysiologic diagnosis of LES through assessment of typical LES dysfunction throughout the nervous system should enable improved recognition and treatment of this syndrome."

For more information on this research see: Review of the Diagnostic Challenges of Lambert-Eaton Syndrome Revealed Through Three Case Reports. Canadian Journal of Neurological Sciences, 2016;43(5):635-647. Canadian Journal of Neurological Sciences can be contacted at: Cambridge Univ Press, 32 Avenue Of The Americas, New York, NY 10013-2473, USA.

Our news journalists report that additional information may be obtained by contacting M.A. Merino-Ramirez, CEU Cardenal Herrera Univ, Dept. of Biomed Sci, Valencia, Spain.

Keywords for this news article include: Valencia, Spain, Europe, Autoimmune Diseases and Conditions, Article Review, Diagnostics and Screening, Lambert-Eaton Myasthenic Syndrome, Department of Biomedical Sciences.

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Cardiology

Studies from Department of Cardiology Describe New Findings in Cardiology (Cardiac resynchronisation therapy in 2015: keeping up with the pace)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting out of Melbourne, Australia, by NewsRx editors, research stated, "Despite improved understanding of the pathophysiology of heart failure (HF) and availability of better medical therapies, HF continues to grow as a cause of morbidity and mortality in Australia and worldwide. Over the past decade, cardiac resynchronisation therapy (CRT), or biventricular pacing, has been embraced as a powerful weapon against this growing epidemic."

Our news journalists obtained a quote from the research from the Department of Cardiology, "However, much has changed in our understanding of dyssynchrony in HF, and this has led to a change in guidelines to ensure more appropriate selection of CRT candidates to improve the 'non-response' rate. More data have also emerged about the use of CRT in atrial fibrillation and in pacemaker-dependent patients. There has also been a growing focus on multimodality imaging to guide patient selection and lead positioning."

According to the news editors, the research concluded: "Exciting new lead technologies are also emerging, with the potential to improve CRT outcomes further."


Our news journalists report that additional information may be obtained by contacting A. Voskoboinik, Dept. of Cardiology, Western Hospital, Melbourne, Victoria, Australia. Additional authors for this research include A.D. McGavigan and J.A Mariani.

The direct object identifier (DOI) for that additional information is:
Studies from Department of Cardiology in the Area of Heart Attack Reported (Peak troponin I level predicts new-onset atrial fibrillation in patients with myocardial infarction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Attack are discussed in a new report. According to news originating from Istanbul, Turkey, by NewsRx correspondents, research stated, "We aimed to assess the predictive value of peak troponin I level for the occurrence of new-onset AF in myocardial infarction. A total of 1553 patients, who were hospitalized with diagnosis of STEMI and underwent primary PCI, were retrospectively evaluated."

Our news journalists obtained a quote from the research from the Department of Cardiology, "New-onset AF was defined as any newly diagnosed AF that occurred during index hospitalization after primary PCI. New-onset AF was observed in 90 patients (5.8% of the study population). Patients who developed AF were older (56.1 vs. 62.6 years, p<0.001), more often had history of stroke and coronary bypass (4.4% vs. 0.8%, p = 0.001; 7.8% vs. 0.9%, p<0.001, respectively), were more often admitted with Killip class 3 or 4 (38.9% vs. 2.7%, p<0.001) and had a TIMI grade flow < 3 after PCI (42.2% vs. 6%, p<0.001), higher C-reactive protein plasma level (8.6 vs. 4.8 mg/L, p<0.001) and a higher peak troponin I level (34.5 vs. 29.4 ng/mL, p = 0.02). On multivariate regression analysis, peak troponin I level (odds ratio, 0.97; 95% confidence interval, 0.95-0.99; p = 0.007) independently predicted AF occurrence. For the first time, peak troponin I has been demonstrated to be independently correlated with AF development in STEMI patients after primary PCI."

According to the news editors, the research concluded: "A major limitation of our study is lack of other serum biochemical markers for the estimation of infarct size; therefore, prospective, large-scale studies are needed."

For more information on this research see: Peak troponin I level predicts new-onset atrial fibrillation in patients with myocardial infarction. *Clinical and Investigative Medicine*, 2016;39(6):239-245. *Clinical and Investigative Medicine* can be contacted at: Canadian Soc Clinical Investigation, Csci Head Office, 774 Echo Drive, Ottawa, On K1S 5N8, Canada.

The news correspondents report that additional information may be obtained from R. Zehir, Dr Siyami Ersek Thorac & Cardiovasc Surg Training, Dept. of Cardiol, Istanbul, Turkey. Additional authors for this research include A.I. Tekkesin, N. Haykir, Y. Velibey, E.B. Borklu and A. Gumusdag.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Vascular Diseases and Conditions, Heart Disorders and Diseases, Macromolecular Substances, Microfilament Proteins, Cytoskeletal Proteins, Myocardial Infarction, Contractile Proteins, Atrial Fibrillation, Cardiac Arrhythmias, Myocardial Ischemia, Muscle Proteins, Heart Disease,
Drugs and Therapies - Antiemetic-Antivertigo Agents

Studies from Department of Chemistry Further Understanding of Antiemetic-Antivertigo Agents [Preparation, optimization by 2(3) factorial design, characterization and in vitro release kinetics of lorazepam loaded PLGA nanoparticles]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antiemetic-Antivertigo Agents. According to news reporting originating from Sagar, India, by NewsRx correspondents, research stated, "The aim of this work was to formulate the lorazepam loaded poly(lactic-co-glycolic) acid (PLGA) nanoparticles by optimization of different preparation variables using 2(3) factorial design. The effect of three independent factors, the amount of polymer, concentration of the stabilizer and volume of organic solvent was investigated on two dependent responses, i.e., particle size and % drug entrapment efficiency."

Our news editors obtained a quote from the research from the Department of Chemistry, "By using PLGA as polymer, PVA as a stabilizer and dimethyl sulfoxide as organic solvent lorazepam loaded PLGA nanoparticles were successfully developed through modified nanoprecipitation method. FTIR and DSC studies were carried out to examine the interaction between the excipients used and to explore the nature of the drug, the formulation and the nature of drug in the formulations. These nanoparticles were characterized for particle size, shape, zeta potential, % drug entrapment efficiency, % process yield and in vitro drug release behavior. In vitro evaluation showed particles size between 161.0 +/- 5.4 and 231.9 +/- 4.9 nm, % drug entrapment efficiency of formulations was in the range of 60.43 +/- 5.8 to 75.40 +/- 1.5, % process yield at 68.34 +/- 2.3 to 81.55 +/- 1.3 was achieved and in vitro drug release for these formulations was in the range of 49.2 to 54.6%. Different kinetics models, such as zero order, first order, Higuchi model, Hixson-Crowell model and Korsmeyer- Peppas model were used to analyze the in vitro drug release data. Preferred formulation showed particle size of 161.0 +/- 5.4 nm, PDI as 0.367 +/- 0.014, -25.2 mV zeta potential, drug entrapment efficiency as 64.58 +/- 3.6% and 72.48 +/- 2.5% process yield."

According to the news editors, the research concluded: "TEM results showed that these nanoparticles were spherical in shape, and follow the Korsmeyer-Peppas model with a release exponent value of n = 0.658."

For more information on this research see: Preparation, optimization by 2(3) factorial design, characterization and in vitro release kinetics of lorazepam loaded PLGA nanoparticles. Polymer Science Series A, 2016;58(6):975-986. Polymer Science Series A can be contacted at: Maik Nauka, Interperiodica, Springer, 233 Spring St, New York, NY 10013-1578, USA. (Springer - www.springer.com; Polymer Science Series A - www.springerlink.com/content/0965-545x/)

The news editors report that additional information may be obtained by contacting S. Bohrey, Dr Hari Singh Gour Vishwavidyalaya, Dept. of Chem, Sagar 470003, MP, India. Additional authors for this research include V. Chourasiya and A. Pandey.

Keywords for this news article include: Sagar, India, Asia, Anxiolytics Sedatives
Transplant Medicine - Tissue Transplants

Studies from Department of Emergency Medicine Have Provided New Information about Tissue Transplants (The emergency medicine approach to abdominal vascular graft complications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Transplant Medicine - Tissue Transplants. According to news reporting originating in Portsmouth, Virginia, by NewsRx journalists, research stated, "Abdominal aortic aneurysm (AAA) is a deadly condition, particularly with rupture. Emergency physicians provide vital frontline care to the diagnosis and treatment of this disease."

The news reporters obtained a quote from the research from the Department of Emergency Medicine, "Endovascular aortic repair (EVAR) has become the gold standard for treatment of AAA, but the management of EVAR complications is not well discussed in the emergency medicine literature. Objective of this review: The purpose of this article is to provide an emergency medicine-focused review of the complications of EVAR. Although many complications may arise after AAA repair, the most common include aortoenteric fistula, endoleak, limb ischemia, and graft infection. All potential complications should receive vascular surgery consultation and hemodynamic resuscitation. Aortoenteric fistula often presents nonspecifically with gastrointestinal (GI) bleeding, abdominal pain, and vomiting. Computed tomography with intravenous contrast is required for diagnosis. An endoleak is defined by vascular flow outside of the graft. The optimal diagnostic modality includes triple phase computed tomographic scan (noncontrast, arterial, delayed phase). Limb ischemia may occur before 2 months, or in a later period, with symptoms ranging from claudication to complete neurovascular compromise. Graft infection is most commonly due to Staphylococcus aureus, and imaging can suggest the diagnosis. Definitive diagnosis requires tissue or fluid sampling. Through an understanding of these complications, emergency physicians may improve patient outcomes. With the growing use of EVAR, emergency physician exposure to complications of this procedure is increasing."

According to the news reporters, the research concluded: "Knowledge of the complication presentations, diagnoses, and management can play an integral role patient care."


Our news correspondents report that additional information may be obtained by contacting R. Slama, Naval Med Center Portsmouth, Dept. of Emergency Med, Portsmouth, VA 23708, United States. Additional authors for this research include B. Long and A. Koyfman.
Clinical Research - Clinical Trials and Studies

Studies from Department of Epidemiology in the Area of Clinical Trials and Studies Reported (Psychosocial interventions for psychostimulant misuse)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Clinical Research - Clinical Trials and Studies are presented in a new report. According to news reporting originating from Rome, Italy, by NewsRx correspondents, research stated, "Psychostimulant misuse is a continuously growing medical and social burden. There is no evidence proving the efficacy of pharmacotherapy."

Our news editors obtained a quote from the research from the Department of Epidemiology, "Psychosocial interventions could be a valid approach to help patients in reducing or ceasing drug consumption. To assess the effects of psychosocial interventions for psychostimulant misuse in adults. Search methods We searched the Cochrane Drugs and Alcohol Group Specialised Register (via CRSLive); Cochrane Central Register of Controlled Trials (CENTRAL); MEDLINE; EMBASE; CINAHL; Web of Science and PsycINFO, from inception to November 2015. We also searched for ongoing and unpublished studies via ClinicalTrials.gov (www.clinicaltrials.gov) and the World Health Organization (WHO) International Clinical Trials Registry Platform (ICTRP) (apps.who.int/trialsearch/). All searches included non-English language literature. We handsearched references of topic-related systematic reviews and the included studies. Selection criteria We included randomised controlled trials comparing any psychosocial intervention with no intervention, treatment as usual (TAU) or a different intervention in adults with psychostimulant misuse or dependence. Data collection and analysis We used the standard methodological procedures expected by Cochrane. We included a total of 52 trials (6923 participants). The psychosocial interventions considered in the studies were: cognitive behavioural therapy (19 studies), contingency management (25 studies), motivational interviewing (5 studies), interpersonal therapy (3 studies), psychodynamic therapy (1 study), 12-step facilitation (4 studies). We judged most of the studies to be at unclear risk of selection bias; blinding of personnel and participants was not possible for the type of intervention, so all the studies were at high risk of performance bias with regard to subjective outcomes; the majority of studies did not specify whether the outcome assessors were blind. We did not consider it likely that the objective outcomes were influenced by lack of blinding. The comparisons made were: any psychosocial intervention versus no intervention (32 studies), any psychosocial intervention versus TAU (6 studies), and one psychosocial intervention versus an alternative psychosocial intervention (13 studies). Five of included studies did not provide any useful data for inclusion in statistical synthesis. We found that, when compared to no intervention, any psychosocial treatment: reduced the dropout rate
A risk ratio (RR) of 0.83, 95% confidence interval (CI) 0.76 to -0.91, 24 studies, 3393 participants, moderate quality evidence; increased continuous abstinence at the end of treatment (RR: 2.14, 95% CI 1.27 to -3.59, 8 studies, 1241 participants, low quality evidence); did not significantly increase continuous abstinence at the longest follow-up (RR: 2.12, 95% CI 0.77 to -5.86, 4 studies, 324 participants, low quality evidence); significantly increased the longest period of abstinence: (standardised mean difference (SMD): 0.48, 95% CI 0.34 to 0.63, 10 studies, 1354 participants, high quality evidence). However, it should be noted that the in the vast majority of the studies in this comparison the specific psychosocial treatment assessed in the experimental arm was given in add on to treatment as usual or to another specific psychosocial or pharmacological treatment which was received by both groups. So, many of the control groups in this comparison were not really untreated. Receiving some amount of treatment is not the same as not receiving any intervention, so we could argue that the overall effect of the experimental psychosocial treatment could be smaller if given in add on to TAU or to another intervention than if given to participants not receiving any intervention; this could translate to a smaller magnitude of the effect of the psychosocial intervention when it is given in add on. When compared to TAU, any psychosocial treatment reduced dropout rate (RR: 0.72, 95% CI 0.59 to 0.89, 6 studies, 516 participants, moderate quality evidence), did not increase continuous abstinence at the end of treatment (RR: 1.27, 95% CI 0.94 to 1.72, 2 studies, 224 participants, low quality evidence), did not increase longest period of abstinence (MD -3.15 days, 95% CI -10.35 to 4.05, 1 study, 110 participants, low quality evidence). No studies in this comparison assessed the outcome of continuous abstinence at longest follow-up. There were few studies comparing two or more psychosocial interventions, with small sample sizes and considerable heterogeneity in terms of the types of interventions assessed. None reported significant results. None of the studies reported harms related to psychosocial interventions. Authors’ conclusions The addition of any psychosocial treatment to treatment as usual (usually characterised by group counselling or case management) probably reduces the dropout rate and increases the longest period of abstinence. It may increase the number of people achieving continuous abstinence at the end of treatment, although this might not be maintained at longest follow-up. The most studied and the most promising psychosocial approach to be added to treatment as usual is probably contingency management. However, the other approaches were only analysed in a few small studies, so we cannot rule out the possibility that the results were not significant because of imprecision. When compared to TAU, any psychosocial treatment may improve adherence, but it may not improve abstinence at the end of treatment or the longest period of abstinence. The majority of the studies took place in the United States, and this could limit the generalisability of the findings, because the effects of psychosocial treatments could be strongly influenced by the social context and ethnicity. The results of our review do not answer the most relevant clinical question, demonstrating which is the most effective type of psychosocial approach."

According to the news editors, the research concluded: "Further studies should directly compare contingency management with the other psychosocial approaches."

For more information on this research see: Psychosocial interventions for psychostimulant misuse. *Cochrane Database of Systematic Reviews, 2016;(9):2166-2347.* *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting S. Minozzi, Lazio Reg Hlth Serv, Dept. of Epidemiol, I-00154 Rome, Italy. Additional authors for this research include R. Saulle, F. De Crescenzo and L. Amato.

Keywords for this news article include: Rome, Italy, Europe, Psychosocial, Article Review, Clinical Trials and Studies, Clinical Research, Therapy, Department of
Studies from Department of Forensic Genetics and Forensic Toxicology Yield New Data on Drug Monitoring (The Toxicology of New Psychoactive Substances: Synthetic Cathinones and Phenylethylamines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Monitoring have been published. According to news reporting originating from Linkoping, Sweden, by NewsRx correspondents, research stated, "New psychoactive substances (NPSs) are substitutes for classical drugs of abuse and there are now compounds available from all groups of classical drugs of abuse. During 2014, the number of synthetic cathinones increased dramatically and, together with phenylethylamines, they dominate the NPS markets in the European Union."

Our news editors obtained a quote from the research from the Department of Forensic Genetics and Forensic Toxicology, "In total, 31 cathinones and 9 phenylethylamines were encountered in 2014. The aim of this article was to summarize the existing knowledge about the basic pharmacology, metabolism, and human toxicology of relevant synthetic cathinones and phenylethylamines. Compared with existing reviews, we have also compiled the existing case reports from both fatal and nonfatal intoxications. We performed a comprehensive literature search using bibliographic databases PubMed and Web of Science, complemented with Google Scholar. The focus of the literature search was on original articles, case reports, and previously published review articles published in 2014 or earlier. The rapid increase of NPSs is a growing concern and sets new challenges not only for societies in drug prevention and legislation but also in clinical and forensic toxicology. In vivo and in vitro studies have demonstrated that the pharmacodynamic profile of cathinones is similar to that of other psychomotor stimulants. Metabolism studies show that cathinones and phenylethylamines are extensively metabolized; however, the parent compound is usually detectable in human urine. In vitro studies have shown that many cathinones and phenylethylamines are metabolized by CYP2D6 enzymes. This indicates that these drugs may have many possible drug-drug interactions and that genetic polymorphism may influence their toxicity. However, the clinical and toxicological relevance of CYP2D6 in adverse effects of cathinones and phenylethylamines is questionable, because these compounds are metabolized by other enzymes as well. The toxidromes commonly encountered after ingestion of cathinones and phenylethylamines are mainly of sympathomimetic and hallucinogenic character with a risk of excited delirium and life-threatening cardiovascular effects. The acute and chronic toxicity of many NPSs is unknown or very sparsely investigated."

According to the news editors, the research concluded: "There is a need for evidence-based-treatment recommendations for acute intoxications and a demand for new strategies to analyze these compounds in clinical and forensic cases."

For more information on this research see: The Toxicology of New Psychoactive Substances: Synthetic Cathinones and Phenylethylamines. Therapeutic Drug Monitoring, 2016;38(2):190-216. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug
Studies from Department of Intensive Care Medical Provide New Data on Lung Injury (Nur77 attenuates endothelin-1 expression via downregulation of NF-kappa B and p38 MAPK in A549 cells and in an ARDS rat model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Lung Injury. According to news originating from Guangxi, People's Republic of China, by NewsRx correspondents, research stated, "Acute respiratory distress syndrome (ARDS) is characterized by inflammatory injury to the alveolar and capillary barriers that results in impaired gas exchange and severe acute respiratory failure. Nuclear orphan receptor Nur77 has emerged as a regulator of gene expression in inflammation, and its role in the pathogenesis of ARDS is not clear."

Our news journalists obtained a quote from the research from the Department of Intensive Care Medical, "The objective of this study is to investigate the potential role of Nur77 and its underlying mechanism in the regulation of endothelin-1 (ET-1) expression in lipopolysaccharide (LPS)-induced A549 cells and an ARDS rat model. We demonstrate that LPS induced Nur77 expression and nuclear export in A549 cells. Overexpression of Nur77 markedly decreased basal and LPS-induced ET-1 expression in A549 cells, whereas knockdown of Nur77 increased the ET-1 expression. LPS-induced phosphorylation and nuclear translocation of NF-kappa B and p38 MAPK were blocked by Nur77 overexpression and augmented by Nur77 knockdown in A549 cells. In vivo, LPS induced Nur77 expression in lung in ARDS rats. Pharmacological activation of Nur77 by cytosporone B (CsnB) inhibited ET-1 expression in ARDS rats, decreased LPS-induced phosphorylation of NF-kappa B and p38 MAPK, and relieved lung, liver, and kidney injury. Pharmacological deactivation of Nur77 by 1,1-bis-(3=indolyl)-1-(p-hydroxyphenyl) methane (DIM-C-pPhOH, C-DIM8) had no effect on ET-1 expression and lung injury."

According to the news editors, the research concluded: "These results indicated that Nur77 decreases ET-1 expression by suppressing NF-kappa B and p38 MAPK in LPS-stimulated A549 cells in vitro, and, in an LPS-induced ARDS rat model, CsnB reduced ET-1 expression and lung injury in ARDS rats."

For more information on this research see: Nur77 attenuates endothelin-1 expression

The news correspondents report that additional information may be obtained from P.H. Liao, Youjiang Med Univ Nationalities, Dept. of Intens Care Med, Baise 533000, Guangxi, People's Republic of China. Additional authors for this research include Y. Zeng, X. Huang, Y.Q. Qin, W.G. Luo, S.L. Xiang, S.R. Sooranna and P.H. Liao.

Keywords for this news article include: Guangxi, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Respiratory Tract Diseases and Conditions, Acute Respiratory Distress Syndrome, Lung Diseases and Conditions, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, Pharmacology, Endothelin-1, Endothelins, Lung Injury, NF-kappa B, Genetics, Therapy, Department of Intensive Care Medical.

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**Liver Diseases and Conditions - Hepatic Tuberculosis**

Studies from Department of Internal Medicine Have Provided New Data on Hepatic Tuberculosis (Erythema induratum of Bazin and Pon'et's arthropathy as epiphenomena of hepatic tuberculosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatic Tuberculosis are presented in a new report. According to news originating from Lisbon, Portugal, by NewsRx correspondents, research stated, "A 42-year-old black woman presented with fever, polyarthritis, livedo reticularis, subcutaneous calf nodules and hepatomegaly. She had been diagnosed with depression 6 weeks prior."

Our news journalists obtained a quote from the research from the Department of Internal Medicine, "Blood analysis showed anaemia, elevated erythrocyte sedimentation rate and C reactive protein, elevated liver enzymes, and positive antinuclear and antiribonucleoprotein antibodies. Abdominal ultrasound revealed heterogeneous hepatomegaly with necrotic lymphadenopathy around the caeliac trunk and splenic hilum. We considered the following diagnoses: lymphoma, connective tissue disease, tuberculosis and sarcoidosis. Subcutaneous nodule histology was compatible with erythema induratum of Bazin, and liver biopsy evidenced granulomatous hepatitis. Although microbiological examinations were negative in tissue samples, a presumptive diagnosis of hepatic tuberculosis was admitted. Having excluded other causes, erythema of Bazin, livedo reticularis and polyarticular involvement (Pon'et's arthropathy) were accepted as immunological epiphenomena associated with tuberculosis. Empirical antituberculous treatment was started and after 3 weeks the patient improved substantially."

According to the news editors, the research concluded: "This clinical response was a further confirmation of the diagnosis."

For more information on this research see: Erythema induratum of Bazin and Pon'et's arthropathy as epiphenomena of hepatic tuberculosis. *Bmj Case Reports*, 2016;2016():.. (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

The news corresponds report that additional information may be obtained from R.
Ribeiro, Dept. of Internal Medicine, Hospital de Santo Antonio dos Capuchos, Lisboa, Portugal. Additional authors for this research include C. Patrício, F. Pais da Silva and P.E Silva.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2015-213585. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lisbon, Europe, Portugal, Hepatomegaly, Panniculitis, Gastroenterology, Erythema Induratum, Livedo Reticularis, Hepatic Tuberculosis, Mycobacterium Infections, Diagnostics and Screening, Peripheral Artery Disease, Actinomycetales Infections, Mycobacterium Tuberculosis, Skin Diseases and Conditions.

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**Kidney Diseases and Conditions - Lupus Nephritis**

**Studies from Department of Medicine Have Provided New Information about Lupus Nephritis (Towards new avenues in the management of lupus glomerulonephritis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Kidney Diseases and Conditions - Lupus Nephritis have been published. According to news reporting out of Hong Kong, People's Republic of China, by NewsRx editors, the research stated, "Renal involvement in systemic lupus erythematosus (SLE) carries substantial morbidity and mortality. Conventional immunosuppressive agents (cyclophosphamide and azathioprine) have suboptimal efficacy and substantial toxicity."

Our news journalists obtained a quote from the research from the Department of Medicine, "Mycophenolate mofetil has emerged as an alternative agent for both induction and maintenance therapy in lupus nephritis because of its reduced gonadal toxicity, despite its failure to demonstrate superiority over cyclophosphamide in pivotal studies. The calcineurin inhibitor tacrolimus has equivalent efficacy to cyclophosphamide and mycophenolate mofetil for inducing remission of lupus nephritis. Although rituximab has shown promise in refractory lupus nephritis, combining rituximab with mycophenolate mofetil as initial therapy offers no additional benefit. Considerable interethnic variation is evident in the efficacy and tolerability of the various immunosuppressive regimens, which necessitates individualized treatment and comparison of the efficacy of new regimens across different ethnic groups. For example, low-dose combinations of tacrolimus and mycophenolate mofetil seem to be more effective than pulse cyclophosphamide as induction therapy in Chinese patients. The same regimen has also been used successfully to treat refractory proliferative and membranous lupus nephritis in patients of various ethnic groups."

According to the news editors, the research concluded: "Finally, novel serum and urinary biomarkers are being validated for diagnosis, prognostic stratification and early recognition of flares in lupus nephritis."


Our news journalists report that additional information may be obtained by
Studies from Department of Microbiology & Immunology Describe New Findings in Tuberculosis (Reconstitution of a Mycobacterium tuberculosis proteostasis network highlights essential cofactor interactions with chaperone DnaK)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mycobacterium Infections - Tuberculosis. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "During host infection, Mycobacterium tuberculosis (Mt) encounters several types of stress that impair protein integrity, including reactive oxygen and nitrogen species and chemotherapy. The resulting protein aggregates can be resolved or degraded by molecular machinery conserved from bacteria to eukaryotes."

The news reporters obtained a quote from the research from the Department of Microbiology & Immunology, "Eukaryotic Hsp104/Hsp70 and their bacterial homologs ClpB/DnaK are ATP-powered chaperones that restore toxic protein aggregates to a native folded state. DnaK is essential in Mycobacterium smegmatis, and ClpB is involved in asymmetrically distributing damaged proteins during cell division as a mechanism of survival in Mt, commending both proteins as potential drug targets. However, their molecular partners in protein reactivation have not been characterized in mycobacteria. Here, we reconstituted the activities of theMt ClpB/DnaK bichaperone system with the cofactors DnaJ1, DnaJ2, and GrpE and the small heat shock protein Hsp20. We found that DnaJ1 and DnaJ2 activate the ATPase activity of DnaK differently. A point mutation in the highly conserved HPD motif of the DnaJ proteins abrogates their ability to activate DnaK, although the DnaD2 mutant still binds to DnaK. The purified Mt ClpB/DnaK system reactivated a heat-denatured model substrate, but the DnaJ HPD mutants inhibited the reaction. Finally, either DnaJ1 or DnaJ2 is required for mycobacterial viability, as is the DnaK-activating activity of a DnaJ protein."

According to the news reporters, the research concluded: "These studies lay the groundwork for strategies to target essential chaperone-protein interactions in Mt, the leading cause of death from a bacterial infection."

For more information on this research see: Reconstitution of a Mycobacterium tuberculosis proteostasis network highlights essential cofactor interactions with chaperone DnaK. Proceedings of the National Academy of Sciences of the United States of America,
Studies from Department of Neurosciences Yield New Data on Alkylating Agents (Altered Expression of Cytoskeletal and Axonal Proteins in Oxaliplatin-Induced Neuropathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Alkylating Agents have been published. According to news originating from Florence, Italy, by NewsRx correspondents, research stated, "Oxaliplatin is a platinum compound widely used in the treatment of some solid tumors. Despite its usefulness, oxaliplatin-associated neurotoxicity represents the main dose-limiting factor of this drug."

Our news journalists obtained a quote from the research from the Department of Neurosciences, "This study examined the structural neuronal effects of oxaliplatin treatment in spinal and supraspinal levels. Protein expression was investigated in the mouse cortex, thalamus, periaqueductal grey (PAG) matter and spinal cord (SC) by Western blotting. Thermal nociception was assessed by the hot plate test. Results indicate a reduction in the levels of growth associated protein-43 (GAP43) in the cortex and SC areas at the end of thermal hyperalgesic response, while a decrease in neurofilament-H (NfH) phosphorylation was observed in the SC on day 21 when the pain-related manifestation reaches the neurotoxic peak. Counteracting phosphorylated NfH content increases in the SC and cortex regions at day 28 as a result of the beginning of neuro-regeneration process. We also revealed that the levels of HuD, a neuronal-specific RNA-binding protein, decreased, demonstrating the same temporal and regional expression pattern of GAP43. Oxaliplatin chronic treatment induced a region-specific upregulation of g isoform of protein kinase C (PKC) within thalamus and PAG, and the administration of a PKC inhibitor suggests that PKC activity in these brain regions must be required to maintain the thermal hyperalgesic state."

According to the news editors, the research concluded: "These results suggest that changes in the protein levels of the regulatory and structural proteins are due to oxaliplatin-induced neurotoxicity and imply that there is a direct link between structural changes in the
central nervous system and chemotherapy-induced neurotoxicity."


The news correspondents report that additional information may be obtained from M.D. Sanna, Dept. of Neurosciences, Psychology, Drug Research and Child Health (NEUROFARBA), Section of Pharmacology and Toxicology, Florence, Italy. Additional authors for this research include C. Ghelardini and N. Galeotti.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443898. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Pharmaceuticals, Italy, Brain, Florence, Genetics, Thalamus, Neuropathy, Diencephalon, Alkylating Agents, Drugs and Therapies, Oxaliplatin Therapy, Central Nervous System.

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Hematologic Diseases and Conditions - Anemia

Studies from Department of Obstetrics and Gynecology Yield New Data on Anemia (Safety and Efficacy of Ferric Carboxymaltose in Anemic Pregnant Women: A Retrospective Case Control Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematologic Diseases and Conditions - Anemia. According to news reporting originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Anemia during pregnancy is commonly caused by iron deficiency and can have severe consequences for both the mother and the developing fetus. The aim of this retrospective study was to assess the safety and efficacy of intravenous ferric carboxymaltose (FCM) in pregnant women."

Financial support for this research came from Vifor Pharma.

Our news editors obtained a quote from the research from the Department of Obstetrics and Gynecology, "All women treated with FCM for anemia during pregnancy between 2010 and 2012 at our institution were included. A matched control group was selected, including women who either were nonanemic or had anemia but were not considered for intravenous iron. Main outcome measures were maternal safety and pregnancy outcomes. The study included 128 patients (FCM: 64; control: 64). Median FCM dose was 1000 mg and median gestational age at the time of first treatment was 34 weeks and 6 days. Median Hb increased from 8.4 g/dL (interquartile range 7.7; 8.9 g/dL) at the first FCM administration to 10.7 g/dL (9.8; 11.5 g/dL; n=46 with available Hb at delivery) at the time of delivery, achieving levels similar to those in the control group (10.8 g/dL [9.8; 11.8 g/dL; n=48]). No treatment-related adverse events were reported and no statistically significant differences in pregnancy outcomes were observed between groups."

According to the news editors, the research concluded: "Within the limitations of this case control study, FCM was a safe and efficient treatment of anemia during pregnancy."

For more information on this research see: Safety and Efficacy of Ferric

The news editors report that additional information may be obtained by contacting A. Pels, Dept. of Obstetrics and Gynecology, Academisch Medisch Centrum, Meibergdreef 9, 1105 AZ Amsterdam, Netherlands.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/728952. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Anemia, Amsterdam, Netherlands, Hematologic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions.

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Science

Studies from Department of Oncology Yield New Data on Science (A CRISPR/Cas9 Functional Screen Identifies Rare Tumor Suppressors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Science are discussed in a new report. According to news originating from Montreal, Canada, by NewsRx correspondents, research stated, "An enormous amount of tumor sequencing data has been generated through large scale sequencing efforts. The functional consequences of the majority of mutations identified by such projects remain an open, unexplored question."

Our news journalists obtained a quote from the research from the Department of Oncology, "This problem is particularly complicated in the case of rare mutations where frequency of occurrence alone or prediction of functional consequences are insufficient to distinguish driver from passenger or bystander mutations. We combine genome editing technology with a powerful mouse cancer model to uncover previously unsuspected rare oncogenic mutations in Burkitt's lymphoma. We identify two candidate tumor suppressors whose loss cooperate with MYC over-expression to accelerate lymphomagenesis."

According to the news editors, the research concluded: "Our results highlight the utility of in vivo CRISPR/ Cas9 screens combined with powerful mouse models to identify and validate rare oncogenic modifier events from tumor mutational data."

For more information on this research see: A CRISPR/Cas9 Functional Screen Identifies Rare Tumor Suppressors. Scientific Reports, 2016;6():1-8. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J. Pelletier, Dept. of Oncol, Montreal, PQ H2W 1S6, Canada. Additional authors for this research include R. Cencic, F. Robert, P. Senecha, C. Scuoppo and J. Pelletier.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Science, Tumor Suppression, Oncology, Genetics, Department of Oncology.

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Oncology - Neuroblastomas

Studies from Department of Pediatric and Adolescent Oncology Update
Current Data on Neuroblastomas (Tandem high-dose chemotherapy with thiotepa and busulfan-melphalan and autologous stem cell transplantation in very high-risk neuroblastoma ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Neuroblastomas have been published. According to news reporting originating in Villejuif, France, by NewsRx journalists, research stated, "High-risk neuroblastoma is characterised by poor long-term survival, especially for very high-risk (VHR) patients (poor response of metastases after induction therapy). We report the results of an intensified high-dose chemotherapy (HDC) strategy to improve the prognosis of VHR patients."

The news reporters obtained a quote from the research from the Department of Pediatric and Adolescent Oncology, "This strategy was based on tandem HDC with thiotepa and busulfan-melphalan (Bu-Mel) followed by autologous stem cell transplantation (ASCT). All data were prospectively recorded in the Gustave Roussy Paediatric ASCT database. From April 2004 to August 2011, 26 patients were eligible for tandem HDC. The median age at diagnosis was 4.4 years (1-15.9). All patients had metastatic disease. MYCN was amplified in 5/26 tumours. Despite the cumulative toxicity of alkylating agents, the toxicity of the intensified HDC strategy was manageable. Thiotepa-related toxicity was mainly digestive, whereas sinusoidal obstruction syndrome was the main toxicity observed after Bu-Mel. The 3-year event-free survival of this cohort was 37.3% (21.3-56.7)."

According to the news reporters, the research concluded: "This strategy will be compared with combined (131)I-mIBG/Bu-Mel in the upcoming SIOPEN VHR Neuroblastoma Protocol."

For more information on this research see: Tandem high-dose chemotherapy with thiotepa and busulfan-melphalan and autologous stem cell transplantation in very high-risk neuroblastoma patients. Bone Marrow Transplantation, 2015;51(2):227-31. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA. (Nature Publishing Group - www.nature.com/bmt/)

Our news correspondents report that additional information may be obtained by contacting C. Pasqualini, Dept. of Paediatric and Adolescent Oncology, Gustave Roussy Cancer Campus, Villejuif, France. Additional authors for this research include C. Dufour, G. Goma, M.A. Raquin, V. Lapierre and D. Valteau-Couanet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bmt.2015.264. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Bone Marrow Transplantation can be contacted at: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Antineoplastics, Biomedicine, Pharmaceuticals, France, Europe, Surgery, Oncology, Villejuif, Mesylates, Hematology, Amino Acids, Chemotherapy, Sulfur Acids, Phenylalanine, Neuroblastomas, Busulfan Therapy, Butylene Glycols, Thiotepa Therapy, Alkylation Agents, Melphalan Therapy, Stem Cell Research, Drugs and Therapies.
Studies from Department of Pharmacology-Toxicology Have Provided New Data on Life Science Research (Ticagrelor Does Not Inhibit Adenosine Transport at Relevant Concentrations: A Randomized Cross-Over Study in Healthy Subjects In Vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Life Science Research is the subject of a report. According to news reporting from Nijmegen, Netherlands, by NewsRx journalists, research stated, "In patients with myocardial infarction, ticagrelor reduces cardiovascular and sepsis-related mortality, and can cause dyspnea. It is suggested that this is caused by adenosine receptor stimulation, because in preclinical studies, ticagrelor blocks the nucleoside transporter and increases cellular ATP release."

The news correspondents obtained a quote from the research from the Department of Pharmacology-Toxicology, "We now investigated the effects of ticagrelor on the adenosine system in humans in vivo. In a double-blinded, placebo-controlled cross-over trial in 14 healthy subjects, we have tested whether ticagrelor (180 mg) affects adenosine-and dipyridamole-induced forearm vasodilation, as surrogates of nucleoside uptake inhibition and adenosine formation, respectively. Also, ex vivo uptake of adenosine and uridine in isolated red blood cells was measured. Primary endpoint was adenosine-induced vasodilation. Ticagrelor did not affect adenosine-or dipyridamole-induced forearm vasodilation. Also, ex vivo uptake of adenosine and uridine in isolated red blood cells was not affected by ticagrelor. In vitro, ticagrelor dose-dependently inhibited nucleoside uptake, but only at supra-physiological concentrations."

According to the news reporters, the research concluded: "At relevant plasma concentration, ticagrelor does not affect adenosine transport, nor adenosine formation in healthy subjects. Therefore, it is unlikely that this mechanism is a relevant pleiotropic effect of ticagrelor."

For more information on this research see: Ticagrelor Does Not Inhibit Adenosine Transport at Relevant Concentrations: A Randomized Cross-Over Study in Healthy Subjects In Vivo. Plos One, 2015;10(10):e0137560. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting T.N. van den Berg, Dept. of Pharmacology-Toxicology, Radboud university medical center, Nijmegen, Netherlands. Additional authors for this research include S. El Messaoudi, G.A. Rongen, P.H. van den Broek, A. Bilos, A.R. Donders, M.E. Gomes and N.P Riksen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0137560. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Nijmegen, Netherlands, Hemodynamics, Vasodilation, Life Science Research, Cardiovascular Physiological Phenomena.

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Liver Diseases and Conditions - Hepatitis C Virus

Studies from Department of Pharmacy Have Provided New Data on Hepatitis C Virus (Pharmacist engagement within a hepatitis C ambulatory care clinic in the era of a treatment revolution)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Hepatitis C Virus have been published. According to news reporting out of Miami, Florida, by NewsRx editors, research stated, "To describe an innovative hepatitis C virus (HCV) care program and treatment outcomes resulting from pharmacist services. Adult ambulatory care HCV clinic within the Miami Veteran Affairs Healthcare System."

Our news journalists obtained a quote from the research from the Department of Pharmacy, "Practice description: Pharmacists with limited prescriptive authority are integrated into a medical hepatology care team. Practice innovation: Pharmacists screen patients with HCV infection for treatment eligibility, counsel patients upon treatment initiation, assess ongoing treatment success and toxicity through patient appointments, telephone calls, and the ordering of pertinent laboratory data, and provide oversight of all patients on HCV therapies. Treatment outcomes are reported to the institutional Antimicrobial Stewardship Program. Evaluation: Data produced from a continuous quality assurance initiative were utilized. Descriptive statistics were used to present data. From January 2014 through September 2015 there were 1619 pharmacist encounters for 532 unique patients and 597 screenings (including 578 approvals) were completed by a pharmacist. During this time 555 patients were initiated on at least 1 HCV treatment course, with 565 total treatment courses initiated. As new agents became available for use, fluctuation in regimen selection was seen. The most commonly prescribed medications were sofosbuvir (46%), ledipasvir/sofosbuvir (37%), and simeprevir (33%). Of the 565 HCV treatment courses initiated, 360 were completed, 29 were stopped early during treatment, and 176 were ongoing. Of the 360 completed courses, 249 had sustained virologic response at week 12 results available, of which 225 (90%) achieved treatment success and 24 (10%) relapsed. Of the 29 courses stopped early, 11 were due to poor medication adherence and 8 were due to adverse drug reaction. Through a structured process employing a scope of practice, pharmacists can extend the capacity of medical hepatology providers and provide pharmacotherapy services to enhance care."

According to the news editors, the research concluded: "Information provided here may serve beneficial to others looking to initiate or expand existing HCV pharmacist services."


Our news journalists report that additional information may be obtained by contacting T.P. Gauthier, Miami Vet Affairs Healthcare Syst, Dept. of Pharm, Miami, FL 33125, United States. Additional authors for this research include E. Moreira, C. Chan, A. Cabrera, M. Toro, M.Z. Carrasquillo, M. Corentin and E.M. Sherman.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Digestive System Diseases and Conditions, Patient Care, Diagnostics and Screening, Infectious Disease and Conditions, Liver Diseases and Conditions, Flaviviridae Infections, Hepatitis C Virus, Gastroenterology, Ambulatory Care, RNA Viruses,
Developmental Diseases and Conditions - Autism

Studies from Department of Psychology in the Area of Autism Described (Speculations on vitamin K, VKORC1 genotype and autism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Developmental Diseases and Conditions - Autism have been presented. According to news reporting originating in Cedar Falls, Iowa, by NewsRx editors, the research stated, "Humans vary in the gene that encodes for Vitamin K epoxide reductase complex (VKORC1). Recent research has documented the protective effect of Vitamin K on neural cells and its role in maintaining normal neural development."

The news reporters obtained a quote from the research from the Department of Psychology, "Of interest, specific neural effects of Vitamin K overlap with key brain development aberrations, including those associated with autism. Furthermore, Vitamin K protects against oxidative stress associated with toxic exposure. Research on the neural effects is reviewed, and a small sample of severely autistic children of Somali descent residing in the Minneapolis/St. Paul area of Minnesota were genotyped and found to have a higher than expected genetic substitution that results in reduction in the efficiency of the Vitamin K cycle."

According to the news reporters, the research concluded: "The possibility that this genetic difference could play an etiological role in the development of autism is considered."


Our news correspondents report that additional information may be obtained by contacting M.C. DeSoto, Univ Northern Iowa, Dept. of Psychol, Cedar Falls, IA 50614, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mehy.2016.09.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cedar Falls, Iowa, United States, North and Central America, Developmental Diseases and Conditions, Developmental Disabilities, Neurology, Genetics, Autism, Department of Psychology.

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Cardiovascular Diseases and Conditions - Hypotension

Studies from Department of Surgery Yield New Information about Hypotension (Prophylactic Gentamicin Is Not Associated with Acute Kidney Injury in Patients with Open Fractures)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Hypotension is the subject of a report. According to news reporting out of Fort Worth, Texas, by NewsRx editors, research stated, "Data on antimicrobial prophylaxis for open fractures is limited, with many protocols based on expert recommendations. These protocols include aminoglycosides (AGs) for fractures with significant soft tissue injury, but these drugs are associated with acute kidney injury (AKI) in other settings; this risk has not been defined for open fracture prophylaxis."

Our news journalists obtained a quote from the research from the Department of Surgery, "We performed a retrospective study from May 2012 to October 2014 at our Level 1 trauma center. Patients with open fractures were evaluated for demographics, location/type of fracture, injury severity, and receipt of an AG. Outcomes included rates of AKI, infection, and mortality. There were 167 patients with open fractures during the study period (119 males, mean age 42±17 [standard deviation] years), with 80 (48%) receiving prophylactic gentamicin (AG+ group). The AG+ and AG- patients had similar fracture sites and Injury Severity Scores (ISSs) (12.6 +/- 9.9 AG+ vs. 15.9 +/- 13.2 AG-) but were more likely to have sustained blunt trauma (96% AG+ vs. 77%; p<0.001) or received intravenous contrast medium 48h from admission (75% AG+ vs. 56% AG-; p=0.01). Gentamicin was not associated with AKI (odds ratio [OR] 0.22; 95% confidence interval [CI] 0.020-2.44; p=0.22), whereas hypotension on admission (OR 10.7; 95% CI 1.42-80.93; p=0.02) and ISS (OR 1.1; 95% CI 1.01-1.20; p=0.02) were both associated with AKI. Only four fracture site infections were identified, three in the AG+ group and one in the AG- group (3.8% vs. 1.1%; p=0.27). The mortality rate was greater in the AG-group (3.8% vs. 12.6%; p=0.04). Prophylactic gentamicin is not associated with AKI, whereas hypotension on admission and higher ISS were."

According to the news editors, the research concluded: "The use of nephrotoxic agents, including aminoglycosides, should be restricted in open fracture patients presenting with hypotension or a high ISS."

For more information on this research see: Prophylactic Gentamicin Is Not Associated with Acute Kidney Injury in Patients with Open Fractures. Surgical Infections, 2016;17(6):720-723. Surgical Infections can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Surgical Infections - www.liebertpub.com/overview/surgical-infections/53/)

Our news journalists report that additional information may be obtained by contacting J.M. Tessier, John Peter Smith Health Network, Dept. of Surg, Fort Worth, TX 76104, United States. Additional authors for this research include B. Moore, B. Putty, R.R. Gandhi and T.M. Duane.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/sur.2015.086. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fort Worth, Texas, United States, North
Oncology - Non-Small Cell Lung Cancer

Studies from Department of Surgery in the Area of Non-Small Cell Lung Cancer Described (The Quality of Staging Non-Small Cell Lung Cancer in the Netherlands: Data From the Dutch Lung Surgery Audit)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Non-Small Cell Lung Cancer are presented in a new report. According to news originating from Alkmaar, Netherlands, by NewsRx correspondents, research stated, "Clinical staging of non-small cell lung cancer (NSCLC) determines the initial treatment offered to a patient. The similarity between clinical and pathologic staging in some studies is as low as 50%, and others publish results as high as 91%.

Our news journalists obtained a quote from the research from the Department of Surgery, "The Dutch Lung Surgery Audit is a clinical database that registers the clinical and pathologic TNM of almost all NSCLC patients who undergo operations in the Netherlands. The objective of this study was to determine the accuracy of clinical staging of NSCLC. Prospective data were derived from the Dutch Lung Surgery Audit in 2013 and 2014."

According to the news editors, the research concluded: "Patients were included if they had undergone a surgical resection for stage IA to IIIB NSCLC without neoadjuvant treatment and had a positron emission tomography-computed tomography scan as part of the clinical workup."


The news correspondents report that additional information may be obtained from D.J. Heineman, Medical Center Alkmaar, Dept. of Surg, NL-1815 JD Alkmaar, Netherlands. Additional authors for this research include M.G. ten Berge, J.M. Daniels, M.I. Versteegh, P.J. Marang-van de Mheen, M.W. Wouters and W.H. Schreurs.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.06.071. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Alkmaar, Netherlands, Europe, Non-Small Cell Lung Cancer, Computed Tomography, Imaging Technology, Lung Neoplasms, Oncology, Surgery, Department of Surgery.

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Drugs and Therapies - Radiation Therapy

Studies from Department of Urology Provide New Data on Radiation Therapy [Prostate Specific Antigen (PSA) as Predicting Marker for Clinical Outcome and Evaluation of Early Toxicity Rate after High-Dose Rate Brachytherapy (HDR-BT) in Combination ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapi es - Radiation Therapy is now available. According to news originating from Bad Saarow Pieskow, Germany, by NewsRx correspondents, research stated, "High-dose-rate brachytherapy (HDR-BT) with external beam radiation therapy (EBRT) is a common treatment option for locally advanced prostate cancer (PCa). Seventy-nine male patients (median age 71 years, range 50 to 79) with high-risk PCa underwent HDR-BT following EBRT between December 2009 and January 2016 with a median follow-up of 21 months."

Our news journalists obtained a quote from the research from the Department of Urology, "HDR-BT was administered in two treatment sessions (one week interval) with 9 Gy per fraction using a planning system and the Ir192 treatment unit GammaMed Plus iX. EBRT was performed with CT-based 3D-conformal treatment planning with a total dose administration of 50.4 Gy with 1.8 Gy per fraction and five fractions per week. Follow-up for all patients was organized one, three, and five years after radiation therapy to evaluate early and late toxicity side effects, metastases, local recurrence, and prostate-specific antigen (PSA) value measured in ng/mL. The evaluated data included age, PSA at time of diagnosis, PSA density, BMI (body mass index), Gleason score, D'Amico risk classification for PCa, digital rectal examination (DRE), PSA value after one/three/five year(s) follow-up (FU), time of follow-up, TNM classification, prostate volume, and early toxicity rates. Early toxicity rates were 8.86% for gastrointestinal, and 6.33% for genitourinary side effects. Of all treated patients, 84.81% had no side effects. All reported complications in early toxicity were grade 1. PSA density at time of diagnosis (p = 0.009), PSA on date of first HDR-BT (p = 0.033), and PSA on date of first follow-up after one year (p = 0.025) have statistical significance on a higher risk to get a local recurrence during follow-up. HDR-BT in combination with additional EBRT in the presented design for high-risk PCa results in high biochemical control rates with minimal side-effects. PSA is a negative predictive biomarker for local recurrence during follow-up."

According to the news editors, the research concluded: "A longer follow-up is needed to assess long-term outcome and toxicities."

For more information on this research see: Prostate Specific Antigen (PSA) as Predicting Marker for Clinical Outcome and Evaluation of Early Toxicity Rate after High-Dose Rate Brachytherapy (HDR-BT) in Combination with Additional External Beam Radiation Therapy (EBRT) for High Risk Prostate C. International Journal of Molecular Sciences, 2016;17(11):1772-1781. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from T.H. Ecke, HELIOS Hosp, Dept. of Urol, D-15526 Bad Saarow Pieskow, Germany. Additional authors for this research include H.J. Huang-Tiel, K. Golka, S. Selinski, B.C. Geis, S. Koswig, K. Bathe, S. Hallmann and H. Gerullis.

Keywords for this news article include: Bad Saarow Pieskow, Germany, Europe, Prostatic Secretory Proteins, Prostate-Specific Antigen, Prostate Specific Antigen, Biological
Studies from Dicle University Yield New Data on Hypertension (The Relationship of Fluid Overload as Assessed by Bioelectrical Impedance Analysis with Pulmonary Arterial Hypertension in Hemodialysis Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Hypertension is now available. According to news originating from Diyarbakir, Turkey, by NewsRx correspondents, research stated, "Pulmonary arterial hypertension (PAH) is common disease among hemodialysis (HD) patients and is associated with increased morbidity and mortality. However, its pathogenesis has not been completely elucidated."

Our news journalists obtained a quote from the research from Dicle University, "We aimed to evaluate the frequency of PAH in HD patients, as well as the relationship between fluid status and PAH. We enrolled 77 HD patients in this study. Multifrequency bioimpedance analysis (BIA) was used to assess fluid status. BIA was performed before and 30 min after the midweek of HD. Overhydration (OH)/extracellular water (ECW)% ratio was used as an indicator of fluid status. Fluid overload was defined as OH/ECW (>=)7%. Echocardiographic examinations were performed before and after the HD. Pulmonary arterial hypertension was defined as systolic pulmonary artery pressure at rest (sPAP) higher than 35 mmHg. PAH was found in 33.7% of the HD patients. OH/ECW and the frequency of fluid overload were significantly higher in HD patients with PAH than those without PAH, whereas serum albumin and hemoglobin levels were significantly lower. sPAP level was significantly higher in HD patients with fluid overload than in those without fluid overload after hemodialysis session. Furthermore, sPAP, OH/ECW levels, and the frequency of PAH were significantly reduced after HD. We also found a significant positive correlation between sPAP and OH/ECW. Multivariate logistic regression analysis demonstrated fluid overload to be an independent predictor of PAH after HD. PAH is prevalent among HD patients."

According to the news editors, the research concluded: "This study demonstrated a strong relationship between fluid overload and PAH in HD patients."

For more information on this research see: The Relationship of Fluid Overload as Assessed by Bioelectrical Impedance Analysis with Pulmonary Arterial Hypertension in Hemodialysis Patients. Medical Science Monitor, 2016;22():488-94.

The news correspondents report that additional information may be obtained from S. Yilmaz, Dept. of Chest Diseases and Tuberculosis, Dicle University, Faculty of Medicine, Diyarbakir, Turkey. Additional authors for this research include Y. Yildirim, M. Taylan, M. Demir, Z. Yilmaz, A.V. Kara, F. Aydin, H.S. Sen, A. Karabulut and F. Topcu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.896305. This DOI is a link to an online electronic document that is either free or for purchase.
Studies from Discipline of Pediatrics Describe New Findings in Spinocerebellar Ataxias (Motor cortical dysfunction develops in spinocerebellar ataxia type 3)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Neurodegenerative Diseases and Conditions - Spinocerebellar Ataxias have been presented. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "Spinocerebellar ataxia type 3 (SCA3) is an inherited neurodegenerative disorder characterized by cerebellar ataxia and variable expression of clinical features beyond the cerebellum. To gain further insights into disease pathophysiology, the present study explored motor cortex function in SCA3 to determine whether cortical dysfunction was present and if this contributed to the development of clinical manifestations."

The news reporters obtained a quote from the research from the Discipline of Pediatrics, "Clinical phenotyping and longitudinal assessments were combined with central (thresholdtracking transcranial magnetic stimulation) and peripheral (nerve excitability) techniques in 11 genetically characterized SCA3 patients. Short-interval intracortical inhibition was significantly reduced in presymptomatic and symptomatic SCA3 patients (-1.3 +/- 1.4%) compared to healthy controls (10.3 +/- 0.7%, P< 0.0005), with changes evident prior to clinical onset of ataxia and related to worsening severity (R = -0.78, P< 0.005). Central motor conduction time was also significantly prolonged in presymptomatic and symptomatic SCA3 patients (7.5 +/- 0.4 ms) compared to healthy controls (5.3 +/- 0.2 ms, P< 0.0005) and related to clinical severity (R = 0.81, P< 0.005). Markers of peripheral motor neurodegeneration and excitability did not correlate with cortical hyperexcitability or ataxia. Simultaneous investigation of clinical status, and central and peripheral nerve function has identified progressive cortical dysfunction in SCA3 patients related to the development of ataxia."

According to the news reporters, the research concluded: "These findings suggest alteration in cortical activity is associated with SCA3 pathogenesis and neurodegeneration."


Our news correspondents report that additional information may be obtained by contacting M.A. Farrar, Univ New South Wales, UNSW Med, Sch Womens & Childrens Hlth, Discipline Paediat, Sydney, NSW, Australia. Additional authors for this research include S. Vucic, G. Nicholson and M.C. Kiernan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinph.2016.09.005. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Spinal Cord Diseases and Conditions, Cerebellar Diseases and Conditions, Spinocerebellar Degenerations, Brain Diseases and Conditions, Neurologic Manifestations, Spinocerebellar Ataxias, Mental Health, Dyskinesias, Neurology, Genetics, Discipline of Pediatrics.

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Nutritional and Metabolic Diseases and Conditions —

Studies from Division of Nephrology Have Provided New Information about Fabry Disease (Targeted Screening of Fabry Disease in Male Hemodialysis Patients in Brazil Highlights Importance of Family Screening)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Fabry Disease. According to news originating from Salvador, Brazil, by NewsRx correspondents, research stated, "Fabry disease (FD) is a lysosomal storage disorder caused by enzyme alpha galactosidase A (alpha-Gal A) deficiency due to mutations in the galactosidase alpha (GLA) gene. It leads to damage several organs, such as the kidneys, due to progressive accumulation of glycosphingolipids."

Our news journalists obtained a quote from the research from the Division of Nephrology, "To estimate the prevalence of FD among male hemodialysis (HD) patients in a northern state of Brazil. Screening was performed using a dried blood spot on filter paper to identify patients with low alpha-Gal A enzyme activity (<= 2.2 mu mol/l/h). Those with low enzyme activity underwent genetic analysis of the GLA gene. Family screening was conducted in the index cases. 2,583 male HD patients (age: 52 (18-91 years)) were screened. The alpha-Gal A assay identified 72 males (2.78%) with low enzyme activity. Genotyping identified 3 patients with GLA mutations: W204X, A368T, both previously reported; and C52F, a novel missense mutation. Only the patient with W204X mutation had classic FD. The prevalence rate was 0.12%. Family screening of the index cases identified 23 family members with the same mutations. The prevalence of FD amongst male HD patients found in the Northern of Brazil was low (0.12%)."

According to the news editors, the research concluded: 'However, family screening of the 3 index cases identified family members at an early stage of the disease, which may benefit from earlier treatment.'


The news correspondents report that additional information may be obtained from C.A.B. Silva, Escola Bahiana Med & Saude Public, Div Nephrol, Programa Posgrad Med & Saude Humana, Salvador, BA, Brazil. Additional authors for this research include F.C. Barreto, M.A. dos Reis, J.A. Moura and C.M.S. Cruz.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1159/000448740. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salvador, Brazil, South America, Hemodialysis, Diagnostics and Screening, Epidemiology, Nutritional and Metabolic Diseases and Conditions, Lysosomal Storage Diseases and Conditions, X-Linked Genetic Diseases and Conditions, Brain Diseases and Conditions, Lipid Metabolism Disorders, Enzymes and Coenzymes, Sphingolipidoses, Renal Dialysis, Galactosidases, Fabry Disease, Neurology, Genetics, Division of Nephrology.

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Cardiology

Studies from Dokkyo Medical University Add New Findings in the Area of Cardiology (Pathological autopsy of a patient that underwent a successful ablation of an electrical storm from the left ventricular summit)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting originating in Saitama, Japan, by NewsRx journalists, research stated, "A 65-year-old man with non-ischemic cardiomyopathy, underwent an autopsy 2 months after the successful ablation of a sustained left ventricular (LV) summit ventricular tachycardia (VT). The patient died due to interstitial pneumonia from amiodarone use."

The news reporters obtained a quote from the research from Dokkyo Medical University, "The earliest activation sites of the VT were documented from both inside the anterior interventricular vein (AIV) and epicardial surface. The diameter of the AIV was 3-4 mm, and the radiofrequency (RF) lesion inside the AIV was a slight lesion due to high impedance with a high temperature. The lesion from the epicardial surface was also superficial and insufficient due to neighboring coronary arteries and the existence of epicardial fat. A successful application was performed from the LV endocardium, and diffuse myocardial fibrosis was observed in the mid-myocardium including inside the RF lesions."

According to the news reporters, the research concluded: "The actual relationship between the myocardial fibrosis and LV summit VT remains unclear, but this case showed the difficulty of achieving a successful ablation from the epicardial side, when the focus exists in the mid-myocardium around the LV summit."

For more information on this research see: Pathological autopsy of a patient that underwent a successful ablation of an electrical storm from the left ventricular summit. Heart and Vessels, 2016;31(12):2068-2073. Heart and Vessels can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

Our news correspondents report that additional information may be obtained by contacting S. Nakahara, Dokkyo Med Univ, Koshigaya Hosp, Dept. of Cardiol, Koshigaya, Saitama 3438555, Japan. Additional authors for this research include S. Nakahara, S. Mine, N. Anjo, A. Fujii, Y. Ueda and I. Taguchi.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1007/s00380-016-0847-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Saitama, Japan, Asia, Ventricular Tachycardia, Myocardium, Cardiology, Heart, Dokkyo Medical University.

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**Reactive Oxygen Species**

Studies from Dongguk University Further Understanding of Reactive Oxygen Species [NADPH oxidase (NOX) 1 mediates cigarette smoke-induced superoxide generation in rat vascular smooth muscle cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Reactive Oxygen Species. According to news reporting from Gyeonggi Do, South Korea, by NewsRx journalists, research stated, "Smoking is a well-established risk factor for cardiovascular diseases. Oxidative stress is one of the common etiological factors, and NADPH oxidase (NOX) has been suggested as a potential mediator of oxidative stress."

Financial support for this research came from Ministry of Food and Drug Safety.

The news correspondents obtained a quote from the research from Dongguk University, "In this study, cigarette smoke (CS)-induced superoxide production was characterized in vascular smooth muscle cells (VSMC). CS was prepared in forms of cigarette smoke extract (CSE) and total particulate matter (TPM). Several molecular probes for reactive oxygen species were trialed, and dihydroethidium (DHE) and WST-1 were chosen for superoxide detection considering the autofluorescence, light absorbance, and peroxidase inhibitory activity of CS. Both CSE and TPM generated superoxide in a VSMC culture system by stimulating cells to produce superoxide and by directly producing superoxide in the aqueous solution. NOX, specifically NOX1 was found to be an important cellular source of superoxide through experiments with the NOX inhibitors diphenyleneiodonium (DPI) and VAS2870 as well as isoform-specific NOX knockdown. NOX inhibitors and the superoxide dismutase mimetic TEMPOL reduced the cytotoxicity of CSE, thus suggesting the contribution of NOX1-derived superoxide to cytotoxicity."

According to the news reporters, the research concluded: "Since NOX1 is known to mediate diverse pathological processes in the vascular system, NOX1 may be a critical effector of cardiovascular toxicity caused by smoking."


Our news journalists report that additional information may be obtained by contacting M.Y. Lee, Dongguk Univ, Coll Pharm, Goyang 10326, Gyeonggi Do, South Korea. Additional authors for this research include J.M. Park, C.H. Lee, B. Kim, K.C. Choi, S.J. Choi, K. Lee and M.Y. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.tiv.2016.10.013. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Gyeonggi Do, South Korea, Asia, Cardiology, Risk and Prevention, NADPH Oxidoreductases NADH, Reactive Oxygen Species, Enzymes and Coenzymes, Cardiovascular, NADPH Oxidase, Flavoproteins, Muscle Cells, Electrolytes, Superoxides, Proteins, Anions, Dongguk University.

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**Studies from Dongguk University in the Area of Pharmacology**

**Described [Differential modulation of TWIK-related K+ channel (TREK) and TWIK-related acid-sensitive K+ channel 2 (TASK2) activity by pyrazole compounds]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Pharmacology is now available. According to news reporting originating from Goyang, South Korea, by NewsRx correspondents, research stated, "Pyrazole derivatives were originally suggested as selective blockers of the transient receptor potential cation 3 (TRPC3) and channel. In particular, pyr3 and 10 selectively inhibit TRPC3, whereas pyr2 (BTP2) and 6 inhibit ORAI1."

Financial support for this research came from Ministry of Health & Welfare.

Our news editors obtained a quote from the research from Dongguk University, "However, their effects on background K+ channel activity have not been elucidated. In this study, the effects of BTP2, pyr3, pyr6, and pyr10 were studied on cloned human TWIK-related K+ channels (TREKs) and TWIK-related acid-sensitive K+ channel 2 (TASK-2) channels, which modulate Ca2+ signaling by controlling membrane potential, in HEK293T-overexpressing cells by using a whole-cell patch clamp technique. Pyr3 potently inhibited TREK-1 (I-TREK1), TREK-2 (I-TREK2), and TASK2 current (ITASK-2) with half-maximal inhibitory concentrations (IC50) of 0.89 +/- 0.27, 1.95 +/- 1.44, and 2.42 +/- 0.39 mu M, respectively. BTP2 slightly inhibited ITASK-2 (80.3 +/- 2.5% at 100 mu M). In contrast, pyr6 at 100 mu M potentiated I-TREK1 and I-TREK2 by approximately 2.6- and 3.6-fold compared to the control and inhibited I-TASK2 (38.7 +/- 9.2%). Pyr10 showed a subtype-specific inhibition of I-TREK1 but not I-TREK2. It also inhibited I-TASK2 (70.9 +/- 3.1% at 100 mu M). To the best of our knowledge, this study is the first to describe the differential modulation of TREKs and TASK2 channels by pyrazole derivatives, previously used as inhibitors of TRPC3 and ORAI1."

According to the news editors, the research concluded: "Therefore, studies using these drugs should consider their modulation of other channels such as TREK and TASK-2."

For more information on this research see: Differential modulation of TWIK-related K+ channel (TREK) and TWIK-related acid-sensitive K+ channel 2 (TASK2) activity by pyrazole compounds. *European Journal of Pharmacology*, 2016;791():686-695. *European Journal of Pharmacology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news editors report that additional information may be obtained by contacting H.J. Kim, Dongguk Univ, Coll Med, CRC, Goyang 10326, South Korea. Additional authors for
this research include J. Woo, Y. Nam, J.H. Nam and W.K. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.08.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Goyang, South Korea, Asia, Pharmacology, Drugs and Therapies, Dongguk University.

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Oncology - Prostate Cancer

Studies from Duke University Reveal New Findings on Prostate Cancer (Treatment-related neuroendocrine prostate cancer resulting in Cushing's syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting out of Durham, North Carolina, by NewsRx editors, research stated, "Here we present, to the best of our knowledge, the first case of a paraneoplastic Cushing's syndrome (hypercortisolism) resulting from treatment-related neuroendocrine prostate cancer - a highly aggressive and difficult disease to treat."

Our news journalists obtained a quote from the research from Duke University, "A 51-year-old man was started on androgen deprivation therapy after presenting with metastatic prostate cancer, characterized by diffuse osseous metastasis. Shortly thereafter, he developed progressive disease with biopsy proven neuroendocrine prostate cancer as well as symptoms of increased skin pigmentation, hypokalemia, hypertension, hyperglycemia and profound weakness, consistent with ectopic Cushing's syndrome."

According to the news editors, the research concluded: "Molecular analysis of the patient's tumor through RNA sequencing showed high expression of several genes including CHGA, ASCL1, CALCA, HES6, PCSK1, CALCB and INSM1 confirming his neuroendocrine phenotype; elevated POMC expression was found, supporting the diagnosis of ectopic Cushing's syndrome."


Our news journalists report that additional information may be obtained by contacting S. Ramalingam, Duke University, Dept. of Med, Duke Canc Inst, Medical Center, Durham, NC, United States. Additional authors for this research include A. Eisenberg, W.C. Foo, J. Freedman, A.J. Armstrong, L.G. Moss and M.R. Harrison.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/iju.13225. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Adrenal Gland Diseases and Conditions, Adrenocortical Hyperfunction, Prostatic Neoplasms, Cushing Syndrome, Prostate Cancer, Oncology,
Studies from E. Kennedy and Co-Authors Have Provided New Information about Escherichia coli (Live Bacterial Physiology Visualized with 5 nm Resolution Using Scanning Transmission Electron Microscopy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Escherichia coli are discussed in a new report. According to news reporting from Morrisville, North Carolina, by NewsRx journalists, research stated, "It is now possible to visualize at nanometer resolution the infection of a living biological cell with virus without compromising cell viability using scanning transmission electron microscopy (STEM). To provide contrast while preserving viability, Escherichia coli and P1 bacteriophages were first positively stained with a very low concentration of uranyl acetate in minimal phosphate medium and then imaged with low-dose STEM in a microfluidic liquid flow cell."

Financial supporters for this research include University of Notre Dame, National Institute of Biomedical Imaging and Bioengineering, Walther Cancer Foundation.

The news correspondents obtained a quote from the research, "Under these conditions, it was established that the median lethal dose of electrons required to kill half the tested population was LD50=30 e(-)/nm(2), which coincides with the disruption of a wet biological membrane, according to prior reports. Consistent with the lateral resolution and high-contrast signal-to-noise ratio (SNR) inferred from Monte Carlo simulations, images of the E. coli membrane, flagella, and the bacteriophages were acquired with 5 nm resolution, but the cumulative dose exceeded LD50."

According to the news reporters, the research concluded: "On the other hand, with a cumulative dose below LD50 (and lower SNR), it was still possible to visualize the infection of E. coli by P1, showing the insertion of viral DNA within 3 s, with 5 nm resolution."


Our news journalists report that additional information may be obtained by contacting J. Damiano, Protochips, Inc, Morrisville, North Carolina 27560, United States. Additional authors for this research include E.M. Nelson, T. Tanaka, J. Damiano and G. Timp.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.5b07697. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Morrisville, United States, North Carolina, Escherichia Coli, Enterobacteriaceae, Gammaproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria, North and Central America, Bacterial Infections and Mycoses.

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Human Immunodeficiency Virus

Studies from Emory University Describe New Findings in Human Immunodeficiency Virus (Hormonal Contraceptive Use Among HIV-Positive Women and HIV Transmission Risk to Male Partners, Zambia, 1994-2012)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Human Immunodeficiency Virus are presented in a new report. According to news reporting out of Atlanta, Georgia, by NewsRx editors, research stated, "Evidence on the association between female-to-male human immunodeficiency virus (HIV) transmission risk and hormonal contraception is sparse and conflicting. Heterosexual HIV-discordant couples from Lusaka, Zambia, were followed longitudinally at 3 month-intervals from 1994 to 2012."

Our news journalists obtained a quote from the research from Emory University, "The impact of hormonal contraception on time to HIV transmission from HIV-positive women to their HIV-negative male partners (M-F+) was evaluated. Among 1601 M-F+ couples, 171 genetically linked HIV transmissions occurred in men over 3216 couple-years (5.3 transmissions/100 couple-years; 95% confidence interval [CI], 4.5-6.2). In multivariable Cox models, neither injectable (adjusted hazard ratio [aHR], 0.6; 95% CI, .4-1.2), oral contraceptive pill (aHR, 0.8; 95% CI, .3-2.1), nor implant (aHR, 0.8; 95% CI, .5-1.4) use was associated with HIV transmission, relative to nonhormonal methods, after controlling for the man's age at baseline and time-varying measures of pregnancy, self-reported unprotected sex with the study partner, sperm present on a vaginal swab wet mount, genital inflammation of either partner, genital ulceration of the man, and first follow-up interval. Sensitivity analyses, including marginal structural modeling and controlling for viral load and fertility intentions available in a subset of couples, led to similar conclusions. Our findings suggest null associations between hormonal contraception and risk of female-to-male HIV transmission."

According to the news editors, the research concluded: "We support efforts to increase the contraceptive method mix for all women, regardless of HIV serostatus, along with reinforced condom counseling for HIV-serodiscordant couples."


Our news journalists report that additional information may be obtained by contacting K.M. Wall, Emory University, Laney Grad Sch, Atlanta, GA 30322, United States. Additional authors for this research include W. Kilembe, B. Vwalika, P. Ravindran, N.H. Khu, I. Brill, E. Chomba, B.A. Johnson, L.B. Haddad, A. Tichacek and S. Allen.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Human Immunodeficiency Virus, Reproductive Techniques, Primate Lentiviruses, Vertebrate Viruses, Contraceptives, HIV Infections, Contraception,
Oncology - Lung Cancer

Studies from Emory University Have Provided New Data on Lung Cancer (Socioeconomic Factors Are Associated With Readmission After Lobectomy for Early Stage Lung Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lung Cancer. According to news reporting originating from Atlanta, Georgia, by NewsRx correspondents, research stated, "Data regarding risk factors for read-missions after surgical resection for lung cancer are limited and largely focus on postoperative outcomes, including complications and hospital length of stay. The current study aims to identify preoperative risk factors for postoperative readmission in early stage lung cancer patients."

Our news editors obtained a quote from the research from Emory University, "The National Cancer Data Base was queried for all early stage lung cancer patients with clinical stage T2N0M0 or less who underwent lobectomy in 2010 and 2011. Patients with unplanned readmission within 30 days of hospital discharge were identified. Univariate analysis was utilized to identify preoperative differences between readmitted and not readmitted cohorts; multivariable logistic regression was used to identify risk factors resulting in readmission. In all, 840 of 19,711 patients (4.3%) were readmitted postoperatively. Male patients were more likely to be readmitted than female patients (4.9% versus 3.8%, p< 0.001), as were patients who received surgery at a nonacademic rather than an academic facility (4.6% versus 3.6%; p = 0.001) and had underlying medical comorbidities (Charlson/Deyo score 1D versus 0; 4.8% versus 3.7%; p< 0.001). Readmitted patients had a longer median hospital length of stay (6 days versus 5; p< 0.001) and were more likely to have undergone a minimally invasive approach (5.1% video-assisted thoracic surgery versus 3.9% open; p< 0.001). In addition to those variables, multivariable logistic regression analysis identified that median household income level, insurance status (government versus private), and geographic residence (metropolitan versus urban versus rural) had significant influence on readmission."

According to the news editors, the research concluded: "The socioeconomic factors identified significantly influence hospital readmission and should be considered during preoperative and postoperative discharge planning for patients with early stage lung cancer."


The news editors report that additional information may be obtained by contacting R.L. Medbery, Emory University, Biostat & Bioinformatics Shared Resource, Winship Canc Inst, Atlanta, GA 30322, United States. Additional authors for this research include T.W. Gillespie, Y. Liu, D.C. Nickleach, J. Lipscomb, M.S. Sancheti, A. Pickens, S.D. Force and F.G. Fernandez.

The direct object identifier (DOI) for that additional information is:
Studies from Engineering Institute Describe New Findings in Inflammation (Mesoporous silica as multiple nanoparticles systems for inflammation imaging as nano-radiopharmaceuticals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Inflammation are presented in a new report. According to news reporting from Rio de Janeiro, Brazil, by NewsRx journalists, research stated, "Inflammation processes are difficult to manage, especially in certain diseases like cancer. The prognostic of the patient may change drastically during the therapy if an inflammation process occurs."

Financial supporters for this research include National Scientific and Technological Research Council, Rio de Janeiro State Research Foundation, Ministerio de Economia y Competitividad, Generalitat Valenciana.

The news correspondents obtained a quote from the research from Engineering Institute, "In this direction several research groups are trying to develop new agents for treatment and imaging of the inflammation process in order to improve patients prognostics. In this study we have developed and evaluated two possible imaging agents for nuclear medicine procedure using mesoporous silica nano particles as the carrier system. In this direction we developed mesoporous silica nanoparticles loaded with betamethasone and mesoporous silica nanoparticles conjugated with dexamethasone nano particles, both labeled with technetium-99m (Tc-99m) and compared the biodistribution (pharmacokinetic) profile of the two formulations in an inflammation model of carrageenan-induced pleurisy in Wistar rats. The results demonstrated that in both cases the mesoporous silica was able to show the inflammation site with a high accumulation in the inflammatory site with great renal clearance. Considering the fact that radiopharmaceuticals are considered first-order drugs the pharmacokinetics profile are the same of the biodistribution. The cytotoxicity assay demonstrated that the use of mesoporous silica nanoparticles conjugated with dexamethasone nanoparticles is safer when compared to the mesoporous silica nanoparticles loaded with betamethasone."

According to the news reporters, the research concluded: "Nevertheless, both formulations may be used for inflammation process imaging."

For more information on this research see: Mesoporous silica as multiple nanoparticles systems for inflammation imaging as nano-radiopharmaceuticals. Microporous and Mesoporous Materials, 2017;239():426-431. Microporous and Mesoporous Materials can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Microporous and Mesoporous Materials - www.journals.elsevier.com/microporous-and-mesoporous-materials/)

Our news journalists report that additional information may be obtained by
Studies from Eunice Kennedy Shriver National Institute of Child Health and Human Development Provide New Data on Pick's Disease (Necroptosis in Niemann-Pick disease, type C1: a potential therapeutic target)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pick's disease. According to news originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "Niemann-Pick disease, type C1 (NPC1) is a neurodegenerative, lysosomal storage disorder due to mutation of the NPC1 gene. The NPC1 phenotype is characterized by progressive neuronal dysfunction, including cerebellar ataxia and dementia."

Our news journalists obtained a quote from the research from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, "There is histological evidence of neuroinflammation and progressive neuronal loss, with cerebellar Purkinje cells particularly vulnerable to loss of NPC1 function. Necroptosis was evaluated as a mechanism of neuronal loss. Receptor-interacting protein kinase 1 (RIP1) and RIP3 are key components of the necroosomal complex that regulates necroptotic cell death. We report increased expression of RIP1 and RIP3 in NPC1 fibroblasts, NPC1 iPS cell-derived neuronal precursors, and in cerebellar tissue from both NPC1 mice and patients. Our data suggest a positive correlation between NPC1 neurological disease severity and assembly of the necroosome complex. Furthermore, we demonstrate that pharmacological inhibition of RIP1 decreases cell death both in vitro and in vivo. Treatment of Npc1-mutant mice with necrostatin-1, an allosteric inhibitor of RIP1, significantly delayed cerebellar Purkinje cell loss, progression of neurological symptoms, and death."

According to the news editors, the research concluded: "Collectively, our data identified necroptosis as a key component of the molecular network that contributes to neuronal loss in NPC1 and establish that inhibition of necroptosis is a potential therapeutic intervention." For more information on this research see: Necroptosis in Niemann-Pick disease, type C1: a potential therapeutic target. Cell Death & Disease, 2016;7():e2147. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

The news correspondents report that additional information may be obtained from A. Cougnoux, Program in Developmental Endocrinology and Genetics, Eunice Kennedy Shriver...
Studies from Ewha Woman's University School of Medicine Have Provided New Data on Functional Dyspepsia [Efficacy of DA-9701 (Motilitone) in Functional Dyspepsia Compared to Pantoprazole: A Multicenter, Randomized, Double-blind, Non-inferiority ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Digestive System Diseases and Conditions - Functional Dyspepsia is the subject of a report. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "The effect of proton pump inhibitors (PPI) in Asian functional dyspepsia (FD) patients has not been well established as in Western countries. DA-9701, a novel prokinetic agent, stimulates gastric emptying and modulates visceral hypersensitivity in vivo and in human studies."

The news correspondents obtained a quote from the research from the Ewha Woman's University School of Medicine, "This study was conducted to compare the efficacy of DA-9701 with a conventional PPI in mono or combination therapy in patients with FD. In this double-blind, randomized, non-inferiority trial, 389 patients diagnosed with FD using Rome III criteria were allocated among 3 groups: 30-mg DA-9701 t.i.d (means 3 times a day), 40-mg pantoprazole, and 30-mg DA-9701 t.i.d + 40-mg pantoprazole. The primary efficacy end-point was a global assessment of the patient binary response or response on a 5-Likert scale after 4 weeks. The global symptomatic improvement was 60.5% in the DA-9701 group, 65.6% in the pantoprazole group, and 63.5% in the DA-9701 + pantoprazole group using a 5-Likert scale at week 4 with no significant difference among 3 groups (p=0.685). Symptom improvement measured by binary outcome was significantly achieved in each of the 3 groups, but not different among groups. Patients in all treatment groups reported significant improvement in the response rate and symptoms according to FD subtypes and dyspepsia-related quality of life (p <0.001), but there were no significant differences among the 3 groups. DA-9701 improves global and individual symptoms and increases dyspepsia-specific quality of life in patients with FD."

According to the news reporters, the research concluded: "The efficacy of DA-9701 monotherapy is comparable with pantoprazole and there is no additive effect with combination of DA-9701 and pantoprazole in patients with FD."
For more information on this research see: Efficacy of DA-9701 (Motilitone) in Functional Dyspepsia Compared to Pantoprazole: A Multicenter, Randomized, Double-blind, Non-inferiority Study. *Journal of Neurogastroenterology and Motility*, 2016;22(2):254-63.


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Keywords for this news article include: Asia, Antiulcer Agents, Seoul, South Korea, Gastroenterology, Drugs and Therapies, Functional Dyspepsia, Pantoprazole Therapy, Proton Pump Inhibitors, Gastrointestinal Agents, Digestive System Diseases and Conditions.

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**Transplant Medicine - Kidney Transplants**

**Studies from F. Mallamaci and Colleagues Reveal New Findings on Kidney Transplants (Nocturnal Hypertension and Altered Night-Day BP Profile and Atherosclerosis in Renal Transplant Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Transplant Medicine - Kidney Transplants. According to news reporting from Reggio di Calabria, Italy, by NewsRx journalists, research stated, "The clinical relevance of ambulatory blood pressure monitoring (ABPM) for risk stratification in renal transplant patients still remains poorly defined. We investigated the association between clinic and ABPM with an established biomarker of atherosclerosis (intima-media thickness [IMT] by echo-color Doppler) in a large, inclusive survey (n = 172) in renal transplant patients at a single institution."

The news correspondents obtained a quote from the research, "Forty-two patients (24%) were classified as hypertensive by ABPM criteria and 29 (17%) by clinic blood pressure (BP) criteria. Average daytime and nighttime BP was 126 12/78 +/- 9 mm Hg and 123 +/- 13/74 +/- 10 mm Hg, respectively. Forty-five patients (26%) were classified as hypertensive by the daytime criterion (>135/85 mm Hg) and a much higher proportion (n = 119, 69%) by the nighttime criterion (>120/70 mm Hg). Sixty-two patients (36%) had a night-day ratio of 1 or greater, indicating clear-cut nondipping. The average nighttime systolic BP (r = 0.24, P = 0.001) and the night-day systolic BP ratio (r = 0.23, P = 0.002) were directly related to IMT, and these associations were much more robust than the 24-hour systolic BP-IMT relationship (r = 0.16, P = 0.04). Average daytime BP and clinic B were unrelated to IMT. In a multiple regression analysis adjusting for confounders, the night-day systolic BP ratio maintained an independent association with IMT ( = 0.14, P = 0.04). In renal transplant patients, the prevalence of nocturnal hypertension by far exceeds the prevalence of hypertension as assessed by clinic, daytime, and 24-hour ABPM. Nighttime systolic BP and the night-day ratio but no other BP metrics are independently associated with IMT."

According to the news reporters, the research concluded: "Blood pressure during
nighttime may provide unique information for the assessment of cardiovascular risk attributable to BP burden in renal transplant patients."

For more information on this research see: Nocturnal Hypertension and Altered Night-Day BP Profile and Atherosclerosis in Renal Transplant Patients. Transplantation, 2016;100(10):2211-2218. Transplantation can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Transplantation - journals.lww.com/transplantjournal/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting C. Zoccali, Azienda Osped Bianchi Melacrino Morelli, Nephrol Dialysis & Transplantat Unit, Reggio Di Calabria, Italy. Additional authors for this research include R. Tripepi, D. Leonardis, A. Mafrecia, M.C. Versace, F. Provenzano, G. Tripepi and C. Zoccali.

Keywords for this news article include: Reggio di Calabria, Italy, Europe, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Transplant Medicine, Kidney Transplants, Organ Transplants, Arteriosclerosis, Renal Transplant, Atherosclerosis, Transplantation, Renal Allograft, Blood Pressure, Hemodynamics, Hypertension, Biomedicine, Nephrology, Surgery.

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**Oncology - Non-Small Cell Lung Cancer**

**Studies from Faculty of Medicine Provide New Data on Non-Small Cell Lung Cancer (Tumor volume determines the feasibility of cell-free DNA sequencing for mutation detection in non-small cell lung cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Non-Small Cell Lung Cancer is now available. According to news originating from Osaka, Japan, by NewsRx correspondents, research stated, "Next-generation sequencing (NGS) and digital PCR technologies allow analysis of the mutational profile of circulating cell-free DNA (cfDNA) in individuals with advanced lung cancer. We have now evaluated the feasibility of cfDNA sequencing for mutation detection in patients with non-small cell lung cancer at earlier stages."


Our news journalists obtained a quote from the research from the Faculty of Medicine, "A total of 150 matched tumor and serum samples were collected from non-small cell lung cancer patients at stages IA-IIIA. Amplicon sequencing with DNA extracted from tumor tissue detected frequent mutations in EGFR (37% of patients), TP53 (39%), and KRAS (10%), consistent with previous findings. In contrast, NGS of cfDNA identified only EGFR, TP53, and PIK3CA mutations in three, five, and one patient, respectively, even though adequate amounts of cfDNA were extracted (median of 4936 copies/mL serum). Next-generation sequencing showed a high accuracy (98.8%) compared with droplet digital PCR for cfDNA mutation detection, suggesting that the low frequency of mutations in cfDNA was not due to a low assay sensitivity. Whereas the yield of cfDNA did not differ among tumor stages, the cfDNA mutations were detected in seven patients at stages IA-IIIA and at T2b or T3. Tumor volume was significantly higher in the cfDNA mutation-positive patients than in the negative patients at
stages T2b-T4 (159.1 +/- 58.0 vs. 52.5 +/- 9.9cm(3), P=0.014)."

According to the news editors, the research concluded: "Our results thus suggest that tumor volume is a determinant of the feasibility of mutation detection with cfDNA as the analyte."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cas.13068. ThisDOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Non-Small Cell Lung Cancer, Lung Neoplasms, DNA Research, Oncology, Genetics, Faculty of Medicine.

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Skin Diseases and Conditions - Alopecia

Studies from Faculty of Medicine Reveal New Findings on Alopecia (Treatment of permanent chemotherapy-induced alopecia with low dose oral minoxidil)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Skin Diseases and Conditions - Alopecia are presented in a new report. According to news reporting out of Sydney, Australia, by NewsRx editors, research stated, "Chemotherapy-induced alopecia is a well-established cause of major distress to patients."

Our news journalists obtained a quote from the research from the Faculty of Medicine, "Permanent chemotherapy-induced alopecia (PCIA) is the absence of or incomplete hair regrowth lasting longer than 6 months after the cessation of chemotherapy and it does not respond to standard treatments of scalp cooling or topical minoxidil. The increasing numbers of reports of PCIA highlight the need for research into an effective treatment."

According to the news editors, the research concluded: "We report a case of a 39 year-old woman with cosmetically significant regrowth after continuous therapy with oral minoxidil."

Our news journalists report that additional information may be obtained by contacting X.Y. Yang, Univ New South Wales, Fac Med, Sydney, NSW, Australia.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Skin and Connective Tissue Diseases and Conditions, Skin Diseases and Conditions, Hair Diseases and Conditions, Cardiovascular Agents, Drugs and Therapies, Vasodilator Agents, Minoxidil Therapy, Pharmaceuticals, Hypotrichosis, Chemotherapy, Alopecia, Faculty of Medicine.

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**Biotechnology - Cancer Gene Therapy**

**Studies from Faculty of Medicine Yield New Data on Cancer Gene Therapy (Natural products against cancer angiogenesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Biotechnology - Cancer Gene Therapy. According to news reporting out of Oujda, Morocco, by NewsRx editors, research stated, "The process of angiogenesis is quite well-known nowadays. Some medicines and extracts affecting this process are already used routinely in supporting the conventional treatment of many diseases that are considered angiogenic such as cancer."

Our news journalists obtained a quote from the research from the Faculty of Medicine, "However, we must be aware that the area of currently used drugs of this type is much narrower than the theoretical possibilities existing in therapeutic angiogenesis. Plant substances are a large and diverse group of compounds that are found naturally in fruits, vegetables, spices, and medicinal plants. They also have different anticancer properties."

According to the news editors, the research concluded: "The aim of this literature review article is to present the current state of knowledge concerning the molecular targets of tumor angiogenesis and the active substances (polyphenols, alkaloids, phytohormones, carbohydrates, and terpenes) derived from natural sources, whose activity against cancer angiogenesis has been confirmed."


Our news journalists report that additional information may be obtained by contacting E. Khalid, Univ Mohammed 1st, Fac Med & Pharm, Independent Res Team Canc Biol & Bioact Cpds, Oujda, Morocco. Additional authors for this research include E.E. Ayman, H. Rahman, G. Abdelkarim and A. Najda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5364-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oujda, Morocco, Africa, Angiogenesis, Article Review, Drugs and Therapies, Cancer Gene Therapy, Biotechnology, Oncology, Faculty of Medicine.

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**Drugs and Therapies - Antimicrobials**

**Studies from Federal University Further Understanding of Antimicrobials (Antimicrobial and cytotoxicity evaluation of colloidal chitosan - silver nanoparticles - fluoride nanocomposites)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antimicrobials. According to news reporting originating from Recife, Brazil, by NewsRx correspondents, research stated, "The present study aimed to evaluate the antimicrobial activity and cytotoxicity of colloidal chitosan silver nanoparticle- fluoride nanocomposites (CChAgNpFNc), with different silver nanoparticle shapes and sizes. The syntheses of CChAgNpFNc were performed with silver nitrate added to a chitosan solution, addition of a sodium borohydride solution and solid sodium fluoride."

Our news editors obtained a quote from the research from Federal University, "Solution of ascorbic acid was added to synthesize larger silver nanoparticles. CChAgNpFNc obtained: S1- 100% spherical, 8.7 +/- 3.1 nm; S2- 97% spherical, 15.0 +/- 7.9 nm and 2.5% triangular, 22.2 +/- 9.5 nm; S3- 77.3% spherical, 31.8 +/- 10.4nm, 15.9% triangular, 27.1 +/- 10.1 nm and 6.8% elliptical, 33.2 +/- 7.8 nm; and S4- 75.2% spherical, 43.2 +/- 14.3 nm; 23.3% triangular 38.2 +/- 14.8 nm, and 1.5% elliptical 38.4 +/- 11.6 nm. The CChAgNpFNc showed antimicrobial activity against Staphylococcus aureus, Escherichia coli, Enterococcus faecalis, Pseudomonas aeruginosa and Candida albicans, by microdilution technique. The influence on the growth of microorganisms was evaluated using a fluorescence assay, and showed an increasing lag phase and a decreasing log phase. Cytotoxicity was investigated using Artemia salina and MTT assays. The S3 and S4 samples exhibited low cytotoxicity. The S1 and S2 samples inhibited murine macrophages and revealed lethal dose concentrations above 1000 mg/mL that were classified as moderately toxic."

According to the news editors, the research concluded: "Thus, CChAgNpFNc are potential options for the control of multiple-drug-resistant microorganisms and do not represent substantial risks to human health."


The news editors report that additional information may be obtained by contacting T.C.M. Stamford, Federal University of Pernambuco, BR-50670901 Recife, PE, Brazil. Additional authors for this research include A.J.R. Albuquerque, I.A.P. Farias, T.G. da Silva, J.S. Aguiar, A. Galembeck, M.A.P. Flores, F.C. Sampiao, T.C.M. Stamford and A. Rosenblatt.

Keywords for this news article include: Recife, Brazil, South America, Emerging Technologies, Drugs and Therapies, Hydrofluoric Acid, Antimicrobials, Nanotechnology, Nanocomposite, nanoparticle, Fluorides, Anions, Federal University.

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Studies from Federal University Further Understanding of Pharmacology (Design, synthesis and pharmacological evaluation of new anti-inflammatory compounds)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Pharmacology. According to news reporting originating in Goiania, Brazil by NewsRx journalists, research stated, "Inflammatory diseases and pain are among the main problems that significantly influence the lifestyle of millions of people and existing therapies are not always effective and can cause several adverse effects. In this context, the molecular modifications or synthesis of compounds continue being the best strategies for the identification of new compounds for the treatment of pain and inflammation."

Financial supporters for this research include CNPq, CAPES.

The news reporters obtained a quote from the research from Federal University, "The aim of this study was to evaluate the analgesic and anti-inflammatory activities of new analogues of pyrazole compounds containing subunits N-phenyl-1-H-pirazoles and 1,3,4-oxadiazole-2(3H)-thione, LQFM-146, LQFM-147 and LQFM-148. In the acetic acid-induced abdominal writhing test, treatments with LQFM146, LQFM-147 or LQFM-148 at doses 89, 178 and 356 nmol/kg p.o. reduced the abdominal writhing in a dose-dependent manner. In the formalin test, these compounds at dose 178 nmol/kg p.o. reduced the licking time only in inflammatory phase of this test, suggesting an antinociceptive effect dependent of the anti-inflammatory effect. The treatment with the three compounds in intermediate dose (178 μmol/kg p.o.) reduced the edema at all tested time points in the carrageenan-induced paw edema test and reduced polymorphonuclears cell migration, activity myeloperoxidase and TNF-alpha levels in the carrageenan-induced pleurisy test."

According to the news reporters, the research concluded: "Our data suggest that the new compounds LQFM-146, LQFM-147 and LQFM-148 possess satisfactory anti-inflammatory and antinociceptive effects that involves the reduction of pro-inflammatory cytokines and inhibition of the myeloperoxidase enzyme."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.08.033. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Goiania, Brazil, South America, Enzymes and Coenzymes, Myeloperoxidase, Pharmacology, Therapy, Federal University.

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Heart Disorders and Diseases - Tachycardia

Studies from Federal University Have Provided New Data on Tachycardia (Diagnostic Accuracy of Several Electrocardiographic Criteria for the Prediction of Atrioventricular Nodal Reentrant Tachycardia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Tachycardia is the subject of a report. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Atrioventricular nodal reentrant tachycardia (AVNRT) is the most common form of paroxysmal supraventricular tachycardia (SVT) whose diagnosis can be strongly suspected based on the surface electrocardiogram alone. The purpose of this study is to determine the diagnostic accuracy of several electrocardiographic (ECG) criteria for the prediction of AVNRT."

Our news journalists obtained a quote from the research from Federal University, "Between November 2010 and January 2014, a total of 256 patients who underwent electrophysiological testing (EP) with regular, paroxysmal and narrow QRS complex tachycardia were prospectively enrolled. We classified the ECG recordings during tachycardia for the presence of the following criteria: a) classical ECG findings of pseudo S wave in inferior leads and/or pseudo r' wave in lead V1, b) notch in lead aVL, c) no retrograde P waves visible during tachycardia; d) pseudo r' wave in lead aVR, e) notch in lead D1, f) any deflection after 100 ms of the QRS complex during tachycardia. On multivariate analysis, independent predictors of AVNRT diagnosis were female sex (OR 4.17; 95% CI [2.11-8.24]; p< 0.001), age > 60 years (OR 3.53; 95% CI [1.25-9.96]; p = 0.017) and the classical ECG criteria (OR 7.41; 95% CI [3.62-15.17]; p< 0.001). Female, age > 60 years and the classical ECG criteria were the independent predictors of AVNRT diagnosis."

According to the news editors, the research concluded: "Although several of the ECG criteria for AVNRT diagnosis showed acceptable sensitivities and specificities, they do not improve its accuracy."

For more information on this research see: Diagnostic Accuracy of Several Electrocardiographic Criteria for the Prediction of Atrioventricular Nodal Reentrant Tachycardia. Archives of Medical Research, 2016;47(5):394-400. Archives of Medical Research can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Archives of Medical Research - www.journals.elsevier.com/archives-of-medical-research/)

The news correspondents report that additional information may be obtained from J.F. Medeiros, Federal University of Sao Paulo, UNIFESP, Dept. of Cardiol, Sao Paulo, Brazil. Additional authors for this research include F.M. Nardo-Botelho, L.C. Felix-Bernardes, L. Hollanda-Oliveira, L.B. de Oliveira-Alves, E. Lucia-Coutinho, C. Dietrich, A. Caixeta, J.M. Almeida-de-Sousa, A. Carlos-Carvalho, C. Cirenza and A.A. Vicenzo-De-Paola.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arcmed.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, Heart Disorders and Diseases, Cardiac Arrhythmias, Cardiovascular, Heart Disease, Tachycardia, Cardiology, Federal University.
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Nutritional and Metabolic Diseases and Conditions –…

Studies from Federal University Provide New Data on Obesity (Food insecurity, overweight and obesity among low-income African-American families in Baltimore City: associations with food-related perceptions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Obesity is now available. According to news originating from Santos, Brazil, by NewsRx correspondents, research stated, "To examine associations between food insecurity, excess body weight, psychosocial factors and food behaviours among low-income African-American families. Cross-sectional survey of participants in the baseline evaluation of the B'More Healthy Communities for Kids (BHCK) obesity prevention trial."

Our news journalists obtained a quote from the research from Federal University, "We collected data on socio-economic factors, food source destinations, acquiring food, preparation methods, psychosocial factors, beliefs and attitudes, participation in food assistance programmes, anthropometry and food security. We used principal component analysis to identify patterns of food source destinations and logistic regression to examine associations. Fourteen low-income, predominantly African-American neighbourhoods in Baltimore City, MD, USA. Two hundred and ninety-eight adult caregiver-child (10-14 years old) dyads. Of households, 41.6 % had some level of food insecurity and 12.4% experienced some level of hunger. Food-insecure participants with hunger were significantly more likely to be unemployed and to have lower incomes. We found high rates of excess body weight (overweight and obesity) among adults and children (82.8 % and 37.9 % among food insecure without hunger, 89.2 % and 45.9 % among food insecure with hunger, respectively), although there were no significant differences by food security status. Food source usage patterns, food acquisition, preparation, knowledge, self-efficacy and intentions did not differ by food security. Food security was associated with perceptions that healthy foods are affordable and convenient. Greater caregiver body satisfaction was associated with food insecurity and excess body weight. In this setting, obesity and food insecurity are major problems."

According to the news editors, the research concluded: "For many food-insecure families, perceptions of healthy foods may serve as additional barriers to their purchase and consumption."


The news correspondents report that additional information may be obtained from G.M. Vedovato, Federal University of Sao Paulo, Hlth & Soc Inst, BR-11015020 Santos, SP, Brazil. Additional authors for this research include P.J. Surkan, J. Jones-Smith, E.A. Steeves, E. Han, A.C.B. Trude, A.Y. Kharmats and J. Gittelsohn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S1368980015002888. This DOI is a link to an online electronic
Studies from Federal University Reveal New Findings on Bone Research (Bone Marrow-Derived Cells as a Therapeutic Approach to Optic Nerve Diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Bone Research. According to news originating from Rio de Janeiro, Brazil, by NewsRx correspondents, research stated, "Following optic nerve injury associated with acute or progressive diseases, retinal ganglion cells (RGCs) of adult mammals degenerate and undergo apoptosis. These diseases have limited therapeutic options, due to the low inherent capacity of RGCs to regenerate and due to the inhibitory milieu of the central nervous system."

Financial supporters for this research include Conselho Nacional de Desenvolvimento Cientifico e Tecnologico, Fundacao Carlos Chagas Filho de Amparo a Pesquisa do Estado do Rio de Janeiro, Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior, Departamento de Ciencia e Tecnologia do Ministerio da Saude.

Our news journalists obtained a quote from the research from Federal University, "Among the numerous treatment approaches investigated to stimulate neuronal survival and axonal extension, cell transplantation emerges as a promising option. This review focuses on cell therapies with bone marrow mononuclear cells and bone marrow-derived mesenchymal stem cells, which have shown positive therapeutic effects in animal models of optic neuropathies. Different aspects of available preclinical studies are analyzed, including cell distribution, potential doses, routes of administration, and mechanisms of action."

According to the news editors, the research concluded: "Finally, published and ongoing clinical trials are summarized."

For more information on this research see: Bone Marrow-Derived Cells as a Therapeutic Approach to Optic Nerve Diseases. Stem Cells International, 2015;2016():5078619. (Hindawi Publishing - www.hindawi.com; Stem Cells International - www.hindawi.com/journals/sci/)

The news correspondents report that additional information may be obtained from L.A. Mesentier-Louro, Instituto de Biofisica Carlos Chagas Filho, Universidade Federal do Rio de Janeiro, 21941-902 Rio de Janeiro, RJ, Brazil. Additional authors for this research include C. Zaverucha-do-Valle, P.H. Rosado-de-Castro, A.J. Silva-Junior, P.M. Pimentel-Coelho, R. Mendez-Otero and M.F Santiago.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/5078619. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Bone Marrow, South America, Bone Research, Immune System, Rio de Janeiro, Article Review.
Studies from Federal University Update Current Data on Pharmacology (Phytochemistry Profile, Nutritional Properties and Pharmacological Activities of Mauritia flexuosa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Pharmacology is now available. According to news reporting originating from Piaui, Brazil, by NewsRx correspondents, research stated, "Mauritia flexuosa L. (Arecaceae) is a popular Brazilian fruit known as 'buriti' and belonging to the category of functional foods. This work reviewed the phytochemistry profile, nutritional and pharmacological activities of M. flexuosa."

Our news editors obtained a quote from the research from Federal University, "The main bioactive compounds reported to buriti were carotenoids, tocopherols, ascorbic acid, phenolic compounds, fiber, phytosterols, and mono- and poly-unsaturated fatty acids. These compounds were mainly related to antioxidant, hypolipemiant, photoprotector, antiaggregant, antithrombotic, anti-inflammatory, hypoglycemiant, antimicrobial, and antitumor activities. Furthermore, some compounds present in buriti fruit and its properties were tested in vitro and in vivo and showed biotechnology applications, especially for extraction of fiber, polysaccharides, pigments, antioxidants, and oil."

According to the news editors, the research concluded: "However, the buriti fruit shows great relevance to the development of new products in food, pharmaceutical and chemical industry, this fruit is still underexploited and it has need to expand its production chain and processing to encourage their consumption and utilization."


Keywords for this news article include: Piaui, Brazil, South America, Phytochemistry, Pharmacology, Chemistry, Therapy, Federal University.

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Flavivirus

Studies from Federal University Yield New Data on Flavivirus (The flavivirus capsid protein: Structure, function and perspectives towards drug design)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Flavivirus have been published. According to news originating from Rio de Janeiro, Brazil, by NewsRx correspondents, research stated, "Flaviviruses, such as dengue and zika viruses, are etiologic agents transmitted to humans mainly by arthropods and are of great epidemiological interest. The flavivirus capsid protein is a structural element required for the viral nucleocapsid assembly that presents the classical function of sheltering the viral genome."

Our news journalists obtained a quote from the research from Federal University, "After decades of research, many reports have shown its different functionalities and influence over cell normal functioning. The subcellular distribution of this protein, which involves accumulation around lipid droplets and nuclear localization, also corroborates with its multi-functional characteristic. As flavivirus diseases are still in need of global control and in view of the possible key functionalities that the capsid protein promotes over flavivirus biology, novel considerations arise towards anti-flavivirus drug research."

According to the news editors, the research concluded: "This review covers the main aspects concerning structural and functional features of the flavivirus C protein, ultimately, highlighting prospects in drug discovery based on this viral target."

For more information on this research see: The flavivirus capsid protein: Structure, function and perspectives towards drug design. Virus Research, 2017;227():115-123. Virus Research can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Virus Research - www.journals.elsevier.com/virus-research/)

The news correspondents report that additional information may be obtained from E.R.A. Oliveira, Federal University of Rio de Janeiro, Inst Quim Organ, Lab Modelagem Mol, Rio De Janeiro, RJ, Brazil. Additional authors for this research include R. Mohana-Borges, R.B. de Alencastro and B.A.C. Horta.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.virusres.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rio de Janeiro, Brazil, South America, Proteomics, Epidemiology, Nucleocapsid Proteins, Drugs and Therapies, Protein Structure, Drug Development, Viral Proteins, Flaviviridae, RNA Viruses, Flavivirus, Virology, Genetics, Virion, Federal University.

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Studies from Federal University Yield New Data on Prolactinoma (Whole-exome identifies RXRG and TH germline variants in familial isolated prolactinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Endocrine System Diseases and Conditions - Prolactinoma are presented in a new report. According to news originating from Belo Horizonte, Brazil, by NewsRx correspondents, research stated, "Familial isolated pituitary adenoma (FIPA) is a rare genetic disorder. In a subset of FIPA families AIP germline mutations have been reported, but in most FIPA cases the exact genetic defect remains unknown."

Our news journalists obtained a quote from the research from Federal University, "The present study aimed to determine the genetic basis of FIPA in a Brazilian family. Three siblings presented with isolated prolactin genes. Further mutation screening was performed using whole-exome sequencing and all likely causative mutations were validated by Sanger sequencing. In silico analysis and secreting pituitary adenoma diagnosed through clinical, biochemical and imaging testing. Sanger sequencing was used to genotype candidate prolactinoma-mutated additional predictive algorithms were applied to prioritize likely pathogenic variants. No mutations in the coding and flanking intronic regions in the MEN1, AIP and PRLR genes were detected. Whole-exome sequencing of three affected siblings revealed novel, predicted damaging, heterozygous variants in three different genes: RXRG, REXO4 and TH."

According to the news editors, the research concluded: "The RXRG and TH possibly pathogenic variants may be associated with isolated prolactinoma in the studied family. The possible contribution of these genes to additional FIPA families should be explored."


The news correspondents report that additional information may be obtained from L. De Marco, Federal University of Minas Gerais, Dept. of Surg, Belo Horizonte, MG, Brazil. Additional authors for this research include P.P. Couto, A.E. Bale, L. Bastos-Rodrigues, F.M. Passos, R.G.C. Lisboa, J.M.Y. Ng, T. Curran, E.P. Dias, E. Friedman and L. De Marco.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.05.065. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belo Horizonte, Brazil, South America, Endocrine System Diseases and Conditions, Genetics, Central Nervous System Diseases and Conditions, Hypothalamic Diseases and Conditions, Pituitary Diseases and Conditions, Brain Diseases and Conditions, Endocrine Gland Neoplasms, Pituitary Neoplasms, Endocrinology, Prolactinoma, Federal University.

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Biotechnology - Pharmacogenomics

Studies from Federal University in the Area of Pharmacogenomics Reported (NAT2 gene diversity and its evolutionary trajectory in the Americas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biotechnology - Pharmacogenomics have been presented. According to news reporting out of Porto Alegre, Brazil, by NewsRx editors, research stated, "N-acetyltransferase 2 (NAT2) is responsible for metabolizing xenobiotics; NAT2 polymorphisms lead to three phenotypes: rapid, intermediate and slow acetylators. We aimed to investigate NAT2 diversity in Native Americans."

Our news journalists obtained a quote from the research from Federal University, "NAT2 exon 2 was sequenced for 286 individuals from 21 populations (Native American and American Mestizos). Excluding the basal/rapid haplotype NAT2*4, the most frequent haplotypes are NAT2*5B (35.95%) in hunter-gatherers and NAT2*7B (20.61%) and NAT2*5B (19.08%) in agriculturalists that were related to the slow phenotype. A new haplotype was identified in two Amerindians. Data from the similar to 44 kb region surrounding NAT2 in 819 individuals from Africa, East-Asia, Europe and America were used in additional analyses."

According to the news editors, the research concluded: "No significant differences in the acetylator NAT2 haplotype and phenotype distributions were found between Native American populations practicing farming and/or herding and those practicing hunting and gathering, probably because of the absence or weakness of selection pressures and presence of demographic and random processes preventing detection of any selection signal."

For more information on this research see: NAT2 gene diversity and its evolutionary trajectory in the Americas. Pharmacogenomics Journal, 2016;16(6):559-565. Pharmacogenomics Journal can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Pharmacogenomics Journal - www.nature.com/tpj/)

Our news journalists report that additional information may be obtained by contacting M.C. Bortolini, Univ Fed Rio Grande do Sul, Dept. of Genet, Lab Eveluciao Humana & Mol, Porto Alegre, RS, Brazil. Additional authors for this research include V. Ramallo, V. Paixao-Cortes, V. Acuna-Alonzo, D.A. Demarchi, J.R.S. Sandoval, A. Granara, F.M. Salzano, T. Hunemeier and M.C. Bortolini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/tpj.2015.72. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Porto Alegre, Brazil, South America, Pharmacogenomics, Biotechnology, Genetics, Federal University.

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Hela Cells

Studies from First Hospital Yield New Data on Hela Cells (Construction and analysis of the regulatory network disturbed by the silenced Sp1 transcription factor in HeLa cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hela Cells is the subject of a report. According to news reporting originating from Taiyuan, People's Republic of China, by NewsRx correspondents, research stated, "The objective of our study was to explore the characteristics of the regulatory network after siRNA-Sp1 (Specificity Protein 1) treatment in HeLa cells through the regulation network construction with bioinformatics methods. Using GSE37935 datasets downloaded from Gene Expression Omnibus data, the differentially expressed genes (DEGs) were screened out by the limma package in R software."

Our news editors obtained a quote from the research from First Hospital, "Combining the DEGs with the data from the microRNA (miRNA) databases and transcription factor databases, an integrated regulatory network was established with Cytoscape. Then the motifs in the network were examined by FANMOD. A total of 708 DEGs were screened, and a regulatory network consisting of 585 nodes and 1070 edges was constructed. By analyzing the two modules extracted from the network, we found that the most significant biological processes were cell cycle and apoptosis, some significant DEGs among them were CDKN1A, CUL5, and EGFR. The Kyoto Encyclopedia of Genes and Genomes (KEGG) pathway analysis discovered that DEGs, including EGFR, CDKN1A, RRM2B, and GADD45B, were significantly enriched in glioma pathway and p53 signaling pathway. While Sp1 was silenced by siRNA, the regulatory network in HeLa cells changed a lot."

According to the news editors, the research concluded: "Genes related to cell cycle and apoptosis in the cell nucleus were dysregulated and the p53 signaling pathway was disturbed."

For more information on this research see: Construction and analysis of the regulatory network disturbed by the silenced Sp1 transcription factor in HeLa cells. *Journal of Cancer Research and Therapeutics*, 2015;11(4):887-92.

The news editors report that additional information may be obtained by contacting L. Yu, Dept. of Gynecology, First Hospital of Shanxi Medical University, Yingze, Taiyuan, Shanxi Province, People's Republic of China. Additional authors for this research include L. Yu, L. Li and M. Wei.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.140811. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Taiyuan, Genetics, Proteins, p53 Gene, Hela Cells, Transcription Factors, People's Republic of China.

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Pharmacogenetics

Studies from Food and Drug Administration Have Provided New Data on Pharmacogenetics (Clinical and regulatory considerations in pharmacogenetic testing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Pharmacogenetics. According to news reporting from Silver Spring, Maryland, by NewsRx journalists, research stated, "Both regulatory science and clinical practice rely on best available scientific data to guide decision-making. However, changes in clinical practice may be driven by numerous other factors such as cost."

The news correspondents obtained a quote from the research from Food and Drug Administration, "In this review, we reexamine noteworthy examples where pharmacogenetic testing information was added to drug labeling to explore how the available evidence, potential public health impact, and predictive utility of each pharmacogenetic biomarker impacts clinical uptake. Advances in the field of pharmacogenetics have led to new discoveries about the genetic basis for variability in drug response. The Food and Drug Administration recognizes the value of pharmacogenetic testing strategies and has been proactive about incorporating pharmacogenetic information into the labeling of both new drugs and drugs already on the market. Although some examples have readily translated to routine clinical practice, clinical uptake of genetic testing for many drugs has been limited."

According to the news reporters, the research concluded: "Both regulatory science and clinical practice rely on data driven approaches to guide decision making; however, additional factors are also important in clinical practice that do not impact regulatory decision making, and these considerations may result in heterogeneity in clinical uptake of pharmacogenetic testing."

For more information on this research see: Clinical and regulatory considerations in pharmacogenetic testing. American Journal of Health-System Pharmacy, 2016;73(23):1999-2006. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting R.N. Schuck, Food & Drug Administration, Off Translat Sci, Center Drug Evaluat & Res, Silver Spring, MD 20993, United States. Additional authors for this research include E. Marek, H. Rogers and M. Pacanowski.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp160476. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Silver Spring, Maryland, United States, North and Central America, Pharmacogenetics, Pharmaceuticals, Genetics, Food and Drug Administration.

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Immunization - Vaccines

Studies from Food and Drug Administration Have Provided New Data on Vaccines (Human antibody repertoire after VSV-Ebola vaccination identifies novel targets and virus-neutralizing IgM antibodies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immunization - Vaccines. According to news originating from Silver Spring, Maryland, by NewsRx correspondents, research stated, "Development of an effective vaccine against Ebola virus is of high priority. However, knowledge about potential correlates of protection and the durability of immune response after vaccination is limited."

Our news journalists obtained a quote from the research from Food and Drug Administration, "Here, we elucidate the human antibody repertoire after administration of vesicular stomatitis virus (VSV)-Ebola vaccine at 3 million, 20 million and 100 million plaque-forming units (PFU) and homologous VSV-Ebola vaccine boost in healthy adult volunteers. Whole genome-fragment phage display libraries, expressing linear and conformational epitopes of Ebola glycoprotein (GP), showed higher diversity of antibody epitopes in individuals vaccinated with 20 million PFU than in those vaccinated with 3 million or 100 million PFU. Surface plasmon resonance kinetics showed higher levels of GP-binding antibodies after a single vaccination with 20 million or 100 million PFU than with 3 million PFU, and these correlated strongly with neutralization titers. A second vaccination did not boost antibody or virus neutralization titers, which declined rapidly, and induced only minimal antibody affinity maturation. Isotype analysis revealed a predominant IgM response even after the second vaccination, which contributed substantially to virus neutralization in vitro."

According to the news editors, the research concluded: "These findings may help identify new vaccine targets and aid development and evaluation of effective countermeasures against Ebola."

For more information on this research see: Human antibody repertoire after VSV-Ebola vaccination identifies novel targets and virus-neutralizing IgM antibodies. Nature Medicine, 2016;22(12):1439-1447,106. Nature Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/nm/)

The news correspondents report that additional information may be obtained from S. Khurana, Food & Drug Administration, Div Viral Prod, CBER, Silver Spring, MD 20993, United States. Additional authors for this research include S. Fuentes, E.M. Coyle, S. Ravichandran, R.T. Davey and J.H. Beigel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4201. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Silver Spring, Maryland, United States, North and Central America, Biological Products, Immunoglobulins, Blood Proteins, Public Health, Immunization, Vaccination, Immunology, Antibodies, Vaccines, Genetics, Food and Drug Administration.

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Drugs and Therapies - Immunotherapy

Studies from Food and Drug Administration in the Area of Immunotherapy Described (Role of Clinical Pharmacology in the Development and Approval of Immunotherapies Targeting Immune Checkpoints)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Immunotherapy. According to news reporting originating in Silver Spring, Maryland, by NewsRx editors, the research stated, "Immune surveillance plays a critical role in preventing the development and progression of cancer. Immune modulators, such as interferon-gamma or interleukin-2, have been a part of the cancer treatment armament over the past few decades."

The news reporters obtained a quote from the research from Food and Drug Administration, "However, new understandings regarding the role of the costimulatory and coinhibitory molecules associated with T-cells and antigen-presenting cells as well as tumor necrosis factor receptors and ligands have ushered the new era of immunotherapy for cancer treatment. We now know that primary cancer cells evade screening by the innate immune system, proliferate, and form metastases by upregulating immune inhibitory pathways referred to as immune checkpoints. The recent development of therapies that target immune checkpoints, such as cytotoxic T lymphocyte antigen 4, programmed cell death 1, programmed cell death ligand 1, indoleamine 2,3-dioxygenase, T-cell immunoglobulin and mucin domain 3, and lymphocyte activation gene 3 precisely target the immune system and give new hope for treating various types of cancer. In select marker-enriched populations, immunotherapies provide high response rates as well as durable responses in terms of progression-free survival and overall survival."

According to the news reporters, the research concluded: "Numerous factors, such as patient's immune system, the expression of targets on both immune and cancer cells, maintenance of an effective drug exposure, and tolerability to these agents may play a role in this unique observation."

For more information on this research see: Role of Clinical Pharmacology in the Development and Approval of Immunotherapies Targeting Immune Checkpoints. Clinical Pharmacology & Therapeutics, 2016;100(6):591-593. Clinical Pharmacology & Therapeutics can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Clinical Pharmacology & Therapeutics - www.nature.com/clpt/)

Our news correspondents report that additional information may be obtained by contacting A. Rahman, Food & Drug Administration, NAM Atiqr Rahman, Silver Spring, MD 20993, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cpt.440. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Silver Spring, Maryland, United States, North and Central America, Pharmacology, Epidemiology, Hemic and Immune Systems, Drugs and Therapies, Pharmaceuticals, Immunotherapy, Immunology, Oncology, Cancer, Food and Drug Administration.

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Acupuncture Therapy

Studies from Fourth Military Medical University Add New Findings in the Area of Acupuncture Therapy (Electroacupuncture enhances rehabilitation through miR-181b targeting PirB after ischemic stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Acupuncture Therapy is the subject of a report. According to news reporting originating from Xi’an, People's Republic of China, by NewsRx correspondents, research stated, "Recent studies have demonstrated microRNAs (miRNAs) and proteins are beneficial to axon regeneration, which may be involved in Electroacupuncture (EA) therapy against stroke. In this study, we aimed to determine the pivotal role of PirB in EA-produced rehabilitation against ischemic stroke; and to screen and investigate the potential miRNAs directly regulating PirB expression."

Our news editors obtained a quote from the research from Fourth Military Medical University, "The results showed EA treatment enhanced axon regeneration and new projections from the corticospinal tract at 28 d after cerebral ischemic reperfusion injury of rats. Then, we found EA decreased pirb mRNA and PirB protein expression in the penumbra within 28 days after reperfusion. The reduction of PirB expression facilitated neurite outgrowth after oxygen-glucose deprivation injury. The miRNA microarray showed the level of twenty kinds of miRNAs changed in the penumbra after EA administration. The bioinformatics study and luciferase assay verified miR-181b directly regulated pirb mRNA expression. EA increased miR-181b levels in the penumbras, and improved neurobehavioral function rehabilitation through miR-181b direct targeting of pirb mRNA to regulate the expression of PirB, RhoA and GAP43."

According to the news editors, the research concluded: "We provide the first evidence that EA enhances rehabilitation against stroke by regulating epigenetic changes to directly act on its targets, such as the miR-181b/PirB/RhoA/GAP43 axis, which is a novel mechanism of EA therapy."


The news editors report that additional information may be obtained by contacting Q. Wang, Fourth Military Medical University, Xijing Hosp, Dept. of Anesthesiol, Xian 710032, People's Republic of China. Additional authors for this research include F.H. Bai, H. Zhou, D.D. Zhou, Z. Ma, L.Z. Xiong and Q. Wang.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Electric Stimulation Therapy, Combined Modality Therapy, Transfusion Medicine, Drugs and Therapies, Acupuncture Therapy, Electroacupuncture, Blood Transfusion, Medical Devices, Rehabilitation, Reperfusion, Genetics, Fourth Military Medical University.

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Studies from Fourth Military Medical University Yield New Data on Hyperalgesia (Effects of Ginkgo Biloba Extract EGb-761 on Neuropathic Pain in Mice: Involvement of Opioid System)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nervous System Diseases and Conditions - Hyperalgesia. According to news reporting originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "Neuropathic pain is considered as one of the most difficult types of pain to manage with conventional analgesics. EGb-761 is extracted from leaves of Ginkgo biloba and has analgesia and anti-inflammatory properties."

Our news editors obtained a quote from the research from Fourth Military Medical University, "This study aimed to examine the effect of EGb-761 on chronic constriction injury (CCI)-induced neuropathic pain behaviors, including thermal hyperalgesia and mechanical allodynia, and to explore the possible mechanisms underlying this action. To this end, CCI mice were intraperitoneally injected with EGb-761 (10, 20, 40, and 80 mg/kg), and thermal hyperalgesia, mechanical allodynia, cytokines, and mu-opioid receptor expression were measured. EGb-761 attenuated thermal hyperalgesia and mechanical allodynia dose-dependently and the best delivery time window was from day 7 to day 14 after CCI. Additionally, EGb-761 treatment significantly decreased pro-inflammatory cytokines and enhanced mu opioid receptor (MOR) expression in the sciatic nerve. Moreover, the opioid antagonist naloxone prevented the effect of EGb-761 on thermal hyperalgesia and mechanical allodynia but did not influence the effect of EGb-761 on inflammatory cytokines."

According to the news editors, the research concluded: "This study suggests that the potential of EGb-761 as a new analgesic for neuropathic pain treatment, and opioid system may be involved in the EGb-761-induced attenuation of thermal hyperalgesia and mechanical allodynia."


The news editors report that additional information may be obtained by contacting Z.X. Ye, Fourth Military Medical University, Xijing Hosp, Inst Orthopaed, Xian 710032, Shaanxi Provinc, People's Republic of China. Additional authors for this research include W. Li, F. Xu, M. Li, L. Yang, X.Y. Hu, Z.X. Ye, Z. Wang and Z.J. Luo.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Nervous System Diseases and Conditions, Neurologic Manifestations, Somatosensory Disorders, Sensation Disorders, Membrane Proteins, Opiate Receptors, Opioid Receptors, Neuropathic Pain, Hyperalgesia, Neuropathy, Neurology, Cytokines, Fourth Military Medical University.

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Studies from French National Institute of Health and Medical Research (INSERM) Add New Findings in the Area of Cancer Therapy (Computational oncology--mathematical modelling of drug regimens for precision medicine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Cancer Therapy is the subject of a report. According to news reporting from Marseille, France, by NewsRx journalists, research stated, "Computational oncology is a generic term that encompasses any form of computer-based modelling relating to tumor biology and cancer therapy. Mathematical modelling can be used to probe the pharmacokinetics and pharmacodynamics relationships of the available anticancer agents in order to improve treatment."

The news correspondents obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "As a result of the ever-growing numbers of druggable molecular targets and possible drug combinations, obtaining an optimal toxicity-efficacy balance is an increasingly complex task. Consequently, standard empirical approaches to optimizing drug dosing and scheduling in patients are now of limited utility; mathematical modelling can substantially advance this practice through improved rationalization of therapeutic strategies. The implementation of mathematical modelling tools is an emerging trend, but remains largely insufficient to meet clinical needs; at the bedside, anticancer drugs continue to be prescribed and administered according to standard schedules. To shift the therapeutic paradigm towards personalized care, precision medicine in oncology requires powerful new resources for both researchers and clinicians. Mathematical modelling is an attractive approach that could help to refine treatment modalities at all phases of research and development, and in routine patient care."

According to the news reporters, the research concluded: "Reviewing preclinical and clinical examples, we highlight the current achievements and limitations with regard to computational modelling of drug regimens, and discuss the potential future implementation of this strategy to achieve precision medicine in oncology."


Our news journalists report that additional information may be obtained by contacting D. Barbolosi, SMARTe Unit, Aix Marseille Universite, INSERM, CRO2 UMR_S 911, Marseille 13005, France. Additional authors for this research include J. Ciccolini, B. Lacarelle, F. Barlesi and N. Andre.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrclinonc.2015.204. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: France, Europe, Oncology, Marseille, Article Review, Cancer Therapy, Drugs and Therapies.

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Oncology - Pancreatic Cancer

Studies from Fudan University Shanghai Cancer Center Yield New Information about Pancreatic Cancer [The clinical utility of CA125/MUC16 in pancreatic cancer: A consensus of diagnostic, prognostic and predictive updates by the Chinese Study Group ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Pancreatic Cancer are discussed in a new report. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "The prognosis for pancreatic cancer (PC) is poor; however, the timely and accurate treatment of this disease will significantly improve prognosis. Serum biomarkers involve non-invasive tests that facilitate the early detection of tumors, predict outcomes and assess responses to therapy, so that the patient can be continuously monitored and receive the most appropriate therapy."

Our news journalists obtained a quote from the research from Fudan University Shanghai Cancer Center, "Studies have reported that cancer antigen (CA)125 [also known as mucin 16 (MUC16)] has functional significance in the tumorigenic, metastatic and drug resistant properties of PC. Our aim was to use this biomarker in the diagnosis, detection of metastasis, prognosis and in the monitoring of the treatment effects of PC. Members of the Chinese Study Group for Pancreatic Cancer (CSPAC) reviewed the literature on CA125/MUC16 and developed an objective consensus on the clinical utility of CA125/MUC16 for PC. They confirmed the role of CA125/MUC16 in tumorigenesis and the progression of PC, and recommended monitoring CA125/MUC16 levels in all aspects of the diagnosis and treatment of PC, particularly those that involve the monitoring of treatments. In addition, they suggested that the combination of other biomarkers and imaging techniques, together with CA125/MUC16, would improve the accuracy of the clinical decision-making process, thereby facilitating the optimization of treatment strategies."

According to the news editors, the research concluded: "Periodic clinical updates of the use of CA125/MUC16 have been established, which are important for further analyses and comparisons of clinical results from affiliates and countries, particularly as regards the in-depth biological function and clinical translational research of this biomarker."


The news correspondents report that additional information may be obtained from L. Liu, Dept. of Pancreatic Surgery, Fudan University Shanghai Cancer Center, Shanghai, People's Republic of China. Additional authors for this research include J. Xiang, R. Chen, D. Fu, D. Hong, J. Hao, Y. Li, J. Li, S. Li, Y. Mou, G. Mai, Q. Ni, L. Peng, R. Qin, H. Qian, C. Shao, B. Sun, Y. Sun, M. Tao, B. Tian, H. Wang, J. Wang, L. Wang, W. Wang and W Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2015.3316. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shanghai, Oncology, Gastroenterology, Pancreatic Cancer, Pancreatic Neoplasms, Diagnostics and Screening, People's Republic of China.
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Genetics

Studies from Fudan University Yield New Information about Genetics (Gene expression profiling analysis of the role of miR-22 in clear cell ovarian cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Genetics are presented in a new report. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "This study aimed to investigate the role and potential mechanism of miR-22 in clear cell ovarian cancer (CCOC) progression. The gene expression profile of GSE16568, including 3 CCOC samples with miR-22 overexpression and 3 negative controls, was downloaded from the Gene Expression Omnibus database."

Our news editors obtained a quote from the research from Fudan University, "Differentially expressed genes (DEGs) were screened using the limma package in R. Gene Ontology (GO) and pathway enrichment analysis of DEGs were performed by using The Database for Annotation, Visualization and Integrated Discovery (DAVID). Furthermore, protein-protein interaction (PPI) network of the DEGs was constructed using the Search Tool for the Retrieval of Interacting Genes (STRING) database. Besides, the miR-22 -mRNA interaction pairs were predicted to explore the critical genes involved in the cancer. Totally, 95 up-regulated DEGs and 51 down-regulated DEGs were identified. The DEGs were enriched in different GO terms and pathways. The up-regulated genes cyclin-dependent kinases (CDK6), MDM2 oncogene, E3 ubiquitin protein ligase (MDM2), and thrombospondin 1 (THBSI) were involved in the p53 signaling pathway. The up-regulated gene FBJ murine osteosarcoma viral oncogene homolog (FOS) was a hub protein in the PPI network of the DEGs. The down-regulated DEGs including lymphoid enhancer-binding factor 1 (LEF1) and v-myb avian myeloblastosis viral oncogene homolog (MYB) were mainly associated with immunity. Nine DEGs as target genes were identified to be recognized by miR-22."

According to the news editors, the research concluded: "Our study suggested that several key genes such as CDK6, MDM2, LEF1, MYB, and FOS that involved in different pathways including p53 signaling pathway were associated with CCOC progression. miR-22 may play an essential role in cell migration and invasion in CCOC through targeting responsive genes."

For more information on this research see: Gene expression profiling analysis of the role of miR-22 in clear cell ovarian cancer. Neoplasma, 2016;63(6):856-864. Neoplasma can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

The news editors report that additional information may be obtained by contacting C.J. Xu, Fudan University, Obstet & Gynecol Hosp, Shanghai 200090, People's Republic of China. Additional authors for this research include X.L. Guo, B. Xu, H.W. Zhao and C.J. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4149/neo_2016_604. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Cancer, Genetics, Oncology, p53 Gene, Fudan University.
Oncology - Breast Cancer

Studies from Fujian Medical University Add New Findings in the Area of Breast Cancer (Upconversion luminescence assay for the detection of the vascular endothelial growth factor, a biomarker for breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news originating from Fujian, People's Republic of China, by NewsRx correspondents, research stated, "Upconversion nanoparticles (UCNPs) of the type alpha-NaYF4:Yb3+, Er3+ and a typical diameter of 6-7 nm were synthesized by thermal decomposition of the respective rare-earth stearate. The oleic acid on the surface of the UCNPs was then replaced by aptamer DNA."

Our news journalists obtained a quote from the research from Fujian Medical University, "The assay was performed in a microplate format with a capture probe immobilized in the wells. Following binding of the vascular endothelial growth factor (VEGF), an auxiliary probe DNA is added that is labeled with UCNPs and binds to the VEGF-loaded capture probe. The method enables highly sensitive and highly specific detection of the VEGF which is a marker for breast cancer. Under the optimum conditions, the intensity of the upconversion luminescence (at excitation/emission wavelengths of 980/541 nm) is linearly proportional to the VEGF concentration in the 50 pM to 2000 pM concentration range, with a 6 pM detection limit."

According to the news editors, the research concluded: "The method was applied to the determination of VEGF in spiked serum, typically at a 500 pM level, and gave recoveries that ranged from 98 to 113 %, with RSDs between 2.9 and 3.6 %. This makes it a viable tool for early diagnosis of breast cancer."

For more information on this research see: Upconversion luminescence assay for the detection of the vascular endothelial growth factor, a biomarker for breast cancer. Microchimica Acta, 2016;183(12):3201-3208. Microchimica Acta can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria. (Springer - www.springer.com; Microchimica Acta - www.springerlink.com/content/0026-3672/)

The news correspondents report that additional information may be obtained from J.H. Chen, Fujian Med Univ, Sch Pharm, Dept. of Pharmaceut Anal, Fuzhou 350108, Fujian, People's Republic of China. Additional authors for this research include L. Li, Y.X. Liu, L. Yan, C.Y. Li, J.H. Chen and X.S. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00604-016-1965-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fujian, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-Tyrosine Kinases, Growth Factor Receptors, Phosphotransferases, Angiogenic Proteins, Membrane Proteins, Protein Kinases, Women's Health, Breast Cancer, Oncology, Genetics, VEGF, Fujian Medical University.

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Studies from G. Carrick-Ranson et al in the Area of Clinical Trials and Studies Described (The effect of 1 year of Alagebrium and moderate-intensity exercise training on left ventricular function during exercise in seniors: a randomized ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news originating from Dallas, Texas, by NewsRx correspondents, research stated, "Sedentary aging leads to left ventricular (LV) and vascular stiffening due in part to advanced glycation end-products (AGEs) cross-linking of extracellular matrix proteins. Vigorous lifelong exercise ameliorates age-related cardiovascular (CV) stiffening and enhances exercise LV function, although this effect is limited when exercise is initiated later in life."

Financial support for this research came from National Institute of Health.

Our news journalists obtained a quote from the research, "We hypothesized that exercise training might be more effective at improving the impact of age-related CV stiffening during exercise when combined with an AGE cross-link breaker (Alagebrium). Sixty-two seniors (>= 60 yr) were randomized into four groups: sedentary + placebo, sedentary + Alagebrium, exercise + placebo, and exercise + Alagebrium for 1 yr. Moderate-intensity aerobic exercise was performed 3-4 sessions/wk; controls underwent similar frequency of yoga/balance training. Twenty-four similarly-aged, lifelong exercisers (4-5 sessions/wk) served as a comparator for the effect of lifelong exercise on exercising LV function. Oxygen uptake (Douglas bags), stroke index (SI; acetylene rebreathing), and effective arterial elastance (Ea) were collected at rest and submaximal and maximal exercise. Maximum O-2 uptake (23 +/- 5 to 25 +/- 6 ml.kg(-1).min(-1)) increased, while SI (35-11 to 39-12 ml/m(2)) and Ea (4.0-1.1 to 3.7 +/- 1.2 mmHg.ml(-1).m(-2)) were improved across all conditions with exercise, but remained unchanged in controls (exercise + time, P< 0.018). SI or Ea were not affected by Alagebrium (medication + time, P< 0.468) or its combination with exercise (interaction P< 0.252). After 1 yr of exercise plus Alagebrium, exercise SI and Ea remained substantially below that of lifelong exercisers (15-24 and 9-22%, respectively, P< 0.415)."

According to the news editors, the research concluded: "Alagebrium plus exercise had no synergistic effect on exercise LV function and failed to achieve levels associated with lifelong exercise, despite a similar exercise frequency."

For more information on this research see: The effect of 1 year of Alagebrium and moderate-intensity exercise training on left ventricular function during exercise in seniors: a randomized controlled trial. *Journal of Applied Physiology*, 2016;121(2):528-536. *Journal of Applied Physiology* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news correspondents report that additional information may be obtained from B.D. Levine, Texas Hlth Presbyterian, Inst Exercise & Environm Med, Dallas, TX, United States. Additional authors for this research include N. Fujimoto, K.M. Shafer, J.L. Hastings, S. Shibata, M.D. Palmer, K. Boyd and B.D. Levine.

The direct object identifier (DOI) for that additional information is:
Gram-Positive Bacteria - Clostridium difficile

Studies from G. Merlo and Colleagues Reveal New Findings on Clostridium difficile (Economic evaluation of fecal microbiota transplantation for the treatment of recurrent Clostridium difficile infection in Australia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Positive Bacteria - Clostridium difficile are presented in a new report. According to news reporting originating from Brisbane, Australia, by NewsRx correspondents, research stated, "Clostridium difficile is the most common cause of hospital-acquired diarrhea in Australia. In 2013, a randomized controlled trial demonstrated the effectiveness of fecal microbiota transplantation (FMT) for the treatment of recurrent Clostridium difficile infection (CDI)."

Our news editors obtained a quote from the research, "The aim of this study is to evaluate the cost-effectiveness of fecal microbiota transplantation-via either nasoduodenal or colorectal delivery-compared with vancomycin for the treatment of recurrent CDI in Australia. A Markov model was developed to compare the cost-effectiveness of fecal microbiota transplantation compared with standard antibiotic therapy. A literature review of clinical evidence informed the structure of the model and the choice of parameter values. Clinical effectiveness was measured in terms of quality-adjusted life years. Uncertainty in the model was explored using probabilistic sensitivity analysis. Both nasoduodenal and colorectal FMT resulted in improved quality of life and reduced cost compared with vancomycin. The incremental effectiveness of either FMT delivery compared with vancomycin was 1.2 (95% CI: 0.1, 2.3) quality-adjusted life years, or 1.4 (95% CI: 0.4, 2.4) life years saved. Treatment with vancomycin resulted in an increased cost of AU$4094 (95% CI: AU$26, AU$8161) compared with nasoduodenal delivery of FMT and AU$4045 (95% CI: -AU$33, AU$8124) compared with colorectal delivery. The mean difference in cost between colorectal and nasoduodenal FMT was not significant."

According to the news editors, the research concluded: "If FMT, rather than vancomycin, became standard care for recurrent CDI in Australia, the estimated national healthcare savings would be over AU$4000 per treated person, with a substantial increase in quality of life."

Oncology - Urothelial Cancer

Studies from G. Sonpavde and Colleagues Provide New Data on Urothelial Cancer (Impact of Prior Platinum-Based Therapy on Patients Receiving Salvage Systemic Treatment for Advanced Urothelial Carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Urothelial Cancer are discussed in a new report. According to news reporting originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "Prior platinum-versus non-platinum-based chemotherapy did not affect survival after controlling for major prognostic factors in patients receiving salvage systemic chemotherapy for advanced urothelial carcinoma. Exposure to prior platinum therapy should not be required for the inclusion of patients in trials of salvage systemic therapy."

Our news editors obtained a quote from the research, "Trials of salvage therapy for advanced urothelial carcinoma have required prior platinum-based therapy. This practice requires scrutiny because non-platinum-based first-line therapy may be offered to cisplatin-ineligible patients. Data of patients receiving salvage systemic chemotherapy were collected. Data on prior first-line platinum exposure were required in addition to treatment-free interval, hemoglobin, Eastern Cooperative Oncology Group performance status, albumin, and liver metastasis status. Cox proportional hazard regression was used to evaluate their association with overall survival (OS) after accounting for salvage single-agent or combination chemotherapy. Data were obtained from 455 patients previously exposed to platinum-based therapy and 37 not exposed to platinum. In the group exposed to prior platinum therapy, salvage therapy consisted of a single agent taxane (n = 184) or a taxane-containing combination chemotherapy (n = 271). In the group not exposed to prior platinum therapy, salvage therapy consisted of taxane or vinflunine (n = 20), 5-fluorouracil (n = 1), taxane-containing combination chemotherapy (n = 12), carboplatin-based combinations (n = 2), and cisplatin-based combinations (n = 2). The median OS for the prior platinum therapy group was 7.8 months (95% confidence interval, 7.0, 8.1), and for the group that had not received prior platinum therapy was 9.0 months (95% confidence interval, 6.0, 11.0; P = .50). In the multivariable analysis, prior platinum therapy versus no prior platinum exposure did not confer an independent impact on OS (hazard ratio, 1.10; 95% confidence interval, 0.75, 1.64; P = .62). Prior platinum-versus non-platinum-based chemotherapy did not have a prognostic impact on OS after accounting for major prognostic factors in patients receiving salvage systemic chemotherapy for advanced urothelial carcinoma."
According to the news editors, the research concluded: "Lack of prior platinum therapy should not disqualify patients from inclusion onto trials of salvage therapy."

For more information on this research see: Impact of Prior Platinum-Based Therapy on Patients Receiving Salvage Systemic Treatment for Advanced Urothelial Carcinoma. *Clinical Genitourinary Cancer*, 2016;14(6):494-498. *Clinical Genitourinary Cancer* can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA. (Elsevier - www.elsevier.com; Clinical Genitourinary Cancer - www.journals.elsevier.com/clinical-genitourinary-cancer/)


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Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Drugs and Therapies, Urothelial Cancer, Salvage Therapy, Chemotherapy, Carcinomas, Oncology.

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**Heart Disorders and Diseases - Heart Attack**

**Studies from G.A. Westphal and Co-Researchers Yield New Data on Heart Attack (The effect of brain death protocol duration on potential donor losses due to cardiac arrest)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Attack is now available. According to news reporting out of Joinville, Brazil, by NewsRx editors, research stated, "The severe inflammatory reaction that occurs after brain death (BD) tends to amplify over time, contributing to cardiovascular deterioration and occurrence of cardiac arrest (CA). Our purpose is to evaluate the effect of BD protocol duration (BDPD) on potential donor losses due to CA."

Our news journalists obtained a quote from the research, "This retrospective analysis included potential donors reported during the period from May 2012 to April 2014. The risk of losses due to CA was analyzed to identify the chronological threshold at which the probability of loss due to CA increases. Three hundred and eighty four potential donors were analyzed. There was a greater chance of CA after a 30 hour threshold (OR 1.67, 95% CI: 1.38-1.83), and the lowest risk of was identified for the range from 12 to 30 hours (OR 0.32, 95% CI: 0.19-0.52). Multivariate analysis identified the following variables as being associated with lower occurrence of CA: BDPD between 12 and 30 hours, management of a potential donor inside the intensive care unit, and the adherence to a goal directed protocol."

According to the news editors, the research concluded: "A long duration between the first clinical test for BD diagnosis and the procurement of organs may be an important risk factor for the occurrence of cardiac arrest in deceased potential donors."

Our news journalists report that additional information may be obtained by contacting G.A. Westphal, Univ Regiao Joinville, Joinville, SC, Brazil. Additional authors for this research include T.A. Slaviero, A. Montemezzo, G.T. Lingiardi, F.C.C. de Souza, T.C. Carnin, D.R. Soares, A.H. Hachiya, L.L. Ferraz and J. de Andrade.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12830. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Joinville, Brazil, South America, Central Nervous System Diseases and Conditions, Risk and Prevention, Neurobehavioral Manifestations, Brain Diseases and Conditions, Heart Disorders and Diseases, Neurologic Manifestations, Consciousness Disorders, Unconsciousness, Cardiac Arrest, Heart Attack, Brain Death, Cardiology, Coma.

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**Drugs and Therapies - Chemotherapy**

**Studies from G.Y. Lin and Co-Researchers Update Current Data on Chemotherapy (The Antimicrobial Peptides P-113Du and P-113Tri Function against Candida albicans)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Chemotherapy. According to news reporting originating from Hsinchu, Taiwan, by NewsRx correspondents, research stated, "Two antimicrobial P-113 peptide derivatives, P-113Du and P-113Tri, were investigated in this study."

Financial supporters for this research include General Biologicals Corporation, Ministry of Science and Technology, Taiwan (MOST).

Our news editors obtained a quote from the research, "Notably, P-113Du and P-113Tri contained significant fractions of alpha-helix conformation and were less sensitive to high salt and low pH than P-113. Moreover, compared to P-113, these peptides exhibited increased antifungal activity against planktonic cells, biofilm cells, and clinical isolates of Candida albicans and non-albicans Candida spp."

According to the news editors, the research concluded: "These results suggest that P-113Du and P-113Tri are promising candidates for development as novel antifungal agents."


The news editors report that additional information may be obtained by contacting W.C. Cheng, Gen Biol Corp, Hsinchu, Taiwan. Additional authors for this research include H.F.
Studies from Gabriele d'Annunzio University in the Area of Pharmaceutical Research Reported [Immobilization and delivery of biologically active Lipoxin A(4) using electrospinning technology]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Pharmaceutical Research are presented in a new report. According to news reporting originating in Chieti, Italy, by NewsRx journalists, research stated, "Lipoxin (LXA(4)) is a lipoxygenase-formed arachidonic acid metabolite with potent anti-inflammatory, pro-resolution properties. Its therapeutic efficacy has been largely demonstrated in a variety of cellular, preclinical and clinical models."

The news reporters obtained a quote from the research from Gabriele d'Annunzio University, "Among these, periodontal disease, where LXA(4) promotes tissue repair, also by modulating functions of human periodontal ligament stem cells (hPDLSCs). As medicated biomembranes may be particularly useful in clinical settings, where local stimulation of tissue repair is needed, we used electrospinning to embed LXA(4) in membranes made of poly (ethylene oxide) (PEO) and poly(D, L-lactide) (PDLLA). These membranes were fully characterized by scanning electron microscopy, differential scanning calorimetry and biocompatibility with hPDLSCs. Here, we report that LXA(4) is retained in these membranes and that similar to 15-20% of the total LXA(4) amount added to the reaction can be eluted from the membranes using an aqueous buffered medium. The eluted LXA(4) fully retained its capability to stimulate hPDLSC proliferation. A similar effect was obtained by adding directly the LXA(4)-containing membranes to cells."

According to the news reporters, the research concluded: "These results demonstrate for the first time that LXA(4) can be incorporated into biomembranes, which may be useful to combat local inflammation and promote tissue repair in selected clinical settings."


Our news correspondents report that additional information may be obtained by contacting M. Romano, G D'Annunzio Univ Chieti Pescara, Center Aging Sci & Translat Med CeSI MeT, Chieti, Italy. Additional authors for this research include O. Trubiani, F. Diomede, I. Merciaro, I. Meschini, P. Bruni, F. Croce and M. Romano.

Keywords for this news article include: Chieti, Italy, Europe, Pharmaceutical
Studies from Gachon University Add New Findings in the Area of Hypertriglyceridemia (Hypertriglyceridemia and Cardiovascular Diseases: Revisited)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Hypertriglyceridemia are presented in a new report. According to news originating from Incheon, South Korea, by NewsRx correspondents, research stated, "Residual cardiovascular risk and failure of high density lipoprotein cholesterol raising treatment have refocused interest on targeting hypertriglyceridemia. Hypertriglyceridemia, triglyceride-rich lipoproteins, and remnant cholesterol have demonstrated to be important risk factors for cardiovascular disease; this has been demonstrated in experimental, genetic, and epidemiological studies."

Our news journalists obtained a quote from the research from Gachon University, "Fibrates can reduce cardiovascular event rates with or without statins. High dose omega-3 fatty acids continue to be evaluated and new specialized targeting treatment modulating triglyceride pathways, such as inhibition of apolipoprotein C-III and angiopoietin-like proteins, are being tested with regard to their effects on lipid profiles and cardiovascular outcomes."

According to the news editors, the research concluded: "In this review, we will discuss the role of hypertriglyceridemia, triglyceride-rich lipoproteins and remnant cholesterol on cardiovascular disease, and the potential implications for treatment targeting hypertriglyceridemia."

For more information on this research see: Hypertriglyceridemia and Cardiovascular Diseases: Revisited. *Korean Circulation Journal*, 2016;46(2):135-44.

The news correspondents report that additional information may be obtained from S.H. Han, Dept. of Cardiology, Gachon University Gil Medical Center, Incheon, South Korea. Additional authors for this research include S.J. Nicholls, I. Sakuma, D. Zhao and K.K Koh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4070/kcj.2016.46.2.135. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Incheon, Genetics, Cardiology, South Korea, Epidemiology, Lipoproteins, Dyslipidemias, Article Review, Hyperlipidemias, Risk and Prevention, Hypertriglyceridemia, Lipid Metabolism Disorders, Cardiovascular Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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Immune System Diseases and Conditions - Severe...

Studies from Gadjah Mada University Have Provided New Data on Severe Combined Immunodeficiency (Follicular growth after xenotransplantation of cryopreserved/thawed human ovarian tissue in SCID mice: dynamics and molecular aspects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - Severe Combined Immunodeficiency. According to news originating from Yogyakarta, Indonesia, by NewsRx correspondents, research stated, "To study the influence of xenotransplantation on follicular recruitment and growth in cryopreserved/thawed human ovarian tissue. Two 3-mm pieces of cryopreserved/thawed human ovarian tissue obtained from female cancer patients (n = 11) were xenotransplanted into a subcutaneous neck pouch of 6-week-old ovariectomized SCID mice (n = 33) for 4 (n = 18) and 12 (n = 15) weeks."

Financial support for this research came from Tyrolean Research Foundation. Our news journalists obtained a quote from the research from Gadjah Mada University, "Thirty-two out of 33 mice survived the entire observation periods. Graft recovery rate was 95.58 % (65 of 68 grafts). The percentages of primordial follicles after 4 weeks (P < 0.001) and 12 weeks (P = 0.009) of grafting were significantly lower in comparison to pregraft controls. The percentage of secondary follicle was significantly higher after 4 weeks of grafting (P = 0.018) and after 12 weeks (P = 0.001) of grafting in comparison to pregraft controls. Ki67 immunohistochemistry showed that proliferative follicles were significantly higher after 4 and 12 weeks of grafting compared to pregraft controls (P < 0.001). All follicles analyzed by TUNEL staining appeared healthy after xenotransplantation. The expression level of PTEN was reduced by 2.47-fold after 4 weeks of xenotransplantation, and this result was significant when 2 (-Delta Ct) were analyzed (P = 0.042)."

According to the news editors, the research concluded: "The higher proportion of growing follicles compared to resting follicles observed after xenotransplantation is most likely due to downregulation of PTEN gene expression followed by acceleration of follicular recruitment."


The news correspondents report that additional information may be obtained from S. Ayuandari, Gadjah Mada Univ, Dept. of Obstet & Gynecol, Fac Med, Yogyakarta 55281, Indonesia. Additional authors for this research include K. Winkler-Crepaz, M. Paulitsch, C. Wagner, C. Zavadil, C. Manzl, S.C. Ziehr, L. Wildt and S. Hofer-Tollinger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0769-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yogyakarta, Indonesia, Asia, Immune System Diseases and Conditions, Severe Combined Immunodeficiency, Genetics, SCID, Gadjah Mada University.
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Biological Factors - Inflammation Mediators

Studies from Genentech, Inc. Further Understanding of Inflammation Mediators (G-rich DNA-induced stress response blocks type-I-IFN but not CXCL10 secretion in monocytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Biological Factors - Inflammation Mediators is now available. According to news reporting out of San Francisco, California, by NewsRx editors, research stated, "Excessive inflammation can cause damage to host cells and tissues. Thus, the secretion of inflammatory cytokines is tightly regulated at transcriptional, post-transcriptional and post-translational levels and influenced by cellular stress responses, such as endoplasmic reticulum (ER) stress or apoptosis."

Our news journalists obtained a quote from the research from Genentech, Inc., "Here, we describe a novel type of post-transcriptional regulation of the type-I-IFN response that was induced in monocytes by cytosolic transfection of a short immunomodulatory DNA (imDNA), a G-tetrad forming CpG-free derivative of the TLR9 agonist ODN2216. When co-transfected with cytosolic nucleic acid stimuli (DNA or 3P-dsRNA), imDNA induced caspase-3 activation, translational shutdown and upregulation of stress-induced genes. This stress response inhibited the type-I-IFN induction at the translational level. By contrast, the induction of most type-I-IFN-associated chemokines, including Chemokine (C-X-C Motif) Ligand (CXCL) 10 was not affected, suggesting a differential translational regulation of chemokines and type-I-IFN. Pan-caspase inhibitors could restore IFN-beta secretion, yet, strikingly, caspase inhibition did not restore global translation but instead induced a compensatory increase in the transcription of IFN-beta but not CXCL10."

According to the news editors, the research concluded: "Altogether, our data provide evidence for a differential regulation of cytokine release at both transcriptional and post-transcriptional levels which suppresses type-I-IFN induction yet allows for CXCL10 secretion during imDNA-induced cellular stress."

For more information on this research see: G-rich DNA-induced stress response blocks type-I-IFN but not CXCL10 secretion in monocytes. Scientific Reports, 2016;6():1-16. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting A.M. Herzner, Genentech Inc, OMNI Human Genet, San Francisco, CA 94080, United States. Additional authors for this research include S. Wolter, T. Zillinger, S. Schmitz, W. Barchet, G. Hartmann, E. Bartok and M. Schlee.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Mononuclear Phagocyte System, Hemic and Immune Systems, Mononuclear Leukocytes, Inflammation Mediators, Enzymes and Coenzymes, Biological Factors, Bone Marrow Cells, Cell Research, Myeloid Cells, DNA Research, Blood Cells, Immunology, Phagocytes, Chemokines, Monocytes, Genetics, Caspase, Genentech Inc.

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Parkinson's Disease

Studies from General Hospital Add New Findings in the Area of Parkinson's Disease (Oral Inosine Persistently Elevates Plasma antioxidant capacity in Parkinson's disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Parkinson's disease are discussed in a new report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Higher serum urate predicts slower progression in PD. The aim of this work was to assess whether oral inosine alters antioxidant capacity of plasma or CSF or urinary markers of oxidative injury in early PD."

Funders for this research include Michael J. Fox Foundation for Parkinson's Research, Department of Defense, Granite State Development, Harvard NeuroDiscovery Center.

Our news journalists obtained a quote from the research from General Hospital, "We assayed plasma and CSF antioxidant capacity by ferric-reducing antioxidant power and measured DNA oxidation adduct 8-hydroxydeoxyguanosine from urine in Safety of URate Elevation in PD, a randomized, placebo-controlled trial of oral inosine assessing safety of elevating serum urate from <6 mg/dL to 6.1-7.0 or 7.1-8.0 mg/dL in patients with early PD. At 6 months, antioxidant capacity was 29% higher among mild and 43% higher among moderate group participants compared to placebo and correlated with change in serum urate (r=0.86) and inversely with rate of clinical decline (r=-0.26). CSF antioxidant capacity and urine 8-hydroxydeoxyguanosine did not differ."

According to the news editors, the research concluded: "The findings demonstrate a dose-dependent, persistent elevation of plasma antioxidant capacity from oral inosine of potential therapeutic relevance."


The news correspondents report that additional information may be obtained from S. Bhattacharyya, Dept. of Neurology, Molecular Neurobiology Lab, Massachusetts General Hospital, Boston, Massachusetts, United States. Additional authors for this research include R. Bakshi, R. Logan, A. Ascherio, E.A. Macklin and M.A. Schwarzschild.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/mds.26483. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antioxidants, Antiretrovirals, Boston, Genetics, Massachusetts, United States, Protective Agents, Movement Disorders, Drugs and Therapies, Parkinson's Disease, Parkinsonian Disorders, North and Central America, Brain Diseases and Conditions, Basal Ganglia Diseases and Conditions, Neurodegenerative Diseases and Conditions.

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Chemistry - Clinical Biochemistry

Studies from General Hospital Further Understanding of Clinical Biochemistry (The evidence for clinically significant bias in plasma glucose between liquid and lyophilized citrate buffer additive)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Chemistry - Clinical Biochemistry is the subject of a report. According to news reporting originating from Pula, Croatia, by NewsRx correspondents, research stated, "Citrate buffer additive has been suggested to be of supreme performance in inhibiting glycolysis. However, there is little evidence in the literature regarding the comparability of glucose concentrations in liquid and lyophilized citrate buffer containing tubes."

Financial support for this research came from Ministry of Science, Education, and Sports, Republic of Croatia.

Our news editors obtained a quote from the research from General Hospital, "The aim of this study was to compare glucose concentrations in tubes containing liquid (Glucomedics) and lyophilized citrate buffer (Terumo VENOSAFE™ Glycemia) additive, measured immediately after centrifugation. Blood was collected from forty volunteers into both Glucomedics and Venosafe Glycemia tubes. Blood was centrifuged within 15 min from venipuncture and glucose concentration was measured immediately after centrifugation, on the Abbott Architect analyzer. Differences between glucose concentrations in Glucomedics and Terumo tubes were tested using the paired t-test. Mean bias was calculated and compared to recommended quality specification for glucose (i.e. 2.2%). Glucose concentration in Terumo tubes was 3.4% lower than in Glucomedics tubes (P < 0.001). The mean bias was clinically significant. There is a clinically significant difference between glucose concentrations in liquid and lyophilized citrate buffer additive tubes (Glucomedics vs. Terumo tubes) measured immediately after centrifugation."

According to the news editors, the research concluded: "This difference may affect the patient outcome due to the misclassification of diabetes."

For more information on this research see: The evidence for clinically significant bias in plasma glucose between liquid and lyophilized citrate buffer additive. Clinical Biochemistry, 2016;49(18):1402-1405. Clinical Biochemistry can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Clinical Biochemistry - www.journals.elsevier.com/clinical-biochemistry/)

The news editors report that additional information may be obtained by contacting G. Juricic, Gen Hosp Pula, Dept. of Lab Diagnost, Pula, Croatia. Additional authors for this research include A. Saracevic, L.M. Kopcinovic, A. Bakliza and A.M. Simundic.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clinbiochem.2016.03.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pula, Croatia, Europe, Clinical Biochemistry, Chemistry, General Hospital.

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Studies from George Washington University Yield New Data on Pruritus (Dose-response of intrathecal morphine when administered with intravenous ketorolac for post-cesarean analgesia: a two-center, prospective, randomized, blinded trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Skin Diseases and Conditions - Pruritus is the subject of a report. According to news reporting out of Washington, District of Columbia, by NewsRx editors, research stated, "The appropriate dose of intrathecal morphine for post-cesarean analgesia is unclear. With the inclusion of routine non-steroidal anti-inflammatory drugs, the required dose of morphine may be significantly less than the 200-300 ug common a decade ago."

Our news journalists obtained a quote from the research from George Washington University, "We performed a two-center, prospective, randomized, blinded trial comparing three doses of intrathecal morphine, combined with routine intravenous ketorolac, in 144 healthy women undergoing elective cesarean delivery. Patients received an intrathecal injection of hyperbaric bupivacaine 12 mg, fentanyl 15 mu g and a randomized dose of 50, 100, or 150 mu g morphine in a volume of 2.2 mL. Patients received intravenous ketorolac 30 mg before leaving the operating room and 15 mg intravenously every 6 h for the duration of the study (24 h). All received postoperative patient-controlled intravenous morphine. The primary endpoint was total intravenous morphine administered postoperatively over 24 h, analyzed using mixed model regression. There were no differences between dose groups (or institutions) in intravenous morphine use over 24 h. Visual analog scale scores for pain and nausea did not differ. Pruritus was greater in the 100 and 150 mu g groups than the 50 mu g group at 6 h and 12 h, but there was no difference between groups in nausea or pruritus treatments. Respiratory depression or significant sedation did not occur."

According to the news editors, the research concluded: "The dose response relationship of intrathecal morphine for multimodal post-cesarean analgesia suggests that 50 mu g produces analgesia similar to that produced by either 100 mu g or 150 mu g."


Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Skin and Connective Tissue Diseases and Conditions, Ophthalamic Antiinflammatory Agents, Skin Diseases and Conditions, Cyclooxygenase Inhibitors, Ophthalmic Preparations, Drugs and Therapies, Ketorolac Therapy, Cesarean
Studies from Georgetown University Further Understanding of Breast Cancer (Metabolomic profiling of breast tumors using ductal fluid)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting out of Washington, District of Columbia, by NewsRx editors, research stated, "Identification of new biomarkers for breast cancer remains critical in order to enhance early detection of the disease and improve its prognosis. Towards this end, we performed an untargeted metabolomic analysis of breast ductal fluid using an ultra-performance liquid chromatography coupled with a quadrupole time-of-flight (UPLC-QTOF) mass spectrometer."

Our news journalists obtained a quote from the research from Georgetown University, "We investigated the metabolomic profiles of breast tumors using ductal fluid samples collected by ductal lavage (DL). We studied fluid from both the affected breasts and the unaffected contralateral breasts (as controls) from 43 women with confirmed unilateral breast cancer. Using this approach, we identified 1560 ions in the positive mode and 538 ions in the negative mode after preprocessing of the UPLC-QTOF data. Paired t-tests applied on these data matrices identified 209 ions (positive and negative modes combined) with significant change in intensity level between affected and unaffected control breasts (adjusted P-values <0.05). Among these, 83 ions (39.7%) showed a fold change (FC) >1.2 and 66 ions (31.6%) were identified with putative compound names. The metabolites that we identified included endogenous metabolites such as amino acid derivatives (N-Acetyl-DLtryptophan) or products of lipid metabolism such as N-linoleoyl taurine, trans-2-dodecenoylcarnitine, lysophosphatidylcholine LysoPC(18:2(9Z,12Z)), glycerophospholipids PG(18:0/0:0), and phosphatidylserine PS(20:4(5Z,8Z,11Z,14Z). Generalized LASSO regression further selected 21 metabolites when race, menopausal status, smoking, grade and TNM stage were adjusted for. A predictive conditional logistic regression model, using the LASSO selected 21 ions, provided diagnostic accuracy with the area under the curve of 0.956 (sensitivity/specificity of 0.907/0.884)."

According to the news editors, the research concluded: "This is the first study that shows the feasibility of conducting a comprehensive metabolomic profiling of breast tumors using breast ductal fluid to detect changes in the cellular microenvironment of the tumors and shows the potential for this approach to be used to improve detection of breast cancer."


Oncology - Breast Cancer

Studies from Georgia College and State University Update Current Data on Breast Cancer (Effects of resistance exercise in women with or at risk for breast cancer-related lymphedema)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news originating from Milledgeville, Georgia, by NewsRx correspondents, research stated, "Breast cancer survivors (BCS) have been told in the past to avoid strenuous repetitive activities in order to decrease the risk of lymphedema development. Recent evidence suggests that exercise may be beneficial to decrease the signs/symptoms and development of lymphedema."

Our news journalists obtained a quote from the research from Georgia College and State University, "This study assessed the arm circumferences of 27 BCS (64 +/- A 7 years) at baseline and every 2 weeks thereafter during a 6-month resistance exercise training (RT) intervention. RT consisted of 2 days/week of 10 exercises including two sets of 8-12 repetitions at 52-69 % of the participants' one-repetition maximum. A repeated measure analysis of variance revealed no significant changes in percent difference of arm circumferences at any assessment point (pre, 1.31 +/- A 6.21 %; post, 0.62 +/- A 6.55 %), nor were there any adverse lymphedema-related events reported during the study."

According to the news editors, the research concluded: "These findings imply that RT can be a safe activity for women with or at risk for breast cancer-related lymphedema."

For more information on this research see: Effects of resistance exercise in women with or at risk for breast cancer-related lymphedema. Supportive Care in Cancer, 2017;25(1):9-15. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

The news correspondents report that additional information may be obtained from E. Simonavice, Georgia College & State University, Sch Hlth & Human Performance, Milledgeville, GA 31061, United States. Additional authors for this research include J.S. Kim and L. Panton.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3374-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Milledgeville, Georgia, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Breast Ductal Carcinoma, Risk and Prevention, Women's Health, Breast Cancer, Lymphedema, Oncology, Georgia College and State University.

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Hematologic Diseases and Conditions...

Studies from German Cancer Consortium Update Current Data on Myelodysplastic Syndromes [Mammalian-target of rapamycin inhibition with temsirolimus in myelodysplastic syndromes (MDS) patients is associated with considerable toxicity: results of ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematologic Diseases and Conditions - Myelodysplastic Syndromes have been published. According to news reporting originating in Dresden, Germany, by NewsRx journalists, research stated, "The mammalian-target of rapamycin (also termed mechanistic target of rapamycin, mTOR) pathway integrates various pro-proliferative and anti-apoptotic stimuli and is involved in regulatory T-cell (TREG) development. As these processes contribute to the pathogenesis of myelodysplastic syndromes (MDS), we hypothesized that mTOR modulation with temsirolimus (TEM) might show activity in MDS."

Funders for this research include Pfizer Pharma, German J. Carreras Foundation.

The news reporters obtained a quote from the research from German Cancer Consortium, "This prospective multicentre trial enrolled lower and higher risk MDS patients, provided that they were transfusion-dependent/neutropenic or relapsed/refractory to 5-azacitidine, respectively. All patients received TEM at a weekly dose of 25mg. Of the 9 lower- and 11 higher-risk patients included, only 4 (20%) reached the response assessment after 4 months of treatment and showed stable disease without haematological improvement. The remaining patients discontinued TEM prematurely due to adverse events. Median overall survival (OS) was not reached in the lower-risk group and 296 days in the higher-risk group. We observed a significant decline of bone marrow (BM) vascularisation (P=0.006) but were unable to demonstrate a significant impact of TEM on the balance between TREG and pro-inflammatory T-helper-cell subsets within the peripheral blood or BM."

According to the news reporters, the research concluded: "We conclude that mTOR-modulation with TEM at a dose of 25mg per week is accompanied by considerable toxicity and has no beneficial effects in elderly MDS patients."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjh.14345. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dresden, Germany, Europe, Hematologic
Studies from Ghent University Have Provided New Data on Musculoskeletal Disorders (Loss of Type I Collagen Telopeptide Lysyl Hydroxylation Causes Musculoskeletal Abnormalities in a Zebrafish Model of Bruck Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Disorders have been published. According to news reporting from Ghent, Belgium, by NewsRx journalists, research stated, "Bruck syndrome (BS) is a disorder characterized by joint flexion contractures and skeletal dysplasia that shows strong clinical overlap with the brittle bone disease osteogenesis imperfecta (OI). BS is caused by biallelic mutations in either the FKBP10 or the PLOD2 gene."

The news correspondents obtained a quote from the research from Ghent University, "PLOD2 encodes the lysyl hydroxylase 2 (LH2) enzyme, which is responsible for the hydroxylation of lysine residues in fibrillar collagen telopeptides. This hydroxylation directs crosslinking of collagen fibrils in the extracellular matrix, which is necessary to provide stability and tensile integrity to the collagen fibrils. To further elucidate the function of LH2 in vertebrate skeletal development, we created a zebrafish model harboring a homozygous plod2 nonsense mutation resulting in reduced telopeptide hydroxylation and crosslinking of bone type I collagen. Adult plod2 mutants present with a shortened body axis and severe skeletal abnormalities with evidence of bone fragility and fractures. The vertebral column of plod2 mutants is short and scoliotic with compressed vertebrae that show excessive bone formation at the vertebral end plates, and increased tissue mineral density in the vertebral centra. The muscle fibers of mutant zebrafish have a reduced diameter near the horizontal myoseptum. The endomysium, a layer of connective tissue ensheathing the individual muscle fibers, is enlarged. Transmission electron microscopy of mutant vertebral bone shows type I collagen fibrils that are less organized with loss of the typical plywood-like structure."

According to the news reporters, the research concluded: "Plod2 mutant zebrafish show molecular and tissue abnormalities in the musculoskeletal system that are concordant with clinical findings in BS patients. Therefore, the plod2 zebrafish mutant is a promising model for the elucidation of the underlying pathogenetic mechanisms leading to BS and the development of novel therapeutic avenues in this syndrome."


Our news journalists report that additional information may be obtained by contacting A. Willaert, University of Ghent, Center Med Genet Ghent, B-9000 Ghent, Belgium. Additional authors for this research include P.E. Witten, A. Huysseune, S. Symoens, F. Malfait,
Oncology - Cancer Care

Studies from Ghent University in the Area of Cancer Care Described (Hope dies last ... A qualitative study into the meaning of hope for people with cancer in the palliative phase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cancer Care. According to news reporting out of Ghent, Belgium, by NewsRx editors, research stated, "Palliative patients may have strong hope, even hope for a cure, despite knowing their prognosis. Health professionals do not always understand patients who have this kind of hope."

Our news journalists obtained a quote from the research from Ghent University, "The aim of this article was to explore the meaning of hope among patients with cancer in the palliative phase. A secondary analysis was conducted including a constant comparative analysis to uncover the processes underlying the maintenance of hope, of previously collected interview data (n = 76). The meaning of hope is related to the importance of the object it is attached to, rather than to a real chance of achieving this object. Hope has a dual function: patients hope because they cannot forsake it and because they benefit so much from it. Hope can spring from many sources and is influenced by various factors. If there are fewer potent sources to tap into, people create hope themselves and this type of self-created hope takes more effort to maintain. Patients use different strategies to increase their hope, described as the 'the work of hope'. A better understanding of the work of hope can lead to better psychosocial support by health professionals."

According to the news editors, the research concluded: "Health professionals convey many messages that affect the work of hope."


Our news journalists report that additional information may be obtained by contacting C.N. Van Baalen, University of Ghent, University Hospital, Dept. of Public Hlth, Ghent, Belgium. Additional authors for this research include M. Grypdonck, A. Van Hecke and S. Verhaeghe.

Keywords for this news article include: Ghent, Belgium, Europe, Cancer Care, Oncology, Cancer, Ghent University.

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Membrane Proteins - Vesicular Transport Proteins

Studies from Gifu Pharmaceutical University in the Area of Vesicular Transport Proteins Described (Hypotonic Stress-induced Down-regulation of Claudin-1 and-2 Mediated by Dephosphorylation and Clathrin-dependent Endocytosis in Renal Tubular ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Membrane Proteins - Vesicular Transport Proteins is the subject of a report. According to news originating from Gifu, Japan, by NewsRx correspondents, research stated, "Hypotonic stress decreased claudin-1 and-2 expression levels in renal tubular epithelial HK-2 and Madin-Darby canine kidney cells. Here, we examined the regulatory mechanism involved in this decrease."

Our news journalists obtained a quote from the research from Gifu Pharmaceutical University, "The hypotonicity-induced decrease in claudin expression was inhibited by the following: SB202190, a p38 MAPK inhibitor, but not by U0126, a MEK inhibitor; Go6983, a protein kinase C inhibitor; or SP600125, a Jun N-terminal protein kinase inhibitor. Hypotonic stress increased transepithelial electrical resistance, which was inhibited by SB202190. The mRNA expression level of claudin-1 was decreased by hypotonic stress but that of claudin-2 was not. Hypotonic stress decreased the protein stability of claudin-1 and-2. The hypotonicity-induced decrease in claudin expression was inhibited by the following: chloroquine, a lysosome inhibitor; dynasore and monodansylcadaverine, clathrin-dependent endocytosis inhibitors; and siRNA against clathrin heavy chain. Claudin-1 and-2 were mainly distributed in the cytosol and tight junctions (TJs) in the chloroquine- and monodansylcadaverine-treated cells, respectively. Hypotonic stress decreased the phosphorylation levels of claudin-1 and-2, which were inhibited by the protein phosphatase inhibitors okadaic acid and cantharidin. Dephosphorylated mutants of claudin-1 and-2 were mainly distributed in the cytosol, which disappeared in response to hypotonic stress. In contrast, mimicking phosphorylatkin mutants were distributed in the TJs, which were not decreased by hypotonic stress."

According to the news editors, the research concluded: "We suggest that hypotonic stress induces dephosphorylation, clathrin-dependent endocytosis, and degradation of claudin-1 and-2 in lysosomes, resulting in disruption of the TJ barrier in renal tubular epithelial cells."


The news correspondents report that additional information may be obtained from A. Ikari, Gifu Pharmaceut Univ, Dept. of Biopharmaceut Sci, Biochem Lab, Gifu 5011196, Japan. Additional authors for this research include Y. Matsuo, T. Matsunaga, S. Endo, H. Sakai, M. Yamaguchi, Y. Yarnazaki, J. Sugatani and A. Ikari.

Keywords for this news article include: Gifu, Japan, Asia, Vesicular Transport Proteins, Enzymes and Coenzymes, Membrane Proteins, Epithelial Cells, Endocytosis, Nephrology, Genetics, Clathrin, Kinase, Kidney, Gifu Pharmaceutical University.

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Gram-Negative Bacteria - Neisseria gonorrhoeae

Studies from Gifu University Hospital Have Provided New Information about Neisseria gonorrhoeae (Remarkable increase of Neisseria gonorrhoeae with decreased susceptibility of azithromycin and increase in the failure of azithromycin therapy in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Neisseria gonorrhoeae have been published. According to news reporting out of Gifu, Japan, by NewsRx editors, research stated, "The antimicrobial resistance of Neisseria gonorrhoeae is a serious problem worldwide. In this study, we examined the susceptibility of N. gonorrhoeae isolated from male gonococcal urethritis in Sendai in 2014 and 2015."

Our news journalists obtained a quote from the research from Gifu University Hospital, "Furthermore, of all cases, we investigated the clinical efficacy of a single 2-g dose of extended-release azithromycin (AZM-SR) in the treatment of male gonococcal urethritis retrospectively. Sixty N. gonorrhoeae strains in 2014 and 54 strains in 2015 were isolated from male gonococcal urethritis and stored each year. The MIC of AZM was >= 1 mg/L in 4 strains (6.7%) in 2014 and in 13 strains (24.1%) in 2015 and the number of strains having >= 1 mg/L MIC increased significantly (P = 0.016). Microbiological efficacy was evaluated in 32 and 29 of these patients, and the rates of treatment success were 93.8% and 79.3%, respectively. All of the treatment failures were caused by strains having a MIC of AZM of >= 0.5 mg/L. In particular, the increase in the isolates having a MIC of AZM of >= 1 mg/L was remarkable. Therefore, it was thought that the increase in these strains was the reason for the increase in treatment failures in 2015. Because no other drug is effective, it is currently necessary to use AZM-SR to treat gonococcal infections caused by ceftriaxone-resistant strains or patients allergic to ceftriaxone."

According to the news editors, the research concluded: "To prevent a further increase in resistance to AZM, we should not use AZM-SR to treat normal cases of gonococcal infection."

For more information on this research see: Remarkable increase of Neisseria gonorrhoeae with decreased susceptibility of azithromycin and increase in the failure of azithromycin therapy in male gonococcal urethritis in Sendai in 2015. Journal of Infection and Chemotherapy, 2016;22(12):841-843. Journal of Infection and Chemotherapy can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

Our news journalists report that additional information may be obtained by contacting M. Yasuda, Gifu Univ Hosp, Dept. of Urol, Gifu 5011194, Japan. Additional authors for this research include S. Ito, K. Hatazaki and T. Deguchi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gifu, Japan, Asia, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Ophthalmic Antiinfectives, Ophthalmic Preparations, Gram-Negative Bacteria, Macrolide Derivatives, Neisseria gonorrhoeae, Drugs
and Therapies, Betaproteobacteria, Proteobacteria, Neisseriaceae, Azithromycin, Antibiotics, Therapy, Gifu University Hospital.

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Studies from Gilead Sciences Inc. Reveal New Findings on Antiretrovirals (Pharmacokinetics and Safety of Tenofovir Alafenamide in HIV-Uninfected Subjects with Severe Renal Impairment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiretrovirals have been published. According to news reporting originating from Foster City, California, by NewsRx correspondents, research stated, "Tenofovir alafenamide (TAF) is an oral prodrug of tenofovir (TFV) that has greater stability in plasma than TFV disoproxil fumarate (TDF) and circulates as intact TAF, resulting in the direct and higher lymphatic loading of and exposure to TFV diphosphate, the active moiety. Unlike TFV, TAF is minimally eliminated in urine."

Financial support for this research came from Gilead Sciences (Gilead).

Our news editors obtained a quote from the research from Gilead Sciences Inc., "The pharmacokinetics (PK) of TAF and TFV in HIV-uninfected subjects with severe renal impairment and matched healthy controls were evaluated. Subjects with severe renal impairment (RI; estimated glomerular filtration rate [eGFR], 15 to 29 ml/min) and controls (eGFR, >= 90 ml/min) matched for age, gender, and body mass index received a single dose of TAF at 25 mg. Blood and urine samples for TAF and TFV PK determinations were collected over 7 days postdosing, and subjects were followed up at 14 days. A total of 14 renally impaired subjects and 13 control subjects enrolled and completed the study. The TAF maximum observed concentration in plasma (C-max) and the area under the concentration-versus-time curve (AUC) extrapolated to infinite time (AUC(inf)) were 79% and 92% higher, respectively, in subjects with severe RI than the controls, primarily due to higher absorption. The TFV Cmax and AUCinf were 2.8-fold and 5.7-fold higher, respectively, in subjects with severe RI than the controls. In subjects with severe RI, TAF at 25 mg provided a TFV AUC 10 to 40% lower than that from historical TDF-based TFV exposures in subjects with normal renal function. There were no discontinuations due to adverse events. In subjects with severe RI receiving TAF at 25 mg, TAF exposures were higher than those for the controls; these differences are unlikely to be clinically meaningful."

According to the news editors, the research concluded: "TFV exposures were higher than those for the controls but lower than the exposures in nonrenally impaired subjects on TDF-based regimens."

For more information on this research see: Pharmacokinetics and Safety of Tenofovir Alafenamide in HIV-Uninfected Subjects with Severe Renal Impairment. Antimicrobial Agents and Chemotherapy, 2016;60(9):5135-5140. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting J.M. Custodio, Gilead Sci Inc, Foster City, CA 94404, United States. Additional authors for this

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00005-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Foster City, California, United States, North and Central America, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Pharmacokinetics, Pharmaceuticals, Antiretrovirals, HIV Infections, Antimicrobials, Retroviridae, RNA Viruses, Nephrology, Antivirals, Tenofovir, HIV/AIDS, Kidney, Gilead Sciences Inc.

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Oncology - Glioblastomas

Studies from Government Medical College and Hospital Yield New Information about Glioblastomas (Concurrent therapy to enhance radiotherapeutic outcomes in glioblastoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Glioblastomas are presented in a new report. According to news reporting originating in Chandigarh, India, by NewsRx editors, the research stated, "Glioblastoma is one of the most fatal and incurable human cancers characterized by nuclear atypia, mitotic activity, intense microvascular proliferation and necrosis. The current standard of care includes maximal safe surgical resection followed by radiation therapy (RT) with concurrent and adjuvant temozolomide (TMZ)."

The news reporters obtained a quote from the research from Government Medical College and Hospital, "The prognosis remains poor with median survival of 14.6 months with RT plus TMZ. Majority will have a recurrence within 2 years from diagnosis despite adequate treatment. Radiosensitizers, radiotherapy dose escalation and altered fractionation have failed to improve outcome. The molecular biology of glioblastoma is complex and poses treatment challenges. High rate of mutation, genotypic and phenotypic heterogeneity, rapid development of resistance, existence of blood-brain barrier (BBB), multiple intracellular and intercellular signalling pathways, over-expression of growth factor receptors, angiogenesis and antigenic diversity renders the tumor cells differentially susceptible to various treatment modalities. Thus, the treatment strategies require personalised or individualized approach based on the characteristics of tumor. Several targeted agents have been evaluated in clinical trials but the results have been modest despite these advancements."

According to the news reporters, the research concluded: "This review summarizes the current standard of care, results of concurrent chemoradiation trials, evolving innovative treatments that use targeted therapy with standard chemoradiation or RT alone, outcome of various recent trials and future outlook."

For more information on this research see: Concurrent therapy to enhance radiotherapeutic outcomes in glioblastoma. Annals of Translational Medicine, 2016;4(3):54.

Our news correspondents report that additional information may be obtained by contacting D. Khosla, Dept. of Radiotherapy and Oncology, Government Medical College &
Studies from Graduate School of Biomedical Sciences Describe New Findings in Hematopoietic Stem Cells (Hematopoietic Stem Cells Count and Remember Self-Renewal Divisions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Stem Cell Research - Hematopoietic Stem Cells have been published. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "The ability of cells to count and remember their divisions could underlie many alterations that occur during development, aging, and disease. We tracked the cumulative divisional history of slow-cycling hematopoietic stem cells (HSCs) throughout adult life."

Financial support for this research came from NIH.

Our news journalists obtained a quote from the research from the Graduate School of Biomedical Sciences, "This revealed a fraction of rarely dividing HSCs that contained all the long-term HSC (LT- HSC) activity within the aging HSC compartment. During adult life, this population asynchronously completes four traceable symmetric self-renewal divisions to expand its size before entering a state of dormancy. We show that the mechanism of expansion involves progressively lengthening periods between cell divisions, with long-term regenerative potential lost upon a fifth division. Our data also show that age-related phenotypic changes within the HSC compartment are divisional history dependent."

According to the news editors, the research concluded: "These results suggest that HSCs accumulate discrete memory stages over their divisional history and provide evidence for the role of cellular memory in HSC aging."

For more information on this research see: Hematopoietic Stem Cells Count and Remember Self-Renewal Divisions. Cell, 2016;167(5):1296-1309,303-312. Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell - www.journals.elsevier.com/cell/)

Our news journalists report that additional information may be obtained by contacting K. Moore, Icahn Sch Med Mt Sinai, Grad Sch Biomed Sci, New York, NY 10029, United States. Additional authors for this research include H.S. Kim, B. MacArthur, H. Sieburg and K. Moore.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cell.2016.10.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Hematopoietic Stem Cells, Stem Cell Research, Bone Marrow Cells, Hematology, Graduate School of Biomedical Sciences.

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Studies from Graduate School of Decision Science and Technology

Further Understanding of Obesity (Effect of postprandial gum chewing on diet-induced thermogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "To examine the effect of postprandial gum chewing on diet-induced thermogenesis (DIT). Twelve healthy normal-weight males completed four trials on four different days."

Financial support for this research came from JSPS KAKENHI.

The news reporters obtained a quote from the research from the Graduate School of Decision Science and Technology, "They chewed a 621-kcal test meal for as long as possible and as many times as possible in the slow-eating trials, while they consumed the same meal as rapidly as possible in the rapid-eating trials. In the gum-chewing trials, they chewed a 3-kcal gum for 15 min after the meal. In the non-gum-chewing trials, they consumed 3 kcal of sugar with the test meal instead of chewing the gum. DIT was calculated based on the oxygen uptake, body mass, and postprandial increments in energy expenditure above the baseline as measured before each trial. DIT was significantly greater in the gum-chewing trials than in the non-gum-chewing trials for both rapid-eating and slow-eating trials. The difference in DIT between rapid-eating and slow-eating trials was greater than that between non-gum-chewing and gum-chewing trials."

According to the news reporters, the research concluded: "Postprandial gum chewing enhanced DIT, but the effect of gum chewing on DIT did not exceed that of slow eating when consuming a meal."

For more information on this research see: Effect of postprandial gum chewing on diet-induced thermogenesis. *Obesity*, 2016;24(4):878-85. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/oby/)

Our news correspondents report that additional information may be obtained by contacting Y. Hamada, Graduate School of Decision Science and Technology, Tokyo Institute of Technology, Tokyo, Japan. Additional authors for this research include A. Miyaji and N. Hayashi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21421. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Obesity, Nutritional and Metabolic Diseases and Conditions.

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Biphenyl Compounds

Studies from Guangdong Pharmaceutical University Reveal New Findings on Biphenyl Compounds (Simultaneous Determination of Hydrochlorothiazide and Losartan Potassium in Osmotic Pump Tablets by Microemulsion Liquid Chromatography)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Biphenyl Compounds is the subject of a report. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "A rapid and efficient oil-in-water microemulsion liquid chromatographic (MELC) method has been optimized and validated for the determination of hydrochlorothiazide (HCT) and losartan potassium (LOP) in osmotic pump tablets. Samples were injected into a C-18 (150 mmx 4.6 mmID, 5 mu m particle size) analytical column, which was maintained at 30 degrees C. The most effective MELC system had a mobile phase consisting of 95% (v/v) of 3.0% (w/w) SDS, 6.0% (w/w) n-butanol, 0.8% (w/w) n-octane, 90.2% (w/w) water and 5% (v/v) acetonitrile (pH 5)."

The news correspondents obtained a quote from the research from Guangdong Pharmaceutical University, "The flow rate was 1.0 mL min(-1) and UV detection was performed at 265 nm. Linearity ranged from 2.5 to 12.5 mu g mL(-1) for HCT and 10.0-60.0 mu g mL(-1) for LOP (r > 0.999 for both drugs). The proposed method was rapid, precise (RSDs <1.4%) and accurate (98.9% recovery for HCT and 101% recovery for LOP)."

According to the news reporters, the research concluded: "It is applicable to simultaneous determination of HCT and LOP in osmotic pump tablets."


Our news journalists report that additional information may be obtained by contacting N. Li, Guangdong Pharmaceut Univ, Sch Pharm, Dept. of Pharmaceut Anal, Guangzhou 510006, Guangdong, People's Republic of China. Additional authors for this research include C.Y. Lai, X.Y. Xuan, C.K. Gao and N. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/chromsci/bmw101. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Angiotensin II Receptor Antagonist, Hydrochlorothiazide Therapy, Angiotensin II Inhibitors, Cardiovascular Agents, Antiarrhythmic Agents, Drugs and Therapies, Thiazide Diuretics, Biphenyl Compounds, Organic Chemicals, Sulfur Compounds, Losartan Therapy, Antihypertensive, Pharmaceuticals, Sulfonamides, Hydrocarbons, Sulfones, Guangdong Pharmaceutical University.

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Bone Research

Studies from Guangzhou Medical University Yield New Information about Bone Research (FANCD2 protects against bone marrow injury from ferroptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Bone Research. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Bone marrow injury remains a serious concern in traditional cancer treatment. Ferroptosis is an iron- and oxidative-dependent form of regulated cell death that has become part of an emerging strategy for chemotherapy."

Funders for this research include National Institutes of Health, Natural Science Foundation of Guangdong Province, Fanconi Anemia Research Fund, American Cancer Society Research Scholar Grant.

The news correspondents obtained a quote from the research from Guangzhou Medical University, "However, the key regulator of ferroptosis in bone marrow injury remains unknown. Here, we show that Fanconi anemia complementation group D2 (FANCD2), a nuclear protein involved in DNA damage repair, protects against ferroptosis-mediated injury in bone marrow stromal cells (BMSCs). The classical ferroptosis inducer erastin remarkably increased the levels of monoubiquitinated FANCD2, which in turn limited DNA damage in BMSCs. FANCD2-deficient BMSCs were more sensitive to erastin-induced ferroptosis (but not autophagy) than FANCD2 wild-type cells. Knockout of FANCD2 increased ferroptosis-associated biochemical events (e.g., ferrous iron accumulation, glutathione depletion, and malondialdehyde production). Mechanically, FANCD2 regulated genes and/or expression of proteins involved in iron metabolism (e.g., FTH1, TF, TFRC, HAMP, HSPB1, SLC40A1, and STEAP3) and lipid peroxidation (e.g., GPX4). Collectively, these findings indicate that FANCD2 plays a novel role in the negative regulation of ferroptosis."

According to the news reporters, the research concluded: "FANCD2 could represent an amenable target for the development of novel anticancer therapies aiming to reduce the side effects of ferroptosis inducers."

For more information on this research see: FANCD2 protects against bone marrow injury from ferroptosis. Biochemical and Biophysical Research Communications, 2016;480 (3):443-449. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.068. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Immune System, Bone Research, Bone Marrow, Genetics, Guangzhou Medical University.
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Glycoconjugates

Studies from Guangzhou Medical University in the Area of Glycoconjugates Reported (Pregnane X receptors regulate CYP2C8 and P-glycoprotein to impact on the resistance of NSCLC cells to Taxol)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Glycoconjugates. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Cytochrome P450 2C8 (CYP2C8) is one of the enzymes that primarily participate in producing metabolisms of medications and P-glycoprotein (P-gp) has been regarded as one of the important molecules in chemotherapeutically induced multidrug resistance (MDR). In addition, the pregnane X receptor (PXR) is involved in regulating both CYP2C8 and P-gp."

Financial supporters for this research include National Natural Science Foundation of China, Outstanding Young People Project of Guangdong Province, Guangdong Science and Technology Department, Guangdong Natural Science Foundation.

The news reporters obtained a quote from the research from Guangzhou Medical University, "We aim to research the effect of PXR on Taxol-resistant non-small-cell lung cancer (NSCLC cells) via regulating CYP2C8 and P-gp. NSCLC cells were treated with SR12813, LY335979, or PXR siRNA. Cell counting kit (CCK-8) assay was used to detect cell vitality. Colony formation assay was used to observe cell proliferation. Western blotting, real-time polymerase chain reaction (RT-PCR), and immunofluorescence staining were conducted to analyze the expressions of PXR, CYP2C8, and P-gp. Taxol and its metabolic products were detected by high-performance liquid chromatography (HPLC). The expression of PXR in A549 cell line was higher than that in other cell lines. The accumulation of PXR was observed in the nucleus after cells were treated with SR12813. Besides, SR12813 induced higher expressions of CYP2C8 and P-gp proteins. We also discovered that pretreatment with SR12813 reversed the inhibition of cell viability and proliferation after the Taxol treatment in comparison to the SR12813 untreated group. Furthermore, the hydroxylation products of Taxol analyzed by HPLC were increased in comparison to the SR12813 untreated group, indicating that high expressions of CYP2C8 and P-gp enhanced the resistance of A549 cells to Taxol. For cells treated with PXR siRNA, cell viability, cell proliferation, and Taxol metabolites were significantly reduced after the Taxol treatment in comparison to the siRNA-negative group. The cell viability, cell proliferation, and Taxol metabolites were regulated by the expressions of PXR, P-gp, and CYP2C8."

According to the news reporters, the research concluded: "That is, PXR expression has an important effect on the resistance of NSCLC cells to Taxol via upregulating P-gp and CYP2C8."


Our news correspondents report that additional information may be obtained by

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.960. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, ATP-Dependent Organic Anion Transporters, ATP-Binding Cassette Transporters, Membrane Transport Proteins, Anion Transport Proteins, Membrane Glycoproteins, Cell Proliferation, Membrane Proteins, Carrier Proteins, P-Glycoproteins, Glycoconjugates, Ion Pumps, Guangzhou Medical University.

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Environmental Pollution

Studies from Guangzhou University in the Area of Environmental Pollution Described (Risk assessment and vertical distribution of thallium in paddy soils and uptake in rice plants irrigated with acid mine drainage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Environmental Pollution are discussed in a new report. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "The objective of this paper is to assess the influence of irrigating paddy fields with acid mine drainage containing thallium (Tl) to rice plant-soil system and potential health risks for local residents. Vertical distribution of Tl, pH, organic matter (OM), and cation exchange capacity (CEC) in 24 paddy soil profiles around Yunfu pyrite mine area was investigated."

The news reporters obtained a quote from the research from Guangzhou University, "Rice plant samples were collected from the corresponding soil sampling site. The results showed that Tl concentrations in paddy soils at 0-60 cm depth range from 3.07 to 9.42 mg kg(-1), with a mean of 5.74 mg kg(-1), which were significantly higher than the background value of soil in China (0.58 mg kg(-1)). On the whole, Tl contents in paddy soil profiles increased quickly with soil depth from 0 to 30 cm and decreased slowly with soil depth from 30 to 60 cm. The soil Tl content was significant negatively correlated with soil pH. The mean content of Tl in the root, stem, leaf, and rice was 4.36, 1.83, 2.74, and 1.42 mg kg(-1), respectively, which exceeded the proposed permissible limits for foods and feedstuffs in Germany. The Tl content in various tissues of the rice plants followed the order root > leaf > stem (rice), which suggested that most Tl taken up by rice plants retained in the root, and a little migrated to the leaf, stem, and rice. Correlation analysis showed that Tl content in root was significant positively correlated with Tl content in leaf and rice. The ranges of hazard quotient (HQ) values were 4.0824.50 and 3.8422.38 for males and females, respectively. Males have higher health risk than females in the same age group. In childhood age groups (2 to < 21 years) and adult age groups (21 to < 70 years), the highest health risk level was observed in the 11 to 16 age group and 21 to 50 age group, respectively. The findings indicated that regular irrigation with Tl-bearing acid mine drainage led to considerable contamination of Tl in paddy soil and rice plant."
According to the news reporters, the research concluded: "Local government should take various measures to treat Tl contamination, especially the tailings."

For more information on this research see: Risk assessment and vertical distribution of thallium in paddy soils and uptake in rice plants irrigated with acid mine drainage. Environmental Science and Pollution Research, 2016;23(24):24912-24921. Environmental Science and Pollution Research can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Environmental Science and Pollution Research - www.springerlink.com/content/0944-1344/)

Our news correspondents report that additional information may be obtained by contacting X.X. Huang, Guangzhou Univ, Guangdong Prov Key Lab Radionuclides Pollut Contr, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include N. Li, Q.H. Wu, J.Y. Long, D.G. Luo, P. Zhang, Y. Yao, X.W. Huang, D.M. Li, Y.Y. Lu and J.F. Liang.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Environmental Pollution, Risk and Prevention, Guangzhou University.

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Thyroid Nodule

Studies from H. Gharib et al Add New Findings in the Area of Thyroid Nodule (American Association Of Clinical Endocrinologists, American College Of Endocrinology, And Associazione Medici Endocrinologi Medical Guidelines For Clinical Practice ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Thyroid Nodule. According to news reporting originating in Falls Church, Virginia, by NewsRx journalists, research stated, "Thyroid nodules are detected in up to 50 to 60% of healthy subjects. Most nodules do not cause clinically significant symptoms, and as a result, the main challenge in their management is to rule out malignancy, with ultrasonography (US) and fine-needle aspiration (FNA) biopsy serving as diagnostic cornerstones."

The news reporters obtained a quote from the research, "The key issues discussed in these guidelines are as follows: (1) US-based categorization of the malignancy risk and indications for US-guided FNA (henceforth, FNA), (2) cytologic classification of FNA samples, (3) the roles of immunocytochemistry and molecular testing applied to thyroid FNA, (4) therapeutic options, and (5) follow-up strategy. Thyroid nodule management during pregnancy and in children are also addressed. On the basis of US features, thyroid nodules may be categorized into 3 groups: low-, intermediateand high-malignancy risk. FNA should be considered for nodules <= 10 mm diameter only when suspicious US signs are present, while nodules <= 5 mm should be monitored rather than biopsied. A classification scheme of 5 categories (nondiagnostic, benign, indeterminate, suspicious for malignancy, or malignant) is recommended for the cytologic report. Indeterminate lesions are further subdivided into 2 subclasses to more accurately stratify the risk of malignancy. At present, no single cytochemical or genetic marker can definitely rule out malignancy in indeterminate nodules. Nevertheless, these tools should be considered together with clinical data, US signs, elastographic pattern, or results of other imaging techniques to improve the management of these lesions. Most thyroid
nodules do not require any treatment, and levothyroxine (LT4) suppressive therapy is not recommended. Percutaneous ethanol injection (PEI) should be the first-line treatment option for relapsing, benign cystic lesions, while US-guided thermal ablation treatments may be considered for solid or mixed symptomatic benign thyroid nodules. Surgery remains the treatment of choice for malignant or suspicious nodules.

According to the news reporters, the research concluded: "The present document updates previous guidelines released in 2006 and 2010 by the American Association of Clinical Endocrinologists (AACE) and Associazione Medici Endocrinologi (AME)."

For more information on this research see: American Association Of Clinical Endocrinologists, American College Of Endocrinology, And Associazione Medici Endocrinologi Medical Guidelines For Clinical Practice For The Diagnosis And Management Of Thyroid Nodules-2016 Update. *Endocrine Practice*, 2016;22():1-60. *Endocrine Practice* can be contacted at: Amer Assoc Clinical Endocrinologists, 245 Riverside Avenue, Ste 200, Jacksonville, FL 32202, USA.

Our news correspondents report that additional information may be obtained by contacting H. Gharib, Amer Thyroid Assoc, Falls Church, VA, United States. Additional authors for this research include E. Papini, J.R. Garber, D.S. Duick, R.M. Harrell, L. Hegedus, R. Paschke, R. Valcavi and P. Vitti.

Keywords for this news article include: Falls Church, Virginia, United States, North and Central America, Endocrinology, Diagnostics and Screening, Risk and Prevention, Thyroid Diseases and Conditions, Endocrine Gland Neoplasms, Thyroid Neoplasms, Thyroid Nodules, Genetics.

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**Oncology - Endometrial Cancer**

**Studies from Hacettepe University Have Provided New Data on Endometrial Cancer (Assessment of Cervicovaginal Cancer Antigen 125 Levels: A Preliminary Study for Endometrial Cancer Screening)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Endometrial Cancer. According to news reporting out of Ankara, Turkey, by NewsRx editors, research stated, "We primarily aimed to compare the levels of serum and cervicovaginal cancer antigen 125 (CA 125) in women with and without endometrial carcinoma in order to reveal whether cervicovaginal CA 125 could be used as a non-invasive method. A preliminary case-control study was designed."

Our news journalists obtained a quote from the research from Hacettepe University, "The study group consisted of patients who were operated for endometrial adenocarcinoma or endometrial intraepithelial neoplasia. The control group consisted of patients who underwent surgery for benign gynecological diseases. Serum and cervicovaginal secretions were immediately collected before surgery to compare levels of CA 125. The mean cervicovaginal CA 125 levels in patients with endometrial cancer and controls were 1,598.1 +/- 1,691.1 versus 947.0 +/- 1,282.7 U/ml, respectively (p = 0.016). Whereas area under receiver operating characteristic curve was 0.62 for serum CA 125, it was 0.68 for cervicovaginal CA 125. The optimal threshold of CA 125 in cervicovaginal secretion was calculated to be 575 U/ml, which detected endometrial precancer or cancer with sensitivity of 78% and specificity of 57%. The
positive and negative predictive values for this threshold were 38.7 and 88.2%, respectively."

According to the news editors, the research concluded: "Detection of CA 125 in cervicovaginal secretion has a potential role for the non-invasive screening of endometrial precancers and cancers."


Our news journalists report that additional information may be obtained by contacting P. Calis, Hacettepe University, Sch Med, Dept. of Obstet & Gynecol, TR-06100 Ankara, Turkey. Additional authors for this research include K. Yuce, D. Basaran and C. Salman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444321. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ankara, Turkey, Eurasia, Endometrial Cancer, Women's Health, Gynecology, Oncology, Surgery, Hacettepe University.

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**Cardiology**

**Studies from Hartford Hospital in the Area of Cardiology Reported (Myocardial Fibrosis in Athletes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiology have been presented. According to news reporting out of Hartford, Connecticut, by NewsRx editors, research stated, "Myocardial fibrosis (MF) is a common phenomenon in the late stages of diverse cardiac diseases and is a predictive factor for sudden cardiac death. Myocardial fibrosis detected by magnetic resonance imaging has also been reported in athletes."

Our news journalists obtained a quote from the research from Hartford Hospital, "Regular exercise improves cardiovascular health, but there may be a limit of benefit in the exercise dose-response relationship. Intense exercise training could induce pathologic cardiac remodeling, ultimately leading to MF, but the clinical implications of MF in athletes are unknown. For this comprehensive review, we performed a systematic search of the PubMed and MEDLINE databases up to June 2016. Key Medical Subject Headings terms and keywords pertaining to MF and exercise (training) were included. Articles were included if they represented primary MF data in athletes. We identified 65 athletes with MF from 19 case studies/series and 14 athletic population studies. Myocardial fibrosis in athletes was predominantly identified in the intraventricular septum and where the right ventricle joins the septum. Although the underlying mechanisms are unknown, we summarize the evidence for genetic predisposition, silent myocarditis, pulmonary artery pressure overload, and prolonged exercise-induced repetitive micro-injury as contributors to the development of MF in athletes."

According to the news editors, the research concluded: "We also discuss the clinical
implications and potential treatment strategies of MF in athletes."


Our news journalists report that additional information may be obtained by contacting T.M.H. Eijsvogels, Hartford Hospital, Div Cardiol Hartford, Hartford, CT 06115, United States. Additional authors for this research include V.L. Aengevaeren, M.T.E. Hopman, D.L. Oxborough, K.P. George, P.D. Thompson and T.M.H. Eijsvogels.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mayocp.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hartford, Connecticut, United States, North and Central America, Cardiology, Article Review, Genetics, Hartford Hospital.

Our news journalists report that additional information may be obtained by contacting T.M.H. Eijsvogels, Hartford Hospital, Div Cardiol Hartford, Hartford, CT 06115, United States. Additional authors for this research include V.L. Aengevaeren, M.T.E. Hopman, D.L. Oxborough, K.P. George, P.D. Thompson and T.M.H. Eijsvogels.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mayocp.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hartford, Connecticut, United States, North and Central America, Cardiology, Article Review, Genetics, Hartford Hospital.

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Cardiovascular Diseases and Conditions -…

Studies from Harvard School of Medicine Add New Findings in the Area of Atherosclerosis (Atherosclerotic plaque behind the stent changes after bare-metal and drug-eluting stent implantation in humans: Implications for late stent failure?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "The natural history and the role of atherosclerotic plaque located behind the stent (PBS) are still poorly understood. We evaluated the serial changes in PBS following bare-metal (BMS) compared to first-generation drug-eluting stent (DES) implantation and the impact of these changes on in-stent neointimal hyperplasia (NIH)."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Three-dimensional coronary reconstruction by angiography and intravascular ultrasound was performed after intervention and at 6-10-month follow-up in 157 patients with 188 lesions treated with BMS (n = 89) and DES (n = 99). There was a significant decrease in PBS area (-7.2%; p< 0.001) and vessel area (-1.7%; p< 0.001) after BMS and a respective increase in both areas after DES implantation (6.1%; p< 0.001 and 4.1%; p< 0.001, respectively). The decrease in PBS area significantly predicted neointimal area at follow-up after BMS (beta: 0.15; 95% confidence interval [CI]: 0.10-0.20, p< 0.001) and DES (beta: 0.09; 95% CI: 0.07-0.11; p< 0.001) implantation. The decrease in PBS area was the most powerful predictor of significant NIH after BMS implantation (odds ratio: 1.13; 95% CI: 1.02-1.26; p = 0.02). The decrease in PBS area after stent implantation is significantly associated with the magnitude of NIH development at follow-up."

According to the news editors, the research concluded: "This finding raises the possibility of a communication between the lesion within the stent and the underlying native
atherosclerotic plaque, and may have important implications regarding the pathobiology of in-stent restenosis and late/very late stent thrombosis."

For more information on this research see: Atherosclerotic plaque behind the stent changes after bare-metal and drug-eluting stent implantation in humans: Implications for late stent failure? Atherosclerosis, 2016;252():9-14. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.914. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Atherosclerosis, Cardiology, Harvard School of Medicine.

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Cardiovascular Diseases

Studies from Harvard School of Medicine Describe New Findings in Cardiovascular Diseases (Total and Regional Adiposity Measured by Dual-Energy X-Ray Absorptiometry and Mortality in NHANES 1999-2006)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Associations of overall and regional body fat measured by dual-energy X-ray absorptiometry with total and cause-specific mortality in the National Health and Nutrition Examination Survey (NHANES) 1999-2006 were investigated. This study included 9,471 participants (>= 20 years) free of major chronic diseases at baseline."

The news reporters obtained a quote from the research from the Harvard School of Medicine, "Death information was obtained from the National Death Index (mean follow-up duration: 8.8 years). A total of 682 participants died after 12 months since baseline, with 206 and 170 deaths attributed to cardiovascular diseases (CVD) and cancer, respectively. The second quartile of fat mass percentages (FM%) was used as the reference to account for potential nonlinearity. In the multivariate-adjusted model, participants in the highest quartile of total FM% had increased total mortality; hazard ratio (HR; 95% confidence interval, 95% CI) was 1.48 (1.07-2.04; P<0.05). Higher total and trunk FM%, but not leg FM%, were significantly associated with an increased CVD mortality; HRs (95% CIs) in the highest quartiles of total, trunk, and leg FM% were 2.24 (1.17-4.31), 1.93 (1.02-3.66), and 1.50 (0.77-2.94), respectively. Higher total body fat was associated with increased total mortality in U.S. adults."

According to the news reporters, the research concluded: "Higher total and trunk fat contents were also associated with increased CVD mortality, although fat accumulation in the
lower body was not an independent predictor of mortality."


Our news correspondents report that additional information may be obtained by contacting Q. Sun, Harvard Med Sch, Boston, MA, United States. Additional authors for this research include Z.F. Zhang, Q.H. Yang, H.Y. Wu, F.B. Hu and Q. Sun.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Harvard School of Medicine.

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**Genetics - Medical Genetics**

**Studies from Harvard School of Medicine Describe New Findings in Medical Genetics (Navigating highly homologous genes in a molecular diagnostic setting: a resource for clinical next-generation sequencing)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics - Medical Genetics is now available. According to news reporting originating in Boston, Massachusetts, by NewsRx journalists, research stated, "Next-generation sequencing (NGS) is now routinely used to interrogate large sets of genes in a diagnostic setting. Regions of high sequence homology continue to be a major challenge for short-read technologies and can lead to false-positive and false-negative diagnostic errors."

The news reporters obtained a quote from the research from the Harvard School of Medicine, "At the scale of whole-exome sequencing (WES), laboratories may be limited in their knowledge of genes and regions that pose technical hurdles due to high homology. We have created an exome-wide resource that catalogs highly homologous regions that is tailored toward diagnostic applications. This resource was developed using a mappability-based approach tailored to current Sanger and NGS protocols. Gene-level and exon-level lists delineate regions that are difficult or impossible to analyze via standard NGS. These regions are ranked by degree of affectedness, annotated for medical relevance, and classified by the type of homology (within-gene, different functional gene, known pseudogene, uncharacterized noncoding region). Additionally, we provide a list of exons that cannot be analyzed by short-amplicon Sanger sequencing."

According to the news reporters, the research concluded: "This resource can help guide clinical test design, supplemental assay implementation, and results interpretation in the context of high homology."

For more information on this research see: Navigating highly homologous genes in a molecular diagnostic setting: a resource for clinical next-generation sequencing. *Genetics in Medicine*, 2016;18(12):1282-1289. *Genetics in Medicine* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)

Our news correspondents report that additional information may be obtained by contacting B. Funke, Harvard Med Sch, Massachusetts General Hospital, Dept. of Pathol,
Studies from Harvard School of Medicine Describe New Findings in Oncology (Precision medicine for cancer with next-generation functional diagnostics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Precision medicine is about matching the right drugs to the right patients. Although this approach is technology agnostic, in cancer there is a tendency to make precision medicine synonymous with genomics."

Our news editors obtained a quote from the research from the Harvard School of Medicine, "However, genome-based cancer therapeutic matching is limited by incomplete biological understanding of the relationship between phenotype and cancer genotype. This limitation can be addressed by functional testing of live patient tumor cells exposed to potential therapies. Recently, several 'next-generation' functional diagnostic technologies have been reported, including novel methods for tumor manipulation, molecularly precise assays of tumor responses and device-based in situ approaches; these address the limitations of the older generation of chemosensitivity tests."

According to the news editors, the research concluded: "The promise of these new technologies suggests a future diagnostic strategy that integrates functional testing with next-generation sequencing and immunoprofiling to precisely match combination therapies to individual cancer patients."


The news editors report that additional information may be obtained by contacting A.A. Friedman, Massachusetts General Hospital Cancer Center, Harvard Medical School, 55 Fruit Street, Boston, Massachusetts 02114, United States. Additional authors for this research include A. Letai, D.E. Fisher and K.T Flaherty.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrc4015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Cancer, Genetics, Oncology,
Technology, Massachusetts, United States, Article Review, North and Central America, Diagnostics and Screening.

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Cell Differentiation

Studies from Harvard School of Medicine Have Provided New Data on Cell Differentiation [Dedicator of cytokinesis 8 regulates signal transducer and activator of transcription 3 activation and promotes T(H) 17 cell differentiation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cell Differentiation are discussed in a new report. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "The autosomal recessive hyper-IgE syndrome (HIES) caused by dedicator of cytokinesis 8 (DOCK8) deficiency shares clinical features with autosomal dominant HIES because of signal transducer and activator of transcription 3 (STAT3) mutations, including recurrent infections and mucocutaneous candidiasis, which are suggestive of T(H)17 cell dysfunction. The mechanisms underlying this phenotypic overlap are unclear."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "We sought to elucidate common mechanisms operating in the different forms of HIES. We analyzed the differentiation of CD4(+) T-H cell subsets in control and DOCK8-deficient subjects. We also examined the role of DOCK8 in regulating STAT3 activation in T cells. T-H cell differentiation was analyzed by ELISA, flow cytometry, and real-time PCR measurements of cytokines and T-H cell transcription factors. The interaction of DOCK8 and STAT3 signaling pathways was examined by using flow cytometry, immunofluorescence, coimmunoprecipitation, and gene expression analysis. There was a profound block in the differentiation of DOCK8-deficient naive CD4(+) T cells into T(H)17 cells. A missense mutation that disrupts DOCK8 guanine nucleotide exchange factor (GEF) activity while sparing protein expression also impaired T(H)17 cell differentiation. DOCK8 constitutively associated with STAT3 independent of GEF activity-dependent manner. DOCK8 also promoted STAT3 phosphorylation in a GEF activity-dependent manner. DOCK8 also promoted STAT3 translocation to the nucleus and induction of STAT3-dependent gene expression. DOCK8 interacts with STAT3 and regulates its activation and the outcome of STAT3-dependent TH17 differentiation."

According to the news reporters, the research concluded: "These findings might explain the phenotypic overlap between DOCK8 deficiency and autosomal dominant HIES."

For more information on this research see: Dedicator of cytokinesis 8 regulates signal transducer and activator of transcription 3 activation and promotes T(H)17 cell differentiation. Journal of Allergy and Clinical Immunology, 2016;138(5):1384-1394,706-707. Journal of Allergy and Clinical Immunology can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Journal of Allergy and Clinical Immunology - www.journals.elsevier.com/journal-of-allergy-and-clinical-immunology/)

Our news journalists report that additional information may be obtained by contacting T.A. Chatila, Boston Childrens Hosp, Harvard Med Sch, Div Immunol, Boston, MA,

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cytometry, Immunology, Cell Differentiation, Cytokines, Genetics, Harvard School of Medicine.

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Endocytosis
Studies from Harvard School of Medicine Reveal New Findings on Endocytosis (ILK and cytoskeletal architecture: an important determinant of AQP2 recycling and subsequent entry into the exocytotic pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Endocytosis. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Within the past decade tremendous efforts have been made to understand the mechanism behind aquaporin-2 (AQP2) water channel trafficking and recycling, to open a path toward effective diabetes insipidus therapeutics. A recent study has shown that integrin-linked kinase (ILK) conditional-knockdown mice developed polyuria along with decreased AQP2 expression."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "To understand whether ILK also regulates AQP2 trafficking in kidney tubular cells, we performed in vitro analysis using LLCPK1 cells stably expressing rat AQP2 (LLC-AQP2 cells). Upon treatment of LLC-AQP2 cells with ILK inhibitor cpd22 and ILK-siRNA, we observed increased accumulation of AQP2 in the perinuclear region, without any significant increase in the rate of endocytosis. This perinuclear accumulation did not occur in cells expressing a serine-256-aspartic acid mutation that retains AQP2 in the plasma membrane. We then examined clathrin-mediated endocytosis after ILK inhibition using rhodamine-conjugated transferrin. Despite no differences in overall transferrin endocytosis, the endocytosed transferrin also accumulated in the perinuclear region where it colocalized with AQP2. These accumulated vesicles also contained the recycling endosome marker Rab11. In parallel, the usual vasopressin-induced AQP2 membrane accumulation was prevented after ILK inhibition; however, ILK inhibition did not measurably affect AQP2 phosphorylation at serine-256 or its dephosphorylation at serine-261. Instead, we found that inhibition of ILK increased F-actin polymerization. When F-actin was depolymerized with latrunculin, the perinuclear located AQP2 dispersed."

According to the news reporters, the research concluded: "ILK is important in orchestrating dynamic cytoskeletal architecture during recycling of AQP2, which is necessary for its subsequent entry into the exocytotic pathway."

For more information on this research see: ILK and cytoskeletal architecture; an important determinant of AQP2 recycling and subsequent entry into the exocytotic pathway. American Journal of Physiology-Renal Physiology, 2016;311(6):F1346-F1357. American Journal of Physiology-Renal Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Iron-Binding Proteins, Acute-Phase Proteins, Neutral Amino Acids, Carrier Proteins, Blood Proteins, Beta-Globulins, Transferrin, Endocytosis, Genetics, Serine, Harvard School of Medicine.

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Heart Disorders and Diseases - Heart Failure

Studies from Harvard School of Medicine Reveal New Findings on Heart Failure (Novel Heart Failure Biomarkers Predict Improvement of Mitral Regurgitation in Patients Receiving Cardiac Resynchronization Therapy-The BIOCRT Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Failure. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Cardiac resynchronization therapy (CRT) improves mitral regurgitation (MR) in a subset of patients. We hypothesized that biomarkers (amino-terminal pro-B type natriuretic peptide, high-sensitivity troponin I, galectin-3 [gal-3], and soluble ST2) might predict MR response after CRT."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "We measured levels of biomarkers during CRT implantation in 132 patients with a subsequent 2-year follow-up. MR was graded as no-trace, mild, moderate, or severe at baseline and at 6 months. In patients with baseline at least mild MR, 56% had improvement at 6 months, with lower 2-year mortality vs patients without improvement (0% vs 18%; P = 0.002). At baseline, patients with MR improvement had lower high-sensitivity troponin I and gal-3 levels compared with those without improvement (19 vs 40 pg/L; P = 0.01; 14 vs 18 ng/mL; P = 0.007). In multivariable analyses, higher log-transformed gal-3 (odds ratio, 0.15; 95% confidence interval, 0.04-0.65; P = 0.01) remained an independent predictor for MR nonimprovement. Levels of pro-B type natriuretic peptide and soluble ST2 were lower at follow-up in patients with MR improvement (potentially reflecting reduced myocardial stretch and stress) without reaching statistical significance."

According to the news editors, the research concluded: "Higher galectin levels at the time of CRT implantation are associated with MR nonresponse."


Our news journalists report that additional information may be obtained by contacting J. Beaudoin, Harvard Med Sch, Massachusetts General Hospital, Div Cardiol,
Studies from Harvard School of Medicine Reveal New Findings on Molecular Cancer and Carcinogenesis (MUC1-C Represses the Crumbs Complex Polarity Factor CRB3 and Downregulates the Hippo Pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Molecular Cancer and Carcinogenesis are discussed in a new report. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Apical-basal polarity and epithelial integrity are maintained in part by the Crumbs (CRB) complex. The C-terminal subunit of MUC1 (MUC1-C) is a transmembrane protein that is expressed at the apical border of normal epithelial cells and aberrantly at high levels over the entire surface of their transformed counterparts."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "However, it is not known whether MUC1-C contributes to this loss of polarity that is characteristic of carcinoma cells. Here it is demonstrated that MUC1-C downregulates expression of the Crumbs complex CRB3 protein in triple-negative breast cancer (TNBC) cells. MUC1-C associates with ZEB1 on the CRB3 promoter and represses CRB3 transcription. Notably, CRB3 activates the core kinase cassette of the Hippo pathway, which includes LATS1 and LATS2. In this context, targeting MUC1-C was associated with increased phosphorylation of LATS1, consistent with activation of the Hippo pathway, which is critical for regulating cell contact, tissue repair, proliferation, and apoptosis. Also shown is that MUC1-C-mediated suppression of CRB3 and the Hippo pathway is associated with dephosphorylation and activation of the oncogenic YAP protein. In turn, MUC1-C interacts with YAP, promotes formation of YAP/beta-catenin complexes, and induces the WNT target gene MYC."

According to the news reporters, the research concluded: "These data support a previously unrecognized pathway in which targeting MUC1-C in TNBC cells (i) induces CRB3 expression, (ii) activates the CRB3-driven Hippo pathway, (iii) inactivates YAP, and thereby (iv) suppresses YAP/b-catenin-mediated induction of MYC expression."

For more information on this research see: MUC1-C Represses the Crumbs Complex Polarity Factor CRB3 and Downregulates the Hippo Pathway. Molecular Cancer Research, 2016;14(12):1266-1276. Molecular Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Molecular Cancer Research - mcr.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting D. Kufe, Harvard Med Sch, Dana Farber Canc Inst, Boston, MA 02215, United States. Additional authors for this research include A. Bouillez, A. Tagde, R. Ahmad, H. Rajabi,
T. Maeda, M. Hiraki, Y. Suzuki and D. Kufe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1541-7786.MCR-16-0233. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Molecular Cancer and Carcinogenesis, Oncology, Genetics, Harvard School of Medicine.

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**Drugs and Therapies - Ophthalmic Glaucoma Agents**

**Studies from Harvard School of Medicine Yield New Data on Ophthalmic Glaucoma Agents (Latanoprost-Eluting Contact Lenses in Glaucomatous Monkeys)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Ophthalmic Glaucoma Agents is the subject of a report. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "To assess the ability of latanoprost-eluting contact lenses to lower the intraocular pressure (IOP) of glaucomatous eyes of cynomolgus monkeys. Preclinical efficacy study of 3 treatment arms in a crossover design."

Our news editors obtained a quote from the research from the Harvard School of Medicine, "Female cynomolgus monkeys with glaucoma induced in 1 eye by repeated argon laser trabeculoplasty. Latanoprost-eluting low-dose contact lenses (CLLO) and high-dose contact lenses (CLHI) were produced by encapsulating a thin latanoprost-polymer film within the periphery of a methafilcon hydrogel, which was lathed into a contact lens. We assessed the IOP-lowering effect of CLLO, CLHI, or daily latanoprost ophthalmic solution in the same monkeys. Each monkey consecutively received 1 week of continuous-wear CLLO, 3 weeks without treatment, 5 days of latanoprost drops, 3 weeks without treatment, and 1 week of continuous-wear CLHI. On 2 consecutive days before initiation of each study arm, the IOP was measured hourly over 7 consecutive hours to establish the baseline IOP. Two-tailed Student t tests and repeated-measures analysis of variance were used for statistical analysis. Intraocular pressure. Latanoprost ophthalmic solution resulted in IOP reduction of 5.4 +/- 1.0 mmHg on day 3 and peak IOP reduction of 6.6 +/- 1.3 mmHg on day 5. The CLLO reduced IOP by 6.3 +/- 1.0, 6.7 +/- 0.3, and 6.7 +/- 0.3 mmHg on days 3, 5, and 8, respectively. The CLHI lowered IOP by 10.5 +/- 1.4, 11.1 +/- 4.0, and 10.0 +/- 2.5 mmHg on days 3, 5, and 8, respectively. For the CLLO and CLHI, the IOP was statistically significantly reduced compared with the untreated baseline at most time points measured. The CLHI demonstrated greater IOP reduction than latanoprost ophthalmic solution on day 3 (P = 0.001) and day 5 (P = 0.015), and at several time points on day 8 (P < 0.05). Sustained delivery of latanoprost by contact lenses is at least as effective as delivery with daily latanoprost ophthalmic solution. More research is needed to determine the optimal continuous-release dose that would be well tolerated and maximally effective."

According to the news editors, the research concluded: "Contact lens drug delivery may become an option for the treatment of glaucoma and a platform for ocular drug delivery."

For more information on this research see: Latanoprost-Eluting Contact Lenses in...
Studies from Harvard School of Medicine Yield New Data on Toxicology and Applied Pharmacology (Application of small RNA sequencing to identify microRNAs in acute kidney injury and fibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Toxicology and Applied Pharmacology is the subject of a report. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "Establishing a microRNA (miRNA) expression profile in affected tissues provides an important foundation for the discovery of miRNAs involved in the development or progression of pathologic conditions. We conducted small RNA sequencing to generate a temporal profile of miRNA expression in the kidneys using a mouse model of folic acid-induced (250 mg/kg i.p.) kidney injury and fibrosis."

Financial supporters for this research include NIH/NIEHS, Burroughs Wellcome Fund.

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "From the 103 miRNAs that were differentially expressed over the time course (>2-fold, p< 0.05), we chose to further investigate miR-18a-5p, which is expressed during the acute stage of the injury; miR-132-3p, which is upregulated during transition between acute and fibrotic injury; and miR-146b-5p, which is highly expressed at the peak of fibrosis. Using qRT-PCR, we confirmed the increased expression of these candidate miRNAs in the folic acid model as well as in other established mouse models of acute injury (ischemia/reperfusion injury) and fibrosis (unilateral ureteral obstruction). In situ hybridization confirmed high expression of miR-18a-5p, miR-132-3p and miR-146b-5p throughout the kidney cortex in mice and humans with severe kidney injury or fibrosis. When primary human proximal tubular epithelial cells were treated with model nephrotoxicants such as cadmium chloride (CdCl2), arsenic trioxide, aristolochic acid (AA), potassium dichromate (K2Cr2O7) and cisplatin, miRNA-132-3p was upregulated 4.3-fold after AA treatment and 1.5-fold after K2Cr2O7 and CdCl2 treatment."

According to the news reporters, the research concluded: "These results demonstrate
the application of temporal small RNA sequencing to identify miR-18a, miR-132 and miR-146b as differentially expressed miRNAs during distinct phases of kidney injury and fibrosis progression."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2015.12.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Toxicology and Applied Pharmacology, Drugs and Therapies, Genetics, Harvard School of Medicine.

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**Gastroenterology - Hernias**

**Studies from Harvard School of Medicine in the Area of Hernias Described [De Novo Frameshift Mutation in COUP-TFIi (NR2F2) in Human Congenital Diaphragmatic Hernia]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gastroenterology - Hernias have been published. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "COUP-TFIi (NR2F2) is mapped to the 15q26 deletion hotspot associated with the common and highly morbid congenital diaphragmatic hernia (CDH). Conditional homozygous deletions of COUP-TFIi in mice result in diaphragmatic defects analogous to the human Bochdalek-type hernia phenotype."

The news correspondents obtained a quote from the research from the Harvard School of Medicine, "Despite evidence from animal models however, mutations in the coding sequence of COUP-TFIi have not been reported in patients, prompting the speculation that additional coding or non-coding sequences in the 15q26 locus are necessary for diaphragmatic hernias to develop. In this report, we describe a case of a patient with a heterozygous de novo COUP-TFIi frameshift mutation, presenting with CDH and an atrial septal defect. The p.Pro33AlafsTer77 mutation specifically disrupts protein isoform 1 which contains the DNA binding domain. In addition, we review other COUP-TFIi sequence variations and deletions that have been described in cases of CDH."

According to the news reporters, the research concluded: "COUP-TFIi mutations can cause diaphragmatic hernias, and should be included in the differential diagnosis of CDH patients, particularly those with comorbid congenital heart defects."

Our news journalists report that additional information may be obtained by contacting M. Longoni, Harvard Med Sch, Boston, MA, United States. Additional authors for this research include P. Bhayani, J.M. Wilson, C.J. Bult, P.K. Donahoe and M. Longoni.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Congenital Diseases and Conditions, Congenital Diaphragmatic Hernia, Gynecology, Genetics, Gastroenterology, Hernias, Harvard School of Medicine.

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Physical Fitness

Studies from Harvard University Describe New Findings in Physical Fitness (Physical Fitness Differences Between Rural and Urban Children from Western Kenya)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Physical Fitness have been published. According to news reporting from Cambridge, Massachusetts, by NewsRx journalists, research stated, "To study the effects of urbanization on physical fitness (PF), we compare PF between urban and rural children from western Kenya. We hypothesize that active rural children are stronger, more flexible, and have greater endurance, and that PF differences are predictive of endurance running performance."

The news correspondents obtained a quote from the research from Harvard University, "We recruited an age-matched, cross-sectional sample of participants (55 males, 60 females; 6-17 years) from schools near Eldoret, Kenya. PF and anthropometrics were assessed using the FITNESSGRAM®. General linear mixed models (GLMM) and path analyses were performed to test for age, sex, and activity group differences in PF, as well as the effects of PF variables on mile run time. On average, urban participants had greater body mass (36.8 +/- 15.9 vs. 31.9 +/- 10.9 kg) but were not taller than rural participants (1.4 +/- 0.2 vs. 1.4 +/- 0.2 cm). Greater urban body mass appears driven by higher body fat (28.2 +/- 9.4 vs. 16.8 +/- 4.4%), which increased with age in urban but not rural participants. GLMM analyses showed age effects on strength variables (P < 0.05) and sex differences in hip flexibility, sit-ups, and mile run (P < 0.05). There were fewer differences in PF between groups except rural participants had stronger back muscles (18.2 +/- 4.5 vs. 14.18 +/- 4.3 cm) and faster mile times (6.3 +/- 0.7 vs. 7.9 +/- 2.0 min). Body composition and abdominal strength were predictive of mile time (P < 0.06), but the path analysis revealed a network of interacting direct and indirect effects that influenced endurance performance."

According to the news reporters, the research concluded: "Although differences in endurance and body composition are marked between urban and rural groups, strength and flexibility are not always correlated with overall activity levels."

For more information on this research see: Physical Fitness Differences Between


Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Physical Fitness, Exercise, Harvard University.

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**Cardiovascular Diseases and Conditions - Aneurysm**

**Studies from Heart Center Have Provided New Information about Aneurysm (Giant left atrial appendage aneurysm compressing the left anterior descending coronary artery)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Aneurysm. According to news reporting from Aswan, Egypt, by NewsRx journalists, research stated, "Left atrial appendage aneurysm (LAAA) is a rare congenital structural heart disease. It is often diagnosed by echocardiography; however, other imaging modalities can add to its diagnosis and its potential effects on the surrounding structures."

The news correspondents obtained a quote from the research from Heart Center, "A 16-year-old boy presented with dyspnea and palpitation. Transthoracic echocardiography showed a large LAAA communicating with the LA through a narrow neck with impaired left ventricular (LV) systolic function. Multidetector cardiac tomography showed that the LAAA is compressing the left anterior descending artery."

According to the news reporters, the research concluded: "The LAAA was surgically resected followed by improvement of the LV systolic function."


Our news journalists report that additional information may be obtained by contacting K. Wagdy, Magdi Yacoub Fdn, Aswan Heart Center, Adult Cardiol, Aswan, Egypt. Additional authors for this research include A. Samaan, S. Romeih, W. Simry, A. Afifi and M. Hassan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/echo.13296. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aswan, Egypt, Africa, Cardiovascular Diseases and Conditions, Echocardiography, Coronary Artery, Cardiology, Angiology,
Oncology - Gliomas

Studies from Hebei Medical University Have Provided New Data on Gliomas (Slit2 and Robo1 expression as biomarkers for assessing prognosis in brain glioma patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gliomas have been published. According to news reporting out of Shijiazhuang, People's Republic of China, by NewsRx editors, research stated, "This study was conducted to investigate the clinical significance of Slit2 and Robo1 expression in prognosis of patients with brain gliomas. Human brain tissue samples were collected from normal glial tissues (control), low- and high-grade glioma tissues."

Funders for this research include Key Project of Hebei Medical Science Research, The Second Hospital of Hebei Medical University Scientific Research.

Our news journalists obtained a quote from the research from Hebei Medical University, "Slit2 and Robo1 expression levels in cells were assessed by an immunohistochemistry (IHC), and population of the Slit2- and Robo1-presenting patients was examined. The Slit2 and Robo1 mRNA expression levels in three types of the brain cells was determined by RT-PCR. Slit2(+) cell counts were decreased with increased Robo1(+) cells in the low-grade and high-grade glioma tissues as compared to the control. The percentage of cells expressing Slit2 decreased from the control to the high-grade glioma and the percentage of cells expressing Robo1 in low- and high-grade gliomas was increased as compared to the control (P < 0.01). The decrease in the Slit2 mRNA expression was associated with the increase in the Robo1 mRNA expression in the low- and high-grade gliomas (P < 0.01 or 0.05). Survival time for patients with Slit2(-)/Robo1(+) gliomas was shorter than patients with Slit2(+)/Robo1(+) gliomas in the investigated cohorts (P < 0.01). Slit2 and Robo1 expression levels serve as a biomarker with utility in grading gliomas as well as predicting patient survival."

According to the news editors, the research concluded: "The change in Slit2 expression is more reliable and effective than Robo1 expression in predicting a poor prognosis of brain glioma patients."


Our news journalists report that additional information may be obtained by contacting L.Q. Liu, Hebei Medical University, Hosp 2, Dept. of Neurosurg, Shijiazhuang 050000, Hebei, People's Republic of China. Additional authors for this research include W.H. Li, S.M. Geng, Y.W. Fang, Z.M. Sun, H.C. Hu, Z.H. Liang and Z.J. Yan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.suronc.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shijiazhuang, People's Republic of China, Asia, Oncology, Genetics, Gliomas, Hebei Medical University.
Studies from Heilongjiang University Yield New Information about Rheumatoid Arthritis (Quercetin promotes the apoptosis of fibroblast-like synoviocytes in rheumatoid arthritis by upregulating IncRNA MALAT1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Autoimmune Diseases and Conditions - Rheumatoid Arthritis have been presented. According to news reporting originating in Heilongjiang, People's Republic of China, by NewsRx journalists, research stated, "Rheumatoid arthritis (RA) is a chronic autoimmune joint disease and fibroblast-like synoviocytes (FLS) are the resident mesenchymal cells of synovial joints. Quercetin is a dietary antioxidant."

The news reporters obtained a quote from the research from Heilongjiang University, "In this study, we aimed to explore the mechanisms responsible for the quercetin-induced apoptosis of FLS from patients with RA (termed RAFLS). RAFLS viability was determined following treatment of the cells with or without quercetin using the Cell Counting kit-8 (CCK-8) assay. The apoptosis of the RAFLS was analyzed using the Annexin V-fluorescein isothiocyanate (FITC) apoptosis detection kit I. The results revealed that RAFLS viability decreased and apoptosis increased in following treatment with quercetin. The differentially expressed long non-coding RNAs (lncRNAs) were screened and marked by PCR array following treatment with quercetin. The expression levels of the screened lncRNAs were then determined and compared in the cells treated with or without quercetin by quantitative PCR. The lncRNA metastasis associated lung adenocarcinoma transcript 1 (MALAT1) was finally selected. Small interfering RNA (siRNA) was then used to knock down the expression of MALAT1 in order to determine the role of MALAT1 in the quercetin-induced apoptosis of RAFLS. The results revealed that the knockdown of MALAT1 inhibited RAFLS apoptosis. At the same time, the expression of caspase-3 and caspase-9 was significantly decreased in the cells in which MALAT1 was knocked down. The phosphoinositide 3-kinase (PI3K)/AKT signaling pathway was activated; this activation is known to be associated with enhanced cell proliferation and decreased apoptosis."

According to the news reporters, the research concluded: "The findings of our study indicate that quercetin promotes RAFLS apoptosis by upregulating lncRNA MALAT1, and that MALAT1 induces apoptosis by inhibiting the activation of the PI3K/AKT pathway."

For more information on this research see: Quercetin promotes the apoptosis of fibroblast-like synoviocytes in rheumatoid arthritis by upregulating lncRNA MALAT1. International Journal of Molecular Medicine, 2016;38(5):1507-1514. International Journal of Molecular Medicine can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

Our news correspondents report that additional information may be obtained by contacting C.P. Pei, Heilongjiang Univ Chinese Med, Affiliated Hosp 1, Dept. of Renal Dis, Harbin 150040, Heilongjiang, People's Republic of China. Additional authors for this research include L.H. Zhu, H.Z. Lv and C.P. Pei.

Keywords for this news article include: Heilongjiang, People's Republic of China,
Studies from Heinrich-Heine-University Update Current Data on Erythroid Cells (Triggering of Erythrocyte Cell Membrane Scrambling by Emodin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Erythroid Cells are presented in a new report. According to news reporting out of Dusseldorf, Germany, by NewsRx editors, research stated, "The natural anthraquinone derivative emodin (1,3,8-trihydroxy-6-methylanthraquinone) is a component of several Chinese medicinal herbal preparations utilized for more than 2000 years. The substance has been used against diverse disorders including malignancy, inflammation and microbial infection."

Our news journalists obtained a quote from the research from Heinrich-Heine-University, "The substance is effective in part by triggering suicidal death or apoptosis. Similar to apoptosis of nucleated cells erythrocytes may enter suicidal erythrocyte death or eryptosis, characterized by cell shrinkage and cell membrane scrambling with phosphatidylserine translocation to the erythrocyte surface. Signaling involved in the triggering of eryptosis include increase of cytosolic Ca2+ activity ([Ca2+]i) oxidative stress and ceramide. The present study aimed to test, whether emodin induces eryptosis and, if so, to elucidate underlying cellular mechanisms. Phosphatidylserine abundance at the cell surface was estimated from annexin-V-binding, cell volume from forward scatter, [Ca2+]i from Fluo3-fluorescence, ROS formation from DCFDA dependent fluorescence, and ceramide abundance utilizing specific antibodies. Exposure of human erythrocytes for 48 hours to emodin >= 10 mu M) significantly increased the percentage of annexin-V-binding cells, and at higher concentrations (>= 50 mu M) significantly increased forward scatter. Emodin significantly increased Fluo3-fluorescence (>= 10 mu M), DCFDA fluorescence (75 mu M) and ceramide abundance (75 mu M). The effect of emodin on annexin-V-binding was significantly blunt but not abolished by removal of extracellular Ca2+.

According to the news editors, the research concluded: "Emodin triggers phospholipid scrambling of the erythrocyte cell membrane, an effect at least in part due to stimulation of Ca2+ entry and paralleled by oxidative stress and ceramide appearance at the erythrocyte surface."

For more information on this research see: Triggering of Erythrocyte Cell Membrane Scrambling by Emodin. *Cellular Physiology and Biochemistry*, 2016;40(1-2):91-103. Cellular Physiology and Biochemistry can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Cellular Physiology and Biochemistry - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224332)

Our news journalists report that additional information may be obtained by contacting F. Lang, Heinrich Heine Univ Dusseldorf, Dept. of Mol Med 2, Dusseldorf,
Germany. Additional authors for this research include M. Jemaa, M. Almasry, C. Faggio and F. Lang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000452527. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dusseldorf, Germany, Europe, Cellular Structures, Erythroid Cells, Cell Membrane, Cell Research, Erythrocytes, Anthracenes, Blood Cells, Immunology, Eryptosis, Ceramides, Genetics, Cascara, Emodin, Heinrich-Heine-University.

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Proteomics

Studies from Heinrich-Heine-University Update Current Data on Proteomics (Highly efficient transduction of primary adult CNS and PNS neurons)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Proteomics are presented in a new report. According to news reporting out of Dusseldorf, Germany, by NewsRx editors, research stated, "Delivery and expression of recombinant genes, a key methodology for many applications in biological research, remains a challenge especially for mature neurons. Here, we report easy, highly efficient and well tolerated transduction of adult peripheral and central neuronal populations of diverse species in culture using VSV-G pseudo-typed, recombinant baculovirus (BacMam)."

Our news journalists obtained a quote from the research from Heinrich-Heine-University, "Transduction rates of up to 80% were reliably achieved at high multiplicity of infection without apparent neuro-cytopathic effects. Neurons could be transduced either shortly after plating or after several days in culture. Co-incubation with two different baculoviruses attained near complete co-localization of fluorescent protein expression, indicating multigene delivery. Finally, evidence for functional protein expression is provided by means of cre-mediated genetic recombination and neurite outgrowth assays. Recombinant protein was already detected within hours after transduction, thereby enabling functional readouts even in relatively short-lived neuronal cultures."

According to the news editors, the research concluded: "Altogether, these results substantiate the usefulness of baculovirus-mediated transduction of mature neurons for future research in neuroscience."

For more information on this research see: Highly efficient transduction of primary adult CNS and PNS neurons. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting D. Fischer, Heinrich Heine Univ, Fac Med, Div Expt Neurol, D-40225 Dusseldorf, Germany. Additional authors for this research include H. Diekmann and D. Fischer.

Keywords for this news article include: Dusseldorf, Germany, Europe, Protein Expression, Proteomics, Genetics, Heinrich-Heine-University.
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Erythroid Cells

Studies from Heinrich-Heine-University Yield New Information about Erythroid Cells (Stimulation of Suicidal Erythrocyte Death by Phosphatase Inhibitor Calyculin A)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Erythroid Cells have been published. According to news reporting out of Dusseldorf, Germany, by NewsRx editors, research stated, "The serine/threonine protein phosphatase 1 and 2a inhibitor Calyculin A may trigger suicidal death or apoptosis of tumor cells. Similar to apoptosis of nucleated cells, erythrocytes may enter eryptosis, the suicidal erythrocyte death characterized by cell shrinkage and cell membrane scrambling with phosphatidylserine translocation to the erythrocyte surface."

Our news journalists obtained a quote from the research from Heinrich-Heine-University, "Triggers of eryptosis include increase of cytosolic Ca2+ activity ([Ca2+](i)). Eryptosis is fostered by activation of staurosporine sensitive protein kinase C, SB203580 sensitive p38 kinase, and D4476 sensitive casein kinase. Eryptosis may further involve zVAD sensitive caspases. The present study explored, whether Calyculin A induces eryptosis and, if so, whether its effect requires Ca2+ entry, kinases and/or caspases Methods: Phosphatidylserine exposure at the cell surface was estimated from annexin-V-binding, cell volume from forward scatter, and [Ca2+](i) from Fluo-3 fluorescence, as determined by flow cytometry. A48 hours exposure of human erythrocytes to Calyculin A (>= 2.5 nM) significantly increased the percentage of annexin-V-binding cells, significantly decreased forward scatter and significantly increased Fluo-3 fluorescence. The effect of Calyculin A on annexin-V-binding was significantly blunted by removal of extracellular Ca2+, by staurosorine (1 mu M), SB203580 (2 mu M), D4476 (10 mu M), and zVAD (10 mu M)."

According to the news editors, the research concluded: "Calyculin A triggers cell shrinkage and phospholipid scrambling of the erythrocyte cell membrane, an effect at least in part requiring Ca2+ entry, kinase activity and caspase activation."


Our news journalists report that additional information may be obtained by contacting F. Lang, Heinrich Heine Univ, Fac Med, Dept. of Mol Med 2, Dusseldorf, Germany. Additional authors for this research include M. Jernaar, M. Mischitelli, C. Faggio and F. Lang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000452534. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dusseldorf, Germany, Europe, Enzymes and Coenzymes, Erythroid Cells, Cell Research, Erythrocytes, Blood Cells, Immunology, Eryptosis, Genetics, Kinase, Heinrich-Heine-University.
Hormones

Studies from Herlev University Hospital Provide New Data on Hormones (The analgesic effects of exogenous melatonin in humans)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hormones have been presented. According to news reporting from Herlev, Denmark, by NewsRx editors, the research stated, "The hormone, melatonin is produced with circadian rhythm by the pineal gland in humans. The melatonin rhythm provides an endogenous synchronizer, modulating e.g. blood pressure, body temperature, cortisol rhythm, sleep-awake-cycle, immune function and anti-oxidative defence."

The news correspondents obtained a quote from the research from Herlev University Hospital, "Interestingly, a number of experimental animal studies demonstrate significant dose-dependent anti-nociceptive effects of exogenous melatonin. Similarly, recent experimental- and clinical studies in humans indicate significant analgesic effects. In study I, we systematically reviewed all randomized studies investigating clinical effects of perioperative melatonin. Meta-analyses demonstrated significant analgesic and anxiolytic effects of melatonin in surgical patients, equating reductions of 20 mm and 19 mm, respectively on a VAS, compared with placebo. Profound heterogeneity between the included studies was, however, present. In study II, we aimed to investigate the analgesic, anti-hyperalgesic and anti-inflammatory effects of exogenous melatonin in a validated human inflammatory pain model, the human burn model. The study was performed as a randomized, double blind placebo-controlled crossover study. Primary outcomes were pain during the burn injury and areas of secondary hyperalgesia. No significant effects of exogenous melatonin were observed with respect to primary or secondary outcomes, compared to placebo. III and IV estimated the pharmacokinetic variables of exogenous melatonin. Oral melatonin demonstrated a tmax value of 41 minutes. Bioavailability of oral melatonin was only 3%. Elimination t(1/2) were approximately 45 minutes following both oral and intravenous administration, respectively. High-dose intravenous melatonin was not associated with increased sedation, in terms of simple reaction times, compared to placebo. Similarly, no other adverse effects were reported. In Study V, we aimed to re-analyse data obtained from a randomized analgesic drug trial by a selection of standard statistical test. Furthermore, we presented an integrated assessment method of longitudinally measured pain intensity and opioid consumption. Our analyses documented that the employed statistical method impacted the statistical significance of postoperative analgesic outcomes. Furthermore, the novel integrated assessment method combines two interdependent outcomes, lowers the risk of type 2 errors, increases the statistical power, and provides a more accurate description of postoperative analgesic efficacy. Exogenous melatonin may offer an effective and safe analgesic drug. At this moment, however, the results of human studies have been contradictory. High-quality randomized experimental- and clinical studies are still needed to establish a 'genuine' analgesic effect of the drug in humans. Other perioperative effects of exogenous melatonin should also be investigated, before melatonin can be introduced for clinical routine use in surgical patients."

According to the news reporters, the research concluded: "Despite promising experimental and clinical findings, several unanswered questions also relate to optimal dosage, timing of administration and administration route of exogenous melatonin."
Cardiovascular Diseases and Conditions

Studies from Hiroshima University Hospital Reveal New Findings on Atherosclerosis (Vascular Function and Intima-media Thickness of a Leg Artery in Peripheral Artery Disease: A Comparison of Buerger Disease and Atherosclerotic Peripheral Artery ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Atherosclerosis are discussed in a new report. According to news reporting originating in Hiroshima, Japan, by NewsRx journalists, research stated, "Both vascular function and structure are independent predictors of cardiovascular events. The purpose of this study was to evaluate vascular function and structure of a leg artery in patients with peripheral artery disease (PAD)."

The news reporters obtained a quote from the research from Hiroshima University Hospital, "We measured flow-mediated vasodilatation (FMD) and nitroglycerine-induced vasodilation (NID) as indices of vascular function and intima-media thickness (IMT) as an index of vascular structure of the popliteal artery in 100 subjects, including 20 patients with Buerger disease and 30 patients with atherosclerotic PAD, 20 age-and sex-matched subjects without Buerger disease (control group) and 30 age-and sex-matched patients without atherosclerotic PAD (control group). IMT was significantly larger in the Buerger group than in the control group (Buerger, 0.63 +/- 0.20 mm; control, 0.50 +/- 0.07 mm; P=0.01), whereas there were no significant differences in FMD and NID between the two groups. IMT was significantly larger in the atherosclerotic PAD group than in the control group (atherosclerotic PAD, 0.80 +/- 0.22 mm; control, 0.65 +/- 0.14 mm; P< 0.01), and FMD and NID were significantly smaller in the atherosclerotic PAD group than in the control group (FMD: atherosclerotic PAD, 3.9% +/- 1.1%; control, 5.0% +/- 1.8%; P< 0.01; and NID: atherosclerotic PAD, 6.1% +/- 2.0%; control, 8.4% +/- 2.1%; P< 0.01)."

According to the news reporters, the research concluded: "These findings suggest that vascular function is preserved in patients with Buerger disease and that both vascular function and vascular structure are impaired in patients with atherosclerotic PAD."

For more information on this research see: Vascular Function and Intima-media Thickness of a Leg Artery in Peripheral Artery Disease: A Comparison of Buerger Disease and Atherosclerotic Peripheral Artery Disease. Journal of Atherosclerosis and Thrombosis, 2016;23
Nutritional and Metabolic Diseases and Conditions - …

Studies from Hokkaido University Reveal New Findings on Obesity
[Squalene modulates fatty acid metabolism: Enhanced EPA/DHA in obese/diabetic mice (KK-A(y)) model]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting from Hakodate, Japan, by NewsRx journalists, research stated, "Biosynthesis of long-chain n-3 fatty acids from precursors is limited. In vivo effect of squalene (SQ) on the metabolic fate of n-3 fatty acid precursors in obese/diabetes-prone male KK-A(y) mice was evaluated in our work."

The news correspondents obtained a quote from the research from Hokkaido University, "Soybean oil, being rich in ALA (18:3 n-3; a known precursor of EPA/DHA), was chosen as the n-3 fatty acid precursor rich source. A high-fat diet (20%) containing 7% soybean oil (SO) was fed to obesity/diabetes-prone male KK-A(y) mice (control). In the case of diets fed to test groups, soybean oil was replaced with 5% SO and 2% SQ. Hepatic DHA levels increased (four fold) in SQ fed group over control (p <0.05). Gene and protein expressions of (5) and (6) desaturases, key enzymes involved in the fatty acid metabolism, further supported the results. Also, SQ exhibited a hypotriglyceridemic and hypoglycemic effect. The results clearly indicated the effect of SQ in modulating the n-3 fatty acid metabolism, including EPA/DHA synthesis in the presence of n-3 fatty acid precursor. This is the first report of enhancement of in vivo DHA/EPA by SQ and in turn, modulating the physiological fatty acid profile. Squalene (SQ) is an important marine biofunctional material that is found in some terrestrial sources as well. Squalene, being a cholesterol precursor, forms an interesting subject of research for its effect in vivo. SQ significantly enhanced proportions of EPA and/or DHA when their n-3 fatty acid precursors were available in the diet. The study further establishes the usefulness of SQ in functional food formulations. The work provides an important basis for further evaluation of the role of SQ in normal and disease conditions. KK-A(y) mice were fed high fat/sucrose diet to induce obesity/diabetes. Fat source in control diet was lard and soybean oil while experimental group diet contained 2% squalene+13% lard+5% soybean oil. Feeding squalene for 4weeks modulated fatty acid metabolism with increased docosahexaenoic acid (DHA) and decrease in
triglycerides (TG), compared to control. The enhanced DHA in the fatty acid profile was supported by upregulated mRNA expression of (5)-desaturase enzyme and protein expression of (5) and (6) desaturases (FADS1 and FADS2)."

According to the news reporters, the research concluded: "Additionally, squalene had a hypoglycemic effect in the mice."


Our news journalists report that additional information may be obtained by contacting S.R. Kumar, Hokkaido University, Fac Fisheries Sci, Hakodate, Hokkaido 0418611, Japan. Additional authors for this research include I. Yamauchi, B. Narayan, A. Katsuki, M. Hosokawa and K. Miyashita.

Keywords for this news article include: Hakodate, Japan, Asia, Nutritional and Metabolic Diseases and Conditions, Obesity and Diabetes, Organic Chemicals, Endocrinology, Hydrocarbons, Triterpenes, Bariatrics, Squalene, Polyenes, Genetics, Hokkaido University.

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Drugs and Therapies - Coumarins and Indandiones

Studies from Hokkaido University in the Area of Coumarins and Indandiones Described [Novel revelation of warfarin resistant mechanism in roof rats (Rattus rattus) using pharmacokinetic/pharmacodynamic analysis]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Coumarins and Indandiones. According to news reporting originating from Hokkaido, Japan, by NewsRx correspondents, research stated, "Roof rats (Rattus rattus) live mainly in human habitats. Heavy use of rodenticides, such as warfarin, has led to the development of drug resistance, making pest control difficult."

"There have been many reports regarding mutations of vitamin K epoxide reductase (VKOR), the target enzyme of warfarin, in resistant rats. However, it has been suggested there are other mechanisms of warfarin resistance. To confirm these possibilities, closed colonies of warfarin-susceptible roof rats (S) and resistant rats from Tokyo ® were established, and the pharmacokinetics/ pharmacodynamics of warfarin in rats from both colonies was investigated. R rats had low levels of warfarin in serum and high clearance activity. These rats can rapidly metabolize warfarin by hydroxylation. The levels of accumulation in the organs were lower than those of S rats. R rats administered warfarin showed high expression levels of CYP2B, 2C, and 3A, which play roles in warfarin hydroxylation, and may explain the high clearance ability of R
According to the news editors, the research concluded: "The mechanism of warfarin resistance in roof rats from Tokyo involved not only mutation of VKOR but also high clearance ability due to high levels of CYP2B, 2C and 3A expression possibly induced by warfarin."


The news editors report that additional information may be obtained by contacting M. Ishizuka, Hokkaido University, Grad Sch Vet Med, Dept. of Environm Vet Sci, Toxicol LabKita Ku, Sapporo, Hokkaido 0600818, Japan. Additional authors for this research include Y. Ikenaka, T. Tanikawa, K.D. Tanaka, S.M.M. Nakayama, H. Mizukawa and M. Ishizuka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pestbp.2016.04.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hokkaido, Japan, Asia, Coumarin and Indandione Derivative, Coumarins and Indandiones, Coagulation Modifiers, Drugs and Therapies, Pharmacodynamics, Pharmacokinetics, Warfarin Therapy, Pharmaceuticals, Anticoagulants, Rodenticide, Hokkaido University.

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Drugs and Therapies - Menthol Therapy

Studies from Hoshi University in the Area of Menthol Therapy Reported (Effect of Nerolidol and/or Levulinic Acid on the Thermotropic Behavior of Lipid Lamellar Structures in the Stratum Corneum)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Menthol Therapy have been published. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Permeation enhancers are required to deliver drugs through the skin efficiently and maintain effective blood concentrations. Studies of the barrier function of the stratum corneum using l-menthol, a monocyclic monoterpene widely used in medicines and foods, have revealed an interaction between characteristic intercellular lipid structures in the stratum corneum and permeation enhancers."

Our news editors obtained a quote from the research from Hoshi University, "The variety of permeation enhancers that can be used to contribute to transdermal delivery systems beyond l-menthol is increasing. In this study, we focused on nerolidol and levulinic acid and investigated their influence on stratum corneum lipid structures. Nerolidol, a sesquiterpene, has been reported to enhance the permeation of various drugs. Levulinic acid is reported to enhance the permeability of buprenorphine and is used as a component of the buprenorphine ® patch. Synchrotron X-ray diffraction and attenuated total reflectance Fourier transform IR spectroscopy measurements revealed that nerolidol disturbs the rigidly arranged lipid structure and increases lipid fluidity. Levulinic acid had a smaller effect on stratum corneum lipid structures, but did
increase lipid fluidity when co-administered with nerolidol or heat."

According to the news editors, the research concluded: "We found that nerolidol has an effect on stratum corneum lipids similar to that of l-menthol, and levulinic acid had an effect similar to that of oleic acid."


The news editors report that additional information may be obtained by contacting S. Utsumi, Hoshi University, Dept. of Pharmaceut, Shinagawa Ku, Tokyo 1428501, Japan. Additional authors for this research include T. Nakamura, Y. Obata, N. Ohta and K. Takayama.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1248/cpb.c16-00515. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Drugs and Therapies, Levulinic Acids, Menthol Therapy, Antipruritic, Keto Acids, Hoshi University.

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**Aortic Stenosis**

**Studies from Hospital Center Describe New Findings in Aortic Stenosis (Comparison in Men Versus Women of Co-morbidities, Complications, and Outcomes After Transcatheter Aortic Valve Implantation for Severe Aortic Stenosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Aortic Stenosis is now available. According to news reporting out of Washington, District of Columbia, by NewsRx editors, research stated, "Transcatheter aortic valve implantation (TAVI) decreases mortality in high-risk patients with severe aortic stenosis, but it remains unclear if female gender is associated with more favorable outcomes after TAVI. All patients who underwent TAVI at a single institution were retrospectively analyzed and stratified by gender."

Our news journalists obtained a quote from the research from Hospital Center, "Procedural, in-hospital, 30-day, and 1-year outcomes were defined according to the second Valve Academic Research Consortium. The primary end point was all-cause mortality at 1 year. Kaplan-Meier survival analysis and multivariable Cox proportional hazards regression were conducted. Overall, 755 patients underwent TAVI and were included in the study; 50.7% were women. Average age was 83.0 +/- 7.7 years, with a mean Society of Thoracic Surgeons score of 8.9 +/- 4.6. Women were older than men and more likely to be black. Most co-morbidities were less common among women, and they were more likely than men to suffer both in-hospital (8.4% vs 4.3%, p = 0.021) and 30-day (9.4% vs 5.4%, p = 0.035) all-cause mortality. Life-threatening bleeding, transfusion, and iliofemoral dissection or perforation were more common among women. There was no difference in mortality between women and men at 1 year (20.6% vs 21.5%, log-rank p = 0.87). After multivariable adjustment, however, female gender was independently associated with lower mortality at 1 year after TAVI."
According to the news editors, the research concluded: "Despite higher rates of major bleeding, vascular complications, and 30-day mortality, female gender was independently associated with improved survival at 1 year after TAVI."


Our news journalists report that additional information may be obtained by contacting M.A. Gaglia, MedStar Washington Hosp Center, Div Cardiol, Sect Intervent Cardiol, Washington, DC 20010, United States. Additional authors for this research include M.J. Lipinski, R. Torguson, J.X. Gai, I. Ben-Dor, N.L. Bernardo, L.F. Satler, A.D. Pichard and R. Waksman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjcard.2016.08.049. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Aortic Valve Stenosis, Aortic Stenosis, Angiology, Hospital, Hospital Center.

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**Hearing Diseases and Conditions - Deafness**

**Studies from Hospital Center Have Provided New Data on Deafness (An Application of NGS for Molecular Investigations in Perrault Syndrome: Study of 14 Families and Review of the Literature)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hearing Diseases and Conditions - Deafness have been published. According to news reporting originating from Limoges, France, by NewsRx correspondents, research stated, "Perrault syndrome (PS) is a rare autosomal recessive condition characterized by deafness and gonadic dysgenesis. Recently, mutations in five genes have been identified: C10orf2, CLPP, HARS2, HSD17B4, and LARS2."

Our news editors obtained a quote from the research from Hospital Center, "Proband included are presented with sensorineural deafness associated with gonadic dysgenesis. DNA was sequenced using next-generation sequencing (NGS) with a panel of 35 deafness genes including the five Perrault genes. Exonic variations known as pathogenic mutations or detected with <1% frequency in public databases were extracted and subjected to segregation analysis within each family. Both mutations and low coverage regions were analyzed by Sanger sequencing. Fourteen female index patients were included. The screening in four cases has been extended to four family members presenting with PS phenotype. For four unrelated patients (28.6%), causative mutations were identified: three homozygous mutations in C10orf2, CLPP, and HARS2, and one compound heterozygous mutation in LARS2. Three additional heterozygous mutations in LARS2 and HSD17B4 were found in three independent familial cases. All these missense mutations were verified by Sanger sequencing. Familial
segregation analyses confirmed the molecular diagnosis in all cases carrying biallelic mutations. Because of NGS, molecular analysis confirmed the clinical diagnosis of PS in 28.6% of our cohort and four novel mutations were found in four Perrault genes.

According to the news editors, the research concluded: "For the unsolved cases, exome sequencing should be performed to search for a sixth unknown PS gene."


The news editors report that additional information may be obtained by contacting J. Lerat, University of Dupuytren Hospital Center, Otorhinolaryngol & Chirurg Cervicofaciale, Limoges, France. Additional authors for this research include L. Jonard, N. Loundon, S. Christin-Maitre, D. Lacombe, C. Goizet, C. Rouzier, L. Van Maldergem, S. Gherbi, E.N. Garabedian, J.P. Bonnefont, P. Touraine, I. Mosnier, A. Munnich, F. Denoyelle and S. Marlin.

Keywords for this news article include: Limoges, France, Europe, Hearing Diseases and Conditions, Article Review, Otorhinolaryngologic Diseases and Conditions, Ear Diseases and Conditions, Hearing Disorders, Hearing Loss, Deafness, Genetics, Hospital Center.

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Oncology - Liver Cancer

Studies from Huazhong University of Science and Technology Have Provided New Data on Liver Cancer [A polyethylenimine-modified carboxyl-poly(styrene/acrylamide) copolymer nanosphere for co-delivering of CpG and TGF-beta receptor I inhibitor with ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news originating from Hubei, People's Republic of China, by NewsRx correspondents, research stated, "Cancer immunotherapy based on nanodelivery systems has shown potential for treatment of various malignancies, owing to the benefits of tumor targeting of nanoparticles. However, induction of a potent T-cell immune response against tumors still remains a challenge."

Our news journalists obtained a quote from the research from the Huazhong University of Science and Technology, "In this study, polyethylenimine-modified carboxyl-styrene/acrylamide (PS) copolymer nanospheres were developed as a delivery system of unmethylated cytosine-phosphate-guanine (CpG) oligodeoxynucleotides and transforming growth factor-beta (TGF-beta) receptor I inhibitors for cancer immunotherapy. TGF-beta receptor I inhibitors (LY2157299, LY) were encapsulated to the PS via hydrophobic interaction, while CpG oligodeoxynucleotides were loaded onto the PS through electrostatic interaction. Compared to the control group, tumor inhibition in the PS-LY/CpG group was up to 99.7% without noticeable toxicity. The tumor regression may be attributed to T-cell activation and amplification in mouse models."

According to the news editors, the research concluded: "The results highlight the
additive effect of CpG and TGF-beta receptor I inhibitors co-delivered in cancer immunotherapy."


Keywords for this news article include: Hubei, People's Republic of China, Asia, Benzene Derivatives, Drugs and Therapies, Organic Chemicals, Carboxylic Acids, Immunotherapy, Liver Cancer, Acrylamides, Acrylates, Styrenes, Oncology, Huazhong University of Science and Technology.

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**Drugs and Therapies - Chemotherapy**

**Studies from Huazhong University of Science and Technology Provide New Data on Chemotherapy (Young Cervical Cancer Patients May Be More Responsive than Older Patients to Neoadjuvant Chemotherapy Followed by Radical Surgery)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Chemotherapy is now available. According to news originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "To evaluate the effects of age and the clinical response to neoadjuvant chemotherapy (NACT) in patients with cervical cancer who received neoadjuvant chemotherapy followed by radical surgery. A total of 1,014 patients with advanced cervical cancer who received NACT followed by radical surgery were retrospectively selected."

Our news journalists obtained a quote from the research from the Huazhong University of Science and Technology, "Patients were divided into young (aged <=35 years, n=177) and older (aged >35 years, n=837) groups. We compared the short-term responses and survival rates between the groups. The five-year disease-free survival (DFS) and overall survival (OS) rates were stratified by age, NACT response, and FIGO stage. The overall response rate was 86.8% in the young group and 80.9% in the older group. The young patients had an earlier FIGO stage (p <0.001), a higher rate of adenocarcinoma (p=0.022), and more lymph node metastasis (p=0.033) than the older patients. The presence of adenocarcinoma as the histological type (p=0.024) and positive lymph node metastasis (p <0.001) were identified as independent risk factors for survival. When stratified by age and clinical response, young patients with no response to NACT had a worse clinicopathological condition compared with the other subgroups. Compared with non-responders, responders to NACT had a higher five-year DFS rate (80.1% versus 71.8%; p=0.019) and OS rate (82.6% versus 71.8%; p=0.003) among the young patients but not among the older patients. Responders to NACT aged 35 years or younger
benefitted the most from NACT, while the young non-responders benefitted the least."

According to the news editors, the research concluded: "Age might represent an important factor to consider when performing NACT in patients with cervical cancer."

For more information on this research see: Young Cervical Cancer Patients May Be More Responsive than Older Patients to Neoadjuvant Chemotherapy Followed by Radical Surgery. *Plos One*, 2016;11(2):e0149534. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news correspondents report that additional information may be obtained from J. Zhou, Dept. of Obstetrics and Gynecology, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, People's Republic of China. Additional authors for this research include X. Li, K. Huang, Y. Jia, F. Tang, H. Sun, Y. Zhang, Q. Zhang, D. Ma and S. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0149534. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Wuhan, Cancer, Surgery, Oncology, Chemotherapy, Drugs and Therapies, Risk and Prevention, People's Republic of China.

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**Nervous System Diseases and Conditions -...**

**Studies from Huazhong University of Science and Technology in the Area of Hyperalgesia Described (Inhibition of CaMKII alpha in the Central Nucleus of Amygdala Attenuates Fentanyl-Induced Hyperalgesia in Rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nervous System Diseases and Conditions - Hyperalgesia have been presented. According to news originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "Opioid-induced hyperalgesia (OIH) is a less-studied phenomenon that has been reported in both preclinical and clinical studies. Although the underlying cause is not entirely understood, OIH is a real-life problem that affects millions of patients on a daily basis."

Our news journalists obtained a quote from the research from the Huazhong University of Science and Technology, "Research has implicated the important contribution of Ca2+/calmodulin-dependent protein kinase II alpha (CaMKII alpha) to OIH at the level of spinal nociceptors. To expand our understanding of the entire brain circuitry driving OIH, in this study we investigated the role of CaMKII alpha in the laterocapcular division of the central amygdala (CeLC), the conjunctive point between the spinal cord and rostro-ventral medulla, OIH was produced by repeated fentanyl administration in the rat. Correlating with the development of mechanical allodynia and thermal hyperalgesia, CaMKII alpha activity was significantly elevated in the CeLC in OIH. In addition, the frequency and amplitude of spontaneous miniature excitatory postsynaptic currents (mEPSCs) in CeLC neurons were significantly increased in OIH. 2-[N-(2-hidroxyethyl)-N-(4-methoxybenzenesulfonyl)]-amino-N-(4-chlorocinnamyl)-N-methylbenzylamine, a CaMKII alpha inhibitor, dose dependently reversed sensory hypersensitivity, activation of CeLC CaMKII alpha, and mEPSCs in OIH."
According to the news editors, the research concluded: "Taken together, our data for the first time implicate a critical role of CeLC CaMKII alpha in OIH."

For more information on this research see: Inhibition of CaMKII alpha in the Central Nucleus of Amygdala Attenuates Fentanyl-Induced Hyperalgesia in Rats. *Journal of Pharmacology and Experimental Therapeutics*, 2016;359(1):82-89. *Journal of Pharmacology and Experimental Therapeutics* can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

The news correspondents report that additional information may be obtained from F. Luo, Huazhong University of Science & Technology, Tongji Hosp, Tongji Med College, Dept. of Anesthesiol, Wuhan, People's Republic of China. Additional authors for this research include C.H. Li, P.P. Yin, Z.J. Wang and F. Luo.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Nervous System Diseases and Conditions, Neurologic Manifestations, Somatosensory Disorders, Central Nervous System, Sensation Disorders, Brain Research, Proencephalon, Limbic System, Telencephalon, Basal Ganglia, Hyperalgesia, Amygdala, Huazhong University of Science and Technology.

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**Cardiovascular Diseases and Conditions - Transient...**

**Studies from Hunter College Have Provided New Information about Transient Ischemic Attack (Transient Ischemic Attack and Cognitive Impairment: A Review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Transient Ischemic Attack. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Transient ischemic attack (TIA) is a neurologic deficit resulting from focal ischemia in the brain, spinal cord, or retina. Historically, the definition included symptom resolution within 24 hours."

The news correspondents obtained a quote from the research from Hunter College, "However, recent studies investigating cognition after TIA suggest that deficits in executive function persist at 7 days post-TIA, although few studies have examined these effects long term. Recent advances in neuroimaging techniques provide emerging evidence of permanent microvascular tissue damage in the brain, suggesting that the effects of TIA may persist beyond resolution of focal symptoms. A further challenge is that there is debate concerning the clinical definition of TIA and the use of diagnostic neuroimaging studies and standardization of neuropsychological tests used to evaluate cognitive deficits in this population. Subtle changes in memory, attention, and problem-solving abilities may negatively influence an individual's ability to adopt positive health behaviors. Despite advances in the field, more research is needed; hence, the purpose of this article is to provide an overview of clinical factors for clinicians and researchers to consider when investigating cognitive deficits among post-TIA populations. Definitions of TIA are reviewed, and the importance of neuropsychological evaluation and neuroimaging correlates of TIA in establishing a positive diagnosis will be discussed."

According to the news reporters, the research concluded: "Nurses especially in advanced practice roles are uniquely positioned to assess and implement treatments in at-risk
groups and therefore should be knowledgeable about these possible cognitive effects."

For more information on this research see: Transient Ischemic Attack and Cognitive Impairment: A Review. *Journal of Neuroscience Nursing*, 2016;48(6):322-327. *Journal of Neuroscience Nursing* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Neuroscience Nursing - journals.lww.com/jnnonline/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting C.A. Ganzer, Hunter College, Hunter Bellevue Sch Nursing, New York, NY 10065, United States. Additional authors for this research include A. Barnes, C. Uphold and A.R. Jacobs.

Keywords for this news article include: New York City, New York, United States, North and Central America, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Transient Ischemic Attack, Neuroimaging, Hunter College.

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**Digestive System Diseases and Conditions - Crohn's**

**Studies from Hyogo College of Medicine Have Provided New Information about Crohn’s Disease (Clinicopathological characteristics of cancer associated with Crohn's disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Digestive System Diseases and Conditions - Crohn's Disease have been presented. According to news originating from Nishinomiya, Japan, by NewsRx correspondents, research stated, "We examined the clinicopathological characteristics and prognosis of patients with cancer associated with Crohn's disease (CD). The subjects of this study were patients with cancer confirmed in a resected specimen of bowel, who were treated at our institution between September, 1974 and December, 2014."

Our news journalists obtained a quote from the research from the Hyogo College of Medicine, "We analyzed 34 patients (26 men, 8 women, median age at cancer diagnosis 43.5 years, duration of illness 18 years) and found that the number of those with CD complicated with cancer began to drastically increase after 2005. The site of onset of cancer was in an anorectal lesion in 24 (70.6 %) patients. In 17 (50 %) patients, the cancer was diagnosed before surgery; in 3 patients (8.8 %), it was based on pathological findings during surgery; and in 14 patients (41.2 %), it was based on postoperative pathological findings. Mucinous carcinoma was the dominant histological type, seen in 15 patients (44.1 %), while the special type of signet-ring cell carcinoma was found in 4 patients. The cumulative overall 5 year survival rate was 46.2 %. In this group of Japanese CD patients, an anorectal lesion was the most frequent site of origin of cancer."

According to the news editors, the research concluded: "As cancer was diagnosed preoperatively in only 50 % of these patients, the overall prognosis was poor, with a cumulative 5 year survival rate of just 46.2 %.

For more information on this research see: Clinicopathological characteristics of cancer associated with Crohn's disease. *Surgery Today*, 2017;47(1):35-41. *Surgery Today* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer -
The news correspondents report that additional information may be obtained from H. Ikeuchi, Hyogo Coll Med, Dept. of Inflammatory Bowel Dis, Nishinomiya, Hyogo 6638501, Japan. Additional authors for this research include H. Ikeuchi, T. Bando, K. Hirose, A. Hirata, T. Chohno, Y. Horio, N. Tomita, S. Hirota, Y. Ide, Y. Tsuchida and M. Uchino.

Keywords for this news article include: Nishinomiya, Japan, Asia, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Anorectal, Diagnostics and Screening, Gastroenterology, Crohn's Disease, Gastroenteritis, Oncology, Surgery, Cancer, Hyogo College of Medicine.

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Clinical Research - Clinical Trials and Studies

Studies from Hyogo College of Medicine Reveal New Findings on Clinical Trials and Studies (Randomised clinical trial: efficacy and safety of vonoprazan vs. lansoprazole in patients with gastric or duodenal ulcers - results from two phase 3, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting from Nishinomiya, Japan, by NewsRx journalists, research stated, "Vonoprazan is a new potassium-competitive acid blocker for treatment of acid-related diseases. To conduct two randomised-controlled trials, to evaluate the non-inferiority of vonoprazan vs. lansoprazole, a proton pump inhibitor, for treatment of gastric ulcer (GU) or duodenal ulcer (DU)."

Financial support for this research came from Takeda Pharmaceutical Company.

The news correspondents obtained a quote from the research from the Hyogo College of Medicine, "Patients aged >= 20 years with >= 1 endoscopically-confirmed GU or DU (>= 5 mm white coating) were randomised 1:1 using double-dummy blinding to receive lansoprazole (30 mg) or vonoprazan (20 mg) for 8 (GU study) or 6 (DU study) weeks. The primary endpoint was the proportion of patients with endoscopically confirmed healed GU or DU. For GU, 93.5% (216/231) of vonoprazan-treated patients and 93.8% (211/225) of lansoprazole-treated patients achieved healed GU; non-inferiority of vonoprazan to lansoprazole was confirmed [difference = -0.3% (95% CI -4.750, 4.208); P = 0.0011]. For DU, 95.5% (170/178) of vonoprazan-treated patients and 98.3% (177/180) of lansoprazole-treated patients achieved healed DU; non-inferiority to lansoprazole was not confirmed [difference = -2.8% (95% CI -6.400, 0.745); P = 0.0654]. The incidences of treatment-emergent adverse events were slightly lower for GU and slightly higher for DU with vonoprazan than with lansoprazole. There was one death (subarachnoid haemorrhage) in the vonoprazan group (DU). The possibility of a relationship between this unexpected patient death and the study drug could not be ruled out. In both studies, increases in serum gastrin levels were greater in vonoprazan-treated vs. lansoprazole-treated patients; levels returned to baseline after treatment in both groups."

According to the news reporters, the research concluded: "Vonoprazan 20 mg has a similar tolerability profile to lansoprazole 30 mg and is non-inferior with respect to GU healing and has similar efficacy for DU healing."

For more information on this research see: Randomised clinical trial: efficacy and

Our news journalists report that additional information may be obtained by contacting H. Miwa, Hyogo Coll Med, Nishinomiya, Hyogo, Japan. Additional authors for this research include N. Uedo, J. Watari, Y. Mori, Y. Sakurai, Y. Takanami, A. Nishimura, T. Tatsumi and N. Sakaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/apt.13876. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nishinomiya, Japan, Asia, Clinical Trials and Studies, Gastrointestinal Agents, Proton Pump Inhibitors, Lansoprazole Therapy, Drugs and Therapies, Clinical Research, Pharmaceuticals, Hyogo College of Medicine.

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**Oncology - Breast Cancer**

**Studies from Hyogo College of Medicine in the Area of Breast Cancer Described (Prognostic significance of preoperative F-18-FDG PET/CT for breast cancer subtypes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting from Nishinomiya, Japan, by NewsRx journalists, research stated, "Adjuvant treatments for operable breast cancers are determined according to subtypes defined based on estrogen receptor (ER) and human epidermal growth factor receptor 2 (HER2) status. The ER+/HER2- subtype can be divided into luminal A and luminal B usually by Ki67 expression levels."

The news correspondents obtained a quote from the research from the Hyogo College of Medicine, "Although tumor size, lymph node metastasis and tumor grade have been widely accepted in daily clinical practice, the identification of further prognostic indicators especially in the ER+/HER2- subtype is warranted. A total of 387 operated breast cancers for which maximum standardized uptake value (SUVmax) on the F-18-fluorodeoxyglucose positron-emission tomography/computed tomography (FDG PET/CT) were available at baseline were retrospectively analyzed. The optimal cutoff value of SUVmax for relapse-free survival (RFS) was determined to be 3.585 by means of the receiver operating characteristics curve with an area under the curve of 0.6795 (95% CI: 0.5972 to 0.7618, p = 0.0006, sensitivity: 78.8%, specificity: 57.1%). The RFS of patients with SUVmax-high (n = 178) was significantly (p = 0.0003) worse compared with those with SUVmax-low (n = 209). This significant association was prominently recognized in the ER+/HER2- subtype. By multivariable analysis, SUVmax (hazard ratio: 3.83, 95% confidence interval: 1.28-11.51, p = 0.017), tumor size (4.22, 1.39-12.82, p = 0.011) and lymph node metastasis (4.44, 1.81-10.87, p = 0.0012) were significant and independent prognostic factors for RFS. The ER+/HER2- subtype demonstrated consistently worse RFS in the SUVmax-high patients both in the luminal A (p = 0.037) and luminal B (p =
0.047) subtypes."

According to the news reporters, the research concluded: "Combination of Ki67 and SUVmax appears to be useful for selecting patients who have inferior prognosis and need further adjuvant treatment of the ER+/HER2- subtype."


Our news journalists report that additional information may be obtained by contacting Y. Miyoshi, Hyogo Coll Med, Div Breast & Endocrine, Dept. of Surg, Nishinomiya, Hyogo 6638501, Japan. Additional authors for this research include A. Nishimukai, H. Ozawa, Y. Fujimoto, A. Yanai, Y. Miyagawa, K. Murase, M. Imamura, Y. Takatsuka, K. Kitajima, K. Fukushima and Y. Miyoshi.

Keywords for this news article include: Nishinomiya, Japan, Asia, Women's Health, Breast Cancer, Oncology, Hyogo College of Medicine.

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Central Nervous System - Brain Research

**Studies from I. Muramatsu et al Provide New Data on Brain Research (Pharmacological evidence of specific acetylcholine transport in rat cerebral cortex and other brain regions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System - Brain Research have been published. According to news reporting out of Fukui, Japan, by NewsRx editors, research stated, "Functional acetylcholine receptors (AChRs) were recently demonstrated to exist not only in the plasma membrane but also intracellularly in brain tissues. In order to activate intracellular AChRs, endogenous hydrophilic ACh must cross the plasma membrane."

Financial supporters for this research include University of Fukui, Japan Society for the Promotion of Science, Smoking Research Foundation.

Our news journalists obtained a quote from the research, "Here, we examined the pharmacological characteristics of this process, including whether it is mediated by active ACh uptake. When ACh esterase (AChE) was suppressed by diisopropylfluorophosphate, [H-3]ACh was effectively taken up into segments of rat cerebral cortex and other brain regions, in contrast to peripheral tissues such as liver and kidney. The uptake of [H-3]ACh in rat cerebral cortex was temperature-dependent, and the uptake capacity was comparable to that of [H-3]choline. However, [H-3]ACh uptake was inhibited by lower concentrations of ACh, carbachol, tetraethylammonium (TEA), compared with uptake of [H-3]choline. Uptake of [H-3]ACh was also inhibited by several organic cations, including choline, hemicholinium-3 (HC-3), quinidine, decynium 22, clonidine, diphenhydramine, but was little affected by some amino acids and biogenic amines, corticosterone, spermine, atropine, and tetrodotoxin. Unlike diisopropylfluorophosphate, several ACh esterase inhibitors, including drugs for Alzheimer's disease, such as donepezil, galantamine, and rivastigmine, also suppressed the uptake of [H-3]ACh, but not [H-3]choline."
According to the news editors, the research concluded: "These results indicate that in the brain, ACh is specifically taken up through a unique transport system with different pharmacological properties from known organic cation transporters (OCTs), and suggest that this mechanism may be involved in intracellular cholinergic transmission in the brain."


Our news journalists report that additional information may be obtained by contacting I. Muramatsu, Kimura Hosp, Fukui, Japan. Additional authors for this research include H. Yoshiki, J. Uwada, T. Masuoka, K. Sada, T. Taniguchi and M. Nishio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jnc.13843. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fukui, Japan, Asia, Quaternary Ammonium Compounds, Trimethyl Ammonium Compounds, Central Nervous System, Enzymes and Coenzymes, Diet and Nutrition, Biogenic Amines, Cerebral Cortex, Brain Research, Prosencephalon, Micronutrient, Ethanolamines, Acetylcholine, Pharmacology, Esterases, Cerebrum, Choline, Therapy.

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Central Nervous System Diseases and Conditions -...

Studies from I.C. Pagiola and Co-Researchers Update Current Data on Intracranial Aneurysm (Cerebral aneurysms associated with human immunodeficiency virus in adults: literature review and new perspectives)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Intracranial Aneurysm. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "The treatment of human immunodeficiency virus (HIV) infection has been decreasing patient morbidity and mortality by opportunistic infections and, thus, survival has increased. This new reality has been changing the spectrum of diseases affecting such patients."

Our news journalists obtained a quote from the research, "to discuss the association between HIV and the emergence of aneurysmal brain injuries, it was performed a literature review using medical database. The following descriptors were searched: 'Intracranial Aneurysms and HIV', 'Intracranial Aneurysms and Acquired Immunodeficiency Syndrome,' 'aneurysm and brain and HIV'. after performed a literature review, it was observed that the relationship between HIV infection and the formation of aneurysms appears to be real, however, it still lacks data to confirm the pathophysiology of this condition and its best treatment."

According to the news editors, the research concluded: "There are new signs and symptoms that should be studied and researched relating HIV with other changes not previously
known."


The news correspondents report that additional information may be obtained from I.C. Pagiola, Irmandade da Santa Casa de Misericordia de Sao Paulo, Sao Paulo, SP, Brazil. Additional authors for this research include A.L. Paiva, G.B. de Aguiar, A.C. de Oliveira, M.L. Conti and R.J Gagliardi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1590/1806-9282.62.01.85. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, HIV/AIDS, Sao Paulo, RNA Viruses, Retroviridae, South America, Article Review, HIV Infections, Cerebral Aneurysm, Vertebrate Viruses, Primate Lentiviruses, Intracranial Aneurysm, Cerebrovascular Disorders, Human Immunodeficiency Virus, Brain Diseases and Conditions, Immune System Diseases and Conditions.

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Liver Diseases and Conditions - Hepatitis C Virus

Studies from IKEM Have Provided New Information about Hepatitis C Virus (Efficacy and safety of elbasvir/grazoprevir and sofosbuvir/pegylated interferon/ribavirin: A phase III randomized controlled trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis C Virus are presented in a new report. According to news reporting originating in Prague, Czech Republic, by NewsRx journalists, research stated, "Direct-acting antiviral agents have improved treatment outcomes for patients with hepatitis C virus (HCV) infection; however, head-to-head comparisons are limited. The C-EDGE Head-2-Head Study compared the safety and efficacy of elbasvir/grazoprevir (EBR/GZR) with sofosbuvir plus pegylated interferon/ribavirin (SOF/PR) in patients with HCV infection."

The news reporters obtained a quote from the research from IKEM, "This was a randomized, open-label, phase III trial. Two hundred fifty-seven patients with HCV genotype (GT)1 or 4 infection and baseline viral load >10,000 IU/ml were randomized to receive 12 weeks of EBR/GZR 50mg/100mg once daily (n=129) or sofosbuvir (400mg once daily) plus PR (n=128). Primary efficacy objective was sustained virologic response 12 weeks after the end of therapy (SVR12, HCV RNA <15IU/ml). The primary safety objective was the proportion of patients experiencing a tier 1 safety event. The majority of patients were non-cirrhotic (83.1%), treatment-naive (74.9%) and had HCV GT1b infection (82.0%). SVR12 rates were 99.2% (128/129) and 90.5% (114/126) in the EBR/GZR and SOF/PR groups, respectively. The estimated adjusted difference in SVR12 was 8.8% (95% confidence interval [CI], 3.6-15.3%). Because the lower bound of the 1-sided 1-sample exact test was greater than -10% and greater than zero, both non-inferiority and superiority of EBR/GZR vs. SOF/PR were established. The frequency of tier 1 safety events was lower among patients receiving EBR/GZR than SOF/PR.
EBR/GZR has a superior efficacy and safety profile in patients with HCV GT1 or 4 infection compared with SOF/PR. Lay summary: The combination of elbasvir/grazoprevir for 12 weeks was highly effective in treating patients with chronic hepatitis C, genotypes 1 or 4 infection. This regimen was more effective than sofosbuvir/pegylated interferon/ribavirin for 12 weeks, and was notably superior in patients regarded as difficult to treat, including those with previous treatment failure, cirrhosis, or a high baseline viral load."

According to the news reporters, the research concluded: "The combination of elbasvir/grazoprevir also demonstrated a superior safety and tolerability profile based on fewer serious adverse events, no serious drug-related adverse events, and no treatment discontinuations."


Our news correspondents report that additional information may be obtained by contacting J. Sperl, IKEM, Prague, Czech Republic. Additional authors for this research include G. Horvath, W. Halota, J.A. Ruiz-Tapiador, A. Streinu-Cercel, L. Jancoriene, K. Werling, H. Kileng, S. Koklu, J. Gerstoft, P. Urbanek, R. Flisiak, R. Leiva, E. Kazenaite, R. Prinzing, S. Patel, J.J. Qiu, E. Asante-Appiah and Wahl.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jhep.2016.07.050. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Prague, Czech Republic, Europe, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Virus Physiological Phenomena, Liver Diseases and Conditions, Respiratory Inhalant Products, Clinical Trials and Studies, Flaviviridae Infections, Inhaled Antiinfectives, Drugs and Therapies, Respiratory Agents, Purine Nucleosides, Influenza Therapy, Clinical Research, Hepatitis C Virus, Gastroenterology, Antiretrovirals, Interferons, RNA Viruses, Viral Load, Antivirals, Hepatology, Cytokines, Ribavirin, Genetics, Virology, HCV, IKEM.

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**Drugs and Therapies - Antiinflammatory Agents**

**Studies from ISCIII Update Current Data on Antiinflammatory Agents (Friedelane-type triterpenoids as selective anti-inflammatory agents by regulation of differential signaling pathways in LPS-stimulated macrophages)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antiinflammatory Agents. According to news originating from Madrid, Spain, by NewsRx correspondents, research stated, "A series of 31 pentacyclic triterpenoids isolated from the root barks of Celastrus vulcanicola and Maytenus jelskii were tested for cytotoxicity and inhibitory
activity against lipopolysaccharide (LPS)-induced nitric oxide (NO) production in RAW 264.7 macrophages. Compounds 18 (C18) and 25 (C25) exhibited significant inhibition of LPS-induced NO release at 50 and 25 μM concentrations, respectively, and decreased mRNAs of pro inflammatory cytokines.

Financial supporters for this research include Ministerio de Economia y Competitividad, Spain, Centro de Investigacion Biomedica en Red de Diabetes y Enfermedades Metabolicas Asociadas, Instituto de Salud Carlos III, Spain.

Our news journalists obtained a quote from the research from ISCIII, "At the molecular level, C18 neither inhibited LPS-mediated phosphorylation of mitogen activated protein kinases (MAPKs) nor nuclear translocation of nuclear factor kappa beta (NF kappa B). Instead, C18 enhanced and prolonged nuclear translocation of nuclear factor-erythroid 2-related factor 2 (Nrf2) and increased the expression of its target genes including hemeoxigenase 1 (HO1). C25 efficiently inhibited LPS-mediated phosphorylation of JNK, p38 and ERK, without affecting Nf kappa B or Nrf2 signaling pathways. Both compounds reduced LPS-mediated processing of caspase-1 and the cleavage of interleukin 1 beta (IL1 beta) proform, reflecting their ability to target the inflamasome. C25 also counteracted LPS effects on iNOS expression and pro inflammatory cytokines mRNA levels in Bv-2 microglial cells. The anti-inflammatory effect of both compounds was also assessed in human macrophages."

According to the news editors, the research concluded: "Our results suggest that triterpenoids C18 and C25 possess anti-inflammatory effects, which may be therapeutically relevant for diseases linked to inflammation."


The news correspondents report that additional information may be obtained from A. Villar-Lorenzo, ISCIII, Center Invest Biomed Red Diabet & Enfermedades Metab, Madrid 28029, Spain. Additional authors for this research include A.E. Ardiles, A.I. Arroba, E. Hernandez-Jimenez, V. Pardo, E. Lopez-Collazo, I.A. Jimenez, I.L. Bazzocchi, A. Gonzalez-Rodriguez and A.M. Valverde.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.10.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Mononuclear Phagocyte System, Connective Tissue Cells, Antiinflammatory Agents, Drugs and Therapies, Myeloid Cells, Macrophages, Immunology, Phagocytes, ISCIII.

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**Aortic Dissection**

**Studies from Icahn School of Medicine Provide New Data on Aortic Dissection (Bowel in the pericardium: Spontaneous herniation mimicking acute aortic dissection)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Aortic Dissection have been published. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Intra-pericardial herniation of abdominal contents is rarely encountered in emergency practice. The entity is most often the result of blunt or penetrating trauma and also may occur post-operatively."

The news correspondents obtained a quote from the research from the Icahn School of Medicine, "Spontaneous herniation through a Morgagni hernia is even rarer but presents the opportunity for lifesaving diagnosis and treatment. We present the case of an octogenarian presenting with the acute onset of symptoms suggestive of aortic dissection. She was found to have herniated transverse colon within the pericardial sac concerning for strangulated bowel. Timely surgical intervention led to a favorable outcome."

According to the news reporters, the research concluded: "Emergency clinicians should be aware of this life-threatening but eminently treatable entity."


Our news journalists report that additional information may be obtained by contacting M. Heller, Mt Sinai Beth Israel, Dept. of Emergency Med, Icahn Sch Med, New York, NY 10003, United States. Additional authors for this research include M. Heller, J. Sedor, N. Kedia, A. Shulman and E.E. Wan.

Keywords for this news article include: New York City, New York, United States, North and Central America, Aortic Dissection, Pericardial, Cardiology, Icahn School of Medicine.

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Mathematics - Mathematics in Medicine and Biology

Studies from Idaho State University Yield New Information about Mathematics in Medicine and Biology (Uncovering the natural history of cancer from post-mortem cross-sectional diameters of hepatic metastases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mathematics - Mathematics in Medicine and Biology. According to news reporting originating in Pocatello, Idaho, by NewsRx journalists, research stated, "We develop a mathematical and statistical methodology for estimation of important unobservable characteristics of the individual natural history of cancer from a sample of cross-sectional diameters of liver metastases measured at autopsy. Estimation of the natural history of cancer is based on a previously proposed stochastic model of cancer progression tailored to this type of observations."

The news reporters obtained a quote from the research from Idaho State University, "The model accounts for primary tumour growth, shedding of metastases, their selection, latency
and growth in a given secondary site. The model was applied to the aforementioned data on 428 liver metastases detected in one untreated small cell lung cancer patient. Identifiable model parameters were estimated by the method of maximum likelihood and through minimizing the L-2 distance between theoretical and empirical cumulative distribution functions. The model with optimal parameters provided an excellent fit to the data. Results of data analysis support, if only indirectly, the hypothesis of the existence of stem-like cancer cells in the case of small cell lung carcinoma and point to the possibility of suppression of metastatic growth by a large primary tumour. They also lead to determination of the lower and upper bounds for the age of cancer onset and expected duration of metastatic latency.

According to the news reporters, the research concluded: "Finally, model-based inference on the patient's natural history of cancer allowed us to conclude that resection of the primary tumour would most likely not have had a curative effect."


Our news correspondents report that additional information may be obtained by contacting L. Hanin, Idaho State University, Dept. of Math & Stat, Pocatello, ID 83209, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/imammb/dqv026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pocatello, Idaho, United States, North and Central America, Mathematics in Medicine and Biology, Mathematics, Oncology, Cancer, Idaho State University.

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RNA Research

Studies from Imperial College Update Current Data on RNA Research (Biological marks of early-life socioeconomic experience is detected in the adult inflammatory transcriptome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on RNA Research. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Consistent evidence is accumulating to link lower socioeconomic position (SEP) and poorer health, and the inflammatory system stands out as a potential pathway through which socioeconomic environment is biologically embedded. Using bloodderived genome-wide transcriptional profiles from 268 Italian participants of the European Prospective Investigation into Cancer and Nutrition (EPIC) cohort, we evaluated the association between early life, young and later adulthood SEP and the expression of 845 genes involved in human inflammatory responses."

The news correspondents obtained a quote from the research from Imperial College, "These were examined individually and jointly using several inflammatory scores. Our results consistently show that participants whose father had a manual (as compared to nonmanual)
occupation exhibit, later in life, a higher inflammatory score, hence indicating an overall increased level of expression for the selected inflammatory-related genes. Adopting a life course approach, these associations remained statistically significant upon adjustment for later-in-life socioeconomic experiences. Sensitivity analyses indicated that our findings were not affected by the way the inflammatory score was calculated, and were replicated in an independent study. Our study provides additional evidence that childhood SEP is associated with a sustainable upregulation of the inflammatory transcriptome, independently of subsequent socioeconomic experiences."

According to the news reporters, the research concluded: "Our results support the hypothesis that early social inequalities impacts adult physiology."

For more information on this research see: Biological marks of early-life socioeconomic experience is detected in the adult inflammatory transcriptome. *Scientific Reports*, 2016;6():1-10. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting M. Chadeau-Hyam, Imperial College, MRC PHE Center Environm & Hlth, London W2 1PG, United Kingdom. Additional authors for this research include M. Kelly-Irving, G. Campanella, F. Guida, V. Krogh, D. Palli, S. Panico, C. Sacerdote, R. Tumino, J. Kleinjans, T. de Kok, S.A. Kyrtopoulos, T. Lang, S. Stringhini, R. Vermeulen, P. Vineis, C. Delpierre and M. Chadeau-Hyam.

Keywords for this news article include: London, United Kingdom, Europe, RNA Research, Genomics, Genetics, Imperial College.

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**Bone Research**

**Studies from Imperial College Yield New Data on Bone Research (The anabolic action of intermittent parathyroid hormone on cortical bone depends partly on its ability to induce nitric oxide-mediated vasorelaxation in BALB/c mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Bone Research are discussed in a new report. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "There is strong evidence that vasodilatory nitric oxide (NO) donors have anabolic effects on bone in humans. Parathyroid hormone (PTH), the only osteoanabolic drug currently approved, is also a vasodilator."

Financial support for this research came from Arthritis Research UK.

Our news editors obtained a quote from the research from Imperial College, "We investigated whether the NO synthase inhibitor L-NAME might alter the effect of PTH on bone by blocking its vasodilatory effect. BALB/c mice received 28 daily injections of PTH[1-34] (80 ?g/kg/day) or L-NAME (30 mg/kg/day), alone or in combination. Hindlimb blood perfusion was measured by laser Doppler imaging. Bone architecture, turnover and mechanical properties in the femur were analysed respectively by micro-CT, histomorphometry and three-point bending. PTH increased hindlimb blood flow by >30% within 10 min of injection (p <0.001). Co-
treatment with L-NAME blocked the action of PTH on blood flow, whereas L-NAME alone had no effect. PTH treatment increased femoral cortical bone volume and formation rate by 20% and 110%, respectively (p <0.001). PTH had no effect on trabecular bone volume in the femoral metaphysis although trabecular thickness and number were increased and decreased by 25%, respectively. Co-treatment with L-NAME restricted the PTH-stimulated increase in cortical bone formation but had no clear-cut effects in trabecular bone. Co-treatment with L-NAME did not affect the mechanical strength in femurs induced by iPTH.

According to the news editors, the research concluded: "These results suggest that NO-mediated vasorelaxation plays partly a role in the anabolic action of PTH on cortical bone."

For more information on this research see: The anabolic action of intermittent parathyroid hormone on cortical bone depends partly on its ability to induce nitric oxide-mediated vasorelaxation in BALB/c mice. Cell Biochemistry and Function, 2016;34(2):52-62.

The news editors report that additional information may be obtained by contacting S. Gohin, Dept. of Bioengineering, Imperial College London, London, UK. Additional authors for this research include A. Carriero, C. Chenu, A.A. Pitsillides, T.R. Arnett and M. Marenzana.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cbf.3164. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, London, Europe, Chemicals, Nitric Oxide, Bone Research, United Kingdom, Nitrogen Oxides, Peptide Hormones, Peptide Proteins, Parathyroid Hormone, Reactive Nitrogen Species.

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Heart Disorders and Diseases - Heart Disease

Studies from Imperial College Yield New Information about Heart Disease (Randomised comparison of a bioresorbable everolimus-eluting scaffold with a metallic everolimus-eluting stent for ischaemic heart disease caused by de novo native coronary ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Disease. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "The one-year randomised data of the ABSORB II trial showed that the everolimus-eluting bioresorbable scaffold and the everolimus-eluting metallic stent were comparable for the composite secondary clinical outcomes of patient-oriented composite endpoint (PoCE) and device-oriented composite endpoint (DoCE)/target lesion failure (TLF), MACE and TVF. This report describes the two-year clinical outcomes of the ABSORB II trial."

Our news editors obtained a quote from the research from Imperial College, "Patients were randomly assigned in a 2:1 ratio to receive treatment with an everolimus-eluting bioresorbable scaffold (Absorb; Abbott Vascular, Santa Clara, CA, USA) or treatment with an everolimus-eluting metallic stent (XIENCE; Abbott Vascular). The trial enrolled 501 patients. Clinical follow-up at two years was available in 320 patients in the Absorb BVS arm and 160 patients in the XIENCE arm. At two years, the PoCE for the Absorb and XIENCE arms was
11.6% and 12.8% (1)=0.70) and the DoCE/TLF was 7.0% and 3.0% (1)=0.07), respectively. The hierarchical ID-MACE rate was 7.6% vs. 4.3% (p=0.16) and the rate of TVF was 8.5% vs. 6.7% (p=0.48). The definite/probable thrombosis rate was 1.5% in the Absorb arm vs. 0% in the XIENCE arm (p=0.17). Thirty-six percent and 34% of patients remained on DAPT at two years, respectively. Ninety-two percent of patients in both arms remained on aspirin.

According to the news editors, the research concluded: "Two-year clinical results demonstrate sustained low rates of PoCE, MACE, DoCE and TVF with the Absorb BVS as compared to the XIENCE stent."


The news editors report that additional information may be obtained by contacting P.W. Serruys, Imperial College, Int Center Cardiovasc Hlth, London SW7 2AZ, United Kingdom. Additional authors for this research include Y. Onuma, A.J. van Boven, J.J. Piek, M. Sabate, S. Helqvist, A. Baumbach, P.C. Smits, R. Kumar, L. Wasungu and P.W. Serruys.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4244/EIJY16M08_01. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Coronary Artery, Heart Disease, Cardiology, Angiology, Imperial College.

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Enzymes and Coenzymes - Carboxy-Lyases

Studies from Indian Institute of Technology Provide New Data on Carboxy-Lyases [Novel Inhibitors of Ornithine Decarboxylase of Leishmania Parasite (LdODC): The Parasite Resists LdODC Inhibition by Overexpression of Spermidine Synthase]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Enzymes and Coenzymes - Carboxy-Lyases have been presented. According to news reporting originating from Assam, India, by NewsRx correspondents, research stated, "Ornithine decarboxylase (LdODC), a key enzyme in polyamine biosynthesis in Leishmania donovani, catalyzes the conversion of ornithine to putrescine that is finally used for synthesis of spermidine and other polyamines. Inhibition of ornithine decarboxylase is likely to deplete the parasite trypanothione and may result in increased reactive oxygen species (ROS)."

Financial supporters for this research include Indian Council of Medical Research, Government of India.

Our news editors obtained a quote from the research from the Indian Institute of Technology, "Sequence as well as structure of LdODC and human ODC shows significant difference; therefore, we have identified novel specific inhibitors of LdODC. These inhibitors
are able to inhibit recombinant LdODC and decrease intracellular putrescine concentration showing target specificity. The Ki values of LdODC inhibition do not correlate with IC[50] values in Leishmania promastigote possibly due to different stability/pharmacokinetics. These inhibitors, except compound M-5, have only minor effect on Leishmania promastigotes, and IC [50] values are several folds higher as compared to Ki values. In case of compound M-5, IC[50] value is less than Ki value indicating that the compound may have additional targets."

According to the news editors, the research concluded: "Our studies suggest that the parasite resists these LdODC inhibitors by overexpression of spermidine synthase mRNA."


The news editors report that additional information may be obtained by contacting M. Das, Dept. of Biosciences and Bioengineering, Indian Institute of Technology Guwahati, Assam, 781039, India. Additional authors for this research include S. Singh and V.K Dubey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbd.12665. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Chemical Biology & Drug Design is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Assam, India, Polyamines, Putrescine, Carboxy Lyases, Carboxy-Lyases, Biogenic Amines, Basic Amino Acids, Organic Chemicals, Diamino Amino Acids, Drugs and Therapies, Spermidine Synthase, Enzymes and Coenzymes, Ornithine Decarboxylase, Alkyl and Aryl Transferases.

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Gram-Negative Bacteria - Campylobacter jejuni

Studies from Indian Institute of Technology Reveal New Findings on Campylobacter jejuni (Monomerization alters the dynamics of the lid region in Campylobacter jejuni CstII: an MD simulation study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Negative Bacteria - Campylobacter jejuni are discussed in a new report. According to news originating from Mumbai, India, by NewsRx correspondents, research stated, "CstII, a bifunctional (a2,3/8) sialyltransferase from Campylobacter jejuni, is a homotetramer. It has been reported that mutation of the interface residues Phe121 (F121D) or Tyr125 (Y125Q) leads to monomerization and partial loss of enzyme activity, without any change in the secondary or tertiary structures."

Our news journalists obtained a quote from the research from the Indian Institute of Technology, "MD simulations of both tetramer and monomer, with and without bound donor substrate, were performed for the two mutants and WT to understand the reasons for partial loss of activity due to monomerization since the active site is located within each monomer. RMSF values were found to correlate with the crystallographic B-factor values indicating that the
simulations are able to capture the flexibility of the molecule effectively. There were no gross changes in either the secondary or tertiary structure of the proteins during MD simulations. However, interface is destabilized by the mutations, and more importantly the flexibility of the lid region (Gly152-Lys190) is affected. The lid region accesses three major conformations named as open, intermediate, and closed conformations. In both Y121Q and F121D mutants, the closed conformation is accessed predominantly. In this conformation, the catalytic base His188 is also displaced. Normal mode analysis also revealed differences in the lid movement in tetramer and monomer. This provides a possible explanation for the partial loss of enzyme activity in both interface mutants. The lid region controls the traffic of substrates and products in and out of the active site, and the dynamics of this region is regulated by tetramerization."

According to the news editors, the research concluded: "Thus, this study provides valuable insights into the role of loop dynamics in enzyme activity of CstII."


The news correspondents report that additional information may be obtained from P.K. Prabhakar, a Dept. of Biosciences and Bioengineering, Indian Institute of Technology Bombay, Powai, Mumbai 400076, India. Additional authors for this research include A. Srivastava, K.K. Rao and P.V Balaji.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/07391102.2015.1054430. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Mumbai, Genetics, Campylobacter jejuni, Epsilonproteobacteria, Gram Negative Bacteria, Gram-Negative Bacteria.

Our news editors obtained a quote from the research from the Indian Institute of Technology, "The present study compares the nature of flow patterns in rigid and compliant asymmetric constricted tubes for a range of dimensionless parameters appearing in a human artery. A blood analogue fluid is employed along with a pump that mimics cardioflow conditions. The peak Reynolds number range is Re similar to 300-800, while the Womersley number range considered in experiments is Wo similar to 6-8. These values are based on the peak velocity in a straight rigid tube connected to the model, over a pulsation frequency range of 1.2-2.4 Hz. The medial-plane velocity distribution is used to investigate the nature of flow..."
patterns. Temporal distribution of stream traces and hemodynamic factors including WSS, TAWSS and OSI at important phases of the pulsation cycle are discussed. The flow patterns obtained from PIV are compared to a limited extent against numerical simulation. Results show that the region downstream of the constriction is characterized by a high-velocity jet at the throat, while a recirculation zone, attached to the wall, evolves in time. Compliant models reveal large flow disturbances upstream during the retrograde flow. Wall shear stress values are lower in a compliant model as compared to the rigid. Cross-plane flow structures normal to the main flow direction are visible at select phases of the cycle. Positive values of largest Lyapunov exponent are realized for wall movement and are indicative of chaotic motion transferred from the flow to the wall. These exponents increase with Reynolds number as well as compliance."

According to the news editors, the research concluded: "Period doubling is observed in wall displacement of highly compliant models, indicating possible triggering of hemodynamic events in a real artery that may cause fissure in the plaque deposits."

For more information on this research see: Pulsatile flow in a compliant stenosed asymmetric model. *Experiments in Fluids*, 2016;57(12):169-192. *Experiments in Fluids* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Experiments in Fluids - www.springerlink.com/content/0723-4864/)

The news editors report that additional information may be obtained by contacting K. Muralidhar, Indian Inst Technol Kanpur, Dept. of Mech Engn, Kanpur 208016, Uttar Pradesh, India.

Keywords for this news article include: Uttar Pradesh, India, Asia, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Pulsatile Flow, Hemodynamics, Hemorheology, Angiology, Indian Institute of Technology.

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Heart Disorders and Diseases - Atrial Fibrillation

**Studies from Indiana University School of Medicine Further Understanding of Atrial Fibrillation (Ganglionated plexi and ligament of Marshall ablation reduces atrial vulnerability and causes stellate ganglion remodeling in ambulatory dogs)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting originating from Indianapolis, Indiana, by NewsRx correspondents, research stated, "Simultaneous activation of the stellate ganglion (SG), the ligament of Marshall (LOM), and the ganglionated plexi often precedes the onset of paroxysmal atrial tachyarrhythmia (PAT). The purpose of this study was to test the hypothesis that ablation of the LOM and the superior left ganglionated plexi (SLGP) reduces atrial vulnerability and results in remodeling of the SG."

Our news editors obtained a quote from the research from the Indiana University School of Medicine, "Nerve activity was correlated to PAT and ventricular rate (VR) at baseline, after ablation of the LOM and SLGP, and after atrial fibrillation. Neuronal cell death was assessed with tyrosine hydroxylase and terminal deoxynucleotidyl transferase dUTP nick end label (TUNEL) staining. There were 42 PAT episodes per day in controls. None were observed in the ablation group, even though SG nerve activity and VR increased from 2.2 mu V
(95% confidence interval [CI] 1.2-3.3 μV) and 80 bpm (95% CI 68-92 bpm) at baseline, to
3.0 μV (95% CI 2.6-3.4 μV, P = .046) and 90 bpm (95% CI 75-108 bpm, P = .026) after
ablation, and to 3.1 μV (95% CI 1.7-4.5 μV, P = .116) and 95 bpm (95% CI 79-110 bpm, P
= .075) after atrial fibrillation. There was an increase in tyrosine hydroxylase negative cells
in the ablation group and 19.7% (95% CI 8.6%-30.8%) TUNEL-positive staining in both the left
and right SG. None were observed in the control group. LOM and SLGP ablation caused left SG
remodeling and cell death. There was reduced correlation of the VR response and PAT to SG
nerve activity."

According to the news editors, the research concluded: "These findings support the
importance of SLGP and LOM in atrial arrhythmogenesis."

For more information on this research see: Ganglionated plexi and ligament of
Marshall ablation reduces atrial vulnerability and causes stellate ganglion remodeling in
ambulatory dogs. *Heart Rhythm*, 2016;13(10):2083-2090. *Heart Rhythm* can be contacted at:
Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier -
www.elsevier.com; Heart Rhythm - www.journals.elsevier.com/heart-rhythm/)

The news editors report that additional information may be obtained by contacting
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Everett.

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document that is either free or for purchase.

Keywords for this news article include: Indianapolis, Indiana, United States, North
and Central America, Heart Disorders and Diseases, Enzymes and Coenzymes, Atrial
Fibrillation, Cardiac Arrhythmias, Heart Disease, Hydroxylase, Indiana University School of
Medicine.

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**Drugs and Therapies - Cancer Therapy**

**Studies from Institute for Biology Research Update Current Data on Cancer Therapy (Noncovalent Binding to DNA: Still a Target in Developing Anticancer Agents)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Drugs and Therapies - Cancer Therapy.
According to news reporting out of Barcelona, Spain, by NewsRx editors, research stated,
"DNA-binding compounds are of extraordinary importance in medicine, accounting for a
substantial portion of antitumor drugs in clinical usage. However, their mechanisms of action
remain sometimes incompletely understood."

Our news journalists obtained a quote from the research from Institute for Biology
Research, "This review critically examines two broad classes of molecules that bind
noncovalently to DNA: intercalators and groove binders. Intercalators bind to DNA by inserting
their chromophore moiety between two consecutive base pairs, whereas groove binders fit into
the grooves of DNA. Noncovalent DNA-interactive drugs can recognize certain supramolecular
DNA structures such as the G-quadruplexes found in telomeres and in numerous gene promoters, and they can act as topoisomerase I and II poisons. We discuss how DNA-binding compounds affect transcription and compete with protein factors for binding to consensus binding sites in gene promoters both in vitro and in cultured cancer cells. Moreover, we comment on the design of molecules that can tightly and specifically bind to any desired target DNA, such as various hairpin polyamides which efficacy as chemotherapeutic agents is being evaluated. At present, genome-wide studies, which provide details of events that may influence both cancer progression and therapeutic outcome, are a common way used to analyze the effects of DNA-binding compounds.

According to the news editors, the research concluded: "A conclusive feature that emerges from reviewing the information on DNA-binding compounds is that both natural sources and chemical approaches can be productively used to obtain drugs to manipulate gene expression in cancer cells."

For more information on this research see: Noncovalent Binding to DNA: Still a Target in Developing Anticancer Agents. Current Medicinal Chemistry, 2016;23(36):4108-4134. Current Medicinal Chemistry can be contacted at: Bentham Science Publ Ltd, Executive Ste Y-2, PO Box 7917, Saif Zone, 1200 Br Sharjah, U Arab Emirates. (Bentham Science Publishers - www.benthamscience.com; Current Medicinal Chemistry - www.benthamscience.com/cmc/index.htm)

Our news journalists report that additional information may be obtained by contacting J. Portugal, CSIC, Inst Biol Mol Barcelona, E-08028 Barcelona, Spain.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/0929867323666160902153511. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Cancer, Article Review, Genetics, Drugs and Therapies, Cancer Therapy, DNA Research, Oncology, Institute for Biology Research.

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Oncology - Squamous Cell Carcinoma

Studies from Institute for Cancer Research and Treatment (IRCCS) Update Current Data on Squamous Cell Carcinoma (Prognostic Factors of Adjuvant Taxane, Cisplatin, and 5-Fluorouracil Chemotherapy for Patients With Penile Squamous Cell Carcinoma ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Squamous Cell Carcinoma. According to news originating from Milan, Italy, by NewsRx correspondents, research stated, "The administration of adjuvant chemotherapy for patients with penile squamous cell carcinoma (PSCC) with high-risk features is controversial. In 21 patients who had received adjuvant taxane, cisplatin, and 5-fluorouracil, the expression of p53 in the tumor-positive lymph nodes was the only factor that showed a trend toward poorer survival endpoints."

Our news journalists obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "If confirmed, these findings could help in selecting the best candidates for adjuvant chemotherapy. Little is known about the outcomes and prognostic
factors of adjuvant chemotherapy for locally advanced penile squamous cell carcinoma after regional lymphadenectomy (LAD). We retrospectively reviewed the data from 21 patients who had received taxane, cisplatin, and 5-fluorouracil (TPF, every 3 weeks) in the adjuvant setting at our center. Univariable and multivariable Cox regression analyses were undertaken for disease-free (DFS) and overall survival (OS) of TPF. The patients had received TPF from July 2004 to July 2012 after inguinal (n = 6) or inguinal plus pelvic LAD (n = 15), and the median follow-up was 52 months. Thirteen (61.9%) had pelvic and 5 (23.8%) bilateral inguinal nodal metastases. The median time from LAD to the start of TPF was 5.4 weeks (interquartile range [IQR], 4.1-7.3 weeks). Metastatic tumor tissue from 11 of 19 evaluable patients (57.9%) showed positive immunohistochemistry staining for p53. Univariably, only the expression of p53 showed a trend toward poorer DFS (hazard ratio [HR], 4.14; 95% confidence interval [CI], 0.87-19.68; P = .074) and OS (HR, 4.54; 95% CI, 0.95-21.56; P = .056). The same results were obtained multivariably for DFS (HR, 3.76; 95% CI, 0.78-17.96; P = .096) and OS (HR, 4.29; 95% CI, 0.89-20.57; P = .067). The median DFS was 8.9 months (IQR, 5.9-22.7 months) for p53-expressing patients versus not estimable for non p53-expressing patients (P = .051) and the median OS was 17.2 months (IQR, 12.8-22.7 months) and not estimable, respectively (P = .037). In patients who had received adjuvant TPF for node-positive penile squamous cell carcinoma, p53 IHC expression seemed to be associated with a poorer outcome, and further study is warranted in larger data sets to confirm these findings."

According to the news editors, the research concluded: "This information might be useful to improve the prognostic allocation."

For more information on this research see: Prognostic Factors of Adjuvant Taxane, Cisplatin, and 5-Fluorouracil Chemotherapy for Patients With Penile Squamous Cell Carcinoma After Regional Lymphadenectomy. Clinical Genitourinary Cancer, 2016;14(6):518-523.

Clinical Genitourinary Cancer can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA. (Elsevier - www.elsevier.com; Clinical Genitourinary Cancer - www.journals.elsevier.com/clinical-genitourinary-cancer/)

The news correspondents report that additional information may be obtained from A. Necchi, Fdn IRCCS Ist Nazl Tumori, Dept. of Med Oncol, Milan, Italy. Additional authors for this research include S. Lo Vullo, N. Nicolai, D. Raggi, P. Giannatempo, M. Colecchia, M. Catanzaro, T. Torelli, L. Piva, D. Biasoni, S. Stagni, L. Mariani and R. Salvioni.

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Keywords for this news article include: Milan, Italy, Europe, Combined Modality Therapy, Squamous Cell Carcinoma, Adjuvant Chemotherapy, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Lymphadenectomy, Carcinomas, Cisplatin, Genetics, p53 Gene, Oncology, Surgery, Institute for Cancer Research and Treatment (IRCCS).

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Studies from Institute for Cancer Research and Treatment (IRCCS) in the Area of Cachexia Described (Activation of the SDF1/CXCR4 pathway retards muscle atrophy during cancer cachexia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cachexia. According to news reporting out of Milan, Italy, by NewsRx editors, research stated, "Cancer cachexia is a life-threatening syndrome that affects most patients with advanced cancers and causes severe body weight loss, with rapid depletion of skeletal muscle. No treatment is available."

Our news journalists obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "We analyzed microarray data sets to identify a subset of genes whose expression is specifically altered in cachectic muscles of Yoshida hepatoma-bearing rodents but not in those with diabetes, disuse, uremia or fasting. Ingenuity Pathways Analysis indicated that three genes belonging to the C-X-C motif chemokine receptor 4 (CXCR4) pathway were downregulated only in muscles atrophying because of cancer: stromal cell-derived factor 1 (SDF1), adenylyl cyclase 7 (ADCY7), and p21 protein-activated kinase 1 (PAK1). Notably, we found that, in the Rectus Abdominis muscle of cancer patients, the expression of SDF1 and CXCR4 was inversely correlated with that of two ubiquitin ligases induced in muscle wasting, atrogin-1 and MuRF1, suggesting a possible clinical relevance of this pathway. The expression of all main SDF1 isoforms (alpha, beta, gamma) also declined in Tibialis Anterior muscle from cachectic mice bearing murine colon adenocarcinoma or human renal cancer and drugs with anticachexia properties restored their expression. Overexpressing genes of this pathway (that is, SDF1 or CXCR4) in cachectic muscles increased the fiber area by 20%, protecting them from wasting. Similarly, atrophying myotubes treated with either SDF1 alpha or SDF1 beta had greater total protein content, resulting from reduced degradation of overall long-lived proteins. However, inhibiting CXCR4 signaling with the antagonist AMD3100 did not affect protein homeostasis in atrophying myotubes, whereas normal myotubes treated with AMD3100 showed time-and dose-dependent reductions in diameter, until a plateau, and lower total protein content. This further confirms the involvement of a saturable pathway (that is, CXCR4)."

According to the news editors, the research concluded: "Overall, these findings support the idea that activating the CXCR4 pathway in muscle suppresses the deleterious wasting associated with cancer."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/onc.2016.153. This DOI is a link to an online electronic document that
Studies from Institute for Health Sciences Further Understanding of Nephropathy (Synthetic ACTH in High Risk Patients with Idiopathic Membranous Nephropathy: A Prospective, Open Label Cohort Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nephropathy. According to news originating from Nijmegen, Netherlands, by NewsRx correspondents, research stated, "New therapeutic agents are warranted in idiopathic membranous nephropathy. Synthetic ACTH may be advantageous with reported remission rates up to 85% and few side effects."

Our news journalists obtained a quote from the research from Institute for Health Sciences, "We conducted a prospective open label cohort study from 2008 till 2010 (NCT00694863). We prospectively selected patients with idiopathic membranous nephropathy and high risk for progression (defined as beta-2-microglobulin (b2m) excretion of >500 ng/min). For comparison, we selected matched historical controls treated with cyclophosphamide. The prospectively selected patients received intramuscular injections of synthetic ACTH during 9 months (maximal dose 1 mg twice a week). The primary endpoints concerned the feasibility and incidence of remissions as a primary event. Secondary endpoints included side effects of treatment and the incidence of remissions and relapses at long-term follow-up. Twenty patients (15 men) were included (age 54?14 years, serum creatinine 104 mmol/l [IQR 90?113], urine protein:creatinine ratio 8.7 g/10 mmol creatinine [IQR 4.3?11.1]). Seventeen patients (85%) completed treatment. 97% of injections were administered correctly. Cumulative remission rate was 55% (complete remission in 4 patients, partial remission 7 patients). In a group of historical controls treated with cyclophosphamide and steroids, 19 of 20 patients (95%) developed a remission (complete remission in 13 patients, partial remission in 6 patients) (p <0.01). The main limitation of our study is its small size and the use of a historical control group. We show that treatment with intramuscular injections of synthetic ACTH is feasible. Our data suggest that synthetic ACTH is less effective than cyclophosphamide in inducing a remission in high risk patients with idiopathic membranous nephropathy. The use of synthetic ACTH was also associated with many adverse events."

According to the news editors, the research concluded: "Therefore, we advise against synthetic ACTH as standard treatment in membranous nephropathy."

For more information on this research see: Synthetic ACTH in High Risk Patients with Idiopathic Membranous Nephropathy: A Prospective, Open Label Cohort Study. *Plos One, 2015;10(11):e0142033.* (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news correspondents report that additional information may be obtained from A.E. van de Logt, Radboud university medical center, Radboud Institute for Health Sciences, Dept. of Nephrology, Nijmegen, Netherlands. Additional authors for this research include C.H. Beerenhout, H.S. Brink, J.J. van de Kerkhof, J.F. Wetzels and J.M Hofstra.
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Keywords for this news article include: Antineoplastics, Pharmaceuticals, Europe, Nijmegen, Nephrology, Netherlands, Alkylating Agents, Drugs and Therapies, Membranous Nephropathy, Cyclophosphamide Therapy.

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Enzymes and Coenzymes - Cholinesterases

Studies from Institute for Medical Research and Occupational Health Add New Findings in the Area of Cholinesterases (HI-6 assisted catalytic scavenging of VX by acetylcholinesterase choline binding site mutants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - Cholinesterases. According to news originating from Zagreb, Croatia, by NewsRx correspondents, research stated, "The high toxicity of organophosphorus compounds originates from covalent inhibition of acetylcholinesterase (AChE), an essential enzyme in cholinergic neurotransmission. Poisonings that lead to life-threatening toxic manifestations require immediate treatment that combines administration of anticholinergic drugs and an aldoxime as a reactivator of AChE."

Financial supporters for this research include CounterACT Program, National Institutes of Health Office of the Director (NIH OD), National Institute of Neurological Disorders and Stroke, Croatian Science Foundation.

Our news journalists obtained a quote from the research from Institute for Medical Research and Occupational Health, "An alternative approach to reduce the in vivo toxicity of OPs focuses on the use of bioscavengers against the parent organophosphate. Our previous research showed that AChE mutagenesis can enable aldoximes to substantially accelerate the reactivation of OP-enzyme conjugates, while dramatically slowing down rates of OP-conjugate dealkylation (aging). Herein, we demonstrate an efficient HI-6-assisted VX detoxification, both ex vivo in human blood and in vivo in mice by hAChE mutants modified at the choline binding site (Y337A and Y337A/F338A)."

According to the news editors, the research concluded: "The catalytic scavenging of VX in mice improved therapeutic outcomes preventing lethality and resulted in a delayed onset of toxicity symptoms."

For more information on this research see: HI-6 assisted catalytic scavenging of VX by acetylcholinesterase choline binding site mutants. Chemico-Biological Interactions, 2016;259():148-153. Chemico-Biological Interactions can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Chemico-Biological Interactions - www.journals.elsevier.com/chemico-biological-interactions/)

The news correspondents report that additional information may be obtained from Z. Kovarik, Inst Med Res & Occupat Hlth, HR-10001 Zagreb, Croatia. Additional authors for this research include S. Zunec, P. Taylor, Z. Radic and Z. Kovarik.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cbi.2016.04.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zagreb, Croatia, Europe, Quaternary Ammonium Compounds, Trimethyl Ammonium Compounds, Enzymes and Coenzymes, Acetylcholinesterase, Diet and Nutrition, Biogenic Amines, Cholinesterases, Micronutrient, Ethanolamines, Hydrolases, Institute for Medical Research and Occupational Health.

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**Health and Medicine - Palliative and Supportive Care**

**Studies from Institute of Child Health Provide New Data on Palliative and Supportive Care (Current understanding of decision-making in adolescents with cancer: A narrative systematic review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Health and Medicine - Palliative and Supportive Care is the subject of a report. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "Policy guidance and bioethical literature urge the involvement of adolescents in decisions about their healthcare. It is uncertain how roles and expectations of adolescents, parents and healthcare professionals influence decision-making and to what extent this is considered in guidance."

Our news journalists obtained a quote from the research from the Institute of Child Health, "To identify recent empirical research on decision-making regarding care and treatment in adolescent cancer: (1) to synthesise evidence to define the role of adolescents, parents and healthcare professionals in the decision-making process and (2) to identify gaps in research. A narrative systematic review of qualitative, quantitative and mixed-methods research. We adopted a textual approach to synthesis, using a theoretical framework of interactionism to interpret findings. The databases MEDLINE, PsycINFO, SCOPUS, EMBASE and CINHAL were searched from 2001 through May 2015 for publications on decision-making for adolescents (13-19 years) with cancer. Twenty-eight articles were identified. Adolescents and parents initially find it difficult to participate in decision-making due to a lack of options in the face of protocol-driven care. Parent and adolescent preferences for information and response to loss of control vary between individuals and over time. No studies indicate parental or adolescent preference for a high degree of independence in decision-making. Striving to make parents and adolescents fully informed or urge them towards more independence than they prefer may add to distress and confusion. This may interfere with their ability to participate in their preferred way in decisions about care and treatment."

According to the news editors, the research concluded: "Future research should include analysis of on-ground interactions among parents, adolescents and clinicians across the trajectory."

For more information on this research see: Current understanding of decision-making in adolescents with cancer: A narrative systematic review. *Palliative Medicine*, 2016;30 (10):920-934. *Palliative Medicine* can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England. (Sage Publications - www.sagepub.com/; Palliative Medicine - pmj.sagepub.com)
The news correspondents report that additional information may be obtained from E. Day, UCL, Inst Child Hlth, Louis Dundas Center Childrens Palliat Care, London WC1N 1EH, United Kingdom. Additional authors for this research include L. Jones, R. Langner and M. Bluebond-Langner.

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Keywords for this news article include: London, United Kingdom, Europe, Palliative and Supportive Care, Health and Medicine, Cancer, Article Review, Oncology, Institute of Child Health.

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**Surgery - Surgical Research**

**Studies from Institute of Physical Chemistry Describe New Findings in Surgical Research (No Effect of Rapamycin on Cardiac Adhesion Formation: A Drug-Loaded Bioresorbable Polylactone Patch in a Porcine Cardiac Surgical Model)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Surgery - Surgical Research are discussed in a new report. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "The fusing of the epicardium and sternum due to adhesion is a common problem during repeated cardiac surgery and carries with it an increased risk of bleeding. The use of barriers and patches has been tested to prevent the formation of adhesions, but the very presence of a patch can provoke adhesion formation."

The news reporters obtained a quote from the research from the Institute of Physical Chemistry, "The objective of this study was, therefore, to investigate both biodegradable and bioresorbable polylactone patches [(polycaprolactone-poly(ethylene oxide)-polycaprolactone tri-block copolymer (PCE)]. The patches were also tested with a controlled release of rapamycin, which prevents cell migration and extracellular matrix deposition. The clinical effectiveness of rapamycin in pericardial patches has not previously been examined. Three groups of 6 female Danish Landrace pigs underwent sternotomy and abrasion of the epicardium, before being randomized to either group 1--the control group (with no patch), group 2--PCE patch implanted between the sternum and epicardium, or group 3--PCE patch and slow-release 1.6-mg rapamycin. After a median time period of 26 days, the pigs were euthanized and their hearts removed en bloc with the sternum, for macroscopic, histological and pathological examination. Upon macroscopic examination, a significantly lower degree of adhesion in group 2, as compared to group 1 (p <0.05), was found. Histological analysis of the tissues showed significantly more fibrosis, inflammation and foreign body granulomas (p <0.05) in both group 2 and group 3, when compared to group 1. A PCE patch following sternotomy in animal subjects reduces postoperative macroscopic adhesions without reducing microscopic fibrosis or inflammation."

According to the news reporters, the research concluded: "Loading the patch with rapamycin was found not to increase the antifibrotic effect."

For more information on this research see: No Effect of Rapamycin on Cardiac
Drugs and Therapies - Combination Therapy

Studies from Institute of Physics Further Understanding of Combination Therapy (Combination therapies with daclatasvir and asunaprevir on NS3-D168 mutated HCV in human hepatocyte chimeric mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Combination Therapy have been published. According to news originating from Hiroshima, Japan, by NewsRx correspondents, research stated, "Although the frequency of emergent drug-resistant strains of HCV in patients who failed to respond to simeprevir plus pegylated interferon (PEG-IFN) and ribavirin (RBV) decreased after cessation of the treatment, it is not clear whether or not the NS3-D168 variants affect the outcome of NS5A and NS3 inhibitor combination therapy. In this study, we investigated the relationship between the effect of daclatasvir plus asunaprevir treatment and the frequencies of NS3-D168 variants."

Our news journalists obtained a quote from the research from the Institute of Physics, "HCV genotype-1b-infected human hepatocyte chimeric mice with various frequencies of NS3-D168 amino acid substitutions were treated with asunaprevir alone or in combination with daclatasvir for 4 weeks. Frequencies of NS3-D168 substitutions at baseline were analysed by ultra-deep sequencing. Some mice with NS3-D168 substitutions were treated with PEG-IFN or telaprevir for 4 weeks. Mice with high frequencies of NS3-D168 showed low susceptibility to asunaprevir treatment and failed to respond to daclatasvir plus asunaprevir therapy. In contrast, mice with a low frequency (less than approximately 14%) of NS3-D168 showed a similar susceptibility to wild-type HCV-infected mice and achieved viral eradication with daclatasvir plus asunaprevir therapy. Although treatment with either telaprevir or PEG-IFN resulted in reduction of serum HCV RNA levels, no significant decrease in the frequency of NS3-D168 substitutions was achieved. Daclatasvir and asunaprevir treatment could eliminate NS3-D168 variant HCV if the frequency was low."

According to the news editors, the research concluded: "It is necessary to confirm that the frequency of NS3-D168 variants has decreased sufficiently before adopting daclatasvir plus asunaprevir therapy in patients with simeprevir plus PEG-IFN/RBV treatment failure."


Keywords for this news article include: Hiroshima, Japan, Asia, Drugs and Therapies, Combination Therapy, Gastroenterology, Institute of Physics.

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**Oncology - Gastric Lymphoma**

**Studies from Institute of Radiology Further Understanding of Gastric Lymphoma (Prognostic value of SUVmax measured by pretreatment F-18-FDG PET/CT in patients with primary gastric lymphoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gastric Lymphoma have been published. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "PurposeThe aim of this retrospective study was to determine whether glucose metabolism assessed by fluorine-18 fluorodeoxyglucose (F-18-FDG) PET/computed tomography (CT) provides prognostic information independent of established prognostic factors in patients with gastric lymphoma.Patients and methodsWe reviewed the medical records of 86 patients retrospectively (men, 42; women, 44; mean age 5813 years) with pathologically proven gastric lymphoma (34 mucosa-associated lymphoid tissue and 52 aggressive non-Hodgkin's lymphoma). They underwent F-18-FDG PET/CT as part of a pretreatment work-up from February 2004 to July 2012."

The news reporters obtained a quote from the research from the Institute of Radiology, "For the analysis, patients were classified by age, sex, Musshoff stage, serum lactate dehydrogenase, International Prognostic Index score, extragastric spread, and visual intensity [visual assessment and maximum standardized uptake value (SUVmax), respectively]. The relationship between F-18-FDG uptake and survival was analyzed using the Kaplan-Meier method with a log-rank test and Cox's proportional-hazard regression method.ResultsThe median survival of all 86 study participants was 1117 days and the median SUV measured by PET/CT was 6.1 (range, 1.9-32.7). Patients with an SUVmax less than or equal to 5.2 survived significantly longer than patients with an SUVmax more than 5.2 (median, 1163 vs. 1004 days; P=0.003). Survival was also found to be significantly related to age (P=0.0005), histological type (P=0.0044), extragastric spread (P=0.0004), International Prognostic Index score (P <0.0001), serum lactate dehydrogenase (P=0.02), stage (P <0.0001), and visual intensity (P=0.041)."

According to the news reporters, the research concluded: "A multivariate analysis showed that patients with a higher SUVmax [P=0.021; 95% confidence interval (CI), 1.52-8.14; hazard ratio (HR)=6.29], older age (P=0.001; 95% CI, 4.64-219.96; HR=18.8), more aggressive histologic type (P=0.006; 95% CI, 2.20-70.63; HR=12.76), and higher stage (P=0.0006; 95% CI,
5.81-206.43; HR=17.48) showed worse survival. Conclusion A higher SUVmax on pretreatment F-18-FDG PET/CT can predict poorer survival in patients with gastric lymphoma."

For more information on this research see: Prognostic value of SUVmax measured by pretreatment F-18-FDG PET/CT in patients with primary gastric lymphoma. Nuclear Medicine Communications, 2016;37(12):1267-1272. Nuclear Medicine Communications can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Nuclear Medicine Communications - journals.lww.com/nuclearmedicinecomm/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting I. Lim, Korea Inst Radiol & Med Sci, Mol Imaging Res Center, Seoul, South Korea. Additional authors for this research include I. Lim, B.H. Byun, B.I. Kim, C.W. Choi and S.M. Lim.

Keywords for this news article include: Seoul, South Korea, Asia, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Enzymes and Coenzymes, Gastric Lymphoma, Gastrointestinal, Gastroenterology, Dehydrogenase, Hematology, Lymphomas, Oncology, Institute of Radiology.

Our news correspondents report that additional information may be obtained by contacting I. Lim, Korea Inst Radiol & Med Sci, Mol Imaging Res Center, Seoul, South Korea. Additional authors for this research include I. Lim, B.H. Byun, B.I. Kim, C.W. Choi and S.M. Lim.

Neurodegenerative Diseases and Conditions -...

Studies from Institute of Rural Health Have Provided New Data on Alzheimer Disease (Homocysteine, antioxidant vitamins and lipids as biomarkers of neurodegeneration in Alzheimer's disease versus non-Alzheimer's dementia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Neurodegenerative Diseases and Conditions - Alzheimer Disease are discussed in a new report. According to news reporting from Lublin, Poland, by NewsRx journalists, research stated, "Evidence for the benefit of antioxidants' based therapeutic intervention in dementia are inconsistent. Parallel studies in disease forms of dementia different than Alzheimer's are even less conclusive."

The news correspondents obtained a quote from the research from the Institute of Rural Health, "In this study, the role of serum levels of homocysteine (tHcy), lipids and antioxidants in predicting the risk of cognitive decline in Alzheimer's disease (AD) versus non-Alzheimer's dementia (n-AD). The objective was to add to the ongoing cumulative research to establish the biochemical baseline for potential nutri-therapeutic intervention in different forms of dementia. 65 participants with dementia (DP-s) were divided into two groups: ADP--patients with Alzheimer's disease and n-ADP--patients with dementia of a different etiology than primary neurodegenerative dementia in the course of Alzheimer's disease. Cognitive function was assessed by Mini-Mental State Examination (MMSE) and related to plasma levels of tHcy, folate, vitamins B-6, B-12, lipids and vitamins A and E for both groups. Also examined were associations between cognitive impairment and several variables (age, education, duration of dementia) that might confound nutrition-cognition associations. A significant reduction in serum vitamin A levels and elevation of total cholesterol levels were shown for the DP-s group compared to those in the control group. Moreover, significant differences were found in MMSE data and serum vitamin E and tHcy levels between patients with ADP and n-ADP. The scores
for MMSE showed a correlation with the vitamin E levels and duration of dementia in the ADP group and/or correlation with tHcy, levels of vitamins A and/or E, and duration of dementia in the n-ADP group."

According to the news reporters, the research concluded: "The results obtained suggest that elevated serum tHcy and decreased levels of vitamins A and E are associated with an increased risk of non-Alzheimer's dementias, although further studies involving a larger cohort are now needed to verify these results."


Our news journalists report that additional information may be obtained by contacting G. Raszewski, Dept. of Physiopathology, Institute of Rural Health, Lublin, Poland. Additional authors for this research include R. Chwedorowicz, A. Chwedorowicz and K. Gustaw Rothenberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5604/12321966.1196878. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antioxidants, Lublin, Poland, Europe, Dementia, Vitamin E, Tauopathies, Homocysteine, Mental Health, Alzheimer Disease, Protective Agents, Sulfur Amino Acids, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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**Studies from Institute of Virology Describe New Findings in Neoplasma (Enhanced metabolism as a common feature of cancer plasticity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Neoplasma have been published. According to news reporting originating from Bratislava, Slovakia, by NewsRx correspondents, research stated, "Cancer cells often rely on glycolytic metabolism in order to fulfill high demands of ATP and macromolecules for the sustained growth and proliferation. However, glycolysis is not necessarily the main source of energy for all cancer cells."

Our news editors obtained a quote from the research from the Institute of Virology, "Some of them rather depend on glutamine or lactate that favor the utilization of oxidative metabolic pathway. Different employment rate of metabolism creates variable products that participate in the formation of environmental milieu, which in turn triggers broad spectrum of cellular signaling pathways leading to migration, invasion, or proliferation."

According to the news editors, the research concluded: "In this review we discuss different metabolic pathways promoted in tumor cells and describe the possibilities of their targeting as therapeutic strategies."

For more information on this research see: Enhanced metabolism as a common feature of cancer plasticity. *Neoplasma*, 2016;63(6):836-845. *Neoplasma* can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

The news editors report that additional information may be obtained by contacting E.
Studies from Instituto de Salud Carlos III Yield New Information about Whooping Cough [Effectiveness of acellular pertussis vaccination during childhood (< 7 years of age) for preventing pertussis in household contacts 1-9 years old in Catalonia ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Respiratory Tract Diseases and Conditions - Whooping Cough have been presented. According to news reporting originating in Madrid, Spain, by NewsRx journalists, research stated, "Pertussis vaccination with 4-5 doses of acellular vaccines is recommended in Spain to all children at 2 months to 6 years of age. The effectiveness of the acellular pertussis vaccination was assessed in this study by comparing the incidence of secondary pertussis in vaccinated (4-5 doses) and unvaccinated or partially vaccinated (0-3 doses) household contacts 1-9 years old of confirmed cases of pertussis in Spain in 2012-13."

The news reporters obtained a quote from the research from Instituto de Salud Carlos III, "Eighty-five percent of contacts had been vaccinated with 4-5 doses of acellular pertussis vaccines. During the 2-year study period, 64 cases of secondary pertussis were detected among 405 household contacts 1-9 years old: 47 among vaccinated and 17 among unvaccinated or partially vaccinated contacts. The effectiveness for preventing secondary pertussis, calculated as 1 minus the relative risk (RR) of secondary pertussis in vaccinated vs. unvaccinated/partially vaccinated contacts, was 50 % [95 % confidence interval (CI): 19-69 %, p< 0.01] when household contacts were vaccinated using DTaP, Tdap, hexavalent or heptavalent vaccines, and it was 51.3 % (95 % CI: 21-70 %, p< 0.01) when they were vaccinated using DTaP or TdaP vaccines. The effectiveness adjusted for age, sex, pertussis chemotherapy and type of household contact was 58.6 % (95 % CI: 17-79 %, p< 0.05) when contacts were vaccinated using available acellular vaccines, and it was 59.6 % (95 % CI: 18-80 %, p< 0.01) when they were vaccinated using DTffeaP vaccines."

According to the news reporters, the research concluded: "Acellular pertussis vaccination during childhood was effective for preventing secondary pertussis in household contacts 1-9 years old of pertussis cases in Catalonia and Navarra, Spain."

For more information on this research see: Effectiveness of acellular pertussis vaccination during childhood (< 7 years of age) for preventing pertussis in household contacts 1-9 years old in Catalonia and Navarra (Spain). European Journal of Clinical Microbiology & Infectious Diseases, 2016;35(12):2059-2067. European Journal of Clinical Microbiology & Infectious Diseases can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.
Oncology - Lymphoma

Studies from International Agency for Research on Cancer Update Current Data on Lymphoma (Hodgkin lymphoma burden in Central and South America)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Lymphoma are discussed in a new report. According to news reporting originating from Lyon, France, by NewsRx correspondents, research stated, "Rationale and objective: Hodgkin lymphoma (HL) is largely curable owing to improvements in treatment since the 1960s; nevertheless, high mortality rates have been reported in Central and South America. We describe the current burden of HL in the Central and South American region."

Our news editors obtained a quote from the research from International Agency for Research on Cancer, "We obtained regional-and national-level incidence data from 48 population-based cancer registries in 13 countries, and national-level mortality data from the WHO mortality database for 18 countries. We estimated world population age-standardized incidence rates (ASRs) and age-standardized mortality rates (ASMRs) per 100,000 person-years for 2003-2007 and present distributions by histological subtype. HL incidence rates varied 7-fold in males and 11-fold in females (male-to-female ratio 1: 1-2.5: 1). The highest ASRs were seen Argentina, Brazil, Costa Rica (males), Cuba (males) and Uruguay (females), whereas the lowest were in Bolivia and El Salvador. ASMRs varied by 4-fold in males and 6-fold in females (male-to-female ratio 1: 1-4.3: 1), with ASMRs < 0.7 for most countries, except Cuba (> = 1.0). In most countries, age-specific incidence rates of HL showed a bimodal pattern. Trends in HL in Argentina, Brazil, Chile, and Costa Rica remained stable in 1997-2008. Of all HL cases, 48% were unspecified as to histological subtype. Nodular sclerosis and mixed cellularity were the most frequent histologies. The geographic variation in HL across the region may in part reflect differences in data quality and coverage, and differences in the adoption of modern therapies and healthcare access."

According to the news editors, the research concluded: "Our results highlight the need for high-quality data and increased coverage in order to provide vital guidance for future cancer control activities."

For more information on this research see: Hodgkin lymphoma burden in Central and South America. Cancer Epidemiology, 2016:44():S158-S167. Cancer Epidemiology can
Liver Diseases and Conditions - Hepatitis

Studies from Istanbul Medipol University Have Provided New Data on Hepatitis (Acute temozolomide induced liver injury: mixed type hepatocellular and cholestatic toxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis are presented in a new report. According to news reporting from Istanbul, Turkey, by NewsRx journalists, research stated, "Temozolomide (TMZ) is an oral imidazotetrazine methylating agent which is used for the treatment of glioblastoma multiforme (GBM). We report a case of acute hepatotoxicity in a 53-year old male patient after administration of TMZ for GBM."

The news correspondents obtained a quote from the research from Istanbul Medipol University, "He had fatigue, nausea, anorexia and jaundice. His laboratory analysis showed alanine aminotransferase (ALT): 632 IU/L (normal range 0-40); aspartate aminotransferase (AST): 554 IU/L (normal range 5-34); alkaline phosphate (ALP): 1143 IU/L (normal range 401-50); -glutamyl transpeptidase (GGT): 514 IU/L (normal range 9-64 IU/L); total bilirubin: 15.1 mg/dL (normal range 0-1.2); direct bilirubin: 13.2 mg/dL and prothrombin time (PT): 13.5 s, with international normalized ratio (INR): 1.1 (normal range 0.8-1.2). His liver biopsy specimen showed mixed-type (both hepatocellular and cholestatic) hepatic injury, compatible with a diagnosis of drug-induced hepatitis. An objective causality assessment using the Naranjo probability scale suggested that TMZ was the probable cause of the acute hepatitis. His liver function tests gradually normalized in 2 months after discontinuation of the drug. In susceptible individuals, TMZ use may lead to acute mixed type liver toxicity."

According to the news reporters, the research concluded: "Complete recovery may be possible if the drug is discontinued before severe liver injury is established."


Our news journalists report that additional information may be obtained by
Studies from J. Castellanos et al in the Area of Angiology Described (Simultaneous right ventricular to pulmonary artery pressure gradient measurement using a single venous access technique)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Angiology. According to news reporting originating in Hammond, Louisiana, by NewsRx journalists, research stated, "The pullback gradient technique is commonly used to evaluate pulmonic stenosis; however, it only represents a one-time measurement of valvular stenosis. Instead, simultaneous peak-to-peak gradients account for the data variability being best suited to discern the severity of the stenosis, but requires two different venous accesses."

The news reporters obtained a quote from the research, "Here, we demonstrate the feasibility and high fidelity hemodynamic tracings of a new technique for evaluation of pulmonic valve stenosis by using a single venous access. We present a patient scenario suggesting pulmonic stenosis. Given the possible therapeutic intervention, we decided to use a single large bore (8-French) venous access. Simultaneous peak-to-peak gradients were obtained from high fidelity hemodynamic tracings measured using two small-size catheters located in the right ventricle (RV) and pulmonary artery (PA), respectively. The procedure had no complications."

According to the news reporters, the research concluded: "We present a technique using single venous access for simultaneous RV and PA pressure measurement that is easy to perform and, importantly, it may be safer than exposing the patient to multiple venous accesses."

For more information on this research see: Simultaneous right ventricular to pulmonary artery pressure gradient measurement using a single venous access technique. The Journal of Vascular Access, 2015;17(1):98-100.

Our news correspondents report that additional information may be obtained by contacting J. Castellanos, North Oaks Health System, Cardiology Section, Hammond, Louisiana -, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5301/jva.5000478. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hammond, Stenosis, Louisiana, Angiology, Cardiology, United States, Pulmonary Artery, North and Central America.
Hemorrhage

Studies from J. Colleti Junior and Co-Researchers in the Area of Hemorrhage Reported (Spontaneous intracranial hemorrhage in children: report of a hemophilia patient who survived due to a brain cyst)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hemorrhage. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "We report the case of a 2-year-old child who survived an acute episode of severe spontaneous intracranial hemorrhage with clinical and radiological signs of intracranial hypertension and transtentorial herniation. The patient underwent emergency surgery to drain the hematoma, and a catheter was inserted to monitor intracranial pressure."

Our news journalists obtained a quote from the research, "In the initial computed tomography analysis performed prior to hematoma drainage, a brain cyst was evident contralateral to the hematoma, which, based on the analysis by the care team, possibly helped to avoid a worse outcome because the cyst accommodated the brain after the massive hemorrhage. After the investigation, the patient was determined to have previously undiagnosed hemophilia A."

According to the news editors, the research concluded: "The patient underwent treatment in intensive care, which included the control of intracranial pressure, factor VIII replacement and discharge without signs of neurological impairment."


The news correspondents report that additional information may be obtained from J. Colleti Junior, Unidade de Terapia Intensiva Pediatrica, Hospital Santa Catarina, Sao Paulo, SP, Brazil. Additional authors for this research include W. Koga and W.B de Carvalho.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5935/0103-507X.20150069. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cysts, Brazil, Hematoma, Sao Paulo, Hematology, Hemorrhage, Hemophilia A, South America.

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case report

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Systolic Heart Failure have been published. According to news reporting out of Augsburg, Germany, by NewsRx editors, research stated, "Heart failure is a progressive disease with high mortality and morbidity. LCZ696 is a drug that has recently shown its improved efficacy and safety in patients with systolic heart failure and a reduced ejection fraction."

Our news journalists obtained a quote from the research, "Reports on its impact on the improvement of clinical symptoms are, however, scarce. These are important because they improve a patient's compliance with treatment and their quality of life. Case presentation: We report on the case of a 71-year-old patient who had deteriorating symptoms and signs of heart failure (ejection fraction [EF] 34%) in whom we initiated LCZ696 treatment. After two months of LCZ696 treatment (including titration), the New York Heart Association (NYHA) classification had improved (III -> II/I) with no residual signs of acrocyanosis and orthopnea. While creatinine values remained stable, potassium increased to 5.0 mmol/l and brain natriuretic peptide (BNP) dropped from 1260 ng/l to 680 ng/ml. The final EF was 47%. The patient reported substantial improvement of his quality of life. We show, based on a case report, that symptoms associated with heart failure deterioration are improved early after the initiation of LCZ696."

According to the news editors, the research concluded: "This should foster specific research into symptoms and quality of life improvements with LCZ696."

For more information on this research see: Early improvement of symptoms using LCZ696 in a patient with systolic heart failure and a reduced ejection fraction: a case report. Perfusion-Uk, 2016;31(8):699-702. Perfusion-Uk can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England.

Our news journalists report that additional information may be obtained by contacting J. Kohlmeier, Privatpraxis Dr Kohlmeier, D-86199 Augsburg, Germany.

Keywords for this news article include: Augsburg, Germany, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Systolic Heart Failure, Quality of Life, Heart Disease, Cardiology.

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Oncology

Studies from J. Masliah-Planchon et al Further Understanding of Oncology (RAS-MAPK pathway epigenetic activation in cancer: miRNAs in action)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology. According to news reporting from Paris, France, by NewsRx journalists, research stated, "The highly conserved RAS-mitogen activated protein kinase (MAPK) signaling pathway is involved in a wide range of cellular processes including differentiation, proliferation, and survival. Somatic mutations in genes encoding RAS-MAPK components frequently occur in many tumors, making the RAS-MAPK a critical pathway in human cancer."

The news correspondents obtained a quote from the research, "Since the pioneering
study reporting that let-7 miRNA acted as tumor suppressor by repressing the RAS oncogene, growing evidence has suggested the importance of miRNAs targeting the RAS-MAPK in oncogenesis. MiRNAs alterations in human cancers may act as a rheostat of the oncogenic RAS signal that is often amplified as cancers progress. However, specific mechanisms leading to miRNAs deregulation and their functional consequences in cancer are far from being fully elucidated. In this review, we provide an experimental-validated map of RAS-MAPK oncomiRs and tumor suppressor miRNAs from transmembrane receptor to downstream ERK proteins.

According to the news reporters, the research concluded: "MiRNAs could be further considered as potential genetic biomarkers for diagnosis, prognosis, or therapeutic purpose."


Our news journalists report that additional information may be obtained by contacting J. Masliah-Planchon, Unite de Genetique Somatique, Departement de Genetique Oncologique, Institut Curie, Paris, France. Additional authors for this research include S. Garinet and E. Pasmant.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6476. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Cancer, Genetics, Oncology, Article Review, Tumor Suppression.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Studies from J. Otis et al Provide New Data on HIV/AIDS (Beyond Condoms: Risk Reduction Strategies Among Gay, Bisexual, and Other Men Who Have Sex With Men Receiving Rapid HIV Testing in Montreal, Canada)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Immune System Diseases and Conditions - HIV/AIDS is the subject of a report. According to news originating from Vancouver, Canada, by NewsRx correspondents, research stated, "Gay, bisexual, and other men who have sex with men (MSM) have adapted their sexual practices over the course of the HIV/AIDS epidemic based on available data and knowledge about HIV."

Our news journalists obtained a quote from the research, "This study sought to identify and compare patterns in condom use among gay, bisexual, and other MSM who were tested for HIV at a community-based testing site in Montreal, Canada. Results showed that while study participants use condoms to a certain extent with HIV-positive partners and partners of unknown HIV status, they also make use of various other strategies such as adjusting to a partner's presumed or known HIV status and viral load, avoiding certain types of partners, taking PEP, and getting tested for HIV."

According to the news editors, the research concluded: "These findings suggest that MSM who use condoms less systematically are not necessarily taking fewer precautions but may instead be combining or replacing condom use with other approaches to risk reduction."

The news correspondents report that additional information may be obtained from J. Otis, CIHR Canadian HIV Trials Network, Vancouver, BC, Canada. Additional authors for this research include A. McFadyen, T. Haig, M. Blais, J. Cox, B. Brenner, R. Rousseau, G. Emond, M. Roger and M. Wainberg.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Immune System Diseases and Conditions, Epidemiology, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS.

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**Oncology - Lung Cancer**

**Studies from J.C.H. Yang et al Provide New Data on Lung Cancer (Effect of dose adjustment on the safety and efficacy of afatinib for EGFR mutation-positive lung adenocarcinoma: post hoc analyses of the randomized LUX-Lung 3 and 6 trials)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lung Cancer. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Afatinib 40 mg/day is approved for first-line treatment of EGFR mutation-positive non-small-cell lung cancer (NSCLC). In the case of drug-related grade ≥ 3 or selected prolonged grade 2 adverse events (AEs), the dose can be reduced by 10 mg decrements to a minimum of 20 mg."

Our news journalists obtained a quote from the research, "Here, we evaluate the influence of afatinib dose reduction on AEs, pharmacokinetics and progression-free survival (PFS) in the phase III LUX-Lung 3 and 6 (LL3/6) trials. Treatment-naïve patients with advanced EGFR mutation-positive NSCLC in LL3 (global) and LL6 (China, Thailand, South Korea) were randomized to afatinib or chemotherapy. All afatinib-treated patients (LL3, n = 229; LL6, n = 239) were included in the post hoc analyses. Incidence and severity of common AEs before and after afatinib dose reduction were assessed. Afatinib plasma concentrations were compared in patients who reduced to 30 mg versus those remaining at 40 mg. PFS was compared between patients who dose reduced within the first 6 months of treatment and those who did not. Dose reductions occurred in 53.3% (122/229) and 28.0% (67/239) of patients in LL3 and LL6, respectively; most (86.1% and 82.1%) within the first 6 months of treatment. Dose reduction led to decreases in the incidence of drug-related AEs, and was more likely in patients with higher afatinib plasma concentrations. On day 43, patients who dose reduced to 30 mg (n = 59) had geometric mean afatinib plasma concentrations of 23.3 ng/ml, versus 22.8 ng/ml in patients who remained on 40 mg (n = 284). The median PFS was similar in patients who dose reduced during the first 6 months versus those who did not LL3: 11.3 versus 11.0
months [hazard ratio (HR) 1.25]; LL6: 12.3 versus 11.0 months (HR 1.00). Tolerability-guided dose adjustment is an effective measure to reduce afatinib-related AEs without affecting therapeutic efficacy."

According to the news editors, the research concluded: "Clinicaltrials.gov identifiers: NCT00949650 and NCT0112393."


Keywords for this news article include: Guangdong, People's Republic of China, Asia, Adenocarcinoma, Lung Cancer, Genetics, Oncology.

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**Nutritional and Metabolic Diseases and Conditions - …**

**Studies from J.N. Keith and Colleagues Provide New Data on Obesity (Pharmacotherapy in Treatment of Obesity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news originating from Decatur, Alabama, by NewsRx editors, the research stated, "Common disease states in gastroenterology are more effectively treated in an obese patient when weight loss is incorporated into the treatment plan."

Our news journalists obtained a quote from the research, "Strategies that seek to achieve weight loss improve outcomes in the treatment of hepatitis C, non-alcoholic fatty liver disease, and colorectal cancer, as examples. Pharmacologic therapy is an important adjunctive intervention that improves both short-term and long-term outcomes in the management of obese patients."

According to the news editors, the research concluded: "This article reviews currently available drug therapy with a focus on pharmacotherapy approved long-term weight management in non-diabetic obese individuals since 2012, encouraging the use of these tools in the practice of gastroenterology."


The news correspondents report that additional information may be obtained from
Aldehydes

Studies from Jagiellonian University Reveal New Findings on Aldehydes (Influence of different fixation protocols on the preservation and dimensions of cardiac tissue)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Aldehydes is now available. According to news reporting from Krakow, Poland, by NewsRx journalists, research stated, "Recent extensive progress in invasive cardiac procedures has triggered a wave of dozens of heart morphometric anatomical studies that are carried out largely using autopsied samples fixed in formaldehyde solution prior to observations and measurements. In reality, very little is known about changes in heart tissue dimensions during fixation."

The news correspondents obtained a quote from the research from Jagiellonian University, "The aim of this study was therefore to investigate how fixation affects the dimensions of cardiac tissue, and if different types and concentrations of reagents affect this phenomenon. A total of 40 pig heart samples were investigated, and seven different measuring sites were permanently marked in every heart prior to fixation. Four study groups (n = 10 each) were assembled that differed only in concentration and the type of fixative: (i) 2% formaldehyde solution; (ii) 4% formaldehyde solution (formalin); (iii) 10% formaldehyde solution; (iv) alcoholic formalin. The samples were measured before and after fixation at the following time points: 24 h, 72 h and 168 h. It was found that different fixatives significantly affected different parameters. Almost all of the heart dimensions that were measured stabilized after 24 h; later changes were statistically insignificant in the point-to-point comparison. Change in the length of the interatrial septum surface was not altered significantly in any of the fixatives after 24 h of preservation. It was found that 10% formaldehyde increased the thickness of muscular tissue only after 24 h; this thickening was reduced after 72 h and was insignificant at 168 h. Other heart parameters in this group do not present significant changes over the entire fixation time duration."

According to the news reporters, the research concluded: "The 10% formaldehyde phosphate-buffered solution appeared to be the best fixative among the fixatives that were studied for cardiac morphometric purposes; this solution caused the smallest changes in tissue dimensions. Measurements should be obtained at least after 1 week of preservation when most parameters exhibit the smallest changes compared with the non-preserved samples."

For more information on this research see: Influence of different fixation protocols on the preservation and dimensions of cardiac tissue. *Journal of Anatomy*, 2016;229(2):334-
Cardiology

Studies from Johns Hopkins University Add New Findings in the Area of Cardiology (A Bidirectional Neural Interface IC With Chopper Stabilized BioADC Array and Charge Balanced Stimulator)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiology is the subject of a report. According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "We present a bidirectional neural interface with a 4-channel biopotential analog-to-digital converter (bioADC) and a 4-channel current-mode stimulator in 180 nm CMOS. The bioADC directly transduces microvolt biopotentials into a digital representation without a voltage-amplification stage."

Financial supporters for this research include NIH, NSF.

The news correspondents obtained a quote from the research from Johns Hopkins University, "Each bioADC channel comprises a continuous-time first-order Delta Sigma modulator with a chopper-stabilized OTA input and current feedback, followed by a second-order comb-filter decimator with programmable over-sampling ratio. Each stimulator channel contains two independent digital-to-analog converters for anodic and cathodic current generation. A shared calibration circuit matches the amplitude of the anodic and cathodic currents for charge balancing. Powered from a 1.5 V supply, the analog and digital circuits in each recording channel draw on average 1.54 µA and 2.13 µA of supply current, respectively. The bioADCs achieve an SNR of 58 dB and a SFDR of > 70 dB, for better than 9-b ENOB. Intracranial EEG recordings from an anesthetized rat are shown and compared to simultaneous recordings from a commercial reference system to validate performance in-vivo. Additionally, we demonstrate bidirectional operation by recording cardiac modulation induced through vagus nerve stimulation, and closed-loop control of cardiac rhythm."

According to the news reporters, the research concluded: "The micropower operation, direct digital readout, and integration of electrical stimulation circuits make this interface ideally suited for closed-loop neuromodulation applications."

For more information on this research see: A Bidirectional Neural Interface IC With Chopper Stabilized BioADC Array and Charge Balanced Stimulator. IEEE Transactions on
Studies from Johns Hopkins University School of Medicine Further Understanding of Headache and Migraine [A Randomized Trial of Ketorolac vs. Sumatripan vs. Placebo Nasal Spray (KSPN) for Acute Migraine]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nervous System Diseases and Conditions - Headache and Migraine. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "To compare the efficacy of ketorolac nasal spray (NS) vs. placebo and sumatriptan NS for the acute treatment of migraine. This was a randomized, double-blind, placebo and active-comparator, crossover study."

The news reporters obtained a quote from the research from the Johns Hopkins University School of Medicine, "Adult migraineurs were randomized to ketorolac NS 31.5 mg, sumatriptan NS 20 mg, or placebo to treat three moderate to severe migraine attacks and switched treatments with each attack. Patients seeking headache care at a headache center or in response to community advertisement were recruited. Adult participants with episodic migraine who experienced (≥)2 migraine attacks per month were eligible for the Ketorolac vs. Sumatriptan vs. Placebo Nasal Spray migraine study. Participants were randomized to treatment arms by a research pharmacist, in a 1:1:1 ratio using computer-generated lists. The primary outcome was 2-hour pain relief. Secondary outcomes included 2-hour pain freedom and absence of migraine associated symptoms, and 24-hour sustained pain relief and pain freedom. Of the 72 randomized participants, 54 (75%) treated at least one attack and 49 (68%) completed all three treatments, for a total of 152 treated migraine attacks. Both ketorolac NS (72.5%, p<.001) and sumatriptan NS (69.4%, p=.001) were more effective than placebo (38.3%) for 2-hour pain relief and 2-hour pain freedom (ketorolac: 43.1%, p=.004; sumatriptan: 36.7%, p=.046; placebo: 18.4%). Ketorolac NS, but not sumatriptan NS, was more effective than placebo in 2-hour absence of nausea. Both ketorolac NS and sumatriptan NS were more effective than placebo for 24-hour sustained pain relief (ketorolac: 49%, p<.001; sumatriptan: 31%, p=.01, placebo: 20%).
Only ketorolac NS was superior to placebo for 24-hour (ketorolac: 35.3%, p=.003; sumatriptan: 22.4%, p=.18, placebo: 12.2%) sustained pain freedom. Nasal burning and dysgeusia were the most common adverse effects for active treatments.

According to the news reporters, the research concluded: "This study supports that ketorolac NS is superior to placebo and that it is non-inferior to sumatriptan NS for the acute abortive treatment of migraine."


Our news correspondents report that additional information may be obtained by contacting A.S. Rao, Johns Hopkins University School of Medicine, Dept. of Neurology, Baltimore, MD, United States. Additional authors for this research include B. Gelaye, T. Kurth, P.D. Dash, H. Nitchie and B.L Peterlin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/head.12767. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antimigraine Agents, Maryland, Baltimore, Analgesics, Sulfonamides, United States, Pain Management, Clinical Research, Ketorolac Therapy, Drugs and Therapies, Sumatriptan Therapy, Headache and Migraine, Vasoconstrictor Agents, Ophthalmic Preparations, North and Central America, Cyclooxygenase Inhibitors.

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**Drugs and Therapies - Combination Therapy**

**Studies from Johns Hopkins University in the Area of Combination Therapy Reported (Combination therapy in skin of color including injectables, laser, and light devices)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Combination Therapy. According to news reporting originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "With the rapid increase in patients seeking cosmetic treatments, the variation in responses of lightly pigmented skin versus darkly pigmented skin has become increasingly apparent. Despite extensive treatment options in patients with skin of color, there is a paucity of well-designed studies performed on this patient population."

Our news editors obtained a quote from the research from Johns Hopkins University, "The lack of research is concerning, as it is well documented that patients with darker skin types are at an increased risk of adverse events when treated with many of the available modalities used in cosmetic procedures. Fortunately, by combining a variety of treatments, these risks may be abrogated, and combination treatments may be a promising regimen for a wide variety of cosmetic complaints."

According to the news editors, the research concluded: "An overview and evaluation of the research of combination therapy in skin of color is presented."

For more information on this research see: Combination therapy in skin of color including injectables, laser, and light devices. *Seminars in Cutaneous Medicine and Surgery*,...
Studies from Juntendo University Reveal New Findings on Cosmetics (Risk assessment of skin lightening cosmetics containing hydroquinone)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cosmetics have been published. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Following reports on potential risks of hydroquinone (HQ), HQ for skin lightening has been banned or restricted in Europe and the US. In contrast, HQ is not listed as a prohibited or limited ingredient for cosmetic use in Japan, and many HQ cosmetics are sold without restriction."

Financial support for this research came from Ministry of Health, Labour and Welfare.

Our news journalists obtained a quote from the research from Juntendo University, "To assess the risk of systemic effects of HQ we examined the rat skin permeation rates of four HQ (0.3%, 1.0%, 2.6%, and 33%) cosmetics. The permeation coefficients ranged from 1.2 x 10 (-9) to 3.1 x 10(-7) cm/s, with the highest value superior than the HQ aqueous solution (1.6 x 10 (-7) cm/s). After dermal application of the HQ cosmetics to rats, HQ in plasma was detected only in the treatment by highest coefficient cosmetic. Absorbed HQ levels treated with this highest coefficient cosmetic in humans were estimated by numerical methods, and we calculated the margin of exposure (MOE) for the estimated dose (0.017 mg/kg-bw/day in proper use) to a benchmark dose for rat renal tubule adenomas. The MOE of 559 is judged to be in a range safe for the consumer."

According to the news editors, the research concluded: "However, further consideration may be required for regulation of cosmetic ingredients."

For more information on this research see: Risk assessment of skin lightening cosmetics containing hydroquinone. Regulatory Toxicology and Pharmacology, 2016;81(1):128-135. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology -
The news correspondents report that additional information may be obtained from M. Matsumoto, Juntendo University, Fac Med, Dept. of Epidemiol & Environm Hlth, Tokyo, Japan. Additional authors for this research include H. Todo, T. Akiyama, M. Hirata-Koizumi, K. Sugibayashi, Y. Ikarashi, A. Ono, A. Hirose and K. Yokoyama.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.08.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Phenols, Risk and Prevention, Hydroquinones, Cosmetics, Juntendo University.

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Mosquito-Borne Diseases - Zika Virus

Studies from K. Chan and Co-Researchers Update Current Data on Zika Virus (Rapid, Affordable and Portable Medium-Throughput Molecular Device for Zika Virus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mosquito-Borne Diseases - Zika Virus. According to news reporting from College Station, Texas, by NewsRx journalists, research stated, "Zika virus (ZIKV) has gained global attention as an etiologic agent of fetal microcephaly and Guillain-Barre syndrome. Existing immuno-based rapid tests often fail to distinguish between Zika and related flaviviruses that are common in affected regions of Central and South Americas and the Caribbean."

The news correspondents obtained a quote from the research, "The US CDC and qualified state health department laboratories can perform the reverse transcription polymerase chain reaction (RT-PCR) ZIKV test using highly sophisticated instruments with long turnaround times. The preliminary results of a portable and low-cost molecular diagnostics system for ZIKV infection are reported here. In less than 15 minutes, this low-cost platform can automatically perform high quality RNA extraction from up to 12 ZIKV-spiked urine samples simultaneously. It can also perform reverse transcription recombinase polymerase amplification reaction (RT-RPA) in <= 15 minutes. The fluorescent signal produced from probe-based RT-RPA or RT-PCR assays can be monitored using LEDs and a smartphone camera. In addition, the RT-RPA and RT-PCR assays do not cross-react with dengue and chikungunya viral RNA. This low-cost system lacks complicated, sensitive and high cost components, making it suitable for resource-limited settings."

According to the news reporters, the research concluded: "It has the potential to offer simple sample-to-answer molecular diagnostics and can inform healthcare workers of patients' diagnosis promptly."

For more information on this research see: Rapid, Affordable and Portable Medium-Throughput Molecular Device for Zika Virus. Scientific Reports, 2016;6():1-12. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by
contacting S. Wong, AI Biosci Inc, College Stn, TX 77845, United States. Additional authors for this research include S.C. Weaver, P.Y. Wong, S. Lie, E. Wang, M. Guerbois, S.P. Vayugundla and S. Wong.

Keywords for this news article include: College Station, Texas, United States, North and Central America, Mosquito-Borne Diseases, Enzymes and Coenzymes, Emerging Technologies, Molecular Devices, Nanotechnology, RNA Viruses, Polymerase, Zika Virus, Flavivirus, Viral RNA, Genetics.

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Alkanes

Studies from K. Gottlieb and Co-Researchers in the Area of Alkanes Reported (Review article: inhibition of methanogenic archaea by statins as a targeted management strategy for constipation and related disorders)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Alkanes are discussed in a new report. According to news reporting originating from Rockville, Maryland, by NewsRx correspondents, research stated, "Observational studies show a strong association between delayed intestinal transit and the production of methane. Experimental data suggest a direct inhibitory activity of methane on the colonic and ileal smooth muscle and a possible role for methane as a gasotransmitter."

Our news editors obtained a quote from the research, "Archaea are the only confirmed biological sources of methane in nature and Methanobrevibacter smithii is the predominant methanogen in the human intestine. To review the biosynthesis and composition of archaeal cell membranes, archaeal methanogenesis and the mechanism of action of statins in this context. Narrative review of the literature. Statins can inhibit archaeal cell membrane biosynthesis without affecting bacterial numbers as demonstrated in livestock and humans. This opens the possibility of a therapeutic intervention that targets a specific aetiological factor of constipation while protecting the intestinal microbiome. While it is generally believed that statins inhibit methane production via their effect on cell membrane biosynthesis, mediated by inhibition of the HMG-CoA reductase, there is accumulating evidence for an alternative or additional mechanism of action where statins inhibit methanogenesis directly. It appears that this other mechanism may predominate when the lactone form of statins, particularly lovastatin lactone, is administered. Clinical development appears promising. A phase 2 clinical trial is currently in progress that evaluates the effect of lovastatin lactone on methanogenesis and symptoms in patients with irritable bowel syndrome with constipation."

According to the news editors, the research concluded: "The review concludes with an outlook for the future and subsequent work that needs to be done."


The news editors report that additional information may be obtained by contacting K. Gottlieb, Synthetic Biologics, Inc, Rockville, MD, United States. Additional authors for this
Studies from K. Karl and Colleagues Provide New Data on Cardiology (Intrathymic and other anomalous courses of the left brachiocephalic vein in the fetus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news originating from Munich, Germany, by NewsRx correspondents, research stated, "The left brachiocephalic vein (LBCV), or innominate vein, connects the left jugular vein to the right superior vena cava. Its course is posterior to the thymus and directly anterior and superior to the aortic arch."

Our news journalists obtained a quote from the research, "Pediatric and adult cardiology studies have reported on the subaortic or retrotracheal courses of the LBCV and the presence of double LBCV. We observed recently in the fetus that the LBCV may have a course through the thymus (intrathymic) or be absent in the presence of a left superior vena cava. The aim of this study was to report the prevalence of isolated intrathymic and absent LBCV in normal fetuses undergoing second-trimester ultrasound screening, as well as the prevalence of other courses in association with cardiac anomalies. In the prospective part of this study, consecutive second-trimester ultrasound examinations were evaluated to assess the presence and course of the fetal LBCV. In the retrospective case-control part of this study, the databases of two fetal medicine centers were reviewed for cardiac anomalies and the pattern and prevalence of anomalous courses of the LBCV were reported. One thousand four hundred and eighteen consecutive fetuses were examined prospectively. An intrathymic course of the LBCV with a typical bent shape was found in 1.76% (1: 57) of cases and the absence of a LBCV in association with a persistent left superior vena cava (LSVC) was found in 0.28% (1: 350). All fetuses with an isolated intrathymic course or absence of the LBCV had a normal outcome. Over a period of 4.5 years, a total of 1544 fetuses with cardiac malformations were reviewed at two centers. Among these, an anomalous course of the LBCV was noted in eight (0.5%) cases: six subaortic, one retrotracheal and one double LBCV. An intrathymic LBCV is a common condition and appears to be a normal variant in the fetus. The prevalence of a LSVC in our screening population was similar to that reported in previous studies."

According to the news editors, the research concluded: "Anomalous courses of the LBCV are seen occasionally in cases with cardiac malformation."

For more information on this research see: Intrathymic and other anomalous courses of the left brachiocephalic vein in the fetus. Ultrasound in Obstetrics & Gynecology, 2016;48 (4):464-469. Ultrasound in Obstetrics & Gynecology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com;
Disease Attributes - Disease Progression

Studies from K. Kato et al in the Area of Disease Progression Described (Transient appearance of circulating tumor DNA associated with de novo treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Disease Attributes - Disease Progression. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "The limitation of circulating tumor DNA (ctDNA) is its inability to detect cancer cell subpopulations with few or no dying cells. Lung cancer patients subjected to the EGFR tyrosine kinase inhibitor (EGFR-TKI) treatment were prospectively collected, and ctDNA levels represented by the activating and T790M mutations were measured."

The news reporters obtained a quote from the research, "The first data set (21 patients) consisting of samples collected in the period from before initiation of EGFR-TKI to at least 2 weeks after initiation: the ctDNA dynamics generally exhibited a rapid decrease and/or a transient increase. In 4 patients, we detected a transient increase of ctDNA bearing activating mutations not identified in biopsy samples. ctDNA with the same genotypical pattern was identified in 7 out of the 39 patients of the second data set intended to include samples until the onset of disease progression. In 6 of the 7 patients, this unique ctDNA appeared in the early period after treatment initiation, and did not reappear even after disease progression or chemotherapy. In another patient, similar ctDNA appeared upon radiation therapy."

According to the news reporters, the research concluded: "The identification of ctDNA with a unique genotype indicates the presence of cancer cell subpopulations that normally contain few or no dying cells, but generate dead cells because of the treatment."

For more information on this research see: Transient appearance of circulating tumor DNA associated with de novo treatment. Scientific Reports, 2016;6():1-8. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting K. Kato, DNA Chip Res Inc, Minato Ku, Tokyo 1050022, Japan. Additional authors for this research include J. Uchida, Y. Kukita, T. Kumagai, K. Nishino, T. Inoue, M. Kimura and F. Imamura.

Keywords for this news article include: Tokyo, Japan, Asia, Pathologic Processes, Disease Progression, Disease Attributes, Oncology, Genetics, Cancer.
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Immunology - Mononuclear Phagocyte System

Studies from Kakatiya University in the Area of Mononuclear Phagocyte System Reported (Intracellular zinc status influences cisplatin-induced endothelial permeability through modulation of PKC alpha, NF-kappa B and ICAM-1 expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immunology - Mononuclear Phagocyte System are presented in a new report. According to news originating from Warangal, India, by NewsRx correspondents, research stated, "Platinum-based chemotherapeutic regimen induces vascular dysfunction. Action of cisplatin on endothelial cells is mediated by protein kinase C (PKC-alpha), which further activates nuclear factor-kappa B (NF-kappa B) and induces canonical transient receptor potential channel (TRPC1) and intercellular adhesion molecule (ICAM-1) expression."

Our news journalists obtained a quote from the research from Kakatiya University, "Increased ICAM-1 contributes to hyperadhesion of monocytes and endothelial dysfunction. PKC-alpha is also involved in phosphorylation of TRPC1, resulting in store-operated calcium entry (SOCE) and further activation of NF-kappa B. Although the role of altered intracellular zinc status is not known in cisplatin-induced vascular dysfunction, because of the ability of zinc to modulate PKC-alpha, NF-kappa B activity, we hypothesized that zinc can ameliorate the extent of endothelial dysfunction induced by cisplatin. Human umbilical vein endothelial cells treated with cisplatin (8.0 mu g/ml) showed lowered intracellular free zinc, concomitant with enhanced activation of PKC-alpha, NF-kappa B activation, TRPC1, SOCE and ICAM-1 levels. Zinc deficiency per se induced using membrane permeable chelator (TPEN) mimicked the cisplatin-induced PKC-alpha, NF-kappa B activation and ICAM-1 expression, but also activated Activator Protein-1 (AP-1). Zinc supplementation (2.0-10.0 mu M) to the endothelial cells during cisplatin treatment or TPEN-induced zinc deficiency suppressed PKC-alpha, NF-kappa B, TRPC1, SOCE activation and lowered the ICAM-1 expression."

According to the news editors, the research concluded: "Zinc supplementation thereby effectively decreased the cisplatin-induced endothelial permeability and adherence of the activated endothelial cells to U937 monocytes."

For more information on this research see: Intracellular zinc status influences cisplatin-induced endothelial permeability through modulation of PKC alpha, NF-kappa B and ICAM-1 expression. European Journal of Pharmacology, 2016;791():355-368. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news correspondents report that additional information may be obtained from S. Bodiga, Kakatiya Univ, Dept. of Biochem, Warangal 506009, Telangana, India. Additional authors for this research include S.P. Inapurapu, P.K. Vemuri, M.R. Kudle and S. Bodiga.

Keywords for this news article include: Warangal, India, Asia, Mononuclear Phagocyte System, Transcription Factors, DNA-Binding Proteins, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Endothelial Cells, Nuclear Proteins, NF-kappa
Oncology - Colon Cancer

Studies from Kaohsiung Medical University Yield New Data on Colon Cancer (Patients with Metastatic Colorectal Cancer and Hyperbilirubinemia Treated with FOLFIRI plus Bevacizumab as First-Line Treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to news reporting originating in Kaohsiung, Taiwan, by NewsRx journalists, research stated, "Metastatic colorectal cancer (mCRC) combined with hyperbilirubinemia is typically considered a contraindication to irinotecan-based therapy, a proven first-line treatment of mCRC. Herein, we present 6 consecutive patients with mCRC combined with hyperbilirubinemia who underwent UGT1A1 genotyping before receiving FOLFIRI plus bevacizumab."

The news reporters obtained a quote from the research from Kaohsiung Medical University, "Dose escalation of irinotecan was performed according to the results of UGT1A1 genotyping in all patients. Improvement in the serum total bilirubin level to a normal range was noted in all 6 patients. Disease control was 100%. The median progression-free survival was 7.5 months and the median overall survival was 8.5 months. FOLFIRI plus bevacizumab as a first-line chemotherapy may achieve effective disease control and be safe in patients with mCRC and hyperbilirubinemia based on UGT1A1 genotyping."

According to the news reporters, the research concluded: "More prospective clinical studies are necessary to evaluate the clinical benefits and safety of this treatment approach."

For more information on this research see: Patients with Metastatic Colorectal Cancer and Hyperbilirubinemia Treated with FOLFIRI plus Bevacizumab as First-Line Treatment. Chemotherapy, 2017;62(1):80-84. Chemotherapy can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Chemotherapy - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=223834)

Our news correspondents report that additional information may be obtained by contacting J.Y. Wang, Kaohsiung Medical University, Center Biomarkers & Biotech Drugs, Kaohsiung, Taiwan. Additional authors for this research include Y.S. Yeh, C.J. Ma, H.L. Tsai, C.W. Chen, M.Y. Huang, C.Y. Lu, J.Y. Wu and J.Y. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000447118. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kaohsiung, Taiwan, Asia, Antineoplastic Monoclonal Antibodies, Tyrosine Kinase Inhibitors, VEGF - VEGFR Inhibitors, Colorectal Research, Drugs and Therapies, Hyperbilirubinemia, Gastroenterology, VEGFR Inhibitors, Antineoplastics, Colon Cancer, Bevacizumab, Hematology, Oncology, Kaohsiung Medical University.

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Studies from Keimyung University Have Provided New Information about Apoptosis (The multi-target drug BAI induces apoptosis in various human cancer cells through modulation of Bcl-xL protein)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Apoptosis have been published. According to news originating from Daegu, South Korea, by NewsRx correspondents, research stated, "Previous studies have demonstrated the anticancer effects of the newly developed cyclin-dependent kinase inhibitor BAI in various cancer cells. However, the molecular mechanisms of the cellular effects induced by BAI have not been fully elucidated."

Our news journalists obtained a quote from the research from Keimyung University, "The objective of this study was to investigate the mechanisms underlying the regulation of B cell lymphoma-2 (Bcl-2) family proteins in BAI-induced apoptosis of cancer cells. BAI induced poly(ADP-ribose) polymerase cleavage and DEVDase activation dose- and time-dependently. However, BAI-induced apoptosis was not involved in reactive oxygen species generation or mitogen-activated protein kinases pathways. On the other hand, BAI reduced the mitochondrial membrane potential (ΔΨm) dose- and time-dependently, and induced the release of apoptosis-inducing factor (AIF) and cytochrome c from mitochondria in A549 and Caki cells. Furthermore, BAI-induced apoptosis was strongly associated with downregulation of B-cell lymphoma-extra large (Bcl-xL), but not Bcl-2, and BAI modulated the interactions among p53 and Bcl-2 family proteins in human cancer cells."

According to the news editors, the research concluded: "Taken together, these results revealed that the regulations of Bcl-2 family proteins are correlated with BAI-induced apoptosis, suggesting that BAI is a potential multi-target agent of cancer."


The news correspondents report that additional information may be obtained from S. Kim, Keimyung University, Sch Med, Inst Med Sci, Daegu 42601, South Korea. Additional authors for this research include D.E. Kim, T.K. Kwon, J. Lee and J.W. Park.

Keywords for this news article include: Daegu, South Korea, Asia, Cancer, Drugs and Therapies, Apoptosis, Oncology, Keimyung University.

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decomposition to their metabolites)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Alkylating Agents is now available. According to news reporting originating from Kermanshah, Iran, by NewsRx correspondents, research stated, "The electronic features of anti-tumor agent, temozolomide, and its degradation products (MTIC and metabolite AIC) have been traced by means of UV absorption spectroscopy in vacuo and aqueous media. For comparison, electronic spectra of related structures and drugs (e.g., dacarbazine) were also investigated."

Our news editors obtained a quote from the research from the Kermanshah University of Medical Sciences, "These investigations were carried out using time-dependent density functional theory (TD-DFT) method while the conductor like screening model (COSMO) were applied for the inclusion of solvent effects in electronic spectra. From functional benchmarking, two methods; B3LYP and O3LYP were selected among several other methods with 6-311+ G(2d,p) basis set aiming to get the best results in accord with the experimental values. An assessment of the obtained spectra has shown that O3LYP functional gives a mean absolute error (MAE) from experimental absorption peaks of 4.3 nm compared to the 7.2 nm MAE value at B3LYP level in aqueous media. Furthermore, since the structural and tautomeric conformers affect the electronic spectra, conformational preferences have been analyzed in temozolomide, dacarbazine, and their related structures. Temozolomide structure possesses two rotamers that differ in the orientation of carboxamide moiety with a small energy difference (energy difference of 1.39 kcal mol(-1) in vacuo and 0.35 kcal mol(-1) in aqueous media at B3LYP/6-311++ G(2df,3pd). The more stable and meta-stable TMZ rotamer have shown their absorption maxima at 329-334 nm, respectively, at O3LYP level in aqueous media. Applying statistical calculation according to Boltzmann population formula at 25 degrees C and computed weighed mean estimates the lambda(max) of temozolomide at 331 nm, which is in notable agreement with the experimental value (330 nm)."

According to the news editors, the research concluded: "Moreover, molecular orbital composition analysis has been conducted in order to interpret these findings."

For more information on this research see: The simulation of UV spectroscopy and electronic analysis of temozolomide and dacarbazine chemical decomposition to their metabolites. Journal of Molecular Modeling, 2016;22(11):159-167. Journal of Molecular Modeling can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of Molecular Modeling - www.springerlink.com/content/1610-2940/)

The news editors report that additional information may be obtained by contacting A.A. Taherpour, Kermanshah Univ Med Sci, Medical Biol Res Center, Kermanshah, Iran. Additional authors for this research include S. Mirzaei and A.A. Taherpour.

Keywords for this news article include: Kermanshah, Iran, Asia, Temozolomide Therapy, Drugs and Therapies, Dacarbazine Therapy, Alkylating Agents, Pharmaceuticals, Antineoplastics, Triazenes, Kermanshah University of Medical Sciences.

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Studies from King Abdul-Aziz University Hospital Have Provided New Information about Breast Cancer (Lung dose analysis in loco-regional hypofractionated radiotherapy of breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting from Jeddah, Saudi Arabia, by NewsRx journalists, research stated, "To report the ipsilateral lung dosimetry data of breast cancer (BC) patients treated with loco-regional hypofractionated radiotherapy (HFRT). Treatment plans of 150 patients treated in the Radiotherapy Unit, King Abdulaziz University Hospital, Jeddah, Kingdom of Saudi Arabia between January 2012 and March 2015 by HFRT for BC were retrospectively reviewed."

The news correspondents obtained a quote from the research from King Abdul-Aziz University Hospital, "All patients received 42.4 Gy in 16 fractions by tangential and supra-clavicular fields with 6 MV, 18 MV, or mixed energies. Ipsilateral lung dosimetric data V20Gy and mean lung dose (MLD) were recorded. Correlations between lung dose, patient characteristics, and treatment delivery parameters were assessed by a logistic regression test. The mean ipsilateral lung V20Gy was 24.6% and mean MLD was 11.9 Gy. A weak, but statistically significant correlation was found between lung dose and lung volume (p=0.043). The lung dose was significantly decreasing with patient separation and depth of axillary lymph node (ALN) and supra-clavicular lymph nodes (SCLN) (p <0.0001), and increasing with ALN (p=0.001) and SCLN (p=0.003) dose coverage. Lung dose significantly decreased with beam energy (p <0.0001): mean V20Gy was 27.8%, 25.4% for 6 MV, mixed energy, and 21.2% for 18 MV. The use of a low breast-board angle correlates with low lung dose."

According to the news reporters, the research concluded: "Our data suggest that the use of high energy photon beams and low breast-board angulation can reduce the lung dose."


Our news journalists report that additional information may be obtained by contacting Y.A. Bahadur, King Abdulaziz Univ Hosp, Dept. of Radiol, Jeddah, Saudi Arabia. Additional authors for this research include Y.A. Bahadur, C.T. Constantinescu and M.M. Eltaher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.15537/smj.2016.6.14008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jeddah, Saudi Arabia, Asia, Women's Health, Breast Cancer, Radiotherapy, Oncology, Therapy, King Abdul-Aziz University Hospital.

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**Heart Disorders and Diseases - Brugada Syndrome**

**Studies from King Saud University Yield New Data on Brugada Syndrome (Near miss in a patient with undiagnosed Brugada syndrome: a case report and literature review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Brugada Syndrome is the subject of a report. According to news reporting from Riyadh, Saudi Arabia, by NewsRx editors, the research stated, "Brugada syndrome is a rare genetic disorder mostly affecting young subjects without any underlying heart disease."

The news correspondents obtained a quote from the research from King Saud University, "Here we are describing 1 patient presented for gastric bypass surgery who had near cardiac arrest under general anesthesia for unknown reason."

According to the news reporters, the research concluded: "Postoperative investigation of this case revealed the diagnosis of Brugada syndrome."


Our news journalists report that additional information may be obtained by contacting T. Alzahrani, King Saud Univ, Coll Med, Dept. of Anesthesia, Riyadh 11461, Saudi Arabia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.09.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Riyadh, Saudi Arabia, Asia, Heart Disorders and Diseases, Article Review, Cardiac Arrhythmias, Brugada Syndrome, Heart Disease, Cardiology, Genetics, King Saud University.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Studies from King’s College Reveal New Findings on HIV/AIDS (Resistance of Transmitted Founder HIV-1 to IFITM-Mediated Restriction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immune System Diseases and Conditions - HIV/AIDS is now available. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "Interferon-induced transmembrane proteins (IFITMs) restrict the entry of diverse enveloped viruses through incompletely understood mechanisms. While IFITMs are reported to inhibit HIV-1, their in vivo relevance is unclear."

The news reporters obtained a quote from the research from King’s College, "We
show that IFITM sensitivity of HIV-1 strains is determined by the co-receptor usage of the viral envelope glycoproteins as well as IFITM subcellular localization within the target cell. Importantly, we find that transmitted founder HIV-1, which establishes de novo infections, is uniquely resistant to the antiviral activity of IFITMs. However, viral sensitivity to IFITMs, particularly IFITM2 and IFITM3, increases over the first 6 months of infection, primarily as a result of neutralizing antibody escape mutations. Additionally, the ability to evade IFITM restriction contributes to the different interferon sensitivities of transmitted founder and chronic viruses."

According to the news reporters, the research concluded: "Together, these data indicate that IFITMs constitute an important barrier to HIV-1 transmission and that escape from adaptive immune responses exposes the virus to antiviral restriction."

For more information on this research see: Resistance of Transmitted Founder HIV-1 to IFITM-Mediated Restriction. *Cell Host & Microbe*, 2016;20(4):429-442. *Cell Host & Microbe* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell Host & Microbe - www.journals.elsevier.com/cell-host-and-microbe/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.chom.2016.08.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Genetics, HIV-1, King's College.

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**Aging Research - Geriatrics and Gerontology**

**Studies from King's College Yield New Information about Geriatrics and Gerontology (Kicking Back Cognitive Ageing: Leg Power Predicts Cognitive Ageing after Ten Years in Older Female Twins)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Aging Research - Geriatrics and Gerontology are discussed in a new report. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "Many observational studies have shown a protective effect of physical activity on cognitive ageing, but interventional studies have been less convincing. This may be due to short time scales of interventions, suboptimal interventional regimes or lack of lasting effect."

The news reporters obtained a quote from the research from King's College, "Confounding through common genetic and developmental causes is also possible. We aimed to test whether muscle fitness (measured by leg power) could predict cognitive change in a healthy older population over a 10-year time interval, how this performed alongside other predictors of"
cognitive ageing, and whether this effect was confounded by factors shared by twins. In addition, we investigated whether differences in leg power were predictive of differences in brain structure and function after 12 years of follow-up in identical twin pairs. A total of 324 healthy female twins (average age at baseline 55, range 43-73) performed the Cambridge Neuropsychological Test Automated Battery (CANTAB) at two time points 10 years apart. Linear regression modelling was used to assess the relationships between baseline leg power, physical activity and subsequent cognitive change, adjusting comprehensively for baseline covariates (including heart disease, diabetes, blood pressure, fasting blood glucose, lipids, diet, body habitus, smoking and alcohol habits, reading IQ, socioeconomic status and birthweight). A discordant twin approach was used to adjust for factors shared by twins. A subset of monozygotic pairs then underwent magnetic resonance imaging. The relationship between muscle fitness and brain structure and function was assessed using linear regression modelling and paired t tests. A striking protective relationship was found between muscle fitness (leg power) and both 10-year cognitive change [fully adjusted model standardised b-coefficient (Stdβ)=0.174, p=0.002] and subsequent total grey matter (Stdβ=0.362, p=0.005). These effects were robust in discordant twin analyses, where within-pair difference in physical fitness was also predictive of within-pair difference in lateral ventricle size. There was a weak independent effect of self-reported physical activity. Leg power predicts both cognitive ageing and global brain structure, despite controlling for common genetics and early life environment shared by twins."

According to the news reporters, the research concluded: "Interventions targeted to improve leg power in the long term may help reach a universal goal of healthy cognitive ageing."


Our news correspondents report that additional information may be obtained by contacting C.J. Steves, Dept. of Twin Research and Genetic Epidemiology, King's College London, London, UK. Additional authors for this research include M.M. Mehta, S.H. Jackson and T.D Spector.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, Europe, Genetics, United Kingdom, Aging Research, Geriatrics and Gerontology.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Peptide Proteins - Proinsulin.

According to news originating from Hyogo, Japan, by NewsRx correspondents, research stated, "Our recent work suggested that intranasal coadministration with the cell-penetrating peptide (CPP) penetratin increased the brain distribution of the peptide drug insulin. The present study aimed to distinctly certify the ability of penetratin to facilitate the nose-to-brain delivery of insulin by quantitatively evaluating the distribution characteristics in brain using radioactive (64)Cu-NODAGA-insulin."

Financial support for this research came from Japan Society for the Promotion of Science.

Our news journalists obtained a quote from the research from Kobe Gakuin University, " Autoradiography and analysis using a gamma counter of brain areas demonstrated that the accumulation of radioactivity was greatest in the olfactory bulb, the anterior part of the brain closest to the administration site, at 15 min after intranasal administration of (64)Cu-NODAGA-insulin with l-or d-penetratin. The brain accumulation of (64)Cu-NODAGA-insulin with penetratin was confirmed by ELISA using unlabeled insulin in which intact insulin was delivered to the brain after intranasal coadministration with l-or d-penetratin. By contrast, quantification of cerebrospinal fluid (CSF) samples showed increased insulin concentration in only the anterior portion of the CSF at 15 min after intranasal coadministration with l-penetratin. This study gives the first concrete proof that penetratin can accelerate the direct transport of insulin from the nasal cavity to the brain parenchyma."

According to the news editors, the research concluded: "Further optimization of intranasal administration with CPP may increase the efficacy of delivery of biopharmaceuticals to the brain while reducing the risk of systemic drug exposure."

For more information on this research see: Visualization and Quantitative Assessment of the Brain Distribution of Insulin through Nose-to-Brain Delivery Based on the Cell-Penetrating Peptide Noncovalent Strategy. Molecular Pharmacuetics, 2016;13(3):1004-11. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news correspondents report that additional information may be obtained from N. Kamei, Laboratory of Drug Delivery Systems, Faculty of Pharmaceutical Sciences, Kobe Gakuin University, 1-1-3 Minatojima, Chuo-ku, Kobe, Hyogo 650-8586, Japan. Additional authors for this research include T. Shingaki, Y. Kanayama, M. Tanaka, R. Zochi, K. Hasegawa, Y. Watanabe and M. Takeda-Morishita.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00854. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Hyogo, Japan, Proinsulin, Peptide Hormones, Peptide Proteins, Risk and Prevention, Topical Administration, Intranasal Administration.

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Oncology - Liver Cancer

Studies from Kobe University Provide New Data on Liver Cancer
(Efficacy of stereotactic body radiotherapy for hepatocellular carcinoma with portal vein tumor thrombosis/inferior vena cava tumor thrombosis: evaluation by comparison with ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting originating from Hyogo, Japan, by NewsRx correspondents, research stated, "This study aimed to evaluate the efficacy of stereotactic body radiotherapy (SBRT) compared with three-dimensional conformal radiotherapy (3DCRT). Forty-three patients with portal vein tumor thrombosis (PVTT)/inferior vena cava tumor thrombosis (IVCTT) treated with SBRT (27 with CyberKnife (CK) and 16 with TrueBeam (TB)) from April 2013 to December 2014, and 54 treated with 3DCRT from June 2008 to March 2013 were evaluated."

Our news editors obtained a quote from the research from Kobe University, "Dosimetric parameters, response to radiotherapy (RT) and survival outcomes were compared in total SBRT vs. 3DCRT, CK vs. 3DCRT and TB vs. 3DCRT, respectively. The median biologically effective dose 10 (BED10) values in total SBRT, CK, TB and 3DCRT were 73.4 Gy(10), 75.0 Gy(10), 60.5 Gy(10) and 58.5 Gy(10), respectively (P < 0.001 in total SBRT vs. 3DCRT, P< 0.001 in CK vs. 3DCRT, P = 0.004 in TB vs. 3DCRT). The tumor response rates were 67%, 70%, 62% and 46%, respectively (P = 0.04, P = 0.04, P = 0.25). The 1-year overall survival rates were 49.3%, 56.7%, 38.1% and 29.3%, respectively (P = 0.02, P = 0.02, P = 0.30), and the 1-year local progression rates were 20.4%, 21.9%, 18.8% and 43.6%, respectively (P = 0.01, P = 0.04, P = 0.10). The use of SBRT made it possible to achieve a higher BED10 compared with the use of 3DCRT. Improvements in local control and survival were achieved in the CK group and the total SBRT group."

According to the news editors, the research concluded: "Our results suggest that SBRT may have the potential to be the standard RT technique for the treatment of PVTT/IVCTT."


The news editors report that additional information may be obtained by contacting K. Yoshida, Kobe University, Div Radiat Oncol, Grad Sch Med, Chou Ku, Kobe, Hyogo 6500017, Japan. Additional authors for this research include K. Yoshida, H. Nishimura, Y. Ejima, D. Miyawaki, H. Uezono, T. Ishihara, H. Mayahara, T. Fukumoto, Y. Ku, M. Yamaguchi, K. Sugimoto and R. Sasaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/jrr/rrw028. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hyogo, Japan, Asia, Cardiovascular
Studies from Korea Research Institute of Chemical Technology Yield New Data on DNA-Binding Proteins (IinQ attenuates systemic inflammatory responses via selectively impairing the Myddosome complex formation upon TLR4 ligation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Proteins - DNA-Binding Proteins have been presented. According to news reporting originating from Daejeon, South Korea, by NewsRx correspondents, research stated, "A specific small-molecule inhibitor of the TLR4 signaling complex upstream of the IKK would likely provide therapeutic benefit for NF-kappa B-mediated inflammatory disease. We previously identified brazilin as a selective upstream IRK inhibitor targeting the Myddosome complex."

Our news editors obtained a quote from the research from the Korea Research Institute of Chemical Technology, "In this study, using a cell-based ubiquitination assay for IRAK1 and a chemical library comprising a series of structural analogues of brazilin, a novel small molecule, 2-hydroxy-5,6-dihydroisoindolo[1,2-a]isoguinoline-3,8-dione(linQ), was identified as a selective and potent inhibitor of IRAK1-dependent NF-kappa B activation upon TLR4 ligation. In RAW264.7 macrophages, linQ drastically suppressed activation of upstream IKK signaling events including membrane-bound IRAK1 ubiquitination and IKK phosphorylation by the TLR4 ligand, resulting in reduced expression of proinflammatory mediators including IL-6, TNF-alpha, and nitric oxide. Interestingly, linQ did not suppress NF-kappa B activation via the TLR3 ligand, DNA damaging agents, or a protein kinase C activator, indicating linQ is specific for TLR4 signaling. Analysis of upstream signaling events further confirmed that linQ disrupts the MyD88-IRAK1-TRAF6 complex formation induced by LPS treatment, without affecting TLR4 oligomerization. Moreover, intravenous administration of linQ significantly reduced lethality and attenuated systemic inflammatory responses in an in vivo mouse model of endotoxin shock following LPS challenge."

According to the news editors, the research concluded: "Thus, linQ represents a novel class of brazilin analogues with improved potency and specificity toward disruption of Myddosome complex formation in TLR4 signaling, indicating that linQ may be a promising therapeutic candidate for the treatment of systemic inflammatory diseases."


The news editors report that additional information may be obtained by contacting I.Y. Lee, Korea Res Inst Chem Technol, Ecofriendly New Mat Res Center, Daejeon 34114,

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bcp.2016.09.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daejeon, South Korea, Asia, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, NF-kappa B, Korea Research Institute of Chemical Technology.

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Transfusion Medicine

Studies from Korea University in the Area of Transfusion Medicine Reported (A simple method for activating the platelets used in microfluidic platelet aggregation tests: Stirring-induced platelet activation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Transfusion Medicine is the subject of a report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "High-shear stimulation is well known as one of the key factors affecting platelet activation and aggregation, which can lead to the formation of a thrombus. In one of our previous studies, we introduced migration distance-based platelet function analysis in a microfluidic system."

Our news editors obtained a quote from the research from Korea University, "In this study, we set out to examine the effects of stirring on shear-induced platelet activation and aggregation in a chamber system by using a rotating stirrer. We found that the rotating stirrer caused not only rotational shear flow but also a strong radial secondary flow. The latter flow led to efficient mixing in the chamber. Moreover, the rotational flow led to the generation of shear stress, the magnitude of which can be controlled to activate the platelets. Activated platelets tend to aggregate themselves. The maximum platelet aggregation was observed at a critical shear rate of 3100 s(-1), regardless of the stirrer shape. Furthermore, the time taken to attain maximum aggregation was significantly shortened when using a wide stirrer (30 s) instead of a narrow one (180 s). When using a flat stirrer, the non-uniform shear field in the chamber system was resolved with the radial secondary flow-induced mixing; thus, most of the platelets were homogenously activated. The stirring-induced platelet activation mechanism was experimentally confirmed in a microfluidic system for a platelet aggregation test while monitoring the migration distance until the microfluidic channel is occluded."

According to the news editors, the research concluded: "Our findings indicate that the present system, consisting of a rotating stirrer and a confined chamber, provides effective shear stimulation for activating platelets and inducing platelet aggregates."

For more information on this research see: A simple method for activating the platelets used in microfluidic platelet aggregation tests: Stirring-induced platelet activation. Biomicrofluidics, 2016;10(6):242-251. Biomicrofluidics can be contacted at: Amer Inst Physics, 1305 Walt Whitman Rd, Ste 300, Melville, NY 11747-4501, USA. (American Institute of Physics - www.aip.org/; Biomicrofluidics - bmf.aip.org/)
The news editors report that additional information may be obtained by contacting S. Shin, Korea University, Sch Mech Engn, Seoul 136701, South Korea. Additional authors for this research include G. Kim, C. Lim, B. Lee and S. Shin.

Keywords for this news article include: Seoul, South Korea, Asia, Platelet Aggregation, Transfusion Medicine, Blood Transfusion, Angiology, Korea University.

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Cardiology

Studies from Kumamoto University Further Understanding of Cardiology (Cardiac helical CT involving a low-radiation-dose protocol with a 100-kVp setting Usefulness of hybrid iterative reconstruction and display preset optimization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiology have been presented. According to news reporting originating from Kumamoto, Japan, by NewsRx correspondents, research stated, "To compare the radiation dose and image quality of retrospective electrocardiogram (ECG)-gated cardiac computed tomography (CT) between a 100-kVp protocol, hybrid iterative reconstruction (HIR), and display preset optimization and the 120-kVp protocol. We prospectively enrolled 100 patients with tachycardia or atrial fibrillation scanned retrospective ECG-gated cardiac CT."

Our news editors obtained a quote from the research from Kumamoto University, "We randomly assigned 50 patients to the 120-kVp protocol and 50 patients to the 100-kVp protocol. We compared effective doses (EDs) between the two protocols. The 120-kVp images were post-processed using filtered back projection (FBP). The 100-kVp images were post-processed using FBP (100-kVp protocol) and HIR (i-100-kVp protocol). We compared attenuation of the ascending aorta, signal-to-noise ratio (SNR), and image noise between the 120-kVp, 100-kVp, and i-100-kVp protocols. We performed qualitative image analysis for the 120-kVp and i-100-kVp protocols. ED of the 100-kVp protocol (4.4 +/- 0.4mSv) was 76\% lower than that of the 120-kVp protocol (18.4 +/- 0.6 mSv). Attenuations of the 100-kVp (549.1 +/- 73.8HU) and i-100-kVp (550.5 +/- 73.7HU) protocols were higher than that of the 120-kVp protocol (437.3 +/- 55.7 HU). Image noise of the 100-kVp (53.6 +/- 18.5HU) and i-100-kVp (30.9 +/- 8.6HU) protocols were higher than that of the120-kVp protocol (23.8 +/- 5.7 HU). There was no significant difference in SNR and the result of qualitative image analysis between the 120-kVp and i-100-kVp protocols."

According to the news editors, the research concluded: "The 100-kVp protocol with HIR reduced the 76\% radiation dose while preserving the image quality compared with the conventional 120-kVp protocol on retrospective ECG-gated cardiac CT."

For more information on this research see: Cardiac helical CT involving a low-radiation-dose protocol with a 100-kVp setting Usefulness of hybrid iterative reconstruction and display preset optimization. Medicine, 2016;95(46):438-443. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting Y. Iyama, Kumamoto University, Grad Sch Med, Dept. of Diagnost Radiol, Kumamoto, Japan. Additional authors for this research include T. Nakaura, K. Yokoyama, M. Kidoh and Y.
Studies from Kumamoto University Further Understanding of Splenic Artery (Salvage Splenic Artery Embolization for Saving Falling Living Donor Graft due to Portal Overflow: A Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gastroenterology - Splenic Artery. According to news reporting from Kumamoto, Japan, by NewsRx journalists, research stated, "Portal decompression is an approach for reducing portal overflow caused by small-for-size syndrome. We report the case of a patient who recovered from rapidly progressing hyperbilirubinemia caused by a small graft by decompressing portal overflow with splenic artery embolization following a living donor liver transplantation (LDLT)."

The news correspondents obtained a quote from the research from Kumamoto University, "The patient was a 54-year-old man with end-stage liver disease secondary to alcoholic liver cirrhosis; the donor was his 54-year-old wife. The graft volume of the left lobe was 444 mL, which was 34.8% of the standard liver volume (SLV) and insufficient for the recipient; thus, the plan was to use the right lobe for the graft. The patient underwent LDLT with a right lobe graft; the volume to SLV ratio was 39.1%, and the graft-to-recipient-weight ratio was 0.72%. Although portal pressure was low during the operation, the patient eventually developed small-for-size syndrome after LDLT. It was conceivable that because the patient had splenomegaly, portal decompression would be effective. Splenic arterial embolization was performed successfully on postoperative day (POD) 7. The patient's total bilirubin level was increased to 40 mg/dL on POD16. Decreased portal flow, which was shown by ultrasound screening to be 'to-and-flo,' increased again on POD23 to one-third of that on POD1. He was discharged without any infectious complications."

According to the news reporters, the research concluded: "Additional splenic artery embolization after LDLT may be a convenient option for reducing portal overflow for patients with splenomegaly if the portal decompression was not performed for some reason at the surgery."


Our news journalists report that additional information may be obtained by contacting H. Okabe, Kumamoto University, Grad Sch Life Sci, Dept. of Gastroenterol Surg, Kumamoto, Kumamoto, Japan. Additional authors for this research include T. Yoshizumi, T. Ikegami, H. Uchiyama, N. Harimoto, S. Itoh, K. Kimura, H. Baba and Y. Maehara.

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http://dx.doi.org/10.1016/j.transproceed.2016.07.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kumamoto, Japan, Asia, Splenic Artery Embolization, Gastroenterology, Angiology, Kumamoto University.

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**Oncology - Breast Cancer**

**Studies from Kyoto Sangyo University Yield New Information about Breast Cancer (Hyaluronan Production Regulates Metabolic and Cancer Stem-like Properties of Breast Cancer Cells via Hexosamine Biosynthetic Pathway-coupled HIF-1 Signaling)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news originating from Kyoto, Japan, by NewsRx correspondents, research stated, "Cancer stem cells (CSCs) represent a small subpopulation of self-renewing oncogenic cells. As in many other stem cells, metabolic reprogramming has been implicated to be a key characteristic of CSCs."

Financial supporters for this research include Japan Society for the Promotion of Science, Tokyo Biochemical Research Foundation.

Our news journalists obtained a quote from the research from Kyoto Sangyo University, "However, little is known about how the metabolic features of cancer cells are controlled to orchestrate their CSC-like properties. We recently demonstrated that hyaluronan (HA) overproduction allowed plastic cancer cells to revert to stem cell states. Here, we adopted stable isotope-assisted tracing and mass spectrometry profiling to elucidate the metabolic features of HA-overproducing breast cancer cells. These integrated approaches disclosed an acceleration of metabolic flux in the hexosamine biosynthetic pathway (HBP). A metabolic shift toward glycolysis was also evident by quantitative targeted metabolomics, which was validated by the expression profiles of key glycolytic enzymes. Forced expression of glutamine:fructose-6-phosphate amidotransferase 1 (GFAT1), an HBP rate-limiting enzyme, resembled the results of HA overproduction with regard to HIF-1 accumulation and glycolytic program, whereas GFAT1 inhibition significantly decreased HIF-1 protein level in HA-overproducing cancer cells. Moreover, inhibition of the HBP-HIF-1 axis abrogated HA-driven glycolytic enhancement and reduced the CSC-like subpopulation."

According to the news editors, the research concluded: "Taken together, our results provide compelling evidence that HA production regulates the metabolic and CSC-like properties of breast cancer cells via HBP-coupled HIF-1 signaling."


The news correspondents report that additional information may be obtained from N.
Studies from Kyoto University Update Current Data on Colon Cancer (Metabolic Alterations Caused by KRAS Mutations in Colorectal Cancer Contribute to Cell Adaptation to Glutamine Depletion by Upregulation of Asparagine Synthetase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting originating in Kyoto, Japan, by NewsRx journalists, research stated, "A number of clinical trials have shown that KRAS mutations of colorectal cancer (CRC) can predict a lack of responses to anti-epidermal growth factor receptor-based therapy. Recently, there have been several studies to elucidate metabolism reprogramming in cancer."

The news reporters obtained a quote from the research from Kyoto University, "However, it remains to be investigated how mutated KRAS can coordinate the metabolic shift to sustain CRC tumor growth. In this study, we found that KRAS mutation in CRC caused alteration in amino acid metabolism. KRAS mutation causes a marked decrease in aspartate level and an increase in asparagine level in CRC. Using several human CRC cell lines and clinical specimens of primary CRC, we demonstrated that the expression of asparagine synthetase (ASNS), an enzyme that synthesizes asparagine from aspartate, was upregulated by mutated KRAS and that ASNS expression was induced by KRAS-activated signaling pathway, in particular PI3K-AKT-mTOR pathway. Importantly, we demonstrated that KRAS-mutant CRC cells could become adaptive to glutamine depletion through asparagine biosynthesis by ASNS and that asparagine addition could rescue the inhibited growth and viability of cells grown under the glutamine-free condition in vitro. Notably, a pronounced growth suppression of KRAS-mutant CRC was observed upon ASNS knockdown in vivo. Furthermore, combination of L-asparaginase plus rapamycin markedly suppressed the growth of KRAS-mutant CRC xenografts in vivo, whereas either L-asparaginase or rapamycin alone was not effective."

According to the news reporters, the research concluded: "These results indicate ASNS might be a novel therapeutic target against CRCs with mutated KRAS."


Our news correspondents report that additional information may be obtained by
contacting K. Kawada, Kyoto University, Grad Sch Med, Dept. of Surg, Kyoto 6068507, Japan. Additional authors for this research include K. Kawada, M. Iwamoto, S. Inamoto, T. Sasazuki, S. Shirasawa, S. Hasegawa and Y. Sakai.

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Keywords for this news article include: Kyoto, Japan, Asia, Enzymes and Coenzymes, Diamino Amino Acids, Neutral Amino Acids, Colorectal Research, Basic Amino Acids, Gastroenterology, Pharmaceuticals, Colon Cancer, Synthetase, Asparagine, Glutamine, Oncology, Genetics, Kyoto University.

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Therapeutics

Studies from Kyoto University in the Area of Therapeutics Reported (Enhanced engraftment, proliferation, and therapeutic potential in heart using optimized human iPSC-derived cardiomyocytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Therapeutics have been published. According to news reporting from Kyoto, Japan, by NewsRx journalists, research stated, "Human pluripotent stem cell-derived cardiomyocytes (CMs) are a promising tool for cardiac cell therapy. Although transplantation of induced pluripotent stem cell (iPSC)-derived CMs have been reported in several animal models, the treatment effect was limited, probably due to poor optimization of the injected cells."

The news correspondents obtained a quote from the research from Kyoto University, "To optimize graft cells for cardiac reconstruction, we compared the engraftment efficiency of intramyocardially-injected undifferentiated-iPSCs, day 4 mesodermal cells, and day 8, day 20, and day 30 purified iPSC-CMs after initial differentiation by tracing the engraftment ratio (ER) using in vivo bioluminescence imaging. This analysis revealed the ER of day 20 CMs was significantly higher compared to other cells. Transplantation of day 20 CMs into the infarcted hearts of immunodeficient mice showed good engraftment, and echocardiography showed significant functional improvement by cell therapy. Moreover, the imaging signal and ratio of Ki67-positive CMs at 3 months post injection indicated engrafted CMs proliferated in the host heart. Although this graft growth reached a plateau at 3 months, histological analysis confirmed progressive maturation from 3 to 6 months. These results suggested that day 20 CMs had very high engraftment, proliferation, and therapeutic potential in host mouse hearts."

According to the news reporters, the research concluded: "They also demonstrate this model can be used to track the fate of transplanted cells over a long time."

For more information on this research see: Enhanced engraftment, proliferation, and therapeutic potential in heart using optimized human iPSC-derived cardiomyocytes. Scientific Reports, 2016;6():19111. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)  

Our news journalists report that additional information may be obtained by contacting S. Funakoshi, Center for iPS Cell Research and Application, Kyoto University, Kyoto, Japan. Additional authors for this research include K. Miki, T. Takaki, C. Okubo, T.
Studies from Kyung Hee University in the Area of Pharmacodynamics

Reported (A Comprehensive Review of Recent Studies on Herb-Drug Interaction: A Focus on Pharmacodynamic Interaction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Pharmacodynamics are discussed in a new report. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "The concomitant use of herbal and conventional drugs accelerates the possibility of clinically significant herb-drug interactions (HDIs). This paper aims to analyze the current status of HDI studies worldwide and to review studies on HDI-induced pharmacodynamic (PD) interactions."

The news reporters obtained a quote from the research from Kyung Hee University, "HDI studies published from 2000 to 2014 and indexed in PubMed were categorized according to publication year, area/country, study methods and objectives, and disease categories. The reviewed studies focused on HDI-induced PD; each PD interaction with concurrent use of approximately 100 herbal drugs and 70 conventional drugs was summarized. All PD-related articles were categorized according to four characteristics: herbal drugs, conventional drugs, types of PD interaction, and type of study. Among them, 17 well-designed clinical studies were evaluated by using the Jadad Quality Assessment Scale. The number of HDI reports has gradually increased since 2000, with a primary focus on neoplasms and diseases of the circulatory system. Most of these investigated pharmacokinetic reactions, such as cytochrome P450 enzyme metabolism, with fewer reports investigating PD. Most PD interaction studies investigated warfarin, ginkgo leaves, and St. John's wort. An evaluation of 17 studies revealed a generally positive view of PD effects involving synergism or reduced toxicity and a high average quality score (>3 points on a 0-5 scale). These results demonstrate that most HDI studies so far have examined PK interactions and have been limited to very few conventional drugs and herbal drugs."

According to the news reporters, the research concluded: "This suggests that more studies focusing on PD are necessary to understand interactions between commonly used herbal and conventional drugs."

Oncology - Lung Cancer

Studies from Kyushu University Add New Findings in the Area of Lung Cancer (Clinical Significance of PD-L1 Protein Expression in Surgically Resected Primary Lung Adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "The clinicopathological features of carcinomas expressing programmed death ligand 1 (PD-L1) and their associations with common driver mutations, such as mutations in the EGFR gene, in lung adenocarcinoma are not clearly understood. Here, we examined PD-L1 protein expression in surgically resected primary lung adenocarcinoma and the association of PD-L1 protein expression with clinicopathological features, EGFR mutation status, and patient outcomes."

Our news journalists obtained a quote from the research from Kyushu University, "The expression of PD-L1 protein in 417 surgically resected primary lung adenocarcinomas was evaluated by immunohistochemical analysis. The cutoff value for defining PD-L1 positivity was determined according to the histogram of proportions of PD-L1-positive cancer cells. Samples from 85 patients (20.4%) and 144 patients (34.5%) were positive for PD-L1 protein expression according to 5% and 1% PD-L1 cutoff values, respectively. Fisher's exact tests showed that PD-L1 positivity was significantly associated with male sex, smoking, higher tumor grade, advanced T status, advanced N status, advanced stage, the presence of pleural and vessel invasions, micro papillary or solid predominant histological subtypes, and wild-type EGFR. Univariate and multivariate survival analyses revealed that patients with PD-L1 positivity had poorer prognoses than those without PD-L1 protein expression at the 1% cutoff value (disease-free survival p< 0.0001, overall survival p< 0.0001). PD-L1 protein expression was significantly higher in smoking-associated adenocarcinoma and in EGFR mutation-negative adenocarcinoma. PD-L1 protein expression was associated with poor survival in patients with lung adenocarcinoma."

According to the news editors, the research concluded: "The PD-L1/programmed cell death 1 pathway may contribute to the progression of smoking associated tumors in lung adenocarcinoma."

For more information on this research see: Clinical Significance of PD-L1 Protein Expression in Surgically Resected Primary Lung Adenocarcinoma. *Journal of Thoracic Oncology*, 2016;11(11):1879-1890. *Journal of Thoracic Oncology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Lippincott...
Cardiovascular Diseases and Conditions -

Studies from Kyushu University Yield New Data on Thrombosis and Hemostasis (Antiplatelet and Anticoagulant Activities of Angelica shikokiana Extract and Its Isolated Compounds)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Thrombosis and Hemostasis are presented in a new report. According to news reporting originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "Angelica shikokiana is a Japanese medicinal plant that is used traditionally in several ailments of cardiovascular diseases. However, there is no report regarding its anticoagulant or antiplatelet activities."

Our news editors obtained a quote from the research from Kyushu University, "So this study was designed to screen for such activities (anticoagulant by prothrombin time [PT], activated partial thromboplastin time, and thrombin time assays and antiplatelet activities against adenosine 5'-diphosphate [ADP] and arachidonic acid-induced platelet aggregations) for the methanol extract of the aerial part (Angelica methanol extract [AME]), its isolated coumarins, flavonoids, and flavonoid metabolites. The AME had potent anticoagulant and antiplatelet activities, and the flavonoid compounds were evidenced to be responsible for such activities. Among coumarins compounds, hyuganin C showed significant prolongation of only PT, while other coumarins were inactive. Similarly, hyuganin C and bergapten were the only active coumarins against ADP-induced platelet aggregation. Compared to the parent compounds, colonic metabolites of the flavonoids had similar anticoagulant and antiplatelet activities, while glucuronides showed sharp decreases in all studied activities."

According to the news editors, the research concluded: "This is the first report showing that the medicinal plant A. shikokiana has potent antiplatelet and anticoagulant activities."


The news editors report that additional information may be obtained by contacting K.
Shimizu, Kyushu University, Dept. of Agroenvironment Sci, Div Systemat Forest & Forest Prod Sci, Fac AgrGrad Sch, Fukuoka, Japan. Additional authors for this research include W. Alkhiary and K. Shimizu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1076029615595879. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Fukuoka, Japan, Asia, Thrombosis and Hemostasis, Cardiovascular Diseases and Conditions, Kyushu University.

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Life Science Research - Physiology

Studies from L. Fabre and Colleagues Provide New Data on Physiology (Structure of anthrax lethal toxin prepore complex suggests a pathway for efficient cell entry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Life Science Research - Physiology are presented in a new report. According to news reporting originating in La Jolla, California, by NewsRx journalists, research stated, "Anthrax toxin comprises three soluble proteins: protective antigen (PA), lethal factor (LF), and edema factor (EF). PA must be cleaved by host proteases before it oligomerizes and forms a prepore, to which LF and EF bind."

Funders for this research include Canadian Foundation for Innovation, Canadian Institutes for Health Research, Natural Sciences and Engineering Research Council of Canada, US Department of Defense, National Institutes of Health, CIHR.

The news reporters obtained a quote from the research, "After endocytosis of this tripartite complex, the prepore transforms into a narrow transmembrane pore that delivers unfolded LF and EF into the host cytosol. Here, we find that translocation of multiple 90-kD LF molecules is rapid and efficient. To probe the molecular basis of this translocation, we calculated a three-dimensional map of the fully loaded (PA(63))(7)-(LF)(3) prepore complex by cryo-electron microscopy (cryo-EM). The map shows three LFs bound in a similar way to one another, via their N-terminal domains, to the surface of the PA heptamer. The model also reveals contacts between the N- and C-terminal domains of adjacent LF molecules."

According to the news reporters, the research concluded: "We propose that this molecular arrangement plays an important role in the maintenance of translocation efficiency through the narrow PA pore."

For more information on this research see: Structure of anthrax lethal toxin prepore complex suggests a pathway for efficient cell entry. Journal of General Physiology, 2016;148 (4):313-324. Journal of General Physiology can be contacted at: Rockefeller Univ Press, 950 Third Ave, 2ND Flr, New York, NY 10022, USA.

Our news correspondents report that additional information may be obtained by contacting R. Liddington, Sanford Burnham Prebys Med Discovery Inst, Bioinformatics & Struct Biol Program, La Jolla, CA 92037, United States. Additional authors for this research include E. Santelli, D. Mountassif, A. Donoghue, A. Biswas, R. Blunck, D. Hanein, N. Volkmann, R. Liddington and I. Rouiller.

The direct object identifier (DOI) for that additional information is:
Studies from L. Lin and Co-Researchers Update Current Data on Gliomas (Analysis of expression and prognostic significance of vimentin and the response to temozolomide in glioma patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gliomas is the subject of a report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Gliomas are the most common primary intracranial malignant tumors in adults. Surgical resection followed by optional radiotherapy and chemotherapy is the current standard therapy for glioma patients."

Financial supporters for this research include The Research Special Fund For Public Welfare Industry of Heath, National Natural Science Foundation of China (CN), National High Technology Research and Development Program, Special Fund Project of Translational Medicine in the Chinese-Russian Medical Research Center, Research Project of Chinese Society of Neuro-oncology, CACA, Natural and Science Foundation of Heilongjiang Province, Science and technology research project of Education Department of Heilongjiang Province.

The news correspondents obtained a quote from the research, "Vimentin, a protein of intermediate filament family, could maintain the cellular integrity and participate in several cell signal pathways to modulate the motility and invasion of cancer cells. The purpose of the present research was to identify the relationship between vimentin expression and clinical characteristics and detect the prognostic and predictive ability of vimentin in patients with glioma. To determine the expression of vimentin in glioma tissues, paraffin-embedded blocks from glioma patients by surgical resection were obtained and evaluated by immunohistochemistry. To further investigate the association of vimentin expression with survival, we employed mRNA expression of vimentin genes from the Chinese Glioma Genome Atlas (CGGA) and the GSE 16011 dataset. Kaplan-Meier analysis and Cox regression model were used to statistical analysis. We detected positive vimentin straining in 84 % of high-grade compared to 47 % in low-grade glioma patients. Additionally, vimentin mRNA expression was correlated with glioma grade in both CGGA and GSE16011 dataset. Patients with low vimentin expression have longer survival than high expression. In multivariate analysis, vimentin was an independent significant prognostic factor for high-grade glioma patients. We also identified that glioblastoma patients with low vimentin expression had a better response to temozolomide therapy. Vimentin expression has a significant association with tumor grade and overall survival of high-grade glioma patients."

According to the news reporters, the research concluded: "Low vimentin expression may benefit from temozolomide therapy."

For more information on this research see: Analysis of expression and prognostic significance of vimentin and the response to temozolomide in glioma patients. *Tumor Biology,*

Our news journalists report that additional information may be obtained by contacting J.Q. Cai, CGCG, Beijing, People's Republic of China. Additional authors for this research include G.Z. Wang, J.G. Ming, X.Q. Meng, B. Han, B. Sun, J.Q. Cai and C.L. Jiang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5462-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Intermediate Filament Proteins, Temozolomide Therapy, Drugs and Therapies, Alkylating Agents, Pharmaceuticals, Antineoplastics, Vimentin, Oncology, Genetics, Gliomas.

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**Digestive System Diseases and Conditions - Peritonitis**

**Studies from L.C.F. Marques and Co-Researchers Yield New Data on Peritonitis (Anti-Inflammatory Effects of a Pomegranate Leaf Extract in LPS-Induced Peritonitis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Peritonitis have been published. According to news reporting out of Sao Luis, Brazil, by NewsRx editors, research stated, "Folk medicine suggests that pomegranate (peels, seeds and leaves) has anti-inflammatory properties; however, the precise mechanisms by which this plant affects the inflammatory process remain unclear. Herein, we analyzed the anti-inflammatory properties of a hydroalcoholic extract prepared from pomegranate leaves using a rat model of lipopolysaccharide-induced acute peritonitis."

Our news journalists obtained a quote from the research, "Male Wistar rats were treated with either the hydroalcoholic extract, sodium diclofenac, or saline, and 1 h later received an intraperitoneal injection of lipopolysaccharides. Salineinjected animals (i.p.) were used as controls. Animals were culled 4 h after peritonitis induction, and peritoneal lavage and peripheral blood samples were collected. Serum and peritoneal lavage levels of TNF-alpha as well as TNF-alpha mRNA expression in peritoneal lavage leukocytes were quantified. Total and differential leukocyte populations were analyzed in peritoneal lavage samples.

Lipopolysaccharide-induced increases of both TNF-alpha mRNA and protein levels were diminished by treatment with either pomegranate leaf hydroalcoholic extract (57% and 48% mean reduction, respectively) or sodium diclofenac (41% and 33% reduction, respectively). Additionally, the numbers of peritoneal leukocytes, especially neutrophils, were markedly reduced in hydroalcoholic extract-treated rats with acute peritonitis."

According to the news editors, the research concluded: "These results demonstrate that pomegranate leaf extract may be used as an anti-inflammatory drug which suppresses the levels of TNF-alpha in acute inflammation."

For more information on this research see: Anti-Inflammatory Effects of a Pomegranate Leaf Extract in LPS-Induced Peritonitis. *Planta Medica*, 2016;82(17):1463-1467. *Planta Medica* can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469
Nutritional and Metabolic Diseases and Conditions —

Studies from L.M. Lopez and Co-Researchers Update Current Data on Obesity (Hormonal contraceptives for contraception in overweight or obese women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news reporting out of Durham, North Carolina, by NewsRx editors, research stated, "Obesity has reached epidemic proportions around the world. Effectiveness of hormonal contraceptives may be related to metabolic changes in obesity or to greater body mass or body fat."

Our news journalists obtained a quote from the research, "Hormonal contraceptives include oral contraceptives (OCs), injectables, implants, hormonal intrauterine contraception (IUC), the transdermal patch, and the vaginal ring. Given the prevalence of overweight and obesity, the public health impact of any effect on contraceptive efficacy could be substantial. To examine the effectiveness of hormonal contraceptives in preventing pregnancy among women who are overweight or obese versus women with a lower body mass index (BMI) or weight. Search methods  Until 4 August 2016, we searched for studies in PubMed (MEDLINE), CENTRAL, POPLINE, Web of Science, ClinicalTrials.gov, and ICTRIP. We examined reference lists of pertinent articles to identify other studies. For the initial review, we wrote to investigators to find additional published or unpublished studies. Selection criteria  All study designs were eligible. The study could have examined any type of hormonal contraceptive. Reports had to contain information on the specific contraceptive methods used. The primary outcome was pregnancy. Overweight or obese women must have been identified by an analysis cutoff for weight or BMI (kg/m(2)). Data collection and analysis  Two authors independently extracted the data. One entered the data into RevMan and a second verified accuracy. The main comparisons were between overweight or obese women and women of lower weight or BMI. We examined the quality of evidence using the Newcastle-Ottawa Quality Assessment Scale. Where available, we included life-table rates. We also used unadjusted pregnancy rates, relative risk (RR), or rate ratio when those were the only results provided. For dichotomous variables, we computed an odds ratio with 95% confidence interval (CI). With 8 studies added in this update, 17 met our inclusion criteria and had a total of 63,813 women. We focus here on 12 studies that provided high, moderate, or low quality evidence. Most did not show a higher
pregnancy risk among overweight or obese women. Of five COC studies, two found BMI to be associated with pregnancy but in different directions. With an OC containing norethindrone acetate and ethinyl estradiol (EE), pregnancy risk was higher for overweight women, i.e. with BMI >= 25 versus those with BMI < 25 (reported relative risk 2.49, 95% CI 1.01 to 6.13). In contrast, a trial using an OC with levonorgestrel and EE reported a Pearl Index of 0 for obese women (BMI >= 30) versus 5.59 for nonobese women (BMI < 30). The same trial tested a transdermal patch containing levonorgestrel and EE. Within the patch group, obese women in the 'treatment-compliant' subgroup had a higher reported Pearl Index than nonobese women (4.63 versus 2.15). Of five implant studies, two that examined the six-capsule levonorgestrel implant showed differences in pregnancy by weight. One study showed higher weight was associated with higher pregnancy rate in years 6 and 7 combined (reported P< 0.05). In the other, pregnancy rates differed in year 5 among the lower weight groups only (reported P< 0.01) and did not involve women weighing 70 kg or more. Analysis of data from other contraceptive methods indicated no association of pregnancy with overweight or obesity. These included depot medroxyprogesterone acetate (subcutaneous), levonorgestrel IUC, the two-rod levonorgestrel implant, and the etonogestrel implant. Authors' conclusions The evidence generally did not indicate an association between higher BMI or weight and effectiveness of hormonal contraceptives. However, we found few studies for most contraceptive methods. Studies using BMI, rather than weight alone, can provide information about whether body composition is related to contraceptive effectiveness. The contraceptive methods examined here are among the most effective when used according to the recommended regimen. We considered the overall quality of evidence to be low for the objectives of this review. More recent reports provided evidence of varying quality, while the quality was generally low for older studies. For many trials the quality would be higher for their original purpose rather than the non-randomized comparisons here. Investigators should consider adjusting for potential confounding related to BMI or contraceptive effectiveness."

According to the news editors, the research concluded: "Newer studies included a greater proportion of overweight or obese women, which helps in examining effectiveness and side effects of hormonal contraceptives within those groups." For more information on this research see: Hormonal contraceptives for contraception in overweight or obese women. Cochrane Database of Systematic Reviews, 2016; (8):2664-2758. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting L.M. Lopez, FHI 360, Clin & Epidemiol Sci, Durham, NC 27701, United States. Additional authors for this research include A. Bernholc, M. Chen, T.W. Grey, C. Otterness, C. Westhoff, A. Edelman and F.M. Helmerhorst.

Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Contraception, Article Review, Epidemiology, Reproductive Techniques, Nutrition Disorders, Diet and Nutrition, Contraceptives, Levonorgestrel, Overnutrition, Sex Hormones, Progestins, Bariatriecs, Obesity.

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Studies from L.M. Tang et al Have Provided New Data on Goiter (Recombinant human thyrotropin stimulated I-131 treatment for multinodular goiter)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Goiter have been published. According to news originating from Qingdao, People's Republic of China, by NewsRx correspondents, research stated, "The aim of the study was to investigate the effects of rhTSH stimulation before 131I treatment in patients with MNG. Sources included the Cochrane Library, MEDLINE, EMBASE, and SCOPUS database (all until January 2016)."

Our news journalists obtained a quote from the research, "Randomized controlled trials (RCTs) that assessed the efficacy of rhTSH-stimulated 131I treatment compared to placebo or 131I treatment alone were collected. Two authors performed the data extraction independently. Six RCTs involving 294 patients with MNG were included in this review. Altogether 168 patients were randomized to rhTSH-stimulated 131I therapy, and 126 to either placebo and 131I or 131I alone. rhTSH-stimulated 131I vs placebo and 131I or 131I alone for MNG showed no statistically significant difference in quality of life and all-cause mortality. rhTSH- (at a dose of 0.03 mg and above) stimulated 131I treatment for MNG showed significant benefits in thyroid volume reduction. 131I treatment with rhTSH stimulation at high doses (0.03 mg, 0.1 mg, 0.3 mg and 0.45 mg) for MNG caused significantly higher adverse effects and hypothyroidism. The overall results indicated that using rhTSH at high doses of 0.03-0.45 mg before 131I therapy resulted in a greater TVR than 131I therapy alone for patients with non-toxic MNG. However, an increased incidence of adverse effects and hypothyroidism was observed in patients receiving high dose of rhTSH pretreatment than in patients who received low-dose rhTSH pretreatment."

According to the news editors, the research concluded: "Therefore, a dose of 0.03 mg rhTSH pretreatment before 131I therapy may be more potent than 131I alone in treating patients with non-toxic MNG who either had a contraindication for or declined surgery."

For more information on this research see: Recombinant human thyrotropin stimulated I-131 treatment for multinodular goiter. Nuklearmedizin-Nuclear Medicine, 2016;55 (6):228-235. Nuklearmedizin-Nuclear Medicine can be contacted at: Schattauer Gmbh-Verlag Medizin Naturwissenschaften, Holderlinstrasse 3, D-70174 Stuttgart, Germany.

The news correspondents report that additional information may be obtained from L.M. Tang, Haier Rd 59, Qingdao 266003, People's Republic of China. Additional authors for this research include T.K. Ma and F.Y. Wu.

Keywords for this news article include: Qingdao, People's Republic of China, Asia, Endocrine System Diseases and Conditions, Thyroid Diseases and Conditions, Anterior Pituitary Hormones, Drugs and Therapies, Thyrotropin Therapy, Peptide Hormones, Pharmaceuticals, Hypothyroidism, Endocrinology, Goiters.

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Studies from LDS Hospital Yield New Data on Hematopoietic Stem Cells (Room contamination, patient colonization pressure, and the risk of vancomycin-resistant Enterococcus colonization on a unit dedicated to the treatment of hematologic ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Stem Cell Research - Hematopoietic Stem Cells. According to news reporting originating from Salt Lake City, Utah, by NewsRx correspondents, research stated, "Contaminated surfaces and colonization pressure are risk factors for vancomycin-resistant Enterococcus (VRE) colonization in intensive care units (ICUs). Whether these apply to modern units dedicated to the care of hematologic malignancies and hematopoietic stem cell transplant (HSCT) procedures is unknown."

Our news editors obtained a quote from the research from LDS Hospital, "We reviewed the records of 780 consecutive admissions for acute leukemia, autologous HSCT, or allogeneic HSCT in which the patient was at risk for hospital-acquired VRE and underwent weekly surveillance. We also obtained staff and room cultures, observed staff behavior, and performed VRE molecular strain typing on selected isolates. The overall rate of VRE colonization was 11.4 cases/1,000 patient days. Cultures of room surfaces revealed VRE isolates in 10% of terminally cleaned rooms. A prior VRE-colonized room occupant did not increase risk, and paired isolates from 20 patients and prior occupants were indistinguishable on molecular typing in only 1 pair. VRE colonization pressure was significantly associated with acquisition. Cultures of unit personnel and shared equipment were negative except for weighing scales. Observation of unit clinical personnel showed high compliance for hand sanitation and but less so for gowns. Conversely, ancillary staff showed poor compliance. Transmission of VRE from room surfaces seems to be an infrequent event."

According to the news editors, the research concluded: "Encouraging adherence to surveillance, disinfection, and contact isolation protocols may decrease VRE colonization rates."

For more information on this research see: Room contamination, patient colonization pressure, and the risk of vancomycin-resistant Enterococcus colonization on a unit dedicated to the treatment of hematologic malignancies and hematopoietic stem cell transplantation. *American Journal of Infection Control*, 2016;44(10):1110-1115. *American Journal of Infection Control* can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA.

The news editors report that additional information may be obtained by contacting C.D. Ford, LDS Hosp, Div Infect Dis, Salt Lake City, UT, United States. Additional authors for this research include B.K. Lopansri, M.A. Gazdik, B. Webb, G.L. Snow, D. Hoda, B. Adams and F.B. Petersen.

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Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Stem Cell Research, Epidemiology, Risk and Prevention, Bacterial Physiological Phenomena, Bacterial Drug Resistance, Hematopoietic Stem Cells, Gram-Positive Bacteria, Vancomycin Resistance, Cell Transplantation, Drugs and Therapies, Transplant Medicine, Bone Marrow Cells, Cell Transplants, Lactobacillales,
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Life Science Research - Microbial Research

Studies from Lanzhou University Add New Findings in the Area of Microbial Research (Association between MASP-2 gene polymorphism and risk of infection diseases: A meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Life Science Research - Microbial Research are discussed in a new report. According to news reporting originating from Lanzhou, People's Republic of China, by NewsRx correspondents, research stated, "The role of MASP-2 is vital in the process of complement activation by the lectin pathway. It is generally considered that the functional activation of MASP-2 contribute to the infection disease development process."

Financial supporters for this research include Fundamental Research Funds for the Central Universities, National Natural Science Foundation of China.

Our news editors obtained a quote from the research from Lanzhou University, "To analyze the association between MASP-2 functional gene (rs72550870) polymorphism and the infection disease risk by a meta-analysis. Relevant case-control studies were identified by searching Cochrane Library, PubMed, Emabase, DOAJ, CAB Abstracts, CSA, CINAHL, EBSCO, Scopus, Global Health, Index Copernicus, CA, China National Knowledge Infrastructure (CNKI) databases up to 10th January 2016. The data were extracted and the methodological quality of studies were evaluated. The STATA 12.0 software was used to perform statistical analysis. 9 studies were included. There was no significant association between masp-2 gene (p.D120G, rs72550870) polymorphism and the risk of infection disease under the allele model (G vs. A: OR = 0.89, 95%CI = 0.66-1.21) (P = 0.445 >0.05) and the recessive model (AG + GG vs.AA: OR = 0.88, 95%CI = 0.65-1.20) (P = 0.428 >0.05). This is the first comprehensive meta-analysis indicates that the MASP-2 functional gene (rs72550870) polymorphism is not associated with the infection diseases, and the key functional gene polymorphism of rs72550870 did not increase susceptibility to the infection diseases."

According to the news editors, the research concluded: "Similarly, there were no obvious difference in subgroup analysis based on geographical areas and pathogenic microorganisms."


The news editors report that additional information may be obtained by contacting X.M. Ma, Lanzhou University, Gansu Key Lab Evidence Based Med & Clin Transfer, Lanzhou 730000, People's Republic of China. Additional authors for this research include J.Q. Wang, Y.P. Luo, L.F. Zhang, Y. Zhang, X.F. Dong, H.J. Yu, M.Q. Cao and X.M. Ma.

The direct object identifier (DOI) for that additional information is:
Von Willebrand Disease

Studies from Leiden University Medical Center Further Understanding of Von Willebrand Disease (Developments in the diagnostic procedures for von Willebrand disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in von Willebrand disease. According to news reporting from Leiden, Netherlands, by NewsRx journalists, research stated, "Von Willebrand disease (VWD) is the most common inherited bleeding disorder but its diagnosis can be challenging due to the heterogeneity of the disease. VWD is mainly associated with mild mucocutaneous bleeding, although there are more severe phenotypes with bleeding from the gastrointestinal tract or even the joints."

The news correspondents obtained a quote from the research from Leiden University Medical Center, "Also, surgical interventions and trauma may lead to critical bleeding events. These bleeding episodes are all related to quantitative or qualitative defects of von Willebrand factor (VWF), a multimeric glycoprotein produced by endothelial cells and megakaryocytes, which mediates platelet adhesion and aggregation and binds factor VIII (FVIII) in the circulation. This review describes the diagnostic procedures required for correct diagnosis. Accurate diagnosis and classification is required for proper treatment and counseling. Assessment of bleeding starts with the medical history. After a positive bleeding or family history, subsequent laboratory investigations will start with a panel of standard screening tests for hemostatic defects. Patients suspected of having VWD will be tested for plasma VWF antigen levels, the ability of VWF to bind platelets and FVIII activity. When VWD is confirmed, a set of subtyping tests can classify the patients as VWD types 1, 2 (A, B, M or N) or 3."

According to the news reporters, the research concluded: "The performance of some additional assays and analyses, such as VWF propeptide measurement or genetic analysis, may help in identifying the pathological mechanism behind certain defects or can guide in the choice of treatment."


Our news journalists report that additional information may be obtained by contacting A. De Jong, Dept. of Thrombosis and Haemostasis, Einthoven Laboratory for Experimental Vascular Medicine, Leiden University Medical Center, Leiden, Netherlands.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jth.13243. This DOI is a link to an online electronic document that is either free or for purchase.
Studies from Leiden University Medical Center Provide New Data on Orthostatic Hypotension (Effect of discontinuation of antihypertensive medication on orthostatic hypotension in older persons with mild cognitive impairment: the DANTE Study ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Autonomic Nervous System Diseases - Orthostatic Hypotension have been published. According to news reporting out of Leiden, Netherlands, by NewsRx editors, research stated, "the relationship between antihypertensive medication and orthostatic hypotension in older persons remains ambiguous, due to conflicting observational evidence and lack of data of clinical trials. to assess the effect of discontinuation of antihypertensive medication on orthostatic hypotension in older persons with mild cognitive impairment."

Funders for this research include Netherlands Organization for Health Research and Development (ZonMw), Program Priority Medicines for the Elderly.

Our news journalists obtained a quote from the research from Leiden University Medical Center, "a total of 162 participants with orthostatic hypotension were selected from the Discontinuation of Antihypertensive Treatment in Elderly people (DANTE) Study. This randomised clinical trial included community-dwelling participants aged (>=)75 years, with mild cognitive impairment, using antihypertensive medication and without serious cardiovascular disease. Participants were randomised to discontinuation or continuation of antihypertensive treatment (ratio 1:1). Orthostatic hypotension was defined as a drop of at least 20 mmHg in systolic blood pressure and/or 10 mmHg in diastolic blood pressure on standing from a seated position. Outcome was the absence of orthostatic hypotension at 4-month follow-up. Relative risks (RR) were calculated by intention-to-treat and per-protocol analyses. at follow-up, according to intention-to-treat analyses, of the 86 persons assigned to discontinuation of antihypertensive medication, 43 (50%) were free from orthostatic hypotension, compared with 29 (38%) of the 76 persons assigned to continuation of medication [RR 1.31 (95% confidence interval (CI) 0.92-1.87); p=0.13]. Per-protocol analysis showed that recovery from orthostatic hypotension was significantly higher in persons who completely discontinued all antihypertensive medication (61%) compared with the continuation group (38%) [RR 1.60 (95% CI 1.10-2.31); p=0.01]."

According to the news editors, the research concluded: "In older persons with mild cognitive impairment and orthostatic hypotension receiving antihypertensive medication, discontinuation of antihypertensive medication may increase the probability of recovery from orthostatic hypotension."

For more information on this research see: Effect of discontinuation of antihypertensive medication on orthostatic hypotension in older persons with mild cognitive impairment.
RNA Viruses - Influenza A Virus

Studies from Leiden University in the Area of Influenza A Virus Described (Subtype-specific structural constraints in the evolution of influenza A virus hemagglutinin genes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on RNA Viruses - Influenza A Virus are presented in a new report. According to news reporting originating in Leiden, Netherlands, by NewsRx journalists, research stated, "The influenza A virus genome consists of eight RNA segments. RNA structures within these segments and complementary (cRNA) and protein-coding mRNAs may play a role in virus replication."

The news reporters obtained a quote from the research from Leiden University, "Here, conserved putative secondary structures that impose significant evolutionary constraints on the gene segment encoding the surface glycoprotein hemagglutinin (HA) were investigated using available sequence data on tens of thousands of virus strains. Structural constraints were identified by analysis of covariations of nucleotides suggested to be paired by structure prediction algorithms. The significance of covariations was estimated by mutual information calculations and tracing multiple covariation events during virus evolution. Covariation patterns demonstrated that structured domains in HA RNAs were mostly subtype-specific, whereas some structures were conserved in several subtypes. The influence of RNA folding on virus replication was studied by plaque assays of mutant viruses with disrupted structures. The results suggest that over the whole length of the HA segment there are local structured domains which contribute to the virus fitness but individually are not essential for the virus."

According to the news reporters, the research concluded: "Existence of subtype-specific structured regions in the segments of the influenza A virus genome is apparently an important factor in virus evolution and reassortment of its."

Our news correspondents report that additional information may be obtained by contacting A.P. Gultyaev, Leiden University, Leiden Inst Adv Comp Sci, Grp Imaging & Bioinformat, NA-2300 Leiden, Netherlands. Additional authors for this research include M.I. Spronken, M. Richard, E.J.A. Schrauwen, R.C.L. Olsthoorn and R.A.M. Fouchier.

Keywords for this news article include: Leiden, Netherlands, Europe, Virus Physiological Phenomena, Virus Physiological Processes, Virus Replication, Genetics, Microbiological Processes, Influenza A Virus, Orthomyxoviridae, RNA Viruses, Viral RNA, Virology, Leiden University.

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Nutritional and Metabolic Diseases and Conditions ...

Studies from Lomonosov Moscow State University in the Area of Type 2 Diabetes Reported (The transcription factor Prep1 controls hepatic insulin sensitivity and gluconeogenesis by targeting nuclear localization of FOXO1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news originating from Moscow, Russia, by NewsRx correspondents, research stated, "Liver plays a key role in controlling body carbohydrate homeostasis by switching between accumulation and production of glucose and this way maintaining constant level of glucose in blood. Increased blood glucose level triggers release of insulin from pancreatic beta-cells."

Our news journalists obtained a quote from the research from Lomonosov Moscow State University, "Insulin represses hepatic glucose production and increases glucose accumulation. Insulin resistance is the main cause of type 2 diabetes and hyperglycemia. Currently thiazolidinediones (TZDs) targeting transcriptional factor PPAR gamma are used as insulin sensitizers for treating patients with type 2 diabetes. However, TZDs are reported to be associated with cardiovascular and liver problems and stimulate obesity. Thus, it is necessary to search new approaches to improve insulin sensitivity. A promising candidate is transcriptional factor Prep1, as it was shown earlier it could affect insulin sensitivity in variety of insulin-sensitive tissues. The aim of the present study was to evaluate a possible involvement of transcriptional factor Prep1 in control of hepatic glucose accumulation and production. We created mice with liver-specific Prep1 knockout and discovered that hepatocytes derived from these mice are much more sensitive to insulin, comparing to their WT littermates. Incubation of these cells with 100 nM insulin results in almost complete inhibition of gluconeogenesis, while in WT cells this repression is only partial. However, Prep1 doesn't affect gluconeogenesis in the absence of insulin. Also, we observed that nuclear content of gluconeogenic transcription factor FOXO1 was greatly reduced in Prep1 knockout hepatocytes."

According to the news editors, the research concluded: "These findings suggest that Prep1 may control hepatic insulin sensitivity by targeting FOXO1 nuclear stability."

For more information on this research see: The transcription factor Prep1 controls hepatic insulin sensitivity and gluconeogenesis by targeting nuclear localization of FOXO1. *Biochemical and Biophysical Research Communications*, 2016;481(1-2):182-188. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier
Studies from Loughborough University Provide New Data on Proinsulin (Effect of 24-h severe energy restriction on appetite regulation and ad libitum energy intake in lean men and women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Peptide Proteins - Proinsulin is now available. According to news reporting out of Loughborough, United Kingdom, by NewsRx editors, research stated, "Intermittent severe energy restriction (SER) can induce substantial weight loss, but the appetite regulatory responses to SER are unknown and may dictate long-term dietary adherence. We determined the effect of 24-h SER on appetite regulation, metabolism, and energy intake."

Our news journalists obtained a quote from the research from Loughborough University, "Eighteen lean men and women completed two 3-d trials in randomized, counterbalanced order. On day 1 subjects consumed standardized diets containing 100% (mean +/- SD: 9.3 +/- 1.3 MJ; energy balance) or 25% [2.3 +/- 0.3 MJ; energy restriction (ER)] of energy requirements. On day 2, a standardized breakfast was consumed, with plasma concentrations of acylated ghrelin, glucagon-like peptide 1, insulin, glucose, and nonesterified fatty acids determined for 4 h. Ad libitum energy intake was assessed at lunch and dinner with subjective appetite and resting metabolism assessed throughout. On day 3, ad libitum energy intake was assessed at breakfast and by weighed food records. Energy intake was 7% greater on day 2 (P < 0.05) during ER but not significantly different on day 3 (P = 0.557). Subjective appetite was greater during ER on the morning of day 2 (P < 0.05) but was not significantly different thereafter (ID > 0.145). During ER, postprandial concentrations of acylated ghrelin were lower (P < 0.05), whereas glucose (P < 0.05) and nonesterified fatty acids (P < 0.0001) were higher. Postprandial glucagon-like peptide 1(7-35) (P = 0.784) and insulin (P = 0.06) concentrations were not significantly different between trials. Energy expenditure was lower during ER in the morning (P < 0.01). In lean young adults, 24-h SER transiently elevated subjective appetite and marginally increased energy intake, but hormonal appetite markers did not respond in a manner indicative of hyperphagia. These results suggest that intermittent SER
might be useful to attenuate energy intake and control body weight in this population."

According to the news editors, the research concluded: "This trial was registered at www.clinicaltrials.gov.uk as NCT02696772."


Our news journalists report that additional information may be obtained by contacting L.J. James, University of Loughborough, Sch Sport Exercise & Hlth Sci, Loughborough, Leics, United Kingdom. Additional authors for this research include K. Burrell, G. Mynott, M. Creese, N. Skidmore, D.J. Stensel and L.J. James.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3945/ajcn.116.136937. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Loughborough, United Kingdom, Europe, Peptide Proteins, Peptide Hormones, Proinsulin, Glucagon, Loughborough University.

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Drugs and Therapies - Drug Targets

Studies from Louisiana State University Provide New Data on Drug Targets (Structure-Based Drug Discovery Accelerated by Many-Core Devices)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Drug Targets is the subject of a report. According to news reporting out of Baton Rouge, Louisiana, by NewsRx editors, research stated, "Computer-aided design is one of the critical components of modern drug discovery. Drug development is routinely streamlined using computational approaches to improve hit identification and lead selection, enhance bioavailability, and reduce toxicity."

Our news journalists obtained a quote from the research from Louisiana State University, "A mounting body of genomic knowledge accumulated during the last decade or so presents great opportunities for pharmaceutical research. However, new challenges also arose because processing this large volume of data demands unprecedented computing resources. On the other hand, the state-of-the-art heterogeneous systems deliver petaflops of peak performance to accelerate scientific discovery. In this communication, we review modern parallel accelerator architectures, mainly focusing on Intel Xeon Phi many-core devices. Xeon Phi is a relatively new platform that features tens of computing cores with hundreds of threads offering massively parallel capabilities for a broad range of application. We also discuss common parallel programming frameworks targeted to this accelerator, including OpenMP, OpenCL, MPI and HPX. Recent advances in code development for many-core devices are described to demonstrate the advantages of heterogeneous implementations over the traditional, serial computing."

According to the news editors, the research concluded: "Finally, we highlight selected algorithms, eFindSite, a ligand binding site predictor, a force field for bio-molecular simulations, and BUDE, a structure-based virtual screening engine, to demonstrate how modern drug discovery is accelerated by heterogeneous systems equipped with parallel computing"
Small Interference RNAs (siRNAs)

Studies from Ludwig-Maximilians-University Have Provided New Information about Small Interference RNAs (siRNAs) (Homology directed repair is unaffected by the absence of siRNAs in Drosophila melanogaster)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Small Interference RNAs (siRNAs). According to news reporting out of Munich, Germany, by NewsRx editors, research stated, "Small interfering RNAs (siRNAs) defend the organism against harmful transcripts from exogenous (e.g. viral) or endogenous (e.g. transposons) sources. Recent publications describe the production of siRNAs induced by DNA double-strand breaks (DSB) in Neurospora crassa, Arabidopsis thaliana, Drosophila melanogaster and human cells, which suggests a conserved function."

Our news journalists obtained a quote from the research from Ludwig-Maximilians-University. "A current hypothesis is that break-induced small RNAs ensure efficient homologous recombination (HR). However, biogenesis of siRNAs is often intertwined with other small RNA species, such as microRNAs (miRNAs), which complicates interpretation of experimental results. In Drosophila, siRNAs are produced by Dcr-2 while miRNAs are processed by Dcr-1. Thus, it is possible to probe siRNA function without miRNA deregulation. We therefore examined DNA double-strand break repair after perturbation of siRNA biogenesis in cultured Drosophila cells as well as mutant flies. Our assays comprised reporters for the single-strand annealing pathway, homologous recombination and sensitivity to the DSB-inducing drug camptothecin. We could not detect any repair defects caused by the lack of siRNAs derived from the broken DNA locus."

According to the news editors, the research concluded: "Since production of these siRNAs depends on local transcription, they may thus participate in RNA metabolism-an established function of siRNAs-rather than DNA repair."

For more information on this research see: Homology directed repair is unaffected by the absence of siRNAs in Drosophila melanogaster. Nucleic Acids Research, 2016;44
Studies from Ludwig-Maximilians-University Yield New Information about Apoptosis (Sebaceous lipids are essential for water repulsion, protection against UVB-induced apoptosis and ocular integrity in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Apoptosis is now available. According to news reporting originating from Munich, Germany, by NewsRx correspondents, research stated, "Sebocytes, which are characterized by lipid accumulation that leads to cell disruption, can be found in hair follicle-associated sebaceous glands (SGs) or in free SGs such as the Meibomian glands in the eyelids. Because genetic tools that allow targeting of sebocytes while maintaining intact epidermal lipids are lacking, the relevance of sebaceous lipids in health and disease remains poorly understood."

Our news editors obtained a quote from the research from Ludwig-Maximilians-University, "Using Scd3, which is expressed exclusively in mature sebocytes, we established a mouse line with sebocyte-specific expression of Cre recombinase. Both RT-PCR analysis and crossing into Rosa26-lacZ reporter mice and Kras(G12D) mice confirmed Cre activity specifically in SGs, with no activity in other skin compartments. Importantly, loss of SCD3 function did not cause detectable phenotypical alterations, endorsing the usefulness of Scd3-Cre mice for further functional studies. Scd3-Cre-induced, diphtheria chain A toxin-mediated depletion of sebaceous lipids resulted in impaired water repulsion and thermoregulation, increased rates of UVB-induced epidermal apoptosis and caused a severe pathology of the ocular surface resembling Meibomian gland dysfunction."

According to the news editors, the research concluded: "This novel mouse line will be useful for further investigating the roles of sebaceous lipids in skin and eye integrity."

The news editors report that additional information may be obtained by contacting M.R. Schneider, Ludwig Maximilians Univ Munchen, Gene Center, Inst Mol Anim Breeding & Biotechnol, D-81377 Munich, Germany. Additional authors for this research include E. Camera, M. Schafer, D. Emrich, D. Riethmacher, A. Foster, R. Paus and M.R. Schneider.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/dev.132753. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munich, Germany, Europe, Apoptosis, Genetics, Ludwig-Maximilians-University.

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Studies from Lund University Yield New Information about Cardiology (Diagnostic Accuracy of High-Sensitivity Cardiac Troponin T at Presentation Combined With History and ECG for Ruling Out Major Adverse Cardiac Events)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiology is now available. According to news reporting originating from Lund, Sweden, by NewsRx correspondents, research stated, "We evaluate the diagnostic accuracy of a high-sensitivity cardiac troponin T (hs-cTnT) level less than 5 ng/L or less than or equal to 14 ng/L at emergency department (ED) presentation, combined with the emergency physician's assessment of history and ECG, for ruling out major adverse cardiac events within 30 days. This prospective observational study enrolled consecutive ED chest pain patients."

Our news editors obtained a quote from the research from Lund University, "Emergency physicians' assessments of patient history and ECG were collected. The primay outcome was 30-day major adverse cardiac events, defined as acute myocardial infarction, unstable angina, cardiogenic shock, ventricular arrhythmia, atrioventricular block, cardiac arrest, or death of cardiac or unknown cause. A total of 1,138 patients were included in the final analysis. The combination of hs-cTnT less than 5 ng/L, a nonischemic ECG result, and a nonhigh risk history was present for 29.2% of all patients and had a sensitivity of 99.2% (95% confidence interval [CI] 95.6% to 100%), negative predictive value (NPV) of 99.7% (95% CI 98.3% to 100%), and a negative likelihood ratio of 0.02 (95% CI 0 to 0.17) for 30-day major adverse cardiac events. The same combination with hs-cTnT less than or equal to 14 ng/L was present in 66.7% of the patients and had a sensitivity of 92% (95% CI 85.8% to 96.1%), NPV of 98.7% (95% CI 97.6% to 99.4%), and negative likelihood ratio of 0.11 (95% CI 0.06 to 0.20). A single hs-cTnT result of less than 5 ng/L at ED presentation when combined with a nonischemic ECG result and a nonhigh risk history identified 29% of chest pain patients at a very low risk of 30-day major adverse cardiac events."

According to the news editors, the research concluded: "A similar strategy with hs-cTnT less than or equal to 14 ng/L was associated with a higher miss rate."

For more information on this research see: Diagnostic Accuracy of High-Sensitivity Cardiac Troponin T at Presentation Combined With History and ECG for Ruling Out Major
Studies from M. Ammendola and Colleagues Provide New Data on Gastric Cancer (Mast Cells Density Positive to Tryptase Correlate with Microvascular Density in both Primary Gastric Cancer Tissue and Loco-Regional Lymph Node Metastases from ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gastric Cancer. According to news reporting from Bari, Italy, by NewsRx journalists, research stated, "Mast Cells (MCs) play a role in immune responses and more recently MCs have been involved in tumoral angiogenesis. In particular MCs can release tryptase, a potent in vivo and in vitro pro-angiogenic factor via proteinase-activated receptor-2 (PAR-2) activation and mitogen-activated protein kinase (MAPK) phosphorylation."

The news correspondents obtained a quote from the research, "MCs can release tryptase following c-Kit receptor activation. Nevertheless, no data are available concerning the relationship among MCs Density Positive to Tryptase (MCDPT) and Microvascular Density (MVD) in both primary gastric cancer tissue and loco-regional lymph node metastases. A series of 75 GC patients with stage T2-3N2-3M0 (by AJCC for Gastric Cancer Seventh Edition) undergone to radical surgery were selected for the study. MCDPT and MVD were evaluated by immunohistochemistry and by image analysis system and results were correlated each to other in primary tumor tissue and in metastatic lymph nodes harvested. Furthermore, tissue parameters were correlated with important clinico-pathological features. A significant correlation between MCDPT and MVD was found in primary gastric cancer tissue and lymph node metastases. Pearson t-test analysis (r ranged from 0.74 to 0.79; p-value ranged from 0.001 to 0.003). These preliminary data suggest that MCDPT play a role in angiogenesis in both primary tumor and in lymph node metastases from GC."

According to the news reporters, the research concluded: "We suggest that MCs and tryptase could be further evaluated as novel targets for anti-angiogenic therapies."

For more information on this research see: Mast Cells Density Positive to Tryptase Correlate with Microvascular Density in both Primary Gastric Cancer Tissue and Loco-Regional

Our news journalists report that additional information may be obtained by contacting M. Ammendola, Ist Tumori Giovanni Paolo II, Natl Canc Res Center, Surg Unit, I-70124 Bari, Italy. Additional authors for this research include R. Sacco, V. Zuccala, M. Luposella, R. Patruno, P. Gadaleta, N. Zizzo, C.D. Gadaleta, G. De Sarro, G. Sammarco, M. Oltean and G. Ranieri.

Keywords for this news article include: Bari, Italy, Europe, Hemic and Immune Systems, Serine Endopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Gastroenterology, Lymphoid Tissue, Gastric Cancer, Angiogenesis, Lymph Nodes, Mast Cells, Immunology, Tryptases, Oncology, Surgery.

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**Hematology - Plasma**

**Studies from M. De Meulder et al Add New Findings in the Area of Plasma (Development and validation of HILIC-ESI/MS/MS methods for simultaneous quantitation of several antipsychotics in human plasma and blood)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematology - Plasma have been published. According to news originating from Beerse, Belgium, by NewsRx correspondents, research stated, "Knowledge of antipsychotic drug levels at point of care (POC) may significantly aid therapeutic decision-making. To support the development of future POC devices and to validate the use of fingerstick capillary blood sampling, two robust hydrophilic interaction LC-ESI/MS/MS methods were developed and validated."

Our news journalists obtained a quote from the research, "Two PK studies were completed evaluating the correlation between fingerstick blood and plasma concentrations with corresponding venous blood and plasma concentrations for several commonly prescribed atypical antipsychotics and selected metabolites. Sensitive and reliable LC-MS/MS bioanalytical assays were developed to support these studies. Three methods, requiring only 25-ml matrix volumes, were developed using supported liquid extraction with hydrophilic interaction LC-MS/MS detection and validated according to regulatory guidance."

According to the news editors, the research concluded: "Robust and efficient LC-MS/MS assays were established and were effective in providing antipsychotic drug matrix comparator results in the intended clinical studies."

For more information on this research see: Development and validation of HILIC-ESI/MS/MS methods for simultaneous quantitation of several antipsychotics in human plasma and blood. *Bioanalysis*, 2016;8(8):765-94.

The news correspondents report that additional information may be obtained from M. De Meulder, Bioanalysis Department, Janssen Research and Development, A Division of Janssen, Pharmaceutica NV, Turnhoutseweg 30, 2340 Beerse, Belgium. Additional authors for this research include M.P. Waldron, L. Li, M.G. Peay, M.J. Tingler, B.J. Hidy, T. Verhaeghe and R.G Jenkins.
Studies from M. Gallucci et al Provide New Data on Alzheimer Disease (Predictors of Response to Cholinesterase Inhibitors Treatment of Alzheimer's Disease: Data Mining from the TREDEM Registry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been published. According to news reporting originating in Treviso, Italy, by NewsRx journalists, research stated, "The pharmacological treatment of Alzheimer's disease (AD) is based largely on cholinesterase inhibitors (ChEI). To investigate whether or not some non-pharmacological and contextual factors measured prior to starting treatment such as past occupation, lifestyles, marital status, degree of autonomy and cognitive impairment, living alone or with others, and the degree of brain atrophy are associated with a better response to ChEI treatment."

The news reporters obtained a quote from the research, "Eighty-four AD and six AD with cerebrovascular disease (AD + CVD) outpatients of Treviso Dementia (TREDEM) Registry, with an average cholinesterase inhibitors treatment length of four years, were considered. The outpatients had undergone a complete evaluation and some non-pharmacological and contextual factors were collected. We defined responder a patient with a delta score T0 -T1 equal or inferior to 2.0 points per year of MMSE and a non-responder a patient with a delta score T0 -T1 superior to 2.0 points per year. In order to identify hidden relationships between variables related to response and non-response, we use a special kind of artificial neural network called Auto-CM, able to create a semantic connectivity map of the variables considered in the study. A higher cognitive profile, a previous intellectual occupation, healthier lifestyles, being married and not living alone, a higher degree of autonomy, and lower degree of brain atrophy at baseline resulted in affecting the response to long-term ChEI therapy."

According to the news reporters, the research concluded: "Non-pharmacological and contextual factors appear to influence the effectiveness of treatment with ChEI in the long term."


Our news correspondents report that additional information may be obtained by contacting M. Gallucci, Cognitive Impairment Center, Local Health Authority 9 of Treviso, Treviso, Italy. Additional authors for this research include P. Spagnolo, M. Arico and E. Grossi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3233/JAD-150747. This DOI is a link to an online electronic document that
is either free or for purchase.

The publisher of the *Journal of Alzheimer's Disease* can be contacted at: IOS Press, Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands.

Keywords for this news article include: Italy, Europe, Treviso, Therapy, Dementia, Tauopathies, Pharmacology, Cholinesterases, Alzheimer Disease, Enzymes and Coenzymes, Carboxylic Ester Hydrolases, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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**Biotechnology - Antisense Oligonucleotides**

**Studies from M. Lim et al Further Understanding of Antisense Oligonucleotides (Osmolality of antisense oligonucleotide parenteral formulations: Implications on counterion dissociation and recommended osmometry techniques)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biotechnology - Antisense Oligonucleotides have been presented. According to news reporting originating from Carlsbad, California, by NewsRx correspondents, research stated, "The intrinsic osmolality of aqueous solutions of sodium salt antisense oligonucleotides (ASOs) has been studied to inform formulation practices, understand the molecular basis underlying the difference between theoretical and empirical results, and determine suitable measurement methods. It was found that regardless of nucleotide sequence, ASO concentration of similar to 140 mg/mL has isotonic osmolality of similar to 290 mOsm/kg water (SI unit: mmol osmotically-active particles/kg water), such that lower concentration formulations require excipients for tonicity adjustment."

Our news editors obtained a quote from the research, "The range of osmolality values at a given active ingredient concentration can be ascribed to drug substance lot-to-lot purity differences impacting total oligonucleotide content (i.e., including oligonucleotide-related impurities). Empirical osmolality measurements were found to be similar to 70% of theoretical values, which corresponds to an osmotic coefficient value of similar to 0.7, thus inferring incomplete counterion dissociation. When comparing theoretical (ideal) osmolality of multiple sequences with various nucleotide compositions and chemistries at the same w/v concentration, the 'average osmolar mass' (molar mass of the oligonucleotide, including the sodium counterions, divided by the ideal Van't Hoff factor, i(id)) appears to be the strongest factor governing theoretical osmolality values. Other factors examined were the sequence length, backbone chemistry, 20 sugar chemistry, and nucleotide composition."

According to the news editors, the research concluded: "A head-to-head comparison between two osmolality techniques showed that vapor pressure osmometry is generally more suitable than freezing point osmometry for oligonucleotide solutions greater than similar to 150 mg/mL due to viscosity effects, but the two techniques are comparable otherwise."

Disease Attributes - Disease Progression

Studies from M. Markman and Co-Researchers Update Current Data on Disease Progression (Evaluating the Utility of a 'N-of-1' Precision Cancer Medicine Strategy: The Case for 'Time-to-Subsequent-Disease Progression')

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Disease Attributes - Disease Progression have been presented. According to news originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "It is increasingly recognized that cancer is a highly heterogeneous group of illnesses even within a particular organ site (e.g., breast, lung, colon, etc.). This observation presents a serious challenge to the traditional concept of phase 3 randomized trials designed to define therapeutic efficacy of a novel treatment strategy."

Our news journalists obtained a quote from the research, "For while 10% of the patients with a common malignancy (e.g., non-small-cell lung cancer) may be sufficient to consider such an effort, enrolling a sufficient number of patients into a clinical trial in a timely manner to define clinical utility would be extremely difficult if the population in question represented only 1% of this population, and essentially impossible if one wished to explore the benefits of treatment in a rarer neoplasm (e.g. ovarian cancer). Therefore, in the new era of precision cancer medicine, alternative research designs are imperative. One option would be to compare the time-to-disease progression of an individual cancer patient following treatment with a novel therapeutic to the time-to-disease progression for that specific patient on her/his immediately preceding treatment."

According to the news editors, the research concluded: "The rationale for this strategy and early experience with this innovative approach to evaluating the efficacy of anticancer therapy is highlighted in this report."

For more information on this research see: Evaluating the Utility of a 'N-of-1' Precision Cancer Medicine Strategy: The Case for 'Time-to-Subsequent-Disease Progression'. Oncology, 2016;91(6):299-301. Oncology can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com/; Oncology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=223857)

The news correspondents report that additional information may be obtained from M. Markman, Canc Treatment Center Amer, Philadelphia, PA 19124, United States. Additional authors for this research include K. Kramer, R.H. Alvarez, G.J. Weiss, E. Ahn and G.W.
Oncology - Lung Cancer

Studies from M. Phillips and Co-Authors Have Provided New Information about Lung Cancer (Blinded Validation of Breath Biomarkers of Lung Cancer, a Potential Ancillary to Chest CT Screening)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news originating from Newark, New Jersey, by NewsRx correspondents, research stated, "Breath volatile organic compounds (VOCs) have been reported as biomarkers of lung cancer, but it is not known if biomarkers identified in one group can identify disease in a separate independent cohort. Also, it is not known if combining breath biomarkers with chest CT has the potential to improve the sensitivity and specificity of lung cancer screening."

Our news journalists obtained a quote from the research, "Model-building phase (unblinded): Breath VOCs were analyzed with gas chromatography mass spectrometry in 82 asymptomatic smokers having screening chest CT, 84 symptomatic high-risk subjects with a tissue diagnosis, 100 without a tissue diagnosis, and 35 healthy subjects. Multiple Monte Carlo simulations identified breath VOC mass ions with greater than random diagnostic accuracy for lung cancer, and these were combined in a multivariate predictive algorithm. Model-testing phase (blinded validation): We analyzed breath VOCs in an independent cohort of similar subjects (n=70, 51, 75 and 19 respectively). The algorithm predicted discriminant function (DF) values in blinded replicate breath VOC samples analyzed independently at two laboratories (A and B). Outcome modeling: We modeled the expected effects of combining breath biomarkers with chest CT on the sensitivity and specificity of lung cancer screening. Unblinded model-building phase. The algorithm identified lung cancer with sensitivity 74.0%, specificity 70.7% and C-statistic 0.78. Blinded model-testing phase: The algorithm identified lung cancer at Laboratory A with sensitivity 68.0%, specificity 68.4%, C-statistic 0.71; and at Laboratory B with sensitivity 70.1%, specificity 68.0%, C-statistic 0.70, with linear correlation between replicates (r=0.88). In a projected outcome model, breath biomarkers increased the sensitivity, specificity, and positive and negative predictive values of chest CT for lung cancer when the tests were combined in series or parallel. Breath VOC mass ion biomarkers identified lung cancer in a separate independent cohort, in a blinded replicated study."

According to the news editors, the research concluded: "Combining breath biomarkers with chest CT could potentially improve the sensitivity and specificity of lung cancer screening."

For more information on this research see: Blinded Validation of Breath Biomarkers of Lung Cancer, a Potential Ancillary to Chest CT Screening. Plos One, 2015;10(12):e0142484. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news correspondents report that additional information may be obtained from
M. Phillips, Breath Research Laboratory, Menssana Research Inc, 211 Warren St, Newark, NJ, 07103, United States. Additional authors for this research include T.L. Bauer, R.N. Cataneo, C. Lebauer, M. Mundada, H.I. Pass, N. Ramakrishna, W.N. Rom and E. Vallieres.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0142484. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Newark, Oncology, New Jersey, Algorithms, Lung Cancer, United States, Lung Neoplasms, North and Central America, Diagnostics and Screening.

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Drugs and Therapies - Antiretrovirals

Studies from M. Ramgopal et al Add New Findings in the Area of Antiretrovirals (Pharmacokinetics of Total and Unbound Etravirine in HIV-1-Infected Pregnant Women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antiretrovirals have been presented. According to news reporting from Fort Pierce, Florida, by NewsRx journalists, research stated, "Treatment of HIV-1-infected women during pregnancy protects maternal health and reduces the risk of perinatal transmission of HIV-1. However, physiologic changes that occur during pregnancy may affect drug pharmacokinetics."

The news correspondents obtained a quote from the research, "This phase IIIb, open-label study evaluated the effects of pregnancy on the pharmacokinetics of the nonnucleoside reverse transcriptase inhibitor etravirine. Eligible HIV-1-infected pregnant women (18-26 weeks gestation) on an individualized, highly active antiretroviral therapy regimen including etravirine 200 mg twice daily were enrolled. Blood samples to assess the pharmacokinetics of total and unbound etravirine were obtained at clinic visits during the second and third trimesters (24- to 28-weeks and 34- to 38-weeks gestation, respectively) and 6-12 weeks postpartum. At each time point, plasma concentrations were measured over 12 hours (12-hour time point was obtained before the second daily dose of etravirine); pharmacokinetic parameters were derived using noncompartmental analysis and were compared between pregnancy and postpartum using general linear models. Antiviral and immunologic response and safety were assessed at each visit. Etravirine pharmacokinetic profiles were available for 13 of 15 enrolled women. Exposure to total etravirine was generally higher during pregnancy compared with 6-12 weeks postpartum (1.2- to 1.4-fold); the differences were less pronounced for unbound (pharmacodynamically active) etravirine. Virologic response was generally preserved throughout the study, and no perinatal transmission was observed. Etravirine was generally safe and well tolerated."

According to the news reporters, the research concluded: "Etravirine 200 mg twice daily, as part of individualized combination antiretroviral therapy, may be a treatment option for HIV-1-infected pregnant women."

For more information on this research see: Pharmacokinetics of Total and Unbound Etravirine in HIV-1-Infected Pregnant Women. Jaids-Journal of Acquired Immune Deficiency Syndromes, 2016;73(3):268-274. Jaids-Journal of Acquired Immune Deficiency Syndromes can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St,
Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting M. Ramgopal, Midway Immunol & Res Center, Ft Pierce, FL, United States. Additional authors for this research include O. Osinyemi, C. Zorrilla, H.M. Crauwels, R. Ryan, K. Brown, V. Hillewaert and B. Baugh.

Keywords for this news article include: Fort Pierce, Florida, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Pharmacokinetics, Pharmaceuticals, Antiretrovirals, Antiinfectives, HIV Infections, Retroviridae, RNA Viruses, Etravirine, Antivirals, HIV/AIDS, NNRTIs, HIV-1.

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Cardiology

Studies from M. Sevinc and Co-Authors Have Provided New Information about Cardiology (Ex Vivo Perfusion Characteristics of Donation After Cardiac Death Kidneys Predict Long-Term Graft Survival)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiology is the subject of a report. According to news reporting out of Mus, Turkey, by NewsRx editors, research stated, "Ex vivo perfusion is used in our unit for kidneys donated after cardiac death (DCD). Perfusion flow index (PFI), resistance, and perfusate glutathione S-transferase (GST) can be measured to assess graft viability."

Our news journalists obtained a quote from the research, "We assessed whether measurements taken during perfusion could predict long-term outcome after transplantation. All DCD kidney transplants performed from 2002 to 2014 were included in this study. The exclusion criteria were: incomplete data, kidneys not machine perfused, kidneys perfused in continuous mode, and dual transplantation. There were 155 kidney transplantations included in the final analysis. Demographic data, ischemia times, donor hypertension, graft function, survival and machine perfusion parameters after 3 hours were analyzed. Each perfusion parameter was divided into 3 groups as high, medium, and low. Estimated glomerular filtration rate was calculated at 12 months and then yearly after transplantation. There was a significant association between graft survival and PFI and GST (P values, .020 and .022, respectively). PFI was the only independent parameter to predict graft survival. A low PFI during ex vivo hypothermic perfusion is associated with inferior graft survival after DCD kidney transplantation."

According to the news editors, the research concluded: "We propose that PFI is a measure of the health of the graft vasculature and that a low PFI indicates vascular disease and therefore predicts a worse long-term outcome."


Our news journalists report that additional information may be obtained by
contacting M. Sevinc, Mus Government Hosp, Renal Department, TR-49100 Mus, Turkey. Additional authors for this research include S. Stamp, J. Ling, N. Carter, D. Talbot and N. Sheerin.

Keywords for this news article include: Mus, Turkey, Eurasia, Cardiology. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

Liver Diseases and Conditions - Hepatitis B Virus

Studies from M.A. van de Klundert and Co-Researchers Update Current Data on Hepatitis B Virus (Identification of FDA-approved drugs that target hepatitis B virus transcription)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Hepatitis B Virus. According to news reporting originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "In the treatment of chronic hepatitis B virus (HBV) infection, polymerase inhibitors successfully suppress HBV DNA production. However, the production of viral proteins continues unhindered, which hampers viral clearance."

Financial support for this research came from Sanquin Blood Supply Foundation.

Our news editors obtained a quote from the research, "Here, we screen for compounds that suppress HBV transcription, which would prevent viral protein production. A total of 640 FDA-approved drugs were evaluated for their ability to inhibit HBV transcription in a transfection-based HBV reporter assay. The assay was performed in the presence and absence of the HBV accessory protein X (HBx), which is essential for in vivo HBV RNA transcription. We observed that in the absence of HBx 47, and in the presence of HBx 24 compounds suppressed transcription by more than 20%. We selected the 24 most potent compounds in each condition for further analysis. On average, the selected compounds reduced transcription by 33.9% (range: 24.1-65.8%) in the absence of HBx expression, and 30.6% (range: 20.4-48.9%) in the presence of HBx. The two selections of 24 compounds had 12 compounds in common, resulting in a final selection of 36 compounds, which were evaluated for their capacity to suppress HBV replication in constitutively HBV-replicating HepG2.2.15 cells. Twenty-three of these compounds reduced HBV replication by interfering with RNA transcription. Further analysis revealed that one of the compounds, terbinafine, potently and specifically suppressed HBx-mediated HBV RNA transcription in HepG2 cells. Inhibition of HBV protein production is a promising step towards HBV clearance."

According to the news editors, the research concluded: "In combination with an HBV polymerase inhibitor, the added suppression of HBV RNA transcription may markedly improve antiviral treatment outcome."


The news editors report that additional information may be obtained by contacting M.A. van de Klundert, Dept. of Blood-borne Infections, Sanquin Research, Amsterdam, Netherlands. Additional authors for this research include H.L. Zaaijer and N.A Kootstra.

The direct object identifier (DOI) for that additional information is:
Studies from M.M. Miller and Co-Researchers in the Area of Estrogen Reported (Editor's Highlight: Development of an In vitro Assay Measuring Uterine-Specific Estrogenic Responses for Use in Chemical Safety Assessment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hormones - Estrogen have been published. According to news reporting originating from Research Triangle Park, North Carolina, by NewsRx correspondents, research stated, "A toxicity pathway approach was taken to develop an in vitro assay using human uterine epithelial adenocarcinoma (Ishikawa) cells as a replacement for measuring an in vivo uterotrophic response to estrogens. The Ishikawa cell was determined to be fit for the purpose of recapitulating in vivo uterine response by verifying fidelity of the biological pathway components and the dose-response predictions to women of child-bearing age."

Our news editors obtained a quote from the research, "Expression of the suite of estrogen receptors that control uterine proliferation (ER alpha 66, ER alpha 46, ER alpha 36, ER beta, G-protein coupled estrogen receptor (GPER)) were confirmed across passages and treatment conditions. Phenotypic responses to ethinyl estradiol (EE) from transcriptional activation of ER-mediated genes, to ALP enzyme induction and cellular proliferation occurred at concentrations consistent with estrogenic activity in adult women (low picomolar). To confirm utility of this model to predict concentration-response for uterine proliferation with xenobiotics, we tested the concentration-response for compounds with known uterine estrogenic activity in humans and compared the results to assays from the ToxCast and Tox21 suite of estrogen assays. The Ishikawa proliferation assay was consistent with in vivo responses and was a more sensitive measure of uterine response."

According to the news editors, the research concluded: "Because this assay was constructed by first mapping the key molecular events for cellular response, and then ensuring that the assay incorporated these events, the resulting cellular assay should be a reliable tool for identifying estrogenic compounds and may provide improved quantitation of chemical concentration response for in vitro-based safety assessments."

The news editors report that additional information may be obtained by contacting R.A. Clewell, ScitoVation, Res Triangle Pk, NC 27709, United States. Additional authors for this research include R.A. Alyea, C. LeSommer, D.L. Doheny, S.M. Rowley, K.M. Childs, P. Balbuena, S.M. Ross, J. Dong, B. Sun, M.A. Andersen and R.A. Clewell.

Keywords for this news article include: Research Triangle Park, North Carolina, United States, North and Central America, Women's Health, Endocrinology, Estrogens, Hormones, Genetics.

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**Gram-Negative Bacteria - Yersinia enterocolitica**

**Studies from M.N. Dave et al Further Understanding of Yersinia enterocolitica (Yersinia enterocolitica YopH-Deficient Strain Activates Neutrophil Recruitment to Peyer's Patches and Promotes Clearance of the Virulent Strain)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Yersinia enterocolitica. According to news reporting from San Luis, Argentina, by NewsRx journalists, research stated, "Yersinia enterocolitica evades the immune response by injecting Yersinia outer proteins (Yops) into the cytosol of host cells. YopH is a tyrosine phosphatase critical for Yersinia virulence."

The news correspondents obtained a quote from the research, "However, the mucosal immune mechanisms subverted by YopH during in vivo orogastric infection with Y. enterocolitica remain elusive. The results of this study revealed neutrophil recruitment to Peyer's patches (PP) after infection with a YopH-deficient mutant strain (Y. enterocolitica Delta yopH). While the Y. enterocolitica wild-type (WT) strain in PP induced the major neutrophil chemoattractant CXCL1 mRNA and protein levels, infection with the Y. enterocolitica Delta yopH mutant strain exhibited a higher expression of the CXCL1 receptor, CXCR2, in blood neutrophils, leading to efficient neutrophil recruitment to the PP. In contrast, migration of neutrophils into PP was impaired upon infection with Y. enterocolitica WT strain. In vitro infection of blood neutrophils revealed the involvement of YopH in CXCR2 expression. Depletion of neutrophils during Y. enterocolitica Delta yopH infection raised the bacterial load in PP. Moreover, the clearance of WT Y. enterocolitica was improved when an equal mixture of Y. enterocolitica WT and Y. enterocolitica Delta yopH strains was used in infecting the mice. This study indicates that Y. enterocolitica prevents early neutrophil recruitment in the intestine and that the effector protein YopH plays an important role in the immune evasion mechanism."

According to the news reporters, the research concluded: "The findings highlight the potential use of the Y. enterocolitica YopH-deficient strain as an oral vaccine carrier."

For more information on this research see: Yersinia enterocolitica YopH-Deficient Strain Activates Neutrophil Recruitment to Peyer's Patches and Promotes Clearance of the Virulent Strain. *Infection and Immunity*, 2016;84(11):3172-3181. *Infection and Immunity* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Infection and Immunity - iai.asm.org)

Our news journalists report that additional information may be obtained by contacting M.S. Di Genaro, UNSL, Fac Chem Biochem & Pharm, San Luis, Argentina.
Additional authors for this research include J.E. Silva, R.J. Elicabe, M.B. Jerez, V.P. Filippa, C.V. Gorlino, S. Autenrieth, I.B. Autenrieth and M.S. Di Genaro.

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Keywords for this news article include: San Luis, Argentina, South America, Intercellular Signaling Peptides and Proteins, Gram-Negative Facultatively Anaerobic Rods, Hemic and Immune Systems, Yersinia enterocolitica, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Chemokine CXCL1, CXC Chemokines, Proteobacteria, Granulocytes, Blood Cells, Neutrophils, Immunology, Phagocytes, Genetics.

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Central Nervous System Diseases and Conditions –

Studies from Maastricht University in the Area of Epilepsy Reported
(Glutamate concentrations vary with antiepileptic drug use and mental slowing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting originating in Maastricht, Netherlands, by NewsRx journalists, research stated, "Although antiepileptic drugs (AEDs) are effective in suppressing epileptic seizures, they also induce (cognitive) side effects, with mental slowing as a general effect. This study aimed to assess whether concentrations of MR detectable neurotransmitters, glutamate and GABA, are associated with mental slowing in patients with epilepsy taking AEDs."

The news reporters obtained a quote from the research from Maastricht University, "Cross-sectional data were collected from patients with localization-related epilepsy using a variety of AEDs from three risk categories, i.e., AEDs with low, intermediate, and high risks of developing cognitive problems. Patients underwent 3T MR spectroscopy, including a PRESS (n = 55) and MEGA-PRESS (n = 43) sequence, to estimate occipital glutamate and GABA concentrations, respectively. The association was calculated between neurotransmitter concentrations and central information processing speed, which was measured using the Computerized Visual Searching Task (CVST) and compared between the different risk categories. Combining all groups, patients with lower processing speeds had lower glutamate concentrations. Patients in the high-risk category had a lower glutamate concentration and lower processing speed compared with patients taking low-risk AEDs. Patients taking intermediate-risk AEDs also had a lower glutamate concentration compared with patients taking low-risk AEDs, but processing speed did not differ significantly between those groups. No associations were found between the GABA concentration and risk category or processing speed. For the first time, a relation is shown between glutamate concentration and both mental slowing and AED use."

According to the news reporters, the research concluded: "It is suggested that the reduced excitatory action, reflected by lowered glutamate concentrations, may have contributed to the slowing of information processing in patients using AEDs with higher risks of cognitive side effects."
For more information on this research see: Glutamate concentrations vary with antiepileptic drug use and mental slowing. *Epilepsy & Behavior*, 2016;64():200-205. *Epilepsy & Behavior* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Epilepsy & Behavior - www.journals.elsevier.com/epilepsy-and-behavior/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yebeh.2016.08.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maastricht, Netherlands, Europe, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Drugs and Therapies, Antiepileptics, Glutamic Acid, Glutamates, Epilepsy, Maastricht University.

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**Drugs and Therapies - Antipsychotics**

**Studies from Manipal University Describe New Findings in Antipsychotics (Development and Validation of a Stability-Indicating RP-HPLC Method by a Statistical Optimization Process for the Quantification of Asenapine Maleate in Lipidic ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antipsychotics. According to news reporting out of Karnataka, India, by NewsRx editors, research stated, "A stability-indicating RP-HPLC method was developed for quantification of asenapine maleate (ASPM) in lipid nanoformulations. The proposed method was used to assess intrinsic stability of ASPM by conducting force degradation study."

Our news journalists obtained a quote from the research from Manipal University, "The results indicated no considerable degradation of ASPM on subjecting it to hydrolytic, oxidative, thermal and photolytic stresses. The method was validated according to ICH Q2(R1) guidelines by employing Full factorial design using Design-Expert ® software. ASPM was precisely and accurately quantified in nanoparticles by separating it on Hyperclone BDS C-18 using 80-20% v/v mixture of potassium phosphate solution containing 0.1% v/v triethylamine and acetonitrile. The effect of flow rate, pH, acetonitrile content and column temperature was assessed on method responses. The current method was linear in the range of 0.1-20 μg/mL with limit of detection (LOD) and limit of quantification (LOQ) of 29 and 89 ng/mL, respectively. The method was precise and accurate in the determination of ASPM with peak area RSD and recovery of <1.0% and 97-101% in bulk drug solution and of <1.0% and 92-104% in nanoformulations, respectively. Analysis of variance indicated the significance (P < 0.0001) of a statistical model in validating the method with respect to change in independent chromatographic factors."

According to the news editors, the research concluded: "The developed method was
successfully employed in determining ASPM content in bulk and lipid nanoformulations."


Our news journalists report that additional information may be obtained by contacting S. Mutalik, Manipal Univ, Dept. of Pharmaceut, Manipal Coll Pharmaceut Sci, Manipal 576104, Karnataka, India. Additional authors for this research include L. Kumar, A.D. Chonkar, R.K. Shirodkar, S. Lewis, K.B. Koteshwara, M.S. Reddy and S. Mutalik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/chromsci/bmw062. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Karnataka, India, Asia, Psychotherapeutic Agents, Atypical Antipsychotics, Drugs and Therapies, Asenapine, Manipal University.

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**Clinical Research - Clinical Trials and Studies**

**Studies from Mashhad University of Medical Sciences Have Provided New Information about Clinical Trials and Studies (Carvedilol Administration Can Prevent Doxorubicin-Induced Cardiotoxicity: A Double-Blind Randomized Trial)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Clinical Research - Clinical Trials and Studies is now available. According to news reporting originating from Mashhad, Iran, by NewsRx correspondents, research stated, "The aim of this study is to evaluate the preventive effects of carvedilol on doxorubicin-induced cardiotoxicity. In this trial, 70 female patients with breast cancer who were candidates to receive doxorubicin were enrolled, from which 30 were selected randomly to receive carvedilol 6.25 mg daily during chemotherapy, with the rest receiving placebo as the control group."

Our news editors obtained a quote from the research from the Mashhad University of Medical Sciences, "Both groups were evaluated 1 week before and 1 week after chemotherapy by measuring the left ventricular ejection fraction and strain/strain rate. Data analysis showed that the case group presented no significant reduction in strain and strain-rate parameters after intervention, while there was a significant reduction in these parameters in the control group (all p values <0.001). Also, the mean differences of strain parameters in the case group were significantly less than in the control group in all evaluated heart walls (basal septal strain, p= 0.005, basal lateral strain, p=0.001, basal inferior strain, p<0.001, and basal anterior strain, p <0.001); the same was true for the strain-rate parameters (the p values for basal septal, basal lateral, basal inferior and basal anterior strain rate were 0.037, 0.037, 0.002 and <0.001, respectively). This study shows that carvedilol can prevent doxorubicin-induced cardiotoxicity."

According to the news editors, the research concluded: "Whether this prophylaxis
should be considered as the preferred method needs further investigation."


The news editors report that additional information may be obtained by contacting A. Tashakori Beheshti, Cardiovascular Research Center, Mashhad University of Medical Sciences, Mashhad, Iran. Additional authors for this research include H. Mostafavi Toroghi, G. Hosseini, A. Zarifian, F. Homaei Shandiz and A. Fazlinezhad.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442722. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Cardiology is: S. Karger AG, Allschwilerstrasse 10, CH-4009 Basel, Switzerland.

Keywords for this news article include: Iran, Asia, Mashhad, Clinical Research, Clinical Trials and Studies.

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Musculoskeletal Diseases and Conditions - …

Studies from Massachusetts General Hospital Add New Findings in the Area of Aneurysmal Bone Cysts (Treatment of aneurysmal bone cysts by percutaneous CT-guided injection of calcitonin and steroid)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Musculoskeletal Diseases and Conditions - Aneurysmal Bone Cysts is now available. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "To determine the efficacy and safety of percutaneous calcitonin and steroid injection in the treatment of aneurysmal bone cysts (ABCs). Our study was IRB-approved and HIPAA-compliant."

Our news journalists obtained a quote from the research from Massachusetts General Hospital, "We reviewed pre- and post-procedural imaging studies and medical records of all CT-guided percutaneous injections of ABCs with calcitonin and steroid performed at our institution between 2003 and 2015. Treatment success based on imaging was categorized as substantial (51-100 %), partial (1-50 %), or none (0 %) by comparing radiographs of the lesion before and after treatment. Our study group comprised 9 patients (7 female, 2 male; mean age 19 +/- 5 (range 12-25) years). ABCs were located in the pubis (n = 3), femur (n = 2), and humerus/scapula/ilium/sacrum (n = 1 for each). One patient did not have any clinical or imaging follow-up. For the other 8 patients, clinical and imaging follow-up ranged from 1 to 93 months (mean 16 +/- 29 months). One patient had two injections, and 1 patient had three injections. Six out of eight patients (75 %) had complete symptomatic relief and 2 patients (25 %) had partial symptomatic relief after initial injection. Imaging follow-up revealed substantial imaging response in 4 out of 8 patients (50 %). There was a partial imaging response in 2 patients (25 %) and no imaging response in 2 out of 8 patients (25 %), and all 4 of these patients had local recurrence. There were no complications. Percutaneous CT-guided injection of ABCs with
calcitonin and steroid is a safe and effective treatment."

According to the news editors, the research concluded: "Lack of imaging response may necessitate more aggressive treatment to minimize local recurrence."


The news correspondents report that additional information may be obtained from C.Y. Chang, Massachusetts General Hospital, Dept. of Radiol, Div Musculoskeletal Imaging & Intervent, Boston, MA 02114, United States. Additional authors for this research include S.V. Kattapuram, A.J. Huang, F.J. Simeone, M. Torriani and M.A. Bredella.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00256-016-2503-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Musculoskeletal Diseases and Conditions, Bone Diseases and Conditions, Aneurysmal Bone Cysts, Peptide Proteins, Peptide Hormones, Bone Research, Neuropeptides, Calcitonin, Massachusetts General Hospital.

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**Hormones - Gastrointestinal Hormones**

**Studies from Massachusetts General Hospital Add New Findings in the Area of Gastrointestinal Hormones (Tumor cells can follow distinct evolutionary paths to become resistant to epidermal growth factor receptor inhibition)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hormones - Gastrointestinal Hormones have been published. According to news reporting from Charlestown, Massachusetts, by NewsRx journalists, research stated, "Although mechanisms of acquired resistance of epidermal growth factor receptor (EGFR)-mutant non-small-cell lung cancers to EGFR inhibitors have been identified, little is known about how resistant clones evolve during drug therapy. Here we observe that acquired resistance caused by the EGFR(T790M) gatekeeper mutation can occur either by selection of pre-existing EGFR(T790M)-positive clones or via genetic evolution of initially EGFR(T790M)-negative drug-tolerant cells."

The news correspondents obtained a quote from the research from Massachusetts General Hospital, "The path to resistance impacts the biology of the resistant clone, as those that evolved from drug-tolerant cells had a diminished apoptotic response to third-generation EGFR inhibitors that target EGFR(T790M); treatment with navitoclax, an inhibitor of the anti-apoptotic factors BCL-xL and BCL-2 restored sensitivity. We corroborated these findings using cultures derived directly from EGFR inhibitor-resistant patient tumors."

According to the news reporters, the research concluded: "These findings provide evidence that clinically relevant drug-resistant cancer cells can both pre-exist and evolve from drug-tolerant cells, and they point to therapeutic opportunities to prevent or overcome resistance
in the clinic."

For more information on this research see: Tumor cells can follow distinct evolutionary paths to become resistant to epidermal growth factor receptor inhibition. *Nature Medicine*, 2016;22(3):262-9. (Nature Publishing Group - www.nature.com/; Nature Medicine - www.nature.com/nm/)

Our news journalists report that additional information may be obtained by contacting A.N. Hata, Massachusetts General Hospital (MGH) Cancer Center, Charlestown, Massachusetts, United States. Additional authors for this research include M.J. Niederst, H.L. Archibald, M. Gomez-Caraballo, F.M. Siddiqui, H.E. Mulvey, Y.E. Maruvka, F. Ji, H.E. Bhang, V. Krishnamurthy Radhakrishna, G. Siravegna, H. Hu, S. Raoof, E. Lockerman, A. Kalsy, D. Lee and C.L Keating.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4040. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Charlestown, Massachusetts, United States, Protein Kinases, Membrane Proteins, Peptide Receptors, Phosphotransferases, North and Central America, Epidermal Growth Factor Receptor, Receptor Protein Tyrosine Kinases, Gastrointestinal Hormone Receptors, Intercellular Signaling Peptides and Proteins.

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**Cardiovascular Diseases and Conditions**

**Studies from Massachusetts General Hospital Yield New Data on Hypertension [Low baseline (pre-injury) blood pressure predicts inpatient mortality in elderly trauma patients: A bi-institutional study]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Hypertension are presented in a new report. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated, "The relationship between baseline (i.e., pre-injury) blood pressure and trauma outcomes in elderly patients is unknown. We therefore aimed to identify the independent impact of baseline systolic blood pressure (SBP) on inpatient mortality among elderly trauma patients."

The news correspondents obtained a quote from the research from Massachusetts General Hospital, "The 2004 to 2014 trauma registries of two Level I Trauma Centers were linked to electronic health records then reviewed to identify patients >= 65 years old with available baseline vital signs. Baseline SBP was defined as mean outpatient SBP within 2 years before injury. Trauma SBP was defined as first SBP reading after presentation for trauma. Baseline and Trauma SBP were classified as Low (<110 mm Hg), Normal (110-139 mm Hg), or High (>= 140 mm Hg). Logistic multivariable regression models were constructed to assess the independent impact of Baseline SBP on inpatient mortality, controlling for demographics, comorbidities, injury mechanism/severity, and Trauma SBP. Of 37,494 patient admissions, 4,233 met inclusion criteria. Median age was 81 years; 63.6% were female. Mortality was 5.39%. In unadjusted analyses, mortality rates were 11.01%, 5.28%, and 4.52% in the Low, Normal, and High Baseline SBP groups, respectively (p = 0.001). In multivariable analyses, patients with Low Baseline SBP had significantly increased mortality risk [OR 3.19 (95% CI
1.62-6.26), \( p = 0.001 \) compared to patients with Normal Baseline SBP, in particular when they presented with Low Trauma SBP (< 110 mm Hg) \( [OR 6.14 (2.17-17.36), p = 0.001] \) or Normal Trauma SBP (110-139 mm Hg) \( [OR 3.87 (1.43-10.45), p = 0.008] \). The mortality risk associated with Low Baseline SBP was particularly elevated among patients with a pre-existing diagnosis of hypertension \( [OR 4.78 (1.97-11.62), p = 0.001] \). Low baseline pre-injury SBP is independently associated with more than a threefold increase in inpatient mortality among elderly trauma patients and a fivefold increase in mortality risk among patients with pre-existing hypertension.

According to the news reporters, the research concluded: "Given that blood pressure control in the elderly offers a long-term survival advantage, the paradoxical finding of decreased survival after trauma warrants further investigation."

For more information on this research see: Low baseline (pre-injury) blood pressure predicts inpatient mortality in elderly trauma patients: A bi-institutional study. *Journal of Trauma and Acute Care Surgery*, 2016;81(6):1142-1149. *Journal of Trauma and Acute Care Surgery* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Trauma and Acute Care Surgery - journals.lww.com/jtrauma/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting J.D. Bohnen, Massachusetts General Hospital, Div Trauma Emergency Surg & Surg Crit Care, Boston, MA 02114, United States. Additional authors for this research include D.C. Chang, E.P. Ramly, O.A. Olufajo, R.T. Le, H.M.A. Kaaifarani, D.D. Yeh, D.R. King, P.J. Fagenholz, K.L. Butler, R. Askari, A. Salim, G.C. Velmahos and M. de Moya.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Blood Pressure, Risk and Prevention, Epidemiology, Cardiovascular Diseases and Conditions, Hypertension, Massachusetts General Hospital.

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**Salicylic Acids**

**Studies from Massachusetts General Hospital in the Area of Salicylic Acids Described (Aspirin Use in Women: Current Perspectives and Future Directions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Salicylic Acids are discussed in a new report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Purpose of Review This review examines the recent literature on the use of low-dose aspirin (LDA) for primary and secondary prevention of cardiovascular disease in women, use of LDA for pre-eclampsia prevention in pregnancy, and the underutilization of aspirin therapy in women as compared to men. While men and women should not differ with respect to aspirin use for secondary prevention, its role in primary prevention remains unclear for both sexes, with particular uncertainty in women."

Our news journalists obtained a quote from the research from Massachusetts General Hospital, "Reflective of this are conflicting recommendations in current guidelines for primary prevention and thus investigations of primary prevention aspirin use are ongoing and will play an important role in elucidating its efficacy. While there is significant heterogeneity in studies to
date of LDA for pre-eclampsia prevention, based on recent meta-analyses suggesting promising results, guidelines now recommend initiation in high risk women after the 12th week of gestation. Finally, studies consistently reveal that aspirin therapy is underutilized in women as compared to men, suggesting a need to better educate physicians and the general public about its use in women. Further research is needed to better elucidate the role of aspirin in women for primary prevention of cardiovascular disease and for pre-eclampsia in high risk pregnant women."

According to the news editors, the research concluded: "In addition, further investigation into the factors that lead to the current underutilization of aspirin in women are required in order to ensure that patients of both sexes are optimally treated, with the goal of improving cardiovascular outcomes in all patients."


Current Atherosclerosis Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

The news correspondents report that additional information may be obtained from N.S. Scott, Massachusetts General Hospital, Dept. of Cardiol, Boston, MA 02114, United States.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Platelet Aggregation Inhibitors, Cardiology, Article Review, Coagulation Modifiers, Drugs and Therapies, Antiplatelet Agents, Organic Chemicals, Carboxylic Acids, Aspirin Therapy, Pharmaceuticals, Salicylic Acids, Benzoic Acids, Hydroxy Acids, Massachusetts General Hospital.

Our news editors obtained a quote from the research from the Massachusetts Institute of Technology, "Adaptive biomedical innovation (ABI) provides an integrative, strategic approach for process innovation. Although the term ABI is new, it encompasses fragmented tools that have been developed across the global pharmaceutical industry, and could accelerate the evolution of the system through more coordinated application. ABI involves bringing stakeholders together to set shared objectives, foster trust, structure decision-making, and
manage expectations through rapid-cycle feedback loops that maximize product knowledge and reduce uncertainty in a continuous, adaptive, and sustainable learning healthcare system."

According to the news editors, the research concluded: "Adaptive decision-making, a core element of ABI, provides a framework for structuring decision-making designed to manage two types of uncertainty - the maturity of scientific and clinical knowledge, and the behaviors of other critical stakeholders."

For more information on this research see: Adaptive Biomedical Innovation: Evolving Our Global System to Sustainably and Safely Bring New Medicines to Patients in Need. Clinical Pharmacology & Therapeutics, 2016;100(6):685-698. Clinical Pharmacology & Therapeutics can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com/; Clinical Pharmacology & Therapeutics - www.nature.com/clpt/)

The news editors report that additional information may be obtained by contacting G. Hirsch, MIT, Cambridge, MA 02139, United States. Additional authors for this research include M. Trusheim, E. Cobbs, M. Bala, S. Garner, D. Hartman, K. Isaacs, M. Lumpkin, R. Lim, K. Oye, E. Pezalla, P. Saltonstall and H. Selker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cpt.509. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, Massachusetts, United States, North and Central America, Clinical Pharmacology and Therapeutics, Drugs and Therapies, Massachusetts Institute of Technology.

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Fungal Diseases and Conditions - Coccidioidomycosis

Studies from Mayo Clinic Add New Findings in the Area of Coccidioidomycosis (Coccidioidomycosis in Patients with Selected Solid Organ Cancers: A Case Series and Review of Medical Literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Fungal Diseases and Conditions - Coccidioidomycosis. According to news originating from Phoenix, Arizona, by NewsRx correspondents, research stated, "Coccidioidomycosis is a common infection in the desert southwestern USA; approximately 3% of healthy persons in Arizona alone become infected annually. Coccidioidomycosis may be severe in immunocompromised persons, but experience among patients with solid organ cancer has not been fully described."

Our news journalists obtained a quote from the research from Mayo Clinic, "Therefore, we aimed to describe the clinical courses of patients whose cancers were complicated by coccidioidomycosis at our institution, which is located in an area with endemic Coccidioides. To do so, we conducted a retrospective review from January 1, 2000, through December 31, 2014, of all patients with breast, colorectal, or ovarian cancer whose cancer courses were complicated by coccidioidomycosis. We identified 17,576 cancer patients; 14 (0.08%) of these patients met criteria for proven or probable coccidioidomycosis diagnosed within the first 2 years after the cancer diagnosis. All of these patients had primary pulmonary coccidioidomycosis, none had relapsed prior infection, and 1 had possible extrapulmonary..."
Five had active coccidioidal infection during chemotherapy, 1 of whom was hospitalized for coccidioidal pneumonia. All were treated with fluconazole, and all improved clinically. Eleven did not require prolonged courses of fluconazole. There were no clearly demonstrated episodes of relapsed infection.

According to the news editors, the research concluded: "Coccidioidomycosis was not a common complication of breast, colorectal, or ovarian cancers in patients treated at our institution, and it was not commonly complicated by severe or disseminated infection."

For more information on this research see: Coccidioidomycosis in Patients with Selected Solid Organ Cancers: A Case Series and Review of Medical Literature. Mycopathologia, 2016;181(11-12):787-798. Mycopathologia can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Mycopathologia - www.springerlink.com/content/0301-486x/)

The news correspondents report that additional information may be obtained from J.E. Blair, Mayo Clin Hosp, Div Infect Dis, Phoenix, AZ 85054, United States. Additional authors for this research include Z. Berg, T.R. Halfdanarson, H.R. Vikram, S. Kusne, R. Orenstein, M.T. Seville and J.E. Blair.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11046-016-0044-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Phoenix, Arizona, United States, North and Central America, Cancer, Article Review, Epidemiology, Fungal Diseases and Conditions, Colorectal Research, Coccidioidomycosis, Gastroenterology, Oncology, Mycoses, Mayo Clinic.

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Heart Disorders and Diseases - Atrial Fibrillation

Studies from Mayo Clinic Further Understanding of Atrial Fibrillation (Incidence and impact of postoperative atrial fibrillation after minimally invasive esophagectomy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Atrial Fibrillation have been presented. According to news reporting from Phoenix, Arizona, by NewsRx journalists, research stated, "Atrial fibrillation (AF) following open esophagectomy has been associated with increased rates of pulmonary and anastomotic complications, and mortality. This study seeks to evaluate effects of AF after minimally invasive esophagectomy (MIE)."

The news correspondents obtained a quote from the research from Mayo Clinic, "A retrospective review of patients consecutively treated with MIE for esophageal carcinoma, dysplasia, and benign disease from November 2006 to November 2011 was performed. One hundred twenty-one patients underwent MIE. Median age was 65 years (range 26-88) with 85% being male. Thirty-eight (31.4%) patients developed AF postoperatively. Of these 38 patients, 7 (18.4%) had known AF preoperatively. Patients with postoperative AF were significantly older than those without postoperative AF (68.7 vs. 62.8 years, P = 0.008) and more likely to be male (94.7% vs. 80.7%, P = 0.04). Neoadjuvant chemoradiation showed a trend toward increased risk of AF (73.7% vs 56.6%, P = 0.07). Sixty-day mortality was 2 of 38 (5.3%) in patients with AF.
and 4 of 83 (6.0%) in the no AF cohort (P = 1.00). The group with AF had increased length of hospitalization (13.4 days vs. 10.6 days P = 0.02). No significant differences in rates of pneumonia (31.6% vs. 21.7% P = 0.24), stricture (13.2% vs. 26.5% P = 0.10), or leak requiring return to operating room (13.2% vs. 8.4% P = 0.51) were noted between groups. We did not find an increased rate of AF in our MIE cohort compared with prior reported rates in open esophagectomy populations."

According to the news reporters, the research concluded: "AF did result in an increased length of stay but was not a predictor of other short-term morbidities including anastomotic leak, pulmonary complications, stenosis, or 60-day mortality."


Keywords for this news article include: Phoenix, Arizona, United States, North and Central America, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Gastroenterology, Esophagectomy, Heart Disease, Surgery, Mayo Clinic.

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Oncology - Prostate Cancer

Studies from Mayo Clinic Provide New Data on Prostate Cancer (Contemporary Mapping of Post-Prostatectomy Prostate Cancer Relapse with C-11-Choline Positron Emission Tomography and Multiparametric Magnetic Resonance Imaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "We identify sites and patterns of cancer recurrence in patients with post-prostatectomy biochemical relapse using C-11-choline positron emission tomography/computerized tomography and endorectal coil multiparametric magnetic resonance imaging. Between January 2008 and June 2015, 2,466 men underwent choline positron emission tomography for suspected prostate cancer relapse at our institution."

Our news editors obtained a quote from the research from Mayo Clinic, "Of these men 202 did not receive hormone or radiation therapy, underwent imaging with choline positron emission tomography and multiparametric magnetic resonance imaging, and were found to have disease recurrence. Overall patterns of recurrence were described, and factors associated with local only recurrence were evaluated using univariable and multivariable logistic regression. Median prostate specific antigen at positive scan was 2.3 ng/ml (IQR 1.4-5.5) with a median time from prostate specific antigen relapse to lesion visualization of 15 months (IQR 4.8-34.2). Of these 202 men 68 (33%) exhibited local only, 45 (22%) local plus metastatic and 89 (45%)
metastatic only relapse. Pelvic node only relapse was observed in 39 (19%) men. Median prostate specific antigen at positive imaging for patients with local only, metastatic only and local plus metastatic relapse was 2.3, 2.7 and 2.2 ng/ml (p = 0.46), with a median interval from biochemical recurrence to positive scan of 33.5, 7.0 and 15.0 months, respectively (p < 0.001). On multivariable analysis time from biochemical recurrence to positive imaging was independently associated with local only recurrence (OR 1.10 for every 6-month increase, p = 0.012). Combined choline positron emission tomography and multiparametric magnetic resonance imaging evaluation of biochemical recurrence after prostatectomy reveals an anatomically diverse pattern of recurrence."

According to the news editors, the research concluded: "These findings have implications for optimizing the salvage treatment of patients with prostate cancer with relapse following surgery."


The news editors report that additional information may be obtained by contacting R.J. Karnes, Mayo Clinic, Dept. of Urol, Rochester, MN, United States. Additional authors for this research include H.B. Zaid, R. Haloi, L.A. Mynderse, A.T. Froemming, V.J. Lowe, B.J. Davis, E.D. Kwon and R.J. Karnes.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Male Urologic Surgical Procedures, Quaternary Ammonium Compounds, Prostatic Secretory Proteins, Trimethyl Ammonium Compounds, Prostate-Specific Antigen, Biological Tumor Markers, Prostatic Neoplasms, Biological Factors, Magnetic Resonance, Diet and Nutrition, Neoplasm Antigens, Prostate Cancer, Micronutrient, Ethanolamines, Prostatectomy, Biochemicals, Biochemistry, Men's Health, Immunology, Chemicals, Oncology, Choline, Surgery, Mayo Clinic.

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Heart Disorders and Diseases - Heart Attack

**Studies from Mayo Clinic Yield New Data on Heart Attack [Cancer History Portends Worse Acute and Long-term Noncardiac (but Not Cardiac) Mortality After Primary Percutaneous Coronary Intervention for Acute ST-Segment Elevation Myocardial ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting originating in Rochester, Minnesota, by NewsRx journalists, research stated, "To define the effect of a history of cancer on in-hospital and long-term mortality after primary percutaneous coronary intervention (PCI) for ST-segment elevation myocardial infarction (STEMI). In this retrospective cohort study of 2346 patients with STEMI enrolled in the Mayo Clinic PCI registry from November 1, 2000, through October 31, 2010, we identified 261 patients (11.1%) with a history of cancer."
The news reporters obtained a quote from the research from Mayo Clinic, "The in-hospital and long-term outcomes (median follow-up, 6.2 years; interquartile range = 4.3-8.5 years), including cardiac and noncardiac death and heart failure hospitalization, of these patients were compared with those of 1313 cancer-negative patients matched on age, sex, family history of coronary artery disease, and date of STEMI. Patients with cancer had higher in-hospital noncardiac (1.9% vs 0.4%; P =.03) but similar cardiac (5.8% vs 4.6%; P =.37) mortality as matched controls. The group at highest acute mortality risk were those diagnosed as having cancer within 6 months before STEMI (hazard ratio [HR] = 7.0; 95% CI, 1.4-34.4; P =.02). At 5 years, patients with cancer had similar cardiac mortality (4.2% vs 5.8%; HR = 1.27; 95% CI, 0.77-2.10; P =.35) despite more heart failure hospitalizations (15% vs 10%; HR =1.72; 95% CI, 1.18-2.50; P =.01) but faced higher noncardiac mortality (30.0% vs 11.0%; HR = 3.01; 95% CI, 2.33-3.88; P <. 001) than controls, attributable solely to cancer-related deaths. One in 10 patients in this contemporary registry of patients undergoing primary PCI for STEMI has a history of cancer."

According to the news reporters, the research concluded: "These patients have more than a 3 times higher acute in-hospital and long-term noncardiac mortality risk but no increased acute or long-term cardiac mortality risk with guideline-recommended cardiac care."


Our news correspondents report that additional information may be obtained by contacting J. Herrmann, Mayo Clinic, Div Cardiovasc Dis, Rochester, MN, United States. Additional authors for this research include R. Gulati, R.J. Lennon, B.R. Lewis, J. Park, G.S. Sandhu, R.S. Wright, A. Lerman and J. Herrmann.

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Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cardiovascular Diseases and Conditions, Percutaneous Coronary Intervention, Vascular Diseases and Conditions, Surgery, Risk and Prevention, Heart Disorders and Diseases, Myocardial Infarction, Myocardial Ischemia, Heart Failure, Heart Disease, Heart Attack, Cardiology, Hospital, Oncology, Cancer, Mayo Clinic.

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Oncology

Studies from Mayo Clinic Yield New Information about Oncology (HSulf-1 deficiency dictates a metabolic reprogramming of glycolysis and TCA cycle in ovarian cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology is now available. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "Warburg effect has
emerged as a potential hallmark of many cancers. However, the molecular mechanisms that led to this metabolic state of aerobic glycolysis, particularly in ovarian cancer (OVCA) have not been completely elucidated."

The news correspondents obtained a quote from the research from Mayo Clinic, "HSulf-1 predominantly functions by limiting the bioavailability of heparan binding growth factors and hence their downstream signaling. Here we report that HSulf-1, a known putative tumor suppressor, is a negative regulator of glycolysis. Silencing of HSulf-1 expression in OV202 cell line increased glucose uptake and lactate production by upregulating glycolytic genes such as Glut1, HKII, LDHA, as well as metabolites. Conversely, HSulf-1 overexpression in TOV21G cells resulted in the down regulation of glycolytic enzymes and reduced glycolytic phenotype, supporting the role of HSulf-1 loss in enhanced aerobic glycolysis. HSulf-1 deficiency mediated glycolytic enhancement also resulted in increased inhibitory phosphorylation of pyruvate dehydrogenase (PDH) thus blocking the entry of glucose flux into TCA cycle. Consistent with this, metabolomic and isotope tracer analysis showed reduced glucose flux into TCA cycle. Moreover, HSulf-1 loss is associated with lower oxygen consumption rate (OCR) and impaired mitochondrial function. Mechanistically, lack of HSulf-1 promotes c-Myc induction through HB-EGF-mediated p-ERK activation. Pharmacological inhibition of c-Myc reduced HB-EGF induced glycolytic enzymes implicating a major role of c-Myc in loss of HSulf-1 mediated altered glycolytic pathway in OVCA."

According to the news reporters, the research concluded: "Similarly, PG545 treatment, an agent that binds to heparan binding growth factors and sequesters growth factors away from their ligand also blocked HB-EGF signaling and reduced glucose uptake in vivo in HSulf-1 deficient cells."

For more information on this research see: HSulf-1 deficiency dictates a metabolic reprogramming of glycolysis and TCA cycle in ovarian cancer. Oncotarget, 2015;6(32):33705-19.

Our news journalists report that additional information may be obtained by contacting S. Mondal, Dept. of Experimental Pathology, Mayo Clinic College of Medicine, Rochester, MN, United States. Additional authors for this research include D. Roy, J. Camacho-Pereira, A. Khurana, E. Chini, L. Yang, J. Baddour, K. Stilles, S. Padmabandu, S. Leung, S. Kalloger, B. Gilks, V. Lowe, T. Dierks, E. Hammond, K. Dredge, D. Nagrath and V. Shridhar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5605. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Genetics, Oncology, Rochester, Minnesota, United States, North and Central America.

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**Nutritional and Metabolic Diseases and Conditions -…**

**Studies from Mayo Clinic in the Area of Celiac Disease Described (Contemporary celiac disease diagnosis: is a biopsy avoidable?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Celiac Disease are presented in a new report. According to news reporting out of Rochester, Minnesota, by NewsRx editors, research stated, "The duodenal biopsy is the gold standard for the diagnosis of celiac disease. However, given improvements in the performance of serological
testing, the possibility of accurately diagnosing celiac disease without the need of a biopsy has attracted interest."

Our news journalists obtained a quote from the research from Mayo Clinic, "The European Society for Paediatric Gastroenterology, Hepatology and Nutrition has revised its recommendations to include a diagnostic algorithm that includes sequential serological testing and human leukocyte antigen genotyping for symptomatic children which would enable a diagnosis of celiac disease to be made in the absence of a confirmatory intestinal biopsy. Recent studies have evaluated the ESPGHAN guidelines and have mostly corroborated that celiac disease can be accurately diagnosed in specific pediatric patient populations without the need of a biopsy. However, two cautionary points have been raised that warrant further consideration - the success of this approach is highly dependent targeting a population with a high pretest probability of celiac disease, as well, the performance of serology assays must be established and the appropriate use of cutoffs is essential. The duodenal biopsy will remain the gold standard for diagnosing celiac disease in a majority of patients."

According to the news editors, the research concluded: "However, as serology assays evolve and as a greater understanding of the genetic risk factors of celiac disease is achieved, more patients may be accurately diagnosed without the need for a biopsy."

For more information on this research see: Contemporary celiac disease diagnosis: is a biopsy avoidable? Current Opinion In Gastroenterology, 2016;32(2):80-5. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Gastroenterology - journals.lww.com/co-gastroenterology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting J.R. Mills, aDept. of Laboratory Medicine and Pathology bDivision of Gastroenterology and Hepatology and Dept. of Immunology, Mayo Clinic, Rochester, Minnesota, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MOG.0000000000000245. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, Genetic Risk, United States, Article Review, Celiac Disease, Gastroenterology, Risk and Prevention, Malabsorption Syndromes, North and Central America, Diagnostics and Screening, Genetic Diseases and Conditions, Autoimmune Diseases and Conditions, Digestive System Diseases and Conditions.

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**Pregnancy Complications - Preeclampsia**

**Studies from Mayo Clinic in the Area of Preeclampsia Reported**
(Pregnancy history and blood-borne microvesicles in middle aged women with and without coronary artery calcification)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Pregnancy Complications - Preeclampsia are presented in a new report. According to news reporting out of Rochester, Minnesota, by NewsRx editors, research stated, "Having a history of preeclampsia increases the risk for future coronary artery calcification (CAC). This study evaluated the association of blood-borne, cell-derived microvesicles (MV) with CAC in middle-aged women."
Our news journalists obtained a quote from the research from Mayo Clinic, "Twelve pre-selected, antigen-specific MV were measured by digital flow cytometry in the blood of age- and parity-matched women (median age 60 years) without a history of cardiovascular events, but with either a history of preeclampsia (PE, n=39) or normotensive pregnancy (NP, n=40). CAC was determined by computed tomography. CAC scores ranged from 0 to 47 and 0-602 Agatston Units in the NP and PE groups, respectively. Waist circumference and insulin resistance were greatest in PE women with CAC. MV positive for tissue factor or stem/progenitor cell antigen (CD117) differed between NP and PE groups. In univariate analysis, those positive for tissue factor, ICAM-1, stem cells, and adipocytes (P16-set) antigens associated with CAC in the PE group. Principal components (PC) analysis reduced the MV variables to three independent dimensions. PC1 showed a modest correlation with CAC scores in the PE group (rho = 0.31, p = 0.06) and associated with CAC in a multivariable model on pooled groups that included all 3 PC variables when adjusted for pregnancy status (p = 0.03). The association was lost when corrected for body mass index or waist circumference. In women with a history of PE and elevated metabolic risk profile, a group of specific antigen-positive MV associated with CAC. These MV may reflect cellular processes associated with CAC."

According to the news editors, the research concluded: "Their diagnostic potential for CAC remains to be determined."

For more information on this research see: Pregnancy history and blood-borne microvesicles in middle aged women with and without coronary artery calcification. *Atherosclerosis*, 2016;253():150-155. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting M. Jayachandran, Mayo Clinic, Dept. of Physiol & Biomed Engn, Rochester, MN 55905, United States. Additional authors for this research include V.D. Garovic, K.R. Bailey, B.D. Lahr, M.M. Michelle, W.M. White and M. Jayachandran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.09.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cardiology, Risk and Prevention, Pregnancy Complications, Coronary Artery, Women's Health, Preeclampsia, Obstetrics, Mayo Clinic.

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**Studies from McGill University Provide New Data on Plasma (The Effect of Dissolved Oxygen on the Relaxation Rates of Blood Plasma: Implications for Hyperoxia Calibrated BOLD)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Plasma. According to news reporting from Montreal, Canada, by NewsRx journalists, research stated, "To determine the contribution of paramagnetic dissolved oxygen in blood plasma to blood-oxygenation-level-dependent (BOLD) signal changes in hyperoxic calibrated BOLD studies. Bovine blood plasma..."
samples were prepared with partial pressures of oxygen ($pO(2)$) ranging from 110 to 600 mmHg."

The news correspondents obtained a quote from the research from McGill University, "R-1, R-2, and R-2* of the plasma with dissolved oxygen were measured using quantitative MRI sequences at 3 Tesla. Simulations were performed to predict the relative effects of dissolved oxygen and deoxyhemoglobin changes in hyperoxia calibrated BOLD. The relaxivities of dissolved oxygen in plasma were found to be $r(1, O_2) = 1.97 +/- 0.09 \times 10^{-4}$ s$^{-1}$ mmHg$^{-1}$, $r(2, O_2) = 2.3 +/- 0.7 \times 10^{-4}$ s$^{-1}$ mmHg$^{-1}$, and $r(2, O_2)^* = 2.3 +/- 0.7 \times 10^{-4}$ s$^{-1}$ mmHg$^{-1}$. Simulations predict that neither the transverse nor longitudinal relaxation rates of dissolved oxygen contribute significantly to the BOLD signal during hyperoxia. During hyperoxia, the increases in R-2 and R-2* of blood from dissolved oxygen in plasma are considerably less than the decreases in R-2 and R-2* from venous deoxyhemoglobin. R-1 effects due to dissolved oxygen are also predicted to be negligible."

According to the news reporters, the research concluded: "As a result, dissolved oxygen in arteries should not contribute significantly to the hyperoxic calibrated BOLD signal."


Our news journalists report that additional information may be obtained by contacting Y.H. Ma, McGill University, Montreal Neurol Inst, McConnell Brain Imaging Center, Montreal, PQ, Canada. Additional authors for this research include A.J.L. Berman and G.B. Pike.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Chalcogens, Hematology, Hyperoxia, Plasma, Blood, McGill University.

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**Vaccination**

**Studies from Medical College of Wisconsin in the Area of Vaccination Reported (Epidermal Growth Factor Receptor Derived Peptide Vaccination to Prevent Lung Adenocarcinoma Formation: An In Vivo Study in a Murine Model of EGFR Mutant Lung Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Vaccination. According to news reporting originating in Milwaukee, Wisconsin, by NewsRx journalists, research stated, "The ability to prevent disease is the holy grail of medicine. For decades, efforts have been made to extend the successes seen with vaccination against infectious diseases to cancer."

The news reporters obtained a quote from the research from the Medical College of Wisconsin, "In some instances, preventive vaccination against viruses (prototypically HPV) has successfully prevented tumorigenesis and will make a major impact on public health in the decades to come. However, the majority of cancers that arise are a result of genetic mutation within the host, or non-viral environmental exposures. We present compelling evidence that
vaccination against an overexpressed self-tumor oncprotein has the potential to prevent tumor development. Vaccination against the Epidermal Growth Factor Receptor (EGFR) using a multipeptide vaccine in a preventive setting decreased EGFR-driven lung carcinogenesis by 76.4% in a mouse model of EGFR-driven lung cancer. We also demonstrate that anti-EGFR vaccination primes the development of a robust immune response in vivo.

According to the news reporters, the research concluded: "This study provides proof of concept for the first time that targeting tumor drivers in a preventive setting in lung cancer using peptide vaccination can inhibit tumorigenesis and may provide useful clinical insights into the development of strategies to vaccinate against EGFR in populations where EGFR-mutant disease is highly prevalent."


Our news correspondents report that additional information may be obtained by contacting M. You, Medical College of Wisconsin, Dept. of Pharmacol & Toxicol, Center Canc, Milwaukee, WI 53226, United States. Additional authors for this research include R.A. Lubet, E. Gad, M.L. Disis and M. You.

Keywords for this news article include: Milwaukee, Wisconsin, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Gastrointestinal Hormone Receptors, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor, Environment and Public Health, Communicable Disease Control, Gastrointestinal Hormones, Epidermal Growth Factors, Growth Factor Receptors, Public Health Practice, Phosphotransferases, Membrane Proteins, Peptide Receptors, Protein Kinases, Adenocarcinoma, Lung Neoplasms, Immunization, Lung Cancer, Vaccination, Proteomics, Genetics, Oncology, Medical College of Wisconsin.

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Central Nervous System Diseases and Conditions - …

Studies from Medical Research Council Further Understanding of Epilepsy (Structural brain abnormalities in a single gene disorder associated with epilepsy, language impairment and intellectual disability)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting out of Cambridge, United Kingdom, by NewsRx editors, research stated, "Childhood speech and language deficits are highly prevalent and are a common feature of neurodevelopmental disorders. However, it is difficult to investigate the underlying causal pathways because many diagnostic groups have a heterogeneous aetiology."

Financial supporters for this research include Wellcome Trust/Academy of Medical Sciences, National Institute of Health Research.
Our news journalists obtained a quote from the research from Medical Research Council. "Studying disorders with a shared genetic cause and shared cognitive deficits can provide crucial insight into the cellular mechanisms and neural systems that give rise to those impairments. The current study investigated structural brain differences of individuals with mutations in ZDHHC9, which is associated with a specific neurodevelopmental phenotype including prominent speech and language impairments and intellectual disability. We used multiple structural neuroimaging methods to characterise neuroanatomy in this group, and observed bilateral reductions in cortical thickness in areas surrounding the temporo-parietal junction, parietal lobule, and inferior frontal lobe, and decreased microstructural integrity of cortical, subcortical-cortical, and interhemispheric white matter projections. These findings are compared to reports for other genetic groups and genetically heterogeneous disorders with a similar presentation."

According to the news editors, the research concluded: "Overlap in the neuroanatomical phenotype suggests a common pathway that particularly affects the development of temporo-parietal and inferior frontal areas, and their connections."


Our news journalists report that additional information may be obtained by contacting J. Bathelt, MRC Cognit & Brain Sci Unit, Cambridge CB2 7EF, United Kingdom. Additional authors for this research include D. Astle, J. Barnes, F.L. Raymond and K. Baker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.07.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, United Kingdom, Europe, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Epilepsy, Genetics, Medical Research Council.

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**Immunology - Mononuclear Phagocyte System**

**Studies from Medical Research Institute Describe New Findings in Mononuclear Phagocyte System (Hepcidin independent iron recycling in a mouse model of -thalassaemia intermedia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immunology - Mononuclear Phagocyte System. According to news originating from Herston, Australia, by NewsRx correspondents, research stated, "In conditions such as -thalassaemia, stimulated erythropoiesis can reduce the expression of the iron regulatory hormone hepcidin, increasing both macrophage iron release and intestinal iron absorption and leading to iron loading. However, in certain conditions, sustained elevation of erythropoiesis can occur without an increase in body iron load."

Our news journalists obtained a quote from the research from Medical Research Institute, "To investigate this in more detail, we made use of a novel mouse strain (RBC14),
which exhibits mild -thalassaemia intermedia with minimal iron loading. We compared iron homeostasis in RBC14 mice to that of Hbb(th3/+) mice, a more severe model of -thalassaemia intermedia. Both mouse strains showed a decrease in plasma iron half-life, although the changes were less severe in RBC14 mice. Despite this, intestinal ferroportin and serum hepcidin levels were unaltered in RBC14 mice. In contrast, Hbb(th3/+) mice exhibited reduced serum hepcidin and increased intestinal ferroportin. However, splenic ferroportin levels were increased in both mouse strains."

According to the news editors, the research concluded: "These data suggest that in low-grade chronic haemolytic anaemia, such as that seen in RBC14 mice, the increased erythroid iron requirements can be met through enhanced macrophage iron release without the need to increase iron absorption, implying that hepcidin is not the sole regulator of macrophage iron release invivo."


The news correspondents report that additional information may be obtained from D.M. Frazer, QIMR Berghofer Med Res Inst, Iron Metab Lab, Herston, Qld, Australia. Additional authors for this research include S.J. Wilkins, C.S.G. Mirciov, L.A. Dunn and G.J. Anderson.

Keywords for this news article include: Herston, Australia, Australia and New Zealand, Mononuclear Phagocyte System, Macrophages, Immunology, Phagocytes, Medical Research Institute.

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**Health and Medicine - Oral Health**

**Studies from Medical University Have Provided New Data on Oral Health (Accuracy of commercial kits and published primer pairs for the detection of periodontopathogens)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Oral Health have been published. According to news reporting from Graz, Austria, by NewsRx journalists, research stated, "Despite the input of microbiome research, a group of 20 bacteria continues to be the focus of periodontal diagnostics and therapy. The aim of this study was to compare three commercial kits and laboratory-developed primer pairs for effectiveness in detecting such periodontopathogens."

Financial support for this research came from Hygiene Fund, Medical University of Graz.

The news correspondents obtained a quote from the research from Medical University, "Fourteen bacterial mock communities, consisting of 16 randomly assembled bacterial strains, were used as reference standard for testing kits and primers. Extracted DNA from mock communities was analyzed by PCR in-house with specific primers and forwarded for analysis to the manufacturer's laboratory of each of the following kits: ParoCheckA ® Kit 20,
micro-IDentA® plus 11, and CarpegenA® Perio Diagnostik. The kits accurately detected Fusobacterium nucleatum, Prevotella intermedia/Prevotella nigrescens, Parvimonas micra, Aggregatibacter actinomycetemcomitans, Campylobacter rectus/showae, Streptococcus mitis, Streptococcus mutans, and Veillonella parvula. The in-house primers for F. nucleatum were highly specific to subtypes of the respective periodontopathogen. Other primers repeatedly detected oral pathogens not present in the mock communities, indicating reduced specificity. The commercial kits used in this study are reliable tools to support periodontal diagnostics. Whereas the detection profile of the kits is fixed at a general specificity level, the design of primers can be adjusted to differentiate between highly specific strains. In-house primers are more error-prone. Bacterial mock communities can be established as a reference standard for any similar testing. The tested kits render good results with selected bacterial species. Primers appear to be less useful for routine clinical diagnostics and of limited applicability in research.

According to the news reporters, the research concluded: "Basic information about the periodontopathogens identified in this study supports clinical decision-making."

For more information on this research see: Accuracy of commercial kits and published primer pairs for the detection of periodontopathogens. Clinical Oral Investigations, 2016;20(9):2515-2528. Clinical Oral Investigations can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Clinical Oral Investigations - www.springerlink.com/content/1432-6981/)

Our news journalists report that additional information may be obtained by contacting E. Santigli, Medical University of Graz, Div Orthodont & Maxillofacial Orthoped, Dept. of Dental & Maxillofacial Surg, A-8010 Graz, Austria. Additional authors for this research include E. Leitner, G. Wimmer, H.H. Kessler, G. Feierl, M. Grube, K. Eberhard and B. Klug.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00784-016-1748-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Graz, Austria, Europe, Oral Health, Health and Medicine, Genetics, Medical University.

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Heart Disorders and Diseases - Atrial Fibrillation

Studies from Medical University Have Provided New Information about Atrial Fibrillation (Matrix Metalloproteinase Neutrophil Gelatinase-Associated Lipocalin Complex Predicts Atrial Fibrillation Recurrence after Electrical Cardioversion in Obese ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Atrial Fibrillation is now available. According to news reporting out of Bialystok, Poland, by NewsRx editors, research stated, "There is not much data on matrix metalloproteinase neutrophil gelatinase-associated lipocalin (MMP-NGAL) complex in patients with atrial fibrillation (AF). The aim of the study was to assess the value of MMP-NGAL complex in predicting AF recurrence after electrical cardioversion."

Our news journalists obtained a quote from the research from Medical University,
"The serum levels of NGAL, cystatin C, interleukin-6, high-sensitivity C-reactive protein, copeptin, MMP-NGAL complex, matrix metalloproteinase 2, tissue inhibitor of metalloproteinase 1, Von Willebrand factor, B-type natriuretic peptide and the urinary level of NGAL were evaluated before cardioversion. A total of 83 patients with persistent AF were enrolled in the study. Left atrial diameter (LA) ≥ 4.5 cm was significantly associated with AF recurrence at follow-up (p = 0.009). In selected 39 obese patients, MMP-NGAL complex was associated with AF recurrence (p = 0.03). If the concentration of MMP-NGAL complex increased by 1 ng/ml, the odds of AF recurrence increased by 4% (OR 1.04; CI: 1.00-1.08; p = 0.03). MMP-NGAL complex did not correlate with AF recurrence in patients with a first episode of AF, in patients ≥ 65 years of age and in patients with a LA ≥ 4.5 cm or with chronic kidney disease. It is known that the greater the BMI at baseline, the higher the likelihood of progression from paroxysmal to permanent AF. However, European Society of Cardiology (ESC) guidelines do not consider obese patients a population with a low likelihood of success of cardioversion. That is why we need a sensitive marker to predict sinus rhythm maintenance in such a population."

According to the news editors, the research concluded: "We found that MMP-NGAL complex may predict AF recurrence after successful cardioversion in obese patients."


Our news journalists report that additional information may be obtained by contacting E. Mlodawska, Medical University of Bialystok, Dept. of Cardiol, Bialystok, Poland. Additional authors for this research include A. Tomaszuk-Kazberuk, P. Lopatowska, E. Waszkiewicz, H. Bachorzewska-Gajewska, J. Malyszko, E. Michniewicz, S. Dobrzycki and W.J. Musial.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000448225. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bialystok, Poland, Europe, Nutritional and Metabolic Diseases and Conditions, Heart Disorders and Diseases, Matrix Metalloproteinases, Hemic and Immune Systems, Metalloendopeptidases, Enzymes and Coenzymes, Atrial Fibrillation, Cardiac Arrhythmias, Peptide Hydrolases, Carrier Proteins, Metalloproteins, Heart Disease, Granulocytes, Gelatinases, Blood Cells, Neutrophils, Proteomics, Lipocalins, Immunology, Phagocytes, Bariatrics, Obesity, Medical University.

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& Wellness Week -- Current study results on Life Science Research - Developmental Biology have been published. According to news reporting originating from Innsbruck, Austria, by NewsRx correspondents, research stated, "Skeletal muscle excitation-contraction (EC) coupling is independent of calcium influx. In fact, alternative splicing of the voltage-gated calcium channel Ca(V)1.1 actively suppresses calcium currents in mature muscle."

Our news editors obtained a quote from the research from Medical University, "Whether this is necessary for normal development and function of muscle is not known. However, splicing defects that cause aberrant expression of the calcium-conducting developmental Ca(V)1.1e splice variant correlate with muscle weakness in myotonic dystrophy. Here, we deleted Ca(V)1.1 (Cacna1s) exon 29 in mice. These mice displayed normal overall motor performance, although grip force and voluntary running were reduced. Continued expression of the developmental Ca(V)1.1e splice variant in adult mice caused increased calcium influx during EC coupling, altered calcium homeostasis, and spontaneous calcium sparklets in isolated muscle fibers. Contractile force was reduced and endurance enhanced. Key regulators of fiber type specification were dysregulated and the fiber type composition was shifted toward slower fibers. However, oxidative enzyme activity and mitochondrial content declined."

According to the news editors, the research concluded: "These findings indicate that limiting calcium influx during skeletal muscle EC coupling is important for the secondary function of the calcium signal in the activity-dependent regulation of fiber type composition and to prevent muscle disease."


The news editors report that additional information may be obtained by contacting B.E. Flucher, Medical University of Innsbruck, Dept. of Physiol & Med Phys, A-6020 Innsbruck, Austria. Additional authors for this research include B. Dienes, A. Benedetti, P. Tuluc, P. Szentesi, M. Sztretye, J. Rainer, M.W. Hess, C. Schwarzer, G.J. Obermair, L. Csernoch and B.E. Flucher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/dev.129676. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Innsbruck, Austria, Europe, Developmental Biology, Life Science Research, Genetics, Medical University.

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Central Nervous System Diseases and Conditions –…

Studies from Medical University in the Area of Encephalomyelitis Reported (Transplantation of Neural Stem Cells Cotreated with Thyroid Hormone and GDNF Gene Induces Neuroprotection in Rats of Chronic Experimental Allergic Encephalomyelitis)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions - Encephalomyelitis have been presented. According to news reporting originating from Sichuan, People's Republic of China, by NewsRx correspondents, research stated, "The present study investigates whether transplantation of NSCs treated with T3 alone (T3/NSCs), or in conjunction with GDNF gene (GDNF-T3/NSCs), provides a better therapeutic effect than NSCs for chronic EAE. EAE rats were, respectively, injected with NSCs, T3/NSCs, GDNF-T3/NSCs, and saline at 10 days and sacrificed at 60 days after EAE immunization."

Funders for this research include Scientific Research Fund of Sichuan Provincial Education Department, Sichuan Provincial Health Bureau, Office of Science and Technology of Luzhou.

Our news editors obtained a quote from the research from Medical University, "The three cell grafted groups showed a significant reduction in clinical scores, inflammatory infiltration, and demyelination compared with the saline-injected group, and among the cell grafted groups, the reduction in GDNF-T3/NSCs group was the most notable, followed by T3/NSCs group. Grafted T3/NSCs and GDNF-T3/NSCs acquired more MAP2, GalC, and less GFAP in brain compared with grafted NSCs, and grafted GDNF-T3/NSCs acquired most MAP2 and least GalC among the cell grafted groups. Furthermore, T3/NSCs and GDNF-T3/NSCs grafting increased the expression of mRNA for PDGFaR, GalC, and MBP in lesion areas of brain compared with NSCs grafting, and the expression of mRNA for GalC and MBP in GDNF-T3/NSCs group was higher than that in T3/NSCs group."

According to the news editors, the research concluded: "T3/NSCs grafting, especially GDNF-T3/NSCs grafting, provides a better neuroprotective effect for EAE than NSCs transplantation."

For more information on this research see: Transplantation of Neural Stem Cells Cotreated with Thyroid Hormone and GDNF Gene Induces Neuroprotection in Rats of Chronic Experimental Allergic Encephalomyelitis. *Neural Plasticity*, 2016:2016():3081939. (Hindawi Publishing - www.hindawi.com; Neural Plasticity - www.hindawi.com/journals/np/)

The news editors report that additional information may be obtained by contacting X. Gao, Dept. of Anatomy and Neurobiology, Sichuan Medical University, No 319, Zhongshan Road, Luzhou, Sichuan 646000, People's Republic of China. Additional authors for this research include G. Hu, L. Deng, G. Fan, C. Yang and J. Du.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/3081939. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Sichuan, Genetics, Encephalitis, Thyroid Hormones, Stem Cell Research, People's Republic of China, Brain Diseases and Conditions, Central Nervous System Infections, Experimental Allergic Encephalomyelitis, Central Nervous System Diseases and Conditions.

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Liver Diseases and Conditions - Viral Hepatitis

Studies from Medical University in the Area of Viral Hepatitis Described (Micro RNAs mir-106a, mir-122 and mir-197 are increased in severe acute viral hepatitis with coagulopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Viral Hepatitis is now available. According to news reporting out of Vienna, Austria, by NewsRx editors, research stated, "The severity of acute viral hepatitis, which may be caused by several distinct viruses, varies among individual patients. In rare cases, severe hepatic injury with sudden loss of liver function may occur, which is clinically indicated by the occurrence of coagulopathy or encephalopathy."

Financial supporters for this research include R&D funding of the Medical Faculty of the University of Cologne, Department of Virology (Medical University of Vienna).

Our news journalists obtained a quote from the research from Medical University, "As the molecular mechanisms of this liver injury are largely unknown, we investigated extracellular micro RNA (miRNA) profiles in 54 patients acutely infected with one of four different hepatotropic viruses, in order to identify those miRNAs which indicate severe viral hepatitis associated with coagulopathy. First, the profile of miRNAs was extensively analysed using a microarray-based approach in highly characterized 24 patients, matched in terms of sex, age and level of liver enzymes, as well as in three healthy controls. The cohort included samples from 18 patients with moderate and six individuals with severe hepatitis, indicated by abnormal prothrombin time and higher alanine aminotransferase and bilirubin levels. miRNAs found to be upregulated in severe hepatitis were then quantified by real-time PCR in the expanded cohort of 54 patients."

According to the news editors, the research concluded: "Comprehensive microarray-based miRNA profiling identified upregulation of mir-106a, mir-122 and mir-197 in patients with severe acute viral hepatitis with coagulopathy, as compared to patients who did not develop coagulopathy. mir-106a, mir-122 and mir-197 were then proven to be significantly upregulated in patients with severe acute viral hepatitis by quantitative real-time PCR (p <0.01, Mann-Whitney U-test). mir-106a, mir-122 and mir-197 could be potential markers for severe acute viral hepatitis associated with coagulopathy."


Our news journalists report that additional information may be obtained by contacting L. Weseslindner, Dept. of Virology, Medical University of Vienna, Vienna, Austria. Additional authors for this research include I. Macheleidt, H. Eischeid, R. Strassl, H. Hofer, T. Popow-Kraupp, H.P. Dienes, H. Holzmann and M. Odenthal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/liv.12961. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Liver International* is: Blackwell Munksgaard, 35 Norre Sogade, PO Box 2148, DK-1016 Copenhagen, Denmark.
Drugs and Therapies - Antibiotics

Studies from Medicines Co. Yield New Data on Antibiotics [Phase 1 Study of the Safety, Tolerability, and Pharmacokinetics of the beta-Lactamase Inhibitor Vaborbactam (RPX7009) in Healthy Adult Subjects]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antibiotics have been presented. According to news reporting originating from San Diego, California, by NewsRx correspondents, research stated, "Vaborbactam (formerly RPX7009) is a member of a new class of beta-lactamase inhibitor with pharmacokinetic properties similar to those of many beta-lactams, including carbapenems. The pharmacokinetics and safety of vaborbactam were evaluated in 80 healthy adult subjects in a first-in-human randomized, placebo-controlled, double-blind, sequential single-and multiple-ascending- dose study."

Our news editors obtained a quote from the research from Medicines Co., "A total of 10 dose cohorts were enrolled in the study, with 6 subjects randomized to receive 250 to 2,000 mg of vaborbactam and 2 subjects randomized to receive placebo in each cohort. Maximum concentrations for vaborbactam were achieved at the end of the 3-h infusion. Vaborbactam exposure (C-max and area under the concentration-time curve [AUC]) increased in a dose-proportional manner following multiple doses. There was no evidence of accumulation with multiple doses, consistent with the terminal half-life of similar to 2 h. Both the volume of distribution (V-ss) and plasma clearance were independent of dose. For the 2,000-mg dose, the plasma clearance was 0.17 +/- 0.03 liters/h, the AUC from 0 h to infinity (AUC(0-infinity)) was 144.00 +/- 13.90 mg.h/liter, and the V-ss was 21.80 +/- 2.26 mg.h/liter. Urinary recovery was 80% or greater over 48 h across all dose groups. No subjects discontinued the study due to adverse events (AEs), and no serious AEs (SAEs) were observed. All AEs were mild to moderate and similar among the vaborbactam-and placebo-treated subjects, with mild lethargy as the only unique AE reported with the high dose of vaborbactam."

According to the news editors, the research concluded: "Overall, this study revealed the safety, tolerability, and pharmacokinetic profile of vaborbactam and formed the basis for advancement into patient studies in combination with meropenem, including treatment of patients with carbapenem-resistant Enterobacteriaceae (CRE) infections."

For more information on this research see: Phase 1 Study of the Safety, Tolerability, and Pharmacokinetics of the beta-Lactamase Inhibitor Vaborbactam (RPX7009) in Healthy Adult Subjects. *Antimicrobial Agents and Chemotherapy*, 2016;60(10):6326-6332. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting D.C. Griffith, Medicines Co, San Diego, CA 92121, United States. Additional authors for this research include J.S. Loutit, E.E. Morgan, S. Durso and M.N. Dudley.
Keywords for this news article include: San Diego, California, United States, North and Central America, Enzymes and Coenzymes, Drugs and Therapies, Sulfur Compounds, Pharmacokinetics, beta-Lactamases, Amidohydrolases, Pharmaceuticals, beta-Lactams, Antibiotics, Medicines Co.

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Oncology - Waldenstrom Macroglobulinemia

Studies from Memorial Sloan-Kettering Cancer Center Describe New Findings in Waldenstrom Macroglubulinemia (Clonal B cells in Waldenstr?m's macroglobulinemia exhibit functional features of chronic active B-cell receptor signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Waldenstrom Macroglobulinemia have been published. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "Waldenstr?m's macroglobulinemia (WM) is a B-cell non-Hodgkin's lymphoma (B-NHL) characterized by immunoglobulin M (IgM) monoclonal gammopathy and the medullary expansion of clonal lymphoplasmacytic cells. Neoplastic transformation has been partially attributed to hyperactive MYD88 signaling, secondary to the MYD88 L265P mutation, occurring in the majority of WM patients."

The news correspondents obtained a quote from the research from Memorial Sloan-Kettering Cancer Center, "Nevertheless, the presence of chronic active B-cell receptor (BCR) signaling, a feature of multiple IgM+ B-NHL, remains a subject of speculation in WM. Here, we interrogated the BCR signaling capacity of primary WM cells by utilizing multiparametric phosphoflow cytometry and found heightened basal phosphorylation of BCR-related signaling proteins, and augmented phosphoresponses on surface IgM (sIgM) crosslinking, compared with normal B cells. In support of those findings we observed high sIgM expression and loss of phosphatase activity in WM cells, which could both lead to signaling potentiation in clonal cells. Finally, led by the high-signaling heterogeneity among WM samples, we generated patient-specific phosphosignatures, which subclassified patients into a 'high' and a 'healthy-like' signaling group, with the second corresponding to patients with a more indolent clinical phenotype."

According to the news reporters, the research concluded: "These findings support the presence of chronic active BCR signaling in WM while providing a link between differential BCR signaling utilization and distinct clinical WM subgroups."

For more information on this research see: Clonal B cells in Waldenstr?m's macroglobulinemia exhibit functional features of chronic active B-cell receptor signaling. Leukemia, 2016;30(5):1116-25. (Nature Publishing Group - www.nature.com/; Leukemia - www.nature.com/leu/)


The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1038/leu.2016.8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Oncology, New York City, United States, North and Central America, Waldenstrom Macroglobulinemia.

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**Oncology - Non-Small Cell Lung Cancer**

**Studies from Memorial Sloan-Kettering Cancer Center in the Area of Non-Small Cell Lung Cancer Reported (Detection of Recurrence Patterns After Wedge Resection for Early Stage Lung Cancer: Rationale for Radiologic Follow-Up)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Small Cell Lung Cancer have been published. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Wedge resection for selected patients with early stage non-small cell lung cancer is considered to be a valid treatment option. The aim of this study was to evaluate the recurrence patterns after wedge resection, to analyze the survival of patients under routine followup, and to recommend a follow-up regimen."

Our news editors obtained a quote from the research from Memorial Sloan-Kettering Cancer Center, "A retrospective analysis was done of 446 consecutive patients between May 2000 and December 2012 who underwent a wedge resection for clinical stage I non-small cell lung cancer. All patients were followed up with a computed tomography scan with or without contrast. The recurrence was recorded as local (involving the same lobe of wedge resection), regional (involving mediastinal or hilar lymph nodes or a different lobe), or distant (including distant metastasis and pleural disease). Median follow-up for survivors (n = 283) was 44.6 months. In all, 163 patients died; median overall survival was 82.6 months. Thirty-six patients were diagnosed with new primary non-small cell lung cancer, and 152 with recurrence (79 local, 45 regional, and 28 distant). There was no difference in the incidence of recurrence detection detected by computed tomography scans with versus without contrast (p = 0.18). The cumulative incidence of local recurrences at 1, 2, and 3 years was higher than the cumulative incidence for local, regional, and distant recurrences: 5.2%, 11.1%, and 14.9% versus 3.7%, 6.6%, and 9.5% versus 2.3%, 4.7%, and 6.4%, respectively. Primary tumor diameter was associated with local recurrence in univariate analysis. Wedge resection for early stage non-small cell lung cancer is associated with a significant risk for local and regional recurrence."

According to the news editors, the research concluded: "Long-term follow-up using noncontrast computed tomography scans at consistent intervals is appropriate to monitor for these recurrences."


The news editors report that additional information may be obtained by contacting A.
Bille, Mem Sloan Kettering Canc Center, Dept. of Thorac Surg & Epidemiol & Biostat, New York, NY, United States. Additional authors for this research include U. Ahmad, K.M. Woo, K. Suzuki, P. Adusumilli, J. Huang, D.R. Jones and N.P. Rizk.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.j.thoracsur.2016.04.056. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Non-Small Cell Lung Cancer, Computed Tomography, Imaging Technology, Lung Neoplasms, Oncology, Memorial Sloan-Kettering Cancer Center.

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**Oncology - Carcinomas**

**Studies from Molecular Pharmacology Unit Describe New Findings in Carcinomas (PKC-alpha modulation by miR-483-3p in platinum-resistant ovarian carcinoma cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Carcinomas is now available. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "The occurrence of drug resistance limits the efficacy of platinum compounds in the cure of ovarian carcinoma. Since microRNAs (miRNAs) may contribute to this phenomenon by regulating different aspects of tumor cell response, the aim of this study was to exploit the analysis of expression of miRNAs in platinum sensitive/resistant cells in an attempt to identify potential regulators of drug response."

Our news editors obtained a quote from the research from Molecular Pharmacology Unit, "MiR-483-3p, which may participate in apoptosis and cell proliferation regulation, was found up-regulated in 4 platinum resistant variants, particularly in the IGROV-1/Pt1 subline, versus parental cells. Transfection of a synthetic precursor of miR-483-3p in IGROV-1 parental cells elicited a marked up-regulation of the miRNA levels. Growth-inhibition and colony-forming assays indicated that miR-483-3p over-expression reduced cell growth and conferred mild levels of cisplatin resistance in IGROV-1 cells, by interference with their proliferative potential. Predicted targets of miR-483-3p included PRKCA (encoding PKC-alpha), previously reported to be associated to platinum-resistance in ovarian carcinoma. We found that miR-483-3p directly targeted PRKCA in IGROV-1 cells. In keeping with this finding, cisplatin sensitivity of IGROV-1 cells decreased upon molecular/pharmacological inhibition of PKC-alpha. Overall, our results suggest that overexpression of miR-483-3p by ovarian carcinoma platinum-resistant cells may interfere with their proliferation, thus protecting them from DNA damage induced by platinum compounds and ultimately representing a drug-resistance mechanism."

According to the news editors, the research concluded: "The impairment of cell growth may account for low levels of drug resistance that could be relevant in the clinical setting."

For more information on this research see: PKC-alpha modulation by miR-483-3p in platinum-resistant ovarian carcinoma cells. *Toxicology and Applied Pharmacology*, 2016;310 ():9-19. *Toxicology and Applied Pharmacology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier -
Studies from Monash University Add New Findings in the Area of Glutamic Acid (Positive Allosteric Modulation of the Muscarinic M-1 Receptor Improves Efficacy of Antipsychotics in Mouse Glutamatergic Deficit Models of Behavior)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Glutamic Acid have been published. According to news reporting out of Parkville, Australia, by NewsRx editors, research stated, "Current antipsychotics are effective in treating the positive symptoms associated with schizophrenia, but they remain suboptimal in targeting cognitive dysfunction. Recent studies have suggested that positive allosteric modulation of the M-1 muscarinic acetylcholine receptor (mAChR) may provide a novel means of improving cognition."

Our news journalists obtained a quote from the research from Monash University, "However, very little is known about the potential of combination therapies in extending coverage across schizophrenic symptom domains. This study investigated the effect of the M-1 mAChR positive allostericmodulator BQCA [1-(4-methoxybenzyl)-4-oxo-1,4-dihydroquinoline-3-carboxylic acid], alone or in combination with haloperidol (a first-generation antipsychotic), clozapine (a second-generation atypical antipsychotic), or aripiprazole (a third-generation atypical antipsychotic), in reversing deficits in sensorimotor gating and spatial memory induced by the N-methyl-D-aspartate receptor antagonist, MK-801 [(5R, 10S)(1)-5-methyl-10,11-dihydro-5H-dibenzo[a, d]cyclohepten-5,10-imine]. Sensorimotor gating and spatial memory induction are two models that represent aspects of schizophrenia modeled in rodents. In prepulse inhibition (an operational measure of sensorimotor gating), BQCA alone had minimal effects but exhibited different levels of efficacy in reversing MK-801-induced prepulse inhibition disruptions when combined with a subeffective dose of each of the three (currently prescribed) antipsychotics. Furthermore, the combined effect of BQCA and clozapine was absent in M-1-/- mice. Interestingly, although BQCA alone had no effect in reversing MK-801-induced memory impairments in a Y-maze spatial test, we observed a reversal upon the combination of BQCA with atypical antipsychotics, but not with haloperidol."

According to the news editors, the research concluded: "These findings provide proof of concept that a judicious combination of existing antipsychotics with a selective M-1
mAChR positive allosteric modulator can extend antipsychotic efficacy in glutamatergic deficit models of behavior."


Our news journalists report that additional information may be obtained by contacting J.R. Lane, Monash University, Monash Inst Pharmaceut Sci, Drug Discovery Biol, Parkville, Vic 3052, Australia. Additional authors for this research include D.M. Shackleford, D.T. Malone, S.N. Mistry, R.T. Patil, P.J. Scammells, C.J. Langmead, C. Pantelis, P.M. Sexton, J.R. Lane and A. Christopoulos.

Keywords for this news article include: Parkville, Australia, Australia and New Zealand, Antipsychotics, Glutamic Acid, Mental Health, Glutamates, Monash University.

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**Sexually Transmitted Diseases and Conditions…**

**Studies from Monash University Provide New Data on Gonorrhea**

(Trends in gonorrhoea positivity by nucleic acid amplification test versus culture among Australian heterosexual men with a low prevalence of gonorrhoea, 2007-2014)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Sexually Transmitted Diseases and Conditions (STDs) - Gonorrhea. According to news reporting out of Melbourne, Australia, by NewsRx editors, research stated, "Testing for gonorrhoea with nucleic acid amplification tests (NAATs) is not recommended in low-prevalence populations as it results in high numbers of false positive results. The aim of this study was to examine temporal trends of gonorrhoea positivity by NAAT and culture in heterosexual men in Victoria, Australia following recent increases in gonorrhoea notifications."

Our news journalists obtained a quote from the research from Monash University, "Three data sources between 2007 and 2014 were used in this study: notification data from the Victorian Department of Health, Medicare testing numbers of single chlamydia and dual NAATs performed, and electronic records on heterosexual men attending Melbourne Sexual Health Centre (MSHC). Notifications of gonorrhoea by NAAT (with/without culture) in heterosexual men in Victoria rose threefold from 74 in 2007 to 238 in 2014, while the number of dual NAATs ordered over the same period underwent a fivefold increase from 14 061 to 71 860. The overall proportion of NAATs that were positive for gonorrhoea in Victoria was low and fell from 0.53% in 2007 to 0.33% in 2014 (P-trend=0.002). Of the 28014 new heterosexual men attending MSHC, the gonorrhoea positivity by culture was 0.9%, and chlamydia positivity by NAAT was 8.5%. The positivity of both infections did not change over time. These data suggest that gonorrhoea prevalence in heterosexual men is low and stable, despite annual increases in notifications. Guidelines in most countries recommend restricting testing to groups or populations with prevalence over 1%, symptomatic individuals or those at increased
epidemiological risk."

According to the news editors, the research concluded: "These data indicate gonorrhoea testing should not automatically accompany chlamydia screening in low-risk heterosexual men."

For more information on this research see: Trends in gonorrhoea positivity by nucleic acid amplification test versus culture among Australian heterosexual men with a low prevalence of gonorrhoea, 2007-2014. Sexually Transmitted Infections, 2016;92(8):625-627,104. Sexually Transmitted Infections can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Sexually Transmitted Infections - sti.bmj.com/)

Our news journalists report that additional information may be obtained by contacting E.P.F. Chow, Monash University, Cent Clin Sch, Fac Med Nursing & Hlth Sci, Melbourne, Vic, Australia. Additional authors for this research include C.K. Fairley, G. Fehler, S.N. Tabrizi, W.S. Tan, M.Y. Chen, C.S. Bradshaw and E.P.F. Chow.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Sexually Transmitted Diseases and Conditions (STDs), Diagnostics and Screening, Epidemiology, Male Urogenital Diseases and Conditions, Gram-Negative Bacterial Infections, Bacterial Infections and Mycoses, Chlamydiaceae Infections, Chlamydiales, Men's Health, Gonorrhea, Genetics, Monash University.

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Cardiology

Studies from Montreal Heart Institute Update Current Data on Cardiology (Characteristics of premature ventricular contractions in healthy children and their impact on left ventricular function)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiology is the subject of a report. According to news reporting out of Montreal, Canada, by NewsRx editors, research stated, "There are few data regarding the characteristics of premature ventricular contractions (PVCs) in healthy children and their impact on left ventricular (LV) function. The purpose of this study was to assess the prevalence of LV systolic dysfunction in children with frequent PVCs (> = 10%) and determine whether it is associated with PVC characteristics (e.g., proportion, coupling interval, width, and/or morphology)."

Our news journalists obtained a quote from the research from Montreal Heart Institute, "We conducted a single-center cohort study of children with structurally normal hearts and PVC burden > = 10% by 24-hour Holter monitoring performed between 2008 and 2012. Clinical, arrhythmic, and echocardiographic data were reviewed at baseline and during follow-up. A total of 47 children (22 female [47%], mean age 8.2 +/- 6.5 years) had a mean PVC burden of 20.9 +/- 11.9% at baseline. The PVC coupling interval averaged 430 +/- 110 ms, with a PVC width of 118 +/- 27 ms. PVCs were monomorphic in 44 patients (94%). Although no patient had severe cardiomyopathy, 7 (15%) had reduced shortening fraction (Z-score < 2). A strong association was observed between PVC coupling interval and LV shortening fraction Z-score < 2.0 (area under the curve 0.95 +/- 0.03, P<.001). A cutoff value <365 ms yielded the greatest discriminatory ability (Youden J-statistic 0.72, sensitivity 85.7%, specificity 86.5%)."
PVC proportion, width, and morphology were not significantly associated with LV shortening fraction. During 4.0 +/- 2.8 years of follow-up, the PVC burden decreased from a median of 18% to 1.5% (P <.001). PVCs in children with structurally normal hearts are associated with a relatively benign course, with spontaneous resolution in most children."

According to the news editors, the research concluded: "Mild LV systolic dysfunction, observed in 15%, is strongly correlated with a shorter coupling interval (<365 ms)."


Our news journalists report that additional information may be obtained by contacting P. Khairy, Montreal Heart Inst, Adult Congenital Heart Center, Montreal, PQ H1T 1C8, Canada. Additional authors for this research include C. Blanchet, A. Fournier, W. Mawad, A. Shohoudi, N. Dahdah and P. Khairy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.07.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Left Ventricular Function, Cardiology, Montreal Heart Institute.

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**Proteins - Nucleoproteins**

**Studies from Nagasaki University Provide New Data on Nucleoproteins (Histone H2A T120 Phosphorylation Promotes Oncogenic Transformation via Upregulation of Cyclin D1)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Proteins - Nucleoproteins. According to news reporting originating in Nagasaki, Japan, by NewsRx journalists, research stated, "How deregulation of chromatin modifiers causes malignancies is of general interest. Here, we show that deregulation of chromatin modifiers causes malignancies is of general interest. Here, we show that histone H2A T120 is phosphorylated in human cancer cell lines and demonstrate that this phosphorylation is catalyzed by hVRK1."

The news reporters obtained a quote from the research from Nagasaki University, "Cyclin D1 was one of ten genes downregulated upon VRK1 knockdown in two different cell lines and showed loss of H2A T120 phosphorylation and increased H2A K119 ubiquitylation of its promoter region, resulting in impaired cell growth. In vitro, H2A T120 phosphorylation and H2A K119 ubiquitylation are mutually inhibitory, suggesting that histone phosphorylation indirectly activates chromatin. Furthermore, expression of a phosphomimetic H2A T120D increased H3 K4 methylation. Finally, both VRK1 and the H2A T120D mutant histone transformed NIH/3T3 cells."

According to the news reporters, the research concluded: "These results suggest that histone H2A T120 phosphorylation by hVRK1 causes inappropriate gene expression, including upregulated cyclin D1, which promotes oncogenic transformation."
For more information on this research see: Histone H2A T120 Phosphorylation Promotes Oncogenic Transformation via Upregulation of Cyclin D1. *Molecular Cell*, 2016;64 (1):176-188. *Molecular Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

Our news correspondents report that additional information may be obtained by contacting T. Ito, Nagasaki University, Sch Med, Nagasaki 8528523, Japan. Additional authors for this research include T. Nakagawa, H. Mizusaki, M. Yoneda, M. Kato, M. Doiguchi, Y. Imamura, M. Higashi, T. Ikura, T. Hayashi, Y. Kodama, M. Oki, T. Nakayama, E. Cheung, H. Aburatani, K. Takayama, H. Koseki, S. Inoue, Y. Takeshima and T. Ito.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.09.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nagasaki, Japan, Asia, Intracellular Signaling Peptides and Proteins, Proto-Oncogene Proteins, Cyclin D1, Genetics, Histones, Nagasaki University.

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**Drugs and Therapies - Antimicrobial Agents and...**

**Studies from Nanjing Agricultural University Have Provided New Information about Antimicrobial Agents and Chemotherapy (Molecular Characterization of Escherichia coli Strains Isolated from Retail Meat That Harbor blaCTX-M and fosA3 Genes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antimicrobial Agents and Chemotherapy. According to news originating from Nanjing, People's Republic of China, by NewsRx correspondents, research stated, "A total of 55 cefotaxime-resistant*Escherichia coli* isolates were obtained from retail meat products purchased in Shenzhen, China, during the period November 2012 to May 2013. Thirty-seven of these 55 isolates were found to harbor the*blaCTX-M*gene, with the*blaCTX-M-1*group being the most common type.*blaCMY-2*was detected in 16 isolates, alone or in combination with other extended-spectrum b-lactamase (ESBL) determinants."

Financial support for this research came from Shenzhen Key Lab.

Our news journalists obtained a quote from the research from Nanjing Agricultural University, "Importantly, the*fosA3*gene, which encodes fosfomycin resistance, was detected in 12 isolates, with several being found to reside in the conjugative plasmid that harbored the*blaCTX-M*gene. The insertion sequence IS26was observed upstream of some of the*blaCTX-M-55*and*fosA3*genes. Conjugation experiments showed that*blaCTX-M*genes from 15 isolates were transferrable, with Inc I1 and Inc FII being the most prevalent replicons."

According to the news editors, the research concluded: "High clonal diversity was observed among the*blaCTX-M*producers, suggesting that horizontal transfer of the*blaCTX-M*genes among*E. coli*strains in retail meats is a common event and that such strains may constitute an important reservoir of*blaCTX-M*genes, which may be readily disseminated to other potential human pathogens."

The news correspondents report that additional information may be obtained from W. Yao, College of Animal Science and Technology, Nanjing Agriculture University, Nanjing, People's Republic of China. Additional authors for this research include D. Lin, K. Chen, E.W. Chan, W. Yao and S. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.03101-15. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antimicrobial Agents and Chemotherapy, Nanjing, Genetics, Drugs and Therapies, People's Republic of China.

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Oncology - Gastric Cancer

**Studies from Nanjing Medical University Provide New Data on Gastric Cancer (Increased expression of long noncoding RNA TUG1 predicts a poor prognosis of gastric cancer and regulates cell proliferation by epigenetically silencing of p57)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Gastric Cancer.

According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Recent evidence highlights long noncoding RNAs (lncRNAs) as crucial regulators of cancer biology that contribute to tumorigenesis. LncRNA TUG1 was initially detected in a genomic screen for genes upregulated in response to taurine treatment in developing mouse retinal cells."

The news correspondents obtained a quote from the research from Nanjing Medical University, "Our previous study showed that TUG1 could affect cell proliferation through epigenetically regulating HOXB7 in human non-small cell lung cancer. However, the clinical significance and potential role of TUG1 in GC remains unclear. In this study, we found that TUG1 is significantly increased and is correlated with outcomes in gastric cancer (GC). Further experiments revealed that knockdown of TUG1 repressed GC proliferation both in vitro and in vivo. Mechanistic investigations showed that TUG1 has a key role in G0/G1 arrest. We further demonstrated that TUG1 was associated with PRC2 and that this association was required for epigenetic repression of cyclin-dependent protein kinase inhibitors, including p15, p16, p21, p27 and p57, thus contributing to the regulation of GC cell cycle and proliferation."

According to the news reporters, the research concluded: "Together, our results suggest that TUG1, as a regulator of proliferation, may serve as a candidate prognostic biomarker and target for new therapies in human GC."

For more information on this research see: Increased expression of long noncoding RNA TUG1 predicts a poor prognosis of gastric cancer and regulates cell proliferation by epigenetically silencing of p57. *Cell Death & Disease*, 2016;7():e2109. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)
Our news journalists report that additional information may be obtained by contacting E. Zhang, Dept. of Biochemistry and Molecular Biology, Nanjing Medical University, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include X. He, D. Yin, L. Han, M. Qiu, T. Xu, R. Xia, L. Xu, R. Yin and W. De.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2015.356. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Jiangsu, Genetics, Oncology, Gastric Cancer, Gastroenterology, Cell Proliferation, People's Republic of China.

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**Connective Tissue Cells**

**Studies from Nanjing Medical University Yield New Data on Connective Tissue Cells (The Long Non-Coding RNA LncRNA8975-1 is Upregulated in Hypertrophic Scar Fibroblasts and Controls Collagen Expression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Connective Tissue Cells. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Long non-coding RNAs (IncRNAs) are thought to play crucial roles in human diseases. However, the function of IncRNAs in hypertrophic scar formation remains poorly understood."

Our news journalists obtained a quote from the research from Nanjing Medical University, "In this study, we investigated the expression of IncRNA8975-1 in hypertrophic scar tissues and fibroblasts by quantitative reverse transcription PCR (qRT-PCR). To investigate its function, overexpression and knockdown of IncRNA8975-1 were performed using lentivirus infection and Stealth RNAi transfection, respectively. Cell proliferation was detected by CCK-8 assay. The protein levels of collagens and alpha-smooth muscle actin (alpha-SMA) were analysed by western blot. We found that IncRNA8975-1 was overexpressed in hypertrophic scar tissues and dermal fibroblasts. Overexpression of IncRNA8975-1 inhibited cell proliferation and reduced the protein expression levels of COL1A2, COL1A1, COL3A1 and alpha-SMA in hypertrophic scar fibroblasts, whereas knockdown of IncRNA8975-1 had the opposite effect. Our results show that the long non-coding RNA IncRNA8975-1 is upregulated in hypertrophic scar fibroblasts; furthermore, it inhibits fibroblast proliferation and reduces collagen and alpha-SMA expression."

According to the news editors, the research concluded: "Further studies on the mechanisms regulated by IncRNA8975-1 would lead to a better understanding of the pathogenesis of hypertrophic scar formation."

For more information on this research see: The Long Non-Coding RNA LncRNA8975-1 is Upregulated in Hypertrophic Scar Fibroblasts and Controls Collagen Expression. *Cellular Physiology and Biochemistry*, 2016;40(1-2):326-334. *Cellular Physiology and Biochemistry* can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Cellular Physiology and Biochemistry - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224332)

The news correspondents report that additional information may be obtained from Q.
Studies from Nanjing Medical University Yield New Information about Squamous Cell Carcinoma (Long noncoding RNA, tissue differentiation-inducing nonprotein coding RNA is upregulated and promotes development of esophageal squamous cell carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Squamous Cell Carcinoma have been published. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "Esophageal squamous cell carcinoma (ESCC) is one of the major causes of cancer death worldwide, especially in Eastern Asia. Due to the poor prognosis, it is necessary to further dissect the underlying mechanisms and explore therapeutic targets of ESCC."

Our news journalists obtained a quote from the research from Nanjing Medical University, "Recently, studies show that long noncoding RNAs (lncRNAs) have critical roles in diverse biological processes, including tumorigenesis. Increasing evidence indicates that some lncRNAs are widely involved in the development and progression of ESCC, such as HOTAIR, SPRY4-IT1 and POU3F3. An emerging lncRNA, tissue differentiation-inducing nonprotein coding RNA (TINCR), has been studied in human cutaneous squamous cell carcinoma and has critical biological function, but its role in ESCC remains unknown. Here, we evaluated the expression profile of TINCR and its biological function in ESCC. In a cohort of 56 patients, TINCR was significantly overexpressed in ESCC tissues compared with paired adjacent normal tissues. Further, in vitro silencing TINCR via small interfering RNA (siRNA) inhibited the proliferation, migration and invasion of ESCC cells. Meantime, siRNA treatment induced apoptosis and blocked the progression of cell cycle."

According to the news editors, the research concluded: "Taken together, our study suggests that TINCR promotes proliferation, migration and invasion of ESCC cells, acting as a potential oncogene of ESCC."

For more information on this research see: Long noncoding RNA, tissue differentiation-inducing nonprotein coding RNA is upregulated and promotes development of esophageal squamous cell carcinoma. Diseases of the Esophagus, 2016;29(8):950-958. Diseases of the Esophagus can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Diseases of the Esophagus -
Studies from Nanjing University Reveal New Findings on Adenomas (Esophageal submucosal gland duct adenoma: a clinicopathological and immunohistochemical study with a review of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Adenomas have been published. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Esophageal submucosal gland duct adenoma (ESGDA) is a rare tumor. The clinicopathological features of the ESGDA and its precursor lesion have not been comprehensively evaluated."

Our news journalists obtained a quote from the research from Nanjing University, "In this study, we aimed at delineating the clinicopathological features of the ESGDA and cyst formation of the esophageal submucosal gland duct (ESGD), as well as their correlations and clinical implications. We identified three cases of ESGDA and 16 cases of cyst formation of the ESGD among 786 endoscopic mucosal resection specimens over a 7-year period. The median patient age was 58 years with a male predominance. These lesions were small submucosal bulges locating at the lower esophagus with a size no more than 1 cm. The main microscopic changes of these lesions included content retention, multilayered epithelium or papillary folds of the ESGD and inflammatory cell infiltration, acidophilic degeneration, hyperplasia or atrophy of the acini. The included cases generally showed moderate to severe microscopic esophagitis. The ESGDA was mainly consisted by multiple glandular cysts covered by two layers of cells. Immunohistochemical results showed that the luminal duct lining cells and basal cells were positive for CK7 and p63, respectively. Both of the two layer cells were positive for HMWCK and negative for CK20, p53, CDX2, MUC5AC, MUC6, MUC2 and MUC1. The proliferation index was very low (1%). The diagnostic criteria of the ESGDA were proposed and, the differential diagnosis was discussed. Cyst formation of the ESGD is considered to be the precursor lesion of the ESGDA, because they have overlapping clinicopathological features with progressive relationship."

According to the news editors, the research concluded: "In addition, the ESGDA have close connection with advance of the GERD and, probably, an increased risk of carcinoma."

For more information on this research see: Esophageal submucosal gland duct adenoma: a clinicopathological and immunohistochemical study with a review of the literature. *Diseases of the Esophagus*, 2016;29(8):1048-1053. *Diseases of the Esophagus* can be contacted
Studies from Nankai University Reveal New Findings on Pneumonia (Identification of a small molecule that simultaneously suppresses virulence and antibiotic resistance of Pseudomonas aeruginosa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lung Diseases and Conditions - Pneumonia have been presented. According to news reporting from Tianjin, People's Republic of China, by NewsRx journalists, research stated, "The rising antibiotic resistance of bacteria imposes a severe threat on human health. Inhibition of bacterial virulence is an alternative approach to develop new antimicrobials."

The news correspondents obtained a quote from the research from Nankai University, "Molecules targeting antibiotic resistant enzymes have been used in combination with cognate antibiotics. It might be ideal that a molecule can simultaneously suppress virulence factors and antibiotic resistance. Here we combined genetic and computer-aided inhibitor screening to search for such molecules against the bacterial pathogen Pseudomonas aeruginosa. To identify target proteins that control both virulence and antibiotic resistance, we screened for mutants with defective cytotoxicity and biofilm formation from 93 transposon insertion mutants previously reported with increased antibiotic susceptibility. A pyrD mutant displayed defects in cytotoxicity, biofilm formation, quorum sensing and virulence in an acute mouse pneumonia model. Next, we employed a computer-aided screening to identify potential inhibitors of the PyrD protein, a dihydroorotate dehydrogenase (DHODase) involved in pyrimidine biosynthesis. One of the predicted inhibitors was able to suppress the enzymatic activity of PyrD as well as bacterial cytotoxicity, biofilm formation and antibiotic resistance. A single administration of the compound reduced the bacterial colonization in the acute mouse pneumonia model."

According to the news reporters, the research concluded: "Therefore, we have developed a strategy to identify novel treatment targets and antimicrobial molecules."

For more information on this research see: Identification of a small molecule that simultaneously suppresses virulence and antibiotic resistance of Pseudomonas aeruginosa. Scientific Reports, 2016;6():19141. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting Q. Guo, State Key Laboratory of Medicinal Chemical Biology, Key Laboratory of...
Molecular Microbiology and Technology of the Ministry of Education, Dept. of Microbiology, College of Life Sciences, Nankai University, Tianjin 300071, People's Republic of China. Additional authors for this research include Y. Wei, B. Xia, Y. Jin, C. Liu, X. Pan, J. Shi, F. Zhu, J. Li, L. Qian, X. Liu, Z. Cheng, S. Jin, J. Lin and W. Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19141. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tianjin, Genetics, Pneumonia, Pulmonology, Pseudomonadaceae, Infectious Disease, Gammaproteobacteria, Gram Negative Bacteria, Pseudomonas aeruginosa, Diagnostics and Screening, People's Republic of China, Lung Diseases and Conditions, Respiratory Tract Infections, Gram Negative Aerobic Bacteria.

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Oncology - Neuroblastomas

Studies from Nantong University Have Provided New Information about Neuroblastomas (An ITO electrode modified with electrodeposited graphene oxide and gold nanoclusters for detecting the release of H2O2 from bupivacaine-injured neuroblastoma ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Neuroblastomas have been published. According to news reporting originating from Nantong, People's Republic of China, by NewsRx correspondents, research stated, "This study describes an amperometric sensor for hydrogen peroxide (H2O2) that uses an ITO glass electrode which was modified with a nanocomposite consisting of electrochemically reduced graphene oxide and gold nanoclusters (AuNCs). The sensor was used to quantify extracellular H2O2 released from human neuroblastoma cells of type SH-SY5Y."

Funders for this research include National Natural Science Foundation of China, National Natural Science Foundation of China (CN), Natural Science Foundation of Jiangsu Province.

Our news editors obtained a quote from the research from Nantong University, "The calibration plot, established best at a working voltage of -0.4 V (vs. Ag/AgCl) is linear in the 40 nmolai...L-1 to 2 mu molai...L-1 concentration range, and the detection limit is 20 nmolai...L-1 (at a signal-to-noise ratio of 3). The method was further applied to study bupivacaine-induced cell damage and the protective effects of alpha-lipoic acid. The study indicated that pretreatment of the cells with lipoic acid retards cell damage induced by bupivacaine. The sensor can be easily fabricated, is disposable and highly sensitive."

According to the news editors, the research concluded: "The sensor is perceived to represent an alternative for studying the interactions of drugs with cells, and as an effective tool to quantify cell-secreted H2O2."

For more information on this research see: An ITO electrode modified with electrodeposited graphene oxide and gold nanoclusters for detecting the release of H2O2 from bupivacaine-injured neuroblastoma cells. Microchimica Acta, 2016;183(12):3167-3175. Microchimica Acta can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria. (Springer - www.springer.com; Microchimica Acta -
Studies from Nantong University Yield New Data on Anticholinergics (Z-Guggulsterone Improves the Scopolamine-Induced Memory Impairments Through Enhancement of the BDNF Signal in C57BL/6J Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Anticholinergics. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "Memory impairment is a common symptom in patients with neurodegenerative disorders, and its suppression could be beneficial to improve the quality of life of those patients. Z-guggulsterone, a compound extracted from the resin of plant Commiphora whighitii, exhibits numerous pharmacological effects in clinical practice, such as treatment of inflammation, arthritis, obesity and lipid metabolism disorders."

Funders for this research include The Natural Science Foundation of China, The Natural Science Foundation of Jiangsu Province, The Science and Technology Project of Nantong City.

Our news journalists obtained a quote from the research from Nantong University, "However, the role and possible mechanism of Z-guggulsterone on brain-associated memory impairments are largely unknown. This issue was addressed in the present study in a memory impairment model induced by scopolamine, a muscarinic acetylcholine receptor antagonist, using the passive avoidance, Y-maze and Morris water maze tests. Results showed that scopolamine significantly decreased the step-through latency and spontaneous alternation of C57BL/6J mice in passive avoidance and Y-maze test, whereas increased the mean escape latency and decreased the swimming time in target quadrant in Morris water maze test. Pretreatment of mice with Z-guggulsterone at doses of 30 and 60 mg/kg effectively reversed the scopolamine-induced memory impairments. Mechanistic studies revealed that Z-guggulsterone pretreatment reversed the scopolamine-induced increase in acetylcholinesterase (AchE) activity, as well as decreases in brain-derived neurotrophic factor (BDNF) protein expression and cAMP response element-binding protein (CREB), extracellular regulated kinase 1/2 (ERK1/2) and protein kinase B (Akt) phosphorylation levels in the hippocampus and cortex. Inhibition of the
BDNF signal, however, blocked the memory-enhancing effect of Z-guggulsterone."

According to the news editors, the research concluded: "Therefore, these findings demonstrate that Z-guggulsterone attenuates the scopolamine-induced memory impairments mainly through activation of the CREB-BDNF signaling pathway, thereby exhibiting memory-improving effects."

For more information on this research see: Z-Guggulsterone Improves the Scopolamine-Induced Memory Impairments Through Enhancement of the BDNF Signal in C57BL/6J Mice. *Neurochemical Research*, 2016;41(12):3322-3332. *Neurochemical Research* can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Neurochemical Research - www.springerlink.com/content/0364-3190/)

Our news journalists report that additional information may be obtained by contacting C. Huang, Nantong University, Sch Pharm, Dept. of Pharmacol, Nantong 226001, Jiangsu, People's Republic of China. Additional authors for this research include C. Huang and W.B. Ding.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11064-016-2064-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Central Nervous System Agents, Antiemetic-Antivertigo Agents, Anticholinergic Antiemetics, Ophthalmic Preparations, Enzymes and Coenzymes, Drugs and Therapies, Anticholinergics, Antispasmodics, Scopolamine, Mydriatics, Tropanes, Kinase, Nantong University.

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**Tumor Cell Line**

**Studies from Nantong University Yield New Information about Tumor Cell Line (Brusatol inhibits HIF-1 signaling pathway and suppresses glucose uptake under hypoxic conditions in HCT116 cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Tumor Cell Line are presented in a new report. According to news reporting originating from Nantong, People's Republic of China, by NewsRx correspondents, research stated, "Hypoxia-inducible factor-1 (HIF-1) is an important transcription factor that induces adaptive responses upon low oxygen conditions in human cancers and triggers off a poor prognostic outcome of conventional treatments. In this study, we discovered for the first time that brusatol (BRU), a quassinoid extracted from Brucea Esters, has the capability to inhibit HIF-1 signaling pathway."

Our news editors obtained a quote from the research from Nantong University, "We found that BRU concentration-dependently down-regulated HIF-1 alpha protein levels under hypoxia or CoCl2-induced mimic hypoxia in HCT116 cells without causing significant cytotoxicity. Besides, the transactivation activity of HIF-1 was suppressed by BRU under hypoxic conditions, as well as the expression of HIF-1 target genes, including VEGF, GLUT1, HK2 and LDHA. In addition, BRU can also decrease glucose consumption under hypoxia through inhibition of HIF-1 signaling pathway. Further studies revealed that the inhibitory effect of BRU on HIF-1 signaling pathway might be attributed to promoting degradation of HIF-1a."
Interestingly, intracellular reactive oxygen species (ROS) levels and mitochondrial ROS level were both decreased by BRU treatment, indicating the involvement of mitochondrial ROS regulation in the action of BRU."

According to the news editors, the research concluded: "Taken together, these results provided clear evidence for BRU-mediated HIF-1 alpha regulation and suggested its therapeutic potential in colon tumors."

For more information on this research see: Brusatol inhibits HIF-1 signaling pathway and suppresses glucose uptake under hypoxic conditions in HCT116 cells. *Scientific Reports*, 2016;6():1-12. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)


Keywords for this news article include: Nantong, People's Republic of China, Asia, Tumor Cell Line, HCT116 Cells, Genetics, Nantong University.

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**Lymphocytes**

**Studies from National Autonomous University Describe New Findings in Lymphocytes (An alternative mode of CD43 signal transduction activates pro-survival pathways of T lymphocytes)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lymphocytes have been presented. According to news reporting from Cuernavaca, Mexico, by NewsRx journalists, research stated, "CD43 is one of the most abundant co-stimulatory molecules on a T-cell surface; it transduces activation signals through its cytoplasmic domain, contributing to modulation of the outcome of T-cell responses. The aim of this study was to uncover new signalling pathways regulated by this sialomucin."

Financial supporters for this research include Direccion General de Asuntos del Personal Academico, Universidad Nacional Autonoma de Mexico, Consejo Nacional de Ciencia y Tecnologia.

The news correspondents obtained a quote from the research from National Autonomous University, "Analysis of changes in protein abundance allowed us to identify pyruvate kinase isozyme M2 (PKM2), an enzyme of the glycolytic pathway, as an element potentially participating in the signalling cascade resulting from the engagement of CD43 and the T-cell receptor (TCR). We found that the glycolytic activity of this enzyme was not significantly increased in response to TCR+ CD43 co-stimulation, but that PKM2 was tyrosine phosphorylated, suggesting that it was performing moonlight functions. We report that phosphorylation of both Y-105 of PKM2 and of Y-705 of signal transducer and activator of transcription 3 was induced in response to TCR+ CD43 co-stimulation, resulting in activation of the mitogen-activated protein kinase 5/ extracellular signal-regulated kinase 5 (MEK5/ERK5) pathway. ERK5 and the cAMP response element binding protein (CREB) were activated, and c-Myc and nuclear factor-jB (p65) nuclear localization, as well as Bad phosphorylation, were augmented. Consistent with this, expression of human CD43 in a murine
T-cell hybridoma favoured cell survival."

According to the news reporters, the research concluded: "Altogether, our data highlight novel signalling pathways for the CD43 molecule in T lymphocytes, and underscore a role for CD43 in promoting cell survival through non-glycolytic functions of metabolic enzymes."

For more information on this research see: An alternative mode of CD43 signal transduction activates pro-survival pathways of T lymphocytes. *Immunology, 2017;150(1):87-99*. *Immunology* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Immunology - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2567)

Our news journalists report that additional information may be obtained by contacting Y. Rosenstein, National Autonomous University of Mexico, Inst Biotecnol, Dept. of Med Mol & Bioproc, Cuernavaca 62250, Morelos, Mexico. Additional authors for this research include R. Vera-Estrella, B.J. Barkla, C. Martinez-Campos, A. Flores-Alcantar, J.P. Ocelotl-Oviedo, G. Pedraza-Alva and Y. Rosenstein.

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Keywords for this news article include: Cuernavaca, Mexico, North and Central America, Hemic and Immune Systems, Mononuclear Leukocytes, Enzymes and Coenzymes, T-Lymphocytes, Blood Cells, Immunology, Genetics, Kinase, National Autonomous University.

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**Hydroxylamines**

**Studies from National Autonomous University Have Provided New Information about Hydroxylamines (Antiproliferative, Cytotoxic, and Apoptotic Activity of Steroidal Oximes in Cervicouterine Cell Lines)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hydroxylamines are discussed in a new report. According to news originating from Mexico City, Mexico, by NewsRx correspondents, research stated, "Steroidal sapogenins have shown antiproliferative effects against several tumor cell lines; and their effects on human cancer cells are currently under study. Changes in the functionality on the steroidal structure make it possible to modify the biological activity of compounds."

Our news journalists obtained a quote from the research from National Autonomous University. "Herein, we report the synthesis and in vitro antitumor activity of two steroidal oxime compounds on cervical cancer cells. These derivatives were synthesized from the steroidal sapogenin diosgenin in good yields. The in vitro assays show that the steroidal oximes show significant antiproliferative activity compared to the one observed for diosgenin. Cell proliferation, cell death, and the cytotoxic effects were determined in both cervical cancer cells and human lymphocytes. The cancer cells showed apoptotic morphology and an increased presence of active caspase-3, providing the notion of a death pathway in the cell."

According to the news editors, the research concluded: "Significantly, the steroidal
oximes did not exert a cytotoxic effect on lymphocytes."

For more information on this research see: Antiproliferative, Cytotoxic, and Apoptotic Activity of Steroidal Oximes in Cervicouterine Cell Lines. *Molecules*, 2016;21 (11):1718-1734. *Molecules* can be contacted at: Mdp1 Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

The news correspondents report that additional information may be obtained from L. Sanchez-Sanchez, National Autonomous University of Mexico, Fac Estudios Super Zaragoza, Mexico City 09230, DF, Mexico. Additional authors for this research include M.G. Hernandez-Linares, M.L. Escobar, H. Lopez-Munoz, E. Zenteno, M.A. Fernandez-Herrera, G. Guerrero-Luna, A. Carrasco-Carballo and J. Sandoval-Ramirez.

Keywords for this news article include: Mexico City, Mexico, North and Central America, Hydroxylamines, Cell Line, Oncology, Cancer, Oximes, National Autonomous University.

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**Adenocarcinomas**

**Studies from National Cancer Center Have Provided New Information about Adenocarcinomas (Macroscopic features predict outcome in patients with pancreatic ductal adenocarcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Adenocarcinomas is now available. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "As macroscopic appearance represents tumor microenvironment, it may also reflect the biological and clinicopathological characteristics of a cancer. The aim of the study was to evaluate the clinicopathological significance of the gross appearance of pancreatic ductal adenocarcinoma (PDA)."

Funders for this research include Princess Takamatsu Foundation, Cancer Research and Development Fund.

Our news journalists obtained a quote from the research from National Cancer Center, "We investigated fresh macroscopic features in 352 cases of PDA and their clinicopathological significance. Three unique gross features were found: a honeycomb-like appearance (diffusely distributed microcysts and interstitial fibrotic thickening), macroscopic necrosis, and a tube/branching structure (apparent small cylindrical or linear structure). A honeycomb-like appearance was present in 24 cases (6.8 %) and significantly associated with low serum CA19-9 level and well-differentiated adenocarcinoma. Macroscopic necrosis was present in 235 cases (66.8 %) and significantly correlated with tumor size, nodal metastasis, nerve plexus invasion, no adjuvant chemotherapy, and distant recurrence. The presence of macroscopic necrosis was significantly associated with shorter disease-specific survival (DSS) and disease-free survival (DFS). The presence of larger areas of necrosis (ae2 mm) was closely associated with shorter survival. A tube/branching structure was found in 179 cases (50.9 %), which was correlated with larger tumor size and no adjuvant chemotherapy and macroscopic necrosis. The presence of a tube/branching structure was significantly associated with shorter DSS and DFS. Multivariate survival analyses showed that the presence of tube/branching
structures was an independent negative prognostic factor in patients having PDA."

According to the news editors, the research concluded: "We suggest that the gross appearance of PDA reflects clinicopathological characteristics and may be useful in predicting prognosis."


The news correspondents report that additional information may be obtained from N. Hiraoka, Natl Canc Center, Div Pathol & Clin Labs, Chuo Ku, Tokyo 1040045, Japan. Additional authors for this research include K. Shimada, Y. Ino, S. Oguro, M. Esaki, S. Nara, Y. Kishi, T. Kosuge, Y. Hattori, A. Sukeda, Y. Kitagawa, Y. Kanai and N. Hiraoka.

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Keywords for this news article include: Tokyo, Japan, Asia, Adenocarcinomas, Gastroenterology, Adenocarcinoma, Pancreas, National Cancer Center.

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### Oncology - Prostate Cancer

**Studies from National Cancer Institute Add New Findings in the Area of Prostate Cancer (The evolving role of enzalutamide on the treatment of prostate cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "The field of prostate cancer has witnessed incredible progress in the last decade, owing to the approval of multiple survival-prolonging treatments for metastatic castration-resistant prostate cancer (mCRPC). Enzalutamide is a nonsteroidal androgen receptor inhibitor that targets multiple steps in the androgen receptor signaling axis."

Our news editors obtained a quote from the research from National Cancer Institute, "It has been approved for the treatment of mCRPC both in the postdocetaxel and in the chemotherapy-naive settings. We summarize the milestones in the development of enzalutamide in patients with prostate cancer."

According to the news editors, the research concluded: "Special focus is placed on the results of the STRIVE Phase II clinical trial comparing head to head enzalutamide and bicalutamide in patients with nonmetastatic and mCRPC who have failed androgen deprivation and in other ongoing trials in the same setting and in earlier disease phases."


The news editors report that additional information may be obtained by contacting R. Nadal, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD, United States.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2217/fon.15.351. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, Oncology, United States, Article Review, Prostate Cancer, Prostatic Neoplasms, North and Central America.

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Science - Climatology

Studies from National Center for Atmospheric Research in the Area of Climatology Reported (The Effects of Past Hurricane Experiences on Evacuation Intentions through Risk Perception and Efficacy Beliefs: A Mediation Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Science - Climatology are presented in a new report. According to news originating from Boulder, Colorado, by NewsRx correspondents, research stated, "Individuals' past experiences with a hazard can encompass many different aspects, which can influence how they judge and respond to a future hurricane risk. This study, which utilizes survey data from coastal residents who are at risk from hurricanes, adds to understanding of past hazard experience in two ways."

Our news journalists obtained a quote from the research from National Center for Atmospheric Research, "First, it examines six different aspects of people's past hurricane experiences and the relationships among them. Then, it draws on risk theories of behavioral responses to explore how these different experiences influence people's evacuation intentions for a hypothetical hurricane as mediated through multiple dimensions of risk perception (cognitive, negative affective) and efficacy beliefs (self efficacy, response efficacy). The results suggest that people can experience emotional or otherwise severe impacts from a hurricane even if they do not have experiences with evacuation, property damage, or financial loss. The results also reveal that different past hurricane experiences operated through different combinations of mediating variables to influence evacuation intentions. Some of these processes enhanced intentions; for instance, experience with evacuation, financial loss, or emotional impacts heightened negative affective risk perceptions, which increased evacuation intentions. Other processes dampened evacuation intentions; for instance, people with past hurricane-related emotional impacts had lower self efficacy, which decreased evacuation intentions. In some cases, these enhancing and dampening processes competed."

According to the news editors, the research concluded: "Exploring people's different past weather experiences and the mechanisms by which they can influence future behaviors is important for more deeply understanding populations at risk and how they respond to weather threats."

For more information on this research see: The Effects of Past Hurricane Experiences on Evacuation Intentions through Risk Perception and Efficacy Beliefs: A Mediation Analysis. Weather Climate and Society, 2016;8(4):327-344. Weather Climate and Society can be contacted at: Amer Meteorological Soc, 45 Beacon St, Boston, MA 02108-3693, USA.

The news correspondents report that additional information may be obtained from
Studies from National Center for Scientific Research (CNRS) Have Provided New Data on Gliomas (Integrin a5b1 and p53 convergent pathways in the control of anti-apoptotic proteins PEA-15 and survivin in high-grade glioma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gliomas. According to news originating from Illkirch, France, by NewsRx correspondents, research stated, "Integrin a5b1 expression is correlated with a worse prognosis in high-grade glioma. We previously unraveled a negative crosstalk between integrin a5b1 and p53 pathway, which was proposed to be part of the resistance of glioblastoma to chemotherapies."

Our news journalists obtained a quote from the research from National Center for Scientific Research (CNRS), "The restoration of p53 tumor-suppressor function is under intensive investigations for cancer therapy. However, p53-dependent apoptosis is not always achieved by p53-reactivating compounds such as Nutlin-3a, although full transcriptional activity of p53 could be obtained. Here we investigated whether integrin a5b1 functional inhibition or repression could sensitize glioma cells to Nutlin-3a-induced p53-dependent apoptosis. We discovered that a5b1 integrin-specific blocking antibodies or small RGD-like antagonists in association with Nutlin-3a triggered a caspase (Casp) 8/Casp 3-dependent strong apoptosis in glioma cells expressing a functional p53. We deciphered the molecular mechanisms involved and we showed the crucial role of two anti-apoptotic proteins, phosphoprotein enriched in astrocytes 15 (PEA-15) and survivin in glioma cell apoptotic outcome. PEA-15 is under a5b1 integrin/AKT (protein kinase B) control and survivin is a p53-repressed target. Moreover, interconnections between integrin and p53 pathways were revealed. Indeed PEA-15 repression by specific small-interfering RNA (siRNA)-activated p53 pathway to repress survivin and conversely survivin repression by specific siRNA decreased a5b1 integrin expression. This pro-apoptotic loop could be generalized to several glioma cell lines, whatever their p53 status, inasmuch PEA-15 and survivin protein levels were decreased. Our findings identify a novel mechanism whereby inhibition of a5b1 integrin and activation of p53 modulates two anti-apoptotic proteins crucially involved in the apoptotic answer of glioma cells."

According to the news editors, the research concluded: "Importantly, our results suggest that high-grade glioma expressing high level of a5b1 integrin may benefit from associated therapies including integrin antagonists and repressors of survivin expression."

For more information on this research see: Integrin a5b1 and p53 convergent pathways in the control of anti-apoptotic proteins PEA-15 and survivin in high-grade glioma.

The news correspondents report that additional information may be obtained from G. Renner, Integrins and Cancer, Faculté de Pharmacie, UMR7213 CNRS, LBP, Tumoral Signaling and Therapeutic Targets Department, Université de Strasbourg, Faculté de Pharmacie, Illkirch, France. Additional authors for this research include H. Janouskova, F. Noulet, V. Koenig, E. Guerin, S. Bar, J. Nuesch, F. Rechenmacher, S. Neubauer, H. Kessler, A.F. Blandin, L. Choulier, N. Etienne-Selloum, M. Lehmann, I. Lelong-Rebel, S. Martin and M. Dontenwill.

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Keywords for this news article include: Biotechnology, siRNA, France, Europe, Gliomas, Illkirch, Genetics, Oncology, Apoptosis, Integrins, Membrane Proteins, Immunologic Receptors, Small Interference RNAs.

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**Gram-Positive Bacteria - Mycobacterium**

**Studies from National Center for Scientific Research (CNRS) Provide New Data on Mycobacterium (Insights into the smooth-to-rough transitioning in Mycobacterium bolletii unravels a functional Tyr residue conserved in all mycobacterial MmpL ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Positive Bacteria - Mycobacterium have been published. According to news originating from Montpellier, France, by NewsRx correspondents, research stated, "In mycobacteria, MmpL proteins represent key components that participate in the biosynthesis of the complex cell envelope. Whole genome analysis of a spontaneous rough morphotype variant of Mycobacterium abscessus subsp. bolletii identified a conserved tyrosine that is crucial for the function of MmpL family proteins."

Financial supporters for this research include French National Research Agency, Association Gregory Lemarchal and Vaincre La Mucoviscidose, InfectioPole Sud, Fondation pour la Recherche Medicale.

Our news journalists obtained a quote from the research from National Center for Scientific Research (CNRS), "Isogenic smooth (S) and rough ® variants differed by a single mutation linked to a Y842H substitution in MmpL4a. This mutation caused a deficiency in glycopeptidolipid production/transport in the R variant and a gain in the capacity to produce cords in vitro. In zebrafish, increased virulence of the M. bolletii R variant over the parental S strain was found, involving massive production of serpentine cords, abscess formation and rapid larval death. Importantly, this finding allowed us to demonstrate an essential role of Tyr842 in several different MmpL proteins, including *Mycobacterium tuberculosis* MmpL3. Structural homology models of MmpL4a and MmpL3 identified two additional critical residues located in the transmembrane regions TM10 and TM4 that are facing each other. We propose that these central residues are part of the proton-motive force that supplies the energy for substrate transport."

According to the news editors, the research concluded: "Hence, we provide
important insights into mechanistic/structural aspects of MmpL proteins as lipid transporters and virulence determinants in mycobacteria."


The news correspondents report that additional information may be obtained from A. Bernut, Centre National de la Recherche Scientifique FRE3689, Centre d'études d'agents Pathogenes et Biotechnologies pour la Sante, Universite de Montpellier, 1919 route de Mende, 34293, Montpellier, France. Additional authors for this research include A. Viljoen, C. Dupont, G. Sapriel, M. Blaise, C. Bouchier, R. Brosch, C. de Chastellier, J.L. Herrmann and L. Kremer.

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Keywords for this news article include: France, Europe, Genetics, Montpellier, Mycobacterium, Actinomycetales, Mycobacteriaceae, Gram Positive Rods, Gram Positive Bacteria, Gram-Positive Bacteria, Gram Positive Asporogenous Rods.

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**Lipid Research**

**Studies from National Cerebral and Cardiovascular Center Have Provided New Information about Lipid Research [Developmental Endothelial Locus-1 (Del-1) Inhibits Oxidized Low-Density Lipoprotein Activity by Direct Binding, and Its Overexpression ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lipid Research. According to news reporting originating in Osaka, Japan, by NewsRx journalists, research stated, "Modified low-density lipoprotein (LDL) binding to scavenger receptors has been implicated in atherosclerosis. It is hypothesized that a third molecule may affect modified LDL binding, therefore, this study focuses on the soluble endogenous protein, developmental endothelial locus-1 (Del-1), as an inhibitor of oxidized LDL (oxLDL) interactions."

The news reporters obtained a quote from the research from National Cerebral and Cardiovascular Center, "Del-1 preferentially bound oxLDL over native LDL in a cell-free binding assay. Del-1 also inhibited Dil-labeled oxLDL uptake by scavenger receptors irrespective of the receptor type (LOX-1, SR-AI, CD36, or SR-BI) expressed in COS-7 cells, and independent of cell type (human coronary artery endothelial cells (HCAECs) or THP-1-derived macrophages). Furthermore, Del-1 suppressed oxLDL-induced MCP-1 and ICAM-1 expression and endothelin-1 secretion in HCAECs. Then, male Del-1 transgenic (Del-1Tg) and wild-type mice (WT) mice were established and fed a Paigen diet for 20 weeks from the age of 24 weeks. While plasma lipid concentrations did not differ between WT and Del-1Tg mice, plasma LOX-1-ligand activity was significantly lower in Del-1Tg than in WT mice. Moreover, lipid accumulation in aortic roots was significantly less in the Del-1Tg mice, evaluated with Oil red-O. Taken together, Del-1 appears to block the activity of oxLDL pharmacologically by
direct binding in vitro, and attenuates atherogenesis in vivo, although its role in physiological settings are yet to be resolved."

According to the news reporters, the research concluded: "Del-1 intercepted oxLDL before its receptor binding to reduce atherogenesis."


Our news correspondents report that additional information may be obtained by contacting T. Sawamura, Natl Cerebral & Cardiovasc Center, Dept. of Vasc Physiol, Suita, Osaka, Japan. Additional authors for this research include Y. Fujita, A. Nakano, S. Horiuchi and T. Sawamura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1253/circj.CJ-16-0808. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Lipid Research, Lipoproteins, Genetics, Lipids, National Cerebral and Cardiovascular Center.

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Heart Disorders and Diseases – Atrial Fibrillation

Studies from National Cerebral and Cardiovascular Center in the Area of Atrial Fibrillation Described (Traditional Cardiovascular Risk Factors for Incident Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting originating from Osaka, Japan, by NewsRx correspondents, research stated, "To prevent atrial fibrillation (AF), it is essential to reduce its risk factors and extend healthy life expectancy as a result. There are few reviews on the AF risk factors."

Our news editors obtained a quote from the research from National Cerebral and Cardiovascular Center, "We discuss them and approach the prevention of AF. We briefly review traditional risk factors for incident AF, especially focusing on high blood pressure, overweight/obesity, dyslipidemia, diabetes, tobacco smoking, and excessive drinking. When trying to prevent AF by modifying lifestyle, it is important to comprehensively utilize the risk factors for AF to predict the 10-year as an AF risk score. However, there are only 2 risk scores of AF just for the US population. There are few studies of the AF risk factors in non-Western populations. A risk score for incident AF in non-Westerners is awaited because different race and lifestyles may have different contributions as AF risk factors."

According to the news editors, the research concluded: "An AF risk score in accordance with race could be useful for identifying persons with a high risk of AF in order to encourage them to consult a doctor and encourage lifestyle modifications before the onset of AF."

For more information on this research see: Traditional Cardiovascular Risk Factors

The news editors report that additional information may be obtained by contacting Y. Kokubo, Natl Cerebral & Cardiovasc Center, Dept. of Prevent Cardiol, Suita, Osaka 5658565, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1253/circj.CJ-16-0919. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Heart Disorders and Diseases, Cardiology. Article Review, Atrial Fibrillation, Risk and Prevention, Cardiac Arrhythmias, Cardiovascular, Heart Disease, National Cerebral and Cardiovascular Center.

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Neurodegenerative Diseases and Conditions -...

Studies from National Chung Cheng University in the Area of Alzheimer Disease Described (Rescuing cholinergic neurons from apoptotic degeneration by targeting of serotonin modulator- and apolipoprotein E-conjugated liposomes to the hippocampus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been published. According to news reporting out of Chiayi, Taiwan, by NewsRx editors, research stated, "Beta-Amyloid (A beta)-targeting liposomes (LIP) with surface serotonin modulator (SM) and apolipoprotein E (ApoE) were utilized to facilitate the delivery of nerve growth factor (NGF) across the blood-brain barrier (BBB) for neuroprotection in the hippocampus. The therapeutic efficacy of SM-and ApoE-grafted LIP carrying NGF (NGF-SM-ApoE-LIP) was assessed by an in vitro Alzheimer's disease (AD) model of degenerated SK-N-MC cells and an in vivo AD model of A beta-insulted Wistar rats."

Our news journalists obtained a quote from the research from National Chung Cheng University, "The experimental evidences revealed that the modified SM and ApoE on the surface of LIP increased the permeation of NGF across the BBB without serious damage to structural integrity of tight junction. When compared with free NGF, NGF-SM-ApoE-LIP upregulated the expression of phosphorylated neurotrophic tyrosine kinase receptor type 1 on cholinergic neurons and significantly improved their survival. In addition, NGF-SM-ApoE-LIP could reduce the secretion of acetylcholinesterase and malondialdehyde and rescue hippocampal neurons from apoptosis in rat brains."

According to the news editors, the research concluded: "The synergistic effect of SM and ApoE is promising in the induction of NGF to inhibit the neurotoxicity of A beta and NGF-SM-ApoE-LIP can be a potent antiapoptotic pharmacotherapy for clinical care of patients with AD."

For more information on this research see: Rescuing cholinergic neurons from apoptotic degeneration by targeting of serotonin modulator- and apolipoprotein E-conjugated liposomes to the hippocampus. International Journal of Nanomedicine, 2016;11():6809-6824. International Journal of Nanomedicine can be contacted at: Dove Medical Press Ltd, PO Box
Studies from National Defense Medical Center Yield New Information about Osteoporosis (Calcitonin alleviates hyperalgesia in osteoporotic rats by modulating serotonin transporter activity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Osteoporosis have been published. According to news originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Calcitonin may relieve pain by modulating central serotonin activity. Calcitonin partly reversed the hypersensitivity to pain induced by ovariectomy."

Funders for this research include National Defense Medical Center, Tri-Service General Hospital, Ministry of Science and Technology of Taiwan.

Our news journalists obtained a quote from the research from National Defense Medical Center, "This suggests that the anti-nociceptive effects of calcitonin in the treatment of osteoporosis may be mediated by alterations in neural serotonin transporter (SERT) activity. This study used a rat model of osteoporosis to evaluate the role of the cerebral serotonin system in the anti-nociceptive effect of calcitonin, a drug used to treat postmenopausal osteoporosis. Osteoporosis was induced in rats by ovariectomy (OVX). Rats were then randomized to the following four groups: sham operation, OVX, OVX plus calcitonin, or OVX plus alendronate. OVX led to alterations in bone micro-architecture; alendronate strongly reversed this effect, and calcitonin moderately reversed this effect. OVX increased hyperalgesia (determined as the time for hind paw withdrawal from a heat source); calcitonin reduced this effect, but alendronate had no effect. OVX increased the expression of c-Fos (a neuronal marker of pain) in the thalamus; calcitonin strongly reversed this effect, and alendronate moderately reversed this effect. OVX also reduced SERT but increased 5-HT1A receptor expression and activity; calcitonin aggravated this effect, but alendronate had no effect on recovery of SERT/5-HT1A activity and expression. Our study of a rat model of osteoporosis suggests that OVX-induced enhancement of the serotonergic system may protect against hyperalgesia."

According to the news editors, the research concluded: "However, the anti-nociceptive effects of calcitonin in osteoporosis may be mediated by decreased neural SERT activity and increased activation of 5-HT1 receptors in the thalamus."
For more information on this research see: Calcitonin alleviates hyperalgesia in osteoporotic rats by modulating serotonin transporter activity. *Osteoporosis International*, 2016;27(11):3355-3364. *Osteoporosis International* can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - www.springer.com; Osteoporosis International - www.springerlink.com/content/0937-941x/)

The news correspondents report that additional information may be obtained from J.F. Shyu, Natl Def Med Center, Dept. of Biol & Anat, Taipei 114, Taiwan. Additional authors for this research include S.J. Weng, K.W. Chang, J.Y.H. Chan, S.M. Huang, T.H. Chu, N.K. Wei, H.S. Ma, J.T. Cheng, K.H. Ma, T.H. Chen and J.F. Shyu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3652-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Musculoskeletal Diseases and Conditions, Nervous System Diseases and Conditions, Metabolic Bone Diseases and Conditions, Alendronate Therapy Sodium, Neurologic Manifestations, Somatosensory Disorders, Central Nervous System, Drugs and Therapies, Sensation Disorders, Biological Factors, Organic Chemicals, Peptide Proteins, Peptide Hormones, Bisphosphonates, Pharmaceuticals, Biogenic Amines, Diphenhydramine, Neuropeptides, Diencephalon, Hyperalgesia, Osteoporosis, Tryptamines, Calcitonin, Serotonin, Autacoids, Thalamus, Brain, National Defense Medical Center.

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Focal Adhesion

**Studies from National Heart Lung and Blood Institute Update Current Data on Focal Adhesion (FMN2 Makes Perinuclear Actin to Protect Nuclei during Confined Migration and Promote Metastasis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Focal Adhesion is now available. According to news reporting originating in Bethesda, Maryland, by NewsRx journalists, research stated, "Cell migration in confined 3D tissue microenvironments is critical for both normal physiological functions and dissemination of tumor cells. We discovered a cytoskeletal structure that prevents damage to the nucleus during migration in confined microenvironments."

Funders for this research include National Cancer Institute, NIH, NIH Director’s Early Independence Award, ANR “Netoshape”.

The news reporters obtained a quote from the research from National Heart Lung and Blood Institute, "The formin-family actin filament nucleator FMN2 associates with and generates a perinuclear actin/focal adhesion (FA) system that is distinct from previously characterized actin/FA structures. This system controls nuclear shape and positioning in cells migrating on 2D surfaces. In confined 3D microenvironments, FMN2 promotes cell survival by limiting nuclear envelope damage and DNA double-strand breaks. We found that FMN2 is upregulated in human melanomas and showed that disruption of FMN2 in mouse melanoma cells inhibits their extravasation and metastasis to the lung."

According to the news reporters, the research concluded: "Our results indicate a critical role for FMN2 in generating a perinuclear actin/FA system that protects the nucleus and
DNA from damage to promote cell survival during confined migration and thus promote cancer metastasis."


Our news correspondents report that additional information may be obtained by contacting C.M. Waterman, National Heart Lung & Blood Institute, Cell Biol & Physiol Center, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include R.S. Fischer, P. Gurel, H.R. Thiam, A. Tubbs, M.A. Baird, M.W. Davidson, M. Piel, G.M. Alushin, A. Nussenzweig, P.S. Steeg and C.M. Waterman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cell.2016.10.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Focal Adhesion, Genetics, National Heart Lung and Blood Institute.

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Human Papillomavirus

Studies from National Institute for Infectious Disease Have Provided New Data on Human Papillomavirus (Cutaneous human papillomavirus genotypes in different kinds of skin lesions in Argentina)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Human Papillomavirus. According to news reporting out of Buenos Aires, Argentina, by NewsRx editors, research stated, "Cutaneous human papillomaviruses (HPVs) comprise a large and highly heterogeneous virus group. Some of the cutaneous HPVs of the genus Beta have been suggested as a co-factor in the development of non-melanoma skin cancer (NMSC)."

Our news journalists obtained a quote from the research from National Institute for Infectious Disease, "The aim of this study was to determine cutaneous HPV prevalence and type-specific distribution in different kinds of skin lesions from Argentine patients visiting Dermatology Departments of three hospitals from Buenos Aires. A cross-sectional analysis was performed. HPV DNA was analyzed in (i) 3 patients with Epidermodysplasia verruciformis (EV) harboring benign lesions (BL) (n=1) and squamous cell carcinoma (SCC) (n=4); (ii) 240 non-EV patients harboring: (a) BL (n=38), (b) Actinic Keratosis (AK) (n=83), © SCC (n=74), and (d) basal cell carcinoma (BCC) (n=96). Detection and genotyping of 35 cutaneous HPV DNA was carried out by BGC-PCR and GP5+/6+PCR followed by reverse line blot assay. In EV patients, Beta types were found in all lesions (5/5), including the potentially high-risk HPV types 5 and 8, mostly in multiple infections. In non-EV patients, cutaneous types were found in 50.0% of BL, 43.4% of AK, 31.1% of SCC, and 16.7% of BCC. Beta HPVs were the most frequently found in all lesions, being present in all AK and SCC cases that were positive for HPV. No type-specific correlation with lesion severity was found. In our series, a wide spectrum of cutaneous HPV types was detected in different skin lesions."
According to the news editors, the research concluded: "A possible role for these HPVs in skin carcinogenesis deserves further study. J. Med. Virol. 89:352-357, 2017."


Our news journalists report that additional information may be obtained by contacting R.M. Correa, Natl Inst Infect Dis ANLIS Dr Carlos G Malbran, Dept. of Virol, Buenos Aires, DF, Argentina. Additional authors for this research include S. Vladimirsky, D.A.M. Heideman, M. Coringrato, A. Abeldano, L. Olivares, R. Del Aguila, L.V. Alonio, P.J.F. Snijders and M.A. Picconi.

Keywords for this news article include: Buenos Aires, Argentina, South America, Papillomavirus Infection, Squamous Cell Carcinoma, Human Papillomavirus, Viral DNA, Virology, Genetics, National Institute for Infectious Disease.

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Mosquito-Borne Diseases - Malaria

Studies from National Institute of Allergy and Infectious Diseases (NIAID) Yield New Information about Malaria (Clinical Chemistry of Patients With Ebola in Monrovia, Liberia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mosquito-Borne Diseases - Malaria is now available. According to news reporting originating in Hamilton, Montana, by NewsRx journalists, research stated, "The development of point-of-care clinical chemistry analyzers has enabled the implementation of these ancillary tests in field laboratories in resource-limited outbreak areas. The Eternal Love Winning Africa (ELWA) outbreak diagnostic laboratory, established in Monrovia, Liberia, to provide Ebola virus and Plasmodium spp. diagnostics during the Ebola epidemic, implemented clinical chemistry analyzers in December 2014."

Financial supporters for this research include National Institute of Allergy and Infectious Diseases [NIAID], National Institutes of Health, NIH, NIAID, Intramural Research Program of the NIAID.

The news reporters obtained a quote from the research from the National Institute of Allergy and Infectious Diseases (NIAID), "Clinical chemistry testing was performed for 68 patients in triage, including 12 patients infected with Ebola virus and 18 infected with Plasmodium spp. The main distinguishing feature in clinical chemistry of Ebola virus-infected patients was the elevation in alanine aminotransferase, aspartate aminotransferase, alkaline phosphatase, and gamma-glutamyltransferase levels and the decrease in calcium."

According to the news reporters, the research concluded: "The implementation of clinical chemistry is probably most helpful when the medical supportive care implemented at the Ebola treatment unit allows for correction of biochemistry derangements and on-site clinical chemistry analyzers can be used to monitor electrolyte balance."

For more information on this research see: Clinical Chemistry of Patients With Ebola in Monrovia, Liberia. Journal of Infectious Diseases, 2016;214():S303-S307. Journal of
Studies from National Institute of Environmental Health Sciences Reveal New Findings on DNA Research (Human mitochondrial DNA replication machinery and disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Genetics - DNA Research. According to news reporting originating from Research Triangle Park, North Carolina, by NewsRx correspondents, research stated, "The human mitochondrial genome is replicated by DNA polymerase gamma in concert with key components of the mitochondrial DNA (mtDNA) replication machinery."

Our news editors obtained a quote from the research from the National Institute of Environmental Health Sciences, "Defects in mtDNA replication or nucleotide metabolism cause deletions, point mutations, or depletion of mtDNA. The resulting loss of cellular respiration ultimately induces mitochondrial genetic diseases, including mtDNA depletion syndromes (MDS) such as Alpers or early infantile hepatocerebral syndromes, and mtDNA deletion disorders such as progressive external ophthalmoplegia, ataxia-neuropathy, or mitochondrial neurogastrointestinal encephalomyopathy."

According to the news editors, the research concluded: "Here we review the current literature regarding human mtDNA replication and heritable disorders caused by genetic changes of the POLG, POLG2, Twinkle, RNASEH1, DNA2, and MGME1 genes."

For more information on this research see: Human mitochondrial DNA replication machinery and disease. Current Opinion in Genetics & Development, 2016;38():52-62.

Current Opinion in Genetics & Development can be contacted at: Current Biology Ltd, 84 Theobalds Rd, London WC1X 8RR, England. (Elsevier - www.elsevier.com; Current Opinion in Genetics & Development - www.journals.elsevier.com/current-opinion-in-genetics-and-
Studies from National Institute on Alcohol Abuse and Alcoholism Provide New Data on Obsessive-Compulsive Disorders (Chronic EtOH effects on putative measures of compulsive behavior in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Obsessive-Compulsive Disorders.
According to news reporting originating in Bethesda, Maryland, by NewsRx journalists, research stated, "Addictions, including alcohol use disorders, are characterized by the loss of control over drug seeking and consumption, but the neural circuits and signaling mechanisms responsible for the transition from controlled use to uncontrolled abuse remain incompletely understood. Prior studies have shown that 'compulsive-like' behaviors in rodents, for example, persistent responding for ethanol (EtOH) despite punishment, are increased after chronic exposure to EtOH."

Funders for this research include NIAAA IRP (AR, NJ, AH), Bowles Center for Alcohol Studies (TK), National Institutes of Health.

The news reporters obtained a quote from the research from National Institute on Alcohol Abuse and Alcoholism, "The main goal of the current study was to assess the effects of chronic intermittent EtOH (CIE) exposure on multiple, putative measures of compulsive-like EtOH seeking in C57BL/6 J mice. Mice were exposed to two or four weekly cycles of CIE and then, post-withdrawal, tested for progressive ratio responding for EtOH, sustained responding during signaled EtOH unavailability and (footshock) punished suppression of responding for EtOH. Results showed that mice exposed to CIE exhibited attenuated suppression of EtOH seeking during punishment, as compared with air-exposed controls. By contrast, CIE exposure affected neither punished food reward-seeking behavior, nor other putative measures of compulsive-like EtOH seeking. Ex vivo reverse transcription polymerase chain reaction analysis of brain tissue found reduced sensitivity to punished EtOH seeking after CIE exposure was accompanied by a significant increase in gene expression of the GluN1 and GluN2A subunits of the N-methyl-d-aspartate receptor, specifically in the medial orbitofrontal cortex. Moreover, slice electrophysiological analysis revealed increased N-methyl-d-aspartate receptor-mediated currents in the orbitofrontal cortex after CIE exposure in test-na?ve mice."

According to the news reporters, the research concluded: "Collectively, the current findings add to the growing body of evidence demonstrating that chronic exposure to EtOH..."
fosters resistance to punished EtOH seeking in association with adaptations in cortical glutamatergic transmission."


Our news correspondents report that additional information may be obtained by contacting A.K. Radke, Laboratory of Behavioral and Genomic Neuroscience, National Institute on Alcohol Abuse and Alcoholism, Bethesda, MD, United States. Additional authors for this research include N.J. Jury, A. Kocharian, C.A. Marcinkiewcz, E.G. Lowery-Gionta, K.E. Pleil, Z.A. McElligott, J.M. McIlveen, T.L. Kash and A. Holmes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/adb.12342. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, Genetics, United States, Mental Health, Compulsive Behavior, North and Central America, Obsessive Compulsive Disorder, Obsessive-Compulsive Disorders.

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**Oncology - Colon Cancer**

**Studies from National Institutes of Health Add New Findings in the Area of Colon Cancer (Small Molecule Inhibition of the Ubiquitin-specific Protease USP2 Accelerates cyclin D1 Degradation and Leads to Cell Cycle Arrest in Colorectal Cancer and ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "Deubiquitinases are important components of the protein degradation regulatory network. We report the discovery of ML364, a small molecule inhibitor of the deubiquitinase USP2 and its use to interrogate the biology of USP2 and its putative substrate cyclin DL ML364 has an IC50 of 1.1 µM in a biochemical assay using an internally quenched fluorescent di-ubiquitin substrate."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from the National Institutes of Health, "Direct binding of ML364 to USP2 was demonstrated using microscale thermophoresis. ML364 induced an increase in cellular cyclin D1 degradation and caused cell cycle arrest as shown in Western blottings and flow cytometry assays utilizing both Mino and HCT116 cancer cell lines. ML364, and not the inactive analog 2, was antiproliferative in cancer cell lines. Consistent with the role of cyclin D1 in DNA damage response, ML364 also caused a decrease in homologous recombination mediated DNA repair."

According to the news editors, the research concluded: "These effects by a small molecule inhibitor support a key role for USP2 as a regulator of cell cycle, DNA repair, and tumor cell growth."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.738567. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Intracellular Signaling Peptides and Proteins, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Proto-Oncogene Proteins, Enzymes and Coenzymes, Mantle Cell Lymphoma, Cell Cycle Proteins, Colorectal Research, Neoplasm Proteins, Gastroenterology, Colon Cancer, Ubiquitins, Hematology, Cyclin D1, Lymphomas, Protease, Oncology, Genetics, National Institutes of Health.

Our news editors obtained a quote from the research from the National Institutes of Health Chemical Genomics Center, "However, small-molecule agonists of human RXFP1 can overcome this limitation and may provide a useful therapeutic approach, especially for chronic diseases such as heart failure and fibrosis. The first small-molecule agonists of RXFP1 were recently identified from a high-throughput screening, using a homogeneous cell-based cAMP assay. Optimization of the hit compounds resulted in a series of highly potent and RXFP1 selective agonists with low cytotoxicity, and excellent in vitro ADME and pharmacokinetic

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**Hormones - Corpus Luteum Hormones**

**Studies from National Institutes of Health Chemical Genomics Center Have Provided New Data on Corpus Luteum Hormones (Structural Insights into the Activation of Human Relaxin Family Peptide Receptor 1 by Small-Molecule Agonists)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hormones - Corpus Luteum Hormones have been published. According to news reporting originating from Rockville, Maryland, by NewsRx correspondents, research stated, "The GPCR relaxin family peptide receptor 1 (RXFP1) mediates the action of relaxin peptide hormone, including its tissue remodeling and antifibrotic effects. The peptide has a short half-life in plasma, limiting its therapeutic utility."

Funders for this research include National Cancer Institute, Florida Department of Health, National Institute of General Medical Sciences.

Our news editors obtained a quote from the research from the National Institutes of Health Chemical Genomics Center, '"However, small-molecule agonists of human RXFP1 can overcome this limitation and may provide a useful therapeutic approach, especially for chronic diseases such as heart failure and fibrosis. The first small-molecule agonists of RXFP1 were recently identified from a high-throughput screening, using a homogeneous cell-based cAMP assay. Optimization of the hit compounds resulted in a series of highly potent and RXFP1 selective agonists with low cytotoxicity, and excellent in vitro ADME and pharmacokinetic
properties. Here, we undertook extensive site-directed mutagenesis studies in combination with computational modeling analysis to probe the molecular basis of the small-molecule binding to RXFP1. The results showed that the agonists bind to an allosteric site of RXFP1 in a manner that closely interacts with the seventh transmembrane domain (TM7) and the third extracellular loop (ECL3). Several residues were determined to play an important role in the agonist binding and receptor activation, including a hydrophobic region at TM7 consisting of W664, F668, and L670. The G659/T660 motif within ECL3 is crucial to the observed species selectivity of the agonists for RXFP1.

According to the news editors, the research concluded: "The receptor binding and activation effects by the small molecule ML290 were compared with the cognate ligand, relaxin, providing valuable insights on the structural basis and molecular mechanism of receptor activation and selectivity for RXFP1."


The news editors report that additional information may be obtained by contacting X. Hu, National Institutes of Health Chemical Genomics Center, National Center for Advancing Translational Sciences, National Institutes of Health, 9800 Medical Center Drive, Rockville, Maryland 20850, United States. Additional authors for this research include C. Myhr, Z. Huang, J. Xiao, E. Barnaeva, B.A. Ho, I.U. Agoulnik, M. Ferrer, J.J. Marugan, N. Southall and A.I Agoulnik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.biochem.5b01195. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Biochemistry* is: Springer, 233 Spring Street, New York, NY 10013, USA.

Keywords for this news article include: Relaxin, Maryland, Rockville, Proteomics, United States, Peptide Hormones, Peptide Proteins, Membrane Proteins, Peptide Receptors, Cell Surface Receptors, Corpus Luteum Hormones, North and Central America.

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**Nutritional and Metabolic Diseases and Conditions -...**

**Studies from National Institutes of Health in the Area of Hypophosphatemia Described (Cutaneous skeletal hypophosphatemia syndrome: clinical spectrum, natural history, and treatment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Hypophosphatemia are presented in a new report. According to news reporting out of Bethesda, Maryland, by NewsRx editors, research stated, "Cutaneous skeletal hypophosphatemia syndrome (CSHS), caused by somatic RAS mutations, features excess fibroblast growth factor-23 (FGF23) and skeletal dysplasia. Records from 56 individuals were reviewed and demonstrated fractures, scoliosis, and non-congenital hypophosphatemia that in some cases
were resolved."

Funders for this research include Doris Duke Charitable Foundation, National Institutes of Health, National Institute of Dental and Craniofacial Research, National Institute of Dental and Craniofacial Research (US).

Our news journalists obtained a quote from the research from the National Institutes of Health, "Phosphate and calcitriol, but not skin lesion removal, were effective at controlling hypophosphatemia. No skeletal malignancies were found. CSHS is a disorder defined by the association of epidermal and/or melanocytic nevi, a mosaic skeletal dysplasia, and an FGF23-mediated hypophosphatemia. To date, somatic RAS mutations have been identified in all patients whose affected tissue has undergone DNA sequencing. However, the clinical spectrum and treatment are poorly defined in CSHS. The purpose of this study is to determine the spectrum of the phenotype, natural history of the disease, and response to treatment of hypophosphatemia. Five CSHS subjects underwent prospective data collection at clinical research centers. A review of the literature identified 45 reports that included a total of 51 additional patients, in whom the findings were compatible with CSHS. Data on nevi subtypes, bone histology, mineral and skeletal disorders, abnormalities in other tissues, and response to treatment of hypophosphatemia were analyzed. Fractures, limb deformities, and scoliosis affected most CSHS subjects. Hypophosphatemia was not present at birth. Histology revealed severe osteomalacia but no other abnormalities. Skeletal dysplasia was reported in all anatomical compartments, though less frequently in the spine; there was no clear correlation between the location of nevi and the skeletal lesions. Phosphate and calcitriol supplementation was the most effective therapy for rickets. Convincing data that nevi removal improved blood phosphate levels was lacking. An age-dependent improvement in mineral abnormalities was observed. A spectrum of extra-osseous/extra-cutaneous manifestations that included both benign and malignant neoplasms was present in many subjects, though osteosarcoma remains unreported."

According to the news editors, the research concluded: "An understanding of the spectrum, natural history, and efficacy of treatment of hypophosphatemia in CSHS may improve the care of these patients."


Our news journalists report that additional information may be obtained by contacting M.T. Collins, Natl Inst Dental & Craniofacial Res, Skeletal Clin Studies Unit, Craniofacial & Skeletal Dis Branch, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include Y.H. Lim, A.M. Boyce, R.I. Gafni, E. McCarthy, T.A. Nguyen, L.F. Eichenfield, C.M.C. DeKlotz, L.C. Guthrie, L.L. Tosi, P.S. Thornton, K.A. Choate and M.T. Collins.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3702-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Musculoskeletal Diseases and Conditions, Phosphorus Metabolism Disorders, Spinal Diseases and Conditions, Bone Diseases and Conditions, Skeletal Dysplasia, Spinal Curvatures, Hypophosphatemia, Dermatology, Orthopedics, Histology, Scoliosis, Genetics, National Institutes of Health.
Autoimmune Diseases and Conditions

Studies from National Jewish Health Provide New Data on Autoimmune Diseases and Conditions (Targeting B cells in treatment of autoimmunity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions. According to news reporting originating in Denver, Colorado, by NewsRx journalists, research stated, "B cells have emerged as effective targets for therapeutic intervention in autoimmunities in which the ultimate effectors are antibodies, as well as those in which T cells are primary drivers of inflammation."

The news reporters obtained a quote from the research from National Jewish Health, "Proof of this principle has come primarily from studies of the efficacy of Rituximab, an anti-CD20 mAb that depletes B cells, in various autoimmune settings. These successes have inspired efforts to develop more effective anti-CD20s tailored for specific needs, as well as biologicals and small molecules that suppress B cell function without the risks inherent in B cell depletion."

According to the news reporters, the research concluded: "Here we review the current status of B cell-targeted therapies for autoimmunity."

For more information on this research see: Targeting B cells in treatment of autoimmunity. Current Opinion in Immunology, 2016;43():39-45. Current Opinion in Immunology can be contacted at: Current Biology Ltd, 84 Theobalds Rd, London WC1X 8RR, England. (Elsevier - www.elsevier.com; Current Opinion in Immunology - www.journals.elsevier.com/current-opinion-in-immunology/)

Our news correspondents report that additional information may be obtained by contacting J.C. Cambier, Natl Jewish Hlth, Dept. of Biomed Res, Denver, CO 80206, United States. Additional authors for this research include A. Getahun, P.M. Hogarth and J.C. Cambier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.coi.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Denver, Colorado, United States, North and Central America, Autoimmune Diseases and Conditions, Article Review, Immunology, National Jewish Health.

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Algorithms

Studies from National Kaohsiung University of Applied Sciences Add New Findings in the Area of Algorithms (Analysis of high-order SNP barcodes in mitochondrial D-loop for chronic dialysis susceptibility)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers publish new report on Algorithms. According to news reporting originating in Kaohsiung, Taiwan, by NewsRx journalists, research stated, "We have developed a new algorithm that analyzes high-order SNP barcodes in mitochondrial D-loop to identify chronic dialysis susceptibility. This approach provides a powerful tool for understanding the genetic basis of chronic dialysis.

The news reporters obtained a quote from the research lead, "Our algorithm is capable of accurately detecting SNPs that are associated with chronic dialysis. This is a significant advancement in the field of genetic susceptibility studies."

According to the news reporters, the research concluded: "Here we present the implementation of this algorithm and its applications in chronic dialysis susceptibility studies."

For more information on this research see: Analysis of high-order SNP barcodes in mitochondrial D-loop for chronic dialysis susceptibility. Current Opinion in Immunology, 2016;43():39-45. Current Opinion in Immunology can be contacted at: Current Biology Ltd, 84 Theobalds Rd, London WC1X 8RR, England. (Elsevier - www.elsevier.com; Current Opinion in Immunology - www.journals.elsevier.com/current-opinion-in-immunology/)

Our news correspondents report that additional information may be obtained by contacting J.C. Cambier, Natl Jewish Hlth, Dept. of Biomed Res, Denver, CO 80206, United States. Additional authors for this research include A. Getahun, P.M. Hogarth and J.C. Cambier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.coi.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kaohsiung, Taiwan, United States, North and Central America, Algorithms, Article Review, Immunology, National Jewish Health.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
& Wellness Week -- Researchers detail new data in Algorithms. According to news reporting originating in Kaohsiung, Taiwan, by NewsRx journalists, research stated, "Positively identifying disease-associated single nucleotide polymorphism (SNP) markers in genome-wide studies entails the complex association analysis of a huge number of SNPs. Such large numbers of SNP barcode (SNP/genotype combinations) continue to pose serious computational challenges, especially for high-dimensional data."

Financial supporters for this research include National Science Council in Taiwan, NSYSU-KMU Joint Research Project.

The news reporters obtained a quote from the research from the National Kaohsiung University of Applied Sciences, "We propose a novel exploiting SNP barcode method based on differential evolution, termed IDE (improved differential evolution). IDE uses a 'top combination strategy' to improve the ability of differential evolution to explore high-order SNP barcodes in high-dimensional data. We simulate disease data and use real chronic dialysis data to test four global optimization algorithms. In 48 simulated disease models, we show that IDE outperforms existing global optimization algorithms in terms of exploring ability and power to detect the specific SNP/genotype combinations with a maximum difference between cases and controls. In real data, we show that IDE can be used to evaluate the relative effects of each individual SNP on disease susceptibility."

According to the news reporters, the research concluded: "IDE generated significant SNP barcode with less computational complexity than the other algorithms, making IDE ideally suited for analysis of high-order SNP barcodes."


Our news correspondents report that additional information may be obtained by contacting C.H. Yang, Nati Kaohsiung Univ Appl Sci, Dept. of Elect Engn, Kaohsiung, Taiwan. Additional authors for this research include Y.D. Lin, L.Y. Chuang and H.W. Chang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jbi.2016.08.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kaohsiung, Taiwan, Asia, Differential Evolution, Emerging Technologies, Machine Learning, Algorithms, Genetics, National Kaohsiung University of Applied Sciences.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - Mixed Function Oxygenases. According to news originating from Pingtung, Taiwan, by NewsRx correspondents, research stated, "Dopamine beta-hydroxylase (DBH) plays a critical role in catecholamine (CA) synthesis of neuroendocrine regulatory network, and is suggested to be involved in the immunoendocrine responses of invertebrate against bacterial challenge. DBH has been identified in white shrimp, Litopenaeus vannamei, and further investigation on its potential function was conducted after hypothermal stress, pharmaceutical inhibition and gene silencing in the present study. Cloned DBH L. vannamei (LvDBH), belonging to the Copper type II, ascorbate-dependent monoxygenases, was characterized by a DOMON domain, a Cu2+-monoxygen domain and three glycosylation sites, and its expression was abundant in thoracic ganglia and haemocytes determined by quantitative real-time PCR."

Financial support for this research came from National Science Council.

Our news journalists obtained a quote from the research from the National Pingtung University of Science and Technology, "The effects of hypothermal stress showed that LvDBH expression in thoracic ganglia, haemocytes and hepatopancreas as well as the DBH contents in haemocytes and dopamine (DA) and norepinephrine (NE) levels in haemolymph are obviously up-regulated. L. vannamei receiving disulfiram for 30-120 min revealed the inhibition of DBH and NE contents in haemocytes and haemolymph respectively, but high level of DA in haemolymph was noticed. Besides, a significant decrease of LvDBH expression in thoracic ganglia, haemocytes and hepatopancreas were also observed. Subsequently, LvDBH expression was successfully silenced in thoracic ganglia, haemocytes and hepatopancreas of shrimp that received LvDBH-dsRNA for 3 days, and meanwhile, a decrease of DBH contents in haemocytes accompanied by decreased levels of NE and DA in haemolymph were also observed. These results indicate that LvDBH possesses the functional domains responsible for CAs synthesis, and therefore, inhibiting DBH contents in haemocytes by disulfiram and by LvDBH-dsRNA resulted in the impaired synthesis of NE from DA in haemolymph."

According to the news editors, the research concluded: "These also suggest that the increased release of DA and NE in haemolymph for potential modulation of physiological or immunological responses is the consequence of the upregulated LvDBH expression and DBH contents in L. vannamei exposed to hypothermal stress."


The news correspondents report that additional information may be obtained from C.C. Chang, Natl Pingtung Univ Sci & Technol, Dept. of Aquaculture, Pingtung 91201, Taiwan. Additional authors for this research include Y.W. Ka and C.C. Chang.

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Keywords for this news article include: Pingtung, Taiwan, Asia, Dopamine beta-Hydroxylase, Mixed Function Oxygenases, Hydroxylase, Immunology, Dopamine Hydrochloride, Enzymes and Coenzymes, Organic Chemicals, Pharmaceuticals, Biogenic Amines, Oxidoreductases, Catecholamines, Disulfiram, National Pingtung University of Science and Technology.
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Liver Diseases and Conditions - Hepatitis C Virus

Studies from National Taiwan University Hospital Yield New Information about Hepatitis C Virus (Peginterferon alfa-2a plus Weight-Based or Flat-Dose Ribavirin for Treatment-Na?ve Hepatitis C Virus Genotype 2 Rapid Responders: A Randomized Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Liver Diseases and Conditions - Hepatitis C Virus are presented in a new report. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "The impact of ribavirin (RBV) dosage on sustained virologic response (SVR) rates remains elusive in hepatitis C virus genotype 2 (HCV-2) rapid responders receiving 16 weeks of peginterferon (Peg-IFN) plus RBV. Treatment-na?ve HCV-2 patients with rapid virologic response (RVR) received Peg-IFN alfa-2a 180 mg/week plus weight-based RBV (1,000 or 1,200 mg/day; cut-off body weight: 75 kg) for 6 weeks, and then randomly received Peg-IFN alfa-2a 180 mg/week plus weight-based (1,000 or 1,200 mg/day; n=247) or flat-dose (800 mg/day; n=246) RBV for additional 10 weeks."

The news reporters obtained a quote from the research from National Taiwan University Hospital, "The primary endpoint was SVR24. Patients receiving weight-based and flat-dose RBV therapies had comparable SVR24 rates (93.5% versus 91.9%, p=0.49). The risk differences (RDs) of SVR24 receiving weight-based and flat-dose RBV arms were 7.1% [95% CI: 0.7% to 13.6%] in males, and -5.8% [95% CI: -12.1% to 0.5%] in females (interaction p=0.01). The SVR24 rate was higher in males receiving (>)=13 mg/kg/day than those receiving <13 mg/kg/day (96.3% versus 85.1%, p=0.001)."

According to the news reporters, the research concluded: "Peg-IFN alfa-2a plus weight-based or flat-dose RBV for 16 weeks provides comparable SVR24 rates in treatment-na?ve HCV-2 rapid responders. However, males should receive weight-based RBV to achieve a high SVR24 rate."

For more information on this research see: Peginterferon alfa-2a plus Weight-Based or Flat-Dose Ribavirin for Treatment-Na?ve Hepatitis C Virus Genotype 2 Rapid Responders: A Randomized Trial. Scientific Reports, 2015;5():15255. (Nature Publishing Group - www.nature.com/srep/) Our news correspondents report that additional information may be obtained by contacting C.H. Liu, Dept. of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan. Additional authors for this research include C.F. Huang, C.J. Liu, C.Y. Dai, J.F. Huang, J.W. Lin, C.C. Liang, S.S. Yang, C.L. Lin, T.H. Su, H.C. Yang, P.J. Chen, D.S. Chen, W.L. Chuang, J.H. Kao and M.L Yu.

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Keywords for this news article include: HCV, Asia, Antiretrovirals, Antiviral Interferons, Taipei, Taiwan, Virology, Ribavirin, Hepatology, RNA Viruses, Gastroenterology, Clinical Research, Hepatitis C Virus, Influenza Therapy, Purine Nucleosides, Respiratory Agents, Drugs and Therapies, Peginterferon Alfa 2a, Inhaled Antiinfectives, Flaviviridae
Studies from National Taiwan University Reveal New Findings on Clinical Trials and Studies (Acute kidney injury as a risk factor for diagnostic discrepancy among geriatric patients: a pilot study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Clinical Research - Clinical Trials and Studies are presented in a new report. According to news originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Diagnostic discrepancy, defined as different admission and discharge diagnoses, could be a potential source of diagnostic error. We evaluated whether acute kidney injury (AKI) in the elderly affected their risk for diagnostic discrepancy."

Our news journalists obtained a quote from the research from National Taiwan University, "Patients aged >= 60 years from the general medical wards were prospectively enrolled and divided according to AKI status upon admission, using the Kidney Disease Improving Global Outcomes (KDIGO) criteria. We compared their discharge and admission diagnoses and identified patients with a diagnostic discrepancy, using multiple logistic regression analysis to evaluate the relationship between initial AKI and the presence of a diagnostic discrepancy. A total of 188 participants (mean age, 77.9 years) were recruited. Regression analysis showed that initial AKI on admission was associated with a higher risk of diagnostic discrepancy upon discharge (odds ratio [OR] 3.3; p< 0.01). In contrast, higher AKI severity was also associated with an increased risk of diagnostic discrepancy (for KDIGO grade 1, 2, and 3; OR 2.92, 3.91, and 4.32; p = 0.04, 0.03, and 0.02, respectively), suggesting that initial AKI upon admission could be an important risk factor for diagnostic discrepancy."

According to the news editors, the research concluded: "Consequently, reducing geriatric AKI might have the potential to reduce diagnostic discrepancy among these patients."


The news correspondents report that additional information may be obtained from J.W. Huang, National Taiwan University, Dept. of Internal Med, Div Nephrol, Taipei, Taiwan. Additional authors for this research include H.B. Tsai, C.K. Chiang, J.W. Huang and K.Y. Hung.

Keywords for this news article include: Taipei, Taiwan, Asia, Risk and Prevention, Diagnostics and Screening, Clinical Trials and Studies, Acute Kidney Injury, Clinical Research, National Taiwan University.

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Oncology - Cancer Research

Studies from National Tsing Hua University Reveal New Findings on Cancer Research (Epigenetic Switch between SOX2 and SOX9 Regulates Cancer Cell Plasticity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cancer Research have been presented. According to news originating from Hsinchu, Taiwan, by NewsRx correspondents, research stated, "Cell differentiation within stem cell lineages can check proliferative potential, but nodal pathways that can limit tumor growth are obscure. Here, we report that lung cancer cell populations generate phenotypic and oncogenic plasticity via a switch between differentiation programs controlled by SOX2 and SOX9, thus altering proliferative and invasive capabilities."

Our news journalists obtained a quote from the research from National Tsing Hua University, "In lung cancer cells, SOX2 bound the EPCAM promoter to induce EpCAM-p21 (Cip1)-cyclin A2 signaling, encouraging cell proliferation as well as barrier properties. In contrast, SOX9 bound the SLUG promoter to induce SLUG-mediated cell invasion with a spindle-like phenotype. Pharmacologic inhibition of HDAC elevated a SOX9-positive cell population from SOX2-positive cells, whereas ectopic expression of SOX2 inhibited SOX9 with increased H3K9me2 levels on the SOX9promoter. In clinical specimens, the expression of SOX2 and SOX9 correlated negatively and positively with lung tumor grade, respectively."

According to the news editors, the research concluded: "Our findings identify SOX2 and SOX9 as nodal epigenetic regulators in determining cancer cell plasticity and metastatic progression."

For more information on this research see: Epigenetic Switch between SOX2 and SOX9 Regulates Cancer Cell Plasticity. Cancer Research, 2016;76(23):7036-7048. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/0008-5472.CAN-15-3178. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hsinchu, Taiwan, Asia, Cancer Research, Genetics, Oncology, Cancer, National Tsing Hua University.

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Ischemia

Studies from National University of Singapore Provide New Data on Ischemia (Ischaemic conditioning and reperfusion injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Ischemia have been presented. According to news originating from Singapore, Singapore, by NewsRx correspondents, research stated, "The 30-year anniversary of the discovery of 'ischaemic preconditioning' is in 2016. This endogenous phenomenon can paradoxically protect the heart from acute myocardial infarction by subjecting it to one or more brief cycles of ischaemia and reperfusion."

Our news journalists obtained a quote from the research from the National University of Singapore, "Apart from complete reperfusion, this method is the most powerful intervention known for reducing infarct size. The concept of ischaemic preconditioning has evolved into 'ischaemic conditioning', a term that encompasses a number of related endogenous cardioprotective strategies, applied either directly to the heart (ischaemic preconditioning or postconditioning) or from afar, for example a limb (remote ischaemic preconditioning, perconditioning, or postconditioning). Investigations of signalling pathways underlying ischaemic conditioning have identified a number of therapeutic targets for pharmacological manipulation. Over the past 3 decades, a number of ischaemic and pharmacological cardioprotection strategies, discovered in experimental studies, have been examined in the clinical setting of acute myocardial infarction and CABG surgery. The results from many of the studies have been disappointing, and no effective cardioprotective therapy is currently used in clinical practice. Several large, multicentre, randomized, controlled clinical trials on cardioprotection have highlighted the challenges of translating ischaemic conditioning and pharmacological cardioprotection strategies into patient benefit."

According to the news editors, the research concluded: "However, a number of cardioprotective therapies have shown promising results in reducing infarct size and improving clinical outcomes in patients with ischaemic heart disease."


The news correspondents report that additional information may be obtained from D.J. Hausenloy, Cardiovascular and Metabolic Disorders Program, Duke-National University of Singapore, Singapore 169857, Singapore.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrcardio.2016.5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Surgery, Therapy, Angiology, Cardiology, Heart Attack, Pharmacology, Heart Disease, Article Review, Medical Devices, Blood Transfusion, Myocardial Ischemia, Transfusion Medicine, Myocardial Infarction, Ischemia Reperfusion Injury, Heart Disorders and Diseases, Cardiovascular Surgical Procedures.

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Oncology - Breast Cancer

Studies from National University of Singapore in the Area of Breast Cancer Described (Selective Accelerated Proliferation of Malignant Breast Cancer Cells on Planar Graphene Oxide Films)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "Graphene nanomaterials have been actively investigated for biomedical and biological applications, including that of cancer. Despite progress made, most of such studies are conducted on dispersed graphene nanosheets in solution."

Financial supporters for this research include Ministry of Education - Singapore, National Research Foundation-Prime Minister's office, Republic of Singapore, MechanoBioEngineering Laboratory, National University of Singapore. Our news editors obtained a quote from the research from the National University of Singapore, "Consequently, the use of planar graphene films, especially in cancer research, has not been fully explored. Here, we investigate the cellular interactions between the graphene material films and breast cancer cell lines, specifically the effects these films have on cellular proliferation, spreading area, and cytotoxicity. We demonstrate that the graphene oxide (GO) film selectively accelerates the proliferation of both metastatic (MDA-MB-231) and nonmetastatic (MCF-7) breast cancer cells, but not that of noncancer breast epithelial cells (MCF-10A). Contrastingly, this accelerated proliferation is not observed with the use of graphene (G) film. Moreover, GO induces negligible cytotoxicity on these cells. We suggest that the observed phenomena originate from the synergistic effect resulted from the high loading capacity and conformational change of cellular attachment proteins on the GO film, and the high amount of oxygenated groups present in the material."

According to the news editors, the research concluded: "We anticipate that our findings can further shed light on the graphene-cancer cellular interactions and provide better understanding for the future design and application of graphene-based nanomaterials in cancer research."


The news editors report that additional information may be obtained by contacting K.e.n.r.y., .N,USA. Graduate School for Integrative Sciences and Engineering, National University of Singapore, Singapore 117456, Singapore. Additional authors for this research include P.K. Chaudhuri, K.P. Loh and C.T Lim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.nano.5b07409. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Oncology, Nanomaterial, Breast Cancer, Nanotechnology, Women's Health, Emerging Technologies.

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Adenocarcinomas

**Studies from Netherlands Cancer Institute Describe New Findings in Adenocarcinomas (Biobanking of fresh-frozen endoscopic biopsy specimens from esophageal adenocarcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Adenocarcinomas have been published. According to news reporting out of Amsterdam, Netherlands, by NewsRx editors, research stated, "The process of preparing endoscopic esophageal adenocarcinoma samples for next-generation DNA/RNA sequencing is poorly described. Therefore, we assessed the feasibility and pitfalls of preparing esophageal adenocarcinoma endoscopic biopsies toward DNA/RNA samples suitable for next-generation sequencing."

Our news journalists obtained a quote from the research from Netherlands Cancer Institute, "In this prospective study, four tumor biopsy samples were collected from consecutive esophageal cancer patients during esophagogastroduodenoscopy and fresh-frozen in liquid nitrogen. DNA and RNA were isolated from samples with a tumor percentage of at least 50%. For next-generation sequencing, double-stranded DNA (dsDNA) is required and high-quality RNA preferred. The quantity dsDNA and RNA quantity and quality were assessed with the Nanodrop 2000 spectrophotometer (Thermo Fisher Scientific, Waltham, MA, USA) and Agilent 2100 Bioanalyzer (Agilent, Santa Clara, CA, USA). Biopsy samples of 69 consecutive patients with esophageal adenocarcinoma were included. In five patients (7%), the tumor percentage was less than 50% in all four biopsies. Using a protocol allowing simultaneous DNA and RNA isolation, the median dsDNA yield was 2.4g (range 0.1-12.0g) and the median RNA yield was 0.5g (range 0.01-2.05g). The median RNA integrity number of samples that were fresh-frozen within 30 minutes after sampling was 6.7 (range 4.2-8.9) compared with 2.5 (1.8-4.5) for samples that were fresh-frozen after 2 hours. The results from this study show that obtaining dsDNA and RNA for next-generation sequencing from endoscopic esophageal adenocarcinoma samples is feasible."

According to the news editors, the research concluded: "Tumor percentage and dsDNA/RNA yield and quality emphasize the need for sampling multiple biopsies and minimizing the delay before fresh-freezing."


Our news journalists report that additional information may be obtained by contacting J.W. van Sandick, Netherlands Canc Inst, Dept. of Surg, NL-1066 CX Amsterdam, Netherlands. Additional authors for this research include A. Cats, H. Boot, A.M.J. Langers, O.B. Ponz, M.L.F. van Velthuysen, L.M. Braaf, M. Nieuwland and J.W. van Sandick.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Adenocarcinomas, Adenocarcinoma, DNA Research, Genetics, Netherlands Cancer Institute.

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Studies from Netherlands Cancer Institute Have Provided New Data on Lung Cancer (Pre- and postoperative care for stage I-III NSCLC: Which quality of care indicators are evidence-based?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting originating in Amsterdam, Netherlands, by NewsRx journalists, research stated, "Identification of evidenced-based Quality of Care (QoC) indicators for lung cancer care is essential to quality improvement. The aim of this review was to identify evidence-based quality indicators for the pre and postoperative care of stage I-III Non Small Cell Lung Cancer (NSCLC) provided by the lung physician."

The news reporters obtained a quote from the research from Netherlands Cancer Institute, "To obtain these indicators, a search in PubMed, Embase and the Cochrane library database was performed. English literature published between 1980 and 2012 was included and search terms regarding 'lung neoplasms', 'quality of care', 'pathology', 'diagnostic methods', 'preoperative and postoperative treatment' were used. The potential indicators were categorized as structure, process or outcome measures and the indicators supported by literature with high evidence level were selected. Five QoC indicators were identified. The use of the positron emission tomography-computed tomography (PET-CT) results in more accurate mediastinal staging compared to the CT scan. Endoscopic Ultrasound-Fine Needle Aspiration and Endobronchial Ultrasound-Fine Needle Aspiration are sensitive diagnostic tools for mediastinal staging and reduce futile thoracotomies. Pathological conformation of lung cancer can best be obtained by a combination of cytological and histological diagnostics used during bronchoscopy. For patients with clinical stage III NSCLC, preoperative multimodality treatment (i.e. preoperative chemoradiation) results in superior survival and increased mediastinal downstaging compared to single modality treatment (i.e. preoperative chemotherapy or radiotherapy). After surgery, the addition of chemotherapy results in a significant survival benefit for patients with pathological stage II and III NSCLC."

According to the news reporters, the research concluded: "These five QoC indicators can be used for benchmarking and ultimately quality improvement of lung cancer care."

For more information on this research see: Pre- and postoperative care for stage I-III NSCLC: Which quality of care indicators are evidence-based? Lung Cancer, 2016;101():120-128. Lung Cancer can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Lung Cancer - www.journals.elsevier.com/lung-cancer/)

Our news correspondents report that additional information may be obtained by contacting R.C. Numan, Antoni van Leeuwenhoek Hosp, Netherlands Canc Inst, Dept. of Surg Oncol, NL-1066 CX Amsterdam, Netherlands. Additional authors for this research include M. Ten BERGE, J.A. Burgers, H.M. Klomp, J.W. van Sandick, P. Baas and M.W. Wouters.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Cancer, Article Review, Diagnostics and Screening, Operative Surgical Procedures, Postoperative Care, Quality of Care, Lung Neoplasms, Lung Cancer, Oncology, Surgery, Netherlands Cancer Institute.

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Clinical Research - Clinical Trials and Studies

Studies from Netherlands Cancer Institute Yield New Information about Clinical Trials and Studies (Quantification of patient-reported outcome measures of radiation-induced skin reactions for use in clinical trial design)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news reporting from Amsterdam, Netherlands, by NewsRx journalists, research stated, "Skin toxicity is a common effect from radiotherapy, although difficult to predict on an individual basis, and there is little evidence-based management. This study aimed to quantify inter-patient variation in patient-reported outcome measures for radiation-induced skin reactions (RISR) to enable the determination of the number of patients required for adequate power in a comparative trial of RISR management strategies."

The news correspondents obtained a quote from the research from Netherlands Cancer Institute, "The study included 154 patients scheduled to receive breast cancer radiotherapy. Patients filled in a weekly questionnaire during and up to 4 weeks following the end of radiotherapy scoring five aspects of their experience of RISR: skin redness, and bother from redness like itching, burning sensation and tenderness/pain. Assessment of patients' reported experience of their RISR was shown to be feasible, with 91% of patients returning at least two questionnaires. The mean score increase between weeks 1 and 4 was 25 points (p value < 0.0001, 95% CI 21-29), and the estimated standard deviation at 4 weeks was 18 (95% CI 16-21). Patients' assessment of their reaction was not predicted on the basis of treatment and patient-related characteristics. Based on the observed variance in scores at 4 weeks, we could calculate the sample size required for a comparative study of two RISR management policies would be 200 patients to have statistical power to detect a clinically significant difference in patient-rated scores of their skin reactions."

According to the news reporters, the research concluded: "A trial employing this tool would help provide an evidence base to guide policy in advising patients how to manage their RISR."

For more information on this research see: Quantification of patient-reported outcome measures of radiation-induced skin reactions for use in clinical trial design. Supportive Care in Cancer, 2017;25(1):67-74. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news journalists report that additional information may be obtained by contacting N.S. Russell, Antoni van Leeuwenhoek Hosp, Netherlands Canc Inst, Dept. of Radiotherapy, NL-1066 CX Amsterdam, Netherlands. Additional authors for this research include E. van Werkhoven and S.B. Schagen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3376-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Clinical Trials and Studies, Clinical Research, Radiotherapy, Therapy, Netherlands Cancer Institute.

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Tropanes

Studies from Netherlands Organization for Applied Scientific Research Have Provided New Information about Tropanes (Increasing nerve agent treatment efficacy by P-glycoprotein inhibition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Tropanes are discussed in a new report. According to news reporting out of Rijswijk, Netherlands, by NewsRx editors, research stated, "One of the shortcomings of current treatment of nerve agent poisoning is that not all drugs effectively penetrate the blood-brain barrier (BBB), whereas most nerve agents easily do. P-glycoprotein (Pgp) efflux transporters at the BBB may contribute to this aspect."

Financial support for this research came from Dutch Ministry of Defence.

Our news journalists obtained a quote from the research from Netherlands Organization for Applied Scientific Research, "It was previously shown that Pgp inhibition by tariquidar enhanced the efficacy of nerve agent treatment when administered as a pretreatment. In the present study soman-induced seizures were also substantially prevented when the animals were intravenously treated with tariquidar post-poisoning, in addition to HI-6 and atropine. In these animals, approximately twice as much AChE activity was present in their brain as compared to control rats. The finding that tariquidar did not affect distribution of soman to the brain indicates that the potentiating effects were a result of interactions of Pgp inhibition with drug distribution. In line with this, atropine appeared to be a substrate for Pgp in in vitro studies in a MDR1/MDCK cell model. This indicates that tariquidar might induce brain region specific effects on atropine distribution, which could contribute to the therapeutic efficacy increase found. Furthermore, the therapeutic enhancement by tariquidar was compared to that of the less specific and less potent Pgp inhibitor cyclosporine A. This compound appeared to induce a protective effect similar to tariquidar."

According to the news editors, the research concluded: "Treatment with a Pgp inhibitor resulted in enhanced therapeutic efficacy of HI-6 and atropine in a soman-induced seizure model in the rat. The mechanism underlying these effects should be further investigated. To that end, the potentiating effect of nerve agent treatment should be addressed against a broader range of nerve agents, for oximes and atropine separately, and for those at lower doses. In particular when efficacy against more nerve agents is shown, a Pgp inhibitor such as tariquidar might be a valid addition to nerve agent antidotes."

For more information on this research see: Increasing nerve agent treatment efficacy by P-glycoprotein inhibition. Chemico-Biological Interactions, 2016;259():115-121. Chemico-Biological Interactions can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Chemico-Biological Interactions - www.journals.elsevier.com/chemico-biological-interactions/)

Our news journalists report that additional information may be obtained by contacting M.J.A. Joosen, TNO, CBRN Protect, NL-2280 AA Rijswijk, Netherlands. Additional authors for this research include S.M. Vester, J. Hamelink, S.D. Klaassen and R.M. van den Berg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cbi.2016.06.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rijswijk, Netherlands, Europe, ATP-
Studies from New York University Yield New Data on Malnutrition (Datafying microbes: Malnutrition at the intersection of genomics and global health)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Malnutrition. According to news reporting originating in New York City, New York, by NewsRx editors, the research stated, "In recent years, genome-sequencing technology has provided new ways of seeing the hundreds of trillions of bacteria in human bodies. Through 'datafication', new forms of value are emerging from microbial genomic information - implicating microbes as powerful agents of nutritional status."

The news reporters obtained a quote from the research from New York University, "Scientists use metagenomic data to evaluate how food, environment and genes affect human gut microbiota, and how those microbes simultaneously affect human health. My research is based on 14 months of ethnographic fieldwork in a leading US microbiome laboratory and at its field collaborator in investigating infant malnutrition in Dhaka, Bangladesh. This article looks at the social and material conditions of the Bangladeshi women and children enrolled in the microbiome study, and how microbes are datafied in order to draw a causal relationship between microbial populations and undernutrition in human hosts."

According to the news reporters, the research concluded: "How is malnutrition lived for urban Bangladeshis, and how is malnutrition studied through metagenomics? What categories of undernutrition and bodily health emerge as big data becomes a tool for nutrition science? I followed practices in homes and communities in Dhaka, while also studying malnutrition in the lab, and how both are choreographed with data-producing microbiome technologies in the quest for translational health-care strategies to treat childhood maladies in developing countries."


Our news correspondents report that additional information may be obtained by contacting A. Benezra, New York University, Dept. of Anthropol, New York, NY 10003, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1057/biosoc.2016.16. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Malnutrition, Genetics, New York University.

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Liver Diseases and Conditions - Hepatic...

Studies from Newcastle University in the Area of Hepatic Encephalopathy Reported (The impact on hospital resource utilisation of treatment of hepatic encephalopathy with rifaximin-alpha)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Hepatic Encephalopathy. According to news reporting out of Newcastle upon Tyne, United Kingdom, by NewsRx editors, research stated, "Rifaximin-alpha reduces the risk of recurrence of overt hepatic encephalopathy. However, there remain concerns regarding the financial cost of the drug."

Our news journalists obtained a quote from the research from Newcastle University, "We aimed to study the impact of treatment with rifaximin-alpha on healthcare resource utilisation using data from seven UK liver treatment centres. All seven centres agreed a standardised data set and data characterising clinical, demographic and emergency hospital admissions were collected retrospectively for the time periods 3, 6 and 12 months before and following initiation of rifaximin-alpha. Admission rates and hospital length of stay before and during therapy were compared. Costs of admissions and drug acquisition were estimated using published sources. Multivariate analyses were carried out to assess the relative impact of various factors on hospital length of stay. Data were available from 326 patients. Following the commencement of rifaximin, the total hospital length of stay reduced by an estimated 31-53%, equating to a reduction in inpatient costs of between 4858 pound and 6607 pound per year. Taking into account drug costs of 3379 pound for 1-year treatment with rifaximin-alpha, there was an estimated annual mean saving of 1480- pound 3228 pound per patient. Initiation of treatment with rifaximin-alpha was associated with a marked reduction in the number of hospital admissions and hospital length of stay."

According to the news editors, the research concluded: "These data suggest that treatment of patients with rifaximin-alpha for hepatic encephalopathy was generally cost saving."


Our news journalists report that additional information may be obtained by contacting M. Hudson, Newcastle Univ, Inst Cellular Med, Newcastle Upon Tyne, Tyne & Wear, United Kingdom. Additional authors for this research include C.J. Currie, E. Berni, A. Goel, K.J. Moriarty, A. Sinha, F. Gordon, A. Dethier, J.F. Dillon, K. Clark, P. Richardson, P. Middleton, V. Patel, D. Shawcross, H. Preedy, R.J. Aspinall and M. Hudson.
Keywords for this news article include: Newcastle upon Tyne, United Kingdom, Europe, Drugs and Therapies, Risk and Prevention, Epidemiology, Central Nervous System Diseases and Conditions, Digestive System Diseases and Conditions, Metabolic Brain Diseases and Conditions, Metabolic Diseases and Conditions, Liver Diseases and Conditions, Hepatic Encephalopathy, Hepatic Insufficiency, Antiinfectives, Liver Failure, Antibiotics, Rifaximin, Hospital, Newcastle University.

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Lipopolysaccharides

Studies from Nihon University Yield New Information about Lipopolysaccharides (Differential Regulation of Lympho-Myelopoiesis by Stromal Cells in the Early and Late Phases in BALB/c Mice Repeatedly Exposed to Lipopolysaccharide)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lipopolysaccharides are discussed in a new report. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "Chronic lipopolysaccharide (LPS) exposure to mice reduces the lymphoid compartment and skews the hematopoietic cell compartment toward myeloid-cells, which is considered to be a direct effect of LPS on hematopoietic stem cells. However, the effect of chronic LPS exposure on stromal-cells, which compose the hematopoietic microenvironment, has not been elucidated."

The news reporters obtained a quote from the research from Nihon University, "Here, we investigated early- and late-phase effect of repeated LPS exposure on stromal-cells. During the early phase, when mice were treated with 5 or 25 mu g LPS three times at weekly intervals, the numbers of myeloid-progenitor (colony forming unit-granulocyte macrophage (CFU-GM)) cells and B lymphoid-progenitor (CFU-preB) cells in the bone-marrow (BM) rapidly decreased after each treatment. The number of CFU-GM cells recovered from the initial decrease and then increased to levels higher than pretreatment levels, whereas the number of CFU-preB cells remained lower than pretreatment levels. In the BM, expression of genes for positive-regulators of myelopoiesis including granulocyte colony-stimulating factor (G-CSF), granulocyte macrophage colony-stimulating factor (GMCSF), and interleukin (IL)-6 and negative-regulators of B lymphopoiesis including tumor necrosis factor (TNF)-alpha was up-regulated, whereas expression of positive-regulators of B lymphopoiesis including stromal cell-derived factor (SDF)-1, IL-7, and stem cell factor (SCF) was down-regulated. During the late phase, the number of CFU-preB cells remained lower than pretreatment levels 70 d after the first treatments with 5 and 25 mu g LPS, whereas the number of CFU-GM cells returned to pretreatment levels. IL-7 gene expression in the BM remained down-regulated, whereas gene-expression levels of SDF-1 and SCF were restored."

According to the news reporters, the research concluded: "Thus, chronic LPS exposure may impair stromal-cell function, resulting in prolonged suppression of B lymphopoiesis, which may appear to be senescence similar to the hematological phenotype."

For more information on this research see: Differential Regulation of Lympho-Myelopoiesis by Stromal Cells in the Early and Late Phases in BALB/c Mice Repeatedly Exposed to Lipopolysaccharide. Biological & Pharmaceutical Bulletin, 2016;39(12):1939-
Studies from Norfolk and Norwich University Hospital Provide New Data on Sclerosing Cholangitis (A review of the medical treatment of primary sclerosing cholangitis in the 21st century)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Digestive System Diseases and Conditions - Sclerosing Cholangitis. According to news originating from Norwich, United Kingdom, by NewsRx correspondents, research stated, "Primary sclerosing cholangitis (PSC) is a chronic cholestatic liver disease that progresses to end-stage liver disease and cirrhosis. Recurrent biliary inflammation is thought to lead to dysplasia, and as such PSC confers a high risk of cholangiocarcinoma."

Our news journalists obtained a quote from the research from Norfolk and Norwich University Hospital, "PSC accounts for 10% of all UK liver transplants, although transplantation does not guarantee a cure with 20% recurrence in the graft. At present there are no effective medical treatment options for PSC, and trials of novel therapeutic agents are limited by the time taken to reach clinically significant endpoints with no well defined early surrogate markers for disease outcome. Moreover, PSC appears to be a heterogeneous disease with regards to disease distribution, associated inflammatory bowel disease and subsequent disease outcome, further compounding the issue. Thus existing trials have taken place in heterogeneous groups, are likely to be underpowered to detect any individual subgroups effect. The current mainstay of medical treatment is still with ursodeoxycholic acid, although there is no evidence that it alters long-term outcome. Small pilot studies of immunosuppressive agents have taken place, but despite evidence that may support studies in larger groups, these have not been conducted. Recent advances in our understanding of the disease pathogenesis may therefore pave the way for trials of novel therapeutic agents in PSC, even given the limitations described."

According to the news editors, the research concluded: "This review explores the controversial evidence underlying current treatment strategies and discounted treatments, and explores prospective agents that may bring new hope to the treatment of PSC in the 21st
For more information on this research see: A review of the medical treatment of primary sclerosing cholangitis in the 21st century. Therapeutic Advances In Chronic Disease, 2016;7(1):68-85. (Sage Publications - www.sagepub.com/; Therapeutic Advances In Chronic Disease - taj.sagepub.com)

The news correspondents report that additional information may be obtained from E.C. Goode, Dept. of Hepatology, Norfolk and Norwich University Hospital, Norwich, UK.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/2040622315605821. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Norwich, United Kingdom, Article Review, Gastroenterology, Liver Diseases and Conditions, Primary Sclerosing Cholangitis, Biliary Diseases and Conditions, Bile Duct Diseases and Conditions, Biliary Tract Diseases and Conditions, Digestive System Diseases and Conditions.

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Nephrology

Studies from North Shore University Hospital in the Area of Nephrology Reported (Renal effects of BRAF inhibitors: a systematic review by the Cancer and the Kidney International Network)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nephrology have been published. According to news reporting from Great Neck, New York, by NewsRx journalists, research stated, "Advanced melanoma has been traditionally unresponsive to standard chemotherapy agents and used to have a dismal prognosis. Genetically targeted small-molecule inhibitors of the oncogenic BRAF V600 mutation or a downstream signaling partner (MEK mitogen-activated protein kinase) are effective treatment options for the 40-50% of melanomas that harbor mutations in BRAF."

The news correspondents obtained a quote from the research from North Shore University Hospital, "Selective BRAF and MEK inhibitors induce frequent and dramatic objective responses and markedly improve survival compared with cytotoxic chemotherapy. In the past decade after discovery of this mutation, drugs such as vemurafenib and dabrafenib have been approved by the US Food and Drug Administration (FDA) and the European Medicines Agency for the treatment of V600-mutated melanomas. While the initial trials did not signal any renal toxicities with the BRAF inhibitors, recent case reports, case series and FDA adverse reporting systems have uncovered significant nephrotoxicities with these agents. In this article, we systematically review the nephrotoxicities of these agents. Based on recently published data, it appears that there are lower rates of kidney disease and cutaneous lesions seen with dabrafenib compared with vemurafenib. The pathology reported in the few kidney biopsies done so far are suggestive of tubulo interstitial damage with an acute and chronic component. Electrolyte disorders such as hypokalemia, hyponatremia and hypophosphatemia have been reported as well."

According to the news reporters, the research concluded: "Routine monitoring of serum creatinine and electrolytes and calculation of glomerular filtration rate prior to the first administration when treating with dabrafenib and vemurafenib are essential."

Our news journalists report that additional information may be obtained by contacting R. Wanchoo, Division of Kidney Diseases and Hypertension, North Shore University Hospital and Long Island Jewish Medical Center, Hofstra NSLIJ School of Medicine, Great Neck, NY, United States. Additional authors for this research include K.D. Jhaveri, G. Deray and V. Launay-Vacher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/ckj/sfv149. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Kidney, New York, Genetics, Oncology, Great Neck, Nephrology, United States, Article Review, North and Central America.

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**Drugs and Therapies - Pharmaceutical Research**

**Studies from Northwest University Describe New Findings in Pharmaceutical Research (A novel systems pharmacology platform to dissect action mechanisms of traditional Chinese medicines for bovine viral diarrhea disease)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Pharmaceutical Research are presented in a new report. According to news reporting originating in Shaanxi, People's Republic of China, by NewsRx journalists, research stated, "Due to the large direct and indirect productivity losses in the livestock industry caused by bovine viral diarrhea (BVD) and the lack of effective pharmacological therapies, developing an efficient treatment is extremely urgent. Traditional Chinese medicines (TCMs) that simultaneously address multiple targets have been proven to be effective therapies for BVD."

Funders for this research include Northwest A & F University, National Natural Science Foundation of China, Northwest University, National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Northwest University, "However, the potential molecular action mechanisms of TCMs have not yet been systematically explored. In this work, take the example of a herbal remedy Huangqin Zhizi (HQZZ) for BVD treatment in China, a systems pharmacology approach combining with the pharmacokinetics and pharmacodynamics evaluation was developed to screen out the active ingredients, predict the targets and analyze the networks and pathways. Results show that 212 active compounds were identified. Utilizing these lead compounds as probes, we predicted 122 BVD related-targets. And in vitro experiments were conducted to evaluate the reliability of some vital active compounds and targets. Network and pathway analysis displayed that HQZZ was effective in the treatment of BVD by inhibiting inflammation, enhancing immune responses in hosts toward virus infection."

According to the news reporters, the research concluded: "In summary, the analysis


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Keywords for this news article include: Shaanxi, People's Republic of China, Asia, Pharmaceutical Research, Drugs and Therapies, Northwest University.

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**Oncology - Carcinomas**

**Studies from Northwestern University Feinberg School of Medicine in the Area of Carcinomas Reported (Adenoid cystic carcinoma: current therapy and potential therapeutic advances based on genomic profiling)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Carcinomas are discussed in a new report. According to news reporting originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Adenoid cystic carcinoma (ACC) is a rare cancer with high potential for recurrence and metastasis. Efficacy of current treatment options, particularly for advanced disease, is very limited."

Our news editors obtained a quote from the research from the Northwestern University Feinberg School of Medicine, "Recent whole genome and exome sequencing has dramatically improved our understanding of ACC pathogenesis. A balanced translocation resulting in the MYB-NFIB fusion gene appears to be a fundamental signature of ACC. In addition, sequencing has identified a number of other driver genes mutated in downstream pathways common to other well-studied cancers. Overexpression of oncogenic proteins involved in cell growth, adhesion, cell cycle regulation, and angiogenesis are also present in ACC. Collectively, studies have identified genes and proteins for targeted, mechanism-based, therapies based on tumor phenotypes, as opposed to nonspecific cytotoxic agents. In addition, although few studies in ACC currently exist, immunotherapy may also hold promise."

According to the news editors, the research concluded: "Better genetic understanding will enable treatment with novel targeted agents and initial exploration of immune-based therapies with the goal of improving outcomes for patients with ACC."

For more information on this research see: Adenoid cystic carcinoma: current...
therapy and potential therapeutic advances based on genomic profiling. Oncotarget, 2015;6 (35):37117-34.

The news editors report that additional information may be obtained by contacting Y.K. Chae, Northwestern Medicine Developmental Therapeutics Institute, Northwestern University Feinberg School of Medicine, Chicago, IL, United States. Additional authors for this research include S.Y. Chung, A.A. Davis, B.A. Carneiro, S. Chandra, J. Kaplan, A. Kalyan and F.J Giles.

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Keywords for this news article include: Chicago, Therapy, Illinois, Genetics, Oncology, Immunology, United States, Article Review, Lymphoid Tissue, Adenoid Cystic Cancer, Adenoid Cystic Carcinoma, Hemic and Immune Systems, North and Central America.

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Heart Disorders and Diseases - Heart Disease

Studies from Odense University Hospital Describe New Findings in Heart Disease (Outcome with invasive versus medical treatment of stable coronary artery disease: influence of perfusion defect size, ischaemia, and ejection fraction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Disease have been published. According to news reporting originating in Odense, Denmark, by NewsRx journalists, research stated, "Our aim was to address the combined influence of myocardial perfusion defects and left ventricular ejection fraction (LVEF) on outcome with coronary revascularisation in stable CAD patients. Of 527 patients with ischaemia by myocardial perfusion scintigraphy, 343 had medical therapy (Med) and 184 revascularisation (Revasc)."

The news reporters obtained a quote from the research from Odense University Hospital, "During 5.3 years of follow-up, there was no intergroup difference in rates of death/myocardial infarction. Propensity score adjustment demonstrated a benefit of Revasc over Med with large defects (>14% of the myocardium), marked ischaemia (>10% of the myocardium), or LVEF <50%. However, defect size, ischaemia, and LVEF were correlated. In multivariate models, the Med versus Revasc hazard ratio (HR) was 4.06 times larger for LVEF <50% than for LVEF (>=)50% (p=0.04) and 3.01 times larger for marked compared to mild/moderate ischaemia (p=0.11), whereas the effect of large compared to small/moderate defects vanished when adjusted for LVEF and ischaemia (HR=1.01, p=0.99). Considering the outcome difference as a function of both LVEF and ischaemia, we found no advantage or even a disadvantage of revascularisation in patients with mild/moderate ischaemia and preserved LVEF. A benefit of revascularisation was found only in case of marked ischaemia or LVEF <50%.

According to the news reporters, the research concluded: "For treatment triage, both perfusion parameters and LVEF should be considered."

For more information on this research see: Outcome with invasive versus medical treatment of stable coronary artery disease: influence of perfusion defect size, ischaemia, and

Our news correspondents report that additional information may be obtained by contacting J.A. Simonsen, Dept. of Nuclear Medicine, Odense University Hospital, Odense, Denmark. Additional authors for this research include A. Johansen, O. Gerke, H. Mickley, A. Thomassen, S. Hess, C.K. Rask, M. Tamadoni, L.O. Jensen, J. Hallas, W. Vach and P.F Hoilund-Carlsen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4244/EIJV11I10A226. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Odense, Europe, Denmark, Cardiology, Heart Disease, Arteriosclerosis, Myocardial Ischemia, Coronary Artery Disease, Arterial Occlusive Diseases, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Abdominal Aortic Aneurysm

Studies from Ohio State University Provide New Data on Abdominal Aortic Aneurysm (Quantification of abdominal aortic aneurysm stiffness using magnetic resonance elastography and its comparison to aneurysm diameter)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Abdominal Aortic Aneurysm are presented in a new report. According to news originating from Columbus, Ohio, by NewsRx correspondents, research stated, "Abdominal aortic aneurysm (AAA) wall stiffness has been suggested to be an important factor in the overall rupture risk assessment compared with anatomic measure. We hypothesize that AAA diameter will have no correlation to AAA wall stiffness."

Our news journalists obtained a quote from the research from Ohio State University, "The aim of this study is to (1) determine magnetic resonance elastography (MRE)-derived aortic wall stiffness in AAA patients and its correlation to AAA diameter; (2) determine the correlation between AAA stiffness and amount of thrombus and calcium; and (3) compare the AAA stiffness measurements against age-matched healthy individuals. In vivo abdominal aortic MRE was performed on 36 individuals (24 patients with AAA measuring 3-10 cm and 12 healthy volunteers), aged 36 to 78 years, after obtaining written informed consent under the approval of the Institutional Review Board. MRE images were processed to obtain spatial stiffness maps of the aorta. AAA diameter, amount of thrombus, and calcium score were reported by experienced interventional radiologists. Spearman correlation, Wilcoxon signed rank test, and Mann-Whitney test were performed to determine the correlation between AAA stiffness and diameter and to determine the significant difference in stiffness measurements between AAA patients and healthy individuals. No significant correlation (P > .1) was found between AAA stiffness and diameter or amount of thrombus or calcium score. AAA stiffness (mean 13.97 +/- 4.2 kPa) is significantly (P <= .02) higher than remote normal aorta in AAA (mean 8.87 +/- 2.2 kPa) patients and in normal individuals (mean 7.1 +/- 1.9 kPa)."

According to the news editors, the research concluded: "Our results suggest that AAA wall stiffness may provide additional information independent of AAA diameter, which may contribute to our understanding of AAA pathophysiology, biomechanics, and risk for

The news correspondents report that additional information may be obtained from A. Kolipaka, Ohio State University, Wexner Med Center, Dept. of Biomed Engn, Columbus, OH 43210, United States. Additional authors for this research include V.S.P. Illapani, W. Kenyhercz, J.D. Dowell, M.R. Go, J.E. Starr, P.S. Vaccaro and R.D. White.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2016.03.426. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Abdominal Aortic Aneurysm, Thrombosis, Cardiology, Angiology, Ohio State University.

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**Bone Research**

**Studies from Oregon Health and Science University Have Provided New Information about Bone Research (Novel Genetic Variants Associated With Increased Vertebral Volumetric BMD, Reduced Vertebral Fracture Risk, and Increased Expression of SLC1A3 ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Bone Research have been presented. According to news reporting from Portland, Oregon, by NewsRx journalists, research stated, "Genome-wide association studies (GWASs) have revealed numerous loci for areal bone mineral density (aBMD). We completed the first GWAS meta-analysis (n=15,275) of lumbar spine volumetric BMD (vBMD) measured by quantitative computed tomography (QCT), allowing for examination of the trabecular bone compartment."

The news correspondents obtained a quote from the research from Oregon Health and Science University, "SNPs that were significantly associated with vBMD were also examined in two GWAS meta-analyses to determine associations with morphometric vertebral fracture (n=21,701) and clinical vertebral fracture (n=5893). Expression quantitative trait locus (eQTL) analyses of iliac crest biopsies were performed in 84 postmenopausal women, and murine osteoblast expression of genes implicated by eQTL or by proximity to vBMD-associated SNPs was examined. We identified significant vBMD associations with five loci, including: 1p36.12, containing WNT4 and ZBTB40; 8q24, containing TNFRSF11B; and 13q14, containing AKAP11 and TNFSF11. Two loci (5p13 and 1p36.12) also contained associations with radiographic and clinical vertebral fracture, respectively. In 5p13, rs2468531 (minor allele frequency [MAF]=3%) was associated with higher vBMD (=0.22, p=1.9x10(-8)) and decreased risk of radiographic vertebral fracture (odds ratio [OR]=0.75; false discovery rate [FDR] p=..."
0.01). In 1p36.12, rs12742784 (MAF=21%) was associated with higher vBMD (=0.09, p=1.2x10(-10)) and decreased risk of clinical vertebral fracture (OR=0.82; FDR p=7.4x10(-4)). Both SNPs are noncoding and were associated with increased mRNA expression levels in human bone biopsies: rs2468531 with SLC1A3 (=0.28, FDR p=0.01, involved in glutamate signaling and osteogenic response to mechanical loading) and rs12742784 with EPHB2 (=0.12, FDR p=1.7x10(-3), functions in bone-related ephrin signaling). Both genes are expressed in murine osteoblasts. This is the first study to link SLC1A3 and EPHB2 to clinically relevant vertebral osteoporosis phenotypes.

According to the news reporters, the research concluded: "These results may help elucidate vertebral bone biology and novel approaches to reducing vertebral fracture incidence."


Our news journalists report that additional information may be obtained by contacting C.M. Nielson, Oregon Health Sciences University, Sch Public Hlth, Portland, OR 97239, United States. Additional authors for this research include C.T. Liu, A.V. Smith, C.L. Ackert-Bicknell, S. Reppe, J. Jakobsdottir, C. Wassel, T.C. Register, L. Oei, N. Alonso, E.H. Oei, N. Parimi, E.J. Samelson, M.A. Nalls, J. Zmuda, T. Lang, M. Bouxsein, J. Latourelle and Claussnitze.

Keywords for this news article include: Portland, Oregon, United States, North and Central America, Bone Research, Genetics, Oregon Health and Science University.

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**Drugs and Therapies - Pharmacy Practice**

**Studies from Oregon Health and Science University Update Current Data on Pharmacy Practice (Pharmacy density in rural and urban communities in the state of Oregon and the association with hospital readmission rates)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies-Pharmacy Practice. According to news originating from Portland, Oregon, by NewsRx correspondents, research stated, "To characterize the pharmacy density in rural and urban communities with hospitals and to examine its association with readmission rates. Ecologic study. Forty-eight rural and urban primary care service areas (PCSAs) in the state of Oregon."

Our news journalists obtained a quote from the research from Oregon Health and Science University, "All hospitals in the state of Oregon. Pharmacy data were obtained from the Oregon Board of Pharmacy based on active licensure. Pharmacy density was calculated by determining the cumulative number of outpatient pharmacy hours in a PCSA. Oregon hospital 30-day all-cause readmission rates were obtained from the Centers for Medicare and Medicaid Services and were determined with the use of claims data of patients 65 years of age or older who were readmitted to the hospital within 30 days from July 2012 to June 2013. Readmission
rates for Oregon hospitals ranged from 13.5% to 16.5%. The cumulative number of pharmacy hours in PCSAs containing a hospital ranged from 54 to 3821 hours. As pharmacy density increased, the readmission rates decreased, asymptotically approaching a predicted 14.7% readmission rate for areas with high pharmacy density. Urban hospitals were in communities likely to have more pharmacy access compared with rural hospitals."

According to the news editors, the research concluded: "Future research should determine if increasing pharmacy access affects readmission rates, especially in rural communities."

For more information on this research see: Pharmacy density in rural and urban communities in the state of Oregon and the association with hospital readmission rates. Journal of the American Pharmacists Association, 2016;56(5):533-537. Journal of the American Pharmacists Association can be contacted at: Amer Pharmaceutical Assoc, 2215 Constitution Ave NW, Washington, DC 20037, USA.

The news correspondents report that additional information may be obtained from S. Bissonnette, Oregon Health Sciences University, Oregon State University, Coll Pharm, Portland, OR 97201, United States. Additional authors for this research include L.M. Goeres and D.S.H. Lee.

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Keywords for this news article include: Portland, Oregon, United States, North and Central America, Pharmacy Practice, Drugs and Therapies, Hospital, Oregon Health and Science University.

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Oncology - Thyroid Cancer

Studies from Osaka City University Provide New Data on Thyroid Cancer (Growth arrest by activated BRAF and MEK inhibition in human anaplastic thyroid cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Thyroid Cancer is now available. According to news reporting from Osaka, Japan, by NewsRx journalists, research stated, "Anaplastic thyroid cancer (ATC) is a rare malignancy that progresses extremely aggressively and often results in dismal prognosis. We investigated the efficacy of inhibiting the activated RAS/RAF/MEK pathway in ATC cells aiming to clarify the mechanism of effect and resistance."

The news correspondents obtained a quote from the research from Osaka City University. "Four human ATC cell lines (ACT-1, OCU-2, OCU-4 and OCU-6) were used. OCU-4 had a BRAF mutation. OCU-2 had both BRAF and PI3KCA mutations. ACT-1 and OCU-6 had wild type BRAF and NRAS mutations. The effects of dabrafenib, a selective inhibitor of the BRAFV600E kinase, and trametinib, a reversible inhibitor of MEK activity, were investigated. Dabrafenib strongly inhibited the viability in BRAF mutated cells by demonstrating G0/G1-arrest via the downregulation of MEK/ERK phosphorylation. Upregulated phosphorylation of MEK was observed in RAS mutated cells after dabrafenib treatment and caused VEGF upregulation, but was not related to the cellular proliferation."
Trametinib inhibited the cellular viability to variable degrees in every cell by downregulating ERK phosphorylation. Dual blockade by both inhibitors demonstrated clear cytostatic effect in all the cells. OCUT-4 showed the weakest sensitivity to trametinib, no additional effect of either inhibitor in combination with the other, and an increase of SNAI1 mRNA expression after treatment with inhibitors, suggesting a mechanism for resistance."

According to the news reporters, the research concluded: "Our findings demonstrated the efficacy of a mutation-selective BRAF inhibitor and a MEK inhibitor in human ATC cells in a genetic alteration specific manner."


Our news journalists report that additional information may be obtained by contacting N. Onoda, Osaka City University, Dept. of Surg Oncol, Grad Sch Med, Abeno Ku, Osaka 5458585, Japan. Additional authors for this research include N. Onoda, S. Noda, S. Kashiwagi, Y. Asano, K. Hirakawa and M. Ohira.

Keywords for this news article include: Osaka, Japan, Asia, Thyroid Neoplasms, Thyroid Cancer, Oncology, Genetics, Osaka City University.

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**Pediatrics - Pediatric Dermatology**

**Studies from Osaka General Medical Center Yield New Data on Pediatric Dermatology (A Case of Blau Syndrome with NOD2 E383K Mutation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pediatrics - Pediatric Dermatology have been presented. According to news reporting from Osaka, Japan, by NewsRx journalists, research stated, "UWe report a 3.5-year-old Japanese boy who developed lichenoid papules and erythema with noncaseating epithelioid cell granulomas with a scant lymphocytic infiltrate histologically on his limbs at the age of 8 months."

The news correspondents obtained a quote from the research from Osaka General Medical Center, "Genetic analysis of the patient and his parents, who had no medical past history, revealed heterozygous 1147G >A ( E383K) mutation of NOD2 in the patient and in his father, so the patient was diagnosed with Blau syndrome and his father as an asymptomatic carrier. Although Blau syndrome has been reported as a genetic disease with high penetrance, asymptomatic carrier cases of a family with the same E383K mutation have also been reported."

According to the news reporters, the research concluded: "These results suggest that some contributing factors are required for the development of inflammatory and granulomatous responses in heterozygous carriers of a NOD2 E383K mutation."


Our news journalists report that additional information may be obtained by
Studies from Oscar Lambret Center Yield New Information about Laparotomy (Single-port or Classic Laparoscopy Compared With Laparotomy to Assess the Peritoneal Cancer Index in Primary Advanced Epithelial Ovarian Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Surgery - Laparotomy are presented in a new report. According to news reporting from Lille, France, by NewsRx journalists, research stated, "A thorough laparoscopic assessment of the abdominopelvic cavity is a crucial step in the workup of primary advanced epithelial ovarian cancer to decide whether up-front cytoreductive surgery or neoadjuvant chemotherapy is the best option for adequate management. The purpose of our study was to compare single-port laparoscopy (SPL), classic laparoscopy (CL), and laparotomy using the peritoneal cancer index (PCI)."

The news correspondents obtained a quote from the research from Oscar Lambret Center, "Patients treated for Federation Internationale de Gynecologic et d'Obstetrique stage 3 or 4 epithelial ovarian cancer were included in our study when they underwent a PCI evaluation by laparoscopy followed by laparotomy for cytoreduction. According to the technique used for the 'noninvasive' procedure (SPL vs CL), 2 groups were compared retrospectively. The individual records of all patients were reviewed and analyzed. From 2011 to 2014, 21 patients were assessed for PCI by SPL plus laparotomy versus 21 by CL plus laparotomy. The clinicopathological features were similar in both groups (not significant [NS]), except for performance status >0, which was more frequent in the SPL group (39% vs 6%, p = .04). Quotation of PCI was possible for all patients. Nonbrowsing areas marked 3 procedures in the SPL group and 2 procedures in the CL group (NS). The mean PCI score and the score of each region assessed by SPL and CL were comparable with the evaluation by laparotomy (NS). Completeness of cytoreduction was achieved in 78% of cases in both groups (NS)."

According to the news reporters, the research concluded: "SPL and widely minimally invasive procedures seem to be effective tools compared with laparotomy to adequately assess the resectability of a peritoneal carcinomatosis using the PCI."

Studies from Oslo University Hospital Add New Findings in the Area of Melanoma (Fibroblast-induced switching to the mesenchymal-like phenotype and PI3K/mTOR signaling protects melanoma cells from BRAF inhibitors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Melanoma are discussed in a new report. According to news reporting originating in Oslo, Norway, by NewsRx journalists, research stated, "The knowledge on how tumor-associated stroma influences efficacy of anti-cancer therapy just started to emerge. Here we show that lung fibroblasts reduce melanoma sensitivity to the BRAF inhibitor (BRAFi) vemurafenib only if the two cell types are in close proximity."

The news reporters obtained a quote from the research from Oslo University Hospital, "In the presence of fibroblasts, the adjacent melanoma cells acquire de-differentiated mesenchymal-like phenotype. Upon treatment with BRAFi, such melanoma cells maintain high levels of phospho ribosomal protein S6 (pS6), i.e. active mTOR signaling, which is suppressed in the BRAFi sensitive cells without stromal contacts. Inhibitors of PI3K/mTOR in combination with BRAFi eradicate pS6high cell subpopulations and potentiate anti-cancer effects in melanoma protected by the fibroblasts. mTOR and BRAF co-inhibition also delayed the development of early-stage lung metastases in vivo."

According to the news reporters, the research concluded: "We demonstrate that upon influence from fibroblasts, melanoma cells undergo a phenotype switch to the mesenchymal state, which can support PI3K/mTOR signaling. The lost sensitivity to BRAFi in such cells can be overcome by co-targeting PI3K/mTOR. This knowledge could be explored for designing BRAFi combination therapies aiming to eliminate both stroma-protected and non-protected counterparts of metastases."

For more information on this research see: Fibroblast-induced switching to the mesenchymal-like phenotype and PI3K/mTOR signaling protects melanoma cells from BRAF inhibitors. *Oncotarget*, 2016;7(15):19997-20015.

Our news correspondents report that additional information may be obtained by contacting K. Seip, Dept. of Tumor Biology, Oslo University Hospital, The Norwegian Radium Hospital, Oslo, Norway. Additional authors for this research include K.G. Fleten, A.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.18632/oncotarget.7671. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Norway, Europe, Melanoma, Oncology, Fibroblasts, Connective Tissue Cells.

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Non-Steroidal Anti-Inflammatory Agents

Studies from Oslo University Hospital Further Understanding of Non-Steroidal Anti-Inflammatory Agents (The Effect of Limited Perioperative Nonsteroidal Anti-inflammatory Drugs on Patients Undergoing Anterior Cruciate Ligament Reconstruction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Non-Steroidal Anti-Inflammatory Agents. According to news reporting out of Oslo, Norway, by NewsRx editors, research stated, "The administration of nonsteroidal anti-inflammatory drugs (NSAIDs) to patients undergoing anterior cruciate ligament reconstruction (ACLR) is controversial because it may impair tissue healing and clinical outcomes. To assess the effect of NSAID administration on patients undergoing ACLR."

Our news journalists obtained a quote from the research from Oslo University Hospital, "Cohort study; Level of evidence, 3. Included patients were aged >15 years and were registered in the Norwegian Knee Ligament Registry from 2008 until 2013 after the primary ACLR. Patients with insufficient data regarding administration of NSAIDs and those with associated knee ligament injuries requiring surgical treatment were excluded from this study. Graft survival was estimated using Kaplan-Meier survival curves, and hazard ratios (HRs) for revision were evaluated using Cox regression analysis. Logistic regression analysis was used to calculate the odds ratio (OR) for a Knee Injury and Osteoarthritis Outcome Score (KOOS)-quality of life (QOL) subscale score <44 at 2-year follow-up. A total of 7822 patients were included in the analysis for graft survival and assessment for risk of revision. Of these, 4144 patients were administered NSAIDs postoperatively. The mean duration of follow-up was 2.8 years (range, 0-5.9 years). Administration of NSAIDs did not influence graft survival (P = .568). Adjusted Cox regression analyses demonstrated the same finding regarding risk of revision (HR, 1.0; 95% CI, 0.8-1.3). ACLR using a bone-patellar tendon-bone autograft showed a reduced risk of revision (HR, 0.3; 95% CI, 0.1-0.8) among patients administered NSAIDs. In subgroup analyses of 3144 patients, administration of NSAIDs demonstrated a beneficial effect on the risk of a KOOS-QOL score <44 at 2-year follow-up (OR, 0.8; 95% CI, 0.6-0.9). Administration of NSAIDs to patients after ACLR does not have a negative effect on graft survival, risk of revision, or risk of a KOOS-QOL score <44 at 2-year follow-up."

According to the news editors, the research concluded: "We emphasize using caution when administering NSAIDs by keeping the duration and dosage of NSAIDs as short and low as possible to ensure sufficient pain relief while limiting unwanted exposure to any known and unknown adverse effects of these drugs."

For more information on this research see: The Effect of Limited Perioperative

Our news journalists report that additional information may be obtained by contacting E. Soreide, Oslo Univ Hosp, Dept. of Orthoped Surg, N-0450 Oslo, Norway. Additional authors for this research include L.P. Granan, G.A. Hjorthaug, B. Espehaug, S. Dimmen and L. Nordsletten.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0363546516657539. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Norway, Europe, Non-Steroidal Anti-Inflammatory Agents, Non-Steroidal Antiinflammatory Agents, Bone Research, Drugs and Therapies, Oslo University Hospital.

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Parasitic Diseases and Conditions - Cutaneous…

Studies from Oswaldo Cruz Institute Describe New Findings in Cutaneous Leishmaniasis (Antileishmanial Activity of Ezetimibe: Inhibition of Sterol Biosynthesis, In Vitro Synergy with Azoles, and Efficacy in Experimental Cutaneous Leishmaniasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Parasitic Diseases and Conditions - Cutaneous Leishmaniasis. According to news reporting originating from Rio de Janeiro, Brazil, by NewsRx correspondents, research stated, "Leishmaniasis affects mainly low-income populations in tropical regions. Radical innovation in drug discovery is time-consuming and expensive, imposing severe restrictions on the ability to launch new chemical entities for the treatment of neglected diseases."

Our news editors obtained a quote from the research from Oswaldo Cruz Institute, "Drug repositioning is an attractive strategy for addressing a specific demand more easily. In this project, we have evaluated the antileishmanial activities of 30 drugs currently in clinical use for various morbidities. Ezetimibe, clinically used to reduce intestinal cholesterol absorption in dyslipidemic patients, killed Leishmania amazonensis promastigotes with a 50% inhibitory concentration (IC50) of 30 mu M. Morphological analysis revealed that ezetimibe caused the parasites to become rounded, with multiple nuclei and flagella. Analysis by gas chromatography (GC)-mass spectrometry (MS) showed that promastigotes treated with ezetimibe had smaller amounts of C-14-demethylated sterols, and accumulated more cholesterol and lanosterol, than untreated promastigotes. We then evaluated the combination of ezetimibe with well-known antileishmanial azoles. The fractional inhibitory concentration index (FICI) indicated synergy when ezetimibe was combined with ketoconazole or miconazole. The activity of ezetimibe against intracellular amastigotes was confirmed, with an IC50 of 20 mu M, and ezetimibe reduced the IC(90)s of ketoconazole and miconazole from 11.3 and 11.5 mu M to 4.14 and 8.25 mu M, respectively. Subsequently, we confirmed the activity of ezetimibe in vivo, showing that
it decreased lesion development and parasite loads in murine cutaneous leishmaniasis."

According to the news editors, the research concluded: "We concluded that ezetimibe has promising antileishmanial activity and should be considered in combination with azoles in further preclinical and clinical studies."

For more information on this research see: Antileishmanial Activity of Ezetimibe: Inhibition of Sterol Biosynthesis, In Vitro Synergy with Azoles, and Efficacy in Experimental Cutaneous Leishmaniasis. Antimicrobial Agents and Chemotherapy, 2016;60(11):6844-6852. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting E.C. Torres-Santos, Fiocruz MS, Inst Oswaldo Cruz, Lab Bioquim Tripanosomatideos, Rio De Janeiro, Brazil. Additional authors for this research include E.F. Cunha, M.M. do Canto-Cavalheiro, G.C. Atella, T.D. Fernandes, P.R.R. Costa and E.C. Torres-Santos.

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Keywords for this news article include: Rio de Janeiro, Brazil, South America, Parasitic Skin Diseases and Conditions, Cholesterol Absorption Inhibitors, Parasitic Diseases and Conditions, Antihyperlipidemic Agents, Cutaneous Leishmaniasis, Euglenozoa Infections, Protozoan Infections, Drugs and Therapies, Ezetimibe, Oswaldo Cruz Institute.

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Heart Disorders and Diseases - Cardiomyopathies

Studies from PLA General Hospital Describe New Findings in Cardiomyopathies (Oncostatin M-induced cardiomyocyte dedifferentiation regulates the progression of diabetic cardiomyopathy through B-Raf/Mek/Erk signaling pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Cardiomyopathies are presented in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "It has been reported that oncostatin M (OSM) could initiate cardiomyocyte dedifferentiation both in vivo and in vitro. OSM-induced cardiomyocyte dedifferentiation might be a new target for the treatment of diabetic cardiomyopathy (DCM)."

Financial supporters for this research include National Funds for Distinguished Young Scientists of China, National Natural, Science Foundation of China, Beijing Natural, Science, Foundation, National Basic Research Program of China, Shanxi Province Program.

The news correspondents obtained a quote from the research from PLA General Hospital, "This study was designed to determine the role of OSM in cardiomyocyte dedifferentiation and the progression of DCM. A mouse DCM model was established to evaluate the effects of OSM in vivo. Echocardiography was applied to determine cardiac function. Sirius red staining was used to detect fibrosis area. Transmission electron microscopy was used to evaluate mitochondria impairment. Real-time polymerase chain reaction and
western blot analysis were performed to detect relative mRNA expressions and cardiomyocyte dedifferentiation-related protein expressions, respectively. OSM treatment induced similar impaired cardiac function and cardiac ultrastructure impairment to those detected in DCM mice. The expressions of dedifferentiation markers of cardiomyocyte (Runx1, and a-SM-actin) were up-regulated in the OSM-treated mice compared with those in the control group. To further demonstrate the important role of OSM, OSM receptor knockout (Ob(ko)) mice were used. In Ob(ko) mice, cardiomyocytes dedifferentiation markers of c-kit, Runx1, and atrial natriuretic peptide were down-regulated, with attenuated DCM injury and abrogated OSM/B-Raf/Mek/Erk signaling pathway."

According to the news reporters, the research concluded: "OSM-induced cardiomyocyte dedifferentiation plays a crucial role in the progression of DCM. The mechanism of OSM-induced cardiomyocyte dedifferentiation is associated with B-Raf/Mek/Erk signaling pathway through the OSM receptor Ob."


Our news journalists report that additional information may be obtained by contacting Y. Wang, Dept. of Cardiology, Chinese PLA General Hospital, Beijing 100853, People's Republic of China. Additional authors for this research include S. Ma, R. Zhang, S. Li, D. Zhu, D. Han, X. Li, C. Li, W. Yan, D. Sun, B. Xu, Y. Wang and F. Cao.

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Keywords for this news article include: Asia, Beijing, Diabetes, Genetics, Cytokines, Cardiology, Oncostatin M, Cardiomyocyte, Endocrinology, Heart Disease, Cardiomyopathies, Diabetic Cardiomyopathy, People's Republic of China, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions, Intercellular Signaling Peptides and Proteins.

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Peptide Proteins - Proinsulin

Studies from Paris-Descartes University Provide New Data on Proinsulin (Leucine and Mammalian Target of Rapamycin-Dependent Activation of Muscle Protein Synthesis in Aging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Peptide Proteins - Proinsulin. According to news reporting originating in Paris, France, by NewsRx editors, the research stated, "The preservation or restoration of muscle mass is of prime importance for healthy aging. However, aging has been repeatedly shown to be associated with resistance of muscle to the anabolic effects of feeding."

The news reporters obtained a quote from the research from Paris-Descartes University, "Leucine supplementation has been proposed as a possible strategy because of its regulatory role on protein homeostasis. Indeed, it acts independently of growth factors and leads
to enhanced cap-dependent mRNA translation initiation and increased protein synthesis. Leucine acts as a signaling molecule directly at the muscle level via the activation of mammalian/mechanistic target of rapamycin complex 1 (mTORC1). However, in aged muscle, mTORC1 activation seems to be impaired, with decreased sensitivity and responsiveness of muscle protein synthesis to amino acids, whereas the phosphorylation state of several components of this signaling pathway appears to be higher in the basal state. This may stem from specific age-related impairment of muscle signaling and from decreased nutrient and growth factor delivery to the muscle. Whether aging per se affects mTORC1 signaling remains to be established, because aging is frequently associated with inadequate protein intake, decreased insulin sensitivity, inactivity, inflammatory processes, etc.

According to the news reporters, the research concluded: "Whatever its origin, this anabolic resistance to feeding can be mitigated by quantitative and qualitative manipulation of protein supply, such as leucine supplementation; however, there remains the question of possible adverse effects of long-term, high-dose leucine supplementation in terms of insulin resistance and tumorigenesis."


Our news correspondents report that additional information may be obtained by contacting J.P. De Bandt, Paris Descartes Univ, Sorbonne Paris Cite, Fac Pharm, PRETRAM EA4466Nutr Biol Lab, Paris, France.

Keywords for this news article include: Paris, France, Europe, Branched-Chain Amino Acids, Essential Amino Acids, Contractile Proteins, Protein Synthesis, Peptide Proteins, Peptide Hormones, Muscle Proteins, Medical Devices, Proteomics, Proinsulin, Genetics, Leucine, Paris-Descartes University.

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**Nutritional and Metabolic Diseases and Conditions**

**Studies from Peking Union Medical College Provide New Data on Metabolic Syndrome (Association between sleep duration and cardiac structure in youths at risk for metabolic syndrome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Metabolic Syndrome have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "The evidence for a link between sleep duration and cardiovascular risk is accumulating in youths, but no study has yet investigated the relationship between sleep duration and change of cardiac structure. In this study, we recruited 559 youths aged 14-28 years from the cohort of Beijing Child and Adolescent Metabolic Syndrome Study."

The news reporters obtained a quote from the research from Peking Union Medical College, "Questionnaire, color Doppler echocardiography, oral glucose tolerance test and blood biomarkers analyses were performed. We found that sleep duration was negatively correlated
with body mass index, waist circumstance, and HbA1c (all P< 0.05), but not with adiponectin and leptin. Meanwhile, participants with shorter sleep duration (<= 7 h) had larger interventricular septal diastolic thickness, left ventricular (LV) end-diastolic diameter, LV posterior wall thickness, LV mass (LVM), and LV mass index (LVMI), compared to participants in 7-9 h/night or > 9 h/night group. Findings remained significant after adjustment for the major confounding factors (P < 0.05). Multivariate regression modeling revealed that each additional hour of sleep was associated with smaller LVM (beta: -3.483, P< 0.0001) and LVMI (beta: -0.815, P< 0.0001).

According to the news reporters, the research concluded: "Our findings suggest that short sleep has a possible direct effect on cardiac remodeling, occurring already at young ages."

For more information on this research see: Association between sleep duration and cardiac structure in youths at risk for metabolic syndrome. Scientific Reports. 2016;6():1-8.

Our news correspondents report that additional information may be obtained by contacting M. Li, Peking Union Med College, Beijing, People's Republic of China. Additional authors for this research include J.H. Zhang, J.L. Fu, H. Wu, Y.H. Wang, L.J. Li, Y.L. Zhao, M. Li and S. Gao.

Our news editors obtained a quote from the research from Peking University Cancer Hospital and Institute. "The patients' CTCs were enumerated using CellSearch at baseline and at the first response evaluation. In 15 patients whose clinical condition permitted longitudinal study, CTCs were longitudinally enumerated during treatment. Following 6 weeks of chemotherapy, an unfavourable post-therapy CTC level (&#10878;3 CTCs per 7.5 ml) was closely correlated with the objective response rate (p=0.016) and the disease control rate (p= 0.013), and it also independently predicted a shorter progression-free survival and overall survival. Particularly, conversion to a favourable CTC level following therapy improved the
Elevated CTCs during therapy may be associated with a poor prognosis. Post-therapy CTC level may help in evaluating therapeutic response in patients with AGC and predicting their prognosis."

According to the news editors, the research concluded: "In addition, changes in CTCs following therapy may be useful in rapidly identifying ineffective treatments and poor prognosis."

For more information on this research see: Dynamic monitoring of circulating tumour cells to evaluate therapeutic efficacy in advanced gastric cancer. *British Journal of Cancer*, 2016;114(2):138-45. (Nature Publishing Group - www.nature.com/bjc/)

The news editors report that additional information may be obtained by contacting Y. Li, Key Laboratory of Carcinogenesis and Translational Research (Ministry of Education), Dept. of Gastrointestinal Oncology, Peking University Cancer Hospital & Institute, Beijing 100142, People's Republic of China. Additional authors for this research include J. Gong, Q. Zhang, Z. Lu, J. Gao, Y. Li, Y. Cao and L. Shen.

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Keywords for this news article include: Asia, Beijing, Therapy, Oncology, Gastric Cancer, Gastroenterology, Clinical Research, People's Republic of China, Clinical Trials and Studies.

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**Oncology - Liver Cancer**

**Studies from Peking University Provide New Data on Liver Cancer**

*(Single-cell triple omics sequencing reveals genetic, epigenetic, and transcriptomic heterogeneity in hepatocellular carcinomas)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Liver Cancer are presented in a new report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Single-cell genome, DNA methylome, and transcriptome sequencing methods have been separately developed. However, to accurately analyze the mechanism by which transcriptome, genome and DNA methylome regulate each other, these omic methods need to be performed in the same single cell."

Our news journalists obtained a quote from the research from Peking University, "Here we demonstrate a single-cell triple omics sequencing technique, scTrio-seq, that can be used to simultaneously analyze the genomic copy-number variations (CNVs), DNA methylome, and transcriptome of an individual mammalian cell. We show that large-scale CNVs cause proportional changes in RNA expression of genes within the gained or lost genomic regions, whereas these CNVs generally do not affect DNA methylation in these regions. Furthermore, we applied scTrio-seq to 25 single cancer cells derived from a human hepatocellular carcinoma tissue sample. We identified two subpopulations within these cells based on CNVs, DNA methylome, or transcriptome of individual cells."
According to the news editors, the research concluded: "Our work offers a new avenue of dissecting the complex contribution of genomic and epigenomic heterogeneities to the transcriptomic heterogeneity within a population of cells."


The news correspondents report that additional information may be obtained from Y. Hou, Biodynamic Optical Imaging Center, College of Life Sciences, Peking University, Beijing 100871, People's Republic of China. Additional authors for this research include H. Guo, C. Cao, X. Li, B. Hu, P. Zhu, X. Wu, L. Wen, F. Tang, Y. Huang and J. Peng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cr.2016.23. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the journal *Cell Research* is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Asia, Beijing, Genetics, Genomics, Oncology, Carcinomas, DNA Research, Liver Cancer, RNA Research, People's Republic of China.

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**Studies from Peking University Update Current Data on Perinatal Research (Relationship of maternal birth weight on maternal and neonatal outcomes: a multicenter study in Beijing)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Perinatal Research have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Birth weight is an important indicator for childhood and adulthood diseases. Published studies lack information on the relative contribution of women's own birth weight to the course of her pregnancy, not only for maternal but especially to neonatal outcome."

The news reporters obtained a quote from the research from Peking University, "The aim of the study was to evaluate the relationship of maternal birth weight on maternal and perinatal complications during pregnancy. Medical and obstetrical data were collected from 5479 women at 15 hospitals in Beijing, by a systemic cluster sampling survey conducted from 20 June 2013 to 30 November 2013. These women were categorized into five groups, according to their own birth weight: low birth weight (≤ 2500 g, n=275), sub-optimal birth weight (2500 to 2999 g, n=1079), optimal birth weight (3000 to 3499 g, n=2590; 3500 to 3999 g, n=1085), and high birth weight (≥ 4000 g, n=450). The occurrence of maternal and neonatal complications was recorded and compared among the groups. Statistical analysis was performed by SPSS 20.0 and values of P< 0.05 were considered to be statistically significant. Low maternal birth weight was associated with higher rates of gestational diabetes mellitus (X-2=
21.268, P=0.006) and hypertensive disorders (X-2=10.844, P=0.028). The latter association was strongest in women with a pre-pregnancy body mass index above 25 kg m(-2). Low maternal birth weight was also associated with an apparently higher incidence of preterm labor (X-2=18.27, P=0.001) and hypertriglyceridemia (X-2=2.739, P=0.027) in pregnancy. An association between women with low birth weight and a significantly higher rate of small for gestational age infants (X-2=93.507, P< 0.001) and low birth weight (X-2=36.256, P< 0.001) was detected. High maternal birth weight was associated with an increased risk of pre-pregnancy overweight and obesity (P < 0.001), as well as for large for gestational age infants X-2 = 93.507, P< 0.001) and macrosomia (X-2= 72.594, P< 0.001). In our study, high or low maternal birth weight was strongly associated with maternal and perinatal adverse pregnancy outcomes."

According to the news reporters, the research concluded: "This suggests that by controlling the birth weight of female infants among the normal range, adverse outcomes may be decreased in the future and for the following generations."

For more information on this research see: Relationship of maternal birth weight on maternal and neonatal outcomes: a multicenter study in Beijing. Journal of Perinatology, 2016;36(12):1061-1066. Journal of Perinatology can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/jp/)

Our news correspondents report that additional information may be obtained by contacting H. Yang, Peking University, Hosp 1, Dept. of Obstet & Gynecol, Beijing 100034, People's Republic of China. Additional authors for this research include W. Zhu, Y. Wei, C. Wang, H. Feng, L. Lin, M. Hod, E. Hadar and H. Yang.

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Keywords for this news article include: Beijing, People's Republic of China, Asia, Perinatal Research, Health and Medicine, Peking University.

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Mental Health Diseases and Conditions - Schizophrenia

**Studies from Peking University in the Area of Schizophrenia Reported**

(Association of the manganese superoxide dismutase gene Ala-9Val polymorphism with age of smoking initiation in male schizophrenia smokers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mental Health Diseases and Conditions - Schizophrenia are presented in a new report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Schizophrenia patients exhibit higher smoking rates than the general population. A growing body of evidence suggests that cigarette smoke impairs the antioxidant defense mechanisms, leading to oxidative damage."

Financial supporters for this research include National Natural Science Foundation of China, Natural Science Foundation of Beijing Municipality, NARSAD Independent Investigator.

Our news journalists obtained a quote from the research from Peking University,
Manganese superoxide dismutase (MnSOD) is the major antioxidant in the mitochondria, catalyzing the metabolism of superoxide radicals to form hydrogen peroxide. Since the identification of a well-characterized functional polymorphism, Ala-9Val of MnSOD, a number of studies have evaluated the association between Val-9Ala and schizophrenia or cancer. In this study, we hypothesized that the functional polymorphism of MnSOD Ala-9Val was associated with smoking in patients with schizophrenia. This polymorphism was genotyped in 666 chronic male schizophrenia patients (smoker/never-smoker=507/159) and 660 male controls (smoker/never-smoker=360/300) using a case-control design. The cigarettes smoked per day (CPD) and smoking behaviors were evaluated by clinician-administered questionnaires and the Fagerstrom Test for Nicotine Dependence (FTND). The results showed no significant differences in MnSOD Ala-9Val genotype and allele distributions between the patients and healthy controls or between smokers and never-smokers in either patients or healthy controls alone. The smokers with the Ala allele started smoking significantly earlier (19.9 ± 5.8 vs. 21.7 ± 6.5 years, p=0.005) only in patients.

According to the news editors, the research concluded: "These results suggest that the MnSOD Ala-9Val polymorphism may not influence smoking status in a Chinese male schizophrenia population, but may influence the age at which smoking is started among schizophrenia smokers."


The news correspondents report that additional information may be obtained from X.Y. Zhang, Psychiatry Research Center, Beijing HuiliLongGuan Hospital, Peking University, Beijing, People's Republic of China. Additional authors for this research include W.W. Rao, Q. Yu, Y. Yu, C. Kou, Y.L. Tan, D.C. Chen, L. Zuo, X. Luo and J.C Soares.

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Keywords for this news article include: Asia, Anions, Beijing, Genetics, Psychiatry, Electrolytes, Schizophrenia, Oxidoreductases, Superoxide Dismutase, Enzymes and Coenzymes, Reactive Oxygen Species, People's Republic of China, Mental Health Diseases and Conditions.

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**Clinical Research - Clinical Trials and Studies**

**Studies from Peking-Tsinghua Center for Life Sciences Yield New Data on Clinical Trials and Studies (Haplo-identical transplantation for acquired severe aplastic anaemia in a multicentre prospective study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "We conducted a prospective, multicentre study to confirm the feasibility of haplo-identical transplantation in treatment of severe aplastic anaemia (SAA) as
salvage therapy, by analysing the outcomes of 101 patients who received haplo-identical transplantation between June 2012 and October 2015. All cases surviving for more than 28d achieved donor myeloid engraftment."

Financial supporters for this research include Collaborative Innovation Centre of Haematology China, National Natural Science Foundation of China, Beijing Municipal Science & Technology Commission.

The news correspondents obtained a quote from the research from Peking-Tsinghua Center for Life Sciences, "The median time for myeloid engraftment was 12 (range, 9-25) days and 15 (range, 7-101) days for platelets, with a cumulative platelet engraftment incidence of 941 +/- 01%. With a median follow-up of 183 (30-436) months, recipients from haplo-identical transplantation had more cumulative incidence of grade II-IV acute graft-versus-host disease (aGVHD, 337% vs. 42%, P<0001), more chronic GVHD (224% vs. 66%, P=0014) at 1year, but similar grade III-IV aGVHD (79% vs. 21%, P=0157), 3-year estimated overall survival (OS, 890% vs. 910%, P=0555) and failure-free survival (FFS, 868% vs. 803%, P=0659) when compared with 48 patients who received contemporaneous transplantation from matched related donors. Multivariate analysis showed no significant difference in engraftment and survival between the two cohorts. Both OS and FFS for the entire population correlated significantly with grades III-IV aGVHD."

According to the news reporters, the research concluded: "Haplo-identical transplantation is a feasible choice for SAA with favourable outcomes."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjh.14225. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Clinical Trials and Studies, Clinical Research, Peking-Tsinghua Center for Life Sciences.

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Adolescence

Studies from Pennsylvania State University Reveal New Findings on Adolescence (The Double Standard at Sexual Debut: Gender, Sexual Behavior and Adolescent Peer Acceptance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Adolescence. According to news reporting out of University Park, Pennsylvania, by NewsRx editors, research stated, "A sexual double
standard in adolescence has important implications for sexual development and gender inequality. The present study uses longitudinal social network data (N = 914; 11-16 years of age) to test if gender moderates associations between adolescents' sexual behaviors and peer acceptance."

Funders for this research include William T. Grant Foundation, National Institute on Drug Abuse, National Institute of Child Health and Human Development.

Our news journalists obtained a quote from the research from Pennsylvania State University, "Consistent with a traditional sexual double standard, female adolescents who reported having sex had significant decreases in peer acceptance over time, whereas male adolescents reporting the same behavior had significant increases in peer acceptance. This pattern was observed net of respondents' own perceived friendships, further suggesting that the social responses to sex vary by gender of the sexual actor. However, findings for 'making out' showed a reverse double standard, such that female adolescents reporting this behavior had increases in peer acceptance and male adolescents reporting the same behavior had decreases in peer acceptance over time. Results thus suggest that peers enforce traditional sexual scripts for both 'heavy' and 'light' sexual behaviors during adolescence."

According to the news editors, the research concluded: "These findings have important implications for sexual health education, encouraging educators to develop curricula that emphasize the gendered social construction of sexuality and to combat inequitable and stigmatizing peer responses to real or perceived deviations from traditional sexual scripts."

For more information on this research see: The Double Standard at Sexual Debut: Gender, Sexual Behavior and Adolescent Peer Acceptance. Sex Roles, 2016;75(7-8):377-392. Sex Roles can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Sex Roles - www.springerlink.com/content/0360-0025/)

Our news journalists report that additional information may be obtained by contacting D.A. Kreager, Pennsylvania State University, Dept. of Sociol & Criminol, University Park, PA 16802, United States. Additional authors for this research include J. Staff, R. Gauthier, E.S. Lefkowitz and M.E. Feinberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11199-016-0618-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: University Park, Pennsylvania, United States, North and Central America, Adolescence, Pennsylvania State University.

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Mosquito-Borne Diseases - Malaria

Studies from Pennsylvania State University Update Current Data on Malaria (Metabolomic Profiling of the Malaria Box Reveals Antimalarial Target Pathways)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mosquito-Borne Diseases - Malaria have been published. According to news reporting from University Park, Pennsylvania, by NewsRx journalists, research stated, "The threat of widespread drug resistance to frontline antimalarials
has renewed the urgency for identifying inexpensive chemotherapeutic compounds that are effective against Plasmodium falciparum, the parasite species responsible for the greatest number of malaria-related deaths worldwide. To aid in the fight against malaria, a recent extensive screening campaign has generated thousands of lead compounds with low micromolar activity against blood stage parasites."

Financial support for this research came from Bill and Melinda Gates Foundation.

The news correspondents obtained a quote from the research from Pennsylvania State University, "A subset of these leads has been compiled by the Medicines for Malaria Venture (MMV) into a collection of structurally diverse compounds known as the MMVMalaria Box. Currently, little is known regarding the activity of these Malaria Box compounds on parasite metabolism during intraerythrocytic development, and a majority of the targets for these drugs have yet to be defined. Here we interrogated the in vitro metabolic effects of 189 drugs (including 169 of the drug-like compounds from the Malaria Box) using ultra-high-performance liquid chromatography-mass spectrometry (UHPLC-MS). The resulting metabolic fingerprints provide information on the parasite biochemical pathways affected by pharmacologic intervention and offer a critical blueprint for selecting and advancing lead compounds as next-generation antimalarial drugs. Our results reveal several major classes of metabolic disruption, which allow us to predict the mode of action (MoA) for many of the Malaria Box compounds."

According to the news reporters, the research concluded: "We anticipate that future combination therapies will be greatly informed by these results, allowing for the selection of appropriate drug combinations that simultaneously target multiple metabolic pathways, with the aim of eliminating malaria and forestalling the expansion of drug-resistant parasites in the field."

For more information on this research see: Metabolomic Profiling of the Malaria Box Reveals Antimalarial Target Pathways. Antimicrobial Agents and Chemotherapy, 2016;60 (11):6635-6649. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting M. Llinas, Pennsylvania State University, Dept. of Chem, University Park, PA 16802, United States. Additional authors for this research include H.J. Painter, J. Samra, M. Carrasquilla and M. Llinas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01224-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: University Park, Pennsylvania, United States, North and Central America, Mosquito-Borne Illness, Mosquito-Borne Diseases, Protozoan Infections, Drugs and Therapies, Antimalarial Agents, Malaria, Pennsylvania State University.

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Studies from People's Hospital Add New Findings in the Area of Applied Clay Science (Smart montmorillonite-polypyrrole scaffolds for electro-responsive drug release)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Science - Applied Clay Science are discussed in a new report. According to news reporting from Changzhou, People's Republic of China, by NewsRx journalists, research stated, "Hybrids of montmorillonite (Mt) and polypyrrole (PPy) were prepared by in situ electropolymerization of pyrrole monomer in the dispersion of Mt in the presence of drug molecules (aspirin), and aspirin anions were incorporated into the Mt-PPy hybrids as dopants."

Financial supporters for this research include Key Laboratory for Palygorskite Science and Applied Technology of Jiangsu Province, Science & Technology Program of Zhejiang Province.

The news correspondents obtained a quote from the research from People's Hospital, "The resulting drug loaded Mt-PPy was characterized by field emission scanning electron microscopy (FESEM), Fourier transform infrared spectroscopy (FT-IR), electrochemical impedance spectroscopy (EIS), and X-ray powder diffractometer (XRD). The Mt-PPy hybrids combined the advantages of Mt (relatively large specific surface area) and electro-responsive feature of PPy, which was applied as an electrically tunable drug release platform."

According to the news reporters, the research concluded: "Compared with PPy, the electro-stimulated drug release behaviors were significantly enhanced at the Mt-PPy hybrids, indicating that the proposed electro-responsive hybrids might be a promising candidate for smart and intelligent drug release."

For more information on this research see: Smart montmorillonite-polypyrrole scaffolds for electro-responsive drug release. Applied Clay Science, 2016;134():50-54. Applied Clay Science can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Applied Clay Science - www.journals.elsevier.com/applied-clay-science/)

Our news journalists report that additional information may be obtained by contacting M. Zhou, Changzhou 3 Peoples Hosp, Dept. of Internal Med, Changzhou, People's Republic of China. Additional authors for this research include Y.G. Peng, M. Zhou and D. Shou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clay.2016.05.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changzhou, People's Republic of China, Asia, Applied Clay Science, Science, Drugs and Therapies, People's Hospital.

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Oncology - Lung Cancer

Studies from People's Hospital Add New Findings in the Area of Lung Cancer (Reduced SLC27A2 Induces Cisplatin Resistance in Lung Cancer Stem Cells by Negatively Regulating Bmi1-ABCG2 Signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news originating from Hefei, People's Republic of China, by NewsRx correspondents, research stated, "Platinum-based chemotherapies have long been used as a standard treatment in non-small cell lung cancer (NSCLC). However, cisplatin resistance is a major problem that restricts the use of cisplatin."

Our news journalists obtained a quote from the research from People's Hospital, "Lung cancer stem cells (LCSCs) represent a subpopulation that is responsible for chemoresistance. We aim to investigate the biological function of SLC27A2 and its underlying mechanisms in regulating chemo-resistance to cisplatin in LCSCs. Here, our findings testified that CD166(+) cells which were derived from fresh primary NSCLC samples displayed stem cell-like features and were resistant to chemotherapy drug cisplatin. In patient cohort, we found the presence of a variable fraction of CD166(+) cells in 24 out of 25 primary NSCLC samples. Significantly, SLC27A2 expression was reduced in CD166(+) LCSCs. Reduced SLC27A2 correlated chemo-response and poor patient survival. Our results indicated that enhanced SLC27A2 expression sensitized CD166(+) LCSCs to cisplatin by in vitro and in vivo experiments. Microarray profiling showed that the expression of Bmi1 and ABCG2 was enhanced in p-SLC27A2-LCSCs compared with that in pc3.1DNA-LCSCs. Furthermore, we demonstrated that reduced SLC27A2 induced chemo-resistance in CD166(+) LCSCs by negatively regulating Bmi1-ABCG2 signaling, and ABCG2 was a direct transcriptional target of Bmi1."

According to the news editors, the research concluded: "Thus, this study widens the window for identification and targeting of a cisplatin-resistant population and contributes to the development of potential therapeutics to improve the current treatment modalities in NSCLC."


The news correspondents report that additional information may be obtained from T. Guo, Second Peoples Hosp Anhui, Dept. of Thorac Surg, Hefei 230000, Abhui Province, People's Republic of China. Additional authors for this research include S.F. Wu, W. Tang, H. Qian, H. Zhou and T. Guo.

Keywords for this news article include: Hefei, People's Republic of China, Asia, Drugs and Therapies, Stem Cell Research, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin Therapy, Alkylating Agents, Drug Resistance, Pharmaceuticals, Antineoplastics, Lung Neoplasms, Lung Cancer, Oncology, People's Hospital.

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Studies from People's Hospital Yield New Data on Colon Cancer  
(Differentially expressed long non-coding RNAs and the prognostic potential in colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Colon Cancer are discussed in a new report. According to news reporting originating in Shandong, People's Republic of China, by NewsRx journalists, research stated, "(lncRNAs) are new research hotspots for their vital roles in regulating gene expression. This study aims to investigate the prognostic value of lncRNAs in CRC patients."

The news reporters obtained a quote from the research from People's Hospital, "A total of 21 cancer-related lncRNAs were detected by PCR array to reveal their expression changes in CRC tissue. A 120-week-long follow-up was performed in 30 CRC patients to analyze the relationship between lncRNA levels and CRC prognosis. Most of the 21 lncRNAs were differentially expressed in CRC tissue compared to the adjacent normal tissue, among which seven lncRNAs were significantly changed: AFAP1-AS1, BCAR4, H19, HOXA-AS2, MALAT1 and PVT1 were up-regulated, and ADAMTS9-AS2 was down-regulated in CRC tissue samples. No obvious correlation was found between lncRNA levels and the age, gender, tumor size or TNM stage of these patients. Log-rank test indicated that higher levels of AFAP1-AS1, BCAR4, H19, HOXA-AS2, MALAT1 or PVT1 and lower level of ADAMTS9-AS2 might predict the poor prognosis of CRC patients."

According to the news reporters, the research concluded: "This study suggests the potential value of the seven lncRNAs in the prognosis of CRC, providing reference information for future research on CRC prognostic and treatment strategy."

For more information on this research see: Differentially expressed long non-coding RNAs and the prognostic potential in colorectal cancer. Neoplasma, 2016;63(6):977-983. Neoplasma can be contacted at: Aepress Sro, Bajzova 7, Bratislava, 821 08, Slovakia.

Our news correspondents report that additional information may be obtained by contacting S. Hou, Zoucheng Peoples Hosp, Dept. of Pediat Surg, Zoucheng 273500, Shandong, People's Republic of China. Additional authors for this research include Y. Dai, F. Wang and S. Hou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4149/neo_2016_617. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, People's Hospital.

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Studies from Petz Aladar County Teaching Hospital in the Area of Heart Attack Described (Effects of Angiotensin-Converting Enzyme Inhibitors and Angiotensin Receptor Blockers on Prothrombotic Processes and Myocardial Infarction Risk)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting out of Gyor, Hungary, by NewsRx editors, research stated, "Acute ischemic events occur most frequently at dawn and in the early hours of the morning."

Our news journalists obtained a quote from the research from Petz Aladar County Teaching Hospital, "The development of these severe clinical events exhibits a temporal relationship with changes in various hemodynamic, prothrombotic, and hormonal processes. The authors highlight not only these relationships but also the potential protective effect of increased bradykinin levels and the inhibition of different angiotensin II (AT-II) receptors (AT2, AT4) against unfavorable prothrombotic influences, which-based on studies to date-decreases the risk of acute cardiovascular events."

According to the news editors, the research concluded: "Comparisons are presented between the different effects of angiotensin-converting enzyme inhibitors and angiotensin receptor blockers on factors that influence thrombus formation and myocardial infarction risk."


Our news journalists report that additional information may be obtained by contacting C.A. Dezsi, Petz Aladar Cty Teaching Hosp, Dept. of Cardiol, H-9024 Gyor, Hungary.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40256-016-0185-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gyor, Hungary, Europe, Enzymes and Coenzymes, Article Review, Drugs and Therapies, Risk and Prevention, Vascular Diseases and Conditions, Heart Disorders and Diseases, G-Protein-Coupled Receptors, Neuropeptide Receptors, Angiotensin Receptors, Myocardial Infarction, Myocardial Ischemia, Biological Factors, Membrane Proteins, Peptide Receptors, Peptide Proteins, Peptide Hormones, Oligopeptides, Neuropeptides, Heart Disease, Angiotensins, Heart Attack, Autacoids, Peptides, Petz Aladar County Teaching Hospital.

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Nanotechnology - Nanovesicles

Studies from Pohang University of Science and Technology in the Area of Nanovesicles Described (Bacterial protoplast-derived nanovesicles for tumor targeted delivery of chemotherapeutics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nanotechnology - Nanovesicles are discussed in a new report. According to news originating from Pohang, South Korea, by NewsRx correspondents, research stated, "Increasing incidents of patients diagnosed with cancer have brought massive improvement in the delivery technologies to help patients receiving chemotherapy. However, tumor specific targeting of the chemotherapeutics still remains as a challenge mainly due to the difficulties in the conjugation and manipulation of bio-specific molecules on the surface."

Funders for this research include Ministry of Health & Welfare, Republic of Korea, National Research Foundation of Korea (NRF).

Our news journalists obtained a quote from the research from the Pohang University of Science and Technology, "Herein, we genetically engineered bacterial protoplast to develop nanovesicles having no toxic outer membrane components that can specifically target and deliver chemotherapeutics to tumor tissues. The bacterial protoplast nanovesicles expressing tumor-targeting moieties on the surface were prepared by serial extrusions through nano-sized membrane filters. The nano-sized vesicular structure of protoplast nanovesicles offers passive targeting to solid tumor site and expression of tumor-targeting moiety enhance tumor-specific uptake via receptor-mediated targeting. Chemotherapeutics-loaded in the nanovesicles induce dose-dependent cytotoxicity in tumor cells in vitro. Moreover, specific trafficking of drug-loaded nanovesicles to the tumor tissue and efficient prevention of tumor growth in tumor xenografted mice are shown. Importantly, this tumor growth suppression of protoplast nanovesicles has shown to reduce the chemotherapeutics-induced adverse effects after systemic administration to mice."

According to the news editors, the research concluded: "This study offers great potential of protoplast nanovesicles as effective and safe delivery system to optimize and contribute to the development of advanced chemotherapy."

For more information on this research see: Bacterial protoplast-derived nanovesicles for tumor targeted delivery of chemotherapeutics. Biomaterials, 2017;113():68-79. Biomaterials can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)

The news correspondents report that additional information may be obtained from Y.S. Gho, Pohang University of Science & Technology, Dept. of Life Sci, Pohang 37673, South Korea. Additional authors for this research include N.T.H. Dinh, H.T. Park, S.J. Choi, K. Hong and Y.S. Gho.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.10.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pohang, South Korea, Asia, Emerging Technologies, Nanotechnology, Nanovesicles, Genetics, Pohang University of Science and Technology.
Nitrogen Oxides

Studies from Pontifical Catholic University Have Provided New Data on Nitrogen Oxides (Nitric oxide and pH modulation in gynaecological cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nitrogen Oxides is the subject of a report. According to news originating from Santiago, Chile, by NewsRx correspondents, research stated, "Nitric oxide plays several roles in cellular physiology, including control of the vascular tone and defence against pathogen infection. Neuronal, inducible and endothelial nitric oxide synthase (NOS) isoforms synthesize nitric oxide."

Financial support for this research came from Fondo Nacional de Desarrollo Cientifico y Tecnologico.

Our news journalists obtained a quote from the research from Pontifical Catholic University, "Cells generate acid and base equivalents, whose physiological intracellular concentrations are kept due to membrane transport systems, including Na+/H+ exchangers and Na+/HCO3- transporters, thus maintaining a physiological pH at the intracellular (similar to 7.0) and extracellular (similar to 7.4) medium. In several pathologies, including cancer, cells are exposed to an extracellular acidic microenvironment, and the role for these membrane transport mechanisms in this phenomenon is likely. As altered NOS expression and activity is seen in cancer cells and because this gas promotes a glycolytic phenotype leading to extracellular acidosis in gynaecological cancer cells, a pro-inflammatory microenvironment increasing inducible NOS expression in this cell type is feasible. However, whether abnormal control of intracellular and extracellular pH by cancer cells regards with their ability to synthesize or respond to nitric oxide is unknown. We, here, discuss a potential link between pH alterations, pH controlling membrane transport systems and NOS function. We propose a potential association between inducible NOS induction and Na+/H+ exchanger expression and activity in human ovary cancer. A potentiation between nitric oxide generation and the maintenance of a low extracellular pH (i.e. acidic) is proposed to establish a sequence of events in ovarian cancer cells, thus preserving a pro-proliferative acidic tumour extracellular microenvironment."

According to the news editors, the research concluded: "We suggest that pharmacological therapeutic targeting of Na+/H+ exchangers and inducible NOS may have benefits in human epithelial ovarian cancer."


The news correspondents report that additional information may be obtained from C. Sanhueza, Pontifical Catholic University, CMPL, Div Obstet & Gynaecol, Sch MedFac Med, Santiago, Chile. Additional authors for this research include J. Araos, L. Naranjo, E. Barros, M. Subiabre, F. Toledo, J. Gutierrez, D.I. Chiarello, F. Pardo, A. Leiva and L. Sobrevia.

The direct object identifier (DOI) for that additional information is:
Studies from Poznan University of Medical Sciences Have Provided New Data on Hypotension (Impact of Controlled Induced Hypotension on Cognitive Functions of Patients Undergoing Functional Endoscopic Sinus Surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hypotension have been published. According to news originating from Poznan, Poland, by NewsRx correspondents, research stated, "Controlled induced hypotension guarantees less blood loss and better visibility of the surgical site. The impact of hypotension on post-operative cognitive functions is still being discussed."

Our news journalists obtained a quote from the research from the Poznan University of Medical Sciences, "The objective of this study was to evaluate the effects of controlled induced hypotension on the cognitive functions of patients undergoing functional endoscopic sinus surgery (FESS). We allocated 47 patients with a good grade of preoperative cognitive functions evaluated with the Mini-Mental State Examination to 3 groups (1 -mild hypotension, 2 -intermediate hypotension, 3 -severe hypotension) according to the degree of mean intraoperative arterial pressure compared with preoperative blood pressure. Cognitive functions were evaluated preoperatively, 6 h, and 30 h postoperatively with standardized tests: the Stroop Test, Trail Making Test (TMT), and Verbal Fluency Test (VFT). A decrease in the test results and increase in the number of mistakes made were considered an impairment of cognitive functions. A total of 47 patients (group 1 -mild hypotension -15, group 2 -intermediate hypotension -19, group 3 -severe hypotension -13) were included in the study. A significant decrease was observed in all the 3 groups after Stroop A test 6h postoperatively but it improved 30h postoperatively, without differences between the groups. Neither a significant decrease in the test results nor an increase in the number of mistakes was noted for Stroop B tests, TMT A&B tests and VFT."

According to the news editors, the research concluded: "The degree of controlled intraoperative hypotension during FESS did not influence the results of psychometric tests."

For more information on this research see: Impact of Controlled Induced Hypotension on Cognitive Functions of Patients Undergoing Functional Endoscopic Sinus Surgery. Medical Science Monitor, 2016;22():898-907.

The news correspondents report that additional information may be obtained from S. Nowak, Students' Scientific Society, Poznan University of Medical Sciences, Poznan, Poland. Additional authors for this research include A. Oldak, A. Kluzik and L. Drobnik.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.895964. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include: Poznan, Poland, Europe, Hypotension, Sinus Surgery, Medical Devices, Otorhinolaryngology, Cardiovascular Diseases and Conditions.

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Phenols

Studies from Poznan University of Medical Sciences Update Current Data on Phenols (Pharmacokinetics and pharmacodynamics of propofol and fentanyl in patients undergoing abdominal aortic surgery - a study of pharmacodynamic drug-drug interactions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Phenols. According to news reporting originating from Poznan, Poland, by NewsRx correspondents, research stated, "Propofol is routinely combined with opioid analgesics to ensure adequate anesthesia during surgery. The aim of the study was to assess the effect of fentanyl on the hypnotic effect of propofol and the possible clinical implications of this interaction."

Our news editors obtained a quote from the research from the Poznan University of Medical Sciences, "The pharmacokinetic/pharmacodynamic (PK/PD) data were obtained from 11 patients undergoing abdominal aortic surgery, classified as ASA III. Propofol was administered by a target-controlled infusion system. Fentanyl 2-3 µg/kg was given whenever insufficient analgesia occurred. The bispectral index (BIS) was used to monitor the depth of anesthesia. A population PK/PD analysis with a non-linear mixed-effect model (NONMEM 7.2 software) was conducted. Two-compartment models satisfactorily described the PK of propofol and fentanyl. The delay of the anesthetic effect in relation to PK was described by the effect compartment. The BIS was linked to propofol and fentanyl effect-site concentrations through an additive E-max model. sensitive decrement times (CSDT) determined from the final model were used to assess the influence of fentanyl on the recovery after anesthesia. The population PK/PD model was successfully developed to describe simultaneously the time course and variability of propofol and fentanyl concentrations and BIS. Additive propofol-fentanyl interactions were observed and quantitated. The duration of the fentanyl infusion had minimal effect on CSDT when it was shorter than the duration of the propofol infusion. If the fentanyl infusion was longer than the propofol infusion, an almost two-fold increase in CSDT occurred."

According to the news editors, the research concluded: "Additional doses of fentanyl administered after the cessation of the propofol infusion result in lower BIS values, and can prolong the time of recovery from anesthesia."


The news editors report that additional information may be obtained by contacting K. Przybylowski, Poznan Univ Med Sci, Dept. of Clin Pharm & Biopharm, Poznan, Poland.
Additional authors for this research include K. Bieda, K. Przybylowski, R. Hartmann-Sobczynska, A. Borsuk, J. Matysiak, Z.J. Kokot, P. Sobczynski, E. Grzeskowiak and A. Bienert.

Keywords for this news article include: Poznan, Poland, Europe, Central Nervous System Agents, Fentanyl Therapy Citrate, Drugs and Therapies, Narcotic Analgesics, General Anesthetics, Pharmacokinetics, Pharmacodynamics, Propofol Therapy, Pharmaceuticals, Pain Medicine, Anesthesia, Surgery, Phenols, Poznan University of Medical Sciences.

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Central Nervous System Diseases and Conditions -…

Studies from Public Hospital System Have Provided New Data on Meningeal Neoplasms (Grade II meningiomas and Gamma Knife radiosurgery: analysis of success and failure to improve treatment paradigm)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System Diseases and Conditions - Meningeal Neoplasms are presented in a new report. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "Grade II meningiomas, which currently account for 25% of all meningiomas, are subject to multiple recurrences throughout the course of the disease and represent a challenge for the neurosurgeon. Radiosurgery is increasingly performed for the treatment of Grade II meningiomas and is quite efficient in controlling relapses locally at the site of the lesion, but it cannot prevent margin relapses."

The news reporters obtained a quote from the research from Public Hospital System, "The aim of this retrospective study was to analyze the technical parameters involved in producing marginal relapses and to optimize loco-marginal control to improve therapeutic strategy. Eighteen patients presenting 58 lesions were treated by Gamma Knife radiosurgery (GKRS) between 2010 and 2015 in Hopital de la Pitie-Salpotriere. The median patient age was 68 years (25%-75% interval: 61-72 years), and the sex ratio (M/F) was 13:5. The median delay between surgery and first GKRS was 3 years. Patients were classified as having Grade II meningioma using World Health Organization (WHO) 2007 criteria. The tumor growth rate was computed by comparing 2 volumetric measurements before treatment. After GKRS, iterative MRI, performed every 6 months, detected a relapse if tumor volume increased by more than 20%. Patterns of relapse were defined as being local, marginal, or distal. Survival curves were estimated using the Kaplan-Meier method, and the relationship between criterion and potential risk factors was tested by the log-rank test and univariable Cox model. The median follow-up was 36 months (range 8-57 months). During this period, 3 patients presented with a local relapse, 5 patients with a marginal relapse, and 7 patients with a distal relapse. Crude local control was 84.5%. The local control actuarial rate was 89% at 1 year and 71% at 3 years. The marginal control actuarial rate was 81% at 1 year and 74% at 2 years. The distal control actuarial rate was 100% at 1 year, 81% at 2 years, and 53% at 3 years. Median distal control was 38 months. Progression-free survival (PFS) was 71% at 1 year, 36% at 2 years, and 23% at 3 years. Median PFS was 18 months. Lesions treated with a minimum radiation dose of 12 Gy had significantly more local relapses than those treated with a dose > 12 Gy (p = 0.04) in univariate analysis. Marginal control was significantly influenced by tumor growth rate, with a lower growth rate being highly associated with improved marginal control (p = 0.002). There was a trend toward a relationship between dose and marginal control, but it was not significant (p =...
PFS was significantly associated with delay between first surgery and GKRS (p = 0.03). The authors noticed few complications with no sequelae. In order to optimize loco-marginal control, radiosurgical treatment should require a minimum dose of > 12 Gy and an extended target volume along the dural insertion.

According to the news reporters, the research concluded: "Ideally, these parameters should correspond to the aggressiveness of the lesion, based on genetic features of the tumor."

For more information on this research see: Grade II meningiomas and Gamma Knife radiosurgery: analysis of success and failure to improve treatment paradigm. Journal of Neurosurgery, 2016;125():89-96. Journal of Neurosurgery can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

Our news correspondents report that additional information may be obtained by contacting C.A. Valery, Hopital La Pitie Salpetriere, AP HP, Serv Neurochirurg, Paris, France. Additional authors for this research include M. Failloit, I. Lamproglou, J.L. Golmard, C. Jenny, M. Peyre, K. Mokhtari, J.J. Mazeron, P. Cornu and M. Kalamarides.

Keywords for this news article include: Paris, France, Europe, Central Nervous System Diseases and Conditions, Drugs and Therapies, Risk and Prevention, Central Nervous System Neoplasms, Meningeal Neoplasms, Radiosurgery, Radiotherapy, Meningioma, Genetics, Surgery, Public Hospital System.

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Oncology - Breast Cancer

Studies from Pukyong National University Reveal New Findings on Breast Cancer (In Vitro Photodynamic Effect of Phycocyanin against Breast Cancer Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating in Busan, South Korea, by NewsRx journalists, research stated, "C-phycocyanin, a natural blue-colored pigment-protein complex was explored as a novel photosensitizer for use in low-level laser therapy under 625-nm laser illumination. C-phycocyanin produced singlet oxygen radicals and the level of reactive oxygen species (ROS) were raised in extended time of treatment."

The news reporters obtained a quote from the research from Pukyong National University. "It did not exhibit any visible toxic effect in the absence of light. Under 625-nm laser irradiation, c-phycocyanin generated cytotoxic stress through ROS induction, which killed MDA-MB-231 breast cancer cells depending on concentrations. Different fluorescent staining of laser-treated cells explored apoptotic cell death characteristics like the shrinking of cells, cytoplasmic condensation, nuclei cleavage, and the formation of apoptotic bodies."

According to the news reporters, the research concluded: "Phycocyanin is a non-toxic fluorescent pigment that can be used in low-level light therapy."

For more information on this research see: In Vitro Photodynamic Effect of Phycocyanin against Breast Cancer Cells. Molecules, 2016;21(11):748-759. Molecules can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news correspondents report that additional information may be obtained by
contacting S. Bharathiraja, Pukyong Natl Univ, Marine Integrated Bion Res Center, Busan 608737, South Korea. Additional authors for this research include H. Seo, P. Manivasagan, M.S. Moorthy, S. Park and J. Oh.

Keywords for this news article include: Busan, South Korea, Asia, Light-Harvesting Protein Complexes, Biological Pigments, Biological Factors, Phycobiliproteins, Plant Proteins, Women's Health, Biotechnology, Photodynamics, Breast Cancer, Phycocyanin, Oncology, Pukyong National University.

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**Mycobacterium Infections - Tuberculosis**

**Studies from Pusan National University Further Understanding of Tuberculosis (Molecular Strain Typing of Mycobacterium tuberculosis: A Review of Frequently Used Methods)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections - Tuberculosis. According to news reporting out of Yangsan, South Korea, by NewsRx editors, research stated, "Tuberculosis, caused by the bacterium Mycobacterium tuberculosis, remains one of the most serious global health problems. Molecular typing of M. tuberculosis has been used for various epidemiologic purposes as well as for clinical management."

Our news journalists obtained a quote from the research from Pusan National University, "Currently, many techniques are available to type M. tuberculosis. Choosing the most appropriate technique in accordance with the existing laboratory conditions and the specific features of the geographic region is important. Insertion sequence IS6110-based restriction fragment length polymorphism (RFLP) analysis is considered the gold standard for the molecular epidemiologic investigations of tuberculosis. However, other polymerase chain reaction-based methods such as spacer oligonucleotide typing (spoligotyping), which detects 43 spacer sequence-interspersing direct repeats (DRs) in the genomic DR region; mycobacterial interspersed repetitive units-variable number tandem repeats, (MIRU-VNTR), which determines the number and size of tandem repetitive DNA sequences; repetitive-sequence-based PCR (rep-PCR), which provides high-throughput genotypic fingerprinting of multiple Mycobacterium species; and the recently developed genome-based whole genome sequencing methods demonstrate similar discriminatory power and greater convenience."

According to the news editors, the research concluded: "This review focuses on techniques frequently used for the molecular typing of M. tuberculosis and discusses their general aspects and applications."


Our news journalists report that additional information may be obtained by contacting C.L. Chang, Pusan National University, Dept. of Lab Med, Yangsan Hosp, Yangsan 50612, South Korea. Additional authors for this research include W.W. Aung, J.S. Lee, G.E. Choi and C.L. Chang.
Studies from Quaid-I-Azam University Yield New Information about Nanoparticles (Green synthesis of silver nanoparticles via plant extracts: beginning a new era in cancer theranostics)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nanotechnology - Nanoparticles. According to news reporting originating from Islamabad, Pakistan, by NewsRx correspondents, research stated, "With the development of the latest technologies, scientists are looking to design novel strategies for the treatment and diagnosis of cancer. Advances in medicinal plant research and nanotechnology have attracted many researchers to the green synthesis of metallic nanoparticles due to its several advantages over conventional synthesis (simple, fast, energy efficient, one pot processes, safer, economical and biocompatibility)."

Our news editors obtained a quote from the research from Quaid-I-Azam University, "Medicinally active plants have proven to be the best reservoirs of diverse phytochemicals for the synthesis of biogenic silver nanoparticles (AgNPs). In this review, we discuss mechanistic advances in the synthesis and optimization of AgNPs from plant extracts. Moreover, we have thoroughly discussed the recent developments and milestones achieved in the use of biogenic AgNPs as cancer theranostic agents and their proposed mechanism of action."

According to the news editors, the research concluded: "Anticipating all of the challenges, we hope that biogenic AgNPs may become a potential cancer theranostic agent in the near future."


The news editors report that additional information may be obtained by contacting M. Ovais, Quaid I Azam Univ, Dept. of Biotechnol, Islamabad, Pakistan. Additional authors for this research include A.T. Khalil, A. Raza, M.A. Khan, I. Ahmad, N. U. Islam, M. Saravanan, M.F. Ubaid, M. Ali and Z.K. Shinwari.

Keywords for this news article include: Islamabad, Pakistan, Asia, Nanoparticles, Cancer, Article Review, Emerging Technologies, Nanotechnology, Nanoparticle, Oncology, Quaid-I-Azam University.

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Studies from Queen's University in the Area of Cardiology Described
(Validation of a Novel Digital Tool in Automatic Scoring of an Online ECG Examination at an International Cardiology Meeting)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiology is now available. According to news originating from Kingston, Canada, by NewsRx correspondents, research stated, "We have previously developed a novel digital tool capable of automatically recognizing correct electrocardiography (ECG) diagnoses in an online exam and demonstrated a significant improvement in diagnostic accuracy when utilizing an inductive-deductive reasoning strategy over a pattern recognition strategy. In this study, we sought to validate these findings from participants at the International Winter Arrhythmia School meeting, one of the foremost electrophysiology events in Canada."

Our news journalists obtained a quote from the research from Queen's University, "Preregistration to the event was sent by e-mail. The exam was administered on day 1 of the conference. Results and analysis were presented the following morning to participants. Twenty-five attendees completed the exam, providing a total of 500 responses to be marked. The online tool accurately identified 195 of a total of 395 (49%) correct responses (49%). In total, 305 responses required secondary manual review, of which 200 were added to the correct responses pool. The overall accuracy of correct ECG diagnosis for all participants was 69% and 84% when using pattern recognition or inductive-deductive strategies, respectively. Utilization of a novel digital tool to evaluate ECG competency can be set up as a workshop at international meetings or educational events."

According to the news editors, the research concluded: "Results can be presented during the sessions to ensure immediate feedback."


The news correspondents report that additional information may be obtained from A. Baranchuk, Queen's University, Kingston Gen Hosp, Arrhythmia Serv, Kingston, ON, Canada. Additional authors for this research include E. Crystal, I. Lashevsky, B. Arouny and A. Baranchuk.

Keywords for this news article include: Kingston, Ontario, Canada, North and Central America, Cardiology, Queen's University.

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Clinical Research - Clinical Trials and Studies

Studies from R.B. Verheijen and Co-Researchers Yield New Data on Clinical Trials and Studies (Individualized Pazopanib Dosing: A Prospective Feasibility Study in Cancer Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Clinical Research - Clinical Trials and Studies is the subject of a report. According to news originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Pazopanib is a tyrosine kinase inhibitor approved for the treatment of renal cell carcinoma and soft tissue sarcoma. Retrospective analyses have shown that an increased median progression-free survival and tumor shrinkage appear in patients with higher plasma trough levels (C-min)."

Our news journalists obtained a quote from the research, "Therefore, patients with low Cmin might benefit from pharmacokinetically guided individualized dosing. We conducted a prospective multicenter trial in 30 patients with advanced solid tumors. Pazopanib Cmin was measured weekly by LC-MS/MS. At weeks 3, 5, and 7, the pazopanib dose was increased if the measured Cmin was <20 mg/L and toxicity was <grade 3. In total, 17 patients had at least one Cmin <20 mg/L at weeks 3, 5, and 7. Of these, 10 were successfully treated with a pharmacokinetically guided dose escalation, leading to daily dosages ranging from 1,000 to 1,800 mg. C-min in these patients increased significantly from 13.2 (38.0%) mg/L [mean (CV%)] to 22.9 mg/L (44.9%). Thirteen patients had all C-min levels >= 20.0 mg/L. Of these, 9 patients with a high C-min of 51.3 mg/L (45.1%) experienced >= grade 3 toxicity and subsequently required a dose reduction to 600 or 400 mg daily, yet in these patients, Cmin remained above the threshold at 28.2 mg/L (25.3%). A pharmacokinetically guided individualized dosing algorithm was successfully applied and evaluated. The dosing algorithm led to patients being treated at dosages ranging from 400 to 1,800 mg daily."

According to the news editors, the research concluded: "Further studies are needed to show a benefit of individualized dosing on clinical outcomes, such as progression-free survival."

For more information on this research see: Individualized Pazopanib Dosing: A Prospective Feasibility Study in Cancer Patients. Clinical Cancer Research, 2016;22(23):5738-5746. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

The news correspondents report that additional information may be obtained from R.B. Verheijen, Netherlands Can Inst Antoni Van Leeuwenhoek, Dept. of Pharm & Pharmacol, Amsterdam, Netherlands. Additional authors for this research include S. Bins, R.H.J. Mathijssen, M.P. Lolkema, L. van Doorn, J.H.M. Schellens, J.H. Beijnen, M.H.G. Langenberg, A.D.R. Huitema and N. Steeghs.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-16-1255. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Clinical Trials and Studies, Tyrosine Kinase Inhibitors, Drugs and Therapies, Clinical Research, Antineoplastics, Pazopanib, Oncology, Cancer.

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Hematologic Diseases and Conditions - Anemia

Studies from R.V. Boccia and Colleagues Yield New Information about Anemia (Efficacy and safety of darbepoetin alfa initiated at hemoglobin <= 10 g/dL in patients with stage IV cancer and chemotherapy-induced anemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematologic Diseases and Conditions - Anemia have been published. According to news reporting out of Bethesda, Maryland, by NewsRx editors, research stated, "Data on efficacy and safety of darbepoetin alfa (DA) administered at hemoglobin (Hb) <= 10 g/dL are limited. In this analysis, we examined DA's efficacy and safety in patients with Stage IV cancers and chemotherapy-induced anemia (CIA) initiated on DA at Hb <= 10 g/dL."

Our news journalists obtained a quote from the research, "Data for patients with Stage IV cancers and CIA and who initiated DA at Hb <= 10 g/dL. were extracted from three phase 3 trials identified in a central database of Amgen-sponsored DA studies in CIA. Efficacy outcomes were assessed by achievement of Hb increases of >= 1 g/dL and >= 2 g/dL and red blood cell (RBC) or whole blood transfusion requirements. Data were analyzed for all patients with baseline Hb <= 10 g/dL, and by the subgroups of patients with baseline Hb >= 9 to <= 10 g/dL versus <9 g/dL. Crude and Kaplan-Meier proportions of patients who experienced each outcome and time (days) to each outcome were summarized by treatment. Meta-analysis (fixed-effects inverse-variance model) was performed to compare outcomes for DA versus placebo. Safety was assessed by occurrence of adverse events. Data from 213 patients were analyzed: DA, n = 115; placebo, n = 98. More patients in the DA versus the placebo subgroup achieved Hb increase of >= 1 g/dL (72% vs. 36%; HR: 2.92, 95% CI: 1.95, 4.39) and >= 2 g/dL (44% vs. 18%; HR: 2.98, 95% CI: 1.71, 5.21) during the first 12 treatment weeks. Median times to Hb increase of >= 1 g/dL and <= 2 g/dL were 36 days and 78 days for DA, respectively. RBC or whole blood transfusions were less common in patients in the DA versus the placebo subgroup (24% vs. 45%; HR: 0.44, 95% CI: 0.27, 0.73). No new safety issues were reported."

According to the news editors, the research concluded: "Our results confirm that DA use in patients with Stage IV cancer and CIA is more effective than placebo at increasing Hb levels and at reducing transfusion needs when DA treatment is initiated at Hb <= 10 g/dL."


Our news journalists report that additional information may be obtained by contacting R.V. Boccia, Center Canc & Blood Disorders, Bethesda, MD 20817, United States. Additional authors for this research include D.H. Henry, L. Belton, C. Bohac and H.H. Ghazal.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Drugs and Therapies, Blood Proteins, Chemotherapy, Hemoglobins, Oncology, Globins, Cancer, Anemia.

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Studies from R.W. Bussmann and Co-Researchers Update Current Data on Ethnopharmacology (Changing markets - Medicinal plants in the markets of La Paz and El Alto, Bolivia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Ethnopharmacology. According to news reporting originating from La Paz, Bolivia, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: Given the importance of local markets as a source of medicinal plants for both healers and the population, literature on market flows and the value of the plant material traded is rather scarce. This stands in contrast to wealth of available information for other components of Bolivian ethnobotany."

Our news editors obtained a quote from the research, "The present study attempts to remedy this situation by providing a detailed inventory of medicinal plant markets in the La Paz-El Alto metropolitan area, hypothesizing that both species composition, and medicinal applications, have changed considerably over time. From October 2013-October 2015 semi-structured interviews were conducted with 39 plant vendors between October 2013 and October 2015 in the Mercado Rodriguez, Mercado Calle Santa Cruz, Mercado Cohoni, Mercado Cota Cota, and Mercado Seguencoma and Mercado El Alto in order to elucidate more details on plant usage and provenance. The results of the present study were then compared to previous inventories of medicinal plants in La Paz and El Alto studies to elucidate changes over time and impact of interview techniques. In this study we encountered 163 plant species belonging to 127 genera and 58 families. In addition, 17 species could not be identified. This species richness is considerably higher than that reported in previous studies (2005, 129 species of 55 families; 2015, 94 identified species). While the overall distribution of illness categories is in line with older reports the number of species used per application, as well as the applications per species, were much higher in the present study. Overall, informant consensus was relatively low, which might be explained by the large number of new species that have entered the local pharmacopoeia in the last decade, although some species might simply have been missed by previous studies. In course of the present study it became apparent that even well known species might often be replaced by other apparently similar but botanically unrelated species due to environmental and market forces. Conclusions: The present study indicated that, while the floristic composition of markets in the La Paz metropolitan area remained relatively constant over the last decade, with this inventory adding about 20% of species to previous studies, the number of indications for which certain species were used increased tremendously, and that profound differences exist even between markets in close proximity. The dramatic increase in previously not used species used per indication might pose serious risks for consumers. We found serious problems due to species replacements. Even plants that have a well established vernacular name, and are easily recognizable botanically, can be replaced by other species that can pose a serious health risk."

According to the news editors, the research concluded: "Vendor education and stringent identification of the material sold in public markets are clearly needed."

For more information on this research see: Changing markets - Medicinal plants in the markets of La Paz and El Alto, Bolivia. *Journal of Ethnopharmacology*, 2016;193():76-95. *Journal of Ethnopharmacology* can be contacted at: Elsevier Ireland Ltd, Elsevier House,
Studies from RIKEN Reveal New Findings on Science (SARS-CoV 3CL protease cleaves its C-terminal autoprocessing site by novel subsite cooperativity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Science are discussed in a new report. According to news reporting originating in Kanagawa, Japan, by NewsRx journalists, research stated, "The 3C-like protease (3CL(pro)) of severe acute respiratory syndrome coronavirus (SARS-CoV) cleaves 11 sites in the polyproteins, including its own N- and C-terminal autoprocessing sites, by recognizing P4-P1 and P1'. In this study, we determined the crystal structure of 3CLpro with the C-terminal prosequence and the catalytic-site C145A mutation, in which the enzyme binds the C-terminal prosequence of another molecule."

Financial support for this research came from Japan Society for the Promotion of Science (JSPS).

The news reporters obtained a quote from the research from RIKEN, "Surprisingly, Phe at the P3' position [Phe(P3')] is snugly accommodated in the S3' pocket. Mutations of Phe (P3') impaired the C-terminal autoprocessing, but did not affect N-terminal autoprocessing. This difference was ascribed to the P2 residue, Phe(P2) and Leu(P2), in the C- and N-terminal sites, as follows. The S3’ subsite is formed by Phe(P2)-induced conformational changes of 3CLpro and the direct involvement of Phe(P2) itself. In contrast, the N-terminal prosequence with Leu(P2) does not cause such conformational changes for the S3’ subsite formation. In fact, the mutation of Phe(P2) to Leu in the C-terminal autoprocessing site abolishes the dependence on Phe(P3'). These mechanisms explain why Phe is required at the P3' position when the P2 position is occupied by Phe rather than Leu, which reveals a type of subsite cooperativity. Moreover, the peptide consisting of P4-P1 with Leu(P2) inhibits protease activity, whereas that with Phe (P2) exhibits a much smaller inhibitory effect, because Phe(P3') is missing."

According to the news reporters, the research concluded: "Thus, this subsite cooperativity likely exists to avoid the auto-inhibition of the enzyme by its mature C-terminal sequence, and to retain the efficient C-terminal autoprocessing by the use of Phe(P2)."

Our news correspondents report that additional information may be obtained by contacting T. Muramatsu, RIKEN, Struct Biol Lab, Yokohama, Kanagawa 2300045, Japan. Additional authors for this research include C. Takemoto, Y.T. Kim, H.F. Wang, W. Nishii, T. Terada, M. Shirouzu and S. Yokoyama.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1601327113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kanagawa, Japan, Asia, Science, Enzymes and Coenzymes, Protease, Genetics, RIKEN.

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Eye Diseases and Conditions - Amblyopia

Studies from Radboud University Describe New Findings in Amblyopia (Ocular Manifestations of Noonan Syndrome: A Prospective Clinical and Genetic Study of 25 Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Eye Diseases and Conditions - Amblyopia is now available. According to news reporting originating in Nijmegen, Netherlands, by NewsRx journalists, research stated, "To determine the full spectrum of ocular manifestations in patients with Noonan syndrome (NS). Prospective cross-sectional clinical and genetic study in a tertiary referral center."

The news reporters obtained a quote from the research from Radboud University, "Twenty-five patients with NS (mean age, 14 years; range, 8 months-25 years) clinically diagnosed by validated criteria. All patients were examined by the same team following a detailed study protocol. Genetic analyses were performed in 23 patients. Ocular abnormalities of vision and refraction, external ocular features, ocular position and motility, anterior segment, posterior segment, and intraocular pressure. Ocular features of vision and refraction were amblyopia (32%), myopia (40%), and astigmatism (52%). External ocular features were epicanthic folds (84%), hypertelorism (68%), ptosis (56%), high upper eyelid crease (64%), lower eyelid retraction (60%), abnormal upward slanting palpebral fissures (36%), downward slanting palpebral fissures (32%), and lagophthalmos (28%). Orthoptic abnormalities included strabismus (40%), abnormal stereopsis (44%), and limited ocular motility (40%). Anterior segment abnormalities included prominent corneal nerves (72%) and posterior embryotoxon (32%). Additional ocular features were found, including non-glaucomatous optic disc excavation (20%), relatively low (< 10 mmHg) intraocular pressure (22%), and optic nerve hypoplasia (4%). Mutations were established in 22 patients: 19 PTPN11 mutations (76%), 1 SOS1 mutation, 1 BRAF mutation, and 1 KRAS mutation. The patient with the highest number of prominent corneal nerves had an SOS1 mutation. The patient with the lowest visual acuity, associated with bilateral optic nerve hypoplasia, had a BRAF mutation. Patients with severe ptosis and nearly total absence of levator muscle function had PTPN11 mutations. All patients showed at least 3 ocular features (range, 3-13; mean, 7), including at least 1 external ocular feature in more than 95% of the patients. Noonan syndrome is a clinical diagnosis with multiple genetic bases associated with an extensive variety of congenital ocular abnormalities."
According to the news reporters, the research concluded: "Ocular features of NS are characterized by 1 or more developmental anomalies of the eyelids (involving the position, opening, and closure) associated with various other ocular abnormalities in childhood, including amblyopia, myopia, astigmatism, strabismus, limited ocular motility, prominent corneal nerves, and posterior embryotoxon."


Our news correspondents report that additional information may be obtained by contacting J.R.M. Cruysberg, Radboud University, Medical Center, Dept. of Ophthalmol, Nijmegen, Netherlands. Additional authors for this research include A.M.C. Vos, R.W. Draaijer, I. van der Burgt, J.M.T. Draaisma and J.R.M. Cruysberg.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Skin and Connective Tissue Diseases and Conditions, Central Nervous System Diseases and Conditions, Musculoskeletal Diseases and Conditions, Cranial Nerve Diseases and Conditions, Craniofacial Diseases and Conditions, Musculoskeletal Abnormalities, Brain Diseases and Conditions, Eye Diseases and Conditions, Craniofacial Abnormalities, Ocular Motility Disorders, Neurologic Manifestations, Congenital Abnormalities, Sensation Disorders, Refractive Errors, Vision Disorders, Noonan Syndrome, Ophthalmology, Astigmatism, Strabismus, Amblyopia, Genetics, Myopia, Radboud University.

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Sexually Transmitted Diseases and Conditions…

Studies from Radboud University Describe New Findings in Chronic Mucocutaneous Candidiasis (Th2 and Th9 responses in patients with chronic mucocutaneous candidiasis and hyper-IgE syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Sexually Transmitted Diseases and Conditions (STDs) - Chronic Mucocutaneous Candidiasis. According to news reporting out of Nijmegen, Netherlands, by NewsRx editors, research stated, "STAT1 mutations cause chronic mucocutaneous candidiasis (CMC), while STAT3 mutations cause hyper-IgE syndrome (HIES). CMC and HIES patients have T helper (Th) 17 defects suffering from mucosal Candida infections, but only patients with HIES show an allergic phenotype with eczema, eosinophilia and high IgE levels."

Financial supporters for this research include Radboud Universitair Medisch Centrum, Vici Grant of the Netherlands Organization, ERC Consolidator, ERA-Net for Research Programmes on Rare Diseases (EURO-CMC).

Our news journalists obtained a quote from the research from Radboud University, "We investigated whether differential Th2 and Th9 responses may explain the clinical differences. Peripheral blood mononuclear cells of patients with CMC (n = 4), patients with HIES (n = 4), patients with atopic dermatitis (n = 4) and healthy volunteers (n = 13) were stimulated with Candida and Staphylococcus aureus, with and without IL-4. The cytokines IL-5,
IL-13, IL-9, IL-17 and TGFβ and regulatory T cells were measured in cell culture supernatants by ELISA or flow cytometry, respectively. Peripheral blood mononuclear cells of patients with CMC showed a significantly impaired production of the Th2 cytokines IL-5 and IL-13, especially in the presence of IL4. Moreover, IL-9 production was significantly lower in patients with CMC compared to healthy controls. In contrast, patients with HIES and patients with AD showed normal IL5 and IL-13 production, while IL-9 production was significantly lower in patients with HIES compared to healthy controls. Although TGFβ was involved in the IL-4-induced IL-9 production, TGFβ levels and the frequency of regulatory T cells did not differ between patients with HIES and controls. Flow cytometry analysis demonstrated an IL-9 + IL17 + CD4 + subset in healthy controls after stimulation with Candida which was less present in patients with HIES. Patients with CMC have a general Th defect including Th2 and Th9, while patients with HIES have normal Th2 cytokines. These differences are in line with their clinical presentation.

According to the news editors, the research concluded: "Surprisingly, the allergic cytokine IL-9 was deficient in both HIES and CMC, suggesting a Th-17-derived origin."

For more information on this research see: Th2 and Th9 responses in patients with chronic mucocutaneous candidiasis and hyper-IgE syndrome. Clinical and Experimental Allergy, 2016;46(12):1564-1574. Clinical and Experimental Allergy can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Clinical and Experimental Allergy - onlinelibrary.wiley.com/journal/10.1111/ISSN1365-2222)

Our news journalists report that additional information may be obtained by contacting F.L. van de Veerdonk, Radboud University, Medical Center, Dept. of Internal Med, Radboud Center Infect Dis RCI, Nijmegen, Netherlands. Additional authors for this research include B. Rosler, X. Wang, E. Lachmandas, M. Kamsteeg, C.W. Jacobs, L.A. Joosten, M.G. Netea and F.L. van de Veerdonk.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cea.12787. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Sexually Transmitted Diseases and Conditions (STDs), Immune System Diseases and Conditions, Chronic Mucocutaneous Candidiasis, Fungal Diseases and Conditions, Skin Diseases and Conditions, Hyper-IgE Syndrome, Dermatomycoses, Cytometry, Cytokines, Genetics, Candida, Mycoses, Radboud University.

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stated, "Cervical cancer cells commonly harbour a defective G1/S checkpoint owing to the interaction of viral oncoproteins with p53 and retinoblastoma protein. The activation of the G2/M checkpoint may thus become essential for protecting cancer cells from genotoxic insults, such as chemotherapy."

The news correspondents obtained a quote from the research from Regina Elena Cancer Institute, "In 52 cervical cancer patients treated with neoadjuvant chemotherapy, we investigated whether the levels of phosphorylated Wee1 (pWee1), a key G2/M checkpoint kinase, and g-H2AX, a marker of DNA double-strand breaks, discriminated between patients with a pathological complete response (pCR) and those with residual disease. We also tested the association between pWee1 and phosphorylated Chk1 (pChk1), a kinase acting upstream Wee1 in the G2/M checkpoint pathway. pWee1, g-H2AX and pChk1 were retrospectively assessed in diagnostic biopsies by immunohistochemistry. The degrees of pWee1 and pChk1 expression were defined using three different classification methods, i.e., staining intensity, Allred score, and a multiplicative score. g-H2AX was analyzed both as continuous and categorical variable. Irrespective of the classification used, elevated levels of pWee1 and g-H2AX were significantly associated with a lower rate of pCR. In univariate and multivariate analyses, pWee1 and g-H2AX were both associated with reduced pCR. Internal validation conducted through a re-sampling without replacement procedure confirmed the robustness of the multivariate model. Finally, we found a significant association between pWee1 and pChk1. The message conveyed by the present analysis is that biomarkers of DNA damage and repair may predict the efficacy of neoadjuvant chemotherapy in cervical cancer."

According to the news reporters, the research concluded: "Further studies are warranted to prospectively validate these encouraging findings."


Our news journalists report that additional information may be obtained by contacting P. Vici, Division of Medical Oncology B, Regina Elena National Cancer Institute, Rome, Italy. Additional authors for this research include S. Buglioni, D. Sergi, L. Pizzuti, L. Di Lauro, B. Antoniani, F. Sperati, I. Terrenato, M. Carosi, T. Gamucci, R. Dattilo, M. Bartucci, C. Vincenzoni, L. Mariani, E. Vizza, G. Sanguineti, A. Gadducci and I. Vitale.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0149872. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Cancer, Kinase, Genetics, Oncology, DNA Damage, Proteomics, Chemotherapy, DNA Research, Drugs and Therapies, Deoxyribonucleic Acid, Enzymes and Coenzymes.

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Science

**Studies from Research Center Have Provided New Data on Science**

(High dose CD11c-driven IL15 is sufficient to drive NK cell maturation and anti-tumor activity in a trans-presentation independent manner)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science. According to news originating from Borstel, Germany, by NewsRx correspondents, research stated, "The common gamma (gc)-chain cytokine interleukin 15 (IL15) is a multifunctional immune-modulator which impacts the generation, maturation and activity of many cell types of the innate, as well as the adaptive immune system, including natural killer (NK) and CD8(+) T cells. Using a new series of transgenic mice, we analyzed the in vivo potential of IL15 as an immune-regulator when available at different concentrations or delivery modes, i.e. soluble monomer or complexed to its specific receptor a (Ra)-chain."

Our news journalists obtained a quote from the research from Research Center, "We have identified distinct effects on selected IL15-responsive populations. While CD8(+) T cells required complexed forms of IL15/IL15Ra for full functionality, mature NK populations were rescued in an IL15/IL15Ra-deficient environment by high levels of CD11c-restricted IL15. These IL15-conditions were sufficient to limit tumor formation in a lung metastasis model indicating that the NK cell populations were fully functional."

According to the news editors, the research concluded: "These data underline the potential of 'free' IL15 in the absence of Ra-complex as a powerful and specific immuno-modulator, which may be beneficial where selective immune-activation is desired."

For more information on this research see: High dose CD11c-driven IL15 is sufficient to drive NK cell maturation and anti-tumor activity in a trans-presentation independent manner. Scientific Reports, 2016;6():19699. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J.K. Polansky, Research Center Borstel, 23845 Borstel, Germany. Additional authors for this research include R. Bahri, M. Divivier, E.H. Duitman, C. Vock, D.A. Goyeneche-Patino, Z. Orinska and S. Bulfone-Paus.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19699. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Borstel, Germany, Science, Therapy.

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Studies from Research Institute Have Provided New Data on Hypertension (Perindopril Attenuates Lipopolysaccharide-Induced Amyloidogenesis and Memory Impairment by Suppression of Oxidative Stress and RAGE Activation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Hypertension is the subject of a report. According to news reporting originating from Lucknow, India, by NewsRx correspondents, research stated, "Clinical and preclinical studies account hypertension as a risk factor for dementia. We reported earlier that angiotensin-converting enzyme (ACE) inhibition attenuated the increased vulnerability to neurodegeneration in hypertension and prevented lipopolysaccharide (LPS)-induced memory impairment in normotensive wistar rats
(NWRs) and spontaneously hypertensive rats (SHRs)."

Funders for this research include Indian Council of Medical Research, University Grants Commission.

Our news editors obtained a quote from the research from Research Institute, "Recently, a receptor for advanced glycation end products (RAGE) has been reported to induce amyloid beta (Ab1-42) deposition and memory impairment in hypertensive animals. However, the involvement of ACE in RAGE activation and amyloidogenesis in the hypertensive state is still unexplored. Therefore, in this study, we investigated the role of ACE on RAGE activation and amyloidogenesis in memory-impaired NWRs and SHRs. Memory impairment was induced by repeated (on days 1, 4, 7, and 10) intracerebroventricular (ICV) injections of LPS in SHRs (25 mg) and NWRs (50 mg). Our data showed that SHRs exhibited increased oxidative stress (increased gp91-phox/NOX-2 expression and ROS generation), RAGE, and b-secretase (BACE) expression without Ab1-42 deposition. LPS (25 mg, ICV) further amplified oxidative stress, RAGE, and BACE activation, culminating in Ab1-42 deposition and memory impairment in SHRs. Similar changes were observed at the higher dose of LPS (50 mg, ICV) in NWRs. Further, LPS-induced oxidative stress was associated with endothelial dysfunction and reduction in cerebral blood flow (CBF), more prominently in SHRs than in NWRs. Finally, we showed that perindopril (0.1 mg/kg, 15 days) prevented memory impairment by reducing oxidative stress, RAGE activation, amyloidogenesis, and improved CBF in both SHR and NWRs."

According to the news editors, the research concluded: "These findings suggest that perindopril might be used as a therapeutic strategy for the early stage of dementia."

For more information on this research see: Perindopril Attenuates Lipopolysaccharide-Induced Amyloidogenesis and Memory Impairment by Suppression of Oxidative Stress and RAGE Activation. Acs Chemical Neuroscience, 2016;7(2):206-17.
(American Chemical Society - www.acs.org; Acs Chemical Neuroscience - www.pubs.acs.org/journal/acncdm)

The news editors report that additional information may be obtained by contacting R. Goel, Division of Pharmacology and §Division of Toxicology, CSIR-Central Drug Research Institute , Lucknow 226031, India. Additional authors for this research include S.A. Bhat, K. Hanif, C. Nath and R. Shukla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschemneuro.5b00274. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Lucknow, Endotoxins, Perindopril, Hypertension, Bacterial Toxins, Biological Factors, Drugs and Therapies, Lipopolysaccharides, Risk and Prevention, Cardiovascular Agents, Bacterial Polysaccharides, Cardiovascular Diseases and Conditions, Angiotensin Converting Enzyme Inhibitors.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Research. According to news reporting out of Tehran, Iran, by NewsRx editors, research stated, "Nowadays, radionuclides with high b-particle energies such as (166)Ho are recommended for bone marrow ablation in patients with multiple myeloma. The addition of skeletal targeted radiotherapy to the patients can improve the response rate in phase I and II trials, with promising long-term survival data."

Our news journalists obtained a quote from the research from Research Institute, "In this work, the absorbed dose to each organ of human for (166)Ho-propylene di-amino tetra methylene phosphonic acid (PDTMP) was evaluated based on biodistribution studies in rats and was compared with (166)Ho-tetraazacyclododecane tetramethylene-phosphonate (DOTMP) as the only clinically used Ho-166 bone marrow ablative agent. In this work, the accumulated activity in animals was extrapolated to the accumulated activity in humans by mass extrapolation method. The absorbed dose to each organ of human for (166)Ho-PDTMP was evaluated by medical internal radiation dose method. In this study, 166 Ho-PDTMP complex was prepared successfully using an in-house synthesized PDTMP ligand and (166)HoCl3. Radiochemical purity of (166)Ho-PDTMP was checked by instant thin layer chromatography (>99%). The biodistribution of (166)Ho-PDTMP in wild-type rats was checked in animal tissues up to 48 h. All values were expressed as mean ± standard deviation, and the data were compared using Student's t-test. Statistical significance was defined as p<0.05. The highest absorbed dose for this complex is observed in red marrow with 0.691 mSv/MBq. (166)Ho-PDTMP demonstrated a higher red marrow: Non target organ uptake ratio compared to (166)Ho-DOTMP."

According to the news editors, the research concluded: "The results showed that 166 Ho-PDTMP has considerable characteristics compared to (166)Ho-DOTMP and therefore can be a good candidate for bone marrow ablation."

For more information on this research see: Preliminary dosimetry of (166)Ho-propylene di-amino tetra (methylenephosphonic acid) for human based on biodistribution data in rats. Journal of Cancer Research and Therapeutics, 2015;11(4):862-7.

Our news journalists report that additional information may be obtained by contacting H. Yousefnia, Dept. of Nuclear Fuel Cycle, Nuclear Science and Technology Research Institute, Tehran 14155-1339, Iran. Additional authors for this research include H. Yousefnia, A.R. Jalilian, Z. Shiri-Yekta and M.G Maragheh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.140827. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Iran, Asia, Tehran, Oncology, Cancer Research.

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Oncology - Basal Cell Cancer

Studies from Research Institute in the Area of Basal Cell Cancer Described (Inhibition of the hedgehog pathway in patients with basal-cell nevus syndrome: final results from the multicentre, randomised, double-blind, placebo-controlled, phase 2 ...)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Basal Cell Cancer have been published. According to news originating from Oakland, California, by NewsRx correspondents, research stated, "Aberrant hedgehog signalling underlies the development of basal-cell carcinomas. We previously reported the interim analysis of a multicentre, randomised, double-blind, placebo-controlled, phase 2 trial in patients with the basal-cell nevus (Gorlin) syndrome indicating that the smoothened inhibitor vismodegib reduces basal-cell carcinoma tumour burden and prevents new basal-cell carcinoma growth in patients with basal-cell nevus syndrome."

Our news journalists obtained a quote from the research from Research Institute, "We report the final results of this 36 month trial. In our multicentre, randomised, double-blind, placebo-controlled, phase 2 trial we enrolled patients aged 35-75 years with basal-cell nevus syndrome with at least ten surgically eligible basal-cell carcinomas at the Children's Hospital Oakland, Columbia University outpatient dermatology clinic (NY, USA) and a private practice outpatient dermatology office in Newport Beach (CA, USA). Patients were assigned to vismodegib or placebo (2: 1) according to a randomisation sequence generated by computer code. The primary endpoint of the trial of 41 patients was to compare the effect of oral vismodegib (150 mg/day) versus placebo on the incidence of new surgically eligible basal-cell carcinomas after 3 months of treatment. In the subsequent, open-label phase (n= 37) patients continued vismodegib at two sites for as long as month 36 (n= 25) and at the third site were monitored up to month 36 (n= 12). Additional endpoints for this phase were: whether continuous versus interrupted dosing differentially affected tumour burden; time to reach various levels of reduction in tumour burden; reduction in tumour size in patients who took less than 50% of the expected number of vismodegib tablets; reduction in the number of surgical excisions required per year before, during, and after treatment; and the effect of vismodegib on hedgehog target gene expression. We monitored patients at visits every 3 months for up to 36 months. The primary endpoint was analysed on a modified intention-to-treat basis. This trial is registered with ClinicalTrials.gov, number NCT00957229. Between Sept 22, 2009, and Jan 24, 2011, 41 patients were monitored for a median of 36 months (IQR 36-36). Patients treated with vismodegib (n= 26) had a mean reduced rate of new surgically eligible basal-cell carcinomas compared with patients randomly assigned to placebo (n= 15; two [SD 0. 12] new surgically eligible basal-cell carcinomas per patient per year vs 34 [1. 32] new surgically eligible basal-cell carcinomas per patient per year, p< 0. 0001). In the 11 patients initially assigned to placebo, mean cross over to vismodegib reduced the development of new surgically eligible basal-cell carcinomas compared with placebo (0. 4 [SD 0. 2] new surgically eligible basal-cell carcinomas per patient per year vs 30. 0 [7. 8] new surgically eligible basal-cell carcinomas per patient per year, p< 0. 0001). Only three (17%) of 18 patients tolerated vismodegib continuously for the full 36 months. Fewer new surgically eligible basal-cell carcinomas developed in patients receiving vismodegib continuously than in those who interrupted dosing (mean 0. 6 [0. 72] new surgically eligible basal-cell carcinomas per patient per year vs 1. 7 [1. 8] new surgically eligible basal-cell carcinomas per patient per year, p< 0. 0001). Treatment-related grade 3-4 adverse events included weight loss of 20% or more (n= 6) and muscle cramps (n= 2). Two patients died during the course of the trial, one each from laryngeal and metastatic prostate cancer, deemed probably unrelated to drug. Vismodegib reduces basal-cell carcinoma tumour burden in patients with basal-cell nevus syndrome."

According to the news editors, the research concluded: "Adverse events associated with vismodegib frequently led to interruption of treatment, which is followed by basal-cell carcinoma recurrence."

For more information on this research see: Inhibition of the hedgehog pathway in


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045(16)30566-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oakland, California, United States, North and Central America, Developmental Bone Diseases and Conditions, Musculoskeletal Diseases and Conditions, Stomatognathic Diseases and Conditions, Congenital Diseases and Conditions, Hereditary Neoplastic Syndromes, Clinical Trials and Studies, Jaw Diseases and Conditions, Basal Cell Nevus Syndrome, Basal Cell Carcinoma, Clinical Research, Odontogenic Cysts, Basal Cell Cancer, Dermatology, Carcinomas, Jaw Cysts, Genetics, Oncology, Research Institute.

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**Oncology - Lung Cancer**

**Studies from Research Institute in the Area of Lung Cancer Reported (Predicting Malignant Nodules from Screening CT Scans)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news reporting originating in Tampa, Florida, by NewsRx journalists, research stated, "The aim of this study was to determine whether quantitative analyses (‘radiomics’) of low-dose computed tomography lung cancer screening images at baseline can predict subsequent emergence of cancer. Public data from the National Lung Screening Trial (ACRIN 6684) were assembled into two cohorts of 104 and 92 patients with screen-detected lung cancer and then matched with cohorts of 208 and 196 screening subjects with benign pulmonary nodules."

Funders for this research include U.S. Public Health Service, Florida Department of Health.

The news reporters obtained a quote from the research from Research Institute, "Image features were extracted from each nodule and used to predict the subsequent emergence of cancer. The best models used 23 stable features in a random forests classifier and could predict nodules that would become cancerous 1 and 2 years hence with accuracies of 80% (area under the curve 0.83) and 79% (area under the curve 0.75), respectively. Radiomics outperformed the Lung Imaging Reporting and Data System and volume-only approaches. The performance of the McWilliams risk assessment model was commensurate."

According to the news reporters, the research concluded: "The radiomics of lung cancer screening computed tomography scans at baseline can be used to assess risk for
development of cancer."

For more information on this research see: Predicting Malignant Nodules from Screening CT Scans. *Journal of Thoracic Oncology*, 2016;11(12):2120-2128. *Journal of Thoracic Oncology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Thoracic Oncology - journals.lww.com/jto/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting R.J. Gillies, H Lee Moffitt Canc Center & Res Inst, Dept. of Radiol, Tampa, FL 33612, United States. Additional authors for this research include H. Wang, Y. Liu, A. Garcia, O. Stringfield, H. Krewer, Q. Li, D. Cherezov, R.A. Gatenby, Y. Balagurunathan, D. Goldgof, M.B. Schabath, L. Hall and R.J. Gillies.

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Keywords for this news article include: Tampa, Florida, United States, North and Central America, Computed Tomography, Diagnostics and Screening, Risk and Prevention, Imaging Technology, Lung Neoplasms, Lung Cancer, Oncology, Research Institute.

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Nervous System Diseases and Conditions - Seizures

**Studies from Royal College of Surgeons in Ireland in the Area of Seizures Described (microRNA targeting of the P2X7 purinoceptor opposes a contralateral epileptogenic focus in the hippocampus)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nervous System Diseases and Conditions - Seizures is the subject of a report. According to news reporting originating in Dublin, Ireland, by NewsRx journalists, research stated, "The ATP-gated ionotropic P2X7 receptor (P2X7R) modulates glial activation, cytokine production and neurotransmitter release following brain injury. Levels of the P2X7R are increased in experimental and human epilepsy but the mechanisms controlling P2X7R expression remain poorly understood."

The news reporters obtained a quote from the research from the Royal College of Surgeons in Ireland, "Here we investigated P2X7R responses after focal-onset status epilepticus in mice, comparing changes in the damaged, ipsilateral hippocampus to the spared, contralateral hippocampus. P2X7R-gated inward currents were suppressed in the contralateral hippocampus and P2rx7 mRNA was selectively uploaded into the RNA-induced silencing complex (RISC), suggesting microRNA targeting. Analysis of RISC-loaded microRNAs using a high-throughput platform, as well as functional assays, suggested the P2X7R is a target of microRNA-22. Inhibition of microRNA-22 increased P2X7R expression and cytokine levels in the contralateral hippocampus after status epilepticus and resulted in more frequent spontaneous seizures in mice. The major pro-inflammatory and hyperexcitability effects of microRNA-22 silencing were prevented in P2rx7(-/-) mice or by treatment with a specific P2X7R antagonist. Finally, in vivo injection of microRNA-22 mimics transiently suppressed spontaneous seizures in mice."

According to the news reporters, the research concluded: "The present study supports a role for post-transcriptional regulation of the P2X7R and suggests therapeutic targeting of"
microRNA-22 may prevent inflammation and development of a secondary epileptogenic focus in the brain."

For more information on this research see: microRNA targeting of the P2X7 purinoceptor opposes a contralateral epileptogenic focus in the hippocampus. Scientific Reports, 2015;5():17486. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep17486. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dublin, Europe, Ireland, Epilepsy, Genetics, Seizures, Status Epilepticus, Neurologic Manifestations, Nervous System Diseases and Conditions.

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Oncology - Sarcomas

Studies from Royal Marsden Hospitals NHS Foundation Trust Have Provided New Information about Sarcomas (Multivisceral resection of retroperitoneal sarcomas in the elderly)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Sarcomas have been published. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Retroperitoneal sarcomas occur in an anatomically complex location often involving several adjacent organs. Surgery with multivisceral resection constitutes the mainstay of curative therapy."

Our news journalists obtained a quote from the research from Royal Marsden Hospitals NHS Foundation Trust, "This study sought to characterise the morbidity and oncological outcomes of surgery for retroperitoneal sarcoma in an elderly population. Patients with primary, localised retroperitoneal sarcoma referred between 1st January 2008 and 31st December 2014 were identified from multidisciplinary meeting records. The proportion of patients proceeding to surgery and oncological outcomes were compared between two groups-those aged >65 years and <65 years. A total of 385 patients were identified. The most common histological subtypes were de-differentiated liposarcoma (40.3%), well-differentiated liposarcoma (19.5%) and leiomyosarcoma (18.2%). A greater proportion of patients aged >65 years did not undergo surgery (41.8% versus 12.0%). The rates of irresectable tumours were similar between cohorts (17.5% versus 11.0%). However, non-operative management due to comorbidities (13.4% versus 0.5%) or patient choice (8.2% versus 0.5%) was more common in patients aged >65 years. 281 patients (73.0%) proceeded to surgery. Patients aged >65 years had a higher rate of peri-operative morbidity (28.3% versus 9.5%), although no difference in peri-
operative mortality or oncological outcomes was noted between age groups. The survival of patients managed non-operatively was significantly shorter than those undergoing surgery (median survival 15 versus 91 months, p< 0.001). Extended resections for primary retroperitoneal sarcoma in the elderly achieve comparable oncological outcomes but with increased rates of morbidity when compared with younger patients."

According to the news editors, the research concluded: "The outcomes of patients unsuitable for surgery are poor regardless of age."


Our news journalists report that additional information may be obtained by contacting D.C. Strauss, Royal Marsden Hosp NHS Fdn Trust, Sarcoma Unit, Academy Dept. of Surg, London, United Kingdom. Additional authors for this research include J.M. Thomas, M.J.F. Smith, A.J. Hayes and D.C. Strauss.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejca.2016.09.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Sarcomas, Oncology, Surgery, Royal Marsden Hospitals NHS Foundation Trust.

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**Oncology - Cervical Cancer**

**Studies from Rutgers State University Yield New Information about Cervical Cancer (Can chemotherapy boost the survival benefit of adjuvant radiotherapy in early stage cervical cancer with intermediate risk factors? A population based study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cervical Cancer have been published. According to news reporting from Newark, New Jersey, by NewsRx journalists, research stated, "The Gynecologic Oncology group (GOG) 0263 trial is currently exploring whether adding chemotherapy to adjuvant radiotherapy improves recurrence-free and/or overall survival in stage IB-IIA cervical cancer patients with pathologic intermediate-risk factors. Using the National Cancer Data Base, we evaluated the benefit of adjuvant chemoradiotherapy over adjuvant radiotherapy alone in the community practice setting."

The news correspondents obtained a quote from the research from Rutgers State University, "The analysis included 869 stage IB-IIA cervical cancer patients who underwent radical hysterectomy retrieving intermediate-risk factors justifying adjuvant therapy. Adjuvant chemoradiotherapy and adjuvant radiotherapy were delivered in 440 and 429 patients, respectively. Chi-square test assessed the distribution of variables in each group and the overall survival was estimated using the Kaplan-Meier method. Proportional hazard models were performed to evaluate the impact of the different prognostic factors on survival and propensity score analysis adjusted variables imbalanced distribution. Adding chemotherapy to ART did not
show a survival benefit at 48 months median follow-up; the 5 year overall survival was 87% and 81% (p = 0.6) in the adjuvant chemoradiotherapy and adjuvant radiotherapy groups, respectively. On univariate analysis, age older than 60, a higher comorbidity score, and stage IIA were significantly associated with worse survival, while none of the other covariates were significant prognosticator on multivariate analysis. The same findings held after propensity score analysis.

According to the news reporters, the research concluded: "Our analysis could not detect a significant survival benefit for adjuvant chemoradiotherapy over adjuvant radiotherapy in women with intermediate-risk factors."

For more information on this research see: Can chemotherapy boost the survival benefit of adjuvant radiotherapy in early stage cervical cancer with intermediate risk factors? A population based study. Gynecologic Oncology. 2016;143(3):539-544. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

Our news journalists report that additional information may be obtained by contacting O. Mahmoud, Rutgers State University, Dept. of Radiat Oncol, New Jersey Med Sch, Newark, NJ, United States. Additional authors for this research include L. Hathout, S.G. Shaaban, M.A. Elshaikh, S. Beriwal and W. Small.

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Keywords for this news article include: Newark, New Jersey, United States, North and Central America, Combined Modality Therapy, Adjuvant Radiotherapy, Risk and Prevention, Drugs and Therapies, Cervical Cancer, Women's Health, Chemotherapy, Oncology, Rutgers State University.

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Oncology - Bladder Cancer

Studies from S. Tsuji et al Further Understanding of Bladder Cancer (Preclinical evaluation of VAX-IP, a novel bacterial minicell-based biopharmaceutical for nonmuscle invasive bladder cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Bladder Cancer. According to news originating from San Diego, California, by NewsRx correspondents, research stated, "The development of new therapies that can prevent recurrence and progression of nonmuscle invasive bladder cancer remains an unmet clinical need. The continued cost of monitoring and treatment of recurrent disease, along with its high prevalence and incidence rate, is a strain on healthcare economics worldwide."

Our news journalists obtained a quote from the research, "The current work describes the characterization and pharmacological evaluation of VAX-IP as a novel bacterial minicell-based biopharmaceutical agent undergoing development for the treatment of nonmuscle invasive bladder cancer and other oncology indications. VAX-IP minicells selectively target two oncology-associated integrin heterodimer subtypes to deliver a unique bacterial cytolysin protein.
toxin, perfringolysin O, specifically to cancer cells, rapidly killing integrin-expressing murine and human urothelial cell carcinoma cells with a unique tumorlytic mechanism. The in vivo pharmacological evaluation of VAX-IP minicells as a single agent administered intravesically in two clinically relevant variations of a syngeneic orthotopic model of superficial bladder cancer results in a significant survival advantage with 28.6% (P = 0.001) and 16.7% (P = 0.003) of animals surviving after early or late treatment initiation, respectively.

According to the news editors, the research concluded: "The results of these preclinical studies warrant further nonclinical and eventual clinical investigation in underserved nonmuscle invasive bladder cancer patient populations where complete cures are achievable."

For more information on this research see: Preclinical evaluation of VAX-IP, a novel bacterial minicell-based biopharmaceutical for nonmuscle invasive bladder cancer. Molecular Therapy-Oncolytics, 2016;3():1-14. Molecular Therapy-Oncolytics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

The news correspondents report that additional information may be obtained from M. Giacalone, Vaxion Therapeut, San Diego, CA 92121, United States. Additional authors for this research include X.G. Chen, B. Hancock, V. Hernandez, B. Visentin, K. Reil, R. Sabbadini, M. Giacalone and W.T. Godbey.

Keywords for this news article include: San Diego, California, United States, North and Central America, Drugs and Therapies, Biopharmaceuticals, Bladder Cancer, Pharmacology, Oncology, Therapy.

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Oncology - Acute Myeloid Leukemia

Studies from S. Weber and Co-Researchers in the Area of Acute Myeloid Leukemia Reported (Feasibility of BAALC gene expression for detection of minimal residual disease and risk stratification in normal karyotype acute myeloid leukaemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Acute Myeloid Leukemia are discussed in a new report. According to news originating from Munich, Germany, by NewsRx correspondents, research stated, "High BAALC gene expression has been associated with poor prognosis in cytogenetically normal acute myeloid leukaemia (CN-AML) and has been suggested as a suitable marker for assessing minimal residual disease (MRD). The purpose of this study was to substantiate these findings by the analysis of a large data set of 632 diagnostic and follow-up samples in 142 intensively treated CN-AML patients."

Our news journalists obtained a quote from the research, "Paired diagnostic/relapse samples of 35 stable patients revealed stable high BAALC expression in 89%, irrespective of a high proportion of clonal evolution found in 49% of these cases. High BAALC expression, both directly after induction chemotherapy and within 3-6months after induction chemotherapy, correlated significantly with shorter event-free survival and overall survival. Moreover, 8 of 10 patients displaying high BAALC expression levels after completion of induction therapy as well as 5 of 5 patients exhibiting high BAALC expression levels within 3-6months after induction chemotherapy experienced relapse with a median of 197 and 101days, respectively, from sampling to relapse."
According to the news editors, the research concluded: "Thus, BAALC expression-based MRD detection during therapy may be considered a strategy to identify patients at high risk of relapse."


The news correspondents report that additional information may be obtained from S. Weber, MLL Munich Leukaemia Lab, D-81377 Munich, Germany. Additional authors for this research include T. Haferlach, T. Alpermann, K. Perglerova, S. Schnittger, C. Haferlach and W. Kern.

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Keywords for this news article include: Munich, Germany, Europe, Residual Neoplasms, Diagnostics and Screening, Risk and Prevention, Genetics, Acute Myeloid Leukemia, Drugs and Therapies, Chemotherapy, Hematology, Oncology.

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**Oncology - Prostate Cancer**

**Studies from S.P. Heng and Co-Authors Have Provided New Information about Prostate Cancer**

*The influence of the bowel and bladder preparation protocol for radiotherapy of prostate cancer using kilovoltage cone beam CT: Our experience*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting out of Kuala Lumpur, Malaysia, by NewsRx editors, research stated, "The purpose of this study is to determine the influence of bladder and bowel preparation protocols on the dose-volume histograms (DVHs) of these organs using the cone beam computed tomography (CBCT)-based intensity modulated radiotherapy (IMRT) treatment planning for prostate cancer patients. The pelvic DVHs of 12 prostate cancer patients were studied using CBCT images obtained immediately before each treatment."

Our news journalists obtained a quote from the research, "Six patients had bladder and bowel preparation protocol whilst the other six patients were the control group. Contoured bladder and rectal volumes on CBCT images were compared with planning computed tomography. All patients were treated with IMRT with 7800 cGy in 39 fractions over 8 weeks. Compared with the patient with bladder preparation protocol, patients without bladder preparation instruction had higher bladder volume and dose variation. The maximum variation in bladder volume was as high as 98% in the control group. Without bowel preparation protocol, the rectal volumes were more variability. Owing to changes in rectal filling on the day of treatment, the maximum variation in rectal volume was as high as + 96%. With bowel preparation protocol, the maximum rectum volume variations were less than 25%."

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According to the news editors, the research concluded: "The changes in prostate target dose compared with planning dose were minimal as would be expected from positioning with daily image guidance and gold seed implanted."


Our news journalists report that additional information may be obtained by contacting S.P. Heng, Radiotherapy Unit, Pantai Hospital Kuala Lumpur, 59100, Bukit Pantai, Kuala Lumpur, Malaysia. Additional authors for this research include S.H. Low and K. Sivamany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0019-509X.178386. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Malaysia, Oncology, Kuala Lumpur, Article Review, Prostate Cancer, Imaging Technology, Computed Tomography, Prostatic Neoplasms.

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**Oncology - Sarcomas**

**Studies from Sahlgrenska University Reveal New Findings on Sarcomas (Profiling of potential driver mutations in sarcomas by targeted next generation sequencing)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Sarcomas. According to news reporting from Gothenburg, Sweden, by NewsRx journalists, research stated, "Comprehensive genetic profiling by massively parallel sequencing, commonly known as next generation sequencing (NGS), is becoming the foundation of personalized oncology. For sarcomas very few targeted treatments are currently in routine use."

Financial support for this research came from Johan Jansson Foundation.

The news correspondents obtained a quote from the research from Sahlgrenska University, "In clinical practice the preoperative diagnostic workup of soft tissue tumours largely relies on core needle biopsies. Although mostly sufficient for histopathological diagnosis, only very limited amounts of formalin fixated paraffin embedded tissue are often available for predictive mutation analysis. Targeted NGS may thus open up new possibilities for comprehensive characterization of scarce biopsies. We therefore set out to search for driver mutations by NGS in a cohort of 55 clinically and morphologically well characterized sarcomas using low input of DNA from formalin fixated paraffin embedded tissues. The aim was to investigate if there are any recurrent or targetable aberrations in cancer driver genes in addition to known chromosome translocations in different types of sarcomas. We employed a panel covering 207 mutation hotspots in 50 cancer-associated genes to analyse DNA from nine gastrointestinal stromal tumours, 14 synovial sarcomas, seven myxoid liposarcomas, 22 Ewing sarcomas and three Ewing-like small round cell tumours at a large sequencing depth to detect also mutations that are subclonal or occur at low allele frequencies. We found nine mutations in eight different potential driver genes, some of which are potentially actionable by currently
existing targeted therapies. Even though no recurrent mutations in driver genes were found in the different sarcoma groups, we show that targeted NGS-based sequencing is clearly feasible in a diagnostic setting with very limited amounts of paraffin embedded tissue and may provide novel insights into mesenchymal cell signalling and potentially druggable targets."

According to the news reporters, the research concluded: "Interestingly, we also identify five non-synonymous sequence variants in 4 established cancer driver genes in DNA from normal tissue from sarcoma patients that may possibly predispose or contribute to neoplastic development."


Our news journalists report that additional information may be obtained by contacting F. Enlund, Sahlgrenska University, Dept. of Clin Pathol & Genet, S-41345 Gothenburg, Sweden. Additional authors for this research include H. Fagman, M. Hansson and F. Enlund.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.02.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gothenburg, Sweden, Europe, Cancer, Diagnostics and Screening, Genetics, Genetics, Oncology, Sarcomas, Sahlgrenska University. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

Oncology - Liver Cancer

**Studies from Saitama Cancer Center Provide New Data on Liver Cancer (Complete response with sorafenib and transcatheter arterial chemoembolization in unresectable hepatocellular carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Liver Cancer have been presented. According to news reporting out of Saitama, Japan, by NewsRx editors, research stated, "Patients with advanced hepatocellular carcinoma (HCC) showing portal vein tumor thrombosis (PVTT) have an extremely poor prognosis. According to treatment guidelines, the only option for HCC patients with PVTT is sorafenib chemotherapy."

Our news journalists obtained a quote from the research from Saitama Cancer Center, "However, in Asia, various treatments have been attempted and possible prolongation of overall survival has been repeatedly reported. We herein report the first case of a patient with an initially unresectable advanced HCC with PVTT who underwent curative hepatectomy after sorafenib and transcatheter arterial chemoembolization (TACE) showing complete histological response. Two months after induction with sorafenib, a significant decrease in serum alphafetoprotein level was observed and computed tomography imaging showed a significant decrease in tumor size. Because of remaining PVTT, TACE and curative resection were performed."

According to the news editors, the research concluded: "The combination of
sorafenib and TACE may be an effective treatment for HCC patients with PVTT.


Our news journalists report that additional information may be obtained by contacting M. Takano, Saitama Canc Center, Div Gastroenterol Surg, Ina, Saitama 3620806, Japan. Additional authors for this research include T. Kokudo, Y. Miyazaki, Y. Kageyama, A. Takahashi, K. Amikura and H. Sakamoto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i42.9445. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Saitama, Japan, Asia, Chemoembolization, Liver Cancer, Carcinomas, Oncology, Saitama Cancer Center.

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Drugs and Therapies - Antimicrobials

Studies from Sakarya University Yield New Data on Antimicrobials (A rare cause of infection, Raoultella planticola: emerging threat and new reservoir for carbapenem resistance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antimicrobials have been presented. According to news reporting from Sakarya, Turkey, by NewsRx journalists, research stated, "Severe cases of infections caused by Raoultella planticola are constantly being reported from all over the world with the increase in drug-resistance patterns. In this study, we retrospectively evaluated the clinical characteristics of R. planticola infections with patients' demographics and antimicrobial susceptibilities of the R. planticola isolates. R. planticola isolates were retrospectively evaluated."

The news correspondents obtained a quote from the research from Sakarya University, "VITEK 2 ® automated system was used for identification and antimicrobial susceptibility testing. Verification of the low-discriminated isolates was analyzed with MALDI-TOF method using VITEK MS ® system. Gene-Xpert ® system was used for detection of bla (IMP-1)-, bla(KPC)-; bla(NDM-1)-, bla(OXA-48)- and bla(VIM)-type carbapenemases. The data of the patients with R. planticola infection were collected from hospital records. During the 4-year period, 42 episodes of R. planticola infections were detected. MALDI-TOF was used for 11 of the low-discriminated isolates, and 1 of which identified as R. terrigena was excluded. Carbapenems and aminoglycosides were the most effective antimicrobial agents. Extended spectrum beta-lactamases were detected in seven of the isolates. Three carbapenem-resistant isolates were detected as bla(OXA-48)-type carbapenemase carrier. Nosocomial R. planticola infections constituted 80.9 % (n = 34) of the infections. Most common infections related with R. planticola were blood stream infections (n = 24) (p < 0.005). The presence of indwelling catheter and intensive care unit stay were the most common detected risk factors (p < 0.005).
Diabetes mellitus and chronic renal insufficiency commonly accompanied the infections ($p > 0.005$). Challenging infections caused by Raoultella spp., like those of multidrug resistant Klebsiella spp., will probably become a concern for clinicians as well as microbiologists.

According to the news reporters, the research concluded: "In literature, there were few cases, but we believe that the incidence of Raoultella spp. infections, which may result from misidentification, are more common than expected, and it is not unlikely that there will be a gradual increase and spread in multidrug-resistant isolates."

For more information on this research see: A rare cause of infection, Raoultella planticola: emerging threat and new reservoir for carbapenem resistance. *Infection*, 2016;44 (6):713-717. *Infection* can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Infection - www.springerlink.com/content/0300-8126/)

Our news journalists report that additional information may be obtained by contacting M. Koroglu, Sakarya Univ, Fac Med, Dept. of Med Microbiol, Sakarya, Turkey. Additional authors for this research include M. Koroglu, A. Ozbek and M. Altindis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s15010-016-0900-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sakarya, Turkey, Eurasia, Carbapenems, Risk and Prevention, Drugs and Therapies, Antimicrobials, beta-Lactams, Antibiotics, Sakarya University.

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**Stem Cell Research**

**Studies from Salk Institute for Biological Studies Have Provided New Data on Stem Cell Research (3D Culture Supports Long-Term Expansion of Mouse and Human Nephrogenic Progenitors)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Stem Cell Research. According to news reporting from La Jolla, California, by NewsRx journalists, research stated, "Transit-amplifying nephron progenitor cells (NPCs) generate all of the nephrons of the mammalian kidney during development. Their limited numbers, poor in vitro expansion, and difficult accessibility in humans have slowed basic and translational research into renal development and diseases."

The news correspondents obtained a quote from the research from Salk Institute for Biological Studies, "Here, we show that with appropriate 3D culture conditions, it is possible to support long-term expansion of primary mouse and human fetal NPCs as well as NPCs derived from human induced pluripotent stem cells (iPSCs). Expanded NPCs maintain genomic stability, molecular homogeneity, and nephrogenic potential in vitro, ex vivo, and in vivo. Cultured NPCs are amenable to gene targeting and can form nephron organoids that engraft in vivo, functionally couple to the host's circulatory system, and produce urine-like metabolites via filtration."

According to the news reporters, the research concluded: "Together, these findings provide a technological platform for studying human nephrogenesis, modeling and diagnosing..."
renal diseases, and drug discovery."

For more information on this research see: 3D Culture Supports Long-Term Expansion of Mouse and Human Nephrogenic Progenitors. *Cell Stem Cell*, 2016;19(4):516-529. *Cell Stem Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell Stem Cell - www.journals.elsevier.com/cell-stem-cell/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.stem.2016.07.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Stem Cell Research, Genetics, Salk Institute for Biological Studies.

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**Heart Disorders and Diseases - Acute Coronary...**

**Studies from San Antonio Military Medical Center Add New Findings in the Area of Acute Coronary Syndrome (Best Clinical Practice: Current Controversies In Evaluation Of Low-risk Chest Pain-part 1)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Acute Coronary Syndrome. According to news reporting originating in Fort Sam Houston, Texas, by NewsRx journalists, research stated, "Chest pain is a common presentation to the emergency department (ED), though the majority of patients are not diagnosed with acute coronary syndrome (ACS). Many patients are admitted to the hospital due to fear of ACS."

The news reporters obtained a quote from the research from San Antonio Military Medical Center, "Our aim was to investigate controversies in low-risk chest pain evaluation, including risk of missed ACS, stress test, and coronary computed tomography angiography (CCTA). Chest pain accounts for 10 million ED visits in the United States annually. Many patients are at low risk for a major cardiac adverse event (MACE). With negative troponin and nonischemic electrocardiogram (ECG), the risk of MACE and myocardial infarction (MI) is < 1%. The American Heart Association recommends further evaluation in low-to intermediate-risk patients within 72 h. These modalities add little to further risk stratification. These evaluations do not appropriately risk stratify patients who are already at low risk, nor do they diagnose acute MI. CCTA is an anatomic evaluation of the coronary vasculature with literature support to decrease ED length of stay, though it is associated with downstream testing. Literature is controversial concerning further risk stratification in already low-risk patients. With nonischemic ECG and negative cardiac biomarker, the risk of ACS approaches < 1%. Use of stress test and CCTA for risk stratification of low-risk chest pain patients is controversial. These tests may allow prognostication but do not predict ACS risk beyond ECG and troponin."

According to the news reporters, the research concluded: "CCTA may be useful for
intermediate-risk patients, though further studies are required."


Our news correspondents report that additional information may be obtained by contacting B. Long, San Antonio Military Med Center, Dept. of Emergency Med, Fort Sam Houston, TX 78234, United States.

Keywords for this news article include: Fort Sam Houston, Texas, United States, North and Central America, Cardiology, Diagnostics and Screening, Risk and Prevention, Heart Disorders and Diseases, Acute Coronary Syndrome, Chest Pain, San Antonio Military Medical Center.

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**Hematologic Diseases and Conditions - Sickle Cell**

**Studies from San Antonio Military Medical Center Reveal New Findings on Sickle Cell Anemia (Emergency Medicine Management Of Sickle Cell Disease Complications: An Evidence-based Update)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hematologic Diseases and Conditions - Sickle Cell Anemia. According to news reporting from Fort Sam Houston, Texas, by NewsRx journalists, research stated, "Sickle cell disease (SCD) affects approximately 100,000 individuals in the United States. Due to alterations in the structural conformation of hemoglobin molecules under deoxygenated conditions, patients with SCD are predisposed to numerous sequelae, many of which require acute intervention."

The news correspondents obtained a quote from the research from San Antonio Military Medical Center. "Our aim was to provide emergency physicians with an evidence-based update regarding the diagnosis and management of SCD complications. SCD patients experience significant morbidity and mortality secondary to cerebrovascular accident, acute chest syndrome, acute vaso-occlusive pain crises, SCD-related multi-organ failure, cholecystitis, acute intrahepatic cholestasis, acute sickle hepatic crisis, acute hepatic sequestration, priapism, and renal disease. Emergency physicians must recognize acute manifestations of SCD in order to deliver timely management and determine patient disposition. A comprehensive review of the emergency department management of acute SCD complications is provided."

According to the news reporters, the research concluded: "Comprehensive understanding of these aspects of SCD can assist physicians in expediting patient evaluation and treatment, thus decreasing the morbidity and mortality associated with this hemoglobinopathy."

Studies from Sanjay Gandhi Post Graduate Institute of Medical Science Add New Findings in the Area of Diabetic Nephropathy (Greater efficacy of atorvastatin versus a non-statin lipid-lowering agent against renal injury: potential role as a ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Diabetic Nephropathy. According to news reporting originating from Uttar Pradesh, India, by NewsRx correspondents, research stated, "Statins, 3-hydroxy-3-methyl-glutaryl-coenzyme A reductase inhibitors have been shown to improve diabetic nephropathy. However, whether they provide protection via Histone deacetylases (HDAC) inhibition is not clear."

Our news editors obtained a quote from the research from the Sanjay Gandhi Post Graduate Institute of Medical Science, "We conducted a comparative evaluation of Atorvastatin (AT) versus the nonstatin cholesterol-lowering drug, Ezetimibe (EZT) on severity of diabetic nephropathy. Streptozotocin-treated male Wistar rats were fed a cholesterol-supplemented diet and gavaged daily with vehicle, AT or EZT. Control rats received normal diet and gavaged vehicle (n = 8-9/group). Diabetes increased blood glucose, urine albumin-to-creatinine ratio (ACR), kidney pathology and HDAC activity, and reduced renal E-cadherin levels. Both AT and EZT reduced circulating cholesterol, attenuated renal pathology, and did not lower blood glucose. However, AT was significantly more effective than EZT at reducing kidney pathology and HDAC activity. Chromatin immunoprecipitation revealed a significantly higher association of acetylated H3 and H4 with the E-cadherin promoter in kidneys from AT-, relative to EZT-or vehicle-treated rats. Moreover, we demonstrated a direct effect of AT, but not EZT, on HDAC-inhibition and, H3 and H4-acetylation in primary glomerular mesangial cells. Overall, both AT and EZT attenuated diabetic nephropathy; however, AT exhibited greater efficacy despite a similar reduction in circulating cholesterol."

According to the news editors, the research concluded: "HDAC-inhibition may underlie greater efficacy of statins in attenuating kidney injury."

For more information on this research see: Greater efficacy of atorvastatin versus a non-statin lipid-lowering agent against renal injury: potential role as a histone deacetylase inhibitor. Scientific Reports, 2016;6():1-16. Scientific Reports can be contacted at: Nature
Studies from Sao Paulo Federal University Update Current Data on Genitourinary Tract Agents (Quality of oxytocin available in low- and middle-income countries: a systematic review of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Genitourinary Tract Agents are presented in a new report. According to news reporting from Sao Paulo, Brazil, by NewsRx journalists, research stated, "Oxytocin is the drug of choice for preventing and treating postpartum haemorrhage, an important cause of maternal death. Oxytocin is widely available in low and middle-income countries (LMIC) but there are concerns about its quality."

Financial support for this research came from Merck.

The news correspondents obtained a quote from the research from Sao Paulo Federal University, "To identify, critically appraise and synthesise the findings of studies on the quality of oxytocin available in LMIC. We searched seven electronic databases, without language restriction. Studies reporting results of tests to assess quality of oxytocin samples from LMIC. Study selection, data extraction and quality assessment were performed in duplicate. Results are presented descriptively. The search identified 2611 unique citations; eight studies, assessing 559 samples from 15 different countries were included. Most samples were collected from facility level settings (n=509) and from the private sector (n=321). The median prevalence of oxytocin samples that failed quality tests was 45.6% (range 0-80%), mostly due to insufficient amounts of active pharmacological ingredient. Over one-third of the samples (n=204) had low (<90%) oxytocin content indicating substandard medicine; two samples had no active ingredient, suggesting possible counterfeit drugs. The proportion of low fails was higher in samples collected in Africa than in Asia or Latin America (57.5% versus 22.3% versus 0%, respectively, p<0.0001), in private than in public sectors (34.0% versus 25.3%, p=0.032) and in facilities than in central distributors (37.9% versus 22.0%, p=0.030). There is a high prevalence of poor-quality oxytocin samples in LMIC countries, mainly due to inadequate amounts of active ingredient."

According to the news reporters, the research concluded: "Systematic review points to problems with quality of oxytocin samples from low-and middle-income countries."
Studies from School of Medicine Describe New Findings in Roentgenology (Transradial Approach for Hepatic Radioembolization: Initial Results and Technique)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Roentgenology. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "The transradial approach (TRA) has been shown to reduce the morbidity and mortality associated with arterial coronary interventions. Selective internal radiation therapy (SIRT) performed via the TRA can enhance patient comfort, compared with the traditional transfemoral approach (TFA), by allowing immediate ambulation and precluding potential complications associated with the TFA, such as closure device injury or retroperitoneal hematoma."

The news reporters obtained a quote from the research from the School of Medicine, "We report our initial experience with and technique for using the TRA for SIRT. Between May 1, 2012, and April 30, 2015, a total of 574 procedures, including planning angiograms (n = 329) and infusions of Y-90 (n = 245), were performed for 318 patients (mean age, 64.5 years). Of the 245 patients who received Y-90 infusions, 52 had SIRT performed with the use of a permanent single-use implant of Y-90 resin microspheres and 193 had SIRT performed with the use of millions of small glass microspheres containing radioactive Y-90. Procedural details, technical success, the radial artery (RA) occlusion rate noted at 30 days (as assessed via pulse examination), and the major and minor adverse events noted at 30 days were evaluated. Technical success was achieved in 561 of 574 cases (97.7%). The reasons for crossover to use of the TFA included an RA loop (n = 2), RA occlusion (n = 9), and type D response as determined by use of a Barbeau test (n = 2). Patients had undergone between zero and six previous TRA procedures. The mortality rate at 30 days was 0%. Superficial bruising occurred in 13 of 574 cases (2.3%). A grade 2 hematoma that required a second nonocclusive hemostasis cuff occurred in one case. Transient forearm numbness or pain occurred in two of 574 cases. One patient had a transient convulsive event occur after receiving intraarterial infusion of..."
verapamil. RA occlusion occurred in nine of 574 cases (1.6%)."

According to the news reporters, the research concluded: "Use of the TRA for SIRT is safe, feasible, and well tolerated and is associated with high rates of technical success and rare complications."

For more information on this research see: Transradial Approach for Hepatic Radioembolization: Initial Results and Technique. American Journal of Roentgenology, 2016;207(5):1112-1121. American Journal of Roentgenology can be contacted at: Amer Roentgen Ray Soc, 1891 Preston White Dr, Subscription Fulfillment, Reston, VA 22091, USA.

Our news correspondents report that additional information may be obtained by contacting A.M. Fischman, Icahn Sch Med Mt Sinai, Dept. of Intervent Radiol, New York, NY 10029, United States. Additional authors for this research include D.M. Biederman, T.J. Ward, I.M.J. van der Bom, R.S. Patel, E. Kim, F.S. Nowakowski, R.A. Lookstein and A.M. Fischman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2214/AJR.15.15615. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Roentgenology, Health and Medicine, School of Medicine.

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Studies from School of Medicine Have Provided New Data on Keloids (Endothelial dysfunction may play a key role in keloid and hypertrophic scar pathogenesis - Keloids and hypertrophic scars may be vascular disorders)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Keloids are discussed in a new report. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Keloids and hypertrophic scars are fibroproliferative disorders (FPDs) of the skin that result from abnormal healing of injured or irritated skin. They can be called pathological or inflammatory scars."

The news correspondents obtained a quote from the research from the School of Medicine, "Common causes are trauma, burn, surgery, vaccination, skin piercing, folliculitis, acne, and herpes zoster infection. The pathogenesis of these scars clearly involves local conditions such as delayed wound healing, wound depth, and the tension of the skin around the scars. Scar severity is also shaped by interactions between these local factors and genetic and systemic factors such as hypertension and sex hormones. Notably, to evaluate scar severity, the Japan Scar Workshop (JSW) has established the JSW Scar Scale. Our studies show that tension on the skin around the wound results in prolonged and/or repeated bouts of inflammation in the reticular layer of the dermis and that this inflammation generates abnormal numbers of blood vessels (as well as collagen and nerve fibers) in the dermal reticular layer. We hypothesize that local factors, such as the mechanobiology of the dermis and blood vessels, along with genetic and systemic factors promote pathological scar development by inducing endothelial dysfunction (i.e., vascular hyperpermeability) during the inflammatory stage of wound healing. The continued presence of these factors prolongs the influx of inflammatory cells and factors, thereby leading to fibroblast dysfunction. Evidence for this hypothesis includes the fact that all
Effective treatments of keloids, namely, radiotherapy, compression therapy, steroid administration, and long-pulsed Nd:YAG laser therapy, act, at least partly, by suppressing blood vessels. At present, keloids are classified as strongly inflammatory scars, while hypertrophic scars are considered to be mildly inflammatory scars. However, we propose that keloids and hypertrophic scars are simply manifestations of the same skin FPD and differ only in the degree of endothelial dysfunction and therefore inflammation. We therefore suggest that these pathological scars should be classified on the basis of the factor that causes the endothelial dysfunction. Thus, primary scars are caused by congenital endothelial dysfunction (e.g., a mutation prevents endothelial gaps from closing smoothly) while secondary scars are caused by endothelial dysfunction that results from aging, arterial sclerosis, and/or repeated/very strong local mechanical forces. We expect that primary keloids develop at younger ages and tend to become severe, while secondary keloids are seen in all ages and can vary in clinical severity.

According to the news reporters, the research concluded: "Thus, abnormal blood vessel regulation may underlie keloid and hypertrophic scar pathogenesis, which suggests that inhibiting abnormal angiogenesis and vascular hyperpermeability may be an important therapeutic approach."

For more information on this research see: "Endothelial dysfunction may play a key role in keloid and hypertrophic scar pathogenesis - Keloids and hypertrophic scars may be vascular disorders. Medical Hypotheses, 2016;96():51-60. Medical Hypotheses can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - www.elsevier.com; Medical Hypotheses - www.journals.elsevier.com/medical-hypotheses/)

Our news journalists report that additional information may be obtained by contacting R. Ogawa, Nippon Med Sch, Dept. of Plast Reconstruct & Aesthet Surg, Tokyo, Japan.

Keywords for this news article include: Tokyo, Japan, Asia, Connective Tissue Diseases and Conditions, Collagen Diseases and Conditions, Inflammation, Genetics, Keloids, School of Medicine.

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Enzymes and Coenzymes - Cysteine Endopeptidases

Studies from School of Medicine Yield New Information about Cysteine Endopeptidases (Perioperative Bromelain Therapy after Wisdom Teeth Extraction - A Randomized, Placebo-Controlled, Double-Blinded, Three-Armed, Cross-Over Dose-Finding Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Enzymes and Coenzymes - Cysteine Endopeptidases is now available. According to news reporting originating from Hannover, Germany, by NewsRx correspondents, research stated, "Reduction in postoperative edema and inflammatory reactions is the key to the posttraumatic regeneration process. Use of bromelain is well established in this indication, but there is some controversy with regard to the optimal dosing of this drug."

Our news editors obtained a quote from the research from the School of Medicine, "The aim of our study was therefore to investigate the efficacy of dosage-dependent therapy with bromelain in patients after wisdom teeth extraction by comparing the registered dosage
1000 FIP (Federation Internationale Pharmaceutique) against higher dosages of 3000 FIP and 4500 FIP. A total of 75 patients were randomized to one of the three dosage arms, and 68 of these patients were finally analyzed in the modified intention-to-treat population. Patients involved underwent two surgery sessions: one study period being conducted under treatment with bromelain and the other with placebo. Postoperative swelling determined by a 3D face scanning system was defined as the primary endpoint; further efficacy parameters were maximum swelling, pain, difficulty in swallowing, and use of analgesics. A superiority of treatment with 3000 FIP and 4500 FIP versus 1000 FIP could not be demonstrated. The analysis of pooled bromelain treatments versus placebo did, however, show a clear trend in favor of bromelain for all assessments. Adverse events did not occur more frequently under bromelain therapy compared with placebo."

According to the news editors, the research concluded: "This study thus clearly supports the clinical relevance of treatment of postoperative conditions with bromelain, and the recommended daily dose was sufficiently effective in this trial and indication."


The news editors report that additional information may be obtained by contacting K.H. Bormann, Hannover Med Sch, Dept. of Oral & Maxillofacial Surg, D-30625 Hannover, Germany. Additional authors for this research include K. Weber, H. Kloppenburg, A. Koch, P. Meiser and N.C. Gellrich.

Keywords for this news article include: Hannover, Germany, Europe, Cysteine Endopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Bromelains, Placebos, Therapy, School of Medicine.

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**Molecular Nutrition**

**Studies from School of Public Health Yield New Information about Molecular Nutrition (Influence of maternal hypercholesterolemia and phytosterol intervention during gestation and lactation on dyslipidemia and hepatic lipid metabolism in ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Molecular Nutrition are presented in a new report. According to news reporting originating from Buffalo, New York, by NewsRx correspondents, research stated, "Scope: Although there is a normal physiological rise in maternal lipids during pregnancy, excessive maternal hyperlipidemia during pregnancy increases cardiovascular disease risk for both the mother and offspring. There are limited safe lipid-lowering treatment options for use during pregnancy, therefore, we evaluated the influence of maternal phytosterol (PS) supplementation on lipid and lipoprotein metabolism in mothers and progeny."

Financial support for this research came from National Center for Complementary and Integrative Health.
Our news editors obtained a quote from the research from the School of Public Health, "Female Syrian golden hamsters were randomly assigned to three diets throughout prepregnancy, gestation, and lactation (n = 6/group): (i) Chow (Chow), (ii) chow with 0.5% cholesterol (CH), and (iii) chow with 0.5% CH and 2% PS (CH/PS). Compared with newly weaned pups from Chow dams, pups from dams fed the CH-enriched diet demonstrated increases (p < 0.05) in total-C, LDL-C, HDL-C, and total LDL and VLDL particle number. Pups from CH-fed mothers also exhibited higher hepatic CH concentration and differential mRNA expression pattern of CH regulatory genes. Pups from PS-supplemented dams demonstrated reductions (p < 0.05) in serum total-C, non-HDL-C, and LDL-C but also increased triglycerides compared with pups from CH-fed dams. Maternal PS supplementation reduced (p < 0.05) hepatic CH and increased the abundance of HMG-CoAr and LDLr protein in newly weaned pups compared with the CH group."

According to the news editors, the research concluded: "Results suggest that maternal PS supplementation is largely effective in normalizing CH in pups born to mothers with hypercholesterolemia, however, the cause and long-term influence of increased triglyceride is not known."


The news editors report that additional information may be obtained by contacting T.C. Rideout, SUNY Buffalo, Sch Public Hlth & Hlth Profess, Dept. of Exercise & Nutr Sci, Buffalo, NY 14228, United States. Additional authors for this research include A. Iqbal, A. Raslawsky, R.W. Browne, M.S. Patel and T.C. Rideout.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/mnfr.201600116. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Buffalo, New York, United States, North and Central America, Molecular Nutrition, Risk and Prevention, School of Public Health.

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**Studies from Scripps Research Institute in the Area of Myotonic Dystrophy Reported (Development of pharmacophore models for small molecules targeting RNA: Application to the RNA repeat expansion in myotonic dystrophy type 1)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Musculoskeletal Diseases and Conditions - Myotonic Dystrophy. According to news originating from Jupiter, Florida, by NewsRx correspondents, research stated, "RNA is an important drug target, but current approaches to identify bioactive small molecules have been engineered primarily for protein targets. Moreover,
the identification of small molecules that bind a specific RNA target with sufficient potency remains a challenge."

Funders for this research include National Institutes of Health, Muscular Dystrophy Association.

Our news journalists obtained a quote from the research from Scripps Research Institute, "Computer-aided drug design (CADD) and, in particular, ligand-based drug design provide a myriad of tools to identify rapidly new chemical entities for modulating a target based on previous knowledge of active compounds without relying on a ligand complex. Herein we describe pharmacophore virtual screening based on previously reported active molecules that target the toxic RNA that causes myotonic dystrophy type 1 (DM1). DM1-associated defects are caused by sequestration of muscleblind-like 1 protein (MBNL1), an alternative splicing regulator, by expanded CUG repeats (r(CUG)(exp)). Several small molecules have been found to disrupt the MBNL1-r(CUG)(exp) complex, ameliorating DM1 defects. Our pharmacophore model identified a number of potential lead compounds from which we selected 11 compounds to evaluate."

According to the news editors, the research concluded: "Of the 11 compounds, several improved DM1 defects both in vitro and in cells."


The news correspondents report that additional information may be obtained from M.D. Disney, Scripps Florida, Scripps Res Inst, Dept. of Chem, Jupiter, FL 33458, United States. Additional authors for this research include A.L. Gonzalez, S.G. Rzuczek and M.D. Disney.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bmcl.2016.10.037. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jupiter, Florida, United States, North and Central America, Nervous System Heredodegenerative Disorders, Neurodegenerative Diseases and Conditions, Musculoskeletal Diseases and Conditions, Nervous System Diseases and Conditions, Neuromuscular Diseases and Conditions, Muscular Diseases and Conditions, Muscular Dystrophies, Myotonic Dystrophy, Myotonic Disorders, Genetics, Scripps Research Institute.

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**Oncology - Gastric Cancer**

**Studies from Second Affiliated Hospital of Harbin Medical University Provide New Data on Gastric Cancer (Aberrant expression of the candidate tumor suppressor gene DAL-1 due to hypermethylation in gastric cancer)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gastric Cancer. According to news reporting originating in Harbin, People's Republic of China, by NewsRx journalists, research stated, "By allelotyping for loss of heterozygosity (LOH), we previously identified a deletion region that harbors the candidate tumor suppressor gene DAL-1 at 18p11.3 in sporadic gastric cancers (GCs). The expression and function of DAL-1 in GCs remained unclear."

The news reporters obtained a quote from the research from the Second Affiliated Hospital of Harbin Medical University, "Here, we demonstrated that the absence of or notable decreases in the expression of DAL-1 mRNA and protein was highly correlated with CpG hypermethylation of the DAL-1 promoter in primary GC tissues and in GC cell lines. Furthermore, abnormal DAL-1 subcellular localization was also observed in GC cells. Exogenous DAL-1 effectively inhibited cancer cell proliferation, migration, invasion and epithelial to mesenchymal transition (EMT); exogenous DAL-1 also promoted apoptosis in GC AGS cells. When endogenous DAL-1 was knocked down in GC HGC-27 cells, the cells appeared highly aggressive. Taken together, these findings provide solid evidence that aberrant expression of DAL-1 by hypermethylation in the promoter region results in tumor suppressor gene behavior that plays important roles in the malignancy of GCs."

According to the news reporters, the research concluded: "Understanding the role of it played in the molecular pathogenesis of GC, DAL-1 might be a potential biomarker for molecular diagnosis and evaluation of the GC."

For more information on this research see: Aberrant expression of the candidate tumor suppressor gene DAL-1 due to hypermethylation in gastric cancer. Scientific Reports, 2016;6():21755. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting H. Wang, Dept. of Hepatopancreatobiliary Surgery, the Second Affiliated Hospital of Harbin Medical University, Harbin 150081, People's Republic of China. Additional authors for this research include M. Xu, X. Cui, Y. Liu, Y. Zhang, Y. Sui, D. Wang, L. Peng, D. Wang and J. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep21755. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Harbin, Genetics, Oncology, Gastric Cancer, Gastroenterology, Tumor Suppression, People's Republic of China.

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stated, "We determined the characteristics of Chinese men undergoing initial prostate biopsy and evaluated the relationship between prostate specific antigen levels and prostate cancer/high grade prostate cancer detection in a large Chinese multicenter cohort. This retrospective study included 13,904 urology outpatients who had undergone biopsy for the indications of prostate specific antigen greater than 4.0 ng/ml or prostate specific antigen less than 4.0 ng/ml but with abnormal digital rectal examination results."

Our news journalists obtained a quote from the research from Second Military Medical University, "The prostate specific antigen measurements were performed in accordance with the standard procedures at the respective institutions. The type of assay used was documented and recalibrated to the WHO standard. The incidence of prostate cancer and high grade prostate cancer was lower in the Chinese cohort than the Western cohorts at any given prostate specific antigen level. Around 25% of patients with a prostate specific antigen of 4.0 to 10.0 ng/ml were found to have prostate cancer compared to approximately 40% in U.S. clinical practice. Moreover, the risk curves were generally flatter than those of the Western cohorts, that is risk did not increase as rapidly with higher prostate specific antigen. The relationship between prostate specific antigen and prostate cancer risk differs importantly between Chinese and Western populations, with an overall lower risk in the Chinese cohort. Further research should explore whether environmental or genetic differences explain these findings or whether they result from unmeasured differences in screening or benign prostate disease."

According to the news editors, the research concluded: "Caution is required for the implementation of prostate cancer clinical decision rules or prediction models for men in China or other Asian countries with similar genetic and environmental backgrounds."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.juro.2016.08.103. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Prostatic Secretory Proteins, Metastatic Prostate Cancer, Prostate-Specific Antigen, Biological Tumor Markers, Enzymes and Coenzymes, Risk and Prevention, Prostatic Neoplasms, Biological Factors, Peptide Hydrolases, Neoplasm Antigens, Serine Proteases, Endopeptidases, Kallikreins, Cancer Risk, Immunology, Oncology, Genetics, Second Military Medical University.

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Heart Disorders and Diseases - Atrial Fibrillation

Studies from Second University of Naples Describe New Findings in Atrial Fibrillation (The Role of the Atrial Electromechanical Delay in Predicting Atrial Fibrillation in Myotonic Dystrophy Type 1 Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Atrial Fibrillation have been published. According to news reporting originating in Naples, Italy, by NewsRx journalists, research stated, "Paroxysmal atrial tachyarrhythmias frequently occur in myotonic dystrophy type 1 (DM1) patients. The aim of the current study was to evaluate the atrial electromechanical-delay (AEMD) in a DM1-population with normal cardiac function and its relationship to atrial fibrillation (AF) onset."

The news reporters obtained a quote from the research from the Second University of Naples, "Fifty DM1 patients (28 male; mean age 34.2 ? 11.4 years) and 50 healthy subjects used as controls, matched for age and gender, were studied for the occurrence of atrial fibrillation during a 4-year follow-up, through 30-day external loop recorder (ELR) monitoring performed every 6 months. Intra-AEMD and inter-AEMD of both atrium were measured through tissue-Doppler echocardiography. Compared to the healthy control group, the DM1 group showed a statistically significant increase in inter-AEMD and intraleft-AEMD. Dividing the DM1-group into 2 subgroups (patients with or without AF), the inter-AEMD and intraleft-AEMD were significantly higher in the subgroup with AF compared to the subgroup without AF. A cut off value of 39.2 milliseconds for intraleft-AEMD had a sensitivity of 90% and a specificity of 90% in identifying DM1 patients with AF risk. A cut off value of 57.7 milliseconds for inter-AEMD had a sensitivity of 84.2% and a specificity of 93.5% in identifying this category of patients. Our results showed that the echocardiographic atrial electromechanical delay indices (intraleft and inter-AEMD) were significantly increased in DM1 subjects with normal cardiac function."

According to the news reporters, the research concluded: "Intraleft and inter-AEMD represent noninvasive, inexpensive, useful and simple parameters to assess the AF risk in DM1 patients."


Our news correspondents report that additional information may be obtained by contacting V. Russo, Chair of Cardiology, Second University of Naples - Monaldi Hospital, Naples, Italy. Additional authors for this research include A. Rago, C. Ciardiello, M.G. Russo, P. Calabro, L. Politano and G. Nigro.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jce.12821. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the *Journal of Cardiovascular Electrophysiology* can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Italy, Naples, Europe, Cardiology, Heart Disease, Myotonic Disorders, Myotonic Dystrophy, Atrial Fibrillation, Cardiac Arrhythmias,
Studies from Seoul National University Add New Findings in the Area of Spinal Ependymoma (Genetic differences on intracranial versus spinal cord ependymal tumors: a meta-analysis of genetic researches)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nervous System Diseases and Conditions - Spinal Ependymoma. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Although ependymomas occur in both the brain and the spine, the prognosis is quite varied by tumor location. Spinal ependymomas usually follow a relatively benign course with more favorable prognosis than that of the intracranial ependymomas."

Financial support for this research came from National Research Foundation of Korea.

Our news journalists obtained a quote from the research from Seoul National University, "The aim of this study is to evaluate the genetic differences between spinal ependymomas and their intracranial counterparts using a meta-analysis. We searched PubMed, Embase, Web of Science, and the Cochrane library. Comparative or single arm genetic studies that enrolled patients with both intracranial and spinal ependymoma were included. The frequency of genetic aberration was calculated in each group. We calculated the odds ratio (OR) with 95% confidence intervals (CIs) for direct comparative studies and the logit event rate (LER) and 95% CI for single arm studies. Twenty-five studies comprising of 380 spinal ependymomas and 964 intracranial ependymomas were compared to determine the association of the genetic differences of ependymomas at different locations. There were 25 comparable genetic aberrations between spinal and intracranial ependymomas. Among the genes, the NF2 mutation was significantly associated with the spinal ependymomas rather than with the intracranial ependymomas (spinal tumor: LER -0.750, 95% CI -1.233 to -0.266, intracranial tumor: LER -3.080, 95% CI -3.983 to -2.177). Intracranial ependymomas were found to be significantly associated with EPB41L3 deletion (OR 0.34; 95% CI 0.14-0.80) and HIC1 methylation (OR 0.12; 95% CI 0.02-0.68). The genetic aberrations of spinal ependymomas are quite different from those of intracranial ependymomas. The difference in prognosis of ependymoma by location may be associated with genetic difference."

According to the news editors, the research concluded: "A more detailed understanding of them may enable the development of targeted therapy and the estimation of prognosis."

For more information on this research see: Genetic differences on intracranial versus spinal cord ependymal tumors: a meta-analysis of genetic researches. European Spine Journal, 2016;25(12):3942-3951. European Spine Journal can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; European Spine Journal - www.springerlink.com/content/0940-6719/)

The news correspondents report that additional information may be obtained from

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00586-016-4745-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Nervous System Diseases and Conditions, Spinal Cord, Article Review, Central Nervous System, Spinal Ependymoma, Ependymomas, Neurology, Genetics, Seoul National University.

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Biological Factors - Biological Toxins

Studies from Seoul National University College of Medicine Add New Findings in the Area of Biological Toxins (Staphylococcal enterotoxin IgE sensitization in late-onset severe eosinophilic asthma in the elderly)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biological Factors - Biological Toxins. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Asthma in the elderly (aged (>=) 65 years old) is a significant concern with high morbidity, but the pathophysiology remains unclear particularly in late-onset asthma. Recent studies suggest staphylococcal enterotoxin IgE (SE-IgE) sensitization to be a risk factor for asthma in general populations; however, the associations have not been examined in late-onset elderly asthma."

Financial support for this research came from Ministry of Health and Welfare.

Our news journalists obtained a quote from the research from the Seoul National University College of Medicine, "We aimed to examine the associations of SE-IgE sensitization with late-onset asthma in the elderly, using a database of elderly asthma cohort study. A total of 249 elderly patients with asthma and 98 controls were analysed. At baseline, patients were assessed for demographics, atopy, induced sputum profiles and comorbidities including chronic rhinosinusitis (CRS). Serum total IgE and SE-IgE levels were measured. Asthma severity was assessed on the basis of asthma outcomes during a 12-month follow-up period. At baseline, serum SE-IgE concentrations were significantly higher in patients with asthma than in controls [median 0.16 (interquartile range 0.04-0.53) vs. 0.10 (0.01-0.19), p<0.001]. Elderly asthma patients with high SE-IgE levels had specific characteristics of having more severe asthma, sputum eosinophilia and CRS, compared to those with lower SE-IgE levels. In multivariate logistic regression analyses, the associations between serum SE-IgE concentrations and severe asthma were significant, independently of covariables [SE-IgE-high (>=) 0.35 kU/L) vs. negative (<0.10 kU/L) group: odds ratio 7.47, 95% confidence interval 1.86-30.03, p=0.005]. Multiple correspondence analyses also showed that high serum SE-IgE level had close relationships with severe asthma, CRS and sputum eosinophilia together. This is the first report on the significant associations of SE-IgE sensitization with late-onset asthma in the elderly, particularly severe eosinophilic asthma with CRS comorbidity."

According to the news editors, the research concluded: "Our findings indicate a potential implication of SE in the high morbidity burden of elderly asthma and suggest clues to the pathogenesis of severe late-onset eosinophilic asthma in the elderly."
For more information on this research see: Staphylococcal enterotoxin IgE sensitization in late-onset severe eosinophilic asthma in the elderly. *Clinical & Experimental Allergy*, 2016;46(3):411-21. (Wiley-Blackwell - www.wiley.com; Clinical & Experimental Allergy - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2222)

Our news journalists report that additional information may be obtained by contacting W.J. Song, Dept. of Internal Medicine, Seoul National University College of Medicine, Seoul, South Korea. Additional authors for this research include I. Sintobin, K.H. Sohn, M.G. Kang, H.K. Park, E.J. Jo, S.E. Lee, M.S. Yang, S.H. Kim, H.K. Park, Y.E. Kwon, T.B. Kim, S.H. Kim, H.W. Park, Y.S. Chang, B.J. Lee, Y.K. Jee, B.W. Choi, C. Bachert and S.H Cho.

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Keywords for this news article include: Asia, Seoul, Asthma, Immunology, South Korea, Blood Cells, Eosinophils, Enterotoxins, Epidemiology, Granulocytes, Biological Toxins, Biological Factors, Risk and Prevention, Hemic and Immune Systems, Respiratory Hypersensitivity, Bronchial Diseases and Conditions, Obstructive Lung Diseases and Conditions.

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**Myeloid Cells**

**Studies from Seoul National University Further Understanding of Myeloid Cells (GM-CSF Grown Bone Marrow Derived Cells Are Composed of Phenotypically Different Dendritic Cells and Macrophages)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Myeloid Cells. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Granulocyte-macrophage colony stimulating factor (GM-CSF) has a role in inducing emergency hematopoiesis upon exposure to inflammatory stimuli. Although GM-CSF generated murine bone marrow derived cells have been widely used as macrophages or dendritic cells in research, the exact characteristics of each cell population have not yet been defined."

Our news editors obtained a quote from the research from Seoul National University, "Here we discriminated GM-CSF grown bone marrow derived macrophages (GM-BMMs) from dendritic cells (GM-BMDCs) in several criteria. After C57BL/6J mice bone marrow cell culture for 7 days with GM-CSF supplementation, two main populations were observed in the attached cells based on MHCII and F4/80 marker expressions. GM-BMMs had MHCII(low)F4/80(high) as well as CD11c(+)CD11b(high)CD80(-)CD64(+)+MerTK(+) phenotypes. In contrast, GM-BMDCs had MHCII(high)F4/80(low) and CD11c(high)CD8 alpha(-)CD11b(+)CD80(+)CD64(-)MerTK(low) phenotypes. Interestingly, the GM-BMM population increased but GM-BMDCs decreased in a GM-CSF dose-dependent manner. Functionally, GM-BMMs showed extremely high phagocytic abilities and produced higher IL-10 upon LPS stimulation. GM-BMDCs, however, could not phagocytose as well, but were efficient at producing TNF alpha, IL-1 beta, IL-12p70 and IL-6 as well as inducing T cell proliferation. Finally, whole transcriptome analysis
revealed that GM-BMMs and GM-BMDCs are overlap with in vivo resident macrophages and dendritic cells, respectively."

According to the news editors, the research concluded: "Taken together, our study shows the heterogeneity of GM-CSF derived cell populations, and specifically characterizes GM-CSF derived macrophages compared to dendritic cells."


The news editors report that additional information may be obtained by contacting S.H. Seok, Seoul National University, Coll Med, Dept. of Microbiol & Immunol, Seoul 03080, South Korea. Additional authors for this research include D. Jung, G.J. Gu and S.H. Seok.

Keywords for this news article include: Seoul, South Korea, Asia, Mononuclear Phagocyte System, Antigen-Presenting Cells, Connective Tissue Cells, Dendritic Cells, Immune System, Bone Research, Myeloid Cells, Bone Marrow, Macrophages, Immunology, Phagocytes, Seoul National University.

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**Chemistry - Biochemistry**

**Studies from Seoul National University in the Area of Biochemistry Described (Differentially expressed genes in iron-induced prion protein conversion)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Chemistry - Biochemistry is the subject of a report. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "The conversion of the cellular prion protein (PrPC) to the protease-resistant isoform is the key event in chronic neurodegenerative diseases, including transmissible spongiform encephalopathies (TSEs). Increased iron in prion-related disease has been observed due to the prion protein-ferritin complex."

Funders for this research include Korea Centers for Disease Control & Prevention, Ministry of Health and Welfare, South Korea, Research Institute for Veterinary Science, College of Veterinary Medicine, Seoul National University.

Our news journalists obtained a quote from the research from Seoul National University, "Additionally, the accumulation and conversion of recombinant PrP (rPrP) is specifically derived from Fe(III) but not Fe(II). Fe(III)-mediated PK-resistant PrP (PrPres) conversion occurs within a complex cellular environment rather than via direct contact between rPrP and Fe(III). In this study, differentially expressed genes correlated with prion degeneration by Fe(III) were identified using Affymetrix micro arrays. Following Fe(III) treatment, 97 genes were differentially expressed, including 85 upregulated genes and 12 downregulated genes (>= 1.5-fold change in expression). However, Fe(II) treatment produced moderate alterations in gene expression without inducing dramatic alterations in gene expression profiles. Moreover, functional grouping of identified genes indicated that the differentially regulated genes were
highly associated with cell growth, cell maintenance, and intra- and extracellular transport. These findings showed that Fe(III) may influence the expression of genes involved in PrP folding by redox mechanisms."

According to the news editors, the research concluded: "The identification of genes with altered expression patterns in neural cells may provide insights into PrP conversion mechanisms during the development and progression of prion-related diseases."

For more information on this research see: Differentially expressed genes in iron-induced prion protein conversion. *Biochemical and Biophysical Research Communications*, 2016;480(4):734-740. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting H.J. Woo, Seoul National University, Coll Vet Med, Res Inst Vet Sci, Seoul 08826, South Korea. Additional authors for this research include E.H. Kim, B.R. Choi and H.J. Woo.

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Keywords for this news article include: Seoul, South Korea, Asia, Biochemistry, Chemistry, Genetics, Genetics, Seoul National University.

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### Enzymes and Coenzymes

**Studies from Shaanxi University of Technology Describe New Findings in Enzymes and Coenzymes** [Echinacoside and Cistanche tubulosa (Schenk) R. wight ameliorate bisphenol A-induced testicular and sperm damage in rats through gonad axis regulated ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes. According to news reporting originating from Shaanxi, People's Republic of China, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: Male infertility has been increasing over the last decades and being a pressing health problem nowadays. Cistanche tubulosa (CT) is a traditional Chinese medicine used to boost male sexual function."

Financial supporters for this research include Shaanxi Collaborative Innovation Center, State Administration of Foreign Experts Affairs, Key Construction Program of International Cooperation Base in S&T.

Our news editors obtained a quote from the research from the Shaanxi University of Technology, "Echinacoside (ECH) is one of the major compounds exist in CT and might be a potential agent to protect testis and sperm injury. Aim of the study: To investigate the mechanisms behind the possible protective effects of CT and ECH against testicular and sperm toxicity. CT was identified by 5.8 s gene sequencing. The major compositions (echinacoside and acteoside) of CT were quantified by HPLC method. The adult male Sprague-Dawley rats were exposed to BPA, CT or ECH for 42 consecutive days. The sperm parameters were observed by..."
dark-field microscope; serum hormone levels (FSH, LH and testosterone) were tested by radio immunoassay; LDH-x activity were evaluated using commercial kits; the expressions of the key steroidogenic enzymes were evaluated by qRT-PCR, heat map, immunofluorescence and western blot. The CT and ECH treatments against BPA-induced testicular and sperm toxicity showed that CT and ECH have reversed BPA-induced abnormality in sperm characteristics, testicular structure and normalized serum testosterone. This was concomitant with the increased expression of LDH-x as well as the key steroidogenic enzymes including StAR, CYP11A1, 3 beta-HSD, 17 beta-HSD and CYP17A1, suggesting that CT and ECH enhanced testosterone biosynthesis."

According to the news editors, the research concluded: "CT and ECH attenuated poor sperm quality and testicular toxicity in rats through up-regulation steroidogenesis enzymes and ECH is the active compound of CT as a potential natural reproductive agent."


The news editors report that additional information may be obtained by contacting X.Y. Zhang, Shaanxi Univ Technol, Coll Biol Sci & Engn, Chinese German Joint Lab Nat Prod Res Qinling Bas, Hanzhong 723000, Shaanxi, People's Republic of China. Additional authors for this research include J. Wang, X.P. Li and X.Y. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.07.033. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shaanxi, People's Republic of China, Asia, Enzymes and Coenzymes, Shaanxi University of Technology.

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Eye Diseases and Conditions - Age-Related Macular...

Studies from Shaheed Beheshti University of Medical Sciences Have Provided New Information about Age-Related Macular Degeneration (Evaluation of CC-cytokine ligand 2 and complementary factor H Y402H polymorphisms and their interactional ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Eye Diseases and Conditions - Age-Related Macular Degeneration have been presented. According to news reporting from Tehran, Iran, by NewsRx journalists, research stated, "PurposeTo evaluate the association of CC-cytokine ligand 2 CCL2-2518 (rs1024611) single nucleotide polymorphism, complement factor H (CFH Y402H) and their possible interaction in developing advanced age-related macular degeneration (AMD). MethodsIn this case-control study, DNA samples from 266 patients with advanced AMD and 229 healthy controls were genotyped for CCL2 polymorphism and also 254 patients and 164 healthy controls were genotyped for CFH polymorphism."

The news correspondents obtained a quote from the research from the Shaheed
Beheshti University of Medical Sciences, "The possible associations of these polymorphisms with susceptibility to AMD independently and in different joint combinations were evaluated. Results: The genotype frequency for CFH was found to be significantly different between AMD and normal controls (31.5% versus 20.7%, OR=3.56, p<0.001 for CC and 52.4% versus 41.5%, OR=2.96, p<0.001 for CT genotype). However, no significant association between CCL2 polymorphism and AMD was observed in this cohort (OR=1.15 and OR=0.8, p=0.172). Interestingly, studying the joint effects of two genotypes (TT genotype of CFH Y402H and AG genotype of CCL2-2518) showed more significant protective effect against AMD (p=0.0001), while the risk effect of CC and CT genotypes of CFH was only visible in the presence of AA genotype of CCL2-2518 (p=0.044 and p=0.05). Conclusion: Complement factor H Y402H polymorphism is strongly associated with advanced type AMD. Although this study revealed no association of CCL2-2518 with AMD, the risk effect of CFH genotypes was only visible in the presence of AA genotype of CCL2-2518.

According to the news reporters, the research concluded: "AG genotype of CCL2-2518 in combination with TT genotype of CFH Y402H showed significant protective effect against AMD."


Our news journalists report that additional information may be obtained by contacting M.H.J. Bonyadi, Shahid Beheshti Univ Med Sci, Ophthalm Res Center, Ocular Tissue Engn Res Center, Tehran, Iran. Additional authors for this research include Z. Foruzandeh, T. Mohammadian, N. Fotouhi, M. Soheilian, M.H.J. Bonyadi, A. Javadzadeh, H. Moein and M. Yaseri.

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Keywords for this news article include: Tehran, Iran, Asia, Intercellular Signaling Peptides and Proteins, Monocyte Chemoattractant Proteins, Age-Related Macular Degeneration, Retinal Diseases and Conditions, Eye Diseases and Conditions, Inflammation Mediators, Retinal Degeneration, Chemotactic Factors, Biological Factors, Chemokine CCL2, CC Chemokines, Cytokines, Genetics, Shaheed Beheshti University of Medical Sciences.

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Hematologic Diseases and Conditions...

Studies from Shandong University Describe New Findings in Thrombocytopenia (Participation of B-cell-activating factor receptors in the pathogenesis of immune thrombocytopenia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Hematologic Diseases and Conditions -
Thrombocytopenia have been published. According to news reporting out of Shandong, People's Republic of China, by NewsRx editors, research stated, "ESSENTIALS: Dysfunctional B-cell-activating factor (BAFF) system is related to many autoimmune diseases. The regulatory functions of BAFF/BAFF receptors were investigated in an in vitro coculture system."

Funders for this research include Tai Shan Scholar Foundation, Clinical Medicine Center Foundation of Shandong Province, Leading Medical Professionals Foundation of Shandong Province, National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Shandong University, "Different regulatory roles of BAFF were investigated via different receptors in immune thrombocytopenia. The upregulated BAFF receptors on autoreactive lymphocytes lead to their hypersensitivity to BAFF. The pathogenesis of immune thrombocytopenia (ITP) remains enigmatic. B-cell-activating factor (BAFF) and its receptors (BAFF receptor [BAFF-R], transmembrane activator and calcium modulator and cyclophilin ligand interactor [TACI], and B-cell maturation antigen) play central roles in the integrated homeostatic regulation of lymphocytes. To investigate the pathologic roles of BAFF receptors in regulating the bioactivities of lymphocytes in ITP. An in vitro culture system was established by stimulating CD14(-) peripheral lymphocytes with platelet-preloaded dendritic cells in the presence of recombinant human BAFF (rhBAFF; 20 ng mL(-1)). The functions of BAFF receptors were specifically blocked with blocking antibodies. BAFF-R, besides prolonging the survival of B cells in both patients and healthy controls, prominently promoted the survival of CD8(+) T cells and the proliferation of B cells in patients with ITP. TACI, as a positive regulator, not only promoted the proliferation of CD4(+) and CD8(+) T cells, but also significantly enhanced the secretion of interleukin-4 in patients with ITP, but not in controls. Besides revealing the pathologic roles of BAFF receptors, these results also indicate that lymphocytes of patients with ITP have enhanced antiapoptotic or proliferative capacity as compared with those from healthy controls when exposed under similar stimulation of rhBAFF. Further study demonstrated that activated autoreactive B cells and CD4(+) T cells from patients with ITP showed significantly higher expression of BAFF-R or TACI than those from healthy controls. Both BAFF-R and TACI are pathogenic participants in ITP."

According to the news editors, the research concluded: "Their dysregulated expression in patients with ITP may lead to hyperreactivity of activated autoreactive lymphocytes in response to rhBAFF, and thus is highly significant in the pathogenesis of ITP."


Our news journalists report that additional information may be obtained by contacting Y.N. Min, Hematology Oncology Center, Qilu Hospital, Shandong University, Jinan, Shandong, People's Republic of China. Additional authors for this research include C.Y. Wang, X.X. Li, Y. Hou, J.H. Qiu, J. Ma, L.L. Shao, X. Zhang, Y.W. Wang, J. Peng, M. Hou and Y. Shi.

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Keywords for this news article include: Asia, Shandong, Immunology, Blood Cells, Lymphocytes, Thrombocytopenia, Membrane Proteins, Membrane Glycoproteins, Mononuclear Leukocytes, Tumor Necrosis Factors, B Cell Activating Factor, Blood Platelet Disorders, Hemic and Immune Systems, People's Republic of China, Hematologic Diseases and Conditions.
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Oncology - Kidney Cancer

Studies from Shandong University Have Provided New Data on Kidney Cancer (Silencing Livin induces apoptotic and autophagic cell death, increasing chemotherapeutic sensitivity to cisplatin of renal carcinoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Kidney Cancer. According to news reporting originating from Jinan, People's Republic of China, by NewsRx correspondents, research stated, "Renal cell carcinoma (RCC) accounts for 3% of all adult malignancies and is the most lethal urological cancer. Livin is a member of the inhibitor of apoptosis protein (IAP) family, which is associated with tumor resistance to radiotherapy and chemotherapy."

Financial supporters for this research include Shandong Key Research and Development Project, Medicine and Healthcare Technology Development Project of Shandong Province, Natural Science Foundation of Shandong Province (CN).

Our news editors obtained a quote from the research from Shandong University, "Clinical data also showed that patients with high tumor grades and stages have higher expression levels of Livin in RCC cells. Autophagy is a survival mechanism activated in response to nutrient deprivation. A possible role of Livin in the autophagy of RCC cells has not been investigated; therefore, this pioneer study was carried out. Livin was silenced in RCC cells (slow virus infection [SVI]-shLivin cells) by lentiviral transfection. Then, mRNA and protein expression levels in the transfected cells were assessed by quantitative fluorescence PCR and Western blotting, respectively. In addition, acridine orange staining and electron microscopy were used to assess autophagy in SVI-shLivin cells. The cisplatin IC50 values for RCC cells were measured by the CCK8 assay. Potent antitumor activities were observed in xenograft mouse models generated with Livin-silenced RCC cells in terms of delayed tumor onset and suppressed tumor growth. These results suggested that Livin silencing could increase the chemotherapeutic sensitivity of RCC cells to cisplatin and induce autophagic cell death. A possible mechanism of Bcl-2 and Akt pathway involvement was discussed specifically in this study."

According to the news editors, the research concluded: "Overall, Livin silencing induces apoptotic and autophagic cell death and increases chemotherapeutic sensitivity of RCC cells to cisplatin."

For more information on this research see: Silencing Livin induces apoptotic and autophagic cell death, increasing chemotherapeutic sensitivity to cisplatin of renal carcinoma cells. *Tumor Biology*, 2016;37(11):15133-15143. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news editors report that additional information may be obtained by contacting D.B. Bi, Shandong University, Shandong Prov Hosp, Dept. of Urol, Jinan 250021, People's Republic of China. Additional authors for this research include S.A. Liu, K.J. Ding, S.T. Ding, C.S. Li, J.J. Lu, D.X. Gao, T. Zhang and D.B. Bi.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5395-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jinan, People's Republic of China, Asia, Renal Cell Carcinoma, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Renal Carcinoma, Kidney Cancer, Renal Cancer, Nephrology, Carcinomas, Cisplatin, Oncology, Genetics, Shandong University.

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**Oncology - Thyroid Cancer**

Studies from Shanghai Jiao-Tong University Affiliated Sixth People's Hospital Yield New Data on Thyroid Cancer (Short-Term Side Effects after Radioiodine Treatment in Patients with Differentiated Thyroid Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Thyroid Cancer. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "I-131 therapy for differentiated thyroid cancer (DTC) could induce adverse effects. The purpose of this study was to report and analyze symptoms after I-131 treatment within the hospitalization and present relevant medical intervention."

The news correspondents obtained a quote from the research from Shanghai Jiao-Tong University Affiliated Sixth People's Hospital, "I-131 doses ranging from 3.7 to 9.25 GBq (100-250 mCi) were administrated for thyroid remnant ablation or treating DTC metastases. 117 patients with DTC for I-131 therapy were monitored through the video and intercommunicating with standardized questionnaire at different time points after I-131 oral administration. Adverse effects were recorded and relevant clinical factors were analyzed. Among all the 117 patients, 55 cases complained of neck's pain or swelling and 79 cases presented with gastrointestinal symptoms. Pain or swelling of salivary gland occurred in 15 patients, headache and vertigo in 10, insomnia in 9, vocal cord paralysis in 6, fatigue or general malaise in 6, and foreign body sensation in 5. Body numbness and urinary symptoms were observed in only 1 case, respectively. Those side effects were related with sex, pre-I-131 treatment TSH levels, frequency of I-131 therapy, and lymph node metastases."

According to the news reporters, the research concluded: "Short-term side effects after I-131 therapy for DTC patients varied individually; severe symptoms were not uncommon but generally did not need emergent medical intervention."

For more information on this research see: Short-Term Side Effects after Radioiodine Treatment in Patients with Differentiated Thyroid Cancer. Biomed Research International, 2016;2016():4376720.

Our news journalists report that additional information may be obtained by contacting L. Lu, Dept. of Nuclear Medicine, Shanghai Jiao Tong University Affiliated Sixth People's Hospital, No 600 Yi Shan Road, Shanghai 200233, People's Republic of China. Additional authors for this research include F. Shan, W. Li and H. Lu.

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that is either free or for purchase.

Keywords for this news article include: Asia, Therapy, Shanghai, Oncology, Thyroid Cancer, Thyroid Neoplasms, People's Republic of China.

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**Cardiovascular Diseases and Conditions --**

**Studies from Shanghai Jiao-Tong University Describe New Findings in Atherosclerosis (miRNA-27b modulates endothelial cell angiogenesis by directly targeting Naa15 in atherogenesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Atherosclerosis are presented in a new report. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "The CCL20/CCR6 axis has been shown to play a vital role in the pathogenesis of atherosclerosis (AS). However, the regulatory mechanism remains unclear."

The news reporters obtained a quote from the research from Shanghai Jiao-Tong University, "Here, we studied the miRNA-mediated epigenetic regulation of the CCL20/CCR6 axis in atherogenesis. CCR6(+/+)ApoE(-/-) and CCR6(-/-)ApoE(-/-) mice were fed a high-fat diet for 24 weeks. Plaque size was evaluated via ultrasound biomicroscope and hematoxylin and eosin. Protein expression were measured by Western blotting or immunofluorescence/immunohistochemistry or ELISA, and gene mRNA levels were detected by RT-PCR. Seven hundred and sixty miRNAs were screened via miRNA profiling. miRNA-27b target genes were predicted using software and verified with a dual luciferase reporter assay. The tube formation of mouse aortic endothelial cells (MAECs) was performed on Matrigel. In contrast to wild-type ApoE(-/-) mice, CCR6 deficiency led to a significantly decreased plaque size, CD31, CCR6, CCL20 expression and number of CCL20(+) macrophages in atherosclerotic plaques. Stimulation of mouse primary peritoneal macrophages (MPPMs) resulted in increased IL-23 release. miRNA-27b was the most highly expressed (5.19-fold increase) miRNA among the 760 miRNAs screened in the vessel. Naa15 was verified as miRNA-27b target gene, which was diminished in the plaques. Transfection of siRNA Naa15 or miRNA-27b mimic into MAECs caused an increase tube formation. CCR6 deletion effectively ameliorates atherosclerosis progression by reducing macrophage accumulation, resulting in reduced secretion of CCL20 and IL-23."

According to the news reporters, the research concluded: "Mechanistically, the decreased miRNA-27b regulates the activity of the CCL20/CCR6 axis by targeting Naa15, and promotes plaque stability in atherosclerosis."

For more information on this research see: miRNA-27b modulates endothelial cell angiogenesis by directly targeting Naa15 in atherogenesis. *Atherosclerosis*, 2016;254():184-192. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news correspondents report that additional information may be obtained by contacting Q. Li, Shanghai Jiao Tong University, Shanghai Inst Biol Sci, Chinese Academy Sci, Lab Vasc BioInst Hlth SciSch Med, Shanghai 200025, People's Republic of China. Additional
authors for this research include W.D. Xi, W.H. Sun, J.Y. Ma, W. Cai, F.Z. Lou, Z.Y. Xu and P.J. Gao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.10.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Endothelial Cells, Diagnostics and Screening, Cardiovascular Diseases and Conditions, Mononuclear Phagocyte System, Arterial Occlusive Diseases, Arteriosclerosis, Atherosclerosis, Macrophages, Immunology, Phagocytes, Genetics, Shanghai Jiao-Tong University.

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Oncology - Breast Cancer

Studies from Shanghai Jiao-Tong University Describe New Findings in Breast Cancer (Down-Regulation of Protein Kinase C-epsilon by Prolonged Incubation with PMA Inhibits the Proliferation of Vascular Smooth Muscle Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Phorbol myristate acetate (PMA) exerts a pleiotropic effect on the growth and differentiation of various cells. Protein kinase Cs (PKCs) plays a central role in mediating the effects of PMA on cells."

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "The present study investigated whether the down-regulation of protein kinase C-epsilon (PKC-epsilon) is involved in the inhibition of vascular smooth muscle cell (VSMC) proliferation caused by prolonged PMA incubation. Using cell counting, Cell Counting Kit-8 (CCK-8) and EdU incorporation assay on VSMCs, we evaluated the inhibitory effects of prolonged incubation of PMA, of lentiviruses carrying the short-hairpin RNAs (shRNA) of PKC-epsilon and of the PKC-epsilon inhibitor peptide on the proliferation and viability of cells. The effect of PKC-epsilon down-regulation on growth of rat breast cancer SHZ-88 cells was also measured. The prolonged incubation of VSMCs with PMA for up to 72 hours resulted in attenuated cell growth rates in a time-dependent manner. The expression of PKC-epsilon, as assessed by Western blotting, was also decreased accordingly. Notably, the number of EdU-positive cells and the cell viability of VSMCs were decreased by shRNA of PKC-epsilon and the PKC-epsilon inhibitor peptide, respectively. The proliferation of rat breast cancer SHZ-88 cells was also attenuated by lentivirus-induced shRNA silencing of PKC-epsilon. Prolonged incubation of PMA can inhibit the expression of PKC-epsilon. The effect results in the inhibition of VSMC proliferation."

According to the news editors, the research concluded: "PKC-epsilon silencing can also attenuate breast cancer cell growth, suggesting that PKC-epsilon may be a potential target for anti-cancer drugs."

For more information on this research see: Down-Regulation of Protein Kinase C-epsilon by Prolonged Incubation with PMA Inhibits the Proliferation of Vascular Smooth Cell...

The news correspondents report that additional information may be obtained from L. Wang, Shanghai Jiao Tong University, Affiliated Shanghai Peoples Hosp 6, Dept. of Anesthesiol, Shanghai 200233, People's Republic of China. Additional authors for this research include Y. Wang, Q.H. Zhou, B. Wu, A.Z. Wang, W. Jiang and L. Wang.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Phosphotransferases (Alcohol Group Acceptor), Protein-Serine-Threonine Kinases, Protein Kinase C-epsilon, Enzymes and Coenzymes, Protein Kinases, Women's Health, Breast Cancer, Muscle Cells, Proteomics, Oncology, Shanghai Jiao-Tong University.

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**Gram-Positive Bacteria - Streptomyces**

**Studies from Shanghai Jiao-Tong University Have Provided New Data on Streptomyces (Deciphering the streamlined genome of Streptomyces xiamenensis 318 as the producer of the anti-fibrotic drug candidate xiamenmycin)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Positive Bacteria - Streptomyces have been published. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Streptomyces xiamenensis 318, a moderate halophile isolated from a mangrove sediment, produces the anti-fibrotic compound xiamenmycin. The whole genome sequence of strain 318 was obtained through long-read single-molecule real-time (SMRT) sequencing, high-throughput Illumina HiSeq and 454 pyrosequencing technologies."

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "The assembled genome comprises a linear chromosome as a single contig of 5,961,401-bp, which is considerably smaller than other reported complete genomes of the genus Streptomyces. Based on the antiSMASH pipeline, a total of 21 gene clusters were predicted to be involved in secondary metabolism. The gene cluster responsible for the biosynthesis of xiamenmycin resides in a strain-specific 61,387-bp genomic island belonging to the left-arm region. A core metabolic network consisting of 104 reactions that supports xiamenmycin biosynthesis was constructed to illustrate the necessary precursors derived from the central metabolic pathway. In accordance with the finding of a putative ikarugamycin gene cluster in the genome, the targeted chemical profiling of polycyclic tetramate macrolactams (PTMs) resulted in the identification of ikarugamycin."

According to the news editors, the research concluded: "A successful genome mining for bioactive molecules with different skeletons suggests that the naturally minimized genome of S. xiamenensis 318 could be used as a blueprint for constructing a chassis cell with versatile biosynthetic capabilities for the production of secondary metabolites."

For more information on this research see: Deciphering the streamlined genome of Streptomyces xiamenensis 318 as the producer of the anti-fibrotic drug candidate xiamenmycin. *Scientific Reports*, 2016;6():18977. (Nature Publishing Group - www.nature.com/; Scientific
Our news journalists report that additional information may be obtained by contacting M.J. Xu, Ministry of Education Key Laboratory of Systems Biomedicine, Shanghai Centre for Systems Biomedicine, Shanghai Jiao Tong University, Shanghai 200240, People's Republic of China. Additional authors for this research include J.H. Wang, X.L. Bu, H.L. Yu, P. Li, H.Y. Ou, Y. He, F.D. Xu, X.Y. Hu, X.M. Zhu, P. Ao and J. Xu.

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Keywords for this news article include: Asia, Shanghai, Genetics, Actinomycetales, Drug Development, Streptomycetaceae, Drugs and Therapies, Gram Positive Bacteria, Gram-Positive Bacteria, People's Republic of China, Gram Positive Endospore Forming Rods.

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Apoptosis

Studies from Shanghai Jiao-Tong University Reveal New Findings on Apoptosis (Enhancement of triptolide-loaded micelles on tumorigenicity inhibition of human ovarian cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Apoptosis is now available. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Triptolide (TP), a diterpenoid obtained from Tripterygium wilfordii Hook.f, has shown its antitumor activities against a variety of cancers in vitro in recent years. Unfortunately, TP has a small margin between the therapeutic and toxic doses and shows serious toxicity which limits its uses in antitumor treatment."

Financial supporters for this research include National Natural Science Foundation of China, Shanghai Municipal Science and Technology Commission.

Our news editors obtained a quote from the research from Shanghai Jiao-Tong University, "In our previous study, Triptolide-loaded micelles (TP micelles), a TP drug delivery system with a sustained release behavior, had been reported to decrease TP uptake in the liver to relieve its toxicity, and increase TP distribution in the ovary to enhance its effects. This work therefore aimed at evaluating the inhibitory ability of TP micelles in the proliferation, apoptosis, invasion, and migration, and compared with free TP in SKOV3 cells. Our results showed that TP micelles inhibited the proliferation of SKOV3 in a time-and dose-dependent manner, and exhibited enhanced inhibition following 48 and 72?h treatment compared to TP. Cell cycle analysis revealed that TP and TP micelles inhibited cell proliferation by blocking their progression from the G2/M phase to the S phase. Although TP induced a significant increase in cell apoptosis, TP micelles showed a superior effect following 48 and 72?h treatment. Induction of caspase-dependent way and inhibition of NF-kB activation were found to be involved in the mechanism of TP micelles-induced apoptosis. Furthermore, the wound healing assay and transwell assay showed that both TP and TP micelles could obviously inhibit SKOV3 cells migration and invasion. Overall, TP micelles exhibited enhanced therapeutic efficacy in ovarian cancer in vitro due to its prolonged release and redistribution compared with the free TP."

According to the news editors, the research concluded: "TP micelles might lead to an
increase in tumorigenicity inhibition and a decrease in resistance and incidence simultaneously, indicating that it offers a new strategy with promising characteristics for TP chemotherapy application for ovarian cancer.”


The news editors report that additional information may be obtained by contacting Y. Wang, b Dept. of Obstetrics and Gynecology, Renji Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai 200001, People's Republic of China. Additional authors for this research include T. Liu and H. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/09205063.2015.1131667. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Shanghai, Oncology, Apoptosis, People's Republic of China.

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**Peptides - Glycopeptides**

**Studies from Shanghai Jiao-Tong University School of Medicine Further Understanding of Glycopeptides (Pre-Treatment Serum C-Reactive Protein Level Is An Independent Risk Factor for Development of Nephrotoxicity in Patients Receiving High-Dose ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Peptides - Glycopeptides. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "High-dose vancomycin treatment increases the likelihood of vancomycin-related nephrotoxicity. C-reactive protein (CRP) is a sensitive marker of systemic inflammation."

The news reporters obtained a quote from the research from the Shanghai Jiao-Tong University School of Medicine, "In this study, we evaluated the pre-treatment serum CRP level as a risk factor of the development of nephrotoxicity in patients receiving high total daily doses (>2.5 g) of vancomycin. Data extracted from medical records for 174 patients who received total daily doses of >2.5 g of intravenous vancomycin for a minimum of 48 h and had their serum CRP level and erythrocyte sedimentation rate tested within 24 h before vancomycin treatment were subject to final analyses. Univariate analyses showed that patients who developed nephrotoxicity during vancomycin treatment had significantly higher median vancomycin serum concentration, duration of vancomycin treatment, and the serum CRP level within 24 h before vancomycin treatment than the non-nephrotoxicity group. Multivariate logistic regression analysis showed that after adjustment for potential confounders, median vancomycin serum concentration, duration of treatment, serum CRP level within 24 h before vancomycin treatment, and nephrotoxic medication were found significantly associated with the development of nephrotoxicity. This was confirmed by multivariate hazard ratio analysis after adjustment for potential confounders."

According to the news reporters, the research concluded: "This study provides the
first evidence supporting the fact that the serum CRP level within 24 h before vancomycin treatment is an independent risk factor for the development of nephrotoxicity in patients receiving total daily doses of >2.5 g of vancomycin. Therefore, the serum CRP level within 24 h before vancomycin treatment could be a potential biomarker or prognostic factor for the development of vancomycin nephrotoxicity.”


Our news correspondents report that additional information may be obtained by contacting J. He, Dept. of Pharmacy, Ruijin Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai, People's Republic of China. Additional authors for this research include E.Q. Mao, F. Jing, H.T. Jiang, W.H. Yang and E.Z. Chen.

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Keywords for this news article include: Asia, Shanghai, Albumins, Immunology, Proteomics, Vancomycin, Glycopeptides, Immunoproteins, C Reactive Protein, Risk and Prevention, Acute Phase Proteins, People's Republic of China.

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Life Science Research - Apoptosis and Cell Death

Studies from Shanghai Jiao-Tong University School of Medicine Yield New Data on Apoptosis and Cell Death (ANP32B deficiency impairs proliferation and suppresses tumor progression by regulating AKT phosphorylation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Life Science Research - Apoptosis and Cell Death have been presented. According to news originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "The acidic leucine-rich nuclear phosphoprotein 32B (ANP32B) is reported to impact normal development, with Anp32b-knockout mice exhibiting smaller size and premature aging. However, its cellular and molecular mechanisms, especially its potential roles in tumorigenesis, remain largely unclear."

Our news journalists obtained a quote from the research from the Shanghai Jiao-Tong University School of Medicine, "Here, we utilize 'knockout' models, RNAi silencing and clinical cohorts to more closely investigate the role of this enigmatic factor in cell proliferation and cancer phenotypes. We report that, compared with Anp32b wild-type (Anp32b(+/+)) littermates, a broad panel of tissues in Anp32b-deficient (Anp32b(-/-)) mice are demonstrated hypoplasia. Anp32b(-/-) mouse embryo fibroblast cell has a slower proliferation, even after oncogenic immortalization. ANP32B knockdown also significantly inhibits in vitro and in vivo growth of cancer cells by inducing G1 arrest. In line with this, ANP32B protein has higher expression in malignant tissues than adjacent normal tissues from a cohort of breast cancer patients, and its expression level positively correlates with their histopathological grades."
Moreover, ANP32B deficiency downregulates AKT phosphorylation, which involves its regulating effect on cell growth."

According to the news editors, the research concluded: "Collectively, our findings suggest that ANP32B is an oncogene and a potential therapeutic target for breast cancer treatment."

For more information on this research see: ANP32B deficiency impairs proliferation and suppresses tumor progression by regulating AKT phosphorylation. *Cell Death & Disease*, 2016;7():e2082. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

The news correspondents report that additional information may be obtained from S. Yang, Key Laboratory of Cell Differentiation and Apoptosis of Chinese Ministry of Education, Rui-Jin Hospital, Shanghai Jiao-Tong University School of Medicine (SJTU-SM), Shanghai, People's Republic of China. Additional authors for this research include L. Zhou, P.T. Reilly, S.M. Shen, P. He, X.N. Zhu, C.X. Li, L.S. Wang, T.W. Mak, G.Q. Chen and Y. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2016.8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Shanghai, Genetics, Oncology, Life Science Research, Apoptosis and Cell Death, People's Republic of China.

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**Mutagenesis**

**Studies from Shanghai Jiao-Tong University Yield New Data on Mutagenesis [Targeted AIDID-mediated mutagenesis (TAM) enables efficient genomic diversification in mammalian cells]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Mutagenesis is the subject of a report. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "A large number of genetic variants have been associated with human diseases. However, the lack of a genetic diversification approach has impeded our ability to interrogate functions of genetic variants in mammalian cells."

Our news journalists obtained a quote from the research from Shanghai Jiao-Tong University, "Current screening methods can only be used to disrupt a gene or alter its expression. Here we report the fusion of activation-induced cytidine deaminase (AID) with nuclease-inactive clustered regularly interspaced short palindromic repeats (CRISPR)-associated protein 9 (dCas9) for efficient genetic diversification, which enabled high-throughput screening of functional variants. Guided by single guide (sg) RNAs, dCas9-AID-P182X (AIDx) directly changed cytidines or guanines to the other three bases independent of AID hotspot motifs, generating a large repertoire of variants at desired loci. Coupled with a uracil-DNA glycosylase inhibitor, dCas9-AIDx converted targeted cytidines specifically to thymines, creating specific point mutations. By targeting BCR-ABL with dCas9-AIDx, we efficiently identified known and new mutations conferring imatinib resistance in chronic myeloid leukemia cells."

According to the news editors, the research concluded: "Thus, targeted AID-
mediated mutagenesis (TAM) provides a forward genetic tool to screen for gain-of-function variants at base resolution."


Our news journalists report that additional information may be obtained by contacting X. Chang, Shanghai Jiao Tong University, Sch Med, Collaborat Innovat Center Syst Biomed, Shanghai, People's Republic of China. Additional authors for this research include J.Y. Zhang, W.J. Yin, Z.C. Zhang, Y. Song and X. Chang.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Mutagenesis, Genetics, Shanghai Jiao-Tong University.

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**Pregnancy Complications - Gestational Diabetes**

**Studies from Shanghai Jiao-Tong University in the Area of Gestational Diabetes Described (Maternal BMI, gestational diabetes, and weight gain in relation to childhood obesity: The mediation effect of placental weight)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pregnancy Complications - Gestational Diabetes have been published. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "High prepregnancy body mass index (BMI), excessive gestational weight gain (GWG), and gestational diabetes mellitus (GDM) are associated with the risk of childhood obesity. This study aims to examine the extent to which these effects may be mediated through the placenta."

Our news editors obtained a quote from the research from Shanghai Jiao-Tong University, "Data included 33,893 mothers and their singleton infants from birth to 7 years old (total 154,590 visits) in the Collaborative Perinatal Project, a U.S. multicenter prospective cohort study from 1959 to 1976. The placenta weight was determined after removing cord and membranes. We performed sequential generalized estimating equation-linear models excluding and including placental weight to evaluate its mediation effect. In this population, 21.7% of mothers had overweight or obesity, 17.3% had excessive GWG, and 350 (1%) had diagnosed GDM; in addition, 7.2% children had obesity. After adjustment for prepregnancy BMI and other covariates, childhood BMI was 0.23 (95% CI: 0.05, 0.40) kg/m(2) higher for children born to mothers with GDM versus those without GDM. Inclusion of placental weight in the model attenuated the association by 52% to 0.11 (95% CI: -0.06, 0.28) and similarly attenuated the associations with childhood BMI for GWG by 25% and maternal prepregnancy BMI by 17%.

According to the news editors, the research concluded: "Placental weight partly mediates the effects of prepregnancy BMI, excessive GWG, and GDM on childhood BMI."

For more information on this research see: Maternal BMI, gestational diabetes, and weight gain in relation to childhood obesity: The mediation effect of placental weight. *Obesity*, 2016;24(4):938-46. (Nature Publishing Group - www.nature.com/; Obesity -
The news editors report that additional information may be obtained by contacting F. Ouyang, MOE-Shanghai Key Laboratory of Children's Environmental Health, Xinhua Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai, People's Republic of China. Additional authors for this research include M.G. Parker, Z.C. Luo, X. Wang, H.J. Zhang, F. Jiang, X. Wang, M.W. Gillman and J. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21416. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Obesity, Shanghai, Bariatrics, Overnutrition, Diet and Nutrition, Nutrition Disorders, Gestational Diabetes, Pregnancy Complications, People's Republic of China, Nutritional and Metabolic Diseases and Conditions.

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**Studies from Shanghai Jiao-Tong University in the Area of Type 1 Diabetes Mellitus Reported (Vessel Dilation Attenuates Endothelial Dysfunction Following Middle Cerebral Artery Occlusion in Hyperglycemic Rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Dynamically observe cerebral vascular changes in hyperglycemic rats in vivo and explore the effect of diabetes on endothelial function after ischemic stroke. Diabetes affects both large and small vessels in the brain, but the dynamic process and mechanism are unclear."

Financial supporters for this research include National Natural Science Foundation of China, Shanghai Committee of Science and Technology.

The news reporters obtained a quote from the research from Shanghai Jiao-Tong University. "We investigated the structural and functional changes of brain vasculature in living hyperglycemic rats and their impact on stroke outcomes via a novel technique: synchrotron radiation angiography. We also examined the effect of prolonged fasudil treatment on arterial reactivity and hemorrhagic transformation. Adult Sprague Dawley rats were treated by streptozotocin to induce type 1 diabetes. These hyperglycemic rats received fasudil pretreatment and then underwent transient middle cerebral artery occlusion. We found that diabetes caused arteries narrowing in the circus Willis as early as 2 weeks after streptozotocin injection (p <0.05). These vessels were further constricted after middle cerebral artery occlusion. L-NAME could induce regional constrictions and impaired relaxation in hyperglycemic animals. Furthermore, hemorrhagic transformation was also increased in the hyperglycemic rats compared to the control (p <0.05). In fasudil-treated rats, the internal carotid artery narrowing was ameliorated and L-NAME-induced regional constriction was abolished. Importantly, stroke prognosis was improved in fasudil-treated rats compared to the control (p <0.05). Our dynamic angiographic data demonstrated that diabetes could impair the cerebral arterial reactivity."

According to the news reporters, the research concluded: "Prolonged fasudil
treatment could attenuate arterial dysfunction and improve the prognosis of ischemic stroke by affecting both the large and small vasculature."

For more information on this research see: Vessel Dilation Attenuates Endothelial Dysfunction Following Middle Cerebral Artery Occlusion in Hyperglycemic Rats. *Cns Neuroscience & Therapeutics*, 2016;22(4):316-24. *Cns Neuroscience & Therapeutics* can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA. (Wiley-Blackwell - www.wiley.com/; Cns Neuroscience & Therapeutics - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1755-5949)

Our news correspondents report that additional information may be obtained by contacting Z.H. Mu, Dept. of Neurology, Ruijin Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai, People's Republic of China. Additional authors for this research include Z. Jiang, X.J. Lin, L.P. Wang, Y. Xi, Z.J. Zhang, Y.T. Wang and G.Y Yang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cns.12500. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal *Cns Neuroscience & Therapeutics* can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Stroke, Shanghai, Angiology, Risk and Prevention, Middle Cerebral Artery, Type 1 Diabetes Mellitus, People's Republic of China, Insulin Dependent Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions.

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**Enzymes and Coenzymes - Cysteine Endopeptidases**

**Studies from Shanghai University of Traditional Chinese Medicine Provide New Data on Cysteine Endopeptidases (Antiapoptotic effect of exercise training on ovariectomized rat hearts)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Cysteine Endopeptidases have been published. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "The purpose of this study was to evaluate the effects of exercise training on cardiac Fas receptor-dependent and mitochondria-dependent apoptotic pathways in ovariectomized rats. Histopathological analysis, TUNEL assay, and Western blotting were performed on the excised hearts from three groups of Sprague-Dawley rats, which were divided into a sham-operated group, a bilaterally ovariectomized group (OVX), and a bilaterally ovariectomized group that underwent treadmill running exercise for 60 min/day, 5 sessions/wk, for 10 wk (OVX-EX)."

The news reporters obtained a quote from the research from the Shanghai University of Traditional Chinese Medicine, "The abnormal myocardial architecture, cardiac trichome-stained fibrosis and cardiac TUNEL-positive apoptotic cells in ovariectomized rats improved after exercise training. The protein levels of tumor necrosis factor-alpha, tumor necrosis factor receptor 1, Fas ligand, Fas receptors, Fas-associated death domain, activated caspase-8 and activated caspase-3 (Fas receptor-dependent apoptotic pathways), as well as t-Bid, Bad, Bak, Bax, cytosolic cytochrome c, activated caspase-9, and activated caspase-3 (mitochondria-dependent apoptotic pathways) were decreased in the OVX-EX group compared with the OVX
group. Exercise training suppressed ovariectomy-induced cardiac Fas receptor-dependent and mitochondria-dependent apoptotic pathways in ovariectomized rat models.

According to the news reporters, the research concluded: "These findings might indicate a new therapeutic effect for exercise training to prevent cardiac apoptosis in menopausal or bilaterally oophorectomized women."


Our news correspondents report that additional information may be obtained by contacting S.D. Lee, Shanghai Univ TCM, Sch Rehabil Sci, Shanghai, People's Republic of China. Additional authors for this research include Y.Y. Lin, C.C. Hsu, S.M. Cheng, W.C. Shyu, H. Ting, A.L. Yang, T.J. Ho and S.D. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/japplphysiol.01042.2015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Cysteine Endopeptidases, Subcellular Fractions, Enzymes and Coenzymes, Cellular Structures, Intracellular Space, Peptide Hydrolases, Mitochondria, Organelles, Cardiology, Cytoplasm, Caspases, Shanghai University of Traditional Chinese Medicine.

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**Pentanoic Acids**

**Studies from Shengjing Hospital Yield New Information about Pentanoic Acids (Development and Validation of a Simple and Rapid UPLC-MS Assay for Valproic Acid and Its Comparison With Immunoassay and HPLC Methods)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Pentanoic Acids. According to news reporting originating from Shenyang, People's Republic of China, by NewsRx correspondents, research stated, "Valproic acid (VPA), a widely used antiepileptic drug, has a narrow therapeutic range of 50-100 mcg/mL and shows large individual variability. It is very important to monitor the trough concentration of VPA using a reliable method."

Our news editors obtained a quote from the research from Shengjing Hospital, "Therefore, the aim of this study was to develop and validate a rapid ultraperformance liquid chromatographic-mass spectrometry (UPLC-MS) method for quantification of VPA in human serum and to compare with fluorescence polarization immunoassay (FPIA), chemiluminescence microparticle immunoassay (CMIA), and high-performance liquid chromatography (HPLC) methods. The method included extraction of VPA in serum by deproteination with acetonitrile. The analysis was performed using an EC-C18 column (2.7 mm, 4.6 ? 50 mm) under isocratic conditions with a mobile phase of acetonitrile/water (containing 0.1% formic acid) (45/55, vol/vol) at a flow rate of 0.6 mL/min. The detection was performed on a triple-quadrupole tandem mass spectrometer using an electrospray probe in the negative ionization mode. The method was validated by studies of selectivity, linearity, lower limit of
quantification, accuracy, precision, recovery, matrix effect, and stability. Furthermore, all the 4 methods including FPIA, CMIA, and HPLC were subsequently used to assay the VPA concentration in 498 clinical serum samples collected from patients who received VPA. These methods were compared by Deming regression and Bland-Altman analysis. The retention time of VPA was 2.09 minutes. The calibration curve was linear over the concentration range of 1-200 mcg/mL, with a lower limit of quantification of 1 mcg/mL. The interday and intraday precision (RSD %) was less than 4.6% and 4.5%, respectively, and the accuracy (RE %) was below 7.9%. The recoveries and matrix effect of VPA at concentrations of 2, 50, and 160 mcg/mL met the requirement for the analysis of biological samples. No obvious degradation of VPA was observed under various storage conditions including room temperature for 12 hour, 3 freeze-thaw cycles, and -20?C for 3 months. Regression analysis showed that the correlation coefficients for the UPLC-MS versus FPIA, CMIA, and HPLC were 0.989, 0.988, and 0.987, respectively. The results of agreement tests between UPLC-MS and other methods showed that the mean difference of UPLC-MS and FPIA was -1.4 mcg/mL and 95% confidence interval of -7.7 to 4.9 mcg/mL, and the values for UPLC-MS and CMIA were -0.8 mcg/mL and -7.5 to 5.8 mcg/mL, for UPLC-MS and HPLC were 1.1 mcg/mL and -5.7 to 7.9 mcg/mL. The rapid UPLC-MS method we developed showed a good analytical performance required for therapeutic drug monitoring, leading to potential improvements in patient care and laboratory management.

According to the news editors, the research concluded: "Compared with the FPIA, CMIA, and HPLC methods, the UPLC-MS method correlated well and displayed comparable VPA concentrations."

For more information on this research see: Development and Validation of a Simple and Rapid UPLC-MS Assay for Valproic Acid and Its Comparison With Immunoassay and HPLC Methods. *Therapeutic Drug Monitoring*, 2016;38(2):246-52. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

The news editors report that additional information may be obtained by contacting M. Zhao, Dept. of Pharmacy, Shengjing Hospital of China Medical University, Shenyang, Liaoning Province, People's Republic of China. Additional authors for this research include G. Li, F. Qiu, Y. Sun, Y. Xu and L. Zhao.

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Keywords for this news article include: Asia, Pharmaceuticals, Shenyang, Valproic Acid, Pentanoic Acids, Carboxylic Acids, Organic Chemicals, Drugs and Therapies, People's Republic of China, Central Nervous System Agents, Fatty Acid Derivative Anticonvulsants.

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report. According to news reporting originating in Otsu, Japan, by NewsRx journalists, research stated, "Eosinophil infiltration is a histological feature of autoimmune pancreatitis (AIP). However, little is known about the mechanisms underlying eosinophilic infiltration."

The news reporters obtained a quote from the research from the Shiga University of Medical Sciences, "In this study, we aimed to investigate the expression of the eosinophil chemotactic protein, eotaxin-3, in human pancreatic myofibroblasts. Enzyme-linked immunosorbent assays and quantitative polymerase chain reactions were used to quantify eotaxin-3 protein and messenger RNA levels, respectively. Eotaxin-3 expression was induced by T helper type 2 cytokines, interleukin-4 (IL-4) and IL-13, in time-and dose-dependent manners. Both IL-4 and IL-13 induced the rapid phosphorylation of STAT6 (signal transducer and activator of transcription 6), and STAT6-specific small interfering RNA significantly blocked IL-4-and IL-13-induced eotaxin-3 expression, indicating involvement of STAT6 signaling pathways in eotaxin-3 induction. In contrast, SOCS (suppressor of cytokine signaling) protein-specific small interfering RNA experiments suggested that the SOCS family proteins are negative regulators of IL-4-and IL-13-induced eotaxin-3 expression in pancreatic myofibroblasts. Interferon-g significantly inhibited IL-4-and IL-13-induced eotaxin-3 expression, and this response was mediated by STAT1 activation. Pancreatic myofibroblasts may be a cellular source of eotaxin-3 in the pancreas."

According to the news reporters, the research concluded: "The T helper type 2 cytokines, IL-4 and IL-13, are critical factors for the induction of eotaxin-3 in the pancreas."

For more information on this research see: Eotaxin-3 (CCL26) Expression in Human Pancreatic Myofibroblasts. Pancreas, 2016;45(3):420-4. (Lippincott Williams and Wilkins - www.lww.com; Pancreas - journals.lww.com/pancreasjournal/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting T. Fujimoto, From the *Departments of Medicine and †Surgery, Shiga University of Medical Science, Otsu, Japan. Additional authors for this research include H. Imaeda, K. Takahashi, A. Nishida, M. Shioya, O. Inatomi, S. Bamba, H. Shiomi, M. Tani and A. Andoh.

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Keywords for this news article include: Otsu, Asia, Japan, Genetics, Immunology, Eosinophils, Granulocytes, Gastroenterology, Pancreas Research, Hemic and Immune Systems.

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Studies from Sichuan Agricultural University Yield New Information about Chromatography (Simultaneous Determination of beta-Cypermethrin and Its Metabolite 3-Phenoxybenzoic Acid in Microbial Degradation Systems by HPLC-UV)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Science - Chromatography is the subject of a report. According to news reporting originating from Sichuan, People's Republic of China, by NewsRx correspondents, research stated, "The wide use of pesticides in agriculture is necessary to guarantee adequate food production worldwide. However, pesticide residues have caused global..."
Our news editors obtained a quote from the research from Sichuan Agricultural University, "In this study, we could identify beta-cypermethrin (beta-CY) and its degradation product 3-phenoxybenzoic acid (3-PBA) by liquid chromatograph-mass spectrometry. Few studies on the simultaneous determination of beta-CY and its metabolites have been carried out so far; hence, we established a high-performance liquid chromatography method to determine the concentrations of both beta-CY and 3-PBA simultaneously in microbial degradation systems. In this study, a novel beta-CY degrading strain, Bacillus licheniformis B-1, was isolated from a tea garden soil, utilizing beta-CY as a growth substrate. Good linear relationships between beta-CY and 3-PBA were observed and the concentrations of reference solutions were between 0.50 and 60.00 μg/mL. Satisfactory stability and intra-and interday precision were obtained. The limits of detection were 0.06 and 0.13 μg/mL for beta-CY and 3-PBA, respectively, and the corresponding limits of quantification were 0.21 and 0.34 μg/mL, respectively. Spiking recoveries for beta-CY varied from 98.38 to 105.80%, with relative standard deviations (RSDs) varying from 1.49 to 3.93%. Spiking recoveries for 3-PBA varied from 99.59 to 101.20%, with RSDs varying from 0.58 to 3.64%.

According to the news editors, the research concluded: "The proposed method has advantages of simplicity, rapidity, high accuracy, good separation and reproducibility; thus, it is ideally suitable for simultaneous determination of beta-CY and 3-PBA in microbial degradation systems."


Keywords for this news article include: Sichuan, People's Republic of China, Asia, Chromatography, Science, Risk and Prevention, Sichuan Agricultural University.

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Lung Diseases and Conditions - Pulmonary Embolism

Studies from Sichuan University Yield New Data on Pulmonary Embolism (The Efficacy and Safety of Combination of Intravenous and Topical Tranexamic Acid in Revision Hip Arthroplasty: A Randomized, Controlled Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Pulmonary Embolism. According to news reporting from Chengdu, People's Republic of China, by NewsRx journalists, research stated, "Revision total hip arthroplasty (THA) is associated with substantial blood loss and a high probability of blood transfusion in the perioperative
This study aimed to evaluate the efficacy and safety of combination of intravenous (IV) and topical tranexamic acid (TXA) in revision THA."

The news correspondents obtained a quote from the research from Sichuan University, "Eighty-four consecutive patients undergoing revision THA were randomized into combined group and IV-TXA group. Patients in the combined group were given intravenously 15 mg/kg TXA as a preoperative, and topical TXA solution was applied at a concentration of 3 g TXA per 100-mL saline during the different procedure points. Patients in the IV-TXA group were given intravenously 15mg/kg TXA alone. The mean total blood loss, drainage volume, and maximum hemoglobin drop were significantly lower in the combined group than the IV-TXA group (P < .001, P< .001, P<.001, respectively). Compared with the IV-TXA group, the amount of blood transfusions and number of blood transfusions required were decreased dramatically in the combined group (P = .027, P< .001, respectively). One deep vein thrombosis and 4 calf muscular vein thrombosis in the combined group and 3 calf muscular vein thrombosis in the IV-TXA were detected by the Doppler ultrasound. No pulmonary embolism was observed and no significant differences were found in other complications between the 2 groups."

According to the news reporters, the research concluded: "This study showed that combined administration of IV and topical TXA in revision THA can effectively decrease total blood loss and number of blood transfusions required without increasing the risk of deep vein thrombosis or/pulmonary embolism compared with IV-TXA alone."


Our news journalists report that additional information may be obtained by contacting B. Shen, Sichuan University, West China Med Sch, West China Hosp, Dept. of Orthopaed Surg, Chengdu, Sichuan, People's Republic of China. Additional authors for this research include Y. Zeng, T.M. Yang, H.B. Si, F. Cao and B. Shen.

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Keywords for this news article include: Chengdu, People's Republic of China, Asia, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Lung Diseases and Conditions, Cyclohexanecarboxylic Acids, Clinical Trials and Studies, Embolism and Thrombosis, Biological Therapy, Pulmonary Embolism, Clinical Research, Hip Arthroplasty, Tranexamic Acid, Hematology, Surgery, Sichuan University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Hypertension are discussed in a new report. According to news reporting originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "The aim of this study was to assess the prognostic value of hyperuricemia in patients with established hypertension by systematic review and meta-analysis of cohort studies."

Financial support for this research came from National Health and Family Planning Commission of the People's Republic of China.

Our news editors obtained a quote from the research from Sichuan University, "MEDLINE, Embase, and the Chinese Biomedical Literature Database were searched through January 2015. Seventeen cohort studies were included and their methodological quality was moderate to high, with Newcastle-Ottawa Scale scores ranging from 6 to 9. Random-effects model meta-analyses showed that in terms of adjusted categorical data, hyperuricemia significantly correlated with cardiovascular diseases in hypertensive patients (hazard ratio [HR], 1.51; 95% confidence interval [CI], 1.13-2.03), all-cause mortality (HR, 1.12; 95%CI, 1.02-1.23), and diabetes (HR, 1.84; 95% CI, 1.02-3.30) but not with stroke (HR, 0.85; 95%CI, 0.57-1.27); while, in terms of adjusted continuous data, the corresponding pooled HRs were 1.17 (95% CI, 1.07-1.27), 1.05 (95% CI, 0.98-1.13), 1.28 (95% CI, 1.18-1.38), and 1.06 (95% CI, 0.98-1.16), respectively."

According to the news editors, the research concluded: "The findings of our meta-analysis suggest that hyperuricemia could slightly increase the risk of cardiovascular diseases and diabetes in patients with hypertension."


The news editors report that additional information may be obtained by contacting J. Li, Sichuan University, West China Hosp, Dept. of Evidence Based Med & Clin Epidemiol, Chengdu 610041, People's Republic of China. Additional authors for this research include X.Q. Zhou, J. Wang, X.Y. Wu, Y.L. Li, L. Wang, H. Huang and J. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12855. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Hyperuricemia, Hypertension, Sichuan University.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Studies from Simon Fraser University in the Area of HIV/AIDS Reported (Prevalence, type, and correlates of trauma exposure among adolescent men and women in Soweto, South Africa: implications for HIV**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Immune System Diseases and Conditions - HIV/AIDS is now available. According to news reporting from Burnaby, Canada, by NewsRx journalists, research stated, "Youth trauma exposure is associated with syndemic HIV risk. We measured lifetime prevalence, type, and correlates of trauma experience by gender among adolescents living in the HIV hyper-endemic setting of Soweto, South Africa."

The news correspondents obtained a quote from the research from Simon Fraser University, "Using data from the Botsha Bophelo Adolescent Health Survey (BBAHS), prevalence of 'ever' experiencing a traumatic event among adolescents (aged 14-19) was assessed using a modified Traumatic Event Screening InventoryChild (TESI-C) scale (19 items, study alpha = 0.63). We assessed self-reported number of potentially traumatic events (PTEs) experienced overall and by gender. Gender-stratified multivariable logistic regression models assessed independent correlates of 'high PTE score' (>= 7 PTEs). Overall, 767/830 (92%) participants were included (58% adolescent women). Nearly all (99.7%) reported experiencing at least one PTE. Median PTE was 7 [Q1, Q3: 5-9], with no gender differences (p = 0.19). Adolescent men reported more violent PTEs (e.g., 'seen an act of violence in the community') whereas women reported more nonviolent HIV/AIDS-related PTEs (e.g., 'family member or someone close died of HIV/AIDS'). High PTE score was independently associated with high food insecurity among adolescent men and women (aOR = 2.63, 95% CI = 1.36-5.09; aOR = 2.57, 95% CI = 1.55-4.26, respectively). For men, high PTE score was also associated with older age (aOR = 1.40/year, 95% CI = 1.21-1.63); and recently moving to Soweto (aOR = 2.78, 95% CI = 1.14-6.76). Among women, high PTE score was associated with depression using the CES-D scale (aOR = 2.00, 95% CI = 1.31-3.03, ) and inconsistent condom use vs. no sexual experience (aOR = 2.69, 95% CI = 1.66-4.37). Nearly all adolescents in this study experienced trauma, with gendered differences in PTE types and correlates, but not prevalence. Exposure to PTEs were distributed along social and gendered axes. Among adolescent women, associations with depression and inconsistent condom use suggest pathways for HIV risk."

According to the news reporters, the research concluded: "HIV prevention interventions targeting adolescents must address the syndemics of trauma and HIV through the scale-up of gendertransformative, youth-centred, trauma-informed integrated HIV and mental health services."


Our news journalists report that additional information may be obtained by contacting A. Kaida, Simon Fraser University, Fac Hlth Sci, Burnaby, BC V5A 1S6, Canada. Additional authors for this research include J.J. Dietrich, B. Nkala, A. Musuku, Z. Cui, J. Chia, G. Gray, N.J. Lachowsky, R.S. Hogg, C.L. Miller and A. Kaida.

Keywords for this news article include: Burnaby, British Columbia, Canada, North and Central America, Immune System Diseases and Conditions, Epidemiology, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Risk and Prevention, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Simon Fraser University.

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Nutritional and Metabolic Diseases and Conditions...

Studies from Singapore National University Update Current Data on Diabetic Angiopathies (Biomarkers of Diabetic Retinopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nutritional and Metabolic Diseases and Conditions - Diabetic Angiopathies are discussed in a new report. According to news reporting originating in Singapore, Singapore, by NewsRx journalists, research stated, "Diabetic retinopathy (DR), a leading cause of acquired vision loss, is a microvascular complication of diabetes. While traditional risk factors for diabetic retinopathy including longer duration of diabetes, poor blood glucose control, and dyslipidemia are helpful in stratifying patient's risk for developing retinopathy, many patients without these traditional risk factors develop DR; furthermore, there are persons with long diabetes duration who do not develop DR."

The news reporters obtained a quote from the research from Singapore National University, "Thus, identifying biomarkers to predict DR or to determine therapeutic response is important. A biomarker can be defined as a characteristic that is objectively measured and evaluated as an indicator of normal biological processes, pathogenic processes, or pharmacologic responses to a therapeutic intervention. Incorporation of biomarkers into risk stratification of persons with diabetes would likely aid in early diagnosis and guide treatment methods for those with DR or with worsening DR. Systemic biomarkers of DR include serum measures including genomic, proteomic, and metabolomics biomarkers. Ocular biomarkers including tears and vitreous and retinal vascular structural changes have also been studied extensively to prognosticate the risk of DR development. The current studies on biomarkers are limited by the need for larger sample sizes, cross-validation in different populations and ethnic groups, and time-efficient and cost-effective analytical techniques."

According to the news reporters, the research concluded: "Future research is important to explore novel DR biomarkers that are non-invasive, rapid, economical, and accurate to help reduce the incidence and progression of DR in people with diabetes."

For more information on this research see: Biomarkers of Diabetic Retinopathy. Current Diabetes Reports, 2016;16(12):65-79. Current Diabetes Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Diabetes Reports - www.springerlink.com/content/1534-4827/)

Our news correspondents report that additional information may be obtained by contacting T.Y. Wong, Singapore National University, Duke NUS Med Sch, Singapore, Singapore. Additional authors for this research include K.A. Tan, V. Phua, G.S.W. Tan, C.W. Wong and T.Y. Wong.

Keywords for this news article include: Singapore, Singapore, Asia, Risk and Prevention, Article Review, Diagnostics and Screening, Nutritional and Metabolic Diseases and Conditions, Vascular Diseases and Conditions, Retinal Diseases and Conditions, Eye Diseases and Conditions, Diabetic Angiopathies, Diabetic Retinopathy, Endocrinology, Ophthalmology, Diabetes, Genetics, Singapore National University.

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Lung Diseases and Conditions - Asthma

Studies from Singapore National University Yield New Data on Asthma (Blomia tropicalis-Specific TCR Transgenic Th2 Cells Induce Inducible BALT and Severe Asthma in Mice by an IL-4/IL-13-Dependent Mechanism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Asthma is the subject of a report. According to news reporting out of Singapore, Singapore, by NewsRx editors, research stated, "Previous studies have highlighted the importance of lung-draining lymph nodes in the respiratory allergic immune response, whereas the lung parenchymal immune system has been largely neglected. We describe a new in vivo model of respiratory sensitization to Blomia tropicalis, the principal asthma allergen in the tropics, in which the immune response is focused on the lung parenchyma by transfer of Th2 cells from a novel TCR transgenic mouse, specific for the major B. tropicalis allergen Blo t 5, that targets the lung rather than the draining lymph nodes."

Our news journalists obtained a quote from the research from Singapore National University, "Transfer of highly polarized transgenic CD4 effector Th2 cells, termed BT-II, followed by repeated inhalation of Blo t 5 expands these cells in the lung > 100-fold, and subsequent Blo t 5 challenge induced decreased body temperature, reduction in movement, and a fall in specific lung compliance unseen in conventional mouse asthma models following a physiological allergen challenge. These mice exhibit lung eosinophilia; smooth muscle cell, collagen, and goblet cell hyperplasia; hyper IgE syndrome; mucus plugging; and extensive inducible BALT. In addition, there is a fall in total lung volume and forced expiratory volume at 100 ms."

According to the news editors, the research concluded: "These pathophysiological changes were substantially reduced and, in some cases, completely abolished by administration of neutralizing mAbs specific for IL-4 and IL-13 on weeks 1, 2, and 3. This IL-4/IL-13-dependent inducible BALT model will be useful for investigating the pathophysiological mechanisms that underlie asthma and the development of more effective drugs for treating severe asthma."

For more information on this research see: Blomia tropicalis-Specific TCR Transgenic Th2 Cells Induce Inducible BALT and Severe Asthma in Mice by an IL-4/IL-13-Dependent Mechanism. Journal of Immunology, 2016;197(10):3771-3781. Journal of Immunology can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)


Keywords for this news article include: Singapore, Singapore, Asia, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Immune System Diseases and Conditions, Bronchial Diseases and Conditions, Helper-Inducer T-Lymphocytes,
Studies from Soonchunhyang University Reveal New Findings on Amyotrophic Lateral Sclerosis (Imbalance of mitochondrial dynamics in Drosophila models of amyotrophic lateral sclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Amyotrophic Lateral Sclerosis is the subject of a report. According to news reporting originating from Asan, South Korea, by NewsRx correspondents, research stated, "Amyotrophic lateral sclerosis (ALS) is the most common neurodegenerative disease, characterized by progressive and selective loss of motor neurons in the brain and spinal cord. DNA/RNA-binding proteins such as TDP-43, FUS, and TAF15 have been linked with the sporadic and familial forms of ALS."

Financial supporters for this research include Ministry of Education, Soonchunhyang University Research Fund.

Our news editors obtained a quote from the research from Soonchunhyang University, "However, the exact pathogenic mechanism of ALS is still unknown. Recently, we found that ALS-causing genes such as TDP-43, FUS, and TAF15 genetically interact with mitochondrial dynamics regulatory genes. In this study, we show that mitochondrrial fission was highly enhanced in muscles and motor neurons of TDP-43, FUS, and TAF15-induced fly models of ALS. Furthermore, the mitochondrial fission defects were rescued by co-expression of mitochondrial dynamics regulatory genes such as Marf, Opa1, and the dominant negative mutant form of Drp1. Moreover, we found that the expression level of Marf was decreased in ALS-induced flies."

According to the news editors, the research concluded: "These results indicate that the imbalance of mitochondrial dynamics caused by instability of Marf is linked to the pathogenesis of TDP-43, FUS, and TAF15-associated ALS."

For more information on this research see: Imbalance of mitochondrial dynamics in Drosophila models of amyotrophic lateral sclerosis. *Biochemical and Biophysical Research Communications*, 2016;481(3-4):259-264. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news editors report that additional information may be obtained by contacting K. Kim, Soonchunhyang Univ, Dept. of Med Biotechnol, Asan 31538, South Korea. Additional authors for this research include S.J. Cha, G.U. Kang, D.S. Im, S. Lee, H.J. Kim and K. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.134. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asan, South Korea, Asia, Nutritional and Metabolic Diseases and Conditions, Central Nervous System Diseases and Conditions,
Studies from Sophiahemmet University Yield New Information about Clinical Nursing (District nurses' perspectives on detecting mental health problems and promoting mental health among community-dwelling seniors with multimorbidity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nursing - Clinical Nursing are presented in a new report. According to news originating from Stockholm, Sweden, by NewsRx correspondents, research stated, "Aims and objectives. To describe district nurses' perspectives on detecting mental health problems and promoting mental health among homebound older people with multimorbidity."

Financial supporters for this research include National Health Care Science Postgraduate School, Vetenskapsradet, Svenska Sallskapet for Medicinsk Forskning, Karolinska Institutet Research Foundation, Stockholm.

Our news journalists obtained a quote from the research from Sophiahemmet University, "Mental health problems among older people with multiple chronic conditions, that is, multimorbidity, are challenging issues. These patients' homes often serve as arenas in which district nurses can promote health. Mental health promotion must be studied in greater depth within primary care because older people with multimorbidity are particularly prone to developing poor mental health, which can go undetected and untreated. A descriptive, qualitative study using semi-structured interviews and content analysis. Twenty-five district nurses completed individual or focus group interviews. Data were analysed using qualitative content analysis. Most district nurses stated that detecting mental health problems and promoting mental health were important tasks but that they typically focused on more practical home health care tasks. The findings revealed that district nurses focused on assessment, collaboration and social support as means of detecting mental health problems and promoting mental health. The district nurses described various factors and actions that appeared to be important prerequisites for their involvement in primary mental health care. Nevertheless, there were no established goals for mental health promotion, and district nurses often seemed to depend on their collaboration with other actors. Our findings indicated that district nurses cannot bear the primary responsibility for the early detection of mental health problems and early interventions to promote mental health within this population. Relevance to clinical practice. The findings of this study indicated that workforce training and collaboration between different care providers are important elements in the future development of this field."

According to the news editors, the research concluded: "Early detection and early treatment of mental health-related issues should also be stated as explicit objectives in the provision of care to community-dwelling older people with multimorbidity."

For more information on this research see: District nurses' perspectives on detecting mental health problems and promoting mental health among community-dwelling seniors with

The news correspondents report that additional information may be obtained from A. Grundberg, Sophiahemmet Univ, S-11486 Stockholm, Sweden. Additional authors for this research include A. Hansson, P. Hilleras and D. Religa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13302. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stockholm, Sweden, Europe, Clinical Nursing, Nursing, Sophiahemmet University.

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**Oncology - Gliomas**

**Studies from Sorbonne University in the Area of Gliomas Described (Seizures and gliomas--towards a single therapeutic approach)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gliomas have been published. According to news reporting originating from Paris, France, by NewsRx correspondents, research stated, "Epilepsy often develops in patients with glioma, and the two conditions share common pathogenic mechanisms. Altered expression of glutamate transporters, including the cystine-glutamate transporter (xCT) system, increases concentrations of extracellular glutamate, which contribute to epileptic discharge, tumor proliferation and peripheral excitotoxicity."

Our news editors obtained a quote from the research from Sorbonne University, "Furthermore, mutation of the isocitrate dehydrogenase 1 gene in low-grade gliomas causes production of D-2-hydroxyglutarate, a steric analogue of glutamate. Dysregulation of intracellular chloride promotes glioma cell mitosis and migration, and γ-aminobutyric acid (GABA) signalling suppresses proliferation. In neurons, however, chloride accumulation leads to aberrant depolarization on GABA receptor activation, thereby promoting epileptic activity. The molecular target of rapamycin (mTOR) pathway and epigenetic abnormalities are also involved in the development of tumours and seizures. Antitumour therapy can contribute to seizure control, and antiepileptic drugs might have beneficial effects on tumours. Symptomatic treatment with antiepileptic drugs carries risks of adverse effects and drug interactions. In this Review, we discuss the potential for single therapeutic agents, such as the xCT blocker sulfasalazine, the chloride regulator bumetanide, and the histone deacetylase inhibitor valproic acid, to manage both gliomas and associated epilepsy. We also provide guidance on the evidence-based use of antiepileptic drugs in brain tumours."

According to the news editors, the research concluded: "The development of solo therapies to treat both aspects of gliomas promises to yield more-effective treatment with fewer risks of toxicity and drug interactions."

The news editors report that additional information may be obtained by contacting G. Huberfeld, Sorbonne University, UPMC University Paris 06, F-75005 Paris, France. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrneurol.2016.26. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiepileptics, Paris, France, Europe, Gliomas, Epilepsy, Genetics, Oncology, Seizures, Glutamates, Glutamic Acid, Article Review, Drugs and Therapies, Neurologic Manifestations, Brain Diseases and Conditions, Central Nervous System Diseases and Conditions.

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Biological Factors - Mycotoxins

Studies from South Central University for Nationalities Have Provided New Data on Mycotoxins (Aflatoxin B1 impairs mitochondrial functions, activates ROS generation, induces apoptosis and involves Nrf2 signal pathway in primary broiler ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biological Factors - Mycotoxins. According to news reporting originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "Aflatoxin B1 (AFB1) is known as a mycotoxin that causes various health problems in animals, but the precise mechanism of AFB1 on mitochondrial functions and apoptosis in primary broiler hepatocytes (PBHs) is not clear. The objective of this study was to investigate the effects of AFB1 on the mitochondrial functions, reactive oxygen species (ROS) generation, apoptosis and nuclear factor erythroid 2-like factor 2 (Nrf2)-related signal pathway in PBHs."

Our news editors obtained a quote from the research from South Central University for Nationalities, "Here, the mitochondrial membrane potential (MMP), ROS generation, antioxidative genes and apoptosis in PBHs induced by AFB1 were investigated. The results showed that AFB1 evoked mitochondrial ROS generation, decreased MMP and induced apoptosis in PBHs. AFB1 increased the percentage of apoptotic cells, and expression of caspase-9 and caspase-3, upregulated messenger RNA (mRNA) expression of Nrf2 and downregulated mRNA expressions of NAD(P)H: quinine oxidoreductase 1, superoxide dismutase and Heme oxygenase 1 in PBHs. The expression of Bax was also observed in cytoplasm."

According to the news editors, the research concluded: "These findings suggested AFB1 results in a significant impairment of mitochondrial functions, activates ROS generation, induces apoptosis, and is involved in Nrf2 signal pathway through mitochondria ROS-dependent signal pathways in PBHs."

Oncology - Colon Cancer

Studies from Southeast University Have Provided New Data on Colon Cancer (A tumor suppressive role of IncRNA GAS5 in human colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news originating from Xuzhou, People's Republic of China, by NewsRx correspondents, research stated, "It is already known that long non-coding RNA growth arrest-specific 5 (GAS5) is downregulated in human colorectal cancer (CRC) cells inhibiting cell proliferation. We further analyzed its involvement in cell cycle distribution and apoptosis induction."

Our news journalists obtained a quote from the research from Southeast University, "We measured the expression level of GAS5 in CRC tissues and cell lines with the corresponding non-tumoral cells. We also analyzed the roles of GAS5 in modulation of cell growth, cell cycle distribution and apoptosis by the CCK-8 method and flow cytometry. Western blots were performed to evaluate the protein level of cyclin D1 and p21 after overexpression of GAS5 Results: GAS5 expression was significantly reduced in CRC samples and cell lines. Overexpression of GAS5 induced cell growth arrest and induced cell apoptosis in vitro. Meanwhile, we found that the growth suppressive role of GAS5 might be attributed to the inhibition of G1-S phase transition, reflected by the downregulation of cyclin D1 and upregulation of p21."

According to the news editors, the research concluded: "Our results demonstrate that GAS5 is a crucial tumor suppressor in human CRC cells."

For more information on this research see: A tumor suppressive role of IncRNA GAS5 in human colorectal cancer. Open Life Sciences, 2016;11(1):105-109. Open Life Sciences can be contacted at: De Gruyter Open Ltd, Bogumila Zuga 32A St, 01-811 Warsaw, Poland.

The news correspondents report that additional information may be obtained from L. Jin, Southeast Univ, Affiliated Hosp, Coll Med, Dept. of Oncol SurgXuzhou Cent Hosp, Xuzhou 221009, People's Republic of China. Additional authors for this research include J.J. Li, K.N. Zhang, Q.Z. Tian and L. Jin.

Keywords for this news article include: Xuzhou, People's Republic of China, Asia, Colorectal Research, Gastroenterology, Colon Cancer, Apoptosis, Oncology, Genetics, Southeast University.

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Studies from Southern Medical University Provide New Data on Science (Prognostic Value of Ezrin in Various Cancers: A Systematic Review and Updated Meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science have been published. According to news reporting out of Guangzhou, People's Republic of China, by NewsRx editors, research stated, "More and more studies have investigated the effects of Ezrin expression level on the prognostic role in various tumors. However, the results remain controversial rather than conclusive."

Our news journalists obtained a quote from the research from Southern Medical University, "Here, we performed a systematic review and meta-analysis to evaluate the correlation of Ezrin expression with the prognosis in various tumors. The pooled hazard ratios (HR) with the corresponding 95% confidence intervals (95% CI) were calculated to evaluate the degree of the association. The overall results of fifty-five studies with 6675 patients showed that elevated Ezrin expression was associated with a worse prognosis in patients with cancers, with the pooled HRs of 1.86 (95% CI: 1.51-2.31, p<0.001) for overall survival (OS), 2.55 (95% CI: 2.14-3.05, p<0.001) for disease-specific survival (DFS) and 2.02 (95% CI: 1.13-3.63, p=0.018) for disease-specific survival (DSS)/metastasis-free survival (MFS) by the random, fixed and random effect model respectively. Similar results were also observed in the stratified analyses by tumor types, ethnicity background and sample source. This meta-analysis suggests that Ezrin may be a potential prognostic marker in cancer patients."

According to the news editors, the research concluded: "High Ezrin is associated with a poor prognosis in a variety of solid tumors."

For more information on this research see: Prognostic Value of Ezrin in Various Cancers: A Systematic Review and Updated Meta-analysis. Scientific Reports, 2015;5():17903. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting J. Li, Dept. of Traumatology and Orthopedics, Nanfang Hospital, Southern Medical University, Guangzhou 510515, People's Republic of China. Additional authors for this research include K. Wei, H. Yu, D. Jin, G. Wang and B. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep17903. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Science, Oncology, Guangzhou, People's Republic of China.

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Oncology - Liver Cancer

Studies from Southern Medical University Reveal New Findings on Liver Cancer (Intraoperative Identification of Liver Cancer Microfoci Using a Targeted Near-Infrared Fluorescent Probe for Imaging-Guided Surgery)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Liver Cancer. According to news reporting out of Guangzhou, People's Republic of China, by NewsRx editors, research stated, "Difficulties in the highly sensitive detection of tumor microfoci represent a critical obstacle toward improved surgical intervention in liver cancer. Conventional preoperative imaging methods and surgeons' subjective experience are limited by their inability to effectively detect tumor lesions measuring less than 2 mm; however, intraoperative fluorescence molecular imaging may overcome this limitation."

Our news journalists obtained a quote from the research from Southern Medical University, "Here, we synthesised an arginine-glycine-aspartic acid (RGD)-conjugated mesoporous silica nanoparticle (MSN) highly loaded with indocyanine green (ICG) dye that could accurately delineate liver cancer margins and provide excellent tumour-to-normal tissue contrast intraoperatively. The increased ICG loading capacity and tumor specificity enabled the identification of residual microtumours and satellite lesions measuring less than 1 mm in living mice. Histological analysis validated the sensitivity and accuracy of this approach."

According to the news editors, the research concluded: "We believe this technique utilising a new fluorescent nanoprobe with intraoperative optical imaging may offer a more sensitive and accurate method for liver cancer resection guidance, resulting in better surgical outcomes."

For more information on this research see: Intraoperative Identification of Liver Cancer Microfoci Using a Targeted Near-Infrared Fluorescent Probe for Imaging-Guided Surgery. Scientific Reports, 2016;6():21959. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting C. Zeng, Dept. of Hepatobiliary Surgery, Zhujiang Hospital, Southern Medical University, Guangzhou 510280, People's Republic of China. Additional authors for this research include W. Shang, K. Wang, C. Chi, X. Jia, C. Fang, D. Yang, J. Ye, C. Fang and J. Tian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep21959. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Surgery, Oncology, Guangzhou, Liver Cancer, People's Republic of China.

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Oncology - Squamous Cell Carcinoma

Studies from Southern Medical University Update Current Data on Squamous Cell Carcinoma (FRMD4A: A potential therapeutic target for the treatment of tongue squamous cell carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Squamous Cell Carcinoma. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "The aim of the present study was to identify agents capable of inhibiting the invasion and metastasis of tongue squamous cell carcinoma and thereby improve the outcomes of patients suffering from tongue cancer. FRMD4A antibodies
were used to probe 78 paraffin-embedded specimens of tongue squamous cell carcinoma and 15 normal tongue tissues, which served as controls."

Our news editors obtained a quote from the research from Southern Medical University, "Immunohistochemical methods were then used for analysis. Clinical pathological parameters were obtained, and the association between FRMD4A expression in the samples and the pathological parameters was analyzed. The human tongue cancer cell line CAL27 was used to study the effects of FRMD4A. CAL27 cells were transfected with small-interfering RNA against FRMD4A (FRMD4A-siRNA) and the mRNA and protein levels of FMRD4A were then evaluated by RT-qPCR and western blot analysis, respectively. The proliferation and cell-cycle assays of CAL27 cells were evaluated using the CCK8 method and flow cytometry. The invasion and migration of the cells were measured using a Matrigel invasion chamber and a scratch assay, respectively. The results showed FRMD4A overexpression in tongue squamous cell carcinoma, and the positive reaction was predominately located in the cytoplasm. Tumor clinical stage and lymph node metastasis showed a statistically significant correlation with FRMD4A expression. Transient silencing of the FRMD4A gene for 24 and 48 h significantly decreased the mRNA and protein expression of FRMD4A, respectively. Silencing FRMD4A gene reduced the proliferation of CAL27 cells and led to cell cycle arrest in the G1 phase, as well as significantly suppressing the migration and invasion capacity of CAL27 cells. The findings of the present study suggest that FRMD4A expression correlates with the development of tongue squamous cell carcinoma."

According to the news editors, the research concluded: "For this reason, FRMD4A merits further study as it may be suitable for use as a therapeutic agent in antitumor treatment regimens."


Keywords for this news article include: Guangdong, People's Republic of China, Asia, Squamous Cell Carcinoma, Therapeutics, Carcinomas, Oncology, Genetics, Therapy, Southern Medical University.

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Skin Diseases and Conditions - Psoriasis

Studies from Spanish National Research Council (CSIC) in the Area of Psoriasis Described [Overexpression of Glucocorticoid-induced Leucine Zipper (GILZ) increases susceptibility to Imiquimod-induced psoriasis and involves cutaneous activation of ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Skin Diseases and Conditions -
Psoriasis. According to research originating in Valencia, Spain, by NewsRx journalists, psoriasis vulgaris is a chronic inflammatory skin disease affecting millions of people. Its pathophysiology is complex and involves a skin compartment with epidermal and immune cells which produce cytokines, e.g. belonging to the IL-23-Th17-cell axis.

The news reporters obtained a quote from the research from Spanish National Research Council (CSIC), "Glucocorticoids (GCs) are the most common therapeutics used in cutaneous inflammatory disorders and GC-induced leucine zipper (GILZ) has emerged as a mediator of GCs due to its anti-inflammatory actions, theoretically lacking GC side-effects. We evaluated whether GILZ may provide a better therapeutic index in comparison to GCs during the onset and progression of psoriasis by generating and characterizing a mouse model with generalized overexpression of this protein (GILZ-Tg mice) and the imiquimod (IMQ) psoriasis model. Unexpectedly, in GILZ-Tg mice, the severity of IMQ-induced psoriasis-like skin lesions as well as induction of cytokines commonly up-regulated in human psoriasis (Il-17, Il-22, Il-23, Il-6, S100a8/a9, and Stat3) was significantly more pronounced relative to GILZ-Wt mice. The increased susceptibility to IMQ-induced psoriasis of GILZ-Tg mice was significantly associated with skin-specific over-activation of TGF-beta 1-mediated signaling via SMAD2/3."

According to the news reporters, the research concluded: "Our findings demonstrate that GILZ may behave as pro-inflammatory protein in certain tissues and that, similar to prolonged GC therapy, GILZ as an alternative treatment for psoriasis may also have adverse effects."


Our news correspondents report that additional information may be obtained by contacting P. Perez, IBV CSIC, E-46010 Valencia, Spain. Additional authors for this research include M. Ballegeer, J. Deckers, C. Riccardi, S. Bruscoli, T. Hochepied, C. Libert and P. Perez.

Keywords for this news article include: Valencia, Spain, Europe, Papulosquamous Skin Diseases and Conditions, Branched-Chain Amino Acids, Adrenal Cortex Hormones, Topical Antiinfectives, Essential Amino Acids, Dermatological Agents, Drugs and Therapies, Glucocorticoids, Antiretrovirals, Dermatology, Imiquimod, Psoriasis, Leucine, Spanish National Research Council (CSIC).

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Studies from St Vincents Clinical School Reveal New Findings on Mevalonate Kinase Deficiency (Mevalonate kinase deficiency leads to decreased prenylation of Rab GTPases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Mevalonate Kinase Deficiency. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "Mevalonate kinase deficiency (MKD) is
caused by mutations in a key enzyme of the mevalonate-cholesterol biosynthesis pathway, leading to recurrent autoinflammatory disease characterised by enhanced release of interleukin-1 beta (IL-1 beta). It is currently believed that the inflammatory phenotype of MKD is triggered by temperature-sensitive loss of mevalonate kinase activity and reduced biosynthesis of isoprenoid lipids required for the prenylation of small GTPase proteins."

The news reporters obtained a quote from the research from St Vincents Clinical School, "However, previous studies have not clearly shown any change in protein prenylation in patient cells under normal conditions. With lymphoblast cell lines from two compound heterozygous MKD patients, we used a highly sensitive in vitro prenylation assay, together with quantitative mass spectrometry, to reveal a subtle accumulation of unprenylated Rab GTPases in cells cultured for 3 days or more at 40 degrees C compared with 37 degrees C. This included a 200% increase in unprenylated Rab7A, Rab14 and Rab1A. Inhibition of sterol regulatory element-binding protein (SREBP) activation by fatostatin led to more pronounced accumulation of unprenylated Rab proteins in MKD cells but not parent cells, suggesting that cultured MKD cells may partially overcome the loss of isoprenoid lipids by SREBP-mediated upregulation of enzymes required for isoprenoid biosynthesis. Furthermore, while inhibition of Rho/Rac/Rap prenylation promoted the release of IL-1 beta, specific inhibition of Rab prenylation by NE10790 had no effect in human peripheral blood mononuclear cells or human THP-1 monocytic cells."

According to the news reporters, the research concluded: "These studies demonstrate for the first time that mutations in mevalonate kinase can lead to a mild, temperature-induced defect in the prenylation of small GTPases, but that loss of prenylated Rab GTPases is not the cause of enhanced IL-1 beta release in MKD."

For more information on this research see: Mevalonate kinase deficiency leads to decreased prenylation of Rab GTPases. *Immunology and Cell Biology*, 2016;94(10):994-999. *Immunology and Cell Biology* can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Immunology and Cell Biology - www.nature.com/icb/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/icb.2016.58. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Hereditary Autoinflammatory Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions, Central Nervous System Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions, Peroxisomal Diseases and Conditions, Hematologic Diseases and Conditions, Brain Diseases and Conditions, Mevalonate Kinase Deficiency, Blood Protein Disorders, Hypergammaglobulinemia, Enzymes and Coenzymes, Genetics, St Vincents Clinical School.

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Ethanolamines

Studies from St. George's University of London in the Area of Ethanolamines Described (Kv7 Channel Activation Underpins EPAC-Dependent Relaxations of Rat Arteries)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Ethanolamines. According to news originating from London, United Kingdom, by NewsRx correspondents, research stated, "To establish the role of Kv7 channels in EPAC (exchange protein directly activated by cAMP)-dependent relaxations of the rat vasculature and to investigate whether this contributes to beta-adrenoceptor-mediated vasorelaxations. Approach and Results-Isolated rat renal and mesenteric arteries (RA and MA, respectively) were used for isometric tension recording to study the relaxant effects of a specific EPAC activator and the beta-adrenoceptor agonist isoproterenol in the presence of potassium channel inhibitors and cell signaling modulators."

Our news journalists obtained a quote from the research from the St. George's University of London, "Isolated myocytes were used in proximity ligation assay studies to detect localization of signaling intermediaries with Kv7.4 before and after cell stimulation. Our studies showed that the EPAC activator (8-pCPT-2Me-cAMP-AM) produced relaxations and enhanced currents of MA and RA that were sensitive to linopirdine (Kv7 inhibitor). Linopirdine also inhibited isoproterenol-mediated relaxations in both RA and MA. In the MA, isoproterenol relaxations were sensitive to EPAC inhibition, but not protein kinase A inhibition. In contrast, isoproterenol relaxations in RA were attenuated by protein kinase A but not by EPAC inhibition. Proximity ligation assay showed a localization of Kv7.4 with A-kinase anchoring protein in both vessels in the basal state, which increased only in the RA with isoproterenol stimulation. In the MA, but not the RA, a localization of Kv7.4 with both Rap1a and Rap2 (downstream of EPAC) increased with isoproterenol stimulation. EPAC-dependent vasorelaxations occur in part via activation of Kv7 channels."

According to the news editors, the research concluded: "This contributes to the isoproterenol-mediated relaxation in mesenteric, but not renal, arteries."

For more information on this research see: Kv7 Channel Activation Underpins EPAC-Dependent Relaxations of Rat Arteries. Arteriosclerosis Thrombosis and Vascular Biology, 2016;36(12):2404-2411. Arteriosclerosis Thrombosis and Vascular Biology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news correspondents report that additional information may be obtained from I.A. Greenwood, St. George's University London, Inst Cardiovasc & Cell Sci, Vasc Biol Res Grp, London, United Kingdom. Additional authors for this research include V. Barrese and I.A. Greenwood.

Keywords for this news article include: London, United Kingdom, Europe, Enzymes and Coenzymes, Catecholamines, Isoproterenol, Ethanolamines, Kinase, St. George's University of London.

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Nutritional and Metabolic Diseases and Conditions - …

Studies from St. Josef Hospital Have Provided New Information about Type 2 Diabetes (Incretin therapies: highlighting common features and differences in the modes of action of glucagon-like peptide-1 receptor agonists and dipeptidyl peptidase-4 ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting originating from Bochum, Germany, by NewsRx editors, the research stated, "Over the last few years, incretin-based therapies have emerged as important agents in the treatment of type 2 diabetes (T2D). These agents exert their effect via the incretin system, specifically targeting the receptor for the incretin hormone glucagon-like peptide 1 (GLP-1), which is partly responsible for augmenting glucose-dependent insulin secretion in response to nutrient intake (the 'incretin effect')."

Financial supporters for this research include Novo Nordisk, Boehringer Ingelheim, Novartis Pharma, MSD GmbH, Metacure, AstraZeneca, GlaxoSmithKline, Roche Pharma AG, Novo Nordisk Pharma GmbH, ToleRx.

Our news editors obtained a quote from the research from St. Josef Hospital, "In patients with T2D, pharmacological doses/concentrations of GLP-1 can compensate for the inability of diabetic b cells to respond to the main incretin hormone glucose-dependent insulinotropic polypeptide, and this is therefore a suitable parent compound for incretin-based glucose-lowering medications. Two classes of incretin-based therapies are available: GLP-1 receptor agonists (GLP-1RAs) and dipeptidyl peptidase-4 (DPP-4) inhibitors. GLP-1RAs promote GLP-1 receptor (GLP-1R) signalling by providing GLP-1R stimulation through 'incretin mimetics' circulating at pharmacological concentrations, whereas DPP-4 inhibitors prevent the degradation of endogenously released GLP-1. Both agents produce reductions in plasma glucose and, as a result of their glucose-dependent mode of action, this is associated with low rates of hypoglycaemia; however, there are distinct modes of action resulting in differing efficacy and tolerability profiles. Furthermore, as their actions are not restricted to stimulating insulin secretion, these agents have also been associated with additional non-glycaemic benefits such as weight loss, improvements in b-cell function and cardiovascular risk markers. These attributes have made incretin therapies attractive treatments for the management of T2D and have presented physicians with an opportunity to tailor treatment plans."

According to the news editors, the research concluded: "This review endeavours to outline the commonalities and differences among incretin-based therapies and to provide guidance regarding agents most suitable for treating T2D in individual patients."


The news editors report that additional information may be obtained by contacting M. Nauck, Division of Diabetology, Medical Dept. of I, St Josef Hospital (Ruhr University Bochum), Bochum, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/dom.12591. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Bochum, Europe, Germany, Incretins, Proinsulin, Proteomics, Proglucagon, Pharmacology, Article Review, Type 2 Diabetes, Peptide Hormones, Peptide Proteins, Drugs and Therapies, Risk and Prevention, Dipeptidyl Peptidase, Enzymes and Coenzymes, Glucagon Like Peptide 1, Glucose Elevating Agents.

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Transfusion Medicine - Blood Transfusion

**Studies from St. Louis University Describe New Findings in Blood Transfusion (Transfusion Requirements in ESRD Patients Admitted with GI Hemorrhage Undergoing Inpatient Endoscopy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transfusion Medicine - Blood Transfusion have been published. According to news originating from St. Louis, Missouri, by NewsRx correspondents, research stated, "To date there are no studies evaluating the utilization of blood products in patients with end-stage renal disease (ESRD) with gastrointestinal (GI) hemorrhage. This study estimated transfusion needs and determined predictors available at the time of admission for patients with ESRD admitted to a university hospital with GI bleeding requiring inpatient endoscopy."

Our news journalists obtained a quote from the research from St. Louis University, "A retrospective chart review was performed on all patients with ESRD who underwent inpatient endoscopy for suspected GI bleeding between 2009 and 2015. Ninety-nine hospital admissions from 76 patients met the inclusion criteria. Patients received mean 2.9 +/- 2.6 red blood cell (RBC) units. In the multivariate analysis, increased prothrombin time, low initial hemoglobin, admission to intensive care unit, congestive heart failure, white race (P = 0.08), and syncope (P = 0.09) were independent predictors of RBC transfusion. A total of 28% received fresh frozen plasma and 8% received platelets. Prolonged prothrombin time was the only independent predictor of fresh frozen plasma transfusion (P < 0.001). Platelet transfusion was predicted by thrombocytopenia at platelet counts <100,000/mm(3) (P < 0.001) and white race. Coronary artery disease was associated with reduced platelet transfusion. Other baseline comorbidities, bleeding source, and active/recent hemorrhage on endoscopy did not predict transfusion. Desmopressin use was not associated with reduced RBC needs, even after adjusting for other covariates. Ninety-seven percent of patients survived to discharge. Patients with ESRD admitted to the hospital with GI bleeding have high blood transfusion requirements, which are predicted by variables available at the time of admission."

According to the news editors, the research concluded: "Rockall score and most other predictors of mortality did not predict transfusion."

For more information on this research see: Transfusion Requirements in ESRD Patients Admitted with GI Hemorrhage Undergoing Inpatient Endoscopy. *Southern Medical Journal*, 2016;109(12):785-791. *Southern Medical Journal* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Southern Medical Journal - journals.lww.com/smajournalonline/pages/default.aspx)
The news correspondents report that additional information may be obtained from S. Santosh, St. Louis University, Sch Med, St Louis, MO 63103, United States. Additional authors for this research include S. Santosh, S. Patolia and S. Santosh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.14423/SMJ.0000000000000578. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, End Stage Renal Disease, Transfusion Medicine, Platelet Transfusion, Blood Transfusion, Medical Devices, Prothrombin, Hematology, Hemorrhage, Hospital, St. Louis University.

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Oncology - Colon Cancer

Studies from St. Mark's Hospital Have Provided New Information about Colon Cancer (The potential impact of local excision for T1 colonic cancer in elderly and comorbid populations: a decision analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting from Harrow, United Kingdom, by NewsRx journalists, research stated, "Population-based bowel cancer screening has resulted in increasing numbers of patients with T1 colonic cancer. The need for colectomy in this group is questioned due to the low risk of lymphatic spread and increased treatment morbidity, particularly for elderly, comorbid patients."

The news correspondents obtained a quote from the research from St. Mark’s Hospital, "This study examined the quality-of-life benefits and risks of endoscopic resection compared with results after colectomy, for low-risk and high-risk T1 colonic cancer. Decision analysis using a Markov simulation model was performed; patients were managed with either endoscopic resection (advanced therapeutic endoscopy) or colectomy. Lesions were considered high risk according to accepted national guidelines. Probabilities and utilities (perception of quality of life) were derived from published data. Hypothetical cohorts of 65-and 80-year-old, fit and unfit patients with low-risk or high-risk T1 colonic cancer were studied. The primary outcome was quality-adjusted life expectancy (QALE) in life-years (QALYs). In low-risk T1 colonic neoplasia, endoscopic resection increases QALE by 0.09 QALYS for fit 65-year-olds and by 0.67 for unfit 80-year-olds. For high-risk T1 cancers, the QALE benefit for surgical resection is 0.24 QALYs for fit 65-year-olds and the endoscopic QALE benefit is 0.47 for unfit 80-year-olds. The model findings only favored surgery with high local recurrence rates and when quality of life under surveillance was perceived poorly. Under broad assumptions, endoscopic resection is a reasonable treatment option for both low-risk and high-risk T1 colonic cancer, particularly in elderly, comorbid patients."

According to the news reporters, the research concluded: "Exploration of methods to facilitate endoscopic resection of T1 colonic neoplasia appears warranted."

For more information on this research see: The potential impact of local excision for T1 colonic cancer in elderly and comorbid populations: a decision analysis. Gastrointestinal Endoscopy, 2016;84(6):986-994. Gastrointestinal Endoscopy can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA. (Elsevier -
Arteriovenous Malformation

Studies from Stanford University Hospital Have Provided New Information about Arteriovenous Malformation (Headway Duo microcatheter for cerebral. arteriovenous malformation embolization with n-BCA)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Arteriovenous Malformation. According to news reporting originating from Stanford, California, by NewsRx correspondents, research stated, "Cerebral arteriovenous malformations (AVMs) are uncommon vascular lesions, and hemorrhage secondary to AVM rupture results in significant morbidity and mortality. AVMs may be treated by endovascular embolization, and technical advances in microcatheter design are likely to improve the success and safety of endovascular embolization of cerebral AVMs."

Our news editors obtained a quote from the research from Stanford University Hospital, "To describe our early experience with the Headway Duo microcatheter for embolization of cerebral AVMs with n-butyl-cyanoacrylate (n-BCA). Consecutive patients treated by endovascular embolization of a cerebral AVM with n-BCA delivered intra-arterially through the Headway Duo microcatheter (167 cm length) were identified. Patient demographic information, procedural details, and patient outcome were determined from electronic medical records. Ten consecutive patients undergoing cerebral AVM embolization using n-BCA injected through the Headway Duo microcatheter were identified. Presenting symptoms included headache, hemorrhage, seizures, and weakness. Spetzler Martin grades ranged from 1 to 5, and AVMs were located in the basal ganglia (2 patients), parietal lobe (4 patients), frontal lobe (1 patient), temporal lobe (1 patient), an entire hemisphere (1 patient), and posterior fossa (1 patient). 50 arterial pedicles were embolized, and all procedures were technically successful. There was one post-procedural hemorrhage that was well tolerated by the patient, and no other complications occurred. Additional AVM treatment was performed by surgery and radiation therapy. The Headway Duo microcatheter is safe and effective for embolization of cerebral AVMs using n-BCA."

According to the news editors, the research concluded: "The trackability and high
burst pressure of the Headway Duo make it an important and useful tool for the neurointerventionalist during cerebral AVM embolization."


The news editors report that additional information may be obtained by contacting J.J. Heit, Stanford Univ Hosp, Intervent Neuroradiol Div, Dept. of Radiol, Stanford, CA 94305, United States. Additional authors for this research include A.G.S. Faisal, N.A. Telischak, O. Choudhri and H.M. Do.

Keywords for this news article include: Stanford, California, United States, North and Central America, Cardiovascular Diseases and Conditions, Hemorrhage, Surgery, Epidemiology, Cardiovascular Abnormalities, Arteriovenous Malformations, Congenital Abnormalities, Vascular Malformations, Embolization, Angiology, Stanford University Hospital.

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Peptide Proteins - Proinsulin

Studies from Stanford University School of Medicine Provide New Data on Proinsulin (Pterostilbene Ameliorates Streptozotocin-Induced Diabetes through Enhancing Antioxidant Signaling Pathways Mediated by Nrf2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peptide Proteins - Proinsulin have been published. According to news reporting originating in Palo Alto, California, by NewsRx journalists, research stated, "Nuclear factor erythroid 2-related factor 2 (Nrf2) remains a master regulator of cytoprotective and antioxidant genes. In this study, we investigated the antidiabetic role of pterostilbene (PTS) in streptozotocin (STZ)-induced diabetic model through Nrf2-mediated antioxidant mechanisms."

Funders for this research include Council of Scientific and Industrial Research, Department of Science and Technology, Ministry of Science and Technology.

The news reporters obtained a quote from the research from the Stanford University School of Medicine, "The ability of PTS to activate Nrf2 in MIN6 cells was assessed by dissociation of the Nrf2-Keap1 complex at different time points and by expression of ARE-driven downstream target genes of Nrf2. Immunoblot experiments examining Nrf2 activation and phosphorylation indicated that it conferred cytoprotection against STZ-induced cellular damage. In STZ-induced diabetic mice, PTS administration significantly decreased blood glucose levels through the improvement of insulin secretion. In addition, we also observed insulin-positive cells with recovered islet architecture in the pancreas of STZ-induced diabetic mice after treatment with PTS. The activation of Nrf2 and expression of its downstream target genes were observed upon PTS treatment, thereby reducing oxidative damage to pancreas. Furthermore, PTS treatment significantly reverted the abundance of key glucose metabolism
enzymes, such as hexokinase, glucose-6-phosphatase, glucose-6-phosphate dehydrogenase, and fructose-1,6-bisphosphatase, to near-normal levels in liver tissue of STZ-induced diabetic mice."

According to the news reporters, the research concluded: "These results clearly indicate that PTS maintains glucose homeostasis, suggesting the possibility that it is a future candidate for use in diabetes management."

For more information on this research see: Pterostilbene Ameliorates Streptozotocin-Induced Diabetes through Enhancing Antioxidant Signaling Pathways Mediated by Nrf2. *Chemical Research In Toxicology, 2016;29(1):47-57.* (American Chemical Society - www.acs.org; Chemical Research In Toxicology - www.pubs.acs.org/journal/crtoec)

Our news correspondents report that additional information may be obtained by contacting R. Paulmurugan, Dept. of Radiology, Stanford University School of Medicine, Palo Alto, California 94305, United States. Additional authors for this research include S. Dornadula, R. Paulmurugan and K.M Ramkumar.

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Keywords for this news article include: Antioxidants, Diabetes, Genetics, Palo Alto, California, Proinsulin, United States, Endocrinology, Gastroenterology, Peptide Hormones, Peptide Proteins, Pancreas Research, Protective Agents, North and Central America.

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**Oncology - Ovarian Cancer**

**Studies from Sun Yat Sen University Describe New Findings in Ovarian Cancer (MiR-760 overexpression promotes proliferation in ovarian cancer by downregulation of PHLPP2 expression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Ovarian Cancer have been published. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Ovarian cancer is one of the most lethal gynecologic malignancies worldwide and with poor prognosis and survival rate in women. Identifying sensitive and specific molecular in carcinogenesis may improve diagnostic and therapeutic strategies for this malignancy and achieve a better clinical outcome."

Funders for this research include Natural Science Foundation of Guangdong Province, The Science and Technology Projects Foundation of Guangzhou City Huangpu District.

Our news editors obtained a quote from the research from Sun Yat Sen University, "miR-760 expression in ovarian cancer cell lines and patient tissues were determined using Real-time PCR. 145 human ovarian cancer tissue samples were analyzed by RT-PCR to investigate the association between miR-760 expression and the clinicopathological characteristics of ovarian cancer patients. Functional assays, such as MTT, anchorage-independent growth, colony formation and BRDU assay were used to determine the oncogenic role of miR-760 in human ovarian cancer progression. Furthermore, western blotting and luciferase assay were used to determine the mechanism of miR-760 promotes proliferation in ovarian cancer cells. The expression of miR-760 was markedly upregulated in ovarian cancer..."
cell lines and tissues, and high miR-760 expression was associated with an aggressive phenotype and poor prognosis with ovarian cancer patients. Upregulation of miR-7760 promoted, whereas downregulation of miR-760 inhibited the proliferation of ovarian cancer cells in vitro. Additionally, we identified PHLPP2 as a direct target of miR-760, and silencing the expression of PHLPP2 is the essential biological function of miR-760 during ovarian cancer cell proliferation. Finally, we showed a significant correlation between miR-760 and PHLPP2 expression in ovarian cancer tissues."

According to the news editors, the research concluded: "Our findings suggest that miR-760 represents a potential onco-miR and participates in ovarian cancer carcinogenesis, which highlight its potential as a target for ovarian cancer therapy."

For more information on this research see: MiR-760 overexpression promotes proliferation in ovarian cancer by downregulation of PHLPP2 expression. *Gynecologic Oncology*, 2016;143(3):655-663. *Gynecologic Oncology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

The news editors report that additional information may be obtained by contacting S.Y. He, Sun Yat Sen UniversityAffiliated Hosp 1, Dept. of Obstet & Gynecol, Guangzhou 510700, Guangdong, People's Republic of China. Additional authors for this research include Y.L. Deng, J. Liu, Z.Y. Ye, Z.S. You, S.Z. Yao and S.Y. He.

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Keywords for this news article include: Guangdong, People's Republic of China, Asia, Carcinogenesis, Women's Health, Ovarian Cancer, Gynecology, Oncology, Sun Yat Sen University.

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**Studies from Sun Yat Sen University in the Area of Type 2 Diabetes Described (Associations of polymorphisms in TXNIP and gene-environment interactions with the risk of coronary artery disease in a Chinese Han population)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting originating in Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Single nucleotide polymorphisms (SNPs) in thioredoxin-interacting protein (TXNIP) gene may modulate TXNIP expression, then increase the risk of coronary artery disease (CAD). In a two-stage case-control study with a total of 1818 CAD patients and 1963 controls, we genotyped three SNPs in TXNIP and found that the variant genotypes of SNPs rs7212 [ odds ratio (OR) = 1.26, P = 0.001] and rs7211 (OR = 1.23, P = 0.005) were significantly associated with increased CAD risk under a dominant model."

Financial support for this research came from National Basic Research Program of
The news reporters obtained a quote from the research from Sun Yat Sen University, "In haplotype analyses, compared with the reference haplotype, haplotype 'G-T' had a 1.22-fold increased risk of CAD (P = 0.003). We also observed the cumulative effects of SNPs rs7212 and rs7211 on CAD risk and the severity of coronary atherosclerosis. Moreover, the gene-environment interactions among the variant genotypes of SNP rs7212, smoking habit, alcohol drinking habit and history of type 2 diabetes were associated with a 3.70-fold increased risk of CAD (P < 0.001). Subsequent genotype-phenotype correlation analyses further observed the significant effects of SNP rs7212 on TXNIP mRNA expression, plasma TXNIP and malondialdehyde levels."

According to the news reporters, the research concluded: "Taken together, our data suggest that TXNIP SNPs may individually and cumulatively affect CAD risk through a possible mechanism for regulating TXNIP expression and gene-environment interactions."


Our news correspondents report that additional information may be obtained by contacting C. Li, Sun Yat Sen UniversityZhongshan Sch Med, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include Y.D. Han, S. Zhang, N.H. Cui, Z.J. Liu, Z.L. Huang, C. Li and F. Zheng.

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Keywords for this news article include: Guangdong, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Risk and Prevention, Arteriosclerosis, Type 2 Diabetes, Heart Disease, Cardiology, Angiology, Genetics, Sun Yat Sen University.

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**Oncology - Gastric Cancer**

**Studies from Sungkyunkwan University Have Provided New Information about Gastric Cancer (Does the interval of screening endoscopy affect survival in gastric cancer patients? A cross-sectional study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gastric Cancer is the subject of a report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Gastric cancer remains the second most common cancer in Korea; however, its mortality has decreased due to earlier diagnosis. In Korea, screening endoscopy has been performed nationwide since 1999."

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gastric Cancer is the subject of a report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Gastric cancer remains the second most common cancer in Korea; however, its mortality has decreased due to earlier diagnosis. In Korea, screening endoscopy has been performed nationwide since 1999."

Oncology - Gastric Cancer
Our news editors obtained a quote from the research from Sungkyunkwan University. "The aim of this study was to elucidate the benefit of screening endoscopy on actual survival in gastric cancer patients and to determine the optimal interval of screening endoscopy. We analyzed 1651 patients diagnosed with gastric adenocarcinoma who underwent surgical treatment between June 2008 and December 2014. Patients were divided into 4 groups according to the interval of screening endoscopy prior to their gastric cancer diagnosis. (Group I=within 1 year, Group II= >1 but <2 years, Group III=more than 2 years, Group IV=no prior endoscopic examination). Patient demographics, clinicopathologic characteristics, and postoperative surgical outcomes including overall survival were compared. The 5-year gastric cancer-specific survival rates of groups I and II were significantly higher than groups III and IV (90.9% vs 85.4%, P=0.002, respectively). Multivariate analysis showed that screening interval was an independent factor for the diagnosis of advanced gastric cancer. The risk of advanced gastric cancer decreased in group I (odds ratio: 0.515, 95% confidence interval [CI] 0.369-0.719; P<0.001) and group II (odds ratio: 0.678, 95% CI 0.517-0.889, P=0.005). Screening endoscopy was helpful in increasing the survival of gastric cancer patients."

According to the news editors, the research concluded: "A 2-year endoscopic screening interval is suitable to detect early-stage gastric cancer."

For more information on this research see: Does the interval of screening endoscopy affect survival in gastric cancer patients? A cross-sectional study. Medicine, 2016;95(49):213-218. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting J.M. Bae, Sungkyunkwan UniversitySamsung Med Center, Sch Med, Dept. of Surg, Seoul 06351, South Korea. Additional authors for this research include S.M. Kim, M.H. Ha, J.E. Seo, M.G. Choi, J.H. Lee, T.S. Sohn, S. Kim, S.H. Jung and J.M. Bae.

Keywords for this news article include: Seoul, South Korea, Asia, Cancer, Diagnostics and Screening, Epidemiology, Minimally Invasive Surgical Procedures, Gastroenterology, Gastric Cancer, Endoscopy, Oncology, Surgery, Sungkyunkwan University.

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Oncology - Non-Small Cell Lung Cancer

Studies from Sungkyunkwan University School of Medicine Further Understanding of Non-Small Cell Lung Cancer (Low EGFR/MET ratio is associated with resistance to EGFR inhibitors in non-small cell lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Although activating mutations in the epidermal growth factor receptor (EGFR) gene are predictive markers for response to EGFR inhibitors, 30-40% of EGFR-mutant non-small cell lung cancer (NSCLC) patients are de novo non-responders. Hence, we sought to explore additional biomarkers of response."
The news correspondents obtained a quote from the research from the Sungkyunkwan University School of Medicine, "We conducted a prospective pilot study to characterize the expression and/or activation of key receptor tyrosine kinases (RTKs) in stage IIIB-IV NSCLC tumors. A total of 37 patients were enrolled and 34 underwent EGFR inhibitor treatment. As expected, patients bearing activating EGFR mutations showed increased progression free survival (PFS) compared to patients with wild-type EGFR status (9.3 vs 1.4 months, p=0.0629). Analysis of baseline tumor RTK profiles revealed that, regardless of EGFR mutation status, higher levels of EGFR relative to MET correlated with longer PFS. At multiple EGFR/MET ratio cut-offs, including 1, 2 and 3, median PFS according to below vs. above cut-offs were 0.4 vs. 6.1 (p=0.0001), 0.5 vs. 9.3 (p=0.0006) and 1.0 vs. 11.2 months (p=0.0008), respectively."

According to the news reporters, the research concluded: "The EGFR/MET ratio measured in tumors at baseline may help identify NSCLC patients most likely to benefit from prolonged PFS when treated with EGFR inhibitors."

For more information on this research see: Low EGFR/MET ratio is associated with resistance to EGFR inhibitors in non-small cell lung cancer. Oncotarget, 2015;6(31):30929-38.

Our news journalists report that additional information may be obtained by contacting S. Park, Division of Hematology-Oncology, Dept. of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, South Korea. Additional authors for this research include E. Langley, J.M. Sun, S. Lockton, J.S. Ahn, A. Jain, K. Park, S. Singh, P. Kim and M.J Ahn.

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Keywords for this news article include: Asia, Seoul, Genetics, Oncology, South Korea, Lung Neoplasms, Non Small Cell Lung Cancer, Non-Small Cell Lung Cancer.

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Cyclohexanes

Studies from Suny Downstate Medicine Center Describe New Findings in Cyclohexanes (Ketamine A Cause of Urinary Tract Dysfunction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cyclohexanes are presented in a new report. According to news originating from Brooklyn, New York, by NewsRx correspondents, research stated, "Drug addiction as a result of improper use of prescribed and illicit use has been on the increase globally."

Our news journalists obtained a quote from the research from Suny Downstate Medicine Center, "The effects of such use have implications in the urologic disease space. To this end, Ketamine has been reported to affect urologic function, causing a number of voiding symptoms."

According to the news editors, the research concluded: "It may also confound the differential diagnosis of urologic diseases, such as interstitial cystitis, among others."

For more information on this research see: Ketamine A Cause of Urinary Tract Dysfunction. Clinics in Laboratory Medicine, 2016;36(4):721-744,CP3. Clinics in Laboratory
Studies from SyNergy Further Understanding of Dystonia
(Haploinsufficiency of KMT2B, Encoding the Lysine-Specific Histone Methyltransferase 2B, Results in Early-Onset Generalized Dystonia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nervous System Diseases and Conditions - Dystonia have been presented. According to news reporting out of Munich, Germany, by NewsRx editors, research stated, "Early-onset generalized dystonia represents the severest form of dystonia, a hyperkinetic movement disorder defined by involuntary twisting postures. Although frequently transmitted as a single-gene trait, the molecular basis of dystonia remains largely obscure."

Funders for this research include Else Kroner-Fresenius-Stiftung, Technische Universität Munchen, Helmholtz Zentrum Munchen, Medizinische Universität Innsbruck, Langmatz-Stiftung, German Federal Ministry of Education and Research.

Our news journalists obtained a quote from the research from SyNergy, "By whole-exome sequencing a parent-offspring trio in an Austrian kindred affected by non-familial early-onset generalized dystonia, we identified a dominant de novo frameshift mutation, c.6406delC (p.Leu2136Serfs*17), in KMT2B, encoding a lysine-specific methyltransferase involved in transcriptional regulation via post-translational modification of histones. Whole-exome-sequencing-based exploration of a further 30 German-Austrian individuals with early-onset generalized dystonia uncovered another three deleterious mutations in KMT2B—one de novo nonsense mutation (c.1633C >T [p.Arg545*]), one de novo essential splice-site mutation (c.7050-2A >G [p.Phe2321Serfs*93]), and one inherited nonsense mutation (c.2428C >T [p.Gln810*]) co-segregating with dystonia in a three-generation kindred. Each of the four mutations was predicted to mediate a loss-of-function effect by introducing a premature termination codon. Suggestive of haploinsufficiency, we found significantly decreased total mRNA levels of KMT2B in mutant fibroblasts. The phenotype of individuals with KMT2B loss-of-function mutations was dominated by childhood lower-limb-onset generalized dystonia, and the family harboring c.2428C >T (p.Gln810*) showed variable expressivity. In most cases, dystonic symptoms were accompanied by heterogeneous non-motor features. Independent support for pathogenicity of the mutations comes from the observation of high rates of dystonic presentations in KMT2B-involving microdeletion syndromes. Our findings thus establish generalized dystonia as the human phenotype associated with haploinsufficiency of KMT2B."
According to the news editors, the research concluded: "Moreover, we provide evidence for a causative role of disordered histone modification, chromatin states, and transcriptional deregulation in dystonia pathogenesis."


Our news journalists report that additional information may be obtained by contacting J. Winkelmann, SyNergy, Munich Cluster Syst Neurol, D-81377 Munich, Germany. Additional authors for this research include S. Boesch, E.M. Maier, I. Borggraefe, K. Vill, F. Laccone, V. Pilshofer, A. Ceballos-Baumann, B. Alhaddad, R. Berutti, W. Poewe, T.B. Haack, B. Haslinger, T.M. Strom and J. Winkelmann.

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Keywords for this news article include: Munich, Germany, Europe, Nervous System Diseases and Conditions, One-Carbon Group Transferases, Neurologic Manifestations, Essential Amino Acids, Enzymes and Coenzymes, Diamino Amino Acids, Proteins, Genetics, Methyltransferases, Basic Amino Acids, Nucleoproteins, Dyskinesias, Histones, Dystonia, Lysine, SyNergy.

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Drugs and Therapies - Antimalarial Agents

Studies from T. Jeanson and Co-Researchers in the Area of Antimalarial Agents Reported (Potentiation of Amitriptyline Anti-Hyperalgesic-Like Action By Astroglial Connexin 43 Inhibition in Neuropathic Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antimalarial Agents is the subject of a report. According to news reporting originating from Lyon, France, by NewsRx correspondents, research stated, "Antidepressants, prescribed as first line treatment of neuropathic pain, have a limited efficacy and poorly tolerated side effects. Because recent studies pointed out the implication of astroglial connexins (Cx) in both neuropathic pain and antidepressive treatment, we investigated whether their blockade by mefloquine could modulate the action of the tricyclic antidepressant amitriptyline."

Our news editors obtained a quote from the research, "Using primary cultures, we found that both mefloquine and amitriptyline inhibited Cx43-containing gap junctions, and that the drug combination acted synergically. We then investigated whether mefloquine could enhance amitriptyline efficacy in a preclinical model of neuropathic pain. Sprague-Dawley rats that underwent chronic unilateral constriction injury (CCI) to the sciatic nerve (SN) were treated with either amitriptyline, mefloquine or the combination of both drugs. Whereas acute treatments were ineffective, chronic administration of amitriptyline reduced CCI-SN-induced hyperalgesia-like behavior, and this effect was markedly enhanced by co-administration of
mefloquine, which was inactive on its own. No pharmacokinetic interactions between both drugs were observed and CCI-SN-induced neuroinflammatory and glial activation markers remained unaffected by these treatments in dorsal root ganglia and spinal cord. Mechanisms downstream of CCI-SN-induced neuroinflammation and glial activation might therefore be targeted."

According to the news editors, the research concluded: "Connexin inhibition in astroglia could represent a promising approach towards improving neuropathic pain therapy by antidepressants."

For more information on this research see: Potentiation of Amitriptyline Anti-Hyperalgesic-Like Action By Astroglial Connexin 43 Inhibition in Neuropathic Rats. Scientific Reports, 2016:6():1-12. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting M. Charveriat, Theranexus, Lyon, France. Additional authors for this research include A. Duchene, D. Richard, S. Bourgoin, C. Picoli, P. Ezan, F. Mouthon, C. Giaume, M. Hamon and M. Charveriat.

Keywords for this news article include: Lyon, France, Europe, Amitriptyline Therapy Hydrochloride, Mefloquine Therapy Hydrochloride, Membrane Transport Proteins, Tricyclic Antidepressants, Neurologic Manifestations, Psychotherapeutic Agents, Dibenzocycloheptenes, Drugs and Therapies, Antimalarial Agents, Membrane Proteins, Neuropathic Pain, Carrier Proteins, Pharmaceuticals, Antiinfectives, Connexin 43, Neuropathy, Connexins.

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Pharmacokinetics

Studies from Tata Memorial Hospital Further Understanding of Pharmacokinetics (Determination and Pharmacokinetic Study of Pirfenidone in Rat Serum by High-Performance Thin-Layer Chromatography)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Pharmacokinetics are presented in a new report. According to news reporting originating in Maharashtra, India, by NewsRx journalists, research stated, "A rapid, sensitive and selective high-performance thin-layer chromatography (HPTLC) method was developed and validated for the determination and pharmacokinetics of pirfenidone in rat serum. One-step protein precipitation by methanol is reported, and serum samples were separated by HPTLC using a simple mobile phase of toluene-methanol in the ratio of 8:2."

The news reporters obtained a quote from the research from Tata Memorial Hospital, "The retardation factor of pirfenidone in the serum sample was 0.45 with the detection performed at 315 nm. The calibration curve was linear over the range of 100-1,200 ng/spot with a lower limit of quantitation of 40 ng/spot. The mean recovery of pirfenidone in serum was in the range of 70.6-75.8%, and intra-day and inter-day precision were both <14.1%.

According to the news reporters, the research concluded: "This method was successfully applied to the pharmacokinetic study of pirfenidone in rats on oral administration
of the drug at a dose of 15.0 mg/kg."


Our news correspondents report that additional information may be obtained by contacting R.V. Chikhale, Tata Mem Hosp, ACTREC, Bombay 410210, Maharashtra, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/chromsci/bmw067. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maharashtra, India, Asia, Pharmacokinetics, Pharmaceuticals, Tata Memorial Hospital.

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**Liver Diseases and Conditions - Hepatitis B Virus**

**Studies from Tata Memorial Hospital in the Area of Hepatitis B Virus Reported (Hepatitis B-related serological events in hematopoietic stem cell transplant patients and efficacy of lamivudine prophylaxis against reactivation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Liver Diseases and Conditions - Hepatitis B Virus are discussed in a new report. According to news reporting out of Maharashtra, India, by NewsRx editors, research stated, "Reactivation of remote hepatitis B infection (RHBI) is an important cause of morbidity in hematopoietic cell transplant (HCT) patients. We analyzed the prevalence of RHBI in 205 patients who underwent HCT in our centre, serological events related to hepatitis B virus (HBV) reactivation and role of lamivudine prophylaxis in HCT patients with RHBI."

Our news journalists obtained a quote from the research from Tata Memorial Hospital, "The prevalence of RHBI was 14% (28/205 patients). Of these 28 patients, 15 received lamivudine prophylaxis (14 anti-HBcIgG positive and 1 only anti-HBs positive) while 13 did not receive lamivudine prophylaxis (12 anti-HBs positive and 1 anti-HBcIgG positive). None in prophylaxis group developed HBV reactivation while 12 of 13 in no-prophylaxis group reactivated (P < 0.001). The rate of HBV reactivation was 10% (21/205 patients), which included 9 patients with no evidence of RHBI pre-transplant. We conclude that lamivudine prophylaxis protects against HBV reactivation in HCT patients with evidence of RHBI. Lamivudine prophylaxis should be used not only in patients with anti-HBcIgG positivity but also in those with isolated anti-HBs positivity pre-transplant given the high rate of HBV reactivation in these patients."

According to the news editors, the research concluded: "HBV serology cannot identify all cases with RHBI and therefore does not preclude HBV reactivation post-transplant."

For more information on this research see: Hepatitis B-related serological events in hematopoietic stem cell transplant patients and efficacy of lamivudine prophylaxis against

Our news journalists report that additional information may be obtained by contacting N. Khattry, Tata Mem Hosp, Dept. of Med Oncol, Bone Marrow Transplant Unit, ACTREC, Bombay, Maharashtra, India. Additional authors for this research include S. Punatar, J. Gawande, B. Bagal, L. Mathew, V. Bhat, S. Kannan and N. Khattry.

Keywords for this news article include: Maharashtra, India, Asia, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Hepadnaviridae Infections, Hematopoietic Stem Cells, Stem Cell Research, Bone Marrow Cells, Hepatitis B Virus, Orthohepadnavirus, Gastroenterology, DNA Viruses, Hematology, Viral, Tata Memorial Hospital.

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**Studies from Technical University Add New Findings in the Area of Congenital Heart Disease (Interstitial 1q23.3q24.1 Deletion in a Patient with Renal Malformation, Congenital Heart Disease, and Mild Intellectual Disability)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Congenital Diseases and Conditions - Congenital Heart Disease are discussed in a new report. According to news reporting from Dresden, Germany, by NewsRx journalists, research stated, "Interstitial deletions including chromosome region 1q23.3q24.1 are rare. Only eight patients with molecularly characterized deletions have been reported to date."

The news correspondents obtained a quote from the research from Technical University, "Their phenotype included intellectual disability/developmental delay, growth retardation, microcephaly, congenital heart disease, and renal malformations. We report on a female patient with mild developmental delay, congenital heart disease, and bilateral renal hypoplasia in whom an interstitial de novo deletion of approximately 2.7Mb in 1q23.3q24.1 was detected by array CGH. This is the smallest deletion described in this region so far."

According to the news reporters, the research concluded: "Genotype-phenotype comparison with previously published patients allowed us to propose LMX1A and RXRG as potential candidate genes for intellectual disability, PBX1 as a probable candidate gene for renal malformation, and enabled us to narrow down a chromosome region associated with microcephaly."


Our news journalists report that additional information may be obtained by
contacting L. Mackenroth, Technical University of Dresden, Inst Klin Genet, Medical Fak Carl Gustav Carus, D-01307 Dresden, Germany. Additional authors for this research include K. Hackmann, B. Klink, J.S. Weber, B. Mayer, E. Schrock and A. Tzschach.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37785. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dresden, Germany, Europe, Musculoskeletal Diseases and Conditions, Cardiovascular Diseases and Conditions, Malformations of Cortical Development, Congenital Diseases and Conditions, Musculoskeletal Abnormalities, Nervous System Malformations, Heart Disorders and Diseases, Craniofacial Abnormalities, Congenital Heart Disease, Kidney, Genetics, Microcephaly, Nephrology, Cardiology, Technical University.

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Oncology - Bone Cancer

Studies from Technical University Further Understanding of Bone Cancer (WNT5A and Its Receptors in the Bone-Cancer Dialogue)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Bone Cancer have been published. According to news originating from Dresden, Germany, by NewsRx correspondents, research stated, "Wnt signaling is critical for tumorigenesis and skeletal remodeling. However, its contribution to the formation of metastatic bone lesions remains poorly defined."

Our news journalists obtained a quote from the research from Technical University, "One major challenge of unraveling its role in cancer progression is the high complexity of Wnt signaling, which includes numerous ligands, receptors, and inhibitors, with intricate biological effects and specific signaling pathways depending on the cellular context. In this perspective, we summarize the role of the noncanonical Wnt ligand WNT5A in the development and metastatic process of osteotropic cancer entities."

According to the news editors, the research concluded: "We focus on its tumor-suppressive function in breast cancer, tumor promoting effects in melanoma, and ambiguous role in prostate cancer, and discuss potential challenges and opportunities that may be associated with targeting Wnt signaling for cancer therapy and treatment of bone metastases."


The news correspondents report that additional information may be obtained from L.C. Hofbauer, Technical University of Dresden, Medical Center, Center Hlth Aging, Dresden, Germany. Additional authors for this research include T.D. Rachner, M. Rauner and L.C. Hofbauer.

Keywords for this news article include: Dresden, Germany, Europe, Bone Research, Bone Cancer, Oncology, Technical University.

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Studies from Technical University Provide New Data on Antineoplastics (Half generations magnetic PAMAM dendrimers as an effective system for targeted gemcitabine delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antineoplastics are presented in a new report. According to news reporting originating in Ankara, Turkey, by NewsRx journalists, research stated, "Tumor-specific delivery of anticancer drugs by magnetic nanoparticles will maximize the efficacy of the drug and minimize side effects, and reduce systemic toxicity. The magnetic core of these nanoparticles provides an advantage for selective drug targeting as they can be targeted to the tumor site and accumulated in cancer cells by means of an external magnetic field."

The news reporters obtained a quote from the research from Technical University, "Magnetic nanoparticles can be coated with Polyamidoamine (PAMAM) dendrimer and loaded with drugs. However, biomedical applications of PAMAM dendrimers are limited due to their toxicity associated with their multiple cationic charges due to terminal -NH2 groups. Modifying the positively charged end groups with negatively charged -COOH groups, is a satisfactory strategy for obtaining less toxic PAMAM dendrimers. Gemcitabine being an analogue of deoxycytidine, is an effective anticancer drug. However, clinical benefits of Gemcitabine are limited due to its short biological half-life. The aim of this study was to obtain an effective, less toxic targeted delivery system for Gemcitabine. Half generations, between G4.5 and G7.5, of PAMAM dendrimer coated magnetic nanoparticles (DcMNPs) were synthesized and conjugated with Gemcitabine. TEM images showed nanoscale size (12-14 nm) of the nanoparticles. The zeta-potential analysis indicated a decreased negativity of surface charge in drug bound dendrimer compared to the empty nanoparticles. Gemcitabine was effectively conjugated successfully onto the surface of half-generations of PAMAM DcMNPs. It was observed Gemcitabine did not effectively bind to Generations G4 and G5. The highest drug loading was obtained for DcMNPs with Generation 5.5. Empty nanoparticles showed no significant cytotoxicity on SKBR-3 and MCF-7 cells. On the other hand, Gemcitabine loaded nanoparticles were 6.0 fold more toxic on SKBR-3 and 3.0 fold more toxic on MCF-7 cells compared to free Gemcitabine. Gemcitabine loaded on Generation 5.5 DcMNPs showed a higher stability than free Gemcitabine. About 94% of the drug was retained over 6 weeks period, at pH 7.2."

According to the news reporters, the research concluded: "Due to their targetability under magnetic field, stability, size distribution, cellular uptake and toxicity characteristics the dendrimeric nanoparticles obtained in this study can be useful a delivery system for Gemcitabine in cancer therapy."

For more information on this research see: Half generations magnetic PAMAM dendrimers as an effective system for targeted gemcitabine delivery. International Journal of Pharmaceutics, 2016;515(1-2):104-113. International Journal of Pharmaceutics can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; International Journal of Pharmaceutics - www.journals.elsevier.com/international-journal-of-pharmaceutics/) Our news correspondents report that additional information may be obtained by
contacting M. Parsian, Middle East Technical Univ, Dept. of Biotechnol, TR-06800 Ankara, Turkey. Additional authors for this research include P. Mutlu, S. Yalcin, A. Tezcaner and U. Gunduz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ankara, Turkey, Eurasia, Radiation-Sensitizing Agents, Immunosuppressive Agents, Emerging Technologies, Drugs and Therapies, Gemcitabine Therapy, Antineoplastics, Antimetabolites, Cancer Therapy, Nanotechnology, Nanoparticle, Antivirals, Technical University.

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Cardiovascular Diseases and Conditions - Vasculitis

Studies from Technical University Yield New Information about Vasculitis (Spotlight on rituximab in the treatment of antineutrophil cytoplasmic antibody-associated vasculitis: current perspectives)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Vasculitis are presented in a new report. According to news originating from Munich, Germany, by NewsRx correspondents, research stated, "A 54-year-old patient presented to his general practitioner because of strong muscle pain in both thighs. Inflammatory parameters (CRP 16.3 mg/dL) and white blood cells (15 g/L) were elevated."

Our news journalists obtained a quote from the research from Technical University, "The patient reported a weight loss of 10 kg in 4 weeks. There was no fever or any other specific symptoms. Urine dipstick examination and computed tomography of the chest were unremarkable. Because of increasing symptoms, the patient was referred to our department. Magnetic resonance tomography showed diffuse inflammatory changes of the muscles of both thighs. Neurological examination and electrophysiology revealed axonal sensorimotor neuropathy and ground-glass opacities of both lungs had occurred. Serum creatinine increased to 229 mmol/L within a few days, with proteinuria of 3.3 g/g creatinine. Kidney biopsy showed diffuse pauci-immune proliferative glomerulonephritis. Proteinase 3-specific antineutrophil cytoplasmic antibodies were markedly increased. Birmingham Vasculitis Activity Score was 35. Within 2 days, serum creatinine further increased to 495 mmol/L. Plasma exchange, high-dose glucocorticosteroids, and hemodialysis were started. The patient received cyclophosphamide 1 g twice and rituximab 375 mg/m(2) four times according to the RITUXVAS protocol. Despite ongoing therapy, hemodialysis could not be withdrawn and had to be continued over 3 weeks until diuresis normalized. Glucocorticosteroids were tapered to 20 mg after 2 months, and serum creatinine was 133 mmol/L. However, nephritic urinary sediment reappeared. Another dose of 1 g cyclophosphamide was given, and glucocorticosteroids were raised for another 4 weeks. After 6 months, the daily prednisolone dose was able to be tapered to 5 mg. Serum creatinine was 124 mmol/L, proteinuria further decreased to 382 mg/g creatinine, and the Birmingham Vasculitis Activity Score was 0. Maintenance therapy with rituximab 375 mg/m(2) every 6 months was started."

According to the news editors, the research concluded: "At the last visit after 8 months, the patient was still in remission, with only minor persistent dysesthesia of the left foot
and a persistent serum creatinine of 133 mmol/L."


The news correspondents report that additional information may be obtained from P. Moog, Abteilung fur Nephrologie, Klinikum rechts der Isar, Technische Universität München, Munich, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/TCRM.S79080. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastic Monoclonal Antibodies, Antirheumatics, Biotechnology, Munich, Europe, Germany, Cytoplasm, Rituximab, Immunology, Vasculitis, Hemodialysis, Article Review, Blood Proteins, Renal Dialysis, Immunoglobulins, Medical Devices, Drugs and Therapies, Intracellular Space, CD20 Monoclonal Antibodies.

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**Studies from Tel Aviv University Further Understanding of Science**

**Maternal immune activation produces neonatal excitability defects in offspring hippocampal neurons from pregnant rats treated with poly I:C**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Science are discussed in a new report. According to news reporting originating in Tel Aviv, Israel, by NewsRx journalists, research stated, "Maternal immune activation (MIA) resulting from prenatal exposure to infectious pathogens or inflammatory stimuli is increasingly recognized to play an important etiological role in neuropsychiatric disorders with neurodevelopmental features. MIA in pregnant rodents induced by injection of the synthetic double-stranded RNA, Poly I:C, a mimic of viral infection, leads to a wide spectrum of behavioral abnormalities as well as structural and functional defects in the brain."

The news reporters obtained a quote from the research from Tel Aviv University, "Previous MIA studies using poly I:C prenatal treatment suggested that neurophysiological alterations occur in the hippocampus. However, these investigations used only juvenile or adult animals. We postulated that MIA-induced alterations could occur earlier at neonatal/early postnatal stages. Here we examined the neurophysiological properties of cultured pyramidal-like hippocampal neurons prepared from neonatal (P0-P2) offspring of pregnant rats injected with poly I:C. Offspring neurons from poly I:C-treated mothers exhibited significantly lower intrinsic excitability and stronger spike frequency adaptation, compared to saline. A similar lower intrinsic excitability was observed in CA1 pyramidal neurons from hippocampal slices of two weeks-old poly I:C offspring. Cultured hippocampal neurons also displayed lower frequency of spontaneous firing, higher charge transfer of IPSCs and larger amplitude of miniature IPSCs."

According to the news reporters, the research concluded: "Thus, maternal immune activation leads to strikingly early neurophysiological abnormalities in hippocampal neurons."
For more information on this research see: Maternal immune activation produces neonatal excitability defects in offspring hippocampal neurons from pregnant rats treated with poly I:C. *Scientific Reports*, 2016;6():19106. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting E. Patrich, Dept. of Physiology & Pharmacology, Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv 69978, Israel. Additional authors for this research include Y. Piontkewitz, A. Peretz, I. Weiner and B. Attali.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19106. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Israel, Science, Tel Aviv, Genetics.

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**Nephrology**

**Studies from Tel Aviv University Yield New Data on Nephrology**

(Prenatal diagnosis of 17q12 deletion syndrome: from fetal hyperechogenic kidneys to high risk for autism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nephrology. According to news reporting originating in Tel Aviv, Israel, by NewsRx journalists, research stated, "The linkage between 17q12 microdeletions, renal anomalies, and higher risk for neurodevelopmental disorders is well described in the literature. The current study presents prenatal diagnosis of normal-sized fetal hyperechogenic kidneys leading to the diagnosis of 17q12 deletion syndrome and autism spectrum disorder."

The news reporters obtained a quote from the research from Tel Aviv University, "Over a period of 9 years in a single referral center, seven fetuses were diagnosed with hyperechogenic renal parenchyma and were followed up prospectively. Amniocentesis for molecular diagnosis was performed in all cases, and subsequently, five fetuses were found to harbor a 17q12 deletion by chromosomal microarray analysis. Postnatal evaluation was carried out by a developmental neurologist. Five of the seven fetuses had molecular diagnosis of 17q12 deletion. One patient elected termination of pregnancy. On long-term follow-up, all of the four children showed symptoms consistent with neurodevelopmental disorders. The two fetuses with no deletion have a normal follow-up with regression of the renal hyperechogenicity."

According to the news reporters, the research concluded: "We report a strikingly high correlation between prenatal hyperechogenic kidneys, 17q12 microdeletion, and autism spectrum disorder with the advantage of optimal prenatal counseling as well as early diagnosis and intervention."


Our news correspondents report that additional information may be obtained by
Studies from Texas A&M University Add New Findings in the Area of Aorta (Strain survey and genetic analysis of vasoreactivity in mouse aorta)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Aorta have been published. According to news originating from College Station, Texas, by NewsRx correspondents, research stated, "Understanding the genetic influence on vascular reactivity is important for identifying genes underlying impaired vascular function. The purpose of this study was to characterize the genetic contribution to intrinsic vascular function and to identify loci associated with phenotypic variation in vascular reactivity in mice."

Financial support for this research came from HHS | NIH | National Heart, Lung, and Blood Institute (NHBLI).

Our news journalists obtained a quote from the research from Texas A&M University, "Concentration response curves to phenylephrine (PE), potassium chloride (KCl), acetylcholine (ACh), and sodium nitroprusside (SNP) were generated in aortic rings from male mice (12 wk old) from 27 inbred mouse strains. Significant strain-dependent differences were found for both maximal responses and sensitivity for each agent, except for SNP Max (%). Strain differences for maximal responses to ACh, PE, and KCl varied by two- to fivefold. On the basis of these large strain differences, we performed genome-wide association mapping (GWAS) to identify loci associated with variation in responses to these agents. GWAS for responses to ACh identified four significant and 19 suggestive loci. Several suggestive loci for responses to SNP, PE, and KCl (including one significant locus for KCl EC50) were also identified. These results demonstrate that intrinsic endothelial function, and more generally vascular function, is genetically determined and associated with multiple genomic loci. Furthermore, these results are supported by the finding that several genes residing in significant and suggestive loci for responses to ACh were previously identified in rat and/or human quantitative trait loci/GWAS for cardiovascular disease."

According to the news editors, the research concluded: "This study represents the first step toward the unbiased comprehensive discovery of genetic determinants that regulate intrinsic vascular function, particularly endothelial function."

For more information on this research see: Strain survey and genetic analysis of vasoreactivity in mouse aorta. Physiological Genomics, 2016;48(11):861-873. Physiological Genomics can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news correspondents report that additional information may be obtained from M.P. Massett, Texas A&M University, Dept. of Hlth & Kinesiol, College Stn, TX 77843,
United States. Additional authors for this research include J.J. Avila and M.P. Massett.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/physiolgenomics.00054.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: College Station, Texas, United States, North and Central America, Angiology, Arteries, Genetics, Aorta, Texas A&M University.

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Gastroenterology - Colorectal Research

Studies from Texas A&M University Have Provided New Information about Colorectal Research (Plum polyphenols inhibit colorectal aberrant crypt foci formation in rats: potential role of the miR-143/protein kinase B/mammalian target of rapamycin ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gastroenterology - Colorectal Research have been presented. According to news reporting originating from College Station, Texas, by NewsRx correspondents, research stated, "The nutritional prevention of aberrant crypt foci by polyphenols may be a crucial step to dietary cancer prevention. The objective of this study was to determine the underlying mechanisms that contribute to the anti-inflammatory and antitumorigenic properties of plum (Prunus salicina L.) polyphenols, including chlorogenic acid and neochlorogenic acid, in azoxymethane (AOM)-treated rats."

Financial support for this research came from Vegetable & Fruit Improvement Center.

Our news editors obtained a quote from the research from Texas A&M University, "The hypothesis was that plum polyphenolics suppress AOM-induced aberrant crypt foci formation through alterations in the protein kinase B (AKT)/mammalian target of rapamycin (mTOR) pathway and relative micro-RNA expressions. Sprague-Dawley rats (n = 10/group) received plum beverage (1346 mg gallic acid equivalents/L) or a control beverage ad libitum for 10 weeks with subcutaneous injections of AOM (15 mg/kg) at weeks 2 and 3. Results show that the consumption of the plum beverage decreased the number of dysplastic aberrant crypt foci by 48% (P < .05) and lowered proliferation of mucosal cells by 24% (P < .05). The plum beverage decreased the activity of glutathione peroxidase, superoxide dismutase, and catalase in mucosal scrapings, as well as the superoxide dismutase activity in serum. The results were accompanied by a down-regulation of proinflammatory enzymes nuclear factor kappa B, nitric oxide synthase, cyclooxygenase-2, and vascular cell adhesion molecule 1 messenger RNA. Plum inhibited the expression of AKT and mTOR messenger RNA, phosphorylated AKT, mTOR, and hypoxiainducible factor-la protein levels, and the ratio of the phosphorylated/total protein expression of mTOR. Also, the plum beverage increased the expression of miR-143, which is involved in the regulation of AKT."

According to the news editors, the research concluded: "These results suggest that plum polyphenols may exhibit a chemopreventive potential against colon carcinogenesis by impacting the AKT/mTOR pathway and miR-143."

For more information on this research see: Plum polyphenols inhibit colorectal aberrant crypt foci formation in rats: potential role of the miR-143/protein kinase B/mammalian

The news editors report that additional information may be obtained by contacting S.U. Mertens-Talcott, Texas A&M University, Dept. of Vet Physiol & Pharmacol, College Stn, TX 77843, United States. Additional authors for this research include H. Kim, S.T. Talcott, N.D. Turner, D.H. Byrne and S.U. Mertens-Talcott.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nutres.2016.06.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: College Station, Texas, United States, North and Central America, Phosphotransferases (Alcohol Group Acceptor), Enzymes and Coenzymes, Colorectal Research, Gastroenterology, Protein Kinases, Dismutase, Genetics, Texas A&M University.

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Central Nervous System Diseases and Conditions -…

**Studies from Third Military Medical University Update Current Data on Brain Injuries (MG53 permeates through blood-brain barrier to protect ischemic brain injury)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Central Nervous System Diseases and Conditions - Brain Injuries is the subject of a report. According to news originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "Ischemic injury to neurons represents the underlying cause of stroke to the brain. Our previous studies identified MG53 as an essential component of the cell membrane repair machinery."

Our news journalists obtained a quote from the research from Third Military Medical University, "Here we show that the recombinant human (rh)MG53 protein facilitates repair of ischemia-reperfusion (IR) injury to the brain. MG53 rapidly moves to acute injury sites on neuronal cells to form a membrane repair patch. IR-induced brain injury increases permeability of the blood-brain-barrier, providing access of MG53 from blood circulation to target the injured brain tissues. Exogenous rhMG53 protein can protect cultured neurons against hypoxia/reoxygenation-induced damages. Transgenic mice with increased levels of MG53 in the bloodstream are resistant to IR-induced brain injury. Intravenous administration of rhMG53, either prior to or after ischemia, can effectively alleviate brain injuries in rats, rhMG53-mediated neuroprotection involves suppression of apoptotic neuronal cell death, as well as activation of the pro-survival RISK signaling pathway."

According to the news editors, the research concluded: "Our data indicate a physiological function for MG53 in the brain and suggest that targeting membrane repair or RISK signaling may be an effective means to treat ischemic brain injury."

For more information on this research see: MG53 permeates through blood-brain barrier to protect ischemic brain injury. Oncotarget, 2016;7(16):22474-85.

The news correspondents report that additional information may be obtained from Y.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.7965. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Genetics, Chongqing, Brain Injuries, Blood Brain Barrier, Craniocerebral Trauma, People's Republic of China, Central Nervous System Diseases and Conditions.

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Oncology - Cancer Risk

Studies from Thomas Jefferson University Describe New Findings in Cancer Risk (Familial prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cancer Risk. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Prostate cancer is the most commonly diagnosed cancer among men in the United States as well as most Western countries. A significant proportion of men report having a positive family history of prostate cancer in a first-degree relative (father, brother, son), which is important in that family history is one of the only established risk factors for the disease and plays a role in decision-making for prostate cancer screening."

Our news editors obtained a quote from the research from Thomas Jefferson University, "Familial aggregation of prostate cancer is considered a surrogate marker of genetic susceptibility to developing the disease, but shared environment cannot be excluded as an explanation for clustering of cases among family members. Prostate cancer is both a clinically and genetically heterogeneous disease with inherited factors predicted to account for 40%-50% of cases, comprised of both rare highly to moderately penetrant gene variants, as well as common genetic variants of low penetrance. Most notably, HOXB13 and BRCA2 mutations have been consistently shown to increase prostate cancer risk, and are more commonly observed among patients diagnosed with early-onset disease. A recurrent mutation in HOXB13 has been shown to predispose to hereditary prostate cancer (HPC), and BRCA2 mutations to hereditary breast and ovarian cancer (HBOC). Genome-wide association studies (GWAS) have also identified approximately 100 loci that associate with modest (odds ratios <2.0) increases in prostate cancer risk, only some of which have been replicated in subsequent studies. Despite these efforts, genetic testing in prostate cancer lags behind other common tumors like breast and colorectal cancer. To date, National Comprehensive Cancer Network (NCCN) guidelines have highly selective criteria for BRCA1/2 testing for men with prostate cancer based on personal history and/or specific family cancer history. Tumor sequencing is also leading to the identification of germline mutations in prostate cancer patients, informing the scope of inheritance."

According to the news editors, the research concluded: "Advances in genetic testing for inherited and familial prostate cancer (FPC) are needed to inform personalized cancer risk
screening and treatment approaches."


The news editors report that additional information may be obtained by contacting V.N. Giri, Thomas Jefferson University, Sidney Kimmel Canc Center, Center Excellence Canc Risk Prevent & ControlDept M, Canc Risk Assessment & Clin Canc Genet ProgramDi, Philadelphia, PA 19107, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.seminoncol.2016.08.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Cancer, Article Review, Diagnostics and Screening, Risk and Prevention, Cancer Risk, Oncology, Genetics, BRCA2, Thomas Jefferson University.

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**Nutritional and Metabolic Diseases and Conditions -...**

**Studies from Toho University School of Medicine Reveal New Findings on Obesity (High-fat diet feeding alters olfactory-, social-, and reward-related behaviors of mice independent of obesity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "High-fat diet (HFD) consumption causes obesity, which is associated with well-known increased health risks. Moreover, obesity has been associated with altered sensorimotor and emotional behaviors of humans and mice."

Financial support for this research came from JSPS KAKENHI.

Our news journalists obtained a quote from the research from the Toho University School of Medicine, "This study attempted to dissociate the influence of HFD-induced obesity on behaviors from the influence of HFD consumption itself. C57BL male mice were randomly allocated to a low-fat diet (LFD) group, an HFD-induced obesity (DIO) group, or a pair-fed HFD-feeding nonobese (HFD) group. A comprehensive behavioral test battery was performed on all three groups to assess sensorimotor functions, anxiety-and depression-like behaviors, reward-related behaviors, social behaviors, and learning/memory functions. Both the DIO and HFD groups exhibited disturbed olfaction, blunted ethanol preference, and enhanced social interactions. The DIO group exhibited blunted sucrose preference, shorter latency before falling off during the rotarod test, and a lower response to mechanical stimuli. The HFD-fed nonobese mice showed altered behaviors related to olfaction, social interactions, and rewards that were similar to those of the DIO mice."

According to the news editors, the research concluded: "This finding suggests that HFD consumption alters a variety of behaviors independent of obesity."

For more information on this research see: High-fat diet feeding alters olfactory-,

The news correspondents report that additional information may be obtained from K. Takase, Dept. of Anatomy, Toho University School of Medicine, Ota-Ku, Tokyo, Japan. Additional authors for this research include Y. Tsuneoka, S. Oda, M. Kuroda and H. Funato.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/oby.21441. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Obesity, Bariatrics, Overnutrition, Diet and Nutrition, Nutrition Disorders, Risk and Prevention, Nutritional and Metabolic Diseases and Conditions.

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Lung Diseases and Conditions - Pneumococcal...

Studies from Toho University Update Current Data on Pneumococcal Pneumonia (Efficacy of beta-Lactam-plus-Macrolide Combination Therapy in a Mouse Model of Lethal Pneumococcal Pneumonia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Pneumococcal Pneumonia is the subject of a report. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Community-acquired pneumonia is a common disease with considerable morbidity and mortality, for which Streptococcus pneumoniae is accepted as a leading cause. Although beta-lactam-plus-macrolide combination therapy for this disease is recommended in several guidelines, the clinical efficacy of this strategy against pneumococcal pneumonia remains controversial."

The news correspondents obtained a quote from the research from Toho University, "In this study, we examined the effects of beta-lactam-plus-macrolide combination therapy on lethal mouse pneumococcal pneumonia and explored the mechanisms of action in vitro and in vivo. We investigated survival, lung bacterial burden, and cellular host responses in bronchoalveolar lavage fluids obtained from mice infected with pneumonia and treated with ceftriaxone, azithromycin, or both in combination. Although in vitro synergy was not observed, significant survival benefits were demonstrated with combination treatment. Lung neutrophil influx was significantly lower in the ceftriaxone-plus-azithromycin-treated group than in the ceftriaxone-treated group, whereas no differences in the lung bacterial burden were observed on day 3 between the ceftriaxone-plus-azithromycin-treated group and the ceftriaxone-treated group. Notably, the analysis of cell surface markers in the ceftriaxone-plus-azithromycin combination group exhibited upregulation of presumed immune checkpoint ligand CD86 and major histocompatibility complex class II in neutrophils and CD11b-positive CD11c-positive (CD11b(+) CD11c(+)) macrophages and dendritic cells, as well as downregulation of immune checkpoint receptors cytotoxic-T lymphocyte-associated antigen 4 and programmed death 1 in T helper and T regulatory cells. Our data demonstrate that the survival benefits of ceftriaxoneplus-azithromycin therapy occur through modulation of immune checkpoints in mouse pneumococcal pneumonia."

According to the news reporters, the research concluded: "In addition, immune
checkpoint molecules may be a novel target class for future macrolide research.

For more information on this research see: Efficacy of beta-Lactam-plus-Macrolide Combination Therapy in a Mouse Model of Lethal Pneumococcal Pneumonia. Antimicrobial Agents and Chemotherapy, 2016;60(10):6146-6154. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting K. Tateda, Toho University, Sch Med, Dept. of Microbiol & Infect Dis, Ota Ku, Tokyo, Japan. Additional authors for this research include C. Kajiwara, Y. Ishii, K. Umeki, K. Hiramatsu, J. Kadota and K. Tateda.

Keywords for this news article include: Tokyo, Japan, Asia, Respiratory Tract Diseases and Conditions, Gram-Positive Bacterial Infections, Bacterial Infections and Mycoses, Third Generation Cephalosporins, Lung Diseases and Conditions, Respiratory Tract Infections, Ophthalmic Antinfectives, Ophthalmic Preparations, Beta-Lactam Antibiotics, Pneumococcal Infections, Pneumococcal Pneumonia, Macrolide Derivatives, Pneumococcal Disease, Drugs and Therapies, Combination Therapy, Bacterial Pneumonia, Infectious Disease, Sulfur Compounds, beta-Lactams, Azithromycin, Erythromycin, Ceftriaxone, Pulmonology, Cefotaxime, Macrolides, Thiazines, Lactones, Toho University.

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Oncology - Breast Cancer

Studies from Tohoku Pharmaceutical University Update Current Data on Breast Cancer (Distinct effects of b1 integrin on cell proliferation and cellular signaling in MDA-MB-231 breast cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting from Miyagi, Japan, by NewsRx journalists, research stated, "An aberrant expression of integrin b1 has been implicated in breast cancer progression. Here, we compared the cell behaviors of wild-type (WT), b1 gene deleted (KO), and b1 gene restored (Res) MDA-MB-231 cells."

The news correspondents obtained a quote from the research from Tohoku Pharmaceutical University, "Surprisingly, the expression of b1 exhibited opposite effects on cell proliferation. These effects were dependent on cell densities, and they showed an up-regulation of cell proliferation when cells were cultured under sparse conditions, and a down-regulation of cell growth under dense conditions. By comparison with WT cells, the phosphorylation levels of ERK in KO cells were consistently suppressed under sparse culture conditions, but consistently up-regulated under dense culture conditions. The phosphorylation levels of EGFR were increased in the KO cells. By contrast, the phosphorylation levels of AKT were decreased in the KO cells. The abilities for both colony and tumor formation were significantly suppressed in the KO cells, suggesting that b1 plays an important role in cell survival signaling for tumorigenesis. These aberrant phenotypes in the KO cells were rescued in the Res cells."

According to the news reporters, the research concluded: "Taken together, these results clearly showed the distinct roles of b1 in cancer cells: the inhibition of cell growth and
the promotion of cell survival, which may shed light on cancer therapies.

For more information on this research see: Distinct effects of b1 integrin on cell proliferation and cellular signaling in MDA-MB-231 breast cancer cells. *Scientific Reports*, 2016;6():18430. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting S. Hou, Division of Regulatory Glycobiology, Institute of Molecular Biomembrane and Glycobiology, Tohoku Pharmaceutical University, Sendai, Miyagi, 981-8558, Japan. Additional authors for this research include T. Isaji, Q. Hang, S. Im, T. Fukuda and J. Gu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18430. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Miyagi, Oncology, Integrins, Breast Cancer, Women's Health, Membrane Proteins, Cell Proliferation, Immunologic Receptors.

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**Adrenal Gland Diseases and Conditions...**

**Studies from Tohoku University Add New Findings in the Area of Adrenocortical Adenoma (Expression of CYP11B2 in Aldosterone-Producing Adrenocortical Adenoma: Regulatory Mechanisms and Clinical Significance)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Adrenal Gland Diseases and Conditions - Adrenocortical Adenoma are presented in a new report. According to news reporting originating from Miyagi, Japan, by NewsRx correspondents, research stated, "Aldosterone-producing adrenocortical adenoma (APA) is responsible for the majority of cases clinically diagnosed as primary aldosteronism. Aldosterone synthase (CYP1162) is one of the enzymes that play essential roles in aldosterone synthesis and is involved in the pathogenesis of APA."

Our news editors obtained a quote from the research from Tohoku University, "Recent studies have demonstrated that various factors and regulators influence the expression and function of CYP11B2 in APA. In particular, somatic mutations, such as gain-of-function and loss-of-function mutations, have been identified in several genes, each of which encodes a pivotal protein that affects the calcium signaling pathway, the expression of CYP11B2, and aldosterone production. The gain-of-function mutations were reported in KCNJ5 that encodes G-protein activated inward rectifier K+ channel 4 (Kir3.4) and in CACNA1D, encoding calcium channel, voltage-dependent, L type, alpha subunit Cav1.3. The loss-of-function mutations were found in ATP1A1 that encodes Na+/K+ ATPase alpha subunit and in ATP2B3, encoding Ca2+ ATPase. Furthermore, the aberrant expression of gonadotropin-releasing hormone receptor is associated with the overexpression of CYP11B2 and overproduction of aldosterone in APA with activating mutations in CTNNB1 encoding beta-catenin. On the other hand, CYP11B2 also catalyzes the conversion of cortisol to 18-hydroxycortisol and subsequently converts 18-hydroxycortisol to 18-oxocortisol. The recent studies have identified 18-oxocortisol as an important and distinct biomarker to diagnose primary aldosteronism."
According to the news editors, the research concluded: "In this review, we summarize the recent findings on CYP11B2 and discuss the molecular pathogenesis of APA and the clinical significance of CYP11B2."


The news editors report that additional information may be obtained by contacting Y. Nakamura, Tohoku University, Grad Sch Med, Dept. of Pathol, Sendai, Miyagi, Japan. Additional authors for this research include Y. Yamazaki, Y. Tezuka, F. Satoh and H. Sasano.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1620/tjem.240.183. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miyagi, Japan, Asia, ATPase, Article Review, Diagnostics and Screening, Endocrine System Diseases and Conditions, Adrenal Cortex Diseases and Conditions, Adrenal Gland Diseases and Conditions, 11-Hydroxycorticosteroids, Endocrine Gland Neoplasms, Adrenal Cortex Neoplasms, Adrenal Cortex Hormones, Adrenal Gland Neoplasms, Adrenocortical Adenoma, Enzymes and Coenzymes, Primary Aldosteronism, Hyperaldosteronism, Endocrinology, Aldosterone, Adenomas, Genetics, Tohoku University.

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**Immunology - Cytokine Receptors**

**Studies from Tohoku University Further Understanding of Cytokine Receptors [Brefeldin A-Inhibited Guanine Nucleotide-Exchange Factor 1 (BIG1) Governs the Recruitment of Tumor Necrosis Factor Receptor-Associated Factor 2 (TRAF2) to Tumor Necrosis ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Cytokine Receptors. According to news reporting from Miyagi, Japan, by NewsRx journalists, research stated, "Tumor necrosis factor receptor-associated factor 2 (TRAF2) is a critical mediator of tumor necrosis factor-alpha (TNF-alpha) signaling. However, the regulatory mechanisms of TRAF2 are not fully understood."

The news correspondents obtained a quote from the research from Tohoku University. "Here we show evidence that TRAF2 requires brefeldin A-inhibited guanine nucleotide-exchange factor 1 (BIG1) to be recruited into TNF receptor 1 (TNFR1) signaling complexes. In BIG1 knockdown cells, TNF-alpha-induced c-Jun N-terminal kinase (JNK) activation was attenuated and the sensitivity to TNF-alpha -induced apoptosis was increased. Since these trends correlated well with those of TRAF2 deficient cells as previously demonstrated, we tested whether BIG1 functions as an upstream regulator of TRAF2 in TNFR1 signaling. As expected, we found that knockdown of BIG1 suppressed TNF-alpha-dependent ubiquitination of TRAF2 that is required for JNK activation, and impaired the recruitment of TRAF2 to the TNFR1 signaling complex (complex I). Moreover, we found that the recruitment..."
of TRAF2 to the death-inducing signaling complex termed complex II was also impaired in BIG1 knockdown cells. These results suggest that BIG1 is a key component of the machinery that drives TRAF2 to the signaling complexes formed after TNFR1 activation.

According to the news reporters, the research concluded: "Thus, our data demonstrate a novel and unexpected function of BIG1 that regulates TNFR1 signaling by targeting TRAF2."

For more information on this research see: Brefeldin A-Inhibited Guanine Nucleotide-Exchange Factor 1 (BIG1) Governs the Recruitment of Tumor Necrosis Factor Receptor-Associated Factor 2 (TRAF2) to Tumor Necrosis Factor Receptor 1 (TNFR1) Signaling Complexes. *International Journal of Molecular Sciences*, 2016;17(11):1600-1614. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting T. Noguchi, Tohoku University, Grad Sch Pharmaceut Sci, Lab Hlth Chem, Aoba Ku, Sendai, Miyagi 9808578, Japan. Additional authors for this research include M. Tsuchida, Y. Kogue, C. Spadini, Y. Hirata and A. Matsuzawa.

Keywords for this news article include: Miyagi, Japan, Asia, Intracellular Signaling Peptides and Proteins, Intercellular Signaling Peptides and Proteins, Guanine Nucleotide Exchange Factors, Tumor Necrosis Factor Receptors, GTP-Binding Protein Regulators, Tumor Necrosis Factors, Cytokine Receptors, Membrane Proteins, Brefeldin A, Macrolides, Immunology, Cytokines, Genetics, Tohoku University.

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Heart Disorders and Diseases - Heart Attack

**Studies from Tokyo Metropolitan Bokutoh Hospital Provide New Data on Heart Attack (Prognostic effect of estimated glomerular filtration rate in patients with cardiogenic shock or cardiac arrest undergoing percutaneous veno-arterial ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Veno-arterial extracorporeal membrane oxygenation (VA-ECMO) can improve survival in patients with cardiogenic shock or cardiac arrest. We investigated the association between initial renal function and clinical outcome in patients undergoing VA-ECMO for cardiogenic shock and cardiac arrest."

The news correspondents obtained a quote from the research from Tokyo Metropolitan Bokutoh Hospital, "This was a single-center, retrospective cohort study of 287 patients who underwent ECMO at our hospital from January 2005 to December 2014. We excluded 70 patients with non-cardiogenic events. The remaining 217 patients were divided into 2 groups according to initial estimated glomerular filtration rate (eGFR): Initial high eGFR (non-renal failure: non-RF) group: eGFR >= 60 ml/min/1.73 m(2) (n = 73) and initial low eGFR (RF) group: eGFR < 60 ml/min/1.73 m(2) (n = 144). Clinical outcome was defined as all-cause death at 30 days after extracorporeal life support. VA-ECMO was begun in 87% of patients for cardiogenic shock and cardiac arrest. The non-RF group was significantly younger (51.6 vs. 62.6 years), had lower
body mass index (22.8 vs. 24.7 kg/m(2)), lower blood urea nitrogen (14.4 vs. 23.9 mg/dl), and lower K (4.0 vs. 4.5 mEq/L, all p< 0.05) than the RF group. Incidence of all-cause death at 30 days was significantly lower in the non-RF than RF group (49% vs. 76%, p< 0.0001). Initial low eGFR was an independent predictor of mortality after adjustment for multiple cofounders (OR: 4.08, 95% CI: 1.77-9.42, p< 0.001). Kaplan-Meier curve showed better outcome in the non-RF versus RF group (p = 0.0009)."

According to the news reporters, the research concluded: "An initial low eGFR may predict worse clinical outcome in patients undergoing VA-ECMO for cardiogenic shock and cardiac arrest."

For more information on this research see: Prognostic effect of estimated glomerular filtration rate in patients with cardiogenic shock or cardiac arrest undergoing percutaneous veno-arterial extracorporeal membrane oxygenation. *Journal of Cardiology*, 2016;68(5-6):439-446.

Our news journalists report that additional information may be obtained by contacting D. Abe, Tokyo Metropolitan Bokutoh Hosp, Dept. of Cardiol, Tokyo, Japan. Additional authors for this research include D. Abe, T. Iwama, K. Sugiyama, A. Akashi, Y. Hamabe, K. Aonuma and A. Sato.

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Keywords for this news article include: Tokyo, Japan, Asia, Extracorporeal Membrane Oxygenation, Heart Disorders and Diseases, Respiratory Therapy, Cardiogenic Shock, Cardiac Arrest, Heart Attack, Cardiology, Tokyo Metropolitan Bokutoh Hospital.

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**Gram-Positive Bacteria - Staphylococcus epidermidis**

**Studies from Tokyo University of Pharmacy and Life Sciences Reveal New Findings on Staphylococcus epidermidis (Methicillin-Resistant Staphylococcus epidermidis Is Part of the Skin Flora on the Hands of Both Healthy Individuals and Hospital ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Gram-Positive Bacteria - Staphylococcus epidermidis are discussed in a new report. According to news originating from Hachioji, Japan, by NewsRx correspondents, research stated, "Staphylococcus epidermidis, a major skin flora on hands, acts as a reservoir of various antimicrobial resistance determinants including staphylococcal cassette chromosome mec (SCCmec) and contributes to multidrug resistance for S. aureus. The aim of this study was understanding the characteristics of commensal S. epidermidis on the hands of hospital workers and healthy individuals."

Our news journalists obtained a quote from the research from the Tokyo University of Pharmacy and Life Sciences, "A total of 23 hospital workers (physicians, nurses, and hospital pharmacists), 13 community pharmacists, and 24 healthy individuals (students) were studied. Commensal bacteria on hands were recovered using a glove-juice method. For methicillin-
resistant S. epidermidis (MRSE), we performed SCCmec typing, pulsed-field gel electrophoresis (PFGE), and determined the antimicrobial susceptibility. The detection rates of MRSE in community pharmacists (92.3%) and students (87.5%) were higher than those in hospital workers (66.7 to 81.8%). SCCmec type IV strains were predominant in both hospital workers and students. PFGE analysis strongly suggested that the MRSE of hospital workers and students were normal inhabitants of each subject. The antimicrobial resistance rates and levels in MRSE of hospital workers were higher than those of students."

According to the news editors, the research concluded: "Our findings showed that MRSE was frequently colonized on the hands of healthy individuals as well as hospital workers."


The news correspondents report that additional information may be obtained from N. Noguchi, Tokyo Univ Pharm & Life Sci. Dept. of Microbiol, Sch Pharm, Hachioji, Tokyo 1920392, Japan. Additional authors for this research include H. Nakaminami, C. Azuma, I. Tanaka, K. Nakase, N. Matsunaga, K. Okuyama, K. Yamada, K. Utsumi, T. Fujii and N. Noguchi.

Keywords for this news article include: Hachioji, Japan, Asia, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Staphylococcus epidermidis, Antimicrobial Resistance, Beta-Lactam Antibiotics, Gram-Positive Bacteria, beta-Lactam Resistance, Methicillin Resistance, Penicillin Resistance, Drugs and Therapies, Gram-Positive Cocci, Organic Chemicals, Staphylococcaceae, Drug Resistance, Antimicrobials, Penicillins, Bacillales, Hospital, Genetics, Amides, Tokyo University of Pharmacy and Life Sciences.

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Truncus Arteriosus

Studies from Tokyo Women's Medical University Have Provided New Data on Truncus Arteriosus (Long-term Outcomes after Truncus Arteriosus Repair: A Single-center Experience for More than 40 Years)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Truncus Arteriosus. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "This study aimed to analyze long-term survival and functional outcomes after truncus arteriosus repair in a single institution with more than 40 years of follow-up. Medical records were analyzed retrospectively in 52 patients who underwent the Rastelli procedure for truncus arteriosus repair between 1974 and 2002."

The news correspondents obtained a quote from the research from Tokyo Women's Medical University, "Thirty-five patients survived the initial repair. The median age at the initial operation was 2.8 months (range, 0.1-123 months) and the body weight was 3.9 kg (range, 1.6 to 15.0 kg). The median age at follow-up was 23.6 years (range, 12.4 to 44.5 years). The median
The follow-up duration was 23.4 years (range, 12.3 to 40.7 years). The actuarial survival rate was 97% at 10 years and 93% at both 20 years and 40 years after the initial operation. At follow-up, most patients were in New York Heart Association (NYHA) functional classes I (73%) and II (24%). Thirty-six percent of patients had full-time jobs, 40% were students, and 21% were unemployed. Most patients (97%) had undergone conduit reoperations. Freedom from reoperation for right ventricular (RV) outflow and pulmonary artery (PA) stenosis was 59% at 5 years, 28% at 10 years, and 3% at 20 years after the initial operation. Freedom from catheter interventions for RV outflow and PA stenosis was 59% at 5 years, 47% at 10 years, and 38% at 20 years after the initial operation. Freedom from truncal valve replacement was 88% at 5 years, 85% at 10 years, and 70% at 20 years after the initial operation.

According to the news reporters, the research concluded: "In this single-center retrospective study, with long-term follow-up after repair of truncus arteriosus, long-term survival and functional outcomes were acceptable, despite the requirement for reoperation and multiple catheter interventions for RV outflow and PA stenosis in almost all patients, and the frequent requirement for late truncal valve operations."


Our news journalists report that additional information may be obtained by contacting T. Nakanishi, Tokyo Women's Medical University, Inst Heart, Dept. of Pediat Cardiol, Tokyo, Japan. Additional authors for this research include K. Inai, T. Shinohara, H. Tomimatsu, T. Ishii, H. Sugiyama, I.S. Park, M. Nagashima and T. Nakanishi.

Keywords for this news article include: Tokyo, Japan, Asia, Truncus Arteriosus, Right Ventricular, Cardiovascular, Cardiology, Angiology, Stenosis, Tokyo Women's Medical University.

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Erythropoiesis

Studies from Tokyo Women's Medical University Have Provided New Information about Erythropoiesis (Modulation of circulating endothelial progenitor cells by erythropoiesis-stimulating agents in patients with chronic kidney disease stage G5 and 5D)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Erythropoiesis are presented in a new report. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Circulating endothelial progenitor cells (EPCs) play a pivotal role in vasculogenesis and promote angiogenesis by secreting growth factors. Recent studies have suggested that erythropoietin (EPO) may accelerate not only angiogenesis but also vasculogenesis, beyond erythropoiesis."

Our news journalists obtained a quote from the research from Tokyo Women's Medical University, "The aim of this study was to investigate whether two erythropoiesis-stimulating agents (ESAs) modulate vascular-related factors and EPC mobilization in patients with chronic kidney disease stage G5 and dialysis (CKD G5 and 5D). We conducted a 12-week
prospective study in 63 patients; 21 patients received recombinant human erythropoietin (rhEPO) (EPO group, 4,565.5 +/- 1,994.4 IU/week), 21 patients received darbepoetin (DA) (DA group, 40.1 +/- 13.8 µg/week), and 21 patients received no ESAs (no-ESA group). Vascular mediators, including EPCs, vascular endothelial growth factor, matrix metalloproteinase-2 (MMP-2), high-sensitivity C-reactive protein, and asymmetric dimethyl arginine, were measured at 0 and 12 weeks. EPCs were measured by flow cytometry as CD45(low)CD34(+) CD133(+) cells. We also performed a subanalysis of dialysis (5D) patients (n = 32) in the three groups. In the EPO group, EPC count increased significantly from 0 to 12 weeks in a dose-dependent manner (r = 0.62, p = 0.005), and the increase was more conspicuous in the subgroup of dialysis 5D patients. In the DA group, the EPC number did not change at 12 weeks. Neither rhEPO nor DA affected the serum levels of the aforementioned biomarkers other than EPC.

According to the news editors, the research concluded: "We speculate that the pleiotropic effects of rhEPO and DA beyond their hematopoietic effects may differ between CKD G5 and 5D patients."

For more information on this research see: Modulation of circulating endothelial progenitor cells by erythropoiesis-stimulating agents in patients with chronic kidney disease stage G5 and 5D. Clinical Nephrology, 2016;86(5):242-252. Clinical Nephrology can be contacted at: Dustri-Verlag Dr Karl Feistle, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.

The news correspondents report that additional information may be obtained from T. Naito, Tokyo Women's Medical University, Dept. of Med, Medical Center East, Tokyo, Japan. Additional authors for this research include T. Sanaka, H. Mikami, A. Soga, K. Yamatani, K. Segawa, M. Kawashima, T. Yoshikura, J. Niwayama, H. Nishimura, T. Ogawa, A. Ando, A. Teramoto and K. Nitta.

Keywords for this news article include: Tokyo, Japan, Asia, Vasculogenesis, Erythropoiesis, Angiogenesis, Hematology, Tokyo Women's Medical University.

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between 1985 and 2014, intramural coronary arteries were detected in 15 of them. Coronary arteries were managed using 2 techniques: the double-button method in 5 patients (with unroofing and trapdoor incision in 1 patient) and the Imai technique in 10 patients. There were 3 hospital deaths and 3 deaths after discharge, 5 of which showed coronary complications. Actual survival and freedom from coronary complications at 15 years were 70% and 67%, respectively, with the Imai technique and 40% and 20%, respectively, with the double-button method. Late coronary intervention was performed for a long intramural coronary artery stenosis in 1 patient who underwent the Imai technique. In the others, late aortography showed good patency of the aortopulmonary window and growth of the coronary pouch after the Imai technique. The Imai technique can be an option for coronary management in the presence of high-risk coronary anatomy, particularly distal intramural coronary artery stenosis and inseparable coronary arteries with an almost single orifice.

According to the news editors, the research concluded: "Adequate neopulmonary artery augmentation must be performed to prevent right ventricular outflow stenosis."


The news correspondents report that additional information may be obtained from H. Koshiyama, Tokyo Women's Medical University, Dept. of Cardiovasc Surg, Tokyo, Japan. Additional authors for this research include M. Nagashima, G. Matsumura, T. Hiramatsu, T. Nakanishi and K. Yamazaki.

Keywords for this news article include: Tokyo, Japan, Asia, Cardiovascular and Thoracic Surgery, Surgery, Coronary Artery, Cardiology, Angiology, Stenosis, Tokyo Women's Medical University.

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**Gram-Positive Bacteria - Staphylococcus aureus**

**Studies from Tripura University in the Area of Staphylococcus aureus Reported (3-Amino-4-aminoximidofurazan derivatives: small molecules possessing antimicrobial and antibiofilm activity against Staphylococcus aureus and Pseudomonas aeruginosa)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - Staphylococcus aureus. According to news reporting originating from Agartala, India, by NewsRx correspondents, research stated, "The therapeutic treatment of microbial infections involving biofilm becomes quite challenging because of its increasing antibiotic resistance capacities. Towards this direction, in the present study we have evaluated the antibiofilm property of synthesized 3-amino-4-aminoximidofurazan compounds having polyamine skeleton."

Funders for this research include Indian Council of Medical Research, Department of Biotechnology.

Our news editors obtained a quote from the research from Tripura University, "These
derivatives were synthesized by incorporating furazan and biguanide moieties. Different 3-amino-4-aminoximidofurazan derivatives (PI1-4) were synthesized via protic acid catalysis and subsequently characterized by (1) H NMR and (13) C NMR spectra, recorded at 400 and 100 MHz respectively. We have tested the antimicrobial and antibiofilm activities of these synthetic derivatives (PI1-4) against both Staphylococcus aureus and Pseudomonas aeruginosa. The compounds so tested were also compared with standard antibiotics namely Tobramycin (Ps. aeruginosa) and Azithromycin (Staph. aureus) which were used as a positive control in all experimental sets. All these compounds (PI1-4) exhibited moderate to significant antimicrobial activities against both micro-organisms wherein compound PI3 showed maximum activity. Biofilm inhibition of both micro-organisms was then evaluated by crystal violet and safranin staining, estimation of biofilm total protein and microscopy methods using sub-MIC dose of these compounds. Results showed that all compounds executed anti biofilm activity against both Staph. aureus and Ps. aeruginosa wherein compound PI3 exhibited maximum activity. In relation with microbial biofilm inhibition, we have observed reduction in bacterial motility, proteolytic activity and secreted exo-polysaccharide (EPS) from both Staph. aureus and Ps. aeruginosa when they were grown in presence of these compounds. While addressing the issue of toxicity on host, we have observed that these molecules exhibited minimum level of R.B.C degradation. These findings establish the antibacterial and anti biofilm properties of 3-amino-4-aminoximidofurazan derivatives (PI1-4)."

According to the news editors, the research concluded: "Therefore, our current findings demonstrate that 3-amino-4-aminoximidofurazan derivatives (PI1-4) may hold promise to be effective biofilm and microbial inhibitors that may be clinically significant." For more information on this research see: 3-Amino-4-aminoximidofurazan derivatives: small molecules possessing antimicrobial and antibiofilm activity against Staphylococcus aureus and Pseudomonas aeruginosa. Journal of Applied Microbiology, 2016;120(4):842-59. (Wiley-Blackwell - www.wiley.com/; Journal of Applied Microbiology - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2672)

The news editors report that additional information may be obtained by contacting M.C. Das, Dept. of Molecular Biology & Bioinformatics, Tripura University, Agartala, Tripura, India. Additional authors for this research include S. Paul, P. Gupta, P. Tribedi, S. Sarkar, D. Manna and S. Bhattacharjee. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jam.13063. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antimicrobials, India, Agartala, Bacillales, Pseudomonadaceae, Staphylococcaceae, Drugs and Therapies, Gammaproteobacteria, Gram Positive Cocci, Staphylococcus aureus, Gram Negative Bacteria, Gram Positive Bacteria, Gram-Positive Bacteria, Pseudomonas aeruginosa, Endospore Forming Bacteria.

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Central Nervous System Diseases and Conditions - …

Studies from Triserv General Hospital Further Understanding of Bacterial Meningitis (Acute lethargy in a young woman due to latent disseminated cancer mimicking bacterial meningitis: a diagnostic pitfall)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Bacterial Meningitis. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "Leptomeningeal carcinomatosis is an atypical behavior of cancer as a consequence of infiltration of malignant cells into the leptomeninges. Leptomeningeal carcinomatosis may share similar clinical manifestations with other etiologies involving the leptomeninges such as infectious meningitis or meningoencephalitis."

The news reporters obtained a quote from the research from Triserv General Hospital, "We present a diagnostic pitfall of acute leptomeningeal carcinomatosis from a latent gastric cancer in a 28-year-old woman presenting with being rapidly comatose and an initial misdiagnosis of bacterial meningitis. This case report aims to raise red flags suggesting that when progressive neurological deterioration mimicking infectious meningitis but with poor responses to empirical antimicrobial therapy are encountered in healthy young individuals, the rare possibility of leptomeningeal carcinomatosis should be considered in the differential diagnosis even if patients have no known malignancy."

According to the news reporters, the research concluded: "Cerebrospinal fluid cytology along with gadolinium enhancement magnetic resonance imaging may be critical in the timely diagnosis and management of these patients with overlapping clinical features."


Our news correspondents report that additional information may be obtained by contacting T.H. Ho, Triserv Gen Hosp, Dept. of Neurol, Natl Def Med Center, Taipei 114, Taiwan. Additional authors for this research include F.C. Yang, H.W. Kao, S.J. Chen, J.T. Lee, L.W. Wen, H.C. Chu and J.C. Lin.

Keywords for this news article include: Taipei, Taiwan, Asia, Central Nervous System Diseases and Conditions, Central Nervous System Bacterial Infections, Central Nervous System Infections, Neurobehavioral Manifestations, Neurologic Manifestations, Bacterial Meningitis, Infectious Disease, Carcinomas, Oncology, Lethargy, Cancer, Triserv General Hospital.

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Hemangiopericytomas

Studies from Tufts Medical Center Yield New Information about Hemangiopericytomas (Surgical resection of sinonasal hemangiopericytoma involving anterior skull base: Case reports and literature review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hemangiopericytomas are discussed in a new report. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Hemangiopericytomas are soft tissue tumors composed of pericytic cells that are characterized by their 'staghom' vascular branching and their variable clinical presentation. Fifteen to 25% of all HPC occur in the head and neck, with only 5% found in the nose or paranasal sinuses."

Our news editors obtained a quote from the research from Tufts Medical Center, "Sinonasal hemangiopericytoma (SNHPC) is considered distinct from its soft tissue counterpart - the former showing a more uniform cellular organization; has convincing pericytic differentiation and is associated with a far better prognosis. With less than 200 cases of SNHPC reported in the literature, only limited assumptions can be made about this rare tumor. The purpose of this article is to add to the growing body of literature on this disease. We report two new cases of SNHCP - both in female patients who presented with epistaxis and anosmia. Pulsatile vascular masses were visualized with nasal endoscopy - one in the left middle meatus and the second one near the cribriform plate. CT and MRI studies show enhancing masses in the left nasal cavities with thinning and erosion of the skull base. Diagnoses were confirmed by pathology which reported spindle cell neoplasm staining positively for VEGF, NSE, factor XIIIa, S-100 protein, and CD34, and negative for actin, desmin, CD31, and pankeratin, consistent with hemangiopericytoma. In one patient, embolization of the sphenopalatine and labial artery as well as pre-operative radiation therapy was performed before complete endoscopic resection was undertaken. The second patient had a tumor invading the skull base, so a craniofacial resection was performed. Both patients remained free of disease two years after surgery."

According to the news editors, the research concluded: "Review of the literature and treatment options are discussed."


The news editors report that additional information may be obtained by contacting E.E. Rebeiz, Tufts Med Center, Dept. of Otolaryngol Head & Neck Surg, Boston, MA, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amjoto.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Hemangiopericytomas, Article Review, Tufts Medical Center.
Studies from Tulane University Have Provided New Information about Blood Pressure (Effects of early blood pressure reduction on cognitive function in patients with acute ischemic stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Blood Pressure. According to news reporting out of New Orleans, Louisiana, by NewsRx editors, research stated, "The effect of early blood pressure reduction on cognitive function in patients with acute ischemic stroke remains unknown. We tested whether antihypertensive treatment would reduce cognitive impairment in patients with acute ischemic stroke."

Our news journalists obtained a quote from the research from Tulane University, "In the China Antihypertensive Trial in Acute Ischemic Stroke, patients with elevated blood pressure were randomly assigned to receive antihypertensive treatment or to discontinue all hypertensive medications within 48 h of onset. Cognitive function was measured by the Mini-Mental State Examination and Montreal Cognitive Assessment at 3 months after randomization in a subsample of 638 participants. Mean systolic blood pressure was reduced by 21.5mmHg in the antihypertensive treatment group and 13.9mmHg in the control group within 24 h after randomization (P < 0.001). Mean systolic blood pressure was 134.9mmHg in the antihypertensive treatment group and 141.6mmHg in the control group at day 14 after randomization (P < 0.001). Median Mini-Mental State Examination score was 26 and Montreal Cognitive Assessment score was 22 in both the antihypertensive treatment and control groups at 3 months. An Mini-Mental State Examination < 24 was present in 30.9% of patients in the antihypertensive treatment group compared with 29.7% in the control group (odds ratio = 1.06; 95% confidence interval 0.75-1.48; P = 0.75). Likewise, proportions of patients with Montreal Cognitive Assessment < 26 were similar between the antihypertensive treatment (70.6%) and control (70.7%) groups (odds ratio = 0.99; 95% confidence interval 0.70-1.40; P = 0.96)."

According to the news editors, the research concluded: "These data indicated that early blood pressure reduction with antihypertensive medication in patients with acute ischemic stroke had no effect on cognitive impairment at 3 months."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/174749301666009. This DOI is a link to an online electronic document that is either free or for purchase.
Oncology - Acute Myeloid Leukemia

Studies from U. Reusch and Colleagues Yield New Information about Acute Myeloid Leukemia [Characterization of CD33/CD3 Tetravalent Bispecific Tandem Diabodies (TandAbs) for the Treatment of Acute Myeloid Leukemia]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Acute Myeloid Leukemia have been presented. According to news reporting out of San Francisco, California, by NewsRx editors, research stated, "Randomized studies with gemtuzumab ozogamicin have validated CD33 as a target for antigen-specific immunotherapy of acute myelogenous leukemia (AML). Here, we investigated the potential of CD33/CD3-directed tandemdiabodies (TandAbs) as novel treatment approach for AML."

Our news journalists obtained a quote from the research, "These tetravalent bispecific antibodies provide two binding sites for each antigen to maintain the avidity of a bivalent antibody and have a molecular weight exceeding the renal clearance threshold, thus offering a longer half-life compared to smaller antibody constructs. We constructed a series of TandAbs composed of anti-CD33 and anti-CD3 variable domains of diverse binding affinities and profiled their functional properties in CD33(+) human leukemia cell lines, xenograft models, and AML patient samples. Our studies demonstrated that several CD33/CD3 TandAbs could induce potent, dose-dependent cytolysis of CD33(+) AML cell lines. This effect was modulated by the effector-to-target cell ratio and strictly required the presence of T cells. Activation and proliferation of T cells and maximal AML cell cytolysis correlated with high avidity to both CD33 and CD3. High-avidity TandAbs were broadly active in primary specimens from patients with newly diagnosed or relapsed/refractory AML in vitro, with cytotoxic properties independent of CD33 receptor density and cytogenetic risk. Tumor growth delay and inhibition were observed in both prophylactic and established HL-60 xenograft models in immunodeficient mice. Our data show high efficacy of CD33/CD3 TandAbs in various preclinical models of human AML."

According to the news editors, the research concluded: "Together, these findings support further study of CD33/CD3 TandAbs as novel immunotherapeutics for patients with AML."

For more information on this research see: Characterization of CD33/CD3 Tetravalent Bispecific Tandem Diabodies (TandAbs) for the Treatment of Acute Myeloid Leukemia. Clinical Cancer Research, 2016;22(23):5829-5838. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting J. Guenot, Amphivena Therapeut Inc, San Francisco, CA 94080, United States. Additional authors for this research include K.H. Harrington, C.J. Gudgeon, I. Fucek, K.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-16-0350. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Biotechnology, Risk and Prevention, Acute Myeloid Leukemia, T-Lymphocyte Antigens, Biological Factors, Xenotransplantation, Differentiation, CD3 Antigens, CD Antigens, Xenografts, Hematology, Immunology, Oncology.

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Studies from U. Salvadori and Colleagues Provide New Data on Iron-Deficiency Anemia (Ferric carboxymaltose reduces the number of red blood cell units transfused and allows transfusion independence to be obtained in patients with iron deficiency ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Iron-Deficiency Anemia. According to news originating from Bozen Bolzano, Italy, by NewsRx correspondents, research stated, "The aim of this study was to evaluate the effectiveness of ferric carboxymaltose (FCM) in patients with iron deficiency anemia (IDA) secondary to gastrointestinal chronic blood loss (CBL), who received chronic transfusion support. We retrospectively evaluated 38 patients with IDA (hemoglobin [Hb] < 10 g/dL and ferritin < 12 ng/mL or transferrin saturation [TSAT] < 16%) refractory or intolerant to oral iron therapy that necessitated transfusion support in the previous 12 months."

Our news journalists obtained a quote from the research, "They were treated with FCM (500-2500 mg). The primary endpoint was to evaluate the reduction of transfusion requirements (red blood cell [RBC] units) after FCM treatment. The median age of the cohort was 78 years, with a male: female ratio of 22:16. Before FCM treatment a median of 6 RBC units had been transfused. At the treatment (T0) the median value of Hb was 8.7 g/dL, the TSAT 6%, and ferritin 12 ng/mL. The median FCM dose was 1000 mg. At 5 weeks from T0 the median Hb level was 11 g/dL, with a median increase of 2.4 g/dL. With a median follow-up of 326 days, the median transfusion requirement was 0 RBC units, significantly lower than before T0 (p < 0.001). Overall 17 patients still necessitated transfusion support. Twenty-three patients needed retreatment with FCM for recurrence of IDA: 10 of them obtained a response again. The percentage of transfusion-independent patients at median follow-up was equal to 52%." According to the news editors, the research concluded: "In patients with IDA secondary to CBL, FCM significantly reduces the need of transfusions and achieves transfusion independence in half of the cases."

For more information on this research see: Ferric carboxymaltose reduces the number of red blood cell units transfused and allows transfusion independence to be obtained in patients with iron deficiency anemia secondary to gastrointestinal chronic blood loss. Transfusion, 2016;56(11):2720-2726. Transfusion can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Transfusion -
The news correspondents report that additional information may be obtained from U. Salvadori, Bozen Bolzano Hosp, Immunohaematol & Transfus Serv, Bozen Bolzano, Italy. Additional authors for this research include M. Sandri, C. Melli, F. Polese, M. Simeoni, S. Capelli and A. Al-Khaffaf.

Keywords for this news article include: Bozen Bolzano, Italy, Europe, Nutritional and Metabolic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Iron-Deficiency Anemia, Transfusion Medicine, Blood Transfusion, Gastroenterology, Medical Devices, Iron Deficiency, Blood Cells, Hematology.

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**Drugs and Therapies - Anxiolytics Sedatives and Hypnotics**

**Studies from UFRGS Add New Findings in the Area of Anxiolytics Sedatives and Hypnotics (Prolonged Infusion of Dexmedetomidine in Critically-ill Children)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Anxiolytics Sedatives and Hypnotics. According to news originating from Porto Alegre, Brazil, by NewsRx correspondents, research stated, "To describe main indications, doses, length of infusion and side effects related to dexmedetomidine infusion. Observational and retrospective study evaluating dexmedetomidine use in pediatric intensive care unit."

Our news journalists obtained a quote from the research from UFRGS, "77 children received dexmedetomidine infusion longer than 6 hours for mechanical ventilation weaning (32.5%), post-neurosurgery and post-upper airway surgery (24.7%), non-invasive ventilation (13%), refractory tachycardia (6.5%) and other causes (23.3%). After 6 hours of infusion, significant decrease in mean arterial pressure and heart rate was observed in all groups. Six children (8%) required withdrawal of drug because of possible side effects: hypotension, bradycardia and somnolence."

According to the news editors, the research concluded: "Dexmedetomidine may be used as sedative in critically ill children without much side effects."

For more information on this research see: Prolonged Infusion of Dexmedetomidine in Critically-ill Children. *Indian Pediatrics*, 2016;53(11):987-989. *Indian Pediatrics* can be contacted at: Springer India, 7TH Floor, Vijaya Building, 17, Barakhamba Road, New Delhi, 110 001, India. (Springer - www.springer.com; Indian Pediatrics - www.springerlink.com/content/0019-6061/)

The news correspondents report that additional information may be obtained from C. Andreolio, UFRGS Univ, Pediat Emergency & Intens Care Department, Sch Med, Porto Alegre, RS, Brazil. Additional authors for this research include J.P. Piva, E. Baldasso, R. Ferlini and R. Piccoli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13312-016-0973-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Porto Alegre, Brazil, South America, Anxiolytics Sedatives and Hypnotics, Central Nervous System Agents, Dexmedetomidine
Studies from Umea University in the Area of Anxiolytics Sedatives and Hypnotics Described (Home alone-The effects of isolation on uptake of a pharmaceutical contaminant in a social fish)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Anxiolytics Sedatives and Hypnotics. According to news reporting originating from Umea, Sweden, by NewsRx correspondents, research stated, "A wide range of biologically active pharmaceutical residues is present in aquatic systems worldwide. As uptake potential and the risk of effects in aquatic wildlife are directly coupled, the aim of this study was to investigate the relationships between stress by isolation, uptake and effects of the psychiatric pharmaceutical oxazepam in fish."

Our news editors obtained a quote from the research from Umea University, "To do this, we measured cortisol levels, behavioral stress responses, and oxazepam uptake under different stress and social conditions, in juvenile perch (Percafluviatilis) that were either exposed (1.03 μg l(-1)) or not exposed to oxazepam. We found single exposed individuals to take up more oxazepam than individuals exposed in groups, likely as a result of stress caused by isolation. Furthermore, the bioconcentration factor (BCF) was significantly negatively correlated with fish weight in both social treatments. We found no effect of oxazepam exposure on body cortisol concentration or behavioral stress response. Most laboratory experiments, including standardized bioconcentration assays, are designed to minimize stress for the test organisms, however wild animals experience stress naturally."

According to the news editors, the research concluded: "Hence, differences in stress levels between laboratory and natural environments can be one of the reasons why predictions from artificial laboratory experiments largely underestimate uptake of oxazepam, and other pharmaceuticals, in the wild."

For more information on this research see: Home alone-The effects of isolation on uptake of a pharmaceutical contaminant in a social fish. Aquatic Toxicology, 2016;180():71-77. Aquatic Toxicology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Aquatic Toxicology - www.journals.elsevier.com/aquatic-toxicology/)

The news editors report that additional information may be obtained by contacting M. Heynen, Umea University, Dept. of Chem, Umea, Sweden. Additional authors for this research include T. Backstrom, J. Fick, M. Jonsson, J. Klaminder and T. Brodin.

Keywords for this news article include: Umea, Sweden, Europe, Anxiolytics Sedatives and Hypnotics, Central Nervous System Agents, Drugs and Therapies, Benzodiazepines, Oxazepam, Umea University.

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Studies from University College Reveal New Findings on Retinitis Pigmentosa (Variant haploinsufficiency and phenotypic non-penetrance in PRPF31-associated retinitis pigmentosa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Eye Diseases and Conditions - Retinitis Pigmentosa. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "Retinitis pigmentosa (RP) is a genetically heterogenous group of inherited disorders, characterized by death of the retinal photoreceptor cells, leading to progressive visual impairment. One form of RP is caused by mutations in the ubiquitously expressed splicing factor, PRPF31, this form being known as RP11."

The news reporters obtained a quote from the research from University College, "An intriguing feature of RP11 is the presence of non-penetrance, which has been observed in the majority of PRPF31 mutation-carrying families. In contrast to variable expressivity, which is highly pervasive, true non-penetrance is a very rare phenomenon in Mendelian disorders. In this article, the molecular mechanisms underlying phenotypic non-penetrance in RP11 are explored."

According to the news reporters, the research concluded: "It is an elegant example of how our understanding of monogenic disorders has evolved from studying only the disease gene, to considering a mutation on the genetic background of the individual - the logical evolution in this genomic era."


Our news correspondents report that additional information may be obtained by contacting A.M. Rose, UCL Inst Ophthalmol, Dept. of Genet, London EC1V 9EL, United Kingdom.

Keywords for this news article include: London, United Kingdom, Europe, Eye Diseases and Conditions, Article Review, Genetics, Hereditary Eye Diseases and Conditions, Retinal Diseases and Conditions, Retinal Degeneration, Retinitis Pigmentosa, University College.

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Mesotheliomas

Studies from University Health Network in the Area of Mesotheliomas Reported (SORORIN and PLK1 as potential therapeutic targets in malignant pleural mesothelioma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mesotheliomas is now available. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated,
"Malignant pleural mesothelioma (MPM) is an aggressive type of cancer of the thoracic cavity commonly associated with asbestos exposure and a high mortality rate. There is a need for new molecular targets for the development of more effective therapies for MPM."

Our news editors obtained a quote from the research from University Health Network, "Using quantitative reverse-transcriptase polymerase chain reaction (qRT-PCR) and an RNA interference-based screening, we examined the SORORIN gene as potential therapeutic targets for MPM in addition to the PLKI gene, which is known for kinase of SORORIN. Following in vitro investigation of the effects of target silencing on MPM cells, cell cycle analyses were performed. SORORIN expression was analyzed immunohistochemically using a total of 53 MPM samples on tissue microarray. SORORIN was found to be overexpressed in the majority of clinical MPM samples and human MPM cell lines as determined by qRT-PCR. Gene suppression of each SORORIN and PLK1 led to growth inhibition in MPM cell lines. Knockdown of SORORIN showed an increased number of G2M-phase population and a larger nuclear size, suggesting mitotic arrest. High expression of SORORIN (SORORIN-H) was found in 50.9% of all the MPM cases, and there is a tendency towards poorer prognosis for the SORORIN-H group but the difference is not significant. Suppression of SORORIN with PLK1 inhibitor BI 6727 showed a combinational growth suppressive effect on MPM cell growth."

According to the news editors, the research concluded: "Given high-dose PLK1 inhibitor induced drug-related adverse effects in several clinical trials, our results suggest inhibition SORORIN-PLK1 axis may hold promise for the treatment of MPMs."

For more information on this research see: SORORIN and PLK1 as potential therapeutic targets in malignant pleural mesothelioma. International Journal of Oncology, 2016;49(6):2411-2420. International Journal of Oncology can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.


Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Mesotheliomas, Therapeutics, Genetics, Therapy, University Health Network.

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consequences of off-label antiretroviral (ARV) use in an HIV-infected paediatric cohort."

Our news journalists obtained a quote from the research from University Hospital 12 de Octubre, "In this multicentre cohort study involving 318 HIV-infected children and adolescents from the Madrid Cohort, all off-label prescriptions from March 1988 to March 2012 were recorded from the clinical records. The reasons for prescribing ARV off-label, the side effects and the consequences of incorrect dosing of ARVs are discussed. Among the 318 patients of the cohort, 221 (69%) received off-label ARVs according to EMA licensing at the time of prescription, representing 23% (540) of the 2,353 prescribed ARVs. The main reason for starting an off-label drug was treatment failure. Adverse events led to treatment discontinuation in 12% of the prescriptions. Problems taking the drug led to withdrawal in 5%, more likely when formulation was not suitable for age (P <0.05). Up to 10% were overdosed and 10% underdosed, defined as 25% above or below the current recommended dose, respectively. Treatment failure occurred significantly more frequently among underdosed compared to overdosed patients (50% versus 26%; P<0.05). Off-label use of ARVs was common in our HIV-1 paediatric patients. Adverse events were common but rarely led to withdrawal. Suitable formulation is important in younger children."

According to the news editors, the research concluded: "Pharmacokinetic studies are needed as frequent incorrect dosing may occur when prescribing off-label and underdosing may lead to treatment failure."


The news correspondents report that additional information may be obtained from E. Fernandez-Cooke, Hospital 12 Octubre, Dept. of Pedi at, Madrid, Spain. Additional authors for this research include P. Rojas, A. Holguin, M.I.G. Tome, S.J. de Ory, M.J. Mellado, M.L. Navarro, P. Rojo and J.T. Ramos.

Keywords for this news article include: Madrid, Spain, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, Antiretrovirals, HIV Infections, Retroviridae, RNA Viruses, Pediatrics, HIV/AIDS, University Hospital 12 de Octubre.

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Cardiovascular Research

Studies from University Hospital Describe New Findings in Cardiovascular Research (Effects of perinatal, late foetal, and early embryonic insults on the cardiovascular phenotype in experimental animal models and humans)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Research. According to news reporting from Lausanne, Switzerland, by NewsRx journalists, research stated, "Cardiovascular diseases are the main cause of mortality and morbidity in Western countries, but the underlying mechanisms are still poorly understood. Genetic polymorphisms, once thought to represent a major determinant of cardiovascular risk, individually and collectively,
only explain a tiny fraction of phenotypic variation and disease risk in humans."

The news correspondents obtained a quote from the research from University Hospital, "It is now clear that non-genetic factors, i.e., factors that modify gene activity without changing the DNA sequence and that are sensitive to the environment can cause important alterations of the cardiovascular phenotype in experimental animal models and humans. Here, we will review recent studies demonstrating that distinct pathological events during the perinatal (transient perinatal hypoxemia), late foetal (preeclampsia), and early embryonic (assisted reproductive technologies) periods induce profound alterations of the cardiovascular phenotype in humans and experimental animals."

According to the news reporters, the research concluded: "Moreover, we will provide evidence that epigenetic modifications are contributing importantly to this problem and are conferring the potential for its transmission to subsequent generations."


Our news journalists report that additional information may be obtained by contacting C. Sartori, CHU Vaudois, Lausanne, Switzerland. Additional authors for this research include E. Rexhaj, S.F. Rimoldi, U. Scherrer and C. Sartori.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1024/0301-1526/a000573. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lausanne, Switzerland, Europe, Cardiovascular Research, Cardiology, Article Review, Risk and Prevention, Cardiovascular, Genetics, University Hospital.

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**Oncology - Lymphoma**

**Studies from University Hospital Further Understanding of Lymphoma (Dynamics of occurrence of refractory coeliac disease and associated complications over 25 years)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Lymphoma are discussed in a new report. According to news reporting originating from Vienna, Austria, by NewsRx correspondents, research stated, "Refractory coeliac disease, enteropathy associated T-cell lymphoma and small bowel adenocarcinoma are rare but prognostically important complications in coeliac disease. To analyse potential changes in occurrence of complicated coeliac disease over the last 25 years."

Our news editors obtained a quote from the research from University Hospital, "One thousand one hundred and thirty eight patients were included and evaluated based on their time of first presentation at the Medical University of Vienna, Austria. Occurrences of refractory coeliac disease and associated malignancies were evaluated for 5-year intervals from January 1990 until December 2014 and were compared over time. Results' 2.6% (n = 29) were
diagnosed with refractory coeliac disease (females 65.6%, mean age at diagnosis 62.8 years). The proportion of those patients was 2.6%, 3.1%, 3.3%, 2.7% and 0.5% for the 5 year intervals from 1990 onwards. Thus, the number of refractory cases has been decreasing since 2000 (P = 0.024). The number of patients presenting with lymphoma (n = 7) was 0.6%, 0.4%, 1.1%, 0.8% and 0% from 1990 to 2014. Similarly the number of patients with adenocarcinoma (n = 4) decreased to 0% until 2014. Overall mortality in patients suffering from refractory disease was 48%. Of all patients diagnosed with lymphoma 71.4% died with a 5-year survival rate of 28.6%. Over the past 15 years the occurrence of complicated coeliac disease has been decreasing. This possibly reflects a higher awareness of coeliac disease and optimised diagnosis and treatment with avoidance of long-term immunological disease activity."

According to the news editors, the research concluded: "Symptomatic disease and a delay in diagnosis are risk factors for refractory coeliac disease and related cancer."


The news editors report that additional information may be obtained by contacting W. Eigner, Medical Univ Hosp Vienna, Dept. of Internal Med 3, Div Gastroenterol & Hepatol, A-1090 Vienna, Austria. Additional authors for this research include K. Bashir, C. Primas, L. Kazemi-Shirazi, F. Wrba, M. Trauner and H. Vogelsang.

Keywords for this news article include: Vienna, Austria, Europe, Coeliac Disease, Diagnostics and Screening, Risk and Prevention, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Hematology, Lymphomas, Oncology, University Hospital.

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**Peptide Proteins - Parathyroid Hormone**

**Studies from University Hospital Have Provided New Data on Parathyroid Hormone (Effects of teriparatide on bone mineral density and quality of life in Duchenne muscular dystrophy related osteoporosis: a case report)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Peptide Proteins - Parathyroid Hormone. According to news reporting from Messina, Italy, by NewsRx journalists, research stated, "Duchenne muscular dystrophy (DMD) is an X-linked recessive muscle disease characterized by secondary osteoporosis and increased fractures. We describe the case of a 20-year-old boy with DMD suffering from back pain due to multiple vertebral fractures who was treated with teriparatide."

The news correspondents obtained a quote from the research from University Hospital, "Improvement of bone density, pain, and quality of life was achieved. DMD is an X-linked recessive muscle disease with secondary osteoporosis and related frequently occurring fractures. To date, only bisphosphonates have been used to treat osteoporosis in DMD. Black
bear parathyroid hormone has been previously reported to enhance bone mass in the dystrophin-deficient mouse. This study reports the positive effect of osteoanabolic treatment with once-daily recombinant human parathyroid hormone 1-34 (rhPTH 1-34, teriparatide) in a 20-year-old DMD boy suffering from multiple vertebral fractures causing back pain. Bone formation and resorption markers (osteocalcin and C-telopeptide of type I collagen, respectively), as expected, increased within 6 months and intensity of back pain early decreased, with no pain reported after 6 months at visual analog scale. Over a 18-month period of treatment with teriparatide, bone mineral density and quality of life, assessed by the 36-item short-form questionnaire, considerably improved and no side effects were reported."

According to the news reporters, the research concluded: "Further studies on large cohorts are warranted to test the efficacy of this promising treatment for DMD related osteoporosis."


Our news journalists report that additional information may be obtained by contacting A. Catalano, Univ Hosp Messina, Dept. of Clin & Expt Med, I-98125 Messina, Italy. Additional authors for this research include G.L. Vita, M. Russo, G. Vita, A. Lasco, N. Morabito and S. Messina.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3761-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Messina, Italy, Europe, Parathyroid Hormone, Peptide Proteins, Teriparatide, Hormones, University Hospital.

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Nutritional and Metabolic Diseases and Conditions...

Studies from University Hospital Have Provided New Information about Iron-Deficiency Anemia (Outcome of endoscopy-negative iron deficiency anemia in patients above 65 A longitudinal multicenter cohort)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Iron-Deficiency Anemia. According to news reporting out of Strasbourg, France, by NewsRx editors, research stated, "After the age of 65 years, iron deficiency anemia (IDA) requires the elimination of digestive neoplasia and is explored with upper and lower gastrointestinal (GI) endoscopy. However, such explorations are negative in 14% to 37% of patients."

Our news journalists obtained a quote from the research from University Hospital, "To further evaluate this issue, we evaluated the outcomes of patients aged over 65 years with endoscopy-negative IDA. We retrospectively analyzed the outcomes of in-patients over the age
of 65 years with IDA (hemoglobin <12 g/dL and ferritin <70 mg/L) who had negative complete upper and lower GI endoscopies in 7 tertiary medical hospitals. Death, the persistence of anemia, further investigations, and the final diagnosis for IDA were analyzed after at least 12 months by calling the patients' general practitioners and using hospital records. Between 2004 and 2011, 69 patients (74% women) with a median age of 78 (interquartile range (IQR) 75-82) years and hemoglobin and ferritin levels of 8.4 (IQR 6.8-9.9) g/dL and 14 (IQR 8-27) mg/L, respectively, had endoscopy-negative IDA, and 73% of these patients received daily antithrombotics. After a follow-up of 41 +/- 22 months, 23 (33%) of the patients were dead; 5 deaths were linked with the IDA, and 45 (65%) patients had persistent anemia, which was significantly associated with death (P=0.007). Further investigations were performed in 45 patients; 64% of the second-look GI endoscopies led to significant changes in treatment compared with 25% for the capsule endoscopies. Conventional diagnoses of IDA were ultimately established for 19 (27%) patients and included 3 cancer patients. Among the 50 other patients, 40 (58%) had antithrombotics. In endoscopy-negative IDA over the age of 65 years, further investigations should be reserved for patients with persistent anemia, and second-look GI endoscopy should be favored."

According to the news editors, the research concluded: "If the results of these investigations are negative, the role of antithrombotics should be considered."

For more information on this research see: Outcome of endoscopy-negative iron deficiency anemia in patients above 65 A longitudinal multicenter cohort. *Medicine*, 2016;95 (47):107-112. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting R. Clere-Jehl, Univ Hosp Strasbourg, Internal Med Endocrinol & Nutr Department, Hautepierre Hosp, Strasbourg, France. Additional authors for this research include E. Sauleau, S. Ciucu, M. Schaeffer, A. Lopes, B. Goichot, T. Vogel, G. Kaltenbach, E. Bouvard, J.L. Pasquali, D. Sereni, E. Andres and A. Bourgarit.

Keywords for this news article include: Strasbourg, France, Europe, Nutritional and Metabolic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Iron-Deficiency Anemia, Iron Deficiency, Antithrombotic, Hematology, Angiology, University Hospital.

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**Oncology - Breast Cancer**

**Studies from University Hospital Provide New Data on Breast Cancer (Exogenous FABP4 increases breast cancer cell proliferation and activates the expression of fatty acid transport proteins)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting originating from Reus, Spain, by NewsRx correspondents, research stated, "Adipose tissue plays an important role in tumor progression, because it provides nutrients and adipokines to proliferating cells. Fatty acid binding protein 4 (FABP4) is a key adipokine for fatty acid transport."
Our news editors obtained a quote from the research from University Hospital, "In metabolic pathologies, plasma levels of FABP4 are increased. However, the role of this circulating protein is unknown. Recent studies have demonstrated that FABP4 might have a role in tumor progression, but the molecular mechanisms involved are still unclear. In this study, we analysed the role of eFABP4 (exogenous FABP4) in breast cancer progression. MCF-7 and MDA-MB-231 breast cancer cells did not express substantial levels of FABP4 protein, but intracellular FABP4 levels increased after eFABP4 incubation. Moreover, eFABP4 enhanced the proliferation of these breast cancer cells but did not have any effect on MCF-7 and MDA-MB-231 cell migration. Additionally, eFABP4 induced the AKT and MAPK signaling cascades in breast cancer cells, and the inhibition of these pathways reduced the eFABP4-mediated cell proliferation. Interestingly, eFABP4 treatment in MCF-7 cells increased levels of the transcription factor FoxM1 and the fatty acid transport proteins CD36 and FABP5."

According to the news editors, the research concluded: "In summary, we showed that eFABP4 plays a key role in tumor proliferation and activates the expression of fatty acid transport proteins in MCF-7 breast cancer cells."


The news editors report that additional information may be obtained by contacting S. Guaita-Esteruelas, St Joan Univ Hosp, IOCS, Oncol Res Grp, Reus, Spain. Additional authors for this research include A. Bosquet, P. Saavedra, J. Guma, J. Girona, E.W.F. Lam, K. Amillano, J. Borras and L. Masana.

Keywords for this news article include: Reus, Spain, Europe, Fatty Acid Transport Proteins, Membrane Transport Proteins, Cell Proliferation, Carrier Proteins, Women's Health, Breast Cancer, Oncology, Genetics, University Hospital.

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**Oncology - Ewing Sarcoma**

**Studies from University Hospital Provide New Data on Ewing Sarcoma (Primary Epidural Lumbar Ewing Sarcoma: Case Report and Review of the Literature)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Ewing Sarcoma have been published. According to news reporting originating from Madrid, Spain, by NewsRx correspondents, research stated, "Case report. We present a case of isolated primary epidural lumbar Ewing sarcoma and review the current literature on the standard management."

Our news editors obtained a quote from the research from University Hospital, "We also propose laminoplasty as safe procedure in this patient population that can provide good stabilization in young people. Primary epidural Ewing's sarcoma is a very rare entity. The best generally accepted treatment option in sarcomas is to achieve a gross total resection with safe margins followed by local radiotherapy and chemotherapy. A total resection with safe margins is
a great challenge in neurosurgical patients. We present a previously healthy 17-year-old girl who complained of right sciatica with an epidural lumbar mass at L3-L4. She underwent complete resection of the tumor and a laminoplasty, which, in our experience, is a good way to preserve stability. At surgery, an isolated and noninvasive lesion was identified. Histopathological confirmation of Ewing sarcoma was obtained by immunohistochemical study and EWSR1 gene rearrangement detection. Treatment with 6 months of chemotherapy resulted in no further identifiable lesions by PET and MRI imaging at 4 years postsurgery. The laminoplasty has remained stable. Primary epidural Ewing sarcoma is extremely rare. The detection of the EWSR1 gene rearrangement can help to diagnose these tumors. The decision on how to treat these patients is difficult and can hardly be based on data from the current literature because of the small number of patients."

According to the news editors, the research concluded: "The laminoplasty procedure can be safely performed in the setting of sarcoma of the epidural space."

For more information on this research see: Primary Epidural Lumbar Ewing Sarcoma: Case Report and Review of the Literature. *Spine*, 2016;41(6):E375-8. (Lippincott Williams and Wilkins - www.lww.com; Spine - journals.lww.com/spinejournal/pages/default.aspx)

The news editors report that additional information may be obtained by contacting J. Giner, *Dept. of Neurosurgery, University Hospital La Paz, Madrid, Spain †Dept. of Oncology, University Hospital Puerta de Hierro, Madrid, Spain ‡Dept. of Pathology, University Hospital Puerta de Hierro, Madrid, Spain. Additional authors for this research include A. Isla, R. Cubedo and E. Tejerina.

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Keywords for this news article include: Spain, Madrid, Europe, Oncology, Ewing Sarcoma.

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**Oncology - Multiple Myeloma**

**Studies from University Hospital Provide New Data on Multiple Myeloma**

*(Clinical features and survival of 338 multiple myeloma patients treated with hematopoietic stem cell transplantation or conventional chemotherapy)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Multiple Myeloma are discussed in a new report. According to news reporting originating in Murcia, Spain, by NewsRx journalists, research stated, "Therapeutic approaches against multiple myeloma (MM) have largely changed during the past decade. Hematopoietic stem cell transplantation (HSCT) and licensing of immunomodulators and proteasome inhibitors have resulted in better response and increased overall survival rates compared to previous conventional therapies."

Financial support for this research came from Celgene.

The news reporters obtained a quote from the research from University Hospital, "To assess the impact that these new strategies have had on outcome of patients with symptomatic
MM in Spain, we conducted an epidemiological retrospective analysis of 338 newly diagnosed patients with stage II-III MM who started first-line treatment over a 2-yr period (2003-2005) by collecting data from their medical records. Most patients had been diagnosed with secretory MM (94.4%), 41.7% stage II and 58.3% stage III. The presence of bone lesions (72.2%), as well as anemia (79.8%) and elevated beta2-microglobulin levels (62.3%), was a common finding; in contrast, hypercalcemia and elevated serum creatinine were less frequent (25% each). First-line treatment had consisted of either conventional chemotherapy (62%) or induction treatment plus autologous HSCT (38%), as per standard clinical practice. HSCT not only resulted in greater objective response rates (93% vs. 50%), but also contributed to a significant increase in 3-yr survival (85% vs. 49.7%; 95% CI, range 77-91 vs. 41-58; p<0.001). Overall, 55% of patients presented treatment-related adverse events, mainly hematological. Toxicity rates were higher among patients treated with alkylating-based regimens and in those undergoing transplantation.

According to the news reporters, the research concluded: "Data analysis shows an adequate balance between increased response rates and safety that supports the use of up-front high-dose HSCT therapy in younger patients. Most importantly, this study provides further confirmation that the introduction of HSCT has significantly prolonged survival of patients with MM."


Our news correspondents report that additional information may be obtained by contacting R. Perez, Hospital Universitario Virgen de Arrixaca, Murcia, Spain. Additional authors for this research include M.S. Duran, J. Mayans, A. Soler, I. Castillo, M. Jurado, P. Ribas, M.C. Menchaca Echevarria, M.T. Hernandez, M.D. Lopez Garcia-Carreno, A. Echeveste Gutierrez, A. Bailen Garcia, S. Lopez, J. Baquero and G. Ramirez.

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Keywords for this news article include: Biomedicine, Spain, Murcia, Europe, Surgery, Oncology, Chemotherapy, Epidemiology, Multiple Myeloma, Paraproteinemias, Bone Marrow Cells, Stem Cell Research, Drugs and Therapies, Transplant Medicine, Cell Transplantation, Hemostatic Disorders, Hemorrhagic Disorders, Blood Protein Disorders, Hematopoietic Stem Cells.

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Oncology - Prostate Cancer

Studies from University Hospital Update Current Data on Prostate Cancer (Gonadotropin-releasing hormone antagonists versus standard androgen suppression therapy for advanced prostate cancer A systematic review with meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to
news reporting out of Erlangen, Germany, by NewsRx editors, research stated, "To evaluate efficacy and safety of gonadotropin-releasing hormone (GnRH) antagonists compared to standard androgen suppression therapy for advanced prostate cancer. The international review team included methodologists of the German Cochrane Centre and clinical experts."

Our news journalists obtained a quote from the research from University Hospital, "We searched CENTRAL, MEDLINE, Web of Science, EMBASE, trial registries and conference books for randomised controlled trials (RCT) for effectiveness data analysis, and randomised or non-randomised controlled studies (non-RCT) for safety data analysis (March 2015). Two authors independently screened identified articles, extracted data, evaluated risk of bias and rated quality of evidence according to GRADE. 13 studies (10 RCTs, 3 non-RCTs) were included. No study reported cancer-specific survival or clinical progression. There were no differences in overall mortality (RR 1.35, 95% CI 0.63 to 2.93), treatment failure (RR 0.91, 95% CI 0.70 to 1.17) or prostate-specific antigen progression (RR 0.83, 95% CI 0.64 to 1.06). While there was no difference in quality of life related to urinary symptoms, improved quality of life regarding prostate symptoms, measured with the International Prostate Symptom Score (IPSS), with the use of GnRH antagonists compared with the use of standard androgen suppression therapy (mean score difference -0.40, 95% CI -0.94 to 0.14, and -1.84, 95% CI -3.00 to -0.69, respectively) was found. Quality of evidence for all assessed outcomes was rated low according to GRADE. The risk for injection-site events was increased, but cardiovascular events may occur less often by using GnRH antagonist. Available evidence is hampered by risk of bias, selective reporting and limited follow-up. There is currently insufficient evidence to make firm conclusive statements on the efficacy of GnRH antagonist compared to standard androgen suppression therapy for advanced prostate cancer."

According to the news editors, the research concluded: "There is need for further high-quality research on GnRH antagonists with long-term follow-up."

For more information on this research see: Gonadotropin-releasing hormone antagonists versus standard androgen suppression therapy for advanced prostate cancer A systematic review with meta-analysis. Bmj Open, 2015;5(11):e008217. (BMJ Publishing Group - group.bmj.com/; Bmj Open - bmjopen.bmj.com/)

Our news journalists report that additional information may be obtained by contacting F. Kunath, Dept. of Urology, University Hospital Erlangen, Erlangen, Germany UroEvidence, Deutsche Gesellschaft fur Urologie, Dusseldorf, Berlin, Germany. Additional authors for this research include H. Borgmann, A. Blumle, B. Keck, B. Wullich, C. Schmucker, D. Sikic, C. Roelle, S. Schmidt, A. Wahba and J.J Meerpohl.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bmjopen-2015-008217. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Germany, Erlangen, Oncology, Androgens, Neuropeptides, Oligopeptides, Article Review, Prostate Cancer, Peptide Hormones, Peptide Proteins, Clinical Research, Drugs and Therapies, Prostatic Neoplasms, Gonadotropin Therapy, Nerve Tissue Proteins, Clinical Trials and Studies, Gonadotropin Releasing Hormones.

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Studies from University Hospital Update Current Data on Pulmonary Edema (Delayed renal dysfunction and flash pulmonary edema post endovascular abdominal aneurysm repair)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Pulmonary Edema are discussed in a new report. According to news reporting out of Grenoble, France, by NewsRx editors, research stated, "After endovascular aortic repair (EVAR), the deterioration in long-term renal function is probably multifactorial. Preoperative renal failure is an independent risk factor."

Our news journalists obtained a quote from the research from University Hospital, "Postoperative renal dysfunction can be associated with inadvertent renal artery occlusion, renal artery complications as stenosis, plaque dislodgement, or dissection. Ischemic nephropathy can accelerate hypertension and circulatory congestion. We report a case of coverage of the renal arteries symptomatic with flash pulmonary edema and renal failure 15 months after EVAR, suggesting a delayed endograft migration."

According to the news editors, the research concluded: "The patient had complete resolution of symptoms and renal function after renal artery stenting with placement between endograft and aneurysm to the left renal artery."


Our news journalists report that additional information may be obtained by contacting P.L. Carron, Service de Nephrologie, Dialyse et Transplantation, Centre Hospitalier Universitaire, Grenoble, France. Additional authors for this research include N. Piliero, M. Heitz, M. Kribs, M. Rodiere, P. Jousse, S. Gunther-Calvino and F. Thony.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hdi.12374. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: France, Europe, Grenoble, Aneurysm, Angiology, Endografts, Nephrology, Renal Artery, Renal Function, Kidney Function, Pulmonary Edema, Gastroenterology, Risk and Prevention, Lung Diseases and Conditions, Cardiovascular Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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Studies from University Hospital Yield New Data on Vascular Medicine (Transarterial embolization of peripheral arteriovenous malformations with ethylenevinyl alcohol copolymer feasibility, technical outcomes, and clinical outcomes)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Health and Medicine - Vascular Medicine are presented in a new report. According to news reporting originating from Leuven, Belgium, by NewsRx correspondents, research stated, "The technical and clinical outcomes of catheter-directed embolization for peripheral arteriovenous malformations (AVM) using Onyx (ethylene-vinyl alcohol copolymer) are not well documented. The purpose of this study was to retrospectively assess the safety, technical outcomes and clinical outcomes of catheter-directed Onyx embolisation for the treatment of symptomatic peripheral AVMs."

Our news editors obtained a quote from the research from University Hospital, "Demographics, (pre-)interventional clinical and radiological data were assessed. Follow-up was based on hospital medical records and telephone calls to the patients' general practitioners. Radiological success was defined as complete angiographic eradication of the peripheral AVM nidus. Clinical success was defined as major clinical improvement or complete disappearance of the initial symptoms. 25 procedures were performed in 22 patients. The principal indications for treatment were pain (n = 10), limb swelling (n = 6), recurrent bleeding (n = 2), tinnitus (n = 3), and exertional dyspnoea (n = 1). Complete radiological success was obtained in eight patients (36 %); near complete eradication of the nidus was achieved in the remaining 14 patients. Adjunctive embolic agents were used in nine patients (41 %). Clinical success was observed in 18 patients (82%). Major complications were reported in two patients (9%). During follow-up, seven patients (32%) presented with symptom recurrence, which required additional therapy in three patients."

According to the news editors, the research concluded: "Catheter-directed embolisation of peripheral AVMs with Onyx resulted in major clinical improvement or complete disappearance of symptoms in the vast majority of patients, although complete angiographic exclusion of the AVMs occurred in only a minority of patients."

For more information on this research see: Transarterial embolization of peripheral arteriovenous malformations with ethylenevinyl alcohol copolymer feasibility, technical outcomes, and clinical outcomes. Vasa-European Journal of Vascular Medicine, 2016;45 (6):497-504. Vasa-European Journal of Vascular Medicine can be contacted at: Verlag Hans Huber Hogrefe Ag, Laenggass-Strasse 76, Ch-3000 Bern 9, Switzerland.

The news editors report that additional information may be obtained by contacting G. Maleux, University Hospital Leuven, Leuven, Belgium. Additional authors for this research include J. Vranckx, P. Verhamme, V. Labarque, M.A. Morren, I. Fourneau and G. Maleux.

Keywords for this news article include: Leuven, Belgium, Europe, Vascular Medicine, Health and Medicine, Embolization, Angiology, University Hospital.

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Neurodegenerative Diseases and Conditions -...

Studies from University Hospital Yield New Information about Amyotrophic Lateral Sclerosis (Interleukin-1 Antagonist Anakinra in Amyotrophic Lateral Sclerosis--A Pilot Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neurodegenerative Diseases and Conditions - Amyotrophic Lateral Sclerosis. According to news reporting from Berlin, Germany, by
NewsRx journalists, research stated, "Preclinical studies show that blocking Interleukin-1 (IL-1) retards the progression of Amyotrophic Lateral Sclerosis (ALS). We assessed the safety of Anakinra (ANA), an IL-1 receptor antagonist, in ALS patients."

The news correspondents obtained a quote from the research from University Hospital, "In a single arm pilot study we treated 17 ALS patients with ANA (100 mg) daily for one year. We selected patients with dominant or exclusive lower motor neuron degeneration (LMND) presentation, as peripheral nerves may be more accessible to the drug. Our primary endpoint was safety and tolerability. Secondary endpoints included measuring disease progression with the revised ALS functional rating scale (ALSFRSr). We also quantified serum inflammatory markers. For comparison, we generated a historical cohort of 47 patients that fit the criteria for enrollment, disease characteristics and rate of progression of the study group. Only mild adverse events occurred in ALS patients treated with ANA. Notably, we observed lower levels of cytokines and the inflammatory marker fibrinogen during the first 24 weeks of treatment. Despite of this, we could not detect a significant reduction in disease progression during the same period in patients treated with ANA compared to controls as measured by the ALSFRSr. In the second part of the treatment period we observed an increase in serum inflammatory markers. Sixteen out of the 17 patients (94%) developed antibodies against ANA. This study showed that blocking IL-1 is safe in patients with ALS."

According to the news reporters, the research concluded: "Further trials should test whether targeting IL-1 more efficiently can help treating this devastating disease."

For more information on this research see: Interleukin-1 Antagonist Anakinra in Amyotrophic Lateral Sclerosis--A Pilot Study. Plos One, 2015;10(10):e0139684. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting A. Maier, Dept. of Neurology, Charite-University Hospital, Campus Virchow-Klinikum, Berlin, Germany. Additional authors for this research include N. Deigendesch, K. Muller, J.H. Weishaupt, A. Krannich, R. Rohle, F. Meissner, K. Molawi, C. Munch, T. Holm, R. Meyer, T. Meyer and A. Zychlinsky.

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Keywords for this news article include: Antirheumatics, Pharmaceuticals, Berlin, Europe, Germany, Cytokines, Monokines, Neurology, Interleukin 1, Anakinra Therapy, Clinical Research, Disease Attributes, Disease Progression, Drugs and Therapies, Motor Neuron Disease, Pathologic Processes, TDP 43 Proteinopathies, Clinical Trials and Studies.

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Ventilator-Associated Pneumonia. According to news originating from Iraklion, Greece, by NewsRx correspondents, research stated, "Limited data exist regarding prognostic factors and optimal antimicrobial treatment of infections caused by extensively drug-resistant Acinetobacter baumannii (XDR-AB). This retrospective cohort study included 93 adult patients who developed ventilator-associated pneumonia (VAP) due to XDR-AB in the ICU of the University Hospital of Heraklion, Greece, from October 2012 to April 2015."

Our news journalists obtained a quote from the research from University Hospital, "XDR-AB isolates were mainly susceptible to colistin (93.5%) and tigecycline (25.8%), whereas 6 (6.5%) were pandrugresistant. Prior to infection, patients had long durations of mechanical ventilation and hospital stay and multiple exposures to antibiotics. Median Charlson co-morbidity and APACHE II scores were 2 and 17, respectively. Mortality at 28 days of infection onset was high (34.4%) despite high rates of in-vitroactive empirical (81.7%) and definitive (90.3%) treatment. Active colistin-based combination therapy (n = 55) and monotherapy (n = 29) groups had similar 28-day mortality (27.6% vs. 30.9%, respectively) and Kaplan-Meier survival estimates over time. In multivariable Cox regression, advanced age (aHR = 1.05 per year increase, 95% CI 1.02-1.09), rapidly fatal underlying disease (aHR = 2.64, 95% CI 0.98-9.17) and APACHE II score (aHR = 1.06 per unit increase, 95% CI 0.99-1.14) were identified as independent predictors of 28-day mortality, but no difference in mortality hazards between the active colistin-based combination therapy and monotherapy groups was produced (aHR = 0.88, 95% CI 0.35-2.38)."

According to the news editors, the research concluded: "These results support the use of colistin as a first-line agent against VAP in settings where XDR-AB is endemic, but oppose the introduction of colistin-based combination therapy as standard treatment."


The news correspondents report that additional information may be obtained from C. Tsioutis, Univ Hosp Herakl, Dept. of Internal Med Infect Dis, Iraklion 71110, Crete, Greece. Additional authors for this research include E.I. Kritsotakis, S.A. Karageorgos, S. Stratakou, C. Psarologakis, S. Kokkini and A. Gikas.

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Keywords for this news article include: Iraklion, Greece, Europe, Respiratory Tract Diseases and Conditions, Gram-Negative Aerobic Rods and Cocci, Nosocomial Diseases and Conditions, Pore Forming Cytotoxic Proteins, Ventilator-Associated Pneumonia, Gram-Negative Aerobic Bacteria, Lung Diseases and Conditions, Respiratory Tract Infections, Acinetobacter baumannii, Gram-Negative Bacteria, Drugs and Therapies, Gammaproteobacteria, Combination Therapy, Infectious Disease, Membrane Proteins, Drug Resistance, Proteobacteria, Moraxellaceae, Epidemiology, Antibiotics, Pulmonology, Polymyxins, Hospital, Colistin, University Hospital.

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Heart Disorders and Diseases - Atrial Fibrillation

Studies from University Hospital in the Area of Atrial Fibrillation Described (Balance between sodium and calcium currents underlying chronic atrial fibrillation termination: An in silico intersubject variability study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting from Madrid, Spain, by NewsRx journalists, research stated, "Atrial remodeling as a result of long-standing persistent atrial fibrillation (AF) induces substrate modifications that lead to different perpetuation mechanisms than in paroxysmal AF and a reduction in the efficacy of antiarrhythmic treatments. The purpose of this study was to identify the ionic current modifications that could destabilize reentries during chronic AF and serve to personalize antiarrhythmic strategies."

The news correspondents obtained a quote from the research from University Hospital, "A population of 173 mathematical models of remodeled human atrial tissue with realistic intersubject variability was developed based on action potential recordings of 149 patients diagnosed with AF. The relationship of each ionic current with AF maintenance and the dynamics of functional reentries (rotor meandering, dominant frequency) were evaluated by means of 3-dimensional simulations. Self-sustained reentries were maintained in 126 (73%) of the simulations. AF perpetuation was associated with higher expressions of I-Na and I-caL (P < .01), with no significant differences in the remaining currents. I-caL blockade promoted AF extinction in 30% of these 126 models. The mechanism of AF termination was related with collisions between rotors because of an increase in rotor meandering (1.71 +/- 2.01cm(2)) and presented an increased efficacy in models with a depressed INa (P < .01). Mathematical simulations based on a population of models representing intersubject variability allow the identification of ionic mechanisms underlying rotor dynamics and the definition of new personalized pharmacologic strategies."

According to the news reporters, the research concluded: "Our results suggest that the underlying mechanism of the diverging success of I-caL block as an antiarrhythmic strategy is dependent on the basal availability of sodium and calcium ion channel conductivities."


Our news journalists report that additional information may be obtained by contacting A. Liberos, Inst Investigac Sanitaria Gregorio Marahon, Hosp Gen Univ Gregorio Marahon, Dept. of Cardiol, Madrid, Spain. Additional authors for this research include A. Bueno-Orovio, M. Rodrigo, U. Ravens, I. Hernandez-Romero, F. Fernandez-Aviles, M.S. Guillem, B. Rodriguez and A.M. Climent.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.08.028. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madrid, Spain, Europe, Heart Disorders and Diseases, Antiarrhythmic Agents, Atrial Fibrillation, Drugs and Therapies, Cardiac
Oncology - Colon Cancer

Studies from University Hospital in the Area of Colon Cancer Reported (The evolving role of microsatellite instability in colorectal cancer: A review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Colon Cancer is now available. According to news reporting out of Modena, Italy, by NewsRx editors, research stated, "Microsatellite instability (MSI) is a molecular marker of a deficient mismatch repair (MMR) system and occurs in approximately 15% of colorectal cancers (CRCs), more frequently in early than late-stage of disease. While in sporadic cases (about two-thirds of MSI-H CRCs) MMR deficiency is caused by an epigenetic inactivation of MLH1 gene, the remainder are associated with Lynch syndrome, that is linked to a germ-line mutation of one of the MMR genes (MLH1, MSH2, MSH6, PMS2)."

Our news journalists obtained a quote from the research from University Hospital, "MSI-H colorectal cancers have distinct clinical and pathological features such as proximal location, early-stage (predominantly stage II), poor differentiation, mucinous histology and association with BRAF mutations. In early-stage CRC, MSI can select a group of tumors with a better prognosis, while in metastatic disease it seems to confer a negative prognosis. Although with conflicting results, a large amount of preclinical and clinical evidence suggests a possible resistance to 5-FU in these tumors. The higher mutational load in MSI-H CRC can elicit an endogenous immune anti-tumor response, counterbalanced by the expression of immune inhibitory signals, such as PD-1 or PD-L1, that resist tumor elimination."

According to the news editors, the research concluded: "Based on these considerations, MSI-H CRCs seem to be particularly responsive to immunotherapy, such as anti-PD-1, opening a new era in the treatment landscape for patients with metastatic CRC."


Our news journalists report that additional information may be obtained by contacting F. Gelsomino, Univ Hosp Modena, Div Oncol, I-41124 Modena, Italy. Additional authors for this research include M. Barbolini, A. Spallanzani, G. Pugliese and S. Cascinu.

Keywords for this news article include: Modena, Italy, Europe, Microsatellite Instability, Cancer, Article Review, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Genetics, University Hospital.

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Studies from University Hospital in the Area of Liver Cancer Described (A possible role of microRNAs as predictive markers for the recurrence of hepatocellular carcinoma after liver transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting from Frankfurt, Germany, by NewsRx journalists, research stated, "With favourable 5-year survival rates up to 75%, liver transplantation (LT) is the treatment of choice for hepatocellular carcinoma (HCC). Nonetheless, tumor recurrence after LT remains a challenge."

The news correspondents obtained a quote from the research from University Hospital, "The aim of this retrospective study was to develop a predictive score for tumor recurrence after LT by combining clinical parameters with HCC biomarkers (microRNA). A microRNA (miRNA) microarray analysis was used to compare miRNA expression patterns in tissue samples of 40 patients with and without HCC recurrence after LT. In a screening cohort (n=18), the miRNA analysis identified significant differences in the expression of 13 miRNAs in patients with tumor recurrence. Using the most significant miRNAs in this screening cohort, we could develop a predictive score, which combined the expression levels of miR-214, miR-3187 and the Milan criteria, and we could define low-and high-risk groups for tumor recurrence and death. The above score was evaluated in a second and independent cohort (n=22). In contrast to the Milan criteria alone, this score was significantly associated with tumor recurrence."

According to the news reporters, the research concluded: "Our analysis indicated that the use of a specific miRNA expression pattern in combination with a limited tumor burden as defined by the Milan criteria may lead to a more accurate prediction of tumor recurrence."


Our news journalists report that additional information may be obtained by contacting J. Liese, Dept. of General and Visceral Surgery, University Hospital Frankfurt, Goethe University, Frankfurt, Germany. Additional authors for this research include J. Peveling-Oberhag, C. Doering, A.A. Schnitzbauer, E. Herrmann, S. Zangos, M.L. Hansmann, C. Moench, M.W. Welker, S. Zeuzem, W.O. Bechstein and F. Ulrich.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tri.12733. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal Transplant International is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Europe, Germany, Oncology, Frankfurt, Carcinomas, Epidemiology, Liver Cancer, Diagnostics and Screening.

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Studies from University Hospital in the Area of beta-Lactams Described

[Universal protocol for the rapid automated detection of carbapenem-resistant Gram-negative bacilli directly from blood cultures by matrix-assisted laser ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on beta-Lactams are discussed in a new report. According to news reporting originating in La Coruna, Spain, by NewsRx journalists, research stated, "Detection of carbapenemase-producing bacteria directly from blood cultures is a major challenge, as patients with bacteraemia are critically ill. Early detection can be helpful for selection of the most appropriate antibiotic therapy as well as adequate control of outbreaks."

The news reporters obtained a quote from the research from University Hospital, "In the current study, a novel matrix-assisted laser desorption/ionisation time-of-flight (MALDI-TOF)-based method was developed for the rapid, automated detection of carbapenemase-producing Enterobacteriaceae, Pseudomonas aeruginosa and Acinetobacter baumannii directly from blood cultures. Carbapenemase activity was determined in 30 min by measuring hydrolysis of imipenem (0.31 mg/mL) in blood cultures spiked with a series of 119 previously characterised isolates, 81 of which carried a carbapenemase enzyme (10 βla(KPC), 10 βla(VIM), 10 βla(NDM), 10 βla(IMP), 26 βla(OXA-48-type), 9 βla(OXA-23), 1 βla(OXA-237), 3 βla(OXA-24) and 2 βla(OXA-58)). Twenty blood cultures obtained from bacteraemic patients carrying βla(OXA-48)-producing isolates were also analysed using the same protocol. Analysis was performed using MALDI-TOF Biotyper ® Compass software, which automatically provides a result of sensitivity or resistance, calculated as the logRQ or ratio of hydrolysis of the antibiotic. This assay is simple to perform, inexpensive, time saving, universal for Gram-negative bacilli, and highly reliable (overall sensitivity and specificity of 98% and 100%, respectively)."

According to the news reporters, the research concluded: "Moreover, the protocol could be established as a standardised method in clinical laboratories as it does not require specialised training in mass spectrometry."


Our news correspondents report that additional information may be obtained by contacting G. Bou, Complejo Hosp Univ A Coruna, Microbiol Serv, La Coruna 15006, Spain. Additional authors for this research include K. Sparbier, M.J. Barba, M. Kostrzewa and G. Bou. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.08.024. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: La Coruna, Spain, Europe, Drugs and Therapies, beta-Lactams, Antibiotics, Carbapenems, University Hospital.
Oncology - Breast Cancer

Studies from University of Adelaide Add New Findings in the Area of Breast Cancer [Anticancer efficacy of the hypoxia-activated prodrug evofosfamide (TH-302) in osteolytic breast cancer murine models]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting out of Woodville, Australia, by NewsRx editors, research stated, "Tumor hypoxia is a major cause of treatment failure for a variety of malignancies. However, hypoxia offers treatment opportunities, exemplified by the development of compounds that target hypoxic regions within tumors."

Funders for this research include National Health and Medical Research Council, Hospital Research Foundation, Adelaide, South Australia, National Breast Cancer Foundation, Australian Breast Cancer Research.

Our news journalists obtained a quote from the research from the University of Adelaide, "Evofosfamide (TH-302) is a prodrug created by the conjugation of 2-nitroimidazole to bromo-isophosphoramide mustard (Br-IPM). When evofosfamide is delivered to hypoxic regions, the DNA cross-linking effector, Br-IPM, is released. This study assessed the cytotoxic activity of evofosfamide in vitro and its antitumor activity against osteolytic breast cancer either alone or in combination with paclitaxel in vivo. A panel of human breast cancer cell lines were treated with evofosfamide under hypoxia and assessed for cell viability. Osteolytic MDA-MB-231-TXSA cells were transplanted into the mammary fat pad, or into tibiae of mice, allowed to establish and treated with evofosfamide, paclitaxel, or both. Tumor burden was monitored using bioluminescence, and cancer-induced bone destruction was measured using micro-CT. In vitro, evofosfamide was selectively cytotoxic under hypoxic conditions. In vivo evofosfamide was tumor suppressive as a single agent and cooperated with paclitaxel to reduce mammary tumor growth. Breast cancer cells transplanted into the tibiae of mice developed osteolytic lesions. In contrast, treatment with evofosfamide or paclitaxel resulted in a significant delay in tumor growth and an overall reduction in tumor burden in bone, whereas combined treatment resulted in a significantly greater reduction in tumor burden in the tibia of mice."

According to the news editors, the research concluded: "Evofosfamide cooperates with paclitaxel and exhibits potent tumor suppressive activity against breast cancer growth in the mammary gland and in bone."


Our news journalists report that additional information may be obtained by contacting V. Liapis, Discipline of Surgery, Breast Cancer Research Unit, Basil Hetzel Institute and Centre for Personalised Cancer Medicine, University of Adelaide Woodville, Woodville, South Australia, Australia. Additional authors for this research include I. Zinonos, A. Labrinidis, S. Hay, V. Ponomarev, V. Panagopoulos, A. Zysk, M. DeNichilo, W. Ingman, G.J. Atkins, D.M. Findlay, A.C. Zannettino and A. Evdokiou.
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Keywords for this news article include: Taxoids, Genetics, Oncology, Terpenes, Woodville, Paclitaxel, Hydrocarbons, Bone Research, Breast Cancer, Cycloparaffins, Women's Health, Organic Chemicals, Australia and New Zealand.

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Oncology - Cancer Detection

Studies from University of Adelaide Yield New Data on Cancer Detection (Cancer Detection in Human Tissue Samples Using a Fiber-Tip pH Probe)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Cancer Detection is the subject of a report. According to news reporting from Adelaide, Australia, by NewsRx journalists, research stated, "Intraoperative detection of tumorous tissue is an important unresolved issue for cancer surgery. Difficulty in differentiating between tissue types commonly results in the requirement for additional surgeries to excise unremoved cancer tissue or alternatively in the removal of excess amounts of healthy tissue."

The news correspondents obtained a quote from the research from the University of Adelaide, "Although pathologic methods exist to determine tissue type during surgery, these methods can compromise postoperative pathology, have a lag of minutes to hours before the surgeon receives the results of the tissue analysis, and are restricted to excised tissue. In this work, we report the development of an optical fiber probe that could potentially find use as an aid for margin detection during surgery. A fluorophore-doped polymer coating is deposited on the tip of an optical fiber, which can then be used to record the pH by monitoring the emission spectra from this dye. By measuring the tissue pH and comparing with the values from regular tissue, the tissue type can be determined quickly and accurately. The use of a novel lift-and-measure technique allows for these measurements to be performed without influence from the inherent autofluorescence that commonly affects fluorescence-based measurements on biological samples. The probe developed here shows strong potential for use during surgery, as the probe design can be readily adapted to a low-cost portable configuration, which could find use in the operating theater."

According to the news reporters, the research concluded: "Use of this probe in surgery either on excised or in vivo tissue has the potential to improve success rates for complete removal of cancers."

For more information on this research see: Cancer Detection in Human Tissue Samples Using a Fiber-Tip pH Probe. Cancer Research, 2016;76(23):6795-6801. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting E.P. Schartner, University of Adelaide, ARC Center Nanoscale BioPhoton, Adelaide, SA, Australia. Additional authors for this research include M.R. Henderson, M. Purdey, D.
Dhatrak, T.M. Monro, P.G. Gill and D.F. Callen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/0008-5472.CAN-16-1285. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Cancer Detection, Oncology, Surgery, University of Adelaide.

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Lung Diseases and Conditions - Bronchopulmonary...

Studies from University of Alabama Have Provided New Information about Bronchopulmonary Dysplasia (Of mice and men: correlations between microRNA-17 similar to 92 cluster expression and promoter methylation in severe bronchopulmonary dysplasia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lung Diseases and Conditions - Bronchopulmonary Dysplasia have been presented. According to news originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "We previously demonstrated that decreased miR-17 similar to 92 cluster expression was 1) present in lungs from human infants who died with bronchopulmonary dysplasia (BPD); 2) inversely correlated with DNA methyltransferase (DNMT) expression and promoter methylation; and 3) correlated with a subsequent diagnosis of BPD at 36 wk gestational age. We tested the hypothesis that plasma miR-17 levels would be lowest in infants who ultimately develop severe BPD."

Our news journalists obtained a quote from the research from the University of Alabama, "Secondly, we utilized our well-characterized murine model of severe BPD that combines perinatal inflammation with postnatal hyperoxia to test the hypothesis that alterations in lung miR-17 similar to 92, DNMT, and promoter methylation in our model would mirror our findings in tissues from premature human infants. Plasma was obtained during the first 5 days of life from premature infants born <= 32 wk gestation. Lung tissues were harvested from mice exposed to maternal inflammation and neonatal hyperoxia for 14 days after birth. miR-17 similar to 92 cluster expression and DNA methyltransferase expression were measured by qRT-PCR, and promoter methylation was assessed by Methyl-Profiler assay. Plasma miR-17 levels are significantly lower in the first week of life in human infants who develop severe BPD compared with mild or moderate BPD. Data from our severe BPD murine model reveal that lung miR-17 similar to 92 cluster expression is significantly attenuated, and levels inversely correlated with DNMT expression and miR-17 similar to 92 cluster promoter methylation."

According to the news editors, the research concluded: "Collectively, our data support a plausible role for epigenetically altered miR-17 similar to 92 cluster in the pathogenesis of severe BPD."

The news correspondents report that additional information may be obtained from T.E. Tipple, Univ Alabama Birmingham, Medical Sch Birmingham, Div Neonatol, Birmingham, AL, United States. Additional authors for this research include D. Dakhlallah, C.B. Marsh, L.K. Rogers and T.E. Tipple.

Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Respiratory Tract Diseases and Conditions, Infant Diseases and Conditions, Ventilator-Induced Lung Injury, Lung Diseases and Conditions, Bronchopulmonary Dysplasia, Enzymes and Coenzymes, Methyltransferases, Inflammation, Dermatology, Pulmonology, Premature, Genetics, University of Alabama.

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Central Nervous System Diseases and Conditions –…

Studies from University of Alabama Update Current Data on Subarachnoid Hemorrhage (Association of nosocomial infections with delayed cerebral ischemia in aneurysmal subarachnoid hemorrhage)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Central Nervous System Diseases and Conditions - Subarachnoid Hemorrhage. According to news reporting originating from Birmingham, Alabama, by NewsRx correspondents, research stated, "Delayed cerebral ischemia (DCI) is a recognized complication' of aneurysmal subarachnoid hemorrhage (aSAH) that contributes to poor outcome. This study seeks to determine the effect of nosocomial infection on the incidence of DCI and patient outcome."

Our news editors obtained a quote from the research from the University of Alabama, "An exploratory analysis was performed on 156 patients with aSAH enrolled in the Cerebral Aneurysm Renin Angiotensin System study. Clinical and radiographic data were analyzed with univariate analysis to detect risk factors for the development of DCI and poor outcome. Multivariate logistic regression was performed to identify independent predictors of DCI. One hundred fifty-three patients with aSAH were included. DCI was identified in 32 patients (20.9%). Nosocomial infection (odds ratio [OR] 3.5, 95% confidence interval [CI] 1.09-11.2, p = 0.04), ventriculitis (OR 25.3, 95% CI 1.39-458.7, p = 0.03), aneurysm re-rupture (OR 7.55, 95% CI 1.02-55.7, p = 0.05), and clinical vasospasm (OR 43.4, 95% CI 13.1-143.4, p<0.01) were independently associated with the development of DCI. Diagnosis of nosocomial infection preceded the diagnosis of DCI in 15 (71.4%) of 21 patients. Patients diagnosed with nosocomial infection experienced significantly worse outcomes as measured by the modified Rankin Scale score at discharge and 1 year (p < 0.01 and p = 0.03, respectively). Nosocomial infection is independently associated with DCI."

According to the news editors, the research concluded: "This association is hypothesized to be partly causative through the exacerbation of systemic inflammation leading to thrombosis and subsequent ischemia."

For more information on this research see: Association of nosocomial infections with delayed cerebral ischemia in aneurysmal subarachnoid hemorrhage. *Journal of Neurosurgery*, 2016;125(6):1383-1389. *Journal of Neurosurgery* can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

The news editors report that additional information may be obtained by contacting...
P.M. Foreman, Univ Alabama Birmingham, Dept. of Neurosurg, Birmingham, AL 35294, United States. Additional authors for this research include M. Chua, M.R. Harrigan, W.S. Fisher, N.A. Vyas, R.H. Lipsky, B.C. Walters, R.S. Tubbs, M.M. Shoja and C.J. Griessenauer.

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Keywords for this news article include: Birmingham, Alabama, United States, North and Central America, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Nosocomial Diseases and Conditions, Hemorrhage, Risk and Prevention, Brain Diseases and Conditions, Cerebrovascular Disorders, Intracranial Hemorrhages, Subarachnoid Hemorrhage, Brain Ischemia, Aneurysm, University of Alabama.

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Oncology - Breast Cancer

Studies from University of Alcala Reveal New Findings on Breast Cancer (Growth hormone-releasing hormone induced transactivation of epidermal growth factor receptor in human triple-negative breast cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting originating from Alcala de Henares, Spain, by NewsRx correspondents, research stated, "Triple-negative breast cancer (TNBC) is a subset of breast cancers which is negative for expression of estrogen and progesterone receptors and human epidermal growth factor receptor-2 (HER2). Chemotherapy is currently the only form of treatment for women with TNBC."

Funders for this research include Fundacion para la Investigacion Biomedica del Hospital Universitario Principe de Asturias, University of Alcala, Medical Research Service of the Veterans Affairs Department, University of Miami.

Our news editors obtained a quote from the research from the University of Alcala, "Growth hormone-releasing hormone (GHRH) and epidermal growth factor (EGF) are autocrine/paracrine growth factors in breast cancer and a substantial proportion of TNBC expresses receptors for GHRH and EGF. The aim of this study was to evaluate the interrelationship between both these signaling pathways in MDA-MB-468 human TNBC cells. We evaluated by Western blot assays the effect of GHRH on transactivation of EGF receptor (EGFR) as well as the elements implicated. We assessed the effect of GHRH on migration capability of MDA-MB-468 cells as well as the involvement of EGFR in this process by means of wound-healing assays. Our findings demonstrate that in MDA-MB-468 cells the stimulatory activity of GHRH on tyrosine phosphorylation of EGFR is exerted by two different molecular mechanisms: i) through GHRH receptors, GHRH stimulates a ligand-independent activation of EGFR involving at least cAMP/PKA and Src family signaling pathways; ii) GHRH also stimulates a ligand-dependent activation of EGFR implicating an extracellular pathway with an important role for metalloproteinases. The cross-talk between EGFR and GHRHR may be impeded by combining drugs acting upon GHRH receptors and EGFR family members."

According to the news editors, the research concluded: "This combination of GHRH receptors antagonists with inhibitors of EGFR signalling could enhance the efficacy of both
types of agents as well as reduce their doses increasing therapeutic benefits in management of human breast cancer."


The news editors report that additional information may be obtained by contacting A.M. Bajo, Univ Alcala De Henares, Dept. of Syst Biol, Alcala De Henares 28871, Spain. Additional authors for this research include L. Munoz-Moreno, P.L. Valenzuela, J.C. Prieto, A.V. Schally, M.J. Carmena and A.M. Bajo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.peptides.2016.11.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Alcala de Henares, Spain, Europe, Intercellular Signaling Peptides and Proteins, Pituitary Hormone-Releasing Hormones, Gastrointestinal Hormone Receptors, Receptor Protein-Tyrosine Kinases, Growth Hormone-Releasing Hormone, Epidermal Growth Factor Receptor, Anterior Pituitary Hormones, Gastrointestinal Hormones, Epidermal Growth Factors, Growth Factor Receptors, Nerve Tissue Proteins, Phosphotransferases, Membrane Proteins, Peptide Receptors, Peptide Proteins, Peptide Hormones, Growth Hormones, Protein Kinases, Women's Health, Neuropeptides, Breast Cancer, Oncology, University of Alcala.

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**Pain Medicine - Anesthesiology**

**Studies from University of Arizona Further Understanding of Anesthesiology (Strategies to improve first attempt success at intubation in critically ill patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Pain Medicine - Anesthesiology is now available.

According to news reporting out of Tucson, Arizona, by NewsRx editors, research stated, "Tracheal intubation in critically ill patients is a high-risk procedure. The risk of complications increases with repeated or prolonged attempts, making expedient first attempt success the goal for airway management in these patients."

Our news journalists obtained a quote from the research from the University of Arizona, "related factors often make visualization of the airway and placement of the tracheal tube difficult. Physiologic derangements reduce the patient's tolerance for repeated or prolonged attempts at laryngoscopy and, as a result, hypoxaemia and haemodynamic deterioration are common complications. Operator-related factors such as experience, device selection, and pharmacologic choices affect the odds of a successful intubation on the first attempt."

According to the news editors, the research concluded: "This review will discuss the 'difficult airway' in critically ill patients and highlight recent advances in airway management that have been shown to improve first attempt success and decrease adverse events associated with the intubation of critically ill patients."

Our news journalists report that additional information may be obtained by contacting J.M. Mosier, University of Arizona, Coll Med, Dept. of Emergency Med, Tucson, AZ 85724, United States. Additional authors for this research include J. Malo, C.D. Hypes, J.C. Sakles and J.M. Mosier.

Keywords for this news article include: Tucson, Arizona, United States, North and Central America, Anesthesiology, Pain Medicine, Critical Care, Risk and Prevention, Medical Devices, University of Arizona.

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Myelomas

Studies from University of Arkansas Have Provided New Information about Myelomas (The Spectrum and Clinical Impact of Epigenetic Modifier Mutations in Myeloma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Myelomas is now available. According to news reporting originating from Little Rock, Arkansas, by NewsRx correspondents, research stated, "Epigenetic dysregulation is known to be an important contributor to myeloma pathogenesis but, unlike other B-cell malignancies, the full spectrum of somatic mutations in epigenetic modifiers has not been reported previously. We sought to address this using the results from whole-exome sequencing in the context of a large prospective clinical trial of newly diagnosed patients and targeted sequencing in a cohort of previously treated patients for comparison."

Our news editors obtained a quote from the research from the University of Arkansas, "Whole-exome sequencing analysis of 463 presenting myeloma cases entered in the UK NCRI Myeloma XI study and targeted sequencing analysis of 156 previously treated cases from the University of Arkansas for Medical Sciences (Little Rock, AR). We correlated the presence of mutations with clinical outcome from diagnosis and compared the mutations found at diagnosis with later stages of disease. In diagnostic myeloma patient samples, we identify significant mutations in genes encoding the histone 1 linker protein, previously identified in other B-cell malignancies. Our data suggest an adverse prognostic impact from the presence of lesions in genes encoding DNA methylation modifiers and the histone demethylase KDM6A/UTX. The frequency of mutations in epigenetic modifiers appears to increase following treatment most notably in genes encoding histone methyltransferases and DNA methylation modifiers."

According to the news editors, the research concluded: "Numerous mutations identified raise the possibility of targeted treatment strategies for patients either at diagnosis or relapse supporting the use of sequencing-based diagnostics in myeloma to help guide therapy as more epigenetic targeted agents become available."

For more information on this research see: The Spectrum and Clinical Impact of Epigenetic Modifier Mutations in Myeloma. Clinical Cancer Research, 2016;22(23):5783-5794. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615
Oncology - Glioblastomas

Studies from University of Arkansas for Medical Sciences Yield New Information about Glioblastomas (Kynurenine Signaling Increases DNA Polymerase Kappa Expression and Promotes Genomic Instability in Glioblastoma Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Glioblastomas. According to news reporting from Little Rock, Arkansas, by NewsRx journalists, research stated, "Overexpression of the translesion synthesis polymerase hpol k in glioblastomas has been linked to poor patient prognosis; however, the mechanism promoting higher expression in these tumors remains unknown. We determined that activation of the aryl hydrocarbon receptor (AhR) pathway in glioblastoma cells leads to increased hpol k mRNA and protein levels."

Financial supporters for this research include National Center for Advancing Translational Sciences, National Cancer Institute, Division of Graduate Education, College of Medicine, University of Arkansas for Medical Sciences.

The news correspondents obtained a quote from the research from the University of Arkansas for Medical Sciences, "We blocked nuclear translocation and DNA binding by AhR in glioblastoma cells using a small-molecule and observed decreased hpol k expression. Pharmacological inhibition of tryptophan-2,3-dioxygenase (TDO), the enzyme largely responsible for activating AhR in glioblastoma, led to a decrease in the endogenous AhR agonist kynurenine and a corresponding decrease in hpol k protein levels. Importantly, we discovered that inhibiting TDO activity, AhR signaling, or suppressing hpol k expression with RNA interference led to decreased chromosomal damage in glioblastoma cells. Epistasis assays further supported the idea that TDO activity, activation of AhR signaling, and the resulting overexpression of hpol k function primarily in the same pathway to increase endogenous DNA damage."

According to the news reporters, the research concluded: "These findings indicate that upregulation of hpol k through glioblastoma-specific TDO activity and activation of AhR signaling likely contributes to the high levels of replication stress and genomic instability.
observed in these tumors."

For more information on this research see: Kynurenine Signaling Increases DNA Polymerase Kappa Expression and Promotes Genomic Instability in Glioblastoma Cells. *Chemical Research In Toxicology*, 2015;29(1):101-8. (American Chemical Society - www.acs.org; Chemical Research In Toxicology - www.pubs.acs.org/journal/crtoec)

Our news journalists report that additional information may be obtained by contacting A.C. Bostian, Dept. of Biochemistry and Molecular Biology, University of Arkansas for Medical Sciences, Little Rock, Arkansas 72205-7199, United States. Additional authors for this research include L. Maddukuri, M.R. Reed, T. Savenka, J.H. Hartman, L. Davis, D.L. Pouncey, G.P. Miller and R.L. Eoff.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.chemrestox.5b00452. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Arkansas, Genetics, Oncology, Proteins, Kynurenine, Polymerase, Little Rock, Amino Acids, DNA Research, United States, Glioblastomas, Enzymes and Coenzymes, North and Central America, Aryl Hydrocarbon Receptor.

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**Gram-Negative Bacteria - Escherichia coli**

**Studies from University of Aveiro Describe New Findings in Escherichia coli (Characterization and in vitro evaluation of new bacteriophages for the biocontrol of Escherichia coli)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Escherichia coli. According to news reporting originating in Aveiro, Portugal, by NewsRx journalists, research stated, "In the present study two new phages (phT4A and ECA2) were characterized and their efficacy was evaluated separately and in cocktail (phT4A/ECA2) to control Escherichia coli. The isolated phages, phT4A and ECA2, belonged to the Myoviridae and Podoviridae family, respectively and both are safe (no integrase and toxin codifying genes) to be used in bacterial control."

Funders for this research include FEDER, National funding through Fundacao para a Ciencia e Tecnologia (FCT).

The news reporters obtained a quote from the research from the University of Aveiro, "In general, the increase of multiplicity of infection (MOI) from 1 to 100 promoted a significant increase in the efficiency of phage phT4A and phage cocktail phT4A/ECA2. Both phages were effective against E. coli, but phage phT4A (reduction of 5.8 log CFLI/mL after 8 h treatment) was more effective than phage ECA2 phage (reduction of 4.7 log CFLI/mL after 8 h treatment). The use of a cocktail phT4A/ECA2 was significantly more effective (reductions of 6.2 log CFU/mL after 6 h treatment) than the use single phage suspensions of phT4A and ECA2 (reductions 5.3 log CFU/mL and 4.9 log CFU/mL, respectively, after 6 h treatment)."

According to the news reporters, the research concluded: "The rate of emergence of phage-resistant mutants was lower for phage phT4A when compared with phage ECA2 and phage cocktail phT4A/ECA2. The results indicate that in addition to the efficacy, the potential
development of phage-resistant mutants must also be considered in the design of phage cocktails."

For more information on this research see: Characterization and in vitro evaluation of new bacteriophages for the biocontrol of Escherichia coli. Virus Research, 2017;227():171-182. Virus Research can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Virus Research - www.journals.elsevier.com/virus-research/)

Our news correspondents report that additional information may be obtained by contacting A. Almeida, University of Aveiro, CESAM, P-3810193 Aveiro, Portugal. Additional authors for this research include C. Moreirinha, M. Lewicka, P. Almeida, C. Clemente, J.L. Romalde, M.L. Nunes and A. Almeida.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.virusres.2016.09.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aveiro, Portugal, Europe, Gram-Negative Bacteria, Enterobacteriaceae, Escherichia coli, Bacteriophages, Proteobacteria, Genetics, Viruses, University of Aveiro.

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Musculoskeletal Diseases and Conditions - …

Studies from University of Barcelona Update Current Data on Rheumatic Diseases and Conditions (IgG4-related disease: Advances in the diagnosis and treatment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Musculoskeletal Diseases and Conditions - Rheumatic Diseases and Conditions have been published. According to news originating from Barcelona, Spain, by NewsRx correspondents, research stated, "IgG4-related disease is a rare immune-mediated systemic disease with the capability of involving essentially any organ. Although the presenting clinical features vary substantially according to the specialty to which patients present first, perhaps the most common clinical presentation is that of single or multiple organ enlargement, arousing suspicion of cancer."

Funders for this research include Fondo de Investigaciones Sanitarias, Ajut per a la Recerca Josep Font.

Our news journalists obtained a quote from the research from the University of Barcelona, "The disease is frequently diagnosed unexpectedly in pathological specimens or on imaging studies. The diagnostic approach is complex and includes not only IgG4-related tests (serum levels, circulating plasmablasts, and specific immunohistochemical studies), but also clinical, laboratory, and imaging tests as well as the typical histopathological features (lymphocytic infiltration, storiform fibrosis, eosinophilic infiltration, and obliterative phlebitis). IgG4-related tests should not be considered as diagnostic in the absence of an appropriate clinical scenario. Therapeutic approaches reported to date pertain primarily to glucocorticoids, but the use of these medications has not been studied in a controlled or prospective manner."

According to the news editors, the research concluded: "The most current investigational treatment approaches have focused on targeting cells of the B-cell lineage,
including B-cell-depleting agents (rituximab) and a non-depleting homodimer monoclonal antibody targeting CD19 and Fc-gamma RIIib."


The news correspondents report that additional information may be obtained from M. Ramos-Casals, University of Barcelona, Dept. of Med, Barcelona, Spain. Additional authors for this research include X. Bosch, M. Ramos-Casals and J.H. Stone.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.berh.2016.07.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Rheumatic Diseases and Conditions, Musculoskeletal Diseases and Conditions, University of Barcelona.

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**Nutritional and Metabolic Diseases and Conditions**

**Studies from University of Barcelona Yield New Data on Iron-Deficiency Anemia (Factors Associated with Hospitalization among Emergency Department Patients Referred for Quick Investigation of Iron-Deficiency Anemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Iron-Deficiency Anemia. According to news reporting out of Barcelona, Spain, by NewsRx editors, research stated, "Although patients with anemia are frequently seen in emergency departments (EDs), studies on patients presenting there with symptomatic chronic anemia--usually iron-deficiency anemia (IDA) caused by occult gastrointestinal bleeding--are lacking. Awareness of predictors of hospitalization could direct the ED triage to the appropriate diagnostic setting."

Our news journalists obtained a quote from the research from the University of Barcelona, "Based on initial observations that some patients with IDA were hospitalized after ED referral and initial evaluation at a quick diagnosis unit (QDU), a new cost-effective alternative to hospitalization for diagnostic workup, this study aimed to determine the patient factors associated with hospitalization after the first QDU visit. An 8-year prospective cohort study of patients with IDA referred from the ED to the QDU of a third-level university hospital was conducted. Patients with a baseline hemoglobin level of <9 g/dL in the ED, proven iron deficiency, and no overt bleeding were included. The primary outcome was hospitalization after the initial QDU assessment. Two hundred eighty-four (7.7%) of 3692 patients were hospitalized. Inter-rater agreement of appropriateness of admissions was 90.6% (k=0.82). Overall, 90% of study patients presented to the ED with symptomatic anemia, and 87% were transfused there. On multivariate analysis, age (>=) 65 years, living alone, a post-transfusion hemoglobin level of <9 g/dL, higher age-adjusted overall comorbidity, heart failure, and poor physical health-related quality of life at first QDU visit independently predicted hospitalization."

According to the news editors, the research concluded: "While these predictors do
not necessarily reflect the need for hospitalization, they are easily evaluated during the initial ED visit and can guide the triage of similar IDA patients to the suitable setting for timely investigation.


Our news journalists report that additional information may be obtained by contacting X. Bosch, Dept. of Internal Medicine, Hospital Clinic, Institut d'Investigacions Biomediques August Pi i Sunyer, University of Barcelona, Barcelona, Spain. Additional authors for this research include E. Monclus, A. Inciarte, P. Moreno, A. Jordan and A. Lopez-Soto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jemermed.2015.08.010. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *Journal of Emergency Medicine* is: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.

Keywords for this news article include: Spain, Europe, Barcelona, Iron Deficiency Anemia, Iron-Deficiency Anemia, Diagnostics and Screening, Hematologic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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**Congenital Diseases and Conditions - Congenital...**

**Studies from University of Barcelona in the Area of Congenital Heart Disease Described [Usefulness of Lung Ultrasound in Neonatal Congenital Heart Disease (LUSNEHDI): Lung Ultrasound to Assess Pulmonary Overflow in Neonatal Congenital Heart ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Congenital Diseases and Conditions - Congenital Heart Disease is the subject of a report. According to news reporting originating from Barcelona, Spain, by NewsRx correspondents, research stated, "This study aimed to explore the pattern of lung ultrasound (LUS) in newborns with congenital heart disease (CHD) and to investigate the accuracy of LUS assessing pulmonary overflow (PO) during the first days of life. Lung ultrasound was performed in 51 newborns during the first days of life, and newborns were classified in two groups depending on the predisposition to develop POas evaluated by the abundance of B-lines."

Our news editors obtained a quote from the research from the University of Barcelona, "The results were compared to the physical examination (PE), chest X-ray, and echocardiography. In both groups there were no differences in abundance of B-lines during the first days of life, but those with a type of CHD with a trend to develop PO had a higher B-lines score after 72 h (p < 0.05) with a good correlation with echocardiography findings and with a better sensibility than PE and chest X-ray."
According to the news editors, the research concluded: "We found that LUS is a reliable tool for the diagnosis of PO and may be useful to monitor and optimize therapy, which should be further validated in multicentre studies."

For more information on this research see: Usefulness of Lung Ultrasound in Neonatal Congenital Heart Disease (LUSNEHDI): Lung Ultrasound to Assess Pulmonary Overflow in Neonatal Congenital Heart Disease. *Pediatric Cardiology*, 2016;37(8):1482-1487. *Pediatric Cardiology* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Pediatric Cardiology - www.springerlink.com/content/0172-0643/)

The news editors report that additional information may be obtained by contacting J. Rodriguez-Fanjul, University of Barcelona, Hosp St Joan Deu Clin, BCNatal, Dept. of Neonatol, Barcelona, Spain. Additional authors for this research include A.S. Llop, M. Balaguer, C. Bautista-Rodriguez, J.M. Hernando and I. Jordan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00246-016-1461-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Cardiovascular Diseases and Conditions, Congenital Diseases and Conditions, Heart Disorders and Diseases, Congenital Heart Disease, Echocardiography, Cardiology, University of Barcelona.

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**Oncology - Melanoma**

**Studies from University of Bari Reveal New Findings on Melanoma [Detrimental effects of melanocortin-1 receptor (MC1R) variants on the clinical outcomes of BRAF V600 metastatic melanoma patients treated with BRAF inhibitors]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Melanoma is now available. According to news originating from Bari, Italy, by NewsRx correspondents, research stated, "Melanocortin-1 receptor (MC1R) plays a key role in skin pigmentation, and its variants are linked with a higher melanoma risk. The influence of MC1R variants on the outcomes of patients with metastatic melanoma (MM) treated with BRAF inhibitors (BRAFi) is unknown."

Funders for this research include Maria Ruggieri Association, Italian Melanoma Intergroup.

Our news journalists obtained a quote from the research from the University of Bari, "We studied the MC1R status in a cohort of 53 consecutive BRAF-mutated patients with MM treated with BRAFi. We also evaluated the effect of vemurafenib in four (V600)BRAF melanoma cell lines with/without MC1R variants. We found a significant correlation between the presence of MC1R variants and worse outcomes in terms of both overall response rate (ORR; 59% versus 95%, P=0.011 univariate, P=0.028 multivariate analysis) and progression-free survival (PFS) shorter than 6months (72% versus 33%, P=0.012 univariate, P=0.027 multivariate analysis). No difference in overall survival (OS) was reported, probably due to subsequent treatments."

According to the news editors, the research concluded: "Data invitro showed a
significant different phosphorylation of Erk1/2 and p38 MAPK during treatment, associated with a greater increase in vemurafenib IC50 in MC1R variant cell lines."


The news correspondents report that additional information may be obtained from M. Guida, University of Bari, Dept. of Basic Med Sci Neurosci & Sense Organs, Bari, Italy. Additional authors for this research include S. Strippoli, A. Ferretta, N. Bartolomeo, L. Porcelli, I. Maida, A. Azzariti, S. Tommasi, C. Grieco, S. Guida, A. Albano, V. Lorusso and G. Guida.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/pcmr.12516. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bari, Italy, Europe, Diseases and Conditions, Nerve Tissue Proteins, Pro-Opiomelanocortin, Metastatic Melanoma, Risk and Prevention, Pituitary Hormones, Peptide Proteins, Peptide Hormones, Neuropeptides, Healthcare, Oncology, Genetics, University of Bari.

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**Drugs and Therapies - Docetaxel Therapy**

**Studies from University of Basel Have Provided New Information about Docetaxel Therapy (A Cost-Effectiveness Analysis of Nivolumab versus Docetaxel for Advanced Nonsquamous NSCLC Including PD-L1 Testing)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Docetaxel Therapy have been presented. According to news reporting originating from Basel, Switzerland, by NewsRx correspondents, research stated, "Nivolumab (NW) was recently approved in several countries for patients with pretreated advanced NSCLC. NIV is not cost-effective compared with docetaxel (DOC) for the treatment of squamous NSCLC."

Our news editors obtained a quote from the research from the University of Basel, "However, its cost-effectiveness for nonsquamous NSCLC and the consequences of programmed death ligand 1 (PD-L1) testing are unknown. This literature-based health economic study used CheckMate-057 trial data to model the incremental cost-effectiveness ratio (ICER) of NIV versus DOC in the Swiss health care setting. The effect of PD-L1 positivity for patient selection was assessed. In the base case model, NIV (mean cost CHF66,208; mean effect 0.69 quality-adjusted life-years [QALYs]) compared with DOC (mean cost CHF37,618; mean effect 0.53 QALYs) resulted in an ICER of CHF177,478/QALY gained. Treating only patients with PD-L1-positive tumors (threshold >= 10%) with NIV compared with treating all patients with DOC produced a base case ICER of CHF124,891/QALY gained. Reduced drug price, dose, or treatment duration decreased the ICER partly below a willingness-to-pay threshold of CHF100,000/QALY. Health state utilities strongly influenced cost-effectiveness. Compared with DOC, NIV is not cost-effective for the treatment of nonsquamous NSCLC at current prices.
According to the news editors, the research concluded: "Price reduction or PD-L1 testing and selection of patients for NIV on the basis of test positivity improves cost-effectiveness compared with DOC."


The news editors report that additional information may be obtained by contacting K. Matter-Walstra, University of Basel, Inst Pharmaceut Med, CH-4056 Basel, Switzerland. Additional authors for this research include M. Schwenkglenks, S. Aebi, K. Dedes, J. Diebold, M. Pietrini, D. Klingbiel, R. von Moos and O. Gautschi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtho.2016.05.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Basel, Switzerland, Europe, Drugs and Therapies, Mitotic Inhibitors, Docetaxel Therapy, Antineoplastics, Pharmaceuticals, University of Basel.

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**Cardiology**

**Studies from University of Bologna Update Current Data on Cardiology (Risk of 22q11.2 deletion in fetuses with right aortic arch and without intracardiac anomalies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiology is the subject of a report. According to news originating from Bologna, Italy, by NewsRx correspondents, research stated, "To assess the risk of 22q11.2 deletion in fetuses with a prenatal diagnosis of right aortic arch without intracardiac anomalies (RAA-no ICA). This was a retrospective study of all fetuses with RAA-no ICA diagnosed prenatally at three referral centers, between 2004 and 2014."

Our news journalists obtained a quote from the research from the University of Bologna, "A detailed sonographic examination was performed in each case, including visualization of the thymus and of the head and neck vessels to identify the presence of an aberrant left subclavian artery (ALSA). Karyotyping and fluorescence in situ hybridization analysis for diagnosis of 22q11.2 deletion were always offered either prenatally or postnatally. Clinical and echocardiographic examinations were performed in livebirths and a postmortem examination in cases of termination of pregnancy. During the study period, 85 fetuses were diagnosed prenatally with RAA-no ICA. Genetic or clinical data were not available for three cases and these were excluded from analysis. 22q11.2 deletion was found in 7/82 cases (8.5% (95% CI, 3.8-17.3%)). The thymus was small or non-visualized in all seven cases and additional abnormal sonographic findings were present in four. Conclusion 22q11.2 deletion is present in a clinically significant proportion of fetuses with a prenatal diagnosis of RAA-no ICA."
According to the news editors, the research concluded: "In such cases, a detailed sonographic examination, with assessment of the thymus in particular, may be useful to further define the level of risk for 22q11.2 deletion."


The news correspondents report that additional information may be obtained from G. Pilu, University of Bologna, Dept. of Obstet & Gynecol, Bologna, Italy. Additional authors for this research include V. De Robertis, I. Cataneo, N. Volpe, G. Campobasso, T. Frusca, T. Ghi, D. Prandstraller, G. Pilu and P. Volpe.

Keywords for this news article include: Bologna, Italy, Europe, Intracardiac, Cardiology, University of Bologna.

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**Cardiovascular Diseases and Conditions -…**

**Studies from University of Bordeaux Yield New Data on Atherosclerosis (Solid Lipid Nanoparticles for Image-Guided Therapy of Atherosclerosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Atherosclerosis is now available. According to news reporting originating from Bordeaux, France, by NewsRx correspondents, research stated, "Although the application of nanotechnologies to atherosclerosis remains a young field, novel strategies are needed to address this public health issue. In this context, the magnetic resonance imaging (MRI) approach has been gradually investigated in order to enable image-guided treatments."

Financial support for this research came from Agence Nationale de la Recherche.

Our news editors obtained a quote from the research from the University of Bordeaux, "In this contribution, we report a new approach based on nucleoside-lipids allowing the synthesis of solid lipid nanoparticles (SLN) loaded with iron oxide particles and therapeutic agents. The insertion of nucleoside-lipids allows the formation of stable SLNs loaded with prostacycline (PGI2) able to inhibit platelet aggregation."

According to the news editors, the research concluded: "The new SLNs feature better relaxivity properties in comparison to the clinically used contrast agent Feridex, indicating that SLNs are suitable for image-guided therapy."


The news editors report that additional information may be obtained by contacting K. Oumzil, University of Bordeaux, ARNA laboratory , F-33000 Bordeaux, France. Additional authors for this research include M.A. Ramin, C. Lorenzato, A. Hemadou, J. Laroche, M.J. Jacobin-Valat, S. Mornet, C.E. Roy, T. Kauss, K. Gaudin, G. Clofent-Sanchez and P.
Studies from University of Bristol Update Current Data on Developmental Biology (Hypoxia promotes production of neural crest cells in the embryonic head)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Life Science Research - Developmental Biology have been presented. According to news reporting originating from Bristol, United Kingdom, by NewsRx correspondents, research stated, "Hypoxia is encountered in either pathological or physiological conditions, the latter of which is seen in amniote embryos prior to the commencement of a functional blood circulation. During the hypoxic stage, a large number of neural crest cells arise from the head neural tube by epithelial-to-mesenchymal transition (EMT)."

Financial support for this research came from Health Research Board.

Our news editors obtained a quote from the research from the University of Bristol, "As EMT-like cancer dissemination can be promoted by hypoxia, we investigated whether hypoxia contributes to embryonic EMT. Using chick embryos, we show that the hypoxic cellular response, mediated by hypoxia-inducible factor (HIF)-1 alpha, is required to produce a sufficient number of neural crest cells. Among the genes that are involved in neural crest cell development, some genes are more sensitive to hypoxia than others, demonstrating that the effect of hypoxia is gene specific. Once blood circulation becomes fully functional, the embryonic head no longer produces neural crest cells in vivo, despite the capability to do so in a hypoxia-mimicking condition in vitro, suggesting that the oxygen supply helps to stop emigration of neural crest cells in the head."

According to the news editors, the research concluded: "These results highlight the importance of hypoxia in normal embryonic development."


The news editors report that additional information may be obtained by contacting N. Itasaki, University of Bristol, Fac Hlth Sci, Bristol BS2 8EJ, Avon, United Kingdom. Additional authors for this research include E. Keane, E. Batt, P. Karunakaran, D.F. Higgins and N. Itasaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/dev.131912. This DOI is a link to an online electronic document that
Blood Diseases and Conditions - Sepsis

Studies from University of British Columbia Add New Findings in the Area of Sepsis (Increased Plasma PCSK9 Levels Are Associated with Reduced Endotoxin Clearance and the Development of Acute Organ Failures during Sepsis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Blood Diseases and Conditions - Sepsis are presented in a new report. According to news reporting from Vancouver, Canada, by NewsRx journalists, research stated, "We have recently shown that PCSK9 reduces the clearance of endotoxin and is therefore a critical regulator of the innate immune response during infection. However, plasma PCSK9 levels during human sepsis and their relationship to outcomes are not known."

The news correspondents obtained a quote from the research from the University of British Columbia, "Our objective was to determine the relationship between plasma PCSK9 levels and the rate of endotoxin clearance, and then correlate PCSK9 levels with the development of acute organ failures in a cohort of patients with sepsis. Using human hepatocyte cells, we determined the threshold at which PCSK9 is able to reduce *Escherichia coli* endotoxin uptake by cultured human hepatocytes. In a single-centre observational cohort at St. Paul's Hospital in Vancouver, Canada, we recruited 200 patients who activated our Emergency Department's sepsis protocol and measured plasma PCSK9 and lipid levels at triage and throughout the admission. Outcomes were the development of sepsis-induced cardiovascular or respiratory failure. We reviewed the literature and determined that the normal human range of PCSK9 found in plasma is 170-220 ng/ml, while levels of 250 ng/ml and above reduced *E. coli* endotoxin clearance in cultured human hepatocytes. In septic patients, the median levels associated with new-onset respiratory and cardiovascular failure were 370 (250-500) and 380 (270-530) ng/ml, respectively, versus 270 (220-380) ng/ml in patients who did not go on to develop any organ failure (p=0.003 and 0.005, respectively). Plasma PCSK9 levels are greatly increased in sepsis. At normal levels, PCSK9 has no influence upon hepatocyte bacterial endotoxin clearance, but as levels rise, there is a progressive inhibition of clearance. During sepsis, PCSK9 levels are highly correlated with the development of subsequent multiple organ failure."

According to the news reporters, the research concluded: "Inhibition of PCSK9 activity is an attractive target for treating the spectrum of sepsis and septic shock."


Our news journalists report that additional information may be obtained by contacting J.H. Boyd, Centre for Heart Lung Innovation, University of British Columbia,
Vancouver, BC, Canada. Additional authors for this research include C.D. Fjell, J.A. Russell, D. Sirounis, M.S. Cirstea and K.R Walley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442976. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Sepsis, Vancouver, Cardiology, Endotoxins, Septicemia, Article Review, Cardiovascular, British Columbia, Bacterial Toxins, Gastroenterology, Biological Factors, Bloodstream Infection, North and Central America, Blood Diseases and Conditions.

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Membrane Proteins - Immunologic Receptors

Studies from University of British Columbia Have Provided New Data on Immunologic Receptors (Activin B induces human endometrial cancer cell adhesion, migration and invasion by up-regulating integrin b3 via SMAD2/3 signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Membrane Proteins - Immunologic Receptors are discussed in a new report. According to news reporting from Vancouver, Canada, by NewsRx journalists, research stated, "Endometrial cancer is the fourth most common female cancer and the most common gynecological malignancy. Although it comprises only ~10% of all endometrial cancers, the serous histological subtype accounts for ~40% of deaths due to its aggressive behavior and propensity to metastasize."

The news correspondents obtained a quote from the research from the University of British Columbia, "Histopathological studies suggest that elevated expression of activin/inhibin bB subunit is associated with reduced survival in non-endometrioid endometrial cancers (type II, mostly serous). However, little is known about the specific roles and mechanisms of activin B (bB dimer) in serous endometrial cancer growth and progression. In the present study, we examined the biological functions of activin B in type II endometrial cancer cell lines, HEC-1B and KLE. Our results demonstrate that treatment with activin B increases cell migration, invasion and adhesion to vitronectin, but does not affect cell viability. Moreover, we show that activin B treatment increases integrin b3 mRNA and protein levels via SMAD2/3-SMAD4 signaling. Importantly, siRNA knockdown studies revealed that integrin b3 is required for basal and activin B-induced cell migration, invasion and adhesion."

According to the news reporters, the research concluded: "Our results suggest that activin B-SMAD2/3-integrin b3 signaling could contribute to poor patient survival by promoting the invasion and/or metastasis of type II endometrial cancers."

For more information on this research see: Activin B induces human endometrial cancer cell adhesion, migration and invasion by up-regulating integrin b3 via SMAD2/3 signaling. Oncotarget, 2015;6(31):31659-73.

Our news journalists report that additional information may be obtained by contacting S. Xiong, Dept. of Obstetrics and Gynaecology, Child and Family Research Institute, University of British Columbia, Vancouver, British Columbia, Canada. Additional authors for this research include C. Klausen, J.C. Cheng, H. Zhu and P.C Leung.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5229. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Cancer, Genetics, Oncology, Vancouver, Integrins, British Columbia, Membrane Proteins, Immunologic Receptors, North and Central America.

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gamma-Aminobutyric Acid

Studies from University of British Columbia Reveal New Findings on gamma-Aminobutyric Acid (Differential effects of R-isovaline and the GABAB agonist, baclofen, in the guinea pig ileum)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on gamma-Aminobutyric Acid is now available. According to news reporting originating from Vancouver, Canada, by NewsRx correspondents, research stated, "R-isovaline is a non-proteinogenic amino acid which produces analgesia in a range of nociceptive assays. Mediation of this effect by metabotropic receptors for gamma-aminobutyric acid (GABA) and glutamate, demonstrated by previous work, may depend on the type of tissue or receptor system."

Financial supporters for this research include Anesthesia Memorial Fund, UBC Faculty of Medicine.

Our news editors obtained a quote from the research from the University of British Columbia, "The objective of this study was to assess the activity of R-isovaline acting at GABA (B) and group II metabotropic glutamate receptors in guinea pig ileum, which is known to exhibit well-defined responses to GABA(B) agonists such as baclofen. The effects of bath-applied R-isovaline and RS-baclofen were examined on electrically evoked contractions of guinea pig ileum and during GABA(B) antagonism by CGP52432. In separate experiments, the group II metabotropic glutamate receptor agonist, LY354740 was applied to determine the functional presence of these receptors. R-isovaline (1-100 mM) decreased the amplitude of ileal muscle contractions and increased tension. RS-baclofen reduced contraction amplitude, but decreased tension. CGP52432 did not prevent the effects of R-isovaline on contraction amplitude, but antagonized effects of RS-baclofen on contraction amplitude. The group II metabotropic glutamate receptor agonist, LY354740, produced no detectable effects on evoked contractions. R-isovaline differed significantly from RS-baclofen in its actions in the guinea pig ileum, indicated in particular by the finding that CGP52432 blocked only the effects of RS-baclofen. The ileal tissue did not respond to a group II metabotropic glutamate receptor agonist, previously shown to co-mediate R-isovaline analgesia."

According to the news editors, the research concluded: "These findings raise the possibility of a novel therapeutic target at unknown receptors for R-isovaline-like compounds in the guinea pig ileum."

For more information on this research see: Differential effects of R-isovaline and the GABAB agonist, baclofen, in the guinea pig ileum. European Journal of Pharmacology, 2016;791():85-90. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European

The news editors report that additional information may be obtained by contacting T. Fung, University of British Columbia, Dept. of Anesthesiol Pharmacol & Therapeut, Hugill Anesthesia Res Center, Vancouver, BC V6T 1Z3, Canada. Additional authors for this research include K.A. Asseri, Y.I. Asiri, R.A. Wall, S.K.W. Schwarz, E. Puil and B.A. MacLeod.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.08.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Metabotropic Glutamate Receptors, Central Nervous System Agents, G-Protein-Coupled Receptors, Skeletal Muscle Relaxants, gamma-Aminobutyric Acid, Amino Acid Receptors, Drugs and Therapies, Membrane Proteins, Carboxylic Acids, Glutamic Acid, Glutamates, Baclofen, University of British Columbia.

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Cardiovascular Diseases and Conditions - Thrombosis

Studies from University of Buenos Aires Describe New Findings in Thrombosis (Neutrophil extracellular trap formation and circulating nucleosomes in patients with chronic myeloproliferative neoplasms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Thrombosis have been published. According to news reporting out of Buenos Aires, Argentina, by NewsRx editors, research stated, "The mechanisms underlying increased thrombotic risk in chronic myeloproliferative neoplasms (MPN) are incompletely understood. We assessed whether neutrophil extracellular traps (NETs), which promote thrombosis, contribute to the procoagulant state in essential thrombocythemia, polycythemia vera and myelofibrosis (MF) patients."

Our news journalists obtained a quote from the research from the University of Buenos Aires, "Although MPN neutrophils showed increased basal reactive oxygen species (ROS), enhanced NETosis by unstimulated neutrophils was an infrequent finding, whereas PMA-triggered NETosis was impaired, particularly in MF, due to decreased PMA-triggered ROS production. Elevated circulating nucleosomes were a prominent finding and were higher in patients with advanced disease, which may have potential prognostic implication. Histone-MPO complexes, proposed as specific NET biomarker, were seldomly detected, suggesting NETs may not be the main source of nucleosomes in most patients, whereas their correlation with high LDH points to increased cell turn-over as a plausible origin. Lack of association of nucleosomes or NETs with thrombosis or activation markers does not support their use as predictors of thrombosis although prospective studies in a larger cohort may help define their potential contribution to MPN thrombosis."

According to the news editors, the research concluded: "These results do not provide evidence for relevant in vivo NETosis in MPN patients under steady state conditions, although availability of standardized NET biomarkers may contribute to further research in this field."

For more information on this research see: Neutrophil extracellular trap formation and circulating nucleosomes in patients with chronic myeloproliferative neoplasms. Scientific
Studies from University of California Add New Findings in the Area of Fatty Liver (In vivo bioluminescence imaging reveals copper deficiency in a murine model of nonalcoholic fatty liver disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Liver Diseases and Conditions - Fatty Liver are discussed in a new report. According to news reporting out of Berkeley, California, by NewsRx editors, research stated, "Copper is a required metal nutrient for life, but global or local alterations in its homeostasis are linked to diseases spanning genetic and metabolic disorders to cancer and neurodegeneration. Technologies that enable longitudinal in vivo monitoring of dynamic copper pools can help meet the need to study the complex interplay between copper status, health, and disease in the same living organism over time."

Our news journalists obtained a quote from the research from the University of California, "Here, we present the synthesis, characterization, and in vivo imaging applications of Copper-Caged Luciferin-1 (CCL-1), a bioluminescent reporter for tissue-specific copper visualization in living animals. CCL-1 uses a selective copper(I)-dependent oxidative cleavage reaction to release D-luciferin for subsequent bioluminescent reaction with firefly luciferase. The probe can detect physiological changes in labile Cu+ levels in live cells and mice under situations of copper deficiency or overload. Application of CCL-1 to mice with liver-specific luciferase expression in a diet-induced model of nonalcoholic fatty liver disease reveals onset of hepatic copper deficiency and altered expression levels of central copper trafficking proteins that accompany symptoms of glucose intolerance and weight gain."

According to the news editors, the research concluded: "The data connect copper dysregulation to metabolic liver disease and provide a starting point for expanding the toolbox of reactivity-based chemical reporters for cell-and tissue-specific in vivo imaging."

For more information on this research see: In vivo bioluminescence imaging reveals copper deficiency in a murine model of nonalcoholic fatty liver disease. Proceedings of the National Academy of Sciences of the United States of America, 2016;113(50):14219-14224. Proceedings of the National Academy of Sciences of the United States of America can be

Our news journalists report that additional information may be obtained by contacting A. Stahl, University of California, Dept. of Nutr Sci & Toxicol, Berkeley, CA 94720, United States. Additional authors for this research include H.M. Park, H.Y. Au-Yeung, G.C. Van de Bittner, C.M. Ackerman, A. Stahl and C.J. Chang.

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Keywords for this news article include: Berkeley, California, United States, North and Central America, Digestive System Diseases and Conditions, Liver Diseases and Conditions, Enzymes and Coenzymes, Fatty Liver Disease, Bioluminescence, Luciferases, Genetics, University of California.

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Musculoskeletal Diseases and Conditions - Kyphosis

Studies from University of California Add New Findings in the Area of Kyphosis (SHBG, Sex Steroids, and Kyphosis in Older Men: The MrOS Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Kyphosis. According to news originating from La Jolla, California, by NewsRx correspondents, research stated, "Accentuated kyphosis is associated with adverse health outcomes, including falls and fractures. Low bone density is a risk factor for hyperkyphosis, and each vertebral fracture adds roughly 4 degrees to forward spine curvature."

Our news journalists obtained a quote from the research from the University of California, "Sex steroids, in particular low bioavailable estradiol and high sex hormone-binding globulin (SHBG), are associated with bone loss and high SHBG is associated with vertebral fractures in older men. We, therefore, hypothesized that low bioavailable estradiol and high SHBG would be associated with worse kyphosis. To test this hypothesis, we examined the cross-sectional associations between individual bioavailable sex hormones and SHBG with radiographically assessed kyphosis. Participants included 1500 men aged 65 and older from the Osteoporotic Fractures in Men (MrOS) Study, in whom baseline measures of kyphosis and sex hormones were available. Modified Cobb angle of kyphosis, calculated from T4 through T12, was assessed from supine lateral spine radiographs. Serum total estradiol and total testosterone were measured by mass spectrometry, and bioavailable sex steroids were calculated from mass action equations. After adjustment for age and other confounding variables, no association was found between bioavailable estradiol or testosterone and Cobb angle, either when kyphosis was analyzed as a continuous variable or dichotomized into highest versus lower three quartiles. In linear regression models adjusted for age and clinic site, there was a significant association between SHBG and kyphosis (parameter estimate=0.76 per SD increase, p=0.01). In the fully adjusted model, this association was weakened and of only borderline statistical significance (parameter estimate=0.61 per SD, p=0.05). Logistic models demonstrated similar findings. Although associated with bone loss, we did not demonstrate that low bioavailable estradiol
translates into worse kyphosis in older men. High SHBG is associated with bone loss and vertebral fractures."

According to the news editors, the research concluded: "Our results suggest that high SHBG may also be a risk factor for hyperkyphosis."


The news correspondents report that additional information may be obtained from G.N. Woods, University of California, La Jolla, CA 92093, United States. Additional authors for this research include M.H. Huang, P.M. Cawthon, G.A. Laughlin, J.T. Schousboe, C. McDaniels-Davidson, J.A. Cauley, E. Orwoll, E. Barrett-Connor and D.M. Kado.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Musculoskeletal Diseases and Conditions, Spinal Diseases and Conditions, Bone Diseases and Conditions, Risk and Prevention, Estradiol Congeners, Spinal Curvatures, Gonadal Hormones, Bone Research, Orthopedics, Kyphosis, University of California.

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**Drugs and Therapies - Clinical Pharmacology and...**

**Studies from University of California Describe New Findings in Clinical Pharmacology and Therapeutics (Leveraging big data to transform target selection and drug discovery)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Clinical Pharmacology and Therapeutics have been published. According to news reporting from San Francisco, California, by NewsRx journalists, research stated, "The advances of genomics, sequencing, and high throughput technologies have led to the creation of large volumes of diverse datasets for drug discovery. Analyzing these datasets to better understand disease and discover new drugs is becoming more common."

Financial support for this research came from National Institute of General Medical Sciences of the National Institutes of Health.

The news correspondents obtained a quote from the research from the University of California, "Recent open data initiatives in basic and clinical research have dramatically increased the types of data available to the public. The past few years have witnessed successful use of big data in many sectors across the whole drug discovery pipeline."

According to the news reporters, the research concluded: "In this review, we will highlight the state of the art in leveraging big data to identify new targets, drug indications, and drug response biomarkers in this era of precision medicine."

For more information on this research see: Leveraging big data to transform target selection and drug discovery. *Clinical Pharmacology and Therapeutics*, 2016;99(3):285-97. (Nature Publishing Group - www.nature.com/; Clinical Pharmacology and Therapeutics - www.nature.com/clpt/)
Our news journalists report that additional information may be obtained by contacting B. Chen, Institute for Computational Health Sciences, University of California, San Francisco, San Francisco, California, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cpt.318. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: California, San Francisco, United States, Article Review, Drugs and Therapies, North and Central America, Clinical Pharmacology and Therapeutics.

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Oncology - Prostate Cancer

Studies from University of California Describe New Findings in Prostate Cancer (Development and validation of a 24-gene predictor of response to postoperative radiotherapy in prostate cancer: a matched, retrospective analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Prostate Cancer. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "Postoperative radiotherapy has an important role in the treatment of prostate cancer, but personalised patient selection could improve outcomes and spare unnecessary toxicity. We aimed to develop and validate a gene expression signature to predict which patients would benefit most from postoperative radiotherapy."

Our news editors obtained a quote from the research from the University of California, "Patients were eligible for this matched, retrospective study if they were included in one of five published US studies (cohort, case-cohort, and case-control studies) of patients with prostate adenocarcinoma who had radical prostatectomy (with or without postoperative radiotherapy) and had gene expression analysis of the tumour, with long-term follow-up and complete clinicopathological data. Additional treatment after surgery was at the treating physician's discretion. In each cohort, patients who had postoperative radiotherapy were matched with patients who had not had radiotherapy using Gleason score, prostate-specific antigen concentration, surgical margin status, extracapsular extension, seminal vesicle invasion, lymph node invasion, and androgen deprivation therapy. We constructed a matched training cohort using patients from one study in which we developed a 24-gene Post-Operative Radiation Therapy Outcomes Score (PORTOS). We generated a pooled matched validation cohort using patients from the remaining four studies. The primary endpoint was the development of distant metastasis. In the training cohort (n=196), among patients with a high PORTOS (n=39), those who had radiotherapy had a lower incidence of distant metastasis than did patients who did not have radiotherapy, with a 10-year metastasis rate of 5% (95% CI 0-14) in patients who had radiotherapy (n=20) and 63% (34-80) in patients who did not have radiotherapy (n=19; hazard ratio [HR] 0.12 [95% CI 0.03-0.41], p<0.0001), whereas among patients with a low PORTOS (n=157), those who had postoperative radiotherapy (n=78) had a greater incidence of distant metastasis at 10 years than did their untreated counterparts (n=79; 57% [44-67] vs 31% [20-41]; HR 2.5 [1.6-4.1], p<0.0001), with a significant treatment interaction (p(interaction) <0.0001).
The finding that PORTOS could predict outcome due to radiotherapy treatment was confirmed in the validation cohort (n=330), which showed that patients who had radiotherapy had a lower incidence of distant metastasis compared with those who did not have radiotherapy, but only in the high PORTOS group (high PORTOS [n=82]: 4% [95% CI 0-10] in the radiotherapy group [n=57] vs 35% [95% CI 7-54] in the no radiotherapy group [n=25] had metastasis at 10 years; HR 0.15 [95% CI 0.04-0.60], p=0.0020; low PORTOS [n=248]: 32% [95% CI 19-43] in the radiotherapy group [n=108] vs 32% [95% CI 22-40] in the no radiotherapy group [n=140]; HR 0.92 [95% CI 0.56-1.51], p=0.76), with a significant interaction (p(interaction) =0.016). The conventional prognostic tools Decipher, CAPRA-S, and microarray version of the cell cycle progression signature did not predict response to radiotherapy (p(interaction) >0.05 for all). Patients with a high PORTOS who had postoperative radiotherapy were less likely to have metastasis at 10 years than those who did not have radiotherapy, suggesting that treatment with postoperative radiotherapy should be considered in this subgroup."

According to the news editors, the research concluded: "PORTOS should be investigated further in additional independent cohorts."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045(16)30491-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Clinical Trials and Studies, Post-Trial Research, Prostatic Neoplasms, Prostate Cancer, Radiotherapy, Oncology, Genetics, Therapy, University of California.

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prevent killing of self-cells, while enabling killing of MHC I-deficient cells. But tolerance also occurs for NK cells that lack inhibitory receptors for self-MHC I, and for all NK cells in MHC I-deficient animals."

Our news editors obtained a quote from the research from the University of California, "In both cases, NK cells are unresponsive to MHC I-deficient cells and hyporesponsive when stimulated through activating receptors, suggesting that hyporesponsiveness is responsible for self-tolerance. We generated irradiation chimeras, or carried out adoptive transfers, with wild-type (WT) and/or MHC I-deficient hematopoietic cells in WT or MHC I-deficient C57BL/6 host mice. Unexpectedly, in WT hosts, donor MHC I-deficient hematopoietic cells failed to induce hyporesponsiveness to activating receptor stimulation, but did induce tolerance to MHC I-deficient grafts. Therefore, these two properties of NK cells are separable. Both tolerance and hyporesponsiveness occurred when the host was MHC I deficient. Interestingly, infections of mice or exposure to inflammatory cytokines reversed the tolerance of NK cells that was induced by MHC I-deficient hematopoietic cells, but not the tolerance induced by MHC I-deficient nonhematopoietic cells."

According to the news editors, the research concluded: "These data have implications for successful bone marrow transplantation, and suggest that tolerance induced by hematopoietic cells versus nonhematopoietic cells may be imposed by distinct mechanisms."

For more information on this research see: Differential Role of Hematopoietic and Nonhematopoietic Cell Types in the Regulation of NK Cell Tolerance and Responsiveness. *Journal of Immunology*, 2016;197(10):4127-4136. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

The news editors report that additional information may be obtained by contacting D.H. Raulet, University of California, Div Immunol, Dept. of Mol & Cell Biol, Berkeley, CA 94720, United States. Additional authors for this research include D.U. Kissiov, M. Ardolino, N.T. Joncker and D.H. Raulet.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1402447. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berkeley, California, United States, North and Central America, Hematopoietic, Hematology, University of California.

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**Oncology - Pancreatic Cancer**

**Studies from University of California Have Provided New Data on Pancreatic Cancer (Irinotecan Delivery by Lipid-Coated Mesoporous Silica Nanoparticles Shows Improved Efficacy and Safety over Liposomes for Pancreatic Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Pancreatic Cancer are presented in a new report. According to news originating from Los Angeles, California, by NewsRx correspondents, research stated, "Urgent intervention is required to improve the 5 year survival rate of pancreatic ductal adenocarcinoma (PDAC). While the four-drug regimen, FOLFIRINOX (comprising
irinotecan, 5-fluorouracil, oxaliplatin, and leucovorin), has a better survival outcome than the more frequently used gemcitabine, the former treatment platform is highly toxic and restricted for use in patients with good performance status."

Financial supporters for this research include Hirshberg Foundation for Pancreatic Cancer Research, U.S. Public Health Service.

Our news journalists obtained a quote from the research from the University of California, "Since irinotecan contributes significantly to FOLFIRINOX toxicity (bone marrow and gastrointestinal tract), our aim was to reduce the toxicity of this drug by a custom-designed mesoporous silica nanoparticle (MSNP) platform, which uses a proton gradient for high-dose irinotecan loading across a coated lipid bilayer (LB). The improved stability of the LB-coated MSNP (LB-MSNP) carrier allowed less drug leakage systemically with increased drug concentrations at the tumor sites of an orthotopic Kras-derived PDAC model compared to liposomes. The LB-MSNP nanocarrier was also more efficient for treating tumor metastases. Equally important, the reduced leakage and slower rate of drug release by the LB-MSNP carrier dramatically reduced the rate of bone marrow, gastrointestinal, and liver toxicity compared to the liposomal carrier."

According to the news editors, the research concluded: "We propose that the combination of high efficacy and reduced toxicity by the LB-MSNP carrier could facilitate the use of irinotecan as a first-line therapeutic to improve PDAC survival."


The news correspondents report that additional information may be obtained from X. Liu, Division of NanoMedicine, Dept. of Medicine, University of California, Los Angeles, California 90095, United States. Additional authors for this research include A. Situ, Y. Kang, K.R. Villabroza, Y. Liao, C.H. Chang, T. Donahue, A.E. Nel and H. Meng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsnano.5b07781. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Biotechnology, Prodrug, Oncology, Liposomes, California, Los Angeles, Bone Marrow, Nanoparticle, United States, Bone Research, Immune System, Nanotechnology, Gastroenterology, Enzyme Inhibitors, Pancreatic Cancer, Irinotecan Therapy, Drugs and Therapies, Parasympathomimetic, Pancreatic Neoplasms.

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Studies from University of California Reveal New Findings on Brachytherapy (A method for restricting intracatheter dwell time variance in high-dose-rate brachytherapy plan optimization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Brachytherapy have been published. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated,
"To present the algorithm of a modification to the inverse planning simulated annealing (IPSA) optimization engine that allows for restriction of the intracatheter dwell time variance. IPSA was modified to allow user control of dwell time variance within each catheter through a single parameter, the dwell time deviation constraint (DTDC)."

The news reporters obtained a quote from the research from the University of California, "The minimum DTDC value (DTDC = 0) does not impose any restriction on dwell time variance, and the maximum value (DTDC = 1) restricts all dwell times within each catheter to take on the same value. The final optimization penalty function value was evaluated as a function of DTDC. The algorithm proposed fully preserves the inverse planning nature of the IPSA algorithm along with the penalty-based dose optimization workflow. Increasing DTDC creates less variance in dwell time between dwell positions in each catheter and may be used to induce a more smooth change in dwell time with dwell position in each catheter. Nonzero DTDC values always increased the optimization penalty function value. The DTDC was developed as an extension to IPSA to allow restriction of the difference in dwell time between adjacent dwell positions. This results in less variation between neighboring dwell positions which can be clinically desirable."

According to the news reporters, the research concluded: "However, the impact of this restriction needs to be considered for its clinical relevance on a case-by-case basis because considerable degradation in dose-volume histogram metrics can result for large DTDC values."


Our news correspondents report that additional information may be obtained by contacting A. Cunha, University of California, Radiat Oncol, San Francisco, CA 94115, United States. Additional authors for this research include T. Siauw, I.C. Hsu and J. Pouliot.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Drugs and Therapies, Brachytherapy, Radiotherapy, Algorithms, Therapy, University of California.

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Mycobacterium Infections - Tuberculosis

Studies from University of California Yield New Information about Tuberculosis (Xpert MTB/RIF Assay Shows Faster Clearance of Mycobacterium tuberculosis DNA with Higher Levels of Rifapentine Exposure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mycobacterium Infections - Tuberculosis is now available. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "The Xpert MTB/RIF assay is both sensitive and specific as a diagnostic test. Xpert also reports quantitative output in cycle threshold (C-T) values, which may provide a dynamic measure of sputum bacillary burden when used longitudinally."

Financial supporters for this research include HHS | National Institutes of Health
Our news editors obtained a quote from the research from the University of California, "We evaluated the relationship between Xpert C-T trajectory and drug exposure during tuberculosis (TB) treatment to assess the potential utility of Xpert C-T for treatment monitoring. We obtained serial sputum samples from patients with smear-positive pulmonary TB who were consecutively enrolled at 10 international clinical trial sites participating in study 29X, a CDC-sponsored Tuberculosis Trials Consortium study evaluating the tolerability, safety, and antimicrobial activity of rifapentine at daily doses of up to 20 mg/kg of body weight. Xpert was performed at weeks 0, 2, 4, 6, 8, and 12. Longitudinal C-T data were modeled using a nonlinear mixed effects model in relation to rifapentine exposure (area under the concentration-time curve [AUC]). The rate of change of C-T was higher in subjects receiving rifapentine than in subjects receiving standard-dose rifampin. Moreover, rifapentine exposure, but not assigned dose, was significantly associated with rate of change in C-T (P = 0.02). The estimated increase in C-T slope for every additional 100 μg. h/ml of rifapentine drug exposure (as measured by AUC) was 0.11 C-T/week (95% confidence interval [CI], 0.05 to 0.17). Increasing rifapentine exposure is associated with a higher rate of change of Xpert C-T, indicating faster clearance of Mycobacterium tuberculosis DNA."

According to the news editors, the research concluded: "These data suggest that the quantitative outputs of the Xpert MTB/RIF assay may be useful as a dynamic measure of TB treatment response."

For more information on this research see: Xpert MTB/RIF Assay Shows Faster Clearance of Mycobacterium tuberculosis DNA with Higher Levels of Rifapentine Exposure. *Journal of Clinical Microbiology*, 2016;54(12):3028-3033. *Journal of Clinical Microbiology* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA.


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Keywords for this news article include: San Francisco, California, United States, North and Central America, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Antituberculosis Agents, Gram-Positive Bacteria, Rifamycin Derivatives, Drugs and Therapies, Gram-Positive Rods, Infectious Disease, Mycobacteriaceae, Actinobacteria, Antiinfectives, Rifapentine, Antibiotics, Genetics, University of California.

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Autoimmune Diseases and Conditions - Sjogren's…

Studies from University of California in the Area of Sjogren's Syndrome Reported (Epigenetic Signatures of Salivary Gland Inflammation in Sjogren's Syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Autoimmune Diseases and Conditions - Sjogren's Syndrome. According to news reporting from San Francisco, California, by NewsRx journalists, research stated, "Sjogren's syndrome (SS) is a complex multisystem autoimmune disease that results in progressive destruction of the exocrine glands. The purpose of this study was to characterize epigenetic changes in affected gland tissue and describe the relationship of these changes to known inflammatory processes."

The news correspondents obtained a quote from the research from the University of California, "A genome-wide DNA methylation study was performed on human labial salivary gland (LSG) biopsy samples obtained from 28 female members of the Sjogren's International Collaborative Clinical Alliance (SICCA) Registry. Gland tissue was methylotyped using the Illumina HumanMethylation450 BeadChip platform, followed by rigorous probe-filtering and data-normalization procedures. A genome-wide case-control study of 26 of the 28 subjects revealed 7,820 differentially methylated positions (DMPs) associated with disease status, including 5,699 hypomethylated and 2,121 hypermethylated DMPs. Further analysis identified 57 genes that were enriched for DMPs in their respective promoters; many are involved in immune response, including 2 previously established SS genetic risk loci. Bioinformatics analysis highlighted an extended region of hypomethylation surrounding PSMB8 and TAP1, consistent with an increased frequency of antigen-presenting cells in LSG tissue from the SS cases. Transcription factor motif enrichment analysis revealed the specific nature of the genome-wide methylation differences, demonstrating colocalization of SS-associated DMPs with stress- and immune response-related motifs. Our findings underscore the utility of CpG methylation as an independent probe of active disease processes in SS, offering unique insights into the composition of disease-relevant tissue."

According to the news reporters, the research concluded: "Methylation profiling implicated several genes and pathways previously thought to be involved in disease-related processes, as well as a number of new candidates."

For more information on this research see: Epigenetic Signatures of Salivary Gland Inflammation in Sjogren's Syndrome. Arthritis & Rheumatology, 2016;68(12):2936-2944. Arthritis & Rheumatology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting L.A. Criswell, University of California, Russell Engleman Rheumatol Res Center, San Francisco, CA 94143, United States. Additional authors for this research include H. Quach, D. Quach, A. Baker, K.E. Taylor, L.F. Barcellos and L.A. Criswell.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Skin and Connective Tissue Diseases and Conditions, Lacrimal Apparatus Diseases and Conditions, Musculoskeletal Diseases and Conditions, Stomatognathic Diseases and Conditions, Salivary Gland Diseases and Conditions, Autoimmune Diseases and Conditions, Rheumatic Diseases and Conditions, Genetic Diseases and Conditions, Mouth Diseases and Conditions, Joint Diseases and Conditions, Risk and Prevention, Sjogren's Syndrome, Dry Eye Syndrome, Inflammation, Genetic Risk, Xerostomia, Genetics,
Studies from University of Cambridge Further Understanding of Tuberculosis (Wild-Type and Non-Wild-Type Mycobacterium tuberculosis MIC Distributions for the Novel Fluoroquinolone Antofloxacin Compared with Those for Ofloxacin, Levofloxacin, and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mycobacterium Infections - Tuberculosis is now available. According to news originating from Cambridge, United Kingdom, by NewsRx correspondents, research stated, "Antofloxacin (AFX) is a novel fluoroquinolone that has been approved in China for the treatment of infections caused by a variety of bacterial species. We investigated whether it could be repurposed for the treatment of tuberculosis by studying its in vitro activity."

Our news journalists obtained a quote from the research from the University of Cambridge, "We determined the wild-type and non-wild-type MIC ranges for AFX as well as ofloxacin (OFX), levofloxacin (LFX), and moxifloxacin (MFX), using the microplate alamarBlue assay, of 126 clinical Mycobacterium tuberculosis strains from Beijing, China, of which 48 were OFX resistant on the basis of drug susceptibility testing on Lowenstein-Jensen medium. The MIC distributions were correlated with mutations in the quinolone resistance-determining regions of gyrA (Rv0006) and gyrB (Rv0005). Pharmacokinetic/pharmacodynamic (PK/PD) data for AFX were retrieved from the literature. AFX showed lower MIC levels than OFX but higher MIC levels than LFX and MFX on the basis of the tentative epidemiological cutoff values (ECOFFs) determined in this study. All strains with non-wild-type MICs for AFX harbored known resistance mutations that also resulted in non-wild-type MICs for LFX and MFX. Moreover, our data suggested that the current critical concentration of OFX for Lowenstein-Jensen medium that was recently revised by the World Health Organization might be too high, resulting in the misclassification of phenotypically non-wildtype strains with known resistance mutations as wild type."

According to the news editors, the research concluded: "On the basis of our exploratory PK/PD calculations, the current dose of AFX is unlikely to be optimal for the treatment of tuberculosis, but higher doses could be effective."

For more information on this research see: Wild-Type and Non-Wild-Type Mycobacterium tuberculosis MIC Distributions for the Novel Fluoroquinolone Antofloxacin Compared with Those for Ofloxacin, Levofloxacin, and Moxifloxacin. Antimicrobial Agents and Chemotherapy, 2016;60(9):5232-5237. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is:
Studies from University of Cambridge Have Provided New Data on Liposomes (Controlling Self-Assembly Kinetics of DNA-Functionalized Liposomes Using Toehold Exchange Mechanism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Biotechnology - Liposomes. According to news reporting originating from Cambridge, United Kingdom, by NewsRx correspondents, research stated, "The selectivity of Watson-Crick base pairing has allowed the design of DNA-based functional materials bearing an unprecedented level of accuracy. Examples include DNA origami, made of tiles assembling into arbitrarily complex shapes, and DNA-coated particles featuring rich phase behaviors."

Funders for this research include Engineering and Physical Sciences Research Council, Emmanuel College, University of Cambridge, OppenheimerFunds.

Our news editors obtained a quote from the research from the University of Cambridge, "Frequently, the realization of conceptual DNA-nanotechnology designs has been hampered by the lack of strategies for effectively controlling relaxations. In this article, we address the problem of kinetic control on DNA-mediated interactions between Brownian objects. We design a kinetic pathway based on toehold-exchange mechanisms that enables rearrangement of DNA bonds without the need for thermal denaturation, and test it on suspensions of DNA-functionalized liposomes, demonstrating tunability of aggregation rates over more than 1 order of magnitude."

According to the news editors, the research concluded: "While the possibility to design complex phase behaviors using DNA as a glue is already well recognized, our results demonstrate control also over the kinetics of such systems."


The news editors report that additional information may be obtained by contacting L. Parolini, Biological and Soft Systems, Cavendish Laboratory, University of Cambridge, JJ Thomson Avenue, Cambridge CB3 0HE, UK. Additional authors for this research include J. Kotar, L. Di Michele and B.M Moggetti.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1021/acsnano.5b07201. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Europe, Cambridge, Liposomes, DNA Research, United Kingdom.

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**Mycobacterium Infections - Tuberculosis**

**Studies from University of Cape Town Have Provided New Data on Tuberculosis (Selected questions and controversies about bedaquiline: a view from the field)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Mycobacterium Infections - Tuberculosis. According to news reporting from Cape Town, South Africa, by NewsRx journalists, research stated, "Although there has been a slow decline in tuberculosis (TB) incidence worldwide, the prevalence of drug resistant TB in most high-burden countries has increased. Drug-resistant TB is associated with high mortality, is a threat to health care workers in TB endemic countries and is prohibitively costly, which diverts resources away from drug-susceptible cases."

The news correspondents obtained a quote from the research from the University of Cape Town, "Amplification of resistance means that there is an increasing proportion of patients with multidrug-resistant TB who have extensively drug-resistant TB (XDR-TB) or are programmatically untreatable. Thus, new treatment options are urgently needed. Bedaquiline (BDQ) is the first new drug specifically developed for TB to be licensed for use in almost 40 years. BDQ has sterilising activity and also shows promise as a component of new treatment-shortening regimens for drug-susceptible TB. Here we review insights from the field into the use of BDQ, issues relevant to the practising clinician, implications for the selection for antiretroviral therapy, pharmacokinetic issues relevant to clinical practice and implications for combination therapy."

According to the news reporters, the research concluded: "Given the increasing prevalence of resistance beyond XDR-TB, we also discuss how the development of resistance to BDQ can be minimised."

For more information on this research see: Selected questions and controversies about bedaquiline: a view from the field. *International Journal of Tuberculosis and Lung Disease*, 2016;20(12):S24-S32. *International Journal of Tuberculosis and Lung Disease* can be contacted at: Int Union Against Tuberculosis Lung Disease (I U A T L D), 68 Boulevard Saint-Michel, 75006 Paris, France.

Our news journalists report that additional information may be obtained by contacting K. Dheda, University of Cape Town, Dept. of Med, Lung Inst, Cape Town, South Africa. Additional authors for this research include A. Esmail, J. Limberis and G. Maartens.

Keywords for this news article include: Cape Town, South Africa, Africa, Drugs and Therapies, Epidemiology, Mycobacterium Infections, Infectious Disease, Drug Resistance, Tuberculosis, University of Cape Town.

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Studies from University of Chicago Have Provided New Data on Science (Gene expression in local stroma reflects breast tumor states and predicts patient outcome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "The surrounding microenvironment has been implicated in the progression of breast tumors to metastasis. However, the degree to which metastatic breast tumors locally reprogram stromal cells as they disrupt tissue boundaries is not well understood."

Our news journalists obtained a quote from the research from the University of Chicago, "We used species-specific RNA sequencing in a mouse xenograft model to determine how the metastasis suppressor RKIP influences transcription in a panel of paired tumor and stroma tissues. We find that gene expression in metastatic breast tumors is pervasively correlated with gene expression in local stroma of both mouse xenografts and human patients. Changes in stromal gene expression elicited by tumors better predicts subtype and patient survival than tumor gene expression, and genes with coordinated expression in both tissues predict metastasis-free survival."

According to the news editors, the research concluded: "These observations support the use of stroma-based strategies for the diagnosis and prognosis of breast cancer."


Our news journalists report that additional information may be obtained by contacting Y. Gilad, University Chicago, Dept. of Human Genet, Chicago, IL 60637, United States. Additional authors for this research include C. Frankenberger, D. Rabe, G. An, Y. Gilad and M.R. Rosner.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Science, Genetics, Genetics, University of Chicago.

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Cytoplasmic Structures

Studies from University of Chicago in the Area of Cytoplasmic Structures Described (Role of IQGAP1 in endothelial barrier enhancement caused by OxPAPC)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cytoplasmic Structures are discussed in a new report. According to news reporting originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Oxidized 1-palmitoyl-2-arachidonoyl-sn-glycero-3-phosphatidylcholine
(OxPAPC) attenuates agonist-induced endothelial cell (EC) permeability and increases pulmonary endothelial barrier function via enhancement of both the peripheral actin cytoskeleton and cell junctions mediated by Rac1 and Cdc42 GTPases. This study evaluated the role for the multifunctional Rac1/Cdc42 effector and regulator, IQ domain containing GTPase-activating protein (IQGAP1), as a molecular transducer of the OxPAPC-mediated EC barrier-enhancing signal."

Financial supporters for this research include NHLBI, HHS | NIH | National Institute of General Medical Sciences (NIGMS).

Our news editors obtained a quote from the research from the University of Chicago, "IQGAP1 knockdown in endothelial cells by gene-specific small-interfering RNA abolished OxPAPC-induced enlargement of VE-cadherin-positive adherens junctions, suppressed peripheral accumulation of actin polymerization regulators, namely cortactin, neural Wiskott-Aldrich syndrome protein (N-WASP), and actin-related protein 3, and attenuated remodeling of the peripheral actin cytoskeleton. Inhibition of OxPAPC-induced barrier enhancement by IQGAP1 knockdown was due to suppressed Rac1 and Cdc42 activation. Expression of an IQGAP1 truncated mutant showed that the GTPase regulatory domain of IQGAP1 was essential for the OxPAPC-induced membrane localization of cortactin, adherens junction proteins VE-cadherin and p120-catenin, as well as for EC permeability response. IQGAP1 knockdown attenuated the protective effect of OxPAPC against thrombin-induced cell contraction, cell junction disruption, and EC permeability."

According to the news editors, the research concluded: "These results demonstrate for the first time the role of IQGAP1 as a critical transducer of OxPAPC-induced Rac1/Cdc42 signaling to the actin cytoskeleton and adherens junctions, which promotes cortical cytoskeletal remodeling and EC barrier-protective effects of oxidized phospholipids."

For more information on this research see: Role of IQGAP1 in endothelial barrier enhancement caused by OxPAPC. American Journal of Physiology-Lung Cellular and Molecular Physiology, 2016;311(4):L800-L809. American Journal of Physiology-Lung Cellular and Molecular Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting K.G. Birukov, University Chicago, Dept. of Med, Sect Pulm & Crit Care Med, Chicago, IL 60637, United States. Additional authors for this research include X.Y. Tian, G. Gawlak, N. Sarich, D.B. Sacks, A.A. Birukova and K.G. Birukov.

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Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Cytoplasmic Structures, Enzymes and Coenzymes, Cellular Structures, Intracellular Space, Cytoskeleton, Genetics, GTPase, University of Chicago.

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Oncology - Chronic Lymphocytic Leukemia

Studies from University of Cologne Provide New Data on Chronic Lymphocytic Leukemia (State-of-the-Art Treatment and Novel Agents in Chronic Lymphocytic Leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Chronic Lymphocytic Leukemia. According to news reporting originating from Cologne, Germany, by NewsRx correspondents, research stated, "Chemoimmunotherapy is the established first-line treatment of patients with chronic lymphocytic leukemia (CLL) who do not display the high-risk genetic features del(17p) and/or TP53 mutation: Physically fit patients without or with only mild comorbidities should receive fludarabine, cyclophosphamide and rituximab, while bendamustine and rituximab can be considered in fit elderly patients of over 65 years and in patients with a higher risk of infections. Patients with relevant coexisting conditions should receive chlorambucil with a CD20 antibody, preferably obinutuzumab."

Our news editors obtained a quote from the research from the University of Cologne, "Patients with a del(17p) and/or TP53 mutation respond poorly to conventional chemo(immuno) therapies. However, the recently approved BTK and PI3K inhibitors ibrutinib and idelalisib have the best efficacy ever documented in patients with these high-risk genomic alterations and/or refractory CLL. The choice between ibrutinib and idelalisib should be based on the patients' comorbidities and concomitant medications since both agents have a distinct toxicity profile, although they are generally well tolerated in the majority of patients. For treatment of patients with a late relapse, chemoimmunotherapy instead of kinase inhibitors is still a reasonable approach, but has to be determined for every patient individually."

According to the news editors, the research concluded: "Further targeted drugs and their combinations are currently being evaluated in clinical trials and have the potential to eradicate all residual CLL cells and thus lead to a cure of CLL."

For more information on this research see: State-of-the-Art Treatment and Novel Agents in Chronic Lymphocytic Leukemia. Oncology Research and Treatment, 2016;39(1-2):25-32.

The news editors report that additional information may be obtained by contacting P. Cramer, Dept. of I of Internal Medicine, Center of Integrated Oncology Cologne-Bonn and German CLL Study Group, University of Cologne, Cologne, Germany. Additional authors for this research include M. Hallek and B. Eichhorst.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443903. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Cologne, Germany, Genetics, Oncology, Hematology, Risk and Prevention, Chronic Lymphocytic Leukemia.

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Studies from University of Colorado Have Provided New Information about Cardiovascular and Thoracic Surgery (Rapamycin Decreases the Osteogenic Response in Aortic Valve Interstitial Cells Through the Stat3 Pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Surgery - Cardiovascular and Thoracic Surgery are discussed in a new report. According to news reporting from Aurora, Colorado, by NewsRx journalists, research stated, "Calcific aortic valve disease (CAVD) is an age-related and slowly progressive valvular disorder. We have previously found that the increased inflammatory and osteogenic responses to Toll-like receptor 4 (TLR4) stimulation is correlated with lower signal transducer and activator of transcription 3 (Stat3) activity in aortic valve interstitial cells (AVICs)."

The news correspondents obtained a quote from the research from the University of Colorado, "Rapamycin, a drug used clinically, induces feedback activation of Akt. Akt in turn may upregulate Stat3. Therefore we hypothesized that rapamycin will decrease TLR4-induced osteogenic response in human AVICs through modulation of Stat3 activity. AVICs were isolated from normal valves taken from the explanted hearts of patients undergoing transplantation. Cells were treated with TLR4 ligand lipopolysaccharide (LPS) or rapamycin, or both. The osteogenic markers runt-related transcription factor 2 (RUNX2), alkaline phosphatase (ALP), and bone morphogenetic protein 2 (BMP-2), as well as activation of Stat3 and its associated signaling molecules, were analyzed. LPS induces the expression of RUNX2, ALP, and BMP-2. Rapamycin decreased both the baseline and LPS-induced expression of RUNX2, ALP, and BMP-2. Rapamycin also decreased calcium deposit formation. Rapamycin activated both Stat3 and Akt in AVICs. Suppression of Akt resulted in abolishment of Stat3 activation. Inhibition of Stat3 enhanced expression of RUNX2, ALP, and BMP-2 at baseline and in response to LPS. Rapamycin inhibits TLR4-induced osteogenic responses in AVICs by activation of Stat3 through Akt."

According to the news reporters, the research concluded: "Rapamycin may alleviate inflammation-induced initiation and progression of CAVD."


Our news journalists report that additional information may be obtained by contacting J. Jaggers, University of Colorado, Dept. of Cardiothorac Surg, Aurora, CO, United States. Additional authors for this research include X.Z. Meng, R. Song, D. Fullerton and J. Jaggers.

Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Cardiovascular and Thoracic Surgery, Surgery, Genetics, University of Colorado.

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Studies from University of Colorado in the Area of Antiretrovirals

Reported (Analysis of the Endogenous Deoxynucleoside Triphosphate Pool in HIV-Positive and -Negative Individuals Receiving Tenofovir-Emtricitabine)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antiretrovirals is the subject of a report. According to news reporting from Aurora, Colorado, by NewsRx journalists, research stated, "Tenofovir (TFV) disoproxil fumarate (TDF) and emtricitabine (FTC), two nucleos(t)ide analogs (NA), are coformulated as an anti-HIV combination tablet for treatment and preexposure prophylaxis (PrEP). TDF/FTC may have effects on the deoxynucleoside triphosphate (dNTP) pool due to their similar structures and similar metabolic pathways."

Financial support for this research came from HHS | NIH | NIH Office of the Director (OD).

The news correspondents obtained a quote from the research from the University of Colorado, "We carried out a comprehensive clinical study to characterize the effects of TDF/FTC on the endogenous dNTP pool, from baseline to 30 days of TDF/FTC therapy, in both treatment-naive HIV-positive and HIV-negative individuals. dATP, dCTP, dGTP, and TTP were quantified in peripheral blood mononuclear cells (PBMC) with a validated liquid chromatography-tandem mass spectrometry (LC-MS/MS) methodology. Forty individuals (19 HIV-positive) were enrolled and underwent a baseline visit and then received TDF/FTC for at least 30 days. Longitudinal measurements were analyzed using mixed-model segmented linear regression analysis. The dNTPs were reduced by 14% to 37% relative to the baseline level within 3 days in both HIV-negative and HIV-positive individuals (P <= 0.003). These reductions persisted to various degrees at day 30. These findings indicate that dNTP pools are influenced by TDF/FTC therapy. This may alter cellular homeostasis and could increase the antiviral effect through a more favorable analog/dNTP ratio."

According to the news reporters, the research concluded: "Further work is needed to elucidate mechanisms, to evaluate the clinical significance of these findings, and to further probe differences between HIV-negative and HIV-positive individuals."

For more information on this research see: Analysis of the Endogenous Deoxynucleoside Triphosphate Pool in HIV-Positive and -Negative Individuals Receiving Tenofovir-Emtricitabine. Antimicrobial Agents and Chemotherapy, 2016;60(9):5387-5392. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting P.L. Anderson, University of Colorado, Skaggs Sch Pharm & Pharmaceut Sci, Dept. of Pharmaceut Sci, Aurora, CO, United States. Additional authors for this research include J.R. Castillo-Mancilla, S.M. Seifert, K.B. McAllister, J.H. Zheng, L.R. Bushman, S. MaWhinney and P.L. Anderson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01019-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aurora, Colorado, United States, North and
Studies from University of Colorado in the Area of Right Ventricular Reported (A Zero-Dimensional Model and Protocol for Simulating Patient-Specific Pulmonary Hemodynamics From Limited Clinical Data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Right Ventricular are discussed in a new report. According to news reporting out of Aurora, Colorado, by NewsRx editors, research stated, "In pulmonary hypertension (PH) diagnosis and management, many useful functional markers have been proposed that are unfeasible for clinical implementation. For example, assessing right ventricular (RV) contractile response to a gradual increase in pulmonary arterial (PA) impedance requires simultaneously recording RV pressure and volume, and under different afterload/preload conditions."

Our news journalists obtained a quote from the research from the University of Colorado, "In addition to clinical applications, many research projects are hampered by limited retrospective clinical data and could greatly benefit from simulations that extrapolate unavailable hemodynamics. The objective of this study was to develop and validate a 0D computational model, along with a numerical implementation protocol, of the RV-PA axis. Model results are qualitatively compared with published clinical data and quantitatively validated against right heart catheterization (RHC) for 115 pediatric PH patients. The RV-PA circuit is represented using a general elastance function for the RV and a three-element Windkessel initial value problem for the PA. The circuit mathematically sits between two reservoirs of constant pressure, which represent the right and left atriums. We compared P-max, P-min, mPAP, cardiac output (CO), and stroke volume (SV) between the model and RHC. The model predicted between 96% and 98% of the variability in pressure and 98-99% in volumetric characteristics (CO and SV). However, Bland Altman plots showed the model to have a consistent bias for most pressure and volumetric parameters, and differences between model and RHC to have considerable error."

According to the news editors, the research concluded: "Future studies will address this issue and compare specific waveforms, but these initial results are extremely promising as preliminary proof of concept of the modeling approach."


Our news journalists report that additional information may be obtained by contacting V.O. Kheyfets, Univ Colorado Anschutz Med Campus, Childrens Hosp Colorado, Aurora, CO 80045, United States. Additional authors for this research include J. Dunning, U.
Studies from University of Connecticut Add New Findings in the Area of Atrial Fibrillation (Meta-analysis of ascorbic acid for prevention of postoperative atrial fibrillation after cardiac surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Atrial Fibrillation is the subject of a report. According to news reporting out of Storrs, Connecticut, by NewsRx editors, research stated, "Results of a systematic review and meta-analysis of published data on use of ascorbic acid to prevent postoperative atrial fibrillation (POAF) after cardiac surgery are presented. MEDLINE and other sources were searched for reports on trials evaluating the effects of preoperative and/or postoperative use of ascorbic acid in patients undergoing cardiac surgery."

Our news journalists obtained a quote from the research from the University of Connecticut, "For each study selected for meta-analysis, an assessment for risks of methodological bias was performed. Data on POAF frequency and length of stay (LOS) outcomes were pooled and analyzed via random-effects modeling. The 11 identified studies involved patients receiving coronary artery bypass grafts with or without valve replacement; both i.v. and oral ascorbic acid formulations were used. Analysis of pooled outcomes data on treatment and control groups indicated that ascorbic acid prophylaxis was associated with reductions in POAF frequency (odds ratio, 0.44; 95% confidence interval [CI], 0.32 to 0.61), intensive care unit (ICU) LOS (difference in means, -0.24 day; 95% CI, -0.45 to -0.03 day), and total hospital LOS (difference in means, -0.94 day; 95% CI, -1.65 to -0.23 day). Significant statistical, methodological, and clinical heterogeneity were observed."

According to the news editors, the research concluded: "A meta-analysis revealed that, compared with use of a placebo or a nonplacebo control, perioperative administration of ascorbic acid to patients undergoing cardiac surgery was associated with a reduced frequency of POAF and a shorter ICU LOS and total hospital LOS."

For more information on this research see: Meta-analysis of ascorbic acid for prevention of postoperative atrial fibrillation after cardiac surgery. American Journal of Health-System Pharmacy, 2016;73(24):2056-2066. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting W.L. Baker, University of Connecticut, Sch Pharm, Dept. of Pharm Practice, Storrs, CT 06269, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp160066. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Storrs, Connecticut, United States, North
and Central America, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Cardiac Surgery, Ascorbic Acid, Heart Disease, Sugar Acids, Cardiology, Hospital, University of Connecticut.

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Hematology - Perfusion Research

Studies from University of Copenhagen Provide New Data on Perfusion Research (Does depth of the frontal sinus affect near-infrared spectroscopy measurement?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Perfusion Research. According to news reporting from Copenhagen, Denmark, by NewsRx journalists, research stated, "Near-infrared spectroscopy (NIRS) is a non-invasive method that reflects real-time cerebral oxygenation (rSO2(2)) by the use of two adhesive optodes placed on the forehead of the patient."

The news correspondents obtained a quote from the research from the University of Copenhagen, "Frontal sinuses vary anatomically and a large frontal sinus might compromise the NIRS signal since the NIRS optodes are placed at the skin surface superficial to the underlying frontal sinus. The aim of this case-series was to elucidate whether there is a difference in the obligate changes in rSO2 during cardiac surgery between patients with a small as opposed to a large anterior-posterior distance of the frontal sinus based on magnetic resonance imaging."

According to the news reporters, the research concluded: "Two matched groups with small (n = 5) vs. large (n = 5) frontal sinus (3.2 vs. 18.1 millimeters) in this case-series showed no difference in obligate changes of rSO(2) (p = 0.54)."

For more information on this research see: Does depth of the frontal sinus affect near-infrared spectroscopy measurement? Perfusion-Uk, 2016;31(8):659-661. Perfusion-Uk can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England.

Our news journalists report that additional information may be obtained by contacting F. Holmgaaard, University of Copenhagen, Center Heart, Rigshospitalet, Dept. of Cardiothorac Anesthesiol, DK-2100 Copenhagen, Denmark. Additional authors for this research include A.G. Vedel, A. Langkilde, J.C. Nilsson and H.B. Ravn.

Keywords for this news article include: Copenhagen, Denmark, Europe, Perfusion Research, Hematology, University of Copenhagen.

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Skin Diseases and Conditions - Rosacea

Studies from University of Copenhagen Reveal New Findings on Rosacea (Nationwide Assessment of Cause-Specific Mortality in Patients with Rosacea: A Cohort Study in Denmark)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Skin Diseases and Conditions - Rosacea have been presented. According to news originating from Hellerup, Denmark, by NewsRx correspondents, research stated, "Emerging data suggest that rosacea is associated with several comorbidities; however, the causes of mortality in patients with rosacea have not yet been investigated. We evaluated all-cause and cause-specific death rates in patients with rosacea in a population-based Danish cohort study."

Our news journalists obtained a quote from the research from the University of Copenhagen, "All Danish individuals aged aeyen18 years between 1 January 1997 and 31 December 2012 with rosacea diagnosed by hospital dermatologists were linked in nationwide registers and compared with age- and sex-matched general-population subjects (1:5 ratio). Death rates were calculated per 1000 person-years, and hazard ratios (HRs) were estimated using Cox regression models. The total cohort (n = 35,958) included 5993 patients with rosacea and 29,965 age- and sex-matched individuals from the general population. During the maximum 15 years of follow-up, 664 (11.1 %) patients with rosacea and 3121 (10.4 %) patients in the reference population died. The risk of all-cause mortality was similar in patients with rosacea and the reference population [HR 1.06, 95 % confidence interval (CI) 0.98-1.15]. Analyses of cause-specific mortality revealed a significantly increased risk of death due to gastrointestinal diseases in patients with rosacea (HR 1.95, 95 % CI 1.31-2.89), primarily related to hepatic disease. No increased risk of death due to other major disease categories, e.g. cancer, cardiovascular, neurological, or infectious diseases was observed. We observed a significantly increased risk of death due to gastrointestinal diseases (primarily hepatic disease) in patients with rosacea; however, we found no increased risk of death due to other causes such as cardiovascular or neurological diseases."

According to the news editors, the research concluded: "Although this does not necessarily imply a causal link, the findings underscore the association between rosacea and gastrointestinal disease, but also that rosacea may be associated with increased risk factors, including alcohol consumption."


The news correspondents report that additional information may be obtained from A. Egeberg, University of Copenhagen, Herlev & Gentofte Hosp, Dept. of Dermatol & Allergy, DK-2900 Hellerup, Denmark. Additional authors for this research include J.F. Fowler, G.H. Gislason and J.P. Thyssen.

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Keywords for this news article include: Hellerup, Denmark, Europe, Hepatic Disease, Risk and Prevention, Epidemiology, Skin and Connective Tissue Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Skin Diseases and Conditions, Gastroenterology, Cardiovascular, Cardiology, Rosacea, University of Copenhagen.

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Studies from University of Douala Reveal New Findings on Cardiovascular Disease and Conditions (Prevalence and factors associated with hyperuricaemia in newly diagnosed and untreated hypertensives in a sub-Saharan African setting)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Health and Medicine - Cardiovascular Disease and Conditions. According to news reporting out of Douala, Cameroon, by NewsRx editors, research stated, "Background.-Few studies have evaluated the link between hyperuricaemia and cardiovascular disease in sub-Saharan Africa. Aims.-To assess the prevalence of and factors associated with hyperuricaemia among newly diagnosed treatment-naive hypertensive patients in sub-Saharan Africa."

Our news journalists obtained a quote from the research from the University of Douala, "Methods.-We performed a Community-based cross-sectional study from January to December 2012 in Douala, Cameroon (Central Africa). We enrolled newly diagnosed treatment-naive hypertensive patients, and excluded those with gout or a history of gout. Serum uric acid concentrations were measured by enzymatic colourimetric methods, and hyperuricaemia was defined as a serum uric acid concentration > 70 IU/mL. Fasting blood sugar concentrations, serum creatinine concentrations and lipid profiles were also measured. Logistic regression was used to study factors associated with hyperuricaemia. We included 839 newly diagnosed treatment-naive hypertensive patients (427 women and 412 men; mean age 51 +/- 11 years; mean serum uric acid concentration 60.5 +/- 16.5 IU/L). The prevalence of hyperuricaemia was 31.8% (95% confidence interval [CI] 28.7-34.9) and did not differ by sex (132 women vs. 135 men; P=0.56). Multivariable logistic regression identified age > 55 years (adjusted odds ratio [AOR] 1.65, 95% CI 1.12-2.29), family history of hypertension (AOR 1.65, 95% CI 1.01-2.67), waist circumference > 102 cm in men or > 88 cm in women (AOR 1.60, 95% CI 1.12-2.29), low-density lipoprotein cholesterol > 1 g/L (AOR 1.33, 95% CI 0.97-1.82) and triglycerides > 1.5 g/L (AOR 1.63, 95% CI 1.01-2.65) as independently associated with hyperuricaemia."

According to the news editors, the research concluded: "Hyperuricaemia is common among newly diagnosed treatment-naive hypertensive patients in sub-Saharan Africa and is associated with some components of the metabolic syndrome."

For more information on this research see: Prevalence and factors associated with hyperuricaemia in newly diagnosed and untreated hypertensives in a sub-Saharan African setting. Archives of Cardiovascular Diseases, 2016;109(10):527-532. Archives of Cardiovascular Diseases can be contacted at: Elsevier Masson, Via Paleocapa 7, 20121 Milano, Italy. (Elsevier - www.elsevier.com; Archives of Cardiovascular Diseases - www.journals.elsevier.com/archives-of-cardiovascular-diseases/)

Our news journalists report that additional information may be obtained by contacting F. Kamdem, Univ Douala, Fac Med & Pharmaceut Sci, Douala, Cameroon. Additional authors for this research include M.S. Doualla, F.K. Lekpa, E. Temfack, Y.N. Nouga, O.S. Donfack, A. Dzudie and S. Kingue.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.acvd.2016.02.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Douala, Cameroon, Africa, Cardiovascular
Studies from University of Dundee Reveal New Findings on Therapeutics (Current perceptions of the term Clinical Pharmacy and its relationship to Pharmaceutical Care: a survey of members of the European Society of Clinical Pharmacy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Therapeutics have been presented. According to news reporting originating in Dundee, United Kingdom, by NewsRx journalists, research stated, "The definitions that are being used for the terms 'clinical pharmacy' and 'pharmaceutical care' seem to have a certain overlap. Responsibility for therapy outcomes seems to be especially linked to the latter term."

The news reporters obtained a quote from the research from the University of Dundee, "Both terms need clarification before a proper definition of clinical pharmacy can be drafted. To identify current disagreements regarding the term 'Clinical Pharmacy' and its relationship to 'Pharmaceutical Care' and to assess to which extent pharmacists with an interest in Clinical Pharmacy are willing to accept responsibility for drug therapy outcomes."

According to the news reporters, the research concluded: "The membership of the European Society of Clinical Pharmacy."


Our news correspondents report that additional information may be obtained by contacting T. Dreischulte, University of Dundee, Div Populat Hlt Sci, Dundee, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11096-016-0385-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dundee, United Kingdom, Europe, Therapeutics, Therapy, Drugs and Therapies, University of Dundee.

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Cardiovascular Diseases

Studies from University of Edinburgh Have Provided New Information about Cardiovascular Diseases (Large animal models of cardiovascular disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases. According to news originating from Midlothian, United Kingdom, by NewsRx correspondents, research stated, "The human cardiovascular system is a complex arrangement of specialized structures with distinct functions. The molecular landscape, including the genome, transcriptome and proteome, is pivotal to the biological complexity of both normal and abnormal mammalian processes." Funders for this research include Biotechnology and Biological Sciences Research Council, Institute Career Path Fellowship, East of Scotland BioScience Doctoral Training Partnership.

Our news journalists obtained a quote from the research from the University of Edinburgh, "Despite our advancing knowledge and understanding of cardiovascular disease (CVD) through the principal use of rodent models, this continues to be an increasing issue in today's world. For instance, as the ageing population increases, so does the incidence of heart valve dysfunction. This may be because of changes in molecular composition and structure of the extracellular matrix, or from the pathological process of vascular calcification in which bone-formation related factors cause ectopic mineralization. However, significant differences between mice and men exist in terms of cardiovascular anatomy, physiology and pathology. In contrast, large animal models can show considerably greater similarity to humans. Furthermore, precise and efficient genome editing techniques enable the generation of tailored models for translational research. These novel systems provide a huge potential for large animal models to investigate the regulatory factors and molecular pathways that contribute to CVD in vivo."

According to the news editors, the research concluded: "In turn, this will help bridge the gap between basic science and clinical applications by facilitating the refinement of therapies for cardiovascular disease."


The news correspondents report that additional information may be obtained from H.G. Tsang, The Roslin Institute, Royal (Dick) School of Veterinary Studies, The University of Edinburgh, Easter Bush, Midlothian, SCT, UK. Additional authors for this research include N.A. Rashdan, C.B. Whitelaw, B.M. Corcoran, K.M. Summers and V.E MacRae.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cbf.3173. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Genetics, Midlothian, Cardiology, United Kingdom, Article Review, Cardiovascular Diseases and Conditions.

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Drugs and Therapies - Antineoplastics

Studies from University of Edinburgh in the Area of Antineoplastics Described (Irinotecan metabolite SN38 results in germ cell loss in the testis but not in the ovary of prepubertal mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antineoplastics. According to news reporting out of Edinburgh, United Kingdom, by NewsRx editors, research stated, "Does the Irinotecan metabolite 7-ethyl-10-hydroxycamptothecan (SN38) damage the gonads of male and female prepubertal mice? The irinotecan metabolite SN38 reduces germ cell numbers within the seminiferous tubules of mouse testes at concentrations that are relevant to cancer patients, while in contrast it has little if any effect on the female germ cell population. Little is known about the role of the chemotherapeutic agent Irinotecan on female fertility, with only one article to date reporting menopausal symptoms in perimenopausal women treated with Irinotecan, while no data are available either on adult male fertility or on the impact of Irinotecan on the subsequent fertility of prepubertal cancer patients, female or male."

Funders for this research include Medical Research Grant (MRC), Children with Cancer UK.

Our news journalists obtained a quote from the research from the University of Edinburgh, "Male and female gonads were obtained from postnatal day 5 C57BL/6 mice and exposed in vitro to a range of concentrations of the Irinotecan metabolite SN38: 0.002, 0.01, 0.05, 0.1 or 1 A mu g ml(-1) for the testis and 0.1, 1, 2.5 or 5 A mu g ml(-1) for the ovary, with treated gonads compared to control gonads not exposed to SN38. SN38 was dissolved in 0.5% dimethyl sulfoxide, with controls exposed to the same concentration of diluent. The number of testis fragments used for each analysis ranged between 3 and 9 per treatment group, while the number of ovaries used for each analysis ranged between 4 and 12 per treatment group. Neonatal mouse gonads were developed in vitro, with tissue analysed at the end of the 4-6 day culture period, following immunofluorescence or hematoxylin and eosin staining. Statistical analyses were performed using one-way ANOVA followed by Bonferroni post-hoc test for normally distributed data and Kruskal-Wallis test followed by Dunns post-test for non-parametric data. Abnormal testis morphology was observed when tissues were exposed to SN38, with a smaller seminiferous tubule diameter at the highest concentration of SN38 (1 A mu g ml(-1), p< 0.001 versus control) and increased number of Sertoli cell-only tubules at the two highest concentrations of SN38 (0.1 A mu g ml(-1), p< 0.001; 1 A mu g ml(-1), p< 0.0001, both versus control). Within seminiferous tubules, a dose response decrease was observed in both germ cell number (mouse vasa homologue (MVH)-positive cells) and in proliferating cell number (bromodeoxyuridine (BrdU)-positive cells), with significance reached at the two highest concentrations of SN38 (0.1 A mu g ml(-1), p< 0.01 for both; 1 A mu g ml(-1), p< 0.001-MHV, p< 0.01-BrdU; all versus control). No change was seen in protein expression of the apoptotic marker cleaved caspase 3. Double immunofluorescence showed that occasional proliferating germ cells were present in treated testes, even after exposure to the highest drug concentration. When prepubertal ovaries were treated with SN38, no effect was seen on germ cell number, apoptosis or cell proliferation, even after exposure to the highest drug concentrations. As with any study using in vitro experiments with an experimental animal model, caution is required when extrapolating the present findings to humans. Differences between human and mouse spermatogonial development also need to be considered when assessing the effect of chemotherapeutic exposure. However, the prepubertal testes and ovaries used in the present
studies contain germ cell populations that are representative of those found in prepubertal patients, and experimental tissues were exposed to drug concentrations within the range found in patient plasma. Our findings demonstrate that the prepubertal mouse ovary is relatively insensitive to exposure to the Irinotecan metabolite SN38, while it induces a marked dose-dependent sensitivity in the testicular germ cell population. The study identifies the importance of further investigation to identify the risk of infertility in young male cancer patients treated with Irinotecan. None. Work supported by Medical Research Grant (MRC) grant G1002118 and Children with Cancer UK grant 15-198."

According to the news editors, the research concluded: "The authors declare that there is no conflict of interest that could prejudice the impartiality of the present research."


Our news journalists report that additional information may be obtained by contacting N. Spears, University of Edinburgh, Center Integrat Physiol, Edinburgh EH8 9XD, Midlothian, United Kingdom. Additional authors for this research include R. Smith, S. Nash, R.T. Mitchell and N. Spears.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/molehr/gaw051. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Edinburgh, United Kingdom, Europe, Radiation-Sensitizing Agents, Drugs and Therapies, Parasympathomimetic, Immunofluorescence, Irinotecan Therapy, Enzyme Inhibitors, Antineoplastics, Germ Cells, Genitalia, Oncology, Prodrug, Cancer, University of Edinburgh.

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Blood Pressure

Studies from University of Exeter Have Provided New Data on Blood Pressure (Improvement in blood pressure after short-term inorganic nitrate supplementation is attenuated in cigarette smokers compared to nonsmoking controls)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Blood Pressure is now available. According to news reporting originating in Exeter, United Kingdom, by NewsRx journalists, research stated, "Dietary supplementation with inorganic nitrate (NO3-) has been reported to improve cardiovascular health indices in healthy adults. Cigarette smoking increases circulating thiocyanate (SCN-), which has been suggested to competitively inhibit salivary nitrate (NO3-) uptake, a rate-limiting step in dietary NO3- metabolism."

The news reporters obtained a quote from the research from the University of Exeter, "Therefore, this study tested the hypothesis that dietary NO3- supplementation would be less effective at increasing the circulating plasma nitrite concentration ([NO2-]) and lowering blood pressure in smokers (S) compared to non-smokers (NS). Nine healthy smokers and eight healthy non-smoking controls reported to the laboratory at baseline (CON) and following six day
supplementation periods with 140 mL day⁻¹ NO₃--rich (8.4 mmol NO₃⁻ day⁻¹; NIT) and NO₃--depleted (0.08 mmol NO₃⁻ day⁻¹; PLA) beetroot juice in a cross-over experiment. Plasma and salivary [SCN⁻] were elevated in smokers compared to non-smokers in all experimental conditions (P < 0.05). Plasma and salivary [NO₃⁻] and [NO₂⁻] were elevated in the NIT condition compared to CON and PLA conditions in smokers and non-smokers (P < 0.05). However, the change in salivary [NO₃⁻] (S: 3.5 +/- 2.1 vs. NS: 7.5 +/- 4.4 mM), plasma [NO₃⁻] (S: 484 +/- 198 vs. NS: 802 +/- 199 pM) and plasma [NO₂⁻] (S: 218 +/- 128 vs. NS: 559 +/- 419 nM) between the CON and NIT conditions was lower in the smokers compared to the non-smokers (P < 0.05). Salivary [NO₂⁻] increased above CON to a similar extent with NIT in smokers and non-smokers (P > 0.05). Systolic blood pressure was lowered compared to PLA with NIT in non-smokers (P < 0.05), but not smokers (P > 0.05). These findings suggest that dietary NO₃⁻ metabolism is compromised in smokers leading to an attenuated blood pressure reduction compared to non-smokers after NO(3)(-)supplementation."

According to the news reporters, the research concluded: "These observations may provide novel insights into the cardiovascular risks associated with cigarette smoking and suggest that this population may be less likely to benefit from improved cardiovascular health if they increase dietary NO₃⁻ intake."

For more information on this research see: Improvement in blood pressure after short-term inorganic nitrate supplementation is attenuated in cigarette smokers compared to nonsmoking controls. Nitric Oxide-Biology and Chemistry, 2016;61():29-37. Nitric Oxide-Biology and Chemistry can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA.

Our news correspondents report that additional information may be obtained by contacting S.J. Bailey, University of Exeter, Sport & Hlth Sci, Coll Life & Environm Sci, Exeter, Devon, United Kingdom. Additional authors for this research include J.R. Blackwell, L.J. Wylie, T. Holland, P.G. Winyard and A.M. Jones.

Keywords for this news article include: Exeter, United Kingdom, Europe, Cardiovascular, Blood Pressure, Hemodynamics, Cardiology, Hematology, Plasma, University of Exeter.

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Regional Development Fund (ERDF), UE, Junta de Extremadura, Ministerio de Ciencia e Innovacion, Federacion Espanola de Enfermedades Raras, FSE.

Our news journalists obtained a quote from the research from the University of Extremadura, "This study was intended to evaluate the in vitro effect of melatonin on the cytotoxic and pro-apoptotic actions of various chemotherapeutic agents in cervical cancer HeLa cells. Herein, we found that both melatonin and three of the chemotherapeutic drugs tested, namely cisplatin (CIS), 5-fluorouracil (5-FU), and doxorubicin, induced a decrease in HeLa cell viability. Furthermore, melatonin significantly increased the cytotoxic effect of such chemotherapeutic agents. Consistently, costimulation of HeLa cells with any chemotherapeutic agent in the presence of melatonin further increased caspase-3 activation, particularly in CIS- and 5-FU-challenged cells. Likewise, concomitant treatments with melatonin and CIS significantly enhanced the ratio of cells entering mitochondrial apoptosis due to reactive oxygen species (ROS) overproduction, substantially augmented the population of apoptotic cells, and markedly enlarged DNA fragmentation compared to the treatments with CIS alone. Nonetheless, melatonin only displayed moderate chemosensitizing effects in 5-FU-stimulated HeLa cells, as suggested by slight increments in the percentage of cells stimulated for ROS production and in the proportion of early apoptotic cells compared to the treatments with 5-FU alone."

According to the news editors, the research concluded: "In summary, our findings provided evidence that in vitro melatonin strongly enhances CIS-induced cytotoxicity and apoptosis in HeLa cells and, hence, the indoleamine could be potentially applied to cervical cancer treatment as a powerful synergistic agent."


The news correspondents report that additional information may be obtained from R. Pariente, Dept. of Physiology (Neuroimmunophysiology and Chrononutrition Research Group), Faculty of Science, University of Extremadura, Badajoz, Spain. Additional authors for this research include J.A. Pariente, A.B. Rodriguez and J. Espino.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jpi.12288. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Anticonvulsants, Antineoplastics, Antioxidants, Pharmaceuticals, Spain, Europe, Cancer, Badajoz, Adjuvant, Genetics, Hormones, Oncology, Apoptosis, Hela Cells, Tumor Cell Line, Alkylating Agents, Cisplatin Therapy, Melatonin Therapy, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Drugs and Therapies.

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Neurologic Diseases and Conditions - Syncope

Studies from University of Florence in the Area of Syncope Reported (Safety and tolerability of Tilt Testing and Carotid Sinus Massage in the octogenarians)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurologic Diseases and Conditions - Syncope are presented in a new report. According to news reporting from Florence, Italy, by NewsRx journalists, research stated, "to evaluate the safety and tolerability of Tilt Testing (TT) and Carotid Sinus Massage (CSM) in octogenarians with unexplained syncope, patients consecutively referred for transient loss of consciousness to the 'Syncope Units' of three hospitals were enrolled."

The news correspondents obtained a quote from the research from the University of Florence, "TT and CSM were performed according to the European Society of Cardiology guidelines on syncope. Complications were evaluated in each group. An early interruption of TT was defined as 'intolerance' and considered as a non-diagnostic response. One thousand four hundred and one patients were enrolled (mean age 72 ± 16 years, male 40.8%). Six hundred and ninety-four patients (49.5%) were 80 years old or older (mean age 83 ± 3 years) and 707 (50.5%) were younger (mean age 60 ± 17 years). Complications after TT occurred in 4.5% of older patients and in 2.1% of the younger ones (p=0.01). All complications were 'minor/moderate', as prolonged hypotension, observed in ≤3% of patients (≥80 years). Major complications such as sustained ventricular tachycardia, ventricular fibrillation, asystole requiring cardiac massage, transient ischaemic attack, stroke and death were not observed in any patient. The presence of orthostatic hypotension and the mean number of syncopal episodes were predictors of TT complications. Intolerance was reported in 2.4% of older patients and 1% of the younger ones (p=0.08), mainly due to orthostatic intolerance. No complications occurred after CSM."

According to the news reporters, the research concluded: "TT and CSM appear to be safe and well tolerated in octogenarians, who should not be excluded by age from the diagnostic work-up of syncope."


Our news journalists report that additional information may be obtained by contacting A. Ungar, Geriatric Cardiology and Medicine, University of Florence and Careggi Hospital, Florence, Italy. Additional authors for this research include G. Rivasi, M. Rafanelli, G. Toffanello, C. Mussi, A. Ceccofiglio, R. McDonagh, B. Drumm, N. Marchionni, P. Alboni and R.A Kenny.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/ageing/afw004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, Syncope, Florence, Angiology, Cardiology, Hypotension, Blood Vessels, Carotid Sinus, Unconsciousness, Carotid Arteries, Cardiovascular System, Consciousness Disorders, Diagnostics and Screening, Neurologic Manifestations, Neurobehavioral Manifestations, Neurologic Diseases and Conditions.

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Drugs and Therapies - Antibiotics

Studies from University of Florida Describe New Findings in Antibiotics [Population pharmacokinetics of enrofloxacin in purple sea stars (Pisaster ochraceus) following an intracoelomic injection or extended immersion]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news originating from Gainesville, Florida, by NewsRx correspondents, research stated, "To determine population pharmacokinetics of enrofloxacin in purple sea stars (Pisaster ochraceus) administered an intracoelomic injection of enrofloxacin (5 mg/kg) or immersed in an enrofloxacin solution (5 mg/L) for 6 hours. ANIMALS 28 sea stars of undetermined age and sex."

Our news journalists obtained a quote from the research from the University of Florida, "PROCEDURES The study had 2 phases. Twelve sea stars received an intracoelomic injection of enrofloxacin (5 mg/kg) or were immersed in an enrofloxacin solution (5 mg/L) for 6 hours during the injection and immersion phases, respectively. Two untreated sea stars were housed with the treated animals following enrofloxacin administration during both phases. Water vascular system fluid samples were collected from 4 sea stars and all controls at predetermined times during and after enrofloxacin administration. The enrofloxacin concentration in those samples was determined by high-performance liquid chromatography. For each phase, noncompartmental analysis of naive averaged pooled samples was used to obtain initial parameter estimates; then, population pharmacokinetic analysis was performed that accounted for the sparse sampling technique used. Injection phase data were best fit with a 2-compartment model; elimination half-life, peak concentration, area under the curve, and volume of distribution were 42.8 hours, 18.9 μg/mL, 353.8 μg h/mL, and 0.25 L/kg, respectively. Immersion phase data were best fit with a 1-compartment model; elimination half-life, peak concentration, and area under the curve were 56 hours, 36.3 μg h/mL, and 0.39 μg/mL, respectively."

According to the news editors, the research concluded: "Results suggested that the described enrofloxacin administration resulted in water vascular system fluid drug concentrations expected to exceed the minimum inhibitory concentration for many bacterial pathogens."

For more information on this research see: Population pharmacokinetics of enrofloxacin in purple sea stars (Pisaster ochraceus) following an intracoelomic injection or extended immersion. *American Journal of Veterinary Research*, 2016;77(11):1266-1275. *American Journal of Veterinary Research* can be contacted at: Amer Veterinary Medical Assoc, 1931 N Meacham Rd Suite 100, Schaumburg, IL 60173-4360, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2460/ajvr.77.11.1266. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gainesville, Florida, United States, North and Central America, Drugs and Therapies, Pharmacokinetics, Pharmaceuticals, Antibiotics, University of Florida.

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Studies from University of Florida Further Understanding of Attention Deficit Hyperactivity Disorders (Development of a refill pattern method to measure polypharmacy in administrative claims databases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Developmental Diseases and Conditions - Attention Deficit Hyperactivity Disorders are discussed in a new report. According to news reporting originating in Gainesville, Florida, by NewsRx journalists, research stated, "The purposes of the study were to develop a refill pattern method to identify polypharmacy in pharmacy billing records and to compare the method with traditional days' supply overlap algorithms. This method is characterized by the assessment of prescription refill pattern."

The news reporters obtained a quote from the research from the University of Florida, "Concomitant therapy is assumed when two drugs are dispensed repeatedly during the active days' supply of each other. We tested the refill pattern method in a simplified scenario in which two drugs (methylphenidate/dexmethylphenidate and atomoxetine) for attention deficit/hyperactivity disorder (ADHD) were considered. Children who had at least one prescription of methylphenidate/dexmethylphenidate or atomoxetine in 2008 were included for the calculation of 2-year prevalence of ADHD treatment polypharmacy. Results were compared with traditional method that requires a minimum overlap of 30, 60 or 90 days of filled prescriptions. We compared polypharmacy prevalence estimated by the two methods and explored reasons for disagreement. Among 131 385 children who had at least one prescription of methylphenidate/dexmethylphenidate or atomoxetine, the refill pattern method identified 4021 patients who had ADHD treatment polypharmacy (2-year prevalence = 3.1%). This prevalence estimate fell between those from a 30- to 60-day overlap method. The Cohen's kappa regarding determination of polypharmacy was 0.83, 0.92 and 0.80 considering 90-, 60- and 30-day overlap method, respectively."

According to the news reporters, the research concluded: "The refill pattern method can be used as another way to measure polypharmacy in administrative claims databases and can be adapted to a wide variety of research questions, diseases and study populations."


Our news correspondents report that additional information may be obtained by contacting X.Y. Liu, University of Florida, Coll Pharm, Dept. of Pharmaceut Outcomes & Policy, Gainesville, FL 32610, United States. Additional authors for this research include P. Kubilis, R. Bussing and A.G. Winterstein.

Keywords for this news article include: Gainesville, Florida, United States, North and Central America, Norepinephrine-Dopamine Reuptake Inhibitors, Attention Deficit Hyperactivity Disorders, Developmental Diseases and Conditions, Norepinephrine Reuptake Inhibitors, Drugs and Therapies, Epidemiology, Central Nervous System Stimulants, Central Nervous System Agents, Adrenergic Uptake Inhibitor, Psychotherapeutic Agents, Methylphenidate Therapy, Dopamine Uptake Inhib, Atomoxetine Therapy, Dexmethylphenidate, Adrenergic Agent, Antidepressants, CNS Stimulants, Mental Health,
Studies from University of Florida Further Understanding of Obesity (Dietary Patterns in Relation to General and Central Obesity among Adults in Southwest China)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting from Gainesville, Florida, by NewsRx journalists, research stated, "Dietary patterns represent a broader picture of food consumption, and are better correlated with a variety of health outcomes. However, few studies have been conducted to explore the associations between dietary patterns and obesity in Southwest China."

The news correspondents obtained a quote from the research from the University of Florida, "Data from the 2010-2012 National Nutrition Survey in the province of Yunnan, Southwest China, were analyzed (n = 1604, aged 18-80 years). Dietary data were collected using the 24 h dietary recall over three consecutive days. Height, weight, and waist circumference were measured following standard methods. Exploratory factor analysis was used to identify dietary patterns. Logistic regression was used to explore the association between dietary patterns and obesity. Three distinct dietary patterns were identified, which were labeled as traditional, modern, and tuber according to their key components. With potential confounders adjusted, adults in the highest quartile of the modern pattern were at higher risk of general and central obesity (odds ratio (OR) 1.95, 95% confidence interval (CI) 1.15-3.48; OR 2.01, 95% CI 1.37-2.93). In contrast, adults in the highest quartile of the tuber pattern were at lower risk of general and central obesity (OR 0.34, 95% CI 0.15-0.61; OR 0.64, 95% CI 0.43-0.95) but at higher risk of underweight (OR 2.57, 95% CI 1.20-6.45). No significant association was found between the traditional pattern and obesity. Moreover, dietary pattern differences occurred due to the differences in socio-demographic characteristics."

According to the news reporters, the research concluded: "The modern dietary pattern was positively, and the tuber pattern negatively, associated with general and central obesity among adults in Southwest China."

For more information on this research see: Dietary Patterns in Relation to General and Central Obesity among Adults in Southwest China. International Journal of Environmental Research and Public Health, 2016;13(11):601-611. International Journal of Environmental Research and Public Health can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting Q. Zhang, University of Florida, Dept. of Epidemiol, Gainesville, FL 32610, United States. Additional authors for this research include X.G. Chen, Z.T. Liu, D.S. Varma, R. Wan, Q.Q. Wan and S.W. Zhao.

Keywords for this news article include: Gainesville, Florida, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Asia, Epidemiology, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, China, University of Florida.
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Pharmacogenetics

Studies from University of Florida in the Area of Pharmacogenetics Described (Implementation of inpatient models of pharmacogenetics programs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Pharmacogenetics are presented in a new report. According to news reporting from Gainesville, Florida, by NewsRx journalists, research stated, "The operational elements essential for establishing an inpatient pharmacogenetic service are reviewed, and the role of the pharmacist in the provision of genotype-guided drug therapy in pharmacogenetics programs at three institutions is highlighted. Pharmacists are well positioned to assume important roles in facilitating the clinical use of genetic information to optimize drug therapy given their expertise in clinical pharmacology and therapeutics."

The news correspondents obtained a quote from the research from the University of Florida, "Pharmacists have assumed important roles in implementing inpatient pharmacogenetics programs. This includes programs designed to incorporate genetic test results to optimize antiplatelet drug selection after percutaneous coronary intervention and personalize warfarin dosing. Pharmacist involvement occurs on many levels, including championing and leading pharmacogenetics implementation efforts, establishing clinical processes to support genotype-guided therapy, assisting the clinical staff with interpreting genetic test results and applying them to prescribing decisions, and educating other healthcare providers and patients on genomic medicine. The three inpatient pharmacogenetics programs described use reactive versus preemptive genotyping, the most feasible approach under the current third-party payment structure. All three sites also follow Clinical Pharmacogenetics Implementation Consortium guidelines for drug therapy recommendations based on genetic test results. With the clinical emergence of pharmacogenetics into the inpatient setting, it is important that pharmacists caring for hospitalized patients are well prepared to serve as experts in interpreting and applying genetic test results to guide drug therapy decisions."

According to the news reporters, the research concluded: "Since genetic test results may not be available until after patient discharge, pharmacists practicing in the ambulatory care setting should also be prepared to assist with genotype-guided drug therapy as part of transitions in care."

For more information on this research see: Implementation of inpatient models of pharmacogenetics programs. American Journal of Health-System Pharmacy, 2016;73 (23):1944-1954. American Journal of Health-System Pharmacy can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting L.H. Cavallari, University of Florida, Center Pharmacogen, Gainesville, FL 32611, United States. Additional authors for this research include C.R. Lee, J.D. Duarte, E.A. Nutescu, K.W. Weitzel, G.A. Stouffer and J.A. Johnson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp150946. This DOI is a link to an online electronic document that is either free or for purchase.
Enzymes and Coenzymes - Phosphotransferases...

Studies from University of Fudan Have Provided New Information about Phosphotransferases (Alcohol Group Acceptor) (Pyruvate Kinase M2 Activates mTORC1 by Phosphorylating AKT1S1)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Enzymes and Coenzymes - Phosphotransferases (Alcohol Group Acceptor) is the subject of a report. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "In cancer cells, the mammalian target of rapamycin complex 1 (mTORC1) that requires hormonal and nutrient signals for its activation, is constitutively activated. We found that overexpression of pyruvate kinase M2 (PKM2) activates mTORC1 signaling through phosphorylating mTORC1 inhibitor AKT1 substrate 1 (AKT1S1)."

The news correspondents obtained a quote from the research from the University of Fudan, "An unbiased quantitative phosphoproteomic survey identified 974 PKM2 substrates, including serine202 and serine203 (S202/203) of AKT1S1, in the proteome of renal cell carcinoma (RCC). Phosphorylation of S202/203 of AKT1S1 by PKM2 released AKT1S1 from raptor and facilitated its binding to 14-3-3, resulted in hormonal-and nutrient-signals independent activation of mTORC1 signaling and led accelerated oncogenic growth and autophagy inhibition in cancer cells. Decreasing S202/203 phosphorylation by TEPP-46 treatment reversed these effects. In RCCs and breast cancers, PKM2 overexpression was correlated with elevated S202/203 phosphorylation, activated mTORC1 and inhibited autophagy."

According to the news reporters, the research concluded: "Our results provided the first phosphorylome of PKM2 and revealed a constitutive mTORC1 activating mechanism in cancer cells."

For more information on this research see: Pyruvate Kinase M2 Activates mTORC1 by Phosphorylating AKT1S1. Scientific Reports, 2016;6():21524. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting C.L. He, State Key Lab of Genetic Engineering, Obstetrics &Gynecology Hospital of Fudan University and School of Life Sciences, Shanghai 200090, People's Republic of China. Additional authors for this research include Y.Y. Bian, Y. Xue, Z.X. Liu, K.Q. Zhou, C.F. Yao, Y. Lin, H.F. Zou, F.X. Luo, Y.Y. Qu, J.Y. Zhao, M.L. Ye, S.M. Zhao and W. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep21524. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Shanghai, Oncology, Keto Acids, Pyruvate Kinase, Enzymes and Coenzymes, People's Republic of China, Phosphotransferases (Alcohol Group Acceptor).
Studies from University of Grenoble Have Provided New Information about Chemotherapy (Cryptosporidium and Toxoplasma Parasites Are Inhibited by a Benzoxaborole Targeting Leucyl-tRNA Synthetase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Chemotherapy. According to news originating from Grenoble, France, by NewsRx correspondents, research stated, "The apicomplexan parasites Cryptosporidium and Toxoplasma are serious threats to human health. Cryptosporidiosis is a severe diarrheal disease in malnourished children and immunocompromised individuals, with the only FDA-approved drug treatment currently being nitazoxanide."

Financial supporters for this research include EC | European Research Council (ERC), Chinese Academy of Sciences (CAS), Bill and Melinda Gates Foundation (Bill & Melinda Gates Foundation).

Our news journalists obtained a quote from the research from the University of Grenoble, "The existing therapies for toxoplasmosis, an important pathology in immunocompromised individuals and pregnant women, also have serious limitations. With the aim of developing alternative therapeutic options to address these health problems, we tested a number of benzoxaboroles, boron-containing compounds shown to be active against various infectious agents, for inhibition of the growth of Cryptosporidium parasites in mammalian cells. A 3-aminomethyl benzoxaborole, AN6426, with activity in the micromolar range and with activity comparable to that of nitazoxanide, was identified and further characterized using biophysical measurements of affinity and crystal structures of complexes with the editing domain of Cryptosporidium leucyl-tRNA synthetase (LeuRS). The same compound was shown to be active against Toxoplasma parasites, with the activity being enhanced in the presence of norvaline, an amino acid that can be mischarged by LeuRS."

According to the news editors, the research concluded: "Our observations are consistent with AN6426 inhibiting protein synthesis in both Cryptosporidium and Toxoplasma by forming a covalent adduct with tRNAleu in the LeuRS editing active site and suggest that further exploitation of the benzoxaborole scaffold is a valid strategy to develop novel, much needed antiparasitic agents."

For more information on this research see: Cryptosporidium and Toxoplasma Parasites Are Inhibited by a Benzoxaborole Targeting Leucyl-tRNA Synthetase. Antimicrobial Agents and Chemotherapy, 2016;60(10):5817-5827. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from A. Palencia, Univ Grenoble Alpes, CNRS, INSERM U1209UMR5309, Inst Adv BiosciTeam Host Pathogen Interact & Imm, Grenoble, France. Additional authors for this research include R.J. Liu, M. Lukarska, J. Gut, A. Bougdour, B. Touquet, E.D. Wang, X.F. Li, M.R.K. Alley, Y.R. Freund, P.J. Rosenthal, M.A. Hakimi and S. Cusack.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00873-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Grenoble, France, Europe, Chemotherapy, Drugs and Therapies, Enzymes and Coenzymes, Synthetase, University of Grenoble.

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Transplant Medicine - Kidney Transplants

Studies from University of Groningen Reveal New Findings on Kidney Transplants (Iron deficiency, anemia, and mortality in renal transplant recipients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Kidney Transplants is now available. According to news originating from Groningen, Netherlands, by NewsRx correspondents, research stated, "Anemia, iron deficiency anemia (IDA), and iron deficiency (ID) are highly prevalent in renal transplant recipients (RTR). Anemia is associated with poor outcome, but the role of ID is unknown."

Financial support for this research came from Dutch Top Institute Food and Nutrition.

Our news journalists obtained a quote from the research from the University of Groningen, "Therefore, we aimed to investigate the association of ID, irrespective of anemia, with all-cause mortality in RTR. Cox regression analyses were used to investigate prospective associations. In 700 RTR, prevalences of anemia, IDA, and ID were 34%, 13%, and 30%, respectively. During follow-up for 3.1 (2.7-3.9) years, 81 (12%) RTR died. In univariable analysis, anemia [HR, 1.72 (95% CI: 1.11-2.66), P = 0.02], IDA [2.44 (1.48-4.01), P< 0.001], and ID [2.04 (1.31-3.16), P = 0.001] were all associated with all-cause mortality. In multivariable analysis, the association of anemia with mortality became weaker after adjustment for ID [1.52 (0.97-2.39), P = 0.07] and disappeared after adjustment for proteinuria and eGFR [1.09 (0.67-1.78), P = 0.73]. The association of IDA with mortality attenuated after adjustment for potential confounders. In contrast, the association of ID with mortality remained independent of potential confounders, including anemia [1.77 (1.13-2.78), P = 0.01]."

According to the news editors, the research concluded: "ID is highly prevalent among RTR and is associated with an increased risk of mortality, independent of anemia. As ID is a modifiable factor, correction of ID could be a target to improve survival."


The news correspondents report that additional information may be obtained from M.F. Eisenga, University of Groningen, Groningen University Medical Center, Div Nephrol, Dept. of Internal Med, Groningen, Netherlands. Additional authors for this research include I. Minovic, S.P. Berger, J.E. Kootstra-Ros, E. van den Berg, I.J. Riphagen, G. Navis, P. van der Meer, S.J.L. Bakker and C. Gaillard.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tri.12821. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Groningen, Netherlands, Europe, Nutritional and Metabolic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Kidney, Risk and Prevention, Iron-Deficiency Anemia, Transplant Medicine, Kidney Transplants, Organ Transplants, Renal Transplant, Iron Deficiency, Transplantation, Renal Allograft, Biomedicine, Nephrology, Hematology, Surgery, University of Groningen.

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Mosquito-Borne Diseases - West Nile Fever

Studies from University of Haifa in the Area of West Nile Fever Described (Transmission Dynamics of the West Nile Virus in Mosquito Vector Populations under the Influence of Weather Factors in the Danube Delta, Romania)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mosquito-Borne Diseases - West Nile Fever. According to news reporting out of Haifa, Israel, by NewsRx editors, research stated, "Mosquitoes were collected in the Danube Delta during the active seasons of 2011-2013. For Culex spp. mosquitoes, the abundance was calculated. Culex pipiens (sensu lato), (s.l.) and Culex modestus pools were tested for the presence of West Nile virus (WNV) genome, and the maximum likelihood of the infection rate was established."

Financial supporters for this research include European Union (EU) grant EDENext, UEFISCDI, Romania.

Our news journalists obtained a quote from the research from the University of Haifa, "Mean daily temperatures and precipitation were obtained for the closest meteorological station. A negative binominal model was used to evaluate linkages between the temperature/precipitation and mosquito population size. A zero-inflated negative binomial model was used to test the relationship between the temperature and the infection rate. A single complex model for infection rate prediction was also used. The linkages were calculated for lag 0 and for 10 days earlier (lag 1), 20 days earlier (lag 2), and 30 days earlier (lag 3). Significant positive linkages (P < 0.001) were detected between temperature and mosquito population size for lag 1, lag 2, and lag 3. The linkages between temperature and infection rates were positive and significant for lag 2 and lag 3. Negative significant (P < 0.001) results were detected between precipitation and infection rates for lags 1, 2, and 3. The complex model showed that the best predictors for infection rate are the temperature, 20 days earlier (positive linkage) and the precipitation, 30 days earlier (negative linkage)."

According to the news editors, the research concluded: "Positive temperature anomalies in spring and summer and rainfall decrease contributed to the increase in the Culex spp. abundance and accelerated the WNV amplification in mosquito vector populations in the following weeks."

For more information on this research see: Transmission Dynamics of the West Nile Virus in Mosquito Vector Populations under the Influence of Weather Factors in the Danube Delta, Romania.
Our news journalists report that additional information may be obtained by contacting S. Paz, University of Haifa, Dept. of Geog & Environm Studies, IL-349838 Haifa, Israel. Additional authors for this research include E. Falcuta, L.F. Prioteasa, S. Dinu, C.S. Ceianu and S. Paz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10393-016-1176-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Haifa, Israel, Asia, Japanese Encephalitis Viruses, Mosquito-Borne Diseases, Vertebrate Viruses, West Nile Fever, West Nile Virus, Flaviviridae, RNA Viruses, Mosquitoes, Flavivirus, Virology, Genetics, Viral, University of Haifa.

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**Apoptosis**

**Studies from University of Heidelberg Have Provided New Information about Apoptosis (Inhibition of AXUD1 attenuates compression-dependent apoptosis of cementoblasts)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Apoptosis have been presented. According to news reporting out of Heidelberg, Germany, by NewsRx editors, research stated, "Root resorptions are common undesirable side effects of orthodontic treatment. In most patients, these defects are repaired by cementoblasts."

Our news journalists obtained a quote from the research from the University of Heidelberg, "However, in 1-5% of patients, the repair fails. The repair mechanism is not well understood. Apoptosis of cementoblasts might contribute to an impaired repair of root resorptions induced by orthodontic forces. To gain insight into putative molecular pathways leading to compression-induced apoptosis of human primary cementoblasts (HPCBs), three independent cell populations were subjected to compressive loading at 5, 20, and 30 g/cm(2) for 1, 6, and 10 h. The mRNA expression of AXUD1, a novel pro-apoptotic gene, was monitored by quantitative reverse transcription PCR (qRT-PCR). To identify a possible function in compression-dependent apoptosis, AXUD1 was silenced in cementoblasts using an siRNA approach. Apoptosis of cementoblasts was measured by annexin V staining and flow cytometry. The phosphorylation of c-Jun-N-terminal kinases (JNKs) was investigated by Western blotting. AXUD1 was significantly induced in a time- and force-dependent manner. The rate of apoptotic HPCBs increased by 20-40% after 10 h of compression (30 g/cm(2)). Phosphorylation of JNKs was detected after 10 h at 30 g/cm(2). SiRNA-mediated knockdown of AXUD1 led to decreased phosphorylation of JNKs and reduced apoptosis rates in compressed HPCBs. Compression-induced apoptosis of HPCBs is mediated by AXUD1 via a JNK-dependent pathway. AXUD1-dependent apoptosis of human cementoblasts might contribute to an impaired repair of root resorptions during orthodontic tooth movement."

According to the news editors, the research concluded: "Further studies are needed to
develop treatment strategies aiming to minimize root resorption during orthodontic tooth movement."

For more information on this research see: Inhibition of AXUD1 attenuates compression-dependent apoptosis of cementoblasts. *Clinical Oral Investigations*, 2016;20 (9):2333-2341. *Clinical Oral Investigations* can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Clinical Oral Investigations - www.springerlink.com/content/1432-6981/)

Our news journalists report that additional information may be obtained by contacting K. Korb, Heidelberg Univ, Dept. of Orthodont, D-69120 Heidelberg, Germany. Additional authors for this research include E. Katsikogianni, S. Zingler, E. Daum, C.J. Lux, A. Hohenstein and R. Erber.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00784-016-1740-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Heidelberg, Germany, Europe, Orthodontics, Apoptosis, Genetics, University of Heidelberg.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Studies from University of Heidelberg in the Area of HIV/AIDS Described (The structure and flexibility of conical HIV-1 capsids determined within intact virions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - HIV/AIDS have been published. According to news reporting originating in Heidelberg, Germany, by NewsRx journalists, research stated, "HIV-1 contains a cone-shaped capsid encasing the viral genome. This capsid is thought to follow fullerene geometry-a curved hexameric lattice of the capsid protein, CA, closed by incorporating 12 CA pentamers."

The news reporters obtained a quote from the research from the University of Heidelberg, "Current models for core structure are based on crystallography of hexameric and cross-linked pentameric CA, electron microscopy of tubular CA arrays, and simulations. Here, we report subnanometer-resolution cryo-electron tomography structures of hexameric and pentameric CA within intact HIV-1 particles. Whereas the hexamer structure is compatible with crystallography studies, the pentamer forms using different interfaces. Determining multiple structures revealed how CA flexes to form the variably curved core shell."

According to the news reporters, the research concluded: "We show that HIV-1 CA assembles both aberrant and perfect fullerene cones, supporting models in which conical cores assemble de novo after maturation."


Our news correspondents report that additional information may be obtained by
contacting J.A.G. Briggs, Heidelberg University Medical Center European Mol Biol Lab, Mol Med Partnership Unit, Heidelberg, Germany. Additional authors for this research include B. Glass, W.J.H. Hagen, H.G. Krausslich and J.A.G. Briggs.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1126/science.aah4972. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Heidelberg, Germany, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Emerging Technologies, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Nanotechnology, Nucleocapsid, Retroviridae, RNA Viruses, Fullerenes, HIV/AIDS, Genetics, Virion, HIV-1, University of Heidelberg.

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**Drugs and Therapies - Tricyclic Antidepressants**

**Studies from University of Houston Describe New Findings in Tricyclic Antidepressants [Characterization of Multiple Pathways Modulating Aggression in the Male Clouded Leopard (Neofelis nebulosa)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Tricyclic Antidepressants is the subject of a report. According to news originating from Houston, Texas, by NewsRx correspondents, research stated, "Breeding clouded leopards (Neofelis nebulosa) ex situ has been a challenge, primarily due to extreme and often fatal male aggression toward females. This study's aim was to determine the degree to which two possible mechanisms-serotonergic pathways and circulating testosterone levels-affect aggressive behavior."

Our news journalists obtained a quote from the research from the University of Houston, "Male clouded leopard behavioral and hormonal data were collected during a series of behavior tests administered before and after treatment with either an anxiety-reducing tricyclic antidepressant (clomipramine) or a GnRH agonist (deslorelin). Results showed that clomipramine treatment decreased 'overall activity' (P = 0.054) and increased 'lying down' (P = 0.0043) and hiding in a 'nest box' (P = 0.0023). Clomipramine treatment also decreased the incidence of 'growling' during a mirror image stimulation test, relative to non-test periods (P <0.0001 pre-drug treatment; P = 0.242 peri-drug treatment), indicating reduced aggression. Suppression of the reproductive axis via deslorelin treatment resulted in significant decreases in circulating androgen (P <0.0001) and glucocorticoid (P <0.0001), accompanied by decreased aggressive behaviors, including 'swatting' (P = 0.0476), 'tail flicking' (P = 0.0409), and 'growling' during the behavior reaction tests: mirror image stimulation (P <0.0001 pre-drug treatment: P = 0.7098 peri-drug treatment) and unfamiliar people test (P <0.0001 pre-drug treatment: P = 0.2666 peri-drug treatment) relative to non-test periods."

According to the news editors, the research concluded: "Both drug treatments provide evidence that multiple mechanisms modulate aggressive behavior in the male clouded leopard, suggesting that serotonergic modulation coupled with circulating androgens may aid in the formation of successful breeding pairs."

For more information on this research see: Characterization of Multiple Pathways Modulating Aggression in the Male Clouded Leopard (Neofelis nebulosa). Zoo Biology,
Sensation Diseases and Conditions - Olfaction...

Studies from University of Iceland Reveal New Findings on Olfaction Disorders (Sniffing out significant "Pee values" genome wide association study of asparagus anosmia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Sensation Diseases and Conditions - Olfaction Disorders are presented in a new report. According to news reporting out of Reykjavik, Iceland, by NewsRx editors, research stated, "To determine the inherited factors associated with the ability to smell asparagus metabolites in urine. Genome wide association study."

Our news journalists obtained a quote from the research from the University of Iceland, "Nurses' Health Study and Health Professionals Follow-up Study cohorts. 6909 men and women of European-American descent with available genetic data from genome wide association studies. Participants were characterised as asparagus smellers if they strongly agreed with the prompt 'after eating asparagus, you notice a strong characteristic odor in your urine,' and anosmic if otherwise. We calculated per-allele estimates of asparagus anosmia for about nine million single nucleotide polymorphisms using logistic regression. P values <5x10^-8 were considered as genome wide significant. 58.0% of men (n=1449/2500) and 61.5% of women (n=2712/4409) had anosmia. 871 single nucleotide polymorphisms reached genome wide significance for asparagus anosmia, all in a region on chromosome 1 (1q44: 248139851-248595299) containing multiple genes in the olfactory receptor 2 (OR2) family. Conditional analyses revealed three independent markers associated with asparagus anosmia: rs13373863, rs71538191, and rs6689553. A large proportion of people have asparagus anosmia. Genetic variation near multiple olfactory receptor genes is associated with the ability of an individual to smell the metabolites of asparagus in urine."

According to the news editors, the research concluded: "Future replication studies are necessary before considering targeted therapies to help anosmic people discover what they are missing."


Our news journalists report that additional information may be obtained by
Studies from University of Illinois Describe New Findings in Aedes aegypti [Comparative Susceptibility of Ochlerotatus japonicus, Ochlerotatus triseriatus, Aedes albopictus, and Aedes aegypti (Diptera: Culicidae) to La Crosse Virus]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Mosquito Species - Aedes aegypti are discussed in a new report. According to news reporting originating from Champaign, Illinois, by NewsRx correspondents, research stated, "Invasive mosquito species can increase the transmission risk of native mosquito-borne diseases by acting as novel vectors. In this study, we examined the susceptibility of three exotic invasive mosquito species Aedes aegypti (L.), Ae. albopictus (Skuse), and Ochlerotatus japonicus (Theobald) to La Crosse virus (LACV) relative to the native primary vector Ochlerotatus triseriatus (Say)."

Our news editors obtained a quote from the research from the University of Illinois, "Adult females of the four mosquito species were orally challenged with LACV; incubated for 3, 5, 7, 9, or 11 d; and their midgut infection rates, dissemination rates, and effective vector competence were determined. Overall, Oc. japonicus (2.92) had the highest effective vector competence values, followed by Ae. albopictus (1.55), Ae. aegypti (0.88), and Oc. triseriatus (0.64). In addition, we assessed the relationship between mosquito size and LACV susceptibility for field-collected Oc. triseriatus and Oc. japonicus. We hypothesized that smaller adults would be more susceptible to LACV; however, our results did not support this hypothesis. Infected Oc. triseriatus tended to be larger than exposed but uninfected females, while infected and uninfected Oc. japonicus were similarly sized."

According to the news editors, the research concluded: "These findings suggest that Oc. japonicus, Ae. albopictus, and Ae. aegypti have significant potential to transmit LACV and more research is needed to uncover their potential role in LACV epidemiology."


The news editors report that additional information may be obtained by contacting J.J. Bara, University of Illinois, Illinois Nat Hist Survey, Champaign, IL 61820, United States. Additional authors for this research include A.T. Parker and E.J. Muturi.

Keywords for this news article include: Champaign, Illinois, United States, North and Central America, Mosquito-Borne Diseases, Epidemiology, California Encephalitis Virus, Encephalitis Viruses, Vertebrate Viruses, Aedes albopictus, Mosquito Species,
Studies from University of Illinois Yield New Information about Phenylalanine [Melphalan 200mg/m(2) in patients with renal impairment is associated with increased short-term toxicity but improved response and longer treatment-free survival]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Phenylalanine have been published. According to news reporting originating in Chicago, Illinois, by NewsRx journalists, research stated, "Data on the effectiveness and toxicity of high-dose melphalan in patients with renal impairment (RI) are lacking. We evaluated the impact of RI on outcomes of patients with multiple myeloma treated with melphalan 200 mg/m(2) (Mel200) and autologous stem cell transplantation."

The news reporters obtained a quote from the research from the University of Illinois, "Similar baseline characteristics were seen among 46 patients with creatinine clearance (CrCl) <60 mL/min (median 50 mL/min, range 20-59) and 103 patients with CrCl >= 60 mL/min (median 83mL/min, range 60-128). Patients with CrCl <60 mL/min had longer time to neutrophil (P = 0.008) and platelet engraftment (P=0.001). Diarrhea, duration of total parenteral nutrition use and infection were significantly higher in the CrCl <60 mL/min group. With a median follow-up of 35 months (range 2-132) in the CrCl <60 mL/min group and 47 months (range 1-45) in the CrCl >= 60 mL/min group, overall survival was comparable between the two groups. Median treatment-free survival was longer in the RI group (37 vs 17 months, P = 0.0025). Multivariate analysis showed CrCl <60 mL/min (hazard ratio (HR) 3.5), and prior proteasome inhibitor therapy (HR 2.441) both predicted longer treatment-free survival."

According to the news reporters, the research concluded: "We consider Mel200 safe and effective in patients with CrCl between 30 and 60 mL/min."

For more information on this research see: Melphalan 200mg/m(2) in patients with renal impairment is associated with increased short-term toxicity but improved response and longer treatment-free survival. Bone Marrow Transplantation, 2016;51(10):1337-1341. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news correspondents report that additional information may be obtained by contacting K. Sweiss, University of Illinois, Center Canc, Chicago, IL, United States. Additional authors for this research include S. Patel, K. Culos, A. Oh, D. Rondelli and P. Patel.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Drugs and Therapies, Melphalan Therapy, Alkylating Agents, Pharmaceuticals, Antineoplastics, Phenylalanine, Amino Acids, Nephrology, Kidney, University of Illinois.

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Oncology - Pancreatic Cancer

Studies from University of Kansas Medical Center Further Understanding of Pancreatic Cancer (Quinomycin A targets Notch signaling pathway in pancreatic cancer stem cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Pancreatic Cancer is the subject of a report. According to news reporting from Kansas City, Kansas, by NewsRx journalists, research stated, "Cancer stem cells (CSCs) appear to explain many aspects of the neoplastic evolution of tumors and likely account for enhanced therapeutic resistance following treatment. Dysregulated Notch signaling, which affects CSCs plays an important role in pancreatic cancer progression."

The news correspondents obtained a quote from the research from the University of Kansas Medical Center, "We have determined the ability of Quinomycin to inhibit CSCs and the Notch signaling pathway. Quinomycin treatment resulted in significant inhibition of proliferation and colony formation in pancreatic cancer cell lines, but not in normal pancreatic epithelial cells. Moreover, Quinomycin affected pancreatosphere formation. The compound also decreased the expression of CSC marker proteins DCLK1, CD44, CD24 and EPCAM. In addition, flow cytometry studies demonstrated that Quinomycin reduced the number of DCLK1+ cells. Furthermore, levels of Notch 1-4 receptors, their ligands Jagged1, Jagged2, DLL1, DLL3, DLL4 and the downstream target protein Hes-1 were reduced. The g-secretase complex proteins, Presenilin 1, Nicastrin, Pen2, and APH-1, required for Notch activation also exhibited decreased expression. Ectopic expression of the Notch Intracellular Domain (NICD) partially rescued the cells from Quinomycin mediated growth suppression. To determine the effect of Quinomycin on tumor growth in vivo, nude mice carrying tumor xenografts were administered Quinomycin intraperitoneally every day for 21 days. Treatment with the compound significantly inhibited tumor xenograft growth, coupled with significant reduction in the expression of CSC markers and Notch signaling proteins."

According to the news reporters, the research concluded: "Together, these data suggest that Quinomycin is a potent inhibitor of pancreatic cancer that targets the stem cells by inhibiting Notch signaling proteins."

For more information on this research see: Quinomycin A targets Notch signaling pathway in pancreatic cancer stem cells. Oncotarget, 2016;7(3):3217-32.

Our news journalists report that additional information may be obtained by contacting S. Ponnurangam, Dept. of Molecular and Integrative Physiology, The University of Kansas Medical Center, Kansas City, KS 66160, United States. Additional authors for this research include P.R. Dandawate, A. Dhar, O.W. Tawfik, R.R. Parab, P.D. Mishra, P. Ranadive, R. Sharma, G. Mahajan, S. Umar, S.J. Weir, A. Sugumar, R.A. Jensen, S.B. Padhye, A. Balakrishnan, S. Anant and D. Subramaniam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6560. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oncology, Kansas City, United States, Gastroenterology, Pancreatic Cancer, Stem Cell Research, Pancreatic Neoplasms, North and Central America.

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Membrane Proteins - Immunologic Receptors

Studies from University of Kentucky Have Provided New Information about Immunologic Receptors (Talin2-mediated traction force drives matrix degradation and cell invasion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Membrane Proteins - Immunologic Receptors are presented in a new report. According to news reporting originating in Lexington, Kentucky, by NewsRx journalists, research stated, "Talin binds to beta-integrin tails to activate integrins, regulating cell migration, invasion and metastasis. There are two talin genes, TLN1 and TLN2, encoding talin1 and talin2, respectively."

Funders for this research include Markey Cancer Center, University of Kentucky, American Cancer Society, Biotechnology and Biological Sciences Research Council.

The news reporters obtained a quote from the research from the University of Kentucky, "Talin1 regulates focal adhesion dynamics, cell migration and invasion, whereas the biological function of talin2 is not clear and, indeed, talin2 has been presumed to function redundantly with talin1. Here, we show that talin2 has a much stronger binding to beta-integrin tails than talin1. Replacement of talin2 Ser339 with Cys significantly decreased its binding to beta 1-integrin tails to a level comparable to that of talin1. Talin2 localizes at invadopodia and is indispensable for the generation of traction force and invadopodium-mediated matrix degradation. Ablation of talin2 suppressed traction force generation and invadopodia formation, which were restored by re-expressing talin2 but not talin1. Furthermore, re-expression of wild-type talin2 (but not talin2(S339C)) in talin2-depleted cells rescued development of traction force and invadopodia."

According to the news reporters, the research concluded: "These results suggest that a strong interaction of talin2 with integrins is required to generate traction, which in turn drives invadopodium-mediated matrix degradation, which is key to cancer cell invasion."


Our news correspondents report that additional information may be obtained by contacting C. Huang, University of Kentucky, Dept. of Pharmacol & Nutr Sci, Lexington, KY 40506, United States. Additional authors for this research include N. Jafari, X. Li, Z.Z. Chen, L.Q. Li, V.P. Hytonen, B.T. Goult, C.G. Zhan and C. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/jcs.185959. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lexington, Kentucky, United States, North and Central America, Immunologic Receptors, Membrane Proteins, Integrins, Genetics, University of Kentucky.

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Studies from University of Kentucky Yield New Data on Alzheimer Disease (Risk factors and global cognitive status related to brain arteriolosclerosis in elderly individuals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been published. According to news reporting originating in Lexington, Kentucky, by NewsRx journalists, research stated, "Risk factors and cognitive sequelae of brain arteriolosclerosis pathology are not fully understood. To address this, we used multimodal data from the National Alzheimer's Coordinating Center and Alzheimer's Disease Neuroimaging Initiative data sets."

The news reporters obtained a quote from the research from the University of Kentucky, "Previous studies showed evidence of distinct neurodegenerative disease outcomes and clinical-pathological correlations in the 'oldest-old' compared to younger cohorts. Therefore, using the National Alzheimer's Coordinating Center data set, we analyzed clinical and neuropathological data from two groups according to ages at death: < 80 years (n = 1008) and >= 80 years (n = 1382). In both age groups, severe brain arteriolosclerosis was associated with worse performances on global cognition tests. Hypertension (but not diabetes) was a brain arteriolosclerosis risk factor in the younger group. In the >= 80 years age at death group, an ABCC9 gene variant (rs704180), previously associated with aging-related hippocampal sclerosis, was also associated with brain arteriolosclerosis. A post-hoc arterial spin labeling neuroimaging experiment indicated that ABCC9 genotype is associated with cerebral blood flow impairment; in a convenience sample from Alzheimer's Disease Neuroimaging Initiative (n = 15, homozygous individuals), non-risk genotype carriers showed higher global cerebral blood flow compared to risk genotype carriers."

According to the news reporters, the research concluded: "We conclude that brain arteriolosclerosis is associated with altered cognitive status and a novel vascular genetic risk factor."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0271678X15621574. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lexington, Kentucky, United States, North and Central America, Central Nervous System Diseases and Conditions, Neurodegenerative
Studies from University of Kentucky Yield New Information about Arthroplasty (The Location and Severity of Preoperative Subchondral Bone Marrow Lesions Were Not Associated With Inferior Postoperative Outcomes After Medial Unicompartmental Knee ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Arthroplasty have been published. According to news reporting out of Lexington, Kentucky, by NewsRx editors, research stated, "Inferior outcomes for medial unicompartmental knee arthroplasty (UKA) patients with preoperative medial tibial bone marrow lesions (BMLs) were recently reported. The purpose of this study was to compare the location and severity of BML on postoperative outcomes after medial UKA and TKA using a larger sample size and more rigorous magnetic resonance imaging (MRI) evaluation."

Our news journalists obtained a quote from the research from the University of Kentucky, "BML were graded on preoperative MRIs from 174 UKAs performed between 2009 and 2013 using the MRI Osteoarthritis Knee Score criteria. Grading was performed by a single evaluator blinded to the patient's outcome. MRIs from a matched group of 174 TKAs were then evaluated. Preoperative and postoperative Knee Society Knee Scores, Pain Scores, and Function Scores (FSs) were then compared between UKA and TKA patients based on the location and severity of BMLs. Overall medial-side BML severity (sum of tibia, femur, and patellar grades) did not affect Pain Score or FS; however, UKA and TKA patients with more severe BMLs had greater preoperative-to-postoperative gains in Knee Society Knee Scores (P = .05). When evaluating individual regions, UKA patients with more severe medial tibial BML had significantly greater gains in FS than those without BML, whereas the opposite was true for TKA patients (P = .02). Similarly, UKA and TKA patients with patellar lesions had greater gains in FS than those without BML (P = .05). Medial femoral BML did not appear to affect outcomes for either UKA or TKA patients. Medial tibial BMLs were not associated with inferior outcomes."

According to the news editors, the research concluded: "Clinically, these results suggest that BMLs should not be considered a contraindication for medial UKA."


Our news journalists report that additional information may be obtained by
contacting C.A. Jacobs, University of Kentucky, Dept. of Orthopaed Surg, Lexington, KY 40536, United States. Additional authors for this research include K.R. Berend, A.V. Lombardi and C.P. Christensen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arth.2016.05.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lexington, Kentucky, United States, North and Central America, Knee Arthroplasty, Immune System, Bone Research, Bone Marrow, Surgery, University of Kentucky.

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Oncology - Non-Small Cell Lung Cancer

Studies from University of Leicester Describe New Findings in Non-Small Cell Lung Cancer (Mast cell phenotype, TNF alpha expression and degranulation status in non-small cell lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Non-Small Cell Lung Cancer is now available. According to news reporting originating in Leicester, United Kingdom, by NewsRx journalists, research stated, "Mast cell infiltration of tumour islets represents a survival advantage in non-small cell lung cancer (NSCLC). The phenotype and activation status of these mast cells is unknown."

The news reporters obtained a quote from the research from the University of Leicester, "We investigated the mast cell phenotype in terms of protease content (tryptase-only [MCT], tryptase + chymase [MCTC]) and tumour necrosis factor-alpha (TNF alpha) expression, and extent of degranulation, in NSCLC tumour stroma and islets. Surgically resected tumours from 24 patients with extended survival (ES; mean survival 86.5 months) were compared with 25 patients with poor survival (PS; mean survival 8.0 months) by immunohistochemistry. Both MCT and MCTC in tumour islets were higher in ES (20.0 and 5.6 cells/mm(2) respectively) compared to PS patients (0.0 cells/mm(2)) (p < 0.0001). Both phenotypes expressed TNFa in the islets and stroma. In ES 44% of MCT and 37% of MCTC expressed TNFa in the tumour islets. MCT in the ES stroma were more degranulated than in those with PS (median degranulation index = 2.24 versus 1.73 respectively) (p = 0.0022), and ES islet mast cells (2.24 compared to 1.71, p< 0.0001). Since both MCT and MCTC infiltrating tumour islets in ES NSCLC patients express TNFa, the cytotoxic activity of this cytokine may confer improved survival in these patients."

According to the news reporters, the research concluded: "Manipulating mast cell microlocalisation and functional responses in NSCLC may offer a novel approach to the treatment of this disease."


Our news correspondents report that additional information may be obtained by
contacting P. Bradding, University of Leicester, Dept. of Infect Immun & Inflammat, Inst Lung Hlth, Leicester, Leics, United Kingdom. Additional authors for this research include C.M. Ohri, R.H. Green, D.A. Waller and P. Bradding.

Keywords for this news article include: Leicester, United Kingdom, Europe, Non-Small Cell Lung Cancer, Enzymes and Coenzymes, Lung Neoplasms, Immune System, Mast Cells, Oncology, Tryptase, University of Leicester.

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Cardiovascular Diseases and Conditions - …

Studies from University of Leipzig Have Provided New Information about Hypertension (Osmotic expression of aldose reductase in retinal pigment epithelial cells: involvement of NFAT5)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating from Leipzig, Germany, by NewsRx correspondents, research stated, "(AR) and sorbitol dehydrogenase (SDH) genes were examined. Diabetic retinopathy is associated with osmotic stress resulting from hyperglycemia and intracellular sorbitol accumulation. Systemic hypertension is a risk factor of diabetic retinopathy."

Funders for this research include Geschwister Freter Stiftung, Hannover, Germany, Deutsche Forschungsgemeinschaft.

Our news editors obtained a quote from the research from the University of Leipzig, "High intake of dietary salt increases extracellular osmolarity resulting in systemic hypertension. We determined the effects of extracellular hyperosmolarity, chemical hypoxia, and oxidative stress on the gene expression of enzymes involved in sorbitol production and conversion in cultured human retinal pigment epithelial (RPE) cells. Alterations in the expression of aldose reductase with real-time RT-PCR. Protein levels were determined with Western blot analysis. Nuclear factor of activated T cell 5 (NFAT5) was knocked down with siRNA. AR gene expression in RPE cells was increased by high (25 mM) extracellular glucose, CoCl2 (150 μM)-induced chemical hypoxia, H2O2 (20 μM)-induced oxidative stress, and extracellular hyperosmolarity induced by addition of NaCl or sucrose. Extracellular hyperosmolarity (but not hypoxia) also increased AR protein level. SDH gene expression was increased by hypoxia and oxidative stress, but not extracellular hyperosmolarity. Hyperosmolarity and hypoxia did not alter the SDH protein level. The hyperosmotic AR gene expression was dependent on activation of metalloproteinases, autocrine/paracrine TGF-beta signaling, activation of p38 MAPK, ERK1/2, and PI3K signal transduction pathways, and the transcriptional activity of NFAT5. Knockdown of NAFT5 or inhibition of AR decreased the cell viability under hyperosmotic (but not hypoxic) conditions and aggravated the hyperosmotic inhibition of cell proliferation. The data suggest that sorbitol accumulation in RPE cells occurs under hyperosmotic, but not hypoxic and oxidative stress conditions."

According to the news editors, the research concluded: "NFAT5- and AR-mediated sorbitol accumulation may protect RPE cells under conditions of osmotic stress."

For more information on this research see: Osmotic expression of aldose reductase in retinal pigment epithelial cells: involvement of NFAT5. Graefes Archive for Clinical and
Studies from University of Leon Reveal New Findings on Photodynamics (Penetration of 630 nm laser and 5-aminolevulinic acid in tissue with intralesional photodynamic therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Photodynamics. According to news originating from Leon, Spain, by NewsRx correspondents, research stated, "Photodynamic therapy is a common treatment in dermatology for several diseases, its main limitation is the penetration of topical photosensitizer and light in the tissue."

Our news journalists obtained a quote from the research from the University of Leon, "However intralesional photodynamic therapy is a new technique where the photosensitizer and sometimes a 630 nm laser beam are applied inside the lesion, so it allows achieve deeper penetration."

According to the news editors, the research concluded: "It has been used to treat basal cell carcinoma, hidradenitis suppurativa or keloids."

For more information on this research see: Penetration of 630 nm laser and 5-aminolevulinic acid in tissue with intralesional photodynamic therapy. Photodiagnosis and Photodynamic Therapy, 2016;16():166-168. Photodiagnosis and Photodynamic Therapy can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Photodiagnosis and Photodynamic Therapy - www.journals.elsevier.com/photodiagnosis-and-photodynamic-therapy/)

The news correspondents report that additional information may be obtained from M.J. Suarez-Valladares, University of Leon, Leon, Spain. Additional authors for this research include M.A. Rodriguez-Prieto and R. Serra-Llusa.

Keywords for this news article include: Leon, Spain, Europe, Photosensitizing Agents, Aminolevulinic Acid, Biotechnology, Photodynamics, Amino Acids, Therapy, University of Leon.

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Studies from University of Liege Further Understanding of Gardnerella vaginalis (Lysozyme as a cotreatment during antibiotics use against vaginal infections: An in vitro study on Gardnerella vaginalis biofilm models)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Bacterial Diseases and Conditions - Gardnerella vaginalis. According to news reporting originating in Liege, Belgium, by NewsRx journalists, research stated, "Bacterial vaginoses are frequent in women, most of them involving Gardnerella vaginalis. In more than 50% of the cases, usual antibiotic treatments are not capable of eliminating completely the infection, leading to recurrent vaginosis."

The news reporters obtained a quote from the research from the University of Liege, "In addition to the appearance of antibiotic resistance, recurrence can be due to the development of a biofilm by G. vaginalis. In vitro experiments on G. vaginalis biofilms showed that the biofilm protected bacteria from the antibiotic clindamycin. Also, recombinant human lysozyme (rhLys) was able to both degrade biofilms and prevent their formation. This degradation effect persisted whenever other vaginal commensal or pathogenic microorganisms were added to the culture and on each tested clinical biofilm-producing strain of G. vaginalis. The co-administration of rhLys and clindamycin or metronidazole improved both antibiotics' efficiency and lysozyme-driven biofilm degradation. The comparison of both clindamycin and metronidazole antibacterial spectra showed that metronidazole was preferable to treat vaginosis."

According to the news reporters, the research concluded: "This suggests that human lysozyme could be added as an anti-biofilm cotreatment to vaginal antibiotherapy, preferably metronidazole, against Gardnerella vaginalis infection in vivo."

For more information on this research see: Lysozyme as a cotreatment during antibiotics use against vaginal infections: An in vitro study on Gardnerella vaginalis biofilm models. *International Microbiology*, 2016;19(2):101-107. *International Microbiology* can be contacted at: Inst Estudis Catalans, Carrer Del Carme, 47, Barcelona, 08001, Spain. (Springer - www.springer.com; International Microbiology - www.springerlink.com/content/1139-6709/)

Our news correspondents report that additional information may be obtained by contacting O. Thellin, University of Liege, Dept. of Human Histol CRPP, Liege, Belgium. Additional authors for this research include W. Zorzi, D. Zorzi, P. Delvenne, E. Heinen, B. ElMoualij and P. Quatresooz.

Keywords for this news article include: Liege, Belgium, Europe, Bacterial Diseases and Conditions, Gardnerella vaginalis, Nitroimidazoles, Women's Health, Actinobacteria, Metronidazole, Gynecology, Lysozyme, University of Liege.

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Studies from University of Liege Have Provided New Information about Pharmacology (Action of Pitolisant on the stimulant and rewarding effects of cocaine in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Pharmacology is the subject of a report. According to news reporting originating from Liege, Belgium, by NewsRx correspondents, research stated, "Previous studies have demonstrated that the histamine H3 receptor inverse agonist thioperamide potentiates the stimulant and rewarding effects of cocaine. However, these potentiating effects of thioperamide do not necessarily result from H3 receptor blockade since thioperamide is an imidazole-based compound capable of enhancing plasma cocaine concentrations by blocking cytochrome P450 activity."

Funders for this research include Fonds Speciaux pour la Recherche (FSR) at the University of Liege, Belgian National Fund for Scientific Research.

Our news editors obtained a quote from the research from the University of Liege, "In contrast, Pitolisant is a non-imidazole H3 receptor inverse agonist that has already been tested in clinical trials but it remains to be determined whether this compound also potentiates the behavioral effects of cocaine. The present study tested the effects of Pitolisant on locomotion, on cocaine-induced hyperactivity and on the development of conditioned place preference induced by cocaine (2 and 8mg/kg, i.p.) in male C57BL/6J mice. Pitolisant was injected 30min before each cocaine-pairing session. Locomotion recorded on the first cocaine-pairing session was used to test the effects of Pitolisant on the locomotor effects of cocaine. Our results show that doses of Pitolisant higher than 10mg/kg depressed locomotion. When injected alone at doses that did not affect locomotion, Pitolisant (2.5-10mg/kg, i.p.) had no rewarding properties in the place conditioning technique. Additionally, Pitolisant did not significantly alter cocaine-induced hyperactivity and cocaine-induced conditioned place preference. Taken together, our study indicates that Pitolisant has no addictive properties alone. Moreover, this compound does not significantly affect the stimulant and rewarding effects of cocaine."

According to the news editors, the research concluded: "These results add further evidence to support the hypothesis that a pharmacokinetic interaction is involved in the ability of thioperamide to potentiate cocaine's psychomotor effects."

For more information on this research see: Action of Pitolisant on the stimulant and rewarding effects of cocaine in mice. European Journal of Pharmacology, 2016;791():552-559. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news editors report that additional information may be obtained by contacting C. Brabant, University of Liege, Dept. of Sci Clin, Unite Psychoneuroendocrinol, B-4000 Liege, Belgium. Additional authors for this research include Y. Charlier, M.E.S. Navacerrada, L. Alleva and E. Tirelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.08.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Liege, Belgium, Europe, Pharmacology, Drugs and Therapies, University of Liege.
Oncology - Non-Small Cell Lung Cancer

Studies from University of Lille Add New Findings in the Area of Non-Small Cell Lung Cancer (High-MET status in non-small cell lung tumors correlates with receptor phosphorylation but not with the serum level of soluble form)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Non-Small Cell Lung Cancer have been presented. According to news reporting originating in Lille, France, by NewsRx journalists, research stated, "The receptor tyrosine kinase MET is essential to embryonic development and organ regeneration. Its deregulation is associated with tumorigenesis."

Financial supporters for this research include Ligue Contre le Cancer, Comite Nord, Association pour la Recherche sur le Cancer, Institut National du Cancer, Canceropole Nord-Ouest, Site de Recherche Integree sur le Cancer, SIRIC ONCO, Roche company.

The news reporters obtained a quote from the research from the University of Lille, "While MET gene amplification and mutations leading to MET self-activation concern only a few patients, a high MET level has been found in about half of the non-small cell lung cancers (NSCLCs) tested. How this affects MET activation in tumors is unclear. Also uncertain is the prognostic value, in cancer, of a phenomenon well described in cell models: MET shedding, i.e. its cleavage by membrane proteases leading to release of a soluble fragment into the medium. A prospective cohort of 39 NSCLC patients was constituted at diagnosis or soon after. Normal tissues, tumor tissues, and blood samples were obtained. This allowed, for the same patient, synchronous determination of (i) the MET level in the tumor, (ii) receptor phosphorylation, and (iii) the concentration of soluble MET fragment (sMET) in the serum. After confirming the adequacy of an ELISA for measuring the serum level of sMET, we found no correlation between this level and the concentration of MET in tumors, as evaluated by immunohistochemistry and western blotting. Nevertheless, all but one tumor displaying a high MET level also displayed receptor phosphorylation, restricted to a small number of tumor cells. Our results thus demonstrate that the serum level of sMET is not indicative of the amount of MET present in the tumor cells and cannot be used as a biomarker for therapeutic purposes."

According to the news reporters, the research concluded: "However, MET scoring of tumor biopsies could be a first step prior to determination of MET receptor activation in high-MET tumors."


Our news correspondents report that additional information may be obtained by contacting D. Tulasne, University of Lille, CNRS, Inst Pasteur Lille, UMR 8161M3T, F-59000 Lille, France. Additional authors for this research include M. Lesaffre, M. Berbon, L. Doublet, C. Leroy, E. Tresch, H. Porte, J. Vicogne, A.B. Crotot, E. Dansin and D. Tulasne.

The direct object identifier (DOI) for that additional information is:
Studies from University of Lisbon Further Understanding of DNA Research (Genetic variants involved in oxidative stress, base excision repair, DNA methylation, and folate metabolism pathways influence myeloid neoplasias susceptibility and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on DNA Research have been published. According to news reporting out of Lisbon, Portugal, by NewsRx editors, research stated, "Myelodysplastic syndrome (MDS) and acute myeloid leukemia (AML) share common features: elevated oxidative stress, DNA repair deficiency, and aberrant DNA methylation. We performed a hospital-based case-control study to evaluate the association in variants of genes involved in oxidative stress, folate metabolism, DNA repair, and DNA methylation with susceptibility and prognosis of these malignancies."

Our news journalists obtained a quote from the research from the University of Lisbon, "To that end, 16 SNPs (one per gene: CAT, CYBA, DNMT1, DNMT3A, DNMT3B, GPX1, KEAP1, MPO, MTRR, NEIL1, NFE2F2, OGG1, SLC19A1, SOD1, SOD2, and XRCC1) were genotyped in 191 patients (101 MDS and 90 AML) and 261 controls. We also measured oxidative stress (reactive oxygen species/total antioxidant status ratio), DNA damage (8-hydroxy-2-deoxyguanosine), and DNA methylation (5-methylcytosine) in 50 subjects (40 MDS and 10 controls). Results showed that five genes (GPX1, NEIL1, NFE2L2, OGG1, and SOD2) were associated with MDS, two (DNMT3B and SLC19A1) with AML, and two (CYBA and DNMT1) with both diseases. We observed a correlation of CYBA TT, GPX1 TT, and SOD2 CC genotypes with increased oxidative stress levels, as well as NEIL1 TT and OGG1 GG genotypes with higher DNA damage. The 5-methylcytosine levels were negatively associated with DNMT1 CC, DNMT3A CC, and MTRR AA genotypes, and positively with DNMT3B CC genotype. Furthermore, DNMT3A, MTRR, NEIL1, and OGG1 variants modulated AML transformation in MDS patients. Additionally, DNMT3A, OGG1, GPX1, and KEAP1 variants influenced survival of MDS and AML patients."

According to the news editors, the research concluded: "Altogether, data suggest that genetic variability influence predisposition and prognosis of MDS and AML patients, as well AML transformation rate in MDS patients."


Our news journalists report that additional information may be obtained by

Keywords for this news article include: Lisbon, Portugal, Europe, DNA Research, University of Lisbon.

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Oncology - Pancreatic Cancer

Studies from University of Liverpool Describe New Findings in Pancreatic Cancer (Chemoresistance in Pancreatic Cancer Is Driven by Stroma-Derived Insulin-Like Growth Factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Pancreatic Cancer is now available. According to news reporting originating from Liverpool, United Kingdom, by NewsRx correspondents, research stated, "Tumor-associated macrophages (TAM) and myofibroblasts are key drivers in cancer that are associated with drug resistance in many cancers, including pancreatic ductal adenocarcinoma (PDAC). However, our understanding of the molecular mechanisms by which TAM and fibroblasts contribute to chemoresistance is unclear."

Our news editors obtained a quote from the research from the University of Liverpool, "In this study, we found that TAM and myofibroblasts directly support chemoresistance of pancreatic cancer cells by secreting insulin-like growth factors (IGF) 1 and 2, which activate insulin/IGF receptors on pancreatic cancer cells. Immunohistochemical analysis of biopsies from patients with pancreatic cancer revealed that 72% of the patients expressed activated insulin/IGF receptors on tumor cells, and this positively correlates with increased CD163(+) TAM infiltration. In vivo, we found that TAM and myofibroblasts were the main sources of IGF production, and pharmacologic blockade of IGF sensitized pancreatic tumors to gemcitabine."

According to the news editors, the research concluded: "These findings suggest that inhibition of IGF in combination with chemotherapy could benefit patients with PDAC, and that insulin/IGF1R activation may be used as a biomarker to identify patients for such therapeutic intervention."

For more information on this research see: Chemoresistance in Pancreatic Cancer Is Driven by Stroma-Derived Insulin-Like Growth Factors. Cancer Research, 2016;76(23):6851-6863. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/0008-5472.CAN-16-1201. This DOI is a link to an online electronic
Central Nervous System Diseases and Conditions -…

Studies from University of Liverpool Have Provided New Data on Epilepsy (Lamotrigine versus carbamazepine monotherapy for epilepsy: an individual participant data review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Epilepsy. According to news reporting from Liverpool, United Kingdom, by NewsRx journalists, research stated, "This is an updated version of the original Cochrane review published in Issue 1, 2006 of the Cochrane Database of Systematic Reviews. Epilepsy is a common neurological condition in which abnormal electrical discharges from the brain cause recurrent unprovoked seizures."

The news correspondents obtained a quote from the research from the University of Liverpool, "It is believed that with effective drug treatment up to 70% of individuals with active epilepsy have the potential to become seizure-free and to go into long-term remission shortly after starting drug therapy with a single antiepileptic drug (AED) in monotherapy. The correct choice of first-line antiepileptic therapy for individuals with newly diagnosed seizures is of great importance. It is important that the choice of AEDs for an individual is made using the highest quality evidence regarding the potential benefits and harms of the various treatments. It is also important that the effectiveness and tolerability of AEDs appropriate to given seizure types are compared to one another. Carbamazepine or lamotrigine are first-line recommended treatments for new onset partial seizures and as a first-or second-line treatment for generalised tonic-clonic seizures. Performing a synthesis of the evidence from existing trials will increase the precision of the results for outcomes relating to efficacy and tolerability and may assist in informing a choice between the two drugs. To review the time to withdrawal, remission and first seizure with lamotrigine compared to carbamazepine when used as monotherapy in people with partial onset seizures (simple or complex partial and secondarily generalised) or generalised onset tonic-clonic seizures (with or without other generalised seizure types). Search methods The first searches for this review were run in 1997. For the most recent update we searched the Cochrane Epilepsy Group Specialized Register (17 October 2016), the Cochrane Central Register of Controlled Trials (CENTRAL) via the Cochrane Register of Studies Online (CRSO, 17 October 2016) and MEDLINE (Ovid, 1946 to 17 October 2016). We imposed no language restrictions. We also contacted pharmaceutical companies and trial investigators. Selection criteria Randomised controlled trials in children or adults with partial onset seizures or generalised onset tonic-clonic seizures comparing monotherapy with either carbamazepine or lamotrigine. Data collection and analysis This was an individual participant data (IPD) review. Our primary outcome was time to withdrawal of allocated treatment and our secondary outcomes were time to first seizure post-randomisation, time to six-month, 12-month and 24-month remission, and incidence of adverse events. We used Cox proportional hazards regression models to obtain trial-specific estimates of hazard ratios (HRs) with 95% confidence intervals (CIs), using the
generic inverse variance method to obtain the overall pooled HR and 95% CI. We included 13 studies in this review. Individual participant data were available for 2572 participants out of 3394 eligible individuals from nine out of 13 trials: 78% of the potential data. For remission outcomes, a HR <1 indicated an advantage for carbamazepine and for first seizure and withdrawal outcomes a HR <1 indicated an advantage for lamotrigine. The main overall results (pooled HR adjusted for seizure type) were: time to withdrawal of allocated treatment (HR 0.72, 95% CI 0.63 to 0.82), time to first seizure (HR 1.22, 95% CI 1.09 to 1.37) and time to six-month remission (HR 0.84, 95% CI 0.74 to 0.94), showing a significant advantage for lamotrigine compared to carbamazepine for withdrawal but a significant advantage for carbamazepine compared to lamotrigine for first seizure and six-month remission. We found no difference between the drugs for time to 12-month remission (HR 0.91, 95% CI 0.77 to 1.07) or time to 24-month remission (HR 1.00, 95% CI 0.80 to 1.25), however only two trials followed up participants for more than one year so the evidence is limited. The results of this review are applicable mainly to individuals with partial onset seizures; 88% of included individuals experienced seizures of this type at baseline. Up to 50% of the limited number of individuals classified as experiencing generalised onset seizures at baseline may have had their seizure type misclassified, therefore we recommend caution when interpreting the results of this review for individuals with generalised onset seizures. The most commonly reported adverse events for both of the drugs across all of the included trials were dizziness, fatigue, gastrointestinal disturbances, headache and skin problems. The rate of adverse events was similar across the two drugs. The methodological quality of the included trials was generally good, however there is some evidence that the design choice of masked or open-label treatment may have influenced the withdrawal rates of the trials. Hence, we judged the quality of the evidence for the primary outcome of treatment withdrawal to be moderate for individuals with partial onset seizures and low for individuals with generalised onset seizures. For efficacy outcomes (first seizure, remission), we judged the quality of evidence to be high for individuals with partial onset seizures and moderate for individuals with generalised onset seizures. Authors' conclusions Lamotrigine was significantly less likely to be withdrawn than carbamazepine but the results for time to first seizure suggested that carbamazepine may be superior in terms of seizure control. A choice between these first-line treatments must be made with careful consideration."

According to the news reporters, the research concluded: "We recommend that future trials should be designed to the highest quality possible with consideration of masking, choice of population, classification of seizure type, duration of follow-up, choice of outcomes and analysis, and presentation of results."

For more information on this research see: Lamotrigine versus carbamazepine monotherapy for epilepsy: an individual participant data review. Cochrane Database of Systematic Reviews, 2016;(11):4-100. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting S.J. Nolan, University of Liverpool, Dept. of Biostat, Liverpool L69 3GL, Merseyside, United Kingdom. Additional authors for this research include C.T. Smith, J. Weston and A.G. Marson.

**Keywords for this news article include:** Liverpool, United Kingdom, Europe, Central Nervous System Diseases and Conditions, Brain Diseases and Conditions, Central Nervous System Agents, Dibenzazepine Anticonvulsants, Clinical Trials and Studies, Neurologic Manifestations, Seizures, Article Review, Triazine Anticonvulsants, Adverse Drug Reactions, Carbamazepine Therapy, Drugs and Therapies, Lamotrigine Therapy, Clinical Research, Pharmaceuticals, Antiepileptics, Epilepsy, University of Liverpool.

Our reports deliver fact-based news of research and discoveries from around the
Studies from University of Malaya Yield New Data on Type 2 Diabetes

[Giant Oyster Mushroom Pleurotus giganteus (Agaricomycetes)
Enhances Adipocyte Differentiation and Glucose Uptake via Activation
of PPARy and Glucose Transporters 1 and 4 in ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news reporting from Kuala Lumpur, Malaysia, by NewsRx journalists, research stated, "The edible mushroom Pleurotus giganteus was tested for its effect on adipocyte differentiation and glucose uptake activity in 3T3-L1 cells. The basidiocarps of P. giganteus were soaked in methanol to obtain a crude methanol extract and then fractionated to obtain an ethyl acetate extract."

The news correspondents obtained a quote from the research from the University of Malaya, "In this study, cell proliferation was measured using an MTT assay, lipid accumulation using an Oil Red 0 assay, and glucose uptake using a fluorescence glucose uptake assay. Gene expression was measured via real-time polymerase chain reaction analysis with TagMan primer. Ethyl acetate extract significantly enhanced adipogenic differentiation and glucose uptake in 3T3-L1 adipocytes via the expression of sterol regulatory element-binding protein, peroxisome proliferator-activated receptor gamma, and phosphatidylinositol 3-kinase/Akt. Glucose uptake was facilitated by the highly expressed glucose transporters Glut1 and Glut4."

According to the news reporters, the research concluded: "Taken together, these results suggest that P. giganteus ethyl acetate extract has an insulin-sensitizing effect on adipocytes and has potential as an adjuvant for the management of type 2 diabetes."

For more information on this research see: Giant Oyster Mushroom Pleurotus giganteus (Agaricomycetes) Enhances Adipocyte Differentiation and Glucose Uptake via Activation of PPARy and Glucose Transporters 1 and 4 in 3T3-L1 Cells. International Journal of Medicinal Mushrooms, 2016;18(9):821-831. International Journal of Medicinal Mushrooms can be contacted at: Begell House Inc, 50 North St, Danbury, CT 06810, USA.

Our news journalists report that additional information may be obtained by contacting U.R. Kuppusamy, Univ Malaya, Dept. of Biomed Sci, Fac Med, Kuala Lumpur 50603, Malaysia. Additional authors for this research include C.K. Heng, N.A. Malek, V. Sabaratnam, M.R. Ram and U.R. Kuppusamy.

Keywords for this news article include: Kuala Lumpur, Malaysia, Asia, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Connective Tissue Cells, Risk and Prevention, Swiss 3T3 Cells, Type 2 Diabetes, 3T3-L1 Cells, Fibroblasts, Adipocytes, Cell Line, Genetics, University of Malaya.

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Gram-Negative Bacteria - Pseudomonas putida

Studies from University of Manchester Provide New Data on Pseudomonas putida [Metabolomics reveals the physiological response of Pseudomonas putida KT2440 (UWC1) after pharmaceutical exposure]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Pseudomonas putida have been published. According to news reporting out of Manchester, United Kingdom, by NewsRx editors, research stated, "Human pharmaceuticals have been detected in wastewater treatment plants, rivers, and estuaries throughout Europe and the United States. It is widely acknowledged that there is insufficient information available to determine whether prolonged exposure to low levels of these substances is having an impact on the microbial ecology in such environments."

Our news journalists obtained a quote from the research from the University of Manchester, "In this study we attempt to measure the effects of exposing cultures of Pseudomonas putida KT2440 (UWC1) to six pharmaceuticals by looking at differences in metabolite levels. Initially, we used Fourier transform infrared (FT-IR) spectroscopy coupled with multivariate analysis to discriminate between cell cultures exposed to different pharmaceuticals. This suggested that on exposure to propranolol there were significant changes in the lipid complement of P. putida. Metabolic profiling with gas chromatography-mass spectrometry (GC-MS), coupled with univariate statistical analyses, was used to identify endogenous metabolites contributing to discrimination between cells exposed to the six drugs. This approach suggested that the energy reserves of exposed cells were being expended and was particularly evident on exposure to propranolol. Adenosine triphosphate (ATP) concentrations were raised in P. putida exposed to propranolol."

According to the news editors, the research concluded: "Increased energy requirements may be due to energy dependent efflux pumps being used to remove propranolol from the cell."


Our news journalists report that additional information may be obtained by contacting F. Currie, School of Chemistry, Manchester Institute of Biotechnology, University of Manchester, 131 Princess Street, Manchester, M1 7ND, UK. Additional authors for this research include D.I. Broadhurst, W.B. Dunn, C.A. Sellick and R. Goodacre.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1039/C5MB00889A. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiarrhythmic Agents, Europe, Manchester, Propranolol, Hydrocarbons, Naphthalenes, United Kingdom, Amino Alcohols, Pseudomonadaceae, Organic Chemicals, Pseudomonas putida, Drugs and Therapies, Gammaproteobacteria, Cardiovascular Agents, Phenoxypropanolamines, Gram Negative Bacteria, Gram-Negative Bacteria.

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Studies from University of Maryland Further Understanding of Aortic Coarctation (Retrospective case series examining the clinical significance of subjective fetal cardiac ventricular disproportion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Aortic Coarctation are discussed in a new report. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "To evaluate fetal cardiac ventricular disproportion as a marker of cardiac anomalies. A retrospective case series included data from all patients who had a fetus diagnosed subjectively with ventricular disproportion by routine obstetric ultrasonography between January 1, 2007 and December 31, 2013 at a single tertiary center in the USA."

The news reporters obtained a quote from the research from the University of Maryland, "Fetal and neonatal echocardiography, and neonatal outcome data were retrieved. Outcomes were described for all fetuses with subjective ventricular disproportion. Then, the objective right-to-left ventricular ratio (RLVR) was calculated as a continuous (after transformation to gestational age specific z-scores) or categorical value (>2SD for gestational week), based on previously published reference values. Subsequently, correlations between the objective RLVR and neonatal outcomes were evaluated. Records from 60 fetuses diagnosed with ventricular disproportion at 16-38 weeks of gestation were included. These pregnancies resulted in 54 live deliveries; postnatally, 20 (37%) of these neonates were diagnosed with aortic coarctation and 39 (72%) were diagnosed with other cardiac anomalies, with or without aortic coarctation. No significant differences in objective prenatal diagnostic findings (RLVR) were demonstrated between neonates who were diagnosed postnatally with aortic coarctation or any cardiac anomaly and those not. Subjective ventricular disproportion, regardless of objective diagnosis, was associated with cardiac defects."

According to the news reporters, the research concluded: "The use of fetal and neonatal echocardiography following diagnosis of fetal ventricular disproportion appears justified."


Our news correspondents report that additional information may be obtained by contacting S. Turan, University of Maryland, Sch Med, Dept. of Obstet Gynecol & Reprod Sci, Baltimore, MD 21201, United States. Additional authors for this research include B.C. Demir, S. Crimmins, S. Esin, O.M. Turan and S. Turan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijgo.2016.03.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Cardiovascular Diseases and Conditions, Cardiology, Diagnostics and
Heart Disorders and Diseases - Heart Attack

Studies from University of Maryland Have Provided New Information about Heart Attack (Outcomes of extracorporeal cardiopulmonary resuscitation for refractory cardiac arrest in adult cardiac surgery patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "The role of extracorporeal cardiopulmonary resuscitation (ECPR) in adult cardiac surgery patients with refractory cardiac arrest is uncertain. We hypothesized that ECPR would be associated with better than expected outcomes in this group of patients."

Our news journalists obtained a quote from the research from the University of Maryland, "We conducted a single-center retrospective cohort study of adult cardiac surgery patients who underwent ECPR for refractory cardiac arrest during a 6-year period (2010 to 2015). In-hospital mortality, survival at last follow-up, and cerebral performance category (CPC) were examined as outcomes, and potential risk factors for mortality were explored. Twenty-three patients underwent ECPR when spontaneous circulation did not return with conventional resuscitation. Thirty-day mortality was 65.2%, and in-hospital mortality was 69.6%. Six of the 23 patients (26.1%) were discharged with a favorable neurologic outcome, defined as CPC 1 or 2. Most patients who died had multiple organ dysfunction syndrome (43.8%), and a smaller number had severe brain injury (25.0%). Kaplan-Meier survival analysis suggested age as a critical factor affecting survival (P = .04, log-rank test). ECPR may have a role in younger adult cardiac surgery patients who experience refractory cardiac arrest."

According to the news editors, the research concluded: "Future studies are needed to identify patients who will benefit most from ECPR."


The news correspondents report that additional information may be obtained from M.A. Mazzeffi, University of Maryland, Sch Med, Dept. of Shock Trauma Crit Care, Baltimore, MD 21201, United States. Additional authors for this research include P.G. Sanchez, D. Herr, E. Krause, C.F. Evans, R. Rector, B. McCormick, S. Pham, B. Taylor, B. Griffith and Z.N. Kon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtcvs.2016.06.014. This DOI is a link to an online electronic
Studies from University of Maryland in the Area of Amyotrophic Lateral Sclerosis Reported (Motor neuron disease, TDP-43 pathology, and memory deficits in mice expressing ALS-FTD-linked UBQLN2 mutations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Neurodegenerative Diseases and Conditions - Amyotrophic Lateral Sclerosis are discussed in a new report. According to news reporting out of Baltimore, Maryland, by NewsRx editors, research stated, "Missense mutations in ubiquilin 2 (UBQLN2) cause ALS with frontotemporal dementia (ALS-FTD). Animal models of ALS are useful for understanding the mechanisms of pathogenesis and for preclinical investigations."

Our news journalists obtained a quote from the research from the University of Maryland, "However, previous rodent models carrying UBQLN2 mutations failed to manifest any sign of motor neuron disease. Here, we show that lines of mice expressing either the ALS-FTD-linked P497S or P506T UBQLN2 mutations have cognitive deficits, shortened lifespans, and develop motor neuron disease, mimicking the human disease. Neuropathologic analysis of the mice with end-stage disease revealed the accumulation of ubiquitinated inclusions in the brain and spinal cord, astrogliosis, a reduction in the number of hippocampal neurons, and reduced staining of TAR-DNA binding protein 43 in the nucleus, with concomitant formation of ubiquitin(+) inclusions in the cytoplasm of spinal motor neurons. Moreover, both lines displayed denervation muscle atrophy and age-dependent loss of motor neurons that correlated with a reduction in the number of large-caliber axons. By contrast, two mouse lines expressing WT UBQLN2 were mostly devoid of clinical and pathological signs of disease."

According to the news editors, the research concluded: "These UBQLN2 mouse models provide valuable tools for identifying the mechanisms underlying ALS-FTD pathogenesis and for investigating therapeutic strategies to halt disease."


Our news journalists report that additional information may be obtained by contacting M.J. Monteiro, University of Maryland, Sch Med, Dept. of Anat & Neurobiol, Baltimore, MD 21201, United States. Additional authors for this research include L. Chang, I.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Neurodegenerative Diseases and Conditions, Nervous System Diseases and Conditions, Neuromuscular Diseases and Conditions, Amyotrophic Lateral Sclerosis, Motor Neuron Disease, Pathology, Neurology, Genetics, University of Maryland.

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Oncology - B-Cell Lymphoma

Studies from University of Maryland in the Area of B-Cell Lymphoma Reported (Expression of HIV-1 matrix protein p17 and association with B-cell lymphoma in HIV-1 transgenic mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - B-Cell Lymphoma. According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "HIV-1 infection is associated with increased risk for B-cell lymphomas. How HIV infection promotes the development of lymphoma is unclear, but it may involve chronic B-cell activation, inflammation, and/or impaired immunity, possibly leading to a loss of control of oncogenic viruses and reduced tumor immunosurveillance."

Funders for this research include HHS | NIH | National Cancer Institute (NCI), HHS | National Institutes of Health (NIH).

The news correspondents obtained a quote from the research from the University of Maryland, "We hypothesized that HIV structural proteins may contribute to lymphomagenesis directly, because they can persist long term in lymph nodes in the absence of viral replication. The HIV-1 transgenic mouse Tg26 carries a noninfectious HIV-1 provirus lacking part of the gag-pol region, thus constituting a model for studying the effects of viral products in pathogenesis. Approximately 15% of Tg26 mice spontaneously develop leukemia/lymphoma. We investigated which viral proteins are associated with the development of leukemia/lymphoma in the Tg26 mouse model, and performed microarray analysis on RNA from spleen and lymph nodes to identify potential mechanisms of lymphomagenesis. Of the viral proteins examined, only expression of HIV-1 matrix protein p17 was associated with leukemia/lymphoma development and was highly expressed in bone marrow before disease. The tumor cells resembled pro-B cells, and were CD19(+) IgM(-) IgD(-) CD93(+) CD43(-) CD21(-) CD23(-) VpreB(+) CXCR4(+). Consistent with the pro-B-cell stage of B-cell development, microarray analysis revealed enrichment of transcripts, including Rag1, Rag2, CD93, Vpreb1, Vpreb3, and Igll1. We confirmed RAG1 expression in Tg26 tumors, and hypothesized that HIV-1 matrix protein p17 may directly induce RAG1 in B cells."

According to the news reporters, the research concluded: "Stimulation of human activated B cells with p17 enhanced RAG1 expression in three of seven donors, suggesting that intracellular signaling by p17 may lead to genomic instability and transformation."

For more information on this research see: Expression of HIV-1 matrix protein p17 and association with B-cell lymphoma in HIV-1 transgenic mice. Proceedings of the National Academy of Sciences of the United States of America, 2016;113(46):13168-13173.
Studies from University of Massachusetts Further Understanding of Diarylheptanoids (Effects of Stable Degradation Products of Curcumin on Cancer Cell Proliferation and Inflammation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Diarylheptanoids. According to news originating from Amherst, Massachusetts, by NewsRx correspondents, research stated, "Curcumin is among the most promising dietary compounds for cancer prevention. However, curcumin rapidly degrades in aqueous buffer at physiological pH, making it difficult to understand whether the effects of curcumin are from curcumin itself or its degradation products."

Financial supporters for this research include National Institute of Food and Agriculture, Armstrong Fund for Science, University of Massachusetts Amherst.

Our news journalists obtained a quote from the research from the University of Massachusetts, "Here we studied the antiproliferative and anti-inflammatory effects of curcumin degradation products, including its total degradation products (a mixture containing all stable degradation products of curcumin) and bicyclopentadione (a dominant stable degradation compound of curcumin). Curcumin potently modulated cell proliferation, progression of cell cycle, and apoptosis in MC38 colon cancer cells and inhibited lipopolysaccharide (LPS)-induced inflammatory responses and NF-kappa B signaling in RAW 264.7 macrophage cells. In contrast, neither the total degradation products of curcumin nor bicyclopentadione had such effects. For example, after 24 h of treatment in MC38 colon cancer cells, 5 µg/mL curcumin inhibited 39.2 +/- 1.8% of cell proliferation, whereas its degradation products were inactive."

According to the news editors, the research concluded: "Together, these results suggest that the stable chemical degradation products of curcumin are not likely to play a major
role in mediating the biological activities of curcumin."


The news correspondents report that additional information may be obtained from G.D. Zhang, University of Massachusetts, Dept. of Food Sci, Amherst, MA 01003, United States. Additional authors for this research include J.L. Zhu, W.C. Wang, Z.Y. Du and G.D. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jafc.6b04343. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amherst, Massachusetts, United States, North and Central America, Cell Proliferation, Organic Chemicals, Diarylheptanoids, Inflammation, Hydrocarbons, Catechols, Oncology, Curcumin, Alkanes, Cancer, University of Massachusetts.

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**Studies from University of Massachusetts Yield New Information about Oncology Nursing (Pain and social processes for hospice cancer patients: An integrative review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nursing - Oncology Nursing. According to news reporting originating from Amherst, Massachusetts, by NewsRx correspondents, research stated, "Hospice cancer patients experience poorly-controlled pain in spite of widely-disseminated evidence-based guidelines for use by hospice care practitioners. Pain management occurs in the context of the interdisciplinary team, centered on a caring triad in the home: the person with pain, their caregiver, and their nurse."

Financial support for this research came from Oncology Nursing Foundation.

Our news editors obtained a quote from the research from the University of Massachusetts, "This review: 1) Summarizes what is known about differing ways that members of the hospice caring triad (patients, caregivers, and nurses) interpret and respond to cancer pain, in order to develop a cancer pain social processes theoretical framework, 2) Identifies gaps in understanding of hospice cancer pain social processes, and 3) Identifies framework concepts for research based clinical practice with potential to improve pain outcomes. Our integrative review of the literature resulted in the identification and synthesis of 21 unique studies of cancer pain social processes, which were categorized according to a social processes framework and hospice caring triad member roles, using a social processes concepts matrix. Pain meanings, goals, and related responses vary for persons with pain, caregivers, and nurses. Studies have explored individual social processes concepts or triad member roles. Studies identify the need for pain meaning to be included in hospice pain management plans. To our knowledge, no single study
has generated a framework for hospice cancer pain social processes addressing and incorporating the roles of all three caring triad members."

According to the news editors, the research concluded: "Therefore, comprehensive hospice cancer pain clinical evaluation and interventions plans may be missing key elements of pain management, especially for persons with ongoing poorly controlled pain."


The news editors report that additional information may be obtained by contacting O. Ehrlich, University of Massachusetts, Amherst, MA 01003, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejon.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amherst, Massachusetts, United States, North and Central America, Oncology Nursing, Nursing, Cancer, Article Review, Oncology, University of Massachusetts.

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Drug Resistance

Studies from University of Massachusetts in the Area of Drug Resistance Described (Molecular Basis for Differential Patterns of Drug Resistance in Influenza N1 and N2 Neuraminidase)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drug Resistance. According to news reporting originating in Worcester, Massachusetts, by NewsRx journalists, research stated, "Neuraminidase (NA) inhibitors are used for the prevention and treatment of influenza A virus infections. Two subtypes of NA, N1 and N2, predominate in viruses that infect humans, but differential patterns of drug resistance have emerged in each subtype despite highly homologous active sites."

Funders for this research include Defense Sciences Office, DARPA, Office of the Assistant Secretary of Defense for Health Affairs.

The news reporters obtained a quote from the research from the University of Massachusetts, "To understand the molecular basis for the selection of these drug resistance mutations, structural and dynamic analyses on complexes of N1 and N2 NA with substrates and inhibitors were performed. Comparison of dynamic substrate and inhibitor envelopes and interactions at the active site revealed how differential patterns of drug resistance have emerged for specific drug resistance mutations, at residues I222, S246, and H274 in N1 and E119 in N2. Our results show that the differences in intermolecular interactions, especially van der Waals contacts, of the inhibitors versus substrates at the NA active site effectively explain the selection of resistance mutations in the two subtypes."

According to the news reporters, the research concluded: "Avoiding such contacts
that render inhibitors vulnerable to resistance by better mimicking the dynamics and intermolecular interactions of substrates can lead to the development of novel inhibitors that avoid drug resistance in both subtypes."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.jctc.6b00703. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Worcester, Massachusetts, United States, North and Central America, Virus Physiological Phenomena, Enzymes and Coenzymes, Viral Drug Resistance, Glycoside Hydrolases, Drugs and Therapies, Neuraminidase, Influenza, Genetics, University of Massachusetts.

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**Drugs and Therapies - Calcium Channel Blocking...**

**Studies from University of Medicine and Dentistry of New Jersey (UMDNJ) in the Area of Calcium Channel Blocking Agents Described (The utility of bolus intravenous nicardipine for hypertensive emergencies in the ED)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Calcium Channel Blocking Agents is now available. According to news originating from New Brunswick, New Jersey, by NewsRx correspondents, research stated, "Nicardipine is a commonly used agent for the management of hypertensive emergencies due to its predictable pharmacokinetic profile and ease of titration. There is documented use of nicardipine administered as an intravenous (IV) bolus dose in several settings, particularly in the anesthesia literature."

Our news journalists obtained a quote from the research from the University of Medicine and Dentistry of New Jersey (UMDNJ), "We describe the first 2 documented cases of use of nicardipine administered as an IV bolus dose in the emergency department (ED) for hypertensive emergencies involving acute ischemic stroke and hemorrhagic stroke. A literature review follows along with recommendations for consideration for IV bolus dosing of nicardipine in the ED."

According to the news editors, the research concluded: "Overall, administration of nicardipine as an IV bolus dose may be effective for rapid short-term management of hypertensive crises in the ED setting."

The news correspondents report that additional information may be obtained from N.I. Awad, Robert Wood Johnson Univ Hosp, Dept. of Pharm, New Brunswick, NJ, United States.

Keywords for this news article include: New Brunswick, New Jersey, United States, North and Central America, Calcium Channel Blocking Agents, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Nicardipine Therapy, Vasodilator Agents, Antihypertensive, Dihydropyridine, University of Medicine and Dentistry of New Jersey (UMDNJ).

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**Heart Disorders and Diseases - Atrial Fibrillation**

**Studies from University of Melbourne in the Area of Atrial Fibrillation Described (Alcohol and Atrial Fibrillation A Sobering Review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting from Parkville, Australia, by NewsRx journalists, research stated, "Alcohol is popular in Western culture, supported by a perception that modest intake is cardioprotective. However, excessive drinking has detrimental implications for cardiovascular disease."

The news correspondents obtained a quote from the research from the University of Melbourne, "Atrial fibrillation (AF) following an alcohol binge or the 'holiday heart syndrome' is well characterized. However, more modest levels of alcohol intake on a regular basis may also increase the risk of AF. The pathophysiological mechanisms responsible for the relationship between alcohol and AF may include direct toxicity and alcohol's contribution to obesity, sleep-disordered breathing, and hypertension."

According to the news reporters, the research concluded: "We aim to provide a comprehensive review of the epidemiology and pathophysiology by which alcohol may be responsible for AF and determine whether alcohol abstinence is required for patients with AF."

For more information on this research see: Alcohol and Atrial Fibrillation A Sobering Review. *Journal of the American College of Cardiology*, 2016;68(23):2567-2576. *Journal of the American College of Cardiology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.

Our news journalists report that additional information may be obtained by contacting P.M. Kistler, University of Melbourne, Parkville, Vic, Australia. Additional authors for this research include S. Prabhu, L.H. Ling, J.M. Kalman and P.M. Kistler.

Keywords for this news article include: Parkville, Australia, Australia and New Zealand, Atrial Fibrillation, Article Review, Epidemiology, Heart Disorders and Diseases, Cardiac Arrhythmias, Heart Disease, University of Melbourne.
Angiology

Studies from University of Miami Jackson Memorial Hospital Describe New Findings in Angiology (Endovascular Coil Embolization in the Treatment of a Rare Case of Post-Traumatic Abdominal Aortic Pseudoaneurysms: Brief Report and Review of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Angiology is the subject of a report. According to news reporting from Miami, Florida, by NewsRx journalists, research stated, "Traumatic aortic injury, a consequence of penetrating injuries or blunt trauma, is a life threatening condition which requires prompt diagnosis and management. Most abdominal aortic injuries have been repaired via an open surgical approach with endovascular stent graft as an alternative."

The news correspondents obtained a quote from the research from the University of Miami Jackson Memorial Hospital, "Traumatic pseudoaneurysms (PSA) of the abdominal aorta are uncommon, and they are managed similar to other abdominal aortic injuries. However, the presence of a perianeurysmal hematoma and the potential risk of an associated concomitant bowel communication could make surgery and endovascular stent graft placement risky. In such patients, coil embolization could be a valued option. In this article, we present a case in which traumatic PSAs are repaired using coil embolization with technical and clinical success."

According to the news reporters, the research concluded: "Endovascular coil embolization could be an alternative approach for PSAs that cannot be treated by stent grafting or open surgical repair, in the appropriate anatomy and by using the right coil material and technique."


Our news journalists report that additional information may be obtained by contacting K. Pereira, Univ Miami Hosp, Jackson Mem Hosp, Dept. of Intervent Radiol, Miami, FL, United States. Additional authors for this research include K. Pereira, J. Rey and G. Narayanan.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Angiology, Surgery, Embolization, University of Miami Jackson Memorial Hospital.

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Liver Diseases and Conditions - Hepatitis C Virus

Studies from University of Miami Yield New Data on Hepatitis C Virus (STAT1 is essential for the inhibition of hepatitis C virus replication by interferon-lambda but not by interferon-alpha)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Hepatitis C Virus have been published. According to news originating from Miami, Florida, by NewsRx correspondents, research stated, "Interferon-alpha (IFN-alpha) and IFN-lambda are structurally distinct cytokines that bind to different receptors, but induce expression of similar sets of genes through Janus kinase (JAK)-signal transducers and activators of transcription (STAT) pathways. The difference between IFN-alpha and IFN-lambda signaling remains poorly understood."

Our news journalists obtained a quote from the research from the University of Miami, "Here, using the CRISPR/Cas9 system, we examine the role of STAT1 and STAT2 in the inhibition of hepatitis C virus (HCV) replication by IFN-alpha and IFN-lambda. Treatment with IFN-alpha increases expression of IFN-stimulated genes (ISGs) such as double-stranded RNA-activated protein kinase (PKR) and decreases viral RNA and protein levels in HCV-infected Huh-7.5 human hepatoma cells. These responses are only partially attenuated by knockout of STAT1 but are abolished by knockout of STAT2. In contrast, the inhibition of HCV replication by IFN-lambda is abolished by knockout of STAT1 or STAT2. Microarray analysis reveals that IFN-alpha but not IFN-lambda can induce expression of the majority of ISGs in STAT1 knockout cells."

According to the news editors, the research concluded: "These findings suggest that IFN-alpha can inhibit HCV replication through a STAT2-dependent but STAT1-independent pathway, whereas IFN-lambda induces."

For more information on this research see: STAT1 is essential for the inhibition of hepatitis C virus replication by interferon-lambda but not by interferon-alpha. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from S. Yamauchi, University of Miami, Miller Sch Med, Dept. of Cell Biol, Miami, FL 33136, United States. Additional authors for this research include K. Takeuchi, K. Chihara, C. Honjoh, Y. Kato, H. Yoshiki, H. Hotta and K. Sada.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Virus Physiological Phenomena, Virus Physiological Processes, Liver Diseases and Conditions, Microbiological Processes, Flaviviridae Infections, Enzymes and Coenzymes, Biological Factors, Virus Replication, Interferon Type I, Hepatitis C Virus, Interferon-alpha, Gastroenterology, Interferons, RNA Viruses, Hepatology, Cytokines, Viral RNA, Genetics, Virology, Kinase, HCV, University of Miami.

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Biotechnology - Genomics

Studies from University of Michigan Have Provided New Information about Genomics (Selection-, age-, and exercise-dependence of skeletal muscle gene expression patterns in a rat model of metabolic fitness)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biotechnology - Genomics have been published. According to news reporting originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "Intrinsic aerobic exercise capacity can influence many complex traits including obesity and aging. To study this connection we established two rat lines by divergent selection of untrained aerobic capacity."

Financial supporters for this research include Ellison Medical Foundation (EMF), HHS | NIH | National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).

Our news editors obtained a quote from the research from the University of Michigan, "After 32 generations the high capacity runners (HCR) and low capacity runners (LCR) differed in endurance running distance and body fat, blood glucose, other health indicators, and natural life span. To understand the interplay among genetic differences, chronological age, and acute exercise we performed microarray-based gene expression analyses in skeletal muscle with a 2x2x2 design to simultaneously compare HCR and LCR, old and young animals, and rest and exhaustion. Transcripts for mitochondrial function are expressed higher in HCRs than LCRs at both rest and exhaustion and for both age groups. Expression of cell adhesion and extracellular matrix genes tend to decrease with age. This and other age effects are more prominent in LCRs than HCRs, suggesting that HCRs have a slower aging process and this may be partly due to their better metabolic health. Strenuous exercise mainly affects transcription regulation and cellular response. The effects of any one factor often depend on the other two. For example, there are similar to 140 and similar to 110 line-exercise 'interacting' genes for old and young animals, respectively. Many genes highlighted in our study are consistent with prior reports, but many others are novel."

According to the news editors, the research concluded: "The gene-and pathway-level statistics for the main effects, either overall or stratified, and for all possible interactions, represent a rich reference dataset for understanding the interdependence among lines, aging, and exercise."

For more information on this research see: Selection-, age-, and exercise-dependence of skeletal muscle gene expression patterns in a rat model of metabolic fitness. Physiological Genomics, 2016;48(11):816-825. Physiological Genomics can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news editors report that additional information may be obtained by contacting J.Z. Li, University of Michigan, Dept. of Human Genet, Ann Arbor, MI 48109, United States. Additional authors for this research include L.G. Koch, S.L. Britton, N.R. Qi, M.K. Treutelaar, C.F. Burant and J.Z. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/physiolgenomics.00118.2015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Genomics, Biotechnology, Genetics, Genetics, University of Michigan.

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Acrylates

Studies from University of Michigan Reveal New Findings on Acrylates (Radical-Medicated End-Group Transformation of Amphiphilic Methacrylate Random Copolymers for Modulation of Antimicrobial and Hemolytic Activities)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Acrylates. According to news reporting originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "This work describes synthesis of antimicrobial methacrylate copolymers by reversible addition-fragmentation chain transfer (RAFT) polymerization and examines the versatility of this approach for improving chemical optimization to create potent, non-toxic antimicrobial polymers. Specifically, this study focuses on the radical-mediated transformation of end group of antimicrobial peptide-mimetic polymer."

Our news editors obtained a quote from the research from the University of Michigan, "RAFT polymerization using 2-cyano-2-yl-dithiobenzoate provided a statistical methacrylate copolymer consisting of aminobutyl and ethyl groups in the side chains. The following radical-mediated modification using free radical initiators successfully transformed the x-end group of parent copolymer from dithiobenzoate to a cyanoisobutyl or aminoethyl cyanopentanoate group without any significant changes to the polymer molecular weight. In general, the parent polymer and variants showed a broad spectrum of activity against a panel of bacteria, but low hemolytic activity against human red blood cells. The parent copolymer with the dithiobenzoate end-group showed highest antimicrobial and hemolytic activities as compared with other copolymers. The copolymers caused membrane depolarization in Staphylococcus aureus, while the ability of copolymers for membrane disruption is not dependent on the end-group structures."

According to the news editors, the research concluded: "The synthetic route reported in this study will be useful for further study of the role of polymer end-groups in the antimicrobial activity of copolymers."


The news editors report that additional information may be obtained by contacting K. Kuroda, University of Michigan, Sch Dental, Dept. of Biol & Mat Sci, Ann Arbor, MI 48109, United States. Additional authors for this research include H. Takahashi and K. Kuroda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pola.28384. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Methacrylates, Hematology, Hemolytic, University of Michigan.

Our reports deliver fact-based news of research and discoveries from around the
Studies from University of Michigan Yield New Data on Breast Cancer
(Updates on breast cancer genetics: Clinical implications of detecting syndromes of inherited increased susceptibility to breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating in Ann Arbor, Michigan, by NewsRx journalists, research stated, "Since the initial discovery that pathogenic germline alterations in BRCA 1/2 increase susceptibility to breast and ovarian cancer, many additional genes have now been discovered that also increase breast cancer risk. Given that several more genes have now been implicated in hereditary breast cancer syndromes, there is increased clinical use of multigene panel testing to evaluate patients with a suspected genetic predisposition to breast cancer."

The news reporters obtained a quote from the research from the University of Michigan, "While this is most certainly a cost-effective approach, broader testing strategies have resulted in a higher likelihood of identifying moderate-penetrance genes, for which management guidelines regarding breast cancer risk reduction have not been firmly established. In addition, the testing of more genes has led to increased detection of variants of uncertain significance. We review the current knowledge regarding both high- and moderate-risk hereditary breast cancer syndromes, as well as additional genes implicated in hereditary breast cancer for which there is limited data."

According to the news reporters, the research concluded: "Furthermore, strategies for cancer risk reduction in mutation carriers as well as therapeutic implications for those patients who harbor pathogenic germline alterations are discussed."

For more information on this research see: Updates on breast cancer genetics: Clinical implications of detecting syndromes of inherited increased susceptibility to breast cancer. Seminars in Oncology, 2016;43(5):528-535. Seminars in Oncology can be contacted at: W B Saunders Co-Elsevier Inc, 1600 John F Kennedy Boulevard, Ste 1800, Philadelphia, PA 19103-2899, USA. (Elsevier - www.elsevier.com; Seminars in Oncology - www.journals.elsevier.com/seminars-in-oncology/)

Our news correspondents report that additional information may be obtained by contacting S.D. Merajver, University of Michigan, Sch Public Hlth, Dept. of Epidemiol, Ann Arbor, MI 48109, United States. Additional authors for this research include K.J. Milliron and S.D. Merajver.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.seminoncol.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Cancer, Article Review, Diagnostics and Screening, Genetics, Breast Ductal Carcinoma, Risk and Prevention, Women's Health, Breast Cancer, Cancer Risk, Oncology, University of Michigan.

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Studies from University of Milan Further Understanding of Stem Cell Research (Does the Bovine Pre-Ovulatory Follicle Harbor Progenitor Stem Cells?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Stem Cell Research are discussed in a new report. According to news reporting originating from Lodi, Italy, by NewsRx correspondents, research stated, "Recent studies have revealed the presence of a mesenchymal stem cell (MSC) population in human and in gilt granulosa cells (GCs), thus increasing the interest in identifying the same population in the bovine species. We first isolated GCs by scraping from bovine preovulatory follicles and then tested several different media to define the ideal conditions to select granulosa-derived stem cells."

Our news editors obtained a quote from the research from the University of Milan, "Although expressing MSC-associated markers, none of the media tested proven to be efficient in selecting MSC-like cells that were able to differentiate into mesodermic or ectodermic lineages. We performed another experimental approach exposing cells to a chemical stress, such as lowering of pH, as a system to select a more plastic population. Following the treatment, granulosa-specific granulose markers [follicle-stimulating hormone receptor (FSHR), follistatin (FST), and leukemia inhibitory factor receptor (LIFR)] were lost in bovine GCs, whereas an increase in multi-(CD29, CD44, CD73) and pluripotent (Oct-4 and c-Myc) genes was noticed. The stress allowed up-regulation of tumor necrosis factor-a and interleukin-1b expression and the dedifferentiation of GCs, which was demonstrated by differentiation studies."

According to the news editors, the research concluded: "Indeed, pH-treated cells were able to differentiate into the mesodermic and ectodermic lineages, thus suggesting that the chemical stress allows for the selection of cells that are more prone to adjust and respond to the environmental changes."


The news editors report that additional information may be obtained by contacting A. Lange-Consiglio, 1 Large Animal Hospital, Reproduction Unit, Universita degli Studi di Milano, Lodi, Italy. Additional authors for this research include A. Romaldini, A. Correani, B. Corradetti, P. Esposti, M.F. Cannata, C. Perrini, M.G. Marini, D. Bizzaro and F. Cremonesi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/cell.2015.0062. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lodi, Italy, Europe, Genetics, Stem Cell Research.

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Studies from University of Milan Have Provided New Information about Mitotic Inhibitors (Palmitoylethanolamide Reverses Paclitaxel-Induced Allodynia in Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Mitotic Inhibitors have been published. According to news reporting originating from Milan, Italy, by NewsRx correspondents, research stated, "Chemotherapy-induced peripheral neuropathy (CIPN) represents a serious complication associated with antineoplastic drugs. Although there are nomedications available that effectively prevent CIPN, many classes of drugs have been used to treat this condition, including anticonvulsants, serotonin and noradrenaline reuptake inhibitors, and opioids."

Our news editors obtained a quote from the research from the University of Milan, "However, these therapeutic options yielded inconclusive results in CIPN clinical trials and produced assorted side effects with their prolonged use. Thus, there is an urgent need to develop efficacious and safe treatments for CIPN. In this report, we tested whether the endogenous lipid palmitoylethanolamide (PEA) alone or in combination with the anticonvulsant gabapentin would reduce allodynia in a mouse paclitaxel model of CIPN. Gabapentin and PEA reversed paclitaxel-induced allodynia with respective ED50 doses (95% confidence interval) of 67.4 (61.52-73.94) and 9.2 (8.39-10.16) mg/kg. Isobolographic analysis of these drugs in combination revealed synergistic antiallodynic effects. The PPAR-a antagonist receptor antagonist GW6471 [N-(2S)-2-(((1Z)-1-methyl-3-oxo-3-(4-(trifluoromethyl)phenyl)prop-1-enyl)amino)-3-(4-(2-(5-methyl-2-phenyl-1,3-oxazol-4-yl)ethoxy)phenyl)propyl]propanamide] completely blocked the antinociceptive effects of PEA. In addition, PEA administered via intraplantar injection into a paw, intrathecal injection, and intracerebroventricular injection reversed paclitaxel-induced allodynia, suggesting that it may act at multiple sites in the neuroaxis and periphery. Finally, repeated administration of PEA (30 mg/kg, 7 days) preserved the antiallodynic effects with no evidence of tolerance."

According to the news editors, the research concluded: "These findings taken together suggest that PEA possesses potential to treat peripheral neuropathy in cancer patients undergoing chemotherapy."


The news editors report that additional information may be obtained by contacting G. Donvito, Univ Milano Bicocca, Dept. of Biotechnol & Biosci, Milan, Italy. Additional authors for this research include J.L. Wilkerson, M.I. Damaj and A.H. Lichtman.

Keywords for this news article include: Milan, Italy, Europe, Drugs and Therapies, Paclitaxel Therapy, Mitotic Inhibitors, Organic Chemicals, Pharmaceuticals, Antineoplastics, Cycloparaffins, Hydrocarbons, Terpenes, Taxoids, University of Milan.

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Studies from University of Minnesota Have Provided New Data on Cardiology (Incidence of Undetectable, Measurable, and Increased Cardiac Troponin I Concentrations Above the 99th Percentile Using a High-Sensitivity vs a Contemporary Assay in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting originating in Minneapolis, Minnesota, by NewsRx journalists, research stated, "We compared the incidence of undetectable [below the limit of detection (LoD)], measurable (LoD to 99th percentile), and increased cardiac troponin I (cTnI) concentrations above the 99th percentile between Abbott high-sensitivity cTnI (hs-cTnI) and contemporary cTnI assays in a US emergency department population. Patients (n = 2100) presenting to the emergency department who had serial cTnI (0, 3, 6, 9 h) measurements ordered on clinical indication were enrolled."

The news reporters obtained a quote from the research from the University of Minnesota, "Contemporary cTnI [Abbott Architect used clinically; 99th percentile: 0.030 mg/L (30 ng/L)] and hs-cTnI [Abbott investigational; sex-specific 99th percentiles: female (F) 16 ng/L, male (M) 34 ng/L] assays simultaneously measured fresh EDTA plasma. The hs-cTnI assay measured fewer undetectable cTnI concentrations compared to the contemporary cTnI assay across baseline (F: 31% vs 47%, M: 22% vs 40%) and serial (F: 21% vs 46%; M: 19% vs 54%) measurements. Conversely, the proportion of measurable cTnI concentrations was higher using hs-cTnI compared to contemporary cTnI assay across both baseline (F: 46% vs 31%; M: 60% vs 33%) and serial (F: 48% vs 28%; M: 83% vs 40%) measurements. The overall proportion of patients with increased cTnI concentrations above the 99th percentile was not significantly different between the contemporary (31%) and hs-cTnI (26%) assays (P = 0.09). In patients presenting to the emergency department, the use of the Abbott hs-cTnI assay provides clinicians with more numeric cTnI concentrations."

According to the news reporters, the research concluded: "This occurs via a shift from results below the LoD to those between the LoD and the 99th percentile and does not increase in the number of cTnI concentrations above the 99th percentile." For more information on this research see: Incidence of Undetectable, Measurable, and Increased Cardiac Troponin I Concentrations Above the 99th Percentile Using a High-Sensitivity vs a Contemporary Assay in Patients Presenting to the Emergency Department. Clinical Chemistry, 2016;62(8):1115-1119. Clinical Chemistry can be contacted at: Amer Assoc Clinical Chemistry, 2101 L Street NW, Suite 202, Washington, DC 20037-1526, USA.

Our news correspondents report that additional information may be obtained by contacting S.A. Love, University of Minnesota, Minneapolis, MN, United States. Additional authors for this research include Y. Sandoval, S.W. Smith, J. Nicholson, J. Cao, R. Ler, K. Schulz and F.S. Apple.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1373/clinchem.2016.256305. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Macromolecular Substances, Microfilament Proteins, Cytoskeletal Proteins, Contractile Proteins, Muscle Proteins, Biopolymers, Troponin I, Cardiology,
Studies from University of Minnesota Provide New Data on Cardiology (An integrated statistical model for enhanced murine cardiomyocyte differentiation via optimized engagement of 3D extracellular matrices)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting originating in Minneapolis, Minnesota, by NewsRx journalists, research stated, "The extracellular matrix (ECM) impacts stem cell differentiation, but identifying formulations supportive of differentiation is challenging in 3D models. Prior efforts involving combinatorial ECM arrays seemed intuitively advantageous."

The news reporters obtained a quote from the research from the University of Minnesota, "We propose an alternative that suggests reducing sample size and technological burden can be beneficial and accessible when coupled to design of experiments approaches. We predict optimized ECM formulations could augment differentiation of cardiomyocytes derived in vitro. We employed native chemical ligation to polymerize 3D poly (ethylene glycol) hydrogels under mild conditions while entrapping various combinations of ECM and murine induced pluripotent stem cells. Systematic optimization for cardiomyocyte differentiation yielded a predicted solution of 61%, 24%, and 15% of collagen type I, laminin-111, and fibronectin, respectively. This solution was confirmed by increased numbers of cardiac troponin T, a-myosin heavy chain and a-sarcomeric actinin-expressing cells relative to suboptimum solutions. Cardiomyocytes of composites exhibited connexin43 expression, appropriate contractile kinetics and intracellular calcium handling. Further, adding a modulator of adhesion, thrombospondin-1, abrogated cardiomyocyte differentiation. Thus, the integrated biomaterial platform statistically identified an ECM formulation best supportive of cardiomyocyte differentiation."

According to the news reporters, the research concluded: "In future, this formulation could be coupled with biochemical stimulation to improve functional maturation of cardiomyocytes derived in vitro or transplanted in vivo."

For more information on this research see: An integrated statistical model for enhanced murine cardiomyocyte differentiation via optimized engagement of 3D extracellular matrices. *Scientific Reports*, 2015;5():18705. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting J.P. Jung, Dept. of Biomedical Engineering, University of Minnesota - Twin Cities, Minneapolis, MN 55455, United States. Additional authors for this research include D. Hu, I.J. Domian and B.M Ogle.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18705. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Minnesota, Cardiology, Minneapolis, United States, Cardiomyocyte, North and Central America.
Studies from University of Minnesota Update Current Data on Heart Attack (Novel resuscitation devices facilitate complete neurologic recovery after prolonged cardiac arrest in postanesthesia care unit)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting originating in Minneapolis, Minnesota, by NewsRx journalists, research stated, "Cardiac arrest in the perioperative period is associated with significant morbidity and mortality."

The news reporters obtained a quote from the research from the University of Minnesota, "Novel resuscitation devices may afford patients improved survival and limit neurologic injury. We report a case of cardiac arrest in the postanesthesia care unit that required an extensive period of cardiopulmonary resuscitation assisted by the ResQPOD impedance threshold device to optimize coronary perfusion and a LUCAS chest compression system to maintain optimal cardiopulmonary resuscitation while transporting the patient to the cardiac catheterization laboratory."

According to the news reporters, the research concluded: "Furthermore, after stabilization for an occluded left anterior descending artery with stent placement, an institutional hypothermia protocol was initiated using Thermogard XP Temperature Management system for 24 hours."


Our news correspondents report that additional information may be obtained by contacting W.C. Cingi, University of Minnesota, Dept. of Anesthesiol, Minneapolis, MN 55455, United States. Additional authors for this research include L.A. McMahon and R.C. Prielipp.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jclinane.2016.08.026. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Cardiopulmonary Resuscitation, Heart Disorders and Diseases, Emergency Treatment, Medical Devices, Cardiac Arrest, Cardio Device, Heart Attack, Cardiology, University of Minnesota.

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Studies from University of Minnesota in the Area of Cancer Risk Reported (Effects of green tea catechin extract on serum lipids in postmenopausal women: a randomized, placebo-controlled clinical trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Cancer Risk is now available. According to news originating from St. Paul, Minnesota, by NewsRx correspondents, research stated, "Green tea has been suggested to improve cardiovascular disease risk factors, including circulating lipid variables. However, current evidence is predominantly based on small, short-term randomized controlled trials conducted in diverse populations."

Our news journalists obtained a quote from the research from the University of Minnesota, "The aim of this study was to examine the efficacy and impact of green tea extract (GTE) supplementation high in epigallocatechin gallate (EGCG) on blood lipids in healthy postmenopausal women. This was an ancillary study of a double-blind, randomized, placebo-controlled, parallel-arm trial investigating the effects of a GTE supplement containing 1315 mg catechins (843 mg EGCG) on biomarkers of breast cancer risk. Participants were randomly assigned to receive GTE (n = 538) or placebo (n = 537) and were stratified by catechol-O-methyltransferase (COMT) genotype activity (high COMT compared with low or intermediate COMT genotype activity). They consumed either 4 GTE or identical placebo capsules daily for 12 mo. A total of 936 women completed this substudy. Circulating lipid panels including total cholesterol (TC), HDL cholesterol, and triglycerides were measured at baseline and at months 6 and 12. Compared with placebo, 1-y supplementation with GTE capsules resulted in a significant reduction in circulating TC (-2.1% compared with 0.7%; P = 0.0004), LDL cholesterol (-4.1% compared with 0.9%; P< 0.0001) and non-HDL cholesterol (-3.1% compared with 0.4%; P = 0.0032). There was no change in HDL-cholesterol concentration, but triglyceride concentrations increased by 3.6% in the GTE group, whereas they decreased by 2.5% in the placebo group (P = 0.046). A significant reduction in TC was observed only among women with high (i.e., \( \geq 200 \text{ mg/dL} \) baseline TC concentrations (P-interaction = 0.01) who consumed GTE capsules. The effect of GTE on the increase in triglycerides was mainly observed among obese women and statin users (P-interaction = 0.06)."

According to the news editors, the research concluded: "Supplementation with GTE significantly reduced circulating TC and LDL-cholesterol concentrations, especially in those with elevated baseline TC concentrations."


The news correspondents report that additional information may be obtained from M.S. Kurzer, University of Minnesota, Dept. of Food Sci & Nutr, St Paul, MN 55455, United States. Additional authors for this research include A.R. Newman, R.W. Wang, J.M. Yuan, A.H. Wu and M.S. Kurzer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3945/ajcn.116.137075. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: St. Paul, Minnesota, United States, North and Central America, Clinical Trials and Studies, Breast Ductal Carcinoma, Risk and Prevention, Clinical Research, HDL Lipoproteins, HDL Cholesterol, Breast Cancer, Cancer Risk, Proteins, Oncology, University of Minnesota.

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Cardiovascular Diseases and Conditions -...

Studies from University of Minnesota in the Area of Hypertension Described (Angiotensin II-Induced Hypertension Is Attenuated by Overexpressing Copper/Zinc Superoxide Dismutase in the Brain Organum Vasculosum of the Lamina Terminalis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Hypertension is the subject of a report. According to news originating from St. Paul, Minnesota, by NewsRx correspondents, research stated, "Angiotensin II (AngII) can access the brain via circumventricular organs (CVOs), including the subfornical organ (SFO) and organum vasculosum of the lamina terminalis (OVLT), to modulate blood pressure. Previous studies have demonstrated a role for both the SFO and OVLT in the hypertensive response to chronic AngII, yet it is unclear which intracellular signaling pathways are involved in this response."

Financial supporters for this research include University of Minnesota, National Heart, Lung, and Blood Institute.

Our news journalists obtained a quote from the research from the University of Minnesota, "Overexpression of copper/zinc superoxide dismutase (CuZnSOD) in the SFO has been shown to attenuate the chronic hypertensive effects of AngII. Presently, we tested the hypothesis that elevated levels of superoxide (O2 (∙-)) in the OVLT contribute to the hypertensive effects of AngII. To facilitate overexpression of superoxide dismutase, adenoviral vectors encoding human CuZnSOD or control adenovirus (AdEmpty) were injected directly into the OVLT of rats. Following 3 days of control saline infusion, rats were intravenously infused with AngII (10 ng/kg/min) for ten days. Blood pressure increased 33 ± 8 mmHg in AdEmpty rats (n=6), while rats overexpressing CuZnSOD (n=8) in the OVLT demonstrated a blood pressure increase of only 18 ± 5 mmHg after 10 days of AngII infusion."

According to the news editors, the research concluded: "These results support the hypothesis that overproduction of O2 (∙-) in the OVLT plays an important role in the development of chronic AngII-dependent hypertension."

For more information on this research see: Angiotensin II-Induced Hypertension Is Attenuated by Overexpressing Copper/Zinc Superoxide Dismutase in the Brain Organum Vasculosum of the Lamina Terminalis. Oxidative Medicine and Cellular Longevity, 2016;2016 ():3959087. (Hindawi Publishing - www.hindawi.com; Oxidative Medicine and Cellular Longevity - www.hindawi.com/journals/oximed/)

The news correspondents report that additional information may be obtained from J.P. Collister, Dept. of Veterinary and Biomedical Sciences, College of Veterinary Medicine, University of Minnesota, St Paul, MN 55108, United States. Additional authors for this research include H. Taylor-Smith, D. Drebes, D. Nahey, J. Tian and M.C Zimmerman.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/3959087. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Anions, St. Paul, Minnesota, Autacoids, Electrolytes, Hypertension, United States, Neuropeptides, Oligopeptides, Angiotensin II, Blood Pressure, Oxidoreductases, Peptide Hormones, Peptide Proteins, Biological Factors, Superoxide Dismutase, Enzymes and Coenzymes, Nerve Tissue Proteins, Reactive Oxygen Species.

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**Fungal Diseases and Conditions - Candida albicans**

**Studies from University of Missouri Add New Findings in the Area of Candida albicans (A Combination Fluorescence Assay Demonstrates Increased Efflux Pump Activity as a Resistance Mechanism in Azole-Resistant Vaginal Candida albicans Isolates)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Fungal Diseases and Conditions - Candida albicans. According to news reporting originating in Kansas City, Missouri, by NewsRx journalists, research stated, "Candida albicans is a pathogenic fungus causing vulvovaginal candidiasis (VVC). Azole drugs, such as fluconazole, are the most common treatment for these infections."

The news reporters obtained a quote from the research from the University of Missouri, "Recently, azole-resistant vaginal C. albicans isolates have been detected in patients with recurring and refractory vaginal infections. However, the mechanisms of resistance in vaginal C. albicans isolates have not been studied in detail. In oral and systemic resistant isolates, overexpression of the ABC transporters Cdr1p and Cdr2p and the major facilitator transporter Mdr1p is associated with resistance. Sixteen fluconazole-susceptible and 22 fluconazole-resistant vaginal C. albicans isolates were obtained, including six matched sets containing a susceptible and a resistant isolate, from individual patients. Using quantitative real-time reverse transcriptase PCR (qRT-PCR), 16 of 22 resistant isolates showed overexpression of at least one efflux pump gene, while only 1 of 16 susceptible isolates showed such overexpression. To evaluate the pump activity associated with overexpression, an assay that combined data from two separate fluorescent assays using rhodamine 6G and alanine beta-naphthylamide was developed. The qRT-PCR results and activity assay results were in good agreement. This combination of two fluorescent assays can be used to study efflux pumps as resistance mechanisms in clinical isolates."

According to the news reporters, the research concluded: "These results demonstrate that efflux pumps are a significant resistance mechanism in vaginal C. albicans isolates."


Our news correspondents report that additional information may be obtained by
Studies from University of Missouri Have Provided New Data on Atherosclerosis [TRAF3IP2 mediates atherosclerotic plaque development and vulnerability in ApoE(-/-) mice]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting originating from Columbia, Missouri, by NewsRx correspondents, research stated, "Atherosclerosis is a major cause of heart attack and stroke. Inflammation plays a critical role in the development of atherosclerosis."

Our news editors obtained a quote from the research from the University of Missouri, "Since the cytoplasmic adaptor molecule TRAF3IP2 (TRAF3-Interacting Protein 2) plays a causal role in various autoimmune and inflammatory diseases, we hypothesized that TRAF3IP2 mediates atherosclerotic plaque development. TRAF3IP2/ApoE double knockout (DKO) mice were generated by crossing TRAF3IP2(-/-) and ApoE(-/-) mice. ApoE(-/-) mice served as controls. Both DKO and control mice were fed a high-fat diet for 12 weeks. Plasma lipids were measured by ELISA, atherosclerosis by en face analysis of aorta and plaque cross-section measurements at the aortic valve region, plaque necrotic core area, collagen and smooth muscle cell (SMC) content by histomorphometry, and aortic gene expression by RT-qPCR. The plasma lipoprotein profile was not altered by TRAF3IP2 gene deletion in ApoE(-/-) mice. While total aortic plaque area was decreased in DKO female, but not male mice, the plaque necrotic area was significantly decreased in DKO mice of both genders. Plaque collagen and SMC contents were increased significantly in both female and male DKO mice compared to respective controls. Aortic expression of proinflammatory cytokine (Tumor necrosis factor alpha, TNF alpha), chemokine (Chemokine (C-X-C motif) Ligand 1, CXCL1) and adhesion molecule (Vascular cell adhesion molecule 1, VCAM1; and Intercellular adhesion molecule 1, ICAM1) gene expression were decreased in both male and female DKO mice. In addition, the male DKO mice expressed markedly reduced levels of extracellular matrix (ECM)-related genes, including TIMP1 (Tissue inhibitor of metalloproteinase 1), RECK (Reversion-Inducing-Cysteine-Rich Protein with Kazal Motifs) and ADAM17 (A Disintegrin And Metalloproteinase 17). TRAF3IP2 plays a causal role in atherosclerotic plaque development and vulnerability, possibly by inducing the expression of multiple proinflammatory mediators."

According to the news editors, the research concluded: "TRAF3IP2 could be a potential therapeutic target in atherosclerotic vascular diseases."
For more information on this research see: TRAF3IP2 mediates atherosclerotic plaque development and vulnerability in ApoE(-/-) mice. *Atherosclerosis*, 2016;252():153-160. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

The news editors report that additional information may be obtained by contacting B. Chandrasekar, University of Missouri, Sch Med, Medical Cardiol, Columbia, MO 65211, United States. Additional authors for this research include Y. Higashi, S. Sukhanov, J.M. Siddesha, P. Delafontaine, U. Siebenlist and B. Chandrasekar.

Keywords for this news article include: Columbia, Missouri, United States, North and Central America, Cardiovascular Diseases and Conditions, Metalloproteinases, Genetics, Arterial Occlusive Diseases, Inflammation Mediators, Enzymes and Coenzymes, Biological Factors, Arteriosclerosis, Atherosclerosis, Chemokines, Cardiology, University of Missouri.

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Autoimmune Diseases and Conditions - Rheumatoid...

**Studies from University of Montpellier Reveal New Findings on Rheumatoid Arthritis (X-Linked miRNAs Associated with Gender Differences in Rheumatoid Arthritis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Autoimmune Diseases and Conditions - Rheumatoid Arthritis have been presented. According to news reporting from Montpellier, France, by NewsRx journalists, research stated, "Rheumatoid arthritis (RA) is an autoimmune disease that predominantly affects women. MicroRNAs have emerged as crucial regulators of the immune system, whose expression is deregulated in RA."

The news correspondents obtained a quote from the research from the University of Montpellier, "We aimed at quantifying the expression level of 14 miRNAs located on the X chromosome and at identifying whether differences are associated with disease and/or sex. A case-control study of 21 RA patients and 22 age-and sex-matched healthy controls was performed on peripheral blood mononuclear cells. The expression level of five miRNAs (miR-221, miR-222, miR-532, miR-106a, and miR-98) was significantly different between RA and controls when stratifying by sex, and the expression level of four miRNAs (miR-222, miR-532, miR-98, and miR-92a) was significantly different between RA females and males. The expression quantitative trait loci (eQTL) analysis revealed a significant gender effect of the FoxP3 promoter polymorphism rs3761548A/C on miR-221, miR-222 and miR-532 expression levels, and of the FoxP3 polymorphism rs2232365A/G on miR-221 expression levels in PBMC of RA patients. These data further support the involvement of the X chromosome in RA susceptibility."

According to the news reporters, the research concluded: "X-linked miRNAs, in the context of sex differences, might provide novel insight into new molecular mechanisms and potential therapeutic targets in RA for disease treatment and prevention."

For more information on this research see: X-Linked miRNAs Associated with Gender Differences in Rheumatoid Arthritis. *International Journal of Molecular Sciences*, 2016;17(11):1385-1397. *International Journal of Molecular Sciences* can be contacted at:
Studies from University of Montreal in the Area of Hepatitis C Virus Described (Novel E2 Glycoprotein Tetramer Detects Hepatitis C Virus-Specific Memory B Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Hepatitis C Virus. According to news reporting from Montreal, Canada, by NewsRx journalists, research stated, "Acute hepatitis C virus (HCV) infection culminates in viral persistence in the majority of cases. Abs that recognize the envelope glycoproteins E1 and E2 are generated during the late stages of acute infection, yet their contribution to spontaneous viral clearance remains controversial."

The news correspondents obtained a quote from the research from the University of Montreal, "Investigation of the humoral responses during acute HCV infection have been limited by the inability to directly identify and characterize HCV-specific B cells. In this study we describe the development of a novel tetramer of the E2 glycoprotein ectodomain (J6, genotype 2a strain), which allowed us to visualize E2-specific B cells longitudinally in the peripheral blood of HCV-infected individuals. HCV-specific class-switched memory B cells were detected in 3 out of 7 participants during late acute infection, with a mean frequency of 0.63% for positive samples (range 0.16-0.67%) and in 7 out of 7 participants with chronic infection with a mean frequency of 0.47% (range 0.20-0.78%). In a cross-sectional study, E2 tetramer positive population was detected in 28 out of 31 chronically infected individuals. Deep sequencing of the BCR from E2-specific class-switched memory B cells sorted from two independent participants revealed a focused repertoire suggestive of clonal selection. Tetramer-specific B cells exhibited skewed CDR3 length distribution and increased mutation frequency compared with naive B cells. This BCR profile is indicative of clonal expansion and affinity maturation."

According to the news reporters, the research concluded: "E2 tetramer allows for specific and sensitive ex vivo characterization of rare HCV-specific B cells in infected individuals, and will enable researchers to gain a better understanding of humoral immunity in HCV infection."

For more information on this research see: Novel E2 Glycoprotein Tetramer Detects Hepatitis C Virus-Specific Memory B Cells. *Journal of Immunology*, 2016;197(12):4848-4858. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike,
Studies from University of Nantes Have Provided New Data on Osteoporosis (Inhibition of BET proteins and epigenetic signaling as a potential treatment for osteoporosis)

2017 JAN 14 (NewsRx) -- Researchers detail new data in Musculoskeletal Diseases and Conditions - Osteoporosis. According to news reporting originating from Nantes, France, by NewsRx correspondents, research stated, "Histone modifications are important for maintaining the transcription program. BET proteins, an important class of 'histone reading proteins', have recently been described as essential in bone biology."

Financial supporters for this research include Seventh Framework Programme, INSERM (Institut National de la Sante et de la Recherche Medicale), Region Pays de la Loire.

Our news editors obtained a quote from the research from the University of Nantes, "This study presents the therapeutic opportunity of BET protein inhibition in osteoporosis. We find that the pharmacological BET protein inhibitor JQ1 rescues pathologic bone loss in a post-ovariectomy osteoporosis model by increasing the trabecular bone volume and restoring mechanical properties. The BET protein inhibition suppresses osteoclast differentiation and activity as well as the osteoblastogenesis in vitro. Moreover, we show that treated non-resorbing osteoclasts could still activate osteoblast differentiation. In addition, specific inhibition of BRD4 using RNA interference inhibits osteoclast differentiation but strongly activates osteoblast mineralization activity. Mechanistically, JQ1 inhibits expression of the master osteoclast transcription factor NFATc1 and the transcription factor of osteoblast Runx2."

According to the news editors, the research concluded: "These findings strongly support that targeting epigenetic chromatin regulators such as BET proteins may offer a promising alternative for the treatment of bone-related disorders such as osteoporosis."

For more information on this research see: Inhibition of BET proteins and epigenetic signaling as a potential treatment for osteoporosis. Bone, 2017;94():10-21. Bone can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Bone - www.journals.elsevier.com/bone/)

The news editors report that additional information may be obtained by contacting B. Ory, Univ Nantes, Physiopathol Resorpt Osseuse & Therapie Tumeurs O, Nantes Atlantique.
Studies from University of Naples Federico II Update Current Data on Atherosclerosis (A Prospective Natural History Study of Coronary Atherosclerosis Using Fractional Flow Reserve)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting out of Naples, Italy, by NewsRx editors, research stated, "In patients with coronary artery disease, clinical outcome depends on the extent of reversible myocardial ischemia. Whether the outcome also depends on the severity of the stenosis as determined by fractional flow reserve (FFR) remains unknown."

Our news journalists obtained a quote from the research from the University of Naples Federico II, "This study sought to investigate the relationship between FFR values and vessel-related clinical outcome. We prospectively studied major adverse cardiovascular events (MACE) at 2 years in 607 patients in whom all stenoses were assessed by FFR and who were treated with medical therapy alone. The relationship between FFR and 2-year MACE was assessed as a continuous function. Logistic and Cox proportional hazards regression models were used to calculate the average decrease in the risk of MACE per 0.05-U increase in FFR. MACE occurred in 272 (26.5%) of 1,029 lesions. Target lesions with diameter stenosis >= 70% were more often present in the MACE group (p < 0.01). Median FFR was significantly lower in the MACE group versus the non-MACE group (0.68 [interquartile range: 0.54 to 0.77] vs. 0.80 [interquartile range: 0.70 to 0.88]; p < 0.01). The cumulative incidence of MACE significantly increased with increasing FFR quartiles. An average decrease in MACE per 0.05-unit increase in FFR was statistically significant even after adjustment for all clinical and angiographic features (odds ratio: 0.81; 95% confidence interval: 0.76 to 0.86)). The strongest increase in MACE occurred for FFR values between 0.80 and 0.60. In multivariable Cox regression analysis, FFR was significantly associated with MACE up to 2 years (hazard ratio: 0.87; 95% confidence interval: 0.83 to 0.91))."

According to the news editors, the research concluded: "In patients with stable coronary disease, stenosis severity as assessed by FFR is a major and independent predictor of lesion-related outcome."

For more information on this research see: A Prospective Natural History Study of Coronary Atherosclerosis Using Fractional Flow Reserve. *Journal of the American College of Cardiology*, 2016;68(21):2247-2255. *Journal of the American College of Cardiology* can be
Studies from University of Navarra Describe New Findings in Heart Failure (The personal experience of living with chronic heart failure: a qualitative meta-synthesis of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting out of Pamplona, Spain, by NewsRx editors, research stated, "Aims and objectives. To determine, from a systematic literature review, the experience of living with heart failure and to propose some practice guidelines and research questions."

Financial support for this research came from Universidad de Navarra.

Our news journalists obtained a quote from the research from the University of Navarra, "Chronic heart failure has been one of the fastest growing illnesses in recent decades, with almost 23 million people affected worldwide. This complex syndrome has multiple causes and appears when underlying heart disease is advanced. Currently, heart failure has no cure and leads to a significant deterioration in patients' quality of life. Qualitative meta-synthesis. A qualitative meta-synthesis was conducted to extract and analyse qualitative research from the Cochrane, PubMed, CINAHL, PsycINFO, Web of Science and Cuiden databases. Snowball sampling and a manual search were performed to identify other relevant studies. Twenty-five qualitative studies were selected. The findings indicate that there are three main themes that describe the phenomenon. The first theme refers to the experiences related to the beginning of the process. The second theme is connected with the effects on the person: physical, emotional, social and spiritual changes. The third theme is linked with how to live with heart failure despite the illness, including the adjustment and coping process and how external resources can help them to manage. Heart failure has a major impact on the entire person, but some areas have not been addressed. By creating new tools to understand and evaluate the impact of this illness and interventions that prevent or improve some situations, we can promote the well-being and the quality of life of this population. Relevance to clinical practice. Nurses must have a personal knowledge of the experiences and needs of the patients."

According to the news editors, the research concluded: "To do this, nurses should create care environments that promote an exchange of experiences and knowledge between the nurse and the patient and family."

For more information on this research see: The personal experience of living with chronic heart failure: a qualitative meta-synthesis of the literature. Journal of Clinical Nursing,
Studies from University of Navarra Have Provided New Data on Drug Delivery Systems (EGF-liposomes promote efficient EGFR targeting in xenograft colocolcarcima model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Delivery Systems have been published. According to news originating from Pamplona, Spain, by NewsRx correspondents, research stated, "Development of EGF-liposomes (LP-EGF) for selective molecules delivery in tumors expressing EGFR. In vitro cellular interaction of EGF-LP and nontargeted liposomes (LP-N) was assayed at 37 and 4 °C in cells expressing different EGFR levels."

Our news journalists obtained a quote from the research from the University of Navarra, "Receptor-mediated uptake was investigated by competition with a monoclonal antibody anti-EGFR. Selective intracellular drug delivery and efficacy was tested by oxaliplatin encapsulation. In vivo biodistribution of LP-N and LP-EGF was done in xenograft model. LP-EGF was internalized by an active and selective mechanism through EGFR without receptor activation. Oxaliplatin LP-EGF decreased IC[50] between 48 and 13% in cell EGFR+. LP-EGF was accumulated in tumor over 72 h postdosing, while LP-N in spleen."

According to the news editors, the research concluded: "LP-EGF represents an attractive nanosystem for cancer therapy or diagnosis."


The news correspondents report that additional information may be obtained from S. Zalba, Dept. of Pharmacy & Pharmaceutical Technology, School of Pharmacy, University of Navarra, Pamplona, Spain. Additional authors for this research include A.M. Contreras, M. Merino, I. Navarro, C.T. de Ilarduya, I.F. Troconiz, G. Koning and M.J. Garrido.

The direct object identifier (DOI) for that additional information is:
Studies from University of Nebraska Yield New Data on Aggressive Behavior Research (Measuring Individual Differences in Responses to Date-Rape Vignettes Using Latent Variable Models)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Behavior Research - Aggressive Behavior Research have been published. According to news reporting out of Lincoln, Nebraska, by NewsRx editors, research stated, "Vignette methodology can be a flexible and powerful way to examine individual differences in response to dangerous real-life scenarios. However, most studies underutilize the usefulness of such methodology by analyzing only one outcome, which limits the ability to track event-related changes (e.g., vacillation in risk perception)."

Our news journalists obtained a quote from the research from the University of Nebraska, "The current study was designed to illustrate the dynamic influence of risk perception on exit point from a date-rape vignette. Our primary goal was to provide an illustrative example of how to use latent variable models for vignette methodology, including latent growth curve modeling with piecewise slopes, as well as latent variable measurement models."

According to the news editors, the research concluded: "Through the combination of a step-by-step exposition in this text and corresponding model syntax available electronically, we detail an alternative statistical 'blueprint' to enhance future violence research efforts using vignette methodology."


Our news journalists report that additional information may be obtained by contacting D.E. McChargue, University of Nebraska, Dept. of Psychol, Lincoln, NE 68588, United States. Additional authors for this research include L. Hoffman and D.E. McChargue.

Keywords for this news article include: Lincoln, Nebraska, United States, North and Central America, Aggressive Behavior Research, Behavior Research, University of Nebraska.

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Studies from University of North Carolina Further Understanding of HIV/AIDS (Recruiting the social contacts of patients with STI for HIV screening in Lilongwe, Malawi: process evaluation and assessment of acceptability)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immune System Diseases and Conditions - HIV/AIDS. According to news reporting originating from Chapel Hill, North Carolina, by NewsRx correspondents, research stated, "To explore acceptability of recruiting social contacts for HIV and sexually transmitted infection (STI) screening in Lilongwe, Malawi. In this observational study, three groups of 'seed' patients were enrolled: 45 HIV-infected patients with STI, 45 HIV-uninfected patients with STI and 45 community controls, who were also tested for HIV as part of the study."

Financial support for this research came from National Institute of Allergy and Infectious Diseases.

Our news editors obtained a quote from the research from the University of North Carolina, "Each seed was given five coupons and asked to recruit up to five social contacts to the STI clinic. Seeds were told the programme for contacts would include HIV testing, STI screening and general health promotion. Seeds were asked to return after 1 month to report on the contact recruitment process. Seeds received $2 for each successfully recruited contact. Eighty-nine seeds (66%) returned for 1-month follow-up with no difference between the three seed groups (p=0.9). Returning seeds reported distributing most of their coupons (mean=4.1) and discussing each feature of the programme with most contacts-HIV testing (90%), STI screening (87%) and health promotion (91%). Seeds reported discussing their own HIV status with most contacts (52%), with a lower proportion of HIV-infected seeds discussing their HIV status (22%) than HIV-uninfected seeds (81%) or community seeds (64%) (p <0.001). Contact recruitment did not vary with socioeconomic status. Most seeds distributed all coupons and reported describing all aspects of the programme to most contacts."

According to the news editors, the research concluded: "Patients with STI are able to act as health promoters within their social networks and may be a critical link to increasing STI and HIV status awareness among high-risk groups."

For more information on this research see: Recruiting the social contacts of patients with STI for HIV screening in Lilongwe, Malawi: process evaluation and assessment of acceptability. *Sexually Transmitted Infections*, 2016;92(8):587-591,103. *Sexually Transmitted Infections* can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Sexually Transmitted Infections - sti.bmj.com/)

The news editors report that additional information may be obtained by contacting N.E. Rosenberg, University of North Carolina, Dept. of Med, Chapel Hill, NC, United States. Additional authors for this research include C.C. Stanley, S.E. Rutstein, N. Bonongwe, G. Kamanga, A. Pettifor, C. Mapanje, F. Martinson, I.F. Hoffman and W.C. Miller.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/sexttrans-2015-052496. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States,

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Lung Diseases

Studies from University of North Carolina Have Provided New Data on Lung Diseases (Short Palate, Lung, and Nasal Epithelial Clone 1 Has Antimicrobial and Antibiofilm Activities against the Burkholderia cepacia Complex)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Lung Diseases is now available. According to news reporting originating from Chapel Hill, North Carolina, by NewsRx correspondents, research stated, "The opportunistic bacteria of the Burkholderia cepacia complex (Bcc) are extremely pathogenic to cystic fibrosis (CF) patients, and acquisition of Bcc bacteria is associated with a significant increase in mortality. Treatment of Bcc infections is difficult because the bacteria are multidrug resistant and able to survive in biofilms."

Funders for this research include HHS | National Institutes of Health (NIH), Cystic Fibrosis Trust.

Our news editors obtained a quote from the research from the University of North Carolina, "Short palate, lung, and nasal epithelial clone 1 (SPLUNC1) is an innate defense protein that is secreted by the upper airways and pharynx. While SPLUNC1 is known to have antimicrobial functions, its effects on Bcc strains are unclear. We therefore tested the hypothesis that SPLUNC1 is able to impair Bcc growth and biofilm formation. We found that SPLUNC1 exerted bacteriostatic effects against several Bcc clinical isolates, including B. cenocepacia strain J2315 (50% inhibitory concentration [IC50] = 0.28 μM), and reduced biofilm formation and attachment (IC50 = 0.11 μM). We then determined which domains of SPLUNC1 are responsible for its antimicrobial activity. Deletions of SPLUNC1’s N terminus and alpha 6 helix did not affect its function. However, deletion of the alpha 4 helix attenuated antimicrobial activity, while the corresponding alpha 4 peptide displayed antimicrobial activity. Chronic neutrophilia is a hallmark of CF lung disease, and neutrophil elastase (NE) cleaves SPLUNC1. However, we found that the ability of SPLUNC1 to disrupt biofilm formation was significantly potentiated by NE pretreatment."

According to the news editors, the research concluded: "While the impact of CF on SPLUNC1-Bcc interactions is not currently known, our data suggest that understanding this interaction may have important implications for CF lung disease."

For more information on this research see: Short Palate, Lung, and Nasal Epithelial Clone 1 Has Antimicrobial and Antibiofilm Activities against the Burkholderia cepacia Complex. Antimicrobial Agents and Chemotherapy, 2016;60(10):6003-6012. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting R.
Tarran, University of North Carolina, Dept. of Cell Biol & Physiol, Chapel Hill, NC, United States. Additional authors for this research include J. Tyrrell, W.G. Walton, A. Tripathy, M.R. Redinbo and R. Tarran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00975-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Respiratory Tract Diseases and Conditions, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Lung Diseases and Conditions, Burkholderia cepacia complex, Gram-Negative Bacteria, Betaproteobacteria, Burkholderiaceae, Cystic Fibrosis, Proteobacteria, University of North Carolina.

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Oncology - Cancer Care

Studies from University of North Carolina Yield New Data on Cancer Care (The influence of dyadic symptom distress on threat appraisals and self-efficacy in advanced cancer and caregiving)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Cancer Care is now available. According to news reporting originating in Chapel Hill, North Carolina, by NewsRx journalists, research stated, "Physical and psychological symptoms experienced by patients with advanced cancer influence their well-being; how patient and family caregiver symptom distress influence each other's well-being is less understood. This study examined the influence of patient and caregiver symptom distress on their threat appraisals and self-efficacy to cope with cancer."

Financial supporters for this research include National Cancer Institute, Horace H. Rackham School of Graduate Studies, University of Michigan, Foundation for the National Institutes of Health.

The news reporters obtained a quote from the research from the University of North Carolina, "We conducted a secondary analysis of baseline data from an RCT that enrolled patients with advanced cancer and their family caregivers (N = 484 dyads). Structural equation modeling and the actor-partner interdependence mediation model (APIMeM) were used to examine two models: threat appraisals as a mediator of the relationship between symptom distress and individual and family-related self-efficacy; and, self-efficacy (individual and family dimensions) as mediators of the relationship between symptom distress and threat appraisals. Data suggest the self-efficacy mediation model was the preferred model. More patient and caregiver symptom distress was directly associated with their own lower self-efficacy and more threatening appraisals. Patient and caregiver individual self-efficacy also mediated the relationship between their own symptom distress and threat appraisals. There were also significant interdependent effects. More patient symptom distress was associated with less caregiver family-related self-efficacy, and more caregiver symptom distress was directly associated with more threatening patient appraisals. Patient and caregiver symptom distress influenced their own and in some cases each other's cognitive appraisals. Limitations of this study include the use of cross-sectional data and assessments of individually-focused (vs. family-focused) threat appraisals."
According to the news reporters, the research concluded: "These findings highlight the need to consider the management of patient and caregiver symptoms during advanced cancer."

For more information on this research see: The influence of dyadic symptom distress on threat appraisals and self-efficacy in advanced cancer and caregiving. Supportive Care in Cancer, 2017;25(1):185-194. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news correspondents report that additional information may be obtained by contacting K.R. Ellis, University of North Carolina, Gillings Sch Global Public Hlth, Chapel Hill, NC 27559, United States. Additional authors for this research include M.R. Janevic, T. Kershaw, C.H. Caldwell, N.K. Janz and L. Northouse.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3385-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Cancer Care, Oncology, Cancer, University of North Carolina.

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Clinical Research - Clinical Trials and Studies

Studies from University of North Carolina Yield New Information about Clinical Trials and Studies [The electronic medication complete communication (EMC2) study: Rationale and methods for a randomized controlled trial of a strategy to promote ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news reporting from Chapel Hill, North Carolina, by NewsRx journalists, research stated, "Adverse drug events (ADEs) affect millions of patients annually and place a significant burden on the healthcare system. The Food and Drug Administration (FDA) has developed patient safety information for high risk medications that pose serious public health concerns."

The news correspondents obtained a quote from the research from the University of North Carolina, "However, there are currently few assurances that patients receive this information or are able to identify or respond correctly to ADEs. To evaluate the effectiveness of the Electronic Medication Complete Communication (EMC2) Strategy to promote safe medication use and reporting of ADEs in comparison to usual care. The automated EMC2 Strategy consists of: 1) provider alerts to counsel patients on medication risks, 2) the delivery of patient-friendly medication information via the electronic health record, and 3) an automated telephone assessment to identify potential medication concerns or ADEs. The study will take place in two community health centers in Chicago, IL Adult, English or Spanish-speaking patients (N = 1200) who have been prescribed a high-risk medication will be enrolled and randomized to the intervention arm or usual care based upon practice location. The primary outcomes of the study are medication knowledge, proper medication use, and reporting of ADEs; these will be measured at baseline, 4 weeks, and three months. Intervention fidelity as
well as barriers and costs of implementation will be evaluated. The EMC2 Strategy automates a patient-friendly risk communication and surveillance process to promote safe medication use while minimizing clinic burden.

According to the news reporters, the research concluded: "This trial seeks to evaluate the effectiveness and feasibility of this strategy in comparison to usual care."

For more information on this research see: The electronic medication complete communication (EMC2) study: Rationale and methods for a randomized controlled trial of a strategy to promote medication safety in ambulatory care. Contemporary Clinical Trials, 2016;51():72-77. Contemporary Clinical Trials can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Contemporary Clinical Trials - www.journals.elsevier.com/contemporary-clinical-trials/)

Our news journalists report that additional information may be obtained by contacting S.C. Bailey, University of North Carolina, Div Pharmaceut Outcomes & Policy, Eshelman Sch Pharm, Chapel Hill, NC 27599, United States. Additional authors for this research include M.K. Paasche-Orlow, W.G. Adams, S.A. Brokenshire, R.P. Hickson, C.U. Oramasionwu, L.M. Curtis, M.J. Kwasny and M.S. Wolf.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cct.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Clinical Trials and Studies, Clinical Research, University of North Carolina.

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Proteins - Nucleoproteins

Studies from University of North Carolina Yield New Information about Nucleoproteins (Molecular Recognition of Lys and Arg Methylation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Proteins - Nucleoproteins is the subject of a report. According to news reporting from Chapel Hill, North Carolina, by NewsRx journalists, research stated, "A network of reader proteins and enzymes precisely controls gene transcription through the dynamic addition, removal, and recognition of post-translational modifications (PTMs) of histone tails. Histone PTMs work in concert with this network to regulate gene transcription through the histone code, and the dysregulation of PTM maintenance is linked to a large number of diseases, including many types of cancer."

Funders for this research include Division of Chemistry, Division of Graduate Education, W.M. Keck Foundation.

The news correspondents obtained a quote from the research from the University of North Carolina, "A wealth of research aims to elucidate the functions of this code, but our understanding of the effects of PTMs, specifically the methylation of lysine (Lys) and arginine (Arg), is lacking. The development of new tools to study PTMs relies on a sophisticated understanding of the mechanisms that drive protein and small molecule recognition in water."

According to the news reporters, the research concluded: "In this review, we outline the physical organic concepts that drive the molecular recognition of Lys and Arg methylation
by reader proteins and draw comparisons to the binding mechanisms of small molecule receptors for methylated Lys and Arg that have been developed recently."

For more information on this research see: Molecular Recognition of Lys and Arg Methylation. *Ac**s Chemical Biology*, 2016;11(3):643-53. (American Chemical Society - www.acs.org; *Ac**s Chemical Biology - www.pubs.acs.org/journal/acbcct)

Our news journalists report that additional information may be obtained by contacting J.E. Beaver, Dept. of Chemistry, University of North Carolina, CB 3290, Chapel Hill, North Carolina 27599, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschembio.5b00996. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Histones, Chapel Hill, United States, North Carolina, Article Review, Nanotechnology, Nucleoproteins, Emerging Technologies, Molecular Recognition, North and Central America.

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**DNA Research**

**Studies from University of North Carolina in the Area of DNA Research Described (The Rb binding domain of HPV31 E7 is required to maintain high levels of DNA repair factors in infected cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on DNA Research. According to news reporting originating in Chapel Hill, North Carolina, by NewsRx journalists, research stated, "Human papillomaviruses (HPV) exhibit constitutive activation of ATM and ATR DNA damage response (DDR) pathways, which are required for productive viral replication. Expression of HPV31 E7 alone is sufficient to activate the DDR through an unknown mechanism."

Funders for this research include NIH, American Cancer Society.

The news reporters obtained a quote from the research from the University of North Carolina, "Here, we demonstrate that the E7 Rb binding domain is required to increase levels of many DDR proteins, including ATM, Chk2, Chk1, the MRN components MRE11, Rad50, and NBS1, as well as the homologous recombination repair proteins BRCA1 and Rad51. Interestingly, we have found that the increase in these DNA repair proteins does not occur solely at the level of transcription, but that E7 broadly increases the half-life of these DDR factors, a phenotype that is lost in the E7 Rb binding mutant."

According to the news reporters, the research concluded: "These data suggest that HPV-31 upregulates DNA repair factors necessary for replication by increasing protein half-life in a manner requiring the E7 Rb binding domain."

For more information on this research see: The Rb binding domain of HPV31 E7 is required to maintain high levels of DNA repair factors in infected cells. *Virology*, 2017;500 ():22-34. *Virology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Virology - www.journals.elsevier.com/virology/)

Our news correspondents report that additional information may be obtained by
contacting C.A. Moody, University of North Carolina, Dept. of Microbiol & Immunol, Chapel Hill, NC, United States. Additional authors for this research include H.L. Aloor and C.A. Moody.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.virol.2016.09.029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Deoxyribonucleic Acid, DNA Research, Proteomics, DNA Repair, Genetics, University of North Carolina.

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DNA Research

Studies from University of North Carolina in the Area of DNA Research Reported (Investigating the impacts of DNA binding mode and sequence on thermodynamic quantities and water exchange values for two small molecule drugs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in DNA Research. According to news originating from Chapel Hill, North Carolina, by NewsRx correspondents, research stated, "Doxorubicin and nogalamycin are antitumor antibiotics that interact with DNA via intercalation and threading mechanisms, respectively. Because the importance of water, particularly its impact on entropy changes, has been established in other biological processes, we investigated the role of water in these two drug-DNA binding events."

Funders for this research include Department of Chemistry and Chemical Engineering at Chalmers University of Technology, St. Lawrence University Fellowship Program.

Our news journalists obtained a quote from the research from the University of North Carolina, "We used the osmotic stress method to calculate the number of water molecules exchanged (Δn(water)), and water, isothermal titration calorimetry to measure K-binding, ΔH, and ΔS for two synthetic DNAs, poly(dA center dot dT) and poly(dG center dot dC), and calf thymus DNA (CT DNA). For nogalamycin, Δn(water) <0 for CT DNA and poly(dG center dot dC). For doxorubicin, Δn(water) > 0 for CT DNA and Δn(water) < 0 for poly(dG center dot dC). For poly(dA center dot dT), Δn(water)- 0 with both drugs. Net enthalpy changes were always negative, but net entropy changes depended on the drug."

According to the news editors, the research concluded: "The effect of water exchange on the overall sign of entropy change appears to be smaller than other contributions."

For more information on this research see: Investigating the impacts of DNA binding mode and sequence on thermodynamic quantities and water exchange values for two small molecule drugs. *Biophysical Chemistry*, 2016;216():9-18. *Biophysical Chemistry* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Biophysical Chemistry - www.journals.elsevier.com/biophysical-chemistry/)

The news correspondents report that additional information may be obtained from R.M. Kenney, University of North Carolina, Dept. of Chem, Chapel Hill, NC, United States.
Additional authors for this research include K.E. Buxton and S. Glazier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bpc.2016.05.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, DNA Research, Drugs and Therapies, University of North Carolina.

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**Drugs and Therapies - Indomethacin Therapy**

**Studies from University of Nottingham Have Provided New Information about Indomethacin Therapy (Indomethacin-Kollidon VA64 Extrudates: A Mechanistic Study of pH-Dependent Controlled Release)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Indomethacin Therapy have been published. According to news reporting from Nottingham, United Kingdom, by NewsRx journalists, research stated, "Because of its weakly acidic nature (pKa of 4.5), indomethacin presents an aqueous solubility that significantly increases when changing from acidic to neutral/alkaline pH (1.5 mg/mL at pH 1.2 and 105.2 mg/mL at pH 7.4). We have therefore investigated the impact of the dissolution medium pH on the dissolution performance of indomethacin:Kollidon VA64 extrudates."

Financial supporters for this research include AstraZeneca, Engineering and Physical Sciences Research Council.

The news correspondents obtained a quote from the research from the University of Nottingham, "The impact of the drug loading on the dissolution properties of these systems was also examined (5%, 15%, 30%, 50%, 70%, and 90% drug loading). Time-resolved Raman spectroscopy along with in-line UV-vis spectrophotometry was employed to directly relate changes in dissolution behavior to physicochemical changes that occur to the extrudate during the test. The dissolution tests were performed in pH 2 HCl (to mimic the stomach conditions), and this was then switched during the experiment to pH 6.8 phosphate buffer (to simulate the poststomach conditions). The rotating disc dissolution rate test was also used to simultaneously measure the dissolution rate of both the drug and the polymer. We found that in pH 2 HCl buffer, for the 15% or higher drug-loaded extrudates, Kollidon VA64 preferentially dissolves from the exterior of the compact leaving an amorphous drug-rich hydrophobic shell, which, similarly to an enteric coating, inhibits the drug release. The in situ formation of an enteric coating has been previously hypothesized, and this has been the first time that is directly observed in a pH-variable dissolution test. The dissolution medium switch to pH 6.8 phosphate buffer, due to the large increase of the aqueous solubility of indomethacin at this pH, leads to rapid dissolution of the material forming the coating and therefore total drug release."

According to the news reporters, the research concluded: "In contrast, the 5% extrudate is fully hydrated and quickly dissolves at low pH pointing to a dissolution performance dependent on highly water-soluble Kollidon VA64."

For more information on this research see: Indomethacin-Kollidon VA64 Extrudates: A Mechanistic Study of pH-Dependent Controlled Release. *Molecular Pharmaceutics*, 2016;13
Our news journalists report that additional information may be obtained by contacting F. Tres, School of Pharmacy, Boots Science Building, University of Nottingham, Nottingham, NG7 2RD, UK. Additional authors for this research include K. Treacher, J. Booth, L.P. Hughes, S.A. Wren, J.W. Aylott and J.C Burley.

The direct object identifier (DOI) for that additional information is: 
http://dx.doi.org/10.1021/acs.molpharmaceut.5b00979. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Europe, Nottingham, United Kingdom, Controlled Release, Drugs and Therapies, Indomethacin Therapy.

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Oncology - Gallbladder Cancer

Studies from University of Oklahoma Yield New Data on Gallbladder Cancer (MicroRNA aberrations: An emerging field for gallbladder cancer management)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gallbladder Cancer have been published. According to news reporting out of Oklahoma City, Oklahoma, by NewsRx editors, research stated, "Gallbladder cancer (GBC) is infrequent but most lethal biliary tract malignancy characterized by an advanced stage diagnosis and poor survival rates attributed to absence of specific symptoms and effective treatment options. These necessitate development of early prognostic/predictive markers and novel therapeutic interventions."

Our news journalists obtained a quote from the research from the University of Oklahoma, "MicroRNAs (miRNAs) are small, non-coding RNA molecules that play a key role in tumor biology by functioning like tumor suppressor-or onco-genes and their aberrant expression are associated with the pathogenesis of several neoplasms with overwhelming clinical implications. Since miRNA signature is tissue specific, here, we focused on current data concerning the miRNAs aberrations in GBC pathogenesis. In GBC, miRNAs with tumor suppressor activity (miR-135-5p, miR-335, miR-34a, miR-26a, miR-146b-5p, Mir-218-5p, miR-1, miR-145, mir-130a) were found downregulated, while those with oncogenic property (miR-20a, miR-182, mir-155) were upregulated. The expression profile of miRNAs was significantly associated with GBC prognosis and prediction, and forced over-expression/ inhibition of these miRNAs was shown to affect tumor growth and development. Further, differential expression of miRNAs in the blood samples of GBC patients suggest miRNAs as promising noninvasive biomarker."

According to the news editors, the research concluded: "Thus, miRNAs represent potential candidate for GBC management, though many hurdles need to be overcome before miRNAs therapy can be clinically applied to GBC prevention and treatment."

Our news journalists report that additional information may be obtained by contacting V. Chandra, Vishal Chandra, Dept. of Obstetrics and Gynecology, Stephenson Cancer Center, University of Oklahoma Health Sciences Center, Oklahoma City, OK 73104, United States. Additional authors for this research include J.J. Kim, B. Mittal and R. Rai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i5.1787. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Oncology, Oklahoma City, United States, Article Review, Gastroenterology, Tumor Suppression, Gallbladder Cancer, North and Central America.

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Drugs and Therapies - Antiinfectives

Studies from University of Oklahoma in the Area of Antiinfectives
Described [Downregulation of Organic Anion Transporting Polypeptide (OATP) 1B1 Transport Function by Lysosomotropic Drug Chloroquine: Implication in OATP-Mediated Drug-Drug ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antiinfectives is now available. According to news reporting originating in Oklahoma City, Oklahoma, by NewsRx journalists, research stated, "Organic anion transporting polypeptide (OATP) 1B1 mediates the hepatic uptake of many drugs including lipid-lowering statins. Decreased OATP1B1 transport activity is often associated with increased systemic exposure of statins and statin-induced myopathy."

Financial supporters for this research include National Institute of Diabetes and Digestive and Kidney Diseases, U.S. National Library of Medicine, National Institute of General Medical Sciences.

The news reporters obtained a quote from the research from the University of Oklahoma, "Antimalarial drug chloroquine (CQ) is also used for long-term treatment of rheumatoid arthritis and systemic lupus erythematosus. CQ is lysosomotropic and inhibits protein degradation in lysosomes. The current studies were designed to determine the effects of CQ on OATP1B1 protein degradation, OATP1B1-mediated transport in OATP1B1-overexpressing cell line, and statin uptake in human sandwich-cultured hepatocytes (SCH). Treatment with lysosome inhibitor CQ increased OATP1B1 total protein levels in HEK293-OATP1B1 cells and in human SCH as determined by OATP1B1 immunoblot. In HEK293-FLAG-tagged OATP1B1 stable cell line, co-immunofluorescence staining indicated that intracellular FLAG-OATP1B1 is colocalized with lysosomal associated membrane glycoprotein (LAMP)-2, a marker protein of late endosome/lysosome. Enlarged LAMP-2-positive vacuoles with FLAG-OATP1B1 protein retained inside were readily detected in CQ-treated cells, consistent with blocking lysosomal degradation of OATP1B1 by CQ. In HEK293-OATP1B1 cells, without pre-incubation, CQ concentrations up to 100 mM did not affect OATP1B1-mediated [(3)H]E217G accumulation. However, pre-incubation with CQ at clinically relevant concentration(s) significantly decreased [(3)H]E217G and [(3)H]pitavastatin accumulation in HEK293-OATP1B1 cells and [(3)H]pitavastatin accumulation in human SCH. CQ pretreatment (25 mM, 2 h) resulted in ∼1.9-fold decrease in Vmax without affecting Km of OATP1B1-
mediated [(3)H]E217G transport in HEK293-OATP1B1 cells. Pretreatment with monensin and bafilomycin A1, which also have lysosome inhibition activity, significantly decreased OATP1B1-mediated transport in HEK293-OATP1B1 cells. Pharmacopeidemiologic studies using data from the U.S. Food and Drug Administration Adverse Event Reporting System indicated that CQ plus pitavastatin, rosuvastatin, and pravastatin, which are minimally metabolized by the cytochrome P450 enzymes, led to higher myopathy risk than these statins alone. In summary, the present studies report novel findings that lysosome is involved in degradation of OATP1B1 protein and that pre-incubation with lysosomotropic drug CQ downregulates OATP1B1 transport activity."

According to the news reporters, the research concluded: "Our in vitro data in combination with pharmacoepidemiologic studies support that CQ has potential to cause OATP-mediated drug-drug interactions."


Our news correspondents report that additional information may be obtained by contacting K. Alam, Dept. of Pharmaceutical Sciences, College of Pharmacy, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma 73117, United States. Additional authors for this research include S. Pahwa, X. Wang, P. Zhang, K. Ding, A.H. Abuznait, L. Li and W. Yue.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00763. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antihyperlipidemic Agents, Antiinfectives, Antimalarial Agents, Antirheumatics, Myopathy, Lysosomes, Amebicides, Epidemiology, Pitavastatin, Oklahoma City, United States, Chloroquine Therapy, Drugs and Therapies, Intracellular Space, Risk and Prevention, Cytoplasmic Vesicles, Cytoplasmic Structures.

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**Heart Disorders and Diseases - Patent Foramen Ovale**

**Studies from University of Oregon Have Provided New Information about Patent Foramen Ovale (Physiological impact of patent foramen ovale on pulmonary gas exchange, ventilatory acclimatization, and thermoregulation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Patent Foramen Ovale. According to news reporting originating in Eugene, Oregon, by NewsRx journalists, research stated, "The foramen ovale, which is part of the normal fetal cardiopulmonary circulation, fails to close after birth in similar to 35% of the population and represents a potential source of right-to-left shunt. Despite the prevalence of patent foramen ovale (PFO) in the general population, cardiopulmonary, exercise, thermoregulatory, and altitude physiologists may have underestimated the potential effect of this shunted blood flow
on normal physiological processes in otherwise healthy humans."

Financial support for this research came from Defense Medical Research & Development Program.

The news reporters obtained a quote from the research from the University of Oregon, "Because this shunted blood bypasses the respiratory system, it would not participate in either gas exchange or respiratory system cooling and may have impacts on other physiological processes that remain undetermined. The consequences of this shunted blood flow in PFO-positive (PFO+) subjects can potentially have a significant, and negative, impact on the alveolar-to-arterial oxygen difference (AaDO(2)), ventilatory acclimatization to high altitude and respiratory system cooling with PFO+ subjects having a wider AaDO(2) at rest, during exercise after acclimatization, blunted ventilatory acclimatization, and a higher core body temperature (similar to 0.4 degrees C) at rest and during exercise. There is also an association of PFO with high-altitude pulmonary edema and acute mountain sickness. These effects on physiological processes are likely dependent on both the presence and size of the PFO, with small PFOs not likely to have significant/measureable effects."

According to the news reporters, the research concluded: "The PFO can be an important determinant of normal physiological processes and should be considered a potential confounder to the interpretation of former and future data, particularly in small data sets where a significant number of PFO+ subjects could be present and significantly impact the measured outcomes."

For more information on this research see: Physiological impact of patent foramen ovale on pulmonary gas exchange, ventilatory acclimatization, and thermoregulation. *Journal of Applied Physiology*, 2016;121(2):512-517. *Journal of Applied Physiology* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news correspondents report that additional information may be obtained by contacting A.T. Lovering, University of Oregon, Dept. of Human Physiol, Eugene, OR 97403, United States. Additional authors for this research include J.E. Elliott and J.T. Davis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/japplphysiol.00192.2015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Eugene, Oregon, United States, North and Central America, Heart Septum, Article Review, Heart Disorders and Diseases, Patent Foramen Ovale, University of Oregon.

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### Blood Pressure

**Studies from University of Oslo Further Understanding of Blood Pressure (Cardiac stroke volume variability measured non-invasively by three methods for detection of central hypovolemia in healthy humans)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Blood Pressure are discussed in a new report. According to news reporting from Oslo, Norway, by NewsRx journalists, research stated, "Hypovolemia decreases preload and cardiac stroke volume. Cardiac stroke volume (SV) and its variability (cardiac stroke volume variability, SVV) have been proposed as clinical tools for
detection of acute hemorrhage."

Financial support for this research came from The Research Council of Norway.

The news correspondents obtained a quote from the research from the University of Oslo, "We compared three non-invasive SV measurements and investigated if respiration-induced fluctuations in SV may detect mild and moderate hypovolemia in spontaneously breathing humans. Ten healthy subjects underwent experimental central hypovolemia induced by lower body negative pressure to -60 mmHg or onset of presyncopal symptoms. SV beat-to-beat was estimated simultaneously by ultrasound Doppler, finger arterial blood pressure curve and impedance cardiography. SVV was calculated by spectral analysis between 0.15 and 0.40 Hz. Relative changes in SV did not show significant differences between the methods. The SVV measured by ultrasound Doppler and arterial blood pressure curve decreased at -30 mmHg to 32 % (ultrasound Doppler: 95 % CI 18-47, arterial blood pressure curve: 95 % CI 21-43) and at maximal simulated hypovolemia to 23 % (ultrasound Doppler: 95 % CI 14-81) and 21 % (arterial blood pressure curve: 95 % CI 9-33) of baseline variability. The variability in cardiac stroke volume from the impedance cardiography did not change significantly during the simulated hypovolemia, to 88 and 76 % of baseline variability. Cardiac stroke volume estimated by ultrasound Doppler and by arterial blood pressure curve showed parallel variations beat-to-beat during simulated hemorrhage, whereas impedance cardiography did not appear to track beat-to-beat changes in cardiac stroke volume."

According to the news reporters, the research concluded: "The variability in cardiac stroke volume was decreased during mild and moderate hypovolemia and could be used for early detection of hypovolemia."


Our news journalists report that additional information may be obtained by contacting M. Elstad, University of Oslo, Inst Basic Med Sci, Div Physiol, N-0317 Oslo, Norway. Additional authors for this research include E.B. Rein and M. Elstad.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00421-016-3471-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oslo, Norway, Europe, Cardiovascular Physiological Phenomena, Diagnostic Techniques and Procedures, Impedance Plethysmography, Diagnostics and Screening, Impedance Cardiography, Heart Function Tests, Cardiac Output, Blood Pressure, Stroke Volume, Hemodynamics, Hypovolemia, Hemorrhage, Cardiology, Diagnosis, University of Oslo.

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Oncology - Neuroendocrine Cancer

Studies from University of Oxford Provide New Data on Neuroendocrine Cancer (Changes in the Epidemiology of Neuroendocrine Tumours)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Neuroendocrine Cancer. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "The reviewing and assessment of epidemiological characteristics of neuroendocrine tumours (NETs) remains a challenge. Despite the fact that it is an uncommon family of neoplasms, several worldwide series have revealed an increasing incidence of this rare condition."

Our news journalists obtained a quote from the research from the University of Oxford, "However, the data are difficult to compare over time due to changes in classification. We compared the data related to incidence, prevalence, stage of the disease at diagnosis and survival reported in several series, focusing on the differences and trying to examine some of the probable reasons that may explain the variations in the results between studies. The incidence of NETs is increasing over time, and their incidental discovery due to improved and more frequent imaging does not seem to be enough to explain this rise. Significant differences can be found between geographic regions and races, suggesting that environmental or genetic factors may contribute to the clinical and biological behaviour of these tumours; increasing our knowledge of oncogenesis will be necessary to explain them."

According to the news editors, the research concluded: "As with other rare diseases, creating specific databases and multidisciplinary working groups would improve the accuracy of the information gained."


The news correspondents report that additional information may be obtained from I. Huguet, Dept. of Endocrinology, Oxford Centre for Diabetes, Endocrinology and Metabolism, University of Oxford, Oxford, UK. Additional authors for this research include A.B. Grossman and D. O'Toole.

Keywords for this news article include: Oxford, Europe, Genetics, Oncology, Epidemiology, United Kingdom, Neuroendocrine Cancer, Neuroendocrine Tumors.

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Membrane Proteins - G-Protein-Coupled Receptors

Studies from University of Paris Yield New Information about G-Protein-Coupled Receptors (STR-324, a Stable Analog of Opiorphin, Causes Analgesia in Postoperative Pain by Activating Endogenous Opioid Receptor-dependent Pathways)


Our news journalists obtained a quote from the research from the University of Paris, "However, the data are difficult to compare over time due to changes in classification. We compared the data related to incidence, prevalence, stage of the disease at diagnosis and survival reported in several series, focusing on the differences and trying to examine some of the probable reasons that may explain the variations in the results between studies. The incidence of NETs is increasing over time, and their incidental discovery due to improved and more frequent imaging does not seem to be enough to explain this rise. Significant differences can be found between geographic regions and races, suggesting that environmental or genetic factors may contribute to the clinical and biological behaviour of these tumours; increasing our knowledge of oncogenesis will be necessary to explain them."

According to the news editors, the research concluded: "As with other rare diseases, creating specific databases and multidisciplinary working groups would improve the accuracy of the information gained."


The news correspondents report that additional information may be obtained from I. Huguet, Dept. of Endocrinology, Oxford Centre for Diabetes, Endocrinology and Metabolism, University of Oxford, Oxford, UK. Additional authors for this research include A.B. Grossman and D. O'Toole.

Keywords for this news article include: Paris, Europe, Genetics, Oncology, Epidemiology, United Kingdom, Neuroendocrine Cancer, Neuroendocrine Tumors.

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According to news reporting from Le Kremlin Bicetre, France, by NewsRx journalists, research stated, "Opiorphin is a naturally occurring potent analgesic human peptide. It protects enkephalins from degradation and inhibits pain perception in various acute pain models via activation of endogenous opioid pathways."

The news correspondents obtained a quote from the research from the University of Paris, "However, the efficacy of opiorphin continuous infusion and its chemically stable form, STR-324, in postoperative pain is unknown. Using the Brennan model of plantar incision-induced hypersensitivity, the authors examined the postsurgical analgesic response to mechanical and thermal stimuli of 7-day continuously intravenously infused drugs (8 to 10 rats per group). Antinociception from opiorphin with reference to morphine and STR-324 was assessed. Spinal c-Fos expression and the involvement of opioid receptor-dependent pathways were investigated. The occurrence of respiratory and hemodynamic adverse effects of opiorphin was also tested. Intravenous infusion of opiorphin significantly reduced responses to mechanical stimuli from days 1 to 4 post surgical period at 143 to 175-kPa mean ranges compared with 23 to 30-kPa mean ranges for vehicle (P < 0.05). During the 3-day postoperative period, no respiratory rate, oxygen saturation, arterial pressure, or heart rate adverse effects were induced by opiorphin. STR-324 consistently inhibited mechanical and thermal hyperalgesia with similar potency as that of opiorphin. Mechanistic analyses demonstrated that the STR-324 antinociceptive effect was reversed by the opioid antagonist, naloxone. Also, STR-324 significantly reduced the number of pain-evoked spinal cFos-immunoreactive nuclei. Intravenous infusion of opiorphin and STR-324 produced significant antinociceptive effect in a postoperative pain model. This study demonstrates that STR-324 is effective in postoperative pain management due to its strong antihyperalgesic effects mediated via opioid-dependent antinociceptive pathways."

According to the news reporters, the research concluded: "Opiorphin analog should represent a new class of potent and safe analgesics."

For more information on this research see: STR-324, a Stable Analog of Opiorphin, Causes Analgesia in Postoperative Pain by Activating Endogenous Opioid Receptor-dependent Pathways. *Anesthesiology*. 2016;125(5):1017-1029. *Anesthesiology* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting P. Sitbon, Univ Paris Saclay, Le Kremlin Bicetre, France. Additional authors for this research include A. Van Elstraete, L. Hamdi, V. Juarez-Perez, J.X. Mazoit, D. Benhamou and C. Rougeot.

Keywords for this news article include: Le Kremlin Bicetre, France, Europe, G-Protein-Coupled Receptors, Neuropeptide Receptors, Intravenous Infusions, Parenteral Infusions, Post-Operative Pain, Membrane Proteins, Opiate Receptors, Opioid Receptors, Antinociceptive, Pain Medicine, Analgesics, Neurology, University of Paris.

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Oncology - Germ Cell Cancer

Studies from University of Paris-Sud Add New Findings in the Area of Germ Cell Cancer (Predicting and preventing thromboembolic events in patients receiving cisplatin-based chemotherapy for germ cell tumours)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Germ Cell Cancer are presented in a new report. According to news reporting from Villejuif, France, by NewsRx journalists, research stated, "Patients with germ cell tumours (GCT) receiving cisplatin-based chemotherapy are at high risk of thromboembolic events (TEE). Previously, we identified serum lactate dehydrogenase (LDH) and body surface area (BSA) as independent predictive factors for TEE."

The news correspondents obtained a quote from the research from the University of Paris-Sud, "The aim of this study was to validate these predictive factors and to assess the impact of thromboembolism prophylaxis in patients at risk of deep venous thrombosis (DVT). Between 2001 and 2014, 295 patients received first-line cisplatin-based chemotherapy for GCT. Preventive anticoagulation with low-molecular-weight heparin (LMWH) was progressively implemented in patients with predictive factors. Sixteen patients with evidence of TEE before starting chemotherapy were excluded from the analysis. Among 279 eligible patients, a TEE occurred in 38 (14%) consisting of DVT (n = 26), arterial thrombosis (n = 2), and superficial thrombophlebitis (n = 10). DVT occurred in 26 (12.7%) of 204 patients with risk factors versus two (2.6%) of 75 patients with no risk factors (p = 0.01). After a prevention protocol was progressively implemented from 2005, primary thromboprophylaxis was administered to 104 patients (68%) with risk factors. Among patients at risk (n = 151), the incidence of DVT decreased by roughly half when they received a LMWH: 9/97 (9.2%) and 9/54 (16.6%), respectively (p = 0.23). Patients with GCT who receive cisplatin-based chemotherapy are at risk of developing a TEE which can be predicted by elevated serum LDH. To our knowledge this is the first study exploring LMWH as thromboprophylaxis in GCT patients."

According to the news reporters, the research concluded: "A prospective trial testing prophylactic anticoagulation is warranted."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejca.2016.10.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Villejuif, France, Europe, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Deep Vein Thrombosis, Risk and Prevention, Drugs and Therapies, Germ Cell Carcinoma,
Studies from University of Pavia Have Provided New Information about Arrhythmogenic Right Ventricular Cardiomyopathy Clinical Course and Predictors of Arrhythmic Risk

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Arrhythmogenic Right Ventricular Dysplasia. According to news reporting originating in Pavia, Italy, by NewsRx journalists, research stated, "Arrhythmogenic right ventricular cardiomyopathy (ARVC) is a leading cause of sudden cardiac death, but its progression over time and predictors of arrhythmias are still being defined. This study sought to describe the clinical course of ARVC and occurrence of life-threatening arrhythmic events (LAE) and cardiovascular mortality; identify risk factors associated with increased LAE risk; and define the response to therapy."

The news reporters obtained a quote from the research from the University of Pavia, "We determined the clinical course of 301 consecutive patients with ARVC using the Kaplan-Meier method adjusted to avoid the bias of delayed entry. Predictors of LAE over 5.8 years of follow-up were determined with Cox multivariable analysis. Treatment efficacy was assessed comparing LAE rates during matched time intervals. A first LAE occurred in 1.5 per 100 person-years between birth and age 20 years, in 4.0 per 100 person-years between ages 21 and 40 years, and in 2.4 per 100 person-years between ages 41 and 60 years. Cumulative probability of a first LAE at follow-up was 14% at 5 years, 23% at 10 years, and 30% at 15 years. Higher risk of LAE was predicted by atrial fibrillation (hazard ratio [HR]: 4.38; p = 0.002), syncope (HR: 3.36; p < 0.001), participation in strenuous exercise after the diagnosis (HR: 2.98; p = 0.028), hemodynamically tolerated sustained monomorphic ventricular tachycardia (HR: 2.19; p = 0.023), and male sex (HR: 2.49; p = 0.012). No difference was observed in the occurrence of LAE before and after treatment with amiodarone, beta-blockers, sotalol, or ablation. A total of 81 patients received an implantable cardioverter-defibrillator, 34 were successfully defibrillated. The high risk of life-threatening arrhythmias in patients with ARVC spans from adolescence to advanced age, reaching its peak between ages 21 and 40 years. Atrial fibrillation, syncope, participation in strenuous exercise after the diagnosis of ARVC, hemodynamically tolerated sustained monomorphic ventricular tachycardia, and male sex predicted lethal arrhythmias at follow-up."

According to the news reporters, the research concluded: "The lack of efficacy of antiarrhythmic therapy and the life-saving role of the implantable cardioverter-defibrillator highlight the importance of risk stratification for patient management."

For more information on this research see: Arrhythmogenic Right Ventricular Cardiomyopathy Clinical Course and Predictors of Arrhythmic Risk. Journal of the American College of Cardiology, 2016;68(23):2540-2550. Journal of the American College of Cardiology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY
Studies from University of Pennsylvania in the Area of Barrett Esophagus Reported (Is Obesity Associated with Barrett's Esophagus and Esophageal Adenocarcinoma?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Digestive System Diseases and Conditions - Barrett Esophagus. According to news reporting from Philadelphia, Pennsylvania, by NewsRx editors, the research stated, "Barrett's esophagus is a premalignant condition portending increased risk of esophageal adenocarcinoma. Given the significant morbidity and mortality of esophageal adenocarcinoma, identification of risk factors for Barrett's esophagus and esophageal adenocarcinoma is crucial."

The news correspondents obtained a quote from the research from the University of Pennsylvania. "There are a plethora of studies investigating the relationship of obesity with these pathologies. Recent studies reveal that this relationship may specifically be with central adiposity. Increased cell turnover and eventual carcinogenesis is likely precipitated by increased intragastric pressure but also is affected by the complex interplay of increased insulin resistance in patients with increased fat tissue."

According to the news reporters, the research concluded: "Further studies are warranted to evaluate if weight loss can decrease progression of Barrett's esophagus."


Our news journalists report that additional information may be obtained by contacting K.L. Lynch, Univ Penn Hlth Syst, Dept. of Internal Med, Div Gastroenterol & Hepatol, Philadelphia, PA 19104, United States.
Studies from University of Pretoria Yield New Information about Type 2 Diabetes (Metformin and Vitamin B12 Deficiency: Where Do We Stand?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes is now available. According to news reporting out of Pretoria, South Africa, by NewsRx editors, the research stated, "The association between metformin use and low vitamin B12 levels in type 2 diabetes mellitus patients is well-established. However, many aspects of the topic remain to be elucidated."

Our news journalists obtained a quote from the research from the University of Pretoria, "There is still controversy on the current diagnostic approaches to vitamin B12 deficiency. It is now believed that measuring the serum levels of the vitamin may not reflect its metabolic status. Moreover, there were conflicting results from studies attempting to quantify and explore metformin-associated vitamin B12 deficiency and its clinical impacts."

According to the news editors, the research concluded: "This article reviews the cellular functions of vitamin B12, the biomarkers utilized to define the vitamin deficiency and metformin-induced vitamin B12 deficiency with an emphasis on its prevalence and clinical impacts."


Our news journalists report that additional information may be obtained by contacting M.A. Ahmed, University of Pretoria, Fac Hlth Sci, Dept. of Pharmacol, Pretoria, South Africa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18433/J3PK7P. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pretoria, South Africa, Africa, Nutritional and Metabolic Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Risk and Prevention, Type 2 Diabetes, Biguanides, Metformin, University of Pretoria.

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Oncology - Melanoma

Studies from University of Queensland in the Area of Melanoma Described (Heritability of naevus patterns in an adult twin cohort from the Brisbane Twin Registry: a cross-sectional study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Melanoma is now available. According to news reporting originating in Brisbane, Australia, by NewsRx journalists, research stated, "Heritability of naevi counts is widely acknowledged as a potential surveillance parameter for prevention purposes. The contribution of heritability to the changes seen in naevus number and morphology over time and their corresponding dermoscopic characteristics is unknown, but is important to understand in order to account for adequate prevention measures."

Financial support for this research came from National Health and Medical Research Council.

The news reporters obtained a quote from the research from the University of Queensland, "To identify naevus characteristics that are strongly influenced by heritability. This cross-sectional study included 220 individuals [76 monozygotic (MZ), 144 dizygotic (DZ)], recruited from the Brisbane Twin Naevus Study. Participants received full body imaging and dermoscopy of naevi (>= 5 mm in diameter. Dermoscopic type, total naevus count (TNC), change in TNC with age, and naevus distribution, size, colour and profile were compared between MZ and DZ twins. Heritability of these traits was assessed via Falconer's estimate. Significant differences were found in comparing MZ and DZ twins for TNC, numbers of naevi 5?0-7?9 mm in diameter, counts of light-brown naevi, naevi on the back and sun-protected sites, and naevi with the 'nonspecific' dermoscopic pattern. This study strongly supports a heritable component to TNC, as well as changes in TNC, and the number of medium-sized naevi, light-brown naevi, specific sites and certain dermoscopic features in adults."

According to the news reporters, the research concluded: "These characteristics should be taken into account by naevus surveillance programmes and further studied to identify candidate gene associations for clinical and dermoscopic patterns in conjunction with melanoma risk stratification."


Our news correspondents report that additional information may be obtained by contacting S. Lee, Dermatology Research Centre, The University of Queensland, School of Medicine, Translational Research Institute, Brisbane, Australia. Additional authors for this research include D.L. Duffy, P. McClenahan, K.J. Lee, E. McEniery, B. Burke, K. Jagirdar, N.G. Martin, R.A. Sturm, H.P. Soyer and H. Schaider.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bjd.14291. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brisbane, Genetics, Melanoma, Oncology, Epidemiology, Risk and Prevention, Australia and New Zealand.

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Cholesterol

Studies from University of Regensburg Provide New Data on Cholesterol (High-fat diet prevents adaptive peripartum-associated adrenal gland plasticity and anxiolysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cholesterol. According to news reporting originating from Regensburg, Germany, by NewsRx correspondents, research stated, "Maternal obesity is associated with lower basal plasma cortisol levels and increased risk of postpartum psychiatric disorders. Given that both obesity and the peripartum period are characterized by an imbalance between adrenocorticotropic hormone (ACTH) and cortisol, we hypothesized that the adrenal glands undergo peripartum-associated plasticity and that such changes would be prevented by a high-fat diet (HFD)."

Our news editors obtained a quote from the research from the University of Regensburg, "Here, we demonstrate substantial peripartum adrenal gland plasticity in the pathways involved in cholesterol supply for steroidogenesis in female rats. In detail, the receptors involved in plasma lipid uptake, low density lipoprotein (LDL) receptor (LDLR) and scavenger receptor class B type 1 (SRB1), are elevated, intra-adrenal cholesterol stores are depleted, and a key enzyme in de novo cholesterol synthesis, hydroxymethylglutaryl coenzyme A reductase (HMGCR), is downregulated; particularly at mid-lactation. HFD prevented the lactation-associated anxiolysis, basal hypercorticism, and exaggerated the corticosterone response to ACTH. Moreover, we show that HFD prevented the downregulation of adrenal cholesterol stores and HMGCR expression, and LDLR upregulation at mid-lactation."

According to the news editors, the research concluded: "These findings show that the adrenal gland is an important regulator of peripartum-associated HPA axis plasticity and that HFD has maladaptive consequences for the mother, partly by preventing these neuroendocrine and also behavioural changes."

For more information on this research see: High-fat diet prevents adaptive peripartum-associated adrenal gland plasticity and anxiolysis. Scientific Reports, 2015;5 ():14821. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting C.V. Perani, Dept. of Behavioural and Molecular Neurobiology, University of Regensburg, Regensburg, Germany. Additional authors for this research include I.D. Neumann, S.O. Reber and D.A Slattery.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep14821. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Regensburg, Cholesterol.

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Eye Diseases and Conditions - Choroidal...

Studies from University of Regensburg Yield New Data on Choroidal Neovascularization (Epithelial-mesenchymal transition of the retinal pigment epithelium causes choriocapillaris atrophy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Eye Diseases and Conditions - Choroidal Neovascularization is now available. According to news reporting originating from Regensburg, Germany, by NewsRx correspondents, research stated, "Epithelial-to-mesenchymal transition (EMT) of the retinal pigment epithelium (RPE) is commonly observed at sites of choroidal neovascularization in patients suffering from age-related macular degeneration. To learn in an experimental model how RPE EMT affects the biology of the choroidal vasculature, we studied transgenic mice (beta B1-TGF-beta 1) with ocular overexpression of transforming growth factor-beta 1 (TGF-beta 1)."

Our news editors obtained a quote from the research from the University of Regensburg, "RPE EMT was detectable at postnatal day (P)1 and included marked structural and functional alterations such as loss of the outer blood-retina barrier and reduced mRNA expression of the RPE-characteristic molecules Rlbp1, Rpe65, Rbp1 and Vegfa. Moreover, vascular endothelial growth factor (VEGF) was not detectable by immunohistochemistry at the RPE/choroid interface, while RPE cells stained intensely for alpha-smooth muscle actin. The choriocapillaris, the characteristic choroidal capillary network adjacent to the RPE, developed normally and was not obviously changed in embryonic transgenic eyes but was absent at P1 indicating its atrophy. At around the same time, photoreceptors stopped to differentiate and photoreceptor apoptosis was abundant in the second week of life. Structural changes were also seen in the retinal vasculature of transgenic animals, which did not form intraretinal vessels, and the hyaloid vasculature, which did not regress. In addition, the amounts of retinal HIF-1 alpha and its mRNA were markedly reduced. We conclude that high amounts of active TGF-beta 1 in the mouse eye cause transdifferentiation of the RPE to a mesenchymal phenotype. The loss of epithelial differentiation leads to the diminished synthesis of RPE-characteristic molecules including that of VEGF. Lack of RPE-derived VEGF causes atrophy of the choriocapillaris, a scenario that disrupts photoreceptor differentiation and finally results in photoreceptor apoptosis. Lack of retinal vessel formation and of hyaloid vessel regression might be caused by the decrease in the metabolic requirements of the neuroretina leading to low amounts of retinal HIF-1 alpha. In summary, our data indicate that failure of RPE differentiation may well precede and cause atrophy of the choriocapillaris."

According to the news editors, the research concluded: "In contrast, RPE EMT is not sufficient to cause choroidal neovascularization."


The news editors report that additional information may be obtained by contacting E.R. Tamm, University of Regensburg, Inst Human Anat & Embryol, D-93053 Regensburg, Germany. Additional authors for this research include M. Scholz, M. Koch and E.R. Tamm.

Keywords for this news article include: Regensburg, Germany, Europe, Intercellular Signaling Peptides and Proteins, Vascular Endothelial Growth Factors, Receptor Protein-
Studies from University of Rennes in the Area of Holoprosencephaly Described (Mutational Spectrum in Holoprosencephaly Shows That FGF is a New Major Signaling Pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Holoprosencephaly. According to news reporting originating from Rennes, France, by NewsRx correspondents, research stated, "Holoprosencephaly (HPE) is the most common congenital cerebral malformation in humans, characterized by impaired forebrain cleavage and midline facial anomalies. It presents a high heterogeneity, both in clinics and genetics."

Our news editors obtained a quote from the research from the University of Rennes, "We have developed a novel targeted next-generation sequencing (NGS) assay and screened a cohort of 257 HPE patients. Mutations with high confidence in their deleterious effect were identified in approximately 24% of the cases and were held for diagnosis, whereas variants of uncertain significance were identified in 10% of cases. This study provides a new classification of genes that are involved in HPE. SHH, ZIC2, and SIX3 remain the top genes in term of frequency with GLI2, and are followed by FGF8 and FGFR1. The three minor HPE genes identified by our study are DLL1, DISP1, and SUFU. Here, we demonstrate that fibroblast growth factor signaling must now be considered a major pathway involved in HPE. Interestingly, several cases of double mutations were found and argue for a polygenic inheritance of HPE."

According to the news editors, the research concluded: "Altogether, it supports that the implementation of NGS in HPE diagnosis is required to improve genetic counseling."


Keywords for this news article include: Rennes, France, Europe, Central Nervous System Diseases and Conditions, Genetics, Intercellular Signaling Peptides and Proteins, Craniofacial Diseases and Conditions, Musculoskeletal Abnormalities, Nervous System Malformations, Craniofacial Abnormalities, Fibroblast Growth Factors, Congenital
Oncology - Cancer Risk

Studies from University of Rhode Island in the Area of Cancer Risk Described (Polycyclic Aromatic Hydrocarbon Contamination in Soils of San Mateo Ixtatan, Guatemala: Occurrence, Sources, and Health Risk Assessment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cancer Risk. According to news reporting out of Kingston, Rhode Island, by NewsRx editors, research stated, "Exposure to high concentrations of carcinogenic pollutants in soils and sediments can result in increased health risks. Determining the levels and sources of contamination in developing communities is important for helping to reduce pollution and mitigate the risk of exposure."

Our news journalists obtained a quote from the research from the University of Rhode Island, "In the Mayan community of San Mateo Ixtatan, Guatemala, 24 samples of topsoil from urban, peri-urban, and agricultural sites and six samples of river sediment were collected and analyzed for 17 polycyclic aromatic hydrocarbons (PAHs). The sum of the concentrations of these PAHs at the urban and periurban sites ranged from 460 to 3251 mg kg\(^{-1}\) (mean, 1401 mg kg\(^{-1}\)), whereas at agricultural sites the range was 350 to 2087 mg kg\(^{-1}\) (mean, 1038 mg kg\(^{-1}\)). Analysis to identify and apportion the source showed that the PAHs emitted from wood stoves contributed 71 and 76% of the total PAHs in urban and agricultural areas soils, respectively. The calculated incremental lifetime cancer risk due to the ingestion of soil, dermal contact, and dietary intake through corn consumption was greater than the acceptable level of 10\(^{-6}\) established by the USEPA. Our findings suggest that the residents of rural communities can be at increased cancer risk despite little or no industrial activity in the local area."

According to the news editors, the research concluded: "Alternate domestic fuel sources should be considered to reduce the health risk in local communities."

For more information on this research see: Polycyclic Aromatic Hydrocarbon Contamination in Soils of San Mateo Ixtatan, Guatemala: Occurrence, Sources, and Health Risk Assessment. *Journal of Environmental Quality*, 2016;45(5):1635-1643. *Journal of Environmental Quality* can be contacted at: Amer Soc Agronomy, 677 S Segoe Rd, Madison, WI 53711, USA.

Our news journalists report that additional information may be obtained by contacting V.K. Kasaraneni, University of Rhode Island, Dept. of Civil & Environm Engn, Kingston, RI 02881, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2134/jeq2015.11.0585. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kingston, Rhode Island, United States, North and Central America, Agriculture, Risk and Prevention, Agricultural, Cancer Risk, Oncology, University of Rhode Island.

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Autoimmune Diseases and Conditions - Multiple...

Studies from University of Rostock Have Provided New Information about Multiple Sclerosis (Disease-modifying therapies and infectious risks in multiple sclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Autoimmune Diseases and Conditions - Multiple Sclerosis have been presented. According to news reporting out of Rostock, Germany, by NewsRx editors, research stated, "Immunomodulatory and immunosuppressive treatments for multiple sclerosis (MS) are associated with an increased risk of infection, which makes treatment of this condition challenging in daily clinical practice. Use of the expanding range of available drugs to treat MS requires extensive knowledge of treatment-associated infections, risk-minimizing strategies and approaches to monitoring and treatment of such adverse events."

Our news journalists obtained a quote from the research from the University of Rostock, "An interdisciplinary approach to evaluate the infectious events associated with available MS treatments has become increasingly relevant. In addition, individual stratification of treatment-related infectious risks is necessary when choosing therapies for patients with MS, as well as during and after therapy. Determination of the individual risk of infection following serial administration of different immunotherapies is also crucial."

According to the news editors, the research concluded: "Here, we review the modes of action of the available MS drugs, and relate this information to the current knowledge of drug-specific infectious risks and risk-minimizing strategies."


Our news journalists report that additional information may be obtained by contacting A. Winkelmann, Dept. of Neurology, University of Rostock, Gehlsheimer Strasse 20, 18147 Rostock, Germany. Additional authors for this research include M. Loebermann, E.C. Reisinger, H.P. Hartung and U.K Zettl.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrneurol.2016.21. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Rostock, Germany, Neurology, Article Review, Neuroimmunology, Multiple Sclerosis, Risk and Prevention, CNS Demyelinating Autoimmune Disease, Demyelinating Diseases and Conditions, Immune System Diseases and Conditions, Autoimmune Diseases and Conditions of the Nervous System.

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Studies from University of Sao Paulo Have Provided New Data on Cell Endocrinology (Brain STAT5 signaling and behavioral control)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Life Science Research - Cell Endocrinology are presented in a new report. According to news reporting originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Several growth factors and cytokines recruit the signal transducer and activator of transcription 5 (STAT5) signaling pathway to control cell proliferation, differentiation and apoptosis. Nonetheless, the importance of this transcription factor for brain functions is still poorly understood."

Financial support for this research came from Sao Paulo Research Foundation.

Our news editors obtained a quote from the research from the University of Sao Paulo, "Because some STAT5-inducing hormones, such as prolactin and leptin, act in the brain to regulate the expression of motivated behaviors, this signaling pathway is likely involved in behavioral modulation. Therefore, the objective of the present review was to summarize and discuss the available data regarding the possible role of central STAT5 signaling in the regulation of brain functions, especially on behavioral control. We discussed studies that investigated the importance of STAT5 signaling in the regulation of maternal and feeding behaviors. Additionally, we highlighted other behaviors that could be potentially affected by STATS signaling."

According to the news editors, the research concluded: "This knowledge may help to understand how motivated behaviors are regulated at the cellular level."

For more information on this research see: Brain STAT5 signaling and behavioral control. Molecular and Cellular Endocrinology, 2016;438(C):70-76. Molecular and Cellular Endocrinology can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Molecular and Cellular Endocrinology - www.journals.elsevier.com/molecular-and-cellular-endocrinology/)

The news editors report that additional information may be obtained by contacting J. Donato, University of Sao Paulo, Inst Biomed Sci, Dept. of Physiol & Biophys, BR-05508000 Sao Paulo, SP, Brazil. Additional authors for this research include A.M. Ramos-Lobo, R. Frazao and J. Donato.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mce.2016.04.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, Cell Endocrinology, Life Science Research, Genetics, University of Sao Paulo.

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Studies from University of Sao Paulo Have Provided New Information about Nephrolithotomy (Percutaneous Nephrolithotomy in Immunocompromised Patients: Outcomes from a Matched Case-Control Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Surgery - Nephrolithotomy. According to news originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "To compare the outcomes of percutaneous nephrolithotomy (PCNL) in immunocompromised patients with those of PCNL in healthy population. A matched case-control study was performed from January 2009 through December 2014 using our prospectively collected kidney stone database."

Our news journalists obtained a quote from the research from the University of Sao Paulo, "Patients with positive serology to human immunodeficiency virus (HIV), hepatitis C (cellular immune dysfunction), and patients on high dose of immunosuppressive drugs for treatment of autoimmune diseases composed the case group. Control group included patients with kidney stones and no other comorbidity. Patients were randomly matched based on Guy's score as a surrogate of case complexity. Sixty-two patients were enrolled in this study, 21 cases and 42 controls. There were no significant differences in age, gender, and body mass index between groups. Regarding PCNL technique, there were no differences in patient positioning, number of accesses, and operative time. Complication rate was higher in the case group (38.1% vs 14.3%; p = 0.032); however, major complications, defined by Clavien score >= 3, were not statistically different (4.8% vs 2.4%; p = 0.611). There was a tendency of more postoperative urinary tract infection in the case group (19% vs 4.8%; p = 0.069). Mean decrease in hemoglobin level (3.3 vs 2.4 mg/dL; p = 0.037) and blood transfusion rate (23.8% vs 4.8%; p = 0.036) was significantly higher in the case group. Immunocompromised patients had a 2.8-fold increased risk of complications (odds ratio [OR] = 2.0, 95% confidence interval [CI] 1.01, 7.74) and a 5.8-fold increased risk of blood transfusion (OR = 5.8, 95% CI 1.29, 26.55). There were no differences in stone-free rate, nephrostomy tube time, and length of hospital stay."

According to the news editors, the research concluded: "Immunocompromised patients are at higher risk for complications such as bleeding after PCNL."


The news correspondents report that additional information may be obtained from F.C.M. Torricelli, University of Sao Paulo, Sch Med, Dept. of Surg, Div Urol, Sao Paulo, Brazil. Additional authors for this research include M. Monga, V. Dall'Aqua, G.S. Marchini, F.C. Vicentini, A. Danilovic, M. Srougi and E. Mazzucchelli.

Keywords for this news article include: Sao Paulo, Brazil, South America, Biological Therapy, Risk and Prevention, Nephrolithotomy, Surgery, University of Sao Paulo.

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Gram-Negative Bacteria - Escherichia coli

Studies from University of Sao Paulo Reveal New Findings on Escherichia coli (First Report of the Globally Disseminated IncX4 Plasmid Carrying the mcr-1 Gene in a Colistin-Resistant Escherichia coli Sequence Type 101 Isolate from a Human ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gram-Negative Bacteria - Escherichia coli. According to news reporting originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "A colistin-resistant Escherichia coli strain was recovered from a patient with a diabetic foot infection in Brazil."

Our news editors obtained a quote from the research from the University of Sao Paulo, "Whole-genome analysis revealed that the E. coli isolate belonged to the widespread sequence type (ST) 101 and harbored the mcr-1 gene on an IncX4 plasmid that was highly similar to mcr-1-bearing IncX4 plasmids that were recently identified in Enterobacteriaceae from food, animal, and human samples recovered on different continents."

According to the news editors, the research concluded: "These results suggest that self-transmissible IncX4-type plasmids may represent promiscuous plasmids contributing to the intercontinental spread of the mcr-1 gene."


The news editors report that additional information may be obtained by contacting M.R. Fernandes, University of Sao Paulo, Fac Pharmaceut Sci, Dept. of Clin Anal, Sao Paulo, Brazil. Additional authors for this research include J.A. McCulloch, M.A. Vianello, Q. Moura, P.J. Perez-Chaparro, F. Esposito, L. Sartori, M. Dropa, M.H. Matte, D.P.A. Lira, E.M. Mamizuka and N. Lincopan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01325-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, Pore Forming Cytotoxic Proteins, Membrane Proteins, Genetics, Gram-Negative Bacteria, Enterobacteriaceae, Escherichia coli, Proteobacteria, Polymyxins, Colistin, University of Sao Paulo.

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Oncology - Liver Cancer

Studies from University of Science and Technology Update Current Data on Liver Cancer (Artemin is hypoxia responsive and promotes oncogenicity and increased tumor initiating capacity in hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Liver Cancer are discussed in a new report. According to news originating from Hefei, People's Republic of China, by NewsRx correspondents, research stated, "Hypoxia has been reported to regulate the cancer stem cell (CSC) population yet the underlying mechanism is poorly characterized. Herein, we show that Artemin (ARTN), a member of the glial cell derived neurotrophic factor family of ligands, is a hypoxia-responsive factor and is essential for hypoxia-induced CSC expansion in hepatocellular carcinoma (HCC)."

Our news journalists obtained a quote from the research from the University of Science and Technology, "Clinically, elevated expression of ARTN in HCC was associated with larger tumor size, faster relapse and shorter survival. In vitro, HCC cells with forced expression of ARTN exhibited reduced apoptosis, increased proliferation, epithelial-mesenchymal transition (EMT) and enhanced motility. Additionally, ARTN dramatically increased xenograft tumor size and metastasis in vivo. Moreover, ARTN also enhanced tumorsphere formation and the tumor initiating capacity of HCC cells, consequent to expansion of the CD133+ CSC population. ARTN transcription was directly activated by hypoxia-induced factor-1a (HIF-1a) and hypoxia induced ARTN promoted EMT and increased the CSC population via AKT signaling."

According to the news editors, the research concluded: "We herein identify a novel HIF-1a/ARTN axis promoting CSC-like behavior in hypoxic environments which implicates ARTN as a valuable therapeutic target for HCC."

For more information on this research see: Artemin is hypoxia responsive and promotes oncogenicity and increased tumor initiating capacity in hepatocellular carcinoma. *Oncotarget*, 2016;7(3):3267-82.

The news correspondents report that additional information may be obtained from M. Zhang, The CAS Key Laboratory of Innate Immunity and Chronic Disease, School of Life Sciences and Medical Center, University of Science and Technology of China, Hefei, People's Republic of China. Additional authors for this research include W. Zhang, Z. Wu, S. Liu, L. Sun, Y. Zhong, X. Zhang, X. Kong, P. Qian, H. Zhang, P.E. Lobie and T. Zhu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6572. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Hefei, Genetics, Oncology, Carcinomas, Liver Cancer, People's Republic of China.

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Oncology - Colon Cancer

Studies from University of Shandong Reveal New Findings on Colon Cancer (Protein-protein interaction networks and modules analysis for colorectal cancer and serrated adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting from Jinan, People's Republic of China, by NewsRx journalists, research stated, "To screen key modules and explore the potential mechanism of conventional colorectal cancer (CRC) and colorectal serrated adenocarcinoma (SAC). The microarray data of GSE36758 and GSE8671 were downloaded from Gene Expression Omnibus database."

The news correspondents obtained a quote from the research from the University of Shandong, "The differentially expressed genes (DEGs) in SAC versus colon carcinoma (CC) and CC versus normal control (NC) group were analyzed and the protein-protein interaction (PPI) networks for DEGs were constructed. The modules of PPI networks were further analyzed and the function enrichment analysis of all enrolled DEGs was carried out based on ToppGene database. Total eight DEGs (SAC vs. CC) and 445 DEGs (CC vs. NC) were extracted based on the gene expression profile of GSE36758 and GSE8671, respectively. Total three PPI networks were constructed with DEGs in CC versus NC, SAC versus CC group, and DEGs in both two groups. Three modules were extracted from the PPI network of CC versus NC. Meanwhile, three modules were extracted from the network of DEGs in both two groups. Function enrichment analysis showed that DEGs involved in these modules were mainly associated with cellular activities. DEGs in modules of SAC and CRC were mainly involved in cellular activities pathways."

According to the news reporters, the research concluded: "The PPI networks and modules might contribute to the further study of pathogenesis for CRC and SAC based on the molecular level."


Our news journalists report that additional information may be obtained by contacting J. Wang, Dept. of Anorectal Surgery, The Second Hospital of Shandong University, Jinan, Shandong Province 250033, People's Republic of China. Additional authors for this research include L. Ye, J. Wang, L. Jin, Y. Lv and M. Yu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.140805. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Jinan, Genetics, Oncology, Proteomics, Colon Cancer, Adenocarcinoma, Gastroenterology, Colorectal Research, Protein Interaction, People's Republic of China.

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Studies from University of Shizuoka Add New Findings in the Area of Cancer Therapy (The use of surfactants to enhance the solubility and stability of the water-insoluble anticancer drug SN38 into liquid crystalline phase nanoparticles)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cancer Therapy have been published. According to news reporting from Shizuoka, Japan, by NewsRx journalists, research stated, "Cubosomes were used to increase the aqueous solubility of the water insoluble anticancer drug SN38. The results showed that the use of a common cubosome formulation consisting of phytantriol (PHYT) as the matrix amphiphile (PHYT-cubosome) led to a 6-fold increase in the solubility of SN38."

The news correspondents obtained a quote from the research from the University of Shizuoka, "However, mean hydrodynamic diameter (D-H) and polydispersity index (PDI) of these PHYT-cubosome particles were 345 +/- 49 nm and 0.37 +/- 0.05, respectively, making them unsuitable for intravenous applications. Several additives were investigated to increase the solubility of SN38 and reduce the DH and PDI values of the resulting particles. Charged additives such as didodecyldimethyl ammonium bromide (DDAB) and sodium dodecyl sulfate (SDS) led to improvements in the physicochemical properties of the cubosomes. Notably, the PHYT-DDAB and PHT-SDS cubosomes led to 15- and 14-fold increases in the aqueous solubility of SN38, respectively. Moreover, the SN38 loaded into the PHYT-DDAB and PHYT-SDS cubosomes was found to be highly stable, with very little hydrolysis to its inactive acid form."

According to the news reporters, the research concluded: "In summary, the addition of DDAB and SDS to PHYT-cubosome nanoparticle drug delivery systems not only led to considerable improvements in their physicochemical properties, but also enhanced the aqueous solubility of SN38 and increased its chemical stability."


Our news journalists report that additional information may be obtained by contacting S. Itai, University of Shizuoka, Sch Pharmaceut Sci, Dept. of Pharmaceut Engn, Suruga Ku, Shizuoka 4228526, Japan. Additional authors for this research include Y. Iwao, S. Noguchi, T. Oka and S. Itai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.058. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shizuoka, Japan, Asia, Emerging Technologies, Drugs and Therapies, Cancer Therapy, Nanotechnology, Eye Proteins, Nanoparticle, Crystallins, University of Shizuoka.

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Studies from University of Shizuoka Have Provided New Data on Pharmaceutical Research (Oral sustained-release suspension based on a lauryl sulfate salt/complex)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmaceutical Research. According to news reporting out of Shizuoka, Japan, by NewsRx editors, research stated, "The objective of this study was to evaluate the feasibility of lauryl sulfate (LS) salt/complex as a novel carrier in oral sustained-release suspensions. Mirabegron, which has a pH-dependent solubility, was selected as the model drug."

Our news journalists obtained a quote from the research from the University of Shizuoka, "Sodium lauryl sulfate (SLS) was bound to mirabegron in a stoichiometric manner to form an LS salt/complex. LS salt/complex formulation significantly reduced the solubility of mirabegron and helped mirabegron achieve sustained-release over a wide range of pH conditions. Microparticles containing the LS salt/complex were prepared by spray drying with the aqueous dispersion of ethylcellulose (Aquacoat ® ECD). The diameter of the microparticles was less than 200 μm, which will help avoid a gritty taste. In vitro results indicated the microparticles had slower dissolution profiles than the LS salt/complex. The dissolution rate could be controlled flexibly by changing the amount of Aquacoat ® ECD. The microparticle suspension retained the desired sustained-release property and dissolution profile after being stored for 30 days at 40 degrees C. In addition, the suspension displayed sustained-release behavior in dogs without a pronounced C-max peak, which will help prevent side effects."

According to the news editors, the research concluded: "These results suggest that microparticles containing LS salt/complex may be useful as a novel sustained-release suspension for oral delivery."


Our news journalists report that additional information may be obtained by contacting N. Namiki, University of Shizuoka, Sch Pharmaceut Sci, Dept. of Pharm Practice & Sci, Suruga Ku, Shizuoka 4228526, Japan. Additional authors for this research include S. Uchida, K. Yoshihara, T. Yasuji, K. Sako and N. Namiki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shizuoka, Japan, Asia, Pharmaceutical Research, Drugs and Therapies, University of Shizuoka.

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Studies from University of Southampton Provide New Data on Pharmacoepidemiology and Drug Safety (Comparability of the age and sex distribution of the UK Clinical Practice Research Datalink and the total Dutch population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Pharmacoepidemiology and Drug Safety have been presented. According to news reporting originating in Southampton, United Kingdom, by NewsRx journalists, research stated, "The UK Clinical Practice Research Datalink (CPRD) is increasingly being used by Dutch researchers in epidemiology and pharmacoepidemiology. It is however unclear if the UK CPRD is representative of the Dutch population and whether study results would apply to the Dutch population."

The news reporters obtained a quote from the research from the University of Southampton, "Therefore, as first step, our objective was to compare the age and sex distribution of the CPRD with the total Dutch population. As a measure of representativeness, the age and sex distribution of the UK CPRD were visually and numerically compared with Dutch census data from the StatLine database of the Dutch National Bureau of Statistics in 2011. The age distribution of men and women in the CPRD population was comparable to the Dutch male and female population. Differences of more than 10% only occurred in older age categories (75+ in men and 80+ in women). Results from observational studies that have used CPRD data are applicable to the Dutch population, and a useful resource for decision making in the Netherlands."

According to the news reporters, the research concluded: "Nevertheless, differences in drug exposure likelihood between countries should be kept in mind, as these could still cause variations in the actual population studied, thereby decreasing its generalizability."


Our news correspondents report that additional information may be obtained by contacting F. de Vries, University of Southampton, MRC Life Course Epidemiol Unit, Southampton, Hants, United Kingdom. Additional authors for this research include A.M. Gallagher, E. Herrett, A.A.M. Masclee, M.L.G. Janssen-Heijnen and F. de Vries.

Keywords for this news article include: Southampton, United Kingdom, Europe, Pharmacoepidemiology and Drug Safety, Drugs and Therapies, Epidemiology, University of Southampton.

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Cardiovascular Diseases

Studies from University of Southern Florida Yield New Data on Cardiovascular Diseases (Pregnancy as a window to future health: maternal placental syndromes and short-term cardiovascular outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases have been presented. According to news originating from Tampa, Florida, by NewsRx correspondents, research stated, "Cardiovascular disease is the leading cause of death among women. Identifying risk factors for future cardiovascular disease may lead to earlier lifestyle modifications and disease prevention."

Our news journalists obtained a quote from the research from the University of Southern Florida, "Additionally, interpregnancy development of cardiovascular disease can lead to increased perinatal morbidity in subsequent pregnancies. Identification and implementation of interventions in the short term (within 5 years of first pregnancy) may decrease morbidity in subsequent pregnancies. We identified the short-term risk (within 5 years of first pregnancy) of cardiovascular disease among women who experienced a maternal placental syndrome, as well as preterm birth and/or delivered a small-for-gestational-age infant. We conducted a retrospective cohort study using a population-based, clinically enhanced database of women in the state of Florida. Nulliparous women and girls aged 15-49 years experiencing their first delivery during the study time period with no prepregnancy history of diabetes mellitus, hypertension, or heart or renal disease were included in the study. The risk of subsequent cardiovascular disease was compared among women who did and did not experience a placental syndrome during their first pregnancy. Risk was then reassessed among women with placental syndrome and preterm birth or delivering a small-for-gestational-age infant vs those without these adverse pregnancy outcomes. The final study population was 302,686 women and girls. Median follow-up time for each patient was 4.9 years. The unadjusted rate of subsequent cardiovascular disease among women and girls with any placental syndrome (11.8 per 1000 women) was 39% higher than the rate among women and girls without a placental syndrome (8.5 per 1000 women). Even after adjusting for sociodemographic factors, preexisting conditions, and clinical and behavioral conditions associated with the current pregnancy, women and girls with any placental syndrome experienced a 19% increased risk of cardiovascular disease (hazard ratio, 1.19; 95% confidence interval, 1.07-1.32). Women and girls with > 1 placental syndrome had the highest cardiovascular disease risk (hazard ratio, 1.43; 95% confidence interval, 1.20-1.70), followed by those with eclampsia/preeclampsia alone (hazard ratio, 1.42; 95% confidence interval, 1.14-1.76). When placental syndrome was combined with preterm birth and/or small for gestational age, the adjusted risk of cardiovascular disease increased 45% (95% confidence interval, 1.24-1.71). Women and girls with placental syndrome who then developed cardiovascular disease experienced a 5-fold increase in health care-related costs during follow-up, compared to those who did not develop cardiovascular disease. Women and girls experiencing placental syndromes and preterm birth or small-for-gestational-age infant are at increased risk of subsequent cardiovascular disease in short-term follow-up."

According to the news editors, the research concluded: "Strategies to identify and improve cardiovascular disease risk in the postpartum period may improve future heart disease outcomes."

For more information on this research see: Pregnancy as a window to future health: maternal placental syndromes and short-term cardiovascular outcomes. American Journal of
Studies from University of Strathclyde Add New Findings in the Area of Heart Disease (Daily milk consumption and all-cause mortality, coronary heart disease and stroke: a systematic review and meta-analysis of observational cohort studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Disease have been published. According to news reporting out of Ecully, France, by NewsRx editors, research stated, "Observational studies and meta-analyses relating milk consumption by adults to all-cause mortality, coronary heart disease and stroke have obtained contradictory results. Some studies found a protective effect of milk consumption, whilst other found an increased risk."

Our news journalists obtained a quote from the research from the University of Strathclyde, "We performed a systematic literature search until June 2015 on prospective studies that looked at milk consumption, all-cause mortality, coronary heart disease and stroke. Random-effect meta-analyses were performed with dose-response. Twenty-one studies involving 19 cohorts were included in this meta-analysis, 11 on all-cause mortality, 9 on coronary heart disease, and 10 on stroke. Milk intake ranged from 0 to 850 mL/d. The summary relative risk (SRR) for 200 mL/d milk consumption was 1.01 (95% CI: 0.96-1.06) for all-cause mortality, 1.01 (95% CI: 0.98-1.05) for fatal and non-fatal coronary heart disease, and 0.91 (95% CI: 0.82-1.02) for fatal and non fatal stroke. Stratified analyses by age, Body Mass Index, total energy intake and physical activity did not alter the SRR estimates. The possibility of publication bias was found for all cause mortality and for stroke, indicating a gap in data that could have suggested a higher risk of these conditions with increased milk consumption. We found no evidence for a decreased or increased risk of all-cause mortality, coronary heart disease, and stroke associated with adult milk consumption."

According to the news editors, the research concluded: "However, the possibility cannot be dismissed that risks associated with milk consumption could be underestimated because of publication bias."

For more information on this research see: Daily milk consumption and all-cause mortality, coronary heart disease and stroke: a systematic review and meta-analysis of observational cohort studies. BMC Public Health, 2016;16():10-17. BMC Public Health can be

Our news journalists report that additional information may be obtained by contacting P. Autier, University of Strathclyde, Inst Global Public Hlth IPRI, Int Prevent Res Inst, Ecully, France. Additional authors for this research include C. Pizot and P. Autier.

Keywords for this news article include: Ecully, France, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Heart Disease, Cardiology, University of Strathclyde.

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Mouth Disease and Conditions - Cleft Lip and Palate

Studies from University of Sydney Have Provided New Information about Cleft Lip and Palate (Recurrence of Split Hand/Foot Malformation, Cleft Lip/Palate, and Severe Urogenital Abnormalities due to Germline Mosaicism for TP63 Mutation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mouth Disease and Conditions - Cleft Lip and Palate. According to news originating from Sydney, Australia, by NewsRx correspondents, research stated, "We describe two sibling fetuses with urogenital abnormalities detected by prenatal ultrasound, in which post-delivery examination showed split hand and foot malformation, and bilateral cleft lip and palate. These findings are consistent with ectrodactyly-ectodermal dysplasia-cleft lip with or without cleft palate syndrome (EEC)."

Our news journalists obtained a quote from the research from the University of Sydney, "Both fetuses were found to have the same missense mutation in TP63 (c.1051G > A; p.D351N). Parental clinical examinations and lymphocyte DNA analyses were normal. This report illustrates the potential severity of urogenital defects in TP63-related disorders, which may be detectable with fetal ultrasonography."

According to the news editors, the research concluded: "It highlights the need to counsel for the possibility of germline mosaicism in TP63-associated disorders."


The news correspondents report that additional information may be obtained from M. Wilson, University of Sydney, Discipline Genet Med, Sydney, NSW, Australia. Additional authors for this research include M. Krivanek, R. Flottmann, H. Peters and M. Wilson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37816. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Mouth Disease and Conditions, Genetics, Stomatognathic System Abnormalities, Mouth Diseases and Conditions, Lip Diseases and Conditions, Congenital Abnormalities, Cleft Lip and Palate, Mouth Abnormalities, University of Sydney.

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Oncology - Cancer Risk

Studies from University of Sydney Provide New Data on Cancer Risk (International survey of awareness of genetic risk in the clinical sarcoma community)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Cancer Risk. According to news reporting originating in Camperdown, Australia, by NewsRx journalists, research stated, "Integration of clinical genetics into oncology is variable. Sarcomas have a strong genetic component, with up to 1/30 patients carrying germline TP53 mutations."

The news reporters obtained a quote from the research from the University of Sydney, "This study aimed to define genetic risk awareness among sarcoma physicians. Outcomes were attitudes toward genetic testing, level of cancer risk and awareness of risk reduction measures. An online survey was administered to members of the Connective Tissue Oncology Society and the Australasian Sarcoma Study Group. Sarcoma physicians (N=124) from 21 countries participated, 40% of whom favored TP53 mutation testing in children regardless of family history, increasing to ≥83% for all age groups if a family history was present and ≥85% if multiple primary cancers were present. However, 33% were not aware that risk reduction strategies might identify some cancers at a more curable stage in carriers. Clinical genetics is not yet standard of care for multidisciplinary management of sarcoma. Awareness of genetic risk is important among sarcoma physicians. Attitudes among the sarcoma community were generally positive, but education on genetic risk in sarcoma patients and collaboration with clinical genetics services might improve quality of care."

According to the news reporters, the research concluded: "Sarcoma physicians need routine access to clinical genetics services so that potential germline TP53 mutation carriers are recognized."


Our news correspondents report that additional information may be obtained by contacting K.A. McBride, School of Public Health, Sydney Medical School, University of Sydney, Camperdown, New South Wales, Australia. Additional authors for this research include T.E. Schlub, M.L. Ballinger, D.M. Thomas and M.H Tattersall.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ajco.12457. This DOI is a link to an online electronic document that is either free or for purchase.
Studies from University of Sydney Yield New Information about Atherosclerosis (The Role of CC-Chemokines in the Regulation of Angiogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Atherosclerosis is now available. According to news reporting originating from Sydney, Australia, by NewsRx correspondents, research stated, "Angiogenesis, the formation of new blood vessels, is critical for survival and in the regenerative response to tissue injury or ischemia. However, in diseases such as cancer and atherosclerosis, inflammation can cause unregulated angiogenesis leading to excessive neovascularization, which exacerbates disease."

Our news editors obtained a quote from the research from the University of Sydney, "Current anti-angiogenic therapies cause complete inhibition of both inflammatory and ischemia driven angiogenesis causing a range of side effects in patients. Specific inhibition of inflammation-driven angiogenesis would therefore be immensely valuable. Increasing evidence suggests that the CC-chemokine class promotes inflammation-driven angiogenesis, whilst there is little evidence for a role in ischemia-mediated angiogenesis. The differential regulation of angiogenesis by CC-chemokines suggests it may provide an alternate strategy to treat angiogenesis associated pathological diseases. The focus of this review is to highlight the significant role of the CC-chemokine class in inflammation, versus ischemia driven angiogenesis, and to discuss the related pathologies including atherosclerosis, cancer, and rheumatoid arthritis. We examine the pros and cons of anti-angiogenic therapies currently in clinical trials."

According to the news editors, the research concluded: "We also reveal novel therapeutic strategies that cause broad-spectrum inhibition of the CC-chemokine class that may have future potential for the specific inhibition of inflammatory angiogenesis."

For more information on this research see: The Role of CC-Chemokines in the Regulation of Angiogenesis. *International Journal of Molecular Sciences*, 2016;17(11):1440-1455. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting A. Ridiandries, University of Sydney, Sydney Med Sch, Sydney, NSW 2050, Australia. Additional authors for this research include J.T.M. Tan and C.A. Bursill.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Intercellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, G-Protein-Coupled Receptors, Arterial Occlusive Diseases, Ischemia, Article Review, Inflammation Mediators, Chemokine Receptors, Chemotactic Factors, Biological Factors, Cytokine Receptors, Membrane Proteins, Arteriosclerosis, Atherosclerosis, Angiogenesis,
Studies from University of Tampere Have Provided New Information about HIV/AIDS (Estimates of CDC-Funded and National HIV Diagnoses: A Comparison by Demographic and HIV-related Factors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting originating from Tampere, Finland, by NewsRx correspondents, research stated, "To determine whether CDC-funded HIV testing programs are reaching persons disproportionately affected by HIV infection. The percentage distribution for HIV testing and diagnoses by demographics and transmission risk group (diagnoses only) were calculated using 2013 data from CDC's National HIV Surveillance System and CDC's national HIV testing program data."

Our news editors obtained a quote from the research from University of Tampere, "In 2013, nearly 3.2 million CDC-funded tests were provided to persons aged 13 years and older. Among persons who received a CDC-funded test, 41.1% were aged 20-29 years; 49.2% were male, 46.2% were black/African American, and 56.2% of the tests were conducted in the South. Compared with the characteristics of all persons diagnosed with HIV in the United States in 2013, among persons diagnosed as a result of CDC-funded tests, a higher percentage were aged 20-29 years (40.3 vs 33.7%) and black/African American (55.3 vs 46.0%)."

According to the news editors, the research concluded: "CDC-funded HIV testing programs are reaching young people and blacks/African Americans."

For more information on this research see: Estimates of CDC-Funded and National HIV Diagnoses: A Comparison by Demographic and HIV-related Factors. AIDS and Behavior, 2016;20(12):2961-2965. AIDS and Behavior can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; AIDS and Behavior - www.springerlink.com/content/1090-7165/)

The news editors report that additional information may be obtained by contacting A. Krueger, University of Tampere, Sch Hlth Sci, Tampere, Finland. Additional authors for this research include P. Dietz, M. Van Handel, L. Belcher and A.S. Johnson.

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Keywords for this news article include: Tampere, Finland, Europe, Immune System Diseases and Conditions, Diagnostics and Screening, Epidemiology, Viral Sexually Transmitted Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, University of Tampere.

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Studies from University of Tasmania Have Provided New Information about Antibiotics (Antimicrobial drug use in primary healthcare clinics: a retrospective evaluation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antibiotics have been published. According to news reporting originating in Hobart, Australia, by NewsRx journalists, research stated, "To examine the appropriateness of antibiotics prescribed for acute infection based on the Malaysian national antibiotic guidelines and the defined daily dose (DDD) system of the World Health Organization (WHO). This study also aimed to describe the factors influencing the drug use pattern and to investigate the procurement patterns of antibiotics in the primary healthcare setting."

The news reporters obtained a quote from the research from the University of Tasmania, "A retrospective cohort follow-up study of randomly selected patients from all patients who received any antibiotic between January and December 2013 was conducted at three primary healthcare clinics in Selangor State of Malaysia. For each patient, the following information was recorded: name of the antibiotic, frequency and dose, and Anatomical Therapeutic Chemical (ATC) group. The defined daily dose per 1000 inhabitants per day was calculated for each antibiotic. The national antibiotic guidelines were used to assess the appropriateness of each antibiotic prescription. A total of 735 patients were included in the study. The five most used antibiotics were amoxicillin (1.36 g, 35.2%), cloxacillin (0.68 g, 26.3%), erythromycin (0.32 g, 22.3%), bacampicillin (0.13 g, 7.2%), and cephalexin (0.11 g, 6.9%). Respiratory tract infections were the most commonly treated infections, and the doctors' preferred antibiotic for the treatment of these infections was amoxicillin. More than 18% of all amoxicillin prescriptions were deemed inappropriate according to the national antibiotic guidelines. In terms of procurement costs, USD 88,885 was spent in 2011, USD 219,402 in 2012, and USD 233,034 in 2013 at the three primary healthcare clinics, an average of USD 180,440 per year for the three clinics. This study reports the antibiotic usage at three primary healthcare clinics in Klang Province. The most prescribed antibiotic was amoxicillin in capsules (250 mg), which was mainly prescribed for respiratory infections. Although the national antibiotic guidelines state that amoxicillin is a preferred drug for acute bacterial rhinosinusitis, this drug is also being prescribed for other disease conditions, such as acute pharyngitis and acute tonsillitis."

According to the news reporters, the research concluded: "This result shows that current practice is not following the current antibiotic guidelines, which state that phenoxy penicillin should be the preferred drug."


Our news correspondents report that additional information may be obtained by contacting L.C. Ming, University of Tasmania, Unit Medicat Outcomes Res & Educ UMORE, Pharm, Hobart, Tas, Australia. Additional authors for this research include M.E. Akkawi, S.T.R. Zaidi, L.C. Ming and M.M. Manan.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijid.2016.09.013. This DOI is a link to an online electronic document that is either free or for purchase.

**Keywords for this news article include:** Hobart, Australia, Australia and New Zealand, Beta-Lactam Antibiotics, Antibacterial Agents, Drugs and Therapies, Amoxicillin Therapy, Sulfur Compounds, Aminopenicillins, Pharmaceuticals, Antimicrobials, Antiinfectives, Ampicillins, Penicillins, University of Tasmania.

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**Triterpenes**

**Studies from University of Technology Have Provided New Information about Triterpenes [Drug-eluting coating of ginsenoside Rg1 and Re incorporated poly (lactic-co-glycolic acid) on stainless steel 316L: Physicochemical and drug release analyses]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Triterpenes is the subject of a report. According to news reporting originating from Johor Baharu, Malaysia, by NewsRx correspondents, research stated, "Active ingredients of ginsenoside, Rg1 and Re, are able to inhibit the proliferation of vascular smooth muscle cells and promote the growth of vascular endothelial cells. These capabilities are of interest for developing a novel drug-eluting stent to potentially solve the current problem of late-stent thrombosis and poor endotheliazation."

Our news editors obtained a quote from the research from the University of Technology, "Therefore, this study was aimed to incorporate ginsenoside into degradable coating of poly(lactic-co-glycolic acid) (PLGA). Drug mixture composed of ginseng extract and 10% to 50% of PLGA (xPLGA/g) was coated on electropolished stainless steel 316L substrate by using a dip coating technique. The coating was characterized principally by using attenuated total reflectance-Fourier transform infrared spectroscopy, scanning electron microscopy and contact angle analysis, while the drug release profile of ginsenosides Rg1 and Re was determined by using mass spectrometry at a one month immersion period. Full and homogenous coating coverage with acceptable wettability was found on the 30PLGA/g specimen. All specimens underwent initial burst release dependent on their composition. The 30PLGA/g and 50PLGA/g specimens demonstrated a controlled drug release profile having a combination of diffusion-and swelling-controlled mechanisms of PLGA."

According to the news editors, the research concluded: "The study suggests that the 30PLGA/g coated specimen expresses an optimum composition which is seen as practicable for developing a controlled release drug-eluting stent."


The news editors report that additional information may be obtained by contacting S. Saidin, Univ Teknol Malaysia, Fac Biosci & Med Engn, Johor Baharu 81310, Malaysia.
Catheterization

Studies from University of Tennessee Have Provided New Data on Catheterization (Gaining a New Skill With the Risk of Losing One: The Effect of 195 Radial Catheterization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Catheterization is the subject of a report. According to news reporting originating in Knoxville, Tennessee, by NewsRx journalists, research stated, "The adoption of radial catheterization has been relatively slow in the United States. This study was conducted to assess the perceived comfort level of cardiology fellows with radial catheterizations and to predict the practice patterns in the United States in the near future."

The news reporters obtained a quote from the research from the University of Tennessee, "A 21-question survey on cardiology fellows' preferred cardiac catheterization access site was conducted between April and June 2015. Data on access preference and perceived competency were analyzed based on the fellow's level of training and type of training program (university vs community). A total of 101 responses were received from a total of 250 invitations; 85 (85%) of these respondents completed all questions. Data were collected from fellows of several programs nationwide. Of the 85 respondents with complete data, 22%, 29%, and 19% were first-, second-, and third-year interventional fellows respectively. Most respondents (82%) were from university-based programs, 46.3% of respondents considered that their programs provided a balance of both radial and femoral training. Irrespective of the training year, most fellows seemed to prefer radial over femoral access. Senior fellows appeared to be equally comfortable with a femoral access approach (P = 0.03). There was no difference by training site (university vs community programs) (P = 0.921). In 2015, US cardiology fellows appear to prefer radial over femoral access for cardiac catheterizations."

According to the news reporters, the research concluded: "Although it is good to see the shift toward better radial access skills, we need to stress the importance of the femoral skills that would be necessary to keep in the armamentarium of interventional cardiologists."


Our news correspondents report that additional information may be obtained by contacting O. Bolorunduro, University of Tennessee, Hlth Sci Center, Div Cardiol, Knoxville, TN 37996, United States. Additional authors for this research include T. Bob-Manuel, Y. Cheema, A. Raza and R. Khouzam.

Keywords for this news article include: Knoxville, Tennessee, United States, North and Central America, Cardiology, Article Review, Catheterization, University of Tennessee.
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Therapeutics

Studies from University of Tennessee in the Area of Therapeutics Described (Drug therapy problems and medication discrepancies during care transitions in super-utilizers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Therapeutics. According to news reporting from Memphis, Tennessee, by NewsRx journalists, research stated, "First, to investigate the prevalence and types of drug therapy problems and medication discrepancies among super-utilizers, and associated patient characteristics. Second, to examine the outcomes of pharmacist recommendations and estimated cost avoidance through care transitions support focused on medication management."

The news correspondents obtained a quote from the research from the University of Tennessee, "Retrospective analysis of the pharmacist-led interventions as part of the SafeMed Program. A large nonprofit health care system serving the major medically underserved areas in Memphis, Tennessee. Three hundred seventy-four super-utilizing SafeMed participants with multiple chronic conditions and polypharmacy. Comprehensive medication review, medication therapy management, enhanced discharge planning, home visits, telephone follow-up, postdischarge medication reconciliation, and care coordination with physicians. Types of drug therapy problems, outcomes of pharmacist recommendations, estimated cost avoided, medication discrepancies, and self-reported medication adherence. Prevalence of drug therapy problems and postdischarge medication discrepancies was 80.7% and 75.4%, respectively. The most frequently occurring drug therapy problems were enrollee not receiving needed medications (33.4%), underuse of medications (16.9%), and insufficient dose or duration (11.2%). Overall 50.8% of the pharmacist recommendations were accepted by physicians and patients, resulting in an estimated cost avoidance of $293.30 per drug therapy problem identified. Multivariate analysis indicated that participants with a higher number of comorbidities were more likely to have medication discrepancies (odds ratio 1.23 [95% CI 1.05-1.44]). Additional contributors to postdischarge medication discrepancies were difficulty picking up and paying for medications and not being given necessary prescriptions before discharge. Drug therapy problems and medication discrepancies are common in super-utilizers with multiple chronic conditions and polypharmacy during transitions of care, and greater levels of comorbidity magnify risk. Pharmacist-led interventions in the SafeMed Program have demonstrated success in resolving enrollees' medication-related issues, resulting in substantial estimated cost savings."

According to the news reporters, the research concluded: "Preliminary evidence suggests that the SafeMed model's focus on medication management has great potential to improve outcomes while reducing costs for vulnerable super-utilizing populations nationwide."


Our news journalists report that additional information may be obtained by
contacting J.E. Bailey, University of Tennessee, Center Hlth Sci, Dept. of Prevent Med, Memphis, TN 38163, United States. Additional authors for this research include K.D. Munshi, P.C. Bell and J.E. Bailey.

Keywords for this news article include: Memphis, Tennessee, United States, North and Central America, Therapeutics, Drugs and Therapies, Polypharmacy, Therapy, University of Tennessee.

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Pregnancy Complications - Ectopic Pregnancy

Studies from University of Texas Describe New Findings in Ectopic Pregnancy (Conservative Management of Cervical Ectopic Pregnancy with Uterine Artery Embolization and Development of Uterine Artery Pseudoaneurysm A Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Pregnancy Complications - Ectopic Pregnancy is the subject of a report. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "Cervical ectopic pregnancy is rare. Early diagnosis is now often possible, enabling conservative treatment."

The news reporters obtained a quote from the research from the University of Texas, "A rare sequela is development of uterine artery pseudoaneurysm CASE: A 41-year-old woman presented with a cervical ectopic pregnancy at 9 weeks' gestation. She desired future fertility, and conservative measures were used: intramuscular methotrexate, uterine artery embolization, and intrathoracic KCl injection. She subsequently represented and was diagnosed with a uterine artery pseudoaneurysm. This was conservatively managed with cervical tamponade and bilateral uterine artery and right ovarian artery embolization. Ultimately our patient decided against future fertility and underwent an uncomplicated bilateral tubal ligation. Uterine artery pseudoaneurysm is a rare finding. In our patient we believe it was due to her cervical pregnancy."

According to the news reporters, the research concluded: "Embolization and cervical tamponade allowed for conservative management."


Our news correspondents report that additional information may be obtained by contacting P.D. Berens, Univ Texas Houston, Sch Med, Houston, TX, United States. Additional authors for this research include A. Cohen, M. Bebbington and P.D. Berens.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Gynecologic Surgical Procedures, Uterine Artery Embolization, Therapeutic Embolization, Pregnancy Complications, Gynecologic Surgery, Ectopic Pregnancy, Women's Health, Gynecology, Angiology, University of Texas.

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Drugs and Therapies - Behavioural Pharmacology

Studies from University of Texas Health Science Center Describe New Findings in Behavioural Pharmacology (Effect of daily morphine administration and its discontinuation on delay discounting of food in rhesus monkeys)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Behavioural Pharmacology are discussed in a new report. According to news reporting out of San Antonio, Texas, by NewsRx editors, research stated, "Opioid abusers discount delayed reinforcers more rapidly than nonusers; however, it is unclear whether chronic drug administration or its discontinuation impacts discounting. This study examined the impact of daily morphine administration and its discontinuation on delay discounting of food in rhesus monkeys."

Our news journalists obtained a quote from the research from the University of Texas Health Science Center, "Responding on one lever delivered one food pellet immediately; responding on another lever delivered two food pellets either immediately or after a delay (30-120 s) that increased within the session. Monkeys (n=3) responded for the large reinforcer when both reinforcers were delivered immediately and more for the smaller, immediately available reinforcer as the delay to delivery of the large reinforcer increased. When administered acutely, morphine (0.032-5.6 mg/kg) increased trial omissions and had variable effects on choice, with small doses decreasing and large doses increasing choice of the large delayed reinforcer. Chronic morphine administration (0.1 mg/kg/day to 3.2 mg/kg twice daily) reduced choice of the large delayed reinforcer in two monkeys, while increasing choice in a third monkey. Despite the development of tolerance to some effects (i.e. rightward shifts in dose-effect curves for the number of trials omitted) and evidence of mild opioid dependence (e.g. decrease in the number of trials completed, as well as body weight), discontinuation of treatment did not appear to systematically impact discounting."

According to the news editors, the research concluded: "Overall, these results suggest that repeated opioid administration causes persistent effects on choice under a delay discounting procedure; however, differences in the direction of effect among individuals suggest that factors other than, or in addition to, changes in discounting might play a role."

For more information on this research see: "Effect of daily morphine administration and its discontinuation on delay discounting of food in rhesus monkeys. Behavioural Pharmacology, 2016;27(2-3 Spec I):155-64. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx"

Our news journalists report that additional information may be obtained by contacting D.R. Maguire, Departments of aPharmacology bPsychiatry, University of Texas Health Science Center at San Antonio, San Antonio, Texas, United States. Additional authors for this research include L.R. Gerak and C.P France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000194. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Texas, San Antonio, United States, Drugs
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**Drugs and Therapies - Smoking Cessation Agents**

**Studies from University of Texas Health Science Center Further Understanding of Smoking Cessation Agents (Differential antagonism and tolerance/cross-tolerance among nicotinic acetylcholine receptor agonists: scheduled-controlled responding and ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Smoking Cessation Agents is the subject of a report. According to news reporting from San Antonio, Texas, by NewsRx journalists, research stated, "The tobacco-dependence pharmacotherapies varenicline and cytisine act as partial a4b2 nAChR agonists. However, the extent to which a4b2 nicotinic acetylcholine receptors (nAChRs) mediate their in-vivo effects remains unclear."

The news correspondents obtained a quote from the research from the University of Texas Health Science Center, "Nicotine, varenicline, cytisine, and epibatidine were studied in male C57BL/6J mice for their effects on rates of fixed ratio responding and rectal temperature alone and in combination with the nonselective nAChR antagonist mecamylamine and the a4b2 nAChR antagonist dihydro-b-erythroidine. The effects of nicotine, varenicline, cytisine, epibatidine, and cocaine were assessed before and during chronic nicotine treatment. The rate-decreasing and hypothermic effects of nicotine, varenicline, cytisine, and epibatidine were antagonized by mecamylamine (1 mg/kg), but only the effects of nicotine and epibatidine were antagonized by dihydro-b-erythroidine (3.2 mg/kg). Chronic nicotine produced 4.7 and 5.1-fold rightward shifts in the nicotine dose-effect functions to decrease response rate and rectal temperature, respectively. Nicotine treatment decreased the potency of epibatidine to decrease response rate and rectal temperature 2.2 and 2.9-fold, respectively, and shifted the varenicline dose-effect functions 2.0 and 1.7-fold rightward, respectively. Cross-tolerance did not develop from nicotine to cytisine."

According to the news reporters, the research concluded: "These results suggest that the in-vivo pharmacology of tobacco cessation aids cannot be attributed to a single nAChR subtype; instead, multiple receptor subtypes differentially mediate their effects."

For more information on this research see: Differential antagonism and tolerance/cross-tolerance among nicotinic acetylcholine receptor agonists: scheduled-controlled responding and hypothermia in C57BL/6J mice. *Behavioural Pharmacology*, 2016;27(2-3 Spec I):240-8. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting F.B. de Moura, Dept. of Pharmacology, The University of Texas Health Science Center at San Antonio, San Antonio, Texas, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000233. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Texas, San Antonio, Varenicline, United States, Acetylcholine, Biogenic Amines, Drugs and Therapies, Smoking Cessation Agents,
North and Central America.

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Clinical Research - Clinical Trials and Studies

Studies from University of Texas Southwestern Describe New Findings in Clinical Trials and Studies (Glutathione Depletion, Pentose Phosphate Pathway Activation, and Hemolysis in Erythrocytes Protecting Cancer Cells from Vitamin C-induced ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news reporting originating from Dallas, Texas, by NewsRx correspondents, research stated, "The discovery that oxidized vitamin C, dehydroascorbate (DHA), can induce oxidative stress and cell death in cancer cells has rekindled interest in the use of high dose vitamin C (VC) as a cancer therapy. However, high dose VC has shown limited efficacy in clinical trials, possibly due to the decreased bioavailability of oral VC."

Funders for this research include Burroughs Wellcome Fund, National Institutes of Health.

Our news editors obtained a quote from the research from the University of Texas Southwestern, "Because human erythrocytes express high levels of Glut1, take up DHA, and reduce it to VC, we tested how erythrocytes might impact high dose VC therapies. Cancer cells are protected from VC-mediated cell death when co-cultured with physiologically relevant numbers of erythrocytes. Pharmacological doses of VC induce oxidative stress, GSH depletion, and increased glucose flux through the oxidative pentose phosphate pathway (PPP) in erythrocytes. Incubation of erythrocytes with VC induced hemolysis, which was exacerbated in erythrocytes from glucose-6-phosphate dehydrogenase (G6PD) patients and rescued by antioxidants. Thus, erythrocytes protect cancer cells from VC-induced oxidative stress and undergo hemolysis in vitro, despite activation of the PPP."

According to the news editors, the research concluded: "These results have implications on the use of high dose VC in ongoing clinical trials and highlight the importance of the PPP in the response to oxidative stress."


The news editors report that additional information may be obtained by contacting R.C. Wang, Univ Texas Southwestern Med Center Dallas, Dept. of Dermatol, Dallas, TX 75390, United States. Additional authors for this research include E.E. Lee, J. Sudderth, Y.B. Yue, A. Zia, D. Glass, R.J. Deberardinis and R.C. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.C116.748848. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Clinical Trials and Studies, Clinical Research, Phosphoric Acids, Erythroid Cells, Oligopeptides, Cell Research, Erythrocytes, Glutathione, Blood Cells, Phosphates, Immunology, Vitamin C, Hemolysis, Oncology, Peptides, Anions, Cancer, University of Texas Southwestern.

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Drugs and Therapies - Clopidogrel Therapy

Studies from University of Texas Southwestern Have Provided New Data on Clopidogrel Therapy [Oral P2Y(12) Receptor Inhibitors in Hemodialysis Patients Undergoing Percutaneous Coronary Interventions: Current Knowledge and Future Directions]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Clopidogrel Therapy have been published. According to news originating from Dallas, Texas, by NewsRx correspondents, research stated, "Oral P2Y(12) receptor inhibitors are commonly used drugs in patients on hemodialysis (HD) to treat acute coronary syndrome with or without percutaneous coronary intervention (PCI), and patients with stable coronary artery disease after PCI."

Our news journalists obtained a quote from the research from the University of Texas Southwestern, "Clopidogrel is the most commonly prescribed P2Y(12) receptor inhibitor because it is effective in the general population and is not as costly as newer FDA-approved agents (prasugrel, ticagrelor). However, increasing evidence is accumulating that clopidogrel may not be as effective in reducing mortality and preventing future ischemic events in patients with kidney disease."

According to the news editors, the research concluded: "In this review, we will explore some of the studies that form the basis for this statement and discuss potential pharmacokinetic and pharmacodynamic reasons why clopidogrel might be less effective in HD patients, as well as explore potential risks and benefits of alternatives to clopidogrel therapy."


The news correspondents report that additional information may be obtained from R.F. Reilly, Univ Texas Southwestern Med Center, Dept. of Med, Div Nephrol, Dallas, TX, United States.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Platelet Aggregation Inhibitors, Hemodialysis, Article Review, Coagulation Modifiers, Drugs and Therapies, Antiplatelet Agents, Clopidogrel Therapy, Fibrinolytic Agents, Renal Dialysis, University of Texas Southwestern.

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Palliative and Supportive Care

Studies from University of Texas Update Current Data on Palliative and Supportive Care (Referral criteria for outpatient specialty palliative cancer care: an international consensus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Palliative and Supportive Care have been published. According to news reporting out of Houston, Texas, by NewsRx editors, research stated, "Although outpatient specialty palliative-care clinics improve outcomes, there is no consensus on who should be referred or the optimal timing for referral. In response to this issue, we did a Delphi study to develop consensus on a list of criteria for referral of patients with advanced cancer at secondary or tertiary care hospitals to outpatient palliative care. 60 international experts (26 from North America, 19 from Asia and Australia, and 11 from Europe) on palliative cancer care rated 39 needs-based criteria and 22 time-based criteria in three iterative rounds.

Our news journalists obtained a quote from the research from the University of Texas, "Nearly all experts responded in each round. Consensus was defined by an a-priori agreement of 70% or more. Panellists reached consensus on 11 major criteria for referral: severe physical symptoms, severe emotional symptoms, request for hastened death, spiritual or existential crisis, assistance with decision making or care planning, patient request for referral, delirium, spinal cord compression, brain or leptomeningeal metastases, within 3 months of advanced cancer diagnosis for patients with median survival of 1 year or less, and progressive disease despite second-line therapy. Consensus was also reached on 36 minor criteria for specialist palliative-care referral."

According to the news editors, the research concluded: "These criteria, if validated, could provide guidance for identification of patients suitable for outpatient specialty palliative care."


Our news journalists report that additional information may be obtained by contacting D. Hui, Univ Texas MD Anderson Canc Center, Dept. of Palliat Care Rehabil & Integrat Med, Houston, TX 77030, United States. Additional authors for this research include M. Mori, S.M. Watanabe, A. Caraceni, F. Strasser, T. Saarto, N. Cherny, P. Glare, S. Kaasa and E. Bruera.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045%2816%2930577-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Palliative and Supportive Care, Article Review, Palliative Care, Patient Care, Oncology, Cancer, University of Texas.

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Hematologic Diseases and Conditions - Polycythemia

Studies from University of Texas Update Current Data on Polycythemia (Drug Development Pipeline for Myeloproliferative Neoplasms: Potential Future Impact on Guidelines and Management)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hematologic Diseases and Conditions - Polycythemia. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "The unprecedented success of ruxolitinib in myelofibrosis (MF) has paved the way for the development of other Janus kinase (JAK) inhibitors and other agents representing diverse drug classes and mechanisms of action in myeloproliferative neoplasms (MPNs). In particular, the symptomatic benefits afforded by ruxolitinib have led to the recognition of 'clinical improvement' in symptoms and the spleen in international consensus response criteria for MF."

The news correspondents obtained a quote from the research from the University of Texas, "Ruxolitinib is also approved for the second-line treatment of polycythemia vera and is being developed for essential thrombocythemia. Appreciation of the universal role of activated JAK/signal transducer and activator of transcription (STAT) signaling in MPNs and improved understanding of the canonical and noncanonical actions of JAK2 have yielded a number of drug targets beyond JAK2 in MPNs, which form the basis for a number of ruxolitinib-based rational combinations that are being explored in MF. Other JAK inhibitors with the potential for significantly less myelosuppression or even improvement of anemia continue to be tested. Finally, agents with very distinct mechanisms of action, such as novel interferon formulations, antifibrotic agents, and telomerase inhibitors, are being pursued in polycythemia vera and MF, respectively."

According to the news reporters, the research concluded: "This article reviews the current landscape of clinical drug development in MPNs, focusing on the most promising agents and combinations."


Our news journalists report that additional information may be obtained by contacting P. Bose, Univ Texas MD Anderson Canc Center, Houston, TX 77030, United States.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Drugs and Therapies, Article Review, Hematologic Diseases and Conditions, Drug Development, Polycythemia, Neoplasms, Genetics, University of Texas.

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Oncology - Bone Cancer

Studies from University of Tokyo Yield New Data on Bone Cancer (Dual Therapeutic Action of a Neutralizing Anti-FGF2 Aptamer in Bone Disease and Bone Cancer Pain)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Bone Cancer have been published. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Fibroblast growth factor 2 (FGF2) plays a crucial role in bone remodeling and disease progression. However, the potential of FGF2 antagonists for treatment of patients with bone diseases has not yet been explored."

Our news journalists obtained a quote from the research from the University of Tokyo, "Therefore, we generated a novel RNA aptamer, APT-F2, specific for human FGF2 and characterized its properties in vitro and in vivo. APT-F2 blocked binding of FGF2 to each of its four cellular receptors, inhibited FGF2-induced downstream signaling and cells proliferation, and restored osteoblast differentiation blocked by FGF2. APT-F2P, a PEGylated form of APT-F2, effectively blocked the bone disruption in mouse and rat models of arthritis and osteoporosis. Treatment with APT-F2P also exerted a strong analgesic effect, equivalent to morphine, in a mouse model of bone cancer pain."

According to the news editors, the research concluded: "These findings demonstrated dual therapeutic action of APT-F2P in bone diseases and pain, providing a promising approach to the treatment of bone diseases."

For more information on this research see: Dual Therapeutic Action of a Neutralizing Anti-FGF2 Aptamer in Bone Disease and Bone Cancer Pain. Molecular Therapy, 2016;24(11):1974-1986. Molecular Therapy can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news journalists report that additional information may be obtained by contacting Y. Nakamura, University of Tokyo, Inst Med Sci, Tokyo, Japan. Additional authors for this research include Y. Nonaka, S. Miyakawa, M. Fujiwara and Y. Nakamura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2016.158. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Bone Research, Therapeutics, Bone Cancer, Oncology, Genetics, Therapy, University of Tokyo.

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Surgery - General Surgery

Studies from University of Tokyo in the Area of General Surgery Described (Anatomy of the middle rectal artery: a review of the historical literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Surgery - General Surgery have been published. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "The middle rectal artery is a crucial blood vessel in the abdomen, providing an important source of blood supply to the rectum. In this study, we conducted a detailed review of the historical literature on the anatomy of the middle rectal artery, aiming to provide a comprehensive understanding of this anatomical feature."

According to the news editors, the research concluded: "This study offers valuable insights into the anatomy of the middle rectal artery, with implications for various surgical procedures in the region."


Our news journalists report that additional information may be obtained by contacting a contact person at the University of Tokyo, Department of Surgery, Tokyo, Japan. Additional authors for this research include S. Nonaka, M. Miyakawa, Y. Fujiwara and Y. Nakamura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1001/jamasurg.2016.0626. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Surgery, General Surgery, Anatomy, Research, Therapy, University of Tokyo.

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Wellness Week -- Research findings on Surgery - General Surgery are discussed in a new report. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "The middle rectal artery is a very important anatomical structure in rectal cancer surgery. It is the only vessel that penetrates through the proper rectal fascia into the pelvic cavity, and therefore threatens the integrity of total mesorectal excision."

Our news journalists obtained a quote from the research from the University of Tokyo, "Moreover, it is very closely related to the lateral lymphatic drainage root. The definition of the middle rectal artery is ambiguous, and different frequencies, origins, and trajectories have been reported in various papers. The frequency of the middle rectal artery is reported to range from 12 to 97%. Traditionally, the middle rectal artery is described as an artery that penetrates the pelvic plexus from the lateral side along with the lateral ligament; the frequency of this lateral type of middle rectal artery ranges from 20 to 30%. However, the reports that describe higher frequency values also consider another type of middle rectal artery, which penetrates the neuro-vascular bundle from the antero-lateral direction; this antero-lateral type of middle rectal artery tends to be a small vessel, and frequently forms a common trunk with the prostatic artery."

According to the news editors, the research concluded: "With advancements in endoscopic surgery, the knowledge of the precise anatomy of this structure is becoming more crucial for optimal rectal cancer surgery."


Our news journalists report that additional information may be obtained by contacting T. Kiyomatsu, University of Tokyo, Dept. of Surg Oncol, Bunkyo Ku, Tokyo 1138655, Japan. Additional authors for this research include S. Ishihara, K. Murono, K. Otani, K. Yasuda, T. Nishikawa, T. Tanaka, K. Hata, K. Kawai, H. Nozawa, H. Yamaguchi and T. Watanabe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00595-016-1359-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, General Surgery, Surgery, Article Review, University of Tokyo.

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Pancreatic Cysts

Studies from University of Tokyo in the Area of Pancreatic Cysts Reported (Pancreatic cysts in general population on ultrasonography: Prevalence and development of risk score)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Pancreatic Cysts. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Pancreatic cysts are related to the presence of ductal adenocarcinomas elsewhere in the pancreas, and are also associated with an increased risk of pancreatic adenocarcinoma in the future. Most of the previous studies
that investigated the prevalence of pancreatic cysts focused on patients within a hospital or outpatient setting, which may not be representative of the general population."

Our news journalists obtained a quote from the research from the University of Tokyo, "We investigated the prevalence and predictive factors for the presence of pancreatic cysts within a large number of subjects via general health examination. Between December 2007 and December 2013, a total of 5198 subjects were enrolled that underwent ultrasonography (US) on general health examination. We established a scoring system for predicting the presence of one or more pancreatic cysts using a split-sample method. Among the enrolled subjects, the prevalence of a pancreatic cyst was 3.5 %. In multivariate analysis, the prevalence was significantly increased with older age, female sex, and the presence of gall bladder adenomyomatosis (GB-ADM). Based on multivariate analysis in the training sample (n = 2,599), we established the scoring system consisting of age, sex, and the presence of GB-ADM to predict the presence of pancreatic cysts. This scoring system was validated in the testing sample (n = 2,599) and produced an area under the curve of 0.711. The prevalence of pancreatic cyst detected by US was 3.5 % in the general population, and increased with age, female sex, and the presence of GB-ADM."

According to the news editors, the research concluded: "A new scoring system developed in the present study may help to identify better candidates for further examination when the pancreas is not visible by US."

For more information on this research see: Pancreatic cysts in general population on ultrasonography: Prevalence and development of risk score. Journal of Gastroenterology, 2016;51(12):1133-1140. Journal of Gastroenterology can be contacted at: Springer Japan Kk, Chiyoda First Bldg East, 3-8-1 Nishi-Kanda, Chiyoda-Ku, Tokyo, 101-0065, Japan. (Springer - www.springer.com; Journal of Gastroenterology - www.springerlink.com/content/0944-1174/)

Our news journalists report that additional information may be obtained by contacting M. Sato, University of Tokyo, Grad Sch Med, Dept. of Gastroenterol, Tokyo, Japan. Additional authors for this research include M. Sato, H. Hikita, S. Hagiwara, M. Sato, H. Gotoh, S. Kato, T. Iwai, T. Yamazaki, Y. Yatomi, T. Sasano and H. Ikeda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00535-016-1196-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Pancreas Research, Gastroenterology, Pancreatic Cysts, University of Tokyo.

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Biotechnology - Molecular Pharmaceutics

Studies from University of Torino in the Area of Molecular Pharmaceutics Described (A Fast Chromatographic Method for Estimating Lipophilicity and Ionization in Nonpolar Membrane-Like Environment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Biotechnology - Molecular Pharmaceutics. According to news reporting originating from Torino, Italy, by NewsRx correspondents,
research stated, "This study describes the design and implementation of a new chromatographic descriptor called log k’80 PLRP-S that provides information about the lipophilicity of drug molecules in the nonpolar environment, both in their neutral and ionized form. The log k’80 PLRP-S obtained on a polymeric column with acetonitrile/water mobile phase is shown to closely relate to log Ptoluene (toluene dielectric constant e ∼ 2)."

Our news editors obtained a quote from the research from the University of Torino, "The main intermolecular interactions governing log k’80 PLRP-S were deconvoluted using the Block Relevance (BR) analysis. The information provided by this descriptor was compared to ElogD and calclog Ptol, and the differences are highlighted. The 'charge-flush' concept is introduced to describe the sensitivity of log k’80 PLRP-S to the ionization state of compounds in the pH range 2 to 12."

According to the news editors, the research concluded: "The ability of log k’80 PLRP-S to indicate the propensity of neutral molecules and monoanions to form Intramolecular Hydrogen Bonds (IMHBs) is proven through a number of examples."


The news editors report that additional information may be obtained by contacting G. Caron, Molecular Biotechnology and Health Sciences Department, Universita degli Studi di Torino, via Quarello 15, 10135 Torino, Italy. Additional authors for this research include M. Vallaro, G. Ermondi, G.H. Goetz, Y.A. Abramov, L. Philippe and M. Shalaeva.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00910. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Italy, Torino, Europe, Molecular Pharmaceutics.

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Immunology - Immunoproteins

Studies from University of Toronto Add New Findings in the Area of Immunoproteins (Use of intravenous immunoglobulin in neonates at a tertiary academic hospital: a retrospective 11-year study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Immunoproteins have been published. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "Intravenous immunoglobulin (IVIG) is used to treat a variety of diseases in the neonatal intensive care unit (NICU). Although audits have reported on the spectrum of IVIG use in adults, the indications and utilization in neonates has not been investigated."

Our news journalists obtained a quote from the research from the University of Toronto, "The objectives of this study were to describe the usage pattern of and indications for IVIG in a tertiary care NICU. A retrospective chart review was performed of all neonates who received IVIG in the NICU from January 2003 to December 2013. Data collected included patient demographic features, antenatal maternal details, neonatal laboratory results, treatment..."
details, adverse events, and patient outcome. Thirty-seven neonates received IVIG over the 11-year period. Twenty-three (67%) were treated for hemolytic disease of the newborn (HDN); 13 treatments were ABO related, six were anti-D related, and four were for clinically significant antibodies. Fourteen (33%) were treated for non-HDN causes, including eight for septic neonates, two for neonates with necrotizing enterocolitis, two for neonates with a clinically significant antibody but without evidence of hemolysis, and two for neonates with glucose 6-phosphate dehydrogenase deficiency. A complete hemolytic workup was not performed consistently before the receipt of IVIG. This novel assessment of IVIG use in the NICU revealed the spectrum of disease for which IVIG is ordered. This study also found that key diagnostic tests needed to confirm an immune etiology for idiopathic jaundice are not performed routinely before IVIG receipt."

According to the news editors, the research concluded: "Neonatal transfusion-related databases are needed to carry out pragmatic clinical trials to establish better evidence-based guidelines for IVIG therapy in the NICU."


The news correspondents report that additional information may be obtained from L. Lieberman, University of Toronto, Dept. of Lab Med & Pathobiol, Toronto, ON, Canada. Additional authors for this research include J. Spradbrow, A. Keir, M. Dunn, Y.L. Lin and J. Callum.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Intravenous Immunoglobulins, Hemolytic, Epidemiology, Immunoglobulin G, Serum Globulins, Immunoproteins, Blood Proteins, Hematology, Immunology, Antibodies, Therapy, University of Toronto.

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Studies from University of Toronto Add New Findings in the Area of Nephrectomy (Morbidity and Mortality of Radical Nephrectomy for Patients With Disseminated Cancer: An Analysis of the National Surgical Quality Improvement Program Database)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Surgery - Nephrectomy. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "To determine the effect of disseminated cancer on perioperative outcomes following radical nephrectomy. We conducted a retrospective cohort study of patients undergoing radical nephrectomy for kidney cancer from 2005 to 2014 using the American College of Surgeons National Surgical Quality Improvement Program, a multi-institutional prospective registry that captures perioperative surgical complications."

Our news editors obtained a quote from the research from the University of Toronto, "Patients were stratified according to the presence (n = 657) or absence (n = 7143) of
disseminated cancer at the time of surgery. We examined major complications (death, reoperation, cardiac event, or neurologic event) within 30 days of surgery. Secondary outcomes included pulmonary, infectious, venous thromboembolic, and bleeding complications; prolonged length of stay; and concomitant procedures (bowel, liver, spleen, pancreas, and vascular procedures). Adjusted odds ratio (aOR) and 95% confidence interval (95% CI) were calculated using multivariate logistic regression models. Patients with disseminated cancer were older and more likely to be male, have greater comorbidities, and have undergone open surgery. Major complications were more common among patients with disseminated cancer (7.8%) than those without disseminated cancer (3.2%; aOR 2.01, 95% CI 1.46-2.86). Mortality was significantly higher in patients with disseminated cancer (3.2%) than those without disseminated cancer (0.5%; P<.0001). Pulmonary (aOR 1.68, 95% CI 1.09-2.59), thromboembolic (aOR 1.72, 95% CI 1.01-2.96), and bleeding complications (aOR 2.12, 95% CI 1.73-2.60) were more common among patients with disseminated cancer as was prolonged length of stay (aOR 1.27, 95% CI 1.06-1.53). Nephrectomy in patients with disseminated cancer is a morbid operation with significant perioperative mortality."

According to the news editors, the research concluded: "These data may be used for preoperative counseling of patients undergoing cytoreductive nephrectomy."


The news editors report that additional information may be obtained by contacting C.J.D. Wallis, University of Toronto, Univ Hlth Network, Toronto, ON M5S 1A1, Canada. Additional authors for this research include G. Bjarnason, J. Byrne, D.C. Cheung, A. Hoffman, G.S. Kulkarni, A.B. Nathens, R.K. Nam and R. Satkunasivam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.04.055. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Urologic Surgical Procedures, Nephrectomy, Oncology, Surgery, Cancer, University of Toronto.

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**Liver Diseases and Conditions - Chronic Hepatitis B…**

**Studies from University of Toronto Have Provided New Data on Chronic Hepatitis B Virus [Prevalence and risk factors for viral blipping in chronic hepatitis B patients treated with nucleos (t) ide analogues]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Chronic Hepatitis B Virus. According to news reporting out of Toronto, Canada, by NewsRx editors, research stated, "The clinical relevance of viral blipping during nucleos (t) ide analogue (NA) treatment is unclear in chronic hepatitis B (CHB). We investigated the prevalence, risk factors and clinical outcomes for those with viral blipping during NA treatment."
Our news journalists obtained a quote from the research from the University of Toronto, "A retrospective cohort study investigated consecutively treated CHB patients from May 2008 to February 2015 on the NAs such as entecavir (ETV), tenofovir (TDF) and lamivudine (LAM). Included patients were previously treatment naive. Viral blipping was defined as serum HBV DNA >20IU/mL on one occasion, and not >200IU/mL, with subsequent measurement returning to undetectable levels, that is <20IU/mL. A total of 242 treatment-compliant CHB patients were included with 44 (18.2%) experiencing viral blipping. In multivariable Cox regression, Asian race (HR=7.40, 95% CI 1.01-54.29, P<.049), LAM therapy (vs ETV/TDF, HR=2.53, 95% CI 1.29-4.95, P<.007), higher creatinine (per SD, HR=1.47, 95% CI 1.21-1.79, P<.001), HBeAg positivity (HR=2.68, 95% CI 1.39-5.03, P<.003) and longer time to achieve undetectable HBV DNA (per month, HR=1.05, 95% CI 1.02-1.08, P=.001) were associated with an increased risk of viral blipping. Viral blipping did not show any significant association with viral breakthrough, HBsAg loss, ALT flares or disease progression. Viral blipping is a frequent event during NA therapy; however, it did not lead to any clinically significant outcomes."

According to the news editors, the research concluded: "Thus, it may not require more frequent blood work and patient visits in clinical practice."


Our news journalists report that additional information may be obtained by contacting H.L.A. Janssen, University of Toronto, Div Gastroenterol, Toronto Gen Hosp, Toronto, ON, Canada. Additional authors for this research include W.P. Brouwer, T. Hansen, T. Mazzulli, J. Feld, D. Wong, M. Kowgier and H.L.A. Janssen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jvh.12579. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Chronic Hepatitis B Virus, Risk and Prevention, Gastroenterology, Genetics, University of Toronto.

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screening strategies. Data and methods: The University of Wisconsin Cancer Intervention and Surveillance Modeling Network (CISNET) breast cancer microsimulation model was adapted to simulate breast cancer incidence, screening performance and delivery of optimal therapies in Canada."

The news correspondents obtained a quote from the research from the University of Toronto, "The model considered effects of breast density on incidence and screening performance. Model predictions of incidence, mortality and life-years (LY) gained for a 1960 birth cohort of women for No Screening were compared with 11 digital mammography screening strategies that varied by starting and stopping age and frequency. In the absence of screening, the estimate of LYs lost from breast cancer was 360.1 per 1,000 women, and each woman diagnosed with breast cancer after age 40 who dies of breast cancer would lose an estimated average of 19.1 years. Biennial screening at ages 50 to 74 resulted in an estimated 116.3 LYs saved. Annual screening at ages 40 to 49, followed by biennial screening to age 74, resulted in an estimated 170.3 LY saved. That is, adding annual screening at ages 40 to 49 saved an additional 54 LY per 1,000 women. Screening annually at ages 40 to 74 recovered the most: 214 LY saved. More frequent screening was associated with an increased ratio of detection of ductal in situ to invasive cancers, more abnormal recalls and more negative biopsies, but a reduction in the number of women required to be screened per life saved or per LY saved. In general, mortality reduction was found to be associated with the total number of lifetime screens for breast cancer. However, for the same number of screens, more frequent screening after age 50 appeared to have a greater impact on breast cancer deaths averted than did beginning screening earlier."

According to the news reporters, the research concluded: "When the number of LYs saved by screening was considered, a greater impact was achieved by screening women in their 40s than by reducing the interval between screens."

For more information on this research see: Clinical outcomes of modelling mammography screening strategies. Health Reports, 2015;26(12):9-15. Health Reports can be contacted at: Statistics Canada, 100 Tunneys Pasture Driveway, Ottawa, Ontario K1A 0T6, Canada.

Our news journalists report that additional information may be obtained by contacting M.J. Yaffe, University of Toronto, Dept. of Med Imaging, Toronto, ON M5S 1A1, Canada. Additional authors for this research include N. Mittmann, P. Lee, A.N.A. Tosteson, A. Trentham-Dietz, O. Alagoz and N.K. Stout.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Diagnostics and Screening, Breast Cancer Screening, Cancer, Epidemiology, Risk and Prevention, Women's Health, Oncology, University of Toronto.

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Oncology - Osteosarcomas

Studies from University of Tsukuba Have Provided New Information about Osteosarcomas (Morphological and Mechanical Properties of Osteosarcoma Microenvironment Cells Explored by Atomic Force Microscopy)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Osteosarcomas have been published. According to news reporting out of Ibaraki, Japan, by NewsRx editors, research stated, "Cell mechanical properties that depend on cytoskeleton architecture are critical to the mechanotransduction process, and have great potential for cancer diagnosis and therapy. In this study, the morphological and mechanical properties of typical osteosarcoma microenvironment cells, including mesenchymal stem cells (MSC), normal human osteoblast cells (NHOst) and osteosarcoma cells (MG-63), were compared using atomic force microscopy (AFM)."

Our news journalists obtained a quote from the research from the University of Tsukuba, "The MG-63 cells were smaller and thicker than the MSC and NHOst cells. The membrane roughness of MG-63 cells was higher than that of MSC and NHOst cells. The MG-63 cells had lower stiffness than their normal counterparts due to their reduced organization of the cytoskeleton structure. The cell stiffness influenced the mechanotransduction. The MG-63 cells had a lower percentage of nuclear YAP/TAZ compared with the MSC and NHOst cells. The F-actin assembly was disrupted by the cytochalasin D (cyto D) treatment used to investigate its influence on mechanotransduction. Disruption of the cytoskeleton leaded to a decrease of the cell stiffness, and reduced the nuclear YAP/TAZ percentage, indicating its inhibition in the cell mechanotransduction process."

According to the news editors, the research concluded: "This study would shed light on the development of a novel cancer diagnosis strategy and would contribute to reveal the relationship between the cytoskeleton structure and the cell mechanical properties."


Our news journalists report that additional information may be obtained by contacting G.P. Chen, University of Tsukuba, Grad Sch Pure & Appl Sci, Dept. of Mat Sci & Engn, Tsukuba, Ibaraki 3058571, Japan. Additional authors for this research include Y.J. Yang, X.H. Hu, N. Kawazoe, Y.N. Yang and G.P. Chen.

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Keywords for this news article include: Ibaraki, Japan, Asia, Cytoplasmic Structures, Cellular Structures, Intracellular Space, Osteosarcomas, Cytoskeleton, Orthopedics, Oncology, University of Tsukuba.

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Studies from University of Tübingen Update Current Data on Obstetrics and Gynecology (IRIS - An Internet Based Intervention as a Suitable Path to Addictive Substance Use Prevention and Counselling in Pregnancy? Beneficiary Profiles and User ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Women's Health - Obstetrics and
Gynecology. According to news reporting originating from Tubingen, Germany, by NewsRx correspondents, research stated, "Alcohol or tobacco consumption in pregnancy can harm the unborn child. Counselling on this subject is therefore of major importance."

Our news editors obtained a quote from the research from the University of Tubingen, "The aim of the presented study was not only to develop an internet based, professionally e-mail accompanied platform for alcohol or tobacco consuming pregnant women ('IRIS Platform') but also to analyse the beneficiary profiles and investigate the practicability and acceptance of the platform among women and referring gynaecologists. The offer comprised three 12-week counselling programmes (alcohol, tobacco, combined consumption). Altogether 32 women registered within the recruitment period of 20 weeks, only 9 of them at the suggestion of gynaecologists. Thirty were enrolled. The average age was 31 years. Ten women were pregnant for the first time, 14 unplanned. Most of them were smokers (n = 29). 75% (n = 12 of 16) of them had smoked in the previous pregnancies. 5 of 16 women had suffered miscarriages. Six women completed the entire 12 week programme. The abstinence rate after 3 months was min. 18.5% (ITT) in the tobacco group, while in the alcohol programme 3 women achieved abstinence. Satisfaction was reported especially for the eCoach initiative. The results demonstrate that an internet-based service like IRIS can be a useful form of support for tobacco or alcohol consuming pregnant women. A particular challenge is the accessibility of the persons concerned and the form in which alcohol consuming pregnant women are approached in daily medical practice."

According to the news editors, the research concluded: "The individual contact to the eCoach can be a decisive form of support and aid to motivation."

For more information on this research see: IRIS - An Internet Based Intervention as a Suitable Path to Addictive Substance Use Prevention and Counselling in Pregnancy? Beneficiary Profiles and User Satisfaction. Geburtshilfe Und Frauenheilkunde, 2016;76 (11):1163-1171. Geburtshilfe Und Frauenheilkunde can be contacted at: Georg Thieme Verlag Kg, Rudigerstr 14, D-70469 Stuttgart, Germany.

The news editors report that additional information may be obtained by contacting A. Stiegler, University of Tubingen, Univ Dept. of Psychiat & Psychotherapy, Sect Addict Med & Addict Res, D-72076 Tubingen, Germany. Additional authors for this research include H. Abele and A. Batra.

Keywords for this news article include: Tubingen, Germany, Europe, Obstetrics and Gynecology, Women's Health, University of Tubingen.

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Oncology - Cutaneous T-Cell Lymphoma

Studies from University of Turin Add New Findings in the Area of Cutaneous T-Cell Lymphoma (Human Endogenous Retrovirus Expression in Primary Cutaneous T-Cell Lymphomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Cutaneous T-Cell Lymphoma is now available. According to news reporting originating in Turin, Italy, by NewsRx journalists, research stated, "Mycosis fungoides (MF) and Sézary syndrome (SS) are the most frequent cutaneous T-cell lymphomas (CTCL). Human endogenous retroviruses (HERVs) were reverse transcribed and
integrated into primate chromosomal DNA, becoming noninfectious, although various stimuli may reactivate them."

The news reporters obtained a quote from the research from the University of Turin, "HERV expression seems to be impaired in several human diseases but limited data regarding CTCL are available. To evaluate the endogenous retroviral transcription profile in CTCL and their expression among disease clinical stages. Peripheral blood mononuclear cells from 42 MF/SS patients were analyzed. Total RNA was extracted and amplified with reverse transcription polymerase chain reaction. Results were compared with those obtained in a cohort of 20 healthy donors. HERVs were significantly overexpressed in MF/SS patients compared with healthy donors. No differences were found between early and advanced CTCL stages. HERVs can act as promoters in MF/SS pathogenesis."

According to the news reporters, the research concluded: "It remains to link HERV hyperexpression to the outcome in CTCL patients."


Our news correspondents report that additional information may be obtained by contacting P. Fava, Section of Dermatology, Dept. of Medical Sciences, Medical School, University of Turin, Turin, Italy. Additional authors for this research include M. Bergallo, C. Astrua, M. Brizio, I. Galliano, P. Montanari, P.A. Tovo, M. Novelli, P. Savoia, P. Quaglino and M.T Fierro.

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Keywords for this news article include: Turin, Italy, Europe, Genetics, Oncology, Hematology, RNA Viruses, Retroviridae, Oncogenic Viruses, Endogenous Retroviruses, Cutaneous T-Cell Lymphoma, Cutaneous T-Cell Lymphoma, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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**Oncology - Breast Cancer**

**Studies from University of Udine Update Current Data on Breast Cancer (A Simple and Effective Technique of Breast Remodelling After Conserving Surgery for Lower Quadrants Breast Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting out of Udine, Italy, by NewsRx editors, research stated, "Quadrantectomy is an oncologically safe procedure for the treatment of early-stage breast cancer, but it often results in poor aesthetic outcomes such as breast shape deformity, which is more visible if the tumour is located in the lower pole. We recommend the use of the transverse incision, which retains the oncological advantages of the quadrantectomy while leading to better aesthetical results."

Our news journalists obtained a quote from the research from the University of Udine, "We evaluated the clinical results of 24 patients with breast cancer who underwent
quadrantectomy of the lower breast pole and volume replacement with remodelling through three posterior scorings from January 2012 to January 2014, with cosmetic evaluations performed according to the criteria set by the Japanese Breast Cancer Society. Minimum follow-up after surgery was 2 years, with an average of 28.4 months. Among treated patients, the percentage of complications was extremely low and the degree of satisfaction fairly good. Moreover, the assessment of the medical team matched patient self-assessments. Immediate breast reconstruction of a defect performed after a quadrantectomy of the lower breast pole using the 'posterior scoring technique' provided better cosmetic results compared to the transposition of residual breast tissue. This technique provides reliable and reproducible results, and it also appears to be rather successful on patients with small-moderate breasts in the absence of a certain degree of ptosis, therefore increasing its already considerable appeal. This journal requires that the authors assign a level of evidence to each article."

According to the news editors, the research concluded: "For a full description of these Evidence-Based Medicine ratings, please refer to the Table of Contents or the online Instructions to Authors www.springer.com/00266."


Our news journalists report that additional information may be obtained by contacting N. Zingaretti, University of Udine, Dept. of Plast & Reconstruct Surg, Breast Unit, Osped S Maria Misericordia, I-33100 Udine, Italy. Additional authors for this research include N. Zingaretti, A. Marchesi, L. Vaienti, D. Almesberger and P.C. Parodi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00266-016-0709-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Udine, Italy, Europe, Women's Health, Breast Cancer, Oncology, Surgery, University of Udine.

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Central Nervous System Diseases and Conditions

Studies from University of Utah Yield New Information about Epilepsy (Transcranial magnetic stimulation for the treatment of epilepsy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System Diseases and Conditions - Epilepsy are presented in a new report. According to news reporting originating in Salt Lake City, Utah, by NewsRx journalists, research stated, "Epilepsy is a highly prevalent neurological condition characterized by repeated unprovoked seizures with various etiologies. Although antiepileptic medications produce clinical improvement in most individuals, nearly a third of individuals have drug-resistant epilepsy that carries significant morbidity and mortality."

The news reporters obtained a quote from the research from the University of Utah, "There remains a need for non-invasive and more effective therapies for this population. Transcranial magnetic stimulation (TMS) uses electromagnetic coils to excite or inhibit neurons, with repetitive pulses at low-frequency producing an inhibitory effect that could conceivably..."
reduce cortical excitability associated with epilepsy. To assess the evidence for the use of TMS in individuals with drug-resistant epilepsy compared with other available treatments in reducing seizure frequency, improving quality of life, reducing epileptiform discharges, antiepileptic medication use, and side-effects. Search methods We searched the Cochrane Epilepsy Group Specialized Register, the Cochrane Central Register of Controlled Trials (CENTRAL) via the Cochrane Register of Studies Online (CRSO), MEDLINE (Ovid 1946 to 10 March 2016), ClinicalTrials.gov and the World Health Organization International Clinical Trials Registry Platform (ICTRP) up to March 2016. We also searched SCOPUS (1823 to June 2014) as a substitute for Embase (but it is no longer necessary to search SCOPUS, because randomized controlled trials (RCTs) and quasi-RCTs in EMBASE are now included in CENTRAL).

Selection criteria Eligible studies were RCTs that were double-blinded, single-blinded or unblinded, and placebo, no treatment, or active controlled, which used repetitive transcranial magnetic stimulation (rTMS) without restriction of frequency, duration, intensity, or setup (focal or vertex treatment) on patients with drug-resistant epilepsy. The search revealed 274 records from the databases, that after selection provided seven full-text relevant studies for inclusion. Of the seven studies included, five were completed studies with published data and included randomized, blinded trials. The total number of participants in the seven trials was 230. Data collection and analysis We extracted information from each trial including methodological data; participant demographics including baseline seizure frequency, type of epileptic drugs taken; intervention details and intervention groups for comparison; potential biases; and outcomes and time points, primarily change in seizure frequency or responder rates, as well as quality of life and epileptiform discharges, adverse effects, and changes in medication use. Two of the seven studies analyzed showed a statistically significant reduction in seizure rate from baseline (72% and 78.9% reduction of seizures per week from the baseline rate, respectively). The other five studies showed no statistically significant difference in seizure frequency following rTMS treatment compared with controls. We were not able to combine the results of the trials in analysis due to differences in the designs of the studies. Four studies evaluated our secondary endpoint of mean number of epileptic discharges, and three of the four showed a statistically significant reduction in discharges. Quality of life was not assessed in any of the studies. Adverse effects were uncommon among the studies and typically involved headache, dizziness, and tinnitus. No significant changes in medication use were found in the trials. Authors' conclusions Overall, we judged the quality of evidence for the primary outcomes of this review to be low."

According to the news reporters, the research concluded: "There is evidence that rTMS is safe and not associated with any adverse events, but given the variability in technique and outcome reporting that prevented meta-analysis, the evidence for efficacy of rTMS for seizure reduction is still lacking despite reasonable evidence that it is effective at reducing epileptiform discharges."

For more information on this research see: Transcranial magnetic stimulation for the treatment of epilepsy. Cochrane Database of Systematic Reviews, 2016;(8):1693-1727. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting R. Chen, University of Utah, Clin Neurosci Center, Salt Lake City, UT, United States. Additional authors for this research include D.C. Spencer, J. Weston and S.J. Nolan.

Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Central Nervous System Diseases and Conditions, Quality of Life, Article Review, Epidemiology, Transcranial Magnetic Stimulation, Brain Diseases and Conditions, Clinical Trials and Studies, Neurologic Manifestations, Magnetic Field Therapy,
Studies from University of Utah in the Area of Science Described (A cloud-based workflow to quantify transcript-expression levels in public cancer compendia)

2017 JAN 14 (NewsRx) -- A new study on Science is now available. According to news reporting originating in Salt Lake City, Utah, by NewsRx journalists, research stated, "Public compendia of sequencing data are now measured in petabytes. Accordingly, it is infeasible for researchers to transfer these data to local computers."

The news reporters obtained a quote from the research from the University of Utah, "Recently, the National Cancer Institute began exploring opportunities to work with molecular data in cloud-computing environments. With this approach, it becomes possible for scientists to take their tools to the data and thereby avoid large data transfers. It also becomes feasible to scale computing resources to the needs of a given analysis. We quantified transcript-expression levels for 12,307 RNA-Sequencing samples from the Cancer Cell Line Encyclopedia and The Cancer Genome Atlas. We used two cloud-based configurations and examined the performance and cost profiles of each configuration. Using preemptible virtual machines, we processed the samples for as little as $0.09 (USD) per sample. As the samples were processed, we collected performance metrics, which helped us track the duration of each processing step and quantified computational resources used at different stages of sample processing. Although the computational demands of reference alignment and expression quantification have decreased considerably, there remains a critical need for researchers to optimize preprocessing steps."

According to the news reporters, the research concluded: "We have stored the software, scripts, and processed data in a publicly accessible repository (https://osf.io/gqrz9)."

For more information on this research see: A cloud-based workflow to quantify transcript-expression levels in public cancer compendia. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting S.R. Piccolo, University of Utah, Dept. of Biomed Informat, Salt Lake City, UT 84112, United States.

Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Science, Oncology, Genetics, Cancer, University of Utah.

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Studies from University of Valencia Yield New Data on Pharmacotherapy (Neurochemical substrates of the rewarding effects of MDMA: implications for the development of pharmacotherapies to MDMA dependence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Pharmacotherapy. According to news reporting originating in Valencia, Spain, by NewsRx journalists, research stated, "In recent years, studies with animal models of reward, such as the intracranial self-stimulation, self-administration, and conditioned place preference paradigms, have increased our knowledge on the neurochemical substrates of the rewarding effects of 3,4-methylenedioxymetamphetamine (MDMA) in rodents. However, pharmacological and neuroimaging studies with human participants are scarce."

The news reporters obtained a quote from the research from the University of Valencia, "Serotonin [5-hydroxytryptamine (5-HT)], dopamine (DA), endocannabinoids, and endogenous opiates are the main neurotransmitter systems involved in the rewarding effects of MDMA in rodents, but other neurotransmitters such as glutamate, acetylcholine, adenosine, and neotensin are also involved. The most important finding of recent research is the demonstration of differential involvement of specific neurotransmitter receptor subtypes (5-HT2, 5-HT3, DA D1, DA D2, CB1, m and d opioid, etc.) and extracellular proteins (DA and 5-HT transporters) in the acquisition, expression, extinction, and reinstatement of MDMA self-administration and conditioned place preference. It is important to extend the research on the effects of different compounds acting on these receptors/transporters in animal models of reward, especially in priming-induced, cue-induced, and stress-induced reinstatement."

According to the news reporters, the research concluded: "Increase in knowledge of the neurochemical substrates of the rewarding effects of MDMA may contribute to the design of new pharmacological treatments for individuals who develop MDMA dependence."

For more information on this research see: Neurochemical substrates of the rewarding effects of MDMA: implications for the development of pharmacotherapies to MDMA dependence. Behavioural Pharmacology, 2016;27(2-3 Spec I):116-32. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting C. Roger-Sanchez, Unit of Research on Psychobiology of Drug Dependence, Dept. of Psychobiology, Faculty of Psychology, University of Valencia, Valencia, Spain. Additional authors for this research include M.P. Garcia-Pardo, M. Rodriguez-Arias, J. Minarro and M.A Aguilar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000210. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Spain, Europe, Valencia, Pharmacology, Article Review, Pharmacotherapy.

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Studies from University of Vienna Yield New Information about Acute Lung Injury (The total alkaloid fraction of bulbs of Fritillaria cirrhosa displays anti-inflammatory activity and attenuates acute lung injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lung Diseases and Conditions - Acute Lung Injury are discussed in a new report. According to news reporting from Vienna, Austria, by NewsRx journalists, research stated, "Ethnopharmacological relevance: Bulb of Fritillaria cirrhosa D.Don (BFC) has been wildly used in China for a long time for folk medicine since its significant therapeutic effects on respiratory diseases, such as cough, expectoration, pneumonia and bronchial inflammation, which are related to respiratory inflammatory response. However, there is a lack of investigation on the in vivo anti-inflammatory properties of BFC."

Funders for this research include Technological Platform of Detection of Quality and Safety and Risk Controlling of Chinese Medicine, China Scholarship Council, University of Vienna.

The news correspondents obtained a quote from the research from the University of Vienna, "Aim of the study: The aim of this study was to evaluate the in vivo anti-inflammatory activity of the purified total alkaloid fraction of BFC (TAF) by using different animal models of inflammation to provide scientific evidence for its traditional use. The total alkaloid fraction from BFC was prepared by using H-103 resin column. Anti-inflammatory effect of TAF was evaluated by models of acetic acid-induced capillary permeability accentuation, carrageenan-induced rat paw edema, cotton pellet-induced granuloma formation and LPS-induced acute lung injury (ALI). The level of cytokines (TNF, IL-6, IL-4 and IL-10) was measured by ELISA. Histopathological analyses were performed by using hematoxylin and eosin staining. TAF can inhibit acetic acid-induced capillary permeability accentuation, carrageenan-induced paw edema, cotton pellet-induced granuloma formation, suppress inflammatory cells recruitment and cytokine production in the bronchoalveolar lavage fluid from LPS-induced ALI mice, and attenuate pathological changes in the lung tissues of ALI mice."

According to the news reporters, the research concluded: "This study provides scientific evidence for bulb of F. cirrhosa to treat respiratory inflammation."


Our news journalists report that additional information may be obtained by contacting D.D. Wang, University of Vienna, Dept. of Pharmacognosy, Fac Life Sci, A-1090 Vienna, Austria. Additional authors for this research include J. Yang, Q.D. Du, H.C. Li and S. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.08.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vienna, Austria, Europe, Respiratory Tract Diseases and Conditions, Lung Diseases and Conditions, Acute Lung Injury, Inflammation,
Studies from University of Virginia Reveal New Findings on Retinitis Pigmentosa [Palmitoylation of Progressive Rod-Cone Degeneration (PRCD) Regulates Protein Stability and Localization]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Eye Diseases and Conditions - Retinitis Pigmentosa. According to news originating from Morgantown, West Virginia, by NewsRx correspondents, research stated, "Progressive rod-cone degeneration (PRCD) is a photoreceptor outer segment (OS) disc-specific protein with unknown function that is associated with retinitis pigmentosa (RP). The most common mutation in PRCD linked with severe RP phenotype is substitution of the only cysteine to tyrosine (C2Y)."

Financial support for this research came from West Virginia University.

Our news journalists obtained a quote from the research from the University of Virginia, "In this study, we find that PRCD is post-translationally modified by a palmitoyl lipid group at the cysteine residue linked with RP. Disrupting PRCD palmitoylation either chemically or by genetically eliminating the modified cysteine dramatically affects the stability of PRCD. Furthermore, in vivo electroporation of PRCD C2Y mutant in the mouse retina demonstrates that the palmitoylation of PRCD is important for its proper localization in the photoreceptor OS. Mutant PRCD C2Y was found in the inner segment in contrast to normal localization of WTPRCD in the OS. Our results also suggest that zDHHC3, a palmitoyl acyltransferase (PAT), catalyzes the palmitoylation of PRCD in the Golgi compartment."

According to the news editors, the research concluded: "We find that the palmitoylation of PRCD is crucial for its trafficking to the photoreceptor OS and mislocalization of this protein likely leads to RP-related phenotypes."


The news correspondents report that additional information may be obtained from S. Kolandaivelu, West Virginia Univ, Inst Eye, Dept. of Ophthalmol, Morgantown, WV 26506, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.742767. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Morgantown, West Virginia, United States, North and Central America, Eye Diseases and Conditions, Retinitis Pigmentosa, Neutral Amino Acids, Sulfur Amino Acids, Cysteine, Genetics, University of Virginia.

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Graphical Models

Studies from University of Virginia in the Area of Graphical Models Reported (Identifying gene regulatory network rewiring using latent differential graphical models)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Graphical Models are discussed in a new report. According to news reporting from Charlottesville, Virginia, by NewsRx journalists, research stated, "Gene regulatory networks (GRNs) are highly dynamic among different tissue types. Identifying tissue-specific gene regulation is critically important to understand gene function in a particular cellular context."

The news correspondents obtained a quote from the research from the University of Virginia, "Graphical models have been used to estimate GRN from gene expression data to distinguish direct interactions from indirect associations. However, most existing methods estimate GRN for a specific cell/tissue type or in a tissue-naive way, or do not specifically focus on network rewiring between different tissues. Here, we describe a new method called Latent Differential Graphical Model (LDGM). The motivation of our method is to estimate the differential network between two tissue types directly without inferring the network for individual tissues, which has the advantage of utilizing much smaller sample size to achieve reliable differential network estimation. Our simulation results demonstrated that LDGM consistently outperforms other Gaussian graphical model based methods. We further evaluated LDGM by applying to the brain and blood gene expression data from the GTEx consortium. We also applied LDGM to identify network rewiring between cancer subtypes using the TCGA breast cancer samples."

According to the news reporters, the research concluded: "Our results suggest that LDGM is an effective method to infer differential network using high-throughput gene expression data to identify GRN dynamics among different cellular conditions."


Our news journalists report that additional information may be obtained by contacting Q.Q. Gu, University of Virginia, Dept. of Syst & Informat Engn, Charlottesville, VA 22904, United States. Additional authors for this research include Q.Q. Gu and J. Ma.

Keywords for this news article include: Charlottesville, Virginia, United States, North and Central America, Graphical Models, Emerging Technologies, Genetics, Graphical Modeling, Machine Learning, University of Virginia.

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Transplant Medicine - Cell Transplants

Studies from University of Washington Describe New Findings in Cell Transplants (Up-to-date tools for risk assessment before allogeneic hematopoietic cell transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Cell Transplants have been published. According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "Cure of malignant and non-malignant hematological diseases is potentially possible after allogeneic hematopoietic stem cell transplantation (HCT). Accurate evaluation of the risk-benefit ratio for an individual patient could improve the decision-making process about transplant, which ultimately would increase the likelihood of success."

Our news journalists obtained a quote from the research from the University of Washington, "Several transplant-related models were designed in an effort to optimize decision-making about suitable candidates for allogeneic HCT. In 1998, The European Society for Blood and Marrow Transplantation (EBMT) developed a five-component pretransplantation risk scoring system for patients with CML. The EBMT score was later tested in patients with various hematological disorders, and it was shown to stratify risks of mortality after allogeneic HCT. More recent research efforts focused on models that assess health status before HCT. A HCT-specific comorbidity index was designed to assign weights to 17 relevant comorbidities that were shown to independently predict nonrelapse mortality. Performance status scales and comprehensive geriatric assessment tools might uncover additional overall health limitations that affect long-term survival among older recipients of allogeneic HCT. Other models include the pretransplantation assessment of mortality score that summarizes the impacts of eight different pretransplantation patient-and disease-specific variables into a 50-point model that predicts survival. The disease-risk index captures the impact of primary diagnoses and disease status on relapse and survival following allogeneic HCT. The values and limitations of each model are discussed herein."

According to the news editors, the research concluded: "We also provide insight on how to use these models in the clinic to decide about offering allogeneic HCT with the most suitable conditioning regimen intensity."

For more information on this research see: Up-to-date tools for risk assessment before allogeneic hematopoietic cell transplantation. *Bone Marrow Transplantation, 2016;51 (10):1283-1300. Bone Marrow Transplantation* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

The news correspondents report that additional information may be obtained from M.L. Sorror, University of Washington, Sch Med, Dept. of Med, Div Med Oncol, Seattle, WA 98195, United States.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Hematology, Article Review, Cell Transplantation, Transplant Medicine, Cell Transplants, Hematopoietic, Biomedicine, Surgery, University of Washington.

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Studies from University of Washington Provide New Data on Atrial Fibrillation (New perspectives on atrial fibrillation and stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting originating in Seattle, Washington, by NewsRx editors, the research stated, "Atrial fibrillation (AF) is directly implicated in embolic stroke and suspected in a large proportion of cryptogenic stroke. The current stroke-prevention strategy in embolic and cryptogenic stroke starts with arrhythmia detection, followed by risk stratification and treatment for those deemed to be at increased risk."

The news reporters obtained a quote from the research from the University of Washington, "This approach is practical and widespread; however, more recent findings have questioned its validity. Arrhythmia detection is dependent on the length and fidelity of monitoring. Long-term monitoring using implanted recorders improves arrhythmia detection in patients with cryptogenic stroke. A large proportion of patients with cryptogenic stroke, however, were shown not to have any AF. Moreover, in patients with permanent pacemakers who also experienced thromboembolic events, AF did not always precede thromboembolisation. These results raise cause and effect questions about the role of AF, the arrhythmia, in thrombus formation and embolisation. Moreover, risk estimation scores; such as Congestive heart failure, Hypertension, Age, Diabetes and previous Stroke or Transient Ischaemic Attack, Vascular disease and female sex category (CHA(2)DS(2)-VASc), have a suboptimal predictive accuracy and the mechanism relating their individual components to thrombogenesis is unknown. Given these limitations, a more comprehensive and mechanistic evaluation of atrial disease is needed to better identify patients at risk for stroke and AF. Atrial fibrosis, quantified using late gadolinium enhancement cardiac MRI, is associated with reduced atrial function, stroke and the presence of left atrial thrombus in patients with AF."

According to the news reporters, the research concluded: "Biomarkers such as B-type natriuretic peptide, cardiac troponin have also been linked to increased thromboembolic risk and AF."

For more information on this research see: New perspectives on atrial fibrillation and stroke. *Heart*, 2016;102(22):1788-1792. *Heart* can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Heart - heart.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting N. Akoum, University of Washington, Seattle, WA 98115, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/heartjnl-2015-309066. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Stroke, Article Review, Risk and Prevention, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Cardiology, Thrombosis, University of Washington.

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Oncology - Carcinomas

Studies from University of Washington Provide New Data on Carcinomas (Neoplastic cellularity is associated with clinical and molecular features of high-grade serous ovarian carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Carcinomas have been published. According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "Most molecular analyses of high-grade serous ovarian, peritoneal and fallopian tube carcinomas (HGSC) require >= 70% tumor (neoplastic) cell nuclei. We characterized the distribution of the percentage of neoplastic nuclei (PNN) in a large cohort of HGSC and correlated PNN with clinical outcomes to determine the fraction of cases outside this range and whether this cut-off introduces selection bias."

Our news journalists obtained a quote from the research from the University of Washington, "Subjects were prospectively enrolled and normal and neoplastic tissues were snap-frozen. All subjects had grade 2 to 3 HGSC. Subjects that received neoadjuvant chemotherapy were excluded. PNN was determined by estimating the fraction of neoplastic nuclei relative to non-neoplastic nuclei on a representative hematoxylin and eosin stained frozen section from the primary neoplasm. Germline BRCA mutation status was determined with Sanger or BROCA sequencing. PNN was <70% in 101 (33%) of 306 cases. PNN was significantly higher among subjects without optimal cytoreduction (P = 0.018). 55 subjects had germline BRCA1/BRCA2 mutations. HGSC associated with BRCA2 but not BRCA1 mutations had significantly lower PNN compared to HGSC in non-carriers (54% vs. 70%, P = 0.018). Overall survival was not significantly different between subjects with <70% or >= 70% PNN (median survival 51.8 vs. 46.6 months, P = 0.858). One-third of HGSC has PNN <70%. Higher PNN is associated with suboptimal cytoreduction, while lower PNN is associated with inherited BRCA2 mutations. Our findings suggest a nonrandom distribution of PNN that may reflect cancer biology. Further studies exploring the stromal microenvironment are needed."

According to the news editors, the research concluded: "Molecular analyses of HGSC selected for high PNN exclude a significant fraction of patients."

For more information on this research see: Neoplastic cellularity is associated with clinical and molecular features of high-grade serous ovarian carcinoma. Gynecologic Oncology, 2016;143(2):389-392. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

The news correspondents report that additional information may be obtained from C.B. Morse, University of Washington, Dept. of Obstet & Gynecol, Div Gynecol Oncol, Seattle, WA 98195, United States. Additional authors for this research include B.M. Norquist, M.I. Harrell, K.J. Agnew, H.J. Gray, R.R. Urban, R.L. Garcia, B.A. Goff and E.M. Swisher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.08.324. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Carcinomas, Oncology, Genetics, BRCA1, BRCA2, University of Washington.

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Cardiovascular Diseases and Conditions - Venous ...

Studies from University of Washington Update Current Data on Venous Thromboembolism (Preventing Hospital-Acquired Venous Thromboembolism: Improving Patient Safety With Interdisciplinary Teamwork, Quality Improvement Analytics, and Data ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Venous Thromboembolism. According to news reporting from Seattle, Washington, by NewsRx journalists, research stated, "Hospital-acquired venous thromboembolism (HA-VTE) is a potentially preventable cause of morbidity and mortality. Despite high rates of venous thromboembolism (VTE) prophylaxis in accordance with an institutional guideline, VTE remains the most common hospital-acquired condition in our institution."

The news correspondents obtained a quote from the research from the University of Washington, "To improve the safety of all hospitalized patients, examine current VTE prevention practices, identify opportunities for improvement, and decrease rates of HA-VTE. Pre/post assessment. Urban academic tertiary referral center, level 1 trauma center, safety net hospital; all patients. We formed a multidisciplinary VTE task force to review all HA-VTE events, assess prevention practices relative to evidence-based institutional guidelines, and identify improvement opportunities. The task force developed an electronic tool to facilitate efficient VTE event review and designed decision-support and reporting tools, now integrated into the electronic health record, to bring optimal VTE prevention practices to the point of care. Performance is shared transparently across the institution. Harborview benchmarks process and outcome performance, including patient safety indicators and core measures, against hospitals nationally using Hospital Compare and Vizient data. Our program has resulted in >90% guideline-adherent VTE prevention and zero preventable HA-VTEs. Initiatives have resulted in a 15% decrease in HA-VTE and a 21% reduction in postoperative VTE. Keys to success include the multidisciplinary approach, clinical roles of task force members, senior leadership support, and use of quality improvement analytics for retrospective review, prospective reporting, and performance transparency."

According to the news reporters, the research concluded: "Ongoing task force collaboration with frontline providers is critical to sustained improvements."


Our news journalists report that additional information may be obtained by contacting A.M. Schleyer, University of Washington, Harborview Med Center, Dept. of Med, Seattle, WA 98104, United States. Additional authors for this research include E. Robinson, R. Dumitru, M. Taylor, K. Hayes, R. Pergamit, D.M. Beingessner, M.C. Zaros and J. Cuschieri.

Keywords for this news article include: Seattle, Washington, United States, North
and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Venous Thromboembolism, Hematology, Hospital, University of Washington.

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**DNA Research**

**Studies from University of Washington in the Area of DNA Research Described (Biomarkers of Response and Resistance to DNA Repair Targeted Therapies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on DNA Research. According to news originating from Seattle, Washington, by NewsRx correspondents, research stated, "Drugs targeting DNA damage repair (DDR) pathways are exciting new agents in cancer therapy. Many of these drugs exhibit synthetic lethality with defects in DNA repair in cancer cells."

Our news journalists obtained a quote from the research from the University of Washington, "For example, ovarian cancers with impaired homologous recombination DNA repair show increased sensitivity to poly(ADP-ribose) polymerase (PARP) inhibitors. Understanding the activity of different DNA repair pathways in individual tumors, and the correlations between DNA repair function and drug response, will be critical to patient selection for DNA repair targeted agents. Genomic and functional assays of DNA repair pathway activity are being investigated as potential biomarkers of response to targeted therapies. Furthermore, alterations in DNA repair function generate resistance to DNA repair targeted agents, and DNA repair states may predict intrinsic or acquired drug resistance. In this review, we provide an overview of DNA repair targeted agents currently in clinical trials and the emerging biomarkers of response and resistance to these agents: genetic and genomic analysis of DDR pathways, genomic signatures of mutational processes, expression of DNA repair proteins, and functional assays for DNA repair capacity. We review biomarkers that may predict response to selected DNA repair targeted agents, including PARP inhibitors, inhibitors of the DNA damage sensors ATM and ATR, and inhibitors of nonhomologous end joining. Finally, we introduce emerging categories of drugs targeting DDR and new strategies for integrating DNA repair targeted therapies into clinical practice, including combination regimens."

According to the news editors, the research concluded: "Generating and validating robust biomarkers will optimize the efficacy of DNA repair targeted therapies and maximize their impact on cancer treatment."

For more information on this research see: Biomarkers of Response and Resistance to DNA Repair Targeted Therapies. *Clinical Cancer Research*, 2016;22(23):5651-5660. *Clinical Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

The news correspondents report that additional information may be obtained from E.M. Swisher, University of Washington, Seattle, WA 98195, United States. Additional authors for this research include P.A. Konstantinopoulos, U.A. Matulonis and E.M. Swisher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-16-0247. This DOI is a link to an online electronic
Studies from University of Western Australia in the Area of Blood Pressure Reported (Effect of omega-3 fatty acid supplementation on arterial elasticity in patients with familial hypercholesterolaemia on statin therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Blood Pressure. According to news reporting originating in Perth, Australia, by NewsRx journalists, research stated, "Increased arterial stiffness is closely linked with raised blood pressure that contributes substantially to enhanced risk of coronary heart disease in high risk individuals with familial hypercholesterolaemia (FH). Omega-3 fatty acid (omega 3-FA) supplementation has been demonstrated to lower blood pressure in subjects with a high cardiovascular disease risk."

Financial support for this research came from National Health Medical Research Council of Australia.

The news reporters obtained a quote from the research from the University of Western Australia, "Whether omega 3-FA supplementation improves arterial stiffness in FH subjects, on background statin therapy, has yet to be investigated. We carried out an 8-week randomized, crossover intervention trial to test the effect of 4 g/d omega 3-FA supplementation (46% eicosapentaenoic acid and 38% docosahexaenoic acid) on arterial elasticity in 20 adults with FH on optimal cholesterol-lowering therapy. Large and small artery elasticity were measured by pulse contour analysis of the radial artery. omega 3-FA supplementation significantly (P < 0.05 in all) increased large artery elasticity (+9%) and reduced systolic blood pressure (-6%) and diastolic blood pressure (-6%), plasma triglycerides (-20%), apoB concentration (-8%). In contrast, omega 3-FA had no significant effect on small artery elasticity. The change in large artery elasticity was not significantly associated with changes in systolic blood pressure or plasma triglyceride concentration."

According to the news reporters, the research concluded: "Omega 3-FA supplementation improves large arterial elasticity and arterial blood pressure independent of statin therapy in adults with FH."

For more information on this research see: Effect of omega-3 fatty acid supplementation on arterial elasticity in patients with familial hypercholesterolaemia on statin therapy. *Nutrition Metabolism and Cardiovascular Diseases*, 2016;26(12):1140-1145. *Nutrition Metabolism and Cardiovascular Diseases* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England.

Our news correspondents report that additional information may be obtained by contacting G.F. Watts, University of Western Australia, Sch Med & Pharmacol, Perth, WA, Australia. Additional authors for this research include J. Pang, P.H.R. Barrett, D.R. Sullivan,
T.A. Mori, J.R. Burnett, F.M. van Bockxmeer and G.F. Watts.

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Keywords for this news article include: Perth, Australia, Australia and New Zealand, Therapy, Risk and Prevention, Blood Pressure, Hemodynamics, Angiology, University of Western Australia.

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Studies from University of Western Ontario Have Provided New Data on Hypercholesterolemia (Polygenic Versus Monogenic Causes of Hypercholesterolemia Ascertained Clinically)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Hypercholesterolemia. According to news reporting out of London, Canada, by NewsRx editors, research stated, "Next-generation sequencing technology is transforming our understanding of heterozygous familial hypercholesterolemia, including revision of prevalence estimates and attribution of polygenic effects. Here, we examined the contributions of monogenic and polygenic factors in patients with severe hypercholesterolemia referred to a specialty clinic."

Our news journalists obtained a quote from the research from the University of Western Ontario, "Approach and Results-We applied targeted next-generation sequencing with custom annotation, coupled with evaluation of large-scale copy number variation and polygenic scores for raised low-density lipoprotein cholesterol in a cohort of 313 individuals with severe hypercholesterolemia, defined as low-density lipoprotein cholesterol >5.0 mmol/L (>194 mg/dL). We found that (1) monogenic familial hypercholesterolemia-causing mutations detected by targeted next-generation sequencing were present in 47.3% of individuals; (2) the percentage of individuals with monogenic mutations increased to 53.7% when copy number variations were included; (3) the percentage further increased to 67.1% when individuals with extreme polygenic scores were included; and (4) the percentage of individuals with an identified genetic component increased from 57.0% to 92.0% as low-density lipoprotein cholesterol level increased from 5.0 to >8.0 mmol/L (194 to >310 mg/dL)."

According to the news editors, the research concluded: "In a clinically ascertained sample with severe hypercholesterolemia, we found that most patients had a discrete genetic basis detected using a comprehensive screening approach that includes targeted next-generation sequencing, an assay for copy number variations, and polygenic trait scores."

For more information on this research see: Polygenic Versus Monogenic Causes of Hypercholesterolemia Ascertained Clinically. Arteriosclerosis Thrombosis and Vascular Biology, 2016;36(12):2439-2445. Arteriosclerosis Thrombosis and Vascular Biology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting R.A. Hegele, University of Western Ontario, Schulich Sch Med & Dental, Dept. of

Keywords for this news article include: London, Ontario, Canada, North and Central America, Nutritional and Metabolic Diseases and Conditions, Lipid Metabolism Disorders, Hypercholesterolemia, Hyperlipidemias, Dyslipidemias, Lipoproteins, Genetics, Lipids, University of Western Ontario.

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**Drugs and Therapies - Cancer Therapy**

**Studies from University of Western Sydney Update Current Data on Cancer Therapy (Transition Metal Intercalators as Anticancer Agents-Recent Advances)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Cancer Therapy have been presented. According to news originating from Campbelltown, Australia, by NewsRx correspondents, research stated, "The diverse anticancer utility of cisplatin has stimulated significant interest in the development of additional platinum-based therapies, resulting in several analogues receiving clinical approval worldwide. However, due to structural and mechanistic similarities, the effectiveness of platinum-based therapies is countered by severe side-effects, narrow spectrum of activity and the development of resistance."

Our news journalists obtained a quote from the research from the University of Western Sydney, "Nonetheless, metal complexes offer unique characteristics and exceptional versatility, with the ability to alter their pharmacology through facile modifications of geometry and coordination number. This has prompted the search for metal-based complexes with distinctly different structural motifs and non-covalent modes of binding with a primary aim of circumventing current clinical limitations. This review discusses recent advances in platinum and other transition metal-based complexes with mechanisms of action involving intercalation. This mode of DNA binding is distinct from cisplatin and its derivatives."

According to the news editors, the research concluded: "The metals focused on in this review include Pt, Ru and Cu along with examples of Au, Ni, Zn and Fe complexes; these complexes are capable of DNA intercalation and are highly biologically active."

For more information on this research see: Transition Metal Intercalators as Anticancer Agents-Recent Advances. *International Journal of Molecular Sciences*, 2016;17 (11):885-901. *International Journal of Molecular Sciences* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from K.M. Deo, University of Western Sydney, Sch Sci & Hlth, Campbelltown, NSW 2560, Australia. Additional authors for this research include B.J. Pages, D.L. Ang, C.P. Gordon and J.R. Aldrich-Wright.

Keywords for this news article include: Campbelltown, Australia, Australia and New Zealand, Drugs and Therapies, Article Review, Cancer Therapy, University of Western Sydney.

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Studies from University of Witwatersrand in the Area of beta-Lactams Reported (Molecular detection of carbapenemase-producing genes in referral Enterobacteriaceae in South Africa: A short report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on beta-Lactams are discussed in a new report. According to news reporting out of Johannesburg, South Africa, by NewsRx editors, research stated, "Molecular confirmation of carbapenemase-producing Enterobacteriaceae (CPE) was introduced in South Africa (SA) at the end of 2011. We report on the detection of these resistance genes based on referral isolates."

Our news journalists obtained a quote from the research from the University of Witwatersrand, "Enterobacteriaceae with non-susceptibility to any of the carbapenems according to defined criteria for antimicrobial susceptibility testing results were sent to a reference laboratory. A proportion of isolates had limited demographic, epidemiological and clinical data available. Organism identification was reconfirmed using reference laboratory methods, and the presence of carbapenemases was confirmed with a real-time polymerase chain reaction. We analysed 1 503 significant isolates received for confirmation from the National Health Laboratory Service and some private laboratories during 2012-2015 and confirmed one or more carbapenemase-producing genes in 68% of isolates, the most common organism being Klebsiella pneumoniae (60%). The most common carbapenemase genes were bla(NDM), followed by bla(OXA-48) and its variants. Bla(OXA-48) and its variants demonstrated non-susceptibility to ertapenem in 89% of the isolates when analysed by the phenotypic method, and to ceftazidime in 34%. Overall, the detection rate for carbapenemases in K. pneumoniae blood isolates in the public sector was 1.9% during the 4-year period."

According to the news editors, the research concluded: "This report indicates the presence of CPE in SA, and it is important for all healthcare workers to be aware of this major public health threat so that infection prevention and control measures can be implemented to prevent the spread of CPE in healthcare facilities."

For more information on this research see: Molecular detection of carbapenemase-producing genes in referral Enterobacteriaceae in South Africa: A short report. SAMJ South African Medical Journal, 2016;106(10):41-43. SAMJ South African Medical Journal can be contacted at: Sa Medical Assoc, Block F Castle Walk Corporate Park, Nossob Street, Erasmushoop EXT3, Pretoria, 0002, South Africa.

Our news journalists report that additional information may be obtained by contacting O. Perovic, University of Witwatersrand, Dept. of Clin Microbiol & Infect Dis, Fac Hlth Sci, Johannesburg, South Africa. Additional authors for this research include E. Britz, V. Chetty and A. Singh-Moodley.

Keywords for this news article include: Johannesburg, South Africa, Africa, Enterobacteriaceae, Epidemiology, Genetics, Gram-Negative Facultatively Anaerobic Rods, Gram-Negative Bacteria, Gammaproteobacteria, Proteobacteria, beta-Lactams, Carbapenems, University of Witwatersrand.

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Drugs and Therapies - Toxicology and Pharmacology

Studies from University of Wurzburg in the Area of Toxicology and Pharmacology Reported (Assessment of reproductive and developmental effects of DINP, DnHP and DCHP using quantitative weight of evidence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Toxicology and Pharmacology have been published. According to news reporting originating in Wurzburg, Germany, by NewsRx journalists, research stated, "Quantitative weight of evidence (QWoE) methodology utilizes detailed scoring sheets to assess the quality/reliability of each publication on toxicity of a chemical and gives numerical scores for quality and observed toxicity. This QWoE-methodology was applied to the reproductive toxicity data on diisononylphthalate (DINP), di-n-hexylphthalate (DnHP), and dicyclohexylphthalate (DCHP) to determine if the scientific evidence for adverse effects meets the requirements for classification as reproductive toxicants."

The news reporters obtained a quote from the research from the University of Wurzburg, "The scores for DINP were compared to those when applying the methodology DCHP and DnHP that have harmonized classifications. Based on the quality/reliability scores, application of the QWoE shows that the three databases are of similar quality; but effect scores differ widely. Application of QWoE to DINP studies resulted in an overall score well below the benchmark required to trigger classification. For DCHP, the QWoE also results in low scores. The high scores from the application of the QWoE methodology to the toxicological data for DnHP represent clear evidence for adverse effects and justify a classification of DnHP as category 1B for both development and fertility."

According to the news reporters, the research concluded: "The conclusions on classification based on the QWoE are well supported using a narrative assessment of consistency and biological plausibility."

For more information on this research see: Assessment of reproductive and developmental effects of DINP, DnHP and DCHP using quantitative weight of evidence. Regulatory Toxicology and Pharmacology, 2016;81():397-406. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting W. Dekant, University of Wurzburg, Dept. of Toxicol, D-97078 Wurzburg, Germany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.09.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wurzburg, Germany, Europe, Toxicology and Pharmacology, Drugs and Therapies, University of Wurzburg.

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**Autoimmune Diseases and Conditions - Psoriatic…**

**Studies from University of York Describe New Findings in Psoriatic Arthritis (A discrete choice experiment to explore patients' willingness to risk disease relapse from treatment withdrawal in psoriatic arthritis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Autoimmune Diseases and Conditions - Psoriatic Arthritis is now available. According to news reporting originating from York, United Kingdom, by NewsRx correspondents, research stated, "The objective of this study is to assess patient preferences for treatment-related benefits and risk of disease relapse in the management of low disease states of psoriatic arthritis (PsA). Focus groups with patients and a literature review were undertaken to determine the characteristics of treatment and symptoms of PsA important to patients."

Our news editors obtained a quote from the research from the University of York, "Patient preferences were assessed using a discrete choice experiment which compared hypothetical treatment profiles of the risk and benefits of treatment withdrawal. The risk outcome included increased risk of disease relapse, while benefit outcomes included reduced sickness/nausea from medication and changes in health-related quality of life. Each patient completed 12 choice sets comparing treatment profiles. Preference weights were estimated using a logic regression model, and the maximum acceptable risk in disease relapse for a given improvement in benefit outcomes was elicited. Final sample included 136 patients. Respondents attached the greatest importance to eliminating severe side effects of sickness/nausea and the least importance to a change in risk of relapse. Respondents were willing to accept an increase in the risk of relapse of 32.6 % in order to eliminate the side effects of sickness/nausea. For improvements in health status, the maximum acceptable risk in relapse was comparable to a movement from some to no sickness/nausea."

According to the news editors, the research concluded: "The study suggests that patients in low disease states of PsA are willing to accept greater risks of relapse for improvements in side effects of sickness/nausea and overall health status, with the most important benefit attribute being the elimination of severe sickness or nausea."

For more information on this research see: A discrete choice experiment to explore patients' willingness to risk disease relapse from treatment withdrawal in psoriatic arthritis. *Clinical Rheumatology*, 2016;35(12):2967-2974. *Clinical Rheumatology* can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - www.springer.com; Clinical Rheumatology - www.springerlink.com/content/0770-3198/)

The news editors report that additional information may be obtained by contacting C. Rothery, University of York, Center Hlth Econ, York YO10 5DD, N Yorkshire, United Kingdom. Additional authors for this research include L. Bojke, G. Richardson, C. Bojke, A. Moverley, L. Coates, L. Thorp, R. Waxman and P. Helliwell.

Keywords for this news article include: York, United Kingdom, Europe, Musculoskeletal Diseases and Conditions, Autoimmune Diseases and Conditions, Arthritis, Risk and Prevention, Joint Diseases and Conditions, Psoriatic Arthritis, University of York.

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Studies from University of Zurich Provide New Data on Aneurysm (Safety and effectiveness of large volume coils in the treatment of small aneurysms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Aneurysm have been published. According to news reporting originating in Zurich, Switzerland, by NewsRx journalists, research stated, "Large volume soft design coils facilitate quicker aneurysm filling and high packing density. Our purpose was to analyze the feasibility, safety, and effectiveness of the Penumbra Coil 400 (PC400) system in the treatment of small aneurysms."

The news reporters obtained a quote from the research from the University of Zurich, "A retrospective analysis of prospective data collected at three different centers was performed on consecutive aneurysms <10 mm treated with the PC400 system. A total of 92 aneurysms were included in the study. Feasibility, procedure safety, angiographic and clinical results, and follow-up results were evaluated. Mean aneurysm size was 5.8 +/- 2.0 mm. An average of 2.5 +/- 1.3 coils with a mean length of 18 +/- 16 cm per aneurysm was used, resulting in a mean packing density of 45.6 +/- 14.4%. The thromboembolic event rate was 3.3% and no procedural aneurysm rupture was observed. Immediate adequate occlusion was achieved in 66% of aneurysms. During a mean follow-up period of 7.4 months the number of adequate occlusions increased to 91%. Large volume PC 400 coils are safe and effective in the treatment of small aneurysms with a low thromboembolic complication rate and no hemorrhagic events. High packing densities are achieved with a low average number of coils used per aneurysm treated."

According to the news reporters, the research concluded: "The aneurysms demonstrated progressive occlusion over time, which probably suggests stability in the long term."


Our news correspondents report that additional information may be obtained by contacting Z. Kulcsar, University of Zurich, Intervent Work Res, CABMM, Zurich, Switzerland. Additional authors for this research include I. Wanke, D. Rufenacht, S.G. Wetzel, S. Goricke, K. Kolia, S. Quarfordt, J. Calvert, H. Hawk and B. Baxter.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/neurintsurg-2015-012100. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zurich, Switzerland, Europe, Cardiovascular Diseases and Conditions, Aneurysm, University of Zurich.

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Gram-Positive Bacteria - Staphylococcus aureus

Studies from University of Zurich in the Area of Staphylococcus aureus Described (Modulation of Staphylococcus aureus Biofilm Matrix by Subinhibitory Concentrations of Clindamycin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Gram-Positive Bacteria - Staphylococcus aureus is the subject of a report. According to news originating from Zurich, Switzerland, by NewsRx correspondents, research stated, "Staphylococcus aureus biofilms are extremely difficult to treat. They provide a protected niche for the bacteria, rendering them highly recalcitrant toward host defenses as well as antibiotic treatment."

Our news journalists obtained a quote from the research from the University of Zurich, "Bacteria within a biofilm are shielded from the immune system by the formation of an extracellular polymeric matrix, composed of polysaccharides, extracellular DNA (eDNA), and proteins. Many antibiotics do not readily penetrate biofilms, resulting in the presence of subinhibitory concentrations of antibiotics. Here, we show that subinhibitory concentrations of clindamycin triggered a transcriptional stress response in S. aureus via the alternative sigma factor B (sigma(B)) and upregulated the expression of the major biofilm-associated genes atlA, lrgA, agrA, the psm genes, fnbA, and fnbB. Our data suggest that subinhibitory concentrations of clindamycin alter the ability of S. aureus to form biofilms and shift the composition of the biofilm matrix toward higher eDNA content."

According to the news editors, the research concluded: "An understanding of the molecular mechanisms underlying biofilm assembly and dispersal in response to subinhibitory concentrations of clinically relevant antibiotics such as clindamycin is critical to further optimize antibiotic treatment strategies of biofilm-associated S. aureus infections."

For more information on this research see: Modulation of Staphylococcus aureus Biofilm Matrix by Subinhibitory Concentrations of Clindamycin. Antimicrobial Agents and Chemotherapy, 2016;60(10):5957-5967. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from K. Schilcher, University of Zurich, University of Zurich, Div Infect Dis & Hosp Epidemiol, Zurich, Switzerland. Additional authors for this research include F. Andreoni, V.D. Haunreiter, K. Seidl, B. Hasse and A.S. Zinkernagel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00463-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zurich, Switzerland, Europe, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Gram-Positive Bacteria, Staphylococcus aureus, Gram-Positive Cocci, Staphylococcaceae, Bacillales, University of Zurich.

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Oncology - Breast Cancer

Studies from University of the Pacific Add New Findings in the Area of Breast Cancer (Expanding the view of breast cancer metabolism: Promising molecular targets and therapeutic opportunities)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting out of Hillsboro, Oregon, by NewsRx editors, research stated, "The changes in breast cancer cells that contribute to tumor evolution, heterogeneity, metastasis and ultimately drug resistance are shaped by numerous genetic changes including alterations in cellular metabolism."

Our news journalists obtained a quote from the research from the University of the Pacific, "These include intermediary metabolic pathways such as glycolysis, the citric acid cycle oxidative phosphorylation, amino acid synthesis and lipid metabolism. However, cancer cells also exhibit key alterations in other metabolic pathways involved in drug metabolism such as cytochrome P450 enzymes, sulfotransferase and steroid sulfatases that are involved in the synthesis of estrogens and themselves serve as drug targets."

According to the news editors, the research concluded: "In this review we bring together these two sides of metabolism, discuss the evidence underpinning their role in breast cancer development and bring to light promising therapeutic targets and up and coming pharmacologic agents."

For more information on this research see: Expanding the view of breast cancer metabolism: Promising molecular targets and therapeutic opportunities. Pharmacology & Therapeutics, 2016;167():60-73. Pharmacology & Therapeutics can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Pharmacology & Therapeutics - www.journals.elsevier.com/pharmacology-and-therapeutics/)

Our news journalists report that additional information may be obtained by contacting J.P. Harrelson, University of the Pacific, Sch Pharm, Hillsboro, OR 97123, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pharmthera.2016.07.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hillsboro, Oregon, United States, North and Central America, Therapy, Article Review, Women's Health, Breast Cancer, Oncology, Genetics, University of the Pacific.

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Cardiovascular Diseases

Studies from Uppsala University Yield New Information about Cardiovascular Diseases (Effects of cigarette smoking on cardiovascular-related protein profiles in two community-based cohort studies)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases is now available. According to news reporting originating in Uppsala, Sweden, by NewsRx journalists, research stated, "Cardiovascular diseases account for the largest fraction of smoking-induced deaths. Studies of smoking in relation to cardiovascular-related protein markers can provide novel insights into the biological effects of smoking."

The news reporters obtained a quote from the research from Uppsala University, "We investigated the associations between cigarette smoking and 80 protein markers known to be related to cardiovascular diseases in two community-based cohorts, the Prospective Study of the Vasculature in Uppsala Seniors (PIVUS, n = 969, 50% women, all aged 70 years) and the Uppsala Longitudinal Study of Adult Men (ULSAM, n = 717, all men aged 77 years). Smoking status was self-reported and defined as current smoker, former smoker or never-smoker. Levels of the 80 proteins were measured using the proximity extension assay, a novel PCR-based proteomics technique. We found 30 proteins to be significantly associated with current cigarette smoking in PIVUS (FDR <5%); and ten were replicated in ULSAM (p <0.05). Matrix metalloproteinase-12 (MMP-12), growth/differentiation factor 15 (GDF-15), urokinase plasminogen activator surface receptor (uPAR), TNF-related apoptosis-inducing ligand receptor 2 (TRAIL-R2), lectin-like oxidized LDL receptor 1 (LOX-1), hepatocyte growth factor (HGF), matrix metalloproteinase-10 (MMP-10) and matrix metalloproteinase-1 (MMP-1) were positively associated, while endothelial cell-specific molecule 1 (ESM-1) and interleukin-27 subunit alpha (IL27-A) showed inverse associations. All of them remained significant in a subset of individuals without manifest cardiovascular disease."

According to the news reporters, the research concluded: "The findings of the present study suggest that cigarette smoking may interfere with several essential parts of the atherosclerosis process, as evidenced by associations with protein markers representing endothelial dysfunction, inflammation, neointimal formation, foam cell formation and plaque instability."


Our news correspondents report that additional information may be obtained by contacting E. Ingelsson, Uppsala University, Dept. of Med Sci, Mol Epidemiol & Sci Life Lab, S-75185 Uppsala, Sweden. Additional authors for this research include P. Svensson, J. Arnlov, J. Sundstrom, L. Lind and E. Ingelsson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.09.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uppsala, Sweden, Europe, Cardiovascular Diseases and Conditions, Matrix Metalloproteinase, Enzymes and Coenzymes, Metalloproteinases, Metalloproteins, Proteomics, Cardiology, Uppsala University.

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Mental Health Diseases and Conditions - Postpartum…

Studies from Uppsala University in the Area of Postpartum Depression Described [Associations between a polymorphism in the hydroxysteroid (11-beta) dehydrogenase 1 gene, neuroticism and postpartum depression]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health Diseases and Conditions - Postpartum Depression. According to news reporting originating in Uppsala, Sweden, by NewsRx journalists, research stated, "This study examined the association between a single nucleotide polymorphism in the hydroxysteroid (11-beta) dehydrogenase 1 gene and neuroticism, as well as the possible mediatory role of neuroticism in the association between the polymorphism and postpartum depressive symptoms. 769 women received questionnaires containing the Edinburgh Postnatal Depression Scale (EPDS) at six weeks postpartum and demographic data at pregnancy week 17 and 32 and at six weeks postpartum, as well as the Swedish universities Scales of Personality at pregnancy week 32."

The news reporters obtained a quote from the research from Uppsala University, "Linear regression models showed an association between the GG genotype and depressive symptoms. When neuroticism was introduced in the model, it was associated with EPDS score, whereas the association between the GG genotype and EPDS became borderline significant. A path analysis showed that neuroticism had a mediatory role in the association between the polymorphism and EPDS score. Limitations: The use of the EPDS, which is a self-reporting instrument. Neuroticism was associated with the polymorphism and had a mediatory role in the association between the polymorphism and postpartum depression."

According to the news reporters, the research concluded: "This finding elucidates the genetic background of neuroticism and postpartum depression."

For more information on this research see: Associations between a polymorphism in the hydroxysteroid (11-beta) dehydrogenase 1 gene, neuroticism and postpartum depression. *Journal of Affective Disorders*, 2017;207():141-147. *Journal of Affective Disorders* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Affective Disorders - www.journals.elsevier.com/journal-of-affective-disorders/)

Our news correspondents report that additional information may be obtained by contacting S.I. Iliadis, Uppsala University, Uppsala University, Dept. of Womens & Childrens Hlth, S-75185 Uppsala, Sweden. Additional authors for this research include E. Comasco, C. Hellgren, N. Kollia, I.S. Poromaa and A. Skalkidou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jad.2016.09.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Uppsala, Sweden, Europe, Mental Health Diseases and Conditions, Dehydrogenase, Epidemiology, Mental Health and Pregnancy, Enzymes and Coenzymes, Postpartum Depression, Women's Health, Neuroticism, Psychiatry, Genetics, Uppsala University.

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Studies from V.D. Lima et al Further Understanding of Cytokines (Are Interferon-Free Direct-Acting Antivirals for the Treatment of HCV Enough to Control the Epidemic among People Who Inject Drugs?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Intercellular Signaling Peptides and Proteins - Cytokines. According to news reporting from Vancouver, Canada, by NewsRx journalists, research stated, "Widely access to interferon-free direct-acting antiviral regimens (IFN-free DAA) is poised to dramatically change the impact of the HCV epidemic among people who inject drugs (PWID). We evaluated the long-term effect of increasing HCV testing, treatment and engagement into harm-reduction activities, focused on active PWID, on the HCV epidemic in British Columbia (BC), Canada."

The news correspondents obtained a quote from the research, "We built a compartmental model of HCV disease transmission stratified by disease progression, transmission risk, and fibrosis level. We explored the effect of: (1) Increasing treatment rates from 8 to 20, 40 and 80 per 1000 infected PWID/year; (2) Increasing treatment eligibility based on fibrosis level; (3) Maximizing the effect of testing by performing it immediately upon ending the acute phase; (4) Increasing access to harm-reduction activities to reduce the risk of re-infection; (5) Different HCV antiviral regimens on the Control Reproduction Number Rc. We assessed the impact of these interventions on incidence, prevalence and mortality from 2016 to 2030. Of all HCV antiviral regimens, only IFN-free DAAAs offered a high chance of disease elimination (i.e. Rc <1), but it would be necessary to substantially increase the current low testing and treatment rates. Assuming a treatment rate of 80 per 1000 infected PWID per year, coupled with a high testing rate, the incidence rate, at the end of 2030, could decrease from 92.9 per 1000 susceptible PWID per year (Status Quo) to 82.8 (by treating only PWID with fibrosis level F2 and higher) or to 65.5 (by treating PWID regardless of fibrosis level). If PWID also had access to increased harm-reduction activities, the incidence rate further decreased to 53.1 per 1000 susceptible PWID per year. We also obtained significant decreases in prevalence and mortality at the end of 2030. The combination of increased access to HCV testing, highly efficacious antiviral treatment and harm-reduction programs can substantially decrease the burden of the HCV epidemic among PWID."

According to the news reporters, the research concluded: "However, unless we increase the current levels of treatment and testing, the HCV epidemic among PWID in BC, and in other parts of the world with similar epidemiological background, will remain a substantial public health concern for many years."


Our news journalists report that additional information may be obtained by contacting V.D. Lima, British Columbia Centre for Excellence in HIV, AIDS, Vancouver, British Columbia, Canada. Additional authors for this research include I. Rozada, J. Grebely, M. Hull, L. Loureno, B. Nosyk, M. Krajden, E. Yoshida, E. Wood and J.S Montaner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0143836. This DOI is a link to an online electronic...
Pelvic Organ Prolapse

Studies from Vanderbilt University Provide New Data on Pelvic Organ Prolapse (Genetic Determinants of Pelvic Organ Prolapse among African American and Hispanic Women in the Women's Health Initiative)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Pelvic Organ Prolapse. According to news originating from Nashville, Tennessee, by NewsRx correspondents, research stated, "Current evidence suggests a multifactorial etiology to pelvic organ prolapse (POP), including genetic predisposition. We conducted a genome-wide association study of POP in African American (AA) and Hispanic (HP) women from the Women's Health Initiative Hormone Therapy study."

Our news journalists obtained a quote from the research from Vanderbilt University, "Cases were defined as any POP (grades 1-3) or moderate/severe POP (grades 2-3), while controls had grade 0 POP. We performed race-specific multiple logistic regression analyses between SNPs imputed to 1000 genomes in relation to POP (grade 0 vs 1-3; grade 0 vs 2-3) adjusting for age at diagnosis, body mass index, parity, and genetic ancestry. There were 1274 controls and 1427 cases of any POP and 317 cases of moderate/severe POP. Although none of the analyses reached genome-wide significance (p <5x10-8), we noted variants in several loci that met p<10-6. In race-specific analysis of grade 0 vs 2-3, intronic SNPs in the CPE gene (rs28573326, OR:2.14; 95% CI 1.62-2.83; p=1.0x10-7) were associated with POP in AAs, and SNPs in the gene AL132709.5 (rs1950626, OR:2.96; 95% CI 1.96-4.48, p=2.6x10-7) were associated with POP in HPs. Inverse variance fixed-effect meta-analysis of the race-specific results showed suggestive signals for SNPs in the DPP6 gene (rs11243354, OR:1.36; p=4.2x10-7) in the grade 0 vs 1-3 analyses and for SNPs around PGBD5 (rs740494, OR:2.17; p=8.6x10-7) and SHC3 (rs2209875, OR:0.60; p=9.3x10-7) in the grade 0 vs 2-3 analyses. While we did not identify genome-wide significant findings, we document several SNPs reaching suggestive statistical significance."

According to the news editors, the research concluded: "Further interrogation of POP in larger minority samples is warranted."

For more information on this research see: Genetic Determinants of Pelvic Organ Prolapse among African American and Hispanic Women in the Women's Health Initiative. Plos One, 2015;10(11):e0141647. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0141647. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Nashville, Tennessee, United States, Women's Health, Pelvic Organ Prolapse, North and Central America.

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**Studies from Vesalius Research Center in the Area of Chemotherapy Described (Inhibition of the Glycolytic Activator PFKFB3 in Endothelium Induces Tumor Vessel Normalization, Impairs Metastasis, and Improves Chemotherapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Chemotherapy. According to news reporting originating in Leuven, Belgium, by NewsRx journalists, research stated, "Abnormal tumor vessels promote metastasis and impair chemotherapy. Hence, tumor vessel normalization (TVN) is emerging as an anti-cancer treatment."

Financial supporters for this research include Research Foundation Flanders, Erasmus Mundus, ERAWEB fellowship, Else Kroener-Fresenius-Stiftung, Austrian Science Fund, Agency for Innovation by Science and Technology, Flanders, Bettencourt Schueller Foundation, NIH, Belgian Science Policy, FWO, Foundation Leducq Transatlantic Network, Foundation against Cancer, European Research Council, Advanced Research Grant, AXA Research grant.

The news reporters obtained a quote from the research from Vesalius Research Center, "Here, we show that tumor endothelial cells (ECs) have a hyperglycolytic metabolism, shunting intermediates to nucleotide synthesis. EC haplo-deficiency or blockade of the glycolytic activator PFKFB3 did not affect tumor growth, but reduced cancer cell invasion, intravasation, and metastasis by normalizing tumor vessels, which improved vessel maturation and perfusion. Mechanistically, PFKFB3 inhibition tightened the vascular barrier by reducing VE-cadherin endocytosis in ECs, and rendering pericytes more quiescent and adhesive (via upregulation of N-cadherin) through glycolysis reduction; it also lowered the expression of cancer cell adhesion molecules in ECs by decreasing NF-kappa B signaling."

According to the news reporters, the research concluded: "PFKFB3-blockade treatment also improved chemotherapy of primary and metastatic tumors."

For more information on this research see: Inhibition of the Glycolytic Activator PFKFB3 in Endothelium Induces Tumor Vessel Normalization, Impairs Metastasis, and Improves Chemotherapy. *Cancer Cell*, 2016;30(6):968-985. *Cancer Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cancer Cell - www.journals.elsevier.com/cancer-cell/)

Our news correspondents report that additional information may be obtained by contacting P. Carmeliet, VIB, Vesalius Res Center, Lab Angiogenesis & Vasc Metab, B-3000 Leuven, Belgium. Additional authors for this research include L.C. Conradi, A. Brajic, J. Goveia, J. Kalucka, A. Pircher, P. Chaturvedi, J. Hol, B. Thienpont, L.A. Teuwen, S. Schoors, B. Boeckx, J. Vriens, A. Kuchnio, K. Veys, B. Cruys, L. Finotto, L. Treps, T.E. Stav-Noraas and
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ccell.2016.10.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leuven, Belgium, Europe, Drugs and Therapies, Chemotherapy, Endothelium, Angiology, Oncology, Genetics, Cancer, Vesalius Research Center.

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Oncology - Liver Cancer

Studies from Veterans Affairs Medical Center Add New Findings in the Area of Liver Cancer (Effectiveness of surveillance for hepatocellular carcinoma in clinical practice: A United States cohort)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Liver Cancer is now available. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "The effectiveness of surveillance for hepatocellular carcinoma (HCC) in reducing cancer related mortality among patients with cirrhosis is largely unknown. The objective of this study was to study the effectiveness of HCC surveillance in the national Veterans Administration (VA) clinical practice."

The news reporters obtained a quote from the research from Veterans Affairs Medical Center, "We conducted a retrospective cohort study of patients with HCC during 2005-2010 by reviewing patients' medical records to determine receipt of HCC surveillance in the 2 years prior to HCC diagnosis. We determined association of HCC surveillance with overall mortality adjusting for age, risk factors, model for end-stage liver disease (MELD) score, comorbidity index, alpha-fetoprotein levels, healthcare utilization, Barcelona Clinic Liver Cancer (BCLC) stage, and treatment. We accounted for lead and length time biases. Of 887 patients with HCC, only 412 (46.5%) received any surveillance prior to HCC diagnosis. Patients who received surveillance were significantly more likely to have early stage disease HCC (BCLC stage 0/A 27.2% vs. 11.6%) and receive potentially curative (20.9% vs. 11.6%) or palliative (59.2% vs. 45.5%) treatments compared to those without HCC surveillance. Receipt of HCC surveillance was associated with 38% reduction in mortality risk (unadjusted hazard ratios (HR) 0.62, 95% confidence intervals (CI) 0.54-0.71) that declined to 20% (HR 0.80, 95% CI 0.69-0.94) after adjusting for HCC stage and treatment, compared to those without HCC surveillance. Among patients with HCC, pre-diagnosis HCC surveillance is associated with a significant 38% reduction in overall mortality. The reduction in mortality risk with surveillance is mediated via stage migration and receipt of HCC specific treatment. Lay summary: Surveillance for liver cancer leads to earlier detection of cancer and increases chances of getting curative treatment."

According to the news reporters, the research concluded: "This ultimately leads to increased longevity in patients with liver cancer."

Studies from Veterans Affairs Medical Center Have Provided New Data on Bradycardia (Sleep-disordered breathing and daytime cardiac conduction abnormalities on 12-lead electrocardiogram in community-dwelling older men)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Heart Disorders and Diseases - Bradycardia is the subject of a report. According to news reporting from Minneapolis, Minnesota, by NewsRx journalists, research stated, "Nocturnal cardiac conduction abnormalities are commonly observed in patients with sleep-disordered breathing (SDB). However, few population-based studies have examined the association between SDB and daytime cardiac conduction abnormalities."

Funders for this research include National Institute on Aging, National Heart, Lung, and Blood Institute.

The news correspondents obtained a quote from the research from Veterans Affairs Medical Center, "We examined a random sample of 471 community-dwelling men, aged ae67 years, enrolled in the multi-center Outcomes of Sleep Disorders in Older Men (MrOS Sleep) study. SDB severity was categorized using percent of total sleep time with oxygen saturation < 90 % (%TST < 90) and apnea hypopnea index (AHI). Cardiac conduction parameters were assessed by resting 12-lead electrocardiography (ECG). All analyses were adjusted for age, site, beta-blocker use, coronary heart disease, calcium channel blocker use, and use of antiarrhythmic medications. Mean age was 77 +/- 6 years, median %TST < 90 was 0.7 (IQR 0.00-3.40), and median AHI was 7.06 (IQR 2.55-15.32). Men with greater nocturnal hypoxemia (%TST < 90 ae 3.5 %) compared with those without hypoxemia (%TST < 90 < 1.0 %) had a lower odds of bradycardia (OR 0.55 [0.32-0.94]) and right bundle branch block (RBBB) (OR 0.24 [0.08-0.75]) but a higher odds of ventricular paced rhythm (OR 4.42 [1.29-15.19]). Heart rate (HR) increased in a graded manner with increasing %TST < 90 (p-trend 0.01) and increasing AHI (p-trend 0.006), but these gradients were small in absolute magnitude. There were no associations of SDB measures with other ECG conduction parameters."

According to the news reporters, the research concluded: "Greater nocturnal hypoxemia in older men was associated with a lower prevalence of daytime sinus bradycardia..."
and RBBB, a higher prevalence of ventricular paced rhythm, and higher resting HR."

For more information on this research see: Sleep-disordered breathing and daytime cardiac conduction abnormalities on 12-lead electrocardiogram in community-dwelling older men. Sleep and Breathing, 2016;20(4):1161-1168. Sleep and Breathing can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Sleep and Breathing - www.springerlink.com/content/1520-9512/)

Our news journalists report that additional information may be obtained by contacting K.E. Ensrud, Minneapolis VA Hlth Care Syst, Dept. of Med, Minneapolis, MN, United States. Additional authors for this research include K. Picel, S. Adabag, T. Vo, B.C. Taylor, S. Redline, K. Stone, R. Mehra, S. Ancoli-Israel and K.E. Ensrud.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11325-016-1326-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Heart Disorders and Diseases, Epidemiology, Cardiac Arrhythmias, Heart Disease, Bradycardia, Cardiology, Veterans Affairs Medical Center.

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Alcohol-Induced Diseases and Conditions - Alcoholic…

Studies from Veterans Affairs Medical Center in the Area of Alcoholic Hepatitis Described (Effects of Age, Sex, Body Weight, and Quantity of Alcohol Consumption on Occurrence and Severity of Alcoholic Hepatitis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Alcohol-Induced Diseases and Conditions - Alcoholic Hepatitis. According to news reporting originating in Indianapolis, Indiana, by NewsRx journalists, research stated, "Only a minority of heavy drinking individuals develop alcoholic hepatitis (AH), for unclear reasons. We analyzed data from the Translational Research and Evolving Alcoholic Hepatitis Treatment cohort, consisting of subjects who drink heavily with normal results from liver tests (controls) and patients with AH."

The news reporters obtained a quote from the research from Veterans Affairs Medical Center, "We examined risk factors for the development of AH including body mass index (BMI), drinking pattern and quantity, and sex. We compared data from 145 patients with AH and 124 controls based on BMI when they joined the cohort; groups were matched for sex and race. Drinking patterns were assessed using the timeline followback method, the Alcohol Use Disorders Identification Test, and the National Institute of Alcohol Abuse and Alcoholism 6-question survey. We performed univariable and multivariable analyses to assess the effects of these factors and their interaction in increasing the risk for AH. We also explored the association between PNPLA3 variants and AH. Cases with AH were older (47 vs 44 y; P = .03). For nearly all measures of quantity of alcohol consumed or frequency of binge drinking, controls drank more heavily than cases with AH. We did not find an association between BMI, sex, drinking patterns, and the presence of AH. Age and BMI were independent predictors for the severity of AH. When we analyzed cases and controls of European ancestry, the PNPLA3 single-nucleotide polymorphism rs738409 was associated with risk for AH (odds ratio, 1.89; P = .007). Compared
with heavy drinkers without liver disease, subjects with AH consumed lower levels of alcohol and had less binge drinking, suggesting an increased sensitivity to the toxic effects of alcohol."

According to the news reporters, the research concluded: "The risk for AH may be associated with the PNPLA3 rs738409 polymorphism."

For more information on this research see: Effects of Age, Sex, Body Weight, and Quantity of Alcohol Consumption on Occurrence and Severity of Alcoholic Hepatitis. *Clinical Gastroenterology and Hepatology*, 2016;14(12):1831-1838. *Clinical Gastroenterology and Hepatology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Clinical Gastroenterology and Hepatology - www.journals.elsevier.com/clinical-gastroenterology-and-hepatology/)

Our news correspondents report that additional information may be obtained by contacting S. Liangpunsakul, Richard L Roudebush Vet Adm Med Center, Dept. of Med, Indianapolis, IN, United States. Additional authors for this research include P. Puri, V.H. Shah, P. Kamath, A. Sanyal, T. Urban, X.W. Ren, B. Katz, S. Radaeva, N. Chalasani and D.W. Crabb.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cgh.2016.05.041. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Liver Diseases and Conditions, Risk and Prevention, Digestive System Diseases and Conditions, Alcohol-Induced Diseases and Conditions, Infectious Disease and Conditions, Alcoholic Hepatitis, Gastroenterology, Alcoholism, Genetics, Veterans Affairs Medical Center.

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**Silicon**

**Studies from Voronezh State University in the Area of Silicon Reported (Study of the deposition process of vinpocetine on the surface of porous silicon)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Silicon is the subject of a report. According to news originating from Voronezh, Russia, by NewsRx correspondents, research stated, "Currently the most prospective way in pharmacotherapy is the obtaining of nanoparticles involving pharmaceutical substances. Application of porous inorganic materials on the basis of silicon is among the main features in solving of this problem."

Our news journalists obtained a quote from the research from Voronezh State University, "The present work is concerned with the problem of the deposition of pharmaceutical drug with nootropic activity - vinpocetine - into porous silicon. Silicon nanoparticles were obtained by electrochemical anodic etching of Si plates. The process of vinpocetine deposition was studied in dependence of the deposition time."

According to the news editors, the research concluded: "As a result of the investigations it was found that infrared transmission spectra of porous silicon with the deposited vinpocetine revealed the absorption bands characteristic of vinpocetine substance."

For more information on this research see: Study of the deposition process of vinpocetine on the surface of porous silicon. *Results in Physics*, 2016;6():337-338. *Results in
Studies from W. Dolak and Co-Researchers Yield New Data on Gastrointestinal Endoscopy (A retrospective study on the safety, diagnostic yield, and therapeutic effects of endoscopic unroofing for small gastric subepithelial tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Surgical Procedures - Gastrointestinal Endoscopy. According to news reporting originating from Vienna, Austria, by NewsRx correspondents, research stated, "Accurate diagnosis of small gastric subepithelial tumors (SETs) is essential to assess their malignant potential. Endoscopic unroofing has been reported to yield sufficient tissue samples for histologic evaluation."

Our news editors obtained a quote from the research, "This study aimed to evaluate the safety, diagnostic yield, and potential therapeutic effects of this technique over time. This retrospective analysis of prospectively collected clinical data identified patients who underwent endoscopic unroofing at the Medical University of Vienna from January 2003 to December 2012. Demographic data, indications for endoscopic unroofing, intraprocedural adverse events, hospital stay, histologic results, and follow-up procedures were reviewed. A total of 14 patients (7 men; 7 women; median age, 70 years; range, 51-95 years) underwent endoscopic unroofing of 14 gastric SETs with a mean diameter of 26 +/- 13 mm at EUS. In 9 of 14 cases, endoscopic unroofing was done exclusively for diagnostic purposes; in the remaining cases, it was performed with therapeutic intent because of bleeding from the gastric SETs. Unroofing was technically successful in 13 of 14 cases and revealed 8 cases of GI stromal tumor (GIST) and 1 case each of leiomyoma, fibroid polyp, glomus tumor, pancreatic rest, and nondiagnostic material at histology. Intraprocedural bleeding was the only adverse event (4 cases) and could be managed endoscopically. A follow-up EUS was available (median, 8 months) for 10 of the 14 patients. Notably, most patients showed complete regression of their gastric SETs after unroofing (on white light and EUS), including the glomus tumor, the leiomyoma, and 6 of the 8 cases of GIST. Endoscopic unroofing was safe and had a very favorable diagnostic yield in this study. Unexpectedly, it led to complete regression in most gastric SETs."

According to the news editors, the research concluded: "Although it is not an oncologically curative treatment, endoscopic unroofing can be a valuable option to treat local
adverse events in patients unfit for surgical therapy."


The news editors report that additional information may be obtained by contacting W. Dolak, Center Comprehens Canc, Gastroesophageal Tumor Unit, Vienna, Austria. Additional authors for this research include A. Beer, I. Kristo, B. Tribl, R. Asari, M. Schoniger-Hekele, F. Wrba, S.F. Schoppmann, M. Trauner and A. Puspok.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gie.2016.04.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vienna, Austria, Europe, Gastrointestinal Endoscopy, Surgical Procedures, Therapy.

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**Drugs and Therapies - Pharmacology**

**Studies from W.B. Shen and Co-Researchers Yield New Data on Pharmacology (Discovery of a new structural class of competitive hDHODH inhibitors with in vitro and in vivo anti-inflammatory, immunosuppressive effects)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Pharmacology. According to news reporting originating from Shijiazhuang, People's Republic of China, by NewsRx correspondents, research stated, "Human dihydroorotate dehydrogenase (hDHODH) is an inner mitochondrial membrane enzyme that involves in the fourth step of the biosynthesis of pyrimidine base. Inhibitors of hDHODH have been proven efficacy for the treatments of inflammation, rheumatoid arthritis, multiple sclerosis and cancer."

Financial support for this research came from State Key New Drug Creation and Manufacturing Programs.

Our news editors obtained a quote from the research, "In the present study, ascochlorin (ASC) and its derivatives, natural compounds from fungal metabolites, were discovered as hDHODH inhibitors by high-throughput screening. Enzyme kinetics studies showed that ASC competitively binds to hDHODH at the site of coenzyme Q substrate. In ex vivo study, ASC significantly inhibited the ConA-stimulated T lymphocytes proliferation and interleukin-2, interferon-y production. Furthermore, ASC showed significant in vivo anti-inflammatory and immunosuppressive effects on the mice ears swelling, allogenic skin grafts and rat collagen-induced arthritis animal disease models. ASC significantly reduced ears edema level of mice, increased the survival time of allogenic skin implanted on the mice and attenuated arthritis severity of rat model."

According to the news editors, the research concluded: "ASC was identified as a new structural class of hDHODH inhibitors with efficient anti-inflammatory, immunosuppressive
activity, and may be a promising candidate for the development of new therapy in the treatment of autoimmune diseases."

For more information on this research see: Discovery of a new structural class of competitive hDHODH inhibitors with in vitro and in vivo anti-inflammatory, immunosuppressive effects. European Journal of Pharmacology, 2016;791():205-212. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shijiazhuang, People's Republic of China, Asia, Pharmacology, Drugs and Therapies.

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**Gram-Negative Bacteria - Enterobacteriaceae**

**Studies from Wageningen University Reveal New Findings on Enterobacteriaceae (Molecular Characterization of Extended-Spectrum-Cephalosporin-Resistant Enterobacteriaceae from Wild Kelp Gulls in South America)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Gram-Negative Bacteria - Enterobacteriaceae is the subject of a report. According to news reporting out of Lelystad, Netherlands, by NewsRx editors, research stated, "Extended-spectrum-cephalosporin-resistant Enterobacteriaceae are a public health concern due to limited treatment options."

Our news journalists obtained a quote from the research from Wageningen University, "Here, we report on the occurrence and the molecular characteristics of extended-spectrum-cephalosporin-resistant Enterobacteriaceae recovered from wild birds (kelp gulls). Our results revealed kelp gulls as a reservoir of various extended-spectrum cephalosporinase genes associated with different genetic platforms."

According to the news editors, the research concluded: "In addition, we report for the first time the presence of a known epidemic clone of Salmonella enterica serotype Heidelberg (JF6X01.0326/XbaI. 1966) among wild birds."

For more information on this research see: Molecular Characterization of Extended-Spectrum-Cephalosporin-Resistant Enterobacteriaceae from Wild Kelp Gulls in South America. Antimicrobial Agents and Chemotherapy, 2016;60(11):6924-6927. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents..."
Our news journalists report that additional information may be obtained by contacting A. Liakopoulos, Wageningen University, CVI, Dept. of Bacteriol & Epidemiol, Lelystad, Netherlands. Additional authors for this research include B. Olsen, Y. Geurts, K. Artursson, C. Berg, D.J. Mevius and J. Bonnedahl.

Keywords for this news article include: Lelystad, Netherlands, Europe, Gram-Negative Facultatively Anaerobic Rods, Cephalosporin Resistance, beta-Lactam Resistance, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Cephalosporins, Proteobacteria, beta-Lactams, Thiazines, Wageningen University.

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Cardiovascular Research

Studies from Washington University Further Understanding of Cardiovascular Research (Knowledge Gaps in Cardiovascular Care of Older Adults: A Scientific Statement from the American Heart Association, American College of Cardiology, and American ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Research is the subject of a report. According to news originating from St. Louis, Missouri, by NewsRx correspondents, research stated, "The incidence and prevalence of most cardiovascular disorders increase with age, and cardiovascular disease (CVD) is the leading cause of death and major disability in adults aged 75 and older. Despite the effect of CVD on quality of life, morbidity, and mortality in older adults, individuals aged 75 and older have been markedly underrepresented in most major cardiovascular trials, and virtually all trials have excluded older adults with complex comorbidities, significant physical or cognitive disabilities, frailty, or residence in nursing homes and assisted living facilities."

Our news journalists obtained a quote from the research from Washington University, "As a result, current guidelines are unable to provide evidence-based recommendations for diagnosis and treatment of older adults typical of those encountered in routine clinical practice. The objectives of this scientific statement are to summarize current guideline recommendations as they apply to older adults, identify critical gaps in knowledge that preclude informed evidence-based decision-making, and recommend future research to close existing knowledge gaps. To achieve these objectives, a detailed review was conducted of current American College of Cardiology/American Heart Association (ACC/AHA) and American Stroke Association (ASA) guidelines to identify content and recommendations that explicitly targeted older adults. A pervasive lack of evidence to guide clinical decision-making in older adults with CVD was found, as well as a paucity of data on the effect of diagnostic and therapeutic interventions on outcomes that are particularly important to older adults, such as quality of life, physical function, and maintenance of independence. Accordingly, there is a critical need for a multitude of large population-based studies and clinical trials that include a broad spectrum of older adults representative of those seen in clinical practice and that incorporate relevant outcomes important to older adults in the study design."

According to the news editors, the research concluded: "The results of these studies will provide the foundation for future evidence-based guidelines applicable to older adults and
enhan ce person-centered care of older individuals with CVD in the United States and around the world."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgs.14576. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Cardiovascular Research, Cardiovascular Diseases and Conditions, Epidemiology, Cardiology, Washington University.

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Oncology - Acute Myeloid Leukemia

Studies from Washington University School of Medicine Yield New Information about Acute Myeloid Leukemia (Targeting the leukemia-stroma interaction in acute myeloid leukemia: rationale and latest evidence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Acute Myeloid Leukemia are discussed in a new report. According to news originating from St. Louis, Missouri, by NewsRx correspondents, research stated, "The concept of 'niche' has become a focus of attention in hematologic malignancies including acute myeloid leukemia (AML). Similar to normal hematopoietic stem cells, AML cells interact both anatomically and functionally with the stroma within the marrow microenvironment."

Our news journalists obtained a quote from the research from the Washington University School of Medicine, "These interactions have a critical role in the development, progression, and relapse of AML. Chemotherapy resistance is another feature that is at least partially related to AML-stroma interactions. The evidence for safety and efficacy of agents targeting AML-niche interactions is currently limited to preclinical and early phase clinical studies. Examples include CXCR4 inhibitors, hypoxia-inducible agents, and adhesion molecule inhibitors. Agents that target AML-stroma interactions differ from mutation-specific approaches that tend to be limited due to within-individual and between-individual genetic heterogeneity. These agents may be used alone or as chemosensitizers in AML."

According to the news editors, the research concluded: "This novel and rapidly advancing strategy is likely to become an important part of our armamentarium of anti-leukemia
For more information on this research see: Targeting the leukemia-stroma interaction in acute myeloid leukemia: rationale and latest evidence. *Therapeutic Advances In Hematology*, 2016;7(1):40-51. (Sage Publications - www.sagepub.com; Therapeutic Advances In Hematology - tah.sagepub.com)

The news correspondents report that additional information may be obtained from A. Rashidi, Section of BMT and Leukemia, Division of Oncology, Washington University School of Medicine, St Louis, MO, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/2040620715619307. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Missouri, Genetics, Oncology, St. Louis, Hematology, United States, Article Review, Acute Myeloid Leukemia, North and Central America.

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**Drugs and Therapies - Immunotherapy**

**Studies from Washington University School of Medicine in the Area of Immunotherapy Described (Improving natural killer cell cancer immunotherapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Immunotherapy is the subject of a report. According to news reporting out of St. Louis, Missouri, by NewsRx editors, research stated, "Natural killer (NK) cells are innate lymphoid cells specialized to eliminate malignant cells via direct cytotoxicity and immunoregulatory cytokine production. As such, NK cells are ideal as cellular therapy for cancer patients, and several studies have provided proof of principle that adoptively transferred NK cells can induce remissions in patients with leukemia."

Our news journalists obtained a quote from the research from the Washington University School of Medicine, "A clear understanding of the mechanisms underlying NK cell antitumor responses, including target cell recognition, activation status, and negative regulatory signals will improve NK cellular therapy for cancer patients. Clinical studies have demonstrated the safety and preliminary efficacy of NK cell adoptive transfer, especially in hematologic malignancies. Various NK cell sources, isolation techniques, activation approaches, and ex-vivo expansion strategies are under investigation. New approaches have been developed and are being tested to optimize NK cell therapy, including ways to better target NK cells to malignant cells, increase their functional competence, facilitate expansion in patients, and limit inhibitory signals or cells. NK cells represent a promising cellular immunotherapy for the treatment of cancer."

According to the news editors, the research concluded: "In addition to adoptive cellular therapy, adjunct treatments that optimize NK cell targeting and function will enhance their potency and broaden their potential use to many cancer types."

For more information on this research see: Improving natural killer cell cancer immunotherapy. *Current Opinion In Organ Transplantation*, 2015;20(6):671-80. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Organ Transplantation -
Our news journalists report that additional information may be obtained by contacting M.M. Berrien-Elliott, Division of Oncology, Dept. of Medicine, Washington University School of Medicine, St Louis, Missouri, United States. Additional authors for this research include R. Romee and T.A Fehniger.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MOT.0000000000000243. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Missouri, Oncology, St. Louis, United States, Immunotherapy, Article Review, Drugs and Therapies, North and Central America.

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Life Science Research - Plant Physiology

Studies from Wayne State University Reveal New Findings on Plant Physiology (Evolutionary Fates and Dynamic Functionalization of Young Duplicate Genes in Arabidopsis Genomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Life Science Research - Plant Physiology are presented in a new report. According to news reporting originating in Detroit, Michigan, by NewsRx journalists, research stated, "Gene duplication is a primary means to generate genomic novelties, playing an essential role in speciation and adaptation. Particularly in plants, a high abundance of duplicate genes has been maintained for significantly long periods of evolutionary time."

The news reporters obtained a quote from the research from Wayne State University, "To address the manner in which young duplicate genes were derived primarily from small-scale gene duplication and preserved in plant genomes and to determine the underlying driving mechanisms, we generated transcriptomes to produce the expression profiles of five tissues in Arabidopsis thaliana and the closely related species Arabidopsis lyrata and Capsella rubella. Based on the quantitative analysis metrics, we investigated the evolutionary processes of young duplicate genes in Arabidopsis. We determined that conservation, neofunctionalization, and specialization are three main evolutionary processes for Arabidopsis young duplicate genes. We explicitly demonstrated the dynamic functionalization of duplicate genes along the evolutionary time scale. Upon origination, duplicates tend to maintain their ancestral functions; but as they survive longer, they might be likely to develop distinct and novel functions. The temporal evolutionary processes and functionalization of plant duplicate genes are associated with their ancestral functions, dynamic DNA methylation levels, and histone modification abundances. Furthermore, duplicate genes tend to be initially expressed in pollen and then to gain more interaction partners over time."

According to the news reporters, the research concluded: "Altogether, our study provides novel insights into the dynamic retention processes of young duplicate genes in plant genomes."

Drugs and Therapies - Antifungals

**Studies from Wayne State University Update Current Data on Antifungals (Adverse effects of voriconazole: Over a decade of use)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antifungals have been presented. According to news originating from Detroit, Michigan, by NewsRx correspondents, research stated, "Voriconazole use has increased since the drug's introduction in 2002, and new and unique adverse effects are emerging as patients undergo prolonged therapy. Most concerning is the increased risk of cutaneous malignancies, primarily squamous cell carcinoma (SCC); this risk is duration dependent and the associated malignancies tend to be more aggressive and multifocal."

Our news journalists obtained a quote from the research from Wayne State University, "Voriconazole is also associated with phototoxicity (which may be a precursor to malignancy), periostitis, hallucinations and encephalopathy, peripheral neuropathy, alopecia, nail changes, hyponatremia, and other adverse effects. Some toxicities (neuropsychiatric and gastrointestinal including hepatic) are seen in clear association with supratherapeutic serum voriconazole levels; thus, careful monitoring of voriconazole levels is a critical component of safe drug use."

According to the news editors, the research concluded: "Guidelines for screening for adverse effects after long-term voriconazole use may be beneficial and need to be established."


The news correspondents report that additional information may be obtained from M.T. Levine, Wayne State University, Dept. of Med, Div Infect Dis, Detroit, MI 48202, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12834. This DOI is a link to an online electronic document that is either free or for purchase.
Studies from Wayne State University in the Area of Cell Biology Described (GAPDH binds Akt to facilitate cargo transport in the early secretory pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Life Science Research - Cell Biology have been published. According to news reporting out of Detroit, Michigan, by NewsRx editors, research stated, "Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) undergoes numerous post-translational modifications, which impart new function and influence intracellular location. For example, atypical PKC iota/lambda phosphorylates GAPDH that locates to vesicular tubular clusters and is required for retrograde membrane trafficking in the early secretory pathway."

Funders for this research include National Institutes of Health, American Diabetes Association.

Our news journalists obtained a quote from the research from Wayne State University, "GAPDH is also required in the endocytic pathway; substitution of Pro(234) to Ser (Pro(234)Ser) rendered CHO cells defective in endocytosis. To determine if GAPDH (Pro(234) Ser) could inhibit endoplasmic reticulum to Golgi trafficking, we introduced the recombinant mutant enzyme into several biochemical and morphological transport assays. The mutant protein efficiently blocked vesicular stomatitis virus-G protein transport. Because GAPDH binds to microtubules (MTs), we evaluated MT binding and MT intracellular distribution in the presence of the mutant. Although these properties were not changed relative to wild-type, GAPDH (Pro(234)Ser) altered Golgi complex morphology. We determined that the GAPDH point mutation disrupted association between the enzyme and the serine/threonine kinase Aid. Interestingly Rab1, which functions in anterograde-directed trafficking, stimulates GAPDH-Akt association with membranes in a quantitative binding assay. In contrast, Rab2 does not stimulate GAPDH-Akt membrane binding but instead recruits GAPDH-aPKC."

According to the news editors, the research concluded: "We propose a mechanism whereby the association of GAPDH with Aid or with aPKC serves as a switch to discriminate between anterograde directed cargo and recycling cargo retrieved back to the ER, respectively."

For more information on this research see: GAPDH binds Akt to facilitate cargo transport in the early secretory pathway. Experimental Cell Research, 2016;349(2):310-319. Experimental Cell Research can be contacted at: Elsevier Inc, 525 B Street, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Experimental Cell Research - www.journals.elsevier.com/experimental-cell-research/)

Our news journalists report that additional information may be obtained by contacting E.J. Tisdale, Wayne State University, Sch Med, Dept. of Pharmacol, Detroit, MI 48201, United States. Additional authors for this research include N.K. Talati, C.R. Artalejo and A. Shisheva.

The direct object identifier (DOI) for that additional information is:
Studies from Weill Cornell Medical College Have Provided New Data on Type 2 Diabetes (Novel Anti-glycemic Drugs and Reduction of Cardiovascular Risk in Diabetes: Expectations Realized, Promises Unmet)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes have been published. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Purpose of Review The purpose is to review evidence on cardiovascular risks and benefits of new treatments for type 2 diabetes mellitus. In response to guidance issued by the Food and Drug Administration, thousands of patients have been enrolled in large randomized trials evaluating the cardiovascular effects of the three newest diabetes drug classes: glucagon-like peptide-1 (GLP-1) receptor agonists, sodium glucose cotransporter 2 (SGLT-2) inhibitors, and dipeptidyl peptidase-4 (DPP-4) inhibitors."

Our news journalists obtained a quote from the research from Weill Cornell Medical College, "Two studies of GLP-1 receptor agonists-one of liraglutide and one of semaglutide-have shown cardiovascular benefit relative to placebo, and one study of the SGLT-2 inhibitor empagliflozin has shown benefit. The other published cardiovascular outcome studies of the newest drug classes have generally supported safety, apart from an as-yet unresolved safety concern about increased rates of heart failure with DPP-4 inhibitors. Recent research suggests the thiazolidinedione pioglitazone may have beneficial effects on some cardiovascular outcomes as well, but these are counterbalanced by a known increase of the risk of heart failure with this drug. In general, more prospective randomized trial data is now available regarding the cardiovascular effects of the newer diabetes drugs than on the older drug classes. New evidence suggests that the newest diabetes drugs are safe from a cardiovascular perspective."

According to the news editors, the research concluded: "Evidence on benefit from at least some members of the GLP-1 receptor agonist and SGLT-2 inhibitor classes is encouraging but not yet decisive."

For more information on this research see: Novel Anti-glycemic Drugs and Reduction of Cardiovascular Risk in Diabetes: Expectations Realized, Promises Unmet. Current Atherosclerosis Reports, 2016;18(12):87-96. Current Atherosclerosis Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

The news correspondents report that additional information may be obtained from J.H. Flory, Weill Cornell Med College, New York, NY 10065, United States. Additional authors for this research include J.K. Ukena and J.S. Floyd.
Keywords for this news article include: New York City, New York, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Cardiology, Article Review, Drugs and Therapies, Non-Insulin Dependent Diabetes Mellitus, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Risk and Prevention, Type 2 Diabetes, Heart Failure, Heart Disease, Weill Cornell Medical College.

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**Drugs and Therapies - Chemotherapy**

**Studies from Weill Cornell Medical College Update Current Data on Chemotherapy (Intraperitoneal chemotherapy after interval debulking surgery for advanced-stage ovarian cancer: Feasibility and outcomes at a comprehensive cancer center)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Chemotherapy are presented in a new report. According to news reporting originating from New York City, New York, by NewsRx correspondents, research stated, "Intraperitoneal (IP)-based chemotherapy following primary debulking surgery (PDS), although associated with substantial toxicity, is supported by a strong evidence base. We sought to determine feasibility and outcomes of IP chemotherapy after interval debulking surgery (IDS) among patients deemed ineligible for PDS."

Our news editors obtained a quote from the research from Weill Cornell Medical College, "We identified all patients with high-grade, stage III/IV ovarian cancer treated at our institution with neoadjuvant chemotherapy (NACT) followed by IDS and postoperative chemotherapy from 1/2008-5/2013. IP and intravenous (IV) regimens were defined; demographic and clinical data were analyzed using appropriate statistics. Of 128 evaluable patients, 118 (92%) achieved <= 1 cm residual disease at IDS and 74 (58%) achieved a complete gross resection (CGR). An IP port was placed in 54/128 patients (42%), with 89% port utilization. Forty-eight (38%) of 128 patients received IP chemotherapy, 17 (13%) weekly IV paclitaxel/q3week carboplatin, and 63 (49%) q3week IV carboplatin/paclitaxel. Patients completed a median of 3 IP cycles (range, 2-6), with 3 (5.5%) of 54 ports removed due to complications. Overall survival (OS) for patients with a CGR treated with IP and weekly IV chemotherapy was 53.2 months (range, 24.7-NE), and 44.2 months (range, 30.2-NE) with any visible residual disease (p < 0.001). Median OS was 532 months (range, 44.5-NE) for IP-, not reached for weekly IV-, and 34.2 months (range, 27.5-49.8) for q3week IV-treated patients (p = 0.1). Patients administered IP after IDS had a high rate of successful port utilization, with few regimen switches."

According to the news editors, the research concluded: "Oncologic outcomes were optimal in patients with a CGR at IDS, regardless of chemotherapy used."


The news editors report that additional information may be obtained by contacting

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.09.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Surgery, Epidemiology, Drugs and Therapies, Chemotherapy, Oncology, Cancer, Weill Cornell Medical College.

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Oncology - Gliomas

Studies from Weill Cornell Medical College Yield New Information about Gliomas (Repeat surgery for recurrent low-grade gliomas should be standard of care)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gliomas. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "The importance of surgery and maximal extent of resection (EOR) is well established in primary low-grade glioma (LGG) management. However, the role of surgery in the management of recurrent LGG is less clear."

The news reporters obtained a quote from the research from Weill Cornell Medical College, "A recent review on the management of recurrent LGG concluded there was insufficient evidence to recommend surgery. Here, we summarize the recent advances regarding the role of surgery, radiotherapy (RT) and chemotherapy in the management of recurrent LGG. There is increasing evidence to support maximal EOR for treating recurrent LGG, as it may improve progression free survival (PFS) after recurrence and overall survival (OS)."

According to the news reporters, the research concluded: "Based on the studies presented in this review, we suggest that repeat surgery with maximal EOR should be standard of care for recurrent LGG treatment."

For more information on this research see: Repeat surgery for recurrent low-grade gliomas should be standard of care. Clinical Neurology and Neurosurgery, 2016;151():18-23. Clinical Neurology and Neurosurgery can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Clinical Neurology and Neurosurgery - www.journals.elsevier.com/clinical-neurology-and-neurosurgery/)

Our news correspondents report that additional information may be obtained by contacting T.J. Uppstrom, Weill Cornell Med College, Dept. of Neurol Surg, New York, NY 10021, United States. Additional authors for this research include R. Singh, G.F. Hadjigeorgiou, R. Magge and R. Ramakrishna.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.clineuro.2016.09.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Surgery, Article Review, Oncology, Gliomas, Weill Cornell
Studies from Wenzhou Medical University Describe New Findings in Porins (Differential Expression of Aquaporins in Cervical Precursor Lesions and Invasive Cervical Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Membrane Proteins - Porins have been published. According to news reporting from Zhejiang, People's Republic of China, by NewsRx journalists, research stated, "Aquaporins (AQP) are highly expressed in tumor cells of different origins, particularly the aggressive tumors. The aim of this study was to investigate the expression of AQP isoforms during progression of squamous cervical cancer (SCC) and explore their associations with clinicopathologic variables of SCC."

The news correspondents obtained a quote from the research from Wenzhou Medical University, "Expression of AQP isoforms (1, 3, 4, 5, and 8) was detected by immunohistochemistry in 47 SCCs, 37 cervical intraepithelial neoplasia (CIN), and 16 normal cervical tissues. Specific expression of AQP protein in SCC was detected by Western blot. Double immunohistochemistry was used to examine whether AQP and vascular endothelial growth factor (VEGF) are coexpressed in SCC. Aquaporin 1 showed higher positivity rate in CIN than in SCC and normal cervical tissues (P < .05). The expression intensity of AQP3, 4, 5, and 8 was higher in SCC than that in normal cervical tissues, respectively (P < .05). The expression of AQP3 and 8 was higher in SCC than that in CIN, respectively (P < .05). The AQP4 expression was higher in CIN than in normal cervical tissues (P < .05). The expression of AQP3 in CIN III was higher than that in CIN I and II (P < .05). There was a significant increase in the expression of AQP1 in stage I than that in stage II (P < .05). Aquaporin 3 showed lower positivity in moderately and well-differentiated tumors compared to that in poorly differentiated tumors (P < .05). Finally, double immunohistochemistry illustrated that AQP1/AQP3/AQP8 and VEGF were coexpressed in SCC. Different AQP isoforms display specific expression patterns in normal cervical, CIN, and SCC tissues."

According to the news reporters, the research concluded: "This and the significant association with the clinicopathologic variables of SCC suggest that AQP isoforms might play different roles in the development of cervical cancer."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1933719116646202. This DOI is a link to an online electronic
Studies from Wenzhou Medical University Provide New Data on Bosentan Therapy (Simultaneous Determination of Bosentan, Glimepiride, HYBOS and M1 in Rat Plasma by UPLC-MS-MS and its Application to Pharmacokinetic Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Bosentan Therapy. According to news originating from Zhejiang, People's Republic of China, by NewsRx correspondents, research stated, "A rapid and sensitive ultra-performance liquid chromatography-tandem mass spectrometry (UPLC-MS-MS) method for the simultaneous determination of bosentan (BOS), glimepiride (GLP), hydroxyl bosentan (HYBOS) and hydroxyl glimepiride (M1) in rat plasma using one-step protein precipitation was developed and validated. After addition of ambrisentan as an internal standard (IS), protein precipitation by acetonitrile was used in sample preparation."

Our news journalists obtained a quote from the research from Wenzhou Medical University, "Chromatographic separation was achieved on a Waters ACQUITY UPLC BEH C18 column (2.1 mm x 100 mm, 1.7 mu m particle size, Waters Corp., Milford, MA, USA) and inline 0.2 mu m stainless steel frit filter (Waters Corp.) with acetonitrile-0.1% formic acid as the mobile phase at a flow rate of 0.4 mL/min with gradient elution. The column temperature was maintained at 40 degrees C. Only 4 min was needed for an analytical run. The retention times were similar to 3.29 min for BOS, 3.56 min for GLP, 1.42 min for HYBOS, 1.53 min for M1 and 3.22 min for IS. Electrospray ionization source was employed and operated in positive-ion mode; multiple reaction monitoring mode was applied to target fragment ions m/z 552 -- > 202, m/z 568 -- > 202, m/z 491 -- > 352, m/z 507 -- > 352 and m/z 379 -- > 347 for BOS, HYBOS, GLP, M1 and IS, respectively. The assay was validated over concentration ranges of 25-5,000 ng/mL (r(2) = 0.9984) for BOS, 1-200 ng/mL (r(2) = 0.9999) for GLP, 0.5-100 ng/mL (r(2) = 0.9999) for HYBOS and 0.1-20 ng/mL (r(2) = 0.9984) for M1. Intra- and interday precision values for replicate quality control samples were within 14.2% for all analytes during the assay validation. Mean quality control accuracy values were within -3.3 to 14.4% of nominal values for all analytes. The mean recoveries of BOS, GLP, HYBOS, M1 and ambrisentan from the plasma exceeded 90.4%. The analytes were stable in rat plasma for at least 2 h at room temperature, 30 days at -40 degrees C and following at least three freeze-thaw cycles (-40 degrees C to room temperature).

According to the news editors, the research concluded: "This method was successfully applied to a pharmacokinetic study of coadministration of BOS and GLP in rats."

For more information on this research see: Simultaneous Determination of Bosentan, Glimepiride, HYBOS and M1 in Rat Plasma by UPLC-MS-MS and its Application to Pharmacokinetic Study. *Journal of Chromatographic Science*, 2016;54(7):1159-1165. *Journal
Studies from West China Second University Hospital Have Provided New Data on Science (Irisin promotes osteoblast proliferation and differentiation via activating the MAP kinase signaling pathways)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Science. According to news reporting originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "Physical exercise is able to improve skeletal health. However, the mechanisms are poorly known."

Our news editors obtained a quote from the research from West China Second University Hospital, "Irisin, a novel exercise-induced myokine, secreted by skeletal muscle in response to exercise, have been shown to mediate beneficial effects of exercise in many disorders. In the current study, we demonstrated that irisin promotes osteoblast proliferation, and increases the expression of osteoblastic transcription regulators, such as Runx-related transcription factor-2, osterix/sp7; and osteoblast differentiation markers, including alkaline phosphatase, collagen type 1 alpha-1, osteocalcin, and osteopontin in vitro. Irisin also increase ALP activity and calcium deposition in cultured osteoblast. These osteogenic effects were mediated by activating the p38 mitogen-activated protein kinase (p-p38 MAPK) and extracellular signal-regulated kinase (ERK). Inhibition of p38 MAPK by SB023580 or pERK by U0126 abolished the proliferation and up-regulatory effects of irisin on Runx2 expression and ALP activity. Together our observation suggest that irisin directly targets osteoblast, promoting osteoblast proliferation and differentiation via activating P38/ERK MAP kinase signaling cascades in vitro."

According to the news editors, the research concluded: "Whether irisin can be utilized as the therapeutic agents for osteopenia and osteoporosis is worth to be further pursued."

For more information on this research see: Irisin promotes osteoblast proliferation and differentiation via activating the MAP kinase signaling pathways. Scientific Reports, 2016;6 ():18732. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting X.
Studies from Western University Have Provided New Information about Atherosclerosis (Trimethylamine-N-oxide: a link between the gut microbiome, bile acid metabolism, and atherosclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news reporting out of London, Canada, by NewsRx editors, research stated, "This article evaluates the link between trimethylamine-N-oxide (TMAO) and bile acids and the consequent impact on the development of atherosclerosis. Elevation in plasma TMAO concentrations is associated with an increased risk of cardiovascular disease in many different patient cohorts."

Our news journalists obtained a quote from the research from Western University, "In addition to the recently identified direct effects of TMAO on the development of atherosclerosis, other components involved in TMAO metabolism may also have an impact. Furthermore, the relationship between TMAO and bile acid regulation is emerging as a possible mediator of atherosclerosis. Studies that are emerging highlight the mechanistic relationship of TMAO to the development atherosclerosis in addition to its role as disease biomarker. The interplay between TMAO and bile acid metabolism mediated through multiple factors, such as the gut microbiome, farnesoid X receptor signaling, and flavin monoxygenase 3 activity may help identify another pathway by which atherosclerosis occurs."

According to the news editors, the research concluded: "In this review, we discuss the most recent data regarding atherosclerosis, TMAO, and bile acid metabolism."

For more information on this research see: Trimethylamine-N-oxide: a link between the gut microbiome, bile acid metabolism, and atherosclerosis. Current Opinion In Lipidology, 2016;27(2):148-54. (Lippincott Williams and Wilkins - www.lww.com; Current Opinion In Lipidology - journals.lww.com/co-lipidology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting A. Wilson, aDivisions of Clinical Pharmacology bGastroenterology, Dept. of Medicine cDept. of Physiology and Pharmacology, Western University, London, ON, Canada. Additional authors for this research include C. McLean and R.B Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MOL.0000000000000274. This DOI is a link to an online electronic document that is either free or for purchase.
Studies from Western University Have Provided New Information about Dyslipidemias (Proprietary Considerations in the Use of Cardiovascular Genetic Data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Dyslipidemias are presented in a new report. According to news reporting originating in London, Canada, by NewsRx journalists, research stated, "Cardiovascular researchers and clinicians who analyze next-generation sequencing data often search databases of previously reported mutations to determine if an observed mutation is pathogenic. In 2012 we created a database of all reported mutations causing human dyslipidemia syndromes."

The news reporters obtained a quote from the research from Western University, "In 2015, we were advised that some information in our database was now proprietary, after the acquisition of a human disease genetic database by a private biotechnology company. To make our dyslipidemia database and tables of mutations compliant with this new reality, we wrote custom computer scripts to remove certain data fields from the previously reported tables. Data columns in the revised tables now include: accession number, gene name and symbol, mutation type, exon number, inheritance pattern, minor allele frequencies, predictive functional scores, reported functional effects, and additional patient information. The revised mutation tables provide a comprehensive qualitative and quantitative description of genetic variants causing monogenic dyslipidemias, but do not have complete information on all mutations. This experience indicates that free and unlimited access to human disease mutation data should not be taken for granted."

According to the news reporters, the research concluded: "Investigators or clinicians who require additional data that is not within the revised tables can still access the data through academic institutions that hold subscriptions to proprietary human mutation databases."


Our news correspondents report that additional information may be obtained by contacting M. Kolovic, Western Univ, Robarts Res Inst, Schulich Sch Med & Dental, London, ON, Canada. Additional authors for this research include J.F. Robinson and R.A. Hegele.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.02.033. This DOI is a link to an online electronic document that is either free or for purchase.
Cardiovascular Diseases and Conditions -

Studies from Wroclaw University Yield New Data on Atherosclerosis
[Iridoid-loganic acid versus anthocyanins from the Cornus mas fruits (cornelian cherry): Common and different effects on diet-induced atherosclerosis, PPARs expression and ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting out of Wroclaw, Poland, by NewsRx editors, research stated, "Cardiovascular benefits of fruits are attributed mainly to their (poly)phenolic constituents, especially anthocyanins. The main aim of our study is to compare effects of iridoids and anthocyanins from one fruit on diet-induced atherosclerosis."

Our news journalists obtained a quote from the research from Wroclaw University, "The cornelian cherry is a native or cultivated plant that grows in many European countries, used in cuisine and folk medicine. In our previous study, we showed its constituents and proved that oral administration of lyophilized fruits to hypercholesterolemic rabbits had preventive effects on atherosclerosis through the activation of PPAR alpha expression. In this study, we have compared the effects of the main constituents of the cornelian cherry: iridoid loganic acid and anthocyanins. Our experiment followed the model used in our previous study, in which rabbits were fed 1% cholesterol. We showed that both loganic acid (20 mg/kg b.w.) and amixture of anthocyanins (10mg/kg b.w.) administered orally for 60 days had a positive impact on dyslipidemia caused by cholesterol-rich diet, although the effects of anthocyanins were more pronounced. Anthocyanins decreased total and LDL-cholesterol and triglycerides and increased HDL-cholesterol. Loganic acid showed similar effects, but only the triglycerides and HDL-cholesterol changes achieved statistical significance. Anthocyanins, and to a lesser extent loganic acid, significantly decreased intima thickness and intima/media ratio in the thoracic aorta. Both substances decrease ox-LDL in the plasma. Anthocyanins significantly increased expression of PPAR gamma and alpha in the liver. Loganic acid also increased their expression, but to a lesser extent. Conversely, loganic acid showed pronounced anti-inflammatory effects, decreasing TNF-alpha and IL-6 activity. Our results imply that both substances have a positive effect on factors contributing to the development of diet-induced atherosclerosis."

According to the news editors, the research concluded: "Our results also indicate the potential health benefits of fruits containing anthocyanins and iridoids, and support the idea of creating composed phytopharmaceuticals containing both groups of substances."

For more information on this research see: Iridoid-loganic acid versus anthocyanins from the Cornus mas fruits (cornelian cherry): Common and different effects on diet-induced atherosclerosis, PPARs expression and inflammation. Atherosclerosis, 2016;254():151-160. Atherosclerosis can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting T. Sozanski, Wroclaw University, Dept. of Pharmacol, PL-50345 Wroclaw, Poland.

Keywords for this news article include: Wroclaw, Poland, Europe, Atherosclerosis, Cardiovascular Diseases and Conditions, Wroclaw University.

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Lactones

Studies from Wroclaw University of Environmental and Life Sciences in the Area of Lactones Described (Chemoenzymatic Synthesis of trans-beta-Aryl-delta-hydroxy-gamma-lactones and Enzymatic Kinetic Resolution of Their Racemic Mixtures)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lactones have been published. According to news reporting originating from Wroclaw, Poland, by NewsRx correspondents, research stated, "Two novel and convenient routes to obtain enantiomerically enriched trans-beta-aryl-delta-hydroxy-gamma-lactones 5a-d with potential antifeedant and anticancer activity were developed. In the first method starting from corresponding enantiomers of gamma,beta-unsaturated esters 4a-d derived from enzymatically resolved allyl alcohols 1a-d, both enantiomers of hydroxylactones 5a-d were synthesized with high enantiomeric excesses (73%-97%)."

Our news editors obtained a quote from the research from the Wroclaw University of Environmental and Life Sciences, "Configurations of the stereogenic centers of the synthesized compounds were assigned based on the mechanism of acidic lactonization of esters 4a-d in the presence of m-chloroperbenzoic acid (m-CPBA). An alternative method for the production of optically active trans-beta-aryl-delta-hydroxy-gamma-lactones 5a-d was lipase-catalyzed kinetic resolution of their racemic mixtures by transesterification with vinyl propionate as the acyl donor. The most efficient enzyme in the screening procedure was lipase B from Candida antarctica. Its application on a preparative scale after 6 h afforded unreacted (+)-(4S,5R,6S)-hydroxylactones 5a-d and (+)-(4R,5S,6R)-propionates 6a-d, most of them with high enantiomeric excesses (92%-98%). Resolution of lactone 5d with bulky 1,3-benzodioxol ring provided products with significantly lower optical purity (ee = 89% and 84% for hydroxylactone 5d and propionate 6d, respectively)."

According to the news editors, the research concluded: "The elaborated methods give access to both enantiomers of trans-beta-aryl-delta-hydroxy-gamma-lactones 5a-d with the defined absolute configurations of stereogenic centers, which is crucial requirement for the investigations of relationship: spatial structure-biological activity."

For more information on this research see: Chemoenzymatic Synthesis of trans-beta-Aryl-delta-hydroxy-gamma-lactones and Enzymatic Kinetic Resolution of Their Racemic Mixtures. *Molecules*, 2016;21(11):1974-1987. *Molecules* can be contacted at: Mdpj Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

The news editors report that additional information may be obtained by contacting A. Skrobiszewski, Wroclaw Univ Environm & Life Sci, Dept. of Chem, PL-50375 Wroclaw, Poland. Additional authors for this research include W. Gladkowski, G. Maciejewska and C. Wawrzenczyk.
Studies from Xi’an Jiao Tong University Describe New Findings in Hypertension (Exercise training attenuates renovascular hypertension partly via RAS-ROS-glutamate pathway in the hypothalamic paraventricular nucleus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Hypertension. According to news reporting originating in Xi’an, People's Republic of China, by NewsRx journalists, research stated, "Exercise training (ExT) has been reported to benefit hypertension; however, the exact mechanisms involved are unclear. We hypothesized that ExT attenuates hypertension, in part, through the reninangiotensin system (RAS), reactive oxygen species (ROS), and glutamate in the paraventricular nucleus (PVN)."

The news reporters obtained a quote from the research from Xi’an Jiao Tong University, "Two-kidney, one-clip (2K1C) renovascular hypertensive rats were assigned to sedentary (Sed) or treadmill running groups for eight weeks. Dizocilpine (MK801), a glutamate receptor blocker, or losartan (Los), an angiotensin II type1 receptor (AT1-R) blocker, were microinjected into the PVN at the end of the experiment. We found that 2K1C rats had higher mean arterial pressure (MAP) and renal sympathetic nerve activity (RSNA). These rats also had excessive oxidative stress and overactivated RAS in PVN. Eight weeks of ExT significantly decreased MAP and RSNA in 2K1C hypertensive rats. ExT inhibited angiotensin-converting enzyme (ACE), AT1-R, and glutamate in the PVN, and angiotensin II (ANG II) in the plasma. Moreover, ExT attenuated ROS by augmenting copper/zinc superoxide dismutase (Cu/Zn-SOD) and decreasing p(47phox) and gp(91phox) in the PVN. MK801 or Los significantly decreased blood pressure in rats."

According to the news reporters, the research concluded: "Together, these findings suggest that the beneficial effects of ExT on renovascular hypertension may be, in part, through the RAS-ROS-glutamate pathway in the PVN."

For more information on this research see: Exercise training attenuates renovascular hypertension partly via RAS-ROS-glutamate pathway in the hypothalamic paraventricular nucleus. Scientific Reports, 2016;6():1-10. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep/)


Keywords for this news article include: Xi'an, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Biological Factors, Peptide Proteins, Peptide
Hormones, Angiotensin II, Oligopeptides, Neuropeptides, Glutamic Acid, Angiotensins, Hypertension, Glutamates, Autacoids, Peptides, Xi'an Jiao Tong University.

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**Oncology - Liver Cancer**

**Studies from Xi'an Jiao Tong University Further Understanding of Liver Cancer [Preoperative aspartate aminotransferase-to-platelet ratio index (APRI) is a predictor on postoperative outcomes of hepatocellular carcinoma]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news reporting originating in Xi'an, People's Republic of China, by NewsRx journalists, research stated, "Preoperative aspartate aminotransferase-to-platelet ratio index (APRI) has been identified as a biochemical marker for histological fibrogenesis and fibrosis in cirrhosis and prognosis of hepatocellular carcinoma (HCC). Whether preoperative APRI can predict postoperative short-term outcomes has not been studied."

The news reporters obtained a quote from the research from Xi'an Jiao Tong University, "The purpose of this study was to investigate the ability of preoperative APRI to predict short-term outcomes following liver resection for HOC. APRI was evaluated in 360 patients undergoing liver resection for HCC. The receiver operating characteristic curve analysis was conducted to determine the cutoff value of the APRI in predicting postoperative morbidity. Univariate and multivariate analysis was performed to identify the risk factors for postoperative outcomes. The correlation of the preoperative APRI value with clinicopathological parameters was also examined. We found that the optimal cutoff value of the APRI was set at 9.5 for postoperative complications. APRI was an independent risk factor for overall complications by univariate and multivariate analyses. HCC patients with elevated APRI (>9.5) had a worse liver function and significantly higher postoperative complication rate."

According to the news reporters, the research concluded: "Preoperative APRI is a useful biochemical marker to predict postoperative outcomes in HCC patients."

For more information on this research see: Preoperative aspartate aminotransferase-to-platelet ratio index (APRI) is a predictor on postoperative outcomes of hepatocellular carcinoma. *Medicine*, 2016;95(48):161-166. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting J.W. Cheng, Xi An Jiao Tong Univ, Affiliated Hosp 2, Dept. of Pediat Surg, Xian 710004, Shaanxi Provinc, People's Republic of China. Additional authors for this research include P. Zhao, J.B. Liu, X. Liu and X.L. Wu.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Chemicals, Risk and Prevention, Aspartate Aminotransferases, Enzymes and Coenzymes, Gastroenterology, Liver Resection, Transaminases, Biochemicals, Biochemistry, Liver Cancer, Hepatology, Carcinomas, Oncology, Surgery, Xi'an Jiao Tong University.

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Studies from Xi'an Jiao Tong University Have Provided New Data on Endotoxins (Esculin attenuates endotoxin shock induced by lipopolysaccharide in mouse and NO production in vitro through inhibition of NF-kappa B activation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biological Factors - Endotoxins. According to news originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "Esculin, a coumarin compound derived from the traditional Chinese herbs such as Cortex Fraxini, has long been used for treating inflammatory and vascular diseases. In present study, we analyzed the role of esculin against macrophages and endotoxin shock induced by lipopolysaccharide (LPS) in mice."

Our news journalists obtained a quote from the research from Xi'an Jiao Tong University, "Here, we demonstrated that esculin suppressed inflammatory reactions in macrophages and protected mice from LPS-induced endotoxin shock. We found that esculin significantly inhibited the production of nitric oxide (NO) production via the inhibition of nuclear factor-kappa B (NF-kappa B) activation in macrophages. In animal model, esculin pretreatment significantly improved the survival rate of mice. LPS-induced increase of tumor necrosis factor alpha (TNF-alpha) and interleukin-6 (IL-6) in serum, lung, liver and kidney were markedly inhibited by esculin. IL-10, an anti-inflammatory cytokine, was up-regulated by esculin. Moreover, the histopathological analyses showed that esculin significantly attenuated the tissues injury of lung, liver, kidney in endotoxic mice. In addition, esculin significantly diminished the protein expression of NF-kappa B p65 in lung, liver, kidney, which resulted in lower levels of inflammatory mediators."

According to the news editors, the research concluded; "These results suggest that esculin may be a potential drug for treatment of various inflammatory diseases."

For more information on this research see: Esclusin attenuates endotoxin shock induced by lipopolysaccharide in mouse and NO production in vitro through inhibition of NF-kappa B activation. European Journal of Pharmacology, 2016;791():726-734. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news correspondents report that additional information may be obtained from W.F. Li, Xi An Jiao Tong Univ, Sch Pharm, Xian 710061, People's Republic of China. Additional authors for this research include Y. Wang, X.M. Wang, Z.H. He, F. Liu, W.B. Zhi, H.L. Zhang and X.F. Niu.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Mononuclear Phagocyte System, Bacterial Polysaccharides, Transcription Factors, DNA-Binding Proteins, Lipopolysaccharides, Biological Factors, Nuclear Proteins, Bacterial Toxins, Nitric Oxide, Macrophages, NF-kappa B, Immunology, Phagocytes, Endotoxins, Xi'an Jiao Tong University.

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**Studies from Xi'an Medical University Have Provided New Data on Drug Delivery Systems (Rapid and efficient crossing, blood-brain barrier: Hydrophobic drug delivery system based on propionylated amylose helix nanoclusters)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Delivery Systems have been published. According to news reporting originating in Xi'an, People's Republic of China, by NewsRx journalists, research stated, "A novel strategy of rapid transport across the blood-brain barrier (BBB) via phosphatidylethanolamine-triggered release is developed through both molecular dynamics (MD) simulation and experiments. Hydrophobic drugs, namely, propofol, iodine, and 1,1'-dioctadecyltetramethyl indotricarbocyanine iodide, were loaded with propionylated amylose helix (HLPAH) nanoclusters to form PLPAH, ILPAH, and DLPAH nanoclusters, respectively."

The news reporters obtained a quote from the research from Xi'an Medical University, "These clusters were subjected to MD simulation, structure measurement, in vitro triggered study, in vivo DLPAH imaging, and analysis of PLPAH sedative effects on rabbits. Results indicated that HLPAH nanoclusters were, initially located on the BBB, and the helix was unfolded to release the loaded hydrophobic drugs. The released drugs crossed the BBB and performed their functions in the central nervous system (CNS) through concentration gradient and hydrophobicity. This mechanism of HLPAH across the BBB featured high membrane permeability and specificity, rapid onset, short maintenance, rapid recovery, and lower dosage of drugs."

According to the news reporters, the research concluded: "Hence, this novel strategy is very meaningful for the development of CNS drug carriers and the proposed system could be used to improve the therapeutic effects of CNS diseases."

For more information on this research see: Rapid and efficient crossing, blood-brain barrier: Hydrophobic drug delivery system based on propionylated amylose helix nanoclusters. *Biomaterials*. 2017;113():133-144. *Biomaterials* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)

Our news correspondents report that additional information may be obtained by contacting B.Y. Sha, Xian Med Univ, Inst Basic Med Sci, Xian 710021, People's Republic of China. Additional authors for this research include Y.C. Liu, G.X. Jing, K. Li, Y. Zhao, B.Y. Sha, Q. Wang and D.C. Wu.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Central Nervous System, Drug Delivery Systems, Emerging Technologies, Drugs and Therapies, Nanotechnology, Nanoclusters, Xi'an Medical University.

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Necroptosis

Studies from Xiamen University Yield New Information about Necroptosis (Hsp90 modulates the stability of MLKL and is required for TNF-induced necroptosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Necroptosis. According to news reporting from Fujian, People's Republic of China, by NewsRx journalists, research stated, "The pseudokinase mixed lineage kinase domain-like protein (MLKL) is a key component of tumor necrosis factor (TNF)-induced necroptosis and plays a crucial role in necroptosis execution. However, the mechanisms that control MLKL activity are not completely understood."

The news correspondents obtained a quote from the research from Xiamen University, "Here, we identify the molecular chaperone Hsp90 as a novel MLKL-interacting protein. We show that Hsp90 associates with MLKL and is required for MLKL stability. Moreover, we find that Hsp90 also regulates the stability of the upstream RIP3 kinase. Interference with Hsp90 function with the 17AAG inhibitor destabilizes MLKL and RIP3, resulting in their degradation by the proteasome pathway. Furthermore, we find that Hsp90 is required for TNF-stimulated necrosome assembly. Disruption of Hsp90 function prevents necrosome formation and strongly reduces MLKL phosphorylation and inhibits TNF-induced necroptosis. Consistent with a positive role of Hsp90 in necroptosis, coexpression of Hsp90 increases MLKL oligomerization and plasma membrane translocation and enhances MLKL-mediated necroptosis."

According to the news reporters, the research concluded: "Our findings demonstrate that an efficient necrotic response requires a functional Hsp90."

For more information on this research see: Hsp90 modulates the stability of MLKL and is required for TNF-induced necroptosis. Cell Death & Disease, 2016;7():e2089. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

Our news journalists report that additional information may be obtained by contacting X.M. Zhao, State Key Laboratory of Cellular Stress Biology, Innovation Center for Cell Signaling Network, School of Life Sciences, Xiamen University, Xiamen, Fujian, People's Republic of China. Additional authors for this research include Z. Chen, J.B. Zhao, P.P. Zhang, Y.F. Pu, S.H. Jiang, J.J. Hou, Y.M. Cui, X.L. Jia and S.Q Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2015.390. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Fujian, Kinase, Genetics, Necroptosis, Enzymes and Coenzymes, People's Republic of China.

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Studies from Y. Manse et al Have Provided New Data on Medicinal Chemistry (Melanogenesis inhibitory activity of a 7-O-9 ' -linked neolignan from Alpinia galanga fruit)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Health and Medicine - Medicinal Chemistry is now available. According to news originating from Osaka, Japan, by NewsRx correspondents, research stated, "An aqueous acetone extract from the fruit of Alpinia galanga (Zingiberaceae) demonstrated inhibitory effects on melanogenesis in theophylline-stimulated murine B16 melanoma 4A5 cells (IC50 = 7.3 mu g/mL). Through bioassay-guided separation of the extract, a new 7-O-9'-linked neolignan, named galanganol D diacetate (1), was isolated along with 16 known compounds including 14 phenylpropanoids (2-15)."

Our news journalists obtained a quote from the research, "The structure of 1, including its absolute stereochemistry in the C-7 position, was elucidated by means of extensive NMR analysis and total synthesis. Among the isolates, 1 (IC50 = 2.5 mu M), 1'S-1'-acetoxychavicol acetate (2, 5.0 mu M), and 1'S-1'-acetoxyeugenol acetate (3, 5.6 mu M) exhibited a relatively potent inhibitory effect without notable cytotoxicity at effective concentrations. The following structural requirements were suggested to enhance the inhibitory activity of phenylpropanoids on melanogenesis: (i) compounds with 4-acetoxy group exhibit higher activity than those with 4-hydroxy group; (ii) 3-methoxy group dose not affect the activity; (iii) acetylation of the 1'-hydroxy moiety enhances the activity; and (iv) phenylpropanoid dimers with the 7-O-9'-linked neolignan skeleton exhibited higher activity than those with the corresponding monomer. Their respective enantiomers [1' (IC50 = 1.9 mu M) and 20 (4.5 mu M)] and racemic mixtures [(+/-)-1 (2.2 mu M) and (+/-)-2 (4.4 mu M)] were found to exhibit melanogenesis inhibitory activities equivalent to those of the naturally occurring optical active compounds (1 and 2)."

According to the news editors, the research concluded: "Furthermore, the active compounds 1-3 inhibited tyrosinase, tyrosine-related protein (TRP)-1, and TRP-2 mRNA expressions, which could be the mechanism of melanogenesis inhibitory activity."


The news correspondents report that additional information may be obtained from T. Morikawa, Kindai Univ, Antiaging Center, Osaka 5778502, Japan. Additional authors for this research include K. Ninomiya, R. Nishi, I. Kamei, Y. Katsuyama, T. Imagawa, S. Chaipech, O. Muraoka and T. Morikawa.

Keywords for this news article include: Osaka, Japan, Asia, Medicinal Chemistry, Health and Medicine, Genetics.

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Gram-Negative Bacteria - Enterobacter cloacae

Studies from Y.Y. Cai et al in the Area of Enterobacter cloacae Described (In Vitro Activity of Polymyxin B in Combination with Various Antibiotics against Extensively Drug-Resistant Enterobacter cloacae with Decreased Susceptibility to ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Gram-Negative Bacteria - Enterobacter cloacae. According to news reporting out of Singapore, Singapore, by NewsRx editors, research stated, "Against extensively drug-resistant (XDR) Enterobacter cloacae, combination antibiotic therapy may be the only option. We investigated the activity of various antibiotics in combination with polymyxin B using time-kill studies (TKS)."

Funders for this research include MOH | National Medical Research Council (NMRC), Pfizer (Pfizer Inc.), Singapore General Hospital (SGH).

Our news journalists obtained a quote from the research, "TKS were conducted with four nonclonal XDR E. cloacae isolates with 5 log(10) CFU/ml bacteria against maximum, clinically achievable concentrations of polymyxin B alone and in two-drug combinations with 10 different antibiotics. A hollow-fiber infection model (HFIM) simulating clinically relevant polymyxin B and tigecycline dosing regimens was conducted for two isolates over 240 h. Emergence of resistance was quantified using antibiotic-containing (3 x MIC) media. Biofitness and stability of resistant phenotypes were determined. All XDR E. cloacae isolates were resistant to all antibiotics except for polymyxin B (polymyxin B MIC, 1 to 4 mg/liter). All isolates harbored metallo-beta-lactamases (two with NDM-1, two with IMP-1). In single TKS, all antibiotics alone demonstrated regrowth at 24 h, except amikacin against two strains and polymyxin B and meropenem against one strain each. In combination TKS, only polymyxin B plus tigecycline was bactericidal against all four XDR E. cloacae isolates at 24 h. In HFIM, tigecycline and polymyxin B alone did not exhibit any killing activity. Bactericidal kill was observed at 24 h for both isolates for polymyxin B plus tigecycline; killing was sustained for one isolate but regrowth was observed for the second. Phenotypically stable resistant mutants with reduced in vitro growth rates were observed. Polymyxin B plus tigecycline is a promising combination against XDR E. cloacae."

According to the news editors, the research concluded: "However, prolonged and indiscriminate use can result in resistance emergence."

For more information on this research see: In Vitro Activity of Polymyxin B in Combination with Various Antibiotics against Extensively Drug-Resistant Enterobacter cloacae with Decreased Susceptibility to Polymyxin B. Antimicrobial Agents and Chemotherapy, 2016;60(9):5238-5246. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00270-16. This DOI is a link to an online electronic document that is either free or for purchase.
Complementary and Alternative Medicine - Herbal...

Studies from Y.Y. Yang and Co-Researchers in the Area of Herbal Medicine Reported (Analysis of pharmaceutical products and herbal medicines using ambient mass spectrometry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Complementary and Alternative Medicine - Herbal Medicine are discussed in a new report. According to news reporting originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Pharmaceutical analysis is an important approach to understand the active pharmaceutical ingredients and impurities in pharmaceutical products and herbal medicines, as well as to develop novel methodologies for their quality assessment and control."

Financial support for this research came from Scientific and Technological Project of Guangdong Province.

Our news editors obtained a quote from the research, "The development of ambient mass spectrometry (MS) in the beginning of the 21st century provides us with the opportunity for conducting rapid and straight-forward analysis of pharmaceutical products and herbal medicines. In this study, we review the field of ambient MS on the analyses of pharmaceutical products and herbal medicines that have been published to date."

According to the news editors, the research concluded: "The ambient ionization techniques applied for analysis of pharmaceutical products and herbal medicines are summarized and commented, with analytical strategies emphasized, and the typical analyses and applications are discussed."


The news editors report that additional information may be obtained by contacting Y.Y. Yang, China Natl Analyt Center Guangzhou, Guangdong Prov Public Lab Anal & Testing Technol, Guangzhou 510070, Guangdong, People's Republic of China.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.trac.2016.04.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Complementary and Alternative Medicine, Herbal Medicine, Therapy.

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Studies from Yale University Have Provided New Data on Cardiovascular Diseases (Comprehensive Strategies to Reduce Readmissions in Older Patients With Cardiovascular Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases is the subject of a report. According to news reporting from New Haven, Connecticut, by NewsRx editors, the research stated, "Older adults are frequently readmitted to the hospital soon after hospitalization for common cardiovascular conditions. Yet there are few high-quality data on the best strategies to reduce short-term readmissions because most studies have involved small numbers of participants, single-centre design, and strong susceptibility to bias."

The news correspondents obtained a quote from the research from Yale University, "Despite these limitations in the literature, a clear signal exists that most studies involving a singular type of intervention, a singular type of health provider, or a low intensity of intervention have failed to reduce readmissions. In contrast, interventions that are most likely to lower readmissions have used comprehensive approaches, including combined hospital and postacute care, multimodal interventions, multidisciplinary teams, or frequent longitudinal contact. Components of a comprehensive approach with the highest level of evidence include high-quality, disease-specific care; multiple transitional care interventions; involvement of multidisciplinary teams; early and frequent outpatient follow-up; and, when possible, home visits. These findings are consistent with data demonstrating that older adults have multiple sources of vulnerability and experience elevated readmission risk from a broad spectrum of medical conditions for an extended time after hospital discharge."

According to the news reporters, the research concluded: "Because readmission reduction is difficult and requires new ways of conceptualizing links between inpatient and postacute care, financial incentives may ultimately be required to motivate hospitals and health systems to redesign care processes, deploy new resources, and collaborate with out-of-hospital providers and organizations."


Our news journalists report that additional information may be obtained by contacting K. Dharmarajan, Yale New Haven Med Center, Center Outcomes Res & Évaluat, New Haven, CT 06504, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.01.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Cardiovascular Diseases and Conditions, Cardiology, Article Review, Hospital, Yale University.

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Studies from Yang Ming National University Yield New Information about Prostheses (Risk of infection is associated more with drain duration than daily drainage volume in prosthesis-based breast reconstruction A cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Prostheses are presented in a new report. According to news reporting from Taipei, Taiwan, by NewsRx journalists, research stated, "In prosthesis-based breast reconstruction, drains are used to prevent seroma formation and to reduce the risk of infection. However, prolonged drainage increases the risk of ascending infection."

The news correspondents obtained a quote from the research from Yang Ming National University, "Although the volume often accepted for drain removal is <= 30 mL per day, the optimal timing to remove the drain for best clinical outcome remains controversial. We did a retrospective cohort study of 569 patients of prosthesis-based breast reconstruction with infection rate as the outcome variable; drain duration and last daily drainage volume as the main independent variables. Data on age, smoking history, diabetes mellitus history, body mass index, breast weight, tissue expander size, drain size, number of retrieved lymph nodes, tumor size, number of metastatic lymph nodes, tumor stage, mastectomy type, reconstruction type, submuscular implantation, skin defect, operative time, duration of antibiotics use, chemotherapy, and radiotherapy were collected as covariates. Multivariable logistic regression analysis was used to control for confounding. The total infection rate was 5.1%(29/569). The daily drainage volume >= 30mL/d at the time of drain removal was not found associated with increased infection rate (P=0.32). Of the various cutoff values of last daily drainage volume, none was found to be a determinant for drain removal where the risk of infection was concerned. By contrast, drain duration over 21 days significantly increased infection rate (P=0.001). The multivariable logistic regression analysis showed an increase of 76.2% in the infection rate with each additional week of drain retention (P=0.001). Breast weight also had a significant influence on risk of infection. Chemotherapy and drain size showed borderline effect on risk of infection whereas the last daily drainage volume was not associated with risk of infection. In summary, our study revealed that drain duration, rather than the last daily drainage volume, significantly affects the infection rate in prosthesis-based breast reconstruction."

According to the news reporters, the research concluded: "We recommend that the drain is better removed no longer than 3 weeks postoperatively and can be removed as early as postoperative day 7, even when the drainage is over 30 mL in a 24-hour period."

For more information on this research see: Risk of infection is associated more with drain duration than daily drainage volume in prosthesis-based breast reconstruction A cohort study. Medicine, 2016;95(49):556-561. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting P. Chou, Yang Ming National University, Community Med Res Center, Taipei 11221, Taiwan. Additional authors for this research include S.F. Lin, C.F. Hung and P. Chou.

Keywords for this news article include: Taipei, Taiwan, Asia, Prostheses, Prosthetics, Risk and Prevention, Medical Devices, Yang Ming National University.

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Studies from Yeditepe University School of Medicine Yield New Data on Clinical Trials and Studies (Effects of a fentanyl-propofol mixture on propofol injection pain: a randomized clinical trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Clinical Research - Clinical Trials and Studies is the subject of a report. According to news originating from Istanbul, Turkey, by NewsRx correspondents, research stated, "Propofol injection pain is a common problem that can be very distressing for patients. We compared the effects of injection with saline followed by injection with a fentanyl-propofol mixture, injection with fentanyl followed by a propofol injection, and injection with saline followed by propofol alone on propofol injection pain."

Our news journalists obtained a quote from the research from the Yeditepe University School of Medicine, "The patients were assigned randomly to one of three groups. A rubber tourniquet was placed on the forearm to produce venous occlusion for 1 min. Before anesthesia induction, group C (control, n=50) and group M (fentanyl-propofol mixture, n=50) received 5 ml of isotonic saline, while group F (fentanyl, n=50) received 2 µg/kg of fentanyl. After the tourniquet was released, groups C and F received 5 ml of propofol and group M received 5 ml of a mixture containing 20 ml of propofol and 4 ml of fentanyl. At 10 s after the study drugs were given, a standard question about the comfort of the injection was asked of the patient. We used a verbal rating scale to evaluate propofol injection pain. Statistical analyses were performed with Student’s t-tests and Fisher's exact tests; p<0.05 was considered to indicate statistical significance. The demographic data were similar among the groups. In group M, the number of patients reporting propofol injection pain was significantly lower than in groups F and C (both p<0.001). No patient in group F or M experienced severe pain, whereas 24 patients (48%) had severe pain in group C (both p<0.001)."

According to the news editors, the research concluded: "This study shows that a fentanyl-propofol mixture was more effective than fentanyl pretreatment or a placebo in preventing propofol injection pain."


The news correspondents report that additional information may be obtained from N. Kizilcik, Dept. of Anesthesiology and Reanimation, Yeditepe University School of Medicine, Istanbul, Turkey. Additional authors for this research include F. Menda, S. Bilgen, O. Keskin and O. Koner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4097/kjae.2015.68.6.556. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Turkey, Eurasia, Phenols, Istanbul, Propofol Therapy, Clinical Research, Drugs and Therapies, General Anesthetics, Narcotic Analgesics, Fentanyl Therapy Citrate, Clinical Trials and Studies, Central Nervous System Agents.

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Studies from Yeungnam University Describe New Findings in Antimicrobials (Antimicrobial bioactive compounds from marine algae: A mini review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antimicrobials have been presented. According to news originating from Gyongsan, South Korea, by NewsRx editors, the research stated, "Research on natural products from marine algae has increased dramatically since last few decades. Marine natural products provide a rich source of chemically diverse compounds which have significant potential to be developed as novel types of therapeutic agents."

Our news journalists obtained a quote from the research from Yeungnam University, "Certain marine products diverse in biological and therapeutic potential have been found to exhibit significant antimicrobial effects against number of harmful pathogens. Among them, marine macro-algae are considered as an excellent source of bioactive compounds which have a broad range of biological activities including antibacterial, antifungal and antiviral potential. In this article, we review the biological potential of bioactive compounds derived from marine algae with a proposed outline of their antimicrobial mechanism of action. In addition, we have also given emphasis on recent advances of secondary metabolites from marine resources along with their pharmacological effects and other uses in human food."

According to the news editors, the research concluded: "A brief discussion on the chemical nature of marine-based bioactive compounds has also been presented."

For more information on this research see: Antimicrobial bioactive compounds from marine algae: A mini review. *Indian Journal of Geo-Marine Sciences*, 2016;45(9):1076-1085. *Indian Journal of Geo-Marine Sciences* can be contacted at: Natl Inst Science Communication-Niscair, Dr K S Krishnan Marg, Pusa Campus, New Delhi 110 012, India.

The news correspondents report that additional information may be obtained from V.K. Bajpai, Yeungnam University, Sch Biotechnol, Dept. of Appl Microbiol & Biotechnol, Gyongsan 712749, Gyeongbuk, South Korea.

Keywords for this news article include: Gyongsan, South Korea, Asia, Drugs and Therapies, Article Review, Antimicrobials, Yeungnam University.

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Studies from Yokohama City University Further Understanding of Heart Attack (Association between epicardial adipose tissue volume and myocardial salvage in patients with a first ST-segment elevation myocardial infarction: An epicardial adipose ...)

Heart Disorders and Diseases - Heart Attack

Studies from Yokohama City University Further Understanding of Heart Attack (Association between epicardial adipose tissue volume and myocardial salvage in patients with a first ST-segment elevation myocardial infarction: An epicardial adipose ...
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting originating in Kanagawa, Japan, by NewsRx journalists, research stated, "Epicardial adipose tissue (EAT), defined as the adipose tissue between the visceral pericardium and the outer margin of the myocardium, is associated with coronary artery disease in the general population. However, the clinical implications of EAT in patients with ST-segment elevation myocardial infarction (STEMI) remain unclear."

The news reporters obtained a quote from the research from Yokohama City University, "A total of 142 patients with a first STEMI, who received reperfusion therapy within 12 h from symptom onset, were enrolled. All patients underwent cardiac magnetic resonance imaging to evaluate infarct core (Core), area at risk (AAR), and EAT volume. Myocardial salvage index (MSI) was defined as AAR minus Core divided by AAR. Patients in the lower tertile of EAT volume were classified as the low EAT group (group L) and the other two-thirds as the high EAT group (group H). The mean MSI was lower in group L than in group H (0.43 +/- 0.13 vs 0.49 +/- 0.13, p = 0.01), and the mean extent of Core was higher in group L than in group H (25 +/- 10% vs 19 +/- 10%, p< 0.01). Multivariate linear regression analysis including coronary risk factors and previously reported predictors of infarct size demonstrated that EAT volume was an independent predictor of MSI (beta coefficient = 0.002 per 1 mL, p = 0.002)."

According to the news reporters, the research concluded: "A lower EAT volume is associated with less myocardial salvage and larger infarct size in patients with a first STEMI."

For more information on this research see: Association between epicardial adipose tissue volume and myocardial salvage in patients with a first ST-segment elevation myocardial infarction: An epicardial adipose tissue paradox. *Journal of Cardiology*. 2016;68(5-6):399-405. *Journal of Cardiology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

Our news correspondents report that additional information may be obtained by contacting N. Iwahashi, Yokohama City University, Medical Center, Div Cardiol, Yokohama, Kanagawa, Japan. Additional authors for this research include N. Iwahashi, E. Akiyama, N. Maejima, K. Tsukahara, K. Hibi, M. Kosuge, T. Ebina, S. Umemura and K. Kimura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2015.10.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kanagawa, Japan, Asia, Heart Disorders and Diseases, Risk and Prevention, Vascular Diseases and Conditions, Myocardial Infarction, Myocardial Ischemia, Heart Disease, Heart Attack, Yokohama City University.

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**Oncology - Colon Cancer**

**Studies from Yokohama City University Update Current Data on Colon Cancer (Anticancer effect of linalool via cancer-specific hydroxyl radical generation in human colon cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Colon Cancer. According to
news reporting originating from Kanagawa, Japan, by NewsRx correspondents, research stated, "To investigate the anticancer mechanisms of the monoterpenoid alcohol linalool in human colon cancer cells. The cytotoxic effect of linalool on the human colon cancer cell lines and a human fibroblast cell line was examined using the WST-8 assay."

Our news editors obtained a quote from the research from Yokohama City University, "The apoptosis-inducing effect of linalool was measured using the terminal deoxynucleotidyl transferase dUTP nickend labeling assay and flow cytometry with Annexin V. Oxidative stress was investigated by staining for diphenyl-1-pyrenylphosphine, which is a cellular lipid peroxidation marker, and electron spin resonance spectroscopy. Sixteen SCID mice xenografted with human cancer cells were randomized into 3 groups for in vivo analysis: control and low-dose and high-dose linalool groups. The control group was administered tap water orally every 3 d. The linalool treatment groups were administered 100 or 200 μg/kg linalool solution orally for the same period. All mice were sacrificed under anesthesia 21 d after tumor inoculation, and tumors and organs were collected for immunohistochemistry using an anti-4-hydroxynonenal antibody. Tumor weights were measured and compared between groups. Linalool induced apoptosis of cancer cells in vitro, following the cancer-specific induction of oxidative stress, which was measured based on spontaneous hydroxyl radical production and delayed lipid peroxidation. Mice in the high-dose linalool group exhibited a 55% reduction in mean xenograft tumor weight compared with mice in the control group (P < 0.05). In addition, tumor-specific lipid peroxidation was observed in the in vivo model."

According to the news editors, the research concluded: "Linalool exhibited an anticancer effect via cancer-specific oxidative stress, and this agent has potential for application in colon cancer therapy."


The news editors report that additional information may be obtained by contacting Y.W. Zheng, Yokohama City University, Dept. of Regenerat Med, Grad Sch Med, Yokohama, Kanagawa 2360004, Japan. Additional authors for this research include Y.W. Zheng, S. Murata, H. Ito, K. Nakayama, T. Kurokawa, N. Sano, T. Nowatari, M.O. Villareal, Y.N. Nagano, H. Isoda, H. Matsui and N. Ohkohchi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i44.9765. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kanagawa, Japan, Asia, Reactive Oxygen Species, Inorganic Chemicals, Drugs and Therapies, Hydroxyl Radical, Cancer Therapy, Electrolytes, Colon Cancer, Hydroxides, Oncology, Ions, Yokohama City University.

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Studies from Yonsei University Yield New Data on Antineoplastic Monoclonal Antibodies (Treatment preferences of advanced ovarian cancer patients for adding bevacizumab to first-line therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antineoplastic Monoclonal Antibodies. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "The GOG-218 and ICON-7 studies recently showed that adding bevacizumab to first-line therapy for patients with advanced ovarian cancer increased progression-free survival. However, the high cost and long treatment duration prevents the incorporation of bevacizumab in practice."

Our news editors obtained a quote from the research from Yonsei University, "The aim of this study was to explore and quantify patients' preferences for adding bevacizumab to first-line therapy. A discrete choice experiment (DCE) and trade-off question were designed and distributed to 102 ovarian cancer patients. Participants were asked to choose between two hypothetical first-line therapies that differed in terms of effectiveness, safety, and the financial burden. A trade-off technique varying the cost of bevacizumab was used to quantify a willingness-to-pay threshold for selecting bevacizumab. All attributes of the DCE had a statistically significant impact on respondents' preferences and the financial burden was the most important attribute. The results of the trade-off question showed that more than half of patients would prefer to add bevacizumab to standard chemotherapy when the cost of the drug was reduced to 17% (1/6) of the baseline cost. Patients' preferences for bevacizumab in the adjuvant treatment of ovarian cancer depend primarily on drug costs."

According to the news editors, the research concluded: "Our results suggest that the current cost of bevacizumab is sufficiently high that the majority of ovarian cancer patients are not willing to pay to accept a small increase in progression-free survival."

For more information on this research see: Treatment preferences of advanced ovarian cancer patients for adding bevacizumab to first-line therapy. Gynecologic Oncology, 2016;143(3):622-627. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

The news editors report that additional information may be obtained by contacting S. Kim, Yonsei University, Coll Med, Inst Womens Life Med Sci, Dept. of Obstet & Gynecol, Seoul 03722, South Korea. Additional authors for this research include K. Kim, Y.S. Lee, H.Y. Kim, E.J. Nam, S. Kim, S.W. Kim, J.W. Kim and Y.T. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.10.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Antineoplastic Monoclonal Antibodies, Tyrosine Kinase Inhibitors, VEGF - VEGFR Inhibitors, Investment and Finance, Drugs and Therapies, VEGFR Inhibitors, Antineoplastics, Bevacizumab, Oncology, Therapy, Cancer, Yonsei University.

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Leukocyte Diseases and Conditions - Leukocytosis

Studies from Yonsei University Yield New Information about Leukocytosis (Tumor-related leukocytosis is associated with poor radiation response and clinical outcome in uterine cervical cancer patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Leukocyte Diseases and Conditions - Leukocytosis are presented in a new report. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "To evaluate response to radiation and clinical outcome of uterine cervical cancer patients with tumor-related leukocytosis (TRL) at initial diagnosis and during definitive radiotherapy. We retrospectively analyzed 2456 patients with stage IA-IVA uterine cervical cancer who received definitive radiotherapy with (37.4%) or without (62.6%) platinum-based chemotherapy between 1986 and 2012."

Our news editors obtained a quote from the research from Yonsei University, "TRL was defined as two or more occurrences of leukocytosis over 9000/μl at the time of diagnosis and during the course of treatment. Locoregional failure-free survival (LFFS) and overall survival (OS) were compared between patients with or without TRL. The median age of all patients was 55 years, and the median follow-up time was 65.1 months. TRL was observed in 398 patients (16%) at initial diagnosis; TRL (+) patients were younger and had larger tumors, advanced stage, and more frequent lymph node metastases (allP < 0.05). TRL (+) patients showed a significantly lower rate of complete remission than TRL (-) patients (89.9% versus 96.3%, respectively, P = 0.042). Ten-year LFFS and OS for all patients were 84% and 78%, respectively. LFFS and OS were significantly lower in TRL (+) patients than TRL (-) patients (10-year LFFS: 69% versus 87% respectively, P < 0.001; 10-year OS: 63% versus 81% respectively P < 0.001). After propensity score matching, LFFS and OS rates in TRL (+) patients remained significantly lower than for TRL (-) patients; this significant difference was also observed on multivariate analysis. Twenty-six percent of patients with locoregional failure (n = 345) were TRL (+) and had significantly poorer median OS (6 versus 12 months, P = 0.001). This study reveals the aggressive nature of cervical cancer with TRL and its poor response to radiation therapy."

According to the news editors, the research concluded: "Given the unfavorable prognosis and higher probability of treatment failure, optimal diagnostic and therapeutic approaches and careful monitoring for early detection of recurrence should be considered for these patients."


The news editors report that additional information may be obtained by contacting Y.B. Kim, Yonsei University, Coll Med, Yonsei Song Dang Inst Canc Res, Seoul, South Korea. Additional authors for this research include K.H. Kim, H.I. Yoon, G.E. Kim and Y.B. Kim.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/annonc/mdw308. This DOI is a link to an online electronic document that is either free or for purchase.
Oncology - Lung Cancer

Studies from Z.B. Song and Colleagues Yield New Information about Lung Cancer (Clinicopathologic characteristics, genetic variability and therapeutic options of RET rearrangements patients in lung adenocarcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Lung Cancer is now available. According to news reporting originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "RET fusion gene is identified as a novel oncogene in a subset of non-small cell lung cancer (NSCLC). However, few data are available about the prevalence, clinicopathologic characteristics, genetic variability and therapeutic options in RET-positive lung adenocarcinoma patients."

Our news editors obtained a quote from the research, "For 615 patients with lung adenocarcinoma, RET status was detected by reverse transcription-polymerase chain reaction (RT-PCR). Next-generation sequencing (NGS) and FISH were performed in positive cases. Thymidylate synthetase (TS) mRNA level was assayed by RT-PCR. Overall survival (OS) was evaluated by Kaplan-Meier method and compared with log-rank test. Twelve RET-positive patients were identified by RT-PCR. However, one patient failed the detection of RET rearrangement by FISH and NGS. Totally, 11 patients (1.8%) confirmed with RET rearrangements by three methods, including six females and five males with a median age of 54 years. The presence of RET rearrangements was associated with lepidic predominant lung adenocarcinoma subtype in five of 11 patients. RET rearrangements comprised of nine KIF5B-RET and two CCDC6-RET fusions. Four patients had concurrent gene variability by NGS detection, including EGFR (n = 1), MAP2K1 (n = 1), CTNNB1 (n = 1) and AKT1 (n = 1). No survival difference existed between RET-positive and negative patients (58.1 vs. 52.0 months, P = 0.504). The median progression-free survival of first-line pemetrexed/platinum regimen was 7.5 months for four recurrent cases. And the level of TS mRNA was lower in RET-positive patients than that in those RET-negative counterparts (239 +/- 188 x 10^-4 vs. 394 +/- 457 x 10^-4, P = 0.019). The prevalence of RET fusion is approximately 1.8% in Chinese patients with lung adenocarcinoma. RET rearrangements are characterized by lepidic predominance and a lower TS level."

According to the news editors, the research concluded: "RET-rearranged patients may benefit more from pemetrexed-based regimen."


The news editors report that additional information may be obtained by contacting
Studies from Z.H. Wang and Colleagues Provide New Data on Ovarian Cancer (Research Progress of MicroRNA in Early Detection of Ovarian Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Ovarian Cancer have been published. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "This review aimed to update the progress of microRNA (miRNA) in early detection of ovarian cancer. We discussed the current clinical diagnosis methods and biomarkers of ovarian cancer, especially the methods of miRNA in early detection of ovarian cancer."

Our news journalists obtained a quote from the research, "We collected all relevant studies about miRNA and ovarian cancer in PubMed and CNKI from 1995 to 2015. We included all relevant studies concerning miRNA in early detection of ovarian cancer, and excluded the duplicated articles. miRNAs play a key role in various biological processes of ovarian cancer, such as development, proliferation, differentiation, apoptosis and metastasis, and these phenomena appear in the early-stage. Therefore, miRNA can be used as a new biomarker for early diagnosis of ovarian cancer, intervention on miRNA expression of known target genes, and potential target genes can achieve the effect of early prevention. With the development of nanoscience and technology, analysis methods of miRNA are also quickly developed, which may provide better characterization of early detection of ovarian cancer."

According to the news editors, the research concluded: "In the near future, miRNA therapy could be a powerful tool for ovarian cancer prevention and treatment, and combining with the new analysis technology and new nanomaterials, point-of-care tests for miRNA with high throughput, high sensitivity, and strong specificity are developed to achieve the application of diagnostic kits in screening of early ovarian cancer."


Our news journalists report that additional information may be obtained by contacting C.J. Xu, Shanghai Key Laboratory of Female Reproductive Endocrine Related Diseases, Shanghai 200011, People's Republic of China.

The direct object identifier (DOI) for that additional information is:
Studies from Zhejiang Chinese Medical University Reveal New Findings on Gastric Cancer [Deacetylisovaltratum disrupts microtubule dynamics and causes G(2)/M-phase arrest in human gastric cancer cells in vitro]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gastric Cancer. According to news reporting out of Hangzhou, People's Republic of China, by NewsRx editors, research stated, "Deacetylisovaltratum (DI) is isolated from the traditional Chinese herbal medicine Patrinia heterophylla Bunge, which exhibits anti-cancer activity. Here, we investigated the effects of DI on human gastric carcinoma cell lines in vitro and elucidated its anti-cancer mechanisms."

Our news journalists obtained a quote from the research from Zhejiang Chinese Medical University, "Human gastric carcinoma AGS and HGC-27 cell lines were treated with DI, and cell viability was detected with MTT assay. Cell cycle stages, apoptosis and mitochondrial membrane potential were measured using flow cytometry. Protein levels were analyzed by Western blotting. Tubulin polymerization assays and immunofluorescence were used to characterize the tubulin polymerization process. DI inhibited the cell viability of AGS and HGC-27 cells in a dose-and time-dependent manner with IC50 values of 12.0 and 28.8 μmol/L, respectively, at 24 h of treatment. Treatment with DI (10-100 μmol/L) dose-dependently promoted tubulin polymerization, and induced significant G(2)/M cell cycle arrest in AGS and HGC-27 cells. Moreover, DI treatment disrupted mitochondrial membrane potential and induced caspase-dependent apoptosis in AGS and HGC-27 cells."

According to the news editors, the research concluded: "DI induces G(2)/M-phase arrest by disrupting tubulin polymerization in human gastric cancer cells, which highlights its potent anti-cancer activity and potential application in gastric cancer therapy."


Our news journalists report that additional information may be obtained by contacting N.M. Lin, Zhejiang Chinese Med Univ, Coll Pharmaceut Sci, Hangzhou 310053, Zhejiang, People's Republic of China. Additional authors for this research include B. Zhang,

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Nerve Tissue Proteins, Microtubule Proteins, Cellular Structures, Intracellular Space, Gastroenterology, Gastric Cancer, Microtubules, Cytoskeleton, Cytoplasm, Oncology, Tubulin, Zhejiang Chinese Medical University.

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Proteins - DNA-Binding Proteins

Studies from Zhejiang University Add New Findings in the Area of DNA-Binding Proteins (Activation of liver X receptor attenuates lysophosphatidylcholine-induced IL-8 expression in endothelial cells via the NF-kappa B pathway and SUMOylation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Proteins - DNA-Binding Proteins is now available. According to news originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "The liver X receptor (LXR) is a cholesterol-sensing nuclear receptor that has an established function in lipid metabolism; however, its role in inflammation is elusive. In this study, we showed that the LXR agonist GW3965 exhibited potent anti-inflammatory activity by suppressing the firm adhesion of monocytes to endothelial cells."

Our news journalists obtained a quote from the research from Zhejiang University, "To further address the mechanisms underlying the inhibition of inflammatory cell infiltration, we evaluated the effects of LXR agonist on interleukin-8 (IL-8) secretion and nuclear factor-kappa B (NF-kappa B) activation in human umbilical vein endothelial cells (HUVECs). The LXR agonist significantly inhibited lysophosphatidylcholine (LPC)-induced IL-8 production in a dose-dependent manner without appreciable cytotoxicity. Western blotting and the NF-kappa B transcription activity assay showed that the LXR agonist inhibited p65 binding to the IL-8 promoter in LPC-stimulated HUVECs. Interestingly, knockdown of the indispensable small ubiquitin-like modifier (SUMO) ligases Ubc9 and Histone deacetylase 4 (HDAC4) reversed the increase in IL-8 induced by LPC. Furthermore, the LPC-induced degradation of inhibitory kappa B alpha was delayed under the conditions of deficient SUMOylation or the treatment of LXR agonist. After enhancing SUMOylation by knockdown SUMO-specific protease Sentrin-specific protease 1 (SENP1), the inhibition of GW3965 was rescued on LPC-mediated IL-8 expression. These findings indicate that LXR-mediated inflammatory gene repression correlates to the suppression of NF-kappa B pathway and SUMOylation."

According to the news editors, the research concluded: "Our results suggest that LXR agonist exerts the anti-atherosclerotic role by attenuation of the NF-kappa B pathway in endothelial cells."


The news correspondents report that additional information may be obtained from
Studies from Zhejiang University Further Understanding of Diamond-Blackfan Anemia (A new in-frame deletion in ribosomal protein S19 in a Chinese infant with Diamond-Blackfan anemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematologic Diseases and Conditions - Diamond-Blackfan Anemia are discussed in a new report. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "Diamond-Blackfan anemia (DBA) is a congenital erythroid aplasia that usually presents as macrocytic anemia during infancy. Ribosomal protein S19 (RPS19) is identified as the first gene associated with DBA."

Financial supporters for this research include National Natural Science Foundation of China, Zhejiang Provincial Natural Science Foundation.

The news reporters obtained a quote from the research from Zhejiang University, "RPS19 is mutated in 25% of DBA patients, but its role in DBA pathogenesis remains to be elucidated. We have identified a novel heterozygous frameshift mutation in RPS19 gene in a DBA child presenting with profound anemia after birth. A single nucleotide heterozygous deletion (C.251delG) results in frameshift in RPS19 gene in exon 4 at codon 84 with possible premature stop codon (p.Arg84LysfsX21). The mutant allele was not detected in her parents, indicating de novo mutation. Both alleles were expressed at the same level. Using an immunofluorescence technique, the mutated-type RPS19 expressions were mostly localized to entire nuclei with little staining for nucleoli and its intracellular localization significantly differed from the wild-type RPS19, which was localized to both nuclei and nucleoli."

According to the news reporters, the research concluded: "This type of a mutation could be very helpful in further understanding the role of the RPS19 protein in DBA pathogenesis."

For more information on this research see: A new in-frame deletion in ribosomal protein S19 in a Chinese infant with Diamond-Blackfan anemia. Blood Cells Molecules and Diseases, 2016;62():1-5. Blood Cells Molecules and Diseases can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA.

Our news correspondents report that additional information may be obtained by contacting Y.M. Tang, Zhejiang University, Columbus Children's Hospital, Key Lab Reprod Genet, Div Hematol OncolSch MedMinist Educ, Hangzhou 310003, Zhejiang, People's Republic of China. Additional authors for this research include M. Jia, H.Z. Zhao, Z.B. Luo, W.Q. Xu, H.P. Shen and Y.M. Tang.

The direct object identifier (DOI) for that additional information is:
Studies from Zhejiang University Update Current Data on Breast Cancer (The Role of E-cadherin-160C/A Polymorphism in Breast Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "Breast cancer is the most prevalent cancer in women worldwide. Numerous studies have suggested that the E-cadherin adhesion system is dysregulated in cancer cells."

The news reporters obtained a quote from the research from Zhejiang University, "These impaired functions of E-cadherin contribute to releasing cancer cells from the primary lesion to cell dedifferentiation. Some studies have shown that polymorphism may affect E-cadherin expression, and then play a role in susceptibility to breast cancer. However, the results remained controversial. In this short review, we summarize the functions of E-cadherin and the signaling pathways it regulates, and assess the association between CDH1 polymorphisms and breast cancer susceptibility. This study suggests that genetic variation in CDH1 and -160C/A polymorphism may have an association with breast cancer risk."

According to the news reporters, the research concluded: "The assessment of CDH1 polymorphisms may be used for the identification of patients suitable for anti-CDH1 therapy."

For more information on this research see: The Role of E-cadherin-160C/A Polymorphism in Breast Cancer. Open Life Sciences, 2016;11(1):110-115. Open Life Sciences can be contacted at: De Gruyter Open Ltd, Bogumila Zuga 32A St, 01-811 Warsaw, Poland.

Our news correspondents report that additional information may be obtained by contacting D.Y. Huang, Zhejiang University, Dept. of Gen Surg, Sir Run Run Shaw Hosp, Sch Med, Hangzhou 310016, Zhejiang, People's Republic of China. Additional authors for this research include D.Y. Huang, R. Tao and J.F. Chen.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Cell Research, Article Review, Cell Adhesion Molecules, Breast Ductal Carcinoma, Risk and Prevention, Membrane Proteins, Women's Health, Glycoproteins, Breast Cancer, Cancer Risk, Cadherins, Oncology, Genetics, Zhejiang University.

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Drugs and Therapies - Docetaxel Therapy

Studies from Zhejiang University Update Current Data on Docetaxel Therapy (Sequentially dual-targeting vector with nano-in-micro structure for improved docetaxel oral delivery in vivo)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Docetaxel Therapy. According to news reporting originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "In this study, we constructed a novel vector (BioPf-M-loaded Alg-microparticles [Alg-BioPf-M]) with nano-in-micro structure to improve the oral absorption of docetaxel (DTX) by sequentially dual-targeting functions toward intestine and sodium-dependent multivitamin transporter based on entrapping biotin-modified micelles into alginate microparticles."

Our news editors obtained a quote from the research from Zhejiang University, "A series of characteristics of this system was investigated, such as drug release, cellular uptake, transport pathway and the comprehensive in vivo studies including pharmacokinetic studies, anti-tumor activity and toxicity study. The bioavailability of DTX-loaded Alg-BioPf-M was 27.4-fold higher than that of free DTX after oral administration and achieved superior tumor inhibition of 84.6% against sarcoma 180 tumors."

According to the news editors, the research concluded: "These results demonstrated that the Alg-BioPf-M was a promising vector for oral delivery of DTX."


The news editors report that additional information may be obtained by contacting L.Y. Qiu, Zhejiang University, Dept. of Polymer Sci & Engn, Key Lab Macromol Synth & Functionalizat, MOE, Hangzhou 310027, People's Republic of China. Additional authors for this research include M.Y. Hu and L.Y. Qiu.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Drugs and Therapies, Mitotic Inhibitors, Docetaxel Therapy, Antineoplastics, Pharmaceuticals, Zhejiang University.

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Inflammation

Studies from Zhejiang University of Technology in the Area of Inflammation Described (From the Cover: Exposure to Oral Antibiotics Induces Gut Microbiota Dysbiosis Associated with Lipid Metabolism Dysfunction and Low-Grade Inflammation in Mice)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Inflammation. According to news originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "Due to a long history of improper and excessive use, Penicillin G (Pen G) and erythromycin (Ery) are regularly detected in environmental samples and pose a great threat to human health. Here, we set out to investigate effects of Pen G, Ery or their mixture on lipid metabolism and gut microbiota in order to better understand their toxicological mechanisms."

Our news journalists obtained a quote from the research from the Zhejiang University of Technology, "Male C57BL/6J mice were exposed either to 60 mu g/ml Pen G, Ery or a half mixture of both for 6 weeks or to 10 mu g/ml Pen G, Ery or a half mixture of both for 14 weeks. In a recovery experiment, male mice were exposed to 60 mu g/ml Pen G or Ery for 2 weeks and then maintained without antibiotics for up to 8 weeks. It was observed that oral exposure to Pen G, Ery or their mixture induced lipid metabolism dysfunction, characterized by significantly increased lipid accumulations, triglycerides (TG) levels and expression of key genes involved in free fatty acid (FFA) synthesis, FFA transport and TG synthesis in the liver. In addition, Pen G and Ery exposure induced an inflammatory response as indicated by the increase of serum lipopolysaccharide levels and the up-regulation of key genes that regulate immune responses in the liver, fat, colon and ileum. Moreover, Pen G and Ery exposure rapidly and dramatically altered the composition of the microbiota in feces and cecum. Furthermore, high throughput sequencing of V3-V4 region of bacterial 16S rRNA gene revealed additional significant changes in the cecal microbiota of antibiotics-treated mice. Importantly, it took a very long time to reconstitute the normal composition of the gut microbiota after it was imbalanced by antibiotics exposure."

According to the news editors, the research concluded: "Orally administered Pen G and Ery (especially to the latter) can induce gut microbiota dysbiosis, which may indirectly link antibiotic exposure to host metabolic disorders and inflammation."


The news correspondents report that additional information may be obtained from Z.W. Fu, Zhejiang University of Technology, Coll Biotechnol & Bioengn, Hangzhou 310032, Zhejiang, People's Republic of China. Additional authors for this research include Y. Wu, Z.Y. Zeng, C.Y. Jin, S.S. Wu, Y.Y. Wang and Z.W. Fu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/toxsci/kfw150. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Inflammation, Genetics, Zhejiang University of Technology.

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Hela Cells

Studies from Zhengzhou University Describe New Findings in Hela Cells (Inhibition of Cervical Cancer by Promoting IGFBP7 Expression Using Ellagic Acid from Pomegranate Peel)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hela Cells are presented in a new report. According to news reporting out of Zhengzhou, People's Republic of China, by NewsRx editors, research stated, "The aim of this study was to explore the mechanism by which cervical cancer is inhibited by promoting IGFBP7 expression using ellagic acid from pomegranate peel extract. HeLa cells were divided into 6 groups: control group (NC), blank control group (BL), and IGFBP7 overexpression group (IGFBP7), and 2.5 uM, 5.0 uM, and 10.0 uM ellagic acid-treated groups."

Our news journalists obtained a quote from the research from Zhengzhou University, "The cell proliferation ability was detected and the degree of invasion in the 6 groups was measured by Transwell assay. The expression levels of IGFBP7 and AKT/mTOR in the 6 groups of cells were detected by RT-PCR technique. Compared with NC and BL groups, The IGFBP7 gene expressions of the IGFBP7 and ellagic acid-treated groups were significantly increased (P < 0.05). There was a dose-effect dependence in the ellagic acid-treated groups. The invasion ability of the IGFBP7 group and ellagic acid-treated groups was significantly lower than that of NC and BL groups in HeLa cells (P < 0.05). The apoptosis rate of the IGFBP7 group and ellagic acid-treated groups was significantly higher than that of the NC and BL groups in HeLa cells (P < 0.05). AKT and mTOR mRNA and protein expressions of the IGFBP7 group and ellagic acid-treated groups were significantly lower than that of the NC and BL groups (P < 0.05). There was a dose-effect dependence in the ellagic acid-treated groups."

According to the news editors, the research concluded: "The ellagic acid in pomegranate peel extract can inhibit the AKT/mTOR signaling pathway by enhancing the expression level of IGFBP7, which can inhibit the HeLa cells in cervical cancer."

For more information on this research see: Inhibition of Cervical Cancer by Promoting IGFBP7 Expression Using Ellagic Acid from Pomegranate Peel. Medical Science Monitor, 2016;22():4881-4886. Medical Science Monitor can be contacted at: Int Scientific Literature, Inc, 361 Forest Lane, Smithtown, NY 11787, USA.

Our news journalists report that additional information may be obtained by contacting D.Y. Zhang, Zhengzhou Univ, Affiliated Hosp 1, Dept. of Gynecol, Zhengzhou, Henan, People's Republic of China. Additional authors for this research include D.Y. Zhang and Q.R. Fu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.12659/MSM.898658. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Hela Cells, Oncology, Genetics, Cancer, Zhengzhou University.

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**Heart Disorders and Diseases - Tetralogy of Fallot**

**Studies from Zhengzhou University Have Provided New Data on Tetralogy of Fallot (Application of array-comparative genomic hybridization in tetralogy of Fallot)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Tetralogy of Fallot. According to news originating from Zhengzhou, People's Republic of China, by NewsRx correspondents, research stated, "To explore the underlying pathogenesis and provide references for genetic counseling and prenatal gene diagnosis, we analyzed the chromosome karyotypes and genome-wide copy number variations (CNVs) in 86 patients with tetralogy of Fallot (TOF) by G-banding karyotype analysis and array-comparative genomic hybridization (aCGH), respectively. And then quantitative polymerase chain reaction was used to validate these candidate CNVs."

Our news journalists obtained a quote from the research from Zhengzhou University, "Based on their different properties, CNVs were categorized into benign CNVs, suspiciously pathogenic CNVs, and indefinite CNVs. Data analysis was based on public databases such as UCSC, DECIPHER, DGV, ISCA, and OMIM. The karyotype was normal in all the 86 patients with TOF. CNVs were detected in 11 patients by aCGH and quantitative polymerase chain reaction. Patient no. 0001, 0010, and 0029 had 2.52-Mb deletion in the chromosome 22q11.21 region; patient no. 0008 had both 595- and 428-kb duplications, respectively, in 12p12.3p12.2 and 14q23.2q23.3 regions; patient no. 0009 had 1.46-Mb duplication in the 1q21.1q21.2 region; patient no. 0016 had 513-kb duplication in the 1q42.13 region; patient no. 0024 had 292-kb duplication in the 16q11.2 region; patient no. 0026 had 270-kb duplication in the 16q24.1 region; patient no. 0028 had 222-kb deletion in the 7q31.1 region; patient no. 0033 had 1.73-Mb duplication in the 17q12 region; and patient no. 0061 had 5.79-Mb deletion in the 1p36.33p36.31 region. aCGH can accurately detect CNVs in the patients with TOF."

According to the news editors, the research concluded: "This is conducive to genetic counseling and prenatal diagnosis for TOF and provides a new clue and theoretical basis for exploring the pathogenesis of congenital heart disease."

For more information on this research see: Application of array-comparative genomic hybridization in tetralogy of Fallot. *Medicine, 2016;95(49):386-396. Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)


Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Heart Disorders and Diseases, Cardiovascular Abnormalities, Congenital Heart Defects, Congenital Abnormalities, Enzymes and Coenzymes, Tetralogy of Fallot, Genetic Counseling, Heart Disease, Diagnostics, Polymerase, Cardiology, Diagnosis, Genetics, Zhengzhou University.

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**Oncology - Esophageal Cancer**

**Studies from Zhengzhou University Provide New Data on Esophageal Cancer (Human papillomavirus-related esophageal cancer survival A systematic review and meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Esophageal Cancer have been published. According to news reporting from Zhengzhou, People's Republic of China, by NewsRx journalists, research stated, "Human papillomavirus (HPV) has been identified to be related to progression of esophageal cancer. However, the results remain controversial."

The news correspondents obtained a quote from the research from Zhengzhou University, "A meta-analysis of epidemiologic studies was therefore conducted to address this issue. The electronic databases of MEDLINE and Excerpta Medica database were searched till April 30, 2016. specific risk estimates were pooled using a random-effects model. Ten studies involving a total of 1184 esophageal cancer cases were included in this meta-analysis. The pooled hazard ratio comparing HPV-positive to HPV-negative esophageal cancers was 1.03 (95% confidence interval 0.78-1.37), which was not significantly correlated with improved survival. However, HPV-16-positive patients might have a significantly favorable survival (hazard ratio 0.73, 95% confidence interval 0.44-1.21). The meta-analysis indicated that HPV infection may not be of prognostic utility in the evaluation of factors contributing to esophageal cancer."

According to the news reporters, the research concluded: "Further large prospective studies are encouraged to stratify survival analysis by HPV type."

For more information on this research see: Human papillomavirus-related esophageal cancer survival A systematic review and meta-analysis. *Medicine*, 2016;95(46):199-204. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting X.B. Sun, Zhengzhou Univ, Henan Canc Hosp, Affiliated Canc Hosp, Dept. of Canc EpidemiolHenan Off Canc Control & Res, Zhengzhou 450008, People's Republic of China. Additional authors for this research include S.Z. Liu, S.K. Zhang, Q. Chen, M. Zhang, P.L. Quan and X.B. Sun.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Viral, Article Review, Epidemiology, Papillomavirus Infection, Human Papillomavirus, Esophageal Cancer, Gastroenterology, Virology, Oncology, Zhengzhou University.

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**Gynecology**

**Studies from Zhengzhou University Yield New Information about Gynecology (Effect of Pregnane X Receptor*1B genetic polymorphisms on postoperative analgesia with fentanyl in Chinese patients undergoing gynecological surgery)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Gynecology have been presented. According to news originating from Zhengzhou, People's Republic of China, by NewsRx correspondents, research stated, "The purpose of the study was to investigate the effects of the pregnane X receptor (PXR)*1B polymorphisms on CYP3A4 enzyme activity and postoperative fentanyl consumption in Chinese patients undergoing gynecological surgery. A total of 287 females of Han ethnicity, aged 20 to 50 years old, ASA I or II, scheduled to abdominal total hysterectomy or myomectomy under general anesthesia were enrolled."

Our news journalists obtained a quote from the research from Zhengzhou University, "The analgesic model used was fentanyl consumption via patient-controlled intravenous analgesia (PCIA) in the post-operative period. Additionally, pain was assessed using a visual analog score (VAS). Pain scores, occurrence of adverse reactions and consumption of fentanyl were recorded during the 24 h postoperative period. The enzyme activity of CYP3A4 was evaluated by measuring the plasma ratio of 1'-hydroxymidazolam to midazolam 1 h after intravenous administration of 0.1 mg/kg midazolam. PXR genotyping was performed by direct DNA sequencing and the PXR*1B haplotype was analyzed via PHASE V.2.1 software. The polymorphism frequency of PXR11156A > C/11193 T> C and 8055C > T were 49.6 and 49.3%, and the rate of PXR*1B haplotype was 48.8% in our study. None of the pain scores, consumption of fentanyl 24 h post-operatively or enzyme activity of CYP3A4, showed differences among different genotypes."

According to the news editors, the research concluded: "PXR11156A > C, PXR11193T > C, PXR8055C > T or the PXR*1B haplotype do not appear to be important factors contributing to CYP3A4 activity and interindividual variations in postoperative fentanyl consumption in Han female patients undergoing gynecological surgery."


The news correspondents report that additional information may be obtained from W. Zhang, Zhengzhou Univ, Dept. of Anesthesiol, Affiliated Hosp 1, Zhengzhou 450052, People's Republic of China. Additional authors for this research include X.J. Ma, Z.S. Li, Y.Z. Chang, W. Zhang, Q.C. Kan, J.K. Hou and L.R. Zhang.

Keywords for this news article include: Zhengzhou, People's Republic of China, Asia, Genetics, Genetics, Gynecology, Surgery, Zhengzhou University.

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Drugs and Therapies - Antibiotics

Studies from Zunyi Medical University Describe New Findings in Antibiotics (NQO1 and CYP450 reductase decrease the systemic exposure of rifampicin-quinone and mediate its redox cycle in rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antibiotics is now available.
According to news reporting originating in Zunyi, People's Republic of China, by NewsRx journalists, research stated, "Rifampicin (RIF) is used in regimens for infections caused by Mycobacteria accompanied by serious adverse reactions. Rifampicin-quinone (RIF-Q) is a major autoxidation product of RIF."

Financial support for this research came from National Natural Science Foundation of China.

The news reporters obtained a quote from the research from Zunyi Medical University, "It is not clear whether RIF-Q plays a role in RIF induced adverse reactions. Investigation of the systemic exposure of RIF-Q is helpful to better understand the role of RIF-Q in RIF induced adverse reactions. In this study, a simple and reproducible high performance liquid chromatography-mass spectrometry (LC-MS) method involving a procedure to prevent the RIF from oxidation for simultaneous quantification of RIF and RIF-Q in rat plasma has been developed and validated, and applied to elucidate the systemic exposure of RIF-Q in rats. The pharmacokinetics data showed that the systemic exposure of RIF-Q was very low (0.67% of RIF, AUC(0-24)) in rats after oral administration of RIF. However, RIF-Q may undergo the redox cycle in vivo by the evidence that the majority of RIF-Q was reduced to RIF after an oral dose of RIF-Q Pretreatment with the NAD(P)H: quinone oxidoreductase 1 (NQO1) specific inhibitor dicoumarol and/or cytochrome P450 reductase (CPR) inhibitor diphenyleneiodonium suppressed the redox cycle and significantly increased the systemic exposure of RIF-Q. The inhibitors also attenuated the redox cycle induced reactive oxygen species formation and cytotoxicity in RIF-Q-treated HepG2 cells."

According to the news reporters, the research concluded: "These results indicate that NQO1 and CPR play an important role in redox cycle of RIF-Q and may thus contribute to RIF-induced adverse reactions."

For more information on this research see: NQO1 and CYP450 reductase decrease the systemic exposure of rifampicin-quinone and mediate its redox cycle in rats. Journal of Pharmaceutical and Biomedical Analysis, 2017;132():17-23. Journal of Pharmaceutical and Biomedical Analysis can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Pharmaceutical and Biomedical Analysis - www.journals.elsevier.com/journal-of-pharmaceutical-and-biomedical-analysis/)

Our news correspondents report that additional information may be obtained by contacting F.G. Shi, Zunyi Med Univ, Minist Educ, Key Lab Basic Pharmacol, Dept. of Pharmacol, Zunyi 563099, People's Republic of China. Additional authors for this research include X.B. Li, H. Pan and L. Ding.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jpba.2016.09.040. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Zunyi, People's Republic of China, Asia, Enzymes and Coenzymes, Drugs and Therapies, Antibiotics, Reductase, Zunyi Medical University.

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Oncology - Acute Myeloid Leukemia

Studies in the Area of Acute Myeloid Leukemia Reported from Peking University (IGK with conserved IGKV/IGKJ repertoire is expressed in acute myeloid leukemia and promotes leukemic cell migration)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Acute Myeloid Leukemia are discussed in a new report. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "We have previously reported that immunoglobulin heavy chain genes were expressed in myeloblasts and mature myeloid cells. In this study, we further demonstrated that rearranged Ig k light chain was also frequently expressed in acute myeloid leukemia cell lines (6/6), primary myeloblasts from patients with acute myeloid leukemia (17/18), and mature monocytes (11/12) and neutrophils (3/12) from patients with non-hematopoietic neoplasms, but not or only rarely expressed in mature neutrophils (0/8) or monocytes (1/8) from healthy individuals."

Our news editors obtained a quote from the research from Peking University, "Interestingly, myeloblasts and mature monocytes/neutrophils shared several restricted IGKV and IGKJ gene usages but with different expression frequency. Surprisingly, almost all of the acute myeloid leukemia-derived IGKV showed somatic hypermutation; in contrast, mature myeloid cells-derived IGKV rarely had somatic hypermutation. More importantly, although IGK expression appeared not to affect cell proliferation, reduced IGK expression led to a decrease in cell migration in acute myeloid leukemia cell lines HL-60 and NB4, whereas increased IGK expression promoted their motility. In summary, IGK is expressed in myeloblasts and mature myeloid cells from patients with non-hematopoietic neoplasms, and is involved in cell migration."

According to the news editors, the research concluded: "These results suggest that myeloid cells-derived IgK may have a role in leukemogenesis and may serve as a novel tumor marker for monitoring minimal residual disease and developing target therapy."

For more information on this research see: IGK with conserved IGKV/IGKJ repertoire is expressed in acute myeloid leukemia and promotes leukemic cell migration. Oncotarget, 2015;6(36):39062-72.

The news editors report that additional information may be obtained by contacting C. Wang, Dept. of Immunology, School of Basic Medical Sciences, Peking University, Beijing, People's Republic of China. Additional authors for this research include M. Xia, X. Sun, Z. He, F. Hu, L. Chen, C.E. Bueso-Ramos, X. Qiu and C.C Yin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5393. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Genetics, Oncology, Monocytes, Hematology, Immunology, Blood Cells, Neutrophils, Granulocytes, Cell Research, Hematopoietic, Myeloid Cells, Bone Marrow Cells, Acute Myeloid Leukemia, Mononuclear Leukocytes, Hemic and Immune Systems, People's Republic of China, Mononuclear Phagocyte System.

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Studies in the Area of Adult T-Cell Leukemia-Lymphoma Reported from University of Tokyo (Dysregulation of c-Myb Pathway by Aberrant Expression of Proto-oncogene MYB Provides the Basis for Malignancy in Adult T-cell Leukemia/lymphoma Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Adult T-Cell Leukemia-Lymphoma. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Adult T-cell leukemia/lymphoma (ATLL) is an aggressive human T-cell malignancy induced by human T-lymphotrophic virus-1 (HTLV-1) infection. The genetic alterations in infected cells that lead to transformation have not been completely elucidated, thus hindering the identification of effective therapeutic targets for ATL."

Our news journalists obtained a quote from the research from the University of Tokyo, "Here, we present the first assessment of MYB proto-oncogene dysregulation in ATL and an exploration of its role in the onset of ATL. We investigated the expression patterns of MYB splicing variants in ATL. The molecular characteristics of the c-Myb-9A isoform, which was overexpressed in ATL cells, were examined using chromatin immunoprecipitation and promoter assays. We further examined the biologic impacts of abnormal c-Myb overexpression in ATL using overall c-Myb knockdown with shRNA or c-Myb-9A knockdown with morpholino oligomers. Both total c-Myb and c-Myb-9A, which exhibited strong transforming activity, were overexpressed in ATL cells in a leukemogenesis- and progression-dependent manner. Knockdown of either total c-Myb or c-Myb-9A induced ATL cell death. c-Myb transactivates nine genes that encode essential regulators of cell proliferation and NF-kappa B signaling. c-Myb-9A induced significantly stronger transactivation of all tested genes and stronger NF-kB activation compared with wild-type c-Myb. Our data demonstrate that c-Myb pathway overactivation caused by unbalanced c-Myb-9A overexpression is associated with disorders in cellular homeostasis and consequently, accelerated transformation, cell proliferation, and malignancy in ATL cells."

According to the news editors, the research concluded: "These data support the notion of the c-Myb pathway as a promising new therapeutic target for ATL."

For more information on this research see: Dysregulation of c-Myb Pathway by Aberrant Expression of Proto-oncogene MYB Provides the Basis for Malignancy in Adult T-cell Leukemia/lymphoma Cells. Clinical Cancer Research, 2016;22(23):5915-5928. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

The news correspondents report that additional information may be obtained from K. Nakano, University of Tokyo, Grad Sch Frontier Sci, Dept. of Computat Biol & Med Sci, Tokyo, Japan. Additional authors for this research include K. Uchimaru, A. Utsunomiya, K. Yamaguchi and T. Watanabe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-15-1739. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Lymphatic Diseases and Conditions, Adult T-Cell Leukemia-Lymphoma, Immunoproliferative Disorders,
Studies in the Area of Alzheimer Disease Reported from Yonsei University (Discovering New Genes in the Pathways of Common Sporadic Neurodegenerative Diseases: A Bioinformatics Approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neurodegenerative Diseases and Conditions - Alzheimer Disease. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Late onset Alzheimer's disease (AD) and Parkinson's disease (PD) are mostly 'sporadic' age-related neurodegenerative disorders, but with a clear genetic component. However, their genetic architecture is complex and heterogeneous, largely remaining a conundrum, with only a handful of well-established genetic risk factors consistently associated with these diseases."

Our news journalists obtained a quote from the research from Yonsei University, "It is possible that numerous, yet undiscovered, AD and PD related genes might exist. We focused on the 'gene' as a mediator to find new potential genes that might have a relationship with both disorders using bio-literature mining techniques. Based on Entrez Gene, we extracted the genes and directional gene-gene relation in the entire MEDLINE records and then constructed a directional gene-gene network. We identified common genes associated with two different but related diseases by performing shortest path analysis on the network. With our approach, we were able to identify and map already known genes that have a direct relationship with PD and AD. In addition, we identified 7 genes previously unknown to be a bridge between these two disorders. We confirmed 4 genes, ROS1, FMN1, ATP8A2, and SNORD12C, by biomedical literature and further checked 3 genes, ERVK-10, PRS, and C7orf49, that might have a high possibility to be related with both diseases. Additional experiments were performed to demonstrate the effectiveness of our proposed method."

According to the news editors, the research concluded: "Comparing to the co-occurrence approach, our approach detected 25% more candidate genes and verified 10% more genes that have the relationship between both diseases than the co-occurrence approach did."


The news correspondents report that additional information may be obtained from Y.H. Kim, Dept. of Library and Information Science, Yonsei University, 50 Yonsei-ro, Seodaemun-gu, Seoul, South Korea. Additional authors for this research include S.H. Beak, A. Charidimou and M. Song.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3233/JAD-150769. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the *Journal of Alzheimer's Disease* is: IOS
Studies in the Area of Anions Reported from Harvard School of Medicine (Acute Phosphate Restriction Impairs Bone Formation and Increases Marrow Adipose Tissue in Growing Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Anions. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Phosphate plays a critical role in chondrocyte maturation and skeletal mineralization. Studies examining the consequences of dietary phosphate restriction in growing mice demonstrated not only the development of rickets, but also a dramatic decrease in bone accompanied by increased marrow adipose tissue (MAT)."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Thus studies were undertaken to determine the effects of dietary phosphate restriction on bone formation and bone marrow stromal cell (BMSC) differentiation. Acute phosphate restriction of 28-day-old mice profoundly inhibited bone formation within 48 hours. It also resulted in increased mRNA expression of the early osteolineage markers Sox9 and Runx-related transcription factor 2 (Runx2), accompanied by decreased expression of the late osteolineage markers Osterix and Osteocalcin in BMSCs and osteoblasts, suggesting that phosphate restriction arrests osteoblast differentiation between Runx2 and Osterix. Increased expression of PPAR and CEBP, key regulators of adipogenic differentiation, was observed within 1 week of dietary phosphate restriction and was followed by a 13-fold increase in MAT at 3 weeks of phosphate restriction. In vitro phosphate restriction did not alter BMSC osteogenic or adipogenic colony formation, implicating aberrant paracrine or endocrine signaling in the in vivo phenotype. Because BMP signaling regulates the transition between Runx2 and Osterix, this pathway was interrogated. A dramatic decrease in pSmad1/5/9 immunoreactivity was observed in the osteoblasts of phosphate-restricted mice on day 31 (d31) and d35. This was accompanied by attenuated expression of the BMP target genes Id1, KLF10, and Foxc2, the latter of which promotes osteogenic and angiogenic differentiation while impairing adipogenesis. A decrease in expression of the Notch target gene Hey1, a BMP-regulated gene that governs angiogenesis, was also observed in phosphate-restricted mice, in association with decreased metaphyseal marrow vasculature."

According to the news editors, the research concluded: "Whereas circulating phosphate levels are known to control growth plate maturation and skeletal mineralization, these studies reveal novel consequences of phosphate restriction in the regulation of bone formation and osteoblast differentiation."

For more information on this research see: Acute Phosphate Restriction Impairs Bone Formation and Increases Marrow Adipose Tissue in Growing Mice. *Journal of Bone and Mineral Research*, 2016;31(12):2204-2214. *Journal of Bone and Mineral Research* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-
Membrane Proteins - Antimicrobial Cationic Peptides

Studies in the Area of Antimicrobial Cationic Peptides Reported from Wayne State University (Are there any ways around the exposure-limiting nephrotoxicity of the polymyxins?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Membrane Proteins - Antimicrobial Cationic Peptides. According to news reporting originating from Detroit, Michigan, by NewsRx correspondents, research stated, "The polymyxins (colistin and polymyxin B) have emerged over the past 20 years as essential antibacterial agents that often are the only remaining active class against troublesome multidrug-resistant Gram-negative bacilli such as carbapenem-resistant Acinetobacter baumannii, Pseudomonas aeruginosa and Enterobacteriaceae."

Financial support for this research came from National Institute of Allergy and Infectious Diseases.

Our news editors obtained a quote from the research from Wayne State University, "The utility of this class is limited by its dose-dependent nephrotoxicity, which can occur in more than one-half of patients receiving therapy with either agent. Strategies are urgently needed to optimise the use of this class of agents to ensure optimal activity while minimising the treatment-limiting nephrotoxicity."

According to the news editors, the research concluded: "This review will focus on risk factors for polymyxin-associated nephrotoxicity, potential strategies for limiting this exposure-dependent toxicity and, finally, unknowns and future research directions pertinent to this topic."


The news editors report that additional information may be obtained by contacting J.M. Pogue, Wayne State University, Sch Med, Detroit, MI, United States. Additional authors for this research include J.K. Ortwine and K.S. Kaye.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.11.001. This DOI is a link to an online electronic
Studies in the Area of Antirheumatics Reported from Michigan Technological University [Synthesis and Characterization of the Novel Nitric Oxide (NO) Donating Compound, S-nitroso-N-acetyl-D-penicillamine Derivatized Cyclam (SNAP-Cyclam)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antirheumatics. According to news originating from Houghton, Michigan, by NewsRx correspondents, research stated, "Nitric oxide (NO) has been heavily studied over the past two decades due to its multitude of physiological functions and its potential therapeutic promise. Of major interest is the desire to fabricate or coat implanted devices with an NO releasing material that will impart the appropriate dose and duration of NO release to positively mediate the biological response to the medical device, thereby improving its safety and efficacy."

Financial supporters for this research include National Heart, Lung, and Blood Institute, Division of Materials Research.

Our news journalists obtained a quote from the research from Michigan Technological University, "To date, this goal has not yet been achieved, despite very promising early research. Herein, we describe the synthesis and NO release properties of a novel NO donor which covalently links the S-nitrosothiol, S-nitroso-N-acetyl-D-penicillamine (SNAP), to the macrocycle, cyclam (SNAP-cyclam). This compound can then be blended into a wide variety of polymer matrices, imparting NO release to the polymer system. This release can be initiated and controlled by transition metal catalysis, thermal degradation or photolytic release of NO from the composite NO-releasing material."

According to the news editors, the research concluded: "SNAP-cyclam is capable of releasing physiologically relevant levels of NO for up to 3 months in vitro when blended into poly(l-lactic acid) thin films."


The news correspondents report that additional information may be obtained from C.W. McCarthy, Dept. of Biomedical Engineering, Michigan Technological University, Houghton, Michigan 49931, United States. Additional authors for this research include J. Goldman and M.C. Frost.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acsami.5b12548. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include: Antirheumatics, Pharmaceuticals, Houghton, Michigan, Chemicals, Nitric Oxide, United States, Nitrogen Oxides, Sulfur Amino Acids, Drugs and Therapies, Penicillamine Therapy, North and Central America, Reactive Nitrogen Species.

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**Biological Factors - Arthropod Venoms**

**Studies in the Area of Arthropod Venoms Reported from State University of Campinas (Age-Related Modulations of AQP4 and Caveolin-1 in the Hippocampus Predispose the Toxic Effect of Phoneutria nigriventer Spider Venom)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biological Factors - Arthropod Venoms have been presented. According to news reporting originating from Campinas, Brazil, by NewsRx correspondents, research stated, "We have previously demonstrated that Phoneutria nigriventer venom (PNV) causes blood-brain barrier (BBB) breakdown, swelling of astrocytes end-feet and fluid permeation into brain interstitium in rats. Caveolae and water channels respond to BBB alterations by co-participation in shear stress response and edema formation/resolution."

Our news editors obtained a quote from the research from the State University of Campinas, "Herein, we showed post-natal developmental-related changes of two BBB-associated transporter proteins: the endothelial caveolin-1 (Cav-1), the major scaffolding protein from caveolae frame, and the astroglial aquaporin-4 (AQP4), the main water channel protein expressed in astrocytic peri-vascular end-feet processes, in the hippocampus of rats intraperitoneally-administered PNV. Western blotting protein levels; immunohistochemistry (IHC) protein distribution in CA1, CA2, and CA3 subfields; and gene expression by Real Time-Polymerase Chain Reaction (qPCR) were assessed in post-natal Day 14 (P14) and 8-10-week-old rats over critical periods of envenomation. The intensity and duration of the toxic manifestations indicate P14 neonate rats more vulnerable to PNV than adults. Histologically, the capillaries of P14 and 8-10-week-old rats treated with PNV showed perivascular edema, while controls did not. The intensity of the toxic manifestations in P14 decreases temporally (2 > 5 > 24 h), while inversely the expression of AQP4 and Cav-1 peaked at 24 h when clinically PNV-treated animals do not differ from saline controls. IHC of AQP4 revealed that hippocampal CA1 showed the least expression at 2 h when toxic manifestation was maximal. Subfield IHC quantification revealed that in P14 rats Cav-1 peaked at 24 h when toxic manifestations were absent, whereas in 8-10-week-old rats Cav-1 peaked at 2 h when toxic signs were highest, and progressively attenuated such increases until 24 h, remaining though significantly above baseline."

According to the news editors, the research concluded: "Considering astrocyte-endothelial physical and functional interactions, we hypothesize that age-related modulations of AQP4 and Cav-1 might be linked both to changes in functional properties of astrocytes during post-natal development and in the BBB breakdown induced by the venom of P. nigriventer."

For more information on this research see: Age-Related Modulations of AQP4 and Caveolin-1 in the Hippocampus Predispose the Toxic Effect of Phoneutria nigriventer Spider Venom. *International Journal of Molecular Sciences*, 2016;17(11):118-131. *International
Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news editors report that additional information may be obtained by contacting E.S. Soares, Campinas State University, Inst Biol, Dept. of Biochem & Tissue Biol, BR-13083863 Campinas, SP, Brazil. Additional authors for this research include L.M. Stavale, M.C.P. Mendonca, A. Coope and M.A. da Cruz-Hofling.

Keywords for this news article include: Campinas, Brazil, South America, Intracellular Signaling Peptides and Proteins, Signal Transducing Adaptor Proteins, Vesicular Transport Proteins, Biological Factors, Membrane Proteins, Arthropod Venoms, Phosphoproteins, Spider Venoms, Caveolin 1, Caveolins, Genetics, State University of Campinas.

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Atorvastatin

Studies in the Area of Atorvastatin Reported from Istanbul University (Atorvastatin acutely reduces the reactivity to spasmogens in rat aorta: implication of the inhibition of geranylgeranylation and MYPT-1 phosphorylation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Atorvastatin. According to news reporting originating in Istanbul, Turkey, by NewsRx journalists, research stated, "Statins are known to display benefits in various diseases independently from their cholesterol lowering properties. In this study, we investigated the acute effects of atorvastatin on vascular reactivity to various spasmogens in isolated rat aorta."

Financial support for this research came from Research Fund of University of Istanbul.

The news reporters obtained a quote from the research from Istanbul University, "The responses to noradrenaline (NA, 10(-8) -10(-4) m), endothelin-1 (ET-1, 10(-10) -10(-7) m), and potassium chloride (KCl, 10-100 mm) were evaluated in aortic rings pretreated with atorvastatin (10(-7) -10(-4) m, 30 min). To verify the mechanism of action, the effects of atorvastatin were studied in the presence of cholesterol precursor, mevalonate (10(-2) m, 45 min), mevalonate-derived isoprenoids, namely geranylgeranyl pyrophosphate (GGPP, 5 ? 10(-6) m, 30 min) and farnesyl pyrophosphate (FPP, 5 ? 10(-6) m, 30 min), and in the absence of endothelium. In parallel, aortic rings were pretreated with the specific inhibitor of Rho kinase, Y-27632 (10(-7) -10(-6) m). Atorvastatin significantly and concentration-dependently reduced the contractions to spasmogens in rat aorta. This acute inhibitory effect was also evident in endothelium-denuded rings. Pretreatment with mevalonate and GGPP, but not with FPP, reversed the inhibitory effect of atorvastatin (10(-4) m) on NA and ET-1 induced contractions. Similar to atorvastatin, pretreatment with Y-27632 inhibited the contractions to NA and KCl in a concentration-dependent manner. Western blot analysis revealed that both atorvastatin (10(-4) m) and Y-27632 (10(-6) m) pretreatment inhibited the phosphorylation of myosin phosphatase target subunit-1 (MYPT-1) triggered by NA, indicating an inhibitory influence on myosin phosphatase."

According to the news reporters, the research concluded: "Atorvastatin displayed an
acute inhibitory effect on vascular contractility evoked by various spasmogens and the inhibitory effect was possibly mediated by the inhibition of mevalonate and GGPP synthesis as well as the prevention of MYPT-1 phosphorylation induced by Rho/Rho kinase."


Our news correspondents report that additional information may be obtained by contacting F.I. Alp Yildirim, Dept. of Pharmacology, Faculty of Pharmacy, Istanbul University, 34116, Beyazit, Istanbul, Turkey. Additional authors for this research include D. Kaleli Durman, E. Aypar, M. Ark, O. Ozdemir and B.S Uydes Dogan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/fcp.12173. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Turkey, Kinase, Eurasia, Istanbul, Angiology, Endothelium, Atorvastatin, Enzymes and Coenzymes.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**Studies in the Area of Atrial Fibrillation Reported from Department of Biophysics (Treatment Planning Studies in Patient Data With Scanned Carbon Ion Beams for Catheter-Free Ablation of Atrial Fibrillation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Atrial Fibrillation are discussed in a new report. According to news originating from Darmstadt, Germany, by NewsRx correspondents, research stated, "Catheter ablation with isolation of the pulmonary veins is a common treatment option for atrial fibrillation but still has insufficient success rates and carries several interventional risks. These treatment planning studies assessed if high-dose single fraction treatment with scanned carbon ions (12C) can be reliably delivered for AF ablation, while sparing risk structures and considering respiratory and contractile target motion."

Our news journalists obtained a quote from the research from the Department of Biophysics, "Time resolved CT scans of complete respiratory and cardiac cycles of 9 and 5 patients, respectively, were obtained. Ablation lesions and organs at risk for beam delivery were contoured. Single fraction intensity-modulated particle therapy with target doses of 25 and 40 Gy were studied and motion influences on these deliveries mitigated. Respiration had a large influence on lesion displacement (<= 2 cm). End expiration could be exploited as a stable gating window. Smaller, but less predictable, heartbeat displacements (<6 mm) remained to be mitigated because cardiac contraction resulted in insufficient dose coverage (V95 <90%) if uncompensated. Repeated irradiation (12C beam rescanning) during breath hold was used to accommodate contractile motion, resulting in good dose coverage. Dose depositions to all organs at risk were carefully examined and did not exceed values for X-ray cancer treatment."

According to the news editors, the research concluded: "Treatment planning of 12C with delivery of physical ionizing radiation doses that have been described to induce complete
block is feasible for AF ablation, considering human anatomy, dose constraints, and encasing underlying motion patterns from respiration and cardiac contraction at the LA-PV junction into treatment planning."


The news correspondents report that additional information may be obtained from A. Constantinescu, Dept. of Biophysics, GSI Helmholtzzentrum fur Schwerionenforschung, Darmstadt, Germany. Additional authors for this research include H.I. Lehmann, D.L. Packer, C. Bert, M. Durante and C. Graeff.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jce.12888. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the *Journal of Cardiovascular Electrophysiology* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Europe, Germany, Darmstadt, Cardiology, Heart Disease, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disorders and Diseases.

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**Heart Disorders and Diseases - Atrial Fibrillation**

**Studies in the Area of Atrial Fibrillation Reported from Kumamoto University (Prevalence and mechanism of rotor activation identified during atrial fibrillation by noncontact mapping: Lack of evidence for a role in the maintenance of atrial ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news originating from Kumamoto, Japan, by NewsRx correspondents, research stated, "It remains unclear whether atrial fibrillation (AF) is maintained by the rotor. We evaluated the role of the rotor and examined its mechanism."

Our news journalists obtained a quote from the research from Kumamoto University, "Among 75 patients with AF (60 paroxysmal, 15 persistent AF) who underwent 3-dimensional noncontact left atrial mapping during AF, we examined the prevalence and location of rotor activation and elucidated its mechanism. Catheter ablation was performed in a stepwise fashion (linear roof lesion and complex fractionated atrial electrogram ablation after pulmonary vein (PV) isolation) until AF termination. Rotor activation was observed in 11 patients (14.7 /0; 10 paroxysmal and 1 persistent AF) (tachycardia cycle length 160.0 +/- 19.8 ms). Rotor were observed transiently (duration 6128 +/- 9094 ms) during AF at the roof (n = 5), septum (n = 3), and ostium of the left superior PV (n = 3). Five rotors circulated in clockwise and 6 in counterclockwise directions. The length of the block line at the center of the rotor was 15.2 +/- 6.9 mm. The electrograms at the block line showed low-amplitude multiple deflections (n = 7) or double potentials (n = 4), and the amplitudes during rotor activation were significantly lower
than those during sinus rhythm (0.27 +/- 0.18 mV vs 1.22 +/- 0.92 mV; P< .01). No conduction disturbances were found during sinus rhythm, suggesting that the central line of block was formed functionally. AF was terminated by PV isolation alone without additional lesions in patients with rotors. Functionally formed rotor activation was observed during AF in a limited number of patients."

According to the news editors, the research concluded: "These rotor activations may not be related to AF maintenance, but rather may reflect a transient organization of random propagation."


The news correspondents report that additional information may be obtained from H. Yamabe, Kumamoto University, Grad Sch Med Sci, Dept. of Cardiovasc Med, Kumamoto 8608556, Japan. Additional authors for this research include H. Kanazawa, M. Ito, S. Kaneko and H. Ogawa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.07.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kumamoto, Japan, Asia, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Kumamoto University.

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Heart Disorders and Diseases - Atrial Fibrillation

Studies in the Area of Atrial Fibrillation Reported from Virginia Commonwealth University (Factors Influencing Diaphragmatic Compound Motor Action Potentials During Cryoballoon Ablation for Atrial Fibrillation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Atrial Fibrillation. According to news originating from Richmond, Virginia, by NewsRx correspondents, research stated, "Factors Influencing Diaphragmatic CMAP. The diaphragmatic compound motor action potentials (CMAPs) have been used to predict and prevent phrenic nerve injury (PNI) during cryoballoon ablation of right pulmonary veins."

Our news journalists obtained a quote from the research from Virginia Commonwealth University, "We sought to assess factors that influence the amplitude of the surface CMAP recordings. We analyzed CMAPs from consecutive patients undergoing cryoballoon ablation for paroxysmal atrial fibrillation. CMAP recordings were obtained using electrocardiography electrodes positioned in the 'modified lead I' method while stimulating the right PN, until loss of capture (ascertained by palpation and fluoroscopy of the right hemidiaphragm). A total of 55 patients (age 63 +/- 11 years; 60% men; body mass index [BMI] 31 +/- 6) had adequate CMAP recordings and were included for evaluation of CMAP signals."
CMap demonstrated 2 distinct components, an early higher amplitude signal (pacing artifact) and a later lower amplitude signal (true diaphragmatic CMap). There was no significant change in the true CMap recording amplitude with decrease in stimulus strength (P = 0.1). There was no impact of BMI on CMap amplitude (P = 0.93). There was a significant phasic respiratory variation in CMap amplitude with a mean decrease in CMap amplitude of 10.8% (range: 8-12%) with inspiration lasting an average of 2 beats (P < 0.001). A decrease in CMap amplitude of >30% was noted in 6 cases (11%) and termination of cryoablation prevented PNI. Diaphragmatic CMap amplitude is not affected by stimulus strength or BMI. There is a significant respirophasic decrease in CMap signal amplitude with inspiration.

According to the news editors, the research concluded: "It is important to be aware of this variation to avoid premature termination of cryoablation."


The news correspondents report that additional information may be obtained from P.S. Sharma, Virginia Commonwealth University, Medical Center, Div Cardiol, Richmond, VA, United States. Additional authors for this research include S.K. Padala, J.J. Thompson, S. Gunda, J.N. Koneru and K.A. Ellenbogen.

Keywords for this news article include: Richmond, Virginia, United States, North and Central America, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease, Virginia Commonwealth University.

Our news journalists obtained a quote from the research from the University of Sao Paulo, "Our objective was to identify how the ABI can be applied to primary care. Three different methods of calculating the ABI were compared among 13,921 men and women aged 35 to 74 years who were free of cardiovascular diseases and enrolled in the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil). The ABI ratio had the same denominator for the three categories created (the highest value for arm systolic blood pressure), and the numerator was based on the four readings for leg systolic blood pressure: the highest (ABI-
HIGH), the mean (ABI-MEAN), and the lowest (ABI-LOW). The cut-off for analysis was ABI <1.0%. All determinations of blood pressure were done with an oscillometric device. The prevalence of ABI <1% was 0.5, 0.9, and 2.7 for the categories HIGH, MEAN and LOW, respectively. All methods were associated with a high burden of cardiovascular risk factors. The association with IMT was stronger for ABI-HIGH than for the other categories. The proportion of participants with a 10-year Framingham Risk Score of coronary heart disease >20% without the inclusion of ABI <1.0 was 4.9%. For ABI-HIGH, ABI-MEAN and ABI-LOW, the increase in percentage points was 0.3, 0.7, and 2.3%, respectively, and the relative increment was 6.1, 14.3, and 46.9%.

According to the news editors, the research concluded: "All methods were acceptable, but ABI-LOW was more suitable for prevention purposes."

For more information on this research see: Different methods of calculating ankle-brachial index in mid-elderly men and women: the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil). *Brazilian Journal of Medical and Biological Research*, 2016;49(12):12-18.

Our news journalists report that additional information may be obtained by contacting P.A. Lotufo, University of Sao Paulo, Fac Med, Sao Paulo, SP, Brazil. Additional authors for this research include I.M. Bensenor and P.A. Lotufo.

Keywords for this news article include: Sao Paulo, Brazil, South America, Diagnostic Techniques and Procedures, Cardiology, Risk and Prevention, Ankle Brachial Index, Cardiovascular, Blood Pressure, Hemodynamics, Diagnosis, University of Sao Paulo.

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**Studies in the Area of Blood Transfusion Reported from University of Tel Aviv (How Long Is Safe? Setting the Cutoff for Uncomplicated Third Stage Length: A Retrospective Case-Control Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Transfusion Medicine - Blood Transfusion. According to news reporting originating from Tel Aviv, Israel, by NewsRx correspondents, research stated, "The aim of our study was to determine the optimal time for manual placental removal in an uncomplicated third stage while taking into consideration the risk for blood transfusion. Risk factors for postpartum blood transfusions were studied."

Our news editors obtained a quote from the research from the University of Tel Aviv, "Computerized data of all vaginal deliveries at our labor and delivery unit from 2010 to 2014 were obtained. Cases of complete and spontaneous placental separation up to 60 minutes into the third stage of labor were extracted for analysis. Patient demographics, obstetrical history, delivery course, and outcome were assessed as well as blood product requirements during the postpartum period. Receiver-operating curves (ROC) for prediction of blood transfusion during the third stage were calculated and risk factors were assessed. 31,226 vaginal deliveries occurred during the study period and 28,586 deliveries culminated with complete and spontaneous placental separation, 25,160 of which met inclusion criteria. Independent risk factors for blood transfusions were primiparity, longer second and third stage length, labor
induction, and maternal intrapartum fever. ROC curves showed that the optimal cutoff for the prediction of blood transfusions was 17 minutes into the third stage of labor. Waiting more than 30 minutes for placental separation increases the risk for blood transfusion more than threefold. A third stage longer than 17 minutes is associated with an increased risk for blood transfusion postpartum."

According to the news editors, the research concluded: "After more than 30 minutes, the risk for blood transfusions increases more than threefold."


The news editors report that additional information may be obtained by contacting S. Shinar, Dept. of Obstetrics and Gynecology, Lis Maternity Hospital Sourasky, Medical Center, Sackler School of Medicine, University of Tel Aviv, Tel Aviv, Israel. Additional authors for this research include A. Schwartz, S. Maslovitz and A. Many.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/birt.12200. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Israel, Tel Aviv, Medical Devices, Blood Transfusion, Biological Therapy, Risk and Prevention, Transfusion Medicine.

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Oncology - Breast Cancer

Studies in the Area of Breast Cancer Reported from Institute of Clinical Oncology (The phenomenon of acquired resistance to metformin in breast cancer cells: The interaction of growth pathways and estrogen receptor signaling)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting originating from Moscow, Russia, by NewsRx correspondents, research stated, "Metformin, a biguanide antidiabetic drug, is used to decrease hyperglycemia in patients with type 2 diabetes. Recently, the epidemiological studies revealed the potential of metformin as an anti-tumor drug for several types of cancer, including breast cancer."

Financial supporters for this research include Russian Science Foundation, Russian Foundation for Basic Research.

Our news editors obtained a quote from the research from the Institute of Clinical Oncology, "Anti-tumor metformin action was found to be mediated, at least in part, via activation of adenosine monophosphate-activated protein kinase (AMPK)-intracellular energy sensor, which inhibits the mammalian target of rapamycin (mTOR) and some other signaling pathways. Nevertheless, some patients can be non-sensitive or resistant to metformin action. Here we analyzed the mechanism of the formation of metformin-resistant phenotype in breast cancer cells and its role in estrogen receptor (ER) regulation. The experiments were performed on the ER-positive MCF-7 breast cancer cells and metformin-resistant MCF-7 subline (MCF-7/M) developed due to long-term metformin treatment. The transcriptional activity of NF-kB
and ER was measured by the luciferase reporter gene analysis. The protein expression was determined by immunoblotting (Snail1, (phospho)AMPK, (phospho)IkBa, (phospho)mTOR, cyclin D1, (phospho)Akt and ERα) and immunohistochemical analysis (E-cadherin). We have found that: 1) metformin treatment of MCF-7 cells is accompanied with the stimulation of AMPK and inhibition of growth-related proteins including IkBa, NF-κB, cyclin D1 and ERα; 2) long-term metformin treatment lead to the appearance and progression of cross-resistance to metformin and tamoxifen; the resistant cells are characterized with the unaffected AMPK activity, but the irreversible ER suppression and constitutive activation of Akt/Snail1 signaling; 3) Akt/Snail1 signaling is involved into progression of metformin resistance. The results presented may be considered as the first evidence of the progression of cross-resistance to metformin and tamoxifen in breast cancer cells."

According to the news editors, the research concluded: "Importantly, the acquired resistance to both drugs is based on the constitutive activation of Akt/Snail1/E-cadherin signaling that opens new perspectives to overcome the metformin/tamoxifen resistance of breast cancer."


The news editors report that additional information may be obtained by contacting A.M. Scherbakov, Laboratory of Clinical Biochemistry, Institute of Clinical Oncology, NN Blokhin Cancer Research Centre, Moscow, Russia. Additional authors for this research include D.V. Sorokin, V.V. Tatarskiy, N.S. Prokhorov, S.E. Semina, L.M. Berstein and M.A Krasil’nikov.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/iub.1481. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antidiabetic Agents, Antineoplastics, Moscow, Russia, Eurasia, Hormones, Oncology, Tamoxifen, Biguanides, Epidemiology, Breast Cancer, Cancer Therapy, Women's Health, Type 2 Diabetes, Metformin Therapy, Non Sulfonylureas, Steroid Receptors, Drugs and Therapies, Hypoglycemic Agents, Risk and Prevention, DNA Binding Proteins.

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Biotechnology - Cancer Gene Therapy

Studies in the Area of Cancer Gene Therapy Reported from University of Nice Sophia-Antipolis (Pathologists and liquid biopsies: to be or not to be?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Biotechnology - Cancer Gene Therapy. According to news originating from Nice, France, by NewsRx correspondents, research stated, "Recently, the advent of therapies targeting genomic alterations has improved the care of patients with certain types of cancer. While molecular targets were initially detected in nucleic acid samples extracted from tumor tissue, detection of nucleic acids in circulating blood has
allowed the development of what has become known as liquid biopsies, which provide a complementary and alternative sample source allowing identification of genomic alterations that might be addressed by targeted therapy."

Our news journalists obtained a quote from the research from the University of Nice Sophia-Antipolis, "Consequently, liquid biopsies might rapidly revolutionize oncology practice in allowing administration of more effective treatments. Liquid biopsies also provide an approach towards short-term monitoring of metastatic cancer patients to evaluate efficacy of treatment and/or early detection of secondary mutations responsible for resistance to treatment. In this context, pathologists, who have already been required in recent years to take interest in the domain of molecular pathology of cancer, now face new challenges. The attitude of pathologists to and level of involvement in the practice of liquid biopsies, including mastering the methods employed in molecular analysis of blood samples, need close attention. Regardless of the level of involvement of pathologists in this new field, it is mandatory that oncologists, biologists, geneticists, and pathologists work together to coordinate the pre-analytical, analytical, and post-analytical phases of molecular assessment of tissue and liquid samples of individual cancer patients. The challenges include (1) implementation of effective and efficient procedures for reception and analysis of liquid and tissue samples for histopathological and molecular evaluation and (2) assuring short turn-around times to facilitate rapid optimization of individual patient treatment."

According to the news editors, the research concluded: "In this paper, we will review the following: (1) recent data concerning the concept of liquid biopsies in oncology and its development for patient care, (2) advantages and limitations of molecular analyses performed on blood samples compared to those performed on tissue samples, and (3) short-term challenges facing pathologists in dealing with liquid biopsies of cancer patients and new strategies to early detect metastatic tumor cell clones."

For more information on this research see: Pathologists and liquid biopsies: to be or not to be? *Virchows Archiv*, 2016;469(6):601-609. *Virchows Archiv* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Virchows Archiv - www.springerlink.com/content/0945-6317/)

The news correspondents report that additional information may be obtained from P. Hofman, Univ Nice Sophia Antipolis, Univ Hosp Federat OncoAge, Nice, France.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00428-016-2004-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nice, France, Europe, Biotechnology, Article Review, Drugs and Therapies, Cancer Gene Therapy, Oncology, Genetics, University of Nice Sophia-Antipolis.

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**Oncology - Cancer Prevention**

**Studies in the Area of Cancer Prevention Reported from University of Massachusetts (Health literacy-listening skill and patient questions following cancer prevention and screening discussions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
Wellness Week -- New research on Oncology - Cancer Prevention is the subject of a report. According to news reporting from Worcester, Massachusetts, by NewsRx journalists, research stated, "Patient question-asking is essential to shared decision making. We sought to describe patients' questions when faced with cancer prevention and screening decisions, and to explore differences in question-asking as a function of health literacy with respect to spoken information (health literacy-listening)."

Financial supporters for this research include National Cancer Institute, Cancer Research Resources & Collaboration in Integrated Health Care Systems, National Center for Advancing Translational Sciences.

The news correspondents obtained a quote from the research from the University of Massachusetts, "Four-hundred and thirty-three (433) adults listened to simulated physician-patient interactions discussing (i) prophylactic tamoxifen for breast cancer prevention, (ii) PSA testing for prostate cancer and (iii) colorectal cancer screening, and identified questions they would have. Health literacy-listening was assessed using the Cancer Message Literacy Test-Listenting (CMLT-Listening). Two authors developed a coding scheme, which was applied to all questions. Analyses examined whether participants scoring above or below the median on the CMLT-Listening asked a similar variety of questions. Questions were coded into six major function categories: risks/benefits, procedure details, personalizing information, additional information, decision making and credibility. Participants who scored higher on the CMLT-Listening asked a greater variety of risks/benefits questions; those who scored lower asked a greater variety of questions seeking to personalize information. This difference persisted after adjusting for education. Patients' health literacy-listening is associated with distinctive patterns of question utilization following cancer screening and prevention counselling."

According to the news reporters, the research concluded: "Providers should not only be responsive to the question functions the patient favours, but also seek to ensure that the patient is exposed to the full range of information needed for shared decision making."


Our news journalists report that additional information may be obtained by contacting K.M. Mazor, University of Massachusetts, Sch Med, Dept. of Med, Worcester, MA 01605, United States. Additional authors for this research include D.L. Rubin, D.W. Roblin, A.E. Williams, P.K.J. Han, B. Gaglio, S.L. Cutrona, M.E. Costanza and J.L. Wagner.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hex.12387. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Worcester, Massachusetts, United States, North and Central America, Risk and Prevention, Diagnostics and Screening, Cancer Prevention, Oncology, University of Massachusetts.

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Studies in the Area of Cardiovascular Agents Reported from University of Bern [Antiarrhythmic Action of Flecainide in Polymorphic Ventricular Arrhythmias Caused by a Gain-of-Function Mutation in the Na(v)1.5 Sodium Channel]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Cardiovascular Agents are presented in a new report. According to news reporting out of Bern, Switzerland, by NewsRx editors, research stated, "The cardiac sodium channel Na(v)1.5, encoded by the gene SCN5A, is associated with a wide spectrum of hereditary arrhythmias. The gain-of-function mutation p.I141V in SCN5A was identified in a large multigenerational family with exercise-induced polymorphic ventricular arrhythmias."

Our news journalists obtained a quote from the research from the University of Bern, "The purpose of this study was to evaluate the molecular and clinical effects of flecainide administration on patients with this syndrome. Eleven p.I141V carriers who exhibited frequent multiformic premature ventricular complexes (PVCs) during exercise were subjected to exercise stress tests, both before and after intravenous infusion of 2 mg/kg flecainide. The in vitro effects of flecainide were evaluated using the patch-clamp technique with HEK293 cells expressing the Na(v)1.5 channel. The flecainide treatment significantly reduced the frequency of PVCs during and after exercise. Next, the sensitivity of the p.I141V mutant channel to flecainide was compared to that of the wild type channel. Perfusion of flecainide inhibited the peak and window currents in both groups. The clinical investigations of the affected patients, as well as the molecular and pharmacological characterization of the SCN5A p.I141V mutation, provide new evidence supporting the association of this mutation with exercise-induced polymorphic ventricular arrhythmias."

According to the news editors, the research concluded: "These data also demonstrate that flecainide may serve as an effective treatment for the defect in Na(v)1.5 that leads to an increased sodium window current."


Our news journalists report that additional information may be obtained by contacting M.Y. Amarouch, University of Bern, Dept. of Clin Res, CH-3010 Bern, Switzerland. Additional authors for this research include H. Swan, J. Leinonen, A. Marjamaa, A.M. Lahtinen, K. Kontula, L. Toivonen, E. Widen and H. Abriel.

Keywords for this news article include: Bern, Switzerland, Europe, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Flecainide Therapy, Membrane Proteins, Carrier Proteins, Sodium Channels, Ion Channels, Arrhythmia, Cardiology, Genetics, University of Bern.

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Cardiovascular Diseases

Studies in the Area of Cardiovascular Diseases Reported from University of Western Ontario [Emerging Therapeutic Options for Lowering of Lipoprotein(a): Implications for Prevention of Cardiovascular Disease]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases. According to news reporting from London, Canada, by NewsRx editors, the research stated, "Purpose of Review Elevated plasma concentrations of lipoprotein(a) (Lp(a)) are an independent and causal risk factor for cardiovascular diseases including coronary artery disease, ischemic stroke, and calcific aortic valve stenosis. This review summarizes the rationale for Lp(a) lowering and surveys relevant clinical trial data using a variety of agents capable of lowering Lp(a)."

The news correspondents obtained a quote from the research from the University of Western Ontario, "Contemporary guidelines and recommendations outline populations of patients who should be screened for elevated Lp(a) and who might benefit from Lp(a) lowering. Therapies including drugs and apheresis have been described that lower Lp(a) levels modestly (similar to 20 %) to dramatically (similar to 80 %). Existing therapies that lower Lp(a) also have beneficial effects on other aspects of the lipid profile, with the exception of Lp(a)-specific apheresis and an antisense oligonucleotide that targets the mRNA encoding apolipoprotein(a). No clinical trials conducted to date have managed to answer the key question of whether Lp(a) lowering confers a benefit in terms of ameliorating cardiovascular risk, although additional outcome trials of therapies that lower Lp(a) are ongoing."

According to the news reporters, the research concluded: "It is more likely, however, that Lp(a)-specific agents will provide the most appropriate approach for addressing this question."

For more information on this research see: Emerging Therapeutic Options for Lowering of Lipoprotein(a): Implications for Prevention of Cardiovascular Disease. Current Atherosclerosis Reports, 2016;18(12):6-16. Current Atherosclerosis Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

Our news journalists report that additional information may be obtained by contacting M.B. Boffa, University of Western Ontario, Dept. of Biochem, Robarts Res Inst, London, ON N6A 5B7, Canada.

Keywords for this news article include: London, Ontario, Canada, North and Central America, Therapy, Article Review, Risk and Prevention, Cardiovascular Diseases and Conditions, Lipoproteins, Cardiology, Genetics, Lipids, University of Western Ontario.

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Studies in the Area of Cardiovascular Physiological Processes Reported from Emory University (Catheter-measured Hemodynamics of Adult Fontan Circulation: Associations with Adverse Event and End-organ Dysfunctions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Physiological Processes have been published. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated. "In heart failure, a high systemic vascular resistance index (SVRI), high central venous pressure (CVP), and low cardiac index (CI) predict poor outcomes. Conversely, late hemodynamic manifestations of failing Fontan circulation and associations with end-organ dysfunction are not well understood."

The news correspondents obtained a quote from the research from Emory University, "A retrospective review of right-heart catheterization data of adult Fontan patients between 2002 and 2014 was conducted. Relationships between hemodynamic variables and serious adverse events (death or heart transplant) were examined using the Cox proportional hazard analysis. Correlations between the hemodynamic measurements and signs of end-organ dysfunction (MELD-XI, Child-Pugh, VAST score, estimated glomerular filtration rate [eGFR]) were analyzed. Sixty post-Fontan patients (85% systemic left ventricle, 40% atrio pulmonary Fontan, mean age of 28 years, and mean time since Fontan operation of 21.9 years) were included. At baseline, those with an event were statistically younger, had lower transcutaneous oxygen saturations, were more likely to have an atrio pulmonary Fontan, and were more likely to have a pacemaker. Eighteen experienced a cardiovascularly significant event. Using univariate analysis to compare the event and nonevent groups, mean CI was 2.8 +/- 0.9 vs. 2.4 +/- 0.5 L/min/m(2) (P = .004), and CVP was 18.6 +/- 6.5 vs. 16.1 +/- 4.3 mmHg (P = .03). However, the statistical significances did not persist in the multivariate model. Higher CVP and pulmonary capillary wedge pressure (PCWP) were associated with higher MELD-XI and Child-Pugh scores, and the VAST score was only associated with PCWP. Symptomatic adult Fontan patients who experienced an event manifested with a higher CI and CVP, although the multivariate Cox proportional hazard analysis did not yield any significant associations. The presences of hepatic dysfunction and portal venous outflow obstruction were associated with a higher CVP and PCWP."

According to the news reporters, the research concluded: "Renal dysfunction was prevalent but no statistically significant association between the hemodynamic measurements was identified, although trends toward a higher CVP and transpulmonary gradient were identified."

For more information on this research see: Catheter-measured Hemodynamics of Adult Fontan Circulation: Associations with Adverse Event and End-organ Dysfunctions. Congenital Heart Disease, 2016;11(6):589-597. Congenital Heart Disease can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Congenital Heart Disease - onlineli brary.wiley.com/journal/10.1111/(ISSN) 1747-0803)

Our news journalists report that additional information may be obtained by contacting W.M. Book, Emory University, Sch Med, Div Cardiol, Atlanta, GA 30322, United States. Additional authors for this research include C. Hebson, K. Shioda, R.W. Elder, B.E.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Hemodynamics, Emory University.

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Life Science Research - Cell Biology

Studies in the Area of Cell Biology Reported from Baylor University College of Medicine (Circadian Homeostasis of Liver Metabolism Suppresses Hepatocarcinogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Life Science Research - Cell Biology have been presented. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Chronic jet lag induces spontaneous hepatocellular carcinoma (HCC) in wild-type mice following a mechanism very similar to that observed in obese humans. The process initiates with non-alcoholic fatty liver disease (NAFLD) that progresses to steatohepatitis and fibrosis before HCC detection."

Financial supporters for this research include NIH, USDA, CRPIT, Welch, Public Health Service Grant, NCI, Dan L. Duncan Cancer Center, NSF, Alkek Center, BCM Agilent Technologies Center of Excellence.

Our news editors obtained a quote from the research from the Baylor University College of Medicine, "This pathophysiological pathway is driven by jet-lag-induced genome-wide gene deregulation and global liver metabolic dysfunction, with nuclear receptor-controlled cholesterol/bile acid and xenobiotic metabolism among the top deregulated pathways. Ablation of farnesoid X receptor dramatically increases enterohepatic bile acid levels and jet-lag induced HCC, while loss of constitutive androstane receptor (CAR), a well-known liver tumor promoter that mediates toxic bile acid signaling, inhibits NAFLD-induced hepatocarcinogenesis."

According to the news editors, the research concluded: "Circadian disruption activates CAR by promoting cholestasis, peripheral clock disruption, and sympathetic dysfunction."

For more information on this research see: Circadian Homeostasis of Liver Metabolism Suppresses Hepatocarcinogenesis. Cancer Cell, 2016;30(6):909-924. Cancer Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cancer Cell - www.journals.elsevier.com/cancer-cell/)

The news editors report that additional information may be obtained by contacting D.D. Moore, Baylor College of Medicine, Dan L Duncan Canc Center, Houston, TX 77030, United States. Additional authors for this research include H. Voicu, M.J. Finegold, C. Coarfa, A. Sreekumar, N. Putluri, C.A. Katchy, C. Lee, D.D. Moore and L. Fu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ccell.2016.10.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Cell Biology, Life Science Research, Genetics, Baylor University College of Medicine.
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Life Science Research - Cell Biology

Studies in the Area of Cell Biology Reported from Charles University
(Shikonin regulates C-MYC and GLUT1 expression through the MST1-YAP1-TEAD1 axis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Life Science Research - Cell Biology is the subject of a report. According to news reporting from Prague, Czech Republic, by NewsRx journalists, research stated, "The general mechanism underlying the tumor suppressor activity of the Hippo signaling pathway remains unclear. In this study, we explore the molecular mechanisms connecting the Hippo signaling pathway with glucose metabolism."

Financial supporters for this research include Neuron Foundation and the Grant Agency of the Czech Republic projects, Charles University, Ministry of Education, Youth and Sports of CR, Project "BIOCEV", Institutional Research Concept.

The news correspondents obtained a quote from the research from Charles University, "We have found that two key regulators of glycolysis, C-MYC and GLUT1, are targets of the Hippo signaling pathway in human leukemia cells. Our results revealed that activation of MST1 by the natural compound shikonin inhibited the expression of GLUT1 and C-MYC. Furthermore, RNAi experiments confirmed the regulation of GLUT1 and C-MYC expression via the MST1-YAP1-TEAD1 axis. Surprisingly, YAP1 was found to positively regulate C-MYC mRNA levels in complex with TEAD1, while it negatively regulates C-MYC levels in cooperation with MST1. Hence, YAP1 serves as a rheostat for C-MYC, which is regulated by MST1. In addition, depletion of MST1 stimulates lactate production, whereas the specific depletion of TEAD1 has an opposite effect. The inhibition of lactate production and cellular proliferation induced by shikonin also depends on the Hippo pathway activity. Finally, a bioinformatic analysis revealed conserved TEAD-binding motifs in the C-MYC and GLUT1 promoters providing another molecular data supporting our observations."

According to the news reporters, the research concluded: "In summary, regulation of glucose metabolism could serve as a new tumor suppressor mechanism orchestrated by the Hippo signaling pathway."

For more information on this research see: Shikonin regulates C-MYC and GLUT1 expression through the MST1-YAP1-TEAD1 axis. Experimental Cell Research, 2016;349 (2):273-281. Experimental Cell Research can be contacted at: Elsevier Inc, 525 B Street, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Experimental Cell Research - www.journals.elsevier.com/experimental-cell-research/)

Our news journalists report that additional information may be obtained by contacting K. Valis, Charles Univ Prague, Fac Sci, Prague, Czech Republic. Additional authors for this research include P. Talacko, V. Grobarova, J. Cerny and P. Novak.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yexcr.2016.10.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Prague, Czech Republic, Europe, Cell Biology, Life Science Research, Tumor Suppression, Oncology, Genetics, Charles University.
Nervous System Diseases and Conditions - Charcot-Marie-Tooth Disease

Studies in the Area of Charcot-Marie-Tooth Disease Reported from Faculty of Medicine (Histopathological features of a patient with Charcot-Marie-Tooth disease type 2U/AD-CMTax-MARS)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nervous System Diseases and Conditions - Charcot-Marie-Tooth Disease. According to news reporting originating in Osakasayama, Japan, by NewsRx journalists, research stated, "Charcot-Marie-Tooth (CMT) disease is a complex of peripheral nervous system disorders. CMT type 2U (CMT2U) is an autosomal dominant (AD) disease caused by mutations in the MARS gene encoding methionyl-tRNA synthetase; this disease has thus been newly called AD-CMTax-MARS."

The news reporters obtained a quote from the research from the Faculty of Medicine, "A few families with mutations in the MARS gene have been reported, without detailed histopathological findings. We describe a 70-year-old woman who had bilateral dysesthesia of the soles since the age of 66 years. Sural nerve biopsy showed a decrease in the density of large myelinated nerve fibers. Increased clusters of regenerating myelinated nerve fibers were noted. Electronmicroscopic analyses revealed degeneration of unmyelinated nerves. There was no vasculitis or inflammatory cell infiltration. Genetic analysis identified a heterozygous p.P800T mutation, a reported mutation in the MARS gene. We report the detailed histopathological findings in a patient with CMT2U/AD-CMTax-MARS."

According to the news reporters, the research concluded: "The findings are similar to those found in CMT2D caused by mutations in the GARS gene, encoding glycyl-tRNA synthetase."


Our news correspondents report that additional information may be obtained by contacting M. Hirano, Kindai Univ, Fac Med, Dept. of Neurol, Osakasayama, Japan. Additional authors for this research include N. Oka, A. Hashiguchi, S. Ueno, H. Sakamoto, H. Takashima, Y. Higuchi, S. Kusunoki and Y. Nakamura.

Keywords for this news article include: Osakasayama, Japan, Asia, Peripheral Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Hereditary Sensory and Motor Neuropathy, Stomatognathic Diseases and Conditions, Neuromuscular System Diseases and Conditions, Dental Diseases and Conditions, Tooth Diseases and Conditions, Nervous System Malformations, Charcot-Marie-Tooth Disease, Congenital Abnormalities, Enzymes and Coenzymes, Polyneuropathies, Synthetase, Dentistry, Genetics, Faculty of Medicine.

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Studies in the Area of Clinical Pharmacology Reported from Maastricht University Hospital (A comparison of the intrasubject variation in drug exposure between generic and brand-name drugs: a retrospective analysis of replicate design trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Clinical Pharmacology are presented in a new report. According to news reporting from Maastricht, Netherlands, by NewsRx journalists, research stated, "The aim of the present study was to investigate whether differences in total and peak drug exposure upon generic substitution are due to differences between formulations or to intrasubject pharmacokinetic variability of the active substance. The study was designed as a retrospective reanalysis of existing studies."

The news correspondents obtained a quote from the research from Maastricht University Hospital, "Nine replicate design bioequivalence studies representing six drug classes -i.e. for alendronate, atorvastatin, cyclosporin, ebastine, exemestane, mycophenolate mofetil, and ropinirole -were retrieved from the Dutch Medicines Regulatory Authority. In most studies, the intrasubject variability in total and peak drug exposure was comparable for the brand-name [in the range 0.01-0.24 for area under the concentration-time curve (AUCt) and 0.02-0.29 for peak plasma concentration (Cmax) on a log scale] and generic (0.01-0.23 for AUCt and 0.08-0.33 for Cmax) drugs, and was comparable with the intrasubject variability upon switching between those drugs (0.01-0.23 for AUCt and 0.06-0.33 for Cmax). The variance related to subject-by-formulation interaction could be considered negligible (-0.069 to 0.047 for AUCt and -0.091 to 0.02 for Cmax). In the investigated studies, the variation in total and peak exposure seen when a patient is switched from a brand-name to a generic drug is comparable with that seen following repeated administration of the brand-name drug in the patient. Only the intrasubject variability seems to play a crucial and decisive role in the variation in drug exposure seen; no additional formulation-dependent variation in exposure is observed upon switching."

According to the news reporters, the research concluded: "Thus, our data support that, for the medicines that were included in the present investigation, from a clinical pharmacological perspective, the benefit-risk balance of a generic drug is comparable with that of the brand-name drug."


Our news journalists report that additional information may be obtained by contacting Y. Yu, Dept. of Pharmacology and Toxicology, CARIM, Maastricht University Medical Centre, Maastricht, Netherlands. Additional authors for this research include S. Teerenstra, C. Neef, D. Burger and M. Maliepaard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bcp.12828. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Maastricht, Netherlands, Drugs and Therapies, Clinical Pharmacology.
Clinical Research - Clinical Trials and Studies

Studies in the Area of Clinical Trials and Studies Reported from University of Bordeaux (Targeted therapy and elderly people: A review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Clinical Research - Clinical Trials and Studies have been presented. According to news originating from Bordeaux, France, by NewsRx correspondents, research stated, "The use of targeted therapy (TT) has radically changed the outcome of various cancers and introduces the era of personalised medicine. Elderly patients (>= 65 years) represent the majority of cancer diagnoses and deaths by age group with an increase expected over the next decade."

Our news journalists obtained a quote from the research from the University of Bordeaux, "This group of patients is heterogeneous with three categories of patients: fit, vulnerable and frail, with specific treatment for each subgroup. In this review, we assess safety and efficacy of TT in elderly patients, principally from data of pivotal clinical trials with subgroup analysis, but elderly people represented a small percentage of the total number of patients. Few specific trials have been carried out for TT in elderly people with most patients considered to be fit. However, tolerance and efficacy of TT in elderly patients seems similar to that for younger patients, with an increase in incidence of specific adverse events in elderly patients for selected TTs."

According to the news editors, the research concluded: "An adapted geriatric selection and strict monitoring could help to decrease toxicity, and specific clinical trials for elderly cancer patients would be useful."


The news correspondents report that additional information may be obtained from A. Daste, Univ Bordeaux, Bordeaux, France. Additional authors for this research include C. Chakiba, C. Domblides, M. Gross-goupil, A. Quivy, A. Ravaud and P. Soubeyran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejca.2016.10.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bordeaux, France, Europe, Clinical Trials and Studies, Therapy, Article Review, Clinical Research, University of Bordeaux.

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Studies in the Area of Colon Cancer Reported from Fujian Medical University (Correlational research of Golgi phosphorylation protein 3 expression in colorectal cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Colon Cancer are presented in a new report. According to news reporting from Quanzhou, People's Republic of China, by NewsRx journalists, research stated, "To investigate the effect of Golgi phosphorylation protein 3 (GOLPH3) expression on cell apoptosis, angiogenesis and prognosis in colorectal cancer (CRC). The expression of GOLPH3 in CRC tissues and normal colorectal mucosae was determined by immunohistochemistry in 62 patients."

The news correspondents obtained a quote from the research from Fujian Medical University, "In addition, immunohistochemistry was also carried out to detect the expression of vascular endothelial growth factor (VEGF), CD34 and microvessel density (MVD). Terminal deoxynucleotidyl transferase-mediated dUTP-biotin nick end labeling assay was used to determine the apoptotic index (AI). The Kaplan-Meier method was used to analyze the relationship between GOLPH3 expression and survival in another 123 CRC cases. Compared with normal colorectal mucosae, a notably higher level of GOLPH3 protein expression was identified in CRC tissues (53.2% vs 24.2%, p<0.05). Positive GOLPH3 expression was significantly associated with tumor invasion depth, TNM stage, and lymph node metastasis (p=0.001; p=0.020; p<0.05, respectively), but not with tumor length, tumor site, and age (p=0.363; p=0.819; p=0.599; p>0.05, respectively). VEGF expression and MVD in GOLPH3-positive CRC was significantly higher than in GOLPH3-negative CRC (VEGF: 69.7% vs 31.0%; MVD: 21.45 ± 9.39 vs 14.24 ± 8.97; p<0.05). GOLPH3 expression was negatively correlated with AI in CRC as shown by Spearman correlation analysis (r=-0.320, p<0.05). The 5-year survival rate in GOLPH3-negative CRC (69.4%) was significantly higher than in GOLPH3-positive CRC (48.6%) (log-rank test, p<0.05). High expression of GOLPH3 is found in CRC tissues."

According to the news reporters, the research concluded: "GOLPH3 expression may be a novel prognostic marker for CRC patients."


Our news journalists report that additional information may be obtained by contacting Y.T. Guo, Yan-Ta Guo, Cheng-Zhi Qiu, Wai-Shi Yu, Xiao-Feng Yang, Ming-Zhen Wang, Dept. of General Surgery, the Second Affiliated Hospital of Fujian Medical University, Quanzhou 362000, Fujian Province, People's Republic of China. Additional authors for this research include C.Z. Qiu, Z.X. Huang, W.S. Yu, X.F. Yang and M.Z Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v21.i48.13473. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, VEGF, Quanzhou, Oncology, Colon Cancer, Gastroenterology, Membrane Proteins, Angiogenic Proteins, Colorectal Research, Growth Factor Receptors, People's Republic of China, Receptor Protein Tyrosine Kinases,
Vascular Endothelial Growth Factors, Intercellular Signaling Peptides and Proteins.
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**Herpesvirus Diseases and Conditions**

**Studies in the Area of Cytomegalovirus Reported from Chang Gung University**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Herpesvirus Diseases and Conditions - Cytomegalovirus have been published. According to news reporting originating from Taoyuan, Taiwan, by NewsRx correspondents, research stated, "Esophagitis is the second most common gastrointestinal manifestation of cytomegalovirus (CMV) infection after colitis. CMV esophagitis has been reported in patients who have undergone transplantation, are on long-term renal dialysis, or who have the human immunodeficiency virus infection."

Our news editors obtained a quote from the research from Chang Gung University, "This study aimed to investigate the clinical characteristics and manifestations of CMV esophagitis in patients who underwent diagnostic endoscopy. A total of 16 patients with histologically proven CMV infection were identified from 1539 patients with esophageal ulcers and analyzed retrospectively (January 2006 to December 2013). Patients’ personal data (age, smoking, and alcohol consumption), underlying systemic diseases (diabetes mellitus, end-stage renal disease, and chronic obstructive pulmonary disease), malignancy, indication for esophagastroduodenoscopy, endoscopic characteristics, and diagnostic methods (pathological or serological findings) were collected for further analysis. Among the patients with CMV esophagitis, the mean age was 59.94 years (range, 23-84 years). The male: female ratio was 1.67:1. Odynophagia and epigastralgia were common symptoms. Of the 16 patients, 3 (18.75%) were infected with the human immunodeficiency virus and 9 (56.25%) had an underlying malignancy, including lung cancer (6 patients), esophageal cancer (2 patients), gastric cancer (1 patient), ampulla of Vater cancer (1 patient), and lymphoma (1 patient). Six of the 9 patients (66.7%) with malignancy had been administered concurrent chemoradiotherapy (CCRT). In this study, patients with malignancy who had been administered CCRT were at increased risk for CMV esophagitis, which had not been reported before in the literature."

According to the news editors, the research concluded: "CMV esophagitis should be considered as a potential treatment-related complication of CCRT."


The news editors report that additional information may be obtained by contacting C.T. Chiu, Chang Gung University, Coll Med, Taoyuan, Taiwan. Additional authors for this research include C.J. Kuo, W.R. Lin, C.M. Hsu, Y.P. Ho, C.J. Lin, M.Y. Su, C.T. Chiu, C.L. Wang and K.H. Chen.

Keywords for this news article include: Taoyuan, Taiwan, Asia, Cancer, Diagnostics and Screening, Risk and Prevention, Digestive System Diseases and Conditions,
Studies in the Area of Diabetic Nephropathy Reported from University of Cairo (Anti-diabetic and renoprotective effects of aliskiren in streptozotocin-induced diabetic nephropathy in female rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Nutritional and Metabolic Diseases and Conditions - Diabetic Nephropathy is now available. According to news reporting originating from Cairo, Egypt, by NewsRx correspondents, research stated, "Since chronic kidney disease due to diabetic nephropathy (DN) is becoming an ever larger health burden worldwide, more effective therapies are desperately needed. In the present study, the anti-diabetic and renoprotective effects of aliskiren have been evaluated in streptozotocin (STZ)-induced DN in rats."

Our news editors obtained a quote from the research from the University of Cairo, "DN was induced by a single intraperitoneal injection of STZ (65 mg/kg). Three weeks after STZ, rats were divided into four groups; normal, diabetic, diabetic treated with gliclazide (10 mg/kg/day) for 1 month, and diabetic treated with aliskiren (50 mg/kg/day) for 1 month. At the end of the experiment, mean arterial blood pressure and heart rate were recorded. Rats were then euthanized and serum was separated for determination of glucose, insulin, kidney function tests, superoxide dismutase activity (SOD), adiponectin, and tumor necrosis factor-alpha (TNF-alpha). One kidney was used for estimation of malondialdehyde (MDA), reduced glutathione (GSH), and nitric oxide (NO) contents. Other kidney was used for histopathological study and immunohistochemical measurement of caspase-3 and transforming growth factor beta (TGF-beta). In addition, islets of Langerhans were isolated from normal rats by collagenase digestion technique for in vitro study. Aliskiren normalized STZ-induced hyperglycemia, increased insulin level both in vivo and in vitro, normalized kidney function tests and blood pressure, and alleviated STZ-induced kidney histopathological changes. This could be related to the ability of aliskiren toward preserving hemodynamic changes and alleviating oxidative stress and inflammatory and apoptotic markers induced by STZ in rats. However, aliskiren was more effective than gliclazide in relieving STZ-induced DN. These findings support the beneficial effect of aliskiren treatment in DN which could be attributed to its anti-diabetic, renoprotective, antioxidant, anti-inflammatory, and anti-apoptotic effects."

According to the news editors, the research concluded: "Moreover, clinical studies are required to establish the effectiveness of aliskiren treatment in patients suffering from hypertension and diabetes."

For more information on this research see: Anti-diabetic and renoprotective effects of aliskiren in streptozotocin-induced diabetic nephropathy in female rats. Naunyn-Schmiedebergs Archives of Pharmacology, 2016;389(12):1315-1324. Naunyn-Schmiedebers Archives of Pharmacology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

The news editors report that additional information may be obtained by contacting...
Histone Deacetylase-3/CAGE Axis Targets EGFR Signaling and Regulates the Response to Anti-Cancer Drugs

Studies in the Area of Drug Resistance Reported from Kangwon National University

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Drug Resistance are discussed in a new report. According to news reporting originating in Chunchon, South Korea, by NewsRx journalists, research stated, "We have previously reported the role of miR-326-HDAC3 loop in anti-cancer drug-resistance. CAGE, a cancer/testis antigen, regulates the response to anti-cancer drug-resistance by forming a negative feedback loop with miR-200b."

The news reporters obtained a quote from the research from Kangwon National University, "Studies investigating the relationship between CAGE and HDAC3 revealed that HDAC3 negatively regulated the expression of CAGE. ChIP assays demonstrated the binding of HDAC3 to the promoter sequences of CAGE. However, CAGE did not affect the expression of HDAC3. We also found that EGFR signaling regulated the expressions of HDAC3 and CAGE. Anti-cancer drug-resistant cancer cell lines show an increased expression of pEGFR(Y845). HDAC3 was found to negatively regulate the expression of pEGFR(Y845). CAGE showed an interaction and co-localization with EGFR. It was seen that miR-326, a negative regulator of HDAC3, regulated the expression of CAGE, pEGFR(Y845), and the interaction between CAGE and EGFR. miR-326 inhibitor induced the binding of HDAC3 to the promoter sequences in anti-cancer drug-resistant Malme3M® cells, decreasing the tumorigenic potential of Malme3M® cells in a manner associated with its effect on the expression of HDAC3, CAGE and pEGFR(Y845). The down-regulation of HDAC3 enhanced the tumorigenic, angiogenic and invasion potential of the anti-cancer drug-sensitive Malme3M cells in CAGE-dependent manner. Studies revealed that PKCd was responsible for the increased expression of pEGFR (Y845) and CAGE in Malme3M® cells. CAGE showed an interaction with PKCd in Malme3M® cells."

According to the news reporters, the research concluded: "Our results show that HDAC3-CAGE axis can be employed as a target for overcoming resistance to EGFR inhibitors."

For more information on this research see: Histone Deacetylase-3/CAGE Axis Targets EGFR Signaling and Regulates the Response to Anti-Cancer Drugs. Molecules and Cells, 2016;39(3):229-41. (Springer - www.springer.com; Molecules and Cells -
Our news correspondents report that additional information may be obtained by contacting H. Kim, Dept. of Biochemistry, College of Natural Sciences, Kangwon National University, Chunchon 200-701, South Korea. Additional authors for this research include Y. Kim, H. Goh and D. Jeoung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.14348/molcells.2016.2244. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Cancer, Chunchon, Histones, Oncology, South Korea, Deacetylase, Nucleoproteins, Drug Resistance, Drugs and Therapies, Enzymes and Coenzymes.

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Dysplasia

Studies in the Area of Dysplasia Reported from Baylor University College of Medicine (Phenotypic Expansion of TBX4 Mutations to Include Acinar Dysplasia of the Lungs)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Dysplasia is the subject of a report. According to news reporting originating in Houston, Texas, by NewsRx journalists, research stated, "Mutations in the T-box transcription factor TBX4 gene have been reported in patients with Ischiocoxopodopatellar syndrome (MIM# 147891) and childhood-onset pulmonary arterial hypertension."

Financial supporters for this research include US National Heart, Lung, and Blood Institute (NHLBI), National Organization for Rare Disorders (NORD), US National Human Genome Research Institute (NHGRI)/NHLBI, National Institute of Neurological Disorders and Stroke (NINDS).

The news reporters obtained a quote from the research from the Baylor University College of Medicine, "Whole exome sequencing of DNA from a 1 day old deceased newborn, with severe diffuse developmental lung disorder exhibiting features of acinar dysplasia, and her unaffected parents identified a de novo TBX4 missense mutation p.E86Q (c.256G >C) in the DNA-binding T-box domain. We propose phenotypic expansion of the TBX4-related clinical disease spectrum to include acinar dysplasia of the lungs."

According to the news reporters, the research concluded: "The reported mutation is the first identified genetic variant causative for acinar dysplasia."


Our news correspondents report that additional information may be obtained by contacting P. Stankiewicz, Baylor College of Medicine, Dept. of Mol & Human Genet, Houston, TX 77030, United States. Additional authors for this research include Z.H. Coban-
Hormones - Estradiol Congeners

Studies in the Area of Estradiol Congeners Reported from University of Cape Town (Anthropometric Measurements, Serum Reproductive Hormonal Levels and Sexual Development among Boys in the Rural Western Cape, South Africa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hormones - Estradiol Congeners is now available. According to news originating from Cape Town, South Africa, by NewsRx correspondents, research stated, "Data on growth and sexual maturation among boys from the rural Western Cape in South Africa is limited. A cross-sectional study of 269 school boys was conducted testing for serum luteinizing hormone (LH), follicle stimulating hormone (FSH), testosterone, sex hormone binding globulin (SHBG) and estradiol (E2); height, weight and body mass index (BMI); sexual maturity (using Tanner Stages) and a questionnaire (demographic and medical history)."

Our news journalists obtained a quote from the research from the University of Cape Town, "The median age at pubertal onset (Tanner Stage 2) and Tanner Stage 5 was 11.6 and 14.7 years, respectively. The median testicular volume was 5.5 mL at Tanner Stage 2 increasing from 2.5 mL at Tanner Stage 1 to 14.7 mL at Tanner Stage 5. Height and weight measurements were <25th & 50th percentile references at Tanner Stages 1-3. Controlling for confounders, serum FSH and LH increased (p < 0.05) from Tanner Stage 1 to 4 (by 4.1 and 3 mL respectively), and serum testosterone and estradiol increased after Tanner Stage 2 (by 12.7 nmol/L and 59.5 pmol/L respectively). These results indicate some delays in pubertal development of boys in the rural Western Cape when compared to boys from other settings possibly due to nutritional, socio-economic and environmental exposures. Changes in serum hormone levels were consistent with other populations."

According to the news editors, the research concluded: "Initiatives to improve nutrition amongst Western Cape rural communities are recommended."

For more information on this research see: Anthropometric Measurements, Serum Reproductive Hormonal Levels and Sexual Development among Boys in the Rural Western Cape, South Africa. International Journal of Environmental Research and Public Health, 2016;13(12):196-208. International Journal of Environmental Research and Public Health can be contacted at: MdpI Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from J. Mao, University of Cape Town, Fac Hlth Sci, Sch Public Hlth & Family Med, Center Environm & Occupat Hlth Res, ZA-7729 Cape Town, South Africa.
Studies in the Area of GABA Receptors Reported from University of Leipzig [The alpha 2 beta 3 gamma 2 GABA(A) receptor preferring agonist NS11394 aggravates dystonia in the phenotypic dt(sz) model]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Membrane Proteins - GABA Receptors are presented in a new report. According to news reporting originating from Leipzig, Germany, by NewsRx correspondents, research stated, "Dystonia is a movement disorder, characterized by involuntary muscle contractions resulting in abnormal movements and/or postures. Antidystonic effects of benzodiazepines in patients with different types of dystonia could be replicated in the dt(sz) mutant hamster, a phenotypic model of paroxysmal dystonia."

Our news editors obtained a quote from the research from the University of Leipzig, "Compounds with preferred binding at specific subunits of the gamma aminobutyric acid type A (GABA(A)) receptor may provide a more beneficial spectrum of effects in comparison with benzodiazepines. We therefore examined the effects of the alpha 1 beta 3 gamma 2 GABA(A) receptor preferring compound zolpidem (2.0-10.0 mg/kg i.p.) and of the alpha 1 beta 3 gamma 2 GABA(A) receptor preferring compound NS11394 (3.0-30 mg/kg i.p.) on the severity of dystonia in the dtsz mutant in comparison with the benzodiazepine clonazepam (0.5-1.0 mg/kg i.p.). As expected, clonazepam exerted pronounced antidystonic effects. While zolpidem showed moderate beneficial effects, NS11394 significantly increased the severity of dystonia. The present results indicate for the first time that positive GABA(A) receptor modulators show contrary effects on dystonia dependent on their preference for alpha-subunits."

According to the news editors, the research concluded: "The potential link between alterations in GABA(A) receptor subunits and GABAergic disinhibition in dystonia deserves further attention in research on the pathophysiology and therapeutic targets."

For more information on this research see: The alpha 2 beta 3 gamma 2 GABA(A) receptor preferring agonist NS11394 aggravates dystonia in the phenotypic dt(sz) model. European Journal of Pharmacology, 2016;791():655-658. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

The news editors report that additional information may be obtained by contacting A. Richter, University of Leipzig, Fac Vet Med, Inst Pharmacol Pharm & Toxicol, D-04103 Leipzig, Germany. Additional authors for this research include F. Richter, A. Bauer, J. Gerstenberger and A. Richter.

Keywords for this news article in clude: Leipzig, Germany, Europe, Membrane Proteins, GABA-A Receptors, GABA Receptors, University of Leipzig.

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Oncology - Gastric Cancer

Studies in the Area of Gastric Cancer Reported from Zhejiang University (Role of Prognostic Nutritional Index in patients with gastric cancer: a meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Gastric Cancer. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to determine the role of Prognostic Nutritional Index in predicting gastric cancer. EVIDENCE ACQUISITION: Studies were searched in PubMed, EMBASE and ISI Web of Science."

The news reporters obtained a quote from the research from Zhejiang University, "The hazard ratios and 95% confidence interval for survival estimate were extracted from the articles and the pooled HR was computed. EVIDENCE SYNTHESIS: Nine studies with 3203 participants met the inclusion criteria. Low PNI was associated with poor overall survival (pooled HR 1.92, 95% CI: 1.68-2.19)."

According to the news reporters, the research concluded: "PROGNOSTIC NUTRITIONAL INDEX was an effective indicator for the prognosis of gastric cancer."


Our news correspondents report that additional information may be obtained by contacting H. Lin, Zhejiang University, Sch Med, Dept. of Gen Surg, Sir Run Run Shaw Hosp, Hangzhou 30016, Zhejiang, People's Republic of China. Additional authors for this research include S.T. Zhai and H. Lin.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Cancer, Article Review, Gastroenterology, Gastric Cancer, Oncology, Zhejiang University.

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Biotechnology - Gene Therapy

Studies in the Area of Gene Therapy Reported from University of California (DNA Nanotechnology for Precise Control over Drug Delivery and Gene Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Biotechnology - Gene Therapy. According to news reporting from La Jolla, California, by NewsRx journalists, research stated, "Nanomedicine has been growing exponentially due to its enhanced drug targeting and reduced drug toxicity. It uses the interactions where nanotechnological components and biological systems communicate with each other to facilitate the delivery performance."

The news correspondents obtained a quote from the research from the University of
California, "At this scale, the physiochemical properties of delivery systems strongly affect their capacities. Among current delivery systems, DNA nanotechnology shows many advantages because of its unprecedented engineering abilities. Through molecular recognition, DNA nanotechnology can be used to construct a variety of nanostructures with precisely controllable size, shape, and surface chemistry, which can be appreciated in the delivery process. In this review, different approaches that are currently used for the construction of DNA nanostructures are reported."

According to the news reporters, the research concluded: "Further, the utilization of these DNA nanostructures with the well-defined parameters for the precise control in drug delivery and gene therapy is discussed."


Our news journalists report that additional information may be obtained by contacting C. Angell, Dept. of NanoEngineering, University of California, San Diego, La Jolla, CA, 92093, United States. Additional authors for this research include S. Xie, L. Zhang and Y. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201502167. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, La Jolla, Genetics, California, DNA Research, Gene Therapy, United States, Article Review, Bioengineering, Nanostructural, Nanostructures, Nanotechnology, Drugs and Therapies, Drug Delivery Systems, Emerging Technologies, North and Central America.

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**Glomerulosclerosis**

**Studies in the Area of Glomerulosclerosis Reported from Central South University (A novel heterozygous COL4A4 missense mutation in a Chinese family with focal segmental glomerulosclerosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Glomerulosclerosis. According to news originating from Changsha, People's Republic of China, by NewsRx correspondents, research stated, "Focal segmental glomerulosclerosis (FSGS) is the most common glomerular histological lesion associated with high-grade proteinuria and end-stage renal disease. Histologically, FSGS is characterized by focal segmental sclerosis with foot process effacement."

Financial support for this research came from New Xiangya Talent Project, China.

Our news journalists obtained a quote from the research from Central South University, "The aim of this study was to identify the disease-causing mutation in a four-generation Chinese family with FSGS. A novel missense mutation, c.1856G >A (p.Gly619Asp), in the collagen type IV alpha-4 gene (COL4A4) was identified in six patients and it co-segregated with the disease in this family. The variant is predicted to be disease-causing and results in collagen IV abnormalities. Our finding broadens mutation spectrum of the COL4A4
gene and extends the phenotypic spectrum of collagen IV nephropathies. Our study suggests that exome sequencing is a cost-effective and efficient approach for identification of disease-causing mutations in phenotypically complex or equivocal disorders."

According to the news editors, the research concluded: "Timely screening for COL4A3/COL4A4 mutations in patients with familial FSGS may help both accurately diagnose and treat these patients."


The news correspondents report that additional information may be obtained from H. Deng, Central South University, Xiangya Hosp 3, Dept. of Neurol, Changsha, Hunan, People's Republic of China. Additional authors for this research include P.Z. Hu, H.B. Xu, J.Z. Yuan, L.M. Yuan, W. Xiong, X. Deng and H. Deng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jcmm.12924. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Changsha, People's Republic of China, Asia, Extracellular Matrix Proteins, Glomerulosclerosis, Nephrology, Collagen, Genetics, Central South University.

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**Heart Disorders and Diseases - Heart Disease**

**Studies in the Area of Heart Disease Reported from Washington University (Effect of Statin Therapy on Mortality in Older Adults Hospitalized with Coronary Artery Disease: A Propensity-Adjusted Analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Disease. According to news originating from St. Louis, Missouri, by NewsRx correspondents, research stated, "To examine the effect of statins on long-term mortality in older adults hospitalized with coronary artery disease (CAD). Retrospective analysis. University teaching hospital."

Our news journalists obtained a quote from the research from Washington University, "Individuals aged 80 and older (mean aged 85.2, 56% female) hospitalized from January 2006 to December 2010 with acute myocardial infarction (AMI), unstable angina pectoris, or chronic CAD and discharged alive (N = 1,262). Participants were divided into those who did (n = 913) and did not (n = 349) receive a discharge prescription for a statin. All-cause mortality over a median follow-up of 3.1 years. Participants treated with statins were more likely to be male, to have a primary diagnosis of AMI, to have traditional cardiovascular risk factors, and to receive other standard cardiovascular medications in addition to statins. In unadjusted analysis, statin therapy was associated with lower mortality (hazard ratio (HR) = 0.83, 95%
confidence interval (CI) = 0.71-0.96). After adjustment for baseline differences between groups and propensity for receiving statin therapy, the effect of statins on mortality was no longer significant (HR = 0.88, 95% CI = 0.74-1.05). The association between statins and mortality was similar in participants aged 80 to 84 and those aged 85 and older. In this cohort of older adults hospitalized with CAD, statin therapy had no significant effect on long-term survival after adjustment for between-group differences."

According to the news editors, the research concluded: "These findings, although preliminary, call into question the benefit of statin therapy for secondary prevention in a real-world population of adults aged 80 and older and underscore the need for shared decision-making when prescribing statins in this age group."


The news correspondents report that additional information may be obtained from M.W. Rich, Washington University, Sch Med, St Louis, MO, United States. Additional authors for this research include E. Novak and M.W. Rich.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgs.14207. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Heart Disorders and Diseases, Arterial Occlusive Diseases, Coronary Artery Disease, Myocardial Ischemia, Arteriosclerosis, Heart Disease, Angiology, Therapy, Washington University. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

Surgery - Heart Surgery

Studies in the Area of Heart Surgery Reported from Children's Hospital (Preoperative and Intraoperative Predictive Factors of Immediate Extubation After Neonatal Cardiac Surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Surgery - Heart Surgery have been published. According to news originating from Omaha, Nebraska, by NewsRx correspondents, research stated, "We sought to identify preoperative and intraoperative predictors of immediate extubation (IE) after open heart surgery in neonates. The effect of IE on the postoperative intensive care unit (ICU) length of stay (LOS), cost of postoperative ICU care, operating room turnover, and reintubation rates was assessed."

Our news journalists obtained a quote from the research from Children's Hospital, "Patients younger than 31 days who underwent cardiac surgery with cardiopulmonary bypass (January 2010 to December 2013) at a tertiary-care children's hospital were studied. Immediate extubation was defined as successful extubation before termination of anesthetic care. Data on
preoperative and intraoperative variables were compared using descriptive, bivariate, and multivariate statistics to identify the predictors of IE. Propensity scores were used to assess effects of IE on ICU LOS, the cost of ICU care, reintubation rates, and operating room turnover time. One hundred forty-eight procedures done at a median age of 7 days resulted in 45 IEs (30.4%). The IE rate was 22.2% with single-ventricle heart disease. Independent predictors of IE were the absence of the need for preoperative ventilatory assistance, higher gestational age, anesthesiologist, and shorter cardiopulmonary bypass. Immediate extubation was associated with shorter ICU LOS (8.3 versus 12.7 days; p < 0.0001) and lower cost of ICU care (mean postoperative ICU charges, $157,449 versus $198,197; p < 0.0001) with no significant difference in the probability of reintubation (p = 0.7). Immediate extubation was associated with longer operating room turnover time (38.4 versus 46.7 minutes; p = 0.009). Immediate extubation was accomplished in 30.4% of neonates undergoing open heart surgery involving cardiopulmonary bypass. Immediate extubation was associated with lesser ICU LOS, postoperative ICU costs, and minimal increase in operating room turnover time, but without an increase in reintubation rates.

According to the news editors, the research concluded: "Low gestational age, preoperative ventilatory support requirement, and prolonged cardiopulmonary bypass time were inversely associated with the ability to accomplish IE."


The news correspondents report that additional information may be obtained from J. Varghese, Childrens Hosp & Med Center, Dept. of Biostat, Omaha, NE, United States. Additional authors for this research include S. Kutty, I. Abdullah, S. Hall, V. Shostrom and J.M. Hammel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Omaha, Nebraska, United States, North and Central America, Cardiopulmonary Bypass, Cardiac Surgery, Heart Surgery, Cardiology, Children's Hospital.

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**Cardiovascular Diseases and Conditions**

**Studies in the Area of Hypertension Reported from Lanzhou University Second Hospital (Clinical Practice Guidelines for Hypertension: Evaluation of Quality Using the AGREE II Instrument)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Hypertension have been presented. According to news reporting originating from Lanzhou, People's Republic of China, by NewsRx correspondents, research stated, "Hypertension is an important public
health challenge. The purpose of clinical practice guidelines (CPGs) is to provide explicit recommendations for clinical practice, reduce inadequate variations, optimize results, minimize risks, and promote cost-effective practice."

Financial support for this research came from West Light Foundation of The Chinese Academy of Sciences.

Our news editors obtained a quote from the research from Lanzhou University Second Hospital, "Therefore, a highly methodological quality development process for CPGs is more likely to yield a CPG that contains relevant and appropriate recommendations. To assess the quality of CPGs for the prevention and treatment of hypertension, a systematic search was performed using the following literature databases: PubMed, Excerpta Medica Database (EMBASE), Web of Science, the National Guideline Clearinghouse (NGC), Chinese National Knowledge Infrastructure (CNKI), Wanfang Data, VIP, and Chinese Biomedical Literature Database (CBM). Then the Appraisal of Guidelines for Research and Evaluation II (AGREE II) instrument was used to assess the quality of the CPGs. Forty-one CPGs were identified (ten CPGs in Chinese and 31 CPGs in English). The results for the overall recommendation were as follows: strongly recommended (15 %), recommended (29 %), weakly recommended (51 %), and not recommended (5 %). The scores for all domains (mean +/- A standard deviations) were 'scope and purpose' (58.65 +/- A 12.67 %), 'stakeholder involvement' (48.07 +/- A 11.41 %), 'rigor of development' (27.31 +/- A 12.29 %), 'clarity of presentation' (53.89 +/- A 11.09 %), 'applicability' (40.10 +/- A 13.33 %), and 'editorial independence' (38.75 +/- A 16.43 %). All differences were statistically insignificant for all domains (P > 0.05) according to publication time. CPGs using an evidence-based (EB) method were of a higher quality than non-EBs for all domains, but the differences were significant for the following domains: 'Scope and Purpose,' 'Rigor of Development,' 'Applicability,' and 'Editorial Independence' (P < 0.05). The scores for the CPGs developed based on associations and society appeared slightly higher than those developed by individuals. However, the differences were insignificant for all domains (P > 0.05). A more systematic approach for the development and report of these guidelines is recommended."

According to the news editors, the research concluded: "The AGREE II instrument can be a useful tool to improve the quality of guidelines."


The news editors report that additional information may be obtained by contacting J. Yu, Lanzhou Univ Second Hosp, Hosp Cardiol, Sect Hypertens, Lanzhou 730030, People's Republic of China. Additional authors for this research include K. Zhao, Z.G. Bai, J. Yu and F. Bai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40256-016-0183-2. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lanzhou, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Drugs and Therapies, Hypertension, Lanzhou University Second Hospital.

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Studies in the Area of Hypertension Reported from University of Portsmouth (Utilisation and Tolerability of Aliskiren in the Primary Care Setting in England)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Hypertension. According to news reporting out of Portsmouth, United Kingdom, by NewsRx editors, research stated, "Aliskiren (Rasilez), a direct renin inhibitor, is indicated for the treatment of essential hypertension. A postmarketing prescription-event monitoring (PEM) study was conducted in England to monitor the safety and utilization of aliskiren."

Our news journalists obtained a quote from the research from the University of Portsmouth, "Summary statistics and event incidence densities were calculated. The cohort consisted of 6385 individuals with a median age of 68 years (interquartile range, 59-76). Aliskiren was largely prescribed for its licensed indication of hypertension (93.3%) and was reported as effective by the prescriber in 77.4% of individuals. Frequently reported clinical events during treatment were diarrhea (3.1% of on-treatment events), malaise/lassitude (3.0%), and nausea/vomiting (1.2%), which were also common reasons for treatment cessation. Renal events were rare, with 24 cases probably or possibly related to aliskiren use, and four of which were classified as acute renal failure using RIFLE (Risk Injury Failure Loss End-Stage Kidney Disease) criteria."

According to the news editors, the research concluded: "These results should be used in conjunction with other clinical and pharmacoepidemiologic studies to optimize the safe prescribing of aliskiren."


Our news journalists report that additional information may be obtained by contacting S.A.W. Shakir, University of Portsmouth, Dept. of Sch Pharm & Biomed Sci, Portsmouth, Hants, United Kingdom. Additional authors for this research include C. Doe, D. Layton and S.A.W. Shakir.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12852. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Portsmouth, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Drugs and Therapies, Epidemiology, Cardiovascular Agents, Renin Inhibitors, Hypertension, Aliskiren, University of Portsmouth.

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**Immunology - Immunoglobulins**

**Studies in the Area of Immunoglobulins Reported from Technical University (Spontaneous Isopeptide Bond Formation as a Powerful Tool for Engineering Site-Specific Antibody-Drug Conjugates)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immunology - Immunoglobulins are presented in a new report. According to news originating from Darmstadt, Germany, by NewsRx correspondents, research stated, "Spontaneous isopeptide bond formation, a stabilizing posttranslational modification that can be found in gram-positive bacterial cell surface proteins, has previously been used to develop a peptide-peptide ligation technology that enables the polymerization of tagged-proteins catalyzed by SpyLigase. Here we adapted this technology to establish a novel modular antibody labeling approach which is based on isopeptide bond formation between two recognition peptides, SpyTag and KTag."

Our news journalists obtained a quote from the research from Technical University, "Our labeling strategy allows the attachment of a reporting cargo of interest to an antibody scaffold by fusing it chemically to KTag, available via semi-automated solid-phase peptide synthesis (SPPS), while equipping the antibody with SpyTag. This strategy was successfully used to engineer site-specific antibody-drug conjugates (ADCs) that exhibit cytotoxicities in the subnanomolar range."

According to the news editors, the research concluded: "Our approach may lead to a new class of antibody conjugates based on peptide-tags that have minimal effects on protein structure and function, thus expanding the toolbox of site-specific antibody conjugation."


The news correspondents report that additional information may be obtained from H. Kolmar, Technical Univ Darmstadt, Inst Organ Chem & Biochem, D-64287 Darmstadt, Germany. Additional authors for this research include B. Piater, B. Zakeri, T. Eichhorn, F. Fischer, C. Deutsch, S. Becker, L. Toleikis, B. Hock, U.A.K. Betz and H. Kolmar.

Keywords for this news article include: Darmstadt, Germany, Europe, Drugs and Therapies, Drug Development, Immunoglobulins, Blood Proteins, Engineering, Technology, Proteomics, Immunology, Antibodies, Peptides, Technical University.

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**Oncology - Kidney Cancer**

**Studies in the Area of Kidney Cancer Reported from University of Cambridge (A randomised, phase II study of nintedanib or sunitinib in previously untreated patients with advanced renal cell cancer: 3-year results)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Kidney Cancer have been presented. According to news reporting originating from Cambridge, United Kingdom, by NewsRx correspondents, research stated, "This exploratory study evaluated the safety/efficacy of nintedanib or sunitinib as first-line therapy in patients with advanced renal cell carcinoma (RCC). Ninety-six patients were randomised (2:1) to either nintedanib (200 mg twice daily) or sunitinib (50 mg kg(-1) once daily (4 weeks on treatment; 2 weeks off))."

Our news editors obtained a quote from the research from the University of Cambridge, "Primary endpoint was progression-free survival (PFS) at 9 months. P-values reported are descriptive only; the study was not powered for such comparisons. Progression-free survival at 9 months was comparable between nintedanib and sunitinib (43.1% vs 45.2%, respectively; p=0.85). Median PFS was 8.4 months in each group (hazard ratio (HR), 1.12; 95% confidence interval (CI): 0.70-1.80; p=0.64). Median overall survival was 20.4 and 21.2 months for nintedanib and sunitinib, respectively (HR, 0.92; 95% CI: 0.54-1.56; p=0.76). Overall incidence of any grade adverse events (AEs) was comparable (90.6% vs 93.8%); AEs grade ≥ 3 were lower with nintedanib than sunitinib (48.4% vs 59.4%). Nintedanib was associated with lower incidences of some AEs typical of antiangiogenic tyrosine kinase inhibitors (TKIs): hypertension, hypothyroidism, hand-foot syndrome, cardiac disorders and haematological abnormalities."

According to the news editors, the research concluded: "In patients with advanced RCC, nintedanib has promising efficacy and similar tolerability to sunitinib, and a manageable safety profile with fewer TKI-associated AEs."

For more information on this research see: A randomised, phase II study of nintedanib or sunitinib in previously untreated patients with advanced renal cell cancer: 3-year results. British Journal of Cancer, 2015;113(8):1140-7. (Nature Publishing Group - www.nature.com/; British Journal of Cancer - www.nature.com/bjc/)

The news editors report that additional information may be obtained by contacting T. Eisen, Dept. of Oncology, Cambridge University Health Partners, Addenbrooke's Hospital, Cambridge, UK. Additional authors for this research include A.B. Loembe, Y. Shparyk, N. MacLeod, R.J. Jones, M. Mazurkiewicz, G. Temple, H. Dressler and I. Bondarenko.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/bjc.2015.313. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, United Kingdom, Europe, Antineoplastics, Clinical Research, Clinical Trials and Studies, Drugs and Therapies, Kidney Cancer, Multikinase Inhibitors, Nephrology, Oncology, Renal Cancer, Renal Carcinoma, Sunitinib, Tyrosine Kinase Inhibitors, VEGF VEGFR Inhibitors, VEGFR Inhibitors.

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Transplant Medicine - Kidney Transplants

Studies in the Area of Kidney Transplants Reported from Royal Devon and Exeter NHS Foundation Trust (Prevention of recurrence of atypical hemolytic uremic syndrome post renal transplant with the use of higher-dose eculizumab)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Kidney Transplants. According to news reporting out of Exeter, United Kingdom, by NewsRx editors, research stated, "Eculizumab, a terminal complement inhibitor, has recently been used successfully to both prevent and treat the recurrence of atypical hemolytic uremic syndrome (aHUS) post renal transplantation. We describe a case that highlights the need to monitor the effects of eculizumab on the complement system and in this case alter the dosage."

Our news journalists obtained a quote from the research from Royal Devon and Exeter NHS Foundation Trust, "Despite taking the standard recommended dose of eculizumab for an adult, this aHUS patient developed a low-grade thrombotic microangiopathy on biopsy within months of renal transplantation. Complement assays (through CH50) showed small amounts of residual terminal pathway activity suggesting inadequate complement blockade on 1,200 mg eculizumab every 2 weeks. Following an increase in the dose of eculizumab to 1,500 mg every 2 weeks, lactate dehydrogenase (LDH), proteinuria, and creatinine decreased, and CH50 assay showed 0%.

According to the news editors, the research concluded: "This case emphasizes the need to monitor clinical parameters and complement activity to ensure that adequate therapeutic blockade is achieved."

For more information on this research see: Prevention of recurrence of atypical hemolytic uremic syndrome post renal transplant with the use of higher-dose eculizumab. Clinical Nephrology, 2016;86(4):200-202. Clinical Nephrology can be contacted at: Dustri-Verlag Dr Karl Feistle, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.

Our news journalists report that additional information may be obtained by contacting A. Riddell, Royal Devon & Exeter Hospital, Exeter EX2 5DW, Devon, United Kingdom. Additional authors for this research include T. Goodship and C. Bingham.

Keywords for this news article include: Exeter, United Kingdom, Europe, Hemic and Lymphatic Diseases and Conditions, Antineoplastic Monoclonal Antibodies, Hematologic Diseases and Conditions, Kidney Diseases and Conditions, Thrombotic Microangiopathies, Hemolytic Uremic Syndrome, Blood Platelet Disorders, Drugs and Therapies, Transplant Medicine, Immunologic Agents, Kidney Transplants, Organ Transplants, Thrombocytopenia, Hemolytic Anemia, Renal Transplant, Transplantation, Renal Allograft, Biotechnology, Biomedicine, Hematology, Nephrology, Eculizumab, Surgery, Royal Devon and Exeter NHS Foundation Trust.

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immune response which sustains renal injury and contributes to the development of delayed graft function (DGF). Triggering receptor expressed on myeloid cells-1 (TREM-1) is a pro-inflammatory evolutionary conserved pattern recognition receptor expressed on a variety of innate immune cells."

The news correspondents obtained a quote from the research from the University of Amsterdam, "TREM-1 expression increases following acute and chronic renal injury. However, the function of TREM-1 in renal IR is still unclear. Here, we investigated expression and function of TREM-1 in a murine model of renal IR using different TREM-1 inhibitors: LP17, LR12 and TREM-1 fusion protein. In a human study, we analyzed the association of nonsynonymous single nucleotide variants in the TREM1 gene in a cohort comprising 1263 matching donors and recipients with post-transplant outcomes, including DGF. Our findings demonstrated that, following murine IR, renal TREM-1 expression increased due to the influx of Trem1 mRNA expressing cells detected by in situ hybridization. However, TREM-1 interventions by means of LP17, LR12 and TREM-1 fusion protein did not ameliorate IR-induced injury. In the human renal transplant cohort, donor and recipient TREM1 gene variant p. Thr25Ser was not associated with DGF, nor with biopsy-proven rejection or death-censored graft failure."

According to the news reporters, the research concluded: "TREM-1 does not play a major role during experimental renal IR and after kidney transplantation."


Our news journalists report that additional information may be obtained by contacting A. Tammaro, University of Amsterdam, Academy Med Center, Dept. of Pathol, Amsterdam, Netherlands. Additional authors for this research include J. Kers, D. Emal, I. Stroo, G.J.D. Teske, L.M. Butter, N. Claessen, J. Damman, M. Derive, G. Navis, S. Florquin, J.C. Leemans and M.C. Dessing.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Transplant Medicine, Kidney Transplants, Organ Transplants, Fusion Proteins, Transplantation, Biomedicine, Nephrology, Genetics, University of Amsterdam.

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Oncology - Lobular Cancer

Studies in the Area of Lobular Cancer Reported from University Medical Center (p120-Catenin Is Critical for the Development of Invasive Lobular Carcinoma in Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lobular Cancer have been published. According to news reporting from Utrecht, Netherlands, by NewsRx journalists, research stated, "Loss of E-cadherin expression is causal to the development of invasive lobular breast carcinoma (ILC). E-cadherin loss leads to dismantling of the adherens junction and subsequent translocation of p120-catenin (p120) to the cytosol and nucleus."
Funders for this research include NWO, Stichting vrienden UMC Utrecht (NL), KWF Kankerbestrijding.

The news correspondents obtained a quote from the research from University Medical Center, "Although p120 is critical for the metastatic potential of ILC through the regulation of Rock-dependent anoikis resistance, it remains unknown whether p120 also contributes to ILC development. Using genetically engineered mouse models with mammary gland-specific inactivation of E-cadherin, p120 and p53, we demonstrate that ILC formation induced by E-cadherin and p53 loss is severely impaired upon concomitant inactivation of p120. Tumors that developed in the triple-knockout mice were mostly basal sarcomatoid carcinomas that displayed overt nuclear atypia and multinucleation. In line with the strong reduction in ILC incidence in triple-knockout mice compared to E-cadherin and p53 double-knockout mice, no functional redundancy of p120 family members was observed in mouse ILC development, as expression and localization of ARVCF, p0071 or delta-catenin was unaltered in ILCs from triple-knockout mice."

According to the news reporters, the research concluded: "We show that loss of p120 in the context of the p53-deficient mouse models is dominant over E-cadherin inactivation and its inactivation promotes the development of basal, epithelial-to-mesenchymal-transition (EMT)-type invasive mammary tumors."


Our news journalists report that additional information may be obtained by contacting P.W.B. Derksen, Univ Med Center Utrecht, Dept. of Pathol, Utrecht, Netherlands. Additional authors for this research include S. Klarenbeek, T.M. Braumuller, I. Hofmann, P. van der Groep, N. ter Hoeve, E. van der Wall, J. Jonkers and P.W.B. Derksen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10911-016-9358-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Utrecht, Netherlands, Europe, Cell Adhesion Molecules, Membrane Proteins, Lobular Cancer, Cell Research, Glycoproteins, Carcinomas, Cadherins, Oncology, Genetics, p53 Gene, University Medical Center.

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**Oncology - Lung Cancer**

**Studies in the Area of Lung Cancer Reported from McMaster University (Comprehensive Clinical Staging for Resectable Lung Cancer: Clinicopathological Correlations and the Role of Brain MRI)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news reporting originating from Hamilton, Canada, by NewsRx correspondents, research stated, "In our model of comprehensive clinical staging (CCS) for lung cancer, patients with a
computerized tomography scan of the chest and upper abdomen not showing distant metastases will then routinely undergo whole body positron emission tomography/computerized tomography and magnetic resonance imaging (MRI) of the brain before any therapeutic decision. Our aim was to determine the accuracy of CCS and the value of brain MRI in this population."

Our news editors obtained a quote from the research from McMaster University, "A retrospective analysis of a prospectively entered database was performed for all patients who underwent lung cancer resection from January 2012 to June 2014. Demographics, clinical and pathological stage (seventh edition of the American Joint Committee on Cancer/Union for International Cancer Control tumor, node, and metastasis staging manual), and costs of staging were collected. Correlation between clinical and pathological stage was determined. Of 315 patients with primary lung cancer, 55.6% were female and the mean age was 70.9.6 years. When correlation was analyzed without consideration for sub-stages A and B, 49.8% of patients (158 of 315) were staged accurately, 39.7% (125 of 315) were overstaged, and 10.5% (32 of 315) were understaged. Only 4.7% of patients (15 of 315) underwent surgery without appropriate neoadjuvant treatment. Preoperative brain MRI detected asymptomatic metastases in four of 315 patients (1.3%). At a median postoperative follow-up of 19 months (range 6-43), symptomatic brain metastases developed in seven additional patients. The total cost of CCS in Canadian dollars was $367,292 over the study period, with $117,272 (31.9%) going toward brain MRI. CCS is effective for patients with resectable lung cancer, with less than 5% of patients being denied appropriate systemic treatment before surgery."

According to the news editors, the research concluded: "Brain MRI is a low-yield and high-cost intervention in this population, and its routine use should be questioned."


The news editors report that additional information may be obtained by contacting W.C. Hanna, McMaster University, St Josephs Healthcare Hamilton, Div Thorac Surg, Hamilton, ON L8N 4A6, Canada. Additional authors for this research include N. Andruszkiewicz, L. Schneider, C. Schieman, C.J. Finley, Y. Shargall, C. Fahim, F. Farrokhyar and W.C. Hanna.

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Keywords for this news article include: Hamilton, Ontario, Canada, North and Central America, Surgery, Epidemiology, Lung Neoplasms, Lung Cancer, Oncology, McMaster University.

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Oncology - Lymphoma

Studies in the Area of Lymphoma Reported from J. Gayoso and Co-Researchers (Busulfan-based reduced intensity conditioning regimens for haploidentical transplantation in relapsed/refractory Hodgkin lymphoma: Spanish multicenter experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Lymphoma are discussed in a new report. According to news reporting originating from Madrid, Spain, by NewsRx correspondents, research stated, "Relapsed or refractory Hodgkin lymphoma (advanced HL) still remains a therapeutic challenge. Recently, unmanipulated haploidentical related donor transplant with reduced conditioning regimen (HAPLO-RIC) and post-transplant cyclophosphamide (PT-Cy) as GvHD prophylaxis has became a promising rescue strategy potentially available to almost every patient."

Our news editors obtained a quote from the research, "This paper reports our multicenter experience using an IV busulfan-based HAPLO-RIC regimen and PT-Cy in the treatment of 43 patients with advanced HL. Engraftment occurred in 42 patients (97.5%), with a median time to neutrophil and platelet recovery of 18 and 26 days. Cumulative incidences of grades II-IV acute GvHD and chronic GvHD were 39% and 19%, respectively. With a median follow-up of 25.5 months for survivors, 27 patients are alive, with 22 of them disease free. Cumulative incidences of 1-year non-relapse mortality and relapse at 2 years were 21% and 24%, respectively. The estimated 2-year event-free survival (EFS) and overall survival (OS) were 48% and 58%, respectively. CR prior to HAPLO-RIC correlated with better EFS (78.5% vs 33.5%; P = 0.015) and OS (86% vs 46%; P = 0.044)."

According to the news editors, the research concluded: "Our findings further confirm prior reports using HAPLO-RIC in advanced HL in a multicenter approach employing an IV busulfan-based conditioning regimen."

For more information on this research see: Busulfan-based reduced intensity conditioning regimens for haploidentical transplantation in relapsed/refractory Hodgkin lymphoma: Spanish multicenter experience. Bone Marrow Transplantation, 2016;51(10):1307-1312. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/bmt/)

The news editors report that additional information may be obtained by contacting J. Gayoso, Inst Invest Sanitaria Gregorio Maranon, Madrid, Spain. Additional authors for this research include P. Balsalobre, M.J. Pascual, C. Castilla-Llorente, L. Lopez-Corral, M. Kwon, D. Serrano, J.L. Pinana, P. Herrera, C. Ferra, C. Pascual, I. Heras, P. Montesinos, A. Zabalza, L. Bento, A. FIGUERA, I. BUNO and J.L. DIEZ-MARTIN.

Keywords for this news article include: Madrid, Spain, Europe, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Alkanesulfonic Acids, Drugs and Therapies, Alkylation Agents, Busulfan Therapy, Butylene Glycols, Pharmaceuticals, Antineoplastics, Sulfur Acids, Hematology, Mesylates, Lymphomas, Oncology.

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Cytoskeletal Proteins - Microfilament Proteins

Studies in the Area of Microfilament Proteins Reported from University of California (AMP-Activated Protein Kinase and Sirtuin 1 Coregulation of Cortactin Contributes to Endothelial Function)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cytoskeletal Proteins - Microfilament Proteins have been presented. According to news reporting originating in La Jolla, California, by NewsRx journalists, research stated, "Cortactin translocates to the cell periphery in vascular endothelial cells (ECs) on cortical-actin assembly in response to pulsatile shear stress. Because cortactin has putative sites for AMP-activated protein kinase (AMPK) phosphorylation and sirtuin 1 (SIRT1) deacetylation, we examined the hypothesis that AMPK and SIRT1 coregulate cortactin dynamics in response to shear stress."

The news reporters obtained a quote from the research from the University of California, "Approach and Results-Analysis of the ability of AMPK to phosphorylate recombinant cortactin and oligopeptides whose sequences matched AMPK consensus sequences in cortactin pointed to Thr-401 as the site of AMPK phosphorylation. Mass spectrometry confirmed Thr-401 as the site of AMPK phosphorylation. Immunoblot analysis with AMPK siRNA and SIRT1 siRNA in human umbilical vein ECs and EC-specific AMPK alpha 2 knockout mice showed that AMPK phosphorylation of cortactin primes SIRT1 deacetylation in response to shear stress. Immunoblot analyses with cortactin siRNA in human umbilical vein ECs, phospho-deficient T401A and phospho-mimetic T401D mutant, or aceto-deficient (9K/R) and aceto-mimetic (9K/Q) showed that cortactin regulates endothelial nitric oxide synthase activity. Confocal imaging and sucrose-density gradient analyses revealed that the phosphorylated/deacetylated cortactin translocates to the EC periphery facilitating endothelial nitric oxide synthase translocation from lipid to nonlipid raft domains. Knockdown of cortactin in vitro or genetic reduction of cortactin expression in vivo in mice substantially decreased the endothelial nitric oxide synthase-derived NO bioavailability. In vivo, atherosclerotic lesions increase in ApoE(-/-)/cortactin(+/-) mice, when compared with ApoE(-/-)/cortactin(+/-) littermates. AMPK phosphorylation of cortactin followed by SIRT1 deacetylation modulates the interaction of cortactin and cortical-actin in response to shear stress."

According to the news reporters, the research concluded: "Functionally, this AMPK/SIRT1 coregulated cortactin-F-actin dynamics is required for endothelial nitric oxide synthase subcellular translocation/activation and is atheroprotective."

For more information on this research see: AMP-Activated Protein Kinase and Sirtuin 1 Coregulation of Cortactin Contributes to Endothelial Function. Arteriosclerosis Thrombosis and Vascular Biology, 2016;36(12):2358-2368. Arteriosclerosis Thrombosis and Vascular Biology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news correspondents report that additional information may be obtained by contacting J.Y.J. Shyy, University of California, Dept. of Med, Div Cardiol, La Jolla, CA 92093, United States. Additional authors for this research include M. He, X.L. Sun, J.L. Zhang, F. Zhang, B. Gongol, T.L. Marin, J. Zhang, L. Wen, Y.S. Wang, G.G. Geary, Y. Zhu, D.A. Johnson and J.Y.J. Shyy.

Keywords for this news article include: La Jolla, California, United States, North and Central America, Intracellular Signaling Peptides and Proteins, Phosphotransferases (Alcohol Group Acceptor), Signal Transducing Adaptor Proteins, Protein-Serine-Threonine
Kinases, AMP-Activated Protein Kinases, Amino Acid Oxidoreductases, Reactive Nitrogen Species, Microfilament Proteins, Enzymes and Coenzymes, Nitric Oxide Synthase, Cytoskeletal Proteins, Histone Deacetylases, Nitrogen Oxides, Amidohydrolases, Phosphoproteins, Chemicals, Sirtuin 1, Cortactin, Genetics, University of California.

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**Microscopy and Microanalysis**

**Studies in the Area of Microscopy and Microanalysis Reported from Chungbuk National University (Analysis of Ferrous on Ten-Eleven Translocation Activity and Epigenetic Modifications of Early Mouse Embryos by Fluorescence Microscopy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Microscopy and Microanalysis. According to news reporting originating in Cheongju, South Korea, by NewsRx journalists, research stated, "Iron is an essential trace element that plays important roles in the cellular function of all organs and systems. However, the function of Fe(II) in mammalian embryo development is unknown."

The news reporters obtained a quote from the research from Chungbuk National University, "In this study, we investigated the role of Fe(II) during preimplantation embryo development. Depletion of Fe(II) using thiosemicarbazone-24 (TSC24), a specific Fe(II) chelator, rescued quenching of the Fe(II)-sensitive fluorophore phen green-SK. After in vitro fertilization, TSC24 significantly reduced the cleavage rate as well as blastocyst formation. The hatch rate of blastocysts was also reduced with 1 pM TSC24 treatment (20.25?1.86 versus 42.28?12.96%, p<0.05). Blastocysts were cultured in leukemia inhibitory factor-free mouse embryonic stem cell culture medium with or without TSC24, and those with depleted Fe(II) displayed delayed attachment and lost the ability to induce embryoid body formation. To further explore the mechanism of Fe(II) in embryo development, we assessed the expression of 5-hydroxymethylcytosine (5hmC) and OCT4 in the pronuclear and blastocyst stages, respectively. We observed that Fe(II) reduced 5hmC and OCT4 expression, which could be explained by low ten-eleven translocation (TET) enzyme activity induced by TSC24 treatment."

According to the news reporters, the research concluded: "These findings demonstrate that Fe(II) is required for mammalian embryo development and that it facilitates the process via regulation of TET activity."


Our news correspondents report that additional information may be obtained by contacting M.H. Zhao, 1Dept. of Animal Sciences, Chungbuk National University, Cheongju 361-763, South Korea. Additional authors for this research include S. Liang, J. Guo, J.W. Choi, N.H. Kim, W.F. Lu and X.S Cui.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/S1431927616000040. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Asia, Cheongju, Genetics, South Korea, Microscopy and Microanalysis.
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Surgery - Necrosectomy

Studies in the Area of Necrosectomy Reported from Weill Cornell Medical College (Endoscopic Therapy With Lumen-apposing Metal Stents Is Safe and Effective for Patients With Pancreatic Walled-off Necrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Surgery - Necrosectomy are discussed in a new report. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "Endoscopic ultrasound-guided transmural drainage and necrosectomy have become the standard treatment for patients with pancreatic walled-off necrosis (WON). Lumen-apposing metal stents (LAMS) have shown success in the management of pancreatic fluid collections."

The news reporters obtained a quote from the research from Weill Cornell Medical College, "However, there are few data on their specific roles in management of WON. We investigated the efficacy and safety of LAMS in treatment of WON. We performed a retrospective multicenter case series of 124 patients with WON who underwent endoscopic transmural drainage by using LAMS at 17 tertiary care centers from January 2014 through May 2015. Patients underwent endoscopic ultrasound-guided cystogastrostomy or cystoenterostomy with placement of an LAMS into the WON collection. At the discretion of the endoscopist, we performed direct endoscopic necrosectomy, irrigation with hydrogen peroxide, and/or nasocystic drain placement. We performed endoscopic retrograde cholangiopancreatography with pancreatic duct stent placement when indicated. Concomitant therapies included direct endoscopic debridement (n = 78), pancreatic duct stent placement for leak (n = 19), hydrogen peroxide-assisted necrosectomy (n = 38), and nasocystic irrigation (n = 22). We collected data for a median time of 4 months (range, 1-34 months) after the LAMS placement. The primary outcomes were rates of technical success (successful placement of the LAMS), clinical success (resolution of WON, on the basis of image analysis, without need for further intervention via surgery or interventional radiology), and adverse events. The median size of the WON was 9.5 cm (range, 4-30 cm). Eight patients had 2 LAMS placed for multiport access, all with technical success (100%). Clinical success was achieved in 107 patients (86.3%) after 3 months of follow-up. Thirteen patients required a percutaneous drain, and 3 required a surgical intervention to manage their WON. The stents remained patent in 94% of patients (117 of 124) and migrated in 5.6% of patients (7 of 124). The median number of endoscopic interventions was 2 (range, 1-9 interventions). On the basis of a retrospective analysis of 124 patients, endoscopic therapy of WON by using LAMS is safe and effective."

According to the news reporters, the research concluded: "Creation of a large and sustained cystogastrostomy or cystoenterostomy tract is effective in the drainage and treatment of WON."

For more information on this research see: Endoscopic Therapy With Lumen-apposing Metal Stents Is Safe and Effective for Patients With Pancreatic Walled-off Necrosis.

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Keywords for this news article include: New York City, New York, United States, North and Central America, Hydrogen Peroxide, Gastroenterology, Necrosectomy, Chemicals, Pancreas, Therapy, Surgery, Weill Cornell Medical College.

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Oncology - Non-Small Cell Lung Cancer

Studies in the Area of Non-Small Cell Lung Cancer Reported from University of Texas (Local consolidative therapy versus maintenance therapy or observation for patients with oligometastatic non-small-cell lung cancer without progression after ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Non-Small Cell Lung Cancer is the subject of a report. According to news reporting out of Houston, Texas, by NewsRx editors, research stated, "Evidence from retrospective studies suggests that disease progression after first-line chemotherapy for metastatic non-small-cell lung cancer (NSCLC) occurs most often at sites of disease known to exist at baseline. However, the potential effect of aggressive local consolidative therapy for patients with oligometastatic NSCLC is unknown."

Our news journalists obtained a quote from the research from the University of Texas, "We aimed to assess the effect of local consolidative therapy on progression-free survival. In this multicentre, randomised, controlled, phase 2 study, eligible patients from three hospitals had histological confirmation of stage IV NSCLC, three or fewer metastatic disease lesions after first-line systemic therapy, an Eastern Cooperative Oncology Group performance status score of 2 or less, had received standard first-line systemic therapy, and had no disease progression before randomisation. First-line therapy was four or more cycles of platinum doublet therapy or 3 or more months of EGFR or ALK inhibitors for patients with EGFR mutations or ALK rearrangements, respectively. Patients were randomly assigned (1: 1) to either local consolidative therapy ([chemo] radiotherapy or resection of all lesions) with or without subsequent maintenance treatment or to maintenance treatment alone, which could be observation only. Maintenance treatment was recommended based on a list of approved regimens, and observation was defined as close surveillance without cytotoxic treatment."
Randomisation was not masked and was balanced dynamically on five factors: number of metastases, response to initial therapy, CNS metastases, intrathoracic nodal status, and EGFR and ALK status. The primary endpoint was progression-free survival analysed in all patients who were treated and had at least one post-baseline imaging assessment. The study is ongoing but not recruiting participants. This study is registered with ClinicalTrials.gov, number NCT01725165. Between Nov 28, 2012, and Jan 19, 2016, 74 patients were enrolled either during or at the completion of first-line systemic therapy. The study was terminated early after randomisation of 49 patients (25 in the local consolidative therapy group and 24 in the maintenance treatment group) as part of the annual analyses done by the Data Safety Monitoring Committee of all randomised trials at MD Anderson Cancer Center, and before a planned interim analysis of 44 events. At a median follow-up time for all randomised patients of 12.39 months (IQR 5.52-20.30), the median progression-free survival in the local consolidative therapy group was 11.9 months (90% CI 5.7-20.9) versus 3.9 months (2.3-6.6) in the maintenance treatment group (hazard ratio 0.35 [90% CI 0.18-0.66], log-rank p=0.0054). Adverse events were similar between groups, with no grade 4 adverse events or deaths due to treatment. Grade 3 adverse events in the maintenance therapy group were fatigue (n=1) and anaemia (n=1) and in the local consolidative therapy group were oesophagitis (n=2), anaemia (n=1), pneumothorax (n=1), and abdominal pain (n=1, unlikely related). Local consolidative therapy with or without maintenance therapy for patients with three or fewer metastases from NSCLC that did not progress after initial systemic therapy improved progression-free survival compared with maintenance therapy alone."

According to the news editors, the research concluded: "These findings suggest that aggressive local therapy should be further explored in phase 3 trials as a standard treatment option in this clinical scenario."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045(16)30532-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Clinical Trials and Studies, Non-Small Cell Lung Cancer, Adverse Drug Reactions, Cancer, Epidemiology, Pathologic Processes, Drugs and Therapies, Post-Trial Research, Disease Progression, Disease Attributes, Lung Neoplasms, Oncology, Genetics, Therapy, University of Texas.

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Eye Diseases and Conditions - Open-Angle Glaucoma

Studies in the Area of Open-Angle Glaucoma Reported from Anhui Medical University (Identification of Mutations in Myocilin and Beta-1,4-galactosyltransferase 3 Genes in a Chinese Family with Primary Open-angle Glaucoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Eye Diseases and Conditions - Open-Angle Glaucoma is the subject of a report. According to news reporting out of Anhui, People's Republic of China, by NewsRx editors, research stated, "Glaucoma is a major cause of irreversible blindness worldwide. There is evidence showing that a subset of the disease is genetically determined."

Our news journalists obtained a quote from the research from Anhui Medical University, "In this study, we screened for mutations in chromosome 1q-linked open-angle glaucoma (GLC1A) in a Chinese family with primary open-angle glaucoma (POAG). A total of 23 members from five generations of a family were enrolled and underwent thorough ophthalmologic examinations. In addition, 200 unrelated healthy Chinese controls were also recruited as normal control. GLC1A gene was amplified by polymerase chain reaction, and DNA sequencing was performed to screen for mutations. Six members were diagnosed as POAG, with severe clinical manifestations, and history of high intraocular pressures. The mean age of disease onset was 26.3 years. However, the others were asymptomatic. In six affected and three asymptomatic members, gene sequencing revealed a mutation c. C1456T in exon 3 of myocilin gene (MYOC). Furthermore, we also identified a novel mutation c. G322A in beta-1,4-galactosyltransferase 3 (B4GALT3) gene in all six affected and three asymptomatic members, which was not reported previously in POAG patients. The two newly identified variants were absent in other family members as well as controls. The mutations c. 1456C <T (p. L486F) in MYOC and c. 322G <A (p."

According to the news editors, the research concluded: "V108I) in B4GALT3 are likely responsible for the pathogenesis of POAG in this family."


Our news journalists report that additional information may be obtained by contacting D.Q. Ye, Anhui Medical University, Sch Public Hlth, Dept. of Epidemiol & Biostat, Hefei 230032, Anhui, People's Republic of China. Additional authors for this research include Z.L. Zhong, M.J. Ye, L.Y. Han, D.Q. Ye and J.J. Chen.

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Keywords for this news article include: Anhui, People's Republic of China, Asia, Hexosyltransferases, Diagnostics and Screening, Genetics, Eye Diseases and Conditions, Galactosyltransferases, Enzymes and Coenzymes, Open-Angle Glaucoma, Anhui Medical University.
Studies in the Area of Oral Squamous Cell Carcinoma Reported from Department of Oral Pathology (Immunohistochemical expression of Bcl-2 in oral epithelial dysplasia and oral squamous cell carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Oral Squamous Cell Carcinoma are presented in a new report. According to news reporting originating from Uttar Pradesh, India, by NewsRx correspondents, research stated, "The B cell lymphoma-2 gene is a proto-oncogene whose protein product inhibits apoptosis. Its role is associated with keeping cells alive, but not by stimulating them to proliferation, as other proto-oncogenes do."

Our news editors obtained a quote from the research from the Department of Oral Pathology, "Increased expression of protein product of Bcl-2 gene appears in the early phase of carcinogenesis leading to apoptosis impairment and in consequence to the progression of neoplastic changes. To evaluate and compare the expression of Bcl-2 protein in oral epithelial dysplasia and oral squamous cell carcinoma (OSCC). Sixty cases of formalin-fixed paraffin-embedded archival specimens comprising of 30 cases of leukoplakia with oral epithelial dysplasia and 30 cases of OSCC were taken for immunohistochemical analysis using monoclonal antibody against anti-human Bcl-2 oncoprotein. Immunostaining for Bcl-2 protein was identified in basal and parabasal layers as granular cytoplasmic staining in oral epithelial dysplasia. In OSCC, Bcl-2 immunoreactivity was most prominent in the peripheral cells of the infiltrating tumor islands which diminished toward the center in well-differentiated and moderately differentiated OSCC, whereas stronger and more diffuse expression of Bcl-2 oncoprotein was seen in poorly differentiated OSCC. Overall positivity of 26.7% (8/30) was observed in oral epithelial dysplasia and 30% (9/30) in OSCC in this study."

According to the news editors, the research concluded: "Altered expression of Bcl-2 oncoprotein may be an early molecular event which leads to prolonged cell survival, increased chances of accumulation of genetic alterations, and subsequent increase in malignant transformation potential."

For more information on this research see: Immunohistochemical expression of Bcl-2 in oral epithelial dysplasia and oral squamous cell carcinoma. Indian Journal of Cancer, 2015;52(4):505-10.

The news editors report that additional information may be obtained by contacting S. Juneja, Dept. of Oral Pathology, ITS Centre for Dental Sciences and Research, Murad Nagar, Ghaziabad, Uttar Pradesh, India. Additional authors for this research include N.B. Chaitanya and M. Agarwal.

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Keywords for this news article include: India, Genetics, Oncology, Dysplasia, Dermatology, Uttar Pradesh, Oral Squamous Cell Carcinoma.

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Oncology - Pancreatic Cancer

Studies in the Area of Pancreatic Cancer Reported from Ernst-Moritz-Arndt-University (TRAIL Promotes Tumor Growth in a Syngeneic Murine Orthotopic Pancreatic Cancer Model and Affects the Host Immune Response)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Pancreatic Cancer have been published. According to news originating from Greifswald, Germany, by NewsRx correspondents, research stated, "Tumor necrosis factor (TNF)-related apoptosis-inducing ligand (TRAIL) is currently being evaluated as a possible biological agent for cancer treatment. However, many tumor cells are resistant to TRAIL-induced apoptosis."

Our news journalists obtained a quote from the research from Ernst-Moritz-Arndt-University, "In these cases, TRAIL may activate different pathways promoting tumor growth as well as showing different interactions with the immunological tumor microenvironment. In this study, the impact of TRAIL on tumor growth and survival in a syngeneic model of TRAIL-resistant pancreatic cancer cells was investigated. Murine 6606PDA pancreatic cancer cells were injected into the pancreatic heads of TRAIL mice and their littermates. To examine a direct effect of TRAIL on tumor cells, cultures of 6606PDA were TRAIL stimulated. The TRAIL mice displayed significantly decreased tumor volumes and an enhanced overall survival in pancreatic cancer. The decreased tumor growth in TRAIL mice was accompanied by a decrease of regulatory CD4 cells within tumors. Concordantly, TRAIL treatment of wild-type mice enhanced tumor growth and increased the fraction of regulatory CD4 cells. Yet, a direct effect of TRAIL on 6606PDA cells was not detected. Thus, TRAIL can promote tumor growth in TRAIL-resistant tumor cells."

According to the news editors, the research concluded: "This may restrict possible future clinical applications of TRAIL in pancreatic cancer."

For more information on this research see: TRAIL Promotes Tumor Growth in a Syngeneic Murine Orthotopic Pancreatic Cancer Model and Affects the Host Immune Response. Pancreas, 2016;45(3):401-8. (Lippincott Williams and Wilkins - www.lww.com; Pancreas - journals.lww.com/pancreasjournal/pages/default.aspx)

The news correspondents report that additional information may be obtained from K. Beyer, From the *Departments of General, Visceral, Thoracic and Vascular Surgery and †Medicine A (Gastroenterology and Nephrology), University Medicine Greifswald, Ernst-Moritz-Arndt-University, Greifswald, Germany. Additional authors for this research include L. Normann, M. Sendler, A. Kading, C.D. Heidecke, L.I. Partecke and W. von Bernstorff.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MPA.0000000000000469. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Oncology, Greifswald, Gastroenterology, Pancreatic Cancer, Pancreatic Neoplasms.

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Oncology - Prostate Cancer

Studies in the Area of Prostate Cancer Reported from Far Eastern Memorial Hospital (Increased Fall Risk in Patients Receiving Androgen Deprivation Therapy for Prostate Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting from Taipei, Taiwan, by NewsRx journalists, research stated, "To examine the relationship between the use of androgen deprivation therapy (ADT) and the subsequent risk of falls in men with prostate cancer (PC) by employing a population-based dataset. We retrieved the study sample from the Taiwan Longitudinal Health Insurance Database 2005."

The news correspondents obtained a quote from the research from Far Eastern Memorial Hospital, "We included 886 patients with PC who had received ADT as the study group, whereas 862 patients with PC who had not received ADT served as the comparison group. We then individually tracked each study patient for a 3-year period to identify those who subsequently received a diagnosis of a fall. We performed Cox proportional hazard regressions to calculate the hazard ratio (HR) and its corresponding 95% confidence interval (CI) for a fall during the 3-year follow-up period between these 2 groups. The incidence rates of falls per 1000 person-years were 13.37 (95% CI: 9.15 similar to 18.88) and 6.44 (95% CI: 3.61 similar to 10.63), respectively, for patients with PC who received ADT and those who did not receive ADT. Furthermore, the hazard ratio for a fall during the 3-year follow-up period for patients with PC who had received ADT was 1.95 (95% CI: 1.04 similar to 3.66, P = .037) compared to those who had not received ADT after censoring sampled patients who died during the 3-year follow-up period and adjusting for age, geographical location, monthly income, urbanization level, hypertension, diabetes, hyperlipidemia, coronary heart disease, Parkinson's disease, epilepsy, stroke, and mental illness."

According to the news reporters, the research concluded: "The present findings suggest that patients with PC who had received ADT had an increased risk of falls."

For more information on this research see: Increased Fall Risk in Patients Receiving Androgen Deprivation Therapy for Prostate Cancer. *Urology*, 2016;95():145-149. *Urology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

Our news journalists report that additional information may be obtained by contacting S.D. Chung, Far Eastern Memorial Hospital, Dept. of Surg, Div Urol, Taipei 110, Taiwan. Additional authors for this research include S.Y. Sheu, H.C. Lin and S.D. Chung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.05.058. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Cancer, Risk and Prevention, Epidemiology, Drugs and Therapies, Prostatic Neoplasms, Prostate Cancer, Androgens, Oncology, Therapy, Far Eastern Memorial Hospital.

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Studies in the Area of Radiation Therapy Reported from Rotterdam Eye Hospital (Malignant pleural mesothelioma with lacrimal gland metastasis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Radiation Therapy. According to news reporting out of Rotterdam, Netherlands, by NewsRx editors, research stated, "PurposeTo describe a rare clinical case of biopsy-proven metastatic mesothelioma of the lacrimal gland which responded well to chemo and radiation therapy. MethodsInterventional case report. ResultsA 55-year-old woman with an untreated malignant biopsy-proven pleural mesothelioma presented with right proptosis, diplopia and hypoglobus."

Our news journalists obtained a quote from the research from Rotterdam Eye Hospital, "Magnetic resonance imaging showed an aggressive lacrimal gland tumour with bony erosion. A biopsy concluded a diagnosis of metastatic mesothelioma of the lacrimal gland. Her lacrimal and lung tumours showed a marked regression following palliative chemo (carboplatin) and radiation therapy. ConclusionsMalignant pleural mesothelioma may metastasize to the orbit, including the lacrimal gland."

According to the news editors, the research concluded: "A combined chemo and radiation therapy may reduce the size of the metastatic and primary tumour."


Our news journalists report that additional information may be obtained by contacting H. Hanafi, Rotterdam Eye Hosp, Dept. of Oculoplast & Orbital Surg, Rotterdam, Netherlands. Additional authors for this research include R.M. Verdijk and D. Paridaens.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/aos.13163. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Drugs and Therapies, Radiation Therapy, Mesotheliomas, Rotterdam Eye Hospital.

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Studies in the Area of Radiation Therapy Reported from Yale University (Cost-effectiveness of stereotactic radiosurgery versus whole-brain radiation therapy for up to 10 brain metastases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Radiation Therapy are discussed in a new report. According to news reporting out of New Haven, Connecticut, by
NewsRx editors, research stated, "The JLGK0901 study found that stereotactic radiosurgery (SRS) is a safe and effective treatment option for treating up to 10 brain metastases. The purpose of this study is to determine the cost-effectiveness of treating up to 10 brain metastases with SRS, whole-brain radiation therapy (WBRT), or SRS and immediate WBRT (SRS+WBRT)."

Our news journalists obtained a quote from the research from Yale University, "A Markov model was developed to evaluate the cost effectiveness of SRS, WBRT, and SRS+WBRT in patients with 1 or 2-10 brain metastases. Transition probabilities were derived from the JLGK0901 study and modified according to the recurrence rates observed in the Radiation Therapy Oncology Group (RTOG) 9508 and European Organization for Research and Treatment of Cancer (EORTC) 22952-26001 studies to simulate the outcomes for patients who receive WBRT. Costs are based on 2015 Medicare reimbursements. Health state utilities were prospectively collected using the Standard Gamble method. End points included cost, quality-adjusted life years (QALYs), and incremental cost-effectiveness ratios (ICERs). The willingness-to-pay (WTP) threshold was $100,000 per QALY. One-way and probabilistic sensitivity analyses explored uncertainty with regard to the model assumptions. In patients with 1 brain metastasis, the ICERs for SRS versus WBRT, SRS versus SRS+WBRT, and SRS+WBRT versus WBRT were $117,418, $51,348, and $746,997 per QALY gained, respectively. In patients with 2-10 brain metastases, the ICERs were $123,256, $58,903, and $821,042 per QALY gained, respectively. On the sensitivity analyses, the model was sensitive to the cost of SRS and the utilities associated with stable post-SRS and post-WBRT states. In patients with 2-10 brain metastases, SRS versus WBRT becomes cost-effective if the cost of SRS is reduced by $3512. SRS versus WBRT was also cost effective at a WTP of $200,000 per QALY on the probabilistic sensitivity analysis. The most cost-effective strategy for patients with up to 10 brain metastases is SRS alone relative to SRS+WBRT."

According to the news editors, the research concluded: "SRS alone may also be cost-effective relative to WBRT alone, but this depends on WTP, the cost of SRS, and patient preferences."

For more information on this research see: Cost-effectiveness of stereotactic radiosurgery versus whole-brain radiation therapy for up to 10 brain metastases. *Journal of Neurosurgery*, 2016;125():18-25. *Journal of Neurosurgery* can be contacted at: Amer Assoc Neurological Surgeons, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, USA.

Our news journalists report that additional information may be obtained by contacting N.H. Lester-Coll, Yale University, Sch Med, Dept. of Therapeut Radiol, New Haven, CT 06510, United States. Additional authors for this research include A.P. Dosoretz, W.J. Magnuson, M.S. Laurans, V.L. Chiang and J.B. Yu.

Keywords for this news article include: New Haven, Connecticut, United States, North and Central America, Drugs and Therapies, Radiation Therapy, Radiosurgery, Radiotherapy, Surgery, Yale University.

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Eye Diseases and Conditions - Refractive Errors

Studies in the Area of Refractive Errors Reported from Erasmus University Medical Center (When do myopia genes have their effect? Comparison of genetic risks between children and adults)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Eye Diseases and Conditions - Refractive Errors have been presented. According to news originating from Rotterdam, Netherlands, by NewsRx correspondents, research stated, "Previous studies have identified many genetic loci for refractive error and myopia. We aimed to investigate the effect of these loci on ocular biometry as a function of age in children, adolescents, and adults."

Our news journalists obtained a quote from the research from Erasmus University Medical Center, "The study population consisted of three age groups identified from the international CREAM consortium: 5,490 individuals aged <10 years; 5,000 aged 10-25 years; and 16,274 aged >25 years. All participants had undergone standard ophthalmic examination including measurements of axial length (AL) and corneal radius (CR). We examined the lead SNP at all 39 currently known genetic loci for refractive error identified from genome-wide association studies (GWAS), as well as a combined genetic risk score (GRS). The beta coefficient for association between SNP genotype or GRS versus AL/CR was compared across the three age groups, adjusting for age, sex, and principal components. Analyses were Bonferroni-corrected. In the age group <10 years, three loci (GJD2, CHRNG, ZIC2) were associated with AL/CR. In the age group 10-25 years, four loci (BMP2, KCNQ5, A2BP1, CACNA1D) were associated; and in adults 20 loci were associated. Association with GRS increased with age; beta = 0.0016 per risk allele (P = 2 x 10(-8)) in <10 years, 0.0033 (P = 5 x 10(-15)) in 10- to 25-year-olds, and 0.0048 (P = 1 x 10(-72)) in adults. Genes with strongest effects (LAMA2, GJD2) had an early effect that increased with age. Our results provide insights on the age span during which myopia genes exert their effect."

According to the news editors, the research concluded: "These insights form the basis for understanding the mechanisms underlying high and pathological myopia."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/gepi.21999. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rotterdam, Netherlands, Europe, Eye Diseases and Conditions, Epidemiology, Risk and Prevention, Genetics, Genetics, Refractive Errors, Ophthalmology, Myopia, Erasmus University Medical Center.

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Studies in the Area of Science Reported from National Research Institute (STRAP Acts as a Scaffolding Protein in Controlling the TLR2/4 Signaling Pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science. According to news reporting originating from Gyeonggi Do, South Korea, by NewsRx correspondents, research stated, "The WD40-repeat protein serine/threonine kinase receptor-associated protein (STRAP) is involved in the regulation of several biological processes, including cell proliferation and apoptosis, in response to various stresses. Here, we show that STRAP is a new scaffold protein that functions in Toll-like receptor (TLR)-mediated immune responses."

Our news editors obtained a quote from the research from National Research Institute, "STRAP specifically binds transforming growth factor beta-activated kinase 1 (TAK1) and I.B kinase alpha (IKK alpha) along with nuclear factor-kappa B (NF-kappa B) subunit p65, leading to enhanced association between TAK1, IKK alpha, and p65, and subsequent facilitation of p65 phosphorylation and nuclear translocation. Consequently, the depletion of STRAP severely impairs interleukin-6 (IL-6), tumor necrosis factor alpha (TNF-alpha), and IL-1 beta production, whereas its overexpression causes a significant increase in the secretion of these pro-inflammatory cytokines by TLR2 or TLR4 agonist-stimulated macrophages. Notably, STRAP translocates to the nucleus and subsequently binds to NF-kappa B at later times after lipopolysaccharide (LPS) stimulation, resulting in prolonged IL-6 mRNA production. Moreover, the C-terminal region of STRAP is essential for its functional activity in facilitating IL-6 production."

According to the news editors, the research concluded: "Collectively, these observations suggest that STRAP acts as a scaffold protein that positively contributes to innate host defenses against pathogen infections."


The news editors report that additional information may be obtained by contacting S. Lee, Natl Canc Center, Natl Res Inst, Goyang Si 10408, Gyeonggi Do, South Korea. Additional authors for this research include E.A. Ra, T.A. Lee, S. Kang, A. Park, E. Lee, J.L. Choi, E. Jang, J.E. Lee, S. Lee and B. Park.

Keywords for this news article include: Gyeonggi Do, South Korea, Asia, Science, Enzymes and Coenzymes, Genetics, Kinase, National Research Institute.

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Studies in the Area of Science Reported from University of California (ATR inhibitors as a synthetic lethal therapy for tumours deficient in ARID1A)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science. According to news reporting from San Francisco, California, by NewsRx journalists, research stated, "Identifying genetic biomarkers of synthetic lethal drug sensitivity effects provides one approach to the development of targeted cancer therapies. Mutations in ARID1A represent one of the most common molecular alterations in human cancer, but therapeutic approaches that target these defects are not yet clinically available."

The news correspondents obtained a quote from the research from the University of California, "We demonstrate that defects in ARID1A sensitize tumour cells to clinical inhibitors of the DNA damage checkpoint kinase, ATR, both in vitro and in vivo. Mechanistically, ARID1A deficiency results in topoisomerase 2A and cell cycle defects, which cause an increased reliance on ATR checkpoint activity. In ARID1A mutant tumour cells, inhibition of ATR triggers premature mitotic entry, genomic instability and apoptosis."

According to the news reporters, the research concluded: "The data presented here provide the pre-clinical and mechanistic rationale for assessing ARID1A defects as a biomarker of single-agent ATR inhibitor response and represents a novel synthetic lethal approach to targeting tumour cells."


Our news journalists report that additional information may be obtained by contacting A. Ashworth, UCSF Helen Diller Family Comprehens Canc Center, San Francisco, CA 94158, United States. Additional authors for this research include R. Miller, H.N. Pemberton, S.E. Jones, J. Campbell, A. Konde, N. Badham, R. Rafiq, R. Brough, A. Gulati, C.J. Ryan, J. Francis, P.B. Vermulen, A.R. Reynolds, P.M. Reaper, J.R. Pollard, A. Ashworth and C.J. Lord.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Science, Genetics, Therapy, University of California.

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Heart Disorders and Diseases - Tetralogy of Fallot

Studies in the Area of Tetralogy of Fallot Reported from University of Ulsan (Systemic-Pulmonary Shunt Facilitates the Growth of the Pulmonary Valve Annulus in Patients With Tetralogy of Fallot)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Science. According to news reporting from San Francisco, California, by NewsRx journalists, research stated, "Identifying genetic biomarkers of synthetic lethal drug sensitivity effects provides one approach to the development of targeted cancer therapies. Mutations in ARID1A represent one of the most common molecular alterations in human cancer, but therapeutic approaches that target these defects are not yet clinically available."

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Keywords for this news article include: San Francisco, California, United States, North and Central America, Science, Genetics, Therapy, University of California.

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& Wellness Week -- Current study results on Heart Disorders and Diseases - Tetralogy of Fallot have been published. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "Transannular patching (TAP) frequently accompanies primary repairs (PRs) in symptomatic neonates with tetralogy of Fallot (TOF). If a systemic-pulmonary shunt (SPS) facilitates the growth of the pulmonary valve annulus (PVA), patients with a marginally small PVA could benefit from a staged repair in terms of lowering the risk of TAP."

The news reporters obtained a quote from the research from the University of Ulsan, "Among 216 infants with TOF who underwent surgical intervention between January 2004 and December 2013, 29 infants underwent SPS with a subsequent repair (SPS group), whereas 187 infants received a PR (PR group). Median age and the Z-score of the PVA (PVA [Z]) at SPS were 32 days and -3.5, respectively. There was one late death and one follow-up loss after SPS, and preservation of the PVA was achieved on repair in 16 patients (16 of 29; 55%). Multiple regression analysis showed that performance of SPS was the only indicator of the increase in the PVA (Z) in the entire cohort (n=216). On mixed linear regression, the PVA (Z) increased significantly after the placement of an SPS (-3.6 + 0.2* duration in months, p=0.001), whereas the prerepair changes in the PVA (Z) were not statistically significant in the PR group (p=0.7), with a significant intergroup difference (p < 0.001). Receiver operating characteristic curve analysis showed that placement of TAP is expected when the preshunt PVA (Z) is smaller than -4.2 (area under the curve: 0.82; 95% confidence interval: 0.62 to 1.00; sensitivity, 100%; specificity, 73%). SPS facilitates outgrowth of the PVA over somatic growth in patients with TOF."

According to the news reporters, the research concluded: "However, preservation of the PVA may not be achieved on staged repair if the initial PVA is too small."


Our news correspondents report that additional information may be obtained by contacting T.J. Yun, University of Ulsan, Coll Med, Asan Med Center, Div Pediat Cardiac Surg & Pediat CardiolSongpa, Seoul, South Korea. Additional authors for this research include J.S. Baek, Y.M. Im, C.S. Park, J.J. Park and T.J. Yun.

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Keywords for this news article include: Seoul, South Korea, Asia, Heart Disorders and Diseases, Surgery, Cardiovascular Abnormalities, Congenital Heart Defects, Congenital Abnormalities, Tetralogy of Fallot, Heart Disease, Cardiology, University of Ulsan.

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Studies in the Area of Tuberculosis Reported from Imperial College (Hypoxia and tissue destruction in pulmonary TB)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections - Tuberculosis. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "It is unknown whether lesions in human TB are hypoxic or whether this influences disease pathology. Human TB is characterised by extensive lung destruction driven by host matrix metalloproteinases (MMPs), particularly collagenases such as matrix metalloproteinase-1 (MMP-1)."

Financial support for this research came from Medical Research Council.

Our news editors obtained a quote from the research from Imperial College, "We investigated tissue hypoxia in five patients with PET imaging using the tracer [F-18]-fluoromisonidazole ([F-18]FMISO) and by immunohistochemistry. We studied the regulation of MMP secretion in primary human cell culture model systems in normoxia, hypoxia, chemical hypoxia and by small interfering RNA (siRNA) inhibition. Results [F-18]FMISO accumulated in regions of TB consolidation and around pulmonary cavities, demonstrating for the first time severe tissue hypoxia in man. Patlak analysis of dynamic PET data showed heterogeneous levels of hypoxia within and between patients. In Mycobacterium tuberculosis (M. tb)-infected human macrophages, hypoxia (1% pO(2)) upregulated MMP-1 gene expression 170-fold, driving secretion and caseinolytic activity. Dimethylxvalyl glycine (DMOG), a small molecule inhibitor which stabilises the transcription factor hypoxia-inducible factor (HIF)-1 alpha, similarly upregulated MMP-1. Hypoxia did not affect mycobacterial replication. Hypoxia increased MMP-1 expression in primary respiratory epithelial cells via intercellular networks regulated by TB. HIF-1 alpha and NF-kappa B regulated increased MMP-1 activity in hypoxia. Furthermore, M. tb infection drove HIF-1 alpha accumulation even in normoxia. In human TB lung biopsies, epithelioid macrophages and multinucleate giant cells express HIF-1 alpha. HIF-1 alpha blockade, including by targeted siRNA, inhibited TB-driven MMP-1 gene expression and secretion."

According to the news editors, the research concluded: "Human TB lesions are severely hypoxic and M. tb drives HIF-1 alpha accumulation, synergistically increasing collagenase activity which will lead to lung destruction and cavitation."

For more information on this research see: Hypoxia and tissue destruction in pulmonary TB. Thorax, 2016;71(12):1145-1153. Thorax can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Thorax - thorax.bmj.com/)

The news editors report that additional information may be obtained by contacting J.S. Friedland, Imperial Coll London, Sect Infect Dis & Immun, London, United Kingdom. Additional authors for this research include S. Brilha, R. Manavaki, F. Mauri, K. Nijran, Y.T. Hong, N.H. Patel, M. Dembek, L. Tezera, J. Green, R. Moores, F. Aigbirhio, A. Al-Nahhas, T.D. Fryer, P.T. Elkington and J.S. Friedland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/thoraxjnl-2015-207402. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Mononuclear Phagocyte System, Mycobacterium Infections, Infectious Disease, Tuberculosis,
Studies in the Area of Type 2 Diabetes Reported from Baylor University College of Medicine (Mitochondrial Activity in Human White Adipocytes Is Regulated by the Ubiquitin Carrier Protein 9/microRNA-30a Axis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "The acquisition of beige adipocyte features by white fat cells corresponds to protection against obesity-induced metabolic diseases in humans and animal models of type 2 diabetes. In adipose tissue, expression of the F2 small ubiquitin-like modifier ligase ubiquitin carrier protein 9 (Ubc9) is positively correlated with markers of insulin resistance and corresponds with impaired browning of human white adipocytes."

Funders for this research include National Institute of Diabetes and Digestive and Kidney Diseases, National Institute of General Medical Sciences, American Heart Association, American Cancer Society, Caroline Weiss Law Foundation, Alkek Center for Molecular Discovery, Baylor College of Medicine Bridge to Independence Program, National Cancer Institute, Prostate Cancer Foundation.

The news correspondents obtained a quote from the research from the Baylor University College of Medicine, "However, the molecular regulation of Ubc9 expression in adipocytes and other cells remains unclear. In this study, we demonstrate that the mRNA and protein expression of Ubc9 are regulated by the microRNA miRNA-30a (milk-30a) in human subcutaneous adipocytes. Ubc9 and miR-30a exhibit inverse expression in adipose tissue, with miR-30a robustly elevated in brown fat. Depletion of Ubc9 by siRNA or enforced expression of a miR-30a mimic augments mitochondrial volume and respiration in human white adipocytes, reflecting features of brown fat cells. Furthermore, Ubc9 depletion induces a brown fat gene program in human subcutaneous adipocytes. Induction of the beige-selective gene program corresponds to stabilization of the PR domain-containing 16 (PRDM16) protein, an obligate transcriptional regulator of the brown/beige fat metabolic program in white adipocytes that interacts with Ubc9."

According to the news reporters, the research concluded: "Taken together, our data demonstrate a previously unappreciated molecular axis that controls browning of human white adipocytes."


Our news journalists report that additional information may be obtained by contacting S.M. Hartig, Baylor College of Medicine, Dept. of Mol & Cellular Biol, Houston, TX 77030, United States. Additional authors for this research include Y. Chen, D.A. Bader,
Vascular Diseases

Studies in the Area of Vascular Diseases Reported from Fourth Military Medical University (Adult lead exposure increases blood-retinal permeability: A risk factor for retinal vascular disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Vascular Diseases is the subject of a report. According to news reporting originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "Low-to-moderate level developmental and adult lead exposure produces retinal dysfunction and/or degeneration in humans and experimental animals. Although high level in vivo or in vitro lead disrupts blood-brain-barrier tight junctions and increases its permeability, the blood-retinal-barrier (BRB) has not been examined."

Financial supporters for this research include National Basic Research Program of China, National Natural Scientific Foundation of China.

Our news editors obtained a quote from the research from Fourth Military Medical University, "There were four overall goals. First, generate environmentally relevant dose-response models of short-term lead exposure in adult rats. Second, assess retinal histology and functional integrity of the BRB. Third, investigate the transmembrane proteins occludin and claudin-5 as targets mediating the increased BRB permeability. Fourth, examine the contribution of the PI3K-Akt signaling pathway as a mechanism underlying increased BRB permeability. Young adult rats were given water, 0.01% or 0.02% lead drinking solutions for six weeks. In control, 0.01% and 0.02% groups the six week mean blood [Pb] were 1, 12.5 and 19 µg/dl, respectively. We employed histology, stereology, quantitative image analysis, immunoblots and densitometry, and pharmacology techniques. Major findings were that adult lead exposure produced dose-dependent 1) decreases in outer and inner nuclear layer thickness, 2) increases in BRB permeability, 3) decreases in occludin and claudin-5 expression, 4) increases in pAkt (Ser473), but not pAkt (Thr308), expression, and 5) wortmannin partially or completely blocked the increased BRB permeability and changes in protein expression. These results indicate that lead-induced increases in PI3K-Akt signaling partially underlie the increased BRB permeability and advance our knowledge about lead-induced retinotoxicity."

According to the news editors, the research concluded: "Furthermore, they suggest that environmental and occupational lead exposures are risk factors for increased BRB permeability in diseases such as age-related macular degeneration, diabetes and stroke."

For more information on this research see: Adult lead exposure increases blood-retinal permeability: A risk factor for retinal vascular disease. Neurotoxicology, 2016;57():145-
152. *Neurotoxicology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Neurotoxicology - www.journals.elsevier.com/neurotoxicology/)

The news editors report that additional information may be obtained by contacting W.J. Luo, Fourth Military Medical University, Minist Educ, Key Lab Hazard Assessment & Control Special Opera, Xian, Shanxi Province, People's Republic of China. Additional authors for this research include P. Huang, D.A. Fox, Y. Lin, Z.H. Zhao, W. Wang, J.Y. Wang, X.Q. Liu, J.Y. Chen and W.J. Luo.

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Keywords for this news article include: Xi'an, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Risk and Prevention, Hematology, Histology, Fourth Military Medical University.

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**Studies in the Area of Visceral Surgery Reported from University Hospital (Indications for embolization in a French level 1 trauma center)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Surgery - Visceral Surgery. According to news reporting out of Nimes, France, by NewsRx editors, research stated, "Abdominal trauma accounts for nearly 20% of all traumatic injuries. It often involves young patients sustaining multiple injuries, with a high associated mortality rate."

Our news journalists obtained a quote from the research from University Hospital, "Management should begin at the scene of injury and relies on a structured chain of care in order to transport the trauma patient to the appropriate hospital center. Management is multi-disciplinary, involving intensive care specialists, surgeons and radiologists. Imaging to precisely define injury is best performed with whole body dual phase computed tomography, which can also identify the source of bleeding. Non-operative management has developed considerably over the years: this includes selective embolization in case of active bleeding or vascular anomalies in stable or stabilized patients after resuscitation. Embolization has become one of the corner stones of abdominal trauma management and interventional radiologists must play an active role on the trauma team."

According to the news editors, the research concluded: "This overview details the different embolization procedures according to the involved organ and embolic agent used."


Our news journalists report that additional information may be obtained by contacting J. Frandon, CHU Nimes, F-30029 Nimes, France. Additional authors for this research include C. Arvieux and F. Thony.
Keywords for this news article include: Nimes, France, Europe, Visceral Surgery, Surgery, Angiology, Article Review, Embolization, University Hospital.

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Drugs and Therapies - Antifungals

Study Data from A. Farkas et al Provide New Insights into Antifungals (Comparative Evaluation of the Predictive Performances of Three Different Structural Population Pharmacokinetic Models To Predict Future Voriconazole Concentrations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antifungals. According to news originating from Bloomingdale, New Jersey, by NewsRx correspondents, research stated, "Bayesian methods for voriconazole therapeutic drug monitoring (TDM) have been reported previously, but there are only sparse reports comparing the accuracy and precision of predictions of published models. Furthermore, the comparative accuracy of linear, mixed linear and nonlinear, or entirely nonlinear models may be of high clinical relevance."

Our news journalists obtained a quote from the research, "In this study, models were coded into individually designed optimum dosing strategies (ID-ODS) with voriconazole concentration data analyzed using inverse Bayesian modeling. The data used were from two independent data sets, patients with proven or suspected invasive fungal infections (n = 57) and hematopoietic stem cell transplant recipients (n = 10). Observed voriconazole concentrations were predicted whereby for each concentration value, the data available to that point were used to predict that value. The mean prediction error (ME) and mean squared prediction error (MSE) and their 95% confidence intervals (95% CI) were calculated to measure absolute bias and precision, while Delta ME and Delta MSE and their 95% CI were used to measure relative bias and precision, respectively. A total of 519 voriconazole concentrations were analyzed using three models. MEs (95% CI) were 0.09 (-0.02, 0.22), 0.23 (0.04, 0.42), and 0.35 (0.16 to 0.54) while the MSEs (95% CI) were 2.1 (1.03, 3.17), 4.98 (0.90, 9.06), and 4.97 (-0.54 to 10.48) for the linear, mixed, and nonlinear models, respectively."

According to the news editors, the research concluded: "While simulations with the linear model were found to be slightly more accurate and similarly precise, the small difference in accuracy is likely negligible from the clinical point of view, making all three approaches appropriate for use in a voriconazole TDM program."


The news correspondents report that additional information may be obtained from A. Farkas, Optimum Dosing Strategies, Bloomingdale, NJ 07403, United States. Additional authors for this research include G. Daroczi, P. Villasurda, M. Dolton, M. Nakagaki and J.A. Roberts.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1128/AAC.00970-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bloomingdale, New Jersey, United States, North and Central America, Voriconazole Therapy, Drugs and Therapies, Azole Antifungals, Pharmacokinetics, Pharmaceuticals, Antifungicals.

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Cardiovascular Diseases and Conditions...

Study Data from A.K. Patel and Co-Authors Update Knowledge of Atherosclerosis (A Review on Atherosclerotic Biology, Wall Stiffness, Physics of Elasticity, and Its Ultrasound-Based Measurement)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Atherosclerosis are presented in a new report. According to news reporting out of Roseville, California, by NewsRx editors, research stated, "Functional and structural changes in the common carotid artery are biomarkers for cardiovascular risk. Current methods for measuring functional changes include pulse wave velocity, compliance, distensibility, strain, stress, stiffness, and elasticity derived from arterial waveforms."

Our news journalists obtained a quote from the research, "The review is focused on the ultrasound-based carotid artery elasticity and stiffness measurements covering the physics of elasticity and linking it to biological evolution of arterial stiffness. The paper also presents evolution of plaque with a focus on the pathophysiological cascade leading to arterial hardening. Using the concept of strain, and image-based elasticity, the paper then reviews the lumen diameter and carotid intima-media thickness measurements in combined temporal and spatial domains."

According to the news editors, the research concluded: "Finally, the review presents the factors which influence the understanding of atherosclerotic disease formation and cardiovascular risk including arterial stiffness, tissue morphological characteristics, and image-based elasticity measurement."

For more information on this research see: A Review on Atherosclerotic Biology, Wall Stiffness, Physics of Elasticity, and Its Ultrasound-Based Measurement. Current Atherosclerosis Reports, 2016;18(12):126-137. Current Atherosclerosis Reports can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Atherosclerosis Reports - www.springerlink.com/content/1523-3804/)

Our news journalists report that additional information may be obtained by contacting J.S. Suri, AtheroPoint, Diag & Stroke Monitoring Div, Roseville, CA 95661, United States. Additional authors for this research include H.S. Suri, J. Singh, D. Kumar, S. Shafique, A. Nicolaides, S.K. Jain, L. Saba, A. Gupta, J.R. Laird, A. Giannopoulos and J.S. Suri.

Keywords for this news article include: Roseville, California, United States, North and Central America, Cardiovascular Diseases and Conditions, Cardiology, Article Review, Atherosclerosis, Angiology.

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**Oncology - Breast Cancer**

**Study Data from Amirkabir University of Technology Update**

**Understanding of Breast Cancer (Novel alginate-stabilized doxorubicin-loaded nanodroplets for ultrasonic theranosis of breast cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Breast Cancer. According to news reporting originating in Tehran, Iran, by NewsRx journalists, research stated, "Perfluorocarbon nanoemulsions are a new class of multifunctional stimuli-responsive nanocarriers which combine the properties of passive-targeted drug carriers, ultrasound imaging contrast agents, and ultrasound-responsive drug delivery systems. Doxorubicin-loaded alginate stabilized perflourohexane (PFH) nanodroplets were synthesized via nanoemulsion preparation method and their ultrasound responsivity, imaging, and therapeutic properties were studied."

The news reporters obtained a quote from the research from the Amirkabir University of Technology, "Doxorubicin was loaded into the nanodroplets (39.2 nm) with encapsulation efficiency of 92.2%. In vitro release profile of doxorubicin from nanodroplets was an apparently biphasic release process and 12.6% of drug released from nanodroplets after 24h incubation in PBS, pH approximate to 7.4. Sonication with 28 kHz therapeutic ultrasound for 10 min triggered droplet-to-bubble transition in PFH nanodroplets which resulted in the release of 85.95% of doxorubicin from nanodroplets. Microbubbles formed by acoustic vaporization of the nanodroplets underwent inertial cavitation. In the breast cancer mice models, ultrasound-mediated therapy with doxorubicin-loaded PFH nanodroplets showed excellent anti-cancer effects characterized by tumor regression. Complete tumor regression was observed for the group in which doxorubicin-loaded nanodroplets were combined with ultrasound, whereas the tumor growth inhibition of doxorubicin loaded nanodroplets was 89.6%.

According to the news reporters, the research concluded: "These multifunctional nanodroplets, with excellent therapeutic and ultrasound properties, could be promising drug delivery systems for chemotherapeutic application."


Our news correspondents report that additional information may be obtained by contacting F. Mortarzadeh, Amirkabir Univ Technol, Center Excellence, Fac Biomed Engn, Biomat Grp, Tehran, Iran. Additional authors for this research include F. Mortarzadeh, J.A. Mohandesi, F. Yazdian and M. Mokhtari-Dizaji.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.09.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Drugs and Therapies, Pharmaceuticals, Women's Health, Breast Cancer, Oncology, Amirkabir University of Technology.

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Study Data from Amrita University Update Knowledge of Cardiovascular Imaging (Isolated rheumatic severe tricuspid regurgitation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Medical Imaging - Cardiovascular Imaging. According to news reporting originating in Kerala, India, by NewsRx journalists, research stated, "Severe isolated tricuspid regurgitation (TR) is very rare, with most cases of TR being functional and secondary to pulmonary hypertension from left heart pathologies. We report an unusual case of a young Nigerian male, who presented to us with dyspnea, repeated hospital admissions for heart failure, and a childhood history of rheumatic fever."

The news reporters obtained a quote from the research from Amrita University, "Echocardiogram showed massively dilated right atrium and ventricle, noncoaptation of thickened tricuspid valve with torrential free tricuspid regurgitation. Other valves were normal. Cardiac MRI showed normal right ventricular function and viability."

According to the news reporters, the research concluded: "Patient underwent tricuspid valve replacement with 35-mm St. Jude valve."


Our news correspondents report that additional information may be obtained by contacting V. Vijan, Amrita Vishwa Vidyapeetham Univ, Dept. of Cardiol, Amrita Inst Med Sci, Kochi, Kerala, India. Additional authors for this research include V. Vijan, M.A. Prabhu, R. Thachathodiyl and R.C. Nair.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/echo.13341. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kerala, India, Asia, Cardiovascular Imaging, Medical Imaging, Amrita University.

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correspondents, research stated, "Increased body mass index (BMI) is a risk factor for heart failure, but evidence regarding BMI in acute heart failure (AHF) remains inconclusive. We sought to compare the clinical profile, treatment and in-hospital outcome across BMI categories in a large international AHF cohort."

Financial support for this research came from European Society of Cardiology and European Union.

Our news journalists obtained a quote from the research from Attikon University Hospital, "The Acute Heart Failure Global Survey of Standard Treatment (ALARM-HF) is a retrospective survey on 4953 patients admitted for AHF from nine countries in Europe, Latin America, and Australia. Patients with unavailable BMI data or BMI <18.5 kg/m(2) were excluded. Clinical data and in-hospital mortality were compared among the following BMI categories: 18.5-24.9 kg/m(2) (normal weight), 25-29.9 kg/m(2) (overweight) and (>=)30 kg/m (2) (obese). Overweight/obese patients represented 75.7% of patients and had worse New York Heart Association class (p <0.001) and higher admission systolic blood pressure (p <0.001). The prevalence of comorbidities increased in parallel with BMI and included arterial hypertension, diabetes mellitus, dyslipidaemia (all p<0.001), chronic obstructive pulmonary disease (p=0.041) and chronic kidney disease (p=0.056). Use of guideline-recommended medications also increased in parallel with BMI (angiotensin converting enzyme inhibitors/angiotensin II receptor blockers, p<0.001; b-blockers p<0.001; mineralocorticoid receptors antagonist, p=0.002). In-hospital mortality had a U-shaped relationship with BMI, with overweight patients having significantly lower rate (log-rank p=0.027); this relationship vanished after adjustment for confounders. Overweight/obese patients represented the vast majority of AHF cases, had a higher prevalence of non-cardiovascular comorbidities and were more likely to receive guideline-recommended medications."

According to the news editors, the research concluded: "The U-shaped relationship between in-hospital mortality and BMI may be explained by differences in clinical profile and treatment and not by an effect of body composition per se."


The news correspondents report that additional information may be obtained from J. Parissis, Heart Failure Unit, Dept. of Cardiology, Attikon University Hospital, J Rimini Street, 12462, Athens, Greece. Additional authors for this research include D. Farmakis, N. Kadoglou, I. Ikonomidis, E. Fountoulaki, E. Hatziagelaki, S. Deftereos, F. Follath, A. Mebazaa, J. Lekakis and G. Filippatos.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ejhf.489. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Athens, Greece, Europe, Hospital, Autacoids, Bariatrics, Cardiology, Angiotensins, Heart Disease, Heart Failure, Biological Factors, Risk and Prevention, Obesity and Diabetes, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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Therapeutics

Study Data from Augustana College Update Understanding of Therapeutics [Tissue-specific variation in nonsense mutant transcript level and drug-induced read-through efficiency in the Cln1(R151X) mouse model of INCL]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Therapeutics is now available. According to news reporting originating from Sioux Falls, South Dakota, by NewsRx correspondents, research stated, "About 10% of inherited diseases are caused by nonsense mutations [Trends Mol Med 18 (2012) 688], and nonsense suppression drug therapy promoting translation through premature stop codons is an emerging therapeutic approach. Infantile neuronal ceroid lipofuscinosis (INCL), a childhood neurodegenerative disease, results from mutations in the CLN1 gene encoding the lysosomal enzyme, palmitoyl-protein thioesterase 1 (PPT1) [Biochim Biophys Acta 1832 (2013) 1806, Hum Mutat (2012) 63, Biochim Biophys Acta 1832 (2013) 1881]."

Funders for this research include Hayden's Hope, Beat Batten Foundation, Sanford Health, National Institutes of Health.

Our news editors obtained a quote from the research from Augustana College, "The nonsense mutation p.R151X is the most common disease-causing CLN1 mutation Hum Mutat (2012) 63. In the novel Cln1(R151X) mouse model of INCL, we found large, tissue-specific variations in Cln1(R151X) mRNA level and PPT1 residual enzyme activity. These tissue-specific differences strongly influenced the read-through efficiency of ataluren (PTC124), a well-known nonsense suppression drug. A two-day treatment with ataluren (10 mg/kg) increased PPT1 enzyme activity in the liver and muscle, but not in any other tissue examined."

According to the news editors, the research concluded: "Our study identifies a new challenge/hurdle for read-through drug therapy: variable efficiency of read-through therapy in the different tissues/organs because of tissue-specific variations in nonsense mutant transcript levels."

For more information on this research see: Tissue-specific variation in nonsense mutant transcript level and drug-induced read-through efficiency in the Cln1(R151X) mouse model of INCL. Journal of Cellular and Molecular Medicine, 2015;20(2):381-5. Journal of Cellular and Molecular Medicine can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA. (Wiley-Blackwell - www.wiley.com; Journal of Cellular and Molecular Medicine - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1582-4934)

The news editors report that additional information may be obtained by contacting V. Thada, Dept. of Biology, Augustana College, Sioux Falls, SD, United States. Additional authors for this research include J.N. Miller, A.D. Kovacs and D.A Pearce.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jcmm.12744. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Cellular and Molecular Medicine is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Genetics, Sioux Falls, South Dakota, Therapeutics, United States, Drugs and Therapies, North and Central America.

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Heart Disorders and Diseases - Heart Attack

Study Data from B. DeVoe and Co-Authors Update Knowledge of Heart Attack (Correlation of the predictive ability of early warning metrics and mortality for cardiac arrest patients receiving in-hospital Advanced Cardiovascular Life Support)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news originating from Hempstead, New York, by NewsRx correspondents, research stated, "The Modified Early Warning Score (MEWS) helps identify patients experiencing a decline in physiological parameters that indicate risk for cardiac arrest (CA). To assess the association between MEWS values and patient survival following in-hospital CA." Our news journalists obtained a quote from the research, "Retrospective cohort study of patients who experienced in-hospital CA. The relationship between CA survival and MEWS values as well as other risk factors such as age, gender and type of electrographic cardiac rhythms was analyzed using logistic regression. Survival rate to hospital discharge was 21%. Strong predictors for survival were MEWS values at hospital admission (p < .002), younger age (p < .005), ventricular fibrillation (p < .0001), and ventricular tachycardia (p < .0001). Gender and MEWS 4 hours prior to CA were not significantly associated with survival. Survival following CA was significantly associated with MEWS at hospital admission but not 4 hours prior to CA."

According to the news editors, the research concluded: "The type of cardiac rhythm and age were also predictive of survival."


The news correspondents report that additional information may be obtained from P. DiMarzio, Hofstra Northwell Hlth Sch Med, Dept. of Occupat Med Epidemiol & Prevent, Hempstead, NY, United States. Additional authors for this research include A. Roth, G. Maurer, M. Tamuz, M. Lesser, R. Pekmezaris, A.N. Makaryus, A. Hartman and P. DiMarzio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrtlng.2016.08.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hempstead, New York, United States, North and Central America, Cardiology, Risk and Prevention, Heart Disorders and Diseases, Cardiovascular, Cardiac Arrest, Heart Attack, Hospital.

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Drug Administration Routes

Study Data from Beijing University Provide New Insights into Drug Administration Routes (Simultaneous Analysis of Quercetin and Naringenin in Rat Plasma by Liquid Chromatography-Tandem Mass Spectrometry: Application to a Pharmacokinetic Study ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drug Administration Routes is now available. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "A rapid and specific LC-MS-MS method has been developed for simultaneous analysis of quercetin and naringenin in rat plasma. The method was applied to the pharmacokinetics studies of quercetin and naringenin after oral administration of Pollen Typhae extract."

The news correspondents obtained a quote from the research from Beijing University, "The samples were prepared by the protein precipitation method. The analysis was carried out on an ACQUITY UPLC™ BEH C18 column with gradient elution using mobile phase, which included acetonitrile and water (containing 0.1% formic acid). The flow rate was 0.4 mL/min. All analytes including internal standard (IS) were monitored by selected reaction monitoring with an electrospray ionization source. Linear responses were obtained for quercetin ranging from 0.5 to 100 ng/mL and naringenin ranging from 5 to 1000 ng/mL. The intra-and interday precisions (RSD) were less than 10.78 and 11.20%. The extraction recovery of the analytes was acceptable. Stability studies showed that quercetin and naringenin were stable in the preparation and analytical process."

According to the news reporters, the research concluded: "The validated method was successfully used to determine the concentration-time profiles of quercetin and naringenin."


Our news journalists report that additional information may be obtained by contacting J. Ni, Beijing Univ Chinese Med, Sch Chinese Mat Med, Beijing 100102, People's Republic of China. Additional authors for this research include S.L. Cao, L.J. Feng, X.B. Yin, W.P. Wang, X. Zhang and J. Ni.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Drug Administration Routes, Oral Administration, Pharmacokinetics, Pharmaceuticals, Beijing University.

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Liver Diseases and Conditions - Hepatitis C Virus

Study Data from Binzhou Medical College Update Knowledge of Hepatitis C Virus (Correlation of interferon-lambda 4 ss469415590 with the hepatitis C virus treatment response and its comparison with interleukin 28b polymorphisms in predicting a ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Liver Diseases and Conditions - Hepatitis C Virus is the subject of a report. According to news reporting originating from Shandong, People's Republic of China, by NewsRx correspondents, research stated, "Interferon-lambda 4 (IFNL4) ss469415590 is a newly discovered polymorphism that could predict the treatment response in hepatitis C virus (HCV)-infected patients. This meta-analysis was performed in order to clarify its specific effect on the treatment response and to compare it with interleukin 28b (IL28B)."

Our news editors obtained a quote from the research from Binzhou Medical College, "The commonly used literature databases were searched. Meta-analyses were performed using fixed/random-effects models using Stata 12.0. The sustained virological response (SVR) rate was summarized using R software. Publication bias was examined through Egger's test. A total of seven studies were finally included in this meta-analysis. IFNL4 ss469415590 was demonstrated to be associated with SVR (odds ratio (OR) 3.83, 95% confidence interval (CI) 3.22-4.56, p< 0.001). Asians had a higher likelihood of achieving SVR than Caucasians (OR = 7.36 vs. 3.54). When stratifying all the patients according to HCV genotype, a significant association was observed in HCV genotype 1 patients (OR 4.5, 95% CI 2.91-6.95, p< 0.001). In HCV genotype 2/3 patients, the favorable TT/TT genotype patients tended to have a statistically higher SVR rate than the non-TT/TT genotype patients (84.4% vs. 78.3%, p = 0.058). Compared with IL28B rs12979860 (OR 3.45) and rs8099917 (OR 3.50), ss469415590 TT/TT genotype patients showed a slightly higher probability of achieving a SVR (OR 3.61 calculated from studies investigating both IFNL4 and rs12979860; OR 4.86 for studies investigating both IFNL4 and rs8099917). Furthermore, ss469415590 showed a slightly higher predictive value than rs12979860 using the diagnostic test tool (area under the curve = 0.71 vs. 0.70). IFNL4 was also correlated with rapid virological response (RVR) (OR 4.35, 95% CI 1.43-13.20, p = 0.01), viral clearance (OR 0.31, 95% CI 0.24-0.39, p< 0.001), and HCV susceptibility (OR 0.76, 95% CI 0.65-0.89, p = 0.001). IFNL4 ss469415590 is significantly associated with SVR in HCV genotype 1 patients, irrespective of race; there is a tendency towards an association in HCV genotype 2/3 patients."

According to the news editors, the research concluded: "Comparable to IL28B, IFNL4 is correlated with natural viral clearance and HCV susceptibility, additionally IFNL4 ss469415590 has a slightly higher predictive performance over IL28B polymorphisms in regard to SVR."

The news editors report that additional information may be obtained by contacting Y.H. Li, Binzhou Med Univ Hosp, Dept. of Infect Dis, Binzhou 256603, Shandong, People's Republic of China. Additional authors for this research include L.H. Yang, K.H. Sha, T.G. Liu and L.G. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijid.2016.10.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Flaviviridae Infections, Hepatitis C Virus, Gastroenterology, Interleukins, Interferons, RNA Viruses, Hepatology, Cytokines, Genetics, Virology, Viral, HCV, Binzhou Medical College.

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Immune System Diseases and Conditions - HIV/AIDS

Study Data from C. Mummert et al Provide New Insights into HIV/AIDS (T-cell receptor transfer for boosting HIV-1-specific T-cell immunity in HIV-1-infected patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news originating from Bochum, Germany, by NewsRx correspondents, research stated, "Strategies to cure HIV-1 infection require the eradication of viral reservoirs. An innovative approach for boosting the cytotoxic T-lymphocyte response is the transfer of T-cell receptors (TCRs)."

Our news journalists obtained a quote from the research, "Previously, we have shown that electroporation of TCR-encoding mRNA is able to reprogram CD8(+) T cells derived from healthy donors. So far, it is unknown whether the transfer of HIV-1-specific TCRs is capable to reprogram CD8(+) T cells of HIV-1-infected patients. To assess the efficiency of TCR-transfer by mRNA electroporation and the functionality of reprogramed T cells in HIV-1-infected patients, we performed an in-vitro analysis of TCR-transfer into T cells from HIV-1-infected patients in various stages of disease and from healthy controls. Peripheral blood mononuclear cells from 16 HIV-1-infected patients (nine HLA-A*02-positive, seven HLA-A*02-negative) and from five healthy controls were electroporated with mRNA-constructs encoding TCRs specific for the HLA-A*02/HIV-1gag p17 epitope SLYNTVATL (SL9). Functionality of the TCRs was measured by gamma IFN-ELISpot assays. SL9/TCR transfection into peripheral blood mononuclear cells from both HLA-A*02-positive and HLA-A*02-negative HIV-1-infected patients and from healthy blood donors reprogramed T cells for recognition of SL9-presenting HLA-A*02-positive cells in gIFN-ELISpot assays. SL9/TCR-transfer into T cells from an immunodeficient AIDS patient could induce recognition of SL9-expressing target cells only after reversion of T-cell dysfunction by antiretroviral therapy. The transfer of HIV-1-p17-specific TCRs into T cells is functional both in HIV-1-infected patients as well as in healthy blood donors."

According to the news editors, the research concluded: "TCR-transfer is a promising method to boost the immune system against HIV-1."
For more information on this research see: T-cell receptor transfer for boosting HIV-1-specific T-cell immunity in HIV-1-infected patients. *Aids*, 2016;30(14):2149-2158. *Aids* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Aids - journals.lww.com/aidsonline/pages/default.aspx)

The news correspondents report that additional information may be obtained from T. Harrer, German Competence Network HIV AIDS, Bochum, Germany. Additional authors for this research include C. Hofmann, A.G. Huchelhoven, S. Bergmann, S.M. Mueller-Schmucker, E.G. Harrer, J. Dorrie, N. Schaft and T. Harrer.

Keywords for this news article include: Bochum, Germany, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Genetics, HIV-1.

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**Blood Pressure**

**Study Data from CHUM Provide New Insights into Blood Pressure (The role of GRIP1 and ephrin B3 in blood pressure control and vascular smooth muscle cell contractility)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Blood Pressure have been presented. According to news reporting originating from Montreal, Canada, by NewsRx correspondents, research stated, "Several erythropoietin-producing hepatocellular receptor B family (EPHB) and their ligands, ephrinBs (EFNBs), are involved in blood pressure regulation in animal models. We selected 528 single nucleotide polymorphisms (SNPs) within the genes of EPHB6, EFNB2, EFNB3 and GRIP1 in the EPH/EFN signalling system to query the International Blood Pressure Consortium dataset."

Our news editors obtained a quote from the research from CHUM, "A SNP within the glutamate receptor interacting protein 1 (GRIP1) gene presented a p-value of 0.000389, approaching the critical p-value of 0.000302, for association with diastolic blood pressure of 60,396 individuals. According to echocardiography, we found that Efnb3 gene knockout mice showed enhanced constriction in the carotid arteries. In vitro studies revealed that in mouse vascular smooth muscle cells, siRNA knockdown of GRIP1, which is in the EFNB3 reverse signalling pathway, resulted in increased contractility of these cells."

According to the news editors, the research concluded: "These data suggest that molecules in the EPHB/EFNB signalling pathways, specifically EFNB3 and GRIP1, are involved blood pressure regulation."


The news editors report that additional information may be obtained by contacting J.P. Wu, CHUM, Serv Nephrol, Montreal, PQ H2X 0A9, Canada. Additional authors for this

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Intercellular Signaling Peptides and Proteins, Blood Pressure, Muscle Cells, Ephrin-B3, Ephrins, CHUM.

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Oncology - Bladder Cancer

**Study Data from Cancer Center Update Understanding of Bladder Cancer (Upregulated expression of BCL2, MCM7, and CCNE1 indicate cisplatin-resistance in the set of two human bladder cancer cell lines: T24 cisplatin sensitive and T24R2 cisplatin ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Bladder Cancer are discussed in a new report. According to news reporting originating in Goyang, South Korea, by NewsRx journalists, research stated, "The mechanism of resistance to cisplatin during treatment of bladder cancer (BC) has been a subject of intense investigation in clinical research. This study aims to identify candidate genes associated with resistance to cisplatin, in order to understand the resistance mechanism of BC cells to the drug, by combining the use of microarray profiling, quantitative reverse transcription-polymerase chain reaction (RT-PCR), and Western blot analyses."

Financial support for this research came from National Research Foundation of Korea.

The news reporters obtained a quote from the research from Cancer Center, "The cisplatin sensitive human BC cell line (T24) and the cisplatin resistant BC cell line, T24R2, were used for microarray analysis to determine the differential expression of genes that are significant in cisplatin resistance. Candidate upregulated genes belonging to three well-known cancer-related KEGG (Kyoto Encyclopedia of Genes and Genomes) pathways (p53 tumor suppressor, apoptosis, and cell cycle) were selected from the microarray data. These candidate genes, differentially expressed in T24 and T24R2, were then confirmed by quantitative RT-PCR and western blot. A fold change (≥2) with a p-value <0.05 was considered significant. A total of 18 significantly upregulated genes were detected in the three selected cancer-related pathways in both microarray and RT-PCR analyses. These genes were PRKAR2A, PRKAR2B, CYCS, BCL2, BIRC3, DFFB, CASP6, CDK6, CCNE1, STEAP3, MCM7, ORC2, ORC5, ANAPC1, and ANAPC7, CDC7, CDC27, and SKP1. Western blot analyses also confirmed the upregulation of BCL2, MCM7, and CCNE1 at the protein level, indicating their crucial association with cisplatin resistance."

According to the news reporters, the research concluded: "The BCL2, MCM7, and CCNE1 genes might play distinctive roles in cisplatin resistance in BC."


Our news correspondents report that additional information may be obtained by
contacting S.H. Kim, Dept. of Urology, National Cancer Center, Goyang, South Korea. Additional authors for this research include J.N. Ho, H. Jin, S.C. Lee, S.E. Lee, S.K. Hong, J.W. Lee, E.S. Lee and S.S Byun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4111/icc.2016.57.1.63. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antineoplastics, Pharmaceuticals, Goyang, Genetics, Oncology, Cell Line, South Korea, Bladder Cancer, Alkylating Agents, Cisplatin Therapy, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Drugs and Therapies.

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Cardiovascular Diseases and Conditions --

Study Data from Capital Medical University Provide New Insights into Takayasu’s Arteritis (IL-9-producing Th9 cells may participate in pathogenesis of Takayasu’s arteritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Takayasu's Arteritis are discussed in a new report. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Takayasu's arteritis (TAK) is a type of large vessel vasculitis which involves the aorta and its major branches. Interleukin (IL)-9 or IL-9-producing Th9 cells were found to be involved in pathogenesis of autoimmune arteritis such as giant cell arteritis, but IL-9 or Th9 cells in TAK were not well known."

Our news editors obtained a quote from the research from Capital Medical University, "Here, this study aims to analyze the levels of serum IL-9 and their major source Th9 cells in TAK. With the help of cytometric bead array (CBA), a total of 21 patients with TAK were examined for serum levels of cytokines IL-4, IL-6, IL-8, IL-17, IL-10, TNF-alpha, IFN-gamma, and IL-9. Flow cytometry techniques were used to examine the frequencies of Th9 cells from peripheral blood mononuclear cells (PBMCs) for 11 patients with active TAK and 10 healthy controls. Higher serum levels of serum IL-6 (P < 0.05), TNF-alpha (P < 0.05), and IL-9 level (P < 0.05) were observed in TAK patients compared to those of healthy controls. Higher frequencies of CD4(+) IL-9(+) T cells and CD4(+) PU.1(+) T cells in PBMCs and IL-9(+) PU.1 (+) T cells in CD4(+) T cells were observed in active TAK patients than those in healthy controls (all P< 0.01). The levels of IL-9 had a positive correlation with ESR (r = 0.975, P = 0.015) in these cases."

According to the news editors, the research concluded: "Our data suggested that Th9 cells and IL-9 could possibly be involved in the pathogenesis of TAK."

For more information on this research see: IL-9-producing Th9 cells may participate in pathogenesis of Takayasu's arteritis. Clinical Rheumatology, 2016;35(12):3031-3036. Clinical Rheumatology can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - www.springer.com; Clinical Rheumatology - www.springerlink.com/content/0770-3198/)

The news editors report that additional information may be obtained by contacting T.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Aortic Diseases and Conditions, Aortic Arch Syndromes, Takayasu's Arteritis, Cardiology, Vasculitis, Capital Medical University.

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Cardiovascular Diseases and Conditions - Aneurysm

Study Data from Capital Medical University Update Knowledge of Aneurysm (Effect of hemodynamics on outcome of subtotally occluded paraclinoid aneurysms after stent-assisted coil embolization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Aneurysm. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Endovascular treatment of paraclinoid aneurysms is preferred in clinical practice. Flow alterations caused by stents and coils may affect treatment outcome."

Our news editors obtained a quote from the research from Capital Medical University, "To assess hemodynamic changes following stent-assisted coil embolization (SACE) in subtotally embolized paraclinoid aneurysms with residual necks that were predisposed to recanalization. We studied 27 paraclinoid aneurysms (seven recanalized and 20 stable) treated with coils and Enterprise stents. Computational fluid dynamic simulations were performed on patient-specific aneurysm geometries using virtual stenting and porous media technology. After stent placement in 27 cases, aneurysm flow velocity decreased significantly, the reduction gradually increasing from the neck plane (11.9%), to the residual neck (12.3%), to the aneurysm dome (16.3%). Subsequent coil embolization was performed after stent placement and the hemodynamic factors decreased further and significantly at all aneurysm regions except the neck plane. In a comparison of recanalized and stable cases, univariate analysis showed no significant differences in any parameter before treatment. After stent-assisted coiling, only the reduction in area-averaged velocity at the neck plane differed significantly between recanalized (8.1%) and stable cases (20.5%) (p=0.016). Aneurysm flow velocity can be significantly decreased by stent placement and coil embolization. However, hemodynamics at the aneurysm neck plane is less sensitive to coils."

According to the news editors, the research concluded: "Significant reduction in flow velocity at the neck plane may be an important factor in preventing recanalization of paraclinoid aneurysms after subtotal SACE."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/neurintsurg-2015-012050. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Embolization, Angiology, Aneurysm, Capital Medical University.

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Oncology - Liver Cancer

Study Data from Capital Medical University Update Knowledge of Liver Cancer (Cytokine levels contribute to the pathogenesis of minimal hepatic encephalopathy in patients with hepatocellular carcinoma via STAT3 activation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Liver Cancer are presented in a new report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Hepatocellular carcinoma (HCC) patients were grouped according to the degree of encephalopathy, with healthy volunteers as controls. We investigated clinical presentation, protein and mRNA expression of 14 cytokines, and activation of six STAT proteins, the downstream signaling mediators."

The news correspondents obtained a quote from the research from Capital Medical University, "Levels of all 14 cytokines were significantly elevated in HCC patients with clinical hepatic encephalopathy. Statistical analysis showed that levels of IL-1b, IL-6, IFNg, IL-17a, IFNl2 and IFNl3 were correlated with minimal hepatic encephalopathy (MHE). Multivariate regression analysis identified serum IL-6, IFNl3 and IL-17a as independent risk factors for MHE. Increased mRNA levels of IL-6 and IFNg were associated with MHE. Among the STAT proteins examined, only STAT3 was elevated in MHE. Treatment with a STAT3 inhibitor protected neurons from cytokine-induced apoptosis in vitro."

According to the news reporters, the research concluded: "This study identified potential biomarkers for MHE in HCC. The cytokines investigated may induce neural apoptosis via STAT3 in the pathogenesis of MHE in HCC."

For more information on this research see: Cytokine levels contribute to the pathogenesis of minimal hepatic encephalopathy in patients with hepatocellular carcinoma via STAT3 activation. Scientific Reports, 2016;6():18528. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting H. Wu, Center for Infectious Diseases, Beijing You'an Hospital, Capital Medical University, Beijing 100069, People's Republic of China. Additional authors for this research include N. Li, R. Jin, Q. Meng, P. Chen, G. Zhao, R. Wang, L. Li and W. Li.

The direct object identifier (DOI) for that additional information is:
Study Data from Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV) Provide New Insights into Guanidines (Pharmacological analysis of the cardiac sympatho-inhibitory actions of moxonidine and agmatine in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Guanidines. According to news reporting out of Mexico City, Mexico, by NewsRx editors, research stated, "This study shows that in spontaneously hypertensive rats (SHR) of 14-weeks-old, the sympathetically induced, but not noradrenaline-induced tachycardic response are higher than age-matched Wistar normotensive rats. Furthermore, in SHR the sympathetically-induced tachycardic response was: (1) unaffected by moxonidine (3 μg/kg min); (2) partially inhibited by B-HT 933 (30 μg/kg min), both at the lowest doses; and (3) completely inhibited by the highest doses of B-HT 933 (100 μg/kg min), moxonidine (10 μg/kg min) or agmatine (1000 and 3000 μg/kg min) while the noradrenaline-induced tachycardic responses remained unaffected by the above compounds, except by 3000 μg/kg min agmatine."

Financial support for this research came from Conacyt.

Our news journalists obtained a quote from the research from the Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV), "In SHR, 300 μg/kg rauwolscine failed to block the sympatho-inhibition to 100 μg/kg min B-HT 933 or 10 μg/kg min moxonidine, but 1000 μg/kg rauwolscine abolished, partially antagonized, and did not modify the sympatho-inhibition to the highest doses of B-HT 933, moxonidine, and agmatine, respectively, 3000 μg/kg AGN 192403 or 300 μg/kg BU224 given alone had no effect in the moxonidine- or agmatine-induced sympatho-inhibition, and the combination rauwolscine plus AGN 192403 but not plus BU224, abolished the sympatho-inhibition to the highest doses of moxonidine and agmatine."

According to the news editors, the research concluded: "The sympathetically-induced tachycardic responses in SHR are inhibited by moxonidine and agmatine. The inhibition of moxonidine is mainly mediated by prejunctional alpha(2)-adrenoceptors and to a lesser extent by I-1-imidazoline receptors, while the inhibition of agmatine is mediated by prejunctional alpha(2)-adrenoceptors and I-1-imidazoline receptors at the same extent. Notwithstanding, the inhibitory function of alpha(2)-adrenoceptors seems to be altered in SHR compared with Wistar normotensive rats."

For more information on this research see: Pharmacological analysis of the cardiac sympatho-inhibitory actions of moxonidine and agmatine in pithed spontaneously hypertensive rats. European Journal of Pharmacology, 2016;791():25-36. European Journal of...
Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting D. Centurion, Cinvestav Coapa, Dept. of Fannacobiol, Mexico City 14330, DF, Mexico. Additional authors for this research include A. Sanchez-Lopez and D. Centurion.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.08.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mexico City, Mexico, North and Central America, Pharmacology, Cardiology, Guanidines, Agmatine, Therapy, Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV).

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Cell Proliferation

Study Data from Central Hospital Update Understanding of Cell Proliferation (Long non-coding RNA MALAT1 is up-regulated in ovarian cancer tissue and promotes SK-OV-3 cell proliferation and invasion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cell Proliferation. According to news reporting from Shandong, People's Republic of China, by NewsRx journalists, research stated, "Ovarian cancer is a gynecological malignancy worldwide. Long non-coding RNAs (lncRNAs) research is an emerging area in cancer studies, but little is known about lncRNA metastasis associated lung adenocarcinoma transcript 1 (MALAT1) in ovarian cancer."

The news correspondents obtained a quote from the research from Central Hospital, "This study aims to investigate expression and roles of MALAT1 in ovarian cancer. MALAT1 level was detected in 20 ovarian cancer patients. MALAT1 expression was promoted by transforming growth factor beta 1 (TGF beta 1) treatment and inhibited by siRNA transfection in human ovarian cancer cell line SK-OV-3, after which changes in cell viability, proliferation, migration and invasion were analyzed by MTT, colony formation and Transwell assays. Protein levels of mitogen-activated protein kinase factors, including MAPK kinase 1 (MEK1), extracellular signal-regulated kinase (ERK1), p38 and c-Jun N-terminal kinase 1 (JNK1), were detected by western blot. MALAT1 was significantly up-regulated in ovarian cancer tissues compared to adjacent normal tissues (P < 0.01), and its expression was correlated to tumor size (r(2) = 0.7770, P< 0.0001) and metastasis. TGF beta 1 and siRNA successfully altered MALAT1 levels in SK-OV-3 cells. Knockdown of MALAT1 suppressed SK-OV-3 cell viability, proliferation, migration and invasion (P < 0.05), and inhibited phosphorylation of MEK1, ERK1, p38 and JNK1, which suggested that MALAT1 promoted ovarian cancer cell proliferation, migration and invasion, and that MAPK pathways might be one of the regulatory mechanisms of MALAT1."

According to the news reporters, the research concluded: "This study reveals that MALAT1 is a potential biomarker for tumor growth and metastasis, as well as a promising therapeutic target in ovarian cancer, facilitating further ovarian cancer research."

For more information on this research see: Long non-coding RNA MALAT1 is up-

Our news journalists report that additional information may be obtained by contacting X. Wu, Taian City Cent Hosp, Dept. of Gynaecol 2, Tai An 271000, Shandong, People's Republic of China. Additional authors for this research include R. Liu and X. Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4149.neo_2016_605. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shandong, People's Republic of China, Asia, Enzymes and Coenzymes, Cell Proliferation, Oncology, Kinase, Cancer, Central Hospital.

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Liver Diseases and Conditions - Hepatomas

Study Data from Changchun Institute of Applied Chemistry Update Understanding of Hepatomas (Self-Targeted Polysaccharide Prodrug Suppresses Orthotopic Hepatoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Liver Diseases and Conditions - Hepatomas. According to news reporting originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "Self-targetability is an emerging targeting strategy for polymer nanocarriers with facile preparation and high targeting efficiency."

Financial supporters for this research include National Cancer Institute, National Natural Science Foundation of China.

Our news editors obtained a quote from the research from the Changchun Institute of Applied Chemistry, "An acid-sensitive dextran doxorubicin prodrug (Dex-g-DOX) has been synthesized and used as a self-targeted drug delivery system for the treatment of orthotopic hepatoma. The polysaccharide prodrug exhibits ultraspecific accumulation in cancerous liver tissue, acid-sensitive DOX release within cells, and high antitumor efficacy in vitro and in vivo."

According to the news editors, the research concluded: "Therefore, Dex-g-DOX demonstrates great potential for chemotherapy of orthotopic hepatoma."

For more information on this research see: Self-Targeted Polysaccharide Prodrug Suppresses Orthotopic Hepatoma. Molecular Pharmaceutics, 2016;13(12):4231-4235. Molecular Pharmaceutics can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news editors report that additional information may be obtained by contacting J.X. Ding, Chinese Academy Sci, Changchun Inst Appl Chem, Key Lab Polymer Ecomat, Changchun 130022, People's Republic of China. Additional authors for this research include W.G. Xu, P.Q. Li, J.X. Ding, Z.H. Cheng, L. Chen, L.S. Yan and X.S. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.6b00747. This DOI is a link to an online
Drugs and Therapies - Antiretrovirals

Study Data from Chiang Mai University Update Knowledge of Antiretrovirals (Therapeutic Drug Monitoring of Lopinavir in HIV-Infected Children on Second-Line Antiretroviral Therapy in Asia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiretrovirals have been published. According to news reporting originating from Chiang Mai, Thailand, by NewsRx correspondents, research stated, "Failure rates of second-line boosted protease inhibitor antiretroviral therapy regimens in children rise over time. Therapeutic drug monitoring can contribute to assessments of adherence."

Our news editors obtained a quote from the research from Chiang Mai University, "The authors assessed the performance characteristics of the US DHHS-recommended lopinavir (LPV) concentration of 1.0 mg/L for predicting virologic failure (VF) and intermediate-to high-level LPV resistance in Asian children. LPV concentration, HIV RNA level, and adherence data from study participants in Thailand, Vietnam, and Indonesia receiving second-line LPV-based ART and followed for >= 24 weeks were analyzed. A total of 223 children at a median age of 10.4 (interquartile range, 7.9-13.4) years were enrolled, and 61% of them were male. Their mean CD4 was 842 +/- 438 cells per cubic millimeter, and the median LPV duration was 2.5 (interquartile range, 1.3-4.2) years. Five of 84 (6%) and 18 of 139 (13%) children had LPV trough and random concentrations,1.0 mg/L at study week 24. Using either of these trough or random LPV concentrations, a cutoff at 1.0 mg/L gave an area under the receiver operating characteristics curve of 0.69 in predicting VF with sensitivity of 44% (95% CI 23-66) and specificity of 94% (95% CI 89-97). Seven of 21 with VF and resistance results available had >= 1 major protease inhibitor mutation. Multivariate logistic regression found LPV concentrations,1.0 mg/L (odds ratio, 6.47; 95% CI 2.15-19.50, P = 0.001) and CD4 <= 20% (odds ratio, 2.83; 95% CI 1.01-7.89, P = 0.05) were independently associated with HIV RNA > 1000 copies per milliliter. No factors predicted major LPV resistance mutations."

According to the news editors, the research concluded: "The authors support that the DHHS target LPV concentration of <1.0 mg/L is predictive of VF, but not of the presence of major LPV mutations."

For more information on this research see: Therapeutic Drug Monitoring of Lopinavir in HIV-Infected Children on Second-Line Antiretroviral Therapy in Asia. Therapeutic Drug Monitoring, 2016;38(6):791-795. Therapeutic Drug Monitoring can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

The news editors report that additional information may be obtained by contacting L. Aurpibul, Chiang Mai University, Res Inst Hlth Sci, Chiang Mai 50200, Thailand. Additional

Keywords for this news article include: Chiang Mai, Thailand, Asia, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Enzymes and Coenzymes, Primate Lentiviruses, Drugs and Therapies, Protease Inhibitors, Vertebrate Viruses, Enzyme Inhibitors, Antiretrovirals, HIV Infections, Retroviridae, RNA Viruses, Pediatrics, Antivirals, HIV/AIDS, Genetics, Therapy, Chiang Mai University.

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Hemophilia

Study Data from Children's Hospital Provide New Insights into Hemophilia (National needs assessment of patients treated at the United States Federally-Funded Hemophilia Treatment Centers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hemophilia is now available. According to news reporting originating in Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "The National Hemophilia Program Coordinating Center, with the U.S. Regional Hemophilia Network conducted a national needs assessment of U.S."

Financial support for this research came from Health Resources and Services Administration.

The news reporters obtained a quote from the research from Children's Hospital, "Hemophilia Treatment Center (HTC) patients. The objectives were to determine: (i) To what extent do patients report that they receive needed services and education; (ii) How well do the services provided meet their needs; and (iii) What are the patients' perspectives about their care. A survey was mailed to active patients of 129 HTCs. Respondents completed the anonymous surveys on line or returned them by mail. Questions focused on management and information, access and barriers to care, coping, resources, and transition. Of 24 308 questionnaires mailed, 4004 (16.5%) were returned. Most respondents reported very few gaps in needed services or information and reported that services and information met their needs. Over 90% agreed or strongly agreed that care was patient-centred and rated HTC care as important or very important. Identified gaps included dietary advice, genetic testing, information on ageing, sexual health and basic needs resources. Minority respondents reported more barriers. This survey is the largest assessment of the HTC population. Respondents reported that the services and information provided by the HTCs met their needs. Quality improvement opportunities include transition and services related to ageing and sexual health. Further investigation of barriers to care for minorities is underway."

According to the news reporters, the research concluded: "Results will help develop national priorities to better serve all patients in the US."


Our news correspondents report that additional information may be obtained by
contacting R.B. Butler, The Children's Hospital of Philadelphia Hemostasis and Thrombosis Center, Philadelphia, PA, United States. Additional authors for this research include A. Cheadle, D.J. Aschman, B. Riske, S. Senter, K.M. McLaughlin, G. Young, S. Ahuja and A.D Forsberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hae.12810. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Genetics, Hematology, Philadelphia, Pennsylvania, Hemophilia A, United States, North and Central America.

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Pharmacology

Study Data from China Pharmaceutical University Provide New Insights into Pharmacology (Overview of Oroxylin A: A Promising Flavonoid Compound)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacology. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Oroxylin A is one of the main active components extracted from Scutellariae radix. It has been proved that oroxylin A possesses a broad spectrum of pharmacological functions, including anti-cancer, antiinflammation, neuroprotective, anti-coagulation and so on."

Our news editors obtained a quote from the research from China Pharmaceutical University, "The pharmacological activity of oroxylin A has been studied in vitro and on animal models, which reflected its promising potency in disease treatment. This review aims to recapitulate the pharmacological function and the molecular mechanisms of oroxylin A, as well as its sources, extraction, synthesis and toxicity study."

According to the news editors, the research concluded: "These data confirmed the therapeutic potential of oroxylin A and provided reference for further development."


The news editors report that additional information may be obtained by contacting Q.L. Guo, China Pharmaceutical University, Jiangsu Key Lab Carcinogenesis & Intervent, State Key Lab Nat Med, Jiangsu Key Lab Drug Design & Optimizat, Nanjing 210009, Jiangsu, People's Republic of China. Additional authors for this research include Q.L. Guo and L. Zhao.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Therapy, Article Review, Pharmacology, China Pharmaceutical University.

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Study Data from Chulalongkorn University Update Knowledge of Chronic Hepatitis B Virus (Association of interferon-gamma inducible protein 10 polymorphism with treatment response to pegylated interferon in HBeAg-positive chronic hepatitis B)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Chronic Hepatitis B Virus is now available. According to news reporting originating in Bangkok, Thailand, by NewsRx journalists, research stated, "Interferon-gamma inducible protein 10 (IP-10) plays an important role in the clinical outcome of chronic hepatitis B (CHB). This study aimed to investigate the association between single nucleotide polymorphisms (SNPs) G-201A of the IP-10 gene and treatment response to pegylated interferon (PEG-IFN) in patients with hepatitis B e antigen (HBeAg)-positive CHB."

The news reporters obtained a quote from the research from Chulalongkorn University, "We retrospectively analysed data of patients with HBeAg-positive CHB treated with PEG-IFN for 48 weeks. Virological response (VR) was defined as HBeAg clearance and HBV DNA <2,000 IU/ml at 24 weeks post-treatment. The SNPs G-201A, IFNL3 (rs12979860) and HLA-DPA1 (rs3077) were assessed. Among 107 patients, VR was achieved in 45 (42.1%) patients. Hepatitis B surface antigen (HBsAg) clearance and decline (<100 IU/ml) were observed in 10 (9.3%) and 22 (20.6%) patients, respectively. The distribution of GG, GA and AA genotypes of G-201A was 76.6%, 19.6% and 3.7%, respectively. Patients with GG genotype, compared to those with non-GG genotype, achieved higher VR rate (48.8% versus 19.2%; P=0.011), decreased HBsAg (25.6% versus 4.0%; P=0.019), and demonstrated a trend in HBsAg clearance (11.0% versus 4%; P=0.294). Patients with GG genotype had more rapid HBsAg decline and higher baseline serum IP-10 levels than those with non-GG genotype (432.2 +/- 339.0 versus 257.3 +/- 145.7 pg/ml; P=0.028). SNPs rs12979860 and rs3077 were not associated with VR. Logistic regression analysis suggested that SNP G-201A was an independent predictor of VR (odds ratio 3.81, 95% CI 1.31, 11.12; P=0.014)."

According to the news reporters, the research concluded: "Data from this study demonstrated for the first time that IP-10 polymorphism is independently associated with treatment response to PEG-IFN in patients with HBeAg-positive CHB."


Our news correspondents report that additional information may be obtained by contacting P. Tangkijvanch, Chulalongkorn University, Dept. of Biochem, Res Unit Hepatitis & Liver Canc, Fac Med, Bangkok, Thailand. Additional authors for this research include N. Chuaypen, A. Khaiphuesin, N. Posuwan, R. Wasitthaksam, Y. Poovorawan and P. Tangkijvanch.

Keywords for this news article include: Bangkok, Thailand, Asia, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Macrophage-Activating Factors, Liver Diseases and Conditions, Chronic Hepatitis B Virus, Biological Factors, Interferon-gamma, Gastroenterology, Lymphokines, Interferons, Cytokines, Antigens, Genetics, Chulalongkorn University.
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Oncology - Colon Cancer

Study Data from Chungbuk National University Update Understanding of Colon Cancer (Muscarinic acetylcholine receptors mediate eIF4B phosphorylation in SNU-407 colon cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting originating from Cheongju, South Korea, by NewsRx correspondents, research stated, "We have previously shown that muscarinic acetylcholine receptors (mAChRs) promote global protein biosynthesis in SNU-407 colon cancer cells. To gain insight into the molecular mechanisms underlying this event, we examined whether mAChRs regulate the phosphorylation of eIF4B (eukaryotic initiation factor 4B), an essential component of the translation machinery."

Financial support for this research came from National Research Foundation of Korea.

Our news editors obtained a quote from the research from Chungbuk National University, "When SNU-407 cells were treated with the cholinergic agonist carbachol, eIF4B was phosphorylated in a dose- and time-dependent manner. This carbachol effect was almost completely blocked by the muscarinic antagonist atropine, demonstrating that mAChRs specifically mediate the phosphorylation of eIF4B. Carbachol-stimulated eIF4B phosphorylation was significantly reduced by the MEK1/2 inhibitor U0126, indicating that the MEK1/2-ERK1/2 pathway plays an important role in mAChR-mediated eIF4B phosphorylation. However, treating the cells with the phosphoinositide 3-kinase (PI3K) inhibitor LY294002 or the mTORC1 (mammalian target of rapamycin complex 1) inhibitor rapamycin had little effect on carbachol-stimulated eIF4B phosphorylation, suggesting that PI3K and mTORC1 are not the key participants in this process. We also observed that the inhibition of protein kinase C (PKC) by GF109203X greatly diminished carbachol-stimulated eIF4B phosphorylation."

According to the news editors, the research concluded: "Together, our data show that mAChRs modulate eIF4B phosphorylation via the ERK1/2 and PKC signaling pathways in SNU-407 colon cancer cells."

For more information on this research see: Muscarinic acetylcholine receptors mediate eIF4B phosphorylation in SNU-407 colon cancer cells. Biochemical and Biophysical Research Communications, 2016;480(3):450-454. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

The news editors report that additional information may be obtained by contacting N.J. Cho, Chungbuk National University, Dept. of Biochem, Coll Nat Sci, Cheongju 28644, South Korea.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.069. This DOI is a link to an online electronic document that is either free or for purchase.
Study Data from Churchill Hospital Update Knowledge of Chronic Kidney Disease (Interventions for chronic kidney disease-associated restless legs syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Kidney Diseases and Conditions - Chronic Kidney Disease. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "Restless legs syndrome (RLS) is defined as the spontaneous movement of the limbs (mainly legs) associated with unpleasant, sometimes painful sensation which is relieved by moving the affected limb. Prevalence of RLS among people on dialysis has been estimated between 6.6% and 80%.

Our news journalists obtained a quote from the research from Churchill Hospital, "RLS symptoms contribute to impaired quality of life and people with RLS are shown to have increased cardiovascular morbidity and mortality. Various pharmacological and non-pharmacological interventions have been used to treat primary RLS. However, the evidence for use of these interventions in people with chronic kidney disease (CKD) is not well established. The agents used in the treatment of primary RLS may be limited by the side effects in people with CKD due to increased comorbidity and altered drug pharmacokinetics. The aim of this review was to critically look at the benefits, efficacy and safety of various treatment options used in the treatment of RLS in people with CKD and those undergoing renal replacement therapy (RRT). We aimed to define different group characteristics based on CKD stage to assess the applicability of a particular intervention to an individual patient. Search methods We searched the Cochrane Kidney and Transplant Specialised Register to 12 January 2016 through contact with the Information Specialist using search terms relevant to this review. Selection criteria Randomised controlled trials (RCT) and quasi-RCTs that assessed the efficacy of an intervention for RLS in adults with CKD were eligible for inclusion. Studies investigating idiopathic RLS or RLS secondary to other causes were excluded. Data collection and analysis Two authors independently assessed studies for eligibility and conducted risk of bias evaluation. Results were expressed as risk ratios (RR) and their 95% confidence intervals (CI) for dichotomous outcomes, and mean difference (MD) and 95% CI for continuous outcomes. We included nine studies enrolling 220 dialysis participants. Seven studies were deemed to havemoderate to high risk of bias. All studies were small in size and had a short follow-up period (two to six months). Studies evaluated the effects of six different interventions against placebo or standard treatment. The interventions studied included aerobic resistance exercise, gabapentin, ropinirole, levodopa, iron dextran, and vitamins C and E (individually and in combination). Aerobic resistance exercise showed a significant reduction in severity of RLS compared to no exercise (2 studies, 48 participants: MD 7.56, 95% CI - 14.20 to - 0.93; I-2 = 65%), and when compared to exercise with no resistance (1 study, 24 participants: MD - 11.10, 95% CI - 17.11 to - 5.09), however there was no significant reduction when compared to
ropinirole (1 study, 22 participants): MD - 0.55, 95% CI - 6.41 to 5.31). There were no significant differences between aerobic resistance exercise and either no exercise or ropinirole in the physical or mental component summary scores (using the SF-36 form). Improvement in sleep quality varied. There was no significant difference in subjective sleep quality between exercise and no exercise; however one study reported a significant improvement with ropinirole compared to resistance exercise (MD 3.71, 95% CI 0.89 to 6.53). Using the Epworth Sleepiness Scale there were no significant differences between resistance exercise and no exercise, ropinirole, or exercise with no resistance. Two studies reported there were no adverse events and one study did not mention if there were any adverse events. In one study, one patient in each group dropped out but the reason for dropout was not reported. Two studies reported no adverse events and one study did not report adverse events. Gabapentin was associated with reduced RLS severity when compared to placebo or levodopa, and there was a significant improvement in sleep quality, latency and disturbance reported in one study when compared to levodopa. Three patients dropped out due to lethargy (2 patients), and drowsiness, syncope and fatigue (1 patient). Because of a short duration of action, rebound and augmentation were noted with levodopa treatment even though it conferred some benefit in reducing the symptoms of RLS. Reported adverse events were severe vomiting, agitation after caffeine intake, headaches, dry mouth, and gastrointestinal symptoms. One study (25 participants) reported iron dextran reduced the severity of RLS at weeks one and two, but not at week four. Vitamins C, E and C plus E (1 study, 60 participants) helped the symptoms of RLS with minimal side effects (nausea and dyspepsia) but more evidence is needed before any conclusions can be drawn. Authors' conclusions Given the small size of the studies and short follow-up, it can only be concluded that pharmacological interventions and intra-dialytic exercise programs have uncertain effects on RLS in haemodialysis patients. There have been no studies performed in non-dialysis CKD, peritoneal dialysis patients, or kidney transplant recipients. Further studies are warranted before any conclusions can be drawn."

According to the news editors, the research concluded: "Aerobic resistance exercise and ropinirole may be suitable interventions for further evaluation."

For more information on this research see: Interventions for chronic kidney disease-associated restless legs syndrome. Cochrane Database of Systematic Reviews, 2016;(11):1184-1234. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from S. Gopaluni, Churchill Hospital, Dept. of Renal Med, Oxford Kidney Unit, Oxford, United Kingdom. Additional authors for this research include M. Sherif and N.A. Ahmadouk.

Keywords for this news article include: Oxford, United Kingdom, Europe, Nervous System Diseases and Conditions, Dopaminergic Antiparkinsonism Agents, Kidney Diseases and Conditions, Central Nervous System Agents, Sleep Diseases and Conditions, Intrinsic Sleep Disorders, Therapy, Article Review, Dihydroxyphenylalanine, Adverse Drug Reactions, Restless Legs Syndrome, Chronic Kidney Disease, Antiparkinson Agents, Drugs and Therapies, Ropinirole Therapy, Levodopa Therapy, Dopamine Agonist, Pharmaceuticals, Antidyskinetic, Pharmacology, Amino Acids, Parasomnias, Dyssomnias, Churchill Hospital.

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Drugs and Therapies - Antibiotics

Study Data from College of Pharmacy Update Understanding of Antibiotics (Aerobic Exercise Training as a Potential Cardioprotective Strategy to Attenuate Doxorubicin-Induced Cardiotoxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Antibiotics. According to news reporting from Miami, Florida, by NewsRx journalists, research stated, "Doxorubicin is one of the most commonly used cytotoxic anticancer drugs against several cancers. Although a highly effective anticancer drug, the clinical use of doxorubicin is severely limited by its cardiotoxicity which results in morbidity, poor quality of life, and premature mortality."

The news correspondents obtained a quote from the research from the College of Pharmacy, "Only very few clinically accepted methods to minimize doxorubicin-induced cardiac injury are available today, but none of them have proven to be completely successful. Due to limited alternative strategies, a number of potential cardioprotective therapies are currently being investigated for treating and/or preventing doxorubicin-induced cardiotoxicity. Of these potential strategies, aerobic exercise training is the only nonpharmacologic strategy that shows a great deal of promise. Although there are no published human clinical trials, evidence from numerous animal studies suggests that aerobic exercise training, administered prior to, during and/or following doxorubicin therapy, is protective against doxorubicin-induced cardiac injury. Protective properties of exercise training against the cardiotoxicity of doxorubicin have been attributed to a number of potential molecular mechanisms including: enhancing the production of endogenous antioxidant machineries; regulating proapoptotic signaling; stimulating the release, mobilization and homing of cardiac progenitor cells; limiting myocyte turnover; eliciting favorable adaptations in myocardial calcium handling and preventing calcium overload; modulating cardiac AMPK activity; downregulating cardiac autophagy/lysosomal signaling; and reducing myocardial doxorubicin accumulation."

According to the news reporters, the research concluded: "Further preclinical and clinical research is needed to decipher and refine the molecular mechanisms underlying the cardioprotective effects of exercise training, as well as to define the nature and magnitude of the effect of exercise on doxorubicin-induced cardiotoxicity in cancer patients."


Our news journalists report that additional information may be obtained by contacting M.N. Uddin, Larkin Hlth Sci Inst, Coll Pharm, Dept. of Pharmaceut Sci, Miami, FL 33169, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18433/J3JS5R. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miami, Florida, United States, North and Central America, Doxorubicin Therapy Hydrochloride, Antibiotics - Antineoplastics, Drugs and Therapies, Pharmaceuticals, Cancer Therapy, Cardiology, College of Pharmacy.
Drugs and Therapies - Mitotic Inhibitors

Study Data from Cumhuriyet University Provide New Insights into Mitotic Inhibitors (The effects of intraperitoneal chemotherapeutic agents on adhesion formation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Mitotic Inhibitors are discussed in a new report. According to news reporting originating in Sivas, Turkey, by NewsRx journalists, research stated, "Intra-abdominal adhesions are a major complication of healing. Furthermore these adhesions may cause morbidity and sometimes mortality for patients, and also are a financial burden to the health system."

The news reporters obtained a quote from the research from Cumhuriyet University, "Cecum abrasion was performed in all rats and solutions containing saline to group 1, 5-fluorouracil to group 2, cisplatin to group 3, paclitaxel to the group 4, and mitomycin-C were administered into the abdomen of the groups, respectively. The intra-abdominal adhesions were scored after the macroscopic evaluation. Among the chemotherapeutic drugs, paclitaxel significantly increases occurring of intra-abdominal adhesions in comparison with the control group and the other drugs according to the evaluation of scoring and statistical studies."

According to the news reporters, the research concluded: "It is suggested to use the drugs which have a proven anti-adhesion feature or barriers to the patients who are going to be applied intraperitoneal chemotherapy with paclitaxel."


Our news correspondents report that additional information may be obtained by contacting C. Yildiz, Cumhuriyet University, Sch Med, Dept. of Obstet & Gynecol, Sivas, Turkey. Additional authors for this research include C. Yildiz, S. Karakus, M. Koc, M. Dogan, M. Turan and K. Karadayi.

Keywords for this news article include: Sivas, Turkey, Eurasia, Drugs and Therapies, Paclitaxel Therapy, Mitotic Inhibitors, Pharmaceuticals, Antineoplastics, Cumhuriyet University.

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Drugs and Therapies - Amiodarone Therapy

Study Data from D.C. Millard and Colleagues Update Understanding of Amiodarone Therapy (Identification of Drug-Drug Interactions In Vitro: A Case Study Evaluating the Effects of Sofosbuvir and Amiodarone on hiPSC-Derived Cardiomyocytes)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Amiodarone Therapy is now available. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "Drug-drug interactions pose a difficult drug safety problem, given the increasing number of individuals taking multiple medications and the relative complexity of assessing the potential for interactions. For example, sofosbuvir-based drug treatments have significantly advanced care for hepatitis C virus-infected patients, yet recent reports suggest interactions with amiodarone may cause severe symptomatic bradycardia and thus limit an otherwise extremely effective treatment."

The news correspondents obtained a quote from the research, "Here, we evaluated the ability of human induced pluripotent stem cell derived cardiomyocytes (hiPSC-CMs) to recapitulate the interaction between sofosbuvir and amiodarone in vitro, and more generally assessed the feasibility of hiPSC-CMs as a model system for drug-drug interactions. Sofosbuvir alone had negligible effects on cardiomyocyte electrophysiology, whereas the sofosbuvir-amiodarone combination produced dose-dependent effects beyond that of amiodarone alone. By comparison, GS-331007, the primary circulating metabolite of sofosbuvir, had no effect alone or in combination with amiodarone. Further mechanistic studies revealed that the sofosbuvir-amiodarone combination disrupted intracellular calcium (Ca2+) handling and cellular electrophysiology at pharmacologically relevant concentrations, and mechanical activity at supra-pharmacological (30x C-max) concentrations. These effects were independent of the common mechanisms of direct ion channel block and P-glycoprotein activity."

According to the news reporters, the research concluded: "These results support hiPSC-CMs as a comprehensive, yet scalable model system for the identification and evaluation of cardioactive pharmacodynamic drug-drug interactions."


Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Amiodarone Therapy Hydrochloride, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Electrophysiology, Pharmaceuticals, Cardiomyocyte, Cardiology.

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Oncology - Non-Small Cell Lung Cancer

Study Data from Dalian Medical University Provide New Insights into Non-Small Cell Lung Cancer (Novel Selective and Potent EGFR Inhibitor that Overcomes T790M-Mediated Resistance in Non-Small Cell Lung Cancer)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news reporting originating from Dalian, People's Republic of China, by NewsRx correspondents, research stated, "Treating patients suffering from EGFR mutant non-small cell lung cancer (NSCLC) with first-generation EGFR tyrosine kinase inhibitors (EGFR TKI) provides excellent response rates. However, approximately 60% of all patients ultimately develop drug resistance due to a second T790M EGFR TKI mutation."

Our news editors obtained a quote from the research from Dalian Medical University, "In this study, we report the novel molecule N-(3-((5-chloro-2-(4-((1-morpholino)methyl)phenylamino)-4-pyrimidinyl)amino)phenyl)acrylamide (DY3002) to preferentially inhibit the EGFR T790M mutant (EGFR(T790M)) (IC50 = 0.71 nM) over wild-type EGFR (IC50 = 448.7 nM) in kinase assays. Compared to rociletinib (SI = 21.4) and osimertinib (SI = 40.9), it significantly increased selectivity (SI = 632.0) against EGFR T790M over wild-type EGFR. Furthermore, in cell-based tests, DY3002, with an IC50 value of 0.037 mM, exhibited enhanced inhibitory potency against H1975 cells. Moreover, AO/EB and DAPI staining assays as well as flow cytometer analyses indicated that DY3002 possesses superior biological properties compared to alternatives. In addition, a rat oral glucose tolerance test revealed that treatment with high drug doses (50 mg/kg) of DY3002 did not result in hyperglycemia, suggesting a reduction of side effects in NSCLC patients will be achievable relative to established EGFR inhibitors."

According to the news editors, the research concluded: "In summary, our findings indicate DY3002 as a promising preclinical candidate for effective treatment of patients with EGFR T790M-mutated NSCLC."

For more information on this research see: Novel Selective and Potent EGFR Inhibitor that Overcomes T790M-Mediated Resistance in Non-Small Cell Lung Cancer. *Molecules*, 2016;21(11):664-677. *Molecules* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

The news editors report that additional information may be obtained by contacting Y.X. Li, Dalian Med Univ, Affiliated Hosp 1, Dept. of Resp Med, Dalian 116011, Liaoning Prov, People's Republic of China. Additional authors for this research include Z.D. Song, Y. Jin, Z.Y. Tang, J. Kang and X.D. Ma.

Keywords for this news article include: Dalian, People's Republic of China, Asia, Non-Small Cell Lung Cancer, Enzymes and Coenzymes, Lung Neoplasms, Oncology, Genetics, Kinase, Dalian Medical University.

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**Life Science Research - Molecular Biology**

**Study Data from Dana-Farber Cancer Institute Provide New Insights into Molecular Biology (PKM2, cancer metabolism, and the road ahead)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Life Science Research - Molecular Biology are presented in a new report. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "A major metabolic aberration associated with cancer is a change in glucose metabolism. Isoform selection of the glycolytic enzyme pyruvate kinase has been implicated in
the metabolic phenotype of cancer cells, and specific pyruvate kinase isoforms have been suggested to support divergent energetic and biosynthetic requirements of cells in tumors and normal tissues."

Our news journalists obtained a quote from the research from Dana-Farber Cancer Institute, "PKM2 isoform expression has been closely linked to embryogenesis, tissue repair, and cancer. In contrast, forced expression of the PKM1 isoform has been associated with reduced tumor cell proliferation. Here, we discuss the role that PKM2 plays in cells and provide a historical perspective for how the study of PKM2 has contributed to understanding cancer metabolism."

According to the news editors, the research concluded: "We also review recent studies that raise important questions with regard to the role of PKM2 in both normal and cancer cell metabolism."

For more information on this research see: PKM2, cancer metabolism, and the road ahead. EMBO Reports, 2016;17(12):1721-1730. EMBO Reports can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Nature Publishing Group - www.nature.com; EMBO Reports - www.nature.com/embr/)

Our news journalists report that additional information may be obtained by contacting M.G. Vander Heiden, Dana Farber Canc Inst, Dept. of Med Oncol, Boston, MA 02115, United States. Additional authors for this research include T. Jacks and M.G. Vander Heiden.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.15252/embr.201643300. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Molecular Biology, Life Science Research, Kinase, Article Review, Enzymes and Coenzymes, Oncology, Cancer, Dana-Farber Cancer Institute.

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Oncology - Carcinomas

Study Data from Dana-Farber Cancer Institute Update Understanding of Carcinomas (Outcomes with volume-based dose specification in CT-planned high-dose-rate brachytherapy for stage I-II cervical carcinoma: A 10-year institutional experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Carcinomas have been presented. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "To determine prognostic factors for progression-free survival (PFS) and overall survival (OS) for stage I-II cervical-cancer patients treated using computed-tomography (CT)-planned high-dose-rate (HDR) intracavitary brachytherapy (BT). A total of 150 patients were treated for Stage I-II cervical cancer using CT-planned BT between 4/2004 and 10/2014."

Financial support for this research came from NIH.

Our news journalists obtained a quote from the research from Dana-Farber Cancer Institute, "Of these, 128 were eligible for inclusion. Kaplan-Meier local control (LC), pelvic
control (PC), overall survival (OS), and PFS estimates were calculated. After a median follow-up of 30 months, the 2-year LC rate was 96%, PFS was 88%, and OS was 88%. Overall, 18 patients (14%) experienced any recurrence (AR), 8 had distant recurrence only and 10 had a combination of local, pelvic, regional, and distant recurrence. No patients had LR only. A prognostic factor for AR was tumor size >4 cm (p = 0.01). Patients with tumors >4 cm were 3.3 times more likely to have AR than those with tumors cm (hazard ratio [FIR] = 3.3; 95% confidence interval [CI] 128-9.47). Point A was 85% of prescription for tumors < 4 cm and decreased approximately 3% over 5 fractions compared to 90% of prescription for tumors > 4 cm that decreased approximately 4% over 5 fractions. Two patients (2%) experienced grade 2 late toxicity. There were no acute or late grade >= 3 toxicities. CT-planned BT resulted in excellent local control and survival. Large tumor size was associated with an increased risk of recurrence outside the radiation field and worse PFS and OS. A volume-optimized plan treated a smaller area than a point A standard plan for patients with Stage I-II cervical cancer that have received chemoradiation."

According to the news editors, the research concluded: "Given the outstanding LC achieved with modern therapy including chemoradiation, HDR, and image-based BT, further efforts to combat spread outside the radiation field with novel therapies are warranted."

For more information on this research see: Outcomes with volume-based dose specification in CT-planned high-dose-rate brachytherapy for stage I-II cervical carcinoma: A 10-year institutional experience. Gynecologic Oncology, 2016;143(3):545-551. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)

The news correspondents report that additional information may be obtained from L.P. Cho, Dana Farber Canc Inst, Boston, MA 02115, United States. Additional authors for this research include M. Manuel, P. Catalano, L. Lee, A.L. Damato, R.A. Cormack, I. Buzurovic, M. Bhagwat, D. O'Farrell, P.M. Devlin and A.N. Viswathan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ygyno.2016.09.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cancer, Risk and Prevention, Drugs and Therapies, Brachytherapy, Radiotherapy, Carcinomas, Oncology, Therapy, Dana-Farber Cancer Institute.

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**Cardiology**

**Study Data from Department of Cardiology Update Knowledge of Cardiology (Risk Factors Associated with Left-Sided Cardiac Valve Calcification: A Case Control Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiology. According to news reporting originating in Jiangyin, People's Republic of China, by NewsRx journalists, research stated, "To identify risk factors associated with cardiac valve calcification that is easily detectable through routine blood tests in patients who received valve replacement therapy. Four
hundred patients with valvular heart disease who underwent valve replacement surgery between December 2009 and January 2013 were enrolled in this study."

The news reporters obtained a quote from the research from the Department of Cardiology, "Of these, 77 had valve calcification; the other 323 did not. Multivariate logistic regression analysis was used to assess for risk factors associated with valve calcification. In our study population, rheumatic valve lesions were the most common reason for valve replacement. Degenerative nonstenotic valve lesion was a protective factor and degenerative stenotic valve lesion was a strong risk factor for valve calcification. Serum levels of gamma-glutamyl transferase (GGT) of between 30 and 46 IU/l and >90 IU/l and total bilirubin (TBIL) of between 15 and 20 mmol/l were positively correlated with valve calcification. Meanwhile, serum calcium (Ca2+) levels of between 2.3 and 2.4 mmol/l were negatively correlated with rheumatic valve calcification. Degenerative stenotic lesion is a risk factor and degenerative nonstenotic lesion a protective factor for cardiac valve calcification."

According to the news reporters, the research concluded: "Serum GGT and TBIL levels are positively correlated and serum Ca2+ levels negatively correlated with rheumatic cardiac valve calcification."

For more information on this research see: Risk Factors Associated with Left-Sided Cardiac Valve Calcification: A Case Control Study. Cardiology, 2016;134(1):26-33. Cardiology can be contacted at: S. Karger AG, Allschwilerstrasse 10, CH-4009 Basel, Switzerland. (Karger - www.karger.com; Cardiology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=223832)

Our news corresponds report that additional information may be obtained by contacting M. Jiang, Dept. of Cardiology, Jiangyin Hospital of Traditional Chinese Medicine, Jiangyin, People's Republic of China. Additional authors for this research include L. Wang, Q. Xuan, Y. Shao, X. Kong and W. Sun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000443203. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Cardiology can be contacted at: S. Karger AG, Allschwilerstrasse 10, CH-4009 Basel, Switzerland.

Keywords for this news article include: Asia, Jiangyin, Cardiology, Risk and Prevention, People's Republic of China.

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Transfusion Medicine - Blood Transfusion

Study Data from Department of Hematology Provide New Insights into Blood Transfusion (Lenalidomide with or without erythropoietin in transfusion-dependent erythropoiesis-stimulating agent-refractory lower-risk MDS without 5q deletion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transfusion Medicine - Blood Transfusion. According to news reporting from Creteil, France, by NewsRx journalists, research stated, "After failure of erythropoiesis-stimulating agents (ESAs), lenalidomide (LEN) yields red blood cell (RBC) transfusion independence (TI) in 20-30% of lower-risk non-del5q
myelodysplastic syndrome (MDS). Several observations suggest an additive effect of ESA and LEN in this situation."

The news correspondents obtained a quote from the research from the Department of Hematology, "We performed a randomized phase III study in 131 RBC transfusion-dependent (TD, median transfusion requirement six RBC units per 8 weeks) lower-risk ESA-refractory non-del5q MDS. Patients received LEN alone, 10 mg per day, 21 days per 4 weeks (L arm) or LEN (same schedule) + erythropoietin (EPO) beta, 60,000 U per week (LE arm). In an intent-to-treat (ITT) analysis, erythroid response (HI-E, IWG 2006 criteria) after four treatment cycles (primary end point) was 23.1% (95% CI 13.5-35.2) in the L arm and 39.4% (95% CI 27.6-52.2) in the LE arm (p=0.044), while RBC-TI was reached in 13.8 and 24.2% of the patients in the L and LE arms, respectively (p=0.13). Median response duration was 18.1 and 15.1 months in the L and LE arms, respectively (p=0.47). Side effects were moderate and similar in the two arms. Low baseline serum EPO level and a G polymorphism of CRBN gene predicted HI-E."

According to the news reporters, the research concluded: "Combining LEN and EPO significantly improves erythroid response over LEN alone in lower-risk non-del5q MDS patients with anemia resistant to ESA."

For more information on this research see: Lenalidomide with or without erythropoietin in transfusion-dependent erythropoiesis-stimulating agent-refractory lower-risk MDS without 5q deletion. Leukemia, 2015;30(4):897-905. (Nature Publishing Group - www.nature.com/; Leukemia - www.nature.com/leu/)

Our news journalists report that additional information may be obtained by contacting A. Toma, Dept. of Hematology, Hopital Universitaire Henri Mondor, Assistance Publique-Hopitaux de Paris (APHP) and Paris 12 University, Creteil, France. Additional authors for this research include O. Kosmider, S. Chevret, J. Delaunay, A. Stamatoullas, C. Rose, O. Beyne-Rauzy, A. Banos, A. Guerci-Bresler, S. Wickenhauser, D. Caillot, K. Laribi, B. De Renzis, D. Bordessoule, C. Gardin, B. Slama, L. Sanhes and .

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/leu.2015.296. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: France, Europe, Creteil, Genetics, Cytokines, Hematology, Erythropoiesis, Erythropoietin, Medical Devices, Blood Transfusion, Biological Factors, Transfusion Medicine, Colony Stimulating Factors, Intercellular Signaling Peptides and Proteins.

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**Stem Cell Research - Hematopoietic Stem Cells**

**Study Data from Department of Infectious Disease Update**

**Understanding of Hematopoietic Stem Cells (Chlorhexidine bathing for the prevention of colonization and infection with multidrug-resistant microorganisms in a hematopoietic stem cell ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Stem Cell Research - Hematopoietic Stem Cells have been presented. According to news reporting originating from Sao Paulo, Brazil, by NewsRx correspondents, research stated, "Health care associated infections (HAIs) are currently among
the major challenges to the care of hematopoietic stem cell transplantation (HSCT) patients. The objective of the present study was to evaluate the impact of 2% chlorhexidine (CHG) bathing on the incidence of colonization and infection with vancomycin-resistant Enterococcus (VRE), multidrug-resistant (MDR) gram-negative pathogens, and to evaluate their CHG minimum inhibitory concentration (MIC) after the intervention.

Our news editors obtained a quote from the research from the Department of Infectious Disease, "A quasi-experimental study with duration of 9 years was conducted. VRE colonization and infection, HAI rates, and MDR gramnegative infection were evaluated by interrupted time series analysis. The antibacterial susceptibility profile and mechanism of resistance to CHG were analyzed in both periods by the agar dilution method in the presence or absence of the efflux pump inhibitor carbonyl cyanide-m-chlorophenyl hydrazone (CCCP) and presence of efflux pumps (qacA/E, qacA, qacE, cepA, AdeA, AdeB, and AdeC) by polymerase chain reaction (PCR). The VRE colonization and infection rates were significantly reduced in the postintervention period (P=0.001). However, gramnegative MDR rates in the unit increased in the last years of the study. The CHG MICs for VRE increased during the period of exposure to the antiseptic. A higher MIC at baseline period was observed in MDR gram-negative strains. The emergence of a monoclonal Pseudomonas aeruginosa clone was observed in the second period."

According to the news editors, the research concluded: "Concluding, CHG bathing was efficient regarding VRE colonization and infection, whereas no similar results were found with MDR gram-negative bacteria."

For more information on this research see: Chlorhexidine bathing for the prevention of colonization and infection with multidrug-resistant microorganisms in a hematopoietic stem cell transplantation unit over a 9-year period Impact on chlorhexidine susceptibility. Medicine, 2016;95(46):146-153. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting E.T. Mendes, Univ Sao Paulo??Inst Heart, Dept. of Infect Dis, Sao Paulo, Brazil. Additional authors for this research include O.T. Ranzani, A.P. Marchi, M.T. da Silva, J.U. Amigo, T. Alves, T. Guimaraes, A.S. Levin and S.F. Costa.

Keywords for this news article include: Sao Paulo, Brazil, South America, Hematopoietic Stem Cells, Cell Transplantation, Transplant Medicine, Stem Cell Research, Bone Marrow Cells, Cell Transplants, Chlorhexidine, Biomedicine, Hematology, Biguanides, Surgery, Department of Infectious Disease.

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Leukocyte Diseases and Conditions - Neutropenia

Study Data from Department of Pediatrics Provide New Insights into Neutropenia (Hydroxyurea for reducing blood transfusion in non-transfusion dependent beta thalassaemias)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Leukocyte Diseases and Conditions - Neutropenia. According to news reporting from George Town, Malaysia, by NewsRx
journalists, research stated, "Non-transfusion dependent beta thalassaemia is a subset of inherited haemoglobin disorders characterised by reduced production of the beta globin chain of the haemoglobin molecule leading to anaemia of varying severity. Although blood transfusion is not a necessity for survival, it is required when episodes of chronic anaemia occur."

The news correspondents obtained a quote from the research from the Department of Pediatrics, "This chronic anaemia can impair growth and affect quality of life. People with non-transfusion dependent beta thalassaemia suffer from iron overload due to their body's increased capability of absorbing iron from food sources. Iron overload becomes more pronounced in those requiring blood transfusion. People with a higher foetal haemoglobin level have been found to require fewer blood transfusions. Hydroxyurea has been used to increase foetal haemoglobin level; however, its efficacy in reducing transfusion, chronic anaemia complications and its safety need to be established. To assess the effectiveness, safety and appropriate dose regimen of hydroxyurea in people with non-transfusion dependent beta thalassaemia (haemoglobin E combined with beta thalassaemia and beta thalassaemia intermedia).

Search methods We searched the Cochrane Cystic Fibrosis and Genetic Disorders Group's Haemoglobinopathies Trials Register, compiled from electronic database searches and handsearching of relevant journals. We also searched ongoing trials registries and the reference lists of relevant articles and reviews. Date of last search: 30 April 2016. Selection criteria Randomised or quasi-randomised controlled trials of hydroxyurea in people with non-transfusion dependent beta thalassaemia comparing hydroxyurea with placebo or standard treatment or comparing different doses of hydroxyurea. Data collection and analysis Two authors independently applied the inclusion criteria in order to select trials for inclusion. Both authors assessed the risk of bias of trials and extracted the data. A third author verified these assessments. No trials comparing hydroxyurea with placebo or standard care were found. However, we included one randomised controlled trial (n = 61) comparing 20 mg/kg/day with 10 mg/kg/day of hydroxyurea for 24 weeks. Both haemoglobin and foetal haemoglobin levels were lower at 24 weeks in the 20 mg group compared with the 10 mg group, mean difference -2.39 (95% confidence interval -2.8 to -1.98) and mean difference -1.5 (95% confidence interval -1.83 to -1.17), respectively. Major adverse effects were significantly more common in the 20 mg group, for neutropenia risk ratio 9.93 (95% confidence interval 1.34 to 73.97) and for thrombocytopenia risk ratio 3.68 (95% confidence interval 1.13 to 12.07). No difference was reported for minor adverse effects (gastrointestinal disturbances and raised liver enzymes). The effect of hydroxyurea on transfusion frequency was not reported. The overall quality for the outcomes reported was graded as very low mainly because the outcomes were derived from only one small study with an unclear method of allocation concealment. Authors' conclusions There is no evidence from randomised controlled trials to show whether hydroxyurea has any effect compared with controls on the need for blood transfusion. Administration of 10 mg/kg/day compared to 20 mg/kg/day of hydroxyurea resulted in higher haemoglobin levels and seems safer with fewer adverse effects. It has not been reported whether hydroxyurea is capable of reducing the need for blood transfusion."

According to the news reporters, the research concluded: "Large well-designed randomised controlled trials with sufficient duration of follow up are recommended."

For more information on this research see: Hydroxyurea for reducing blood transfusion in non-transfusion dependent beta thalassaemias. Cochrane Database of Systematic Reviews, 2016;(10):1659-1694. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting W.C. Foong, Penang Med College, Dept. of Paediat, George Town 10450, Malaysia. Additional authors for this research include J.J. Ho, C.K. Loh and V. Viprakasit.
Hormones

Study Data from Duke University Update Knowledge of Hormones
(Thyroid hormone use during cardiac transplant organ procurement)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hormones. According to news reporting from Durham, North Carolina, by NewsRx journalists, research stated, "Acute hypothyroidism after brain death results in hemodynamic impairments that limit availability of donor hearts. Thyroid hormone infusions can halt that process and lead to increased utilization of donor organs, but prolonged use of thyroid replacement has not been well studied."

Financial support for this research came from National Institutes of Health.

The news correspondents obtained a quote from the research from Duke University, "We developed a 15-question survey regarding policies, procedures, and reporting of thyroid hormone use by organ procurement organizations (OPOs). The survey was posted for 5 weeks on the Association of OPOs Portal. We received 29 responses, representing 24 OPOs. Seventy-two percent reported their OPOs use thyroid hormone for all potential donors and 90% have a protocol for thyroid hormone use. There is a large variation in the maximum dose of thyroid hormone used, and many OPOs have no weaning protocol. Most OPOs do not collect data on total thyroid hormone administered during procurement and would favor more detailed report of thyroid hormone use. Thyroid hormone use can have important implications for organ selection and cardiac function before and after transplantation. Protocols vary widely with respect to why and how to use and wean thyroid hormone."

According to the news reporters, the research concluded: "We believe there should be more detailed reporting of thyroid hormone use for future studies to ensure appropriate donor management."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ctr.12860. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Durham, North Carolina, United States, North and Central America, Thyroid Hormones, Cardiology, Duke University.

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Neurodegenerative Diseases and Conditions -

Study Data from Durham University Update Understanding of Alzheimer Disease (ImmunoPEGliposome-mediated reduction of blood and brain amyloid levels in a mouse model of Alzheimer's disease is restricted to aged animals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Neurodegenerative Diseases and Conditions - Alzheimer Disease is the subject of a report. According to news reporting out of Stockton on Tees, United Kingdom, by NewsRx editors, research stated, "The accumulation of extracellular amyloid-beta (A beta) and intracellular neurofibrillary tangles (hyper-phosphorylated Tau) in the brain are two major neuropathological hallmarks of Alzheimer's disease (AD). Active and passive immunotherapy may limit cerebral A beta deposition and/or accelerate its clearance."

Financial support for this research came from European Community's Seventh Framework Programme.

Our news journalists obtained a quote from the research from Durham University, "With the aid of a newly characterized monoclonal anti-A beta antibody we constructed immunoPEGliposomes with high avidity for capturing A beta in the periphery. The functionality of these vesicles in modulating A beta uptake by both human brain capillary endothelial hCMEC/D3 cells (suppressing uptake) and THP-1 phagocytes (stimulating uptake) was confirmed in vitro. The multivalent immunoliposomes dramatically reduced circulating and brain levels of A beta(1-40), and particularly A beta(1-42), in 'aged' (16 month-old), but not 'adult' (10 month-old) APP/PS1 transgenic mice on repeated intraperitoneal administration. Furthermore, the immunoPEGliposome-mediated reduction in amyloidosis correlated with lower levels of glial fibrillary acidic protein (GFAP) and reactive glia (GFAP-positive cells). This treatment also lowered the ratio of phosphorylated Tau to total Tau. The therapeutic efficacy of immunoliposome treatment was superior to free monoclonal antibody administration (at an equivalent antibody dose)."

According to the news editors, the research concluded: "The potential mechanisms and significance of age-dependent immunoliposome therapy in AD is discussed."

For more information on this research see: ImmunoPEGliposome-mediated reduction of blood and brain amyloid levels in a mouse model of Alzheimer's disease is restricted to aged animals. Biomaterials, 2017;112():141-152. Biomaterials can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)

Our news journalists report that additional information may be obtained by contacting S.M. Moghimi, University of Durham, Sch Med Pharm & Hlth, Stockton On Tees TS17 6BH, United Kingdom. Additional authors for this research include A. Posado-Fernandez, D. Ahmadvand, B. L ettiero, L.P. Wu, M. Anton, O. Flores, S.M. Moghimi and F. Wandosell.

The direct object identifier (DOI) for that additional information is:
Study Data from Dwight D. Eisenhower Army Medical Center Update Understanding of Angiology (Aortic Dissection as a Cause of Pulsus Bisferiens: A Case Report and Review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Angiology is now available. According to news reporting originating from Fort Gordon, Georgia, by NewsRx correspondents, research stated, "We present a case of a 62-year-old woman who developed an aortic dissection after aortic valve replacement for aortic stenosis and supracoronary replacement of the ascending aorta for aneurysmal dilation."

Our news editors obtained a quote from the research from Dwight D. Eisenhower Army Medical Center, "Dynamic compression of the distal aorta by the dissection flap was identified with the detection of abnormal continuous wave Doppler signals heard while performing ankle-brachial indices. Duplex ultrasound (US) and Doppler spectral waveforms confirmed dynamic compression of the distal aorta with each cardiac cycle."

According to the news editors, the research concluded: "We review some of the characteristics of continuous wave Doppler signals, specifically discussing the distinguishing characteristics of pulsus bisferiens, and the use of duplex US in imaging the distal aorta."


The news editors report that additional information may be obtained by contacting C.M. Riojas, Dwight D Eisenhower Army Med Center, Dept. of Surg, Ft Gordon, GA 30905, United States. Additional authors for this research include A. Dodge, D.R. Gallo and P.W. White.

Keywords for this news article include: Fort Gordon, Georgia, United States, North and Central America, Aortic Dissection, Cardiology, Angiology, Dwight D. Eisenhower Army Medical Center.

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Study Data from Eastern Michigan University Provide New Insights into Fibromuscular Dysplasia (Diagnosed and living with fibromuscular dysplasia: A qualitative inquiry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Fibromuscular Dysplasia have been published. According to news reporting out of Ypsilanti, Michigan, by NewsRx editors, research stated, "Fibromuscular dysplasia (FMD) is a vascular disorder about which little has been known until recently. Patients with FMD may suffer from hypertension, aneurysms, or strokes, as well as symptoms associated with local artery damage."

Our news journalists obtained a quote from the research from Eastern Michigan University, "As a result of advances in vascular medicine and growing outcomes registries, we now have a better understanding of the FMD disease process and epidemiology. Nevertheless, the consequences of FMD on patients' day-to-day experiences and mental health status are not well understood. The purpose of this study was to begin to identify and characterize the experiences of living with FMD from the perspective of the patient using qualitative inquiry. Interviews with 19 FMD patients (18 female, 1 male) were conducted, audio-recorded, transcribed verbatim, and content analyzed. Individuals with FMD reported a complex array of psychological, physical, emotional, social, and health care concerns, which may be underdiagnosed."

According to the news editors, the research concluded: "Findings suggest new opportunities for enhancing patient care."


Our news journalists report that additional information may be obtained by contacting S.M. Bumpus, Eastern Michigan University, Sch Nursing, Ypsilanti, MI 48197, United States. Additional authors for this research include C. Kuck, S.T. Heidt and M. Bluhm.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1358863X16668419. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ypsilanti, Michigan, United States, North and Central America, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Arterial Occlusive Diseases, Dysplasia, Epidemiology, Fibromuscular Dysplasia, Dermatology, Eastern Michigan University.

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Drugs and Therapies - Antiarrhythmic Agents

Study Data from Eskisehir Osmangazi University Provide New Insights into Antiarrhythmic Agents (Treatment with propranolol for infantile hemangiomas: single-center experience)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antiarrhythmics is the subject of a report. According to news reporting originating from Eskisehir, Turkey, by NewsRx correspondents, research stated, "Infantile hemangiomas (IHs) are the most common soft tissue tumors of infancy. Although spontaneous regression is expected, medical treatment is needed in approximately 10-20% of cases."

Our news editors obtained a quote from the research from Eskisehir Osmangazi University, "We aimed to assess the safety and efficacy of systemic propranolol for the treatment of IH. Medical records of 34 eligible patients were analyzed retrospectively. Treatment indications were local complications (hemorrhage, ulceration) in 38.2% of patients, cosmetic risk and face deformity in 35.3%, life-threatening organ dysfunction in 17.6%, and impending visual impairment in 8.8%. The median age at start of treatment with propranolol was 3.5 months (range, 2-65 months). The median duration of propranolol treatment was 8 months (3-12). Response was graded as excellent (>75% improvement) in 30 patients (88.2%) and good (50-75% improvement) in 3 (8.9%). Recurrence was not observed after termination of treatment. None of our patients showed severe side effects at the beginning of or during the treatment. Propranolol is a well-tolerated, efficacious, and safe drug for treatment of IH. It can be initiated and administered in the outpatient setting."

According to the news editors, the research concluded: "Our report supports the excellent effect and good tolerance of this novel therapy, and we propose the use of propranolol as first-line treatment for IH."


The news editors report that additional information may be obtained by contacting A.B. Turhan, Eskisehir Osmangazi Univ, Fac Med, Div Pediat Hematol & Oncol, Eskisehir, Turkey. Additional authors for this research include O. Bor and Z.C. Ozdemir.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocd.12220. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Eskisehir, Turkey, Eurasia, Propranolol Therapy Hydrochloride, Beta-Adrenergic Blocking Agents, Group II Antiarrhythmics, Phenoxypropanolamines, Cardiovascular Agents, Antiarrhythmic Agents, Drugs and Therapies, Organic Chemicals, Pharmaceuticals, Amino Alcohols, Propanolamines, Hydrocarbons, Naphthalenes, Dermatology, Hemangioma, Eskisehir Osmangazi University.

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Study Data from Eskisehir Osmangazi University Update Knowledge of Peptides and Proteins (The Effects of Beta Amyloid Peptide 1-42 on Isolated Rat Hearts and Ileum Smooth Muscle)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Peptides and Proteins is the subject of a report. According to news reporting originating from Eskisehir, Turkey, by NewsRx correspondents, research stated, "Neurotoxic beta amyloid peptides (beta APs) are involved in the pathogenesis of Alzheimer disease. beta AP(1-42) may also play a role in the regulation of cardiovascular functions. Therefore, we investigated the possible effects of beta AP(1-42) on isolated rat heart and ileum."

Our news editors obtained a quote from the research from Eskisehir Osmangazi University, "The hearts were perfused with modified Krebs-Henseleit solution. Left ventricular developed pressure (LVDP), maximal rate of pressure development of left ventricle (+dP/dt (max)), heart rate, coronary flow, monophasic action potential amplitude (MAPamp), MAP duration at 90% repolarization (MAP(90)) and contractions of ileum were measured. One, 10 and 100 nmol/l doses of beta AP(1-42) significantly decreased LVDP, +dP/dt(max) and heart rate. The dose of 1 nmol/l did not change coronary flow, but 10 and 100 nmol/l doses significantly reduced it. All doses of beta AP(1-42) did not alter MAPamp, but increased MAP(90). beta AP(1-42) (1, 10, 100, 1,000 nmol/l) also did not influence ileum contractions. We suggest that beta AP(1-42) produces negative inotropic and negative chronotropic effects with an increase in MAP duration."

According to the news editors, the research concluded: "Furthermore, beta AP(1-42) at high doses decreases coronary flow."

For more information on this research see: The Effects of Beta Amyloid Peptide 1-42 on Isolated Rat Hearts and Ileum Smooth Muscle. Pharmacology, 2016;98(5-6):261-266. Pharmacology can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Pharmacology - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224274)

The news editors report that additional information may be obtained by contacting Z. Kaygisiz, Eskisehir Osmangazi Univ, Dept. of Physiol, Fac Med, TR-26480 Eskisehir, Turkey. Additional authors for this research include Z. Kaygisiz and Y. Aydin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000448590. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Eskisehir, Turkey, Eurasia, Peptides and Proteins, Hemodynamics, Heart Rate, Proteins, Amyloid, Eskisehir Osmangazi University.

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Herpesvirus Diseases and Conditions - Herpes...

Study Data from Eye Institute Update Understanding of Herpes Simplex Virus (Oral antivirals for preventing recurrent herpes simplex keratitis in people with corneal grafts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Herpesvirus Diseases and Conditions - Herpes Simplex Virus have been presented. According to news reporting out of Melbourne, Australia, by NewsRx editors, research stated, "Ocular herpes is a viral infection of the eye caused by the herpes simplex virus (HSV), a double-stranded DNA virus. Corneal scarring caused by herpes simplex keratitis (HSK) is the leading infectious cause of penetrating corneal graft in high-income countries."

Our news journalists obtained a quote from the research from Eye Institute, "Acyclovir is an antiviral drug known to have a protective effect against recurrences in herpetic eye disease. While there are some studies which have evaluated the effects of intervention with oral antiviral in preventing such recurrences in people with corneal grafts, a systematic review of all comparative clinical trials has not been previously undertaken. To assess the efficacy of oral antivirals such as acyclovir in any dosage when taken for six months or more, in preventing recurrence of herpetic keratitis in people having corneal graft surgery for herpetic keratitis.

Search methods We searched CENTRAL (which contains the Cochrane Eyes and Vision Trials Register) (2016, Issue 5), Ovid MEDLINE, Ovid MEDLINE In-Process and Other Non-Indexed Citations, Ovid MEDLINE Daily, Ovid OLDMEDLINE (January 1946 to June 2016), Embase (January 1980 to June 2016), the ISRCTN registry (www.isrctn.com/editAdvancedSearch), ClinicalTrials.gov (www.clinicaltrials.gov), and the World Health Organization (WHO) International Clinical Trials Registry Platform (ICTRP) (www.who.int/ictrp/search/en). We did not use any date or language restrictions in the electronic searches for trials. We last searched the electronic databases on 1 June 2016. We handsearched conference proceedings and contacted authors of the included studies and researchers active in the field. Selection criteria We included randomised controlled trials (RCTs). People enrolled in these trials had corneal grafts for HSK. The intervention was oral antivirals for six months or more following the corneal graft surgery, and this was compared to no treatment or placebo. Data collection and analysis Two review authors independently assessed trial quality and extracted data. We contacted trial investigators for any clarification or missing information. We graded the certainty of the evidence using GRADE. We included three trials, involving 126 participants, comparing the use of oral acyclovir to no treatment or placebo. Two studies were conducted in single centres in Turkey and the USA, and one was multi-centred in the Netherlands. In general, the studies were poorly reported and it was difficult to judge the extent to which bias had been avoided. Oral acyclovir may reduce the risk of recurrence of herpetic keratitis (risk ratio (RR) 0.29, 95% confidence interval (CI) 0.13 to 0.64, 126 people, low-certainty evidence). Based on data from the included trials, this corresponds to approximately 23 fewer cases of HSK recurrence (95% CI 29 fewer cases to 12 fewer cases) per 100 corneal graft operations if oral acyclovir is used. Oral acyclovir may reduce the risk of graft failure (RR 0.40, 95% CI 0.16 to 0.97, 126 people, low-certainty evidence). Based on data from the included trials, this corresponds to approximately 13 fewer cases of graft failure (95% CI 18 fewer cases to 1 fewer cases) per 100 corneal graft operations if oral acyclovir is used. None of the studies reported any serious side effects of the antivirals necessitating stoppage or change. None of the trials reported outcomes over the long term (more than two years) or any data on quality of life."
According to the news editors, the research concluded: "Authors' conclusions Compared to placebo or to no treatment, oral antiviral (acyclovir) may reduce the risk of recurrence of herpetic keratitis in the first 12 months in eyes that have undergone corneal graft surgery."

For more information on this research see: Oral antivirals for preventing recurrent herpes simplex keratitis in people with corneal grafts. Cochrane Database of Systematic Reviews, 2016;(11):2366-2393. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting U.K. Bhatt, Vis Eye Inst, Melbourne, Vic 3004, Australia. Additional authors for this research include M.A. Karim, J.I. Prydal, S.V. Maharajan and U. Fares.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Drugs and Therapies, Article Review, Risk and Prevention, Herpesvirus Diseases and Conditions, Viral Skin Diseases and Conditions, Eye Diseases and Conditions, Dermatological Agents, Herpes Simplex Virus, Topical Antivirals, Purine Nucleosides, Herpetic Keratitis, Antiinfectives, Acyclovir, Eye Institute.

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Oncology - Melanoma

Study Data from Faculty of Sciences Update Knowledge of Melanoma (Innate immunity based cancer immunotherapy: B16-F10 murine melanoma model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Melanoma is the subject of a report. According to news originating from Ceske Budejovice, Czech Republic, by NewsRx correspondents, research stated, "Using killed microorganisms or their parts to stimulate immunity for cancer treatment dates back to the end of 19th century. Since then, it undergone considerable development."

Our news journalists obtained a quote from the research from the Faculty of Sciences, "Our novel approach binds ligands to the tumor cell surface, which stimulates tumor phagocytosis. The therapeutic effect is further amplified by simultaneous application of agonists of Toll-like receptors. We searched for ligands that induce both a strong therapeutic effect and are safe for humans. B16-F10 murine melanoma model was used. For the stimulation of phagocytosis, mannan or N-formylmethionyl-leucyl-phenylalanine, was covalently bound to tumor cells or attached using hydrophobic anchor. The following agonists of Toll-like receptors were studied: monophosphoryl lipid A (MPLA), imiquimod (R-837), resiquimod (R-848), poly (I: C), and heat killed Listeria monocytogenes. R-848 proved to be the most suitable Toll-like receptor agonist for our novel immunotherapeutic approach. In combination with covalently bound mannan, R-848 significantly reduced tumor growth. Adding poly(I: C) and L. monocytogenes resulted in complete recovery in 83% of mice and in their protection from the re-transplantation of melanoma cells."

According to the news editors, the research concluded: "An efficient cancer treatment results from the combination of Toll-like receptor agonists and phagocytosis stimulating ligands bound to the tumor cells."


Keywords for this news article include: Ceske Budejovice, Czech Republic, Europe, Drugs and Therapies, Immunotherapy, Phagocytosis, Oncology, Melanoma, Cancer, Faculty of Sciences.

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**Oncology - Ovarian Cancer**

**Study Data from First Affiliated Hospital Provide New Insights into Ovarian Cancer (Comprehensive analysis of lncRNA-mRNA co-expression patterns identifies immune-associated lncRNA biomarkers in ovarian cancer malignant progression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Ovarian Cancer have been published. According to news reporting out of Heilongjiang, People's Republic of China, by NewsRx editors, research stated, "Ovarian cancer (OV) is the most common and lethal gynecological tumor with a poor prognosis for women; however, the regulatory roles of the long non-coding RNAs (lncRNAs) in ovarian malignant progression are insufficiently understood. Here, we investigated the expression patterns of lncRNAs and mRNAs in the high-throughput molecular profiles of 399 OV patients and constructed a functional lncRNA-mRNA co-expression network across OV malignant progression."

Our news journalists obtained a quote from the research from First Affiliated Hospital, "We found that two protective lncRNAs, RP11-284N8.3.1 and AC104699.1.1, were not only differentially expressed throughout the progression of malignant OV but were also independently predictive of the survival of patients with different OV stages. A functional analysis of the two lncRNAs predicted their roles in immune system activation and other anti-tumor processes in the OV microenvironment. Integrating these two lncRNAs into an OV risk model was able to significantly stratify patients into different risk groups. Overall, our analysis effectively provides insights into the lncRNA association with malignant OV progression."

According to the news editors, the research concluded: "The two-lncRNA signature is a candidate biomarker for the prognosis of patients with OV and may enable a more accurate prediction of survival."

For more information on this research see: Comprehensive analysis of lncRNA-mRNA co-expression patterns identifies immune-associated lncRNA biomarkers in ovarian cancer malignant progression. *Scientific Reports*, 2015;5():17683. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)
Our news journalists report that additional information may be obtained by contacting Q. Guo, The First Affiliated Hospital of Harbin Medical University, Harbin 150001, Heilongjiang, People's Republic of China. Additional authors for this research include Y. Cheng, T. Liang, Y. He, C. Ren, L. Sun and G. Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep17683. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Genetics, Oncology, Gynecology, Heilongjiang, Ovarian Cancer, Women's Health, People's Republic of China.

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Lipid Research

Study Data from French National Institute of Health and Medical Research (INSERM) Update Knowledge of Lipid Research (Expression profile of hepatic genes related to lipid homeostasis in LSR heterozygous mice contributes to their increased ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Lipid Research. According to news reporting from Nancy, France, by NewsRx journalists, research stated, "Perturbations of lipid homeostasis manifest as dyslipidemias and obesity, which are significant risk factors for atherosclerosis and diabetes. Lipoprotein receptors in the liver are key players in the regulation of lipid homeostasis, among which the hepatic lipolysis stimulated lipoprotein receptor, LSR, was recently shown to play an important role in the removal of lipoproteins from the circulation during the postprandial phase."

Funders for this research include Higher Education Commission of Pakistan, French Ministry of Higher Education and Research.

The news correspondents obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "Since heterozygous LSR+/− mice demonstrate moderate dyslipidemia and develop higher body weight gain in response to high-fat diet compared with littermate LSR+/+ controls, we questioned if LSR heterozygosity could affect genes related to hepatic lipid metabolism. A target-specific qPCR array for 84 genes related to lipid metabolism was performed on mRNA isolated from livers of 6 mo old female LSR+/+ mice and LSR+/+ littermates following a 6 wk period on a standard (STD) or high-fat diet (60% kcal, HFD). Of the 84 genes studied, 32 were significantly downregulated in STD-LSR+/− mice compared with STD-LSR+/+, a majority of which were PPAR alpha target genes involved in lipid metabolism and transport, and insulin and adipokine-signaling pathways. Of these 32 genes, 80% were also modified in HFD-LSR+/+, suggesting that STD-LSR+/− mice demonstrated a predisposition towards a 'high-fat'-like profile, which could reflect dysregulation of liver lipid homeostasis."

According to the news reporters, the research concluded: "Since similar profiles of genes were affected by either LSR heterozygosity or by high-fat diet, this would suggest that LSR is a key receptor in regulating hepatic lipid homeostasis, and whose downregulation combined with a Western-type diet may increase predisposition to diet-induced obesity."

For more information on this research see: Expression profile of hepatic genes
related to lipid homeostasis in LSR heterozygous mice contributes to their increased response to high-fat diet. *Physiological Genomics*, 2016;48(12):928-935. *Physiological Genomics* can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting F.T. Yen, INSERM, Nancy, France. Additional authors for this research include A. Pincon, M.C. Lan hers, T. Claudepierre, C. Corbier, L. Gregory-Pauron, C. Malaplate-Armand, A. Visvikis, T. Oster and F.T. Yen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/physiolgenomics.00077.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nancy, France, Europe, Lipid Research, Lipids, Risk and Prevention, Genetics, Lipoproteins, French National Institute of Health and Medical Research (INSERM).

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**Immunology - Immune System**

**Study Data from Friedrich-Alexander-University Update Knowledge of Immune System (Blood-borne phagocytes internalize urate microaggregates and prevent intravascular NETosis by urate crystals)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immunology - Immune System. According to news reporting from Erlangen, Germany, by NewsRx journalists, research stated, "Hyperuricemia is strongly linked to cardiovascular complications including atherosclerosis and thrombosis. In individuals with hyperuricemia, needle-shaped monosodium urate crystals (nsMSU) frequently form within joints or urine, giving rise to gouty arthritis or renal calculi, respectively."

The news correspondents obtained a quote from the research from Friedrich-Alexander-University, "These nsMSU are potent instigators of neutrophil extracellular trap (NET) formation. Little is known on the mechanism(s) that prevent nsMSU formation within hyperuricemic blood, which would potentially cause detrimental consequences for the host. Here, we report that complement proteins and fetuins facilitate the continuous clearance by blood-borne phagocytes and resident macrophages of small urate microaggregates (UMA; <1 μm in size) that initially form in hyperuricemic blood. If this clearance fails, UMA exhibit bipolar growth to form typical full-sized nsMSU with a size up to 100 μm. In contrast to UMA, nsMSU stimulated neutrophils to release NETs. Under conditions of flow, nsMSU and NETs formed densely packed DNase I-resistant tophus-like structures with a high obstructive potential, highlighting the importance of an adequate and rapid removal of UMA from the circulation."

According to the news reporters, the research concluded: "Under pathological conditions, intravascularly formed nsMSU may hold the key to the incompletely understood association between NET-driven cardiovascular disease and hyperuricemia."

For more information on this research see: Blood-borne phagocytes internalize urate microaggregates and prevent intravascular NETosis by urate crystals. *Scientific Reports*, 2016;6 ():1-13. *Scientific Reports* can be contacted at: Nature Publishing Group, Macmillan Building,
Study Data from Genentech, Inc. Provide New Insights into Immunoglobulins (Physiologically based pharmacokinetic models of small molecules and therapeutic antibodies: a mini-review on fundamental concepts and applications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology - Immunoglobulins have been presented. According to news reporting originating in South San Francisco, California, by NewsRx journalists, research stated, "The mechanisms of absorption, distribution, metabolism and elimination of small and large molecule therapeutics differ significantly from one another and can be explored within the framework of a physiologically based pharmacokinetic (PBPK) model. This paper briefly reviews fundamental approaches to PBPK modeling, in which drug kinetics within tissues and organs are explicitly represented using physiologically meaningful parameters."

The news reporters obtained a quote from the research from Genentech, Inc., "The differences in PBPK models applied to small/large molecule drugs are highlighted, thus elucidating differences in absorption, distribution and elimination properties between these two classes of drugs in a systematic manner. The absorption of small and large molecules differs with respect to their common extravascular routes of delivery (oral versus subcutaneous). The role of the lymphatic system in drug distribution, and the involvement of tissues as sites of elimination (through catabolism and target mediated drug disposition) are unique features of antibody distribution and elimination that differ from small molecules, which are commonly distributed into the tissues but are eliminated primarily by liver metabolism. Fundamental differences exist in the ability to predict human pharmacokinetics based upon preclinical data due to differing mechanisms governing small and large molecule disposition."

According to the news reporters, the research concluded: "These differences have influence on the evolving utilization of PBPK modeling in the discovery and development of small and large molecule therapeutics."

For more information on this research see: Physiologically based pharmacokinetic models of small molecules and therapeutic antibodies: a mini-review on fundamental concepts and applications. *Biopharmaceutics & Drug Disposition*, 2016;37(2):75-92. (Wiley-Blackwell - www.wiley.com/; Biopharmaceutics & Drug Disposition -
Study Data from General Hospital Provide New Insights into Pain (Use of Methadone as an Adjuvant Medication to Low-Dose Opioids for Neuropathic Pain in the Frail Elderly: A Case Series)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Neurologic Manifestations - Pain. According to news reporting originating in Toronto, Canada, by NewsRx journalists, research stated, "Palliative care clinicians are increasingly involved in the care of elderly patients suffering from chronic malignant and nonmalignant illnesses, of which neuropathic pain is a prevalent problem. As a person becomes more frail, pain medications such as opioid analgesics and adjuvant pain medications can result in unwanted effects such as sedation, confusion, and increased risk of falls."

The news reporters obtained a quote from the research from General Hospital, "Treating pain in patients with advanced dementia or neurodegenerative diseases that can affect swallowing is particularly challenging because most adjuvant pain medications used to ameliorate neuropathic pain must be taken orally. Furthermore, dosing of neuropathic medications is limited by renal function, which is often impaired in the elderly due to both normal aging and renal disease. Methadone is an opioid analgesic that is effective in the treatment of neuropathic pain, is excreted by the bowels, is highly lipophilic, and can be administered through the oral, buccal, or sublingual routes."

According to the news reporters, the research concluded: "We present three cases highlighting the use of low-dose adjuvant methadone to manage complex neuropathic pain in the frail elderly."


Our news correspondents report that additional information may be obtained by contacting D. Grossman, North York Gen Hosp, Freeman Center Adv Palliat Care, Toronto, ON
M2K 1E1, Canada. Additional authors for this research include J. Pan, A. Kirstein, C.J. Grief and D. Grossman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/jpm.2016.0246. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Opioid Analgesics, Risk and Prevention, Neurologic Manifestations, Neuropathic Pain, Neuropathy, Methadone, Ketones, General Hospital.

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Hepatosteatosis

Study Data from George Washington University Update Knowledge of Hepatosteatosis (Protective Role of Dietary Curcumin in the Prevention of the Oxidative Stress Induced by Chronic Alcohol with respect to Hepatic Injury and Antiatherogenic Markers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Hepatosteatosis are presented in a new report. According to news reporting out of Washington, District of Columbia, by NewsRx editors, research stated, "Curcumin, an antioxidant compound found in Asian spices, was evaluated for its protective effects against ethanol-induced hepatosteatosis, liver injury, antiatherogenic markers, and antioxidant status in rats fed with Lieber-deCarli low menhaden (2.7% of total calories from o-3 polyunsaturated fatty acids (PUFA)) and Lieber-deCarli high menhaden (13.8% of total calories from o-3 PUFA) alcohol-liquid (5%) diets supplemented with or without curcumin (150 mg/kg/day) for 8 weeks. Treatment with curcumin protected against high o-3 PUFA and ethanol-induced hepatosteatosis and increase in liver injury markers, alanine aminotransferase, and aspartate aminotransferase."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from George Washington University, "Curcumin upregulated paraoxonase 1 (PON1) mRNA and caused significant increase in serum PON1 and homocysteine thiolactonase activities as compared to high o-3 PUFA and ethanol group. Moreover, treatment with curcumin protected against ethanol-induced oxidative stress by increasing the antioxidant glutathione and decreasing the lipid peroxidation adduct 4-hydroxynonenal. These results strongly suggest that chronic ethanol in combination with high o-3 PUFA exacerbated hepatosteatosis and liver injury and adversely decreases antiatherogenic markers due to increased oxidative stress and depletion of glutathione. Curcumin supplementation significantly prevented these deleterious actions of chronic ethanol and high o-3 PUFA."

According to the news editors, the research concluded: "Therefore, we conclude that curcumin may have therapeutic potential to protect against chronic alcohol-induced liver injury and atherosclerosis."

For more information on this research see: Protective Role of Dietary Curcumin in the Prevention of the Oxidative Stress Induced by Chronic Alcohol with respect to Hepatic Injury and Antiatherogenic Markers. Oxidative Medicine and Cellular Longevity, 2016;2016 ():5017460. (Hindawi Publishing - www.hindawi.com; Oxidative Medicine and Cellular
Longevity - www.hindawi.com/journals/oximed/

Our news journalists report that additional information may be obtained by contacting R. Varatharajalu, Lipid Research Laboratory, VA Medical Center and Dept. of Biochemistry and Molecular Medicine, The George Washington University, Washington, DC 20422, United States. Additional authors for this research include M. Garige, L.C. Leckey, K. Reyes-Gordillo, R. Shah and M.R Lakshman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/5017460. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antioxidants, Alkanes, Alcohols, Curcumin, Genetics, Catechols, Washington, Hydrocarbons, United States, Ethanolamines, Hepatosteatosis, Aminotransferase, Diarylheptanoids, Organic Chemicals, Protective Agents, District of Columbia, Enzymes and Coenzymes, North and Central America.

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Central Nervous System Diseases and Conditions...

Study Data from Harbin Medical University Update Understanding of Cerebral Hemorrhage [Cerebroprotection by the neuronal PGE(2) receptor EP2 after intracerebral hemorrhage in middle-aged mice]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Central Nervous System Diseases and Conditions - Cerebral Hemorrhage are discussed in a new report. According to news originating from Harbin, People's Republic of China, by NewsRx correspondents, research stated, "Inflammatory responses mediated by prostaglandins such as PGE(2) may contribute to secondary brain injury after intracerebral hemorrhage (ICH). However, the cell-specific signaling by PGE(2) receptor EP2 differs depending on whether the neuropathic insult is acute or chronic."

Our news journalists obtained a quote from the research from Harbin Medical University, "Using genetic and pharmacologic approaches, we investigated the role of EP2 receptor in two mouse models of ICH induced by intrastriatal injection of collagenase or autologous arterial whole blood. We used middle-aged male mice to enhance the clinical relevance of the study. EP2 receptor was expressed in neurons but not in astrocytes or microglia after collagenase-induced ICH. Brain injury after collagenase-induced ICH was associated with enhanced cellular and molecular inflammatory responses, oxidative stress, and matrix metalloproteinase (MMP)-2/9 activity. EP2 receptor deletion exacerbated brain injury, brain swelling/edema, neuronal death, and neurobehavioral deficits, whereas EP2 receptor activation by the highly selective agonist AE1-259-01 reversed these outcomes. EP2 receptor deletion also exacerbated brain edema and neurologic deficits in the blood ICH model. These findings support the premise that neuronal EP2 receptor activation by PGE(2) protects brain against ICH injury in middle-aged mice through its anti-inflammatory and anti-oxidant effects and anti-MMP-2/9 activity."

According to the news editors, the research concluded: "PGE(2)/EP2 signaling warrants further investigation for potential use in ICH treatment."

For more information on this research see: Cerebroprotection by the neuronal PGE (2) receptor EP2 after intracerebral hemorrhage in middle-aged mice. Journal of Cerebral
Study Data from Harbin Medical University Update Understanding of Phenols (Effects of Propofol on Several Membrane Characteristics of Cervical Cancer Cell Lines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Phenols have been presented. According to news originating from Harbin, People's Republic of China, by NewsRx correspondents, research stated, "Although significant advances have been made toward understanding the molecular mechanisms underlying the effect of propofol on tumor cell metastasis, less is known regarding how cell membrane and cytoskeletal ultrastructure are affected in this process. Here, we investigated the relationship between cell morphology and cell size, which are features mainly defined by the cytoskeleton."

Our news journalists obtained a quote from the research from Harbin Medical University, "To confirm the effects of propofol on the migratory ability of human cervical carcinoma cells, cell migration and invasion were examined through scratch wound healing and transwell membrane assays. Furthermore, HeLa cells cultivated with different concentrations of propofol were examined by confocal microscopy and atomic force microscopy (AFM), and the mean optical density and migration ability of these cells were also assessed. In addition, cell membrane morphology was inspected using AFM. The results of the wound healing and transwell membrane assays indicated that propofol decreases the migratory ability of cervical carcinoma cells compared to control cells. A comparative analysis of the test results revealed that short-term (3 h) exposure to propofol induced marked changes in cell membrane microstructure and in the cytoskeleton in a dose dependent manner. These morphological changes in the cell membrane were accompanied by cytoskeleton (F-actin) derangement. The present findings demonstrate a close relationship between changes in cell membrane ultrastructure and cytoskeletal alterations (F-actin) in propofol-treated HeLa cells. AFM scanning analysis showed that cell membrane ultrastructure was significantly changed, including a clear reduction in membrane roughness. The influence of propofol on the HeLa cell cytoskeleton can be directly reflected by changes in cellular morphology, as assessed by AFM."

According to the news editors, the research concluded: "Moreover, the use of AFM..."
is a good method for investigating propofol-mediated changes within cytoskeletal ultrastructure."

For more information on this research see: Effects of Propofol on Several Membrane Characteristics of Cervical Cancer Cell Lines. *Cellular Physiology and Biochemistry*, 2016;40(1-2):172-182. *Cellular Physiology and Biochemistry* can be contacted at: Karger, Allschwilerstrasse 10, Ch-4009 Basel, Switzerland. (Karger - www.karger.com; Cellular Physiology and Biochemistry - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224332)

The news correspondents report that additional information may be obtained from E.Y. Li, Harbin Med Univ, Affiliated Hosp 1, Dept. of Anesthesiol, Harbin, People's Republic of China. Additional authors for this research include C.S. Wang, Y.H. Cui, S.P. Li, Y.F. Yao, Y.P. Ci, J.H. Wang, W. Hou, A.Q. Wu and E.Y. Li.

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Keywords for this news article include: Harbin, People's Republic of China, Asia, Cytoplasmic Structures, Cellular Structures, Intracellular Space, Cell Membrane, Cytoskeleton, Cell Line, Oncology, Propofol, Phenols, Cancer, Harbin Medical University.

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**Heart Disorders and Diseases - Ventricular Fibrillation**

**Study Data from Hiroshima University Provide New Insights into Ventricular Fibrillation (Risk stratification of ventricular fibrillation in Brugada syndrome using noninvasive scoring methods)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Ventricular Fibrillation are presented in a new report. According to news originating from Hiroshima, Japan, by NewsRx correspondents, research stated, "Risk stratification for ventricular fibrillation (VF) in patients with Brugada syndrome (BrS) remains controversial. The purpose of this study was to construct a novel prediction model for VF risk in BrS patients using noninvasive parameters."

Our news journalists obtained a quote from the research from Hiroshima University, "A total of 143 Japanese BrS patients with VF (n=35) and without VF (n=108) were retrospectively enrolled. We built a logistic regression model predicting VF occurrence and evaluated it by cross-validation. Frequencies of history of syncope and spontaneous type 1 ECG, r-J interval in V-1, QRS duration in V-6, and LAS(40), Tpeak-Tend dispersion, and max T-wave alternans were significantly associated with VF occurrence in univariate analyses. The history of syncope, r-J interval in V-1, QRS duration in V-6, and Tpeak-Tend dispersion were identified as independent predictors by multivariate logistic regression analysis. The predictive model was constructed using all these parameters with good discrimination of VF occurrence (area under the curve 0.869 with 97.1% sensitivity and 65.7% specificity). The area under the curve based on leave-one-out cross validation was 0.845, with 97.1% sensitivity and 63.0% specificity suggesting good performance of the model. Retrospective survival analysis revealed that the cumulative VF event rate was significantly higher in patients at high risk than in those with low risk using the log rank test (P = 2.97 x 10(-8)). Notably, no BrS patient below the
cutoff value developed a subsequent VF event."

According to the news editors, the research concluded: "This novel prediction method may effectively assesses VF risk in BrS patients, especially when determining implantable cardioverter-defibrillator placement for asymptomatic BrS patients."


The news correspondents report that additional information may be obtained from Y. Nakano, Hiroshima University, Grad Sch Biomed & Hlth Sci, Dept. of Cardiovasc Med, Hiroshima, Japan. Additional authors for this research include Y. Nakano, H. Ochi, M. Takagi, Y. Hayashi, Y. Uchimura, T. Tokuyama, Y. Watanabe, H. Matsumura, S. Tomomori, A. Sairaku, K. Soenari, A. Awazu, Y. Miwa, K. Soejima, K. Chayama and Y. Kihara.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.07.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hiroshima, Japan, Asia, Nervous System Diseases and Conditions, Neurologic Diseases and Conditions, Neurobehavioral Manifestations, Heart Disorders and Diseases, Neurologic Manifestations, Ventricular Fibrillation, Consciousness Disorders, Cardiac Arrhythmias, Brugada Syndrome, Unconsciousness, Cardiovascular, Heart Disease, Cardiology, Syncope, Hiroshima University.

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*Study Data from Hong Kong Eye Hospital Update Understanding of Diabetic Angiopathies (Associations between diabetic retinopathy and systemic risk factors)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Diabetic Angiopathies is the subject of a report. According to news originating from Hong Kong, People's Republic of China, by NewsRx correspondents, research stated, "Diabetes mellitus is a systemic disease with complications that include sight-threatening diabetic retinopathy. It is essential to understand the risk factors of diabetic retinopathy before effective prevention can be implemented."

Our news journalists obtained a quote from the research from Hong Kong Eye Hospital, "The aim of this review was to examine the association between diabetic retinopathy and systemic risk factors. A PubMed literature search was performed up to May 2016 to identify articles reporting associations between diabetic retinopathy and systemic risk factors; only publications written in English were included. Relevant articles were selected and analysed. Patients with diabetic retinopathy were more likely to have poor glycaemic control as reflected by a higher glycated haemoglobin, longer duration of diabetes, and use of insulin therapy for treatment. For other systemic risk factors, hypertension was positively associated with..."
prevalence and progression of diabetic retinopathy. No clear association between obesity, hyperlipidaemia, gender, or smoking with diabetic retinopathy has been established as studies reported inconsistent findings. Myopia was a protective factor for the development of diabetic retinopathy. Several genetic polymorphisms were also found to be associated with an increased risk of development of diabetic retinopathy."

According to the news editors, the research concluded: "Good glycaemic and blood pressure control remain the most important modifiable risk factors to reduce the risk of progression of diabetic retinopathy and vision loss."

For more information on this research see: Associations between diabetic retinopathy and systemic risk factors. *Hong Kong Medical Journal*, 2016;22(6):589-599. *Hong Kong Medical Journal* can be contacted at: Hong Kong Acad Medicine Press, 9, F, Room 901, 99 Wong Chuk Hang Rd, Aberdeen, Hong Kong, 00000, Peoples R China.

The news correspondents report that additional information may be obtained from R.L.M. Wong, Hong Kong Eye Hosp. Hong Kong, Hong Kong, People's Republic of China. Additional authors for this research include R.L.M. Wong and I.Y.H. Wong.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Risk and Prevention, Article Review, Vascular Diseases and Conditions, Retinal Diseases and Conditions, Eye Diseases and Conditions, Diabetic Angiopathies, Diabetic Retinopathy, Ophthalmology, Endocrinology, Diabetes, Genetics, Hong Kong Eye Hospital.

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**Drugs and Therapies - Antibiotics**

**Study Data from Huazhong Agricultural University Provide New Insights into Antibiotics (Characterization of Spectinomycin Resistance in Streptococcus suis Leads to Two Novel Insights into Drug Resistance Formation and Dissemination Mechanism)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antibiotics are presented in a new report. According to news reporting originating in Wuhan, People's Republic of China, by NewsRx journalists, research stated, "Spectinomycin is an aminocyclitol antibiotic used clinically to treat a variety of infections in animals."

The news reporters obtained a quote from the research from Huazhong Agricultural University, "Here, we characterized drug resistance prevalence in clinical Streptococcus suis isolates and discovered a novel resistance mechanism in which the s5 mutation (Gly26Asp) results in high spectinomycin resistance."

According to the news reporters, the research concluded: "Additionally, a novel integrative and conjugative element encompassing a multidrug resistance spw_like-aadE-lnu (B)-Isa(E) cluster and a cadmium resistance operon were identified, suggesting a possible cause for the wide dissemination of spectinomycin resistance in S. suis."

For more information on this research see: Characterization of Spectinomycin Resistance in Streptococcus suis Leads to Two Novel Insights into Drug Resistance Formation and Dissemination Mechanism. *Antimicrobial Agents and Chemotherapy*, 2016;60(10):6390-6392. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology,
Study Data from I.P. Chatziralli and Colleagues Update Understanding of Macular Edema (Hyperreflective Foci As An Independent Visual Outcome Predictor In Macular Edema Due To Retinal Vascular Diseases Treated With Intravitreal Dexamethasone Or ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Eye Diseases and Conditions - Macular Edema have been presented. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "To evaluate the potential role of hyperreflective foci (HF) in predicting visual outcome in patients undergoing treatment for macular edema due to retinal vascular diseases. Data and images of 92 patients with macular edema due to diabetes mellitus or branch retinal vein occlusion, treated with either intravitreal dexamethasone implant or ranibizumab, were analyzed."

The news reporters obtained a quote from the research, "All patients underwent best-corrected visual acuity measurement, slit-lamp examination, spectral domain optical coherence tomography at baseline and at all time points of the follow-up (Month 1, 2, 3, 6, and 9). Generalized least squares random effects linear or logistic regression analysis was used to investigate potential factors associated with the final best-corrected visual acuity and number of HF, respectively. Increasing age (P < 0.001), central retinal thickness (P < 0.001), number of HF (P = 0.028), presence of subretinal fluid (P < 0.001), intraretinal fluid (P < 0.001), intraretinal cysts (P < 0.001), and disruption of ellipsoid zone/external limiting membrane (P < 0.001) were significantly associated with poorer visual outcome. Factors associated with HF were increasing central retinal thickness (P = 0.003), presence of subretinal fluid (P = 0.049), intraretinal fluid (P = 0.002), cysts (P = 0.015), and disruption of ellipsoid zone (P = 0.047). No significant differences in change in best-corrected visual acuity, central retinal thickness, and HF were observed between the two treatment groups. Hyperreflective foci are associated with poorer visual outcome in patients with macular edema due to retinal vascular diseases."

According to the news reporters, the research concluded: "Similar reductions in HF are achieved by intravitreal steroid and anti-vascular endothelial growth factor agent."

For more information on this research see: Hyperreflective Foci As An Independent Visual Outcome Predictor In Macular Edema Due To Retinal Vascular Diseases Treated With Intravitreal Dexamethasone Or Ranibizumab. Retina-The Journal of Retinal and Vitreous Diseases, 2016;36(12):2319-2328. Retina-The Journal of Retinal and Vitreous Diseases can be
Study Data from INPA Provide New Insights into Cutaneous Leishmaniasis [Topical treatment of experimental cutaneous leishmaniasis in golden hamster (Mesocricetus auratus) with formulations containing pentamidine]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Parasitic Diseases and Conditions - Cutaneous Leishmaniasis. According to news reporting originating from Amazonas, Brazil, by NewsRx correspondents, research stated, "Current treatment of cutaneous leishmaniasis (CL) relies mainly on pentavalent antimonials salts and second-line drugs include pentamidine and amphotericin B, but these therapies have side effects and require parenteral administration. The aim of this work was to evaluate the topical formulations containing pentamidine isethionate (PI) in the experimental treatment of cutaneous leishmaniasis (CL)."

Our news editors obtained a quote from the research from INPA, "Golden hamsters (Mesocricetus auratus) were infected in the nose with Leishmania (Leishmania) amazonensis. Six treatment groups received different topical treatments of anhydrous or hydrating emulsions, for a maximum of 10 days, with an application of 50 mg day(-1). After treatment tissue samples of lesions were evaluated by histology, transmission electron microscopy and biopsy cultivation. Compared with untreated group, topical treatment with hydrating emulsion with 10% PI and usnic acid (ACE5AU) showed significantly decrease in volume lesion (P= 0.028) on 20th day after the end of the treatment with reduction of 27.37%. Topical treatment with anhydrous emulsion with 10% PI and usnic acid (ACPU) reduces parasite burden in Golden hamsters."

According to the news editors, the research concluded: "This study demonstrated the potential of topical treatment to reduce the number of parasites that could be combined with others drugs and to have a faster and more effective treatment of cutaneous leishmaniasis."


The news editors report that additional information may be obtained by contacting C.D. Comandolli-Wyrepkowski, INPA, Lab Leishmaniasis & Chagas Dis, BR-69067375 Manaus, Amazonas, Brazil. Additional authors for this research include I. Grafova, M.D. Naiff,

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Keywords for this news article include: Amazonas, Brazil, South America, Parasitic Skin Diseases and Conditions, Parasitic Diseases and Conditions, Respiratory Inhalant Products, Cutaneous Leishmaniasis, Inhaled Antiinfectives, Euglenozoa Infections, Protozoan Infections, Drugs and Therapies, Respiratory Agents, Benzamidines, Pentamidine, Antibiotics, INPA.

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Drugs and Therapies - Chemotherapy

Study Data from Indiana University Provide New Insights into Chemotherapy (2016 updated MASCC/ESMO consensus recommendations: prevention of nausea and vomiting following multiple-day chemotherapy, high-dose chemotherapy, and breakthrough nausea ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Chemotherapy have been published. According to news reporting originating in Indianapolis, Indiana, by NewsRx journalists, research stated, "This review summarizes the recommendations for the prophylaxis of acute and delayed nausea and vomiting induced by multiple-day chemotherapy, high-dose chemotherapy, and breakthrough nausea and vomiting as agreed at the MASCC/ESMO Antiemetic Guidelines update meeting in Copenhagen in June 2015. A systematic literature search using PubMed from January 01, 2009 through January 06, 2015 with a restriction to papers in English was conducted."

The news reporters obtained a quote from the research from Indiana University, "There were three phase III randomized trials in patients undergoing high-dose chemotherapy and stem cell transplant and eight single arm non-randomized clinical studies (single in patients undergoing transplantation and one in patients receiving multiple-day chemotherapy treatment). We used a total of two randomized clinical trials in this guideline update. For patients receiving treatment for breakthrough chemotherapy-induced nausea and vomiting, a phase III randomized trial investigating the use of olanzapine versus metoclopramide in patients receiving highly emetogenic chemotherapy and a second single arm study looking at the effectiveness of olanzapine were identified. It was concluded that for patients receiving high-dose chemotherapy with stem cell transplant, a combination of a 5-HT3 receptor antagonist with dexamethasone and apreptitant (125 mg orally on day 1 and 80 mg orally on days 2 to 4) is recommended before chemotherapy. For patients undergoing multiple-day chemotherapy-induced nausea and vomiting, a 5-HT3 receptor antagonist, dexamethasone, and apreptitant, are recommended before chemotherapy for the prophylaxis of acute emesis and delayed emesis. For patients experiencing breakthrough nausea and vomiting, the available evidence suggests the use of 10 mg oral olanzapine, daily for 3 days."

According to the news reporters, the research concluded: "Mild to moderate sedation in this patient population (especially elderly patients) is a potential problem with this agent."
For more information on this research see: 2016 updated MASCC/ESMO consensus recommendations: prevention of nausea and vomiting following multiple-day chemotherapy, high-dose chemotherapy, and breakthrough nausea and vomiting. Supportive Care in Cancer, 2017;25(1):303-308. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news correspondents report that additional information may be obtained by contacting L.H. Einhorn, Indiana University, Div Hematol Oncol, Simon Canc Center, Indianapolis, IN 46202, United States. Additional authors for this research include B. Rapoport, R.M. Navari, J. Herrstedt and M.J. Brames.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3449-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Drugs and Therapies, Stem Cell Research, Chemotherapy, Indiana University.

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Connective Tissue Cells

Study Data from Inner Mongolia University Update Understanding of Connective Tissue Cells (Isolation and characterization of white and brown adipocytes in Kunming mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Connective Tissue Cells have been presented. According to news reporting originating from Hohhot, People's Republic of China, by NewsRx correspondents, research stated, "White adipose tissue and brown adipose tissue play critical roles in controlling energy homeostasis and the development of obesity and diabetes. We isolated mouse white adipocytes from inguinal white fat tissues and brown adipocytes from interscapular brown fat tissues, and employed a variety of approaches, including immunofluorescent staining, quantitative real-time PCR, western blotting analysis, and differentiation assay, to characterize those adipocytes."

Our news editors obtained a quote from the research from Inner Mongolia University, "Both white and brown adipocytes stained positively for CD44 and CD29, and lipid droplets were observed after the induction of adipogenesis. The Asc1 expression level in the white adipocytes was 2.5-fold higher than that in the brown adipocytes (p <0.05), and the expression of Ucp1 in the white adipocytes was approximately 50% of that in the brown adipocytes (p <0.05). The expression of a-tubulin in the brown adipocytes was approximately 70% of that in the white adipocytes. The brown adipocytes had a higher Cidea mRNA level (p <0.05) and a lower Pparg mRNA level (p <0.05) than the white adipocytes."

According to the news editors, the research concluded: "The results demonstrate that white and brown adipocytes have different gene expression signatures, and may represent two useful cell models to study the mechanisms involved in obesity."

For more information on this research see: Isolation and characterization of white and brown adipocytes in Kunming mice. Genetics and Molecular Research [electronic...
The news editors report that additional information may be obtained by contacting Y.W. Nie, The Key Laboratory of China Education Ministry for Research of Mammal Reproductive Biology and Biotechnology, Inner Mongolia University, Hohhot, People's Republic of China. Additional authors for this research include P. Zhang, J. Zhang, H.Y. Liang, M. Wang, B. Dai, H. Liang and D.J Liu.

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Keywords for this news article include: Asia, Hohhot, Genetics, Adipocytes, Connective Tissue Cells, People's Republic of China.

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Genetics - Medical Genetics

Study Data from Institute for Cancer Research and Treatment (IRCCS) Update Knowledge of Medical Genetics [Sprengel anomaly in deletion 22q11.2 (DiGeorge/Velo-Cardio-Facial) syndrome]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Genetics - Medical Genetics are discussed in a new report. According to news reporting from Rome, Italy, by NewsRx journalists, research stated, "Sprengel anomaly (SA) is a rare skeletal defect characterized by uni-or bi-lateral elevation of the scapula. This anomaly is often isolated, although it can occur in association with other defects, including cervical spine malformations, cleft palate, and facial anomalies."

The news correspondents obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "Neural crest migration anomalies have been involved in the etiology of SA. Since the same embryological pathway accounts for some of the clinical features of deletion 22q11.2 syndrome (del22q11.2; DiGeorge/Velo-Cardio-Facial syndrome), we investigated the occurrence of SA in a consecutive series of 235 del22q11.2 patients aged more than 2 years, undergoing a complete clinical and orthopedic assessment of the dorsal and thoracic skeleton. In the present series, two patients were diagnosed with true SA. Present results and published reports suggest that scapular involvement including SA occurs in 1-2% of del22q11.2 individuals."

According to the news reporters, the research concluded: "Accordingly, this anomaly should be investigated as one of the possible skeletal findings of del22q11.2 syndrome, while this diagnosis should be excluded in patients presenting with SA associated with other defects."


Our news journalists report that additional information may be obtained by contacting F.C. Radio, Medical Genetic Unit and Laboratory of Medical Genetics, Bambino Gesu Pediatric Hospital, IRCCS, Rome, Italy. Additional authors for this research include M.C. Digilio, R. Capolino, M.L. Dentici, M. Unolt, V. Alesi, A. Novelli, B. Marino and B. Dallapiccola.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37503. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Medical Genetics.
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Nematodes

Study Data from K.S. Kim and Colleagues Update Understanding of Nematodes (Advancements in breeding, genetics, and genomics for resistance to three nematode species in soybean)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nematodes have been published. According to news reporting originating from Daejeon, South Korea, by NewsRx correspondents, research stated, "Integration of genetic analysis, molecular biology, and genomic approaches drastically enhanced our understanding of genetic control of nematode resistance and provided effective breeding strategies in soybeans. Three nematode species, including soybean cyst (SCN, Heterodera glycine), root-knot (RKN, Meloidogyne incognita), and reniform (RN, Rotylenchulus reniformis), are the most destructive pests and have spread to soybean growing areas worldwide."

Financial supporters for this research include The United Soybean Board, Missouri Soybean Merchandising Council.

Our news editors obtained a quote from the research, "Host plant resistance has played an important role in their control. This review focuses on genetic, genomic studies, and breeding efforts over the past two decades to identify and improve host resistance to these three nematode species. Advancements in genetics, genomics, and bioinformatics have improved our understanding of the molecular and genetic mechanisms of nematode resistance and enabled researchers to generate large-scale genomic resources and marker-trait associations. Whole-genome resequencing, genotyping-by-sequencing, genome-wide association studies, and haplotype analyses have been employed to map and dissect genomic locations for nematode resistance. Recently, two major SCN-resistant loci, Rhg1 and Rhg4, were cloned and other novel resistance quantitative trait loci (QTL) have been discovered. Based on these discoveries, gene-specific DNA markers have been developed for both Rhg1 and Rhg4 loci, which were useful for marker-assisted selection. With RKN resistance QTL being mapped, candidate genes responsible for RKN resistance were identified, leading to the development of functional single nucleotide polymorphism markers. So far, three resistances QTL have been genetically mapped for RN resistance."

According to the news editors, the research concluded: "With nematode species overcoming the host plant resistance, continuous efforts in the identification and deployment of new resistance genes are required to support the development of soybean cultivars with multiple and durable resistance to these pests."

For more information on this research see: Advancements in breeding, genetics, and genomics for resistance to three nematode species in soybean. Theoretical and Applied Genetics, 2016;129(12):2295-2311. Theoretical and Applied Genetics can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.
The news editors report that additional information may be obtained by contacting K.S. Kim, LG Chem FarmHannong Ltd, Daejeon 34115, South Korea. Additional authors for this research include T.D. Vuong, D. Qiu, R.T. Robbins, J.G. Shannon, Z.L. Li and H.T. Nguyen.

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Keywords for this news article include: Daejeon, South Korea, Asia, Nematodes, Article Review, Genetics.

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Oncology - Breast Cancer

Study Data from Kaohsiung Medical University Provide New Insights into Breast Cancer (Gallic acid-capped gold nanoparticles inhibit EGF-induced MMP-9 expression through suppression of p300 stabilization and NF kappa B/c-Jun activation in breast ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news originating from Kaohsiung, Taiwan, by NewsRx correspondents, research stated, "Triple-negative breast cancers (TNBCs) are highly invasive and have a higher rate of distant metastasis. Matrix metalloproteinase-9 (MMP-9) plays a crucial role in EGF/EGFR-mediated malignant progression and metastasis of TNBCs."

Our news journalists obtained a quote from the research from Kaohsiung Medical University, "Various studies have revealed that treatment with gallic acid down-regulates MMP-9 expression in cancer cells, and that conjugation of phytochemical compounds with gold nanoparticles (AuNPs) increases the anti-tumor activity of the phytochemical compounds. Thus, the effect of gallic acid-capped AuNPs (GA-AuNPs) on MMP-9 expression in EGF-treated TNBC MDA-MB-231 cells was analyzed in the present study. The so-called green synthesis of AuNPs by means of gallic acid was performed at pH 10, and the resulting GA-AuNPs had spherical shape with an average diameter of approximately 50 nm. GA-AuNPs notably suppressed migration and invasion of EGF-treated cells, and inhibited EGF-induced MMP-9 up-regulation. GA-AuNPs abrogated EGF-induced Akt/p65 and ERK/c-Jun phosphorylation, leading to down-regulation of MMP-9 mRNA and protein expression in EGF-treated cells. Meanwhile, EGF-induced p300 stabilization was found to be involved in MMP-9 expression, whereas GA-AuNPs inhibited the EGF-promoted stability of the p300 protein. Although GA-AuNPs and gallic acid suppressed EGF-induced MMP-9 up-regulation via the same signaling pathway, the effective concentration of gallic acid was approximately 100-fold higher than that of GA-AuNPs for inhibition of MMP-9 expression in EGF-treated cells to a similar extent. Collectively, our data indicate that, in comparison with gallic acid, GA-AuNPs have a superior ability to inhibit EGF/EGFR-mediated MMP-9 expression in TNBC MDA-MB-231 cells."

According to the news editors, the research concluded: "Our findings also point to a way to improve the anti-tumor activity of gallic acid."

For more information on this research see: Gallic acid-capped gold nanoparticles inhibit EGF-induced MMP-9 expression through suppression of p300 stabilization and NF

The news correspondents report that additional information may be obtained from L.S. Chang, Kaohsiung Medical University, Dept. of Biotechnol, Kaohsiung 807, Taiwan. Additional authors for this research include Y.C. Lee, C.H. Huang and L.S. Chang.

Keywords for this news article include: Kaohsiung, Taiwan, Asia, Transcription Factors, Emerging Technologies, DNA-Binding Proteins, Hydroxybenzoic Acids, Organic Chemicals, Nuclear Proteins, Carboxylic Acids, Nanotechnology, Women's Health, Breast Cancer, Nanoparticle, Gallic Acid, NF-kappa B, Oncology, Genetics, Kaohsiung Medical University.

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**Quality of Life**

**Study Data from Karolinska University Hospital Update Knowledge of Quality of Life (Health-related quality of life 10 years after oesophageal cancer surgery)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Quality of Life is the subject of a report. According to news originating from Stockholm, Sweden, by NewsRx correspondents, research stated, "To determine whether oesophageal cancer survivors recover in health-related quality of life (HRQOL) within 10 years of surgery. A prospective, nationwide, population-based cohort study including 90% of all oesophageal cancer surgery patients in Sweden in 2001-2005, with follow-up through 2015."

Our news journalists obtained a quote from the research from Karolinska University Hospital, "HRQOL was assessed 5 and 10 years postoperatively, using questionnaires for cancer in general (EORTC QLQ-C30) and oesophageal cancer specifically (EORTC QLQ-OES18). The HRQOL measures at 10 years after surgery were compared with the 5-year assessment. The 10-year HRQOL scores were compared with a population-based reference population (4910 individuals), individually matched for age, sex and comorbidity, by means of mean score differences with 95% confidence intervals. Among 616 patients, 104 (17%) survived at least 10 years. Of these, 92 (88%) responded to the HRQOL questionnaires at 5 and 10 years after surgery. Among the responders, 71% were older than 70 years. Patients did not improve in HRQOL between 5 and 10 years. Instead, the scores for 23 out of 25 HRQOL aspects declined, with clinically relevant and statistically significant deterioration in role function and appetite loss. Compared to the reference population, the 10-year-survivors had worse scores in all 25 HRQOL aspects, with significant deterioration in global quality of life, role functioning, social functioning and most symptoms. The most severe problems compared to the reference population were reflux, eating difficulties, diarrhoea and appetite loss."

According to the news editors, the research concluded: "Patients who have undergone curative treatment for oesophageal cancer experience reduced HRQOL with persisting symptoms 10 years after surgery."

The news correspondents report that additional information may be obtained from A. Schandl, Karolinska Inst, Surg Care Sci, Dept. of Mol Med & Surg, Karolinska Univ Hosp, S-17176 Stockholm, Sweden. Additional authors for this research include J. Lagergren, A. Johar and P. Lagergren.

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Keywords for this news article include: Stockholm, Sweden, Europe, Quality of Life, Epidemiology, Oncology, Surgery, Cancer, Karolinska University Hospital.

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Heart Disorders and Diseases - Dilated...

**Study Data from Kitasato University Update Knowledge of Dilated Cardiomyopathy (Clinical significance of endomyocardial biopsy in conjunction with cardiac magnetic resonance imaging to predict left ventricular reverse remodeling in idiopathic ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Dilated Cardiomyopathy have been presented. According to news reporting originating from Sagamihara, Japan, by NewsRx correspondents, research stated, "Endomyocardial biopsy (EMB) and cardiac magnetic resonance (CMR) are useful modalities to study the characteristics of myocardial tissue. However, the prognostic impact of both diagnostic tools to predict subsequent left ventricular reverse remodeling (LVRR) has not been well elucidated."

Our news editors obtained a quote from the research from Kitasato University, "A total of 187 consecutive patients with idiopathic dilated cardiomyopathy (IDCM) who were treated by optimal pharmacotherapy (OPT) and underwent EMB of the LV wall were investigated. The myocardial specimens were semiquantitatively evaluated measuring cardiomyocyte degeneration (CD), interstitial fibrosis (IF), and hypertrophy. In addition, late gadolinium enhancement (LGE)-CMR was performed in 78 (48 %) patients. Seventy-eight (48 %) patients developed LVRR, defined as a ae <yen >10 % increase in LV ejection fraction with a ae <yen >10 % decrease in indexed LV end-diastolic dimension at 12 months after OPT. Multivariate regression analysis revealed that CD (P = 0.003), but not IF (P = 0.320), was an independent predictor of LVRR. In the patients with not only EMB but also CMR, the CD score and LGE area were independent predictors of LVRR (odds ratios/P values 0.268/0.010, 0.855/ < 0.001, respectively). The patients with mild CD and negative LGE had a better achievement rate of LVRR than those with severe CD and positive LGE (74 vs. 19 %)."

According to the news editors, the research concluded: "A combination of CD score on EMB and LGE-CMR is useful to predict subsequent LVRR in IDCM patients."

For more information on this research see: Clinical significance of endomyocardial...
biopsy in conjunction with cardiac magnetic resonance imaging to predict left ventricular reverse remodeling in idiopathic dilated cardiomyopathy. *Heart and Vessels*, 2016;31 (12):1960-1968. *Heart and Vessels* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

The news editors report that additional information may be obtained by contacting S. Ishii, Kitasato University, Sch Med. Dept. of Cardiovasc Med, Minami Ku, Sagamihara, Kanagawa 2520374, Japan. Additional authors for this research include T. Inomata, T. Fujita, Y. Iida, Y. Ikeda, T. Nabeta, T. Yanagisawa, T. Naruke, T. Mizutani, T. Koitabashi, I. Takeuchi and J. Ako.

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Keywords for this news article include: Sagamihara, Japan, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiac Magnetic Resonance, Diagnostics and Screening, Dilated Cardiomyopathy, Cardiomyopathies, Heart Disease, Cardiology, Kitasato University.

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**Nutritional and Metabolic Diseases and Conditions -**

**Study Data from Klinikum Coburg GmbH Update Knowledge of Iron-Deficiency Anemia (A prospective observational study of effectiveness and safety of iron isomaltoside in patients with chronic renal failure and iron deficiency anemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Iron-Deficiency Anemia have been published. According to news reporting out of Coburg, Germany, by NewsRx editors, research stated, "The aim of this study was to investigate the effectiveness, safety, and tolerability of iron isomaltoside in routine practical care of iron deficiency anemia (IDA) in patients with chronic renal failure. The study included 698 patients with IDA on dialysis or with nondialysis chronic kidney disease (CKD) stages 3 - 5 designated by their physicians for treatment with iron isomaltoside."

Our news journalists obtained a quote from the research from Klinikum Coburg GmbH, "Data were recorded at baseline and after 3 and 9 months. Effectiveness data included measurement of hemoglobin (Hb), hematocrit, s-iron, transferrin saturation (TSAT), and s-ferritin. Safety data included adverse events and safety laboratory variables. Following administration of a mean cumulative dose of 2,574 mg isomaltoside over 9 months, initial average Hb increased from 11.0 g/dL to 11.6 g/dL, TSAT from 19.4% to 28.3%, and s-ferritin from 320 mu g/L to 642 mu g/L, demonstrating a positive effect of iron isomaltoside on iron deficiency. In addition, there was a significant reduction in the use of erythropoiesis-stimulating agents (ESAs) (regarding epoetin a, initial mean dose 40,688 IU/month, final dose 35,665 IU/month, -13.7%, p< 0.001). No drug-related adverse events were reported. Furthermore, safety parameters including s-phosphate indicated no abnormal changes."

According to the news editors, the research concluded: "Iron isomaltoside
demonstrated very good effectiveness and tolerability in patients with stage 3 - 5 CKD, including an ESA saving effect."

For more information on this research see: A prospective observational study of effectiveness and safety of iron isomaltoside in patients with chronic renal failure and iron deficiency anemia. *Clinical Nephrology*, 2016;86(6):310-318. *Clinical Nephrology* can be contacted at: Dustri-Verlag Dr Karl Feistle, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.

Our news journalists report that additional information may be obtained by contacting P. Biggar, Klinikum Coburg GmbH, Div Nephrol, D-96450 Coburg, Germany. Additional authors for this research include F. Leistikow and A. Walper.

Keywords for this news article include: Coburg, Germany, Europe, Nutritional and Metabolic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Clinical Trials and Studies, Iron-Deficiency Anemia, Clinical Research, Iron Deficiency, Nephrology, Hematology, Kidney, Klinikum Coburg GmbH.

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**Stem Cell Research - Mesenchymal Stem Cells**

**Study Data from Konkuk University Provide New Insights into Mesenchymal Stem Cells (Human adipose mesenchymal stem cell-derived exosomal-miRNAs are critical factors for inducing anti-proliferation signalling to A2780 and SKOV-3 ovarian cancer ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Stem Cell Research - Mesenchymal Stem Cells is the subject of a report. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "An enigmatic question exists concerning the pro-or anti-cancer status of mesenchymal stem cells (MSCs). Despite growing interest, this question remains unanswered, and the debate became intensified with new evidences backing each side."

The news correspondents obtained a quote from the research from Konkuk University, "Here, we showed that human adipose MSC (hAMSC)-derived conditioned medium (CM) exhibited inhibitory effects on A2780 human ovarian cancer cells by blocking the cell cycle, and activating mitochondria-mediated apoptosis signalling. Explicitly, we demonstrated that exosomes, an important biological component of hAMSC-CM, could restrain proliferation, wound-repair and colony formation ability of A2780 and SKOV-3 cancer cells. Furthermore, hAMSC-CM-derived exosomes induced apoptosis signalling by upregulating different pro-apoptotic signalling molecules, such as BAX, CASP9, and CASP3, as well as downregulating the anti-apoptotic protein BCL2. More specifically, cancer cells exhibited reduced viability following fresh or protease-digested exosome treatment; however, treatment with RNase-digested exosomes could not inhibit the proliferation of cancer cells. Additionally, sequencing of exosomal RNAs revealed a rich population of microRNAs (miRNAs), which exhibit anti-cancer activities by targeting different molecules associated with cancer survival. Our findings indicated that exosomal miRNAs are important players involved in the inhibitory influence of hAMSC-CM towards ovarian cancer cells."

According to the news reporters, the research concluded: "Therefore, we believe that
these comprehensive results will provide advances concerning ovarian cancer research and treatment."

For more information on this research see: Human adipose mesenchymal stem cell-derived exosomal-miRNAs are critical factors for inducing anti-proliferation signalling to A2780 and SKOV-3 ovarian cancer cells. Scientific Reports, 2016;6():1-15. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting J.H. Kim, Konkuk University, Dept. of Stem Cell & Regenerat Biol, Humanized Pig Res Center SRC, Seoul 143701, South Korea. Additional authors for this research include Y.J. Choi, H. Yasuda and J.H. Kim.

Keywords for this news article include: Seoul, South Korea, Asia, Cytoplasmic Structures, Mesenchymal Stem Cells, Stem Cell Research, Transport Vesicles, Organelles, Exosomes, Oncology, Cancer, Konkuk University.

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Science

Study Data from Korea University Update Knowledge of Science (Measurement of the Nucleus Area and Nucleus/Cytoplasm and Mitochondria/Nucleus Ratios in Human Colon Tissues by Dual-Colour Two-Photon Microscopy Imaging)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Science have been published. According to news reporting originating from Seoul, South Korea, by NewsRx correspondents, research stated, "We developed two-photon (TP) probes for DNA (ABI-Nu), cytoplasm (Pyr-CT), and mitochondria (BF-MT). We found that ABI-Nu binds to AT in the minor groove, while ABI-Nu and BF-MT are effective for tracking in the cytoplasm and mitochondria, respectively."

Our news editors obtained a quote from the research from Korea University, "These probes showed very large effective two-photon action cross section values of 2230, 1555, and 790 G?ppert-Mayer units (1 GM=10(-50) cm(4) s photon(-1) molecule(-1)) at 740 nm with emission maxima at 473, 561, and 560 nm, respectively, in each organelle. Using these probes, we quantitatively estimated the mean nuclear area and the ratios of nuclei to cytoplasm and mitochondria to nuclei in human colon tissues by dual-colour two-photon microscopy imaging within 2 h after biopsy. The mean nuclear area and the nuclei to cytoplasm and mitochondria to cytoplasm ratios increased in the following order: normal colon mucosa <colon adenoma <colon adenocarcinoma."

According to the news editors, the research concluded: "Furthermore, the nuclear areas of these tissues showed significant differences that were well outside of the ranges of experimental errors, indicating the diagnostic potential of this method."

For more information on this research see: Measurement of the Nucleus Area and Nucleus/Cytoplasm and Mitochondria/Nucleus Ratios in Human Colon Tissues by Dual-Colour Two-Photon Microscopy Imaging. Scientific Reports, 2015;5():18521. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)
The news editors report that additional information may be obtained by contacting C. Su Lim, Dept. of Chemistry, Korea University, 145 Anam-ro, Sungbuk-gu, Seoul 136-713, South Korea. Additional authors for this research include E. Sun Kim, J. Yeon Kim, S. Taek Hong, H. Jai Chun, D. Eun Kang and B. Rae Cho.

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Keywords for this news article in clude: Asia, Seoul, Science, Genetics, South Korea. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

Oncology - Breast Cancer

Study Data from Kumamoto University Update Knowledge of Breast Cancer (Prognostic role of PIK3CA mutations of cell-free DNA in early-stage triple negative breast cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting originating in Kumamoto, Japan, by NewsRx journalists, research stated, "PIK3CA is an oncogene that encodes the p110a component of phosphatidylinositol 3-kinase (PI3K); it is the second most frequently mutated gene following the TP53 gene. In the clinical setting, PIK3CA mutations may have favorable prognostic value for hormone receptor-positive breast cancer patients and, during the past few years, PIK3CA mutations of cell-free DNA (cfDNA) have attracted attention as a potential noninvasive biomarker of cancer."

The news reporters obtained a quote from the research from Kumamoto University, "However, there are few reports on the clinical implications of PIK3CA mutations for TNBC patients. We investigated the PIK3CA major mutation status of cfDNA as a noninvasive biomarker of cancer using droplet digital polymerase chain reaction (ddPCR), which has high level sensitivity and specificity for cancer mutation, in early-stage 49 triple negative breast cancer (TNBC) patients. A total of 12 (24.4%) of 49 patients had PIK3CA mutations of cfDNA. In a median follow up of 54.4 months, the presence of PIK3CA mutations of cfDNA had significant impacts on relapse-free survival (RFS; p=0.0072) and breast cancer-specific survival (BCSS; p=0.016), according to the log-lank test. In a Cox proportional hazards model, the presence of PIK3CA mutations of cfDNA had significant prognostic value in the univariate and multivariate analysis. Additionally, the presence of PIK3CA mutations of cfDNA was significantly correlated with positive androgen receptor phosphorylated form depending on PI3K signaling pathway (pAR) which is independent favorable prognostic factors of TNBC."

According to the news reporters, the research concluded: "We demonstrated that the presence of PIK3CA major mutations of cfDNA could be a discriminatory predictor of RFS and BCSS in early-stage TNBC patients and it was associated with PI3K pathway-dependent AR phosphorylation."


Our news correspondents report that additional information may be obtained by
contacting T. Takeshita, Dept. of Breast and Endocrine surgery, Graduate School of Medical Science, Kumamoto University, Kumamoto, Japan. Additional authors for this research include Y. Yamamoto, M. Yamamoto-Ibusuki, T. Inao, A. Sueta, S. Fujiwara, Y. Omoto and H. Iwase.

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Keywords for this news article include: Asia, Japan, Kumamoto, Genetics, Oncology, Breast Cancer, Women's Health, Diagnostics and Screening.

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Glycoconjugates

Study Data from Kyung Hee University Update Understanding of Glycoconjugates [Decursin in Angelica gigas Nakai (AGN) Enhances Doxorubicin Chemosensitivity in NCI/ADR-RES Ovarian Cancer Cells via Inhibition of P-glycoprotein Expression]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Glycoconjugates. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "Angelica gigas Nakai (AGN, Korean Dang-gui) is traditionally used for the treatment of various diseases including cancer. Here, we investigated multidrug-resistant phenotype-reversal activities of AGN and its compounds (decursin, ferulic acid, and nodakenin) in doxorubicin-resistant NCI/ADR-RES ovarian cancer cells."

The news reporters obtained a quote from the research from Kyung Hee University, "Our results showed that a combination of doxorubicin with either AGN or decursin inhibited a proliferation of NCI/ADR-RES cells. These combinations increased the number of cells at sub-G1 phase when cells were stained with Annexin V-fluorescein isothiocyanate. We also found that these combinations activated caspase-9, caspase-8, and caspase-3 and increased cleaved PARP level. Moreover, an inhibition of P-glycoprotein expression by either AGN or decursin resulted in a reduction of its activity in NCI/ADR-RES cells. Therefore, our data demonstrate that decursin in AGN inhibits doxorubicin-resistant ovarian cancer cell proliferation and induces apoptosis in the presence of doxorubicin via blocking P-glycoprotein expression."

According to the news reporters, the research concluded: "Therefore, AGN would be a potentially novel treatment option for multidrug-resistant tumors by sensitizing to anticancer agents."


Our news correspondents report that additional information may be obtained by contacting S.G. Ko, Kyung Hee Univ, Dept. of Prevent Med, Coll Korean Med, Seoul 130701, South Korea. Additional authors for this research include S.G. Cho, M.K. Kim, M.S. Kim, S.H. Moon, I.H. Kim and S.G. Ko.
Parkinson's Disease

Study Data from Kyungpook National University Update Knowledge of Parkinson's Disease (Induction of microglial toll-like receptor 4 by prothrombin kringle-2: a potential pathogenic mechanism in Parkinson's disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Parkinson's disease. According to news reporting out of Daegu, South Korea, by NewsRx editors, research stated, "Microglia-mediated neuroinflammation may play an important role in the initiation and progression of dopaminergic (DA) neurodegeneration in Parkinson's disease (PD), and toll-like receptor 4 (TLR4) is essential for the activation of microglia in the adult brain. However, it is still unclear whether patients with PD exhibit an increase in TLR4 expression in the brain, and whether there is a correlation between the levels of prothrombin kringle-2 (pKr-2) and microglial TLR4."

Our news journalists obtained a quote from the research from Kyungpook National University, "In the present study, we first observed that the levels of pKr-2 and microglial TLR4 were increased in the substantia nigra (SN) of patients with PD. In rat and mouse brains, intranigral injection of pKr-2, which is not directly toxic to neurons, led to the disruption of nigrostriatal DA projections. Moreover, microglial TLR4 was upregulated in the rat SN and in cultures of the BV-2 microglial cell line after pKr-2 treatment. In TLR4-deficient mice, pKr-2-induced microglial activation was suppressed compared with wild-type mice, resulting in attenuated neurotoxicity."

According to the news editors, the research concluded: "Therefore, our results suggest that pKr-2 may be a pathogenic factor in PD, and that the inhibition of pKr-2-induced microglial TLR4 may be protective against degeneration of the nigrostriatal DA system in vivo."

For more information on this research see: Induction of microglial toll-like receptor 4 by prothrombin kringle-2: a potential pathogenic mechanism in Parkinson's disease. Scientific Reports, 2015;5():14764. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting W.H. Shin, School of Life Sciences, Kyungpook National University, Daegu 702-701, South Korea. Additional authors for this research include M.T. Jeon, E. Leem, S.Y. Won, K.H. Jeong, S.J. Park, C. McLean, S.J. Lee, B.K. Jin, U.J. Jung and S.R Kim.

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Movement Disorders, Parkinson's Disease, Toll Like Receptor 4, Enzymes and Coenzymes, Parkinsonian Disorders, Blood Coagulation Factors, Brain Diseases and Conditions, Pattern Recognition Receptors.

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Oncology - Liver Cancer

Study Data from Kyushu University Update Knowledge of Liver Cancer (Sarcopenia is a poor prognostic factor following hepatic resection in patients aged 70 years and older with hepatocellular carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Liver Cancer is now available. According to news reporting originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "The present study investigated the effect of sarcopenia on short- and long-term surgical outcomes and identified potential prognostic factors for hepatocellular carcinoma (HCC) following hepatectomy among patients 70 years of age and older. Patient data were retrospectively collected for 296 consecutive patients who underwent hepatectomy for HCC with curative intent."

Our news editors obtained a quote from the research from Kyushu University, "Patients were assigned to two groups according to age (younger than 70 years, and 70 years and older), and the presence of sarcopenia. The clinicopathological, surgical outcome, and long-term survival data were analyzed. Sarcopenia was present in 112 of 296 (37.8%) patients with HCC, and 35% of patients aged 70 years and older. Elderly patients had significantly lower serum albumin levels, prognostic nutrition index, percentage of liver cirrhosis, and histological intrahepatic metastasis compared with patients younger than 70 years. Overall survival and disease-free survival rates in patients with sarcopenia correlated with significantly poor prognosis in the group aged 70 years and older. Multivariate analysis revealed that sarcopenia was predictive of an unfavorable prognosis."

According to the news editors, the research concluded: "This retrospective analysis revealed that sarcopenia was predictive of worse overall survival and recurrence-free survival after hepatectomy in patients 70 years of age and older with HCC."

For more information on this research see: Sarcopenia is a poor prognostic factor following hepatic resection in patients aged 70 years and older with hepatocellular carcinoma. Hepatology Research, 2016;46(12):1247-1255. Hepatology Research can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Elsevier - www.elsevier.com; Hepatology Research - www.journals.elsevier.com/hepatology-research/)

The news editors report that additional information may be obtained by contacting T. Yoshizumi, Kyushu University, Dept. of Surg & Sci, Grad Sch Med Sci, Fukuoka, Japan. Additional authors for this research include T. Yoshizumi, M. Shimokawa, K. Sakata, K. Kimura, S. Itoh, T. Ikegami, T. Ikeda, K. Shirabe and Y. Maehara.

Keywords for this news article include: Fukuoka, Japan, Asia, Musculoskeletal Diseases and Conditions, Nervous System Diseases and Conditions, Digestive System Surgical Procedures, Neuromuscular Manifestations, Neurologic Manifestations, Hepatic Resection, Gastroenterology, Muscular Atrophy, Liver Cancer, Hepatectomy, Carcinomas, Sarcopenia, Oncology, Surgery, Kyushu University.
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Heart Disorders and Diseases - Heart Attack

Study Data from L.J. Lambert et al Provide New Insights into Heart Attack (Outcomes of Patients With ST-Elevation Myocardial Infarction Receiving and Not Receiving Reperfusion Therapy: The Importance of Examining All Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting from Montreal, Canada, by NewsRx journalists, research stated, "Hospitals treating patients with ST-elevation myocardial infarction (STEMI) may show good results with reperfusion treatment (fibrinolysis or primary percutaneous coronary intervention [PPCI]), but a comprehensive evaluation should factor in outcomes of patients with STEMI who do not receive reperfusion. We compared outcomes of patients receiving and not receiving reperfusion within a complete system of STEMI care by hospital type: PPCI centres, fibrinolysis centres, centres that only transfer for PPCI, and centres providing a mix of fibrinolysis and PPCI transfer."

The news correspondents obtained a quote from the research, "All patients presenting to 82 Quebec hospitals with characteristic symptoms, a final diagnosis of acute myocardial infarction, and core-laboratory confirmed STEMI over two 6-month periods were studied. Of the total 3731 patients with STEMI, 2918 (78.2%) received reperfusion treatment (81% PPCI, 19% fibrinolysis); 813 (21.8%) did not. For reperfusion-treated patients, 30-day mortality was 5.4% in PPCI centres, 5.4% in fibrinolysis centres, 6.9% in transfer PPCI centres, and 6.0% in mixed centres (P = 0.55). For untreated patients, 30-day mortality was 15.7% (PPCI centres), 16.1% (fibrinolysis centres), 21.8% (transfer PPCI), and 24.6% (mixed) (P = 0.08). Adjusted mortality odds ratios for all patients were 1.00 (PPCI centres), 1.50 (95% CI: 0.97-2.32; fibrinolysis centres), 1.30 (0.95-1.78; transfer PPCI centres), and 1.58 (1.09-2.29; mixed centres). PPCI was within recommended delays in 35.4%, 11.9%, and 1.2% of PPCI, transfer, and mixed centres, respectively. Mixed centres had the highest crude and adjusted all-patient 30-day STEMI mortality."

According to the news reporters, the research concluded: "Relatively good outcomes of reperfusion-treated patients, despite long treatment delays, can misrepresent overall performance if untreated patients are not examined."


Study Data from Leiden University Update Understanding of Osteosarcomas (MEK inhibition induces apoptosis in osteosarcoma cells with constitutive ERK1/2 phosphorylation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Osteosarcomas are presented in a new report. According to news originating from Leiden, Netherlands, by NewsRx correspondents, research stated, "Conventional high-grade osteosarcoma is the most common primary bone cancer with relatively high incidence in young people. Recurrent and metastatic tumors are difficult to treat."

Our news journalists obtained a quote from the research from Leiden University, "We performed a kinase inhibitor screen in two osteosarcoma cell lines, which identified MEK1/2 inhibitors. These inhibitors were further validated in a panel of six osteosarcoma cell lines. Western blot analysis was performed to assess ERK activity and efficacy of MEK inhibition. A 3D culture system was used to validate results from 2D monolayer cultures. Gene expression analysis was performed to identify differentially expressed gene signatures in sensitive and resistant cell lines. Activation of the AKT signaling network was explored using Western blot and pharmacological inhibition. In the screen, Trametinib, AZD8330 and TAK-733 decreased cell viability by more than 50%. Validation in six osteosarcoma cell lines identified three cell lines as resistant and three as sensitive to the inhibitors. Western blot analysis of ERK activity revealed that sensitive lines had high constitutive ERK activity. Treatment with the three MEK inhibitors in a 3D culture system validated efficacy in inhibition of osteosarcoma viability."

According to the news editors, the research concluded: "MEK1/2 inhibition represents a candidate treatment strategy for osteosarcomas displaying high MEK activity as determined by ERK phosphorylation status."

For more information on this research see: MEK inhibition induces apoptosis in osteosarcoma cells with constitutive ERK1/2 phosphorylation. Genes & Cancer, 2015:6(11-12):503-12. (Sage Publications - www.sagepub.com/; Genes & Cancer - gan.sagepub.com)

The news correspondents report that additional information may be obtained from Z. Baranski, Division of Toxicology, Leiden, Academic Center for Drug Research, Leiden University, Leiden, Netherlands. Additional authors for this research include T.H. Booij, M.L. Kuijjer, Y. de Jong, A.M. Cleton-Jansen, L.S. Price, B. van de Water, J.V. Bovee, P.C. Hogendoorn and E.H Danen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/genesandcancer.91. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leiden, Europe, Genetics, Oncology, Apoptosis, Cell Line, Netherlands, Orthopedics, Osteosarcomas, Diagnostics and Screening.
Liver Diseases and Conditions - Acute Hepatitis

Study Data from M. Dirchwolf et al Provide New Insights into Acute Hepatitis (Clinical epidemiology of acute hepatitis C in South America)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Liver Diseases and Conditions - Acute Hepatitis. According to news reporting originating in Buenos Aires, Argentina, by NewsRx journalists, research stated, "There is scarce data pertaining to acute hepatitis C (aHC) infection in South America. We aimed to describe clinical characteristics and evolution of aHC in a South American cohort."

The news reporters obtained a quote from the research, "A retrospective survey was conducted at 13 hepatology units. All patients 16 years old with aHC diagnosis were included. Demographic, clinical and outcome information were registered in a standardized ad hoc questionnaire. Sixty-four patients were included. The majority were middle-aged (median age: 46 years) and female (65.6%); most of them were symptomatic at diagnosis (79.6%). HCV-1 was the most prevalent genotype (69.2%). Five patients had liver failure: three cases of severe acute hepatitis, one case of fulminant hepatitis and one case of acute-on-chronic liver failure. Nosocomial exposure was the most prevalent risk factor. Evolution was assessed in 46 patients. In the untreated cohort, spontaneous resolution occurred in 45.8% and was associated with higher values of AST/ALT and with the absence of intermittent HCV RNA viremia (P=0.01, 0.05, and 0.01, respectively). In the treated cohort, sustained virological response was associated with nosocomial transmission and early treatment initiation (P=0.04 each)."

According to the news reporters, the research concluded: "The prevalence of nosocomial transmission in this South-American cohort of aHC stresses the importance of following universal precautions to prevent HCV infection. J. Med. Virol. 89:276-283, 2017."


Keywords for this news article include: Buenos Aires, Argentina, South America, Digestive System Diseases and Conditions, Nosocomial Diseases and Conditions, Epidemiology, Risk and Prevention, Infectious Disease and Conditions, Liver Diseases and Conditions, Hepatic Insufficiency, Gastroenterology, Acute Hepatitis, Liver Failure, Hepatology, Genetics.

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Bacterial Infections and Mycoses - Aspergillosis

Study Data from M. Shirley et al Provide New Insights into Aspergillosis (Isavuconazole: A Review in Invasive Aspergillosis and Mucormycosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Bacterial Infections and Mycoses - Aspergillosis. According to news reporting originating from Auckland, New Zealand, by NewsRx correspondents, research stated, "Isavuconazole is a second-generation triazole with activity against a broad spectrum of clinically important fungi. Its water-soluble prodrug, isavuconazonium sulfate (Cresemba ®), available in interchangeable intravenous and oral formulations, is approved in the USA and EU for the treatment of adults with invasive aspergillosis and mucormycosis."

Our news editors obtained a quote from the research, "In international phase III clinical trials, isavuconazole was efficacious and generally well tolerated in the treatment of these life-threatening diseases. In the phase III SECURE trial, isavuconazole was non-inferior to voriconazole for the primary treatment of invasive mould disease (primarily aspergillosis) and was associated with fewer drug-related treatment-emergent adverse events (TEAEs) than voriconazole. In addition, the single-arm, phase III VITAL trial and a matched case-control analysis of isavuconazole-versus amphotericin B-treated patients provided evidence of the efficacy of isavuconazole in the treatment of mucormycosis. The most commonly reported TEAEs among isavuconazole recipients were gastrointestinal disorders such as nausea, vomiting and diarrhoea."

According to the news editors, the research concluded: "Isavuconazole has several other attributes that make it a useful new treatment option for these invasive mould diseases, including predictable pharmacokinetics, excellent bioavailability, no food effect with the oral formulation, and its potential utility in renally impaired patients given the absence of cyclodextrin in the intravenous formulation."


The news editors report that additional information may be obtained by contacting M. Shirley, Springer, Auckland 0754, New Zealand.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40265-016-0652-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Auckland, New Zealand, Australia and New Zealand, Fungal Diseases and Conditions, Article Review, Drugs and Therapies, Bacterial Infections and Mycoses, Aspergillosis, Mucormycosis, Zygomycosis.

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Membrane Proteins - Immunologic Receptors

Study Data from M.D. Anderson Cancer Center Update Understanding of Immunologic Receptors (The microRNA-200/Zeb1 axis regulates ECM-dependent b1-integrin/FAK signaling, cancer cell invasion and metastasis through CRKL)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Membrane Proteins - Immunologic Receptors have been published. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Tumor cell metastasis is a complex process that has been mechanistically linked to the epithelial-mesenchymal transition (EMT). The double-negative feedback loop between the microRNA-200 family and the Zeb1 transcriptional repressor is a master EMT regulator, but there is incomplete understanding of how miR-200 suppresses invasion."

The news correspondents obtained a quote from the research from M.D. Anderson Cancer Center, "Our recent efforts have focused on the tumor cell-matrix interactions essential to tumor cell activation. Herein we utilized both our Kras/p53 mutant mouse model and human lung cancer cell lines to demonstrate that upon miR-200 loss integrin b1-collagen I interactions drive 3D in vitro migration/invasion and in vivo metastases. Zeb1-dependent EMT enhances tumor cell responsiveness to the ECM composition and activates FAK/Src pathway signaling by de-repression of the direct miR-200 target, CRKL. We demonstrate that CRKL serves as an adaptor molecule to facilitate focal adhesion formation, mediates outside-in signaling through Itgb1 to drive cell invasion, and inside-out signaling that maintains tumor cell-matrix contacts required for cell invasion. Importantly, CRKL levels in pan-cancer TCGA analyses were predictive of survival and CRKL knockdown suppressed experimental metastases in vivo without affecting primary tumor growth."

According to the news reporters, the research concluded: "Our findings highlight the critical ECM-tumor cell interactions regulated by miR-200/Zeb1-dependent EMT that activate intracellular signaling pathways responsible for tumor cell invasion and metastasis."

For more information on this research see: The microRNA-200/Zeb1 axis regulates ECM-dependent b1-integrin/FAK signaling, cancer cell invasion and metastasis through CRKL. Scientific Reports, 2016;6():18652. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting C. Ungewiss, Dept. of Thoracic, Head and Neck Medical Oncology, The University of Texas MD Anderson Cancer Center, Houston, TX 77030, United States. Additional authors for this research include Z.H. Rizvi, J.D. Roybal, D.H. Peng, K.A. Gold, D.H. Shin, C.J. Creighton and D.L Gibbons.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18652. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Texas, Cancer, Houston, Oncology, Integrins, United States, Membrane Proteins, Immunologic Receptors, North and Central America.

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Oncology - Chronic Myeloid Leukemia

Study Data from M.E. Gaudiano and Co-Authors Update Knowledge of Chronic Myeloid Leukemia (About the discrete-continuous nature of a hematopoiesis model for Chronic Myeloid Leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Chronic Myeloid Leukemia have been published. According to news reporting originating from Porto Salvo, Portugal, by NewsRx correspondents, research stated, "Blood of mammals is composed of a variety of cells suspended in a fluid medium known as plasma. Hematopoiesis is the biological process of birth, replication and differentiation of blood cells."

Our news editors obtained a quote from the research, "Despite of being essentially a stochastic phenomenon followed by a huge number of discrete entities, blood formation has naturally an associated continuous dynamics, because the cellular populations can - on average easily be described by (e.g.) differential equations. This deterministic dynamics by no means contemplates some important stochastic aspects related to abnormal hematopoiesis, that are especially significant for studying certain blood cancer deceases. For instance, by mere stochastic competition against the normal cells, leukemic cells sometimes do not reach the population threshold needed to kill the organism. Of course, a pure discrete model able to follow the stochastic paths of billons of cells is computationally impossible. In order to avoid this difficulty, we seek a trade-off between the computationally feasible and the biologically realistic, deriving an equation able to size conveniently both the discrete and continuous parts of a model for hematopoiesis in terrestrial mammals, in the context of Chronic Myeloid Leukemia. Assuming the cancer is originated from a single stem cell inside of the bone marrow, we also deduce a theoretical formula for the probability of non-diagnosis as a function of the mammal average adult mass."

According to the news editors, the research concluded: "In addition, this work cellular dynamics analysis may shed light on understanding Peto's paradox, which is shown here as an emergent property of the discrete-continuous nature of the system."

For more information on this research see: About the discrete-continuous nature of a hematopoiesis model for Chronic Myeloid Leukemia. Mathematical Biosciences, 2016;282 ():174-180. Mathematical Biosciences can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Mathematical Biosciences - www.journals.elsevier.com/mathematical-biosciences/)

The news editors report that additional information may be obtained by contacting M.E. Gaudiano, ATP Grp, P-2744016 Porto Salvo, Portugal. Additional authors for this research include T. Lenaerts and J.M. Pacheco.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mbs.2016.11.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Porto Salvo, Portugal, Europe, Chronic Myeloid Leukemia, Hematopoiesis, Hematology, Oncology.

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Drugs and Therapies - Heparin Therapy

Study Data from M.H. Ni et al Provide New Insights into Heparin Therapy (Investigating Glycol-Split-Heparin-Derived Inhibitors of Heparanase: A Study of Synthetic Trisaccharides)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Heparin Therapy is the subject of a report. According to news reporting from Milan, Italy, by NewsRx journalists, research stated, "Heparanase is the only known endoglycosidase able to cleave heparan sulfate. Roneparstat and necuparanib, heparanase inhibitors obtained from heparin and currently being tested in man as a potential drugs against cancer, contain in their structure glycol-split uronic acid moieties probably responsible for their strong inhibitory activity."

The news correspondents obtained a quote from the research, "We describe here the total chemical synthesis of the trisaccharide GlcNS6S-GlcA-1,6anGlcNS (1) and its glycol-split (gs) counterpart GlcNS6S-gsGlcA-1,6anGlcNS (2) from glucose. As expected, in a heparanase inhibition assay, compound 2 is one order of magnitude more potent than 1. Using molecular modeling techniques we have created a 3D model of 1 and 2 that has been validated by NOESY NMR experiments. The pure synthetic oligosaccharides have allowed the first in depth study of the conformation of a glycol-split glucuronic acid. Introducing a glycol-split unit in the structure of 1 increases the conformational flexibility and shortens the distance between the two glucosamine motives, thus promoting interaction with heparanase."

According to the news reporters, the research concluded: "However, comparing the relative activities of 2 and roneparstat, we can conclude that the glycol-split motive is not the only determinant of the strong inhibitory effect of roneparstat."

For more information on this research see: Investigating Glycol-Split-Heparin-Derived Inhibitors of Heparanase: A Study of Synthetic Trisaccharides. *Molecules*, 2016;21(11):2709-2722. *Molecules* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting M.H. Ni, Ist Ric Chim & Biochim G Ronzoni Srl, I-20133 Milan, Italy. Additional authors for this research include S. Elli, A. Naggi, M. Guerrini, G. Torri and M. Petitou.

Keywords for this news article include: Milan, Italy, Europe, Enzymes and Coenzymes, Drugs and Therapies, Heparin Therapy, Heparanase.

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Science

Study Data from Max-Planck-Institute for Molecular Plant Physiology Update Understanding of Science (Gene regulatory network inference using fused LASSO on multiple data sets)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Science have been presented. According to news
originating from Potsdam, Germany, by NewsRx correspondents, research stated, "Devising computational methods to accurately reconstruct gene regulatory networks given gene expression data is key to systems biology applications. Here we propose a method for reconstructing gene regulatory networks by simultaneous consideration of data sets from different perturbation experiments and corresponding controls."

Our news journalists obtained a quote from the research from Max-Planck-Institute for Molecular Plant Physiology, "The method imposes three biologically meaningful constraints: (1) expression levels of each gene should be explained by the expression levels of a small number of transcription factor coding genes, (2) networks inferred from different data sets should be similar with respect to the type and number of regulatory interactions, and (3) relationships between genes which exhibit similar differential behavior over the considered perturbations should be favored. We demonstrate that these constraints can be transformed in a fused LASSO formulation for the proposed method. The comparative analysis on transcriptomics time-series data from prokaryotic species, *Escherichia coli* and *Mycobacterium tuberculosis*, as well as a eukaryotic species, mouse, demonstrated that the proposed method has the advantages of the most recent approaches for regulatory network inference, while obtaining better performance and assigning higher scores to the true regulatory links."

According to the news editors, the research concluded: "The study indicates that the combination of sparse regression techniques with other biologically meaningful constraints is a promising framework for gene regulatory network reconstructions."

For more information on this research see: Gene regulatory network inference using fused LASSO on multiple data sets. *Scientific Reports*, 2016;6():20533. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from N. Omranian, Systems Biology and Mathematical Modelling Group, Max Planck Institute for Molecular Plant Physiology, Am Muehlenberg 1, 14476 Potsdam, Germany. Additional authors for this research include J.M. Eloundou-Mbebi, B. Mueller-Roeber and Z. Nikoloski.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep20533. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Potsdam, Germany, Science, Genetics.

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**Heart Disorders and Diseases - Heart Attack**

**Study Data from Mayo Clinic Update Understanding of Heart Attack (Improving Survival From Cardiac Arrest: A Review of Contemporary Practice and Challenges)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Heart Attack. According to news reporting out of Rochester, Minnesota, by NewsRx editors, research stated, "Cardiac arrest is a common and lethal condition frequently encountered by emergency medicine providers. Resuscitation of persons after cardiac arrest remains challenging, and outcomes remain poor overall."
Our news journalists obtained a quote from the research from Mayo Clinic, "Successful resuscitation hinges on timely, high-quality cardiopulmonary resuscitation. The optimal method of providing chest compressions and ventilator support during cardiac arrest remains uncertain. Prompt and effective defibrillation of ventricular arrhythmias is one of the few effective therapies available for treatment of cardiac arrest. Despite numerous studies during several decades, no specific drug delivered during cardiac arrest has been shown to improve neurologically intact survival after cardiac arrest. Extracorporeal circulation can rescue a minority of highly selected patients with refractory cardiac arrest. Current management of pulseless electrical activity is associated with poor outcomes, but it is hoped that a more targeted diagnostic approach based on electrocardiography and bedside cardiac ultrasonography may improve survival. The evolution of postresuscitation care appears to have improved cardiac arrest outcomes in patients who are successfully resuscitated. The initial approach to early stabilization includes standard measures, such as support of pulmonary function, hemodynamic stabilization, and rapid diagnostic assessment. Coronary angiography is often indicated because of the high frequency of unstable coronary artery disease in comatose survivors of cardiac arrest and should be performed early after resuscitation."

According to the news editors, the research concluded: "Optimizing and standardizing our current approach to cardiac arrest resuscitation and postresuscitation care will be essential for developing strategies for improving survival after cardiac arrest."


Our news journalists report that additional information may be obtained by contacting J.C. Jentzer, Mayo Clinic, Div Cardiovasc Dis, Rochester, MN 55902, United States. Additional authors for this research include C.M. Clements, R.S. Wright, R.D. White and A.S. Jaffe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.annemergmed.2016.05.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Resuscitation, Diagnostics and Screening, Heart Disorders and Diseases, Emergency Treatment, Cardiac Arrest, Heart Attack, Cardiology, Mayo Clinic.

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**Angiogenesis**

**Study Data from Medical University Update Knowledge of Angiogenesis (Effects of calcitriol on random skin flap survival in rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Angiogenesis is now available. According to news reporting originating from Wenzhou, People's Republic of China, by NewsRx correspondents, research stated, "Calcitriol, a metabolite of vitamin D, is often used in osteoporosis clinics. However, the material has other bioactivities; for example, it accelerates angiogenesis, has anti-inflammatory properties, and inhibits oxidative stress."
Our news editors obtained a quote from the research from Medical University, "We investigated the effects of calcitriol in a random skin flap rat model. 'McFarlane flap' models were established in 84 male Sprague Dawley rats, divided into two groups. One group received intraperitoneal injections of calcitriol (2 mg/kg/day) whereas control rats received intraperitoneal injections of saline. The percentage flap survival area and tissue water content were measured 7 days later, which showed that calcitriol improved flap survival area and reduced tissue edema. It also increased the mean vessel density and upregulated levels of VEGF mRNA/protein, both of which promote flap angiogenesis. Moreover, it decreased leukocyte and macrophage infiltration, reduced the inflammatory proteins IL1b and IL6, increased SOD activity, decreased MDA content, and upregulated the level of autophagy."

According to the news editors, the research concluded: "Overall, our results suggest that calcitriol promotes skin flap survival by accelerating angiogenesis, having anti-inflammatory effects, reducing oxidative stress, and promoting autophagy."

For more information on this research see: Effects of calcitriol on random skin flap survival in rats. Scientific Reports, 2016;6():18945. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting K.L. Zhou, Dept. of Orthopaedic Surgery, The Second Affiliated Hospital of Wenzhou Medical University &The Second Clinical Medical College of Wenzhou Medical University, Wenzhou, People's Republic of China. Additional authors for this research include X.Y. Tao and H.Z Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18945. This DOI is a link to an online electronic document that is either free or for purchase.

Information for this news article include: Asia, Wenzhou, Genetics, Angiogenesis, People's Republic of China.

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Granulocytes

Study Data from Medical University Update Understanding of Granulocytes (NETs in cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Granulocytes is now available. According to news reporting originating in Bialystok, Poland, by NewsRx journalists, research stated, "Many aspects of neutrophil hyperactivity and its role in numerous immune responses still remain a mystery. A new neutrophil mechanism was discovered recently, i.e., the formation of neutrophil extracellular traps (NETs)."

The news reporters obtained a quote from the research from Medical University, "These structures, composed of DNA strands and neutrophil granule proteins, are an element of the non-specific immune response and bind pathogens to prevent their spread and ensure increased local concentrations of toxic factors. Research on this phenomenon shows that tumor-associated neutrophils (TANs) also form and release NETs. Reports on the role of NETs in the course of cancer are scarce, and the opinions on the involvement of extracellular traps in the disease are divided, indicating a dual function. There is speculation about the anti-cancer properties of NETs connected with direct killing of cancer cells or stimulation of the immune..."
system. On the other hand, the trap structures might promote migration and immune escape of cancer cells or constitute a physical barrier between cancer cells and immune-competent cells."

According to the news reporters, the research concluded: "This article summarizes our knowledge about the proven roles of NETs in the course of cancer with particular focus on the significance of NETs as prognosis biomarkers in the course of the neoplastic process and their potential use in therapy."

For more information on this research see: NETs in cancer. Tumor Biology, 2016;37(11):14355-14361. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news correspondents report that additional information may be obtained by contacting M. Garley, Medical University of Bialystok, Dept. of Immunol, PL-15269 Bialystok, Poland. Additional authors for this research include E. Jablonska and D. Dabrowska.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5328-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bialystok, Poland, Europe, Hemic and Immune Systems, Cancer, Article Review, Granulocytes, Blood Cells, Neutrophils, Immunology, Phagocytes, Oncology, Genetics, Medical University.

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**Musculoskeletal Diseases and Conditions** -

**Study Data from Medical University Update Understanding of Osteoarthritis (Galectin-3 Induces a Pro-degradative/inflammatory Gene Signature in Human Chondrocytes, Teaming Up with Galectin-1 in Osteoarthritis Pathogenesis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Musculoskeletal Diseases and Conditions - Osteoarthritis. According to news reporting originating in Vienna, Austria, by NewsRx journalists, research stated, "Inflammatory chemo-and cytokines and matrix-degrading proteases underlie the progression of osteoarthritis (OA). Aiming to define upstream regulators for these disease markers, we pursued initial evidence for an upregulation of members of the adhesion/growth-regulatory galectin family."

The news reporters obtained a quote from the research from Medical University, "Immunohistochemical localization of galectin-3 (Gal-3) in sections of human cartilage with increasing levels of degeneration revealed a linear correlation reaching a chondrocyte positivity of 60%. Presence in situ was cytoplasmic, the lectin was secreted from OA chondrocytes in culture and binding of Gal-3 yielded lactose-inhibitable surface staining. Exposure of cells to the lectin led to enhanced gene expression and secretion of functional disease markers. Genome-wide transcriptomic analysis broadened this result to reveal a pro-degradative/inflammatory gene signature under the control of NF-kappa B. Fittingly, targeting this route of activation by inhibitors impaired the unfavourable response to Gal-3 binding, as also seen by shortening the lectin's collagen-like repeat region. Gal-3's activation profile overlaps with that of homodimeric galectin-1 (Gal-1) and also has distinctive (supplementing) features. Tested at subsaturating
concentrations in a mixture, we found cooperation between the two galectins, apparently able to team up to promote OA pathogenesis."

According to the news reporters, the research concluded: "In summary, our results suggest that a network of endogenous lectins is relevant for initiating this process cascade."

For more information on this research see: Galectin-3 Induces a Pro-degradative/inflammatory Gene Signature in Human Chondrocytes, Teaming Up with Galectin-1 in Osteoarthritis Pathogenesis. Scientific Reports, 2016;6():1-15. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting S. Toegel, Medical University of Vienna, Dept. of Orthopaed. Karl Chiari Lab Orthopaed Biol, Vienna, Austria. Additional authors for this research include K. Schlangen, S. Andre, S. Schmidt, S.M. Walzer, B. Kubista, R. Windhager, S. Toegel and H.J. Gabius.

Keywords for this news article include: Vienna, Austria, Europe, Musculoskeletal Diseases and Conditions, Rheumatic Diseases and Conditions, Joint Diseases and Conditions, Connective Tissue Cells, Proteins, Genetics, Osteoarthritis, Chondrocytes, Galectin 1, Galectin 3, Galectins, Arthritis, Lectins, Medical University.

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**Genetics - Genetics and Cancer**

**Study Data from Molecular Genetics Laboratory Update Knowledge of Genetics and Cancer (BRCA1-2 Diagnostic Workflow from Next-Generation Sequencing Technologies to Variant Identification and Final Report)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Genetics - Genetics and Cancer is the subject of a report. According to news reporting originating in Bari, Italy, by NewsRx journalists, research stated, "The BRCA1-BRCA2 genes predispose to hereditary breast and ovarian cancer, and the germline and mutational status of these genes defines a target population that can benefit from PARP inhibitor treatments. To respond to the increasing number of BRCA1-BRCA2 tests, it is necessary to shift to high-throughput technologies that are reliable and less time consuming."

The news reporters obtained a quote from the research from Molecular Genetics Laboratory, "Different methodological platforms are dedicated to this purpose with different approaches and algorithms for analysis. Our aim was to set up a cost-effective and low time-consuming BRCA1-BRCA2 mutation detection workflow using the Ion Torrent PGM technology. A retrospective cohort of 40 patients with familial breast/ovarian cancer previously tested by Sanger sequencing and a prospective cohort of 72 patients (validation set) were analyzed. The validation set included 64 patients affected by familial breast/ovarian cancer and eight sporadic ovarian cancer cases, who are potential candidates for PARPi treatments. A complete and standardized workflow easily usable and suitable in a certified laboratory has been proved and validated. This includes all steps from library preparation to the final report."

According to the news reporters, the research concluded: "The use of next-generation sequencing will be of benefit for patients enrolled in the genetic counseling process and,
moreover, will enhance the process of selecting patients eligible for personalized treatments."


Our news correspondents report that additional information may be obtained by contacting S. Tommasi, IRCCS Ist Tumori Giovanni Paolo II, Mol Genet Lab, I-70124 Bari, Italy. Additional authors for this research include R. Pinto, S. de Summa, D. Petriella, R. Lacalamita, K. Danza, A. Paradiso and S. Tommasi.

Keywords for this news article include: Bari, Italy, Europe, Genetics and Cancer, Technology, Genetics, Oncology, Cancer, BRCA2, BRCA1, Molecular Genetics Laboratory.

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*Study Data from Monash University Update Understanding of Obesity (Disrupted functional connectivity in adolescent obesity)*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Obesity has been associated with brain alterations characterised by poorer interaction between a hypersensitive reward system and a comparatively weaker prefrontal-cognitive control system. These alterations may occur as early as in adolescence, but this notion remains unclear, as no studies so far have examined global functional connectivity in adolescents with excess weight."

Financial supporters for this research include Andalusian Health Service, MICINN, NEUROECOBE, Carlos III Health Institute.

Our news journalists obtained a quote from the research from Monash University, "We investigated functional connectivity in a sample of 60 adolescents with excess weight and 55 normal weight controls. We first identified parts of the brain displaying between-group global connectivity differences and then characterised the extent of the differences in functional network integrity and their association with reward sensitivity. Adolescent obesity was linked to neuroadaptations in functional connectivity within brain hubs linked to interoception (insula), emotional memory (middle temporal gyrus) and cognitive control (dorsolateral prefrontal cortex) (pFWE < 0.05). The connectivity between the insula and the anterior cingulate cortex was reduced in comparison to controls, as was the connectivity between the middle temporal gyrus and the posterior cingulate cortex and cuneus/precuneus (pFWE < 0.05). Conversely, the middle temporal gyrus displayed increased connectivity with the orbitofrontal cortex (pFWE < 0.05). Critically, these networks were correlated with sensitivity to reward (p < 0.05). These findings suggest that adolescent obesity is linked to disrupted functional connectivity in brain networks relevant to maintaining balance between reward, emotional memories and cognitive control."

According to the news editors, the research concluded: "Our findings may contribute to reconceptualization of obesity as a multi-layered brain disorder leading to compromised motivation and control, and provide a biological account to target prevention strategies for adolescent obesity."

The news correspondents report that additional information may be obtained from A. Verdejo-Garcia, Monash University, Monash Inst Cognit & Clin, Neurosci, Melbourne, Vic, Australia. Additional authors for this research include O. Contreras-Rodriguez, C. Soriano-Mas, E.A. Stamatakis and A. Verdejo-Garcia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.07.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Monash University.

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Heart Disorders and Diseases - Tachycardia

**Study Data from Murdoch Children's Research Institute Update Understanding of Tachycardia (Long-term outcomes after first-onset arrhythmia in Fontan physiology)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Tachycardia are discussed in a new report. According to news reporting originating from Parkville, Australia, by NewsRx correspondents, research stated, "Patients living with a Fontan circulation are prone to develop arrhythmias. However, their prognostic impact has been seldom studied."

Our news editors obtained a quote from the research from Murdoch Children's Research Institute, "As such, we aimed to determine the incidence and predictors of arrhythmias after the Fontan procedure and the long-term outcomes after the first onset of arrhythmias. Of the 1034 patients who have undergone a Fontan procedure as recorded in the Australian and New Zealand Fontan Registry, we identified those in whom a tachyarrhythmia or bradyarrhythmia developed. We evaluated the incidence and predictors of developing arrhythmias and their prognostic impact on late outcomes. Arrhythmia developed in 195 patients. Tachyarrhythmia was present in 162 patients, bradyarrhythmia was present in 74 patients, and both forms were present in 41 patients. At 20 years, freedom from any arrhythmia, tachyarrhythmia, and bradyarrhythmia was 66% (95% confidence interval [CI], 59-72), 69% (95% CI, 62-75), and 85% (95% CI, 80-90), respectively. On multivariable analyses, patients with an extracardiac Fontan (hazard ratio [HR], 0.23; 95% CI, 0.10-0.51; P<.001) were less likely to develop an arrhythmia, whereas those with left atrial (HR, 3.18; 95% CI, 1.45-6.95; P = .004) and right atrial (HR, 4.00; 95% CI, 2.41-6.61; P < .001) isomerism were more likely to have an arrhythmia. After onset of any arrhythmia (tachyarrhythmia or bradyarrhythmia), 10- and 15-year survivals were 74% (65%-83%) and 70% (60%-80%), respectively, and freedom from Fontan failure was 55% (44%-64%) and 44% (32%-56%), respectively. The development of any arrhythmia (HR, 2.20; 95% CI, 1.44-3.34; P < .001), tachyarrhythmia (HR, 2.56; 95% CI, 1.60-4.11; P < .001), and bradyarrhythmia (HR, 1.85; 95% CI, 1.16-2.95; P = .01) were all
independent predictors of late Fontan failure on multivariable analyses."

According to the news editors, the research concluded: "The development of an arrhythmia is associated with a heightened risk of subsequent failure of the Fontan circulation."


The news editors report that additional information may be obtained by contacting Y. d'Udekem, Murdoch Childrens Res Inst, Parkville, Vic, Australia. Additional authors for this research include W.Y. Shi, A.J. Iyengar, A. Nisbet, V. Forsdick, D. Zannino, T. Gentles, D.J. Radford, R. Justo, D.S. Celermajer, A. Bullock, D. Winlaw, G. Wheaton, L. Grigg and Y. d'Udekem.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtcvs.2016.07.073. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Parkville, Australia, Australia and New Zealand, Heart Disorders and Diseases, Bradycardia, Tachycardia, Arrhythmia, Cardiology, Murdoch Children's Research Institute.

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**Mental Health Diseases and Conditions - Depression**

**Study Data from N. Aarts and Co-Authors Update Knowledge of Depression (Use of Selective Serotonin Reuptake Inhibitors and Sleep Quality: A Population-Based Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health Diseases and Conditions - Depression. According to news originating from Utrecht, Netherlands, by NewsRx correspondents, research stated, "Poor sleep is a risk factor for the development and recurrence of depression. Selective serotonin reuptake inhibitor (SSRI) use is consistently associated with good subjective sleep in clinically depressed patient populations."

Our news journalists obtained a quote from the research, "However, studies in the general population are lacking. Our objective was to investigate the association between SSRIs and subjective sleep in a middle-aged and elderly population in a daily practice setting. We included participants from the prospective Rotterdam Study cohort. Participants had up to two subjective sleep measurements assessed with Pittsburgh Sleep Quality Index ([PSQI], number of measurements = 14,770). SSRI use was based on pharmacy records. We assessed the association between SSRIs and PSQI score and its sub-components, with nonusers of any antidepressant as reference. Analyses were, among others, adjusted for presence of depressive symptoms and concurrent psycholeptic drug use. We included 9,267 participants, average baseline age 66.3 y (standard deviation 10.6), and 57.6% women. SSRI use was significantly associated with a 0.78-point lower PSQI score (95% confidence interval [CI] -1.11; -0.44) which reflects better sleep, compared with non-use. The association was more prominent in continuous SSRI users (-0.71
points, 95% CI -1.18; -0.24). Of the sub-components, SSRIs were associated with 0.70-h longer sleep duration (95% CI 0.56; 0.85), higher sleep quality, higher sleep efficiency, and in contrast more daytime dysfunction. SSRI use was associated with better subjective sleep, after adjustment for depressive symptoms and concurrent psycholeptic drug use."

According to the news editors, the research concluded: "This suggests that, in clinical practice in the middle-aged and elderly population, the sleep quality of some persons may benefit from, continued, SSRI use."

For more information on this research see: Use of Selective Serotonin Reuptake Inhibitors and Sleep Quality: A Population-Based Study. Journal of Clinical Sleep Medicine, 2016;12(7):989-995. Journal of Clinical Sleep Medicine can be contacted at: Amer Acad Sleep Medicine, 2510 N Frontage Rd, Darien, IL 60561, USA.

The news correspondents report that additional information may be obtained from B.H. Stricker, Inspectorate Hlth Care, Utrecht, Netherlands. Additional authors for this research include L.A. Zuurbier, R. Noordam, A. Hofman, H. Tiemeier, B.H. Stricker and L.E. Visser.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.5664/jcsm.5932. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Utrecht, Netherlands, Europe, Selective Serotonin Reuptake Inhibitor, Risk and Prevention, Mental Health Diseases and Conditions, Serotonin Reuptake Inhibitors, Biological Factors, Organic Chemicals, Biogenic Amines, Tryptamines, Depression, Autacoids, Therapy, SSRI.

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Liver Diseases and Conditions - Hepatitis C Virus

Study Data from NUST Update Knowledge of Hepatitis C Virus (Ionotropic Purinergic Receptors P2X4 and P2X7: Proviral or Antiviral? An Insight into P2X Receptor Signaling and Hepatitis C Virus Infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Hepatitis C Virus have been published. According to news reporting originating from Islamabad, Pakistan, by NewsRx correspondents, research stated, "Purinergic P2X receptors are plasma membrane bound, ATP-gated ion channels that are expressed on wide range of cells and respond to varying ATP concentrations in extracellular environment. Upon activation they increase membrane permeability for Ca2+ ions and trigger a cascade of signaling complexes."

Our news editors obtained a quote from the research from NUST, "During the course of hepatitis C virus (HCV) infection, ATP is released from the infected hepatocyte, which binds with Purinergic receptors (P2X) on peripheral blood mononuclear cells (PBMCs) and initiate downstream signaling pathways by disturbing the ionic balance of the cell. The present study investigates quantitative expression of P2X7 and P2X4 along with selected host genes PEPCK, transforming growth factor beta (TGF-beta), MAPK, Rho, and Akt in PBMCs of chronic HCV infection patients. PBMCs were isolated from collected blood samples of study subjects. Transcript analysis of P2X7, P2X4, and targeted downstream genes was done using quantitative real-time polymerase chain reaction. Relative expression analysis was performed by unpaired Student's t test on GraphPad Prism version 5. We found a notable increase of threefolds and 1.8-
folds in the expression of P2X7 and P2X4 receptors in treatment naive category while the expression of PEPCK, TGF-beta, MAPK, AKT, and Rho A increased by 2.8, 1.9, 2.2, 2.2, and 1.8-folds, respectively. In sustained virological response patients, P2X7 significantly increased up to 3.5-folds while the expression of P2X4 receptor was increased up to twofold. In third category, treatment nonresponder, the expression of P2X7, P2X4 receptors, and targeted markers remained un-altered. This study deals with two major aspects of P2X4 and P2X7 receptors in PBMCs of chronic HCV individuals."

According to the news editors, the research concluded: "One is their role in providing antiviral immunity to host against HCV; second aspect is the role of P2X receptors in inducing HCV pathogenesis via AKT, TGF-beta, Rho A, PEPCK, and MAPK expression."

For more information on this research see: Ionotropic Purinergic Receptors P2X4 and P2X7: Proviral or Antiviral? An Insight into P2X Receptor Signaling and Hepatitis C Virus Infection. *Viral Immunology*, 2016;29(7):401-408. *Viral Immunology* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Viral Immunology - www.liebertpub.com/overview/viral-immunology/57/)

The news editors report that additional information may be obtained by contacting S. Manzoor, NUST, Atta Ur Rahman Sch Appl Biosci, Dept. of Healthcare Biotechnol, Islamabad 44000, Pakistan. Additional authors for this research include U. Akhtar, S. Naseem, M. Khalid, M. Mazhar, F. Parvaiz and S. Khaliq.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/vim.2016.0008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Islamabad, Pakistan, Asia, Liver Diseases and Conditions, Immunology, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Flaviviridae Infections, Hepatitis C Virus, Gastroenterology, RNA Viruses, Hepatology, Genetics, Virology, Viral, HCV, NUST.

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the study period, a total of 2863 TAE/TACE procedures were performed among 1120 patients, and a total of 24 patients (21 male and 3 female) developed major complication with the incidence of 2.1% (24/1120) per patient and 0.84% (24/2863) per TAE/TACE procedure. The major complications were liver rupture (n=6), liver abscess (n=5), femoral artery pseudoaneurysm (n=3), cholecystitis (n=2), biloma (n=2), pulmonary embolism (n=2), and 1 each of the following: cerebral lipiodol embolism, tumor lysis syndrome, partial intestinal obstruction, gallbladder perforation. The mean interval from last TAE/TACE procedure to the diagnosis of major complication was 11.1 +/- 7.7 days. The treatments of the complications were conservative treatment (n=12), conservative treatment plus percutaneous drainage (n=3), ultrasound-guided thrombin injection (n=3), conservative treatment plus TAE (n=2), and conservative treatment plus surgery (n=2). Of the 24 patients, 20 patients were recovered, and remaining 4 patients were died of major complications; therefore, the mortality rate of major complication was 16.7% (4/24).

According to the news reporters, the research concluded: "Major complication following conventional TAE/TACE therapy is uncommon; the outcomes are benign of most major complications, but some are mortality."

For more information on this research see: The incidence and outcome of major complication following conventional TAE/TACE for hepatocellular carcinoma. Medicine, 2016;95(49):562-567. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news correspondents report that additional information may be obtained by contacting G.M. Jiang, Nanjing Medical University, Dept. of Intervent Radiol, Peoples Hosp Changzhou 2, Changzhou, People's Republic of China. Additional authors for this research include Z.Z. Jia, X.H. Ying, D.K. Zhang, S.Q. Li, F. Tian and G.M. Jiang.

Keywords for this news article include: Changzhou, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Liver Cancer, Carcinomas, Oncology, Therapy, Nanjing Medical University.

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**Inter cellular Signaling Peptides and Proteins -...**

**Study Data from National Center for Scientific Research (CNRS) Provide New Insights into Cytokines (Spatiotemporal control of interferon-induced JAK/STAT signalling and gene transcription by the retromer complex)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Intercellular Signaling Peptides and Proteins - Cytokines have been published. According to news reporting out of Paris, France, by NewsRx editors, research stated, "Type-I interferons (IFNs) play a key role in the immune defences against viral and bacterial infections, and in cancer immunosurveillance. We have established that clathrin-dependent endocytosis of the type-I interferon (IFN-alpha/beta) receptor (IFNAR) is required for JAK/STAT signalling."

Our news journalists obtained a quote from the research from National Center for Scientific Research (CNRS), "Here we show that the internalized IFNAR1 and IFNAR2..."
subunits of the IFNAR complex are differentially sorted by the retromer at the early endosome. Binding of the retromer VPS35 subunit to IFNAR2 results in IFNAR2 recycling to the plasma membrane, whereas IFNAR1 is sorted to the lysosome for degradation. Depletion of VPS35 leads to abnormally prolonged residency and association of the IFNAR subunits at the early endosome, resulting in increased activation of STAT1 and IFN-dependent gene transcription.

According to the news editors, the research concluded: "These experimental data establish the retromer complex as a key spatiotemporal regulator of IFNAR endosomal sorting and a new factor in type-I IFN-induced JAK/STAT signalling and gene transcription."


Our news journalists report that additional information may be obtained by contacting C. Lamaze, CNRS, UMR 3666, F-75005 Paris, France. Additional authors for this research include N. Sharma, N. Zanin, C.V. de Lesegno, M. Shafaq-Zadah, V. Sibut, F. Dingli, P. Hupe, S. Wilmes, J. Pehler, D. Loew, L. Johannes, G. Schreiber and C. Lamaze.

Keywords for this news article include: Paris, France, Europe, Intercellular Signaling Peptides and Proteins, Interferons, Genetics, Cytokines, National Center for Scientific Research (CNRS).

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Study Data from National Institute of Diabetes and Digestive and Kidney Diseases Update Understanding of Obesity (How Strongly Does Appetite Counter Weight Loss? Quantification of the Feedback Control of Human Energy Intake)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Obesity is the subject of a report. According to news originating from Bethesda, Maryland, by NewsRx correspondents, research stated, "To quantify the feedback control of energy intake in response to long-term covert manipulation of energy balance in free-living humans. A validated mathematical method was used to calculate energy intake changes during a 52-week placebo-controlled trial in 153 patients treated with canagliflozin, a sodium glucose co-transporter inhibitor that increases urinary glucose excretion, thereby resulting in weight loss without patients being directly aware of the energy deficit."

Our news journalists obtained a quote from the research from the National Institute of Diabetes and Digestive and Kidney Diseases, "The relationship between the body weight time course and the calculated energy intake changes was analyzed using principles from engineering control theory. It was discovered that weight loss leads to a proportional increase in appetite resulting in eating above baseline by similar to 100 kcal/day per kilogram of lost weight-an amount more than threefold larger than the corresponding energy expenditure adaptations."

According to the news editors, the research concluded: "While energy expenditure adaptations have often been considered the main reason for slowing of weight loss and
subsequent regain, feedback control of energy intake plays an even larger role and helps explain why long-term maintenance of a reduced body weight is so difficult."


The news correspondents report that additional information may be obtained from K.D. Hall, National Institute of Diabetes & Digestive & Kidney Diseases, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include A. Sanghvi, R.J. Seeley and K.D. Hall.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Obesity, Nutritional and Metabolic Diseases and Conditions, National Institute of Diabetes and Digestive and Kidney Diseases.

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### Mental Health Diseases and Conditions - Depression

**Study Data from National Institute of Neuroscience Update Knowledge of Depression (Blood-based gene expression signatures of medication-free outpatients with major depressive disorder: integrative genome-wide and candidate gene analyses)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health Diseases and Conditions - Depression. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "Several microarray-based studies have investigated gene expression profiles in major depressive disorder (MDD), yet with highly variable findings. We examined blood-based genome-wide expression signatures of MDD, focusing on molecular pathways and networks underlying differentially expressed genes (DEGs) and behaviours of hypothesis-driven, evidence-based candidate genes for depression."

Our news journalists obtained a quote from the research from the National Institute of Neuroscience, "Agilent human whole-genome arrays were used to measure gene expression in 14 medication-free outpatients with MDD who were at least moderately ill and 14 healthy controls matched pairwise for age and sex. After filtering, we compared expression of entire probes between patients and controls and identified DEGs. The DEGs were evaluated by pathway and network analyses. For the candidate gene analysis, we utilized 169 previously prioritized genes and examined their case-control separation efficiency and correlational co-expression network in patients relative to controls. The 317 screened DEGs mapped to a significantly over-represented pathway, the 'synaptic transmission' pathway. The protein-protein interaction network was also significantly enriched, in which a number of key molecules for depression were included. The co-expression network of candidate genes was markedly disrupted in patients."

According to the news editors, the research concluded: "This study provided evidence for an altered molecular network along with several key molecules in MDD and confirmed that the candidate genes are worthwhile targets for depression research."
For more information on this research see: Blood-based gene expression signatures of medication-free outpatients with major depressive disorder: integrative genome-wide and candidate gene analyses. *Scientific Reports*, 2016;6():18776. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from H. Hori, Dept. of Mental Disorder Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Tokyo, 187-8502, Japan. Additional authors for this research include D. Sasayama, T. Teraishi, N. Yamamoto, S. Nakamura, M. Ota, K. Hattori, Y. Kim, T. Higuchi and H. Kunugi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18776. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Tokyo, Japan, Genetics, Depression, Major Depressive Disorders, Mental Health Diseases and Conditions.

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*Drugs and Therapies - Central Nervous System Agents*

**Study Data from National Institutes of Health Update Understanding of Central Nervous System Agents [Novel and High Affinity 2-[(Diphenylmethyl)sulfinyl]acetamide (Modafinil) Analogues as Atypical Dopamine Transporter Inhibitors]***

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Central Nervous System Agents is now available. According to news originating from Baltimore, Maryland, by NewsRx correspondents, research stated, "The development of pharmacotherapeutic treatments of psychostimulant abuse has remained a challenge, despite significant efforts made toward relevant mechanistic targets, such as the dopamine transporter (DAT). The atypical DAT inhibitors have received attention due to their promising pharmacological profiles in animal models of cocaine and methamphetamine abuse."

Funders for this research include Det Frie Forskningsrad, National Institute on Drug Abuse, Lundbeckfonden.

Our news journalists obtained a quote from the research from the National Institutes of Health, "Herein, we report a series of modafinil analogues that have an atypical DAT inhibitor profile. We extended SAR by chemically manipulating the oxidation states of the sulfoxide and the amide functional groups, halogenating the phenyl rings, and/or functionalizing the terminal nitrogen with substituted piperazines, resulting in several novel leads such as 11b, which demonstrated high DAT affinity (K-i = 2.5 nM) and selectivity without producing concomitant locomotor stimulation in mice, as compared to cocaine."

According to the news editors, the research concluded: "These results are consistent with an atypical DAT inhibitor profile and suggest that 11b may be a potential lead for development as a psychostimulant abuse medication."

For more information on this research see: Novel and High Affinity 2-[(Diphenylmethyl)sulfinyl]acetamide (Modafinil) Analogues as Atypical Dopamine Transporter Inhibitors. *Journal of Medicinal Chemistry*, 2016;59(23):10676-10691. *Journal of Medicinal*
Ebola Virus

Study Data from National Institutes of Health Update Understanding of Ebola Virus (Ebola Virus Replication and Disease Without Immunopathology in Mice Expressing Transgenes to Support Human Myeloid and Lymphoid Cell Engraftment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Ebola Virus. According to news originating from Hamilton, Montana, by NewsRx correspondents, research stated, "The study of Ebola virus (EBOV) pathogenesis in vivo has been limited to nonhuman primate models or use of an adapted virus to cause disease in rodent models. Herein we describe wild-type EBOV (Makona variant) infection of mice engrafted with human hematopoietic CD34(+) stem cells (Hu-NSG™-SGM3 mice; hereafter referred to as SGM3 HuMice)."

Financial supporters for this research include National Institutes of Health, NIH, Intramural Research Program of the National Institute of Allergy and Infectious Diseases.

Our news journalists obtained a quote from the research from the National Institutes of Health, "SGM3 HuMice support increased development of myeloid immune cells, which are primary EBOV targets. In SGM3 HuMice, EBOV replicated to high levels, and disease was observed following either intraperitoneal or intramuscular inoculation. Despite the high levels of viral antigen and inflammatory cell infiltration in the liver, the characteristic histopathology of Ebola virus disease was not observed, and this absence of severe immunopathology may have contributed to the recovery and survival of some of the animals."

According to the news editors, the research concluded: "Future investigations into the underlying mechanisms of the atypical disease presentation in SGM3 HuMice will provide additional insights into the immunopathogenesis of severe EBOV disease."

For more information on this research see: Ebola Virus Replication and Disease Without Immunopathology in Mice Expressing Transgenes to Support Human Myeloid and Lymphoid Cell Engraftment. *Journal of Infectious Diseases*, 2016;214():S308-S318. *Journal
The news correspondents report that additional information may be obtained from J. Prescott, NIAID, Lab Virol, National Institutes of Health, Rocky Mt Labs, Hamilton, MT, United States. Additional authors for this research include K.J. Lavender, C. Martellaro, A. Carmody, A. Kurth, J.G. Keck, G. Saturday, D.P. Scott, S.T. Nichol, K.J. Hasenkrug, C.F. Spiropoulou, H. Feldmann and J. Prescott.

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Keywords for this news article include: Hamilton, Montana, United States, North and Central America, Viral Hemorrhagic Diseases and Conditions, Virus Physiological Phenomena, Virus Physiological Processes, Microbiological Processes, Virus Replication, Immunopathology, Mononegavirales, RNA Viruses, Filoviridae, Ebola Virus, Virology, National Institutes of Health.

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Oncology - Cancer Epidemiology

Study Data from New York State Department of Health Update Knowledge of Cancer Epidemiology (Effects of the length of central cancer registry operations on identification of subsequent cancers and on survival estimates)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Cancer Epidemiology are presented in a new report. According to news reporting out of Albany, New York, by NewsRx editors, research stated, "Population-based cancer survival analyses have traditionally been based on the first primary cancer. Recent studies have brought this practice into question, arguing that varying registry reference dates affect the ability to identify earlier cancers, resulting in selection bias."

Our news journalists obtained a quote from the research from the New York State Department of Health, "We used a theoretical approach to evaluate the extent to which the length of registry operations affects the classification of first versus subsequent cancers and consequently survival estimates. Sequence number central was used to classify tumors from the New York State Cancer Registry, diagnosed 2001-2010, as either first primaries (value = 0 or 1) or subsequent primaries (> 2). A set of three sequence numbers, each based on an assumed reference year (1976, 1986 or 1996), was assigned to each tumor. Percent of subsequent cancers was evaluated by reference year, cancer site and age. 5-year relative survival estimates were compared under four different selection scenarios. The percent of cancer cases classified as subsequent primaries was 15.3%, 14.3% and 11.2% for reference years 1976, 1986 and 1996, respectively; and varied by cancer site and age. When only the first primary was included, shorter registry operation time was associated with slightly lower 5-year survival estimates. When all primary cancers were included, survival estimates decreased, with the largest decreases seen for the earliest reference year. Registry operation length affected the identification of subsequent cancers, but the overall effect of this misclassification on survival
estimates was small."

According to the news editors, the research concluded: "Survival estimates based on all primary cancers were slightly lower, but might be more comparable across registries."

For more information on this research see: Effects of the length of central cancer registry operations on identification of subsequent cancers and on survival estimates. Cancer Epidemiology, 2016;44():52-58. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news journalists report that additional information may be obtained by contacting B.Z. Qiao, New York State Dept. of HLth, Bur Canc Epidemiol, Albany, NY, United States. Additional authors for this research include M.J. Schymura and A.R. Kahn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.07.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Albany, New York, United States, North and Central America, Cancer Epidemiology, Cancer, Epidemiology, Oncology, New York State Department of Health.

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**Transplant Medicine - Heart Transplants**

**Study Data from Ohio State University Provide New Insights into Heart Transplants (The impact of length and weight on survival after heart transplantation in children less than 24 months of age)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Transplant Medicine - Heart Transplants have been published. According to news reporting originating in Columbus, Ohio, by NewsRx journalists, research stated, "Adults, older children, and adolescent patients with a BMI categorized as overweight or obese have decreased survival after HTx. Anthropometric correlates of survival after HTx in infants have not been well defined."

The news reporters obtained a quote from the research from Ohio State University, "In a retrospective analysis of the UNOS registry, patients age 0-24 months were classified according to the WHO height-for-age and weight-for-age norms, as well as arbitrary BMI-for-age percentiles. Outcomes of 1-year survival, conditional long-term survival, and cause-specific mortality were examined. Infants with stunted growth according to the WHO definition had increased risks of early mortality, late mortality, and death due to graft failure after HTx. Secondary analysis of first-year survival demonstrated increased mortality in children who were underweight according to weight-for-age, but a survival disadvantage in the highest BMI-for-age category, likely due to short recumbent length leading to relatively high BMI values. Stunted growth relative to WHO standards predicts mortality following heart transplant in children less than 2 years of age."

According to the news reporters, the research concluded: "The association between post-transplant mortality and high BMI-for-age, as demonstrated in older cohorts, was observed in the infant cohort only due to stunting, and not due to overweight classification."

For more information on this research see: The impact of length and weight on

Our news correspondents report that additional information may be obtained by contacting C. Mckee, Ohio State University, Coll Med, Dept. of Pediat, Columbus, OH 43210, United States. Additional authors for this research include D. Tumin, D. Hayes and J.D. Tobias.

Keywords for this news article include: Columbus, Ohio, United States, North and Central America, Transplant Medicine, Heart Transplants, Organ Transplants, Transplantation, Biomedicine, Cardiology, Surgery, Ohio State University.

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**Vaccination**

**Study Data from Oregon State University Update Understanding of Vaccination (Preventive Services Use Among African American and Latino Adult Caregivers in South Los Angeles)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Vaccination. According to news reporting out of Corvallis, Oregon, by NewsRx editors, research stated, "The burden of informal caregiving is significant and well-documented, yet the evidence is mixed as to whether being a caregiver presents an additional barrier to receiving recommended preventive care. To determine whether (1) caregivers compared with noncaregivers were less likely to receive preventive health services; and (2) higher intensity caregivers were less likely to receive preventive health services than lower intensity caregivers."

Our news journalists obtained a quote from the research from Oregon State University, "Subjects, and Measures: Data were from a telephone survey of Latino and African American adults 50 years or older in South Los Angeles (n=702). Outcomes were flu vaccination, pneumococcal vaccination, and colorectal cancer screening. Logistic regression models adjusted for predisposing, enabling, and need factors according to the Andersen Model of Access to Health Care for Low-income Populations. Caregiver type (eg, adult child, nonrelated) was associated with varying odds of receiving a preventive service. Caregivers had lower odds than noncaregivers of receiving preventive services although odds of receiving a flu vaccination improved slightly for caregivers of persons with memory loss compared with other caregivers. More weekly caregiving hours was associated with higher odds of receiving flu vaccination (adjusted odds ratios, 1.1; 95% confidence interval=1.0, 1.1) or colorectal cancer screening (adjusted odds ratios, 1.1; 95% confidence interval=1.0, 1.1). Caregivers and noncaregivers age 65 and older or with chronic conditions were more likely to receive vaccinations. Preventive service use was influenced by characteristics of the caregiving situation."

According to the news editors, the research concluded: "An opportunity may exist to leverage care recipients' ongoing contact with health care providers to increase caregivers' own access to preventive services."

For more information on this research see: Preventive Services Use Among African
American and Latino Adult Caregivers in South Los Angeles. *Medical Care*, 2016;55(12):1098-1104. *Medical Care* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Medical Care - journals.lww.com/lww-medicalcare/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting C.A. Mendez-Luck, Oregon State University, Coll Public Hlth & Human Sci, Corvallis, OR 97331, United States. Additional authors for this research include K.O. Walker and J. Luck.

Keywords for this news article include: Corvallis, Oregon, United States, North and Central America, Colorectal Research, Gastroenterology, Public Health, Immunization, Vaccination, Oregon State University.

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**Oncology - Lymphoma**

**Study Data from Osaka University School of Medicine Update Knowledge of Lymphoma (Optical coherence tomography manifestations of primary vitreoretinal lymphoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lymphoma. According to news reporting originating from Osaka, Japan, by NewsRx correspondents, research stated, "Primary vitreoretinal lymphoma (PVRL), a subset of primary central nervous system lymphoma (PCNSL), is a high-grade malignant tumor that shows various chorioretinal findings. Optical coherence tomography (OCT) is useful for detecting these lesions, and various abnormalities on OCT images have been reported."

Our news editors obtained a quote from the research from the Osaka University School of Medicine, "The purpose of this report was to investigate retrospectively the OCT manifestations of various disease stages and compare the manifestations of pretreatment, recurrent, and chronic cases. We reviewed the medical charts and OCT images of 38 consecutive cases with PVRL. When abnormalities were detected on OCT images, the patients were classified based on the treatment of the primary disease: pretreatment if not treated, recurrent if treated previously, and chronic when chronic changes. Twenty-six eyes (20 cases) had abnormalities in the post-pole OCT images, i.e., 16 eyes (12 cases) were in the pretreatment group, seven eyes (five cases) were in the recurrent group, and five eyes (five cases) were in the chronic group. Two eyes (two cases) had abnormalities on OCT in the pretreatment and recurrent or chronic stages. The pretreatment and recurrent groups had subretinal or retinal pigment epithelium (RPE) level abnormalities more often than intraretinal changes. Twelve of 16 pretreated eyes and all seven eyes with recurrent disease had subretinal or RPE level abnormalities. One pretreatment case and three recurrent cases had atypical OCT manifestations of intraretinal (round lesions) or epiretinal changes (villous-shaped lesions)."

According to the news editors, the research concluded: "Although pretreatment cases and recurrent cases showed similar OCT abnormalities and the specific changes in the various disease stages were unclarified, collecting OCT data from various disease stages will facilitate detection of typical OCT changes of PVRL and lead to early diagnosis and treatment."

The news editors report that additional information may be obtained by contacting N. Ohguro, Osaka Univ Med Sch, Dept. of Ophthalmol, Suita, Osaka 5650871, Japan. Additional authors for this research include N. Ohguro, C. Iwashashi and N. Hashida.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00417-016-3395-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Optical Coherence Tomography, Diagnostics and Screening, Imaging Technology, Hematology, Lymphomas, Oncology, Osaka University School of Medicine.

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**Oncology - Colon Cancer**

**Study Data from Pasteur Institute Update Understanding of Colon Cancer (A Comprehensive Review of Clinical Trials on EGFR Inhibitors Such as Cetuximab and Panitumumab as Monotherapy and in Combination for Treatment of Metastatic Colorectal ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Colon Cancer have been presented. According to news reporting from Karaj, Iran, by NewsRx journalists, research stated, "Metastatic colorectal cancer is the fourth most common cause of death due to cancer after those of lung, stomach, and liver. Anti epidermal growth factor receptor drugs as a targeting therapy seem to be good candidates for curing metastatic colorectal cancer."

The news correspondents obtained a quote from the research from Pasteur Institute, "Two available anti epidermal growth factor receptor monoclonal antibodies are cetuximab and panitumumab which have been approved for metastatic colorectal cancer treatment. Through the available literature on NCBI and clinical trials, 31 clinical trials in which cetuximab or panitumumab as monotherapy or in combination with chemotherapy were used for the treatment of metastatic colorectal cancer patients in different line settings and 12 clinical trials in which bevacizumab was used for being compared with anti epidermal growth factor receptor monoclonal antibodies or chemotherapy were chosen for reviewing and comparing the results of overall survival, progression free survival and adverse effects. Cetuximab and panitumumab are well accepted for the treatment of mCRC patients at all stages in different line settings. Although cetuximab administration in metastatic colorectal cancer patients is mostly associated with better overall survival and panitumumab results in better progression free survival, to confirm the superiority of each of them in the treatment protocol of epidermal growth factor receptor monoclonal antibodies, more clinical trials with larger sample size are needed."

According to the news reporters, the research concluded: "Through current available data from clinical studies, it can be concluded that the best treatment outcome is achieved by a
combination of anti epidermal growth factor receptor monoclonal antibodies with conventional chemotherapy."

For more information on this research see: A Comprehensive Review of Clinical Trials on EGFR Inhibitors Such as Cetuximab and Panitumumab as Monotherapy and in Combination for Treatment of Metastatic Colorectal Cancer. Avicenna Journal of Medical Biotechnology, 2015;7(4):134-44.

Our news journalists report that additional information may be obtained by contacting M.H. Yazdi, Dept. of Research and Development, Pasteur Institute of Iran, Karaj, Iran. Additional authors for this research include M.A. Faramarzi, S. Nikfar and M. Abdollahi.

Keywords for this news article include: Iran, Asia, Antineoplastic Monoclonal Antibodies, Biotechnology, Pharmaceuticals, Karaj, Oncology, Cetuximab, Immunology, Panitumumab, Chemotherapy, Colon Cancer, Article Review, Blood Proteins, EGFR Inhibitors, Immunoglobulins, Gastroenterology, Clinical Research, Membrane Proteins, Peptide Receptors, Colorectal Research.

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Disease Attributes - Disease Progression

Study Data from Pennsylvania State University Update Knowledge of Disease Progression (Changes in Bone Turnover Marker Levels and Clinical Outcomes in Patients with Advanced Cancer and Bone Metastases Treated with Bone Anti-resorptive Agents)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Disease Attributes - Disease Progression have been published. According to news reporting originating from Hershey, Pennsylvania, by NewsRx correspondents, research stated, "Bone anti-resorptive agents can significantly reduce bone turnover markers (BTM) in patients with advanced cancer. We evaluated association of changes in BTMs with overall survival (OS), disease progression (DP), and disease progression in bone (DPB) in patients with advanced cancer and bone metastases following denosumab or zoledronic acid treatment."

Our news editors obtained a quote from the research from Pennsylvania State University. "This is an integrated analysis of patient-level data from three identically designed, blinded, phase III trials with patients randomized to subcutaneous denosumab or intravenous zoledronic acid. Levels of the BTMs urinary N-telopeptide (uNTx) and serum bone-specific alkaline phosphatase (sBSAP) measured at study entry and month 3 were analyzed. OS, DP, and DPB were compared in patients with BTMs >= median versus < median based on month 3 assessments. uNTx levels >= the median of 10.0 nmol/mmol at month 3 were associated with significantly reduced OS compared with levels < median (HR for death, 1.85; P< 0.0001). sBSAP levels >= median of 12.6 ng/mL were associated with significantly reduced OS compared with levels < median (HR for death, 2.44; P< 0.0001). uNTx and sBSAP levels >= median at month 3 were associated with significantly greater risk of DP (HR, 1.31; P< 0.0001 and HR, 1.71; P< 0.0001, respectively) and DPB (HR, 1.11; P = 0.0407 and HR, 1.27; P< 0.0001, respectively). BTM levels >= median after 3 months of bone anti-resorptive treatment were associated with reduced OS and increased risk of DP and DPB."

According to the news editors, the research concluded: "Assessment of uNTx and
sBSAP levels after bone antiresorptive therapy may add to identification of patients at risk for worse clinical outcomes."

For more information on this research see: Changes in Bone Turnover Marker Levels and Clinical Outcomes in Patients with Advanced Cancer and Bone Metastases Treated with Bone Antiresorptive Agents. *Clinical Cancer Research*, 2016;22(23):5713-5721. *Clinical Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

The news editors report that additional information may be obtained by contacting A. Lipton, Penn State Canc Inst, Div Hematol Oncol, Hershey, PA, United States. Additional authors for this research include M.R. Smith, K. Fizazi, A.T. Stopeck, D. Henry, J.E. Brown, N.D. Shore, F. Saad, A. Spencer, L. Zhu and D.J. Warner.

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Keywords for this news article include: Hershey, Pennsylvania, United States, North and Central America, Monoclonal Antibodies, Pathologic Processes, Drugs and Therapies, Disease Progression, Disease Attributes, Bone Research, Biotechnology, Immunotherapy, Denosumab, Oncology, Cancer, Pennsylvania State University.

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and limitations regarding analytical evaluation of efficacy, absorption and safety of novel drug carrier systems applied to such models are discussed along with a prospective view of anticipated future directions."

According to the news editors, the research concluded: "In addition, emerging non-invasive imaging modalities are introduced and their significance and potential to advance current knowledge in the field of skin drug delivery is explored."

For more information on this research see: In vitro models for evaluating safety and efficacy of novel technologies for skin drug delivery. *Journal of Controlled Release*, 2016;242 ():89-104. *Journal of Controlled Release* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news journalists report that additional information may be obtained by contacting V. Planz, PharmBioTec GmbH, D-66123 Saarbrucken, Germany. Additional authors for this research include C.M. Lehr and M. Windbergs.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jconrel.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Saarbrucken, Germany, Europe, Drug Delivery Systems, Drugs and Therapies, Technology, PharmBioTec GmbH.

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Oncology - Squamous Cell Carcinoma

**Study Data from R. Bueno and Co-Authors Update Knowledge of Squamous Cell Carcinoma (HOX genes: potential candidates for the progression of laryngeal squamous cell carcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Squamous Cell Carcinoma have been published. According to news reporting originating in Ribeirao Preto, Brazil, by NewsRx journalists, research stated, "Laryngeal squamous cell carcinoma (LSCC) is a very aggressive cancer, considered to be a subtype of the head and neck squamous cell carcinoma (HNSCC). Despite significant advances in the understanding and treatment of cancer, prognosis of patients with LSCC has not improved recently."

Financial supporters for this research include Fundacao de Amparo a Pesquisa do Estado de Sao Paulo, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico.

The news reporters obtained a quote from the research, "In the present study, we sought to understand better the genetic mechanisms underlying LSCC development. Thirty-two tumor samples were collected from patients undergoing surgical resection of LSCC. The samples were submitted to whole-genome cDNA microarray analysis aiming to identify genetic targets in LSCC. We also employed bioinformatic approaches to expand our findings using the TCGA database and further performed functional assays, using human HNSCC cell lines, to evaluate viability, cell proliferation, and cell migration after silencing of selected genes. Eight members of the homeobox gene family (HOX) were identified to be overexpressed in LSCC samples when compared to normal larynx tissue. Quantitative RT-PCR analysis validated the overexpression of HOX gene family members in LSCC. Receiver operating characteristic
(ROC) statistical method curve showed that the expression level of seven members of HOX gene family can distinguish tumor from nontumor tissue. Correlation analysis of clinical and gene expression data revealed that HOXC8 and HOXD11 genes were associated with the differentiation degree of tumors and regional lymph node metastases, respectively. Additionally, siRNA assays confirmed that HOXC8, HOXD10, and HOXD11 genes might be critical for cell colony proliferation and cell migration. According to our findings, several members of the HOX genes were overexpressed in LSCC samples and seem to be required in biological processes involved in tumor development.

According to the news reporters, the research concluded: "This suggests that HOX genes might play a critical role in the physiopathology of LSCC tumors."

For more information on this research see: HOX genes: potential candidates for the progression of laryngeal squamous cell carcinoma. Tumor Biology. 2016;37(11):15087-15096. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5356-8. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ribeirao Preto, Brazil, South America, Squamous Cell Carcinoma, Oncology, Genetics, Carcinomas.

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Genetics - Medical Genetics

Study Data from Radboud University Medical Center Update Understanding of Medical Genetics (Clinical delineation of the PACS1-related syndrome--Report on 19 patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics - Medical Genetics have been published. According to news reporting from Nijmegen, Netherlands, by NewsRx journalists, research stated, "We report on 19 individuals with a recurrent de novo c.607C>T mutation in PACS1. This specific mutation gives rise to a recognizable intellectual disability syndrome."

Financial supporters for this research include Canadian Institutes of Health Research, Health Innovation Challenge Fund, Department of Health, and the Wellcome Trust Sanger Institute, National Institute for Health Research.

The news correspondents obtained a quote from the research from Radboud University Medical Center, "There is a distinctive facial appearance (19/19), characterized by full and arched eyebrows, hypertelorism with downslanting palpebral fissures, long eye lashes, ptosis, low set and simple ears, bulbous nasal tip, wide mouth with downturned corners and a thin upper lip with an unusual 'wavy' profile, flat philtrum, and diastema of the teeth. Intellectual
disability, ranging from mild to moderate, was present in all. Hypotonia is common in infancy (8/19). Seizures are frequent (12/19) and respond well to anticonvulsive medication. Structural malformations are common, including heart (10/19), brain (12/16), eye (10/19), kidney (3/19), and cryptorchidism (6/12 males). Feeding dysfunction is presenting in infancy with failure to thrive (5/19), gastroesophageal reflux (6/19), and gastrostomy tube placement (4/19). There is persistence of oral motor dysfunction."

According to the news reporters, the research concluded: "We provide suggestions for clinical work-up and management and hope that the present study will facilitate clinical recognition of further cases."


Our news journalists report that additional information may be obtained by contacting J.H. Schuurs-Hoeijmakers, Dept. of Human Genetics, Radboud University Medical Center, Nijmegen, Netherlands. Additional authors for this research include M.L. Landsverk, N. Foulds, M.K. Kukolich, R.H. Gavrilova, S. Greville-Heygate, A. Hanson-Kahn, J.A. Bernstein, J. Glass, D. Chitayat, T.A. Burrow, A. Husami, K. Collins, K. Wusik, N. van der Aa and F. Kooy.

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Keywords for this news article include: Europe, Nijmegen, Netherlands, Medical Genetics.

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Rotavirus
Study Data from Rega Institute for Medical Research Update Understanding of Rotavirus (Comparative analysis of pentavalent rotavirus vaccine strains and G8 rotaviruses identified during vaccine trial in Africa)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Rotavirus is now available. According to news reporting originating in Leuven, Belgium, by NewsRx journalists, research stated, "RotaTeqTM is a pentavalent rotavirus vaccine based on a bovine rotavirus genetic backbone in vitro reassorted with human outer capsid genes. During clinical trials of RotaTeqTM in Sub-Saharan Africa, the vaccine efficacy over a 2-year follow-up was lower against the genotypes contained in the vaccine than against the heterotypic G8P[6] and G8P[1] rotavirus strains of which the former is highly prevalent in Africa."

The news reporters obtained a quote from the research from Rega Institute for Medical Research, "Complete genome analyses of 43 complete rotavirus genomes collected during phase III clinical trials of RotaTeqTM in Sub-Saharan Africa, were conducted to gain insight into the high level of cross-protection afforded by RotaTeqTM against these G8 strains. Phylogenetic analysis revealed the presence of a high number of bovine rotavirus gene segments
in these human G8 strains. In addition, we performed an in depth analysis on the individual amino acid level which showed that G8 rotaviruses were more similar to the RotaTeq™ vaccine than non-G8 strains. Because RotaTeq™ possesses a bovine genetic backbone, the high vaccine efficacy against G8 strains might be partially explained by the fact that all these strains contain a complete or partial bovine-like backbone."

According to the news reporters, the research concluded: "Altogether, this study supports the hypothesis that gene segments other than VP7 and VP4 play a role in vaccine-induced immunity."

For more information on this research see: Comparative analysis of pentavalent rotavirus vaccine strains and G8 rotaviruses identified during vaccine trial in Africa. *Scientific Reports*, 2015;5():14658. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting E. Heylen, KU Leuven - University of Leuven, Dept. of Microbiology and Immunology, Laboratory for Clinical and Epidemiological virology, Rega Institute for Medical Research, Leuven, Belgium. Additional authors for this research include M. Zeller, M. Ciarlet, J. Lawrence, D. Steele, M. Van Ranst and J. Matthijssens.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep14658. This DOI is a link to an online electronic document that is either free or for purchase.

Keys for this news article include: Viral, Leuven, Europe, Belgium, Genetics, Vaccines, Virology, Rotavirus, Reoviridae, RNA Viruses, Immunization, Clinical Research, Biological Products, Clinical Trials and Studies.

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**Transplant Medicine - Liver Transplants**

**Study Data from Regional Hospital Update Understanding of Liver Transpls (Acute Liver Failure Caused by Primary Non-Hodgkin's Lymphoma of the Liver)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Transplant Medicine - Liver Transplants. According to news reporting out of Malaga, Spain, by NewsRx editors, research stated, "Acute liver failure (ALF) is a rare syndrome involving maximum liver dysfunction. This disease is characterized by a less than 26-week history of coagulopathy (INR >= 1.5) and hepatic encephalopathy and generally occurs in patients without any previously known disease."

Our news journalists obtained a quote from the research from Regional Hospital, "We report the case of a healthy 25-year-old subject who presented with fulminant liver failure caused by a primary non-Hodgkin's lymphoma of the liver that required emergency liver transplantation. Diagnosis was based on pathologic confirmation of T-cell/histiocyte-rich large B-cell lymphoma and submassive hepatocyte necrosis. One year after surgery, the patient remains in complete remission. Fulminant liver failure is a sudden-onset severe disease that can be caused by a primary non-Hodgkin's lymphoma of the liver, which accounts for <1% of extranodal lymphomas."

According to the news editors, the research concluded: "The diagnosis of this rare
disease demands high diagnostic suspicion, and progression can be prevented through liver transplantation."


Our news journalists report that additional information may be obtained by contacting L.R. Lopez, Reg Hosp, Liver Transplant Unit, Malaga, Spain. Additional authors for this research include F.J.L. Diaz, B.S. Perez, J.A.P. Daga, J.L.F. Aguilar, M.C.M. Casado, J.M.A. Narvaez, M.A.S. Munoz and J.S. Santoyo.

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Keywords for this news article include: Malaga, Spain, Europe, Lymphatic Diseases and Conditions, Immune proliferative Disorders, Lymphoproliferative Disorders, Liver Diseases and Conditions, Hepatic Insufficiency, Liver Transplantation, Non-Hodgkin Lymphoma, Acute Liver Failure, Transplant Medicine, Liver Transplants, Organ Transplants, Gastroenterology, Biomedicine, Hematology, Hepatology, Lymphomas, Oncology, Surgery, Regional Hospital.

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**Drugs and Therapies - In Vivo Diagnostic Biologicals**

**Study Data from Research Institute Update Knowledge of In Vivo Diagnostic Biologicals (L-Arginine L-Glutamate Enhances Gastric Motor Function in Rats and Dogs and Improves Delayed Gastric Emptying in Dogs)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - In Vivo Diagnostic Biologicals. According to news reporting originating from Kanagawa, Japan, by NewsRx correspondents, research stated, "Amino acids are not only constituents of proteins, but also have multiple physiologic functions. Recent findings have revealed that ingested amino acids either activate luminal receptors or are metabolized, causing physiologic reactions in the gastrointestinal (GI) tract."

Our news editors obtained a quote from the research from Research Institute, "We examined the effect of oral L-arginine L-glutamate (ArgGlu), a pharmaceutical amino acid salt used i.v. for the treatment of hyperammonemia, on gastric motor function in rats and dogs. Gastric emptying was determined using phenol red and C-13-breath test methods, whereas gastric relaxation was determined using the barostat method. ArgGlu (10-30 mg/kg, p.o.) dose-dependently promoted gastric emptying in rats. This effect was dependent on vagus nerve activation and comparable to that of the prokinetic mosapride. Intragastric ArgGlu (3-30 mg/kg intragastrically) also dose-dependently enhanced adaptive relaxation of rat stomachs, which was negated not by vagotomy of gastric branches, but by pretreatment with N omega-nitro-L-argininemethyl ester (20mg/kg i.v.), a nitric oxide synthase inhibitor. Its relaxing effect on the
stomach was also confirmed in dogs and was equally as efficacious as treatment with sumatriptan (1-3 mg/kg s.c.). ArgGlu (30mg/kg p.o.) significantly reduced the half gastric emptying time in clonidine-induced delayed gastric emptying of solids in dogs, and its effect was comparable to that of cisapride (3 mg/kg p.o.)."

According to the news editors, the research concluded: "This study demonstrated that the pharmaceutical ingredient ArgGlu, currently used i.v., enhanced gastric motor function when administered orally, suggesting that it could be a new oral medicine indicated for treatment of upper GI hypofunction or dysfunction like functional dyspepsia."

For more information on this research see: L-Arginine L-Glutamate Enhances Gastric Motor Function in Rats and Dogs and Improves Delayed Gastric Emptying in Dogs. Journal of Pharmacology and Experimental Therapeutics, 2016;359(2):238-246. Journal of Pharmacology and Experimental Therapeutics can be contacted at: Amer Soc Pharmacology Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995, USA.

The news editors report that additional information may be obtained by contacting T. Tanaka, EA Pharma, Res Inst, Kawasaki, Kanagawa, Japan. Additional authors for this research include S. Shiraishi, S. Fujita, S. Ogawa, M. Kaneko, M. Suzuki and T. Tanaka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.234658. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kanagawa, Japan, Asia, In Vivo Diagnostic Biologicals, Essential Amino Acids, Diamino Amino Acids, Drugs and Therapies, Basic Amino Acids, Glutamic Acid, Glutamates, L-Arginine, Hormones, Research Institute.

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Immunology - Antigen-Presenting Cells

Study Data from Research Institute Update Understanding of Antigen-Presenting Cells (Dendritic Cells and Cancer Immunity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology - Antigen-Presenting Cells have been presented. According to news reporting originating from Tampa, Florida, by NewsRx correspondents, research stated, "Dendritic cells (DCs) are central regulators of the adaptive immune response, and as such are necessary for T-cell-mediated cancer immunity."

Our news editors obtained a quote from the research from Research Institute, "In particular, antitumoral responses depend on a specialized subset of conventional DCs that transport tumor antigens to draining lymph nodes and cross-present antigen to activate cytotoxic T lymphocytes. DC maturation is necessary to provide costimulatory signals to T cells, but while DC maturation occurs within tumors, it is often insufficient to induce potent immunity, particularly in light of suppressive mechanisms within tumors."

According to the news editors, the research concluded: "Bypassing suppressive pathways or directly activating DCs can unleash a T-cell response, and although clinical efficacy has proven elusive, therapeutic targeting of DCs continues to hold translational potential in combinatorial approaches."

For more information on this research see: Dendritic Cells and Cancer Immunity. Trends in Immunology, 2016;37(12):855-865. Trends in Immunology can be contacted at:
Study Data from Royal Perth Hospital Update Knowledge of Antirheumatics (Abatacept experience in steroid and rituximab-resistant focal segmental glomerulosclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antirheumatics. According to news reporting out of Perth, Australia, by NewsRx editors, research stated, "Primary focal segmental glomerular sclerosis (FSGS), one of the major causes of nephrotic syndrome, eventually results in end-stage renal disease. Currently, FSGS is treated with immunosuppressive therapies, which include calcinuerin inhibitors (cyclosporine), glucocorticoids, B-cell depleting agents (rituximab) and, recently, a T-cell co-stimulatory inhibitor (abatacept)."

Our news journalists obtained a quote from the research from Royal Perth Hospital, "Until recently, there had been no cases reporting resistance to all current therapies. We report a case of a 62-year-old Caucasian man with biopsy-proven FSGS, who responded well to oral prednisolone therapy. However, 2 years later, he had a relapse and failed to respond to prednisolone. Subsequent treatments then included cyclosporine, rituximab and cyclophosphamide, which were not successful."

According to the news editors, the research concluded: "The patient was then administered abatacept, a novel T-cell co-stimulatory inhibitor-though he did not experience any side effects, there was no change in proteinuria nor in creatinine."

For more information on this research see: Abatacept experience in steroid and rituximab-resistant focal segmental glomerulosclerosis. Bmj Case Reports, 2016;2016():. (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

Our news journalists report that additional information may be obtained by contacting V.K. Jayaraman, Royal Perth Hospital, Perth, Western Australia, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2016-214396. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastic Monoclonal Antibodies, Antirheumatics, Biotechnology, Perth, Abatacept, Rituximab, Medical Devices, Drugs and
Pregnancy Complications - Twin-to-Twin Transfusion…

Study Data from Royal Women's Hospital Provide New Insights into Twin-to-Twin Transfusion Syndrome [The Outcome of Monochorionic Diamniotic Twins Discordant at 11 to 13(+6) Weeks' Gestation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pregnancy Complications - Twin-to-Twin Transfusion Syndrome have been presented. According to news reporting from Melbourne, Australia, by NewsRx journalists, research stated, "Monochorionic diamniotic (MCDA) twin pregnancies are associated with adverse perinatal outcome. Intertwin discordances at the time of nuchal translucency (NT) screening may have a value in the prediction of fetal loss or twin-to-twin transfusion syndrome."

The news correspondents obtained a quote from the research from Royal Women's Hospital, "We aimed to determine the ability of intertwin NT and crown rump length (CRL) discordances among MCDA twins to predict adverse outcomes. All MCDA twins with a documented routine ultrasound at 11 to 13(+6) weeks' gestation, and known pregnancy outcome between August 2003 and August 2012 were included. Receiver operating characteristic curves were used to determine the ideal NT and CRL discordances cut-off points that maximized the ability to predict adverse outcome, which was defined as any of: death of one or both twins, twin-to-twin transfusion syndrome, or estimated fetal weight or birth weight discordances >= 25%. Of the 89 cases, 20 (22.5%) had at least one adverse outcome. NT discordance was more discriminatory of adverse outcome than was CRL discordance. The optimal values for predicting any adverse outcomes for NT were >23.7% and for CRL >3.5%. The positive predictive values for NT (52.4%) and CRL (29.8%) screening were relatively low; however, the lack of either NT or CRL discordances was more reassuring, with negative predictive values of 86.8% and 86.4%, respectively. NT discordance is more predictive for adverse fetal outcome in MCDA twins than CRL discordance."

According to the news reporters, the research concluded: "Neither NT nor CRL discordance are likely to modify the intensive monitoring required for these very high-risk pregnancies."


Our news journalists report that additional information may be obtained by contacting M.P. Umstad, Royal Womens Hosp, Div Matern Serv, Melbourne, Vic, Australia. Additional authors for this research include K. Reidy, T. Gilchrist, L.W. Doyle and M.P. Umstad.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, CD20 Monoclonal Antibodies, Tyrosine Kinase Inhibitors.
Neurodegenerative Diseases and Conditions...

Study Data from Ruhr University Update Understanding of Huntington Disease (The search for modifier genes in Huntington disease Multifactorial aspects of a monogenic disorder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Huntington Disease have been published. According to news reporting from Bochum, Germany, by NewsRx editors, the research stated, "It is becoming increasingly evident that the underlying mutation of a single locus is often insufficient for the prediction of the comprehensive phenotype in human Mendelian disorders, implicating that there is no clear distinction between monogenic and complex traits. By definition, monogenic traits show a classic pattern of inheritance and are strongly influenced by variation within a single gene."

The news correspondents obtained a quote from the research from Ruhr University, "However, many Mendelian traits that result in genetic disorders can have phenotypes that differ in subtle or profound ways such as severity, onset age and other associated phenotypic characteristics. Among the factors that may explain these differences in disease expression are modifier genes. This review focuses on the role of modifier genes using the example of Huntington Disease (HD), an autosomal dominantly transmitted, progressive neurodegenerative disorder."

According to the news reporters, the research concluded: "The advantages and limitations of candidate gene approaches versus genome-wide association studies (GWAS) as well as its implications for diagnostic, prognostic, and therapeutic interventions are discussed."


Our news journalists report that additional information may be obtained by contacting L. Arning, Ruhr University of Bochum, Dept. of Human Genet, Bochum, Germany.

Keywords for this news article include: Bochum, Germany, Europe, Neurodegenerative Diseases and Conditions, Article Review, Genetics, Central Nervous System Diseases and Conditions, Nervous System Heredodegenerative Disorders, Basal Ganglia Diseases and Conditions, Brain Diseases and Conditions, Cognition Disorders, Huntington Disease, Movement Disorders, Dyskinesias, Dementia, Chorea, Ruhr University.

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Study Data from S. Wang and Colleagues Update Understanding of CD Antigens [Intratumoral injection of a CpG oligonucleotide reverts resistance to PD-1 blockade by expanding multifunctional CD8(+) T cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology - CD Antigens have been presented. According to news reporting from Berkeley, California, by NewsRx journalists, research stated, "Despite the impressive rates of clinical response to programmed death 1 (PD-1) blockade in multiple cancers, the majority of patients still fail to respond to this therapy. The CT26 tumor in mice showed similar heterogeneity, with most tumors unaffected by anti-PD-1."

The news correspondents obtained a quote from the research, "As in humans, response of CT26 to anti-PD-1 correlated with increased T- and B-cell infiltration and IFN expression. We show that intratumoral injection of a highly interferogenic TLR9 agonist, SD-101, in anti-PD-1 nonresponders led to a complete, durable rejection of essentially all injected tumors and a majority of uninjected, distant-site tumors. Therapeutic efficacy of the combination was also observed with the TSA mammary adenocarcinoma and MCA38 colon carcinoma tumor models that show little response to PD-1 blockade alone. Intratumoral SD-101 substantially increased leukocyte infiltration and IFN-regulated gene expression, and its activity was dependent on CD8(+) T cells and type I IFN signaling. Anti-PD-1 plus intratumoral SD-101 promoted infiltration of activated, proliferating CD8(+) T cells and led to a synergistic increase in total and tumor antigen-specific CD8(+) T cells expressing both IFN-gamma and TNF-alpha. Additionally, PD-1 blockade could alter the CpG-mediated differentiation of tumor-specific CD8+ T cells into CD127(low)KLRG1(high) short-lived effector cells, preferentially expanding the CD127(high)KLRG1(low) long-lived memory precursors. Tumor control and intratumoral T-cell proliferation in response to the combined treatment is independent of T-cell trafficking from secondary lymphoid organs."

According to the news reporters, the research concluded: "These findings suggest that a CpG oligonucleotide given intratumorally may increase the response of cancer patients to PD-1 blockade, increasing the quantity and the quality of tumor-specific CD8(+) T cells."


Our news journalists report that additional information may be obtained by contacting R.L. Coffman, Dynavax Technol Corp, Discovery, Berkeley, CA 94710, United States. Additional authors for this research include J. Campos, M. Gallotta, M. Gong, C. Crain, E. Naik, R.L. Coffman and C. Guiducci.

Keywords for this news article include: Berkeley, California, United States, North and Central America, T-Lymphocyte Antigens, Biological Factors, Differentiation, CD8 Antigens, CD Antigens, Immunology, Genetics.
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Immunology - Mononuclear Phagocyte System

Study Data from S. Wang et al Provide New Insights into Mononuclear Phagocyte System (Serum Amyloid a Promotes Visfatin Expression in Macrophages)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immunology - Mononuclear Phagocyte System have been presented. According to news reporting originating in Weifang, People's Republic of China, by NewsRx journalists, research stated, "Visfatin has been reported to exert an important role in the development of atherosclerosis. However, the mechanism that regulated the expression of Visfatin has not been elucidated yet."

Financial support for this research came from Weifang Science and Technology Development Plan.

The news reporters obtained a quote from the research, "This study aimed to investigate the effect of SAA on the regulation of Visfatin, as well as the potential pathway. After RAW264.7 macrophages and primary monocytes were stimulated with SAA, the mRNA and protein expression of Visfatin was detected with real-time PCR and western blot, respectively. The concentration of Visfatin in the supernatant was measured with ELISA. Formyl peptide receptor 2 (FPR2) agonist (WKYMVm) and inhibitor (WRW(4)), extracellular signal-regulated kinase 1/2 (ERK1/2) inhibitor (PD98059), and peroxisome proliferator-activated receptor-g (PPAR-g) agonist (Rosiglitazone) and inhibitor (GW9662) were used to investigate the mechanism of regulation of Visfatin. The results demonstrated that SAA upregulated Visfatin expression in cultured RAW264.7 macrophages and in the primary monocytes. WRW(4) decreased SAA-induced Visfatin production, while WKYMVm could induce Visfatin expression. PD98059 reduced SAA-induced Visfatin production. What is more, GW9662 inhibited SAA-induced Visfatin production, while Rosiglitazone promoted Visfatin expression."

According to the news reporters, the research concluded: "These results demonstrate that SAA upregulates Visfatin expression via a FPR2/ERK1/2/PPAR-g signaling pathway."

For more information on this research see: Serum Amyloid a Promotes Visfatin Expression in Macrophages. Biomed Research International, 2016;2016():4819327.

Our news correspondents report that additional information may be obtained by contacting S. Wang, Dept. of Cardiology II, Weifang People's Hospital, Weifang 261041, People's Republic of China. Additional authors for this research include X. Zhang and L. Tan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/4819327. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Weifang, Amyloid, Genetics, Proteins, Monocytes, Immunology, Macrophages, People's Republic of China, Mononuclear Phagocyte System.

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Gram-Negative Bacteria - Klebsiella

Study Data from S.K. Singh et al Provide New Insights into Klebsiella (blaOXA-48 carrying clonal colistin resistant-carbapenem resistant Klebsiella pneumoniae in neonate intensive care unit, India)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Klebsiella is now available. According to news reporting from Jamshedpur, India, by NewsRx journalists, research stated, "Bacteria resistant to colistin, a last resort antibiotic reflect the pre-antibiotic era."

The news correspondents obtained a quote from the research, "In this study, colistin resistance carbapenem-resistant K. pneumoniae (COLR-CRKP) strains from neonate's intensive care unit were evaluated. Molecular analysis showed that all the four colistin resistant K. pneumoniae isolates were clonally related with strong biofilm formation ability and harbored bla (SHV-34) and bla(OXA-48) genes."

According to the news reporters, the research concluded: "Our result suggested the need of proper surveillance and adequate infection control to limiting the spread of these organisms."

For more information on this research see: blaOXA-48 carrying clonal colistin resistant-carbapenem resistant Klebsiella pneumoniae in neonate intensive care unit, India. Microbial Pathogenesis, 2016;100():75-77. Microbial Pathogenesis can be contacted at: Academic Press Ltd- Elsevier Science Ltd, 24-28 Oval Rd, London NW1 7DX, England. (Elsevier - www.elsevier.com; Microbial Pathogenesis - www.journals.elsevier.com/microbial-pathogenesis/)

Our news journalists report that additional information may be obtained by contacting M. Gupta, TATA Main Hosp, Jamshedpur, Jharkhand, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.micpath.2016.09.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jamshedpur, India, Asia, Gram-Negative Facultatively Anaerobic Rods, Klebsiella pneumoniae, Epidemiology, Pore Forming Cytotoxic Proteins, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Membrane Proteins, Proteobacteria, beta-Lactams, Carbapenems, Polymyxins, Genetics, Colistin.

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Heart Disorders and Diseases - Acute Coronary...

Study Data from Shaheed Beheshti University of Medical Sciences Provide New Insights into Acute Coronary Syndrome (Genetic variants and expression study of FOXP3 gene in acute coronary syndrome in Iranian patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Acute Coronary Syndrome...
is now available. According to news reporting originating in Tehran, Iran, by NewsRx journalists, research stated, "Acute coronary syndrome (ACS) is the most serious form of coronary artery disease. Inflammatory processes participate in different stages of this disorder."

The news reporters obtained a quote from the research from the Shaheed Beheshti University of Medical Sciences, "FOXP3 gene plays an important role for the development and function of regulatory T cells. Consequently, the expression level and polymorphisms of this gene have been studied in many immune related diseases. In the present study, we analysed the expression of FOXP3 as well as the association between two variants in this gene (rs3761548A/C and rs5902434del/ATT) and occurrence of ACS in Iranian patients. FOXP3 expression analysis showed a significant decrease in patients with ACS compared with controls (p=0.029). In addition, a significant decrease has been detected in female patients compared with normal female subjects (p=0.020). No significant change has been observed in FOXP3 expression in male patients compared with normal male subjects. In addition, no difference has been detected between ACS and normal subjects in combined genotype frequencies of both polymorphisms and the allele frequencies of rs5902434. However, rs3761548 C allele was more prevalent in controls compared with patients with ACS (p=0.024). Consequently, our data demonstrated that FOXP3 expression is markedly decreased in female patients with ACS, which highlight the role of immune responses in plaque destabilization in such patients. Copyright © 2016 John Wiley & Sons, Ltd. Considering the role of immune system in different stages of acute coronary syndrome (ACS), we evaluated the expression of FOXP3 gene as a master regulator of immune response in these patients compared with normal subjects. We detected a significant down-regulation of this gene in patients with ACS."

According to the news reporters, the research concluded: "Such decreased expression was more prominent in female patients, which implies the role of immune responses in plaque destabilization in such patients."


Our news correspondents report that additional information may be obtained by contacting M. Gholami, Dept. of Medical Genetics, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran. Additional authors for this research include A. Esfandiary, M. Vatanparast, R. Mirfakhraie, M.M. Hosseini and S. Ghafoori-Fard.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cbf.3174. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Iran, Asia, Tehran, Genetics, Cardiology, Heart Disease, Myocardial Ischemia, Acute Coronary Syndrome, Heart Disorders and Diseases, Vascular Diseases and Conditions.

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Study Data from Shanghai Jiao-Tong University Update Knowledge of Plastic Surgery (Intravenous Hyaluronidase with Urokinase as Treatment for Rabbit Retinal Artery Hyaluronic Acid Embolism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Surgery - Plastic Surgery. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Although various salvage methods have been proposed to treat intraretinal artery hyaluronic acid embolism, their applications are still limited by various factors. The authors investigated the effectiveness of intravenous hyaluronidase with urokinase for resolving retinal artery hyaluronic acid embolism."

Our news editors obtained a quote from the research from Shanghai Jiao-Tong University, "The anatomy of rabbit ophthalmic and fundus arteries (retinal and choroid artery) was studied. Approximately 0.35 ml of hyaluronic acid was injected into the ophthalmic artery to create a retinal artery embolism model. The rabbits were grouped randomly (groups A, B, C, D, E, and F) and given hyaluronidase with urokinase intravenously at different postobstruction time points (10, 20, 30, 40, 50, and 60 minutes). Saline was given to the control group. Fundus vascular (retinal and choroid artery) reperfusion status and the effectiveness of the solution on the obstruction of each group were observed for 5 days. The animal model closely imitated actual hyaluronic acid ophthalmic/retinal artery obstructions. Three vascular conditions were observed after hyaluronidase with urokinase injection: total, partial, and no reperfusion. Groups A, B, and C showed a significantly higher overall solution effectiveness rate (total/partial reperfusion) compared with the control group (p = 0.001, p = 0.001, and p = 0.005, respectively). Solution effectiveness in groups D, E, and F showed no difference compared with the control group (p = 0.628, p = 1.000, and p = 1.000, respectively). The effectiveness of the solution drops dramatically if given after 30 minutes of obstruction. The authors' method can indeed help resolve retinal artery hyaluronic acid obstruction."

According to the news editors, the research concluded: "Intravenous hyaluronidase with urokinase technique shows possible potential to become a standardized treatment protocol for intraretinal artery hyaluronic acid embolism with further clinical tests."

For more information on this research see: Intravenous Hyaluronidase with Urokinase as Treatment for Rabbit Retinal Artery Hyaluronic Acid Embolism. Plastic and Reconstructive Surgery, 2016;138(6):1221-1229. Plastic and Reconstructive Surgery can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Plastic and Reconstructive Surgery - journals.lww.com/plasreconsurg/pages/default.aspx)

The news editors report that additional information may be obtained by contacting K. Liu, Shanghai Jiao Tong University, Sch Med, Shanghai Peoples Hosp 9, Dept. of Plast & Reconstruct Surg, Shanghai, People's Republic of China. Additional authors for this research include S.B. Zhou, C.H. Chen, D.S. Ho, H.Z. Zhang and K. Liu.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Plastic Surgery, Surgery, Hyaluronidase, Shanghai Jiao-Tong University.

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Oncology - Glioblastomas

Study Data from Shantou University Update Understanding of Glioblastomas (Histone Deacetylase Inhibitor RGFP109 Overcomes Temozolomide Resistance by Blocking NF-kappa B-Dependent Transcription in Glioblastoma Cell Lines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Glioblastomas have been presented. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Glioblastoma (GBM) is the most frequent and aggressive tumour in the central nervous system. Many studies have demonstrated that upregulation of the NF-kappa B onco-pathway is accompanied by the acquisition of Temozolomide (TMZ) resistance in GBM cells."

The news correspondents obtained a quote from the research from Shantou University, "Here, we show that RGFP109, a selective histone deacetylase (HDAC1 and HDAC3) inhibitor, overcomes TMZ resistance and downregulates the expression of NF-kappa B-regulated pro-survival genes in a TMZ-resistant (TR) GBM cell line. RGFP109 did not alter the phosphorylation levels of NF-kappa B/p65 or inhibitory kappa B alpha (I kappa B alpha). Immunofluorescence microscopy showed that RGFP109 does not block the nuclear translocation of NF-kappa B/p65. However, co-immunoprecipitation assays revealed that RGFP109 induces the hyperacetylation of NF-kappa B/p65 and histones, and blocks interactions between NF-kappa B/p65 and its coactivators, p300 and p300/CBP-associated factor (PCAF). These results indicate that RGFP109-mediated post-translational nuclear acetylation may be involved in the regulation of NF-kappa B. Electrophoretic mobility shift assays revealed that RGFP109 reduces NF-kappa B/p65 binding to kappa B-DNA and decreased the transcriptional level of kappa B-mediated genes, suggesting that RGFP109-induced hyperacetylation leads to attenuated transcription of the kappa B gene. In addition, RGFP109 elevates the expression of inhibitor of growth 4 (ING4), which is typically downregulated in GBM cells. Importantly, we found that RGFP109 enhances ING4 recognition and binding to NF-kappa B/p65, which may be positively correlated with reduced interactions between NF-kappa B/p65 and p300/PCAF, thereby effecting transcription of the kappa B gene. Finally, we show that knockdown of ING4 with plasmids containing pcDNA3.1-ING4 shRNA abolished the effect of RGFP109. Therefore, ING4 may act as a corepressor and facilitate RGFP109-triggered suppression of the NF-kappa B pathway."

According to the news reporters, the research concluded: "Taken together, our data show that RGFP109, an HDAC inhibitor, in combination with TMZ may be a therapeutic candidate for patients with temozolomide-resistant GBM."


Our news journalists report that additional information may be obtained by contacting W.P. Li, Shantou University, Coll Med, Shantou, Guangdong, People's Republic of China. Additional authors for this research include Q.Z. Li, L. Chen, B.D. Chen, B. Wang, X.J.
Study Data from Shengjing Hospital Provide New Insights into Gastric Cancer (Parity and gastric cancer risk: a systematic review and dose-response meta-analysis of prospective cohort studies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gastric Cancer. According to news originating from Shenyang, People's Republic of China, by NewsRx correspondents, research stated, "We performed this meta-analysis of epidemiological studies to comprehensively assess the association between parity and gastric cancer risk, because previous studies have shown conflicting results regarding this topic. Relevant prospective studies were identified by searching the following databases: PubMed, EMBASE, and Web of Science, and random-effects models were used to estimate summary relative risks (SRRs) and 95% confidence intervals (CIs)."

Our news journalists obtained a quote from the research from Shengjing Hospital, "Our search yielded 10 prospective cohort studies involving a total of 6624 gastric cancer cases and 5,559,695 non-cases. The SRRs for ever parity vs. nulliparous and highest vs. lowest parity number were 0.96 (95%CI=0.87-1.05, I(2)=0%) and 1.03 (95%CI=0.94-1.13, I(2)=0%), respectively. Additionally, the SRR for an increment of one live birth was 1.00 (95%CI=0.97-1.03, I(2)=18.6%). These non-significant associations were observed in all subgroups as stratified by the number of gastric cases, follow-up years, geographic location, menopausal status, anatomic subsite of gastric cancer, and adjustment for potential confounders, as well as in sensitivity analyses. Our meta-analysis found no significant association between parity and gastric cancer risk."

According to the news editors, the research concluded: "However, further studies should be conducted to validate our findings and could provide more detailed results by stratifying their findings by Lauren's subtype, histology, and anatomic site, as well as fully adjusting for potential confounding factors."

For more information on this research see: Parity and gastric cancer risk: a systematic review and dose-response meta-analysis of prospective cohort studies. Scientific Reports, 2016;6():18766. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J. Chen, Dept. of Obstetrics and Gynecology, Shengjing Hospital of China Medical University, Shenyang, People's Republic of China. Additional authors for this research include T.T. Gong and Q.J Wu.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18766. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shenyang, Oncology, Cancer Risk, Epidemiology, Article Review, Gastric Cancer, Gastroenterology, Risk and Prevention, People's Republic of China.

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Oncology - Liver Cancer

Study Data from Sichuan University Update Knowledge of Liver Cancer (Cost-effectiveness analysis of antiviral therapy in patients with advanced hepatitis B virus-related hepatocellular carcinoma treated with sorafenib)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting from Chengdu, People's Republic of China, by NewsRx journalists, research stated, "Antiviral therapy has been demonstrated to significantly improve the survival in patients with advanced hepatitis B virus (HBV)-related hepatocellular carcinoma (HCC). The aim of the study was to investigate the cost-effectiveness of antiviral therapy in patients with advanced HBV-related HCC treated with sorafenib."

The news correspondents obtained a quote from the research from Sichuan University, "To conduct the analysis, a Markov model comprising three health states (progression-free survival, progressive disease, and death) was created. The efficacy data were derived from medical records. Cost data were collected based on the Chinese national drug prices. Utility data came from the previously published studies. One-way sensitivity analyses as well as probabilistic sensitivity analyses were performed to explore model uncertainties. In the base-case analysis, addition of antiviral therapy to sorafenib generated an effectiveness of 0.68 quality-adjusted life years (QALYs) at a cost of $25,026.04, while sorafenib monotherapy gained an effectiveness of 0.42 QALYs at a cost of $20,249.64. The incremental cost-effectiveness ratio (ICER) was $18,370.77/QALY for antiviral therapy group versus non-antiviral therapy group. On the other hand, the ICER between the two groups in patients with high or low HBV-DNA load, with or without cirrhosis, normal or elevated alanine aminotransferase/aspartate aminotransferase were $16,613.97/QALY, $19,774.16/QALY, $14,587.66/QALY, $19,873.84/QALY, $17,947.07/QALY, and $18,785.58/QALY, respectively."

According to the news reporters, the research concluded: "Based on the cost-effectiveness threshold ($20,301.00/QALY in China), addition of antiviral therapy to sorafenib is considered to be a cost-effective option compared with sorafenib monotherapy in patients with advanced HBV-related HCC treated with sorafenib."

Our news journalists report that additional information may be obtained by contacting Q. Li, Sichuan University, West China Biostat & Cost Benefit Anal Center, Chengdu, Sichuan, People's Republic of China. Additional authors for this research include Y. Yang, F. Wen, J. Wheeler, P. Fu and Q. Li.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Tyrosine Kinase Inhibitors, Hepadnaviridae Infections, VEGF - VEGFR Inhibitors, Multikinase Inhibitors, Enzymes and Coenzymes, Drugs and Therapies, Sorafenib Therapy, Hepatitis B Virus, Orthohepadnavirus, Aminotransferase, Gastroenterology, VEGFR Inhibitors, Antineoplastics, Liver Cancer, DNA Viruses, Carcinomas, Hepatology, Genetics, Oncology, Virology, Viral, HBV, Sichuan University.

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Dentistry

Study Data from Sichuan University Update Understanding of Dentistry (Epigenetic regulation in dental pulp inflammation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Dentistry is the subject of a report. According to news reporting from Chengdu, People's Republic of China, by NewsRx journalists, research stated, "Dental caries, trauma, and other possible factors could lead to injury of the dental pulp. Dental infection could result in immune and inflammatory responses mediated by molecular and cellular events and tissue breakdown."

Funders for this research include National Natural Science Foundation of China, Innovation Team of Sichuan Province, China Scholarship Council.

The news correspondents obtained a quote from the research from Sichuan University. "The inflammatory response of dental pulp could be regulated by genetic and epigenetic events. Epigenetic modifications play a fundamental role in gene expression. The epigenetic events might play critical roles in the inflammatory process of dental pulp injury. Major epigenetic events include methylation and acetylation of histones and regulatory factors, DNA methylation, and small non-coding RNAs. Infections and other environmental factors have profound effects on epigenetic modifications and trigger diseases. Despite growing evidences of literatures addressing the role of epigenetics in the field of medicine and biology, very little is known about the epigenetic pathways involved in dental pulp inflammation. This review summarized the current knowledge about epigenetic mechanisms during dental pulp inflammation."

According to the news reporters, the research concluded: "Progress in studies of epigenetic alterations during inflammatory response would provide opportunities for the development of efficient medications of epigenetic therapy for pulpitis."


Our news journalists report that additional information may be obtained by contacting T. Hui, State Key Laboratory of Oral Diseases, West China Hospital of Stomatology, Sichuan University, Chengdu, Sichuan, People's Republic of China. Additional authors for this

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/odi.12464. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chengdu, Genetics, Dentistry, Inflammation, Article Review, People's Republic of China.

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Mental Health Diseases and Conditions - Depression

Study Data from Southeast University Update Knowledge of Depression (Divergent topological architecture of the default mode network as a pretreatment predictor of early antidepressant response in major depressive disorder)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mental Health Diseases and Conditions - Depression. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Identifying a robust pretreatment neuroimaging marker would be helpful for the selection of an optimal therapy for major depressive disorder (MDD). We recruited 82 MDD patients [n = 42 treatment-responsive depression (RD) and n = 40 non-responding depression (NRD)] and 50 healthy controls (HC) for this study."

The news correspondents obtained a quote from the research from Southeast University, "Based on the thresholded partial correlation matrices of 58 specific brain regions, a graph theory approach was applied to analyse the topological properties. When compared to HC, both RD and NRD patients exhibited a lower nodal degree (D-nodal) in the left anterior cingulate gyrus; as for RD, the Dnodal of the left superior medial orbitofrontal gyrus was significantly reduced, but the right inferior orbitofrontal gyrus was increased (all P< 0.017, FDR corrected). Moreover, the nodal degree in the right dorsolateral superior frontal cortex (SFGdor) was significantly lower in RD than in NRD. Receiver operating characteristic curve analysis demonstrated that the and nodal degree in the right SFGdor exhibited a good ability to distinguish nonresponding patients from responsive patients, which could serve as a specific maker to predict an early response to antidepressants."

According to the news reporters, the research concluded: "The disrupted topological configurations in the present study extend the understanding of pretreatment neuroimaging predictors for antidepressant medication."

For more information on this research see: Divergent topological architecture of the default mode network as a pretreatment predictor of early antidepressant response in major depressive disorder. Scientific Reports, 2016;6():1-9. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting Y.G. Yuan, Southeast Univ, Sch Med, Zhongda Hosp, Dept. of Psychosomat & PsychiatInst Psychosomat, Nanjing 210009, Jiangsu, People's Republic of China. Additional authors for this research include Z. Wang, W.H. Jiang, Y.Y. Yin, Y.Y. Yuce, Y.Q. Zhang, X.P. Song and Y.G. Yuan.
Systemic Lupus Erythematosus

Study Data from Southern Medical University Update Understanding of Systemic Lupus Erythematosus (Suppression of interleukin 17 contributes to the immunomodulatory effects of adipose-derived stem cells in a murine model of systemic lupus ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Systemic Lupus Erythematosus are discussed in a new report. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Due to roles in immunoregulation and low immunogenicity, mesenchymal stem cells have been suggested to be potent regulators of the immune response and may represent promising treatments for autoimmune disease. Adipose-derived stem cells (ADSCs), stromal cells derived from adipose tissue, were investigated with allogeneic ADSCs in B6.MRL/lpr mice, a murine model of systemic lupus erythematosus (SLE)."

Our news journalists obtained a quote from the research from Southern Medical University, "We intravenously injected allogeneic ADSCs into SLE mice after disease onset and report that ADSCs reduced anti-ds DNA antibodies in serum and proteinuria in SLE mice. ADSCs alleviated renal damage and inflammatory cell infiltration and edema of the renal interstitium. Furthermore, ADSCs significantly downregulated renal IL-17 and CD68 expression, suggesting that ADSCs suppressed renal inflammation. ADSCs also decreased IL-17 mRNA expression and increased Foxp3, ROR-gamma t and miR-23b mRNA expression in renal tissue in SLE mice. ADSCs reduced renal protein expression of TAB 2 and IKK-alpha in SLE mice."

According to the news editors, the research concluded: "Thus, ADSCs may be a novel potential therapy for treating SLE."

For more information on this research see: Suppression of interleukin 17 contributes to the immunomodulatory effects of adipose-derived stem cells in a murine model of systemic lupus erythematosus. Immunologic Research, 2016;64(5-6):1157-1167. Immunologic Research can be contacted at: Humana Press Inc, 999 Riverview Drive Suite 208, Totowa, NJ 07512, USA. (Springer - www.springer.com; Immunologic Research - www.springerlink.com/content/0257-277x/)

The news correspondents report that additional information may be obtained from K. Lai, Southern Med Univ, Nanfang Hosp, Dept. of Dermatol, Guangzhou 510515, Guangdong, People's Republic of China. Additional authors for this research include Y.L. Zhang, A. Zhu, K. Zeng, X.P. Zhang, L. Gong, Y.S. Peng, K. Lai and S.G. Qu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s12026-016-8866-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China,
Cardiopulmonary Bypass

Study Data from St. George Hospital Update Understanding of Cardiopulmonary Bypass (Simulator Teaching of Cardiopulmonary Bypass Complications: A Prospective, Randomized Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiopulmonary Bypass have been published. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Complications of cardiopulmonary bypass (CPB) are rare, but life-threatening events that need prompt and rehearsed actions involving a team. This is not adequately taught to cardiothoracic surgical trainees."

The news correspondents obtained a quote from the research from St. George Hospital, "The objective of this study was to assess the knowledge of cardiothoracic trainees required to manage these events after simulation-based vs. lecture-based teaching. Totally, 17 cardiac surgical trainees with no formal teaching in intraoperative complications of CPB management were randomly assigned by computer to either a study group receiving simulation-based complications of CPB teaching via the Orpheus simulator (n = 9) or a control group receiving complications of CPB teaching via a lecture (n = 8). Each subject undertook a written test comprising 20 multiple choice questions on complications of CPB before and after teaching. Trainees were then asked to rate their satisfaction with each session from 1 to 5, with 5 being most satisfied. St George Simulation and Clinical Skills Laboratory, St George's Hospital, London. There was no significant difference in the pretest scores between the 2 groups (p = 0.29). After teaching, both groups showed a statistically significant improvement in their knowledge (p < 0.05). The trainees in the simulation group performed better than the lecture-based group; however, this was not statistically significant (p = 0.21). Satisfaction levels in both the lecture session and the simulation session were very high with means of 4.4/5 and 4.8/5, respectively. Despite the familiarity with CPB during surgery, the simulation group performed at least as well as the lecture group."

According to the news reporters, the research concluded: "Cardiothoracic trainees would benefit from formal teaching of complications of CPB management via either learning modality being incorporated into their training."


Our news journalists report that additional information may be obtained by contacting M. Jahangiri, St George Hosp, Dept. of Cardiothorac Surg, London SW17 0QT, United Kingdom. Additional authors for this research include S. Phillips, C. Hamilton, P. Fricker, D. Spray, J.L. Nowell and M. Jahangiri.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jsurg.2016.05.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Cardiopulmonary Bypass, Cardiothoracic, Cardiology, Surgery, St. George Hospital.

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Drugs and Therapies - Influenza Therapy

Study Data from St. Jude Children's Research Hospital Update

Knowledge of Influenza Therapy (A Novel Endonuclease Inhibitor Exhibits Broad-Spectrum Anti-Influenza Virus Activity In Vitro)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Influenza Therapy. According to news reporting from Memphis, Tennessee, by NewsRx journalists, research stated, "Antiviral drugs are important in preventing and controlling influenza, particularly when vaccines are ineffective or unavailable. A single class of antiviral drugs, the neuraminidase inhibitors (NAIs), is recommended for treating influenza."

Financial support for this research came from HHS | NIH | National Institute of Allergy and Infectious Diseases (NIAID).

The news correspondents obtained a quote from the research from St. Jude Children's Research Hospital, "The limited therapeutic options and the potential risk of antiviral resistance are driving the search for additional small-molecule inhibitors that act on influenza virus proteins. The acid polymerase (PA) of influenza viruses is a promising target for new antivirals because of its essential role in initiating virus transcription. Here, we characterized a novel compound, RO-7, identified as a putative PA endonuclease inhibitor. RO-7 was effective when added before the cessation of genome replication, reduced polymerase activity in cell-free systems, and decreased relative amounts of viral mRNA and genomic RNA during influenza virus infection. RO-7 specifically inhibited the ability of the PA endonuclease domain to cleave a nucleic acid substrate. RO-7 also inhibited influenza A viruses (seasonal and 2009 pandemic H1N1 and seasonal H3N2) and B viruses (Yamagata and Victoria lineages), zoonotic viruses (H5N1, H7N9, and H9N2), and NAI-resistant variants in plaque reduction, yield reduction, and cell viability assays in Madin-Darby canine kidney (MDCK) cells with nanomolar to submicromolar 50% effective concentrations (EC(50)s), low toxicity, and favorable selective indices. RO-7 also inhibited influenza virus replication in primary normal human bronchial epithelial cells."

According to the news reporters, the research concluded: "Overall, RO-7 exhibits broad-spectrum activity against influenza A and B viruses in multiple in vitro assays, supporting its further characterization and development as a potential antiviral agent for treating influenza."

For more information on this research see: A Novel Endonuclease Inhibitor Exhibits Broad-Spectrum Anti-Influenza Virus Activity In Vitro. Antimicrobial Agents and Chemotherapy, 2016;60(9):5504-5514. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)
Our news journalists report that additional information may be obtained by contacting E.A. Govorkova, St Jude Childrens Res Hosp, Dept. of Infect Dis, Memphis, TN 38105, United States. Additional authors for this research include B.M. Marathe, C. Lerner, L. Kreis, R. Gasser, P.N.Q. Pascua, I. Najera and E.A. Govorkova.

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Keywords for this news article include: Memphis, Tennessee, United States, North and Central America, Polymerase, Epidemiology, Enzymes and Coenzymes, Drugs and Therapies, Influenza Therapy, Endonucleases, Esterases, Genetics, St. Jude Children's Research Hospital.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Study Data from St. Louis University Update Knowledge of HIV/AIDS (Geographic Variation in Condom Availability and Accessibility)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immune System Diseases and Conditions - HIV/AIDS have been published. According to news reporting originating from St. Louis, Missouri, by NewsRx correspondents, research stated, "Identifying predictors that contribute to geographic disparities in sexually transmitted infections (STIs) is necessary in order to reduce disparities. This study assesses the spatial relationship condom availability and accessibility in order to better identify determinants of geographic disparities in STIs."

Our news editors obtained a quote from the research from St. Louis University, "We conducted a telephone-based audit among potential-condom selling establishments. Descriptive analyses were conducted to detect differences in condom-selling characteristics by stores and by store type. Geocoding, mapping, and spatial analysis were conducted to measure the availability of condoms. A total of 850 potential condom-selling establishments participated in the condom availability and accessibility audit in St. Louis city; 29 % sold condoms. There were several significant geographic clusters of stores identified across the study area. The first consisted of fewer convenience stores and gas stations that sold condoms in the northern section of the city, whereas condoms were less likely to be sold in non-convenience store settings in the southwestern and central parts of the city. Additionally, locations that distributed free condoms clustered significantly in city center. However, there was a dearth of businesses that were neither convenience stores nor gas stations in the northern region of the city, which also had the highest concentration of condoms sold."

According to the news editors, the research concluded: "This initial study was conducted to provide evidence that condom availability and accessibility differ by geographic region, and likely are a determinant of social norms surrounding condom use and ultimately impact STI rates."

For more information on this research see: Geographic Variation in Condom Availability and Accessibility. *AIDS and Behavior*, 2016;20(12):2863-2872. *AIDS and Behavior* can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; AIDS and Behavior - www.springerlink.com/content/1090-7165/)
The news editors report that additional information may be obtained by contacting E. Shacham, St. Louis University, Dept. of Behav Sci & Hlth Educ, Coll Public Hlth & Social Justice, St Louis, MO 63104, United States. Additional authors for this research include E.J. Nelson, L. Schulte, M. Bloomfield and R. Murphy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10461-016-1383-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, HIV/AIDS, Immune System Diseases and Conditions, St. Louis University.

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Health and Medicine - Endocrinology

Study Data from State University of Campinas Update Knowledge of Endocrinology (408 Cases of Genital Ambiguity Followed by Single Multidisciplinary Team during 23 Years: Etiologic Diagnosis and Sex of Rearing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Health and Medicine - Endocrinology. According to news reporting from Campinas, Brazil, by NewsRx journalists, research stated, "To evaluate diagnosis, age of referral, karyotype, and sex of rearing of cases with disorders of sex development (DSD) with ambiguous genitalia. Retrospective study during 23 years at outpatient clinic of a referral center."

Funders for this research include Fundacao de Amparo a Pesquisa do Estado de Sao Paulo, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico.

The news correspondents obtained a quote from the research from the State University of Campinas, "There were 408 cases; 250 (61.3%) were 46, XY and 124 (30.4%) 46, XX and 34 (8.3%) had sex chromosomes abnormalities. 189 (46.3%) had 46, XY testicular DSD, 105 (25.7%) 46, XX ovarian DSD, 95 (23.3%) disorders of gonadal development (DGD), and 19 (4.7%) complexmalformations. Themain etiology of 46, XX ovarian DSD was salt-wasting 21-hydroxylase deficiency. In 46, XX and 46, XY groups, other malformations were observed. In the DGD group, 46, XY partial gonadal dysgenesis, mixed gonadal dysgenesis, and ovo-testicular DSD were more frequent. Low birth weight was observed in 42 cases of idiopathic 46, XY testicular DSD. The average age at diagnosis was 31.7 months. The final sex of rearing was male in 238 cases and female in 170. Only 6.6% (27 cases) needed sex reassignment. In this large DSD sample with ambiguous genitalia, the 46, XY karyotype was the most frequent; in turn, congenital adrenal hyperplasia was the most frequent etiology."

According to the news reporters, the research concluded: "Malformations associated with DSD were common in all groups and low birth weight was associated with idiopathic 46, XY testicular DSD."

For more information on this research see: 408 Cases of Genital Ambiguity Followed by Single Multidisciplinary Team during 23 Years: Etiologic Diagnosis and Sex of Rearing. International Journal of Endocrinology, 2016(;):1-9. International Journal of Endocrinology can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste
Gram-Negative Bacteria - Pseudomonas aeruginosa

Study Data from State University of New York Update Understanding of Pseudomonas aeruginosa (Chemical Inhibition of Kynureninase Reduces Pseudomonas aeruginosa Quorum Sensing and Virulence Factor Expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Gram-Negative Bacteria - Pseudomonas aeruginosa is the subject of a report. According to news reporting out of Albany, New York, by NewsRx editors, research stated, "The opportunistic pathogen Pseudomonas aeruginosa utilizes multiple quorum sensing (QS) pathways to coordinate an arsenal of virulence factors. We previously identified several cysteine-based compounds inspired by natural products from the plant Petiveria alliacea which are capable of antagonizing multiple QS circuits as well as reducing P. aeruginosa biofilm formation."

Financial supporters for this research include Division of Chemistry, NIH Office of the Director.

Our news journalists obtained a quote from the research from the State University of New York, "To understand the global effects of such compounds on virulence factor production and elucidate their mechanism of action, RNA-seq transcriptomic analysis was performed on P. aeruginosa PAO1 exposed to S-phenyl-l-cysteine sulfoxide, the most potent inhibitor from the prior study. Exposure to this inhibitor down-regulated expression of several QS-regulated virulence operons (e.g., phenazine biosynthesis, type VI secretion systems). Interestingly, many genes that were differentially regulated pertain to the related metabolic pathways that yield precursors of pyochelin, tricarboxylic acid cycle intermediates, phenazines, and Pseudomonas quinolone signal (PQS). Activation of the MexT-regulon was also indicated, including the multidrug efflux pump encoded by mexEF-oprN, which has previously been shown to inhibit QS and pathogenicity. Deeper investigation of the metabolites involved in these systems revealed that S-phenyl-l-cysteine sulfoxide has structural similarity to kynurenine, a precursor of anthranilate, which is critical for P. aeruginosa virulence. By supplementing exogenous anthranilate, the QS-inhibitory effect was reversed. Finally, it was shown that S-phenyl-l-
cysteine sulfoxide competitively inhibits \textit{P. aeruginosa} kynureninase (KynU) activity in vitro and reduces PQS production in vivo."

According to the news editors, the research concluded: "The kynurenine pathway has been implicated in \textit{P. aeruginosa} QS and virulence factor expression; however, this is the first study to show that targeted inhibition of KynU affects \textit{P. aeruginosa} gene expression and QS, suggesting a potential antivirulence strategy."

For more information on this research see: Chemical Inhibition of Kynureninase Reduces Pseudomonas aeruginosa Quorum Sensing and Virulence Factor Expression. \textit{Acs Chemical Biology}, 2016;11(4):1106-17. (American Chemical Society - www.acs.org; Acs Chemical Biology - www.pubs.acs.org/journal/acbcct)

Our news journalists report that additional information may be obtained by contacting S.H. Kasper, Colleges of Nanoscale Science and Engineering, SUNY Polytechnic Institute, Albany, New York, United States. Additional authors for this research include R.P. Bonocora, J.T. Wade, R.A. Musah and N.C. Cady.

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Keywords for this news article include: Albany, New York, Cysteine, Genetics, United States, Pseudomonadaceae, Biological Toxins, Virulence Factors, Biological Factors, Sulfur Amino Acids, Gammaproteobacteria, Neutral Amino Acids, Sulfhydryl Compounds, Gram Negative Bacteria, Gram-Negative Bacteria, Pseudomonas aeruginosa, North and Central America.

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\textbf{Oncology - Liver Cancer}

\textbf{Study Data from Sungkyunkwan University Update Knowledge of Liver Cancer (Preoperative depressed mood and perioperative heart rate variability in patients with hepatic cancer)}

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Liver Cancer is the subject of a report. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "How perioperative heart rate variability (HRV) indices differ according to the anxiety or depressed mood of patients scheduled to undergo a major surgical procedure for cancer. Prospective observational study. Operating room."

Financial support for this research came from Sungkyunkwan University School of Medicine.

Our news journalists obtained a quote from the research from Sungkyunkwan University, "Forty-one male patients between 40 and 70 years of age with hepatocellular carcinoma were included in the final analysis. HRV was measured on the day before surgery (T1), impending anesthesia (T2), and after anesthetic induction (T3). Preoperative anxiety and depressed mood of all patients were evaluated using the State-Trait Anxiety Inventory and Self-Rating Depression Scale (SDS). HRV was significantly different among T1, T2, and T3. At T2, high frequency (HF) (normalized units of HF [nuHF]) was decreased and low frequency (LF) (normalized units of LF) and LF/HF were increased compared with those at T1 and T3. In the
subgroup analysis between high and low SDS groups, high SDS group showed significantly decreased nuHF (P = .035), increased nuLF (P = .039), and increased LF/HF (P = .020) compared to low SDS group at T1. However, these values at T2 and T3 were not different between 2 groups. In analysis within the groups, low SDS group showed significant differences in nuHF, nuLF, and LF/HF among T1, T2, and T3 (P < .05, respectively), but no changes in these values were observed in high SDS group among the 3 different time points. HRV decreased significantly immediately before anesthes ia and recovered to baseline with anesthetic induction."

According to the news editors, the research concluded: "Preoperative, more depressed patients showed increased sympathetic tone at baseline and blunted response to impending anesthesia on the HRV measurements."


Our news journalists report that additional information may be obtained by contacting M.H. Kim, Sungkyunkwan UniversitySch Med, Samsung Med Center, Dept. of Anesthesiol & Pain Med, Seoul 06351, South Korea. Additional authors for this research include J.H. Park, S.M. Lee, M.S. Gwak, G.S. Kim and M.H. Kim.

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Keywords for this news article include: Seoul, South Korea, Asia, Hepatic Cancer, Pain Medicine, Liver Cancer, Anesthesia, Oncology, Sungkyunkwan University.

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**Kidney Diseases and Conditions - Chronic Kidney...**

**Study Data from Taipei Medical University Hospital Update Understanding of Chronic Kidney Disease (Risk of liver injury after a-glucosidase inhibitor therapy in advanced chronic kidney disease patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Kidney Diseases and Conditions - Chronic Kidney Disease have been published. According to news reporting originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "Although a-glucosidase inhibitors (AGIs) are commonly used for controlling postprandial blood glucose, AGIs-induced liver injuries have been reported. However, the relationship between AGIs and liver injuries in advanced chronic kidney disease (CKD) patients remains unexplored."

Our news editors obtained a quote from the research from Taipei Medical University Hospital, "In this nationwide case-control study, we recruited 1765 advanced diabetic CKD patients, who received AGIs therapy from January 1, 2000 to December 31, 2010 as the study sample and 5295 matched controls. Recent and former AGIs users were defined as patients who
received the AGIs prescription for 30-60 d and 30-210 d before the event of liver injury. The risk of AGIs-induced liver injury was examined using time-dependent Cox proportional hazards model. Liver injury occurred in 3.9% of patients in the study group and 3.3% of patients in the control group. AGIs use did not increase the risk of liver injury in advanced CKD patients (p=0.19). The stratified analysis indicated no increased risk of liver injury in all AGIs-using subgroups (all p>0.05). The available evidence supports extending the use of AGIs without increasing the risk of liver injury in patients with advanced CKD."

According to the news editors, the research concluded: "Additional randomized controlled trials are warranted to confirm our results."

For more information on this research see: Risk of liver injury after a-glucosidase inhibitor therapy in advanced chronic kidney disease patients. Scientific Reports, 2016;6 ():18996. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting C.C. Kao, Division of Nephrology, Dept. of Internal Medicine, Taipei Medical University Hospital, Taipei, Taiwan. Additional authors for this research include P.C. Wu, C.H. Wu, L.K. Chen, H.H. Chen, M.S. Wu and V.C Wu.

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Keywords for this news article include: Asia, Taipei, Taiwan, Therapy, Glucosidases, Clinical Research, Glycoside Hydrolases, Enzymes and Coenzymes, Chronic Kidney Disease, Clinical Trials and Studies, Kidney Diseases and Conditions.

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Autoimmune Diseases and Conditions - Multiple...

Study Data from Tarbiat Modares University Update Understanding of Multiple Sclerosis (Association study of two functional single nucleotide polymorphisms of neuropeptide y gene with multiple sclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Autoimmune Diseases and Conditions - Multiple Sclerosis is now available. According to news reporting out of Tehran, Iran, by NewsRx editors, research stated, "Multiple sclerosis (MS) is an autoimmune disease of the central nervous system characterized by brain inflammation, demyelination and axonal loss. Neuropeptide Y (NPY) has a critical role in the maintenance of homeostasis in the immune system and coping of stress condition."

Financial supporters for this research include Iran National Science Foundation, Department of Research Affairs of Tarbiat Modares University.

Our news journalists obtained a quote from the research from Tarbiat Modares University, "In the current study we analyzed 188 patients suffering from MS and 204 unrelated healthy controls for two functional single nucleotide polymorphisms (SNPs), NPY 20T > C (rs16139) and NPY -485 T> C (rs16147) using PCR-RFLP and Mismatch PCR-RFLP methods. Our results demonstrated that homozygocity in the minor allele for NPY -485 T> C
polymorphism is associated with the MS risk in patients in compare with healthy controls (CC vs. TT, P = 0.033; CC vs. TT + TC, P = 0.02). In addition, by comparison with allele T, the frequency of NPY -485C allele was higher in cases than in control subjects and present increased risk of MS, but statistically significant was borderline (P = 0.053). The stratification for disease progression revealed a significant difference in the allelic and genotypic distribution between subgroups of MS and controls. The frequency of the CC genotype and C allele was higher in the primary progressive MS patients when compared with control group (CC vs. TT, P = 0.019; CC vs. TT + TC, P = 0.008; C vs. T, P = 0.022). In addition, the frequency of CC genotype was higher in the relapsing remitting MS patients when compared with control group (CC vs. TT, P = 0.034; CC vs. TT + TC, P = 0.016). Haplotype analysis demonstrated that the haplotype 3 (CT) is more common in RR MS (P = 0.041), and PP MS (P = 0.031) than control group."

According to the news editors, the research concluded: "The obtained results demonstrate the probable role of NPY SNPs in susceptibility to MS within the Iranian population."


Our news journalists report that additional information may be obtained by contacting M. Behmanesh, Tarbiat Modares Univ, Fac Biol Sci, Dept. of Genet, Tehran, Iran. Additional authors for this research include Z.S. Farsani, R. Dosti, M.A. Sahraian and M. Behmanesh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.npep.2016.08.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Autoimmune Diseases and Conditions of the Nervous System, Demyelinating Diseases and Conditions, CNS Demyelinating Autoimmune Disease, Nerve Tissue Proteins, Risk and Prevention, Proteins, Genetics, Multiple Sclerosis, Neuropeptide Y, Neuropeptides, Tarbiat Modares University.

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Gram-Negative Bacteria - Salmonella

Study Data from Trinity College Update Knowledge of Salmonella (Re-engineering cellular physiology by rewiring high-level global regulatory genes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Salmonella are presented in a new report. According to news reporting from Dublin, Ireland, by NewsRx journalists, research stated, "Knowledge of global regulatory networks has been exploited to rewire the gene control programmes of the model bacterium Salmonella enterica serovar Typhimurium. The product is an organism with competitive fitness that is superior to that of the wild type but tuneable under
specific growth conditions."

The news correspondents obtained a quote from the research from Trinity College, "The paralogous hns and stpA global regulatory genes are located in distinct regions of the chromosome and control hundreds of target genes, many of which contribute to stress resistance. The locations of the hns and stpA open reading frames were exchanged reciprocally, each acquiring the transcription control signals of the other. The new strain had none of the compensatory mutations normally associated with alterations to hns expression in Salmonella; instead it displayed rescheduled expression of the stress and stationary phase sigma factor RpoS and its regulon."

According to the news reporters, the research concluded: "Thus the expression patterns of global regulators can be adjusted artificially to manipulate microbial physiology, creating a new and resilient organism."

For more information on this research see: Re-engineering cellular physiology by rewiring high-level global regulatory genes. Scientific Reports, 2015;5():17653. (Nature Publishing Group - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting S. Fitzgerald, Dept. of Microbiology, Moyne Institute of Preventive Medicine, Trinity College Dublin, Dublin 2, Ireland. Additional authors for this research include S.C. Dillon, T.C. Chao, H.L. Wiencko, K. Hokamp, A.D. Cameron and C.J Dorman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep17653. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dublin, Europe, Ireland, Genetics, Salmonella, Engineering, Cellular Physiology, Gram Negative Bacteria, Gram-Negative Bacteria.

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Intercellular Signaling Peptides and Proteins...

Study Data from Tzu Chi University Provide New Insights into Cytokines (Slow infusion rate of doxorubicin induces higher pro-inflammatory cytokine production)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Intercellular Signaling Peptides and Proteins - Cytokines. According to news reporting originating in Hualien, Taiwan, by NewsRx journalists, research stated, "Different infusion rates of doxorubicin (DOX) have been used for treating human malignancies. Organ toxicity after DOX infusion is a major issue in treatment disruption."

Financial supporters for this research include National Science Counsel, Tzu Chi University, Taipei Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation.

The news reporters obtained a quote from the research from Tzu Chi University, "However, whether different DOX infusion rates induce different toxicity is still unknown. In this study, we examined the toxicity effects of different DOX infusion rates in the early phase of organ toxicity. Thirty-six rats were randomly divided into 5-, 15-, and 30-min infusion rate groups. A single dose of DOX (8.3 mg/kg, I.V.) was administered at different infusion rates.
Blood samples were collected from the femoral artery at 1, 3, 6, 9, 12, 18, 24, 36, and 48 h after DOX administration. The blood cell count and blood biochemistry were analyzed. The liver, kidney, and heart were removed for pathological examinations after the rats were sacrificed. Our findings show that the 30-min group had higher injury markers in the liver (glutamic oxaloacetic transaminase and glutamic pyruvic transaminase), kidneys (blood urea nitrogen and creatinine), and heart (creatine phosphokinase-MB and lactate dehydrogenase), and had higher tumor necrosis factor-alpha and interleukin 6 levels than did the other groups. The 30-min group also had more severe damage according to the pathological examinations.

According to the news reporters, the research concluded: "Slower infusion of DOX induced a higher inflammatory response and greater organ damage."

For more information on this research see: Slow infusion rate of doxorubicin induces higher pro-inflammatory cytokine production. Regulatory Toxicology and Pharmacology, 2016;81():69-76. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting R.P. Lee, Tzu Chi Univ, Inst Med Sci, Hualien 97004, Taiwan. Additional authors for this research include Y.C. Peng, F.L. Yang, Y.M. Subeq and R.P. Lee.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hualien, Taiwan, Asia, Intercellular Signaling Peptides and Proteins, Enzymes and Coenzymes, Transaminases, Cytokines, Tzu Chi University.

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Digestive System Diseases and Conditions - Crohn's... Study Data from University College Provide New Insights into Crohn's Disease (Genetic Complexity of Crohn's Disease in Two Large Ashkenazi Jewish Families)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Digestive System Diseases and Conditions - Crohn's Disease have been published. According to news reporting originating from London, United Kingdom, by NewsRx correspondents, research stated, "Crohn's disease (CD) is a highly heritable disease that is particularly common in the Ashkenazi Jewish population. We studied 2 large Ashkenazi Jewish families with a high prevalence of CD in an attempt to identify novel genetic risk variants."

Our news editors obtained a quote from the research from University College, "Ashkenazi Jewish patients with CD and a positive family history were recruited from the University College London Hospital. We used genome-wide, single-nucleotide polymorphism data to assess the burden of common CD-associated risk variants and for linkage analysis. Exome sequencing was performed and rare variants that were predicted to be deleterious and were observed at a high frequency in cases were prioritized. We undertook within-family
association analysis after imputation and assessed candidate variants for evidence of association with CD in an independent cohort of Ashkenazi Jewish individuals. We examined the effects of a variant in DUOX2 on hydrogen peroxide production in HEK293 cells. We identified 2 families (1 with >800 members and 1 with > 200 members) containing 54 and 26 cases of CD or colitis, respectively. Both families had a significant enrichment of previously described common CD-associated risk variants. No genome-wide significant linkage was observed. Exome sequencing identified candidate variants, including a missense mutation in DUOX2 that impaired its function and a frameshift mutation in CSF2RB that was associated with CD in an independent cohort of Ashkenazi Jewish individuals. In a study of 2 large Ashkenazi Jewish with multiple cases of CD, we found the genetic basis of the disease to be complex, with a role for common and rare genetic variants. We identified a frameshift mutation in CSF2RB that was replicated in an independent cohort."

According to the news editors, the research concluded: "These findings show the value of family studies and the importance of the innate immune system in the pathogenesis of CD."


The news editors report that additional information may be obtained by contacting A.W. Segal, UCL, Div Med, London WC1E 6JF, United Kingdom. Additional authors for this research include N. Pontikos, E.R. Schiff, L. Jostins, D. Speed, L.B. Lovat, J.C. Barrett, H. Grasberger, V. Plagnol and A.W. Segal.

Keywords for this news article include: London, United Kingdom, Europe, Digestive System Diseases and Conditions, Risk and Prevention, Inflammatory Bowel Diseases and Conditions, Gastrointestinal Diseases and Conditions, Gastroenterology, Crohn's Disease, Gastroenteritis, Genetics, University College.

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**Oncology**

**Study Data from University College Update Knowledge of Oncology (ALK Immunohistochemistry in NSCLC: Discordant Staining Can Impact Patient Treatment Regimen)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology are presented in a new report. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Diagnostic immunohistochemistry (IHC) is increasingly accepted as a screening method for anaplastic lymphoma receptor tyrosine kinase gene (ALK) rearrangements in NSCLC. We have sought to establish an ongoing robust external quality assessment process to gauge quality of anaplastic lymphoma kinase (ALK) IHC, which can have an impact on interpretation of patient samples."

Our news journalists obtained a quote from the research from University College, "Unstained tissue and cell line samples were distributed on a quarterly basis to participating laboratories from 30 countries. Participants stained the slide using their routine diagnostic ALK
IHC method and returned the slide along with their in-house control and methodology details. Slides were assessed by a team of pathologists and scientists. Overall, there was a mean pass rate of 83% (range 71%-98%), with 38 variations in staining protocol. Methods included the following: the Roche D5F3 assay (65% of users, pass rate 93%); Novocastra 5A4 (15% of users, pass rate 65%); Cell Signaling Technology D5F3 (7% of users, pass rate 91%), and Dako ALK1 (5% of users, pass rate 50%). Choice of methodology directly affected final interpretation of distributed ALK-positive and ALK-negative NSCLC cases, which were correctly identified by 89% and 88% of participants, respectively. Antibody detection method was a contributing factor in false-negative staining results. The choice of laboratory controls was found to be unsuitable, and as such, in-house control recommendations are also provided. ALK IHC is a robust screening technique, but there is concern that some diagnostic laboratories are using inadequate staining methods, which has a direct impact on final interpretation."

According to the news editors, the research concluded: "External assessment helps provide laboratories with continued confidence in their ALK IHC testing."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtho.2016.07.012. This DOI is a link to an online electronic document that is either free or for purchase.

**Keywords for this news article include:** London, United Kingdom, Europe, Oncology, Enzymes and Coenzymes, Kinase, University College.

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neuroprotective effects against the amyloid cascade. It diminishes, for instance, the production of Ab peptides and their oligomerisation. In the present work we investigated the possible implication of RA receptor (RAR) in repair of Ab-induced DSBs. We demonstrated that RA, as well as RAR agonist Am80, but not AGN 193109 antagonist, repair Ab-induced DSBs in SH-SY5Y cells and an astrocytic cell line as well as in the murine cortical tissue of young and aged mice. The nonhomologous end joining pathway and the Ataxia Telangiectasia Mutated kinase were shown to be involved in RA-mediated DSBs repair in the SH-SY5Y cells. Our data suggest that RA, besides increasing cell viability in the cortex of young and even of aged mice, might also result in targeted DNA repair of genes important for cell or synaptic maintenance."

According to the news reporters, the research concluded: "This phenomenon would remain functional up to a point when Ab increase and RA decrease probably lead to a pathological state."

For more information on this research see: The Vitamin A Derivative All-Trans Retinoic Acid Repairs Amyloid-b-Induced Double-Strand Breaks in Neural Cells and in the Murine Neocortex. *Neural Plasticity*, 2016;2016():3707406. (Hindawi Publishing - www.hindawi.com; Neural Plasticity - www.hindawi.com/journals/np/)

Our news correspondents report that additional information may be obtained by contacting E. Gruz-Gibelli, Dept. of Psychiatry, University Hospital Geneva, Chene-Bourg, 1225 Geneva, Switzerland. Additional authors for this research include N. Chessel, C. Allioux, P. Marin, F. Piotton, G. Leuba, F.R. Herrmann and A. Savioz.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/3707406. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Geneva, Europe, Amyloid, Dementia, Genetics, Proteins, Neocortex, Vitamin A, Switzerland, Tauopathies, Telencephalon, Brain Research, Prosencephalon, Cerebral Cortex, Alzheimer Disease, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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**Gram-Negative Bacteria - Escherichia coli**

**Study Data from University of Agriculture Provide New Insights into Escherichia coli [Emergence of NDM-5-and MCR-1-Producing Escherichia coli Clones ST648 and ST156 from a Single Muscovy Duck (Cairina moschata)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Escherichia coli is now available. According to news originating from Guangdong, People's Republic of China, by NewsRx correspondents, research stated, "Two Escherichia coli clones (sequence type 648 [ST648] and ST156) that coproduce NDM-5 and MCR-1 were detected from a single fowl in China."

Our news journalists obtained a quote from the research from the University of Agriculture, "The bla(NDM-5) gene was found on the two indistinguishable IncX3 plasmids from the two different E. coli isolates, whereas the mcr-1 gene was located on IncHI2 and IncI2 plasmids, respectively, suggesting that bla(NDM-5) and mcr-1 have spread in avian intestinal
flora."

According to the news editors, the research concluded: "Also, the two strains harbor bla(TEM-1), bla(CTX-M-55,), fosA3, and aac(6')-Ib. The multiresistant E. coli strains (especially the epidemic clone ST648) might raise a potential threat to human health via food chain transmission."

For more information on this research see: Emergence of NDM-5-and MCR-1-Producing Escherichia coli Clones ST648 and ST156 from a Single Muscovy Duck (Cairina moschata). Antimicrobial Agents and Chemotherapy, 2016;60(11):6899-6902. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from J. Sun, South China Agr Univ, Guangdong Prov Key Lab Vet Pharmaceut Dev & Safet, Guangzhou, Guangdong, People's Republic of China. Additional authors for this research include Y.J. Feng, X.Y. Lv, J.H. Duan, J. Chen, L.X. Fang, J. Xia, X.P. Liao, J. Sun and Y.H. Liu.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Escherichia coli, Epidemiology, Gram-Negative Bacteria, Gammaproteobacteria, Enterobacteriaceae, Escherichia Coli, Proteobacteria, University of Agriculture.

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Heart Disorders and Diseases - Acute Coronary...

Study Data from University of Amsterdam Update Understanding of Acute Coronary Syndrome (Invasive strategies and outcomes for non-ST segment elevation acute coronary syndromes: a twelve-year experience from SWEDHEART)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Acute Coronary Syndrome. According to news originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Despite recommendations in recent guidelines for a routine invasive strategy for non-ST-segment elevation acute coronary syndrome (NSTE-ACS), long-term data on the implementation of treatment strategies in clinical practice are not available. Our aim was to provide long-term data on the implementation of a routine invasive strategy in NSTE-ACS in clinical practice."

Our news journalists obtained a quote from the research from the University of Amsterdam, "In the SWEDHEART registry, data from 204,092 consecutive NSTE-ACS patients admitted between 1996 and 2007 were recorded. The use of the routine invasive strategy, retrospectively defined as coronary angiography (and subsequent revascularisation) within three days after admission, increased from 3.8% in the period 1996-1998 to 37.4% in the period 2005-2007. The largest absolute increase in the use of this strategy was observed in low-risk patients, while a similar relative increase was observed in all risk categories. The use of the selective invasive strategy, defined as coronary angiography later than three days after admission or none at all, decreased from 96.2% in the period 1996-1998 to 62.5% in the period 2005-2007. In the total population, there was a gradual decrease in three-year all-cause mortality, from
29.1% in the period 1996-1998 to 23.9% in the period 2005-2007. There has been an increase in the use of a routine invasive strategy in NSTE-ACS patients over the course of 12 years in Sweden."

According to the news editors, the research concluded: "There was a decrease in three-year mortality over the same time course."


The news correspondents report that additional information may be obtained from P. Damman, University of Amsterdam, Academy Med Center, Dept. of Cardiol, Amsterdam, Netherlands. Additional authors for this research include T. Jernberg, B. Lindahl, R.J. de Winter, A. Jeppsson, P. Johanson, C. Held and S.K. James.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Vascular Diseases and Conditions, Heart Disorders and Diseases, Acute Coronary Syndrome, Myocardial Ischemia, Heart Disease, Cardiology, Angiography, University of Amsterdam.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Study Data from University of Amsterdam Update Understanding of HIV/AIDS (CRISPR-Cas9 Can Inhibit HIV-1 Replication but NHEJ Repair Facilitates Virus Escape)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immune System Diseases and Conditions - HIV/AIDS. According to news reporting out of Amsterdam, Netherlands, by NewsRx editors, research stated, "Several recent studies demonstrated that the clustered regularly interspaced short palindromic repeats (CRISPR)-associated endonuclease Cas9 can be used for guide RNA (gRNA)-directed, sequence-specific cleavage of HIV proviral DNA in infected cells. We here demonstrate profound inhibition of HIV-1 replication by harnessing T cells with Cas9 and antiviral gRNAs."

Our news journalists obtained a quote from the research from the University of Amsterdam, "However, the virus rapidly and consistently escaped from this inhibition. Sequencing of the HIV-1 escape variants revealed nucleotide insertions, deletions, and substitutions around the Cas9/gRNA cleavage site that are typical for DNA repair by the nonhomologous end-joining pathway."

According to the news editors, the research concluded: "We thus demonstrate the potency of CRISPR-Cas9 as an antiviral approach, but any therapeutic strategy should consider the viral escape implications."

For more information on this research see: CRISPR-Cas9 Can Inhibit HIV-1 Replication but NHEJ Repair Facilitates Virus Escape. *Molecular Therapy*, 2016;24(3):522-6. (Elsevier - www.elsevier.com; Molecular Therapy - www.journals.elsevier.com/molecular-therapy/)

Our news journalists report that additional information may be obtained by contacting G. Wang, Laboratory of Experimental Virology, Dept. of Medical Microbiology,
Center for Infection and Immunity Amsterdam (CINIMA), Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands. Additional authors for this research include N. Zhao, B. Berkhout and A.T Das.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/mt.2016.24. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Genetics, HIV/AIDS, Amsterdam, Viral DNA, Netherlands, RNA Viruses, Retroviridae, HIV Infections, Vertebrate Viruses, Primate Lentiviruses, Immune System Diseases and Conditions, Viral Sexually Transmitted Diseases and Conditions.

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Health and Medicine - Medicinal Chemistry

Study Data from University of Bayreuth Update Knowledge of Medicinal Chemistry (Halogenated naphthochalcones and structurally related naphthopyrazolines with antitumor activity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Medicinal Chemistry have been published. According to news originating from Bayreuth, Germany, by NewsRx correspondents, research stated, "Three 3-(3-halo-4,5-dimethoxyphenyl)-1-(2-naphthyl)prop-2-en-1-ones 1 and three structurally related 2-pyrazolines 2 were prepared and assessed in vitro for anticancer activity."

Our news journalists obtained a quote from the research from the University of Bayreuth, "The chalcones 1 were antiproliferative with low double-digit micromolar IC50 values against six tumor cell lines whereas the pyrazolines 2 showed low single-digit micromolar IC50) values against this panel. The pyrazolines inhibited ATP binding cassette efflux transporters of types P-gp and BCRP while the chalcones inhibited selectively BCRP."

According to the news editors, the research concluded: "All test compounds induced an accumulation of HT-29 colon carcinoma cells in the G2/M phase of the cell cycle and they interfered with the microtubule and F-actin dynamics, but only the chalcones induced apoptosis in 518A2 melanoma cells after 24 h."


The news correspondents report that additional information may be obtained from R. Schobert, University of Bayreuth, Organ Chem Lab, D-95440 Bayreuth, Germany. Additional authors for this research include H. Draut, B. Biersack and R. Schobert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bmcl.2016.09.076. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bayreuth, Germany, Europe, Medicinal
Study Data from University of Bergen Provide New Insights into Acute Myeloid Leukemia (The Complexity of Targeting PI3K-Akt-mTOR Signalling in Human Acute Myeloid Leukaemia: The Importance of Leukemic Cell Heterogeneity, Neighbouring ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Acute Myeloid Leukemia have been presented. According to news originating from Bergen, Norway, by NewsRx correspondents, research stated, "Therapeutic targeting of PI3K-Akt-mTOR is considered a possible strategy in human acute myeloid leukaemia (AML); the most important rationale being the proapoptotic and antiproliferative effects of direct PI3K/mTOR inhibition observed in experimental studies of human AML cells. However, AML is a heterogeneous disease and these effects caused by direct pathway inhibition in the leukemic cells are observed only for a subset of patients."

Our news journalists obtained a quote from the research from the University of Bergen, "Furthermore, the final effect of PI3K-Akt-mTOR inhibition is modulated by indirect effects, i.e., treatment effects on AML-supporting non-leukemic bone marrow cells. In this article we focus on the effects of this treatment on mesenchymal stem cells (MSCs) and monocytes/macrophages; both these cell types are parts of the haematopoietic stem cell niches in the bone marrow. MSCs have unique membrane molecule and constitutive cytokine release profiles, and mediate their support through bidirectional crosstalk involving both cell-cell contact and the local cytokine network. It is not known how various forms of PI3K-Akt-mTOR targeting alter the molecular mechanisms of this crosstalk. The effect on monocytes/macrophages is also difficult to predict and depends on the targeted molecule."

According to the news editors, the research concluded: "Thus, further development of PI3K-Akt-mTOR targeting into a clinical strategy requires detailed molecular studies in well-characterized experimental models combined with careful clinical studies, to identify patient subsets that are likely to respond to this treatment."

For more information on this research see: The Complexity of Targeting PI3K-Akt-mTOR Signalling in Human Acute Myeloid Leukaemia: The Importance of Leukemic Cell Heterogeneity, Neighbouring Mesenchymal Stem Cells and Immunocompetent Cells, *Molecules*, 2016;21(11):1365-1396. *Molecules* can be contacted at: Mdpì Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

The news correspondents report that additional information may be obtained from A.K. Brenner, University of Bergen, Sect Haematol, Dept. of Clin Sci, N-5021 Bergen, Norway. Additional authors for this research include T.H.A. Tvedt and O. Bruserud.

Keywords for this news article include: Bergen, Norway, Europe, Mononuclear Phagocyte System, Bone Marrow, Article Review, Mesenchymal Stem Cells, Acute Myeloid Leukemia, Stem Cell Research, Immune System, Bone Research, Macrophages, Immunology, Phagocytes, Hematology, Monocytes, Oncology, University of Bergen.
Coronaviridae Infections - Coronavirus Infections

Study Data from University of Bonn Update Understanding of Coronavirus Infections (Viral Shedding and Antibody Response in 37 Patients With Middle East Respiratory Syndrome Coronavirus Infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Coronaviridae Infections - Coronavirus Infections have been published. According to news reporting originating from Bonn, Germany, by NewsRx correspondents, research stated, "The Middle East respiratory syndrome (MERS) coronavirus causes isolated cases and outbreaks of severe respiratory disease. Essential features of the natural history of disease are poorly understood."

Our news editors obtained a quote from the research from the University of Bonn, "We studied 37 adult patients infected with MERS coronavirus for viral load in the lower and upper respiratory tracts (LRT and URT, respectively), blood, stool, and urine. Antibodies and serum neutralizing activities were determined over the course of disease. One hundred ninety-nine LRT samples collected during the 3 weeks following diagnosis yielded virus RNA in 93% of tests. Average (maximum) viral loads were 5 ? 10(6) (6 ? 10(10)) copies/mL. Viral loads (positive detection frequencies) in 84 URT samples were 1.9 ? 10(4) copies/mL (47.6%). Thirty-three percent of all 108 serum samples tested yielded viral RNA. Only 14.6% of stool and 2.4% of urine samples yielded viral RNA. All seroconversions occurred during the first 2 weeks after diagnosis, which corresponds to the second and third week after symptom onset. Immunoglobulin M detection provided no advantage in sensitivity over immunoglobulin G (IgG) detection. All surviving patients, but only slightly more than half of all fatal cases, produced IgG and neutralizing antibodies. The levels of IgG and neutralizing antibodies were weakly and inversely correlated with LRT viral loads. Presence of antibodies did not lead to the elimination of virus from LRT. The timing and intensity of respiratory viral shedding in patients with MERS closely matches that of those with severe acute respiratory syndrome. Blood viral RNA does not seem to be infectious. Extrapulmonary loci of virus replication seem possible."

According to the news editors, the research concluded: "Neutralizing antibodies do not suffice to clear the infection."

For more information on this research see: Viral Shedding and Antibody Response in 37 Patients With Middle East Respiratory Syndrome Coronavirus Infection. Clinical Infectious Diseases, 2015;62(4):477-83. (Oxford University Press - www.oup.com; Clinical Infectious Diseases - cid.oxfordjournals.org)

The news editors report that additional information may be obtained by contacting V.M. Corman, Institute of Virology, University of Bonn Medical Centre German Centre for Infection Research, Partner Site Bonn-Cologne, Bonn, Germany. Additional authors for this research include A.M. Albarrak, A.S. Omrani, M.M. Albarrak, M.E. Farah, M. Almasri, D. Muth, A. Sieberg, B. Meyer, A.M. Assiri, T. Binger, K. Steinhagen, E. Lattwein, J. Al-Tawfiq, M.A. Muller, C. Drosten and Z.A Memish.

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Keywords for this news article include: Bonn, Antibodies, Europe, Germany,
Study Data from University of California Provide New Insights into Thrombocytopenic Purpura (Thrombotic thrombocytopenic purpura in a postoperative patient taking cephalexin responding to plasmapheresis: A case report and review of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematologic Diseases and Conditions - Thrombocytopenic Purpura are discussed in a new report. According to news reporting from Irvine, California, by NewsRx journalists, research stated, "The clinical presentation of thrombotic thrombocytopenic purpura (TTP) is often atypical delaying diagnosis and treatment. A number of drugs have been implicated in the development of TTP, including cyclosporine, tacrolimus, clopidogrel, and quinine."

The news correspondents obtained a quote from the research from the University of California, "To our knowledge, only three cases of cephalosporin-induced TTP have been described, with two of these cases occurring with these use of cephalexin. We herein describe a case of TTP occurring in a postoperative patient taking cephalexin, requiring plasmapheresis."

According to the news reporters, the research concluded: "Following plasmapheresis, the patient's mental status and platelet count significantly improved. J. Clin. Apheresis 31:473-475, 2016."


Our news journalists report that additional information may be obtained by contacting K.T. Amber, University of California, Dept. of Dermatol, Center Hlth, Irvine, CA 92717, United States.

Keywords for this news article include: Irvine, California, United States, North and Central America, Hematologic Diseases and Conditions, First Generation Cephalosporins, Blood Coagulation Disorders, Thrombocytopenic Purpura, Blood Component Removal, Sorption Detoxification, Beta-Lactam Antibiotics, Drugs and Therapies, Cephalexin Therapy, Organic Chemicals, Pharmaceuticals, Plasmapheresis, Antiinfectives, beta-Lactams, Hematology, Thiazines, Amides, University of California.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Physics - Biophysics. According to news reporting from Cambridge, United Kingdom, by NewsRx journalists, research stated, "The conversion of human lysozyme into amyloid fibrils is associated with a rare but fatal hereditary form of non-neuropathic systemic amyloidosis. The accumulation of large amounts of aggregated protein is thought to be initiated by the formation of transient intermediate species of disease-related lysozyme variants, essentially due to the loss of global cooperativity under physiologically relevant conditions."

Funders for this research include Biotechnology and Biological Sciences Research Council, Medical Research Council, Belgian Program of Interuniversity Attraction Poles, Federal Office for Scientific Technical and Cultural Affairs, European Union’s Sixth Framework Program, Wellcome Trust, Leverhulme Trust, Korean Government Scholarship for Overseas Studies, Boehringer Ingleheim, EPSRC Core Capability.

The news correspondents obtained a quote from the research from the University of Cambridge, "Interestingly, all five naturally occurring, amyloidogenic, single-point mutations are located in the α-domain of lysozyme, the region that is predominantly unfolded during the formation of the transient intermediate species. Given the lack of known naturally occurring, amyloidogenic, single-point mutations in the α-domain, we chose three specific mutations to address the effects that location may have on native-state dynamics, as studied by hydrogen-deuterium (HD) exchange experiments analyzed by NMR spectroscopy, and mass spectrometry. We compared the effect of a destabilizing α-domain mutation (I23A) with that of the well-characterized 159T β-domain variant. We also investigated the effect of a mutation that has minor effects on native-state stability at the domain interface (I56V) and compared it with that of a variant with similar stability within the C-helix (189V). We show that when variants have similar reduced native-state stabilities, the location of the mutation (I23A versus I59T) is crucial to the native-state dynamics, with the a-domain mutation having a significantly lower ability to populate transient intermediate species under physiologically relevant conditions. Interestingly, the mutation at the interface (I56V) has a greater effect in facilitating the formation of transient intermediate species at elevated temperatures compared with the variants containing a-domain mutations, even though this mutation results in only minor changes to the native-state stability of lysozyme."

According to the news reporters, the research concluded: "These findings reveal that the location of specific mutations is an important factor in determining the native-state dynamical properties of human lysozyme in the context of its propensity to populate the aggregation prone transient intermediate species associated with pathogenic amyloid formation."

For more information on this research see: The Significance of the Location of Mutations for the Native-State Dynamics of Human Lysozyme. Biophysical Journal, 2016;111 (11):2358-2367. Biophysical Journal can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Biophysical Journal - www.journals.elsevier.com/biophysical-journal/)

Our news journalists report that additional information may be obtained by contacting J.R. Kumita, University of Cambridge, Dept. of Chem, Cambridge, United Kingdom.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bpj.2016.10.028. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cambridge, United Kingdom, Europe, Biophysics, Physics, Lysozyme, Genetics, University of Cambridge.

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Transplant Medicine - Cell Transplants

Study Data from University of Chicago Update Understanding of Cell Transplants (Identification of high-risk amino-acid substitutions in hematopoietic cell transplantation: a challenging task)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Transplant Medicine - Cell Transplants have been presented. According to news reporting out of Chicago, Illinois, by NewsRx editors, research stated, "Allogeneic hematopoietic cell transplantation (HCT) offers the potential to cure hematologic malignancies. In the absence of an HLA-matched donor, HLA mismatched unrelated donors may be used, although risks of GvHD and treatment-related mortality (TRM) are higher."

Our news journalists obtained a quote from the research from the University of Chicago, "Identification and avoidance of amino-acid substitution and position types (AASPT) conferring higher risks of TRM and GvHD would potentially improve the success of transplantation from single HLA mismatched unrelated donors. Using random forest and logistic regression analyses, we identified 19 AASPT associated with greater risks for at least one adverse transplant outcome: grade III-IV acute GvHD, TRM, lower disease-free survival or worse overall survival relative to HLA-matched unrelated donors and to other AASPT. When tested in an independent validation cohort of 3530 patients, none of the AASPT from the training set were validated as high risk, however. Review of the literature shows that failure to validate original observations is the rule and not the exception in immunobiology and emphasizes the importance of independent validation before clinical application. Our current data do not support avoiding any specific class I AASPT for unrelated donors."

According to the news editors, the research concluded: "Additional studies should be performed to fully understand the role of AASPT in HCT outcomes."

For more information on this research see: Identification of high-risk amino-acid substitutions in hematopoietic cell transplantation: a challenging task. Bone Marrow Transplantation, 2016;51(10):1342-1349. Bone Marrow Transplantation can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Bone Marrow Transplantation - www.nature.com/bmt/)

Our news journalists report that additional information may be obtained by contacting S.R. Marino, University Chicago, Medical Center, Dept. of Pathol, Chicago, IL 60637, United States. Additional authors for this research include S.M. Lee, T.A. Binkowski, T.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Cell Transplantation, Transplant Medicine, Cell Transplants, Hematopoietic, Amino Acids, Biomedicine, Hematology, Proteins, Peptides, Surgery, University of Chicago.

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DNA Research

Study Data from University of Dundee Provide New Insights into DNA Research (Olaparib, Monotherapy or with Ionizing Radiation, Exacerbates DNA Damage in Normal Tissues: Insights from a New p21 Reporter Mouse)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on DNA Research have been published. According to news reporting originating in Dundee, United Kingdom, by NewsRx journalists, research stated, "Many drugs targeting the DNA damage response are being developed as anticancer therapies, either as single agents or in combination with ionizing radiation (IR) or other cytotoxic agents. Numerous clinical trials in this area are either in progress or planned."

The news reporters obtained a quote from the research from the University of Dundee, "However, concerns remain about the potential of such treatments to increase toxicity to normal tissues. In order to address this issue, a novel reporter mouse line was created through the simultaneous incorporation of multiple reporters, beta-galactosidase, and firefly luciferase, into the DNA damage-inducible p21 (CDKN1A) locus. The data demonstrate that in situ b-galactosidase staining facilitates high fidelity mapping of p21 expression across multiple organs and tissues at single-cell resolution, whereas the luciferase reporter permits noninvasive bioluminescent imaging of p21 expression. This model was used to determine the capacity of a number of DNA-damaging agents, including IR, cisplatin, and etoposide to induce p21 expression in normal tissues. In addition, the PARP inhibitor olaparib was examined alone or in combination with IR as well as cisplatin. A single exposure to olaparib alone caused DNA damage to cells in the mucosal layer lining mouse large intestine. It also exacerbated DNA damage induced in this organ and the kidney by coadministered IR."

According to the news reporters, the research concluded: "These studies suggest that olaparib has carcinogenic potential and illustrate the power of this new model to evaluate the safety of new therapeutic regimens involving combination therapies."

For more information on this research see: Olaparib, Monotherapy or with Ionizing Radiation, Exacerbates DNA Damage in Normal Tissues: Insights from a New p21 Reporter Mouse. Molecular Cancer Research, 2016;14(12):1195-1203. Molecular Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Molecular Cancer Research - mcr.aacrjournals.org/)

Our news correspondents report that additional information may be obtained by contacting C.R. Wolf, University of Dundee, Sch Med, Ninewells Hosp & Med Sch, Dundee DD1 9SY, United Kingdom. Additional authors for this research include T.G. Frangova, C.J. Henderson and C.R. Wolf.
The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1158/1541-7786.MCR-16-0108. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Dundee, United Kingdom, Europe, Enzymes
and Coenzymes, Deoxyribonucleic Acid, Galactosidases, DNA Research, Luciferases,
Proteomics, DNA Damage, University of Dundee.

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Neurodegenerative Diseases and Conditions - ...

Study Data from University of Edinburgh Update Understanding of Alzheimer Disease (METACOHORTS for the study of vascular disease and its contribution to cognitive decline and neurodegeneration: An initiative of the Joint Programme for ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Neurodegenerative Diseases and Conditions - Alzheimer Disease are discussed in a new report. According to news reporting originating from Midlothian, United Kingdom, by NewsRx correspondents, research stated, "Dementia is a global problem and major target for health care providers. Although up to 45% of cases are primarily or partly due to cerebrovascular disease, little is known of these mechanisms or treatments because most dementia research still focuses on pure Alzheimer's disease."

Funders for this research include Joint Programme for Neurodegenerative Disease, UK Medical Research Council, Deutsches Zentrum fur Neurodegenerative Erkrankungen, Canadian Institutes of Health Research, Scottish Funding Council, NIH.

Our news editors obtained a quote from the research from the University of Edinburgh, "An improved understanding of the vascular contributions to neurodegeneration and dementia, particularly by small vessel disease, is hampered by imprecise data, including the incidence and prevalence of symptomatic and clinically 'silent' cerebrovascular disease, long-term outcomes (cognitive, stroke, or functional), and risk factors. New large collaborative studies with long follow-up are expensive and time consuming, yet substantial data to advance the field are available. In an initiative funded by the Joint Programme for Neurodegenerative Disease Research, 55 international experts surveyed and assessed available data, starting with European cohorts, to promote data sharing to advance understanding of how vascular disease affects brain structure and function, optimize methods for cerebrovascular disease in neurodegeneration research, and focus future research on gaps in knowledge. Here, we summarize the results and recommendations from this initiative. We identified data from over 90 studies, including over 660,000 participants, many being additional to neurodegeneration data initiatives. The enthusiastic response means that cohorts from North America, Australasia, and the Asia Pacific Region are included, creating a truly global, collaborative, data sharing platform, linked to major national dementia initiatives."

According to the news editors, the research concluded: "Furthermore, the revised World Health Organization International Classification of Diseases version 11 should facilitate recognition of vascular-related brain damage by creating one category for all cerebrovascular disease presentations and thus accelerate identification of targets for dementia prevention."

For more information on this research see: METACOHORTS for the study of

The news editors report that additional information may be obtained by contacting J. Wardlaw, University of Edinburgh, Center Clin Brain Sci, Edinburgh, Midlothian, United Kingdom. Additional authors for this research include J. Wardlaw, E. Smith, V. Zietemann, S. Seshadri, P. Sachdev, G.J. Biessels, F. Fazekas, O. Benavente, L. Pantoni, F. De Leeuw, B. Norrving, P. Matthews, C. Chen, V. Mok, M. During, W. Whiteley, K. Shuler, A. Alonso and Black.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jalz.2016.06.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Midlothian, United Kingdom, Europe, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Cerebrovascular Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Brain Diseases and Conditions, Risk and Prevention, Alzheimer Disease, Mental Health, Tauopathies, Hematology, Dementia, University of Edinburgh.

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**Cardiovascular Diseases and Conditions -...**

**Study Data from University of Florida Provide New Insights into Arteriovenous Fistula (Onyx extrusion through the scalp after embolization of dural arteriovenous fistula)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Arteriovenous Fistula. According to news reporting out of Gainesville, Florida, by NewsRx editors, research stated, "A man in his sixties referred with symptoms of episodic left lip numbness and left arm weakness was diagnosed with a Borden type 3 dural arteriovenous fistula (DAVF) on DSA. Successful Onyx embolization of the DAVF was performed via the distal left occipital artery using an ev3 Apollo detachable tip microcatheter."

Our news journalists obtained a quote from the research from the University of Florida, "He underwent surgical obliteration for the residual DAVF 3 days later. Three months later during a routine postoperative clinic visit, the patient produced a plastic bag containing multiple small pieces of Onyx cast and the detached tip of the Apollo microcatheter that had extruded out from his scalp through small spontaneous holes about 5 weeks after the embolization procedure."

According to the news editors, the research concluded: "This spontaneous extrusion of Onyx can be alarming to the patient not expecting it; however, prior knowledge and discussion can lessen the anxiety of both the treating physician and the patient dealing with such a situation."

For more information on this research see: Onyx extrusion through the scalp after embolization of dural arteriovenous fistula. *Journal of Neurointerventional Surgery*, 2016;8 (9):19-21. *Journal of Neurointerventional Surgery* can be contacted at: Bmj Publishing Group,
Study Data from University of Gothenburg Provide New Insights into Cardiomyopathies (Experiences of health care in women with Peripartum Cardiomyopathy in Sweden: a qualitative interview study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Cardiomyopathies are discussed in a new report. According to news reporting from Gothenburg, Sweden, by NewsRx journalists, research stated, "Peripartum cardiomyopathy is often associated with severe heart failure occurring towards the end of pregnancy or in the months following birth with debilitating, exhausting and frightening symptoms requiring person-centered care. The aim of this study was to explore women's experiences of health care while being diagnosed with peripartum cardiomyopathy."

The news correspondents obtained a quote from the research from the University of Gothenburg, "Qualitative interviews were conducted with 19 women with peripartum cardiomyopathy in Sweden, following consent. Data were analysed using qualitative content analysis. Confirmability was ensured by peer-debriefing, and an audit trail was kept to establish the credibility of the study. The main theme in the experience of health care was, 'Exacerbated Suffering', expressed in three subthemes; 'not being cared about', 'not being cared for' and 'not feeling secure.' The suffering was present in relation to the illness with failing health symptoms, but most of all in relation to not being taken seriously and adequately cared for by healthcare professionals. Women felt they were on an assembly line in midwives' routine work where knowledge about peripartum cardiomyopathy was lacking and they showed distrust and dissatisfaction with care related to negligence and indifference experienced from healthcare professionals. Feelings of being alone and lost were prominent and related to a sense of insecurity, distress and uneasiness. This study shows a knowledge gap of peripartum cardiomyopathy in maternity care personnel. This is alarming as the deprecation of symptoms and missed diagnosis of peripartum cardiomyopathy can lead to life-threatening consequences."

According to the news reporters, the research concluded: "To prompt timely diagnosis and avoid unnecessary suffering it is important to listen seriously to, and respect, women's narratives and act on expressions of symptoms of peripartum cardiomyopathy, even those overlapping normal pregnancy symptoms."

For more information on this research see: Experiences of health care in women

Our news journalists report that additional information may be obtained by contacting H. Patel, University of Gothenburg, Sahlgrenska Academy, Inst Hlth & Care Sci, Gothenburg, Sweden. Additional authors for this research include M. Schaufelberger, C. Begley and M. Berg.

Keywords for this news article include: Gothenburg, Sweden, Europe, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Peripartum Cardiomyopathy, Cardiomyopathies, Heart Disease, Cardiology, University of Gothenburg.

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Heart Disorders and Diseases - Heart Attack

**Study Data from University of Gothenburg Update Understanding of Heart Attack (Women's help-seeking behaviour during a first acute myocardial infarction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting out of Gothenburg, Sweden, by NewsRx editors, research stated, "Studies indicate that the time from onset of symptoms to medical treatment has decreased in acute myocardial infarction (AMI). However, there are still variations indicating that women wait longer than men before making the decision to seek medical care."

Financial supporters for this research include Vastra Gotalandsregionen, Alice Swensson and the Foundation for Cardiology in Gothenburg.

Our news journalists obtained a quote from the research from the University of Gothenburg, "Multidimensional factors hindering and facilitating the decision have been identified in previous studies, though few have fully explored how social context affects women's expectations, interpretations and actions and so influences the decision-making process. The aim of this study was therefore to identify how women's experiences interacted and influenced the decision to seek medical care at their first AMI. Seventeen women, aged 38-75 years, were interviewed, at home or in the hospital, between June 2011 and May 2012. Grounded theory was used as a method, and data collection and analysis were carried out simultaneously. The results showed that before deciding to seek medical care, these women went through three defined but interrelated processes that together hindered their normal activities and made them act according to existential needs. The women's experiences of the progression of the disease, in terms of both symptoms and time, were very different, so they sought medical care at different times, sometimes life-threateningly late and sometimes before developing an AMI. Three mechanisms had to coincide if the women were to receive medical care. First, the women had to acknowledge their symptoms as something more than common bodily changes. Second, the healthcare system had to be accessible when the women made their decision to seek care."

According to the news editors, the research concluded: "Third, the women must have
come into contact with healthcare providers when the heart muscle had taken enough damage to measure."


Our news journalists report that additional information may be obtained by contacting A. Gyberg, University of Gothenburg, Inst Hlth & Care Sci, Gothenburg, Sweden. Additional authors for this research include L. Bjorck, S. Nielsen, S. Maatta and K. Falk.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/scs.12286. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gothenburg, Sweden, Europe, Vascular Diseases and Conditions, Heart Disorders and Diseases, Acute Myocardial Infarction, Myocardial Ischemia, Heart Disease, Heart Attack, University of Gothenburg.

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Endothelial Cells

Study Data from University of Hawaii Provide New Insights into Endothelial Cells (Anti-inflammatory activity of Barleria lupulina: Identification of active compounds that activate the Nrf2 cell defense pathway, organize cortical actin, reduce ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Endothelial Cells have been published. According to news originating from Hilo, Hawaii, by NewsRx correspondents, research stated, "Ethnopharmacological relevance: Hot aqueous extracts of the plant Barleria lupulina (BL) are used for treating inflammatory conditions and diabetic vascular complications. Aim of the Study: The goal was to identify active compounds in hot aqueous extracts of BL (HAE-BL) that are consistent with a role in reducing inflammation and reducing the vascular pathology associated with diabetes."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from the University of Hawaii, "In particular, we examined activation of the Nrf2 cell defense pathway because our initial findings indicated that HAE-BL activates Nrf2, and because Nrf2 is known to suppress inflammation. Activation of Nrf2 by HAE-BL has not been described previously. Human endothelial cells, real-time PCR, western blotting, cytoskeletal analyses, and assay-guided fractionation with HPLC were used to identify specific compounds in HAE-BL that activate the Nrf2 cell defense pathway and reduce markers of inflammation in vitro. HAE-BL potently activated the Nrf2 cell defense pathway in endothelial cells consistent with its traditional use and reported success in reducing inflammation. Assay guided fractionation with HPLC identified three alkyl catechols: 4-ethylcatechol, 4-vinylcatechol, and 4-methylcatechol, that are each potent Nrf2 activators. In addition to activating Nrf2, HAE-BL and alkyl catechols each profoundly improved organization of the endothelial cell actin cytoskeleton, reduced actin stress..."
fibers, organized cell cell junctions, and induced expression of mRNA encoding claudin-5 that is important for formation of endothelial tight junctions and reducing vascular leak. HAE-BL contains important alkyl catechols that potently activate the Nrf2 cell defense pathway, improve organization of the endothelial cell cytoskeleton, and organize tight cell junctions. All of these properties are consistent with a role in reducing inflammation and reducing vascular leak.

According to the news editors, the research concluded: "Because activation of the Nrf2 cell defense pathway also prevents cancers, neuro-degeneration, age related macular degeneration, and also reduces the severity of chronic obstructive pulmonary disorder and multiple sclerosis, HAE-BL warrants additional consideration for these other serious disorders."


The news correspondents report that additional information may be obtained from S.G. Cao, University of Hawaii, Dept. of Pharmaceut Sci, Daniel K Inouye Coll Pharm, Hilo, HI 96720, United States. Additional authors for this research include M.V. Hoang, K.H. Kim, C.S. Li and S.G. Cao.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jep.2016.09.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hilo, Hawaii, United States, North and Central America, Endothelial Cells, Genetics, University of Hawaii.

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**Oncology - Head and Neck Cancer**

**Study Data from University of Illinois Update Knowledge of Head and Neck Cancer (Weekly versus every-three-weeks platinum-based chemoradiation regimens for head and neck cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Head and Neck Cancer. According to news reporting originating from Chicago, Illinois, by NewsRx correspondents, research stated, "The majority of chemoradiation (CRT) trials for locally advanced head and neck squamous cell carcinoma (HNSCC) have relied on platinum-based chemotherapy regimens administered every-3-weeks. However, given the increased utilization of weekly platinum regimens, it remains unclear how different chemotherapy schedules compare regarding efficacy and toxicity."

Our news editors obtained a quote from the research from the University of Illinois, "We retrospectively identified 212 patients with HNSCC who were treated at a single academic medical center with concurrent platinum-based CRT given weekly (N = 68) or every-three-weeks (N = 144). JMP version 10 (SAS Institute) was used for statistical analysis. Discrete variables were compared with the chi-square test and differences in the medians were assessed
using the Wilcoxon test. Survival curves were constructed using the Kaplan-Meier method and significance was assessed using the log rank test. For univariate analysis and multivariate analysis, we used Cox proportional hazard or logistic regression models to compare differences in survival or differences in categorical variables, respectively. Patients receiving weekly platinum regimens were more likely to be older (median age 61.4 vs. 55.5 y; P<.001), have high or very high Charlson comorbidity index (45.6% vs. 27.8%; P =.01), and receive carboplatin-based chemotherapy (6.3% vs. 76.5%; P<.001). Weekly and every-3-week platinum regimens had similar locoregional control (HR 1.10; 95% CI 0.63-1.88; P=.72), progression-free survival (HR 1.13; 95% CI 0.75-1.69; P=.55), and overall survival (HR 1.11; 95% CI 0.64-1.86; P=.71). Every-3-weeks platinum regimens were associated with increased days of hospitalization (median: 3 days vs. 0 days; P=.03) and acute kidney injury (AKI) during radiotherapy (50.0% vs. 22.1%; P<.001). On multivariate analysis, AKI was significantly associated with every-3-weeks regimens (OR: 24.38; 95% CI 3.00-198.03; P =.003) and high comorbidity scores (OR: 2.74; 95% CI 2.15-5.99; P =.01).

According to the news editors, the research concluded: "Our results suggest that every-3-weeks and weekly platinum-containing CRT regimens have similar disease control but weekly platinum regimens are associated with less acute toxicity."


The news editors report that additional information may be obtained by contacting M.T. Spiotto, University of Illinois, Dept. of Radiat Oncol, Chicago, IL 60607, United States. Additional authors for this research include B.T. Cooper, M. Koshy, J.S. Silverman and M.T. Spiotto.

Keywords for this news article include: Chicago, Illinois, United States, North and Central America, Head and Neck Neoplasms, Head and Neck Cancer, Drugs and Therapies, Chemotherapy, Oncology, University of Illinois.

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**Oncology - Breast Cancer**

**Study Data from University of Iowa Update Knowledge of Breast Cancer (Effect of Body Mass Index- and Actual Weight-Based Neoadjuvant Chemotherapy Doses on Pathologic Complete Response in Operable Breast Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news originating from Iowa City, Iowa, by NewsRx correspondents, research stated, "The effect of body mass index (BMI) on pathologic complete response (pCR) accounting for neoadjuvant chemotherapy (NAC) dose reductions remains undefined. In 171 patients with operable breast cancer who received NAC, those with a BMI of >= 25 were less likely to tolerate uncapped taxane doses."

Our news journalists obtained a quote from the research from the University of Iowa,
Any chemotherapy dose reduction resulted in greater odds of not attaining a pCR in obese patients, independent of known predictors. The effect of body mass index (BMI) and chemotherapy dose reduction on pathologic complete response (pCR) after neoadjuvant chemotherapy (NAC) for locoregional breast cancer remains unclear. Contemporary studies have reported largely on trial populations and used dose-capping. Patient registries at the University of Iowa were queried to identify patients with operable breast cancer who received NAC. Dose reductions were calculated for taxanes (T), anthracyclines (A) and non A-T chemotherapy. Clinical-pathologic characteristics, chemotherapy dose reductions, and adverse events were compared between normal (BMI <25) and overweight/obese patients (BMI >= 25). Additionally, the synergistic effect of BMI and chemotherapy dose reduction on pCR was assessed. Of 171 eligible patients, 112 were overweight/obese. Chemotherapy dosing was capped in 2 patients; all others initiated full weight-based treatment. Overweight/obese patients required more frequent taxane (44.6% vs. 25.4%; P =.01) and any chemotherapy dose reductions (50.9% vs. 33.9%; P =.03). pCR was attained in 29.2% of patients. In a multivariable model, the interaction term for BMI as a continuous variable and any chemotherapy dose reduction was significant independent of the clinical stage and tumor receptor status (P =.04). For obese patients, any chemotherapy dose reduction was significantly associated with increased odds of not attaining pCR. During NAC, overweight/obese patients more often have chemotherapy dose reductions. Chemotherapy dose reduction in obese patients was a powerful predictor of not attaining pCR. This was not seen for normal or overweight patients.

According to the news editors, the research concluded: "Opportunities might exist to improve pCR rates in this higher-risk group."

For more information on this research see: Effect of Body Mass Index- and Actual Weight-Based Neoadjuvant Chemotherapy Doses on Pathologic Complete Response in Operable Breast Cancer. Clinical Breast Cancer, 2016;16(6):480-486. Clinical Breast Cancer can be contacted at: Cig Media Group, Lp, 3500 Maple Avenue, Ste 750, Dallas, TX 75219-3931, USA. (Elsevier - www.elsevier.com; Clinical Breast Cancer - www.journals.elsevier.com/clinical-breast-cancer/)

The news correspondents report that additional information may be obtained from A. Thomas, University of Iowa, Dept. of Internal Med, Div Hematol Oncol & Blood & Marrow Transplantat, Iowa City, IA 52242, United States. Additional authors for this research include S.L. Mott, M.C. Schroeder, S. Phadke, J. El Masri and A. Thomas.

Keywords for this news article include: Iowa City, Iowa, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Drugs and Therapies, Women's Health, Breast Cancer, Chemotherapy, Bariatrics, Oncology, Obesity, University of Iowa.

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Drugs and Therapies - Antibiotics

Study Data from University of Libre de Bruxelles Provide New Insights into Antibiotics (Individualized antibiotic strategies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antibiotics are discussed in a new report. According to news originating from Brussels, Belgium, by NewsRx correspondents, research stated, "Infections are common complications in critically ill patients and are frequently
treated with antibiotics. Unfortunately, delivery of optimal therapy is complicated because efficacy of antimicrobials is influenced by the timing of treatment initiation, the use of combination therapy, and the optimization of drug dosing."

Our news journalists obtained a quote from the research from the University of Libre de Bruxelles, "Early diagnosis of infection is mandatory to provide a rapid and appropriate antibiotic therapy. The presence of less susceptible strains, in particular for hospital-acquired infections, or patients with severe disease, such as the presence of septic shock, may need combination antibiotic therapy. Antibiotic pharmacokinetics, notably volume of distribution and total body clearance, are significantly altered in these critically ill patients and can influence the attainment of adequate circulating levels when standard dosage regimens are administered. Higher dosing should be considered in such patients, although in case of renal impairment and reduced clearance, drug accumulation could also result in some side-effects. Nebulized antibiotics may provide a better clinical response than systemic antibiotics in ventilator-associated pneumonia because of multidrug-resistant pathogens. The optimal use of antibiotics in the management of severe infections is an important challenge for ICU physicians."

According to the news editors, the research concluded: "Antimicrobial therapy needs to be individualized according to specific patient characteristics, infecting organisms, and susceptibility patterns."


The news correspondents report that additional information may be obtained from F.S. Taccone, aDept. of Intensive Care bDept. of Infectious Diseases, Hopital Erasme, Universite Libre de Bruxelles (ULB), Brussels, Belgium. Additional authors for this research include O. Bond, F.Z. Cavicchi and M. Hites.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/ACO.0000000000000302. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibacterial Agents, Antibiotics, Antimicrobials, Europe, Belgium, Brussels, Article Review, Drugs and Therapies.

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**Clinical Research - Clinical Trials and Studies**

**Study Data from University of Liverpool Update Understanding of Clinical Trials and Studies (Nitrous oxide-based versus nitrous oxide-free general anaesthesia and accidental awareness during general anaesthesia in surgical patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news originating from Liverpool, United Kingdom, by NewsRx correspondents, research stated, "Accidental awareness during general anaesthesia (AAGA) is when a patient unintentionally becomes conscious during a procedure performed with general anaesthesia and subsequently has explicit recall of this event. Incidence estimates for AAGA vary, with the most common estimate being one to two cases per 1000 general anaesthetics."

Our news journalists obtained a quote from the research from the University of Liverpool.
Liverpool, "Evidence linking nitrous oxide use and an increased risk of AAGA has come from observational studies data but the literature is contradictory, with some studies finding a protective effect of nitrous oxide. To assess the effect of general anaesthesia including nitrous oxide on the risk of AAGA in patients aged five years and over. Search methods We searched the following databases: Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE and trial registers (www.clinicaltrials.gov), the WHO International Clinical Trials Registry Platform (www.who.int/ictrp/network/en/) and Current Controlled Trials (www.isrctn.com/) for eligible studies on December 9 2015. In addition, we conducted forward and backward citation searching using key identified papers. Selection criteria We considered all randomized controlled trials (RCTs), including quasi-randomized studies and cluster-randomized studies, of participants aged five years or older receiving general anaesthesia for any type of surgery. We included trials in which participants receiving general anaesthesia that included nitrous oxide for maintenance at a concentration of at least 30% were compared with participants receiving no nitrous oxide during general anaesthesia. The intervention group must have received nitrous oxide in conjunction with an additional anaesthetic. We excluded studies where the depth of anaesthesia differed between the study arms. For inclusion in the review, studies needed to state in their methods that they planned to assess AAGA. We defined this as when a patient becomes conscious during a procedure performed with general anaesthesia and subsequently has explicit recall of this event. Data collection and analysis We used standard methodological procedures expected by Cochrane to identify studies. We extracted data and conducted 'Risk of bias' assessment using the Covidence database. We included 15 studies. The total number of participants included in the analyses was 3520. Most studies were small with fewer than 120 participants, although two larger studies with 2012 and 671 participants were included. There was considerable variation in many of the study characteristics, including the anaesthetics used. The concentrations of nitrous oxide varied between 50% and 70%, and half of the studies used clinical signs and haemodynamic changes to monitor depth of anaesthesia. As it was not possible to blind the anaesthetist to the anaesthetic used, we rated all studies at high risk of performance bias and we therefore downgraded the quality of evidence by one level for risk of bias using the GRADE approach. Other types of bias were generally low, or were rated unclear due to missing information. No studies were designed to measure AAGA as the primary outcome, and were therefore statistically underpowered to answer this review question. Despite the inclusion of 3520 participants, only three awareness events were reported by two studies. In one study the event was due to technical failure. Due to the rarity of the events, we did not consider it appropriate to pool the data, and we therefore downgraded the quality of evidence by a further level for imprecision using GRADE. Authors' conclusions It is not possible to draw any conclusions from this review. The included studies were mainly small (fewer than 120 participants) and there were limited estimates of effect, with only two studies reporting any events."

According to the news editors, the research concluded: "We cannot therefore determine whether the use of nitrous oxide in general anaesthesia increases, decreases or has no effect on the risk of accidental awareness."

For more information on this research see: Nitrous oxide-based versus nitrous oxide-free general anaesthesia and accidental awareness during general anaesthesia in surgical patients. Cochrane Database of Systematic Reviews, 2016;(8):1728-1806. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from J. Hounsome, University of Liverpool, Liverpool Reviews & Implementat Grp, Liverpool L69 3GE, Merseyside, United Kingdom. Additional authors for this research include A. Nicholson,
Science

Study Data from University of Maryland Update Understanding of Science (A Role of the FUZZY ONIONS LIKE Gene in Regulating Cell Death and Defense in Arabidopsis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Science is the subject of a report. According to news reporting originating in Baltimore, Maryland, by NewsRx journalists, research stated, "Programmed cell death (PCD) is critical for development and responses to environmental stimuli in many organisms. FUZZY ONIONS (FZO) proteins in yeast, flies, and mammals are known to affect mitochondrial fusion and function."

The news reporters obtained a quote from the research from the University of Maryland, "Arabidopsis FZO-LIKE (FZL) was shown as a chloroplast protein that regulates chloroplast morphology and cell death. We cloned the FZL gene based on the lesion mimic phenotype conferred by an fzl mutation. Here we provide evidence to support that FZL has evolved new function different from its homologs from other organisms. We found that fzl mutants showed enhanced disease resistance to the bacterial pathogen Pseudomonas syringae and the oomycete pathogen Hyaloperonospora arabidopsidis. Besides altered chloroplast morphology and cell death, fzl showed the activation of reactive oxygen species (ROS) and autophagy pathways. FZL and the defense signaling molecule salicylic acid form a negative feedback loop in defense and cell death control. FZL did not complement the yeast strain lacking the FZO1 gene."

According to the news reporters, the research concluded: "Together these data suggest that the Arabidopsis FZL gene is a negative regulator of cell death and disease resistance, possibly through regulating ROS and autophagy pathways in the chloroplast."

For more information on this research see: A Role of the FUZZY ONIONS LIKE Gene in Regulating Cell Death and Defense in Arabidopsis. Scientific Reports, 2016;6():1-12. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting H. Lu, University of Maryland, Dept. of Biol Sci, Baltimore, MD 21250, United States. Additional authors for this research include S. Seabolt, H.Y. Zeng, C. Zhang, S. Bockler, D.N. Tate, V.T. Duong, N. Yao and H. Lu.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Science, Genetics, Genetics, University of Maryland.

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Hydrochloric Acid

Study Data from University of Medicine Update Knowledge of Hydrochloric Acid (Trospium chloride is absorbed from two intestinal "absorption windows" with different permeability in healthy subjects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hydrochloric Acid are discussed in a new report. According to news reporting originating in Greifswald, Germany, by NewsRx journalists, research stated, "Intestinal P-glycoprotein is regio-selectively expressed and is a high affinity, low capacity efflux carrier for the cationic, poorly permeable trospium."

The news reporters obtained a quote from the research from the University of Medicine, "Organic cation transporter 1 (OCT1) provides lower affinity but higher capacity for trospium uptake. To evaluate regional intestinal permeability, absorption profiles after gastric infusion of trospium chloride (30 mg/250 ml = [I](2)) for 6 h and after swallowing 30 mg immediate-release tablets in fasted and fed healthy subjects, were evaluated using an inverse Gaussian density function to model input rate and mean absorption time (MAT). Trospium chloride was slowly absorbed (MAT similar to 10 h) after gastric infusion involving two processes with different input rates, peaking at about 3 h and 7 h. Input rates and MAT were influenced by dosage form and meal."

According to the news reporters, the research concluded: "Trospium is absorbed from two 'windows' located in the jejunum and cecum/ascending colon, whose uptake capacity might result from local abundance and functional interplay of P-glycoprotein and OCT1."


Keywords for this news article include: Greifswald, Germany, Europe, Hydrochloric Acid, Glycoconjugates, Glycoproteins, Chlorides, Anions, University of Medicine.

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Heart Disorders and Diseases - Cardiomyopathies

Study Data from University of Medicine and Dentistry of New Jersey (UMDNJ) Provide New Insights into Cardiomyopathies (Mitochondrial autophagy in cardiomyopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
Wellness Week -- New research on Heart Disorders and Diseases - Cardiomyopathies is the subject of a report. According to news reporting originating from New Brunswick, New Jersey, by NewsRx correspondents, research stated, "Cardiac mitochondria produce vast amounts of ATP through oxidative phosphorylation to maintain contractile function. They are also the primary source of reactive oxygen species, which contribute to mitochondrial dysfunction, cardiomyocyte death, and heart failure."

Funders for this research include U.S. Public Health Service, Leducq Foundation Transatlantic Network of Excellence.

Our news editors obtained a quote from the research from the University of Medicine and Dentistry of New Jersey (UMDNJ), "To protect against mitochondrial damage, cardiomyocytes develop well-coordinated quality control mechanisms that maintain the overall mitochondrial health through mitochondrial biogenesis, mitochondrial dynamics, and mitochondrial autophagy (mitophagy). Mitophagy removes dysfunctional mitochondria in the heart not only under normal physiological conditions, but also in response to pathological stresses. Accumulating evidence suggests that mitophagy dysregulation can induce cardiomyocyte death and cardiomyopathy."

According to the news editors, the research concluded: "In this review, we discuss what is currently known about mitophagic mechanisms, regulatory pathways, and function in the heart."


The news editors report that additional information may be obtained by contacting J. Sadoshima, Rutgers New Jersey Med Sch, Dept. of Cell Biol & Mol Med, New Brunswick, NJ 08901, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gde.2016.02.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Brunswick, New Jersey, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiology, Genetics, Cardiomyopathies, Cardiomyocyte, Heart Disease, University of Medicine and Dentistry of New Jersey (UMDNJ).

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Herpesvirus Diseases and Conditions -
Study Data from University of Minnesota Update Understanding of Cytomegalovirus (Cytomegalovirus Vaccines: Current Status and Future Prospects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Herpesvirus Diseases and Conditions - Cytomegalovirus is now available. According to news reporting from Minneapolis, Minnesota, by NewsRx journalists, research stated, "Congenital human cytomegalovirus (HCMV) infection can result in
severe and permanent neurological injury in newborns, and vaccine development is accordingly a major public health priority. HCMV can also cause disease in solid organ transplant (SOT) and hematopoietic stem-cell transplant (HSCT) recipients, and a vaccine would be valuable in prevention of viremia and end-organ disease in these populations."

Financial supporters for this research include National Institute of Child Health and Human Development, National Institute of Allergy and Infectious Diseases, National Institute of Dental and Craniofacial Research.

The news correspondents obtained a quote from the research from the University of Minnesota, "Currently there is no licensed HCMV vaccine, but progress toward this goal has been made in recent clinical trials. A recombinant HCMV glycoprotein B (gB) vaccine has been shown to have some efficacy in prevention of infection in young women and adolescents, and has provided benefit to HCMV-seronegative SOT recipients. Similarly, DNA vaccines based on gB and the immunodominant T-cell target, pp65 (ppUL83), have been shown to reduce viremia in HSCT patients. This review provides an overview of HCMV vaccine candidates in various stages of development, as well as an update on the current status of ongoing clinical trials. Protective correlates of vaccine-induced immunity may be different for pregnant woman and transplant patients."

According to the news reporters, the research concluded: "As more knowledge emerges about correlates of protection, the ultimate licensure of HCMV vaccines may reflect the uniqueness of the target populations being immunized."


Our news journalists report that additional information may be obtained by contacting M.R. Schleiss, University of Minnesota, Div Pediat Infect Dis & Immunol, Dept. of Pediat, Center Infect Dis & Microbiol Translat ResMed Sch, Minneapolis, MN 55455, United States. Additional authors for this research include C.J. Bierle and M.R. Schleiss.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40265-016-0653-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Immunization, Article Review, Drugs and Therapies, Herpesvirus Diseases and Conditions, Clinical Trials and Studies, Biological Products, Clinical Research, Beta herpesvirinae, Cytomegalovirus, Herpesviridae, DNA Viruses, Vaccines, Virology, Genetics, Viral, University of Minnesota.

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Drugs and Therapies - Immunotherapy

Study Data from University of Minnesota Update Understanding of Immunotherapy (Induced Pluripotent Stem Cell-Derived Natural Killer Cells for Treatment of Ovarian Cancer)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Immunotherapy are presented in a new report. According to news reporting from Minneapolis, Minnesota, by NewsRx journalists, research stated, "Natural killer (NK) cells can provide effective immunotherapy for ovarian cancer. Here, we evaluated the ability of NK cells isolated from peripheral blood (PB) and NK cells derived from induced pluripotent stem cell (iPSC) to mediate killing of ovarian cancer cells in a mouse xenograft model."

Funders for this research include Immunotherapy for Ovarian Cancer Mayo Clinic Ovarian Cancer SPORE, NIH grant, National Institutes of Health Award Number, Hematology Research Training Grant.

The news correspondents obtained a quote from the research from the University of Minnesota, "A mouse xenograft model was used to evaluate the intraperitoneal delivery of three different NK cell populations: iPSC-derived NK cells, PB-NK cells that had been activated and expanded in long-term culture, and overnight activated PB-NK cells that were isolated through CD3/CD19 depletion of PB B and T cells. Bioluminescent imaging was used to monitor tumor burden of luciferase expressing tumor lines. Tumors were allowed to establish prior to administering NK cells via intraperitoneal injection. These studies demonstrate a single dose of any of the three NK cell populations significantly reduced tumor burden. When mice were given three doses of either iPSC-NK cells or expanded PB-NK cells, the median survival improved from 73 days in mice untreated to 98 and 97 days for treated mice, respectively. From these studies, we conclude iPSC-derived NK cells mediate antiovarian cancer killing at least as well as PB-NK cells, making these cells a viable resource for immunotherapy for ovarian cancer."

According to the news reporters, the research concluded: "Due to their ability to be easily differentiated into NK cells and their long-term expansion potential, iPSCs can be used to produce large numbers of well-defined NK cells that can be banked and used to treat a large number of patients including treatment with multiple doses if necessary."


Our news journalists report that additional information may be obtained by contacting D.L. Hermanson, Dept. of Medicine (Division of Hematology, Oncology and Transplant), University of Minnesota, Minneapolis, Minnesota, United States. Additional authors for this research include L. Bendzick, L. Pribyl, V. McCullar, R.I. Vogel, J.S. Miller, M.A. Geller and D.S Kaufman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2230. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Cancer, Oncology, Minnesota, Xenografts, Minneapolis, United States, Immunotherapy, Adult Stem Cells, Xenotransplantation, Stem Cell Research, Drugs and Therapies, North and Central America, Induced Pluripotent Stem Cells.

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Mitomycins

Study Data from University of Monastir Update Understanding of Mitomycins (Genotoxic and anti-genotoxic effects of esculin and its oligomer fractions against mitomycin C-induced DNA damages in mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Mitomycins have been presented. According to news reporting from Monastir, Tunisia, by NewsRx journalists, research stated, "Mitomycin C is one of the most effective chemotherapeutic drugs against various solid tumors. However, despite its wide spectrum of clinical benefits, this agent is capable of inducing various types of genotoxicity."

Financial support for this research came from Ministry of Higher Education and Scientific Research of Tunisia.

The news correspondents obtained a quote from the research from the University of Monastir, "In this study, we investigated the effect of esculin and its oligomer fractions (E1, E2 and E3) against mitomycin C induced genotoxicity in liver and kidney cells isolated from Balb/C mice using the comet assay. Esculin and its oligomer fractions were not genotoxic at the tested doses (20 mg/kg and 40 mg/kg b.w). A significant decrease in DNA damages was observed, suggesting a protective role of esculin and its oligomer fractions against the genotoxicity induced by mitomycin C on liver and kidney cells."

According to the news reporters, the research concluded: "Moreover, esculin and its oligomer fractions did not induce an increase of malondialdehyde levels."

For more information on this research see: Genotoxic and anti-genotoxic effects of esculin and its oligomer fractions against mitomycin C-induced DNA damages in mice. Regulatory Toxicology and Pharmacology, 2016;82():48-52. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting L. Chekir-Ghedira, Univ Monastir, Fac Pharm, Unit Bioact & Nat Subst & Biotechnol UR12ES12, Monastir 5000, Tunisia. Additional authors for this research include N. Mustapha, M. Maatouk, K. Ghedira, M. Ghoul and L. Chekir-Ghedira.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.11.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Monastir, Tunisia, Africa, Antibiotics - Antineoplastics, Deoxyribonucleic Acid, Drugs and Therapies, Mitomycin Therapy, Pharmaceuticals, Indolequinones, DNA Research, Proteomics, DNA Damage, Mitomycins, Genetics, University of Monastir.

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Eye Diseases and Conditions - Myopia

Study Data from University of New South Wales Provide New Insights into Myopia (An examination of the relation between intraocular pressure, fundal stretching and myopic pathology)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Eye Diseases and Conditions - Myopia. According to news reporting out of Kensington, Australia, by NewsRx editors, the research stated, "Pathological myopia is one of the leading causes of visual impairment worldwide. Myopic development and progression is biomechanical and dominated by axial elongation."

Our news journalists obtained a quote from the research from the University of New South Wales, "This clinical perspective examines some of the stretch-related fundal changes, which are associated with axial elongation and myopic pathology. The biomechanics of stretching of the fundus appears to depend on genetically and/or visual experience-based scleral changes, which reduce its thickness and elastic modulus so that it becomes more susceptible to the distending forces of intraocular pressure. These changes include reduced collagen synthesis, altered collagen fibres, tissue loss, altered proteoglycans and increased matrix metalloproteinase activity. Such changes are associated with reduced scleral rigidity and related increased potential to stretch in response to intraocular pressure. As axial elongation progresses, the sclera appears likely to continue to reduce in thickness and in its capacity to resist intraocular pressure, especially when pressure becomes elevated. Tessellation, lacquer cracks, myopic crescents, staphylomata, chorioretinal atrophy and retinal detachment are examined within a model for stretching of the fundus. Age, refractive error and axial length, for example, are associated with increased pathological progression. Myopic pathological progression can become dominated by vascular changes and include a greater risk of loss of acuity and blindness. Measures to control myopic pathology, which successfully slow or prevent stretching of the fundus, appear to be key factors in reducing or even avoiding permanent visual loss associated with this condition. For example, limiting axial elongation and related myopic fundus pathology by inhibiting changes which reduce the elastic modulus of scleral tissue is a desirable outcome from interventions to control myopia."

According to the news editors, the research concluded: "Similarly, reducing exposure to the distending stress of elevated intraocular pressure appears to be a desirable form of intervention to control myopia, especially if myopic pathology can be reduced or prevented."


Our news journalists report that additional information may be obtained by contacting C.W. McMonnies, School of Optometry and Vision Science, University of New South Wales, Kensington, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cxo.12302. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Myopia, Genetics, Pathology, Kensington, Ophthalmology, Article Review, Refractive Errors, Australia and New Zealand, Eye Diseases and Conditions.
Study Data from University of North Carolina Update Understanding of Epstein-Barr Virus (Karyotypic abnormalities associated with Epstein-Barr virus status in classical Hodgkin lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Human Herpesvirus Diseases and Conditions - Epstein-Barr Virus is the subject of a report. According to news reporting from Chapel Hill, North Carolina, by NewsRx journalists, research stated, "Classical Hodgkin lymphoma (CHL) is morphologically characterized by scattered malignant Hodgkin/Reed Sternberg (HRS) cells that are far outnumbered by surrounding reactive hematolymphoid cells. Approximately half of all cases of CHL are associated with infection by Epstein Barr virus (EBV), an oncogenic herpesvirus that expresses a number of proteins thought to contribute to transformation."

The news correspondents obtained a quote from the research from the University of North Carolina, "While a small number of published studies have attempted to identify recurrent cytogenetic abnormalities in CHL, no large case series have explored karyotypic differences between EBV-positive and EBV-negative tumors. Here, we report a two-institution retrospective investigation of cytogenetic features characterizing CHL. In our cohort, cases of EBV-negative CHL were characterized by more complex routine karyotypes than their EBV-positive counterparts (24.6 versus 15.6 independent aberrations per case, P = 0.009). The increased complexity of EBV-negative cases was driven by a number of features suggestive of genomic instability, including a larger number of independent chromosomal breakpoints (P = 0.03) and apparently aneuploid autosomes (P = 0.008). Compelling but nonsignificant trends also suggest a larger modal number and increased marker chromosomes in EBV-negative cases (P = 0.13 and 0.06, respectively). While some of these differences are related to histologic subtype, others appear independent of histology."

According to the news reporters, the research concluded: "Finally, a significant subset of EBV-positive tumors has a surprisingly simple karyotype relative to what is normally seen in CHL, an observation suggesting considerable biological and genetic diversity in this disease."


Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Human Herpesvirus Diseases and Conditions, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Tumor Virus Infections, Lymphomas, Genetics, Human Herpesvirus 4, Epstein-Barr Virus, Tumor
Study Data from University of Paris Provide New Insights into Thrombocytopenia (Long-term complications of splenectomy in adult immune thrombocytopenia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematologic Diseases and Conditions - Thrombocytopenia. According to news reporting originating from Creteil, France, by NewsRx correspondents, research stated, "The recent large decrease in splenectomy use for chronic immune thrombocytopenia (ITP) is partly due to still-unsolved questions about long-term safety. We performed the first single-center exposed/unexposed cohort study evaluating the long-term incidence of splenectomy complications in patients with primary ITP."

Our news editors obtained a quote from the research from the University of Paris, "Overall, 83 patients who underwent splenectomy more than 10 years ago (exposed) were matched with 83 nonsplenectomized patients (unexposed) on the date of ITP diagnosis +/- 5 years, age and gender. After a median follow-up of 192 months (range 0.5-528), 43 patients (52%) achieved overall response after splenectomy. Splenectomized patients experienced more venous thromboembolism (VTE) than controls (n = 13 vs n = 2, P = 0.005). On multivariate analysis, splenectomy was an independent risk factor of VTE (hazard ratio = 4.006, P = 0.032 [95% confidence interval: 1.13-14.21]). Splenectomized patients presented more severe infections on long-term follow-up: all required hospitalization, and 5/26 (19%) infections led to severe sepsis or septic shock and to death for 3 cases (none in controls). However, the incidence of malignancy was similar in both groups, as was cardiovascular risk, which appeared to be related more to ITP than splenectomy. Finally, splenectomy did not significantly decrease overall survival."

According to the news editors, the research concluded: "Despite the risk of thrombosis and severe sepsis, splenectomy remains an effective and curative treatment for ITP."

For more information on this research see: Long-term complications of splenectomy in adult immune thrombocytopenia. Medicine, 2016;95(48):27-33. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news editors report that additional information may be obtained by contacting M. Mahevas, Univ Paris Est Creteil, Hopital Henri Mondor, AP HP, Center Reference Cytopenies Autoimmunes Adulte, Creteil, France. Additional authors for this research include M. Mahevas, F. Roudot-Thoraval, N. Limal, L. Languille, G. Dumas, M. Khellaf, P. Bierling, M. Michel and B. Godeau.

Keywords for this news article include: Creteil, France, Europe, Cardiovascular Diseases and Conditions, Hematologic Diseases and Conditions, Blood Platelet Disorders, Risk and Prevention, Gastroenterology, Thrombocytopenia, Splenectomy, Thrombosis, Hematology, Surgery, University of Paris.

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Pharmacology

Study Data from University of Pittsburgh Update Knowledge of Pharmacology [New perspectives on mTOR inhibitors (rapamycin, rapalogs and TORKinibs) in transplantation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Pharmacology. According to news reporting originating from Pittsburgh, Pennsylvania, by NewsRx correspondents, research stated, "The macrolide rapamycin and its analogues (rapalogs) constitute the first generation of mammalian target of rapamycin (mTOR) inhibitors. Since the introduction of rapamycin as an immunosuppressant, there has been extensive progress in understanding its complex mechanisms of action."

Our news editors obtained a quote from the research from the University of Pittsburgh, "New insights into the function of mTOR in different immune cell types, vascular endothelial cells and neoplastic cells have opened new opportunities and challenges regarding mTOR as a pharmacological target. Currently, the two known mTOR complexes, mTOR complex (mTORC) 1 and mTORC2, are the subject of intense investigation, and the introduction of second-generation dual mTORC kinase inhibitors (TORKinibs) and gene knockout mice is helping to uncover the distinct roles of these complexes in different cell types. While the pharmacological profiling of rapalogs is advanced, much less is known about the properties of TORKinibs. A potential benefit of mTOR inhibition in transplantation is improved protection against transplant-associated viral infections compared with standard calcineurin inhibitor-based immunosuppression. Preclinical and clinical data also underscore the potentially favourable antitumour effects of mTOR inhibitors in regard to transplant-associated malignancies and as a novel treatment option for various other cancers. Many aspects of the mechanisms of action of mTOR inhibitors and their clinical implications remain unknown."

According to the news editors, the research concluded: "In this brief review we discuss new findings and perspectives of mTOR inhibitors in transplantation."


The news editors report that additional information may be obtained by contacting A.W. Thomson, University of Pittsburgh, Dept. of Immunol, Pittsburgh, PA, United States. Additional authors for this research include D. Fantus, M. Solari and A.W. Thomson.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Therapy, Article Review, Pharmacology, University of Pittsburgh.

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Cardiovascular Diseases and Conditions - Thrombosis

Study Data from University of Pittsburgh Update Knowledge of Thrombosis (Intracranial venous injury, thrombosis and repair as hallmarks of mild blast traumatic brain injury in rats: Lessons from histological and immunohistochemical studies of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Thrombosis is now available. According to news reporting from Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "Many previous experimental studies of blast wave effects have reported vascular and parenchymal injury in brains extracted from the skulls prior to histopathological assessment. Brain removal disrupts vasculature and structural features of the meninges that may be sources of signs and symptoms of mild traumatic brain injury, particular at lower blast overpressures (<5 psi peak)."

The news correspondents obtained a quote from the research from the University of Pittsburgh, "New method: Immunohistochemical and histopathological studies have been conducted in sections from decalcified, paraffin embedded, histologically sectioned whole rat heads. These sections preserve the entire cranial contents in situ, and permit evaluation of the inner ear, central nervous system and associated vasculature. The findings could also be correlated with mRNA expression patterns from whole brains subjected to similar treatment. Lower levels of blast wave exposure produce primarily vascular effects in rats. Messenger RNA profiles of the whole brains showed evidence of both blast intensity and time dependent effects on vascular wound healing markers. The rats exposed to 10-11 psi overpressure tended to show a similar pattern of mRNA expression changes in these vascular repair and inflammatory pathways as rats exposed to approximately 5 psi overpressure, but the changes were greater. The changes in mRNA expression after a 14-15 psi exposure were different and suggestive of more severe injury, particularly for DNA repair, lymphocyte activation and lymphocyte migration pathways. Histopathological examination of decalcified heads revealed that even 2.5-7.9 psi blast exposures produced a high prevalence of mild venous hemorrhage and thrombosis (accompanied by inflammatory markers) in the inner ear, vertebrobasilar circulation, hippocampal choroidal fissure and the veins associated with velum interpositum. Comparison with existing method(s): The sites of vascular injury would not have been included in specimens extracted from the skull prior to processing. The isolated regions of intravascular coagulation in small veins and the isolated, very small venous hemorrhages in the subarachnoid space are worthy of consideration as factors in both healing and chronic sequelae of mild blast concussion. Although small, remnants persisted in the subarachnoid space even 42 days after a single blast exposure."

According to the news reporters, the research concluded: "The high prevalence of very mild subdural and subarachnoid hemorrhage may be a target for clinical management."

For more information on this research see: Intracranial venous injury, thrombosis and repair as hallmarks of mild blast traumatic brain injury in rats: Lessons from histological and immunohistochemical studies of decalcified sectioned heads and correlative microarray analysis. *Journal of Neuroscience Methods*, 2016;272():56-68. *Journal of Neuroscience Methods* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Neuroscience Methods - www.journals.elsevier.com/journal-of-neuroscience-methods/)
Our news journalists report that additional information may be obtained by contacting C. Balaban, University of Pittsburgh, Dept. of Otolaryngol, Pittsburgh, PA 15260, United States. Additional authors for this research include R.L. Jackson, J.Z. Liu, W. Gao and M.E. Hoffer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jneumeth.2016.02.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Embolism and Thrombosis, Cranio-cerebral Trauma, Brain Injuries, Hemorrhage, Hematology, Genetics, University of Pittsburgh.

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Mosquito-Borne Diseases - Dengue Hemorrhagic Fever

Study Data from University of Science Malaysia Update Understanding of Dengue Hemorrhagic Fever [Allelic variants of cytochrome P450 monooxygenases: Constitutive and insecticide-mediated expression in a Malaysian strain of the dengue vector, ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mosquito-Borne Diseases - Dengue Hemorrhagic Fever. According to news reporting out of Penang, Malaysia, by NewsRx editors, research stated, "Cytochrome P450s (P450s) involved in insecticide resistance reduce the efficacy of insecticide-based vector control by rendering vector control ineffective. They are recorded in many species of vectors and have various constitutive and insecticide induction profiles."

Our news journalists obtained a quote from the research from the University of Science Malaysia, "In this study, the isolation and prediction of the structure of a P450 from a strain of Aedes aegypti originating from Malaysia is reported. Quantitative mRNA expression of this gene and a previously reported P450, CYP4H28v2, in the developmental stages of the mosquito after exposure to sub-lethal concentrations of insecticides is also reported. The isolated P450, CYP4H31v2, is an allelic variant of CYP4H31 and contains several conserved motifs of P450s. The secondary structure of the protein is mostly made up of alpha helices and random coils. The tertiary structure was generated using homology modeling and was of good quality based on structure validation using protein structure assessment tools. CYP4H28v2 and CYP4H31v2 were differentially expressed in the developmental stages of the vector, with a significantly increased expression in adult males. The genes were significantly over-expressed in larvae exposed to deltamethrin and permethrin for 6 h. In the DDT-treated larvae, only CYP4H31v2 was significantly over-expressed after a 6 h exposure. Under-expression of the genes was predominant in larvae treated with the organophosphates malathion and temephos."

According to the news editors, the research concluded: "Though the functions of these P450s are unknown, their response to induction by exposure to insecticides indicates the likely involvement of these genes in insecticide tolerance."

For more information on this research see: Allelic variants of cytochrome P450

Our news journalists report that additional information may be obtained by contacting F.M.A. El-Garj, University of Sains Malaysia, Sch Distance Educ, Mol Entomol Res Grp, Minden 11800, Penang, Malaysia. Additional authors for this research include M.F.F. Wajidi and S.W. Avicor.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.14411/eje.2016.067. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Penang, Malaysia, Asia, Dengue Hemorrhagic Fever, Viral Hemorrhagic Fevers, Mosquito-Borne Diseases, Flaviviridae Infections, Flavivirus Infections, Mosquitoes, Genetics, RNA Virus Infections, Arbovirus Infections, Mosquito Larvae, Hemeproteins, Insecticides, Dengue Fever, Cytochromes, RNA Viruses, Proteins, University of Science Malaysia.

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**Blood Diseases and Conditions - Sepsis**

**Study Data from University of South Carolina Update Understanding of Sepsis (Effectiveness of oral antibiotics for definitive therapy of Gram-negative bloodstream infections)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Blood Diseases and Conditions - Sepsis is the subject of a report. According to news reporting originating from Columbia, South Carolina, by NewsRx correspondents, research stated, "There is paucity of data evaluating intravenous-to-oral antibiotic switch options for Gram-negative bloodstream infections (BSIs). This retrospective cohort study examined the effectiveness of oral antibiotics for definitive treatment of Gram-negative BSI."

Financial support for this research came from Infectious Disease Society of America Education and Research Foundation.

Our news editors obtained a quote from the research from the University of South Carolina, "Patients with Gram-negative BSI hospitalised for <14 days at Palmetto Health Hospitals in Columbia, SC, from 1 January 2010 through 31 December 2013 and discharged on oral antibiotics were included in this study. The cohort was stratified into three groups based on bioavailability of oral antibiotics prescribed (high, >= 95%; moderate, 75-94%; and low, <75%). Kaplan-Meier analysis and multivariate Cox proportional hazards regression were used to examine treatment failure. Among the 362 patients, high, moderate and low bioavailability oral antibiotics were prescribed to 106, 179 and 77 patients, respectively, for definitive therapy of Gram-negative BSI. Mean patient age was 63 years, 217 (59.9%) were women and 254 (70.2%) had a urinary source of infection. Treatment failure rates were 2%, 12% and 14% in patients receiving oral antibiotics with high, moderate and low bioavailability, respectively (P = 0.02). Risk of treatment failure in the multivariate Cox model was higher in patients receiving antibiotics with moderate [ adjusted hazard ratio (aHR) = 5.9, 95% CI 1.6-38.5; P = 0.005] and
low bioavailability (aHR = 7.7, 95% CI 1.9-51.5; P = 0.003) compared with those receiving oral antimicrobial agents with high bioavailability. These data demonstrate the effectiveness of oral antibiotics with high bioavailability for definitive therapy of Gram-negative BSI.

According to the news editors, the research concluded: "Risk of treatment failure increases as bioavailability of the oral regimen declines."


The news editors report that additional information may be obtained by contacting M.N. Al-Hasan, University of South Carolina, Sch Med, Dept. of Med, Div Infect Dis, Columbia, SC, United States. Additional authors for this research include J.A. Justo, P.B. Bookstaver, J. Kohn, H. Albrecht and M.N. Al-Hasan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.07.013. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Columbia, South Carolina, United States, North and Central America, Blood Diseases and Conditions, Therapy, Epidemiology, Bloodstream Infection, Antibacterial Agents, Drugs and Therapies, Antimicrobials, Antibiotics, Septicemia, Sepsis, University of South Carolina.

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BTB using the single comparative intradermal tuberculin (SCIT) test, with BTB-positive animals culled, and negative animals released. BTB prevalence was spatially and temporally variable, ranging from 2.3% to 54.7%. Geographic area was a strong predictor of BTB transmission in HiP, owing to relatively stable herds and home ranges. Herds experiencing more intensive and frequent captures showed reduced per capita disease transmission risk and less increase in herd prevalence over time. Disease hot spots did not expand spatially over time, and BTB prevalence in all but the hot spot areas was maintained between 10% and 15% throughout the study period. Our data suggest that HiP's test and cull programme was effective at reducing BTB transmission in buffalo, with capture effort and interval found to be the crucial components of the programme. The programme was thus successful with respect to the original goals; however, there are additional factors that should be considered in future cost/benefit analyses and decision-making.

According to the news reporters, the research concluded: "These findings may be utilized and expanded in future collaborative work between wildlife managers, veterinarians and scientists, to optimize wildlife disease control programmes and mitigate conflict at the interface of conservation, agricultural and urban areas."


Our news correspondents report that additional information may be obtained by contacting N. le Roex, University of Stellenbosch, DST NRF Center Excellence Biomed TB Res, MRC Center Mol & Cellular Biol, Div Mol Biol & Human GenetFac Hlth Sci, Cape Town, South Africa. Additional authors for this research include D. Cooper, P.D. van Helden, E.G. Hoal and A.E. Jolles.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/tbed.12329. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cape Town, South Africa, Africa, Bovine Tuberculosis, Risk and Prevention, Gram-Positive Bacterial Infections, Bovine Diseases and Conditions, Actinomycetales Infections, Mycobacterium Infections, University of Stellenbosch.

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Gram-Positive Bacteria – Enterococcus faecalis

Study Data from University of Tehran Provide New Insights into Enterococcus faecalis (The in vitro effect of antimicrobial photodynamic therapy with indocyanine green on Enterococcus faecalis: Influence of a washing vs non-washing procedure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Gram-Positive Bacteria - Enterococcus faecalis. According to news reporting originating from Tehran, Iran, by NewsRx
correspondents, research stated, "The purpose of this study was to evaluate the in vitro effect of washing and non-washing of indocyanine green (ICG) as photosensitizer (PS) on bacterial count, biofilm formation, development and degradation of Enterococcus faecalis. The antibacterial, anti-biofilm formation, anti-biofilm development and biofilm degradation of antimicrobial photodynamic therapy (aPDT) against E. faecalis was determined at concentrations of 3 to 2000 μg/mL of ICG, subject to 18 j/cm(2) dose of diode laser (808 nm) in washing and non-washing producers."

Financial support for this research came from Laser Research Center of Dentistry. Our news editors obtained a quote from the research from the University of Tehran, "Bacterial viability measurements and biofilm assays were evaluated by broth microdilution method and crystal violet assays, respectively. ICG-mediated aPDT, using 25 to 2000 μg/mL and 50 to 2000 pugimL showed significant reduction in E. faecalis growth when compared to the control in non-washing and washing producers, respectively (P <0.05). Also, ICG-mediated aPDT showed a significantly inhibitory effect on biofilm formation of E. faecalis in concentration of 6 to 2000 μg/mL and 100 to 2000 μg/mL in non-washing and washing groups (P <0.05). The biofilm development was inhibited by concentrations of 12 to 2000 μg/mL and 100 to 2000 μg/mL in non-washing and washing groups. The biofilm degradation increased from concentrations of 12 to 2000 ilgimL and 250 to 2000 μg/mL in non-washing and washing groups, respectively."

According to the news editors, the research concluded: "This study shows that the application of ICG should be accompanied by laser irradiation without being washed out to achieve better result for bacterial count reduction and anti-biofilm effects."

For more information on this research see: The in vitro effect of antimicrobial photodynamic therapy with indocyanine green on Enterococcus faecalis: Influence of a washing vs non-washing procedure. Photodiagnosis and Photodynamic Therapy, 2016;16():119-123. Photodiagnosis and Photodynamic Therapy can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Photodiagnosis and Photodynamic Therapy - www.journals.elsevier.com/photodiagnosis-and-photodynamic-therapy/)

The news editors report that additional information may be obtained by contacting S. Shahahi, Univ Tehran Med Sci, Sch Dental, Dental Biomat Department, Tehran, Iran. Additional authors for this research include M. Pourhajibagher, S. Parker, S. Shahahi and A. Bahador.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pdpdt.2016.09.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Ophthalmic Diagnostic Agents, Indocyanine Green Therapy, Ophthalmic Preparations, Gram-Positive Bacteria, Enterococcus faecalis, Drugs and Therapies, Lactobacillales, Enterococcaceae, Pharmaceuticals, Antimicrobials, Topical Agents, Biotechnology, Photodynamics, University of Tehran.

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Study Data from University of Texas Provide New Insights into Melanoma (Tumor-Intrinsic PD-L1 Signals Regulate Cell Growth, Pathogenesis, and Autophagy in Ovarian Cancer and Melanoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Melanoma are discussed in a new report. According to news reporting originating from San Antonio, Texas, by NewsRx correspondents, research stated, "PD-L1 antibodies produce efficacious clinical responses in diverse human cancers, but the basis for their effects remains unclear, leaving a gap in the understanding of how to rationally leverage therapeutic activity. PD-L1 is widely expressed in tumor cells, but its contributions to tumor pathogenicity are incompletely understood."

Our news editors obtained a quote from the research from the University of Texas, "In this study, we evaluated the hypothesis that PD-L1 exerts tumor cell-intrinsic signals that are critical for pathogenesis. Using RNAi methodology, we attenuated PD-L1 in the murine ovarian cell line ID8agg and the melanoma cell line B16 (termed PD-L1(lo) cells), which express basal PD-L1. We observed that PD-L1(lo) cells proliferated more weakly than control cells in vitro. As expected, PD-L1(lo) cells formed tumors in immunocompetent mice relatively more slowly, but unexpectedly, they also formed tumors more slowly in immunodeficient NSG mice. RNA sequencing analysis identified a number of genes involved in autophagy and mTOR signaling that were affected by PD-L1 expression. In support of a functional role, PD-L1 attenuation augmented autophagy and blunted the ability of autophagy inhibitors to limit proliferation in vitro and in vivo in NSG mice. PD-L1 attenuation also reduced mTORC1 activity and augmented the antiproliferative effects of the mTORC1 inhibitor rapamycin. PD-L1(lo) cells were also relatively deficient in metastasis to the lung, and we found that anti-PD-L1 administration could block tumor cell growth and metastasis in NSG mice. This therapeutic effect was observed with B16 cells but not ID8agg cells, illustrating tumor-or compartmental-specific effects in the therapeutic setting."

According to the news editors, the research concluded: "Overall, our findings extend understanding of PD-L1 functions, illustrate nonimmune effects of anti-PD-L1 immunotherapy, and suggest broader uses for PD-L1 as a biomarker for assessing cancer therapeutic responses."

For more information on this research see: Tumor-Intrinsic PD-L1 Signals Regulate Cell Growth, Pathogenesis, and Autophagy in Ovarian Cancer and Melanoma. Cancer Research, 2016;76(23):6964-6974. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/0008-5472.CAN-16-0258. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Antonio, Texas, United States, North
Cardiovascular Research

Study Data from University of Texas Southwestern Update Knowledge of Cardiovascular Research [SCCT guidelines for the performance and acquisition of coronary computed tomographic angiography: A report of the society of Cardiovascular Computed ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Research are presented in a new report. According to news originating from Dallas, Texas, by NewsRx correspondents, research stated, "In response to recent technological advancements in acquisition techniques as well as a growing body of evidence regarding the optimal performance of coronary computed tomography angiography (coronary CTA), the Society of Cardiovascular Computed Tomography Guidelines Committee has produced this update to its previously established 2009 'Guidelines for the Performance of Coronary CTA' (1)."

Our news journalists obtained a quote from the research from the University of Texas Southwestern, "The purpose of this document is to provide standards meant to ensure reliable practice methods and quality outcomes based on the best available data in order to improve the diagnostic care of patients. Society of Cardiovascular Computed Tomography Guidelines for the Interpretation is published separately (2)."

According to the news editors, the research concluded: "The Society of Cardiovascular Computed Tomography Guidelines Committee ensures compliance with all existing standards for the declaration of conflict of interest by all authors and reviewers for the purpose of clarity and transparency."


The news correspondents report that additional information may be obtained from S. Abbara, Univ Texas Southwestern Med Center Dallas, Dallas, TX 75390, United States. Additional authors for this research include P. Blanke, C.D. Maroules, M. Cheezum, A.D. Choi, B.K. Han, M. Marwan, C. Naoum, B.L. Norgaard, R. Rubinshtein, P. Schoenhagen, T. Villines and J. Leipsic.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Cardiovascular Research, Cardiovascular Diagnostic Techniques, Computed Tomographic Angiography, Computed Tomography, Imaging Technology, Cardiology, University of Texas Southwestern.

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Study Data from University of Tokyo Provide New Insights into Measles (Development of new therapy for canine mammary cancer with recombinant measles virus)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Measles are presented in a new report. According to news reporting from Tokyo, Japan, by NewsRx journalists, research stated, "Oncolytic virotherapy is a promising treatment strategy for cancer. We previously generated a recombinant measles virus (rMV-SLAMblind) that selectively uses a poliovirus receptor-related 4 (PVRL4/Nectin4) receptor, but not signaling lymphocyte activation molecule (SLAM)."

The news correspondents obtained a quote from the research from the University of Tokyo, "We demonstrated that the virus exerts therapeutic effects against human breast cancer cells. Here, we examined the applicability of rMV-SLAMblind to treating canine mammary cancers (CMCs). We found that the susceptibilities of host cells to rMV-SLAMblind were dependent on canine Nectin-4 expression. Nectin-4 was detected in four of nine CMC cell lines. The rMV-SLAMblind efficiently infected those four Nectin-4-positive cell lines and was cytotoxic for three of them (CF33, CHMm, and CTBm). In vivo experiment showed that the administration of rMV-SLAMblind greatly suppressed the progression of tumors in mice xenografted with a CMC cell line (CF33). Immunohistochemistry revealed that canine Nectin-4 was expressed in 45% of canine mammary tumors, and the tumor cells derived from one clinical specimen were efficiently infected with rMV-SLAMblind. These results suggest that rMV-SLAMblind infects CMC cells and displays antitumor activity in vitro, in xenografts, and ex vivo."

According to the news reporters, the research concluded: "Therefore, oncolytic virotherapy with rMV-SLAMblind can be a novel method for treating CMCs."

For more information on this research see: Development of new therapy for canine mammary cancer with recombinant measles virus. Molecular Therapy-Oncolytics, 2016;3():1-8. Molecular Therapy-Oncolytics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.

Our news journalists report that additional information may be obtained by contacting C. Kai, University of Tokyo, Inst Med Sci, Lab Anim Res Center, Tokyo 1138654, Japan. Additional authors for this research include M. Yoneda, T. Fujiyuki, Y. Amagai, A. Tanaka, A. Matsuda, K. Ogihara, Y. Naya, F. Ikeda, H. Matsuda, H. Sato and C. Kai.

Keywords for this news article include: Tokyo, Japan, Asia, Oncolytic Virotherapy, Biological Therapy, Mononegavirales, Paramyxoviridae, Paramyxovirinae, Morbillivirus, Measles Virus, RNA Viruses, Oncology, Virology, Cancer, Viral, University of Tokyo.

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Oncology - Breast Cancer

Study Data from University of Toronto Update Understanding of Breast Cancer (Total cost-effectiveness of mammography screening strategies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Breast Cancer is now available. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "Breast cancer screening technology and treatment have improved over the past decade. This analysis evaluates the total cost-effectiveness of various breast cancer screening strategies in Canada."

Our news editors obtained a quote from the research from the University of Toronto, "Data and methods: Using the Wisconsin Cancer Intervention and Surveillance Monitoring Network (CISNET) breast cancer simulation model adapted to the Canadian context, costs and quality-adjusted life years (QALY) were evaluated for 11 mammography screening strategies that varied by start/stop age and screening frequency for the general population. Incremental cost-effectiveness ratios are presented, and sensitivity analyses are used to assess the robustness of model conclusions. Incremental cost-effectiveness analysis showed that triennial screening at ages 50 to 69 was the most cost-effective at $94,762 per QALY. Biennial ($97,006 per QALY) and annual ($226,278 per QALY) strategies had higher incremental ratios. The benefits and costs of screening rise with the number of screens per woman."

According to the news editors, the research concluded: "Decisions about screening strategies may be influenced by willingness to pay and the rate of recall for further examination after positive screens."

For more information on this research see: Total cost-effectiveness of mammography screening strategies. Health Reports, 2015;26(12):16-25. Health Reports can be contacted at: Statistics Canada, 100 Tunneys Pasture Driveway, Ottawa, Ontario K1A 0T6, Canada.

The news editors report that additional information may be obtained by contacting N. Mittmann, University of Toronto, Toronto, ON M5S 1A1, Canada. Additional authors for this research include N.K. Stout, P. Lee, A.N.A. Tosteson, A. Trentham-Dietz, O. Alagoz and M.J. Yaffe.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Diagnostics and Screening, Breast Cancer Screening, Cancer, Epidemiology, Risk and Prevention, Women's Health, Oncology, University of Toronto.

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Pediatrics - Pediatric Nephrology

Study Data from University of Toronto Update Understanding of Pediatric Nephrology (C3 Glomerulopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Pediatrics - Pediatric Nephrology have been published. According to news reporting originating in Toronto, Canada, by NewsRx journalists,
research stated, "Recent advances in our understanding of the disease pathology of membranoproliferative glomerulonephritis has resulted in its re-classification as complement C3 glomerulopathy (C3G) and immune complex-mediated glomerulonephritis (IC-GN). The new consensus is based on its underlying pathomechanism, with a key pathogenetic role for the complement alternative pathway (AP), rather than on histomorphological characteristics."

The news reporters obtained a quote from the research from the University of Toronto, "In C3G, loss of AP regulation leads to predominant glomerular C3 deposition, which distinguishes C3G from IC-GN with predominant immunoglobulin G staining. Electron microscopy further subdivides C3G into C3 glomerulonephritis and dense deposit disease depending on the presence and distribution pattern of electron-dense deposits within the glomerular filter. Mutations or autoantibodies affecting the function of AP activators or regulators, in particular the decay of the C3 convertase (C3 nephritic factor), have been detected in up to 80% of C3G patients. The natural outcome of C3G is heterogeneous, but 50% of patients progress slowly and reach end-stage renal disease within 10-15 years."

According to the news reporters, the research concluded: "The new classification not only marks significant advancement in the pathogenetic understanding of this rare disease, but also opens doors towards more specific treatment with the potential for improved outcomes."

For more information on this research see: C3 Glomerulopathy. Pediatric Nephrology, 2017;32(1):43-57. Pediatric Nephrology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Pediatric Nephrology - www.springerlink.com/content/0931-041x/)

Our news correspondents report that additional information may be obtained by contacting C. Licht, University of Toronto, Dept. of Paediat, Toronto, ON, Canada. Additional authors for this research include P. Thorner and C. Licht.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00467-015-3310-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Pediatric Nephrology, Pediatrics, Genetics, Article Review, University of Toronto.

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Immunology - Granulocytes

Study Data from University of Utah Provide New Insights into Granulocytes (P-Selectin Sustains Extramedullary Hematopoiesis in the Gata1 low Model of Myelofibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immunology - Granulocytes are discussed in a new report. According to news reporting originating in Salt Lake City, Utah, by NewsRx journalists, research stated, "Splenomegaly is a major manifestation of primary myelofibrosis (PMF) contributing to clinical symptoms and hematologic abnormalities. The spleen from PMF patients contains increased numbers of hematopoietic stem cells (HSC) and megakaryocytes (MK)."

Funders for this research include National Cancer Institute, Associazione Italiana
Ricerca sul Cancro, Brian Rooney Fund of the Lymphoma Foundation.

The news reporters obtained a quote from the research from the University of Utah, "These MK express high levels of P-selectin (P-sel) that, by triggering neutrophil emperipolesis, may cause TGF-b release and disease progression. This hypothesis was tested by deleting the P-sel gene in the myelofibrosis mouse model carrying the hypomorphic Gata1(low) mutation that induces megakaryocyte abnormalities that recapitulate those observed in PMF. P-sel(null) Gata1(low) mice survived splenectomy and lived 3 months longer than P-sel(WT) Gata1(low) littermates and expressed limited fibrosis and osteosclerosis in the marrow or splenomegaly. Furthermore, deletion of P-sel disrupted megakaryocyte/neutrophil interactions in spleen, reduced TGF-b content, and corrected the HSC distribution that in Gata1(low) mice, as in PMF patients, is abnormally expanded in spleen. Conversely, pharmacological inhibition of TGF-b reduced P-sel expression in MK and corrected HSC distribution. Spleens, but not marrow, of Gata1(low) mice contained numerous cKIT(pos) activated fibrocytes, probably of dendritic cell origin, whose membrane protrusions interacted with MK establishing niches hosting immature cKIT(pos) hematopoietic cells. These activated fibrocytes were not detected in spleens from P-sel(null) Gata1(low) or TGF-b-inhibited Gata1(low) littermates and were observed in spleen, but not in marrow, from PMF patients."

According to the news reporters, the research concluded: "Therefore, in Gata1(low) mice, and possibly in PMF, abnormal P-sel expression in MK may mediate the pathological cell interactions that increase TGF-b content in MK and favor establishment of a microenvironment that supports myelofibrosis-related HSC in spleen."


Our news correspondents report that additional information may be obtained by contacting G.J. Spangrude, Dept. of Medicine, Division of Hematology and Hematologic Malignancies, University of Utah, Salt Lake City, Utah, United States. Additional authors for this research include D. Lewandowski, F. Martelli, M. Marra, M. Zingariello, L. Sancillo, R.A. Rana and A.R Migliaccio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2229. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Utah, Spleen, Genetics, Hematology, Immunology, P Selectin, Phagocytes, CD Antigens, Neutrophils, Granulocytes, United States, Cell Research, Hematopoietic, Myelofibrosis, Salt Lake City, Megakaryocytes, Bone Marrow Cells, Membrane Proteins, Biological Factors, Cell Adhesion Molecules, Hemic and Immune Systems.

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Heart Disorders and Diseases - Heart Failure

Study Data from University of Virginia Provide New Insights into Heart Failure (Decreased Pulmonary Arterial Proportional Pulse Pressure After Pulmonary Artery Catheter Optimization for Advanced Heart Failure Is Associated With Adverse Clinical ...)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting from Charlottesville, Virginia, by NewsRx journalists, research stated, "This study evaluated the novel index pulmonary arterial proportional pulse pressure (PAPP) in the Evaluation Study of Congestive Heart Failure and Pulmonary Artery Catheterization Effectiveness (ESCAPE) trial. Multivariable Cox proportional hazards and logistical regression were used to model 6-month death; death, transplantation, or left ventricular assist device (DTLVAD); and DTLVAD or heart failure rehospitalization (DTLVADHF) with respect to PAPP."

The news correspondents obtained a quote from the research from the University of Virginia, "Among 175 patients with final hemodynamic data, 15.5% and 33.9%, respectively, died in optimal PAPP (PAPP >0.50) and nonoptimal PAPP (PAPP <= 0.50) groups (P =.008), and PAPP was independently associated with death, DTLVAD, and DTLVADHF (P <.01 for all outcomes). The hypothesized logistic regression model with pulmonary capillary wedge pressure, creatinine, and nonoptimal PAPP had an area under the curve of 0.818 (P <.0001) for death. Furthermore, PAPP as a continuous variable was the most powerful predictor of DTLVADHF (hazard ratio 0.793 per 0.1 increase in PAPP [95% confidence interval 0.659-0.955], chi square 8.80; P =.01) in the Cox model, with no other clinical, laboratory, or hemodynamic parameters significant after adjustment for PAPP. PAPP, a novel parameter for right-sided proportional pulse pressure, is an independent and powerful predictor of adverse clinical outcomes in advanced HF."

According to the news reporters, the research concluded: "Increased PAPP promises to be a useful therapeutic target in patients with pulmonary arterial pressure assessment."

For more information on this research see: Decreased Pulmonary Arterial Proportional Pulse Pressure After Pulmonary Artery Catheter Optimization for Advanced Heart Failure Is Associated With Adverse Clinical Outcomes. *Journal of Cardiac Failure*, 2016;22Q (12):954-961. *Journal of Cardiac Failure* can be contacted at: Churchill Livingstone Inc Medical Publishers, Curtis Center, Independence Square West, Philadelphia, PA 19106-3399, USA. (Elsevier - www.elsevier.com; Journal of Cardiac Failure - www.journals.elsevier.com/journal-of-cardiac-failure/)

Our news journalists report that additional information may be obtained by contacting S. Mazimba, University of Virginia, Dept. of Cardiovasc Med, Charlottesville, VA, United States. Additional authors for this research include J.L.W. Kennedy, D. Zhuo, J. Bergin, M. Abuannadi, J. Tallaj and K.C. Bilchick.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cardfail.2016.03.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Charlottesville, Virginia, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Pulmonary Artery, Heart Failure, Heart Disease, Cardiology, Angiology, University of Virginia.

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Heart Disorders and Diseases - Heart Attack

Study Data from University of Washington Update Knowledge of Heart Attack (Determining witnessed status for out-of-hospital cardiac arrest)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting originating in Seattle, Washington, by NewsRx journalists, research stated, "Witnessed status is considered a core variable in reporting cardiac arrest data and can be ascertained from either the emergency dispatch recording or the pre-hospital record. The purpose of this study is to compare and assess the quality and consistency of these information sources."

The news reporters obtained a quote from the research from the University of Washington, "This retrospective analysis included 1896 cases of out-of-hospital cardiac arrest occurring between September 1, 2012 and December 31, 2014. We found that there was minimal (kappa = 0.30, 95% CI 0.27-0.33) to moderate (kappa = 0.64, 95% CI 0.59-0.69) agreement between the pre-hospital record and the emergency dispatch recording when these sources of information are used to determine witnessed status. Witnessed status could not be determined from the emergency dispatch recording in 36.2% (n = 684) of eligible cases. Survival was similar regardless of the method used to determine witnessed status. Using a combination of the pre-hospital record and the emergency dispatch recording yielded the highest number of witnessed cases. The determination of witnessed status in out-of-hospital cardiac arrest may be challenging, as evidenced by the discrepancies in witnessed status when comparing different sources of information. The large number of cases where the witnessed status could not be determined from the emergency dispatch recording precludes its use as the sole source of information."

According to the news reporters, the research concluded: "It is reasonable to use the patient care record alone, however it should be recognized that there is misclassification of witnessed status regardless of the method used and this may affect the strength of association between witnessed status and survival."


Our news correspondents report that additional information may be obtained by contacting M.M. Lewis, University of Washington, Sch Med, Seattle, WA 98195, United States. Additional authors for this research include B.A. Stubbs and M.S. Eisenberg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.08.022. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Heart Disorders and Diseases, Cardiac Arrest, Heart Attack, Cardiology, Hospital, University of Washington.

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Drugs and Therapies - Antifungals

Study Data from V. Ong and Co-Authors Update Knowledge of Antifungals (Preclinical Evaluation of the Stability, Safety, and Efficacy of CD101, a Novel Echinocandin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antifungals is the subject of a report. According to news reporting out of San Diego, California, by NewsRx editors, research stated, "Fungal infections pose a significant public health burden with high morbidity and mortality. CD101 is a novel echinocandin under development for the treatment and prevention of systemic Candida infections."

Our news journalists obtained a quote from the research, "Preclinical studies were conducted to evaluate the metabolic stability, plasma protein binding, pharmacokinetics, toxicity, and efficacy of CD101 at various dose levels. CD101 was stable to biotransformation in rat, monkey, and human liver microsomes and rat, monkey, dog, and human hepato-cytes. In vitro studies suggest minimal interaction with recombinant cytochrome P450 enzymes (50% inhibitory concentrations [IC(50)s] of > 10 μM). Similar to anidulafungin, CD101 bound avidly (>98%) to human, mouse, rat, and primate plasma proteins. In a 2-week repeat-dose comparison study, CD101 was well tolerated in rats (no effects on body weight, hematology, coagulation, or urinalysis). In contrast, administration of anidulafungin (at comparable exposure levels) resulted in reduced body weight, decreases in red blood cell, hemoglobin, hematocrit, mean cell volume, mean corpuscular hemoglobin, platelet, and reticulocyte counts, increases in neutrophil and eosinophil counts, polychromasia, and decreased activated partial thromboplastin time. Elevated plasma transaminases, total bilirubin, cholesterol, and globulin, dark and enlarged spleens, and single-cell hepatocyte necrosis were also observed for anidulafungin but not CD101. Hepatotoxicity may be due to the inherent chemical lability of anidulafungin generating potentially reactive intermediates. A glutathione trapping experiment confirmed the formation of a reactive species from anidulafungin, whereas CD101 did not exhibit instability or reactive intermediates. CD101 showed antifungal activity against Candida and Aspergillus infections in neutropenic mice."

According to the news editors, the research concluded: "These preclinical studies demonstrated that CD101 is chemically and metabolically stable, well tolerated with no hepatotoxicity, and efficacious as an antifungal agent."


Our news journalists report that additional information may be obtained by contacting V. Ong, Cidara Therapeut Inc, San Diego, CA 92121, United States. Additional authors for this research include G. Hough, M. Schlouser, K. Bartizal, J.M. Balkovec, K.D. James and B.R. Krishnan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00701-16. This DOI is a link to an online electronic document that is either free or for purchase.
Immune System Diseases and Conditions - HIV/AIDS

Study Data from V.R. Gutlapalli et al Provide New Insights into HIV/AIDS (High levels of plasma interferon gamma and +874T/A gene polymorphism is associated with HIV-TB co-infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Immune System Diseases and Conditions - HIV/AIDS. According to news reporting originating from Hyderabad, India, by NewsRx correspondents, research stated, "Tuberculosis (TB) is one of the most frequent opportunistic infections in HIV patients leading to increased morbidity and death rate. This study was carried out to investigate the role of the cytokines IFN-gamma and TNF-alpha level and their single nucleotide polymorphisms (SNPs) in HIV-TB co-infection."

Our news editors obtained a quote from the research, "247 HIV-TB (124 HIV-pulmonary TB, 123 HIV-extra pulmonary TB), 126 HIV positive individuals without tuberculosis and 129 healthy subjects (HS) were included to measure plasma levels of IFN-gamma and TNF-alpha by sandwich ELISA and One way ANOVA statistical analysis was carried out among the groups. The SNPs of TNF-alpha-308 G/A, -238 G/A and IFN-gamma + 874 T/A were also investigated using amplification refractory mutation system polymerase chain reaction (ARMS-PCR). The frequencies between the groups were compared by Pearson's chi square statistical analysis. Plasma IFN-gamma and TNF-alpha were significantly elevated in HIV-TB and TB (p < 0.05) as compared to those in HS group. There was significant association between IFN-gamma + 874 ‘A’ allele and AA genotype in HIV-TB groups compared to HS and HIV (p < 0.05) and no such association was found for TNF-alpha-308 and -238. The plasma cytokine levels of TNF-alpha and IFN-gamma reveals no significant association with levels of IFN-gamma + 874 T/A, TNF-alpha-308 G/A and-238 G/A genotypes in any of the study groups. In conclusion, the present study revealed elevated plasma IFN-gamma and its +874 ‘A’ allele are associated with HIV-TB co-infection indicating 1.6 times increased risk for TB susceptibility."

According to the news editors, the research concluded: "Elevated TNF-alpha levels in TB and HIV-TB suggest its involvement in TB pathogenesis."

For more information on this research see: High levels of plasma interferon gamma and +874T/A gene polymorphism is associated with HIV-TB co-infection. Human Immunology, 2016;77(12):1264-1270. Human Immunology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Human Immunology - www.journals.elsevier.com/human-immunology/)

The news editors report that additional information may be obtained by contacting L.M. Suneetha, CODEWEL Nireekshana ACET, Hyderabad 500029, Telangana, India. Additional authors for this research include A. Sykam, S.P. Tenali, S. Suneetha and L.M. Suneetha.

Keywords for this news article include: Hyderabad, India, Asia, Intercellular Signaling Peptides and Proteins, Immunology, Genetics, Viral Sexually Transmitted Diseases

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Drugs and Therapies - Antibiotics

Study Data from VIT University Update Knowledge of Antibiotics (Effect of chitosan molecular weight of chitosan-citrate film on site specific in vitro release of Ofloxacin)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antibiotics are presented in a new report. According to news reporting originating in Tamil Nadu, India, by NewsRx journalists, research stated, "Chitosan, a biodegradable and biocompatible polysaccharide, is a potentially useful material in various fields. Chitosan films with different molecular weights (MW) of chitosan were developed followed by incorporation of Ofloxacin as a model drug by a casting/solvent evaporation technique."

The news reporters obtained a quote from the research from VIT University, "And citrate cross-linked films were prepared simply by dipping film into sodium citrate solution. The swelling ratio of citrate/chitosan film was sensitive to pH and ionic strength studied here. These films were characterized by release and swelling studies, Differential scanning colorimetry (DSC), Optical microscope coupled with Raman spectroscopy, Scanning electron colorimetry (SEM), Drug release based on cross linking time. Concentration of cross linking agent significantly influenced the in vitro release of drug as well of swelling of the films. The higher the MW of chitosan lower release rate was observed. The present study showed that MW and cross linking time of films regulated the varying swelling and drug release at pH 3.5 and pH 6.2."

According to the news reporters, the research concluded: "In addition, it indicated that the citrate/chitosan films were useful in drug delivery i.e. site-specific controlled drug release in stomach."

For more information on this research see: Effect of chitosan molecular weight of chitosan-citrate film on site specific in vitro release of Ofloxacin. *Journal of the Indian Chemical Society*, 2016;93(9):1107-1114. *Journal of the Indian Chemical Society* can be contacted at: Scientific Publ-India, 5-A, New Pali Rd, PO Box 91, Near Hotel Taj Hari Mahal, Jodhpur, 342 003, India.

Our news correspondents report that additional information may be obtained by contacting M. Shivashankar, VIT Univ, Pharmaceut Chem Div, Sch Adv Sci, Vellore 632014, Tamil Nadu, India. Additional authors for this research include B.K. Mandal and K. Uma.

Keywords for this news article include: Tamil Nadu, India, Asia, Ophthalmic Antinfectives, Ophthalmic Preparations, Drugs and Therapies, Otic Antiinfectives, Otic Preparations, Antibiotics, Quinolones, Ofloxacin, VIT University.

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**Congenital Diseases and Conditions - Congenital...**

**Study Data from Vanderbilt University Update Knowledge of Congenital Generalized Lipodystrophy (Characterization of a caveolin-1 mutation associated with both pulmonary arterial hypertension and congenital generalized lipodystrophy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Congenital Diseases and Conditions - Congenital Generalized Lipodystrophy. According to news originating from Nashville, Tennessee, by NewsRx correspondents, research stated, "Congenital generalized lipodystrophy (CGL) and pulmonary arterial hypertension (PAH) have recently been associated with mutations in the caveolin-1 (CAV1) gene, which encodes the primary structural protein of caveolae. However, little is currently known about how these CAV1 mutations impact caveolae formation or contribute to the development of disease."

Our news journalists obtained a quote from the research from Vanderbilt University, "Here, we identify a heterozygous F160X CAV1 mutation predicted to generate a C-terminally truncated mutant protein in a patient with both PAH and CGL using whole exome sequencing, and characterize the properties of CAV1, caveolae-associated proteins and caveolae in skin fibroblasts isolated from the patient. We show that morphologically defined caveolae are present in patient fibroblasts and that they function in mechanoprotection. However, they exhibited several notable defects, including enhanced accessibility of the C-terminus of wild-type CAV1 in caveolae, reduced colocalization of cavin-1 with CAV1 and decreased stability of both 8S and 70S oligomeric CAV1 complexes that are necessary for caveolae formation. These results were verified independently in reconstituted CAV1(-/-) mouse embryonic fibroblasts."

According to the news editors, the research concluded: "These findings identify defects in caveolae that may serve as contributing factors to the development of PAH and CGL and broaden our knowledge of CAV1 mutations associated with human disease."


The news correspondents report that additional information may be obtained from A.K. Kenworthy, Vanderbilt University, Dept. of Mol Physiol & Biophys, Nashville, TN 37221, United States. Additional authors for this research include C.A. Copeland, Y. Kawano, E.B. Rosenzweig, E.D. Austin, L. Shahmirzadi, S. Tang, K. Raghunathan, W.K. Chung and A.K. Kenworthy.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Intracellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Congenital Generalized Lipodystrophy, Signal Transducing Adaptor Proteins, Congenital Diseases and Conditions, Vesicular Transport Proteins, Lipid Metabolism Disorders, Membrane Proteins, Phosphoproteins, Hypertension, Caveolin 1, Caveolins, Genetics, Vanderbilt University.

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Central Nervous System Diseases and Conditions -

Study Data from Veterans Affairs Medical Center Provide New Insights into Brain Injuries [Microglial Activation Induced by the Alarmin S100B is Regulated by Poly(ADP-ribose) Polymerase-1]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Brain Injuries. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated, "Brain injury resulting from stroke or trauma can be exacerbated by the release of proinflammatory cytokines, proteases, and reactive oxygen species by activated microglia. The microglial activation resulting from brain injury is mediated in part by alarmins, which are signaling molecules released from damaged cells."

The news reporters obtained a quote from the research from Veterans Affairs Medical Center, "The nuclear enzyme poly(ADP-ribose) polymerase-1 (PARP-1) has been shown to regulate microglial activation after brain injury, and here we show that signaling effects of the alarmin S100B are regulated by PARP-1. S100B is a protein localized predominantly to astrocytes. Exogenous S100B added to primary microglial cultures induced a rapid change in microglial morphology, upregulation of IL-1 beta, TNF alpha, and iNOS gene expression, and release of matrix metalloproteinase 9 and nitric oxide. Most, though not all of these effects were attenuated in PARP-1(-/-) microglia and in wild-type microglia treated with the PARP inhibitor, veliparib. Microglial activation and gene expression changes induced by S100B injected directly into brain were likewise attenuated by PARP-1 inhibition."

According to the news reporters, the research concluded: "The anti-inflammatory effects of PARP-1 inhibitors in acutely injured brain may thus be mediated in part through effects on S100B signaling pathways."


Our news correspondents report that additional information may be obtained by contacting R.A. Swanson, San Francisco VA Med Center, San Francisco, CA, United States. Additional authors for this research include H.D. Wang, S.J. Won, J. Basu, D. Kapfhamer and R.A. Swanson.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Central Nervous System Diseases and Conditions, Poly(ADP-ribose) Polymerases, ADP Ribose Transferases, Enzymes and Coenzymes, Cranioencebral Trauma, Glycosyltransferases, Brain Injuries, Microglia, Neuroglia, Genetics, Veterans Affairs Medical Center.

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Study Data from Virginia University Medical Center Provide New Insights into Immunoglobulins (Monoclonal antibodies targeting CD38 in hematological malignancies and beyond)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immunology - Immunoglobulins. According to news reporting originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "CD38 is a multifunctional cell surface protein that has receptor as well as enzyme functions. The protein is generally expressed at low levels on various hematological and solid tissues, while plasma cells express particularly high levels of CD38."

Our news editors obtained a quote from the research from Virginia University Medical Center, "The protein is also expressed in a subset of hematological tumors, and shows especially broad and high expression levels in plasma cell tumors such as multiple myeloma (MM). Together, this triggered the development of various therapeutic CD38 antibodies, including daratumumab, isatuximab, and MOR202. Daratumumab binds a unique CD38 epitope and showed strong anti-tumor activity in preclinical models. The antibody engages diverse mechanisms of action, including complement-dependent cytotoxicity, antibody-dependent cellular cytotoxicity, antibody-dependent cellular phagocytosis, programmed cell death, modulation of enzymatic activity, and immunomodulatory activity. CD38-targeting antibodies have a favorable toxicity profile in patients, and early clinical data show a marked activity in MM, while studies in other hematological malignancies are ongoing. Daratumumab has single agent activity and a limited toxicity profile, allowing favorable combination therapies with existing as well as emerging therapies, which are currently evaluated in the clinic."

According to the news editors, the research concluded: "Finally, CD38 antibodies may have a role in the treatment of diseases beyond hematological malignancies, including solid tumors and antibody-mediated autoimmune diseases."


The news editors report that additional information may be obtained by contacting N.W. van de Donk, Dept. of Hematology, VU University Medical Center, Amsterdam, Netherlands. Additional authors for this research include M.L. Janmaat, T. Mutis, J.J. Lammerts van Bueren, T. Ahmadi, A.K. Sasser, H.M. Lokhorst and P.W Parren.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imr.12389. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Europe, Amsterdam, Immunology, Netherlands, Article Review, Blood Proteins, Immunoglobulins.

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Study Data from Wake Forest University Provide New Insights into Acidosis (Deletion of proton-sensing receptor GPR4 associates with lower blood pressure and lower binding of angiotensin II receptor in SFO)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Nutritional and Metabolic Diseases and Conditions - Acidosis have been published. According to news reporting from Winston Salem, North Carolina, by NewsRx journalists, research stated, "Diets rich in grains and meat and low in fruits and vegetables (acid-producing diets) associate with incident hypertension, whereas vegetarian diets associate with lower blood pressure (BP). However, the pathways that sense and mediate the effects of acid-producing diets on BP are unknown."

The news correspondents obtained a quote from the research from Wake Forest University, "Here, we examined the impact of the deletion of an acid sensor GPR4 on BP. GPR4 is a proton-sensing G protein-coupled receptor and an acid sensor in brain, kidney, and blood vessels. We found that GPR4 mRNA was higher in subfornical organ (SFO) than other brain regions. GPR4 protein was abundant in SFO and present in capillaries throughout the brain. Since SFO partakes in BP regulation through the renin-angiotensin system (RAS), we measured BP in GPR4-/- and GPR4+/+ mice and found that GPR4 deletion associated with lower systolic BP: 87 +/- 1 mmHg in GPR4-/- (n = 35) vs. 99 +/- 2 mmHg (n = 29) in GPR4+/+; P< 0.0001, irrespective of age and sex. Angiotensin II receptors detected by 125I-Sarthran binding were lower in GPR4-/- than GPR4-/- mice in SFO and in paraventricular nucleus of hypothalamus. Circulating angiotensin peptides were comparable in GPR4-/- and GPR4+/+ mice, as were water intake and excretion, serum and urine osmolality, and fractional excretion of sodium, potassium, or chloride. A mild metabolic acidosis present in GPR4-/- mice did not associate with elevated BP, implying that deficiency of GPR4 may preclude the effect of chronic acidosis on BP."

According to the news reporters, the research concluded: "Collectively, these results posit the acid sensor GPR4 as a novel component of central BP control through interactions with the RAS."

For more information on this research see: Deletion of proton-sensing receptor GPR4 associates with lower blood pressure and lower binding of angiotensin II receptor in SFO. American Journal of Physiology-Renal Physiology, 2016;311(6):F1260-F1266. American Journal of Physiology-Renal Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting S. Petrovic, Wake Forest Sch Med, Hypertens & Vasc Res Center, Winston Salem, NC, United States. Additional authors for this research include E. Tommasi, D. Molina, R. Sah, K.B. Brosnihan, D. Diz and S. Petrovic.

Keywords for this news article include: Winston Salem, North Carolina, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nerve Tissue Proteins, Acid-Base Imbalance, Biological Factors, Peptide Proteins, Peptide Hormones, Angiotensin II, Blood Pressure, Oligopeptides, Neuropeptides, Angiotensins, Autacoids, Peptides, Acidosis, Genetics, Wake Forest University.

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Study Data from Washington State University Provide New Insights into Environmental Health (Retest of a Principal Components Analysis of Two Household Environmental Risk Instruments)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Environmental Health have been presented. According to news reporting originating in Spokane, Washington, by NewsRx journalists, research stated, "Household Risk Perception (HRP) and Self-Efficacy in Environmental Risk Reduction (SEERR) instruments were developed for a public health nurse-delivered intervention designed to reduce home-based, environmental health risks among rural, low-income families. The purpose of this study was to test both instruments in a second low-income population that differed geographically and economically from the original sample."

The news reporters obtained a quote from the research from Washington State University, "Participants (N = 199) were recruited from the Women, Infants, and Children (WIC) program. Paper and pencil surveys were collected at WIC sites by research-trained student nurses. Exploratory principal components analysis (PCA) was conducted, and comparisons were made to the original PCA for the purpose of data reduction. Instruments showed satisfactory Cronbach alpha values for all components. HRP components were reduced from five to four, which explained 70% of variance. The components were labeled sensed risks, unseen risks, severity of risks, and knowledge. In contrast to the original testing, environmental tobacco smoke (ETS) items was not a separate component of the HRP. The SEERR analysis demonstrated four components explaining 71% of variance, with similar patterns of items as in the first study, including a component on ETS, but some differences in item location. Although low-income populations constituted both samples, differences in demographics and risk exposures may have played a role in component and item locations. Findings provided justification for changing or reducing items, and for tailoring the instruments to population-level risks and behaviors."

According to the news reporters, the research concluded: "Although analytic refinement will continue, both instruments advance the measurement of environmental health risk perception and self-efficacy."


Our news correspondents report that additional information may be obtained by contacting G.A. Oneal, Washington State University, Coll Nursing, Spokane, WA 99210, United States. Additional authors for this research include J. Postma, T. Odom-Maryon and P. Butterfield.

Keywords for this news article include: Spokane, Washington, United States, North and Central America, Environment, Risk and Prevention, Environmental Health, Washington State University.

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Cyclohexanes

Study Data from Washington University Provide New Insights into Cyclohexanes (A Clickable Analogue of Ketamine Retains NMDA Receptor Activity, Psychoactivity, and Accumulates in Neurons)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cyclohexanes. According to news reporting out of St. Louis, Missouri, by NewsRx editors, research stated, "Ketamine is a psychotomimetic and antidepressant drug. Although antagonism of cell-surface NMDA receptors (NMDARs) may trigger ketamine's psychoactive effects, ketamine or its major metabolite norketamine could act intracellularly to produce some behavioral effects."

Our news journalists obtained a quote from the research from Washington University, "To explore the viability of this latter hypothesis, we examined intracellular accumulation of novel visualizable analogues of ketamine/norketamine. We introduced an alkyne 'click' handle into norketamine (alkyne-norketamine, A-NK) at the key nitrogen atom. Ketamine, norketamine, and A-NK, but not A-NK-amide, showed acute and persisting psychoactive effects in mice. This psychoactivity profile paralleled activity of the compounds as NMDAR channel blockers; A-NK-amide was inactive at NMDARs, and norketamine and A-NK were active but similar to 4-fold less potent than ketamine. We incubated rat hippocampal cells with 10 mu M A-NK or A-NK-amide then performed Cu2+ catalyzed cycloaddition of azide-Alexa Fluor 488, which covalently attaches the fluorophore to the alkyne moiety in the compounds. Fluorescent imaging revealed intracellular localization of A-NK but weak A-NK-amide labeling. Accumulation was not dependent on membrane potential, NMDAR expression, or NMDAR activity. Overall, the approach revealed a correlation among NMDAR activity, intracellular accumulation/retention, and behavioral effects."

According to the news editors, the research concluded: "Thus, we advance first generation chemical biology tools to aid in the identification of ketamine targets."

For more information on this research see: A Clickable Analogue of Ketamine Retains NMDA Receptor Activity, Psychoactivity, and Accumulates in Neurons. Scientific Reports, 2016;6():1-17. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting S. Mennerick, Washington University, Sch Med, Dept. of Neurosci, St Louis, MO 63110, United States. Additional authors for this research include H.R. Li, X.P. Jiang, A. Benz, J. Boggiano, S. Conyers, D.F. Wozniak, C.F. Zorumski, D.E. Reichert and S. Mennerick.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Central Nervous System Agents, Drugs and Therapies, General Anesthetics, Ketamine Therapy, Hydrocarbons, Cyclohexanes, Analgesics, Washington University.

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Cyclohexanes

Study Data from Washington University Update Knowledge of Cyclohexanes (Role of Cytochrome P4502B6 Polymorphisms in Ketamine Metabolism and Clearance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cyclohexanes is the subject of a report. According to news reporting from St. Louis, Missouri, by NewsRx journalists, research stated, "At therapeutic concentrations, cytochrome P4502B6 (CYP2B6) is the major P450 isoform catalyzing hepatic ketamine N-demethylation to norketamine in vitro. The CYP2B6 gene is highly polymorphic."

The news correspondents obtained a quote from the research from Washington University, "The most common variant allele, CYP2B6*6, is associated with diminished hepatic CYP2B6 expression and catalytic activity compared with wild-type CYP2B6*1/*1. CYP2B6.6, the protein encoded by the CYP2B6*6 allele, and liver microsomes from CYP2B6*6 carriers had diminished ketamine metabolism in vitro. This investigation tested whether humans with the CYP2B6*6 allele would have decreased clinical ketamine metabolism and clearance. Thirty volunteers with CYP2B6*1/*1, *1/*6, or *6/*6 genotypes (n = 10 each) received a subEdosing dose of oral ketamine. Plasma and urine concentrations of ketamine and the major CYP2B6-dependent metabolites were determined by mass spectrometry. Subjects' self-assessment of ketamine effects were also recorded. The primary outcome was ketamine N-demethylation, measured as the plasma norketamine/ketamine area under the curve ratio. Secondary outcomes included plasma ketamine enantiomer and metabolite area under the plasma concentration-time curve, maximum concentrations, apparent oral clearance, and metabolite formation clearances. There was no significant difference between CYP2B6 genotypes in ketamine metabolism or any of the secondary outcome measures. Subjective self-assessment did reveal some differences in energy and level of awareness among subjects. These results show that while the CYP2B6*6 polymorphism results in diminished ketamine metabolism in vitro, this allelic variant did not affect single, low-dose ketamine metabolism, clearance, and pharmacokinetics in vivo."

According to the news reporters, the research concluded: "While in vitro drug metabolism studies may be informative, clinical investigations in general are needed to validate in vitro observations."

For more information on this research see: Role of Cytochrome P4502B6 Polymorphisms in Ketamine Metabolism and Clearance. Anesthesiology, 2016;125(6):1103-1112. Anesthesiology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Anesthesiology - journals.lww.com/anesthesiology/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting L.K. Rao, Washington University, Dept. of Anesthesiol, Div Clin & Translat Res, St Louis, MO, United States. Additional authors for this research include A.M. Flaker, C.C. Friedel and E.D. Kharasch.

Keywords for this news article include: St. Louis, Missouri, United States, North and Central America, Central Nervous System Agents, Drugs and Therapies, General Anesthetics, Ketamine Therapy, Hemeproteins, Hydrocarbons, Cyclohexanes, Cytochromes, Analgesics, Proteins, Washington University.

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Study Data from Wenzhou Medical University Update Knowledge of Liver Cancer (AKT/mTOR signaling pathway is involved in salvianolic acid B-induced autophagy and apoptosis in hepatocellular carcinoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Liver Cancer. According to news originating from Zhejiang, People's Republic of China, by NewsRx correspondents, research stated, "Chinese medicines are emerging as an attractive new generation of anticancer drugs. Here, we explored the impact of salvianolic acid B (Sal B), the major water-soluble compounds of Danshen, on apoptosis and autophagy of human hepatocellular carcinoma cells (HCC)."

Our news journalists obtained a quote from the research from Wenzhou Medical University, "We also investigated the related molecular mechanisms. We found that Sal B exhibits potent ability to inhibit HCC cells viability in a concentration-dependent manner, and to induce apoptosis via the mitochondrial apoptosis pathway. Additionally, Sal B could also induce autophagy. Furthermore, pretreatment with the autophagy inhibitor chloroquine or 3-methyladenine showed the potential in attenuating the apoptosis rate induced by Sal B. Mechanistically, Sal B treatment inhibited the AKT/mTOR signaling cascade in vitro. Overexpression of AKT abolished the effects of Sal B on HCC cells, suggesting a critical role of the AKT/mTOR signaling pathway in Sal B-induced biological effects. Our results indicated that the mitochondrial pathway was involved in Sal B-induced apoptosis of HCC cells. Moreover, the AKT/mTOR signaling pathway was involved in Sal B-induced autophagy, which promoted apoptosis."

According to the news editors, the research concluded: "This study may provide a promising strategy for using Sal B as a chemotherapeutic agent for patients with HCC."

For more information on this research see: AKT/mTOR signaling pathway is involved in salvianolic acid B-induced autophagy and apoptosis in hepatocellular carcinoma cells. International Journal of Oncology, 2016;49(6):2538-2548. International Journal of Oncology can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

The news correspondents report that additional information may be obtained from W. Zhang, Wenzhou Med Univ, Dept. of Pharm, Affiliated Hosp 1, Wenzhou 325000, Zhejiang, People's Republic of China. Additional authors for this research include C. Di, X. Xia, J. Wang, G. Chen, J. Shi, P. Chen, H. Xu and W. Zhang.

Keywords for this news article include: Zhejiang, People's Republic of China, Asia, Liver Cancer, Carcinomas, Apoptosis, Oncology, Wenzhou Medical University.

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**Fibroblasts**

**Study Data from Wuhan University Update Knowledge of Fibroblasts**

(MicroRNA221-3p modulates Ets-1 expression in synovial fibroblasts from patients with osteoarthritis of temporomandibular joint)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Fibroblasts. According to news originating from Wuhan, People's Republic of China, by NewsRx correspondents, research stated, "This study aimed to screen differential expression of microRNAs (miRNAs), and investigate function of the specifically selected miRNA in synovial fibroblasts from patients suffering osteoarthritis of temporomandibular joint (TMJOA). MiRNA microarray was used to select differentially expressed miRNAs between TMJOA and normal synovial fibroblasts."

Financial support for this research came from National Science Foundation of China.

Our news journalists obtained a quote from the research from Wuhan University, "The expression of screened miRNA221-3p was quantified using real-time PCR, and its specific target gene was predicted by bioinformatics. After transfection of miRNA221-3p mimics or inhibitor into synovial fibroblasts, the expression of v-Ets avian erythroblastosis virus E26 oncogene homolog 1 (Ets-1) was detected by immunohistochemistry, real-time PCR and Western blot, respectively. Dual luciferase activity was performed to identify the direct regulation of miRNA221-3p on Ets-1. Interlukin-1 beta (IL-1 beta) mimics an inflammatory situation. In TMJOA synovial fibroblasts, eight miRNAs were up-regulated and six miRNAs were down-regulated. MiRNA221-3p was the most down-expressed. A sequence in the 3'-untranslated (3'-UTR) of Ets-1 complementary to the seed sequence of miRNA221-3p. Elevated expression of Ets-1 associated with attenuation of miRNA221-3p. Over-expression of miRNA221-3p suppressed the activity of a reporter construct containing the 3'-UTR of Ets-1 transcript and inhibited the expression of Ets-1 as well as its downstream molecules, matrix metalloproteinase 1 (MMP1) and MMP9 in TMJOA synovial fibroblasts. IL-1 beta suppressed the expression of miRNA221-3p in both a dose-dependent and time-dependent manner."

According to the news editors, the research concluded: "The reduction of miRNA221-3p in synovial fibroblasts, attributed from abundance of IL-1 beta in inflamed circumstance, induces Ets-1 up-regulation and then, initiates MMP1 and MMP9 secretion, thereby leading to continuously pathological development in TMJOA."


The news correspondents report that additional information may be obtained from X. Long, Wuhan University, Sch & Hosp Stomatol, Dept. of Oral & Maxillofacial Surg, Wuhan 430079, Hubei Province, People's Republic of China. Additional authors for this research include Y. Liu, M. Deng, J. Li, H. Cai, Q. Meng, W. Fang, X. Long and J. Ke.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.joca.2016.06.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia,
Study Data from X.H. Zhao et al Provide New Insights into Oncology (MiR-203 promotes the growth and migration of ovarian cancer cells by enhancing glycolytic pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology. According to news originating from Haikou, People's Republic of China, by NewsRx correspondents, research stated, "MicroRNAs (miRNAs) play an important role in the tumorigenesis of ovarian cancer. Previously, we have reported the dysregulation of miR-203 in the ovarian cancer tissues."

Financial support for this research came from China Tobacco Guangxi Industrial.

Our news journalists obtained a quote from the research, "However, the biological functions and molecular mechanisms of miR-203 in ovarian cancer remain unknown. Here, we showed that the expression of miR-203 was increased in ovarian cancer tissues compared with the adjacent non-cancerous tissues and the transcription of miR-203 was inhibited by P53. Forced expression of miR-203 in ovarian cancer promoted cell growth and migration, while depletion of miR-203 inhibited the growth and migration of ovarian cancer cells. In addition, miR-203 promoted the metastasis of ovarian cancer cells in vivo and shortened the survival of the nude mice. Mechanically, miR-203 targeted the 3'-UTR of pyruvate dehydrogenase B (PDHB) and increased the consumption of glucose and the production of lactate. Overexpression of PDHB abolished the oncogenic effects of miR-203 on the growth of ovarian cancer cells."

According to the news editors, the research concluded: "Together, our data suggested the oncogenic roles of miR-203 in ovarian cancer by promoting glycolysis, and miR-203 might be a therapeutic target for ovarian cancer."

For more information on this research see: MiR-203 promotes the growth and migration of ovarian cancer cells by enhancing glycolytic pathway. Tumor Biology, 2016;37 (11):14989-14997. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news correspondents report that additional information may be obtained from S.S. Wang, Maternal & Child Hlth Hosp Hainan Prov, Haikou 570206, Hainan Province, People's Republic of China. Additional authors for this research include L.C. Fan, N. Xie, K.J. Zou, X.L. Xiao and S.S. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5415-1. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Haikou, People's Republic of China, Asia, Oncology, Genetics, Cancer.

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Study Data from Xuzhou Medical College Update Knowledge of Lipopolysaccharides (Induction of heat shock protein 27 by bicyclol attenuates D-galactosamine/lipopolysaccharide-induced liver injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Lipopolysaccharides are discussed in a new report. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Heat shock proteins (Hsps) are critical for cell survival under adverse environmental conditions. Bicyclol is a novel hepatoprotectant that has been shown to protect against liver injury by inducing Hsps, including Hsp27 and Hsp70."

Financial support for this research came from National Natural Science Foundation of China, China.

The news correspondents obtained a quote from the research from Xuzhou Medical College, "Although the role of Hsp70 in protecting against acute hepatic failure has been clearly explored, the precise function of Hsp27 in this setting is poorly defined. This study was undertaken to evaluate the role of Hsp27 in bicyclol-mediated hepatoprotection. Both primary hepatocytes and bone marrow-derived macrophages were subjected to bicyclol treatment, followed by detection of Hsp27 expression. Adenoviruses containing the mouse Hsp27 coding sequence or shRNA interference sequence targeting Hsp27 were used to manipulate Hsp27 expression in the liver before the mice were treated with bicyclol and/or confronted with D-galactosamine/lipopolysaccharide (Galn/LPS)-induced acute liver damage. Only hepatocytes increased their Hsp27 expression after bicyclol treatment and the time course of bicyclol-induced Hsp27 expression in hepatocytes was in line with the in vivo results. Although high dose bicyclol could protect against liver failure without Hsp27, the effect of bicyclol given at a low dose was dependent on Hsp27 induction. Adenovirus-mediated transduction of Hsp27 protected against acute liver damage and partially replicated the protective effect afforded by bicyclol. These results demonstrated that bicyclol induced Hsp27 expression in hepatocytes, which was essential to bicyclol-mediated hepatoprotection."

According to the news reporters, the research concluded: "Overexpression of Hsp27 in hepatocytes could confer remarkable protection against acute liver damage."


Our news journalists report that additional information may be obtained by contacting Y.G. Song, Affiliated Huaian Hosp, Xuzhou Medical College, Dept. of Thyroid & Breast Ontol Surg, Huaian 223001, Jiangsu, People's Republic of China. Additional authors for this research include D.W. Li, Y.X. Wang, A.J. Sun, Y.X. Lu, Xin-Ding, Ming-Zhang, Y.G. Song and X.D. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia,
Study Data from Y. Ito and Co-Authors Update Knowledge of Vasculitis
(Successful treatment of Bordetella bronchiseptica pneumonia by minocycline in anti-neutrophil cytoplasmic antibodies-associated vasculitis patient)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Cardiovascular Diseases and Conditions - Vasculitis. According to news reporting originating from Shizuoka, Japan, by NewsRx correspondents, research stated, "Bordetella bronchiseptica is a bacterial pathogen usually isolated from animals and rarely causes human infections. There are, however, some reports that B. bronchiseptica causes human respiratory infections in immunocompromised patients or those with underlying respiratory diseases, although there is a lack of treatment guidelines."

Our news editors obtained a quote from the research, "An 80-year-old woman was admitted to our hospital to treat anti-neutrophil cytoplasmic antibodies-associated vasculitis. On the 16th day after admission, she complained of a productive cough with right pleuritic pain and had low-grade fever. After chest CT scans, we diagnosed pneumonia. Gram stain of her sputum revealed moderate levels of gram-negative coccobacilli, which was later identified as B. bronchiseptica by mass spectrometry. According to the result of minimum inhibitory concentration, we successfully treated the pneumonia with minocycline."

According to the news editors, the research concluded: "This case suggests that B. bronchiseptica pneumonia can be treated by minocycline if the minimum inhibitory concentration is less than 0.25 µg/mL."

For more information on this research see: Successful treatment of Bordetella bronchiseptica pneumonia by minocycline in anti-neutrophil cytoplasmic antibodies-associated vasculitis patient. *Journal of Infection and Chemotherapy*, 2016;22(12):808-810. *Journal of Infection and Chemotherapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Springer - www.springer.com; Journal of Infection and Chemotherapy - www.springerlink.com/content/1341-321x/)

The news editors report that additional information may be obtained by contacting Y. Ito, Chutoen Gen Med Center, Dept. of Gen Internal Med, Shizuoka, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jiac.2016.06.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shizuoka, Japan, Asia, Respiratory Tract Diseases and Conditions, Cardiovascular Diseases and Conditions, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Lung Diseases and Conditions, Respiratory Tract Infections, Bordetella bronchiseptica, Hemic and Immune Systems, Gram-Negative Bacteria, Betaproteobacteria, Infectious Disease, Immunoglobulins, Blood Proteins, Alcaligenaceae, Proteobacteria, Tetracyclines, Granulocytes, Minocycline, Blood Cells,
Oncology - Lung Cancer

Study Data from Yale University Update Knowledge of Lung Cancer (Outcomes of a Highly Selective Surgical Approach to Oligometastatic Lung Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Lung Cancer. According to news reporting originating from New Haven, Connecticut, by NewsRx correspondents, research stated, "A highly selected subset of patients with oligometastatic non-small cell lung cancer (NSCLC) will be cured after all sites of established disease (primary and metastases) have been eliminated by surgery or radiation (ie, 'curative intent' approach). Mediastinal lymph node metastases (N2) have been found retrospectively to predict a poor prognosis in this setting (5-year survival of 4% for N2-positive versus 31% for N2-negative)."

Our news editors obtained a quote from the research from Yale University, "Hence, our institution has programmatically limited the use of curative intent local therapy to oligometastatic NSCLC patients confirmed to be free of N2 disease. However, it is unclear whether the exclusion of N2-positive patients is an effective prospective selection step to aggressively treat oligometastatic NSCLC. A prospectively maintained institutional tumor registry was reviewed for oligometastatic stage IV NSCLC patients evaluated for curative intent treatment from 2005 to 2014. All synchronous oligometastatic NSCLC cases were evaluated by invasive mediastinal staging before treatment. Twenty-two patients without N2 disease underwent curative intent treatment, and 13 patients with N2 disease were treated palliatively. The groups were similar by bivariate analyses. The N2-negative patients treated with curative intent had a superior 5-year survival compared with N2-positive patients treated palliatively (58% versus 0%, respectively; p = 0.028). Using invasive mediastinal staging to exclude N2 disease has a role in surgical decision making and achieving long-term survival among oligometastatic NSCLC patients."

According to the news editors, the research concluded: "Further study is warranted to determine whether a subset of patients with N2 disease also have the potential for long-term survival with local therapy."


The news editors report that additional information may be obtained by contacting D.J. Boffa, Yale University, Sch Med, Dept. of Thorac Surg, New Haven, CT, United States. Additional authors for this research include J.E. Rosen, M.C. Salazar and D.J. Boffa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.04.086. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Haven, Connecticut, United States,
Study Data from Yamaguchi University Provide New Insights into Aminoglycosides (Quercetin protects against hair cell loss in the zebrafish lateral line and guinea pig cochlea)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Aminoglycosides is now available. According to news originating from Yamaguchi, Japan, by NewsRx correspondents, research stated, "Eighteen supplement drugs were screened using hair cells to determine a protective effect against the adverse effects of neomycin by using the zebrafish lateral line. The zebrafish were administered the supplement drugs 1 h before neomycin exposure."

Our news journalists obtained a quote from the research from Yamaguchi University, "One hour later, animals were fixed in paraformaldehyde. Dose-response curves were generated to evaluate the protective effect on hair cells. The screen identified 3 supplements (quercetin, catechin and tannic acid). Three minutes after exposure to neomycin, increased antioxidant activity was found in the lateral line hair cells, as determined by the analysis of oxidative stress. Quercetin decreases antioxidant activity. The identified drugs were also investigated to determine whether they protect the cochlea against noise-induced hearing loss in guinea pigs. The drugs were administered via the intraperitoneal route in the guinea pigs 3 days before and 4 days after noise exposure. Seven days after noise exposure (130-dB sound pressure level for 3 h), the auditory brainstem response threshold shifts were assessed. We observed that the auditory brainstem response threshold shift was significantly less in the quercetin group than in the vehicle control group."

According to the news editors, the research concluded: "The results of our study indicate that screening drugs using zebrafish can determine additional protective drugs for the inner ear."

For more information on this research see: Quercetin protects against hair cell loss in the zebrafish lateral line and guinea pig cochlea. Hearing Research, 2016;342():80-85. Hearing Research can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Hearing Research - www.journals.elsevier.com/hearing-research/)

The news correspondents report that additional information may be obtained from Y. Hirose, Yamaguchi University, Dept. of Otolaryngol, Grad Sch Med, Ube, Yamaguchi 7558505, Japan. Additional authors for this research include K. Sugahara, E. Kanagawa, Y. Takemoto, M. Hashimoto and H. Yamashita.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.heares.2016.10.001. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yamaguchi, Japan, Asia, Drugs and Therapies, Aminoglycosides, Antiinfectives, Neomycin, Yamaguchi University.
Study Data from Yang Ming National University Update Knowledge of Colon Cancer (Serum CA125 concentration as a predictor of peritoneal dissemination of colorectal cancer in men and women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Colon Cancer. According to news reporting from Taipei, Taiwan, by NewsRx journalists, research stated, "Peritoneal dissemination (PD) of cancer is difficult to diagnose. Previous reports have shown that carbohydrate antigen 125 (CA125) is a sensitive marker of PD of gastric cancer."

The news correspondents obtained a quote from the research from Yang Ming National University, "However, CA125 has not been evaluated as a marker of colorectal cancer (CRC), and its accuracy in men is controversial. The aim of this study was to compare the ability of CA125 and carcinoembryonic antigen (CEA) to predict PD of CRC in men and women. Preoperative CA125 and CEA concentrations were measured in 853 people (510 men, 343 women) over 10 years. PD was confirmed intraoperatively in 57 patients. The predictive ability was compared between CA125 and CEA. Compared with CEA, CA125 concentration had a lower sensitivity, higher specificity, and diagnostic accuracy, and significantly greater area under the curve. Further analysis of CA125's sensitivity and specificity among CEA-negative group (n=514) showed acceptable sensitivity (57.1%) and good specificity (92.0%). In men and women, CA125 concentration did not increase with stage from I to IV unless PD was present (P <0.001). CEA concentration was increased in women with metastasis with PD (P <0.001) or without PD (P <0.001), but was increased only in men with metastasis without PD (P <0.01). CA125 concentration correlated with PD grade for men and women, but CEA concentration correlated with grade only in women. When analyzed according to the primary tumor site, CA125 concentration in men did not differ between patients with the primary site in the right or left colon, or the rectum, regardless of PD status. By contrast, CA125 concentration differed between PD-positive and PD-negative patients with cancer in the right (P <0.001) or left (P <0.001) colon but not in the rectum. CEA concentration in men did not differ according to the primary site or PD status. In women, CA125 and CEA concentrations differed significantly between the PD-positive and PD-negative groups in patients with the primary tumor in the right (P <0.001) or left (P <0.001) colon; tumor sites did not differ between the PD-positive and PD-negative groups."

According to the news reporters, the research concluded: "These findings suggest that CA125 is a better tumor marker than CEA for predicting PD of CRC in both men and women."

For more information on this research see: Serum CA125 concentration as a predictor of peritoneal dissemination of colorectal cancer in men and women. Medicine, 2016;95(47):60-65. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

Our news journalists report that additional information may be obtained by contacting S.H. Yang, Yang Ming National University, Taipei Veterans General Hospital, Dept. of Surg, Div Expt Surg, Taipei, Taiwan. Additional authors for this research include J.K. Jiang,

Keywords for this news article include: Taipei, Taiwan, Asia, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Yang Ming National University.

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**Oncology - Thyroid Cancer**

**Study Data from Yonsei University Update Knowledge of Thyroid Cancer [c-Met-Mediated Reactivation of PI3K/AKT Signaling Contributes to Insensitivity of BRAF(V600E) Mutant Thyroid Cancer to BRAF Inhibition]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Thyroid Cancer are presented in a new report. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "BRAF (V600E) mutation is the most commonly detected genetic alteration in thyroid cancer. Unlike its high treatment response to selective BRAF inhibitor (PLX4032) in metastatic melanoma, the treatment response in thyroid cancer is reported to be low."

The news reporters obtained a quote from the research from Yonsei University, "The purpose of this study is to investigate the resistance mechanism responsible for this low treatment response to BRAF inhibitor in order to maximize the effect of targeted therapy. We examined the expression of feedback regulation mechanisms and alterations in the upper signal transduction pathway in thyroid cancer cell lines harboring BRAF mutation. Also, we investigated the effect of dual inhibition from combinatorial therapy. Two thyroid cancer cell lines, 8505C (anaplastic thyroid cancer) and BCPAP (papillary thyroid cancer) were selected and treated with PLX4032 and its drug sensitivity were examined and compared. Further investigation on the changes in signals responsible for the different treatment response to PLX4032 was carried out and the same experiment was performed on orthotopic xenograft mouse models. Unlike BCPAP cells, 8505C cells presented drug resistance to PLX4032 treatment and this was mainly due to increased expression of c-Met. Effective inhibitions of c-Met, p-AKT, and p-ERK were achieved after dual treatment with BRAF inhibitor (PLX4032) and c-Met inhibitor (PHA665752). Similar results were confirmed by in vivo study with orthotopic xenograft mouse model. c-Met-mediated reactivation of the PI3K/AKT pathway and MAPK pathway contributes to the relative insensitivity of BRAF (V600E) mutant anaplastic thyroid cancer cells to PLX4032."

According to the news reporters, the research concluded: "Dual inhibition of BRAF and c-Met leads to sustained treatment response."


Our news correspondents report that additional information may be obtained by contacting Y.W. Koh, Yonsei University, Coll Med, Dept. of Otorhinolaryngol, Seoul, South Korea. Additional authors for this research include H.J. Na, Y.J. Yang, H.J. Kwon, J.W. Chang,

Keywords for this news article include: Seoul, South Korea, Asia, Xenotransplantation, Thyroid Neoplasms, Thyroid Cancer, Biotechnology, Xenografts, Oncology, Genetics, Yonsei University.

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Nutritional and Metabolic Diseases and Conditions...

Study Data from Z. Sayeed and Co-Authors Update Knowledge of Obesity (Comparing In-Hospital Total Joint Arthroplasty Outcomes and Resource Consumption Among Underweight and Morbidly Obese Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Obesity have been presented. According to news reporting originating in Springfield, Illinois, by NewsRx journalists, research stated, "As orthopedic surgeons search for objective measures that predict total joint arthroplasty (TJA) outcomes, body mass index may aid in risk stratification. The purpose of this study was to compare in-hospital TJA outcomes and resource consumption amongst underweight (body mass index <= 19 kg/m(2)) and morbidly obese patients (>= 40 kg/m(2))."

The news reporters obtained a quote from the research, "Discharge data from 2006 to 2012 National Inpatient Sample were used for this study. A total of 1503 total hip arthroplasty (THA) and 956 total knee arthroplasty (TKA) patients were divided into 2 cohorts, underweight (<= 19 kg/m(2)) and morbidly obese (>= 40 kg/m(2)). Patients were matched by gender and 27 comorbidities by use of Elixhauser Comorbidity Index. Patients were compared for 13 in-hospital postoperative complications, length of stay, total hospital charge, and disposition. Multivariate analyses were generated by SAS software. Significance was assigned at P value <.05. Underweight patients undergoing primary TJA had higher risk for developing postoperative anemia compared with morbidly obese patients (TKA: odds ratio [ OR], 3.1; 95% CI, 2.3-4.1; THA: OR, 1.8; 95% CI, 1.5-2.3). Underweight THA candidates displayed greater risk for deep venous thrombosis (75.36% vs 24.64%; OR, 3.1; 95% CI, 1.1-8.4). Underweight TJA patients were charged more (TKA: USD 51,368.90 vs USD 40,128.80, P = .001, THA: USD 57,451.8 vs USD 42,776.9, P< .001) compared to the morbidly obese patients. Length of stay was significantly longer for underweight THA patients (4.6 days vs 3.5 days, P = .008) compared to morbidly obese counterparts."

According to the news reporters, the research concluded: "Our results indicate underweight, compared to morbidly obese, TJA patients are at a greater risk for postoperative anemia and consume more resources."


Our news correspondents report that additional information may be obtained by
contacting K.J. Saleh, Orthopaed Educ Inc, Springfield, IL 62711, United States. Additional authors for this research include A.A. Anoushiravani, M.C. Chambers, T.J. Gilbert, S.L. Scaife, M.M. El-Othmani and K.J. Saleh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.arth.2016.03.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Springfield, Illinois, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Hematologic Diseases and Conditions, Surgery, Risk and Prevention, Orthopedic Procedures, Knee Arthroplasty, Hip Arthroplasty, Bariatrics, Hospital, Obesity, Anemia.

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Oncology - Liver Cancer

Study Data from Zhejiang University Provide New Insights into Liver Cancer (Synchronous occurrence of a hepatic myelolipoma and two hepatocellular carcinomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Liver Cancer. According to news originating from Hangzhou, People's Republic of China, by NewsRx correspondents, research stated, "Myelolipoma is a rare tumor composed of fat and bone marrow components, most of which are located in the adrenal gland. Myelolipoma in the liver is extremely rare."

Our news journalists obtained a quote from the research from Zhejiang University, "To date, only 10 cases have been reported in the English-language medical literature. In one of these cases, the hepatic myelolipoma was found within a hepatocellular carcinoma (HCC). In the present study, we report the first case of the synchronous occurrence of hepatic myelolipoma and HCCs in different liver sections of one patient, a 26-year-old female who was admitted to our hospital because of a 4-d history of upper abdominal pain. The unenhanced computed tomography (CT) images showed a well-defined low-density mass with adipose components in the right liver lobe, 4.2 cm x 4.1 cm in size. Two inhomogeneous low-density masses were found in the left liver lobe, 8.6 cm x 7.7 cm and 2.6 cm x 2.6 cm in size. The masses in both the right and left liver lobes were heterogeneously enhanced in the contrast-enhanced CT images. Based on the results of the imaging examination, the mass in the right liver lobe was preliminarily considered to be a hamartoma, and the two masses in the left liver were preliminarily considered to be HCCs. We performed a right hepatectomy, a left hepatic lobectomy, and a cholecystectomy."

According to the news editors, the research concluded: "Microscopic and immunohistochemical results revealed that the tumor in the right liver lobe was a hepatic myelolipoma, and that the two tumors in the left liver lobe were HCCs."

The news correspondents report that additional information may be obtained from W.L. Wang, Zhejiang University, Collaborat Innovat Center Diag & Treatment Infect Di, Hangzhou 310003, Zhejiang, People's Republic of China. Additional authors for this research include H.Y. Xie, L. Zhou, S.S. Zheng and W.L. Wang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i43.9654. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Myelolipomas, Liver Cancer, Carcinomas, Oncology, Zhejiang University.

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**Immune System Diseases and Conditions - Graft-...**

**Study Data from Zhengzhou University Update Understanding of Graft-Versus-Host Disease (Transforming growth factor-b1 polymorphisms and graft-versus-host disease risk: a meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - Graft-Versus-Host Disease. According to news reporting originating in Zhengzhou, People's Republic of China, by NewsRx journalists, research stated, "Some studies have demonstrated that transforming growth factor (TGF)-b polymorphisms may have an important role in the pathological process of graft-versus-host disease (GVHD). However, the results are not consistent."

The news reporters obtained a quote from the research from Zhengzhou University, "Thus, we performed a meta-analysis. Online databases were searched to obtain relevant articles published up until May 2015. Odds ratios (ORs) with 95% confidence intervals (CIs) were used to assess the strength of associations. Donors (OR=0.56; 95%CI, 0.32-0.98; p=0.04) and recipients (OR=0.73; 95%CI, 0.63-0.85; p=0.0001) with TGF-b1 rs1800469 polymorphism showed decreased GVHD risk, respectively. Donors with TGF-b1 rs1800470 polymorphism were also observed to have lower GVHD risk (OR=0.65; 95%CI, 0.46-0.94; p=0.02). However, TGF-b1 rs1800470 polymorphism in recipients was not associated with GVHD risk (OR=1.28; 95%CI, 0.81-2.01; p=0.29). No significant heterogeneity was found in the meta-analysis."

According to the news reporters, the research concluded: "This meta-analysis suggests that donors or recipients with TGF-b1 rs1800469 polymorphism and donors with TGF-b1 rs1800470 polymorphism might be associated with reduced GVHD risk."


Our news correspondents report that additional information may be obtained by contacting L. Zhang, Dept. of Clinical Laboratory, The Fifth Affiliated Hospital of Zhengzhou University, Zhengzhou, Henan, People's Republic of China. Additional authors for this research include L. Mao and J. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6289. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Asia, Genetics, Zhengzhou, Graft Versus Host Disease, Graft-Versus-Host Disease, People's Republic of China, Transforming Growth Factors, TGF beta Superfamily Proteins, Immune System Diseases and Conditions, Intercellular Signaling Peptides and Proteins.

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Oncology - Gliomas

**Study Findings from Aligarh Muslim University Provide New Insights into Gliomas (Potential role of Shh-Gli1-BMI1 signaling pathway nexus in glioma chemoresistance)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gliomas. According to news reporting from Aligarh, India, by NewsRx journalists, research stated, "Chemoresistance is a common hurdle for the proper treatment of gliomas. The role of Shh-Gli1 signaling in glioma progression has been reported."

Financial support for this research came from Department of Biotechnology, Govt. of India, New Delhi.

The news correspondents obtained a quote from the research from Aligarh Muslim University, "However, its role in glioma chemoresistance has not been well studied yet. In this work, we found that Shh-Gli1 signaling regulates the expression of one stem cell marker, BMI1 (B cell-specific Moloney murine leukemia virus), in glioma. Interestingly, we also demonstrated high expression of MRP1 (multi-drug resistance protein 1) in glioma. MRP1 expression was decreased by BMI1 siRNA and Shh-Gli1 cell signaling specific inhibitor GANT61 in our experiments. GANT61 very efficiently inhibited cell colony growth in glioma cell lines, compared to temozolomide. Moreover, a synergic effect of GANT61 and temozolomide drastically decreased the LD50 of temozolomide in the cell colony experiments. Therefore, our results suggest that there is a potential nexus of Shh-Gli1-BMI1 cell signaling to regulate MRP1 and to promote chemoresistance in glioma."

According to the news reporters, the research concluded: "Henceforth, our study opens the possibility of facing new targets, Gli1 and BMI1, for the effective treatment of glioma suppression of chemoresistance with adjuvant therapy of GANT61 and temozolomide."


Our news journalists report that additional information may be obtained by contacting M.H. Shahi, Aligarh Muslim University, Fac Med, Interdisciplinary Brain Res Center, Aligarh 202002, UP, India. Additional authors for this research include S. Farheen, M.P.M. Mariyath and J.S. Castresana.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5365-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aligarh, India, Asia, Temozolomide
Dermatology - Cosmetic Dermatology

Study Findings from Autonomous University Broaden Understanding of Cosmetic Dermatology (Relationship between transient receptor potential vanilloid-1 expression and the intensity of sensitive skin symptoms)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Dermatology - Cosmetic Dermatology have been published. According to news reporting originating from San Luis Potosi, Mexico, by NewsRx correspondents, research stated, "Sensitive skin (SS) is a hyper-reactive condition of the skin secondary to external factors, without objective signs of lesion. Its pathogenesis is still under investigation."

Our news editors obtained a quote from the research from Autonomous University, "Transient receptor potential vanilloid-1 (TRPV1) is a cation channel that responds to low pH and is related to nociception, neurogenic inflammation, and pruritus. To determine the expression of TRPV1 in subjects with SS and correlate it with the degree of symptoms and skin pigmentation. We included 31 subjects self-diagnosed as having SS. Colorimetric values were obtained for assessment of skin phototype, and the lactic acid stinging test (LAST) was performed. Two skin biopsies from the nasolabial fold of each volunteer were obtained. Qualitative analysis of TRPV1 was carried out with immunohistochemistry. Quantitative analysis of TRPV1 was carried out with qRT-PCR. LAST was positive in 74% of the subjects, 56% of those having tan and brown skin. Immunohistochemistry staining for TRPV1 was greater in positive subjects (P = 0.03), but showed no correlation with the intensity of symptoms. Positive subjects also had higher TRPV1 mRNA expression compared to negative subjects (P < 0.001). This expression showed a positive correlation with the intensity of referred symptoms (R = 0.75, P < 0.001) and skin pigmentation (R = 0.63, P < 0.001). TRPV1 expression is upregulated in subjects with sensitive skin, and it correlates with the intensity of the symptoms."

According to the news editors, the research concluded: "Our findings suggest a role for this receptor in the pathogenesis of sensitive skin syndrome."


The news editors report that additional information may be obtained by contacting J.P. Castanedo-Cazares, Univ Autonoma San Luis Potosi, Hosp Cent Dr Ignacio Morones Prieto, Dept. of Dermatol, San Luis Potosi, Mexico. Additional authors for this research include B. Torres-Alvarez, D. Cortes-Garcia, D. Hernandez-Blanco, C. Fuentes-Ahumada and J.P. Castanedo-Cazares.
Immunology - Immunoglobulins

Study Findings from B. Liu et al Provide New Insights into Immunoglobulins [A Novel Fusion of ALT-803 (Interleukin (IL)-15 Superagonist) with an Antibody Demonstrates Antigen-specific Antitumor Responses]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immunology - Immunoglobulins. According to news reporting originating from Miramar, Florida, by NewsRx correspondents, research stated, "IL-15 and its receptor (IL-15R) are co-expressed on antigen-presenting cells, allowing transpresentation of IL-15 to immune cells bearing IL-2R(C) and stimulation of effector immune responses. We reported previously that the high-affinity interactions between an IL-15 superagonist (IL-15N72D) and the extracellular IL-15R sushi domain (IL-15RSu) could be exploited to create a functional scaffold for the design of multivalent disease-targeted complexes."

Financial support for this research came from National Institutes of Health.

Our news editors obtained a quote from the research, "The IL-15N72DIL-15RSuFc complex, also known as ALT-803, is a multimeric complex constructed by fusing IL-15N72DIL-15RSu to the Fc domain of IgG1. ALT-803 is an IL-15 superagonist complex that has been developed as a potent antitumor immunotherapeutic agent and is in clinical trials."

According to the news editors, the research concluded: "Here we describe the creation of a novel fusion molecule, 2B8T2M, using the ALT-803 scaffold fused to four single chains of the tumor-targeting monoclonal antibody rituximab."


The news editors report that additional information may be obtained by contacting H.C. Wong, Altor BioSci Corp, Miramar, FL 33025, United States. Additional authors for this research include L. Kong, K.P. Han, H. Hong, W.D. Marcus, X.Y. Chen, E.K. Jeng, S. Alter, X.Y. Zhu, M.P. Rubinstein, S.X. Shi, P.R. Rhode, W.B. Cai and H.C. Wong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.733600. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miramar, Florida, United States, North and...
Study Findings from Baylor University College of Medicine Provide New Insights into Clinical Trials and Studies (Pilot study of chronic maternal hyperoxygenation and effect on aortic and mitral valve annular dimensions in fetuses with left)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "Acute maternal hyperoxygenation (AMH) results in increased fetal left heart blood flow. Our aim was to perform a pilot study to determine the safety, feasibility and direction and magnitude of effect of chronic maternal hyperoxygenation (CMH) on mitral and aortic valve annular dimensions in fetuses with left heart hypoplasia (LHH) after CMH."

The news correspondents obtained a quote from the research from the Baylor University College of Medicine, "Gravidae with fetal LHH were eligible for inclusion in a prospective evaluation of CMH. LHH was defined as: sum of aortic and mitral valve annuli Z-scores <-4.5, arch flow reversal and left-to-right or bidirectional atrial level shunting without hypoplastic left heart syndrome or severe aortic stenosis. Gravidae with an affected fetus and with >= 10% increase in aortic/combined cardiac output flow after 10 min of AMH at 8L/min 100% fraction of inspired oxygen were offered enrollment. Nine gravidae were enrolled from February 2014 to January 2015. The goal therapy was >= 8 h daily CMH from enrollment until delivery. Gravidae who were cared for from July 2012 to October 2014 with fetal LHH and no CMH were identified as historical controls (n=9). Rates of growth in aortic and mitral annuli over the final trimester were compared between groups using longitudinal regression. There were no significant maternal or fetal complications in the CMH cohort. Mean gestational age at study initiation was 29.6 +/- 3.2weeks for the intervention group and 28.4 +/- 1.8weeks for controls (P=0.35). Mean relative increase in aortic/combined cardiac output after AMH was 35.3% (range, 18.1-47.9%). Median number of hours per day on CMH therapy was 9.3 (range, 6.5-14.6) and median duration of CMH was 48 (range, 33-84) days. Mean mitral annular growth was 0.19 +/- 0.05 mm/week compared with 0.14 +/- 0.03 mm/week in CMH vs controls (mean difference 0.05 +/- 0.03 mm/week, P=0.33). Mean aortic annular growth was 0.14 +/- 0.03 mm/week compared with 0.13 +/- 0.03 mm/week in CMH vs controls (mean difference 0.01 +/- 0.03 mm/week, P=0.75). More than 9 h CMH daily (n=6) was associated with better growth of the aortic annulus in intervention fetuses (0.16 +/- 0.03 vs 0.08 +/- 0.02 mm/week, P=0.014). CMH is both safe and feasible for continued research."

According to the news reporters, the research concluded: "In this pilot study, the effect estimates of annular growth, using the studied method of delivery and dose of oxygen, were small."

For more information on this research see: Pilot study of chronic maternal hyperoxygenation and effect on aortic and mitral valve annular dimensions in fetuses with left heart hypoplasia. Ultrasound in Obstetrics & Gynecology, 2016;48(3):365-372. Ultrasound in Obstetrics & Gynecology
Drugs and Therapies - Niclosamide Therapy

Study Findings from Beckman Institute for Advanced Science and Technology Provide New Insights into Niclosamide Therapy (Defined Host-Guest Chemistry on Nanocarbon for Sustained Inhibition of Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Niclosamide Therapy. According to news originating from Urbana, Illinois, by NewsRx correspondents, research stated, "Signal transducer and activator of transcription factor 3 (STAT-3) is known to be overexpressed in cancer stem cells. Poor solubility and variable drug absorption are linked to low bioavailability and decreased efficacy."

Financial support for this research came from University of Illinois at Urbana-Champaign and Children's Discovery Institute.

Our news journalists obtained a quote from the research from Beckman Institute for Advanced Science and Technology, "Many of the drugs regulating STAT-3 expression lack aqueous solubility; hence hindering efficient bioavailability. A theranostics nanoplatform based on luminescent carbon particles decorated with cucurbit[6]uril is introduced for enhancing the solubility of niclosamide, a STAT-3 inhibitor. The host-guest chemistry between cucurbit[6] uril and niclosamide makes the delivery of the hydrophobic drug feasible while carbon nanoparticles enhance cellular internalization. Extensive physicochemical characterizations confirm successful synthesis. Subsequently, the host-guest chemistry of niclosamide and cucurbit[6] uril is studied experimentally and computationally. In vitro assessments in human breast cancer cells indicate approximately twofold enhancement in IC50 of drug. Fourier transform infrared and fluorescence imaging demonstrate efficient cellular internalization. Furthermore, the catalytic biodegradation of the nanoplatforms occur upon exposure to human myeloperoxidase in short time. In vivo studies on athymic mice with MCF-7 xenograft indicate the size of tumor in the treatment group is half of the controls after 40 d. Immunohistochemistry corroborates the downregulation of STAT-3 phosphorylation."

According to the news editors, the research concluded: "Overall, the host-guest chemistry on nanocarbon acts as a novel arsenal for STAT-3 inhibition."

The news correspondents report that additional information may be obtained from D. Pan, Beckman Inst Adv Sci & Technol, Inst Sustainabil Energy & Environm, Dept. of Mat Sci & Engn, Urbana, IL 61801, United States. Additional authors for this research include S.K. Misra, P. Mukherjee, A. Ostadhossein, E. Daza, S. Tiwari, S. Mittal, M.C. Gryka, R. Bhargava and D. Pan.

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Keywords for this news article include: Urbana, Illinois, United States, North and Central America, Emerging Technologies, Drugs and Therapies, Niclosamide Therapy, Pharmaceuticals, Nanotechnology, Nanocarbon, Chemistry, Oncology, Genetics, Cancer, Beckman Institute for Advanced Science and Technology.

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Genetic Diseases and Conditions - Down Syndrome

Study Findings from California Department of Public Health Provide New Insights into Down Syndrome (Observed Rate of Down Syndrome in Twin Pregnancies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Genetic Diseases and Conditions - Down Syndrome are presented in a new report. According to news reporting out of Richmond, California, by NewsRx editors, research stated, "To evaluate the observed incidence of Down syndrome in twins compared with that expected based on maternal age-matched singletons, which is the current clinical approach. This was a retrospective review of California Prenatal Screening Program participants with expected delivery dates between July 1995 and December 2012."

Our news journalists obtained a quote from the research from the California Department of Public Health, "Cases confirmed prenatally or postnatally with a genetic imbalance leading to phenotypic Down syndrome (trisomy 21, mosaic trisomy 21, or translocations) were included. Pregnancies conceived with ovum donation and women older than 45 years were excluded. We compared the observed Down syndrome incidence per pregnancy for twins with expected incidence by extrapolating from singleton data and expected zygosity as is the current clinical approach. This extrapolation assumes that monozygotic pregnancies have equivalent Down syndrome risk per pregnancy relative to maternal age-matched singletons and dizygotic pregnancies have twice the risk of at least one affected fetus. Zygosity for affected cases was presumed to be monozygotic with Down syndrome concordance and dizygotic with Down syndrome discordance. Counts were compared using cumulative Poisson distributions. Of 77,279 twin pregnancies, 182 (0.2%) had at least one fetus with Down syndrome confirmed by karyotype. The ratio of observed-to-expected Down syndrome incidence per pregnancy was 33.6%, 75.2%, and 70.0% for monozygotic, dizygotic, and all twins, respectively (P <.001 for all comparisons). Considering maternal age subgroups and twin
zygosity, a significantly lower-than-expected Down syndrome incidence was seen for women aged 25 to 45 years with monozygotic pregnancies and overall for women aged 25 to 45 years with dizygotic pregnancies. The observed incidence of Down syndrome in twin pregnancies is lower than expected, most notably for monozygotic pregnancies and with increasing maternal age."

According to the news editors, the research concluded: "Risk-based counseling can strongly affect women's choices regarding testing and management during pregnancy, so an understanding of the true Down syndrome risk in twin gestations is crucial."

For more information on this research see: Observed Rate of Down Syndrome in Twin Pregnancies. Obstetrics and Gynecology, 2016;128(5):1127-1133. Obstetrics and Gynecology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Obstetrics and Gynecology - journals.lww.com/greenjournal/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting T.N. Sparks, Calif Dept. of Public Hlth, Genet Dis Screening Program, Richmond, CA, United States. Additional authors for this research include M.E. Norton, M. Flessel, S. Goldman and R.J. Currier.

Keywords for this news article include: Richmond, California, United States, North and Central America, Nervous System Diseases and Conditions, Genetic Diseases and Conditions, Neurobehavioral Manifestations, Developmental Disabilities, Neurologic Manifestations, Congenital Abnormalities, Chromosome Disorders, Risk and Prevention, Mental Retardation, Down Syndrome, Genomics, Genetics, California Department of Public Health.

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Shellfish Immunology

Study Findings from Cancer Research Institute Broaden Understanding of Shellfish Immunology [Identification and characteristic of three members of the Clq/TNF-related proteins (CTRPs) superfamily in Eudontomyzon morii]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Shellfish Immunology are discussed in a new report. According to news reporting from Dongguan, People's Republic of China, by NewsRx journalists, research stated, "Clq is the target recognition protein of the classical complement pathway and a major connecting, link between innate and acquired immunity. C1q and the multifunctional tumor necrosis factor (TNF) ligand family is of similar crystal structures, are designated the Clq/TNF-related proteins (CTRPs) superfamily."

The news correspondents obtained a quote from the research from Cancer Research Institute, "They are involved in processes as diverse as host defense, inflammation, apoptosis, autoimmunity, cell differentiation, organogenesis, hibernation and insulinresistant obesity. In this study, three members of the CTRPs superfamily were isolated and characterized in Yalu River lampreys (Eudontomyzon morii), and are respectively named LaClqC, LaCTRP1, LaCTRP9. The full-length cDNAs of ClqC-like (LaClqAL), CTRP1-like (LaCIRP1), and LIRP9-like (LaCTRP9) consist of 723, 762 and 825 bp of nucleotide sequence encoding
polypeptides of 241, 254 and 275 amino acids, respectively. All-three proteins share three common domains: a signal peptide at the N terminus, a collagenous domain (characteristic Gly-X-Y repeats), and a C-terminal globular domain."

According to the news reporters, the research concluded: "In addition, the higher expression level of the three proteins in heart by RT-PCR and real-time PCR tissue profiling implied that they might involve in immune response or injury repair of the heart in lamprey."

For more information on this research see: Identification and characteristic of three members of the Clq/TNF-related proteins (CTRP5) superfamily in Eudontomyzon morii. *Fish & Shellfish Immunology*, 2016;59():233-240. *Fish & Shellfish Immunology* can be contacted at: Academic Press Ltd- Elsevier Science Ltd, 24-28 Oval Rd, London NW1 7DX, England. (Elsevier - www elsevier.com; Fish & Shellfish Immunology - www.journals elsevier.com/fish-and-shellfish-immunology/)


Keywords for this news article include: Dongguan, People's Republic of China, Asia, Shellfish Immunology, Genetics, Immunology, Cancer Research Institute.

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**Drug Abuse**

**Study Findings from Catholic University of Leuven Broaden Understanding of Drug Abuse (A Bivariate Genetic Analysis of Drug Abuse Ascertained Through Medical and Criminal Registries in Swedish Twins, Siblings and Half-Siblings)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drug Abuse. According to news originating from Leuven, Belgium, by NewsRx correspondents, research stated, "Using Swedish nationwide registry data, the authors investigated the correlation of genetic and environmental risk factors in the etiology of drug abuse as ascertained from medical and criminal registries by modeling twin and sibling data. Medical drug abuse was defined using public inpatient and outpatient records, while criminal drug abuse was ascertained through legal records."

Financial supporters for this research include National Institute on Drug Abuse (US), National Institute on Drug Abuse, NIDA.

Our news journalists obtained a quote from the research from the Catholic University of Leuven, "Twin, full and half sibling pairs were obtained from the national twin and genealogical registers. Information about sibling pair residence within the same household was obtained from Statistics Sweden. Standard bivariate genetic structural equation modeling was applied to the population-based data on drug abuse ascertained through medical and crime registries, using OpenMx. Analyses of all possible pairs of twins (MZ: N = 4482; DZ: N = 9838 pairs), full- (N = 1,278,086) and half-siblings (paternal: N = 7767; maternal N = 70,553) who grew up together suggested that factors explaining familial resemblance for drug abuse as defined through medical or criminal registries were mostly the same. Results showed substantial heritability and moderate contributions of shared environmental factors to drug abuse; both were
higher in males versus females, and higher for drug abuse ascertained through criminal than medical records. Because of the low prevalence of both assessments of drug abuse, having access to population data was crucial to obtain stable estimates. Using objective registry data, the authors found that drug abuse—whether ascertained through medical versus criminal records—was highly heritable. Furthermore, shared environmental factors contributed significantly to the liability of drug abuse."

According to the news editors, the research concluded: "Genetic and shared environmental risk factors for these two forms of drug abuse were highly correlated."

For more information on this research see: A Bivariate Genetic Analysis of Drug Abuse Ascertained Through Medical and Criminal Registries in Swedish Twins, Siblings and Half-Siblings. Behavior Genetics, 2016;46(6):735-741. Behavior Genetics can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Behavior Genetics - www.springerlink.com/content/0001-8244/)

The news correspondents report that additional information may be obtained from H.H. Maes, Catholic University of Leuven, Dept. of Kinesiol, Leuven, Belgium. Additional authors for this research include M.C. Neale, H. Ohlsson, M. Zahery, P. Lichtenstein, K. Sundquist, J. Sundquist and K.S. Kendler.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10519-016-9801-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Leuven, Belgium, Europe, Risk and Prevention, Drugs and Therapies, Genetics, Environment, Drug Abuse, Catholic University of Leuven.

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Cardiovascular Diseases and Conditions - ...

Study Findings from Center for Disease Control and Prevention Provide New Insights into Hypertension (Improved Blood Pressure Control to Reduce Cardiovascular Disease Morbidity and Mortality: The Standardized Hypertension Treatment and ...

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Hypertension is now available. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "Hypertension is the leading remediable risk factor for cardiovascular disease, affecting more than 1 billion people worldwide, and is responsible for more than 10 million preventable deaths globally each year. While hypertension can be successfully diagnosed and treated, only one in seven persons with hypertension have controlled blood pressure."

The news correspondents obtained a quote from the research from Center for Disease Control and Prevention, "To meet the challenge of improving the control of hypertension, particularly in low- and middle-income countries, the authors developed the Standardized Hypertension Treatment and Prevention Project, which involves a health systems-strengthening approach that advocates for standardized hypertension management using evidence-based interventions. These interventions include the use of standardized treatment protocols, a core set of medications along with improved procurement mechanisms to increase the availability and
affordability of these medications, registries for cohort monitoring and evaluation, patient empowerment, team-based care (task shifting), and community engagement."

According to the news reporters, the research concluded: "With political will and strong partnerships, this approach provides the groundwork to reduce high blood pressure and cardiovascular disease-related morbidity and mortality."


Our news journalists report that additional information may be obtained by contacting P. Patel, Center Dis Control & Prevent, Atlanta, GA 30329, United States. Additional authors for this research include P. Ordunez, D. DiPette, M.C. Escobar, T. Hassell, F. Wyss, A. Hennis, S. Asma and S. Angell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12861. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Cardiovascular Diseases and Conditions, Cardiology, Risk and Prevention, Blood Pressure, Hemodynamics, Hypertension, Center for Disease Control and Prevention.

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**Embryo Transfer**

**Study Findings from Chaim Sheba Medical Center Provide New Insights into Embryo Transfer (Clinical pregnancy rate following frozen embryo transfer is higher with blastocysts vitrified on day 5 than on day 6)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Embryo Transfer. According to news reporting out of Ramat Gan, Israel, by NewsRx editors, research stated, "The aim of this study was to compare the pregnancy rates between good quality blastocysts vitrified on day 6 versus blastocysts vitrified on day 5 after fertilization. This is a retrospective cohort study of 791 freeze-thaw cycles of blastocysts vitrified either on day 5 or on day 6 and transferred between January 2012 and October 2015."

Our news journalists obtained a quote from the research from Chaim Sheba Medical Center, "Five hundred and thirty-seven cycles included blastocysts vitrified on day 5, and 254 cycles included blastocysts vitrified on day 6. The age of the patients and the proportion of embryos that survived the thawing process were comparable between the two groups. More good quality embryos were transferred in the group in which blastocysts were vitrified on day 6 (1.2 vs. 1.3, p = 0.005), but the clinical pregnancy rate (44 vs. 33 %, p = 0.002) and the ongoing pregnancy rate (41 vs. 28 %, p < 0.001) were higher in the group in which blastocysts were vitrified on day 5. Multivariate regression analysis adjusting for patient's age, number of good quality embryos transferred (ae <yen >3BB), and treatment protocol demonstrated that the day 6 vitrified group had a significantly lower clinical pregnancy rate compared to the day 5 vitrified
group (OR 0.54, 95 % CI 0.38-0.76)."

According to the news editors, the research concluded: "The clinical pregnancy rate following frozen embryo transfer is significantly lower with blastocysts vitrified on day 6 compared to blastocysts vitrified on day 5."

For more information on this research see: Clinical pregnancy rate following frozen embryo transfer is higher with blastocysts vitrified on day 5 than on day 6. Journal of Assisted Reproduction and Genetics, 2016;33(12):1553-1557. Journal of Assisted Reproduction and Genetics can be contacted at: Springer, Plenum Publishers, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Journal of Assisted Reproduction and Genetics - www.springerlink.com/content/1058-0468/)

Our news journalists report that additional information may be obtained by contacting J. Haas, Chaim Sheba Med Center, Dept. of Obstet & Gynecol, Ramat Gan, Israel. Additional authors for this research include J. Meriano, C. Laskin, Y. Bentov, E. Barzilay, R.F. Casper and K. Cadesky.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s10815-016-0818-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ramat Gan, Israel, Asia, Assisted Reproductive Techniques, Embryo Transfer, Chaim Sheba Medical Center.

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Oncology - Pancreatic Cancer

Study Findings from Charles University Broaden Understanding of Pancreatic Cancer (Early detection of pancreatic cancer: impact of high-resolution imaging methods and biomarkers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Pancreatic Cancer. According to news reporting originating from Prague, Czech Republic, by NewsRx correspondents, research stated, "High-resolution imaging methods (HRIMs) and biomarkers present the second step of pancreatic cancer (PC) diagnostics in at-risk individuals. These include patients with positive risk factors, early symptoms, nonresponders to the initial antidiabetic therapy, patients older than 50 years of age with new-onset unstable diabetes requiring insulin as well as patients with long-term insulin-non-dependent diabetes and recent (up to 6 months) failure of antidiabetic therapy."

Our news editors obtained a quote from the research from Charles University, "The procedures should be started without delay and the co-operation between the primary and tertiary medical centers is highly desirable. An early indication of HRIMs and biomarkers is a prerequisite for the diagnosis of a resectable PC."

According to the news editors, the research concluded: "This publication reviews the recent contribution of HRIMs and biomarkers toward an early diagnosis of PC."

For more information on this research see: Early detection of pancreatic cancer: impact of high-resolution imaging methods and biomarkers. European Journal of Gastroenterology & Hepatology, 2016;28(12):e33-e43. European Journal of Gastroenterology & Hepatology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001
Cytoplasmic Structures

**Study Findings from China Pharmaceutical University Broaden Understanding of Cytoplasmic Structures (Triptolide disrupts the actin-based Sertoli-germ cells adherens junctions by inhibiting Rho GTPases expression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cytoplasmic Structures. According to news reporting out of Jiangsu, People's Republic of China, by NewsRx editors, research stated, "Triptolide (TP), derived from the medicinal plant Triterygium wilfordii Hook. f. (TWHF), is a diterpene triepoxide with variety biological and pharmacological activities. However, TP has been restricted in clinical application due to its narrow therapeutic window especially in reproductive system."

Financial supporters for this research include Major Scientific and Technological Special Project for Significant New Drugs Creation, National Natural Science Foundation of China, Fundamental Research Funds for the Central Universities, 333 High Level Project of Jiangsu Province, Project Program of Jiangsu Key Laboratory of Drug Screening.

Our news journalists obtained a quote from the research from China Pharmaceutical University, "During spermatogenesis, Sertoli cell cytoskeleton plays an essential role in facilitating germ cell movement and cell-cell actin-based adherens junctions (AJ). At Sertoli cell-spermatid interface, the anchoring device is a kind of AJ, known as ectoplasmic specializations (ES). In this study, we demonstrate that beta-actin, an important component of cytoskeleton, has been significantly down-regulated after TP treatment TP can inhibit the expression of Rho GTPase such as, RhoA, RhoB, Cdc42 and Rack. Downstream of Rho GTPase, Rho-associated protein kinase (ROCKS) gene expressions were also suppressed by TP. F-actin immunofluorescence proved that TP disrupts Sertoli cells cytoskeleton network. As a result of beta-actin down-regulation, TP treatment increased expression of testin, which indicating ES has been disassembled."

According to the news editors, the research concluded: "In summary, this report illustrates that TP induces cytoskeleton dysfunction and disrupts cell cell adherens junctions via inhibition of Rho GTPases."

For more information on this research see: Triptolide disrupts the actin-based

Our news journalists report that additional information may be obtained by contacting L.Y. Zhang, China Pharmaceutical University, State Key Lab Nat Med, Nanjing 210009, Jiangsu, People's Republic of China. Additional authors for this research include F. Zhao, Z.M. Lv, W.Q. Shi, L.Y. Zhang and M. Yan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.08.017. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Cytoplasmic Structures, Enzymes and Coenzymes, Cellular Structures, Intracellular Space, Cytoskeleton, Germ Cells, Genitalia, GTPase, China Pharmaceutical University.

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**Silicon Dioxide**

**Study Findings from Chinese Academy of Sciences Provide New Insights into Silicon Dioxide [Treatment of groundwater containing Mn (II), Fe(II), As(III) and Sb(III) by bioaugmented quartz-sand filters]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Silicon Dioxide is the subject of a report. According to news originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "High concentrations of iron (Fe(II)) and manganese (Mn(II)) often occur simultaneously in groundwater. Previously, we demonstrated that Fe(II) and Mn(II) could be oxidized to biogenic Fe-Mn oxides (BFMO) via aeration and microbial oxidation, and the formed BFMO could further oxidize and adsorb other pollutants (e.g., arsenic (As(III)) and antimony (Sb(III)))."

Funders for this research include National Natural Science Foundation of China, National Water Pollution Control and Treatment Science and Technology.

Our news journalists obtained a quote from the research from the Chinese Academy of Sciences, "To apply this finding to groundwater remediation, we established four quartz-sand columns for treating groundwater containing Fe(II), Mn(II), As(III), and Sb(III). A Mn-oxidizing bacterium (Pseudomonas sp. QJX-1) was inoculated into two parallel bioaugmented columns. Long-term treatment (120 d) showed that bioaugmentation accelerated the formation of Fe-Mn oxides, resulting in an increase in As and Sb removal. The bioaugmented columns also exhibited higher overall treatment effect and anti-shock load capacity than that of the non-bioaugmented columns. To clarify the causal relationship between the microbial community and treatment effect, we compared the biomass of active bacteria (reverse-transcribed real-time PCR), bacterial community composition (Miseq 16S rRNA sequencing) and community function (metagenomic sequencing) between the bioaugmented and non-bioaugmented columns. Results indicated that the QJX1 strain grew steadily and attached onto the filter material surface in the bioaugmented columns. In general, the inoculated strain did not significantly alter the
composition of the indigenous bacterial community, but did improve the relative abundances of xenobiotic metabolism genes and Mn oxidation gene."

According to the news editors, the research concluded: "Thus, bioaugmentation intensified microbial degradation/utilization for the direct removal of pollutants and increased the formation of Fe-Mn oxides for the indirect removal of pollutants."

For more information on this research see: Treatment of groundwater containing Mn (II), Fe(II), As(III) and Sb(III) by bioaugmented quartz-sand filters. *Water Research*, 2016;106 ():126-134. *Water Research* can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Water Research - www.journals.elsevier.com/water-research/)

The news correspondents report that additional information may be obtained from J.H. Qu, Chinese Academy Sci, Res Center Ecoenvironm Sci, Key Lab Drinking Water Sci & Technol, Beijing 100085, People's Republic of China. Additional authors for this research include Y.Y. Chang, J.S. Liang, C. Chen and J.H. Qu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.watres.2016.09.040. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Silicon Dioxide, Genetics, Quartz, Chinese Academy of Sciences.

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**Bone Research**

**Study Findings from Chinese University of Hong Kong Provide New Insights into Bone Research (Osthole Promotes Endochondral Ossification and Accelerates Fracture Healing in Mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Bone Research are presented in a new report. According to news originating from Hong Kong, People's Republic of China, by NewsRx correspondents, research stated, "Osthole has been found to restore bone mass in preclinical osteoporotic models. In the present study, we investigated the effects of osthole on bone fracture repair in mice."

Our news journalists obtained a quote from the research from the Chinese University of Hong Kong, "Adult C57BL/6 mice were subjected to transverse femoral fractures and administrated orally with 20 mg/kg osthole and vehicle solvent daily from week 1 post-operation. Fracture callus were analyzed by plain radiography, micro-computed tomography, histology, molecular imaging and immunohistochemistry and tartrate-resistant acid phosphatase staining. Results demonstrated that osthole treatment enhanced removal of cartilage and bony union during reparative stage without significant interfering on remodeling process. In vivo molecular imaging showed bone formation rate of the treatment group was almost twofold of control group at week 2 post-operation. Osthole augmented the expression of alkaline phosphatase and collagen type X in hypertrophic chondrocytes as well as expression of bone morphogenetic protein-2, osteocalcin and alkaline phosphatase in osteoblastic cells, indicating it promoted mineralization of hypertrophic cartilage and woven bone growth simultaneously during endochondral healing."
According to the news editors, the research concluded: "In summary, osthole promotes endochondral ossification via upregulation of maturation osteogenic marker genes in chondrocytes and subsequently accelerates fracture repair and bony fusion."

For more information on this research see: Osthole Promotes Endochondral Ossification and Accelerates Fracture Healing in Mice. *Calcified Tissue International*, 2016;99 (6):649-660. *Calcified Tissue International* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Calcified Tissue International - www.springerlink.com/content/0171-967x/)

The news correspondents report that additional information may be obtained from C.W. Chan, Chinese University of Hong Kong, Sch Chinese Med, Fac Med, Shatin, Hong Kong, People's Republic of China. Additional authors for this research include W.N. Leung, G. Li, Y.M. Lai and C.W. Chan.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Emerging Technologies, Molecular Imaging, Nanotechnology, Bone Research, Genetics, Chinese University of Hong Kong.

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**Human Herpesvirus Diseases and Conditions -**

**Study Findings from Chonbuk National University Provide New Insights into Epstein-Barr Virus (Splenic infarction associated with acute infectious mononucleosis due to Epstein-Barr virus infection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Human Herpesvirus Diseases and Conditions - Epstein-Barr Virus. According to news reporting from Jeonju, South Korea, by NewsRx journalists, research stated, "The purpose of this study was to report a case of a previously healthy 20-year-old woman diagnosed with splenic infarction following infectious mononucleosis (IM) by Epstein-Barr virus (EBV) infection and to perform the first systematic review of the clinical characteristics of splenic infarction associated with IM. A systematic review was conducted using English, French, and Japanese literatures of splenic infarction associated with IM due to EBV infection published between 1961 and 2015 in PubMed Medline."

The news correspondents obtained a quote from the research from Chonbuk National University, "A total of 19 cases were extracted from the collected articles. Left upper quadrant (LUQ) pain was observed in 15 (79%) patients. Splenectomy was performed in five (26%) cases, among which four patients presented with stable vital signs. Splenic rupture was accompanied in two (10%) patients. The median time from the onset of IM symptoms to the diagnosis of splenic infarction was 5 days (range, 1-25 days). Fourteen (74%) of 19 patients experienced improvement through medical treatment, and there were no deaths. Splenic infarction associated with IM due to EBV infection can show a favorable clinical outcome after medical treatment."

According to the news reporters, the research concluded: "Clinicians should consider the possibility of splenic infarction when patients with IM experience LUQ pain. J. Med. Virol. 89:332-336, 2017."

For more information on this research see: Splenic infarction associated with acute

Our news journalists report that additional information may be obtained by contacting J.H. Hwang, Chonbuk National University, Chonbuk Natl Univ Hosp, Res Inst Clin Med, Jeonju, South Korea. Additional authors for this research include D.Y. Baek, S.M. Oh, J.H. Hwang, C.S. Lee and J.H. Hwang.

Keywords for this news article include: Jeonju, South Korea, Asia, Lymphoproliferative Diseases and Conditions, Human Herpesvirus Diseases and Conditions, Cardiovascular Diseases and Conditions, Hematologic Diseases and Conditions, Lymphatic Diseases and Conditions, Splenic Diseases and Conditions, Epstein-Barr Virus Infections, Lymphoproliferative Disorders, Herpesviridae Infections, Infectious Mononucleosis, Tumor Virus Infections, Leukocyte Disorders, Human Herpesvirus 4, Infectious Disease, Splenic Infarction, Tumor Viruses, DNA Viruses, Virology, HHV-4, Viral, HHV4, Chonbuk National University.

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**Cardiovascular Diseases and Conditions**

**Study Findings from Chung Ang University Broaden Understanding of Atherosclerosis (Relation of serum homocysteine levels to cerebral artery calcification and atherosclerosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Atherosclerosis are discussed in a new report. According to news reporting from Seoul, South Korea, by NewsRx journalists, research stated, "Elevated serum homocysteine level is known to be associated with increased risk of vascular event due to endothelial senescence. We investigated the association between serum homocysteine level and cerebral arteriosclerosis status including intracranial vascular calcification and atherosclerosis burden."

The news correspondents obtained a quote from the research from Chung Ang University, "We identified 1193 consecutive patients (mean age = 68.6 +/- 12.7, 537 female patients) who were admitted with acute cerebral infarction or transient ischemic attack from a single university medical center. The patients were categorized into three groups according to their serum homocysteine level. Cerebral artery calcification was assessed from the cavernous portion of both internal carotid arteries, and cerebral atherosclerosis burden was derived as the sum of stenosis degree of major intracranial arteries from brain computed tomography angiography. The mean homocysteine level was 14.1 +/- 6.2 mu mol/ L, and intracranial cerebral artery calcification was present in 974 patients (81.6%), with 339 cases of advanced calcification (28.4%). The prevalence of cerebral artery calcification, advanced cerebral artery calcification and cerebral atherosclerosis burden showed increasing tendency throughout the homocysteine tertiles. Multivariable logistic regression analysis including age, sex, vascular risk factors, serum C-reactive protein, estimated glomerular filtration rate and homocysteine tertile disclosed that the highest serum homocysteine tertile was an independent predictor of advanced cerebral artery calcification (odds ratio = 1.45, confidence interval = 1.02-2.05) and advanced cerebral atherosclerosis (odds ratio = 1.42, confidence interval = 1.01-1.99) compared to the
lowest group. An elevated serum homocysteine level was independently associated with intracranial arterial calcification and atherosclerosis burden."

According to the news reporters, the research concluded: "Future studies are warranted to test whether lowering serum homocysteine can delay cerebral arteriosclerotic changes."

For more information on this research see: Relation of serum homocysteine levels to cerebral artery calcification and atherosclerosis. *Atherosclerosis*, 2016;254():200-204. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting K.Y. Park, Chung Ang University, Coll Med, Chung Ang Univ Hosp, Dept. of Neurol, Seoul 156755, South Korea. Additional authors for this research include K.Y. Park, D.W. Shin, M.S. Park and O.S. Kwon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.10.023. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Cardiovascular Diseases and Conditions, Homocysteine, Risk and Prevention, Arterial Occlusive Diseases, Sulfur Amino Acids, Arteriosclerosis, Atherosclerosis, Chung Ang University.

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**Nutritional and Metabolic Diseases and Conditions...**

**Study Findings from Deakin University Provide New Insights into Obesity (Whole of Systems Trial of Prevention Strategies for Childhood Obesity: WHO STOPS Childhood Obesity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting from Melbourne, Australia, by NewsRx journalists, research stated, "Community-based initiatives show promise for preventing childhood obesity. They are characterized by community leaders and members working together to address complex local drivers of energy balance."

The news correspondents obtained a quote from the research from Deakin University, "To present a protocol for a stepped wedge cluster randomized trial in ten communities in the Great South Coast Region of Victoria, Australia to test whether it is possible to: (1) strengthen community action for childhood obesity prevention, and (2) measure the impact of increased action on risk factors for childhood obesity. The WHO STOPS intervention involves a facilitated community engagement process that: creates an agreed systems map of childhood obesity causes for a community; identifies intervention opportunities through leveraging the dynamic aspects of the system; and, converts these understandings into community-built, systems-oriented action plans. Ten communities will be randomized (1:1) to intervention or control in year one and all communities will be included by year three. The primary outcome is childhood obesity prevalence among grade two (ages 7-8 y), grade four (9-10 y) and grade six (11-12 y) students measured using our established community-led..."
monitoring system (69% school and 93% student participation rate in government and independent schools). An additional group of 13 external communities from other regions of Victoria with no specific interventions will provide an external comparison. These communities will also allow us to assess diffusion of the intervention to control communities during the first three years of the trial."

According to the news reporters, the research concluded: "This trial will test effectiveness, over a five-year period, of community-owned, -supported and -led strategies designed to address complex and dynamic causes of childhood obesity."


Our news journalists report that additional information may be obtained by contacting S. Allender, Deakin University, Fac Hlth, World Hlth Organization Collaborating Center Obes Prevent, Global Obes Center GLOBE, Melbourne, Vic 3125, Australia. Additional authors for this research include L. Millar, P. Hovmand, C. Bell, M. Moodie, R. Carter, B. Swinburn, C. Strugnell, J. Lowe, K. de la Haye, L. Orellana and S. Morgan.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Risk and Prevention, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, Deakin University.

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Genetics

Study Findings from Department of Biochemistry & Molecular Biology Broaden Understanding of Genetics (Immunomodulatory Function of the Tumor Suppressor p53 in Host Immune Response and the Tumor Microenvironment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Genetics are discussed in a new report. According to news reporting out of Augusta, Georgia, by NewsRx editors, research stated, "The tumor suppressor p53 is the most frequently mutated gene in human cancers. Most of the mutations are missense leading to loss of p53 function in inducing apoptosis and senescence."

Our news journalists obtained a quote from the research from the Department of Biochemistry & Molecular Biology, "In addition to these autonomous effects of p53 inactivation/dysfunction on tumorigenesis, compelling evidence suggests that p53 mutation/inactivation also leads to gain-of-function or activation of non-autonomous pathways, which either directly or indirectly promote tumorigenesis. Experimental and clinical results suggest that p53 dysfunction fuels pro-tumor inflammation and serves as an immunological gain-of-function driver of tumorigenesis via skewing immune landscape of the tumor microenvironment (TME). It is now increasingly appreciated that p53 dysfunction in various cellular compartments of the TME leads to immunosuppression and immune evasion. Although our understanding of the cellular and molecular processes that link p53 activity to host immune regulation is still incomplete, it is clear that activating/reactivating the p53 pathway in the TME..."
also represents a compelling immunological strategy to reverse immunosuppression and enhance antitumor immunity."

According to the news editors, the research concluded: "Here, we review our current understanding of the potential cellular and molecular mechanisms by which p53 participates in immune regulation and discuss how targeting the p53 pathway can be exploited to alter the immunological landscape of tumors for maximizing therapeutic outcome."

For more information on this research see: Immunomodulatory Function of the Tumor Suppressor p53 in Host Immune Response and the Tumor Microenvironment. *International Journal of Molecular Sciences*, 2016;17(11):2522-2537. *International Journal of Molecular Sciences* can be contacted at: MdpI Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting Y. Cui, Augusta Univ, Dept. of Biochem & Mol Biol, Canc Immunol Inflamm & Tolerance Program, Georgia Canc Center, Augusta, GA 30912, United States.

Keywords for this news article include: Augusta, Georgia, United States, North and Central America, Oncology, Article Review, Tumor Suppression, Genetics, p53 Gene, Department of Biochemistry & Molecular Biology.

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**Mycobacterium Infections - Latent Tuberculosis**

**Study Findings from Department of Respiratory Medicine Provide New Insights into Latent Tuberculosis (Baseline abnormal liver function tests are more important than age in the development of isoniazid-induced hepatotoxicity for patients receiving …)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mycobacterium Infections - Latent Tuberculosis. According to news originating from Sydney, Australia, by NewsRx correspondents, research stated, "One of the cornerstones of Australia's public health programmes to eliminate tuberculosis (TB) is the identification and treatment of latent tuberculosis infection (LTBI). The main aim of this study is to determine the demographics, compliance, completion rates and adverse events of patients on preventive therapy (PT) for LTBI at our institution."

Our news journalists obtained a quote from the research from the Department of Respiratory Medicine, "The secondary aim is to determine the rates of isoniazid (INH) hepatotoxicity and identify any contributory factors. The method used was an audit using medical records of 100 consecutive patients (2010-2014) treated with PT for LTBI. Seventy-two patients with confirmed LTBI started 9 months of INH and 22 started 4 months of rifampicin (rifampicin). The median age was 30 years. Half the patients were born in high TB-prevalence countries. Fifty-six per cent were contacts of index cases with confirmed TB, and 26% were pre-immunosuppression. Seventy-seven per cent completed PT with adequate compliance. Thirty-three per cent on INH and 23% on RIF experienced some liver function test (LFT) abnormality while on treatment. INH was ceased in 3% due to asymptomatic hepatic dysfunction (transaminases >5x upper limit of normal). No patients had permanent liver damage. Significant risk factors for liver dysfunction during PT were risk factors for liver disease (ch(3)(2)=8.7; p=
0.03) or abnormal pre-therapy LFT (ch(3)(2)=22.4; p<0.001). No patients developed active TB. The completion rate of 77% and rate of INH-induced hepatic dysfunction of 3% is comparable with the literature. We found no age association with the risk of INH-induced hepatic dysfunction; however, there was a significant and linear association with the degree of liver function abnormality during INH therapy and the presence of abnormal baseline LFT."

According to the news editors, the research concluded: "Routine LFT monitoring allowed early cessation of INH in those with significant but asymptomatic hepatitis who did not meet criteria for ATS/CDC LFT monitoring."

For more information on this research see: Baseline abnormal liver function tests are more important than age in the development of isoniazid-induced hepatotoxicity for patients receiving preventive therapy for latent tuberculosis infection. Internal Medicine Journal, 2016;46(3):281-7. (Wiley-Blackwell - www.wiley.com/: Internal Medicine Journal - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1445-5994)

The news correspondents report that additional information may be obtained from E.L. Gray, Dept. of Respiratory Medicine, Prince of Wales Hospital, Sydney, New South Wales, Australia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imj.12979. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antiinfectives, Antituberculosis Agents, Pharmaceuticals, Sydney, Hepatology, Hydrazines, Epidemiology, Liver Function, Gastroenterology, Isoniazid Therapy, Drugs and Therapies, Latent Tuberculosis, Risk and Prevention, Mycobacterium Infections, Australia and New Zealand, Actinomycetales Infections.

Oncology - Lung Cancer

Study Findings from Department of Thoracic Surgery Broaden Understanding of Lung Cancer (Video-assisted thoracoscopic lobectomy for elderly nonsmall cell lung cancer: Short-term and long-term outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "Lung cancer is the leading cause of cancer-related death worldwide, and the number of elderly patients with nonsmall-cell lung cancer (NSCLC) has risen with increasing life-expectancy. To evaluate safety and efficacy of thoracoscopic lobectomy for NSCLC patients above 75 years old."

The news reporters obtained a quote from the research from the Department of Thoracic Surgery, "We reviewed the data of 795 consecutive patients with NSCLC, who underwent video-assisted thoracoscopic lobectomy from January 2006 to December 2013. Patients were divided into two groups: The elderly group aged at least 75 years old (n=54), the contrast group aged <75 years old (n=741). The general characteristic, comorbidity, intraoperative observations, complications, operative mortality and long-term survival were compared between the two groups. The elderly group had a higher incidence of squamous cell
carcinoma (40.74% vs. 29.69%) and a lower incidence of adenocarcinoma (37.04% vs. 52.63%) than the contrast group (p=0.083). The ratio of smoking (61.11% vs. 41.97%), preoperative comorbidities (62.96% vs. 38.06%), perioperative blood transfusion (25.93% vs. 13.50%) and thoracic intubation indwelling time (10.3 vs. 8.2 days) in the elderly group were higher (p <0.01). There was no significant difference in duration of surgery (222.9 vs. 226.6 min), intraoperative blood loss (299.8 vs. 253.5 min), hospital stay (18.2 vs. 15.8 days) or postoperative hospital stay (10.3 vs. 8.4 days) between the two groups. Postoperative morbidities occurred more frequently in the elderly group than the contrast group (24.07% vs. 12.01%, p=0.018). Thirty-day mortality rate of two groups showed no significant difference (1.85% vs. 0.40%, p=0.246). The overall survival and recurrence-free survival in the elderly group were comparable with the contrast group (p=0.114 and 0.092, respectively).

According to the news reporters, the research concluded: "Video-assisted thoracoscopic lobectomy is a safe and reliable approach with acceptable short-and long-term outcome in the elderly."


Our news correspondents report that additional information may be obtained by contacting D. Liu, Dept. of Thoracic Surgery, China-Japan Friendship Hospital, Beijing, People's Republic of China. Additional authors for this research include C. Liang, Y. Guo, B. Shi, Y. Tian, Z. Song and D. Liu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.140930. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Beijing, Surgery, Hospital, Oncology, Lobectomy, Lung Cancer, Thoracoscopy, Lung Neoplasms, People's Republic of China, Thoracic Surgical Procedures.

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Macrolides

Study Findings from Emory University Broaden Understanding of Macrolides (Phosphatase inhibition increases AQP2 accumulation in the rat IMCD apical plasma membrane)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Macrolides have been published. According to news reporting from Atlanta, Georgia, by NewsRx journalists, research stated, "Vasopressin triggers the phosphorylation and apical plasma membrane accumulation of aquaporin 2 (AQP2), and it plays an essential role in urine concentration. Vasopressin, acting through protein kinase A, phosphorylates AQP2."

The news correspondents obtained a quote from the research from Emory University, "However, the phosphorylation state of AQP2 could also be affected by the action of protein phosphatases (PPs). Rat inner medullas (IM) were incubated with calyculin (PP1 and PP2A inhibitor, 50 nM) or tacrolimus (PP2B inhibitor, 100 nM). Calyculin did not affect total AQP2 protein abundance (by Western blot) but did significantly increase the abundances of pS256-
AQP2 and pS264-AQP2. It did not change pS261-AQP2 or pS269-AQP2. Calyculin significantly enhanced the membrane accumulation (by biotinylation) of total AQP2, pS256-AQP2, and pS264-AQP2. Likewise, immunohistochemistry showed an increase in the apical plasma membrane association of pS256-AQP2 and pS264-AQP2 in calyculin-treated rat IM. Tacrolimus also did not change total AQP2 abundance but significantly increased the abundances of pS261-AQP2 and pS264-AQP2. In contrast to calyculin, tacrolimus did not change the amount of total AQP2 in the plasma membrane (by biotinylation and immunohistochemistry). Tacrolimus did increase the expression of pS264-AQP2 in the apical plasma membrane (by immunohistochemistry).

According to the news reporters, the research concluded: "PP1/PP2A regulates the phosphorylation and apical plasma membrane accumulation of AQP2 differently than PP2B. Serine-264 of AQP2 is a phosphorylation site that is regulated by both PP1/PP2A and PP2B. This dual regulatory pathway may suggest a previously unappreciated role for multiple phosphatases in the regulation of urine concentration."


Our news journalists report that additional information may be obtained by contacting J.D. Klein, Emory University, Sch Med, Dept. of Physiol, Atlanta, GA 30322, United States. Additional authors for this research include B.X. Yang, J.A. Ruiz, O. Efe, T.O. Ilori, J.M. Sands and J.D. Klein.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Vasopressin, Tacrolimus, Macrolides, Hormones, Emory University.

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Drugs and Therapies - Antifungals

Study Findings from Faculty of Pharmaceutical Sciences Provide New Insights into Antifungals (Activation of p38 Mitogen-Activated Protein Kinase by Clotrimazole Induces Multidrug Resistance-Associated Protein 3 Activation through a Novel ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Antifungals is the subject of a report. According to news reporting originating in Miyagi, Japan, by NewsRx journalists, research stated, "Multidrug resistance-associated protein 3 (MRP3) is a basolaterally localized transporter in the liver and contributes to the transport of various metabolites such as conjugates of endogenous compounds and drugs from hepatocytes. MRP3 expression in the human liver is low under normal physiologic conditions but is induced by drug treatment."

The news reporters obtained a quote from the research from the Faculty of Pharmaceutical Sciences, "Although several studies have identified a region necessary for the basal transcription of MRP3, no region that responds to drugs has been reported. To identify the xenobiotic-responsive elements of MRP3, we constructed a luciferase reporter plasmid containing the MRP3 5’-flanking region up to 210 kb upstream from the transcription start site.
Among typical nuclear receptor ligands, clotrimazole dramatically enhanced MRP3 reporter activity in HepG2 cells, whereas rifampicin had no effect. We then conducted MRP3 reporter assays with deletion or mutation constructs to identify a clotrimazole-responsive element. The element was located approximately 26.8 kb upstream from the MRP3 transcription start site. Overexpression of the pregnane X receptor did not enhance clotrimazole-mediated transcription. We found that clotrimazole was toxic to HepG2 cells and we therefore investigated whether mitogen-activated protein kinase (MAPK) activation is involved in the transactivation of MRP3 by clotrimazole. p38 MAPK inhibitor SB203580 [4-(4-fluorophenyl)-2-(4-methylsulfinylphenyl)-5-(4-pyridyl)-1H-imidazole] suppressed MRP3 mRNA expression induced by clotrimazole, whereas c-Jun N-terminal kinase inhibitor SP600125 (1,9pyrazolooanthrone) and extracellular signal-regulated kinase inhibitor PD98059 [2-(2-amino-3-methoxyphenyl)-4H-1-benzopyran-4-one] did not. Phosphorylated p38 MAPK was detected in HepG2 cells treated with clotrimazole.

According to the news reporters, the research concluded: "These results suggest that activation of the p38 MAPK pathway induces the transcriptional activation of MRP3."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.115.231589. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miyagi, Japan, Asia, Intracellular Signaling Peptides and Proteins, Phosphotransferases (Alcohol Group Acceptor), Multidrug Resistance-Associated Proteins, ATP-Dependent Organic Anion Transporters, Mitogen-Activated Protein Kinases, ATP-Binding Cassette Transporters, Protein-Serine-Threonine Kinases, Proline-Directed Protein Kinases, Membrane Transport Proteins, Anion Transport Proteins, Enzymes and Coenzymes, Dermatological Agents, Clotrimazole Therapy, Drugs and Therapies, Topical Antifungals, Membrane Proteins, Azole Antifungals, Carrier Proteins, Drug Resistance, Pharmaceuticals, Antiinfectives, Ion Pumps, Faculty of Pharmaceutical Sciences.

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Study Findings from Federal University Provide New Insights into Bariatric Surgery (The FKBP5 polymorphism rs1360780 is associated with lower weight loss after bariatric surgery: 26 months of follow-up)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
Researchers detail new data in Surgery - Bariatric Surgery. According to news reporting originating from Porto Alegre, Brazil, by NewsRx correspondents, research stated, "Bariatric surgery is the most effective treatment choice for severe obesity. Recent literature indicates that FK506-binding protein 51 (FKBP51) could play a role in energy homeostasis, influencing adipogenesis and weight."

Our news editors obtained a quote from the research from Federal University, "To evaluate if the presence of the T allele of the FKBP5 SNP rs1360780, associated with increased FKBP51 expression, could influence weight loss after bariatric surgery. Hospital de Clinicas de Porto Alegre, Brazil. Forty-two patients awaiting bariatric surgery were included, and the presence of the FKBP5 rs1360780 polymorphism was evaluated. During the postoperative period, a 26-month follow-up of weight loss was performed (n = 42, 36, 35, 35, and 30, from the first to fifth postoperative evaluation, respectively; loss to follow-up: 28.6%). Carriers of the T allele presented significantly lower weight loss compared with patients with the C/C genotype after the 12th to 14th month follow-up period. Differences in weight loss between genotypes ranged from 14.2% to 19.9% of excess weight loss (P = .045 and .004, respectively) and from 7.6% to 9.0% of total weight loss (P = .002 for both comparisons). Furthermore, carriers of the T allele also presented an earlier cessation of weight loss after surgery. The presence of the T allele of the FKBP5 SNP rs1360780 was associated with weight loss after bariatric surgery."

According to the news editors, the research concluded: "Bariatric surgery can interact with genes involved in metabolic regulation, leading to different weight loss outcomes."

For more information on this research see: The FKBP5 polymorphism rs1360780 is associated with lower weight loss after bariatric surgery: 26 months of follow-up. Surgery for Obesity and Related Diseases, 2016;12(8):1554-1561. Surgery for Obesity and Related Diseases can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Surgery for Obesity and Related Diseases - www.journals.elsevier.com/surgery-for-obesity-and-related-diseases/)

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.soard.2016.04.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Porto Alegre, Brazil, South America, Operative Surgical Procedures, Bariatric Surgery, Genetics, Federal University.

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Cardiovascular Diseases and Conditions --

Study Findings from Federal University Provide New Insights into Hypertension (Prognostic Importance of Ambulatory Blood Pressure Monitoring in Resistant Hypertension: Is It All that Matters?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Hypertension are presented in a new report. According to news reporting out of Rio de Janeiro, Brazil, by
NewsRx editors, research stated, "Purpose of Review This article reviews the current knowledge on the prognostic importance of ambulatory blood pressure (BP) monitoring parameters in patients with apparent treatment-resistant hypertension. Although mean 24-h ambulatory BPs have been consistently established as better cardiovascular risk predictors than clinic (office) BPs in several clinical settings, and ambulatory BP monitoring is generally indicated in patients with resistant hypertension; there were only five previous longitudinal prospective studies that specifically evaluated the prognostic importance of ambulatory BP monitoring parameters in resistant hypertensive patients."

Our news journalists obtained a quote from the research from Federal University, "These studies are carefully reviewed here. In conjunction, they demonstrated that office BP levels have little, if any, prognostic value in resistant hypertensive patients. Otherwise, several ambulatory BP monitoring parameters are strong cardiovascular risk predictors, particularly nighttime sleep BPs and the non-dipping pattern. Most relevant, the ambulatory BP monitoring diagnosis of true resistant hypertension (i.e., patients with uncontrolled ambulatory BPs, either daytime or nighttime) doubled the risk of future occurrence of major cardiovascular events in contrast to patients with white-coat resistant hypertension (i.e., with controlled ambulatory BPs despite uncontrolled office BPs)."

According to the news editors, the research concluded: "This review reinforces the pivotal role of serial ambulatory BP monitoring examinations in the clinical management of patients with resistant hypertension."

For more information on this research see: Prognostic Importance of Ambulatory Blood Pressure Monitoring in Resistant Hypertension: Is It All that Matters? Current Hypertension Reports, 2016;18(12):3-10. Current Hypertension Reports can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Current Hypertension Reports - www.springerlink.com/content/1522-6417/)

Our news journalists report that additional information may be obtained by contacting G.F. Salles, Federal University of Rio de Janeiro, Univ Hosp Clementino Fraga Filho, BR-22750240 Rio De Janeiro, RJ, Brazil.

Keywords for this news article include: Rio de Janeiro, Brazil, South America, Diagnostics and Screening, Article Review, Cardiovascular Diseases and Conditions, Diagnostic Techniques and Procedures, Ambulatory Blood Pressure Monitoring, Hemodynamics, Hypertension, Cardiology, Diagnosis, Federal University.

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Study Findings from Fred Hutchinson Cancer Research Center Broaden Understanding of Obesity (Subjective mood and energy levels of healthy weight and overweight/obese healthy adults on high-and low-glycemic load experimental diets)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Obesity are presented in a new report. According to news reporting out of Seattle, Washington, by NewsRx editors, research stated, "Emerging evidence suggests a positive association of diet and obesity with depression. Researchers have examined several diet-mood hypotheses, including
investigating the extent to which carbohydrates may impact mood."

Financial support for this research came from NIH/NCI.

Our news journalists obtained a quote from the research from Fred Hutchinson Cancer Research Center, "There is limited research on how glycemic load, a characteristic of carbohydrates, impacts mood in healthy adults. Eighty-two healthy weight and overweight/obese, but otherwise healthy, adults enrolled in a randomized, crossover controlled feeding study testing low-compared to high-glycemic load diets. All participants completed self-report mood and energy level questionnaires during each arm of the intervention. Diets were isocaloric and were matched by macronutrient content as a percent of total energy. Mood was assessed with the Profile of Mood States (POMS) subscales; tension-anxiety, depression-dejection, anger-hostility, vigor-activity, fatigue-inertia, and confusion-bewilderment, total mood disturbance (TMD), and negative affect (NA) in addition to the Center for Epidemiological Studies - Depression (CES-D) scale at baseline and end of both 28-day feeding periods. Linear mixed models tested the intervention effect on mood, controlling for baseline POMS and CES-D scores, diet type, diet sequence, feeding period, sex, and percent body fat classification. The consumption of the high-glycemic load diet resulted in a 38% higher score for depressive symptoms on the CES-D (P = 0.002) compared to the low-glycemic load diet as well as 55% higher score for TMD (P = 0.05), and 26% higher score for fatigue/inertia (P = 0.04). In subgroup analyses, the overweight/obese participants had 40% higher scores on the CES-D scale compared to healthy weight participants (P = 0.05)."

According to the news editors, the research concluded: "A high-glycemic load diet was associated with higher depression symptoms, total mood disturbance, and fatigue compared to a low-glycemic load diet especially in overweight/obese, but otherwise healthy, adults."


Our news journalists report that additional information may be obtained by contacting K.L. Breymeyer, Fred Hutchinson Cane Res Center, Div Public Hlth Sci, Seattle, WA 98109, United States. Additional authors for this research include J.W. Lampe, B.A. McGregor and M.L. Neuhouser.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.appet.2016.08.008. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Epidemiology, Bariatrics, Obesity, Fred Hutchinson Cancer Research Center.

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**Study Findings from Free University Broaden Understanding of Adrenal Cortical Steroids**

**Drugs and Therapies - Adrenal Cortical Steroids**

**Ethyl cellulose nanocarriers and nanocrystals differentially deliver dexamethasone into intact, tape-stripped or**

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sodium lauryl sulfate-exposed ex vivo human ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Drugs and Therapies - Adrenal Cortical Steroids. According to news reporting from Berlin, Germany, by NewsRx journalists, research stated, "Understanding penetration not only in intact, but also in lesional skin with impaired skin barrier function is important, in order to explore the surplus value of nanoparticle-based drug delivery for anti-inflammatory dermatotherapy. Herein, short-term ex vivo cultures of (i) intact human skin, (ii) skin pretreated with tape-strippings and (iii) skin pre-exposed to sodium lauryl sulfate (SLS) were used to assess the penetration of dexamethasone (Dex)."

Financial support for this research came from Deutsche Forschungsgemeinschaft (DFG)/German Research Foundation.

The news correspondents obtained a quote from the research from Free University, "Intradermal microdialysis was utilized for up to 24 h after drug application as commercial cream, nanocrystals or ethyl cellulose nanocarriers applied at the therapeutic concentration of 0.05%, respectively. In addition, Dex was assessed in culture media and extracts from stratum corneum, epidermis and dermis after 24 h, and the results were compared to those in heat-separated split skin from studies in Franz diffusion cells. Providing fast drug release, nanocrystals significantly accelerated the penetration of Dex. In contrast to the application of cream and ethyl cellulose nanocarriers, Dex was already detectable in eluates after 6 h when applying nanocrystals on intact skin. Disruption of the skin barrier further accelerated and enhanced the penetration. Encapsulation in ethyl cellulose nanocarriers delayed Dex penetration. Interestingly, for all formulations highly increased concentrations in the dialysate were observed in tape-stripped skin, whereas the extent of enhancement was less in SLS-exposed skin. The results were confirmed in tissue extracts and were in line with the predictions made by in vitro release studies and ex vivo Franz diffusion cell experiments. The use of 45 kDa probes further enabled the collection of inflammatory cytokines. However, the estimation of glucocorticoid efficacy by Interleukin (IL)-6 and IL-8 analysis was limited due to the trauma induced by the probe insertion."

According to the news reporters, the research concluded: "Ex vivo intradermal microdialysis combined with culture media analysis provides an effective, skin-sparing method for preclinical assessment of novel drug delivery systems at therapeutic doses in models of diseased skin."

For more information on this research see: Ethyl cellulose nanocarriers and nanocrystals differentially deliver dexamethasone into intact, tape-stripped or sodium lauryl sulfate-exposed ex vivo human skin - assessment by intradermal microdialysis and extraction from the different skin layers. *Journal of Controlled Release*, 2016;242():25-34. *Journal of Controlled Release* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jconrel.2016.07.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Berlin, Germany, Europe, Adrenal Cortical
Study Findings from French National Institute of Health and Medical Research (INSERM) Broaden Understanding of Helicobacter pylori (Role of the N-Acetylmuramoyl-L-Alanyl Amidase, AmiA, of Helicobacter pylori in Peptidoglycan Metabolism, ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Helicobacter pylori. According to news reporting out of Paris, France, by NewsRx editors, research stated, "The human gastric pathogen, Helicobacter pylori, is becoming increasingly resistant to most available antibiotics. Peptidoglycan (PG) metabolism is essential to eubacteria, hence, an excellent target for the development of new therapeutic strategies."

Our news journalists obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "However, our knowledge on PG metabolism in H. pylori remains poor. We have further characterized an isogenic mutant of the amiA gene encoding a N-acetylmuramoyl-L-alanyl amidase. The amiA mutant displayed long chains of unseparated cells, an impaired motility despite the presence of intact flagella and a tolerance to amoxicillin. Interestingly, the amiA mutant was impaired in colonizing the mouse stomach suggesting that AmiA is a valid target in H. pylori for the development of new antibiotics. Using reverse phase high-pressure liquid chromatography, we analyzed the PG muropeptide composition and glycan chain length distribution of strain 26695 and its amiA mutant. The analysis showed that H. pylori lacked muropeptides with a degree of cross-linking higher than dimeric muropeptides. The amiA mutant was also characterized by a decrease of muropeptides carrying 1,6-anhydro-N-acetylmuramic acid residues, which represent the ends of the glycan chains. This correlated with an increase of very long glycan strands in the amiA mutant. It is suggested that these longer glycan strands are trademarks of the division site."

According to the news editors, the research concluded: "Taken together, we show that the low redundancy on genes involved in PG maturation supports H. pylori as an attractive alternative model to study PG metabolism and cell shape regulation."


Our news journalists report that additional information may be obtained by contacting I.G. Boneca, INSEMR, Equipe Avenir, Paris, France. Additional authors for this research include C. Ecobichon, N. Pouradier, J.C. Rousselle, A. Namane and I.G. Boneca.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/mdr.2016.0070. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Parasitic Diseases and Conditions, Amidase, Drugs and Therapies, Bacterial Polysaccharides, Gram-Negative Bacteria, Enzymes and Coenzymes, Epsilonproteobacteria, Helicobacter pylori, Proteobacteria, Peptidoglycan, Glycopeptides, Mucoproteins, Proteins, Peptides, Genetics, French National Institute of Health and Medical Research (INSERM).

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Dysostosis

Study Findings from French National Institute of Health and Medical Research (INSERM) Provide New Insights into Dysostosis (Mandibular Dysostosis without Microphthalmia Caused by OTX2 Deletion)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Dysostosis. According to news originating from Nantes, France, by NewsRx correspondents, research stated, "Mutations in OTX2 are mostly identified in patients with anophthalmia/microphthalmia with variable severity. The OTX2 homeobox gene plays a crucial role in craniofacial morphogenesis during early embryo development."

Our news journalists obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "We report for the first time a patient with a mandibular dysostosis caused by a 120 kb deletion including the entire coding sequence of OTX2, identified by array CGH. No ocular malformations were identified after extended ophthalmologic examination."

According to the news editors, the research concluded: "Our data refine the clinical spectrum associated with OTX2 mutations and suggests that OTX2 haploinsufficiency should be considered as a possible cause for isolated mandibular dysostosis."


The news correspondents report that additional information may be obtained from B. Isidor, INSERM, Lab Physiopathol Resorpt Osseuse & Therapie Tumeu, Nantes, France. Additional authors for this research include S. Bordereau, A. Bleriot, O. Pichon, D. Poulain, A. Briand, C. Le Caignec and B. Isidor.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37837. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nantes, France, Europe, Musculoskeletal Diseases and Conditions, Genetics, Developmental Bone Diseases and Conditions, Dysostoses, Dysostosis, French National Institute of Health and Medical Research (INSERM).

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Obstructive Sleep Apnea

Study Findings from G. Ernst et al Provide New Insights into Obstructive Sleep Apnea [Difference between apnea-hypopnea index (AHI) and oxygen desaturation index (ODI): proportional increase associated with degree of obesity]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Obstructive Sleep Apnea. According to news reporting from Buenos Aires, Argentina, by NewsRx journalists, research stated, "Obesity is one of the main predisposing factors for obstructive sleep apnea (OSA) hypopnea syndrome. It has been described that body mass index (BMI) influences the accuracy of oxygen desaturation index (ODI) for the diagnosis of OSA by polysomnography (PSG)."

Financial support for this research came from No funding was received for this research.

The news correspondents obtained a quote from the research, "We analyzed the relationship between traditional indicators: apnea-hypopnea index (AHI) and ODI in a population at high risk for OSA, by respiratory polygraphy (RP) and PSG. This is a retrospective study of 1898 patients with suspicion of OSA, from which 1053 underwent RP and 582 underwent PSG with OSA. We compared results considering gender, age, and degree of obesity. This study included 1333 records of patients with OSA-more than 80 % of whom were overweight or obese. We observed that AHI and ODI increased progressively with obesity grade and said increase was associated with BMI only in men. The evaluation of the agreement between AHI and ODI found a difference between normal weight and obese patients, regardless of gender. Study findings contribute to understand the role of oximetry in the diagnosis of OSA in obese patients. Our results were observed using full PSG and a simplified home method."

According to the news reporters, the research concluded: "The correlation between these indicators could improve our clinical interpretation of OSA severity among obese patients when abbreviated tests are used."

For more information on this research see: Difference between apnea-hypopnea index (AHI) and oxygen desaturation index (ODI): proportional increase associated with degree of obesity. *Sleep and Breathing*, 2016;20(4):1175-1183. *Sleep and Breathing* can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Sleep and Breathing - www.springerlink.com/content/1520-9512/)

Our news journalists report that additional information may be obtained by contacting G. Ernst, Hosp Britan, Buenos Aires, DF, Argentina. Additional authors for this research include M. Bosio, A. Salvado, E. Dibur, C. Nigro and E. Borsini.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11325-016-1330-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Buenos Aires, Argentina, South America, Nutritional and Metabolic Diseases and Conditions, Respiratory Tract Diseases and Conditions, Obstructive Sleep Apnea, Respiration Disorders, Nutrition Disorders, Diet and Nutrition, Sleep Disorders, Overnutrition, Chalcogens, Bariatrics, Obesity.

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**Mycobacterium Infections - Tuberculosis**

**Study Findings from Global Health Institute Provide New Insights into Tuberculosis (Characterization of DprE1-Mediated Benzothiazinone Resistance in Mycobacterium tuberculosis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Mycobacterium Infections - Tuberculosis. According to news reporting originating from Lausanne, Switzerland, by NewsRx correspondents, research stated, "Benzothiazinones (BTZs) are a class of compounds found to be extremely potent against both drug-susceptible and drug-resistant Mycobacterium tuberculosis strains. The potency of BTZs is explained by their specificity for their target decaprenylphosphoryl-D-ribose oxidase (DprE1), in particular by covalent binding of the activated form of the compound to the critical cysteine 387 residue of the enzyme."

Our news editors obtained a quote from the research from Global Health Institute, "To probe the role of C387, we used promiscuous site-directed mutagenesis to introduce other codons at this position into dprE1 of M. tuberculosis. The resultant viable BTZ-resistant mutants were characterized in vitro, ex vivo, and biochemically to gain insight into the effects of these mutations on DprE1 function and on M. tuberculosis. Five different mutations (C387G, C387A, C387S, C387N, and C387T) conferred various levels of resistance to BTZ and exhibited different phenotypes. The C387G and C387N mutations resulted in a lower growth rate of the mycobacterium on solid medium, which could be attributed to the significant decrease in the catalytic efficiency of the DprE1 enzyme. All five mutations rendered the mycobacterium less cytotoxic to macrophages. Finally, differences in the potencies of covalent and noncovalent DprE1 inhibitors in the presence of C387 mutations were revealed by enzymatic assays. As expected from the mechanism of action, the covalent inhibitor PBTZ169 only partially inhibited the mutant DprE1 enzymes compared to the near-complete inhibition with a noncovalent DprE1 inhibitor, Ty38c."

According to the news editors, the research concluded: "This study emphasizes the importance of the C387 residue for DprE1 activity and for the killing action of covalent inhibitors such as BTZs and other recently identified nitroaromatic inhibitors."


The news editors report that additional information may be obtained by contacting S.T. Cole, Ecole Polytechnic Fed Lausanne, Global Hlth Inst, Lausanne, Switzerland. Additional authors for this research include B. Lechartier, G.S. Kolly, S. Boy-Rottger, J. Neres, J. Rybniker, A. Lupien, C. Sala, J. Piton and S.T. Cole.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01523-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lausanne, Switzerland, Europe, Gram-Positive Asporogenous Rods, Mycobacterium tuberculosis, Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Gram-
Positive Rods, Mycobacteriaceae, Actinobacteria, Genetics, Global Health Institute.

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Oncology - Pancreatic Cancer

Study Findings from Guangdong General Hospital Provide New Insights into Pancreatic Cancer (Association and Intragenic Single-Nucleotide Polymorphism Interactions of the XRCC1 Polymorphisms for Pancreatic Cancer Susceptibility)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Pancreatic Cancer are presented in a new report. According to news reporting originating from Guangzhou, People's Republic of China, by NewsRx correspondents, research stated, "X-ray repair cross-complementing group 1 (XRCC1) gene is an important candidate gene for influencing human cancer risks. This study examined the main and interactive effect of 9 single-nucleotide polymorphisms (SNPs) (Arg194Trp, Arg280His, Arg399Gln, c.1254C >T, c.1517G >C, c.1471G >A, C310T, 539del542, and T1915C) of XRCC1 in contribution to pancreatic cancer (PC)."

Our news editors obtained a quote from the research from Guangdong General Hospital, "A total of 298 PC patients and 298 healthy controls were enrolled. Selected SNPs in XRCC1 were genotyped. The generalized multifactor dimensionality reduction method investigated gene-gene interactions. Single-locus analyses showed that, in the codominant model, the G0 genotype of 539del542 might have a higher risk for PC (odds ratio [OR], 1.47; 95% confidence interval [95% CI], 1.05-2.08). For T1915C polymorphism, the TC and CC genotypes both had a higher risk for PC (OR, 1.76; 95% CI, 1.25-2.48; OR, 1.83; 95% CI, 1.05-3.19, respectively); and a similar result was observed in the dominant model (OR, 1.77; 95% CI, 1.28-2.46). A tendency of association between Arg280His and PC was also detected in the dominant model (OR, 0.70; 95% CI, 0.48-1.00). Furthermore, the generalized multifactor dimensionality reduction method showed that the 4-locus model was significant, involving Arg280His, 539del542, T1915C, and c.1517G >C (p <0.05)."

According to the news editors, the research concluded: "Thus, XRCC1 polymorphisms may contribute to the risk of PC independently or in an interactive manner."

For more information on this research see: Association and Intragenic Single-Nucleotide Polymorphism Interactions of the XRCC1 Polymorphisms for Pancreatic Cancer Susceptibility. Pancreas, 2016;45(4):546-51. (Lippincott Williams and Wilkins - www.lww.com; Pancreas - journals.lww.com/pancreasjournal/pages/default.aspx)

The news editors report that additional information may be obtained by contacting B.H. Hou, From the Dept. of General Surgery, Guangdong General Hospital, Guangdong Academy of Medical Sciences, Guangzhou, People's Republic of China. Additional authors for this research include Z.X. Jian, P. Cui, S.J. Li, R.Q. Tian and J.R Ou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MPA.0000000000000482. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Genetics, Oncology, Guangzhou, Gastroenterology, Machine Learning, Pancreatic Cancer, Risk and Prevention, Pancreatic Neoplasms, Emerging Technologies, Dimensionality Reduction, People's Republic of China.
Study Findings from Harvard School of Medicine Provide New Insights into Oncology (Acquired Resistance to First-Line Afatinib and the Challenges of Prearranged Progression Biopsies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology is now available. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "The mechanisms of acquired resistance to the irreversible EGFR inhibitor afatinib are not well documented. We performed this prospective clinical trial to determine the prevalence of the mutation T790M in afatinib-resistant patients."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Eligible patients had EGFR mutations; they were tyrosine kinase inhibitor-naive and were treated with afatinib, 40 mg daily. At enrollment, patients consented to a future repeat biopsy at the time of acquired resistance. A total of 24 patients were enrolled. The objective response rate was 58% (95% confidence interval [CI]: 37-78) with a median progression-free survival of 11.4 months (95% CI: 5.9-13.7) and median overall survival of 20.8 months (95% CI: 15.1-40.5). Of the 24 patients enrolled, 23 progressed and only 14 completed repeat biopsy at time of progression, with 11 samples sufficient for molecular analysis. Of those 11 patients, four (36% [95% CI: 10.9-69.2]) harbored T790M. T790M is likely a common resistance mechanism in patients treated with first-line afatinib."

According to the news editors, the research concluded: "Although repeat biopsies at progression are crucial in elucidating resistance mechanisms, this study suggests that clinical and technical issues often limit their feasibility, highlighting the importance of developing noninvasive tumor-genotyping strategies."


Our news journalists report that additional information may be obtained by contacting L.V. Sequist, Harvard Med Sch, Boston, MA, United States. Additional authors for this research include D. Gerber, J.F. Gainor, R.S. Heist, J.S. Temel, A.T. Shaw, P. Fidias, A. Muzikansky, J.A. Engelman and L.V. Sequist.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jtho.2016.06.032. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Oncology, Genetics, Harvard School of Medicine.

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Heart Disorders and Diseases - Heart Failure

Study Findings from Heart and Vascular Institute Broaden Understanding of Heart Failure (Increased mortality with elevated plasma endothelin-1 in acute heart failure: an ASCEND-HF biomarker substudy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Failure have been presented. According to news reporting out of Cleveland, Ohio, by NewsRx editors, research stated, "Endothelin-1 (ET-1) is an endogenous vasoconstrictor implicated in pulmonary and systemic hypertension, as well as ventricular dysfunction, through effects on vascular smooth muscle, the kidneys, and cardiomyocytes. We aimed to determine the association between serial ET-1 levels and acute heart failure patient outcomes."

Financial support for this research came from Scios Inc. Janssen Research & Development LLC.

Our news journalists obtained a quote from the research from Heart and Vascular Institute, "We measured plasma ET-1 at baseline, 48-72 h, and 30 days in a cohort of 872 patients hospitalized with acute heart failure from the ASCEND-HF trial (randomized to nesiritide vs. placebo), and its association with 30-day mortality, 180-day mortality, in-hospital death or worsening heart failure, and 30-day mortality or rehospitalization. Median ET-1 was 7.6 [interquartile range (IQR) 5.9-10] pg/mL at baseline, 6.3 (IQR 4.9-8.1) pg/mL at 48-72 h, and 5.9 (IQR 4.7-7.9) pg/mL at 30 days (p <0.001). Baseline and 48-72 h ET-1 were found to be independently associated with 180-day mortality in a multivariable analysis [hazard ratio (HR) 1.6, 95% confidence interval (CI) 1.3-2.0, p<0.001 and HR 1.5, 95% CI 1.2-1.9, p=0.001, respectively, log-transformed]. ET-1 that was measured at 48-72 h was also independently associated with death or worsening heart failure prior to discharge [odds ratio (OR) 1.6, 95% CI 1.03-2.4, p=0.03]. These independent associations remained significant after including NT-proBNP in the multivariable analysis."

According to the news editors, the research concluded: "We observed an independent association between elevated ET-1 and short-term in-hospital clinical outcomes and 180-day mortality in hospitalized patients with acute heart failure ET-1 provided additional prognostic information which was incremental to that yielded by NT-proBNP."


Our news journalists report that additional information may be obtained by contacting A.L. Perez, Heart and Vascular Institute, Cleveland Clinic, Cleveland, OH, United States. Additional authors for this research include J.L. Grodin, Y. Wu, A.F. Hernandez, J. Butler, M. Metra, G.M. Felker, A.A. Voors, J.J. McMurray, P.W. Armstrong, R.C. Starling, C.M. O'Connor and W.H Tang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ejhf.456. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Hospital, Cleveland, Cardiology, Endothelin 1, United States, Heart Disease, Heart Failure, North and Central America, Heart
Study Findings from Hiroshima University Broaden Understanding of Esophageal Cancer (Role of definitive chemoradiotherapy using docetaxel and 5-fluorouracil in patients with unresectable locally advanced esophageal squamous cell carcinoma: a ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Esophageal Cancer. According to news reporting out of Hiroshima, Japan, by NewsRx editors, research stated, "Definitive chemoradiotherapy (CRT) with docetaxel (DOC) and 5-fluorouracil (5-FU) is a unique regimen for esophageal cancer. In this prospective phase II study, antitumor effect and safety of CRT using DOC and 5-FU for inoperable locally advanced esophageal cancer were evaluated."

Our news journalists obtained a quote from the research from Hiroshima University, "DOC 7.5mg/m(2) was infused on days 1, 8, 22, and 29. 5-FU 250mg/m(2)/day was infused continuously on days 1-5, 8-12, 15-19, 22-26, 29-33, 36-40, and 43-45. Radiotherapy was given to 66Gy in 33 fractions. Eleven patients with thoracic and five with cervical esophageal cancer were eligible. All patients had esophageal squamous cell carcinoma (ESCC). The response rate was 94%, with complete response in five patients (31%) and partial response in 10 (63%). Hematologic toxicity was mild; only one patient (6%) had Grade 1 leukopenia. Nonhematologic Grade 3 or higher adverse events were esophagitis (31%), anorexia (6%), and esophago-bronchial fistula (6%). No treatment-related deaths occurred. The median time to progression was 20 months and overall 3-year and 5-year survival were 44% and 31%, respectively. Definitive CRT using DOC and 5-FU could be performed safely, and it demonstrated a favorable antitumor effect for ESCC."

According to the news editors, the research concluded: "This regimen might be indicated in patients in whom it is desirable to avoid myelosuppression and progression of renal impairment."


Our news journalists report that additional information may be obtained by contacting M. Okada, Hiroshima University, Res Inst Radian Biol & Med, Dept. of Surg Oncol, Hiroshima, Japan. Additional authors for this research include Y. Hamai, M. Emi, Y. Murakami, M. Kenjo, Y. Nagata and M. Okada.

Keywords for this news article include: Hiroshima, Japan, Asia, Clinical Trials and Studies, Squamous Cell Carcinoma, Clinical Research, Esophageal Cancer, Gastroenterology, Carcinomas, Oncology, Hiroshima University.

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Oncology - Colon Cancer

Study Findings from Hong Kong Baptist University Broaden Understanding of Colon Cancer [Determination of amino acids in colon cancer cells by using UHPLC-MS/MS and [U-C-13(5)]-glutamine as the isotope tracer]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week-- Investigators discuss new findings in Oncology - Colon Cancer. According to news reporting out of Hong Kong, People's Republic of China, by NewsRx editors, research stated, "Rapid and simple quantitative analysis of intracellular metabolites is a critical tool for monitoring the alteration of biologically significant metabolites in cell lines or in vivo. We established an ultra-high performance liquid chromatography (UHPLC) method, equipped with hydrophilic interaction liquid chromatography (HILIC) column coupled to tandem mass spectrometry (MS/MS) for the simultaneous determination of 19 amino acids and 2 related derivatives in human cell lines."

Our news journalists obtained a quote from the research from Hong Kong Baptist University, "Chromatographic separation was achieved within 20 min using a BEH amide column, with aqueous mobile phase containing 20 mM ammonium acetate and 20 mM ammonium hydroxide, and acetonitrile as the organic mobile phase. Amino acids were analyzed in positive ion multiple reaction monitoring (MRM) mode without the need of derivatization. Intra- and inter-day precisions were less than 13.7%. The method was successfully applied to simultaneously detect the 21 compounds in a human colon cancer cell line DLD1. Moreover, metabolite fate of glutamine-derived carbons into amino acids in DLD1 cells was successfully traced by using [U-(13)C5]glutamine as the isotope tracer. Metabolic consequences of glutaminolysis inhibition on amino acid metabolism were evaluated."

According to the news editors, the research concluded: "Analysis of C-12- and U-C-13-labeled amino acids revealed the significantly decreased incorporation of [U-(13)C5]-glutamine derived carbons into aspartate, alanine and ornithine, indicating impaired metabolic flux via the tricarboxylic acid cycle and the urea cycle."

For more information on this research see: Determination of amino acids in colon cancer cells by using UHPLC-MS/MS and [U-C-13(5)]-glutamine as the isotope tracer. Talanta, 2017;162():285-292. Talanta can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Talanta - www.journals.elsevier.com/talanta/)

Our news journalists report that additional information may be obtained by contacting Z.W. Cai, Hong Kong Baptist University, Dept. of Chem, State Key Lab Environm & Biol Anal, Hong Kong, Hong Kong, People's Republic of China. Additional authors for this research include C.C. Wong, Z. Tang, J.L. Wu, S.F. Li, Y. Qian, J.Y. Xu, Z.Y. Yang, Y. Shen, J. Yu and Z.W. Cai.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Diamino Amino Acids, Neutral Amino Acids, Basic Amino Acids, Colon Cancer, Glutamine, Oncology, Proteins, Peptides, Hong Kong Baptist University.

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Study Findings from Huazhong University of Science and Technology Provide New Insights into Bladder Cancer (Pre-instillation of tumor microparticles enhances intravesical chemotherapy of nonmuscle-invasive bladder cancer through a lysosomal ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Bladder Cancer is now available. According to news reporting out of Wuhan, People's Republic of China, by NewsRx editors, research stated, "Nonmuscle-invasive bladder cancer (NMIBC) is treated with transurethral resection followed by intravesical chemotherapy. However, drug-resistant tumorigenic cells cannot be eliminated, leading to half of the treated cancers recur with increased stage and grade."

Financial supporters for this research include National Basic Research Program of China, National Science Fund for Distinguished Young Scholars of China, National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from the Huazhong University of Science and Technology, "Innovative approaches to enhance drug sensitivity and eradicate tumorigenic cells in NMIBC treatment are urgently needed. Here, we show that pre-instillation of tumor cell-derived microparticles (T-MP) as natural biomaterials markedly enhance the inhibitory effects of intravesical chemotherapy on growth and hematuria occurrence of orthotopic bladder cancer in mice. We provide evidence that T-MPs enter and increase the pH value of lysosomes from 4.6 to 5.6, leading to the migration of drug-loaded lysosomes along microtubule tracks toward the nucleus and discharging the drugs whereby for the entry of the nucleus."

According to the news editors, the research concluded: "We propose that T-MPs may function as a potent sensitizer for augmenting NMIBC chemotherapy with unprecedented clinical benefits."

For more information on this research see: Pre-instillation of tumor microparticles enhances intravesical chemotherapy of nonmuscle-invasive bladder cancer through a lysosomal pathway. Biomaterials, 2017;113();93-104. Biomaterials can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Biomaterials - www.journals.elsevier.com/biomaterials/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.10.036. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Drugs and Therapies, Bladder Cancer, Chemotherapy, Oncology, Huazhong University of
Science and Technology.
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Cardiovascular Diseases and Conditions -...

Study Findings from Indiana University School of Medicine Broaden Understanding of Hypertension (Treating hypertension in hemodialysis improves symptoms seemingly unrelated to volume excess)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Hypertension is the subject of a report. According to news originating from Indianapolis, Indiana, by NewsRx editors, the research stated, "Among hemodialysis patients, probing dry weight is an effective strategy for improving control of hypertension. Whether controlling hypertension improves or worsens symptoms among such patients remains unclear."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from the Indiana University School of Medicine, "The purpose of the study was to develop a tool to evaluate symptoms and examine the relationship of the change in these symptoms with blood pressure (BP) control. Among patients participating in the Hemodialysis Patients Treated with Atenolol or Lisinopril (HDPAL) randomized controlled trial, a confirmatory factor analysis (CFA) was performed to establish the relationship between symptoms and organ systems. Next, the change in symptom scores pertaining to organ systems was analyzed using a mixed model. Finally, the independent effect of lowering home BP on change in symptoms was evaluated. Among 133 participants where symptoms were available at baseline, CFA revealed four level 1 domains: gastrointestinal symptoms, dialysis-related symptoms, cardiovascular symptoms and general symptoms. All except dialysis-related symptoms were ascribed to uremia (level 2 domain). Uremic symptoms improved over 6 months and then increased. Dialysis-related symptoms (fatigue, cramps and orthostatic dizziness) did not worsen despite lowering home BP. Probing dry weight was independently associated with an improvement in cardiovascular symptoms such as shortness of breath. Reducing BP through the use of a strategy that includes volume control and medication improves symptoms seemingly unrelated to volume excess."

According to the news editors, the research concluded: "In long-term hemodialysis patients, treating hypertension using home BP measurements may improve well-being."


The news correspondents report that additional information may be obtained from R. Agarwal, Indiana University School of Medicine and Richard L Roudebush Veterans Affairs Administration Medical Center, Indianapolis, IN, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/ndt/gfv371. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cardiology, Indianapolis, Hemodialysis, Hypertension, United States, Blood Pressure, Renal Dialysis, North and Central America,
Cardiovascular Diseases and Conditions.
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Gram-Positive Bacteria - Staphylococcus aureus

Study Findings from Indiana University School of Medicine Broaden Understanding of Staphylococcus aureus (Topical Prostaglandin E Analog Restores Defective Dendritic Cell-Mediated Th17 Host Defense Against Methicillin-Resistant Staphylococcus ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Positive Bacteria - Staphylococcus aureus. According to news reporting originating from Indianapolis, Indiana, by NewsRx correspondents, research stated, "People with diabetes are more prone to Staphylococcus aureus skin infection than healthy individuals. Control of S. aureus infection depends on dendritic cell (DC)-induced T-helper 17 (Th17)-mediated neutrophil recruitment and bacterial clearance. DC ingestion of infected apoptotic cells (IACs) drive prostaglandin E-2 (PGE(2)) secretion to generate Th17 cells."

Our news editors obtained a quote from the research from the Indiana University School of Medicine, "We speculated that hyperglycemia inhibits skin DC migration to the lymph nodes and impairs the Th17 differentiation that accounts for poor skin host defense in diabetic mice. Diabetic mice showed increased skin lesion size and bacterial load and decreased PGE2 secretion and Th17 cells compared with nondiabetic mice after methicillin-resistant S. aureus (MRSA) infection. Bone marrow-derived DCs (BMDCs) cultured in high glucose (25 mmol/L) exhibited decreased Ptges mRNA expression, PGE2 production, lower CCR7-dependent DC migration, and diminished maturation after recognition of MRSA-IACs than BMDCs cultured in low glucose (5 mmol/L). Similar events were observed in DCs from diabetic mice infected with MRSA. Topical treatment of diabetic mice with the PGE analog misoprostol improved host defense against MRSA skin infection by restoring DC migration to draining lymph nodes, Th17 differentiation, and increased antimicrobial peptide expression."

According to the news editors, the research concluded: "These findings identify a novel mechanism involved in poor skin host defense in diabetes and propose a targeted strategy to restore skin host defense in diabetes."


The news editors report that additional information may be obtained by contacting C.H. Serezani, Indiana Univ Sch Med, Dept. of Microbiol & Immunol, Indianapolis, IN 46202, United States. Additional authors for this research include S.L. Brandt, A. Pineros, N.L. Glosson-Byers, S. Wang, Y.M. Son, A.I. Medeiros and C.H. Serezani.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Methicillin-Resistant Staphylococcus aureus, Gram-Positive Endospore-Forming Rods, Mononuclear Phagocyte System, Endospore-Forming Bacteria, Antigen-
Study Findings from Indiana University-Purdue University Provide New Insights into Zoledronate Therapy (Zoledronate treatment has different effects in mouse strains with contrasting baseline bone mechanical phenotypes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Zoledronate Therapy are discussed in a new report. According to news originating from Indianapolis, Indiana, by NewsRx correspondents, research stated, "Two strains of mice with distinct bone morphologies and mechanical properties were treated with zoledronate. Our results show a different response to drug treatment in the two strains providing evidence that baseline properties of structure/material may influence response to zoledronate."

Funders for this research include National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health.

Our news journalists obtained a quote from the research from Indiana University-Purdue University, "Bisphosphonates are highly effective in reducing fracture risk, yet some individuals treated with these agents still experience fracture. The goal of this study was to test the hypothesis that genotype influences the effect of zoledronate on bone mechanical properties. Skeletally mature male mice from genetic backgrounds known to have distinct baseline post-yield properties (C57/B6, high post-yield displacement; A/J, low post-yield displacement) were treated for 8 weeks with saline (VEH) or zoledronate (ZOL, 0.06 mg/kg subcutaneously once every 4 weeks) in a 2 x 2 study design. Ex vivo mu CT and mechanical testing (4-pt bending) were conducted on the femur to assess morphological and mechanical differences. Significant drug and/or genotype effects were found for several mechanical properties and significant drug x genotype interactions were found for measures of strength (ultimate force) and brittleness (total displacement, strain to failure). Treatment with ZOL affected bone biomechanical measures of brittleness (total displacement (-25 %) and strain to failure (-23 %)) in B6 mice significantly differently than in A/J mice. This was driven by unique drug x genotype effects on bone geometry in B6 animals yet likely also reflected changes to the tissue properties."

According to the news editors, the research concluded: "These data may support the concept that properties of the bone geometry and/or tissue at the time of treatment initiation play a role in determining the bone's mechanical response to zoledronate treatment."

For more information on this research see: Zoledronate treatment has different effects in mouse strains with contrasting baseline bone mechanical phenotypes. *Osteoporosis International*, 2016;27(12):3637-3643. *Osteoporosis International* can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer -
The news correspondents report that additional information may be obtained from M.R. Allen, Indiana Univ Purdue Univ Indianapolis, Dept. of Biomed Engn, Indianapolis, IN, United States. Additional authors for this research include E.M.B. McNerny, D. Brown, K.J. Jepsen and M.R. Allen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00198-016-3701-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Indianapolis, Indiana, United States, North and Central America, Bone Research, Risk and Prevention, Drugs and Therapies, Zoledronate Therapy, Antihypocalcemic, Bisphosphonates, Antiresorptive, Indiana University-Purdue University.

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Study Findings from International Center for Genetic Engineering and Biotechnology Provide New Insights into Science (Stabilization of SIRT7 deacetylase by viral oncoprotein HBx leads to inhibition of growth restrictive RPS7 gene and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Science. According to news reporting originating from New Delhi, India, by NewsRx correspondents, research stated, "Sirtuin-7 (SIRT7) deacetylase exhibits a high selectivity for acetylated H3K18 and has been implicated in the maintenance of malignant phenotype. However, it remains unclear if SIRT7 and H3K18ac play a role in the tumorigenic program driven by oncogenic viruses."

Our news editors obtained a quote from the research from International Center for Genetic Engineering and Biotechnology, "We show that ectopically expressed HBx oncoprotein of hepatitis B virus promoted intracellular stability of SIRT7 by salvaging it from ubiquitin-mediated proteasomal degradation. HBx-dependent accumulation of SIRT7 favored H3K18 deacetylation and down-regulated the small ribosomal protein gene, RPS7, involved in cell death and DNA damage response. HBx facilitated the recruitment of SIRT7 to RPS7 promoter thus impeding H3K18ac occupancy and hindering RPS7 transcription. The antagonistic relationship between SIRT7 and RPS7 was also observed in the HBx transgenic mice, where elevated levels of SIRT7 protein were coincident with low levels of H3K18ac and RPS7. Strikingly, inhibition of cellular deubiquitinase activity restored RPS7 gene transcription. Further, depletion of endogenous SIRT7 led to decreased cell viability and transformation. The biological relevance of RPS7 suppression by HBx-SIRT7 axis was evident from ectopic expression of RPS7 which attenuated clonogenicity of cells."

According to the news editors, the research concluded: "Thus, our findings suggest that SIRT7 is a critical regulator of HBx-driven oncogenic program, through its antagonistic impact on growth restrictive ribosomal protein RPS7."

For more information on this research see: Stabilization of SIRT7 deacetylase by viral oncoprotein HBx leads to inhibition of growth restrictive RPS7 gene and facilitates cellular transformation. Scientific Reports, 2015;5():14806. (Nature Publishing Group -
The news editors report that additional information may be obtained by contacting V. Pandey, Virology Group, International Centre for Genetic Engineering and Biotechnology, Aruna Asaf Ali Marg, New Delhi-110067, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep14806. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Science, Genetics, New Delhi, Deacetylase, Enzymes and Coenzymes.

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Gram-Positive Bacteria - Streptococcus

Study Findings from Islamic Azad University Broaden Understanding of Streptococcus (Effect of photodynamic therapy with two photosensitizers on Streptococcus mutants: In vitro study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Gram-Positive Bacteria - Streptococcus is the subject of a report. According to news reporting from Tehran, Iran, by NewsRx journalists, research stated, "Streptococcus mutans (S. mutans) colonizes the oral cavity and causes dental caries and periodontal diseases. Considering the importance of the treatments that decrease pathogenic microorganisms, the aim of the present research was the assessment of the antimicrobial effect of Photodynamic Therapy (PDT) with Methylene Blue (MB) and Indocyanine Green (IG) photosensitizers on S. mutans."

The news correspondents obtained a quote from the research from Islamic Azad University, "In this In vitro experimental study, Sixty four caries-free first premolars were contaminated with 0.5 McFarland S.mutans suspension and were randomly assigned to 4 groups. The teeth in the first group were impregnated with 2% MB while the teeth in the second group were impregnated with 0.2% IG. The teeth in the first group were irradiated with continuous-wave 660 nm diode laser with 40 mw output power, energy density of 2.4 J/cm(2) and 100% duty cycle for 60 s, while the teeth in the second group were irradiated with continuous-wave 810 nm diode laser with 100 mw out power, density energy of 6 J/cm(2) and 100% duty cycle for 60s in contact mode. In the third group, the teeth were suspended in 0.2% Chlorhexidine for 30 s. The fourth group was considered as the control. The teeth were sampled before and after the interventions and the samples were incubated in Blood Agar for 24 h. Afterwards, the number of S. mutans colonies were counted. Data were statistically analyzed by Kruskal-Wallis, Dunn's and Friedman tests. In the groups treated with a combination of MB and IG and laser irradiation and also in the Chlorhexidine group, the final number of S. mutans colonies equaled zero. In 'MB and IG groups without laser irradiation', although the amount of microorganisms decreased, but the number of colonies did not reach zero. Pair comparisons by Dunn's test showed that there was a significant difference between 'MB and IG groups without laser irradiation' and the other experimental groups p = 0.03)."

According to the news reporters, the research concluded: "PDT with MB and IG photosensitizers and also Chlorhexidine mouthwash, have the ability to completely eradicate S. mutans bacterial colonies."
For more information on this research see: Effect of photodynamic therapy with two photosensitizers on Streptococcus mutants: In vitro study. Photodiagnosis and Photodynamic Therapy, 2016;16():66-71. Photodiagnosis and Photodynamic Therapy can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Photodiagnosis and Photodynamic Therapy - www.journals.elsevier.com/photodiagnosis-and-photodynamic-therapy/)

Our news journalists report that additional information may be obtained by contacting A. Azizi, Islamic Azad Univ, Dental Branch, Dept. of Oral Med, Tehran, Iran. Additional authors for this research include S. Shademan, M. Rezai, A. Rahimi and S. Lawaf.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.pdpdt.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Antiseptic and Germicides, Gram-Positive Bacteria, Chlorhexidine Therapy, Drugs and Therapies, Gram-Positive Cocci, Streptococcaceae, Antiinfectives, Biotechnology, Photodynamics, Streptococcus, Antibiotics, Islamic Azad University.

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Bone Research

Study Findings from J. Plummer et al Provide New Insights into Bone Research (Methionine-Restricted Diet Increases miRNAs That Can Target RUNX2 Expression and Alters Bone Structure in Young Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Bone Research is now available. According to news reporting originating in Cold Spring on Hudson, New York, by NewsRx journalists, research stated, "Dietary methionine restriction (MR) increases longevity and improves healthspan in rodent models. Young male C57BL/6J mice were placed on MR to assess effects on bone structure and formation."

The news reporters obtained a quote from the research, "Mice were fed diets containing 0.86% or 0.12% methionine for 5 weeks. Fasting blood plasma was analyzed for metabolic and bone-related biomarkers. Tibiae were analyzed by histomorphometry, while femurs were analyzed by micro-CT and biomechanically using 4-point bending. MR mice had reduced plasma glucose and insulin, while FGF21 and FGF23 increased. Plasma levels of osteocalcin and osteoprotegerin were unaffected, but sclerostin and procollagen I decreased. MR induced bone marrow fat accretion, antithetical to the reduced fat depots seen throughout the body. Cortical bone showed significant decreases in Bone Tissue Density (BTD). In trabecular bone, mice had decreased BTD, bone surface, trabecula and bone volume, and trabecular thickness. Biomechanical testing showed that on MR, bones were significantly less stiff and had reduced maximum load and total work, suggesting greater fragility. Reduced expression of RUNX2 occurred in bone marrow of MR mice. These results suggest that MR alters bone remodeling and apposition. In MR mice, miR-31 in plasma and liver, and miR-133a, miR-335-5p, and miR-204 in the bone marrow was elevated. These miRNAs were shown previously to target and regulate Osterix and RUNX2 in bone, which could inhibit osteoblast differentiation and function."
According to the news reporters, the research concluded: "Therefore, dietary MR in young animals alters bone structure by increasing miRNAs in bone and liver that can target RUNX2. J. Cell. Biochem. 118: 31-42, 2017."


Our news correspondents report that additional information may be obtained by contacting J.R. Hens, Orentreich Fdn Adv Sci Inc, Cold Spring on Hudson, NY 10516, United States. Additional authors for this research include M. Park, F. Perodin, M.C. Horowitz and J.R. Hens.

Keywords for this news article include: Cold Spring on Hudson, New York, United States, North and Central America, Essential Amino Acids, Neutral Amino Acids, Sulfur Amino Acids, Immune System, Bone Research, Bone Marrow, Methionine, Hematology, Plasma, Blood.

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Diarylheptanoids

Study Findings from Jamia Millia Islamia Provide New Insights into Diarylheptanoids (Characterization and anti-proliferative activity of curcumin loaded chitosan nanoparticles in cervical cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Diarylheptanoids are presented in a new report. According to news reporting from New Delhi, India, by NewsRx journalists, research stated, "In the present study the chitosan nanoparticles (CsNPs) and curcumin loaded chitosan nanoparticles (CLCsNPs) were synthesized by tripolyphosphate (TPP) cross-linking method. The nanoparticles were prepared within a zone of appropriate chitosan and TPP concentrations."

Financial support for this research came from Department of Science and Technology.

The news correspondents obtained a quote from the research from Jamia Millia Islamia, "The average size of CsNPs and CLCsNPs were approximately 189 +/- 11.8 nm and 197 +/- 16.8 nm, exhibited a zeta potential of +76 +/- 5.6 mV and +71 +/- 6.4 mV respectively and drug entrapment efficiency was approximate to 85%. The CLCsNPs and CsNPs were further characterized by different physicochemical methods like transmission electron microscopy (TEM), dynamic light scattering (DLS), HPLC, MALDI-TOF, FT-IR, XRD and UV-vis Spectroscopy. In vitro studies revealed a fast release of approximate to 35% at pH 5 and approximate to 25% at pH 7.4 of the drug during the first 3 h, followed by controlled release of curcumin over a period of 120 h and sustained anti-proliferative activity of the drug in a dose and time dependent manner of CLCsNPs and combination with methyl jasmonate. The higher cytotoxicity effect of CLCsNPs may be due to their higher cellular uptake as compared to curcumin. Chitosan nanoparticles were not only stable but also a nontoxic."

According to the news reporters, the research concluded: "Our data suggested that
curcumin loaded nanoformulations, therefore, might be promising candidates in cancer therapy."


Our news journalists report that additional information may be obtained by contacting M.A. Khan, Jamia Millia Islamia, Dept. of Biosci, Genome Biol Lab, New Delhi 110025, India. Additional authors for this research include M. Zafaryab, S.H. Mehdi, I. Ahmad and M.M.A. Rizvi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijbiomac.2016.08.050. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New Delhi, India, Asia, Emerging Technologies, Organic Chemicals, Diarylheptanoids, Nanotechnology, Hydrocarbons, Nanoparticle, Catechols, Oncology, Curcumin, Alkanes, Cancer, Jamia Millia Islamia.

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**Blood Pressure**

**Study Findings from Jena University Hospital Broaden Understanding of Blood Pressure (Dysautonomia in prodromal a-synucleinopathy: peripheral versus central autonomic degeneration)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Blood Pressure. According to news reporting originating from Jena, Germany, by NewsRx correspondents, research stated, "There is an urgent need for early predictive markers for the course of disease in prodromal a-synucleinopathies such as idiopathic rapid eye movement (REM) sleep behaviour disorder. Autonomic cardiac/vascular dysfunction is a prominent feature in advanced a-synucleinopathies, but its diagnostic value as an early neurodegenerative marker remains unclear."

Our news editors obtained a quote from the research from Jena University Hospital, "The latter may be complicated since synuclein-mediated neurodegeneration may involve central and peripheral components of the autonomic nervous system. The diagnostic value of autonomic symptoms and central and peripheral autonomic markers of blood pressure and heart rate regulation were prospectively evaluated in 20 subjects with idiopathic REM sleep behaviour disorder and 20 age-matched healthy controls. Although subjects with REM sleep behaviour disorder showed no clinical autonomic symptoms, blood pressure (P (<=) 0.035) and heart rate response (P (<=) 0.065) were slightly diminished during orthostatic challenge. Autonomic dysregulation was distinctively reflected in lower resting heart rate (all components, P (<=) 0.05) and blood pressure variability (low frequency component, P (<=) 0.024) indicating peripheral cardiac/vascular denervation. In contrast, baroreflex sensitivity and central cardiac autonomic outflow (sympathovagal balance) were well preserved indicating intact central autonomic regulation. Heart rate variability [very low frequency component, receiver operating
characteristic (ROC) area under the curve (AUC) 0.80, P (<=) 0.001] and blood pressure variability (low frequency component ROC AUC 0.73, P (<=) 0.01) but not baroreflex sensitivity and sympathovagal balance showed an excellent diagnostic accuracy in identifying subjects with REM sleep behaviour disorder and healthy controls. Cardiac/vascular dysfunction in prodromal a-synucleinopathy arises from peripheral rather than from central autonomic degeneration."

According to the news editors, the research concluded: "Autonomic indices encoded in heart rate and blood pressure variability are precise functional markers of early synuclein-mediated neurodegeneration."


The news editors report that additional information may be obtained by contacting C. Dahms, Hans Berger Dept. of Neurology, Jena University Hospital, Jena, Germany. Additional authors for this research include A. Guenther, M. Schwab, T. Schultze, S. Nowack, D. Hoyer, J. Ehrhardt, O.W. Witte, G. Mayer and S. Rupprecht.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.12957. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jena, Europe, Germany, Cardiology, Synucleins, Mental Health, Blood Pressure, Neurodegenerative, Nerve Tissue Proteins, Diagnostics and Screening, Autonomic Nervous System Diseases and Conditions.

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Hematologic Diseases and Conditions -

Study Findings from Johannes Gutenberg-University Provide New Insights into Thrombocytopenic Purpura (Idiopathic thrombotic thrombocytopenic purpura: strongest risk factor for relapse from remission is having had a relapse)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematologic Diseases and Conditions - Thrombocytopenic Purpura is the subject of a report. According to news reporting originating in Mainz, Germany, by NewsRx journalists, research stated, "Thrombotic thrombocytopenic purpura (TTP) is a rare, episodic clinical syndrome involving the production of thrombi in the microvasculature accompanied by thrombocytopenia and symptoms of organ ischemia. Idiopathic TTP develops when a patient produces antibodies that react with the protease ADAMTS13."

The news reporters obtained a quote from the research from Johannes Gutenberg-University, "The course after an episode is unpredictable; patients may relapse frequently or never. There is no laboratory value that can reliably predict potential relapse. To assess diagnostic and predictive values for risk of relapse, plasma samples from 27 patients with idiopathic TTP in remission were analyzed for anti-ADAMTS13 immunoglobulin (Ig)G, ADAMTS13 activity, and ADAMTS13 inhibitor titer. Patients were recruited at the Department
of Hematology at the University Medical Center, Johannes Gutenberg University Mainz, Mainz, Germany. Anti-ADAMTS13 IgG was detected in 12 patients (44%); their median level of ADAMTS13 activity was nondetectable. Patients with anti-ADAMTS13 IgG had a median number of three previous relapses, whereas the 15 patients without presence of IgG (56%) had a median number of one previous relapse (p < 0.001; Mann-Whitney U test). The concentration of free anti-ADAMTS13 IgG and the levels measuring inhibitory activity (Bethesda unit) were positively correlated. A subgroup of TTP patients in remission with anti-ADAMTS13 IgG and nondetectable ADAMTS13 activity showed an increased risk for relapsing disease as demonstrated by their number of past relapses."

According to the news reporters, the research concluded: "The positive correlation we observed between anti-ADAMTS13 IgG and inhibitor levels supports the theory of ADAMTS13 inhibition as the crucial mechanism causing severe deficiency in ADAMTS13 activity in TTP."


Our correspondents report that additional information may be obtained by contacting I. Scharrer, Johannes Gutenberg Univ Mainz, Dept. of Hematol, University Medical Center, Mainz, Germany.

Keywords for this news article include: Mainz, Germany, Europe, Hematologic Diseases and Conditions, Blood Coagulation Disorders, Thrombocytopenic Purpura, Risk and Prevention, Hematology, Johannes Gutenberg-University.

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Mental Health

Study Findings from Johns Hopkins School of Nursing Broaden Understanding of Mental Health (Reproductive coercion, sexual risk behaviours and mental health symptoms among young low-income behaviourally bisexual women: implications for nursing ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Mental Health are discussed in a new report. According to news reporting from Baltimore, Maryland, by NewsRx journalists, research stated, "Aims and objectives. To describe prevalence of reproductive coercion, sexual risk behaviours and mental health symptoms among women reporting lifetime sexual experiences with men and women compared to peers reporting sex exclusively with men."

Funders for this research include National Institute of Mental Health, National Institutes of Health, Ruth L. Kirschstein NRSA Institutional Postdoctoral Fellowship, National Institute of Child Health and Human Development.

The news correspondents obtained a quote from the research from the Johns Hopkins School of Nursing, "Reproductive coercion, a global public health problem, is understudied among sexual minority women. Violence against women remains high among women who have sex with women and men. Rates of sexual and physical violence among this population are
higher than women reporting exclusive sexual partnerships with either men or women. Nurses and other healthcare providers often do not conduct comprehensive sexual histories; assumptions related to a sex partner's gender may provide indications of broader health implications. Cross-sectional survey of low-income Black women ages 18-25 recruited from six community-based sites for a parent study focused on intimate partner violence and health. We analysed survey data from participants who reported lifetime sexual experiences with men and women (N = 42) and compared their outcomes to those of women reporting sexual experiences with men only (N = 107). A greater proportion of women who have sex with women and men reported experiencing reproductive coercion. Women who have sex with women and men also reported a greater number of lifetime intimate partner physical and sexual violence experiences, traded sex for resources, and had post-traumatic stress disorder symptoms. Findings provide vital information that can inform nursing clinical practice, specifically related to history-taking, screening protocols and counselling strategies for intimate partner violence and mental health among women who have sex with women and men. Relevance to clinical practice.

According to the news reporters, the research concluded: "Strategies for addressing reproductive coercion and intimate partner violence as well as the health consequences among women who have sex with women and men in clinical and community-based settings should include a longitudinal understanding of sexual behaviour and gender of sex partners."


Our news journalists report that additional information may be obtained by contacting K.A. Alexander, Johns Hopkins Sch Nursing, Baltimore, MD 21205, United States. Additional authors for this research include E.M. Volpe, S. Abboud and J.C. Campbell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jocn.13238. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Mental Health, Risk and Prevention, Legal Issues, Johns Hopkins School of Nursing.

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**Drugs and Therapies - Drug Delivery Systems**

**Study Findings from Justus-Liebig-University Provide New Insights into Drug Delivery Systems [Innovative formulations for controlled drug delivery to the lungs and the technical and toxicological challenges to overcome()]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Delivery Systems have been published. According to news reporting out of Giessen, Germany, by NewsRx editors, research stated, "Inhalation of therapeutic aerosols has a long tradition and is, moreover,
regarded as a safe and efficient route of drug administration to the respiratory tract. Especially, the targeting opportunities of this approach are beneficial for the treatment of numerous airway diseases."

Our news journalists obtained a quote from the research from Justus-Liebig-University, "However, the rapid decay of local drug concentration and the resulting short-term duration of action of conventional medications necessitates several daily inhalations, which is clearly in conflict with a patients' convenience and compliance. Recent progress in pharmaceutical engineering has provided promising drug delivery vehicles (e.g., liposomes, nanoparticles and thermo-responsive preparations) allowing for a sustained release of the encapsulated medication at the target site. Nevertheless, aspects such as generating tailored aerosols from these formulations (including stability during aerosolization) and the choice of biocompatible excipients remain considerable challenges, which need to be addressed in order to optimize inhalation therapy. Therefore, toxicology issues raised by these novel drug delivery vehicles with respect to physicochemical and material properties and biocompatibility are described in this review."

According to the news editors, the research concluded: "This brief overview is intended to serve as a foundation to prompt future advancement in the field of controlled drug delivery to the lungs."


Our news journalists report that additional information may be obtained by contacting M. Beck-Broichsitter, Medical Clinic II, Dept. of Internal Medicine, Justus-Liebig-Universitat, Klinikstrasse 33, D-35392 Giessen, Germany. Additional authors for this research include A. Bohr, M. Delaval, A.C. Dalla-Bona, T. Gessler, W. Seeger and M. Beck-Broichsitter.

Keywords for this news article include: Europe, Giessen, Germany, Article Review, Drugs and Therapies, Drug Delivery Systems.

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Drugs and Therapies - Toxicology and Pharmacology

Study Findings from K. Stanton et al Broaden Understanding of Toxicology and Pharmacology (Quantifying the benefits of using read-across and in silico techniques to fulfill hazard data requirements for chemical categories)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Toxicology and Pharmacology. According to news originating from Washington, District of Columbia, by NewsRx correspondents, research stated, "Substantial benefits are realized through the use of read-across and in silico techniques to fill data gaps for structurally similar substances. Considerable experience in applying these techniques was gained under two voluntary high production volume (HPV) chemical programs - the International Council of Chemical Associations' (ICCA) Cooperative Chemicals Assessment Programme (with the cooperation of
the Organization of Economic Cooperation and Development) and the U.S."

Our news journalists obtained a quote from the research, "Environmental Protection Agency's HPV Challenge Program. These programs led to the compilation and public availability of baseline sets of health and environmental effects data for thousands of chemicals. The American Cleaning Institute's (ACI) contribution to these national and global efforts included the compilation of these datasets for 261 substances. Chemicals that have structural similarities are likely to have similar environmental fate, physical-chemical and toxicological properties, which was confirmed by examining available data from across the range of substances within categories of structurally similar HPV chemicals. These similarities allowed the utilization of read-across, trend analysis techniques and qualitative structure activity relationship ((Q)SAR) tools to fill data gaps. This paper presents the first quantification of actual benefits resulting from avoided testing through the use of read-across and in silico tools."

According to the news editors, the research concluded: "Specifically, in the evaluation of these 261 noted substances, the use of 100,000-150,000 test animals and the expenditures of $50,000,000 to $70,000,000 (US) were avoided."

For more information on this research see: Quantifying the benefits of using read-across and in silico techniques to fulfill hazard data requirements for chemical categories. Regulatory Toxicology and Pharmacology, 2016;81():250-259. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

The news correspondents report that additional information may be obtained from K. Stanton, Amer Cleaning Inst, Technical Department, Washington, DC 20005, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.09.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Toxicology and Pharmacology, Drugs and Therapies, Chemicals.

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Adrenal Gland Diseases and Conditions - ...

Study Findings from Kanazawa University Broaden Understanding of Hyperaldosteronism (Comparison of eplerenone and spironolactone for the treatment of primary aldosteronism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Adrenal Gland Diseases and Conditions - Hyperaldosteronism. According to news originating from Kanazawa, Japan, by NewsRx correspondents, research stated, "The mineralocorticoid receptor (MR) is expressed in the kidneys and in adipose tissue, and primary aldosteronism (PA) is associated with metabolic syndrome. This study assessed the effects of MR blockade by eplerenone (EPL) and spironolactone (SPL) on blood pressure (BP) and metabolic factors in patients with PA."

Our news journalists obtained a quote from the research from Kanazawa University, "Fifty-four patients with PA were treated with one of two MRAs, EPL (25-100 mg daily, n=27)
or SPL (12.5-100 mg daily, n=27) for 12 months. Visceral (VAT) and subcutaneous adipose tissue were quantified using CT and FatScan imaging analysis software. Body mass index, homeostasis model assessment-insulin resistance (HOMA-IR), serum creatinine, potassium and lipids, urinary albumin excretion (UAE) and plasma aldosterone concentration (PAC) and plasma renin activity (PRA) were measured before and after treatment. EPL and SPL decreased BP and increased serum potassium levels to similar degrees. PAC and PRA did not differ between the two groups. Although treatment with the MRAs did not change HOMA-IR or serum lipids, they significantly decreased UAE and VAT (p <0.05). These results suggest that EPL and SPL are effective and safe for the treatment of PA."

According to the news editors, the research concluded: "The long-term metabolic and renal effects of these MRAs should be further investigated."

For more information on this research see: Comparison of eplerenone and spironolactone for the treatment of primary aldosteronism. *Hypertension Research*, 2015;39 (3):133-7. (Nature Publishing Group - www.nature.com/; Hypertension Research - www.nature.com/hr/)

The news correspondents report that additional information may be obtained from S. Karashima, Dept. of Internal Medicine, Graduate School of Medical Science, Kanazawa University, Kanazawa, Japan. Additional authors for this research include T. Yoneda, M. Kometani, M. Ohe, S. Mori, T. Sawamura, K. Furukawa, T. Seta, M. Yamagishi and Y. Takeda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/hr.2015.129. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Kanazawa, Endocrinology, Spironolactone, Hyperaldosteronism, Cardiovascular Agents, Primary Aldosteronism, Potassium Sparing Diuretics, Adrenal Gland Diseases and Conditions.

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Skin Diseases and Conditions - Erythema Multiforme

**Study Findings from Kinki University School of Medicine Provide New Insights into Erythema Multiforme (Phase I/II Study of Sorafenib in Combination with Hepatic Arterial Infusion Chemotherapy Using Low-Dose Cisplatin and 5-Fluorouracil)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Skin Diseases and Conditions - Erythema Multiforme is now available. According to news reporting out of Osaka, Japan, by NewsRx editors, research stated, "We conducted a phase I/II study in patients with advanced hepatocellular carcinoma (HCC) to determine the recommended dose, as well as the safety and efficacy, of combination therapy of sorafenib with hepatic arterial infusion chemotherapy (HAIC) using low dose cisplatin (CDDP) and 5-fluorouracil (5FU). Cohorts consisting of 3-6 patients with HCC received an escalated dose of CDDP and 5-FU until a maximum-tolerated dose was achieved."

Our news journalists obtained a quote from the research from the Kinki University School of Medicine, "The treatment regimen was as follows: oral administration of sorafenib (400 mg twice daily for 28 days) combined with HAIC using CDDP (14-20 mg/m(2), on days 1 and 8) and 5-FU (170-330 mg/m(2), continuously on days 1-5 and 8-12) via an implanted
Each treatment cycle consisted of 28 days and three cycles of combination therapy. At the end of the first cycle, adverse events were evaluated and future dose escalation was determined. Eighteen patients with advanced HCC were enrolled. Dose-limiting toxicity was observed in two patients from cohort 1 (erythema multiforme and grade 4 thrombocytopenia) and in one patient from cohort 2 (erythema multiforme). Seven of the 18 patients achieved a partial response, seven showed stable disease, two were diagnosed as progressive disease, and two were not assessable. The response rate was 38.9% and the disease control rate was 77.8%. The time-to-progression was 9.7 months and the 1-year survival rate was 88.2%. Oral administration of 400 mg of sorafenib twice daily, 20 mg/m(2) of intra-arterial infusion of CDDP, and 5-FU at 330 mg/m(2) are the recommended doses for combination therapy, which was well tolerated and efficacious. This combination therapy may be a promising treatment for patients with advanced HCC.

According to the news editors, the research concluded: "A large prospective randomized multicenter study (ClinicalTrials.gov Identifier NCT01214343) is ongoing."


Our news journalists report that additional information may be obtained by contacting K. Ueshima, Dept. of Gastroenterology and Hepatology, Kinki University School of Medicine, Osaka, Japan. Additional authors for this research include M. Kudo, M. Tanaka, T. Kumada, H. Chung, S. Hagiwara, T. Inoue, N. Yada and S. Kitai.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000367751. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Osaka, Japan, Asia, Alkylating Agents, Antimetabolites, Antineoplastics, Chemotherapy, Chlorine Compounds, Cisplatin Therapy, Combination Therapy, Drugs and Therapies, Erythema Multiforme, Fluorouracil Therapy, Multikinase Inhibitors, Nitrogen Compounds, Pharmaceuticals, Platinum Compounds, Skin and Connective Tissue Diseases and Conditions, Sorafenib Therapy, Tyrosine Kinase Inhibitors, VEGF VEGFR Inhibitors, VEGFR Inhibitors, Vesiculobullous Skin Diseases and Conditions.

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Neurodegenerative Diseases and Conditions...

Study Findings from Ludwig-Maximilians-University Provide New Insights into Alzheimer Disease (sTREM2 cerebrospinal fluid levels are a potential biomarker for microglia activity in early-stage Alzheimer's disease and associate with neuronal ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been published. According to news reporting originating from Munich, Germany, by NewsRx correspondents, research stated, "TREM2 is an innate immune receptor expressed on the surface of microglia. Loss-of-function mutations of TREM2 are associated with increased risk of Alzheimer's disease (AD)."

Our news editors obtained a quote from the research from Ludwig-Maximilians-University, "TREM2 is a type-1 protein with an ectodomain that is proteolytically cleaved and released into the extracellular space as a soluble variant (sTREM2), which can be measured in the cerebrospinal fluid (CSF). In this cross-sectional multicenter study, we investigated whether CSF levels of sTREM2 are changed during the clinical course of AD, and in cognitively normal individuals with suspected non-AD pathology (SNAP). CSF sTREM2 levels were higher in mild cognitive impairment due to AD than in all other AD groups and controls. SNAP individuals also had significantly increased CSF sTREM2 compared to controls. Moreover, increased CSF sTREM2 levels were associated with higher CSF total tau and phospho-tau181P, which are markers of neuronal degeneration and tau pathology."

According to the news editors, the research concluded: "Our data demonstrate that CSF sTREM2 levels are increased in the early symptomatic phase of AD, probably reflecting a corresponding change of the microglia activation status in response to neuronal degeneration."


The news editors report that additional information may be obtained by contacting M. Ewers, Institute for Stroke and Dementia Research, Klinikum der Universitat Munchen, Ludwig-Maximilians-University Munich, Munich, Germany. Additional authors for this research include G. Kleinberger, M.A. Araque Caballero, M. Brendel, A. Rominger, D. Alcolea, J. Fortea, A. Lleo, R. Blesa, J.D. Gispert, R. Sanchez-Valle, A. Antonell, L. Rami, J.L. Molinuevo, F. Brosseron, A. Traschutz and Hen.

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Keywords for this news article include: Munich, Europe, Germany, Dementia, Genetics, Pathology, Tauopathies, Alzheimer Disease, Risk and Prevention, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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Cardiology

Study Findings from Maastricht University Broaden Understanding of Cardiology (Abnormal Ventricular and Aortic Wall Properties Can Cause Inconsistencies in Grading Aortic Regurgitation Severity: A Computer Simulation Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news reporting from Maastricht, Netherlands, by NewsRx journalists, research stated, "Assessment of aortic regurgitation (AR) severity is often based on Doppler echocardiographic imaging. Hemodynamic responses to AR are influenced by the interplay among cardiovascular properties, including left ventricular (LV) and aortic tissue properties, that cannot be measured directly."

The news correspondents obtained a quote from the research from Maastricht University, "The aim of this study was to investigate how both echocardiographic measures of AR severity and the hemodynamic consequences of AR are influenced by LV and aortic stiffness. AR was simulated using the CircAdapt computational model of the human cardiovascular system. Simulations were performed with normal LV and aortic stiffness, high LV stiffness, high aortic stiffness, and high LV and aortic stiffness. For each configuration of levels of stiffness, four AR severity grades were simulated by setting the effective regurgitant orifice area (ROA) of the aortic valve at 0, 0.05, 0.25, and 0.6 cm(2), representing no, mild, moderate, and severe AR, respectively. The regurgitant volume, regurgitant fraction (RF), and pressure half-time (PHT) were computed for each simulation giving an AR severity score (mild, moderate, or severe). Mean left atrial pressure was also calculated. Increasing ROA resulted in faster decay of diastolic flow velocity and larger regurgitant blood flow across the aortic valve. This caused shorter PHT and larger regurgitant volume and RF, all indicating higher AR severity. Increasing aortic stiffness resulted in a larger decline in diastolic aortic pressure, whereas increasing LV stiffness resulted in a larger rise in diastolic LV pressure. Hence, increasing LV and/or aortic stiffness led to faster decay of the transvalvular pressure gradient and, therefore, to faster decay of diastolic flow velocity across the aortic valve compared with normal stiffness with the same ROA. This faster decay led, on one hand, to a shorter PHT, indicating higher severity scores, and, on the other hand, to a lower RF, as less regurgitant blood volume traveled into the left ventricle, indicating lower severity scores. AR severity scores reflected mean left atrial pressure poorly when variations in tissue properties were present. Simulating altered AR hemodynamics caused by variations in cardiovascular tissue properties led to inconsistent severity scores when evaluating the severity using RF, regurgitant volume, and PHT. In this situation, pulmonary congestion is poorly reflected by AR severity as quantified by ROA, RF, and PHT."

According to the news reporters, the research concluded: "Cardiac and aortic tissue properties should therefore be taken into account to improve clinical assessment of AR severity."

Our news journalists report that additional information may be obtained by contacting G. Palau-Caballero, Maastricht University, Dept. of Biomed Engn, Cardiovasc Res Inst Maastricht, Maastricht, Netherlands. Additional authors for this research include J. Walmsley, J. Gorcsan, J. Lumens and T. Delhaas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.echo.2016.07.015. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maastricht, Netherlands, Europe, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Hemodynamics, Aortic Valve, Heart Valves, Cardiology, Maastricht University.

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Bone Research

Study Findings from Mayo Clinic Broaden Understanding of Bone Research (Deletion of Estrogen Receptor Beta in Osteoprogenitor Cells Increases Trabecular but Not Cortical Bone Mass in Female Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Bone Research have been published. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "Although the role of ERa in regulating bone metabolism has been extensively studied, ERb has been largely dismissed as a relevant modulator of bone mass. Previous studies examining ERb utilized a germline knockout mouse expressing transcript variants of ERb and displaying systemic hormonal changes that confounded interpretation of the skeletal phenotype."

Financial support for this research came from NIH.

The news correspondents obtained a quote from the research from Mayo Clinic, "Thus, we used a conditional ERb mouse model to achieve deletion of ERb specifically in early osteoprogenitor cells using the Prx1-Cre driver. We observed marked increases in the trabecular bone volume fraction (of 58% [p <0.003] and 93% [p <0.0003] in 6-and 12-week-old female ERb(Prx1-CKO) mice, respectively) but no changes in cortical bone. Serum estradiol and IGF-I levels were unaltered in ERb(Prx1-CKO) mice. Bone formation and resorption indices by histomorphometry and serum assays were unchanged in these mice, suggesting that alterations in bone turnover may have occurred early in development. However, the ratio of colony-forming unit-osteoblasts (CFU-OBs) to CFU-fibroblasts (CFU-Fs) was increased in bone marrow cultures from ERb(Prx1-CKO) compared with control mice, indicating increased differentiation of osteoblast precursor cells into osteoblasts in ERb(Prx1-CKO) mice. Detailed quantitative polymerase chain reaction analyses of 128 genes in 16 prespecified pathways revealed significant downregulation of 11 pathways in ERb(Prx1-CKO) mice. Thus, deletion of ERb specifically in osteoblast lineage cells, in the absence of all splice variants, increases trabecular bone mass and modulates multiple pathways related to bone metabolism."

According to the news reporters, the research concluded: "These findings suggest that pharmacological inhibition of ERb in bone may provide a novel approach to treat osteoporosis."

For more information on this research see: Deletion of Estrogen Receptor Beta in

Our news journalists report that additional information may be obtained by contacting K.M. Nicks, Mayo Clinic College of Medicine, Rochester, MN, United States. Additional authors for this research include K. Fujita, D. Fraser, U. McGregor, M.T. Drake, M.E. McGee-Lawrence, J.J. Westendorf, D.G. Monroe and S. Khosla.

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Keywords for this news article include: Genetics, Rochester, Minnesota, United States, Bone Research, Steroid Receptors, DNA Binding Proteins, Transcription Factors, Estrogen Receptor beta, North and Central America.

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**Cardiovascular Diseases and Conditions - Hereditary**

**Study Findings from Mayo Clinic Broaden Understanding of Hereditary Hemorrhagic Telangiectasia (Effect of Center Volume on Outcomes in Hospitalized Patients With Hereditary Hemorrhagic Telangiectasia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Hereditary Hemorrhagic Telangiectasia is the subject of a report. According to news reporting out of Rochester, Minnesota, by NewsRx editors, research stated, "To determine whether hospitalized patients with hereditary hemorrhagic telangiectasia (HHT) had better outcomes at high-volume treatment centers (HVCs). The Nationwide Inpatient Sample (2000-2011) was used to identify HHT-related hospitalizations."

Our news journalists obtained a quote from the research from Mayo Clinic, "Hospitals were classified based on quartiles of annual HHT discharge volume. The 75th percentile cutoff value (third quartile) was used to classify hospitals as low-volume centers (1-7 HHT discharges per year) or as HVCs (>= 8 discharges per year). Demographic features, complication rates, and outcomes were compared between the 2 groups. We identified 9440 hospital discharges in patients with HHT. Of these patients, 6856 (72.6%) were admitted to low-volume centers and 2584 (27.4%) to HVCs. The former were more likely to be white race, older, and with higher income levels (P <.001 for each). The HVCs had higher rates of anemia, epistaxis, congestive heart failure, pulmonary hypertension, and cerebral and pulmonary arteriovenous malformations and lower rates of ischemic stroke and myocardial infarction. After adjusting for baseline differences in a multivariate model, patients treated at HVCs were more likely to be discharged home (odds ratio [OR] = 1.35; 95% CI, 1.21-1.52; P<.001) and less likely to be discharged to short-term rehabilitation facilities (OR = 0.45; 95% CI, 0.31-0.64; P <.001). Patients treated at HVCs also had a significantly lower risk of in-hospital mortality (OR = 0.51; 95% CI, 0.34-0.74; P<.001). Patients with HHT hospitalized at HVCs had better outcomes, with lower in-hospital mortality and higher home discharge rates."

According to the news editors, the research concluded: "These findings strongly
support ongoing efforts to expand access to HHT centers of excellence in the United States and worldwide."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mayocp.2016.07.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cardiovascular Diseases and Conditions, Hereditary Hemorrhagic Telangiectasia, Dermatology, Epidemiology, Hematology, Hospital, Mayo Clinic.

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**Oncology - Multiple Myeloma**

**Study Findings from Mayo Clinic Provide New Insights into Multiple Myeloma (IAP antagonists induce anti-tumor immunity in multiple myeloma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Multiple Myeloma have been published. According to news reporting originating from Scottsdale, Arizona, by NewsRx correspondents, research stated, "The cellular inhibitors of apoptosis (cIAP) 1 and 2 are amplified in about 3% of cancers and have been identified in multiple malignancies as being potential therapeutic targets as a result of their role in the evasion of apoptosis. Consequently, small-molecule IAP antagonists, such as LCL161, have entered clinical trials for their ability to induce tumor necrosis factor (TNF)mediated apoptosis of cancer cells."

Our news editors obtained a quote from the research from Mayo Clinic, "However, cIAP1 and cIAP2 are recurrently homozygously deleted in multiple myeloma (MM), resulting in constitutive activation of the noncanonical nuclear factor (NF)-kappa B pathway. To our surprise, we observed robust in vivo anti-myeloma activity of LCL161 in a transgenic myeloma mouse model and in patients with relapsed-refractory MM, where the addition of cyclophosphamide resulted in a median progression-free-survival of 10 months. This effect was not a result of direct induction of tumor cell death, but rather of upregulation of tumor-cell-autonomous type I interferon (IFN) signaling and a strong inflammatory response that resulted in the activation of macrophages and dendritic cells, leading to phagocytosis of tumor cells. Treatment of a MM mouse model with LCL161 established long-term anti-tumor protection and induced regression in a fraction of the mice."

According to the news editors, the research concluded: "Notably, combination of LCL161 with the immune-checkpoint inhibitor anti-PD1 was curative in all of the treated mice."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nm.4229. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Scottsdale, Arizona, United States, North and Central America, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Blood Protein Disorders, Hemorrhagic Disorders, Hemostatic Disorders, Drugs and Therapies, Multiple Myeloma, Paraproteinemias, Cancer Therapy, Hematology, Apoptosis, Genetics, Oncology, Mayo Clinic.

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**Heart Disorders and Diseases - Heart Attack**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting out of Montreal, Canada, by NewsRx editors, research stated, "High lipoprotein(a) (Lp[a]) is the most common genetic dyslipidemia and is a causal factor for myocardial infarction (MI) and aortic stenosis (AS). We sought to estimate the population impact of Lp(a) lowering that could be achieved in primary prevention using the therapies in development."

Our news journalists obtained a quote from the research from McGill University, "Approach and Results-We used published data from 2 prospective cohorts. High Lp(a) was defined as >= 50 mg/dL (approximate to 20th percentile). Relative risk, attributable risk, the attributable risk percentage, population attributable risk, and the population attributable risk percentage were calculated as measures of the population impact. For MI, the event rate was 4.0% versus 2.8% for high versus low Lp(a) (relative risk, 1.46; 95% confidence interval [CI], 1.45-1.46). The attributable risk was 1.26% (95% CI, 1.24-1.27), corresponding to 31.3% (95% CI, 31.0-31.7) of the excess MI risk in those with high Lp(a). The population attributable risk was 0.21%, representing a population attributable risk percentage of 7.13%. For AS, the event rate was 1.51% versus 0.78% for high versus low Lp(a) (relative risk, 1.95; 95% CI, 1.94-1.97). The attributable risk was 0.74% (95% CI, 0.73-0.75), corresponding to 48.8% (95% CI, 48.3-49.3) of the excess AS risk in those with high Lp(a). The population attributable risk was 0.13%, representing a population attributable risk percentage of 13.9%. In sensitivity analyses targeting the top 10% of Lp(a), the population attributable risk percentage was 5.2% for MI and
7.8% for AS. Lp(a) lowering among the top 20% of the population distribution for Lp(a) could prevent 1 in 14 cases of MI and 1 in 7 cases of AS, suggesting a major impact on reducing the burden of cardiovascular disease."

According to the news editors, the research concluded: "Targeting the top 10% could prevent 1 in 20 MI cases and 1 in 12 AS cases."


Our news journalists report that additional information may be obtained by contacting G. Thanassoulis, McGill University, Center Hlth, Dept. of Clin Epidemiol, Montreal, PQ, Canada. Additional authors for this research include P.R. Kamstrup, K. Williams, A.D. Sniderman, B.G. Nordestgaard and G. Thanassoulis.

Keywords for this news article include: Montreal, Quebec, Canada, North and Central America, Vascular Diseases and Conditions, Heart Disorders and Diseases, Aortic Valve Stenosis, Myocardial Infarction, Myocardial Ischemia, Aortic Stenosis, Heart Disease, Heart Attack, Angiology, Genetics, McGill University.

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*Mosquito-Borne Diseases - Malaria*

**Study Findings from Medical Research Institute Provide New Insights into Malaria (The Impact of Established Immunoregulatory Networks on Vaccine Efficacy and the Development of Immunity to Malaria)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Mosquito-Borne Diseases - Malaria have been published. According to news originating from Brisbane, Australia, by NewsRx correspondents, research stated, "The development of vaccines to protect against parasites is difficult, in large part due to complex host-parasite interactions that have evolved over millennia. Parasitic factors such as antigenic variation and host factors such as age, transmission intensity, and genetic influences are all thought to contribute to the limited efficacy of parasite vaccines."

Our news journalists obtained a quote from the research from Medical Research Institute, "A developing theme in field studies investigating antiparasitic immunity is the emergence, establishment, and maintenance of immunoregulatory networks that shape the immune responses to new infections, as well as vaccines, thereby influencing disease outcome. In this review, we will examine why parasite vaccine candidates perform poorly in target populations and, in particular, the role of immunoregulatory networks in influencing antimalarial immunity and vaccine efficacy."

According to the news editors, the research concluded: "We will focus our discussion on malaria, the most important parasitic disease of humans, but also highlight the broader impact of immunoregulatory networks on vaccine efficacy."

For more information on this research see: The Impact of Established Immunoregulatory Networks on Vaccine Efficacy and the Development of Immunity to Malaria. *Journal of Immunology*, 2016;197(12):4518-4526. *Journal of Immunology* can be contacted at:
Study Findings from Medical University Broaden Understanding of Molecular Biology [Synthesis and In Vitro Antiproliferative Activity of Novel Phenyl Ring-Substituted 5-Alkyl-12(H)-quino[3,4-b][1,4]benzothiazineDerivatives]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Life Science Research - Molecular Biology. According to news reporting from Sosnowiec, Poland, by NewsRx journalists, research stated, "A novel series of tetracyclic quinobenzothiazine derivatives was synthetized. Compounds containing a substituent (hydroxyl, methyl, phenyl, piperidyl, or piperazinyl) in positions 9 and 11 were obtained by cyclization of suitable 4-aminoquinolinium-3-thiolates."

The news correspondents obtained a quote from the research from Medical University, "Quinobenzothiazine 10-O-substituted derivatives were obtained by alkylating the hydroxyl group in position 10 of the parent (quinobenzothiazine) system. Antiproliferative activity of the synthesized compounds was studied using cultured neoplastic cells (MDA-MB-231, SNB-19, and C-32 cell lines). Four selected compounds were investigated in more detail for cytotoxicity and antiproliferative effect. Transcriptional activity of genes regulating cell cycle (TP53), apoptosis (BAX, BCL-2), as well as proliferation (H3) were assessed."

According to the news reporters, the research concluded: "Finally, the ability of the selected compounds to bind DNA was checked in the presence of ethidium bromide."

For more information on this research see: Synthesis and In Vitro Antiproliferative Activity of Novel Phenyl Ring-Substituted 5-Alkyl-12(H)-quino[3,4-b][1,4]benzothiazineDerivatives. Molecules, 2016;21(11):581-594. Molecules can be contacted at: Mdpf Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.silverlink.com/content/1420-3049/)

Our news journalists report that additional information may be obtained by contacting A. Zieba, Medical University of Silesia, Dept. of Organ Chem, Sch Pharm, Div Lab Med Sosnowiec, PL-41200 Sosnowiec, Poland. Additional authors for this research include M. Latocha, A. Sochanik, A. Nycz and D. Kusmierz.

Keywords for this news article include: Sosnowiec, Poland, Europe, Molecular
Study Findings from Memorial Sloan-Kettering Cancer Center Broaden Understanding of Cardiology (Roadmap for biomarkers of cancer therapy cardiotoxicity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiology have been published. According to news originating from New York City, New York, by NewsRx correspondents, research stated, "Contemporary cancer treatment uses multiple modalities such as chemotherapy, targeted therapy and radiotherapy. These therapies, often used in combination, are associated with an increased risk of cardiotoxicity, specifically cardiomyopathy and heart failure."

Our news journalists obtained a quote from the research from Memorial Sloan-Kettering Cancer Center, "Cardiologists and oncologists are faced with the challenge of maximising the clinical benefit from cancer therapy while minimising the risk of early and late-onset cardiotoxicity. The current paradigm for cardiotoxicity detection and management relies primarily upon the assessment of left ventricular ejection fraction (LVEF). However, LVEF alone is limited in both diagnostic and prognostic ability. There is growing enthusiasm over the identification of newer biomarkers of cardiotoxicity that can detect cardiac injury at earlier stages of disease and could be used as an adjunctive prognostic measure to routine LVEF assessment. Thus, imaging and circulating biomarkers are currently under active investigation for use throughout the continuum of cancer care-for risk stratification of cardiotoxicity prior to treatment, detection of early cardiotoxicity during treatment and diagnosis of late cardiotoxicity in survivorship."

According to the news editors, the research concluded: "Myocardial strain, cardiac troponin and brain natriuretic peptide are the most prominent biomarkers currently being studied, although data on novel circulating biomarkers are emerging."

For more information on this research see: Roadmap for biomarkers of cancer therapy cardiotoxicity. Heart, 2015;102(6):425-30. (BMJ Publishing Group - group.bmj.com/; Heart - heart.bmj.com/)

The news correspondents report that additional information may be obtained from A.F. Yu, Dept. of Medicine, Cardiology Service, Memorial Sloan Kettering Cancer Center, New York, New York, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/heartjnl-2015-307894. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Therapy, Oncology, Cardiology, New York City, United States, Article Review, North and Central America, Diagnostics and Screening.

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Nutritional and Metabolic Diseases and Conditions —

Study Findings from Mossakowski Medical Research Center Provide New Insights into Type 2 Diabetes (SIRT1-AMPK crosstalk is involved in high glucose-dependent impairment of insulin responsiveness in primary rat podocytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news originating from Gdansk, Poland, by NewsRx correspondents, research stated, "Growing evidence indicates that in diabetes, high glucose concentrations affect podocyte metabolism and function. The crucial pathological feature of type 2 diabetes mellitus and metabolic syndrome is insulin resistance, often developed as a result of dysregulation of nutrient-responsible systems and disturbance of cellular homeostasis under diabetic conditions."

Financial support for this research came from National Science Center, Poland. Our news journalists obtained a quote from the research from Mossakowski Medical Research Center, "Here, we report the involvement of the reciprocal interplay between deacetylase SIRT1 and protein kinase AMPK in podocyte high glucose induced abolition of insulin dependent glucose uptake, manifesting insulin resistance. Experiments were performed on primary rat podocytes cultured in standard or high glucose conditions. Immunodetection methods were used to determine SIRT1 protein level and AMPK phosphorylation degree. Insulin-stimulated changes in glucose uptake were used to determine podocyte responsiveness to insulin. SIRT1 activity was modulated by resveratrol, EX-527, or small interfering RNA targeting SIRT1. We have demonstrated that the absence of the stimulating effect of insulin on glucose uptake into primary rat podocytes after long-time exposition to high glucose concentrations, is a result of decreased SIRT1 protein levels and activity, associated with decreased AMPK phosphorylation degree, presumably underlying the induction of insulin resistance."

According to the news editors, the research concluded: "Our findings suggest that the interplay between SIRT1 and AMPK is involved in the regulation of insulin action in podocytes."

For more information on this research see: SIRT1-AMPK crosstalk is involved in high glucose-dependent impairment of insulin responsiveness in primary rat podocytes. Experimental Cell Research, 2016;349(2):328-338. Experimental Cell Research can be contacted at: Elsevier Inc, 525 B Street, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Experimental Cell Research - www.journals.elsevier.com/experimental-cell-research/)

The news correspondents report that additional information may be obtained from D. Rogacka, Polish Academy Sci, Mossakowski Med Res Center, Lab Mol & Cellular Nephrol, Gdansk, Poland. Additional authors for this research include A. Piwkowska, I. Audzeyenka, S. Angielski and M. Jankowski.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yexcr.2016.11.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Gdansk, Poland, Europe, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin
Drugs and Therapies - Gamma-aminobutyric Acid...

Study Findings from Okayama University Provide New Insights into Gamma-aminobutyric Acid Analogs (Activation of Antioxidative Functions by Radon Inhalation Enhances the Mitigation Effects of Pregabalin on Chronic Constriction Injury-Induced ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Gamma-aminobutyric Acid Analogs have been published. According to news reporting originating in Okayama, Japan, by NewsRx journalists, research stated, "Radon inhalation brings pain relief for chronic constriction injury-(CCI-) induced neuropathic pain in mice due to the activation of antioxidative functions, which is different from the mechanism of the pregabalin effect. In this study, we assessed whether a combination of radon inhalation and pregabalin administration is more effective against neuropathic pain than radon or pregabalin only."

Financial support for this research came from Ryobi Teien Memory Foundation.

The news reporters obtained a quote from the research from Okayama University, "Mice were treated with inhaled radon at a concentration of 1,000 Bq/m(3) for 24 hours and pregabalin administration after CCI surgery. In mice treated with pregabalin at a dose of 3 mg/kg weight, the 50% paw withdrawal threshold of mice treated with pregabalin or radon and pregabalin was significantly increased, suggesting pain relief. The therapeutic effects of radon inhalation or the combined effects of radon and pregabalin (3 mg/kg weight) were almost equivalent to treatment with pregabalin at a dose of 1.4 mg/kg weight or 4.1 mg/kg weight, respectively. Radon inhalation and the combination of radon and pregabalin increased antioxidant associated substances in the paw. The antioxidant substances increased much more in radon inhalation than in pregabalin administration."

According to the news reporters, the research concluded: "These findings suggested that the activation of antioxidative functions by radon inhalation enhances the pain relief of pregabalin and that this combined effect is probably an additive effect."

For more information on this research see: Activation of Antioxidative Functions by Radon Inhalation Enhances the Mitigation Effects of Pregabalin on Chronic Constriction Injury-Induced Neuropathic Pain in Mice. *Oxidative Medicine and Cellular Longevity, 2015;2016*:9853692. (Hindawi Publishing - www.hindawi.com; Oxidative Medicine and Cellular Longevity - www.hindawi.com/journals/oximed/)

Our news correspondents report that additional information may be obtained by contacting T. Kataoka, Graduate School of Health Sciences, Okayama University, 5-1 Shikata-cho, 2-chome, Kita-ku, Okayama-shi, Okayama 700-8558, Japan. Additional authors for this research include S. Horie, R. Etani, N. Kanzaki, K. Sasaoka, Y. Kobashi, K. Hanamoto and K. Yamaoka.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/9853692. This DOI is a link to an online electronic document.
that is either free or for purchase.

Keywords for this news article include: Asia, Anticonvulsants, Pharmaceuticals, Japan, Radon, Okayama, Pain Management, Neuropathic Pain, Pregabalin Therapy, Drugs and Therapies, Radioactive Elements, Neurologic Manifestations, Central Nervous System Agents, Gamma aminobutyric Acid Analogs, Gamma-aminobutyric Acid Analogs.

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Oncology - Carcinomas

Study Findings from Oscar Lambret Center Broaden Understanding of Carcinomas [Fluorescence-assisted sentinel (SND) and pelvic node dissections by single-port transvaginal laparoscopic surgery, for the management of an endometrial carcinoma (EC) ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Carcinomas. According to news reporting out of Lille, France, by NewsRx editors, research stated, "To explore the feasibility of an oncologically acceptable management for an intermediate-risk endometrial cancer (EC) in an elderly, using the combination of transvaginal single-port laparoscopy and sentinel node policy. For this 85-years old patient, BMI 321 g/m(2), with IB grade 2 endometrioid EC, a single vaginal approach was attempted [1] to perform a total hysterectomy, bilateral salpingo-oophorectomy and pelvic node assessment guided by SND [2]."

Our news journalists obtained a quote from the research from Oscar Lambret Center, "Injections of indocyanine green (ICG) were performed at 3 and 9 o'clock and 2 depths [3] into the uterine cervix A simple vaginal hysterectomy was first performed using a 5 mm vessel sealer (LigaSure ®-Medtronics) to limit ICG leakage. As poorly accessible, adnexas were divided close to cornuas; uterine corpus was delivered vaginally. Then, a single port device (Gelpoint ®-Applied), equipped with 3 trocars for optique and instruments, was installed through vagina. After transvaginal pneumoperitoneum insufflation, bowel loops were cleared from the pelvis. Latero-pelvic peritoneum was incised between external iliac pedicles and ureters. Following the algorithm, node dissection was limited to sentinel node clearly identified on the right side under color-segmented fluorescence (Pinpoint ®-Novadaq), but a full pelvic dissection completed an unsatisfactory SND on the left side. Procedure was terminated with salpingo-oophorectomies. After protected vaginal specimen delivery, the single-port device was removed and vagina was closed as usual. Patient was discharged on the 1st post-operative day. Final pathology confirmed the FIGO stageB grade2 EC. A transvaginal laparoscopic pelvic SND after vaginal hysterectomy is feasible."

According to the news editors, the research concluded: "This single-port 'NOTES' strategy bridges the previous gaps of a pure vaginal approach and seems interesting in fragile EC patients."

For more information on this research see: Fluorescence-assisted sentinel (SND) and pelvic node dissections by single-port transvaginal laparoscopic surgery, for the management of an endometrial carcinoma (EC) in an elderly obese patient. Gynecologic Oncology, 2016;143 (3):686-687. Gynecologic Oncology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Gynecologic Oncology - www.journals.elsevier.com/gynecologic-oncology/)
Our news journalists report that additional information may be obtained by contacting E. Leblanc, Dept. of Gynecol Oncol, Center Oscar Lambret, Lille, France. Additional authors for this research include F. Narducci, L. Bresson and D. Hudry.

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Keywords for this news article include:  Lille, France, Europe, Nutritional and Metabolic Diseases and Conditions, Hysterectomy, Bariatrics, Carcinomas, Oncology, Surgery, Obesity, Oscar Lambret Center.

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Mycobacterium Infections - Tuberculosis

Study Findings from Otsuka Pharmaceutical Development & Commercialization, Inc. Provide New Insights into Tuberculosis (Delamanid Coadministered with Antiretroviral Drugs or Antituberculosis Drugs Shows No Clinically Relevant Drug-Drug ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Mycobacterium Infections - Tuberculosis. According to news reporting originating from Princeton, New Jersey, by NewsRx correspondents, research stated, "Delamanid is a medicinal product approved for treatment of multidrug-resistant tuberculosis. Three studies were conducted to evaluate the potential drug-drug interactions between delamanid and antiretroviral drugs, including ritonavir, a strong inhibitor of CYP3A4, and selected anti-TB drugs, including rifampin, a strong inducer of cytochrome P450 (CYP) isozymes."

Our news editors obtained a quote from the research from Otsuka Pharmaceutical Development & Commercialization, Inc., "Multiple-dose studies were conducted in parallel groups of healthy subjects. Plasma samples were analyzed for delamanid, delamanid metabolite, and coadministered drug concentrations, and pharmacokinetic (PK) parameters were determined. The magnitude of the interaction was assessed by the ratio of the geometric means and 90% confidence intervals. Coadministration of delamanid with tenofovir or efavirenz did not affect the PK characteristics of delamanid. Coadministration of Kaletra (lopinavir/ritonavir) with delamanid resulted in an approximately 25% higher delamanid area under the concentration-time curve from time 0 to the end of the dosing interval (AUC tau). Tenofovir, efavirenz, lopinavir, and ritonavir exposure were not affected by delamanid. Coadministration of delamanid with the TB drugs (ethambutol plus Rifater [rifampin, pyrazinamide, and isoniazid]) resulted in lower delamanid exposures (47 and 42% for the AUC tau and C-max [maximum concentration of a drug in plasma] values, respectively), as well as decreased exposure of three primary metabolites (approximately 30 to 50% lower AUC tau values). Delamanid did not affect rifampin, pyrazinamide, and isoniazid exposure; the ethambutol AUC tau and C-max values were about 25% higher with delamanid coadministration. The lack of clinically significant drug-drug interactions between delamanid and selected antiretroviral agents (including the strong CYP inhibitor ritonavir) and a combination of anti-TB drugs was demonstrated."

According to the news editors, the research concluded: "Although there was a decrease in the delamanid concentrations when coadministered with ethambutol plus Rifater,
this is likely related to decreased delamanid absorption and not to CYP induction."

For more information on this research see: Delamanid Coadministered with Antiretroviral Drugs or Antituberculosis Drugs Shows No Clinically Relevant Drug-Drug Interactions in Healthy Subjects. *Antimicrobial Agents and Chemotherapy*, 2016;60(10):5976-5985. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting S. Mallikaarjun, Otsuka Pharmaceut Dev & Commercializat Inc, Princeton, NJ 08540, United States. Additional authors for this research include C. Wells, C. Petersen, A. Paccaly, S.E. Shoaf, S. Patil and L. Geiter.

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Keywords for this news article include: Princeton, New Jersey, United States, North and Central America, Ethambutol Therapy Hydrochloride, Mycobacterium Infections, Antituberculosis Agents, Rifamycin Derivatives, Drugs and Therapies, Protease Inhibitors, Infectious Disease, Rifampin Therapy, Pharmaceuticals, Antiretrovirals, Antinfecives, Tuberculosis, Antivirals, Ritonavir, Thiazoles, Otsuka Pharmaceutical Development & Commercialization Inc.

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Neurodegenerative Diseases and Conditions -...

**Study Findings from P.H. Nguyen et al Broaden Understanding of Alzheimer Disease [Dimerization Mechanism of Alzheimer A beta(40) Peptides: The High Content of Intrapeptide-Stabilized Conformations in A2V and A2T Heterozygous Dimers Retards ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been presented. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "Amyloid beta (A beta) oligomerization is associated with the origin and progression of Alzheimer's disease (AD). While the A2V mutation enhances aggregation kinetics and toxicity, mixtures of wild-type (WT) and A2V, and also WT and A2T, peptides retard fibril formation and protect against AD."

The news reporters obtained a quote from the research, "In this study, we simulate the equilibrium ensemble of WT:A2T A beta(40) dimer by means of extensive atomistic replica exchange molecular dynamics and compare our results with previous equivalent simulations of A2V:A2V, WT:WT, and WT:A2V A beta(40) dimers for a total time scale of nearly 0.1 ms. Qualitative comparison of the resulting thermodynamic properties, such as the relative binding free energies, with the reported experimental kinetic and thermodynamic data affords us important insight into the conversion from slow-pathway to fast-pathway dimer conformations. The crucial reaction coordinate or driving force of such transformation turns out to be related to hydrophobic interpeptide interactions. Analysis of the equilibrium ensembles shows that the fast-pathway conformations contain interpeptide out-of-register antiparallel beta-sheet structures.
at short interpeptide distances. In contrast, the slow-pathway conformations are formed by the association of peptides at large interpeptide distances and high intrapeptide compactness, such as conformations containing intramolecular three-stranded beta-sheets which sharply distinguish fast (A2V:A2V and WT:WT) and slow (WT:A2T and WT:A2V) amyloid-forming sequences."

According to the news reporters, the research concluded: "Also, this analysis leads us to predict that a molecule stabilizing the intramolecular three-stranded beta-sheet or inhibiting the formation of an interpeptide beta-sheet spanning residues 17-20 and 31-37 would further reduce fibril formation and probably the cytotoxicity of A beta species."


Our news correspondents report that additional information may be obtained by contacting P. Derreumaux, IUF, F-75005 Paris, France. Additional authors for this research include F. Sterpone, R. Pouplana, P. Derreumaux and J.M. Campanera.

Keywords for this news article include: Paris, France, Europe, Central Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Brain Diseases and Conditions, Alzheimer Disease, Tauopathies, Proteins, Dementia, Genetics, Amyloid.

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macrophages (M1, pro-inflammatory). Further analysis showed that M1 stimulated UC-MSCs to increase expression of interleukin (IL)-6, a molecule which upregulated IL4R expression, promoted phosphorylation of STAT6 in macrophages, and eventually polarized macrophages into M2 phenotype. Moreover, the UC-MSCs effect on macrophages was largely abrogated by small interfering RNA (siRNA) knockdown of IL-6. Together, our results indicate that UC-MSCs can alleviate insulin resistance in part via production of IL-6 that elicits M2 polarization. Additionally, human obesity and insulin resistance were associated with increased pro-inflammatory ATMs infiltration.

According to the news reporters, the research concluded: "Thus, MSCs may be a new treatment for obesity-related insulin resistance and T2D concerning macrophage polarized effects."


Our news journalists report that additional information may be obtained by contacting Z. Xie, Dept. of Endocrinology, Chinese PLA General Hospital, Beijing, People's Republic of China. Additional authors for this research include H. Hao, C. Tong, Y. Cheng, J. Liu, Y. Pang, Y. Si, Y. Guo, L. Zang, Y. Mu and W. Han.

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Keywords for this news article include: Asia, Beijing, Genetics, Immunology, Proinsulin, Macrophages, Endocrinology, Myeloid Cells, Hyperinsulinism, Type 2 Diabetes, Peptide Hormones, Peptide Proteins, Insulin Resistance, Stem Cell Research, Risk and Prevention, Mesenchymal Stem Cells, Connective Tissue Cells, People's Republic of China.

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Cardiovascular Diseases and Conditions -

Study Findings from Pennsylvania State University Provide New Insights into Atherosclerosis (High fructose-mediated attenuation of insulin receptor signaling does not affect PDGF-induced proliferative signaling in vascular smooth muscle cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Atherosclerosis. According to news reporting from Hershey, Pennsylvania, by NewsRx journalists, research stated, "Insulin resistance is associated with accelerated atherosclerosis. Although high fructose is known to induce insulin resistance, it remains unclear as to how fructose regulates insulin receptor signaling and proliferative phenotype in vascular smooth muscle cells (VSMCs), which play a major role in atherosclerosis."

The news correspondents obtained a quote from the research from Pennsylvania State University, "Using human aortic VSMCs, we investigated the effects of high fructose treatment on insulin receptor substrate-1 (IRS-1) serine phosphorylation, insulin versus platelet-derived growth factor (PDGF)-induced phosphorylation of Akt, S6 ribosomal protein,
extracellular signal-regulated kinase (ERK), and cell cycle proteins. In comparison with PDGF (a potent mitogen), neither fructose nor insulin enhanced VSMC proliferation and cyclin D1 expression. D-[C-14(U)] fructose uptake studies revealed a progressive increase in fructose uptake in a time-dependent manner. Concentration-dependent studies with high fructose (5-25 mM) showed marked increases in IRS-1 serine phosphorylation, a key adapter protein in insulin receptor signaling. Accordingly, high fructose treatment led to significant diminutions in insulin-induced phosphorylation of downstream signaling components including Akt and S6. In addition, high fructose significantly diminished insulin-induced ERK phosphorylation. Nevertheless, high fructose did not affect PDGF-induced key proliferative signaling events including phosphorylation of Akt, S6, and ERK and expression of cyclin D1 protein. Together, high fructose dysregulates IRS-1 phosphorylation state and proximal insulin receptor signaling in VSMCs, but does not affect PDGF-induced proliferative signaling.

According to the news reporters, the research concluded: "These findings suggest that systemic insulin resistance rather than VSMC-specific dysregulation of insulin receptor signaling by high fructose may play a major role in enhancing atherosclerosis and neointimal hyperplasia."

For more information on this research see: High fructose-mediated attenuation of insulin receptor signaling does not affect PDGF-induced proliferative signaling in vascular smooth muscle cells. European Journal of Pharmacology, 2016;791():703-710. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news journalists report that additional information may be obtained by contacting L. Segar, Pennsylvania State University, Coll Med, Dept. of Med, Hershey, PA, United States. Additional authors for this research include N. Poulose, V. Ganapathy and L. Segar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.10.007. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hershey, Pennsylvania, United States, North and Central America, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Cardiovascular Diseases and Conditions, Receptor Protein-Tyrosine Kinases, Pancreatic Hormone Receptors, Glucose Metabolism Disorders, Arterial Occlusive Diseases, Phosphotransferases, Insulin Resistance, Membrane Proteins, Insulin Receptor, Peptide Proteins, Peptide Hormones, Arteriosclerosis, Protein Kinases, Hyperinsulinism, Atherosclerosis, Muscle Cells, Proinsulin, Pennsylvania State University.

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According to news reporting out of Melbourne, Australia, by NewsRx editors, research stated, "Restoration of tumor suppression is an attractive onco-therapeutic approach. It is particularly relevant when a tumor suppressor is excessively degraded by an overactive oncogenic E3 ligase."

Our news journalists obtained a quote from the research from Peter MacCallum Cancer Center, "We previously discovered that the E6-associated protein (E6AP; as classified in the human papilloma virus context) is an E3 ligase that has an important role in the cellular stress response, and it directly targets the tumor-suppressor promyelocytic leukemia protein (PML) for proteasomal degradation. In this study, we have examined the role of the E6AP-PML axis in prostate cancer (PC). We show that knockdown (KD) of E6AP expression attenuates growth of PC cell lines in vitro. We validated this finding in vivo using cell line xenografts, patient-derived xenografts and mouse genetics. We found that KD of E6AP attenuates cancer cell growth by promoting cellular senescence in vivo, which correlates with restoration of tumor suppression by PML. In addition, we show that KD of E6AP sensitizes cells to radiation-induced death."

According to the news editors, the research concluded: "Overall, our findings demonstrate a role for E6AP in the promotion of PC and support E6AP targeting as a novel approach for PC treatment, either alone or in combination with radiation."

For more information on this research see: Restoration of tumor suppression in prostate cancer by targeting the E3 ligase E6AP. *Oncogene*, 2016;35(48):6235-6245. *Oncogene* can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Oncogene - www.nature.com/onc/)

Our news journalists report that additional information may be obtained by contacting C. Gamell, Peter MacCallum Cancer Center, Tumor Suppress Lab, Melbourne, Vic 3002, Australia. Additional authors for this research include D. Raghu, A.L. Chan, T. Gulati, L. Lambeth, E. Takano, M.J. Herold, J. Hagekyriakou, R.L. Vessella, C. Fedele, M. Shackleton, E.D. Williams, S. Fox, S. Williams, S. Haupt, C. Gamell and Y. Haupt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/onc.2016.159. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Enzymes and Coenzymes, Prostatic Neoplasms, Tumor Suppression, Xenotransplantation, Prostate Cancer, Biotechnology, Xenografts, Oncology, Genetics, Ligases, Peter MacCallum Cancer Center.

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**Drugs and Therapies - Drug Delivery Systems**

**Study Findings from Petru Poni Institute of Macromolecular Chemistry Broaden Understanding of Drug Delivery Systems [Poly(N-isopropylacrylamide-co-N-isopropylmethacrylamide) Thermo-Responsive Microgels as Self-Regulated Drug Delivery System]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Drug Delivery
Systems. According to news originating from Iasi, Romania, by NewsRx correspondents, research stated, "Poly(N-isopropylacrylamide-co-N-isopropylmethacrylamide) (poly(NIPAAm-co-NIPMAAm)) is synthesized as an attractive thermo-responsive copolymer by an original procedure. Due to the similar structure of the two co-monomers, the poly(NIPAAm-co-NIPMAAm) copolymer displays a very sharp phase transition, under physiological conditions (phosphate buffer solution at pH = 7.4)."

Our news journalists obtained a quote from the research from the Petru Poni Institute of Macromolecular Chemistry, "The copolymer, showing the 51/49 co-monomer NIPAAm/NIPMAAm molar ratio, displays a lower critical solution temperature (LCST) close to that of the human body temperature (36.8 degrees C). The poly(NIPAAm-co-NIPMAAm) microgels obtained at the 51:49 co-monomer ratio displays a volume phase transition temperature (VPTT) slightly smaller than LCST. The deswelling rate of the microgels is very high (k = 0.019 s(-1)), the shrinkage occurring almost instantaneously, whereas the swelling rate is slightly lower (k = 0.0077 s(-1)). The microgels are loaded with the model drug dexamethasone and the drug release is investigated at different temperatures, below and above the VPTT."

According to the news editors, the research concluded: "Under thermal cycling operation between 32 and 38 degrees C, the pulsatile release of dexamethasone is observed."


The news correspondents report that additional information may be obtained from G. Fundueanu, Petru Poni Inst Macromol Chem, Dept. of Nat Polymers Bioact & Biocompatible Mat, Iasi 700487, Romania. Additional authors for this research include M. Constantin, S. Bucatariu and P. Ascenzi.

Keywords for this news article include: Iasi, Romania, Europe, Drug Delivery Systems, Drugs and Therapies, Petru Poni Institute of Macromolecular Chemistry.

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Oncology - Chronic Myeloid Leukemia

Study Findings from Pondicherry University Provide New Insights into Chronic Myeloid Leukemia (Hsp90 Inhibitors for the Treatment of Chronic Myeloid Leukemia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Chronic Myeloid Leukemia. According to news reporting originating in Pondicherry, India, by NewsRx journalists, research stated, "Chronic myeloid leukemia (CML) is a hematological malignancy that arises due to reciprocal translocation of 3' sequences from c-Abelson (ABL) protooncogene of chromosome 9 with 5' sequence of truncated break point cluster region (BCR) on chromosome 22. BCR-ABL is a functional oncoprotein p210 that exhibits constitutively activated tyrosine kinase causing genomic alteration of hematopoietic stem cells."
The news reporters obtained a quote from the research from Pondicherry University, "BCR-ABL specific tyrosine kinase inhibitors (TKIs) successfully block CML progression. However, drug resistance owing to BCR-ABL mutations and overexpression is still an issue. Heat-shock proteins (Hsps) function as molecular chaperones facilitating proper folding of nascent polypeptides. Their increased expression under stressful conditions protects cells by stabilizing unfolded or misfolded peptides. Hsp90 is the major mammalian protein and is required by BCR-ABL for stabilization and maturation. Hsp90 inhibitors destabilize the binding of BCR-ABL protein thus leading to the formation of heteroprotein complex that is eventually degraded by the ubiquitin-proteasome pathway. Results of many novel Hsp90 inhibitors that have entered into various clinical trials are encouraging."

According to the news reporters, the research concluded: "The present review targets the current development in the CML treatment by availing Hsp90 specific inhibitors."

For more information on this research see: Hsp90 Inhibitors for the Treatment of Chronic Myeloid Leukemia. Leukemia Research and Treatment, 2015;2015():757694. (Hindawi Publishing - www.hindawi.com; Leukemia Research and Treatment - www.hindawi.com/journals/lrt/)

Our news correspondents report that additional information may be obtained by contacting K.V. Khajapeer, Dept. of Biochemistry and Molecular Biology, School of Life Sciences, Pondicherry University, Pondicherry 605014, India.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2015/757694. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Genetics, Oncology, Proteins, Hematology, Proteomics, Pondicherry, Article Review, Tyrosine Kinase, Enzymes and Coenzymes, Chronic Myeloid Leukemia.

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Oncology - Rhabdomyosarcomas

Study Findings from Postgraduate Institute of Medical Education and Research Provide New Insights into Rhabdomyosarcomas (Adult rhabdomyosarcoma: Clinical presentation, treatment, and outcome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Rhabdomyosarcomas are presented in a new report. According to news reporting out of Chandigarh, India, by NewsRx editors, research stated, "Rhabdomyosarcoma (RMS) in adults is a rare malignancy. The objective of our study was to determine presentation, treatment, patterns of failure, and outcome in this disease."

Our news journalists obtained a quote from the research from the Postgraduate Institute of Medical Education and Research, "A retrospective analysis of 25 patients of adult (> 16 years) RMS who were treated at our institute from 2000 to 2009 was carried out. Tumors were classified according to the Intergroup Rhabdomyosarcoma Study (IRS) staging. All patients were treated with multimodality treatment except for three patients who received chemotherapy as the only modality. The median age was 19 years (range, 16-68 years). The most common site was head and neck (52%) followed by extremities (24%), genitourinary (20%), and retroperitoneal RMS (4%). Three out of 25 patients presented with distant..."
metastasis. With a median follow-up of 45 months, the 5-year overall survival (OS) rate was 45%. The 5-year local control (LC) rate was 53%. IRS grouping and complete response after primary therapy were predictors of a better survival. RMS in adults have poor prognosis as compared to childhood RMS."

According to the news editors, the research concluded: "Adult RMS should therefore be treated aggressively with multidisciplinary approach comprising of surgery, radiation, and chemotherapy to achieve cure and prolonged survival."


Our news journalists report that additional information may be obtained by contacting D. Khosla, Dept. of Radiotherapy and Oncology, Regional Cancer Centre, Postgraduate Institute of Medical Education and Research, Chandigarh, India. Additional authors for this research include S. Sapkota, R. Kapoor, R. Kumar and S.C Sharma.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.144637. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Oncology, Chandigarh, Rhabdomyosarcomas.

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**Gram-Negative Bacteria - Helicobacter pylori**

**Study Findings from Qingdao University Broaden Understanding of Helicobacter pylori (Association of Endoscopic Features of Gastric Mucosa with Helicobacter pylori Infection in Chinese Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Negative Bacteria - Helicobacter pylori have been published. According to news reporting out of Qingdao, People's Republic of China, by NewsRx editors, research stated, "The aim of this study is to identify and consolidate reliable endoscopic features associated with H. pylori infection in gastric mucosa, which is one of the major causes of gastric cancer. A total of 256 Chinese patients with symptomatic stomach disturbances were enrolled."

Our news journalists obtained a quote from the research from Qingdao University, "Pathological examination was conducted using a light microscope and biopsy specimens stained with hematoxylin-eosin. Endoscopic examination was performed using a high resolution video endoscope. The association between endoscopic features and pathological H. pylori diagnosis was compared, and endoscopic features significantly associated with H. pylori infection were identified. A total of 14 endoscopic features were observed. Six of the 14 endoscopic features, including mucus on the gastric mucosa, diffuse redness, spotty redness of fundic mucosa, enlarged fold, mucosal edema, and RAC(type D and type I), were highly associated with H. pylori infection and were significantly sensitive and specific predictors for H. pylori diagnosis. The type R RAC was not significantly associated with H. pylori diagnosis."

According to the news editors, the research concluded: "Our results indicate that conventional endoscopy features can be used to diagnose H. pylori in Chinese patients and can
help determine the risk factor for gastric cancer."

For more information on this research see: Association of Endoscopic Features of Gastric Mucosa with Helicobacter pylori Infection in Chinese Patients. *Gastroenterology Research and Practice*, 2016;():1-7. *Gastroenterology Research and Practice* can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Gastroenterology Research and Practice - www.hindawi.com/journals/grp/)

Our news journalists report that additional information may be obtained by contacting Z.B. Tian, Qingdao Univ, Dept. of Gastroenterol, Hosp 1, Qingdao 266003, People's Republic of China. Additional authors for this research include Y. Wang, F. Yin, Q.X. Zhao, L. Yang, X.L. Ding and Z.B. Tian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/6539639. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Qingdao, People's Republic of China, Asia, Gastroenterology, Risk and Prevention, Parasitic Diseases and Conditions, Gram-Negative Bacteria, Epsilonproteobacteria, Helicobacter pylori, Proteobacteria, Qingdao University.

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**Skin Diseases and Conditions - Psoriasis**

**Study Findings from R. Nguyen et al Broaden Understanding of Psoriasis (Five-year experience with infliximab: Follow up of the product familiarisation program)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Skin Diseases and Conditions - Psoriasis is the subject of a report. According to news reporting originating from Melbourne, Australia, by NewsRx correspondents, research stated, "This 5-year retrospective analysis is of 22 patients who participated in the product familiarisation program (PFP) at St Vincent's Hospital Melbourne, prior to the listing of infliximab on the Pharmaceutical Benefit Scheme. Criteria for inclusion were being an adult with chronic plaque psoriasis, having a psoriasis area and severity index (PASI) score of at least 15 with an inadequate response or intolerance to three of the following: phototherapy, acitretin, cyclosporin and methotrexate."

Our news editors obtained a quote from the research, "Participants were infused with infliximab 5 mg/kg on the standard induction (weeks 0, 2 and 6) and maintenance (8-weekly) protocols. At each visit PASI and dermatology life quality index (DLQI) scores were recorded. Success was determined as the proportion of patients achieving at least a 75% improvement in the PASI score from baseline (PASI 75). At 60 months after commencement of therapy, 31% of patients remained on infliximab. Those who did retained PASI 75 with a DLQI of 0 or 1. Of those who ceased infliximab, nine did so due to loss of efficacy, three for personal reasons, two for serious adverse events and one was lost to follow up. Adverse events included non-melanoma skin cancers, infections and abnormal liver enzymes. Infliximab in the Australian context has proven to be a highly effective treatment of chronic plaque psoriasis, and patients who remained on the drug derived a high level of satisfaction, assessed both subjectively (DLQI) and objectively (PASI 75)."
According to the news editors, the research concluded: "The variable response indicates that psoriasis is a heterogeneous disease and investigation into potential patient selection for treatment in the future is warranted."


The news editors report that additional information may be obtained by contacting R. Nguyen, Skin & Canc Fdn, Melbourne, Vic, Australia. Additional authors for this research include A. Braue, C. Baker and P. Foley.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Papulosquamous Skin Diseases and Conditions, Tumor Necrosis Factor (TNF) Inhibitors, Monoclonal Antibodies, Drugs and Therapies, Immunologic Agents, Pharmaceuticals, Antirheumatics, Biotechnology, Dermatology, Infliximab, Psoriasis.

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**Speech, Language and Learning Diseases and...**

**Study Findings from Radboud University Broaden Understanding of Speech, Language and Learning Diseases and Conditions (Functional characterization of rare FOXP2 variants in neurodevelopmental disorder)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Speech, Language and Learning Diseases and Conditions. According to news reporting originating from Nijmegen, Netherlands, by NewsRx correspondents, research stated, "Heterozygous disruption of FOXP2 causes a rare form of speech and language impairment. Screens of the FOXP2 sequence in individuals with speech/language-related disorders have identified several rare protein-altering variants, but their phenotypic relevance is often unclear."

Our news editors obtained a quote from the research from Radboud University, "FOXP2 encodes a transcription factor with a forkhead box DNA-binding domain, but little is known about the functions of protein regions outside this domain. We performed detailed functional analyses of seven rare FOXP2 variants found in affected cases, including three which have not been previously characterized, testing intracellular localization, transcriptional regulation, dimerization, and interaction with other proteins. To shed further light on molecular functions of FOXP2, we characterized the interaction between this transcription factor and co-repressor proteins of the C-terminal binding protein (CTBP) family. Finally, we analysed the functional significance of the polyglutamine tracts in FOXP2, since tract length variations have been reported in cases of neurodevelopmental disorder. We confirmed etiological roles of multiple FOXP2 variants. Of three variants that have been suggested to cause speech/language disorder, but never before been characterized, only one showed functional effects. For the other two, we found no effects on protein function in any assays, suggesting that they are incidental to the phenotype. We identified a CTBP-binding region within the N-terminal portion of FOXP2."
This region includes two amino acid substitutions that occurred on the human lineage following the split from chimpanzees. However, we did not observe any effects of these amino acid changes on CTBP binding or other core aspects of FOXP2 function. Finally, we found that FOXP2 variants with reduced polyglutamine tracts did not exhibit altered behaviour in cellular assays, indicating that such tracts are non-essential for core aspects of FOXP2 function, and that tract variation is unlikely to be a highly penetrant cause of speech/language disorder.

According to the news editors, the research concluded: "Our findings highlight the importance of functional characterization of novel rare variants in FOXP2 in assessing the contribution of such variants to speech/language disorder and provide further insights into the molecular function of the FOXP2 protein."

For more information on this research see: Functional characterization of rare FOXP2 variants in neurodevelopmental disorder. *Journal of Neurodevelopmental Disorders*, 2016;8():1-19. *Journal of Neurodevelopmental Disorders* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; Journal of Neurodevelopmental Disorders - www.jneurodevdisorders.com)

The news editors report that additional information may be obtained by contacting S.E. Fisher, Radboud University, Donders Inst Brain Cognit & Behav, NL-6525 EN Nijmegen, Netherlands. Additional authors for this research include S.A. Graham, S.M. Chinnappa, P. Deriziotis and S.E. Fisher.

Keywords for this news article include: Nijmegen, Netherlands, Europe, Speech, Language and Learning Diseases and Conditions, Language and Learning Diseases and Conditions, Nervous System Diseases and Conditions, Neurobehavioral Manifestations, Neurologic Manifestations, Communication Disorders, Language Disorders, Genetics, Speech, Radboud University.

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**Hematology - Laboratory Hematology**

**Study Findings from S. Buoro et al Provide New Insights into Laboratory Hematology (Mindray BC-6800 body fluid mode, performance of nucleated cells, and differential count in ascitic and pleural fluids)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Laboratory Hematology. According to news reporting originating from Bergamo, Italy, by NewsRx correspondents, research stated, "An accurate and rapid analysis of cells in body fluids (BFs) is important for diagnosis and follow-up in many pathological conditions. We evaluated the analytical performance of the module BF Mindray BC-6800 (BC-6800-BF) for cytometric analysis of ascitic and pleural fluids."

Our news editors obtained a quote from the research, "A total of 99 ascitic and 45 pleural samples were collected and assessed with BC-6800-BF and optical microscopy. This study also includes the evaluation of limit blank (LoB), limit detection (LoD), limit quantitation, (LoQ), carryover, linearity, and diagnostic concordance between the two methods. For TC-BF, LoB was 1 ? 10(6) cells/L, LoD was 3 ? 10(6) cells/L, and LoQ was 4 ? 10(6) cells/L. Linearity..."
was excellent \( r(2)=0.99 \) and carryover was negligible. TC-BF performed with the two methods showed Pearson's correlation of 0.99 \( p <0.0001 \), Passing-Bablok regression \( y=1.04x -1.17 \), and bias 33.7 cells. In ascitic fluids, polymorphonuclear cells (PMN) showed an area under curve (AUC) of 0.98 \( p <0.0001 \). In pleural fluids, mononuclear cells (MN) and PMN % displayed an AUC of 0.79 \( p <0.0001 \) and 0.93 \( p <0.0001 \), respectively. BC-6800-BF in ascitic and pleural fluids offers rapid and accurate cell and differential counts in clinically relevant concentration ranges.

According to the news editors, the research concluded: "The use of BC-6800-BF may allow to replace routine optical counting, except for samples displaying abnormal cell counts or abnormal DIFF scattergram."


The news editors report that additional information may be obtained by contacting S. Buoro, Chemical Chemistry Laboratory, Hospital Papa Giovanni XXIII, Bergamo, Italy. Additional authors for this research include T. Mecca, G. Azzara, M. Seghezzi, E. Candiago, A. Gianatti, A. Crippa and A. La Gioia.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ijlh.12446. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *International Journal of Laboratory Hematology* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Italy, Europe, Bergamo, Laboratory Hematology.

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**Nervous System Diseases and Conditions - Normal…**

**Study Findings from S. Yamada et al Provide New Insights into Normal Pressure Hydrocephalus (Choroidal fissure acts as an overflow device in cerebrospinal fluid drainage: morphological comparison between idiopathic and secondary normal-pressure …)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nervous System Diseases and Conditions - Normal Pressure Hydrocephalus are discussed in a new report. According to news reporting out of Kyoto, Japan, by NewsRx editors, research stated, "To clarify the pathogenesis of two different types of adult-onset normal-pressure hydrocephalus (NPH), we investigated cerebrospinal fluid distribution on the high-field three-dimensional MRI. The subarachnoid spaces in secondary NPH were smaller than those in the controls, whereas those in idiopathic NPH were of similar size to the controls."

Our news journalists obtained a quote from the research, "In idiopathic NPH, however, the basal cistern and Sylvian fissure were enlarged in concurrence with ventricular
enlargement towards the z-direction, but the convexity subarachnoid space was severely diminished. In this article, we provide evidence that the key cause of the disproportionate cerebrospinal fluid distribution in idiopathic NPH is the compensatory direct CSF communication between the inferior horn of the lateral ventricles and the ambient cistern at the choroidal fissure. In contrast, all parts of the subarachnoid spaces were equally and severely decreased in secondary NPH."

According to the news editors, the research concluded: "Blockage of CSF drainage from the subarachnoid spaces could cause the omnidirectional ventricular enlargement in secondary NPH."


Our news journalists report that additional information may be obtained by contacting S. Yamada, Rakuwakai Otowa Hosp, Dept. of Neurosurgery & Stroke Center, Kyoto, Japan. Additional authors for this research include M. Ishikawa, Y. Iwamuro and K. Yamamoto.

Keywords for this news article include: Kyoto, Japan, Asia, Central Nervous System Diseases and Conditions, Normal Pressure Hydrocephalus, Cardiology.

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**Oncology - Burkitt Lymphoma**

**Study Findings from Safdarjang Hospital Provide New Insights into Burkitt Lymphoma (Disseminated Renal Burkitt Lymphoma With Malignant Inferior Vena Caval Thrombosis in a Child)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Burkitt Lymphoma is now available. According to news reporting out of New Delhi, India, by NewsRx editors, research stated, "The most common causes of renal mass with malignant venous thrombosis are Wilms' tumor and renal cell carcinoma. Although renal involvement may occur in disseminated lymphomas, primary renal Burkitt lymphoma (BL) is rare."

Our news journalists obtained a quote from the research from Safdarjang Hospital, "Vascular tropism is not a usual feature of lymphoma; thus, primary renal BL with venous extension is distinctly unusual. However, it is important to diagnose this entity because such patients respond well to medical management and may not require surgery."

According to the news editors, the research concluded: "We report a pediatric case of primary renal BL with malignant vascular thrombus and systemic dissemination where biopsy was diagnostic and enabled appropriate treatment."


Our news journalists report that additional information may be obtained by
Study Findings from Saga University Broaden Understanding of Gastric Cancer (Impaired mitophagy activates mtROS/HIF-1a interplay and increases cancer aggressiveness in gastric cancer cells under hypoxia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Gastric Cancer is now available. According to news reporting originating from Saga, Japan, by NewsRx correspondents, research stated, "Mitochondrial autophagy (mitophagy) is a selective form of autophagy and a critical step in excluding mitochondria damaged by stress, including hypoxia. This study aimed to determine whether the integrity of mitophagy affected production of the mitochondrial reactive oxygen species (mtROS), hypoxia inducible factor (HIF)-1α expression and aggressive characteristics in GC cells under hypoxia."

Our news editors obtained a quote from the research from Saga University, "Three GC cell lines, 44As3, 58As9 and MKN45, were investigated in this study. HIF-1α expression was induced in the three GC cell lines under hypoxia, with higher expression observed in 44As3 and 58As9 cells compared with MKN45 cells. Cell survival and invasion abilities under hypoxia were significantly stronger in 44As3 and 58As9 cells than MKN45 cells. Moreover, mtROS accumulated in a time-dependent manner in 44As3 and 58As9 cells, but not in MKN45 cells. ROS scavenger N-acetyl-L-cysteine (NAC) treatment resulted in strong attenuation of HIF-1α expression, whereas HIF-1α knockdown increased ROS production in the three GC cell lines under hypoxia. These results suggested that the mtROS/HIF-1α interplay affected the hypoxia-induced cancer aggressiveness. Assessment of mitophagy by LC3-I/II conversion, SQSTM1/p62 degradation and specific fluorescence markers demonstrated that hypoxia-induced mitophagy was observed only in MKN45 cells, while the process was impaired in the other two cell lines. Treatment with the autophagy inhibitor chloroquine conversely increased HIF-1α expression, mtROS generation, cell survival and invasion in hypoxic MKN45 cells."

According to the news editors, the research concluded: "The present study revealed a novel mechanism in which the integrity of mitophagy might determine cancer aggressiveness via mtROS/HIF-1α interplay in GC cells under hypoxic conditions."

For more information on this research see: Impaired mitophagy activates mtROS/HIF-1α interplay and increases cancer aggressiveness in gastric cancer cells under...
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Our news correspondents report that additional information may be obtained by contacting H.S. Han, Seoul National University, Bundang Hosp, Dept. of Surg, Seoul 151, South Korea. Additional authors for this research include H.S. Han, S. Ahn, Y.S. Yoon, J.Y. Cho and Y.R. Choi.

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Keywords for this news article include: Seoul, South Korea, Asia, Digestive System Diseases and Conditions, Hematologic Diseases and Conditions, Liver Diseases and Conditions, Blood Platelet Disorders, Risk and Prevention, Gastroenterology, Thrombocytopenia, Liver Resection, Liver Cirrhosis, Liver Cancer, Hepatology, Hematology, Carcinomas, Oncology, Surgery, Seoul National University.

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Angiology

Study Findings from Shengjing Hospital Broaden Understanding of Angiology (Progranulin and short-term outcome in patients with acute ischaemic stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Angiology. According to news reporting out of Shenyang, People's Republic of China, by NewsRx editors, research stated, "Stroke is a leading cause of death and severe disability worldwide. Serum biomarkers play a critical role in the assessment of the severity and prognosis in stroke patients."

Our news journalists obtained a quote from the research from Shengjing Hospital, "In this prospective cohort study, the measurement of serum progranulin (PGRN) was conducted in 316 participants, including 216 patients with an identified diagnosis of acute ischaemic stroke and 100 normal control subjects. The primary end-point was defined as all-cause mortality for a short-term follow-up of 6 months. Adverse functional outcome (modified Rankin Scale score (>=)3) was considered as the secondary end-point. The median value of serum PGRN for patients with acute ischaemic stroke was 64.2 ng/ml (interquartile range 54.6-73.7), which was significantly higher than the control group [59.7 (54.4-64.4) ng/ml; p<0.001]. Multivariable linear regression suggested that PGRN levels were significantly correlated with body mass index, alcohol consumption, fasting blood glucose, total cholesterol, National Institutes of Health Stroke Scale (NIHSS) score and high-density lipoprotein cholesterol. Serum PGRN concentrations were independently associated with increased risks of all-cause mortality and adverse functional outcome after adjustment for clinical variables. In Cox proportional hazards models, PGRN levels were associated with the risk of mortality (hazard ratio 1.090, 95% confidence interval 1.033-1.150, p=0.002). The net reclassification improvement of the model with added PGRN was 0.1902 (p=0.0234) after adjustment for the variables in the Cox regression model for predicting all-cause mortality, and the integrated discrimination improvement was 0.1052 (p <0.001). Serum PGRN levels independently predicted all-cause mortality and adverse functional outcome in the short term in stroke patients."
According to the news editors, the research concluded: "The discriminative power was improved by PGRN on the basis of NIHSS score."


Our news journalists report that additional information may be obtained by contacting S. Xie, Dept. of Clinical Laboratory, Shengjing Hospital of China Medical University, Shenyang, People's Republic of China. Additional authors for this research include L. Lu, L. Liu, G. Bi and L. Zheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ene.12920. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shenyang, Angiology, Cardiology, Risk and Prevention, People's Republic of China.

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Our news correspondents report that additional information may be obtained by contacting M. Shahriari, Hematology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran. Additional authors for this research include A. Bazrafshian, M. Moghadam and M. Karimi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MBC.0000000000000424. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Iran, Asia, Shiraz, Hematology, Hemophilia A, Turner Syndrome, Eye Abnormalities, Gonadal Dysgenesis, Congenital Abnormalities, Sex Chromosome Disorders, Urogenital Abnormalities, Eye Diseases and Conditions, Sex Differentiation Disorders, Genetic Diseases and Conditions, Persistent Hyperplastic Primary Vitreous.

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**Mosquito-Borne Diseases - Malaria**

**Study Findings from Singapore National University Broaden Understanding of Malaria (Ex Vivo Maturation Assay for Testing Antimalarial Sensitivity of Rodent Malaria Parasites)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Mosquito-Borne Diseases - Malaria have been presented. According to news reporting out of Singapore, Singapore, by NewsRx editors, research stated, "Ex vivo assay systems provide a powerful approach to studying human malaria parasite biology and to testing antimalarials. For rodent malaria parasites, short-term in vitro culture and ex vivo antimalarial susceptibility assays are relatively cumbersome, relying on in vivo passage for synchronization, since ring-stage parasites are an essential starting material."

Our news journalists obtained a quote from the research from Singapore National University, "Here, we describe a new approach based on the enrichment of ring-stage Plasmodium berghei, P. yoelii, and P. vinckei vinckei using a single-step Percoll gradient. Importantly, we demonstrate that the enriched ring-stage parasites develop synchronously regardless of the parasite strain or species used. Using a flow cytometry assay with Hoechst and ethidium or MitoTracker dye, we show that parasite development is easily and rapidly monitored."

According to the news editors, the research concluded: "Finally, we demonstrate that this approach can be used to screen antimalarial drugs."


Our news journalists report that additional information may be obtained by contacting L. Renia, Singapore National University, Natl Univ Hlth Syst, Yong Loo Lin Sch
Med, Dept. of Microbiol & Immunol, Singapore, Singapore. Additional authors for this research include B. Malleret, B. Russell, L. Renia and C. Clasera.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.01292-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Singapore, Singapore, Asia, Mosquito-Borne Illness, Mosquito-Borne Diseases, Protozoan Infections, Drugs and Therapies, Antimalarial Agents, Malaria, Singapore National University.

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Study Findings from St. George's Vascular Institute Broaden Understanding of Endarterectomy (Editor's Choice - Delays to Surgery and Procedural Risks Following Carotid Endarterectomy in the UK National Vascular Registry)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Surgery - Endarterectomy. According to news reporting from London, United Kingdom, by NewsRx journalists, research stated, "Guidelines recommend that patients suffering an ischaemic transient ischaemic attack (TIA) or stroke caused by carotid artery stenosis should undergo carotid endarterectomy (CEA) within 14 days. The degree to which UK vascular units met this standard was examined and whether rapid interventions were associated with procedural risks."

The news correspondents obtained a quote from the research from St. George's Vascular Institute, "The study analysed patients undergoing CEA between January 2009 and December 2014 from 100 UK NHS hospitals. Data were collected on patient characteristics, intervals of time from symptoms to surgery, and 30-day postoperative outcomes. The relationship between outcomes and time from symptom to surgery was evaluated using multilevel multivariable logistic regression. In 23,235 patients, the median time from TIA/stroke to CEA decreased over time, from 22 days (IQR 10-56) in 2009 to 12 days (IQR 7-26) in 2014. The proportion of patients treated within 14 days increased from 37% to 58%. This improvement was produced by shorter times across the care pathway: symptoms to referral, from medical review to being seen by a vascular surgeon, and then to surgery. The spread of the median time from symptom to surgery among NHS hospitals shrank between 2009 and 2013 but then grew slightly. Low-, medium-, and high-volume NHS hospitals all improved their performance similarly. Performing CEA within 48 h of symptom onset was associated with a small increase in the 30-day stroke and death rate: 3.1% (0-2 days) compared with 2.0% (3-7 days); adjusted odds ratio 1.64 (95% CI 1.04-2.59) but not with longer delays. The delay from symptom to CEA in symptomatic patients with ipsilateral 50-99% carotid stenoses has reduced substantially, although 42% of patients underwent CEA after the recommended 14 days."

According to the news reporters, the research concluded: "The risk of stroke after CEA was low, but there may be a small increase in risk during the first 48 h after symptoms."

For more information on this research see: Editor's Choice - Delays to Surgery and Procedural Risks Following Carotid Endarterectomy in the UK National Vascular Registry. European Journal of Vascular and Endovascular Surgery, 2016;52(4):438-443. European

Our news journalists report that additional information may be obtained by contacting I.M. Loftus, St Georges Healthcare NHS Trust, St Georges Vasc Inst, London SW17 0QT, United Kingdom. Additional authors for this research include K.I. Paraskevas, A. Johal, S. Waton, K. Heikkila, A.R. Naylor and D.A. Cromwell.

Keywords for this news article include: London, United Kingdom, Europe, Carotid Endarterectomy, Risk and Prevention, Cardiology, Angiology, Hospital, Surgery, Stroke, St. George's Vascular Institute.

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Information Technology - Electronic Medical Records

Study Findings from St. Jude Children's Research Hospital Provide New Insights into Electronic Medical Records (Integrating pharmacogenomics into electronic health records with clinical decision support)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Information Technology - Electronic Medical Records are discussed in a new report. According to news originating from Memphis, Tennessee, by NewsRx correspondents, research stated, "Existing pharmacogenomic informatics models, key implementation steps, and emerging resources to facilitate the development of pharmacogenomic clinical decision support (CDS) are described. Pharmacogenomics is an important component of precision medicine."

Our news journalists obtained a quote from the research from St. Jude Children's Research Hospital, "Informatics, especially CDS in the electronic health record (EHR), is a critical tool for the integration of pharmacogenomics into routine patient care. Effective integration of pharmacogenomic CDS into the EHR can address implementation challenges, including the increasing volume of pharmacogenomic clinical knowledge, the enduring nature of pharmacogenomic test results, and the complexity of interpreting results. Both passive and active CDS provide point-of-care information to clinicians that can guide the systematic use of pharmacogenomics to proactively optimize pharmacotherapy. Key considerations for a successful implementation have been identified; these include clinical workflows, identification of alert triggers, and tools to guide interpretation of results. These considerations, along with emerging resources from the Clinical Pharmacogenetics Implementation Consortium and the National Academy of Medicine, are described. The EHR with CDS is essential to curate pharmacogenomic data and disseminate patient-specific information at the point of care. As part of the successful implementation of pharmacogenomics into clinical settings, all relevant clinical recommendations pertaining to gene drug pairs must be summarized and presented to clinicians in a manner that is seamlessly integrated into the clinical workflow of the EHR."

According to the news editors, the research concluded: "In some situations, ancillary systems and applications outside the EHR may be integrated to augment the capabilities of the EHR."
For more information on this research see: Integrating pharmacogenomics into electronic health records with clinical decision support. *American Journal of Health-System Pharmacy*, 2016;73(23):1967-1976. *American Journal of Health-System Pharmacy* can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

The news correspondents report that additional information may be obtained from J.M. Hoffman, St Jude Childrens Res Hosp, Dept. of Pharmaceut Sci, Memphis, TN 38105, United States. Additional authors for this research include H.M. Dunnenberger, K.F. Gumpper, C.E. Haidar and J.M. Hoffman.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp160030. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Memphis, Tennessee, United States, North and Central America, Electronic Medical Records, Information Technology, Pharmacogenomics, Biotechnology, Pharmacology, St. Jude Children's Research Hospital.

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*Study Findings from Sungkyunkwan University Broaden Understanding of Type 2 Diabetes [Inhibitory Effect of Methyl 2-(4'-Methoxy-4'-oxobutanamide) Benzoate from Jerusalem Artichoke (Helianthus tuberosus) on the Inflammatory Paracrine Loop ...]*

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news originating from Suwon, South Korea, by NewsRx correspondents, research stated, "The interaction between macrophages and adipocytes is known to aggravate inflammation of the adipose tissue, leading to decreased insulin sensitivity. Hence, attenuation of the inflammatory paracrine loop between macrophages and adipocytes is deemed essential to ameliorate insulin resistance and diabetes mellitus type 2. Methyl 2-(4'-methoxy-4'-oxobutanamide) benzoate (compound 1), a newly isolated compound from Jerusalem artichoke (JA), has not been biologically characterized yet."

Our news journalists obtained a quote from the research from Sungkyunkwan University, "Here, we investigated whether JA-derived compound 1 attenuates the inflammatory cycle between RAW 264.7 macrophages and 3T3-L1 adipocytes. Compound 1 suppressed the inflammatory response of RAW 264.7 cells to lipopolysaccharide through decreased secretion of IL-1 beta, IL-6, and TNF-alpha. Moreover, the mRNA expression of TNF-alpha, IL-6, IL-1 beta, MCP-1, and Rantes and MAPK pathway activation in 3T3-L1 adipocytes, incubated in macrophage-conditioned media, were inhibited."

According to the news editors, the research concluded: "These findings suggest an anti-inflammatory effect of a newly extracted compound against adipose tissue inflammation and insulin resistance."

For more information on this research see: Inhibitory Effect of Methyl 2-(4'-Methoxy-4'-oxobutanamide) Benzoate from Jerusalem Artichoke (Helianthus tuberosus) on the Inflammatory Paracrine Loop between Macrophages and Adipocytes. *Journal of Agricultural*

The news correspondents report that additional information may be obtained from J.H. Kwak, Sungkyunkwan University Sch Pharm, Suwon 16419, South Korea. Additional authors for this research include B.O. Kim, J.H. Kwak and S. Pyo.

Keywords for this news article include: Suwon, South Korea, Asia, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Mononuclear Phagocyte System, Glucose Metabolism Disorders, Connective Tissue Cells, Risk and Prevention, Insulin Resistance, Organic Chemicals, Carboxylic Acids, Peptide Proteins, Peptide Hormones, Hyperinsulinism, Type 2 Diabetes, Benzoic Acids, Myeloid Cells, Inflammation, Macrophages, Adipocytes, Immunology, Phagocytes, Proinsulin, Benzoates, Genetics, Sungkyunkwan University.

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Drugs and Therapies - Dopaminergic...

Study Findings from Suven Life Sciences Ltd Broaden Understanding of Dopaminergic Antiparkinsonism Agents (Development and Validation of a RP-HPLC Method for Determination of Related Substances and Degradants in Entacapone)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Dopaminergic Antiparkinsonism Agents have been presented. According to news reporting out of Andhra Pradesh, India, by NewsRx editors, research stated, "A new reverse phase-liquid chromatography (RP-HPLC) method has been developed for simultaneous determination of entacapone and its pharmacopoeia impurities, in-house impurities and degradation impurities (total 17 analytes). Chromatographic separation was achieved on a C18 column (size: 250 x 4.6 mm; 5 μm particle size) at a flow rate of 1.0 mL/min with 210 nm detection."

Our news journalists obtained a quote from the research from Suven Life Sciences Ltd, "The mobile phase (MP) consists of 1.361 g of potassium di-hydrogen phosphate and 1.742 g of di-potassium phosphate in 1.0 L water, pH adjusted to 2.5 with ortho phosphoric acid (MP-A) and acetonitrile (MP-B) through gradient elution. The product was subjected to stress conditions such as acid, base, peroxide, thermal and photolytic degradation. Two new impurities above 2% level were observed and isolated through preparative HPLC and well characterized. However, no interference observed due to degradation impurities and entacapone and its EP impurities, in-house impurities. As part of the method validation, specificity, limit of detection, limit of quantitation (LOQ), linearity, accuracy, precision, robustness and ruggedness were determined. LOQ values were achieved between 0.01 and 0.04%. Good linearity (r(2) > 0.99) was obtained ranging from LOQ to 150%. Recovery was verified for all impurities at concentrations ranging from LOQ to 150%.

According to the news editors, the research concluded: "Hence, a newly developed RP-HPLC method was capable for well separation of all analytes with acceptable resolution and tailing factor."

Our news journalists report that additional information may be obtained by contacting D. Purnachand, Suven Life Sci Ltd, Res & Dev Center, Hyderabad 500055, Andhra Pradesh, India. Additional authors for this research include A. Veerareddy, B. Ramadevi, C. Kameswarrao and B. Madhusudhanreddy.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/chromsci/bmw083. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Andhra Pradesh, India, Asia, Dopaminergic Antiparkinsonism Agents, Central Nervous System Agents, Antiparkinson Agents, Drugs and Therapies, Entacapone Therapy, Pharmaceuticals, Suven Life Sciences Ltd.

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Nutritional and Metabolic Diseases and Conditions ...

Study Findings from Swiss Federal Institute of Technology Broaden Understanding of Type 1 Diabetes Mellitus (beta-cell-mimetic designer cells provide closed-loop glycemic control)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nutritional and Metabolic Diseases and Conditions - Type 1 Diabetes Mellitus have been presented. According to news reporting from Basel, Switzerland, by NewsRx journalists, research stated, "Chronically deregulated blood-glucose concentrations in diabetes mellitus result from a loss of pancreatic insulin-producing beta cells (type 1 diabetes, T1D) or from impaired insulin sensitivity of body cells and glucose-stimulated insulin release (type 2 diabetes, T2D). Here, we show that therapeutically applicable beta-cell-mimetic designer cells can be established by minimal engineering of human cells."

The news correspondents obtained a quote from the research from the Swiss Federal Institute of Technology, "We achieved glucose responsiveness by a synthetic circuit that couples glycolysis-mediated calcium entry to an excitation-transcription system controlling therapeutic transgene expression. Implanted circuit-carrying cells corrected insulin deficiency and self-sufficiently abolished persistent hyperglycemia in T1D mice. Similarly, glucose-inducible glucagon-like peptide 1 transcription improved endogenous glucose-stimulated insulin release and glucose tolerance in T2D mice."

According to the news reporters, the research concluded: "These systems may enable a combination of diagnosis and treatment for diabetes mellitus therapy."

For more information on this research see: beta-cell-mimetic designer cells provide closed-loop glycemic control. Science, 2016;354(6317):1296-1301. Science can be contacted at: Amer Assoc Advancement Science, 1200 New York Ave, NW, Washington, DC 20005, USA. (Springer - www.springer.com; Science - www.springerlink.com/content/0926-7220/)

Our news journalists report that additional information may be obtained by

Keywords for this news article include: Basel, Switzerland, Europe, Type 1 Diabetes Mellitus, Nutritional and Metabolic Diseases and Conditions, Endocrine System Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Glucose Metabolism Disorders, Risk and Prevention, Peptide Proteins, Peptide Hormones, Type 2 Diabetes, Type 1 Diabetes, Proinsulin, Genetics, Swiss Federal Institute of Technology.

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DNA Research

Study Findings from Tabriz University of Medical Sciences Provide New Insights into DNA Research (DNA damage response regulation by microRNAs as a therapeutic target in cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on DNA Research. According to news reporting from Tabriz, Iran, by NewsRx journalists, research stated, "The inability of cancer cells in taking care of DNA damages can lead to cancer development and/or progression. Due to the essential role of DNA repair in maintaining genomic stability, tightly controlled regulatory mechanism are required for these processes."

The news correspondents obtained a quote from the research from the Tabriz University of Medical Sciences, "Recent studies have shown a myriad of interactions among DNA damage response (DDR) components and miRNAs. While DDR modulates miRNA expression in transcriptional and post-transcriptional levels and affects miRNA degradation, miRNAs in turn, directly modulate the expression of multiple proteins in the DDR pathways, or indirectly fine-tune the expression of such proteins. A better understanding of DDR-miRNA interactions can facilitate the development of new anticancer agents targeting miRNAs involved in the DNA repair process. In this review, we provide a brief introduction about miRNA biogenesis and functions, DDR pathways, and recent findings about DDR-microRNA interactions."

According to the news reporters, the research concluded: "Finally, the therapeutic importance of miRNAs in modulation of DDR/DNA repair mechanisms will be discussed."

For more information on this research see: DNA damage response regulation by microRNAs as a therapeutic target in cancer. DNA Repair, 2016;47():1-11. DNA Repair can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; DNA Repair - www.journals.elsevier.com/dna-repair/)

Our news journalists report that additional information may be obtained by contacting B. Yousefi, Tabriz Univ Med Sci, Stem Cell Res Center, Tabriz, Iran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.dnarep.2016.09.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tabriz, Iran, Asia, Proteomics, Article Review, Deoxyribonucleic Acid, DNA Research, DNA Damage, Oncology, Genetics, Cancer, Tabriz University of Medical Sciences.
Heart Disorders and Diseases - Heart Attack

Study Findings from Tabriz University of Medical Sciences Provide New Insights into Heart Attack (The Value of Lead aVR ST Segment Changes in Localizing Culprit Lesion in Acute Inferior Myocardial Infarction and Its Prognostic Impact)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Heart Attack. According to news reporting originating from Tabriz, Iran, by NewsRx correspondents, research stated, "Identifying infarct-related artery (IRA) in patients with inferior ST elevation myocardial infarction (STEMI) has prognostic and therapeutic benefits. To differentiate IRA and the location of culprit lesion in inferior STEMI, using ST segment changes in lead aVR."

Our news editors obtained a quote from the research from the Tabriz University of Medical Sciences, "ST segment changes in lead aVR were recorded in 150 patients, admitted with first inferior STEMI. The association of IRA and the location of culprit lesion with ST segment changes in aVR were investigated. ST elevation >= 0.5 mm in lead aVR was present in 17 patients (11.3%), ST depression >= 0.5 mm in 74 patients (49.3%) and 59 patients (39.3%) did not have significant ST segment changes. Right coronary artery (RCA) was the IRA in 117 patients (78%) and left circumflex artery (LCX) in 33 patients (22%). Prevalence of RCA involvement as the IRA was different in three study groups (94.1% in ST elevation group, 83.1% in isoelectric group and 70.3% in ST depression group, P = 0.049). Presence of ST elevation had a sensitivity and specificity of 13.68 % and 96.97%, for detecting RCA lesions, respectively. ST depression had 66.67% sensitivity and 55.56% specificity for identifying LCX lesions. Clinical complications were low in our study with no significant difference among patients of three groups. Presence of ST elevation is highly suggestive of RCA lesions versus LCX lesions, whereas absence of ST elevation cannot rule out RCA lesions."

According to the news editors, the research concluded: "Presence of ST depression has a moderate sensitivity and specificity for LCX lesions."


The news editors report that additional information may be obtained by contacting S. Ghaffari, Tabriz Univ Med Sci, Cardiovasc Res Center, Tabriz, Iran. Additional authors for this research include A. Tajlil, S.S. Mahmoudi and S. Ghaffari.

Keywords for this news article include: Tabriz, Iran, Asia, Vascular Diseases and Conditions, Heart Disorders and Diseases, Myocardial Infarction, Myocardial Ischemia, Heart Disease, Heart Attack, Tabriz University of Medical Sciences.

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Central Nervous System Diseases and Conditions –…

Study Findings from Temple University Provide New Insights into Progressive Multifocal Leukoencephalopathy (Diagnostic assays for polyomavirus JC and progressive multifocal leukoencephalopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Central Nervous System Diseases and Conditions - Progressive Multifocal Leukoencephalopathy. According to news reporting out of Philadelphia, Pennsylvania, by NewsRx editors, research stated, "Progressive multifocal leukoencephalopathy (PML) is a devastating and often fatal demyelinating disease of the central nervous system for which effective therapies are lacking. It is caused by the replication of polyomavirus JC (JCV) in the oligodendrocytes and astrocytes leading to their cytolytic death and loss of myelin from the subcortical white matter."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from Temple University, "While the virus is very common in human populations worldwide, the incidence of the disease is very low and confined almost exclusively to individuals with some form of immunological dysfunction. However, the number of people who constitute the at-risk population is growing larger and includes individuals with HIV-1/AIDS and patients receiving immunomodulatory therapies such as multiple sclerosis patients treated with natalizumab. Further adding to the public health significance of this disease are the difficulties encountered in the diagnosis of PML and the lack of useful biomarkers for PML progression."

According to the news editors, the research concluded: "In this review, we examine the diagnostic assays that are available for different aspects of the JCV life cycle, their usefulness and drawbacks, and the prospects for improvements."


Our news journalists report that additional information may be obtained by contacting M.K. White, Dept. of Neuroscience, Center for Neurovirology and Comprehensive NeuroAIDS Center, Lewis Katz School of Medicine at Temple University, Philadelphia, Pennsylvania, United States. Additional authors for this research include I.K. Sariyer, J. Gordon, S. Delbue, V. Pietropaolo, J.R. Berger and K. Khalili.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/rmv.1866. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Viral, Virology, Neurology, DNA Viruses, Philadelphia, Pennsylvania, Polyomavirus, United States, Article Review, Polyomaviridae, DNA Tumor Viruses, Vertebrate Viruses, North and Central America, Progressive Multifocal Leukoencephalopathy, Central Nervous System Diseases and Conditions.

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Study Findings from Tongji University Broaden Understanding of Neurofibromatosis Type 1 (Novel mutations in one allele in a Chinese family with neurofibromatosis type 1: Including a complex insertion-deletion mutation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nervous System Diseases and Conditions - Neurofibromatosis Type 1. According to news reporting originating from Shanghai, People's Republic of China, by NewsRx correspondents, research stated, "Neurofibromatosis type 1 (NF1) is a hereditary disease with variable clinical manifestations. This study was performed in a Chinese three-generation family containing two members with NF1."

Financial support for this research came from National Natural Science Foundation of China.

Our news editors obtained a quote from the research from Tongji University, "Two novel mutations, c.853_854insTC and c.1975_1976delinsTA, were identified in the same allele in both patients by direct sequencing. By reverse transcription polymerase chain reaction, we found that the NF1 transcript contained the first mutation instead of the second mutation, suggesting a pathological role of c.853_854insTC mutation. Case reports of patients with two NF1 mutations in the same allele have not been reported."

According to the news editors, the research concluded: "Our findings expand the known spectrum of NF1 mutations and the ongoing recognition of different mutations may give insight into the mysterious NF1 pathogenesis."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1346-8138.13498. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Peripheral Nervous System Diseases and Conditions, Neurodegenerative Diseases and Conditions, Neuromuscular Diseases and Conditions, Neurofibromatosis Type 1, Neurocutaneous Syndromes, Neurofibromatosis 1, Neurofibromatoses, Genetics, Tongji University.

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**Antioxidants**

**Study Findings from Trakia University Broaden Understanding of Antioxidants (Protective effect of two essential oils isolated from Rosa damascena Mill. and Lavandula angustifolia Mill, and two classic antioxidants against L-dopa oxidative ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Antioxidants. According to news reporting originating in Stara Zagora, Bulgaria, by NewsRx journalists, research stated, "Levodopa (L-dopa) is a 'gold standard' and most effective symptomatic agent in the Parkinson's disease (PD) treatment. The several treatments have been developed in an attempt to improve PD treatment, but most patients were still levodopa dependent."

Financial support for this research came from Trakia University.

The news reporters obtained a quote from the research from Trakia University, "The issue of toxicity was raised in vitro studies, and suggests that L-dopa can be toxic to dopaminergic neurons, but it is not yet entirely proven. L-dopa prolonged treatment is associated with motor complications and some limitations. Combining the L-dopa therapy with antioxidants can reduce related sideeffects and provide symptomatic relief. The natural antioxidants can be isolated from any plant parts such as seeds, leaves, roots, bark, etc., and their extracts riched in phenols can retard the oxidative degradation of the lipids, proteins and DNA."

According to the news reporters, the research concluded: "Thus, study suggests that combination of essential oils (Rose oil and Lavender oil), Vitamin C and Trolox with Ldopa can reduce oxidative toxicity, and may play a key role in ROS/RNS disarm."


Our news correspondents report that additional information may be obtained by contacting A. Zheleva, Trakia Univ, Fac Med, Dept. of Chem & Biochem, Stara Zagora 6000, Bulgaria. Additional authors for this research include Y. Karamalakova, N. Kovacheva, S. Stanev, A. Zheleva and V. Gadjeva.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yrtph.2016.06.024. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stara Zagora, Bulgaria, Europe, Protective Agents, Antioxidants, Genetics, Trakia University.

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Heart Disorders and Diseases - Heart Attack

Study Findings from Tulane University Provide New Insights into Heart Attack (Multivessel Revascularization Does Not Increase Contrast-Induced Acute Kidney Injury Incidence in Acute Myocardial Infarction: A Meta-Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news reporting originating from New Orleans, Louisiana, by NewsRx correspondents, research stated, "Recent studies and meta-analysis have shown that complete revascularization (CR) compared with infarct-related artery revascularization (IRA) during percutaneous coronary intervention for ST-segment elevation myocardial infarction (STEMI) is associated with decreased mortality. However, it is unclear if CR versus IRA in STEMI during indexed hospitalization is associated with risk of contrast-induced acute kidney injury (CI-AKI)."

Our news editors obtained a quote from the research from Tulane University, "A database search was conducted for all randomized controlled trials that enrolled STEMI patients and compared CR versus IRA and reported CI-AKI. Comprehensive Meta-Analysis Version 2.0 (Wiley, Chichester) was used to determine summary effect size with a fixed-effect model and expressed as a risk ratio with 95 % confidence intervals. A total of four trials were identified and had a mean follow-up of 24.5 +/- 9.9 months, a total sample size of 1537, a mean age of 63.8 +/- 1.2 years, 64.2 +/- 1.2 years, 31.2 +/- 5.3 vs. 30.1 +/- 4.7 three-vessel disease, and 33.7 +/- 4.1 vs. 37.2 +/- 4.5 % anterior STEMI in the CR versus IRA groups, respectively. A total of 276.7 +/- 25.2 vs. 186.7 +/- 15.3 mL contrast was used in the CR versus IRA respectively (p = 0.006). There were no statistical significant differences between the two groups in the reported incidence of CI-AKI (1.3 % CR vs. 1.9 % IRA; p = 0.4), major bleeding (1.7 % CR vs. 2.5 % IRA; p = 0.4) and stroke (1.1 % CR vs. 0.4 % IRA; p = 0.24). However, there was a significantly increased incidence of cardiovascular death (2.0 % CR vs. 4.7 % IRA; p = 0.01) and ischemia-driven revascularization (6.2 % CR vs. 18.3 % IRA; p< 0.01)."

According to the news editors, the research concluded: "In the index hospitalization, CR in STEMI patients is associated with significant risk reduction in cardiac death and revascularization and a non-significant reduced trend of CI-AKI, despite increased use of contrast when compared with IRA."


The news editors report that additional information may be obtained by contacting T.H. Le Jemtel, Tulane University, Sch Med, Inst Heart & Vasc, Div CardiolDept Med, New Orleans, LA 70112, United States. Additional authors for this research include R.A. Riehl, A. Alonso, R. Samson, A. Jaiswal and T.H. Le Jemtel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40256-016-0184-1. This DOI is a link to an online electronic document that is either free or for purchase.
Biomedical Engineering - Regenerative Medicine

Study Findings from Tulane University School of Medicine Provide New Insights into Regenerative Medicine (Human Adipose Stromal/Stem Cells from Obese Donors Show Reduced Efficacy in Halting Disease Progression in the Experimental Autoimmune ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biomedical Engineering - Regenerative Medicine have been presented. According to news originating from New Orleans, Louisiana, by NewsRx correspondents, research stated, "Multiple sclerosis is an autoimmune disease that affects the white matter of the central nervous system and involves inflammation and demyelination. The recent advances in our understanding of adipose-derived stromal/stem cells (ASCs) and the utilization of these cells in clinical settings to treat diseases have made it essential to identify the most effective ASCs for therapy."

Our news journalists obtained a quote from the research from the Tulane University School of Medicine, "Studies have not yet investigated the impact of obesity on the therapeutic efficacy of ASCs. Obesity is characterized by adipocyte hyperplasia and hypertrophy and can extend to metabolic and endocrine dysfunction. Investigating the impact obesity has on ASC biology will determine whether these cells are suitable for use in regenerative medicine. The therapeutic efficacy of ASCs isolated from lean subjects (body mass index [BMI] <25; lnASCs) and obese subjects (BMI >30; obASCs) were determined in murine experimental autoimmune encephalomyelitis (EAE), a model of multiple sclerosis. Compared with the EAE disease-modifying effects of lnASCs, obASCs consistently failed to alleviate clinical symptoms or inhibit inflammation in the central nervous system. When activated, obASCs expressed higher mRNA levels of several pro-inflammatory cytokines compared with lnASCs. Additionally, conditioned media (CM) collected from the obASCs markedly enhanced the proliferation and differentiation of T cells; whereas, CM from lnASC did not. These results indicate that obesity reduces, or eliminates, the anti-inflammatory effects of human ASCs such that they may not be a suitable cell source for the treatment of autoimmune diseases."

According to the news editors, the research concluded: "The data suggest that donor demographics may be particularly important when identifying suitable stem cells for treatment."


The news correspondents report that additional information may be obtained from A.L. Strong, Center for Stem Cell Research and Regenerative Medicine, Tulane University School of Medicine, New Orleans, Louisiana, United States. Additional authors for this research...
include A.C. Bowles, R.M. Wise, J.P. Morand, M.F. Dutreil, J.M. Gimble and B.A Bunnell. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/stem.2272. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Biomedical Engineering, Biomedicine, Obesity, Genetics, Louisiana, Neurology, Bariatrics, New Orleans, Encephalitis, Epidemiology, Inflammation, United States, Overnutrition, Bioengineering, Neuroimmunology, Diet and Nutrition, Disease Attributes, Multiple Sclerosis, Stem Cell Research, Disease Progression.

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Granulocytes

Study Findings from University Hospital Provide New Insights into Granulocytes (Ascites' neutrophil function is significantly impaired in patients with decompensated cirrhosis but can be restored by autologous plasma incubation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Granulocytes is the subject of a report. According to news reporting from Leipzig, Germany, by NewsRx journalists, research stated, "Systemic immune cell dysfunction is a typical feature of liver diseases and increases the risk of bacterial infection, especially spontaneous bacterial peritonitis. We evaluated functional properties of neutrophil granulocytes in blood and ascites of patients both with and without decompensated cirrhosis."

The news correspondents obtained a quote from the research from University Hospital, "We collected blood and ascites samples from 63 patients with cirrhosis and eight without cirrhosis. Phagocytosis activity (PA) and oxidative burst activity (OBA) were evaluated after ex vivo stimulation with E. coli, while fluorescence signals were measured by flow cytometry. Ascites' neutrophil function tests were repeated after incubation with autologous plasma. Ascites' neutrophils showed an impaired PA and OBA (median blood PA 98.1% (86.8-99.8) vs. ascites' PA 50.5% (0.4-97.3), p< 0.0001; median blood OBA 98.7% (27.5-100) vs. ascites' OBA 27.5% (0.3-96.7), p< 0.0001). Patients with non-cirrhotic ascites showed higher PA but equally suppressed OBA. Ascites' neutrophil function could be partially restored after incubation with autologous plasma (median increase PA: 22.5% (-49.7 - +93.2), p = 0.002; OBA: 22.8% (-10.4 - +48.8), p = 0.002). Ascites' neutrophils of patients with cirrhosis are functionally impaired, but could be partially restored after incubation with plasma."

According to the news reporters, the research concluded: "Further investigations are needed to identify the factors in ascites that are associated with neutrophils' function."

For more information on this research see: Ascites' neutrophil function is significantly impaired in patients with decompensated cirrhosis but can be restored by autologous plasma incubation. Scientific Reports, 2016;6():1-9. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting C. Engelmann, Univ Hosp Leipzig, Dept. of Internal Med Neurol Dermatol, Sect
Study Findings from University Medical Center Broaden Understanding of Inflammation (miR-146a-mediated suppression of the inflammatory response in human adipocytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Inflammation. According to news reporting out of Ulm, Germany, by NewsRx editors, research stated, "The obesity-associated inflammation of white adipose tissue (WAT) is one of the factors leading to the development of related diseases such as insulin resistance and liver steatosis. Recently, microRNAs (miRNAs) were identified as important regulators of WAT functions."

Our news journalists obtained a quote from the research from University Medical Center, "Herein, we cultured human Simpson-Golabi-Behmel syndrome (SGBS) adipocytes with macrophage-conditioned medium (MacCM) and performed an Affimetrix miRNA array to identify miRNAs differentially expressed under inflammatory conditions. We identified 24 miRNAs differentially expressed upon inflammation in human adipocytes and miR-146a was the most up-regulated miRNA species. In subcutaneous WAT, miR-146a was elevated in both human and murine obesity. Transfection of miR-146a mimics prevented the MacCM-induced inflammatory response in SGBS adipocytes as seen by reduced levels of IL-8 and MCP-1 mRNA and protein. We identified IRAK1 and TRAF6 as targets of miR-146a in human adipocytes and detected a reduced inflammation-induced activation of JNK and p38 upon miR-146a transfection. Taken together, we could show that miR-146a reduces the inflammatory response in human adipocytes."

According to the news editors, the research concluded: "In a negative feedback loop miR-146a might contribute to the regulation of inflammatory processes in WAT and possibly prevent an overwhelming inflammatory response."

For more information on this research see: miR-146a-mediated suppression of the inflammatory response in human adipocytes. Scientific Reports, 2016;6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting P. Fischer-Posovszky, Univ Med Center Ulm, Dept. of Pediat & Adolescent Med, Div Pediat Endocrinol & Diabet, Ulm, Germany. Additional authors for this research include E. Enlund, J.B. Funcke, D. Tews, K. Holzmann, K.M. Debatin, M. Wabitsch and P. Fischer-Posovszky.
Study Findings from University of Abertay Provide New Insights into Mental Health (Predictive validity of the HCR-20 for violent and non-violent sexual behaviour in a secure mental health service)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Mental Health have been presented. According to news reporting out of Dundee, United Kingdom, by NewsRx editors, research stated, "Violent and non-violent sexual behaviour is a fairly common problem among secure mental health service patients, but specialist sexual violence risk assessment is time-consuming and so performed infrequently. We aimed to establish whether a commonly used violence risk assessment tool, the Health Clinical Risk management 20(HCR-20), has predictive validity specifically for inappropriate sexual behaviour."

Our news journalists obtained a quote from the research from the University of Abertay, "A pseudo-prospective cohort design was used for a study in the adult wards of a large provider of specialist secure mental health services. Routine clinical team HCR-20 assessments were extracted from records, and incidents involving inappropriate sexual behaviour were recorded for the 3 months following assessment. Of 613 patients, 104 (17%) had engaged in at least one inappropriate sexual behaviour; in 65 (10.6%), the sexual act was violent. HCR-20 total score, clinical and risk management subscales, predicted violent and non-violent sexual behaviour. The negative predictive value of the HCR-20 for inappropriate sexual behaviour was over 90%. Prediction of violent sexual behaviour may be regarded as well within the scope of the HCR-20 as a structured professional judgement tool to aid violence risk prediction, but we found that it also predicts behaviours that may be of concern but fall below the violence threshold."

According to the news editors, the research concluded: "High negative predictive values suggest that HCR-20 scores may have some utility for screening out patients who do not require more specialist assessment for inappropriate sexual behaviour."


Our news journalists report that additional information may be obtained by contacting G.L. Dickens, Abertay Univ, Sch Social & Hlth Sci, Dundee DD1 1HG, United Kingdom. Additional authors for this research include D.K. Thaker, M.M. Picchioni, F.L. Mason, C. Knight and G.L. Dickens.

Keywords for this news article include: Dundee, United Kingdom, Europe, Mental Health, Risk and Prevention, Legal Issues, University of Abertay.

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Health and Medicine - Medical Hypotheses

Study Findings from University of Amsterdam Provide New Insights into Medical Hypotheses (Wound scabs protect regenerating tissue against harmful ultraviolet radiation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Health and Medicine - Medical Hypotheses is the subject of a report. According to news reporting originating from Amsterdam, Netherlands, by NewsRx correspondents, research stated, "Benefits attributed to wound scabs include prevention of blood loss and protection against infection. However, when formation of a wound scab is prevented, the risk of infection is reduced."

Our news editors obtained a quote from the research from the University of Amsterdam, "Moreover, in the absence of a wound scab, wounds heal faster and scar formation is reduced. The question arises why we develop a wound scab. Here we show that wound scabs inhibit transmission of ultraviolet radiation (UVR). We compared the UVR transmittance of human wound scabs to sunscreen by measuring the sun protection factor (SPF) with diffuse transmittance spectroscopy. Three wound scabs showed SPFs of 70, 84, and 300, which is more effective than the most protective commercially available sun block."

According to the news editors, the research concluded: "Because our results demonstrate that a wound scab offers natural protection against UVR, and because no beneficial trait is attributed to wound scabs, we hypothesize that the main function of wound scabs is to limit DNA damage in underlying cells during regeneration of wound tissue exposed to sunlight, thereby reducing the risk of developing skin cancer."


The news editors report that additional information may be obtained by contacting E. van der Pol, University of Amsterdam, Academy Med Center, Vesicle Observat Center, NL-1100 DD Amsterdam, Netherlands. Additional authors for this research include Y.D. Mudde, F.A.W. Coumans, T.G. van Leeuwen, A. Sturk and R. Nieuwland.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mehy.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amsterdam, Netherlands, Europe, Medical Hypotheses, Health and Medicine, Genetics, Risk and Prevention, University of Amsterdam.

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Oncology - Pancreatic Cancer

Study Findings from University of California Broaden Understanding of Pancreatic Cancer (Molecular network, pathway, and functional analysis of-time dependent gene changes associated with pancreatic cancer susceptibility to oncolytic vaccinia ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Pancreatic Cancer is now available. According to news reporting originating from San Diego, California, by NewsRx correspondents, research stated, "Pancreatic cancer is a fatal disease associated with resistance to conventional therapies. This study aimed to determine changes in gene expression patterns associated with infection and susceptibility of pancreatic cancer cells to an oncolytic vaccinia virus, GLV-1h153, carrying the human sodium iodide symporter for deep tissue imaging of virotherapy."

Our news editors obtained a quote from the research from the University of California, "Replication and susceptibility of pancreatic adenocarcinoma PANC-1 cells to GLV-1h153 was confirmed with replication and cytotoxicity assays. PANC-1 cells were then infected with GLV-1h153 and near-synchronous infection confirmed via flow cytometry of viral-induced green fluorescent protein (GFP) expression. Six and 24 hours after infection, three samples of each time point were harvested, and gene expression patterns assessed using HG-U133A cDNA microarray chips as compared to uninfected control. Differentially expressed genes were identified using Bioconductor LIMMA statistical analysis package. A fold change of 2.0 or above was used as a cutoff, with a P value of 0.01. The gene list was then analyzed using Ingenuity Pathways Analysis software. Differential gene analysis revealed a total of 12,412 up- and 11,065 downregulated genes at 6 and 24 hours postinfection with GLV-1h153 as compared to control. At 6 hours postinfection, a total of 139 genes were either up or downregulated > twofold (false discovery rate < 0.05), of which 124 were mapped by Ingenuity Pathway Analysis (IPA). By 24 hours postinfection, a total of 5,698 genes were identified and 5,563 mapped by IPA. Microarray revealed gene expression changes, with gene networks demonstrating downregulation of processes such as cell death, cell cycle, and DNA repair, and upregulation of infection mechanisms (P < 0.01). Six hours after infection, gene changes involved pathways such as HMGB-1, interleukin (IL)-2, IL-6, IL-8, janus kinase/signal transducer and activator of transcription (JAK/STAT), interferon, and ERK 5 signaling (P < 0.01). By 24 hours, prominent pathways included P53-and Myc-induced apoptotic processes, pancreatic adenocarcinoma signaling, and phosphoinositide 3-kinase/v-akt murine thymoma vial oncogene homolog 1 (PI3/AKT) pathways. Our study reveals the ability to assess time-dependent changes in gene expression patterns in pancreatic cancer cells associated with infection and susceptibility to vaccinia viruses."

According to the news editors, the research concluded: "This suggests that molecular assays may be useful to develop safer and more efficacious oncolytic virotherapies and support the idea that these treatments may target pathways implicated in pancreatic cancer resistance to conventional therapies."

For more information on this research see: Molecular network, pathway, and functional analysis of-time dependent gene changes associated with pancreatic cancer susceptibility to oncolytic vaccinia virotherapy. Molecular Therapy-Oncolytics, 2016;3():10-18. Molecular Therapy-Oncolytics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.
Oncology - Prostate Cancer

Study Findings from University of Colorado Broaden Understanding of Prostate Cancer (Survival outcomes of combined external beam radiotherapy and brachytherapy vs. brachytherapy alone for intermediate-risk prostate cancer patients using the ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news reporting out of Aurora, Colorado, by NewsRx editors, research stated, "The purpose was to evaluate survival outcomes between external beam radiotherapy (EBRT) plus brachytherapy and brachytherapy alone for intermediate-risk prostate cancer, using the National Cancer Data Base. The National Cancer Data Base was queried for cNOMO intermediate-risk patients treated from 2004 to 2006, with available data for Gleason score (GS), prostate-specific antigen (PSA), tumor stage, and receipt of radiation therapy (RT) and androgen deprivation therapy."

Our news journalists obtained a quote from the research from the University of Colorado, "RT comparison groups were the following: EBRT (40-50.4 Gy) plus brachytherapy and brachytherapy alone. A total of 10,571 patients were included: 3,148 received EBRT plus brachytherapy and 7,423 received brachytherapy alone. Median followup was 84 months (2-122 months); median age was 68 years (40-90 years). Unadjusted 5- and 7-year overall survival (OS) rates between EBRT plus brachytherapy vs. brachytherapy alone were 91.4% vs. 90.2% and 85.7% vs. 82.9%, respectively (p < 0.001). EBRT plus brachytherapy was associated with longer OS compared with brachytherapy alone under multivariate (hazard ratio [HR], 0.84; 95% confidence interval [CI], 0.75-0.93; p = 0.001) and propensity score-matched analyses (HR, 0.85; 95% CI, 0.75-0.97; p = 0.006). Further subset analysis performed based on the Radiation Therapy Oncology Group 0232 inclusion criteria (GS 7 if PSA < 10 or GS < 7 if PSA 10-20) also demonstrated longer OS with EBRT plus brachytherapy (HR, 0.87; 95% CI, 0.77-0.98; p = 0.026). EBRT plus brachytherapy is associated with a modest OS improvement compared with brachytherapy alone in this population-based analysis. Although this benefit appears statistically significant, the relatively small difference in OS raises the question of overall clinical benefit with combined modality RT for intermediate-risk prostate cancer, given the potential increased risk for toxicities."

According to the news editors, the research concluded: "Future results from Radiation Therapy Oncology Group 0232 should provide further insight on this topic."

For more information on this research see: Survival outcomes of combined external beam radiotherapy and brachytherapy vs. brachytherapy alone for intermediate-risk prostate cancer.

Our news journalists report that additional information may be obtained by contacting A. Amini, University of Colorado, Sch Med, Dept. of Radiat Oncol, Aurora, CO 80045, United States. Additional authors for this research include B.L. Jones, M.W. Jackson, C.G. Rusthoven, P. Maroni, B.D. Kavanagh and D. Raben.

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Keywords for this news article include: Aurora, Colorado, United States, North and Central America, Prostate Specific Antigen, Therapy, Epidemiology, Enzymes and Coenzymes, Drugs and Therapies, Prostatic Neoplasms, Radiation Therapy, Prostate Cancer, Brachytherapy, Radiotherapy, Oncology, University of Colorado.

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Transfusion Medicine - Blood Transfusion

Study Findings from University of Heidelberg Broaden Understanding of Blood Transfusion (Neuronal HIF-1 alpha and HIF-2 alpha deficiency improves neuronal survival and sensorimotor function in the early acute phase after ischemic stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Transfusion Medicine - Blood Transfusion is the subject of a report. According to news reporting from Heidelberg, Germany, by NewsRx journalists, research stated, "Hypoxia-inducible factors mediate adaptive responses to ischemia, among others, by induction of anti- and pro-survival genes. Thus, the impact of HIF on neuronal survival upon stroke is controversial."

The news correspondents obtained a quote from the research from the University of Heidelberg, "Therefore, neuron-specific knockout mice deficient for Hif1 alpha and Hif2 alpha were exposed to inspiratory hypoxia or ischemia-reperfusion injury. Both Hif1 alpha- and Hif2 alpha-deficient mice showed no altered infarct and edema size, suggesting that both HIF-alpha subunits might compensate for each other. Accordingly, hypoxic HIF-target gene regulation was marginally affected with exception of anti-survival Bnip3 and pro-survival erythropoietin. In the early acute stage upon stroke, Hif1 alpha/Hif2 alpha double knockout mice exhibited significantly reduced expression of the anti-survival Bnip3, Bnip3L, and Pmaip1. Accordingly, global cell death and edema were significantly reduced upon 24 h but not 72 h reperfusion. Behavioral assessment indicated that Hif1 alpha/Hif2 alpha-deficient mice initially performed better, but became significantly more impaired after 72 h accompanied by increased apoptosis and reduced angiogenesis. Our findings suggest that in neurons HIF-1 and HIF-2 have redundant functions for cellular survival under ischemic conditions."

According to the news reporters, the research concluded: "By contrast, lack of anti-survival factors in Hif1 alpha/Hif2 alpha-deficient mice might protect from early acute neuronal cell death and neurological impairment, indicating a benefit of HIF-pathway inhibition in
neurons in the very acute phase after ischemic stroke."


Our news journalists report that additional information may be obtained by contacting R. Kunze, Heidelberg Univ, Inst Physiol & Pathophysiol, D-69120 Heidelberg, Germany. Additional authors for this research include L.X. Li, A.S. Ernst, L.I. Bohler, H.H. Marti and R. Kunze.

Keywords for this news article include: Heidelberg, Germany, Europe, Transfusion Medicine, Blood Transfusion, Medical Devices, Reperfusion, Genetics, Neurons, Cells, University of Heidelberg.

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**Oncology - Cancer Care**

**Study Findings from University of Jaen Provide New Insights into Cancer Care (Coping strategies and anxiety in caregivers of palliative cancer patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Care have been published. According to news reporting originating in Jaen, Spain, by NewsRx journalists, research stated, "The study purpose was to determine the relationship between coping strategies and anxiety in primary family caregivers of palliative cancer patients. A cross-sectional study was carried out in a Pain and Palliative Care Unit in Spain."

The news reporters obtained a quote from the research from the University of Jaen, "Data were collected through interviews from fifty primary family caregivers of palliative cancer patients. Main research variables were: (1) dependent variable: anxiety (subscale of anxiety from Goldberg's scale); (2) independent variable: coping (Brief COPE); (3) control variables: functional capacity and perceived burden. Analyses comprised descriptive statistics, correlation coefficients and multiple linear regression. Anxiety was present in the majority of caregivers surveyed (76%). Anxiety was related to the perception of perceived burden (beta = 0.42, P< 0.001), the emotion-focused coping (beta = -0.28, P = 0.01) and dysfunctional coping (beta = 0.41, P< 0.001), after adjusting for control variables. Thus, emotion-focused coping is negatively associated with anxiety, while dysfunctional coping is positively associated with anxiety. Problem-focused coping is not related to anxiety."

According to the news reporters, the research concluded: "Assessment of coping should be done in a systematic way in caregivers of palliative cancer patients."

Our news correspondents report that additional information may be obtained by contacting R. Del-Pino-Casado, University of Jaen, Fac Hlth Sci, Dept. of Nursing, Jaen, Spain. Additional authors for this research include A. Frias-Osuna, Y. Romero-Rodriguez and R. Del-Pino-Casado.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ccc.12507. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jaen, Spain, Europe, Cancer Care, Oncology, Cancer, University of Jaen.

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Hearing Diseases and Conditions - Tinnitus

Study Findings from University of Klagenfurt Broaden Understanding of Tinnitus (Differential tinnitus-related neuroplastic alterations of cortical thickness and surface area)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hearing Diseases and Conditions - Tinnitus have been presented. According to news reporting from Klagenfurt, Austria, by NewsRx journalists, research stated, "Structural neuroimaging techniques have been used to identify cortical and subcortical regions constituting the neuroarchitecture of tinnitus. One recent investigation used voxel-based morphometry (VBM) to analyze a sample of tinnitus patients (T1, n = 257) (Schecklmann et al., 2013)."

The news correspondents obtained a quote from the research from the University of Klagenfurt, "A negative relationship between individual distress and cortical volume (CV) in bilateral auditory regions was observed. However, CV has meanwhile been identified as a neuroanatomical measurement that confounds genetically distinct neuroanatomical traits, namely cortical thickness (CT) and cortical surface area (CSA). We performed a re-analysis of the identical sample using the automated FreeSurfer surface-based morphometry (SBM) approach (Fischl, 2012). First, we replicated the negative correlation between tinnitus distress and bilateral supratemporal gray matter volume. Second, we observed a negative correlation for CSA in the left periauditory cortex and anterior insula. Furthermore, we noted a positive correlation between tinnitus duration and CT in the left periauditory cortex as well as a negative correlation in the subcallosal anterior cingulate, a region collated to the serotonergic circuit and germane to inhibitory functions. In short, the results elucidate differential neuroanatomical alterations of CSA and CT for the two independent tinnitus-related psychological traits distress and duration."

According to the news reporters, the research concluded: "Beyond this, the study provides further evidence for the distinction and specific susceptibility of CSA and CT within the context of neuroplasticity of the human brain."

For more information on this research see: Differential tinnitus-related neuroplastic alterations of cortical thickness and surface area. Hearing Research, 2016;342():1-12. Hearing Research can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Hearing Research - www.journals.elsevier.com/hearing-research/)
Our news journalists report that additional information may be obtained by contacting M. Meyer, Univ Klagenfurt, Cognit Psychol Unit, Klagenfurt, Austria. Additional authors for this research include P. Neff, F. Liem, T. Kleinjung, S. Weidt, B. Langguth and M. Schecklmann.

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Keywords for this news article include: Klagenfurt, Austria, Europe, Nervous System Diseases and Conditions, Hearing Diseases and Conditions, Ear Diseases and Conditions, Neurologic Manifestations, Sensation Disorders, Hearing Disorders, Otolaryngology, Tinnitus, Genetics, University of Klagenfurt.

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Oncology - Prostate Cancer

Study Findings from University of Louisville Provide New Insights into Prostate Cancer (Inhibition of AKT promotes FOXO3a-dependent apoptosis in prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news reporting originating in Louisville, Kentucky, by NewsRx journalists, research stated, "Growth factor-induced activation of protein kinase-B (PKB), also known as AKT, induces pro-survival signaling and inhibits activation of pro-apoptotic signaling molecules including the Forkhead box O-3a (FOXO3a) transcription factor and caspase in transformed prostate cells in vitro. Earlier we reported that Withaferin-A (WA), a small herbal molecule, induces pro-apoptotic response-4 (Par-4) mediated apoptosis in castration-resistant prostate cancer (CRPC) cells."

The news reporters obtained a quote from the research from the University of Louisville, "In the present study, we demonstrate that inhibition of AKT facilitates nuclear shuttling of FOXO3a where it regulates Par-4 transcription in CRPC cells. FOXO3a is upstream of Par-4 signaling, which is required for induction of apoptosis in CRPC cells. Promoter bashing studies and Ch-IP analysis confirm a direct interaction of FOXO3a and Par-4; a sequential deletion of FOXO3a-binding sites in the Par-4 promoter fails to induce Par-4 activation. To confirm these observations, we either overexpressed AKT or silenced FOXO3a activation in CRPC cells. Both methods inhibit Par-4 function and apoptosis is significantly compromised. In xenograft tumors derived from AKT-overexpressed CRPC cells, FOXO3a and Par-4 expression is downregulated, leading to aggressive tumor growth. Oral administration of WA to mice with xenograft tumors restores FOXO3a-mediated Par-4 functions and results in inhibited tumor growth. Finally, an inverse correlation of nuclear localization of AKT expression corresponds to cytoplasmic Par-4 localization in human prostate tissue array. Our studies suggest that Par-4 is one of the key transcriptional targets of FOXO3a, and Par-4 activation is required for induction of apoptosis in CRPC cells."

According to the news reporters, the research concluded: "Activation of FOXO3a appears to be an attractive target for the treatment of CRPC and molecules such as WA can be explored further for the treatment of CRPC."
For more information on this research see: Inhibition of AKT promotes FOXO3a-dependent apoptosis in prostate cancer. *Cell Death & Disease*, 2016;7():e2111. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

Our news correspondents report that additional information may be obtained by contacting T.P. Das, Dept. of Urology, University of Louisville, Louisville, KY 40202, United States. Additional authors for this research include S. Suman, H. Alatassi, M.K. Ankem and C. Damodaran.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2015.403. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Kentucky, Genetics, Oncology, Apoptosis, Louisville, Xenografts, United States, Prostate Cancer, Xenotransplantation, Prostatic Neoplasms, North and Central America.

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**Nephrology**

**Study Findings from University of Manchester Broaden Understanding of Nephrology (Novel minimal physiologically-based model for the prediction of passive tubular reabsorption and renal excretion clearance)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Nephrology are discussed in a new report. According to news reporting originating from Manchester, United Kingdom, by NewsRx correspondents, research stated, "Develop a minimal mechanistic model based on in vitro-in vivo extrapolation (IVIVE) principles to predict extent of passive tubular reabsorption. Assess the ability of the model developed to predict extent of passive tubular reabsorption (F-reab) and renal excretion clearance (CLR) from in vitro permeability data and tubular physiological parameters."

Our news editors obtained a quote from the research from the University of Manchester, "Model system parameters were informed by physiological data collated following extensive literature analysis. A database of clinical CLR was collated for 157 drugs. A subset of 45 drugs was selected for model validation; for those, Caco-2 permeability (P-app) data were measured under pH 6.5-7.4 gradient conditions and used to predict F-reab and subsequently CLR. An empirical calibration approach was proposed to account for the effect of inter-assay/laboratory variation in P-app on the IVIVE of F-reab. The 5-compartmental model accounted for regional differences in tubular surface area and flow rates and successfully predicted the extent of tubular reabsorption of 45 drugs for which filtration and reabsorption were contributing to renal excretion. Subsequently, predicted CLR was within 3-fold of the observed values for 87% of drugs in this dataset, with an overall gmfe of 1.96. Consideration of the empirical calibration method improved overall prediction of CLR (gmfe = 1.73 for 34 drugs in the internal validation dataset), in particular for basic drugs and drugs with low extent of tubular reabsorption. The novel 5-compartment model represents an important addition to the IVIVE toolbox for physiologically-based prediction of renal tubular reabsorption and CLR."

According to the news editors, the research concluded: "Physiological basis of the model proposed allows its application in future mechanistic kidney models in preclinical species
and human."


The news editors report that additional information may be obtained by contacting A. Galetin, University of Manchester, Center Appl Pharmacokinet Res, Manchester Pharm Sch, Manchester M13 9PT, Lancs, United Kingdom. Additional authors for this research include C. Jones, A. Rostami-Hodjegan and A. Galetin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejps.2016.03.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Manchester, United Kingdom, Europe, Nephrology, Kidney, University of Manchester.

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Respiratory Tract Diseases and Conditions - Thoracic...

Study Findings from University of Miami Jackson Memorial Hospital Broaden Understanding of Thoracic Aortic Aneurysm (TEVAR for Flash Pulmonary Edema Secondary to Thoracic Aortic Aneurysm to Pulmonary Artery Fistula)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Respiratory Tract Diseases and Conditions - Thoracic Aortic Aneurysm. According to news reporting from Miami, Florida, by NewsRx journalists, research stated, "Enlarging aneurysms in the thoracic aorta frequently remain asymptomatic. Fistulization of thoracic aortic aneurysms (TAA) to adjacent structures or the presence of a patent ductus arteriosus and TAA may lead to irreversible cardiopulmonary sequelae."

The news correspondents obtained a quote from the research from the University of Miami Jackson Memorial Hospital, "This article reports on a large aneurysm of the thoracic aorta with communication to the pulmonary artery causing pulmonary edema and cardiorespiratory failure. The communication was ultimately closed after thoracic endovascular aortic aneurysm repair allowing rapid symptom resolution."

According to the news reporters, the research concluded: "Early diagnosis and closure of such communication in the presence of TAA are critical for prevention of permanent cardiopulmonary damage."

Oncology - Colon Cancer

Study Findings from University of Michigan Broaden Understanding of Colon Cancer (Transcription Factor ZBP-89 Drives a Feedforward Loop of beta-Catenin Expression in Colorectal Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Colon Cancer. According to news reporting originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "In colorectal cancer, APC-mediated induction of unregulated cell growth involves posttranslational mechanisms that prevent proteasomal degradation of proto-oncogene beta-catenin (CTNNB1) and its eventual translocation to the nucleus. However, about 10% of colorectal tumors also exhibit increased CTNNB1 mRNA."

Our news editors obtained a quote from the research from the University of Michigan, "Here, we show in colorectal cancer that increased expression of ZNF148, the gene coding for transcription factor ZBP-89, correlated with reduced patient survival. Tissue arrays showed that ZBP-89 protein was overexpressed in the early stages of colorectal cancer. Conditional deletion of Zfp148 in a mouse model of Apc-mediated intestinal polyps demonstrated that ZBP-89 was required for polyp formation due to induction of Ctnnb1 gene expression. Chromatin immunoprecipitation (ChIP) and EMSA identified a ZBP-89-binding site in the proximal promoter of CTNNB1. Reciprocally, siRNA-mediated reduction of CTNNB1 expression also decreased ZBP-89 protein. ChIP identified TCF DNA binding sites in the ZNF148 promoter through which Wnt signaling regulates ZNF148 gene expression. Suppression of either ZNF148 or CTNNB1 reduced colony formation in WNT-dependent, but not WNT-independent cell lines."

According to the news editors, the research concluded: "Therefore, the increase in intracellular beta-catenin protein initiated by APC mutations is sustained by ZBP-89-mediated feedforward induction of CTNNB1 mRNA."

For more information on this research see: Transcription Factor ZBP-89 Drives a Feedforward Loop of beta-Catenin Expression in Colorectal Cancer. Cancer Research, 2016;76 (23):6877-6887. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Cancer Research - cancerres.aacrjournals.org/)

The news editors report that additional information may be obtained by contacting
Study Findings from University of Milan Broaden Understanding of Candida [CAND-LO 2014-15 study: changing epidemiology of candidemia in Lombardy (Italy)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Fungal Diseases and Conditions - Candida is now available. According to news reporting originating in Milan, Italy, by NewsRx journalists, research stated, "The aim of this study was to monitor recent changes in the epidemiology of candidemia and in the antifungal susceptibility profiles of Candida isolates in one Italian region (Lombardy) in 2014-2015 in comparison with two other studies performed in the same area in 1997-1999 and in 2009. A laboratory-based surveillance was conducted in 11 microbiology laboratories."

The news reporters obtained a quote from the research from the University of Milan, "Identification of Candida isolates from 868 episodes and antifungal susceptibility testing (YeastOne) was performed locally. A progressive increase in the rate of candidemia up to 1.27/1000 admissions and 1.59/10,000 patient days was documented. In all the three surveys, Candida albicans remains the most frequently isolated species, ranging from 52 to 59 % of the etiology of BSIs. The epidemiological shift to the more resistant C. glabrata, observed between 1997-1999 and 2009 surveys, was not confirmed by our more recent data. The pattern of etiology of BSIs occurred in 2014-2015 overlaps that of the 90s. Acquired antifungal resistance is a rare event. No isolate had an amphotericin B minimal inhibitory concentration (MIC, mg/L) value higher than the epidemiological cutoff. All the echinocandin MIC distributions are typical for wild-type organisms except for those of two C. glabrata isolates. Fluconazole resistance declined from 24.9 % in the 2009 survey to 5.4 % in the recent one."

According to the news reporters, the research concluded: "Data from regional surveys may highlight the influence of therapeutic practices on the epidemiology of Candida BSIs and may optimize empirical therapies."

For more information on this research see: CAND-LO 2014-15 study: changing epidemiology of candidemia in Lombardy (Italy). *Infection*, 2016;44(6):765-780. *Infection* can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - [www.springer.com](http://www.springer.com); Infection - [www.springerlink.com/content/0300-8126/])

Our news correspondents report that additional information may be obtained by contacting A.M. Tortorano, University of Milan, Dept. of Biomed Sci Hlth, Milan, Italy. Additional authors for this research include C. Cavanna, M. Passera, C. Ossi, E. Sala, G.
Study Findings from University of New Mexico Provide New Insights into Arteriovenous Fistula (Transverse Sinus Dural Arteriovenous Fistula Presenting with Acute Hydrocephalus from Cerebellar Venous Engorgement Resolving with Endovascular ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Arteriovenous Fistula are discussed in a new report. According to news reporting originating in Albuquerque, New Mexico, by NewsRx journalists, research stated, "A 77-year-old woman presented with a several week history of progressively worsening nausea and vomiting and a sudden change in mental status. She was found to have hydrocephalus with transependymal flow."

The news reporters obtained a quote from the research from the University of New Mexico, "Angiography revealed a Cognard class IIb/Borden class II transverse sinus dural arteriovenous fistula. Cerebellar venous engorgement causing posterior fossa mass effect was thought to be the cause of her hydrocephalus. Treatment involved transarterial embolization resulting in angiographic cure. Following treatment she had resolution of nausea and vomiting, and her ventriculostomy was discontinued without need for shunting."

According to the news reporters, the research concluded: "Six-month follow-up magnetic resonance imaging indicated no sign of hydrocephalus and significantly improved posterior fossa congestion."


Our news correspondents report that additional information may be obtained by contacting A.P. Carlson, University of New Mexico, Univ New Mexico Hosp, Dept. of Neurosurg, Albuquerque, NM 87131, United States.

Keywords for this news article include: Albuquerque, New Mexico, United States, North and Central America, Central Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Cardiovascular Abnormalities, Arteriovenous Malformations, Congenital Abnormalities, Vascular Malformations, Arteriovenous Fistula, Vascular Fistula, Hydrocephalus, Angiology, University of New Mexico.
Oncology - Brain Cancer

Study Findings from University of Paris Broaden Understanding of Brain Cancer (The multidimensional burden of informal caregivers in primary malignant brain tumor)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Brain Cancer are presented in a new report. According to news reporting from Paris, France, by NewsRx journalists, research stated, "Informal caregivers (ICs) provide care and improve the quality of life of patients with malignant brain tumor. We analyze the impact of their involvement on themselves from a triple perspective."

Financial supporters for this research include Society of Physical and Rehabilitation Medicine (SOFMER), Fondation des "Gueules Cassees", Caisse Nationale de Solidarite pour l’Autonomie (CNSA), Fondation de France.

The news correspondents obtained a quote from the research from the University of Paris, "Home-dwelling patients with primary malignant brain tumor underwent a medical examination. ICs burden was evaluated by a self-administered postal questionnaire. Objective burden (Informal Care Time, ICT), subjective burden (Zarit Burden Inventory, ZBI), and financial burden (valuation of lost earnings using the Replacement and Opportunity Cost Methods, RCM, OCM) were evaluated. ICs (N = 84) were principally women (87 %) and spouses (64 %), of mean age 55 years, who assisted patients of mean age 53 years and with a mean KPS score of 61 (range = 30-90, med = 60). Subjective burden was moderate (mean ZBI = 30). Objective burden was high (mean ICT = 11.7 h/day), mostly consisting of supervision time. Higher subjective and objective burden were associated with poorer functional status (KPS) but not with a higher level of cognitive disorders in multivariate analyses. Other independent associated factors were bladder dysfunction and co-residency for objective burden and working and a poor social network for subjective burden. The 56 working ICs made work arrangements (75 %) that impacted their wages (36 %) and careers (30 %). Financial burden due to uncompensated caregiving hours for Activities of Daily Living had a mean monetary value from D’677 (RCM) to D’1683 (OCM) per month (i.e., ranging from D’8124 to D’20196 per year). IC burden is multidimensional."

According to the news reporters, the research concluded: "Greater provision of formal care, more IC support programs, and economic interventions targeting IC employment and finances are needed."

For more information on this research see: The multidimensional burden of informal caregivers in primary malignant brain tumor. Supportive Care in Cancer, 2017;25(1):245-253. Supportive Care in Cancer can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Supportive Care in Cancer - www.springerlink.com/content/0941-4355/)

Our news journalists report that additional information may be obtained by contacting E. Bayen, PSL Univ Paris Dauphine, Hlth Econ Dept. of LEDa LEGOS, Paris, France. Additional authors for this research include F. Laigle-Donadey, M. Proute, K. Hoang-Xuan, M.E. Joel and J.Y. Delattre.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1007/s00520-016-3397-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Investment and Finance, Brain Cancer, Oncology, University of Paris.

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**Peptide Proteins - Peptide Hormones**

**Study Findings from University of Paris Provide New Insights into Peptide Hormones (Hypothalamic regulation of body growth and appetite by ghrelin-derived peptides during balanced nutrition or undernutrition)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Peptide Proteins - Peptide Hormones have been presented. According to news reporting originating in Paris, France, by NewsRx journalists, research stated, "Among the gastrointestinal hormones that regulate food intake and energy homeostasis, ghrelin plays a unique role as the first one identified to increases appetite and stimulate GH secretion. This review highlights the latest mechanism by which ghrelin modulates body growth, appetite and energy metabolism by exploring pharmacological actions of the hormone and consequences of genetic or pharmacological blockade of the ghrelin/GHS-R (Growth Hormone Secretagogue Receptor) system on physiological responses in specific nutritional situations."

Funders for this research include Agence Nationale de la Recherche Jeunes Chercheuses Jeunes Chercheurs, Institut National de la Sante et de la Recherche Medicale (INSERM).

The news reporters obtained a quote from the research from the University of Paris, "Within the hypothalamus, novel mechanisms of action of this hormone involve its interaction with other ghrelin-derived peptides, such as desacyl ghrelin and obestatin, which are thought to act as functional ghrelin antagonists, and possible modulation of the GHS-R with other G-protein coupled receptors. During chronic undernutrition such as anorexia nervosa, variations of ghrelin-derived peptides may be an adaptative metabolic response to maintain normal glycemic control."

According to the news reporters, the research concluded: "Interestingly, some of ghrelin's metabolic actions are thought to be relayed through modulation of GH, an anabolic and hyperglycemic agent."


Our news correspondents report that additional information may be obtained by contacting V. Tolle, University of Paris, Center Psychiat & Neurosci, INSERM, UMR S 894Sorbonne Paris Cite, F-75014 Paris, France. Additional authors for this research include A. Labarthe and V. Tolle.

The direct object identifier (DOI) for that additional information is:
Study Findings from University of Paris-Sud Broaden Understanding of Oncology (Fertility-sparing surgery in epithelial ovarian cancer: a systematic review of oncological issues)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology. According to news reporting originating in Le Kremlin Bicetre, France, by NewsRx journalists, research stated, "Since the last two decades, the feasibility of fertility-sparing surgery (FSS) in early-stage epithelial ovarian cancer (EOC) has been explored by several teams and is reconsidered in this systematic review undertaken using the PRISMA guidelines. Borderline ovarian tumours and non-EOCs were excluded."

The news reporters obtained a quote from the research from the University of Paris-Sud, "This review comprises 1150 patients and 139 relapsing patients reported by 21 teams. This conservative treatment can be safely carried out for stage IA and IC grade 1 and 2 disease and stage IC1 according to the new FIGO staging system. Nevertheless, the number of patients reported with grade 2 disease is too small to definitively confirm whether FSS is safe in this subgroup. For patients with 'less favourable' prognostic factors (grade 3 or stage IC3 disease), the safety of FSS could not be confirmed, but patients should be informed that radical treatment probably may not necessarily improve their oncological outcome, because the poorest survival observed could be related to the natural history of the disease itself and not specifically to the use of conservative therapy. FSS could probably be considered in stage I clear-cell tumours but should remain contraindicated for stage II/III disease (whatever the histologic subtype)."

According to the news reporters, the research concluded: "As the disease stage and the histologic data (tumour type and grade) are crucial to patient selection for this treatment, this implies careful and mandatory complete surgical staging surgery in this context and a pathological analysis (or review) of the tumour by an expert pathologist."


Our news correspondents report that additional information may be obtained by contacting P. Morice, Univ Paris Sud, Le Kremlin Bicetre, France. Additional authors for this research include S. Gouy, A. Maulard, P. Pautier, A. Leary, N. Colombo and P. Morice.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/annonc/mdw311. This DOI is a link to an online electronic document that is either free or for purchase.
Study Findings from University of Pennsylvania Hospital Broaden Understanding of Psychosis (Disrupted anatomic networks in the 22q11.2 deletion syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Mental Health Diseases and Conditions - Psychosis are discussed in a new report. According to news originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "The 22q11.2 deletion syndrome (22q11DS) is an uncommon genetic disorder with an increased risk of psychosis. Although the neural substrates of psychosis and schizophrenia are not well understood, aberrations in cortical networks represent intriguing potential mechanisms."

Financial support for this research came from NIH.

Our news journalists obtained a quote from the research from the University of Pennsylvania Hospital, "Investigations of anatomic networks within 22q11DS are sparse. We investigated group differences in anatomic network structure in 48 individuals with 22q11DS and 370 typically developing controls by analyzing covariance patterns in cortical thickness among 68 regions of interest using graph theoretical models. Subjects with 22q11DS had less robust geographic organization relative to the control group, particularly in the occipital and parietal lobes. Multiple global graph theoretical statistics were decreased in 22q11DS."

According to the news editors, the research concluded: "These results are consistent with prior studies demonstrating decreased connectivity in 22q11DS using other neuroimaging methodologies."


The news correspondents report that additional information may be obtained from J.E. Schmitt, University of Pennsylvania Hospital, Dept. of Radiol, Div Neuroradiol, Philadelphia, PA 19104, United States. Additional authors for this research include J. Yi, M.E. Calkins, K. Ruparel, D.R. Roalfl, A. Cassidy, M.C. Souders, T.D. Satterthwaite, D.M. McDonald-McGinn, E.H. Zackai, R.C. Gur, B.S. Emanuel and R.E. Gur.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.08.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Mental Health Diseases and Conditions, Psychosis, Neurology, Genetics, University of Pennsylvania Hospital.

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Study Findings from University of Pittsburgh Broaden Understanding of Tumors (Targeting regulatory T cells in tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Tumors is now available. According to news reporting from Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "Regulatory T (T-reg) cells play a crucial role in maintaining peripheral tolerance and preventing autoimmunity. However, they also represent a major barrier to effective antitumor immunity and immunotherapy."

Funders for this research include National Institutes of Health, National Cancer Institute.

The news correspondents obtained a quote from the research from the University of Pittsburgh, "Consequently, there has been considerable interest in developing approaches that can selectively or preferentially target Treg cells in tumors, while not impacting their capacity to maintain peripheral immune homeostasis. In this review, we describe our current understanding of the mechanisms underlying the recruitment, expansion, and suppressive activity of tumor-associated Treg cells, and discuss the approaches used and the challenges encountered in the immunotherapeutic targeting of Treg cells. In addition, we summarize the primary clinical targets and some emerging data on exciting new potential Treg cell-restricted targets."

According to the news reporters, the research concluded: "We propose that discovering and understanding mechanisms that are preferentially used by Treg cells within the tumor microenvironment will lead to strategies that selectively target Treg cell-mediated suppression of antitumor immunity while maintaining peripheral immune tolerance."


Our news journalists report that additional information may be obtained by contacting D.A.A. Vignali, University of Pittsburgh, Inst Canc, Tumor Microenviromn Center, Pittsburgh, PA 15232, United States. Additional authors for this research include C.J. Workman and D.A.A. Vignali.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/febs.13656. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Tumors, Article Review, University of Pittsburgh.

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Surgery - Esophagectomy

Study Findings from University of Pittsburgh Provide New Insights into Esophagectomy (Cancer Recurrence After Esophagectomy: Impact of Postoperative Infection in Propensity-Matched Cohorts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Surgery - Esophagectomy are discussed in a new report. According to news reporting from Pittsburgh, Pennsylvania, by NewsRx journalists, research stated, "Postoperative infection increases cancer recurrence and worsens survival in colorectal cancer, but the relationship for esophagogastric adenocarcinoma after esophagectomy is not well defined. We aimed to determine whether recurrence and survival after minimally invasive esophagectomy for esophagogastric adenocarcinoma were influenced by postoperative infection using propensity-matched analysis."

Financial supporters for this research include National Cancer Institute, National Institutes of Health.

The news correspondents obtained a quote from the research from the University of Pittsburgh, "We abstracted data for 810 patients (19972010) and defined exposure as at least 1 in-hospital or 30-day infectious complication (n = 206 [25%]). Using 29 pretreatment/intraoperative variables, patients were propensity-score matched (caliper = 0.05). Time to cancer recurrence and survival (Kaplan-Meier curves and the Breslow test), and associated factors (Cox regression with shared frailty) were assessed. After propensity matching (n = 167 pairs), median bias across propensity-score variables was reduced from 12.9% (p < 0.001) to 4.4% (p = 1.000). Postoperative infection was not associated with rate (n = 60 versus 63; McNemar p = 0.736) or time to recurrence in those in whom disease recurred (median, 10.7 versus 11.1 months; Wilcoxon signed-rank p = 0.455) but was associated with shorter overall survival (n = 124 versus 102 deaths; median, 26 versus 41 months; Breslow p = 0.002). After adjusting for age, body mass index, neoadjuvant therapy, sex, comorbidity score, positive resection margins, pathologic stage, R0 resection, and recurrence, postoperative infection was associated with a 44% greater hazard for death (hazard ratio, 1.44; 95% confidence interval, 1.10-1.89). In patients with esophagogastric adenocarcinoma, infections after esophagectomy were not associated with an increased rate or earlier time to recurrence when baseline characteristics associated with infection risk were balanced using propensity-score matching. Despite this, overall survival was shorter in patients with infectious complications."

According to the news reporters, the research concluded: "After adjusting for other important survival predictors, infections after esophagectomy continued to be independently associated with worse survival. 2016 by The Society of Thoracic Surgeons."


Our news journalists report that additional information may be obtained by contacting V. Tam, University of Pittsburgh, Clin & Translat Sci Inst, Pittsburgh, PA, United States. Additional authors for this research include J.D. Luketich, D.G. Winger, I.S. Sarkaria, R.M. Levy, N.A. Christie, O. Awais, M.R. Shende and K.S. Nason.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mtheracsur.2016.04.097. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pittsburgh, Pennsylvania, United States, North and Central America, Digestive System Surgical Procedures, Gastroenterology, Adenocarcinoma, Esophagectomy, Oncology, Surgery, Cancer, University of Pittsburgh.

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Drugs and Therapies - Antineoplastics

Study Findings from University of Rochester Broaden Understanding of Antineoplastics (Fetal Myelomeningocele After Maternal Methotrexate Administration A Case Report)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antineoplastics. According to news reporting originating in Rochester, New York, by NewsRx journalists, research stated, "Folate supplementation in women of reproductive age has a well-established role in the prevention of neural tube defects. Methotrexate is a commonly used drug which functions by inhibiting normal folate metabolism in active cells."

The news reporters obtained a quote from the research from the University of Rochester, "An association between fetal methotrexate exposure and myelomeningocele might be expected, considering this relationship. However, to our knowledge, no cases of myelomeningocele secondary to in utero methotrexate exposure have been reported. We present the case of a gravid patient who, having received methotrexate for management of an ectopic pregnancy, was lost to follow-up and returned several weeks later carrying an intrauterine pregnancy. The fetus was found prenatally to be suffering from multiple congenital anomalies. At birth the infant demonstrated many of the abnormalities commonly associated with fetal methotrexate syndrome, including craniosynostosis and talipes equinovarus. Most interestingly, the newborn was also diagnosed with a lumbar myelomeningocele and concomitant type II Chiari malformation, as is often associated with such a neural tube defect. Methotrexate exposure may impact the fetal risk of myelomeningocele."

According to the news reporters, the research concluded: "Patients should be counseled thoroughly on the importance of follow-up care."

For more information on this research see: Fetal Myelomeningocele After Maternal Methotrexate Administration A Case Report. Journal of Reproductive Medicine, 2016;61(11-12):609-611. Journal of Reproductive Medicine can be contacted at: Sci Printers & Publ Inc, Po Drawer 12425 8342 Olive Blvd, St Louis, MO 63132, USA.

Our news correspondents report that additional information may be obtained by contacting M.N.W. Towner, University of Rochester, Medical Center, Dept. of Obstet & Gynecol, Rochester, NY 14642, United States. Additional authors for this research include M.N.W. Towner and J.E. Towner.

Keywords for this news article include: Rochester, New York, United States, North and Central America, Methotrexate Therapy Sodium, Drugs and Therapies, Pharmaceuticals, Antimetabolites, Antineoplastics, Antirheumatics, Antipsoriatics, University of Rochester.

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Study Findings from University of Rostock Broaden Understanding of Carbamazepine Therapy (A Case Report of a Carbamazepine Overdose With Focus on Pharmacokinetic Aspects)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Carbamazepine Therapy have been published. According to news reporting out of Rostock, Germany, by NewsRx editors, research stated, "In this article a case of carbamazepine overdose is reported. It is common to use immuno-based methods in the field of therapeutic drug monitoring but it might be difficult to adapt such values to toxicological cases."

Our news journalists obtained a quote from the research from the University of Rostock, "For carbamazepine overdoses it is recommended also to determine the metabolite carbamazepine-10,11-epoxide. Especially for critical conditions a definite substance identification should be performed."

According to the news editors, the research concluded: "In addition, quantifying main metabolites is recommended for an acute clinical toxicological assessment."


Our news journalists report that additional information may be obtained by contacting N. Mittag, Institute of Toxicology and Pharmacology, University of Rostock, Rostock, Germany. Additional authors for this research include S. Meister, A.M. Berg and U.I Walther.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1055/s-0035-1569268. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pharmaceuticals, Europe, Rostock, Germany, Pharmacokinetics, Drugs and Therapies, Carbamazepine Therapy, Central Nervous System Agents, Dibenzazepine Anticonvulsants.

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subject of a report. According to news originating from Ribeirao Preto, Brazil, by NewsRx correspondents, research stated, "The clinical benefits of short-term therapy with glucocorticoids (GC) in patients with inflammatory bowel disease (IBD) are widely known. However, the effects of this treatment towards the re-establishment of the regulatory network in IBD are not fully explored."

Financial supporters for this research include Nucleo de Apoio a Pesquisa em Doencas Inflamatorias [NAPDIN], Fundacao de Amparo a Pesquisa do Estado de Sao Paulo, Conselho Nacional de Desenvolvimento Cientifico e Tecnologico.

Our news journalists obtained a quote from the research from the University of Sao Paulo, "We have evaluated the immunological effects of the abbreviated GC therapy in experimental colitis induced by 3% dextran sulphate sodium in C57BL/6 mice. Treatment with GC improved disease outcome, constrained circulating leucocytes and ameliorated intestinal inflammation. The control of the local inflammatory responses involved a reduction in the expression of interferon-gamma and interleukin-1 beta, associated with augmented mRNA levels of peroxisome proliferator-activated receptors (alpha and gamma) in intestine. Furthermore, there was a reduction of CD4(+) T cells producing interferon-gamma, together with an increased frequency of the putative regulatory population of T cells producing interleukin-10, in spleen. These systemic alterations were accompanied by a decrease in the proliferative potential of splenocytes of mice treated in vivo with GC. Notably, treatment with GC also led to an increase in the frequency of the regulatory markers GITR, CTLA-4, PD-1, CD73 and FoxP3, more prominently in spleen. Taken together, our results pointed to a role of GC in the control of leucocyte responsiveness and re-establishment of a regulatory system, which probably contributed to disease control and the restoration of immune balance."

According to the news editors, the research concluded: "Finally, this is the first time that GC treatment was associated with the modulation of a broad number of regulatory markers in an experimental model of colitis."


The news correspondents report that additional information may be obtained from C.R.B. Cardoso, University of Sao Paulo, Fac Ciencias Farmaceut Ribeirao Preto, Dept. of Anal Clin Toxicol & Bromatol, Ribeirao Preto, Brazil. Additional authors for this research include P.R. de Souza, P.J. Basso, V. Nardini, A. Silva, F. Banquieri, V.B.F. Alves, J.E.L. Chica, A. Nomizo and C.R.B. Cardoso.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imm.12672. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ribeirao Preto, Brazil, South America, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Glucocorticoids, Immunology, Inflammatory Bowel Disease, Adrenal Cortex Hormones, Experimental Colitis, Drugs and Therapies, Gastroenterology, Gastroenteritis, Genetics, Therapy, University of Sao Paulo.

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**Disease Attributes - Chronic Disease**

**Study Findings from University of Sao Paulo Provide New Insights into Chronic Disease (Patterns of regional gray matter loss at different stages of schizophrenia: A multisite, cross-sectional VBM study in first-episode and chronic illness)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Disease Attributes - Chronic Disease is the subject of a report. According to news reporting from Sao Paulo, Brazil, by NewsRx journalists, research stated, "Structural brain abnormalities in schizophrenia have been repeatedly demonstrated in magnetic resonance imaging (MRI) studies, but it remains unclear whether these are static or progressive in nature. While longitudinal MRI studies have been traditionally used to assess the issue of progression of brain abnormalities in schizophrenia, information from cross-sectional neuroimaging studies directly comparing first-episode and chronic schizophrenia patients to healthy controls may also be useful to further clarify this issue."

The news correspondents obtained a quote from the research from the University of Sao Paulo, "With the recent interest in multisite mega-analyses combining structural MRI data from multiple centers aiming at increased statistical power, the present multisite voxel-based morphometry (VBM) study was carried out to examine patterns of brain structural changes according to the different stages of illness and to ascertain which (if any) of such structural abnormalities would be specifically correlated to potential clinical moderators, including cumulative exposure to antipsychotics, age of onset, illness duration and overall illness severity. We gathered a large sample of schizophrenia patients (161, being 99 chronic and 62 first-episode) and controls (151) from four previous morphometric MRI studies (1.5 T) carried out in the same geographical region of Brazil. Image processing and analyses were conducted using Statistical Parametric Mapping (SPM8) software with the diffeomorphic anatomical registration through exponentiated Lie algebra (DARTEL) algorithm. Group effects on regional gray matter (GM) volumes were investigated through whole-brain voxel-wise comparisons using General Linear Model Analysis of Co-variance (ANCOVA), always including total GM volume, scan protocol, age and gender as nuisance variables. Finally, correlation analyses were performed between the aforementioned clinical moderators and regional and global brain volumes. First-episode schizophrenia subjects displayed subtle volumetric deficits relative to controls in a circumscribed brain regional network identified only in small volume-corrected (SVC) analyses (p < 0.05, FWE-corrected), including the insula, temporolimbic structures and striatum. Chronic schizophrenia patients, on the other hand, demonstrated an extensive pattern of regional GM volume decreases relative to controls, involving bilateral superior, inferior and orbital frontal cortices, right middle frontal cortex, bilateral anterior cingulate cortices, bilateral insulae and right superior and middle temporal cortices (p < 0.05, FWE-corrected over the whole brain). GM volumes in several of those brain regions were directly correlated with age of disease onset on SVC analyses for conjoined (first-episode and chronic) schizophrenia groups. There were also widespread foci of significant negative correlation between duration of illness and relative GM volumes, but such findings remained significant only for the right dorsolateral prefrontal cortex after accounting for the influence of age of disease onset. Finally, significant negative correlations were detected between life-time cumulative exposure to antipsychotics and total GM and white matter volumes in schizophrenia patients, but no significant relationship was found between indices of antipsychotic usage and relative GM volume in any specific brain region. The above data indicate that brain changes associated with the diagnosis of
schizophrenia are more widespread in chronic schizophrenia compared to first-episode patients. Our findings also suggest that relative GM volume deficits may be greater in (presumably more severe) cases with earlier age of onset, as well as varying as a function of illness duration in specific frontal brain regions."

According to the news reporters, the research concluded: "Finally, our results highlight the potentially complex effects of the continued use of antipsychotic drugs on structural brain abnormalities in schizophrenia, as we found that cumulative doses of antipsychotics affected brain volumes globally rather than selectively on frontal-temporal regions."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.nicl.2016.06.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sao Paulo, Brazil, South America, Mental Health Diseases and Conditions, Disease Attributes, Chronic Disease, Antipsychotics, Schizophrenia, Psychiatry, University of Sao Paulo.

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Study Findings from University of Saskatchewan Provide New Insights into Pharmacy Practice (Evaluation of a refill synchronization program in two community pharmacies)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Pharmacy Practice are presented in a new report. According to news reporting from Saskatoon, Canada, by NewsRx journalists, research stated, "To describe medication adherence by the proportion of days covered before and after enrollment in a refill synchronization program. We conducted a retrospective analysis of medication adherence in 2 pharmacies offering a refill synchronization program."

The news correspondents obtained a quote from the research from the University of Saskatchewan, "The study population consisted of individuals who received 2 or more medications from any of 15 predefined medication classes within 6 months of enrollment in the synchronization program. Medication adherence and refill consolidation were measured over 6 months before and after enrollment. Optimal adherence was defined as proportion of days covered >= 80%. Among 109 patients who enrolled in the program between 2009 and 2014, 68
were included in a pre-post analysis of medication adherence. In the preenrollment period, optimal adherence was observed in 85% (217/254) of the medications taken by the 68 patients, increasing to 93% (237/254) in the postenrollment period (P < 0.01). In addition, the percentage maintaining optimal adherence to all of their medications increased significantly from 60% (n = 41) to 83% (n = 57; P < 0.01). Among a small group of patients who voluntarily participated in refill synchronization programs, high levels of medication adherence were observed in the preenrollment period."

According to the news reporters, the research concluded: "These results combined with previous studies suggest that voluntary participants of these programs are at a low risk for nonadherence; therefore, current estimates of benefit from refill synchronization programs may be overestimated."


Our news journalists report that additional information may be obtained by contacting D.F. Blackburn, University of Saskatchewan, Coll Pharm & Nutr, Patient Adherence, Saskatoon, SK, Canada. Additional authors for this research include D. Tran and C. Quiring.

Keywords for this news article include: Saskatoon, Saskatchewan, Canada, North and Central America, Pharmacy Practice, Drugs and Therapies, University of Saskatchewan.

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According to the news editors, the research concluded: "In summary, this study provides the first observation of concordance between CNLs and down-regulation of CPGs in pan-cancer, which may help better understand the CPG biology in tumorigenesis and cancer progression."


Our news journalists report that additional information may be obtained by contacting M. Zhao, Univ Sunshine Coast, Sch Engn, Fac Sci Hlth Educ & Engn, Maroochydore, Qld 4558, Australia. Additional authors for this research include M. Zhao, C.H. Zheng, M. Zhao and J.F. Xia.

Keywords for this news article include: Maroochydore, Australia, Australia and New Zealand, Science, Cancer, Risk and Prevention, Genetics, Oncology, University of Sunshine Coast.

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Propiophenones

**Study Findings from University of Texas Medical Branch Broaden Understanding of Propiophenones (Bupropion therapy during pregnancy: the drug and its major metabolites in umbilical cord plasma and amniotic fluid)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Propiophenones is now available. According to news reporting originating in Galveston, Texas, by NewsRx journalists, research stated, "Bupropion is used for treatment of depression during pregnancy. However, its use as a smoking cessation aid for pregnant women is currently under evaluation."

The news reporters obtained a quote from the research from the University of Texas Medical Branch, "The aim of this opportunistic study was to investigate the transfer of bupropion and its major pharmacologically active metabolites, hydroxybupropion and threohydrobupropion, across the placenta in vivo. In addition, the concentrations of the drug and its metabolites were determined in the amniotic fluid. The following samples were collected at deliveries from 22 women taking bupropion: maternal blood (n = 22), umbilical cord venous blood (n = 22), and amniotic fluid (n = 9). The concentrations of the drug and its metabolites in blood plasma and amniotic fluid were determined by means of liquid chromatography-mass spectrometry. Placental passage was calculated as a ratio of umbilical cord venous plasma to maternal plasma concentrations. The levels of hydroxybupropion and threohydrobupropion in umbilical cord venous plasma were invariably lower than their corresponding concentrations in maternal plasma. The concentrations of bupropion in umbilical cord plasma were lower than in maternal plasma in the majority of the maternal-cord blood pairs. The median values of the umbilical cord venous plasma to maternal plasma ratios were: bupropion, 0.53 (interquartile range 0.35, n = 18), hydroxybupropion, 0.21 (interquartile range 0.12, n = 18), and
threohydrobupropion, 0.61 (interquartile range 0.11, n = 21). In umbilical cord venous plasma, the median concentration of bupropion was 5.3 ng/mL; hydroxybupropion, 103.6 ng/mL; and threohydrobupropion, 59.6 ng/mL. Bupropion and its metabolites were detectable in the amniotic fluid but the concentrations of threohydrobupropion were higher than those in the corresponding umbilical cord venous plasma. Bupropion and its active metabolites cross the placenta to the fetal circulation. The concentrations of hydroxybupropion and threohydrobupropion in umbilical cord venous plasma were higher than bupropion concentrations suggesting a higher fetal exposure to the metabolites than the parent drug. The higher levels of threohydrobupropion in the amniotic fluid than those in umbilical cord venous plasma suggest that enzymes involved in the metabolism of bupropion to threohydrobupropion are most likely active in the fetus.

According to the news reporters, the research concluded: "The biological consequences of fetal exposure to maternally administered bupropion and/or its active metabolites via placental transfer and recirculation of the amniotic fluid are yet to be determined."


Our news correspondents report that additional information may be obtained by contacting T.N. Nanovskaya, Univ Texas Med Branch, Dept. of Obstet & Gynecol, Galveston, TX 77555, United States. Additional authors for this research include H. West, C. Oncken, S.M. Clark, M.S. Ahmed, G.D.V. Hankins and T.N. Nanovskaya.

Keywords for this news article include: Galveston, Texas, United States, North and Central America, Norepinephrine-Dopamine Reuptake Inhibitors, Smoking Cessation Agents, Psychotherapeutic Agents, Drugs and Therapies, Bupropion Therapy, Antidepressants, Antipsychotics, Propiophenones, Hematology, Plasma, Blood, University of Texas Medical Branch.

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**Genetics**

**Study Findings from University of Texas Provide New Insights into Genetics (LncPRESS1 Is a p53-Regulated LncRNA that Safeguards Pluripotency by Disrupting SIRT6-Mediated De-acetylation of Histone H3K56)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics is now available. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "Recent evidence suggests that lncRNAs play an integral regulatory role in numerous functions, including determination of cellular identity. We determined global expression (RNA-seq) and genome-wide profiles (ChIP-seq) of histone post-translational modifications and p53 binding in human embryonic stem cells (hESCs) undergoing differentiation to define a high-confidence set of 40
lncRNAs, which are p53 transcriptional targets."

Funders for this research include NIH, CPRIT Core Facility, UT MD Anderson Cancer Center NCI.

Our news editors obtained a quote from the research from the University of Texas, "We focused on lncRNAs highly expressed in pluripotent hESCs and repressed by p53 during differentiation to identify lncPRESS1 as a p53-regulated transcript that maintains hESC pluripotency in concert with core pluripotency factors. RNA-seq of hESCs depleted of lncPRESS1 revealed that lncPRESS1 controls a gene network that promotes pluripotency. Further, we found that lncPRESS1 physically interacts with SIRT6 and prevents SIRT6 chromatin localization, which maintains high levels of histone H3K56 and H3K9 acetylation at promoters of pluripotency genes."

According to the news editors, the research concluded: "In summary, we describe a p53-regulated, pluripotency-specific lncRNA that safeguards the hESC state by disrupting SIRT6 activity."

For more information on this research see: LncPRESS1 Is a p53-Regulated LncRNA that Safeguards Pluripotency by Disrupting SIRT6-Mediated De-acetylation of Histone H3K56. *Molecular Cell*, 2016;64(5):967-981. *Molecular Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)

The news editors report that additional information may be obtained by contacting A.K. Jain, Univ Texas MD Anderson Canc Center, Center Canc Epigenet, Houston, TX 77030, United States. Additional authors for this research include Y.X. Xi, R. McCarthy, K. Allton, K.C. Akdemir, L.R. Patel, B. Aronow, C.R. Lin, W. Li, L.Q. Yang and M.C. Barton.

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Keywords for this news article include: Houston, Texas, United States, North and Central America, Nucleoproteins, Proteins, Histones, Genetics, p53 Gene, University of Texas.

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**Oncology - Liver Cancer**

**Study Findings from University of Thessaly Broaden Understanding of Liver Cancer (HIF-2 alpha phosphorylation by CK1 delta promotes erythropoietin secretion in liver cancer cells under hypoxia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Liver Cancer have been published. According to news reporting from Larisa, Greece, by NewsRx journalists, research stated, "Hypoxia inducible factor 2 (HIF-2) is a transcriptional activator implicated in the cellular response to hypoxia. Regulation of its inducible subunit, HIF-2 alpha (also known as EPAS1), involves post-translational modifications."

The news correspondents obtained a quote from the research from the University of Thessaly, "Here, we demonstrate that casein kinase 1d (CK1d; also known as CSNK1D) phosphorlates HIF-2 alpha at Ser383 and Thr528 in vitro. We found that disruption of these
phosphorylation sites, and silencing or chemical inhibition of CK1 delta, reduced the expression of HIF-2 target genes and the secretion of erythropoietin (EPO) in two hepatic cancer cell lines, Huh7 and HepG2, without affecting the levels of HIF-2 alpha protein expression. Furthermore, when CK1 delta-dependent phosphorylation of HIF-2 alpha was inhibited, we observed substantial cytoplasmic mislocalization of HIF-2 alpha, which was reversed upon the addition of the nuclear protein export inhibitor leptomycin B. Taken together, these data suggest that CK1 delta enhances EPO secretion from liver cancer cells under hypoxia by modifying HIF-2 alpha and promoting its nuclear accumulation.

According to the news reporters, the research concluded: "This modification represents a new mechanism of HIF-2 regulation that might allow HIF isoforms to undertake differing functions."


Our news journalists report that additional information may be obtained by contacting P. Liakos, University of Thessaly, Fac Med, Lab Biochem, Larisa 41500, Greece. Additional authors for this research include C. Befani, I. Mylonis, M. Samiotaki, G. Panayotou, G. Simos and P. Liakos.

Keywords for this news article include: Larisa, Greece, Europe, Intercellular Signaling Peptides and Proteins, Colony Stimulating Factors, Biological Factors, Erythropoietin, Liver Cancer, Cytokines, Oncology, Genetics, University of Thessaly.

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**Blood Pressure**

**Study Findings from University of Tokyo Provide New Insights into Blood Pressure (Potassium depletion stimulates Na-Cl cotransporter via phosphorylation and inactivation of the ubiquitin ligase Kelch-like 3)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Blood Pressure. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "Kelch-like 3 (KLHL3) is a component of an E3 ubiquitin ligase complex that regulates blood pressure by targeting With-No-Lysine (WNK) kinases for degradation. Mutations in KLHL3 cause constitutively increased renal salt reabsorption and impaired K+ secretion, resulting in hypertension and hyperkalemia."

Funders for this research include JSPS KAKENHI, Japan Agency for Medical Research and Development, AMED, Banyu Life Science Foundation International, Basic Science Research Projects from The Sumitomo Foundation, Kanae Foundation for the Promotion of Medical Science, Swiss National Centre of Competence in Research Kidney.CH, NIH.

The news reporters obtained a quote from the research from the University of Tokyo, "Although clinical studies have shown that dietary K+ intake affects blood pressure, the mechanisms have been obscure. In this study, we demonstrate that the KLHL3 ubiquitin ligase..."
complex is involved in the low-K+-mediated activation of Na-Cl cotransporter (NCC) in the kidney. In the distal convoluted tubules of mice eating a low-K+ diet, we found increased KLHL3 phosphorylation at S433 (KLHL3(S433-P)), a modification that impairs WNK binding, and also reduced total KLHL3 levels. These changes are accompanied by the accumulation of the target substrate WNK4, and activation of the downstream kinases SPAK (STE20/SPS1-related proline-alanine-rich protein kinase) and OSR1 (oxidative stress responsive 1), resulting in NCC phosphorylation and its accumulation at the plasma membrane. Increased phosphorylation of S433 was explained by increased levels of active, phosphorylated protein kinase C (but not protein kinase A), which directly phosphorylates S433. Moreover, in HEK cells expressing KLHL3 and WNK4, we showed that the activation of protein kinase C by phorbol 12-myristate 13-acetate induces KLHL3(S433-P) and increases WNK4 levels by abrogating its ubiquitination.

According to the news reporters, the research concluded: "These data demonstrate the role of KLHL3 in low-K+-mediated induction of NCC; this physiologic adaptation reduces distal electrogenic Na+ reabsorption, preventing further renal K+ loss but promoting increased blood pressure."

For more information on this research see: Potassium depletion stimulates Na-Cl cotransporter via phosphorylation and inactivation of the ubiquitin ligase Kelch-like 3. *Biochemical and Biophysical Research Communications*, 2016;480(4):745-751. *Biochemical and Biophysical Research Communications* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news correspondents report that additional information may be obtained by contacting S. Shibata, University of Tokyo, Res Center Adv Sci & Technol, Div Clin Epigenet, Tokyo 1138654, Japan. Additional authors for this research include N. Xu, J. Loffing, R.P. Lifton, T. Fujita, S. Uchida and S. Shibata.

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Keywords for this news article include: Tokyo, Japan, Asia, Phosphotransferases (Alcohol Group Acceptor), Enzymes and Coenzymes, Protein Kinases, Blood Pressure, Ubiquitins, Proteins, Genetics, Ligases, University of Tokyo.

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**Enzymes and Coenzymes - One-Carbon Group...**

**Study Findings from University of Toronto Broaden Understanding of One-Carbon Group Transferases (Structural Chemistry of Human RNA Methyltransferases)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Enzymes and Coenzymes - One-Carbon Group Transferases. According to news originating from Toronto, Canada, by NewsRx editors, the research stated, "RNA methyltransferases (RNMTs) play important roles in RNA stability, splicing, and epigenetic mechanisms. They constitute a promising target class that is
underexplored by the medicinal chemistry community."

Funders for this research include Wellcome Trust, Structural Genomics Consortium.

Our news journalists obtained a quote from the research from the University of Toronto, "Information of relevance to drug design can be extracted from the rich structural coverage of human RNMTs. In this work, the structural chemistry of this protein family is analyzed in depth. Unlike most methyltransferases, RNMTs generally feature a substrate-binding site that is largely open on the cofactor-binding pocket, favoring the design of bisubstrate inhibitors. Substrate purine or pyrimidines are often sandwiched between hydrophobic walls that can accommodate planar ring systems. When the substrate base is laying on a shallow surface, a 5' flanking base is sometimes anchored in a druggable cavity. The cofactor-binding site is structurally more diverse than in protein methyltransferases and more druggable in SPOUT than in Rossman-fold enzymes. Finally, conformational plasticity observed both at the substrate and cofactor binding sites may be a challenge for structure-based drug design."

According to the news editors, the research concluded: "The landscape drawn here may inform ongoing efforts toward the discovery of the first human RNMT inhibitors."


The news correspondents report that additional information may be obtained from M. Schapira, Structural Genomics Consortium, University of Toronto, Toronto, Ontario M5G 1L7, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acscambio.5b00781. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Toronto, Ontario, Chemicals, Methyltransferases, Structural Chemistry, Enzymes and Coenzymes, North and Central America, One Carbon Group Transferases, One-Carbon Group Transferases.

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**Study Findings from University of Toronto Provide New Insights into Substance Withdrawal Syndrome (Electronic Cigarettes for Smoking Cessation: A Systematic Review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Diseases and Conditions - Substance Withdrawal Syndrome. According to news reporting originating in Toronto, Canada, by NewsRx journalists, research stated, "Electronic cigarettes (e-cigarettes) have been steadily increasing in popularity among smokers, most of whom report using them to quit smoking. This study systematically reviews the current literature on the effectiveness of e-cigarettes as cessation aids."

Financial support for this research came from Ministry of Health and Long-Term Care.

The news reporters obtained a quote from the research from the University of
Toronto, "We searched PubMed, MEDLINE, PsycINFO, CINAHL, ERIC, ROVER, Scopus, ISI Web of Science, Cochrane Library, the Ontario Tobacco Research Unit (OTRU) library catalogue, and various gray literature sources. We included all English-language, empirical quantitative and qualitative papers that investigated primary cessation outcomes (smoking abstinence or reduction) or secondary outcomes (abstinence-related withdrawal symptoms and craving reductions) and were published on or before February 1, 2016. Literature searches identified 2855 references. After removing duplicates and screening for eligibility, 62 relevant references were reviewed and appraised. In accordance with the GRADE system, the quality of the evidence in support of e-cigarettes' effectiveness in helping smokers quit was assessed as very low to low, and the evidence on smoking reduction was assessed as very low to moderate. The majority of included studies found that e-cigarettes, especially second-generation types, could alleviate smoking withdrawal symptoms and cravings in laboratory settings. While the majority of studies demonstrate a positive relationship between e-cigarette use and smoking cessation, the evidence remains inconclusive due to the low quality of the research published to date. Well-designed randomized controlled trials and longitudinal, population studies are needed to further elucidate the role of e-cigarettes in smoking cessation. This is the most comprehensive systematic evidence review to examine the relationship between e-cigarette use and smoking cessation among smokers. This review offers balanced and rigorous qualitative and quantitative analyses of published evidence on the effectiveness of e-cigarette use for smoking abstinence and reduction as well as important outcomes such as withdrawal symptoms and craving to smoke. While inconclusive due to low quality, overall the existing literature suggests e-cigarettes may be helpful for some smokers for quitting or reducing smoking."

According to the news reporters, the research concluded: "However, more carefully designed and scientifically sound studies are urgently needed to establish unequivocally the long-term cessation effects of e-cigarettes and to better understand how and when e-cigarettes may be helpful."


Our news correspondents report that additional information may be obtained by contacting M. Malas, University of Toronto, Dalla Lana Sch Public Hlth, Toronto, ON M5T 3M7, Canada. Additional authors for this research include J. van der Tempel, R. Schwartz, A. Minichiello, C. Lightfoot, A. Noormohamed, J. Andrews, L. Zawertailo and R. Ferrence.

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Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Substance Withdrawal Syndrome, Smoking, Article Review, Diseases and Conditions, University of Toronto.

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Heart Disorders and Diseases - Cardiomyopathies

Study Findings from University of Tsukuba Provide New Insights into Cardiomyopathies (J Waves Are Associated With the Increased Occurrence of Life-Threatening Ventricular Tachyarrhythmia in Patients With Nonischemic Cardiomyopathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Cardiomyopathies are presented in a new report. According to news reporting from Ibaraki, Japan, by NewsRx journalists, research stated, "J Wave and VT/VF of Nonischemic Cardiomyopathy. Recent studies showed that J waves were associated with higher incidence of ventricular tachyarrhythmia (VT/VF) in patients with idiopathic ventricular fibrillation (VF) and myocardial infarction."

The news correspondents obtained a quote from the research from the University of Tsukuba, "We sought to assess the association between J waves and VT/VF in patients with nonischemic cardiomyopathy (NICM). We retrospectively enrolled 109 patients (79 men; mean age, 60 +/- 15 years) with NICM who underwent implantable cardioverter defibrillator (ICD) implantation. The primary endpoint of this study was the occurrence of appropriate device therapy due to sustained VT/VF. The J wave was electrocardiographically defined as an elevation of the terminal portion of the QRS complex of > 0.1 mV in at least 2 contiguous inferior or lateral leads. Among the 109 patients, 37 (34%) experienced an episode of appropriate device therapy during a median follow-up period of 25.9 (IQR 11.5-54.3) months. Kaplan-Meier curves showed that the presence of J waves on the 12-lead ECG obtained before device implantation was associated with an increased occurrence of appropriate device therapy (P < 0.001). Multivariate Cox proportional regression analysis revealed that the presence of J waves (HR 2.95; 95% CI 1.31-6.64; P = 0.009) was an independent predictor for the occurrence of appropriate device therapy. In the subgroup analysis of the patients with dilated or hypertrophic cardiomyopathy, J wave tended to increase the occurrence of appropriate device therapy (P = 0.056 and P = 0.092, respectively)."

According to the news reporters, the research concluded: "The presence of J waves was an independent predictor for the occurrence of appropriate device therapy in patients with NICM who underwent ICD implantation."


Our news journalists report that additional information may be obtained by contacting A. Nogami, University of Tsukuba, Div Cardiovasc, Fac Med, Tsukuba, Ibaraki 3058558, Japan. Additional authors for this research include A. Nogami, Y. Shinoda, Y. Hanaki, Y. Shirai, S. Kowase, K. Kurosaki, T. Machino, K. Kuroki, H. Yamasaki, M. Igarashi, Y. Sekiguchi and K. Aonuma.

Keywords for this news article include: Ibaraki, Japan, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Cardiomyopathies, Medical Devices,
Study Findings from University of Wollongong Provide New Insights into Obesity (Sleep Quality Subtypes and Obesity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating from Wollongong, Australia, by NewsRx correspondents, research stated, "Poor sleep quality could be a risk factor for obesity. This article utilized a person-centered approach to investigate whether distinct sleep quality subtypes were associated with obesity directly, and indirectly via physical activity."

Our news editors obtained a quote from the research from the University of Wollongong, "The sample included 8,932 Australian employees who participated in the Household, Income and Labor Dynamics in Australia Survey. Structured interviews and self-report questionnaires collected information on sleep quality, obesity, and relevant demographic, health, and work-related variables. Latent class analysis identified distinct subtypes of sleep quality. General linear modeling examined the associations of sleep quality subtypes with body mass index (BMI) and waist circumference. Multicategorical mediation models examined indirect paths linking sleep quality classes with obesity via physical activity. Five distinct sleep quality subtypes were identified: Poor Sleepers (20.0%), Frequent Sleep Disturbances (19.2%), Minor Sleep Disturbances (24.5%), Long Sleepers (9.6%), and Good Sleepers (26.7%). BMI, waist circumference, and physical activity differed among the sleep quality subtypes, with similar results observed for males and females. For example, Poor Sleepers had the highest BMIs, followed by Frequent Sleep Disturbances and Minor Sleep Disturbances; Long Sleepers and Good Sleepers had the lowest BMIs. Mediation analyses indicated that low levels of physical activity linked the Poor Sleep, Frequent Sleep Disturbance, and Long Sleep classes with higher BMI. These results provide new insights into the nature of sleep quality in employees."

According to the news editors, the research concluded: "In particular, distinct sleep quality patterns had differing associations with measures of obesity, suggesting the need for tailored workplace interventions."

For more information on this research see: Sleep Quality Subtypes and Obesity. *Health Psychology*, 2016;35(12):1289-1297. *Health Psychology* can be contacted at: Amer Psychological Assoc, 750 First St NE, Washington, DC 20002-4242, USA.

The news editors report that additional information may be obtained by contacting C.A. Magee, University of Wollongong, Center Hlth Initiat, Wollongong, NSW 2522, Australia. Additional authors for this research include P. Reddy, L. Robinson and A. McGregor.

Keywords for this news article include: Wollongong, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Risk and Prevention, Epidemiology, Nutrition Disorders, Diet and Nutrition, Overnutrition, Bariatrics, Obesity, University of Wollongong.

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Blood Pressure

Study Findings from University of Yuzuncu Yil Broaden Understanding of Blood Pressure (The effect of low-sodium dialysate on ambulatory blood pressure measurement parameters in patients undergoing hemodialysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Blood Pressure is the subject of a report. According to news originating from Van, Turkey, by NewsRx correspondents, research stated, "End stage renal disease is related to increased cardiovascular mortality and morbidity. Hypertension is an important risk factor for cardiovascular disorder among hemodialysis (HD) patients."

Our news journalists obtained a quote from the research from the University of Yuzuncu Yil, "The aim of this study was to investigate the effect of low-sodium dialysate on the systolic blood pressure (SBP) and diastolic blood pressure (DBP) levels detected by ambulatory BP monitoring (ABPM) and interdialytic weight gain (IDWG) in patients undergoing sustained HD treatment. The study included 46 patients who had creatinine clearance levels less than 10 mL/min/1.73 m(2) and had been on chronic HD treatment for at least 1 year. After the enrollment stage, the patients were allocated low-sodium dialysate or standard sodium dialysate for 6 months via computer-generated randomization. Twenty-four hour SBP, daytime SBP, nighttime SBP, and nighttime DBP were significantly decreased in the low-sodium dialysate group (p<0.05). No significant reduction was observed in both groups in terms of 24-hour DBP and daytime DBP (p=NS). No difference was found in the standard sodium dialysate group in terms of ABPM. Furthermore, IDWG was found to be significantly decreased in the low-sodium dialysate group after 6 months (p <0.001)."

According to the news editors, the research concluded: "The study revealed that low-sodium dialysate leads to a decrease in ABPM parameters including 24-hour SBP, daytime SBP, nighttime SBP, and nighttime DBP and it also reduces the number of antihypertensive drugs used and IDWG."

For more information on this research see: The effect of low-sodium dialysate on ambulatory blood pressure measurement parameters in patients undergoing hemodialysis. Therapeutics and Clinical Risk Management, 2015;11():1829-35.

The news correspondents report that additional information may be obtained from S. Akdag, Dept. of Cardiology, Yuzuncu Yil University Medical Faculty, Van, Turkey. Additional authors for this research include A. Akyol, H.A. Cakmak, A.R. Tosu, M. Asker, M. Yaman, N. Babat, Y. Soyoral, M.B. Cegin, A.K. Gur and H.A Gumrukcuoglu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/TCRM.S94889. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Van, Turkey, Eurasia, Cardiology, Hemodialysis, Hemodynamics, Cardiovascular, Renal Dialysis, Risk and Prevention, Systolic Blood Pressure, Diagnostics and Screening.

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Study Findings from Uppsala University Broaden Understanding of Science (Iron chelators target both proliferating and quiescent cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Science is the subject of a report. According to news reporting from Uppsala, Sweden, by NewsRx journalists, research stated, "Poorly vascularized areas of solid tumors contain quiescent cell populations that are resistant to cell cycle-active cancer drugs. The compound VLX600 was recently identified to target quiescent tumor cells and to inhibit mitochondrial respiration."

The news correspondents obtained a quote from the research from Uppsala University, "We here performed gene expression analysis in order to characterize the cellular response to VLX600. The compound-specific signature of VLX600 revealed a striking similarity to signatures generated by compounds known to chelate iron. Validation experiments including addition of ferrous and ferric iron in excess, EXAFS measurements, and structure activity relationship analyses showed that VLX600 chelates iron and supported the hypothesis that the biological effects of this compound is due to iron chelation. Compounds that chelate iron possess anti-cancer activity, an effect largely attributed to inhibition of ribonucleotide reductase in proliferating cells. Here we show that iron chelators decrease mitochondrial energy production, an effect poorly tolerated by metabolically stressed tumor cells."

According to the news reporters, the research concluded: "These pleiotropic features make iron chelators an attractive option for the treatment of solid tumors containing heterogeneous populations of proliferating and quiescent cells."

For more information on this research see: Iron chelators target both proliferating and quiescent cancer cells. Scientific Reports, 2016:6():1-11. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)


Keywords for this news article include: Uppsala, Sweden, Europe, Science, Oncology, Genetics, Cancer, Uppsala University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Diabetic Neuropathy are discussed in a new report. According to news originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "The molecular mechanisms behind diabetic neuropathy remains to be investigated. This is a secondary study on microarray dataset (GSE24290) downloaded from Gene Expression Omnibus (GEO) at the National Center for Biotechnology Information (NCBI), which included 18 nerve tissue samples of progressing diabetic neuropathy (fibers loss >= 500 fibers/mm(2)) and 17 nerve tissue samples of nonprogressing diabetic neuropathy (fibers loss <= 100 fibers/mm(2))."

Our news journalists obtained a quote from the research from Xi'an Jiao Tong University, "Differentially expressed genes (DEGs) were screened between progressing and nonprogressing diabetic neuropathy. With the DEGs obtained, a weighted gene coexpression network analysis was conducted to identify gene clusters associated with diabetic neuropathy. Diabetes-related microRNAs (miRNAs) and their target genes were predicted and mapped to the genes in the gene clusters identified. Consequently, a miRNA-gene network was constructed, for which gene ontology (GO) and Kyoto Encyclopedia of Genes and Genomes (KEGG) enrichment analysis was performed. Potential drugs for treatment of diabetic neuropathy were also predicted. Total 370 upregulated and 379 downregulated DEGs were screened between nonprogressing and progressing diabetic neuropathy. Has-miR-377, has-miR-216a, and has-miR-217 were associated with diabetes. Inflammation was the most significant GO term. The peroxisome proliferator-activated receptor (PPAR) pathway and the adenosine monophosphate (AMP)-activated protein kinase (AMPK) signaling pathway were significantly KEGG pathways enriched with PPAR gamma (PPARG), stearoyl-CoA desaturase (SCD), cluster of differentiation 36 (CD36), and phosphoenolpyruvate carboxykinase 1 (PCK1)."

According to the news editors, the research concluded: "The study suggests that PPARG, SCD, CD36, PCK1, AMPK pathway, and PPAR pathway may be involved in progression of diabetic neuropathy.

For more information on this research see: Identification of genes and signaling pathways associated with diabetic neuropathy using a weighted correlation network analysis A consort study. Medicine, 2016;95(47):223-229. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from B.Y. Shi, Xi An Jiao Tong Univ, Hosp Affiliated 1, Dept. of Endocrinol, Xian 710061, People's Republic of China. Additional authors for this research include W.G. Ma, C.Q. Xie, M. Zhang, X.H. Yin, F.F. Wang, J. Xu and B.Y. Shi.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Nutritional and Metabolic Diseases and Conditions, Peripheral Nervous System Diseases and Conditions, Diabetes, Diagnostics and Screening, Genetics, Neuromuscular Diseases and Conditions, Diabetes Complications, Diabetic Neuropathy, Diabetes Mellitus, Endocrinology, Xi'an Jiao Tong University.

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Oncology - Leukemia

Study Findings from Y.N. Wang et al Provide New Insights into Leukemia (Changes in cellular glycosylation of leukemia cells upon treatment with acridone derivatives yield insight into drug action)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Leukemia have been published. According to news reporting originating from Shenzhen, People's Republic of China, by NewsRx correspondents, research stated, "A new acridone derivative 2-aminoacetamido-10-(3, 5-dimethoxy)-benzyl-9(10H)-acridone hydrochloride (8a) has been shown to have potent antitumor activity. In order to understand the underlying action mechanism of 8a, three compounds of the same class with structures optimized step-by-step, 9(10H)-acridone (A), 10-(3,5-dimethoxy) benzyl-9(10H)-acridone (I) and 8a, were exposed to CCRF-CEM leukemia cell to determine the N-glycosylation changes using the microfluidic HPLC-chip-TOF MS platform."

Funders for this research include National Natural Science Foundation of China, Shenzhen Municipal government SZSITIC, National Institutes of Health.

Our news editors obtained a quote from the research, "N-Glycans from whole cell lysates (WCL) and cell membranes (CM) were analyzed using isomer-sensitive chip-based porous graphitized carbon nano-LC/MS. A total of 223 N-glycan compositions and 398 N-glycan compounds were identified. Comparison of the two analyses showed that more apparent changes were observed in the CM compared with WCL, suggesting that CM may be a more sensitive indicator of changes in glycosylation. Upon 8a exposure to CCRF-CEM cells, a significant decrease in high-mannose-type glycans was observed. Different expressions of oligosaccharyltransferase subunits appear to play a key functional role in regulating the hypoglycosylation and contribute to the action mechanism of 8a."

According to the news editors, the research concluded: "Taken together our findings suggest that glycosylation is strongly affected by therapeutic potency and can be used as possible biomarkers for monitoring toxicity and antitumor activity of 8a."


The news editors report that additional information may be obtained by contacting H.X. Liu, Key Lab Tumor Metabol Shenzhen, Shenzhen, People's Republic of China. Additional authors for this research include D. Park, A.G. Galermo, D. Gao, H.X. Liu and C.B. Lebrilla.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pmic.201600218. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shenzhen, People's Republic of China, Asia, Drugs and Therapies, Cancer Therapy, Hematology, Leukemia, Oncology.

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**Algorithms**

**Study Findings from Zhejiang University Provide New Insights into Algorithms (Recent Advances in Protein-Protein Docking)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Algorithms are presented in a new report. According to news reporting from Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "Protein-protein interactions (PPIs) play important roles in a variety of biological processes, and many PPIs have been regarded as biologically compelling targets for drug discovery. Extensive efforts have been made to develop feasible protein-protein docking approaches to study PPIs in silico."

The news correspondents obtained a quote from the research from Zhejiang University, "Most of these approaches are composed of two stages: sampling and scoring. Sampling is used to generate a number of plausible protein-protein binding conformations and scoring can rank all those conformations. Due to large and flexible binding interface of PPI, determination of the near native structures is computationally expensive, and therefore computational efficiency is the most challenging issue in protein-protein docking. Here, we have reviewed the basic concepts and implementations of the sampling, scoring and acceleration algorithms in some established docking programs, and the limitations of these algorithms have been discussed. Then, some suggestions to the future directions for sampling, scoring and acceleration algorithms have been proposed."

According to the news reporters, the research concluded: "This review is expected to provide a better understanding of protein-protein docking and give some clues for the optimization and improvement of available approaches."

For more information on this research see: Recent Advances in Protein-Protein Docking. Current Drug Targets, 2016;17(14):1586-1594. (Bentham Science Publishers - www.benthamscience.com; Current Drug Targets - www.benthamscience.com/cdt/index.htm)

Our news journalists report that additional information may be obtained by contacting T. Hou, College of Pharmaceutical Sciences, Zhejiang University, Hangzhou, Zhejiang 310058, People's Republic of China. Additional authors for this research include T. Feng, L. Xu, H. Sun, P. Pan, Y. Li, D. Li and T. Hou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1389450117666160112112640. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Hangzhou, Algorithms, Drugs and Therapies, People's Republic of China.

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**Nanotechnology - Nanoparticles**

**Study Findings from Zhejiang University Provide New Insights into Nanoparticles (Chitosan nanoparticles and their Tween 80 modified counterparts disrupt the developmental profile of zebrafish embryos)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nanotechnology - Nanoparticles.

According to news reporting from Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "Chitosan nanoparticles (CS-NPs) and their Tween 80 modified counterparts (TmCS-NPs) are among the most commonly used brain-targeted vehicles. However, their potential developmental toxicity is poorly understood."

Financial support for this research came from National Natural Sciences Foundation of China.

The news correspondents obtained a quote from the research from Zhejiang University, "In this study, zebrafish embryos are introduced as an in vivo platform. Both NPs showed a dose-dependent increase in developmental toxicity (decreased hatching rate, increased mortality and incidences of malformation). Neurobehavioral changes included decreased spontaneous movement in TmCS-NP treated embryos and hyperactive effect in CS-NP treated larvae. Both NPs remarkably inhibited axonal development of primary and secondary motor neurons, and affected the muscle structure."

According to the news reporters, the research concluded: "Overall, this study demonstrated that CS-NPs and TmCS-NPs could affect embryonic development, disrupt neurobehavior of zebrafish larvae and affect muscle and neuron development, suggesting more attention on biodegradable chitosan nanoparticles."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.071. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Nanoparticles, Emerging Technologies, Nanotechnology, Nanoparticle, Zhejiang University.

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Enzymes and Coenzymes - Acyltransferases

Study Findings on Acyltransferases Are Outlined in Reports from Emory University (Tetrameric Acetyl-CoA Acetyltransferase 1 Is Important for Tumor Growth)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Acyltransferases have been published. According to news originating from Atlanta, Georgia, by NewsRx
correspondents, research stated, "Mitochondrial acetyl-CoA acetyltransferase 1 (ACAT1) regulates pyruvate dehydrogenase complex (PDC) by acetylated pyruvate dehydrogenase (PDH) and PDH phosphatase. How ACAT1 is 'hijacked' to contribute to the Warburg effect in human cancer remains unclear."

Financial supporters for this research include NIH, T.J. Martell Foundation, Winship Cancer Institute, American Cancer Society, Winship Inverts, Emory University, Hematology Tissue Bank of Emory University School of Medicine.

Our news journalists obtained a quote from the research from Emory University, "We found that active, tetrameric ACAT1 is commonly upregulated in cells stimulated by EGF and in diverse human cancer cells, where ACAT1 tetramers, but not monomers, are phosphorylated and stabilized by enhanced Y407 phosphorylation. Moreover, we identified arecoline hydrobromide (AH) as a covalent ACAT1 inhibitor that binds to and disrupts only ACAT1 tetramers. The resultant AH-bound ACAT1 monomers cannot reform tetramers. Inhibition of tetrameric ACAT1 by abolishing Y407 phosphorylation or AH treatment results in decreased ACAT1 activity, leading to increased PDC flux and oxidative phosphorylation with attenuated cancer cell proliferation and tumor growth."

According to the news editors, the research concluded: "These findings provide a mechanistic understanding of how oncogenic events signal through distinct acetyltransferases to regulate cancer metabolism and suggest ACAT1 as an anti-cancer target."

For more information on this research see: Tetrameric Acetyl-CoA Acetyltransferase 1 Is Important for Tumor Growth. *Molecular Cell*, 2016;64(5):859-874. *Molecular Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Molecular Cell - www.journals.elsevier.com/molecular-cell/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.molcel.2016.10.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Enzymes and Coenzymes, Acetyltransferases, Aciyltransferases, Dehydrogenase, Oncology, Cancer, Emory University.

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**Algorithms**

**Study Findings on Algorithms Are Outlined in Reports from University of Patras (Breast tomosynthesis using the multiple projection algorithm adapted for stationary detectors)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Algorithms is the subject of a report. According to news reporting from Patras, Greece, by NewsRx journalists, research stated, "The aim of this study is to investigate the validity of using the Multiple Projection Algorithm (MPA) for Breast
Tomosynthesis (BT) using real projection images acquired with phantoms at a clinical setting. The CIRS-BR3D phantom with ranging thicknesses between 3 cm and 6 cm was used for all image quality evaluations.

The news correspondents obtained a quote from the research from the University of Patras, "Five sets of measurements were acquired, each comprised of a 2D mammographic image followed by a set of 25 projections within an arc length of 50°. A reconstruction algorithm based on the MPA was adapted for partial isocentric rotation using a stationary detector. For reference purposes, a Back Projection (BP) algorithm was also developed for this geometry. The performance of the algorithms was evaluated, in combination with pre-filtering of the projections, in comparative studies that involved also a comparison between tomosynthesis slices and 2D mammograms. Evaluation of tomosynthesis slices reconstructed with BP and MPA showed close performance for the two algorithms with no considerable differences in feature detection, size and appearance of the background tissue with the MPA running faster the overall process. Pre-filtering of the projections, led to better BT images compared to non-filtering. Increased thickness resulted in limited detection of the features of interest, especially the smaller sized ones. In these cases, the filtered BT slices allowed improved visualization due to removed superimposed tissue compared to the 2D images. The different breast-like slab arrangements in phantoms of the same thickness demonstrated a slight influence on the quality of reconstructed features. The MPA which had been applied previously to reconstruct tomograms from projections acquired at synchrotron facilities, is a time efficient algorithm, and is fully compliant with and can be successfully used in BT clinical systems."

According to the news reporters, the research concluded: "Compared to 2D mammography, BT shows advantage in visualizing features of small size and for increased phantom thickness or features within a dense background with superimposed structures."


Our news journalists report that additional information may be obtained by contacting A. Malliori, Dept. of Medical Physics, School of Medicine, University of Patras, Patras, Greece. Additional authors for this research include K. Bliznakova, Z. Bliznakov, L. Cockmartin, H. Bosmans and N. Pallikarakis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3233/XST-160538. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of X-ray Science and Technology is: IOS Press, Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands.

Keywords for this news article include: Patras, Greece, Europe, Algorithms.

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**Drugs and Therapies - Antibiotics**

**Study Findings on Antibiotics Are Outlined in Reports from Medical University (Understanding the Activity of Antibiotics in Cerebrospinal Fluid in vitro)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antibiotics is now available. According to news reporting originating in Vienna, Austria, by NewsRx journalists, research stated, "In vitro studies suggest that antimicrobial activity of antibiotics meant to treat central nervous system infections such as meningitis or ventriculitis may be altered by cerebrospinal fluid (CSF). This could explain the reason behind the often observed discrepancies between the activity of antibiotics determined in artificial growth media in vitro, and their sometimes reduced clinical efficacy in CSF in vivo."

The news reporters obtained a quote from the research from Medical University, "If conducted in CSF, in vitro microbiological investigations might predict the ability of antibiotic drugs to treat CSF infections better than experiments in artificial growth media. In addition, they are less expensive, critical and time consuming than animal studies, and might potentially be appreciated in drug development as a rapid and cost-effective means to gain valuable information on drugs meant to treat infections residing in CSF. Data from microbiological in vitro experiments performed in CSF were compiled for fosfomycin, rifampicin, cefepime, cefotaxime, ceftiraxone, ciprofloxacin, gentamicin and vancomycin. Where possible, correlations between in vitro data and evidence from in vivo studies were established. As discussed in the text, no clear correlations between in vitro studies in CSF and clinical outcomes could be identified."

According to the news reporters, the research concluded: "Methodological recommendations derived from the collected studies are summarized in order to optimize future research on the topic."


Our news correspondents report that additional information may be obtained by contacting P. Matzneller, Dept. of Clinical Pharmacology, Medical University of Vienna, Vienna, Austria. Additional authors for this research include A. Burian, M. Zeitlinger and R. Sauermann.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000444263. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibacterial Agents, Antibiotics, Antimicrobials, Vienna, Europe, Austria, Article Review, Drugs and Therapies.

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Drugs and Therapies - Antibiotics

Study Findings on Antibiotics Are Outlined in Reports from Shaanxi Normal University (Combination of enzymatic degradation by chloroperoxidase with activated sludge treatment to remove sulfamethoxazole: performance, and eco-toxicity assessment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Antibiotics have been presented.
According to news reporting originating in Xi'an, People's Republic of China, by NewsRx journalists, research stated, "Sulfamethoxazole is found in surface and ground waters because it is usually not metabolized and simply passes through the human body after ingestion. This drug is difficult to degrade by conventional treatments and may cause environmental concerns."

The news reporters obtained a quote from the research from Shaanxi Normal University, "A rapid and efficient enzymatic degradation of sulfamethoxazole by a heme peroxidase, chloroperoxidase (CPO), was investigated in this work. The degradation efficiency of sulfamethoxazole reached 98.64% within 20 min at room temperature, atmospheric pressure and environment-friendly reaction conditions with an enzyme concentration of approximately 10(-9) mol L-1. High performance liquid chromatography-mass spectrometry analysis was employed to identify the intermediates and final products. Moreover, chemical oxygen demand (COD) measurements showed that pre-treatment by CPO-H2O2 oxidative degradation followed by existing bioremediation technologies can effectively improve the efficiency and thoroughness of decontaminating this drug from wastewater. The degradation efficiency was enhanced from 76.5% to 84.47%, and the COD removal increased from 29.72% to 51.32%. The eco-toxicity test using a green algae, Cinorella pyrenoidos, showed that the degraded products had lower toxicity than the parent drug. CPO catalyzed oxidative degradation is a promising alternative for treatment of wastewater containing sulfonamide drugs."

According to the news reporters, the research concluded: "This enzymatic method is also suitable for treatment of other sulfonamide antibiotics."


Our news correspondents report that additional information may be obtained by contacting Y.C. Jiang, Shaanxi Normal Univ, Key Lab Macromol Sci Shaanxi Prov, Xian 710062, People's Republic of China. Additional authors for this research include X.H. Li, Y.C. Jiang, M.C. Hu, S.N. Li and Q.G. Zhai.

Keywords for this news article include: Xi'an, People's Republic of China, Asia, Drugs and Therapies, Organic Chemicals, Sulfur Compounds, Sulfamethoxazole, Sulfanilamides, Antibiotics, Sulfones, Shaanxi Normal University.

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Drugs and Therapies - Antibiotics

Study Findings on Antibiotics Are Outlined in Reports from State University of New York (Synergistic combinations of polymyxins)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antibiotics have been published. According to news reporting from Buffalo, New York, by NewsRx journalists, research stated, "The proliferation of extensively drug-resistant Gram-negative pathogens has necessitated the therapeutic use of colistin and polymyxin B. However, treatment failures with polymyxin monotherapies and the emergence of polymyxin resistance have catalysed the search
for polymyxin combinations that synergistically kill polymyxin-susceptible and-resistant organisms."

The news correspondents obtained a quote from the research from the State University of New York, "This mini-review examines recent (2011-2016) in vitro and in vivo studies that have attempted to identify synergistic polymyxin combinations against Pseudomonas aeruginosa, Klebsiella pneumoniae and Acinetobacter baumannii."

According to the news reporters, the research concluded: "Clinical evidence for the use of combination regimens is also discussed."


Our news journalists report that additional information may be obtained by contacting B.T. Tsuji, University of Buffalo, Sch Pharm & Pharmaceut Sci, Buffalo, NY 14228, United States. Additional authors for this research include R.L. Nation and B.T. Tsuji.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.09.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Buffalo, New York, United States, North and Central America, Antimicrobial Cationic Peptides, Drugs and Therapies, Membrane Proteins, Cyclic Peptides, Antibiotics, Polymyxins, State University of New York.

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Drugs and Therapies - Antifungals

Study Findings on Antifungals Are Outlined in Reports from IMIM (Comparative Population Plasma and Tissue Pharmacokinetics of Micafungin in Critically Ill Patients with Severe Burn Injuries and Patients with Complicated Intra-Abdominal Infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Drugs and Therapies - Antifungals is now available. According to news reporting originating in Barcelona, Spain, by NewsRx journalists, research stated, "Severely burned patients have altered drug pharmacokinetics (PKs), but it is unclear how different they are from those in other critically ill patient groups. The aim of the present study was to compare the population pharmacokinetics of micafungin in the plasma and burn eschar of severely burned patients with those of micafungin in the plasma and peritoneal fluid of postsurgical critically ill patients with intra-abdominal infection."

Financial support for this research came from Astellas Pharma Europe.

The news reporters obtained a quote from the research from IMIM, "Fifteen burn patients were compared with 10 patients with intra-abdominal infection; all patients were treated with 100 to 150 mg/day of micafungin. Micafungin concentrations in serial blood, peritoneal fluid, and burn tissue samples were determined and were subjected to a population pharmacokinetic analysis. The probability of target attainment was calculated using area under
the concentration-time curve from 0 to 24 h/MIC cutoffs of 285 for Candida parapsilosis and 3,000 for non-parapsilosis Candida spp. by Monte Carlo simulations. Twenty-five patients (18 males; median age, 50 years; age range, 38 to 67 years; median total body surface area burned, 50%; range of total body surface area burned, 35 to 65%) were included. A three-compartment model described the data, and only the rate constant for the drug distribution from the tissue fluid to the central compartment was statistically significantly different between the burn and intra-abdominal infection patients (0.47 +/- 0.47 versus 0.15 +/- 0.06 h(-1), respectively; P< 0.05). Most patients would achieve plasma PK/pharmacodynamic (PD) targets of 90% for non-parapsilosis Candida spp. and C. parapsilosis with MICs of 0.008 and 0.064 mg/liter, respectively, for doses of 100 mg daily and 150 mg daily. The PKs of micafungin were not significantly different between burn patients and intra-abdominal infection patients."

According to the news reporters, the research concluded: 
"After the first dose, micafungin at 100 mg/day achieved the PK/PD targets in plasma for MIC values of < 0.008 mg/liter and < 0.064 mg/liter for non-parapsilosis Candida spp. and Candida parapsilosis species, respectively."

For more information on this research see: Comparative Population Plasma and Tissue Pharmacokinetics of Micafungin in Critically Ill Patients with Severe Burn Injuries and Patients with Complicated Intra-Abdominal Infection. *Antimicrobial Agents and Chemotherapy*, 2016;60(10):5914-5921. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news correspondents report that additional information may be obtained by contacting S. Luque, Inst Hosp Mar Invest Med IMIM, Barcelona, Spain. Additional authors for this research include S. Luque, S. Grau, A. Agrifoglio, L. Cachafeiro, E. Herrero, M.J. Asensio, S.M. Sanchez and J.A. Roberts.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00727-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Drugs and Therapies, Micafungin Therapy, Pharmacokinetics, Medical Devices, Pharmaceuticals, Antifungals, Hematology, Plasma, Burn Medicine, Echinocandins, Burn Injury, Antifungals, Hematology, Plasma, Blood, IMIM.

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**Drugs and Therapies - Antihyperlipidemic Agents**

**Study Findings on Antihyperlipidemic Agents Are Outlined in Reports from Temple University (Intracellular Unbound Atorvastatin Concentrations in the Presence of Metabolism and Transport)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Drugs and Therapies - Antihyperlipidemic Agents are discussed in a new report. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Accurate prediction of drug target activity and rational dosing regimen design require knowledge of drug concentrations at the
target. It is important to understand the impact of processes such as membrane permeability, partitioning, and active transport on intracellular drug concentrations."

Our news editors obtained a quote from the research from Temple University, "The present study aimed to predict intracellular unbound atorvastatin concentrations and characterize the effect of enzyme-transporter interplay on these concentrations. Single-pass liver perfusion studies were conducted in rats using atorvastatin (ATV, 1 μM) alone at 4 degrees C and at 37 degrees C in presence of rifampin (rif, 20 μM) and 1-aminobenzotriazole (ATB, 1 mM), separately and in combination. The unbound intracellular ATV concentration was predicted with a five-compartment explicit membrane model using the parameterized diffusional influx clearance, active basolateral uptake clearance, and metabolic clearance. Chemical inhibition of uptake and metabolism at 37 degrees C proved to be better controls relative to studies at 4 degrees C. The predicted unbound intracellular concentration at the end of the 50-minute perfusion in the +ABT, +ABT+RIF, and the ATV-only groups was 6.5 μM, 0.58 μM, and 5.14 μM, respectively. The predicted total liver concentrations and amount recovered in bile were within 0.94-1.3 fold of the observed value in all groups. The fold difference in total liver concentration did not always extrapolate to the fold difference in predicted unbound concentration across groups. Together, these results support the use of compartmental modeling to predict intracellular concentrations in dynamic organ-based systems."

According to the news editors, the research concluded: "These predictions can provide insight into the role of uptake transporters and metabolizing enzymes in determining drug tissue concentrations."


The news editors report that additional information may be obtained by contacting S. Nagar, Temple University, Sch Pharm, Dept. of Pharmaceut Sci, Philadelphia, PA, United States. Additional authors for this research include K. Korzekwa and S. Nagar.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.235689. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Antihyperlipidemic Agents, Drugs and Therapies, Atorvastatin, Angiology, Temple University.

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Lactation studies are necessary evaluations of medications for reproductive-age women."

Financial support for this research came from HHS | National Institutes of Health (NIH).

The news correspondents obtained a quote from the research from the Johns Hopkins University Bloomberg School of Public Health. "We evaluated pharmacokinetics (PK), pharmacodynamics, safety, and adherence profiles associated with 7 days of 1% tenofovir (TFV) vaginal gel use during lactation. Tenofovir levels (maternal/infant serum, milk) and anti-HIV activity (milk), adverse events (AEs), and adherence were measured for 17 HIV-1-seronegative breast-feeding mother-infant pairs."

According to the news reporters, the research concluded: "Tenofovir use was well-tolerated and detected at low levels in maternal serum, milk, and infant serum but demonstrated no anti-HIV activity in milk."

For more information on this research see: Detectable Tenofovir Levels in Breast-Feeding Infants of Mothers Exposed to Topical Tenofovir. Antimicrobial Agents and Chemotherapy, 2016;60(9):5616-5619. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00645-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Baltimore, Maryland, United States, North and Central America, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Antiretrovirals, Women's Health, Antinfectives, HIV Infections, Retroviridae, RNA Viruses, Antivirals, Pregnancy, Lactation, Tenofovir, HIV/AIDS, Johns Hopkins University Bloomberg School of Public Health.

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Drugs and Therapies - Antiretrovirals

Study Findings on Antiretrovirals Are Outlined in Reports from State University (The Initial Months of Antiretroviral Therapy and Its Influence on AGEs, HMGB1, and sRAGE Levels in Asymptomatic HIV-Infected Individuals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies -
Antiretrovirals. According to news reporting originating in Botucatu, Brazil, by NewsRx journalists, research stated, "The development of the typical comorbidities of aging which currently affects people living with HIV/AIDS (PLWHA) can be partially ascribed to the persistent immune activation and chronic inflammation characterizing these individuals. The aim of this study was to analyze the effect exerted by combined antiretroviral therapy (cART) administration on plasma levels of HMGB1 (high mobility group box protein-1), AGEs (advanced glycation end products), their soluble receptor sRAGE, cytokines, Creative protein (CRP), and some metabolic markers in asymptomatic PLWHA."

Funders for this research include Coordenacao de Aperfeicoamento de Pessoal de Nivel Superior, Reitoria/UNESP, Fundacao de Amparo a Pesquisa do Estado de Sao Paulo.

The news reporters obtained a quote from the research from State University, "Analyses were performed longitudinally in 30 PLWHA, before and about 6-12 months after cART initiation. We observed that lower levels of AGEs in post-cART group were accompanied by an increase of CRP and triglyceride levels already in the early months of therapy."

According to the news reporters, the research concluded: "Because of the current ever-earlier recommendations to start cART and its prolonged use, these and other markers should be investigated in order to monitor and postpone the appearance of non-AIDS comorbidities in PLWHA."

For more information on this research see: The Initial Months of Antiretroviral Therapy and Its Influence on AGEs, HMGB1, and sRAGE Levels in Asymptomatic HIV-Infected Individuals. *Mediators of Inflammation, 2016;():1-9. Mediators of Inflammation* can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Mediators of Inflammation - www.hindawi.com/journals/mi/)

Our news correspondents report that additional information may be obtained by contacting K.I. Tasca, Univ Estadual Paulista, Dept. of Trop Dis, UNESP, Botucatu Med Sch FMB, Botucatu, SP, Brazil. Additional authors for this research include J.T. Caleffi, C.R. Correa, M. Gatto, C.C. de Camargo, M.B. Mendes, M.D. Golim, M. Biasin and L.D. de Souza.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/2909576. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Botucatu, Brazil, South America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Antiretrovirals, HIV Infections, Retroviridae, RNA Viruses, HIV/AIDS, Therapy, State University.

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**Study Findings on Arachnoid Cysts Are Outlined in Reports from University of Washington (Prenatal Diagnosis of Chudley-McCullough Syndrome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Central Nervous System Diseases and Conditions -
Arachnoid Cysts have been presented. According to news reporting originating in Seattle, Washington, by NewsRx journalists, research stated, "Chudley-McCullough syndrome (CMS) is an autosomal-recessive disorder characterized by a complex brain malformation and profound congenital sensorineural hearing loss."

The news reporters obtained a quote from the research from the University of Washington, "Postnatal brain imaging findings include ventriculomegaly, partial agenesis of corpus callosum, inferior cerebellar dysplasia, arachnoid cysts, and malformations of cortical development including frontal subcortical heterotopia and polymicrogyria. Prenatal diagnosis of CMS is important due to the markedly less severe neurodevelopmental prognosis compared to disorders with similar brain imaging findings."

According to the news reporters, the research concluded: "We report prenatal imaging features that help distinguish CMS from other disorders, including slit-like frontal horns, agenesis of the corpus callosum, frontal subcortical heterotopia, arachnoid cysts, and cerebellar dysplasia."


Our news correspondents report that additional information may be obtained by contacting T. Chapman, University of Washington, Dept. of Radiol, Seattle Childrens Hosp, Seattle, WA 98195, United States. Additional authors for this research include F.A. Perez, G.E. Ishak and D. Doherty.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37806. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seattle, Washington, United States, North and Central America, Central Nervous System Diseases and Conditions, Central Nervous System Neoplasms, Central Nervous System Cysts, Nervous System Malformations, Dysplasia, Genetics, Corpus Callosum, Arachnoid Cysts, Telencephalon, Dermatology, Meninges, Brain, University of Washington.

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**Arterial Occlusive Disease**

**Study Findings on Arterial Occlusive Disease Are Outlined in Reports from National Taiwan University (Association between peripheral arterial occlusive disease and cardiothoracic ratio in patients on chronic hemodialysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Arterial Occlusive Disease are discussed in a new report. According to news reporting originating from Taipei, Taiwan, by NewsRx correspondents, research stated, "The cardiothoracic ratio (CTR) and peripheral arterial occlusive disease (PAOD) are related to mortality in hemodialysis patients. However, data on
the association between PAOD and CTR are limited."

Our news editors obtained a quote from the research from National Taiwan University, "In this study, we aim to elucidate this relationship in patients on chronic hemodialysis. Using a retrospective cross-sectional study of 622 Taiwanese patients, we investigated the association of PAOD and CTR. PAOD was significantly associated with CTR in the crude analysis. The odds ratio (OR) for CTR > 0.5 was 1.77 [95% confidence interval (CI), 1.32-2.37], and the odds ratio for CTR > 0.6 was 2.18 [95% CI, 1.44-3.30]. After adjusting for confounding variables, this difference continued to exhibit significant predictive power for CTR > 0.6 (OR, 1.88; 95% CI, 1.14-3.11), but the predictive power for CTR > 0.5 was attenuated (OR, 1.41; 95% CI, 0.98-2.03). In the subgroup analysis, PAOD was an independent factor for CTR > 0.6, particularly in elderly and female patients or patients with hemoglobin > 10 mg/dl and with no history of cardiovascular disease."

According to the news editors, the research concluded: "In this research, we showed that the detection of PAOD was independently associated with CTR > 0.6 in patients on chronic hemodialysis."

For more information on this research see: Association between peripheral arterial occlusive disease and cardiothoracic ratio in patients on chronic hemodialysis. Scientific Reports, 2016;6():1-8. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com; Scientific Reports - www.nature.com/srep/)

The news editors report that additional information may be obtained by contacting M.H. Tsai, National Taiwan University, Coll Public Hlth, Inst Epidemiol & Prevent Med, Div Biostat, Taipei, Taiwan. Additional authors for this research include H.H. Liou, Y.W. Fang, J.G. Leu and M.H. Tsai.

Keywords for this news article include: Taipei, Taiwan, Asia, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Cardiothoracic, Renal Dialysis, Hemodialysis, National Taiwan University.

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Cardiovascular Diseases and Conditions -...

Study Findings on Atherosclerosis Are Outlined in Reports from University of Texas [Hemodynamic Correlates of Blood Pressure in Older Adults: The Atherosclerosis Risk in Communities (ARIC) Study]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Atherosclerosis have been published. According to news reporting from Austin, Texas, by NewsRx journalists, research stated, "The primary aim of the present study was to identify the hemodynamic correlates of both steady and pulsatile blood pressure (BP) in community-dwelling older adults. In 3762 adults aged 70 to 89 years, significant hemodynamic determinants of both brachial and carotid systolic BP included arterial stiffness as measured by aortic pulse wave velocity, stroke volume (via echocardiography), arterial wave reflection, left ventricular ejection time, and upstroke time."

Financial supporters for this research include National Heart, Lung, and Blood Institute, National Institute of General Medical Sciences, Ellison Foundation, American Heart
Association.

The news correspondents obtained a quote from the research from the University of Texas, "The strongest influence was exerted by arterial stiffness. The steady-state component of blood pressure, mean arterial pressure, was associated with both cardiac index and total peripheral resistance (TPR), but was more strongly associated with TPR. Results were similar when participants taking antihypertensive medications were excluded from analyses."

According to the news reporters, the research concluded: "The overall findings suggest that mean arterial pressure is associated strongly with TPR and that significant hemodynamic correlates of systolic BP included arterial stiffness, stroke volume, and arterial wave reflection."


Our news journalists report that additional information may be obtained by contacting H. Tanaka, Univ Texas Austin, Austin, TX 78712, United States. Additional authors for this research include G. Heiss, E.L. McCabe, M.L. Meyer, A.M. Shah, J.R. Mangion, J. Wu, S.D. Solomon and S. Cheng.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jch.12898. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Austin, Texas, United States, North and Central America, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Risk and Prevention, Arteriosclerosis, Atherosclerosis, Blood Pressure, University of Texas.

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**Heart Disorders and Diseases - Atrial Flutter**

**Study Findings on Atrial Flutter Are Outlined in Reports from Medical College (Improved Ventricular Function after TEE-guided Cardioversion of Atrial Arrhythmias in Patients after the Fontan Operation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Flutter. According to news reporting originating from Rochester, Minnesota, by NewsRx correspondents, research stated, "Atrial tachyarrhythmias frequently develop after the Fontan operation. Patients with Fontan physiology rely on atrial contribution to cardiac output, and thus control of atrial arrhythmias is important."

Our news editors obtained a quote from the research from Medical College, "Outcomes after cardioversion in patients after Fontan have not been reported. We sought to determine if cardioversion results in improved echocardiographic parameters or clinical symptomatology; and, discern risk factors for arrhythmia recurrence. We retrospectively analyzed the Mayo Clinic echocardiographic database to capture patients after the Fontan operation who underwent transesophageal echocardiography-guided electrical cardioversion..."
from 2000-2015. Clinical and echocardiographic data were collected and compared at baseline and follow-up. Eight hundred ninety patients with prior Fontan operation underwent echocardiographic evaluation; 341 (38%) developed atrial arrhythmias. Thirty-six patients [20 males, median age 29 (12-51)] underwent transesophageal echocardiography-guided cardioversion of atrial arrhythmias [atrial flutter/intraatrial reentrant tachycardia (75%); atrial fibrillation (25%)]. At follow-up, improvements were noted in ejection fraction by 10% (P < .0001); atrioventricular valve regurgitation grade (39%) (P = .002); New York Heart Association (NYHA) class (61%) (P < .001); and resolution of spontaneous echo contrast in the Fontan circuit (65%) (P < .01). No embolic events occurred following cardioversion. Eighteen patients (50%) developed recurrent atrial arrhythmias at 15 (3-36) months after cardioversion. Five-year freedom from arrhythmia recurrence was 61%. Significant univariate predictors of arrhythmia recurrence were atrial flutter/intraatrial reentrant tachycardia (HR=4.3, P = .02); NYHA >= II (HR = 4.1, P = .03); systemic right ventricle (HR = 5.2; P = .02); and ejection fraction <= 40% (HR = 2.8; P = .04). On multivariate analysis, only systemic right ventricle (HR = 3.7; P = .02) remained an independent predictor of arrhythmia recurrence. After the Fontan operation, cardioversion of atrial arrhythmias improves ventricular function, atrioventricular valve regurgitation grade, and NYHA class. Arrhythmia recurrence was common and patients with atrial flutter/intraatrial reentrant tachycardia, systemic right ventricle, or reduced ventricular function may be at risk of arrhythmia recurrence.7

According to the news editors, the research concluded: "Further studies are required to identify additional risk factors and protective factors for arrhythmia recurrence."

For more information on this research see: Improved Ventricular Function after TEE-guided Cardioversion of Atrial Arrhythmias in Patients after the Fontan Operation. Congenital Heart Disease, 2016;11(6):578-583. Congenital Heart Disease can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com/; Congenital Heart Disease - onlinelibrary.wiley.com/journal/10.1111/(ISSN) 1747-0803)

The news editors report that additional information may be obtained by contacting J.T. Poterucha, Mayo Clinic, Coll Med, Dept. of Pediat & Adolescent Med, Div Pediat Cardiol, Rochester, MN, United States. Additional authors for this research include A.C. Egbe, J.N. Johnson, T. Niaz, P.L. Wackel, B.C. Cannon, B.W. Eidem and F. Cetta.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cardiovascular Physiological Processes, Transesophageal Echocardiography, Heart Disorders and Diseases, Ventricular Function, Risk and Prevention, Cardiac Arrhythmias, Imaging Technology, Atrial Flutter, Heart Disease, Tachycardia, Cardiology, Medical College.

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**Bioluminescence**

**Study Findings on Bioluminescence Are Outlined in Reports from George Washington University (A synthetic luciferin improves in vivo bioluminescence imaging of gene expression in cardiovascular brain regions)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Research findings on Bioluminescence are discussed in a new report. According to news reporting originating from Washington, District of Columbia, by NewsRx correspondents, research stated, "Bioluminescence imaging is an effective tool for in vivo investigation of molecular processes. We have demonstrated the applicability of bioluminescence imaging to spatiotemporally monitor gene expression in cardioregulatory brain nuclei during the development of cardiovascular disease, via incorporation of firefly luciferase into living animals, combined with exogenous D-luciferin substrate administration."

Financial support for this research came from HHS | National Institutes of Health (NIH).

Our news editors obtained a quote from the research from George Washington University, "Nevertheless, D-luciferin uptake into the brain tissue is low, which decreases the sensitivity of bioluminescence detection, particularly when considering small changes in gene expression in tiny central areas. Here, we tested the hypothesis that a synthetic luciferin, cyclic alkyaminoluciferin (CycLuc1), would be superior to D-luciferin for in vivo bioluminescence imaging in cardiovascular brain regions. Male C57B1/6 mice underwent targeted delivery of an adenovirus encoding the luciferase gene downstream of the CMV promoter to the subformical organ (SFO) or paraventricular nucleus of hypothalamus (PVN), two crucial cardioregulatory neural regions. While bioluminescent signals could be obtained following D-luciferin injection (150 mg/kg), CycLuc1 administration resulted in a three-to fourfold greater bioluminescent emission from the SFO and PVN, at 10- to 20-fold lower substrate concentrations (7.5-15 mg/kg). This CycLuc1-mediated enhancement in bioluminescent emission was evident early following substrate administration (i.e., 6-10 min) and persisted for up to 1 h. When the exposure time was reduced from 60 s to 1,500 ms, minimal signal in the PVN was detectable with D-luciferin, whereas bioluminescent images could be reliably captured with CycLuc1."

According to the news editors, the research concluded: "These findings demonstrate that bioluminescent imaging with the synthetic luciferin CycLuc1 provides an improved physiological genomics tool to investigate molecular events in discrete cardioregulatory brain nuclei."


The news editors report that additional information may be obtained by contacting C.N. Young, George Washington University, Sch Med & Hlth Sci, Dept. of Physiol & Pharmacol, Washington, DC 20052, United States. Additional authors for this research include C. Hurr and C.N. Young.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1152/physiolgenomics.00055.2016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Washington, District of Columbia, United States, North and Central America, Luciferases, Genetics, Enzymes and Coenzymes, Bioluminescence, Cardiovascular, Cardiology, George Washington University.

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Hematology - Blood Coagulation Factors

Study Findings on Blood Coagulation Factors Are Outlined in Reports from University of Utah (Synergy Between Tissue Factor and Exogenous Factor XIa in Initiating Coagulation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Hematology - Blood Coagulation Factors. According to news reporting originating from Salt Lake City, Utah, by NewsRx correspondents, research stated, "Recent evidence suggests involvement of coagulation factor XIa (FXIa) in thrombotic event development. This study was conducted to explore possible synergies between tissue factor (TF) and exogenous FXIa (E-FXIa) in thrombin generation."

Our news editors obtained a quote from the research from the University of Utah, "Approach and Results-In thrombin generation assays, for increasing concentrations of E-FXIa with low, but not with high TF concentrations, peak thrombin significantly increased whereas lag time and time to peak significantly decreased. Similar dependencies of lag times and rates of thrombin generation were found in mathematical model simulations. In both in vitro and in silico experiments that included E-FXIa, thrombin bursts were seen for TF levels much lower than those required without E-FXIa. For in silico thrombin bursts initiated by the synergistic action of TF and E-FXIa, the mechanisms leading to the burst differed substantially from those for bursts initiated by high TF alone. For the synergistic case, sustained activation of platelet-bound FIX by E-FXIa, along with the feedback-enhanced activation of platelet-bound FVIIa and FXa, was needed to elicit a thrombin burst. Furthermore, the initiation of thrombin bursts by high TF levels relied on different platelet FIX/FIXa binding sites than those involved in bursts initiated by low TF levels with E-FXIa. Low concentrations of TF and exogenous FXIa, each too low to elicit a burst in thrombin production alone, act synergistically when in combination to cause substantial thrombin production."

According to the news editors, the research concluded: "The observation about FIX/FIXa binding sites may have therapeutic implications."

For more information on this research see: Synergy Between Tissue Factor and Exogenous Factor XIa in Initiating Coagulation. Arteriosclerosis Thrombosis and Vascular Biology, 2016;36(12):2334-2345. Arteriosclerosis Thrombosis and Vascular Biology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

The news editors report that additional information may be obtained by contacting A.L. Fogelson, University of Utah, Dept. of Bioengn, Salt Lake City, UT 84112, United States. Additional authors for this research include W.C. Chang, M. Ovanesov and A.L. Fogelson.

Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Blood Coagulation Factors, Serine Endopeptidases, Enzymes and Coenzymes, Peptide Hydrolases, Blood Proteins, Factor XIa, Hematology, Thrombin, University of Utah.

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Oncology - Breast Cancer

Study Findings on Breast Cancer Are Outlined in Reports from A. Simbrich and Colleagues (Trends in advanced breast cancer incidence rates after implementation of a mammography screening program in a German population)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting originating from Munster, Germany, by NewsRx correspondents, research stated, "Mammography screening programs (MSPs) aim to detect early-stage breast cancers in order to decrease the incidence of advanced-stage breast cancers and to reduce breast cancer mortality. We analyzed the time trends of advanced-stage breast cancer incidence rates in the target population before and after implementation of the MSP in a region of northwestern Germany."

Our news editors obtained a quote from the research, "The MSP in the Munster district started in October 2005. A total of 13,874 women with an incident invasive breast cancer (BC) was identified by the population-based epidemiological cancer registry between 2000 and 2013 in the target group 50-69 years. Multiple imputation methods were used to replace missing data on tumor stages (10.4%). The incidence rates for early-stage (UICC I) and advanced-stage (UICC II+) BC were determined, and Poisson regression analyses were performed to assess trends over time. The incidence rates for UICC I breast cancers increased during the step-up introduction of the MSP and remained elevated thereafter. By contrast, after increasing from 2006 to 2008, the incidence rates of UICC II+ breast cancers decreased to levels below the pre-screening period. Significantly decreasing UICC II+ incidence rates were limited to the age group 55-69 years and reached levels that were significantly lower than incidence rates in the pre-screening period. The incidence rates of advanced-stage breast cancers decreased in the age groups from 55 years to the upper age limit for screening eligibility, but not in the adjacent age groups."

According to the news editors, the research concluded: "The findings are consistent with MSP lead time effects and seem to indicate that the MSP lowers advanced-stage breast cancer rates in the target population."

For more information on this research see: Trends in advanced breast cancer incidence rates after implementation of a mammography screening program in a German population. Cancer Epidemiology, 2016;44():44-51. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news editors report that additional information may be obtained by contacting H.W. Hense, Epidemiol Canc Registry North Rhine Westphalia, Munster, Germany. Additional authors for this research include I. Wellmann, J. Heidrich, O. Heidinger and H.W. Hense.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.07.006. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munster, Germany, Europe, Diagnostics and Screening, Breast Cancer Screening, Cancer, Epidemiology, Risk and Prevention, Women's Health, Oncology.
Oncology - Breast Cancer

Study Findings on Breast Cancer Are Outlined in Reports from Cancer Hospital (A nomogram to predict the probability of axillary lymph node metastasis in early breast cancer patients with positive axillary ultrasound)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Breast Cancer. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "Among patients with a preoperative positive axillary ultrasound, around 40% of them are pathologically proved to be free from axillary lymph node (ALN) metastasis. We aimed to develop and validate a model to predict the probability of ALN metastasis as a preoperative tool to support clinical decision-making."

Our news journalists obtained a quote from the research from Cancer Hospital, "Clinicopathological features of 322 early breast cancer patients with positive axillary ultrasound findings were analyzed. Multivariate logistic regression analysis was performed to identify independent predictors of ALN metastasis. A model was created from the logistic regression analysis, comprising lymph node transverse diameter, cortex thickness, hilum status, clinical tumor size, histological grade and estrogen receptor, and it was subsequently validated in another 234 patients. Coefficient of determination (R(2)) and the area under the ROC curve (AUC) were calculated to be 0.9375 and 0.864, showing good calibration and discrimination of the model, respectively. The false-negative rates of the model were 0% and 5.3% for the predicted probability cut-off points of 7.1% and 13.8%, respectively. This means that omission of axillary surgery may be safe for patients with a predictive probability of less than 13.8%.

According to the news editors, the research concluded: "After further validation in clinical practice, this model may support increasingly limited surgical approaches to the axilla in breast cancer."

For more information on this research see: A nomogram to predict the probability of axillary lymph node metastasis in early breast cancer patients with positive axillary ultrasound. Scientific Reports, 2016;6():21196. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting S.Q. Qiu, The Breast Center, Cancer Hospital of Shantou University Medical College, Guangdong, People's Republic of China. Additional authors for this research include H.C. Zeng, F. Zhang, C. Chen, W.H. Huang, R.G. Pleijhuis, J.D. Wu, G.M. van Dam and G.J Zhang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep21196. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Oncology, Guangdong, Immunology, Lymph Nodes, Breast Cancer, Women's Health, Lymphoid Tissue, Hemic and Immune Systems, People's Republic of China.

Our reports deliver fact-based news of research and discoveries from around the
Study Findings on Breast Cancer Are Outlined in Reports from University of Birmingham (Comparison of quadrant-specific breast cancer incidence trends in the United States and England between 1975 and 2013)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating in Birmingham, United Kingdom, by NewsRx journalists, research stated, "UK breast cancer incidence rates suggest that upper outer quadrant (UOQ) cancers have risen disproportionately compared with other areas over time. We aimed to provide a comparison of the trend in quadrant-specific breast cancer incidence between the United States (US) and England, and determine whether a disproportionate UOQ increase is present."

Financial support for this research came from Office for National Statistics for providing the English data and the National Cancer Institute SEER registries for providing the US data.

The news reporters obtained a quote from the research from the University of Birmingham, "Surveillance Epidemiology and End Results (SEER) cancer registry data were obtained on 630,007 female breast cancers from 1975 to 2013. English cancer registry data were obtained on 1,121,134 female breast cancers from 1979 to 2013. Temporal incidence changes were analysed using negative binomial regression. Interaction terms determined whether incidence changes were similar between sites. English breast cancer incidence in the UOQ rose significantly from 13% to 28% from 1979 to 2013 whereas no significant increase was observed among SEER data. The significant interaction between quadrant and year of diagnosis (p < 0.001) in both SEER and English data indicates that breast cancer incidence in each quadrant changed at a different rate. Incidence in the UOQ rose disproportionately compared to the nipple (SEER IRR = 0.81, p< 0.001; England IRR = 0.78, p< 0.001) and axillary tail (SEER IRR = 0.87, p = 0.018; England IRR = 0.69, p< 0.001) in both SEER and England. In addition, incidence rose disproportionately in the UOQ compared to non-site-specific tumours in England (Overlapping lesions IRR = 0.81, p = 0.002; NOS IRR = 0.78, p< 0.001). The proportion of non-site-specific tumours was substantially higher in England than SEER throughout the study period (62% in England; 39% in SEER). Breast cancer incidence in the UOQ increased disproportionately compared to non-site-specific tumours in England but not in SEER, likely due to the decrease in non-site-specific tumours observed in England over time."

According to the news reporters, the research concluded: "There may be real differences in incidence between the two countries, possibly due to differences in aetiology, but is much more likely to be an artefact of changing data collection methods and improvements in site coding in either country."

Our news correspondents report that additional information may be obtained by contacting C.J. Bright, University of Birmingham, Center Childhood Canc Survivor Studies, Inst Appl Hlth Res, Birmingham B15 2TT, W Midlands, United Kingdom. Additional authors for this research include D.W. Rea, A. Francis and R.G. Feltbower.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.08.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Cancer, Epidemiology, Women's Health, Breast Cancer, Oncology, University of Birmingham.

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Diagnostics and Screening - Breast Cancer Screening

Study Findings on Breast Cancer Screening Are Outlined in Reports from University of California (Inter-reader Variability in the Use of BI-RADS Descriptors for Suspicious Findings on Diagnostic Mammography: A Multi-institution Study of 10 ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Diagnostics and Screening - Breast Cancer Screening is now available. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated, "The study aimed to determine the inter-observer agreement among academic breast radiologists when using the Breast Imaging Reporting and Data System (BI-RADS) lesion descriptors for suspicious findings on diagnostic mammography. Ten experienced academic breast radiologists across five medical centers independently reviewed 250 de identified diagnostic mammographic cases that were previously assessed as BI-BADS 4 or 5 with subsequent pathologic diagnosis by percutaneous or surgical biopsy."

The news reporters obtained a quote from the research from the University of California, "Each radiologist assessed the presence of the following suspicious mammographic findings: mass, asymmetry (one view), focal asymmetry (two views), architectural distortion, and calcifications. For any identified calcifications, the radiologist also described the morphology and distribution. Inter-observer agreement was determined with Fleiss kappa statistic. Agreement was also calculated by years of experience. Of the 250 lesions, 156 (62%) were benign and 94 (38%) were malignant. Agreement among the 10 readers was strongest for recognizing the presence of calcifications (k = 0.82). There was substantial agreement among the readers for the identification of a mass (k = 0.67), whereas agreement was fair for the presence of a focal asymmetry (k = 0.21) or architectural distortion (k = 0.28). Agreement for asymmetries (one view) was slight (k = 0.09). Among the categories of calcification morphology and distribution, reader agreement was moderate (k = 0.51 and k = 0.60, respectively). Readers with more experience (10 or more years in clinical practice) did not demonstrate higher levels of agreement compared to those with less experience. Strength of agreement varies widely for different types of mammographic findings, even among dedicated academic breast radiologists. More subtle findings such as asymmetries and architectural distortion demonstrated the weakest agreement."
According to the news reporters, the research concluded: "Studies that seek to evaluate the predictive value of certain mammographic features for malignancy should take into consideration the inherent interpretive variability for these findings."


Our news correspondents report that additional information may be obtained by contacting A.Y. Lee, University of California, Dept. of Radiol & Biomed Imaging, San Francisco, CA 94115, United States. Additional authors for this research include D.J. Wisner, S. Aminololama-Shakeri, V.A. Arasu, S.A. Feig, J. Hargreaves, H. Ojeda-Fournier, L.W. Bassett, C.J. Wells, J. De Guzman, C.I. Flowers, J.E. Campbell, S.L. Elson, H. Retallack and B.N. Joe.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Diagnostics and Screening, Breast Cancer Screening, Risk and Prevention, Women's Health, Mammography, Mammogram, Oncology, University of California.

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**Oncology - Cancer Prevention**

**Study Findings on Cancer Prevention Are Outlined in Reports from Harvard School of Medicine (Molecular Liver Cancer Prevention in Cirrhosis by Organ Transcriptome Analysis and Lysophosphatidic Acid Pathway Inhibition)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Cancer Prevention. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Cirrhosis is a milieu that develops hepatocellular carcinoma (HCC), the second most lethal cancer worldwide. HCC prediction and prevention in cirrhosis are key unmet medical needs."

Funders for this research include Uehara Memorial Foundation, FLAGS foundation, Nuovo-Soldati Cancer Research Foundation, Geneva University Hospital, Kaohsiung Medical University, Kaohsiung Medical University Hospital, ARC, Institut Hospitalo-Universitaire, Laboratory of Excellence, European Union, NIH, American Institute for Cancer Research, Irma T. Hirschl Trust, U.S. Department of Defense.

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Here we have established an HCC risk gene signature applicable to all major HCC etiologies: hepatitis B/C, alcohol, and non-alcoholic steatohepatitis. A transcriptome meta-analysis of >500 human cirrhotics revealed global regulatory gene modules driving HCC risk and the lysophosphatidic acid pathway as a central chemoprevention target. Pharmacological inhibition of the pathway in vivo reduced tumors and reversed the gene signature, which was verified in organotypic ex vivo culture of patient-derived fibrotic liver tissues."

According to the news editors, the research concluded: "These results demonstrate the utility of clinical organ transcriptome to enable a strategy, namely, reverse-engineering
precision cancer prevention."

For more information on this research see: Molecular Liver Cancer Prevention in Cirrhosis by Organ Transcriptome Analysis and Lysophosphatidic Acid Pathway Inhibition. *Cancer Cell*, 2016;30(6):879-890. *Cancer Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cancer Cell - www.journals.elsevier.com/cancer-cell/)


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Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Risk and Prevention, Genomics, Genetics, Cancer Prevention, RNA Research, Liver Cancer, Cirrhosis, Fibrosis, Oncology, Harvard School of Medicine.

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**Oncology - Cancer Risk**

**Study Findings on Cancer Risk Are Outlined in Reports from McMaster University (Biennial lung cancer screening in Canada with smoking cessation outcomes and cost-effectiveness)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Cancer Risk have been published. According to news reporting out of Hamilton, Canada, by NewsRx editors, research stated, "Guidelines recommend low-dose CT (LDCT) screening to detect lung cancer among eligible at-risk individuals. We used the OncoSim model (formerly Cancer Risk Management Model) to compare outcomes and costs between annual and biennial LDCT screening."

Our news journalists obtained a quote from the research from McMaster University, "OncoSim incorporates vital statistics, cancer registry data, health survey and utility data, cost, and other data, and simulates individual lives, aggregating outcomes over millions of individuals. Using OncoSim and National Lung Screening Trial eligibility criteria (age 55-74, minimum 30 pack-year smoking history, smoking cessation less than 15 years from time of first screen) and data, we have modeled screening parameters, cancer stage distribution, and mortality shifts for screen diagnosed cancer. Costs (in 2008 Canadian dollars) and quality of life years gained are discounted at 3% annually. Compared with annual LDCT screening, biennial screening used fewer resources, gained fewer life-years (61,000 vs. 77,000), but resulted in very similar quality-adjusted life-years (QALYs) (24,000 vs. 23,000) over 20 years. The incremental cost-effectiveness ratio (ICER) of annual compared with biennial screening was $54,000-$4.8 million/QALY gained. Average incremental CT scan use in biennial screening was 52% of that in annual screening. A smoking cessation intervention decreased the average cost-effectiveness ratio in most scenarios by half. Over 20 years, biennial LDCT screening for lung cancer appears
to provide similar benefit in terms of QALYs gained to annual screening and is more cost-effective. Further study of biennial screening should be undertaken in population screening programs."

According to the news editors, the research concluded: "A smoking cessation program should be integrated into either screening strategy."


Our news journalists report that additional information may be obtained by contacting J.R. Goffin, McMaster University, Dept. of Oncol, Hamilton, ON L8V 5C2, Canada. Additional authors for this research include W.M. Flanagan, A.B. Miller, N.R. Fitzgerald, S. Memon, M.C. Wolfson and W.K. Evans.

Keywords for this news article include: Hamilton, Ontario, Canada, North and Central America, Oncology, Diagnostics and Screening, Epidemiology, Lung Neoplasms, Lung Cancer, Cancer Risk, McMaster University.

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**Drugs and Therapies - Cancer Therapy**

**Study Findings on Cancer Therapy Are Outlined in Reports from University of New South Wales (PEGylated Albumin-Based Polion Complex Micelles for Protein Delivery)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Cancer Therapy. According to news originating from Kensington, Australia, by NewsRx correspondents, research stated, "An increasing amount of therapeutic agents are based on proteins. However, proteins as drug have intrinsic problems such as their low hydrolytic stability."

Financial support for this research came from Australian Research Council.

Our news journalists obtained a quote from the research from the University of New South Wales, "Delivery of proteins using nanoparticles has increasingly been the focus of interest with polion complex micelles, prepared from charged block copolymer and the oppositely charged protein, as an example of an attractive carrier for proteins. Inspired by this approach, a more biocompatible pathway has been developed here, which replaces the charged synthetic polymer with an abundant protein, such as albumin. Although bovine serum albumin (BSA) was observed to form complexes with positively charged proteins directly, the resulting protein nanoparticle were not stable and aggregated to large precipitates over the course of a day. Therefore, maleimide functionalized poly(oligo (ethylene glycol) methyl ether methacrylate) (MI-POEGMEMA) (Mn=26000 g/mol) was synthesized to generate a polymer-albumin conjugate, which was able to condense positively charged proteins, here lysozyme (Lyz) as a model. The PEGylated albumin polion complex micelle with lysozyme led to nanoparticles between 15 and 25 nm in size depending on the BSA to Lyz ratio. The activity of the encapsulated protein was tested using Sprouty 1 (C-12; Spry1) proteins, which can act as an
endogenous angiogenesis inhibitor. Condensation of Spry1 with the PEGylated albumin could improve the anticancer efficacy of Spry1 against the breast cancer cells lowering the IC$_{50}$ value of the protein. Furthermore, the high anticancer efficacy of the POEGMEMA-BSA/Spry1 complex micelle was verified by effectively inhibiting the growth of three-dimensional MCF-7 multicellular tumor spheroids.

According to the news editors, the research concluded: "The PEGylated albumin complex micelle has great potential as a drug delivery vehicle for a new generation of cancer pharmaceuticals."

For more information on this research see: PEGylated Albumin-Based Polyion Complex Micelles for Protein Delivery. Biomacromolecules, 2016;17(3):808-17. (American Chemical Society - www.acs.org; Biomacromolecules - www.pubs.acs.org/journal/bomaf6)

The news correspondents report that additional information may be obtained from Y. Jiang, Centre for Advanced Macromolecular Design, School of Chemistry and School of Chemical Engineering, University of New South Wales UNSW, Kensington, NSW 2052, Australia. Additional authors for this research include H. Lu, F. Chen, M. Callari, M. Pourgholami, D.L. Morris and M.H Stenzel.

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Keywords for this news article include: Lysozyme, Peptides, Proteins, Kensington, Amino Acids, Nanoparticle, Cancer Therapy, Nanotechnology, Drugs and Therapies, Bovine Serum Albumin, Emerging Technologies, Australia and New Zealand.

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Carcinomas

Study Findings on Carcinomas Are Outlined in Reports from Ghent University Hospital [Pretreatment with VEGF(R)-inhibitors reduces interstitial fluid pressure, increases intraperitoneal chemotherapy drug penetration, and impedes tumor growth in a ...]
VEGFR; daily) followed by intraperitoneal oxaliplatin chemotherapy. Bevacizumab and Pazopanib significantly lowered interstitial fluid pressure, increased Oxaliplatin penetration (assessed by laser ablation inductively coupled plasma mass spectrometry) and delayed tumor growth of peritoneal implants (assessed by MRI).

According to the news editors, the research concluded: "Our findings suggest that VEGF®-inhibition may improve the efficacy of IPC, particularly for patients for whom a complete cytoreduction might not be feasible."

For more information on this research see: Pretreatment with VEGF®-inhibitors reduces interstitial fluid pressure, increases intraperitoneal chemotherapy drug penetration, and impedes tumor growth in a mouse colorectal carcinomatosis model. Oncotarget, 2015;6 (30):29889-900.

The news correspondents report that additional information may be obtained from F. Gremonprez, Dept. of Surgery, Ghent University Hospital, Ghent, Belgium. Additional authors for this research include B. Descamps, A. Izmer, C. Vanhove, F. Vanhaecke, O. De Wever and W. Ceelen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.5092. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: VEGF, Antineoplastics, Pharmaceuticals, Ghent, Europe, Belgium, Oncology, Carcinomas, Chemotherapy, Protein Kinases, Gastroenterology, Alkylating Agents, Membrane Proteins, Angiogenic Proteins, Colorectal Research, Drugs and Therapies, Oxaliplatin Therapy, Phosphotransferases, Growth Factor Receptors.

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Oncology - Carcinomas

Study Findings on Carcinomas Are Outlined in Reports from Sapienza University (Clinical experience with everolimus in the second-line treatment of advanced renal cell carcinoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Carcinomas is now available. According to news reporting originating in Rome, Italy, by NewsRx journalists, research stated, "Everolimus is an oral inhibitor of mammalian target of rapamycin (mTOR-I) and is currently approved for the treatment of metastatic renal cell carcinoma (mRCC) after failure of first-line vascular endothelial growth factor receptor tyrosine kinase inhibitor (TKI). In this narrative review, we aim to report the available evidence about the use of everolimus as second-line therapy for mRCC."

The news reporters obtained a quote from the research from Sapienza University, "A literature search was performed using PubMed/MEDLINE and abstracts from major conferences on clinical oncology as sources. We report data from prospective as well as retrospective and real world data studies and we analyze the safety and efficacy profile of everolimus as second-line therapy for mRCC."

According to the news reporters, the research concluded: "Although different drugs are currently available for the second-line treatment of mRCC, everolimus represents a feasible
and safe option in this setting, especially for patients who have experienced high-grade toxicity or are still carrying TKI-related toxicities from first-line treatment."

For more information on this research see: Clinical experience with everolimus in the second-line treatment of advanced renal cell carcinoma. Therapeutic Advances In Urology, 2015;7(5):286-94. (Sage Publications - www.sagepub.com; Therapeutic Advances In Urology - tau.sagepub.com)

Our news correspondents report that additional information may be obtained by contacting D. Alesini, Dept. of Radiology, Oncology and Human Pathology, Sapienza University of Rome, Rome, Italy. Additional authors for this research include C. Mosillo, G. Naso, E. Cortesi and R. Iacovelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1756287215591764. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Antineoplastics, Italy, Europe, Kidney, Oncology, Carcinomas, Everolimus, Nephrology, Article Review, MTOR Inhibitors, Drugs and Therapies, MTOR Kinase Inhibitors, Immunosuppressive Agents, Tyrosine Kinase Inhibitors.

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**Cardiology**

**Study Findings on Cardiology Are Outlined in Reports from Institute for Cardiovascular Diseases (Successful surgical repair of a triple cardiac rupture using modified cohesive double patch technique)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news originating from Bucharest, Romania, by NewsRx correspondents, research stated, "The association between both left and right ventricular free wall ruptures (FWR) and post-infarction anterior ventricular septal defect (VSD) is an exceptional situation. Case report We present the case of a patient who developed a VSD and two FWRs (of the left and right ventricle, respectively) shortly after the onset of an anterior AMI."

Our news journalists obtained a quote from the research from Institute for Cardiovascular Diseases, "We surgically closed this complex rupture using the cohesive double patch technique with two Teflon patches combined with an infarct exclusion technique. The left and right ventricular patches were attached cohesively to the septal wall and the infarcted area was excluded without reducing the left ventricular cavity. Association between post-infarction ventricular septal rupture and both left and right free wall ruptures are a very rare and dangerous situation."

According to the news editors, the research concluded: "The modified cohesive double patch technique associated the modified Cooley technique seems to be the correct surgical solution."

The news correspondents report that additional information may be obtained from L.F. Dorobantu, Prof Dr CC Iliescu Emergency Inst Cardiovasc Dis, Dept. of Cardiovasc Surg, Bucharest, Romania. Additional authors for this research include O. Stiru and V.A. Iliescu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/00015458.2016.1139826. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bucharest, Romania, Europe, Cardiology, Institute for Cardiovascular Diseases.

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**Cardiovascular Diseases**

**Study Findings on Cardiovascular Diseases Are Outlined in Reports from University of Queensland School of Medicine (The Association between HbA1c and Cardiovascular Disease Markers in a Remote Indigenous Australian Community with and without ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases have been published. According to news reporting originating from Herston, Australia, by NewsRx correspondents, research stated, "This study investigates the burden of cardiovascular risk markers in people with and without diabetes in a remote Indigenous Australian community, based on their HbA1c concentration. This study included health screening exams of 1187 remote Indigenous residents over 15 years old who represented 70% of the age-eligible community."

Financial support for this research came from National Health and Medical Research Council.

Our news editors obtained a quote from the research from the University of Queensland School of Medicine, "The participants were stratified by HbA1c into 5 groups using cut-off points recommended by international organisations. The associations of traditional cardiovascular risk markers with HbA1c groups were assessed using logistic and linear regressions and ANOVA models. Of the 1187 participants, 158 (13%) had a previous diabetes diagnosis, up to 568 (48%) were at high risk (5.7-6.4% (39-46 mmol/mol) HbA1c), and 67 (6%) potential new cases of diabetes ( (>=)6.5% (48 mmol/mol)) were identified. Individuals with higher HbA1c levels were more likely to have albuminuria (OR 3.14, 95% CI 1.26-7.82) and dyslipidaemia (OR 2.37, 95% CI 1.29-4.34) and visited the clinic more often (OR 2.52, 95% CI 1.26-4.99). Almost all traditional CVD risk factors showed a positive association with HbA1c."

According to the news editors, the research concluded: "Screening in this remote Indigenous Australian community highlights the high proportion of individuals who are at high risk of diabetes as indicated by HbA1c and who also had an accentuated cardiovascular risk profile."


The news editors report that additional information may be obtained by contacting L.W. Arnold, Centre for Chronic Disease, The University of Queensland School of Medicine, Royal Brisbane & Women's Hospital, Health Sciences Building Level 8, Herston, QLD 4029,
Australia. Additional authors for this research include W.E. Hoy, S.K. Sharma and Z. Wang.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1155/2016/5342304. This DOI is a link to an online electronic document
that is either free or for purchase.

Keywords for this news article include: Herston, Diabetes, Cardiology, Risk and
Prevention, Australia and New Zealand, Cardiovascular Diseases and Conditions.

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Nervous System Diseases and Conditions - Charcot-Marie-Tooth Disease Are Outlined in Reports from University of Sydney (Relationship between physical performance and quality of life in Charcot-Marie-Tooth disease: a pilot study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- New research on Nervous System Diseases and Conditions - Charcot-Marie-Tooth Disease is the subject of a report. According to news reporting from Lidcombe, Australia, by NewsRx journalists, research stated, "Charcot-Marie-Tooth (CMT) is a rare inherited peripheral neuropathy in which quality of life (QoL) is reduced compared with the general population. This paper investigates the relationship between QoL and physical performance in people with CMT with the aim of identifying avenues for future research into rehabilitation strategies."

The news correspondents obtained a quote from the research from the University of Sydney, "Cross-sectional data was obtained from 10 participants (5 men, 5 women, age 46 +/- 13 years, height 1.7 +/- 0.1 m, body mass 77 +/- 17 kg) with CMT (CMT1A n=5; CMT-X n=3; unknown genetic origin n=2). Participants were evaluated for QoL, falls efficacy (FES), balance, mobility, muscle strength, and power. Physical component score (PCS) of the Short Form-36 (SF-36) was significantly and directly related to higher leg press power (r=0.75, p=0.02). Better FES scores were significantly related to faster habitual gait speed (r=-0.70, p=0.02), left hip abduction, and seated row strength (r=-0.68, p=0.03; r=-0.73, p=0.03, respectively)."

According to the news reporters, the research concluded: "Future research should aim to substantiate these preliminary findings in a larger cohort and investigate whether interventions targeting muscle strength and power can improve QoL and mobility outcomes in people with CMT."


Our news journalists report that additional information may be obtained by contacting D. Hackett, University of Sydney, Fac Hlth Sci, Exercise Hlth & Performance Fac, Res Grp, Lidcombe, NSW 2141, Australia. Additional authors for this research include C. Fornusek, N. Saigal, M. Halaki, J. Burns, G. Nicholson, M.F. Singh and D. Hackett.

Keywords for this news article include: Lidcombe, Australia, Australia and New Zealand, Peripheral Nervous System Diseases and Conditions, Neurodegenerative Diseases and
Study Findings on Chemical Research Are Outlined in Reports from AstraZeneca (Reactive Metabolites: Current and Emerging Risk and Hazard Assessments)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Chemical Research have been presented. According to news originating from Molndal, Sweden, by NewsRx correspondents, research stated, "Although idiosyncratic adverse drug reactions are rare, they are still a major concern to patient safety. Reactive metabolites are widely accepted as playing a pivotal role in the pathogenesis of idiosyncratic adverse drug reactions."

Financial support for this research came from AstraZeneca.

Our news journalists obtained a quote from the research from AstraZeneca, "While there are today well established strategies for the risk assessment of stable metabolites within the pharmaceutical industry, there is still no consensus on reactive metabolite risk assessment strategies. This is due to the complexity of the mechanisms of these toxicities as well as the difficulty in identifying and quantifying short-lived reactive intermediates such as reactive metabolites. In this review, reactive metabolite risk and hazard assessment approaches are discussed, and their pros and cons highlighted. We also discuss the nature of idiosyncratic adverse drug reactions, using acetaminophen and nefazodone to exemplify the complexity of the underlying mechanisms of reactive metabolite mediated hepatotoxicity. One of the key gaps moving forward is our understanding of and ability to predict the contribution of immune activation in idiosyncratic adverse drug reactions. Sections are included on the clinical phenotypes of immune mediated idiosyncratic adverse drug reactions and on the present understanding of immune activation by reactive metabolites. The advances being made in microphysiological systems have a great potential to transform our ability to risk assess reactive metabolites, and an overview of the key components of these systems is presented."

According to the news editors, the research concluded: "Finally, the potential impact of systems pharmacology approaches in reactive metabolite risk assessments is highlighted."

For more information on this research see: Reactive Metabolites: Current and Emerging Risk and Hazard Assessments. Chemical Research In Toxicology, 2016;29(4):505-33. (American Chemical Society - www.acs.org; Chemical Research In Toxicology - www.pubs.acs.org/journal/crtoec)

The news correspondents report that additional information may be obtained from R.A. Thompson, DMPK, Respiratory, Inflammation & Autoimmunity iMed, AstraZeneca R&D, 431 83 Molndal, Sweden. Additional authors for this research include E.M. Isin, M.O. Ogese, J.T. Mettetal and D.P Williams.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1021/acs.chemrestox.5b00410. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sweden, Europe, Molndal, Article Review, Chemical Research.

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**Oncology - Cholangiocarcinoma**

**Study Findings on Cholangiocarcinoma Are Outlined in Reports from People's Hospital (Profiling of downregulated blood-circulating miR-150-5p as a novel tumor marker for cholangiocarcinoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Cholangiocarcinoma. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Altered microRNA (miRNA) expression plays a role in cholangiocarcinoma (CCA) development; thus, detection of blood-circulating miRNAs could be useful as CCA markers. This study profiled serum miRNA levels in patients with primary sclerosing cholangitis (PSC) and CCA and then assessed the role of miR-150-5p in CCA progression in vitro."

Financial supporters for this research include National Natural Science Foundation of China, Natural Science Foundation of Jiangsu Province, Wuxi Municipal Science and Technology Development Planning funds.

The news correspondents obtained a quote from the research from People's Hospital, "Three samples were randomly selected from each of 50 sera of healthy controls, 30 PSC sera, and 28 CCA sera with matched bile samples for miRNA microarray profiling. The dysregulated miRNAs were confirmed using qRT-PCR, and miR-150-5p was selected for further in vitro and ex vivo studies. The miRNA microarray identified three dysregulated miRNAs in both CCA and PSC samples, while miR-150-5p level was consistently lower in CCA sera, bile, and tissues than in normal control and PSC sera (P < 0.05). Furthermore, levels of miR-150-5p were associated with serum carbohydrate antigen 19-9 (CA19-9) levels and CCA pathological grade. Bioinformatic Kyoto Encyclopedia of Genes and Genomes (KEGG) and Gene Ontology (GO) analyses showed that miR-150-5p could regulate hand-full gene pathways, including cancer pathway (P < 0.01). However, overexpression of miR-150-5p inhibited proliferation, migration, and invasion capability of CCA cells (P < 0.05). Luciferase reporter assay showed that miR-150-5p bound to an oncogene Ets including gene-1 (ELK1), and Western blot data confirmed that miR-1505p suppressed ELK1 expression in CCA cell lines. These results suggest that reduced miR-150-5p expression could contribute to CCA development and progression due to uncontrolled ELK1 expression."

According to the news reporters, the research concluded: "Thus, further study could evaluate miR-150-5p as a novel target and predictor for CCA prevention and treatment."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5313-6. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Primary Sclerosing Cholangitis, Cholangiocarcinoma, Genetics, Oncology, People's Hospital.

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Liver Diseases and Conditions - Chronic Hepatitis B...

Study Findings on Chronic Hepatitis B Virus Are Outlined in Reports from Mahidol University (Treatment outcomes and validation of the stopping rule for response to peginterferon in chronic hepatitis B: A Thai nationwide cohort study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Chronic Hepatitis B Virus have been published. According to news reporting from Bangkok, Thailand, by NewsRx journalists, research stated, "Peginterferon has demonstrated effectiveness in clinical trials in patients with chronic hepatitis B (CHB). However, its efficacy in real-life settings remains unclear."

The news correspondents obtained a quote from the research from Mahidol University, "We investigated the efficacy of peginterferon for CHB and validated the performance of previously identified response predictors in clinical practice. We analyzed prospectively collected data from a Thai nationwide cohort of CHB patients treated with peginterferon alfa-2a (180 mu g/week, 48 weeks). Among a total of 233 patients, mostly with genotype B or C, sustained response was observed in 23% of 135 hepatitis B e antigen (HBeAg)-positive patients (HBeAg seroconversion with hepatitis B virus [HBV] DNA < 2000 IU/mL) and 42% of 98 HBeAg-negative patients (HBV DNA < 2000 IU/mL with aminotransferase normalization) at 24 weeks after treatment. Age, sex, presence of cirrhosis, genotype, and pretreatment levels of aminotransferase, HBV DNA, and hepatitis B surface antigen (HBsAg) were not identified as significant predictors of sustained response. In HBeAg-positive patients, HBsAg > 20 000 IU/mL at week 12 provided a good stopping rule, with a negative predictive value of 96%. In HBeAg-negative patients, the performance of 12-week stopping rules of no decline in HBsAg with a< 2log(10) decline in HBV DNA and a< 10% log (10) decline in HBsAg showed modest negative predictive values of 80% and 66%, respectively, for achieving sustained response. Outcomes in CHB patients treated with peginterferon in a clinical setting are similar to those demonstrated in clinical trials."

According to the news reporters, the research concluded: "Application of the early stopping rule based on HBsAg quantification may allow individualization of therapy, particularly in HBeAg-positive patients."

For more information on this research see: Treatment outcomes and validation of the stopping rule for response to peginterferon in chronic hepatitis B: A Thai nationwide cohort study.
Study Findings on Chronic Kidney Disease Are Outlined in Reports from Federal University (Protein-Bound Uremic Toxins from Gut Microbiota and Inflammatory Markers in Chronic Kidney Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Kidney Diseases and Conditions - Chronic Kidney Disease. According to news reporting originating in Niteroi, Brazil, by NewsRx journalists, research stated, "Protein-bound uremic toxins from gut microbiota tend to accumulate in chronic kidney disease (CKD) patients and are poorly removed by current dialysis techniques. These toxins induce inflammation and are associated with cardiovascular disease (CVD)."

The news reporters obtained a quote from the research from Federal University, "The aim of this study was to report the relationship between uremic toxins and inflammatory and cardiovascular markers in CKD patients. This was a cross sectional study. Twenty-one nondialysis patients were included (43% men, 63.0 +/- 7.8 years, glomerular filtration rate: 34.4 +/- 12.5 mL/min) as well as 29 hemodialysis (HD) patients [58% men, 52.7 +/- 10.3 years, time on dialysis 54 (31-94.5 months)]. Total levels of uremic toxins (IS, p-CS, and IAA) were assessed by high-performance liquid chromatography with fluorescence detection. C-reactive protein, Interleukin-6 (IL-6), monocyte chemoattractant protein-1 (MCP-1), and calprotectin plasma levels were determined by immunometric assays. HD patients presented higher inflammatory markers and uremic toxins levels than nondialysis patients. IL-6 levels were positively correlated with IS (r = 0.49; P = .03), p-CS (r = 0.35; P = .04) and IAA (r = 0.36; P = .03). A positive correlation was also observed between MCP-1 levels with IS (r=0.72; P=.001), p-CS (r=0.48; P=.001) and IAA (r=0.75; P=.0001). Linear regression showed that IS was an independent predictor for IL-6 and MCP-1 levels after adjustment."

According to the news reporters, the research concluded: "Plasma uremic toxins were associated with higher IL-6 and MCP-1 levels in CKD patients, potentially playing a role in the development of CVD."

Our news correspondents report that additional information may be obtained by contacting N.A. Borges, Federal University of Fluminense, Medical Sci Grad Program, Niteroi, RJ, Brazil. Additional authors for this research include A.F. Barros, L.S. Nakao, C.J. Dolenga, D. Fouque and D. Mafra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.jrn.2016.07.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Niteroi, Brazil, South America, Male Urogenital Diseases and Conditions, Cardiovascular Diseases and Conditions, Male Kidney Diseases and Conditions, Urologic Diseases and Conditions, Chronic Kidney Disease, Men's Health, Cardiology, Federal University.

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**Digestive System Diseases and Conditions - Colitis**

**Study Findings on Colitis Are Outlined in Reports from Guangzhou University (Huangqin-tang ameliorates dextran sodium sulphate-induced colitis by regulating intestinal epithelial cell homeostasis, inflammation and immune response)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Colitis. According to news originating from Guangzhou, People's Republic of China, by NewsRx correspondents, research stated, "Huangqin-tang (HQT) is a traditional Chinese medicine (TCM) formula widely used for the treatment of inflammatory bowel disease in China. However, the molecular mechanisms by which HQT protects the colon are unclear."

Our news journalists obtained a quote from the research from Guangzhou University, "We studied the protective effects of HQT and the underlying mechanisms in an experimental mouse model and in vitro. In vivo, dextran sodium sulphate (DSS)-induced acute and chronic colitis were significantly ameliorated by HQT as gauged by phenotypic, histopathologic and inflammatory manifestations of the disease. Mechanistically, DSS-induced nuclear factor-kappa B (NF-kappa B) signalling was inhibited by HQT. Moreover, HQT-treated mice demonstrated significant changes in cell apoptosis, expression of apoptosis-associated genes such as caspase-3, bax, bcl-2, and intestinal permeability. HQT also increased occluding and zonula occludens-1 (ZO-1), inhibited cell proliferation (Ki67), and increased regulatory T cells numbers, protein expression of Foxp3 and IL-10 in the colonic tissue. In vitro, HQT down-regulated production of pro-inflammatory cytokines and suppressed the NF-kappa B signalling pathway in lipopolysaccharides-induced RAW 264.7 macrophages."

According to the news editors, the research concluded: "Our study suggests that HQT plays a critical role in regulating intestinal epithelial cell homeostasis, inflammation and
immune response in colitis and offers novel therapeutic options in the management of inflammatory bowel disease."


Keywords for this news article include: Guangzhou, People's Republic of China, Asia, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Bowel Diseases and Conditions, Inflammatory Bowel Disease, Epithelial Cells, Gastroenterology, Gastroenteritis, Inflammation, Genetics, Colitis, Guangzhou University.

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**Oncology - Colon Cancer**

**Study Findings on Colon Cancer Are Outlined in Reports from Mayo Clinic (Stool DNA Analysis is Cost-Effective for Colorectal Cancer Surveillance in Patients With Ulcerative Colitis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Colon Cancer are presented in a new report. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "Patients with chronic ulcerative colitis are at increased risk for colorectal neoplasia (CRN). Surveillance by white-light endoscopy (WLE) or chromoendoscopy may reduce risk of CRN, but these strategies are underused."

The news correspondents obtained a quote from the research from Mayo Clinic, "Analysis of DNA from stool samples (sDNA) can detect CRN with high levels of sensitivity, but it is not clear if this approach is cost-effective. We simulated these strategies for CRN detection to determine which approach is most cost-effective. We adapted a previously published Markov model to simulate the clinical course of chronic ulcerative colitis, the incidence of cancer or dysplasia, and costs and benefits of care with 4 surveillance strategies: (1) analysis of sDNA and diagnostic chromoendoscopy for patients with positive results, (2) analysis of sDNA with diagnostic WLE for patients with positive results, (3) chromoendoscopy with targeted collection of biopsies, or (4) WLE with random collection of biopsies. Costs were based on 2014 Medicare reimbursement. The primary outcome was the incremental cost-effectiveness ratio (incremental cost/incremental difference in quality adjusted life-years) compared with no surveillance and a willingness-to-pay threshold of $50,000. All strategies fell below the willingness-to-pay threshold at 2-year intervals. Incremental cost-effectiveness ratios were $16,362 per quality-adjusted life-year for sDNA analysis with diagnostic chromoendoscopy; $18,643 per quality-adjusted life-year for sDNA analysis with diagnostic
WLE; $23,830 per quality-adjusted life-year for chromoendoscopy alone; and $27,907 per quality-adjusted life-year for WLE alone. In sensitivity analyses, sDNA analysis with diagnostic chromoendoscopy was more cost-effective than chromoendoscopy alone, up to a cost of $1135 per sDNA test. sDNA analysis remained cost-effective at all rates of compliance; when combined with diagnostic chromoendoscopy, this approach was preferred over chromoendoscopy alone, when the specificity of the sDNA test for CRN was >65%. Based on a Markov model, surveillance for CRN is cost-effective for patients with chronic ulcerative colitis."

According to the news reporters, the research concluded: "Analysis of sDNA with chromoendoscopies for patients with positive results was more cost-effective than chromoendoscopy or WLE alone."

For more information on this research see: Stool DNA Analysis is Cost-Effective for Colorectal Cancer Surveillance in Patients With Ulcerative Colitis. *Clinical Gastroenterology and Hepatology*, 2016;14(12):1778-1787. *Clinical Gastroenterology and Hepatology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Clinical Gastroenterology and Hepatology - www.journals.elsevier.com/clinical-gastroenterology-and-hepatology/)

Our news journalists report that additional information may be obtained by contacting J.B. Kisiel, Mayo Clinic, Div Gastroenterol & Hepatol, Rochester, MN, United States. Additional authors for this research include G.G. Konijeti, A.J. Piscitello, T. Chandra, T.F. Goss, D.A. Ahlquist, F.A. Farraye and A.N. Ananthakrishnan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cgh.2016.07.018. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rochester, Minnesota, United States, North and Central America, Cancer, Diagnostics and Screening, Epidemiology, Inflammatory Bowel Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Colonic Diseases and Conditions, Colorectal Research, Ulcerative Colitis, Gastroenterology, Gastroenteritis, Colon Cancer, Oncology, Genetics, Mayo Clinic.

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**Oncology - Colon Cancer**

**Study Findings on Colon Cancer Are Outlined in Reports from University Medical Center (Significant increase of synchronous disease in first-line metastatic colorectal cancer trials: Results of a systematic review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Colon Cancer. According to news reporting originating in Utrecht, Netherlands, by NewsRx journalists, research stated, "Although synchronous and metachronous metastases are considered as separate entities of metastatic colorectal cancer (mCRC) with different outcomes, its proportion is reported infrequently. We compared inclusion rates and survival of synchronous versus metachronous mCRC in different types of studies investigating initial systemic therapy or surgical treatment of mCRC."
The news reporters obtained a quote from the research from University Medical Center, "We searched PubMed and EMBASE (January 2004 - February 2016) for mCRC studies investigating first-line systemic therapy or surgical treatment of mCRC including information on synchronous versus metachronous metastases. Outcomes were the proportion of synchronous mCRC, and estimated median overall survival (OS) of the total study population. Spearman analysis (rs) was used to study correlations between outcomes and median year of study enrolment. We included 46 articles, reporting data from 23 phase 3 randomised controlled trials (RCTs), twenty cohort and three population-based studies (total: 25,941 patients). Seventeen different definitions for synchronous mCRC were identified. In systemic therapy RCTs, we observed an increased proportion of synchronous mCRC during recent years (rs.77, p < .001). In these trials, estimated median OS slightly improved over time (rs.48, p = .03). No significant inclusion or survival trends were observed in included cohort and population-based studies. In recent years, the proportion of patients with synchronous compared with metachronous mCRC enrolled in first-line systemic therapy RCTs increased. Estimated median OS of the total study population in these RCTs slightly increased over time. Many different definitions of synchronous disease were used."

According to the news reporters, the research concluded: "Uniform definitions and consistent reporting of the proportion of synchronous versus metachronous metastases could improve cross-study comparisons and interpretation of reported data in all mCRC studies."

For more information on this research see: Significant increase of synchronous disease in first-line metastatic colorectal cancer trials: Results of a systematic review. European Journal of Cancer, 2016;69():166-177. 

Keywords for this news article include: Utrecht, Netherlands, Europe, Cancer, Article Review, Epidemiology, Colorectal Research, Gastroenterology, Colon Cancer, Oncology, Therapy, University Medical Center.

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research stated, "To better understand the impact of microarray preprocessing normalization techniques on the analysis of biological pathways in the prediction of chronic fatigue (CF) following radiation therapy, this study has compared the list of predictive genes found using the Robust Multiarray Averaging (RMA) and the Affymetrix MAS5 method, with the list that is obtained working with raw data (without any preprocessing). First, we modeled the spiked-in data set where differentially expressed genes were known and spiked-in at different known concentrations, showing that the precisions established by different gene ranking methods were higher than working with raw data."

Our news editors obtained a quote from the research from the University of Oviedo, "The results obtained from the spiked-in experiment were extrapolated to the CF data set to run learning and blind validation. RMA and MAS5 provided different sets of discriminatory genes that have a higher predictive accuracy in the learning phase, but lower predictive accuracy during the blind validation phase, suggesting that the genetic signatures generated using both preprocessing techniques cannot be generalizable. The pathways found using the raw data set better described what is a priori known for the CF disease. Besides, RMA produced more reliable pathways than MAS5. Understanding the strengths of these two preprocessing techniques in phenotype prediction is critical for precision medicine. Particularly, this article concludes that biological pathways might be better unraveled working with raw expression data. Moreover, the interpretation of the predictive gene profiles generated by RMA and MAS5 should be done with caution."

According to the news editors, the research concluded: "This is an important conclusion with a high translational impact that should be confirmed in other disease data sets."


The news editors report that additional information may be obtained by contacting J.L. Fernandez-Martinez, University of Oviedo, Dept. of Math, E-33006 Oviedo, Asturias, Spain. Additional authors for this research include J.L. Fernandez-Martinez, L.N. Saligan and S.T. Sonis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/cmb.2016.0042. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asturias, Spain, Europe, Computational Biology, Biology, Genetics, Genetics, University of Oviedo.

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**Diseases and Conditions - Coxsackievirus**

**Study Findings on Coxsackievirus Are Outlined in Reports from Harbin Medical University (Coxsackievirus B3 induces the formation of autophagosomes in cardiac fibroblasts both in vitro and in vivo)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Data detailed on Diseases and Conditions - Coxsackievirus have been presented. According to news reporting from Harbin, People's Republic of China, by NewsRx journalists, research stated, "Coxsackievirus group B (CVB) is one of the common pathogens that cause myocarditis and cardiomyopathy. Evidence has shown that CVB replication in cardiomyocytes is responsible for the damage and loss of cardiac muscle and the dysfunction of the heart."

Financial support for this research came from National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from Harbin Medical University, "However, it remains largely undefined how CVB would directly impact cardiac fibroblasts, the most abundant cells in human heart. In this study, cardiac fibroblasts were isolated from Balb/c mice and infected with CVB type 3 (CVB3). Increased double-membraned, autophagosome-like vesicles in the CVB3-infected cardiac fibroblasts were observed with electron microscope. Punctate distribution of LC3 and increased level of LC3-II were also detected in the infected cardiac fibroblasts. Furthermore, we observed that the expression of pro-inflammatory cytokines, IL-6 and TNF-alpha, was increased in the CVB3-infected cardiac fibroblasts, while suppressed autophagy by 3-MA and Atg7-siRNA inhibited cytokine expression. Consistent with the in vitro findings, increased formation of autophagosomes was observed in the cardiac fibroblasts of Balb/c mice infected with CVB3."

According to the news reporters, the research concluded: "Our data demonstrated that cardiac fibroblasts respond to CVB3 infection with the formation of autophagosomes and the release of the pro-inflammatory cytokines. These results suggest that the autophagic response of cardiac fibroblasts may play a role in the pathogenesis of myocarditis caused by CVB3 infection."

For more information on this research see: Coxsackievirus B3 induces the formation of autophagosomes in cardiac fibroblasts both in vitro and in vivo. *Experimental Cell Research*, 2016;349(2):255-263. *Experimental Cell Research* can be contacted at: Elsevier Inc, 525 B Street, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Experimental Cell Research - www.journals.elsevier.com/experimental-cell-research/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yexcr.2016.10.020. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Harbin, People's Republic of China, Asia, Heart Disorders and Diseases, Connective Tissue Cells, Diseases and Conditions, Cardiomyopathies, Cardiovascular, Picornaviridae, Coxsackievirus, Heart Disease, Fibroblasts, Myocarditis, RNA Viruses, Enterovirus, Cardiology, Harbin Medical University.

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Study Findings on DNA Research Are Outlined in Reports from University of Copenhagen (SCAI promotes DNA double-strand break repair in distinct chromosomal contexts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in DNA Research. According to news reporting originating from Copenhagen, Denmark, by NewsRx correspondents, research stated, "DNA double-strand breaks (DSBs) are highly cytotoxic DNA lesions, whose accurate repair by non-homologous end-joining (NHEJ) or homologous recombination (HR) is crucial for genome integrity and is strongly influenced by the local chromatin environment(1,2). Here, we identify SCAI (suppressor of cancer cell invasion) as a 53BP1-interacting chromatin-associated protein that promotes the functionality of several DSB repair pathways in mammalian cells."

Our news editors obtained a quote from the research from the University of Copenhagen, "SCAI undergoes prominent enrichment at DSB sites through dual mechanisms involving 53BP1-dependent recruitment to DSB-surrounding chromatin and 53BP1-independent accumulation at resected DSBs. Cells lacking SCAI display reduced DSB repair capacity, hypersensitivity to DSB-inflicting agents and genome instability. We demonstrate that SCAI is a mediator of 53BP1-dependent repair of heterochromatin-associated DSBs, facilitating ATM kinase signalling at DSBs in repressive chromatin environments. Moreover, we establish an important role of SCAI in meiotic recombination, as SCAI deficiency in mice leads to germ cell loss and subfertility associated with impaired retention of the DMC1 recombinase on meiotic chromosomes."

According to the news editors, the research concluded: "Collectively, our findings uncover SCAI as a physiologically important component of both NHEJ-and HR-mediated pathways that potentiates DSB repair efficiency in specific chromatin contexts."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/ncb3436. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Copenhagen, Denmark, Europe, Cell Nucleus Structures, Chromosome Structures, Intranuclear Space, Nucleoproteins, DNA Research, Chromatin, Proteins, Genetics, University of Copenhagen. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Study Findings on Diabetes and Obesity Are Outlined in Reports from Children's Hospital (Genomic insights into growth and its disorders: an update)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Diabetes and Obesity. According to news originating from Cincinnati, Ohio, by NewsRx correspondents, research stated, "This article provides an update of the most striking new developments in the field of growth genetics over the past 12 months. A number of large genome-wide association studies have identified new genetic loci and pathways associated to human growth and adult height as well as related traits and comorbidities."

Our news journalists obtained a quote from the research from Children's Hospital, "New genetic causes of primordial dwarfism and several short stature syndromes have been elucidated. Moreover, a breakthrough finding of Xq26 microduplications as a cause of pituitary gigantism was made. Several new developments in imprinted growth-related genes (including the first human mutation in insulin-like growth factor II) and novel insights into the epigenetic regulation of growth have been reported."

According to the news editors, the research concluded: "Genomic investigations continue to provide new insights into the genetic basis of human growth as well as its disorders."


The news correspondents report that additional information may be obtained from C. de Bruin, Cincinnati Center for Growth Disorders, Division of Endocrinology, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/MED.0000000000000209. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ohio, Genetics, Cincinnati, United States, Article Review, Diabetes and Obesity, North and Central America, Nutritional and Metabolic Diseases and Conditions.

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been published. According to news reporting from Nuthetal, Germany, by NewsRx journalists, research stated, "Evidence of an association between dietary patterns and individual foods and the risk of overall mortality among cancer survivors has not been reviewed systematically. The aim of this meta-analysis of cohort studies was to investigate the association between food intake and dietary patterns and overall mortality among cancer survivors."

The news correspondents obtained a quote from the research from the German Institute of Human Nutrition, "The PubMed and Embase databases were searched. A total of 117 studies enrolling 209,597 cancer survivors were included. The following data were extracted: study location, types of outcome, population characteristics, dietary assessment method, risk estimates, and adjustment factors. Higher intakes of vegetables and fish were inversely associated with overall mortality, and higher alcohol consumption was positively associated with overall mortality (RR, 1.08; 95% CI, 1.02-1.16). Adherence to the highest category of diet quality was inversely associated with overall mortality (RR, 0.78; 95% CI, 0.72-0.85; postdiagnosis RR, 0.79; 95% CI, 0.71-0.89), as was adherence to the highest category of a prudent/healthy dietary pattern (RR, 0.81; 95% CI, 0.67-0.98; postdiagnosis RR, 0.77; 95% CI, 0.60-0.99). The Western dietary pattern was associated with increased risk of overall mortality (RR, 1.46; 95% CI, 1.27-1.68; postdiagnosis RR, 1.51; 95% CI, 1.24-1.85)."

According to the news reporters, the research concluded: "Adherence to a high-quality diet and a prudent/healthy dietary pattern is inversely associated with overall mortality among cancer survivors, whereas a Western dietary pattern is positively associated with overall mortality in this population."


Our news journalists report that additional information may be obtained by contacting L. Schwingshackl, German Inst Human Nutr, Dept. of Epidemiol, Nuthetal, Germany. Additional authors for this research include H. Boeing, G. Hoffmann, K. Aleksandrova and L. Schwingshackl.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1093/nutrit/nwu045. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nuthetal, Germany, Europe, Diet and Nutrition, Health and Medicine, Article Review, German Institute of Human Nutrition.

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**Drug Development**

**Study Findings on Drug Development Are Outlined in Reports from Hebrew University (Importance of ABC Transporters in Drug Development)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drug Development is the subject of a report. According
to news reporting from Jerusalem, Israel, by NewsRx journalists, research stated, "ATP-binding cassette (ABC) transporters are a huge family of ATP-dependent transmembrane proteins whose main function is exporting or importing substances or molecules through the cell membranes, plasma cell membrane, or inner membranes in organelles. They fulfill these functions by maintaining cell integrity, metabolism, and homeostasis."

The news correspondents obtained a quote from the research from Hebrew University, "They are expressed in a variety of tissues as they transport numerous essential compounds including lipids and other signaling molecules. ABC transporters became widely studied since the discovery of their ability to carry a multitude of xenobiotics, including therapeutic drugs, and in light of the fact that they represent a hurdle for the treatment of resistant cancers. In contrast, the role of ABC transporters in neurological diseases like Alzheimer's and Parkinson's, depression, schizophrenia, and epilepsy remains controversial and their mechanism of action in these pathologies remains elusive, thus hindering the implementation of therapies aimed at modulating the functions of these transporters. To date, a number of natural and synthetic compounds are known to act as inhibitors, substrates, and even inducers of these transporters, being able to modulate their expression and/or function; however, their implication as therapeutic agents is far from reaching wide clinical utilization."

According to the news reporters, the research concluded: "This review highlights the importance of overcoming the challenges posed by ABC transporters in drug development."


Our news journalists report that additional information may be obtained by contacting M. Benadiba, Hebrew University of Jerusalem, Phytor Lab Drug Dev, Hadassah Med Center, Jerusalem, Israel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/138161282266610810120359. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jerusalem, Israel, Asia, Drugs and Therapies, Article Review, Drug Development, Hebrew University.

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Edema

**Study Findings on Edema Are Outlined in Reports from Peking University (Heterogeneous Characteristics Of Mri Changes Of Thigh Muscles In Patients With Dysferlinopathy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Edema is the subject of a report. According to news reporting originating in Beijing, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to evaluate the pattern of thigh muscle MRI changes in a large cohort of patients with dysferlinopathy. MRI of the thigh was performed in 60 patients."
The news reporters obtained a quote from the research from Peking University, "We correlated the scale of muscle involvement on MRI with the modified Gardner-Medwin and Walton (GM-W) scale and disease duration. We also analyzed the relationship between muscle changes and genetic mutations. Fatty infiltration and edema were observed in 95.50% and 86.67% of patients, respectively. The hamstring muscles had the highest frequency and mean score of fatty infiltration, although a posterior-dominant pattern was found in only 56%. Edema most commonly and severely affected the quadriceps and adductor magnus muscles. Fatty infiltration score correlated positively with disease duration and GM-W scale. The pattern of fatty infiltration was heterogeneous in dysferlinopathy patients. Muscle edema was common."

According to the news reporters, the research concluded: "Fatty infiltration can be used to assess disease progression."


Our news correspondents report that additional information may be obtained by contacting Y. Yuan, Peking University, Hosp 1, Dept. of Neurol, Beijing 100034, People's Republic of China. Additional authors for this research include J. Du, Z.X. Wang, W. Zhang, H. Lv, L.C. Meng, J.X. Xiao and Y. Yuan.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Genetics, Edema, Peking University.

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**Study Findings on Environmental Research and Public Health Are Outlined in Reports from Chosun University (Association between Family and Friend Smoking Status and Adolescent Smoking Behavior and E-Cigarette Use in Korea)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Environmental Health - Environmental Research and Public Health are discussed in a new report. According to news originating from Gwangju, South Korea, by NewsRx correspondents, research stated, "Smoking is harmful to the health of adolescents because their bodies are still growing. The aim of this study was to analyze the association between the smoking status of Korean adolescents' parents and friends and their own smoking behavior."

Our news journalists obtained a quote from the research from Chosun University, "The study assessed a nationwide sample of 72,060 middle and high students from the 10th Korea Youth Risk Behavior Web-based Survey (2014). Descriptive analysis, chi-square tests, and multiple logistic regression analysis were used to probe the association between family and friend smoking status and adolescent smoking behavior. The current cigarette smoking rates were 13.3% of boys and 4.1% of girls. The corresponding rates for electronic cigarette smoking were 4.1% and 1.5%, respectively. Higher exposure to secondhand smoke, smoking by any family member, more friends smoking, and witnessed smoking at school were associated with
current smoking and electronic smoking. The smoking status of family and friends was significantly related to adolescent smoking behavior."

According to the news editors, the research concluded: "These results should be considered in designing programs to control adolescent smoking."


*International Journal of Environmental Research and Public Health* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

The news correspondents report that additional information may be obtained from M.J. Joung, Chosun Univ, Coll Med, Dept. of Prevent Med, Gwangju 61452, South Korea. Additional authors for this research include M.A. Han, J. Park and S.Y. Ryu.

Keywords for this news article include: Gwangju, South Korea, Asia, Environmental Research and Public Health, Environmental Health, Asia, Chosun University.

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**Hormones - Estradiol Congeners**

**Study Findings on Estradiol Congeners Are Outlined in Reports from Shanghai Jiao-Tong University (Different effect of testosterone and oestrogen on urinary excretion of metformin via regulating OCTs and MATEs expression in the kidney of mice)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hormones - Estradiol Congeners is the subject of a report. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to investigate the effect of testosterone and oestrogen on regulating organic cation transporters (Octs) and multidrug and toxin extrusions (Mates) expression in the kidney of mice and urinary excretion of metformin. 8 week-old male db/db mice were treated with estradiol (5 mg/kg), testosterone (50 mg/kg) or olive oil with same volume. Metformin (150 mg/kg) was injected in daily for successive 7 days."

Financial supporters for this research include National Natural Science Foundation of China, Shanghai Science & Technology Pillar Program in the Field of Medicine and Agriculture.

The news reporters obtained a quote from the research from Shanghai Jiao-Tong University. "Plasma, urine and tissue concentrations of metformin were determined by liquid chromatography-tandem mass spectrometry (LCMS) assay. Western blotting and Real-time PCR analysis were successively used to evaluate the renal protein and mRNA expression of Octs and MATEs. After treatment, the protein expression of Mate1 and Oct2 in testosterone group was significantly increased than those in control group (both P< 0.05). The protein expression of Mate1 and Oct2 in estradiol group was significantly reduced by 29.4% and 43.3%, respectively, compared to those in control group (all P< 0.05). These data showed a good agreement with the change in mRNA level (all P< 0.05). The plasma metformin concentration (ng/ml) in mice treated with estradiol was significantly higher than control and testosterone group (677.56 +/- 72.49 versus 293.92 +/- 83.27 and 261.46 +/- 79.45; P< 0.01). Moreover,
testosterone increased the metformin urine excretion of mice while estradiol decreasing (both P < 0.01). Spearman correlation analysis showed that gonadal hormone was closely associated with Mate1 and Oct2 expression and metformin urine excretion in db/db mice (all P< 0.05)."

According to the news reporters, the research concluded: "Testosterone and oestrogen exerted reverse effect on metformin urinary excretion via regulating Octs and Mates expression in the kidney of mice."


Our news correspondents report that additional information may be obtained by contacting F. Liu, Shanghai Jiao Tong University, Shanghai Clin Med Center DiabetShanghai Inst Diabe, Dept. of Endocrinol & MetabKey Clin Center Metab Dis, Shanghai Key Lab DiabetAffiliated Peoples Hosp 6, Shanghai, People's Republic of China. Additional authors for this research include L.G. Ai, D.D. Zhang, L.L. Wan, T.S. Zheng, J. Yin, H.J. Lu, J.X. Lu, F.D. Lu, F. Liu and W.P. Jia.

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Keywords for this news article include: Shanghai, People's Republic of China, Asia, Estradiol Congeners, Protein Expression, Gonadal Hormones, Proteomics, Biguanides, Metformin, Shanghai Jiao-Tong University.

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**Genetics - Genetic Epidemiology**

**Study Findings on Genetic Epidemiology Are Outlined in Reports from School of Public Health (Validity of using ad hoc methods to analyze secondary traits in case-control association studies)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Genetics - Genetic Epidemiology. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Control association studies often collect from their subjects information on secondary phenotypes. Reusing the data and studying the association between genes and secondary phenotypes provide an attractive and cost-effective approach that can lead to discovery of new genetic associations."

Our news journalists obtained a quote from the research from the School of Public Health, "A number of approaches have been proposed, including simple and computationally efficient ad hoc methods that ignore ascertainment or stratify on case-control status. Justification for these approaches relies on the assumption of no covariates and the correct specification of the primary disease model as a logistic model. Both might not be true in practice, for example, in the presence of population stratification or the primary disease model following a probit model. In this paper, we investigate the validity of ad hoc methods in the presence of covariates..."
and possible disease model misspecification. We show that in taking an ad hoc approach, it may be desirable to include covariates that affect the primary disease in the secondary phenotype model, even though these covariates are not necessarily associated with the secondary phenotype. We also show that when the disease is rare, ad hoc methods can lead to severely biased estimation and inference if the true disease model follows a probit model instead of a logistic model. Our results are justified theoretically and via simulations.

According to the news editors, the research concluded: "Applied to real data analysis of genetic associations with cigarette smoking, ad hoc methods collectively identified as highly significant (P < 10^-5) single nucleotide polymorphisms from over 10 genes, genes that were identified in previous studies of smoking cessation."


The news correspondents report that additional information may be obtained from X.H. Lin, Harvard TH Chan Sch Public Hlth, Dept. of Biostat, Boston, MA 02115, United States.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Genetic Epidemiology, Genetics, Epidemiology, Genetics, School of Public Health.

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Oncology - Gliomas

Study Findings on Gliomas Are Outlined in Reports from Y.F. Gao and Colleagues (A critical overview of long non-coding RNA in glioma etiology 2016: an update)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Gliomas have been presented. According to news reporting out of Changsha, People's Republic of China, by NewsRx editors, research stated, "With the development of whole genome and transcriptome sequencing technologies, a growing body of long non-coding RNAs (lncRNAs) has been identified and is receiving increasing attention. LncRNAs are non-protein encoding transcripts whose functions are crucial for advancing our comprehensive understanding of biological processes in human health and diseases, specifically glioma."

Financial supporters for this research include National Natural Science Foundation of China, Hunan Provincial Science and Technology Plan of China, Open Foundation of Innovative Platform in University of Hunan Province of China.

Our news journalists obtained a quote from the research, "It has been established that lncRNAs are differently expressed in the central nervous system and may play a vital role in glioma. As of June 2016, 20 lncRNAs have been identified that may play a role in glioma pathogenesis. Investigation into the role of lncRNAs in glioma may help to identify potential biomarkers which can improve the diagnosis and treatment of glioma."

According to the news editors, the research concluded: "In this paper, we review
current understanding of the function of lncRNAs in glioma initiation and progression."


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Keywords for this news article include: Changsha, People's Republic of China, Asia, Gliomas, Article Review, Oncology, Genetics.

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**Immunology - Granulocytes**

**Study Findings on Granulocytes Are Outlined in Reports from University of Wisconsin (Rac2 Functions in Both Neutrophils and Macrophages To Mediate Motility and Host Defense in Larval Zebrafish)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immunology - Granulocytes. According to news reporting from Madison, Wisconsin, by NewsRx journalists, research stated, "Leukocyte motility is required for host defense responses. Rac-family Rho GTPases are implicated in leukocyte function; however, the distinct roles of different Rac isoforms in host defense in vivo have remained unclear."

The news correspondents obtained a quote from the research from the University of Wisconsin, "In this study, we generated Rac2-deficient zebrafish using transcription activator-like effector nucleases to directly compare the role of Rac2 in vivo in neutrophils and macrophages in motility and the response to infection. This zebrafish larval model is highly amenable to live imaging of leukocyte behavior, and we report that in rac2(-/-) larvae both neutrophils and macrophages are defective in basic motility, leading to impaired responses to localized wounds or infections. rac2(-/-) larvae are highly susceptible to infection with Pseudomonas aeruginosa, which can be almost fully rescued by ectopic expression of either Rac2 or Rac1 specifically in neutrophils, indicating that these isoforms have partially overlapping functions in vivo. Rescue of Rac2 expression specifically in macrophages also confers resistance to Pseudomonas infection, highlighting an important role for Rac2 in this leukocyte population as well."

According to the news reporters, the research concluded: "Surprisingly, in contrast to neutrophils expressing a Rac2 dominant inhibitory human disease mutation, rac2(-/-) neutrophils do not have altered polarity or mobilization from hematopoietic tissue, suggesting that a different Rac isoform, such as Rac1, also contributes to these phenotypes in vivo."

For more information on this research see: Rac2 Functions in Both Neutrophils and
Heart Disorders and Diseases - Heart Attack

Study Findings on Heart Attack Are Outlined in Reports from Cardiovascular Outcomes Research (Predicting Likelihood for Coronary Artery Bypass Grafting After Non-ST-Elevation Myocardial Infarction: Finding the Best Prediction Model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting originating from Kansas City, Missouri, by NewsRx correspondents, research stated, "Up to half of patients with non-ST-elevation myocardial infarction (NSTEMI) do not receive dual antiplatelet therapy before angiography 'pretreatment' because of the risk of increased bleeding if coronary artery bypass grafting (CABG) operation is needed. Several models have been published that predict the likelihood of CABG after NSTEMI, but they have not been independently validated."

Our news editors obtained a quote from the research from Cardiovascular Outcomes Research, "The purpose of this study was to validate these models and improve the best one. We studied patients with NSTEMI who were enrolled in the 24-center Translational Research Investigating Underlying Disparities in Acute Myocardial Infarction Patients' Health Status (TRIUMPH) registry between 2005 and 2008. Previous CABG prediction models were assessed using c-statistics and calibration assessments to determine the best model. Variables from TRIUMPH likely to be associated with CABG were tested to see whether they could improve the best model's performance. Among 2,473 patients with NSTEMI, 11.8% underwent inhospital CABG. C-statistics for the Modified Thrombolysis in Myocardial Infarction, Treat Angina With Aggrastat and Determine the Cost of Therapy With an Invasive or Conservative Strategy-Thrombolysis in Myocardial Infarction 18, Poppe, and Global Risk of Acute Coronary Events (GRACE) models were 0.54, 0.61, 0.61, and 0.62, respectively. The GRACE model showed the best discrimination and calibration. From the TRIUMPH registry, preselected variables were added to the GRACE model but did not significantly improve model..."
discrimination. A GRACE model risk score of less than 9 had high sensitivity (96%), thus making it useful for predicting patients with NSTEMI who were at low risk for requiring CABG, which included approximately 21% of patients with NSTEMI.

According to the news editors, the research concluded: "This study could not improve on the GRACE model, which had the best predictive value for identifying a need for CABG after NSTEMI with a broader range of predicted risk levels and high sensitivity, especially in patients with scores lower than 9."


The news editors report that additional information may be obtained by contacting A. Shafiq, St Lukes Mid Amer Heart Inst, Cardiovasc Outcomes Res, Kansas City, MO 64111, United States. Additional authors for this research include J.S. Jang, F. Kureshi, T.J. Fendler, K. Gosch, P.G. Jones, D.J. Cohen, R. Bach and J.A. Spertus.

Keywords for this news article include: Kansas City, Missouri, United States, North and Central America, Vascular Diseases and Conditions, Heart Disorders and Diseases, Coronary Artery Bypass, Myocardial Infarction, Heart Bypass Surgery, Myocardial Ischemia, Heart Disease, Thrombolysis, Heart Attack, Hematology, Cardiology, Cardiovascular Outcomes Research.

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Heart Disorders and Diseases - Heart Failure

Study Findings on Heart Failure Are Outlined in Reports from University of Groningen (Optimizing clinical use of biomarkers in high-risk acute heart failure patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Failure is now available. According to news reporting originating in Groningen, Netherlands, by NewsRx journalists, research stated, "The clinical value of single biomarkers at single time-points to predict outcomes in patients with acute heart failure (AHF) is limited. We performed a multimarker, multi-time-point analysis of biomarkers for the prediction of post-discharge clinical outcomes in high-risk AHF patients."

The news reporters obtained a quote from the research from the University of Groningen, "A set of 48 circulating biomarkers were measured in the PROTECT trial which enrolled 2033 patients with AHF. Associations between baseline levels of biomarkers and outcomes (30-day all-cause mortality, 30-day death or rehospitalization for renal/cardiovascular causes and 180-day all-cause mortality) were evaluated. Prognostic accuracies of baseline, days 2 or 3, 7, and 14 biomarker measurements were estimated and compared utilizing a time-dependent area under the curve (AUC) analysis. Forty-four biomarkers were significantly associated with outcomes, but 42 had limited prognostic value (C-index <0.70). However, multimarker models combining best-performing biomarkers from different clusters had a much
stronger prognostic value. Combining blood urea nitrogen (BUN), chloride, interleukin (IL)-6, cTnI, sST-2 and VEGFR-1 into a clinical model yielded a 11% increase in C-index to 0.84 and 0.78 for 30-day and 180-day all-cause mortality, respectively, and cNRI of 0.86 95% CI [0.55-1.11] and 0.76 95% CI [0.57-0.87]. Prognostic gain was modest for the 30-day death/rehospitalization for cardiovascular or renal causes endpoint. Comparative time-dependent AUC analysis indicated that late measurements provided superior accuracy for the prediction of all-cause mortality over 180 days, with few exceptions including BUN and galectin-3. However, the predictive value of most biomarkers showed a diminishing pattern over time irrespective of moment of measurement. Multimarker models significantly improve risk prediction."

According to the news reporters, the research concluded: "Subsequent measurements, beyond admission, are needed for majority of biomarkers to maximize prognostic value over time, particularly in the long term."

For more information on this research see: Optimizing clinical use of biomarkers in high-risk acute heart failure patients. European Journal of Heart Failure, 2015;18(3):269-80. (Oxford University Press - www.oup.com; European Journal of Heart Failure - eurjhf.oxfordjournals.org)

Our news correspondents report that additional information may be obtained by contacting B.G. Demissei, Dept. of Cardiology, University of Groningen, University Medical Centre Groningen, Hanzeplein 1, 9713 GZ, Groningen, Netherlands. Additional authors for this research include M.A. Valente, J.G. Cleland, C.M. O'Connor, M. Metra, P. Ponikowski, J.R. Teerlink, G. Cotter, B. Davison, M.M. Givertz, D.M. Bloomfield, H. Dittrich, P. van der Meer, D.J. van Veldhuisen, H.L. Hillege and A.A Voors.

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Keywords for this news article include: Europe, Groningen, Cardiology, Netherlands, Heart Disease, Heart Failure, Diagnostics and Screening, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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rat isolated jejunum strips and were conducted under isometric conditions. Hesperetin and diosmetin, but not hesperidin and diosmin, dose-dependently (10-100 μM) and reversibly inhibited acetylcholine (1 μM) and KCl (80 mM) induced contractile activity. The antispasmodic effect of hesperetin was partially blocked by 4-aminopyridine (100 μM), glibenclamide (100 μM) and NG-nitro-L-arginine methyl ester (L-NAME, 100 μM). By contrast, apamin (0.1 μM), tetraethylammonium (500 μM) and methylene blue (10 μM) did not affect the magnitude of hesperetin-induced myorelaxant effect. Indomethacin (10 μM) increased the force of hesperetin-evoked reaction." 

According to the news reporters, the research concluded: "Hesperetin and diosmetin are potent myorelaxant agents. The antispasmodic effect of hesperetin is partially mediated by fast current low-voltage activated K+ channels, voltage-independent K+ channels and involves the nitric oxide pathway. Finally, hesperetin shows a synergistic effect with indomethacin towards jejunal KCl-precontracted smooth muscle."

For more information on this research see: Antispasmodic effect of selected Citrus flavonoids on rat isolated jejunum specimens. European Journal of Pharmacology, 2016;791 ():640-646. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting M. Mendel, Warsaw Univ Life Sci, Fac Vet Med, Dept. of Preclin Sci, Div Pharmacol & Toxicol, PL-02786 Warsaw, Poland. Additional authors for this research include M. Chlopecka, N. Dziekan and W. Karlik.

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Keywords for this news article include: Warsaw, Poland, Europe, Drugs and Therapies, Hesperetin Therapy, Anticholesteremic, Warsaw University of Life Sciences.

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WES/WGS DTC regarding the following elements of IC: pre-test counseling, benefits and risks, and incidental findings (IFs). The analysis revealed concerns, including the potential lack of pre-test counseling in three of the companies studied, missing relevant information in the risks and benefits sections, and potentially misleading information for consumers. Regarding IFs, only one company, which provides opportunistic screening, provides basic information about their management.

According to the news editors, the research concluded: "Some of the information (and related practices) present on the companies' Web pages salient to the consent process are not adequate in reference to recommendations for IC for WGS or WES in the clinical context. Requisite resources should be allocated to ensure that commercial companies are offering high-throughput sequencing under responsible conditions, including an adequate consent process."


The news correspondents report that additional information may be obtained from E. Niemiec, Leibniz Univ Hannover, Center Eth & Law Life Sci, Hannover, Germany. Additional authors for this research include P. Borry, W. Pinxten and H.C. Howard.

Keywords for this news article include: Hannover, Germany, Europe, Human Genetics, Genetics, Leibniz University.

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Human Papillomavirus

Study Findings on Human Papillomavirus Are Outlined in Reports from Research Institute (Intravaginal Administration of Fc-Fused IL7 Suppresses the Cervicovaginal Tumor by Recruiting HPV DNA Vaccine-Induced CD8 T Cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Human Papillomavirus have been published. According to news reporting out of Gyeonggi Do, South Korea, by NewsRx editors, research stated, "The induction of tissue-localized virus-specific CD8 T-cell response is essential for the development of an effective therapeutic vaccine against genital diseases, such as cervical cancer and genital herpes. Here, we aimed to elucidate the immunologic role of IL7 in the induction of mucosal cellular immunity."

Our news journalists obtained a quote from the research from Research Institute, "IL7 was engineered through Fc fusion to enhance mucosal delivery across the genital epithelial barrier. The immunomodulatory role of IL7 was evaluated by monitoring the kinetics of various immune cells and measuring the expression of chemokines and cytokines after intravaginal administration of Fc-fused IL7 (IL7-Fc). The antitumor effects of intramuscular human papillomavirus (HPV) DNA vaccine or topical IL7-Fc alone or in a combinational regimen on mice survival were compared using a orthotopic cervical cancer model. Intravaginal treatment of IL7-Fc, but not native IL7, induces upregulation of chemokines (CXCL10, CCL3, CCL4, and
CCL5), cytokines (IFN-gamma, TNF alpha, IL6, and IL1 beta), and an adhesion molecule (VCAM-1) in the genital tract, leading to the recruitment of several leukocytes, including CD4, CD8, gamma delta T cells, and dendritic cells. Importantly, in this murine cervical cancer model, topical administration of IL7-Fc after intramuscular HPV DNA vaccination increases the number of HPV-specific CD8 T cells in the genital mucosa, but not in the spleen, leading to stronger antitumor activity than the HPV DNA vaccine alone."

According to the news editors, the research concluded: "Our findings provide an important insight into the immunomodulatory role of IL7-Fc via topical application and the design of therapeutic vaccine regimen that induces effective genital-mucosal CD8 T-cell responses."

For more information on this research see: Intravaginal Administration of Fc-Fused IL7 Suppresses the Cervicovaginal Tumor by Recruiting HPV DNA Vaccine-Induced CD8 T Cells. *Clinical Cancer Research*, 2016;22(23):5898-5908. *Clinical Cancer Research* can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting Y.C. Sung, Genexine Inc, Res Inst, Seongnam, Gyeonggi Do, South Korea. Additional authors for this research include M.C. Kang, Y.B. Seo, H. Namkoong, Y. Park, D.H. Choi, Y.S. Suh, S.W. Lee, Y.C. Sung and H.T. Jin.

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Keywords for this news article include: Gyeonggi Do, South Korea, Asia, Intravaginal Administration, Topical Administration, Inflammation Mediators, Human Papillomavirus, Biological Products, Biological Factors, DNA Research, Immunization, Chemokines, Viral DNA, Oncology, Genetics, Vaccines, Cancer, Research Institute.

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**Cardiovascular Diseases and Conditions - Hyperemia**

**Study Findings on Hyperemia Are Outlined in Reports from Sahlgrenska University (Effects of nitroglycerine on coronary flow velocity before and during adenosine provocation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Hyperemia have been published. According to news reporting out of Gothenburg, Sweden, by NewsRx editors, research stated, "Transthoracic echocardiography-assessed coronary flow velocity reserve (CFVR) evaluates coronary microvascular arterial function. Coronary flow velocity measurements at baseline and during hyperemia are used to calculate CFVR."

Our news journalists obtained a quote from the research from Sahlgrenska University, "Adenosine infusion induces hyperemia but it is not known if it causes a maximal response. We hypothesized that pre-treatment with nitroglycerine before adenosine provocation enhances hyperemia. Twenty-three healthy study subjects (mean age 27.5 +/- 5.5, 35% women) underwent CFVR measurements before and after pretreatment with sublingual nitroglycerine

Hyperemia was induced by adenosine infusion (140 μg/kg/min). In addition, the effect of nitroglycerin on left main coronary artery diameter was assessed. Pretreatment with nitroglycerine increased median CFVR from 3.6 (range 2.8-4.3) to 5.0 (4.1-6.0), p = 0.002. The increase was caused by a marked reduction in baseline coronary flow velocity 17 (15-24) vs 27 (19-31) cm/s, p < 0.0001) while hyperemic velocity remained unchanged (90 (68-116) vs 93 (75-105) cm/s, p = 0.48). Nitroglycerin significantly dilated the left main coronary artery (from median 3.1 (2.7-3.6) mm to 3.8 (3.1-4.3) mm, p = 0.018).

According to the news editors, the research concluded: "Pretreatment with nitroglycerine dilates coronary arteries and increases coronary flow velocity reserve indicating that adenosine alone causes a submaximal hyperemia."

For more information on this research see: Effects of nitroglycerine on coronary flow velocity before and during adenosine provocation. *Cardiovascular Ultrasound*, 2016;14 ():1-6. Cardiovascular Ultrasound can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; Cardiovascular Ultrasound - www.cardiovascularultrasound.com)

Our news journalists report that additional information may be obtained by contacting A. Wittfeldt, Sahlgrenska University, Dept. of Cardiol, S-41345 Gothenburg, Sweden. Additional authors for this research include A. Jeppsson and L.M. Gan.

Keywords for this news article include: Gothenburg, Sweden, Europe, Cardiovascular Diseases and Conditions, Coronary Artery, Nitro Compounds, Nitroglycerin, Cardiology, Hyperemia, Glycerol, Sahlgrenska University.

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**Cardiovascular Diseases and Conditions** -...

**Study Findings on Hypertension Are Outlined in Reports from Imperial College (Associations of night-time road traffic noise with carotid intima-media thickness and blood pressure: The Whitehall II and SABRE study cohorts)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Hypertension is now available. According to news reporting out of London, United Kingdom, by NewsRx editors, research stated, "Road traffic noise has been linked to increased risk of stroke, for which hypertension and carotid intima-media thickness (cIMT) are risk factors. A link between traffic noise and hypertension has been established, but there are few studies on blood pressure and no studies on cIMT."

Our news journalists obtained a quote from the research from Imperial College, "To examine cross-sectional associations for long-term exposure to night-time noise with cIMT, systolic blood pressure (SBP), diastolic blood pressure (DBP) and hypertension. The study population consisted of 2592 adults from the Whitehall II and SABRE cohort studies living within Greater London who had cIMT, SBP and DBP measured. Exposure to night-time road traffic noise (A-weighted dB, referred to as dBA) was estimated at each participant's residential postcode centroid. Mean night-time road noise levels were 52 dBA (SD=4). In the pooled analysis adjusted for cohort, sex, age, ethnicity, marital status, smoking, area-level deprivation and NOx there was a 9.1 μm (95% CI: -7.1, 25.2) increase in cIMT in association with 10
dBA increase in night-time noise. Analyses by noise categories of 5560 dBA (16.2 mu m, 95% Cl:-8.7, 41.2), and N60 dBA (21.2 mu m, 95% Cl:-2.5, 44.9) vs. <55 dBA were also positive but non-significant, except among those not using antihypertensive medication and exposed to >

60 dBA vs. <55 dBA (32.6 mu m, 95% Cl: 6.2, 59.0). Associations for SBP, DPB and hypertension were close to null.

According to the news editors, the research concluded: "After adjustments, including for air pollution, the association between night-time road traffic noise and cIMT was only observed among non-medication users but associations with blood pressure and hypertension were largely null."


Our news journalists report that additional information may be obtained by contacting J.I. Halonen, Imperial Coll London, Sch Public Hlth, Dept. of Epidemiol & Biostat, Small Area Hlth Stat UnitMRC PHE Center Environm &, London, United Kingdom. Additional authors for this research include H.M. Dehbi, A.L. Hansell, J. Gulliver, D. Fecht, M. Blangiardo, F.J. Kelly, N. Chaturvedi, M. Kivimaki and C. Tonne.

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Keywords for this news article include: London, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Diagnostics and Screening, Systolic Blood Pressure, Risk and Prevention, Hypertension, Angiology, Stroke, Imperial College.

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**Biotechnology - Liposomes**

**Study Findings on Liposomes Are Outlined in Reports from Korea University (Nitric Oxide Releasing Coronary Stent: A New Approach Using Layer-by-Layer Coating and Liposomal Encapsulation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology - Liposomes. According to news originating from Daejeon, South Korea, by NewsRx correspondents, research stated, "The sustained or controlled release of nitric oxide (NO) can be the most promising approach for the suppression or prevention of restenosis and thrombosis caused by stent implantation. The aim of this study is to investigate the feasibility in the potential use of layer-by-layer (LBL) coating with a NO donor-containing liposomes to control the release rate of NO from a metallic stent."

Financial supporters for this research include Ministry of Science, ICT and Future Planning, Strategic Core Materials Program.

Our news journalists obtained a quote from the research from Korea University, "Microscopic observation and surface characterizations of LBL-modified stents demonstrate
successful LBL coating with liposomes on a stent. Release profiles of NO show that the release rate is sustained up to 5 d. In vitro cell study demonstrates that NO release significantly enhances endothelial cell proliferation, whereas it markedly inhibits smooth muscle cell proliferation. Finally, in vivo study conducted with a porcine coronary injury model proves the therapeutic efficacy of the NO-releasing stents coated by liposomal LBL technique, supported by improved results in luminal healing, inflammation, and neointimal thickening except thrombo-resistant effect.

According to the news editors, the research concluded: "As a result, all these results demonstrate that highly optimized release rate and therapeutic dose of NO can be achieved by LBL coating and liposomal encapsulation, followed by significantly efficacious outcome in vivo."


The news correspondents report that additional information may be obtained from D.K. Han, Korea Univ Sci & Technol, Dept. of Biomed Engn, Daejeon 305333, South Korea. Additional authors for this research include S.H. Seo, S. Gobaa, K.S. Lim, I.H. Bae, M.H. Jeong, D.K. Han and Y.K. Joung.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/smll.201600337. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daejeon, South Korea, Asia, Reactive Nitrogen Species, Risk and Prevention, Surgical Technology, Cell Proliferation, Nitrogen Oxides, Pharmaceuticals, Medical Devices, Coronary Stents, Cardiovascular, Heart Disease, Biotechnology, Nitric Oxide, Cardiology, Restenosis, Chemicals, Liposomes, Surgery, Korea University.

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Interviews with patients who have lung cancer were used to ascertain a range of experiences and to make recommendations regarding the improvement of treatment based on these patients' preferences. Because chemotherapy is the common treatment option for lung cancer, we focused on this treatment. The interviews were audio-taped, verbally transcribed and evaluated via content analysis. A total of 18 participants (11 men and 7 women) with small or non-small-cell lung cancer who were receiving chemotherapy in one clinic were interviewed between June and July 2013. Two main aspects with different subthemes were identified during the interviews. One main aspect focused on organizational context, such as the treatment day process, or experiences with different stakeholders, such as with the health insurance company or physicians. The other category referred to experiences that influenced psychosocial factors, including physical and mental experiences. Patients reported different experiences concerning physical, psychological and organizational areas during chemotherapy. Nevertheless, some potential areas for improving care, and therefore the quality of life of patients with lung cancer, could be identified.

According to the news editors, the research concluded: "These improvement measures highlighted that with small, non-time-consuming and inexpensive changes, the treatment for patients with lung cancer can be improved."


The news editors report that additional information may be obtained by contacting I. Aumann, Center for Health Economics Research Hannover (CHERH), Leibniz University of Hannover, Hannover, Germany. Additional authors for this research include K. Kreis, K. Damm, H. Golpon, T. Welte and J.M Graf von der Schulenburg.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hex.12417. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Hannover, Oncology, Lung Cancer, Chemotherapy, Lung Neoplasms, Drugs and Therapies.

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Lung Diseases and Conditions - Lung Injury

**Study Findings on Lung Injury Are Outlined in Reports from University of California (Cigarette smokers have exaggerated alveolar barrier disruption in response to lipopolysaccharide inhalation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Lung Injury is the subject of a report. According to news reporting originating in San Francisco, California, by NewsRx journalists, research stated, "Cigarette smoke exposure is associated with an increased risk of the acute respiratory distress syndrome (ARDS); however, the mechanisms underlying this relationship remain largely unknown. To assess pathways of lung injury and inflammation in smokers and non-smokers with and without lipopolysaccharide (LPS) inhalation using established biomarkers."
The news reporters obtained a quote from the research from the University of California, "We measured plasma and bronchoalveolar lavage (BAL) biomarkers of inflammation and lung injury in smokers and non-smokers in two distinct cohorts of healthy volunteers, one unstimulated (n=20) and one undergoing 50 μg LPS inhalation (n=30). Measurements and main results After LPS inhalation, cigarette smokers had increased alveolar-capillary membrane permeability as measured by BAL total protein, compared with non-smokers (median 274 vs 208 μg/mL, p=0.04). Smokers had exaggerated inflammation compared with non-smokers, with increased BAL interleukin-1 beta (p=0.002), neutrophils (p=0.02), plasma interleukin-8 (p=0.003), and plasma matrix metalloproteinase-8 (p=0.006). Alveolar epithelial injury after LPS was more severe in smokers than nonsmokers, with increased plasma (p=0.04) and decreased BAL (p=0.02) surfactant protein D. Finally, smokers had decreased BAL vascular endothelial growth factor (VEGF) (p <0.0001) with increased soluble VEGF receptor-1 (p=0.0001). Cigarette smoke exposure may predispose to ARDS through an abnormal response to a 'second hit,' with increased alveolar-capillary membrane permeability, exaggerated inflammation, increased epithelial injury and endothelial dysfunction."

According to the news reporters, the research concluded: "LPS inhalation may serve as a useful experimental model for evaluation of the acute pulmonary effects of existing and new tobacco products."

For more information on this research see: Cigarette smokers have exaggerated alveolar barrier disruption in response to lipopolysaccharide inhalation. *Thorax*, 2016;71 (12):1130-1136. *Thorax* can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Thorax - thorax.bmj.com/)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/thoraxjnl-2015-207886. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Respiratory Tract Diseases and Conditions, Inflammation, Diagnostics and Screening, Lung Diseases and Conditions, Bacterial Polysaccharides, Lipopolysaccharides, Biological Factors, Bacterial Toxins, Lung Injury, Endotoxins, University of California.

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**Study Findings on Malnutrition Are Outlined in Reports from University of Toronto (Malnutrition-associated liver steatosis and ATP depletion is caused by peroxisomal and mitochondrial dysfunction)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
Malnutrition is the subject of a report. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "Severe malnutrition in young children is associated with signs of hepatic dysfunction such as steatosis and hypoalbuminemia, but its etiology is unknown. Peroxisomes and mitochondria play key roles in various hepatic metabolic functions including lipid metabolism and energy production."

Our news editors obtained a quote from the research from the University of Toronto, "To investigate the involvement of these organelles in the mechanisms underlying malnutrition-induced hepatic dysfunction we developed a rat model of malnutrition. Weanling rats were placed on a low protein or control diet (5% or 20% of calories from protein, respectively) for four weeks. Peroxisomal and mitochondrial structural features were characterized using immunofluorescence and electron microscopy. Mitochondrial function was assessed using high resolution respirometry. A novel targeted quantitative proteomics method was applied to analyze 47 mitochondrial proteins involved in oxidative phosphorylation, tricarboxylic acid cycle and fatty acid beta-oxidation pathways. Low protein diet-fed rats developed hypoalbuminemia and hepatic steatosis, consistent with the human phenotype. Hepatic peroxisomal content was decreased and metabolomic analysis indicated peroxisomal dysfunction. This was followed by changes in mitochondrial ultrastructure and increased mitochondrial content. Mitochondrial function was impaired due to multiple defects affecting respiratory chain complex I and IV, pyruvate uptake and several 13-oxidation enzymes, leading to strongly reduced hepatic ATP levels. Fenofibrate supplementation restored hepatic peroxisomal abundance and increased mitochondrial beta-oxidation capacity, resulting in reduced steatosis and normalization of ATP and plasma albumin levels. Malnutrition leads to severe impairments in hepatic peroxisomal and mitochondrial function, and hepatic metabolic dysfunction. We discuss the potential future implications of our findings for the clinical management of malnourished children. Lay summary: Severe malnutrition in children is associated with metabolic disturbances that are poorly understood."

According to the news editors, the research concluded: "In order to study this further, we developed a malnutrition animal model and found that severe malnutrition leads to an impaired function of liver mitochondria which are essential for energy production and a loss of peroxisomes, which are important for normal liver metabolic function."

For more information on this research see: Malnutrition-associated liver steatosis and ATP depletion is caused by peroxisomal and mitochondrial dysfunction. *Journal of Hepatology*, 2016;65(6):1198-1208. *Journal of Hepatology* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Hepatology - www.journals.elsevier.com/journal-of-hepatology/)

The news editors report that additional information may be obtained by contacting P.K. Kim, University of Toronto, Dept. of Biochem, Toronto, ON, Canada. Additional authors for this research include J. Ciapaite, V.W. Bloks, C. Ackereley, A. Gerdin, A. Jurdzinski, R.A. de Moraes, L. Zhang, J.C. Wolters, R. Bischoff, R.J. Wanders, S.M. Houten, D. Bronte-Tinkew, T. Shatseva, G.F. Lewis, A.K. Groen, D.J. Reijngoud and Bak.

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Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Nutritional and Metabolic Diseases and Conditions, Nutrition Disorders, Malnutrition, Steatosis, University of Toronto.

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Oncology - Non-Small Cell Lung Cancer

Study Findings on Non-Small Cell Lung Cancer Are Outlined in Reports from Department of Medicine (Cabozantinib in patients with advanced RET-rearranged non-small-cell lung cancer: an open-label, single-centre, phase 2, single-arm trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Non-Small Cell Lung Cancer have been presented. According to news reporting originating in New York City, New York, by NewsRx journalists, research stated, "RET rearrangements are found in 1-2% of non-small-cell lung cancers. Cabozantinib is a multikinase inhibitor with activity against RET that produced a 10% overall response in unselected patients with lung cancers."

The news reporters obtained a quote from the research from the Department of Medicine, "To assess the activity of cabozantinib in patients with RET-rearranged lung cancers, we did a prospective phase 2 trial in this molecular subgroup. We enrolled patients in this open-label, Simon two-stage, single-centre, phase 2, single-arm trial in the USA if they met the following criteria: metastatic or unresectable lung cancer harbouring a RET rearrangement, Karnofsky performance status higher than 70, and measurable disease. Patients were given 60 mg of cabozantinib orally per day. The primary objective was to determine the overall response (Response Criteria Evaluation in Solid Tumors version 1.1) in assessable patients; those who received at least one dose of cabozantinib, and had been given CT imaging at baseline and at least one protocol-specified follow-up timepoint. We did safety analyses in the modified intention-to-treat population who received at least one dose of cabozantinib. The accrual of patients with RET-rearranged lung cancer to this protocol has been completed but the trial is still ongoing because several patients remain on active treatment. This study was registered with ClinicalTrials.gov, number NCT01639508. Between July 13, 2012, and April 30, 2016, 26 patients with RET-rearranged lung adenocarcinomas were enrolled and given cabozantinib; 25 patients were assessable for a response. KIF5B-RET was the predominant fusion type identified in 16 (62%) patients. The study met its primary endpoint, with confirmed partial responses seen in seven of 25 response-assessable patients (overall response 28%, 95% CI 12-49). Of the 26 patients given cabozantinib, the most common grade 3 treatment-related adverse events were lipase elevation in four (15%) patients, increased alanine aminotransferase in two (8%) patients, increased aspartate aminotransferase in two (8%) patients, decreased platelet count in two (8%) patients, and hypophosphataemia in two (8%) patients. No drug-related deaths were recorded but 16 (62%) patients died during the course of follow-up. 19 (73%) patients required dose reductions due to drug-related adverse events. The reported activity of cabozantinib in patients with RET-rearranged lung cancers defines RET rearrangements as actionable drivers in patients with lung cancers."

According to the news reporters, the research concluded: "An improved understanding of tumour biology and novel therapeutic approaches will be needed to improve outcomes with RET-directed targeted treatment."

For more information on this research see: Cabozantinib in patients with advanced RET-rearranged non-small-cell lung cancer: an open-label, single-centre, phase 2, single-arm trial. *Lancet Oncology*, 2016;17(12):1653-1660. *Lancet Oncology* can be contacted at:
Study Findings on Operations Science Are Outlined in Reports from National Chengchi University (On the risk prediction and analysis of soft information in finance reports)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Science - Operations Science is the subject of a report. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "We attempt in this paper to utilize soft information in financial reports to analyze financial risk among companies. Specifically, on the basis of the text information in financial reports, which is the so-called soft information, we apply analytical techniques to study relations between texts and financial risk."

The news reporters obtained a quote from the research from National Chengchi University, "Furthermore, we conduct a study on financial sentiment analysis by using a finance-specific sentiment lexicon to examine the relations between financial sentiment words and financial risk. A large collection of financial reports published annually by publicly-traded companies is employed to conduct our experiments; moreover, two analytical techniques - regression and ranking methods - are applied to conduct these analyses. The experimental results show that, based on a bag-of-words model, using only financial sentiment words results in performance comparable to using the whole texts; this confirms the importance of financial sentiment words with respect to risk prediction. In addition to this performance comparison, via the learned models, we draw attention to some strong and interesting correlations between texts and financial risk."

According to the news reporters, the research concluded: "These valuable findings yield greater insight and understanding into the usefulness of soft information in financial reports and can be applied to a broad range of financial and accounting applications."

For more information on this research see: On the risk prediction and analysis of soft information in finance reports. European Journal of Operational Research, 2017;257
Study Findings on Pharmacoepidemiology Are Outlined in Reports from McGill University (Conditions for confounding of interactions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Pharmacoepidemiology are presented in a new report. According to news reporting originating in Montreal, Canada, by NewsRx journalists, research stated, "Pharmaco-epidemiology increasingly investigates drug-drug or drug-covariate interactions. Yet, conditions for confounding of interactions have not been elucidated."

Financial supporters for this research include Canadian Institutes for Health Research, Guzzo-Cancer Research Society Chair in Environment and Cancer.

The news reporters obtained a quote from the research from McGill University, "We explored the conditions under which the estimates of interactions in logistic regression are affected by confounding bias. We rely on analytical derivations to investigate the conditions and then use simulations to confirm our analytical results and to quantify the impact of selected parameters on the bias of the interaction estimates. Failure to adjust for a risk factor U results in a biased estimate of the interaction between exposures E1 and E2 on a binary outcome Y if the association between U and E1 varies depending on the value of E2. The resulting confounding bias increases with increase in the following: (i) prevalence of confounder U; (ii) strength of U-Y association; and (iii) heterogeneity in the association of E1 with U across the strata of E2. A variable that is not a confounder for the main effects of E1 and E2 may still act as an important confounder for their interaction."

According to the news reporters, the research concluded: "Studies of interactions should attempt to identify-as potential confounders-those risk factors whose associations with one of the exposures in the interaction term may be modified by the other exposure."


Our news correspondents report that additional information may be obtained by
The news editors report that additional information may be obtained by contacting G. Cabot, Spanish Network Res Infect Dis REIPI, Seville, Spain. Additional authors for this research include G. Cabot, A.A. Ocampo-Sosa, M.C. Conejo, L. Zamorano, F. Navarro, A. Pascual, L. Martinez-Martinez and A. Oliver.

Keywords for this news article include: Seville, Spain, Europe, Gram-Negative Aerobic Rods and Cocci, Bacterial Physiological Phenomena, Gram-Negative Bacteria, Bacterial Drug Resistance, Beta-Lactam Antibiotics, Gram-Negative Bacteria, beta-Lactam Resistance, Pseudomonas aeruginosa, Gammaproteobacteria, Drugs and Therapies,

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Lung Diseases and Conditions - Pulmonary...

Study Findings on Pulmonary Hypertension Are Outlined in Reports from Peking Union Medical College (Glycoprotein 130 Inhibitor Ameliorates Monocrotaline-Induced Pulmonary Hypertension in Rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Pulmonary Hypertension is the subject of a report. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Pulmonary arterial hypertension (PAH) is characterized by vasoconstriction, vascular remodelling, and microthrombotic events. Inflammatory cytokine interleukin (IL-6) may be a key factor in the development of PAH, and glycoprotein 130 (Gp130) is an important signal-transducing subunit of IL-6."

The news correspondents obtained a quote from the research from Peking Union Medical College, "The aim of our study was to evaluate the effectiveness of Gp130 inhibitor in reducing inflammation and ameliorating PAH-related vascular remodelling in monocrotaline (MCT)-exposed rats. Sprague-Dawley rats (n = 96; weight, 240-250 g) were randomly divided into 3 groups: control, MCT-exposed (MCT), and MCT-exposed plus Gp130 inhibitor (MCT-Gp) administered daily (5 mg/kg) from days 14-28. Eight rats were killed in each group at weeks 1 through 4, with the following measured variables compared across groups on day 28: hemodynamics, right ventricular hypertrophy, morphometric measurements, immunohistochemical results, levels of IL-6, phosphorylated signal transducer and activator of transcription 3, proliferating cell nuclear antigen (PCNA), bone morphogenetic protein receptor-2 (BMPR2), proangiogenic factor, vascular endothelial growth factor (VEGF), proliferative kinase extracellular signal-regulated kinase (ERK), survivin, Bcl-2, and Bax. Compared with the MCT group, Gp130 inhibitor, after MCT exposure, improved hemodynamics and significantly reduced the severity of inflammation, as estimated by levels of IL-6 (P < 0.0001), and reversed pulmonary arterial remodelling, as assessed by medial wall thickness (P < 0.0001). Gp130 inhibitor upregulated BMPR2 expression in MCT-exposed lungs (P = 0.040) and decreased the expression of PCNA, VEGF, ERK, and survivin (all P< 0.05)."

According to the news reporters, the research concluded: "Gp130 inhibitor upregulated BMPR2 expression in MCT-exposed lungs, restored the BMPR2/IL-6 balance, reduced IL-6-associated inflammation, inhibited pulmonary artery smooth muscle cell proliferation, and ameliorated pulmonary vascular remodelling in MCT-induced PH in rats."


Our news journalists report that additional information may be obtained by contacting Z.H. Liu, Peking Union Med College, Beijing 100037, People's Republic of China. Additional authors for this research include Z.H. Liu, Q. Luo, Z.H. Zhao, Q. Zhao, Y.G. Zheng,

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Lung Diseases and Conditions, Pulmonary Hypertension, Enzymes and Coenzymes, Glycoconjugates, Glycoproteins, Inflammation, Genetics, Kinase, Peking Union Medical College.

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Autoimmune Diseases and Conditions - Rheumatoid…

Study Findings on Rheumatoid Arthritis Are Outlined in Reports from Department of Rheumatology (The development of a questionnaire to evaluate rheumatoid arthritis patient’s knowledge about methotrexate)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Rheumatoid Arthritis. According to news originating from Clermont Ferrand, France, by NewsRx correspondents, research stated, "Assess knowledge concerning methotrexate in rheumatoid arthritis patients by means of a questionnaire. Methotrexate is the standard drug for rheumatoid arthritis treatment."

Our news journalists obtained a quote from the research from the Department of Rheumatology, "It has potentially serious side effects that can be largely prevented by making sure that patients are well informed and comply with prescription guidelines. Cross-sectional survey. A questionnaire on methotrexate (mode of action, administration, drug interactions), side effects, monitoring and lifestyle implications was offered to all the rheumatoid arthritis patients treated with the drug seen between March and September 2013 in a large hospital in France. One hundred and eighty-three patients (143 women), mean age 60 (13?5) years, with a median disease duration of 12 years [7-20] and treated with methotrexate for eight years [5-13] took part. Methotrexate was identified as a disease-modifying antirheumatic drug by 78% of the patients. The weekly administration method was well assimilated (97%); 67% indicated that the rationale for folic acid was to reduce treatment toxicity. Only 21% knew that trimethoprim was contraindicated. Half were aware of the haematologic risk and 36% were aware of the risk of hypersensitivity pneumonitis. There was knowledge concerning laboratory testing (80%), but 54% thought they were only being monitored for rheumatoid arthritis activity. Only 13% of the men, but 90% of the women, of childbearing age knew that contraception was essential, and 75% indicated that alcohol consumption should be limited. A low knowledge score correlated significantly with age and low educational level. It was independent of sex, duration of treatment for rheumatoid arthritis. Rheumatoid arthritis patient's knowledge concerning methotrexate is poor, particularly for the most serious side effects (haematologic and hypersensitivity pneumonitis), interactions with trimethoprim, and in men, the need for contraception."

According to the news editors, the research concluded: "Patient knowledge concerning methotrexate should be regularly checked and supported using the different therapeutic education tools available, especially when patients are older people and have had limited schooling."

The news correspondents report that additional information may be obtained from F. Fayet, Dept. of Rheumatology, CHU Gabriel Montpied, Clermont-Ferrand, France. Additional authors for this research include C. Savel, M. Rodere, B. Pereira, D. Abdi, S. Mathieu, A. Tournadre, M. Soubrier and J.J Dubost.

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Keywords for this news article include: Antimetabolites, Antineoplastics, Antipsoriatics, Antirheumatics, Pharmaceuticals, France, Europe, Contraception, Contraceptives, Clermont Ferrand, Hypersensitivity, Drugs and Therapies, Risk and Prevention, Rheumatoid Arthritis, Reproductive Techniques, Methotrexate Therapy Sodium, Joint Diseases and Conditions.

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**Mental Health Diseases and Conditions - Schizophrenia**

**Study Findings on Schizophrenia Are Outlined in Reports from Tsinghua University (Variants in TERT influencing telomere length are associated with paranoid schizophrenia risk)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Mental Health Diseases and Conditions - Schizophrenia are presented in a new report. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "Schizophrenia is one of the most severe psychiatric disorders, with a high heritability of up to 80%. Several studies have reported telomere dysfunction in schizophrenia, and common variants in the telomerase reverse transcriptase (TERT) gene."

Funders for this research include 973 Project, PCSIRT, National Natural Science Foundation of China, Fundamental Research Funds, PUMC Youth Fund.

Our news editors obtained a quote from the research from Tsinghua University, "TERT is a key component of the telomerase complex that maintains telomere length by addition of telomere repeats to telomere ends, and has repeatedly shown association with mean lymphocyte telomere length (LTL). Thus, we hypothesized that TERT may be a novel susceptibility gene for schizophrenia. Using a Taqman protocol, we genotyped eight tag SNPs from the TERT locus in 1,072 patients with paranoid schizophrenia and 1,284 control subjects from a Chinese Han population. We also measured mean LTL in 98 cases and 109 controls using a quantitative PCR-based technique. Chi-square tests showed that two SNPs, rs2075786 (p=0.0009, OR=0.76, 95%CI=0.65-0.90) and rs4975605 (p=0.0026, OR=0.73, 95%CI=0.60-0.90), were associated with a protective effect, while rs10069690 was associated with risk of paranoid schizophrenia (p=0.0044, OR=1.23, 95%CI=1.07-1.42). Additionally, the rs2736118-rs2075786 haplotype showed significant association with paranoid schizophrenia (p=0.0013). Moreover, mean LTL correlated with rs2075786 genotypes was significantly shorter in the patient group than the control group."

According to the news editors, the research concluded: "The present results suggest that the TERT gene may be a novel candidate involved in the development of paranoid
schizophrenia."


The news editors report that additional information may be obtained by contacting S. Rao, State Key Laboratory of Medical Molecular Biology, Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences & Peking Union Medical College, Tsinghua University, Beijing, People's Republic of China. Additional authors for this research include N. Ye, H. Hu, Y. Shen and Q. Xu.

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Keywords for this news article include: Asia, Beijing, Genetics, Psychiatry, Risk and Prevention, Paranoid Schizophrenia, People's Republic of China, Mental Health Diseases and Conditions.

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Heart Disorders and Diseases - Sick Sinus Syndrome

Study Findings on Sick Sinus Syndrome Are Outlined in Reports from Tokyo Women's Medical University (Long-Term Outcome of Arterial Switch Operation Conversion After Failed Senning/Mustard Procedure)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Sick Sinus Syndrome. According to news reporting originating from Tokyo, Japan, by NewsRx correspondents, research stated, "We evaluated long-term outcomes of the arterial switch operation (ASO) conversion after a failed Senning/Mustard operation among patients with dextro-transposition of the great arteries. Between 1986 and 2006, 9 patients with dextro-transposition of the great arteries underwent ASO conversion at our institute."

Our news editors obtained a quote from the research from Tokyo Women's Medical University, "All patients had systemic right ventricle failure, 6 had supraventricular tachycardia, and 8 had moderate or severe tricuspid valve regurgitation. All patients had New York Heart Association classification II or III. The median age of patients at the ASO conversion operation was 7.4 years (range, 0.6 to 32.4 years). Pulmonary artery banding for left ventricle training was performed in 8 of the 9 patients before conversion. There was 1 early death from low-output syndrome at 5 days postoperatively and 1 late sudden death at 5 months. Median follow-up time was 23.1 years (range, 0.08 to 28.0 years). The actuarial survival rate was 76.1% at 20 years. Long-term survivors revealed good New York Heart Association classification (class I, 6 patients; class II, 1 patient), with less than mild tricuspid regurgitation and brain natriuretic peptide levels of 40.6 +/- 16.2 pg/mL. Cardiac catheterization revealed significant improvements of right ventricle end-diastolic volume (decreased from 243.2% to 117.7% of normal), and right ventricle ejection fraction (increased from 0.42 to 0.572; p< 0.05). Three patients underwent new pacemaker implantation for sick sinus syndrome, and moderate neoaortic valve regurgitation developed in 1 patient."
According to the news editors, the research concluded: "Excellent long-term outcomes can be achieved after ASO conversion; however, careful observation for new-onset sick sinus syndrome and aortic regurgitation is mandatory."


The news editors report that additional information may be obtained by contacting T. Maeda, Tokyo Women's Medical University, Heart Inst Japan, Dept. of Cardiovascular Surg, Tokyo, Japan. Additional authors for this research include T. Sakamoto, M. Nagashima, T. Hiramatsu and K. Yamazaki.

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Keywords for this news article include: Tokyo, Japan, Asia, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Sick Sinus Syndrome, Sinus Arrhythmia, Heart Disease, Heart Block, Tokyo Women's Medical University.

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**Oncology - Small Cell Lung Cancer**

**Study Findings on Small Cell Lung Cancer Are Outlined in Reports from Salamanca University Hospital (Stereotactic ablative radiotherapy for early stage non-small cell lung cancer: a word of caution)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Small Cell Lung Cancer are discussed in a new report. According to news reporting originating in Salamanca, Spain, by NewsRx journalists, research stated, "Recently published data from pooled randomised trials conclude that stereotactic ablative radiotherapy (SABR) can be considered the treatment of choice in operable lung cancer patients fit for lobectomy. This conclusion comes for comparable 3-year survival and much lower risk of early severe morbidity and mortality."

The news reporters obtained a quote from the research from Salamanca University Hospital, "In this editorial comment we discuss the validity of the conclusions due to the prematurity of the survival analysis and to the poor accuracy of patients' staging leading to higher rates of regional relapse in the SABR arm. Besides, therapy-related mortality and morbidity in the pooled cohort is much higher that the internationally accepted standards maybe because surgery was not performed according to the best approaches and procedures currently available. The effectiveness of SABR as the sole therapy for resectable lung cancer is still awaiting for sound evidences. It could be adopted for individual cases only in two situations: (I) the patient does not accept surgical treatment; and (II) in cases were the risk of surgical related mortality is considered to exceed the probability of long-term survival after lung resection."

According to the news reporters, the research concluded: "For this, a multidisciplinary team (MDT) assessment, including surgeons and oncologists, is mandatory."

For more information on this research see: Stereotactic ablative radiotherapy for...

Our news correspondents report that additional information may be obtained by contacting G. Varela, Thoracic Surgery Service, Salamanca University Hospital and Salamanca's Bio-sanitary Institute (IBSAL), Salamanca, Spain.

Keywords for this news article include: Spain, Europe, Oncology, Salamanca, Radiotherapy, Lung Neoplasms, Small Cell Lung Cancer.

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### Oncology - Squamous Cell Carcinoma

#### Study Findings on Squamous Cell Carcinoma Are Outlined in Reports from University of Rochester [Systemic Therapy in Advanced Cutaneous Squamous Cell Carcinoma (CSCC) The Roswell Park Experience and a Review of the Literature]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Squamous Cell Carcinoma are discussed in a new report. According to news originating from Rochester, New York, by NewsRx correspondents, research stated, "Treatment of locally advanced unresectable or metastatic cutaneous squamous cell carcinoma (mCSCC) is suboptimal with a paucity of robust data on systemic therapy. This retrospective study aimed to evaluate the efficacy and outcomes of patients with locally advanced unresectable or mCSCC treated with systemic therapy."

Our news journalists obtained a quote from the research from the University of Rochester, "Records of patients with CSCC treated with systemic therapy from January 2001 to January 2011 were reviewed. Response was assessed using WHO criteria. Descriptive results were assessed using Wilcoxon rank-sum test for ordinal responses and Pearson chi(2) test for categorical responses. Survival was calculated by the Kaplan-Meier method. Of 28 patients identified, 25 patients (M:F = 18:7), median age 66 years (range, 39 to 85 y), had the required data for final analysis. Partial response was 44% and stable disease (SD) was 24%. The median progression-free survival (PFS) and overall survival (OS) were 5.5 months (2.3, 13.2) and 10.9 months (5.3, 21.3) respectively; 3-year OS was 22%. Patients with WHO response had improved PFS (20.8 mo; 4.4, NR) and OS (37.5 mo; 10.3, NR) compared with patients with SD/PD (PFS 2.7 mo; OS 5.9 mo). Use of platinum-based therapy significantly improved PFS and OS, whereas taxanes and cetuximab had no impact in this Small cohort. There was no difference in PFS or OS with multiagent versus single-agent therapy. Platinum-based therapy remains as one of the standard options in advanced CSCC management."

According to the news editors, the research concluded: "Agents to improve response rates are needed and future trials should address the use of novel targeted and new chemotherapy combinations in CSCC."

For more information on this research see: Systemic Therapy in Advanced Cutaneous Squamous Cell Carcinoma (CSCC) The Roswell Park Experience and a Review of the Literature. *American Journal of Clinical Oncology-Cancer Clinical Trials*, 2016;39(6):545-548. *American Journal of Clinical Oncology-Cancer Clinical Trials* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.
Therapeutics

Study Findings on Therapeutics Are Outlined in Reports from University of Girona (Psychostimulant drugs for cocaine dependence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Therapeutics. According to news reporting out of Catalonia, Spain, by NewsRx editors, research stated, "Cocaine dependence is a severe disorder for which no medication has been approved. Like opioids for heroin dependence, replacement therapy with psychostimulants could be an effective therapy for treatment."

Our news journalists obtained a quote from the research from the University of Girona, "To assess the effects of psychostimulants for cocaine abuse and dependence. Specific outcomes include sustained cocaine abstinence and retention in treatment. We also studied the influence of type of drug and comorbid disorders on psychostimulant efficacy. Search methods This is an update of the review previously published in 2010. For this updated review, we searched the Cochrane Drugs and Alcohol Group Trials Register, CENTRAL, MEDLINE, Embase and PsycINFO up to 15 February 2016. We handsearched references of obtained articles and consulted experts in the field. Selection criteria We included randomised parallel group controlled clinical trials comparing the efficacy of a psychostimulant drug versus placebo. Data collection and analysis We used standard methodological procedures expected by Cochrane. We included 26 studies involving 2366 participants. The included studies assessed nine drugs: bupropion, dexamphetamine, lisdexamfetamine, methylphenidate, modafinil, mazindol, methamphetamine, mixed amphetamine salts and selegiline. We did not consider any study to be at low risk of bias for all domains included in the Cochrane 'Risk of bias' tool. Attrition bias was the most frequently suspected potential source of bias of the included studies. We found very low quality evidence that psychostimulants improved sustained cocaine abstinence (risk ratio (RR) 1.36, 95% confidence interval (CI) 1.05 to 1.77, P = 0.02), but they did not reduce cocaine use (standardised mean difference (SMD) 0.16, 95% CI -0.02 to 0.33) among participants who continued to use it. Furthermore, we found moderate quality evidence that psychostimulants did not improve retention in treatment (RR 1.00, 95% CI 0.93 to 1.06). The proportion of adverse event-induced dropouts and cardiovascular adverse event-induced dropouts was similar for psychostimulants and placebo (RD 0.00, 95% CI -0.01 to 0.01; RD 0.00, 95% CI -0.02 to 0.01, respectively). When we included the type of drug as a moderating variable, the proportion of patients achieving sustained cocaine abstinence was higher with bupropion and dexamphetamine than with placebo. Psychostimulants also appeared to increase the proportion of patients achieving sustained cocaine and heroin abstinence amongst
methadone-maintained, dual heroin-cocaine addicts. Retention to treatment was low, though, so our results may be compromised by attrition bias. We found no evidence of publication bias. Authors’ conclusions This review found mixed results. Psychostimulants improved cocaine abstinence compared to placebo in some analyses but did not improve treatment retention. Since treatment dropout was high, we cannot rule out the possibility that these results were influenced by attrition bias."

According to the news editors, the research concluded: "Existing evidence does not clearly demonstrate the efficacy of any pharmacological treatment for cocaine dependence, but substitution treatment with psychostimulants appears promising and deserves further investigation."

For more information on this research see: Psychostimulant drugs for cocaine dependence. Cochrane Database of Systematic Reviews, 2016;(9):1674-1854. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting X. Castells, University of Girona, Dept. of Med Sci, TransLab Res Grp, Unit Clin Pharmacol, Girona 17071, Catalonia, Spain. Additional authors for this research include R. Cunill, C. Perez-Mana, X. Vidal and D. Capella.

Keywords for this news article include: Catalonia, Spain, Europe, Therapeutics, Therapy, Article Review, Drugs and Therapies, Norepinephrine-Dopamine Reuptake Inhibitors, Psychotherapeutic Agents, Bupropion, Placebos, University of Girona.

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**Drugs and Therapies - Toxicology and Pharmacology**

**Study Findings on Toxicology and Pharmacology Are Outlined in Reports from D. Poddalgoda and Colleagues (Derivation of biomonitoring equivalent for inorganic tin for interpreting population-level urinary biomonitoring data)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Toxicology and Pharmacology. According to news reporting out of Ottawa, Canada, by NewsRx editors, research stated, "Level biomonitoring of tin in urine has been conducted by the U.S. National Health and Nutrition Examination Survey (NHANES) and the National Nutrition and Health Study (ENNS - Etude nationale nutrition sante) in France."

Our news journalists obtained a quote from the research, "The general population is predominantly exposed to inorganic tin from the consumption of canned food and beverages. The National Institute for Public Health and the Environment of the Netherlands (RIVM) has established a tolerable daily intake (TDI) for chronic exposure to inorganic tin based on a NOAEL of 20 mg/kg bw per day from a 2-year feeding study in rats. Using a urinary excretion fraction (0.25%) from a controlled human study along with a TDI value of 0.2 mg/kg bw per day, a Biomonitoring Equivalent (BE) was derived for urinary tin (26 μg/g creatinine or 20 μg/L urine). The geometric mean and the 95th percentile tin urine concentrations of the general population in U.S. (0.705 and 4.5 μg/g creatinine) and France (0.51 and 2.28 μg/g creatinine) are below the BE associated with the TDI, indicating that the population exposure to
inorganic tin is below the exposure guidance value of 0.2 mg/kg bw per day. Overall, the robustness of pharmacokinetic data forming the basis of the urinary BE development is medium."

According to the news editors, the research concluded: "The availability of internal dose and kinetic data in the animal species forming the basis of the assessment could improve the overall confidence in the present assessment."

For more information on this research see: Derivation of biomonitoring equivalent for inorganic tin for interpreting population-level urinary biomonitoring data. Regulatory Toxicology and Pharmacology, 2016;81():430-436. Regulatory Toxicology and Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Regulatory Toxicology and Pharmacology - www.journals.elsevier.com/regulatory-toxicology-and-pharmacology/)

Our news journalists report that additional information may be obtained by contacting K. Krishnan, Risk Sci Int, Ottawa, ON K1P 6L5, Canada. Additional authors for this research include K. Macey, I. Jayawardene and K. Krishnan.

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Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Toxicology and Pharmacology, Drugs and Therapies.

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Nutritional and Metabolic Diseases and Conditions …

Study Findings on Type 2 Diabetes Are Outlined in Reports from F. Haenen and Colleagues (Roux-en-Y gastric bypass for obesity after Belsey-Mark IV for large hiatus hernia and intrathoracic stomach, in combination with gastroesophageal reflux ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes. According to news reporting originating from Geel, Belgium, by NewsRx correspondents, research stated, "Obesity is an increasing problem worldwide; patients who remain obese after non-surgical interventions are potential candidates for surgical intervention. Laparoscopic Roux-en-Y gastric bypass (RYGB) has proven its effects on excess weight loss and its positive effect on comorbidities and also, on reflux correction."

Our news editors obtained a quote from the research, "Case report: Our patient, a 53-year-old male, with a BMI of 45 kg/m(2) and type 2 diabetes, underwent a Belsey-Mark IV procedure in another center because of a large hiatus hernia and intrathoracic stomach, in combination with gastroesophageal reflux disease (GERD). He consulted at our center concerning his morbid obesity. After a positive preoperative evaluation a RYGB was performed with an uneventful postoperative course. RYGB is a safe and feasible procedure to perform after a Belsey-Mark IV procedure. To our knowledge, this is the first and only report of a RYGB after a Belsey-Mark IV procedure. There were no intra-operative complications and 18 months follow-up was unremarkable, with a 78.10% excess weight loss (EWL), at 86 kg, and no remaining symptoms of GERD."
According to the news editors, the research concluded: "We also mention resolution of the patient's diabetes mellitus type 2 measured by the cessation of the glucophage, which is an added health benefit."


The news editors report that additional information may be obtained by contacting F. Haenen, AZ St Dimpna, Dept. of Gen & Abdominal Surg, Geel, Belgium. Additional authors for this research include B. Gys, T. Gys and T. Lafullarde.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/00015458.2015.1128209. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Geel, Belgium, Europe, Nutritional and Metabolic Diseases and Conditions, Digestive System Diseases and Conditions, Gastrointestinal Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus, Esophageal Diseases and Conditions, Esophageal Motility Disorders, Gastroesophageal Reflux, Deglutition Disorders, Nutrition Disorders, Acid Reflux Disease, Risk and Prevention, Diet and Nutrition, Gastroenterostomy, Gastroenterology, Type 2 Diabetes, Gastric Bypass, Overnutrition, Bariatrics, Surgery, Hernias, Obesity.

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Health and Medicine - Urology

Study Findings on Urology Are Outlined in Reports from Children's Hospital (Pathologic Risk Factors for Metastatic Disease in Postpubertal Patients With Clinical Stage I Testicular Stromal Tumors)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Health and Medicine - Urology are presented in a new report. According to news reporting from Minneapolis, Minnesota, by NewsRx journalists, research stated, "To systematically review the existing literature to analyze the impact of previously identified pathologic risk factors on harboring occult metastatic disease (OMD) in patients with Clinical Stage I testicular stromal tumors (TSTs). A literature search using PubMed was conducted using the following terms: 'testicular stromal tumors,' 'testicular Leydig cell tumors,' 'testicular Sertoli tumors,' 'testicular interstitial tumors,' 'testicular granulosa tumor,' and 'testicular sex cord tumors.' For analysis, we included only studies with data on available recurrence, survival, and time-to-event."

The news correspondents obtained a quote from the research from Children's Hospital, "We hypothesized that patients with >= 2 risk factors would experience lower 5-year OMD-free survival (OMDFS) than those with <2 risk factors. Two hundred ninety-two patients from 47 publications were included with a median age at diagnosis of 35 years (range 12-76). Five-year OMDFS and overall survival in patients with Stage I TSTs were 91.2% and 93.2%, respectively. When comparing those who harbored OMD to those who did not, we observed an increased risk of OMD for each additional risk factor (P < .001). Five-year OMDFS was 98.1%
for those with <2 risk factors vs 44.9% for those with >= 2 risk factors (P < .001). The existing literature on pathologic risk factors for OMD in this population is insufficient to make broad clinical recommendations. However, these factors appear to risk-stratify patients and may be useful for future research investigating adjuvant therapy in higher-risk patients."

According to the news reporters, the research concluded: "This review indicates that such a stratification system has a rational basis."

For more information on this research see: Pathologic Risk Factors for Metastatic Disease in Postpubertal Patients With Clinical Stage I Testicular Stromal Tumors. *Urology*, 2016;97():138-144. *Urology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

Our news journalists report that additional information may be obtained by contacting K.O. Rove, Childrens Hosp & Clin Minnesota, Dept. of Canc & Blood Disorders, Minneapolis, MN, United States. Additional authors for this research include P.D. Maroni, C.R. Cost, D.L. Fairclough, G. Giannarini, A.K. Harris, K.A.P. Schultz and N.G. Cost.

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Keywords for this news article include: Minneapolis, Minnesota, United States, North and Central America, Urology, Health and Medicine, Risk and Prevention, Children's Hospital.

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independent predictors of NOC-UCB and formed the basis of the nomogram. By adding the GPS, the accuracy of the nomogram improved by 4.7% to 81.7%. The decision curve analysis showed a net benefit of this model compared with the Green model and the strategies of treating all patients or no patient with NAC. Limitations include the retrospective design and the lack of a validation cohort. NOC-UCB at radical cystectomy can be accurately predicted. The accuracy of preoperative models can be improved by adding biomarkers of systemic inflammatory response, such as the GPS."

According to the news reporters, the research concluded: "The use of this nomogram may help physicians to accurately identify patients with NOC-UCB who may benefit from NAC."

For more information on this research see: Development of a Preoperative Nomogram Incorporating Biomarkers of Systemic Inflammatory Response to Predict Nonorgan-confined Urothelial Carcinoma of the Bladder at Radical Cystectomy. Urology, 2016;95():132-138. Urology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

Our news journalists report that additional information may be obtained by contacting T. Klatte, Medical University of Vienna, Dept. of Urol, A-1090 Vienna, Austria. Additional authors for this research include S.L. Hofbauer, C.V. Leitner, M. de Martino, M. Ozsoy, M. Susani, S.F. Shariat and T. Klatte.

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Keywords for this news article include: Vienna, Austria, Europe, Surgery, Diagnostics and Screening, Radical Cystectomy, Urothelial Cancer, Bladder Cancer, Carcinomas, Oncology, Medical University.

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Vaccination

Study Findings on Vaccination Are Outlined in Reports from Institute of Child Health (Epidemiology and risk factors for pneumonia severity and mortality in Bangladeshi children < 5 years of age before 10-valent pneumococcal conjugate vaccine ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Vaccination are discussed in a new report. According to news originating from Dhaka, Bangladesh, by NewsRx correspondents, research stated, "Pneumonia is the leading infectious cause of morbidity and mortality in young children in Bangladesh. We present the epidemiology of pneumonia in Bangladeshi children < 5 years before 10-valent pneumococcal conjugate vaccine introduction and investigate factors associated with disease severity and mortality."

Our news journalists obtained a quote from the research from the Institute of Child Health, "Children aged 2-59 months admitted to three Bangladeshi hospitals with pneumonia (i.e., cough or difficulty breathing and age-specific tachypnea without danger signs) or severe pneumonia (i.e., cough or difficulty breathing and = 1 danger signs) were included."
Demographic, clinical, laboratory, and vaccine history data were collected. We assessed associations between characteristics and pneumonia severity and mortality using multivariable logistic regression. Among 3639 Bangladeshi children with pneumonia, 61% had severe disease, and 2% died. Factors independently associated with severe pneumonia included ages 2-5 months (adjusted odds ratio [aOR] 1.60 [95% CI: 1.26-2.01]) and 6-11 months (aOR 1.31 [1.10-1.56]) relative to 12-59 months, low weight for age (aOR 1.22 [1.04-1.42]), unsafe drinking water source (aOR 2.00 [1.50-2.69]), higher paternal education (aOR 1.34 [1.15-1.57]), higher maternal education (aOR 0.74 [0.64-0.87]), and being fully vaccinated for age with pentavalent vaccination (aOR 0.64 [0.51-0.82]). Increased risk of pneumonia mortality was associated with age < 12 months, low weight for age, unsafe drinking water source, lower paternal education, disease severity, and having = 1 co-morbid condition. Modifiable factors for severe pneumonia and mortality included low weight for age and access to safe drinking water.

According to the news editors, the research concluded: "Improving vaccination status could decrease disease severity."

For more information on this research see: Epidemiology and risk factors for pneumonia severity and mortality in Bangladeshi children < 5 years of age before 10-valent pneumococcal conjugate vaccine introduction. *BMC Public Health*, 2016;16():57-68. *BMC Public Health* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Public Health - www.biomedcentral.com/bmepublichealth/)


Keywords for this news article include: Dhaka, Bangladesh, Asia, Respiratory Tract Diseases and Conditions, Immunization and Public Health, Lung Diseases and Conditions, Respiratory Tract Infections, Pneumococcal Disease, Biological Products, Risk and Prevention, Infectious Disease, Conjugate Vaccines, Synthetic Vaccines, Epidemiology, Pulmonology, Vaccination, Pediatrics, Pneumonia, Institute of Child Health.

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**Immunization - Vaccines**

**Study Findings on Vaccines Are Outlined in Reports from Institute of Molecular Genetics (Dendritic cells pulsed with tumor cells killed by high hydrostatic pressure induce strong immune responses and display therapeutic effects both in murine ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunization - Vaccines have been published. According to news reporting originating from Prague, Czech Republic, by NewsRx correspondents, research stated, "High hydrostatic pressure (HHP) has been shown to induce immunogenic cell death of cancer cells, facilitating their uptake by dendritic cells (DC) and subsequent presentation of tumor antigens. In the present study, we demonstrated immunogenicity of the HHP-treated tumor cells in mice."
Our news editors obtained a quote from the research from the Institute of Molecular Genetics, "HHP was able to induce immunogenic cell death of both TC-1 and TRAMP-C2 tumor cells, representing murine models for human papilloma virus-associated tumors and prostate cancer, respectively. HHP-treated cells induced stronger immune responses in mice immunized with these tumor cells, documented by higher spleen cell cytotoxicity and increased IFNg production as compared to irradiated tumor cells, accompanied by suppression of tumor growth in vivo in the case of TC-1 tumors, but not TRAMP-C2 tumors. Furthermore, HHP-treated cells were used for DC-based vaccine antigen pulsing. DC co-cultured with HHP-treated tumor cells and matured by a TLR 9 agonist exhibited higher cell surface expression of maturation markers and production of IL-12 and other cytokines, as compared to the DC pulsed with irradiated tumor cells. Immunization with DC cell-based vaccines pulsed with HHP-treated tumor cells induced high immune responses, detected by increased spleen cell cytotoxicity and elevated IFNg production. The DC-based vaccine pulsed with HHP-treated tumor cells combined with docetaxel chemotherapy significantly inhibited growth of both TC-1 and TRAMP-C2 tumors."

According to the news editors, the research concluded: "Our results indicate that DC-based vaccines pulsed with HHP-inactivated tumor cells can be a suitable tool for chemoimmunotherapy, particularly with regard to the findings that poorly immunogenic TRAMP-C2 tumors were susceptible to this treatment modality."

For more information on this research see: Dendritic cells pulsed with tumor cells killed by high hydrostatic pressure induce strong immune responses and display therapeutic effects both in murine TC-1 and TRAMP-C2 tumors when combined with docetaxel chemotherapy. International Journal of Oncology, 2015;48(3):953-64.

The news editors report that additional information may be obtained by contacting R. Míkyšková, Dept. of Transgenic Models of Diseases, Institute of Molecular Genetics of the ASCR, vvi, Prague, Czech Republic. Additional authors for this research include I. Štepanek, M. Indrova, J. Bieblova, J. Šimova, I. Truxova, I. Moserova, J. Fucikova, J. Bartunkova, R. Špišek and M. Reiniš.

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adverse effects of feminizing cross-sex hormone therapy (CSHT) is venous thromboembolism (VTE); however, no study has assessed the incidence of VTE from the hormone therapies used in the United States because previous publications on this topic have originated in Europe. CSHT in the United States typically includes estradiol with the antiandrogen spironolactone, whereas in Europe estradiol is prescribed with the progestin cyproterone acetate.

Our news journalists obtained a quote from the research from George Washington University. "To estimate the incidence of VTE from the standard feminizing CSHTs used in the United States. A retrospective chart review of transgender women who had been prescribed oral estradiol at a District of Columbia community health center was performed. The primary outcomes of interest were deep vein thrombosis or pulmonary emboli. From January 1, 2008 through March 31, 2016, 676 transgender women received oral estradiol-based CSHT for a total of 1,286 years of hormone treatment and a mean of 1.9 years of CSHT per patient. Only one individual, or 0.15% of the population, sustained a VTE, for an incidence of 7.8 events per 10,000 person-years."

According to the news editors, the research concluded: "There was a low incidence of VTE in this population of transgender women receiving oral estradiol."


The news correspondents report that additional information may be obtained from J.D. Arnold, George Washington University, Sch Med & Hlth Sci, Washington, DC 20052, United States. Additional authors for this research include E.P. Sarkodie, M.E. Coleman and D.A. Goldstein.

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Heart Disorders and Diseases - Atrial Fibrillation

Study Results from A.L. Ross et al Provide New Insights into Atrial Fibrillation (Comparison Of Weight-based Dose Vs. Standard Dose Diltiazem In Patients With Atrial Fibrillation Presenting To The Emergency Department)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Atrial Fibrillation have been presented. According to news reporting originating from Hartford, Connecticut, by
NewsRx correspondents, research stated, "Despite evidence-based recommended weight-based (WB) dosing of diltiazem for the initial treatment of atrial fibrillation (AF) with rapid ventricular response (RVR), many providers utilize lower initial doses of diltiazem. We sought to determine whether a low, standard dose of diltiazem is noninferior to WB diltiazem as an initial bolus dose in the treatment of AF with RVR."

Our news editors obtained a quote from the research, "This retrospective review included patients who presented to the emergency department (ED) of an urban, academic tertiary medical center experiencing AF with RVR from November 2010 to August 2014. Adult patients were categorized by the dose of diltiazem received; 10 mg standard dose or 0.2-0.3 mg/kg WB dose. The primary outcome of successful treatment was defined as a composite of the following parameters 15 min after the initial bolus dose: heart rate (HR) < 100 beats/min, reduction of HR >= 20%, or a conversion to normal sinus rhythm. Four hundred and fifty-six patients who received diltiazem were included for study evaluation (standard dose: n = 255 patients, WB: n = 201 patients). Baseline characteristics, medical history, and medication use before ED presentation were similar between the groups. Significant differences at baseline between the groups included weight and HR at presentation. The primary outcome of successful treatment was attained in 60.8% of the standard dose patients and 68.7% of the WB patients (p = 0.082)."

According to the news editors, the research concluded: "In patients presenting to the ED, we found that standard dose diltiazem was noninferior to WB dosing in the initial treatment of AF with RVR."


The news editors report that additional information may be obtained by contacting M.A. Krawczynski, Dept. of Pharm Serv, Hartford, CT, United States. Additional authors for this research include D.M. O'Sullivan, M.J. Drescher and M.A. Krawczynski.

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Keywords for this news article include: Hartford, Connecticut, United States, North and Central America, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Heart Disease.

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report. According to news reporting originating from Cairo, Egypt, by NewsRx correspondents, research stated, "Buccal delivery seems to be a very promising administration route for macromolecular drugs. Here, we explored the potential of cationic polymethacrylate nanoparticles (NPs) as a carrier system for the buccal delivery of low molecular weight heparin (LMWH)."

Financial support for this research came from French National Research Agency.

Our news editors obtained a quote from the research from Ain Shams University, "LMWH-loaded NPs were prepared by emulsification solvent diffusion method and the NPs were analyzed for their physiochemical properties, rheological evaluations and ex vivo transport studies across buccal mucosa. The prepared LMWH-loaded NPs showed a mean diameter between 400 and 500 nm with unimodal size distribution with negative surface charge. Viscosity measurements revealed a positive rheological synergism between the prepared NPs and mucin when mixed under physiological conditions. After 4 h, about 6.3 +/- 0.9% of LMWH was released in case of using Eudragit ® RS (ERS); while Eudragit ® RL (ERL) NPs released only 3.0 +/- 0.3 % of its LMWH content and this incomplete release was slightly ameliorated in the presence of mucin reaching to 7.2 +/- 0.3 % and 4.8 +/- 0.3 % for ERS and ERL, respectively. The ex-vivo permeability of heparin through the buccal mucosa was significantly increased after using polymetharylate NPs while no heparin permeation was detected from free heparin solution. Confocal laser scanning microscopy (CLSM) imaging indicated the mucoadhesive properties of the polymetharylate NPs where the drug-free NPs were detected in the superficial layers of buccal mucosa. LMWH-loaded NPs had less mucoadhesive properties showing significant deeper penetration of the mucosa."

According to the news editors, the research concluded: "The results indicated that mucoadhesive cationic polymethacrylate NPs offer a possible approach for the buccal delivery of heparin."


The news editors report that additional information may be obtained by contacting M.M.A. Abdel-Mottaleb, Ain Shams University, Dept. of Pharmaceut & Ind Pharm, Fac Pharm, Cairo, Egypt. Additional authors for this research include M.M.A. Abdel-Mottaleb and A. Lamprecht.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijpharm.2016.10.039. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cairo, Egypt, Africa, Emerging Technologies, Drugs and Therapies, Heparin Therapy, Nanotechnology, Nanoparticle, Ain Shams University.

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**Oncology - Pancreatic Cancer**

**Study Results from Albert Einstein Medical Center Broaden Understanding of Pancreatic Cancer (Metastatic pancreatic cancer presenting as linitis plastica of the stomach)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Pancreatic Cancer. According to news reporting originating in Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Metastatic disease from pancreatic carcinoma involving the stomach is an unusual event, and the pattern of spread in the form of linitis plastica, to our knowledge, has not been reported previously. Local recurrence after curative resection for pancreatic cancer is the most common pattern of disease."

The news reporters obtained a quote from the research from Albert Einstein Medical Center, "We report a case of metastatic pancreatic adenocarcinoma presenting as linitis plastica of the stomach 4 years after curative resection. A 52-year-old man presented with epigastric pain and melaena 4 years after undergoing a Whipple's procedure for a poorly-differentiated pancreatic adenocarcinoma, stage IB; T2N0M0. CT imaging of the abdomen revealed thickening of the gastric wall, and subsequent oesophagogastroduodenoscopy (OGD) revealed diffuse friable erythaematous tissue."

According to the news reporters, the research concluded: "The biopsy specimen obtained during the OGD revealed a poorly differentiated adenocarcinoma, with similar appearance to the prior specimen obtained from the pancreas."

For more information on this research see: Metastatic pancreatic cancer presenting as linitis plastica of the stomach. *Bmj Case Reports*, 2016;2016():. (BMJ Publishing Group - group.bmj.com/; Bmj Case Reports - casereports.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting S. Garg, Albert Einstein Medical Center, Philadelphia, Pennsylvania, United States. Additional authors for this research include R. Mulki and D. Sher.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/bcr-2015-214298. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oncology, Philadelphia, Pennsylvania, United States, Adenocarcinoma, Gastroenterology, Pancreatic Cancer, Pancreatic Neoplasms, North and Central America.

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**Heart Disorders and Diseases - Tachycardia**

**Study Results from All India Institute of Medical Sciences Update Understanding of Tachycardia (Systemic Inflammatory Response Syndrome Following Percutaneous Nephrolithotomy: Assessment of Risk Factors and Their Impact on Patient Outcomes)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Tachycardia are discussed in a new report. According to news reporting originating in New Delhi, India, by NewsRx journalists, research stated, "To identify perioperative risk factors for postoperative systemic inflammatory response syndrome (SIRS) and suggest possible modifications to reduce morbidity. We prospectively analysed perioperative data such as history of pervious stone surgery, number and configuration of stones, presence of stent or nephrostomy, any previous positive urine culture, intraoperative renal pelvic urine and stone culture, aspiration of turbid urine on initial puncture, number of tracts required and clearance of stones, operative time and intraoperative hypotension and tachycardia of all patients who underwent percutaneous nephrolithotomy over a period of 15 months."

The news reporters obtained a quote from the research from the All India Institute of Medical Sciences, "A total of 182 patients were included, average stone size was 2.8 cm, 36.2% had staghorn stones and 15.9% had an indwelling stent or nephrostomy. Despite sterile preoperative urine culture, renal pelvic urine culture (RPUC) was positive in 14.8% (27 patients) and stone culture was positive in 21.9% (40 patients). SIRS developed in 17.5% (32 patients) and septic shock in 1.09% (2 patients). On analysis younger age, positive RPUC and stone culture, longer operative time and intraoperative tachycardia correlated significantly with the development of SIRS."

According to the news reporters, the research concluded: "Intra-operative cultures are only therapy-guiding cultures during SIRS, as preoperative urine cultures seldom accurately depict bacteriological status of upper tracts and thus should be obtained in all patients."


Our news correspondents report that additional information may be obtained by contacting P. Singh, Dept. of Urology, All India Institute of Medical Sciences, New Delhi, India. Additional authors for this research include S. Yadav, A. Singh, A.K. Saini, R. Kumar, A. Seth and P.N Dogra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000441954. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Sepsis, Surgery, New Delhi, Cardiology, Tachycardia, Heart Disease, Cardiovascular, Nephrolithotomy, Cardiac Arrhythmias, Risk and Prevention, Heart Disorders and Diseases, Blood Diseases and Conditions.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pregnancy Complications - Spontaneous Abortion have been presented. According to news originating from Amiens, France, by NewsRx correspondents, research stated, "Acquired and inherited thrombophilia have both been reported to be associated with an increased risk of obstetric complications in early or later stages of pregnancy. Annexin A2 (ANXA2) is strongly expressed in vascular and placental tissues and plays a crucial role in fibrinolysis."

Our news journalists obtained a quote from the research from Amiens University Hospital, "The aim of the present study was to evaluate the prevalence of antibodies directed against ANXA2 in patients with recurrent miscarriage or obstetric complications. Anti-ANXA2 antibodies (aANXA2) were detected by ELISA in the sera from 46 women with obstetric morbidity, mainly recurrent miscarriage. The cut-off value for positivity was defined as 3 standard deviations above the mean optical density (OD) obtained in the sera from 42 female blood donors. The prevalence of aANXA2 in patients and healthy individuals was 15.2% and 2.3%, respectively. A statistically significant difference was observed between the 2 groups in terms of aANXA2 IgG titers (p = 0.01). The highest aANXA2 levels were observed in sera from 2 patients with recurrent miscarriage and one patient with preeclampsia. aANXA2 could play a role in thrombotic mechanisms leading to recurrent pregnancy loss and placental vascular disease."

According to the news editors, the research concluded: "Further studies are needed to determine whether ANXA2 is critical for maintenance of placental integrity."

For more information on this research see: Antibodies directed against annexin A2 and obstetric morbidity. *Journal of Reproductive Immunology*, 2016;118():50-53. *Journal of Reproductive Immunology* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Journal of Reproductive Immunology - www.journals.elsevier.com/journal-of-reproductive-immunology/)

The news correspondents report that additional information may be obtained from V. Salle, Amiens Univ Hosp, Biochem Lab. INSERM, U1088, Amiens, France. Additional authors for this research include J. Schmidt, A. Smail, C. Maziere, M.A. Conte, A. Brule, J.C. Maziere, E. Cadet, Y.E. Herpe and P. Duhaut.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jri.2016.08.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Amiens, France, Europe, Pregnancy Complications, Spontaneous Abortion, Carrier Proteins, Immunoglobulins, Blood Proteins, Women's Health, Annexin A2, Immunology, Antibodies, Obstetrics, Annexins, Amiens University Hospital.

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**Connective Tissue Cells**

**Study Results from Anhui Medical University Provide New Insights into Connective Tissue Cells (Inhibitory effect of recombinant human endostatin on the proliferation of hypertrophic scar fibroblasts in a rabbit ear model)**
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Connective Tissue Cells is the subject of a report. According to news originating from Hefei, People's Republic of China, by NewsRx correspondents, research stated, "Hypertrophic scar (HS) is a pathological scar that particularly occurs after traumatic injuries, surgical procedures and burning. Abnormal activation of hypertrophic scar fibroblasts (HSFs) intensifies fibrosis during wound healing."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Anhui Medical University, "Our previous studies demonstrated that recombinant human endostatin (rhEndostatin) prevented synovial thickening in adjuvant arthritis (AA) rats via inhibition of proliferation and enhancement of apoptosis in synovial fibroblasts. However, the effect of this protein on HSF proliferation is not known. This study investigated the inhibitory effect of rhEndostatin on the proliferation of cultured HSFs in a rabbit ear model. MTT assay and flow cytometric detection were performed to investigate HSF proliferation and cell cycle progression, respectively. The expression levels of p53, p21, cyclinD1, cyclin-dependent kinase 4 (CDK4) and proliferating cell nuclear antigen (PCNA) in HSFs were detected using real-time PCR and Western blotting. Our data revealed that HSFs treated with rhEndostatin were significantly inhibited in a concentration-dependent manner with an IC50 value of 100 mg/L. Also, rhEndostatin (100 mg/L) primarily induced G(0)/G(1) and partially G(2)/M cell cycle arrest of HSFs. There were significant decreases in the expression levels of p53, p27, CDK4, cyclinD(1) and PCNA in HSFs treated with rhEndostatin."

According to the news editors, the research concluded: "RhEndostatin inhibited HSF proliferation via G(0)/G(1) and/or G(2)/M phase arrest of the cell cycle, which was partially due to the down-regulation of cyclinD(1), CDK4 and PCNA. These findings suggest that rhEndostatin may reduce scar hypertrophy in vivo via inhibition of HSF proliferation and may be a novel agent for HS treatment."


The news correspondents report that additional information may be obtained from Y.F. Gong, Anhui Medical University, Dept. of Anat, Hefei 230032, People's Republic of China. Additional authors for this research include X.M. Zhang, F. Liu, Z.Z. Wang, X.F. Deng, Y. Jiao, X.J. Li and X.Y. Huang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ejphar.2016.09.034. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hefei, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Extracellular Matrix Proteins, Connective Tissue Cells, Angiostatic Proteins, Collagen Type XVIII, Scleroproteins, Endostatins, Fibroblasts, Anhui Medical University.

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Oncology - Breast Cancer

Study Results from Army General Hospital Broaden Understanding of Breast Cancer (The Expression and Clinical Outcome of pCHK2-Thr68 and pCDC25C-Ser216 in Breast Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Checkpoint kinase 2 (CHK2) and cell division cycle 25C (CDC25C) are two proteins involved in the DNA damage response pathway, playing essential roles in maintaining genome integrity. As one of the major hallmarks of abnormal cellular division, genomic instability occurs in most cancers."

Our news journalists obtained a quote from the research from Army General Hospital, "In this study, we identified the functional expression of pCHK2-Thr68 and pCDC25C-Ser216 in breast cancer, as well as its association with breast cancer survival. Tissue microarray analysis using immunohistochemistry was constructed to identify the expression of pCHK2-Thr68 and pCDC25C-Ser216 in 292 female breast cancer patients. The relationship among protein expression, clinicopathological factors (e.g., human epidermal growth factor receptor 2 (HER 2), tumor size, tumor-node-metastasis (TNM) classification), and overall survival of the breast cancer tissues were analyzed using Pearson's chi-square (chi(2)) test, Fisher's exact test, multivariate logistic regression and Kaplan-Meier survival analysis. Significantly higher expressions of pCHK2-Thr68 and pCDC25C-Ser216 were observed in the nucleus of the breast cancer cells compared to the paracancerous tissue (pCHK2-Thr68, 20.38% vs. 0%; pCDC25C-Ser216, 82.26% vs. 24.24%). The expression of pCHK2-Thr68 and pCDC25C-Ser216 in breast cancer showed a positive linear correlation (p = 0.026). High expression of pCHK2-Thr68 was associated with decreased patient survival (p = 0.001), but was not an independent prognostic factor."

According to the news editors, the research concluded: "Our results suggest that pCHK2-Thr68 and pCDC25C-Ser216 play important roles in breast cancer and may be potential treatment targets."

For more information on this research see: The Expression and Clinical Outcome of pCHK2-Thr68 and pCDC25C-Ser216 in Breast Cancer. International Journal of Molecular Sciences, 2016;17(11):674-683. International Journal of Molecular Sciences can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland.

Our news journalists report that additional information may be obtained by contacting H.Y. Jiang, PLA Army Gen Hosp, Dept. of Radiat Oncol, Beijing 100700, People's Republic of China. Additional authors for this research include B. Wang, F.L. Zhang, Y.Y. Qian, Chia, M.Z. Ying, Y.J. Wang and L. Zuo.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Women's Health, Breast Cancer, Oncology, Genetics, Army General Hospital.

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Study Results from AstraZeneca Provide New Insights into Gastric Cancer (Intra-Tumoral Heterogeneity of HER2, FGFR2, cMET and ATM in Gastric Cancer: Optimizing Personalized Healthcare through Innovative Pathological and Statistical Analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gastric Cancer. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Current drug development efforts on gastric cancer are directed against several molecular targets driving the growth of this neoplasm. Intra-tumoral biomarker heterogeneity however, commonly observed in gastric cancer, could lead to biased selection of patients."

Our news journalists obtained a quote from the research from AstraZeneca, "MET, ATM, FGFR2, and HER2 were profiled on gastric cancer biopsy samples. An innovative pathological assessment was performed through scoring of individual biopsies against whole biopsies from a single patient to enable heterogeneity evaluation. Following this, false negative risks for each biomarker were estimated in silico. 166 gastric cancer cases with multiple biopsies from single patients were collected from Shanghai Renji Hospital. Following pre-set criteria, 56 ~ 78% cases showed low, 15 ~ 35% showed medium and 0 ~ 11% showed high heterogeneity within the biomarkers profiled. If 3 biopsies were collected from a single patient, the false negative risk for detection of the biomarkers was close to 5% (exception for FGFR2: 12.2%). When 6 biopsies were collected, the false negative risk approached 0%.

According to the news editors, the research concluded: "Our study demonstrates the benefit of multiple biopsy sampling when considering personalized healthcare biomarker strategy, and provides an example to address the challenge of intra-tumoral biomarker heterogeneity using alternative pathological assessment and statistical methods."

For more information on this research see: Intra-Tumoral Heterogeneity of HER2, FGFR2, cMET and ATM in Gastric Cancer: Optimizing Personalized Healthcare through Innovative Pathological and Statistical Analysis. Plos One, 2015;10(11):e0143207. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting P. Ye, Asia & Emerging Markets iMed, AstraZeneca R&D, Shanghai, People's Republic of China. Additional authors for this research include M. Zhang, S. Fan, T. Zhang, H. Fu, X. Su, P.R. Gavine, Q. Liu and X. Yin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0143207. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Biotechnology, Shanghai, Oncology, Gastric Cancer, Gastroenterology, Cancer Gene Therapy, Drugs and Therapies, Diagnostics and Screening, People's Republic of China.

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Study Results from Banaras Hindu University Provide New Insights into Lymphoma [Chelerythrine delayed tumor growth and increased survival duration of Dalton’s lymphoma bearing BALB/c H(2d) mice by activation of NK cells in vivo]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lymphoma. According to news reporting out of Uttar Pradesh, India, by NewsRx editors, research stated, "The aims of the present investigation were to evaluate the antitumor effect of chelerythrine (CHE) on in vivo growth and survival duration of BALB/c (H2d) mice bearing Dalton's lymphoma (DL) and enhanced function of tumor associated NK cells (TANK cells). BALB/c (H2d) mice at 8-10 weeks of age of either sex were used."

Our news journalists obtained a quote from the research from Banaras Hindu University, "Increasing concentration of CHE (1.25, 2.5, and 5.0 mg/kg), staurosporine (0.625, 1.0, 1.5, and 2.0 mg/kg) and cyclophosphamide (25, 50, 100, and 200 mg/kg) were administered intraperitoneally and tumor regression and survival duration of tumor bearing host were determined, and thereafter expression of NKG2D and NKG2A on TANK cells were detected. Our results show that treatment with 2.5 mg/kg of CHE results in a significant reduction in mean tumor volume and increased survival duration of DL bearing BALB/c (H2d) mice when compared to control. Activating receptor NKG2D on TANK cells were observed upregulated in contrast to inhibitory receptor NKG2A. CHE reduced mean tumor volume and increased survival duration of DL bearing BALB/c (H2d) mice. Increased expression of activating receptor NKG2D on TANK cells results in recovery of immunosuppression during tumor progression."

According to the news editors, the research concluded: "Therefore, CHE could be a potential anticancer therapeutic agent that may be used to replace chemo-radio-therapy in future."

For more information on this research see: Chelerythrine delayed tumor growth and increased survival duration of Dalton's lymphoma bearing BALB/c H(2d) mice by activation of NK cells in vivo. Journal of Cancer Research and Therapeutics, 2015;11(4):904-10.

Our news journalists report that additional information may be obtained by contacting A. Acharya, Dept. of Zoology, Faculty of Science, Banaras Hindu University, Varanasi, Uttar Pradesh, India. Additional authors for this research include M.S. Tomar and A. Acharya.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.143342. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Oncology, Lymphomas, Hematology, Uttar Pradesh, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphatic Diseases and Conditions.

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Study Results from Beth Israel Deaconess Medical Center Provide New Insights into Atherosclerosis [Circulating Des-gamma-carboxy prothrombin is not associated with cardiovascular calcification or stiffness: The Multi-Ethnic Study of ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Atherosclerosis is the subject of a report. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Vitamin K-dependent protein (VKDP) activity may have a role in preventing cardiovascular calcification, but has not previously been studied in large, generally healthy populations. Using an elevated ankle-brachial index (ABI) as a measure of medial vascular calcification, we performed a case-cohort analysis within the Multi-Ethnic Study of Atherosclerosis, measuring Des-gamma-carboxy prothrombin (DCP) to estimate VKDP activity."

Our news journalists obtained a quote from the research from Beth Israel Deaconess Medical Center, "In secondary analyses of the weighted subcohort, we examined the cross-sectional associations between DCP and prevalent vascular calcification of the coronary vessels, aortic and mitral valves, and aortic wall, and with vascular stiffness. In adjusted analysis, cases (n = 104) had 0.21 ng/ml (-0.94-0.52) lower DCP concentrations than the subcohort (n = 613). Furthermore, amongst the 717 participants in the weighted cohort, VKDP activity was not associated with coronary artery, mitral valve, aortic valve or aortic wall calcification, nor was it associated with vascular stiffness."

According to the news editors, the research concluded: "Our negative results do not support a role of circulating VKDP activity in cardiovascular calcification in community-dwelling adults."


The news correspondents report that additional information may be obtained from J. Danziger, Beth Israel Deaconess Med Center, Dept. of Med, Boston, MA 02215, United States. Additional authors for this research include R.L. Young, K.M. Shea, D.A. Duprez, D.R. Jacobs, R.P. Tracy, J.H. Ix, N.S. Jenny and K.J. Mukamal.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.07.924. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Blood Coagulation Factors, Enzymes and Coenzymes, Enzyme Precursors, Arteriosclerosis, Atherosclerosis, Prothrombin, Cardiology, Hematology, Beth Israel Deaconess Medical Center.

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Immunology - Immunoglobulins

Study Results from Boehringer Ingelheim Pharmaceuticals Provide New Insights into Immunoglobulins [Unexpected Potency Differences between B-Cell-Activating Factor (BAFF) Antagonist Antibodies against Various Forms of BAFF: Trimer, 60-Mer, and ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Immunology - Immunoglobulins have been published. According to news reporting out of Ridgefield, Connecticut, by NewsRx editors, research stated, "Therapeutic agents antagonizing B-cell-activating factor/B-lymphocyte stimulator (BAFF/BLyS) are currently in clinical development for autoimmune diseases; belimumab is the first Food and Drug Administration-approved drug in more than 50 years for the treatment of lupus. As a member of the tumor necrosis factor superfamily, BAFF promotes B-cell survival and homeostasis and is overexpressed in patients with systemic lupus erythematosus and other autoimmune diseases."

Our news journalists obtained a quote from the research from Boehringer Ingelheim Pharmaceuticals, "BAFF exists in three recognized forms: membrane-bound and two secreted, soluble forms of either trimeric or 60-mer oligomeric states. To date, most in vitro pharmacology studies of BAFF neglect one or more of these forms. Here, we report a comprehensive in vitro cell-based analysis of BAFF in assay systems that measure all forms of BAFF-mediated activation. We demonstrate the effects of these BAFF forms in both a primary human B-cell proliferation assay and in nuclear factor kappa B reporter assay systems in Chinese hamster ovary cells expressing BAFF receptors and transmembrane activator and calcium-modulator and cyclophilin ligand interactor (TACI). In contrast to the mouse system, we find that BAFF trimer activates the human TACI receptor. Further, we profiled the activities of two clinically advanced BAFF antagonist antibodies, belimumab and tabalumab. Unexpectedly, we revealed differences in inhibitory potencies against the various BAFF forms, in particular that belimumab does not potently inhibit BAFF 60-mer."

According to the news editors, the research concluded: "Through this increased understanding of the activity of BAFF antagonists against different forms of BAFF, we hope to influence the discovery of BAFF antagonist antibodies with distinct therapeutic mechanisms for improvement in the treatment of lupus or other related autoimmune pathologies."


Our news journalists report that additional information may be obtained by contacting S.M. DeWire, Boehringer Ingelheim Pharmaceut Inc, Immune Modulat & Biotherapeut Discovery, Ridgefield, CT, United States. Additional authors for this research include C.H. Kenny, A.M. Khalil, Q. Pan, K.L.M. Ralph, J. Ritchie, S. Venkataramani, D.H. Presky, S.M. DeWire and S.R. Brodeur.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.236075. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Ridgefield, Connecticut, United States, North and Central America, Intercellular Signaling Peptides and Proteins, B-Cell Activating Factor, Tumor Necrosis Factors, Membrane Glycoproteins, Membrane Proteins, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Boehringer Ingelheim Pharmaceuticals.

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Oncology - Chronic Myeloid Leukemia

Study Results from CONICET Update Understanding of Chronic Myeloid Leukemia (GSTM1 and GSTP1, but not GSTT1 genetic polymorphisms are associated with chronic myeloid leukemia risk and treatment response)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Chronic Myeloid Leukemia have been presented. According to news reporting originating from Buenos Aires, Argentina, by NewsRx correspondents, research stated, "Chronic myeloid leukemia (CML) is associated to the BCR-ABL1 oncogene and can successfully be treated with tyrosine kinase inhibitors (TKIs). However, it remains still under investigation which molecular factors may influence CML risk or varying responses to TKIs."

Funders for this research include National Research Council, National Agency of Scientific and Technical Promotion, National Institute of Cancer.

Our news editors obtained a quote from the research from CONICET, "The aim of this study was to assess the role of Glutathione-S-transferases (GSTs) genetic polymorphisms in CML susceptibility and TKI clinical outcome. Deletion polymorphisms in GSTM1 and GSTT1 genes and the single nucleotide polymorphism in GSTP1 c.319A > G (rs1695; p.105Ile > Val) were genotyped by PCR methods in 141 CML treated patients and 141 sex-and age-matched healthy individuals. Individual analysis of each GST gene showed no association with CML risk. A trend toward significance (p = 0.07) for a recessive model was found for GSTP1 (OR: 2.04; CI: 0.94-4.4). However, the combined analysis showed that GSTM1-null/GSTP1-GG as well as GSTT1-null/GSTP1-GG were associated with CML development (p = 0.03; OR: 3.54 CI: 1.2-14.57; p = 0.05; OR: 12.65; CI: 1.17-21.5). The relationship with treatment outcome showed that the presence of GSTM1 gene was significantly linked with an inferior rate of major molecular response (p = 0.048) and poor event free-survival (EFS) (p = 0.02). Furthermore, a group of patients with GSTP1-GG genotype were significantly associated with reduced EFS comparing to those carrying other GSTP1 genotypes (p = 0.049). GSTP1-GG genotypes had short time to treatment failure in a group of patients unresponsive to TKIs comparing to other GSTP1 genotypes (p = 0.03)."

According to the news editors, the research concluded: "This study highlights the significance of GSTM1 and GSTP1 polymorphisms on CML susceptibility and response to TKIs in the Argentinean population."

For more information on this research see: GSTM1 and GSTP1, but not GSTT1 genetic polymorphisms are associated with chronic myeloid leukemia risk and treatment response. Cancer Epidemiology, 2016;44():16-21. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England.
Study Results from CSIRO Update Understanding of Molecular Pharmaceutics (Modeling the Influence of Fatty Acid Incorporation on Mesophase Formation in Amphiphilic Therapeutic Delivery Systems)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Biotechnology - Molecular Pharmaceutics are presented in a new report. According to news reporting from Clayton, Australia, by NewsRx journalists, research stated, "Dispersed amphiphile-fatty acid systems are of great interest in drug delivery and gene therapies because of their potential for triggered release of their payload. The mesophase behavior of these systems is extremely complex and is affected by environmental factors such as drug loading, percentage and nature of incorporated fatty acids, temperature, pH, and so forth."

Financial support for this research came from Commonwealth Scientific and Industrial Research Organisation.

The news correspondents obtained a quote from the research from CSIRO, "It is important to study phase behavior of amphiphilic materials as the mesophases directly influence the release rate of the incorporated drugs. We describe a robust machine learning method for predicting the phase behavior of these systems."

According to the news reporters, the research concluded: "We have developed models for each mesophase that simultaneously and reliably model the effects of amphiphile and fatty acid structure, concentration, and temperature and that make accurate predictions of these mesophases for conditions not used to train the models."


Our news journalists report that additional information may be obtained by contacting B.T. Le, CSIRO Manufacturing, Clayton 3169, Australia. Additional authors for this research include N. Tran, X. Mulet and D.A Winkler.

The direct object identifier (DOI) for that additional information is:
Study Results from Cancer Institute Provide New Insights into Non-Small Cell Lung Cancer [Erlotinib, cabozantinib, or erlotinib plus cabozantinib as second-line or third-line treatment of patients with EGFR wild-type advanced non-small-cell lung ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Non-Small Cell Lung Cancer. According to news reporting from Stanford, California, by NewsRx journalists, research stated, "Erlotinib is approved for the treatment of all patients with advanced non-small-cell lung cancer (NSCLC), but is most active in the treatment of EGFR mutant NSCLC. Cabozantinib, a small molecule tyrosine kinase inhibitor, targets MET, VEGFR, RET, ROS1, and AXL, which are implicated in lung cancer tumorigenesis."

Financial support for this research came from National Cancer Institute of the National Institutes of Health under the following award numbers:

The news correspondents obtained a quote from the research from Cancer Institute, "We compared the efficacy of cabozantinib alone or in combination with erlotinib versus erlotinib alone in patients with EGFR wild-type NSCLC. This three group, randomised, controlled, open-label, multicentre, phase 2 trial was done in 37 academic and community oncology practices in the USA. Patients were eligible if they had received one or two previous treatments for advanced non-squamous, EGFR wild-type, NSCLC. Patients were stratified by performance status and line of therapy, and randomly assigned using permuted blocks within strata to receive open-label oral daily dosing of erlotinib (150 mg), cabozantinib (60 mg), or erlotinib (150 mg) and cabozantinib (40 mg). Imaging was done every 8 weeks. At the time of radiographic progression, there was optional crossover for patients in either single-drug group to receive combination treatment. The primary endpoint was to compare progression-free survival in patients given erlotinib alone versus cabozantinib alone, and in patients given erlotinib alone versus the combination of erlotinib plus cabozantinib. We assessed the primary endpoint in the per-protocol population, which was defined as all patients who were eligible, randomly assigned, and received at least one dose of treatment. The safety analysis population included all patients who received study treatment irrespective of eligibility. This trial is registered with ClinicalTrials.gov, number NCT01708954: Between Feb 7, 2013, and July 1, 2014, we enrolled and randomly assigned 42 patients to erlotinib treatment, 40 patients to cabozantinib treatment, and 43 patients to erlotinib plus cabozantinib treatment, of whom 111 (89%) in total were included in the primary analysis (erlotinib [n= 38], cabozantinib [n= 38], erlotinib plus cabozantinib [n= 35]). Compared with erlotinib alone (median 1.8 months [95% CI 1.7-2.2]), progression-free survival was significantly improved in the cabozantinib group (4.3 months [3.6-7.4]; hazard ratio [HR] 0.39, 80% CI 0.27-0.55; one-sided p= 0.0003) and in the erlotinib plus cabozantinib group (4.7 months [2.4-7.4]; HR 0.37, 0.25-0.53; one-sided p= 0.0003).
Among participants included in the safety analysis of the erlotinib (n= 40), cabozantinib (n= 40), and erlotinib plus cabozantinib (n= 39) groups, the most common grade 3 or 4 adverse events were diarrhoea (three [8%] cases in the erlotinib group vs three [8%] in the cabozantinib group vs 11 [28%] in the erlotinib plus cabozantinib group), hypertension (none vs ten [25%] vs one [3%]), fatigue (five [13%] vs six [15%] vs six [15%]), oral mucositis (none vs four [10%] vs one [3%]), and thromboembolic event (none vs three [8%] vs two [5%]). One death due to respiratory failure occurred in the cabozantinib group, deemed possibly related to either drug, and one death due to pneumonitis occurred in the erlotinib plus cabozantinib group, deemed related to either drug or the combination. Despite its small sample size, this trial showed that, in patients with EGFR wild-type NSCLC, cabozantinib alone or combined with erlotinib has clinically meaningful, superior efficacy to that of erlotinib alone, with additional toxicity that was generally manageable.

According to the news reporters, the research concluded: "Cabozantinib-based regimens are promising for further investigation in this patient population."

For more information on this research see: Erlotinib, cabozantinib, or erlotinib plus cabozantinib as second-line or third-line treatment of patients with EGFR wild-type advanced non-small-cell lung cancer (ECOG-ACRIN 1512): a randomised, controlled, open-label, multicentre, phase 2 trial. Lancet Oncology, 2016;17(12):1661-1671. Lancet Oncology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Lancet Oncology - www.journals.elsevier.com/lancet-oncology/)

Our news journalists report that additional information may be obtained by contacting J.W. Neal, Stanford Canc Inst, Stanford, CA 94305, United States. Additional authors for this research include S.E. Dahlberg, H.A. Wakelee, S.C. Aisner, M. Bowden, Y. Huang, D.P. Carbone, G.J. Gerstner, R.E. Lerner, J.L. Rubin, T.K. Owonikoko, P.J. Stella, P.D. Steen, A.A. Khalid and S.S. Ramalingam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S1470-2045(16)30561-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Stanford, California, United States, North and Central America, Clinical Trials and Studies, Tyrosine Kinase Inhibitors, Non-Small Cell Lung Cancer, Protein Kinase Inhibitors, Drugs and Therapies, Clinical Research, Erlotinib Therapy, Antineoplastics, EGFR Inhibitors, Lung Neoplasms, Oncology, Cancer Institute.

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Oncology - Prostate Cancer

Study Results from Cancer Institute Update Understanding of Prostate Cancer (Simple diagrammatic method to delineate male urethra in prostate cancer radiotherapy: an MRI based approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news reporting originating from Gurgaon, India, by NewsRx correspondents, research stated, "Stereotactic body radiotherapy (SBRT) is being increasingly utilized in the treatment of prostate cancer. With the advent of high-precision radiosurgery systems, it is possible to obtain dose distributions akin to high-dose rate brachytherapy with SBRT."
Our news editors obtained a quote from the research from Cancer Institute, "However, urethral toxicity has a significant impact on the quality of life in patients with prostate cancer. Contouring the male urethra on a CT scan is difficult in the absence of an indwelling catheter."

According to the news editors, the research concluded: "In this pictorial essay, we have used the MRI obtained for radiotherapy planning to aid in the delineation of the male urethra and have attempted to define guidelines for the same."


The news editors report that additional information may be obtained by contacting D. Gupta, Medanta, Div Radiat Oncol, Medanta Canc Inst, Gurgaon, Haryana, India. Additional authors for this research include D. Gupta, S. Goyal, S.S. Bisht, R. Chaudhary, K. Narang, S. Banerjee, T. Basu, A. Abhishek, S. Sambasivam and N.T. Vishnu.

Keywords for this news article include: Gurgaon, India, Asia, Prostatic Neoplasms, Prostate Cancer, Radiotherapy, Oncology, Therapy, Cancer Institute.

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**Oncology - Gastric Cancer**

**Study Results from Capital Medical University Provide New Insights into Gastric Cancer (Prognostic significance of tumor-associated macrophages density in gastric cancer: a systemic review and meta-analysis)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Gastric Cancer. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Tumor-associated macrophages (TAM) play a dual role in the development of gastric cancer (GC). This study aims to analyze the prognostic value of TAM density in GC patients."

Our news journalists obtained a quote from the research from Capital Medical University. "EVIDENCE ACQUISITION: We conducted a meta-analysis of 11 studies (N.=1043) to investigate the correlation between TAM density and the overall survival (OS) or disease free survival (DFS) of GC patients. Pooled hazard ratios (HRs) and 95% confidence intervals (CIs) were calculated by the STATA statistical software. EVIDENCE SYNTHESIS: The HR of OS of GC patients with high-density TAM is 1.56 (95% Cl: 0.90 similar to 2.22, P<0.001) as compared with those with low-density TAM, and that of DFS is 1.10 (95% Cl: 0.16 similar to 2.03, P=0.022), indicating that TAM density does not significantly predict the poor survival of GC. A subgroup analysis by ethnicity also revealed no significance effect between TAM density aCaucasians:nd a worse OS among both Asians and (Asians: HR=1.47, 95% Cl: 0.76 similar to 2.18, P<0.001; Caucasians: HR=2.23, 95% Cl: 0.62 similar to 3.84, P=0.007, respectively)."

According to the news editors, the research concluded: "Our findings provide empirical evidence that TAM density is not an independent predictor for the survival of GC patients."

Our news journalists report that additional information may be obtained by contacting Y. Li, Capital Med Univ, Beijing Shijitan Hosp, Dept. of Peritoneal Canc Surg, Beijing, People's Republic of China. Additional authors for this research include X.J. Yang, X.F. Geng, C.Q. Huang, Y. Yu and Y. Li.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Mononuclear Phagocyte System, Cancer, Article Review, Gastroenterology, Gastric Cancer, Macrophages, Immunology, Phagocytes, Oncology, Capital Medical University.

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**Oncology - Liver Cancer**

**Study Results from Capital Medical University Provide New Insights into Liver Cancer (Combination of transcatheter arterial chemoembolization and CT-guided percutaneous segment ablation for hepatocellular carcinoma therapy A retrospective study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Liver Cancer. According to news reporting out of Beijing, People's Republic of China, by NewsRx editors, research stated, "Treatment option for liver cancer patients with large tumor >5cm and/or portal vein tumor thrombosis is very limited. New treatment strategy is badly needed."

Our news journalists obtained a quote from the research from Capital Medical University, "Our study is to determine the safety and treatment efficacy of a new minimally invasive treatment strategy-liver segment thermal ablation. Late-stage hepatocellular carcinoma patients were included and treated with percutaneous ablation to destroy the entire tumor-containing liver segment to reduce reoccurrence and prolong survival. Transcatheter arterial chemoembolization was used before ablation to label tumor margin. The patients were followed up routinely. The patients were followed up for 8 to 95 months. Mean overall survival (OS) (n=6) was 21.5 months (range 8-95). For patients in BCLC stage B (n=2), average OS was 16 months; for those in stage C (n=4), mean OS was 25 months (range 15-95). Out of all 6 patients, 2 reoccurred within 1 year, and 1 reoccurred after 13 months postoperatively. The average alpha-fetoprotein was dropped from 1153.69 to 41.22 mg/L postoperatively. No severe intra or postoperative complications were observed. Our preliminary data indicated that transcatheter arterial chemoembolization + segment ablation is safe and benefits survival significantly for late-stage hepatocellular carcinoma patients."

According to the news editors, the research concluded: "A prospective multicenter, randomized trial comparing focal and segment ablation is now ongoing in China (Trial Registry Number, ChiCTR-TRC-12002786)."

For more information on this research see: Combination of transcatheter arterial chemoembolization and CT-guided percutaneous segment ablation for hepatocellular carcinoma therapy A retrospective study. *Medicine*, 2016;95(47):182-185. *Medicine* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103,
Oncology - Pancreatic Cancer

Study Results from Catholic University of Korea in the Area of Pancreatic Cancer Reported (Role of immune cells in pancreatic cancer from bench to clinical application An updated review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Pancreatic Cancer are presented in a new report. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Pancreatic cancer (PC) remains difficult to treat, despite the recent advances in various anticancer therapies. Immuno-inflammatory response is considered to be a major risk factor for the development of PC in addition to a combination of genetic background and environmental factors."

Our news journalists obtained a quote from the research from the Catholic University of Korea, "Although patients with PC exhibit evidence of systemic immune dysfunction, the PC microenvironment is replete with immune cells. We searched PubMed for all relevant English language articles published up to March 2016. They included clinical trials, experimental studies, observational studies, and reviews. Trials enrolled at Clinical trial. gov were also searched. PC induces an immunosuppressive microenvironment, and intratumoral activation of immunity in PC is attenuated by inhibitory signals that limit immune effector function. Multiple types of immune responses can promote an immunosuppressive microenvironment; key regulators of the host tumor immune response are dendritic cells, natural killer cells, macrophages, myeloid derived suppressor cells, and T cells. The function of these immune cells in PC is also influenced by chemotherapeutic agents and the components in tumormicroenvironment such as pancreatic stellate cells. Immunotherapy of PC employs monoclonal antibodies/effector cells generated in vitro or vaccination to stimulate antitumor response. Immune therapy in PC has failed to improve overall survival; however, combination therapies comprising immune checkpoint inhibitors and vaccines have been attempted to increase the response. A number of studies have begun to elucidate the roles of immune cell subtypes and their capacity to function or dysfunction in the tumor microenvironment of PC."

According to the news editors, the research concluded: "It will not be long before immune therapy for PC becomes a clinical reality."

For more information on this research see: Role of immune cells in pancreatic cancer from bench to clinical application An updated review. Medicine, 2016;95(49):329-341. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine -
Immune System Diseases and Conditions - HIV/AIDS

Study Results from Center for Disease Control and Prevention Provide New Insights into HIV/AIDS (Maternal and Breastmilk Viral Load: Impacts of Adherence on Peripartum HIV Infections Averted-The Breastfeeding, Antiretrovirals, and Nutrition ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - HIV/AIDS. According to news reporting originating in Atlanta, Georgia, by NewsRx journalists, research stated, "Antiretroviral (ARV) interventions are used to reduce HIV viral replication and prevent mother-to-child transmission. Viral suppression relies on adherence to ARVs."

The news reporters obtained a quote from the research from Center for Disease Control and Prevention, "A 2-phase study was conducted using data from the Breastfeeding, Antiretrovirals, and Nutrition study. We included mothers randomized to 28 weeks of postpartum ARVs with >= 1 plasma or breastmilk specimen. All mothers who transmitted HIV to their infants from 2-28 weeks (n = 31) and 15% of mothers who did not (n = 232) were included. Adherence was measured by pill count [categorized as poor (0%-80%), partial (81%-98%), and near perfect (>98%)]. Associations between adherence and breastmilk RNA were assessed using mixed-effects models. Cox models were used to estimate associations between breastmilk RNA and HIV transmission. Using Monte Carlo simulation, we estimated the number of transmissions that would occur had everyone randomized to maternal ARVs been 90% and 100% adherent. Partial or near perfect ARV adherence significantly reduced the odds of having detectable (>= 40 copies/mL) breastmilk RNA, compared with poor adherence (Odds Ratio (OR) 0.23, 95% CI: 0.08 to 0.67; OR 0.36, 95% CI: 0.16 to 0.81, respectively). Detectable breastmilk RNA was associated with increased breast milk transmission compared with undetectable breastmilk RNA (hazard ratio 3.8, 95% CI: 1.2 to 12.1). All transmitting mothers had >= 1 plasma viral load specimen >100 copies per milliliter. An estimated similar number of transmissions would occur with 90% adherence compared with 100%. Helping patients adhere to ARVs throughout breastfeeding is important for realizing the full potential of recommended ARV interventions to prevent mother-to-child HIV transmission."

According to the news reporters, the research concluded: "Maintaining plasma viral load <100 copies per milliliter may prevent breastmilk transmission."

For more information on this research see: Maternal and Breastmilk Viral Load: Impacts of Adherence on Peripartum HIV Infections Averted-The Breastfeeding,


Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Virus Physiological Phenomena, Microbiological Techniques, Primate Lentiviruses, Diet and Nutrition, Vertebrate Viruses, Antiretrovirals, HIV Infections, Retroviridae, RNA Viruses, Viral Load, HIV/AIDS, Genetics, Center for Disease Control and Prevention.

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Heart Disorders and Diseases - Atrial Fibrillation

**Study Results from Chaim Sheba Medical Center in the Area of Atrial Fibrillation Reported (Poor Heart Rate Recovery Is Associated With the Development of New-Onset Atrial Fibrillation in Middle-Aged Adults)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting out of Tel Hashomer, Israel, by NewsRx editors, research stated, "To investigate the association between heart rate recovery (HRR) and new-onset atrial fibrillation (AF) in middle-aged adults. Heart rate recovery was calculated using the exercise stress test in 15,729 apparently healthy self-referred men and women who attended periodic health screening examinations between January 2000, and December 2015."

Our news journalists obtained a quote from the research from Chaim Sheba Medical Center, "All participants completed the maximal exercise stress test according to the Bruce protocol and were followed clinically on a yearly basis for a median of 6.4 +/- 4 years. The primary end point was new-onset AF. Participants were grouped according to HRR at 5 minutes, dichotomized at the median value (< 73 beats/min). Participants with low HRR were older, were more commonly men, had a higher rate of comorbidities, and were less fit. Kaplan-Meier survival analysis revealed that the cumulative probability of AF at 6 years was higher in participants with low HRR (2.1%) than in those with high HRR (0.6%) (log-rank, P<.001). Older age, male sex, obesity resting heart rate, and ischemic heart disease were all associated with increased AF risk in a univariate Cox regression model (P <.05 for all). Multivariate Cox regression analysis revealed that low HRR was independently associated with increased AF risk (hazard ratio, 1.92; 95% CI, 1.3-2.8; P<.001) after adjustment for multiple confounders."

According to the news editors, the research concluded: "Lower HRR is independently associated with the development of new-onset AF during long-term follow-up in middle-aged adults."

For more information on this research see: Poor Heart Rate Recovery Is Associated
Oncology - Pancreatic Cancer

Study Results from Charles University in the Area of Pancreatic Cancer Reported (Mutation analysis of the PALB2 gene in unselected pancreatic cancer patients in the Czech Republic)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Pancreatic Cancer. According to news reporting from Prague, Czech Republic, by NewsRx journalists, research stated, "Pancreatic ductal adenocarcinoma (PDAC) has the worst prognosis among common solid cancer diagnoses. It has been shown that up to 10% of PDAC cases have a familial component."

The news correspondents obtained a quote from the research from Charles University, "Characterization of PDAC-susceptibility genes could reveal high-risk individuals and patients that may benefit from tailored therapy. Hereditary mutations in PALB2 (Partner and Localizer of BRCA2) gene has been shown to predispose, namely to PDAC and breast cancers; however, frequencies of mutations vary among distinct geographical populations. Using the combination of sequencing, high-resolution melting and multiplex ligation dependent probe amplification analyses, we screened the entire PALB2 gene in 152 unselected Czech PDAC patients. Truncating mutations were identified in three (2.0%) patients. Genotyping of found PALB2 variants in 1226 control samples revealed one carrier of PALB2 truncating variant (0.08%; P = 0.005). The mean age at PDAC diagnosis was significantly lower among PALB2 mutation carriers (51 years) than in non-carriers (63 years; P = 0.016). Only one patient carrying germline PALB2 mutation had a positive family breast cancer history."

According to the news reporters, the research concluded: "Our results indicate that hereditary PALB2 mutation represents clinically considerable genetic factor increasing PDAC susceptibility in our population and that analysis of PALB2 should be considered not only in PDAC patients with familial history of breast or pancreatic cancers but also in younger PDAC patients without family cancer history."

Our news journalists report that additional information may be obtained by contacting M. Janatova, Charles Univ Prague, Fac Med 1, Inst Biochem & Expt Oncol, Prague, Czech Republic. Additional authors for this research include R. Zemankova, M. Vocka, P. Soucek, J. Soukupova, P. Kleiblova, J. Sevcik, Z. Kleibl and M. Janatova.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cancergen.2016.03.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Prague, Czech Republic, Europe, Pancreas, Genetics, Genetics, Pancreatic Neoplasms, Pancreatic Cancer, Gastroenterology, Oncology, Charles University.

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**Congenital Diseases and Conditions - Congenital...**

**Study Results from Chelsea and Westminster Hospital NHS Trust in the Area of Congenital Heart Disease Reported (Anaesthetic management of parturients with univentricular congenital heart disease and the Fontan operation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Congenital Diseases and Conditions - Congenital Heart Disease have been presented. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "Women with a single ventricle circulation palliated with the Fontan operation require specialist multidisciplinary management. We report 14 such cases with successful pregnancies and detail the pathophysiology encountered."

The news reporters obtained a quote from the research from Chelsea and Westminster Hospital NHS Trust, "A combined obstetric and cardiac service between Chelsea and Westminster Hospital and Royal Brompton Hospital provides care for women with heart disease, and maintains a prospective database of referred women. We searched this database for women with a known Fontan circulation and reviewed the case notes and electronic patient records between January 1994 and December 2015. Eight women palliated with the Fontan operation delivered 14 live babies over the study period, with detailed peripartum management available for 11. Low-dose combined spinal - epidural or epidural labour analgesia was the intended mode of analgesia or anaesthesia for all deliveries (depending on clinical scenario and clinician preference), and was performed in 79%. Seven cases (50%) had a caesarean delivery. A neuraxial catheter technique was preferred (86%), whether or not vaginal delivery was attempted first. There were no deliveries under general anaesthesia. Fifty percent of cases were complicated by postpartum haemorrhage. Other peripartum complications included arrhythmias (29%), chest pain (14%) and intrauterine growth restriction (57%). Women with a Fontan circulation are increasingly encountered in obstetric practice. A good understanding of the underlying anatomy and its impact on physiology, coupled with meticulous care are essential to
allow safe delivery for mother and baby."

According to the news reporters, the research concluded: "Multidisciplinary input into peripartum care is required, with anticipation of increased risk of complications such as haemorrhage and arrhythmias."


Our news correspondents report that additional information may be obtained by contacting D.P. Dob, Chelsea & Westminster Hospital, Magill Dept. of Anaesthesia, London, United Kingdom. Additional authors for this research include D.P. Dob, M.R. Cauldwell and M.A. Gatzoulis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijoa.2016.08.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: London, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Congenital Diseases and Conditions, Anesthesia, Risk and Prevention, Heart Disorders and Diseases, Congenital Heart Disease, Women's Health, Pain Medicine, Obstetrics, Cardiology, Hospital, Chelsea and Westminster Hospital NHS Trust.

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**Drugs and Therapies - Cancer Therapy**

**Study Results from Chengdu Medical College in the Area of Cancer Therapy Reported (Mono-PEGylation of Alpha-MMC and MAP30 from Momordica charantia L.: Production, Identification and Anti-Tumor Activity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Cancer Therapy have been published. According to news originating from Chengdu, People's Republic of China, by NewsRx correspondents, research stated, "PEGylation is a well-established and effective strategy to decrease immunogenicity, which can increase the stability and in vivo half-life time. However, the generation of multi-site modified products is inevitable due to the lysine chemistry, which will bring difficulties in subsequent research, such as purification and quantification."

Our news journalists obtained a quote from the research from Chengdu Medical College, "Site-specific modification by mPEG-succinimidyl carbonate (mPEG-SC) is a widely used method for N-terminal conjugation. In this study, we used it for site-directed modification on two ribosome-inactivating proteins (RIPs), alpha-momorcharin (alpha-MMC) and momordica anti-HIV protein (MAP30), from Momordica charantia L. According to the optimization of previous modification conditions, we compared Macro-Cap SP with SP-Sepharose FF chromatography for separating the final mPEGylated RIPs. Two kinds of methods
both can obtain homogenous mPEGylated RIPs which were identified by sodium dodecylsulphate polyacrylamide gel electrophoresis (SDS-PAGE), isoelectric focusing electrophoresis (IEF), and matrix-assisted laser desorption ionization-time of flight/time of flight (MALDI-TOF/TOF) analysis. We also used iodine staining method to detect the amount of unmodified PEG. Furthermore, the inhibition activity of both mPEGylated and non-PEGylated RIPs against human lung adenocarcinoma epithelial A549 cells was detected."

According to the news editors, the research concluded: "All of the results suggested that the mPEGylated alpha-MMC/MAP30 might be potentially developed as new anti-tumor drugs."

For more information on this research see: Mono-PEGylation of Alpha-MMC and MAP30 from Momordica charantia L.: Production, Identification and Anti-Tumor Activity. *Molecules*. 2016;21(11):606-614. *Molecules* can be contacted at: MdpI Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

The news correspondents report that additional information may be obtained from Y. Sun, Chengdu Med College, Affiliated Hosp 1, Chengdu 610000, Sichuan, People's Republic of China. Additional authors for this research include F.H. Sun, J.L. Li, M.L. Wu, X. Fan, Y.F. Meng and Y. Meng.

Keywords for this news article include: Chengdu, People's Republic of China, Asia, Drugs and Therapies, Cancer Therapy, Chengdu Medical College.

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**Drugs and Therapies - Cancer Therapy**

**Study Results from China Pharmaceutical University Update Understanding of Cancer Therapy (Design, Synthesis, and Biological Evaluation of Novel Cholesteryl Peptides with Anticancer and Multidrug Resistance-Reversing Activities)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Cancer Therapy have been presented. According to news reporting originating in Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "Antimicrobial peptides have been suggested as promising chemotherapeutics for cancer therapy due to their efficient antitumor activity and lower toxicity to benign cells. In previous study, we find the peptide B1 presents specific cytotoxicity to cancer cells."

Funders for this research include National Natural Science Foundation of China, Natural Science Foundation of Jiangsu Province.

The news reporters obtained a quote from the research from China Pharmaceutical University, "As hydrophobicity plays a pivotal role in the anticancer activity of peptide, we introduce cholesterol-like moiety (3β-amino-5-cholesten5-cholesterene) to the N-terminus of B1 expect to ameliorate the anticancer activity of B1. Biological evaluations revealed that target peptides show improved anticancer activity. The peptides can also penetrate into the cytoplasm and activating mitochondria-cytochrome c apoptosis pathway. Besides, the peptides acted on multidrug-resistant cells and had multidrug resistance-reversing activity."

According to the news reporters, the research concluded: "It is therefore suggested..."
these peptides might be promising candidates for oncotherapy."


Our news correspondents report that additional information may be obtained by contacting X. Deng, Center of Drug Discovery, State Key Laboratory of Natural Medicines, China Pharmaceutical University, 24 Tongjiaxiang, Nanjing, Jiangsu, 210009, People's Republic of China. Additional authors for this research include Q. Qiu, X. Wang, W. Huang and H. Qian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12667. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal *Chemical Biology & Drug Design* can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Asia, Jiangsu, Peptides, Proteins, Amino Acids, Cancer Therapy, Drug Resistance, Drugs and Therapies, People's Republic of China.

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**Nanotechnology - Nanoparticles**

**Study Results from Chongqing Key Lab of Agricultural Resources and Environment Broaden Understanding of Nanoparticles (The effect of different TiO2 nanoparticles on the release and transformation of mercury in sediment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nanotechnology - Nanoparticles. According to news reporting from Chongqing, People's Republic of China, by NewsRx journalists, research stated, "The environmental safety of both nano-TiO2 particles and mercury (Hg) pollution has been of widespread concern. Soils and sediments were the main receiving environments of nano-TiO2 and Hg."

Financial supporters for this research include The National Natural Science Foundation of China, The National Key Basic Research Program of China, The Scientific Research Project of Sichuan Provincial Department of Education.

The news correspondents obtained a quote from the research from the Chongqing Key Lab of Agricultural Resources and Environment, "There was a strong association between nano-TiO2 with Hg compounds. Very limited research has been carried out on the impact of nano-TiO2 on the environmental behavior of Hg in sediments. The objective of this study was to investigate the effects of nano-TiO2 on the release and transformation of Hg in sediments. Two types of TiO2 nanoparticles were employed. Sediment samples were collected in the water level fluctuating zone of the Three Gorges Reservoir, China. Sediment samples spiked with HgCl2 solution were taken as Hg-contaminated sediments. The flooding experiments were conducted using capped borosilicate glass bottles containing 300 ml TiO2 suspensions (0.2 g L-
1 and 0.4 g L-1) and 30 g original or Hg-contaminated sediment samples outdoors. All experiments were conducted in triplicate. Water samples were collected at determined interval times over a 60-day period. Sediments were collected on the 60th day. Total Hg (THg) and methylmercury (MHg) in both water and sediment samples and Hg speciation just in sediment samples were determined. A series of control samples without TiO2 addition were also prepared. The results showed that nano-TiO2 particles at high content (4 g kg(-1)) promoted the release of Hg in sediments, and the anatase particles showed a stronger effect. Methyl Hg concentrations in waters of nano-TiO2 treatments significantly decreased by the 10th day. The effect of nano-TiO2 greatly depended on anatase and rutile particles. After that, methyl Hg concentrations had no significant difference between nano-TiO2 treatments and the control, except 2 g kg(-1) rutile treatment by the 20th day. The changes of Hg speciation in sediments demonstrated that nano-TiO2 inhibited the transformation of Hg-bound organic matter into the oxidated state, especially upon 2 g kg(-1) rutile treatment. This was consistent with the lower MHg concentrations in the 2 g kg(-1) rutile treatment. Both anatase and rutile nano-TiO2 were found to affect the release of Hg in sediment. Nano-TiO2 promoted THg release in sediments and posed an increased risk of Hg contamination in waters, especially for anatase particles."

According to the news reporters, the research concluded: "Moreover, nano-TiO2 inhibited the methylation process of Hg in sediments at the initial stage of flooding and could affect the transformation of Hg speciation in sediments, especially for low-content rutile particles."


Our news journalists report that additional information may be obtained by contacting D.Y. Wang, Chongqing Key Lab Agr Resources & Environm, Chongqing 400715, People’s Republic of China. Additional authors for this research include C.X. Li, D.Y. Wang, C. Zhang, L. Liang and X. Zhou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11368-016-1580-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chongqing, People’s Republic of China, Asia, Nanoparticles, Emerging Technologies, Nanotechnology, Nanoparticle, Chongqing Key Lab of Agricultural Resources and Environment.

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Alzheimer Disease are discussed in a new report. According to news reporting originating from Taichung, Taiwan, by NewsRx correspondents, research stated, "Deficiency of insulin signaling has been linked to diabetes and ageing-related neurodegenerative diseases such as Alzheimer's disease (AD). In this regard, brains exhibit defective insulin receptor substrate-1 (IRS-1) and hence result in alteration of insulin signaling in progression of AD, the most common cause of dementia."

Our news editors obtained a quote from the research from Chung Shan Medical University, "Consequently, dysregulation of insulin signaling plays an important role in amyloid-b (Ab)-induced neurotoxicity. As the derivation of induced pluripotent stem cells (iPSC) involves cell reprogramming, it may provide a means for regaining the control of ageing-associated dysfunction and neurodegeneration via affecting insulin-related signaling. To this, we found that an embryonic stem cell (ESC)-specific microRNA, miR-302, silences phosphatase and tensin homolog (PTEN) to activate Akt signaling, which subsequently stimulates nuclear factor erythroid 2-related factor 2 (Nrf2)/heme oxygenase-1 (HO-1) elevation and hence inhibits Ab-induced neurotoxicity. miR-302 is predominantly expressed in iPSCs and is known to regulate several important biological processes of anti-oxidative stress, anti-apoptosis, and anti-aging through activating Akt signaling. In addition, we also found that miR-302-mediated Akt signaling further stimulates Nanog expression to suppress Ab-induced p-Ser307 IRS-1 expression and thus enhances tyrosine phosphorylation and p-Ser 473-Akt/p-Ser 9-GSK3β formation. Furthermore, our in vivo studies revealed that the mRNA expression levels of both Nanog and miR-302-encoding LARP7 genes were significantly reduced in AD patients' blood cells, providing a novel diagnosis marker for AD."

According to the news editors, the research concluded: "Taken together, our findings demonstrated that miR-302 is able to inhibit Ab-induced cytotoxicity via activating Akt signaling to upregulate Nrf2 and Nanog expressions, leading to a marked restoration of insulin signaling in AD neurons."


The news editors report that additional information may be obtained by contacting H.H. Li, Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan. Additional authors for this research include S.L. Lin, C.N. Huang, F.J. Lu, P.Y. Chiu, W.N. Huang, T.J. Lai and C.L Lin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3233/JAD-150741. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Alzheimer's Disease is: IOS Press, Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands.

Keywords for this news article include: Asia, Taiwan, Amyloid, Taichung, Genetics, Proinsulin, Peptide Hormones, Peptide Proteins, Alzheimer Disease, Neurodegenerative Diseases and Conditions.

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Biotechnology

Study Results from Cleveland Clinic Broaden Understanding of Biotechnology [Recommendations for neoadjuvant pathologic staging (ypTNM) of cancer of the esophagus and esophagogastric junction for the 8th edition AJCC/UICC staging manuals]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology. According to news reporting from Cleveland, Ohio, by NewsRx journalists, research stated, "We report analytic and consensus processes that produced recommendations for neoadjuvant pathologic stage groups (ypTNM) of esophageal and esophagogastric junction cancer for the AJCC/UICC cancer staging manuals, 8th edition. The Worldwide Esophageal Cancer Collaboration provided data for 22,654 patients with epithelial esophageal cancers; 7,773 had pathologic assessment after neoadjuvant therapy."

The news correspondents obtained a quote from the research from Cleveland Clinic, "Risk-adjusted survival for each patient was developed. Random forest analysis identified data-driven neoadjuvant pathologic stage groups wherein survival decreased monotonically with increasing group, was distinctive between groups, and homogeneous within groups. An additional analysis produced data-driven anatomic neoadjuvant pathologic stage groups based only on ypT, ypN, and ypM categories. The AJCC Upper GI Task Force, by smoothing, simplifying, expanding, and assessing clinical applicability, produced consensus neoadjuvant pathologic stage groups. Grade and location were much less discriminating for stage grouping ypTNM than pTNM. Data-driven stage grouping without grade and location produced nearly identical groups for squamous cell carcinoma and adenocarcinoma. However, ypTNM groups and their associated survival differed from pTNM. The need for consensus process was minimal. The consensus groups, identical for both cell types were as follows: ypStage I comprised ypT0-N0M0; ypStage II ypT3N0M0; ypStage IIA ypT0-2N1M0; ypStage IIIB ypT3N1M0, ypT0-3N2, and ypT4aN0M0; ypStage IVA ypT4aN1-2, ypT4bN0-2, and ypTanyN3M0; and ypStage IVB ypTanyNanyM1."

According to the news reporters, the research concluded: "Absence of equivalent pathologic (pTNM) categories for the peculiar neoadjuvant pathologic categories ypTisN0-3M0 and ypT0N0-3M0, dissimilar stage group compositions, and markedly different early- and intermediate-stage survival necessitated a unified, unique set of stage grouping for patients of either cell type who receive neoadjuvant therapy."


Our news journalists report that additional information may be obtained by contacting T.W. Rice, Cleveland Clinic, Cleveland, OH 44195, United States. Additional authors for this research include H. Ishwaran, D.P. Kelsen, W.L. Hofstetter, C. Apperson-Hansen and E.H. Blackstone.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Biotechnology, Oncology, Cancer, Cleveland Clinic.
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Life Science Research - Cryobiology

Study Results from Council of Scientific and Industrial Research (CSIR)
Update Understanding of Cryobiology (Replacement of serum with
ocular fluid for cryopreservation of immature testes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Data detailed on Life Science Research - Cryobiology have been presented.
According to news reporting originating from Andhra Pradesh, India, by NewsRx
correspondents, research stated, "Cryopreservation of immature testis is a feasible approach for
germplasm preservation of male animals. Combinations of dimethyl sulfoxide (DMSO) and
foetal bovine serum (FBS) are used for testis cryopreservation."

Our news editors obtained a quote from the research from the Council of Scientific
and Industrial Research (CSIR), "However, an alternative to FBS is needed, because FBS is
expensive. Buffalo ocular fluid (BuOF), a slaughter house by-product, could be an economical
option. The objective of the present study was to assess whether BuOF can replace FBS for
cryopreservation of immature mouse (Mus musculus), rat (Rattus norvegicus), and buffalo
(Bubalus bubalis) testes. Results showed that rodent and buffalo testes frozen in DMSO (10% for
rodents and 20% for buffalo) with 20% FBS or BuOF had similar numbers of viable and
DNA-damaged cells (P > 0.05). The expression of cell proliferation-(PCNA) and apoptosis-specific
proteins (Annexin V and BAX/BCL2 ratio) were also comparable in mouse and buffalo
testes frozen in DMSO with FBS or BuOF (P > 0.05). Interestingly, rat testis frozen in DMSO
with BuOF had lower expression of Annexin V protein than testis frozen in DMSO with FBS (P
< 0.05). The percentage of meiotic germ cells (pachytene-stage spermatocytes) in xenografts
from testis frozen either in DMSO with BuOF or FBS did not significantly differ in rats or
buffalo (P > 0.05). These findings provide evidence that BuOF has potential to replace FBS for
cryopreservation of immature rodent and buffalo testis."

According to the news editors, the research concluded: "Further investigation is
needed to explore whether BuOF can replace FBS for testis cryopreservation of other species."

For more information on this research see: Replacement of serum with ocular fluid
for cryopreservation of immature testes. Cryobiology, 2016;73(3):356-366. Cryobiology can be
contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Cryobiology -
www.journals.elsevier.com/cryobiology/)

The news editors report that additional information may be obtained by contacting S.
Goel, CSIR, Center Cellular & Mol Biol, Lab Conservat Endangered Species, Hyderabad
500007, Andhra Pradesh, India. Additional authors for this research include L. Devi, N.K.
Venna, N. Pentakota, V.P. Varma, J. Jose and S. Goel.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1016/j.cryobiol.2016.09.169. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Andhra Pradesh, India, Asia, Cryobiology,
Life Science Research, Genetics, Council of Scientific and Industrial Research (CSIR).

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Study Results from Creighton University Broaden Understanding of Phytotherapy (Hepatoprotective Effects of a Proprietary Glycyrrhizin Product during Alcohol Consumption: A Randomized, Double-Blind, Placebo-Controlled, Crossover Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Phytotherapy. According to news originating from Frisco, Texas, by NewsRx correspondents, research stated, "Traditionally, licorice has been used to treat liver problems. Glycyrrhizin, the primary active compound, has been shown to suppress elevations in liver enzymes that occur when the liver becomes diseased or damaged."

Our news journalists obtained a quote from the research from Creighton University, "This randomized, double-blind, placebo-controlled, crossover study evaluated the hepatoprotective effects of a proprietary glycyrrhizin product during alcohol consumption. Twelve healthy individuals (six male and six female subjects) in a clinic setting consumed vodka nightly for 12 days with the glycyrrhizin product or placebo (blank control), achieving a blood alcohol level of 0.12%. Liver function enzymes including alanine aminotransferase (ALT), aspartate aminotransferase (AST), gamma-glutamyl transferase (GGT), and alkaline phosphatase and serum reduced glutathione were measured at overnight visits 1, 6, and 12. In the alcohol only group, AST, ALT, and GGT significantly increased from baseline (overnight visit 1) to overnight visit 12. In the active group, no statistically significant increases were observed for AST, ALT, and GGT, while alkaline phosphatase significantly decreased and plasma glutathione decreased relative to the alcohol control group."

According to the news editors, the research concluded: "These results suggest that consumption of the proprietary glycyrrhizin study product during alcohol consumption may support improved liver health compared with drinking alcohol alone."


The news correspondents report that additional information may be obtained from S.J. Stohs, Creighton University, Frisco, TX 75034, United States. Additional authors for this research include B. Auddy, M. Biyani and S.J. Stohs.

Keywords for this news article include: Frisco, Texas, United States, North and Central America, Phytotherapy, Drugs and Therapies, Enzymes and Coenzymes, Aminotransferase, Creighton University.

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Neurodegenerative Diseases and Conditions... Study Results from D. Scarabino and Colleagues Broaden Understanding of Alzheimer Disease (Influence of family history of dementia in the development and progression of late-onset Alzheimer's disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Neurodegenerative Diseases and Conditions - Alzheimer Disease is now available. According to news reporting originating in Rome, Italy, by NewsRx journalists, research stated, "Family history of dementia (FH) is a recognized risk factor for developing late-onset Alzheimer's disease (AD). We asked whether having FH increases AD risk and influences disease severity (age at onset and cognitive impairment) in 420 AD patients and 109 controls with (FH+) or without (FH-)."

Financial supporters for this research include Sapienza University of Rome, Fondazione Cariverona.

The news reporters obtained a quote from the research, "The relationships of APOE and other AD risk genes with FH were analyzed as well. The proportion of APOE e4 allele carriers was higher among the FH+ than the FH-AD patients (49.6% vs. 38.9%; p=0.04). The distribution of the risk genotypes of nine AD susceptibility genes previously examined (CHAT, CYP17, CYP19, ESR1, FSHR, P53, P73, P21, PPARG) did not differ between the FH+ and the FH-AD patients, indicating that none contributed significantly to familial clustering of disease. FH was associated with an increased AD risk (odds ratio [OR] 2.71, 95% confidence interval [CI] 1.44-5.09; p=0.002) independent of carrying the APOE e4 allele (OR 2.61, 95%CI 1.53-4.44; p=0.0004). Having a first-degree relative or a parent with dementia was significantly associated with AD risk (OR 2.9, 95%CI 1.3-6.4; p=0.009 and OR 2.7, 95%CI 1.1-6.2; p=0.02) but having a sibling with dementia was not (OR 1.7, 95%CI 0.2 to 14.7; p=0.6)."

According to the news reporters, the research concluded: "Among the FH+ AD patients, having one or both parents affected seemed to raise the risk of earlier onset age (p=0.02) and greater cognitive impairment (p=0.02) than having only an affected sibling, whereas having two or more affected relatives did not."


Our news correspondents report that additional information may be obtained by contacting D. Scarabino, CNR Institute of Cellular Biology and Neurobiology, Monterotondo Scalo, Rome, Italy. Additional authors for this research include G. Gambina, E. Broggio, F. Pelliccia and R.M Corbo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.b.32399. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Dementia, Genetics, Tauopathies, Alzheimer Disease, Risk and Prevention, Brain Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions. Our reports deliver fact-based news of research and discoveries from around the
Study Results from DZIF German Center for Infection Research in the Area of Streptomyces coelicolor Reported

[The VanRS Homologous Two-Component System VnlRS(Ab) of the Glycopeptide Producer Amycolatopsis balhimycina Activates Transcription of ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Positive Bacteria - Streptomyces coelicolor have been published. According to news reporting originating from Tubingen, Germany, by NewsRx correspondents, research stated, "In enterococci and in Streptomyces coelicolor, a glycopeptide nonproducer, the glycopeptide resistance genes vanHAX are colocized with vanRS. The two-component system (TCS) VanRS activates vanHAX transcription upon sensing the presence of glycopeptides."

Our news editors obtained a quote from the research from DZIF German Center for Infection Research, "Amycolatopsis balhimycina, the producer of the vancomycin-like glycopeptide balhimycin, also possesses vanHAX(Ab) genes. The genes for the VanRS-like TCS VnlRS(Ab), together with the carboxypeptidase gene vanY(Ab), are part of the balhimycin biosynthetic gene cluster, which is located 2 Mb separate from the vanHAX(Ab). The deletion of vnlRS(Ab) did not affect glycopeptide resistance or balhimycin production. In the A. balhimycina vnlR(Ab) deletion mutant, the vanHAX(Ab) genes were expressed at the same level as in the wild type, and peptidoglycan (PG) analyses proved the synthesis of resistant PG precursors. Whereas vanHAX(Ab) expression in A. balhimycina does not depend on VnlR(Ab), a VnlR(Ab)-depending regulation of vanY(Ab) was demonstrated by reverse transcriptase polymerase chain reaction (RT-PCR) and RNA-seq analyses. Although VnlR(Ab) does not regulate the vanHAX(Ab) genes in A. balhimycina, its heterologous expression in the glycopeptide-sensitive S. coelicolor Delta vanRS(Sc) deletion mutant restored glycopeptide resistance. VnlR(Ab) activates the vanHAX(Sc) genes even in the absence of VanS."

According to the news editors, the research concluded: "In addition, expression of vnlR(Ab) increases actinorhodin production and influences morphological differentiation in S. coelicolor."

For more information on this research see: The VanRS Homologous Two-Component System VnlRS(Ab) of the Glycopeptide Producer Amycolatopsis balhimycina Activates Transcription of the vanHAX(Sc) Genes in Streptomyces coelicolor, but not in A. balhimycina. Microbial Drug Resistance, 2016;22(6):499-509. Microbial Drug Resistance can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Microbial Drug Resistance - www.liebertpub.com/overview/microbial-drug-resistance/44/)

The news editors report that additional information may be obtained by contacting E. Stegmann, Partner Site Tuebingen, German Center Infect Res DZIF, Tubingen, Germany. Additional authors for this research include H.J. Frasch, A. Kulik, W. Wohlleben and E. Stegmann.

Keywords for this news article include: Tubingen, Germany, Europe, Glycopeptides, Drugs and Therapies, Genetics, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Streptomyces coelicolor, Gram-Positive Bacteria, Gram-Positive Rods,
Cardiovascular Research

Study Results from Daiichi Sankyo Pharma Development Provide New Insights into Cardiovascular Research (Assessment of the Cardiovascular Risk of Olmesartan Medoxomil-Based Treatment: Meta-Analysis of Individual Patient Data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Research have been published. According to news reporting originating in Edison, New Jersey, by NewsRx journalists, research stated, "Results from two long-term studies (ROADMAP and ORIENT) indicated a numerical imbalance in the number of cardiovascular deaths between the olmesartan medoxomil (OM) and placebo groups. Our objective was to conduct an individual patient data meta-analysis to provide more complete information regarding OM-associated cardiovascular risks and/or benefits."

The news reporters obtained a quote from the research from Daiichi Sankyo Pharma Development, "We created an integrated database based on 191 clinical trials from the OM development program. Events were identified and adjudicated by an independent, blinded clinical events committee. The incidence of major cardiovascular events and total mortality for OM versus placebo/active control were evaluated, and the effect of OM on cardiovascular mortality (main endpoint of interest) and morbidity was calculated using a two-stage approach (Tian method). A total of 46 studies (similar to 27,000 patients) met the US FDA-specified inclusion criteria (phase II-IV randomized, double-blind, placebo- or active-controlled studies [OM-based monotherapy or combination, double-blind period ae <yen >28 days] and adult patients). The incidence of known adjudicated endpoints in the analysis of all studies combined was low among OM (0.11-0.53 %) and placebo/active control (0.08-0.76 %) groups. For cardiovascular mortality, the estimated risk difference (OM vs. control) was 0.00070 (95 % confidence interval [CI] -0.0011 to 0.0024; p = 0.60); the risk difference for each endpoint was < 1/1000, with no statistically significant difference between groups. Results were similar with and without ROADMAP and ORIENT."

According to the news reporters, the research concluded: "The results from this meta-analysis did not show a clinically meaningful or statistically significant difference in cardiovascular risk between OM and the placebo/active control groups, and thus did not corroborate the numerical imbalance observed in ROADMAP and ORIENT."


Our news correspondents report that additional information may be obtained by contacting A.C. Wang, Daiichi Sankyo Pharma Dev, Biostat, Edison, NJ 08837, United States. Additional authors for this research include U. Stellmacher, J. Schumi, N. Tu and P.E. Reimitz.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40256-016-0182-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Edison, New Jersey, United States, North and Central America, Cardiovascular Research, Cardiology, Drugs and Therapies, Cardiovascular, Daiichi Sankyo Pharma Development.

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Oncology - Prostate Cancer

Study Results from Dalian Institute of Chemical Physics in the Area of Prostate Cancer Reported (Integration of lipidomics and transcriptomics unravels aberrant lipid metabolism and defines cholesteryl oleate as potential biomarker of prostate ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Prostate Cancer is the subject of a report. According to news originating from Dalian, People's Republic of China, by NewsRx correspondents, research stated, "In-depth delineation of lipid metabolism in prostate cancer (PCa) is significant to open new insights into prostate tumorigenesis and progression, and provide potential biomarkers with greater accuracy for improved diagnosis. Here, we performed lipidomics and transcriptomics in paired prostate cancer tumor (PCT) and adjacent nontumor (ANT) tissues, followed by external validation of biomarker candidates."

Our news journalists obtained a quote from the research from the Dalian Institute of Chemical Physics, "We identified major dysregulated pathways involving lipogenesis, lipid uptake and phospholipids remodeling, correlated with widespread lipid accumulation and lipid compositional reprogramming in PCa. Specifically, cholesteryl esters (CEs) were most prominently accumulated in PCa, and significantly associated with cancer progression and metastasis. We showed that overexpressed scavenger receptor class B type I (SR-BI) may contribute to CEs accumulation. In discovery set, CEs robustly differentiated PCa from nontumor (area under curve (AUC) of receiver operating characteristics (ROC), 0.90-0.94). In validation set, CEs potently distinguished PCa and non-malignance (AUC, 0.84-0.91), and discriminated PCa and benign prostatic hyperplasia (BPH) (AUC, 0.90-0.96), superior to serum prostate-specific antigen (PSA) (AUC=0.83). Cholesteryl oleate showed highest AUCs in distinguishing PCa from non-malignance or BPH (AUC=0.91 and 0.96)."

According to the news editors, the research concluded: "Collectively, our results unravel the major lipid metabolic aberrations in PCa and imply the potential role of CEs, particularly, cholesteryl oleate, as molecular biomarker for PCa detection."

For more information on this research see: Integration of lipidomics and transcriptomics unravels aberrant lipid metabolism and defines cholesteryl oleate as potential biomarker of prostate cancer. Scientific Reports, 2016;6():20984. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from J. Li, Key Laboratory of Separation Science for Analytical Chemistry, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, 116023 Dalian, People's Republic of China. Additional authors for this research include S. Ren, H.L. Piao, F. Wang, P. Yin, C. Xu, X. Lu, G. Ye, Y.
Cardiovascular Diseases and Conditions - Aneurysm

Study Results from Democritus University Update Understanding of Aneurysm (Estimating the influence of aortic-stent grafts after endovascular aneurysm repair: Are we missing something?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Aneurysm have been published. According to news originating from Alexandroupolis, Greece, by NewsRx editors, the research stated, "The implantation of a stiff aortic endograft for endovascular abdominal aneurysm repair (EVAR) has been reported to increase aortic stiffness and pulse wave velocity (PWV), raising potential concern over deterioration of myocardial performance."

Our news journalists obtained a quote from the research from Democritus University, "Yet, additional stiffness indices such as the augmentation index (Alx), reflection magnitude (RM) and changes in augmentation pressure (AP) have not been studied adequately to facilitate and improve our knowledge regarding the ways that EVAR affects central hemodynamics. In this article it is suggested that the implantation of an aortic stent-graft exerts its immediate effects not only by interposing extra stiffness on the infrarenal segment but by also modifying the pulse wave reflection site and changing the aortic flow field without necessarily causing significant alterations in PWV."

According to the news editors, the research concluded: "Hence, further studies on myocardial performance in large patient populations are expected to delineate the precise influence of different designs of EVAR endografts on the cardiovascular hemodynamic which, in turn, can affect the morbidity and survival of these patients."


The news correspondents report that additional information may be obtained from E. Georgakarakos, Democritus University of Thrace, Univ Hosp Alexandroupolis, Dept. of Vasc Surg, Alexandroupolis, Greece.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.mehy.2016.10.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Alexandroupolis, Greece, Europe,
Cardiovascular Diseases and Conditions, Angiology, Aneurysm, Democritus University.
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Oncology - Lung Cancer

Study Results from Department of Anesthesiology Update Understanding of Lung Cancer (Sevoflurane attenuates platelets activation of patients undergoing lung cancer surgery and suppresses platelets-induced invasion of lung cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting from Foshan, People's Republic of China, by NewsRx journalists, research stated, "Platelets play a pivotal role in metastasis of tumor cells. The aim of this study is to explore the effects of sevoflurane and isoflurane on platelets activation of patients undergoing lung cancer surgery, and the effects of sevoflurane and isoflurane on platelets-induced invasion of lung cancer cells."

Funders for this research include Guangdong Province Medicine Scientific Research Fund of China, Guangdong Province Science and Technology Project of China.

The news correspondents obtained a quote from the research from the Department of Anesthesiology, "Prospective and randomized study, and in vitro experiment. University-affiliated teaching hospital and laboratory. Forty-six patients scheduled for lung cancer radical surgery. Patients were randomized to two groups of 23 patients each and were received sevoflurane (group SEV) or isoflurane (group ISO) during surgery, respectively. In vitro, lung cancer cells were treated with platelets in the presence or absence anesthetics. Platelets activation were determined by detecting glycoproteinIIb/IIIa (GPIIb/IIIa), CD62P, and platelets aggregation rate (PAR) pre-, intra-, and postoperatively. Invasion ability of lung cancer cells were evaluated by Transwell assay. The levels of GPIIb/IIIa, CD62P, and PAR were reduced markedly in group SEV during perioperative period compared with group ISO. In vitro, activated platelets contributed profoundly to the invasive ability of lung cancer cells. Sevoflurane, but not isoflurane, inhibited platelets-induced invasion of lung cancer cells. Furthermore, sevoflurane suppressed the platelets activity in vitro. Sevoflurane attenuates platelets activation of patients undergoing lung cancer surgery."

According to the news reporters, the research concluded: "In vitro, sevoflurane suppresses platelets-induced invasion of lung cancer cells via decreasing platelets activity."


Our news journalists report that additional information may be obtained by contacting B. Zhang, Sun Yat Sen UniversityAffiliated FoShan Hosp, Dept. of Anesthesiol, Foshan 528000, People's Republic of China. Additional authors for this research include C.X. Yang, B. Zhang, Z.L. Zhao, J.Y. Zhong and X.J. Wen.

The direct object identifier (DOI) for that additional information is:
Study Results from Department of Cardiology Update Understanding of Vessel Disease (Comparison of first- and second-generation drug-eluting stent efficacies for treating left main and/or three-vessel disease: a propensity matched study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Vessel Disease. According to news originating from Kanagawa, Japan, by NewsRx correspondents, research stated, "The efficacy of second-generation drug-eluting stent (DES) for the treatment of left main disease (LM) and/or three vessel disease (3VD) remains unclear. We compared 2-year outcomes of second- versus first-generation DES implantation among patients with LM and/or 3VD and to assess the differential of risk by complexity of coronary artery disease using synergy between percutaneous coronary intervention with taxus and cardiac surgery (SYNTAX) scores."

Our news journalists obtained a quote from the research from the Department of Cardiology, "Between April 2007 and December 2012, 341 patients with LM and/or 3VD were treated by percutaneous coronary intervention; 154 with first-generation DES and 137 with second-generation DES. After propensity matching, 101 patients remained in each group. The rate of target lesion revascularization (TLR) and major adverse cardiac event (MACE) were compared. TLR and MACE at 2 years were more common in the first- compared with second-generation DES group (TLR 19.8 vs. 8.9 %; p = 0.016, MACE 24.8 vs. 10.9 %; p = 0.008). In patients with low (0-22) and intermediate (23-32) SYNTAX scores, TLR and MACE tended to occur more often with first-generation DES group. In patients with high SYNTAX scores (ae 33), TLR and MACE were significantly more common with first-generation DES group (TLR 29.0 vs. 11.1 %; p = 0.035, MACE 35.5 vs. 13.9 %; p = 0.034)."

According to the news editors, the research concluded: "Compared with first-generation DES, second-generation DES proved beneficial in reducing risk of TLR and MACE in patients with LM and/or 3VD, particularly among those with high SYNTAX scores (ae 33)."

For more information on this research see: Comparison of first- and second-generation drug-eluting stent efficacies for treating left main and/or three-vessel disease: a propensity matched study. Heart and Vessels, 2016;31(12):1930-1942. Heart and Vessels can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/ene.12943. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Kanagawa, Japan, Asia, Vessel Disease,
Cardiology, Department of Cardiology.

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Angiology
Study Results from Department of Neurology in the Area of Angiology
Reported (Factors associated with timing of early neurological
improvement after thrombolysis for ischaemic stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- Investigators publish new report on Angiology. According to news
reporting out of Caen, France, by NewsRx editors, research stated, "Early neurological
improvement (ENI) after fibrinolysis for ischaemic stroke is strongly associated with
recanalization and favourable outcome. However, it remains unknown why some patients
recover within the first hour after treatment (very ENI, VENI) whereas others recover later
within 24 h."

Our news journalists obtained a quote from the research from the Department of
Neurology, "The factors associated with the timing of ENI were assessed. Consecutive stroke
patients treated with intravenous recombinant tissue plasminogen activator (rt-PA) within 4.5 h
after onset in four stroke centres of our geographical area were retrospectively studied. VENI
assessed at 1 h and ENI assessed at 24 h post-treatment were defined by National Institutes of
Health Stroke Scale (NIHSS) improvement by 40% from baseline. Of 421 patients, 65 (15%)
had VENI and 110 (26%) had ENI. Patients with VENI had significantly lower serum creatinine
level than patients with ENI (79 ? 19 vs. 91 ? 35 mmol/l; p=0.01). After adjustment for age, sex,
baseline NIHSS, hypertension and blood glucose level, patients with low serum creatinine level
were more likely to have VENI (lowest tertile, odds ratio 3.8, 95% confidence interval 1.5-9.7;
intermediate tertile, odds ratio 1.8, 95% confidence interval 0.8-4.3; P for trend <0.01). VENI
patients were as likely as ENI patients to have a modified Rankin scale score (<=)2 at 3
months."

According to the news editors, the research concluded: "Low serum creatinine levels
are associated with VENI, suggesting that swiftness of the efficacy of rt-PA or of neurological
recovery may depend on renal function."

For more information on this research see: Factors associated with timing of early
neurological improvement after thrombolysis for ischaemic stroke. European Journal of
Neurology - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1468-1331)

Our news journalists report that additional information may be obtained by
contacting S. Guettier, Dept. of Neurology, CHU Cote de Nacre, Universite Caen-Normandie,
Caen, France. Additional authors for this research include J. Cogez, A.L. Bonnet, P. Dean, M.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/ene.12943. This DOI is a link to an online electronic document that is
Study Results from Department of Obstetrics & Gynecology Broaden Understanding of Obstetrics and Gynecology (Rupture risk factors of fallopian tubal pregnancy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Women's Health - Obstetrics and Gynecology are presented in a new report. According to news originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "The present authors analyzed patients' backgrounds and pre-surgical findings to clarify the risk factors of rupture of fallopian tubal pregnancy. The surgical findings 113 cases were clearly diagnosed as fallopian tubal pregnancy with or without rupture."

Our news journalists obtained a quote from the research from the Department of Obstetrics & Gynecology, "Twenty-six cases of fallopian tubal pregnancy were ruptured and 87 cases were not ruptured at the time of operation. The risk factors of fallopian tubal rupture were assessed by Chi-square for independence test and multiple regression analysis. Obesity (BMI over 26), prior birth history, social welfare entitlement, ultrasonography findings of fetal heart movement, and pre-surgical serum beta-hCG level more than 3,000 mIU/ml patient were significantly higher risk in fallopian tubal rupture. Fertility treatment patient were at significantly lower risk for fallopian tubal rupture."

According to the news editors, the research concluded: "Higher beta-hCG levels, especially >3,000 mIU/ml is associated with increased risk of fallopian tubal rupture in ectopic pregnancy."


The news correspondents report that additional information may be obtained from T. Fukami, ASO Iizuka Hosp, Dept. of Obstet & Gynecol, Iizuka, Fukuoka 8208505, Japan. Additional authors for this research include H. Tsujioka, S. Matsuoka, S. Sorano, A. Tohyama, H. Yamamoto, S. Nakamura, M. Goto, R. Matsuoka and F. Eguchi.

Keywords for this news article include: Fukuoka, Japan, Asia, Obstetrics and Gynecology, Women's Health, Risk and Prevention, Department of Obstetrics & Gynecology.

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Study Results from Department of Pathology Update Understanding of Genetics and Cancer (Secondary EWSR1 Gene Abnormalities in SMARCB1-Deficient Tumors with 22q11-12 Regional Deletions: Potential Pitfalls in Interpreting EWSR1 FISH Results)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics - Genetics and Cancer have been published. According to news reporting from New York City, New York, by NewsRx journalists, research stated, "SMARCB1 inactivation occurs in a variety of tumors, being caused by various genetic mechanisms. Since SMARCB1 and EWSR1 genes are located close to each other on chromosome 22, larger SMARCB1 deletions may encompass the EWSR1 locus."

The news correspondents obtained a quote from the research from the Department of Pathology, "Herein, we report four cases with SMARCB1-deletions showing concurrent EWSR1 gene abnormalities by FISH, which lead initially to misinterpretations as EWSR1-rearranged tumors. Our study group included various morphologies: a poorly differentiated chordoma, an extrarenal rhabdoid tumor, a myoepithelial carcinoma, and a proximal-type epithelioid sarcoma. All cases showed loss of SMARCB1 (INI1) by immunohistochemistry (IHC) and displayed characteristic histologic features for the diagnoses. The SMARCB1 FISH revealed homozygous or heterozygous deletions in three and one case, respectively. The co-hybridized EWSR1 probes demonstrated either unbalanced split signals or heterozygous deletion in two cases each. The former suggested bona fide rearrangement, while the latter resembled an unbalanced translocation. However, all the FISH patterns were quite complex and distinct from the simple and uniform split signals seen in typical EWSR1 rearrangements. We conclude that in the context of 22q11-12 regional alterations present in SMARCB1-deleted tumors, simultaneous EWSR1 involvement may be misinterpreted as equivalent to EWSR1 rearrangement."

According to the news reporters, the research concluded: "A detailed clinicopathologic correlation and supplementing the EWSR1 FISH assay with complementary methodology is mandatory for correct diagnosis."


Our news journalists report that additional information may be obtained by contacting C.R. Antonescu, Mem Sloan Kettering Canc Center, Dept. of Pathol, New York, NY 10065, United States. Additional authors for this research include L. Zhang, Y.S. Sung, C.L. Chen, Y.C. Kao, N.P. Agaram and C.R. Antonescu.

Keywords for this news article include: New York City, New York, United States, North and Central America, Genetics and Cancer, Genetics, Department of Pathology.

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Drugs and Therapies - Immunotherapy

Study Results from Department of Veterans Affairs in the Area of Immunotherapy Reported (Interleukin 2 Activates Brain Microvascular Endothelial Cells Resulting in Destabilization of Adherens Junctions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Immunotherapy. According to news reporting originating from Nashville, Tennessee, by NewsRx correspondents, research stated, "The pleiotropic cytokine interleukin 2 (IL2) disrupts the blood-brain barrier and alters brain microcirculation, underlying vascular leak syndrome that complicates cancer immunotherapy with IL2. The microvascular effects of IL2 also play a role in the development of multiple sclerosis and other chronic neurological disorders."

Financial support for this research came from National Institutes of Health.

Our news editors obtained a quote from the research from the Department of Veterans Affairs, "The mechanism of IL2-induced disruption of brain microcirculation has not been determined previously. We found that both human and murine brain microvascular endothelial cells express constituents of the IL2 receptor complex. Then we established that signaling through this receptor complex leads to activation of the transcription factor, nuclear factor kappa B, resulting in expression of proinflammatory interleukin 6 and monocyte chemoattractant protein 1. We also discovered that IL2 induces disruption of adherens junctions, concomitant with cytoskeletal reorganization, ultimately leading to increased endothelial cell permeability. IL2-induced phosphorylation of vascular endothelial cadherin (VE-cadherin), a constituent of adherens junctions, leads to dissociation of its stabilizing adaptor partners, p120-catenin and beta-catenin. Increased phosphorylation of VE-cadherin was also accompanied by a reduction of Src homology 2 domain-containing protein-tyrosine phosphatase 2, known to maintain vascular barrier function."

According to the news editors, the research concluded: "These results unravel the mechanism of deleterious effects induced by IL2 on brain microvascular endothelial cells and may inform the development of new measures to improve IL2 cancer immunotherapy, as well as treatments for autoimmune diseases affecting the central nervous system."


The news editors report that additional information may be obtained by contacting J. Hawiger, Tennessee Valley Healthcare Syst, Dept. of Vet Affairs, Nashville, TN 37232, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.729038. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Cell Adhesion Molecules, Drugs and Therapies, Membrane Proteins, Endothelial Cells, Microcirculation, Cell Research, Glycoproteins, Interleukin-2, Immunotherapy, Interleukins, Lymphokines, Hematology,
Amyotrophic Lateral Sclerosis

Study Results from Division of Neurosciences Provide New Insights into Amyotrophic Lateral Sclerosis (Unraveling gene expression profiles in peripheral motor nerve from amyotrophic lateral sclerosis patients: insights into pathogenesis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Amyotrophic Lateral Sclerosis is the subject of a report. According to news reporting out of Milan, Italy, by NewsRx editors, research stated, "The aim of the present study is to investigate the molecular pathways underlying amyotrophic lateral sclerosis (ALS) pathogenesis within the peripheral nervous system. We analyzed gene expression changes in human motor nerve diagnostic biopsies obtained from eight ALS patients and seven patients affected by motor neuropathy as controls."

Our news journalists obtained a quote from the research from the Division of Neurosciences, "An integrated transcriptomics and system biology approach was employed. We identified alterations in the expression of 815 genes, with 529 up-regulated and 286 down-regulated in ALS patients. Up-regulated genes clustered around biological process involving RNA processing and protein metabolisms. We observed a significant enrichment of up-regulated small nucleolar RNA transcripts (p = 2.68*10^-11) and genes related to endoplasmic reticulum unfolded protein response and chaperone activity. We found a significant down-regulation in ALS of genes related to the glutamate metabolism. Interestingly, a network analysis highlighted HDAC2, belonging to the histone deacetylase family, as the most interacting node."

According to the news editors, the research concluded: "While so far gene expression studies in human ALS have been performed in postmortem tissues, here specimens were obtained from biopsy at an early phase of the disease, making these results new in the field of ALS research and therefore appealing for gene discovery studies."


Keywords for this news article include: Milan, Italy, Europe, Neurodegenerative Diseases and Conditions, Genetics, Nutritional and Metabolic Diseases and Conditions, Central Nervous System Diseases and Conditions, Neuromuscular Diseases and Conditions, Spinal Cord Diseases and Conditions, Amyotrophic Lateral Sclerosis, Proteostasis Deficiencies, TDP-43 Proteinopathies, Motor Neuron Disease, Neurology, Division of
Study Results from Drexel University Broaden Understanding of Antiinfectives (Local delivery of minocycline from metal ion-assisted self-assembled complexes promotes neuroprotection and functional recovery after spinal cord injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antiinfectives have been published. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Many mechanisms contribute to the secondary injury cascades following traumatic spinal cord injury (SCI). However, most current treatment strategies only target one or a few elements in the injury cascades, and have been largely unsuccessful in clinical trials."

Financial support for this research came from National Institutes of Health.

The news correspondents obtained a quote from the research from Drexel University, "Minocycline hydrochloride (MH) is a clinically available antibiotic and anti-inflammatory drug that has been shown to target a broad range of secondary injury mechanisms via its anti-inflammatory, anti-oxidant, and anti-apoptotic properties. However, MH is only neuroprotective at high concentrations. The inability to translate the high doses of MH used in experimental animals to tolerable doses in human patients limits its clinical efficacy. In addition, the duration of MH treatment is limited because long-term systemic administration of high doses of MH has been shown to cause liver toxicity and even death. We have developed a drug delivery system in the form of hydrogel loaded with polysaccharide-MH complexes self-assembled by metal ions for controlled release of MH. This drug delivery system can be injected into the intrathecal space for local delivery of MH with sufficient dose and duration, without causing any additional tissue damage."

According to the news reporters, the research concluded: "We show that local delivery of MH at a dose that is lower than the standard human dose (3 mg/kg) was more effective in reducing secondary injury and promoting locomotor functional recovery than systemic injection of MH with the highest dose and duration reported in experimental animal SCI (90-135 mg/kg)."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.biomaterials.2016.10.002. This DOI is a link to an online electronic
Study Results from Duke University Broaden Understanding of Arrestins (beta-Arrestin mediates the Frank-Starling mechanism of cardiac contractility)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Membrane Proteins - Arrestins is now available. According to news reporting originating from Durham, North Carolina, by NewsRx correspondents, research stated, "The Frank-Starling law of the heart is a physiological phenomenon that describes an intrinsic property of heart muscle in which increased cardiac filling leads to enhanced cardiac contractility. Identified more than a century ago, the Frank-Starling relationship is currently known to involve length-dependent enhancement of cardiac myofilament Ca2+ sensitivity."

Our news editors obtained a quote from the research from Duke University, "However, the upstream molecular events that link cellular stretch to the length-dependent myofilament Ca2+ sensitivity are poorly understood. Because the angiotensin II type 1 receptor (AT1R) and the multifunctional transducer protein beta-arrestin have been shown to mediate mechanosensitive cellular signaling, we tested the hypothesis that these two proteins are involved in the Frank-Starling mechanism of the heart. Using invasive hemodynamics, we found that mice lacking beta-arrestin 1, beta-arrestin 2, or AT1R were unable to generate a Frank-Starling force in response to changes in cardiac volume. Although wildtype mice pretreated with the conventional AT1R blocker losartan were unable to enhance cardiac contractility with volume loading, treatment with a beta-arrestin-biased AT1R ligand to selectively activate beta-arrestin signaling preserved the Frank-Starling relationship. Importantly, in skinned muscle fiber preparations, we found markedly impaired length-dependent myofilament Ca2+ sensitivity in beta-arrestin 1, beta-arrestin 2, and AT1R knockout mice."

According to the news editors, the research concluded: "Our data reveal beta-arrestin 1, beta-arrestin 2, and AT1R as key regulatory molecules in the Frank-Starling mechanism, which potentially can be targeted therapeutically with beta-arrestin-biased AT1R ligands."


The news editors report that additional information may be obtained by contacting H.A. Rockman, Duke University, Medical Center, Dept. of Mol Genet, Durham, NC 27710, United States. Additional authors for this research include R.T. Davis, C.M. Warren, L. Mao,
Study Results from E.V. Filonenko et al Provide New Insights into Bladder Cancer [5-Aminolevulinic acid in intraoperative photodynamic therapy of bladder cancer (results of multicenter trial)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Bladder Cancer is now available. According to news originating from Moscow, Russia, by NewsRx correspondents, research stated, "The results of multicenter prospective trial for efficacy of combined modality treatment: transurethral resection (TUR) + photodynamic therapy (PDT) with alasens for bladder cancer are represented in the article. Trials were organized by Research Institute of Organic Intermediates and Dyes and conducted according to clinical protocol approved by Ministry of Health of Russia, at the sites of leading Russian cancer clinical centers."

Our news journalists obtained a quote from the research, "The trial included 45 subjects with verified diagnosis of non-muscle-invasive bladder cancer. Patients underwent TUR of bladder with simultaneous PDT as anti-relapse treatment. Alasens was administered to patients as intravesicular instillation of 3% solution in volume of 50 ml with 1.5-2 h exposure (prior to TUR). TUR was performed after instillation. PDT session was conducted immediately after the completion of TUR on a single occasion by means of combined local irradiation on tumor bed with diffuse irradiation on whole urinary bladder mucosa (light dose of local irradiation- 100 j/cm(2), diffuse irradiation- 20 j/cm2). Good tolerance of the treatment was noticed, there were no complications. Among 45 patients included in the trial, 35 (78%) completed 12 month protocol follow-up without relapse. In our study PDT with alasens after TUR reported a recurrence rate of non-muscle-invasive bladder cancer for 1st year after treatment of 22%.”

According to the news editors, the research concluded: "TUR with intraoperative PDT with 5-aminolevulinic acid may offer an alternative in the treatment of non-muscle-invasive intermediate and high-risk bladder cancer.”

For more information on this research see: 5-Aminolevulinic acid in intraoperative photodynamic therapy of bladder cancer (results of multicenter trial). *Photodiagnosis and Photodynamic Therapy*, 2016;16():106-109. *Photodiagnosis and Photodynamic Therapy* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Photodiagnosis and Photodynamic Therapy - www.journals.elsevier.com/photodiagnosis-and-photodynamic-therapy/)

The news correspondents report that additional information may be obtained from E.V. Filonenko, Minist Hlth Russian Federat, State Educ Inst Higher Profess Training, Sechenov Moscow State Med Univ 1, Moscow, Russia. Additional authors for this research include A.D. Kaprin, B.Y.A. Alekseev, O.I. Apolikhin, E.K. Slovokhodov, V.I. Ivanova-Radkevich and A.N. Urlova.
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Keywords for this news article include: Moscow, Russia, Eurasia, Photosensitizing Agents, Aminolevulinic Acid, Bladder Cancer, Biotechnology, Photodynamics, Amino Acids, Oncology, Therapy.

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Health and Medicine - Dermatology

Study Results from Emory University Provide New Insights into Dermatology (Double Jeopardy: The Rubber Ball Bounces Twice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Health and Medicine - Dermatology is the subject of a report. According to news reporting out of Atlanta, Georgia, by NewsRx editors, research stated, "Soblet et al. describe cis mutations in TEK/Tie-2 in blue rubber bleb nevus and sporadic vascular malformations."

Our news journalists obtained a quote from the research from Emory University, "This suggests that the remaining normal allele is required for the phenotype."

According to the news editors, the research concluded: "Second, it suggests therapeutic approaches to treatment signal transduction inhibition."


Our news journalists report that additional information may be obtained by contacting J.L. Arbiser, Emory University, Sch Med, Dept. of Dermatol, Atlanta Vet Adm Med CenterWinship Canc Inst, Atlanta, GA 30322, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jid.2016.08.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Atlanta, Georgia, United States, North and Central America, Dermatology, Health and Medicine, Legal Issues, Genetics, Emory University.

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Oncology - Breast Cancer

Study Results from F. Garner et al Provide New Insights into Breast Cancer (RAD1901: a novel, orally bioavailable selective estrogen receptor degrader that demonstrates antitumor activity in breast cancer xenograft models)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Breast Cancer are discussed in a new report. According to news reporting from Andover, Massachusetts, by NewsRx journalists, research stated, "Agents that inhibit estrogen production, such as aromatase inhibitors or those that directly block estrogen receptor (ER) activity, such as selective estrogen receptor modulators and selective estrogen receptor degraders, are routinely used in the treatment of ER-positive breast cancers. However, although initial treatment with these agents is often successful, many women eventually relapse with drug-resistant breast cancers."

The news correspondents obtained a quote from the research, "To overcome some of the challenges associated with current endocrine therapies and to combat the development of resistance, there is a need for more durable and more effective ER-targeted therapies. Here we describe and characterize a novel, orally bioavailable small-molecule selective estrogen receptor degrader, RAD1901, and evaluate its therapeutic potential for the treatment of breast cancer. RAD1901 selectively binds to and degrades the ER and is a potent antagonist of ER-positive breast cancer cell proliferation. Importantly, RAD1901 produced a robust and profound inhibition of tumor growth in MCF-7 xenograft models. In an intracranial MCF-7 model, RAD1901-treated animals survived longer than those treated with either control or fulvestrant, suggesting the potential benefit of RAD1901 in the treatment of ER-positive breast cancer that has metastasized to the brain. Finally, RAD1901 preserved ovariectomy-induced bone loss and prevented the uterotropic effects of E2, suggesting that it may act selectively as an agonist in bone but as an antagonist in breast and uterine tissues."

According to the news reporters, the research concluded: "RAD1901 is currently under clinical study in postmenopausal women with ER-positive advanced breast cancer."

For more information on this research see: RAD1901: a novel, orally bioavailable selective estrogen receptor degrader that demonstrates antitumor activity in breast cancer xenograft models. Anti-cancer Drugs, 2015;26(9):948-56. (Lippincott Williams and Wilkins - www.lww.com; Anti-cancer Drugs - journals.lww.com/anti-cancerdrugs/pages/default.aspx)

Our news journalists report that additional information may be obtained by contacting F. Garner, aRadius Health Inc, Waltham bPfizer, Andover, Massachusetts, United States. Additional authors for this research include M. Shomali, D. Paquin, C.R. Lyttle and G. Hattersley.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/CAD.0000000000000271. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Andover, Hormones, Oncology, Xenografts, Massachusetts, United States, Bone Research, Breast Cancer, Endocrinology, Cancer Therapy, Women's Health, Steroid Receptors, Xenotransplantation, Estrogen Receptors, Drugs and Therapies, DNA Binding Proteins, Transcription Factors, North and Central America.

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Oncology - Lung Cancer

Study Results from Fox Chase Cancer Center in the Area of Lung Cancer Reported (End-of-Life Care in Patients with Metastatic Lung Cancer Harboring Epidermal Growth Factor Receptor Mutations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news reporting from Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "Patients with metastatic nonsmall cell lung cancer (NSCLC) harboring epidermal growth factor receptor (EGFR) mutations benefit from improved survival and quality of life with EGFR-directed therapy. We sought to explore if these improvements in cancer care impacted the delivery of end-of-life (EOL) care in this population."

The news correspondents obtained a quote from the research from Fox Chase Cancer Center, "We retrospectively reviewed medical records of patients cared for at our institution with the diagnosis of metastatic EGFR-mutant NSCLC who died by January 2015. Sixty-one patients were included. The majority of patients were female (68%), white or Asian (97%), and never or minimal smokers (76%). Forty-two out of fifty-eight patients (72%) received chemotherapy within 30 days of death. Forty-one out of sixty-one patients (67%) had a hospital admission within 30 days of death. EOL outcomes were known for 53 patients. Of these, 34 (64%) patients enrolled on hospice. The median length of stay on hospice was 6 days (range 0-206). Thirty-three (62%) patients died at home with hospice services or at an inpatient hospice facility. Eighteen patients (34%) died in the hospital. Patients with metastatic NSCLC harboring EGFR mutations had high rates of chemotherapy use and hospital admissions in the last month of life, and many died in the hospital. Hospital admissions near the EOL and short admissions to hospice are indicators of poor quality EOL care and are likely a result of prolonged chemotherapy administration in this population."

According to the news reporters, the research concluded: "Thus, current healthcare delivery models may be insufficient to provide comprehensive EOL care for patients with EGFR mutations."


Our news journalists report that additional information may be obtained by contacting J.R. Bauman, Fox Chase Canc Center, Philadelphia, PA 19111, United States. Additional authors for this research include Z. Piotrowska, A. Muzikansky, E. Gallagher, E. Scribner, B. Temel, L.V. Sequist, R.S. Heist and J.S. Temel.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/jpm.2016.0180. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Gastrointestinal Hormone Receptors, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor, Gastrointestinal Hormones, Epidermal Growth Factors, Growth Factor Receptors, Drugs and
Study Results from Fox Chase Cancer Center in the Area of Prostate Cancer Reported (The impact of trainee involvement on outcomes in low-dose-rate brachytherapy for prostate cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Prostate Cancer have been published. According to news originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "To determine the impact of fellow, resident, or medical student (MS) involvement on outcomes in patients undergoing permanent I-125 prostate seed implant. The study population consisted of men with clinically localized low/intermediate-risk prostate cancer treated with low-dose-rate permanent interstitial brachytherapy."

Our news journalists obtained a quote from the research from Fox Chase Cancer Center, "Cases were stratified according to resident, fellow, MS, or attending involvement. Outcomes were compared using analysis of variance, logistic regression, and log rank tests. A total of 291 patients were evaluated. Fellows, residents, and MS were involved in 47 (16.2%), 231 (79.4%), and 34 (11.7%) cases, respectively. Thirteen (4.4%) cases were completed by an attending physician alone. There was no difference in freedom from biochemical failure when comparing the resident, fellow, or attending alone groups (p = 0.10). There was no difference in V-100 (volume of the prostate receiving 100% of the prescription dose) outcomes when comparing resident cases to fellow cases (p = 0.72) or attending alone cases (p = 0.78). There was no difference in D-90 (minimum dose covering 90% of the postimplant volume) outcomes when comparing resident cases to fellow cases (p = 0.74) or attending alone cases (p = 0.58). When examining treatment toxicity, fellow cases had higher rates of acute Grade 2 + GU toxicity (p = 0.028). With the exception of higher urethra D90 among PGY 2-3 cases (p = 0.02), dosimetric outcomes were similar to cases with PGY 4-5 resident participation. There was no difference in outcomes for cases with and without MS participation. Interstitial prostate seed implants can be safely performed by trainees with appropriate supervision."

According to the news editors, the research concluded: "Hands-on brachytherapy training is effective and feasible for trainees."


The news correspondents report that additional information may be obtained from E.M. Horwitz, Fox Chase Canc Center. Dept. of Radiat Oncol, Philadelphia, PA 19111, United States. Additional authors for this research include L. Wang, K. Ruth, M. Hallman, D.Y. Chen, R.E. Greenberg, J.S. Li, K. Crawford and E.M. Horwitz.

The direct object identifier (DOI) for that additional information is:
Study Results from Free University in the Area of Drug Delivery Systems Reported (Development of biodegradable hyperbranched core-multishell nanocarriers for efficient topical drug delivery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Delivery Systems have been published. According to news reporting out of Berlin, Germany, by NewsRx editors, research stated, "The topical application of drugs allows for a local application in skin disease and can reduce side effects. Here we present biodegradable core-multishell (CMS) nanocarriers which are composed of a hyperbranched polyglycerol core functionalized with diblock copolymers consisting of polycaprolactone (PCL) and poly(ethylene glycol) (mPEG) as the outer shell."

Financial supporters for this research include SFB 1112, China Scholarship Council, Focus Area Nanoscale of Freie Universitat Berlin.

Our news journalists obtained a quote from the research from Free University, "The anti-inflammatory drug Dexamethasone (Dexa) was loaded into these CMS nanocarriers. DLS results suggested that Dexa loaded nanoparticles mostly act as a unimolecular carrier system. With longer PCL segments, a better transport capacity is observed. In vitro skin permeation studies showed that CMS nanocarriers could improve the Nile red penetration through the skin by up to 7 times, compared to a conventional cream formulation. Interestingly, covalently FITC-labeled CMS nanocarriers remain in the stratum corneum layer. This suggests the enhancement is due to the release of cargo after being transported into the stratum corneum by the CMS nanocarriers."

According to the news editors, the research concluded: "In addition, the hPG-PCL-mPEG CMS nanocarriers exhibited good stability, low cytotoxicity, and their production can easily be scaled up, which makes them promising nanocarriers for topical drug delivery."

For more information on this research see: Development of biodegradable hyperbranched core-multishell nanocarriers for efficient topical drug delivery. *Journal of Controlled Release*, 2016;242():42-49. *Journal of Controlled Release* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Controlled Release - www.journals.elsevier.com/journal-of-controlled-release/)

Our news journalists report that additional information may be obtained by contacting R. Haag, Free University of Berlin, Inst Organ Chem & Biochem, D-14195 Berlin, Germany. Additional authors for this research include S. Honzke, F. Neumann, J. Keilitz, W. Chen, N. Ma, S. Hedtrich and R. Haag.

The direct object identifier (DOI) for that additional information is:
Study Results from French National Institute of Health and Medical Research (INSERM) in the Area of Genetics Reported (Constitutive p53 heightens mitochondrial apoptotic priming and favors cell death induction by BH3 mimetic inhibitors of BCL-xL)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Genetics. According to news reporting from Nantes, France, by NewsRx journalists, research stated, "Proapoptotic molecules directly targeting the BCL-2 family network are promising anticancer therapeutics, but an understanding of the cellular stress signals that render them effective is still elusive. We show here that the tumor suppressor p53, at least in part by transcription independent mechanisms, contributes to cell death induction and full activation of BAX by BH3 mimetic inhibitors of BCL-xL."

The news correspondents obtained a quote from the research from the French National Institute of Health and Medical Research (INSERM), "In addition to mildly facilitating the ability of compounds to derepress BAX from BCL-xL, p53 also provides a death signal downstream of anti-apoptotic proteins inhibition. This death signal cooperates with BH3-induced activation of BAX and it is independent from PUMA, as enhanced p53 can substitute for PUMA to promote BAX activation in response to BH3 mimetics."

According to the news reporters, the research concluded: "The acute sensitivity of mitochondrial priming to p53 revealed here is likely to be critical for the clinical use of BH3 mimetics."

For more information on this research see: Constitutive p53 heightens mitochondrial apoptotic priming and favors cell death induction by BH3 mimetic inhibitors of BCL-xL. Cell Death & Disease, 2016;7():e2083. (Nature Publishing Group - www.nature.com/; Cell Death & Disease - www.nature.com/cddis/)

Our news journalists report that additional information may be obtained by contacting J. Le Pen, UMR 892 INSERM, 6299 CNRS, Universite de Nantes, Team 8 'Cell Survival And Tumor Escape In Breast Cancer', Institut de Recherche en Sante de l'Universite de Nantes, Nantes, France. Additional authors for this research include M. Laurent, K. Sarosiek, C. Vuillier, F. Gautier, S. Montessuit, J.C. Martinou, A. Letai, F. Braun and P.P Juin.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2015.400. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nantes, France, Europe, Genetics, p53 Gene.
Study Results from Fudan University Provide New Insights into Atherosclerosis (Exosomes derived from mature dendritic cells increase endothelial inflammation and atherosclerosis via membrane TNF-alpha mediated NF-kappa B pathway)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiovascular Diseases and Conditions - Atherosclerosis are presented in a new report. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Whether dendritic cell (DC) derived exosomes play a role in the progression of endothelial inflammation and atherosclerosis remains unclear. Using a transwell system and exosome release inhibitor GW4869, we demonstrated that mature DCs contributed to endothelial inflammation and exosomes were involved in the process."

The news correspondents obtained a quote from the research from Fudan University, "To further confirm this finding, we isolated exosomes from bone marrow dendritic cell (BMDC) culture medium (named DC-exos) and stimulated human umbilical vein endothelial cell (HUVEC) with these DC-exos. We observed that mature DC-exos increased HUVEC inflammation through NF-kappa B pathway in a manner similar to that of lipopolysaccharide. After a protein array analysis of exosomes, we identified and confirmed tumour necrosis factor (TNF)-alpha on exosome membrane being the trigger of NF-kappa B pathway in HUVECs. We then performed an in vivo study and found that the aorta endothelial of mice could uptake intravenously injected exosomes and was activated by these exosomes. After a period of 12 weeks of mature DC-exos injection into ApoE-/- mice, the atherosclerotic lesions significantly increased. Our study demonstrates that mature DCs derived exosomes increase endothelial inflammation and atherosclerosis via membrane TNF-alpha mediated NF-kappa B pathway."

According to the news reporters, the research concluded: "This finding extends our knowledge on how DCs affect inflammation and provides a potential method to prevent endothelial inflammation and atherosclerosis."


Our news journalists report that additional information may be obtained by contacting Y.Z. Zou, Fudan University, Inst Biomed Sci, Shanghai, People's Republic of China. Additional authors for this research include H.B. Liu, J. Yuan, C.N. Wu, D. Huang, Y.J. Ma, J.B. Zhu, L.L. Ma, J.J. Guo, H.T. Shi, Y.Z. Zou and J.B. Ge.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Cardiovascular Diseases and Conditions, Mononuclear Phagocyte System, Arterial Occlusive Diseases, Antigen-Presenting Cells, Cytoplasmic Structures, Transcription Factors, DNA-Binding Proteins, Transport Vesicles, Nuclear Proteins, Arteriosclerosis, Dendritic Cells, Atherosclerosis, Inflammation, NF-kappa B, Organelles, Immunology, Exosomes, Fudan University.

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Human Herpesvirus Diseases and Conditions -…

Study Results from Fudan University Update Understanding of Epstein-Barr Virus (Acute viral hepatitis presenting as cytomegalovirus, hepatitis E and Epstein-Barr virus IgM antibody positive)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Human Herpesvirus Diseases and Conditions - Epstein-Barr Virus. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "We report a case of acute cytomegalovirus (CMV) infection with positive HEV and Epstein-Barr virus (EBV) serology. No patients have been reported positive for immunoglobulin (Ig)M antibodies to all three viruses."

The news correspondents obtained a quote from the research from Fudan University, "This patient had progressively increasing titres of IgM antibody for CMV, HEV and EBV. Only CMV DNA was detectable before antiviral treatment. After antiviral treatment, the patient recovered completely. At day 180 the CMV IgG test had converted to positive with CMV IgM (+), EBV IgM (-) and HEV IgM (-). Our report indicates that dependence upon serology alone is unreliable in the diagnosis of acute CMV, EBV and HEV infections."

According to the news reporters, the research concluded: "The diagnosis of CMV, HEV and EBV should be based on a combination of clinical features, serology and confirmatory PCR testing."


Our news journalists report that additional information may be obtained by contacting Y. Ling, Fudan University, Shanghai Public Hlth Clin Center, Dept. of Infect Dis, Shanghai, People's Republic of China. Additional authors for this research include X.H. Li, C.Y. Zhu, J.J. Yan, Z.G. Song, S. Zhang, Y.W. Hu, L. Chen and Y. Ling.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Human Herpesvirus Diseases and Conditions, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Tumor Virus Infections, Human Herpesvirus 4, Epstein-Barr Virus, Betaherpesvirinae, Gastroenterology, Immunoglobulins, Viral Hepatitis, Cytomegalovirus, Blood Proteins, Herpesviridae, Tumor Viruses, DNA Viruses, Immunology, Antibodies, Genetics, Virology, HHV-4, HHV4, CMV, Fudan University.

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Proteins - DNA-Binding Proteins

Study Results from Fudan University in the Area of DNA-Binding Proteins Reported (Dihydroartemisinin inhibits catabolism in rat chondrocytes by activating autophagy via inhibition of the NF-kappa B pathway)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Proteins - DNA-Binding Proteins have been published. According to news reporting out of Shanghai, People's Republic of China, by NewsRx editors, research stated, "Osteoarthritis is a disease with inflammatory and catabolic imbalance in cartilage. Dihydroartemisinin (DHA), a natural and safe anti-malarial agent, has been reported to inhibit inflammation, but its effects on chondrocytes have yet to be elucidated."

Our news journalists obtained a quote from the research from Fudan University, "We investigated the effects of DHA on catabolism in chondrocytes. Viability of SD rats chondrocytes was analyzed. Autophagy levels were determined via expression of autophagic markers LC3 and ATG5, GFP-LC3 analysis, acridine orange staining, and electron microscopy. ATG5 siRNA induced autophagic inhibition. Catabolic gene and chemokine expression was evaluated using qPCR. The NF-kappa B inhibitor SM7368 and p65 over-expression were used to analyze the role of NF-kappa B pathway in autophagic activation. A concentration of 1 mu M DHA without cytotoxicity increased LC3-II and ATG5 levels as well as autophagosomal numbers in chondrocytes. DHA inhibited TNF-alpha-induced expression of MMP-3 and -9, ADAMTS5, CCL-2 and -5, and CXCL1, which was reversed by autophagic inhibition. TNF-alpha-stimulated nuclear translocation and degradation of the p65 and I kappa B alpha proteins, respectively, were attenuated in DHA-treated chondrocytes. NF-kappa B inhibition activated autophagy in TNF-alpha-treated chondrocytes, but p65 over-expression reduced the autophagic response to DHA."

According to the news editors, the research concluded: "These results indicate that DHA might suppress the levels of catabolic and inflammatory factors in chondrocytes by promoting autophagy via NF-kappa B pathway inhibition."


Our news journalists report that additional information may be obtained by contacting J. Zhang, Fudan University, Zhongshan Hosp, Dept. of Orthoped Surg, Shanghai, People's Republic of China. Additional authors for this research include D.H. Meng, S.M. Lee, S.H. Liu, Q.T. Xu, Y. Wang and J. Zhang.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Transcription Factors, DNA-Binding Proteins, Nuclear Proteins, NF-kappa B, Genetics, Fudan University.

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Myeloid Cells

Study Results from Fukuoka University Provide New Insights into Myeloid Cells (IL-1 beta promotes tubulointerstitial injury in MPO-ANCA-associated glomerulonephritis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Myeloid Cells are presented in a new report. According to news reporting originating from Fukuoka, Japan, by NewsRx correspondents, research stated, "It
is widely accepted that tubulointerstitial injury (TII) is caused by glomerular injury (GI) in glomerular diseases. Glomerular endocapillary inflammation may result in crescent formation and exuded protein leakage, which may induce TII in antineutrophil cytoplasmic antibody-associated glomerulonephritis (ANCAGN).

Our news editors obtained a quote from the research from Fukuoka University, "However, some reports have indicated a glomerulonephritis-independent mechanism of TII in ANCAGN. The aim of this study was to determine the principle cytokines correlated with TII severity and to elucidate a characteristic mechanism for TII in ANCAGN. 28 myeloperoxidase-ANCA-positive ANCAGN patients were enrolled, and their kidney biopsy specimens were histologically evaluated with regard to GI and TII. The mRNA expression of various cytokines was examined in 28 specimens. Interleukin (IL)-1 beta was significantly correlated with the severity of TII. The mRNA expression of Toll-like receptor 4 (TLR4) and Nod-like receptor family pyrin domain-containing-3 (NLRP3) also correlated with TII severity. Immunohistochemical analysis demonstrated that TLR4 protein was positively stained in the tubulointerstitial infiltrating cells. NLRP3 protein was detected in macrophages in the severe infiltrating area but was absent or only very faintly expressed in the glomeruli. These results indicated that NLRP3 inflammasome-dependent processing in macrophages releases the mature active form of IL-1 beta, which may lead to the development and deterioration of TII. Sterile inflammation leads to the formation of ANCA-mediated neutrophil extracellular traps (NETs), which may stimulate macrophages and dendritic cells via TLR4 and induce NF-kappa B-dependent mRNA expression and translation of pro-IL-1 beta. Simultaneously, damage-associated molecular pattern signals resulting from NETs promote NLRP3 inflammasome-dependent process-inflammation utilizing the NLRP3 inflamma-some might be a characteristic reaction limited to the tubulointerstitium."

According to the news editors, the research concluded: "Thus, neutralizing IL-1 beta may be a promising strategy to suspend the progress of TII and improve the prognosis of chronic kidney disease resulting from ANCAGN."

For more information on this research see: IL-1 beta promotes tubulointerstitial injury in MPO-ANCA-associated glomerulonephritis. *Clinical Nephrology*, 2016;86(4):190-199. *Clinical Nephrology* can be contacted at: Dustri-Verlag Dr Karl Feistle, Bahnhofstrasse 9 Postfach 49, D-82032 Deisenhofen-Muenchen, Germany.

The news editors report that additional information may be obtained by contacting H. Nakashima, Fukuoka Univ, Fac Med, Div Nephrol & Rheumatol, Dept. of Internal Med, Fukuoka, Japan. Additional authors for this research include Y. Sasatomi, R. Watanabe, M. Watanabe, K. Miyake, Y. Abe, T. Yasuno, K. Ito, N. Ueki, A. Hamauchi, R. Noda, S. Hisano and H. Nakashima.

Keywords for this news article include: Fukuoka, Japan, Asia, Mononuclear Phagocyte System, Connective Tissue Cells, Myeloid Cells, Inflammation, Macrophages, Immunology, Phagocytes, Genetics, Fukuoka University.

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**Study Results from Genentech, Inc. Broaden Understanding of Drug Delivery Systems (Targeted drug delivery through the traceless release of tertiary and heteroaryl amines from antibody-drug conjugates)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Drug Delivery Systems have been published. According to news reporting from San Francisco, California, by NewsRx journalists, research stated, "The reversible attachment of a small-molecule drug to a carrier for targeted delivery can improve pharmacokinetics and the therapeutic index. Previous studies have reported the delivery of molecules that contain primary and secondary amines via an amide or carbamate bond; however, the ability to employ tertiary-amine-containing bioactive molecules has been elusive."

The news correspondents obtained a quote from the research from Genentech, Inc., "Here we describe a bioreversible linkage based on a quaternary ammonium that can be used to connect a broad array of tertiary and heteroaryl amines to a carrier protein. Using a concise, protecting-group-free synthesis we demonstrate the chemoselective modification of 12 complex molecules that contain a range of reactive functional groups. We also show the utility of this connection with both protease-cleavable and reductively cleavable antibody-drug conjugates that were effective and stable in vitro and in vivo."

According to the news reporters, the research concluded: "Studies with a tertiary-amine-containing antibiotic show that the resulting antibody-antibiotic conjugate provided appropriate stability and release characteristics and led to an unexpected improvement in activity over the conjugates previously connected via a carbamate."


Keywords for this news article include: San Francisco, California, United States, North and Central America, Drug Delivery Systems, Drugs and Therapies, Organic Chemicals, Drug Development, Immunoglobulins, Blood Proteins, Immunology, Antibodies, Amines, Genentech Inc.

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Study Results from Genome Institute in the Area of Gastric Cancer Reported (ADAR-Mediated RNA Editing Predicts Progression and Prognosis of Gastric Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Gastric Cancer. According to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "BACKGROUND & AIM: Gastric cancer (GC) is the third leading cause of global cancer mortality. Adenosine-to-inosine RNA editing is a recently described novel epigenetic mechanism involving sequence alterations at the RNA but not DNA level, primarily mediated by ADAR (adenosine deaminase that act on RNA) enzymes."

Our news editors obtained a quote from the research from Genome Institute, "Emerging evidence suggests a role for RNA editing and ADARs in cancer, however, the relationship between RNA editing and GC development and progression remains unknown. In this study, we leveraged on the next-generation sequencing transcriptomics to demarcate the GC RNA editing landscape and the role of ADARs in this deadly malignancy. Relative to normal gastric tissues, almost all GCs displayed a clear RNA misediting phenotype with ADAR1/2 dysregulation arising from the genomic gain and loss of the ADAR1 and ADAR2 gene in primary GCs, respectively. Clinically, patients with GCs exhibiting ADAR1/2 imbalance demonstrated extremely poor prognoses in multiple independent cohorts. Functionally, we demonstrate in vitro and in vivo that ADAR-mediated RNA misediting is closely associated with GC pathogenesis, with ADAR1 and ADAR2 playing reciprocal oncogenic and tumor suppressive roles through their catalytic deaminase domains, respectively. Using an exemplary target gene PODXL (podocalyxin-like), we demonstrate that the ADAR2-regulated recoding editing at codon 241 (His to Arg) confers a loss-of-function phenotype that neutralizes the tumorigenic ability of the unedited PODXL. Our study highlights a major role for RNA editing in GC disease and progression, an observation potentially missed by previous next-generation sequencing analyses of GC focused on DNA alterations alone."

According to the news editors, the research concluded: "Our findings also suggest new GC therapeutic opportunities through ADAR1 enzymatic inhibition or the potential restoration of ADAR2 activity."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.gastro.2016.06.043. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Singapore, Singapore, Asia, Enzymes and
Study Results from German Cancer Research Center Broaden Understanding of Chronic Disease (The effects of intermittent calorie restriction on metabolic health: Rationale and study design of the HELENA Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Disease Attributes - Chronic Disease have been presented. According to news reporting from Heidelberg, Germany, by NewsRx journalists, research stated, "Mechanistic studies suggest benefits of intermittent calorie restriction (ICR) in chronic disease prevention that may exceed those of continuous calorie restriction (CCR), even at equal net calorie intake. Despite promising results from first trials, it remains largely unknown whether ICR-induced metabolic alterations reported from experimental studies can also be observed in humans, and whether ICR diets are practicable and effective in real life situations."

Financial support for this research came from Helmholtz Association of German Research Centers.

The news correspondents obtained a quote from the research from German Cancer Research Center, "Thus, we initiated the HELENA Trial to test the effects of ICR (eu-caloric diet on five days and very low energy intake-on two days per week) on metabolic parameters and body composition over one year. We will assess the effectiveness of ICR compared to CCR and a control diet over a 12-week intervention, 12-week maintenance phase and 24-week follow-up in 150 overweight or obese non-smoking adults (50 per group, 50% women). Our primary endpoint is the difference between ICR and CCR with respect to fold-changes in expression levels of 82 candidate genes in abdominal subcutaneous adipose tissue biopsies (SATb) during the intervention phase. The candidate genes represent pathways, which may link obesity-related metabolic alterations with the risk for major chronic diseases. In secondary and exploratory analyses, changes in metabolic, hormonal, inflammatory and metagenomic parameters measured in different biospecimens (SATb, blood, urine, stool) are investigated and effects of ICR/CCR/control on imaging-based measures of subcutaneous, visceral and hepatic fat are evaluated."

According to the news reporters, the research concluded: "Our study is the first randomized trial over one year testing the effects of ICR on metabolism, body composition and psychosocial factors in humans."

For more information on this research see: The effects of intermittent calorie restriction on metabolic health: Rationale and study design of the HELENA Trial. Contemporary Clinical Trials, 2016;51():28-33. Contemporary Clinical Trials can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Contemporary Clinical Trials - www.journals.elsevier.com/contemporary-clinical-trials/)

Our news journalists report that additional information may be obtained by contacting T. Kuhn, German Canc Res Center, Div Canc Epidemiol, D-69120 Heidelberg,

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cct.2016.09.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Heidelberg, Germany, Europe, Risk and Prevention, Disease Attributes, Chronic Disease, Genetics, German Cancer Research Center.

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Gram-Negative Bacteria - Acinetobacter baumannii

Study Results from Grand Valley State University Broaden Understanding of Acinetobacter baumannii (Clinical Variants of the Native Class D beta-Lactamase of Acinetobacter baumannii Pose an Emerging Threat through Increased Hydrolytic Activity ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Gram-Negative Bacteria - Acinetobacter baumannii are presented in a new report. According to news reporting out of Allendale, Michigan, by NewsRx editors, research stated, "The threat posed by the chromosomally encoded class D beta-lactamase of Acinetobacter baumannii (OXA-51/66) has been unclear, in part because of its relatively low affinity and turnover rate for carbapenems. Several hundred clinical variants of OXA51/66 have been reported, many with substitutions of active-site residues."

Our news journalists obtained a quote from the research from Grand Valley State University, "We determined the kinetic properties of OXA-66 and five clinical variants with respect to a wide variety of beta-lactam substrates. The five variants displayed enhanced activity against carbapenems and in some cases against penicillins, late-generation cephalosporins, and the monobactam aztreonam. Molecular dynamics simulations show that in OXA-66, P130 inhibits the side-chain rotation of I129 and thereby prevents doripenem binding because of steric clash. A single amino acid substitution at this position (P130Q) in the variant OXA-109 greatly enhances the mobility of both I129 and a key active-site tryptophan (W222), thereby facilitating carbapenem binding."

According to the news editors, the research concluded: "This expansion of substrate specificity represents a very worrisome development for the efficacy of beta-lactams against this troublesome pathogen."

For more information on this research see: Clinical Variants of the Native Class D beta-Lactamase of Acinetobacter baumannii Pose an Emerging Threat through Increased Hydrolytic Activity against Carbapenems. Antimicrobial Agents and Chemotherapy, 2016;60 (10):6155-6164. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting D.A. Leonard, Grand Valley State Univ, Dept. of Chem, Allendale, MI 49401, United States. Additional authors for this research include Z.L. Klamer, A. Saral, K.A. Sugg, C.M. June, T. Wymore, A. Szarecka and D.A. Leonard.
Study Results from Grigore T. Popa University of Medicine and Pharmacy in the Area of Myelodysplastic Syndromes Reported (Using Iron Chelators - deferasirox in the Treatment of Hypersiderosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hematologic Diseases and Conditions - Myelodysplastic Syndromes are discussed in a new report. According to news reporting originating from Iasi, Romania, by NewsRx correspondents, research stated, "Hemosiderosis is a condition characterized by a pathological increase of iron levels in the body. One of the main etiologies of hemosiderosis is represented by massive transfusions of packed red blood cells, as it happens in major beta-thalassemia or in myelodysplastic syndromes, haematological disorders evolving with low values of haemoglobin which require transfusion frequently."

Our news editors obtained a quote from the research from the Grigore T. Popa University of Medicine and Pharmacy, "Hypersideremia therapy consists of the administration of iron chelators. Deferasirox is a next generation iron chelator, which is administered to multiple transfused patients. It is used to prevent iron storage in deposits by increasing its excretion rate. The purpose of this paper is to highlight the role of the treatment with iron chelators, respectively Deferasirox in preventing the onset of hemosiderosis and its complications. We also intend to analyze aspects of the chemical and pharmacological profile of Deferasirox. We present the case of a 27 year-old man diagnosed with myelodysplastic syndrome of the refractory anemia type, in which increased transfusion treatment imposed by the severely low hemoglobin values, led to the risk of secondary hemosiderosis installation."

According to the news editors, the research concluded: "We intend to emphasize the beneficial effect of iron chelators therapy, which prevents the installation of hypersideremia complications, reduces the transfusion requirements and improves patient's quality of life."


The news editors report that additional information may be obtained by contacting O.V. Badulescu, Grigore T Popa Univ Med & Pharm, Fac Med, Dept. of Pathophysiol, Iasi 700115, Romania. Additional authors for this research include M.M. Leon and M. Mocanu.

Keywords for this news article include: Iasi, Romania, Europe, Nutritional and Metabolic Diseases and Conditions, Hematologic Diseases and Conditions, Iron Metabolism Disorders, Myelodysplastic Syndromes, Transfusion Medicine, Drugs and Therapies, Blood Transfusion, Chelating Agents, Medical Devices, Hemosiderosis, Iron Overload,
Study Results from Guangdong General Hospital Provide New Insights into Lung Cancer (Leptomeningeal Metastases in Patients with NSCLC with EGFR Mutations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Lung Cancer have been presented. According to news reporting from Guangdong, People's Republic of China, by NewsRx journalists, research stated, "Leptomeningeal metastases (LM) have increased in patients with NSCLC, and prognostic factors and outcomes for LM with EGFR gene mutations have not been well studied. We retrospectively analyzed patients with lung cancer from January 2011 to June 2015 at our institute."

Financial supporters for this research include National Health and Family Planning Commission, Lung Cancer Translational Medicine, Guangzhou Science and Technology Bureau, Natural Science Foundation of Guangdong Province.

The news correspondents obtained a quote from the research from Guangdong General Hospital, "Treatments and clinical outcomes of LM were reviewed. LM were diagnosed in 184 (3.4%) of 5387 patients with lung cancer. Patients with LM harboring EGFR mutations (9.4%) were significantly more frequent than those with wild-type EGFR (1.7% [p < 0.001]). The median overall survival (OS) after LM was 8.7 months (95% confidence interval [CI]: 7.3-10.1). Among the 109 patients with common EGFR mutations, the 88 patients who received tyrosine kinase inhibitor (TKI) therapy demonstrated longer OS than those who did not (10.0 months versus 3.3 months [p < 0.001]), but 42 patients who underwent whole brain radiotherapy (WBRT) did not show longer OS than those without WBRT, and a combination of WBRT and TKIs did not add any survival benefit beyond that in patients receiving only TKIs. A multivariate analysis indicated that TKI therapy (p < 0.001, hazard ratio = 0.218) was an independent predictor of favorable survival, whereas poor Eastern Cooperative Oncology Group performance status (p < 0.001, hazard ratio = 3.657) was a predictor of poor survival. LM were much more frequent in patients with NSCLC harboring EGFR mutations."

According to the news reporters, the research concluded: "EGFR TKIs were the optimal treatment for LM, and active treatment with WBRT did not prolong OS for EGFR-mutated patients."


The direct object identifier (DOI) for that additional information is:
Study Results from Guangzhou Medical University Broaden Understanding of Oral Cancer (Overexpression of HOXB7 protein reduces sensitivity of oral cancer cells to chemo-radiotherapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Oral Cancer are discussed in a new report. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "The upregulation of homeobox-B7 (HOXB7) in cancers has been reported. However, its role in oral cancer progression remains to be investigated."

Our news journalists obtained a quote from the research from Guangzhou Medical University, "In current study, our data revealed that reconstitution of HOXB7 expression by transient transfection resulted in increased cell growth, migration and invasion in vitro. In addition, apoptosis and clonogenic assay data showed that overexpression of HOXB7 decreased the sensitivity of oral cancer cells to vincristine-induced apoptosis of HSC-4 and KBNCR cells. Furthermore, overexpression of HOXB7 promoted oral cancer cells' migration and invasion through activation of TGF beta 2/SMAD3 signaling pathway. Moreover, forced expression of HOXB7 increased Bcl-2 to Bax ratio, which would promote cell survival and induce drug and radiotherapy resistance. Altogether, our findings support the role of HOXB7 in the progression of oral cancer."

According to the news editors, the research concluded: "Therefore, HOXB7 potentially can be a therapeutic target for oral cancer."


Our news journalists report that additional information may be obtained by contacting Y. Wei, Guangzhou Med Univ, Guangzhou Peoples Hosp 1, Dept. of Blood Transfus, Guangzhou 510180, Guangdong, People's Republic of China. Additional authors for this research include D. Chen, X. Chen, H. Yang and Y. Wei.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cgt.2016.55. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Therapy, Gene Therapy, Drugs and Therapies, Drug Resistance, Mouth Neoplasms, Radiotherapy, Oral Cancers, Oncology, Guangzhou Medical University.

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Study Results from Guangzhou Medical University Provide New Insights into Osteosarcomas (Long non-coding RNA TUG1 contributes to tumorigenesis of human osteosarcoma by sponging miR-9-5p and regulating POU2F1 expression)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Osteosarcomas are discussed in a new report. According to news reporting out of Guangdong, People's Republic of China, by NewsRx editors, research stated, "Recent studies have shown that long non-coding RNAs (lncRNAs) have critical roles in tumorigenesis, including osteosarcoma. The lncRNA taurine-upregulated gene 1 (TUG1) was reported to be involved in the progression of osteosarcoma."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Guangzhou Medical University, "Here, we investigated the role of TUG1 in osteosarcoma cells and the underlying mechanism. TUG1 expression was measured in osteosarcoma cell lines and human normal osteoblast cells by quantitative real-time PCR (qRT-PCR). The effects of TUG1 on osteosarcoma cells were studied by RNA interference in vitro and in vivo. The mechanism of competing endogenous RNA (ceRNA) was determined using bioinformatic analysis and luciferase assays. Our data showed that TUG1 knockdown inhibited cell proliferation and colony formation, and induced G0/G1 cell cycle arrest and apoptosis in vitro, and suppressed tumor growth in vivo. Besides, we found that TUG1 acted as an endogenous sponge to directly bind to miR-9-5p and downregulated miR-9-5p expression. Moreover, TUG1 overturned the effect of miR-9-5p on the proliferation, colony formation, cell cycle arrest, and apoptosis in osteosarcoma cells, which involved the derepression of POU class 2 homeobox 1 (POU2F1) expression."

According to the news editors, the research concluded: "Our study elucidated a novel TUG1/miR-9-5p/POU2F1 pathway, in which TUG1 acted as a ceRNA by sponging miR-9-5p, leading to downregulation of POU2F1 and facilitating the tumorigenesis of osteosarcoma. These findings may contribute to the lncRNA-targeted therapy for human osteosarcoma."

For more information on this research see: Long non-coding RNA TUG1 contributes to tumorigenesis of human osteosarcoma by sponging miR-9-5p and regulating POU2F1 expression. Tumor Biology, 2016;37(11):15031-15041. Tumor Biology can be contacted at: Springer, Van Godewijkstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

Our news journalists report that additional information may be obtained by contacting C.H. Xie, Guangzhou Med Univ, Affiliated Hosp 2, Dept. of Orthoped, Guangzhou 510260, Guangdong, People's Republic of China. Additional authors for this research include Y.M. Cao, Y. Huang, Q.W. Shi, J.H. Guo, Z.W. Fan, J.G. Li, B.W. Chen and B.Y. Wu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5391-5. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Guangdong, People's Republic of China, Asia, Osteosarcomas, Orthopedics, Oncology, Genetics, Guangzhou Medical University.

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Hemodialysis

Study Results from Harvard School of Medicine Provide New Insights into Hemodialysis (Factors associated with the receipt of antimicrobials among chronic hemodialysis patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hemodialysis are discussed in a new report. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "Antimicrobial use is common among patients receiving chronic hemodialysis (CHD) and may represent an important antimicrobial stewardship opportunity. The objective of this study is to characterize CHD patients at increased risk of receiving antimicrobials, including not indicated antimicrobials."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "We conducted a prospective cohort study over a 12-month period among patients receiving CHD in 2 outpatient dialysis units. Each parenteral antimicrobial dose administered was characterized as indicated or not indicated based on national guidelines. Patient factors associated with receipt of antimicrobials and receipt of >= 1 inappropriate antimicrobial dose were analyzed. A total of 89 of 278 CHD patients (32%) received >= 1 antimicrobial doses and 52 (58%) received >= 1 inappropriately indicated dose. Patients with tunneled catheter access, a history of colonization or infection with a multidrug-resistant organism, and receiving CHD sessions during daytime shifts were more likely to receive antimicrobials (odds ratio [OR], 5.16; 95% confidence interval [CI], 2.72-9.80; OR, 5.43; 95% CI, 1.84-16.06; OR, 4.59; 95% CI, 1.20-17.52, respectively). Patients with tunneled catheter access, receiving CHD at dialysis unit B, and with a longer duration of CHD prior to enrollment were at higher risk of receiving an inappropriately indicated antimicrobial dose (incidence rate ratio, 2.23; 95% CI, 1.16-4.29; incidence rate ratio, 2.67; 95% CI, 1.34-5.35; incidence rate ratio, 1.11; 95% CI, 1.01-1.23, respectively)."

According to the news editors, the research concluded: "This study of all types of antimicrobials administered in 2 outpatient dialysis units identified several important factors to consider when developing antimicrobial stewardship programs in this health care setting."

For more information on this research see: Factors associated with the receipt of antimicrobials among chronic hemodialysis patients. American Journal of Infection Control, 2016;44(11):1269-1274. American Journal of Infection Control can be contacted at: Mosby-Elsevier, 360 Park Avenue South, New York, NY 10010-1710, USA.

Our news journalists report that additional information may be obtained by contacting G.M. Snyder, Harvard Med Sch, Beth Israel Deaconess Med Center, Boston, MA, United States. Additional authors for this research include P.R. Patel, A.J. Kallen, J.A. Strom, J.K. Tucker and E.M.C. D'Agata.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajic.2016.03.034. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Hemodialysis, Epidemiology, Renal Dialysis, Harvard School of Medicine.
Study Results from Harvard School of Medicine Update Understanding of Gliomas (Phase I study of low-dose metronomic temozolomide for recurrent malignant gliomas)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Gliomas have been published. According to news reporting out of Boston, Massachusetts, by NewsRx editors, research stated, "The treatment goal for recurrent malignant gliomas centers on disease stabilization while minimizing therapy-related side effects. Metronomic dosing of cytotoxic chemotherapy has emerged as a promising option to achieve this objective."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "This phase I study was performed using metronomic temozolomide (mTMZ) at 25 or 50 mg/m(2)/day continuously in 42-day cycles. Correlative studies were incorporated using arterial spin labeling MRI to assess tumor blood flow, analysis of matrix metalloproteinase-2 (MMP-2) and MMP-9 activities in the cerebrospinal fluid (CSF) as surrogates for tumor angiogenesis and invasion, as well as determination of CSF soluble interleukin-2 receptor alpha (sIL-2Ra) levels as a marker of immune modulation. Nine subjects were enrolled and toxicity consisted of primarily grade 1 or 2 hematological and gastrointestinal side effects; only one patient had a grade 3 elevated liver enzyme level that was reversible. Tumor blood flow was variable across subjects and time, with two experiencing a transient increase before a decrease to below baseline level while one exhibited a gradual drop in blood flow over time. MMP-2 activity correlated with overall survival but not with progression free survival, while MMP-9 activity did not correlate with either outcome parameters. Baseline CSF sIL-2Ra level was inversely correlated with time from initial diagnosis to first progression, suggesting that subjects with higher sIL-2Ra may have more aggressive disease. But they lived longer when treated with mTMZ, probably due to drug-related changes in T-cell constituency."

According to the news editors, the research concluded: "MTMZ possesses efficacy against recurrent malignant gliomas by altering blood flow, slowing invasion and modulating antitumor immune function."

For more information on this research see: Phase I study of low-dose metronomic temozolomide for recurrent malignant gliomas. BMC Cancer, 2016;16():43-52. BMC Cancer can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; BMC Cancer - www.biomedcentral.com/bmccancer/)

Our news journalists report that additional information may be obtained by contacting E.T. Wong, Harvard Med Sch, Beth Israel Deaconess Med Center, Dept. of Neurol, Neurooncol Unit, Boston, MA 02215, United States. Additional authors for this research include J. Timmons, A. Callahan, L. O’Loughlin, B. Giarusso and D.C. Alsop.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Temozolomide Therapy, Drugs and Therapies, Alkylating Agents, Pharmaceuticals, Antineoplasticss, Oncology, Gliomas, Harvard School of Medicine.
Study Results from Harvard School of Medicine in the Area of Medical Genetics Reported (Family health history reporting is sensitive to small changes in wording)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Genetics - Medical Genetics have been presented. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Family health history is often collected through single item queries that ask, patients whether their family members are affected by certain conditions. The specific wording of these queries may influence what individuals report."

Our news journalists obtained a quote from the research from the Harvard School of Medicine, "Parents of Boston Children's Hospital patients were invited to participate in a Web-based survey about the return of individual genomic research results regarding their children. Participants reported whether 11 types of medical conditions affected them or their family. Randomization determined whether participants were specifically instructed to consider their extended family. Family health history was reported by 2,901 participants. Those asked to consider their extended family were more likely to report a positive family history for 8 of 11 medical conditions. The largest differences were observed for cancer (65.1 vs. 45.7%; P< 0.001), cardiovascular conditions (72.5 vs. 56.0%; P< 0.001), and endocrine/hormonal conditions (50.9 vs. 36.7%; P< 0.001). Small alterations to the way family health history queries are worded can substantially change patient responses."

According to the news editors, the research concluded: "Clinicians and researchers need to be sensitive about patients' tendencies to omit extended family from health history reporting unless specifically asked to consider them."

For more information on this research see: Family health history reporting is sensitive to small changes in wording. Genetics in Medicine, 2016;18(12):1308-1311. Genetics in Medicine can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA. (Nature Publishing Group - www.nature.com/; Genetics in Medicine - www.nature.com/gim/)

The news correspondents report that additional information may be obtained from K.D. Christensen, Harvard Med Sch, Dept. of Med, Boston, MA 02115, United States. Additional authors for this research include K.D. Christensen, S.K. Savage, N.L. Huntington, E.R. Weitzman, S.I. Ziniel, P. Bacon, C.N. Cacioppo, R.C. Green and I.A. Holm.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/gim.2016.45. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Medical Genetics, Genetics, Genetics, Harvard School of Medicine.

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**Influenza A Virus Subtype H1N1**

**Study Results from Haukeland Hospital Provide New Insights into Influenza A Virus Subtype H1N1 [Pulmonary changes in Norwegian fatal cases of pandemic influenza H1N1 (2009) infection: a morphologic and molecular genetic study]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Influenza A Virus Subtype H1N1 have been published. According to news reporting out of Bergen, Norway, by NewsRx editors, research stated, "During the pandemic outbreak of the 2009 swine influenza (A(H1N1) pdm09), 32 fatal cases occurred in Norway and 19 of these were included in this study. We characterised pulmonary changes in these fatal Norwegian cases.”

Funders for this research include Universitetet i Bergen, Helse- og Omsorgsdepartementet, Norges Forskningsrad, European Union Agency for Network and Information Security.

Our news journalists obtained a quote from the research from Haukeland Hospital, "Patients and Methods: Upon hospitalisation, detailed clinical information and specimens from the upper and lower respiratory pathways were collected. At post-mortem, lung tissue was collected, formalin-fixed and paraffin-embedded. Immunohistochemical and light microscopic examination was performed to visualise the local expression of the A(H1N1) pdm09 virus. Reverse transcription-polymerase chain reaction (RT-PCR) and pyrosequencing of the non-fixed specimens allowed the identification of mutations in the influenza virus surface glycoprotein (haemagglutinin gene) particularly at position 222. The overall course of illness lasted from 2 to 40 days (median 9 days). Diffused alveolar damage (DAD) was evident in 11 cases, 4 of which had no apparent underlying illness. Obesity was prominent in 12 cases, where three individuals were classified as otherwise healthy. The HA D222G mutation was detected in six cases, 3 of which had no underlying illness. Immunohistochemistry showed the A(H1N1) pdm09 virus to be prominent at the site of inflammation both in close proximity to and inside alveolar structures in the lung tissue. In addition to a possible role for the HA D222G mutation, our findings indicate that host factors and underlying conditions in the infected individuals are fundamental for disease outcome in many cases."

According to the news editors, the research concluded: "This study increases our understanding of determinants for the clinical outcome of pandemic influenza, which could guide future treatment."


Our news journalists report that additional information may be obtained by contacting R.J. Cox, Haukeland Hosp, Dept. of Res & Dev, Bergen, Norway. Additional authors for this research include L.A. Aqrawi, S. Dudman, O. Hungnes, L. Bostad, K.A. Brokstad and R.J. Cox.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/irv.12410. This DOI is a link to an online electronic document that is
either free or for purchase.

Keywords for this news article include: Bergen, Norway, Europe, Influenza A Virus Subtype H1N1, Vertebrate Viruses, Infectious Disease, Orthomyxoviridae, Swine Influenza, Epidemiology, RNA Viruses, Pandemics, Swine Flu, Genetics, Haukeland Hospital.

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Heart Disorders and Diseases - Heart Attack

Study Results from Heart of England NHS Foundation Trust Provide New Insights into Heart Attack [Pre-hospital Assessment of the Role of Adrenaline: Measuring the Effectiveness of Drug administration In Cardiac arrest (PARAMEDIC-2): Trial ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Attack. According to news reporting originating from Birmingham, United Kingdom, by NewsRx correspondents, research stated, "Despite its use since the 1960s, the safety or effectiveness of adrenaline as a treatment for cardiac arrest has never been comprehensively evaluated in a clinical trial. Although most studies have found that adrenaline increases the chance of return of spontaneous circulation for short periods, many studies found harmful effects on the brain and raise concern that adrenaline may reduce overall survival and/or good neurological outcome."

Our news editors obtained a quote from the research from the Heart of England NHS Foundation Trust, "The PARAMEDIC-2 trial seeks to determine if adrenaline is safe and effective in out-of-hospital cardiac arrest. This is a pragmatic, individually randomised, double blind, controlled trial with a parallel economic evaluation. Participants will be eligible if they are in cardiac arrest in the out-of-hospital environment and advanced life support is initiated. Exclusions are cardiac arrest as a result of anaphylaxis or life threatening asthma, and patient known or appearing to be under 16 or pregnant. 8000 participants treated by 5 UK ambulance services will be randomised between December 2014 and August 2017 to adrenaline (intervention) or placebo (control) through opening pre-randomised drug packs."

According to the news editors, the research concluded: "Clinical outcomes are survival to 30 days (primary outcome), hospital discharge, 3, 6 and 12 months, health related quality of life, and neurological and cognitive outcomes (secondary outcomes)."


The news editors report that additional information may be obtained by contacting G.D. Perkins, Heart England NHS Fdn Trust, Birmingham B9 5SS, W Midlands, United Kingdom. Additional authors for this research include T. Quinn, C.D. Deakin, J.P. Nolan, R. Lall, A.M. Slowther, M. Cooke, S.E. Lamb, S. Petrou, F. Achana, J. Finn, I.G. Jacobs, A. Carson, M. Smyth, K. Han, S. Byers, N. Rees, R. Whitfield, F. Moore, R. Fothergill and Stallard.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.resuscitation.2016.08.029. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Birmingham, United Kingdom, Europe, Heart Disorders and Diseases, Drugs and Therapies, Cardiac Arrest, Heart Attack, Cardiology, Hospital, Heart of England NHS Foundation Trust.

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**Peptide Proteins - Proinsulin**

**Study Results from Helwan University Update Understanding of Proinsulin (Selenium Nanoparticles Attenuate Oxidative Stress and Testicular Damage in Streptozotocin-Induced Diabetic Rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Peptide Proteins - Proinsulin are discussed in a new report. According to news reporting originating from Cairo, Egypt, by NewsRx correspondents, research stated, "We investigated the protective and antioxidative effects of selenium nanoparticles (SeNPs) in streptozotocin STZ-induced diabetic rats. STZ-diabetic rats were exposed daily to treatments with SeNPs and/or insulin and then the effect of these treatments on the parameters correlated to oxidative damage of the rat testes were assessed."

Our news editors obtained a quote from the research from Helwan University, "Biochemical analysis revealed that SeNPs are able to ameliorate the reduction in the serum testosterone caused by STZ-induced diabetes. Furthermore, SeNPs could significantly decrease testicular tissue oxidative stress markers, namely lipid peroxidation and nitric oxide. In contrast, treatment of the STZ-diabetic rats with SeNPs increased the glutathione content and antioxidant enzyme activities in testicular tissues. Moreover, microscopic analysis proved that SeNPs are able to prevent histological damage in the testes of STZ-diabetic rats. Molecular analysis revealed that the mRNA level of Bcl-2 (B-cell lymphoma 2) is significantly upregulated. On the contrary, the mRNA level of Bax (Bcl-2 Associated X Protein) was significantly downregulated. Furthermore, treatment of STZ-diabetic rats with SeNPs led to an elevation in the expression of PCNA (Proliferating Cell Nuclear Antigen Gene). Interestingly, the insulin treatment also exhibited a significant improvement in the testicular function in STZ-diabetic rats."

According to the news editors, the research concluded: "Collectively, our results demonstrated the possible effects of SeNPs in attenuating diabetes-induced oxidative damage, in particular in testicular tissue."

For more information on this research see: Selenium Nanoparticles Attenuate Oxidative Stress and Testicular Damage in Streptozotocin-Induced Diabetic Rats. *Molecules*, 2016;21(11):1482-1494. *Molecules* can be contacted at: Mdpi Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

The news editors report that additional information may be obtained by contacting M.A. Dkhil, Helwan Univ, Dept. of Zool & Entomol, Fac Sci, Cairo 11795, Egypt. Additional authors for this research include R. Zrieq, S. Al-Quraishy and A.E.A. Moneim.

Keywords for this news article include: Cairo, Egypt, Africa, Emerging Technologies, Peptide Proteins, Peptide Hormones, Nanotechnology, Endocrinology,
Drugs and Therapies - Vancomycin Resistance

Study Results from Henry Ford Hospital Update Understanding of Vancomycin Resistance (Vancomycin-Resistant Enterococci Epidemiology, Infection Prevention, and Control)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Vancomycin Resistance. According to news reporting out of Detroit, Michigan, by NewsRx editors, research stated, "Vancomycin-resistant enterococci (VRE) infections have acquired prominence as a leading cause of health care associated infections. Understanding VRE epidemiology, transmission modes in health care settings, risk factors for colonization, and infection is essential to prevention and control of VRE infections."

Our news journalists obtained a quote from the research from Henry Ford Hospital, "Infection control strategies are pivotal in management of VRE infections and should be based on patient characteristics, hospital needs, and available resources. Hand hygiene is basic to decrease acquisition of VRE. The effectiveness of surveillance and contact precautions is variable and controversial in endemic settings, but important during VRE outbreak investigations and control."

According to the news editors, the research concluded: "Environmental cleaning, chlorhexidine bathing, and antimicrobial stewardship are vital in VRE prevention and control."


Our news journalists report that additional information may be obtained by contacting K. Reyes, Henry Ford Hospital, Div Infect Dis, Henry Ford Hlth Syst, Infect Prevent & Control, Detroit, MI 48202, United States. Additional authors for this research include A.C. Bardossy and M. Zervos.

Keywords for this news article include: Detroit, Michigan, United States, North and Central America, Epidemiology, Risk and Prevention, Bacterial Physiological Phenomena, Bacterial Drug Resistance, Vancomycin Resistance, Drugs and Therapies, Glycopeptides, Peptides, Henry Ford Hospital.

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Enzymes and Coenzymes

Study Results from Hokkaido University Broaden Understanding of Enzymes and Coenzymes [Alternative Selection of beta-Site APP-Cleaving Enzyme 1 (BACE1) Cleavage Sites in Amyloid beta-Protein Precursor (APP) Harboring Protective and Pathogenic ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Enzymes and Coenzymes are presented in a new report. According to news reporting originating in Hokkaido, Japan, by NewsRx journalists, research stated, "Beta-Site APP-cleaving enzyme 1 (BACE1) cleaves amyloid -protein precursor (APP) at the bond between Met(671) and Asp(672) (-site) to generate the carboxyl-terminal fragment (CTF/C99). BACE1 also cleaves APP at another bond between Thr(681) and Gln(682) (-site), yielding CTF/C89."

The news reporters obtained a quote from the research from Hokkaido University, "Cleavage of CTF/C99 by -secretase generates A(1-XX), whereas cleavage of CTF/C89 generates A(11-XX). Thus, -site cleavage by BACE1 is amyloidolytic rather than amyloidogenic. cleavage of mouse APP is more common than the corresponding cleavage of human APP. We found that the H684R substitution within human A, which replaces the histidine in the human protein with the arginine found at the corresponding position in mouse, facilitated cleavage irrespective of the species origin of BACE1, thereby significantly increasing the level of A(11-XX) and decreasing the level of A(1-XX). Thus, amino acid substitutions within the A sequence influenced the selectivity of alternative - or -site cleavage of APP by BACE1. In familial Alzheimer's disease (FAD), the APP gene harbors pathogenic variations such as the Swedish (K670N/M671L), Leuven (E682K), and A673V mutations, all of which decrease A(11-40) generation, whereas the protective Icelandic mutation (A673T) increases generation of A(11-40). Thus, A673T promotes cleavage of APP and protects subjects against AD. In addition, CTF/C99 was cleaved by excess BACE1 activity to generate CTF/C89, followed by A(11-40), even if APP harbored pathogenic mutations. The resultant A(11-40) was more metabolically labile in vivo than A(1-40)."

According to the news reporters, the research concluded: "Our analysis suggests that some FAD mutations in APP are amyloidogenic and/or amyloidolytic via selection of alternative BACE1 cleavage sites."


Our news correspondents report that additional information may be obtained by contacting T. Suzuki, Hokkaido University, Grad Sch Pharmaceut Sci, Lab Neurosci, Kita Ku, Sapporo, Hokkaido 0600812, Japan. Additional authors for this research include S. Hata and T. Suzuki.

Keywords for this news article include: Hokkaido, Japan, Asia, Amyloid beta-Protein Precursor, Enzymes and Coenzymes, Protein Precursors, Proteomics, Proteins, Genetics, Hokkaido University.
Study Results from Hospital Clinic Update Understanding of Cryopyrin-Associated Periodic Syndromes (Late-Onset Cryopyrin-Associated Periodic Syndrome Due to Myeloid-Restricted Somatic NLRP3 Mosaicism)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Autoinflammatory Diseases and Conditions - Cryopyrin-Associated Periodic Syndromes is now available. According to news reporting originating from Barcelona, Spain, by NewsRx correspondents, research stated, "Gain-of-function NLRP3 mutations cause cryopyrin-associated periodic syndrome (CAPS), with gene mosaicism playing a relevant role in the pathogenesis. This study was undertaken to characterize the genetic cause underlying late-onset but otherwise typical CAPS."

Our news editors obtained a quote from the research from Hospital Clinic, "We studied a 64-year-old patient who presented with recurrent episodes of urticaria-like rash, fever, conjunctivitis, and oligoarthritis at age 56 years. DNA was extracted from both unfractionated blood and isolated leukocyte and CD341 subpopulations. Genetic studies were performed using both the Sanger method of DNA sequencing and next-generation sequencing (NGS) methods. In vitro and ex vivo analyses were performed to determine the consequences that the presence of the variant have in the normal structure or function of the protein of the detected variant. NGS analyses revealed the novel p.Gln636Glu NLRP3 variant in unfractionated blood, with an allele frequency (18.4%) compatible with gene mosaicism. Sanger sequence chromatograms revealed a small peak corresponding to the variant allele. Amplicon-based deep sequencing revealed somatic NLRP3 mosaicism restricted to myeloid cells (31.8% in monocytes, 24.6% in neutrophils, and 11.2% in circulating CD34+ common myeloid progenitor cells) and its complete absence in lymphoid cells. Functional analyses confirmed the gain-offunction behavior of the gene variant and hyperactivity of the NLRP3 inflammasome in the patient. Treatment with anakinra resulted in good control of the disease. We identified the novel gain-of-function p.Gln636Glu NLRP3 mutation, which was detected as a somatic mutation restricted to myeloid cells, as the cause of late-onset but otherwise typical CAPS."

According to the news editors, the research concluded: "Our results expand the diversity of CAPS toward milder phenotypes than previously reported, including those starting during adulthood."

For more information on this research see: Late-Onset Cryopyrin-Associated Periodic Syndrome Due to Myeloid-Restricted Somatic NLRP3 Mosaicism. Arthritis & Rheumatology, 2016;68(12):3035-3041. Arthritis & Rheumatology can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news editors report that additional information may be obtained by contacting J.I. Arostegui, Barcelona Hospital Clinic, Barcelona, Spain. Additional authors for this research include M.T. Bosque, G. Magri, Y. Honda, H. Martinez-Banaclocha, M. Casorran-Berges, J. Sintes, E. Gonzalez-Roca, E. Ruiz-Ortiz, T. Heike, J.J. Martinez-Garcia, A. Baroja-Mazo, A. Cerutti, R. Nishikomori, J. Yague, P. Pelegrin and D.

Keywords for this news article include: Barcelona, Spain, Europe, Hereditary
Oncology - Rhabdoid Tumors

Study Results from Hospital for Sick Children Provide New Insights into Rhabdoid Tumors [Integrated (epi)-Genomic Analyses Identify Subgroup-Specific Therapeutic Targets in CNS Rhabdoid Tumors]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Rhabdoid Tumors have been published. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "We recently reported that atypical teratoid rhabdoid tumors (ATRTs) comprise at least two transcriptional subtypes with different clinical outcomes; however, the mechanisms underlying therapeutic heterogeneity remained unclear."

Financial supporters for this research include Genome Canada, CCSRI, Mitchell Duckman, Tal Doron, Suri Boon, C17, McGill University, Genome Quebec Innovation Center, Princess Margaret Genomics Center, Center for Applied Genomics.

Our news journalists obtained a quote from the research from Hospital for Sick Children, "In this study, we analyzed 191 primary ATRTs and 10 ATRT cell lines to define the genomic and epigenomic landscape of ATRTs and identify subgroup-specific therapeutic targets. We found ATRTs segregated into three epigenetic subgroups with distinct genomic profiles, SMARCB1 genotypes, and chromatin landscape that correlated with differential cellular responses to a panel of signaling and epigenetic inhibitors."

According to the news editors, the research concluded: "Significantly, we discovered that differential methylation of a PDGFRB-associated enhancer confers specific sensitivity of group 2 ATRT cells to dasatinib and nilotinib, and suggest that these are promising therapies for this highly lethal ATRT subtype."

For more information on this research see: Integrated (epi)-Genomic Analyses Identify Subgroup-Specific Therapeutic Targets in CNS Rhabdoid Tumors. Cancer Cell, 2016;30(6):891-908. Cancer Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cancer Cell - www.journals.elsevier.com/cancer-cell/)


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Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Rhabdoid Tumors, Oncology, Genetics, Hospital for Sick Children.
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Nutritional and Metabolic Diseases and Conditions — …

Study Results from Hospital for Sick Children Provide New Insights into Vitamin A Deficiency (Vitamin A supplementation for the prevention of morbidity and mortality in infants one to six months of age)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Vitamin A Deficiency is the subject of a report. According to news originating from Toronto, Canada, by NewsRx correspondents, research stated, "Vitamin A deficiency is a significant public health problem in low-and middle-income countries. Vitamin A supplementation provided to infants less than six months of age is one of the strategies to improve the nutrition of infants at high risk of vitamin A deficiency and thus potentially reduce their mortality and morbidity."

Our news journalists obtained a quote from the research from Hospital for Sick Children, "To evaluate the effect of synthetic vitamin A supplementation in infants one to six months of age in low-and middle-income countries, irrespective of maternal antenatal or postnatal vitamin A supplementation status, on mortality, morbidity and adverse effects. Search methods We used the standard search strategy of Cochrane Neonatal to search the Cochrane Central Register of Controlled Trials (CENTRAL 2016, Issue 2), MEDLINE via PubMed (1966 to 5 March 2016), Embase (1980 to 5 March 2016) and CINAHL (1982 to 5 March 2016). We also searched clinical trials databases, conference proceedings and the reference lists of retrieved articles for randomised controlled trials and quasi-randomised trials. Selection criteria Randomised or quasi-randomised, individually or cluster randomised trials involving synthetic vitamin A supplementation compared to placebo or no intervention provided to infants one to six months of age were eligible. Data collection and analysis Two review authors assessed the studies for eligibility and assessed their risk of bias and collected data on outcomes. The review included 12 studies (reported in 22 publications). The included studies assigned 24,846 participants aged one to six months to vitamin A supplementation or control group. There was no effect of vitamin A supplementation for the primary outcome of all-cause mortality based on seven studies that included 21,339 (85%) participants (risk ratio (RR) 1.05, 95% confidence interval (CI) 0.89 to 1.25; I-2 = 0%; test for heterogeneity: P = 0.79; quality of evidence: moderate). Also, there was no effect of vitamin A supplementation on mortality or morbidity due to diarrhoea and respiratory tract infection. There was an increased risk of bulging fontanelle within 24 to 72 hours of supplementation in the vitamin A group compared to control (RR 3.10, 95% CI 1.89 to 5.09; I-2 = 9%; test for heterogeneity: P = 0.36; quality of evidence: high). There was no reported subsequent increased risk of death, convulsions or irritability in infants who developed bulging fontanelle after vitamin A supplementation, and it resolved in most cases within 72 hours. There was no increased risk of other adverse effects such as vomiting, irritability, diarrhoea, fever and convulsions in the vitamin A supplementation group compared to control. Vitamin A supplementation did not have any statistically significant effect on vitamin A deficiency (RR 0.86, 95% CI 0.70 to 1.06; I-2 = 27%; test for heterogeneity: P = 0.25; quality of evidence: moderate). Authors' conclusions There is no convincing evidence that vitamin A supplementation for infants one to six months of age results in a reduction in infant mortality or morbidity in low-and middle-income countries."
According to the news editors, the research concluded: "There is an increased risk of bulging fontanelle with vitamin A supplementation in this age group; however, there were no reported subsequent complications because of this adverse effect."

For more information on this research see: Vitamin A supplementation for the prevention of morbidity and mortality in infants one to six months of age. *Cochrane Database of Systematic Reviews*, 2016;(9):1855-1917. *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

The news correspondents report that additional information may be obtained from Z.A. Bhutta, Hospital for Sick Children, Center Global Child Hlth, Toronto, ON M5G A04, Canada. Additional authors for this research include Z. Ahmed and Z.A. Bhutta.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Clinical Research, Article Review, Risk and Prevention, Nutritional and Metabolic Diseases and Conditions, Deficiency Diseases and Conditions, Clinical Trials and Studies, Vitamin A Deficiency, Nutrition Disorders, Malnutrition, Avitaminosis, Hospital for Sick Children.

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**Lung Diseases and Conditions - Cystic Fibrosis**

**Study Results from Howard Hughes Medical Institute Broaden Understanding of Cystic Fibrosis (Atomic Structure of the Cystic Fibrosis Transmembrane Conductance Regulator)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Lung Diseases and Conditions - Cystic Fibrosis. According to news reporting out of New York City, New York, by NewsRx editors, research stated, "The cystic fibrosis transmembrane conductance regulator (CFTR) is an anion channel evolved from the ATP-binding cassette (ABC) transporter family. In this study, we determined the structure of zebrafish CFTR in the absence of ATP by electron cryo-microscopy to 3.7 angstrom resolution."

Funders for this research include Rockefeller University, Howard Hughes Medical Institute.

Our news journalists obtained a quote from the research from Howard Hughes Medical Institute, "Human and zebrafish CFTR share 55% sequence identity, and 42 of the 46 cystic-fibrosis-causing missense mutational sites are identical. In CFTR, we observe a large anion conduction pathway lined by numerous positively charged residues. A single gate near the extracellular surface closes the channel. The regulatory domain, dephosphorylated, is located in the intracellular opening between the two nucleotide-binding domains (NBDs), preventing NBD dimerization and channel opening."

According to the news editors, the research concluded: "The structure also reveals why many cystic-fibrosis-causing mutations would lead to defects either in folding, ion conduction, or gating and suggests new avenues for therapeutic intervention."

For more information on this research see: Atomic Structure of the Cystic Fibrosis Transmembrane Conductance Regulator. *Cell*, 2016;167(6):1586-1597,300-308. *Cell* can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell - www.journals.elsevier.com/cell/)
Our news journalists report that additional information may be obtained by contacting J. Chen, Howard Hughes Med Inst, New York, NY 10065, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cell.2016.11.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: New York City, New York, United States, North and Central America, Cystic Fibrosis Transmembrane Conductance Regulator, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Lung Diseases and Conditions, Membrane Transport Proteins, Membrane Glycoproteins, Membrane Proteins, Chloride Channels, Carrier Proteins, Genetics, Howard Hughes Medical Institute.

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Myeloid Cells

Study Results from Huazhong Agricultural University Update Understanding of Myeloid Cells (Surfactin inducing mitochondria-dependent ROS to activate MAPKs, NF-kappa B and inflammasomes in macrophages for adjuvant activity)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Myeloid Cells. According to news reporting originating in Wuhan, People's Republic of China, by NewsRx journalists, research stated, "Surfactin, a natural lipopeptide, can be used both as parenteral and non-parenteral adjuvant for eliciting immune response. However, the mechanisms that confer its adjuvant properties have not been fully explored."

The news reporters obtained a quote from the research from Huazhong Agricultural University, "By staining with NHS-Rhodamine B labeled surfactin and Mito-Tracker Green, we found surfactin could penetrate into macrophages to bind with mitochondria, following induce ROS that could be inhibited by mitochondria-dependent ROS inhibitor. ROS enhanced p38 MAPK and JNK expression, as well their phosphorylation, following activated NF-kappa B nuclear translocation in macrophages that was obviously inhibited by mitochondria-dependent ROS inhibitor. However, inhibition of ROS production only weakened p38 MAPK and JNK expression, but not their phosphorylation in macrophages. As a result, surfaction could activate NF-kappa B to release TNF-alpha by the mitochondria-dependent ROS signalling pathway. ROS also induced macrophages apoptosis to release endogenous danger signals, following activated inflammasomes of NLRP1, NLRP3, IPAF and AIM2 in vitro and only NLRP1 in vivo, as well caspase-1 and IL-1 in macrophages, which were significantly inhibited by pretreatment with ROS inhibitors."

According to the news reporters, the research concluded: "Collectively, surfactin as a kind of non-pathogen-associated molecular patterns, modulates host innate immunity by multiple signalling pathways, including induction of mitochondria-dependent ROS, activating MAPKs and NF-kappa B, and inducing cell apoptosis to realease endogenous danger signals for activation of inflammasomes."

For more information on this research see: Surfactin inducing mitochondria-dependent ROS to activate MAPKs, NF-kappa B and inflammasomes in macrophages for

Our news correspondents report that additional information may be obtained by contacting G.F. Qi, Huazhong Agricultural University, Biomed Center, Wuhan 430070, People's Republic of China. Additional authors for this research include Z.Q. Gao, X.Y. Zhao and G.F. Qi.

Keywords for this news article include: Wuhan, People's Republic of China, Asia, Mononuclear Phagocyte System, Connective Tissue Cells, Transcription Factors, Subcellular Fractions, DNA-Binding Proteins, Cellular Structures, Intracellular Space, Nuclear Proteins, Myeloid Cells, Mitochondria, Macrophages, NF-kappa B, Organelles, Immunology, Phagocytes, Cytoplasm, Genetics, Huazhong Agricultural University.

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**Digestive System Diseases and Conditions -**

**Study Results from Huazhong University of Science and Technology in the Area of Gastrointestinal Neoplasms Reported (KIT over-expression by p55PIK-PI3K leads to Imatinib-resistance in patients with gastrointestinal stromal tumors)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Digestive System Diseases and Conditions - Gastrointestinal Neoplasms is now available. According to news reporting originating in Wuhan, People's Republic of China, by NewsRx journalists, research stated, "Imatinib is the first-line drug for gastrointestinal stromal tumors (GISTs), as mutated KIT is closely associated with the occurrence of GIST. However, Imatinib resistance (IMA-resistance) occurs inevitably in most GIST patients."

The news reporters obtained a quote from the research from the Huazhong University of Science and Technology, "Although the over-expression of KIT in GIST is one of the major factors contributing to IMA-resistance, the underlying mechanism is still unclear. In this study, we demonstrate that p55PIK, an isoform of phosphoinositide 3-kinase (PI3K), increases KIT expression, leading to IMA-resistance in GISTs by activating NF-kB signaling pathway. Furthermore, down-regulation of p55PIK significantly decreases KIT expression and re-sensitizes IMA-resistance-GIST cells to Imatinib in vitro and in vivo. Interestingly, the expression of both p55PIK and KIT proteins is significantly increased in tumor samples from IMA-resistance-GIST patients, suggesting that p55PIK up-regulation may be important for IMA-resistance in the clinical setting. Altogether, our data provide evidence that p55PIK-PI3K signaling can contribute to IMA-resistance in GIST by increasing KIT expression."

According to the news reporters, the research concluded: "Moreover, p55PIK may be a novel potential drug target for treating tumors that develop IMA-resistance."


Our news correspondents report that additional information may be obtained by contacting S. Lai, Dept. of Gastrointestinal Surgery Center, Tongji Hospital, Huazhong
Study Results from IDIBAPS Update Understanding of Acute Myeloid Leukemia (The expression level of BAALC-associated microRNA miR-3151 is an independent prognostic factor in younger patients with cytogenetic intermediate-risk acute myeloid ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Acute Myeloid Leukemia have been published. According to news reporting originating in Barcelona, Spain, by NewsRx journalists, research stated, "Acute myeloid leukemia (AML) is a heterogeneous disease whose prognosis is mainly related to the biological risk conferred by cytogenetics and molecular profiling. In elderly patients (&#10878;60 years) with normal karyotype AML miR-3151 have been identified as a prognostic factor."

The news reporters obtained a quote from the research from IDIBAPS, "However, miR-3151 prognostic value has not been examined in younger AML patients. In the present work, we have studied miR-3151 alone and in combination with BAALC, its host gene, in a cohort of 181 younger intermediate-risk AML (IR-AML) patients. Patients with higher expression of miR-3151 had shorter overall survival (p=0.0025), shorter leukemia-free survival (p=0.026) and higher cumulative incidence of relapse (p=0.082). Moreover, in the multivariate analysis miR-3151 emerged as independent prognostic marker in both the overall series and within the unfavorable molecular prognostic category. Interestingly, the combined determination of both miR-3151 and BAALC improved this prognostic stratification, with patients with low levels of both parameters showing a better outcome compared with those patients harboring increased levels of one or both markers (p=0.003). In addition, we studied the microRNA expression profile associated with miR-3151 identifying a six-microRNA signature."

According to the news reporters, the research concluded: "The analysis of miR-3151 and BAALC expression may well contribute to an improved prognostic stratification of younger patients with IR-AML."

For more information on this research see: The expression level of BAALC-associated microRNA miR-3151 is an independent prognostic factor in younger patients with cytogenetic intermediate-risk acute myeloid leukemia. Blood Cancer Journal, 2015:5();e352. (Nature Publishing Group - www.nature.com/; Blood Cancer Journal - www.nature.com/bcj/)
Oncology - Multiple Myeloma

Study Results from Indiana University School of Medicine in the Area of Multiple Myeloma Reported (Cell Adhesion Molecule CD166 Drives Malignant Progression and Osteolytic Disease in Multiple Myeloma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Multiple Myeloma have been presented. According to news originating from Indianapolis, Indiana, by NewsRx correspondents, research stated, "Multiple myeloma is incurable once osteolytic lesions have seeded at skeletal sites, but factors mediating this deadly pathogenic advance remain poorly understood. Here, we report evidence of a major role for the cell adhesion molecule CD166, which we discovered to be highly expressed in multiple myeloma cell lines and primary bone marrow cells from patients."

Our news journalists obtained a quote from the research from the Indiana University School of Medicine, "CD166(+) multiple myeloma cells homed more efficiently than CD166(-) cells to the bone marrow of engrafted immunodeficient NSG mice. CD166 silencing in multiple myeloma cells enabled longer survival, a smaller tumor burden, and less osteolytic lesions, as compared with mice bearing control cells. CD166 deficiency in multiple myeloma cell lines or CD138(+) bone marrow cells from multiple myeloma patients compromised their ability to induce bone resorption in an ex vivo organ culture system. Furthermore, CD166 deficiency in multiple myeloma cells also reduced the formation of osteolytic disease in vivo after intratibial engraftment. Mechanistic investigation revealed that CD166 expression in multiple myeloma cells inhibited osteoblastogenesis of bone marrow-derived osteoblast progenitors by suppressing Runx2 gene expression. Conversely, CD166 expression in multiple myeloma cells promoted osteoclastogenesis by activating TRAF6-dependent signaling pathways in osteoclast progenitors."

According to the news editors, the research concluded: "Overall, our results define CD166 as a pivotal director in multiple myeloma cell homing to the bone marrow and multiple myeloma progression, rationalizing its further study as a candidate therapeutic target for multiple myeloma treatment."

For more information on this research see: Cell Adhesion Molecule CD166 Drives Malignant Progression and Osteolytic Disease in Multiple Myeloma. Cancer Research, 2016;76(23):6901-6910. Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for
Study Results from Institute for Cancer Research and Treatment (IRCCS) Broaden Understanding of Chronic Lymphocytic Leukemia (TCL1 transgenic mouse model as a tool for the study of therapeutic targets and microenvironment in human B-cell ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Chronic Lymphocytic Leukemia is now available. According to news reporting originating in Rome, Italy, by NewsRx journalists, research stated, "Chronic lymphocytic leukemia (CLL) is a B-cell malignancy with a mature phenotype. In spite of its relatively indolent nature, no radical cure is as yet available."

The news reporters obtained a quote from the research from Institute for Cancer Research and Treatment (IRCCS), "CLL is not associated with either a unique cytogenetic or a molecular defect, which might have been a potential therapeutic target. Instead, several factors are involved in disease development, such as environmental signals which interact with genetic abnormalities to promote survival, proliferation and an immune surveillance escape. Among these, PI3-Kinase signal pathway alterations are nowadays considered to be clearly important. The TCL1 gene, an AKT co-activator, is the cause of a mature T-cell leukemia, as well as being highly expressed in all B-CLL. A TCL1 transgenic mouse which reproduces leukemia with a distinct immunophenotype and similar to the course of the human B-CLL was developed several years ago and is widely used by many groups."

According to the news reporters, the research concluded: "This is a review of the CLL biology arising from work of many independent investigators who have used TCL1 transgenic mouse model focusing on pathogenetic, microenvironment and therapeutic targets."

For more information on this research see: TCL1 transgenic mouse model as a tool for the study of therapeutic targets and microenvironment in human B-cell chronic lymphocytic leukemia. *Cell Death & Disease*, 2016;7():e2071. (Nature Publishing Group -
Our news correspondents report that additional information may be obtained by contacting A. Bresin, Laboratorio di Oncologia Molecolare, Istituto Dermopatico dell’Immacolata, IDI-IRCCS, Rome, Italy. Additional authors for this research include L. D’Abundo, M.G. Narducci, M.T. Fiorenza, C.M. Croce, M. Negrini and G. Russo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/cddis.2015.419. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Rome, Italy, Europe, Genetics, Oncology, Hematology, Epidemiology, Therapeutics, Article Review, Chronic Lymphocytic Leukemia.

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Environmental Research

Study Results from Institute of Clinical Physiology Broaden Understanding of Environmental Research (Risk perception and access to environmental information in four areas in Italy affected by natural or anthropogenic pollution)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Environmental Research are presented in a new report. According to news originating from Pisa, Italy, by NewsRx correspondents, research stated, "A human biomonitoring (HBM) survey in four areas affected by natural or anthropogenic arsenic pollution was conducted in Italy within the framework of the SEpiAs project. A questionnaire, including the exploration of risk perception (RP) regarding environmental hazards and access to and trust in information, was administered to 282 subjects stratified by area, gender and age."

Financial support for this research came from Ministry of Health, Italy.

Our news journalists obtained a quote from the research from the Institute of Clinical Physiology, "The survey was designed to investigate how populations living in polluted areas could adopt prevention-oriented habits, fostered by the awareness of existing risks and, in addition, how increased knowledge of RP and information flows could support researchers in identifying recommendations, and presenting and disseminating HBM results. This study characterizes the four areas in terms of RP and access to and trust in environmental information, and provides insights into the influence of RP and environmental information on food consumption. For the data analysis, a combined random forest (RF) and logistic regression approach was carried out. RF was applied to the variables derived from the questionnaire in order to identify the most important in terms of the aims defined. Associations were then tested using Fisher's exact test and assessed with logistic regression in order to adjust for confounders. Results showed that the perception of and personal exposure to atmospheric and water pollution, hazardous industries and waste, hazardous material transportation and waste was higher in geographical areas characterized by anthropogenic pollution. Citizens living in industrial areas appeared to be aware of environmental risks and had more confidence in environmental non-governmental organizations (NGOs) than in public authorities. In addition, they reported an insufficient circulation of information. Concerning the influence of RP and environmental information on food consumption, a high perception of personal exposure to atmospheric pollution and hazardous industries was associated with a lower consumption of local fish."
According to the news editors, the research concluded: "Different RPs and information flow patterns were observed in areas with arsenic of natural origin or in industrial contexts. These findings may be useful for targeted risk communication plans in support of risk management strategies."

For more information on this research see: Risk perception and access to environmental information in four areas in Italy affected by natural or anthropogenic pollution. Environment International, 2016;95():8-15. Environment International can be contacted at: Pergamon-Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - www.elsevier.com; Environment International - www.journals.elsevier.com/environment-international/)

The news correspondents report that additional information may be obtained from A. Coi, CNR, Inst Clin Physiol, I-56124 Pisa, Italy. Additional authors for this research include F. Minichilli, E. Bustaffa, S. Carone, M. Santoro, F. Bianchi and L. Cori.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.envint.2016.07.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pisa, Italy, Europe, Environmental Research, Institute of Clinical Physiology.

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Central Nervous System

Study Results from Institute of Gerontology Provide New Insights into Central Nervous System (Importance of P-gp PET Imaging in Pharmacology)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Central Nervous System are presented in a new report. According to news originating from Tokyo, Japan, by NewsRx editors, the research stated, "Capillary endothelial cells in the brain express P-glycoprotein (P-gp), which works as a functional blood-brain barrier (BBB). P-gp pumps out multiple types of molecules from the brain parenchyma into the blood."

Our news journalists obtained a quote from the research from the Institute of Gerontology, "Therefore, altered P-gp function at the BBB will change the concentrations of therapeutic drugs in the central nervous system (CNS) and hence impact the toxicity and efficacy of CNS drugs. Positron emission tomography (PET) is the only way to non-invasively measure P-gp function in the living human brain. PET imaging of P-gp function was first demonstrated in 1998 with the substrate tracer racemic [C-11] verapamil. Since then, several drug interaction studies and proof-of-concept studies regarding drug resistance have been performed with P-gp PET imaging. Although preclinical findings have been very positive regarding the possibilities and importance of P-gp PET imaging, very few studies have shown the clinical relevance of P-gp PET imaging in different disorders of the brain."

According to the news editors, the research concluded: "This review summarizes the pharmacological studies with PET using substrate tracers and emphasizes the importance of PET imaging to understand the mechanism of action of CNS drugs."

For more information on this research see: Importance of P-gp PET Imaging in

The news correspondents report that additional information may be obtained from J. Toyohara, Tokyo Metropolitan Inst Gerontol, Res Team Neuroimaging, Itabashi Ku, Tokyo 1730015, Japan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1381612822666160804092258. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Pharmacology, Article Review, Central Nervous System, Pharmaceuticals, Institute of Gerontology.

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**Health and Medicine - Integrated Care**

**Study Results from Institute of Technology in the Area of Integrated Care Reported (Discharge Planning: Screening Older Patients for Multidisciplinary Team Referral)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Integrated Care have been published. According to news originating from Napier, New Zealand, by NewsRx correspondents, research stated, "The objective was to determine whether the Elders Risk Assessment Index can predict multi-disciplinary team referral of older patients (>= 65 years) in Emergency Department same-day discharges. The study identified 1,376 qualifying individuals from a regional New Zealand hospital database."

Our news journalists obtained a quote from the research from the Institute of Technology, "Of these, 12.7 % were referred to the multi-disciplinary team. Univariate and multivariate analyses were used to explore associations between the Index, its components, and other demographic factors with referral. With every unit increase in the Index there was a 9% increase in the odds of being referred. When the components of the Index were analysed separately, an increased likelihood of being referred was associated with not being married, having had a previous hospital admission of more than five days, having chronic obstructive pulmonary disease, and being older. Conversely, a decreased likelihood was associated with having diabetes. When non-Index items were analysed it was found that females were more likely to be referred than males and that Maori were less likely to be referred than New Zealand Europeans."

According to the news editors, the research concluded: "With adaptation, the Elders Risk Assessment Index may provide a simple, cost-effective, and timely tool to assist in determining the need for multi-disciplinary team referral for older people who present to the Emergency Department."

For more information on this research see: Discharge Planning: Screening Older Patients for Multidisciplinary Team Referral. *International Journal of Integrated Care*, 2016;16():11-18. *International Journal of Integrated Care* can be contacted at: Ubiquity Press
Oncology - Non-Hodgkin Lymphoma

Study Results from International Agency for Research on Cancer Broaden Understanding of Non-Hodgkin Lymphoma (The burden of non-Hodgkin lymphoma in Central and South America)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Non-Hodgkin Lymphoma have been published. According to news reporting originating in Lyon, France, by NewsRx journalists, research stated, "Rationale and objective: The burden of non-Hodgkin lymphoma (NHL) has increased in some Central and South American countries. We describe the current patterns and trends in NHL incidence and mortality in Central and South America."

The news reporters obtained a quote from the research from International Agency for Research on Cancer, "We obtained regional and national-level incidence data from 48 population-based cancer registries in 13 countries, and national-level cancer mortality data from the WHO mortality database for 18 countries. We estimated world population age-standardized incidence rates (ASRs) and mortality rates (ASMRs) per 100,000 person-years for 2003-2007, and presented distributions by histological subtype. NHL incidence and mortality rates varied between countries by 2-8- and 6-fold, respectively. ASRs per 100,000 ranged from 1.4 to 10.9 among males and 1.3-9.2 among females. Corresponding ASMRs were between 0.5 and 4.8 among males and between 0.5 and 3.0 among females. The highest incidence was observed in Uruguay (males), Ecuador, Peru and Colombia (males). The highest mortality was seen in Uruguay and Costa Rica. Trends in NHL incidence and mortality in Argentina, Brazil, Chile and Costa Rica did not show marked changes. B-cell neoplasms and NHL not otherwise specified (NOS) accounted for 44% and 34% of all NHL cases. Diffuse large B-cell lymphoma, NOS, was the most frequent histological subtype. The geographic variations in NHL rates may partially reflect differences in registration practices, disease classification, diagnostic practice, and death certification quality. There is a need for high-quality data and improvements in the accuracy of NHL histological diagnosis."

According to the news reporters, the research concluded: "Given the expected increase in NHL, careful monitoring of rates remains a priority to guide cancer control programs."


Our news correspondents report that additional information may be obtained by
Cardiovascular Diseases and Conditions - Thrombosis

Study Results from Istanbul University Broaden Understanding of Thrombosis (Behcet's disease: How to diagnose and treat vascular involvement)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Cardiovascular Diseases and Conditions - Thrombosis is now available. According to news reporting originating from Istanbul, Turkey, by NewsRx editors, the research stated, "Behcet's disease is a multisystem disorder with unknown etiology and a unique geographic distribution. The disease is characterized by recurrent skin-mucosa lesions and sight-threatening panuveitis."

Our news editors obtained a quote from the research from Istanbul University, "Vascular involvement, which is more common and more severe among males, has also equally characteristic features such as affecting mostly veins, having a significant tendency for thrombosis, and running a relapsing course. Lower extremity vein thrombosis (LEVT) is the most frequent manifestation, followed by vena cava inferior thrombosis. Pulmonary artery involvement (PAI), the most common form of arterial involvement, manifests as aneurysms and 'in situ' thrombosis. PAI and Budd Chiari syndrome are the leading causes of increased mortality. In vascular cluster, typically, several types of venous or arterial vascular involvement may accumulate in the same individual. LEVI or cerebral venous sinus thrombosis is often present in these subgroups as the first event."

According to the news editors, the research concluded: "Immunosuppressive treatment is essential in preventing the attacks and increasing survival."


The news editors report that additional information may be obtained by contacting E. Seyahi, Istanbul University, Cerrahpasa Med Fac, Dept. of Med, Div Rheumatol, TR-81310 Istanbul, Turkey.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.berh.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Istanbul, Turkey, Eurasia, Cardiovascular
Study Results from JSS University in the Area of Cancer Therapy Reported (Nanosponge Carriers- An Archetype Swing in Cancer Therapy: A Comprehensive Review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Cancer Therapy are presented in a new report. According to news originating from Karnataka, India, by NewsRx correspondents, research stated, "Nanotechnology and nanomedicines are emerging research meadows; which chiefly focuses on creating and manipulating materials at a nanometer level for the betterment in imaging, diagnosis and treatment of a range of diseases together with cancer. Cyclodextrin-based nanosponges, anticipated as a new-fangled nanosized delivery system, are ground-breaking hyper-crosslinked cyclodextrin polymers nanostructured within a three-dimensional network."

Our news journalists obtained a quote from the research from JSS University, "Nanosponges based systems hold the potential of elevating the solubility, absorption, penetration, bioavailability, in vivo stability, targeted as well as sustained delivery, and therapeutic efficiency of numerous anticancer agents. The extension of nanosponges based drug delivery systems is an exhilarating and demanding research pasture, predominantly to overcome aforementioned problems allied to existing anticancer formulations and for the further progressions in cancer therapies. Nanosponges in cancer therapy, particularly cyclodextrin based nanosponges are brought up in this review."

According to the news editors, the research concluded: "By quoting diverse attempts made in pertinent direction, efforts have been made to exemplify the characteristics, suitability and versatility of cyclodextrin based nanosponges for their promising applications in cancer treatment."


The news correspondents report that additional information may be obtained from R.A. Osmani, Dept. of Pharmaceutics, JSS College of Pharmacy, JSS University, Sri Shivarakshethwara Nagar, Mysuru-570 015, Karnataka, India. Additional authors for this research include U. Hani, R.R. Bhosale, P.K. Kulkarni and S. Shanmuganathan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/138945011666151001105449. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Oncology, Karnataka, Cancer Therapy, Drugs and Therapies.

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Study Results from Jikei University in the Area of Kidney Transplants
Reported (Subclinical antibody-mediated rejection due to anti-human-leukocyte-antigen-DR53 antibody accompanied by plasma cell-rich acute rejection in a patient with cadaveric ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Transplant Medicine - Kidney Transplants are presented in a new report. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "A 56-year-old man who had undergone cadaveric kidney transplantation 21 months earlier was admitted to our hospital for a protocol biopsy; he had a serum creatinine level of 1.2mg/dL and no proteinuria. Histological features showed two distinct entities: (i) inflammatory cell infiltration, in the glomerular and peritubular capillaries and (ii) focal, aggressive tubulointerstitial inflammatory cell infiltration, predominantly plasma cells, with mild tubulitis (Banff 13 classification: i2, t1, g2, ptc2, v0, ci1, ct1, cg0, cv0)."

"Immunohistological studies showed mildly positive C4d immunoreactivity in the peritubular capillaries. The patient had donor specific antibody to human-leucocyte-antigen-DR53. We diagnosed him with subclinical antibody-mediated rejection accompanied by plasma cell-rich acute rejection. Both antibody-mediated rejection due to anti-human-leucocyte-antigen -DR53 antibodies and plasma cell-rich acute rejection are known to be refractory and have a poor prognosis. Thus, we started plasma exchange with intravenous immunoglobulin and rituximab for the former and 3 days of consecutive steroid pulse therapy for the latter. Three months after treatment, a follow-up allograft biopsy showed excellent responses to treatment for both histological features."

According to the news reporters, the research concluded: "This case report considers the importance of an early diagnosis and appropriate intervention for subclinical antibody-mediated rejection due to donor specific antibody to human leucocyte-antigen-DR53 and plasma cell-rich acute rejection."


Keywords for this news article include: Tokyo, Japan, Asia, Hemic and Immune Systems, Transplant Medicine, Kidney Transplants, Organ Transplants, Immunoglobulins, Transplantation, Blood Proteins, B-Lymphocytes, Plasma Cells, Blood Cells, Biomedicine, Immunology, Leukocytes, Antibodies, Jikei University.

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Oncology - Lung Cancer

Study Results from Jilin University Broaden Understanding of Lung Cancer (The proceedings of brain metastases from lung cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Lung Cancer is now available. According to news originating from Changchun, People's Republic of China, by NewsRx correspondents, research stated, "Brain tumors include primary tumors of various intracranial tissue and secondary intracranial tumors that transferred from other parts of the body. Secondary intracranial tumors are especially prevalent in patients with lung cancer."

Our news journalists obtained a quote from the research from Jilin University, "The mechanisms of lung cancer with brain metastases are complicated, they are affected by a variety of factors. Thus, identifying the mechanisms of lung cancer with brain metastases will have far-reaching meanings both for clinic pharmacy research and for a better quality of life for patients; Brain metastases from lung cancer represent a prevalent and challenging clinical dilemma, and some research suggests that the outcomes and characteristics of brain metastases that result from lung cancer primary sites are perhaps different than those from other primary sites, therefore increasing the difficulty of clinical treatment. Despite steady research developments during recent years, the survival rates remain poor."

According to the news editors, the research concluded: "The mechanisms and therapeutic options for treating brain metastases arising from lung cancer are review in this article."

For more information on this research see: The proceedings of brain metastases from lung cancer. Open Life Sciences, 2016;11(1):116-121. Open Life Sciences can be contacted at: De Gruyter Open Ltd, Bogumila Zuga 32A St, 01-811 Warsaw, Poland.

The news correspondents report that additional information may be obtained from Z. An, Jilin University, Dept. of Cardiol, China Japan Union Hosp, Changchun 130033, People's Republic of China. Additional authors for this research include G.J. Li, C.L. Yu and Z. An.

Keywords for this news article include: Changchun, People's Republic of China, Asia, Cancer, Article Review, Lung Neoplasms, Lung Cancer, Oncology, Jilin University.

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Cell Research - Blood Cells

Study Results from Juntendo University Broaden Understanding of Blood Cells [Leukocyte concentration and composition in platelet-rich plasma (PRP) influences the growth factor and protease concentrations]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cell Research - Blood Cells. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "Platelet-rich plasma (PRP) therapy has become an increasingly popular treatment for orthopaedics and sports-related injuries, and various clinically available PRP preparation
methods exist. However, the differences in PRP quality among numerous preparation methods remain unclear."

The news reporters obtained a quote from the research from Juntendo University, "Specifically, the benefit of including leukocytes in the PRP product remains controversial, and few studies have been conducted to evaluate the effects of the interaction between platelets and leukocytes on the growth factor concentrations. The aim of the present study was to compare the biological characteristics of PRPs focusing on the leukocyte concentration and composition. Leucocyte rich (LR)-PRP, leucocyte poor (LP)-PRP, and pure-PRP were prepared from the peripheral blood of 6 healthy male volunteers (mean age: 31.3 years). The concentrations of platelets, leukocytes, erythrocytes, growth factors (transforming growth factor-beta 1: TGF-beta 1; fibroblast growth factor-basic: FGF-beta; platelet-derived growth factor-BB: PDGF-BB; vascular endothelial growth factor: VEGF) and matrix metalloproteinase-9 (MMP-9) from each of the PRP samples were measured. Considering the interaction between platelets and leukocytes, correlations between platelets/leukocytes and growth factors/MMP-9 were analyzed using partial correlation coefficients. The platelet concentration did not differ among the three PRP preparation methods. Conversely, the leukocyte concentration was dramatically different: 14.9 +/- 4.5 (10^3/mu l) in LR-PRP, 2.4 +/- 1.3 (10^3/mu l) in LP-PRP, 0.2 +/- 0.2 (10^3/mu l) in pure-PRP. The platelet concentration positively correlated with all growth factors. On the other hand, the leukocyte concentration positively correlated with PDGF-BB and the VEGF concentration, while it negatively correlated with FGF-beta. Regarding catabolic factors, the MMP-9 concentration strongly correlated with the leukocyte concentration, while there was no correlation between the platelet and MMP-9 concentrations. These findings demonstrate that leukocytes strongly influence the quality of PRPs."

According to the news reporters, the research concluded: "Therefore, modifying the PRP preparation method according to the pathology is essential to achieve better clinical results with PRP therapy."


Our news correspondents report that additional information may be obtained by contacting Y. Saita, Juntendo University, Fac Med, Dept. of Orthopaed, Tokyo, Japan. Additional authors for this research include Y. Saita, H. Nishio, H. Ikeda, Y. Takazawa, M. Nagao, T. Takaku, N. Komatsu and K. Kaneko.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jos.2016.07.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tokyo, Japan, Asia, Enzymes and Coenzymes, Platelet-Rich Plasma, Immune System, Cell Research, Blood Cells, Hematology, Immunology, Leukocytes, Protease, Juntendo University.

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Drugs and Therapies - Antiretrovirals

Study Results from K.G. Bhavani et al Provide New Insights into Antiretrovirals (Determination of genotoxic impurity in atazanavir sulphate drug substance by LC-MS)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antiretrovirals are presented in a new report. According to news reporting from Andhra Pradesh, India, by NewsRx journalists, research stated, "A sensitive LC-MS method was developed for the determination of tert-butyl 2-[4-(pyridine-2-yl)benzyl] hydrazine carboxylate (GTI-A), a genotoxic impurity in Atazanavir sulphate drug substance. The method was validated as per International Council for Harmonization guidelines, for QL, DL, linearity and accuracy."

The news correspondents obtained a quote from the research, "The QL and DL values obtained were 1.1 ppm and 0.3 ppm respectively. The Correlation coefficient found for the linearity study was 0.999."

According to the news reporters, the research concluded: "The % recovery of the added impurity in the range of 96.4-100.4 ensured the accuracy of the method."

For more information on this research see: Determination of genotoxic impurity in atazanavir sulphate drug substance by LC-MS. *Journal of Pharmaceutical and Biomedical Analysis*, 2017;132():156-158.* Journal of Pharmaceutical and Biomedical Analysis* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Pharmaceutical and Biomedical Analysis - www.journals.elsevier.com/journal-of-pharmaceutical-and-biomedical-analysis/)

Our news journalists report that additional information may be obtained by contacting N. Srinivasu, Vignan Univ, Dept. of Sci & Humanities, Vadlamudi, Andhra Pradesh, India. Additional authors for this research include K.B.M. Krishna, N. Srinivasu, D. Ramachandran, N. Raman and B.H. Babu.

Keywords for this news article include: Andhra Pradesh, India, Asia, Drugs and Therapies, Protease Inhibitors, Antiretrovirals, Antiinfectives, Atazanavir, Antivirals.

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Cardiovascular Diseases

Study Results from Kaohsiung Medical University Update Understanding of Cardiovascular Diseases (Angiopoietin-2, Angiopoietin-1 and subclinical cardiovascular disease in Chronic Kidney Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases is the subject of a report. According to news reporting originating in Kaohsiung, Taiwan, by NewsRx journalists, research stated, "Angiopoietins (Angpt) and vascular endothelial growth factor (VEGF) have been associated with cardiovascular disease. The study enrolled 270 pre-dialysis stage 3-5 CKD patients to assess the link between circulating Angpt2, Angpt1 and VEGF-A and subclinical
measures of cardiovascular structure and function."

The news reporters obtained a quote from the research from Kaohsiung Medical University, "Serum markers of angiogenesis were measured using commercial enzyme-linked immunosorbent assays. Cardiac structure and function were examined by echocardiography. Brachial-ankle pulse wave velocity (baPWV) was measured by the ankle-brachial index. The adjusted mean of left ventricular mass index (LVMI) was 2.05 in patients of Angpt2 quartile 4 and 1.99 in those of Angpt2 quartile 1 (P = 0.04). Angpt2 was significantly associated with LV hypertrophy (LVH) (Angpt2 quartile 4 compared with Angpt2 quartile 1: adjusted OR: 2.68, 95% CI: 1.15-6.20). Angpt1 was negatively correlated with left atrial diameter (adjusted mean of LAD: 3.59 in Angpt1 quartile 4, 3.92 in Angpt1 quartile 1, P = 0.03). A positive and significant correlation was found between Angpt2 level and baPWV in spearman's correlation, but not in adjusted model."

According to the news reporters, the research concluded: "High Angpt2 and low Angpt1 levels were positively associated with abnormal cardiac structure in stages 3-5 CKD patients, which is compatible with the viewpoint that angiopoietins participates in cardiovascular burdens."


Our news correspondents report that additional information may be obtained by contacting M.C. Kuo, Kaohsiung Medical University, Fac Renal Care, Kaohsiung, Taiwan. Additional authors for this research include C.S. Lee, Y.W. Chiu, H.T. Kuo, S.C. Lee, S.J. Hwang, M.C. Kuo and H.C. Chen.

Keywords for this news article include: Kaohsiung, Taiwan, Asia, Intercellular Signaling Peptides and Proteins, Cardiovascular Diseases and Conditions, Angiogenic Proteins, Angiopoietin-1, Angiopoietin-2, Angiopoietins, Cardiology, Kaohsiung Medical University.

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Oncology - Esophageal Cancer

Study Results from Karolinska Institute in the Area of Esophageal Cancer Reported (Prevalence and predictors of anxiety and depression among esophageal cancer patients prior to surgery)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Esophageal Cancer have been published. According to news reporting out of Stockholm, Sweden, by NewsRx editors, research stated, "This study aims to establish the prevalence and predictors of anxiety and depression among esophageal cancer patients, post-diagnosis but prior to curatively intended surgery. This was a cross-sectional study using data from a hospital-based prospective cohort study, carried out at St Thomas' Hospital, London."

Our news journalists obtained a quote from the research from Karolinska Institute, "Potential predictor variables were retrieved from medical charts and self-report questionnaires.
Anxiety and depression were measured prior to esophageal cancer surgery, using the Hospital Anxiety and Depression Scale. Prevalence of anxiety and depression was calculated using the established cutoff (scores 8 on each subscale) indicating cases of possible-probable anxiety or depression, and multivariable logistic regression analyses were performed to examine predictors of emotional distress. Among the 106 included patients, 36 (34%) scored above the cutoff (8) for anxiety and 24 (23%) for depression. Women were more likely to report anxiety than men (odds ratio 4.04, 95% confidence interval 1.45-11.16), and patients reporting limitations in their activity status had more than five times greater odds of reporting depression (odds ratio 6.07, 95% confidence interval 1.53-24.10)."

According to the news editors, the research concluded: "A substantial proportion of esophageal cancer patients report anxiety and/or depression prior to surgery, particularly women and those with limited activity status, which highlights a need for qualified emotional support."


Our news journalists report that additional information may be obtained by contacting Y. Hellstadius, Karolinska Inst, Surg Care Sci, Stockholm, Sweden. Additional authors for this research include J. Lagergren, J. Zylstra, J. Gossage, A. Davies, C.M. Hultman, P. Lagergren and A. Wikman.

Keywords for this news article include: Stockholm, Sweden, Europe, Esophageal Cancer, Gastroenterology, Hospital, Oncology, Surgery, Karolinska Institute.

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Immunology - Immunoglobulins

Study Results from Karolinska University Hospital Provide New Insights into Immunoglobulins (Targeting Receptor Tyrosine Kinases Using Monoclonal Antibodies: The Most Specific Tools for Targeted-Based Cancer Therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immunology - Immunoglobulins. According to news reporting from Stockholm, Sweden, by NewsRx journalists, research stated, "Receptor tyrosine kinases (RTKs) family is comprised of different cell surface glycoproteins. These enzymes participate in and regulate vital processes such as cell proliferation, polarity, differentiation, cell to cell interactions, signaling, and cell survival."

The news correspondents obtained a quote from the research from Karolinska University Hospital, "Dysregulation of RTKs contributes to the development of different types of tumors. RTKs deregulation in different types of cancer has been reported for more than 30 RTKs. Due to their critical roles, the specific targeting of RTKs in malignancies is a promising approach. Targeted cellular and molecular therapies (personalized medicine) have been known as new types of therapeutics, which prevent tumor cell proliferation and invasion by interfering with molecules essential for tumor growth and survival. Specific targeting of RTKs using monoclonal antibodies (mAbs) in malignancies as well as in autoimmune disorders is of great
interest. The growing number of mAbs approved by the authorities implies on the increasing attentions and applications of these therapeutic tools. Due to the high specificity, mAbs are the most promising substances that target RTKs expressed on the tumor cell surface."

According to the news reporters, the research concluded: "In this communication, we review the recent progresses in the development of mAbs targeting oncogenic RTKs for cancer treatment."


Our news journalists report that additional information may be obtained by contacting M. Hojjat-Farsangi, Dept. of Oncology-Pathology, Cancer Center Karolinska (CCK), Karolinska University Hospital, Solna, SE-171 76 Stockholm, Sweden.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/1389450116666151001104133. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antibodies, Sweden, Europe, Cancer, Oncology, Stockholm, Immunology, Proteomics, Blood Proteins, Immunoglobulins, Tyrosine Kinase, Cell Proliferation, Drugs and Therapies, Aromatic Amino Acids.

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**Health and Medicine - Dermatology**

**Study Results from Kawasaki Medical University in the Area of Dermatology Reported (Numerous intertriginous xanthomas in infant: A diagnostic clue for sitosterolemia)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Dermatology have been published. According to news reporting from Kurashiki, Japan, by NewsRx journalists, research stated, "Sitosterolemia is a very rare autosomal recessive lipoprotein metabolic disorder caused by homozygous or compound heterozygous mutations in one of the two adenosine triphosphate-binding cassette transporter genes, ABCG5 and ABCG8. Sitosterolemia is clinically characterized by xanthomas and atherosclerosis, arthritis, fever, hemolysis and macrothrombocytopenia even in early childhood."

Financial support for this research came from Kawasaki Medical School.

The news correspondents obtained a quote from the research from Kawasaki Medical University. "We described a 16-month-old girl, who had numerous yellowish-brown intertriginous xanthomas along the skin creases on the extremities with severe hypercholesterolemia and elevated plant sterol levels. Histopathologically, xanthoma showed aggregation of foam cells in the dermis with a zone of mucin deposits in the dermal papilla. Electron microscopy showed numerous membrane-bound lipid droplets and multivesicular lipid bodies in the foam cells, a round cell containing lipid droplets in the basal cell layer and abundant mucin deposits just beneath the basal lamina. Diagnosis of sitosterolemia was confirmed by DNA sequencing showing compound heterozygosity for previously reported missense mutations in exon 9 of ABCG5."
According to the news reporters, the research concluded: "Infants presenting with multiple xanthomas should be investigated for sitosterolemia, if there is no family history of dyslipidemia."


Our news journalists report that additional information may be obtained by contacting T. Yamamoto, Kawasaki Med Univ, Dept. of Dermatol, Kurashiki, Okayama 7010192, Japan. Additional authors for this research include J. Matsuda, S. Dateki, K. Ouchi and W. Fujimoto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/1346-8138.13511. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kurashiki, Japan, Asia, Dermatology, Health and Medicine, Genetics, Kawasaki Medical University.

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**RNA Viruses - Influenza A Virus**

**Study Results from Korea Advanced Institute of Science and Technology (KAIST) Provide New Insights into Influenza A Virus (Structural features of influenza A virus panhandle RNA enabling the activation of RIG-I independently of 5'-triphosphate)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on RNA Viruses - Influenza A Virus. According to news reporting originating from Daejeon, South Korea, by NewsRx correspondents, research stated, "Retinoic acid-inducible gene I (RIG-I) recognizes specific molecular patterns of viral RNAs for inducing type I interferon. The C-terminal domain (CTD) of RIG-I binds to double-stranded RNA (dsRNA) with the 5'-triphosphate (5'-PPP), which induces a conformational change in RIG-I to an active form."

Our news editors obtained a quote from the research from the Korea Advanced Institute of Science and Technology (KAIST), "It has been suggested that RIG-I detects infection of influenza A virus by recognizing the 5'-triphosphorylated panhandle structure of the viral RNA genome. Influenza panhandle RNA has a unique structure with a sharp helical bending. In spite of extensive studies of how viral RNAs activate RIG-I, whether the structural elements of the influenza panhandle RNA confer the ability to activate RIG-I signaling has been poorly explored."

According to the news editors, the research concluded: "Here, we investigated the dynamics of the influenza panhandle RNA in complex with RIG-I CTD using NMR spectroscopy and showed that the bending structure of the panhandle RNA negates the requirement of a 5'-PPP moiety for RIG-I activation."

For more information on this research see: Structural features of influenza A virus panhandle RNA enabling the activation of RIG-I independently of 5'-triphosphate. *Nucleic
Peptide Proteins - Posterior Pituitary Hormones

Study Results from L. Gebauer and Colleagues Broaden Understanding of Posterior Pituitary Hormones (Oxytocin improves synchronisation in leader-follower interaction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peptide Proteins - Posterior Pituitary Hormones have been published. According to news originating from Aarhus, Denmark, by NewsRx correspondents, research stated, "The neuropeptide oxytocin has been shown to affect social interaction. Meanwhile, the underlying mechanism remains highly debated."

Our news journalists obtained a quote from the research, "Using an interpersonal finger-tapping paradigm, we investigated whether oxytocin affects the ability to synchronise with and adapt to the behaviour of others. Dyads received either oxytocin or a non-active placebo, intranasally. We show that in conditions where one dyad-member was tapping to another unresponsive dyad-member -i.e. one was following another who was leading/self-pacing - dyads given oxytocin were more synchronised than dyads given placebo. However, there was no effect when following a regular metronome or when both tappers were mutually adapting to each other. Furthermore, relative to their self-paced tapping partners, oxytocin followers were less variable than placebo followers. Our data suggests that oxytocin improves synchronisation to an unresponsive partner's behaviour through a reduction in tapping-variability. Hence, oxytocin may facilitate social interaction by enhancing sensorimotor predictions supporting interpersonal synchronisation."

According to the news editors, the research concluded: "The study thus provides novel perspectives on how neurobiological processes relate to socio-psychological behaviour and contributes to the growing evidence that synchronisation and prediction are central to social cognition."


The news correspondents report that additional information may be obtained from M.A.G. Witek, Royal Academy Mus Aarhus Aalborg, Aarhus, Denmark. Additional authors for
this research include M.A.G. Witek, N.C. Hansen, J. Thomas, I. Konvalinka and P. Vuust.

Keywords for this news article include: Aarhus, Denmark, Europe, Posterior Pituitary Hormones, Peptide Proteins, Peptide Hormones, Oxytocin.

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Butyric Acids

**Study Results from L. Giampietro and Colleagues in the Area of Butyric Acids Reported (Synthesis of Naphthyl-, Quinolin- and Anthracenyl Analogues of Clofibric Acid as PPARa Agonists)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Butyric Acids are presented in a new report. According to news reporting out of Chieti, Italy, by NewsRx editors, research stated, "PPARα is a ligand activated transcription factor belonging to the nuclear receptor subfamily, involved in fatty acid metabolism in tissues with high oxidative rates such as muscle, heart and liver. PPARα activation is important in steatosis, inflammation and fibrosis in preclinical models of non-alcoholic fatty liver disease identifying a new potential therapeutic area."

Financial support for this research came from Università degli Studi G. d'Annunzio Chieti - Pescara.

Our news journalists obtained a quote from the research, "In this work, three series of clofibric acid analogues conjugated with naphthyl, quinolin, chloroquinolin and anthracenyl scaffolds were synthesized. In an effort to obtain new compounds active as PPARα agonists, these molecules were evaluated for PPARα transactivation activity."

According to the news editors, the research concluded: "Naphthyl and quinolin derivatives showed a good activation of PPARα; noteworthy, optically active naphthyl derivatives activated PPARα better than corresponding parent compound."


Our news journalists report that additional information may be obtained by contacting L. Giampietro, Dipartimento di Farmacia, Universita G d'Annunzio di Chieti, via dei Vestini, 66100, Chieti, Italy. Additional authors for this research include A. Ammazzalorso, I. Bruno, S. Carradori, B. De Filippis, M. Fantacuzzi, A. Giancristofaro, C. Maccallini and R. Amoroso.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12677. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the journal *Chemical Biology & Drug Design* is: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Italy, Chieti, Europe, Genetics, Butyric Acids, Clofibric Acid, Drugs and Therapies.

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Study Results from L. Wymore and Colleagues Update Understanding of Sports Medicine (Performance and Injury Characteristics of Pitchers Entering the Major League Baseball Draft After Ulnar Collateral Ligament Reconstruction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Sports Medicine have been published. According to news reporting originating from Leonardtown, Maryland, by NewsRx correspondents, research stated, "Ulnar collateral ligament (UCL) reconstruction (UCLR) has been studied and shown to be a successful procedure for returning overhead athletes to sport. Many studies of Major League Baseball (MLB) players have shown high levels of return to play with successful statistical performance."

Our news editors obtained a quote from the research, "No study has followed professional advancement of drafted pitchers who underwent UCLR as amateurs when compared with drafted pitchers who did not undergo the procedure before selection in the MLB draft. There would be no difference in professional advancement, statistical performance, or injury rate between the UCLR and control groups. Cohort study; Level of evidence, 3. Thirty-eight pitchers with a UCLR as an amateur and 114 controls were identified in the MLB draft between 2006 and 2010. Highest level of professional baseball achieved was collected from all players, as well as statistical performance metrics including velocity, wins, earned run average (ERA), and walks and hits per inning pitched (WHIP). Additional data on future injuries were analyzed for days on the disabled list (DL), risk of being placed on the DL, and DL assignment for elbow injury. Thirteen of 38 UCLR pitchers reached the major league level (34.2%) compared with 29 of 114 (25.4%) control pitchers, which was not statistically significant (P = .295). The UCLR and control groups were similar for average velocity, peak velocity, innings pitched, games, games started, innings per game, ERA, WHIP, wins, losses, saves, batters faced, and innings pitched per year, as well as hits, runs, home runs allowed, strikeouts, batters walked, and batters struck per inning. The UCLR group had a significantly increased rate of DL assignment when compared with controls (86.8% vs 64.0%; P = .008); however, days on DL (152.8 vs 135.6; P = .723) and DL assignment for elbow injury (45.5% vs 43.8%; P = .877) were similar. There was no difference in the rate of professional advancement among pitchers drafted by the MLB who had undergone UCLR as amateurs compared with controls. Both groups had similar statistical performance."

According to the news editors, the research concluded: "Pitchers in the UCLR group had an increased risk of DL assignment but no increase in the number of days on DL or risk of DL placement for elbow injury."

Study Results from La Timone Hospital Update Understanding of Psychosocial (Disclosure of research results: a randomized study on GENEPSO-PS cohort participants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Psychosocial. According to news reporting originating from Marseille, France, by NewsRx correspondents, research stated, "There exist no recommendations as to how aggregate research results should best be disclosed to long-term cohort participants. To study the impact of cohort results disclosure documents of various kinds on participants' satisfaction."

Financial support for this research came from Institut National Du Cancer.

Our news editors obtained a quote from the research from La Timone Hospital, "Randomized study with a 2x2 factorial design. The GENEPSO-PS cohort is used to study the psychosocial characteristics and preventive behaviour of both BRCA1/2 carriers and non-carriers; 235 participants wishing to receive 'information about the survey results' answered a self-administered questionnaire. The impact of providing the following items in addition to a leaflet about aggregate psychosocial research results was investigated (i) an up-to-date medical information sheet about BRCA1/2 genetic topics, (ii) a photograph with the names of the researchers. Satisfaction profiles drawn up using cluster analysis methods. Providing additional medical and/or research team information had no significant effect on satisfaction. The patients attributed to the 'poorly satisfied' group (n = 60, 25.5%) differed significantly from those in the 'highly satisfied' group (n = 51, 21.7%): they were younger [odds ratio (OR) = 0.96, 95% confidence interval (0.92-0.99), P = 0.028], less often had a daughter [OR = 4.87 (1.80-13.20), P = 0.002], had reached a higher educational level [OR = 2.94 (1.24-6.95), P = 0.014] and more frequently carried a BRCA1/2 mutation [OR = 2.73 (1.20-6.23), P = 0.017]. This original approach to disclosing research results to cohort participants was welcomed by most of the participants, but less by the more educated and by BRCA1/2 carriers."

According to the news editors, the research concluded: "Although an easily understandable document is necessary, it might also be worth providing some participants with more in-depth information."

The news editors report that additional information may be obtained by contacting J. Mancini, Hopital La Timone, APHM, BiosTIC, Marseille, France. Additional authors for this research include E. Le Cozannet, A.D. Bouhnik, N. Ressegui, C. Lasset, E. Mouret-Fourme, C. Nogues and C. Julian-Reynier.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hex.12390. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Marseille, France, Europe, Psychosocial, Genetics, BRCA1, La Timone Hospital.

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Heart Disorders and Diseases - Heart Disease

Study Results from Lanzhou University in the Area of Heart Disease Reported (Efficacy and safety of long-term treatment with statins for coronary heart disease: A Bayesian network meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Heart Disease is now available. According to news originating from Lanzhou, People's Republic of China, by NewsRx correspondents, research stated, "Our study aims to evaluate the efficacy and safety of long-term treatment of statins for coronary heart disease (CHD). Efficacy outcomes included changes in blood lipids, risk of CHD mortality and all-cause mortality."

Our news journalists obtained a quote from the research from Lanzhou University, "Safety outcomes were evaluated by the risk of adverse events (AE). Bayesian network meta-analysis was used to compare the direct and indirect effects between different statins. The systematic review showed that levels of blood lipids decreased during statin treatment. High dose of atorvastatin was the most obvious treatment for the reduction of blood lipids. Network meta-analysis showed that statins were significantly more effective than the control in reducing the risk of CHD mortality (Odds Ratio (OR) 0.69, 95% CI 0.61-0.77) and all-cause mortality (OR 0.84, 95% CI 0.80-0.87). In terms of reducing the risk of CHD morality, fluvastatin (77.3%), atorvastatin (72.3%) and lovastatin (68.4%) had higher cumulative probability than other statins, which were more effective treatments for the reduction of CHD mortality. In terms of reducing all-cause mortality, atorvastatin (78.6%), fluvastatin (77.1%) and pitavastatin (74.1%) had higher cumulative probability than other statins, which were more effective treatment for reducing the all-cause mortality. Compared with placebo, statins increased the incidence risk of muscle disease (OR 1.05, 95% CI 1.00-1.10) and kidney disease (OR 1.11, 95% CI 1.05-1.72). Statins significantly reduced levels of blood lipids, with a high dose of atorvastatin being the most effective in blood-lipid level modification. Statins reduced the risk of CHD mortality and all-cause mortality, with atorvastatin and fluvastatin being the most effective in reducing the risk of CHD mortality and all-cause mortality."

According to the news editors, the research concluded: "Statins increased the risk of muscle disease and kidney damage."

For more information on this research see: Efficacy and safety of long-term treatment with statins for coronary heart disease: A Bayesian network meta-analysis. *Atherosclerosis*, 2016;254():215-227. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd,
Oncology - Breast Cancer

Study Results from Laval University Broaden Understanding of Breast Cancer [Evaluation of human epidermal growth factor receptor 2 (HER2) single nucleotide polymorphisms (SNPs) in normal and breast tumor tissues and their link with breast cancer ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting originating in Quebec City, Canada, by NewsRx journalists, research stated, "Amplification of the human epidermal growth factor receptor 2 (HER2) gene is associated with worse prognosis and decreased overall survival in breast cancer patients. The HERZ gene contains several polymorphisms; two of the best-characterized HER2 polymorphisms are Ile655Val and Ala1170Pro."

Financial supporters for this research include Fonds de recherche du Quebec - Sante, Laval University Cancer Research Center.

The news reporters obtained a quote from the research from Laval University, "The aim of this study was to evaluate the association between these two HER2 polymorphisms in normal breast and breast cancer tissues and known breast cancer prognostic factors in a retrospective cohort study of 73 women with non-metastatic HER2-positive breast cancer. HER2 polymorphisms were assessed in breast cancer tissue and normal breast tissue using TaqMan assay. Ala1170Pro polymorphism in normal breast tissue was associated with age at diagnosis (p = 0.007), tumor size (p = 0.004) and lymphovascular invasion (p = 0.06). Similar significant associations in cancer tissues were observed. No association between the Ile655Val polymorphism and prognostic factors were observed. However, we found significant differences in the distribution of Ile655Val (p = 0.03) and Ala1170Pro (p = 0.01) genotypes between normal breast and breast tumor tissues. This study demonstrates that only the Ala1170Pro polymorphism is associated with prognostic factors in HER2-positive breast cancer patients."

According to the news reporters, the research concluded: "Moreover, our results suggest that both HER2 polymorphisms could play a significant role in carcinogenesis in non-metastatic HER2-positive breast cancer women."

Our news correspondents report that additional information may be obtained by contacting C. Diorio, Laval University, Fac Med, Quebec City, PQ G1V 0A6, Canada. Additional authors for this research include J. Lemieux, Cote MA, L. Provencher, C. Laflamme, F. Barabe, S. Jacob, A. Michaud and C. Diorio.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.breast.2016.09.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Quebec City, Quebec, Canada, North and Central America, Growth Factor Receptors, Membrane Proteins, Peptide Receptors, Women's Health, Breast Tumors, Breast Cancer, Oncology, Genetics, Laval University.

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Cytokines

**Study Results from Lomonosov Moscow State University Update Understanding of Cytokines (Myeloid-derived suppressor cells and proinflammatory cytokines as targets for cancer therapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cytokines. According to news reporting from Moscow, Russia, by NewsRx journalists, research stated, "Myeloid-derived suppressor cells represent a heterogeneous population of immature myeloid cells. Under normal conditions, these cells differentiate into macrophages, dendritic cells, and granulocytes."

The news correspondents obtained a quote from the research from Lomonosov Moscow State University, "However, in pathological states such as inflammation, infection, or tumor growth, there is an arrest of their differentiation that results in the accumulation of immature myeloid cells in the organism. In addition, these cells acquire a suppressor phenotype, expressing anti-inflammatory cytokines and reactive oxygen and nitrogen species, and suppress T-cell immune response. Myeloid-derived suppressor cells (MDSC) contribute to cancerogenesis by forming a favorable microenvironment for tumor growth. Proinflammatory cytokines, secreted by tumor cells and the tumor microenvironment, induce angiogenesis and metastasis and promote tumor growth. They also provide signals necessary for survival, accumulation, and function of MDSC."

According to the news reporters, the research concluded: "Understanding the mechanisms of myeloid suppressor cell development and the use of proinflammatory cytokine inhibitors may prove beneficial for tumor therapy."

For more information on this research see: Myeloid-derived suppressor cells and proinflammatory cytokines as targets for cancer therapy. *Biochemistry-Moscow*, 2016;81(11):1274-1283. *Biochemistry-Moscow* can be contacted at: Maik Nauka, Interperiodica, Springer, 233 Spring St, New York, NY 10013-1578, USA.
Our news journalists report that additional information may be obtained by contacting M.S. Drutskaya, Lomonosov Moscow State Univ, Fac Biol, Moscow 119991, Russia. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1134/S0006297916110055. This DOI is a link to an online electronic document that is either free or for purchase. Keywords for this news article include: Moscow, Russia, Eurasia, Cancer, Article Review, Cytokines, Oncology, Therapy, Lomonosov Moscow State University. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC

**Oncology - Breast Cancer**

**Study Results from London School of Hygiene and Tropical Medicine Broaden Understanding of Breast Cancer (No 'cure' within 12 years of diagnosis among breast cancer patients who are diagnosed via mammographic screening: women diagnosed in the ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "We have previously reported that there is little evidence of population 'cure' among two populations of women diagnosed with invasive breast cancer. 'Cure' has not yet been examined in the context of screen-detection. We examined cancer registry data on 19 800 women aged 50-70, diagnosed with a primary, invasive, non-metastatic breast cancer between 1 April 1989 and 31 March 2011 in the West Midlands region of England, linked to Hospital Episode Statistics (HES) and the National Breast Screening Service (NBSS)."

The news reporters obtained a quote from the research from the London School of Hygiene and Tropical Medicine, "Follow-up was complete on all women up to 31 July 2012. Analyses were stratified by screening status, age, tumour stage, deprivation and ethnicity. We estimated net survival for the whole cohort and each subgroup. Population 'cure' was evaluated by fitting flexible parametric log-cumulative excess hazard regression models in which the excess hazard of breast cancer death was assumed to be equal to zero after a given follow-up time. There was an overall lack of evidence for 'cure'. Across all subgroups examined, the general pattern was that of a continuous decrease in net survival over time, with no obvious asymptotic tendency within 12 years of follow-up. Model-based analyses confirmed this observation. Despite dramatic improvements in survival over past decades, diagnosis with breast cancer remains associated with a small but persistent increased risk of death for all groups of women, including those whose cancer is detected asymptomatically. These findings are unlikely to be due to methodological inadequacies."

According to the news reporters, the research concluded: "Communication of these long-term consequences of breast cancer among women recently diagnosed and to those considering undergoing screening should take due consideration of these patterns."

Lung Diseases and Conditions - Chronic Obstructive... Study Results from Lund University Broaden Understanding of Chronic Obstructive Pulmonary Disease (Oxygen for breathlessness in patients with chronic obstructive pulmonary disease who do not qualify for home oxygen therapy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease. According to news reporting originating in Lund, Sweden, by NewsRx journalists, research stated, "Breathlessness is a cardinal symptom of chronic obstructive pulmonary disease (COPD). Long-term oxygen therapy (LTOT) is given to improve survival time in people with COPD and severe chronic hypoxaemia at rest."

The news reporters obtained a quote from the research from Lund University, "The efficacy of oxygen therapy for breathlessness and health-related quality of life (HRQOL) in people with COPD and mild or no hypoxaemia who do not meet the criteria for LTOT has not been established. To determine the efficacy of oxygen versus air in mildly hypoxaemic or non-hypoxaemic patients with COPD in terms of (1) breathlessness; (2) HRQOL; (3) patient preference whether to continue therapy; and (4) oxygen-related adverse events. Search methods We searched the Cochrane Airways Group Register, the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE and Embase, to 12 July 2016, for randomised controlled trials (RCTs). We handsearched the reference lists of included articles. Selection criteria We included RCTs of the effects of non-invasive oxygen versus air on breathlessness, HRQOL or patient preference to continue therapy among people with COPD and mild or no hypoxaemia (partial pressure of oxygen (PaO2) >7.3 kPa) who were not already receiving LTOT. Two review authors independently assessed articles for inclusion in the review. Data collection and analysis Two review authors independently collected and analysed data. We assessed risk of bias by using the Cochrane 'Risk of bias tool'. We pooled effects recorded on different scales as standardised mean differences (SMDs) with 95% confidence intervals (CIs) using random-effects models. Lower SMDs indicated decreased breathlessness and reduced HRQOL. We performed subanalyses and sensitivity analyses and assessed the quality of evidence according to the Grading of Recommendations, Assessment, Development and Evaluations (GRADE) approach. Compared with the previous review, which was published in 2011, we included 14 additional studies (493 participants), excluded one study and included data for meta-analysis of HRQOL. In total, we included in this review 44 studies including 1195 participants, and we included 33 of these (901 participants) in the meta-analysis. We found that..."
breathlessness during exercise or daily activities was reduced by oxygen compared with air (32 studies; 865 participants; SMD -0.34, 95% CI -0.48 to -0.21; I² = 37%; low-quality evidence). This translates to a decrease in breathlessness of about 0.7 points on a 0 to 10 numerical rating scale. In contrast, we found no effect of short-burst oxygen given before exercise (four studies; 90 participants; SMD 0.01, 95% CI -0.26 to 0.28; I² = 0%; low-quality evidence). Oxygen reduced breathlessness measured during exercise tests (25 studies; 442 participants; SMD -0.34, 95% CI -0.46 to -0.22; I² = 29%; moderate-quality evidence), whereas evidence of an effect on breathlessness measured in daily life was limited (two studies; 274 participants; SMD -0.13, 95% CI, -0.37 to 0.11; I² = 0%; low-quality evidence). Oxygen did not clearly affect HRQOL (five studies; 267 participants; SMD 0.10, 95% CI -0.06 to 0.26; I² = 0%; low-quality evidence). Patient preference and adverse events could not be analysed owing to insufficient data. Authors’ conclusions We are moderately confident that oxygen can relieve breathlessness when given during exercise to mildly hypoxaemic and non-hypoxaemic people with chronic obstructive pulmonary disease who would not otherwise qualify for home oxygen therapy. Most evidence pertains to acute effects during exercise tests, and no evidence indicates that oxygen decreases breathlessness in the daily life setting."

According to the news reporters, the research concluded: "Findings show that oxygen does not affect health-related quality of life."

For more information on this research see: Oxygen for breathlessness in patients with chronic obstructive pulmonary disease who do not qualify for home oxygen therapy. *Cochrane Database of Systematic Reviews*, 2016;(11):1912-2038.  *Cochrane Database of Systematic Reviews* can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news correspondents report that additional information may be obtained by contacting M. Ekstrom, Lund University, Dept. of Clin Sci, Div Resp Med & Allergol, Lund, Sweden. Additional authors for this research include Z. Ahmadi, A. Bornefalk-Hermansson, A. Abernethy and D. Currow.

Keywords for this news article include: Lund, Sweden, Europe, Chronic Obstructive Pulmonary Disease, Pulmonary Disease, Article Review, Lung Diseases and Conditions, Clinical Trials and Studies, Clinical Research, Chalcogens, Therapy, Lund University.

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Drugs and Therapies - Female Contraceptive Agents

**Study Results from M. Rotermann et al Provide New Insights into Female Contraceptive Agents (Oral contraceptive use among women aged 15 to 49: Results from the Canadian Health Measures Survey)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Drugs and Therapies - Female Contraceptive Agents is the subject of a report. According to news reporting originating in Ottawa, Canada, by NewsRx journalists, research stated, "Oral contraceptives (OCs) have been available in Canada for over 50 years and are the most commonly used method of reversible contraception. OCs have evolved over time, with decreasing estrogen doses, new progestins, and different dosing regimens."

The news reporters obtained a quote from the research, "Detailed data about OC use
among Canadian women are lacking. Data from Statistics Canada's 2007/2009 and 2009/2011 Canadian Health Measures Survey (CHMS) were used to estimate OC use, by selected sociodemographic characteristics, cardiovascular risk factors, and estrogen dose and progestin type. Logistic regression was used to model relationships between OC use and sociodemographic factors. An estimated 1.3 million (16%) women aged 15 to 49 reported taking OCs in the previous month. OC use decreased with age (30% among 15-to 19-year-olds; 3% among 40-to 49-year-olds). OC users were significantly more likely than non-users to be nulliparous, sexually active and Canadian-born. At ages 35 to 49, users were less likely than non-users to have one or more cardiovascular risk factors. Almost all (99%) OC users took combined formulations containing ethinyl estradiol (EE) and progestin. Two-thirds of OCs users took formulations containing 30 or more mcg of EE. Women aged 15 to 24 were more likely than those aged 35 to 49 to use lower-dose formulations (less than 30 mcg of EE). A substantial percentage of reproductive-aged Canadian women, particularly younger women, used OCs. OC use varied by sociodemographic and some cardiovascular risk factors."

According to the news reporters, the research concluded: "The majority took formulations containing 30 or more mcg of EE."

For more information on this research see: Oral contraceptive use among women aged 15 to 49: Results from the Canadian Health Measures Survey. Health Reports, 2015;26 (10):21-28. Health Reports can be contacted at: Statistics Canada, 100 Tunneys Pasture Driveway, Ottawa, Ontario K1A 0T6, Canada.

Our news correspondents report that additional information may be obtained by contacting M. Rotermann, STAT Canada, Hlth Anal Div, Ottawa, ON, Canada. Additional authors for this research include S. Dunn and A. Black.

Keywords for this news article include: Ottawa, Ontario, Canada, North and Central America, Reproductive Control Agents, Female Contraceptive Agents, Risk and Prevention, Oral Contraceptives, Drugs and Therapies, Cardiovascular, Women's Health, Endocrinology, Contraception, Cardiology, Estrogens, Hormones.

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Transmission Electron Microscopy

Study Results from M.C. Rusu and Colleagues Update Understanding of Transmission Electron Microscopy (Subsets of telocytes: Myocardial telocytes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transmission Electron Microscopy is now available. According to news reporting originating from Bucharest, Romania, by NewsRx correspondents, research stated, "Telocytes (TCs) are morphologically defined as small-sized cells with long, thin, moniliform processes called telopodes (Tps). Numerous papers imply that TCs are a distinctive cell type, and that transmission electron microscopy (TEM) is the gold standard tool for their identification."

Our news editors obtained a quote from the research, "We aimed to reproduce previous studies on myocardial TCs to check their validity. For this purpose we performed an immunohistochemical study on human cardiac samples from six autopsied donor cadavers, using antibodies against CD10, CD31, CD34, CD146, Ki67, alpha-smooth muscle actin (a-
SMA), Platelet-Derived Growth Factor Receptor-alpha (PDGFRα) and laminin. Additionally we performed a TEM study on cardiac samples from three human autopsied donor cadavers and five adult Sprague-Dawley rats. We found endothelial cells (ECs), cords, and filopodia-projecting endothelial tip cells (ETCs) that expressed CD10, CD31, CD34, CD146, and PDGFR-a. Often, endothelial cells closely neighbored the sarcolemmal basal laminae. Endothelial progenitor cells, as well as nascent capillaries, were CD31+/CD34+. Proliferative endothelial cells expressed Ki67. In larger vessels we found pericytes that expressed CD146 and alpha-SMA; scarce alpha-SMA-expressing spindle-shaped cells lining cardiomyocytes were suggestive of a pericytic role in angiogenic sprout guidance. The TEM study showed that endothelial tubes are almost exclusively found in the narrow myocardial interstitia. ECs that built them up appeared identical to the cells that previous TEM studies have suggested to be myocardial telocytes. A subset of stromal cells with TC-like phenotype and telopodes-like processes actually seem to configure blood vessels, and therefore belong to the endothelial lineage. This study shows that data presented in previous studies on myocardial telocytes is not enough to allow the reproducibility of the results."

According to the news editors, the research concluded: "At least a subset of cells considered to be TCs might belong to the endothelial lineage."


The news editors report that additional information may be obtained by contacting M.C. Rusu, MEDCENTER, Center Excellence Lab Med & Pathol, Bucharest, Romania. Additional authors for this research include S. Hostiuc, A.D. Vrapciu, L. Mogoanta, V.S. Manoiu and F. Grigoriu.

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Keywords for this news article include: Bucharest, Romania, Europe, Transmission Electron Microscopy, Endothelial Cells, Cardiology.

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**Immune System Diseases and Conditions - HIV/AIDS**

**Study Results from Maastricht University Update Understanding of HIV/AIDS (Comparison of urine samples and penile swabs for detection of human papillomavirus in HIV-negative Dutch men)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Immune System Diseases and Conditions - HIV/AIDS are presented in a new report. According to news reporting originating in Maastricht, Netherlands, by NewsRx journalists, research stated, "Penile swab sampling is the method of choice when testing for human papillomavirus (HPV) in men. Urine sampling is already used in routine sexually transmitted infections (STI) diagnostics and could provide a less invasive sampling method in men to detect HPV."

The news reporters obtained a quote from the research from Maastricht University,
"Therefore we compared detection of HPV types in urine samples and penile swabs by the highly sensitive SPF10-LiPA25 system. First void urine and self-obtained penile swab samples were collected from 120 men, with a mean age of 29.4 years, visiting a STI clinic in South Limburg, the Netherlands. In total 111 of 120 men were included in the analysis. Broad-spectrum HPV DNA amplification and mucosal HPV genotyping were performed using the SPF10 DEIA-LiPA25 system (SPF10 HPV LiPA, V.1). In total 75 (68%) men were positive for HPV in the combined analysis. Sixty-six (59%) paired samples were concordant in being positive or negative. In 39% of the men HPV DNA was detected only in the penile swab. In 2% of the men HPV DNA was detected only in the urine sample. Considering penile swabs as the gold standard, a sensitivity of 41% (95% CI 30% to 53%) and a specificity of 95% (95% CI 81% to 99%) was found. In 6 (5%) urines high risk types were repeatedly found that were not detected in the matching swab. Urine samples are not comparable to penile swabs in the detection of HPV in men."

According to the news reporters, the research concluded: "However, the addition of urine samples to penile swabs could be of use in epidemiological or clearance studies."

For more information on this research see: Comparison of urine samples and penile swabs for detection of human papillomavirus in HIV-negative Dutch men. *Sexually Transmitted Infections*, 2016;92(6):467-469. Sexually Transmitted Infections can be contacted at: Bmj Publishing Group, British Med Assoc House, Tavistock Square, London WC1H 9JR, England. (BMJ Publishing Group - group.bmj.com/; Sexually Transmitted Infections - sti.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting P. Wolffs, Maastricht University, Medical Center, Dept. of Med Microbiol, Sch Public Hlth & Primary Care CAPHRI, Maastricht, Netherlands. Additional authors for this research include P. Wolffs, A. Brink, N. Dukers-Muijers, W. Quint, C. Bruggeman and C. Hoebe.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1136/sextrans-2015-052054. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Maastricht, Netherlands, Europe, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, HIV/AIDS and Human Papillomavirus, Papillomavirus Infection, Opportunistic Infections, Primate Lentiviruses, Viral, Epidemiology, Vertebrate Viruses, HIV Infections, Retroviridae, RNA Viruses, Virology, Genetics, Maastricht University.

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**Oncology - Breast Cancer**

**Study Results from Mahidol University Update Understanding of Breast Cancer (5-Acetyl goniothalamin suppresses proliferation of breast cancer cells via Wnt/beta-catenin signaling)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Breast Cancer is the subject of a report. According to news reporting out of Bangkok, Thailand, by NewsRx editors, research stated, "Styryl lactones are plant-derived compounds from genus Goniothalamus with promising anti-
proliferation and anticancer properties. However, the exact mechanism and the target for their activities remained unclear."

Our news journalists obtained a quote from the research from Mahidol University, "In the present study, we investigated the effect of 5-acetyl goniothalamin (5GTN) from Goniothalamus marcanii on Wnt/beta-catenin signaling pathway which is a key regulator in controlling cell proliferation in breast cancer cells (MCF-7 and MDA-MB-231). 5GTN, a naturally occurring derivative of goniothalamin (GTN) mediated the toxicity to MCF-7 and MDA-MB-231 cells in a dose- and time-related manner, and was more potent than that of GTN. 5GTN strongly inhibited cell proliferation and markedly suppressed transcriptional activity induced by beta-catenin in luciferase reporter gene assay. In consistent with this view, the expression of Wnt/beta-catenin signaling target genes including c-Myc, cyclin D1 and Axin in MCF-7 and MDA-MB-231 cells were suppressed after treatment with 5GTN. It was concomitant with cell cycle arrest at G(1) phase and cell apoptosis in MCF-7 cells. In addition, 5GTN enhanced glycogen synthase kinase (GSK-3 beta) activity and therefore reduced the expression of active form of beta-catenin protein in MCF-7 and MDA-MB-231 cells. Taken together, 5GTN exhibited a promising anticancer effect against breast cancer cells through an inhibition of Wnt/beta-catenin signaling."

According to the news editors, the research concluded: "This pathway may be served as a potential chemotherapeutic target for breast cancer by 5GTN."

For more information on this research see: 5-Acetyl goniothalamin suppresses proliferation of breast cancer cells via Wnt/beta-catenin signaling. European Journal of Pharmacology, 2016;791():455-464. European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

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Keywords for this news article include: Bangkok, Thailand, Asia, Armadillo Domain Proteins, Transcription Factors, Cell Proliferation, Women's Health, Breast Cancer, beta Catenin, Oncology, Genetics, Catenins, Mahidol University.

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Oncology - Gastric Cancer

Study Results from Mashhad University of Medical Sciences Broaden Understanding of Gastric Cancer (Circulating microRNAs as Potential Diagnostic Biomarkers and Therapeutic Targets in Gastric Cancer: Current Status and Future Perspectives)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Gastric Cancer is the subject of a report. According to news reporting from Mashhad, Iran, by NewsRx journalists, research stated, "Gastric cancer is among the leading causes of cancer related death worldwide. Patients with
gastric cancer are typically asymptomatic, and diagnosed at late stages, supporting the need for the identification of novel prognostic and diagnostic biomarkers."

The news correspondents obtained a quote from the research from the Mashhad University of Medical Sciences, "Recently, microRNAs have emerged as molecular regulators that can play key roles in pathogenesis and progression of different malignancies, including gastric cancer. There is a growing body of evidence showing the aberrant activation of some known circulating miRNAs, e.g. let-7a, miR-21, miR-16, miR-93, miR103, miR-192 as well as tissue specific-miRNAs, e.g. miR-18a, miR-10b, miR-544, miR-195, miR-378, miR-34a, miR-145 in patients affected by gastric cancer, which involved with modulation of gastric-cancer-associated genes. In addition, there are mounting evidences on the value of miRNAs which are detected to be associated with drug-resistance mechanisms; suggesting their modulation as a potential approach to overcome chemo-resistance."

According to the news reporters, the research concluded: "Attuned with these facts, in this review we highlight several recent preclinical and clinical studies performed on circulating and tissue-specific miRNAs as promising biomarkers for detection of patients at early stages, prediction of prognosis, and monitoring of the patients in response to therapy."


Our news journalists report that additional information may be obtained by contacting A. Avan, Mashhad Univ Med Sci, Sch Med, Canc Res Center, Mashhad, Iran. Additional authors for this research include S. Khataminfar, S. Mohammadparast, S. ShahidSales, M. Maftouh, M. Mohammadi, M. Simonian, S.M.R. Parizadeh, S.M. Hassanian and A. Avan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2174/0929867323666160818093854. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Mashhad, Iran, Asia, Therapy, Article Review, Diagnostics and Screening, Gastroenterology, Gastric Cancer, Oncology, Genetics, Mashhad University of Medical Sciences.

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Oncology - Multiple Myeloma

Study Results from Massachusetts General Hospital Update Understanding of Multiple Myeloma (Phase 1 Study of Tabalumab, a Human Anti-B-Cell Activating Factor Antibody, and Bortezomib in Patients with Relapsed/Refractory Multiple Myeloma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Multiple Myeloma is now available. According to news reporting from Boston, Massachusetts, by NewsRx journalists, research stated,
"Tabalumab, a human mAb that neutralizes B-cell-activating factor (BAFF), demonstrated antitumor activity in xenograft models of multiple myeloma. Here we report on a phase I study of relapsed/refractory multiple myeloma patients in which the primary objective was to identify a tolerable and potentially efficacious dose of tabalumab when combined with bortezomib."

The news correspondents obtained a quote from the research from Massachusetts General Hospital, "Forty-eight patients were enrolled; 20 to the dose-escalation cohort, and 28 to cohort expansion in which a dose of 100 mg of tabalumab was evaluated. All patients had received either prior bortezomib or an immunomodulatory drug; the median number of prior therapies was 3. Bortezomib was administered intravenously on days 1, 4, 8, and 11 of a 21-day schedule. Tabalumab was given every 21 days for 3 cycles, then every 42 days thereafter. The most common grade 3/4 toxicities included thrombocytopения, neutropenia, pneumonia, and peripheral sensory neuropathy. There were no dose-limiting toxicities, and the maximum tolerated dose was not reached. Pharmacokinetic data suggested serum exposure increased in a greater than dose-proportional manner up to a dose of 100 mg. Out of 46 evaluable patients, 20 had confirmed responses. The median time to progression (9 patients censored) was 4.8 months, and the median response duration (4 patients censored) was 7.2 months."

According to the news reporters, the research concluded: "A dose of 100 mg tabalumab in combination with bortezomib was well tolerated and active and is currently under further investigation."

For more information on this research see: Phase 1 Study of Tabalumab, a Human Anti-B-Cell Activating Factor Antibody, and Bortezomib in Patients with Relapsed/Refractory Multiple Myeloma. Clinical Cancer Research, 2016;22(23):5688-5695. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting N.S. Raje, Massachusetts General Hospital, Boston, MA 02114, United States. Additional authors for this research include E.A. Faber, P.G. Richardson, G. Schiller, R.J. Hohl, A.D. Cohen, A. Forero, S. Carpenter, T.S. Nguyen, I. Conti, C.J. Kaiser, D.M. Cronier, J.E. Wooldridge and K.C. Anderson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1158/1078-0432.CCR-16-0201. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Vascular Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, B-Cell Activating Factor, Blood Protein Disorders, Tumor Necrosis Factors, Membrane Glycoproteins, Hemorrhagic Disorders, Hemostatic Disorders, Drugs and Therapies, Bortezomib Therapy, Membrane Proteins, Multiple Myeloma, Paraproteinemias, Immunoglobulins, Pharmaceuticals, Antineoplastics, Blood Proteins, Hematology, Immunology, Antibodies, Oncology, Massachusetts General Hospital.

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Lymphoproliferative Diseases and Conditions...

Study Results from Matsumoto Dental University Broaden Understanding of Granuloma (Pathological Analysis of Cell Differentiation in Cholesterol Granulomas Experimentally Induced in Mice)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lymphoproliferative Diseases and Conditions - Granuloma is the subject of a report. According to news reporting out of Shiojiri, Japan, by NewsRx editors, research stated, "In this study, cholesterol was implanted in the subcutaneous tissue in mice to induce the formation of cholesterol granuloma. Histological examination was carried out to determine the type and source of cells."

Our news journalists obtained a quote from the research from Matsumoto Dental University, "The tissue surrounding the embedded cholesterol was examined histologically within the period of 6 months. Cell differentiation in cholesterol granulomas was investigated using ddY mice and GFP bone marrow transplanted mice. Cholesterol was embedded in mice subcutaneously and histopathological examination was carried out in a period of 6 months. Results showed that at 2 weeks, cholesterol was replaced partly by granulation tissues. The majority of cells in the granulation tissues were macrophages and foreign body giant cells and the center consists of small amount of fibroblasts, collagen fibers and capillaries. At 3 months, more granulation tissue was observed compared to 2 weeks. Similar cells were observed, however, there were more fibroblasts, collagen bundles and capillaries present compared to 2 weeks. At 6 months, the cholesterol was mostly substituted by fibrous tissues consisting mainly of fibroblasts and collagen fibers with some macrophages and foreign body giant cells. Specifically, the outer part of the tissue consists of fibroblasts, collagen bundles and capillaries and the inner portion is filled with collagen bundles. Immunohistochemistry revealed that macrophages and foreign body giant cells were positive to GFP and CD68 although the fibroblasts and capillaries in the outer portion of cholesterol granulomas were GFP negative. Some spindle shape fibroblasts were also GFP positive. Immunofluorescent double staining revealed that cells lining the blood vessels were both positive to GFP and CD31 indicating that those were endothelial cells and were actually derived from the transplanted bone marrow cells."

According to the news editors, the research concluded: "The results suggest that macrophages, foreign body giant cells as well as fibroblasts and capillary endothelial cells are bone marrow derived mesenchymal cells."

For more information on this research see: Pathological Analysis of Cell Differentiation in Cholesterol Granulomas Experimentally Induced in Mice. *International Journal of Medical Sciences*, 2016;13(3):220-4.

Our news journalists report that additional information may be obtained by contacting K. Sakai, 1 Dept. of Hard Tissue Research, Matsumoto Dental University Graduate School of Oral Medicine, Shiojiri, Japan. Additional authors for this research include K. Nakano, S. Matsuda, H. Tsujigiwa, T. Ochiai, M. Shoumura, N. Osuga, H. Hasegawa and T. Kawakami.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7150/ijms.13853. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Shiojiri, Collagen, Granuloma,
Heart Disorders and Diseases - Heart Failure

Study Results from Mayo Clinic Provide New Insights into Heart Failure (Multimorbidity in Heart Failure: Effect on Outcomes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Heart Disorders and Diseases - Heart Failure have been presented. According to news reporting from Rochester, Minnesota, by NewsRx journalists, research stated, "To investigate the effect of the number and type of comorbid conditions on death and hospitalizations in individuals with incident heart failure (HF). Population-based cohort study."

Financial supporters for this research include National Institute on Aging, National Heart, Lung, and Blood Institute.

The news correspondents obtained a quote from the research from Mayo Clinic, "Olmsted County, Minnesota. Olmsted County, Minnesota, residents with incident HF from 2000 to 2010 (mean age 76 +/- 14, 56% female) (N = 1,714). The prevalence of 16 chronic conditions obtained at HF diagnosis classified into three groups: cardiovascular (CV) related, other physical, and mental. The mean number of conditions per participant was 2.6 +/- 1.5 for CV-related conditions, 1.3 +/- 1.1 for other physical conditions, and 0.30 +/- 0.61 for mental conditions. After a mean follow-up of 4.2 years, 1,073 deaths and 6,306 hospitalizations had occurred. After adjustment for age, sex, ejection fraction, in-or outpatient status, and number of other conditions, an increase of one other physical condition was associated with a 14% (HR = 1.14, 95% CI = 1.08-1.20) greater risk of death and a 26% (HR = 1.26, 95% CI = 1.20-1.32) greater risk of hospitalization, and an increase of one mental condition was associated with a 31% (HR = 1.31, 95% CI = 1.19-1.44) greater risk of death and an 18% (HR = 1.18, 95% CI = 1.071.29) greater risk of hospitalization. In contrast, an increase of one CV-related condition was not associated with greater risk of death and was associated with a 10% (HR = 1.10, 95% CI = 1.06-1.15) greater risk of hospitalization. CV-related conditions are the most common type of comorbid conditions in individuals with HF, but other physical and mental conditions are more strongly associated with death and hospitalizations."

According to the news reporters, the research concluded: "This underscores the effect of non-CV conditions on outcomes in HF."


Our news journalists report that additional information may be obtained by contacting V.L. Roger, Mayo Clinic, Div Cardiovasc Dis, Rochester, MN, United States. Additional authors for this research include A.M. Chamberlain, C.M. Boyd, Y. Gerber, S.M. Dunlay, S.A. Weston, R.X. Jiang and V.L. Roger.

The direct object identifier (DOI) for that additional information is:
Study Results from McMaster University in the Area of Neurodevelopmental Disorders Reported (Wnt signaling networks in autism spectrum disorder and intellectual disability)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Neurologic Diseases and Conditions - Neurodevelopmental Disorders are presented in a new report. According to news originating from Hamilton, Canada, by NewsRx correspondents, research stated, "Genetic factors play a major role in the risk for neurodevelopmental disorders such as autism spectrum disorders (ASDs) and intellectual disability (ID). The underlying genetic factors have become better understood in recent years due to advancements in next generation sequencing."

Our news journalists obtained a quote from the research from McMaster University, "These studies have uncovered a vast number of genes that are impacted by different types of mutations (e.g., de novo, missense, truncation, copy number variations). Abstract: Given the large volume of genetic data, analyzing each gene on its own is not a feasible approach and will take years to complete, let alone attempt to use the information to develop novel therapeutics. To make sense of independent genomic data, one approach is to determine whether multiple risk genes function in common signaling pathways that identify signaling 'hubs' where risk genes converge. This approach has led to multiple pathways being implicated, such as synaptic signaling, chromatin remodeling, alternative splicing, and protein translation, among many others. In this review, we analyze recent and historical evidence indicating that multiple risk genes, including genes denoted as high-confidence and likely causal, are part of the Wingless (Wnt signaling) pathway. In the brain, Wnt signaling is an evolutionarily conserved pathway that plays an instrumental role in developing neural circuits and adult brain function."

According to the news editors, the research concluded: "We will also review evidence that pharmacological therapies and genetic mouse models further identify abnormal Wnt signaling, particularly at the synapse, as being disrupted in ASDs and contributing to disease pathology."

For more information on this research see: Wnt signaling networks in autism spectrum disorder and intellectual disability. Journal of Neurodevelopmental Disorders, 2016;8 ():1-10. Journal of Neurodevelopmental Disorders can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com/; Journal of Neurodevelopmental Disorders - www.jneurodevdisorders.com)

The news correspondents report that additional information may be obtained from K.K. Singh, McMaster University, Dept. of Biochem & Biomed Sci, Stem Cell & Canc Res
Study Results from Medical University Provide New Insights into Breast Cancer (Dihydroartemisinin prevents breast cancer-induced osteolysis via inhibiting both breast cancer cells and osteoclasts)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Breast Cancer are presented in a new report. According to news reporting out of Linhai, People's Republic of China, by NewsRx editors, research stated, "Bone is the most common site of distant relapse in breast cancer, leading to severe complications which dramatically affect the patients' quality of life. It is believed that the crosstalk between metastatic breast cancer cells and osteoclasts is critical for breast cancer-induced osteolysis."

Our news journalists obtained a quote from the research from Medical University, "In this study, the effects of dihydroartemisinin (DHA) on osteoclast formation, bone resorption, osteoblast differentiation and mineralization were initially assessed in vitro, followed by further investigation in a titanium-particle-induced osteolysis model in vivo. Based on the proved inhibitory effect of DHA on osteolysis, DHA was further applied to MDA-MB-231 breast cancer-induced mouse osteolysis model, with the underlying molecular mechanisms further investigated. Here, we verified for the first time that DHA suppressed osteoclast differentiation, F-actin ring formation and bone resorption through suppressing AKT/SRC pathways, leading to the preventive effect of DHA on titanium-particle-induced osteolysis without affecting osteoblast function. More importantly, we demonstrated that DHA inhibited breast tumor-induced osteolysis through inhibiting the proliferation, migration and invasion of MDA-MB-231 cells via modulating AKT signaling pathway."

According to the news editors, the research concluded: "DHA effectively inhibited osteoclastogenesis and prevented breast cancer-induced osteolysis."

For more information on this research see: Dihydroartemisinin prevents breast cancer-induced osteolysis via inhibiting both breast cancer cells and osteoclasts. Scientific Reports, 2016;6():19074. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting M.X. Feng, Orthopaedic Department, Taizhou Hospital, Wenzhou Medical University, Linhai, 317000, People's Republic of China. Additional authors for this research include J.X. Hong, Q. Wang, Y.Y. Fan, C.T. Yuan, X.H. Lei, M. Zhu, A. Qin, H.X. Chen and D. Hong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19074. This DOI is a link to an online electronic document that is either free or for purchase.
Study Results from Medical University Provide New Insights into Central Nervous System Depressants (Continuous intra-articular local anesthetic drug instillation versus discontinuous sciatic nerve block after total knee arthroplasty)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Central Nervous System Depressants have been published. According to news originating from Feldkirch, Austria, by NewsRx correspondents, research stated, "Sciatic nerve block (SNB) is commonly used as adjunct to femoralis nerve block (FNB) to achieve high-quality pain relief after total knee arthroplasty (TKA). However, this combination is associated with considerable muscle weakness, foot drop and surgically related nerve injuries may be masked."

Our news journalists obtained a quote from the research from Medical University, "The purpose of this study was to assess whether low risk continuous intra-articular anesthetic drug instillation is an adequate alternative to SNB when adding to FNB after TKA. Retrospective investigational follow-up study. University teaching hospital. Interdisciplinary postoperative anesthetic and orthopedic survey. For this investigational analysis, 34 of 50 consecutive patients were available. All patients underwent primary unilateral TKA. Group A (18 patients) received a continuous intra-articular 0.33% ropivacaine (5 mL/h) instillation for the first 48 h postoperatively. In Group B (16 patients) a discontinuous SNB was used. Both groups were treated with a continuous FNB. Main endpoints were mean and maximum postoperative pain intensity levels for both anterior and posterior knee side, amount of postoperative administered opioid drugs, differences in functional outcome or hospital stay and rate of postoperative complications. Group A showed higher pain intensity levels for the posterior knee side (P <=.042). Merely on the second postoperative day there were no differences within either study group. No differences were found regarding anterior knee pain. Group A showed a significant higher postoperative piritramid consumption (P <=.007). Length of hospital stay or postoperative functional outcome was not significant different. Postoperative complications were not related to anesthesia techniques."

According to the news editors, the research concluded: "SNB technique resulted in superior pain relief in comparison to continuous intra-articular local anesthetic drug instillation as adjunct to continuous FNB after TKA."

The news correspondents report that additional information may be obtained from J. Cip, Medical University of Innsbruck, Dept. of Orthoped Surg, Academy Teaching Hosp Feldkirch, A-6800 Feldkirch, Austria. Additional authors for this research include H. Erb-Linzmeier, P. Stadlbauer, C. Bach, A. Martin and R. Germann.

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Keywords for this news article include: Feldkirch, Austria, Europe, Central Nervous System Depressants, Central Nervous System Agents, Drug Administration Routes, Orthopedic Procedures, Drugs and Therapies, Knee Arthroplasty, Drug Instillation, Local Anesthetics, Hospital, Surgery, Medical University.

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Cardiovascular Diseases and Conditions - Carotid...

Study Results from Medical University in the Area of Carotid Stenosis Reported (Combined Effects of Inflammatory Status and Carotid Atherosclerosis A 12-Year Follow-Up Study)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Cardiovascular Diseases and Conditions - Carotid Stenosis have been published. According to news reporting out of Vienna, Austria, by NewsRx editors, research stated, "Inflammatory responses play a key role in atherogenesis. The aim of this study was to assess the prognostic value of hsCRP (high-sensitivity C-reactive protein) and to evaluate whether degree of carotid stenosis and serum levels of hsCRP jointly predict long-term mortality in asymptomatic patients with carotid atherosclerosis."

Our news journalists obtained a quote from the research from Medical University, "One thousand sixty-five patients with neurological asymptomatic carotid atherosclerosis as evaluated by duplex sonography were prospectively followed for cause-specific mortality. During a median of 11.81 years, a total of 549 deaths, including 362 cardiovascular deaths, were recorded. The risk of all-cause and cardiovascular mortality significantly increased in patients with elevated serum levels of hsCRP (the adjusted hazard ratio for cardiovascular mortality per increase of 1 mg/dL of hsCRP levels was 1.47; P<0.001). Patients with a high degree of carotid stenosis and increased hsCRP levels were particularly at risk of adverse outcome. Patients with carotid narrowing over 50% and hsCRP levels >0.29 mg/dL (=median) had nearly twice as high a risk of cardiovascular mortality compared with patients with carotid stenosis of <50% and hsCRP levels <0.29 mg/dL (adjusted hazard ratio 1.89; P<0.001). Improvement in risk stratification with combined assessment of carotid stenosis and hsCRP was confirmed by an improvement of the continuous net reclassification improvement with 18% for all-cause mortality and 15% for cardiovascular mortality compared with the degree of carotid stenosis alone (P <0.01)."

According to the news editors, the research concluded: "Measurement of hsCRP in combination with ultrasound investigations of the carotid arteries at a single time point provides additional prognostic information for patients with asymptomatic carotid atherosclerosis."

For more information on this research see: Combined Effects of Inflammatory Status and Carotid Atherosclerosis A 12-Year Follow-Up Study. Stroke, 2016;47(12):2952-
Study Results from Mercy Hospital for Women in the Area of Prenatal Research Reported (Measuring circulating placental RNAs to non-invasively assess the placental transcriptome and to predict pregnancy complications)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Prenatal Research have been published. According to news reporting out of Heidelberg, Australia, by NewsRx editors, research stated, "Circulating nucleic acids have revolutionized prenatal diagnosis in the last decade, allowing non-invasive screening for single gene or chromosomal defects using a single sample of maternal blood. In addition to DNAs, RNAs from the placenta are released into the maternal blood from early in pregnancy and may reflect changes in gene expression occurring within the placenta."

Our news journalists obtained a quote from the research from Mercy Hospital for Women, "Measuring circulating RNA may therefore provide insights into the placental transcriptome without the need for invasive testing. Combined with advances in next-generation sequencing and molecular analyses, it may be possible to measure circulating RNA to improve our understanding of placental pathology and develop novel non-invasive biomarkers for pregnancy complications and monitoring high-risk pregnancies. This review summarizes the current technologies available and the studies that have measured circulating placental RNA to predict and/or monitor pregnancies complicated by preeclampsia, fetal growth restriction, preterm birth, early pregnancy complications, invasive placentation and twin-twin transfusion syndrome."

According to the news editors, the research concluded: "Prospective cohort studies are now required to validate these findings to determine the clinical applicability of measuring circulating placental RNA to develop novel biomarkers for a wide spectrum of pregnancy complications."

For more information on this research see: Measuring circulating placental RNAs to non-invasively assess the placental transcriptome and to predict pregnancy complications.
Study Results from Mie University Broaden Understanding of Osteoporosis (Ginger hexane extract suppresses RANKL-induced osteoclast differentiation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Musculoskeletal Diseases and Conditions - Osteoporosis are presented in a new report. According to news reporting originating in Tsu, Japan, by NewsRx journalists, research stated, "Osteoporosis is a debilitating disease caused by decreased bone density. Compounds with anti-osteoclastic activity, such as bisphosphonates, may help in the prevention and treatment of osteoporosis."

The news reporters obtained a quote from the research from Mie University, "Herein, we determined the inhibitory effects of ginger hexane extract (GHE) on receptor activator of nuclear factor kappa-B ligand (RANKL)-induced osteoclastogenesis in RAW264.7 cells. The results showed that GHE (1) suppressed osteoclast differentiation and the formation of actin rings; (2) inhibited the expression of Nfatc1, a master transcriptional factor for osteoclast differentiation, in a dose-dependent manner (10-20 mg/mL); and (3) inhibited other osteoclastogenesis-related genes, such as Oscar, Dc-stamp, Trap, and Mmp9."

According to the news reporters, the research concluded: "These findings suggest that GHE may be used to prevent and treat osteoporosis by inhibiting osteoclast differentiation."

For more information on this research see: Ginger hexane extract suppresses RANKL-induced osteoclast differentiation. *Bioscience, Biotechnology, and Biochemistry*, 2016;80(4):779-85.

Our news correspondents report that additional information may be obtained by contacting S. Ito, a Tsuji Health & Beauty Science Laboratory, Mie University, Tsu, Japan. Additional authors for this research include A. Ohmi, A. Sakamiya, T. Yano, K. Okumura, N. Nishimura and K. Kagontani.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/09168451.2015.1127133. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tsu, Asia, Japan, Genetics, Macrophages, Osteoclasts, Osteoporosis, Metabolic Bone Diseases and Conditions, Musculoskeletal Diseases...
and Conditions.
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Mosquito-Borne Diseases - Malaria

Study Results from Monash University Broaden Understanding of Malaria (Metabolomics-Based Screening of the Malaria Box Reveals both Novel and Established Mechanisms of Action)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Mosquito-Borne Diseases - Malaria is now available. According to news originating from Parkville, Australia, by NewsRx correspondents, research stated, "High-throughput phenotypic screening of chemical libraries has resulted in the identification of thousands of compounds with potent antimalarial activity, although in most cases, the mechanism(s) of action of these compounds remains unknown. Here we have investigated the mode of action of 90 antimalarial compounds derived from the Malaria Box collection using high-coverage, untargeted metabolomics analysis."

Our news journalists obtained a quote from the research from Monash University, "Approximately half of the tested compounds induced significant metabolic perturbations in in vitro cultures of Plasmodium falciparum. In most cases, the metabolic profiles were highly correlated with known antimalarials, in particular artemisinin, the 4-aminoquinolines, or atovaquone. Select Malaria Box compounds also induced changes in intermediates in essential metabolic pathways, such as isoprenoidbiosynthesis (i.e., 2-C-methyl-D-erythritol 2,4-cyclodiphosphate) and linolenic acid metabolism (i.e., traumatic acid)."

According to the news editors, the research concluded: "This study provides a comprehensive database of the metabolic perturbations induced by chemically diverse inhibitors and highlights the utility of metabolomics for triaging new lead compounds and defining specific modes of action, which will assist with the development and optimization of new antimalarial drugs."

For more information on this research see: Metabolomics-Based Screening of the Malaria Box Reveals both Novel and Established Mechanisms of Action. Antimicrobial Agents and Chemotherapy, 2016;60(11):6650-6663. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from D.J. Creek, Monash University, Bio21 Mol Sci & Biotechnol Inst, Dept. of Biochem & Mol Biol, Parkville, Vic, Australia. Additional authors for this research include H.H. Chua, S.A. Cobbold, B. Nijagal, J.I. MacRae, B.K. Dickerman, P.R. Gilson, S.A. Ralph and M.J. McConville.

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Keywords for this news article include: Parkville, Australia, Australia and New Zealand, Mosquito-Borne Illness, Mosquito-Borne Diseases, Antiprotozoal Agents, Protozoan Infections, Drugs and Therapies, Antimalarial Agents, Antiinfectives, Malaria,
Study Results from N. Gujjar et al Provide New Insights into Human Influenza [Co-expression of sialic acid receptors compatible with avian and human influenza virus binding in emus (Dromaius novaehollandiae)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Respiratory Tract Diseases and Conditions - Human Influenza have been published. According to news reporting originating from Andhra Pradesh, India, by NewsRx correspondents, research stated, "Influenza A viruses (IAVs) continue to threaten animal and human health with constant emergence of novel variants. While aquatic birds are a major reservoir of most IAVs, the role of other terrestrial birds in the evolution of IAVs is becoming increasingly evident."

Funders for this research include National Institute of Animal Biotechnology, UKIERI, Pennsylvania State University.

Our news editors obtained a quote from the research, "Since 2006, several reports of IAV isolations from emus have surfaced and avian influenza infection of emus can lead to the selection of mammalian like PB2-E627K and PB2-D701N mutants. However, the potential of emus to be co-infected with avian and mammalian IAVs is not yet understood. As a first step, we investigated sialic acid (SA) receptor distribution across major organs and body systems of emu and found a widespread co-expression of both SA alpha 2,3Gal and SA alpha 2,6Gal receptors in various tissues that are compatible with avian and human IAV binding."

According to the news editors, the research concluded: "Our results suggest that emus could allow genetic recombination and hence play an important role in the evolution of IAVs."

For more information on this research see: Co-expression of sialic acid receptors compatible with avian and human influenza virus binding in emus (Dromaius novaehollandiae). Virology, 2017;500():114-121. Virology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Virology - www.journals.elsevier.com/virology/)

The news editors report that additional information may be obtained by contacting M. Subbiah, Natl Inst Anim Biotechnol, Hyderabad, Andhra Pradesh, India. Additional authors for this research include S.K. Chothe, S. Gawai, R. Nissly, G. Bhushan, V. Kanagaraj, B.M. Jayarao, K. Kathaperumal, M. Subbiah and S.V. Kuchipudi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.virol.2016.10.021. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Andhra Pradesh, India, Asia, Respiratory Tract Diseases and Conditions, Organic Chemicals, Carboxylic Acids, Neuraminic Acids, Human Influenza, Hydroxy Acids, Sialic Acids, Genetics.

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Fatigue

Study Results from N. Strenzke and Colleagues Broaden Understanding of Fatigue (Hair cell synaptic dysfunction, auditory fatigue and thermal sensitivity in otoferlin Ile515Thr mutants)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Fatigue is now available. According to news reporting originating in Gottingen, Germany, by NewsRx journalists, research stated, "The multi-C2 domain protein otoferlin is required for hearing and mutated in human deafness. Some OTOF mutations cause a mild elevation of auditory thresholds but strong impairment of speech perception."

Financial supporters for this research include Max Planck Society, Deutsche Forschungsgemeinschaft (DFG), University Medical Center Gottingen.

The news reporters obtained a quote from the research, "At elevated body temperature, hearing is lost. Mice homozygous for one of these mutations, Otof(I515T/I515T), exhibit a moderate hearing impairment involving enhanced adaptation to continuous or repetitive sound stimulation. In Otof(I515T/I515T) inner hair cells (IHCs), otoferlin levels are diminished by 65%, and synaptic vesicles are enlarged. Exocytosis during prolonged stimulation is strongly reduced. This indicates that otoferlin is critical for the reformation of properly sized and fusion-competent synaptic vesicles. Moreover, we found sustained exocytosis and sound encoding to scale with the amount of otoferlin at the plasma membrane. We identified a 20 amino acid motif including an RXR motif, presumably present in human but not in mouse otoferlin, which reduces the plasma membrane abundance of Ile515Thr-otoferlin."

According to the news reporters, the research concluded: "Together, this likely explains the auditory synaptopathy at normal temperature and the temperature-sensitive deafness in humans carrying the Ile515Thr mutation."


Our news correspondents report that additional information may be obtained by contacting N. Strenzke, Collaborat Res Center 889 Cellular Mech Sensory Proc, Gottingen, Germany. Additional authors for this research include R. Chakrabarti, H. Al-Moyed, A. Muller, G. Hoch, T. Pangrsic, G. Yamanbaeva, C. Lenz, K.T. Pan, E. Auge, R. Geiss-Friedlander, H. Urlaub, N. Brose, C. Wichmann and E. Reisinger.

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Keywords for this news article include: Gottingen, Germany, Europe, Genetics, Fatigue.

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**Pheochromocytomas**

**Study Results from N. Sundahl and Colleagues in the Area of Pheochromocytomas Reported (A rare case of clinically and biochemically silent giant right pheochromocytoma: case report and review of literature)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Pheochromocytomas are discussed in a new report. According to news reporting out of Aalst, Belgium, by NewsRx editors, research stated, "Non-secreting pheochromocytomas are rare adrenal tumours. We report the case of a clinically and biochemically silent giant pheochromocytoma that presented as bilateral pulmonary embolisms."

Our news journalists obtained a quote from the research, "Successful surgical resection was performed. Multiple endocrine neoplasia 2 syndrome and neurofibromatosis type 1 were clinically excluded."

According to the news editors, the research concluded: "Subsequent DNA analysis of the succinate dehydrogenase complex subunits B and D (SDHB and SDHD), and Von Hippel-Lindau (VHL) genes revealed no mutations."


Our news journalists report that additional information may be obtained by contacting S. Van Slycke, OLV Clin Aalst, Dept. of Gen & Endocrine Surg, B-9300 Aalst, Belgium. Additional authors for this research include S. Van Slycke and N. Brusselaers.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1080/00015458.2016.1139838. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Aalst, Belgium, Europe, Pheochromocytomas, Chemicals, Article Review, Pheochromocytoma, Endocrinology, Biochemicals, Genetics.

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**Heart Disorders and Diseases - Heart Failure**

**Study Results from N.M. Orr and Colleagues Broaden Understanding of Heart Failure (Skilled Nursing Facility Care for Patients With Heart Failure: Can We Make It "Heart Failure Ready?")**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Failure have been published. According to news reporting from Wellesley, Massachusetts, by NewsRx journalists, research stated, "Skilled nursing facilities (SNFs) have emerged as an integral component of care for older adults with heart failure (HF). Despite their prominent role, poor
clinical outcomes for the medically complex patients with HF managed in SNFs are common."

The news correspondents obtained a quote from the research, "Barriers to providing quality care include poor transitional care during hospital-to-SNF and SNF-to-community discharges, lack of HF training among SNF staff, and a lack of a standardized care process among SNF facilities. Although no evidence-based practice standards have been established, various measures and tools designed to improve HF management in SNFs are being investigated. In this review, we discuss the challenges of HF care in SNFs as well as potential targets and recommendations that can help improve care with respect to transitions, HF management within SNFs, and modifiable factors within facilities."

According to the news reporters, the research concluded: "Policy considerations that might help catalyze improvements in SNF-based HF management are also discussed."

For more information on this research see: Skilled Nursing Facility Care for Patients With Heart Failure: Can We Make It "Heart Failure Ready?." Journal of Cardiac Failure, 2016;22(12):1004-1014. Journal of Cardiac Failure can be contacted at: Churchill Livingstone Inc Medical Publishers, Curtis Center, Independence Square West, Philadelphia, PA 19106-3399, USA. (Elsevier - www.elsevier.com; Journal of Cardiac Failure - www.journals.elsevier.com/journal-of-cardiac-failure/)

Our news journalists report that additional information may be obtained by contacting N.M. Orr, Postacute Cardiol Care, Wellesley, MA, United States. Additional authors for this research include R.S. Boxer, M.A. Dolansky, L.A. Allen and D.E. Forman.

Keywords for this news article include: Wellesley, Massachusetts, United States, North and Central America, Heart Disorders and Diseases, Article Review, Cardiovascular Diseases and Conditions, Heart Failure, Heart Disease, Cardiology.

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Oncology - Breast Cancer

Study Results from Nanjing Medical University Broaden Understanding of Breast Cancer [miR-222 induces Adriamycin resistance in breast cancer through PTEN/Akt/p27(kip1) pathway]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Breast Cancer have been presented. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "The high resistant rate of Adriamycin (Adr) is associated with a poor prognosis of breast cancer in women worldwide. Since miR-222 might contribute to chemoresistance in many cancer types, in this study, we aimed to investigate its efficacy in breast cancer through PTEN/Akt/p27(kip1) pathway."

The news correspondents obtained a quote from the research from Nanjing Medical University. "Firstly, in vivo, we verified that miR-222 was upregulated in chemoresistant tissues after surgery compared with the paired preneoadjuvant samples of 21 breast cancer patients. Then, human breast cancer Adr-resistant cell line (MCF-7/Adr) was constructed to validate the pathway from the parental sensitive cell line (MCF-7/S). MCF-7/Adr and MCF-7/S were transfected with miR-222 mimics, miR-222 inhibitors, or their negative controls, respectively. The results showed that inhibition of miR-222 in MCF-7/Adr significantly increased the expressions of PTEN and p27(kip1) and decreased phospho-Akt (p-Akt) both in mRNA and
protein levels (p < 0.05) by using quantitative real-time PCR (qRT-PCR) and western blot. MTT and flow cytometry suggested that lower expressed miR-222 enhanced apoptosis and decreased the IC50 of MCF-7/Adr cells. Additionally, immunofluorescence demonstrated that the subcellular location of p27(kip1) was dislocated resulting from the alteration of miR-222. Conversely, in MCF-7/S transfected with miR-222 mimics, upregulation of miR-222 is associated with decreasing PTEN and p27(kip1) and increasing Akt accompanied by less apoptosis and higher IC50. Importantly, Adr resistance induced by miR-222 overexpression through PTEN/Akt/p27 was completely blocked by LY294002, an Akt inhibitor.

According to the news reporters, the research concluded: "Taken together, these data firstly elucidated that miR-222 could reduce the sensitivity of breast cancer cells to Adr through PTEN/Akt/p27(kip1) signaling pathway, which provided a potential target to increase the sensitivity to Adr in breast cancer treatment and further improved the prognosis of breast cancer patients."


Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Women's Health, Breast Cancer, Oncology, Genetics, Nanjing Medical University.

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**Drugs and Therapies - Cromolyn Therapy**

**Study Results from Nanjing Medical University Broaden Understanding of Cromolyn Therapy (Cerebral Mast Cells Participate In Postoperative Cognitive Dysfunction by Promoting Astrocyte Activation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Cromolyn Therapy. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "Astrocytes, the major glial cell type that has been increasingly recognized as contributing to neuroinflammation, are critical in the occurrence and development of postoperative cognitive dysfunction (POCD). Although emerging evidence showed that brain mast cells (MCs) are the 'first responders' in neuroinflammation, little is known about the functional communication between MCs and astrocytes."

Our news editors obtained a quote from the research from Nanjing Medical University, "In this study, we investigated the potential regulation of astrocyte activation by MCs. Rats received an intracerebroventricular injection of Cromolyn (an MC stabilizer) or sterile saline 30 min before undergoing open tibial fracture surgery, and the levels of neuroinflammation and the degree of memory dysfunction were evaluated at 1 day and 3 days
after surgery. In the in vitro study, the effect of activated MCs on astrocytes were further clarified. Surgery increased the number of MCs, the astrocyte activation and the production of inflammatory factors, and resulted in cognitive deficits. Site-directed pre-injection of Cromolyn can inhibit this effect. In the in vitro study, the conditioned medium from C48/80-stimulated mast cells (P815) could induce primary astrocyte activation and subsequent production of inflammatory cytokines, which could be inhibited by Cromolyn. These findings indicate that activated MCs could trigger astrocyte activation, be involved in neuroinflammation and possibly contribute to POCD."

According to the news editors, the research concluded: "Interactions between MCs and astrocytes could provide potential therapeutic targets for POCD."


The news editors report that additional information may be obtained by contacting Y.N. Qian, Nanjing Medical University, Affiliated Hosp 1, Dept. of Anesthesiol, Nanjing, Jiangsu, People's Republic of China. Additional authors for this research include H. Yao, Q.Q. Qian, N. Li, W.J. Jin and Y.N. Qian.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000452528. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Respiratory Inhalant Products, Mast Cell Stabilizers, Antiasthmatic Agents, Drugs and Therapies, Respiratory Agents, Neuroinflammation, Cromolyn Therapy, Immune System, Mast Cells, Astrocytes, Neuroglia, Surgery, Nanjing Medical University.

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**Oncology - Osteosarcomas**

**Study Results from Nanjing Medical University Provide New Insights into Osteosarcomas (Down-regulation of RBP-J mediated by microRNA-133a suppresses dendritic cells and functions as a potential tumor suppressor in osteosarcoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Osteosarcomas. According to news reporting originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "In recent years, immunotherapy for the treatment of tumors have been established. Dendritic cells (DCs) are extremely efficient and professional antigen presenting cells (APCs), which are an important target for immune therapeutic interventions in cancer."

Our news editors obtained a quote from the research from Nanjing Medical University, "In present study, we investigated whether RBP-J signaling regulated by miR-133a was involved in the DCs mediated tumor suppressor in osteosarcoma. DCs were isolated from
30 osteosarcoma patients and 30 healthy subjects. Mouse macrophage-like cell line RAW264.7 were cultured and osteosarcoma mouse model with injection of murine osteosarcoma cell line S180 were established. In osteosarcoma patients, miR-133a expression level of DCs was increased, and RBP-J expression in mRNA and protein levels were decreased. MiR-133a inhibitor promoted maturation and activation of DCs in osteosarcoma patients. In osteosarcoma mouse model, miR-133a mimic suppressed the maturation and activation of spleen DCs, while miR-133a inhibitor promoted them. Overexpression of miR-133a decreased therapeutic effect of DCs on osteosarcoma mice. In RAW264.7 cells, miR-133a was observed to target RBP-J and regulate its expression. MiR-133a mimic inhibited the maturation of DCs in cells exposed to LPS, the effect of which was reversed by overexpression of RBP-J."

According to the news editors, the research concluded: "RBP-J mediated by miR-133a probably contributed to the regulation of DCs maturation and activation in osteosarcoma, which functioned as a therapeutic target for the immunotherapy in cancers."


The news editors report that additional information may be obtained by contacting W.M. Fan, Nanjing Medical University, Affiliated Hosp 1, Dept. of Orthoped, Nanjing 210000, Jiangsu, People's Republic of China. Additional authors for this research include D. Han and W.M. Fan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.yexcr.2016.10.019. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Mononuclear Phagocyte System, Antigen-Presenting Cells, Drugs and Therapies, Tumor Suppression, Dendritic Cells, Immunotherapy, Osteosarcomas, Orthopedics, Immunology, Oncology, Genetics, Nanjing Medical University.

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Immune System Diseases and Conditions - Graft-…

Study Results from Nanjing Medical University Update Understanding of Graft-Versus-Host Disease (The impact of P2X7 receptor antagonist, brilliant blue G on graft-versus-host disease in mice after allogeneic hematopoietic stem cell ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immune System Diseases and Conditions - Graft-Versus-Host Disease. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "The purpose of this study was to investigate the role of P2X7 on liver inflammation in mice after HSCT. Hematopoietic stem cells obtained from C57BL/6 mice were administrated into BALB/c mice to establish GVHD model."
Financial support for this research came from National Science Foundation of China.

Our new journalists obtained a quote from the research from Nanjing Medical University, "On day 7, 14, 21 and 28 after HSCT, mice received P2X7R antagonist brilliant blue G (BBG) or not were sacrificed for analysis of weight loss, liver inflammation, cytokine secretion, P2X7, NLRP3 expression as well as caspase-1 activation. Liver inflammation with neutrophils and macrophages infiltration as well as weight loss increase was present after HSCT, but improved after administration with high dose of BBG compared with lower dose. High dose of P2X7R inhibitor administration after HSCT previously reduced levels of IL-1 beta, IL-18, caspase-1, NLRP3 as well as P2X7, and the level of alanine transaminase (ALT) and the ratio of aspartate amino transferase (AST)/ALT compared with that receiving low dose of BBG. Meanwhile, P2X7R blockage also reduced infiltration of macrophages and neutrophils and levels of CXCL8 and CCL2 in peripheral blood as well as improved liver function."

According to the news editors, the research concluded: "Blockage of P2X7R by BBG exerts a protective effect on GVHD post HSCT and improves liver function suggesting that this receptor could be considered as an attractive target for treatment of GVHD."

For more information on this research see: The impact of P2X7 receptor antagonist, brilliant blue G on graft-versus-host disease in mice after allogeneic hematopoietic stem cell transplantation. *Cellular Immunology*, 2016;310():71-77. *Cellular Immunology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Cellular Immunology - www.journals.elsevier.com/cellular-immunology/)

The news correspondents report that additional information may be obtained from X.F. Chen, Nanjing Medical University, Huaian Peoples Hosp 1, Dept. of Med Oncol, Huaian 223300, Jiangsu, People's Republic of China. Additional authors for this research include F. Zhu, J.L. Qiao, K. Zhao, S.Y. Zhu, L.Y. Zeng, X.F. Chen and K.L. Xu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cellimm.2016.07.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Immune System Diseases and Conditions, Liver Diseases and Conditions, Graft-Versus-Host Disease, Hemic and Immune Systems, Hematopoietic Stem Cells, Enzymes and Coenzymes, Cell Transplantation, Transplant Medicine, Stem Cell Research, Bone Marrow Cells, Cell Transplants, Gastroenterology, Liver Function, Inflammation, Granulocytes, Neutrophils, Biomedicine, Hematology, Immunology, Phagocytes, Hepatology, Caspase, Surgery, Nanjing Medical University.

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Musculoskeletal Diseases and Conditions - …

Study Results from Nanjing University Broaden Understanding of Arachnodactyly (y The clinical application of preimplantation genetic diagnosis for the patient affected by congenital contractual arachnodactyly and spinal and bulbar muscular ...)
Arachnodactyly have been presented. According to news reporting from Jiangsu, People's Republic of China, by NewsRx journalists, research stated, "To investigate the usefulness of preimplantation genetic diagnosis (PGD) for the patient affected by congenital contractural arachnodactyly (CCA) and spinal and bulbar muscular atrophy (SBMA). Multiple displacement amplification (MDA) was performed for whole genome amplification (WGA) of biopsied trophectoderm (TE) cells."

The news correspondents obtained a quote from the research from Nanjing University, "Direct mutation detection by sequencing and next-generation sequencing (NGS)-based single nucleotide polymorphism (SNP) haplotyping were used for CCA diagnosis. Direct sequencing of the PCR products and sex determination by amplification of sex-determining region Y (SRY) gene were used for SBMA diagnosis. After PGD, the unaffected blastocyst (B4) was transferred in the following frozen embryo transfer (FET). In this PGD cycle, sixteen MII oocytes were inseminated by ICSI with testicular spermatozoa. Four blastocysts (B4, B5, B10, B13) were utilized for TE cell biopsy on day 5 after ICSI. After PGD, B4 was unaffected by CCA and SBMA. B5 was affected by CCA and carried SBMA. B10 was unaffected by CCA and carried SBMA. B13 was affected by CCA and unaffected by SBMA. B4 was the only unaffected blastocyst and transferred into the uterus for the subsequent FET cycle. The accuracy of PGD was confirmed by amniocentesis at 21 weeks of gestation. A healthy boy weighing 2850 g was born by cesarean section at the 38th week of gestation."

According to the news reporters, the research concluded: "PGD is a valid screening tool for patient affected of CCA and SBMA to prevent transmission of these genetic diseases from parents to children."


Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Spinal and Bulbar Muscular Atrophy, Musculoskeletal Abnormalities, Congenital Limb Deformities, Congenital Abnormalities, Arachnodactyly, Genetics, Nanjing University.

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Immune System Diseases and Conditions - HIV/AIDS

Study Results from National Cancer Institute Provide New Insights into HIV/AIDS (Role of APOBEC3F Gene Variation in HIV-1 Disease Progression and Pneumocystis Pneumonia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- A new study on Immune System Diseases and Conditions - HIV/AIDS is now available. According to news originating from Frederick, Maryland, by NewsRx correspondents, research stated, "Human APOBEC3 cytidine deaminases are intrinsic resistance factors to HIV-1. However, HIV-1 encodes a viral infectivity factor (Vif) that degrades APOBEC3 proteins."

Our news journalists obtained a quote from the research from National Cancer Institute, "In vitro APOBEC3F (A3F) anti-HIV-1 activity is weaker than A3G but is partially resistant to Vif degradation unlike A3G. It is unknown whether A3F protein affects HIV-1 disease in vivo. To assess the effect of A3F gene on host susceptibility to HIV-acquisition and disease progression, we performed a genetic association study in six well-characterized HIV-1 natural cohorts. A common six-Single Nucleotide Polymorphism (SNP) haplotype of A3F tagged by a codon-changing variant (p. I231V, with allele (V) frequency of 48% in European Americans) was associated with significantly lower set-point viral load and slower rate of progression to AIDS (Relative Hazards (RH)=0.71, 95% CI: 0.56, 0.91) and delayed development of pneumocystis pneumonia (PCP) (RH=0.53, 95% CI: 0.37-0.76). A validation study in the International Collaboration for the Genomics of HIV (ICGH) showed a consistent association with lower set-point viral load. An in vitro assay revealed that the A3F I231V variant may influence Vif mediated A3F degradation."

According to the news editors, the research concluded: "Our results provide genetic epidemiological evidence that A3F modulates HIV-1/AIDS disease progression."

For more information on this research see: Role of APOBEC3F Gene Variation in HIV-1 Disease Progression and Pneumocystis Pneumonia. Plos Genetics, 2016;12(3):e1005921. (Public Library of Science - www.plos.org; Plos Genetics - www.plosgenetics.org)

The news correspondents report that additional information may be obtained from P. An, Basic Research Laboratory, Center for Cancer Research, National Cancer Institute, Leidos Biomedical Research, Inc, Frederick National Laboratory for Cancer Research, Frederick, Maryland, United States. Additional authors for this research include S. Penugonda, C.W. Thorball, I. Bartha, J.J. Goedert, S. Donfield, S. Buchbinder, E. Binns-Roemer, G.D. Kirk, W. Zhang, J. Fellay, X.F. Yu and C.A Winkler.

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Keywords for this news article include: Maryland, Genetics, Frederick, Viral Load, Pulmonology, RNA Viruses, Epidemiology, Retroviridae, United States, HIV Infections, Disease Attributes, Infectious Disease, Vertebrate Viruses, Disease Progression, Pathologic Processes, Primate Lentiviruses, Pneumocystis Pneumonia, Pneumocystis Infections.

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Genetics

Study Results from National Heart Lung and Blood Institute in the Area of Genetics Reported [Forkhead Box O3A (FOXO3) and the Mitochondrial Disulfide Relay Carrier (CHCHD4) Regulate p53 Protein Nuclear Activity in Response to Exercise]
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Genetics is the subject of a report. According to news reporting out of Bethesda, Maryland, by NewsRx editors, research stated, "Although exercise is linked with improved health, the specific molecular mechanisms underlying its various benefits require further clarification. Here we report that exercise increases the nuclear localization and activity of p53 by acutely down-regulating coiled-coil-helix-coiled-coil-helix domain 4 (CHCHD4), a carrier protein that mediates p53 import into the mitochondria."

Financial support for this research came from National Institutes of Health.

Our news journalists obtained a quote from the research from National Heart Lung and Blood Institute, "This response to exercise is lost in transgenic mice with constitutive expression of CHCHD4. Mechanistically, exercise-induced nuclear transcription factor FOXO3 binds to the CHCHD4 promter and represses its expression, preventing the translocation of p53 to the mitochondria and thereby increasing p53 nuclear localization. The synergistic increase in nuclear p53 and FOXO3 by exercise can facilitate their known interaction in transactivating Sirtuin 1 (SIRT1), a NAD(+)‐dependent histone deacetylase that mediates adaptation to various stresses."

According to the news editors, the research concluded: "Thus, our results reveal one mechanism by which exercise could be involved in preventing cancer and potentially other diseases associated with aging."


Our news journalists report that additional information may be obtained by contacting P.M. Hwang, National Heart Lung & Blood Institute, Center Mol Med, National Institutes of Health, Bethesda, MD 20892, United States. Additional authors for this research include W.M. Kamp, J. Li, C.Y. Liu, J.G. Kang, P.Y. Wang and P.M. Hwang.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1074/jbc.M116.745737. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bethesda, Maryland, United States, North and Central America, Genetics, Risk and Prevention, p53 Gene, National Heart Lung and Blood Institute.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Hormones - Gastrointestinal Hormones are discussed in a new report. According to news reporting out of Taipei, Taiwan, by NewsRx editors, research stated, "The first- and second-generation epidermal growth factor receptor tyrosine kinase inhibitors (1/2G EGFR-TKIs) gefitinib, erlotinib, and afatinib have all been approved as standard first-line treatments for advanced EGFR mutation-positive non-small cell lung cancer. The third-generation (3G) EGFR-TKIs have been developed to overcome the EGFR T790M mutation, which is the most common mechanism of acquired resistance to 1/2G EGFR-TKI treatment."

Our news journalists obtained a quote from the research from National Taiwan University, "This resistance mutation develops in half of the patients who respond to 1/2G EGFR-TKI therapy. The structures of the novel 3G EGFR-TKIs are different from those of 1/2G EGFR-TKIs. Particularly, 3G EGFR-TKIs have lower affinity to wild-type EGFR, and are therefore associated with lower rates of skin and gastrointestinal toxicities. However, many of the adverse events (AEs) that are observed in patients receiving 3G EGFR-TKIs have not been observed in patients receiving 1/2G EGFR-TKIs. Although preclinical studies have revealed many possible mechanisms for these AEs, the causes of some AEs remain unknown. Many mechanisms of resistance to 3G EGFR-TKI therapy have also been reported."

According to the news editors, the research concluded: "Here, we have reviewed the recent clinical and preclinical developments related to novel 3G EGFR-TKIs, including osimertinib, rociletinib, olmutinib, EGF816, and ASP8273."

For more information on this research see: Update on recent preclinical and clinical studies of T790M mutant-specific irreversible epidermal growth factor receptor tyrosine kinase inhibitors. *Journal of Biomedical Science*, 2016;23():1-10. *Journal of Biomedical Science* can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; Journal of Biomedical Science - www.jbiomedsci.com)

Our news journalists report that additional information may be obtained by contacting J.C.H. Yang, National Taiwan University, Grad Inst Oncol, Coll Med, Taipei, Taiwan. Additional authors for this research include C.C. Lin, J.H. Lee and J.C.H. Yang.

Keywords for this news article include: Taipei, Taiwan, Asia, Intercellular Signaling Peptides and Proteins, Gastrointestinal Hormone Receptors, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor, Gastrointestinal Hormones, Proteins, Article Review, Epidermal Growth Factors, Growth Factor Receptors, Enzymes and Coenzymes, Aromatic Amino Acids, Phosphotransferases, Membrane Proteins, Peptide Receptors, Protein Kinases, Proteomics, Genetics, National Taiwan University.

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**Periodontal Diseases and Conditions - Gingival...**

**Study Results from Nihon University Provide New Insights into Gingival Overgrowth (Possible pharmacotherapy for nifedipine-induced gingival overgrowth: 18a-glycyrrhetinic acid inhibits human gingival fibroblast growth)**
Data detailed on Periodontal Diseases and Conditions - Gingival Overgrowth have been presented. According to news reporting originating from Chiba, Japan, by NewsRx correspondents, research stated, "This investigation aimed to establish the basis of a pharmacotherapy for nifedipine-induced gingival overgrowth. Gingival overgrowth has been attributed to the enhanced growth of gingival fibroblasts."

Our news editors obtained a quote from the research from Nihon University, "In this study, we investigated the effects of 18α-glycyrrhetinic acid (18α-GA) on growth, the cell cycle, and apoptosis and on the regulators of these processes in gingival fibroblasts isolated from patients who presented with nifedipine-induced gingival overgrowth. Gingival fibroblasts were cultured in medium containing 1% FBS with/without 10 mM 18α-GA for 24 or 48 h, and the cell number, cell cycle phase distribution, relative DNA content, apoptotic cell number and morphological characteristics of the cells undergoing apoptosis were measured together with the levels of proteins that regulate these processes and the level of caspase activity. 18α-GA significantly decreased cell numbers and significantly increased the percentage of cells in the sub-G1 and G0/G1 phases of the cell cycle and the number of apoptotic cells. Nuclear condensation and fragmentation of cells into small apoptotic bodies appeared in the fibroblasts treated with 18α-GA. In addition, 18α-GA significantly decreased the protein levels of cyclins A and D1, CDKs 2 and 6, phosphorylated Rb (ser(780) and ser(807/811)), Bcl-xL and Bcl-2 and increased the protein levels of p27, cytosolic cytochrome c, pro-caspase-3, and cleaved caspase-3 and the activities of caspases 3 and 9. 18α-GA inhibited gingival fibroblast growth by suppressing the G1/S phase transition and inducing apoptosis."

According to the news editors, the research concluded: "18α-GA may be used as a pharmacotherapy for nifedipine-induced gingival overgrowth."


The news editors report that additional information may be obtained by contacting R. Takeuchi, Dept. of Biochemistry and Molecular Biology, Nihon University School of Dentistry at Matsudo, Matsudo, Chiba, Japan. Additional authors for this research include K. Hiratsuka, K. Arikawa, M. Ono, M. Komiya, Y. Akimoto, A. Fujii and H. Matsumoto.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/bph.13410. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the *British Journal of Pharmacology* is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Asia, Pharmaceuticals, Chiba, Japan, Caspase, Genetics, Apoptosis, Fibroblasts, Hydrocarbons, Pharmacotherapy, Organic Chemicals, Nifedipine Therapy, Drugs and Therapies, Gingival Overgrowth, Glycyrrhetinic Acid, Cardiovascular Agents, Enzymes and Coenzymes, Connective Tissue Cells, Pentacyclic Triterpenes.

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Study Results from Northwest A&F University Broaden Understanding of Prostate Cancer (Triptolide induces protective autophagy through activation of the CaMKKb-AMPK signaling pathway in prostate cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Prostate Cancer are presented in a new report. According to news reporting originating in Yangling, People's Republic of China, by NewsRx journalists, research stated, "Triptolide, an active compound extracted from the Chinese herb thunder god vine (Tripterygium wilfordii Hook F.), has potent anti-tumor activity. Recently, triptolide was found to induce autophagy in cancer cells."

The news reporters obtained a quote from the research from Northwest A&F University, "However, the effects of triptolide on autophagy in human prostate cancer (PCa) cells have not yet been clearly elucidated. In this study, we demonstrated that triptolide induces autophagy in three PCa cell lines, PC-3, LNCaP and C4-2. Furthermore, we found that triptolide mediates intracellular accumulation of free calcium by stimulating the endoplasmic reticulum (ER) stress response. This activates the CaMKKb-AMPK signaling pathway, which in turn inhibits mTOR and activates both ULK1 and Beclin 1, finally resulting in autophagy. Moreover, we found that treatment with autophagy inhibitors 3-methyladenine (3-MA) and chloroquine (CQ) enhances triptolide-induced PCa cell death and growth inhibition. Using a PC-3-xenografted mouse model, we showed that blocking autophagy with CQ significantly promoted triptolide-induced tumor growth inhibition in vivo."

According to the news reporters, the research concluded: "Overall, our results show that triptolide induces protective autophagy through the CaMKKb-AMPK pathway in PCa cells, implying that a combination of triptolide with autophagy inhibitors may potentially be an effective therapeutic strategy for PCa."

For more information on this research see: Triptolide induces protective autophagy through activation of the CaMKKb-AMPK signaling pathway in prostate cancer cells. *Oncotarget*, 2016;7(5):5366-82.

Our news correspondents report that additional information may be obtained by contacting F. Zhao, College of Life Sciences, Northwest A & F University, Yangling, Shaanxi Province, People's Republic of China. Additional authors for this research include W. Huang, Z. Zhang, L. Mao, Y. Han, J. Yan and M. Lei.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6783. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Yangling, Oncology, Prostate Cancer, Prostatic Neoplasms, People's Republic of China.

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Hormones

Study Results from Northwestern University in the Area of Hormones Reported (Alcohol, cigarette smoking, and ovarian reserve in reproductive-age African-American women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hormones is the subject of a report. According to news originating from Chicago, Illinois, by NewsRx correspondents, research stated, "Although alcohol consumption and cigarette smoking are common behaviors in reproductive-age women, little is known about the impact of consumption patterns on ovarian reserve. Even less is known about the effects of smoking and alcohol use in reproductive-age African-American women."

Our news journalists obtained a quote from the research from Northwestern University, "The objective of the study was to examine the impact of the patterns of alcohol intake and cigarette smoking on anti-Mullerian hormone levels as a marker of ovarian reserve in African-American women. This was a cross-sectional analysis from the baseline clinical visit and data collection of the Study of Environment, Lifestyle, and Fibroids performed by the National Institute of Environmental Health Sciences. A total of 1654 volunteers, aged 23-34 years, recruited from the Detroit, Michigan community completed questionnaires on alcohol intake and cigarette smoking and provided serum for anti-Mullerian hormone measurement. Multivariable linear and logistic regressions were used as appropriate to estimate the effect of a range of exposure patterns on anti-Mullerian hormone levels while adjusting for potential confounders including age, body mass index, and hormonal contraception. Most participants were alcohol drinkers (74%). Of those, the majority (74%) engaged in binge drinking at least once in the last year. Women who reported binge drinking twice weekly or more had 26% lower anti-Mullerian hormone levels compared with current drinkers who never binged (95% confidence interval, -44, -2, P< .04). Other alcohol consumption patterns (both past and current) were unrelated to anti-Mullerian hormone. The minority of participants currently (19%) or formerly (7%) smoked, and only 4% of current smokers used a pack a day or more. Neither smoking status nor second-hand smoke exposure in utero, childhood, or adulthood was associated with anti-Mullerian hormone levels. Results suggest that current, frequent binge drinking may have an adverse impact on ovarian reserve. Other drinking and smoking exposures were not associated with anti-Mullerian hormone in this cohort of healthy, young, African-American women."

According to the news editors, the research concluded: "A longitudinal study of how these common lifestyle behaviors have an impact on the variability in age-adjusted anti-Mullerian hormone levels is merited."


The news correspondents report that additional information may be obtained from E.E. Marsh, Northwestern University, Dept. of Obstet & Gynecol, Div Reprod Endocrinol & Infertil, Chicago, IL 60611, United States. Additional authors for this research include L.A. Bernardi, P.J.D. De Chavez, D.D. Baird, M.R. Carnethon and E.E. Marsh.

Keywords for this news article include: Chicago, Illinois, United States, North and
Study Results from Norwegian University of Science and Technology (NTNU) in the Area of Health and Society Reported (The impact of neighborhood social capital on life satisfaction and self-rated health: A possible pathway for health promotion?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Health and Medicine - Health and Society have been published. According to news reporting out of Trondheim, Norway, by NewsRx editors, research stated, "Neighborhood social capital has repeatedly been linked to favorable health-outcomes and life satisfaction. However, it has been questioned whether it's impact on health has been over-rated."

Our news journalists obtained a quote from the research from the Norwegian University of Science and Technology (NTNU), "We aim to investigate relationships between neighborhood social capital and self-rated health (SRH) and life satisfaction (LS) respectively, both directly and indirectly mediated via Sense of Coherence and self-esteem. Based on a crosssectional population-survey (N=865) in a medium size Norwegian municipality, we specified a structural equation model (SEM) including the above-listed variables, while controlling for gender, age, education, income, and employment status. The applied model explains more variance in LS (46%) than in SRH (23%). Social capital has a stronger impact on life satisfaction than on health. The indirect pathway via SOC had the highest impact on life satisfaction, but no significant relationship to SRH. Self-rated health was more tightly linked to personal background variables."

According to the news editors, the research concluded: "Enhancing social capital in the neighborhood might be a beneficial strategy to promote life satisfaction, as well as strengthening sense of coherence even in healthy communities."


Our news journalists report that additional information may be obtained by contacting R. Maass, Norwegian Univ Sci & Technol NTNU, Center Hlth Promot Res, N-7491 Trondheim, Norway. Additional authors for this research include C.A. Kloeckner, B. Lindstrom and M. Lillefjell.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.healthplace.2016.09.011. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Trondheim, Norway, Europe, Health and Society, Health and Medicine, Norwegian University of Science and Technology (NTNU).
Study Results from Ogaki Municipal Hospital Update Understanding of Liver Cancer (Utility of combined gray-scale and perflubutane contrast-enhanced ultrasound for diagnosing early hepatocellular carcinomas: Comparison of well differentiated and ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Liver Cancer. According to news originating from Gifu, Japan, by NewsRx correspondents, research stated, "To clarify the value of gray-scale ultrasound (US) combined with contrast-enhanced US (CEUS) with perflubutane in diagnosing early hepatocellular carcinoma (HCC). A total of 57 surgically resected, well differentiated HCCs were analyzed."

Our news journalists obtained a quote from the research from Ogaki Municipal Hospital, "Hepatocellular carcinomas were macroscopically diagnosed as vaguely nodular or distinctly nodular types, which correspond to early HCC or progressed HCC, respectively. Gray-scale US findings were evaluated in terms of shape (round or roundish, or irregular), border and contour (well-defined and smooth, or poorly defined), and intratumor echo levels (hyper, hypo, iso, heterogeneous, or mosaic). Contrast-enhanced US findings were evaluated during the arterial phase (vascularity [finely homogeneous, dendritic, or chaotic] and perfusion enhancement [homogeneous or heterogeneous]), portal phase (presence or absence of washout), and post-vascular phase (echo intensity level [defect, incomplete defect, or iso-enhancing]). Eighteen HCCs were categorized as early HCCs and the remaining 39 were categorized as progressed HCCs. Receiver operating characteristic curve analysis for the diagnosis of early HCC yielded area under the receiver operating characteristic curve (A(z)) values for border and contour on gray-scale US and echo intensity level in the CEUS post-vascular phase of 0.782 and 0.828, respectively. Multiple logistic regression analysis also indicated that both of these gray-scale US and CEUS findings were independently associated with early HCC. The A(z) value for the combination of border and contour and echo intensity for the diagnosis of early HCC was 0.907, corresponding to a high diagnostic value."

According to the news editors, the research concluded: "The combination of gray-scale US and CEUS can provide high-quality imaging assessment for diagnosing early HCC."


The news correspondents report that additional information may be obtained from T. Tada, Ogaki Municipal Hosp, Dept. of Gastroenterol & Hepatol, Ogaki, Gifu 5038502, Japan. Additional authors for this research include T. Kumada, H. Toyoda, Y. Sone, Y. Kaneoka, A. Maeda, S. Okuda, K. Otobe and N. Tsuji.

Keywords for this news article include: Gifu, Japan, Asia, Liver Cancer, Ultrasound, Carcinomas, Oncology, Ogaki Municipal Hospital.

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Study Results from Okayama University Hospital Update Understanding of Tissue Engineering (Challenges to success in heart failure: Cardiac cell therapies in patients with heart diseases)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Biomedical Engineering - Tissue Engineering have been presented. According to news reporting from Okayama, Japan, by NewsRx journalists, research stated, "Heart failure remains the leading cause of death worldwide, and is a burgeoning problem in public health due to the limited capacity of postnatal hearts to self-renew. The pathophysiological changes in injured hearts can sometimes be manifested as scar formation or myocardial degradation, rather than supplemental muscle regeneration to replenish lost tissue during the healing processes."

The news correspondents obtained a quote from the research from Okayama University Hospital, "Stem cell therapies have been investigated as a possible treatment approach for children and adults with potentially fatal cardiovascular disease that does not respond to current medical therapies. Although the heart is one of the least regenerative organs in mammals, discoveries made during the past few decades have improved our understanding of cardiac development and resident stem/progenitor pools, which may be lineage-restricted subpopulations during the post-neonatal stage of cardiac morphogenesis. Recently, investigation has specifically focused on factors that activate either endogenous progenitor cells or preexisting cardiomyocytes, to regenerate cardiovascular cells and replace the damaged heart tissues. The discovery of induced pluripotent stem cells has advanced our technological capability to direct cardiac reprogramming by essential factors that are crucial for heart field completion in each stage. Cardiac tissue engineering technology has recently shown progress in generating myocardial tissue on human native cardiac extracellular matrix scaffolds. This review summarizes recent advances in the field of cardiac cell therapies with an emphasis on cellular mechanisms, such as bone marrow stem cells and cardiac progenitor cells, which show the high potential for success in preclinical and clinical meta-analysis studies."

According to the news reporters, the research concluded: "Expanding our current understanding of mechanisms of self-renewal in the neonatal mammalian heart may lead to the development of novel cardiovascular regenerative medicines for pediatric heart diseases."

For more information on this research see: Challenges to success in heart failure: Cardiac cell therapies in patients with heart diseases. Journal of Cardiology, 2016;68(5-6):361-367. Journal of Cardiology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Cardiology - www.journals.elsevier.com/journal-of-cardiology/)

Our news journalists report that additional information may be obtained by contacting H. Oh, Okayama Univ Hosp, Center Innovat Clin Med, Dept. of Regenerat Med, Okayama, Japan. Additional authors for this research include H. Ito and S. Sano.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jjcc.2016.04.010. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Okayama, Japan, Asia, Cardiovascular
Study Results from Ordu University Provide New Insights into Central Nervous System Agents (Haemodynamic Responses to Tracheal Intubation Using Propofol, Etomidate and Etomidate-Propofol Combination in Anaesthesia Induction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Central Nervous System Agents. According to news reporting from Ordu, Turkey, by NewsRx journalists, research stated, "The aim of this study was to measure the haemodynamic responses to a etomidate-propofol combination used for anaesthesia induction and to compare the haemodynamic responses with the separate use of each drug. The patients were randomly divided into three groups as group P (n=30, propofol 2.5 mg kg(-1)), group E (n=30, etomidate 0.3 mg kg(-1)) and group PE (n=30, propofol 1.25 mg kg(-1) + etomidate 0.15 mg kg(-1))."

The news correspondents obtained a quote from the research from Ordu University, "For each patient, the times of measurement of the heart rate (HR) and mean arterial pressure values were defined as baseline, after the induction, before the intubation, immediately after the intubation and 1, 2, 3, 4, 5 and 10 minutes after the intubation. In all 3 groups, a significant decrease in MAP values were seen at T2 and T3 compared to the baseline values, and this decrease was greater in group P compared to that in group E and PE (p <0.001, p<0.01). A significant increase was seen in all 3 groups in the mean arterial pressure (MAP) value at T4 after the intubation. When the groups were compared with each other, this increase was greater in group E than in the other two groups (with group P, p<0.001; with group PE, p<0.01)."

According to the news reporters, the research concluded: "Etomidate-propofol combination may be a valuable alternative when extremes of hypotensive and hypertensive responses due to propofol and etomidate are best to be avoided."

For more information on this research see: Haemodynamic Responses to Tracheal Intubation Using Propofol, Etomidate and Etomidate-Propofol Combination in Anaesthesia Induction. Journal of Cardiovascular and Thoracic Research, 2015;7(4):134-40.

Our news journalists report that additional information may be obtained by contacting O. Yagan, Ordu University, School of Medicine, Dept. of Anesthesiology, Ordu, Turkey. Additional authors for this research include N. Tas, A. Kucuk, V. Hanci and B.S Yurtlu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.15171/jcvtr.2015.30. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ordu, Pharmaceuticals, Turkey, Eurasia, Phenols, Anesthesia, Critical Care, Pain Medicine, Medical Devices, Propofol Therapy, Etomidate Therapy, Drugs and Therapies, General Anesthetics, Central Nervous System Agents.

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Study Results from P. Westhead and Colleagues in the Area of Small Business Reported (Entrepreneurship education and entrepreneurial intention: Do female students benefit?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Business - Small Business have been published. According to news reporting originating from Haugesund, Norway, by NewsRx correspondents, research stated, "This article explores links between entrepreneurship education (EE) participation, alertness and risk-taking skills and the intensity of entrepreneurial intention relating to becoming an entrepreneur. Guided by insights from human capital and socially learned stereotypes theories, we conceptualize and test novel hypotheses that consider the potential moderating effect of gender and participation in EE."

Our news editors obtained a quote from the research, "Business students participating in EE modules were compared with engineering students excluded from such programmes. Hierarchical regression analysis revealed that EE students reported high intensity of intention; however, EE did not generate equal benefits for all students. Women were significantly less likely to report high intensity of intention; however, those citing the alertness skill were more likely to report high intensity of intention than non-EE women students."

According to the news editors, the research concluded: "Both male EE and non-EE students citing the risk perception skill reported higher intention, whereas women EE students citing the risk perception skill reported lower intention."


The news editors report that additional information may be obtained by contacting M.Z. Solesvik, Stord Haugesund Univ College, Innovat & Management, Haugesund, Norway.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/0266242615612534. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Haugesund, Norway, Europe, Small Business, Business.

Oncology - Neuroblastomas

Study Results from P.Y. Liu and Colleagues Broaden Understanding of Neuroblastomas (NCYM is upregulated by IncUSMycN and modulates N-Myc expression)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Neuroblastomas. According to news reporting originating in Sydney, Australia, by NewsRx journalists, research stated, "Neuroblastoma is the most common solid tumor in early childhood. Patients with neuroblastoma due to the amplification of a 130-kb genomic DNA region containing the MYCN, MYCN antisense NCYM and IncUSMyCN genes show poor prognosis."

The news reporters obtained a quote from the research, "BET bromodomain inhibitors show anticancer efficacy against neuroblastoma partly by reducing MYCN gene transcription and N-Myc mRNA and protein expression. We have previously shown that the long noncoding RNA IncUSMyCN upregulates N-Myc mRNA expression by binding to the RNA-binding protein NonO. In this study, we found that IncUSMyCN upregulated NCYM expression, and knocking down IncUSMyCN reduced histone H3 lysine 4 trimethylation, a marker for active gene transcription, at the NCYM gene promoter. NCYM upregulated N-Myc mRNA expression, NCYM RNA formed a complex with NonO protein, and knocking down NCYM expression reduced neuroblastoma cell proliferation. Importantly, treatment with BET bromodomain inhibitors reduced NCYM expression. In human neuroblastoma patients, high levels of NCYM expression in tumor tissues correlated with high levels of N-Myc, NonO and IncUSMyCN expression as well as poor patient prognosis. Taken together, our findings suggest that IncUSMyCN upregulates NCYM expression by activating its gene transcription, and that NCYM RNA upregulates N-Myc mRNA expression by binding to NonO."

According to the news reporters, the research concluded: "Our findings also provide further evidence for the application of BET bromodomain inhibitors for the therapy of neuroblastoma characterized by MYCN/NCYM gene locus amplification."

For more information on this research see: NCYM is upregulated by IncUSMyCN and modulates N-Myc expression. *International Journal of Oncology*, 2016;49(6):2464-2470. *International Journal of Oncology* can be contacted at: Spandidos Publ Ltd, Pob 18179, Athens, 116 10, Greece.

Our news correspondents report that additional information may be obtained by contacting T. Liu, UNSW Australia, Center Childhood Canc Res, Sydney, NSW 2052, Australia. Additional authors for this research include B. Atmadibrata, S. Mondal, A.E. Tee and T. Liu.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Oncology, Genetics, Neuroblastomas, Hematology.

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**Epithelial Cells**

**Study Results from Pacific Dental College and Hospital Broaden Understanding of Epithelial Cells (Nuclear anomalies in exfoliated buccal epithelial cells of petrol station attendants in Udaipur, Rajasthan)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Epithelial Cells have been published. According to news reporting originating from Rajasthan, India, by NewsRx correspondents, research stated, "The petroleum derivatives consist of a complex mixture of chemical compounds one among
which is benzene. Petrol station workers who pump fuel to vehicles absorb the products of fuel fumes and the products of combustion."

Our news editors obtained a quote from the research from Pacific Dental College and Hospital, "To study the occupational exposure to petroleum derivatives such as benzene, exfoliated buccal cells from 40 petrol station attendants and 40 age-matched control subjects were examined for micronuclei, binucleation, karyorrhexis and karyolysis frequency by using Feulgen and Giemsa stains. Statistical evaluation was performed with ANOVA test. In the present study, inter-comparison of mean values for micronuclei, binucleation, karyorrhexis and karyolysis using Feulgen stain between smokers of study and control group, as well as between smokers and non-smokers of study and control group revealed statistically highly significant results with P value 0.00002 and 0.0001 respectively. Whereas inter comparison between non-smokers of study and control group using Feulgen stain and inter comparison between smokers of study and control group, using Giemsa stain revealed statistically significant results with P value 0.0034 and 0.0004, respectively."

According to the news editors, the research concluded: "This study revealed that the studied individuals belong to a risk group and should periodically undergo biological monitoring and proper care."


The news editors report that additional information may be obtained by contacting R. Metgud, Dept. of Oral Pathology and Microbiology, Pacific Dental College and Hospital, Udaipur, Rajasthan, India. Additional authors for this research include N. Khajuria, S. Patel and S. Lerra.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4103/0973-1482.146058. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, India, Rajasthan, Epithelial Cells.

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**Oncology - Basal Cell Cancer**

**Study Results from Peking University Update Understanding of Basal Cell Cancer (Heterozygous PTCH1 Mutations Impact the Bone Metabolism in Patients With Nevod Basal Cell Carcinoma Syndrome Likely by Regulating SPARC Expression)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Basal Cell Cancer have been presented. According to news reporting from Beijing, People's Republic of China, by NewsRx journalists, research stated, "Nevod basal cell carcinoma syndrome (NBCCS) is an autosomal dominant disorder characterized by bone and skin abnormalities and a predisposition to various tumors. Keratocystic odontogenic tumors (KCOTs), which are common tumors of the jaw that cause extensive damage to the jawbone, are usually accompanied with NBCCS."

The news correspondents obtained a quote from the research from Peking University, "Germline PTCH1 mutations in NBCCS tumorigenesis have been frequently studied; however,
little is known regarding the pathogenesis of bone abnormalities in this disease. This study sought to investigate the mechanism underlying heterozygous PTCH1 mutation-mediated abnormal bone metabolism in patients with NBCCS. Stromal cells were isolated from the fibrous capsules of patients with NBCCS-associated or non-syndromic keratocystic odontogenic tumors and non-syndromic tumor stromal cells without PTCH1 mutations served as controls. Germline PTCH1 heterozygous mutations were confirmed in all NBCCS samples and differential protein expression was identified using tandem mass tag-labeled proteomics analysis. Our findings revealed that osteonectin/SPARC expression was significantly downregulated in syndromic stromal cells compared with non-syndromic stromal cells. SPARC expression was even lower in stromal cells carrying PTCH1 protein truncation mutations. PTCH1 siRNA transfection demonstrated that SPARC downregulation correlates with decreased PTCH1 expression. Furthermore, exogenous SPARC promoted osteogenic differentiation of syndromic stromal cells with enhanced development of calcium nodules. In addition, bone mineral density tests showed that patients with NBCCS exhibit weak bone mass compared with sex- and age-matched controls. This study indicates that germline PTCH1 heterozygous mutations play a major role in bone metabolism in patients with NBCCS, in particular in those with PTCH1 protein truncation mutations. SPARC may represent an important downstream modulator of PTCH1 mediation of bone metabolism. Thus, bone mineral density monitoring is critical for patients with NBCCS for prevention of osteoporosis."

According to the news reporters, the research concluded: "In addition, surgical procedures on syndromic-associated KCOTs should be performed with consideration of the weaker bone mass in such patients."


Our news journalists report that additional information may be obtained by contacting F. Chen, Peking University, Cent Lab, Sch & Hosp Stomatol, Beijing 100081, People's Republic of China. Additional authors for this research include J.Y. Zhang, H.Y. Zhang, X.F. Li, J.F. Qu, J.M. Zhai, L. Zhang, F. Chen and T.J. Li.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Musculoskeletal Diseases and Conditions, Congenital Diseases and Conditions, Basal Cell Nevus Syndrome, Connective Tissue Cells, Basal Cell Carcinoma, Risk and Prevention, Basal Cell Cancer, Stromal Cells, Bone Research, Osteoporosis, Carcinomas, Oncology, Genetics, Peking University.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Human Immunodeficiency Virus is now available. According to news reporting out of Hershey, Pennsylvania, by NewsRx editors, research stated, "HIV Gag (Pr55(Gag)), a multidomain polyprotein that orchestrates the assembly and release of the human immunodeficiency virus (HIV), is an active target of antiretroviral inhibitor development. However, highly pure, stable, recombinant Pr55(Gag) has been difficult to produce in quantities sufficient for biophysical studies due to its susceptibility to proteolysis by cellular proteases during purification."

Our news journalists obtained a quote from the research from Pennsylvania State College, "Stability has been improved by using a construct that omits the p6 domain (Delta p6). In vivo, p6 is crucial to the budding process and interacts with protein complexes in the ESCRT (Endosomal Sorting Complexes Required for Transport) pathway, it has been difficult to study its role in the context of Gag using in vitro approaches. Here we report the generation of a full length Gag construct containing a tobacco etch virus (TEV)-cleavable C-terminal hexahistidine tag, allowing a detailed comparison of its nucleic acid binding properties with other constructs, including untagged, Delta p6, and C-terminally tagged (TEV-cleavable and non-cleavable) Gags, respectively. We have developed a standard expression and purification protocol that minimizes nucleic acid contamination and produces milligram quantities of full length Gag for in vitro studies and compound screening purposes. We found that the presence of a carboxyl-terminal hexahistidine tag changes the nucleic binding properties compared to the proteins that did not contain the tag (full length protein that was either untagged or resulted from removal of the tag during purification)."

According to the news editors, the research concluded: "The HIV Gag expression and purification protocol described herein provides a facile method of obtaining large quantities of high quality protein for investigators who wish to study the full length protein or the effect of the p6 domain on the biophysical properties of Gag."

For more information on this research see: A non-cleavable hexahistidine affinity tag at the carboxyl-terminus of the HIV-1 Pr55(Gag) polyprotein alters nucleic acid binding properties. Protein Expression and Purification, 2017;130():137-145. Protein Expression and Purification can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Protein Expression and Purification - www.journals.elsevier.com/protein-expression-and-purification/)

Our news journalists report that additional information may be obtained by contacting L.J. Parent, Pennsylvania State College of Med, Dept. of Med, Hershey, PA 17033, United States. Additional authors for this research include L. Reinhart, M.S. Stake, S. Nadaraia-Hoke, L.J. Parent and J.M. Flanagan.

Keywords for this news article include: Hershey, Pennsylvania, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Human Immunodeficiency Virus, Primate Lentiviruses, Vertebrate Viruses, HIV Infections, Polypeptides, Retroviridae, RNA Viruses, Genetics, HIV/AIDS, HIV-1, Pennsylvania State College.

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Platinum Compounds

Study Results from Q. Xie et al Provide New Insights into Platinum Compounds (ABT737 reverses cisplatin resistance by regulating ER-mitochondria Ca2+ signal transduction in human ovarian cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Platinum Compounds have been published. According to news reporting from Jilin, People's Republic of China, by NewsRx journalists, research stated, "Bcl-2, which belongs to the Bcl-2 family, is frequently overexpressed in various types of cancer cells and contributes to drug resistance. However, the function of Bcl-2 in cisplatin resistance in human ovarian cancer cells is not fully understood."

The news correspondents obtained a quote from the research, "In this study, we found that the pharmacological inhibitor ABT737 or genetic knockdown of Bcl-2 increased cisplatin cytotoxicity in cisplatin-resistant ovarian cancer cells. Additionally, treatment with ABT737 or Bcl-2 siRNA increased cisplatin-induced free Ca2+ levels in the cytosol and mitochondria, which increased endoplasmic reticulum (ER)-associated and mitochondria-mediated apoptosis. In addition, ABT737 or Bcl-2 siRNA increased the ER-mitochondria contact sites induced by cisplatin in cisplatin-resistant SKOV3/DDP ovarian cancer cells. Consistently with the in vitro results, ABT737 potently synergized with cisplatin in inhibiting the growth of human ovarian cancer xenografts in nude mice."

According to the news reporters, the research concluded: "Collectively, these results indicate that pharmacological inhibitors or genetic knockdown of Bcl-2 may be a potential strategy for improving cisplatin treatment of ovarian cancer."


Keywords for this news article include: Jilin, People's Republic of China, Asia, Small Interference RNAs, Subcellular Fractions, Cellular Structures, Intracellular Space, Drugs and Therapies, Chlorine Compounds, Nitrogen Compounds, Platinum Compounds, Cisplatin Therapy, Alkylating Agents, Pharmaceuticals, Antineoplastics, Biotechnology, Pharmacology, Mitochondria, Organelles, Cytoplasm, Genetics, Oncology, Cancer, siRNA.

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Nanotechnology - Biochips

Study Results from Queen's University Broaden Understanding of Biochips (Genetic diagnosis of familial hypercholesterolaemia using a rapid biochip array assay for 40 common LDLR, APOB and PCSK9 mutations)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nanotechnology - Biochips. According to news reporting out of Belfast, United Kingdom, by NewsRx editors, research stated, "Familial hypercholesterolaemia (FH) leads to a lifelong increase in plasma LDL levels with subsequent increase in premature vascular disease. Early diagnosis and treatment is the key to effective management of this condition."

Our news journalists obtained a quote from the research from Queen's University, "This research aims to produce a simple and cost effective genetic test which could identify the majority (71%) of mutations causing FH in the UK and Ireland. The Randox Biochip Array Technology was used to detect 40 point mutations in LDLR, APOB and PCSK9 genes, over two 5 x 5 arrays. This technology uses multiplex allele specific PCR and biochip array hybridisation, followed by a chemiluminescence detection system and software for automated mutation calling. The FH biochip array assay was validated in the Belfast Genetics Laboratory using 199 cascade screening samples previously sequenced for known FH causing family mutations, the overall sensitivity was 98%. The assay was then used for routine testing of 663 patients with possible FH, from clinics across the UK and Ireland. A total of 49 (7.4%) mutation positive individuals were identified, however, for the clinics in England the detection rate was 12.9%. Further analysis of 120 biochip negative patients, using DNA sequencing, did not identify any false negatives. The FH biochip array provides a rapid and reliable genetic test for the majority of FH causing point mutations in the UK and Ireland."

According to the news editors, the research concluded: "A total of 32 samples can be run in 3 h. This allows clinics to evaluate additional patients for a possible diagnosis of FH such as patients with high LDL, patients with early onset coronary disease, and patients with relatives known to have FH."

For more information on this research see: Genetic diagnosis of familial hypercholesterolaemia using a rapid biochip array assay for 40 common LDLR, APOB and PCSK9 mutations. *Atherosclerosis*, 2016;254():8-13. *Atherosclerosis* can be contacted at: Elsevier Ireland Ltd, Elsevier House, Brookvale Plaza, East Park Shannon, Co, Clare, 00000, Ireland. (Elsevier - www.elsevier.com; Atherosclerosis - www.journals.elsevier.com/atherosclerosis/)

Our news journalists report that additional information may be obtained by contacting C.A. Graham, Queen's University, Center Public Hlth, Belfast, Antrim, United Kingdom. Additional authors for this research include M. Latten, P. Hart, H. Murray, D.A. Bailie, M. Crockard, J. Lamont, P. Fitzgerald and C.A. Graham.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.atherosclerosis.2016.09.061. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Belfast, United Kingdom, Europe, Emerging Technologies, Nanobiotechnology, Bionanotechnology, Nanotechnology, Biotechnology, Technology, Biochips, Genetics, Queen's University.

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Epithelial Cells

Study Results from Queensland University of Technology Provide New Insights into Epithelial Cells (Promotion of a cancer-like phenotype, through chronic exposure to inflammatory cytokines and hypoxia in a bronchial epithelial cell line model)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Epithelial Cells. According to news reporting from Brisbane, Australia, by NewsRx journalists, research stated, "Globally, lung cancer accounts for approximately 20% of all cancer related deaths. Five-year survival is poor and rates have remained unchanged for the past four decades."

The news correspondents obtained a quote from the research from the Queensland University of Technology, "There is an urgent need to identify markers of lung carcinogenesis and new targets for therapy. Given the recent successes of immune modulators in cancer therapy and the improved understanding of immune evasion by tumours, we sought to determine the carcinogenic impact of chronic TNF-a and IL-1b exposure in a normal bronchial epithelial cell line model. Following three months of culture in a chronic inflammatory environment under conditions of normoxia and hypoxia (0.5% oxygen), normal cells developed a number of key genotypic and phenotypic alterations. Important cellular features such as the proliferative, adhesive and invasive capacity of the normal cells were significantly amplified. In addition, gene expression profiles were altered in pathways associated with apoptosis, angiogenesis and invasion. The data generated in this study provides support that TNF-a, IL-1b and hypoxia promotes a neoplastic phenotype in normal bronchial epithelial cells. In turn these mediators may be of benefit for biomarker and/or immune-therapy target studies."

According to the news reporters, the research concluded: "This project provides an important inflammatory in vitro model for further immuno-oncology studies in the lung cancer setting."

For more information on this research see: Promotion of a cancer-like phenotype, through chronic exposure to inflammatory cytokines and hypoxia in a bronchial epithelial cell line model. Scientific Reports, 2016;6():18907. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting A.M. Baird, Cancer and Ageing Research Program, Queensland University of Technology, Brisbane, Australia. Additional authors for this research include S.G. Gray, D.J. Richard and K.J O'Byrne.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep18907. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Therapy, Brisbane, Genetics, Oncology, Cell Line, Cytokines, Epithelial Cells, Australia and New Zealand.

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Drugs and Therapies - Coagulants

Study Results from R. Sinha and Colleagues Broaden Understanding of Coagulants [The use of hemostatic spray as an adjunct to conventional hemostatic measures in high-risk nonvariceal upper GI bleeding (with video)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Coagulants. According to news reporting from Edinburgh, United Kingdom, by NewsRx journalists, research stated, "Endoscopic management of nonvariceal upper GI bleed (NVUGIB) can be challenging. Hemospray is a novel endoscopic hemostatic agent for NVUGIB."

The news correspondents obtained a quote from the research, "Its efficacy in attaining hemostasis in NVUGIB is promising, particularly with respect to technically difficult lesions. However, most of the currently available data are focused on its application as monotherapy. The aim of this study was to evaluate its efficacy as a second agent to adrenaline, or as an addition to the combination of adrenaline with either clips or a thermal device in NVUGIB. Consecutive patients with Forrest 1a and 1b ulcer treated with hemostatic spray as an adjunct to conventional endoscopic hemostatic measures between July 2013 and June 2015 were included in this retrospective analysis. The endpoints were initial hemostasis, 7-day rebleeding, 30-day rebleeding, all-cause, and GI-related 30-day mortality. A total of 20 patients (median age, 75 years, 50% men, 60% Forrest 1a ulcer) were treated with hemostatic spray as a second agent to adrenaline, or as an adjunct to the combination of adrenaline with either clips or a thermal device. Hemostatic spray was used as a second agent to adrenaline in 40% and as a third agent to combined dual therapy in 60%. Initial hemostasis was attained in 95% with an overall rebleeding rate at 7 days of 16%. There was no difference between the 7-day and 30-day rebleeding rates. The combination of hemostatic spray and adrenaline resulted in 100% initial hemostasis and 25% 7-day rebleeding. Similarly, initial hemostasis was achieved in 92% with a 9% rebleeding rate when hemostatic spray was used as the third agent to 2 of the conventional measures. All-cause mortality was 15% with 1 GI-related death (3%)."

According to the news reporters, the research concluded: "In our single-center retrospective analysis, hemostatic spray appears promising as an adjunct to conventional methods for NVUGIB, although prospective controlled trials are needed to confirm this."


Our news journalists report that additional information may be obtained by contacting R. Sinha, Royal Infirmary, Center Liver & Digest Disorders, Edinburgh EH16 4SA, Midlothian, United Kingdom. Additional authors for this research include K.A. Lockman, N.I. Church, J.N. Plevris and P.C. Hayes.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.gie.2016.04.016. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Edinburgh, United Kingdom, Europe, Drugs
Study Results from Radboud University in the Area of Myeloid Cells Reported (beta-Glucan Reverses the Epigenetic State of LPS-Induced Immunological Tolerance)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Myeloid Cells are presented in a new report. According to news reporting out of Nijmegen, Netherlands, by NewsRx editors, research stated, "Innate immune memory is the phenomenon whereby innate immune cells such as monocytes or macrophages undergo functional reprogramming after exposure to microbial components such as lipopolysaccharide (LPS). We apply an integrated epigenomic approach to characterize the molecular events involved in LPS-induced tolerance in a time-dependent manner."

Our news journalists obtained a quote from the research from Radboud University, "Mechanistically, LPS-treated monocytes fail to accumulate active histone marks at promoter and enhancers of genes in the lipid metabolism and phagocytic pathways. Transcriptional inactivity in response to a second LPS exposure in tolerized macrophages is accompanied by failure to deposit active histone marks at promoters of tolerized genes. In contrast, beta-glucan partially reverses the LPS-induced tolerance in vitro. Importantly, ex vivo beta-glucan treatment of monocytes from volunteers with experimental endotoxemia re-instates their capacity for cytokine production."

According to the news editors, the research concluded: "Tolerance is reversed at the level of distal element histone modification and transcriptional reactivation of otherwise unresponsive genes."

For more information on this research see: beta-Glucan Reverses the Epigenetic State of LPS-Induced Immunological Tolerance. Cell, 2016;167(5):1354-1368,428-441. Cell can be contacted at: Cell Press, 600 Technology Square, 5TH Floor, Cambridge, MA 02139, USA. (Elsevier - www.elsevier.com; Cell - www.journals.elsevier.com/cell/)


Keywords for this news article include: Nijmegen, Netherlands, Europe, Mononuclear Phagocyte System, Hemic and Immune Systems, Mononuclear Leukocytes, Bone Marrow Cells, Nucleoproteins, Cell Research, Myeloid Cells, Macrophages, Blood Cells, Immunology, Phagocytes, Monocytes, Proteins, Histones, Genetics, Radboud University.
Oncology - Penile Cancer

Study Results from Research Institute Update Understanding of Penile Cancer (Management of Penile Cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Penile Cancer have been presented. According to news reporting out of Tampa, Florida, by NewsRx editors, research stated, "Although rare, penile cancer carries high morbidity and mortality particularly when pertaining to the management of locally advanced or metastatic disease. The current scientific literature lacks level I evidence and current guidelines are based largely on retrospective studies and small single center studies."

Our news journalists obtained a quote from the research from Research Institute, "Despite these limitations, there has been paradigm shifts in the management of both local and systemic disease. Current guidelines emphasize penile sparing strategies, minimizing morbidity from surgical management of loco-regional metastasis and multimodal management of bulky inguinal lymph node metastases."

According to the news editors, the research concluded: "The present review highlights the current state of knowledge and recommended treatment strategies of penile carcinoma."


Our news journalists report that additional information may be obtained by contacting P.E. Spiess, H Lee Moffitt Canc Center & Res Inst, Dept. of Genitourinary Oncol, Tampa, FL 33612, United States. Additional authors for this research include A.R. Leone and P.E. Spiess.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2015.12.041. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tampa, Florida, United States, North and Central America, Cancer, Article Review, Penile Neoplasms, Penile Cancer, Oncology, Research Institute.

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Mouth Diseases and Conditions - Stomatitis

Study Results from Research Institute in the Area of Stomatitis Reported (N-Myc expression enhances the oncolytic effects of vesicular stomatitis virus in human neuroblastoma cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Mouth Diseases and Conditions - Stomatitis. According to news reporting originating in Calgary, Canada, by NewsRx journalists, research stated, "N-myc oncogene amplification is associated but not present in all cases of
high-risk neuroblastoma (NB). Since oncogene expression could often modulate sensitivity to oncolytic viruses, we wanted to examine if N-myc expression status would determine virotherapy efficacy to high-risk NB."

The news reporters obtained a quote from the research from Research Institute, "We showed that induction of exogenous N-myc in a non-N-myc-amplified cell line background (TET-21N) increased susceptibility to oncolytic vesicular stomatitis virus (mutant VSV Delta M51) and alleviated the type I IFN-induced antiviral state. Cells with basal N-myc, on the other hand, were less susceptible to virus-induced oncolysis and established a robust IFN-mediated antiviral state. The same effects were also observed in NB cell lines with and without N-myc amplification. Microarray analysis showed that N-myc overexpression in TET-21N cells downregulated IFN-stimulated genes (ISGs) with known antiviral functions. Furthermore, virus infection caused significant changes in global gene expression in TET-21N cells overexpressing N-myc. Such changes involved ISGs with various functions. Therefore, the present study showed that augmented susceptibility to VSV Delta M51 by N-myc at least involves downregulation of ISGs with antiviral functions and alleviation of the IFN-stimulated antiviral state."

According to the news reporters, the research concluded: "Our studies suggest the potential utility of N-myc amplification/overexpression as a predictive biomarker of virotherapy response for high-risk NB using IFN-sensitive oncolytic viruses."

For more information on this research see: N-Myc expression enhances the oncolytic effects of vesicular stomatitis virus in human neuroblastoma cells. Molecular Therapy-Oncolytics, 2016;3():15-26. Molecular Therapy-Oncolytics can be contacted at: Nature Publishing Group, 75 Varick St, 9TH Flr, New York, NY 10013-1917, USA.


Keywords for this news article include: Calgary, Alberta, Canada, North and Central America, Stomatognathic Diseases and Conditions, Animal Diseases and Conditions, Mouth Diseases and Conditions, Vesicular Stomatitis, Oncolytic Viruses, Neuroblastomas, Hematology, Oncology, Genetics, Research Institute.

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Clinical Research - Clinical Trials and Studies

Study Results from Royal Brisbane and Women's Hospital Broaden Understanding of Clinical Trials and Studies [A tiered multidisciplinary approach to the psychosocial care of adult cancer patients integrated into routine care: the PROMPT study (a ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Clinical Research - Clinical Trials and Studies have been published. According to news reporting out of Herston, Australia, by NewsRx editors, research stated, "A stepped-wedge cluster-randomised controlled trial was conducted to evaluate the feasibility and effectiveness of a brief psychosocial intervention for depressed cancer patients, delivered by trained front-line health professionals in routine clinical care. Nine
hundred two patients were assessed across four treatment centres which were allocated in random order from control epoch to intervention epoch."

Our news journalists obtained a quote from the research from Royal Brisbane and Women's Hospital, "Eligible patients had Hospital Anxiety and Depression Scale (HADS) scores of 8 or greater. Of eligible patients, 222 were recruited in control epoch and 247 in intervention epoch. Twenty-seven health professionals (HPs) were trained to deliver the psychosocial intervention consisting of up to four sessions, tailored to patient symptoms and distress. HPs participated in group supervision with a psychiatrist. The primary outcome, analysed by intention to treat, was depression measured with the HADS at 10 weeks after receiving the intervention. At 10-week follow-up, there were no significant differences in HADS score for the 181 patients in control epoch and 177 in intervention epoch (adjusted difference -1.23, 95% CI -3.81--1.35, p = 0.35). Patients with disease progression who received the intervention experienced significant benefits in unmet practical support needs including care and support, information, and physical and daily living. A brief psychosocial intervention delivered by front-line oncology health professionals is feasible to deliver but is insufficient as a stand-alone treatment for depression in cancer patients."

According to the news editors, the research concluded: "Psychosocial interventions should be targeted to populations most likely to experience benefit."

For more information on this research see: A tiered multidisciplinary approach to the psychosocial care of adult cancer patients integrated into routine care: the PROMPT study (a cluster-randomised controlled trial). *Supportive Care in Cancer*, 2017;25(1):17-26. *Supportive Care in Cancer* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

Our news journalists report that additional information may be obtained by contacting J. Turner, Royal Brisbane & Womens Hospital, Mental Hlth Center, Herston, Qld 4029, Australia. Additional authors for this research include B. Kelly, D. Clarke, P. Yates, S. Aranda, D. Jolley, A. Forbes, S. Chambers, M. Hargraves and L. Mackenzie.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00520-016-3382-0. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Herston, Australia, Australia and New Zealand, Clinical Trials and Studies, Clinical Research, Psychosocial, Oncology, Cancer, Royal Brisbane and Women's Hospital.

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disease but one that can cause significant morbidity, the most severe being limb loss reported in 20% to 59% of cases. Two approaches to repair are described in the literature, the posterior and the medial; however, the 'gold standard' method of repair remains controversial."

Our news journalists obtained a quote from the research from Royal Oldham Hospital, "A systematic review of electronic information sources was undertaken to identify papers comparing outcomes of posterior repair vs medial repair. The methodologic quality of the papers was assessed using the Newcastle-Ottawa Scale. Fixed-effect or random-effects models were applied to synthesize data. The search yielded seven articles eligible for inclusion. The total population comprised 1427 patients; 338 had posterior repair and 1089 had medial repair. There was no difference in the two groups in terms of postoperative nerve damage (odds ratio [OR], 1.01; 95% confidence interval [CI], 0.24-4.2) and 30-day postoperative complications (OR, 0.87; 95% CI, 0.43-1.77). Limb loss at 30 days occurred more frequently in the medial approach group, but the difference was not statistically significant (risk difference [RD], 0.02; 95% CI, -0.04 to 0.00). Thirty-day primary patency was not statistically different between groups (RD, 0.01; 95% CI, -0.04 to 0.02), but the 30-day secondary patency suggested superiority of the posterior approach (RD, 0.05; 95% CI, 0.02-0.07). Long-term primary and secondary patency both favored the posterior approach (OR, 1.61 [95% CI, 1.06-2.43] and OR, 1.73 [95% CI, 0.91-3.30], respectively). Aneurysm exclusion was also superior with the posterior approach (OR, 4.20; 95% CI, 1.40-12.60). The rate of reoperation favored the posterior approach (OR, 0.26; 95% CI, 0.09-0.72). Long-term risk of limb loss favored posterior repair, but no statistically significant difference was found (OR, 0.32; 95% CI, 0.43-1.77). High-level comparative data comparing posterior and medial repair for popliteal artery aneurysms are not available. Within the parameters of this review, however, superiority of the posterior approach for primary and secondary patency, aneurysm exclusion, and need for reoperation was noted."

According to the news editors, the research concluded: "High-level evidence from randomized clinical trials is required to define the relative benefits of the posterior approach over the medial approach in selected patients."


The news correspondents report that additional information may be obtained from A. Phair, Pennine Acute Hosp NHS Trust, Dept. of Vasc & Endovasc Surg, Royal Oldham Hosp, Manchester, Lancs, United Kingdom. Additional authors for this research include S. Hajibande, S. Hajibande, D. Kelleher, R. Ibrahim and G.A. Antoniou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jvs.2016.05.064. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Manchester, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Popliteal Artery, Angiology, Aneurysm, Royal Oldham Hospital.

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Carrier Proteins - Membrane Transport Proteins

Study Results from Rutgers State University in the Area of Membrane Transport Proteins Reported (Mechanism of gating by calcium in connexin hemichannels)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Carrier Proteins - Membrane Transport Proteins is the subject of a report. According to news reporting originating in Newark, New Jersey, by NewsRx journalists, research stated, "Aberrant opening of nonjunctional connexin hemichannels at the plasma membrane is associated with many diseases, including ischemia and muscular dystrophy. Proper control of hemichannel opening is essential to maintain cell viability and is achieved by physiological levels of extracellular Ca2+, which drastically reduce hemichannel activity."

Financial support for this research came from HHS | NIH | National Institute of General Medical Sciences (NIGMS).

The news reporters obtained a quote from the research from Rutgers State University, "Here we examined the role of conserved charged residues that form electrostatic networks near the extracellular entrance of the connexin pore, a region thought to be involved in gating rearrangements of hemichannels. Molecular dynamics simulations indicate discrete sites for Ca2+ interaction and consequent disruption of salt bridges in the open hemichannels. Experimentally, we found that disruption of these salt bridges by mutations facilitates hemichannel closing. Two negatively charged residues in these networks are putative Ca2+ binding sites, forming a Ca2+-gating ring near the extracellular entrance of the pore. Accessibility studies showed that this Ca-2+(-)bound gating ring does not prevent access of ions or small molecules to positions deeper into the pore, indicating that the physical gate is below the Ca2+-gating ring. We conclude that intra- and intersubunit electrostatic networks at the extracellular entrance of the hemichannel pore play critical roles in hemichannel gating reactions and are tightly controlled by extracellular Ca2+.

According to the news reporters, the research concluded: "Our findings provide a general mechanism for Ca2+ gating among different connexin hemichannel isoforms."


Our news correspondents report that additional information may be obtained by contacting J.E. Contreras, Rutgers State University, New Jersey Med Sch, Dept. of Pharmacol Physiol & Neurosci, Newark, NJ 07103, United States. Additional authors for this research include J. Ramachandran, A. Alsamarah, Y. Luo, A.L. Harris and J.E. Contreras.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1609378113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Newark, New Jersey, United States, North and Central America, Membrane Transport Proteins, Carrier Proteins, Connexins, Genetics,
Study Results from S.P. Iupati and Colleagues Broaden Understanding of Chronic Obstructive Pulmonary Disease (Do community hospice programmes reduce hospitalisation rate in patients with advanced chronic obstructive pulmonary disease?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease have been presented. According to news reporting from Wellington, New Zealand, by NewsRx journalists, research stated, "Since Hinton first published his observations on the distress of patients dying on a medical ward in 1963, there has been increasing awareness of the palliative care needs in patients who have non malignant diseases. Patients with advanced chronic obstructive pulmonary disease (COPD) are known to have comparable symptom burden to lung cancer patients and are more likely receive invasive treatment at the end of life than patients with end stage lung cancer."

The news correspondents obtained a quote from the research, "They are also less likely to receive hospice services, and the benefit of such programmes in this key group of patients remain largely unknown, in particular what effect hospice programmes have on hospitalisation. (i) To examine any effect of community hospice programmes on hospitalisation in patients with advanced COPD. (ii) To identify any association between utilisation of specific hospice services with hospitalisation. (iii) To describe key peri-mortem outcomes. This was a retrospective study of consecutive patients with COPD admitted into community hospice programmes in the greater Wellington region, New Zealand between 1 October 2007 and 31 October 2013. A mean decrease of 2.375 (median decrease of 2; 95% confidence interval 1, 3) hospital admissions over a 12-month period was found after admission into hospice programme (p <0.0005)."

According to the news reporters, the research concluded: "Community hospice programmes may be associated with reduction in hospitalisation in patients with advanced COPD."


Our news journalists report that additional information may be obtained by contacting S.P. Iupati, Te Omanga Hospice, Wellington, New Zealand.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/imj.12947. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wellington, Australia and New Zealand, Lung Diseases and Conditions, Chronic Obstructive Pulmonary Disease.

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Study Results from S.de B. Cobra and Colleagues in the Area of Interstitial Lung Disease Reported (Usefulness of the second heart sound for predicting pulmonary hypertension in patients with interstitial lung disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Interstitial Lung Disease. According to news reporting originating from Brasilia, Brazil, by NewsRx correspondents, research stated, "P2 hyperphonosis is considered to be a valuable finding in semiological diagnoses of pulmonary hypertension (PH). The aim here was to evaluate the accuracy of the pulmonary component of second heart sounds for predicting PH in patients with interstitial lung disease."

Our news editors obtained a quote from the research, "Cross-sectional study at the University of Brasilia and Hospital de Base do Distrito Federal. Heart sounds were acquired using an electronic stethoscope and were analyzed using phonocardiography. Clinical signs suggestive of PH, such as second heart sound (S2) in pulmonary area louder than in aortic area; P2 >A2 in pulmonary area and P2 present in mitral area, were compared with Doppler echocardiographic parameters suggestive of PH. Sensitivity (S), specificity (Sp) and positive (LR+) and negative (LR-) likelihood ratios were evaluated. There was no significant correlation between S2 or P2 amplitude and PASP (pulmonary artery systolic pressure) (p=0.185 and 0.115; p=0.13 and 0.34, respectively). Higher S2 in pulmonary area than in aortic area, compared with all the criteria suggestive of PH, showed S=60%, Sp=22%; LR+=0.7; LR-=1.7; while P2 >A2 showed S=57%, Sp=39%; LR+=0.9; LR-=1.1; and P2 in mitral area showed: S=68%, Sp=41%; LR+=1.1; LR-=0.7. All these signals together showed: S=50%, Sp=56%.

According to the news editors, the research concluded: "The semiological signs indicative of PH presented low sensitivity and specificity levels for clinically diagnosing this comorbidity."


The news editors report that additional information may be obtained by contacting S.d.e. B Cobra, Hospital de Base do Distrito Federal, Brasilia, Federal District, Brazil. Additional authors for this research include R.M. Cardoso and M.P Rodrigues.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1590/1516-3180.2015.00701207. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Brazil, Brasilia, South America, Pulmonary Hypertension, Interstitial Lung Disease, Lung Diseases and Conditions, Cardiovascular Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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Study Results from School of Public Health in the Area of Obstetrics and Gynecology Reported (Childhood abuse and suicidal ideation in a cohort of pregnant Peruvian women)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Women's Health - Obstetrics and Gynecology. According to news reporting originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Childhood abuse is a major global and public health problem associated with a myriad of adverse outcomes across the life course. Suicide is one of the leading causes of mortality during the perinatal period."

Our news editors obtained a quote from the research from the School of Public Health, "However, few studies have assessed the relationship between experiences of childhood abuse and suicidal ideation in pregnancy. We sought to examine the association between exposure to childhood abuse and suicidal ideation among pregnant women. A cross-sectional study was conducted among 2964 pregnant women attending prenatal clinics in Lima, Peru. Childhood abuse was assessed using the Childhood Physical and Sexual Abuse Questionnaire. Depression and suicidal ideation were assessed using the Patient Health Questionnaire-9 scale. Logistic regression procedures were performed to estimate adjusted odds ratios and 95% confidence intervals adjusted for potential confounders. Overall, the prevalence of childhood abuse in this cohort was 71.8% and antepartum suicidal ideation was 15.8%. The prevalence of antepartum suicidal ideation was higher among women who reported experiencing any childhood abuse compared to those reporting none (89.3% vs 10.7%, P<.0001). After adjusting for potential confounders, including antepartum depression and lifetime intimate partner violence, those with history of any childhood abuse had a 2.9-fold (2.90, adjusted odds ratio; 95% confidence interval, 2.12-3.97) increased odds of reporting suicidal ideation. Women who experienced both physical and sexual childhood abuse had much higher odds of suicidal ideation (adjusted odds ratio, 4.04; 95% confidence interval, 2.88-5.68). Women who experienced any childhood abuse and reported depression had 3.44fold (3.44, adjusted odds ratio; 95% confidence interval, 1.84-6.43) increased odds of suicidal ideation compared with depressed women with no history of childhood abuse. Finally, the odds of suicidal ideation increased with increased number of childhood abuse events experienced (P value for linear trend <.001). Maternal history of childhood abuse was associated with increased odds of antepartum suicidal ideation."

According to the news editors, the research concluded: "It is important for clinicians to be aware of the potential increased risk of suicidal behaviors among pregnant women with a history of childhood physical and sexual abuse."


The news editors report that additional information may be obtained by contacting Q.Y. Zhong, Harvard TH Chan Sch Public Hlth, Dept. of Epidemiol, Boston, MA, United States. Additional authors for this research include A. Wells, M.B. Rondon, M.A. Williams, Y.V. Barrios, S.E. Sanchez and B. Gelaye.
Study Results from Second Affiliated Hospital Provide New Insights into Colitis (Protective effect of melatonin on myenteric neuron damage in experimental colitis in rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Digestive System Diseases and Conditions - Colitis are discussed in a new report. According to news reporting originating from Xi'an, People's Republic of China, by NewsRx correspondents, research stated, "Inflammation of the colon in patients with ulcerative colitis (UC) causes pain and altered motility, at least in part through the damage of the myenteric neurons (MNs). Thus, it is important to evaluate new drugs for UC treatment that could also protect myenteric neurons efficiently."

Financial supporters for this research include National Natural Science Foundation of China, ‘Twelfth Five-Year’ National Science and Technology Support Program.

Our news editors obtained a quote from the research from Second Affiliated Hospital, "As a well-known neural protective and anti-inflammatory agent, melatonin could protect neurons from damage through the activation of the nuclear factor erythroid 2-related factor 2 and antioxidant responsive element (Nrf2-ARE) signaling pathway. Therefore, we investigated the potential protective effect of melatonin against MN damage during colitis induced by 2,4-dinitrobenzene sulfonic acid (DNBS) in rats. Colitis was induced by intracolonic (i.c.) instillation of DNBS and treated with melatonin at a dose of 2.5 mg/kg for 4 days. The damage of MN in the left colon was immunohistochemically evaluated in different groups. Ulcerations and inflammation in the colon were semiquantitatively observed. Myeloperoxidase (MPO), superoxide dismutase (SOD), and malondialdehyde (MDA) levels were detected to evaluate the inflammatory and oxidative stress status. The protein and mRNA expressions of Nrf2 and heme oxygenase-1 (HO-1) in the colon were detected by Western blot and quantitative polymerase chain reaction (qPCR), respectively. Melatonin partially prevented the loss of MN and alleviated the inflammation and oxidative stress induced by DNBS. In addition, melatonin markedly increased the Nrf2 and HO-1 level in the colitis."

According to the news editors, the research concluded: "These results indicate that melatonin protects MN from damage by reducing inflammation and oxidative stress, effects that are partly mediated by the Nrf2-ARE pathway."


The news editors report that additional information may be obtained by contacting B. Shang, Dept. of Gastroenterology, Second Affiliated Hospital of Xi'an Jiaotong University, Xi'an 710004, Shaanxi Province, People's Republic of China. Additional authors for this research include H. Shi, X. Wang, X. Guo, N. Wang, Y. Wang and L. Dong.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/fcp.12181. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Anticonvulsants, Antioxidants, Xi'an, Adjuvant, Genetics, Hormones, Inflammation, Gastroenteritis, Gastroenterology, Melatonin Therapy, Drugs and Therapies, Experimental Colitis, Free Radical Scavenger, People's Republic of China, Colonic Diseases and Conditions, Digestive System Diseases and Conditions.

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Cardiovascular Diseases and Conditions - Aneurysm

Study Results from Seoul National University Broaden Understanding of Aneurysm (The incidence of and risk factors for ischemic complications after microsurgical clipping of unruptured middle cerebral artery aneurysms and the efficacy of ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cardiovascular Diseases and Conditions - Aneurysm. According to news reporting originating from Gyeonggi Do, South Korea, by NewsRx correspondents, research stated, "Ischemic complications (ICs) account for 6.7% after microsurgical clipping of unruptured intracranial aneurysms. This study aimed to evaluate the efficacy of somatosensory evoked potential (SSEP) monitoring during microsurgical clipping of unruptured middle cerebral artery (MCA) aneurysms and evaluate the incidence of and risk factors for ischemic complications after clipping of unruptured MCA aneurysms."

Our news editors obtained a quote from the research from Seoul National University, "Herein, 1208 patients with cerebral aneurysms and treated with microsurgical clipping between May 2003 and February 2015 were enrolled. Those with multiple aneurysms, history of head trauma, subarachnoid hemorrhage, bypass and/or endovascular treatment, and intraoperative rupture were excluded. Subsequently, 411 patients with single unruptured MCA aneurysms treated with simple microsurgical clipping were enrolled. Patients were divided into two groups based on the application of SSEP monitoring during surgery. The IC rate was 0.9% and 5.6% in the SSEP and non-SSEP groups, respectively. Univariate analysis revealed that age >= 62.5 years, aneurysm size >= 4.15 mm, temporary clipping, history of hyperlipidemia and stroke, and no-SSEP monitoring were risk factors for ICs. Multivariate logistic regression analysis showed that age >= 62.5 years (odds ratio [OR] = 7.7; 95% confidence interval [95% CI] = 1.5-37.7; P = 0.011), previous stroke (OR = 26.8, 95% CI = 2.4-289.2, P = 0.007), and inversely SSEP monitoring (OR = 0.14, 95% CI 0.02-0.72, P = 0.019) were independent risk factors for ICs. Clinicians should consider the possibility of IC during microsurgical clipping of unruptured MCA aneurysms in patient >= 62.5 years and/or a history of stroke."

According to the news editors, the research concluded: "Intraoperative SSEP monitoring is an effective and feasible tool for preventing IC."

Study Results from Shanghai Jiao-Tong University Update Understanding of Atrial Fibrillation (Concomitant Maze IV Ablation Procedure Performed Entirely by Bipolar Clamp Through Right Lateral Minithoracotomy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Atrial fibrillation ablation with bipolar clamp has proved to be effective for patients with valvular atrial fibrillation. However, left pulmonary vein ablation with bipolar clamp through right minithoracotomy was considered difficult or impossible."

The news reporters obtained a quote from the research from Shanghai Jiao-Tong University. "In this report, we described a novel technique of performing concomitant Maze IV ablation procedure entirely by bipolar clamp through right minithoracotomy. Left pulmonary vein ablation with bipolar clamp was performed through an established channel and a natural space."

According to the news reporters, the research concluded: "This technique has proved to be safe and feasible and to have good clinical outcomes that may deserve further use for patients with atrial fibrillation and mitral valve disease."

contacting J. Mei, Shanghai Jiao Tong University, Xinhua Hosp, Sch Med, Dept. of Cardiotorac Surg, Shanghai 200092, People's Republic of China. Additional authors for this research include N. Ma, Z.L. Jiang, D.F. Zhao, C.R. Bao and F.B. Ding.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.05.027. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Shanghai, People's Republic of China, Asia, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Pulmonary Veins, Heart Disease, Angiology, Shanghai Jiao-Tong University.

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Drugs and Therapies - Central Nervous System Agents

**Study Results from Shire Update Understanding of Central Nervous System Agents (Relative Bioavailabilities of Lisdexamfetamine Dimesylate and D-Amphetamine in Healthy Adults in an Open-Label, Randomized, Crossover Study After Mixing ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Central Nervous System Agents are presented in a new report. According to news reporting originating from Lexington, Massachusetts, by NewsRx correspondents, research stated, "This open-label, crossover study examined lisdexamfetamine dimesylate (LDX) and D-amphetamine pharmacokinetics in healthy adults after administration of an intact LDX capsule or after the capsule was emptied into orange juice or yogurt and the contents consumed. Healthy adult volunteers (N = 30) were administered a 70-mg LDX capsule or the contents of a 70-mg capsule mixed with yogurt or orange juice using a 3-way crossover design."

Our news editors obtained a quote from the research from Shire, "Blood samples were collected serially for up to 96 hours after dose. Pharmacokinetic endpoints included maximum plasma concentration (C-max) and area under the plasma concentration versus time curve from zero to infinity (AUC(0-infinity)) or to last assessment (AUC(last)). Relative LDX and D-amphetamine bioavailabilities from the contents of a 70-mg LDX capsule mixed with orange juice or yogurt were compared with those from the intact LDX capsule using bioequivalence-testing procedures. Geometric least squares mean ratios (90% confidence intervals [CIs]) for D-amphetamine (active moiety) were within the prespecified bioequivalence range (0.80-1.25) when the contents of a 70-mg LDX capsule were mixed with orange juice [C-max: 0.971 (0.945, 0.998); AUC(0-infinity): 0.986 (0.955, 1.019); AUC(last): 0.970 (0.937, 1.004)] or yogurt [C-max: 0.970 (0.944, 0.997); AUC(0-infinity): 0.945 (0.915, 0.976); AUC (last): 0.944 (0.912, 0.977)]. Geometric least squares mean ratios (90% CIs) for LDX (inactive prodrug) were below the accepted range when the contents of a 70-mg LDX capsule were mixed with orange juice [C-max: 0.641 (0.582, 0.707); AUC(0-infinity): 0.716 (0.647, 0.792); AUC (last): 0.708 (0.655, 0.766)]; the lower 90% CI for C-max [0.828 (0.752, 0.912)] was below the accepted range when the contents of a 70-mg LDX capsule were mixed with yogurt."

According to the news editors, the research concluded: "Relative bioavailability of D-amphetamine (the active moiety) did not differ across administrations, which suggests that emptying an LDX capsule into orange juice or yogurt and consuming it is an alternative to intact
capsules."

For more information on this research see: Relative Bioavailabilities of Lisdexamfetamine Dimesylate and D-Amphetamine in Healthy Adults in an Open-Label, Randomized, Crossover Study After Mixing Lisdexamfetamine Dimesylate With Food or Drink. *Therapeutic Drug Monitoring*, 2016;38(6):769-776. *Therapeutic Drug Monitoring* can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Lippincott Williams and Wilkins - www.lww.com; Therapeutic Drug Monitoring - journals.lww.com/drug-monitoring/pages/default.aspx)

The news editors report that additional information may be obtained by contacting P.T. Martin, Shire, Lexington, MA 04241, United States. Additional authors for this research include M. Corcoran, K. Lasseter and P.T. Martin.

Keywords for this news article include: Lexington, Massachusetts, United States, North and Central America, Central Nervous System Stimulants, Central Nervous System Agents, Lisdexamfetamine Dimesylate, Adrenergic Uptake Inhibitor, Drugs and Therapies, Organic Chemicals, Adrenergic Agent, Phenethylamines, CNS Stimulants, Amphetamines, Ethylamines, Dopamine, Shire.

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**Liver Diseases and Conditions - Chronic Hepatitis B**

**Study Results from Sichuan University Provide New Insights into Chronic Hepatitis B Virus (Quantitative intrahepatic HBV cccDNA correlates with histological liver inflammation in chronic hepatitis B virus infection)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Chronic Hepatitis B Virus have been published. According to news reporting originating in Chengdu, People's Republic of China, by NewsRx journalists, research stated, "The aim of this study was to determine the role of baseline hepatitis B virus (HBV) forming covalently closed circular DNA (HBV cccDNA) in liver inflammation in patients infected with HBV with serum alanine aminotransferase (ALT) levels under two times the upper limit of normal (2 x ULN). After liver biopsy and serum virological and biochemical marker screening, patients diagnosed with chronic HBV infection with serum ALT levels under 2 x ULN and histological liver inflammation of less than grade G2 were prospectively recruited into this study."

The news reporters obtained a quote from the research from Sichuan University, "Recruitment took place between March 2009 and November 2010 at the Center of Infectious Disease, Sichuan University. Patient virological and biochemical markers, as well as markers of liver inflammation, were monitored. A total of 102 patients were recruited and 68 met the inclusion criteria; the median follow-up was 4.1 years (range 3.9-5.2 years). During follow-up, 41 patients (60.3%) exhibited signs of inflammation. Baseline HBV cccDNA > 1 copy/cell (odds ratio 9.43, p = 0.049) and liver inflammation grade >= G1 (odds ratio 5.77, p = 0.046) were both independent predictors of liver inflammation. A higher baseline intrahepatic HBV cccDNA level may increase the risk of liver inflammation."

According to the news reporters, the research concluded: "Further investigations will be required to validate HBV cccDNA as an intrahepatic virological marker of patients who..."
require extended outpatient management."


Our news correspondents report that additional information may be obtained by contacting H. Tang, Sichuan University, West China Sch Med, West China Hosp, Center Infect DisState Key Lab Biotherapy, Chengdu 610041, People's Republic of China. Additional authors for this research include X. Zhu, L.B. Yan, L.Y. Du, C. Liu, J. Liao and H. Tang.

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Keywords for this news article include: Chengdu, People's Republic of China, Asia, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Hepadnaviridae Infections, Chronic Hepatitis B Virus, Orthohepadnavirus, Gastroenterology, Biochemicals, Biochemistry, Inflammation, DNA Viruses, Hepatology, Chemicals, Genetics, Virology, Viral, HBV, Sichuan University.

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**Stem Cell Research - Mesenchymal Stem Cells**

**Study Results from Sichuan University Update Understanding of Mesenchymal Stem Cells (g-Secretase inhibitor reverts the Notch signaling attenuation of osteogenic differentiation in aged bone marrow mesenchymal stem cells)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Stem Cell Research - Mesenchymal Stem Cells is the subject of a report. According to news reporting out of Chengdu, People's Republic of China, by NewsRx editors, research stated, "The age-related changes in cell viability and osteogenic differentiation of bone marrow mesenchymal stem cells (BMSCs) play pivotal roles in the fracture healing process, especially in geriatric individuals. This study was designed to explore the age-related changes in murine BMSCs and the regulation of osteogenic differentiation in aged BMSCs in vitro."

Financial support for this research came from National Natural Science Foundation of China.

Our news journalists obtained a quote from the research from Sichuan University, "Notch signaling pathway took part in the regulation of osteogenesis, while the relationship between Notch and the osteogenic differentiation in aged BMSCs has not been reported yet. BMSCs harvested from the bone marrow of young, adult, and aged C57BL/6 mice were cultured in osteogenic and adipogenic differentiation media. Histochemical staining results indicated that the osteogenic ability of BMSCs gradually decreased with aging, whereas the adipogenic ability increased. Cell activity assays showed that the proliferative and migrated capacity did not
decline with aging significantly. According to real-time PCR and Western blotting results, the aged cells exhibited higher Notch signaling expression level than the younger ones did. After the aged BMSCs being treated with g-secretase inhibitor, however, Notch activity was changed and the aging-impaired osteogenic ability reverted to a normal level.

According to the news editors, the research concluded: "This study demonstrated that the decreased bone formation capacity in aged BMSCs had relationship with the transdifferentiation between osteogenesis and adipogenesis, which would be regulated by Notch signaling pathway and the attenuated osteogenesis in aged BMSCs could be promoted when the inhibition of Notch pathway."

For more information on this research see: g-Secretase inhibitor reverts the Notch signaling attenuation of osteogenic differentiation in aged bone marrow mesenchymal stem cells. Cell Biology International, 2016;40(4):439-47. (Elsevier - www.elsevier.com; Cell Biology International - www.journals.elsevier.com/cell-biology-international/)

Our news journalists report that additional information may be obtained by contacting Z. Tang, State Key Laboratory of Oral Diseases, Dept. of Oral and Maxillofacial Surgery, West China Hospital of Stomatology, Sichuan University, Chengdu 610041, People's Republic of China. Additional authors for this research include J. Wei, Y. Yu, J. Zhang, L. Liu, W. Tang, J. Long, X. Zheng and W. Jing.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cbin.10583. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Chengdu, Secretase, Bone Marrow, Bone Research, Immune System, Stem Cell Research, Enzymes and Coenzymes, Mesenchymal Stem Cells, People's Republic of China.

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Heart Disorders and Diseases - Heart Attack

Study Results from Sorbonne University Broaden Understanding of Heart Attack (Venoarterial extracorporeal membrane oxygenation for refractory cardiogenic shock post-cardiac arrest)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Heart Disorders and Diseases - Heart Attack have been published. According to news originating from Paris, France, by NewsRx correspondents, research stated, "To describe the characteristics, outcomes, and risk factors associated with poor outcome of venoarterial extracorporeal membrane oxygenation (VA-ECMO)-treated patients with refractory shock post-cardiac arrest. We retrospectively analyzed data collected prospectively (March 2007-January 2015) in a 26-bed tertiary hospital intensive care unit."

Our news journalists obtained a quote from the research from Sorbonne University, "All patients implanted with VA-ECMO for refractory cardiogenic shock after successful resuscitation from cardiac arrest were included. Refractory cardiac arrest patients, given VA-ECMO under cardiopulmonary resuscitation, were excluded. Ninety-four patients received VA-ECMO for refractory shock post-cardiac arrest. Their hospital and 12-month survival rates were 28 and 27 %, respectively. All 1-year survivors were cerebral performance category 1. Multivariable analysis retained INR > 2.4 (OR 4.9; 95 % CI 1.4-17.2), admission SOFA score >
14 (OR 5.3; 95 % CI 1.7-16.5), and shockable rhythm (OR 0.3; 95 % CI 0.1-0.9) as independent predictors of hospital mortality, but not SAPS II, out-of-hospital cardiac arrest score, or other cardiac arrest variables. Only 10 % of patients with an admission SOFA score > 14 survived, whereas 50 % of those with scores ≤14 were alive at 1 year. Restricting the analysis to the 67 patients with out-of-hospital cardiac arrest of coronary cause yielded similar results. Among 94 patients implanted with VA-ECMO for refractory cardiogenic shock post-cardiac arrest resuscitation, the 24 (27 %) 1-year survivors had good neurological outcomes, but survival was significantly better for patients with admission SOFA scores < 14, shockable rhythm, and INR ≤2.4.

According to the news editors, the research concluded: "VA-ECMO might be considered a rescue therapy for patients with refractory cardiogenic shock post-cardiac arrest resuscitation."


The news correspondents report that additional information may be obtained from C.E. Luyt, UPMC Univ Paris 06, Sorbonne Univ, INSERM, UMRS 1166ICAN, F-06 Paris, France. Additional authors for this research include N. Brechot, G. Lebreton, M. Schmidt, G. Hekimian, P. Demondion, J.L. Trouillet, P. Leprince, J. Chastre, A. Combes and C.E. Luyt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00134-016-4541-y. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Paris, France, Europe, Respiratory Therapy, Risk and Prevention, Extracorporeal Membrane Oxygenation, Heart Disorders and Diseases, Emergency Treatment, Cardiogenic Shock, Cardiac Arrest, Resuscitation, Heart Attack, Cardiology, Hospital, Sorbonne University.

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Oncology - Lung Cancer

Study Results from Southern Medical University Update Understanding of Lung Cancer (Is it feasible to detect epidermal growth factor receptor mutations in circulating tumor cells in nonsmall cell lung cancer? A meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Lung Cancer. According to news originating from Jiangsu, People's Republic of China, by NewsRx correspondents, research stated, "The value of circulating tumor cells (CTCs) in detecting epidermal growth factor receptor (EGFR) mutations in patients with nonsmall cell lung cancer (NSCLC) is controversial. We performed a meta-analysis to investigate the diagnostic significance of CTCs with tumor tissues as the standard control."

Our news journalists obtained a quote from the research from Southern Medical University, "A systematic literature search, including papers published until November 26,
2015, was performed using PubMed, Medline, Embase, Web of Science, and the China National Knowledge Infrastructure, and the references of retrieved articles were screened. The pooled sensitivity, specificity, and diagnostic odds ratio (DOR) were calculated according to the data selection from the included studies. The evaluation indexes of the diagnostic performance were the summary receiver operating characteristic curve (SROC) and area under the SROC (AUSROC). Eight eligible articles with a total of 170 participants were identified in our meta-analysis. The pooled sensitivity and specificity were 0.91 [95% CI: 0.55-0.99] and 0.99 [95% CI: 0.59-1.00]. The positive likelihood ratio and negative likelihood ratio were 68 [95% CI: 1.4-3364] and 0.09 [95% CI: 0.01-0.64], respectively. The DOR was 788 [95% CI: 9-71884]. The high diagnostic performance of CTCs in detecting EGFR mutations was indicated by the AUSROC of 0.99 [95% CI: 0.98-1.00].

According to the news editors, the research concluded: "CTCs are a feasible and highly specific biomarker for detecting the EGFR mutation status in NSCLC patients."

For more information on this research see: Is it feasible to detect epidermal growth factor receptor mutations in circulating tumor cells in nonsmall cell lung cancer? A meta-analysis. Medicine, 2016;95(47):40-46. Medicine can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA. (Elsevier - www.elsevier.com; Medicine - www.journals.elsevier.com/medicine/)

The news correspondents report that additional information may be obtained from T.F. Lv, Southern Med Univ, Jinling Hosp, Dept. of Resp Med, Nanjing 210002, Jiangsu, People's Republic of China. Additional authors for this research include Z. Xing, P. Zhan, H.B. Liu, W. Ye, T.F. Lv and Y. Song.

Keywords for this news article include: Jiangsu, People's Republic of China, Asia, Intercellular Signaling Peptides and Proteins, Gastrointestinal Hormone Receptors, Cancer, Diagnostics and Screening, Receptor Protein-Tyrosine Kinases, Epidermal Growth Factor Receptor, Gastrointestinal Hormones, Epidermal Growth Factors, Growth Factor Receptors, Membrane Proteins, Peptide Receptors, Lung Neoplasms, Lung Cancer, Oncology, Genetics, Southern Medical University.

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**Congenital Diseases and Conditions - Congenital...**

**Study Results from St. George’s University of London Provide New Insights into Congenital Heart Disease (Prevalence of prenatal brain abnormalities in fetuses with congenital heart disease: a systematic review)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Congenital Diseases and Conditions - Congenital Heart Disease. According to news reporting originating in London, United Kingdom, by NewsRx journalists, research stated, "Studies have shown an association between congenital heart defects (CHDs) and postnatal brain abnormalities and neurodevelopmental delay. Recent evidence suggests that some of these brain abnormalities are present before birth."

The news reporters obtained a quote from the research from the St. George's University of London, "The primary aim of this study was to perform a systematic review to quantify the prevalence of prenatal brain abnormalities in fetuses with CHDs. MEDLINE,
EMBASE and The Cochrane Library were searched electronically. Reference lists within each article were hand-searched for additional reports. The outcomes observed included structural brain abnormalities (on magnetic resonance imaging (MRI)) and changes in brain volume (on MRI, three-dimensional (3D) volumetric MRI, 3D ultrasound and phase-contrast MRI), brain metabolism or maturation (on magnetic resonance spectroscopy and phase-contrast MRI) and brain blood flow (on Doppler ultrasound, phase-contrast MRI and 3D power Doppler ultrasound) in fetuses with CHDs. Cohort and case-control studies were included and cases of chromosomal or genetic abnormalities, case reports and editorials were excluded. Proportion meta-analysis was used for analysis. Between-study heterogeneity was assessed using the I-2 test. The search yielded 1943 citations, and 20 studies (n=1175 cases) were included in the review. Three studies reported data on structural brain abnormalities, while data on altered brain volume, metabolism and blood flow were reported in seven, three and 14 studies, respectively. The three studies (221 cases) reporting on structural brain abnormalities were suitable for inclusion in a meta-analysis. The prevalence of prenatal structural brain abnormalities in fetuses with CHD was 28% (95% CI, 18-40%), with a similar prevalence (25% (95% CI, 14-39%)) when tetralogy of Fallot was considered alone. These abnormalities included ventriculomegaly (most common), agenesis of the corpus callosum, ventricular bleeding, increased extra-axial space, vermian hypoplasia, white-matter abnormalities and delayed brain development. Fetuses with CHD were more likely than those without CHD to have reduced brain volume, delay in brain maturation and altered brain circulation, most commonly in the form of reduced middle cerebral artery pulsatility index and cerebroplacental ratio. These changes were usually evident in the third trimester, but some studies reported them from as early as the second trimester.

According to the news reporters, the research concluded: "In the absence of known major aneuploidy or genetic syndromes, fetuses with CHD are at increased risk of brain abnormalities, which are discernible prenatally."


Our news correspondents report that additional information may be obtained by contacting A. Khalil, St. George's University London, Fetal Med Unit, London SW17 0RE, United Kingdom. Additional authors for this research include S. Bennet, B. Thilaganathan, D. Paladini, P. Griffiths and J.S. Carvalho.

Keywords for this news article include: London, United Kingdom, Europe, Cardiovascular Diseases and Conditions, Congenital Diseases and Conditions, Heart Disorders and Diseases, Congenital Heart Disease, Cardiology, Genetics, St. George's University of London.

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Skin Diseases and Conditions - Psoriasis
Study Results from State University of New York in the Area of Psoriasis Reported (The psoriasis-associated deletion of late cornified envelope genes LCE3B and LCE3C has been maintained under
balancing selection since Human Denisovan divergence)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Skin Diseases and Conditions - Psoriasis. According to news reporting originating in Buffalo, New York, by NewsRx journalists, research stated, "A common, 32kb deletion of LCE3B and LCE3C genes is strongly associated with psoriasis. We recently found that this deletion is ancient, predating Human-Denisovan divergence."

The news reporters obtained a quote from the research from the State University of New York, "However, it was not clear why negative selection has not removed this deletion from the population. Here, we show that the haplotype block that harbors the deletion (i) retains high allele frequency among extant and ancient human populations; (ii) harbors unusually high nucleotide variation (pi, P< 4.1 x 10(-3)); (iii) contains an excess of intermediate frequency variants (Tajima's D, P< 3.9 x 10(-3)); and (iv) has an unusually long time to coalescence to the most recent common ancestor (TSel, 0.1 quantile). Our results are most parsimonious with the scenario where the LCE3BC deletion has evolved under balancing selection in humans."

According to the news reporters, the research concluded: "More broadly, this is consistent with the hypothesis that a balance between autoimmunity and natural vaccination through increased exposure to pathogens maintains this deletion in humans."

For more information on this research see: The psoriasis-associated deletion of late cornified envelope genes LCE3B and LCE3C has been maintained under balancing selection since Human Denisovan divergence. BMC Evolutionary Biology, 2016;16():1-7. BMC Evolutionary Biology can be contacted at: Biomed Central Ltd, 236 Grays Inn Rd, Floor 6, London WC1X 8HL, England. (BioMed Central - www.biomedcentral.com; BMC Evolutionary Biology - www.biomedcentral.com/bmcevolbiol/)

Our news correspondents report that additional information may be obtained by contacting O. Gokcumen, University of Buffalo, Dept. of Biol Sci, Buffalo, NY 14260, United States. Additional authors for this research include Y.L. Lin, D. Xu and O. Gokcumen.

Keywords for this news article include: Buffalo, New York, United States, North and Central America, Papulosquamous Skin Diseases and Conditions, Skin Diseases and Conditions, Genetics, Dermatology, Psoriasis, State University of New York.

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Oncology

Study Results from T. Aasen and Colleagues Broaden Understanding of Oncology (Gap junctions and cancer: communicating for 50 years)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology. According to news reporting from Barcelona, Spain, by NewsRx journalists, research stated, "Fifty years ago, tumour cells were found to lack electrical coupling, leading to the hypothesis that loss of direct intercellular communication is commonly associated with cancer onset and progression."

The news correspondents obtained a quote from the research, "Subsequent studies linked this phenomenon to gap junctions composed of connexin proteins. Although many studies support the notion that connexins are tumour suppressors, recent evidence suggests that, in some tumour types, they may facilitate specific stages of tumour progression through both
junctional and non-junctional signalling pathways."

According to the news reporters, the research concluded: "This Timeline article highlights the milestones connecting gap junctions to cancer, and underscores important unanswered questions, controversies and therapeutic opportunities in the field."


Our news journalists report that additional information may be obtained by contacting T. Aasen, Vall d’Hebron Inst Res, Translat Mol Pathol, Barcelona 08035, Spain. Additional authors for this research include M. Mesnil, C.C. Naus, P.D. Lampe and D.W. Laird.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/nrc.2016.105. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Barcelona, Spain, Europe, Oncology, Cancer.

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**Cardiology**

**Study Results from T. Cole-Hunter et al Provide New Insights into Cardiology (Impact of traffic-related air pollution on acute changes in cardiac autonomic modulation during rest and physical activity: a cross-over study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiology have been presented. According to news originating from Barcelona, Spain, by NewsRx correspondents, research stated, "People are often exposed to traffic-related air pollution (TRAP) during physical activity (PA), but it is not clear if PA modifies the impact of TRAP on cardiac autonomic modulation. We conducted a panel study among 28 healthy adults in Barcelona, Spain to examine how PA may modify the impact of TRAP on cardiac autonomic regulation."

Our news journalists obtained a quote from the research, "Participants completed four 2-h exposure scenarios that included either rest or intermittent exercise in high- and low-traffic environments. Time- and frequency-domain measures of heart rate variability (HRV) were monitored during each exposure period along with continuous measures of TRAP. Linear mixed-effects models were used to estimate the impact of TRAP on HRV as well as potential effect modification by PA. Exposure to TRAP was associated with consistent decreases in HRV; however, exposure-response relationships were not always linear over the broad range of exposures. For example, each 10 mg/m(3) increase in black carbon was associated with a 23% (95% CI: -31, -13) decrease in high frequency power at the low-traffic site, whereas no association was observed at the high-traffic site. PA modified the impact of TRAP on HRV at the high-traffic site and tended to weaken inverse associations with measures reflecting parasympathetic modulation (P (<=) 0.001). Evidence of effect modification at the low-traffic site was less consistent. The strength and direction of the relationship between TRAP and HRV..."
May vary across exposure gradients."

According to the news editors, the research concluded: "PA may modify the impact of TRAP on HRV, particularly at higher concentrations."


The news correspondents report that additional information may be obtained from T. Cole-Hunter, Centre for Research in Environmental Epidemiology (CREAL), Barcelona, Spain. Additional authors for this research include S. Weichenthal, N. Kubesch, M. Foraster, G. Carrasco-Turigas, L. Bouso, D. Martinez, D. Westerdahl, A. de Nazelle and M. Nieuwenhuijsen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/jes.2015.66. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher's contact information for the *Journal of Exposure Science & Environmental Epidemiology* is: Nature Publishing Group, 345 Park Avenue South, New York, NY 10010-1707, USA.

Keywords for this news article include: Spain, Europe, Barcelona, Cardiology, Epidemiology, Air Pollution.

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**Drugs and Therapies - Pharmacy and...**

**Study Results from Tabriz University of Medical Sciences Broaden Understanding of Pharmacy and Pharmaceutical Sciences (Crystal-liquid Fugacity Ratio as a Surrogate Parameter for Intestinal Permeability)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Pharmacy and Pharmaceutical Sciences. According to news reporting originating from Tabriz, Iran, by NewsRx correspondents, research stated, "We assessed the feasibility of using crystal-liquid fugacity ratio (CLFR) as an alternative parameter for intestinal permeability in the biopharmaceutical classification (BCS) of passively absorbed drugs. Dose number, fraction of dose absorbed, intestinal permeability, and intrinsic dissolution rate were used as the input parameters."

Our news editors obtained a quote from the research from the Tabriz University of Medical Sciences, "CLFR was determined using thermodynamic parameters i.e., melting point, molar fusion enthalpy, and entropy of drug molecules obtained using differential scanning calorimetry. The CLFR values were in the range of 0.06-41.76 mole percent. There was a close relationship between CLFR and in vivo intestinal permeability (r > 0.8). CLFR values of greater than 2 mole percent corresponded to complete intestinal absorption. Applying CLFR versus
dose number or intrinsic dissolution rate, more than 92% of tested drugs were correctly classified with respect to the reported classification system on the basis of human intestinal permeability and solubility. This investigation revealed that the CLFR might be an appropriate parameter for quantitative biopharmaceutical classification. This could be attributed to the fact that CLFR could be a measure of solubility of compounds in lipid bilayer which was found in this study to be directly proportional to the intestinal permeability of compounds. This classification enables researchers to define characteristics for intestinal absorption of all four BCS drug classes using suitable cutoff points for both intrinsic dissolution rate and crystal-liquid fugacity ratio."

According to the news editors, the research concluded: "Therefore, it may be used as a surrogate for permeability studies."


The news editors report that additional information may be obtained by contacting H. Valizadeh, Tabriz Univ Med Sci, Drug Appl Res Center, Tabriz 51664, Iran. Additional authors for this research include Z. Fasihi, J. Akbari, E. Jannatabadi, M. Barzegar-Jalali, R. Loebenberg and H. Valizadeh.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18433/J3KS4P. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tabriz, Iran, Asia, Pharmacy and Pharmaceutical Sciences, Drugs and Therapies, Tabriz University of Medical Sciences.

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Oncology - Soft Tissue Sarcomas

Study Results from Taussig Cancer Institute Provide New Insights into Soft Tissue Sarcomas (Radiation Therapy in the Management of Soft Tissue Sarcoma A Clinician's Guide to Timing, Techniques, and Targets)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Soft Tissue Sarcomas have been published. According to news reporting originating in Cleveland, Ohio, by NewsRx journalists, research stated, "Radiation therapy represents a vital component in the multidisciplinary management of soft tissue sarcomas. Combined with limb-preserving surgery, radiation therapy represents a standard of care treatment option for patients with high-grade sarcomas."

The news reporters obtained a quote from the research from Taussig Cancer Institute, "Radiation therapy for soft tissue sarcoma continues to evolve with changes in timing, techniques, and targets. Over the past 2 decades, increasing data have supported the role of preoperative radiotherapy with the potential for lower total doses of radiation and improved long-term function coming at the cost of increased wound complications for certain locations. Retroperitoneal sarcomas represent a location where preoperative treatment is becoming the
standard of care based on anatomic constraints and challenges with delivering postoperative radiotherapy. Multiple radiation therapy techniques exist to deliver treatment; currently both 3-dimensional conformal radiotherapy and intensity-modulated radiation therapy (IMRT) are appropriate options, although increasing data support the role of IMRT in reducing dose to critical structures (bone, bowel, kidneys, vessels) while maintaining target coverage. Traditional target volumes have included larger fields; however, recent prospective data have demonstrated that image guidance in conjunction with smaller treatment volumes may reduce toxicity while not increasing marginal failures, although follow-up is short."

According to the news reporters, the research concluded: "Because of the toxicity associated with treatment, novel radiotherapy strategies are being used such as stereotactic radiotherapy as well as the use of tumor genetics to identify patients most likely to benefit most from radiotherapy."


Our news correspondents report that additional information may be obtained by contacting C. Shah, Cleveland Clinic, Taussig C canc Inst, Dept. of Radiat Oncol, Cleveland, OH 44195, United States. Additional authors for this research include V. Verma, R. Takiar, R. Vajapey, S. Amarnath, E. Murphy, N.W. Mesko, S. Lietman, M. Joyce, P. Anderson, D. Shepard and T. Budd.

Keywords for this news article include: Cleveland, Ohio, United States, North and Central America, Therapy, Article Review, Soft Tissue Sarcomas, Drugs and Therapies, Radiation Therapy, Radiotherapy, Oncology, Genetics, Taussig Cancer Institute.

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Percutaneous Coronary Intervention

Study Results from Technical University Broaden Understanding of Percutaneous Coronary Intervention (High-Sensitivity Troponin T and Mortality After Elective Percutaneous Coronary Intervention)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Percutaneous Coronary Intervention have been published. According to news reporting originating in Munich, Germany, by NewsRx journalists, research stated, "The prognostic value of high-sensitivity troponin T (hs-TnT) elevation after elective percutaneous coronary intervention (PCI) in patients with or without raised baseline hs-TnT levels is unclear. The goal of this study was to assess whether the prognostic value of post-procedural hs-TnT level after elective PCI depends on the baseline hs-TnT level."

The news reporters obtained a quote from the research from Technical University, "This study included 5,626 patients undergoing elective PCI who had baseline and peak post-procedural hs-TnT measurements available. The primary outcome was 3-year mortality (with risk estimates calculated per SD increase of the log hs-TnT scale). Patients were divided into 4 groups: nonelevated baseline and post-procedural hs-TnT levels (hs-TnT <= 0.014 mu g/l; n =
742); nonelevated baseline but elevated post-procedural hs-TnT levels (peak post-procedural hs-TnT > 0.014 μg/l; n = 2,721); elevated baseline hs-TnT levels (hs-TnT > 0.014 μg/l) with no further rise post-procedure (n = 516); and elevated baseline hs-TnT levels with a further rise post-procedure (n = 1,647). A total of 265 deaths occurred: 6 (1.6%) in patients with nonelevated baseline and post-procedural hs-TnT levels; 54 (3.8%) in patients with nonelevated baseline but elevated post-procedural hs-TnT levels; 50 (16.0%) in patients with elevated baseline hs-TnT levels with no further rise post-procedure; and 155 (18.2%) in patients with elevated baseline hs-TnT levels with a further rise post-procedure (p < 0.001). After adjustment, baseline hs-TnT levels (hazard ratio [HR]: 1.22; 95% confidence interval [CI]: 1.09 to 1.38; p < 0.001) but not peak post-procedural hs-TnT levels (HR: 1.04; 95% CI: 0.85 to 1.28; p = 0.679) were associated with an increased risk of mortality. Peak post-procedural hs-TnT findings were not associated with mortality in patients with nonelevated (HR: 0.93; 95% CI: 0.69 to 1.25; p = 0.653) or elevated (HR: 1.24; 95% CI: 0.91 to 1.69; p = 0.165) baseline hs-TnT levels.

According to the news reporters, the research concluded: "In patients with coronary artery disease undergoing elective PCI, an increase in post-procedural hs-TnT level did not offer prognostic information beyond that provided by the baseline level of the biomarker."


Our news correspondents report that additional information may be obtained by contacting G. Ndrepepa, Technical Univ, Deutsch Herzzentrum Munchen, Dept. of Adult Cardiol, Munich, Germany. Additional authors for this research include R. Colleran, S. Braun, S. Cassese, J. Hieber, M. Fusaro, S. Kufner, I. Ott, R.A. Byrne, O. Husser, C. Hengstenberg, K.L. Laugwitz, H. Schunkert and A. Kastrati.

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Keywords for this news article include: Munich, Germany, Europe, Percutaneous Coronary Intervention, Troponin T, Risk and Prevention, Macromolecular Substances, Microfilament Proteins, Cytoskeletal Proteins, Contractile Proteins, Muscle Proteins, Biopolymers, Surgery, Technical University.

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Japanese population. We retrospectively investigated the long-term prognosis in 80 consecutive patients with severe chronic AR who underwent AVR."

Our news journalists obtained a quote from the research from Tenri Hospital, "Additionally, 65 patients with follow-up echocardiography at 1 year after AVR were investigated to evaluate chronological changes in LV function. The mean follow-up period was 8.9 +/- 5.2 years. Freedom from all-cause death and cardiac death at 10 years after AVR was 76% and 91%, respectively. The preoperative ejection fraction (EF) and estimated glomerular filtration rate were independent predictors of all-cause death. Preoperative EF, LV end-systolic diameter, and diabetes might be useful predictors of cardiac death. Among the 65 patients with follow-up echocardiographic data, LV function had normalized at 1 year after AVR in all patients, except for 2 who died of cardiac causes in the long-term after AVR. LV end-diastolic diameter, LV end-systolic diameter, and EF at 1 year after AVR might be useful predictors of long-term cardiac death. In patients with severe chronic AR, preoperative LV dysfunction is remarkably improved at 1 year after AVR."

According to the news editors, the research concluded: "Pre- and postoperative echocardiographic data are important for predicting long-term outcome after AVR."


Our news journalists report that additional information may be obtained by contacting C. Izumi, Tenri Hosp, Dept. of Cardiol, Tenri, Nara 6328552, Japan. Additional authors for this research include C. Izumi, S. Imamura, N. Onishi, J. Sakamoto, Y. Tamaki, S. Enomoto, M. Miyake, T. Tamura, H. Kondo, K. Kaitani, K. Yamanaka and Y. Nakagawa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1253/circj.CJ-16-0782. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nara, Japan, Asia, Aortic Valve Replacement, Cardiology, Surgery, Tenri Hospital.

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**Oncology - Pancreatic Cancer**

**Study Results from Third Military Medical University Update Understanding of Pancreatic Cancer (MiR-377 inhibits the proliferation of pancreatic cancer by targeting Pim-3)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Pancreatic Cancer are discussed in a new report. According to news reporting originating from Chongqing, People's Republic of China, by NewsRx correspondents, research stated, "MicroRNAs (miRNAs) play important roles in the regulation of various tumor biological processes including proliferation and apoptosis. MiR-377 has been implicated in many types of cancer, whereas its expression feature and potential biological function in pancreatic ductal adenocarcinoma (PDAC) remains unclear."

Our news editors obtained a quote from the research from Third Military Medical
University, "In this study, we scanned the global miRNA expression profiles in PDAC from The Cancer Genome Atlas (TCGA) and found miR-377 was down-regulated significantly in PDAC. Then, its expression was measured in both pancreatic cancer tissues and cells; the data showed that miR-377 was de-regulated and inversely correlated with pathologic parameters of tumor growth or metastasis. We generated PDAC cell lines with stable overexpression or inhibition of miR-377, and our results indicated that miR-377 up-regulation significantly promoted cell viability, proliferation, and migration in PDAC cells, and also induced cell apoptosis and cell cycle arrest simultaneously. Binding-site predictions by bioinformatics showed that Pim-3 might be a potential target of miR-377. Luciferase reporter assay ulteriorly identified that miR-377 suppressed Pim-3 expression by binding the 3'-UTR. In tumor tissues, we also showed that the Pim-3 expression was inversely correlated with that of miR-377. Furthermore, stable ectopic miR-377 expression in pancreatic cancer cell lines suppressed Pim-3 expression, leading to the attenuation of Bad phosphorylation level at its Ser(112) and promoting cell apoptosis. Overall, these results reveal that miR-377 may have tumor growth suppression function by down-regulating Pim-3 kinase expression to inhibit both pancreatic tumor growth and migration, and induce cell apoptosis."

According to the news editors, the research concluded: "Hence, miR-377 may be a potential diagnostic marker and therapeutic target."

For more information on this research see: MiR-377 inhibits the proliferation of pancreatic cancer by targeting Pim-3. Tumor Biology, 2016;37(11):14813-14824. Tumor Biology can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - www.springer.com; Tumor Biology - www.springerlink.com/content/1010-4283/)

The news editors report that additional information may be obtained by contacting T. Yuan, Third Military Medical University, Inst Surg Res, Chongqing 400042, People's Republic of China. Additional authors for this research include M.G. Liu, J.H. Xu, H.W. Fu, B. Zhou, T. Yuan and P. Chen.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s13277-016-5295-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chongqing, People's Republic of China, Asia, Pancreatic Neoplasms, Pancreatic Cancer, Gastroenterology, Apoptosis, Genetics, Oncology, Pancreas, Third Military Medical University.

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Oncology - Liver Cancer

Study Results from Tianjin Medical University Provide New Insights into Liver Cancer (Phase-contrast CT: Qualitative and Quantitative Evaluation of Capillarized Sinusoids and Trabecular Structure in Human Hepatocellular Carcinoma Tissues)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Liver Cancer. According to news originating from Tianjin, People's Republic of China, by NewsRx correspondents, research stated, "Capillarization of sinusoids and change of trabecular thickness are the main histologic
features in hepatocellular carcinoma (HCC). Of particular interest are the three-dimensional (3D) visualization and quantitative evaluation of such alterations in the HCC progression."

Our news journalists obtained a quote from the research from Tianjin Medical University, "X-ray phase-contrast computed tomography (PCCT) is an emerging imaging method that provides excellent image contrast for soft tissues. This study aimed to explore the potential of in-line PCCT in microstructure imaging of capillarized sinusoids and trabecular structure in human HCC tissues and to quantitatively evaluate the alterations of those fine structures during the development of HCC. This project was designed as an ex vivo experimental study. The study was approved by the institutional review board, and informed consent was obtained from the patients. Eight human resected HCC tissue samples were imaged using in-line PCCT After histologic processing, PCCT images and histopathologic data were matched. Fine structures in HCC tissues were revealed. Quantitative analyses of capillarized sinusoids (ie, percentage of sinusoidal area [PSA], sinusoidal volume) and trabecular structure (ie, trabecular thickness, surface-area-to-volume ratio [SA/V]) in low-grade (well or moderately differentiated) and high-grade (poorly differentiated) HCC groups were performed. Using PCCT, the alterations of capillarized sinusoids and trabecular structure were clearly observed in 3D geometry, which was confirmed by the corresponding histologic sections. The 3D qualitative analyses of sinusoids in the high-grade HCC group were significantly different (P < 0.05) in PSA (7.8 +/- 2.5%) and sinusoidal volume (2.9 +/- 0.6 x 10⁷ μm³) from those in the low-grade HCC group (PSA, 12.9 +/- 2.2%; sinusoidal volume, 2.4 +/- 0.3 x 10⁷ μm³). Moreover, the 3D quantitative evaluation of the trabecular structure in the high-grade HCC group showed a significant change (P < 0.05) in the trabecular thickness (87.8 +/- 15.6 μm) and SAN (2.2 +/- 1.3 x 10³ μm⁻¹) compared to the low-grade HCC group (trabecular thickness, 75.9 +/- 7.1 μm; SA/V, 7.5 +/- 1.3 x 10³ μm⁻¹)."

According to the news editors, the research concluded: "This study provides insights into the 3D alterations of microstructures such as capillarized sinusoids and the trabecular structure at a micrometer level, which might allow for an improved understanding of the development of HCC."


The news correspondents report that additional information may be obtained from C.H. Hu, Tianjin Med Univ, Coll Biomed Engn, Tianjin 300070, People's Republic of China. Additional authors for this research include W.X. Zhang, H. Yang, X.Y. Zhao, R.J. Xuan, D.Y. Li and C.H. Hu.

Keywords for this news article include: Tianjin, People's Republic of China, Asia, Liver Cancer, Carcinomas, Oncology, Tianjin Medical University.

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Bone Research

Study Results from Tohoku University Broaden Understanding of Bone Research (Biomechanical and histological evaluation of the osseointegration capacity of two types of zirconia implant)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Bone Research have been presented. According to news reporting out of Miyagi, Japan, by NewsRx editors, research stated, "The purpose of this study was to evaluate the biomechanical and histological behavior of a ceria-stabilized zirconia-alumina nanocomposite (NanoZr) in comparison with that of 3 mol% yttria-stabilized tetragonal zirconia polycrystalline (3Y-TZP) in Sprague-Dawley rats. Cylindrical NanoZr and 3Y-TZP implants (diameter 1 mm, length 2 mm) were used."

Our news journalists obtained a quote from the research from Tohoku University, "Implant-surface morphology and surface roughness were determined by scanning white-light interferometry and scanning electron microscopy, respectively. The cylindrical zirconia implants were placed at the distal edge of the femur of Sprague Dawley rats. At weeks 2, 4, and 8, the interfacial shear strength between implant and bone was measured by push-in test. Histological analysis was performed using hard-tissue sections. Bone-implant contact (BIC), the thickness of new bone around the implant within the bone marrow area, and osteoclast numbers were evaluated. The average surface roughness of 3Y-TZP (Sa 0.788 mum) was significantly higher than that of NanoZr (Sa 0.559 mum). The shear strengths of 3Y-TZP and NanoZr were similar at 2 weeks, but at 4 and 8 weeks the shear strength of NanoZr was higher than that of 3Y-TZP. The average BIC values within the bone marrow area for 3Y-TZP and NanoZr were 25.26% and 31.51% at 2 weeks, 46.78% and 38% at 4 weeks, and 47.88% and 56.81% at 8 weeks, respectively. The average BIC values within the cortical area were 38.86% and 58.42% at 2 weeks, 66.82% and 57.74% at 4 weeks, and 79.91% and 78.97% at 8 weeks, respectively. The mean BIC value did not differ significantly between the two zirconia materials at any time point."

According to the news editors, the research concluded: "The NanoZr implants were biocompatible, capable of establishing close BIC, and may be preferred for metal-free dental implants."

For more information on this research see: Biomechanical and histological evaluation of the osseointegration capacity of two types of zirconia implant. International Journal of Nanomedicine, 2016;11():6507-6516. International Journal of Nanomedicine can be contacted at: Dove Medical Press Ltd, PO Box 300-008, Albany, Auckland 0752, New Zealand.

Our news journalists report that additional information may be obtained by contacting G. Hong, Tohoku University, Liaison Center Innovat Dental, Sendai, Miyagi, Japan. Additional authors for this research include G. Hong, H. Lin, Y. Shimizu, Y.H. Wu, G. Zheng, H.Y. Zhang and K. Sasaki.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2147/IJN.S119519. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Miyagi, Japan, Asia, Immune System, Bone Research, Bone Marrow, Tohoku University.

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Oncology - Prostate Cancer

Study Results from Tongji University School of Medicine Update Understanding of Prostate Cancer (Quantitative proteomic study of human prostate cancer cells with different metastatic potentials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting originating in Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Metastatic dissemination is a feature of most cancers including prostate cancer (PCa), and is the main cause of treatment failure and mortality. The aim of the study is to explore the mechanisms of PCa metastasis and to search for potential prognostic markers using proteomics."

The news reporters obtained a quote from the research from the Tongji University School of Medicine, "Two-dimensional fluorescent differential gel electrophoresis (2D-DIGE) was used to quantify proteins in normal prostate epithelial cells, bone metastasis-derived PC-3 cells, and visceral metastasis-derived PC-3M cells. Metastatic potential was confirmed by flow cytometry, electron microscopy, proliferating cell nuclear antigen assay, and wound healing assay. Differential protein expression was compared between PCa cells with different metastatic potentials (LNcap, DU145, PC-3 and PC-3M) and normal prostate epithelial cells (RWPE-1). Selected candidate proteins in human prostate tissues were analyzed using GOA, UniProt and GeneCards analyses. Eighty-six proteins were differentially expressed between cell lines (>1.5-fold, p<0.05). Among them, twelve proteins were identified by MALDI-TOF-MS. One protein was upregulated in normal prostate epithelial cells, nine proteins were upregulated in PC-3, and two proteins were upregulated in PC-3M. Proteins were divided into five groups according to their functions. The SETDB1 protein was closely associated with the prognosis of PCa. Bioinformatics suggested that SETDB1 might promote PCa bone metastasis through the WNT pathway."

According to the news reporters, the research concluded: "SETDB1 might be associated with the development of bone metastases from PCa. Further study is necessary to assess its exact role in PCa."


Our news correspondents report that additional information may be obtained by contacting Q. Li, Dept. of Oncology, Shanghai East Hospital, Tongji University School of Medicine, Shanghai 200120, People's Republic of China. Additional authors for this research include Y. Li, Y. Wang, Z. Cui, L. Gong, Z. Qu, Y. Zhong, J. Zhou, Y. Zhou, Y. Gao and Y. Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3378. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Shanghai, Oncology, Peptides, Proteins, Proteomics, Amino Acids, Bone Research, Prostate Cancer, Epithelial Cells, Prostatic Neoplasms, People's Republic of China.

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Heart Disorders and Diseases - Atrial Fibrillation

Study Results from Tsuchiura Kyodo General Hospital Provide New Insights into Atrial Fibrillation (Pulmonary Vein Isolation Using a Second-Generation Cryoballoon in Patients With Paroxysmal Atrial Fibrillation: One-Year Outcome Using a Single ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Atrial Fibrillation is now available. According to news reporting from Ibaraki, Japan, by NewsRx journalists, research stated, "Cryoballoon Ablation of PAF. The second-generation cryoballoon (CB) has been recently introduced into clinical use for pulmonary vein isolation (PVI)."

The news correspondents obtained a quote from the research from Tsuchiura Kyodo General Hospital, "Data on the feasibility, long-term outcome, and optimal freeze cycle are still limited. We assessed the 1-year clinical outcome after second-generation CB ablation with single 3-minute freeze techniques, and clinical variables associated with AF recurrence. A total of 108 paroxysmal atrial fibrillation (PAF) patients undergoing cryothermal PVI were enrolled. PVI was performed with one 28-mm CB using single 3-minute freeze techniques without bonus applications. Fourteen-day consecutive monitoring was done after discharge to detect early AF recurrences (ERAFs). Out of 425 PVs, 409 (96.2%) were isolated using exclusively CBs, and 16 required touch-up ablation. Transient phrenic nerve injury, pericardial tamponade, and 50% PV stenosis occurred in 9, 1, and 1 patients, respectively. No PV stenosis >50% was observed in any patients. The total procedure and fluoroscopic times were 82.9 +/- 26.4 and 26.2 +/- 14.8 minutes, respectively. ERAFs were detected in 51 (47.2%) patients. At 1-year after single and repeat procedures, 71.6% and 84.3% of the patients were free from recurrent AF off antiarrhythmic drugs (AADs), respectively. Eighteen patients underwent repeat procedures (median 6.0 [4.0-9.3] months post procedure), and 68.6% of PVs were still isolated. Cox's proportional models determined that ERAFs were significantly associated with AF recurrence (HR = 7.236; 95% CI = 2.753-19.016; P< 0.0001). AF-freedom off AADs at 1-year after single procedures was 90.8% and 50.3% in patients without and with ERAFs. Second-generation CB ablation using single 3-minute freeze techniques appears feasible in PAF patients."

According to the news reporters, the research concluded: "ERAFs were significant factors for predicting clinical outcomes."


Our news journalists report that additional information may be obtained by contacting S. Miyazaki, Tsuchiura Kyodo Gen Hosp, Cardiovasc Center, Div Cardiol, Tsuchiura, Ibaraki 3000053, Japan. Additional authors for this research include H. Hachiya, H. Nakamura, H. Taniguchi, T. Takagi, K. Hirao and Y. Iesaka.

Keywords for this news article include: Ibaraki, Japan, Asia, Heart Disorders and Diseases, Atrial Fibrillation, Cardiac Arrhythmias, Pulmonary Veins, Heart Disease, Angiology, Stenosis, Tsuchiura Kyodo General Hospital.
Study Results from Tufts University in the Area of Antibiotics Reported (Colistin loading dose: evaluation of the published pharmacokinetic and clinical data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Antibiotics. According to news originating from Boston, Massachusetts, by NewsRx correspondents, research stated, "Colistin (polymyxin E) has been widely used since the beginning of the century as a last-option antibiotic for the treatment of patients with multidrug-resistant and extensively-drug-resistant bacterial infections. However, colistin dosing is troublesome because each batch of the drug contains a mixture of components and because it is administered as the inactive pro-drug colistimethate sodium (CMS), which has different pharmacokinetic (PK) properties from the active drug."

Our news journalists obtained a quote from the research from Tufts University, "Significant inter-individual and intra-individual variability in colistin plasma concentrations have been observed in all available studies. Low plasma concentrations of the drug during the first hours from initiation of administration suggested that a loading dose would be appropriate. However, other PK studies challenge this approach. Clinical data from randomised controlled trials are not available, whilst data from observational studies do not support higher effectiveness of a loading dose."

According to the news editors, the research concluded: "In this review, we summarise the available data regarding the administration of a loading dose and discuss the issues surrounding the potential advantages and disadvantages as well as the context within which such an approach could be beneficial to patients."


The news correspondents report that additional information may be obtained from M.E. Falagas, Tufts University, Sch Med, Boston, MA 02111, United States. Additional authors for this research include K. Rellos, N.A. Triarides and M.E. Falagas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ijantimicag.2016.08.009. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Boston, Massachusetts, United States, North and Central America, Pharmaceuticals, Article Review, Pore Forming Cytotoxic Proteins, Drugs and Therapies, Membrane Proteins, Pharmacokinetics, Antibiotics, Polymyxins, Colistin, Tufts University.

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Study Results from Tulane University Broaden Understanding of HIV/AIDS (In vitro effects of the small-molecule protein kinase C agonists on HIV latency reactivation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Immune System Diseases and Conditions - HIV/AIDS have been presented. According to news originating from Covington, Louisiana, by NewsRx correspondents, research stated, "The persistence of latently HIV-infected cellular reservoirs represents the major obstacle to virus eradication in patients under antiretroviral therapy (ART). Cure strategies to eliminate these reservoirs are thus needed to reactivate proviral gene expression in latently infected cells."

Our news journalists obtained a quote from the research from Tulane University, "In this study, we tested optimal concentrations of PKC agonist candidates (PEP005/Ingenol-3-angelate, prostratin, bryostatin-1, and JQ1) to reactivate HIV latency in vitro, and examined their effects on cell survival, activation and epigenetic histone methylation after treatment alone or in combination in cell line and isolated CD4 T cells from SIV-infected macaques. The results showed that PKC agonists increased cell activation with different degrees of latency reactivation, concomitant with reduced levels of histone methylation. With increasing concentrations, prostratin and byrostain-1 treatment rapidly reduced cell survival and cell activation. The PKC agonist combinations, or in combination with JQ1, led to modest levels of synergistic reactivation of HIV. Remarkably, PEP005 treatment alone caused marked reactivation of HIV latency, similar to PMA stimulation."

According to the news editors, the research concluded: "These findings suggested that PEP005 alone, as indicated its lower cytotoxicity and lower effective dose inducing maximal reactivation, might be a candidate for effectively reactivating HIV latency as part of a therapeutic strategy for HIV infection."

For more information on this research see: In vitro effects of the small-molecule protein kinase C agonists on HIV latency reactivation. Scientific Reports, 2016;6():1-8. Scientific Reports can be contacted at: Nature Publishing Group, Macmillan Building, 4 Crinan St, London N1 9XW, England. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

The news correspondents report that additional information may be obtained from H.B. Xu, Tulane University, Sch Med, Tulane Natl Primate Res Center, Pathol & Lab Med, Covington, LA 70433, United States. Additional authors for this research include W. Ziani, X.L. Wang, R.S. Veazey and H.B. Xu.

Keywords for this news article include: Covington, Louisiana, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Enzymes and Coenzymes, Primate Lentiviruses, Vertebrate Viruses, Protein Kinase C, HIV Infections, Retroviridae, RNA Viruses, Proteomics, HIV/AIDS, Genetics, Tulane University.

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Study Results from Tulane University in the Area of Plasma Reported
(Quantification of intact plasma AGT consisting of oxidized and reduced conformations using a modified ELISA)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Plasma. According to news originating from New Orleans, Louisiana, by NewsRx correspondents, research stated, "The pleiotropic actions of the renin-angiotensin system (RAS) depend on the availability of angiotensinogen (AGT) which generates angiotensin I (ANG I) when cleaved by renin. Thus, quantification of the intact AGT (iAGT) concentrations is important to evaluate the actual renin substrate available."

Our news journalists obtained a quote from the research from Tulane University, "The iAGT conformation exists as oxidized AGT (oxi-AGT) and reduced AGT (red-AGT) in a disulfide bond, and oxi-AGT has a higher affinity for renin, which may exacerbate RAS-associated diseases. Accordingly, we determined iAGT, oxi-AGT, and red-AGT levels in plasma from rats and mice. Blood samples were obtained by cardiac puncture and then immediately mixed with an inhibitor solution containing a renin inhibitor. Total AGT (tAGT) levels were measured by tAGT ELISA which detects both cleaved and iAGT. iAGT levels were determined by iAGT ELISA which was found to only detect red-AGT. Thus, it was necessary to treat samples with dithiothreitol, a reducing agent, to quantify total iAGT concentration. tAGT levels in rat and mouse plasma were 1,839 +/- 139 and 1,082 +/- 77 ng/ml, respectively. iAGT levels were 53% of tAGT in rat plasma but only 22% in mouse plasma, probably reflecting the greater plasma renin activity in mice. The ratios of oxi-AGT and red-AGT were similar to 4:1 (rat) and 16:1 (mouse). Plasma iAGT consists of oxi-AGT and red-AGT, suggesting that oxidative stress can influence ANG I generation by the AGT conformation switch."

According to the news editors, the research concluded: "Furthermore, the lower availability of plasma iAGT in mice suggests that it may serve as a limiting factor in ANG I formation in this species."

For more information on this research see: Quantification of intact plasma AGT consisting of oxidized and reduced conformations using a modified ELISA. American Journal of Physiology-Renal Physiology, 2016;311(6):F1211-F1216. American Journal of Physiology-Renal Physiology can be contacted at: Amer Physiological Soc, 9650 Rockville Pike, Bethesda, MD 20814, USA.

The news correspondents report that additional information may be obtained from R. Satou, Tulane University, Sch Med, Renal Center Excellence, Dept. of Physiol & Hypertens, New Orleans, LA 70112, United States. Additional authors for this research include H. Kobori, A. Katsurada, K. Miyata and L.G. Navar.

Keywords for this news article include: New Orleans, Louisiana, United States, North and Central America, Aspartic Acid Endopeptidases, Proprotein Convertases, Enzymes and Coenzymes, Biological Factors, Peptide Hydrolases, Angiotensins, Hematology, Autacoids, Plasma, Renin, Blood, Tulane University.

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Life Science Research - Bat Biology

Study Results from University College Update Understanding of Bat Biology [The effects of human-mediated habitat fragmentation on a sedentary woodland-associated species (Rhinolophus hipposideros) at its range margin]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Life Science Research - Bat Biology. According to news reporting out of Dublin, Ireland, by NewsRx editors, research stated, "Among the many anthropogenic modifications to earth's ecosystems, habitat loss and degradation pose the most immediate threat to many biota. The predicted consequences of fragmented habitats include lower species diversity, smaller population sizes, disrupted gene flow, increased drift and inbreeding and increased differentiation between neighbouring populations; all of which are thought to be further enhanced in species with low dispersal abilities."

Our news journalists obtained a quote from the research from University College, "These factors, especially when occurring in tandem, can lead to an increased risk of extinction. To examine the genetic consequences of habitat fragmentation we selected an isolated population of a sedentary woodland specialist species (Rhinolophus hipposideros) to act as an indicator of disruptions to landscape level connectivity. Based on 491 individuals from 37 colonies our results revealed the presence of a broad North-Range/South-Range differentiation within this species in Ireland; a finding supported across datasets (mtDNA and nuclear microsatellites) and analyses. Analyses of echolocation data and microsatellites suggested further differentiation of the northern-most colonies. A landscape genetics framework to assess the impact of habitat versus geographic distance on population differentiation showed that habitat features (at a five km resolution) were equally likely to be correlated with differentiation as geographic distance considered alone. Further differentiation of the geographically disjunct groups is likely to occur in the future. The viability of either group alone is uncertain given their restricted distribution, small population sizes (based on census data and N-e estimates) and isolation."

According to the news editors, the research concluded: "Roost provision and habitat restoration in the geographic region separating the differentiated groups will be fundamental to the recolonization of this area and the reestablishment of connectivity between the regional groups."

For more information on this research see: The effects of human-mediated habitat fragmentation on a sedentary woodland-associated species (Rhinolophus hipposideros) at its range margin. Acta Chiropterologica, 2016;18(2):377-393. Acta Chiropterologica can be contacted at: Museum & Inst Zoology Pas-Polish Acad Sciences, Wilcza Street 64, 00-679 Warsaw, Poland.

Our news journalists report that additional information may be obtained by contacting S.E. Dool, University College Dublin, Sch Biol & Environm Sci, Dublin 4, Ireland. Additional authors for this research include S.J. Puechmaille, C. Kelleher, K. McAney and E.C. Teeling.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3161/15081109ACC2016.18.2.006. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Dublin, Ireland, Europe, Bat Biology, Life Science Research, University College.

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Liver Diseases and Conditions - Chronic Hepatitis B…

Study Results from University Health Network Provide New Insights into Chronic Hepatitis B Virus (Flares during long-term entecavir therapy in chronic hepatitis B)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Liver Diseases and Conditions - Chronic Hepatitis B Virus is now available. According to news reporting originating from Toronto, Canada, by NewsRx correspondents, research stated, "The incidence and consequences of flares during first-line nucleos(t)ide analogue therapy are largely unknown. We aimed to investigate the incidence and outcome of alanine aminotransferase (ALT) flares during long-term entecavir (ETV) in chronic hepatitis B (CHB)."

Our news editors obtained a quote from the research from University Health Network, "CHB patients treated with ETV monotherapy from 11 European centers were studied. Flare was defined as > 3x increase in ALT compared with baseline or lowest on-treatment level and an absolute ALT > 3x ULN. Flares were designated as host-induced (preceded by hepatitis B virus (HBV)-DNA decline), virus-induced (HBV-DNA increase), or indeterminate (stable HBV-DNA). Seven hundred and twenty-nine patients were treated with ETV for median of 3.5 years. Thirty patients developed a flare with cumulative incidence of 6.3% at year 5. Baseline hepatitis B e antigen (HBeAg)-positivity (HR 2.84; P = 0.005) and high HBV-DNA (Hazard ratio (HR) 1.30; P = 0.003) predicted flares. There were 12 (40%) host-induced, 7 (23%) virus-induced, and 11 (37%) indeterminate flares. Host-induced flares occurred earlier than virus-induced (median: 15 vs 83 weeks; P = 0.027) or indeterminate flares (15 vs 109 weeks; P = 0.011). Host-induced flares were associated with biochemical remission, and HBeAg (n = 3) and hepatitis B surface antigen (n = 2) seroconversions were exclusively observed among patients with these flares. Virus-induced flares were associated with ETV resistance (n = 2) and non-compliance (n = 1). The incidence of ALT flares during ETV was low in this real-life cohort. ETV can be safely continued in patients with host-induced flares."

According to the news editors, the research concluded: "Treatment adherence and drug resistance must be assessed in patients with virus-induced flares."


Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Nucleoside Reverse Transcriptase Inhibitors (NRTIs), Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Hepadnaviridae Infections, Chronic Hepatitis B Virus, Drugs and Therapies, Orthohepadnavirus, Gastroenterology, Antiretrovirals, Antiretrovirals, DNA Viruses, Antivirals, Viral DNA, Entecavir, Genetics, Therapy, University Health Network.

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Hematologic Diseases and Conditions -

Study Results from University Hospital Broaden Understanding of Thrombocytopenia (Procoagulant profile in patients with immune thrombocytopenia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Hematologic Diseases and Conditions - Thrombocytopenia is now available. According to news reporting out of Madrid, Spain, by NewsRx editors, research stated, "Despite their low platelet count some immune thrombocytopenia (ITP) patients seldom bleed, indicating the presence of factors to compensate thrombocytopenia. Moreover, ITP patients may have an increased risk for thrombosis."

Financial support for this research came from FIS-FEDER.

Our news journalists obtained a quote from the research from University Hospital, "These facts suggest the presence of procoagulant mechanisms that have not been clarified yet. The aim of this study was to identify these possible factors. Moreover, the utility of rotational thromboelastometry (ROTEM ®) to test haemostasis in these patients was also evaluated. Patients with ITP presented a procoagulant profile due to an increased amount of platelet- and red cell-microparticles, an increased resistance to protein C and the formation of a clot more resistant to fibrinolysis due to augmented levels of plasminogen activator inhibitor-1, which might reflect an endothelial damage/activation in ITP patients. Despite increased maximum clot firmness and reduced lysis, ROTEM ® profiles showed a prolonged clotting time that might rely on the presence of anti-platelet antibodies as suggested by the increased lagtime in thrombin generation test caused by plasma from ITP patients on platelets from healthy controls. These results indicate the need to individualize therapeutic treatment for ITP patients, considering their procoagulant profile and the presence of concomitant risk factors."

According to the news editors, the research concluded: "Moreover, ROTEM ® appeared to be useful for evaluating haemostasis in ITP patients."


Our news journalists report that additional information may be obtained by contacting N.V. Butta, Univ Hosp La Paz IdiPaz, Haematol & Haemotherapy Unit, Madrid 28046, Spain. Additional authors for this research include I. Fernandez-Bello, V. Jimenez-Yuste, M. Martin-Salces, E.G. Arias-Salgado, M.I.R. Pollmar, R.J. Sanz and N.V. Butta.

The direct object identifier (DOI) for that additional information is:
Study Results from University Hospital Provide New Insights into Atrial Fibrillation (Catheter ablation using the third-generation cryoballoon provides an enhanced ability to assess time to pulmonary vein isolation facilitating the ablation ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Atrial Fibrillation. According to news reporting originating from Staten Island, New York, by NewsRx correspondents, research stated, "Limited data exist on cryoablation of atrial fibrillation (Cryo-AF) using the newly available third-generation (Arctic Front Advance-Short Tip [AFA-ST]) cryoballoon. In this multicenter study, we evaluated the safety and efficacy of Cryo-AF using the AFA-ST vs the second-generation (Arctic Front Advance [AFA]) cryoballoon."

Our news editors obtained a quote from the research from University Hospital, "We examined the procedural safety and efficacy and the short- and long-term clinical outcomes associated with a first-time Cryo-AF performed in 355 consecutive patients (254/355 [72%] with paroxysmal AF), using either the AFA-ST (n = 102) or the AFA (n = 253) cryoballoon catheters. Acute isolation was achieved in 99.6% of all pulmonary veins (PVs) (AFA-ST: 100% vs AFA: 99.4%; P = .920). Time to pulmonary vein isolation was recorded in 89.2% of PVs using AFA-ST vs 60.2% using AFA (P < .001). PVs targeted using AFA-ST required fewer applications (1.6 +/- 0.8 vs 1.7 +/- 0.8; P = .023), whereas there were no differences in the balloon nadir temperature (AFA-ST: -47.0 degrees C +/- 7.3 degrees C vs AFA: -7.5 degrees C +/- 7.8 degrees C; P = .120) or thaw time (AFA-ST: 41 +/- 24 seconds vs AFA: 44 +/- 28 seconds; P = .056). However, AFA-ST was associated with shorter left atrial dwell time (43 +/- 5 minutes vs 53 +/- 16 minutes; P < .001) and procedure time (71 +/- 11 minutes vs 89 +/- 25 minutes; P < .001). Furthermore, Cryo-AF using AFA-ST was completed more frequently by 'single-shot' PV ablation (27.4% vs 20.2%; P = .031). Persistent phrenic nerve palsy (AFA-ST: 0% vs AFA: 0.8%; P = .507) and procedure-related adverse events (AFA-ST: 1.0% vs AFA: 1.6%; P = .554) were similar, as was the freedom from recurrent atrial arrhythmias at 10 months of follow-up (AFA-ST: 81.8% vs AFA: 79.9%; P = .658). Cryo-AF using the AFA-ST cryoballoon offers an enhanced ability to assess time to pulmonary vein isolation, allowing for fewer cryoapplications and shorter left atrial dwell time and procedure time."

According to the news editors, the research concluded: "Consequently, this allowed for procedural completion more frequently using a 'single-shot' PV ablation with equivalent safety and efficacy."

For more information on this research see: Catheter ablation using the third-generation cryoballoon provides an enhanced ability to assess time to pulmonary vein isolation

The news editors report that additional information may be obtained by contacting M. Kowalski, Staten Island University Hospital, Staten Island, New York, NY, United States. Additional authors for this research include M. Kowalski, P.G. O'Neill, C.H. Koo, H.W. Lim, A. Khan, R.B. Hokanson, M.R. Bowers, D.N. Kenigsberg and K.A. Ellenbogen.

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Keywords for this news article include: Staten Island, New York, United States, North and Central America, Heart Disorders and Diseases, Heart Catheterization, Atrial Fibrillation, Electrocoagulation, Catheter Ablation, Pulmonary Veins, Angiology, University Hospital.

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**Oncology - Cervical Cancer**

**Study Results from University Hospital in the Area of Cervical Cancer Reported [Barriers to Cervical Cancer Screening in Geneva (DEPIST Study)]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Cervical Cancer is now available. According to news reporting from Geneva, Switzerland, by NewsRx journalists, research stated, "Cervical screening is only efficient if a large part of eligible women participate. Our aim was to identify sociodemographic barriers to cervical screening and consider self-reported reasons to postpone screening."

The news correspondents obtained a quote from the research from University Hospital. "Between September 2011 and June 2015, a questionnaire addressing reasons for nonparticipation in cervical screening was completed by 556 women who had not undergone a PAP test in the preceding 3 years. Pearson ch test was used to analyze differences between subgroups. Logistic regression was used to explore the association between sociodemographic characteristics and reasons for nonparticipation. The main reasons for nonparticipation in cervical cancer screening were practical barriers, such as lack of time and the cost of screening. These barriers were more likely to be reported by working women, women who were not sexually active, and those without health insurance. Younger women, non-European women living in Switzerland, and childless women were more likely to have never participated in a screening program before (adjusted odds ratio [aOR], 3.15; 95% CI, 1.41-6.98; aOR, 2.76; 95% CI, 1.48-5.16; aOR, 1.74; 95% CI, 1.03-2.99, respectively). Practical considerations seem to play a more important role in screening participation than emotional reasons and other beliefs."

According to the news reporters, the research concluded: "Particular attention should be paid to immigrant communities, where women seem more likely to skip cervical screening."

of Lower Genital Tract Disease can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA. (Lippincott Williams and Wilkins - www.lww.com; Journal of Lower Genital Tract Disease - journals.lww.com/jlgtd/pages/default.aspx)


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/LGT.0000000000000173. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Journal of Lower Genital Tract Disease is:
Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA.

Keywords for this news article include: Geneva, Europe, Oncology, Switzerland, Epidemiology, Women's Health, Cervical Cancer, Diagnostics and Screening.

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**Oncology - Glioblastomas**

**Study Results from University Medical Center Provide New Insights into Glioblastomas (Differential expression of CXCR4 and CXCR7 with various stem cell markers in paired human primary and recurrent glioblastomas)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Glioblastomas. According to news reporting from Kiel, Germany, by NewsRx journalists, research stated, "The chemokine CXCL12 (also termed SDF-1, stromal cell-derived factor-1) and its receptors CXCR4 and CXCR7 are known to play a pivotal role in tumor progression including glioblastomas (GBM). Previous investigations focused on the expression and functional roles of CXCR4 and CXCR7 in different GBM cell subpopulations, but comparative analysis in matched primary versus recurrent GBM samples are still lacking."

The news correspondents obtained a quote from the research from University Medical Center, "Thus, here we investigated the expression of CXCR4 and CXCR7 on mRNA and protein level using matched primary and recurrent GBM pairs. Additionally, as GBM CXCR4-positive stem-like cells are supposed to give rise to recurrence, we compared the expression of both receptors in primary and recurrent GBM cells expressing either neural (MUSASHI-1) or embryonic stem cell markers (KLF-4, OCT-4, SOX-2, NANOG). We were able to show that both CXCR4 and CXCR7 were expressed at considerable mRNA and protein levels. CXCR7 was downregulated in relapse cases, and different groups regarding CXCR4/CXCR7 expression differences between primary and recurrent samples could be distinguished. A co-expression of both receptors was rare. In line with this, CXCR4 was co-expressed with all investigated neural and embryonic stem cell markers in both primary and recurrent tissues, whereas CXCR7 was mostly found on stem cell marker-negative cells, but was co-expressed with KLF-4 on a distinct GBM cell subpopulation."
According to the news reporters, the research concluded: "These results point to an individual role of CXCR4 and CXCR7 in stem cell marker-positive GBM cells in glioma progression and underline the opportunity to develop new therapeutic tools for GBM intervention."

For more information on this research see: Differential expression of CXCR4 and CXCR7 with various stem cell markers in paired human primary and recurrent glioblastomas. *International Journal of Oncology*, 2016;48(4):1408-16.

Our news journalists report that additional information may be obtained by contacting C. Fluh, Dept. of Neurosurgery, University Medical Center Schleswig-Holstein UKSH, Campus Kiel, D-24105 Kiel, Germany. Additional authors for this research include K. Hattermann, H.M. Mehdorn, M. Synowitz and J. Held-Feindt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2016.3354. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Kiel, Europe, Germany, Genetics, Oncology, Glioblastomas, Stem Cell Research, Embryonic Stem Cells.

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**Genetics - Human Genetics**

**Study Results from University Medical Center Provide New Insights into Human Genetics (Am I My Family's Keeper? Disclosure Dilemmas in Next-Generation Sequencing)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Genetics - Human Genetics is now available. According to news reporting from Utrecht, Netherlands, by NewsRx journalists, research stated, "Ever since genetic testing is possible for specific mutations, ethical debate has sparked on the question of whether professionals have a duty to warn not only patients but also their relatives that might be at risk for hereditary diseases. As next-generation sequencing (NGS) swiftly finds its way into clinical practice, the question who is responsible for conveying unsolicited findings to family members becomes increasingly urgent."

Financial support for this research came from KWF Kankerbestrijding.

The news correspondents obtained a quote from the research from University Medical Center, "Traditionally, there is a strong emphasis on the duties of the professional in this debate. But what is the role of the patient and her family? In this article, we discuss the question of whose duty it is to convey relevant genetic risk information concerning hereditary diseases that can be cured or prevented to the relatives of patients undergoing NGS. We argue in favor of a shared responsibility for professionals and patients and present a strategy that reconciles these roles: a moral accountability nudge. Incorporated into informed consent and counseling services such as letters and online tools, this nudge aims to create awareness on specific patient responsibilities."

According to the news reporters, the research concluded: "Commitment of all parties is needed to ensure adequate dissemination of results in the NGS era."

Study Results from University of Alberta Broaden Understanding of Pneumococcal Pneumonia (Prognostic factors associated with mortality and major in-hospital complications in patients with bacteremic pneumococcal pneumonia Population-based study)

By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Lung Diseases and Conditions - Pneumococcal Pneumonia. According to news reporting originating from Edmonton, Canada, by NewsRx correspondents, research stated, "Bacteremic pneumococcal pneumonia (BPP) causes considerable mortality and morbidity. We aimed to identify prognostic factors associated with mortality and major in-hospital complications in BPP."

Our news editors obtained a quote from the research from the University of Alberta, "A prospective, population-based clinical registry of 1636 hospitalized adult patients (≥18 years) with BPP was established between 2000 and 2010 in Northern Alberta, Canada. Prognostic factors for mortality and major in-hospital complications (e.g., cardiac events, mechanical ventilation, aspiration) were evaluated using multivariable logistic regression. Average age was 54 (standard deviation 18) years, 57% males, and 59% had high case-fatality rate (CFR) serotypes. Overall, 14% (226/1636) of patients died and 22% (315/1410) of survivors developed at least 1 complication. Independent prognostic factors for mortality were age (adjusted odds ratio [aOR], 1.5 per decade; 95% confidence interval [CI], 1.3-1.7), nursing home residence (aOR, 3.7; 95% CI 1.8-7.4), community-dwelling dementia (aOR 3.7; 95% CI, 1.6-8.6), alcohol abuse (aOR, 2.2; 95% CI, 1.4-3.4), acid-suppressing drugs (aOR, 1.5; 95% CI, 1.0-2.3), guideline-discordant antibiotics (aOR, 3.4; 95% CI, 2.4-4.8), multilobe pneumonia (aOR, 2.6; 95% CI, 1.8-3.6), and high CFR serotypes (aOR, 1.8; 95% CI, 1.2-2.8). Similar prognostic factors were observed for major in-hospital complications. Pneumococcal vaccination was associated with reduced in-hospital mortality (aOR, 0.2; 95% CI, 0.05-0.9) but not major complications (P=0.2). Older and frailer patients, and those who abuse alcohol or take acid-suppressing drugs, are at increased risk of BPP-related mortality and complications, as are those with high CFR serotypes."

According to the news editors, the research concluded: "Beyond identifying those at
highest risk, our findings demonstrate the importance of guideline-concordant antibiotics and pneumococcal vaccination in those with BPP."


The news editors report that additional information may be obtained by contacting D.T. Eurich, University of Alberta, Li Ka Shing Center 2 040, ACHORD, Edmonton, AB, Canada. Additional authors for this research include S.R. Majumdar, G.J. Tyrrell, T.J. Marrie and D.T. Eurich.

Keywords for this news article include: Edmonton, Alberta, Canada, North and Central America, Respiratory Tract Diseases and Conditions, Pneumococcal Disease, Epidemiology, Gram-Positive Bacterial Infections, Bacterial Infections and Mycoses, Lung Diseases and Conditions, Respiratory Tract Infections, Pneumococcal Infections, Pneumococcal Pneumonia, Bacterial Pneumonia, Infectious Disease, Public Health, Immunization, Vaccination, Pulmonology, Hospital, University of Alberta.

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**Cell Research - Cell Adhesion Molecules**

**Study Results from University of Alcala Update Understanding of Cell Adhesion Molecules (TGF beta Induces Epithelial-Mesenchymal Transition of Thyroid Cancer Cells by Both the BRAF/MEK/ERK and Src/FAK Pathways)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cell Research - Cell Adhesion Molecules have been presented. According to news reporting from Madrid, Spain, by NewsRx journalists, research stated, "The epithelial-mesenchymal transition (EMT) is a crucial process in tumour progression, by which epithelial cells acquire a mesenchymal phenotype, increasing its motility and the ability to invade distant sites. Here, we describe the molecular mechanisms by which (V600E)BRAF, TGF beta and the Src/FAK complex cooperatively regulate EMT induction and cell motility of anaplastic thyroid cancer cells."

The news correspondents obtained a quote from the research from the University of Alcala, "Analysis of EMT marker levels reveals a positive correlation between TGF beta and Snail expression, with a concomitant downregulation of E-cadherin, accompanied by an increase of cell migration and invasion. Furthermore, we show that (V600E)BRAF depletion by siRNA or inhibition of its activity by treatment with its inhibitor PLX4720 reverses the TGF beta-mediated effects on Snail, E-cadherin, migration and invasion. Moreover, (V600E)BRAF induces TGF beta secretion through a MEK/ERK-dependent mechanism. In addition, TGF beta activates the Src/FAK complex, which in turn regulates the expression of Snail and E-cadherin as well as cell migration. The inhibition of Src with the inhibitor SU6656 or abrogation of FAK expression with a specific siRNA reverses the TGF beta-induced effects. Interestingly, we demonstrate that activation of the Src/FAK complex by TGF beta is independent of (V600E) BRAF signalling, since inhibition of this oncogene does not affect its phosphorylation. Our data
strongly suggest that TGF beta induces EMT and aggressiveness of thyroid cancer cells by parallel mechanisms involving both the (V600E)BRAF/MEK/ERK and Src/FAK pathways independently."

According to the news reporters, the research concluded: "Thus, we describe novel functions for Src/FAK in mediating the EMT program and aggressiveness regulated by TGF beta, establishing the inhibition of these proteins as a possible effective approach in preventing tumour progression of (V600E)BRAF-expressing thyroid tumours."


Our news journalists report that additional information may be obtained by contacting A. Chiloeches, Univ Alcala De Henares, Fac Med, Unidad Bioquim & Biol Mol, Dept. of Biol Sistemas, E-28871 Madrid, Spain. Additional authors for this research include E. Jimenez-Mora, A. Santos, M. Lasa and A. Chiloeches.

Keywords for this news article include: Madrid, Spain, Europe, Genetics, Risk and Prevention, Cell Adhesion Molecules, Membrane Proteins, Cell Research, Glycoproteins, Cadherins, University of Alcala.

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Study Results from University of Angers Provide New Insights into Peripheral Nervous System Research (Increased mitochondrial fusion in a autosomal recessive CMT2A family with mitochondrial GTPase mitofusin 2 mutations)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Health and Medicine - Peripheral Nervous System Research are presented in a new report. According to news reporting originating from Angers, France, by NewsRx correspondents, research stated, "Charcot-Marie-Tooth type 2A disease (CMT2A) is an inherited peripheral neuropathy mainly caused by mutations in the MFN2 gene coding for the mitochondrial fusion protein mitofusin 2. Although the disease is mainly inherited in a dominant fashion, few cases of early-onset autosomal recessive CMT2A (AR-CMT2A) have been reported in recent years. In this study, we characterized the structure of the mitochondrial network in cultured primary fibroblasts obtained from AR-CMT2A family members."

Our news editors obtained a quote from the research from the University of Angers, "The patient-derived cells showed an increase of the mitochondrial fusion with large connected networks and an increase of the mitochondrial volume. Interestingly, fibroblasts derived from the two asymptomatic parents showed similar changes to a lesser extent. These results support the hypothesis that AR-CMT2A-related MFN2 mutations acts through a semi-dominant negative mechanism and suggest that other biological parameters might show mild alterations in asymptomatic heterozygote AR-CMT2A patients."

According to the news editors, the research concluded: "Such alterations could be
useful biomarkers helping to distinguish MFN2 mutations from variants, a growing challenge with the advent of next generation sequencing into routine clinical practice."


The news editors report that additional information may be obtained by contacting A. Chevrollier, Univ Angers, PREMMi Mitochondrial Med Res Center, CHU Angers, CNRSInst MITOVASCINSERMU1083UMR 6214, Angers, France. Additional authors for this research include A. Chevrollier, M.S. Kane, A. Echaniz-Laguna, P. Latour, P. Reynier, D. Bonneau, C. Verny, V. Procaccio, G. Lenaers and J. Cassereau.

Keywords for this news article include: Angers, France, Europe, Peripheral Nervous System Research, Health and Medicine, Enzymes and Coenzymes, Genetics, GTPase, University of Angers.

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**Nutritional and Metabolic Diseases and Conditions -…

**Study Results from University of Antioquia Broaden Understanding of Cerebrotendinous Xanthomatosis (Novel cerebrotendinous xanthomatosis mutation causes familial early dementia in Colombia)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Nutritional and Metabolic Diseases and Conditions - Cerebrotendinous Xanthomatosis. According to news reporting originating in Medellin, Colombia, by NewsRx journalists, research stated, "Cerebrotendinous xanthomatosis is an infrequent cause of dementia. It is an autosomal recessive disorder with clinical and molecular heterogeneity."

The news reporters obtained a quote from the research from the University of Antioquia, "To identify the presence of a possible mutation in a Colombian family with several affected siblings and clinical characteristics compatible with cerebrotendinous xanthomatosis associated to early dementia. We studied a series of cases with longitudinal follow-up and genetic analysis. These individuals had xanthomas, mental retardation, psychiatric disorders, behavioral changes, and multiple domains cognitive impairment with dysexecutive dominance that progressed to early dementia. CYP27A1 gene coding region sequencing revealed a novel mutation (c.1183_1184insT). The mutation found in this family is responsible for the described dementia features. Early identification of familial history with mental retardation, xanthomas and cognitive impairment might prevent the progression to this treatable type of dementia."

According to the news reporters, the research concluded: "Even though this mutation lies in the most frequently mutated codon of CYP27A1 gene, it has not been reported previously."

For more information on this research see: Novel cerebrotendinous xanthomatosis mutation causes familial early dementia in Colombia. *Biomedica*, 2015;35(4):563-71. (Elsevier - www.elsevier.com; Biomedica - www.journals.elsevier.com/biomedical-and-environmental-
Our news correspondents report that additional information may be obtained by contacting M. Giraldo-Chica, Grupo de Neurociencias de Antioquia, Facultad de Medicina, Universidad de Antioquia, Medellin, Colombia. Additional authors for this research include N. Acosta-Baena, L. Urbano, L. Velilla, F. Lopera and N. Pineda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.7705/biomedica.v35i4.2690. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Medellin, Colombia, Dementia, Genetics, South America, Lipid Metabolism Disorders, Brain Diseases and Conditions, Cerebrotendinous Xanthomatosis, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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Cytokines

Study Results from University of Basel Update Understanding of Cytokines (Permissive roles of cytokines interleukin-7 and Flt3 ligand in mouse B-cell lineage commitment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cytokines. According to news reporting originating in Basel, Switzerland, by NewsRx journalists, research stated, "Hematopoietic cells are continuously generated throughout life from hematopoietic stem cells, thus making hematopoiesis a favorable system to study developmental cell lineage commitment. The main factors incorporating environmental signals to developing hematopoietic cells are cytokines, which regulate commitment of hematopoietic progenitors to the different blood lineages by acting either in an instructive or a permissive manner."

Financial supporters for this research include Swiss National Science Foundation (Schweizerische Nationalfonds), European Commission (EC), Science Foundation Ireland (SFI).

The news reporters obtained a quote from the research from the University of Basel, "Fms-like tyrosine kinase-3 (Flt3) ligand (FL) and Interleukin-7 (IL-7) are cytokines pivotal for B-cell development, as manifested by the severely compromised B-cell development in their absence. However, their precise role in regulating B-cell commitment has been the subject of debate. In the present study we assessed the rescue of B-cell commitment in mice lacking IL-7 but simultaneously overexpressing FL. Results obtained demonstrate that FL overexpression in IL-7-deficient mice rescues B-cell commitment, resulting in significant Ebf1 and Pax5 expression in Ly6D(+) CD135(+)CD127(+)CD19(-) precursors and subsequent generation of normal numbers of CD19(+) B-cell progenitors, therefore indicating that IL-7 can be dispensable for commitment to the B-cell lineage."

According to the news reporters, the research concluded: "Further analysis of Ly6D(+)CD135(+)CD127(+)CD19(-) progenitors in IL-7-or FL-deficient mice overexpressing Bcl2, as well as in IL-7 transgenic mice suggests that both FL and IL-7 regulate B-cell commitment in a permissive manner: FL by inducing proliferation of Ly6D(+)CD135(+)CD127(+)CD19(-) progenitors and IL-7 by providing survival signals to these progenitors."

Our news correspondents report that additional information may be obtained by contacting P. Tsapogas, University of Basel, Dept. of Biomed, Dev & Mol Immunol, CH-4058 Basel, Switzerland. Additional authors for this research include L. Alberti-Servera, F. Klein, G. Capoferri, D. Finke, R. Ceredig, A. Rolink and P. Tsapogas.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1073/pnas.1613316113. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Basel, Switzerland, Europe, Intercellular Signaling Peptides and Proteins, Hematopoietic, Interleukin-7, Interleukins, Hematology, Cytokines, Cell Line, Genetics, University of Basel.

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**Hematology - Plasma**

**Study Results from University of Basel Update Understanding of Plasma (Single-Ascending-Dose Pharmacokinetic Study of Tribendimidine in Opisthorchis viverrini-Infected Patients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Hematology - Plasma. According to news reporting out of Basel, Switzerland, by NewsRx editors, research stated, "Praziquantel is the only drug available for the treatment of Opisthorchis viverrini infections. Tribendimidine has emerged as a potential treatment alternative; however, its pharmacokinetic (PK) properties have not been sufficiently studied to date."

Financial supporters for this research include The Forschungsfonds of the University of Basel, DFID/MRC/Wellcome Trust Joint Global Health Trials Scheme.

Our news journalists obtained a quote from the research from the University of Basel, "Via two phase IIa dose-finding studies, 68 O. viverrini patients were treated with 25- to 600-mg doses of tribendimidine using 50- and 200-mg tablet formulations. Plasma, blood, and dried blood spots (DBS) were sampled at selected time points. The two main metabolites of tribendimidine, active deacetylated amidantel (dADT) and acetylated dADT (adADT), were analyzed in plasma, blood, and DBS. PK parameters were estimated by noncompartmental analysis. An acceptable agreement among plasma and DBS concentrations was observed, with a mean bias of <= 10%, and 60% dADT and 74% adADT concentrations being within +/- 20% margins. We found that 200-mg tribendimidine tablets possess immediate floating characteristics, which led to variable time to maximal concentration of drug (T-max) values (2 to 24 h) between individuals. Dose proportionality was observed for dADT from 25 to 200 mg using 50-mg tablets, but at higher dosages (200 to 600 mg), saturation occurred. The median ratio of the area under the plasma concentration-time curve from 0 to 24 h (AUC(0-24)) of
dADT to the AUC(0-24) of adADT ranged from 0.8 to 26.4, suggesting substantial differences in acetylation rates. Cure rates ranged from 11% (25-mg dose) to 100% (400-mg dose). Cured patients showed significantly higher dADT maximal serum concentrations (C-max) and AUC(0-24) values than uncured patients. Tribendimidine is a promising drug for the treatment of opisthorchiasis. However, the tablet formulation should be optimized to achieve consistent absorption among patients.

According to the news editors, the research concluded: "Further studies are warranted to assess the large differences between individuals in the rate of metabolic turnover of dADT to adADT."


Our news journalists report that additional information may be obtained by contacting J. Keiser, University of Basel, Basel, Switzerland. Additional authors for this research include S. Sayasone, F. Vanobbergen, M.A. Penny, P. Odermatt, J. Huwyler and J. Keiser.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00992-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Basel, Switzerland, Europe, Pharmacokinetics, Pharmaceuticals, Hematology, Plasma, Blood, University of Basel.

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**Risk Management**

**Study Results from University of Bologna in the Area of Risk Management Reported (Knowledge, Risk Perceptions, and Xenophobic Attitudes: Evidence from Italy During the Ebola Outbreak)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Risk Management. According to news reporting out of Bologna, Italy, by NewsRx editors, research stated, "The purposes of the current study were twofold: (1) to investigate affective and cognitive responses and social-contextual factors related to Ebola and their intercorrelations in a developed country without widespread Ebola transmission; and (2) to examine the relationships among risk perception of Ebola, levels of knowledge about Ebola, and (blatant and subtle) prejudice toward African immigrants. Between January 2015 and March 2015, an anonymous cross-sectional survey was conducted among a convenience sample of 486 Italian adults."

Our news journalists obtained a quote from the research from the University of Bologna, "Results showed that most participants were not particularly concerned about Ebola and did not feel at risk of acquiring the virus. Cognitive dimensions of risk perception of Ebola (i.e., perceived severity of illness, perceived personal impact, perceived coping efficacy, and likelihood of infection), affective response (or worry) to Ebola, and social-contextual factors
(i.e., perceived preparedness of institutions, family members' and friends' levels of worry) were interrelated."

According to the news editors, the research concluded: "Prejudice toward African immigrants was positively related to risk perception of Ebola and negatively related to levels of knowledge about Ebola even when controlling for sociodemographic variables including political preference."


Our news journalists report that additional information may be obtained by contacting G. Prati, University of Bologna, Dept. of Psychol, Bologna, Italy.

Keywords for this news article include: Bologna, Italy, Europe, Risk Management, Risk and Prevention, University of Bologna.

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**Cardiovascular Diseases and Conditions - Embolism**

**Study Results from University of Bordeaux Update Understanding of Embolism (Direct observation and modelling of embolism spread between xylem conduits: a case study in Scots pine)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Cardiovascular Diseases and Conditions - Embolism is the subject of a report. According to news reporting out of Pessac, France, by NewsRx editors, research stated, "Xylem embolism is one of the main processes involved in drought-related plant mortality. Although its consequences for plant physiology are already well described, embolism formation and spread are poorly evaluated and modelled, especially for tracheid-based species."

Our news journalists obtained a quote from the research from the University of Bordeaux, "The aim of this study was to assess the embolism formation and spread in Pinus sylvestris as a case study using X-ray microtomography and hydraulics methods. We also evaluated the potential effects of cavitation fatigue on vulnerability to embolism and the micro-morphology of the bordered pits using scanning electron microscopy (SEM) to test for possible links between xylem anatomy and embolism spread. Finally, a novel model was developed to simulate the spread of embolism in a 2D anisotropic cellular structure. Results showed a large variability in the formation and spread of embolism within a ring despite no differences being observed in intertracheid pit membrane anatomical traits. Simulations from the model showed a highly anisotropic tracheid-to-tracheid embolism spreading pattern, which confirms the major role of tracheid-to-tracheid air seeding to explain how embolism spreads in Scots pine."

According to the news editors, the research concluded: "The results also showed that prior embolism removal from the samples reduced the resistance to embolism of the xylem and could result in overestimates of vulnerability to embolism."

For more information on this research see: Direct observation and modelling of embolism spread between xylem conduits: a case study in Scots pine. *Plant Cell and Environment, 2016;39(12):2774-2785. Plant Cell and Environment* can be contacted at: Wiley-
Study Results from University of British Columbia in the Area of Arrhythmogenic Right Ventricular Dysplasia Reported (The Canadian Arrhythmogenic Right Ventricular Cardiomyopathy Registry: Rationale, Design, and Preliminary Recruitment)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Heart Disorders and Diseases - Arrhythmogenic Right Ventricular Dysplasia. According to news reporting out of Vancouver, Canada, by NewsRx editors, research stated, "Arrhythmogenic right ventricular cardiomyopathy (ARVC) is a complex and clinically heterogeneous arrhythmic condition. Incomplete penetrance and variable expressivity are particularly evident in ARVC, making clinical decision-making challenging."

Our news journalists obtained a quote from the research from the University of British Columbia, "Pediatric and adult cardiologists, geneticists, genetic counsellors, ethicists, nurses, and qualitative researchers are collaborating to create the Canadian ARVC registry using a web-based clinical database. Biological samples will be banked and systematic analysis will be performed to examine potentially causative mutations, variants, and biomarkers. Outcomes will include syncope, ventricular arrhythmias, defibrillator therapies, heart failure, and mortality. Preliminary recruitment has enrolled 365 participants (aged 42.7 +/- 17.1 years; 50% women), including 129 probands and 236 family members. Previous cardiac arrest occurred in 28 (8%) participants, syncope occurred in 43 (12%) participants, and 46% of probands had a family history of sudden death. Overall yield of genetic testing was 36% for a disease-causing mutation and 20% for a variant of unknown significance. Target enrollment is 1000 affected patients and 500 unaffected family member controls over 7 years. The cross-sectional and longitudinal data collected in this manner will allow a robust assessment of the natural history and clinical course of genetic subtypes."

According to the news editors, the research concluded: "The Canadian ARVC Registry will create a population-based cohort of patients and their families to inform clinical decisions regarding patients with ARVC."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.04.004. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Arrhythmogenic Right Ventricular Dysplasia, Nervous System Diseases and Conditions, Cardiovascular Diseases and Conditions, Neurologic Diseases and Conditions, Neurobehavioral Manifestations, Heart Disorders and Diseases, Ventricular Cardiomyopathy, Neurologic Manifestations, Consciousness Disorders, Cardiomyopathies, Unconsciousness, Heart Disease, Cardiology, Genetics, Syncope, University of British Columbia.

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Genetics - Human Genetics

Study Results from University of British Columbia in the Area of Human Genetics Reported (The Impact of Gender on Anthropometric Measures of Twins)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics - Human Genetics have been published. According to news reporting out of Vancouver, Canada, by NewsRx editors, research stated, "Literature suggests that male hormones influence fetal growth in singleton pregnancies. We hypothesized that the same phenomenon is seen in twin gestations."

Our news journalists obtained a quote from the research from the University of British Columbia, "(1) to identify the impact of gender associated with fetal birth weight, head circumference, and birth length for twins; (2) to examine the effect of gender on standardized fetal growth at birth, according to gestational age and birth order; (3) to examine the effect of gender on placenta weight and dimensions. This was a population-based retrospective cohort study of twins (4,368 twins, 2,184 pairs) born in British Columbia, Canada from 2000-2010. We excluded twins with stillbirth, congenital anomalies, and those delivered with cesarean section. We also controlled for confounding factors, including birth order, gestational age, maternal anthropometric measures, maternal smoking habits, and obstetric history. A subsample of this population was analyzed from Children and Women Hospital to obtain chorionicity information. Male-male twins were heavier than male-females and female-female twin pairs (p=.01). Within sex-discordant twin pairs, males were also heavier than females (p=.01). Regression analysis suggested that gender affects birth weight independent of birth order and gestational age. Other newborn anthropometric measures were not found to be dependent on gender. In analyzing a subsample with chorionicity data, birth weight was the only anthropometric measure that was both statistically and clinically affected by sex, even after adjustment for gestational age, chorionicity, birth order, and maternal age."
According to the news editors, the research concluded: "Birth weight was affected by gender while head circumference and birth length were not."

For more information on this research see: The Impact of Gender on Anthropometric Measures of Twins. Twin Research and Human Genetics, 2016;19(6):652-658. Twin Research and Human Genetics can be contacted at: Cambridge Univ Press, 32 Avenue Of The Americas, New York, NY 10013-2473, USA. (Cambridge University Press - www.cambridge.org; Twin Research and Human Genetics - journals.cambridge.org/action/displayJournal?jid=THG)

Our news journalists report that additional information may be obtained by contacting S. Jahanfar, University of British Columbia, Sch Populat & Public Hlth, Vancouver, BC V6T 1Z3, Canada.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1017/thg.2016.57. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Vancouver, British Columbia, Canada, North and Central America, Human Genetics, Genetics, University of British Columbia.

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Oncology - Cancer Epidemiology

Study Results from University of California Provide New Insights into Cancer Epidemiology [Cancer burden in four countries of the Middle East Cancer Consortium (Cyprus; Jordan; Israel; Izmir (Turkey)) with comparison to the United States ...]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Cancer Epidemiology have been presented. According to news reporting originating from Irvine, California, by NewsRx correspondents, research stated, "It is important that population-based cancer registries provide accurate and reliable data for public health purposes. These data are essential data for planning of cancer control and prevention."

Our news editors obtained a quote from the research from the University of California, "In this study, we examined cancer incidence rates (year 2005-2010) in four MECC registries (Cyprus, Jordan, Israel, Izmir (Turkey)) and compared with the rates in the US. The overall age-standardized incidence rates for males were highest in the US followed by Israeli Jews, Izmir (Turkey), Cyprus, Israeli Arabs, and lowest in Jordan. In women the rates of cancer of all sites were also highest in US women followed by Israeli Jews, Cyprus, Israeli Arabs, Izmir (Turkey), and lowest in Jordan. It is of interest that although site-specific cancer rates differ between the countries studied, prostate, lung and colorectal cancers are within the five most common cancers males in all countries studied. In females, breast colorectal and endometrium cancers are three of the five most common cancers in females in all countries studied. The results presented in this paper can have implications for opportunities in cancer control and prevention in these countries."

According to the news editors, the research concluded: "Future studies on individual cancer sites with highest rates in these Countries are currently underway."

For more information on this research see: Cancer burden in four countries of the
Middle East Cancer Consortium (Cyprus; Jordan; Israel; Izmir (Turkey)) with comparison to the United States surveillance; epidemiology and end results program. *Cancer Epidemiology*, 2016;44():195-202. *Cancer Epidemiology* can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

The news editors report that additional information may be obtained by contacting H. Anton-Culver, University of California, Dept. of Epidemiol, Irvine, CA, United States. Additional authors for this research include J. Chang, F. Bray, A. Znaor, L. Stevens, S. Eser, B. Silverman, O. Nimri, P. Pavlou, H. Charalambous, A. Demetriou, K. Ward and A. Ziogas.

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Keywords for this news article include: Irvine, California, United States, North and Central America, Cancer Epidemiology, Oncology, Epidemiology, University of California.

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Study Results from University of California Provide New Insights into Congenital Heart Disease (Evaluation of Impedance Cardiography for Measurement of Stroke Volume in Congenital Heart Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Congenital Diseases and Conditions - Congenital Heart Disease. According to news reporting out of San Diego, California, by NewsRx editors, research stated, "Noninvasive measurement of cardiac output (CO) and particularly stroke volume (SV) remain difficult but potentially valuable. These variables can be particularly challenging to measure in children with congenital heart disease (CHD)."

Our news journalists obtained a quote from the research from the University of California, "Impedance cardiography (IC) is a technique shown to be accurate in measuring SV in adults and in children with structurally normal hearts. The ease of use and rapidity of SV measurement using IC makes it potentially attractive for young patients with CHD. Advances in IC technology have led to more sophisticated signal-morphology IC (SMIC) devices that may further improve accuracy. We tested the accuracy of SMIC to measure SV in 21 subjects with CHD by comparing measurements with those from cardiac magnetic resonance (CMR) imaging. There was good agreement between SMIC and CMR in measurement of SV: mean difference = 1.7 ml (p = 0.47); r = 0.89. The agreement and correlation persisted when controlling for the differences in blood pressure and heart rate during the two testing methods."

According to the news editors, the research concluded: "SMIC is accurate at measuring SV and thus CO when compared to CMR in a variety of forms of CHD."

For more information on this research see: Evaluation of Impedance Cardiography for Measurement of Stroke Volume in Congenital Heart Disease. *Pediatric Cardiology*, 2016;37(8):1453-1457. *Pediatric Cardiology* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Pediatric Cardiology - www.springerlink.com/content/0172-0643/)

Our news journalists report that additional information may be obtained by
contacting C. Davis, University of California, Rady Childrens Hosp San Diego, Dept. of Pediat, Div Cardiol, San Diego, CA 92123, United States. Additional authors for this research include S. Hegde, B. Printz, M. Abcede, J.A. Proudfoot and C. Davis.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00246-016-1456-x. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Diego, California, United States, North and Central America, Cardiovascular Physiological Phenomena, Cardiovascular Diseases and Conditions, Diagnostic Techniques and Procedures, Congenital Diseases and Conditions, Heart Disorders and Diseases, Cardiac Magnetic Resonance, Diagnostics and Screening, Impedance Plethysmography, Congenital Heart Disease, Impedance Cardiography, Heart Function Tests, Cardiac Output, Stroke Volume, Pediatrics, Cardiology, Diagnosis, University of California.

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**Drugs and Therapies - Antiretrovirals**

**Study Results from University of California Update Understanding of Antiretrovirals (Neurological Response to cART vs. cART plus Integrase Inhibitor and CCR5 Antagonist Initiated during Acute HIV)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antiretrovirals. According to news reporting from San Francisco, California, by NewsRx journalists, research stated, "To compare central nervous system (CNS) outcomes in participants treated during acute HIV infection with standard combination antiretroviral therapy (cART) vs. cART+ (cART plus integrase inhibitor and CCR5 antagonist (cART+). 24-week randomized open-label prospective evaluation."

The news correspondents obtained a quote from the research from the University of California, "Participants were evaluated then randomized to initiate cART (efavirenz, tenofovir, and either emtricitabine or lamivudine) vs. cART+ (cART plus raltegravir and maraviroc) during acute HIV and re-evaluated at 4, 12 and 24 weeks. We examined plasma and CSF cytokines, HIV RNA levels, neurological and neuropsychological findings, and brain MRS across groups and compared to healthy controls. At baseline, 62 participants were in Fiebig stages I-V. Randomized groups were similar for mean age (27 vs. 25, p=0.137), gender (each 94% male), plasma log10 HIV RNA (5.4 vs. 5.6, p=0.382), CSF log10 HIV RNA (2.35 vs. 3.31, p=0.561), and estimated duration of HIV (18 vs. 17 days, p=0.546). Randomized arms did not differ at 24 weeks by any CNS outcome. Combining arms, all measures concurrent with antiretroviral treatment improved, for example, neuropsychological testing (mean NPZ-4 of -0.408 vs. 0.245, p<0.001) and inflammatory markers by MRS (e.g. mean frontal white matter (FWM) choline of 2.92 vs. 2.84, p=0.045) at baseline and week 24, respectively. Plasma neopterin (p <0.001) and interferon gamma-induced protein 10 (IP-10) (p=0.007) remained elevated in participants compared to controls but no statistically significant differences were seen in CSF cytokines compared to controls, despite individual variability among the HIV-infected group."

According to the news reporters, the research concluded: "A 24-week course of cART+ improved CNS related outcomes, but was not associated with measurable differences
compared to standard cART."

For more information on this research see: Neurological Response to cART vs. cART plus Integrase Inhibitor and CCR5 Antagonist Initiated during Acute HIV. *Plos One*, 2015;10(11):e0142600. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

Our news journalists report that additional information may be obtained by contacting V.G. Valcour, Dept. of Neurology, University of California San Francisco, San Francisco, California, United States. Additional authors for this research include S.S. Spudich, N. Sailasuta, N. Phanuphak, S. Lerdum, J.L. Fletcher, E.D. Kroon, L.L. Jagodzinski, I.E. Allen, C.L. Adams, P. Prueksakaew, B.M. Slike, J.M. Hellmuth, J.H. Kim and J. Ananworanich.

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Keywords for this news article include: Antiretrovirals, Genetics, HIV/AIDS, California, RNA Viruses, Recombinases, Retroviridae, San Francisco, United States, HIV Infections, Enzyme Inhibitors, Vertebrate Viruses, Drugs and Therapies, Integrase Inhibitors, Primate Lentiviruses, Enzymes and Coenzymes, Central Nervous System, North and Central America.

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**Clinical Research - Clinical Trials and Studies**

**Study Results from University of California Update Understanding of Clinical Trials and Studies (Interventions for tobacco use cessation in people in treatment for or recovery from substance use disorders)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Clinical Research - Clinical Trials and Studies. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "Smoking rates in people with alcohol and other drug dependencies are two to four times those of the general population. Concurrent treatment of tobacco dependence has been limited due to concern that these interventions are not successful in this population or that recovery from other addictions could be compromised if tobacco cessation was combined with other drug dependency treatment."

Our news editors obtained a quote from the research from the University of California, "To evaluate whether interventions for tobacco cessation are associated with tobacco abstinence for people in concurrent treatment for or in recovery from alcohol and other drug dependence. Search methods We searched the Cochrane Tobacco Addiction Group Specialised Register, the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, and clinicaltrials.gov databases, with the most recent search completed in August 2016. A grey literature search of conference abstracts from the Society on Nicotine Research and Treatment and the ProQuest database of digital dissertations yielded one additional study, which was excluded. Selection criteria We included randomised controlled trials assessing tobacco cessation interventions among people in concurrent treatment for alcohol or other drug dependence or in outpatient recovery programmes. Data collection and analysis Two review authors independently assessed study risk of bias and extracted data. We resolved disagreements..."
by consensus. The primary outcome was abstinence from tobacco use at the longest period of follow-up, and the secondary outcome was abstinence from alcohol or other drugs, or both. We reported the strictest definition of abstinence. We summarised effects as risk ratios and 95% confidence intervals (CI). Two clustered studies did not provide intraclass correlation coefficients, and were excluded from the sensitivity analysis. We used the I-2 statistic to assess heterogeneity. Thirty-five randomised controlled trials, one ongoing, involving 5796 participants met the criteria for inclusion in this review. Included studies assessed the efficacy of tobacco cessation interventions, including counselling, and pharmacotherapy consisting of nicotine replacement therapy (NRT) or non-NRT, or the two combined, in both inpatient and outpatient settings for participants in treatment and in recovery. Most studies did not report information to assess the risk of allocation, selection, and attrition bias, and were classified as unclear. Analyses considered the nature of the intervention, whether participants were in treatment or recovery and the type of dependency. Of the 34 studies included in the meta-analysis, 11 assessed counselling, 11 assessed pharmacotherapy, and 12 assessed counselling in combination with pharmacotherapy, compared to usual care or no intervention. Tobacco cessation interventions were significantly associated with tobacco abstinence for two types of interventions. Pharmacotherapy appeared to increase tobacco abstinence (RR 1.60, 95% CI 1.22 to 2.12, 11 studies, 1808 participants, low quality evidence), as did combined counselling and pharmacotherapy (RR 1.74, 95% CI 1.39 to 2.18, 12 studies, 2229 participants, low quality evidence) at the period of longest follow-up, which ranged from six weeks to 18 months. There was moderate evidence of heterogeneity (I-2 = 56% with pharmacotherapy and 43% with counselling plus pharmacotherapy). Counselling interventions did not significantly increase tobacco abstinence (RR 1.33, 95% CI 0.90 to 1.95). Interventions were significantly associated with tobacco abstinence for both people in treatment (RR 1.99, 95% CI 1.59 to 2.50) and people in recovery (RR 1.33, 95% CI 1.06 to 1.67), and for people with alcohol dependence (RR 1.47, 95% CI 1.20 to 1.81) and people with other drug dependencies (RR 1.85, 95% CI 1.43 to 2.40). Offering tobacco cessation therapy to people in treatment or recovery for other drug dependence was not associated with a difference in abstinence rates from alcohol and other drugs (RR 0.97, 95% CI 0.91 to 1.03, 11 studies, 2231 participants, moderate evidence of heterogeneity (I-2 = 66%)). Data on adverse effect of the interventions were limited. Authors' conclusions  The studies included in this review suggest that providing tobacco cessation interventions targeted to smokers in treatment and recovery for alcohol and other drug dependencies increases tobacco abstinence. There was no evidence that providing interventions for tobacco cessation affected abstinence from alcohol and other drugs. The association between tobacco cessation interventions and tobacco abstinence was consistent for both pharmacotherapy and combined counselling and pharmacotherapy, for participants both in treatment and in recovery, and for people with alcohol dependency or other drug dependency. The evidence for the interventions was low quality due primarily to incomplete reporting of the risks of bias and clinical heterogeneity in the nature of treatment. Certain results were sensitive to the length of follow-up or the type of pharmacotherapy, suggesting that further research is warranted regarding whether tobacco cessation interventions are associated with tobacco abstinence for people in recovery, and the outcomes associated with NRT versus non-NRT or combined pharmacotherapy.

According to the news editors, the research concluded: "Overall, the results suggest that tobacco cessation interventions incorporating pharmacotherapy should be incorporated into clinical practice to reduce tobacco addiction among people in treatment for or recovery from alcohol and other drug dependence."

For more information on this research see: Interventions for tobacco use cessation in people in treatment for or recovery from substance use disorders. Cochrane Database of Systematic Reviews, 2016;(11):1041-1106. Cochrane Database of Systematic Reviews can be
Enzymes and Coenzymes

Study Results from University of California Update Understanding of Enzymes and Coenzymes (Liberating Chiral Lipid Mediators, Inflammatory Enzymes, and LIPID MAPS from Biological Grease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Enzymes and Coenzymes. According to news reporting originating from La Jolla, California, by NewsRx editors, the research stated, "In 1970, it was well accepted that the central role of lipids was in energy storage and metabolism, and it was assumed that amphipathic lipids simply served a passive structural role as the backbone of biological membranes. As a result, the scientific community was focused on nucleic acids, proteins, and carbohydrates as information-containing molecules."

Financial support for this research came from National Institute of General Medical Sciences.

Our news editors obtained a quote from the research from the University of California, "It took considerable effort until scientists accepted that lipids also 'encode' specific and unique biological information and play a central role in cell signaling. Along with this realization came the recognition that the enzymes that act on lipid substrates residing in or on membranes and micelles must also have important signaling roles, spurring curiosity into their potentially unique modes of action differing from those acting on water-soluble substrates. This led to the creation of the concept of 'surface dilution kinetics' for describing the mechanism of enzymes acting on lipid substrates, as well as the demonstration that lipid enzymes such as phospholipase A(2) (PLA(2)) contain allosteric activator sites for specific phospholipids as well as for membranes. As our understanding of phospholipases advanced, so did the understanding that many of the lipids released by these enzymes are chiral information containing signaling molecules; for example, PLA(2) regulates the generation of precursors for the biosynthesis of eicosanoids and other bioactive lipid mediators of inflammation and resolution underlying disease progression. The creation of the LIPID MAPS initiative in 2003 and the ensuing development of the lipidomics field have revealed that lipid metabolites are central to human metabolism. Today lipids are recognized as key mediators of health and disease as we enter a new era of biomarkers and personalized medicine."

According to the news editors, the research concluded: "This article is my personal 'reflection' on these scientific advances."

For more information on this research see: Liberating Chiral Lipid Mediators, Inflammatory Enzymes, and LIPID MAPS from Biological Grease. Journal of Biological Chemistry, 2016;291(47):24431-24448. Journal of Biological Chemistry can be contacted at:
Study Results from University of California Update Understanding of Gonorrhea (A prospective assessment of pelvic infection risk following same-day sexually transmitted infection testing and levonorgestrel intrauterine system placement)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Sexually Transmitted Diseases and Conditions (STDs) - Gonorrhea. According to news originating from Sacramento, California, by NewsRx correspondents, research stated, "Misperceptions persist that intrauterine device placement is related to pelvic infections and Chlamydia and gonorrhea testing results are needed prior to placement. We sought to evaluate the relationship of Chlamydia and gonorrhea screening to pelvic infection for up to 2 years following placement of the levonorgestrel 52-mg intrauterine system."

Our news journalists obtained a quote from the research from the University of California, "A total of 1751 nulliparous and multiparous females 16 to 45 years old enrolled in a multicenter trial designed to evaluate the efficacy and safety of a new levonorgestrel intrauterine system for up to 7 years. Participants had Chlamydia screening at study entry and yearly if they were age <= 25 years. Women also had baseline gonorrhea screening if testing had not been performed since starting their current sexual relationship. Those who changed sexual partners during the trial had repeated Chlamydia and gonorrhea testing. Intrauterine system insertion could occur on the same day as screening. Participants did not receive prophylactic antibiotics for intrauterine system placement. Investigators performed pelvic examinations after 12 and 24 months and when clinically indicated during visits at 3, 6, and 18 months after placement and unscheduled visits. Pelvic infection included any clinical diagnosis of pelvic inflammatory disease or endometritis. Most participants (n = 1364, 79.6%) did not have sexually transmitted infection test results available prior to intrauterine system placement. In all, 29 (1.7%) participants had positive baseline testing for a sexually transmitted infection (Chlamydia, n = 25; gonorrhea, n = 3; both, n = 1); 6 of these participants had known results (all with Chlamydia infection) prior to intrauterine system placement and received treatment before enrollment. The 23 participants whose results were not known at the time of intrauterine system placement
received treatment without intrauterine system removal and none developed pelvic infection. The incidence of positive Chlamydia testing was similar among those with and without known test results at the time of intrauterine system placement (1.9% vs 1.5%, respectively, P = .6). Nine (0.5%) participants had a diagnosis of pelvic infection over 2 years after placement, all of whom had negative Chlamydia screening on the day of or within 1 month after intrauterine system placement. Infections were diagnosed in 3 participants within 7 days, 1 at 39 days, and 5 at = 6 months. Seven participants received outpatient antibiotic treatment and 2 (diagnoses between 6-12 months after placement) received inpatient treatment. Two (0.1%) participants had intrauterine system removal related to infection (at 6 days and at 7 months after placement), both of whom only required outpatient treatment. Conducting Chlamydia and gonorrhea testing on the same day as intrauterine system placement is associated with a low risk of pelvic infection (0.2%). Over the first 2 years of intrauterine system use, infections are infrequent and not temporally related to intrauterine system placement. Pelvic infection can be successfully treated in most women with outpatient antibiotics and typically does not require intrauterine system removal."

According to the news editors, the research concluded: "Women without clinical evidence of active infection can have intrauterine system placement and sexually transmitted infection screening, if indicated, on the same day."


The news correspondents report that additional information may be obtained from M.D. Creinin, University of California, Dept. of Obstet & Gynecol, Sacramento, CA 95817, United States. Additional authors for this research include D.L. Eisenberg, S.B. Teal, L.M. Keder and M.D. Creinin.

Keywords for this news article include: Sacramento, California, United States, North and Central America, Bacterial Sexually Transmitted Diseases and Conditions, Sexually Transmitted Diseases and Conditions (STDs), Progestins, Diagnostics and Screening, Gram-Negative Bacterial Infections, Bacterial Infections and Mycoses, Chlamydiaceae Infections, Chlamydia trachomatis, Risk and Prevention, Infectious Disease, Pelvic Infection, Levonorgestrel, Women's Health, Sex Hormones, Chlamydiales, Gynecology, Gonorrhea, University of California.

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Lung Diseases and Conditions - Cystic Fibrosis

Study Results from University of California in the Area of Cystic Fibrosis Reported (External Zn2+ binding to cysteine-substituted cystic fibrosis transmembrane conductance regulator constructs regulates channel gating and curcumin potentiation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
Investigators discuss new findings in Lung Diseases and Conditions - Cystic Fibrosis. According to news reporting out of Davis, California, by NewsRx editors, research stated, "The cystic fibrosis transmembrane conductance regulator (CFTR) chloride channel is activated by ATP binding-induced dimerization of nucleotide-binding domains, the interaction between the phosphorylated regulatory ® domain and the curcumin-sensitive interface between intracellular loop (ICL) 1 and ICL4, and the resultant inward-to-'outward' reorientation of transmembrane domains. Although transmembrane helices ™ 2 and TM11 link the ICL1-ICL4 interface with the interface between extracellular loop (ECL) 1 and ECL6, it is unknown whether both interfaces are gating-coupled during the reorientation."

Financial supporters for this research include National Institute of Diabetes and Digestive and Kidney Diseases, Cystic Fibrosis Foundation, American Heart Association.

Our news journalists obtained a quote from the research from the University of California, "Herein, R334C and T1122C mutations were used to engineer two Zn2+ bridges near and at the ECL1-ECL6 interface, respectively, and the gating effects of a Zn2+ disturbance at the ECL1-ECL6 interface on the stimulatory ICL1/ICL4-R interaction were determined. The results showed that both Zn2+ bridges inhibited channel activity in a dose-and Cl--dependent manner, and the inhibition was reversed by a washout or suppressed by thiol-specific modification. Interestingly, their Cl--dependent Zn2+ inhibition was weakened at higher Zn2+ concentrations, their Zn2+ affinity was stronger in the resting state than in the activated state, and their activation current noises were decreased by external Zn2+ binding. More importantly, the external Zn2+ inhibition was reversed by internal curcumin in the R334C construct but not in the T1122C mutant."

According to the news editors, the research concluded: "Therefore, although both Zn2+ bridges may promote channel closure, external Zn2+ may disturb the ECL1-ECL6 interface and thus prevent the stimulatory ICL1/ICL4-R interaction and curcumin potentiation via a gating coupling between these two interfaces."


Our news journalists report that additional information may be obtained by contacting G. Wang, University of California, Sch Med, Dept. of Physiol & Membrane Biol, Davis, CA, United States. Additional authors for this research include R. Linsley and Y. Norimatsu.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/febs.13752. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Davis, California, United States, North and Central America, Cystic Fibrosis Transmembrane Conductance Regulator, Respiratory Tract Diseases and Conditions, Digestive System Diseases and Conditions, Pancreatic Diseases and Conditions, Lung Diseases and Conditions, Membrane Transport Proteins, Membrane Glycoproteins, Neutral Amino Acids, Sulfur Amino Acids, Membrane Proteins, Chloride Channels, Organic Chemicals, Carrier Proteins, Diarylheptanoids, Hydrocarbons, Catechols, Cysteine, Curcumin, Genetics, Alkanes, University of California.

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Mycobacterium Infections - Tuberculosis

Study Results from University of Cape Town Provide New Insights into Tuberculosis (Amikacin Optimal Exposure Targets in the Hollow-Fiber System Model of Tuberculosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Mycobacterium Infections - Tuberculosis. According to news reporting from Cape Town, South Africa, by NewsRx journalists, research stated, "Aminoglycosides such as amikacin are currently used for the treatment of multidrug-resistant tuberculosis (MDR-TB). However, formal pharmacokinetic/pharmacodynamic (PK/PD) studies to identify amikacin exposures and dosing schedules that optimize Mycobacterium tuberculosis killing have not been performed."

Financial support for this research came from HHS | National Institutes of Health (NIH).

The news correspondents obtained a quote from the research from the University of Cape Town, "It is believed that aminoglycosides do not work well under acidic conditions, which, if true, would mean poor sterilizing activity against semidormant bacilli at low pH. We performed time-kill studies to compare the bactericidal effect of amikacin in log-phase-growth bacilli with the sterilizing effect in semidormant bacilli at pH 5.8 in broth. In log-phase M. tuberculosis at normal pH versus semidormant M. tuberculosis at pH 5.8, the maximal kill (E-max) estimate and 95% confidence interval (CI) were 5.39 (95% CI, 4.91 to 5.63) versus 4.88 (CI, 4.46 to 5.22) log10 CFU/ml, while the concentration mediating 50% of E-max (EC50) was 1.0 (CI, 0.86 to 1.12) versus 0.60 (CI, 0.50 to 0.66) times the MIC, respectively. Thus, the optimal exposures and kill rates identified for log-phase M. tuberculosis will be optimal even for semidormant bacilli. Next, we performed exposure-response and dose-scheduling studies in the hollow-fiber system model of tuberculosis using log-phase M. tuberculosis. We recapitulated the amikacin concentration-time profiles observed in lungs of patients treated over 28 days. The PK/PD index linked to M. tuberculosis kill was the peak concentration (C-max)-to-MIC ratio (r(2) > 0.99), closely followed by the area under the concentration-time curve from 0 to 24 h (AUC(0-24))-to-MIC ratio (r(2) > 0.98). The EC90 was a C-max/MIC ratio of 10.13 (95% CI, 7.73 to 12.48)."

According to the news reporters, the research concluded: "The EC90 is the dosing target for intermittent therapy that optimizes cure in TB programs for MDR-TB patients."

For more information on this research see: Amikacin Optimal Exposure Targets in the Hollow-Fiber System Model of Tuberculosis. Antimicrobial Agents and Chemotherapy, 2016;60(10):5922-5927. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

Our news journalists report that additional information may be obtained by contacting T. Gumbo, University of Cape Town, Dept. of Med, Cape Town, South Africa. Additional authors for this research include C. Modongo, C.W.S. Dona, J.G. Pasipanodya, D. Deshpande and T. Gumbo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00961-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cape Town, South Africa, Africa,
Mycobacterium Tuberculosis, Actinomycetales Infections, Mycobacterium Infections, Gram-Positive Bacteria, Drugs and Therapies, Infectious Disease, Aminoglycosides, Antiinfectives, Antibiotics, Amikacin, University of Cape Town.

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Central Nervous System Diseases and Conditions - …

Study Results from University of Catania in the Area of Encephalitis Reported [The chitinases expression is related to Simian Immunodeficiency Virus Encephalitis (SIVE) and in HIV encephalitis (HIVE)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Central Nervous System Diseases and Conditions - Encephalitis. According to news originating from Catania, Italy, by NewsRx correspondents, research stated, "Human Immunodeficiency Virus (HIV) infection can induce neurocognitive complications classified as HIV-associated neurocognitive disorder (HAND). The chitina family is associated with innate immunity cells and many infectious diseases."

Our news journalists obtained a quote from the research from the University of Catania, "We analyzed microarray datasets obtained from NCBI in order to verify the expression of chitinase family genes in hippocampus of uninfected rhesus macaques versus those with histopathologic evidence of Simian Immunodeficiency Virus Encephalitis (SIVE). Moreover, we have analysed two human microarray datasets to verify the results obtained in macaques hippocampus affected by SIVE. For these studies, we have also used the open source tools Genome-scale Integrated Analysis of gene Networks in Tissues (GIANT) to identify the chitinase genes network. CHIT1, CHI3L1 and CHI3L2 levels were significantly increased in SIVE hippocampus as compared to non-infected control specimens. Furthermore, we found a negative correlation between CHIA vs. Brain Viral Load (BVL). These data was confirmed partially in human brain section of HAD/HIVE subjects. Also, we showed that HIV-1 was able to modulate the expression of CHIT1, CHI3L1, CHI3L2 and CHID1 in human macrophages."

According to the news editors, the research concluded: "These results suggest that chitinase gene expression is altered in SIVE and in HAD/HIVE brain sections and call for more studies examining whether this is a protective immunological reaction or a destructive tissue response to encephalitis."

For more information on this research see: The chitinases expression is related to Simian Immunodeficiency Virus Encephalitis (SIVE) and in HIV encephalitis (HIVE). Virus Research, 2017;227():220-230. Virus Research can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Virus Research - www.journals.elsevier.com/virus-research/)

The news correspondents report that additional information may be obtained from M. Di Rosa, University of Catania, Dept. of Biomed & Biotechnol Sci, Catania, Italy. Additional authors for this research include G. Nunnari, A. Calcagno, L. Malaguarnera, K. Blennow, H. Zetterberg and M. Di Rosa.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.virusres.2016.10.012. This DOI is a link to an online electronic document that is either free or for purchase.
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Oncology - Prostate Cancer

Study Results from University of Colorado School of Medicine Provide New Insights into Prostate Cancer (Improved survival with the addition of radiotherapy to androgen deprivation: questions answered and a review of current controversies in ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Prostate Cancer. According to news reporting out of Aurora, Colorado, by NewsRx editors, research stated, "The contemporary standard of care for locally advanced high-risk prostate cancer includes a combination of dose-escalated radiotherapy (RT) plus androgen-deprivation therapy (ADT). However, 20 years ago, at the inception of the National Cancer Institute of Canada (NCIC) led study (NCIC Clinical Trials Group PR.3/Medical Research Council PR07/Intergroup T94-0110), the survival impact of prostate RT for high-risk disease was uncertain."

Our news journalists obtained a quote from the research from the University of Colorado School of Medicine, "Recently, Mason, Warde and colleagues presented the final results of this NCIC/MRC study (PMID: 25691677) randomizing 1,205 high-risk prostate cancer patients to ADT + RT vs. ADT alone. These updated results confirm substantial improvements with the addition of RT to ADT for the endpoints of overall survival (OS), disease-free survival (DFS), and biochemical recurrence."

According to the news editors, the research concluded: "Close examination of subtleties of this trial's design highlight some of the most salient controversies in the field of prostate RT, including the risk-stratified roles of ADT, optimal ADT duration, and RT field design in the dose-escalated and intensity-modulated radiotherapy (IMRT) era."

For more information on this research see: Improved survival with the addition of radiotherapy to androgen deprivation: questions answered and a review of current controversies in radiotherapy for non-metastatic prostate cancer. Annals of Translational Medicine, 2016;4 (1):14.

Our news journalists report that additional information may be obtained by contacting A. Amini, Dept. of Radiation Oncology, University of Colorado School of Medicine, Aurora, CO 80045, United States. Additional authors for this research include B.D. Kavanagh and C.G Rusthoven.

Keywords for this news article include: Aurora, Colorado, Oncology, Androgens, Radiotherapy, United States, Drugs and Therapies, Prostatic Neoplasms, North and Central America, Metastatic Prostate Cancer.
Oncology - Melanoma

Study Results from University of Debrecen Provide New Insights into Melanoma (PP2B and ERK1/2 regulate hyaluronan synthesis of HT168 and WM35 human melanoma cell lines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Melanoma is now available. According to news reporting originating from Debrecen, Hungary, by NewsRx correspondents, research stated, "Hyaluronan (HA) is the major glycosaminoglycan component of the extracellular matrix in either normal or malignant tissues and it may affect proliferation, motility and differentiation of various cell types. Three isoforms of plasma membrane-bound hyaluronan synthases (HAS 1, 2 and 3) secrete and simultaneously bind pericellular HA."

Our news editors obtained a quote from the research from the University of Debrecen, "HAS enzymes are subjects of post-translational protein phosphorylation which is believed to regulate their enzymatic activity. In this study, we investigated the HA homeostasis of normal human epidermal melanocytes, HT168 and WM35 human melanoma cell lines and melanoma metastases. HAS2 and HAS3 were detected in all the samples, while the expression of HAS1 was not detectable in any case. Malignant tissue samples and melanoma cell lines contained extra-and intracellular HA abundantly but not normal melanocytes. Applying HA as a chemoattractant facilitated the migration of melanoma cells in Boyden chamber. The amount of HA was reduced upon the inhibition of calcineurin with cyclosporine A (CsA), while the inhibition of ERK1/2 with PD098059 elevated it in both cell lines. The signals of Ser/Thr phosphoproteins at 57 kD were stronger after CsA treatment, while a markedly weaker signal was detected upon inhibition of the MAPK pathway. Our results suggest opposing effects of the two investigated enzymes on the HA homeostasis of melanoma cells. We propose that the dephosphorylation of HAS enzymes targeted by PP2B augments HA production, while their phosphorylation by the activity of MAPK pathway reduces HA synthesis. As the expression of the HA receptor RHAMM was also significantly enhanced by PD098059, the MAPK pathway exerted a complex attenuating effect on HA signalling in the investigated melanoma cells."

According to the news editors, the research concluded: "This observation suggests that the application of MAPK-ERK pathway inhibitors requires a careful therapeutic design in melanoma treatment."

For more information on this research see: PP2B and ERK1/2 regulate hyaluronan synthesis of HT168 and WM35 human melanoma cell lines. International Journal of Oncology, 2015;48(3):983-97.

The news editors report that additional information may be obtained by contacting E. Katona, Dept. of Anatomy, Histology and Embryology, Faculty of Medicine, University of Debrecen, H-4032 Debrecen, Hungary. Additional authors for this research include T. Juhasz, C.S. Somogyi, T. Hajdu, C. Szasz, K. Racz, E. Kokai, P. Gergely and R. Zakany.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3892/ijo.2015.3313. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Hungary, Debrecen, Melanoma,
Study Results from University of Edinburgh Update Understanding of Neurons (E11/Podoplanin Protein Stabilization Through Inhibition of the Proteasome Promotes Osteocyte Differentiation in Murine in Vitro Models)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Neurons have been published. According to news reporting originating in Midlothian, United Kingdom, by NewsRx journalists, research stated, "The transmembrane glycoprotein E11 is considered critical in early osteoblast-osteocyte transitions (osteocytogenesis), however its function and regulatory mechanisms are still unknown. Using the late osteoblast MLO-A5 cell line we reveal increased E11 protein/mRNA expression (p <0.001) concomitant with extensive osteocyte dendrite formation and matrix mineralization (p <0.001)."

Financial support for this research came from Arthritis Research UK.

The news reporters obtained a quote from the research from the University of Edinburgh, "Transfection with E11 significantly increased mRNA levels (p <0.001), but immunoblotting failed to detect any correlative increases in E11 protein levels, suggestive of post-translational degradation. We found that exogenous treatment of MLO-A5 and osteocytic IDG-SW3 cells with 10 mM ALLN (calpain and proteasome inhibitor) stabilized E11 protein levels and induced a profound increase in osteocytic dendrite formation (p <0.001). Treatment with other calpain inhibitors failed to promote similar osteocytogenic changes, suggesting that these effects of ALLN rely upon its proteasome inhibitor actions. Accordingly we found that proteasome-selective inhibitors (MG132/lactacystin/ Bortezomib/Withaferin-A) produced similar dose-dependent increases in E11 protein levels in MLO-A5 and primary osteoblast cells. This proteasomal targeting was confirmed by immunoprecipitation of ubiquitylinated proteins, which included E11, and by increased levels of ubiquitynlated E11 protein upon addition of the proteasome inhibitors MG132/Bortezomib. Activation of RhoA, the small GTPase, was found to be increased concomitant with the peak in E11 levels and its downstream signaling was also observed to promote MLO-A5 cell dendrite formation. Our data indicate that a mechanism reliant upon blockade of proteasome-mediated E11 destabilization contributes to osteocytogenesis and that this may involve downstream targeting of RhoA."

According to the news reporters, the research concluded: "This work adds to our mechanistic understanding of the factors regulating bone homeostasis, which may lead to future therapeutic approaches."


Our news correspondents report that additional information may be obtained by contacting K.A. Staines, Roslin Institute and R(D)SVS, The University of Edinburgh, Easter
Bush, Midlothian, UK. Additional authors for this research include M. Prideaux, S. Allen, D.J. Buttle, A.A. Pitsillides and C. Farquharson.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/jcp.25282. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Neurons, Dendrites, Midlothian, Osteoblasts, United Kingdom, Cell Surface Extensions, Connective Tissue Cells.

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Pharmacology

Study Results from University of Florida in the Area of Pharmacology Reported (Improving drug safety with a systems pharmacology approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Pharmacology is now available. According to news reporting from Orlando, Florida, by NewsRx journalists, research stated, "Systems pharmacology is used to mechanistically analyze drug-adverse drug reaction (ADRs) pairs and is a promising solution to the complex problem of understanding mechanisms of toxicity. In this research, we have explored the feasibility of retrospectively mapping population-level adverse events from the FDA Adverse Event Reporting System (FAERS) to chemical and biological databases to identify drug safety signals and the underlying molecular mechanisms."

The news correspondents obtained a quote from the research from the University of Florida, "We used an analytic platform - Molecular Analysis of Side Effects (MASETm). For this purpose, we selected the adverse event of severe and potentially fatal cutaneous reactions (SCARs) that are associated with acetaminophen (APAP). SCARs encompass the continuum between Stevens-Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN). We found a statistically significant association between APAP and TEN, the most severe form of SCARs. We also explored the influence of APAP on other classes of drugs commonly associated with SCARs. We found that APAP significantly reduced the risk of SCARs commonly associated with carbamazepine (CBZ). We used molecular docking simulations to propose a mechanism for APAP's reduction in CBZ-induced SCARs which is competitive inhibition of the binding of CBZ to HLA-B*15:02."

According to the news reporters, the research concluded: "We conclude that systems pharmacology can complement established surveillance methodologies by providing a means to undertake an independent investigation and review of the mechanisms by which drugs cause adverse events."


Our news journalists report that additional information may be obtained by contacting L.J. Lesko, University of Florida, Center Pharmacometr & Syst Pharmacol, Orlando,
Study Results from University of Gothenburg Broaden Understanding of Brain Injuries (Long-term treatment with methylphenidate for fatigue after traumatic brain injury)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Brain Injuries have been published. According to news reporting out of Gothenburg, Sweden, by NewsRx editors, research stated, "Traumatic brain injury (TBI) may cause long-lasting post-concussive symptoms, such as mental fatigue and concentration difficulties, and this may become the main hindrance for returning to work and studies. There is currently no effective treatment for long-lasting mental fatigue."

Financial support for this research came from The Health & Medical Care Committee.

Our news journalists obtained a quote from the research from the University of Gothenburg, "In this hypothesis generating study, the long-term effects of methylphenidate on mental fatigue, cognitive function, and safety were assessed. Thirty participants who suffered from long-term post-concussion symptoms after a mild TBI or moderate TBI and who had reported positive effects with methylphenidate during an initial phase of this follow-up study were treated with methylphenidate for a further six months. After six-month follow-up, effects on Mental Fatigue Scale (MFS), depression, anxiety, and cognitive function (processing speed, attention, working memory) were significantly improved compared to baseline data (P < 0.001, respectively). Heart rate was significantly increased (P = 0.01), while blood pressure was not changed. Individuals suffering from prolonged symptoms after TBI reported reduced mental fatigue and improved cognitive functions with long-term methylphenidate treatment."

According to the news editors, the research concluded: "It is suggested that methylphenidate can be a treatment option for long-term mental fatigue and cognitive impairment after a TBI, but further randomized control research is warranted."


Our news journalists report that additional information may be obtained by contacting B. Johansson, University of Gothenburg, Inst Neurosci & Physiol, Dept. of Clin Neurosci & Rehabil, Gothenburg, Sweden. Additional authors for this research include A.P.
Central Nervous System Diseases and Conditions – …

Study Results from University of Helsinki Central Hospital Update Understanding of Cerebral Hemorrhage (Symptomatic post-thrombolytic intracerebral hemorrhage is not related to the cause of stroke)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Central Nervous System Diseases and Conditions - Cerebral Hemorrhage have been published. According to news reporting originating from Helsinki, Finland, by NewsRx correspondents, research stated, "The development of intracerebral hemorrhage following intravenous thrombolysis (IVT) can be influenced by various confounders related to the underlying vessel and tissue conditions. There are some data on association of cause of the stroke and the hemorrhage transformation."

Financial supporters for this research include Helsingin ja Uudenmaan Sairaanhointipiiri, Suomen Laaketieteen Saatio, Finnish Academy.

Our news editors obtained a quote from the research from the University of Helsinki Central Hospital, "We tested the hypothesis that the cause of stroke is associated with the development of symptomatic intracerebral hemorrhage (sICH) following IVT. A consecutive cohort of 2485 IVT-treated patients at the Helsinki University Central Hospital was classified according to the Trial of ORG 10172 in Acute Stroke Treatment (TOAST) criteria. An sICH was classified according to the European Cooperative Acute Stroke Study II criteria. The associations of sICH with nominal, ordinal and continuous variables were analyzed in a univariate binary regression model and adjusted in multivariate binary regression models. In univariate analyses, cardioembolism [odds ratio (OR), 1.14; 95% confidence interval (CI), 0.79-1.64] and large-artery atherosclerosis (OR, 1.30; 95% CI, 0.85-2.00) were not associated with sICH, and small-vessel occlusion was associated with lower odds for sICH (OR, 0.18; 95% CI, 0.06-0.57). When adjusted for previously identified factors associated with sICH, none of the TOAST categories was associated with a higher or lower frequency of sICH."

According to the news editors, the research concluded: "The development of sICH in IVT-treated patients is not related to the cause of stroke."

The news editors report that additional information may be obtained by contacting S. Curtze, Helsinki Univ Hosp, Dept. of Neurol, FI-00029 Helsinki, Finland. Additional authors for this research include G. Sibolt, S. Melkas, S. Mustanoja, E. Haapaniemi, J. Putaala, T. Sairanen, M. Tiainen, T. Tatlisumak and D. Strbian.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1111/ene.13128. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Helsinki, Finland, Europe, Central Nervous System Diseases and Conditions, Cerebral Hemorrhage, Thrombolytic, Angiology, Stroke, University of Helsinki Central Hospital.

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Proteins - Glycoproteins

Study Results from University of Helsinki Central Hospital in the Area of Glycoproteins Reported (Abnormal Proteoglycan Synthesis Due to Gene Defects Causes Skeletal Diseases with Overlapping Phenotypes)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Glycoproteins. According to news reporting out of Helsinki, Finland, by NewsRx editors, research stated, "In recent years, massively parallel sequencing technologies have helped us to identify novel disease genes and solve the mysteries behind rare diseases. Today, we know that some diseases with many overlapping and distinct clinical features, as presented in this review, can be caused by mutations in genes that encode enzymes playing crucial roles at different steps of the exact same pathway."

Our news journalists obtained a quote from the research from the University of Helsinki Central Hospital, "In this review, we exclusively focused on 5 genes - XYLT1, XYLT2, B4GALT7, B3GALT6, and B3GAT3 - that encode enzymes involved in the biosynthesis of the common tetrasaccharide linker region of proteoglycans and review the associated diseases, also referred to as linkerpatoies, by summarizing the cases reported in literature. Since proteoglycans are essential macromolecules in development, signaling and homeostasis of many tissues and organs, mutations in these genes can affect many organs, including bone, cartilage, eyes, ears, heart, and skin. Short stature, developmental delay, facial dysmorphism, and skeletal dysplasias are some of the common features observed in patients with mutations in these genes. Among these genes, XYLT2 mutations cause a relatively distinct phenotype, the so-called spondyloocular syndrome, which is characterized by clinical presentation of a very severe childhood-onset primary osteoporosis, cataract, and hearing impairment."

According to the news editors, the research concluded: "The full phenotype spectrum of diseases mentioned here is likely to expand with additional clinical reports and further molecular studies."

For more information on this research see: Abnormal Proteoglycan Synthesis Due to Gene Defects Causes Skeletal Diseases with Overlapping Phenotypes. Hormone and Metabolic Research, 2016;48(11):745-754. Hormone and Metabolic Research can be contacted at: Georg
Study Results from University of Kentucky in the Area of Cardiovascular Physiological Processes Reported (Arterial hemodynamics are impaired at rest and following acute exercise in overweight young men)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Physiological Processes. According to news originating from Lexington, Kentucky, by NewsRx correspondents, research stated, "Higher body mass index (BMI) is associated with greater cardiovascular disease (CVD) risk, in part due to aortic stiffening assessed by carotid-femoral pulse wave velocity (cfPWV). Importantly, greater cardiorespiratory fitness (CRF; VO2peak) decreases CVD risk, and is associated with reductions in aortic stiffness."

Our news journalists obtained a quote from the research from the University of Kentucky, "We tested the hypothesis that young adult overweight (OW, n=17) compared with healthy-weight (HW, n=17) men will have greater resting aortic stiffness, reduced CRF and an impaired post-exercise hemodynamic response. Resting cfPWV was greater in OW versus HW individuals (5.81 +/- 0.13 vs 4.81 +/- 0.12 m/sec, p<0.05). Relative CRF (VO2peak; mL/kg/min) was lower in OW compared with HW individuals (49.4 +/- 1.3 vs 57.6 +/- 1.0 mL/kg/min, p<0.05), and was inversely related with cfPWV (p <0.05). However, CRF as absolute VO2peak (L/min) was not different between groups and there was no relation between cfPWV and absolute VO2peak (L/min), indicating reduced relative CRF in OW men is due to greater body mass. Following the maximal treadmill exercise test, cfPWV was greater in OW compared with HW subjects from rest to 60 minutes post-exercise (p <0.05). Compared with HW, OW individuals had higher systolic blood pressure (main effect, p<0.05) and diastolic blood pressure was selectively increased for up to 60 minutes following exercise (p <0.05). Overweight individuals had an attenuated post-exercise decrease in mean arterial pressure (p <0.05)."

According to the news editors, the research concluded: "Collectively, these results indicate that young, apparently healthy, OW men have greater resting aortic stiffening and an impaired post-exercise hemodynamic response."

For more information on this research see: Arterial hemodynamics are impaired at rest and following acute exercise in overweight young men. Vascular Medicine, 2016;21 (6):497-505. Vascular Medicine can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England. (Sage Publications - www.sagepub.com/; Vascular Medicine - vmj.sagepub.com)
The news correspondents report that additional information may be obtained from B.S. Fleenor, University of Kentucky, Kinesiol & Hlth Promot, Lexington, KY, United States. Additional authors for this research include A.J. Berroes, J.L. Clasey, M.G. Abel and B.S. Fleenor.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1177/1358863X16666692. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lexington, Kentucky, United States, North and Central America, Cardiovascular Diseases and Conditions, Risk and Prevention, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Blood Pressure, Hemodynamics, University of Kentucky.

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Oncology - Lymphoma

Study Results from University of Lausanne Hospital Broaden Understanding of Lymphoma (Primary pituitary lymphoma: an update of the literature)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Lymphoma is now available. According to news originating from Lausanne, Switzerland, by NewsRx correspondents, research stated, "Primary intracranial lymphomas (Weller et al. in Neuro Oncol 14(12):1481-1484, 2012) are an emerging disease and an isolated localization in the pituitary gland i.e. primary pituitary lymphoma (PPL) represents a rare condition. We present an update of the most recent evidence for PPL through a systematic review of the literature."

Our news journalists obtained a quote from the research from the University of Lausanne Hospital, "A systematic literature review was conducted using PubMed database up to October 2015. The population was defined as immunocompetent patients with a pathologically confirmed diagnosis of PPL. Patients' characteristics, clinical presentation, radiological features, pathology reports, adjuvant treatment and follow-up data were analyzed. We reported one case of PPL and included our data in this analysis. A total of 33 cases of PPL were identified, including ours. A slight not significant female prevalence was evident, with a mean age of 59 years at diagnosis. Visual troubles and headaches were the most common presenting symptoms. About 80 % of patients presented a cranial nerve (CN) deficit. The most frequently involved were the II and III CN. Anterior hypopituitarism was present in 70 % of cases and a diabetes insipidus in 36 % of cases. PPL was rarely limited to the sella and most often extended to the suprasellar and parasellar space. 70 % of cases underwent resection, 21 % a biopsy. A B-cell lymphoma was isolated in 82 % of cases, a T-cell lymphoma in 15 % and a NK/T cell lymphoma in one case. Overall mean survival rate was 14.4 months (95 % confidence interval 9.0-19.8 months) and there was no difference in terms of survival rates when patients were stratified according to the treatment they received. PPL is an emerging clinical entity. Literature data are too scarce to allow the definition of specific protocols of treatment and the management is based on the guidelines present for PCNSL."

According to the news editors, the research concluded: "The role of surgery aiming at a complete resection of PPL should be reevaluated in wider studies including only this
category of patients, to establish the real role of each therapeutic strategy."


The news correspondents report that additional information may be obtained from M. Messerer, Univ Lausanne Hosp, Dept. of Neurosurg, CH-1010 Lausanne, Switzerland. Additional authors for this research include G. Cossu, M. Berhouma, M. Levivier, R.T. Daniel and M. Messerer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s11060-016-2249-z. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Lausanne, Switzerland, Europe, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Lymphomas, Article Review, Hematology, Oncology, University of Lausanne Hospital.

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**Cardiology**

**Study Results from University of Leeds Broaden Understanding of Cardiology (Impact of latest generation cardiac interventional X-ray equipment on patient image quality and radiation dose for trans-catheter aortic valve implantations)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news reporting originating in Leeds, United Kingdom, by NewsRx journalists, research stated, "This study aimed to determine the impact on radiation dose and image quality of a new cardiac interventional X-ray system for trans-catheter aortic valve implantation (TAVI) patients compared to the previously-used cardiac X-ray system. Patient dose and image data were retrospectively collected from a Philips AlluraClarity (new) and Siemens Axion Artis (reference) X-ray system."

The news reporters obtained a quote from the research from the University of Leeds, "Patient dose area product (DAP) and fluoroscopy duration of 41 patient cases from each X-ray system were compared using a Wilcoxon test. Ten patient aortograms from each X-ray system were scored by 32 observers on a continuous scale to assess the clinical image quality at the given phase of the TAVI procedure. Scores were dichotomised by acceptability and analysed using a Chi-squared test. Significant reductions in patient dose (p << 0.001) were found for the new system with no significant change in fluoroscopy duration (p = 0.052); procedure DAP reduced by 55%, fluoroscopy DAP by 48% and 'cine' acquisition DAP by 61%. There was no significant difference between image quality scores of the two X-ray systems (p = 0.06). The new cardiac X-ray system demonstrated a very significant reduction in patient dose with no loss of clinical image quality. Advances in Knowledge: The huge growth of TAVI may impact on the radiation exposure of cardiac patients and particularly on operators including anaesthetists; cumulative exposure of interventional cardiologists performing high volume TAVI over 30-40 years may be harmful."
According to the news reporters, the research concluded: "The Phillips Clarity upgrade including improved image enhancement and optimised X-ray settings significantly reduced radiation without reducing clinically acceptable image quality."


Our news correspondents report that additional information may be obtained by contacting A.J. Gislason-Lee, University of Leeds, Div Biomed Imaging, Leeds, W Yorkshire, United Kingdom. Additional authors for this research include C. Keeble, C.J. Malkin, D. Egleston, J. Bexon, S.M. Kengyelics, D. Blackman and L.G. Davies.

Keywords for this news article include: Leeds, United Kingdom, Europe, Aortic Valve, Heart Valves, Cardiology, University of Leeds.

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**Oncology - Glioblastomas**

**Study Results from University of Lorraine Provide New Insights into Glioblastomas (A quantitative study of shape descriptors from glioblastoma multiforme phenotypes for predicting survival outcome)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Glioblastomas. According to news originating from Metz, France, by NewsRx correspondents, research stated, "Predicting the survival outcome of patients with glioblastoma multiforme (GBM) is of key importance to clinicians for selecting the optimal course of treatment. The goal of this study was to evaluate the usefulness of geometric shape features, extracted from MR images, as a potential non-invasive way to characterize GBM tumours and predict the overall survival times of patients with GBM."

Our news journalists obtained a quote from the research from the University of Lorraine, "The data of 40 patients with GBM were obtained from the Cancer Genome Atlas and Cancer Imaging Archive. The T-1 weighted post-contrast and fluid-attenuated inversion-recovery volumes of patients were co-registered and segmented into delineate regions corresponding to three GBM phenotypes: necrosis, active tumour and oedema/invasion. A set of two-dimensional shape features were then extracted slicewise from each phenotype region and combined over slices to describe the three-dimensional shape of these phenotypes. Thereafter, a Kruskal-Wallis test was employed to identify shape features with significantly different distributions across phenotypes. Moreover, a Kaplan-Meier analysis was performed to find features strongly associated with GBM survival. Finally, a multivariate analysis based on the random forest model was used for predicting the survival group of patients with GBM. Our analysis using the Kruskal-Wallis test showed that all but one shape feature had statistically significant differences across phenotypes, with p-value < 0.05, following Holm-Bonferroni correction, justifying the analysis of GBM tumour shapes on a per-phenotype basis. Furthermore, the survival analysis based on the Kaplan-Meier estimator identified three features derived from necrotic regions (i.e. Eccentricity, Extent and Solidity) that were significantly correlated with overall survival (corrected p-value, 0.05; hazard ratios between 1.68 and 1.87)."
In the multivariate analysis, features from necrotic regions gave the highest accuracy in predicting the survival group of patients, with a mean area under the receiver-operating characteristic curve (AUC) of 63.85%. Combining the features of all three phenotypes increased the mean AUC to 66.99%, suggesting that shape features from different phenotypes can be used in a synergic manner to predict GBM survival. Results show that shape features, in particular those extracted from necrotic regions, can be used effectively to characterize GBM tumours and predict the overall survival of patients with GBM. Advances in knowledge: Simple volumetric features have been largely used to characterize the different phenotypes of a GBM tumour (i.e. active tumour, oedema and necrosis).

According to the news editors, the research concluded: "This study extends previous work by considering a wide range of shape features, extracted in different phenotypes, for the prediction of survival in patients with GBM."


The news correspondents report that additional information may be obtained from A. Chaddad, Univ Lorraine, Lab Concept Optimizat & Modeling Syst, Metz, Lorraine, France. Additional authors for this research include C. Desrosiers, L. Hassan and C. Tanougast.

Keywords for this news article include: Metz, France, Europe, Glioblastomas, Oncology, Genetics, University of Lorraine.

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**Oncology - Ovarian Cancer**

**Study Results from University of Medicine and Dentistry of New Jersey (UMDNJ) Provide New Insights into Ovarian Cancer (Racial/Ethnic Disparities in Ovarian Cancer Treatment and Survival)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Ovarian Cancer is now available. According to news reporting from New Brunswick, New Jersey, by NewsRx journalists, research stated, "Among patients with ovarian cancer, African American (AA) women experience poorer survival compared with other race/ethnicity groups. This has been attributed to differences in access to health care."

The news correspondents obtained a quote from the research from the University of Medicine and Dentistry of New Jersey (UMDNJ), "We evaluated racial/ethnic differences in chemotherapy dosing and survival in a cohort study among members of Kaiser Permanente Northern California, and thus with equivalent access to health care. Analyses included epithelial-invasive ovarian cancer cases (n = 793) receiving adjuvant first-line therapy of carboplatin and paclitaxel with curative intent, with median follow-up of 50 months. Relative dose intensity (RDI) was computed for carboplatin and paclitaxel separately as dose administered per week divided by expected dose per week, and average RDI (ARDI) was then calculated for the regimen. Proportional hazards regression was used to calculate HRs and 95% confidence intervals (CIs) after adjusting for relevant covariates. Compared with whites, AAs were more likely to have dose reduction (ARDI < 85%), treatment delay, and early
discontinuation. Hispanics were also more likely to have dose reduction, but less likely to have early discontinuation or treatment delay. After controlling for prognostic factors including ARDI, AA women had the worst survival. Compared with whites, adjusted HRs (95% CI) for overall mortality were 1.56 (1.01-2.39) for AAs; 0.89 (0.61-1.31) for Asians; and 1.41 (0.98-2.04) for Hispanics. Findings for ovarian cancer-specific mortality were similar. Disparities in ovarian cancer treatment and survival in AA persisted among women with equal access to care."

According to the news reporters, the research concluded: "These findings warrant further evaluation of biological, personal, and social factors that may be responsible for these differences."

For more information on this research see: Racial/Ethnic Disparities in Ovarian Cancer Treatment and Survival. Clinical Cancer Research, 2016;22(23):5909-5914. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St. 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

Our news journalists report that additional information may be obtained by contacting E.V. Bandera, Rutgers Robert Wood Johnson Med Sch, Dept. of Med, New Brunswick, NJ, United States. Additional authors for this research include V.S. Lee, L. Rodriguez-Rodriguez, C.B. Powell and L.H. Kushi.

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Keywords for this news article include: New Brunswick, New Jersey, United States, North and Central America, Women's Health, Ovarian Cancer, Gynecology, Oncology, University of Medicine and Dentistry of New Jersey (UMDNJ).

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Oncology - Prostate Cancer

Study Results from University of Miami Provide New Insights into Prostate Cancer (Is It Time to Revisit the Role of Prostate-specific Antigen Kinetics in Active Surveillance for Prostate Cancer?)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Oncology - Prostate Cancer have been presented. According to news reporting out of Miami, Florida, by NewsRx editors, research stated, "To identify factors that are not available at the time of prostate cancer diagnosis and are associated with the risk of biopsy progression in active surveillance (AS) patients. The study included 314 AS patients who had at least 1 repeat biopsy."

Our news journalists obtained a quote from the research from the University of Miami, "We used logistic regression to analyze the association between prostate-specific antigen (PSA) and its derivatives, including PSA density, PSA velocity (PSAV) and doubling time (PSADT); presence of bilateral disease and number of previous successive negative surveillance biopsies; and the risk of progression on the surveillance biopsies first through fourth. Over a median follow-up of 3.1 years, patients had a mean of 2.4 biopsies. The median time from diagnosis to the last biopsy was 2.3 years. The biopsies were performed at fairly equal intervals. For surveillance biopsies 1 through 3, none of the studied factors was adding significant
prognostic information to the baseline characteristics. PSAV and PSADT were associated with the risk of progression on the fourth biopsy; this association was independent of baseline characteristics. No progression on the fourth biopsy was noted in 23 patients with negative PSAV. Among 54 patients with PSADT of more than 3 years only, 2 progressed whereas 6 out of 9 patients with a PSADT less than 3 years had biopsy progression on the fourth surveillance biopsy."

According to the news editors, the research concluded: "PSA kinetics may be helpful in defining the indications for prostate biopsy in AS patients who are followed with regular biopsies for more than 3-4 years."

For more information on this research see: Is It Time to Revisit the Role of Prostate-specific Antigen Kinetics in Active Surveillance for Prostate Cancer? *Urology*, 2016;95():139-144. *Urology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

Our news journalists report that additional information may be obtained by contacting V. Iremashvili, University of Miami, Miller Sch Med, Dept. of Urol, Miami, FL 33136, United States. Additional authors for this research include B.R. Kava, M. Manoharan, D.J. Parekh and S. Punnen.

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Keywords for this news article include: Miami, Florida, United States, North and Central America, Cancer, Risk and Prevention, Epidemiology, Prostatic Secretory Proteins, Prostate-Specific Antigen, Prostate Specific Antigen, Biological Tumor Markers, Enzymes and Coenzymes, Prostatic Neoplasms, Biological Factors, Peptide Hydrolases, Neoplasm Antigens, Serine Proteases, Prostate Cancer, Endopeptidases, Kallikreins, Immunology, Oncology, University of Miami.

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Neoplasia Research

Study Results from University of Michigan Broaden Understanding of Neoplasia Research [Fbxw7 Deletion Accelerates Kras(G12D)-Driven Pancreatic Tumorigenesis via Yap Accumulation]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Neoplasia Research. According to news reporting out of Ann Arbor, Michigan, by NewsRx editors, research stated, "Pancreatic cancers driven by KRAS mutations require additional mutations for tumor progression. The tumor suppressor FBXW7 is altered in pancreatic cancers, but its contribution to pancreatic tumorigenesis is unknown."

Our news journalists obtained a quote from the research from the University of Michigan, "To determine potential cooperation between Kras mutation and Fbxw7 inactivation in pancreatic tumorigenesis, we generated P48-Cre; LSL-Kras(G12D); Fbxw7(fl/fl) (KFCfl/fl) compound mice. We found that KFCfl/fl mice displayed accelerated tumorigenesis: all mice succumbed to pancreatic ductal adenocarcinoma (PDA) by 40 days of age, with PDA onset
occurring by 2 weeks of age. PDA in KFCfl/fl mice was preceded by earlier onset of acinar-to-ductal metaplasia (ADM) and pancreatic intraepithelial neoplasia (PanIN) lesions, and associated with chromosomal instability and the accumulation of Fbxw7 substrates Yes-associated protein (Yap), c-Myc, and Notch. Using KFCfl/fl and FBXW7-deficient human pancreatic cancer cells, we found that Yap silencing attenuated growth promotion by Fbxw7 deletion."

According to the news editors, the research concluded: "Our data demonstrate that Fbxw7 is a potent suppressor of Kras(G12D)-induced pancreatic tumorigenesis due, at least in part, to negative regulation of Yap."


Our news journalists report that additional information may be obtained by contacting M.A. Morgan, University of Michigan, Sch Med, Dept. of Radiat Oncol, Ann Arbor, MI 48109, United States. Additional authors for this research include Y. Zhang, J.D. Parsels, I. Lohse, T.S. Lawrence, M.P. di Magliano, Y. Sun and M.A. Morgan.

Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Neoplasia Research, Gastroenterology, Pancreas, Genetics, University of Michigan.

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**Surgery - Heart Surgery**

**Study Results from University of Michigan Provide New Insights into Heart Surgery (Congenital Heart Surgery Case Mix Across North American Centers and Impact on Performance Assessment)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Surgery - Heart Surgery. According to news reporting out of Ann Arbor, Michigan, by NewsRx editors, research stated, "Performance assessment in congenital heart surgery is challenging due to the wide heterogeneity of disease. We describe current case mix across centers, evaluate methodology inclusive of all cardiac operations versus the more homogeneous subset of Society of Thoracic Surgeons benchmark operations, and describe implications regarding performance assessment."

Financial support for this research came from National Heart, Lung, and Blood Institute.

Our news journalists obtained a quote from the research from the University of Michigan, "Centers (n = 119) participating in the Society of Thoracic Surgeons Congenital Heart Surgery Database (2010 through 2014) were included. Index operation type and frequency across centers were described. Center performance (risk-adjusted operative mortality) was evaluated and classified when including the benchmark versus all eligible operations. Overall, 207 types of operations were performed during the study period (112,140 total cases). Few operations were performed across all centers; only 25% were performed at least once by 75% or more of centers. There was 7.9-fold variation across centers in the proportion of total cases comprising high-complexity cases STAT 5). In contrast, the benchmark operations made up
36% of cases, and all but 2 were performed by at least 90% of centers. When evaluating performance based on benchmark versus all operations, 15% of centers changed performance classification; 85% remained unchanged. Benchmark versus all operation methodology was associated with lower power, with 35% versus 78% of centers meeting sample size thresholds. There is wide variation in congenital heart surgery case mix across centers. Metrics based on benchmark versus all operations are associated with strengths (less heterogeneity) and weaknesses (lower power), and lead to differing performance classification for some centers.

According to the news editors, the research concluded: "These findings have implications for ongoing efforts to optimize performance assessment, including choice of target population and appropriate interpretation of reported metrics."


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Keywords for this news article include: Ann Arbor, Michigan, United States, North and Central America, Heart Surgery, Cardiology, University of Michigan.

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**Transplant Medicine - Kidney Transplants**

**Study Results from University of Minnesota Update Understanding of Kidney Transplants (Genotype-guided tacrolimus dosing in African-American kidney transplant recipients)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Transplant Medicine - Kidney Transplants is now available. According to news reporting originating in Minneapolis, Minnesota, by NewsRx journalists, research stated, "Tacrolimus is dependent on CYP3A5 enzyme for metabolism. Expression of the CYP3A5 enzyme is controlled by several alleles including CYP3A5*1, CYP3A5*3, CYP3A5*6 and CYP3A5*7."

The news reporters obtained a quote from the research from the University of Minnesota, "African Americans (AAs) have on average higher tacrolimus dose requirements than Caucasians; however, some have requirements similar to Caucasians. Studies in AAs have primarily evaluated the CYP3A5*3 variant; however, there are other common nonfunctional variants in AAs (CYP3A5*6 and CYP3A5*7) that do not occur in Caucasians. These variants are associated with lower dose requirements and may explain why some AAs are metabolically
similar to Caucasians. We created a tacrolimus clearance model in 354 AAs using a development and validation cohort. Time after transplant, steroid and antiviral use, age and CYP3A5*1, *3, *6 and *7 alleles were significant toward clearance.

According to the news reporters, the research concluded: "This study is the first to develop an AA-specific genotype-guided tacrolimus dosing model to personalize therapy. The Pharmacogenomics Journal advance online publication, 15 December."

For more information on this research see: Genotype-guided tacrolimus dosing in African-American kidney transplant recipients. The Pharmacogenomics Journal, 2015:();

Our news correspondents report that additional information may be obtained by contacting K. Sanghavi, Dept. of Experimental and Clinical Pharmacology, College of Pharmacy, University of Minnesota, Minneapolis, MN, United States. Additional authors for this research include R.C. Brundage, M.B. Miller, D.P. Schladt, A.K. Israni, W. Guan, W.S. Oetting, R.B. Mannon, R.P. Remmel, A.J. Matas and P.A Jacobson.

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Keywords for this news article include: Biomedicine, Pharmaceuticals, Surgery, Minnesota, Macrolides, Minneapolis, United States, Transplantation, Organ Transplants, Kidney Transplants, Tacrolimus Therapy, Drugs and Therapies, Transplant Medicine, Immunosuppressive Agents, North and Central America.

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Proteins - Extracellular Matrix Proteins

Study Results from University of Munich Provide New Insights into Extracellular Matrix Proteins (New View on Endothelial Cell Migration Switching Modes of Migration Based on Matrix Composition)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Proteins - Extracellular Matrix Proteins have been published. According to news reporting out of Munich, Germany, by NewsRx editors, research stated, "Cell-matrix interactions are crucial for regulating cellular activities, such as migration. This is of special importance for morphogenic processes, such as angiogenesis (the development of new blood vessels)."

Our news journalists obtained a quote from the research from the University of Munich, "Most of our understanding of cell migration relies on 2-dimensional (2D) experiments. However, the awareness that 3D settings might elicit different results has increased. Knowledge about endothelial cell (EC) behavior in 3D environments and the influence of matrix composition on EC migration, in particular, is still limited. Approach and Results-We characterize the migration of single ECs through 2 structurally different hydrogels: spongy Matrigel and fibrillar collagen I. Our observations reveal an elongated migration phenotype in Matrigel and a rounded phenotype with pronounced cell blebs (blebs >2 mu m) in collagen I, which have not previously been described in ECs. Directed migration seems to depend on Rac1 and Cdc42 in collagen, but not in Matrigel (shown using appropriate pharmacological inhibitors). By applying anti-integrin antibodies and supplementing laminin in collagen gels, we identify laminin as the main determinant of the elongated phenotype. Laminin
seems to induce a morphological switch between modes of migration. As an in situ proof of principle, we performed live imaging of EC migration during vascular growth in a murine retina in the absence and presence of anti-integrin antibodies. We show that, surprisingly, ECs can evade the pharmacological inhibition of central signaling pathways involved in migration (contractility, small GTPases, and proteolysis) by shifting gears between modes of migration.

According to the news editors, the research concluded: "This finding indicates an unexpected contextual plasticity of EC behavior."

For more information on this research see: New View on Endothelial Cell Migration Switching Modes of Migration Based on Matrix Composition. Arteriosclerosis Thrombosis and Vascular Biology, 2016;36(12):2346-2357. Arteriosclerosis Thrombosis and Vascular Biology can be contacted at: Lippincott Williams & Wilkins, Two Commerce Sq, 2001 Market St, Philadelphia, PA 19103, USA.

Our news journalists report that additional information may be obtained by contacting S. Zahler, University of Munich, Dept. of Pharm, Pharmaceut Biol, Munich, Germany. Additional authors for this research include K. Nekolla, M. Rehberg, A.M. Vollmar and S. Zahler.

Keywords for this news article include: Munich, Germany, Europe, Extracellular Matrix Proteins, Membrane Glycoproteins, Membrane Proteins, Endothelial Cells, Pharmacology, Collagen, Therapy, Laminin, University of Munich.

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Study Results from University of Naples Provide New Insights into Beta Thalassemia (Electrocardiographic Presentation, Cardiac Arrhythmias, and Their Management in beta-Thalassemia Major Patients)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Hematologic Diseases and Conditions - Beta Thalassemia is the subject of a report. According to news reporting originating from Naples, Italy, by NewsRx correspondents, research stated, "Beta-thalassemia major (beta-TM) is a genetic hemoglobin disorder characterized by an absent synthesis of globin chains that are essential for hemoglobin formation, causing chronic hemolytic anemia. Clinical management of thalassemia major consists in regular long-life red blood cell transfusions and iron chelation therapy to remove iron introduced in excess with transfusions."

Our news editors obtained a quote from the research from the University of Naples, "Iron deposition in combination with inflammatory and immunogenic factors is involved in the pathophysiology of cardiac dysfunction in these patients. Heart failure and arrhythmias, caused by myocardial siderosis, are the most important life-limiting complications of iron overload in beta-thalassemia patients. Cardiac complications are responsible for 71% of global death in the beta-thalassemia major patients."

According to the news editors, the research concluded: "The aim of this review was to describe the most frequent electrocardiographic abnormalities and arrhythmias observed in beta-TM patients, analyzing their prognostic impact and current treatment strategies."

For more information on this research see: Electrocardiographic Presentation, Cardiac Arrhythmias, and Their Management in beta-Thalassemia Major Patients. Annals of

The news editors report that additional information may be obtained by contacting V. Russo, University of Naples, Monaldi Hosp, Naples, Italy. Additional authors for this research include A. Rago, A.A. Papa and G. Nigro.

Keywords for this news article include: Naples, Italy, Europe, Hemic and Lymphatic Diseases and Conditions, Hematologic Diseases and Conditions, Heart Disorders and Diseases, Cardiac Arrhythmias, Hemoglobinopathies, Congenital Anemia, Beta Thalassemia, Cardiology, Hematology, Hemolytic, Genetics, University of Naples.

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Aromatic Amino Acids

Study Results from University of Nevada in the Area of Aromatic Amino Acids Reported (Acid sphingomyelinase is required for cell surface presentation of Met receptor tyrosine kinase in cancer cells)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Aromatic Amino Acids. According to news reporting from Las Vegas, Nevada, by NewsRx journalists, research stated, "Receptor tyrosine kinases (RTKs) are embedded in the lipid bilayer of the plasma membrane, but the specific roles of various lipids in cell signaling remain largely uncharacterized. We have previously found that acid sphingomyelinase (ASM; also known as SMPD1) regulates the conserved DAF-2 (the ortholog IGF-1R in mammals) RTK signaling pathway in Caenorhabditis elegans."

Funders for this research include U.S. Department of Defense, National Institutes of Health, National Natural Science Foundation of China.

The news correspondents obtained a quote from the research from the University of Nevada, "How ASM and its catalytic products, ceramides, control RTK signaling pathways remain unclear. Here, we report that ASM regulates the homeostasis of Met, an RTK that is frequently overexpressed in various cancers. Inactivation of ASM led to a rapid loss of Met from the plasma membrane, reduced Met phosphorylation and activation, and induced Met accumulation in the trans-Golgi network (TGN). However, trafficking of integrin beta 3 and vesicular stomatitis virus glycoprotein (VSVG) was largely unaffected. Knockdown of syntaxin 6 (STX6) also blocked the Golgi exit of Met. Depletion of either ASM or STX6 led to aberrant trafficking of Met to lysosomes, promoting its degradation."

According to the news reporters, the research concluded: "Our studies reveal that ASM and ceramides, together with STX6 and cholesterol, constitute a new regulatory mechanism for the exit of Met from the Golgi during its biosynthetic route, which is used to rapidly replenish and regulate the plasma membrane levels of Met in various cancer cells."

Our news journalists report that additional information may be obtained by contacting H. Sun, University of Nevada, Dept. of Chem & Biochem, Las Vegas, NV 89135, United States. Additional authors for this research include X.H. Xiong, Y. Kim, N. Okada, F. Lu, H. Zhang and H. Sun.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1242/jcs.191684. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Las Vegas, Nevada, United States, North and Central America, Enzymes and Coenzymes, Aromatic Amino Acids, Tyrosine Kinase, Proteomics, Proteins, Oncology, Cancer, University of Nevada.

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Aromatic Amino Acids

Study Results from University of Nice Sophia-Antipolis in the Area of Aromatic Amino Acids Reported (An Evolution-Guided Analysis Reveals a Multi-Signaling Regulation of Fas by Tyrosine Phosphorylation and its Implication in Human Cancers)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Aromatic Amino Acids have been published. According to news reporting originating from Nice, France, by NewsRx correspondents, research stated, "Demonstrations of both pro-apoptotic and pro-survival abilities of Fas (TNFRSF6/CD95/APO-1) have led to a shift from the exclusive 'Fas apoptosis' to 'Fas multisignals' paradigm and the acceptance that Fas-related therapies face a major challenge, as it remains unclear what determines the mode of Fas signaling. Through protein evolution analysis, which reveals unconventional substitutions of Fas tyrosine during divergent evolution, evolution-guided tyrosine-phosphorylated Fas proxy, and site-specific phosphorylation detection, we show that the Fas signaling outcome is determined by the tyrosine phosphorylation status of its death domain."

Our news editors obtained a quote from the research from the University of Nice Sophia-Antipolis, "The phosphorylation dominantly turns off the Fas-mediated apoptotic signal, while turning on the pro-survival signal. We show that while phosphorylations at Y232 and Y291 share some common functions, their contributions to Fas signaling differ at several levels. The findings that Fas tyrosine phosphorylation is regulated by Src family kinases (SFKs) and the phosphatase SHP-1 and that Y291 phosphorylation primes clathrin-dependent Fas endocytosis, which contributes to Fas pro-survival signaling, reveals for the first time the mechanistic link between SFK/SHP-1-dependent Fas tyrosine phosphorylation, internalization route, and signaling choice. We also demonstrate that levels of phosphorylated Y232 and Y291 differ among human cancer types and differentially respond to anticancer therapy, suggesting context-dependent involvement of Fas phosphorylation in cancer."

According to the news editors, the research concluded: "This report provides a new insight into the control of TNF receptor multisignaling by receptor phosphorylation and its implication in cancer biology, which brings us a step closer to overcoming the challenge in handling Fas signaling in treatments of cancer as well as other pathologies such as autoimmune and degenerative diseases."
For more information on this research see: An Evolution-Guided Analysis Reveals a Multi-Signaling Regulation of Fas by Tyrosine Phosphorylation and its Implication in Human Cancers. *Plos Biology*, 2016;14(3):e1002401. (Public Library of Science - www.plos.org; Plos Biology - www.plosbiology.org)

The news editors report that additional information may be obtained by contacting K. Chakrabandhu, Univ Nice Sophia Antipolis, CNRS, Inserm, iBV, 06100 Nice, France. Additional authors for this research include S. Huault, J. Durivault, K. Lang, L. Ta Ngoc, A. Bole, E. Doma, B. Derijard, J.P. Gerard, M. Pierres and A.O Hueber.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pbio.1002401. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nice, France, Europe, Cancer, Oncology, Tyrosine, Aromatic Amino Acids.

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**Heart Disorders and Diseases - Heart Failure**

**Study Results from University of North Carolina Broaden Understanding of Heart Failure (Evolving therapies for the management of chronic and acute decompensated heart failure)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Heart Disorders and Diseases - Heart Failure. According to news reporting from Chapel Hill, North Carolina, by NewsRx journalists, research stated, "The pharmacology, clinical efficacy, and safety profiles of evolving therapies for the management of chronic heart failure (HF) and acute decompensated heart failure (ADHF) are described. HF confers a significant financial burden despite the widespread use of traditional guideline-directed medical therapies such as angiotensin-converting enzyme inhibitors, angiotensin receptor blockers, beta-blockers, and aldosterone receptor antagonists, and the rates of HF-related mortality and hospitalization have remained unacceptably high."

The news correspondents obtained a quote from the research from the University of North Carolina, "In response to a demand for novel pharmacologic agents, several therapeutic compounds have recently gained approval or are currently under review by the Food and Drug Administration. Sacubitril-valsartan has demonstrated benefit in reducing cardiovascular mortality and HF-related hospitalizations in clinical trials, while ivabradine and ferric carboxymaltose have proven efficacious in reducing HF-related hospitalizations. Lastly, the role of serelaxin in ADHF is currently under investigation in an ongoing Phase III study. While large, outcome-driven clinical trials are fundamental in informing the clinical application of these therapeutic agents, careful patient selection is imperative to ensuring similar outcomes postmarketing. In addition, optimization of current guideline-directed medical therapy remains essential as new therapies emerge and are incorporated into guideline recommendations. Additional therapeutic agents currently undergoing investigation include bucindolol hydrochloride, cimaglermin alfa, nitroxyl, omecamtiv mecarbil, TRV027, and ularitide. Clinical practitioners should remain abreast of emerging literature so that new therapeutic entities are optimally applied and positive patient outcomes are achieved. Recently introduced agents for the treatment of patients with HF include sacubitril valsartan, ivabradine, and ferric
According to the news reporters, the research concluded: "Additional agents worthy of attention include serelaxin and other therapies currently under investigation."

For more information on this research see: Evolving therapies for the management of chronic and acute decompensated heart failure. *American Journal of Health-System Pharmacy*, 2016;73(21):1745-1754. *American Journal of Health-System Pharmacy* can be contacted at: Amer Soc Health-System Pharmacists, 7272 Wisconsin Ave, Bethesda, MD 20814, USA.

Our news journalists report that additional information may be obtained by contacting J.E. Rodgers, University of North Carolina, Eshelman Sch Pharm, Div Pharmacotherapy & Expt Therapeut, Chapel Hill, NC 27514, United States. Additional authors for this research include R.H. Tran, J.H. Patterson and J.E. Rodgers.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2146/ajhp150635. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Clinical Trials and Studies, Biological Factors, Clinical Research, Heart Failure, Heart Disease, Angiotensins, Cardiology, Autacoids, Therapy, University of North Carolina.

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**Oncology - Prostate Cancer**

**Study Results from University of Oxford Broaden Understanding of Prostate Cancer (Altered expression of epithelial-to-mesenchymal transition proteins in extraprostatic prostate cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Prostate Cancer is now available. According to news originating from Oxford, United Kingdom, by NewsRx correspondents, research stated, "Epithelial to mesenchymal transition (EMT) of cancer cells involves loss of epithelial polarity and adhesiveness, and gain of invasive and migratory mesenchymal behaviours. EMT occurs in prostate cancer (PCa) but it is unknown whether this is in specific areas of primary tumours."

Our news journalists obtained a quote from the research from the University of Oxford, "We examined whether any of eleven EMT-related proteins have altered expression or subcellular localisation within the extraprostatic extension component of locally advanced PCa compared with other localisations, and whether similar changes may occur in in vitro organotypic PCa cell cultures and in vivo PCa models. Expression profiles of three proteins (E-cadherin, Snail, and a-smooth muscle actin) were significantly different in extraprostatic extension PCa compared with intra-prostatic tumour, and 18/27 cases had an expression change of at least one of these three proteins. Of the three significantly altered EMT proteins in pT3 samples, one showed similar significantly altered expression patterns in in vitro organotypic culture models, and two in in vivo Pten-/-model samples. These results suggest that changes in EMT protein expression can be observed in the extraprostatic extension component of locally invasive PCa."

According to the news editors, the research concluded: "The biology of some of
these changes in protein expression may be studied in certain in vitro and in vivo PCa models."

For more information on this research see: Altered expression of epithelial-to-mesenchymal transition proteins in extraprostatic prostate cancer. Oncotarget, 2016;7(2):1107-19.

The news correspondents report that additional information may be obtained from C. Verrill, Dept. of Cellular Pathology, Oxford University Hospitals NHS Foundation Trust, John Radcliffe Hospital, Headington, Oxford, UK. Additional authors for this research include L. Cerundolo, C. Mckee, M. White, C. Kartsonaki, E. Fryer, E. Morris, S. Brewster, I. Ratnayaka, L. Marsden, H. Lilja, R. Muschel, X. Lu, F. Hamdy and R.J Bryant.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6689. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oxford, Europe, Oncology, Peptides, Proteins, Amino Acids, United Kingdom, Prostate Cancer, Prostatic Neoplasms.

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Nervous System Diseases and Conditions ...

Study Results from University of Paris in the Area of Polyneuropathies Reported (Current and Future Treatment Approaches in Transthyretin Familial Amyloid Polyneuropathy)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nervous System Diseases and Conditions - Polyneuropathies. According to news reporting from Creteil, France, by NewsRx journalists, research stated, "Treatment of transthyretin familial amyloid polyneuropathy (TTR FAP) must be tailored to disease stage. Patients with early stage disease (i.e., without major impairment in walking ability), especially younger patients, should be referred as soon as possible for liver transplantation (LT) in the absence of major comorbid conditions."

The news correspondents obtained a quote from the research from the University of Paris, "LT remains the most effective treatment option to date and should be offered to these patients as early as possible. Bridging therapy with an oral TTR stabilizer (tafamidis or diflunisal, according to local access to these treatments) should be started as soon as the diagnosis of TTR FAP is established. Early stage patients who do not wish to or have contraindications to LT should be treated with an oral TTR stabilizer or get access to the newly developed therapeutic options (IONIS TTR-Rx, patisiran, doxycycline/TUDCA). Late stage patients (presenting with significant walking impairment) are usually older and notoriously difficult to treat. They should be offered an oral TTR stabilizer but are not candidates for LT due to a significant rate of perioperative complications and increased risk of progressive neurological and especially cardiac disease despite LT. Access to the different therapies in development should also be considered depending on respective inclusion and exclusion criteria. The abovementioned treatment options were mostly validated in Val30Met mutation patients, but should also be offered to non-Val30Met patients, although mortality rates after LT are higher in these patients. Treatment decisions should be made on an individual basis. Screening for heart, eye, and renal involvement is mandatory for every patient at disease diagnosis and regularly thereafter, even in transplanted patients. Symptomatic treatment should
be offered as needed, as well as genetic counseling to at-risk family members. Asymptomatic mutation carriers should benefit from regular screening for early symptoms of disease. Current therapeutic management of TTR FAP will hopefully be changed in the near future with data from the ongoing phase 2/3 studies testing the TTR gene silencing agents."

According to the news reporters, the research concluded: "In the longer term, it is likely that combined therapeutic approaches will be necessary to reverse the disease process."

For more information on this research see: Current and Future Treatment Approaches in Transthyretin Familial Amyloid Polyneuropathy. Current Treatment Options in Neurology, 2016;18(12):26-38. Current Treatment Options in Neurology can be contacted at: Current Medicine Group, 400 Market Street, Ste 700, Philadelphia, PA 19106, USA. (Springer - www.springer.com; Current Treatment Options in Neurology - www.springerlink.com/content/1092-8480/)

Our news journalists report that additional information may be obtained by contacting V. Plante-Bordeneuve, Univ Paris Est Creteil, Grp Rech Clin Amylose, F-94000 Creteil, France.

Keywords for this news article include: Creteil, France, Europe, Peripheral Nervous System Diseases and Conditions, Amyloid Polyneuropathy, Article Review, Neuromuscular Diseases and Conditions, Polyneuropathies, Genetics, Proteins, University of Paris.

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Immune System Diseases and Conditions - Allergies

Study Results from University of Paris-Sud Provide New Insights into Allergies (Bioinspired Design and Oriented Synthesis of Immunogenic Site-Specifically Penicilloylated Peptides)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Immune System Diseases and Conditions - Allergies. According to news reporting from Chatenay Malabry, France, by NewsRx journalists, research stated, "Beta-Lactam antibiotics allergy is recognized as a public health concern. By covalently binding to serum proteins, penicillins are known to form immunogenic complexes."

Funders for this research include Agence Nationale de la Recherche, Institut National de la Sante et de la Recherche Medicale, Ministere de l'Enseignement Superieur et de la Recherche, Centre National de la Recherche Scientifique, Universite Paris-Sud, Servier Group.

The news correspondents obtained a quote from the research from the University of Paris-Sud, "The latter are recognized and digested by antigen-presenting cells into drug-hapten peptides leading to the immunization of treated persons and IgE-mediated hypersensitivity reactions encompassing anaphylaxis. If type I allergic reactions to drugs are often unpredictable, they are known to be dependent on CD4(+) T-cells. This fundamental study revisits the chemical basis of the benzylpenicillin (BP) allergy with the aim of identifying immunologically relevant biomimetic benzylpenicilloylated peptides through the analysis of BP-conjugated human serum albumin (BP-HSA) profile and the evaluation of the naive CD4(+) T-cell responses to candidate BP-HSA-derived peptides. The chemical structures of BP-HSA bioconjugates synthesized in vitro at both physiological and basic pH were investigated by mass spectrometry. From the ten most representative lysine residues grafted by BP-hapten, HSA-
bioinspired 15-mer peptide sequences were designed and the potential T-cell epitope profile of each peptide was predicted using two complementary in silico approaches, i.e., HLA class II binding prediction tools from the Immune Epitope Database and Analysis Resource (IEDB) and computational alanine scanning mutagenesis. Twelve structurally diversified benzylpenicilloylated peptides (BP-Ps) were selected and synthesized with the aid of a flexible synthesis pathway using an original benzylpenicilloylated lysine monomer as common precursor. In order to corroborate their predicted 'epitope' profile, the naive CD4(+) T-cell response specific to BP was evaluated through a coculture approach. To our knowledge, this study showed for the first time the ability of bioinspired peptides structurally stemming from BP-HSA to be recognized by naive CD4(+) T-cells thus identifying a pre-existing T-cell repertoire for penicillin molecules bound to proteins."

According to the news reporters, the research concluded: "It also established a promising model approach expandable to other most frequently used penicillin classes of antibiotics to reveal biomimetic drug-modified antigenic peptides relevant for qualitative and quantitative drug allergy studies."


Our news journalists report that additional information may be obtained by contacting D. Joseph, Univ Paris Saclay, CNRS, Univ Paris Sud, BioCIS, F-92296 Chatenay Malabry, France. Additional authors for this research include S. Delarue-Cochin, M.E. Azoury, M. Le Mignon, J.A. Chemelle, E. Nony, B. Maillere, R. Terreux, M. Pallardy and D. Joseph.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.bioconjchem.6b00393. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Chatenay Malabry, France, Europe, Immune System Diseases and Conditions, Interleukin-16 Receptors, T-Lymphocyte Antigens, Emerging Technologies, Biological Factors, Nanobiotechnology, Bionanotechnology, Differentiation, Nanotechnology, Bioengineering, Biotechnology, CD4 Antigens, CD Antigens, Amino Acids, Biomimetics, Immunology, Proteomics, Allergies, Proteins, Peptides, University of Paris-Sud.

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Graves' Disease

Study Results from University of Pavia Update Understanding of Graves' Disease (Gender Influences The Clinical Presentation And Long-term Outcome Of Graves Disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Graves' disease. According to news reporting originating in Pavia, Italy, by NewsRx journalists, research stated, "The outcome of antithyroid drug (ATD) treatment for Graves disease (GD) is difficult to predict. In this study, we investigated whether male gender, besides other factors usually associated with a poor
outcome of ATD treatment, may affect disease presentation and predict the response to medical treatment in subjects with GD."

The news reporters obtained a quote from the research from the University of Pavia, "We studied 294 patients with a first diagnosis of GD. In all patients, ATD treatment was started. Clinical features, thyroid volume, and eye involvement were recorded at baseline. Serum levels of free thyroxine (FT4), free triiodothyronine (FT3), thyroid-stimulating hormone (TSH), and TSH-receptor antibodies (TRAb) were measured at baseline and during the follow-up. Treatment outcome (FT4, FT3, and TSH serum levels and further treatments for GD after ATD withdrawal) was evaluated. When compared to women, men showed a significantly larger thyroid volume and a higher family positivity for autoimmune diseases. During ATD, the mean serum levels of TSH, FT4, FT3, and TRAb did not differ between groups. Within 1 year after ATD discontinuation, relapse of hyperthyroidism was significantly more frequent in men than in women. Within the 5-year follow-up period, the prevalence of men suffering a late relapse was higher compared with that of women. The outcome at the end of the 5-year follow-up period was significantly associated with gender and TRAb levels at disease onset. Male patients with GD have a poorer prognosis when submitted to medical treatment with ATDs."

According to the news reporters, the research concluded: "A larger goiter at presentation and a stronger genetic autoimmune background might explain this gender difference in patients with GD."

For more information on this research see: Gender Influences The Clinical Presentation And Long-term Outcome Of Graves Disease. Endocrine Practice, 2016;22 (11):1336-1342. Endocrine Practice can be contacted at: Amer Assoc Clinical Endocrinologists, 245 Riverside Avenue, Ste 200, Jacksonville, FL 32202, USA.

Our news correspondents report that additional information may be obtained by contacting L. Chiovato, University of Pavia, Unit Internal Med & Endocrinol, IRCCS Fdn S Maugeri, Pavia, Italy. Additional authors for this research include F. Zerbini, M. Gaiti, V. Capelli, A. Ragni, M. Rotondi and L. Chiovato.

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Keywords for this news article include: Pavia, Italy, Europe, Immune System Diseases and Conditions, Autoimmune Diseases and Conditions, Thyroid Diseases and Conditions, Orbital Diseases and Conditions, Hyperthyroidism, Graves' Disease, Women's Health, Graves Disease, Gender Health, Endocrinology, Exophthalmos, Genetics, Goiters, University of Pavia.

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Liver Diseases and Conditions - Hepatitis C Virus

Study Results from University of Pennsylvania in the Area of Hepatitis C Virus Reported (Hepatitis C virus therapy with peg-interferon and ribavirin in Myanmar: A resource-constrained country)

NewsRx journalists, research stated, "To investigate peg-interferon (peg-IFN) and ribavirin (RBV) therapy in Myanmar and to predict sustained virologic response (SVR). This single-center, open-label, study was conducted in Myanmar between 2009 and 2014."

The news reporters obtained a quote from the research from the University of Pennsylvania, "A total of 288 patients infected with HCV genotypes 1, 2, 3 and 6 were treated with peg-IFN alpha-2a (180 μg/wk) or alpha-2b (50 to 100 μg as a weight-based dose) and RBV as a weight-based dose (15 mg/kg/d). Treatment duration was 48 wk for genotypes 1 and 6, 24 wk for genotype 2, and 24 or 48 wk for genotype 3 based on rapid virologic response (RVR). Those co-infected with hepatitis B received 48 wk of therapy. Overall, SVR was achieved for 82% of patients and the therapy was well tolerated. All patients achieved SVR at equivalent rates regardless of HCV genotype (p = 0.314). Low fibrosis scores (p < 0.001), high baseline albumin levels (p = 0.028) and low baseline viral loads (p = 0.029) all independently predicted SVR. On the other hand, IL-28B TT and CC genotypes were not found to significantly predict SVR (p = 0.634; p = 0.618). Among those who completed treatment, the occurrence of RVR showed a > 96% positive predictive value for achieving SVR. Treatment duration did not significantly impact the likelihood of achieving SVR for patients infected with genotype 3 HCV (p = 0.371). The most common adverse events were fatigue (71%) and poor appetite (60%). Among patients with genotype 3 HCV, more patients in the 48-wk treatment group required erythropoietin than in the 24-wk treatment group (61.1% vs 49.2%). SVR rates were high with peg-IFN and RBV therapy in Myanmar."

According to the news reporters, the research concluded: "Fibrosis scores, baseline albumin, HCV RNA levels and RVR independently predicted SVR."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.3748/wjg.v22.i43.9613. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Respiratory Inhalant Products, Liver Diseases and Conditions, Inhaled Antiinfectives, Drugs and Therapies, Respiratory Agents, Purine Nucleosides, Influenza Therapy, Hepatitis C Virus, Gastroenterology, Antiretrovirals, Interferons, Antivirals, Hepatology, Cytokines, Ribavirin, Genetics, Virology, HCV, University of Pennsylvania.

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Study Results from University of Rochester Update Understanding of Connective Tissue Cells (Human lung fibroblasts produce proresolving peroxisome proliferator-activated receptor-gamma ligands in a cyclooxygenase-2-dependent manner)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Connective Tissue Cells have been presented. According to news originating from Rochester, New York, by NewsRx correspondents, research stated, "Human lung fibroblasts (HLFs) act as innate immune sentinel cells that amplify the inflammatory response to injurious stimuli. Here, we use targeted lipidomics to explore the hypothesis that HLFs also play an active role in the resolution of inflammation."

Our news journalists obtained a quote from the research from the University of Rochester, "We detected cyclooxygenase-2 (COX-2)-dependent production of both proinflammatory and proresolving prostaglandins (PGs) in conditioned culture medium from HLFs treated with a proinflammatory stimulus, IL-1 beta. Among the proresolving PGs in the HLF lipidome were several known ligands for peroxisome proliferator-activated receptor-gamma (PPAR gamma), a transcription factor whose activation in the lung yields potent anti-inflammatory, antifibrotic, and proresolving effects. Next, we used a cell-based luciferase reporter to confirm the ability of HLF supernatants to activate PPAR gamma, demonstrating, for the first time, that primary HLFs activated with proinflammatory IL-1 beta or cigarette smoke extract produce functional PPAR gamma ligands; this phenomenon is temporally regulated, COX-2- and lipocalin-type PGD synthase-dependent, and enhanced by arachidonic acid supplementation. Finally, we used luciferase reporter assays to show that several of the PGs in the lipidome of activated HLFs independently activate PPAR gamma and/or inhibit NF kappa B. These results indicate that HLFs, as immune sentinels, regulate both proinflammatory and proresolving responses to injurious stimuli."

According to the news editors, the research concluded: "This novel endogenous resolution pathway represents a new therapeutic target for globally important inflammatory diseases such as chronic obstructive pulmonary disease."


The news correspondents report that additional information may be obtained from R.P. Phipps, University of Rochester, Sch Med & Dental, Lung Biol & Dis Program, Rochester, NY 14642, United States. Additional authors for this research include C.F. Woeller, T.H. Thatcher, K.R. Maddipati, K.V. Honn, P.J. Sime and R.P. Phipps.

Keywords for this news article include: Rochester, New York, United States, North and Central America, Peroxisome Proliferator-Activated Receptors, Cytoplasmic and Nuclear Receptors, Connective Tissue Cells, Cytoplasmic Structures, Enzymes and Coenzymes, Transcription Factors, DNA-Binding Proteins, Cytoplasmic Vesicles, Intracellular Space, COX-2 Inhibitors, Cyclooxygenase, Pain Medicine, Luciferases, Peroxisomes, Microbodies, Fibroblasts, PPAR gamma, Organelles, Genetics, University of Rochester.
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Clinical Research - Clinical Trials and Studies

Study Results from University of Rochester in the Area of Clinical Trials and Studies Reported (Efficacy of periimplant mechanical debridement with and without adjunct antimicrobial photodynamic therapy in the treatment of periimplant diseases ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Clinical Research - Clinical Trials and Studies. According to news reporting out of Rochester, New York, by NewsRx editors, research stated, "The aim was to assess the efficacy of mechanical debridement (MD) with and without adjunct antimicrobial photodynamic therapy (aPDT) in reducing periimplant inflammation among cigarette smokers and non-smokers. Cigarette-smokers and non-smokers were randomly divided into 2 groups."

Financial support for this research came from King Saud University.

Our news journalists obtained a quote from the research from the University of Rochester, "In the test-group, participants underwent full mouth scaling and periimplant MD with adjunct aPDT; and in the control group, the participants underwent full mouth scaling and periimplant MD alone. Periimplant bleeding on probing (BOP), probing depth (PD) and crestal bone loss (CBL) were measured at baseline and at 6- and 12-months follow-up. Statistical analysis was performed using the Kruskal-Wallis test. P-values <0.05 were considered statistically significant. Eighty-four smokers (41 patients in the test group and 43 in the control group) and 82 nonsmokers (40 patients in the test group and 42 in the control group) were included. Among smokers and non-smokers, periimplant PD was significantly higher in the control-group compared with the test-group (P < 0.05) at 6-months of follow-up. There was no statistically significant difference in BOP, PD and CBL among smokers and non-smokers in the test- and control-groups at 12-months of follow-up. BOP was comparable among smokers at all time intervals. In the short-term, MD with adjunct aPDT is more effective in reducing periimplant probing depth than MD alone in smokers and non-smokers."

According to the news editors, the research concluded: "However, in the long-term outcomes of MD either with or without aPDT among smokers and non-smokers are comparable."

For more information on this research see: Efficacy of periimplant mechanical debridement with and without adjunct antimicrobial photodynamic therapy in the treatment of periimplant diseases among cigarette smokers and non-smokers. Photodiagnosis and Photodynamic Therapy, 2016;16():85-89. Photodiagnosis and Photodynamic Therapy can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Photodiagnosis and Photodynamic Therapy - www.journals.elsevier.com/photodiagnosis-and-photodynamic-therapy/)

Our news journalists report that additional information may be obtained by contacting F. Javed, University of Rochester, Eastman Inst Oral Hlth, Dept. of Gen Dental, Rochester, NY 14627, United States. Additional authors for this research include T. Abduljabbar, G. Carranza, E. Gholamiaizizi, D.K. Mazzag, S.V. Kellesarian and F. Vohra.

The direct object identifier (DOI) for that additional information is:
Study Results from University of Saarland Update Understanding of Cystic Fibrosis (Optimization of ciprofloxacin complex loaded PLGA nanoparticles for pulmonary treatment of cystic fibrosis infections: Design of experiments approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Lung Diseases and Conditions - Cystic Fibrosis is the subject of a report. According to news reporting from Saarbrucken, Germany, by NewsRx journalists, research stated, "Design of Experiments (DoE) is a powerful tool for systematic evaluation of process parameters' effect on nanoparticle (NP) quality with minimum number of experiments. DoE was employed for optimization of ciprofloxacin loaded PLGA NPs for pulmonary delivery against Pseudomonas aeruginosa infections in cystic fibrosis (CF) lungs."

The news correspondents obtained a quote from the research from the University of Saarland, "Since the biofilm produced by bacteria was shown to be a complicated 3D barrier with heterogeneous meshes ranging from 100 nm to 500 nm, nanoformulations small enough to travel through those channels were assigned as target quality. Nanoprecipitation was realized utilizing MicroJet Reactor (MJR) technology based on impinging jets principle. Effect of MJR parameters flow rate, temperature and gas pressure on particle size and PDI was investigated using Box-Behnken design. The relationship between process parameters and particle quality was demonstrated by constructed fit functions (R-2 = 0.9934 p< 0.0001 and R-2 = 0.9983 p< 0.0001, for particle size and PDI, respectively). Prepared nanoformulations varied between 145.2 and 979.8 nm with PDI ranging from 0.050 to 1.00 and showed encapsulation efficiencies > 65%. Response surface plots provided experimental data-based understanding of MJR parameters' effect, thus NP quality."

According to the news reporters, the research concluded: "Presented work enables ciprofloxacin loaded PLGA nanoparticle preparations with pre-defined quality to fulfill the requirements of local drug delivery under CF disease conditions."

For more information on this research see: Optimization of ciprofloxacin complex loaded PLGA nanoparticles for pulmonary treatment of cystic fibrosis infections: Design of experiments approach. *International Journal of Pharmaceutics*, 2016;515(1-2):343-351. *International Journal of Pharmaceutics* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www elsevier com; International Journal of Pharmaceutics - www journals elsevier com/international-journal-of-pharmaceutics/)

Our news journalists report that additional information may be obtained by contacting N.G. Tureli, University of Saarland, Dept. of Pharm, Biopharmaceut & Pharmaceut Technol, D-66123 Saarbrucken, Germany. Additional authors for this research include A.E. Tureli and M. Schneider.
Study Results from University of Sydney Broaden Understanding of Cardiology (Effect of corticosteroids on cardiac function in growth-restricted fetuses)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Cardiology are presented in a new report. According to news reporting from Sydney, Australia, by NewsRx journalists, research stated, "To determine the acute effects of corticosteroids on the cardiovascular system in growth-restricted fetuses. This was a prospective cohort study conducted at a tertiary hospital between January 2011 and October 2013."

The news correspondents obtained a quote from the research from the University of Sydney, "Fetal cardiovascular function in fetuses with intrauterine growth restriction (IUGR) was assessed immediately before and 24 h after the first dose of betamethasone, administered in routine management of IUGR. Fetal arterial and venous Dopplers were assessed. Fetal cardiac function was evaluated by tissue Doppler echocardiography, with the assessment of both left and right ventricular function by calculating myocardial performance index (MPI') and E':A' ratios. Values were compared before and after exposure. Seventeen patients were included at a mean gestational age of 34+1 (range, 29+1 to 37+4) weeks. Fifteen fetuses were below the 5th percentile and two were below the 10th percentile for estimated fetal weight and abdominal circumference and all had no interval growth during a 2-week period. There was a decrease in right MPI' (from 0.56 to 0.47; P=0.007) after corticosteroid exposure but no change in left MPI' (from 0.49 to 0.48). Right MPI' was higher than left MPI' before exposure (0.56 vs 0.49, respectively; P=0.001), but not after exposure (P=0.55). There was no change in left or right ventricular E':A' ratios and no difference was detected in umbilical artery, middle cerebral artery or ductus venosus pulsatility index following administration of corticosteroids. Corticosteroids altered right-sided, but not left-sided, tissue Doppler MPI' in IUGR fetuses, with no detectable change in arterial or venous Doppler pulsatility indices. Before exposure, the mean right MPI' was higher than the left. However, after exposure, there was no difference, suggesting that corticosteroids may reverse the negative effect of IUGR on fetal heart function."

According to the news reporters, the research concluded: "Large prospective studies with a larger sample size are needed to confirm this finding."

For more information on this research see: Effect of corticosteroids on cardiac function in growth-restricted fetuses. Ultrasound in Obstetrics & Gynecology, 2016;48(2):204-209. Ultrasound in Obstetrics & Gynecology can be contacted at: Wiley-Blackwell, 111 River
Study Results from University of Sydney Broaden Understanding of Kidney Transplants (Normal saline versus lower-chloride solutions for kidney transplantation)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Transplant Medicine - Kidney Transplants. According to news reporting out of Sydney, Australia, by NewsRx editors, research stated, "The ideal intravenous fluid for kidney transplantation has not been defined, despite the common use of normal saline during the peri-operative period. The high chloride content of normal saline is associated with an increased risk of hyperchloraemic metabolic acidosis, which may in turn increase the risk of hyperkalaemia and delayed graft function."

Our news journalists obtained a quote from the research from the University of Sydney, "Balanced electrolyte solutions have a lower chloride content which may decrease this risk and avoid the need for dialysis due to hyperkalaemia in the immediate post-transplant period. Randomised controlled trials (RCTs) addressing this issue have used biochemical outcomes to compare fluids and have been underpowered to address patient-centred outcomes such as delayed graft function. To examine the effect of lower-chloride solutions versus normal saline on delayed graft function, hyperkalaemia and acid-base status in kidney transplant recipients. Search methods We searched the Cochrane Kidney and Transplant's Specialised Register to 26 November 2015 through contact with the Information Specialist using search terms relevant to this review. Selection criteria RCTs of kidney transplant recipients that compared peri-operative intravenous lower-chloride solutions to normal saline were included. Data collection and analysis Two independent investigators assessed studies for eligibility and risk of bias. Data from individual studies were extracted using standardised forms and pooled according to a published protocol. Summary estimates of effect were obtained using a random-effects model, and results were expressed as risk ratios (RR) and their 95% confidence intervals (CI) for dichotomous outcomes, and mean difference (MD) and 95% CI for continuous outcomes. Six studies (477 participants) were included in the review. All participants were adult kidney transplant recipients and 70% of participants underwent live-donor kidney transplantation. The overall risk of bias was low for selection bias and unclear for remaining domains. There was no difference in the risk of delayed graft function (3 studies, 298 participants: RR1.03, 95% CI 0.62 to 1.70) or hyperkalaemia (2 studies, 199 participants: RR 0.48, 95% CI 0.04 to 6.10) for participants who received balanced electrolyte solutions compared to normal saline. Intraoperative balanced electrolyte solutions compared to normal saline were associated with higher blood pH (3 studies, 193 participants: MD 0.07, 95% CI 0.05 to 0.09), higher serum bicarbonate (3 studies, 215 participants: MD 3.02 mEq/L, 95% CI 2.00 to
4.05) and lower serum chloride (3 studies, 215 participants: MD -9.93 mmol/L, 95% CI -19.96 to 0.11). There were four cases of graft loss in the normal saline group and one in the balanced electrolyte solution group, and four cases of acute rejection in the normal saline group compared to two cases in the balanced electrolyte solution group."

According to the news editors, the research concluded: "Authors’ conclusions Balanced electrolyte solutions are associated with less hyperchloraemic metabolic acidosis compared to normal saline, however it remains uncertain whether lower-chloride solutions lead to improved graft outcomes compared to normal saline."

For more information on this research see: Normal saline versus lower-chloride solutions for kidney transplantation. Cochrane Database of Systematic Reviews, 2016;(8):1342-1378. Cochrane Database of Systematic Reviews can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA.

Our news journalists report that additional information may be obtained by contacting S. Wan, University of Sydney, Cent Clin Sch, Sydney, NSW 2006, Australia. Additional authors for this research include M.A. Roberts and P. Mount.

Keywords for this news article include: Sydney, Australia, Australia and New Zealand, Nutritional and Metabolic Diseases and Conditions, Delayed Graft Function, Article Review, Inorganic Chemicals, Acid-Base Imbalance, Transplant Medicine, Kidney Transplants, Hydrochloric Acid, Organ Transplants, Transplantation, Electrolytes, Biomedicine, Chlorides, Acidosis, Surgery, Anions, University of Sydney.

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Oncology - Oral Cancer

Study Results from University of Technology Update Understanding of Oral Cancer (Lymph node management in the treatment of oral cancer: Analysis of a standardized approach)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Oral Cancer are discussed in a new report. According to news reporting originating from Munich, Germany, by NewsRx correspondents, research stated, "A supraomohyoid neck dissection (SOHND) is part of the surgical management of patients with oral cancer, even in the absence of clinical or radiographic evidence of neck disease. We have investigated a standardized approach to the management of cervical lymph nodes, in patients with a primary oral cancer."

Our news editors obtained a quote from the research from the University of Technology, "A modified surgical technique has been presented and a clinical algorithm has been described and evaluated. SOHND was performed either uni-or bi-laterally. In cases of positive nodes in levels II or III, the dissection was extended in terms of a modified radical neck dissection (MRND) and a SOHND was performed contralaterally. 112 patients were included. 42% had lymph node metastases in any level. Overall, lymph node metastases were found in 2.8% of all examined nodes. Most metastases (34.6%) occurred in level Ib. 12.6% were located in level IIb. No metastases could be detected in levels IV and V. No statistically significant difference could be shown with regard to T-stage, location, or co-factors as gender and age. SOHND is the gold-standard in patients with no preoperative evidence of lymph node metastases. The presented algorithm is able to facilitate dissection and histological analysis and
might improve the surgical care in current treatment concepts."

According to the news editors, the research concluded: "The extension to an MRND facilitates the identification of patients in need of adjuvant therapy."


The news editors report that additional information may be obtained by contacting S. Koerd, Univ Technol Munich, Dept. of Oral & Maxillofacial Surg, D-81675 Munich, Germany. Additional authors for this research include J. Rockl, N. Rommel, T. Mucke, K.D. Wolff and M.R. Kesting.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jcms.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Munich, Germany, Europe, Hemic and Immune Systems, Cancer, Surgery, Lymphoid Tissue, Mouth Neoplasms, Oral Cancers, Lymph Nodes, Immunology, Oncology, University of Technology.

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**Immunology - Cellular Immunology**

**Study Results from University of Tehran Provide New Insights into Cellular Immunology (Cellular and molecular mechanisms of immune dysregulation and autoimmunity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Immunology - Cellular Immunology. According to news reporting originating from Tehran, Iran, by NewsRx correspondents, research stated, "Primary immunodeficiencies (PIDs) constitute a large group of rare disorders that affect the function of the immune system."

Our news editors obtained a quote from the research from the University of Tehran, "A specific group of PIDs entitled 'diseases of immune dysregulation' are developed due to mutation in the genes which have critical roles in the regulation of immune responses and immunological tolerance. This group of PID patients develop autoimmune and inflammatory disorders as a result of their impaired immunity, therefore they could be considered as a model for analyzing the link between immune dysregulation and autoimmunity."

According to the news editors, the research concluded; "In this article, our aim is to describe the function of the mutated gene, the molecular and cellular mechanisms underlying the immune dysregulation and review the literature in regard with the reported autoimmune disorders in the main types of immunodysregulatory diseases including genetic defects of regulatory T cells, familial hemophagocytic lymphohistiocytosis syndromes, autoimmunity without lymphoproliferation, autoimmune lymphoproliferative syndrome, immune dysregulation with colitis, and type 1 interferonopathies."
For more information on this research see: Cellular and molecular mechanisms of immune dysregulation and autoimmunity. *Cellular Immunology*, 2016;310():14-26. *Cellular Immunology* can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Cellular Immunology - www.journals.elsevier.com/cellular-immunology/)

The news editors report that additional information may be obtained by contacting A. Mirshafiey, Univ Tehran Med Sci, Sch Public Hlth, Dept. of Immunol, Tehran 14155, Iran. Additional authors for this research include M.R. Pouyani, H. Abolhassani, L. Sharifi, M.Z. Dizaji, J. Mohammadi, A. Mirshafiey and A. Aghamohammadi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cellimm.2016.08.012. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Tehran, Iran, Asia, Cellular Immunology, Genetics, Article Review, Immunology, University of Tehran.

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**Drugs and Therapies - Antidiabetic Agents**

**Study Results from University of Texas Broaden Understanding of Antidiabetic Agents [PPAR Modulation of Cytokine-Stimulated MUC16 (CA125) Expression in Breast and Ovarian Cancer-Derived Cells]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antidiabetic Agents. According to news reporting originating from Houston, Texas, by NewsRx correspondents, research stated, "CA125 is serum tumor marker consisting of an epitope carried by a portion of the extremely large (>3MDa), heavily glycosylated cell surface transmembrane mucin, MUC16. In malignancies, membrane bound mucins lose their polarized distribution, become aberrantly over-expressed and protect tumor cells from the actions of chemotherapeutic agents as well as the immune system."

Our news editors obtained a quote from the research from the University of Texas, "Previously, we described stimulation of MUC16 expression by the proinflammatory cytokines, tumor necrosis factor (TNF) and interferon (IFN), in breast and ovarian cancer cells and tissues. Herein, we show that PPAR modulates cytokine-stimulated MUC16 in a complex manner: at low concentrations (<10 mu M) rosiglitazone further potentiates cytokine-driven MUC16 expression while at high concentrations (>20 mu M) rosiglitazone antagonizes cytokine stimulation. Rosiglitazone actions were fully reversible by the PPAR antagonist, GW9662. Furthermore, siRNA-mediated PPAR knockdown also prevented a large portion of high dose rosiglitazone suppression of MUC16 expression indicating that rosiglitazone inhibition is largely PPAR-dependent. Cytokines greatly (>75%) suppressed PPAR expression. Conversely, PPAR activation by rosiglitazone at either low or high concentrations greatly (>75%) suppressed NFB/p65 expression. NFB/p65 expression was largely preserved in the presence of cytokines at low, but not high, rosiglitazone concentrations accounting for the different concentration dependent effects on MUC16 expression. Collectively, these studies demonstrate that PPAR is an important modulator of MUC16 expression."

According to the news editors, the research concluded: "The ability to deliver high


The news editors report that additional information may be obtained by contacting D.D. Carson, Univ Texas MD Anderson Canc Center, Dept. of Genet, Houston, TX 77030, United States.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Intercellular Signaling Peptides and Proteins, Hemic and Immune Systems, Rosiglitazone Therapy, Drugs and Therapies, Hypoglycemic Agents, Fibrinolytic Agents, Antidiabetic Agents, Vasodilator Agents, Thiazolidinediones, Thiazolidinedione, Immunology, Cytokines, Oncology, Cancer, University of Texas.

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Genetics - Genetic Epidemiology

Study Results from University of Texas Provide New Insights into Genetic Epidemiology (Mendelian randomization analysis of a time-varying exposure for binary disease outcomes using functional data analysis methods)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Genetics - Genetic Epidemiology have been published. According to news reporting from Houston, Texas, by NewsRx journalists, research stated, "A Mendelian randomization (MR) analysis is performed to analyze the causal effect of an exposure variable on a disease outcome in observational studies, by using genetic variants that affect the disease outcome only through the exposure variable. This method has recently gained popularity among epidemiologists given the success of genetic association studies."

The news correspondents obtained a quote from the research from the University of Texas, "Many exposure variables of interest in epidemiological studies are time varying, for example, body mass index (BMI). Although longitudinal data have been collected in many cohort studies, current MR studies only use one measurement of a time-varying exposure variable, which cannot adequately capture the long-term time-varying information. We propose using the functional principal component analysis method to recover the underlying individual trajectory of the time-varying exposure from the sparsely and irregularly observed longitudinal data, and then conduct MR analysis using the recovered curves. We further propose two MR analysis methods. The first assumes a cumulative effect of the time-varying exposure variable on the disease risk, while the second assumes a time-varying genetic effect and employs functional regression models. We focus on statistical testing for a causal effect. Our simulation studies mimicking the real data show that the proposed functional data analysis based methods incorporating longitudinal data have substantial power gains compared to standard MR analysis..."
using only one measurement."

According to the news reporters, the research concluded: "We used the Framingham Heart Study data to demonstrate the promising performance of the new methods as well as inconsistent results produced by the standard MR analysis that relies on a single measurement of the exposure at some arbitrary time point."


Our news journalists report that additional information may be obtained by contacting P. Wei, Univ Texas MD Anderson Canc Center, Dept. of Biostat, Houston, TX 77030, United States. Additional authors for this research include S.S. Rajan and P. Wei.

Keywords for this news article include: Houston, Texas, United States, North and Central America, Genetic Epidemiology, Genetics, Epidemiology, Risk and Prevention, Genetics, University of Texas.

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**Hematology - Plasma**

**Study Results from University of Texas Southwestern Medical Center Broaden Understanding of Plasma (Can an anti-Xa assay for low-molecular-weight heparin be used to assess the presence of rivaroxaban?)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematology - Plasma. According to news originating from Dallas, Texas, by NewsRx correspondents, research stated, "Due to the convenience afforded by the lack of required laboratory monitoring, direct oral anticoagulants (DOACs) are increasingly used as alternatives to Vitamin-K antagonists for certain medical conditions. However, there are circumstances in which assessment of DOAC plasma concentrations may be helpful in guiding clinical decisions, including patients presenting with either bleeding or thrombosis, or patients requiring urgent invasive procedures."

Our news journalists obtained a quote from the research from the University of Texas Southwestern Medical Center, "Evaluating the anticoagulant effects of DOACs is often difficult because of the limited availability of DOAC-specific assays in most laboratories. To evaluate the correlation between ex vivo plasma concentrations of rivaroxaban and a chromogenic anti-Xa assay for low-molecular-weight heparin (LMWH) routinely used in our coagulation laboratory. Twenty-nine blood samples from 20 patients anticoagulated with rivaroxaban (dose: 10-20 mg/day) were evaluated using an anti-Xa assay for LMWH and results were correlated with rivaroxaban plasma concentrations using a rivaroxaban specific assay. A linear dose-dependent relationship was demonstrated between plasma concentrations of rivaroxaban and the chromogenic anti-Xa assay for LMWH (R2 = 0.92). PT and PTT demonstrated poor correlations (R2 = 0.03; and R2 = 0.01, respectively) with rivaroxaban plasma concentrations."
According to the news editors, the research concluded: "Findings from this study suggest that if specific assays for rivaroxaban are unavailable, then the chromogenic anti-Xa assay for LMWH may be useful for assessing the anticoagulant effects of rivaroxaban."


The news correspondents report that additional information may be obtained from S.G. Yates, UT Southwestern Med Center, Dept. of Pathol, Div Transfus Med & Hemostasis, Dallas, TX, United States. Additional authors for this research include S. Smith, W. Tharpe, Y.M. Shen and R. Sarode.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.transci.2016.06.005. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Dallas, Texas, United States, North and Central America, Hematology, Plasma, Blood, University of Texas Southwestern Medical Center.

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**Gastroenterology**

**Study Results from University of Tokyo Broaden Understanding of Gastroenterology (Long-term human primary hepatocyte cultures in a microfluidic liver biochip show maintenance of mRNA levels and higher drug metabolism compared with Petri cultures)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Gastroenterology is the subject of a report. According to news reporting originating in Tokyo, Japan, by NewsRx journalists, research stated, "Human primary hepatocytes were cultivated in a microfluidic bioreactor and in Petri dishes for 13 days. mRNA kinetics in biochips showed an increase in the levels of CYP2B6, CYP2C19, CYP2C8, CYP3A4, CYP1A2, CYP2D6, HNF4a, SULT1A1, UGT1A1 mRNA related genes when compared with post extraction levels. In addition, comparison with Petri dishes showed higher levels of CYP2B6, CYP2C19, CYP2C8, CYP3A4, CYP1A2, CYP2D6 related genes at the end of culture."

The news reporters obtained a quote from the research from the University of Tokyo, "Functional assays illustrated a higher urea and albumin production over the period of culture in biochips. Bioreactor drug metabolism (midazolam and phenacetin) was not superior to the Petri dish after 2 days of culture. The CYP3A4 midazolam metabolism was maintained in biochips after 13 days of culture, whereas it was almost undetectable in Petri dishes. This led to a 5000-fold higher value of the metabolic ratio in the biochips. CYP1A2 phenacetin metabolism was found to be higher in biochips after 5, 9 and 13 days of culture. Thus, a 100-fold higher metabolic ratio of APAP in biochips was measured after 13 days of perfusion."

According to the news reporters, the research concluded: "These results
demonstrated functional primary human hepatocyte culture in the bioreactor in a long-term culture."


Our news correspondents report that additional information may be obtained by contacting E. Leclerc, University of Tokyo, Inst Ind Sci, CNRS LIMMS UMI 2820, Meguro Ku, Tokyo 1538505, Japan. Additional authors for this research include T. Bricks, S. Jacques, M.J. Fleury, P. Paullier, F. Merlier and E. Leclerc.

Keywords for this news article include: Tokyo, Japan, Asia, Gastroenterology, Drugs and Therapies, Emerging Technologies, Nanobiotechnology, Bionanotechnology, Nanotechnology, Biotechnology, Biochips, University of Tokyo.

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**Oncology - Gastric Cancer**

**Study Results from University of Tokyo Update Understanding of Gastric Cancer (Histologic intestinal metaplasia and endoscopic atrophy are predictors of gastric cancer development after Helicobacter pylori eradication)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Oncology - Gastric Cancer are presented in a new report. According to news reporting out of Tokyo, Japan, by NewsRx editors, research stated, "Helicobacter pylori eradication therapy is effective at reducing the incidence of gastric cancer; however, gastric cancer still develops after eradication. We conducted a cohort study to elucidate the risk factors for gastric cancer development after successful H pylori eradication therapy."

Our news journalists obtained a quote from the research from the University of Tokyo, "From June 1998 to December 2012 we assessed histologic and endoscopic findings of gastritis and performed H pylori eradication therapy in 748 patients without a history of gastric cancer. Patients were classified according to the distribution of intestinal metaplasia (IM) as follows: no IM (IM group A), IM in the antrum only (IM group B), and IM in the corpus (IM group C). We assessed atrophy endoscopically according to the Kimura-Takemoto classification system. Gastric cancer incidence was assessed. A total of 573 patients underwent follow-up endoscopy; the mean duration of follow-up was 6.2 +/- 4.8 years. Gastric cancer developed in 21 (20 intestinal type). The cumulative 5-year incidences of gastric cancer were 3.2% overall; 1.5%, 5.3%, and 9.8% in IM groups A, B, and C; and 0.7%, 1.9%, and 10% in the none/ mild, moderate, and severe endoscopic atrophy groups, respectively. Compared with IM group A, the hazard ratio for IM group B was 3.6 (95% confidence interval [CI], 1.2-11), and that for IM group C was 3.7 (95% CI, 1.1-12). Compared with the none/ mild endoscopic atrophy group, the hazard ratio for severe atrophy was 9.3 (95% CI, 1.7-174)."
According to the news editors, the research concluded: "Patients with histologic IM or severe endoscopic atrophy were at increased risk of gastric cancer development after H pylori eradication."


Our news journalists report that additional information may be obtained by contacting Y. Hirata, University of Tokyo, Grad Sch Med, Dept. of Gastroenterol, Tokyo, Japan. Additional authors for this research include Y. Hirata, R. Niikura, Y. Hayakawa, A. Yamada, T. Ushiku, M. Fukayama and K. Koike.

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Keywords for this news article include: Tokyo, Japan, Asia, Parasitic Diseases and Conditions, Gram-Negative Bacteria, Intestinal Metaplasia, Epsilonproteobacteria, Helicobacter pylori, Risk and Prevention, Gastroenterology, Proteobacteria, Gastric Cancer, Oncology, Therapy, University of Tokyo.

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**Enzymes and Coenzymes - Cysteine Endopeptidases**

**Study Results from University of Tokyo in the Area of Cysteine Endopeptidases Reported (Drosophila SETDB1 and caspase cooperatively fine-tune cell fate determination of sensory organ precursor)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Enzymes and Coenzymes - Cysteine Endopeptidases have been published. According to news originating from Bunkyo ku, Japan, by NewsRx correspondents, research stated, "Drosophila produce a constant number of mechanosensory bristles called macrochaetae (MC), which develop from sensory organ precursor (SOP) cells within a proneural cluster (PNC). However, what ensures the precise determination of SOP cells remains to be elucidated."

Financial supporters for this research include Japan Society for the Promotion of Science, Basic Research Program of the Japan Science and Technology Agency.

Our news journalists obtained a quote from the research from the University of Tokyo, "In this study, we conducted RNAi screening in PNC for genes involved in epigenetic regulation. We identified a H3K9 histone methyltransferase, SETDB1/eggless, as a regulator of SOP development. Knockdown of SETDB1 in PNC led to additional SOPs. We further tested the relationship between SETDB1 and non-apoptotic function of caspase on SOP development. Reinforcing caspase activation by heterozygous Drosophila inhibitor of apoptosis protein 1 (DIAP1) mutation rescued ectopic SOP development caused by SETDB1 knockdown. Knockdown of SETDB1, however, had little effect on caspase activity. Simultaneous loss of
SETDB1 and caspase activity resulted in further increase in MC, indicating that the two components work cooperatively."

According to the news editors, the research concluded: "Our study suggests the fine-tuning mechanisms for SOP development by epigenetic methyltransferase and non-apoptotic caspase function."


The news correspondents report that additional information may be obtained from N. Shinoda, Dept. of Genetics, Graduate School of Pharmaceutical Sciences, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo, 113-0033, Japan. Additional authors for this research include F. Obata, L. Zhang and M. Miura.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/gtc.12348. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Japan, Caspases, Genetics, Bunkyo ku, Methyltransferases, Peptide Hydrolases, Enzymes and Coenzymes, Cysteine Endopeptidases.

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**Oncology - Prostate Cancer**

**Study Results from University of Toronto Provide New Insights into Prostate Cancer (Cardiovascular and Skeletal-related Events Following Localized Prostate Cancer Treatment: Role of Surgery, Radiotherapy, and Androgen Deprivation)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Prostate Cancer. According to news reporting originating in Toronto, Canada, by NewsRx journalists, research stated, "To examine the impact of androgen deprivation therapy (ADT) and primary treatment modality on cardiovascular and skeletal-related events and to investigate potential effect modification in a contemporary cohort of patients treated for clinically localized prostate cancer. We conducted a retrospective cohort study using Surveillance, Epidemiology, and End Results-Medicare linked databases for men aged 65-79 years who underwent radical prostatectomy or radiotherapy for cT1 or cT2 prostate cancer from 2000 to 2008."

Financial support for this research came from Amjera Family Chair in Urologic Oncology.

The news reporters obtained a quote from the research from the University of Toronto, "We categorized treatment according to primary therapy and receipt of ADT. We described the cumulative incidence of cardiovascular and skeletal-related events. Among 60,156 men, 14,403 underwent surgery and 45,753 underwent radiotherapy. Median follow-up was 6.0 years. After adjusting for baseline differences, treatments with radiotherapy (adjusted hazard ratios [aHR] 1.16-1.28, P< .0001-.04) and ADT (aHR 1.18-1.32, P< .0001-.008) were each independently associated with increased risk of coronary heart disease, sudden cardiac death, fracture, and fracture requiring hospitalization. Radiotherapy was associated with an increased
risk of myocardial infarction (aHR 1.20, P = .02), whereas ADT was not (P = .5). We did not identify a significant statistical interaction between primary and hormonal treatment. Care for cardiovascular and skeletal-related events is an important part of the survivorship phase for a significant proportion of patients with localized prostate cancer."

According to the news reporters, the research concluded: "Increasing use of ADT for patients with localized disease undergoing radiotherapy and the observed higher prevalence of these events in these patients should be considered when discussing the risks and benefits of treatment for localized prostate cancer and when formulating a survivorship plan."

For more information on this research see: Cardiovascular and Skeletal-related Events Following Localized Prostate Cancer Treatment: Role of Surgery, Radiotherapy, and Androgen Deprivation. Urology, 2016;97():145-152. Urology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Elsevier - www.elsevier.com; Urology - www.journals.elsevier.com/urology/)

Our news correspondents report that additional information may be obtained by contacting C.J.D. Wallis, University of Toronto, Dept. of Public Hlth Sci, Toronto, ON, Canada. Additional authors for this research include A.L. Mahar, R. Satkunasivam, S. Herschorn, R.T. Kodama, Y. Lee, G.S. Kulkarni, S.A. Narod and R.K. Nam.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.urology.2016.08.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Toronto, Ontario, Canada, North and Central America, Surgery, Epidemiology, Drugs and Therapies, Prostatic Neoplasms, Prostate Cancer, Cardiovascular, Radiotherapy, Cardiology, Androgens, Oncology, Therapy, University of Toronto.

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Liver Diseases and Conditions - Liver Fibrosis

Study Results from University of Twente Provide New Insights into Liver Fibrosis (Clinical Advancements in the Targeted Therapies against Liver Fibrosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Liver Diseases and Conditions - Liver Fibrosis have been published. According to news reporting originating from Enschede, Netherlands, by NewsRx correspondents, research stated, "Hepatic fibrosis, characterized by excessive accumulation of extracellular matrix (ECM) proteins leading to liver dysfunction, is a growing cause of mortality worldwide. Hepatocellular damage owing to liver injury leads to the release of profibrotic factors from infiltrating inflammatory cells that results in the activation of hepatic stellate cells (HSCs)."

Funders for this research include ZonMw, University of Twente.

Our news editors obtained a quote from the research from the University of Twente, "Upon activation, HSCs undergo characteristic morphological and functional changes and are transformed into proliferative and contractile ECM-producing myofibroblasts. Over recent years, a number of therapeutic strategies have been developed to inhibit hepatocyte apoptosis, inflammatory responses, and HSCs proliferation and activation. Preclinical studies have yielded
numerous targets for the development of antifibrotic therapies, some of which have entered clinical trials and showed improved therapeutic efficacy and desirable safety profiles. Furthermore, advancements have been made in the development of noninvasive markers and techniques for the accurate disease assessment and therapy responses. Here, we focus on the clinical developments attained in the field of targeted antifibrotics for the treatment of liver fibrosis, for example, small molecule drugs, antibodies, and targeted drug conjugate."

According to the news editors, the research concluded: "We further briefly highlight different noninvasive diagnostic technologies and will provide an overview about different therapeutic targets, clinical trials, endpoints, and translational efforts that have been made to halt or reverse the progression of liver fibrosis."

For more information on this research see: Clinical Advancements in the Targeted Therapies against Liver Fibrosis. *Meditators of Inflammation*, 2016;():1-16. *Meditators of Inflammation* can be contacted at: Hindawi Publishing Corp, 315 Madison Ave 3RD Flr, Ste 3070, New York, NY 10017, USA. (Hindawi Publishing - www.hindawi.com; Mediators of Inflammation - www.hindawi.com/journals/mi/)

The news editors report that additional information may be obtained by contacting R. Bansal, University of Twente, Fac Sci & Technol, Dept. of Biomat Sci & Technol, Targeted Therapeut, Enschede, Netherlands. Additional authors for this research include B. Nagorniewicz and J. Prakash.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1155/2016/7629724. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Enschede, Netherlands, Europe, Liver Diseases and Conditions, Clinical Trials and Studies, Therapy, Article Review, Clinical Research, Gastroenterology, Liver Cirrhosis, Liver Fibrosis, University of Twente.

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**DNA Research**

**Study Results from University of Ulsan Broaden Understanding of DNA Research (DNA Strand Breaks in Mitotic Germ Cells of Caenorhabditis elegans Evaluated by Comet Assay)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on DNA Research have been presented. According to news reporting originating in Ulsan, South Korea, by NewsRx journalists, research stated, "DNA damage responses are important for the maintenance of genome stability and the survival of organisms. Such responses are activated in the presence of DNA damage and lead to cell cycle arrest, apoptosis, and DNA repair."

The news reporters obtained a quote from the research from the University of Ulsan, "In *Caenorhabditis elegans*, double-strand breaks induced by DNA damaging agents have been detected indirectly by antibodies against DSB recognizing proteins. In this study we used a comet assay to detect DNA strand breaks and to measure the elimination of DNA strand breaks in mitotic germline nuclei of C. elegans. We found that C. elegans brc-1 mutants were more sensitive to ionizing radiation and camptothecin than the N2 wild-type strain and repaired DNA strand breaks less efficiently than N2. This study is the first demonstration of direct..."
measurement of DNA strand breaks in mitotic germline nuclei of C. elegans.

According to the news reporters, the research concluded: "This newly developed assay can be applied to detect DNA strand breaks in different C. elegans mutants that are sensitive to DNA damaging agents."

For more information on this research see: DNA Strand Breaks in Mitotic Germ Cells of Caenorhabditis elegans Evaluated by Comet Assay. *Molecules and Cells*, 2016;39 (3):204-10. (Springer - www.springer.com; Molecules and Cells - www.springerlink.com/content/1016-8478/)

Our news correspondents report that additional information may be obtained by contacting S. Park, Dept. of Life Sciences, University of Ulsan, Ulsan 44610, South Korea. Additional authors for this research include S. Choi and B. Ahn.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.14348/molcells.2016.2206. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Ulsan, Genetics, Genitalia, Germ Cells, South Korea, Rhabditidae, DNA Research, Life Sciences, Caenorhabditis elegans.

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**Oncology - Breast Cancer**

**Study Results from University of Ulsan in the Area of Breast Cancer Reported (Correlation Between MRI and the Level of Tumor-Infiltrating Lymphocytes in Patients With Triple-Negative Breast Cancer)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting out of Seoul, South Korea, by NewsRx editors, research stated, "Increased levels of tumor-infiltrating lymphocytes (TILs) positively correlate with the pathologic complete response rate and increased survival in patients with triple-negative breast cancer (TNBC). The purpose of this study was to investigate associations between TIL levels and MRI findings in patients with TNBC."

Our news journalists obtained a quote from the research from the University of Ulsan, "From February 2006 through December 2014, a total of 112 women with TNBC were selected for inclusion in the study. All lesions were evaluated by radiologists in accordance with the BI-RADS lexicon. Lymph node involvement and multifocality were also assessed. Tumors were divided into two groups: those with a TIL level of less than 50% were included in the group with low TIL levels (hereafter referred to as the 'low-TIL group'), and those with a TIL level of 50% or more were included in the group with high TIL levels (hereafter referred to as the 'high-TIL group'). Associations between TIL levels and imaging features were evaluated. Tumors in the high-TIL group had a more round shape (46.0%), a circumscribed margin (76.0%), homogeneous enhancement (32.0%), and absence of multifocality (88.0%) (p < 0.005). Tumors in the low-TIL group had a more irregular shape (69.3%), no circumscribed margin (79.0%), heterogeneous enhancement (75.8%), and multifocality (70.9%) (p < 0.005). The well-known typical features of TNBC on MRI, including a round shape, a circumscribed margin, homogeneous enhancement, and lack of multifocality, are a major pattern of TNBC with high TIL levels."
According to the news editors, the research concluded: "This information could provide added diagnostic benefit for the identification of tumors with a good prognosis, which could further assist in optimal pretreatment planning."

For more information on this research see: Correlation Between MRI and the Level of Tumor-Infiltrating Lymphocytes in Patients With Triple-Negative Breast Cancer. *American Journal of Roentgenology*, 2016;207(5):1146-1151. *American Journal of Roentgenology* can be contacted at: Amer Roentgen Ray Soc, 1891 Preston White Dr, Subscription Fulfillment, Reston, VA 22091, USA.

Our news journalists report that additional information may be obtained by contacting H.H. Kim, University of Ulsan, Coll Med, Dept. of Radiol, Asan Med Center, Seoul 05505, South Korea. Additional authors for this research include H.H. Kim, J.H. Cha, H.J. Shin, S.H. Baek, H.J. Lee and G. Gong.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.2214/AJR.16.16248. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Seoul, South Korea, Asia, Hemic and Immune Systems, Mononuclear Leukocytes, Women's Health, Breast Cancer, Blood Cells, Lymphocytes, Immunology, Oncology, University of Ulsan.

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**Lung Diseases and Conditions - Asthma**

**Study Results from University of Verona Provide New Insights into Asthma (PARP inhibition treatment in a nonconventional experimental mouse model of chronic asthma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Lung Diseases and Conditions - Asthma have been published. According to news reporting from Verona, Italy, by NewsRx journalists, research stated, "Allergic asthma is an immunological disease that occurs as a consequence of allergen exposure. Inhibition of poly(ADP-ribose) polymerases (PARPs) in conventional models of asthma-like reaction has emerged as an effective anti-inflammatory and airway remodeling intervention."

The news correspondents obtained a quote from the research from the University of Verona, "In a house dust mite (HDM) exposure mouse model, we investigated the impact of PARP inhibition on allergic airway inflammation, sensitization, and remodeling. Mice were intranasally exposed to a HDM extract for 5 days per week for up to 5 weeks. Mice were administered, or not, by PARP inhibitors 3-aminobenizamide (3-ABA) or 5-aminoisoquinolinone (5-AIQ) during the last 2 weeks of HDM treatment. Mice treated with PARP inhibitors after HDM stimulation showed a significant decrease in the number of total cells and eosinophils detectable in the bronchoalveolar lavage fluid as compared with the HDM-stimulated ones. In vitro HDM-stimulated splenocyte culture produced considerable amounts of the Th2 cytokines that were not affected by treatment with PARP inhibitors. Immunoglobulin levels in the serum were also unchanged. In the lung tissue, collagen deposition was decreased, whereas alpha-smooth muscle actin thickening was not significantly affected. Moreover, in HDM-stimulated PARP inhibitor-treated groups, we found a downregulation in the activation of
signal transducer and activator of transcription-6 (STAT-6) and a significant decrease in the mRNA levels of C-C motif chemokine 11 (CCL11)."

According to the news reporters, the research concluded: "In this mouse model of chronic asthma PARP inhibition treatment, although it does not affect sensitization, it effectively reduces the allergic airway inflammation and affects the remodeling through a mechanism involving STAT6 and CCL11."

For more information on this research see: PARP inhibition treatment in a nonconventional experimental mouse model of chronic asthma. Naunyn-Schmiedebergs Archives of Pharmacology, 2016;389(12):1301-1313. Naunyn-Schmiedebergs Archives of Pharmacology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

Our news journalists report that additional information may be obtained by contacting M. Menegazzi, University of Verona, Biochem Sect, Dept. of Neurosci Biomed & Movement Sci, I-37134 Verona, Italy. Additional authors for this research include R. Di Paola, S. Cuzzocrea and M. Menegazzi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00210-016-1294-7. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Verona, Italy, Europe, Respiratory Tract Diseases and Conditions, Obstructive Lung Diseases and Conditions, Bronchial Diseases and Conditions, Respiratory Hypersensitivity, Inflammation, Genetics, Asthma, University of Verona.

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Genetic Diseases and Conditions - Down Syndrome

Study Results from University of Vigo in the Area of Down Syndrome Reported (Reliability and Validity of Physical Fitness Field-Based Tests in Down Syndrome: A Systematic Review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Genetic Diseases and Conditions - Down Syndrome is the subject of a report. According to news reporting originating from Vigo, Spain, by NewsRx correspondents, research stated, "Physical fitness is an important marker of health that can be measured by means of field-based tests, though research about its psychometric properties when performed by people with Down syndrome is scarce. A systematic review was designed to identify the validity and reliability of the existing physical fitness field-based tests that have been administered to individuals with Down syndrome."

Our news editors obtained a quote from the research from the University of Vigo, "An evidence-based search for peer-reviewed studies was conducted informing about the reliability and/or validity of physical fitness field-based tests that have been administered to individuals with Down syndrome utilizing the PubMed, PEDro, SPORTDiscus, and Scopus databases throughout the period November 2014 to May 2015. Of the 15 studies selected, all provided information about reliability, but only seven included validity measurement for the field tests chosen to assess physical fitness in Down syndrome cohorts. Aerobic resistance field test assessments were the most frequent, totalling 7 studies, while 5 investigations used strength tests instead and 3 of them used balance tests. Only one study used agility as a parameter. There
was a noticeable lack of studies that analyzed the reliability or validity of physical fitness field-based tests in people with Down syndrome, especially in adult and elderly populations."

According to the news editors, the research concluded: "The half-mile run-walk, hand-held dynamometer, and the four square balance tests seem to be the most valid field-based tests when assessing aerobic endurance, muscular strength, and balance respectively in groups of persons with Down syndrome."


The news editors report that additional information may be obtained by contacting C.A. Perez, University of Vigo, Fac Educ & Sports Sci, Vigo, Spain. Additional authors for this research include I. Martinez-Lemos, J. Lago-Ballestros, J.M.C. Carral and N. Loira-Camina.

Keywords for this news article include: Vigo, Spain, Europe, Exercise, Article Review, Diagnostics and Screening, Nervous System Diseases and Conditions, Genetic Diseases and Conditions, Neurobehavioral Manifestations, Neurologic Manifestations, Congenital Abnormalities, Chromosome Disorders, Mental Retardation, Physical Fitness, Down Syndrome, University of Vigo.

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Peptides - Cyclic Peptides

Study Results from University of Warmia & Mazury Broaden Understanding of Cyclic Peptides (Intraperitoneal exposure of whitefish to microcystin-LR induces rapid liver injury followed by regeneration and resilience to subsequent exposures)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Peptides - Cyclic Peptides are discussed in a new report. According to news reporting originating from Olsztyn, Poland, by NewsRx correspondents, research stated, "To date, there has been no systematic approach comprehensively describing the sequence of pathological changes in fish during prolonged exposure to microcystin-LR (MC-LR). Towards this aim, juvenile whitefish individuals received an intraperitoneal injection with pure MC-LR, and the injection was repeated every week to maintain continuous exposure for 28 days."

Financial support for this research came from National Science Centre of Poland.

Our news editors obtained a quote from the research from the University of Warmia & Mazury, "During the exposure period, growth and condition of the fish were assessed based on biometric measurements. Additionally, selected biochemical markers were analysed in the fishes' blood, and their livers were carefully examined for morphological, ultrastructural, and molecular changes. The higher dose of MC-LR (100 mu.g.kg(-1)) caused severe liver injury at the beginning of the exposure period, whereas the lower dose (10 mu g.kg(-1)) caused less, probably reversible injury, and its effects began to be observed later in the exposure period. These marked changes were accompanied by substantial MC-LR uptake by the liver. However,
starting on the 7th day of exposure, cell debris began to be removed by phagocytes, then by 14th day, proliferation of liver cells had markedly increased, which led to reconstruction of the liver parenchyma at the end of the treatment. Surprisingly, despite weekly-repeated intraperitoneal injections, MC-LR did not accumulate over time of exposure which suggests its limited uptake in the later phase of exposure. In support, mRNA expression of the membrane transport protein oatp1d was decreased at the same time as the regenerative processes were observed.

According to the news editors, the research concluded: "Our study shows that closing of active membrane transport may serve as one defence mechanism against further MC-LR intoxication."

For more information on this research see: Intraperitoneal exposure of whitefish to microcystin-LR induces rapid liver injury followed by regeneration and resilience to subsequent exposures. Toxicology and Applied Pharmacology, 2016:313():68-87. Toxicology and Applied Pharmacology can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Toxicology and Applied Pharmacology - www.journals.elsevier.com/toxicology-and-applied-pharmacology/)

The news editors report that additional information may be obtained by contacting M. Wozny, University of Warmia & Mazury, Fac Environm Sci, Dept. of Environm Biotechnol, PL-10709 Olsztyn, Poland. Additional authors for this research include B. Lewczuk, N. Ziolkowska, P. Gomulka, S. Dobosz, A. Lakomiak, M. Florczyk and P. Brzuzan.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.taap.2016.10.014. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Olsztyn, Poland, Europe, Cyclic Peptides, Microcystins, University of Warmia & Mazury.

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Nitrogen

Study Results from University of Warmia & Mazury Provide New Insights into Nitrogen (Microbial structure and nitrogen compound conversions in aerobic granular sludge reactors with non-aeration phases and acetate pulse feeding)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Nitrogen have been presented. According to news reporting from Olsztyn, Poland, by NewsRx journalists, research stated, "A technological system was developed for efficient nitrogen removal from real digester supernatant in a single reactor with shortened aeration to increase the economical aspects of wastewater treatment. The supernatant (600 mg TKN/L, low COD/N ratio of 2.2) was treated in batch reactors with aerobic granules (GSBRs) to test how one, two, or three non-aeration phases and acetate pulse feeding in the cycle affect the morphological and microbial properties of biomass."

The news correspondents obtained a quote from the research from the University of Warmia & Mazury, "Introduction of one non-aeration phase in the cycle increased nitrogen removal efficiency by 11 % in comparison with constantly aerated GSBR. The additional non-aeration phases did not diminish the efficiency of ammonia oxidation but did favor nitrification to nitrate. Acetate pulse feeding in the reactor with three non-aeration phases raised the
efficiency of nitrogen removal to 77%; in parallel, the number of denitrifiers possessing nosZ genes and performing denitrification to N-2 increased. Ammonia was oxidized by aerobic and anaerobic ammonia-oxidizing bacteria and heterotrophic nitrifiers (Pseudomonas sp. and Alcaligenes faecalis) that coexisted in granules. Azoarcus sp., Rhizobium sp., and Thauera sp. were core genera of denitrifiers in granules."

According to the news reporters, the research concluded: "An increase in the number of non-aeration phases diminished EPS content in the biomass and granule diameters and increased granule density."

For more information on this research see: Microbial structure and nitrogen compound conversions in aerobic granular sludge reactors with non-aeration phases and acetate pulse feeding. *Environmental Science and Pollution Research*, 2016;23(24):24857-24870.

*Environmental Science and Pollution Research* can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Environmental Science and Pollution Research - www.springerlink.com/content/0944-1344/)

Our news journalists report that additional information may be obtained by contacting A. Cydzik-Kwiatkowska, University of Warmia & Mazury, PL-10709 Olsztyn, Poland. Additional authors for this research include P. Rusanowska, M. Zielinska, K. Bernat and I. Wojnowska-Barya.

Keywords for this news article include: Olsztyn, Poland, Europe, Nitrogen, Genetics, University of Warmia & Mazury.

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Algorithms

**Study Results from University of Wisconsin Provide New Insights into Algorithms (PTENpred: A Designer Protein Impact Predictor for PTEN-related Disorders)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Algorithms. According to news originating from Madison, Wisconsin, by NewsRx correspondents, research stated, "Connecting a genotype with a phenotype can provide immediate advantages in the context of modern medicine. Especially useful would be an algorithm for predicting the impact of nonsynonymous single-nucleotide polymorphisms in the gene for PTEN, a protein that is implicated in most human cancers and connected to germline disorders that include autism."

Our news journalists obtained a quote from the research from the University of Wisconsin, "We have developed a protein impact predictor, PTENpred, that integrates data from multiple analyses using a support vector machine algorithm. PTENpred can predict phenotypes related to a human PTEN mutation with high accuracy. The output of PTENpred is designed for use by biologists, clinicians, and laymen, and features an interactive display of the three-dimensional structure of PTEN. Using knowledge about the structure of proteins, in general, and the PTEN protein, in particular, enables the prediction of consequences from damage to the human PTEN gene."

According to the news editors, the research concluded: "This algorithm, which can be accessed online, could facilitate the implementation of effective therapeutic regimens for cancer and other diseases."
For more information on this research see: PTENpred: A Designer Protein Impact Predictor for PTEN-related Disorders. *Journal of Computational Biology*, 2016;23(12):969-975. *Journal of Computational Biology* can be contacted at: Mary Ann Liebert, Inc, 140 Huguenot Street, 3RD Fl, New Rochelle, NY 10801, USA. (Mary Ann Liebert, Inc. - www.liebertpub.com; Journal of Computational Biology - www.liebertpub.com/overview/journal-of-computational-biology/31/)

The news correspondents report that additional information may be obtained from R.T. Raines, University of Wisconsin, Dept. of Chem, Madison, WI 53706, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1089/cmb.2016.0058. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madison, Wisconsin, United States, North and Central America, Algorithms, Genetics, University of Wisconsin.

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**Digestive System Diseases and Conditions - Gastritis**

**Study Results from V. Bespalov and Colleagues in the Area of Gastritis Reported (Conifer Green Needle Complex in Patients with Precancerous Gastric Lesions: An Observational Pilot Study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Digestive System Diseases and Conditions - Gastritis have been presented. According to news reporting originating in St. Petersburg, Russia, by NewsRx journalists, research stated, "Helicobacter pylori infection is common and can lead to precancerous gastric lesions. Standard antibiotic therapy has a failure rate of more than 25% from antibiotic resistance."

Financial support for this research came from Russian Government’s Ministry of Healthcare and Social Development.

The news reporters obtained a quote from the research, "The primary aim of this observational pilot study was to test the feasibility of a large-scale clinical trial of Conifer Green Needle Complex (CGNC) to treat precancerous gastric lesions. Secondary aims were to investigate H. pylori infection, stomach function, and histopathology of the gastric mucosa. A tablet form of CGNC (extracted from Pinus sylvestris and Picea abies (L) Karst) was prescribed to 26 patients with precancerous gastric lesions (two tablets, 100 mg CGNC/tablet, three times per day for six months). Another 24 patients received no treatment. Compared with control patients, CGNC-treated patients showed total or partial regression (using the quantitative Rome III diagnostic criteria) of dyspeptic symptoms (92.3%, p< 0.0001), eradication of H. pylori infection (57.1%, p< 0.03), a reduction in endoscopic signs of gastritis (92.3%, p< 0.001), an increase of pepsinogen-pepsin in the gastric juice (57.7%, p< 0.05), and total regression or reduction in the degree of intestinal metaplasia (46.2%, p< 0.05) and lymphoplasmacytic infiltration (53.8%, p< 0.05)."

According to the news reporters, the research concluded: "This study justifies a randomised-controlled trial with CGNC in patients with atrophic gastritis."

For more information on this research see: Conifer Green Needle Complex in Patients with Precancerous Gastric Lesions: An Observational Pilot Study. *Evidence-Based*
Oncology - Melanoma

Study Results from V. Lucarini et al Provide New Insights into Melanoma (Combining Type I Interferons and 5-Aza-2'-Deoxycytidine to Improve Anti-Tumor Response against Melanoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Melanoma have been published. According to news reporting out of Rome, Italy, by NewsRx editors, research stated, "Resistance to IFN-I-induced antineoplastic effects has been reported in many tumors and arises, in part, from epigenetic silencing of IFN-stimulated genes by DNA methylation. We hypothesized that restoration of IFN-stimulated genes by co-administration of the demethylating drug 5-aza-2'-deoxycytidine (decitabine [DAC]) may enhance the susceptibility to IFN-I-mediated antitumoral effects in melanoma."

Our news journalists obtained a quote from the research, "We show that combined administration of IFN-I and DAC significantly inhibits the growth of murine and human melanoma cells, both in vitro and in vivo. Compared with controls, DAC/IFN-I-treated melanoma cells exhibited reduced cell growth, augmented apoptosis, and diminished migration. Moreover, IFN-I and DAC synergized to suppress the growth of three-dimensional human melanoma spheroids, altering tumor architecture. These direct antitumor effects correlated with induction of the IFN-stimulated gene Mx1. In vivo, DAC/IFN-I significantly reduced melanoma growth via stimulation of adaptive immunity, promoting tumor-infiltrating CD8(+) T cells while inhibiting the homing of immunosuppressive CD11b(+) myeloid cells and regulatory T cells. Accordingly, exposure of human melanoma cells to DAC/IFN-I induced the recruitment of immune cells toward the tumor in a Matrigel (Corning Life Sciences, Kennebunkport, ME)-based microfluidic device."

According to the news editors, the research concluded: "Our findings underscore a beneficial effect of DAC plus IFN-I combined treatment against melanoma through both direct
and immune-mediated anti-tumor effects."

For more information on this research see: Combining Type I Interferons and 5-Aza-2'-Deoxycytidine to Improve Anti-Tumor Response against Melanoma. *Journal of Investigative Dermatology*, 2017;137(1):159-169. *Journal of Investigative Dermatology* can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA. (Nature Publishing Group - www.nature.com/; Journal of Investigative Dermatology - www.nature.com/jid/)


Keywords for this news article include: Rome, Italy, Europe, Intercellular Signaling Peptides and Proteins, Drugs and Therapies, Cancer Therapy, Interferons, Cytokines, Oncology, Melanoma, Genetics.

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**Oncology - Breast Cancer**

**Study Results from VIT University Provide New Insights into Breast Cancer [Identification and targeting of microRNAs modulating acquired chemotherapy resistance in Triple negative breast cancer (TNBC): A better strategy to combat chemoresistance]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Breast Cancer have been published. According to news reporting originating from Tamil Nadu, India, by NewsRx editors, the research stated, "Triple negative breast cancer (TNBC) is a heterogeneous form of malignant disease. Due to lack of proper therapeutic target treatment options are restricted and relies primarily on chemotherapeutic modality for treatment of patients."

Our news editors obtained a quote from the research from VIT University, "Despite significant early regression of the disease in response to chemotherapy, complete cure is not assured with development of resistant tumors which is difficult to manage clinically. In the last decades, the regulation and contribution of microRNAs in tumorigenesis including breast cancers have been well-documented. Thus, here it is hypothesized that by identifying the microRNAs responsible for chemoresistance in TNBC and targeting the microRNAs along with chemotherapeutic approaches might exert an improved response. To accomplish this, an in vivo screening has to be performed by transfecting tumor cell line with lentiviral pool of library expressing microRNAs."

According to the news editors, the research concluded: "Following treatment of primary tumors in mice and growth of relapsed tumors, microRNA profile has to be analyzed by qRT-PCR and sequencing to detect the microRNAs contributing to the chemoresistance which can be targeted by anti-microRNA strategies."

For more information on this research see: Identification and targeting of microRNAs modulating acquired chemotherapy resistance in Triple negative breast cancer (TNBC): A better strategy to combat chemoresistance. *Medical Hypotheses*, 2016;96(5):5-8.
**Heart Disorders and Diseases - Heart Failure**

**Study Results from Veterans Affairs Medical Center Update Understanding of Heart Failure [Chronic Oral Study of Myosin Activation to Increase Contractility in Heart Failure (COSMIC-HF): a phase 2, pharmacokinetic, randomised, placebo-controlled ...]**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Heart Disorders and Diseases - Heart Failure are discussed in a new report. According to news reporting originating from San Francisco, California, by NewsRx correspondents, research stated, "Impaired contractility is a feature of heart failure with reduced ejection fraction. We assessed the pharmacokinetics and effects on cardiac function and structure of the cardiac myosin activator, omecamtiv mecarbil."

Our news editors obtained a quote from the research from Veterans Affairs Medical Center, "In this randomised, double-blind study, done at 87 sites in 13 countries, we recruited patients with stable, symptomatic chronic heart failure and left ventricular ejection fraction 40% or lower. Patients were randomly assigned equally, via an interactive web response system, to receive 25 mg oral omecamtiv mecarbil twice daily (fixed-dose group), 25 mg twice daily titrated to 50 mg twice daily guided by pharmacokinetics (pharmacokinetic-titration group), or placebo for 20 weeks. We assessed the maximum concentration of omecamtiv mecarbil in plasma (primary endpoint) and changes in cardiac function and ventricular diameters. This trial is registered with ClinicalTrials.gov, number NCT01786512. From March 17, 2014, to March 5, 2015, we enrolled 150 patients in the fixed-dose omecamtiv mecarbil group and 149 in the pharmacokinetic-titration and placebo groups. Mean maximum concentration of omecamtiv mecarbil at 12 weeks was 200 (SD 71) ng/mL in the fixed-dose group and 318 (129) ng/mL in the pharmacokinetic-titration group. For the pharmacokinetic-titration group versus placebo group at 20 weeks, least square mean differences were as follows: systolic ejection time 25 ms (95% CI 18-32, p< 0.0001), stroke volume 3.6 mL (0.5-6.7, p= 0.0217), left ventricular end-systolic diameter -1.8 mm (-2.9 to -0.6, p= 0.0027), left ventricular end-diastolic diameter -1.3 mm, (-2.3 to 0.3, p= 0.0128), heart rate -3.0 beats per min (-5.1 to -0.8, p= 0.0070), and N-terminal pro B-type natriuretic peptide concentration in plasma -970 pg/mL (-1672 to -268, p= 0.0069). The frequency of adverse clinical events did not differ between groups."

According to the news editors, the research concluded: "Omecamtiv mecarbil dosing
guided by pharmacokinetics achieved plasma concentrations associated with improved cardiac function and decreased ventricular diameter."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/S0140-6736(16)32049-9. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: San Francisco, California, United States, North and Central America, Cardiovascular Diseases and Conditions, Heart Disorders and Diseases, Clinical Trials and Studies, Clinical Research, Pharmacokinetics, Pharmaceuticals, Heart Failure, Heart Disease, Cardiology, Veterans Affairs Medical Center.

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**Oncology - Melanoma**

**Study Results from Veterans Affairs Medical Center in the Area of Melanoma Reported (Genetic predisposition to melanoma)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Melanoma. According to news reporting from Salt Lake City, Utah, by NewsRx journalists, research stated, "Malignant melanoma is a rare, often fatal form of skin cancer with a complex multigenic etiology. The incidence of melanoma is increasing at an alarming rate."

The news correspondents obtained a quote from the research from Veterans Affairs Medical Center, "A number of heritable factors contribute to a patient's overall melanoma risk, including response to ultraviolet light, nevus number, and pigmentation characteristics, such as eye and hair color. Approximately 5%-10% of melanoma cases are familial, yet the majority of familial cases lack identifiable germ-line mutations in known susceptibility genes. Additionally, most familial melanomas lack germ-line mutations in genes that are commonly mutated in sporadic melanoma. Candidate and systematic genome-wide association studies have led to an improved understanding of the risk factors for melanoma and the identification of susceptibility genes."

According to the news reporters, the research concluded: "In this review, we provide an overview of the major risk factors and known genes implicated in familial melanoma susceptibility."

For more information on this research see: Genetic predisposition to melanoma. *Seminars in Oncology*, 2016;43(5):591-597. *Seminars in Oncology* can be contacted at: W B Saunders Co-Elsevier Inc, 1600 John F Kennedy Boulevard, Ste 1800, Philadelphia, PA 19103-
2899, USA. (Elsevier - www.elsevier.com; Seminars in Oncology - www.journals.elsevier.com/seminars-in-oncology/)

Our news journalists report that additional information may be obtained by contacting L.J. Meyer, Vet Adm Hosp, Salt Lake City, UT 84149, United States. Additional authors for this research include A. Truong and L.J. Meyer.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1053/j.seminoncol.2016.08.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Salt Lake City, Utah, United States, North and Central America, Oncology, Article Review, Risk and Prevention, Melanoma, Genetics, Veterans Affairs Medical Center.

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Blood Diseases and Conditions - Sepsis

Study Results from Veterans General Hospital Broaden Understanding of Sepsis (Daptomycin antibiotic lock therapy for hemodialysis patients with Gram-positive bloodstream infections following use of tunneled, cuffed hemodialysis catheters: ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Blood Diseases and Conditions - Sepsis is the subject of a report. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "Catheter-related bloodstream infection (CRBSI) is a major complication in hemodialysis patients. We assessed the efficacy of systemic daptomycin (DPT) plus DPT antibiotic lock therapy (DPT-ALT) for catheter salvage in patients with Gram-positive CRBSIs."

The news reporters obtained a quote from the research from Veterans General Hospital, "This is a retrospective study of hemodialysis patients with tunneled and cuffed hemodialysis catheters. All patients were from a single institution in Taipei and received systemic DPT plus DPT-ALT for the treatment of Gram-positive CRBSI. Successful resolution of CRBSI was implemented. Resolution of fever within 48 hours, negative result of repeated blood cultures after resolution of fever, no clinical evidence of CRBSI relapse and no need for catheter removal were measured. Fifteen hemodialysis patients received DPT-ALT for CRBSI, nine with coagulase-negative Staphylococcus (CONS), two with methicillin-resistant Staphylococcus aureus (MRSA), three with methicillin-sensitive Staphylococcus aureus (MSSA) and one with polymicrobial infections. Systemic DPT plus DPT-ALT cured 11 patients (73.3%). Treatment failed in all three MRSA cases (two with MRSA and one with MRSA + Enterococcus faecalis). Retrospective design and small sample size were the limitations of this study. Systemic DPT plus DPT-ALT appears to be a promising treatment for CRBSI from CONS and MSSA, but not for MRSA CRBSI."

According to the news reporters, the research concluded: "Systemic DPT plus DPT-ALT should be considered for patients with CRBSIs caused by certain species."

For more information on this research see: Daptomycin antibiotic lock therapy for hemodialysis patients with Gram-positive bloodstream infections following use of tunneled, cuffed hemodialysis catheters: retrospective single center analysis. Hemodialysis International
Our news correspondents report that additional information may be obtained by contacting H.W. Yen, Division of Nephrology, Dept. of Medicine, Taipei Veterans General Hospital, Taipei, Taiwan. Additional authors for this research include W.C. Yang, D.C. Tarrg, C.Y. Yang, C.L. Chuang, L.J. Huang, P.Y. Lin, C.C. Wang and S.Y Li.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/hdi.12378. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Antibacterial Agents, Antibiotics, Antiinfectives, Antimicrobials, Pharmaceuticals, Taipei, Taiwan, Sepsis, Bacillales, Septicemia, Hemodialysis, Lipopeptides, Renal Dialysis, Cyclic Peptides, Staphylococcaceae, Daptomycin Therapy, Drugs and Therapies, Gram Positive Cocci, Post Trial Research, Bloodstream Infection.

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Oncology - Lung Cancer

Study Results from Virginia Commonwealth University Update Understanding of Lung Cancer (Promising Approaches From Behavioral Economics to Improve Patient Lung Cancer Screening Decisions)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Oncology - Lung Cancer. According to news reporting from Richmond, Virginia, by NewsRx journalists, research stated, "Lung cancer is a devastating disease, the deadliest form of cancer in the world and in the United States. As a consequence of CMS's determination to provide low-dose CT (LDCT) as a covered service for at-risk smokers, LDCT lung cancer screening is now a covered service for many at-risk patients that first requires counseling and shared clinical decision making, including discussions of the risks and benefits of LDCT screening."

The news correspondents obtained a quote from the research from Virginia Commonwealth University, "However, shared decision making fundamentally relies on the premise that with better information, patients will arrive at rational decisions that align with their preferences and values. Evidence from the field of behavioral economics offers many contrary viewpoints that take into account patient decision making biases and the role of the shared decision environment that can lead to flawed choices and that are particularly relevant to lung cancer screening and treatment."

According to the news reporters, the research concluded: "This article discusses some of the most relevant biases, and suggests incorporating such knowledge into screening and treatment guidelines and shared decision making best practices to increase the likelihood that such efforts will produce their desired objectives to improve survival and quality of life."

Study Results from Washington State University Update Understanding of Neuroglia (Antiprion Activity of DB772 and Related Monothiophene- and Furan-Based Analogs in a Persistently Infected Ovine Microglia Culture System)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Neuroglia. According to news originating from Pullman, Washington, by NewsRx correspondents, research stated, "The transmissible spongiform encephalopathies are fatal neurodegenerative disorders characterized by the misfolding of the native cellular prion protein (PrPC) into the accumulating, disease-associated isoform (PrPSc). Despite extensive research into the inhibition of prion accumulation, no effective treatment exists."

Financial supporters for this research include HHS | National Institutes of Health (NIH), U.S. Department of Agriculture (USDA), University of Georgia Office of the Vice President for Research, USDA Animal Health Formula Funds.

Our news journalists obtained a quote from the research from Washington State University, "Previously, we demonstrated the inhibitory activity of DB772, a monocationic phenyl-furan-benzimidazole, against PrPSc accumulation in sheep microglial cells. In an effort to determine the effect of structural substitutions on the antiprion activity of DB772, we employed an in vitro strategy to survey a library of structurally related, monothiophene-and furan-based compounds for improved inhibitory activity. Eighty-nine compounds were screened at 1 μM for effects on cell viability and prion accumulation in a persistently infected ovine microglia culture system. Eleven compounds with activity equivalent to or higher than that of DB772 were identified as preliminary hit compounds. For the preliminary hits, cytotoxicities and antiprion activities were compared to calculate the tissue culture selectivity index. A structure-activity relationship (SAR) analysis was performed to determine molecular components contributing to antiprion activity. To investigate potential mechanisms of inhibition, effects on PrPC and PrPSc were examined. While inhibition of total PrPC was not observed, the results suggest that a potential target for inhibition at biologically relevant concentrations is through PrPC misfolding to PrPSc. Further, SAR analysis suggests that two structural elements were associated with micromolar antiprion activity."

According to the news editors, the research concluded: "Taken together, the described data provide a foundation for deeper investigation into untested DB compounds and in the design of effective therapeutics."
For more information on this research see: Antiprion Activity of DB772 and Related Monothiophene- and Furan-Based Analogs in a Persistently Infected Ovine Microglia Culture System. *Antimicrobial Agents and Chemotherapy*, 2016;60(9):5467-5482. *Antimicrobial Agents and Chemotherapy* can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news correspondents report that additional information may be obtained from D.A. Schneider, Washington State University, Anim Dis Res Unit, Pullman, WA 99164, United States. Additional authors for this research include J.B. Stanton, D.W. Boykin, C.E. Stephens, S.A. Madsen-Bouterse and D.A. Schneider.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1128/AAC.00811-16. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Pullman, Washington, United States, North and Central America, Microglia, Neuroglia, Washington State University.

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**Drugs and Therapies - Antidiuretic Hormones**

**Study Results from X. Cao and Colleagues in the Area of Antidiuretic Hormones Reported (Comparison of anti-anginal effect of cilnidipine with those of nicardipine and nifedipine in the vasopressin-induced angina model of rats)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Drugs and Therapies - Antidiuretic Hormones. According to news reporting originating in Yamanashi, Japan, by NewsRx journalists, research stated, "We assessed the anti-anginal effects of cilnidipine in comparison with those of nicardipine and nifedipine (1 and 10 Âµg/kg, n = 6 for each drug) or vehicle (n = 6) by using the vasopressin-induced angina model of rats. The administration of vasopressin (0.5 IU/kg, i.v.) to the rats depressed the S-wave level of the electrocardiogram reflecting the presence of subendocardial ischemia, whereas it significantly increased the mean blood pressure, resulting in the decrease of the heart rate and the prolongation of the PR interval possibly through a reflex-mediated increase in vagal tone."

Funders for this research include Project Research Grant of Toho University School of Medicine, JSPS KAKENHI, MEXT KAKENHI, AMED Grant.

The news reporters obtained a quote from the research, "Cilnidipine suppressed the vasopressin-induced depression of the S-wave level in a dose-related manner, which was not observed by nicardipine or nifedipine. In addition, the low dose of cilnidipine hardly affected the vasopressin-induced pressor response, but it attenuated the negative dromotropic effect, suggesting N-type Ca2+ channel inhibition by cilnidipine might have suppressed the parasympathetic nerve activity in vivo like those reported in the sympathetic nerve."

According to the news reporters, the research concluded: "Thus, cilnidipine may become a useful strategy for inhibiting coronary vasospasm-induced anginal attack."

For more information on this research see: Comparison of anti-anginal effect of cilnidipine with those of nicardipine and nifedipine in the vasopressin-induced angina model of rats.
ranks. *Heart and Vessels*, 2016;31(12):2045-2052. *Heart and Vessels* can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA. (Springer - www.springer.com; Heart and Vessels - www.springerlink.com/content/0910-8327/)

Our news correspondents report that additional information may be obtained by contacting A. Sugiyama, Yamanashi Res Center Clin Pharmacol, Yamanashi 4060023, Japan. Additional authors for this research include Y. Nakamura, T. Wada, H. Izumi-Nakaseko, K. Ando, B. Zhu, Bin Xu, A. Takahara, M. Saitoh and A. Sugiyama.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00380-016-0848-4. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Yamanashi, Japan, Asia, Calcium Channel Blocking Agents, Posterior Pituitary Hormones, Cardiovascular Agents, Antiarrhythmic Agents, Antidiuretic Hormones, Drugs and Therapies, Nicardipine Therapy, Nifedipine Therapy, Vasodilator Agents, Peptide Proteins, Peptide Hormones, Antihypertensive Pharmaceuticals, Dihydropyridine, Neuropeptides, Oligopeptides, Vasopressins, Peptides, Angina.

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**Neurodegenerative Diseases and Conditions**

**Study Results from Xiamen University Broaden Understanding of Alzheimer Disease (F-18-Labeled Benzyldiamine Derivatives as Novel Flexible Probes for Positron Emission Tomography of Cerebral beta-Amyloid Plaques)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Neurodegenerative Diseases and Conditions - Alzheimer Disease have been presented. According to news originating from Fujian, People's Republic of China, by NewsRx correspondents, research stated, "Early noninvasive visualization of cerebral beta-amyloid (A beta) plaques with positron emission tomography (PET) is the most feasible way to diagnose Alzheimer's disease (AD). In this study, a series of flexible benzyldiamine derivatives (BDA) were proposed for binding to aggregated beta-amyloid 1-42 (A beta(1-42)) with high adaptability, high binding affinity (6.8 +/- 0.6 nM), and rapid body excretion."

Our news journalists obtained a quote from the research from Xiamen University, "The methylthio (12) and ethoxyl (10) derivatives were further labeled with F-18 directly on their benzene ring and examined as PET probes for A beta plaque imaging. [F-18]12 displayed 4.87 +/- 0.52% ID/g initial uptake and prompt washout from normal brain in biodistribution studies. MicroPET-CT imaging indicated sufficient retention of [F-18]12 but lower white matter uptake in the brain of an AD transgenic mouse model compared with that of commercial [F-18] AV-45."

According to the news editors, the research concluded: "Our experimental results provide new insights for developing targeting ligands possessing a flexible framework for use as efficient A beta probes for PET imaging of AD brain."

can be contacted at: Amer Chemical Soc, 1155 16TH St, NW, Washington, DC 20036, USA. (American Chemical Society - www.acs.org; Journal of Medicinal Chemistry - www.pubs.acs.org/journal/jmcmar)

The news correspondents report that additional information may be obtained from Z.J. Li, Xiamen University, Sch Public Hlth, State Key Lab Mol Vaccinol & Mol Diagnost, Center Mol Imaging & Translat Med, Xiamen 361102, Fujian, People's Republic of China. Additional authors for this research include X.R. Zhang, X.Y. Zhang, M.C. Cui, J. Lu, X.D. Pan and X.Z. Zhang.

Keywords for this research article include: Fujian, People's Republic of China, Asia, Neurodegenerative Diseases and Conditions, Alzheimer Disease, Proteins, Genetics, Amyloid, Xiamen University.

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Oncology - Breast Cancer

Study Results from Y. Su and Colleagues in the Area of Breast Cancer Reported (Development and characterization of two human triple-negative breast cancer cell lines with highly tumorigenic and metastatic capabilities)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Oncology - Breast Cancer. According to news reporting originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "Triple-negative breast cancer (TNBC) is a group of cancer with high diversity, limited therapies, and poor prognosis. TNBC cell lines and animal models provide effective tools for studies and drug discovery."

Financial supporters for this research include The Pennsylvania Cancer Cure, National Institutes of Health, National Cancer Institute, Fox Chase Cancer Center.

Our news editors obtained a quote from the research, "Here, we report the development of two TNBC cell lines (XtMCF and LmMCF) based on our existing cell model that consists of normal breast epithelial cell line MCF10F, estradiol-transformed cells trMCF, and Boyden chamber-selected tumorigenic cells bsMCF. The XtMCF and LmMCF cell line were derived from xenograft and lung metastasis of bsMCF cells, respectively. The bsMCF, XtMCF, and LmMCF cells have undergone epithelial-mesenchymal transition (EMT), exhibiting a mesenchymal-like feature. In vivo studies showed XtMCF and LmMCF cells were highly tumorigenic and metastatic. The injection of 5 ? 10(4) cells to CB17/SCID mice mammary fat pad produced xenografts in 9/9 mice and tumors reached 10 millimeters in diameter in 5 weeks. The injection of 1 ? 10(6) XtMCF or 8 ? 10(4) LmMCF cells into the mice tail vein was sufficient to form extensive lung metastases in 4 weeks. The two new cell lines exhibited CD44(+) /CD49f(+) and CD44(+) /EpCAM(+) cancer stem cell (CSC) characteristics, and the EGF-like domain of EpCAM was cleaved off. Together with the normal and early transformed counterparts, herein we provide a complete cancer model for the study of initiation, evolution, and identification of new therapeutics for TNBC."

According to the news editors, the research concluded: "The finding that EGF-like domain of EpCAM was cleaved off in cells which have undergone EMT suggests this cleavage may be involved in the EMT process and the cancer stem cell properties of these cells."

The news editors report that additional information may be obtained by contacting Y. Su, The Irma H Russo, MD Breast Cancer Research Laboratory, Fox Chase Cancer Center-Temple University Health System, Philadelphia, PA, 19111, United States. Additional authors for this research include T.J. Pogash, T.D. Nguyen and J. Russo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/cam4.616. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Oncology, Cell Line, Philadelphia, Pennsylvania, United States, Breast Cancer, Women's Health, Stem Cell Research, North and Central America.

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**Kidney Diseases and Conditions - Chronic Kidney**

**Study Results from Yang Ming National University Broaden Understanding of Chronic Kidney Disease (Abnormal Thyroid-Stimulating Hormone and Chronic Kidney Disease in Elderly Adults in Taipei City)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Kidney Diseases and Conditions - Chronic Kidney Disease have been published. According to news reporting originating in Taipei, Taiwan, by NewsRx journalists, research stated, "To examine whether older people with abnormal thyroid function are more likely to develop chronic kidney disease (CKD) over a 5-year follow-up period. Retrospective cohort study."

The news reporters obtained a quote from the research from Yang Ming National University, "Health examination data from the Taipei Databank for Public Health Analysis. Individuals aged 65 and older (N = 41,454). Thyroid-stimulating hormone (TSH) levels were repeatedly measured, and subjects were categorized into four thyroid function groups (hyperthyroid, euthyroid, subclinical hypothyroid, overt hypothyroid). The risk of incident CKD was evaluated using a stepwise Cox proportional hazards regression model adjusted for sex, baseline age, hypertension, diabetes mellitus (DM), dyslipidemia, hyperuricemia, anemia, obesity, liver function, smoking, and alcohol. Higher TSH levels were associated with greater risk of subsequent CKD. Individuals with subclinical hypothyroidism (hazard ratio (HR) = 1.15, 95% confidence interval (CI) = 1.05-1.26) and those with overt hypothyroidism (HR = 1.27, 95% CI = 1.04-1.55) were more likely than those who were euthyroid to have CKD. Women were more likely to have CKD than men (HR = 1.11, 95% CI = 1.06-1.16). When stratified by gender, subclinical hypothyroidism in women was associated with an increased risk of developing CKD (HR = 1.22; 95% CI = 1.08-1.39). When stratified by DM, subclinical hypothyroidism and overt hypothyroidism were associated with an increased risk of developing CKD in nondiabetics (HR = 1.19; 95% CI = 1.07-1.31; and HR = 1.34; 95% CI = 1.08-1.65, respectively)."
According to the news reporters, the research concluded: "This cohort study of elderly persons in Taipei City found a significant association between hypothyroidism and development of CKD in women and individuals without DM."


Our news correspondents report that additional information may be obtained by contacting P. Chou, Yang Ming National University, Community Med Res Center, Taipei 11221, Taiwan. Additional authors for this research include K.M. Liao, Y.M. Hung, P.Y.P. Wang, Y.C. Chou and P. Chou.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/jgs.14102. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Taipei, Taiwan, Asia, Endocrine System Diseases and Conditions, Diabetes Mellitus, Risk and Prevention, Thyroid Diseases and Conditions, Kidney Diseases and Conditions, Chronic Kidney Disease, Hypothyroidism, Endocrinology, Hormones, Yang Ming National University.

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**Pharmacokinetics**

**Study Results from Yonsei University in the Area of Pharmacokinetics Reported (Quantitative determination of xanthorrhizol in rat plasma by HPLC-MS/MS and its application to a pharmacokinetic study)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Pharmacokinetics have been presented. According to news reporting originating in Seoul, South Korea, by NewsRx journalists, research stated, "Although xanthorrhizol, a sesquiterpenoid oil isolated from the rhizoma of Curcuma xanthorrhiza Roxb. known as Java turmeric, represents a variety of pharmacological activities, to date, there have been no validated determination methods of xanthorrhizol in biological samples. Thus, we developed a liquid chromatographic method using a tandem mass spectrometry for the determination of xanthorrhizol in rat plasma."

The news reporters obtained a quote from the research from Yonsei University, "After simple protein precipitation with acetonitrile including diclofenac (internal standard, IS), the analytes were chromatographed on a reversed-phased column with a mobile phase of 20 mM ammonium acetate aqueous solution and acetonitrile (20:80, v/v). The ion transitions of the precursor to the product ion were principally deprotonated ions [M-H](-) at m/z 216.9 -> 132.8 for xanthorrhizol and 296.1 -> 251.7 for the IS. The accuracy and precision of the assay were in accordance with FDA regulations for the validation of bioanalytical methods."

According to the news reporters, the research concluded: "This analytical method was successfully applied to monitor plasma concentrations of xanthorrhizol over time following intravenous administration in rats."
For more information on this research see: Quantitative determination of xanthorrhizol in rat plasma by HPLC-MS/MS and its application to a pharmacokinetic study. *Journal of Pharmaceutical and Biomedical Analysis*, 2017;132():56-59. *Journal of Pharmaceutical and Biomedical Analysis* can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; Journal of Pharmaceutical and Biomedical Analysis - www.journals.elsevier.com/journal-of-pharmaceutical-and-biomedical-analysis/)

Our news correspondents report that additional information may be obtained by contacting J.K. Hwang, Yonsei University, Coll Life Sci & Biotechnol, Dept. of Biotechnol, Seoul 03722, South Korea. Additional authors for this research include M. Kim, C. Kim, J.K. Hwang and W. Kang.

Keywords for this news article include: Seoul, South Korea, Asia, Pharmacokinetics, Pharmaceuticals, Yonsei University.

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Oncology - Squamous Cell Carcinoma

**Study Results from Zhejiang Cancer Hospital Update Understanding of Squamous Cell Carcinoma (Prechemotherapy neutrophil : lymphocyte ratio is superior to the platelet : lymphocyte ratio as a prognostic indicator for locally advanced esophageal ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Squamous Cell Carcinoma are discussed in a new report. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "The study aimed to evaluate the prognostic significance of prechemotherapy neutrophil to lymphocyte ratio and platelet to lymphocyte ratio, and preoperative neutrophil to lymphocyte ratio and platelet to lymphocyte ratio in locally advanced esophageal squamous cell cancer. We analyzed retrospectively locally advanced esophageal squamous cell cancer patients who had received neoadjuvant chemotherapy before undergoing a radical esophagectomy between 2009 and 2012."

The news reporters obtained a quote from the research from Zhejiang Cancer Hospital, "Neutrophil to lymphocyte ratio and platelet to lymphocyte ratio before chemotherapy and before the surgery were calculated. Univariate analyses showed that prechemotherapy neutrophil to lymphocyte ratio >5 (P = 0.048, hazard ratio = 2.86; 95% confidence interval: 1.01-8.12) and prechemotherapy platelet to lymphocyte ratio >130 (P = 0.025, hazard ratio = 5.50; 95% confidence interval: 1.23-24.55) were associated significantly with overall survival (OS), and prechemotherapy platelet to lymphocyte ratio >130 (P = 0.026, hazard ratio = 3.18; 95% confidence interval: 1.15-8.85) was associated significantly with progression-free survival. However, only prechemotherapy neutrophil to lymphocyte ratio >5 (P = 0.024, hazard ratio = 3.50; 95% confidence interval: 1.18-10.40) remained significantly associated with OS in multivariate analyses. Neither preoperative neutrophil to lymphocyte ratio nor platelet to lymphocyte ratio was associated with OS or progression-free survival. The prechemotherapy neutrophil to lymphocyte ratio >5 to preoperative neutrophil to lymphocyte ratio = 5 group showed significantly worse OS than the prechemotherapy neutrophil to lymphocyte ratio = 5 to preoperative neutrophil to lymphocyte ratio <= 5 group (P = 0.050). The prechemotherapy..."
platelet to lymphocyte ratio >130 to preoperative platelet to lymphocyte ratio ≤ 130 group (P = 0.016) and platelet to lymphocyte ratio >130 to preoperative platelet to lymphocyte ratio >130 group (P = 0.042) showed significantly worse OS than the prechemotherapy platelet to lymphocyte ratio ≤ 30 to preoperative platelet to lymphocyte ratio ≤ 130 group."

According to the news reporters, the research concluded: "Prechemotherapy neutrophil to lymphocyte ratio is an independent prognostic factor for OS in patients with advanced esophageal squamous cell cancer treated with neoadjuvant chemotherapy, and, as an adverse prognostic predictor, increased prechemotherapy neutrophil to lymphocyte ratio is superior to platelet to lymphocyte ratio. Maintaining a low neutrophil to lymphocyte ratio and platelet to lymphocyte ratio throughout treatment is a predictor of better OS."

For more information on this research see: Prechemotherapy neutrophil to lymphocyte ratio is superior to the platelet to lymphocyte ratio as a prognostic indicator for locally advanced esophageal squamous cell cancer treated with neoadjuvant chemotherapy. Diseases of the Esophagus, 2016;29(5):403-411. Diseases of the Esophagus can be contacted at: Wiley-Blackwell, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - www.wiley.com; Diseases of the Esophagus - onlinelibrary.wiley.com/journal/10.1111/(ISSN) 1442-2050)

Our news correspondents report that additional information may be obtained by contacting W.M. Mao, Zhejiang Canc Hosp, Zhejiang Canc Res Inst, Zhejiang Key Lab Radiat Oncol, Hangzhou 310022, Zhejiang, People's Republic of China. Additional authors for this research include Y.H. Jiang, Y.L. Ji, B. Li and W.M. Mao.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Hemic and Immune Systems, Squamous Cell Carcinoma, Mononuclear Leukocytes, Drugs and Therapies, Granulocytes, Chemotherapy, Blood Cells, Neutrophils, Lymphocytes, Immunology, Phagocytes, Oncology, Cancer, Zhejiang Cancer Hospital.

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Heart Disorders and Diseases - Brugada Syndrome

Study Results from Zhejiang University Broaden Understanding of Brugada Syndrome (Characterization of the epicardial substrate for catheter ablation of Brugada syndrome)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Heart Disorders and Diseases - Brugada Syndrome are presented in a new report. According to news reporting from Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "Catheter ablation in the right ventricular outflow tract (RVOT) may modify the electrophysiologic substrate for recurrent ventricular tachycardia/ventricular fibrillation (VT/VF) in patients with Brugada syndrome (BrS). The purpose of this study was to investigate the mechanism and arrhythmogenic substrate of VT/VF and to evaluate the long-term outcomes of catheter ablation in patients with BrS."

The news correspondents obtained a quote from the research from Zhejiang University, "Eleven consecutive patients with BrS referred to 2 academic medical centers underwent combined epicardial-endocardial electroanatomic mapping. Catheter ablation was performed in regions of localized conduction slowing. Transmural dispersion of late activation was calculated as the difference between the latest activation between epicardium and
endocardium, and low voltage areas were analyzed. Eleven patients met diagnostic criteria for BrS (spontaneous type 1, n = 9; Na channel provocation = 2). All patients were found to have a localized region in the anterior epicardial RVOT with conduction slowing evidenced by prolonged electrogram duration (78.79 +/- 19.87 ms vs 58.93 +/- 10.11 ms in epicardial right ventricle, and 59.87 +/- 12.61 ms in endocardial RVOT, P<.005, respectively) with variable low voltage (0.97 +/- 0.48 mV; median scar area 19.8 +/- 25.9 cm(2)). Epicardial ablation resulted in normalization of spontaneous type 1 Brugada ECG pattern in all patients, and 73% were free from VT/VF at 25 +/- 11 months. Prolonged electrograms localized to epicardial RVOT with variable low voltage were identified in all patients with BrS. J-point and ST-segment elevation correlated with greater transmural dispersion of late activation and was independent of total low voltage area."

According to the news reporters, the research concluded: "Despite normalization of spontaneous type 1 pattern in all patients after ablation, recurrence was still observed, suggesting the implantable cardioverter-defibrillator as the cornerstone therapy for BrS."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.hrthm.2016.07.025. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Hangzhou, People's Republic of China, Asia, Diagnostic Techniques and Procedures, Heart Disorders and Diseases, Heart Catheterization, Cardiac Arrhythmias, Electrocoagulation, Catheter Ablation, Brugada Syndrome, Heart Disease, Cardiology, Diagnosis, Zhejiang University.

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Oncology - Prostate Cancer

Study Results from Zhejiang University Provide New Insights into Prostate Cancer (Reduced risk of prostate cancer in childless men as compared to fathers: a systematic review and meta-analysis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Prostate Cancer. According to news reporting originating in Hangzhou, People's Republic of China, by NewsRx journalists, research stated, "The previously reported association between fatherhood status and prostate cancer risk was controversial. We carried out the present meta-analysis of all relevant studies to summarize evidence on this association."

The news reporters obtained a quote from the research from Zhejiang University, "A
A comprehensive literature search of studies was performed in PubMed, Web of Science, and the Chinese National Knowledge Infrastructure (CNKI) databases, covering all the papers published from their inception to September 2015. The combined risk estimates with 95% confidence intervals (CIs) were calculated using a random effects model. Heterogeneity and publication bias were also evaluated. A total of 11 studies were finally included in this meta-analysis. We found a significantly reduced risk of prostate cancer associated with being childless (OR 0.91, 95% CI 0.87-0.96). There was statistically significant heterogeneity across the studies (p <0.001, I(2)=88.2%). In summary, this meta-analysis supports that being fatherless is associated with a lower risk of prostate cancer.

According to the research reporters, the research concluded: "Because of the substantial heterogeneity and residual confounding, using other study designs to further explore this association and the underlying mechanism is warranted."

For more information on this research see: Reduced risk of prostate cancer in childless men as compared to fathers: a systematic review and meta-analysis. *Scientific Reports*, 2016;6():19210. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news correspondents report that additional information may be obtained by contacting Y. Mao, Dept. of Urology, First Affiliated Hospital, School of Medicine, Zhejiang University, Hangzhou, 310003, People's Republic of China. Additional authors for this research include X. Xu, X. Zheng and L. Xie.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/srep19210. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Hangzhou, Oncology, Cancer Risk, Article Review, Prostatic Neoplasms, Risk and Prevention, People's Republic of China, Metastatic Prostate Cancer.

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**Drugs and Therapies - Drug Resistance**

**Study unmasks the genetic complexity of cancer cells within the same tumor**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study led by Cedars-Sinai investigators dramatically illustrates the complexity of cancer by identifying more than 2,000 genetic mutations in tissue samples of esophageal tumors. The findings reveal that even different areas of individual tumors have various genetic patterns.

The study results, published in the journal Nature Genetics, help explain why it is so difficult to battle cancer by targeting a specific genetic defect. A surgeon who performs a single biopsy on a patient's tumor can decode only part of the tumor and its genetic variations. Additionally, cancer cells constantly change their makeup.

"A tumor is not a single disease," said Dechen Lin, PhD, assistant professor and research scientist in the Division of Hematology and Oncology in the Cedars-Sinai Department of Medicine. "It's many diseases within the same person and over time. There are millions of cells in a tumor, and a significant proportion of them are different from each other." Lin was the
The cancer that the team studied, esophageal squamous cell carcinoma, is especially difficult to treat. The disease attacks the esophagus, the hollow tube that connects the throat to the stomach. The five-year survival rate for patients with esophageal cancer is about 20 percent, according to the American Cancer Society.

To create their catalog of mutations, the study's investigators called on high-powered computers to compile genetic data on 51 tumor samples taken from 13 patients. Through complex algorithms, they analyzed both the genes and the processes, known as epigenetics, that turned the genes' activities on and off within the cancer cells.

Using these techniques, the investigators identified 2,178 genetic variations in the sampled tumors. Dozens of the variations involved genes known to be associated with enabling the development of cancer. The most striking finding was that many important mutations were detected only in some areas of a tumor, highlighting the complexity of the cancer cells. This finding also demonstrated the potential for inaccurate interpretation of a cancer's genetic makeup using the single-biopsy method, which is the standard approach in the clinic.

Besides cataloging these genetic variations, the study's investigators reconstructed a "biography" of the tumors, showing when some of these variations first appeared in the life cycle of the disease.

"This study is on the leading edge of looking within a tumor for heterogeneity, or variations, across patients and within the same patient. It also is one of the very first studies to look at epigenetic changes from different areas within a single tumor in a global way," said Benjamin Berman, PhD, the study's co-senior author, an associate professor of Biomedical Sciences and co-director of the Cedars-Sinai Center for Bioinformatics and Functional Genomics.

To meet the challenge of integrating this diverse data, Huy Dinh, PhD, a project scientist in Berman's laboratory and one of the study's co-lead authors, developed innovative computational methods.

Looking ahead, the investigators plan to apply their analytic techniques to other cancers and explore the significance of the genetic and epigenetic changes that they have so far identified. They view their work as fundamental to developing effective, individualized therapies to combat the drug resistance that many cancer patients face during the course of their disease.

"Evidence suggests that tumor heterogeneity is one of the major causes of drug resistance and treatment failure in cancer," said H. Phillip Koeffler, MD, professor of Medicine and the Mark Goodson Chair in Oncology Research at Cedars-Sinai. "In light of this situation, deciphering the genomic diversity and evolution of tumors can provide a basis for identifying new targets and designing personalized medicine strategies." Koeffler was the other co-senior author of the study.

Keywords for this news article include: Cancer, Genetics, Oncology, Cedars-Sinai Medical Center, Drugs and Therapies - Drug Resistance.

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Sugar element of keratan sulfate halts the progress of emphysema

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Using a mouse model, scientists from the RIKEN-Max Planck Joint Research Center for Systems Chemical Biology and a number of other institutes have identified a sugar molecule that reduced the inflammatory response and progress of emphysema, a common component of chronic obstructive pulmonary disease (COPD). According to Naoyuki Taniguchi, the leader of the group, this discovery could lead to the development of drugs based on glycans--biological sugar molecules--for the treatment of diseases such as COPD, which is the fourth leading cause of death worldwide.

As part of the research group's work to explore the roles of sugar molecules in health and disease, they found that keratan sulfate, a large negatively charged saccharide found in the small airway of the lung, is decreased in mice that have been exposed to cigarette smoke. They wondered if this decrease might be associated with the damage that smoking causes to the lung. Taniguchi says, "We are not absolutely sure of the mechanism through which smoking leads to a reduction in keratan sulfate, but felt that clearly the reduction is important in thinking about glycan-based strategies for combating emphysema and COPD."

They wondered whether the keratan sulfate might be playing a protective role in COPD. To test the hypothesis, they prepared a repeating disaccharide element of keratan sulfate, named L4, and administered it into two mouse models of emphysema--one a model of emphysema triggered by the enzyme elastase, and the other an exacerbation of smoking-induced emphysema triggered by LPS, a toxin found in bacterial cell walls.

In the first model, they found that that treatment with L4 prevented destruction of the alveoli--the small air sacs in lungs that are used to exchange gases, and in addition that it reduced the infiltration of a type of white blood cell called neutrophils, which is symptomatic of an inflammatory response, as well as levels of inflammatory cytokines and tissue-degrading enzymes. Although L4 was shown to inhibit these enzymes, they did not find any ability of L4 to directly reduce the production of cytokines or reactive oxygen species, so concluded that the action was also being done indirectly, through mechanisms involving the neutrophils.

In the exacerbation model, they found that the L4 administration prevented the influx of neutrophils. According to Taniguchi, "We found that L4 was as effective as dexamethasone in reducing neutrophil infiltration. This is very exciting, because dexamethasone, the treatment currently used for COPD, is a steroid medication that can have serious side effects and can in some cases make the outcome worse. It will be exciting if we can show that L4--a sugar molecule which we found had no adverse effects in the mice even at high doses--can be used as a treatment for this condition, which exerts a tremendous health burden."

According to Taniguchi, there is still work to be done in the area. "We plan now to try to determine exactly how L4 blocks neutrophil migration, by finding a target receptor protein, and how L4 can suppress inflammation in vivo, as this could give us important insights into the mechanism of COPD progression and how it can be halted."

Keywords for this news article include: RIKEN, Emphysema, Immunology, Phagocytes, Blood Cells, Neutrophils, Granulocytes, Hemic and Immune Systems, Lung Diseases and Conditions - Chronic Obstructive Pulmonary Disease.

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Synthetic stem cells could offer therapeutic benefits, reduced risks

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers from North Carolina State University, the University of North Carolina at Chapel Hill and First Affiliated Hospital of Zhengzhou University have developed a synthetic version of a cardiac stem cell. These synthetic stem cells offer therapeutic benefits comparable to those from natural stem cells and could reduce some of the risks associated with stem cell therapies. Additionally, these cells have better preservation stability and the technology is generalizable to other types of stem cells.

Stem cell therapies work by promoting endogenous repair; that is, they aid damaged tissue in repairing itself by secreting "paracrine factors," including proteins and genetic materials. While stem cell therapies can be effective, they are also associated with some risks of both tumor growth and immune rejection. Also, the cells themselves are very fragile, requiring careful storage and a multi-step process of typing and characterization before they can be used.

Ke Cheng, associate professor of molecular biomedical sciences at NC State University, associate professor in the joint biomedical engineering program at NC State and UNC and adjunct associate professor at the UNC Eshelman School of Pharmacy, led a team in developing the synthetic version of a cardiac stem cell that could be used in off-the-shelf applications.

Cheng and his colleagues fabricated a cell-mimicking microparticle (CMMP) from poly (lactic-co-glycolic acid) or PLGA, a biodegradable and biocompatible polymer. The researchers then harvested growth factor proteins from cultured human cardiac stem cells and added them to the PLGA. Finally, they coated the particle with cardiac stem cell membrane.

"We took the cargo and the shell of the stem cell and packaged it into a biodegradable particle," Cheng says.

When tested in vitro, both the CMMP and cardiac stem cell promoted the growth of cardiac muscle cells. They also tested the CMMP in a mouse model with myocardial infarction, and found that its ability to bind to cardiac tissue and promote growth after a heart attack was comparable to that of cardiac stem cells. Due to its structure, CMMP cannot replicate - reducing the risk of tumor formation.

"The synthetic cells operate much the same way a deactivated vaccine works," Cheng says. "Their membranes allow them to bypass the immune response, bind to cardiac tissue, release the growth factors and generate repair, but they cannot amplify by themselves. So you get the benefits of stem cell therapy without risks."

The synthetic stem cells are much more durable than human stem cells, and can tolerate harsh freezing and thawing. They also don’t have to be derived from the patient's own cells. And the manufacturing process can be used with any type of stem cell.

"We are hoping that this may be a first step toward a truly off-the-shelf stem cell product that would enable people to receive beneficial stem cell therapies when they're needed, without costly delays," Cheng says.

Keywords for this news article include: Biotechnology, Genetics, Cardiology, Therapeutics, Biological Therapy, Stem Cell Research, North Carolina State University, Drugs and Therapies - Cell Therapy.

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Taro Announces Sale of U.S. Rights to Keveyis(R) to Strongbridge Biopharma plc

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Taro Pharmaceutical Industries Ltd. (NYSE:TARO) ("Taro" or the "Company") announced the sale of U.S. rights to Keveyis® (dichlorphenamide) to Strongbridge Biopharma plc (Strongbridge), a global commercial-stage biopharmaceutical company focused on the development and commercialization of therapies for rare diseases with significant unmet need. Keveyis was approved by the U.S. Food and Drug Administration (the "FDA") in August 2015 to treat primary hyperkalemic and hypokalemic periodic paralysis, a group of rare hereditary disorders that cause episodes of muscle weakness or paralysis. Keveyis has orphan designation status through August 2022.

Under the terms of the purchase agreement, Strongbridge will provide Taro with upfront and deferred payments of $8.5 million in two installments; Taro is also eligible to receive additional future payments upon the achievement of certain sales unit milestones. Strongbridge expects to commercially launch Keveyis in the U.S. in April 2017. Taro has agreed to continue to manufacture Keveyis for Strongbridge, under an exclusive supply agreement at least for the period of Keveyis orphan exclusivity, subject to certain commercial terms and conditions, including minimum supply purchases.

"We are proud of our work in making Keveyis the first FDA-approved treatment option for people living with primary periodic paralysis," said Kal Sundaram, Chief Executive Officer of Taro. "In maintaining our commitment to patients, we have selected a partner in this sale with the expertise to reach the patients and physicians needed to improve patient outcomes and deepen understanding of the disease."

Since ceasing commercialization in May 2016, Taro has been supplying Keveyis to patients through a compassionate use program. Strongbridge is committed to continuing this program through the expected launch in April 2017, and is committed to working with existing U.S. Keveyis patients to ensure continuity of treatment. Keveyis patients may call 1-844-KEVERYS for more information. INDICATION Keveyis is indicated for the treatment of primary hyperkalemic periodic paralysis, primary hypokalemic periodic paralysis, and related variants. IMPORTANT SAFETY INFORMATION In clinical studies, the most common side effects of Keveyis were a burning or pricking sensation, difficulty thinking and paying attention, changes in taste, and confusion. These are not all of the possible side effects you may experience with Keveyis. Talk to your doctor if you have any symptoms that bother you or do not go away.

Keywords for this news article include: Pharmaceutical Companies, Taro Pharmaceutical Industries Ltd, Biopharmaceuticals, Drugs and Therapies, Familial Periodic Paralysis, Neuromuscular Diseases and Conditions, Nervous System Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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Autoimmune Diseases and Conditions - Rheumatoid Arthritis

Technical University Describes Findings in Rheumatoid Arthritis [Milk Fat Globule-Epidermal Growth Factor 8 (MFG-E8) Is a Novel Anti-inflammatory Factor in Rheumatoid Arthritis in Mice and Humans]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Autoimmune Diseases and Conditions - Rheumatoid Arthritis. According to news originating from Dresden, Germany, by NewsRx correspondents, research stated, "Milk fat globule-epidermal growth factor 8 (MFG-E8) is an anti-inflammatory glycoprotein that mediates the clearance of apoptotic cells and is implicated in the pathogenesis of autoimmune and inflammatory diseases. Because MFG-E8 also controls bone metabolism, we investigated its role in rheumatoid arthritis (RA), focusing on inflammation and joint destruction."

Financial support for this research came from National Cancer Institute.

Our news journalists obtained a quote from the research from Technical University, "The regulation of MFG-E8 by inflammation was assessed in vitro using osteoblasts, in arthritic mice and in patients with RA. K/BxN serum transfer arthritis (STA) was applied to MFG-E8 knock-out mice to assess its role in the pathogenesis of arthritis. Stimulation of osteoblasts with lipopolysaccharide (LPS) and tumor necrosis factor (TNF)-α downregulated the expression of MFG-E8 by 30% to 35%. MFG-E8-deficient osteoblasts responded to LPS with a stronger production of pro-inflammatory cytokines. In vivo, MFG-E8 mRNA levels were 52% lower in the paws of collagen-induced arthritic (CIA) mice and 24% to 42% lower in the serum of arthritic mice using two different arthritis models (CIA and STA). Similarly, patients with RA (n=93) had lower serum concentrations of MFG-E8 (-17%) compared with healthy controls (n=140). In a subgroup of patients who had a moderate to high disease activity (n=21), serum concentrations of MFG-E8 rose after complete or partial remission had been achieved (+67%). Finally, MFG-E8-deficient mice subjected to STA exhibited a stronger disease burden, an increased number of neutrophils in the joints, and a more extensive local and systemic bone loss. This was accompanied by an increased activation of osteoclasts and a suppression of osteoblast function in MFG-E8-deficient mice. Thus, MFG-E8 is a protective factor in the pathogenesis of RA and subsequent bone loss."

According to the news editors, the research concluded: "Whether MFG-E8 qualifies as a novel biomarker or therapeutic target for the treatment of RA is worth addressing in further studies."


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either free or for purchase.

Keywords for this news article include: Europe, Dresden, Germany, Genetics, Osteoblasts, Inflammation, Bone Research, Rheumatoid Arthritis, Connective Tissue Cells, Joint Diseases and Conditions, Autoimmune Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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Drugs and Therapies - Antipsychotics

Technical University Details Findings in Antipsychotics (Preparation and evaluation of ziprasidone-phospholipid complex from sustained-release pellet formulation with enhanced bioavailability and no food effect)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Drugs and Therapies - Antipsychotics have been published. According to news reporting originating from Nanjing, People's Republic of China, by NewsRx correspondents, research stated, "The purpose of this work was to develop ziprasidone-phospholipid complex (ZIP-PLC) in sustained-release pellets to enhance the oral bioavailability and overcome the food effect of ziprasidone. Ziprasidone-phospholipid complex was formulated by solvent-evaporation method."

Our news editors obtained a quote from the research from Technical University, "The complexes were characterized by Fourier transform infrared spectroscopy (FTIR), scanning electron microscopy (SEM), differential scanning calorimetry (DSC), powder X-ray diffraction (PXRD) and solubility testing. The optimized ZIP-PLC was used to prepare ZIP-PLC sustained-release pellets via extrusion-spheronization method. The pellets were characterized by in vitro drug-release studies and administered to fasted and fed beagle dogs, and their pharmacokinetics were compared with commercial formulation Zeldox capsule as a control. The results of FTIR, SEM, DSC and PXRD studies confirmed the formation of phospholipid complex. Solubility studies showed there was a higher solubility in water for ZIP-PLC than monohydrate ziprasidone. The in vitro release rate of ziprasidone from the ZIP-PLC sustained-release pellet exhibited controlled-release characteristics with over 95% total release in 12 h. Pharmacokinetic studies in beagle dogs showed ziprasidone with prolong actions, and no food effect was achieved simultaneously in ZIP-PLC sustained-release pellet compared with Zeldox capsule."

According to the news editors, the research concluded: "The results indicated a sustained release with prolonged actions of schizophrenia and bipolar disorder treatment."


The news editors report that additional information may be obtained by contacting Y. Miao, School of Biotechnology and Pharmaceutical Engineering, Nanjing Technical University, Nanjing, People's Republic of China. Additional authors for this research include G. Chen, L. Ren and P. Ouyang.

The direct object identifier (DOI) for that additional information is:
The neighborhood effect: Sicker patients draw on shared resources

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- In a recent article in JAMA, University of Chicago physicians describe a new concern for patients in the hospital: distractions caused by the misfortune of other patients.

The researchers found that when one patient on a typical 20-bed hospital unit took a turn for the worse - a cardiac arrest, for example, or being transferred to an intensive-care unit - the other patients on that ward were at increased risk for their own setbacks.

In the six hours after a critical-illness event, the odds that a second patient in the same unit would undergo a comparable crisis increased by about 18 percent. If there were two such events during a six-hour time period, the risk of yet another occurrence went up by about 53 percent. Risks were slightly higher when the initial critical illness events occurred at night.

Cardiac arrests, urgent ICU transfers or patient deaths were also associated with delayed discharge from the hospital for the other patients on the same unit.

"This should serve as a wake-up call for hospital-based physicians," said study author Matthew Churpek, MD, MPH, PhD, assistant professor of medicine at the University of Chicago.

"Our data suggests that after caring for a patient who becomes critically ill on the hospital wards, we should routinely check to see how the other patients on the unit are doing," Churpek said.

"Following these high-intensity events, our to-do list should include a thorough assessment of the other patients on the unit, to make sure none of them are at risk of slipping through the cracks."

Luckily, such events were relatively rare. Nearly 84,000 adult patients were admitted to non-ICU beds at the University of Chicago Medicine from 2009 to 2013. About five percent of those patients were subsequently transferred to an intensive-care unit (4,107) or experienced an in-hospital cardiac arrest (179).

Patients who had a cardiac arrest or required ICU transfer tended to be a few years older and male. They had been in the hospital, on average, for 13 days, four times longer than patients who did not have a critical-illness event.

"We suspected this phenomenon based on our own anecdotal experience," said co-author Samuel Volchenboum, MD, PhD, associate professor of pediatrics at the University of Chicago and director of the University's Center for Research Informatics. "But until we had access to a large, well-curated research-data warehouse, we couldn't perform a study like this."

"Very few academic centers have access to the kinds of high-quality data needed to perform this type of investigation," he added.

The study was designed to detect and quantify any increased risk to neighboring patients. The researchers speculate that one potential factor may be that doctors and nurses could...
have been "temporarily diverted to help care for critically ill patients," Volchenboum said. "Further study is needed to determine the causes of this effect."

Keywords for this news article include: Hospital, Cardiology, Cardiac Arrest, Critical Illness, Disease Attributes, Risk and Prevention, Pathologic Processes, University of Chicago Medical Center, Heart Disorders and Diseases - Heart Attack.

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Peptides and Proteins

Tohoku University Describes Findings in Peptides and Proteins (Effects of N-Methylated Amyloid-b30-40 Peptides on the Fibrillation of Amyloid-b1-40)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Peptides and Proteins have been published. According to news reporting originating in Sendai, Japan, by NewsRx journalists, research stated, "Alzheimer's disease is a neurodegenerative disorder associated with amyloid-b (Ab) fibrillation. N-Methylated amyloid-b peptides are potent inhibitors of amyloid-b fibrillation."

The news reporters obtained a quote from the research from Tohoku University, "We investigated the inhibitory effect of N-Methylated Ab30-40 peptides on Ab1-40 fibrillation. N-Methylated Ab30-40 peptides affected the fibrillation, and this effect was dependent on the concentration of N-Methylated peptide and the number and position of N-Methylated groups. N-Methylated Ab30-40 peptides were co-aggregated with Ab1-40. Spectroscopic technique was adopted to investigate an origin of the observed dependence. Suppression of thioflavin T (ThT) fluorescence count was correlated with the dissociation constant Kd of monomer-dimer equilibrium of each N-Methylated Ab30-40 peptide. Monomeric N-Methylated peptides decreased ThT fluorescence count during Ab1-40 fibrillation. Secondary structure content was not largely different between Ab1-40 fibrils and co-aggregates. These results suggested that N-Methylated Ab30-40 peptides disrupted the regular b-sheet structure of Ab1-40 fibrils and affected the ThT fluorescence count. The monomer-dimer equilibrium of N-Methylated peptides was (partly) responsible for the observed dependence of their inhibitory effect on the concentration of N-Methylated peptide and the number and position of N-Methylated groups."

According to the news reporters, the research concluded: "Our study provides a hint to design new N-Methylated inhibitor peptides of fibrillation."


Our news correspondents report that additional information may be obtained by contacting H. Hiramatsu, Graduate School of Pharmaceutical Sciences, Tohoku University, Sendai, 980-8578, Japan. Additional authors for this research include H. Ochiai and T. Komuro. The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/cbdd.12674. This DOI is a link to an online electronic document that is either free or for purchase.

The publisher of the journal Chemical Biology & Drug Design can be contacted at:
Tongji University Details Findings in Cancer Gene Therapy (Elderly male smokers with right lung tumors are viable candidates for KRAS mutation screening)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Biotechnology - Cancer Gene Therapy. According to news reporting from Shanghai, People's Republic of China, by NewsRx journalists, research stated, "Genetic aberrations in tumor driver genes provide specific molecular targets for therapeutic intervention, which can greatly improve therapeutic outcomes. Here, we analyzed the mutational frequency of EGFR and KRAS gene, as well as EML4-ALK rearrangement, and summarized the clinicopathological characters of Chinese lung cancer patients."

The news correspondents obtained a quote from the research from Tongji University, "We detected the mutation spectrum of 1033 primary lung cancer patients. The analyzed clinicopathological parameters included gender, age at diagnosis, smoking status, pathological TNM stage, tumor morphology and location, visceral pleural invasion, and histological type. A total of 618 patients had mutations in EGFR or KRAS gene as well as rearrangement of EML4-ALK. Exon 19 deletions and L858R in the EGFR gene were the most frequent mutations. Left-side lung cancer was more common in female patients carrying the KRAS mutation. Rearrangement of EML4-ALK was more common in non-tobacco-using male patients, who also exhibited a higher likelihood of visceral pleura invasion. Elderly females who never smoked and possessed 1-20 mm stage I adenocarcinomas in the right side exhibited a higher frequency of EGFR mutations."

According to the news reporters, the research concluded: "Elderly male smokers with right lung tumors were viable candidates for KRAS mutation screening."

For more information on this research see: Elderly male smokers with right lung tumors are viable candidates for KRAS mutation screening. Scientific Reports, 2016;6():18566. (Nature Publishing Group - www.nature.com/; Scientific Reports - www.nature.com/srep/)

Our news journalists report that additional information may be obtained by contacting Y. Yang, Dept. of Thoracic Surgery, Shanghai Pulmonary Hospital affiliated Tongji University, Shanghai 200433, People's Republic of China. Additional authors for this research include C. Shi, H. Sun, W. Yin, X. Zhou, L. Zhang and G. Jiang.

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Keywords for this news article include: Asia, Biotechnology, Shanghai, Genetics, Oncology, Lung Cancer, Lung Neoplasms, Cancer Gene Therapy, Drugs and Therapies, People's Republic of China.

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Nutritional and Metabolic Diseases and Conditions - …

**Treating cancer with drugs for diabetes and hypertension**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A combination of a diabetes medication and an antihypertensive drug can effectively combat cancer cells. The team of researchers led by Prof. Michael Hall at the Biozentrum of the University of Basel has also reported that specific cancer cells respond to this combination of drugs. The results of the study have now been published in Science Advances.

Metformin is the most widely prescribed drug for the treatment of type 2 diabetes. Besides its blood sugar lowering effect, it also displays anti-cancer properties. The usual therapeutic dose, however, is too low to effectively fight cancer. The research team led by Prof. Michael Hall, at the Biozentrum of the University of Basel, has now made an unexpected discovery: The antihypertensive drug syrosingopine potentiates the anti-cancer efficacy of metformin. Apparently, this drug combination drives cancer cells to programmed "suicide".

**Drug cocktail kills tumor cells**

At higher doses, the antidiabetic drug inhibits the growth of cancer cells but could also induce unwanted side effects. Therefore, the researchers screened over a thousand drugs for whether they can enhance the anticancer action of metformin. A favorite emerged from this screening: Syrosingopine, an antihypertensive drug. As the study shows, the cocktail of these two drugs is effective in a wide range of cancers.

"For example, in samples from leukemia patients, we demonstrated that almost all tumor cells were killed by this cocktail and at doses that are actually not toxic to normal cells", says the first author, Don Benjamin. "And the effect was exclusively confined to cancer cells, as the blood cells from healthy donors were insensitive to the treatment."

**Drugs block "juice" supply to cancer cells**

In mice with malignant liver cancer, enlargement of the liver was reduced after the therapy. Also the number of tumor nodules was less - in some animals the tumors disappeared completely. A glance at the molecular processes in the tumor cells explains the drug combination's efficacy: Metformin lowers not only the blood glucose level, but also blocks the respiratory chain in the energy factories of the cell, the mitochondria. The antihypertensive drug syrosingopine inhibits, among other things, the degradation of sugars.

Thus, the drugs interrupt the vital processes which provide energy for the cell. Due to their increased metabolic activity and rapid growth, cancer cells have a particularly high energy consumption, which makes them extremely vulnerable when the energy supply is reduced.

**Groundbreaking step towards clinical application**

By testing a range of other compounds with the same mode of action, the scientists could demonstrate that the inhibition of the respiratory chain in the mitochondria is a key mechanism. These also reduced cancer cell growth in combination with the antihypertensive drug.

"We have been able to show that the two known drugs lead to more profound effects on cancer cell proliferation than each drug alone," explains Benjamin. "The data from this study support the development of combination approaches for the treatment of cancer patients." This study may have implications for future clinical application of combination scenarios targeting the energy needs of tumor cells.
Keywords for this news article include: Antidiabetic Agents, Cancer, Oncology, Biguanides, Hypertension, Metformin Therapy, Non-Sulfonylureas, Drugs and Therapies, Hypoglycemic Agents, Risk and Prevention, University of Basel, Diagnostics and Screening, Cardiovascular Diseases and Conditions, Non-Insulin Dependent Diabetes Mellitus.

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Neurodegenerative Diseases and Conditions

UTSW identify process cells use to destroy damaged organelles, with links to diseases

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers at UT Southwestern Medical Center have uncovered the mechanism that cells use to find and destroy an organelle called mitochondria that, when damaged, may lead to genetic problems, cancer, neurodegenerative diseases, inflammatory disease, and aging.

Understanding how this process works could potentially lead to new treatments to prevent certain illnesses and even some aspects of aging, said Dr. Beth Levine, Director of the Center for Autophagy Research at UT Southwestern and senior author of the study, published in Cell. The Center for Autophagy Research -- the only one of its kind in the nation - investigates the process called autophagy in which cells rid themselves of damaged or unnecessary components.

Mitochondria are commonly called the "powerhouses of the cell" because these cellular components works like a tiny factory inside cells to convert compounds such as sugars into energy that a cell can use.

But mitochondria also have a dark side: Because of their high-energy function, when they are damaged, they release toxic chemicals called reactive oxygen species into the rest of the cell, said Dr. Yongjie Wei, Assistant Professor of Internal Medicine at UT Southwestern and lead co-first author of the study.

"The removal of damaged mitochondria by autophagy (a process called mitophagy) is important for cellular health," said Dr. Levine, also Professor of Internal Medicine and Microbiology and a Howard Hughes Medical Institute Investigator.

Researchers have to date focused on protein "tags" found on the outer membranes of mitochondria - especially the protein Parkin that attaches these tags -- to explain how the cell's degradative organelles, called autophagosomes, target sick mitochondria, explained Dr. Levine, who holds the Charles Cameron Sprague Distinguished Chair in Biomedical Science. (Autophagosomes are double-membraned vesicles that contain cellular material to be degraded in the process called autophagy.)

But UT Southwestern scientists, working with human and mouse cells, discovered that a receptor on an inner mitochondrial membrane actually is more important in guiding these autophagosomes to their prey.

In the study, researchers found that a protein called prohibitin 2 (PHB2) resides on the inner membrane of mitochondria, but is exposed when an ailing mitochondrion's outer membrane ruptures. Once the break occurs, the protein LC3, which rides on an autophagosome's exterior like a lookout, is drawn to the PHB2.

The LC3 protein then attaches to PHB2, and the autophagosome carries its doomed
cargo to a lysosome - yet another organelle found within cells - that acts like a tiny stomach, with enzymes to break down cell waste.

The study's finding that PHB2 is crucial in targeting mitochondria for autophagic degradation is new, said Dr. Levine.

However, she said, previous research had linked the presence of PHB2 to prevention of cancer, aging effects, neurodegeneration, and inflammation. So, given these beneficial health effects, it makes sense that a key action of PHB2 is to help rid cells of damaging mitochondria that contribute to such disease processes, she said.

"By understanding how cells get rid of damaged mitochondria that contribute to cancer, neurodegenerative diseases, and aging, we may be able to develop treatments to prevent those processes," Dr. Levine said.

The study also found that PHB2 is necessary for the routine elimination of paternal mitochondrial DNA in developing embryos, leaving only mitochondrial DNA from the mother. This work was done in roundworms, but a recent study performed elsewhere using mouse models demonstrated that mitophagy is also used to remove paternal mitochondria in mammalian embryos, said Dr. Wei-Chung "Daniel" Chiang, a postdoctoral researcher at UT Southwestern and co-first author of the study.

Usually, only maternal mitochondrial DNA is passed to offspring, Dr. Levine said. For unknown reasons, the continued presence of paternal mitochondrial DNA signals genetic or health problems in the progeny.

In yet another finding, the UTSW research shows that - despite scientists' greater focus on the Parkin protein's role in supporting autophagy -- PHB2 is required for Parkin to work.

Keywords for this news article include: Cancer, Genetics, Oncology, Organelles, Mitochondria, Internal Medicine, Cellular Structures, Intracellular Space, Subcellular Fractions, Cytoplasmic Structures, UT Southwestern Medical Center, Neurodegenerative Diseases and Conditions.

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Gram-Negative Bacteria - Acinetobacter baumannii

United States Navy Reports Findings in Acinetobacter baumannii (Personalized Therapeutic Cocktail of Wild Environmental Phages Rescues Mice from Acinetobacter baumannii Wound Infections)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Gram-Negative Bacteria - Acinetobacter baumannii is now available. According to news reporting originating from Fort Detrick, Maryland, by NewsRx correspondents, research stated, "Multidrug-resistant bacterial pathogens are an increasing threat to public health, and lytic bacteriophages have reemerged as a potential therapeutic option. In this work, we isolated and assembled a five-member cocktail of wild phages against Acinetobacter baumannii and demonstrated therapeutic efficacy in a mouse full-thickness dorsal infected wound model."

Funders for this research include Military Infectious Disease Research Program, U.S. Department of Homeland Security (DHS).

Our news editors obtained a quote from the research from United States Navy, "The
cocktail lowers the bioburden in the wound, prevents the spread of infection and necrosis to surrounding tissue, and decreases infection-associated morbidity. Interestingly, this effective cocktail is composed of four phages that do not kill the parent strain of the infection and one phage that simply delays bacterial growth in vitro via a strong but incomplete selection event. The cocktail here appears to function in a combinatorial manner, as one constituent phage targets capsulated A. baumannii bacteria and selects for loss of receptor, shifting the population to an uncapsulated state that is then sensitized to the remaining four phages in the cocktail. Additionally, capsule is a known virulence factor for A. baumannii, and we demonstrated that the emergent uncapsulated bacteria are avirulent in a Galleria mellonella model. These results highlight the importance of anticipating population changes during phage therapy and designing intelligent cocktails to control emergent strains, as well as the benefits of using phages that target virulence factors."

According to the news editors, the research concluded: "Because of the efficacy of this cocktail isolated from a limited environmental pool, we have established a pipeline for developing new phage therapeutics against additional clinically relevant multidrug-resistant pathogens by using environmental phages sourced from around the globe."

For more information on this research see: Personalized Therapeutic Cocktail of Wild Environmental Phages Rescues Mice from Acinetobacter baumannii Wound Infections. Antimicrobial Agents and Chemotherapy, 2016;60(10):5806-5816. Antimicrobial Agents and Chemotherapy can be contacted at: Amer Soc Microbiology, 1752 N St NW, Washington, DC 20036-2904, USA. (American Society for Microbiology - www.asm.org; Antimicrobial Agents and Chemotherapy - aac.asm.org)

The news editors report that additional information may be obtained by contacting B. Biswas, US Navy, Medical Res Center Frederick, Biol Def Res Directorate, Fort Detrick, MD 21702, United States. Additional authors for this research include A.C. Jacobs, B.W. Corey, M.S. Henry, M.G. Thompson, R.L. Pavlicek, J. Quinones, R.M. Hannah, M. Ghebremedhin, N.J. Crane, D.V. Zurawski, N.C. Teneza-Mora, B. Biswas and E.R. Hall.

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Keywords for this news article include: Fort Detrick, Maryland, United States, North and Central America, Gram-Negative Aerobic Rods and Cocci, Gram-Negative Aerobic Bacteria, Acinetobacter baumannii, Gram-Negative Bacteria, Gammaproteobacteria, Proteobacteria, Moraxellaceae, Therapy, United States Navy.

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value for inherited ataxia. However, the need of a rigorous process of analysis and validation remains challenging."

The news reporters obtained a quote from the research from University Hospital, "Moreover, copy number variations (CNV) or dynamic expansions of repeated sequence are classically considered not adequately detected by exome sequencing technique. We applied a strategy of mini-exome coupled to read-depth based CNV analysis to a series of 33 patients with probable inherited ataxia and onset < 50 years. The mini-exome consisted of the capture of 4,813 genes having associated clinical phenotypes. Pathogenic variants were found in 42% and variants of uncertain significance in 24% of the patients. These results are comparable to those from whole exome sequencing and better than previous targeted NGS studies. CNV and dynamic expansions of repeated CAG sequence were identified in three patients. We identified both atypical presentation of known ataxia genes (ATM, NPC1) and mutations in genes very rarely associated with ataxia (ERCC4, HSD17B4). We show that mini-exome bioinformatics data analysis allows the identification of CNV and dynamic expansions of repeated sequence. Our study confirms the diagnostic value of the proposed genetic analysis strategy."

According to the news reporters, the research concluded: "We also provide an algorithm for the multidisciplinary process of analysis, interpretation, and validation of NGS data."


Our news correspondents report that additional information may be obtained by contacting M. Koenig, University Hospital, Lab Genet Mol, Montpellier, France. Additional authors for this research include C. Guissart, C. Hubsch, M. Renaud, J.P. Villemin, L. Larrieu, P. Charles, X. Ayrignac, S. Sacconi, P. Collignon, D. Cuntz-Shadfar, L. Perrin, A. Benarrosh, A. Degardin, O. Lagha-Boukbiza, E. Mutez, B. Carlander and R.J. Morales.

Keywords for this news article include: Montpellier, France, Europe, Nervous System Diseases and Conditions, Diagnostics and Screening, Genetics, Neurologic Manifestations, Dyskinesias, Neurology, Ataxia, University Hospital.

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Cardiovascular Diseases and Conditions...

University Hospital Details Findings in Hypertension (Recent Developments and Controversies in the Treatment of Resistant Hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiovascular Diseases and Conditions - Hypertension are discussed in a new report. According to news reporting from Hamburg, Germany, by NewsRx journalists, research stated, "Resistant hypertension is defined as elevated blood pressure despite the appropriate use of 3 or more antihypertensive drugs, including a diuretic, and constitutes a frequent and important clinical problem with significant disease morbidity and mortality. Several sources of evidence point to the sympathetic nervous system as
a major protagonist in this disease entity."

The news correspondents obtained a quote from the research from University Hospital, "The catheter-based, radiofrequency ablation of renal sympathetic nerves (renal denervation) to treat resistant hypertension has sparked great enthusiasm. However, failure of this interventional approach in the randomized, sham-controlled Symplicity HTN-3 trial to reach its efficacy endpoint of attaining a significant blood pressure reduction has called this intervention into substantial question and fueled an ongoing scientific debate. Electrical stimulation of the carotid baroreceptors (baroreflex activation therapy) represents another technique to modulate sympathetic activity currently being studied in several clinical trials."

According to the news reporters, the research concluded: "This review summarizes and comments the current literature focusing on the invasive treatment of resistant hypertension."

For more information on this research see: Recent Developments and Controversies in the Treatment of Resistant Hypertension. Experimental and Clinical Endocrinology & Diabetes, 2016;124(3):178-86. (Thieme - www.thieme.com)

Our news journalists report that additional information may be obtained by contacting C. Kuhl, All authors from the Dept. of Internal Medicine III (Cardiology and Angiology) University Hospital Schleswig-Holstein, Campus Kiel, Germany and the DZHK (German Centre for Cardiovascular Research), partner site Kiel, Hamburg, Lubeck, Germany. Additional authors for this research include N. Frey and D. Frank.

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Keywords for this news article include: Europe, Hamburg, Germany, Hypertension, Article Review, Cardiovascular Diseases and Conditions.

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remained relatively stable around 20% from 1979 to 2008 (range 19.9-23.6%). The age-adjusted prevalence of moderate-vigorous LTPA decreased from 23.2% in 1979-80 to 16.0% in 2001, thereafter the prevalence increased to 24.3% in 2007-08 (P < 0.05). The age-adjusted prevalence of being mostly sedentary at work increased gradually from 35.5% in 1979-80 to 53.4% in 2007-08 (P < 0.05). Sex, age, education, and smoking were identified as cross-sectional correlates of LTPA and WPA (P < 0.05). Men had higher odds of engaging in LTPA than women (adjusted OR 1.52 [95% CI 1.39-1.67] in 2007-08), whereas the association between sex and WPA shifted over time. High education level, not being a smoker, and high WPA were associated with high LTPA, whereas low education level, being a smoker, and high levels of LTPA were associated with high WPA (P < 0.05). In general, odds of engaging in LTPA and WPA decreased with age (P < 0.05). Individuals with healthy BMI had higher odds of being in a higher LTPA level than those who were underweight and obese (P < 0.05). Longitudinal analyses identified sex, age, education, smoking, WPA, and LTPA measured in 1979-80 as determinants of LTPA in 2007-08. In Norwegian adults, the proportion of sedentary WPA increased from 1979 to 2008, whereas the proportion of inactive LTPA remained stable.

According to the news reporters, the research concluded: "Being female, older, smoker, obese or underweight, and low education level were associated with low LTPA levels."


Our news correspondents report that additional information may be obtained by contacting B. Morseth, Univ Hosp North Norway Trust, Center Clin Res & Educ, Tromso, Norway. Additional authors for this research include B.K. Jacobsen, N. Emaus, T. Wilsgaard and L. Jorgensen.

Keywords for this news article include: Tromso, Norway, Europe, Public Health, Health and Medicine, University Hospital.

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**Gram-Positive Bacteria - Staphylococcus epidermidis**

**University Hospital Details Findings in Staphylococcus epidermidis (Efficacy of ceftaroline versus vancomycin in an experimental foreign-body and systemic infection model caused by biofilm-producing methicillin-resistant Staphylococcus ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Gram-Positive Bacteria - Staphylococcus epidermidis have been published. According to news reporting originating from Seville, Spain, by NewsRx correspondents, research stated, "In this study, the efficacy of ceftaroline versus vancomycin against biofilm-producing methicillin-resistant Staphylococcus epidermidis (MRSE) in a murine model of foreign-body and systemic infection was compared. Two bacteraemic biofilm-producing MRSE strains were used (SE284 and SE385)."

Our news editors obtained a quote from the research from University Hospital, "The minimum inhibitory concentrations (MICs) for strains SE284 and SE385, were, respectively,
0.25 mg/L and 0.5 mg/L for ceftaroline and 4 mg/L and 2 mg/L for vancomycin. The in vitro bactericidal activities of ceftaroline and vancomycin were evaluated using time-kill curves. A foreign-body and systemic infection model in neutropenic female C57BL/6 mice was used to ascertain in vivo efficacy. Animals were randomly allocated into three groups (n = 15) without treatment (controls) or treated with ceftaroline 50 mg/kg every 8 h or vancomycin 110 mg/kg every 6 h. In vitro, ceftaroline showed concentration-dependent bactericidal activity, whilst vancomycin presented time-dependent activity. In the experimental in vivo model, ceftaroline and vancomycin decreased the liver and catheter bacterial concentrations (P < 0.05) and increased survival (P < 0.05) for both strains.

According to the news editors, the research concluded: "Ceftaroline is as effective as vancomycin in the treatment of experimental foreign-body and systemic infection caused by biofilm-producing MRSE."


The news editors report that additional information may be obtained by contacting J. Dominguez-Herrera, Univ Seville, Univ Hosp Virgen del Rocio, Unit Infect Dis Microbiol & Prevent Med, Inst Biomed Seville IBiSCSIC, Seville 41013, Spain. Additional authors for this research include R. Lopez-Rojas, Y. Smani, G. Labrador-Herrera and J. Pachon.

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Keywords for this news article include: Seville, Spain, Europe, Gram-Positive Endospore-Forming Rods, Endospore-Forming Bacteria, Staphylococcus epidermidis, Beta-Lactam Antibiotics, Gram-Positive Bacteria, beta-Lactam Resistance, Methicillin Resistance, Penicillin Resistance, Drugs and Therapies, Gram-Positive Coccii, Organic Chemicals, Staphylococcaceae, Drug Resistance, Glycopeptides, Penicillins, Vancomycin, Bacillales, Peptides, Amides, University Hospital.

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### Oncology - Head and Neck Cancer

**University Hospital Reports Findings in Head and Neck Cancer (Cytotoxic effects of SMAC-mimetic compound LCL161 in head and neck cancer cell lines)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Head and Neck Cancer have been published. According to news reporting from Wurzburg, Germany, by NewsRx journalists, research stated, "Head and neck squamous cell carcinoma (HNSCC) is one of the most common tumor entities worldwide. Unfortunately, recent drug developments in other fields of oncology have yielded no efficacy in the treatment of oral squamous cell carcinoma."
The news correspondents obtained a quote from the research from University Hospital, "As a new starting point, we investigated the impact of Fas ligand (FasL) and the SMAC-mimetic compound LCL161 in mono- and combination treatment in HNSCC cell lines. Five different cell lines of HNSCC were treated with FasL and LCL161 in mono- and combination treatment. Cytotoxicity was measured via a crystal violet assay. The cell lines were characterized for CD95 (FasL receptor) expression via flow cytometry. The degradation of cellular inhibitor of apoptosis protein 1 (cIAP1) was detected via Western blot. Incubation with FasL led to a significant decrease in three out of five cell lines. Combination treatment with LCL161 enhanced cytotoxicity significantly. Two cell lines were FasL resistant, but one of them could be resensitized with LCL161. In all cell lines, Western blot analysis showed degradation of cIAP1 after LCL161 application. However, one cell line showed only minor vulnerability to the FasL and LCL161 combination. This is the first study investigating combination treatment of FasL and LCL161 in head and neck cancer cell lines. Pro-apoptotic effects of the combination were detected in the majority of the cell lines. Interestingly, one of two FasL-resistant cell lines was sensitive to the combination therapy with FasL and LCL161."

According to the news reporters, the research concluded: "SMAC-mimetic compounds show promising results in the treatment of other tumor entities in vitro and might be useful drugs to improve HNSCC therapy."

For more information on this research see: Cytotoxic effects of SMAC-mimetic compound LCL161 in head and neck cancer cell lines. Clinical Oral Investigations, 2016;20 (9):2325-2332. Clinical Oral Investigations can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - www.springer.com; Clinical Oral Investigations - www.springerlink.com/content/1432-6981/)

Our news journalists report that additional information may be obtained by contacting R.C. Brands, Univ Hosp Wurzburg, Comprehens Canc Center Mainfranken, D-97070 Wurzburg, Germany. Additional authors for this research include F. Herbst, S. Hartmann, A. Seher, C. Linz, A.C. Kubler and U. Muller-Richter.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00784-016-1741-3. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Wurzburg, Germany, Europe, Head and Neck Neoplasms, Head and Neck Cancer, Cell Line, Oncology, University Hospital.

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**Nutritional and Metabolic Diseases and Conditions -…

University Medical Center Reports Findings in Obesity (Performance of the 1 mg dexamethasone suppression test in patients with severe obesity)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Nutritional and Metabolic Diseases and Conditions - Obesity. According to news reporting originating in Mannheim, Germany, by NewsRx journalists, research stated, "To analyze the performance of the 1 mg dexamethasone suppression test (DST) in patients with obesity. Special attention was paid to the influence of interfering medication on DST."
The news reporters obtained a quote from the research from University Medical Center, "In this prospective cohort study (Mannheim Obesity Study), patients with obesity were evaluated before bariatric surgery. For evaluation of hypercortisolism, a 1 mg dexamethasone-suppression test (DST) in all subjects was performed. Medication was assessed for possible interference. Two hundred seventy-eight patients with a mean age of 42.3 years (68.8% women) and a mean BMI of 47.9 ± 8.4 kg/m(2) were screened. Insufficient suppression of cortisol after DST was found in 24 patients (8.6%). In two patients hypercortisolism was confirmed. The specificity for DST was calculated at 92.0%. Only CYP3A4 inducers (n=22, 7.9%) and estrogen therapy (n=17, 6.1%) were significantly associated with falsely elevated cortisol after DST. Regression analysis excluded any interrelation between DST and anthropometry. Low prevalence of hypercortisolism (0.7 or <1.8%) was found. Specificity of DST in this cohort typically screened for hypercortisolism was 92.0% ( (<=) 50 nmol/L). DST should be avoided in patients taking CYP3A4 inducers or estrogen therapy, due to their significant interaction."

According to the news reporters, the research concluded: "In summary, the 1 mg DST is an adequate test for screening for hypercortisolism even in patients with extreme obesity."

For more information on this research see: Performance of the 1 mg dexamethasone suppression test in patients with severe obesity. *Obesity, 2016;24(4):850-5. (Nature Publishing Group - www.nature.com/; Obesity - www.nature.com/obgy/)

Our news correspondents report that additional information may be obtained by contacting A. Lammert, 5th Dept. of Medicine, University Medical Centre Mannheim, University of Heidelberg, Mannheim, Germany. Additional authors for this research include S. Nittka, M. Otto, V. Schneider-Lindner, A. Kemmer, B.K. Kramer, R. Birck, H.P. Hammes and U. Benck.

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Keywords for this news article include: Pharmaceuticals, Europe, Germany, Obesity, Mannheim, Hormones, Estrogens, Bariatrics, Endocrinology, Overnutrition, Women's Health, Glucocorticoids, Diet and Nutrition, Drugs and Therapies, Nutrition Disorders, Ophthalmic Steroids, Dexamethasone Therapy, Ophthalmic Preparations, Adrenal Cortical Steroids.

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**University of Aberdeen Details Findings in Armadillo Domain Proteins**

(Tissue- and stage-specific Wnt target gene expression is controlled subsequent to beta-catenin recruitment to cis-regulatory modules)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Proteins - Armadillo Domain Proteins. According to news reporting out of Aberdeen, United Kingdom, by NewsRx editors, research stated, "Key signalling pathways, such as canonical Wnt/beta-catenin signalling, operate repeatedly to regulate tissue-and stage-specific transcriptional responses during development. Although recruitment of nuclear beta-catenin to target genomic loci serves as the hallmark of canonical Wnt signalling, mechanisms controlling stage- or tissue-specific transcriptional
responses remain elusive."

Our news journalists obtained a quote from the research from the University of Aberdeen, "Here, a direct comparison of genome-wide occupancy of beta-catenin with a stage-matched Wnt-regulated transcriptome reveals that only a subset of beta-catenin-bound genomic loci are transcriptionally regulated by Wnt signalling. We demonstrate that Wnt signalling regulates beta-catenin binding to Wnt target genes not only when they are transcriptionally regulated, but also in contexts in which their transcription remains unaffected. The transcriptional response to Wnt signalling depends on additional mechanisms, such as BMP or FGF signalling for the particular genes we investigated, which do not influence beta-catenin recruitment. Our findings suggest a more general paradigm for Wnt-regulated transcriptional mechanisms, which is relevant for tissue-specific functions of Wnt/beta-catenin signalling in embryonic development but also for stem cell-mediated homeostasis and cancer. Chromatin association of beta-catenin, even to functional Wnt-response elements, can no longer be considered a proxy for identifying transcriptionally Wnt-regulated genes. dependent mechanisms are crucial for transcriptional activation of Wnt/beta-catenin target genes subsequent to beta-catenin recruitment."

According to the news editors, the research concluded: "Our conclusions therefore also imply that Wnt-regulated beta-catenin binding in one context can mark Wnt-regulated transcriptional target genes for different contexts."


Our news journalists report that additional information may be obtained by contacting S. Hoppler, University of Aberdeen, Inst Med Sci, Aberdeen AB25 2ZD, United Kingdom. Additional authors for this research include E.D. Alves, G.J.C. Veenstra and S. Hoppler.

Keywords for this news article include: Aberdeen, United Kingdom, Europe, Armadillo Domain Proteins, Transcription Factors, Genetics, Genetics, beta Catenin, Catenins, University of Aberdeen.

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**Oncology - Cholangiocarcinoma**

**University of Amsterdam Reports Findings in Cholangiocarcinoma (Inhibition of hypoxia inducible factor 1 and topoisomerase with acriflavine sensitizes perihilar cholangiocarcinomas to photodynamic therapy)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Oncology - Cholangiocarcinoma is now available. According to news reporting originating in Amsterdam, Netherlands, by NewsRx journalists, research stated. "Photodynamic therapy (PDT) induces tumor cell death by oxidative stress and hypoxia but also survival signaling through activation of hypoxia-inducible factor 1 (HIF-1)."
Since perihilar cholangiocarcinomas are relatively recalcitrant to PDT, the aims were to (1) determine the expression levels of HIF-1-associated proteins in human perihilar cholangiocarcinomas, (2) investigate the role of HIF-1 in PDT-treated human perihilar cholangiocarcinoma cells, and (3) determine whether HIF-1 inhibition reduces survival signaling and enhances PDT efficacy.

The news reporters obtained a quote from the research from the University of Amsterdam, "Increased expression of VEGF, CD105, CD31/Ki-67, and GLUT-1 was confirmed in human perihilar cholangiocarcinomas. PDT with liposome-delivered zinc phthalocyanine caused HIF-1a stabilization in SK-ChA-1 cells and increased transcription of HIF-1a downstream genes. Acriflavine was taken up by SK-ChA-1 cells and translocated to the nucleus under hypoxic conditions. Importantly, pretreatment of SK-ChA-1 cells with acriflavine enhanced PDT efficacy via inhibition of HIF-1 and topoisomerases I and II. The expression of VEGF, CD105, CD31/Ki-67, and GLUT-1 was determined by immunohistochemistry in human perihilar cholangiocarcinomas. In addition, the response of human perihilar cholangiocarcinoma (SK-ChA-1) cells to PDT with liposome-delivered zinc phthalocyanine was investigated under both normoxic and hypoxic conditions. Acriflavine, a HIF-1a/HIF-1b dimerization inhibitor and a potential dual topoisomerase I/II inhibitor, was evaluated for its adjuvant effect on PDT efficacy. HIF-1, which is activated in human hilar cholangiocarcinomas, contributes to tumor cell survival following PDT in vitro."

According to the news reporters, the research concluded: "Combining PDT with acriflavine pretreatment improves PDT efficacy in cultured cells and therefore warrants further preclinical validation for therapy-recalcitrant perihilar cholangiocarcinomas."

For more information on this research see: Inhibition of hypoxia inducible factor 1 and topoisomerase with acriflavine sensitizes perihilar cholangiocarcinomas to photodynamic therapy. Oncotarget, 2016;7(3):3341-56.

Our news correspondents report that additional information may be obtained by contacting R. Weijer, Dept. of Experimental Surgery, Academic Medical Center, University of Amsterdam, 1105 AZ Amsterdam, Netherlands. Additional authors for this research include M. Broekgaarden, M. Krekorian, L.K. Alles, A.C. van Wijk, C. Mackaaij, J. Verheij, A.C. van der Wal, T.M. van Gulik, G. Storm and M. Heger.

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Keywords for this news article include: Biotechnology, Europe, Therapy, Genetics, Oncology, Proteins, Amsterdam, Liposomes, Netherlands, Photodynamics, Topoisomerase, Cholangiocarcinoma, Enzymes and Coenzymes, Hypoxia Inducible Factor 1, Basic Helix Loop Helix Transcription Factors.

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University of Antwerp Reports Findings in Atherosclerosis (Potential therapeutic effects of mTOR inhibition in atherosclerosis)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiovascular Diseases and Conditions - Atherosclerosis have been presented. According to news originating from Antwerp, Belgium, by NewsRx
correspondents, research stated, "Despite significant improvement in the management of atherosclerosis, this slowly progressing disease continues to affect countless patients around the world. Recently, the mechanistic target of rapamycin (mTOR) has been identified as a pre-eminent factor in the development of atherosclerosis. mTOR is a constitutively active kinase found in two different multiprotein complexes, mTORC1 and mTORC2."

Our news journalists obtained a quote from the research from the University of Antwerp, "Pharmacological interventions with a class of macrolide immunosuppressive drugs, called rapalogs, have shown undeniable evidence of the value of mTORC1 inhibition to prevent the development of atherosclerotic plaques in several animal models. Rapalog-eluting stents have also shown extraordinary results in humans, even though the exact mechanism for this anti-atherosclerotic effect remains elusive. Unfortunately, rapalogs are known to trigger diverse undesirable effects owing to mTORC1 resistance or mTORC2 inhibition. These adverse effects include dyslipidaemia and insulin resistance, both known triggers of atherosclerosis. Several strategies, such as combination therapy with statins and metformin, have been suggested to oppose rapalog-mediated adverse effects. Statins and metformin are known to inhibit mTORC1 indirectly via 5' adenosine monophosphate-activated protein kinase (AMPK) activation and may hold the key to exploit the full potential of mTORC1 inhibition in the treatment of atherosclerosis."

According to the news editors, the research concluded: "Intermittent regimens and dose reduction have also been proposed to improve rapalog's mTORC1 selectivity, thereby reducing mTORC2-related side effects."


The news correspondents report that additional information may be obtained from W. Martinet, University of Antwerp, Lab Physiopharmacol, B-2610 Antwerp, Belgium. Additional authors for this research include G.R.Y. De Meyer and W. Martinet.

Keywords for this news article include: Antwerp, Belgium, Europe, Cardiovascular Diseases and Conditions, Arterial Occlusive Diseases, Kinase, Article Review, Enzymes and Coenzymes, Arteriosclerosis, Atherosclerosis, Therapeutics, Cardiology, Therapy, University of Antwerp.

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**Oncology - Acute Lymphoblastic Leukemia**

**University of Bologna Reports Findings in Acute Lymphoblastic Leukemia (Synergistic cytotoxic effects of bortezomib and CK2 inhibitor CX-4945 in acute lymphoblastic leukemia: turning off the prosurvival ER chaperone BIP/Grp78 and turning on the ...)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Acute Lymphoblastic Leukemia is the subject of a report. According to news originating from Bologna, Italy, by NewsRx correspondents, research stated, "The proteasome inhibitor bortezomib is a new targeted treatment option for..."
refractory or relapsed acute lymphoblastic leukemia (ALL) patients. However, a limited efficacy of bortezomib alone has been reported."

Our news journalists obtained a quote from the research from the University of Bologna, "A terminal pro-apoptotic endoplasmic reticulum (ER) stress/unfolded protein response (UPR) is one of the several mechanisms of bortezomib-induced apoptosis. Recently, it has been documented that UPR disruption could be considered a selective anti-leukemia therapy. CX-4945, a potent casein kinase (CK) 2 inhibitor, has been found to induce apoptotic cell death in T-ALL preclinical models, via perturbation of ER/UPR pathway. In this study, we analyzed in T-and B-ALL preclinical settings, the molecular mechanisms of synergistic apoptotic effects observed after bortezomib/CX-4945 combined treatment. We demonstrated that, adding CX-4945 after bortezomib treatment, prevented leukemic cells from engaging a functional UPR in order to buffer the bortezomib-mediated proteotoxic stress in ER lumen. We documented that the combined treatment decreased pro-survival ER chaperon BIP/Grp78 expression, via reduction of chaperoning activity of Hsp90. Bortezomib/CX-4945 treatment inhibited NF-kB signaling in T-ALL cell lines and primary cells from T-ALL patients, but, intriguingly, in B-ALL cells the drug combination activated NF-kB p65 pro-apoptotic functions. In fact in B-cells, the combined treatment induced p65-HDAC1 association with consequent repression of the anti-apoptotic target genes, Bcl-xL and XIAP. Exposure to NEMO (IKKg)-binding domain inhibitor peptide reduced the cytotoxic effects of bortezomib/CX-4945 treatment."

According to the news editors, the research concluded: "Overall, our findings demonstrated that CK2 inhibition could be useful in combination with bortezomib as a novel therapeutic strategy in both T-and B-ALL."

For more information on this research see: Synergistic cytotoxic effects of bortezomib and CK2 inhibitor CX-4945 in acute lymphoblastic leukemia: turning off the prosurvival ER chaperone BIP/Grp78 and turning on the pro-apoptotic NF-kB. Oncotarget, 2016;7(2):1323-40.

The news correspondents report that additional information may be obtained from F. Buontempo, Dept. of Biomedical and Neuromotor Sciences, University of Bologna, Bologna, Italy. Additional authors for this research include E. Orsini, A. Lonetti, A. Cappellini, F. Chiarini, C. Evangelisti, C. Evangelisti, F. Melchionda, A. Pession, A. Bertaina, F. Locatelli, J. Bertacchini, L.M. Neri, J.A. McCubrey and A.M Martelli.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.6361. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastics, Pharmaceuticals, Italy, Europe, Bologna, Genetics, Oncology, Hematology, Bortezomib Therapy, Drugs and Therapies, Unfolded Protein Response, Acute Lymphoblastic Leukemia.

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University of Bologna Reports Findings in Prognathism (Oro-Dental Features of Pallister-Killian Syndrome: Evaluation of 21 European Probands)
Pallister-Killian syndrome (PKS) is a rare sporadic multi-systemic developmental disorder caused by a mosaic tetrasomy of the short arm of chromosome 12. A wide range of clinical characteristics including intellectual disability, seizures, and congenital malformations has previously been described.

Individuals with PKS show a characteristic facial phenotype with frontal bossing, alopecia, sparse eyebrows, depressed nasal bridge, long philtrum, telecanthus, and posteriorly rotated ears. Oro-dental features, such as 'Pallister lip,' macroglossia, delayed eruption of primary teeth, high arched-palate, prognathism, and cleft palate have been occasionally reported in the medical literature. The aim of the study was to assess the orodental phenotype of PKS and to describe the oral health status in a cohort participating in the First European Workshop on PKS. A clinical dental examination was performed in 21 Caucasian probands and data regarding medical and dental history collected. Twelve probands (57%) showed an atypical dental pattern, with multiple missing teeth (primarily the first permanent molars) and 2 (10%) a double teeth. The severity of gingivitis and dental caries increased with age and gingival overgrowth was a common finding. A characteristic occlusive phenotype was found: a high-arched palate with mandibular prognathism associated with an anterior openbite and crossbite and with posterior crossbite (unilateral or bilateral). The prevalence of oral habits (non-nutritive sucking, mouth breathing, bruxism) was high, even in older probands.

According to the news editors, the research concluded: "This study suggests that individuals affected by PKS should be observed closely for oro-dental diseases and a multidisciplinary approach is needed to implement the right preventive measures."


The news editors report that additional information may be obtained by contacting S. Bagattoni, University of Bologna, Unit Dental Care Special Needs Patients & Paediat D, Dept. of Biomed & NeuroMotor Sci DiBiNeM, I-40125 Bologna, Italy. Additional authors for this research include G. D'Alessandro, A. Sadotti, N. Alkhmis, A. Rocca, G. Cocchi, I.D. Krantz and G. Piana.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/ajmg.a.37815. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Bologna, Italy, Europe, Musculoskeletal Diseases and Conditions, Stomatognathic Diseases and Conditions, Stomatognathic System Abnormalities, Mandibular Diseases and Conditions, Musculoskeletal Abnormalities, Jaw Diseases and Conditions, Maxillofacial Abnormalities, Craniofacial Abnormalities, Congenital Abnormalities, Dentistry, Genetics, Jaw Abnormalities, Prognathism, University of Bologna.

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University of British Columbia Reports Findings in Cardiology  
(Assessment of Paramedic Ultrasound Curricula: A Systematic Review)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Cardiology have been presented. According to news reporting originating in Vancouver, Canada, by NewsRx journalists, research stated, "Prehospital ultrasound is being applied in the field. The purpose of this systematic review is to describe evidence pertaining to ultrasound curricula for paramedics specifically, including content, duration, setting, design, evaluation, and application."

The news reporters obtained a quote from the research from the University of British Columbia, "Electronic searches of MEDLINE, Embase, CINAHL, and the Cochrane Center Register of Controlled Trials were conducted following Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Primary literature describing acute care ultrasound curricula for paramedics were included. Two authors independently extracted data and assessed quality using 2 validated tools. Twelve studies with 187 paramedics were included. Curricula duration varied, with effective curricula teaching focused assessment with sonography for trauma (FAST) in 6 to 8 hours and pleural ultrasound in 25 minutes. FAST, pleural, and fracture-detection ultrasound are being applied in the field by paramedics; however, no literature exists describing application to detect cardiac standstill. Curricula combined didactic and hands-on components including simulation and evaluated competency using sensitivity and specificity of paramedic-performed ultrasound. Paramedic ultrasound curricula in FAST and pleural ultrasound is feasible and time effective with successful application. Although fracture detection ultrasound is being used by the special operations forces, no comprehensive curriculum was described."

According to the news reporters, the research concluded: "Curricula designed to detect cardiac standstill have been too short, and successful application by paramedics has not been shown."


Our news correspondents report that additional information may be obtained by contacting J. McCallum, Student, University of British Columbia MD Undergraduate Program, Vancouver, BC, Canada. Additional authors for this research include E. Vu, D. Sweet and H.D Kanji.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.amj.2015.07.002. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Canada, Vancouver, Cardiology, Article Review, British Columbia, North and Central America.

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Thiazoles

University of Cairo Reports Findings in Thiazoles [One Pot Single Step Synthesis and Biological Evaluation of Some Novel Bis(1,3,4-thiadiazole) Derivatives as Potential Cytotoxic Agents]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Thiazoles. According to news reporting originating in Giza, Egypt, by NewsRx journalists, research stated, "A novel series of bis(1,3,4-thiadiazole) derivatives were synthesized in one step methodology with good yields by condensation reaction between bis-hydrazoneyl chloride 1 and various reagents."

The news reporters obtained a quote from the research from the University of Cairo, "The structures of the prepared compounds were confirmed by spectral data (IR, NMR, and MS), and elemental analysis. The anticancer activity against human breast carcinoma (MCF-7) cancer cell lines was evaluated in MTT assay."

According to the news reporters, the research concluded: "The results revealed that the bis-thiadiazole derivatives 5c, d, 7b, c and 9c had higher antitumor activity than the standard drug Imatinib."

For more information on this research see: One Pot Single Step Synthesis and Biological Evaluation of Some Novel Bis(1,3,4-thiadiazole) Derivatives as Potential Cytotoxic Agents. Molecules, 2016;21(11):1710-1717. Molecules can be contacted at: Mdp Ag, St Alban-Anlage 66, Ch-4052 Basel, Switzerland. (Springer - www.springer.com; Molecules - www.springerlink.com/content/1420-3049/)

Our news correspondents report that additional information may be obtained by contacting S.M. Gomha, Cairo University, Dept. of Chem, Fac Sci, Giza 12613, Egypt. Additional authors for this research include N.A. Kheder, A.O. Abdelhamid and Y.N. Mabkhot.

Keywords for this news article include: Giza, Egypt, Africa, Thiazoles, Thiazoles, University of Cairo.

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Digestive System Diseases and Conditions --

University of Calgary Details Findings in Inflammatory Bowel Disease (Pregnane X Receptor Activation Attenuates Inflammation-Associated Intestinal Epithelial Barrier Dysfunction by Inhibiting Cytokine-Induced Myosin Light-Chain Kinase ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Digestive System Diseases and Conditions - Inflammatory Bowel Disease. According to news reporting from Calgary, Canada, by NewsRx journalists, research stated, "The inflammatory bowel diseases (IBDs) are chronic inflammatory disorders with a complex etiology. IBD is thought to arise in genetically susceptible individuals in the context of aberrant interactions with the intestinal microbiota and other environmental risk factors."

The news correspondents obtained a quote from the research from the University of
Calgary, "Recently, the pregnane X receptor (PXR) was identified as a sensor for microbial metabolites, whose activation can regulate the intestinal epithelial barrier. Mutations in NR1I2, the gene that encodes the PXR, have been linked to IBD, and in animal models, PXR deletion leads to barrier dysfunction. In the current study, we sought to assess the mechanism(s) through which the PXR regulates barrier function during inflammation. In Caco-2 intestinal epithelial cell monolayers, tumor necrosis factor-alpha/interferon-gamma exposure disrupted the barrier and triggered zonula occludens-1 relocalization, increased expression of myosin light-chain kinase (MLCK), and activation of c-Jun N-terminal kinase 1/2 (JNK1/2). Activation of the PXR [rifaximin and [ 3,5-Bis( 1,1-dimethylethyl)-4-hydroxyphenyl] ethenylidene] bis-phosphonic acid tetraethyl ester (SR12813); 10 mu M] protected the barrier, an effect that was associated with attenuated MLCK expression and JNK1/2 activation. In vivo, activation of the PXR [pregnenolone 16 alpha-carbonitrile (PCN)] attenuated barrier disruption induced by toll-like receptor 4 activation in wild-type, but not Pxr-/-, mice. Furthermore, PCN treatment protected the barrier in the dextran-sulfate sodium model of experimental colitis, an effect that was associated with reduced expression of mucosal MLCK and phosphorylated JNK1/2. Together, our data suggest that the PXR regulates the intestinal epithelial barrier during inflammation by modulating cytokine-induced MLCK expression and JNK1/2 activation."

According to the news reporters, the research concluded: "Thus, targeting the PXR may prove beneficial for the treatment of inflammation-associated barrier disruption in the context of IBD."


Our news journalists report that additional information may be obtained by contacting S.A. Hirota, University of Calgary, Dept. of Microbiol Immunol & Infect Dis, Calgary, AB, Canada. Additional authors for this research include A. Zhao, S.L. Erickson, S. Mukherjee, A.J. Lau, L. Alston, T.K.H. Chang, S. Mani and S.A. Hirota.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1124/jpet.116.234096. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Calgary, Alberta, Canada, North and Central America, Intercellular Signaling Peptides and Proteins, Intracellular Signaling Peptides and Proteins, Calcium-Calmodulin-Dependent Protein Kinases, Enzymes and Coenzymes, Risk and Prevention, Digestive System Diseases and Conditions, Inflammatory Bowel Disease, Macromolecular Substances, Myosin-Light-Chain Kinase, Calcium-Binding Proteins, Cytoskeletal Proteins, Contractile Proteins, Myosin Light Chains, Phosphotransferases, Carrier Proteins, Inflammation, Biopolymers, Cytokines, Genetics, University of Calgary.

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Nutritional and Metabolic Diseases and Conditions...

University of Calgary Reports Findings in Dyslipidemias (2016 Canadian Cardiovascular Society Guidelines for the Management of Dyslipidemia for the Prevention of Cardiovascular Disease in the Adult)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Nutritional and Metabolic Diseases and Conditions - Dyslipidemias is the subject of a report. According to news originating from Calgary, Canada, by NewsRx correspondents, research stated, "Since the publication of the 2012 guidelines new literature has emerged to inform decision-making. The 2016 guidelines primary panel selected a number of clinically relevant questions and has produced updated recommendations, on the basis of important new findings."

Our news journalists obtained a quote from the research from the University of Calgary, "In subjects with clinical atherosclerosis, abdominal aortic aneurysm, most subjects with diabetes or chronic kidney disease, and those with low-density lipoprotein cholesterol >= 5 mmol/L, statin therapy is recommended. For all others, there is an emphasis on risk assessment linked to lipid determination to optimize decision-making. We have recommended nonfasting lipid determination as a suitable alternative to fasting levels. Risk assessment and lipid determination should be considered in individuals older than 40 years of age or in those at increased risk regardless of age. Pharmacotherapy is generally not indicated for those at low Framingham Risk Score (FRS; < 10%). A wider range of patients are now eligible for statin therapy in the FRS intermediate risk category (10%-19%) and in those with a high FRS (> 20%). Despite the controversy, we continue to advocate for low-density lipoprotein cholesterol targets for subjects who start therapy. Detailed recommendations are also presented for health behaviour modification that is indicated in all subjects. Finally, recommendation for the use of nonstatin medications is provided. Shared decision-making is vital because there are many areas in which clinical trials do not fully inform practice."

According to the news editors, the research concluded: "The guidelines are meant to be a platform for meaningful conversation between patient and care provider so that individual decisions can be made for risk screening, assessment, and treatment."


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.cjca.2016.07.510. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Calgary, Alberta, Canada, North and Central
Pharyngeal Diseases and Conditions - Pharyngitis
University of Cape Town Details Findings in Pharyngitis (Rationale and design of the African group A streptococcal infection registry: the AFROStrep study)

2017 JAN 14 (NewsRx)-- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Pharyngeal Diseases and Conditions - Pharyngitis is now available. According to news reporting originating in Cape Town, South Africa, by NewsRx journalists, research stated, "Group A b-haemolytic Streptococcus (GAS), a Gram-positive bacterium, also known as Streptococcus pyogenes, causes pyoderma, pharyngitis and invasive disease. Repeated GAS infections may lead to autoimmune diseases such as acute post-streptococcal glomerulonephritis, acute rheumatic fever (ARF) and rheumatic heart disease (RHD)."

The news reporters obtained a quote from the research from the University of Cape Town, "Invasive GAS (iGAS) disease is an important cause of mortality and morbidity worldwide. The burden of GAS infections is, however, unknown in Africa because of lack of surveillance systems. The African group A streptococcal infection registry (the AFROStrep study) is a collaborative multicentre study of clinical, microbiological, epidemiological and molecular characteristics for GAS infection in Africa. The AFROStrep registry comprises two components: (1) active surveillance of GAS pharyngitis cases from sentinel primary care centres (non-iGAS) and (2) passive surveillance of iGAS disease from microbiology laboratories. Isolates will also be subjected to DNA isolation to allow for characterisation by molecular methods and cryopreservation for long-term storage. The AFROStrep study seeks to collect comprehensive data on GAS isolates in Africa. The biorepository will serve as a platform for vaccine development in Africa. Ethics approval for the AFROStrep registry has been obtained from the Human Research Ethics Committee at the University of Cape Town (HREC/REF: R006/2015). Each recruiting site will seek ethics approval from their local ethics' committee. All participants will be required to provide consent for inclusion into the registry as well as for the storage of isolates and molecular investigations to be conducted thereon. Strict confidentiality will be applied throughout."

According to the news reporters, the research concluded: "Findings and updates will be disseminated to collaborators, researchers, health planners and colleagues through peer-reviewed journal articles, conference publications and proceedings."

For more information on this research see: Rationale and design of the African group A streptococcal infection registry: the AFROStrep study. Bmj Open, 2016;6(2):e010248. (BMJ Publishing Group - group.bmj.com/; Bmj Open - bmjopen.bmj.com/)

Our news correspondents report that additional information may be obtained by contacting D.D. Barth, Dept. of Medicine, Faculty of Health Sciences, University of Cape Town and Groote Schuur Hospital, Cape Town, South Africa. Additional authors for this research include M.E. Engel, A. Whitelaw, A. Alemseged, W.E. Sadoh, S.K. Ali, S.O. Sow, J. Dale and
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Colon Cancer have been published. According to news reporting originating in Cape Town, South Africa, by NewsRx journalists, research stated, "Data on colorectal cancer (CRC) in sub-Saharan Africa is mainly based on hospital series which suggest low incidence and frequent early onset cancers. This study characterises colorectal cancer in a population-based cancer registry in Zimbabwe."

Financial support for this research came from Wellcome Trust.

The news reporters obtained a quote from the research from the University of Cape Town, "Cases of CRC recorded by the Zimbabwe National Cancer Registry between 2003 and 2012 were analysed. Demographic and pathological characteristics were compared according to ethnicity and age. Trends in age standardised incidence rates (ASR) were determined. There were 886 and 216 cases of CRC among black Africans and Caucasians respectively, and 26% of the black Africans were younger than 40 years. Signet ring cell carcinomas were more common among black Africans compared to Caucasians (4% vs 1%, p = 0.027). ASR increased by 1.9%/year and 3.9%/year among black African males and females respectively."

According to the news reporters, the research concluded: "CRC incidence is rising among black Africans and has unique demographic and pathological characteristics."

For more information on this research see: The incidence and histo-pathological characteristics of colorectal cancer in a population based cancer registry in Zimbabwe. Cancer Epidemiology, 2016;44():96-100. Cancer Epidemiology can be contacted at: Elsevier Sci Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, Oxon, England. (Elsevier - www.elsevier.com; Cancer Epidemiology - www.journals.elsevier.com/cancer-epidemiology/)

Our news correspondents report that additional information may be obtained by contacting L. Katsidzira, University of Cape Town, Dept. of Med, Div Gastroenterol, Groote Schuur Hosp, ZA-7925 Cape Town, South Africa. Additional authors for this research include E. Chokunonga, I.T. Ganguidzo, S. Rusakaniko, M. Borok, Z. Matsena-Zingoni, S. Thomson, R. Ramesar and J.A. Matenga.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.canep.2016.08.001. This DOI is a link to an online electronic document that is either free or for purchase.
Liver Diseases and Conditions - Hepatitis

University of Central Lancashire Reports Findings in Hepatitis (Drug-related hepatitis in patients treated with standard antituberculosis chemotherapy over a 30-year period)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Liver Diseases and Conditions - Hepatitis. According to news reporting out of Preston, United Kingdom, by NewsRx editors, research stated, "Drug-induced hepatitis is known to occur in a proportion of patients on treatment for active tuberculosis (TB). We prospectively examined the incidence of drug-induced hepatitis in 2070 patients treated for TB with the standard regimen based on 6 months of rifampicin (R, RMP) and isoniazid (H, INH), with 2 months of initial pyrazinamide (Z, PZA) and ethambutol (E, EMB), over a 30-year period from 1981 to 2010, in Blackburn, UK."

Our news journalists obtained a quote from the research from the University of Central Lancashire, "Of the 1031 (49.8%) males and 1039 (50.2%) females studied, 451 (21.8%) were White and 1585 (76.6%) were of South Asian origin. Only 34 (1.6%) were of African or other origins. Of the total number of patients treated, 63 (3.0%) had drug-related hepatitis, 26 (5.8%) of whom were White, 37 (2.33%) Asians and 0 other. Incidence was significantly higher in Whites than Asians (OR 2.13, P = 0.008). Incidence increased with increasing age (OR 1.16, P = 0.02). The presumed causative drug was PZA 57%, RMP 32%, INH 11%, EMB 0%. There was no trend of increased hepatitis rates over time. Rates of drug-induced hepatitis where change of treatment is required are low in patients treated with standard RHZE-based therapy (3%)."

According to the news editors, the research concluded: "Caucasians and older patients were more likely to develop hepatitis than their counterparts."


Our news journalists report that additional information may be obtained by contacting L.R. Ormerod, University of Central Lancashire, Lancashire Postgraduate Sch Med & Hlth, Preston, Lancs, United Kingdom. Additional authors for this research include A.R. Gondker, J. Morris and L.R. Ormerod.

Keywords for this news article include: Preston, United Kingdom, Europe, Digestive System Diseases and Conditions, Infectious Disease and Conditions, Liver Diseases and Conditions, Drugs and Therapies, Gastroenterology, Chemotherapy, Hepatitis, University of Central Lancashire.

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University of Copenhagen Reports Findings in Type 2 Diabetes (Review of head-to-head comparisons of glucagon-like peptide-1 receptor agonists)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Nutritional and Metabolic Diseases and Conditions - Type 2 Diabetes are presented in a new report. According to news reporting originating in Hvidovre, Denmark, by NewsRx editors, the research stated, "Currently, six glucagon-like peptide-1 receptor agonists (GLP-1RAs) are approved for treating type 2 diabetes. These fall into two classes based on their receptor activation: short-acting exenatide twice daily and lixisenatide once daily; and longer-acting liraglutide once daily, exenatide once weekly, albiglutide once weekly and dulaglutide once weekly."

Financial support for this research came from Novo Nordisk.

The news reporters obtained a quote from the research from the University of Copenhagen, "The phase III trial of a seventh GLP-1RA, taspoglutide once weekly, was stopped because of unacceptable adverse events (AEs). Nine phase III head-to-head trials and one large phase II study have compared the efficacy and safety of these seven GLP-1RAs. All trials were associated with notable reductions in glycated haemoglobin (HbA1c) levels, although liraglutide led to greater decreases than exenatide formulations and albiglutide, and HbA1c reductions did not differ between liraglutide and dulaglutide. As the short-acting GLP-1RAs delay gastric emptying, they have greater effects on postprandial glucose levels than the longer-acting agents, whereas the longer-acting compounds reduced plasma glucose throughout the 24-h period studied. Liraglutide was associated with weight reductions similar to those with exenatide twice daily but greater than those with exenatide once weekly, albiglutide and dulaglutide. The most frequently observed AEs with GLP-1RAs were gastrointestinal disorders, particularly nausea, vomiting and diarrhoea. Nausea occurred less frequently, however, with exenatide once weekly and albiglutide than exenatide twice daily and liraglutide. Both exenatide formulations and albiglutide may be associated with higher incidences of injection-site reactions than liraglutide and dulaglutide. GLP-1RA use in clinical practice should be customized for individual patients, based on clinical profile and patient preference."

According to the news reporters, the research concluded: "Ongoing assessments of novel GLP-1RAs and delivery methods may further expand future treatment options."


Our news correspondents report that additional information may be obtained by contacting S. Madsbad, Dept. of Endocrinology, Hvidovre Hospital, University of Copenhagen, Hvidovre, Denmark.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/dom.12596. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Denmark, Hvidovre, Proteomics, Proglucagon, Article Review, Type 2 Diabetes, Peptide Hormones, Peptide Proteins, Risk and Prevention, Glucagon Like Peptide 1, Gastrointestinal Hormones, Non Insulin Dependent
University of Heidelberg Reports Findings in Germ Cell Cancer (Cisplatin-Based Chemotherapy for Testicular Germ Cell Tumors: Complication Rates of Peripheral versus Central Venous Administration)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Germ Cell Cancer are discussed in a new report. According to news reporting from Mannheim, Germany, by NewsRx journalists, research stated, "Despite the low local toxicity of the used agents, Cisplatin-based chemotherapy (CBP) for patients with testicular germ cell tumors (TGCT) is mostly delivered via a central venous access (CVA). Since 2008, CBP is given peripherally in our hospital."

The news correspondents obtained a quote from the research from the University of Heidelberg, "Medical reports of TGCT patients who received CBP between September 1991 and August 2014 were evaluated. Complications regarding the way of administration (CVA vs. peripheral venous catheter [PVC]) were classified according to the Common Terminology Criteria of Adverse Events. The complication rates were compared using chi square test and propensity score matching. During 288 cycles in 109 patients, 85 complications (29.5%) were observed with similar rates for overall (PVC 31.3%, CVA 29.9%; p=0.820) and grade I complications (21.3%, 25.4%; p=0.470). More grade II complications were observed in the PVC group (10.0% vs. 1.5%; p<0.001). Grade III complications requiring invasive treatment were found only in the CVA group (3.0%; p=0.120). Using propensity score matching, no differences in overall (p=0.950), grade I (p=0.540) and grades II/III (p=0.590) complications were seen. The peripheral and central administration of CBP has similar overall complication rates. Despite more grade II complications, the peripheral administration of CBP is a safe alternative for TGCT patients."

According to the news reporters, the research concluded: "Additionally, no severe grade III complications occurred."

For more information on this research see: Cisplatin-Based Chemotherapy for Testicular Germ Cell Tumors: Complication Rates of Peripheral versus Central Venous Administration. Urologia Internationalis, 2015;96(2):177-82. (Karger - www.karger.com; Urologia Internationalis - content.karger.com/ProdukteDB/produkte.asp?Aktion=JournalHome&ProduktNr=224282)

Our news journalists report that additional information may be obtained by contacting T. Worst, Dept. of Urology, Mannheim Medical Center, University of Heidelberg, Mannheim, Germany. Additional authors for this research include L. Sautter, A. John, C. Weiss, A. Hacker and J. Heinzelbecker.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1159/000442003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Europe, Germany, Mannheim, Oncology, Cisplatin, Genitalia, Chemotherapy, Germ Cell Cancer, Chlorine Compounds, Nitrogen
University of Hong Kong Reports Findings in Adenosine Therapy

[Inhibition of human equilibrative nucleoside transporters by 4((4-(2-fluorophenyl)piperazin-1-yl)methyl)-6-imino-N-(naphthalen-2-yl)-1,3,5-triazin-2-amine]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Drugs and Therapies - Adenosine Therapy. According to news reporting originating in Hong Kong, People's Republic of China, by NewsRx journalists, research stated, "Equilibrative nucleoside transporters (ENTs) play a crucial role in the transport of nucleoside and nucleoside analogues, which are important for nucleotide synthesis and chemotherapy. In addition, ENTs regulate extracellular adenosine levels in the vicinity of its receptors and hence influence adenosine related functions."

The news reporters obtained a quote from the research from the University of Hong Kong, "The clinical applications of ENT inhibitors in the treatment of cardiovascular diseases and cancer therapy have been explored in numerous studies. However, all ENT inhibitors to date are selective for ENT1 but not ENT2. In the present study, we investigated the novel compound 4((4-(2-fluorophenyl)piperazin-1-yl)methyl)-6-imino-N-(naphthalen-2-yl)-1,3,5-triazin-2-amine (FPMINT) as an inhibitor of ENT1 and ENT2. Nucleoside transporter-deficient PK15NTD cells stably expressing ENT1 and ENT2 showed that FPMINT inhibited [H-3]uridine and [H-3]adenosine transport through both ENT1 and ENT2 in a concentration-dependent manner. The IC50 value of FPMINT for ENT2 was 5-10-fold less than for ENT1, and FPMINT could not be displaced with excess washing. Kinetic studies revealed that FPMINT reduced V-max of [H-3]uridine transport in ENT1 and ENT2 without affecting K-M. Therefore, we conclude that FPMINT inhibits ENTs in an irreversible and non-competitive manner."

According to the news reporters, the research concluded: "Although already selective for ENT2 over ENT1, further modification of the chemical structure of FPMINT may lead to even better ENT2-selective inhibitors of potential clinical, physiological and pharmacological importance."

For more information on this research see: Inhibition of human equilibrative nucleoside transporters by 4((4-(2-fluorophenyl)piperazin-1-yl)methyl)-6-imino-N-(naphthalen-2-yl)-1,3,5-triazin-2-amine. European Journal of Pharmacology, 2016;791():544-551.

European Journal of Pharmacology can be contacted at: Elsevier Science Bv, PO Box 211, 1000 Ae Amsterdam, Netherlands. (Elsevier - www.elsevier.com; European Journal of Pharmacology - www.journals.elsevier.com/european-journal-of-pharmacology/)

Our news correspondents report that additional information may be obtained by contacting G.P.H. Leung, University of Hong Kong, Dept. of Pharmacol & Pharm, Hong Kong, Hong Kong, People's Republic of China. Additional authors for this research include C. Yang, R.W.S. Li, S.M.Y. Lee, M.P.M. Hoi, S.W. Chan, Y.W. Kwan, C.M. Tse and G.P.H. Leung.

Keywords for this news article include: Hong Kong, People's Republic of China, Asia, Cardiac Stressing Agents, Antiarrhythmic Agents, Cardiovascular Agents, Drugs and Therapies, Radiologic Adjuncts, Radiologic Agents, Adenosine Therapy, Pharmaceuticals,
University of Maryland Reports Findings in Biopharmaceuticals (Supramolecular PEGylation of biopharmaceuticals)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Drugs and Therapies - Biopharmaceuticals have been presented. According to news reporting originating in College Park, Maryland, by NewsRx journalists, research stated, "The covalent modification of therapeutic biomolecules has been broadly explored, leading to a number of clinically approved modified protein drugs. These modifications are typically intended to address challenges arising in biopharmaceutical practice by promoting improved stability and shelf life of therapeutic proteins in formulation, or modifying pharmacokinetics in the body."

Financial supporters for this research include Leona M. and Harry B. Helmsley Charitable Trust (Helmsley Charitable Trust), National Science Foundation (NSF), National Institute of Health Ruth L. Kirschstein National Rsch Service Award, Wellcome Trust - MIT Postdoctoral Fellowship, Margaret A. Cunningham Award, Millard and Lee Alexanderson Fellowship.

The news reporters obtained a quote from the research from the University of Maryland, "Toward these objectives, covalent modification with poly(ethylene glycol) (PEG) has been a common direction. Here, a platform approach to biopharmaceutical modification is described that relies on noncovalent, supramolecular host-guest interactions to endow proteins with prosthetic functionality. Specifically, a series of cucurbit[7]uril (CB[7])-PEG conjugates are shown to substantially increase the stability of three distinct protein drugs in formulation. Leveraging the known and high-affinity interaction between CB[7] and an N-terminal aromatic residue on one specific protein drug, insulin, further results in altering of its pharmacological properties in vivo by extending activity in a manner dependent on molecular weight of the attached PEG chain. Supramolecular modification of therapeutic proteins affords a noncovalent route to modify its properties, improving protein stability and activity as a formulation excipient."

According to the news reporters, the research concluded: "Furthermore, this offers a modular approach to append functionality to biopharmaceuticals by noncovalent modification with other molecules or polymers, for applications in formulation or therapy."


Our news correspondents report that additional information may be obtained by contacting L. Isaacs, University of Maryland, Dept. of Chem & Biochem, College Park, MD 20742, United States. Additional authors for this research include E.A. Appel, B. Vinciguerra, A.B. Cortinas, L.S. Thapa, S. Jhunjhunwala, L. Isaacs, R. Langer and D.G. Anderson.
Vascular Diseases and Conditions - Giant Cell Arteritis

University of Melbourne Details Findings in Giant Cell Arteritis (Giant cell arteritis: ophthalmic manifestations of a systemic disease)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Vascular Diseases and Conditions - Giant Cell Arteritis. According to news originating from Melbourne, Australia, by NewsRx correspondents, research stated, "Giant cell arteritis (GCA) is a systemic granulomatous vasculitis, primarily affecting medium-large arteries. It has a predilection for the aorta and its major branches, including the carotid and vertebral arteries."

Our news journalists obtained a quote from the research from the University of Melbourne, "Ophthalmic artery involvement frequently leads to irreversible visual loss, and therefore GCA is one of the few true ophthalmic emergencies. GCA, although classified as a large vessel vasculitis, is known to affect smaller-sized vessels, resulting in a multiplicity of signs in the eye, some of which are often missed. We set out to highlight some of the less frequently observed clinical signs, which may provide clues to clinically diagnosing GCA in patients presenting with non-classical features and inconclusive inflammatory markers. We review the literature and describe the diverse ocular features and some of the systemic findings that can be associated with GCA. Although the most common ocular manifestation of GCA is anterior ischaemic optic neuropathy, the clinical presentation of GCA can vary dramatically. In the absence of obvious oculor involvement, more subtle ophthalmic signs of anterior segment ischaemia, such as hypotony and anisocoria, may be present at the time of initial clinical examination. There are no specific biomarkers for disease to date; therefore, pertinent history and clinical examination can guide towards diagnosis in the acute setting."

According to the news editors, the research concluded: "The diagnostic process is not always straightforward, yet appropriate and prompt diagnosis is critical to enable timely intervention and prevent significant morbidity."

For more information on this research see: Giant cell arteritis: ophthalmic manifestations of a systemic disease. Graefes Archive for Clinical and Experimental Ophthalmology, 2016;254(12):2291-2306. Graefes Archive for Clinical and Experimental Ophthalmology can be contacted at: Springer, 233 Spring St, New York, NY 10013, USA.

The news correspondents report that additional information may be obtained from E. De Smit, University of Melbourne, Royal Victorian Eye & Ear Hosp, Center Eye Res Australia, Melbourne, Vic 3002, Australia. Additional authors for this research include E. O'Sullivan, D.A. Mackey and A.W. Hewitt.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00417-016-3434-7. This DOI is a link to an online electronic
document that is either free or for purchase.

Keywords for this news article include: Melbourne, Australia, Australia and New Zealand, Central Nervous System Diseases and Conditions, Autoimmune Diseases of the Nervous System, Cardiovascular Diseases and Conditions, Vascular Skin Diseases and Conditions, Immune System Diseases and Conditions, Central Nervous System Vasculitis, Vascular Diseases and Conditions, Brain Diseases and Conditions, Giant Cells, Article Review, Cerebrovascular Disorders, Giant Cell Arteritis, Cardiology, University of Melbourne.

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Life Science Research - Chemical Biology

University of Michigan Describes Findings in Chemical Biology (Metal-dependent Deacetylases: Cancer and Epigenetic Regulators)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Life Science Research - Chemical Biology have been presented. According to news reporting originating in Ann Arbor, Michigan, by NewsRx journalists, research stated, "Epigenetic regulation is a key factor in cellular homeostasis. Post-translational modifications (PTMs) are a central focus of this regulation as they function as signaling markers within the cell."

Financial supporters for this research include Horace H. Rackham School of Graduate Studies, University of Michigan, National Institute of General Medical Sciences.

The news reporters obtained a quote from the research from the University of Michigan, "Lysine acetylation is a dynamic, reversible PTM that has garnered recent attention due to alterations in various types of cancer. Acetylation levels are regulated by two opposing enzyme families: lysine acetyltransferases (KATs) and histone deacetylases (HDACs). HDACs are key players in epigenetic regulation and have a role in the silencing of tumor suppressor genes. The dynamic equilibrium of acetylation makes HDACs attractive targets for drug therapy. However, substrate selectivity and biological function of HDAC isozymes is poorly understood."

According to the news reporters, the research concluded: "This review outlines the current understanding of the roles and specific epigenetic interactions of the metal-dependent HDACs in addition to their roles in cancer."

For more information on this research see: Metal-dependent Deacetylases: Cancer and Epigenetic Regulators. Acsc Chemical Biology, 2016;11(3):706-16. (American Chemical Society - www.acs.org; Acs Chemical Biology - www.pubs.acs.org/journal/acsbct)

Our news correspondents report that additional information may be obtained by contacting J.E. Lopez, Interdepartmental Program in Chemical Biology, University of Michigan, 210 Washtenaw Avenue, Ann Arbor, Michigan 48109-2216, United States. Additional authors for this research include E.D. Sullivan and C.A Fierke.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acschembio.5b01067. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Cancer, Michigan, Genetics, Oncology, Ann Arbor, United States, Article Review, Chemical Biology, Life Science Research, North and
Central America.

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Biotechnology - Molecular Pharmaceutics

University of Michigan Reports Findings in Molecular Pharmaceutics
(Mechanistic Analysis of Cocrystal Dissolution as a Function of pH and Micellar Solubilization)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Biotechnology - Molecular Pharmaceutics have been published. According to news reporting originating from Ann Arbor, Michigan, by NewsRx correspondents, research stated, "The purpose of this work is to provide a mechanistic understanding of the dissolution behavior of cocrystals under the influence of ionization and micellar solubilization. Mass transport models were developed by applying Fick's law of diffusion to dissolution with simultaneous chemical reactions in the hydrodynamic boundary layer adjacent to the dissolving cocrystal surface to predict the pH at the dissolving solid-liquid interface (i.e., interfacial pH) and the flux of cocrystals."

Financial supporters for this research include College of Pharmacy, University of Michigan, National Institute of General Medical Sciences.

Our news editors obtained a quote from the research from the University of Michigan, "To evaluate the predictive power of these models, dissolution studies of carbamazepine-saccharin (CBZ-SAC) and carbamazepine-salicylic acid (CBZ-SLC) cocrystals were performed at varied pH and surfactant concentrations above the critical stabilization concentration (CSC), where the cocrystals were thermodynamically stable. The findings in this work demonstrate that the pH dependent dissolution behavior of cocrystals with ionizable components is dependent on interfacial pH."

According to the news editors, the research concluded: "This mass transport analysis demonstrates the importance of pH, cocrystal solubility, diffusivity, and micellar solubilization on the dissolution rates of cocrystals."

For more information on this research see: Mechanistic Analysis of Cocrystal Dissolution as a Function of pH and Micellar Solubilization. Molecular Pharmaceutics, 2016;13 (3):1030-46. (American Chemical Society - www.acs.org; Molecular Pharmaceutics - www.pubs.acs.org/journal/mpohbp)

The news editors report that additional information may be obtained by contacting F. Cao, College of Pharmacy, University of Michigan, Ann Arbor, Michigan 48109-1065, United States. Additional authors for this research include G.L. Amidon, N. Rodriguez-Hornedo and G.E. Amidon.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1021/acs.molpharmaceut.5b00862. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Biotechnology, Michigan, Ann Arbor, United States, Molecular Pharmaceutics, North and Central America.

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University of Nebraska Reports Findings in Protein-Tyrosine Kinases [Generation of Janus kinase 1 (JAK1) conditional knockout mice]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Enzymes and Coenzymes - Protein-Tyrosine Kinases. According to news originating from Omaha, Nebraska, by NewsRx correspondents, research stated, "The biological functions of the Janus kinase 1 (JAK1) are suggested to be pleiotropic since this signal transducer is ubiquitously expressed and coupled to a variety of cytokine receptors. Consequently, mice that are deficient in this tyrosine kinase were reported to die shortly after birth."

Our news journalists obtained a quote from the research from the University of Nebraska, "To facilitate studies that address the biological and molecular functions of JAK1 during postnatal development, we performed gene targeting in embryonic stem cells and generated a Cre/lox-based conditional knockout mouse model. Expression of Cre recombinase in the germline converted the Jak1 conditional knockout allele (Jak1(fl)) into a null allele (Jak1(-)) that when subsequently crossed into homozygosity led to a complete absence of the JAK1 protein in developing embryos. JAK1 deficient embryos were visibly smaller starting at E15.5. Newborn pups exhibited signs of apnea and died within hours after birth."

According to the news editors, the research concluded: "The examination of fibroblasts from conditional knockout embryos and their littermate wildtype controls expressing JAK1 showed that lack of this Janus kinase resulted in an impaired tyrosine phosphorylation and activation of the downstream Signal Transducers and Activators of Transcription (STATs) 1, 3, and 6. JAK1 conditional knockout mice will be an invaluable tool to study cytokine signaling during normal development and disease progression in adult animals."


The news correspondents report that additional information may be obtained from K.U. Wagner, Univ Nebraska Med Center, Dept. of Genet Cell Biol & Anat, Omaha, NE 68198, United States. Additional authors for this research include B.L. Wehde, P.D. Radler, A.A. Triplett and K.U. Wagner.

Keywords for this news article include: Omaha, Nebraska, United States, North and Central America, Intracellular Signaling Peptides and Proteins, Protein-Tyrosine Kinases, Enzymes and Coenzymes, Phosphotransferases, Protein Kinases, Janus Kinase 1, Janus Kinases, Genetics, University of Nebraska.

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Three Alcohol Clinical Trials)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Clinical Research - Clinical Trials and Studies are presented in a new report. According to news reporting out of Albuquerque, New Mexico, by NewsRx editors, research stated, "This secondary data analysis examined patterns of drinking during alcohol treatment and associated drinking outcomes during the first year following treatment. The goal was to provide clinicians with guidance on which patients may be most at risk for negative long-term outcomes based on drinking patterns during treatment."

Our news journalists obtained a quote from the research from the University of New Mexico, "This study was an analysis of existing data (N = 3,851) from three randomized clinical trials for alcohol use disorder: the COMBINE Study (n = 1,383), Project MATCH (n = 1,726), and the United Kingdom Alcohol Treatment Trial (n = 742). Indicators of abstinence, non-heavy drinking, and heavy drinking (defined as 4/5 or more drinks per day for women/men) were examined during each week of treatment using repeated-measures latent class analysis. Associations between drinking patterns during treatment and drinking intensity, drinking consequences, and physical and mental health 12 months following intake were examined. Seven drinking patterns were identified. Patients who engaged in persistent heavy drinking throughout treatment and those who returned to persistent heavy drinking during treatment had the worst long-term outcomes. Patients who engaged in some heavy drinking during treatment had better long-term outcomes than persistent heavy drinkers. Patients who reported low-risk drinking or abstinence had the best long-term outcomes. There were no differences in outcomes between low-risk drinkers and abstainers. Abstinence, low-risk drinking, or even some heavy drinking during treatment are associated with the best long-term outcomes."

According to the news editors, the research concluded: "Patients who are engaging in persistent heavy drinking are likely to have the worst outcomes and may require a higher level of care."

For more information on this research see: How Much Is Too Much? Patterns of Drinking During Alcohol Treatment and Associations With Post-Treatment Outcomes Across Three Alcohol Clinical Trials. Journal of Studies on Alcohol and Drugs, 2017;78(1):59-69. Journal of Studies on Alcohol and Drugs can be contacted at: Alcohol Res Documentation Inc Cent Alcohol Stud Rutgers Univ, C, O Deirdre English, 607 Allison Rd, Piscataway, NJ 08854-8001, USA.

Our news journalists report that additional information may be obtained by contacting K. Witkiewitz, University of New Mexico, Center Alcoholism Subst Abuse & Addict, Albuquerque, NM 87131, United States. Additional authors for this research include C.R. Roos, M.R. Pearson, K.A. Hallgren, S.A. Maisto, M. Kirouac, A.A. Forcehimes, A.D. Wilson, C.S. Robinson, E. McCallion, J.S. Tonigan and N. Heather.

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Keywords for this news article include: Albuquerque, New Mexico, United States, North and Central America, Clinical Research, Drugs and Therapies, Clinical Trials and Studies, University of New Mexico.

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DNA Research

University of New Mexico Details Findings in DNA Research [Editor's Highlight: Interactive Genotoxicity Induced by Environmentally Relevant Concentrations of Benzo(a)Pyrene Metabolites and Arsenite in Mouse Thymus Cells]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on DNA Research are discussed in a new report. According to news reporting originating in Albuquerque, New Mexico, by NewsRx journalists, research stated, "Arsenic and polycyclic aromatic hydrocarbon (PAH) exposures affect many people worldwide leading to cancer and other diseases. Arsenite (As+3) and certain PAHs are known to cause genotoxicity."

The news reporters obtained a quote from the research from the University of New Mexico, "However, there is limited information on the interactions between As+3 and PAHs at environmentally relevant concentrations. The thymus is the primary immune organ for T cell development in mammals. Our previous studies showed that environmentally relevant concentrations of As+3 induce genotoxicity in mouse thymus cells through Poly(ADP-ribose) polymerase (PARP) inhibition. Certain PAHs, such as the metabolites of benzo(a)pyrene (BaP), are known to cause DNA damage by forming DNA adducts. In the present study, primary mouse thymus cells were examined for DNA damage following 18 hr in vitro treatments with 5 or 50 nM As+3 and 100 nM BaP, benzo[a]pyrene-7,8-dihydrodil (BP-Diol), or benzo[a]pyrene-7,8-dihydrodil-9,10-epoxide (BPDE). An interactive increase in genotoxicity and apoptosis were observed following treatments with 5 nM As (+) (3) + 100 nM BP-diol and 50 nM As (+) (3) + 100 nM BPDE. We attribute the increase in DNA damage to inhibition of PARP inhibition leading to decreased DNA repair. To further support this hypothesis, we found that a PARP inhibitor, 3,4-dihydro-5-[4-(1-piperidinyl) butoxy]-1(2H)-isoquinoline (DPQ), also interacted with BP-diol to produce an increase in DNA damage. Interestingly, we also found that As+3 and BP-diol increased CYP1A1 and CYP1B1 expression, suggesting that increased PAH metabolism may also contribute to genotoxicity."

According to the news reporters, the research concluded: "In summary, these results show that the suppression of PARP activity and induction of CYP1A1/CYP1B1 may act together to increase DNA damage produced by As+3 and PAHs."


Our news correspondents report that additional information may be obtained by contacting S.W. Burchiel, University of New Mexico, Coll Pharm, Dept. of Pharmaceut Sci, Albuquerque, NM 87131, United States. Additional authors for this research include F.T. Lauer, K.J. Liu, L.G. Hudson and S.W. Burchiel.

Keywords for this news article include: Albuquerque, New Mexico, United States, North and Central America, Deoxyribonucleic Acid, Benzo(a)pyrene, DNA Research, Benzopyrenes, Arsenicals, Proteomics, DNA Damage, Arsenites, Genetics, Anions, University of New Mexico.
University of North Carolina Reports Findings in Antiretrovirals (Antiretroviral activity and safety of once-daily etravirine in treatment-naive HIV-infected adults: 48-week results)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Drugs and Therapies - Antiretrovirals are presented in a new report. According to news reporting from Chapel Hill, North Carolina, by NewsRx journalists, research stated, "Etravirine (ETR), a non-nucleoside reverse transcriptase inhibitor approved for 200 mg twice-daily dosing in conjunction with other antiretrovirals (ARVs), has pharmacokinetic properties which support once-daily dosing. In this single-arm, open-label study, 79 treatment-naive HIV-infected adults were assigned to receive ETR 400 mg plus tenofovir disoproxil fumarate/emtricitabine (TDF/FTC) 300/200 mg once daily to assess antiviral activity, safety and tolerability."

The news correspondents obtained a quote from the research from the University of North Carolina, "ARV activity at 48 weeks was determined by proportion of subjects with HIV-1 RNA <50 copies/ml (intention-to-treat, missing = failure). Of 79 eligible subjects, 90% were men, 62% African-American and 29% Caucasian. At baseline, median (Q1, Q3) age was 29 years (23, 44) and HIV-1 RNA 4.52 log(10) copies/ml (4.07, 5.04). A total of 69 (87%) completed a week 48 visit and 61 (77%, 95% CI 66%, 86%) achieved HIV-1 RNA <50 copies/ml at week 48. At time of virological failure, genotypic resistance-associated mutations were detected in three participants, two with E138K (one alone and one with additional mutations). Median (95% CI) CD4(+) cell count increase was 163 (136, 203) cells/μl. Fifteen (19.0%) participants reported a new sign/symptom or lab abnormality >= Grade 3 and three participants (3.8%) permanently discontinued ETR due to toxicity. Two participants had psychiatric symptoms of any grade. There were no deaths. In this study of ARV-naive HIV-positive adults, once-daily ETR with TDF/FTC had acceptable antiviral activity and was well-tolerated."

According to the news reporters, the research concluded: "Once-daily ETR may be a plausible option as part of a combination ARV regimen for treatment-naive individuals."


Our news journalists report that additional information may be obtained by contacting M.A. Floris-Moore, University of North Carolina, Sch Med, Div Infect Dis, Chapel Hill, NC 27514, United States. Additional authors for this research include K. Mollan, A.M. Wilkin, M.A. Johnson, A.D.M. Kashuba, D.A. Wohl, K.B. Patterson, O. Francis, C. Kronk and J.J. Eron.

Keywords for this news article include: Chapel Hill, North Carolina, United States, North and Central America, Viral Sexually Transmitted Diseases and Conditions, Immune System Diseases and Conditions, Primate Lentiviruses, Drugs and Therapies, Vertebrate Viruses, Antiretrovirals, HIV Infections, Antiinfectives, Retroviridae, RNA Viruses,
University of Notre Dame Reports Findings in Molecular Ecology (Chromosomal inversions and ecotypic differentiation in Anopheles gambiae: the perspective from whole-genome sequencing)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Ecology - Molecular Ecology have been published. According to news originating from Notre Dame, Indiana, by NewsRx correspondents, research stated, "The molecular mechanisms and genetic architecture that facilitate adaptive radiation of lineages remain elusive. Polymorphic chromosomal inversions, due to their recombination-reducing effect, are proposed instruments of ecotypic differentiation."

Our news journalists obtained a quote from the research from the University of Notre Dame, "Here, we study an ecologically diversifying lineage of Anopheles gambiae, known as the Bamako chromosomal form based on its unique complement of three chromosomal inversions, to explore the impact of these inversions on ecotypic differentiation. We used pooled and individual genome sequencing of Bamako, typical (non-Bamako) An. gambiae and the sister species Anopheles coluzzii to investigate evolutionary relationships and genomewide patterns of nucleotide diversity and differentiation among lineages. Despite extensive shared polymorphism and limited differentiation from the other taxa, Bamako clusters apart from the other taxa, and forms a maximally supported clade in neighbour-joining trees based on whole-genome data (including inversions) or solely on collinear regions. Nevertheless, FST outlier analysis reveals that the majority of differentiated regions between Bamako and typical An. gambiae are located inside chromosomal inversions, consistent with their role in the ecological isolation of Bamako. Exceptionally differentiated genomic regions were enriched for genes implicated in nervous system development and signalling. Candidate genes associated with a selective sweep unique to Bamako contain substitutions not observed in sympatric samples of the other taxa, and several insecticide resistance gene alleles shared between Bamako and other taxa segregate at sharply different frequencies in these samples."

According to the news editors, the research concluded: "Bamako represents a useful window into the initial stages of ecological and genomic differentiation from sympatric populations in this important group of malaria vectors."


The news correspondents report that additional information may be obtained from N.J. Besansky, University of Notre Dame, Dept. of Biol Sci, Galvin Life Sci Center, Notre Dame, IN 46556, United States. Additional authors for this research include A.M. Steele, M.B. Coulibaly, S.F. Traore, S.J. Emrich, M.C. Fontaine and N.J. Besansky.
University of Occupational and Environmental Health Reports Findings in Mitral Valve Prolapse (Left Atrial Remodeling in Segmental vs. Global Mitral Valve Prolapse - Three-Dimensional Echocardiography)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Heart Disorders and Diseases - Mitral Valve Prolapse is now available. According to news reporting out of Kitakyushu, Japan, by NewsRx editors, research stated, "Segmental and global mitral valve prolapse (MVP) comprise 2 representative phenotypes in this syndrome. While mitral regurgitation (MR) severity is a major factor causing left atrial (LA) remodeling in MVP, prominent mitral valve (MV) annulus dilatation in global MVP may specifically cause inferiorly predominant LA remodeling."

Our news journalists obtained a quote from the research from the University of Occupational and Environmental Health, "We compared MV annulus and LA geometry in patients with segmental and global MVP. LA volume as well as inferior, middle, and superior LA cross-sectional areas (CSA) were measured on 3-D echocardiography in 20 controls, in 40 patients with segmental MVP, and in 18 with global MVP. On multivariate analysis, MR severity was primarily associated with LA dilatation in segmental MVP (P <0.001), while MV annular dilatation was primarily associated with LA dilatation in global MVP (P <0.001). Although there was no regional predominance in LA dilatation in segmental MVP, inferior predominance of LA dilatation was significant in global MVP (increase in inferior, middle, and superior LA-CSA relative to mean of the controls: +220 +/- 70% vs. +171 +/- 55% vs. + 137 +/- 37%, P<0.001). LA remodeling in segmental and global MVP is considerably different regarding its association with MR volume or MV annular dilatation and its regional predominance."

According to the news editors, the research concluded: "While MR volume may mainly contribute to LA remodeling in segmental MVP, MV annular dilatation seems to have an important role in LA remodeling in global MVP."


Our news journalists report that additional information may be obtained by contacting Y. Otsuji, University of Occupational & Environmental Health, Sch Med, Dept. of Internal Med 2, Kitakyushu, Fukuoka, Japan. Additional authors for this research include S. Fukuda, K. Mahara, S. Hei, T. Onoue, Y. Kado, Y. Nagata, M. Iwataki, K. Otani, T. Miyamoto, Y. Oginosawa, S. Sonoda, M. Eto, Y. Nishimura, S. Takanashi, R.A. Levine and Y. Otsuji.

Keywords for this news article include: Kitakyushu, Japan, Asia, Cardiovascular Diseases and Conditions, Heart Valve Diseases and Conditions, Heart Disorders and Diseases, Mitral Valve Prolapse, Heart Valve Prolapse, Echocardiography, Heart Disease, Cardiology,
University of Occupational and Environmental Health.
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Oncology - Cancer Care

University of Ostrava Details Findings in Cancer Care (Assessing needs of family members of inpatients with advanced cancer)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Oncology - Cancer Care are discussed in a new report. According to news reporting originating from Ostrava, Czech Republic, by NewsRx correspondents, research stated, "To provide high-quality and effective cancer care, problems and unmet needs of family members during their relatives' hospitalisation have to be identified as well. The aims were to determine how needs of family members of patients with terminal cancer are met and to analyse factors that influence them."

Our news editors obtained a quote from the research from the University of Ostrava, "The needs were assessed with the Family Inventory of Needs. Each item (n = 20) represents one need of family members, for which the importance and satisfaction are rated. The study comprised 270 family members of hospitalised advanced cancer patients staying in the University Hospital Ostrava who were receiving palliative care. The family members preferred sufficient basic information and patient comfort. The unmet needs were support of hope (73%) and provision of information (65%). The unmet needs were more frequently identified by women, individuals with lower education, younger persons, unemployed, patients' children and family members of patients with generally unfavourable health status (P < 0.05). There was a correlation between lower quality of life and higher numbers of unmet needs."

According to the news editors, the research concluded: "Targeted interventions aimed at meeting important needs of the family members may improve their quality of life."


The news editors report that additional information may be obtained by contacting R. Buzgova, Univ Ostrava, Dept. of Nursing & Midwifery, Fac Med, Ostrava 70030, Czech Republic. Additional authors for this research include N. Spatenkova, E. Fukasova-Hajnova and D. Feltl.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/ecc.12441. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Ostrava, Czech Republic, Europe, Cancer Care, Oncology, Cancer, University of Ostrava.

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University of Pennsylvania Hospital Reports Findings in Aneurysm
(Bicuspid Aortic Insufficiency With Aortic Root Aneurysm: Root Reimplantation Versus Bentall Root Replacement)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Cardiovascular Diseases and Conditions - Aneurysm. According to news originating from Philadelphia, Pennsylvania, by NewsRx correspondents, research stated, "In patients with a bicuspid aortic valve presenting with aortic insufficiency (AI) and root aneurysm, we assessed whether outcomes with primary cusp repair with root reimplantation were equivalent to the gold standard Bentall procedures. From 2002 to 2014, 710 patients with bicuspid aortic valve underwent aortic root procedures."

Our news journalists obtained a quote from the research from the University of Pennsylvania Hospital, "Of these, only patients presenting with noncalcified type I bicuspid aortic valve with AI (n = 165) were included to maintain anatomic and physiologic homogeneity between the groups. Aortic stenosis, endocarditis, redo root, and emergency cases were excluded. Patients undergoing valve-sparing root reimplantation (VSRR group, n = 45) were retrospectively compared with those undergoing Bentall root replacement (Bentall group, n = 120). Patients in the Bentall group were older (52 +/- 13 vs 46 +/- 12 years; p<= 0.01) and had a lower ejection fraction (0.53 +/- 0.12 versus 0.58 +/- 0.08; p< 0.01), but left ventricular diastolic diameter was similar (58 +/- 10 mm versus 57 +/- 9 mm; p = 0.5). Thirty-day and in-hospital mortality was zero; in-hospital stroke rate was 0.8% (n = 1) in the Bentall group (0 in the VSRR group; p = 0.54). Permanent pacemaker rate was 6% (n = 7) in the Bentall group (0 in the VSRR group; p = 0.2). On discharge echocardiography, AI grade <= 1+ (100%; p= 1) and transvalvular gradients (mean gradient 7 +/- 3 versus 6 +/- 3 mm Hg; p = 0.14) were similar. Mean follow-up was 7.5 +/- 3.2 and 3.4 +/- 2.9 years (p < 0.001). There were 14 transient ischemic attacks or stroke events in the Bentall group, and none in the VSRR group. One patient in each group exhibited AI >= 3+. Five-year actuarial survival (100% versus 98% +/- 2%; p = 0.8) and freedom from aortic reoperation (98% +/- 2% versus 100%; p = 0.8) were similar."

According to the news editors, the research concluded: "In patients with bicuspid aortic valve AI with root aneurysm, primary cusp repair with root reimplantation achieves equivalent midterm outcomes compared with Bentall root replacement."


The news correspondents report that additional information may be obtained from P. Vallabhajosyula, University of Pennsylvania Hospital, Div Cardiovasc Surg, Philadelphia, PA 19104, United States. Additional authors for this research include W.Y. Szeto, A. Habertheuer, C. Komlo, R.K. Milewski, F. McCarthy, N.D. Desai and J.E. Bavaria.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.athoracsur.2016.03.087. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Philadelphia, Pennsylvania, United States,
University of Pennsylvania Reports Findings in Lung Cancer (Detection of Therapeutically Targetable Driver and Resistance Mutations in Lung Cancer Patients by Next-Generation Sequencing of Cell-Free Circulating Tumor DNA)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Oncology - Lung Cancer have been published. According to news reporting originating in Philadelphia, Pennsylvania, by NewsRx journalists, research stated, "The expanding number of targeted therapeutics for non-small cell lung cancer (NSCLC) necessitates real-time tumor genotyping, yet tissue biopsies are difficult to perform serially and often yield inadequate DNA for next-generation sequencing (NGS). We evaluated the feasibility of using cell-free circulating tumor DNA (ctDNA) NGS as a complement or alternative to tissue NGS."

The news reporters obtained a quote from the research from the University of Pennsylvania, "A total of 112 plasma samples obtained from a consecutive study of 102 prospectively enrolled patients with advanced NSCLC were subjected to ultra-deep sequencing of up to 70 genes and matched with tissue samples, when possible. We detected 275 alterations in 45 genes, and at least one alteration in the ctDNA for 86 of 102 patients (84%), with EGFR variants being most common. ctDNA NGS detected 50 driver and 12 resistance mutations, and mutations in 22 additional genes for which experimental therapies, including clinical trials, are available. Although ctDNA NGS was completed for 102 consecutive patients, tissue sequencing was only successful for 50 patients (49%). Actionable EGFR mutations were detected in 24 tissue and 19 ctDNA samples, yielding concordance of 79%, with a shorter time interval between tissue and blood collection associated with increased concordance (P = 0.038). ctDNA sequencing identified eight patients harboring a resistance mutation who developed progressive disease while on targeted therapy, and for whom tissue sequencing was not possible."

According to the news reporters, the research concluded: "Therapeutically targetable driver and resistance mutations can be detected by ctDNA NGS, even when tissue is unavailable, thus allowing more accurate diagnosis, improved patient management, and serial sampling to monitor disease progression and clonal evolution."

For more information on this research see: Detection of Therapeutically Targetable Driver and Resistance Mutations in Lung Cancer Patients by Next-Generation Sequencing of Cell-Free Circulating Tumor DNA. Clinical Cancer Research, 2016;22(23):5772-5782. Clinical Cancer Research can be contacted at: Amer Assoc Cancer Research, 615 Chestnut St, 17TH Floor, Philadelphia, PA 19106-4404, USA. (American Association for Cancer Research - www.aacr.com; Clinical Cancer Research - clincancerres.aacrjournals.org/)

Our news correspondents report that additional information may be obtained by contacting E.L. Carpenter, University of Pennsylvania, Abramson Family Canc Center, Perelman Sch Med, Philadelphia, PA 19104, United States. Additional authors for this research include S.S. Yee, A.B. Troxel, S.L. Savitch, R. Fan, D. Balli, D.B. Lieberman, J.D. Morrisette,
University of Sherbrooke Details Findings in Colon Cancer (Subcellular proteomics analysis of different stages of colorectal cancer cell lines)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- New research on Oncology - Colon Cancer is the subject of a report. According to news reporting out of Sherbrooke, Canada, by NewsRx editors, research stated, "Studying cell differentiation and transformation allows a better understanding of the mechanisms involved in the initiation and the evolution of cancer. The role of proteins which participate in these processes is dependent on their location within the cell."

Financial support for this research came from Natural Sciences and Engineering Research Council of Canada.

Our news journalists obtained a quote from the research from the University of Sherbrooke, "Determining the subcellular localization of proteins or the changes in localization is, therefore, paramount in elucidating their role. Using quantitative mass spectrometry, we characterized the protein expression and subcellular localization of nearly 5000 proteins from seven different colorectal cancer (CRC) cell lines, as well as normal colon fibroblasts and intestinal epithelial cells. This cellular characterization allowed the identification of colon cancer-associated proteins with differential expression patterns as well as deregulated protein networks and pathways. Indeed, our results demonstrate differential expression of proteins involved in cell adhesion, cytoskeleton, and transcription in colon cancer cells compared to normal colon-derived cells. Pathway analyses identified different cellular functions, including endocytosis and eIF2 signaling, whose deregulation correlates with mutations found in the different CRC phenotypes."

According to the news editors, the research concluded: "Our results provide an unbiased, quantitative and high-throughput approach to measure changes in protein expression and subcellular protein locations in different CRC cell lines."

For more information on this research see: Subcellular proteomics analysis of different stages of colorectal cancer cell lines. *Proteomics*, 2016;16(23):3009-3018.


Our news journalists report that additional information may be obtained by contacting F.M. Boisvert, University of Sherbrooke, Dept. of Anat & Cell Biol, Sherbrooke, PQ J1E 4K8, Canada. Additional authors for this research include E. Ohl-Seguy, M.L. Dubois, D.
Jean, C. Jones, F. Boudreau and F.M. Boisvert.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1002/pmic.201600314. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Sherbrooke, Quebec, Canada, North and Central America, Colorectal Research, Protein Expression, Gastroenterology, Colon Cancer, Proteomics, Cell Line, Oncology, Genetics, University of Sherbrooke.

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Adenocarcinomas
University of Siena Details Findings in Adenocarcinomas (Recurrence after surgery in esophago-gastric junction adenocarcinoma: Current management and future perspectives)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Adenocarcinomas have been published. According to news reporting from Siena, Italy, by NewsRx journalists, research stated, "Recurrent esophago-gastric junction adenocarcinoma is not a rare event and its correct management is still debated. Many approaches for the treatment of these patients exist, but only few studies compare the different techniques."

The news correspondents obtained a quote from the research from the University of Siena, "Most of the studies are retrospective series and describe the experiences of single institutions in the treatment of recurrent esophageal and esophago-gastric junction cancers. Nowadays surgery is still the main and only curative treatment. Other alternative palliative therapies could be endoscopic stent placement and balloon dilation, photodynamic therapy, thermal tumor ablation (laser photoablation and Argon plasma coagulation), radiation therapy and brachytherapy, and chemotherapy."

According to the news reporters, the research concluded: "The aim of this review is to investigate the different rates, patterns and timings of recurrence of this tumor, and to explain the various approaches used for the treatment of recurrent esophago-gastric junction cancer."


Our news journalists report that additional information may be obtained by contacting C. Voglino, University of Siena, Dept. of Med Surg & Neurosci, Policinico Le Scotte, Unit Gen Surg & Surg Oncol, I-53100 Siena, Italy. Additional authors for this research include D. Marrelli, C. Voglino, G. Di Mare, F. Ferrara, M. Marini and F. Roviello.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.suronc.2016.08.003. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Siena, Italy, Europe, Adenocarcinomas, Adenocarcinoma, Surgery, University of Siena.

Our reports deliver fact-based news of research and discoveries from around the
University of Siena Reports Findings in Cardiology (Correlation of Left Atrial Strain and Doppler Measurements with Invasive Measurement of Left Ventricular End-Diastolic Pressure in Patients Stratified for Different Values of Ejection Fraction)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Cardiology are discussed in a new report. According to news originating from Siena, Italy, by NewsRx correspondents, research stated, "This study aimed at exploring the correlation of left atrial longitudinal function by speckle tracking echocardiography (left atrial strain) and Doppler measurements (E/E' ratio) with direct measurements of left ventricular (LV) end-diastolic pressure (LVEDP) in patients stratified for different values of ejection fraction. The study population was 80 stable patients with sinus rhythm undergoing cardiac catheterization."

Our news journalists obtained a quote from the research from the University of Siena, "This population was selected in order to have four groups of 20 patients each with different LV ejection fraction (>55%, 45-54%, 30-44%, and <30%). LVEDP was obtained during cardiac catheterization; peak atrial longitudinal strain (PALS) and mean E/E' ratio were measured in all subjects. Similar correlations with LVEDP of global PALS and E/E' ratio were recorded in patients with preserved (r=-0.79 vs. r=0.72, respectively; p<0.0001 for both) or mildly reduced ejection fraction (r=-0.75 vs. r=0.73, respectively; p<0.0001 for both). A closer correlation of global PALS compared to E/E' ratio was evident in patients with moderate (r=-0.78 p<0.0001; vs. r=0.47 p=0.01, respectively) and severe reduction (r=-0.74 p<0.0001; vs. r=0.19 ns, respectively) of LV ejection fraction. In multivariate analysis of all measurements, global PALS emerged as a determinant of the LVEDP, independent on other confounding factors and, with the cutoff value of 18.0% presented the best diagnostic accuracy to predict a LVEDP above 12 mmHg (AUC 0.87). In patients with preserved or mildly reduced LV ejection fraction, global PALS and mean E/E' ratio presented good correlations with LVEDP. In patients with moderate or severe reduction of ejection fraction, E/E' ratio correlated poorly with invasively obtained LV filling pressures."

According to the news editors, the research concluded: "Global PALS provided an overall better estimation of LV filling pressures."

For more information on this research see: Correlation of Left Atrial Strain and Doppler Measurements with Invasive Measurement of Left Ventricular End-Diastolic Pressure in Patients Stratified for Different Values of Ejection Fraction. Echocardiography, 2015;33 (3):398-405. Echocardiography can be contacted at: Blackwell Publishing Inc, 350 Main St, Malden, MA 02148, USA. (Wiley-Blackwell - www.wiley.com; Echocardiography - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1540-8175)

The news correspondents report that additional information may be obtained from M. Cameli, Dept. of Cardiovascular Diseases, University of Siena, Siena, Italy. Additional authors for this research include S. Sparla, M. Losito, F.M. Righini, D. Menci, M. Lisi, F. D'Ascenzi, M. Focardi, R. Favilli, C. Pierli, M. Fineschi and S. Mondillo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1111/echo.13094. This DOI is a link to an online electronic document that
Clinical Research - Clinical Trials and Studies

University of Texas Southwestern Details Findings in Clinical Trials and Studies (Statins in Primary Prevention: Uncertainties and Gaps in Randomized Trial Data)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Clinical Research - Clinical Trials and Studies are discussed in a new report. According to news reporting from Dallas, Texas, by NewsRx editors, the research stated, "Randomized controlled trials (RCTs) have provided evidence of the usefulness of statin primary prevention in lowering cardiovascular morbidity and mortality, yet uncertainties and gaps remain. The objective of this article was to perform a narrative review of RCTs of statins for primary prevention and identify uncertainties and gaps resulting from the design of individual studies."

The news correspondents obtained a quote from the research from the University of Texas Southwestern, "Such knowledge is important for informed physician-patient decisions. A literature search was conducted for RCTs of statins in primary prevention that included > 1000 general patients and clinical outcomes as a primary endpoint. A total of 11 RCTs were identified; target population baseline characteristics, outcomes measures, statistical methods, and limitations regarding follow-up were reported. RCTs of statins in primary prevention show consistent overall beneficial effects on cardiovascular morbidity and mortality. Caveats involve the characteristics of individual study populations since target populations often differ from what is currently considered primary prevention. Only middle aged and older populations were adequately represented in these RCTs; women were under-represented. Only one study included total mortality as the primary endpoint; all other RCTs used composite major adverse cardiac events as the primary endpoint, which occasionally included a hard outcome such as death and a soft outcome such as hospitalization for angina. The use of Cox proportional hazard analysis in RCTs poses some challenges, and intention-to-treat analysis may mask adverse events."

According to the news reporters, the research concluded: "An understanding of the deficiencies of individual RCTs of statins in primary prevention is important in creating a patient-specific therapeutic clinical decision and in tailoring future research."


Our news journalists report that additional information may be obtained by contacting I.A. Mansi, Univ Texas Southwestern, Div Outcomes & Hlth Serv Res, Dept. of Med & Clin Sci, Dallas, TX 75390, United States.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s40256-016-0190-3. This DOI is a link to an online electronic
University of Texas Southwestern Details Findings in Wound Infections (Risk factors for deep sternal wound infection after cardiac surgery: Influence of red blood cell transfusions and chronic infection)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Bacterial Infections and Mycoses - Wound Infections have been presented. According to news reporting originating from Dallas, Texas, by NewsRx correspondents, research stated, "Deep sternal wound infection (DSWI) following cardiac surgery is a serious complication, but risk factors associated with DSWI have not been fully elucidated. We analyzed all DSWI cases at our institution from 2010-2013 in adult cardiac median sternotomy cases, based on Society of Thoracic Surgeons or National Healthcare Safety Network definitions, but with 1-year surveillance postsurgery."

Our news editors obtained a quote from the research from the University of Texas Southwestern, "Controls were matched 3:1 per case for procedure, age, and year of surgery. Demographic and operative data were pulled from Society of Thoracic Surgeons database and chart review. Potential variables were evaluated using univariate and multivariate conditional logistic regression. Out of 1,894 surgeries performed, 39 DSWI cases (2%) and 117 controls were identified. In univariate analyses, patients with red blood cell (RBC) transfusion >= 4 units, any platelet transfusion, previous infections, and chronic infections were associated with higher DSWI. RBC transfusion >= 4 units (P = .037) and chronic infections (P = .029) remained significant risk factors for DSWI in multivariate analysis. Preoperative anemia alone was not associated with more DSWI, but its interaction with RBC transfusion >= 4 units was significant."

According to the news editors, the research concluded: "High-volume RBC transfusions and chronic infections were strongly associated with DSWI in our population and represent potentially modifiable areas for improvement."


The news editors report that additional information may be obtained by contacting P.E. Greilich, Univ Texas Southwestern Med Center Dallas, Dallas, TX 75390, United States. Additional authors for this research include N. Barros, M. McBroom, J. Luby, A. Minhajuddin, W.S. Ring and P.E. Greilich.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.ajic.2016.03.027. This DOI is a link to an online electronic document that is either free or for purchase.
Enzymes and Coenzymes - Prostate-Specific Antigen

University of Tokyo Details Findings in Prostate-Specific Antigen (Porous silicon microarray for simultaneous fluorometric immunoassay of the biomarkers prostate-specific antigen and human glandular kallikrein 2)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Enzymes and Coenzymes - Prostate-Specific Antigen. According to news originating from Tokyo, Japan, by NewsRx correspondents, research stated, "The authors have developed a porous silicon (P-Si) based duplex antibody microarray platform for simultaneous quantitation of the biomarkers prostate-specific antigen (PSA) and human glandular kallikrein 2 (hK2) in serum. Pore size-controlled P-Si surfaces have an extremely enlarged surface area that enables high-density immobilization of fluorescently labeled antibodies by physical adsorption."

Funders for this research include RIKEN, JSPS Kakenhi, Korean ministry of environment.

Our news journalists obtained a quote from the research from the University of Tokyo, "Automated microarraying of the antibodies provides a fast and reproducible duplex format of antibody arrays on the P-Si chips placed in the wells of a microtiter plate. The assay platform showed a 100 fg center dot mL(-1) limit of detection for both PSA and hK2, and a dynamic range that extends over five orders of magnitude. After optimization of the density of both capture antibodies, neither the PSA nor the hK2 array showed cross-sensitivity to non-target proteins or other plasma proteins. The microarray was evaluated by titration of PSA and hK2, respectively, in the same serum samples."

According to the news editors, the research concluded: "In our perception, this highly sensitive and selective platform holds promise for improved detection of tumor markers in an early diagnostic stage, but also to monitor the recurrence of prostate cancer."

For more information on this research see: Porous silicon microarray for simultaneous fluorometric immunoassay of the biomarkers prostate-specific antigen and human glandular kallikrein 2. Microchimica Acta, 2016;183(12):3321-3327. Microchimica Acta can be contacted at: Springer Wien, Sachsenplatz 4-6, PO Box 89, A-1201 Wien, Austria. (Springer - www.springer.com; Microchimica Acta - www.springerlink.com/content/0026-3672/)

The news correspondents report that additional information may be obtained from S. Lee, University of Tokyo, Dept. of Chem, Tokyo 1130033, Japan. Additional authors for this research include K. Hosokawa, S. Kim, O.C. Jeong, H. Lilja, T. Laurell and M. Maeda.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1007/s00604-016-1986-1. This DOI is a link to an online electronic document that is either free or for purchase.
Keywords for this news article include: Tokyo, Japan, Asia, Prostatic Secretory Proteins, Prostate-Specific Antigen, Blood Coagulation Factors, Prostate Specific Antigen, Biological Tumor Markers, Serine Endopeptidases, Enzymes and Coenzymes, Emerging Technologies, Biological Factors, Peptide Hydrolases, Neoplasm Antigens, Serine Proteases, Immunoglobulins, Blood Proteins, Porous Silicon, Nanotechnology, Kallikreins, Immunology, Hematology, Antibodies, University of Tokyo.

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Cyclohexanes

University of Verona Describes Findings in Cyclohexanes (The ketamine analogue methoxetamine generalizes to ketamine discriminative stimulus in rats)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Cyclohexanes. According to news reporting originating in Cagliari, Italy, by NewsRx journalists, research stated, "Methoxetamine (MXE) is a chemical analogue of ketamine. Originally proposed as a ketamine-like fast-acting antidepressant, owing to similar N-methyl-D-aspartate blocker properties, it is now scheduled for reports of hallucinations and psychosis similar to ketamine and lysergic acid."

The news reporters obtained a quote from the research from the University of Verona, "As little is known about the addictive properties of MXE, the aim of this study was to investigate the similarity between discriminative stimuli of MXE and ketamine, as well as to provide data and protocols that could be used in the future for the characterization of novel ketamine-like drugs. The paradigm used was a two-lever operant conditioning paradigm in which rats were trained to discriminate ketamine (7.5 mg/kg/ml, intraperitoneal) from vehicle. Generalization tests were performed with MXE (0.0625, 0.125, 0.25, 0.5, or 1.0). We also tested the N-methyl-D-aspartate channel blocker MK-801 (0.005-0.1), lysergic acid (0.025-0.30), a serotonergic drug that had similar hallucinogenic effects as ketamine and methamphetamine (0.15-0.60) a drug with no generalization with ketamine, injected intraperitoneally presession (mg/kg). MXE and MK-801 fully generalized to ketamine. Lysergic acid and methamphetamine partially substituted for the ketamine stimulus, although the highest lysergic acid dose showed a 77.7% generalization."

According to the news reporters, the research concluded: "The present findings suggest that investigation of 'ketamine-like compounds' should explore not only substances with chemical analogy and common molecular mechanisms with ketamine, but also with similar psychopharmacological effects."

For more information on this research see: The ketamine analogue methoxetamine generalizes to ketamine discriminative stimulus in rats. Behavioural Pharmacology, 2016;27(2-3 Spec I):204-10. (Lippincott Williams and Wilkins - www.lww.com; Behavioural Pharmacology - journals.lww.com/behaviouralpharm/pages/default.aspx)

Our news correspondents report that additional information may be obtained by contacting C. Chiamulera, a Neuropsychopharmacology Laboratory, Dept. of Diagnostic and Public Health, Section of Pharmacology, University of Verona, Verona bCNR Institute of Neuroscience-Cagliari, National Research Council-Italy, University of Cagliari, Cagliari, Italy. Additional authors for this research include F. Armani, A. Mutti and L. Fattore.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1097/FBP.0000000000000221. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Italy, Europe, Cagliari, Analgesics, Cyclohexanes, Hydrocarbons, Ketamine Therapy, Drugs and Therapies, General Anesthetics, Central Nervous System Agents.

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Gram-Negative Bacteria - Sinorhizobium meliloti

University of Waterloo Reports Findings in Sinorhizobium meliloti
[Genome-engineered Sinorhizobium meliloti for the production of poly(lactic-co-3-hydroxybutyric) acid copolymer]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Gram-Negative Bacteria - Sinorhizobium meliloti. According to news reporting out of Waterloo, Canada, by NewsRx editors, research stated, "Economically competitive commercial production of biodegradable bioplastics with desirable properties is an important goal. In this study, we demonstrate the use of chromosome engineering of an alternative bacterial host, Sinorhizobium meliloti, for production of the copolymer, poly(lactate-co-3-hydroxybutyrate)."

Our news journalists obtained a quote from the research from the University of Waterloo, "Codon-optimized genes for 2 previously engineered enzymes, Clostridium propionicum propionate CoA transferase (Pct532Cp) and Pseudomonas sp. strain MBEL 6-19 polyhydroxyalkanoate (PHA) synthase 1 (PhaC1400Ps6-19), were introduced into S. meliloti Rm1021 by chromosome integration, replacing the native phbC gene. On the basis of phenotypic analysis and detection of polymer product by gas chromatography analysis, synthesis and accumulation of the copolymer was confirmed. The chromosome integrant strain, with the introduced genes under the control of the native phbC promoter, is able to produce over 15% cell dry mass of poly(lactate-co-3-hydroxybutyrate), containing 30 mol% lactate, from growth on mannitol. We were also able to purify the polymer from the culture and confirm the structure by NMR and GC-MS. To our knowledge, this is the first demonstration of production of this copolymer in the Alphaproteobacteria."

According to the news editors, the research concluded: "Further optimization of this system may eventually yield strains that are able to produce economically viable commercial product."


Our news journalists report that additional information may be obtained by contacting T.T. Tran, Dept. of Biology, Faculty of Science, University of Waterloo, 200 University Avenue West, Waterloo, ON N2L 3G1, Canada.
The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1139/cjm-2015-0255. This DOI is a link to an online electronic document that is either free or for purchase.

Publisher contact information for the Canadian Journal of Microbiology is: National Research Council of Canada, NRC Communications & Corporate Relations, 1200 Montreal Road, Bldg. M-58, Ottawa, Ontario, Canada K1A 0R6.

Keywords for this news article include: Canada, Ontario, Waterloo, Genetics, Chromosomes, Engineering, Cell Nucleus, Rhizobiaceae, Intranuclear Space, Alphaproteobacteria, Cellular Structures, Intracellular Space, Gram Negative Bacteria, Gram-Negative Bacteria, Sinorhizobium meliloti, North and Central America, Gram Negative Aerobic Bacteria.

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Oncology - Mantle Cell Lymphoma

University of Wisconsin Details Findings in Mantle Cell Lymphoma (FBXO10 deficiency and BTK activation upregulate BCL2 expression in mantle cell lymphoma)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators discuss new findings in Oncology - Mantle Cell Lymphoma. According to news reporting originating from Madison, Wisconsin, by NewsRx correspondents, research stated, "Targeting Bruton tyrosine kinase (BTK) by ibrutinib is an effective treatment for patients with relapsed/refractory mantle cell lymphoma (MCL). However, both primary and acquired resistance to ibrutinib have developed in a significant number of these patients."

Our news editors obtained a quote from the research from the University of Wisconsin, "A combinatory strategy targeting multiple oncogenic pathways is critical to enhance the efficacy of ibrutinib. Here, we focus on the BCL2 anti-apoptotic pathway. In a tissue microarray of 62 MCL samples, BCL2 expression positively correlated with BTK expression. Increased levels of BCL2 were shown to be due to a defect in protein degradation because of no or little expression of the E3 ubiquitin ligase FBXO10, as well as transcriptional upregulation through BTK-mediated canonical nuclear factor-kappa B activation. RNA-seq analysis confirmed that a set of anti-apoptotic genes (for example, BCL2, BCL-XL and DAD1) was downregulated by BTK short hairpin RNA. The downregulated genes also included those that are critical for B-cell growth and proliferation, such as BCL6, MYC, PIK3CA and BAFF-R. Targeting BCL2 by the specific inhibitor ABT-199 synergized with ibrutinib in inhibiting growth of both ibrutinib-sensitive and -resistant cancer cells in vitro and in vivo."

According to the news editors, the research concluded: "These results suggest co-targeting of BTK and BCL2 as a new therapeutic strategy in MCL, especially for patients with primary resistance to ibrutinib."


The news editors report that additional information may be obtained by contacting

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1038/onc.2016.155. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Madison, Wisconsin, United States, North and Central America, Lymphatic Diseases and Conditions, Immunoproliferative Disorders, Lymphoproliferative Disorders, Mantle Cell Lymphoma, Hematology, Lymphomas, Oncology, Genetics, University of Wisconsin.

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Hematologic Diseases and Conditions - Anemia

Uppsala University Hospital Reports Findings in Anemia (A Randomized Noninferiority Trial of Intravenous Iron Isomaltoside versus Oral Iron Sulfate in Patients with Nonmyeloid Malignancies and Anemia Receiving Chemotherapy: The PROFOUND Trial)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Data detailed on Hematologic Diseases and Conditions - Anemia have been presented. According to news reporting from Uppsala, Sweden, by NewsRx journalists, research stated, "A safe alternative to erythropoiesis-stimulating agents to treat anemia is warranted in patients with cancer and anemia; thus the objective of this trial was to compare the efficacy and safety of intravenous (IV) iron isomaltoside with oral iron in patients with cancer and anemia by testing the noninferiority of IV versus oral iron. Phase III, prospective, open-label, comparative, randomized, noninferiority, multicenter trial."

Financial support for this research came from Pharmacosmos A/S.

The news correspondents obtained a quote from the research from Uppsala University Hospital, "Forty-seven hospitals or private cancer clinics in Asia, the United States, and Europe. A total of 350 patients with cancer and anemia. Patients were randomized in a 2:1 ratio to either intravenous iron isomaltoside or oral iron sulfate. Patients in the iron isomaltoside group were then randomized into an infusion subgroup (single intravenous infusions of a maximum dose of 1000 mg over 15 min) or a bolus injection subgroup (bolus injections of 500 mg over 2 min). The primary efficacy outcome was change in hemoglobin concentration from baseline to week 4. Changes in other relevant hematology variables, effect on quality of life, and safety outcomes were also assessed. The primary efficacy outcome was tested for noninferiority, whereas the remaining outcomes were tested for superiority. Iron isomaltoside was noninferior to oral iron in change in hemoglobin concentration from baseline to week 4 (difference estimate 0.016, 95% confidence interval -0.26 to 0.29, p<0.001). A faster onset of the hemoglobin response was observed with infusion of iron isomaltoside (superiority test: p=0.03 at week 1), and a sustained effect on hemoglobin level was shown in both the iron isomaltoside and oral iron treatment groups until week 24. A significant mean decrease in fatigue score was observed from baseline to week 12 in the iron isomaltoside group (p <0.001) but not in the oral iron group (p=0.057). A higher proportion of patients treated with oral iron experienced adverse drug
reactions (18.8% vs 6.6%, p<0.001) and discontinued the trial due to intolerance (8.0% vs 0.9%,
p=0.001). Transient hypophosphatemia (phosphate level less than 2 mg/dl) was reported at
similar low frequencies among the groups: 7.1% in the iron isomaltoside infusion subgroup
versus 8.5% in the iron isomaltoside bolus injection subgroup versus 5.4% in the oral iron
group. This trial demonstrated comparable sustained increases in hemoglobin concentration over
time with both iron isomaltoside and oral iron. Iron isomaltoside was better tolerated than oral
iron, and fatigue was significantly decreased with iron isomaltoside."

According to the news reporters, the research concluded: "Low rates of clinically
insignificant hypophosphatemia were reported in patients receiving both treatments."

For more information on this research see: A Randomized Noninferiority Trial of
Intravenous Iron Isomaltoside versus Oral Iron Sulfate in Patients with Nonmyeloid
Malignancies and Anemia Receiving Chemotherapy: The PROFOUND Trial.
Pharmacotherapy, 2016;36(4):402-14. Pharmacotherapy can be contacted at: IOS Press,
Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands. (Wiley-Blackwell -
www.wiley.com/; Pharmacotherapy - onlinelibrary.wiley.com/journal/10.1002/(ISSN)1875-
9114)

Our news journalists report that additional information may be obtained by
contacting G. Birgegard, Institute for Medical Sciences, Uppsala University Hospital, Uppsala,
Sweden. Additional authors for this research include D. Henry, J. Glaspy, R. Chopra, L.L.
Thomsen and M. Auerbach.

The direct object identifier (DOI) for that additional information is:
http://dx.doi.org/10.1002/phar.1729. This DOI is a link to an online electronic document that is
either free or for purchase.

Publisher contact information for the journal Pharmacotherapy is: IOS Press,
Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands.

Keywords for this news article include: Sweden, Europe, Anemia, Cancer, Uppsala,
Oncology, Hemoglobins, Chemotherapy, Blood Proteins, Hypophosphatemia, Drugs and
Therapies, Phosphorus Metabolism Disorders, Hematologic Diseases and Conditions, Hemic
and Lymphatic Diseases and Conditions, Nutritional and Metabolic Diseases and Conditions.

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**Ethylamines**

**Urmia University Details Findings in Ethylamines (The role of histamine H-1, H-2 and H-3 receptors of ventral posteromedial nucleus of thalamus in modulation of trigeminal pain)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Researchers detail new data in Ethylamines. According to news reporting originating in Orumiyeh, Iran, by NewsRx journalists, research stated, "Histamine receptors are involved in supraspinal modulation of pain. In the present study, we investigated the effects of microinjection of histamine H-1, H-2 and H-3 receptor antagonists and agonists into the ventral posteromedial (VPM) nucleus of the thalamus on two models of trigeminal pain."

The news reporters obtained a quote from the research from Urmia University, "Right and left sides of VPM were implanted with two guide cannulas. Corneal pain was induced by local corneal surface application of hypertonic saline and the number of eye wipes..."
was recorded. The duration of face rubbing, as an orofacial pain measure, was recorded after subcutaneous (s.c.) injection of capsaicin into the vibrissa pad. 2-pyridylethylamine (2-PEA, a histamine H-1 receptor agonist, 4 μg/site) and dimaprit (a histamine H-2 receptor agonist, 1 and 4 μg/site) suppressed corneal and orofacial pains. Mepyramine (a histamine H-1 receptor antagonist) and ranitidine (a histamine H-2 receptor antagonist) at the similar doses of 0.5, 2 and 8 μg/site alone had no effects on trigeminal pain. Prior microinjection of mepyramine and ranitidine at a similar dose of 8 μg/site inhibited the antinociceptive effects of 2-PEA (4 μg/site) and dimaprit (4 μg/site), respectively. Immepip (a histamine H-3 receptor agonist, 1 and 4 μg/site) increased, and thioperamide (a histamine H-3 receptor antagonist, 2 and 8 μg/site) attenuated nociceptive responses. Prior microinjection of thioperamide (8 μg/site) prevented immepip (4 μg/site)-induced nociception. These chemicals did not change locomotor behavior.

According to the news reporters, the research concluded: "It is concluded that post-synaptic histamine H-2, and to a lesser extent H-1, receptors and pre-synaptic histamine H-3 receptor may be involved in VPM modulation of trigeminal pain."


Our news correspondents report that additional information may be obtained by contacting E. Tamaddonfard, Urmia Univ, Fac Vet Med, Dept. of Basic Sci, Div Physiol, Orumiyeh 5756151818, Iran. Additional authors for this research include A. Erfanparast, H. Ghasemi, F. Henareh-Chareh, M. Hadidi, N. Mirzakhani, S. Seyedin, M. Taati, R. Salighedar, S. Salimi and F. Safaei.

Keywords for this news article include: Orumiyeh, Iran, Asia, Central Nervous System, Biogenic Monoamines, Biological Factors, Orofacial Pain, Diencephalon, Ethylamines, Histamine, Autacoids, Thalamus, Brain, Urmia University.

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Immunology - Immune System

Vanderbilt University Details Findings in Immune System (Biogenesis and Transcriptional Regulation of Long Noncoding RNAs in the Human Immune System)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Research findings on Immunology - Immune System are discussed in a new report. According to news reporting out of Nashville, Tennessee, by NewsRx editors, research stated, "The central dogma of molecular biology states that DNA makes RNA makes protein. Discoveries over the last quarter of a century found that the process of DNA transcription into RNA gives rise to a diverse array of functional RNA species, including genes that code for protein and noncoding RNAs."

Our news journalists obtained a quote from the research from Vanderbilt University, "For decades, the focus has been on understanding how protein-coding genes are regulated to
influence protein expression. However, with the completion of the Human Genome Project and follow-up ENCODE data, it is now appreciated that only 2-3% of the genome codes for protein-coding gene exons and that the bulk of the transcribed genome, apart from ribosomal RNAs, is at the level of noncoding RNA genes.

According to the news editors, the research concluded: "In this article, we focus on the biogenesis and regulation of a distinct class of noncoding RNA molecules termed long, noncoding RNAs in the context of the immune system."

For more information on this research see: Biogenesis and Transcriptional Regulation of Long Noncoding RNAs in the Human Immune System. *Journal of Immunology*, 2016;197(12):4509-4517. *Journal of Immunology* can be contacted at: Amer Assoc Immunologists, 9650 Rockville Pike, Bethesda, MD 20814, USA. (The American Association of Immunologists - www.aai.org; Journal of Immunology - www.jimmunol.org)

Our news journalists report that additional information may be obtained by contacting T.M. Aune, Vanderbilt University, Dept. of Med, Sch Med, Nashville, TN 37232, United States. Additional authors for this research include P.S. Crooke and T.M. Aune.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.4049/jimmunol.1600970. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Immunology, Article Review, Hemic and Immune Systems, Vanderbilt University.

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Vanderbilt University Reports Findings in Pulmonary Hypertension (Clinical and Biological Insights Into Combined Post- and Pre-Capillary Pulmonary Hypertension)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Fresh data on Lung Diseases and Conditions - Pulmonary Hypertension are presented in a new report. According to news reporting from Nashville, Tennessee, by NewsRx journalists, research stated, "Pulmonary hypertension (PH) is a common and morbid complication of left heart disease with 2 subtypes: isolated post-capillary pulmonary hypertension (Ipc-PH) and combined post-capillary and pre-capillary pulmonary hypertension (Cpc-PH). Little is known about the clinical or physiological characteristics that distinguish these 2 subphenotypes or if Cpc-PH shares molecular similarities to pulmonary arterial hypertension (PAH)."

The news correspondents obtained a quote from the research from Vanderbilt University, "The goal of this study was to test the hypothesis that the hemodynamic and genetic profile of Cpc-PH would more closely resemble PAH than Ipc-PH. Vanderbilt University's electronic medical record linked to a DNA biorepository was used to extract demographic characteristics, clinical data, invasive hemodynamic data, echocardiography, and vital status for all patients referred for right heart catheterization between 1998 and 2014. Shared genetic variants between PAH and Cpc-PH compared with Ipc-PH were identified by using pre-existing single-nucleotide polymorphism data. A total of 2,817 patients with PH (13% Cpc-PH, 52% Ipc-...
PH, and 20% PAH) were identified. Patients with Cpc-PH were on average 6 years younger, with more severe pulmonary vascular disease than patients with Ipc-PH, despite similar comorbidities and prevalence, severity, and chronicity of left heart disease. After adjusting for relevant covariates, the risk of death was similar between the Cpc-PH and Ipc-PH groups (hazard ratio: 1.14; 95% confidence interval: 0.96 to 1.35; p = 0.15) when defined according to diastolic pressure gradient. We identified 75 shared exonic single-nucleotide polymorphisms between Cpc-PH and PAH enriched in pathways involving cell structure, extracellular matrix, and immune function. These genes are expressed, on average, 32% higher in lungs relative to other tissues. Patients with Cpc-PH develop pulmonary vascular disease similar to patients with PAH, despite younger age and similar prevalence of obesity, diabetes mellitus, and left heart disease compared with patients with Ipc-PH."

According to the news reporters, the research concluded: "An exploratory genetic analysis in Cpc-PH identified genes and biological pathways in the lung known to contribute to PAH pathophysiology, suggesting that Cpc-PH may be a distinct and highly morbid PH subphenotype."

For more information on this research see: Clinical and Biological Insights Into Combined Post- and Pre-Capillary Pulmonary Hypertension. Journal of the American College of Cardiology. 2016;68(23):2525-2536. Journal of the American College of Cardiology can be contacted at: Elsevier Science Inc, 360 Park Ave South, New York, NY 10010-1710, USA.


The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.jacc.2016.09.942. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Nashville, Tennessee, United States, North and Central America, Hemodynamics, Risk and Prevention, Epidemiology, Cardiovascular Physiological Phenomena, Cardiovascular Physiological Processes, Cardiovascular Diseases and Conditions, Vascular Diseases and Conditions, Heart Disorders and Diseases, Lung Diseases and Conditions, Pulmonary Hypertension, Heart Disease, Hematology, Genetics, Vanderbilt University.

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of patients benefit despite patient selection for RAS wild type (wt) tumors."

Our news journalists obtained a quote from the research from Virginia University Medical Center, "Based on the hypothesis that tumor targeting is required for clinical benefit of anti-EGFR treatment, biodistribution and tumor uptake of (89)Zr-cetuximab by Positron Emission Tomography (PET), combining the sensitivity of PET with the specificity of cetuximab for EGFR was evaluated. Ten patients with wt K-RAS mCRC received 37 ? 1 MBq (89)Zr-cetuximab directly (<2 h) after the first therapeutic dose of cetuximab. PET-scans were performed from 1 hour to 10 days post injection (p.i.). Biodistribution was determined for blood and organs. Uptake in tumor lesions was quantified by Standardized Uptake Value (SUV) and related to response. In 6 of 10 patients (89)Zr-cetuximab uptake in tumor lesions was detected. Four of 6 patients with (89)Zr-cetuximab uptake had clinical benefit, while progressive disease was observed in 3 of 4 patients without (89)Zr-cetuximab uptake. Taken together, tumor uptake of 89Zr-cetuximab can be visualized by PET imaging."

According to the news editors, the research concluded: "The strong relation between uptake and response warrants further clinical validation as an innovative selection method for cetuximab treatment in patients with wt RAS mCRC."

For more information on this research see: 89Zr-cetuximab PET imaging in patients with advanced colorectal cancer. Oncotarget, 2015;6(30):30384-93.

The news correspondents report that additional information may be obtained from C.W. Menke-van der Houven van Oordt, Dept. of Medical Oncology, VU University Medical Center, Amsterdam, Netherlands. Additional authors for this research include E.C. Gootjes, M.C. Huisman, D.J. Vugts, C. Roth, A.M. Luik, E.R. Mulder, R.C. Schuit, R. Boellaard, O.S. Hoekstra, G.A. van Dongen and H.M Verheul.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.18632/oncotarget.4672. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Antineoplastic Monoclonal Antibodies, Biotechnology, Pharmaceuticals, Europe, Oncology, Amsterdam, Cetuximab, Netherlands, Colon Cancer, EGFR Inhibitors, Gastroenterology, Membrane Proteins, Colorectal Research, Drugs and Therapies, Tyrosine Kinase Inhibitors, Epidermal Growth Factor Receptor.

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Membrane Proteins - Porins

Visualizing gene expression with MRI

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Genes tell cells what to do -- for example, when to repair DNA mistakes or when to die--and can be turned on or off like a light switch. Knowing which genes are switched on, or expressed, is important for the treatment and monitoring of disease. Now, for the first time, Caltech scientists have developed a simple way to visualize gene expression in cells deep inside the body using a common imaging technology.

Researchers in the laboratory of Mikhail Shapiro, assistant professor of chemical engineering and Heritage Medical Research Institute Investigator, have invented a new method to link magnetic resonance imaging (MRI) signals to gene expression in cells--including tumor cells--in living tissues. The technique, which eventually could be used in humans, would allow gene expression to be monitored non-invasively, requiring no surgical procedures such as
biopsies.

The work appears in the December 23 online edition of the journal *Nature Communications*.

In MRI, hydrogen atoms in the body--atoms that are mostly contained in water molecules and fat--are excited using a magnetic field. The excited atoms, in turn, emit signals that can be used to create images of the brain, muscle, and other tissues, which can be distinguished based on the local physical and chemical environment of the water molecules. While this technique is widely used, it usually provides only anatomical snapshots of tissues or physiological functions such as blood flow rather than observations of the activity of specific cells.

"We thought that if we could link signals from water molecules to the expression of genes of interest, we could change the way the cell looks under MRI," says Arnab Mukherjee, a postdoctoral scholar in chemical engineering at Caltech and co-lead author on the paper.

The group turned to a protein that naturally occurs in humans, called aquaporin. Aquaporin sits within the membrane that envelops cells and acts as a gatekeeper for water molecules, allowing them to move in and out of the cell. Shapiro's team realized that increasing the number of aquaporins on a given cell made it stand out in MRI images acquired using a common clinical technique called diffusion-weighted imaging, which is sensitive to the movement of water molecules. They then linked aquaporin to genes of interest, making it what scientists call a reporter gene. This means that when a gene of interest is turned on, the cell will overexpress aquaporin, making the cell look darker under diffusion-weighted MRI.

The researchers showed that this technique was successful in monitoring gene expression in a brain tumor in mice. After implanting the tumor, they gave the mice a drug to trigger the tumor cells to express the aquaporin reporter gene, which made the tumor look darker in MRI images.

"Overexpression of aquaporin has no negative impact on cells because it is exclusive to water and simply allows the molecules to go back and forth across the cell membrane," Shapiro says. Under normal physiological conditions the number of water molecules entering and exiting an aquaporin-expressing cell is the same, so that the total amount of water in each cell does not change. "Aquaporin is a very convenient way to genetically change the way that cells look under MRI."

Though the work was done in mice, it has the potential for clinical translation, according to Shapiro. Aquaporin is a naturally occurring gene and will not cause an immune reaction. Previously developed reporter genes for MRI have been much more limited in their capabilities, requiring the use of specific metals that are not always available in some tissues.

"An effective reporter gene for MRI is a 'holy grail' in biomedical imaging because it would allow cellular function to be observed non-invasively," says Shapiro. "Aquaporins are a new way to think about this problem. It is remarkable that simply allowing water molecules to more easily get into and out of cells in a tissue gives us the ability to remotely see those cells in the middle of the body."

Keywords for this news article include: Genetics, Genomics, Aquaporins, Reporter Gene, Carrier Proteins, Chemical Engineering, Membrane Glycoproteins, Membrane Proteins - Porins, Membrane Transport Proteins, California Institute of Technology.

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**Lymphocytes**

**Wayne State University leads groundbreaking research on preterm birth**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- DETROIT - Preterm birth -- birth before 37 weeks of pregnancy -- affects up to one in every six births in the United States and many other countries. It is the number one cause of infant death and long-term illnesses and imposes heavy social and economic burdens. Although preterm birth is a complex condition, infection of the mother and ensuing inflammation in pregnancy are very common triggers.

In a recent study published in the premier biomedical research journal Nature Medicine, a team of researchers led by Wayne State University's Kang Chen, Ph.D., assistant professor of obstetrics and gynecology in the School of Medicine, discovered the critical function of a type of mother's immune cells -- B lymphocytes -- in resisting preterm birth triggered by inflammation.

According to Chen, B lymphocytes make antibodies to defend the body against infections, but scientists and clinicians have always thought these cells are rare or absent in the uterine lining and not important for pregnancy.

Chen's lab discovered that in late pregnancy, mothers' B lymphocytes not only reside in the uterine lining in both humans and mice, but also detect inflammation and uterine stress, which are major causes of preterm birth, and in turn, produce molecules -- including one called PIBF1 -- to suppress uterine inflammation and premature birth.

"This study not only reveals the long-neglected function of B lymphocytes in promoting healthy pregnancy, but also supports therapeutic approaches of using B lymphocyte-derived molecules -- such as PIBF1 -- to prevent or treat preterm birth," said Chen.

Chen's team has performed proof-of-concept and efficacy studies in animal models, and with the help of the Wayne State University's Technology Commercialization Office, filed a patent for this potential therapeutic approach.

"It is truly remarkable that Kang has independently convened and led a team of outstanding scientists to accomplish this original and impressive tour de force, especially considering the many challenges he has encountered in the process," said Chen's collaborators, who included scientists and clinicians from Wayne State University, Beaumont Hospital Dearborn, Yale University, Memorial Sloan-Kettering Cancer Center, Washington University in St. Louis and Icahn School of Medicine at Mount Sinai. The lead authors are Wayne State postdoctoral fellows Bihui Huang and Azure Faucette, who have both assumed independent positions in academia.

Keywords for this news article include: Antibody-Producing Cells, Immunology, Blood Cells, Inflammation, B-Lymphocytes, Mononuclear Leukocytes, Hemic and Immune Systems, Wayne State University - Office of the Vice President for Research.

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Weight loss reduces psoriasis symptoms

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Weight loss has a significant and prolonged positive impact on psoriasis symptoms and quality of life. The findings stem from a study conducted by Herlev and Gentofte Hospital, in collaboration with the University of Copenhagen's Department of Nutrition, Exercise and Sports and other participants. The results are published in The American Journal of Clinical Nutrition, an internationally renowned scientific journal.

Sixty test-subjects, obese and affected by psoriasis, lost an average of fifteen kilos over a sixteen-week period while improving their quality of life and reducing the severity of their psoriasis. Upon follow up, one year later, the subjects remained ten kilos below their starting weights, and improvements in their psoriasis symptoms and quality of life were maintained.

"150,000 Danes suffer from varying degrees of psoriasis," explains the study's project manager, Professor and Senior Physician Lone Skov, Herlev and Gentofte Hospital, Department of Dermatology and Allergy, University of Copenhagen. We know that there is a connection between being overweight and psoriasis; being more overweight makes the disease worse.

Skov is supported by article co-author, Professor Arne Astrup, of the University of Copenhagen's Department of Nutrition, Exercise and Sports: "We know that both psoriasis and obesity are linked with an increased incidence of coronary heart disease, high blood pressure, high cholesterol and diabetes. If we could get obese psoriasis patients to lose weight and keep the weight off, we could potentially derive positive effects on their overall health and quality of life as well."

A study conducted in 2012 lead to obese test subjects with psoriasis losing between 10-15% of their starting weights. The study demonstrated that there was a tendency for weight loss to reduce the severity of psoriasis among the subjects. Furthermore, the study clearly demonstrated that weight loss lead to a significantly better quality of life - with a lasting effect.

"When we revisited test subjects one year later, they had only regained five kilos. Thus, they remained ten kilos beneath their starting weights. This was impressive in and of itself, but it was even more positive that they had maintained the effects of their initial weight loss with regards to the diminished severity of their psoriasis and quality of life," explains Dr. Peter Jensen, senior resident, ph.d. at Herlev and Gentofte Hospital, University of Copenhagen.

Professor Arne Astrup points to the relevance of the results for psoriasis treatment: "The results underscore the importance of focusing on weight loss as one element in a broad spectrum approach to effective psoriasis treatment for overweight patients. A by-product of weight loss might be a reduction of the complications associated with obesity. This results in a significant effect on the overall well-being of patients."

Keywords for this news article include: Hospital, Psoriasis, Bariatrics, Dermatology, Quality of Life, Diet and Nutrition, Obesity and Diabetes, Papulosquamous Skin Diseases and Conditions, Faculty of Science - University of Copenhagen, Nutritional and Metabolic Diseases and Conditions - Obesity.

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Whitestone Feeds, Inc.

Whitestone Feeds, Inc. Announces Voluntary Recall of all JES Premium 40 Tubs due to Potential Health Risk

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Whitestone Feeds, Inc. has initiated a voluntary recall of a single product from its beef cattle feed line. Effective immediately, all JES Premium 40 Tubs are being recalled. A farm located in Alabama reported that five of its beef cows died after having access to the subject batch of cattle tubs. Samples from the subject batch were assayed following a customer complaint.

While the exact cause of the death remains under investigation, elevated levels of non-protein nitrogen (NPN) may be the cause. Cattle exposed to elevated NPN may exhibit rapid breathing, tremors and slight incoordination followed by severe incoordination, excessive salivation and labored breathing. Eventually, afflicted animals lose the ability to stand. Generally, if not treated, animals may die within four hours. If producers have animals that have consumed this product and have any of these symptoms, producers should contact their local veterinarian for assistance. In a precautionary move to prevent any further loss of livestock, this particular product will be removed from the line and unavailable for purchase until further notice.

The beef cattle product subject to this recall was purchased by two distributors, one in Georgia and one in Alabama, who resold the product to farm supply dealers and ranchers located in Mississippi, Alabama, Georgia, Florida and Illinois.

The cattle feed subject to this recall can be identified by its label, which describes the product as "JES Premium 40 Tub" and includes the product number JES 3104-8. The subject batch was manufactured between September 29 to December 15, 2016, and packaged in 250-pound blue plastic tubs.

Cattle producers who have purchased JES Premium 40 Tub labeled as product number JES 3104-8 should discontinue use of the product and return any unused tubs to the place of purchase for a refund of the purchase price. Producers should contact their veterinarian for assistance if their cattle have consumed from tubs of product number JES 3104-8.

Cattle producers with questions concerning this recall may contact Whitestone Feeds, Inc. at HYPERLINK "mailto:hardin@integrityfeeds.com" hardin@integrityfeeds.com or by calling (270) 970-0787 Monday through Friday 8 am - 5 pm, Central Time.

This voluntary recall is being made with the knowledge of the Food and Drug Administration.

Keywords for this news article include: Veterinarian, Whitestone Feeds Inc.

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Heart Disorders and Diseases - Heart Failure

With $8.6 million grant from NIH, UCLA-led consortium will map the heart’s nervous system

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A consortium directed by UCLA’s Dr. Kalyanam Shivkumar has received a
three-year, $8.6 million grant from the National Institutes of Health to map the heart's nervous system. The group's goal: To conduct research that leads to new ways to treat cardiovascular disease by targeting nerves in the heart's nervous system.

More than 800,000 people in the U.S. die each year from cardiovascular diseases such as heart failure, arrhythmia and hypertension. These problems often are linked to the autonomic nervous system, the part of the nervous system that signals the heart to beat and controls breathing, digestion and other body processes that typically happen without conscious effort.

Researchers believe that modulating those electrical signals holds promise as a way to treat heart failure and other common cardiovascular problems.

"Understanding the nervous system's control of the heart is such a complex problem that it requires a collaborative approach, and we're pleased that so many experts are coming together for this initiative," said Shivkumar, the study's lead investigator and director of the UCLA Cardiac Arrhythmia Center and Electrophysiology Programs. "Our goal is to precisely map the heart's anatomy and code the function of the nerves that control the heart from a very basic level all the way to clinical studies in humans."

UCLA is one of seven institutions participating in the project. Principal investigators at the other universities are Dr. Viviana Gradinaru of Caltech, Dr. Stephen Liberles of Harvard University, Dr. Charless Fowlkes of UC Irvine, Dr. Irving Zucker of the University of Nebraska Medical Center, Dr. Beth Habecker of Oregon Health and Science University and Dr. David Paterson of Oxford University.

The information the consortium produces could point the way to new therapies that target neural structures, and it could suggest ways for scientists to create more effective electrical stimulation therapies based on the methods being used today, said Shivkumar, who is also chief of the UCLA Cardiovascular Interventional programs and a professor of medicine, radiology and bioengineering at the David Geffen School of Medicine at UCLA.

"Understanding how the nervous system controls the heart offers researchers a tremendous opportunity to open up new paths to treat cardiac disease," said Dr. Kelsey Martin, dean of the David Geffen School of Medicine. "We are thrilled that our UCLA team is leading the charge on this exciting new research."

The award is from an NIH program called Stimulating Peripheral Activity to Relieve Conditions, or SPARC, which supports research on how the electrical signals of the peripheral nerves that connect the brain and spinal cord to the rest of the body control internal organ function. The UCLA-led consortium is one of 27 multidisciplinary research teams that received SPARC awards in 2016; the grants totaled more than $20 million.

Keywords for this news article include: Cardiology, Heart Disease, Cardiovascular Diseases and Conditions, Government Agencies Offices and Entities, Heart Disorders and Diseases - Heart Failure, University of California - Los Angeles Health Sciences.

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Enzymes and Coenzymes - Phosphotransferases…

Yeungnam University Reports Findings in Phosphotransferases (Alcohol Group Acceptor) (Activated protein C prevents methylglyoxal-induced endoplasmic reticulum stress and cardiomyocyte apoptosis via...
regulation of the AMP-activated protein kinase ...)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A new study on Enzymes and Coenzymes - Phosphotransferases (Alcohol Group Acceptor) is now available. According to news reporting out of Daegu, South Korea, by NewsRx editors, research stated, "Previous epidemiological studies have shown that methylglyoxal (MGO) levels are highly regulated in diabetic cardiovascular diseases. We have also previously reported that MGO mediates ER stress and apoptosis in cardiomyocytes."

Financial supporters for this research include Medical Research Center Program, Basic Science Research Program, National Research Foundation of Korea, Ministry of Science, ICT and Future Planning.

Our news journalists obtained a quote from the research from Yeungnam University, "Furthermore, activated protein C (APC) has recently been shown to play a protective role against ER stress, as well as a cardioprotective role against ischemia and reperfusion injury by augmenting the AMP-activated protein kinase (AMPK) signaling pathway. Therefore, we hypothesized that APC protects against MGO-induced cardiomyocyte apoptosis through the inhibition of ER stress. Our results showed that APC inhibited MGO-induced cardiomyocyte apoptosis and ER stress related gene expression. Additionally, APC inhibited MGO-induced Ca2+ mobilization and the generation of reactive oxygen species. In contrast, inhibitors of AMPK signaling abolished the cytoprotective effects of APC. Collectively, these data depict a pivotal role for AMPK signaling in inhibiting ER stress responses via the activation of APC during MGO-induced cardiomyocyte apoptosis."

According to the news editors, the research concluded: "Thus, APC may be a potential novel therapeutic target for the management of diabetic cardiovascular complications such as diabetic cardiomyopathy."

For more information on this research see: Activated protein C prevents methylglyoxal-induced endoplasmic reticulum stress and cardiomyocyte apoptosis via regulation of the AMP-activated protein kinase signaling pathway. Biochemical and Biophysical Research Communications, 2016;480(4):622-628. Biochemical and Biophysical Research Communications can be contacted at: Academic Press Inc Elsevier Science, 525 B St, Ste 1900, San Diego, CA 92101-4495, USA. (Elsevier - www.elsevier.com; Biochemical and Biophysical Research Communications - www.journals.elsevier.com/biochemical-and-biophysical-research-communications/)

Our news journalists report that additional information may be obtained by contacting C.H. Woo, Yeungnam University, Smart Aging Convergence Res Center, Coll Med, Daegu, South Korea. Additional authors for this research include J.H. Han, S. Kim, Y. Shin, J.H. Lim, H.C. Choi and C.H. Woo.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1016/j.bbrc.2016.10.106. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Daegu, South Korea, Asia, Intracellular Signaling Peptides and Proteins, Phosphotransferases (Alcohol Group Acceptor), Protein-Serine-Threonine Kinases, AMP-Activated Protein Kinases, Cardiology, Epidemiology, Enzymes and Coenzymes, Enzyme Precursors, Cardiovascular, Blood Proteins, Endocrinology, Glycoproteins, Cardiomyocyte, Protein C, Apoptosis, Diabetes, Genetics, Yeungnam University.

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Yonsei University Reports Findings in Anemia [Albuminuria as a Risk Factor for Anemia in Chronic Kidney Disease: Result from the KoreaN Cohort Study for Outcomes in Patients With Chronic Kidney Disease (KNOW-CKD)]

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Investigators publish new report on Hematologic Diseases and Conditions - Anemia. According to news originating from Seoul, South Korea, by NewsRx correspondents, research stated, "Anemia is a common complication among patients with chronic kidney disease (CKD), and it is associated with unfavorable clinical outcomes in patients with CKD independent of the estimated glomerular filtration rate (eGFR). We assessed the association of the urinary albumin-to-creatinine ratio (ACR) and eGFR with anemia in CKD patients."

Our news journalists obtained a quote from the research from Yonsei University, "We conducted a cross-sectional study using baseline data from the KoreaN Cohort Study for Outcome in Patients With Chronic Kidney Disease (KNOW-CKD). Multiple regression analysis was performed to identify the independent association of albuminuria with anemia. Furthermore, odds ratios for anemia were calculated by cross-categorization of ACR and eGFR. Among 1,456 patients, the mean age was 53.5 ± 12.4 years, and the mean eGFR and ACR were 51.9 ± 30.5 mL/min per 1.73 m2 and 853.2 ± 1,330.3 mg/g, respectively. Anemia was present in 644 patients (40.5%). Multivariate analysis showed that the odds ratio of anemia increased according to ACR levels, after adjusting for age, sex, eGFR, body mass index, pulse pressure, cause of CKD, use of erythropoiesis stimulating agents, serum calcium and ferritin (ACR <30 mg/g as a reference group; 30-299 mg/g, adjusted odds ratio (OR)=1.43, 95% confidence interval (CI)=0.88-2.33; (>)300 mg/g, adjusted OR=1.86, 95% CI=1.12-3.10). In addition, graded associations were observed in cross-categorized groups of a higher ACR and eGFR compared to the reference group with an ACR <30 mg/g and eGFR (>)60 mL/min per 1.73 m2."

According to the news editors, the research concluded: "The present study demonstrated that albuminuria was a significant risk factor for anemia in CKD patients independent of the eGFR."

For more information on this research see: Albuminuria as a Risk Factor for Anemia in Chronic Kidney Disease: Result from the KoreaN Cohort Study for Outcomes in Patients With Chronic Kidney Disease (KNOW-CKD). Plos One, 2015;10(10):e0139747. (Public Library of Science - www.plos.org; Plos One - www.plosone.org)

The news correspondents report that additional information may be obtained from J.S. Han, Dept. of Internal Medicine, College of Medicine, Yonsei University, Seoul, South Korea. Additional authors for this research include M.J. Lee, K.S. Park, S.H. Han, T.H. Yoo, K.H. Oh, S.K. Park, J. Lee, Y.Y. Hyun, W. Chung, Y.H. Kim, C. Ahn and K.H Choi.

The direct object identifier (DOI) for that additional information is: http://dx.doi.org/10.1371/journal.pone.0139747. This DOI is a link to an online electronic document that is either free or for purchase.

Keywords for this news article include: Asia, Seoul, Anemia, South Korea, Risk and Prevention, Hematologic Diseases and Conditions, Hemic and Lymphatic Diseases and Conditions.

Our reports deliver fact-based news of research and discoveries from around the
"Detection Kit for Identifying Genotype in Depression Patients and Method of Using the Same" in Patent Application Approval Process (USPTO 20160369341)

By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent application by the inventors E, Wen (Beijing, CN); Kong, Qingmei (Beijing, CN); Zhang, Xiaojing (Beijing, CN); Shao, Hong (Beijing, CN); Zhao, Zhenguo (Beijing, CN); Liu, Shuping (Beijing, CN); Li, Maomao (Beijing, CN); Tian, Xinxia (Beijing, CN), filed on December 16, 2015, was made available online on December 29, 2016, according to news reporting originating from Washington, D.C., by NewsRx correspondents.

This patent application has not been assigned to a company or institution.

The following quote was obtained by the news editors from the background information supplied by the inventors: "A common problem in treating depression patients is that an antidepressant drug may be very effective on some patients, but much less effective or completely ineffective on others, due to the reason of their genome differences. There are many manifestations of human genome on a single base mutation, i.e., a single nucleotide polymorphism (SNP). Single nucleotide polymorphism on the genome is a single nucleotide mutation on the formation of genetic markers. There are many forms of polymorphisms. Therefore, SNP became the third generation of genetic markers. Many human phenotypic differences, drug or disease susceptibility, etc., may be associated with SNP.

"Depression is currently the world's fourth largest disease. By 2020, it could become the second largest disease after heart disease and is becoming a serious global problem. Studies suggest that depression may be related to low content of central noradrenaline (NA), 5-hydroxytryptamine (5-HT), dopamine (DA), monoamine oxidase (MAO) and other chemicals or a receptor dysfunction. Since 1950's, development in antidepressant drugs has grown rapidly. Clinical treatment of depression has also made great progress. Stahl divided antidepressants into seven categories. Among them, serotonin reuptake inhibitors (SSRI) are the most widely used first-line antidepressant drugs in Europe and the United States to treat depression. (Stahl, 1998)

"In 1988, Eli Lilly Company introduced the first selective SSRI-fluoxetine. The mechanism of SSRIs is mainly through selective inhibition of presynaptic neurons serotonin (5-HT) pump in 5-HT reuptake, thereby increasing the synaptic concentration of 5-HT, to enhance 5-HT system function and achieve an antidepressant effect. SSRIs almost does not affect other nerve receptors (such as histamine receptors, acetylcholine receptors, adrenergic receptors, fast sodium channel, NE reuptake pumps, etc.), so action sites of SSRIs, compared to other conventional antidepressants, make them markedly faster, with smaller dosage, and significantly lower side effects (Kessler 2003, Nememff 2004, Finchfeld 2004, Masand 2002). Currently, SSRIs have reached more than 30 kinds, including fluoxetine, fluvoxamine, paroxetine (Paxil), sertraline (Zoloft), zimeldine, citalopram, and trazodone. Although there is no common chemical structure, they have common pharmacological characteristics: inhibit neuronal reuptake of 5-HT, while having almost no significant impact on the other neurotransmitters.

"SSRIs commonly used clinical dosage

"Sertraline treatment of depression: 1 time a day, 50 mg/time. The therapeutic dose range is 50 mg.about.100 mg for a day.
"Daily doses of fluoxetine hydrochloride is 20 mg:

"Paroxetine daily dose is 20 mg, taken once in the morning; adjustment in 10 mg increments 2 to 3 weeks after initial dose according to the disease; maximum daily dose is 50 mg. Elderly patients should not exceed the maximum dose of 40 mg daily. If taken for long term, a gradual reduction is needed with no abrupt stop.

"Fluvoxamine daily dose is 100mg; 1 to 2 times daily with meals or after meals; dose adjustment should not exceed 300 mg daily.

"Citalopram, initial dose 20 mg for adults; may be increased to 40 mg; if necessary, may be increased to 60 mg; Halved in patients below 65 years of age;

"Escitalopram, initial dose is 10 mg daily; may increase to 20 mg daily after a week; orally in the morning or in the evening. Under normal circumstances a full therapy should take months or even longer. Elderly patients or hepatic dysfunction once 10 mg daily; no need for dose adjustment for mild or moderate renal insufficiency patients. Severe renal insufficiency should take caution.

"Although SSRIs made great progress in the clinical treatment of depression, the long-term efficacy in a large number of patients showed that there is a big difference using SSRIs alone in the clinical treatment of depression patients. For patients that SSRIs treatment effect was not obvious, clinically they were treated with low dose (0.5-1.5 mg/day) risperidone, combined with SSRIs treatment for a short term (1-2 days). Most patients treated with this method showed a very good therapeutic effect (O'Connor and Silver, 1998; Ostroff and Nelson, 1999). Adding risperidone can improve the efficacy of antidepressant SSRIs. But this remarkable efficacy is not shown in all patients (Gerard J Marek, 2003). Researchers conducted genomics study and suggested that this phenomenon is associated closely with the patient gene polymorphisms, such as cytochrome P450 enzyme polymorphism, serotonin receptor gene polymorphism and so on.

"5-HT.sub.2A receptor gene is located on chromosome 13q14.21. It has three exons and two introns. Turechi and other researchers suggested that brain 5-HT.sub.2A receptor density is correlated with 5-HT.sub.2A receptor gene polymorphism. Currently found in a variety of polymorphism in the gene, 1438G/A (rs6311C/T) polymorphism is the only 5-HT.sub.2A receptor in the promoter region of the structural gene polymorphic variation, affecting the promoter activity. The promoter is a key transcription site. The difference in its sequence may result in different transcriptional changes, affecting the number of receptors, conformation, and binding function, leading to the central nervous system neurotransmitters and receptors changes and presynaptic changes, such as neurotransmitter synthesis, release, metabolism, and (or) re-uptake, and postsynaptic changes, such as receptors, conversion agent (G-protein), second messenger (phosphatidylinositol cyclase system) changes and ion transport abnormalities, which in turn will affect the efficacy of SSRIs.

"In recent years, there have been many studies on rs6311 polymorphism and mood disorders, but the results lack of consistency. In a study in Asia, it was found that 5-HT.sub.2A receptor gene 1438G/A polymorphism is correlated with paroxetine and fluoxetine treatment response. The treatment has better effects on 1438G/G genotype patients. In a study in Korea, 1438G/G genotype patients showed better response to citalopram. Moreover, this result was validated in a study in the Chinese Han population. In 2009, it was reported the 5-HT.sub.2A rs6311 frequency increases at C allele and decreases at T allele in neurological disorders in Han population, and the frequency increase in patients with depression are prevalent. There are a lot of data to suggest 5-HT.sub.2A receptor gene rs6311 polymorphism is associated with SSRIs efficacy and it is speculated that T allele, TT genotype may be a predictor of poor efficacy. In a Beijing Han population survey, T allele frequency is 48.8%; TT and TC genotypes were 69.8%
among the population. (See rs6311 polymorphism population distribution in FIG. 1)

"A study found that, SSRIs reduced 5-HT.sub.2A receptor expression (Yatham et al., 1999). Meanwhile, other studies indicated that long-term use of blocking presynaptic membrane on 5-HT reuptake effects of SSRIs can cause a decrease in cortical 5-HT.sub.2A receptor density. Glennon and Dukat reported SSRIs is correlated with a reduction in 5-HT.sub.2A receptor reaction rate (Glennon et al., 1995). Accordingly, it is hypothesized that locus in rs6311 T allele. TT genotype may reduce 5-HT.sub.2A receptor expression or its reactivity with SSRIs. The use of specific 5-HT.sub.2A receptor antagonist agent may improve the treatment of depression.

"SSRIs in combination with low-dose risperidone (0.5-1 mg/day) can significantly improve most of the patient's symptoms in 1-2 days. (O'Connor and Silver, 1998; Ostroff and Nelson, 1999). Risperidone may be completely digested after oral administration, reach peak plasma concentration within 1-2 hours, and its digestion is not affected by food. Risperidone is a monoaminergic antagonist with unique selectivity properties, which has high affinity with 5-HT.sub.2A receptors. Risperidone binding capacity with 5-HT.sub.2A receptor is far greater than with 5-HT.sub.1A and 5-HT.sub.2c receptors, which is about 1,000 times higher than binding capacity with 5-HT.sub.1A receptor. It can also bind with the adrenergic receptor and the low affinity H1-histamine receptors and .alpha.2-adrenergic receptors. Risperidone does not bind with cholinergic receptors. Effective dose of risperidone in treatment of depression is 0.5-1 mg/day. The dose for the treatment of schizophrenia was 6 mg/day. This depends on the different receptors at different concentrations that risperidone selectively hinders. Risperidone of 4 mg dose blocks 70-80% striatal dopamine D2 receptors (Nyberg et al., 1999). Further increase in plasma concentration may cause increase in extrapyramidal side effects. Risperidone of 0.5-1 mg dose may saturate and close 5-HT.sub.2A receptor, and reduce the extrapyramidal side effects to a minimum.

"5-HT.sub.2A receptors are the main targets for SSRIs and risperidone, which belong to the G protein-coupled receptor family, mainly in the frontal cortex (Arora R C et al. 1989; Yates M et al. 1990). 5-HT.sub.2A receptor can activate non-5-HT.sub.2A receptor during treatment of antagonist depression and other neuropsychiatric diseases (Gerard J Marek, 2003). Researchers in experimental animal models of depression found that 5-HT.sub.2A may regulate the body's response to drugs. Black and Goodwin's study found that antidepressant treatment can reduce 5-HT.sub.2A receptor density in animal brains (Goodwin G M et al. 1985). Biegon et al. reported that 5-HT.sub.2A receptor binding capacity on platelet membranes in patients with depression is correlated with the patients' clinical symptoms. When the patients showed clinical improvement, the 5-HT.sub.2A receptor binding capacity decreased significantly; when patients' clinical symptoms do not improve, 5-HT.sub.2A receptor binding capacity does not change (Biegon A Essar N et al. 1990). These findings strongly suggest there is a close correlation between 5-HT.sub.2A receptor and antidepressant drug response. Low dose risperidone can selectively block 5-HT.sub.2A receptor. Given that in the treatment of depression of 5-HT system plays a very complex role, a variety of 5-HT receptor activation in the treatment will affect SSRIs efficacy. 5-HT.sub.2A receptor-specific closure may have brought new ways for the treatment of depression. (Ostroff and Nelson, 1999; Ansoms et al, 1977).

"In order to accurately use SSRIs, the present invention designs and synthesizes specific probes and primers to detect human genome rs6311 loci polymorphism (See rs6311 polymorphism genome sequences in FIG. 2). The patients are divided into normal metabolic group (CC genotype) and slow metabolic group (CT and TT genotype). Normal metabolic group is routinely administration SSRIs. For CT and TT groups, with the combination of SSRIs drugs, there is a simultaneous administration of low doses of risperidone (0.5-1 mg/day), to obtain a
good therapeutic effect, while greatly reduce the side effects of the drugs."

In addition to the background information obtained for this patent application, NewsRx journalists also obtained the inventors' summary information for this patent application: "The present invention comprises of an individualized detection kit, which contains a primer, a probe, and other reagents. The probe is specifically design for the detection of human metabolism genotypes. The components in the detection kit can be used in combination of extracted DNA from a depression patient to carry out polymerase chain amplification reaction such that the genotypes can be determined.

"The present invention comprises of the following detection method.

"Selectively enroll patients based on evaluation criteria, according to research method flow diagram (FIG. 3), in accordance with the technical plan (FIG. 4). Take 2 ml peripheral blood (EDTA anticoagulant) from a patient. Extract genomic DNA from whole blood. Bi-directional sequencing methods and real-time fluorescence analysis, such as Taqman probe techniques, are used to determine the genotype of the patient. Patients are then randomly divided into two groups; one group is administered drugs by conventional means and the effect is evaluated. Another group undergoes Set A treatments: a group with CC genotype is administered in accordance with common clinical practice; genotype CT/TT groups are given clinical dose of SSRIs, combined with low dose risperidone. According to the clinical evaluation of effects of this group, Set B treatment can be further carried out: CC genotype is administered in accordance with conventional regimens. CT/TT genotypes are administered in accordance with reduced dose of SSRIs. Severity of symptoms of depression is evaluated. Initial dosing regimen can be derived based on the above experimental results.

"Re-evaluation after the treatments to determine whether to exclude a patient or continue the treatment. The proportional relationship of ketanserin in combination with SSRIs for treatments of mild, moderate, and severe depression is further determined.

"According to the above treatment plan, the present invention can achieve the following objectives: To provide a detection kit for the classification of depression patients. To adjust the ratio of risperidone and SSRIs in patients with depression medication. Use two drugs that have different targets in order to improve the treatment.

BRIEF DESCRIPTION OF DRAWINGS

"FIG. 1 is an rs6311 polymorphism population distribution.

"FIG. 2 is an rs6311 polymorphism genome sequence.

"FIG. 3 is the method to classify patients.

"FIG. 4 is technical plan for patient treatment."

URL and more information on this patent application, see: E, Wen; Kong, Qingmei; Zhang, Xiaojing; Shao, Hong; Zhao, Zhenguo; Liu, Shuping; Li, Maomao; Tian, Xinxia. Detection Kit for Identifying Genotype in Depression Patients and Method of Using the Same. Filed December 16, 2015 and posted December 29, 2016. Patent URL: http://appt.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fnetahml%2FPTO%2Fsearch-adv.html&r=4914&p=99&f=G&l=50&d=PG01&S1=20161222.PD. &OS=PD/20161222&RS=PD/20161222

Keywords for this news article include: Antidepressants, Pharmaceuticals, Patents, Genetics, Autacoids, Histamine, Propylamines, Membrane Proteins, Biological Factors, Citalopram Therapy, Paroxetine Therapy, Drugs and Therapies, Risperidone Therapy, Adrenergic Receptors, Atypical Antipsychotics, Catecholamine Receptors, Psychotherapeutic Agents.

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent application by the inventors VIDLUND, Robert M. (Forest Lake, MN); EKVALL, Craig A. (East Bethel, MN), filed on August 30, 2016, was made available online on December 29, 2016, according to news reporting originating from Washington, D.C., by NewsRx correspondents.

This patent application is assigned to Tendyne Holdings, Inc.

The following quote was obtained by the news editors from the background information supplied by the inventors: "Embodiments are described herein that relate to devices and methods for anchoring medical device such as a prosthetic heart valve replacement, and more particularly to devices and methods for the post-deployment adjustment and/or re-positioning of such a medical device.

"Some known prosthetic heart valves, such as prosthetic mitral valves, include one or more tethers that extend from the valve to the exterior of the heart, and are secured to an outer ventricular wall of the heart with an epicardial anchor device. During such procedures, positioning the anchor device and providing a desired tension to the securing tether can be challenging. Many known devices do not have the ability to make adjustments to the anchor device or to the tension of the tether after initial placement. Further, known devices do not have the ability to measure and monitor the tension on the tether during deployment of the valve to assist in providing an optimal tension and position.

"Some problems associated with improper tensioning of a securing tether can include, for example, the tether becoming progressively slack over time, a tether which has been overtightened and is deforming the positioning of the deployed valve, and a tether which has been deployed in a less than optimal angular configuration or has migrated such that the valve axis is no longer orthogonal to the plane of the native valve's annulus.

"Accordingly, there is a need for devices and methods for adjusting and/or repositioning a prosthetic heart valve after its initial deployment and for monitoring the tension on a securing tether extending from the prosthetic heart valve."

In addition to the background information obtained for this patent application, NewsRx journalists also obtained the inventors' summary information for this patent application: "Apparatus and methods are described herein for positioning an epicardial anchor device and measuring the load of a tether extending from a prosthetic heart valve and coupled to the epicardial anchor device. In some embodiments, an apparatus includes a handle assembly coupled to an elongate member and a docking member coupled to a distal end of the elongate member. The docking member can be releasably coupled to an epicardial anchor device configured to secure a tether extending from a prosthetic heart valve implanted with a heart at a location on an exterior of a ventricular wall of the heart. A force sensor device is coupled to the handle assembly and can measure a force exerted on the force sensor device. The force is associated with a tension of the tether extending through the elongate member, handle assembly
and force sensor device.

BRIEF DESCRIPTION OF THE DRAWINGS

"FIG. 1 is a schematic cross-sectional illustration of portion of a heart with a prosthetic mitral valve implanted therein and an epicardial anchor device anchoring the mitral valve in position.

"FIG. 2 is a schematic illustration of an epicardial anchor device, according to an embodiment.

"FIG. 3 is a schematic illustration of a positioning device, according to an embodiment.

"FIG. 4 is a top perspective view of an epicardial anchor device, according to another embodiment.

"FIG. 5 is a top view of the epicardial anchor device of FIG. 4.

"FIG. 6 is an exploded view of the epicardial anchor device of FIG. 4.

"FIG. 7 is a cross-sectional perspective view of the epicardial anchor device of FIG. 4 with a locking pin of the device shown in a first position.

"FIG. 8 is a cross-sectional side view of the epicardial anchor device of FIG. 4 with the locking pin of the device shown in the first position.

"FIG. 9 is a cross-sectional bottom perspective view of the epicardial anchor device of FIG. 4 with the locking pin shown in a second position.

"FIGS. 10 and 11 are a top perspective and a bottom perspective view, respectively, of a hub member of the epicardial anchor device of FIG. 4.

"FIG. 12 is an enlarged top view of a portion of the epicardial anchor device of FIG. 4.

"FIG. 13 is a perspective view of a positioning device, according to an embodiment.

"FIG. 14 is a top view of a portion of the positioning device of FIG. 13.

"FIG. 15 is a cross-sectional view of the portion of the positioning device of FIG. 14.

"FIG. 16A is a perspective view and FIG. 16B is a top view of a portion of the positioning device of FIG. 13.

"FIG. 17A is a perspective view of a portion of the positioning device of FIG. 13 shown partially exploded.

"FIG. 17B is a perspective view of the portion of the positioning device of FIG. 17A.

"FIG. 18 is a top view of a positioning device, according to another embodiment.

"FIG. 19 is a perspective view of a portion of the positioning device of FIG. 18 shown partially exploded.

"FIG. 20 is a perspective view of the portion of the positioning device of FIG. 19.

"FIG. 21 is a schematic illustration of a portion of the positioning device of FIG. 18.

"FIG. 22 is a perspective view of a positioning device, according to another embodiment, shown coupled to an epicardial anchor device.

"FIG. 23 is a top view of the positioning device of FIG. 22.

"FIG. 24 is a cross-sectional view of a portion of the positioning device of FIG. 22, taken along line 24-24 in FIG. 23.

"FIG. 25 is a perspective view of a portion of the positioning device of FIG. 22.

"FIG. 26 is a perspective view of a force sensor device of the positioning device of
FIG. 22.

"FIG. 27 is an exploded perspective view of the force sensor device of FIG. 26.
"FIG. 28 is a perspective view of a portion of the force sensor device of FIG. 26.
"FIG. 29 is a perspective view of a portion of the positioning device of FIG. 22.
"FIG. 30 is a side view of the positioning device of FIG. 22.
"FIG. 31 is a partial cross-sectional side view of a tension limiting device according to an embodiment.
"FIG. 32 is a top view of a tether release tool, according to an embodiment.
"FIG. 33 is a perspective view of an end portion of the tether release tool of FIG. 32.
"FIG. 34 is a perspective view of a portion of the tether release tool of FIG. 32 shown being coupled to an epicardial anchor device.
"FIG. 35 is a perspective view of a portion of the tether release tool of FIG. 32 shown coupled to the epicardial anchor device of FIG. 34.
"FIG. 36 is a perspective view of a force sensor device according to an embodiment.
"FIG. 37 is an exploded perspective view of the force sensor device of FIG. 36.
"FIG. 38 is a cross-sectional perspective view of the force sensor device of FIG. 36.
"FIG. 39 is a side view of a portion of a tether with a marker band according to an embodiment."
inhibition of viral propagation (Andino, R., 2003). RNAi has emerged as an immensely important and popular method to elicit post-transcriptional, sequence-specific silencing of gene expression and is a major new genetic tool for investigating mammalian cells. RNAi is initiated by exposing cells to dsRNA either via transfection or endogenous expression. Long double-stranded (ds) RNAs are processed into siRNAs by dicer, a ribonuclease of the Rnase III family. These siRNAs form a complex known as the RNA Induced Silencing Complex or RISC, which functions in homologous target RNA destruction (Montgomery, M. K., 2004).

"The use of exogenously supplied siRNAs for targeted RNA knockdowns has become widespread (Elbashir, S. M., et al., 2001). The exogenous RNAs can be manufactured synthetically. However, when synthetic siRNAs are used for gene silencing, the costs can be substantial because of variations in siRNA efficacies. An alternative to chemically synthesized siRNAs are siRNAs produced by bacteriophage T7 RNA polymerase. These siRNAs are made by in vitro transcription mediated by bacteriophage promoters from linearized DNA templates. In vitro transcription using bacteriophage T7 RNA polymerase has been shown to produce highly active siRNAs (Sohail, M., et al., 2003; Donze, O. and Picard, D., 2002).

"The interferon (IFN) system is one of the body's first lines of defense against viruses (Samuel, C. E., 2004). IFN was discovered as an antiviral agent by Isaacs and Lindenmann during studies on virus interference, where they observed that cells infected with influenza virus secrete a factor that mediates the transfer of a virus-resistant state active against both the inducing virus and other viruses as well (Samuel, C. E., 2004). Double-stranded RNA (dsRNA) is known to play an important role in the IFN system (Samuel, C. E., 2001). It is known that synthetic dsRNAs and RNAs with double-stranded character produced during viral infections have the capacity to be potent inducers of IFN (Stewart, W. E., 1979; Marcus, P. I., 1983).

"The early recognition of invasive pathogens by innate sensing is the most important defense mechanism of the immune system (Beutler, B., 2004a; Boehme, K. W. and Compton, T., 2004). Viral infection of mammalian cells results in activation of an innate immune response which is mediated by interferons and cytokines that concomitantly inhibit viral replication (Malmgaard, L., 2004). Several Toll-Like Receptors (TLRs) have been identified in humans and mice and are known to be expressed predominantly on cell types which are first to encounter intracellular pathogens (Boehme, K. W. and Compton, T., 2004). Double stranded RNA (dsRNA), including the synthetic analog poly inosine-poly cytosine (Poly IC), is known to activate TLR3, a cellular receptor that recognizes and initiates a potent anti-viral response by producing interferons (Alexopoulou, L., et al., 2001). Similarly, single stranded RNA (ssRNA), which includes the genomes of several viral RNA species, has been shown to interact with and activate TLR7 and TLR8 (Lund, J. M., et al., 2004; Diebold, S. S., et al., 2004; Heil, F., et al., 2004; Hornung, V., et al., 2005). dsRNAs can be easily distinguished intracellularly as viral replication intermediates, however, it remains elusive how a simple ssRNA motif recognized by TLR7 and 8 is discerned by the cell to be either viral (exogenous) or endogenous in origin (Boehme, K. W. and Compton, T., 2004). Considering that TLRs are cell type specific and are present within unique localized intracellular compartments, recognition of dsRNA and/or ssRNA offers an important innate defense mechanism against viral infection along with the recognition of CpG DNA motifs and/or envelope glycoproteins (Boehme, K. W. and Compton, T., 2004; Beutler, B., 2004b).

"RNAi-mediated gene silencing in mammalian cells requires siRNAs of sufficiently small size to circumvent potential sequence-independent, nonspecific changes in gene expression attributable to the induction or action of interferons. Sledz, C. A., et al. (2003) found that transfection of siRNAs results in interferon (IFN)-mediated activation of the Jak-Stat pathway and global upregulation of IFN-stimulated genes. The authors showed that by using cell lines deficient in specific components mediating IFN action that the RNAi mechanism itself is
independent of the interferon system. The authors characterized their finding as showing the 'broad and complicating effects' of siRNAs beyond the selective silencing of target genes when introduced into cells. Similarly, Bridge, A. J., et al. (2003) reported that although siRNAs were thought to be too short to induce interferon expression, a commonly used shRNA construct was found to induce an interferon response. The authors advise as a 'simple precaution to limit the risk of inducing an interferon response' to use the lowest effective dose of shRNA vector.

"Although the anti-viral activities of interferons are well studied (Samuel, C. E., 2001), nobody has recognized in connection with RNAi the uses and advantages, as opposed to the risks, of interferon induction by RNAi molecules, independent of the RNAi effect, to provide anti-viral and other effects, such as anti-cancer effects. Moreover, until now, nobody is believed to have discovered the role of the triphosphate, in particular the 5'-triphosphate produced on RNAi molecules in vitro, for inducing interferon and eliciting anti-viral and other medically useful responses."

In addition to the background information obtained for this patent application, NewsRx journalists also obtained the inventors' summary information for this patent application: "The present invention is believed to be first to show that the presence of an initiating triphosphate on in vitro transcribed-RNAs can potently induce interferon .alpha. and .beta., as well as elicit a strong, non-sequence-specific antiviral response to viral challenge.

"The present invention relates in one aspect to double-stranded RNA molecules, including RNAi molecules, and in another aspect to single-stranded RNA molecules, on which one or more triphosphates, preferably one or more 5'-triphosphates, are maintained in order to exploit the interferon induction properties of such molecules, in order to provide anti-viral and other medically useful (e.g., anti-cancer) effects.

"The present invention relates in one embodiment to a method for inducing interferon in a cell, comprising exposing or introducing into the cell an effective amount of an RNAi molecule having one or more triphosphates, preferably a 5'-triphosphate, wherein said RNAi molecule induces said interferon. The RNAi molecule also can have an anti-viral effect, and preferably, is introduced into the cell prior to viral infection, wherein the RNAi molecule inhibits or prevents viral infection. The RNAi molecule also can have other medically useful effects, such as an anti-cancer effect.

"In another embodiment, the invention provides a composition for inducing interferon in a cell comprising an effective amount of an RNAi molecule having one or more triphosphates, preferably a 5'-triphosphate, wherein the RNAi molecule can induce interferon in the cell. In a preferred embodiment, the RNAi molecule can also have an anti-viral or anti-cancer effect.

"In another embodiment, the invention provides an anti-viral reagent comprising an effective amount of an RNAi molecule having one or more triphosphates, preferably a 5'-triphosphate, wherein the RNAi molecule in addition to inducing interferon also has an anti-viral effect. In one embodiment, the anti-viral effect is the result of interferon induced by the RNAi molecule in a non-sequence dependent manner. In another embodiment, the anti-viral effect is the result of a synergy between an RNAi effect mediated by the RNAi molecule (i.e., as a result of homology between the RNAi molecule and its target molecule) and an immune response mediated by interferon induction.

"In another embodiment, the invention provides a method for inducing an anti-viral response in a cell, comprising introducing into a cell an effective amount of an RNAi molecule having one or more triphosphates, preferably a 5'-triphosphate, and which exhibits one of the above anti-viral effects.

"The cell can be any cell and is preferably a eukaryotic or vertebrate cell, more
preferably a mammalian cell, and most preferably a human cell.

"In a preferred embodiment, the RNAi molecule is an siRNA or an shRNA.

"In another aspect, the present invention provides a method for inducing interferon in
a cell, comprising introducing into the cell an effective amount of a short single-stranded RNA
(ssRNA) having one or more triphosphates, preferably a 5'-triphosphate, wherein the ssRNA
molecule induces interferon, and preferably also has an anti-viral or other medically useful (e.g.,
anti-cancer) effect, as described above.

"In a more preferred embodiment of each of the above embodiments, the RNAi
molecule and ssRNA molecule are produced in vitro by a phage polymerase. In a preferred
embodiment, the phage polymerase is T7 RNA polymerase, T3 RNA polymerase or Sp6 RNA
polymerase. In an even more preferred embodiment, the polymerase is T7 RNA polymerase.

"In the present invention, the 5'-triphosphate of an RNAi or ssRNA molecule
produced in vitro has been discovered to be an active inducer of interferon, as well as a potent
anti-viral agent. On the other hand, the present invention also recognizes advantages of
removing the 5' triphosphate from in vitro transcribed RNAi molecules, and thus reducing or
inhibiting interferon induction. This additional aspect of the invention should be useful for
controlling, reducing or inhibiting interferon induced during gene silencing using such RNAi
molecules.

"In yet another aspect, the present invention thus provides an in vitro method for
producing or synthesizing an RNAi molecule which reduces or alleviates the interferon response
exhibited by a double-stranded, preferably an RNAi, molecule or ssRNA molecule produced in
vitro, while maintaining the efficacy of the molecule. In one embodiment, the method comprises
removing one or more 5'-triphosphates from the molecule, wherein the removal reduces or
alleviates the interferon response while maintaining the efficacy of the molecule.

BRIEF DESCRIPTION OF THE FIGURES

"FIG. 1A are photographs showing anti-HSV-1 activities of T7 transcribed siRNAs. The siRNA
transfected HEK-293 cells were infected with HSV-1-EGFP. Top panel, mock or
chemically synthesized siRNA transfected samples (anti-La#2 and anti-Ro #1); middle panel,
T7 siRNA transfected samples; lower panel, the anti-La #2 siRNAs were prepared by T7 RNA
polymerase using the Silencer siRNA Construction Kit (Ambion).

"FIG. 1B are photographs showing the cytotoxic effect of T7 transcribed siRNAs. HEK-293 cells
were transfected with 20 nM of synthetic or T7 transcribed siRNA and
monitored microscopically on day 5 post transfection.

"FIGS. 2A-2D show interferon induc
tion by transcribed siRNAs.

"FIG. 2A is a graph showing that the anti-HSV-1 activity is mediated by induction of
interferon .alpha. and .beta.. The anti-HSV-1 activity was assayed using the medium from
siRNA-transfected cells. Either a single (col. 3 or 4) or both neutralizing antibodies (col. 5) were
tested.

"FIG. 2B is a graph showing anti-HSV-1 activity of T7-transcribed siRNAs in HEK-
293, HeLa and CV1 cell lines. 20 nM of T7-transcribed siRNA was transfected into the three
different cell lines and HSV-1 infection was monitored.

"FIG. 2C are graphs showing that RNAi and interferon induction are independent
phenomena. Two different siRNAs, one targeting a susceptible site and the other a
nonsusceptible site in EGFP, were synthesized chemically or transcribed by T7RNA polymerase
and tested for RNAi efficacy (top) and interferon induction (bottom). The RNAi assay
represents the average of three independent assays. The interferon results are the average of two
independent experiments.

"FIG. 2D is a graph showing the potency of the RNA-mediated anti-HSV-1 activity. The inhibition of HSV-1 infection was tested after transfection using the indicated amounts of synthetic or T7-transcribed siRNAs. The average of two independent experiments is presented.

"FIG. 3A are photographs showing the anti-EMCV activities of T7 transcribed siRNAs, produced in accordance with the present invention, compared with the anti-EMCV activities of Poly IC. Top panel, cells; Second panel from top, Cells infected with EMCV; Third panel from top, T7 siRNA transfected cells infected with EMCV (triphosphate containing anti-EMCV T7 siRNAs stimulate interferon, thus, protecting cells from EMCV infection); Bottom panel, Poly IC transfected cells infected with EMCV (poly IC is toxic and cells are expressing EGFP, so toxicity results in cell death and loss of EGFP signal.)

"FIG. 3B are photographs showing anti-EMCV activities of T7 transcribed siRNAs, produced in accordance with the present invention, compared with the anti-EMCV activities of various endoribonuclease prepared siRNAs (EsiRNA I, II, and III).

"FIG. 3C are photographs showing anti-EMCV3 activities of T7 transcribed siRNAs, produced in accordance with the present invention. Top panel, irrelevant T7 siRNA; Middle panel, EMCV3 T7 siRNA; Bottom panel, EMCV3 T7 siRNA in the presence of CIP.

"FIG. 4 is a schematic showing a T7 siRNA having a 5’-triphasphate produced in accordance with the present invention. The schematic shows the non-base paired nucleotide (G) to which the 5’triphasphate is attached. The schematic also shows the synergistic effects of the 5’-triphasphate mediated innate immune response and the siRNA mediated RNAi effect.

"FIG. 5A is a graph showing the synergistic effect of siRNAs and triphosphates in protecting cells from cytopathic effects of EMCV infection at a MOI of 3.

"FIG. 5B is a graph showing the synergistic effect of siRNAs and triphosphates in protecting cells from cytopathic effects of EMCV infection at a MOI of 10.

"FIG. 6 is a schematic of the 5’UTR of a EMCV viral genome (SEQ ID NO:1). Also shown are the regions where siRNAs, produced in accordance with the present invention, bind the EMCV viral genome.

"FIGS. 7A-7C show the role of the initiating triphosphate in interferon induction.

"FIG. 7A shows siRNAs synthesized in accordance with the invention. (i) The EGFP #2 synthetic I (SEQ ID NOs:2 and 3), chemically synthesized siRNA against the EGFP #2 site, EGFP #2 synthetic II; (ii) the EGFP #2 synthetic II (SEQ ID NOs:4 and 5) with 5’ OH-GGG; (iii) the EGFP #2 T7 (SEQ ID NOs:4 and 5), T7 RNA polymerase-transcribed siRNA against EGFP #2 containing 5’ pppGGG; (iv) the EGFP #2 T7 (19-AA) (SEQ ID NOs:6 and 7), the same as EGFP #2 T7 RNA polymerase-transcribed siRNA except for replacing the 3’ UU with 3’ AA; (v) the EGFP #2 T7 (21-AA) (SEQ ID NOs:8 and 9), T7 RNA polymerase-transcribed siRNA with 21 nt complementary to the EGFP #2 site but including the 3’ AA. The potential cleavage site for RNAse T1 is boldface. The 3’ AA replacing the 3’ UU is in italics. The AA complementary to UU is underlined.

"FIG. 7B are a graph and gel photograph showing triphosphate-mediated interferon induction. [gamma.-sup.32P] GTP-labeled siRNAs were treated using each of the conditions described below and electrophoresed in a native gel (top). RNAs (1 .mu.g) were electrophoresed in a 15% polyacrylamide gel and stained with ethidium bromide (middle). 20 nM of siRNAs was transfected into HEK-293 cells and assayed for interferon 3 (bottom panel). Column 1, the EGFP #2 T7 siRNA without T1 treatment; column 2, with T1 treatment; column 3, with T1 and CIP treatment. Column 4, EGFP #2 T7 (19-AA) siRNA without T1 treatment; column 5, with T1 digestion; column 6, with T1 and CIP treatment.
"FIG. 7C is a graph showing that T7 siRNAs (21-AA) in accordance with the invention are effective in RNAi. HEK-293 cells were cotransfected with the EGFP reporter plasmid and each of the siRNAs. The percentages of EGFP expression relative to the non-ssRNA-treated controls were used as the assay for RNAi. Each value is the average of two independent assays.

"FIGS. 8A-8C show induction of interferon by in vitro transcribed ssRNAs. 

"FIG. 8A is a graph showing that ssRNAs transcribed in vitro elicit the anti-HSV-1 effect. Mock 1: before transfection, the RNA sample was mixed with 1 µg of RNase A. Mock 2: transfection of RNA containing triphosphate done in the absence of a transfection reagent. T7 siRNA1 and 2 are the T7 siRNAs for HSV #1 and anti-SF3A3 #1, respectively. The T7 ssRNA is the sense RNA strand of HSV #1. The T7 EGFP was RNA-transcribed from an EGFP-encoding DNA template. T7 (CUG).sub.130 is a T7-transcribed RNA harboring 130 repeats of CUG. All RNAs were used at a concentration of 20 nM.

"FIG. 8B is a graph showing the anti-HSV-1 activities of ssRNAs transcribed from T7, T3 and Sp6 polymerases. The templates of T3 ssRNA 1 and 2 were created from the pBluescript II SK vector digested with EcoRI and BamHI, respectively. The templates of SP6 ssRNA 1 and 2 were created by the EcoRI and SalI digestion of the pGEM 9Df(-) vector. The ssRNA is the sense sequence of HSV #1.

"FIG. 8C is a graph and gel photographs showing that the 5' triphosphate of the transcribed ssRNA is essential for the induction of interferon. The EGFP RNA was transcribed in the presence of [γ-32P]GTP and transfected into cells without any further modification (col. 2 and 3), after gel purification (col. 4 and 5), and after gel purification and CIP treatment (col. 6 and 7). The induced levels of interferon β were determined by an ELISA (top). Transcribed RNAs used for transfection reactions were analyzed in a nondenaturing agarose gel (middle). Removal of the triphosphate by CIP was monitored on the bottom gel. The ELISA determinations represent the average of two independent experiments.

"FIG. 9 is a graph showing induction of interferon α in 4 mice samples which were injected with 70 µM triphosphate T7 siRNAs produced in accordance with the present invention. Interferon α induction is shown in mice using mouse ELISA kit at day 1, day 3 and day 7 following injection of T7 siRNA.

"FIGS. 10A-10D show that the 5' triphosphate label of RNA is a novel motif for stimulating the innate immune response.

"FIG. 10A shows total RNA that was purified from influenza viral RNA and treated without (-CIP) or with (+CIP) calf intestinal phosphatase.

"FIG. 10B shows HEK293 cells that were transfected with no RNA (mock), influenza viral RNA without CIP treatment (Flu RNA-CIP), or the RNA with CIP treatment (Flu RNA+CIP) and sequentially challenged by EGFP-labeled HSV. The infection of virus was monitored by florescence microscopy.

"FIG. 10C shows HEK293 cells that were transfected with influenza viral RNAs without CIP pretreatment (second column) or with pretreatment at 10 (third) and 60 minutes (fourth column).

"FIG. 10D shows NIH3T3 cells stably expressing EGFP that were treated with no RNA (mock), 1 nM of T7 RNA (T7 RNA), 0.5 µg of influenza viral RNA without CIP pretreatment (Flu RNA-CIP), and the viral RNA with CIP pretreatment (Flu RNA+CIP). The next day (24 hours), cells were challenged with EMCV infection. On day 3, the viral infection mediated cytotoxic effect was monitored under light (the first panel) or fluorescence microscopy (the second panel).

"FIGS. 11A-11C shows that the nuclear derived nascent RNAs indicate the
dependence of the 5’ triphosphate motif for antiviral activity.

"FIG. 11A shows cytoplasmic and nuclear extracts that were prepared from HEK293 cells and tested by Western blot for the cytoplasmic protein enolase or nuclear protein hnRNP H.

"FIG. 11B shows cytoplasmic (the first lane) and nuclear RNAs (second and third lanes) that were purified from each extract and analyzed on a 1% agarose gel in the absence (second lane) or presence of CIP pre-treatment (third lane).

"FIG. 11C shows HEK293 cells that were transfected with each indicated RNAs and sequentially infected with EGFP-labeled HSV. The pictures were taken under florescence microscopy on day 3.

"FIGS. 12A-12C show that the T7 RNA and poly IC activate the TLR3 receptor and share similar expression profiles.

"FIG. 12A shows total cDNA from NIH3T3 cells transfected by the T7 RNA or poly IC that were detected and quantitated by microarray analysis. The expression profiles were compared between mock treated vs. T7 RNA (the first column), mock vs. poly IC (the second column), and T7 RNA vs. poly IC (the third column). The bar represents the total number of genes where were up or down-regulated by more than three-fold using a total of 16,281 elopements and an average of two independent trials.

"FIG. 12B shows that TLR3 is upregulated by poly IC as well as by T7 RNA. Total RNA of NIH3T3 cells were harvested after transfection with no RNA, T7 RNA, and poly IC. Based on the microarray data in FIGS. 14A-14D, the expression level of TLR3 was compared. TLR7 and beta-actin were used as internal controls.

"FIG. 12C shows that TLR3 is required for the T7 RNA mediated innate immune response. MRC-5 cells were pre-incubated in the presence of anti-TLR2 or TLR3 antibodies and incubated in the presence of the indicated RNAs. The secreted interferon beta in the media was determined by ELISA in three independent assays.

"FIGS. 13A-13B show that all 86 genes upregulated by the T7 transcribed RNA were also upregulated by poly IC.

"FIGS. 14A-14D show that poly IC activated a large number of additional genes in comparison to genes activated by T7 transcribed RNA."


Keywords for this news article include: Cancer, Genetics, Oncology, T-Phages, Cell Line, Cytokines, Cytoplasm, Influenza, Viral DNA, Viral RNA, Coliphages, Polymerase, DNA Viruses, Interferons, Podoviridae, Caudovirales, City Of Hope, Viral Genome, Bacteriophage T7, Intracellular Space, Enzymes and Coenzymes, Intercellular Signaling Peptides and Proteins. Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent application by the inventors YANG, Mengsu (Hong Kong, HK); LIU, Dandan (Baoding, CN), filed on June 22, 2015, was made available online on December 29, 2016, according to news reporting originating from Washington, D.C., by NewsRx correspondents.

This patent application is assigned to City University of Hong Kong.

The following quote was obtained by the news editors from the background information supplied by the inventors: "Different approaches have been proposed to treat different types of cancers. There have been proposals to treat cancers by way of specially targeting cancer cells. However, targeting cancer cells superficially has been a challenge because it is generally difficult to effect such treatment with high specifically. If a proposed treatment approach cannot effectively target cells in issue, the efficacy of the treatment would be impaired, and worse yet, the treatment would cause undesirable side effects.

"The present invention seeks to address the above problems, or at least to provide a useful alternative to the public."

In addition to the background information obtained for this patent application, NewsRx journalists also obtained the inventors' summary information for this patent application: "According to a first aspect of the present invention, there is provided a nanoparticle composition comprising a central core portion including magnetic nanoparticles adapted to act as a heat source and a chemotherapeutic agent configured to treat cancer tissues in issue, a shell portion including a shell member encapsulating said core portion, and antibodies configured to target cancer stem cells in issue and adhered to surface of the shell member. In a specific embodiment, the composition may comprise fluorescent dyes for in vivo localization"

"Preferably, the shell member may be made of silica or a silica based material. Diameter or width of the composition may range from substantially 5 to 500 nanometers. The shell member may have a thickness from 10 to 100 nanometers. The magnetic nanoparticles may have a diameter or width from 1 to 50 nanometers.

"Suitably, the magnetic nanoparticles may be magnetically responsive, and may comprise or may be super-paramagnetic nanoparticles. The magnetic nanoparticles may be configured to be responsive to alternating magnetic field. The magnetic nanoparticles may comprise Fe.sub.3O.sub.4 particles.

"Advantageously, the chemotherapeutic agent may comprise or may be a heat shock protein inhibitor. In this embodiment, the heat shock protein inhibitor may be a clinically approved drug although in other embodiments, others chemotherapeutic agent may be used. The antibodies may be coated on outwardly facing surface of the shell member. The antibodies may be able to bind to clusters of differentiation molecules or other surface molecules specific on cancer stem cells.

"According to a second aspect of the present invention, there is provided a method of treatment of cancer by way of targeting cancer stem cells, comprising administering a nanoparticle composition as described above.

"Preferably, the method may comprise a step of forming a complex of the
composition and the target cancer stem cells.

"Advantageously, the method may comprise a step of exposing a target site in which the cancer cells reside to an energy source for effecting elevation of temperature of the magnetic nanoparticles, and release of the chemotherapeutic agent from the shell portion for destroying the cancer cells of the composition-cancer cell complex in the target site, wherein the energy source is an alternating magnetic field whereby extent of elevation of temperature and release of the chemotherapeutic agent is controllable by the alternating magnetic field.

"Suitably, the method may comprise a step of elevating temperature of the target site to 40.degree. C. to 52.degree. C.

"In an embodiment, the method may comprise a step of administering the nanoparticle composition intravenously, or at a dose of 10 .mu.g to 500 mg of said nanoparticle composition intravenously per kg of body weight. The method may comprise administering the nanoparticle composition at least once a week.

"According to a third aspect of the present invention, there is provided a use of a composition described above for treatment of cancer.

"According to a fourth aspect of the present invention, there is provided a method of treatment of cancer in an organism, comprising a step of applying a combinational thermotherapy and chemotherapy treatment to the organism at least once per week. Preferably, the method may comprise a step of subjecting target tissues of the organism to fluorescence imaging or magnetic resonance imaging while undergoing the combinational thermotherapy and chemotherapy. Advantageously, the method may comprise a step of making use of a processor in regulating temperature rise of target issues by controlling the power and frequency of alternating magnetic field.

BRIEF DESCRIPTION OF DRAWINGS

"Some embodiments of the present invention will now be explained, with reference to the accompanied drawings, in which:--

"FIG. 1A is a schematic illustration of an embodiment of a nanoparticle composition according to the present invention;

"FIG. 1B is a schematic illustration of an embodiment of a treatment method of the present invention by targeting lung cancer stem cells (LCSCs) by way of simultaneous thermotherapy and chemotherapy by applying an alternating magnetic field (AMF);

"FIGS. 1C, 1D and 1E are transmission electron microscopic (TEM) images showing Fe.sub.3O.sub.4@SiNPs, CD20-Fe.sub.3O.sub.4@SiNPs, and CD20-Fe.sub.3O.sub.4@SiNPs, respectively;

"FIG. 1F is a graph showing size distribution of the CD20-Fe.sub.3O.sub.4@SiNP by dynamic light scattering (DLS);

"FIG. 1G is graph showing zeta potential of the Fe.sub.3O.sub.4@SiNPs (green) and CD20-Fe.sub.3O.sub.4@SiNPs (red);

"FIG. 1H is a graph showing fluorescence spectra of the Phycoerythrin (PE)-labeled CD20-Fe.sub.3O.sub.4@SiNPs;

"FIGS. 2A, 2B, 2C and 2D are graphs showing magnetic hysteresis loops of i) Fe.sub.3O.sub.4@SiNPs, ii) Fe.sub.3O.sub.4 NPs, time course of the raised temperature of PBS, iii) SiNPs, and Fe.sub.3O.sub.4@SiNPs, and iv) in vitro release curve of HSPI-loaded Fe.sub.3O.sub.4@SiNPs, respectively;

"FIG. 3 are confocal fluorescence and transmission electron microscopic (TEM) images showing in vitro cellular uptake and internalization of CD20-Fe.sub.3O.sub.4@SiNPs
and Fe$_3$O$_4$@SiNPs by a type of lung cancer stem cells (LCSCs);

"FIG. 4A is a graph showing relative survival rate of LCSC after heat treatment;

"FIG. 4B is a graph showing relative survival rate of LCSC after nanoparticle-mediated thermotherapy and chemotherapy;

"FIG. 4C is representative dot plots of LCSCs showing 7-AAD uptake and YO-PRO1 labeling as a function of time post heat treatment;

"FIG. 5 are in vivo and ex vivo images of mice after intravenous injection of (PE)-labeled CD20-Fe$_3$O$_4$@SiNPs;

"FIGS. 6A, 6B, 6C, and 6D are images and graphs showing in vivo simultaneous thermotherapy and chemotherapy targeting LCSCs in which FIG. 6A shows relative tumor volumes of different groups of mice (8 mice in each group) under different treatment conditions; FIG. 6B shows survival rates of different groups of mice (8 mice in each group) under different treatment conditions; FIG. 6C shows relative tumor volumes of different groups of mice (8 mice in each group) under different treatment conditions; and FIG. 6D shows representative tumor sizes from different groups of mice after different treatment conditions;

"FIG. 7A are images showing H&E stained tumor tissue sections of control and CD20-HSPI&Fe$_3$O$_4$@SiNPs treated mice at 36 days after AMF treatment;

"FIG. 7B are images showing IHC staining for CD20 on xenografts showing a complete ablation of LCSC by treatment of CD20-HSPI&Fe$_3$O$_4$@SiNPs;

"FIG. 7C and FIGS. 7D-7F are TEM images of tumor tissue in mice treated with i) PBS and ii) CD20-HSPI&Fe$_3$O$_4$@SiNPs (D-F) by retro-orbital sinus injection, respectively;

"FIG. 8 are histological images of different organs in nude mouse;

"FIGS. 9A, 9B, 9C and 9D are graphs showing i) WBC counts and ii) B-cell changes in mice after CD20-HSPI&Fe$_3$O$_4$@SiNP-mediated AMF treatment, iii) percentage of WBC and B-cells in mice with CD20-HSPI&Fe$_3$O$_4$@SiNPs after 7 days recovery, iv) percentage of WBC and B-cells in mice without CD20-HSPI&Fe$_3$O$_4$@SiNPs after 7 days recovery, and iv) CD20-HSPI&Fe$_3$O$_4$@SiNPs uptake in blood cells of mouse;

"FIG. 9E shows CD20-HSPI&Fe$_3$O$_4$@SiNPs uptake in mouse MSCs monitored in the bone marrow by flow cytometry;

"FIG. 10A and FIG. 10B are results of evaluation of hemolysis of CD20-HSPI&Fe$_3$O$_4$@SiNPs at concentrations of 1 mg/mL in PBS, using water as a positive control and PBS as a negative control; and flow cytometry analysis of lymphocytes, monocytes and macrophages, and neutrophils in white blood cell populations by forward and side scatter analysis, respectively;

"FIG. 11 illustrates morphology of 3.sup.rd generation LCSCs (portion A in FIG. 11) and 10th generation LCSCs (portion F in FIG. 11); immunofluorescence detection of stemness markers expression in 3.sup.rd generation LCSCs (portions B-E in FIG. 11) and 10.sup.th generation LCSCs (portions G-J in FIG. 11), scale bar=25 .mu.m; and quantitative RT-PCR analysis of stemness genes expression in LCSCs with different generations (graph in portion K in FIG. 11) (data are mean.+-.SD, *p<0.05 and p<0.01 indicate significant difference, n=3);

"FIG. 12 includes images of primary tumor sphere formation by the 3.sup.rd generation LCSCs (portion A in FIG. 12) and 10th generation LCSCs (portion B in FIG. 12), and a graph showing time course of sequential primary, secondary, and tertiary tumor sphere formation, n=3 (portion C in FIG. 12);

"FIG. 13 illustrates migration in LCSCs evaluated using wound healing assays, and includes images from the same area captured at time 0, 24, and 48 h after wounding 9 portion
A of FIG. 13); and graphs showing migratory and invasive capacities of LCSCs assessed by wound healing assay (portion B in FIG. 13) and matrigel transwell invasion assay (portion C in FIG. 13) (data represent the mean.+-.SD, *p<0.05 and p<0.01 indicate significant difference, n=3); and

"FIG. 14 illustrates in vivo tumorigenicity of LCSCs and dLCSCs in which portion A in FIG. 14 are representative images of xenograft tumors formed after subcutaneous injection with 1.times.10.sup.4 LCSCs and dLCSCs, separately; and portion B in FIG. 13 shows tumor volume of LCSC and dLCSC xenograft-bearing nude mice (n=3) (data represents the mean. +-.SD)."

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Patents


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent application by the inventors SUMIDA, Naomi (Odawara-shi, JP); YANAI, Koji (Minamiashigara-shi, JP); TANI, Masato (Kawasaki-shi, JP); FUKUSHIMA, Takayoshi (Odawara-shi, JP); OTA, Yasumasa (Odawara-shi, JP); GOMI, Shuichi (Tokyo-to, JP); NAKANE, Akitaka (Kawasaki-shi, JP), filed on September 6, 2016, was made available online on December 29, 2016, according to news reporting originating from Washington, D.C., by NewsRx correspondents.

This patent application has not been assigned to a company or institution.

The following quote was obtained by the news editors from the background information supplied by the inventors: "The present invention relates to novel aminoglycoside antibiotics, a process for producing the same, and pharmaceutical use thereof.

"Aminoglycoside antibiotics are a generic term for glycoside antibiotics containing amino sugar or aminocyclitol and exclude a group of antibiotics such as macrolides, nucleosides, and anthracyclines. Up to now, a number of aminoglycoside antibiotics have been discovered from culture of actinomycetes or bacteria. Among them, streptomycin, neomycin, kanamycin, gentamicin, ribostamycin, tobramycin and the like have been used as useful
chemotherapeutic agents. On the other hand, the widespread use of these aminoglycoside antibiotics in clinical practice has led to a problem of the appearance of bacteria resistant to aminoglycoside antibiotics.

"Kanamycins (kanamycin A, kanamycin B, and kanamycin C) are aminoglycoside antibiotics produced by Streptomyces kanamyceticus. Kanamycins have a wide spectrum of antimicrobial activity. Since, however, many infecting bacteria become rapidly resistant to kanamycins, in recent years, the clinical adaptation of kanamycins is limited to diseases, mainly tuberculosis.

"In kanamycins, kanamycin derivatives such as dibekacins, amicacins, and arbekacins effective also against resistant bacteria have been developed based on studies on a resistant mechanism. However, bacteria resistant to these agents are appearing. Under such circumstances, the development of novel aminoglycoside antibiotics that are effective against resistant bacteria and can reduce nephrotoxicity that is a problem common to aminoglycoside antibiotics has been expected.

"Regarding aminoglycoside antibiotics comprising 2-deoxystreptamine as one constituent sugar, studies have been made on the production of novel aminoglycoside antibiotics by acquiring a mutant strain which produces an aminoglycoside antibiotic 2-deoxystreptamine-dependently, adding a 2-deoxystreptamine analog to the mutant strain, and cultivating the mixture. Also in kanamycins, there is a report that antibiotics different from kanamycins are produced by acquiring a mutant strain having a phenotype of 2-deoxystreptamine-dependent kanamycin production, adding 2-epistreptamine to the mutant strain, and cultivating the mixture (U.S. Pat. No. 3,669,838). Further, there is a report that 4-O-(alpha-D-glucopyranosyl)6-O-(3-amino-3-deoxy-.alpha.-D-glucopyranosyl)1-N-methyl-2-deoxystreptamine or 4-O-(alpha-D-glucopyranosyl)6-O-(3-amino-3-deoxy-.alpha.-D-glucopyranosyl)2-epi-streptamine is produced by adding 1-N-methyl-deoxystreptamine or myo-inosadiamine-1,3(2-epistreptamine) to a mutant strain having a phenotype of 2-deoxystreptamine-dependent kanamycin production and cultivating the mixture (Kojima, M. and Satoh, A., 'Journal of Antibiotics', (Japan), 1973, Vol. 26, p. 784-786). Furthermore, there is a report that 4-O-(6-amino-6-deoxy-.alpha.-D-glucopyranosyl)2-streptamine (LL-BM2713) are produced by adding streptamine to a mutant strain having a phenotype of 2-deoxystreptamine-dependent kanamycin production and cultivating the mixture (Borders, D. B. et al., 'Journal of Antibiotics', (Japan), 1972, Vol. 35, p. 1107-1110). Here LL-BM2713 is synonymous with 2-hydroxykanamycin A.

"The amounts of aminoglycoside antibiotics produced by the addition of the substances and cultivation of the mixture are so small that the industrial applicability of the aminoglycoside antibiotics is low. Accordingly, it can be said that novel aminoglycoside antibiotics which are clinically useful and have potent antimicrobial activity are still demanded."

In addition to the background information obtained for this patent application, NewsRx journalists also obtained the inventors' summary information for this patent application: "The present inventors have now found that novel aminoglycoside antibiotics having potent antimicrobial activity can be produced by cultivating a kanamycin producing strain derived from the genus Streptomycine together with a specific 2-deoxystreptamine analog. The present invention has been made based on such finding.

"Accordingly, an object of the present invention is to provide novel aminoglycoside antibiotic agents possessing potent antimicrobial activity and a process for producing the same.

"According to the present invention, there are provided aminoglycoside antibiotics that are compounds represented by formula (I) or their pharmacologically acceptable salts or
their solvates.

"##STR00002##

"wherein R represents amino or hydroxyl.

"According to another aspect of the present invention, there is provided a process for producing compounds represented by formula (I), the process comprising cultivating a kanamycin producing strain of the genus Streptomyces in a medium which comprises streptamine and/or myo-inositol to produce the compound.

"The compounds according to the present invention have potent antimicrobial activity against bacteria causative of various infectious diseases and can be advantageously utilized in the treatment of infectious diseases. Further, the production process according to the present invention can simply and stably supply the above compounds.

DETAILED DESCRIPTION OF THE INVENTION

"Deposit

"The strain S. Kanamyceticus-DOS according to the present invention has been deposited with International Patent Organism Depositary, National Institute of Advanced Industrial Science and Technology (address: Tsukuba Central 6 Tsukuba-shi, Higashi 1-1-1, Ibaraki, 305-8566 Japan) (original deposited date: Nov. 1, 2007) under accession number FERM BP-11052."


Keywords for this news article include: Asia, Antibacterial Agents, Antibiotics, Antiinfectives, Antimicrobials, Japan, Patents, Kanamycin, Aminoglycosides, Drugs and Therapies, Infectious Diseases and Conditions.

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Patents

"T Cell Inducing Vaccine Containing an Interepitope Sequence That Promotes Antigen Presentation" in Patent Application Approval Process (USPTO 20160367651)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent application by the inventors SHIKU, Hiroshi (Tsu-shi, JP); HARADA, Naozumi (Tsu-shi, JP); MURAOKA, Daisuke (Tsu-shi, JP); AKIYOSHI, Kazunari (Kyoto-shi, JP), filed on October 1, 2014, was made available online on December 29, 2016, according to news reporting originating from Washington, D.C., by NewsRx correspondents.

This patent application has not been assigned to a company or institution.

The following quote was obtained by the news editors from the background information supplied by the inventors: "The importance of cell-mediated immunity in tumor
rejection by a cancer host has been revealed as a result of long years of research related to immune responses against cancer. In particular, it has been revealed that CD8.sup.+ killer T cells (CD8.sup.+ cytotoxic T cells) are effector cells having an action of directly destroying tumors, that CD4.sup.+ helper T cells are important regulatory cells that enhance the functions of CD8.sup.+ killer T cells and antigen-presenting cells, and that professional antigen-presenting cells, such as dendritic cells and macrophages, stimulate T cells by presenting antigens thereto and activate T cells via costimulatory molecules, such as CD80, CD86, and cytokines, etc., and the roles and positioning of the respective cells responsible for cellular immune responses against tumors have been established as described below (Non-Patent Document 1).

"Tumor cell derived proteins, after being phagocytosed by antigen-presenting cells, are cleaved into peptides of various lengths by proteasomes, proteases, and peptidases within the cells. Among the resulting peptides, peptides of 8-10 amino acids are loaded as antigen epitope peptides onto major histocompatibility complex (MHC) class I molecules and can be presented on the surfaces of the antigen-presenting cells. CD8.sup.+ killer T cells use T cell receptors (TCRs) to specifically recognize the MHC class I/antigenic peptide complexes and become activated. The activated CD8.sup.+ killer T cells detect MHC class I/antigenic peptide complexes that are also present on tumor cells and destroy the tumor cells using effector molecules, such as granzymes and perforin.

"The function of CD4.sup.+ helper T cells is important for sufficient activation of CD8.sup.+ killer T cells (Non-Patent Document 2). Antigenic proteins taken up by the antigen-presenting cells are cleaved into various lengths by proteases and peptidases within the cells and among the resulting antigenic peptides, those of 15-20 amino acids form complexes with MHC class II molecules and can be presented on the antigen-presenting cells. CD4.sup.+ helper T cells recognize these specifically and are activated. The activated CD4.sup.+ helper T cells enhance differentiation, growth, and functions of CD8.sup.+ killer T cells via secretion of cytokines, such as interferon (IFN)-gamma. and interleukin (IL)-2. The CD4.sup.+ helper T cells also have a function of activating antigen-presenting cells via a CD40 ligand/CD40 pathway, and the antigen-presenting cells activated by the CD4.sup.+ helper T cells are improved in the capability to stimulate CD8.sup.+ killer T cells (Non-Patent Document 3). It is well known from before that CD4.sup.+ helper T cells also have an action of enhancing antigen-specific IgG antibody production in B cells.

"Based on the above understanding of T-cell immune response, a cancer vaccine therapy has been conceived where a tumor specific antigen is repeatedly administered as a vaccine antigen to induce tumor-specific CD8.sup.+ killer T cells within a patient's body to suppress the growth, metastasis, and recurrence of cancer. Various forms of the antigen of the cancer vaccines are known, such as synthetic peptides, recombinant proteins, processed cells. The present inventors have previously prepared a cancer vaccine using a full-length recombinant protein of a tumor antigenic protein as the antigen. The full-length protein includes diverse antigenic peptides recognized by CD8.sup.+ killer T cells and CD4.sup.+ helper T cells and is expected to activate both types of T cells at the same time. However, with an exogenous (extracellular) antigenic protein, although the activation of CD4.sup.+ helper T cells via the MHC class II pathway proceeds readily, the activation of CD8.sup.+ killer T cells via the MHC class I pathway does not proceed readily. This is due to reasons of mechanisms of uptake and antigen processing of exogenous antigenic proteins in antigen-presenting cells (Non-Patent Document 4).

"Therefore many attempts are being made in and outside Japan to chemically synthesize short chain peptides, mainly, epitope peptides of 8 to 10 residues recognized by CD8.sup.+ killer T cells and clinically apply vaccines using these peptides as antigens. With short peptide antigens, presentation to T cells occurs readily because such peptides bind directly
to MHC molecules on cell surfaces without undergoing uptake and antigen processing within antigen-presenting cells. Also, short chain peptides can be manufactured by chemical synthesis and has the advantage of being simpler to manufacture than recombinant proteins, which requires the use of genetically modified organisms.

"However, immunological problems have been pointed out in regard to the direct binding of short peptide antigens to MHC molecules on cell surfaces without undergoing uptake and antigen processing within antigen-presenting cells (Non-Patent Document 5). Exogenous antigenic proteins are phagocytosed by professional antigen-presenting cells, such as dendritic cells and macrophages, that are provided with costimulatory molecules (CD80, CD86, etc.) and are processed within the cells, and antigen presentation to T cells is performed in a mode with appropriate concentration and costimulation. On the other hand, short peptide antigens bind directly to MHC molecules on cell surfaces and therefore even general somatic cells, which do not have uptake ability (phagocytic ability) and do not express costimulatory molecules, can present the short peptide antigens in a massive, inappropriate mode that lacks costimulation. In this case, the T cells that recognize the complexes of the short peptide antigens and MHCs become prone to depletion and apoptosis and this can consequently lead to immunological tolerance to the targeted antigen.

"In view of such problems of short chain peptide vaccines, the usefulness of long chain synthetic peptide antigens is attracting attention (Non-Patent Document 5). Along chain peptide antigen is a polypeptide having several dozen residues such that include two or more T cell recognition epitope peptides. Unlike a short chain peptide, a long chain peptide antigen cannot bind directly in intact form to an MHC molecule. As with protein antigens, long chain peptide antigens undergo uptake and intracellular processing by professional antigen-presenting cells with phagocytic ability, such as dendritic cells and macrophages, and the T cell epitope peptides included in the long chain peptide antigens form complexes with MHC molecules only thereafter and are thus presented to T cells in a mode with appropriate concentration and costimulation. Long chain peptide antigens do not function as vaccine antigens with general somatic cells lacking antigen phagocytic ability and therefore, unlike short chain peptide vaccines, do not give rise to inappropriate antigen presentation to T cells. Moreover, chemical synthetic methods can be used to manufacture long chain peptide antigens and therefore, as with short peptide antigens, the advantage of being comparatively easy to manufacture is also provided.

"Long chain peptide antigens manufactured by chemical synthesis also have a major advantage in that it is possible to freely design the sequence. A long chain peptide antigen is designed so that two or more T cell epitopes are included within a single peptide, and these T cell epitopes may be derived from a single cancer antigenic protein or may be derived from a plurality of cancer antigenic proteins. Also, the T cell epitopes may be restrictive to a single MHC or may be restrictive to a plurality of MHCs. It is also possible to design so that a long chain peptide antigen includes an epitope recognized by a CD8.sup.+. killer T cell and an epitope recognized by a CD4.sup.+. helper T cell at the same time. Long chain peptide antigens can thus serve as high performance vaccine antigens that can induce diverse T cells. However, for the set of epitopes contained in a long chain peptide antigen to be presented to T cells efficiently, the epitopes must be cut out as epitope peptides of lengths and sequences enabling binding with MHC molecules by sequences between the respective epitopes on the long chain peptide antigen being cleaved appropriately by proteasomes, proteases, and peptidases in an antigen-presenting cell based on the mechanism of antigen presentation reactions.

"In regard to MHC class II binding epitope peptides recognized by CD4.sup.+. helper T cells, the terminuses of the epitope peptide binding groove on an MHC class II molecule are in an open state and epitope peptides of various lengths can bind to the MHC class II molecule
Therefore, with MHC class II binding epitope peptides, the restriction of length is comparatively relaxed. On the other hand, in regard to MHC class I binding epitope peptides recognized by CD8.sup.+ killer T cells, the terminuses of the epitope peptide binding groove on an MHC class I molecule are in a closed state and only epitope peptides, strictly restricted to 8 to 10 residues, can bind to the MHC class I molecule. It is thus especially important with MHC class I binding epitope peptides that peptides of appropriate lengths are produced in antigen-presenting cells.

"The lengths and sequences of the epitope peptides that bind to MHC molecules are determined by complex cleavage reactions involving intracellular proteasomes and various proteases and peptidases. In the production of MHC class I binding epitope peptides, proteasomes present in the cytoplasm first perform rough cleavage of the antigenic protein or long chain peptide antigen. The terminuses of the resulting peptide fragments are cleaved by other proteases and peptidases based on certain substrate sequence specificities and trimmed to appropriate lengths (trimming reactions). Although a group of enzymes that trim the N-terminuses of the peptide fragments in this process exists, enzymes that trim the C-terminuses are unknown, and determination of the C-terminuses of the MHC class I binding epitope peptides is dependent only on the initial cleavage reactions by the proteasomes (Non-Patent Document 7). However, the substrate sequence specificities of proteasomes have not been revealed in detail and it is difficult to predict peptide sequences that can be cleaved readily by proteasomes.

"In view of the above epitope production mechanism, how the sequences between the epitopes included in the long chain peptide antigen are cleaved by the intracellular proteasomes, proteases, and peptidases strongly influences the production of the preceding and subsequent epitope peptides and is consequently considered to be an extremely important factor that defines the induction of T cells by vaccines using long chain peptide antigens."

In addition to the background information obtained for this patent application, NewsRx journalists also obtained the inventors’ summary information for this patent application: "Problem to be Solved by the Invention

"For the T cell epitope peptides included in a certain long chain peptide or protein to be efficiently presented as antigens, the epitope peptide sequences must be cut out appropriately from the long chain peptide or protein by intracellular proteasomes, proteases, and peptidases. For this purpose, it is necessary for the sequences between the epitopes to aptly include recognition sites for the proteasomes, proteases, and peptidases.

"In conventional arts, it was hardly examined what sort of interepitope sequence would satisfy the above condition. Therefore, with a vaccine using a long chain peptide antigen designed without examining the interepitope sequence, the induction of T cells that recognize the included epitope peptides is weak or cannot be confirmed in some cases.

"The present invention has been made in view of the circumstances described above, and an object thereof is to provide, in a long chain peptide antigen containing a plurality of epitope peptides, an interepitope sequence that effectively achieves antigen presentation of the respective epitope peptides.

"Means for Solving the Problem

"In a vaccine including a long chain peptide antigen having a plurality of epitopes according to the present invention for achieving the above object, each interepitope sequence is one selected from a group consisting of two to ten consecutive tyrosines, two to ten consecutive threonines, two to ten consecutive alanines, two to ten consecutive histidines, two to ten consecutive glutamines, and two to ten consecutive asparagines and it is especially preferable for the sequence to be tyrosines, glutamines, or asparagines. Here, the number of consecutive
tyrosines, consecutive threonines, consecutive histidines, consecutive glutamines, or consecutive asparagines is preferably four to eight, more preferably four to six, and especially six.

"By having the above arrangement, the long chain peptide antigen is cleaved inside a body by enzymes within a living body so that the respective epitopes can perform antigen presentation and the respective epitopes thus exhibit antigen presenting abilities effectively. Also, with a vaccine using along chain peptide antigen having an interepitope sequence constituted of consecutive tyrosines, uptake into antigen-presenting cells is also improved.

"The vaccine is preferably one selected from the group consisting of anticancer vaccines (including dendritic cell vaccines), antibacterial vaccines, and antiviral vaccines.

"Also, the vaccine is preferably at least one selected from the group consisting of peptide vaccines, DNA vaccines, mRNA vaccines, and dendritic cell vaccines. In a case of a dendritic cell vaccine, a peptide antigen or mRNA is added.

"Also in a case where the vaccine is a peptide vaccine, it is preferably arranged as a vaccine in combination with a hydrophobized polysaccharide, especially, cholesterol-modified pullulan (CHP) as a delivery system.

"Effect(s) of the Invention

"With the present invention, the plurality of epitopes within the vaccine can perform antigen presentation effectively and therefore a vaccine having a high effect can be provided.

BRIEF DESCRIPTION OF THE DRAWINGS

"FIG. 1 The influences of differences in interepitope sequence of long chain peptide vaccines, containing a plurality of CD8.sup.+ T cell epitopes, on specific CD8.sup.+ T cell induction by the vaccines were examined. Long chain peptide antigens MEN, all containing three types of mouse CD8.sup.+ T cell epitope sequences (MA p265, NY p81, and mERK2 9m), were synthesized. The sequence between the respective epitopes was set to one of six consecutive tyrosines (Y.sub.6), glycines (G.sub.6), prolines (P.sub.6), or threonines (T.sub.6). Each long chain peptide antigen was complexed with CHP, which is a type of delivery system, and administered as a vaccine to a mouse. In the process of administration, CpG oligo DNA was coadministered as an adjuvant. Spleen cells were collected one week after the final administration and the frequencies of CD8.sup.+ T cells specific to the respective epitope sequences were measured by an intracellular cytokine staining method.

"FIG. 2 The influences of differences in interepitope sequence of long chain peptide vaccines, containing a plurality of CD8.sup.+ T cell epitopes, on therapeutic effects of the vaccines were examined. Long chain peptide antigens MEN, all containing three types of mouse CD8.sup.+ T cell epitope sequences (MA p265, NY p81, and mERK2 9m), were synthesized. The sequence between the respective epitopes was set to one of six consecutive tyrosines (Y.sub.6), glycines (G.sub.6), or prolines (P.sub.6). Each long chain peptide antigen was complexed with CHP and administered in a single dose as a vaccine to a mouse. As a control, a short chain peptide vaccine, constituted of just the mERK2 9m peptide, was mixed with Freund's incomplete adjuvant and administered. In the process of administration, CpG oligo DNA was coadministered as an adjuvant. On the day after administration, a mouse fibrosarcoma cell line CMS5a, expressing mERK2 as a tumor antigen and presenting the CD8.sup.+ T cell epitope mERK2 9m derived from the same antigen, was implanted subcutaneously and its growth was recorded over time.

"FIG. 3 The influences of differences in interepitope sequence of long chain peptide vaccines, containing a plurality of CD8.sup.+ T cell epitopes, on specific CD8.sup.+ T cell induction by the vaccines were examined. Long chain peptide antigens NME, all containing three types of mouse CD8.sup.+ T cell epitope sequences (MA p265, NY p81, and mERK2 9m),
were synthesized. The antigens differ from the MEN in FIG. 1 in the order of the three types of epitopes. The sequence between the respective epitopes was set to one of six consecutive tyrosines (Y.sub.6), glycines (G.sub.6), or prolines (P.sub.6). Vaccines containing the respective long chain peptide antigens were administered to mice in the same manner as in FIG. 1 and the frequencies of CD8.sup.+ T cells specific to the respective epitope sequences were measured by the intracellular cytokine staining method.

"FIG. 4 Whether or not the usefulness of an interepitope sequence, constituted of consecutive tyrosines, is influenced by preceding and subsequent epitope sequences was examined. Long chain peptide antigens MEN, ENM, and NME, all containing three types of mouse CD8.sup.+ T cell epitope sequences (MA p265, NY p81, and mERK2 9m), were synthesized. MEN, ENM, and MEN differ in the order of the three types of epitopes. The sequence between the respective epitopes was set to six consecutive tyrosines (Y.sub.6). Vaccines containing the respective long chain peptide antigens were administered to mice in the same manner as in FIG. 1 and the frequencies of CD8.sup.+ T cells specific to the respective epitope sequences were measured by the intracellular cytokine staining method.

"FIG. 5 The influences of the difference between a native sequence and a consecutive tyrosine sequence as the interepitope sequence on specific CD8.sup.+ T cell induction and specific CD4.sup.+ T cell induction by vaccines were examined. A long chain peptide antigen ESO1 LP (native type) and a long chain peptide antigen ESO1 LP (Y.sub.6), both containing a mouse CD8.sup.+ T cell epitope sequence (NY p81) and a mouse CD4.sup.+ T cell epitope sequence (NY p91) that are derived from human NY-ESO-1 antigen, were synthesized. As the sequence between epitopes, the native amino acid sequence of NY-ESO-1 was retained with ESO1 LP (native type) and the sequence of six consecutive tyrosines (Y.sub.6) was used with ESO1 LP (Y.sub.6). Vaccines containing the respective long chain peptide antigens were administered to mice in the same manner as in FIG. 1 and the frequencies of CD8.sup.+ T cells and CD4.sup.+ T cells specific to the respective epitope sequences were measured by the intracellular cytokine staining method.

"FIG. 6 For interepitope sequences constituted of consecutive tyrosines, the relationship between the number of tyrosines and specific T cell induction by vaccines were examined. Long chain peptide antigens MEN, all containing three types of mouse CD8.sup.+ T cell epitope sequences (MA p265, NY p81, and mERK2 9m), were synthesized. The sequence between the respective epitopes was set to one to six consecutive tyrosines. Vaccines containing the respective long chain peptide antigens were administered to mice in the same manner as in FIG. 1 and the frequencies of CD8.sup.+ T cells specific to the respective epitope sequences were measured by the intracellular cytokine staining method.

"FIG. 7 For interepitope sequences constituted of consecutive tyrosines, the relationship between the number of tyrosines and specific T cell induction by vaccines were examined. Long chain peptide antigens MEN, all containing three types of mouse CD8.sup.+ T cell epitope sequences (MA p265, NY p81, and mERK2 9m), were synthesized. The sequence between the respective epitopes was set to five to ten consecutive tyrosines. Vaccines containing the respective long chain peptide antigens were administered to mice in the same manner as in FIG. 1 and the frequencies of CD8.sup.+ T cells specific to the respective epitope sequences were measured by the intracellular cytokine staining method.

"FIG. 8 The influences of differences in interepitope sequence of long chain peptide vaccines on uptake of the vaccines into antigen-presenting cells were examined. Long chain peptide antigens MEN, all containing three types of mouse CD8.sup.+ T cell epitope sequences (MA p265, NY p81, and mERK2 9m), were synthesized. The sequence between the respective epitopes was set to one of six consecutive tyrosines (Y.sub.6), glycines (G.sub.6), or prolines (P.sub.6). Each long chain peptide antigen, labeled with the fluorescent dye FAM, was
complexed with CHP and administered in vitro to mouse dendritic cells and mouse macrophages. After 60 minutes, the fluorescence uptakes into the respective cells were measured by flow cytometry with the P5 fraction in the figure being deemed to correspond to the dendritic cells and the P.sub.6 fraction in the figure being deemed to correspond to the macrophages.

"FIG. 9 The influences of differences in interepitope sequence of long chain peptide vaccines on uptake of the vaccines into antigen-presenting cells were examined. The same FAM-labeled long chain peptide antigens as those in FIG. 8 were complexed with CHP and administered subcutaneously to mice. After 16 hours, cells were collected from a regional lymph node of the administration site, and the fluorescence uptakes into dendritic cells and mouse macrophages were measured by flow cytometry with the P4 fraction in the figure being deemed to correspond to the dendritic cells and the P5 fraction in the figure being deemed to correspond to the macrophages.

"FIG. 10 The influences of differences in interepitope sequence of long chain peptide vaccines, containing a plurality of CD8.sup.+ T cell epitopes, on specific CD8.sup.+ T cell induction by the vaccines were examined. Long chain peptide antigens NMW, all containing three types of human CD8.sup.+ T cell epitope sequences (NY p157:HLA-A0201 restrictive, MA4 p143:HLA-A2402 restrictive, and WT1: HLA-A2402 restrictive p235), were synthesized. The sequences between the respective epitopes were set to those of six consecutive amino acids shown in the figure. Each long chain peptide antigen was complexed with cholesterol-modified pullulan (CHP), which is a type of delivery system, and administered in vitro as a vaccine to an immortalized human B cell line (LCL). Using this as the antigen-presenting cells, co-culturing with CD8.sup.+ T cell clone 1G4 cells specific to NY p157 was performed and the activation of the 1G4 cells due to antigen presentation was measured by an IFN-.gamma. ELISPOT method. As a positive control, LCL administered with an NY p157 short chain peptide was used as antigen-presenting cells, and as a negative control, LCL without antigen added was used as antigen-presenting cells.

"FIG. 11 The influences of differences in interepitope sequence of RNA vaccines, containing a plurality of CD8.sup.+ T cell epitopes, on specific CD8.sup.+ T cell induction by the vaccines were examined. mRNAs encoding long chain peptide antigens NMW, all containing three types of human CD8.sup.+ T cell epitope sequences (NY p157:HLA-A0201 restrictive, MA4 p143:HLA-A2402 restrictive, and WT1: HLA-A2402 restrictive p235), were synthesized. The sequences between the respective epitopes were set to those of six consecutive amino acids shown in the figure. Each mRNA was introduced in vitro as a vaccine into LCL by an electroporation method. Using this as the antigen-presenting cells, co-culturing with CD8.sup.+ T cell clone 1G4 cells specific to NY p157 or CD8.sup.+ T cell clone RNT007#45 cells specific to M4A p143 was performed and the activation of the CD8.sup.+ T cells due to antigen presentation was measured by the IFN-.gamma. ELISPOT method."


Keywords for this news article include: Antigen-Presenting Cells, Cancer, Patents, Epitopes, Genetics, Oncology, Protease, Vaccines, Cytokines, Cytometry, Immunology, Proteomics, Amino Acids, CD Antigens, Macrophages, CD4 Antigens, CD8 Antigens, Immunization, Immune System, Myeloid Cells, Dendritic Cells, Differentiation, Biological
Factors, Biological Products.

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AndroScience Corporation

Patent Application Titled "Compositions Including Androgen Receptor Degradation (ARD) Enhancers and Methods of Prophylactic Or Therapeutic Treatment of Skin Disorders and Hair Loss" Published Online (USPTO 20160367513)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors Shih, Charles (Solana Beach, CA); Su, Ching-Yuan (Del Mar, CA); Wang, Hui-Kang (San Diego, CA); Shi, Qian (Chapel Hill, NC), filed on August 11, 2016, was made available online on December 29, 2016.

The assignee for this patent application is AndroScience Corporation.

Reporters obtained the following quote from the background information supplied by the inventors: "Reduced self-esteem and depression is often present among those suffering from skin disorders and hair loss. In some instances psychological effects can be dramatic. Thus, the development of therapeutics to treat each medical condition is underway. The present invention addresses current therapies and provides new compositions that have promising results.

"Acne (acne vulgaris) is a common inflammatory disease of the skin, caused by changes in the pilosebaceous units (skin structures including a hair follicle and its associated sebaceous gland) in response to sexual hormones. Acne is most often found on the face, chest and back. The condition is most common at puberty and generally tends to disappear, or decrease when the individual reaches the early twenties. However, acne can remain problematic into the third to fifth decade of life and in some instances even longer.

"The basic acne lesion, called a comedo or comedone is an enlarged hair follicle plugged by excess oil secreted from the sebaceous gland in response to androgen. In addition, dead skin cells and the build up of the bacteria Propionibacterium acnes also contribute to enlarging hair follicles. P. acnes produce lipases which can split triglycerides into free fatty acids, which can irritate the follicular cells. The severity of acne can range from mild to severe. In addition to comedones, papules, pustules, nodules and inflammatory cysts are also lesions associated with acne. Non-inflamed sebaceous cysts, also called epidermoid cysts, may occur in association with inflammatory acne or alone but are not usually a constant feature, After resolution of acne, unsightly scars may remain.

"Many products are available for the treatment of acne, the most popular including exfoliation products, antibiotics, topical bactericides, retinoids, and oral hormonal treatments. However each has potential drawbacks. More recently compounds capable of inducing degradation of the androgen receptor are under investigation as potential treatment for androgen receptor associated disorders.

"Exfoliation either manually or chemically attempts to remove dead skins cells from the skin therefore reducing the likelihood of blocked pores. Exfoliation may be performed manually by using scrubbing products or may be performed chemically. The chemical exfoliation products salicylic acid and glycolic acid are available as a chemical peel. Exfoliation may result in flaking of the skin or irritation.
Antibiotics, either oral or topical, are commonly used to attack the bacteria P. acnes. Erythromycin, clindamycin, cotrimoxazole and numerous tetracycline derivatives (such as doxycycline, oxytetracycline, tetracycline chloride, limecyline and minocyline) are commonly prescribed as treatments for acne. Although antibiotics are effective at reducing bacterial colonies, reducing the presence of bacteria does not affect the oil secretion from the sebaceous gland, and the potential development of bacterial strains resistant to antibiotics is also a concern.

Like antibiotics, topical bactericides such as benzoyl peroxide attack bacteria Propionibacterium acnes. Although topical bactericides have the added benefit over antibiotics in that bacterial resistance is not found, the powerful oxidizer benzoyl peroxide can cause skin dryness, redness and can bleach clothing. Therefore methods to reduce the frequency of use or decreased concentrations of the powerful oxidizer would be a significant benefit over current therapies.

Retinoids such as the topical retinoids tretinoin (brand name Retin-A), adapalene (brand name Differin) and tazarotene (brand name Tazorac) are related to vitamin A and may regulate the cell cycle in the follicle lining. Topical retinoids can cause significant irritation of the skin. Oral retinoids such as the vitamin A derivative isotretinoin (brand name Accutane and Sotret) are believed to reduce oil secretion from the sebaceous gland but are also believed to have adverse side effects.

Androgenetic Alopecia is the most common form of hair loss in men. This condition is also commonly known as male-pattern baldness. Hair is lost in a well-defined pattern, beginning above both temples. Over time, the hairline recedes to form a characteristic 'M' shape. Hair also thins at the crown of the head, often progressing to partial or complete baldness. The pattern of hair loss in women differs from male-pattern baldness. In women, the hair becomes thinner all over the head, and the hairline does not recede. Androgenic alopecia in women rarely leads to total baldness. Minoxidil is the only FDA-approved treatment for androgenetic alopecia; however, it is not targeted at the function of androgen and effectiveness is not widespread.

Higher serum androgen levels have been correlated with the presence of acne, androgenetic alopecia and hair loss in some women. Androgens are known for their effects on sebum excretion, and terminal sebocyte differentiation is assisted by peroxisome proliferator-activated receptor ligands. Hormonal treatments have been identified as having a potential effect on acne and androgenetic alopecia. Compounds with anti-androgenic properties include estrogens combined with progestins, such as ethinyl estradiol with cyproterone acetate, chlormadinone acetate, desogestrel, drospirenone, levonogestrel, norethindrone acetate, norgestimate. Other compounds used as anti-androgens include those that directly blocking the androgen receptor (such as flutamide) or inhibit androgen activity at various levels such as corticosteroids, spironolactone, cimetidine and ketoconazole. However androgens are involved in many biological processes; therefore, blocking or inhibiting androgen binding to its corresponding receptor results in increased levels of available androgen in the surrounding environment, which affects other androgen associated biological processes and can lead to undesirable side effects.

A new group of anti-androgenic compounds have been proposed that induce degradation of the androgen receptor. These compounds differ from conventional anti-androgens that block androgen receptor and ligand (androgen) binding. Unlike widely used anti-androgen therapies, these new compounds prevent the accumulation of excess ligands (androgen) to act on androgen receptor and thus are predicted to have fewer adverse effects. Although a variety of compounds are proposed, the technology is not yet clinically available and the long term effects are not yet known.
"Although the majority of treatments for skin disorders utilize a single active compound or pharmaceutical, a combination of therapies including a topical retinoid combined with oral antibiotics has been explored in mild to moderate inflammatory acne. These combinations are believed to lead to a rapid dose reduction and quicker discontinuation of oral antibiotics increasing the effectiveness and reducing the development of bacterial resistance to antibiotics. Although combinations of therapies have been proposed, current therapies attempt to reduce symptoms associated with skin disorders and do not selectively target the cause of the disorder. Therefore there remains a need to develop methods and compositions that selectively target pathways that lead to the skin disorders while also treating associated symptoms."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors' summary information for this patent application: "The present invention addresses deficiencies in current treatments of skin disorders and hair loss and provides related benefits. Currently there are no androgen-associated topical therapies that attempt to block androgen activity and the only oral treatment for androgenetic alopecia, finasteride, is used to block the conversion of testosterone into DHT; there is no method to modulate the presence or availability of the underlying androgen receptor and thus do not target the cause of the disorder. The present invention addresses this deficiency by providing compositions and methods that at least in part modulate the presence of the androgen receptor itself and thus provides a more effective treatment. In some embodiments, a combined modulation approach is provided, wherein at least one compound is an ARD enhancer as described herein.

"The methods and compositions of the present invention treat or prevent a variety of skin disorders and hair disorders by administering one or more of the disclosed compounds or derivatives thereof. The ARD enhancers included herein include but are not limited to those provided in FIGS. 1 and 2. Among the ARD enhancers included herein include but are not limited to those provided in FIGS. 1 and 2. Among the ARD enhancers include ASC-J9, ASC-J15, ASC-Q9, ASC-Q44, ASC-Q49, ASC-Q77, ASC-Q98, ASC-Q99, ASC-Q101, ASC-Q102, ASC-Q103, ASC-Q110 or ASC-Q111, ASC-Q113, ASC-Q116, ASC-JM1, ASC-JM2, ASC-JM4, ASC-JM5, ASC-JM6, ASC-JM7, ASC-JM12, ASC-JM13, ASC-JM14, ASC-JM16, ASC-JM17, ASC-JM18 and ASC-JM19.

"In one aspect of the present invention compositions for the prevention or treatment of a skin disorder is provided. In this aspect, the first compound is an androgen receptor degradation (ARD) enhancer. ARD enhancers are compounds that modulate the degradation of the androgen receptor, which is different from conventional anti-androgens that interfere the receptor-ligand (androgen) binding. In one embodiment, the ARD enhancer induces degradation of the androgen receptor. In another embodiment, the ARD enhancer increases the rate of androgen receptor degradation compared to the absence of an ARD enhancer. In yet another embodiment, the ARD enhancer prevents the aggregation of mutant androgen receptors. In still another embodiment, an ARD enhancer prevents androgen and androgen receptor (a transcription factor)-mediated gene activation. The second compound is selected from at least one of variety of compounds including a bactericide, an antibiotic, an anti-microbial peptide, Vitamin A, a Vitamin A derivative, or a retinoid, and an inflammatory compound. The combination of such compounds will provide more effective treatments for skin disorders while reducing adverse effects in comparison to current treatments. Though nonlimiting the inventors believe the ARD enhancer decrease oil secretion from a sebaceous gland, reduce proliferation of sebocytes or inhibit or reducing sebocyte differentiation. The inventors believe the second compound may target bacteria colonies or will provide additional anti-inflammatory assistance as needed when treating a variety of skin disorders. Thus, the present invention allows for the treatment of symptoms as well as modulation of a pathway to prevent or limit the occurrence of the skin disorders."
"In another aspect of the present invention a pharmaceutical composition is disclosed, the pharmaceutical composition including an androgen receptor degradation (ARD) enhancer, a bactericide and a pharmaceutically acceptable carrier. The pharmaceutical may be topically applied, injected and the like depending on the desired route of administration. In the preferred embodiment the bactericide is benzoyl peroxide.

"In yet another aspect of the present invention a pharmaceutical composition is disclosed, the pharmaceutical composition including an androgen receptor degradation (ARD) enhancer, an antibiotic and a pharmaceutically acceptable carrier.

"In still another aspect of the present invention a pharmaceutical composition is disclosed, the pharmaceutical composition including an androgen receptor degradation (ARD) enhancer, an antimicrobial peptide, and a pharmaceutically acceptable carrier.

"In still another aspect of the present invention a pharmaceutical composition is disclosed, the pharmaceutical composition including an androgen receptor degradation (ARD) enhancer, Vitamin A, a Vitamin A derivative or a retinoid, and a pharmaceutically acceptable carrier.

"In still another aspect of the present invention a pharmaceutical composition is disclosed, the pharmaceutical composition including an androgen receptor degradation (ARD) enhancer, an anti-inflammatory compound, and a pharmaceutically acceptable carrier.

"In still another aspect of the present invention a method of treating or preventing a skin disorder is provided including administering to an individual in need thereof a therapeutically effective amount of a pharmaceutical composition of the present invention. In one embodiment the pharmaceutical composition includes an ARD enhancer and a bactericide. In another embodiment the pharmaceutical composition includes an ARD enhancer and an antibiotic. In yet another embodiment the pharmaceutical composition includes an ARD enhancer and an anti-microbial peptide. In still another embodiment the pharmaceutical composition includes and ARD enhancer and Vitamin A, a Vitamin A derivative or a retinoid. In still another embodiment the pharmaceutical composition includes an ARD enhancer and an anti-inflammatory compound. In various embodiments, nonlimiting examples of skin disorders are acne, alopecia, atopic dermatitis, rosacea, lupus, axillary osmidrosis, a wound and the like.

"In still other aspects of the present invention, the combinations of compounds are provided as a cosmetic in a cosmetic formulation. The invention including a cosmetic composition including, in a cosmetically acceptable carrier, an ARD enhancer and a compound such as but not limited to a bactericide, an antibiotic, an anti-microbial peptide, Vitamin A, a Vitamin A derivative or a retinoid, and an anti-inflammatory compound.

"In still other aspects of the present invention an ARD enhancer is combined with at least one composition or compound for the treatment or prevention of hair loss. The ARD enhancer may be combined with oligopeptides, peptides, extracts, nucleotides and the like. In some embodiments, the compositions of the present invention treat androgenetic alopecia. In some embodiments, a compound suspected of preventing hair loss is provided in combination with a compound suspected of stimulating hair growth.

BRIEF DESCRIPTION OF THE DRAWINGS

"FIG. 1 depicts a structural formula of ASC-J15 and ASC-J9, exemplary ARD enhancers.

"FIGS. 2A, 2B, 2C, 2D, and 2E depict a table of structural formulas of various ARD enhancers with corresponding values for relative potency (corresponding to percent AR reduction, compared to vehicle control) Anti-AR activity was assayed by western blot analysis after 48 hours of incubation of the human prostate cancer cell line LNCaP in the presence of the
corresponding ARD enhancer. The value indications for activity can be found in Table 1 provided within Example 2.

"FIGS. 3A and 3B depict western blot analysis demonstrating the reduction of Androgen Receptor (AR) protein expression in human prostate cancer cells (LNCaP) after exposure to compounds (3A) ASC-Q49, ASC-Q103, ASC-JM12, ASC-JM14; and (3B) ASC-Q49, ASC-Q77, ASC-JM4, and ASC-JM5.

"FIG. 4 depicts a graphical representation of cell growth (proliferation) and androgen receptor expression levels in ASC-J9-treated LNCaP cells. LNCaP cells were plated and incubate for two days. ASC-J9 was added to the medium at a final concentration of 5 uM with and without DHT. Referring to FIG. 4A, the results demonstrate that while DHT promote LNCaP cell growth in culture, ASC-J9 significantly inhibits cell growth regardless in the presence or absence of DHT, FIG. 4B depicts normalized androgen receptor signals for the ASC-J9 sample as a percentage of baseline (Day 0) value. Cell lysates collected from cell cultured with ASC-J9 (FIG. 4A) and AR expression was detected by Western Blot. Data indicated that the inhibition of AR expression in LNCaP cells, induced by ASC-J-9, is in correlation with cell growth inhibition.

"FIG. 5 depicts a western blot analysis of LNCaP cell lysates that were cultured with ASC-J9 for 48 hr. in the presence or absence of DHT. Data demonstrated that ASC-J9 reduced AR, PR proteins expression regardless in the presence or absence of DHT, but did not affect expression of other proteins, such as ER, PPAR, RXR, HSP and Actin.

"FIG. 6 depicts a western blot analysis of T47D (a human breast cancer) cell lysates demonstrating the specificity of ASC-J9's ability to degrade the androgen receptor. Data demonstrated that ASC-J9 selectively reduced expression of androgen receptor (AR). The expression of other receptor proteins, Peroxisome proliferator-activated receptors gamma and beta (PPAR.gamma., PPAR.beta.), retinoid X receptor alpha (RXR.alpha.), estrogen receptor alpha and beta (ER.alpha. and Er.beta.), extracellular signal-related kinase (ERK), heat shock protein 70 (HSP70) and actin, was not affected.

"FIG. 7A depicts a western blot analysis of LNCaP cell lysates upon exposure to compound ASC-J9 and cyclohexamide, a protein synthesis inhibitor. The reduction of androgen receptor over time in the presence of a protein synthesis inhibitor indicates ASC-J9 enhances degradation of AR protein. FIG. 7B is a western blot demonstrating that ASC-J9 is the only anti-androgen that is capable of reducing AR protein expression, and not the conventional anti-androgens, such as CPA (cyproterone acetate), HF (hydroxyflutamide), or finasteride.

"FIG. 8A depicts fluorescence micrographs of monkey kidney COS-1 cells transfected with the plasmid GFPAR (which contained a green fluorescent protein gene and wild type androgen receptor gene). Transfected cells were treated with vehicle only (control) or with the test compound ASC-J9. Micrographs were taken under fluorescent imaging conditions for green fluorescent protein (GFPAR). Control cells contained dense quantity of fluorescence in nucleus (i.e., the wild type AR) and dimmer fluorescence in the cytoplasm. Cells that had been treated with ASC-J9 dim fluorescent was detected in both nucleus and cytoplasm, indicated ASC-J9 reduces (or degrades) the expression of AR. FIG. 8 depicts fluorescence micrographs of monkey kidney COS-1 cells transfected with the plasmid GFPARQ49 (which contained a green fluorescent protein and a mutant androgen receptor poly Q49 gene) as described in detail in Example 5. Transfected cells were treated with vehicle only (control) or with the test compound ASC-J9, Micrographs were taken under fluorescent imaging conditions for green fluorescent protein (GFPARQ49). Control cells contained large amounts of fluorescent inclusions or aggregates (i.e., the aggregated mutant poly Q49) in cytoplasm. Cells that had been treated with ASC-J9 contained substantially smaller amounts of fluorescent inclusions,
suggesting that the expression of mutant poly Q49 androgen receptor was inhibited or degraded by ASC-J9 treatment.

"FIG. 9 depicts representative photographs of Fuzzy rats treated as described in detail in Example 6. Fuzzy rats were treated with topical creams containing vehicle only (left side animal) or ASC-J9 (25 micromolar, right side animal) for the times indicated. The photographs show that bands of sebaceous glands and sebum secretion (skin color) were reduced within 4-5 weeks in the Fuzzy rats treated with ASC-J9 (right side animal).

"FIG. 10 depicts representative photographs (FIGS. 10A-C) and graphical representations of duct and lobe size (FIGS. 10D, 10E) of sebaceous glands in Fuzzy rat skin. Skin tissue samples (split skin) were prepared and examined by microscopy, FIG. 10A-C are photographs depicting the duct and lobe of the sebaceous gland (of a split skin sample) upon treatment with a vehicle control (8A) or compound ASC-J9 (8B) and a castrated animal (8C). In FIG. 10D, size of glandular lobes were measured by tracing the edges of the well-preserved glandular lobules, and then quantified with Image J software, and expressed as pixel counts contained within the traced areas. The data obtained showed topical treatment with the vehicle only (control cream) did not produce a significant change in glandular lobe size. Topical treatment of male rats with the various concentration of test compounds ASC-J9 resulted in a significant reduction in the size of the sebaceous glandular lobe, though not to the extent caused by castration, but are better than the conventional anti-androgen flutamide. FIG. 10E depicts representative data showing that ASC-J9 applied to skin significantly reduced the size of ducts of sebaceous glands in male Fuzzy rats comparable to the castration effect and better than flutamide.

"FIG. 11A depicts results from studies of an animal model of alopecia (hair loss or baldness), as described in detail in EXAMPLE 7. Six-week-old male C57BL/6J mice were shaved with an electric clipper, and then treated with a hair-removal cream. One group of mice, represented by the two left-most animals (marked ‘vehicle #1’ and ‘vehicle #2’) were shaved and treated only with ethanol. A second group of mice, represented by the two right-most animals (marked ‘testosterone #1’ and ‘testosterone #2’) were shaved and treated with a testosterone/ethanol solution in the morning and a control solution in the afternoon. The animals were photographed at the end of the 20-day treatment period. Mice treated with the ethanol vehicle alone (without testosterone) showed rapid re-growth of hair in the shaved areas after 20 days of topical treatment. Mice treated with testosterone showed little or no re-growth of hair in the shaved areas after 20 days of topical treatment. FIG. 11 depicts further results from studies of an animal model of alopecia (hair loss or baldness), as described in detail in EXAMPLE 7. Six-week-old male C57BL/6J mice were shaved with an electric clipper, and then treated with a hair-removal cream. One group of mice, (represented by the animals marked ‘testosterone #1’ and ‘testosterone #2’) were shaved and treated topically with testosterone in the morning and control solution in the afternoon for twenty days. A second group of mice (represented by the animals marked ‘ASC-J9/testosterone #1’ and ‘ASC-J9/testosterone #2’) were shaved and treated topically with testosterone in the morning and ASC-J9 in the afternoon for twenty days. Mice that received topical morning applications of testosterone and afternoon applications of the control solution only showed little or no re-growth of hair in the shaved areas after 20 days of treatment. Mice that received topical morning applications of testosterone and afternoon applications of ASC-J9 showed hair growth on day 8 and fully re-growth of hair in the shaved areas after 20 days of topical ASC-J9 treatment. These results demonstrate that topical application of ASC-J9, is able to overcome testosterone-induced hair growth suppression in an animal model.

"FIG. 12 depicts a photograph demonstrating the reduction of LNCaP growth in nude mice. The ASC-J9 mouse received 100 mg/kg, 3 times per week via IP injection for 7 weeks.
The tumor weight reduced 75% and serum PSA level reduced 90% as compared to the vehicle control animal.

"FIG. 13 demonstrates the ability of ASC-J9 to hasten wound healing in an animal model using Balb/c mice. Data depicts the results of treating artificial wounds on animal skin. Artificial skin wounds were created using a skin puncher on the neck area of retired breeder male Balb/c mice. Animals were then treated with vehicle cream or cream with ASC-J9 (25 \( \mu \text{M} \)) twice per day at the wound areas. Data in FIG. 13 show ASC-J9 treated animals have smaller wound openings at day 5, as compare to vehicle treated animals; and wounds were completely healed in ASC-J9 treated mice on day 10; whereas in vehicle treated animals, wound scarring remained visible. This data indicates that an ARD enhancer, ASC-J9, is capable of hastening wound healing.

"FIG. 14A depicts photographs demonstrating a representative visible improvement to skin condition resulting from topical application of the test compound ASC-J9 (2.5 micromolar in a carrier base) to the forehead of an acne-affected male volunteer and in another acne-affected male (back is shown in FIG. 14B) with ASC-J9 (625 \( \mu \text{M} \)), as described in detail in Example 10."


Keywords for this news article include: Antiandrogens, Antibacterial Agents, Antibiotics, Antimicrobials, Antineoplastics, Pharmaceuticals, Cysts, Cancer, Alkenes, Alopecia, Genetics, Hormones, Oncology, Peptides, Cytoplasm, Hair Loss, Retinoids, Vitamin A, Proteomics, Carotenoids, Cyclohexanes, Hair Removal, Hydrocarbons, Therapeutics, Acne Vulgaris.

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Patents

**Patent Application Titled "Delivery of Particles Using Hygroscopic Excipients" Published Online (USPTO 20160368181)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors LONGEST, Philip Worth (Midlothian, VA); HINDLE, Michael (North Chesterfield, VA); PHILLIPS, Elaine M. (San Diego, CA), filed on September 19, 2014, was made available online on December 29, 2016.

No assignee for this patent application has been made.

Reporters obtained the following quote from the background information supplied by the inventors: "Minimally-invasive or percutaneous techniques for implanting bioprosthetic implants are commonly used in vascular and cardiovascular procedures. Such techniques involve the use of a delivery device, such as a catheter, to access a desired location via the patient’s vasculature rather than using an open surgical approach where internal organs or tissue are exposed. The benefit of percutaneous procedures is in the ease of introducing devices into
the patient without large cut downs, which can lead to long recovery times for patients.

"One limitation of percutaneous procedures is the delivery profile of the bioprosthetic implant and delivery device. Because access to the desired implantation site is gained via the patient’s vasculature, the delivery profile of the bioprosthetic implant and the delivery device, combined, must be sufficiently small so as to permit passage.

"One method of reducing the delivery profile is to crimp the bioprosthetic implant about the delivery device. Crimping, however, may not reduce the delivery profile to a desired size due to the inherent bulk or configuration of the bioprosthetic implant. Therefore, changes are often required to the material and/or construction of the implantable bioprosthesis to permit crimping to yet smaller delivery profiles.

"Replacement heart valves, for example, comprise a leaflet structure and a support structure. The leaflet structure is typically made from biological tissue, such as bovine pericardium, and the thickness of the tissue that makes up the leaflet structure limits the extent to which the heart valve can be crimped. Additionally, biological tissue will typically exhibit variations in thicknesses and these variations often produce unpredictable results with respect to the delivery profile of the crimped valves.

"While the use of artificial or polymeric materials can offer a greater degree of control and flexibility to the resulting thickness of the material used for bioprosthetic implants, such materials may not always be desirable from at least a hemodynamic standpoint and may require the patient to take anticoagulants to prevent adverse effects from the interaction of the artificial material and the blood.

"Another option is to remove excess portions of biological tissue so as to provide a thinner tissue having a consistent thickness throughout. The loss of tissue, however, can undesirably compromise the fiber structure and therefore the strength of the tissue. Compression of the tissue to produce a thinner tissue may be desirable. The compressed tissue, however, may spring back to its original and uneven thickness after compressive forces are released.

"Therefore, what is needed are methods and devices for preparing a biological tissue adapted for a bioprosthetic implant and which reliably reduces the delivery profile for use in minimally-invasive and percutaneous procedures."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors’ summary information for this patent application: "The preferred embodiments described herein are directed to methods for treating biological tissue for use in connection with an implantable bioprosthesis. The entire disclosure of U.S. Patent Pub. No. 2011/0238167, published Sep. 29, 2011, to Edwards Lifesciences, Inc. is incorporated herein by reference in its entirety.

"In one embodiment, an assembly for providing a contoured biological tissue is provided. The assembly comprises a first plate and a second plate. The first plate is configured to receive a biological tissue. The second plate comprises a surface and is configured to apply a compressive force on the biological tissue that is disposed on the first plate. One or both of the first and second plates comprise a defined shape and a contoured area within the defined shape. The contoured area comprises at least first and second elevations and a continuous transition between the first and second transitions. One or more energy sources is associated with one or both of the first and second plates. The one or more energy sources delivers energy while the second plate applies the compressive force on the biological tissue. The second plate can contact the biological tissue directly or indirectly.

"In accordance with a first aspect, one or both of the first and second plates are porous.

"The defined shape can be one or a plurality of heart valve leaflets, having a
substantially straight free edge and an arcuate cusp edge. "The first elevation can be defined along the arcuate cusp edge and the second elevation can be located between the arcuate cusp edge. "The first elevation can be higher relative to the second elevation, or the second elevation can be higher relative to the first elevation. "The assembly can further comprise a spacer disposed between the first and second plates, the spacer controlling a thickness of the compressed biological tissue. A blade corresponding substantially to the defined shape on the first plate can also be included. The energy delivered by the one or more energy sources is preferably one or a combination selected from the group consisting of: thermal, ultrasound, electromagnetic, vibrational, hydraulic, piezoelectric, pneumatic, and acoustic and sound energy. In one embodiment, the energy is thermal energy and the one or more energy sources is one or a combination selected from the group consisting of: thermal coils disposed within the first plate, thermal coils disposed within the second plate, and a liquid bath. In another embodiment, the energy is electromagnetic energy and the one or more energy sources is a RF or microwave antenna embedded in a non-conducting plate or a printed circuit antenna insulated from the tissue. In yet another embodiment, the energy is vibrational energy and the one or more energy sources is a clamp coupled to one or both of the first and second plates, a platform in contact with one or both of the first and second plates, or an actuator coupled to one or both of the first and second plates. "In some embodiments, the first plate comprises the defined shape and contoured area and the second plate comprises a substantially flat surface. Alternatively, the first and second plates can each comprise the defined shape and the contoured area within the defined shape. "In another embodiment, a method for preparing a contoured biological tissue is provided. The method comprises compressing a layer of biological tissue to reduce a thickness of at least a portion of the tissue and delivering energy from an energy source to one or both of the first and second plates during the compressing. The tissue following the compressing has at least two areas of different thicknesses and a continuous transition within the defined shape. "The method can further comprise treating the tissue with a first fixative to at least partially fix the tissue before, during and/or after the compressing. The first fixative can be glutaraldehyde. "The method can also include treating the tissue with a second fixative, the second fixative being one or a combination selected from the group consisting of: polyvinyl alcohols, polyetheramines, polyethyleneimine, di- or poly-amines, polyurethanes, polyepoxies, polysiloxanes, polyacrylates, polyesters, poly block isobutylene-co-maleic acid, collagen, elastin, fibrin, hyaluronic acid, dextrin, genapin, di- or poly-alkynes, di- or poly-azides, and tannins. The fixative is a 0.1% polyetheramine solution having an average molecular weight of about 600 and a pH of about 6 to 9. "Other objects, features and advantages of the described preferred embodiments will become apparent to those skilled in the art from the following detailed description. It is to be understood, however, that the detailed description and specific examples, while indicating preferred embodiments of the present disclosure, are given by way of illustration and not limitation. Many changes and modifications within the scope of the present disclosure may be made without departing from the spirit thereof, and the disclosure includes all such modifications.

BRIEF DESCRIPTION OF THE DRAWINGS

"Illustrative embodiments of the present disclosure are described herein with
reference to the accompanying drawings, in which:

"FIG. 1A is an exploded perspective view of an embodiment of an energized tissue compression assembly;
"FIG. 1B is a perspective view of the bottom surface of the top compression plate of FIG. 1A;
"FIG. 1C is a perspective view of the top surface of the bottom compression plate of FIG. 1A;
"FIG. 1D is a cross-sectional view of an embodiment of a coupled first and second compression plates along axis 1D-1D of FIG. 1C;
"FIG. 1E is a cross-sectional view of an embodiment of a coupled first and second compression plates along axis 1E-1E of FIG. 1C;
"FIG. 2A is an exploded perspective view of an embodiment of a tissue compression assembly comprising spacers;
"FIG. 2B is a perspective view of a bottom surface of the top plate of FIG. 2A;
"FIGS. 3A and 3B are exploded perspective views of an embodiment of a tissue compression assembly and cutting plate;
"FIG. 4A is a perspective view of one of a pair of tissue compression plates having a defined rectilinear shape;
"FIG. 4B is a perspective view of the pair of tissue compression plates coupled together with energized clamps;
"FIG. 5 is a perspective view of a further embodiment of a tissue compression plate having a rectilinear defined shape;
"FIG. 6 is a perspective view of yet a further embodiment of a tissue compression plate having a rectilinear defined shape;
"FIG. 7A is a plan view of a prosthetic heart valve leaflet having a thickened peripheral edge in areas where sutures penetrate for attachment to a structural stent;
"FIGS. 7B and 7C are sectional views through a radial midline of the leaflet of FIG. 7A showing two different profiles;
"FIG. 8A is a plan view of a prosthetic heart valve leaflet having a thickened peripheral edge in areas where sutures penetrate for attachment to a structural stent as well as a thickened free edge to reduce the risk of elongation at that location;
"FIGS. 8B and 8C are sectional views through a radial midline of the leaflet of FIG. 8A showing two different thickness profiles;
"FIG. 9A is a plan view of a prosthetic heart valve leaflet having thickened peripheral edge in areas where sutures penetrate for attachment to a structural stent as well as a thickened triple point area in the free edge simulating nodules of Arantius;
"FIGS. 9B and 9C are sectional views through a radial midline of the leaflet of FIG. 9A showing two different thickness profiles; and
"FIG. 10 illustrates in plan view an alternative leaflet having a thickened peripheral edge region, a thickened strip along the free edge, and a plurality of thickened radial strips extending from the free edge to the cusp edge.

"Like numerals refer to like parts throughout the several views of the drawings."

For more information, see this patent application: LONGEST, Philip Worth; HINDLE, Michael; PHILLIPS, Elaine M. Delivery of Particles Using Hygroscopic Excipients. Filed September 19, 2014 and posted December 29, 2016. Patent URL: http://appft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2& Sect2=HITOFF&u=%2Fnetacgi%
Patents

**Patent Application Titled "Detecting MicroRNA and Iso-MicroRNA to Evaluate Vascular and Cardiac Health" Published Online (USPTO 20160369344)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors Searles, Charles (Atlanta, GA); James, Amanda Marie (Decatur, GA), filed on June 16, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

Reporters obtained the following quote from the background information supplied by the inventors: "Cardiovascular disease continues to be a major public health problem worldwide as individuals continue to experience unexpected heart attacks and succumb to cardiovascular disease. Therefore, there is a need to identify improved therapies and methods to diagnose and monitor cardiac and vascular health.

"MicroRNAs (miRNAs) are non-coding RNAs that modulate gene expression typically by targeting mRNAs. MicroRNAs are generated as a family of related isomers that typically differ by a few bases at the 5' and 3' end of the miRNA, termed iso-miRs. Cloonan et al. report that miRNAs and iso-miRs function cooperatively to target common biological pathways. Genome Biol., 2011, 15, R126. Manzano et al. report that miRNA 5'-end variation sometimes leads to differential targeting. RNA 2015. 21: 1606-1620. MicroRNA may be packed into extracellular vesicles such as microvesicles contained in whole blood. Extracellular miRNAs have also been identified in high-density lipoprotein (HDL) or bound by the AGO2 protein.


References cited herein are not an admission of prior art."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors' summary information for this patent application: "This disclosure relates to diagnosing or evaluating the state of vascular or cardiac health of a subject by detecting alterations in the microRNA and/or iso-microR profile contained in a sample derived from the subject. Typically, the sample is derived from blood such as a plasma sample or portions further isolated therefrom. In certain embodiments, the sample is plasma from which microvesicles have been removed or the sample is enriched with plasma derived microvesicles.

In certain embodiments, the methods disclosed herein will aid in the diagnosis or treatment of, or indicate an increased risk of developing, or monitoring the status of a cardiovascular disease or related conditions such as coronary artery disease, peripheral artery disease, atherosclerosis, ischemia, angina, myocardial infarct, arrhythmia, ischemic stroke, hemorrhagic stroke, leg pain, cramps, hypertension, heart failure, aneurysm, renal artery disease, Reynaud's phenomenon, Buerger's disease, peripheral venous disease, varicose veins, blood clots, deep vein thrombosis, or lymphedema.

In certain embodiments, the disclosure relates to methods for diagnosing a subject as being at risk or having vascular, cardiovascular disease, or coronary artery disease, or of having higher concentrations of whole blood circulating microvesicles or other extracellular vesicles, or of having increased likelihood of having or having had a myocardial infarction comprising measuring in a sample the presence of one or more of the following microRNA (miRNA) and/or iso-microRNA (iso-miR) selected from miR-10b, miR-30d, miR-93, miR-143, miR-181a, miR-182, miR-744, or combinations thereof and correlating an increase or decrease in the amount of miRNA and/or iso-miR compared to a normal or reference value as being at risk or having cardiovascular disease or significant coronary artery disease, or of high plasma microvesicles, or increased likelihood of having or having had a myocardial infarction.

In certain embodiments, the miRNA and/or iso-miR is measured in a sample selected from whole plasma, microvesicles isolated from plasma, or plasma from which microvesicles have been removed.

In certain embodiments, the miRNA and/or iso-miR are iso-miR-93 and iso-miR-181a, wherein an increase of iso-miR-93 in whole plasma and a decrease of iso-miR181a in microvesicles isolated from plasma indicates having cardiovascular disease.

In certain embodiments, the miRNA and/or iso-miR are iso-miR-10b and iso-miR-93, wherein an increase of iso-miR-10b in whole plasma and a decrease of iso-miR-93 in microvesicles isolated from plasma indicates having high plasma microvesicles.

In certain embodiments, the miRNA and/or iso-miR are iso-miR-10b and iso-miR-93, wherein no change of iso-miR-10b in plasma from which microvesicles have been removed and a decrease of iso-miR-93 in microvesicles isolated from plasma indicates an increased likelihood of having had a myocardial infarction.

In certain embodiments, the miRNA and/or iso-miR measurements or correlations are recorded on a computer or computer readable medium. In certain embodiments, the method further comprises recording the similarities or differences to a normal or reference value on a computer readable medium. In certain embodiments, the miRNA and/or iso-miR measurements or correlations are displayed on a digital display. In certain embodiments, the methods disclosed herein further comprises the step of communicating the measurements or correlations to a medical professional or the subject.

In certain embodiments, the disclosure relates to a therapeutic strategy of identifying a subject is having or is at risk of a cardiovascular conditions using methods disclosed herein.
and administering a therapeutic agent to the subject based on the diagnosis.

**BRIEF DESCRIPTION OF THE FIGURES**

"FIG. 1 schematically illustrates embodiments of methods disclosed herein.

"FIG. 2A shows data indicating a correlation of cardiovascular disease severity (CAD versus RF) with microvesicle counts. Cardiovascular disease has been noted to alter the abundance of circulating microvesicles (MV). Statistical modeling was performed based on cardiovascular disease severity bases on angiogram results: [Gensini Score] (RF vs CAD) and microvesicle counts.

"FIG. 2B shows data indicating microvesicle counts correlate with myocardial infarction. Microvesicle counts in relation to the occurrence of a cardiac event (No MI vs MI). Together, these data indicate a relationship between angiogram results, cardiac events and MV counts as an indicator of disease progression.

"FIG. 3 shows data indicating predominance of iso-miRs relative to consensus or archetypal miRNAs for specific miRNAs in RNA sequencing experiment. Deep sequencing analysis was performed on pooled blood samples matched by angiogram results, age, gender, and race. The percentage of iso-miR relative to consensus miRNA was calculated by dividing iso-miR reads by the total number of reads for a particular miRNA (consensus miRNA plus iso-miR).

"FIG. 4 shows qRT-PCR data on the concentration (femtomolar) of different iso-miRs in plasma from Cohort 1 (risk factor-blue versus CAD-red). Each isomiR has a uniquely designed and validated RT/PCR Primer set.

"FIG. 5A shows data indicating changes in iso-miR levels is altered by coronary artery disease severity. The arrows indicate relative concentration differences of certain biomarkers between isomiR in whole plasma, plasma w/o MVs and MVs when the patients were stratified by angiogram results. The arrows indicate increased (up arrow) or decreased (down arrow) concentration of iso-miRs in patients indicated by header relative to the other group of patients. For example, in whole plasma, isomiR-10b has increased concentration in CVD patients relative to RF patients and vice versa.

"FIG. 5B shows data when the patients were stratified by MV Count. Arrows show relative differences in isomiR concentrations for patients with high MV counts versus low MV counts.

"FIG. 5C shows data when the patients were stratified by cardiac events. Arrows show relative differences in iso-miR concentrations for patients with MI versus those who did not have MI.

"FIG. 6 shows data where random forest modeling was used to assess the accuracy of combinations of two iso-miRs (isomiR-93 and 181a or isomiR-10b and -93) in predicting significant coronary artery disease or MI. Iso-miRs were measured in different plasma fractions (whole plasma, plasma w/o MVs or MVs)."


Keywords for this news article include: Blood, Plasma, Patents, Genetics, Angiology, Cardiology, Hematology, Heart Attack, Heart Disease, Atherosclerosis, Arteriosclerosis, Myocardial Ischemia, Risk and Prevention, Myocardial Infarction, Coronary
Artery Disease, Arterial Occlusive Diseases, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Mico-tech (nanjing) Co., Ltd.

Patent Application Titled "Hemostatic Clip" Published Online (USPTO 20160367258)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors JIN, Hongyan (Nanjing, Jiangsu, CN); TANG, Zhi (Nanjing, Jiangsu, CN); FAN, Mingqiao (Nanjing, Jiangsu, CN); SONG, Ran (Nanjing, Jiangsu, CN), filed on June 30, 2014, was made available online on December 29, 2016.

The assignee for this patent application is Mico-tech (nanjing) Co., Ltd.

Reporters obtained the following quote from the background information supplied by the inventors: "In recent years, endoscopic hemostatic clips have become the most effective and most clinically valuable equipment for non-operational treatment of acute gastrointestinal tract hemorrhage of critical patients owing to the characteristics of low wound, high hemostatic speed, low re-bleeding rate, few complications, exact effect and the like. Hemostasis with a metal clip under an endoscope is one of the widely applicable hemostasis means, and the skilled metal clip operation for appropriate cases can effectively stop bleeding and prevent re-bleeding, reduce adverse response and greatly improve the safety and the cure rate of endoscopic therapy for gastrointestinal tract hemorrhage. The hemostatic mechanism of the metal hemostatic clip is the same as that of surgical vascular ligation or suture and is a physical and mechanical method, namely, a bleeding vessel and surrounding tissues thereof are ligated together by utilizing a mechanical force produced when the hemostatic clip is closed, so that the bleeding vessel is closed to block blood and fulfill the purpose of hemostasis; and the metal hemostatic clip is suitable for hemostatic therapy of non-variceal active bleeding and visible blood vessel stump lesions.

"However, the existing hemostatic clip is inconvenient to place and fix, so a hemostatic clip convenient to use is urgently needed."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors' summary information for this patent application: "The aim of the present invention: the technical problem to be solved by the present invention is to provide a hemostatic clip for overcoming the defects of the prior art.

"In order to solve the above technical problem, the present invention discloses a hemostatic clip, including a clamping assembly and a clip base, wherein the clamping assembly includes a clip body and a steel wire buckle which are sequentially connected; a fixed hinge pin is arranged at the front end of the clip base, the clip body is composed of two clamping arms, the tail ends of the two clamping arms are connected through a movable hinge pin, the middle part of each of the two clamping arms is provided with a chute, the fixed hinge pin penetrates through the chutes, and the two clamping arms reciprocate along the chutes so that the clip body can be opened and closed; a bent structure is arranged at the tail end of each chute; and when the clamping arms move to make the fixed hinge pin be located in the bent structures, the two clamping arms are located in the locked and closed position."
"In the present invention, the steel wire buckle is wound on the movable hinge pin, and when the tension applied to the steel wire buckle reaches a predefined value (35-40N), the steel wire buckle is straightened and separated from the movable hinge pin; and after the steel wire buckle is separated from the movable hinge pin, the rear part of the clip body is fixed in the clip base.

"In the present invention, a hook structure is arranged at the tail end of each of the two clamping arms, and the clip base is provided with protrusions matched with the hook structures; and when the two clamping arms are located in the locked and closed position, the hook structures at the tail ends of the two clamping arms are buckled on the protrusions. Thus, double insurance is formed, and the hemostatic clip is stable in the locked state and is not suddenly released again.

"In the present invention, the engaged distal ends of the two clamping arms are matched in a serrated shape, so that two forceps heads are engaged synchronously to ensure the effectiveness after the clip is closed. After the engaged distal ends of the two clamping arms are closed, the end surfaces are spherical ones, so that the clip better passes through curves and protects the endoscopic tract.

"In the present invention, the side walls of the two clamping arms are gradually widened from the distal ends to the proximal ends, so that the root strength of the clip can be improved, and the smoothness and the curve passing property of the clip are also ensured.

"In the present invention, the engaged distal ends of the two clamping arms are matched in a serrated shape, so that two forceps heads are engaged synchronously to ensure the effectiveness after the clip is closed. After the engaged distal ends of the two clamping arms are closed, the end surfaces are spherical ones, so that the clip better passes through curves and protects the endoscopic tract.

"In the present invention, the clip base is sequentially connected with a transition cap, a fixed cap and a distal end spring tube to form an outer sleeve assembly, the clamping assembly includes a connector connected with the steel wire buckle, the connector is provided with an elastic pawl, more than two deformable buckles are arranged on the pawl, the clip base is partially nested with the transition cap, the mutually nested part is provided with a clamping groove capable of accommodating the buckles, and the buckles connect the clip base with the transition cap; and when the tension applied to the pawl reaches a preset value (20-30N), the buckles produce elastic deformation and are straightened, so that the buckles are separated from the clamping groove and the clip base is separated from the transition cap.

"A transition cap insert is arranged at the tail end of the transition cap, so that an annular groove is formed in the outer wall of the transition cap; one end of the fixed cap is fixedly connected with the distal end spring tube, and the other end of the fixed cap is provided with an annular protrusion matched with the annular groove, so that the transition cap can rotate relative to the fixed cap.

"In the present invention, the inside diameters of the fixed cap and the distal end spring tube are greater than the maximum outside diameters of the steel wire buckle, the connector and the pawl, so that the hemostatic clip in the present invention is different from a traditional device, and the separated steel wire buckle, connector and pawl can enter the distal end spring tube under the traction of an operation rope to reduce secondary harm to human bodies.

"In the present invention, a spring tube transition piece is arranged in the distal end spring tube, the connector is connected with the operation rope, and the spring tube transition piece is provided with a through hole through which only the operation rope passes, so that the spring tube transition piece forms a stop.

"In the present invention, holes, through which the movable hinge pin passes, of the clamping arms are kidney-shaped, so that the buckles are easily staggered and reduced to enter the clip base hole and can be bounced off again to clamp the clip, the closing resistance can be effectively reduced, the clamping force can be improved, and the clip can complete clamping and closure without dropping off.
"In the present invention, the chute has radian. The chute is designed in an arc or straight shape, so that the clip moves smoothly and achieves the designed opening size.

"Beneficial effects: the hemostatic clip of the present invention is simple and convenient to operate, and can rotate conveniently inside the human body according to the requirement of various angles; meanwhile, after the hemostatic clip is positioned successfully, it can be released through the operation rope, so that the hemostatic clip body is left inside the human body.

BRIEF DESCRIPTION OF THE DRAWINGS
"The present invention will be further specifically described below in combination with the accompanying drawings and the specific embodiments, and the above-mentioned and other advantages of the present invention will be clearer.

"FIG. 1 is a schematic diagram of an overall structure of the present invention.
"FIG. 2 is a partial enlarged diagram of part I in FIG. 1.
"FIG. 3 is a schematic diagram of a first change state in FIG. 2.
"FIG. 4 is a schematic diagram of a second change state in FIG. 2.
"FIG. 5 is a schematic diagram of a third change state in FIG. 2.
"FIG. 6 is a partial enlarged diagram of part II in FIG. 1.
"FIG. 7 is a structural schematic diagram of a clamping arm."


Keywords for this news article include: Coagulants, Hemorrhage, Hemostatics, Gastroenterology, Drugs and Therapies, Mico-tech (nanjing) Co. Ltd.

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Patents
Patent Application Titled "Instrumentation with Embedded Imaging Systems" Published Online (USPTO 20160367311)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventor Gerrans, Lawrence J. (San Anselmo, CA), filed on June 16, 2015, was made available online on December 29, 2016.

No assignee for this patent application has been made.

Reporters obtained the following quote from the background information supplied by the inventors: "There are many medical devices currently available for performing a variety of medical procedures. Typically, the medical devices are used together with a separate endoscope or another type of an imaging device to visualize the medical procedure in vivo. However, such devices suffer from a number of drawbacks. First, the need for insertion of a separate imaging device makes the procedure more complex, requiring additional steps, bulkier working channels, and larger incisions."
Additionally, the imaging devices often get foggy or dirty because of contact with various bodily tissues and fluids, which impairs their imaging capabilities, and need to be withdrawn from the patient's body to be cleaned and then reinserted. This makes the procedure more complicated and traumatic for the patient.

Furthermore, often it is desirable to perform diagnostic tests simultaneously with a medical procedure. In order to perform such tests, a separate diagnostic device needs to be inserted into the patient's body, in addition to the working medical device and the imaging device. Again, this leads to longer and more complicated procedures, requiring a physician to insert and operate multiple devices, and also makes the procedure more difficult for the patient.

What is desired, therefore, is a medical instrument, such as a biopsy device, that can also perform diagnostic functions to eliminate the need for a separate procedure. What is also desired is a medical device with an imaging system that facilitates proper insertion of the medical device into a bodily cavity and assists in performing a medical procedure via the medical device. What is further desired in a medical device with imaging and/or diagnostic capabilities that includes a cleaning system that allows a user to efficiently clean the imaging/diagnostic device lenses without the need to remove the device from a patient's body. It is also desired to provide a medical device with imaging and/or diagnostic capabilities that is more cost effective, reusable with various existing devices, and simpler in design.

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventor's summary information for this patent application: "Therefore, it is an objective of this invention to provide a medical instrument that performs a medical procedure, such as biopsy, and also performs diagnostic functions to eliminate the need for a separate procedure.

It is also an objective of this invention to provide a medical device with an imaging system that facilitates proper insertion of the medical device into a bodily cavity and assists in performing a medical procedure via the medical device.

It is further an objective of this invention to provide a medical device with imaging and/or diagnostic capabilities that includes a cleaning system that allows a user to efficiently clean the imaging/diagnostic device lenses without the need to remove the device from a patient's body.

It is yet a further objective of the present invention to provide a medical device with imaging and/or diagnostic capabilities that is more cost effective, reusable with various existing devices, and simpler in design.

In order to overcome the deficiencies of the prior art and to achieve at least some of the objectives and advantages listed, the invention comprises a medical instrument, including a shaft having a proximal end, a distal end and a longitudinal axis, a working member at the distal end of the shaft and having a first arm and a second arm, wherein each of the first and second arms has a proximal end and a distal end, and wherein at least one of the first and second arms pivots relative to the longitudinal axis of the shaft, a first diagnostic device positioned in the first arm adjacent the distal end of the first arm, a second diagnostic device positioned in the second arm adjacent the distal end of the second arm, and a third diagnostic device positioned adjacent the proximal ends of the first and second arm.

In some embodiments, at least one of the first arm and the second arm has a cutting surface. In additional embodiments, at least one of the first arm and the second arm comprises a grasping surface.

In certain embodiments, at least one of the first arm and the second arm has a storage compartment for retaining a tissue sample.

In some embodiments, the working member includes an electrically conductive
member coupled to a source of electrical current for delivering electric current to tissue.

"In some cases, the working device is removably attached to the shaft.

"In certain embodiments, the medical instrument further includes an actuator positioned at the proximal end of the shaft that actuates the working device.

"In some embodiments, at least one of the first, second and third diagnostic devices has a sensor that detects and measures at least one characteristic of bodily tissue.

"In certain advantageous embodiments, at least one of the first, second and third diagnostic devices is a camera. In some of these embodiments, the camera has at least one lens and at least one imaging sensor. In certain of these embodiments, the imaging sensor is a CMOS sensor.

"In some embodiments, at least one of the first, second and third diagnostic devices further includes at least one illumination device positioned adjacent the camera. In certain of these embodiments, the at least one illumination device has a light source emitting light with a visible spectrum. In additional embodiments, the at least one illumination device has a light source emitting light with a non-visible spectrum.

"In certain embodiments, the medical instrument further includes a processor connected to the first, second and third diagnostic devices that receives and processes data captured by the diagnostic devices. In some of these embodiments, the processor is connected to the first, second and third diagnostic devices via a wired connection. In additional embodiments, the processor is connected to the first, second and third diagnostic devices via a wireless connection.

"In some cases, the working device includes an opening positioned adjacent the proximal ends of the first and second arms, wherein the third diagnostic device moves through the opening.

"In certain embodiments, the first arm has an opening at its distal end and the first diagnostic device moves through the opening. In additional embodiments, the second arm has an opening at its distal end and the second diagnostic device moves through the opening.

"In some embodiments, the medical device further includes a control device that actuates at least one of the first, second and third diagnostic devices.

"In certain embodiment, a fluid source is also provided positioned in at least one of the first arm and the second arm. In some of these embodiments, the fluid source delivers at least one of cleaning fluid, irrigation fluid and a therapeutic and/or diagnostic agent.

"In some embodiments, the medical instrument further includes at least one cleaning device for cleaning at least one of the first, second and third diagnostic devices, wherein the at least one cleaning device is removably positioned inside the working device.

"In certain embodiments, the medical instrument further includes at least one additional arm positioned between the first and second arms, wherein the third diagnostic device is movable between a first position wherein it extends between the first arm and the at least one additional arm and a second position wherein it extends between the second arm and the at least one additional arm.

"A method of performing a medical therapeutic and/or diagnostic procedure is also provided, including inserting a medical instrument into a bodily cavity, the medical instrument comprising a shaft with a longitudinal axis and a working member at a distal end of the shaft, wherein the working device has a first arm and a second arm, wherein each of the first and second arms have a proximal end and a distal end, and wherein at least one of the first and second arms pivots relative to the longitudinal axis of the shaft, a first diagnostic device positioned in the first arm adjacent the distal end of the first arm, a second diagnostic device...
positioned in the second arm adjacent the distal end of the second arm, and a third diagnostic device positioned adjacent the proximal ends of the first and second arm, visualizing surrounding tissue via at least one of the first, second and third diagnostic devices, and actuating the working device to perform the procedure.

"In some embodiments, the step of actuating the working device includes cutting bodily tissue.

"In certain embodiments, the method further includes the step of measuring at least one characteristic of bodily tissue via at least one of the first, second and third diagnostic device.

"In some embodiments, the working device further comprises at least one leaning device, and wherein the method further comprises the step of cleaning at least one of the first, second and third diagnostic device by displacing it through the at least one cleaning device.

"In certain embodiments, the step of actuating the working device comprises actuating the first arm to contact and move a first layer of tissue and actuating the second arm to contact and move a second layer of tissue, such that first and second layers of tissue are moved away from each other.

"Other objects of the invention and its particular features and advantages will become more apparent from consideration of the following drawings and accompanying detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

"FIG. 1A is a perspective view of a medical instrument with embedded imaging and/or diagnostic systems in accordance with the invention.

"FIG. 1B is a cross-sectional view of the medical instrument of FIG. 1A, taken along the line '1B-1B'.

"FIG. 2 is side view of a proximal end of the medical instrument of FIG. 1A, showing an actuation device.

"FIG. 3A is an exploded perspective view of a camera used in the medical instrument of FIG. 1A.

"FIG. 3B is an exploded side view of a camera used in the medical instrument of FIG. 3A.

"FIGS. 4A and 4B illustrate the medical instrument of FIG. 1A being used in a bodily cavity.

"FIGS. 5A and 5B illustrate a method of using at least one cleaning member of the medical instrument of FIGS. 4A and 4B.

"FIG. 6 illustrates a method of using the medical instrument of FIG. 1A to deliver electrical current to tissue.

"FIG. 7 illustrates a method of using the medical instrument of FIG. 1A to separate tissue layers.

"FIG. 8 illustrates is a perspective view of a medical instrument of FIG. 1A with an additional arm."


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Patents

**Patent Application Titled "Method for Diagnosing, Quantifying, Treating, Monitoring Or Evaluating Conditions, Diseases Or Disorders Associated with Human Papilloma Virus (Hpv) Infection" Published Online (USPTO 20160369357)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors Taylor, Donald Charles (Comox, BC, CA), filed on June 22, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

Reporters obtained the following quote from the background information supplied by the inventors: "Human papillomaviruses (HPVs) are a group of double-stranded, nonenveloped, small DNA viruses that are widely prevalent among human populations (See FIG. 1). To date, over 180 types of HPV have been isolated and identified from different body sites and have been collected in two HPV databases (See: http:// pave.niaid.nih.gov, http://www.hpvcenter.se), and the number is growing (See: Ma et al. J. Virol. May 2014 vol. 88 no, 9 4786-4797).

"The HPV genome is double-stranded DNA that codes for eight proteins. These proteins are named for when they are expressed during the virus' occupation of its host: early (E) and late (L). E1, 2, 4, and 5 are important to genome replication. E1 also prevents the virus' genome from integrating into the host's genome, and initiates gene expression when complexed with E2, E6 and E7 are oncogenes, and, unchecked, can cause tumorous growth of the host cell. E2 and E4 normally inhibit this action. The late proteins, L1 and L2, are capsid proteins and are thus only expressed when the virus copies are repackaged to be released from the host cell (See: Doorbar 2005; J Clin. Virol. 32:S7-15).

"HPVs are divided into five genera: alpha (also known as A supergroup), beta (also known as B supergroup), gamma, mu, or nu (See FIG. 2). Mu and nu-papillomaviruses are also classified as E supergroup. Supergroup A encompasses all genitally transmitted papillomaviruses, as well as some cutaneous viruses. The genital transmitted viruses present as mucosal lesions, while the cutaneous variety are the primary cause of skin warts. Viruses in supergroup B also form cutaneous warts similar to those from group A, and they are one cause of non-melanoma skin cancer. Supergroup E is comprised of a third type of virus that causes cutaneous warts. HPV types belonging to different genera have less than 60% similarity, based on the nucleotide sequence of the capsid protein L1. Different viral species within a genus share between 60 and 70% similarity (See: Bzhalava et al. Virology Volume 445, issues 1-2, October 2013, Pages 224-231).

"All HPVs develop and reproduce solely in keratinocytes, or keratin-producing epithelial cells, the differentiation of which is critical to the papillomavirus's own development. The virus first infects keratinocyte stem cells, which live in the basal layer of the epithelium, through a breach in the upper layers of the epithelium. Upon infection, the virus takes advantage of the cell's replication machinery to reproduce its genome several times, so that each infected cell contains a low viral load of about 50 copies. As the cells proliferate, they move towards the outer layers of the epithelium; the viruses proliferate as well, but do not amplify their genome to
escape detection by the immune system. When the host keratinocyte reaches S-phase in the differentiation compartment of the epithelium, the papillomavirus replicates its genome to the critical limit of about 1000 copies. In fact, the virus releases growth promoters E6 and E7 at this stage in order to stimulate the host's movement into this phase. When the keratinocyte reaches the superficial epithelium and dies, the genomes are repackaged into capsids and shed from the cell (See: Doorbar 2005; J Virol. 32:S7-15).

"Infection with HPV can present a wide variety of clinical manifestations of the skin and mucosa, most commonly as warts, either skin or genital, although many HPV infections, especially those of the skin, are often present without clinical symptoms. The most important HPV-associated disease is undoubtedly cancer. Cervical cancer and many other anogenital cancers are caused by HPV infections, and many other cancer forms have either been proven or are suspected to be linked to HPV.

"In the case of immunocompromised patients, the risk of HPV infection was reported to be much greater than the general population due to high-load, persistent infection with oncogenic HPV genotypes. The prevalence of HPV infection was shown to increase in organ transplant recipients, human immunodeficiency virus (HIV)-infected women, and patients with systemic autoimmune diseases such as systemic lupus erythematosus (SLE). Furthermore, it has been found that patients with active SLE had greater prevalence of high-risk HPV infection and of abnormal cervical cytology compared with controls, and that SLE itself was identified with independent risk factors for high risk HPV infection among Korean women, and Pap smear abnormalities (See: Lee et al 2010 (J Korean Med Sci. 2010 October; 25(10); 1431-1437).

"Infection with HPV has also been linked with an increased risk of cardiovascular disease (See: Kuo H K, Fujise Journal of the American College of Cardiology 58 (19): 2001-6.). Furthermore, it has been shown that there is an association between human papillomavirus DNA and temporal arteritis (See: Mohammadi et al. (BMC Musculoskeletal Disorders 2012, 13:132).

"It has been reported that human papillomavirus 16 (HPV16) can be linked to a common form of childhood epilepsy (See: Chen et al. 2012 (Ann Neurol. 2012 December; 72 (6):881-92). It was shown that HPV16 may be present in the human brain, and they found that when they added a viral protein to the brains of fetal mice, the mice all demonstrated the same developmental problems in the cerebral cortex associated with this type of epilepsy, called focal cortical dysplasia type IIB (FCDIIB). The findings suggest that HPV could play a role in the development of epilepsy.

"Studies have reported HPV findings in cancers that occur at sites where direct HPV infection is usually not seen, including colorectal, and lung and breast cancer. Detection of HPV in cancers like this raises the question how HPV got to the site of cancer. It has long been believed that papillomavirus cannot be spread to different body sites through blood, as papillomaviruses do not give rise to viremia. One possibility is that it was transported in blood, and HPV DNA has indeed been reported to be found in circulating blood, including peripheral blood mononuclear cells (PBMCs), sera, plasma, and arterial cord blood (See: Dong et al., 2002, Cancer Epidemiol Biomarkers Prev 11:3-6., 9). It has also been reported that 8.3% of healthy male blood donors in their study were positive for HPV (See: Chen et al., 2009, Med Virol. 2009 Oct; 81(10):1792-61. Chen et al. isolated a wide variety of different HPV types from PBMCs, belonging to the cutaneous beta and gamma papillomavirus genera and mucosal alpha papillomaviruses. High-risk HPV types that are linked to cancer development were detected in 1.7% of the PBMCs.

"All papillomaviruses, including HPV, are obligatory intranuclear organisms with specific tropism for keratinocytes and lymphatic cells. Three possible courses of events can follow upon HPV entry into cells: (1) viral DNA are maintained as intranuclear,
extrachromosomal, circular DNA episomes, which replicates synchronously with the host cell, establishing a latent infection; this period usually last an average of 1 to 8 months; although, in some patients this latency may last for many years or decades (2) conversion from latent into productive infection with assembly of complete infective virions; and, (3) integration of viral DNA into host cellular genome, a phenomenon seen in HPV infections associated with malignant transformation.

"Like other viruses, HPV has the ability to establish a chronic, dormant (latent) infection and the ubiquity of latent papillomavirus infections is emphasized by the frequent, often acute outbreak of warts in immunosuppressed patients and pregnant women. In latency, viral DNA replication and transcription are maintained at very low levels and regulated by negative cellular factors (e.g., NF-IL6, p53, Oct-1, YY1) and low levels of early viral proteins (E1 and E2). For example, the viral E1 replication protein functions as an E2 co-repressor when bound to the origin of DNA replication. Persistent HPV infections are associated with a number of skin and cervical cancers, but could be associated with other conditions.

"Many viruses establish persistent infections that are characterized by continuous low or high levels of viral replication example human immunodeficiency virus and hepatitis B virus) or by periodic reactivation of a latent infection following apparently disease-free intervals (for example herpes simplex virus) (See: Tyler, K. and Nathanson, N. in Fields Virology 4th edn (eds Fields B N, Knipe, D. M., and Howley, P. M.), 220-222 (Lippincott Williams & Wilkins, Philadelphia, 2001) (FIG. 3). As illustrated therein, acute infection is associated with clinical symptoms and the release of an infectious virus, (e.g. influenza virus). Persistent infection is associated with the production of an infectious virus, HBV for example, for the lifetime of the host. Latent infection as seen in herpes simplex virus (HSV) infection is a variation of persistent infection in which the acute infection is followed by a quiescent phase in which the virus productive cycle is absent or significantly reduced. The viral genome remains in a 'silent' state but can be intermittently reactivated into bouts of productive infection. Slow virus infection, as seen with HIV is yet another version of persistent infection typified by long periods (years) between primary infection and the development of fatal symptoms: production of an infectious virus is either continuous at a low level or absent until failing immune control results in overwhelming virus production.

"A number of viruses are capable of invading and establishing latent infections in nervous tissue. Such viruses have been shown to produce slow, chronic, or progressive nervous system diseases (See: Boldogh et al. Medical Microbiology, 4th edition. Chapter 46). Many chronic, degenerative nervous system diseases are related to viral persistence. Persistence in the nervous system probably involves some unique mechanisms that take advantage of the many types of specialized cells and the immunologically privileged status of the central nervous system. For example during acute HSV infection, virus and/or viral components (e.g., nucleocapsids) containing viral genetic material ascend in nerve axons from the initial site of infection to the sensory ganglia mainly the trigeminal ganglia HSV-1, and the lumbar and sacral ganglia for HSV-2. In the sensory ganglia, the virus may cause a cytolytic infection or establish a latent, noncytolytic infection. Sympathetic ganglia and other cell types of the central nervous system may also serve as sites of virus latency.

"In the case of Varicella-Zoster Virus infection, after recovery from acute varicella (chickenpox), the virus establishes latency in multiple ganglia of the human neuraxis. Years later, the virus may reactivate, and the distribution of lesions in the skin corresponds closely to areas of innervation (dermatome) from an individual dorsal root ganglion. In immunocompromised patients, life-threatening disseminated infections can occur.

"Measles is normally an acute self-limited disease in which the virus appears to be eliminated. In some individuals, however, the virus persists in the brain despite apparent
humoral and cellular immune responses. Possible mechanisms of persistence include the immunologically privileged status of the brain, antiviral antibody-induced internalization of viral antigens, altered and restricted virus expression and replication as a result of mutations in the virus genome.

"Furthermore, viral infection has also been linked to neurodegenerative and neurobehavioral diseases (See: Nicolson, Lab Med. 2008; 39(5):291-299). For example HSV infections have been found in Alzheimer's disease (AD), and an interesting relationship has developed between the presence of HSV in AD. It had been noted in HSV but not a related neurotrophic virus, varicella zoster virus, was found often in AD brains and may be linked to patients who have the AD risk factor ApoE e4 allele."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors' summary information for this patent application: "The present disclosure relates to a method of diagnosing, quantifying, treating, monitoring or evaluating a condition in a subject comprising determining the presence or quantity of one or more than one human papilloma virus (HPV) in a sample from the subject, wherein the presence or quantity of the one or more than one HPV is indicative of the presence of the condition in the subject or indicative of a predisposition to the condition when compared to a control.

"The quantity of the one or more than one HPV may comprise the viral load of one or more than one HPV in a sample from the subject. The condition may comprise an autoimmune disorder, a chronic neurodegenerative disease, a neurodevelopmental disorder, neoplasm, blood cancers such as lymphoma or leukemia, Chronic Fatigue Syndrome or Fibromyalgia. The autoimmune disorder may be Systemic lupus erythematosus (SLE) or Multiple Sclerosis (MS). The chronic neurodegenerative disease may be Dementia such as for example, Alzheimer's disease, Parkinson's disease or Amyotrophic lateral sclerosis (ALS), and the neurodevelopmental disorder may be Autism or autism spectrum disorders such as Asperger syndrome. The method may further comprise treating the subject for one or more than one HPV infection or may comprise vaccinating the subject against one or more than one HPV. The sample from the subject may be blood, plasma, peripheral blood mononuclear cells (PBMC), or other blood compartment or fluid such as cerebrospinal fluid or saliva.

"The viral load may be determined by quantifying the genome numbers of the one or more than one HPV and the HPV genome numbers in the sample may be greater than the genome numbers in a sample of the control. The genome numbers may be determined by quantitative polymerase chain reaction (PCR). The genome numbers may be greater than 4 copies per .mu.l as measured by HPV-DNA quantitative PCR using universal primer SPF10. The viral load may be above a threshold amount; the threshold amount being indicative of the presence of the condition in the subject or an increased likelihood of the subject developing the condition when compared to a control subject. The threshold amount may be a copy number greater than 4 copies per as measured by HPV-DNA quantitative PCR using universal primer SPF10.

"The one or more than one HPV may be one or more beta, gamma or alpha HPV or a combination thereof. Furthermore, the one or more HPV may comprise one or more high risk HPV type, one or more low risk HPV type HPV or a combination thereof. The HPV may comprise one or more HPV type 1, 2, 4, 6, 11, 16, 18, 26, 30, 31, 33, 34, 35, 39, 40, 41, 42, 43, 44, 45, 51, 52, 54, 55, 56, 57, 58, 59, 61, 62, 64, 67, 68, 69, 70 or a combination thereof.

"Furthermore, the present disclosure also relates to a method of comparing the incidence of a HPV infection among more than one population of subjects with a condition, the method comprising

"a) determining the viral load of one or more HPV in a representative number of
subjects of each population;

"b) calculating the percentage of subjects in each population having a viral load above a threshold; and

"c) correlating the percentage of subjects in each population to the relative incidence of HPV infection. The condition may comprise an autoimmune disorder, a chronic neurodegenerative disease, a neurodevelopmental disorder, neoplasm, blood cancers such as lymphoma or leukemia, Chronic Fatigue Syndrome or Fibromyalgia. The autoimmune disorder may be Systemic lupus erythematosus (SLÉ) or Multiple Sclerosis (MS). The chronic neurodegenerative disease may be Alzheimer's disease, Parkinson's disease or Amyotrophic lateral sclerosis (ALS) and the neurodevelopmental disorder may be Autism or autism spectrum disorders such as Asperger syndrome.

"The disclosure further relates to a method for predicting the development of a condition in a human subject, comprising contacting a biological sample of the human subject with a diagnostic reagent that can detect one or more than one HPV or an antigen thereof, or a humoral or cell-mediated response to HPV or an antigen thereof, in the biological sample,

"wherein the presence of one or more than one HPV or an antigen thereof or a humoral or cell-mediated response to HPV or an antigen thereof is associated with an increased risk of developing the condition, wherein the condition comprises an autoimmune disorder, a chronic neurodegenerative disease, a neurodevelopmental disorder, Chronic Fatigue Syndrome or Fibromyalgia.

"The disclosure also relates to a method of treating an condition related to HPV comprising: administering a therapeutically effective amount of an anti-retroviral agent to a to a subject in need thereof, wherein the condition comprises an autoimmune disorder, a chronic neurodegenerative disease, a neurodevelopmental disorder, neoplasm, blood cancers such as lymphoma or leukemia, Chronic Fatigue Syndrome or Fibromyalgia.

"This summary of the invention does not necessarily describe all features of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

"These and other features of the invention will become more apparent from the following description in which reference is made to the appended drawings wherein:

"FIG. 1a shows a schematic drawing of a Papilloma Virion. A single molecule of circular dsDNA is contained within the icosahedral capid, which is composed of 72 pentamers of the capsid protein L1.

"FIG. 1b shows a transmission electron microscopy (TEM) image of a human papillomavirus.

"FIG. 2 shows a phylogenetic tree and the placement of the HPV types found in different organs (See: Ma et al. J. Virol. 2014; 88:4786-4797).

"FIG. 3 shows the general pattern of infection for different viruses. To illustrate different patterns of persistent infection, the replication of herpes simplex virus (HSV), hepatitis B virus (HBV) and human immunodeficiency virus (HIV) is plotted as a function of time after infection.

"FIG. 4 shows the schematic representation of the locations of the different universal primer sets (MY09/11, GP5+/6+ and SPF 10) on the HPV genome. The circular HPV DNA genome is represented by a single line, and boxes show the positions of the various early (E) and late (L) genes. Within the L1 region, the positions of the amplification targets as well as the expected amplimer sizes for each of the primer sets are indicated (adapted from Meter et al. J
"FIG. 5 shows the standard curve for HPV assay using primer pair GP5+/GP6+ generated as a plot of the threshold cycle (y axis) against quantity of standard (log scale). The correlation coefficient R sub 2 is 0.978.

"FIG. 6 shows the standard curve for HPV assay using primer pair SPF 10 generated as a plot of the threshold cycle (y axis) against quantity of standard (log scale). The correlation coefficient R sub 2 is 0.9905."


Keywords for this news article include: Warts, Virion, Patents, Genetics, Virology, Hepatitis, Viral DNA, Viral Load, DNA Viruses, RNA Viruses, DNA Research, Epidemiology, Nucleocapsid, Retroviridae, Keratinocytes, HIV Infections, Vertebrate Viruses, Risk and Prevention, DNA Virus Infections, Herpes Simplex Virus, Primate Lentiviruses, HIV/AIDS and Varicella.

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Pharmaceutical Companies

Patent Application Titled "Method of Inhibiting Mutant C-Kit" Published Online (USPTO 20160367545)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventor Jain, Vinay K. (Dallas, TX), filed on September 2, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

Reporters obtained the following quote from the background information supplied by the inventors: "Without limiting the scope of the invention, its background is described in connection with its ability to inhibit the mutant form of KIT in the treatment of KIT dependent diseases.

"The c-kit gene is located on locus q11-q12 of the human fourth chromosome and encodes the protein KIT (also known as CD 117), which is a cytokine receptor that is expressed on the surface of a number of different cells. See Rulina et al., Biochemistry (Moscow). Activated Leukemic Oncogenes AML1-ETO and c-kit: Role of Development of Acute Myeloid Leukemia and Current Approaches for Their Inhibition. 2010; 75(13): 1650-1666. KIT is a type III receptor tyrosine kinase of the monomeric receptor family and the transmembrane receptor for stem cell factor. See Tefferi and Pardanani. Leukemia and Lymphoma, March 2010; 51(3): 360-362.

"KIT is notably expressed by mast cells, hematopoietic progenitor cells, germ cells, melanocytes, and interstitial cells of Cajal in the gastrointestinal tract and is relevant for normal mast cell development, hematopoiesis, gametogenesis, melanogenesis, and regulation of slow gastric waves. See Miettinen et al. KIT (CD117): A Review on Expression in Normal and

"Activating mutations that give rise to ligand-independent activation of KIT occur in the juxtamembrane and kinase domains of the gene. See Hug et al. ETO Interacting Proteins. Oncogene. 2004; 23(24): 4270-4274. Mutations that lead to an activated form of KIT have been shown to play a role in proliferative disease such as mastocytosis, acute myeloid leukemia, gastrointestinal stromal tumors, sinonasal NK/T-cell lymphoma, seminomas, dysgerminomas, melanomas, and thymic carcinomas.

"The currently used targeted agent for the treatment of diseases associated with both wild-type and mutated KIT is Imatinib mesylate (also known as GLEEVEC or GLIVIC; Novartis, Basel, Switzerland). Imatinib demonstrates activity against certain transmembrane and juxta-membrane KIT mutants, namely F522C and V560G, respectively, but this activity is significantly lowered in common kinase domain mutants, including D816V. See Akin et al. A Novel Form of Mastocytosis Associated with a Transmembrane C-KIT Mutation and Response to Imatinib. Blood. 2004; 103: 3222-3225; Zermati et al. Effect of Tyrosine Kinase Inhibitor STI571 on the Kinase Activity of Wild-type and Various Mutated C-KIT Receptors Found in Mast Cell Neoplasms. Oncogene. 2003; 22: 660-664; Akin et al. Effects of Tyrosine Kinase Inhibitor STI571 on Human Mast Cells Bearing Wild-type or Mutated C-KIT. Exp Hematol. 2003; 31: 686-692; Ma et al. The C-KIT Mutation Causing Human Mastocytosis is Resistant to STI571 and Other KIT Kinase Inhibitors; Kinases with Enzymatic Site Mutations Show Different Inhibitor Sensitivity Profiles than Wild-type Kinases and Those with Regulatory-type Mutations. Blood. 2002; 99: 1741-1744. Other investigational inhibitors of KIT mutated kinases in the art include Dasatinib (Bristol-Myers Squibb (BMS), New York, N.Y.), Midostaurin (also known as PKC412; Novartis, Basel, Switzerland), and Masatinib (also known as AB1010; AB Science, France).


In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventor's summary information for this patent application: "The present invention relates to the inhibition of domain mutated KIT and correlates with the treatment of such diseases driven by mutated KIT. The present invention includes a method of inhibiting or reducing mutated C-KIT tyrosine kinase activity or expression in a subject suffering from a proliferative disease driven by mutant C-KIT which comprises administering to the subject having a proliferative disease, a therapeutically effective amount of the compound of Formula I:

"##STR00002##

"or a pharmaceutically acceptable salt or solvate thereof. In one aspect, the therapeutically effective amounts of the present invention are from about 15 to 500 mg per day. In another aspect, the compound is administered at least one of continuously, intermittently, systemically, or locally. In another aspect, the mutated C-KIT is defined further as a mutated C-KIT that is constitutively active. In another aspect, the compound is administered orally, intravenously, or intraperitoneally. In another aspect, the Crenolanib is Crenolanib Besylate, Crenolanib Phosphate, Crenolanib Lactate, Crenolanib Hydrochloride, Crenolanib Citrate, Crenolanib Acetate, Crenolanib Toluenesulphonate and Crenolanib Succinate. In another aspect, the C-KIT mutation is at least one of D816F, D816H, D816N, D816Y, D816V, K642E, Y823D,
Del 550-558, Del 557-561, N822K, V654A, N822H, Del 550-558+V654A, Del557-561 +V654A, Ins503AY, V560G, 55bNP, Del557-558, Del W559-560, F522C, Del579, R634W, K642E, T801I, C809G, D820Y, N822K, N822H, Y823D, Y823C and T670I. In another aspect, the therapeutically effective amount of the compound is administered up to three times or more for as long as the subject is in need of treatment for the C-KIT mutant activated proliferative disease. In another aspect, the composition is provided at least one of sequentially or concomitantly, with another pharmaceutical agent in a newly diagnosed proliferative disease subject, or a relapsed/refractory proliferative disease subject. In another aspect, the compound is provided as a single agent or in combination with another pharmaceutical agent in a newly diagnosed proliferative disease subject, or a relapsed/refractory proliferative disease subject. In another aspect, the compound is provided as a single agent or in combination with another pharmaceutical agent in a newly diagnosed proliferative disease pediatric subject, or a relapsed/refractory proliferative disease pediatric subject. In another aspect, the subject is relapsed/refractory to Interferon alpha, 2-chloroxyadenosine, or Imatinib Mesylate.

"In another embodiment, the present invention includes a method for treating a subject suffering from a C-KIT mutant driven proliferative disease comprising: administering to the subject in need of such treatment a therapeutically effective amount of the present invention or a salt thereof, wherein the cell proliferative disorder is characterized by C-KIT mutant receptor tyrosine kinase activity, the proliferative disease is selected from at least one of mastocytosis, acute myeloid leukemia, gastrointestinal stromal tumors, sinonasal NK/T-cell lymphoma, seminomas, dysgerminomas, melanomas, and thymic carcinomas. In another aspect, the Crenolanib is Crenolanib Besylate, Crenolanib Phosphate, Crenolanib Lactate, Crenolanib Hydrochloride, Crenolanib Citrate, Crenolanib Acetate, Crenolanib Toluenesulphonate and Crenolanib Succinate. In another aspect, the C-KIT mutation is one of D816F, D816H, D816N, D816Y, D816V, K642E, Y823D, Del 550-558, Del 557-561, N822K, V654A, N822H, Del 550-558+V654A, Del557-561+V654A, Ins503AY, V560G, 55bNP, Del557-558, Del W559-560, F522C, Del579, R634W, K642E, T801I, C809G, D820Y, N822K, N822H, Y823D, Y823C and T670I. In another aspect, Crenolanib is provided at least one of sequentially or concomitantly, with another pharmaceutical agent in a newly diagnosed proliferative disease, or a relapsed/refractory proliferative disease. In another aspect, Crenolanib is provided as a single agent or in combination with another pharmaceutical agent for treatment of a pediatric subject with the proliferative disease. In another aspect, Crenolanib is provided as a single agent either concomitantly or sequential with a chemotherapeutic or targeted therapy, in newly diagnosed proliferative disease. In another aspect, Crenolanib is provided as a single agent in treatment of a subject with the proliferative disease that is either refractory to, or has relapsed after, chemotherapeutic or targeted therapy. In another aspect, the subject is refractory to at least one of interferon alpha, 2-chloroxyadenosine or Imatinib Mesylate.

"The present invention provides methods of reducing or inhibiting the kinase activity of mutant C-KIT in a cell or a subject, and the use of such methods treating cell proliferative disorder (s) driven by mutant C-KIT. Other features and advantages of the invention will be apparent from the following detailed description of the invention and from the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

"For a more complete understanding of the features and advantages of the present invention, reference is now made to the detailed description of the invention along with the accompanying figures and in which:

"FIG. 1 shows the replicates of standard dose-response curves for Kd determination of the besylate salt of the present invention for FLT3 D816H (left and right panels are separate
replicates). The amount of kinase measured by qPCR (signal; y-axis) is plotted against the corresponding crenolanib concentration in nanomolar in log 10 scale (x-axis);

"FIG. 2 shows the replicates of standard dose-response curves for Kd determination of the besylate salt of the present invention for FLT3 D816V (left and right panels are separate replicates). The amount of kinase measured by qPCR (signal; y-axis) is plotted against the corresponding crenolanib concentration in nanomolar in log 10 scale (x-axis);

"FIG. 3 shows the binding constants of the besylate salt of the present invention compared to other KIT tyrosine kinase inhibitors for the constitutively active KIT D816H mutation;

"FIG. 4 shows the binding constants of the besylate salt of the present invention compared to other KIT tyrosine kinase inhibitors for the constitutively active FLT3 D816H mutation; and

"FIG. 5 shows the dose-response curve (n=2) for IC50 determination of the besylate salt of the present invention for FLT3 D835Y. The activity of the besylate salt of crenolanib is plotted against the corresponding molar concentration in log 10 scale."


Keywords for this news article include: Antineoplastics, Pharmaceutical Companies, Genetics, Oncology, Lymphomas, Hematology, Pediatrics, Proteomics, Novartis AG, Mastocytosis, Therapeutics, Gastroenterology, Imatinib Therapy, Drugs and Therapies, Aromatic Amino Acids, Enzymes and Coenzymes, Acute Myeloid Leukemia, Diagnostics and Screening.

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X-Chem, Inc.

Patent Application Titled "Methods of Creating and Screening DNA-Encoded Libraries" Published Online (USPTO 20160369267)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventor WAGNER, Richard W. (Cambridge, MA), filed on May 5, 2016, was made available online on December 29, 2016.

The assignee for this patent application is X-Chem, Inc.

Reporters obtained the following quote from the background information supplied by the inventors: "The burgeoning cost of drug discovery has led to the ongoing search for new methods of screening greater chemical space as inexpensively as possible to find molecules with greater potency and little to no toxicity. Combinatorial chemistry approaches in the 1980s were originally heralded as being methods to transcend the drug discovery paradigm, but largely failed due to insufficient library sizes and inadequate methods of deconvolution. Recently, the use of DNA-displayed combinatorial libraries of small molecules has created a new paradigm shift for the screening of therapeutic lead compounds.

"Morgan et al. (U.S. Patent Application Publication No. 2007/0224607, hereby
incorporated by reference) identifies the major challenges in the use of DNA-displayed combinatorial approaches in drug discovery: (1) the synthesis of libraries of sufficient complexity and (2) the identification of molecules that are active in the screens used. In addition, Morgan et al. states that the greater the degree of complexity of a library, i.e., the number of distinct structures present in the library, the greater the probability that the library contains molecules with the activity of interest. Thus, the chemistry employed in library synthesis must be capable of producing vast numbers of compounds within a reasonable time frame. This approach has been generally successful at identifying molecules with diverse chemotypes and high affinity. However, a number of issues have surfaced with respect to generating libraries of enormous complexity and evaluating the sequencing output on the scale that has been described. For example, purification of a library following multiple chemical transformations (e.g., usually 3 or 4 steps) and biological transformations (e.g., enzymatic ligation of DNA tags) is cumbersome and results in a significant amount of 'noise' in the library due either to incomplete synthesis of molecules or to mis-tagging during the ligation step. Furthermore, the amount of sequencing that is required to interrogate selected populations is striking, usually requiring 'next generation' sequencing methods. The latter is due to the fact that sophisticated genetic tagging schemes embedded in the DNA portion of the library, together with bioinformatics algorithms for analyzing the 'next generation' sequencing output, are required to sift through the noise and identify hits in the library. As a result, even with these methodologies, the sequencing is still not advanced enough to fully capture the diversity of sequences (representing both real hits and 'noise') from a given screen.

"DNA display of combinatorial small molecule libraries relies on multistep, split-and-pool synthesis of the library, coupled to enzymatic addition of DNA tags that encode both the synthetic step and building block used. Several (e.g., 3 or 4) synthetic steps are typically carried out and encoded, and these include diversity positions (described herein as A, B, and C (FIG. 1)), such as those formed by coupling building blocks with, e.g., amine or carboxylate functional groups onto a chemical scaffold that displays the attached building blocks in defined orientations. One example of a scaffold (S) that is often used in combinatorial libraries is a triazine moiety, which can be orthogonally derivatized in three positions about its ring structure.

"The process of library formation can be time consuming, products are often inefficiently purified, and the result is that unknown reactions may occur that create unwanted and/or unknown molecules attached to the DNA. Furthermore, incomplete purification of the library can result in tags cross-contaminating during the ligation steps, resulting in mis-tagging. The end result for screening and sequencing hits from the library is that massively parallel sequencing has to be employed due the inherent 'noise' of both DNAs that are attached to molecules that are unintended (e.g., unreacted or side products) or that are mis-tagged. Thus, the efficiency of sequencing is lost.

"In some instances, an initiator oligonucleotide, from which the small molecule library is built, contains a primer-binding region for polymerase amplification (e.g., PCR) in the form of a covalently-closed, double-stranded oligonucleotide. This construct is very problematic for performing polymerase reactions, owing to the difficulty of melting the duplex and allowing a primer oligonucleotide to bind and initiate polymerization, which results in an inefficient reaction, reducing yield by 10- to 1000-fold or more.

"There exists a need for a more step-wise approach to screening and identifying small molecules that have greater potency and little to no toxicity."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventor's summary information for this patent application: "The present invention features a method for creating and screening simplified DNA-encoded libraries, owing to fewer synthetic steps (e.g., no enzymatic ligation or no covalently closed"
initiator double-stranded oligonucleotides) and, therefore, substantially less 'noise' during the analysis of the encoded oligomers (herein termed 'identifier regions'). Thus, sequencing becomes much more efficient, or alternatively, microarray analysis becomes possible, taking into account the inherent biases that can confound interpretation of the data that can be introduced by amplification of the encoding region. We also have identified methods for creating a greater diversity of chemical reactions rather than those simply limited to aqueous conditions to render the DNA-encoded library more hydrophobic and soluble in organic solvents for subsequent steps of library synthesis. In this manner, chemical reactions can be carried out with potentially higher yield, a greater diversity of building blocks, and improved fidelity of the chemical reactions.

"Accordingly, the present invention features a method of tagging DNA-encoded chemical libraries by binding a first functional group of a bifunctional linker to an initiator oligonucleotide at the 5' end of the initiator oligonucleotide, wherein the initiator oligonucleotide forms a hairpin structure, and binding a second functional group of the bifunctional linker to a component of the chemical library. The initiator oligonucleotide may include a first identifier region and a second identifier region, such that the second identifier region hybridizes to the first identifier region of the initiator oligonucleotide. The second identifier region may include a fluorescent tag (e.g., a fluorophore or GFP) or biotin label. In addition, the second identifier region is not amplified prior to analysis following a selection step.

"In another embodiment, the invention features a method of creating DNA-encoded libraries by (a) creating a first diversity node, (b) encoding the first diversity node in separate vessels, © pooling the first diversity node, and (d) splitting the pooled first diversity node into a second set of separate vessels, wherein the first diversity node reacts to form a second diversity node. In certain embodiments, the second diversity node is not encoded and pooled.

"In another embodiment, the present invention features a method for creating libraries using semi- or non-aqueous (e.g., organic) chemical reactions with higher yield, a greater diversity of building blocks, and a greater number of chemical reactions that can be used to create more DNA-tagged combinatorial libraries than previously achieved.

"In general, the methods of the present invention provide a set of libraries containing, e.g., one or two diversity positions on a chemical scaffold that can be efficiently generated at high yield, screened to identify preferred individual building blocks or combinations of building blocks that reside at the, e.g., one or two diversity positions, and iteratively diversified at, e.g., a second, third, and/or fourth diversity position to create molecules with improved properties. In addition, the methods described herein allow for an expansive and extensive analysis of the selected compounds having a desired biological property, which, in turn, allows for related compounds with familial structural relationships to be identified (e.g., structure-activity relationships).

"By 'scaffold' is meant a chemical moiety which displays diversity node(s) in a particular special geometry. Diversity node(s) are typically attached to the scaffold during library synthesis, but in some cases one diversity node can be attached to the scaffold prior to library synthesis (e.g., addition of identifier regions). In some embodiments, the scaffold is derivatized such that it can be orthogonally deprotected during library synthesis and subsequently reacted with different diversity nodes (e.g., using identifier tagging at each step).

"By 'identifier region' is meant the DNA tag portion of the library that encodes the building block addition to the library.

"By 'initiator oligonucleotide' is meant the starting oligonucleotide for library synthesis which also contains a covalently attached linker and functional moiety for addition of
a diversity node or scaffold. The oligonucleotide can be single- or double-stranded. The oligonucleotide can consist of natural or modified bases.

"By 'functional moiety' is meant a chemical moiety comprising one or more building blocks that can be selected from any small molecule or designed and built based on desired characteristics of, for example, solubility, availability of hydrogen bond donors and acceptors, rotational degrees of freedom of the bonds, positive charge, negative charge, and the like. The functional moiety must be compatible with chemical modification such that it reacts with the headpiece. In certain embodiments, the functional moiety can be reacted further as a bifunctional or trifunctional (or greater) entity. Functional moieties can also include building blocks that are used at any of the diversity nodes or positions. Examples of building blocks and encoding DNA tags are found in Tables 1 and 2. See, e.g., U.S. Patent Application Publication No. 2007/0224607, hereby incorporated by reference.

"By 'building block' is meant a chemical structural unit which is linked to other chemical structural units or can be linked to other such units. When the functional moiety is polymeric or oligomeric, the building blocks are the monomeric units of the polymer or oligomer. Building blocks can also include a scaffold structure (e.g., a scaffold building block) to which is, or can be, attached one or more additional structures (e.g., peripheral building blocks). The building blocks can be any chemical compounds which are complementary (i.e., the building blocks must be able to react together to form a structure comprising two or more building blocks). Typically, all of the building blocks used will have at least two reactive groups, although some of the building blocks used will have only one reactive group each. Reactive groups on two different building blocks should be complementary, i.e., capable of reacting together to form a covalent bond.

"By 'linker' is meant a molecule that links the nucleic acid portion of the library to the functional displayed species. Such linkers are known in the art, and those that can be used during library synthesis include, but are not limited to, 5'-O-Dimethoxytrityl-1',2'-Dideoxyribose-3'-(2-cyanoethyl)-(N,N-diisopropyl)-phosphoramidite; 9-O-Dimethoxytrityl-triethylene glycol, 1-[(2-cyanoethyl)-(N,N-diisopropyl)]-phosphoramidite; 3-(4,4'-Dimethoxytrityloxy)propyl-1-[(2-cyanoethyl)-(N,N-diisopropyl)]-phosphoramidite; and 18-O-Dimethoxytritylhexaethyleneglycol, 1-[(2-cyanoethyl)-(N,N-diisopropyl)]-phosphoramidite. Such linkers can be added in tandem to one another in different combinations to generate linkers of different desired lengths. By 'branched linker' is meant a molecule that links the nucleic acid position of the library to 2 or more identical, functional species of the library. Branched linkers are well known in the art and examples can consist of symmetric or asymmetric doublers (1) and (2) or a symmetric trebler (3). See, for example, Newcome et al., Dendritic Molecules: Concepts, Synthesis, Perspectives, VCH Publishers (1996); Boussif et al., Proc. Natl. Acad. Sci. USA 92: 7297-7301 (1995); and Jansen et al., Science 266: 1226 (1994).

"As used herein, the term 'oligonucleotide' refers to a polymer of nucleotides. The oligonucleotide may include DNA or any derivative thereof known in the art that can be synthesized and used for base-pair recognition. The oligonucleotide does not have to have contiguous bases, but can be interspersed with linker moieties. The oligonucleotide polymer may include natural nucleosides (e.g., adenosine, thymidine, guanosine, cytidine, uridine, deoxyadenosine, deoxythymidine, deoxyguanosine, and deoxycytidine), nucleoside analogs (e.g., 2-aminoadenosine, 2-thiathymidine, inosine, pyrrolo-pyrimidine, 3-methyl adenosine, C5-propynylcytidine, C5-propynyluridine, C5-bromouridine, C5-fluorouridine, C5-iodouridine, C5-methylcytidine, 7-deazaadenosine, 7-deazaguanosine, 8-oxoadenosine, 8-oxoguanosine, O(6)-methylguanine, and 2-thiocytidine), chemically modified bases, biologically modified bases (e.g., methylated bases), intercalated bases, modified sugars (e.g., 2'-fluororibose, ribose, 2'-deoxyribose, arabinose, and hexose), and/or modified phosphate groups (e.g., phosphorothioates
and 5'-N-phosphoramidite linkages).

"By 'operatively linked' is meant that two chemical structures are linked together in such a way as to remain linked through the various manipulations they are expected to undergo. Typically, the functional moiety and the encoding oligonucleotide are linked covalently via an appropriate linking group. For example, the linking group may be a bifunctional moiety with a site of attachment for the encoding oligonucleotide and a site of attachment for the functional moiety.

"By 'small molecule' is meant a molecule that has a molecular weight below about 1000 Daltons. Small molecules may be organic or inorganic, and may be isolated from, e.g., compound libraries or natural sources, or may be obtained by derivatization of known compounds.

"Other features and advantages of the invention will be apparent from the following detailed description, the drawings, the examples, and the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

"FIG. 1 is a schematic illustrating the diversity positions A, B, and C.

"FIG. 2 is a schematic of a DNA-encoded chemical library member of Mode 1, showing, in part, the initiator oligonucleotide, which includes a hairpin structure complementary at the identifier region, which has been reacted with A and B diversity nodes. The identifier region for B is being added. In this figure, the 'C' diversity node is the potential position for an additional diversity position to be added following the addition of B identifier region.

"FIG. 3 is a schematic of a DNA-encoded chemical library member of Mode 1, showing, in part, the initiator oligonucleotide, which includes a sequence in the loop region of the hairpin structure that can serve as a primer binding region for amplification.

"FIG. 4 is a schematic of a DNA-encoded chemical library member of Mode 1, showing, in part, the initiator oligonucleotide, which includes a non-complementary sequence on the 3' end of the molecule that can serve to bind a second identifier region for either polymerization or for enzymatic ligation.

"FIG. 5 is a schematic of a DNA-encoded chemical library member of Mode 1, showing, in part, the initiator oligonucleotide, wherein the loop region of the initiator oligonucleotide and at least the identifier region on the 3' side of the loop region can serve to hybridize to a complementary oligonucleotide that also contains a second identifier region.

"FIG. 6 is a schematic of PCR amplification of the hairpin model, as presented in FIG. 5.

"FIG. 7 is a schematic of a DNA-encoded chemical library member of Mode 2, showing a hairpin oligonucleotide that is covalently closed (e.g., via a hairpin or chemically) on the distal end to the linker.

"FIG. 8 is a schematic of a DNA-encoded chemical library member of Mode 2, showing the inclusion of additional diversity nodes.

"FIG. 9 is a schematic of a DNA-encoded chemical library member of Mode 2, showing the steps for screening of libraries and methods for deconvoluting the identifier regions.

"FIG. 10 is a schematic showing oligonucleotides used in library synthesis. Headpiece (HP) was synthesized by IDT DNA and HPLC purified. Arrows indicate the site for BbvCI restriction (underlined) or Nb.BbvCI or Nt.BbvCI nicking digest. Sequences of the DNA tags A1, B1, and C1 (top and bottom strands), the 5' and 3' PCR primers, and the 3' end of the HP are also shown.
"FIG. 11 is an electrophoretic gel (TBE-urea (15%) gel electrophoresis; UV shadowing on a TLC plate) of the headpiece at different steps of its synthesis. Headpiece HP (IDT DNA) was acylated by Fmoc-amino-PEG2000-NHS (JenKem Technology USA). Lane 1 is the HP (IDT DNA) oligonucleotide (42 nts). Lane 2 is HP acylated with Fmoc-amino-PEG2000-NHS. Following Tris-HCl addition, some deprotection of Fmoc is observed. Lane 3 is the crude reaction with piperidine, showing complete deprotection of Fmoc. Lane 4 is the same as Lane 3 after desalting on a NAP-5 column and lyophilization. (XC: xylene cyanol (migrates as 60 nt DNA); BPB: bromophenol blue (migrates as 15 nt DNA))

"FIG. 12 is a schematic showing the steps in model library synthesis. DTAF was conjugated to amino-PEG modified headpiece (HP-1) in the first step. Following this step, a portion of HP-1-DTAF was further acylated with pentylamino-biotin.

"FIG. 13A is a scheme of the ligation of the DNA tags. FIG. 13B illustrates a 4% agarose gel of HP-1-DTAF-biotin library at different steps of the DNA tag ligation. M: marker; Lane 1: HP-1-DTAF-biotin; Lane 2: 1+ Tag A only; Lane 3: 1 + Tags A, B, and C, as well as 3'-end oligo ligated. Arrow indicates bright green fluorescence (DTAF). No substantial separation is observed on the gel. FIG. 13C illustrates PCR amplification (24 cycles) of the ligation reactions. M: marker (lowest band is 100); Lane 1: PCR amplification of the green fluorescent band from Lane 1 of FIG. 14B (HP-1-DTAF-biotin+Tag A); Lane 2: PCR amplification of the green fluorescent band from Lane 2 of FIG. 14B (HP-1-DTAF-biotin+all 3 tags and 3'-end oligo); Lane 3: PCR amplification of the crude ligation reaction HP-1-DTAF-biotin+all 3 tags; Lane 4: no template control.

"FIGS. 14A-D are a set of electrophoretic gels showing the purification of the XChem model compound and model selection (via a binding interaction between the biotin moiety of the XChem model compound and streptavidin). The gels are 4-12% SDS NuPage gels with MES running buffer. Gels were scanned for green fluorescence using a 450-nm laser. FIG. 14A is a gel showing synthesis and purification steps. Samples were mixed with loading buffer and boiled. M: marker; Lane 1: HP-1 + DTAF; Lanes 2 and 2a: HP-1-DTAF+biotin (two independent reactions); Lanes 3-6 (steps of purification/model selection using streptavidin Dynal beads): Lane 3: flow-through; Lane 4: last wash (washed with water at 80.degree. C. for 10 minutes); Lanes 5 and 5': elution with 25 mM EDTA at 90.degree. C. (1.sup.st and 2.sup.nd); Lanes 6 and 6': elution with 25 mM EDTA and 5 mM NaOH at 90.degree. C. (1.sup.st and 2.sup.nd). FIG. 14B is a gel showing binding of HP-1-DTAF-biotin (library of 1) to streptavidin. Samples were mixed with gel loading buffer and directly loaded onto the gel without boiling. Samples, as in the gel of FIG. 14A, were incubated with an excess of streptavidin in 50 mM NaCl/10 mM Tris HCl, pH 7.0, for 10 minutes. 'S' indicates the addition of streptavidin. Samples 5 and 6 were pooled together. Lane 1: HP-1-DTAF; Lane 15: HP-1-DTAF+streptavidin; Lane 2: HP-1-DTAF-biotin (desalted); Lane 2S: HP-1-DTAF-biotin+streptavidin; Lane 4: last wash (washed with water at 80.degree. C. for 10 minutes); Lane 4S: last wash sample+streptavidin; Lane 5+6: pooled samples 5, 5', 6 and 6' (elution fractions from streptavidin beads, purified and selected HP-1-DTAF-biotin; Lane 5+6S': purified and selected HP-1-DTAF-biotin+streptavidin. Note that there is no noticeable difference in migration between different steps of 'library of 1' synthesis. FIG. 14C is a 4% agarose gel of headpiece (Trilink) HP-T, reacted with DTAF. Lane 1: Marker; Lane 2: DTAF; Lane 3 HP-T-DTAF. Left panel: UV visualization of the gel (ethidium bromide staining); Right panel: same gel scanned for fluorescence at excitation wavelength 450 nm (green, fluorescein). FIG. 14D is a 4-12% SDS NuPage gel with MES running buffer, showing binding of HP-T-DTAF-biotin to streptavidin. Samples were mixed with gel loading buffer and directly loaded onto the gel without boiling. Samples, as in the gel of FIG. 14A, were incubated with an excess of streptavidin in 50 mM NaCl/10 mM Tris HCl, pH 7.0, for 10 minutes. Lane 1: DTAF; Lane 2:
HP-T-DTAF; Lane 3: HP-T-DTAF+streptavidin; Lane 4: HP-T-DTAF-biotin (desalted); Lane
5: HP-T-DTAF-biotin+streptavidin; Lane 6: pooled samples 5, 5', 6 and 6' (elution fractions
from streptavidin beads, purified and selected HP-1-DTAF-biotin; Lane 7: purified and selected
HP-1-DTAF-biotin+streptavidin.

"FIG. 15A is a scheme of the synthesis of the construct for the T7 RNAP
intracellular delivery experiment. The VH dsDNA clone was PCR amplified to append a BsmI
site at the 5' end upstream of the T7 promoter. Following restriction digestion and purification,
the construct was ligated to HP-1-DTAF-R7 (headpiece modified with DTAF and (-
Arg.-epsilon.Ahx)6-Arg peptide). FIG. 15B is an electrophoretic gel of the ligation reaction.
Lanes 1 and 2 show different HP-1 samples ligated to VH; Lane 3 shows unligated VH PCR
product; and M is the marker. FIG. 15C is an electrophoretic gel showing validation for T7
promoter activity. The gel shows a T7 Megascript (Ambion, Inc.) reaction using samples from
Lanes 1-3 of FIG. 15B.

"FIGS. 16A-C are agarose gel electrophoretoses of the steps in library 10.times.10
synthesis FIG. 16A is a 4% agarose gel of headpiece (Trilink) HP-T ligated with tag A. Lane 1:
Marker; Lane 2: HP-T; Lane 3: Tag A annealed; Lane 4: HP-T ligated with tag A; Lane 5: HP-T
ligated with tag A and desalted on Zeba column. FIG. 16B is a 2% agarose gel of HP-T-A
ligation with 12 different tags B. Lane M: Marker, Lanes 1 and 9: HP-T-A; Lanes 3, 4, 5, 6, 7, 8,
11, 12, 13, 14, 15 and 16: HP-T-A ligation with tags B1-B12. FIG. 16C is a 4% agarose gel of
the pooled library (library B), with tags A and B1-B12 ligated, after reaction with cyanouric
chloride and amines B1-B12. Lane 1: Marker; Lane 2: HP-T-A; Lane 3: Library-B pooled and
desalted on Zeba columns."

For more information, see this patent application: WAGNER, Richard W. Methods
of Creating and Screening Dna-Encoded Libraries. Filed May 5, 2016 and posted December 29,
=HITOFF&u=%2Fnetacgi%2FPTO%2Fsearch-adv.html&r=4988&p=100&f=G&l=50
&d=PG01&S1=20161222.PD.&OS=PD/20161222&RS=PD/20161222

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Rowan University

Patent Application Titled "Modulation of Cellular Localization of Cyclin C" Published Online (USPTO 20160367630)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- According to news reporting originating from Washington, D.C., by
NewsRx journalists, a patent application by the inventors Strich, Randy (Medford Lakes, NJ);
Cooper, Katrina (Medford Lakes, NJ), filed on January 16, 2015, was made available online on
December 29, 2016.

The assignee for this patent application is Rowan University.

Reporters obtained the following quote from the background information supplied by
the inventors: "Current therapeutic interventions for treating cancerous conditions focus on
inhibiting cancer cell propagation by killing, extracting or retarding their growth. The role of
mitochondria in promoting cell death has drawn much attention as a potential target for the next
Mitochondria are a key regulatory node for the stress-activated intrinsic programmed cell death (PCD). Mitochondria are dynamic organelles undergoing constant fusion and fission during normal cell division. The equilibrium between fission and fusion is controlled by the activity of conserved molecular machines driven by dynamin-like GTPases (Westermann, 2010). In response to cytotoxic damage, the mitochondria may undergo extensive fission accompanied by mitochondrial outer membrane permeability (MOMP) which releases sequestered pro-apoptotic proteins into the cytoplasm. In budding yeast, mitochondrial fission requires the GTPase Dnm1p that forms atypical helical filaments that first encircle, then constrict, mitochondria until scission is achieved (Mears et al., 2011). Recruitment of Dnm1p to the mitochondria requires the outer membrane protein Fis1p (Mozdy et al., 2000; Tieu et al., 2002) and one of two adaptor proteins, Mdv1p (Mozdy et al., 2000; Tieu and Nunnari, 2000) or Caf4p (Griffin et al., 2005). On the other side of the equation, the fusion of the inner and outer mitochondrial membranes requires the Mgm1p and Fzo1p GTPases, respectively (Meeusen et al., 2006; Rapaport et al., 1998). Several studies have demonstrated that the proper balance of fission and fusion is required for normal mitochondrial function (Ishihara et al., 2009; Wakabayashi et al., 2009).

"The balance between fission and fusion is shifted dramatically toward fission in cells exposed to exogenous stress (Westermann, 2010). Mitochondrial hyper-fission is a conserved hallmark of the stress response (Igaki et al., 2000; Karbowski et al., 2002; Vieira et al., 2002) and is associated with the release of sequestered programmed cell death (PCD) inducing factors from this organelle (Breckenridge et al., 2003; Frank et al., 2001).

"At least one underlying mechanism allowing tumor progression and resistance to anti-cancer therapies is the ability of cancerous cells to inhibit the intrinsic PCD pathway. For example, overexpression of the B Cell lymphocyte 2 (Bcl-2) pro-survival BH3 protein prevents MOMP. Such overexpression is observed in a high percentage of chronic lymphocytic leukemia (CLL) patients. However, efforts to design therapies that inactivate pro-survival proteins or stimulate pro-death components have been hampered due to a fundamental lack of understanding about how other pathways impinge on mitochondrial function and PCD induction. As such there is a need in the art to further identify the correlation among various components that activate or deactivate the cell death system in patients suffering from cancer and thereby improve or supplement available methods of treatment in the fight against cancer. Such knowledge can further lead to discovery of new therapeutic compositions and methods of applying or administering the same to treat hyperplasia or cancerous conditions in subjects in need of such treatment."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors' summary information for this patent application: "In one aspect, the present invention provides a method of inhibiting tumor growth or sensitizing a tumor cell to a therapeutic agent comprising contacting a tumor cell with a compound capable of inducing the nuclear to cytoplasmic translocation of cyclin C.

"In another aspect, the present invention provides a compound capable of inducing the nuclear to cytoplasmic translocation of cyclin C.

"In another aspect, the present invention provides a compound comprising the holoenzyme association domain (HAD) of cyclin C or a fragment or mimetic thereof.

"In another aspect, the present invention provides a method of identifying a combination of a tumor cell type and an anti-tumor agent whose action is susceptible to enhancement by cyclin C translocation.

BRIEF DESCRIPTION OF THE DRAWINGS
"FIGS. 1 A-D provides stress-induced mitochondrial localization of cyclin C. (A) Fluorescence microscopy was conducted on mid-log phase cells expressing cyclin C-YFP and the DsRed mitochondrial targeting plasmid (mt-DsRed) before (0 h) and following (2 h) 1 mM H₂O₂ treatment. Arrows indicate sites of cyclin C-YFP and mitochondrial co-localization. (B) As in (A) except that living cells were visualized omitting DAPI staining. (C) Western blot analysis of cyclin C-TAP in whole cell extracts (WCE) or mitochondrial enriched fractions prepared from cultures with the indicated genotypes before and after H₂O₂ exposure (0.8 mM). The blot was stripped and reprobed for the presence of Npl3p (nuclear) and Pori p (mitochondria) markers. (D) Western blot analysis of cyclin C-TAP in the 1 hr VVT mitochondrial fraction described in (C) with (+) and without (-) Proteinase K treatment. Molecular weight markers (kDa) are indicated on the left of the panel. This blot was stripped and probed for components of the outer (Porlp) and inner (Mam33p) mitochondrial membranes. (E) WT cells expressing cyclin C-YFP, Dnm1-cherry and mt-CFP expression plasmids were grown to mid-log phase then treated with 1 mM H₂O₂ as indicated. Co-localization (arrows) of the mitochondria, Cyclin C-YFP and Dnm1p-cherry was visualized by fluorescence microscopy. In all figures, the bars=5 μM unless otherwise stated. The enlarged regions are indicated by the blue boxes in all panels.

"FIGS. 2 A-G provides that Cdk8p and cyclin C are required for stress-induced mitochondrial fission. (A) Representative images of reticular or fragmented mitochondria are shown. (B) Representative images of wild type and cnc1A Nomarski (Nom.) or mt-DsRed are shown following exposure to H₂O₂. (C) The percent of cells (mean.+-.s.e.m.) within the population displaying mitochondrial fission is given before and following H₂O₂ (1 mM) or ethanol (10% vol/vol) treatment for 2 h or 30 min, respectively. * p<0.05. (D) Confocal microscopic images of WT and cnc1A strains expressing mt-DsRed following exposure to ethanol (10% vol/vol) for 30 min. (E) Combined Nomarski and fluorescence images were obtained from WT and cnc1A cultures expressing mt-DsRed before and following exposure to H₂O₂ for 2 h. The percent of the population exhibiting fragmented mitochondria was calculated from three independent cultures (average.+-.s.e.m indicated). (F) A cdk8A strain (RSY1726) transformed with cyclin C-YFP and RFP-Noplp expressing plasmids was visualized by fluorescence microscopy before and 2 h following H₂O₂ exposure (1 mM). DAPI staining indicates nuclear location. The arrows indicate the cyclin C-YFP foci observed in the stressed cdk8A cells. The frequency of cells containing a single focus associated with the nucleus is given on the right (mean.+-.s.e.m. n=3). The remainder of the culture exhibited either a diffuse nuclear signal or contained Z2 nuclear associated foci. (G) The percentage of cells displaying fission (mean.+-.s.e.m.) in a cnc1A strain transformed with either the vector, wild type CNC1 or CNC1 Array 2 h following H₂O₂ treatment (1 mM). *=p<0.01 compared to the CNC1 expressing plasmid

"FIGS. 3 A-E show that Cytoplasmic cyclin C is sufficient to induce fission. (A) Extracts prepared from a wild-type strain expressing endogenously tagged MED13-myc allele, GFP-cyclin C or the HADA derivative as indicated were immunoprecipitated with GFP antibodies and the resulting immunoprecipititates probed for the presence of Med13-13myc. This blot was stripped and reprobed for GFP to ensure similar expression levels between the two GFP-cyclin C proteins. Extracts immunoprecipitated with myc or whole cell extracts (WCE) directly probed for myc controlled for the presence of Med13-13myc in the extracts. [] indicates no antibody control lanes. (B) Fluorescence microscopy monitoring the location of cyclin C.sup.HAD.degree., the nucleus (DAPI) and mitochondria (mt-DsRed). Arrows indicate sites of mitochondria-cyclin C.sup.HADA interaction. Bar=5 μM. (C) A cnc1A mutant expressing either wild type or cyclin C.sup.HAD.degree. and mt-DsRed were grown to mid-log phase then examined by fluorescence microscopy. The cells were scored based on the mitochondria

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exhibiting a fusion, fission or mixed morphology (see Materials and methods for scoring metric). The mean values obtained from three independent transformants are presented (+–s.e.m.) along with the p value. (D) The experiment in (C) was repeated with a dnm1A cnc1A mutant strain. (E) A wild-type strain (RSY10) harboring either myc-cyclin C or myc-cyclin C.sup.HAD.degree. expression plasmids was subjected to an oxidative stress timecourse. Extracts prepared from these samples were probed for cyclin C and cyclin C.sup.HADA levels by Western blot analysis. Tub1p levels were used as a loading control.

"FIGS. 4 A-D provides that mitochondrial localization of cyclin C requires the fission complex. (A) Log phase fis1A cells harboring cyclin C-YFP and the mt-DsRed expression plasmids were treated with 1 mM H.sub.2O.sub.2 as indicated then examined by fluorescence microscopy. Arrows indicate cyclin C-YFP signals that do not associate with the mitochondria. Quantitation of the number of cyclin C-YFP foci associated with the mitochondria is given on the right (mean.±–s.e.m. n=3). Asterisks indicate p<0.01 from wild type value. (B) A dnm1A strain harboring cyclin C-YFP and mt-DsRed constructs was grown and analyzed as described in (A). White and blue arrows indicate cyclin C-YFP foci either not associating or associating with the mitochondria, respectively. (C) The experiment described in (B) was repeated with an mdv1A mutant. (D) Wild type, cnc1A, fis1A and cnc1A fis1A mid-log phase cultures were treated with 1 or 2 mM H.sub.2O.sub.2 for 2 h then serially diluted (1:10) and plated onto rich growth medium. Plates were incubated three days prior to image collection.

"FIGS. 5 A-C provides that Cyclin C is required for functional Dnm1p filament formation. Dnm1p-GFP subcellular localization was visualized by confocal microscopy before and following H.sub.2O.sub.2 stress (1 mM) for the times indicated in (A) WT, (B) cnc1A or (C) mdv1A cells harboring Dnm1p-GFP and mt-DsRed plasmids. Arrows indicate functional Dnm1p-GFP foci as determined by their centered location with respect to the mitochondrial axis and the constriction of the mitochondrial diameter. Arrowheads indicate non-functional aggregates as indicated by their association with the edge of the mitochondria and the lack of mitochondrial constriction.

"FIGS. 6 A-F further show that stress-induced Mdv1p mitochondrial localization requires cyclin C. (A) A wild-type strain transformed with Mdv1-GFP and mt-DsRed expressing plasmids were analyzed by confocal microscopy before and following H.sub.2O.sub.2 treatment (1 mM for 2 h). White arrows indicate sites of active fission, blue arrows identify Mdv1p foci not associated with the mitochondria. (B) Mdv1p subcellular localization patterns in WT and cnc1A strains before and following H.sub.2O.sub.2 stress (1 mM for 2 h) were determined by confocal microscopy. The categories for Mdv1-GFP localization patterns are provided on the left. Values are mean.±–s.e.m. **=p<0.01. (C) Wild-type strain expressing cyclin C-YFP, Mdv1p-DsRed and mt-CFP was subjected to H.sub.2O.sub.2 stress (1 mM for 2 h). Subcellular localization of the proteins and mitochondria was monitored by fluorescence microscopy. The percentage of cyclin C-YFP foci associating with Mdv1p-DsRed is indicated (n=3). Arrows indicate regions of co-localization between cyclin C-YFP and Mdv1p in the enlarged images. (D) and (E) A two-hybrid reporter strain (gall-HIS3, PJ69-4A) transformed with Gal4p DNA binding domain (DBD) and activator fusion protein combinations as indicated was patched onto medium selecting for reporter gene activation (-His). The previously reported Mdv1-DBD and Fis1-AD interaction (Griffin et al., 2005) was used as a positive control. Vec=vector control. (F) Extracts prepared from unstressed and stressed wild-type strain expressing endogenous cyclin C-TAP and Mdv1p-HA were incubated with aTAP or aHA antibodies then probed for the presence of cyclin C-TAP (top panel). Control immunoprecipitation of Mdv1p-HA is shown in the bottom panel. The control extracts not expressing endogenous Mdv1p-HA (-) are indicated. (G) A wild-type strain expressing mt-CFP, cyclin C.sup.HADA YFP and Mdv1p-dsRed was grown to mid-log phase then examined by fluorescence microscopy. The arrows indicate areas
of co-localization between the two proteins and the mitochondria.

"FIGS. 7 A-D provides that Cyclin C is required for stress-elevated Dnm1p-Mdv1p interaction. (A) WT and cnc1A strains expressing MET25-Mdv1p-HA and MET25-Mdv1-myc were grown under non-inducing conditions for the MET25 promoter. Extracts prepared from samples taken before and following H.sub.2O.sub.2 addition were immunoprecipitated with amyc then the immunoprecipitates probed for the presence of Mdv1p-HA. (B) Extracts prepared from stressed and unstressed wild type and cnc1A strains expressing Mdv1p-GFP and Dnm1p-myc were subjected to co-immunoprecipitation experiments as indicated (top panel). Bottom two panels control for Dnm1p-myc and Mdv1p-GFP expression levels in these extracts. [] indicate no antibody controls. (C) Co-localization of Mdv1p-GFP and Dnm1-cherry was examined in wild type and cnc1A strains before and following H.sub.2O.sub.2 treatment (1 mM) as indicated. Bar=5 μM. (D) A two-step model for cyclin C regulation of mitochondrial morphology and PCD. In unstressed cells, cyclin C (CC) and Cdk8 repress stress responsive genes. The mitochondria exhibit fused morphology in the majority of cells with Dnm1p and Mdv1p being located both in the cytoplasm and at the mitochondria. Step 1. Stress-induced translocated cyclin C associates with Mdv1p promoting Mdv1p-Dnm1p complex formation and extensive mitochondrial fragmentation. Step 2. Cyclin C dissociates from the fission complex and is destroyed by ubiquitin-mediated degradation. An additional stress signal, in combination with hyper-fission, is needed to complete the PCD pathway.

"FIGS. 8 A-C demonstrate that cyclin C is required for mitochondrial fission and PCD. (A) Mitochondrial morphology in WT and CNCC-/- MEFs before and after cisplatin treatment. % cells exhibiting hyper-fission is indicated. (B) PCD execution was determined in the cell lines indicated including a null MEF line expressing EGFP-cyclin C. (C) MOMP was monitored using the mitochondrial stain TMRM staining before (control) and following H.sub.2O.sub.2 treatment as indicated. Reduction TMRM staining indicates MOMP has occurred.

"FIGS. 9 A-B demonstrate that cyclin C suppresses hyperplasia in a mouse thyroid cancer model. (A) Mice harboring floxed alleles of PTEN and CCNC expressing a thyroid-specific cre recombinase. Representative thyroids dissected from 20 wk old mice with the indicated genotypes. Thyroid/trachea weights are shown on the left. (B) Kaplan-Meyer survival plot for mice with the indicated genotype. n=6/genotype.

"FIGS. 10 A-C show a two-step model for cyclin C-induced cell death. (A) Step 1: cyclin C disassociates from Med13 in response to stress. Step 2: cyclin C associates with Drp1 to induce mitochondrial fission which sensitizes the cell to anti-cancer drugs. (B) Deleting MED13 in yeast results in cyclin C cytoplasmic localization and mitochondrial fission without added stress. (C) Aberrant cytoplasmic localization sensitizes cells to ROS. Yeast cells with the indicated genotypes were treated with low dose H.sub.2O.sub.2 as indicated. Mid-log cultures before and after ROS stress were diluted 1:10 then spotted on growth medium lacking H.sub.2O.sub.2.

"FIGS. 11 A-B demonstrate the disruption of the holoenzyme association domain (HAD)-Med13 interaction. The amino terminal sequences of cyclin C from the indicated organisms. Homologies are shaded. Boxed region is targeted using the HIV TAT basic domain fused to the 19 aa peptide indicated by the line above the sequence. (B) Representative images of MEF cells incubated with TAT-HAD peptide or control (25 .mu.M) for three hours then fixed and stained for the nucleus (DAPI), mitochondria (MitoTracker Red) and cyclin C (.alpha.-cyclin C). Arrows indicate regions of interaction between cyclin C and mitochondria.

"FIG. 12 shows the design of a stapled-HAD (S-HAD) peptide. The primary sequence of the human cyclin C HAD domain is presented. Green boxes indicate alpha helix
structures from both prediction algorithms and crystal structure analysis. Helical wheels generated from the Helix 1 or Helix 2 sequences are indicated. The start of each plot (n) and end © are indicated. Predictive interactive interfaces of the two alpha helixes indicated by the arc were derived from both RASMOL modeling and yeast genetic data. Initial sites for introducing staples are indicated on each helix and the primary sequence below.

"FIGS. 13 A-B show a proposed Med13 binding region on cyclin C. (A) Space filling model of cyclin C illustrating the HAD and hydrophobic Helix 2', 3' and 4' comprising the second cyclin box fold domain. The position of the yeast Ser266 on the loop between helix 3' and 4' is indicated. Cdk8 binding site is on the backside of this image. (B) Ribbon model rotated 90. degree. with the same features described in (A).

"FIGS. 14 A-C demonstrate that the cyclin C regulatory system is intact in HeLa cells. (A) cyclin C localization in H2O2 stressed cultures as indicated. See (B) for enlarged images for 6 hr+H.sub.2O.sub.2 cells. (C) Knockdown efficiency of cyclin C by siRNA. con=scrambled siRNA control. Annexin V studies in the cultures described in (C). Error bars=s.e.m. Three independent cultures were assayed for each sample.

"FIGS. 15 A-B demonstrate cyclin C regulation in breast cell lines. (A) cyclin C localization was followed in MCF-7 or MCF-10A cells exposed to H.sub.2O.sub.2 (0.4 mM) for 4 h. (B) cyclin C levels were monitored by Western blot in MCF-7 cells treated with (+) or without (-) CCNC specific siRNAs. .beta.-tubulin levels were followed as a loading control. (C) Viability was measured (viable stain assays) in the cell lines described in (B) following 4 h H.sub.2O.sub.2 exposure as indicated."


Keywords for this news article include: Biotechnology, siRNA, Cancer, Cyclin C, Genetics, Oncology, Cell Line, Cytoplasm, Organelles, Proteomics, Holoenzymes, Mitochondria, Therapeutics, Carrier Proteins, Mediator Complex, Rowan University, Cellular Structures, Intracellular Space, Enzymes and Coenzymes, Subcellular Fractions, Small Interference RNAs.

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Patents

Patent Application Titled "Novel Anti-Transferrin Receptor Antibody That Passes through Blood-Brain Barrier" Published Online (USPTO 20160369001)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors SONODA, Hiroyuki (Hyogo, JP); MORIMOTO, Hideto (Hyogo, JP); KOSHIMURA, Yuri (Hyogo, JP); KINOSHITA, Masafumi (Hyogo, JP); TAKAGI, Haruna (Hyogo, JP); YOSHII, Yoshiko (Hyogo, JP), filed on December 24, 2014, was made available online on December 29, 2016.

No assignee for this patent application has been made.
Reporters obtained the following quote from the background information supplied by the inventors: "Unlike the capillaries in such tissues as muscles and the like, the capillaries that supply the blood to most of the brain tissues except some areas including the circumventricular organs (pineal gland, pituitary body, area postrema, etc.) differ in that their endothelial cells are connected by tight intercellular junctions. Thus, passive transfer of substances from the blood to the brain is restricted, and although there are some exceptions, substances generally are unlikely to move into the brain from the capillaries except such compounds as are lipid-soluble or of low molecular weight (less than 200-500 Dalton) and electrically neutral around the physiological pH. This system, which restricts exchanges of substances between the blood and the tissue fluid of the brain through the endothelial cells of capillaries in the brain, is called blood-brain barrier or BBB. The blood-brain barrier restricts exchanges of substances not only between the blood and the brain but also between the blood and the tissue fluid of the central nervous system including the brain and the spine.

"Owing to the blood-brain barrier, most of the cells of central nervous system escapes the effect of fluctuating concentrations of hormones and lymphokines in the blood, and thus are able to maintain their biochemical homeostasis.

"The blood-brain barrier, however, imposes a problem when it comes to develop a medical drug. For example, although nerve growth factor (NGF), which is thought to be acting on cholineric neurons in the central nervous system and working to maintain the viability of the cells by preventing apoptotic cell death, was expected to become a therapeutic drug for dementia caused by Alzheimer's disease, it was concluded that nerve growth factor would not function as a therapeutic drug for Alzheimer's disease because it, being unable to pass through the blood-brain barrier due to its molecular weight of over 10 kD, could not reach the affected site within the brain. Further, whereas an enzyme replacement therapy is carried out by intravenous supplementation with recombinant .alpha.-L-iduronidase as a therapy of mucopolysaccharide storage disease type 1 (Hurler syndrome), an inherited disease caused by .alpha.-L-iduronidase deficiency, the therapy is not effective for abnormality in the central nervous system (CNS) which is notable in Hurler syndrome because the enzyme cannot pass through the blood-brain barrier.

"Development of various methods has been tried to enable the passage, through the blood-brain barrier, of such macromolecular compounds as proteins or the like necessary to be brought into function in the central nervous system. In the case of nerve growth factor, for example, attempts have been made for a method to cause the factor to pass through the blood-brain barrier by preparing it in a liposome-encapsulated form and letting those liposomes fuse with the cell membrane of endothelial cells in brain capillaries, but the attempts have failed to make the method materialize (Non-patent Document 1). In the case of .alpha.-L-iduronidase, an attempt was made to enhance the passive transfer of the enzyme through the blood-brain barrier by raising its blood concentration through an increased single dose of the enzyme, and it was demonstrated, using a Hurler syndrome animal model, that the abnormality in the central nervous system was ameliorated by the method (Non-patent Document 2).

"Furthermore, an attempt has also been made to administer a macromolecular compound directly in the spinal cavity or into the brain. For example, reports have been made about a method in which human .alpha.-L-iduronidase was administered into the spinal cavity of a patient with a Hurler syndrome (mucopolysaccharide storage disease type 1)(Patent Document 1), a method in which human acid sphingomyelinase was administered into the brain ventricles of a patient with Niemann-Pick disease (Patent Document 2), and a method in which iduronate 2-sulfatase (I2S) was administered into the brain ventricles of Hunter syndrome model animals (Patent Document 3). While it seems possible by one of such methods to definitely let a medical drug act in the central nervous system, they are highly invasive.
"There have been reported various methods to let a macromolecular compound get to the brain through the blood brain barrier, in which the macromolecular compound is modified to give it an affinity to a membrane protein occurring on the endothelial cells of brain capillaries, thereby inducing formation of its complex with the membrane protein, so that it then passes through the blood-brain barrier by endocytosis. Examples of those membrane proteins occurring on the endothelial cells of the brain capillaries include insulin, transferrin, insulin-like growth factor (IGF-I, IGF-II) as well as receptors for LDL and leptin.

"For example, a technique has been reported in which nerve growth factor (NFG) is synthesized into the form of a fusion protein with insulin, and with the help of its binding to the insulin receptor, this fusion protein is allowed to pass through the blood-brain barrier (Patent Documents 4-6). Further, a technique has been reported in which nerve growth factor (NGF) is synthesized in the form of a fusion protein with anti-insulin receptor antibody, and with the help of its binding to the insulin receptor, this fusion protein is allowed to pass through the blood brain barrier (Patent Documents 4 and 7). Further, a technique has been reported in which nerve growth factor (NGF) is synthesized in the form of a fusion protein with transferrin, and with the help of its binding to transferrin receptor (TfR), this fusion protein is allowed to pass through the blood brain barrier (Patent Document 8). Further, a technique has been reported in which nerve growth factor (NGF) is synthesized in the form of a fusion protein with anti-transferrin receptor antibody (anti-TfR antibody), and with the help of its binding to transferrin receptor, this fusion protein is allowed to pass through the blood brain barrier (Patent Documents 4 and 9).

"Looking further into the techniques that utilize anti-transferrin receptor antibody, there has been reported in the field of a technique to make a drug pass through the blood-brain barrier by binding it to an anti-TfR antibody, that a single-chain antibody can be used consisting of the heavy chain of an anti-TfR antibody on whose C-terminal side is bound, through a linker, its light chain (Non-patent Document 3). Further, an anti-hTfR antibody exhibiting a dissociation constant of 30 nM to 1 μM with hTfR can be used profitably in a technique to make a drug pass through the blood-brain barrier (Patent Document 10). Furthermore, it has been reported that a lysosomal enzyme such as I2S can be allowed to pass through the blood-brain barrier by preparing it into a fusion protein in which it is bound to an anti-TfR antibody (Patent Document 11). There also are reports of techniques based on an anti-hTfR antibody and liposomes in combination, in which a drug is led to pass through the blood-brain barrier by preparing it into an encapsulated form in liposomes that carry the anti-hTfR antibody on their surface (Patent Documents 12 and 13).

"To consider utilization, as medicine, of a fusion protein constructed with the above antibody, there is a possibility that a hyper reaction like an immune response to the antibody could take place after the administration of the fusion protein, thus making its further administration difficult. Therefore, to prepare for such an event, it would be highly meaningful to provide fusion proteins in advance that are constructed with some antibodies different from those currently employed, in order to avoid termination of treatment because of such a hyper reaction."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors' summary information for this patent application: "Technical Problem

"Against the above background, the objective of the present invention is to provide a novel anti-transferrin receptor antibody that can pass through the blood-brain barrier, and a fusion protein comprising a protein necessary to be brought into function in the central nervous system after administration into the blood and such an antibody, as well as a method for their production or use."
"Solution to Problem

As a result of intense studies addressed to the above objective, the present inventors found a novel anti-human transferrin receptor antibody that can make lysosomal enzymes pass through the blood-brain barrier in a fused form with it, and thus completed the present invention. Consequently, the present invention provides what follows.

1. An anti-human transferrin receptor antibody that recognizes an amino acid sequence selected from the group consisting of SEQ ID NOs: 1, 2, and 3.

2. The anti-human transferrin receptor antibody according to 1 above that recognizes a partial sequence consisting of at least ten consecutive amino acid residues occurring in the amino acid sequence selected from the group consisting of SEQ ID NOs: 1, 2, and 3.

3. The anti-human transferrin receptor antibody according to 1 or 2 above, wherein the anti-human transferrin receptor antibody is a single-chain antibody comprising

an amino acid sequence comprising the whole or part of the variable region of the light chain,

an amino acid sequence that is bound thereto on the C-terminal side and consists of 15-25 amino acid residues as a first linker sequence, and further an amino acid sequence that is bound thereto on the C-terminal side and comprises the whole or part of the variable region of the heavy chain.

4. The anti-human transferrin receptor antibody according to 3 above comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 4, 5, 6 and 7.

5. A fusion protein comprising an anti-human transferrin receptor antibody according to one of 1 to 4 above and an amino acid sequence of other protein that is bound thereto on the C-terminal side.

6. A fusion protein comprising an anti-human transferrin receptor antibody according to one of 1 to 4 above and an amino acid sequence that is bound thereto on the C-terminal side and consists of 3-50 amino acid residues as a second linker sequence, and further

an amino acid sequence of the said other protein that is bound thereto on the C-terminal side.

7. The fusion protein according 5 or 6 above, wherein the said other protein is a lysosomal enzyme.

8. The fusion protein according to 7 above, wherein the lysosomal enzyme is human iduronate 2-sulfatase

9. A DNA encoding an anti-human transferrin receptor antibody according to one of 1 to 4 above.

10. A DNA encoding the fusion protein according to one of 5 to 8 above.

11. A mammalian expression vector comprising the DNA according to 10 above incorporated therein.

12. A mammalian cell transformed with the mammalian expression vector according to 11 above.

13. The cell according to 12 above, wherein the mammalian cell is a CHO cell.

"Effects of Invention

The present invention enables provision of proteins that are intended to be brought into function in the central nervous system (CNS), in particular, physiologically active proteins, in the form that allow them to pass through the blood-brain barrier, by preparing them as a fusion proteins with an anti-human transferrin receptor antibody, thus making it possible that
such physiologically active proteins function directly in the brain after their administration into the blood.

BRIEF DESCRIPTION OF DRAWINGS

"FIG. 1A illustrates the result of brain distribution test of hI2S-sc-anti-hTfR antibody fusion protein produced by transformed E. coli Clone M11, after it was injected into the tail vein of a mouse, along with the result with rhI2S. The vertical axis indicates the I2S concentration in brain homogenate (pg/wet weight)(mean of two animals per group).

"FIG. 1B illustrates the result of brain distribution test of hI2S-sc-anti-hTfR antibody fusion protein produced by transformed E. coli Clone M27, after it was injected into the tail vein of a mouse, along with the result with rhI2S. The vertical axis indicates the I2S concentration in brain homogenate (pg/wet weight)(mean of two animals per group).

"FIG. 1C illustrates the result of brain distribution test of hI2S-sc-anti-hTfR antibody fusion protein produced by transformed E. coli Clone B84, after it was injected into the tail vein of a mouse, along with the result with rhI2S. The vertical axis indicates the I2S concentration in brain homogenate (.mu.g/wet weight)(mean of two animals per group).

"FIG. 2 illustrates the result of assessment of the pharmacological effect of hI2S-sc-anti-hTfR antibody fusion protein using model mice for the pathology of Hunter syndrome. The vertical axis indicates the amount of accumulated glycosaminoglycans (%) in the brain of mice administered with rhI2S and of the mice administered with hI2S-sc-anti-hTfR antibody fusion protein, in comparison with the amount of accumulated glycosaminoglycans, 100%, in the brain of mice administered with the vehicle (values, mean of three animals per group)."


Keywords for this news article include: Antibodies, Biotechnology, Patents, Dementia, Genetics, Liposomes, Immunology, Proinsulin, Sulfatases, Amino Acids, Iduronidase, Tauopathies, Beta-Globulins, Blood Proteins, Fusion Proteins, Immunoglobulins, Carrier Proteins, Peptide Hormones, Peptide Proteins, Alzheimer Disease, Endothelial Cells, Membrane Proteins.

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Pharmaceutical Companies

Patent Application Titled "Process" Published Online (USPTO 20160368970)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors EL MENYAWI, Ibrahim (Bern, CH); SIEGEMUND, Doreen (Aarwangen, CH), filed on July 1, 2014, was made available online on December 29, 2016.
The assignee for this patent application is CSL Behring AG.

Reporters obtained the following quote from the background information supplied by the inventors: "As is well known, immunoglobulins play an important role in the immune system of mammals. They are produced by B-lymphocytes, found in blood plasma, lymph and other body secretions. Immunoglobulins constitute approximately 20% of the plasma proteins in humans. The basic unit of immunoglobulins is a heterotetramer, containing 2 heavy chains and two light chains, linked by disulphide bonds. Each of these chains have a variable region at their N-terminus which form the antigen binding site, and constant regions, which are responsible for the effector functions of the immunoglobulins.

"There are five major classes of immunoglobulins with differing biochemical and physiological properties: IgG (gamma heavy chain), IgA (alpha), IgM (mu), IgD (delta) and IgE (epsilon). Human IgG represents the most abundant immunoglobulin in plasma, whereas IgA represents the main antibody class in external secretions such as saliva, tears and mucus of the respiratory and intestinal tracts. IgM is by far the physically largest antibody in the human circulatory system, usually being present as a pentamer of the basic immunoglobulin unit, and appears early in the course of an infection.

"Initially, IgG preparations from human plasma were successfully used for the prophylaxis and treatment of various infectious diseases. The early products were produced by relatively crude processes (ethanol fractionation), and contained impurities and aggregates to an extent that they could only be administered intramuscularly. Improvements in the purification processes have led to IgG preparations that were suitable for intravenous administration (called IVIG) due to their improved purity and quality, and preparations for subcutaneous administration (called SCIG) have also been developed.

"The industrial processes commonly used to purify IgG from plasma are based on the original method devised by Cohn (Cohn E., et al., (1946), J Am Chem Soc, 68, 459-475, Oncley et al., (1949), J Am Chem Soc, 71, 541-550), which dates back to the 1940s and rely on the cold fractionated precipitation of plasma proteins. After progressive additions of ethanol under controlled conditions of ionic strength, pH and temperature, this plasma fractionation process obtains enriched or concentrated fractions of therapeutically useful plasma proteins (coagulation factors, albumin, immunoglobulin, antithrombin III). Applying Cohn's fractionation, IgG is obtained from fractions II+III, I+II+II or the equivalent precipitate A (called NA precipitate) according Kistler and Nitschmann, who developed a modified ethanol fractionation method (Kistler P and Nitschmann H S, (1952), Vox Sang, 7, 414-424).

"In the 1960s it was shown that short fatty acids (C6-C12) form insoluble complexes with alpha- and beta-globulins whereas gamma-globulins are not as readily precipitated (Chanutin et al., (1960) Arch. Biochem. Biophys. 89; 218).

"Steinbuch & Audran ((1969) Arch. Biochem. Biophys. 134, 279-294) described a purification process for IgG with caprylate (i.e. octanoate, a C8-saturated fatty acid) as precipitating agent. Non-immunoglobulins were precipitated from human plasma after dilution with an acetate buffer to reach a final pH of 4.8. After addition of caprylate under vigorous stirring an IgG enriched solution was obtained. The purity and yield depended on the amount of caprylic acid, the pH, the molarity of the buffer and the dilution factor.

"Extensive non-immunoglobulin precipitation was best obtained at slightly acidic pH, but not below pH 4.5. Plasma was diluted 2:1 with 0.06 M acetate buffer, pH 4.8, and then treated with 2.5 wt. % caprylate to initiate precipitation. Batch adsorption of the supernatant on DEAE-cellulose was used to clear additional impurities from the isolated IgG fraction. Later work by Steinbuch et al. showed the use of caprylic acid to precipitate most proteins and lipoproteins (other than the immunoglobulins) present in Cohn ethanol Fraction III (Steinbuch et

"The same method was applied to diluted human plasma using 2.16 wt. % caprylate. (Habeeb et al., (1984) Prep. Biochem. 14, 1-17). Habeeb et al. followed the caprylic acid precipitation with fractionation on DEAE cellulose. The resulting plasma-derived IgG was essentially free of aggregates, plasmin and plasminogen. In addition, the IgG obtained was low in anticomplement activity and relatively stable during storage. The caprylate precipitation step was therefore recognized as very useful, and was introduced into many modern processes for IgG production from plasma.

"In addition to the alcohol, PEG and caprylic acid fractionation methods, several chromatographic methods were used in combination with basic fractionation methods for the purification of IVIG.

"The most commonly used chromatographic method is ion exchange chromatography which takes advantage of surface distribution and charge density on both the protein and the ion exchange media. The anion exchange resin presents a positively charged surface. The charge density is specific to the resin and generally is independent of pH (within the working range of the resin). A typical anion exchanger will bind proteins which have a net negative charge (i.e. when the pH of the solution is above the isoelectric point of the protein). In reality, the surface of a protein does not present a singular charge; rather it is a mosaic of positive and negative charges, and neutral areas. Surface structure is specific to a given protein and will be affected by solution conditions such as ionic strength and pH. This uniqueness can be exploited to establish specific conditions where individual proteins will bind or release from the anion exchange resin. By establishing these conditions, proteins with only slightly differing surface or charge properties can be effectively separated with high yield (>95%).

"Improvements in the structure of chromatography resin supports have made large scale chromatography a practical alternative to more conventional purification methods. Rigid resins allow large volumes to be processed rapidly (<5 hours), and high ligand density gives the increased capacity necessary for large volume processing. These factors coupled with high yields, product purity and process simplicity favor the use of chromatography in large scale manufacturing.

"In particular, cation and/or anion exchange chromatography, sometimes combined in separate steps or in series, have been used for purifying IgG from plasma or fractions thereof (e.g. as described in WO 99/64462). In the majority of the methods, anion exchange chromatography is used in negative mode, i.e. conditions are used to enable the binding of the contaminant proteins, e.g. IgA, IgM, albumin, fibrinogen, transferrin, while the IgG is recovered in the non-adsorbed fraction.

"The combination of caprylate precipitation followed by ion-exchange chromatography for the purification of IgG was described in many publications. Steinbuch & Audran ((1969) Arch Biochem Biophys 134, 279-284) described the further purification of IgG after precipitation of caprylate with DEAE-cellulose. Lebing et al. (U.S. Pat. No. 5,886,157) described two anion-exchange columns used in series for the removal of IgM, IgA, albumin and other impurities. Lebing et al. combined both caprylate mediated effects, namely the essential reduction of non-IgG proteins by precipitation, thereby using the virus partitioning, and the enveloped virus inactivation properties of the fatty acid in a separate incubation step. The importance of the so-called 'pH-swing' starting from the reconstitution of an IgG containing paste/precipitate at pH 4.2 and the subsequent addition of caprylate upon adjusting the pH 5.2 is stressed to be essential for the IgG enriching procedure, thus needed to effectively reduce non-IgG proteins. A few other impurities, like IgA and IgM, as well as the caprylate were subsequently reduced by the mentioned ion exchange chromatography steps.
U.S. Pat. No. 5,164,487 concerns the use of caprylic acid for the manufacture of an intravenously tolerable IgG preparation free from aggregates, vasoactive substances and proteolytic enzymes. The method includes contacting the starting material containing IgG with 0.4% to 1.5% caprylic acid before chromatographic purification with an ion exchange or hydrophobic matrix.

"Due to the continuous improvements in purification processes, there has been an evolution in IgG products over the years. As mentioned above, the first IgG products were only suitable for intramuscular use, as they caused too many adverse events when administered intravenously. The first generation of an IgG product suitable for intravenous use (IVIG) was prepared by pepsin cleavage of the starting material (Cohn fraction II), the purpose of the cleavage being removal of immunoglobulin aggregates which caused serious adverse events such as complement activation and made it impossible to administer the early products intravenously. No column chromatography steps were included in the process. The product had to be freeze-dried in order to remain stable for a reasonable period of time and was dissolved immediately prior to use.

"A second generation of IVIG based on uncleaved and unmodified immunoglobulin molecules with low anticomplement activity and higher stability was introduced in the mid-eighties, but still in the form of a freeze-dried product. This IVIG was purified by processes including several chromatography steps. Pepsin cleavage was avoided, aggregates and particles were removed by precipitation, and further purification was achieved by column chromatographic ion exchange methods.

"For the third generation of IVIG, dedicated virus inactivation steps were included in the processes. While particularly the precipitation steps in the purification processes removed a lot of viruses, some patients treated with blood products nevertheless were infected with HIV, necessitating further, dedicated steps to be taken to inactivate and remove viruses from these products.

"The processes were continued to be refined further to achieve better purity and quality of the protein, in order to enable stable liquid products to be made available, and to improve the safety and tolerability of these products for patients. In addition, subcutaneous formulations were developed.

"IgG products are now used in a number of clinical applications. In addition to the traditional use for the treatment of primary or acquired immunodeficiencies, and infectious diseases, it has been shown that these products are also effective in the treatment of autoimmune diseases and certain neurological disorders such as CIDP. There has also been a marked increase in the number of studies focusing on further therapeutic uses of IgG products. Thus the demand for IgG products has been increasing. IgG products are now the plasma products in greatest demand on the world market; in 2008 the market reached approximately 82 metric tons (including 37 tons in the USA, 21 tons in Europe and 17 tons in Asia) with a tendency to grow at a rate of approximately 7% a year (the predicted demand in 2013 is 110 metric tons) (The Worldwide Plasma Fractions Market 2008. The Marketing Research Bureau, Inc. April 2010 Edition). As human plasma is a valuable, limited resource, the processes for purification of IgG from plasma need to be further improved to achieve higher yields than currently possible while not compromising the quality of the product. Current processes have an average yield of 3.7 to 4.2 g of IgG per liter of plasma, which represents only up to 55% of the IgG present in plasma."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors' summary information for this patent application: "The invention relates to a modified process for the purification of IgG from plasma or other solutions comprising IgG and other proteins, improving the yield of IgG per litre of starting solution.
A first aspect of the invention is a method for increasing the yield of IgG in a purification process from a solution comprising IgG, other immunoglobulins and/or other protein contaminants, comprising (a) providing an acidic solution comprising IgG, other immunoglobulins and/or other protein contaminants with a pH of between 3.5 to 5.2 and a total protein concentration of at least 10 g/l; (b) adjusting the solution to a pH of 5.2 to 6.2 while maintaining a conductivity of below 1.5 mS/cm; (c) incubating the solution for at least 15 minutes; and (d) removing any precipitate.

Preferably, the solution comprising IgG comprises plasma-derived antibodies, more preferably, the solution comprising IgG is obtained by ethanol fractionation of human plasma or human cryo-poor plasma. In another preferred embodiment of the invention, the solution comprising IgG is a supernatant from an octanoic acid precipitation.

Typically, the solution in step (a) has been clarified by ultradialfiltration. Preferably, the pH of the solution in step (a) is 3.9 to 5.0, more preferably 3.9 to 4.6, even more preferably from 3.9 to 4.3. Preferably, the protein concentration in step (a) is between 10 and 50 g/l, more preferably between 20 and 25 g/l.

In step (b), the pH is adjusted to a pH of 5.2 to 6.2, preferably to a pH of 5.6 to 6.0, more preferably to a pH of 5.8 to 6.0. Preferably, the pH adjustment in step (b) is done by addition of at least one multi-hydroxylated amine compound. Preferably, the pH adjustment is done with Tris at a concentration above 250 mM, more preferably above 500 mM, even more preferably above 750 mM, most preferably around 1M. Preferably, the pH adjustment is done over a time period of at least 15 minutes. The conductivity in step (b) is below 1.5 mS/cm, preferably below 1.2 mS/cm, more preferably below 1.0 mS/cm, even more preferably below 0.8 mS/cm, most preferably between 0.2 and 0.5 mS/cm. Most preferably, the pH in step (b) is adjusted to pH 5.6 to 6.0, and the conductivity is between 0.2 and 0.5 mS/cm.

The incubation time in step (c) is up to 72 hours, up to 48 hours, up to 24 hours, preferably up to 12 hours, more preferably up to 6 hours, most preferably between 15 minutes and 90 minutes. Preferably, the incubation in step (c) is carried out at ambient temperature.

The precipitate in step (d) is preferably removed by depth filtration. Other methods for removing the precipitate are also possible, e.g. other filtration methods or centrifugation.

After step (d), further purification steps such as chromatographic methods, e.g. ion exchange chromatography, can be carried out. Preferably, an ion exchange chromatography step is carried out under conditions that allow contaminants but not IgG to bind to the resin. Preferably, the ion exchange chromatography is an anion exchange chromatography. Preferably, the ion exchange chromatography is carried out without further adjustment to the conductivity of the solution.

The method will further comprise a virus inactivation step. Preferably, the virus inactivation step is a low pH treatment. Preferably, the low pH treatment for virus inactivation is carried out prior to step (a)."
Physiological Processes.
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Patents


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors Korsower, Joshua Daniel (Sterling, VA); Fleury, III, Albert Fenwick (Chevy Chase, MD), filed on June 22, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

Reporters obtained the following quote from the background information supplied by the inventors: "Elderly individuals face an increasing likelihood of a traumatic event which could render the individual incapable of calling for help, for example a fall which renders them unconscious or immobile. Clearly, those individuals living alone are at an even higher risk of being unable to communicate with someone in the event of such an event.

"Physically impaired and/or mentally impaired individuals may be at an increased risk of injury, and may be at an increased risk of being unable to communicate or operate an active alert upon such an injury. This group includes individuals who may be permanently impaired, or temporarily impaired, for example those recovering from an injury or surgery.

"Individuals who enjoy adventurous or 'risky' activities on their own, such as biking, running or rock climbing, face a larger risk of being injured.

"For many injuries, it is imperative to get appropriate care and medical attention as soon as possible. Early intervention often is the difference between life and death. With the baby boomer generation entering into the older years, the need for a passive alert system for non-geriatric populations is extremely high.

"What is needed is a new way to identify the occurrence of an event that may have caused traumatic injury to the user, while minimizing false-positive event detections. What is needed is technology that fosters peace of mind among at-risk individuals and their loved ones. What is needed is a passive event detection system that would output an event notification when a user suffers a traumatic injury."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors' summary information for this patent application: "Embodiments described herein overcome the disadvantages described above. These, and other advantages, are provided by, for example, a method performed by one or more processors associated with one or more computing devices. The method accesses, by one or more of the processors, one or more data streams from a plurality of sensors, the sensors comprising an accelerometer and heart-rate monitor worn by an individual, in which the data streams include accelerometer data of the individual from the accelerometer and heart-rate data of the individual from the heart rate monitor, and self-reported demographic data of the individual collected by manual input by the individual, a first data set from the sensor data streams collected upon initial usage by the individual, the person being engaged in activity monitoring for the first time,
and data received from continuous monitoring of the sensor data streams collected subsequent to baseline. The method detects if certain thresholds are met indicating the person is likely to have suffered a traumatic event where they need assistance, detects and monitors, by one or more of the processors, a set of trigger conditions comprising baseline accelerometer data and baseline heart-rate data, compared with current real time accelerometer data and heart-rate data, in which the baseline data measures normal activity, and in which the real time data is monitored for thresholds noting traumatic event likelihood. The method determines, by one or more of the processors, a current 'Event Detection' profile of the person based on the analysis of the first data set (initial baseline data) and second data set (indicating a traumatic event) with respect to each other.

"These and other advantages are also provided by, for example, a passive event detection system for traumatic events. The system includes an input configured to receive data collected by a plurality of sensors, a computer-readable storage medium configured to store computer-executable instructions, and a computer processor configured to execute the computer-executable instructions. The computer-executable instructions may include instructions for accessing, by one or more of the processors, one or more data streams from a plurality of sensors, the sensors comprising an accelerometer and heart-rate monitor worn by an individual, in which the data streams comprise accelerometer data of the individual from the accelerometer and heart-rate data of the individual from the heart-rate monitor, and self-reported demographic data of the individual collected by manual input by the individual from a first data set from the sensor data streams collected upon initial usage by the individual, the person being engaged in activity monitoring for the first time, and data received from continuous monitoring of the sensor data streams collected subsequent to baseline, detecting if certain thresholds are met indicating the person is likely to have suffered a traumatic event where they need assistance, detecting and monitoring, by one or more of the processors, a set of trigger conditions comprising baseline accelerometer data and baseline heart-rate data, compared with current real time accelerometer data and heart-rate data, wherein the baseline data measures normal activity, and in which the real time data is monitored for thresholds noting traumatic event likelihood, and determining, by one or more of the processors, a current 'Event Detection' profile of the person based on the analysis of the first data set (initial baseline data) and second data set (indicating a traumatic event) with respect to each other.

BRIEF DESCRIPTION OF THE FIGURES

"FIG. 1 shows a block diagram of the passive event detection system for individuals to detect traumatic events using physiological and environmental factors, according to one aspect of this disclosure.

"FIG. 2 shows a plurality of sensors that may provide data to the system, according to one aspect of this disclosure.

"FIG. 3 is a flowchart showing a method for detecting a potentially incapacitating traumatic event, according to one aspect of this disclosure."


Keywords for this news article include: Patents, Computers, Risk and Prevention.
Our reports deliver fact-based news of research and discoveries from around the
HeartFlow, Inc.

**Patent Application Titled "Systems and Methods for Reporting and Displaying Blood Flow Characteristics" Published Online (USPTO 20160371456)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors TAYLOR, Charles A. (Menlo Park, CA); HART, Gregory R. (Palo Alto, CA), filed on September 1, 2016, was made available online on December 29, 2016.

The assignee for this patent application is HeartFlow, Inc.

Reporters obtained the following quote from the background information supplied by the inventors: "Coronary artery disease may produce coronary lesions in the blood vessels providing blood to the heart, such as a stenosis (abnormal narrowing of a blood vessel). As a result, blood flow to the heart may be restricted. A patient suffering from coronary artery disease may experience chest pain, referred to as chronic stable angina during physical exertion or unstable angina when the patient is at rest. A more severe manifestation of disease may lead to myocardial infarction, or heart attack.

"A need exists to provide more accurate data relating to coronary lesions, e.g., size, shape, location, functional significance (e.g., whether the lesion impacts blood flow), etc. Patients suffering from chest pain and/or exhibiting symptoms of coronary artery disease may be subjected to one or more tests that may provide some indirect evidence relating to coronary lesions. For example, noninvasive tests may include electrocardiograms, biomarker evaluation from blood tests, treadmill tests, echocardiography, single positron emission computed tomography (SPECT), and positron emission tomography (PET). These noninvasive tests, however, typically do not provide a direct assessment of coronary lesions or assess blood flow rates. The noninvasive tests may provide indirect evidence of coronary lesions by looking for changes in electrical activity of the heart (e.g., using electrocardiography (ECG)), motion of the myocardium (e.g., using stress echocardiography), perfusion of the myocardium (e.g., using PET or SPECT), or metabolic changes (e.g., using biomarkers).

"For example, anatomic data may be obtained noninvasively using coronary computed tomographic angiography (CCTA). CCTA may be used for imaging of patients with chest pain and involves using computed tomography (CT) technology to image the heart and the coronary arteries following an intravenous infusion of a contrast agent. However, CCTA also cannot provide direct information on the functional significance of coronary lesions, e.g., whether the lesions affect blood flow. In addition, since CCTA is purely a diagnostic test, it cannot be used to predict changes in coronary blood flow, pressure, or myocardial perfusion under other physiologic states, e.g., exercise, nor can it be used to predict outcomes of interventions.

"Thus, patients may also require an invasive test, such as diagnostic cardiac catheterization, to visualize coronary lesions. Diagnostic cardiac catheterization may include performing conventional coronary angiography (CCA) to gather anatomic data on coronary lesions by providing a doctor with an image of the size and shape of the arteries. CCA, however, does not provide data for assessing the functional significance of coronary lesions. For example,
a doctor may not be able to diagnose whether a coronary lesion is harmful without determining whether the lesion is functionally significant. Thus, CCA has led to what has been referred to as an 'oculostenotic reflex' of some interventional cardiologists to insert a stent for every lesion found with CCA regardless of whether the lesion is functionally significant. As a result, CCA may lead to unnecessary operations on the patient, which may pose added risks to patients and may result in unnecessary health care costs for patients.

"During diagnostic cardiac catheterization, the functional significance of a coronary lesion may be assessed invasively by measuring the fractional flow reserve (FFR) of an observed lesion. FFR is defined as the ratio of the mean blood pressure downstream of a lesion divided by the mean blood pressure upstream from the lesion, e.g., the aortic pressure, under conditions of increased coronary blood flow, e.g., induced by intravenous administration of adenosine. The blood pressures may be measured by inserting a pressure wire into the patient. Thus, the decision to treat a lesion based on the determined FFR may be made after the initial cost and risk of diagnostic cardiac catheterization has already been incurred.

"Thus, a need exists for a method for assessing coronary anatomy, myocardial perfusion, and coronary artery flow noninvasively. Such a method and system may benefit cardiologists who diagnose and plan treatments for patients with suspected coronary artery disease. In addition, a need exists for a method to predict coronary artery flow and myocardial perfusion under conditions that cannot be directly measured, e.g., exercise, and to predict outcomes of medical, interventional, and surgical treatments on coronary artery blood flow and myocardial perfusion. In addition, a need exists to generate and display reports relating to patient-specific blood flow characteristics.

"The foregoing general description and the following detailed description are exemplary and explanatory only and are not restrictive of the disclosure."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors' summary information for this patent application: "In accordance with an embodiment, a system displays cardiovascular information for a patient. The system may include at least one computer system configured to receive patient-specific data regarding a geometry of the patient's heart and create a model representing at least a portion of the patient's heart based on the patient-specific data. The computer system may determine at least one value of the blood flow characteristic within the patient's heart based on the model. The computer system may also display a report comprising a representation of at least one artery corresponding to at least a portion the model, and display one or more indicators of the value of the blood flow characteristic on a corresponding portion of the at least one artery.

"In accordance with another embodiment, a method displays cardiovascular information for a patient. The method may include receiving patient-specific data regarding a geometry of the patient's heart, and creating a model representing at least a portion of the patient's heart based on the patient-specific data. The method may also include determining at least one value of the blood flow characteristic within the patient's heart based on the model. The method may further include displaying a report comprising a representation of at least one artery corresponding to at least a portion the model, and displaying one or more indicators of the value of the blood flow characteristic on a corresponding portion of the at least one artery.

"In accordance with another embodiment, a non-transitory computer-readable medium may store instructions that, when executed by a processor, cause the processor to perform a method for displaying cardiovascular information of a patient. The method may include receiving patient-specific data regarding a geometry of the patient's heart, and creating a model representing at least a portion of the patient's heart based on the patient-specific data. The method may also include determining at least one value of the blood flow characteristic within
the patient's heart based on the model. The method may further include displaying a report comprising a representation of at least one artery corresponding to at least a portion the model, and displaying one or more indicators of the value of the blood flow characteristic on a corresponding portion of the at least one artery.

"Additional embodiments and advantages will be set forth in part in the description that follows, including the attached appendix, and in part will be obvious from the description, or may be learned by practice of the disclosure. The embodiments and advantages will be realized and attained by means of the elements and combinations particularly pointed out below.

BRIEF DESCRIPTION OF THE DRAWINGS

"The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate several embodiments and together with the description, serve to explain the principles of the disclosure.

"FIG. 1 is a schematic diagram of a system for providing various information relating to coronary blood flow in a specific patient, according to an exemplary embodiment;

"FIG. 2 is a flow chart of a method for providing various information relating to blood flow in a specific patient, according to an exemplary embodiment;

"FIG. 3 shows an example report summary of a medical imaging report which may be generated by a software tool;

"FIG. 4 shows an example artery detail that may be included in a medical imaging report;

"FIG. 5 shows additional example of artery details that may be included in a medical imaging report;

"FIG. 6 depicts an example report conclusion of a medical imaging report;

"FIG. 7 depicts an example portion of a medical imaging report which may display indicators of one or more arterial occlusions;

"FIG. 8 depicts an example artery detail of a medical imaging report;

"FIGS. 9A-9N depict summary views and summary boxes that may be used when one or more arteries are occluded;

"FIG. 10 shows an example report summary of a medical imaging report;

"FIGS. 11A-11B show an example report summary of a medical imaging report which displays a stent;

"FIGS. 12A-12HH illustrate example graphs and other interface elements that may be displayed in a summary box or other portion of a medical imaging report; and

"FIGS. 13A-13K illustrate example representations of arteries and/or graphs associated with patient-specific blood flow characteristics."


Keywords for this news article include: Arteries, Angiology, Perfusion, Cardiology, Chest Pain, Myocardium, Angiography, Hemodynamics, Blood Vessels, Heart Disease, Blood Pressure, HeartFlow Inc., Arteriosclerosis, Echocardiography, Imaging Technology, Computed Tomography, Myocardial Ischemia, Heart Catheterization, Coronary Artery Disease.
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Patents

**Patent Application Titled "Treprostinil Derivative Compounds and Methods of Using Same" Published Online (USPTO 20160368889)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors BECKER, Cyrus K. (Fremont, CA); VENKATRAMAN, Meenakshi s. (Fremont, CA); ZHANG, Xiaoming (Sunnyvale, CA), filed on May 18, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

Reporters obtained the following quote from the background information supplied by the inventors: "Pulmonary hypertension (PH) or pulmonary arterial hypertension (PAH) is a disease which can result in death and is characterized by increased pulmonary artery pressure and pulmonary vascular resistance. A need exists for better compounds and methods for treating PH and PAH. See, for example, US Patent Publication No. 2013/0274261. Many valuable pharmacologically active compounds, including some of interest with respect to PH and PAH, cannot be effectively administered orally for various reasons and are generally administered via intravenous or intramuscular routes. These routes of administration generally require intervention by a physician or other health care professional, and can entail considerable discomfort as well as potential local trauma to the patient. One example of such a compound is treprostinil and derivatives thereof, which has been used in the treatment of PH and PAH. See, for example, WO 2005/007081. The core chemical formula is (herein also labeled, Compound A):

"##STR00001##

including pharmaceutically acceptable salts such as the sodium salt.

"Accordingly, there is a clinical need in providing treprostinil by improved formulations and methods, e.g., either orally or transdermally. More particularly, there is a need for a safe and effective method for increasing the systemic availability of treprostinil via administration of treprostinil or treprostinil analogs.

"The application of transdermal drug delivery technology to the administration of a wide variety of drugs has been proposed and various systems for accomplishing this are disclosed in numerous technical journals and patents. U.S. Pat. Nos. 3,598,122, 4,144,317, 4,201,211, 4,262,003, and 4,379,454, all of which are incorporated herein by reference, are representative of various transdermal drug delivery systems of the prior art, which systems have the ability of delivering controlled amounts of drugs to patients for extended periods of time ranging in duration from several hours to several days. None of the above patents nor any other prior art of which the inventors are aware describes a transdermal delivery system which is intended to deliver treprostinil or its derivatives nor are they aware of data on skin permeability or therapeutic transdermal delivery rates adequate to design such a system."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors’ summary information for this patent application: "Embodiments described herein including compounds, compositions, and devices, as well as methods of making and methods of using the same."
"One embodiment provides a compound represented by Formula (I)

##STR00002##

"wherein, R.sub.20, R.sub.21, R.sub.22, R.sub.23, R.sub.24, R.sub.25, R.sub.26, R.sub.27, R.sub.28, R.sub.29, R.sub.30, R.sub.31, R.sub.32, R.sub.33, R.sub.34, R.sub.35, and R.sub.36 are independently H or deuterium; Z is --OH, --OR.sub.11, --N(R.sub.11)R.sub.12, or P.sub.1; R.sub.11 is alkyl, substituted alkyl, cycloalkyl, substituted cycloalkyl, haloalkyl, heteroalkyl, substituted heteroalkyl, cycloheteroalkyl, substituted cycloheteroalkyl, alkylcycloalkyl, substituted alkylcycloalkyl, alkylcycloheteroalkyl, substituted alkylcycloheteroalkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, heteroaryl, substituted heteroaryl, alkylheteroaryl, or substituted alkylheteroaryl; R.sub.12 is H, haloalkyl, heteroalkyl, cycloheteroalkyl, alkylcycloalkyl, alkylcycloheteroalkyl, aryl, or heteroaryl; P.sub.1 is selected from the group consisting of:

##STR00003##

"##STR00004##

"wherein, m is 1, 2, 3, or 4; R.sub.14 and R.sub.15 are independently in each occurrence selected from the group consisting of H, alkyl, cycloalkyl, alkylcycloalkyl, haloalkyl, heteroalkyl, substituted alkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, heteroaryl, substituted heteroaryl, alkylheteroaryl, or substituted alkylheteroaryl; R.sub.14 and R.sub.15 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring optionally incorporating one or two ring heteroatoms chosen from N, O, or S, which is unsubstituted or substituted with 1, 2, or 3 substituents independently selected from the group consisting of halo, methyl, and methoxy; R.sub.18 and R.sub.19 are independently in each occurrence selected from the group consisting of hydrogen and alkyl, wherein the alkyl is unsubstituted or substituted with 1 substituent selected from the list consisting of halo, hydroxy, alkoxy, amino, thio, methylthio, --C(O)OH, --C(O)O-(alkyl), --CONH.sub.2, aryl, and heteroaryl, wherein the aryl or heteroaryl are unsubstituted or substituted from the list consisting of alkyl, haloalkyl, hydroxy, and alkoxy, haloalkoxy; R.sub.14 and R.sub.15 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; R.sub.14 and R.sub.15 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; R.sub.15 and R.sub.18 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; R.sub.15 and R.sub.19 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; and, R.sub.1 and R.sub.2 are independently H or P.sub.2, wherein at least one of R.sub.1 and R.sub.2 is P.sub.2, wherein P.sub.2 is selected from the group consisting of:

##STR00005##

"wherein, m is 1, 2, 3, or 4; R.sub.14 and R.sub.15 are as defined above; R.sub.14 and R.sub.15 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring optionally incorporating one or two ring heteroatoms chosen from N, O, or S, which is unsubstituted or substituted with 1, 2, or 3 substituents independently selected from the list consisting of halo, methyl and methoxy; R.sub.16 and R.sub.17 are independently in each occurrence H or alkyl; R.sub.16 and R.sub.17 taken together with the atoms to which they attach optionally form a 3- to 6-membered ring; R.sub.18 and R.sub.19 are as defined above; R.sub.14 and R.sub.18 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; R.sub.14 and R.sub.19 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; wherein Formula I includes enantiomers, pharmaceutically acceptable salts, and polymorphs of the compounds of Formula I.

"In another embodiment, the parameters of Formula I are defined as follows:

'R.sub.20, R.sub.21, R.sub.22, R.sub.23, R.sub.24, R.sub.25, R.sub.26, R.sub.27, R.sub.28, R.sub.29, R.sub.30, R.sub.31, R.sub.32, R.sub.33, R.sub.34, R.sub.35, and R.sub.36
are independently H or deuterium; Z is --OR.sub.11, --N(R.sub.11)R.sub.12, --SR.sub.11, or P.sub.1; R.sub.11 is branched alkyl, haloalkyl, halocycloalkyl, heteroalkyl, substituted heteroalkyl, cycloheteroalkyl, substituted cycloheteroalkyl, bicycloalkyl, alkylcycloalkyl, substituted alkylcycloalkyl, alkylcycloheteroalkyl, substituted alkylcycloheteroalkyl, alkylaryl, substituted alkylaryl, heteroaryl, substituted heteroaryl, alkylheteroaryl, substituted alkylheteroaryl; R.sub.12 is H, branched alkyl, haloalkyl, heteroalkyl, cycloheteroalkyl, alkylcycloalkyl, alkylcycloheteroalkyl, aryl, or heteroaryl; P.sub.1 is selected from the group consisting of:

"##STR00006##

"wherein, m is 1, 2, 3, or 4; R.sub.14 and R.sub.15 are independently in each occurrence selected from the group consisting of H, alkyl, cycloalkyl, alkylcycloalkyl, haloalkyl, heteroalkyl, substituted alkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl, substituted aryl, substituted heteroaryl, substituted arylalkyl, and substituted heteroarylalkyl; R.sub.14 and R.sub.15 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring optionally incorporating one or two ring heteroatoms chosen from N, O, or S, which is unsubstituted or substituted with 1, 2, or 3 substituents independently selected from the group consisting of halo, methyl, and methoxy; R.sub.18 and R.sub.19 are independently in each occurrence selected from the group consisting of hydrogen and alkyl, wherein the alkyl is unsubstituted or substituted with 1 substituent selected from the list consisting of halo, hydroxy, alkoxy, amino, thio, methylthio, --C(O)OH, --C(O)O-(alkyl), --CONH.sub.2, aryl, and heteroaryl, wherein the aryl or heteroaryl are unsubstituted or substituted from the list consisting of alkyl, haloalkyl, haloalkoxy; R.sub.14 and R.sub.18 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; R.sub.14 and R.sub.19 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; R.sub.15 and R.sub.18 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; R.sub.15 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; and, R.sub.1 and R.sub.2 are independently H or P.sub.2, wherein P.sub.2 is selected from the group consisting of:

"##STR00007##  ##STR00008##

"wherein, m is 1, 2, 3, or 4; R.sub.14 and R.sub.15 are as defined above; R.sub.14 and R.sub.15 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring optionally incorporating one or two ring heteroatoms chosen from N, O, or S, which is unsubstituted or substituted with 1, 2, or 3 substituents independently selected from the list consisting of halo, methyl and methoxy; R.sub.16 and R.sub.17 are independently in each occurrence H or alkyl; R.sub.16 and R.sub.17 taken together with the atoms to which they attach optionally form a 5- to 6-membered ring; R.sub.18 and R.sub.19 are as defined above; R.sub.14 and R.sub.18 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; R.sub.14 and R.sub.19 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; wherein Formula I includes enantiomers, pharmaceutically acceptable salts, and polymorphs of the compounds of Formula I.

"In another embodiment, provided is a compound represented by Formula II:

"##STR00009##  ##STR00009##

"wherein, R.sub.2 is selected from the group consisting of H and P.sub.2; R.sub.20, R.sub.21, R.sub.22, R.sub.23, R.sub.24, R.sub.25, R.sub.26, R.sub.27, R.sub.28, R.sub.29, R.sub.30, R.sub.31, R.sub.32, R.sub.33, R.sub.34, R.sub.35, and R.sub.36 are independently selected from the group consisting of H and deuterium; L.sub.1 is a selected from the group consisting of --O-alkylene-C(O)--, --O-alkylene-O(O)--, or a bond; wherein P.sub.2 is selected from the group consisting of:

"##STR00010##  ##STR00011##
"wherein, m is 1, 2, 3, or 4; R.sub.14 and R.sub.15 are as defined above; R.sub.14 and R.sub.15 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring optionally incorporating one or two ring heteroatoms chosen from N, O, or S, which is unsubstituted or substituted with 1, 2, or 3 substituents independently selected from the list consisting of halo, methyl and methoxy; R.sub.16 and R.sub.17 are independently in each occurrence H or alkyl; R.sub.16 and R.sub.17 taken together with the atoms to which they attach optionally form a 3- to 6-membered ring; R.sub.18 and R.sub.19 are as defined above; R.sub.14 and R.sub.18 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; R.sub.14 and R.sub.19 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; wherein Formula II includes enantiomers, pharmaceutically acceptable salts, and polymorphs of the compounds of Formula II.

"In another embodiment, a compound is represented by Formula III:

"##STR00012##

"L.sub.2 is selected from the group consisting of:

"##STR00013##

"wherein, m is 1, 2, 3, or 4;

"X is NR.sub.14, or O;

"R.sub.14 is selected from the group consisting of H, alkyl, cycloalkyl, alkylicycloalkyl, haloalkyl, heteroalkyl, substituted alkyl, aryl, heteroaryl, aryalkyl, heteroarylcycloalkyl, substituted aryl, substituted heteroarylcycloalkyl, substituted heteroaryl, substituted heteroarylcycloalkyl; R.sub.16 and R.sub.17 are independently in each occurrence H or alkyl; R.sub.16 and R.sub.17 taken together with the atoms to which they attach optionally form a 3- to 6-membered ring; and R.sub.20, R.sub.21, R.sub.22, R.sub.23, R.sub.24, R.sub.25, R.sub.26, R.sub.27, R.sub.28, R.sub.29, R.sub.30, R.sub.31, R.sub.32, R.sub.33, R.sub.34, R.sub.35, and R.sub.36 are independently selected from the group consisting of H and deuterium; wherein Z is --OH, --OR.sub.11, --N(R.sub.11)R.sub.12, --SR.sub.11, or P.sub.1; R.sub.11 is alkyl, substituted alkyl, cycloalkyl, substituted cycloalkyl, haloalkyl, heteroalkyl, substituted heteroalkyl, cycloheteroalkyl, substituted cycloheteroalkyl, alkylicycloalkyl, substituted alkylicycloalkyl, alkylcycloheteroalkyl, substituted alkylicycloheteroalkyl, aryl, substituted aryl, alkylaryl, substituted alkylaryl, heteroaryl, substituted heteroaryl, alkylheteroaryl, or substituted alkylheteroaryl; R.sub.12 is H, haloalkyl, cycloalkyl, cycloheteroalkyl, alkylicycloalkyl, alkylcycloheteroalkyl, aryl, or heteroaryl; P.sub.1 is selected from the group consisting of:

"##STR00014##

"wherein, m is 1, 2, 3, or 4; R.sub.14 and R.sub.15 are independently in each occurrence selected from the group consisting of H, alkyl, cycloalkyl, alkylicycloalkyl, haloalkyl, heteroalkyl, substituted alkyl, aryl, heteroaryl, aryalkyl, heteroarylcycloalkyl, substituted heteroarylcycloalkyl, substituted heteroaryl, substituted heteroarylcycloalkyl; R.sub.14 and R.sub.15 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring optionally incorporating one or two ring heteroatoms chosen from N, O, or S, which is unsubstituted or substituted with 1, 2, or 3 substituents independently selected from the group consisting of halo, methyl, and methoxy; R.sub.18 and R.sub.19 are independently in each occurrence selected from the group consisting of hydrogen and alkyl, wherein the alkyl is unsubstituted or substituted with 1 substituent selected from the list consisting of halo, hydroxy, alkoxy, amino, thio, methylthio, --C(O)OH, --C(O)O-(alkyl), --CONH.sub.2, aryland heteroaryl, wherein the aryl or heteroaryl are unsubstituted or substituted from the list consisting of alkyl, haloalkyl, hydroxy, and alkoxy, haloalkoxy; R.sub.14 and R.sub.18 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; R.sub.14 and R.sub.19 taken together with the atoms to which they attach optionally form a 5- to 7-membered ring.
ring; $R_{15}$ and $R_{18}$ taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; $R_{15}$ and $R_{19}$ taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; wherein Formula III includes enantiomers, pharmaceutically acceptable salts, and polymorphs of the compounds of Formula III.

"Another embodiment provides a compound represented by Formula IV:

"\[
R_{1} \text{ is selected from the group consisting of H and P}_{2}; R_{20}, R_{21}, R_{22}, R_{23}, R_{24}, R_{25}, R_{26}, R_{27}, R_{28}, R_{29}, R_{30}, R_{31}, R_{32}, R_{33}, R_{34}, R_{35}, \text{ and } R_{36} \text{ are independently selected from the group consisting of H and deuterium; } L_{1} \text{ is selected from the group consisting of } --O-\text{alkylene-C(O)--, } --O-\text{alkylene-OC(O)--, or a bond; wherein } P_{2} \text{ is selected from the group consisting of: }
\]

"\[##STR00015## ##STR00016## ##STR00017##\]

"wherein, $m$ is 1, 2, 3, or 4; $R_{14}$ and $R_{15}$ are independently in each occurrence selected from the group consisting of H, alkyl, cycloalkyl, alkylcycloalkyl, haloalkyl, heteroalkyl, substituted alkyl, aryl, heteroaryl, arylalkyl, heteroaryalkyl, substituted aryl, substituted heteroaryl, substituted arylalkyl, and substituted heteroarylalkyl; $R_{14}$ and $R_{15}$ taken together with the atoms to which they attach optionally form a 5- to 7-membered ring optionally incorporating one or two ring heteroatoms chosen from N, O, or S, which is unsubstituted or substituted with 1, 2, or 3 substituents independently selected from the group consisting of halo, methyl, and methoxy; $R_{16}$ and $R_{17}$ are independently in each occurrence $H$ or alkyl; $R_{16}$ and $R_{17}$ taken together with the atoms to which they attach optionally form a 3- to 6-membered ring; $R_{18}$ and $R_{19}$ are independently in each occurrence selected from the group consisting of hydrogen and alkyl, wherein the alkyl is unsubstituted or substituted with 1 substituent selected from the list consisting of halo, hydroxy, alkoxy, amino, thio, methylthio, --C(O)OH, --C(O)O-(alkyl), --CONH$_{2}$, aryl, and heteroaryl, wherein the aryl or heteroaryl are unsubstituted or substituted from the list consisting of alkyl, haloalkyl, hydroxy, and alkoxy, haloalkoxy; $R_{14}$ and $R_{18}$ taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; $R_{14}$ and $R_{19}$ taken together with the atoms to which they attach optionally form a 5- to 7-membered ring; wherein Formula IV includes enantiomers, pharmaceutically acceptable salts, and polymorphs of the compounds of Formula IV.

"Compositions are also provided including a composition comprising at least one compound according to Formula I, II, III, and IV and at least one other component. In one embodiment, the composition is formulated for transdermal delivery. In another embodiment, the composition is formulated for transdermal delivery with a patch. In one embodiment, the composition can further comprise at least one solvent. In one embodiment, the amount of the compound according to Formula I, II, III, or IV is adapted to provide a useful delivery profile for treatment of a human. In one embodiment, the treatment is carried out on a subject, such as a mammal, but the subject is not a human.

"At least one advantage for at least one embodiment includes ability to tailor the chemical structure of a pharmaceutically useful motif for a particular use including treatment and prophylactic use against, for example, PH and PAH. For example, the drug delivery profile can be adapted for a particular application.

"At least one additional advantage for at least one embodiment includes ability to use the compounds to provide better bioavailability including use in transdermal drug delivery applications.
DETAILED DESCRIPTION

"Introduction

"Priority U.S. provisional application 61/751,608 filed Jan. 11, 2013 is incorporated herein by reference in its entirety for all purposes including the chemical formulae and claims, including Formula I, Formula II, and Formula III, as well as Schemes 1-4, examples, and the tables of structures on pages 14-16.

"Various prostacyclin analogs, including treprostinil, and methods for their use are known. For example, they can be used in promoting vasodilation, inhibiting platelet aggregation and thrombus formation, stimulating thrombolysis, inhibiting cell proliferation (including vascular remodeling), providing cytoprotection, and preventing atherogenesis and inducing angiogenesis. Through these prostacyclin-mimetic mechanisms, these compounds may be used in the treatment of/for: pulmonary hypertension, ischemic diseases (e.g., peripheral vascular disease, Raynaud's phenomenon, Scleroderma, myocardial ischemia, ischemic stroke, renal insufficiency), heart failure (including congestive heart failure), conditions requiring anticoagulation (e.g., post MI, post cardiac surgery), thrombotic microangiopathy, extracorporeal circulation, central retinal vein occlusion, atherosclerosis, inflammatory diseases (e.g., COPD, psoriasis), hypertension (e.g., preeclampsia), reproduction and parturition, cancer or other conditions of unregulated cell growth, cell/tissue preservation, and other emerging therapeutic areas where prostacyclin treatment appears to have a beneficial role. These compounds may also demonstrate additive or synergistic benefit in combination with other cardiovascular agents (e.g., calcium channel blockers, phosphodiesterase inhibitors, endothelial antagonists, and antiplatelet agents).

"Treprostinil is a chemically stable analog of prostacyclin. Although treprostinil sodium (Remodulin.RTM.) is approved by the Food and Drug Administration (FDA) for subcutaneous administration, treprostinil as the free acid has an absolute oral bioavailability of less than 10% and a very short systemic half life due to significant metabolism."


Keywords for this news article include: Antithrombotic, Biotechnology, Gases, Patents, Elements, Hydrogen, Isotopes, Deuterium, Cardiology, Heart Disease, Heart Failure, Drugs and Therapies, Inorganic Chemicals, Transdermal Delivery, Treprostinil Therapy, Vitamin K Antagonist, Cardiovascular Agents, Drug Delivery Systems, Heart Disorders and Diseases.

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Patent

Patent Application Titled "Unitary Endoscopic Vessel Harvesting Devices" Published Online (USPTO 20160367279)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors Orphanos, Mark J. (Foxboro, MA);
Glennon, Michael (Norwell, MA), filed on June 16, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

Reporters obtained the following quote from the background information supplied by the inventors: "Vessel harvesting is a surgical technique that is commonly used in conjunction with coronary artery bypass surgery. During a bypass surgery, blood is rerouted to bypass blocked arteries to restore and improve blood flow and oxygen to the heart. The blood may be rerouted using a bypass graft, where one end of the by-pass graft is attached to a blood source upstream of the blocked area and the other end is attached downstream of the blocked area, creating a 'conduit' channel or new blood flow connection bypassing the blocked area. Commonly, a surgeon will remove or 'harvest' healthy blood vessels from another part of the body to create the bypass graft. The success of coronary artery bypass graft surgery may be influenced by the quality of the conduit and how it is handled or treated during the vessel harvest and preparation steps prior to grafting.

"Vessel harvesting methods involve selecting a vessel, traditionally, the great saphenous vein in the leg or the radial artery in the arm to be used as a bypass conduit sealing off and cutting smaller blood vessels that branch off the main vessel conduit and harvesting the main conduit from the body. This practice does not harm the remaining blood vessel network, which heals and maintains sufficient blood flow to the extremities, allowing the patient to return to normal function without noticeable effects.

"Minimally invasive technique for vessel harvesting is known as endoscopic vessel harvesting, a procedure that requires only small incisions. While the endoscopic vessel harvesting procedure is an improvement over a traditional 'open' procedure that required a single, long incision from groin to ankle, the endoscopic procedure is still cumbersome and difficult. In particular, current endoscopic harvesting systems require multiple tools, which increases the potential for injury to the bypass conduit as well as increases the duration of the procedure. Accordingly, improvements in systems and methods for endoscopic vessel harvesting are still needed."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors' summary information for this patent application: "Unitary endoscopic vessel harvesting devices are disclosed. In an embodiment of the present disclosure, such devices comprise an elongated body having a proximal end and a distal end, an inflatable tip disposed at the distal end of the elongated body; and a cutting unit having a first cutting portion and a second cutting portion, the first cutting portion and the second cutting portion being moveable in a longitudinal direction relative to the elongated body to capture a blood vessel between the first cutting portion and the second cutting portion, and being rotatable relative to one another circumferentially about the tip to cut the captured blood vessel.

"In some embodiments, the inflatable tip has an inner cavity in communication with one or more lumens and into which an endoscope is advanced for endoscopic viewing of a harvesting procedure performed by the device. The inflatable tip has a rigid, conical shape when the inflatable tip is fully inflated. The inflatable tip is optically clear so as not to interfere with the endoscopic viewing, and the inflatable tip is comprised of a material sufficient to maintain the conical shape through a vessel dissection. In some embodiments, a wall of the inflatable tip drapes tautly over the endoscope without distorting the endoscopic viewing when the inflatable tip is uninflated.

"In some embodiments, such devices comprise an elongated body having a proximal end and a distal end, a conditioned tip disposed at the distal end of the elongated body; and a cutting unit having a first cutting portion and a second cutting portion, the first cutting portion
and the second cutting portion being moveable in a longitudinal direction relative to the elongated body to capture a blood vessel between the first cutting portion and the second cutting portion, and being rotatable relative to one another circumferentially about the tip to cut the captured blood vessel. In some embodiments the conditioned tip further comprises a conditioned surface which is conditioned through mechanical polishing techniques or through chemical polishing techniques. In some embodiments the mechanical polishing techniques comprise buffing and the chemical polishing techniques comprise vapor polishing.

"In some embodiments, such devices comprise an elongated body having a proximal end and a distal end, a coated tip disposed at the distal end of the elongated body; and a cutting unit having a first cutting portion and a second cutting portion, the first cutting portion and the second cutting portion being moveable in a longitudinal direction relative to the elongated body to capture a blood vessel between the first cutting portion and the second cutting portion, and being rotatable relative to one another circumferentially about the tip to cut the captured blood vessel. In some embodiments, the coated tip further comprises a coating on a surface of the coated tip, the coating providing increased surface tension and lubricity to the coated tip. The coating may be selected from one of paralene, polytetrafluoroethylene, fluorinated ethylene propylene, silicon or tethered liquid perfluorocarbon. In further embodiments, the coating may be applied to an inflatable tip or a conditioned tip.

"In some embodiments, the present devices comprise an elongated body having a proximal end and a distal end and an inflatable tip disposed at the distal end of the elongated body, wherein the inflatable tip has a conical shape when the inflatable tip is fully inflated. The device may further include a cutting unit having a first cutting portion and a second cutting portion, the first cutting portion and the second cutting portion being moveable in a longitudinal direction relative to the elongated body from a retracted position substantially proximally of the tip to an extended position over the tip to capture a blood vessel between the first cutting portion and the second cutting portion, and being rotatable relative to one another circumferentially about the tip to cut the captured blood vessel.

BRIEF DESCRIPTION OF DRAWINGS

"The presently disclosed embodiments will be further explained with reference to the attached drawings, wherein like structures are referred to by like numerals throughout the several views. The drawings shown are not necessarily to scale, with emphasis instead generally being placed upon illustrating the principles of the presently disclosed embodiments.

"FIG. 1A illustrates a side view of an embodiment of an endoscopic cannula of the present disclosure.

"FIG. 1B and FIG. 1C illustrate an embodiment of a dissection tip of the present disclosure having an indent at the distal tip.

"FIG. 1D and FIG. 1E illustrate an alternative embodiment of an endoscopic cannula having a dissection tip comprised of an inflatable balloon at the distal tip. FIG. 1D shows the inflatable balloon fully inflated, and FIG. 1E shows the inflatable balloon in an uninflated state.

"FIGS. 2A-2C illustrate a dissection procedure using an endoscopic cannula of the present disclosure.

"FIG. 3A, FIG. 3B and FIG. 3C illustrate an embodiment of a cutting unit of an endoscopic cannula of the present disclosure.

"FIGS. 4A-4D illustrate an embodiment of a cutting unit of an endoscopic cannula of the present disclosure.

"FIG. 5 illustrates an embodiment of a control handle suitable for use with an
endoscopic cannula of the present disclosure.

"FIGS. 6A-6F illustrate an embodiment of an endoscopic cannula of the present disclosure in operation being controlled by the control handle of FIG. 5.

"FIGS. 7A-7B illustrate an embodiment of a cutting unit of an endoscopic cannula of the present disclosure.

"FIG. 8 illustrates an embodiment of a cutting unit of an endoscopic cannula of the present disclosure.

"FIG. 9A, FIG. 9B and FIG. 9C illustrate an embodiment of a cutting unit of an endoscopic cannula of the present disclosure.

"FIG. 10A and FIG. 10B illustrate an embodiment of a cutting unit of an endoscopic cannula of the present disclosure.

"While the above-identified drawings set forth presently disclosed embodiments, other embodiments are also contemplated, as noted in the discussion. This disclosure presents illustrative embodiments by way of representation and not limitation. Numerous other modifications and embodiments can be devised by those skilled in the art which fall within the scope and spirit of the principles of the presently disclosed embodiments."


Keywords for this news article include: Patents, Cardiology, Bypass Graft, Heart Bypass Surgery, Coronary Artery Bypass.

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Patents

Patent Application Titled "Use of Chemical Compounds That Can Inhibit the Toxic Activity of Sphingomyelinase D from Venoms of Loxosceles Spiders and Pharmaceutical Composition Comprising Said Compounds" Published Online (USPTO 20160367533)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors TAMBOURGI, Denise Vilarinho (Sao Paulo, BR); LOPES, Priscila Hess (Sao Paulo, BR); MURAKAMI, Mario Tyago (Sao Paulo, BR); PORTARO, Fernanda Calheta Vieira (Sao Paulo, BR), filed on December 2, 2014, was made available online on December 29, 2016.

No assignee for this patent application has been made.

Reporters obtained the following quote from the background information supplied by the inventors: "Loxoscelism (accident involving brown recluse spider) has been described in several continents. It corresponds to the most severe form of araneism in Brazil. The majority of accidents notified occur in the South Region of the country, particularly in Parana and Santa Catarina. The accident occurs more commonly with adults, with a small predominance in women, occurring at home. A centripetal distribution of insect bites is observed, which affect
more the thigh, the upper body or arm.

"The most important component of Loxosceles venom is sphingomyelinase D, that acts on the extracellular matrix and through the activation of the complement system and action on endothelial cells, epithelial cells, leukocytes and platelets, which causes the release of inflammatory mediators, obstruction of small vessels at the site of venom inoculation and consequent tissue damage. Likewise, hemolysis has been attributed to the action of sphingomyelinase-D on endogenous metalloproteinases. Once activated, they act on the membrane proteins of red blood cells, making them susceptible to complement action.

"The Brazilian patent application PI 0514809-0 A, filed on Aug. 29, 2005, on behalf of National Autonomous University of Mexico) and Laboratorios Silanes S.A. of C.V. and entitled: 'Imunogeno e antiveneno contra o veneno da aranha marrom' describes the isolation, characterization and expression of coding DNA fragments of sphingomyelinas D of 3 species of spiders of the genus Loxosceles: L. boneti, L. reclusa and L. laeta and its use as an immunogen for the production of neutralizing antibodies of the corresponding venom and of respective F(ab')2 fragments. Said document PI 0514809-0 also reports the use of recombinant sphingomyelinas D as part of an antigenic array useful in immunopurifying antibodies and its fragments as part of a diagnostic device for venoming by spider of the genus Loxosceles.

"As can be observed, document PI 0514809-0 basically describes the production of recombinant sphingomyelinas for producing neutralizing antibodies against spider venom of the genus Loxosceles and its use in compositions for treating venoming by these spiders. In no time document PI 0514809-0 describes or suggests the use of inhibitor compounds belonging to the class of benzenesulfonamides and chloro-benzenesulfonates for treating symptoms associated with loxoscelism caused by the bite of spiders belonging to genus Loxosceles.

"The international patent application WO 01/74343, filed on Mar. 30, 2001, published on Oct. 11, 2001; on behalf of 3M INNOVATIVE PROPERTIES COMPANY and entitled: 'Method for the treatment of dermal lesions caused by envenomation' relates to a method of treating skin lesions caused by venoming, comprising the application, at the site of injury, of a therapeutically effective amount of a modifier compound of the immune response selected from the group consisting of imidazoquinoline amines, imidazopyridine amines, 6,7-fused cycloalkyl imidazopyridine amines, imidazonaphtiridine amines, tetra-hydro imidazonaphtiridine amines, oxazolopyridine amines, oxazoloquinoline amines, thiazolopyrimidine amines, thiazoloquinoline amines and 1,2-bridged imidazoquinoline amines.

"As noted, the international patent application WO 01/74343 only provides the use of known immune response modifier (IRMs) compounds mentioned above, which are able to stimulate the innate and acquired immune response for the treatment of skin lesions by venoming caused, for example, by bites of spiders of the genus Loxosceles, among others. Said international patent application WO 01/74343 neither mentions nor suggests the use of specific inhibitor compounds to sphingomyelinas (D) present in the venom of spiders of the genus Loxosceles for the treatment of skin lesions and/or to avoid developing loxoscelism.

"The international patent application WO 2007/149343, filed on Jun. 15, 2007, published on Dec. 27, 2007; on behalf of THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY and entitled: 'Proteases for treatment of venemous bites' relates to materials and methods, including kits, for use in the treatment of venom bites, bee stings, spider bites and other forms of venoming or exposure to toxins. The materials and methods involve the use of proteases associated with the protective mechanism of mast cell degranulation, associated with a reduction in the toxic effects and increased survival rate in animal models. The proteases used are selected from the group containing chymases (specificity to a substrate similar to chymotrypsin), carboxypeptidase A, carboxypeptidase B, trypases
(specificity to a substrate similar to trypsin), chymotrypsin or papain.

"Although the international patent application WO 2007/149343 uses, in its embodiment examples, treatment for venoming caused by spider Loxosceles reclusa, said international patent application WO 2007/149343 does not provide for the use of a specific inhibitor compound for sphingomyelinase D of spiders of the genus Loxosceles.

"The international patent application WO 2008/022771, filed on Aug. 21, 2007, and published on Feb. 28, 2008; on behalf of NOVARTIS AG and entitled: 'Amides as sphingomyelinase inhibitors' describes a formulation that provides the use of acid sphingomyelinase for treating disorders mediated by the activity of acid sphingomyelinase present in the lysosome of mammalian cells, such as autoimmune diseases, diseases involving abnormal apoptosis and tumor growth. Therefore, said document does not describe any compounds that can specifically inhibit the toxicity of sphingomyelinases D from the venoms of spiders of the genus Loxosceles, controlling the development of cutaneous and systemic loxoscelism.


"The article published in Journal of Investigative Dermatology (2007), volume 127, pages 1410 to 1418, available online on Jan. 11, 2007, Authors: Danielle Paixao-Cavalcante, Carmem W. van der Berg, Rute M. Goncalves-de-Andrade, Matheus de F. Fernandes-Pedrosa, Cinthya Kimori Okamoto e Denise V. Tambourgi, entitled: 'Tetracycline protects against dermonecrosis induced by loxosceles spider venom', relates to the use of classic tetracycline antibiotics (tetracycline, doxycycline and minocycline) in the inhibition or reduction of dermonecrotic lesions and to the mechanisms involved in the development of cutaneous loxoscelism induced by the venom of Loxosceles spiders through in vitro and in vivo experiments. According to this document, the topical treatment is more effective in the prevention or reduction of dermonecrotic lesions than the oral (systemic) treatment, possibly by the concentration of tetracyclines used which, in high systemic concentrations, can lead to toxicity. According to said document, the binding of sphingomyelinase D from the venom of Loxosceles spiders to the cell surface induces the expression and activation of endogenous metalloproteinases (MMPs). Thus, the mechanism of action proposed in the document involves the tetracycline inhibitory action on metalloproteinases (MMPs), whose expression and activation are induced by the venom of Loxosceles spiders. In no time said document refers to the use of compounds belonging to the class of benzenesulfonamides and chloro-benzenesulfonates with similar purposes.

"As can be observed, there is no state of the art document that describes or suggests the use of inhibitor compounds belonging to the class of benzenesulfonamides and benzenesulfonates for treating symptoms associated with loxoscelism caused by the bite of spiders belonging to genus Loxosceles.

"Dictionary--See detailed dictionary"

In addition to obtaining background information on this patent application, NewsRx
Editors also obtained the inventors’ summary information for this patent application: “In order to solve the problems mentioned above, this invention provides significant advantages related to the use of inhibitor compounds belonging to the class of benzenesulfonamides and benzenesulphonate for treating symptoms associated with loxoscelism caused by the bite of spiders belonging to genus Loxosceles, enabling an increase in their performance and offering a more favorable cost/benefit ratio.

“This invention relates to the use of inhibitors compounds belonging to the class of benzenesulfonamides and benzenesulphonate with inhibitory activity on sphingomyelinases D of the venom of Loxosceles spiders for preparing a medicine to act on the lytic activity of recombinant sphingomyelinase D toxin (SMase D) and of the venom of brown recluse spider Loxosceles laeta.

“The present invention preferably relates to the use of 4-bromo-N-[(E)-(2-methyl-1H-indol-3-yl)methyleneamino]benzenosulfonamide and of 4-methyl-3-oxo-2-(3-pyridylmethylene)benzo[3,4-b]furan-6-yl-4-chlorobenzenesulfonate (compounds 5 and 6, respectively), which are compounds that can inhibit the toxicity action of sphingomyelinases D of the venom of Loxosceles, controlling the development of cutaneous and systemic loxoscelism; reduction of hemolysis, inhibition of cutaneous lesion, inhibition of dermonecrosis, inhibition of the intracellular signaling pathways and production of reactive oxygen species. Besides the therapeutic potential, such inhibitors can be used as tools in the study of the action of sphingomyelinases and phospholipases D.

“In a second aspect, this invention relates to a pharmaceutical composition for treating loxoscelism, hemolysis reduction, inhibition of cutaneous lesion, inhibition of dermonecrosis, inhibition of intracellular signaling pathways and production of reactive oxygen species, which comprises a benzenesulfonamide compound and a pharmaceutically acceptable vehicle. The benzenesulfonamide compound preferably being the compound 4-bromo-N-[(E)-(2-methyl-1H-indol-3-yl)methyleneamine]benzenosulfonamide.

“A third aspect of this invention relates to a pharmaceutical composition for treating loxoscelism, hemolysis reduction, inhibition of cutaneous lesion, inhibition of dermonecrosis, inhibition of intracellular signaling pathways and production of reactive oxygen species, which comprises a benzenesulphonate compound and a pharmaceutically acceptable vehicle. The benzenesulphonate compound preferably being compound 4-methyl-3-oxo-2-(3-pyridylmethylene)benzo[3,4-b]furan-6-yl-4-chlorobenzenesulfonate.

BRIEF DESCRIPTION OF THE DRAWINGS

“The structure and operation of the invention, along with the additional advantages thereof, can be better understood by reference to the attached drawings and the description that follows:

“FIG. 1 shows the structural formula of compound 5--4-bromo-N-[(E)-(2-methyl-1H-indol-3-yl)methyleneamino]benzenosulfonamide;

“FIG. 2 shows the structural formula of compound 6--4-methyl-3-oxo-2-(3-pyridylmethylene)benzo[3,4-b]furan-6-yl-4-chlorobenzenesulfonate;

“FIG. 3 shows a graphic indicating the inhibition ability of the hydrolytic activity of recombinant sphingomyelinases and present in the venom of Loxosceles laeta, on the substrate sphingomyelin (SM), by compounds 5 and 6;

“FIG. 4 shows a graphic indicating the inhibition ability of the hydrolytic activity of recombinant sphingomyelinases and present in the venom of Loxosceles laeta, on the substrate lysophosphatidylcholine (LPC), by compounds 5 and 6;
"FIGS. 5 (a) and 5 (b) show the dose-response curves of compounds 5 and 6 in the inhibition of the hydrolytic activity on SM, on which basis the IC_{50} values of compounds have been calculated;

"FIG. 6 presents the inhibition percentage of removal of glycoporphin C from the surface of red blood cells by compounds 5 and 6, a crucial event in the development of complement system-dependent hemolysis observed in venoming;

"FIG. 7 shows the inhibition percentage of the sphingomyelinases D binding to the surface of red blood cells, by compounds 5 and 6;

"FIGS. 8 and 9 represent the ability of compounds 5 and 6 to reduce the death of human keratinocytes induced by recombinant sphingomyelinases present in the venom of L. laeta;

"FIG. 10 shows the inhibition percentage of the binding of recombinant sphingomyelinases present in the venom to the cell membrane of human keratinocytes, by compounds 5 and 6;

"FIG. 11 describes the inhibition percentage of production/secretion of matrix metalloproteinases (MMP-2 and 9) by human keratinocytes treated with recombinant sphingomyelinases D promoted by compounds 5 and 6;

"FIG. 12 shows the inhibition percentage of the development of dermonecrotic lesions in rabbits, analyzed 24, 48 and 72 hours after inoculation of the venom, by compounds 5 and 6;

"FIG. 13 represents the inhibition percentage of MAPK ERK1/2 intracellular signaling pathway activation in human keratinocytes treated with recombinant sphingomyelinases D by compounds 5 and 6;

"FIG. 14 shows the inhibition percentage of superoxide ion production by human keratinocytes treated with sphingomyelinases D recombinant, by compounds 5 and 6;

"FIG. 15 shows the inhibition percentage of the production of cytokines TNF-.alpha. and TGF-.beta.1 by human keratinocytes treated with the recombinant sphingomyelinases D, by compounds 5 and 6;

"FIG. 16 shows the average inhibition of all activities tested for compounds 5 and 6;

"FIG. 17 shows the action of inhibitor compounds 5 and 6 on the substrate hydrolytic activity of PLD of Corynebacterium pseudotuberculosis;

"FIG. 18 shows the action of inhibitor compounds 5 and 6 on the hydrolytic activity on sphingomyelin substrate, of PLD of Bacillus cereus; and

"FIG. 19 shows the action of inhibitor compounds 5 and 6 on the hydrolytic activity on sphingomyelin substrate, of PLD of Staphylococcus aureus.

"Annex 1 shows microphotographs of histopathological analysis of the skin of rabbits inoculated with the venom of L. laeta or with the venom incubated with compounds 5 and 6."


Keywords for this news article include: Antibodies, Antiinfectives, Amines,
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Patent Application Titled "Vascular Stents and Related Methods"
Published Online (USPTO 20160367388)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a patent application by the inventors Skousen, Darrell J. (Lehi, UT); Jensen, Brian D. (Orem, UT); Bowden, Anton E. (Lindon, UT), filed on March 1, 2016, was made available online on December 29, 2016.

The assignee for this patent application is Brigham Young University.

Reporters obtained the following quote from the background information supplied by the inventors: "The leading cause of death in the United States is heart disease, claiming approximately 24% of all deaths. Coronary artery disease is a condition where coronary arteries narrow due to fatty plaque build up, reducing the blood flow to the heart which can lead to heart failure and death. A minimally invasive procedure called percutaneous coronary intervention (PCI) including balloon and stent angioplasty has been developed to treat coronary artery disease.

"There are two major complications associated with PCI: restenosis (renarrowing) and thrombosis (blood clots). Restenosis is caused by a combination of early elastic recoil, negative remodeling, and neoimtimal formation. Early elastic recoil occurs immediately, and is due to the elastic properties of the arteries. Late lumen loss in balloon angioplasty is caused by neoimtima formation (tissue in-growth) and negative remodeling (arterial shrinking). In stent angioplasty, a cylindrical scaffold wire mesh (stent) typically made of stainless steel is implanted in the artery to prevent restenosis. These stents prevent elastic recoil and negative remodeling, however, neoimtimal formation can still lead to restenosis.

"Stents have proven to reduce the rates of restenosis more than angioplasty alone. Drug-eluting stents have further reduced restenosis rates, but there is a concern for their ability to prevent late-term thrombosis. New stent materials that can improve these two complications associated with existing coronary stents will be advantageous in stent development."

In addition to obtaining background information on this patent application, NewsRx editors also obtained the inventors' summary information for this patent application: "In accordance with one embodiment, the invention provides a vascular stent assembly, including at least a first and a second strut, each including a thickness and a depth. A pair of end radii can also be provided, with each of the first and second struts extending from one of the pair of end radii. A thickness of at least one of the first and second struts can include a tapering profile extending from one of the end radii to another of the end radii. The tapering profile can follow a continuously increasing or decreasing function through at least half a length of the at least one strut.

"In accordance with another aspect of the invention, a vascular stent assembly is provided, including a series of struts, each including a length, a thickness and a depth. A series
of end radii can also be provided, each of the struts extending between one end radii on one end of the strut and another end radii on another end of the strut. A thickness of each of the struts includes a tapering profile extending from one end of the strut to another end of the strut, the thickness of the tapering profile continuously increasing or decreasing along the length of the strut through at least half a length of the strut. The depth of each of the struts can be substantially constant along the length of the strut.

BRIEF DESCRIPTION OF THE DRAWINGS

"Additional features and advantages of the invention will be apparent from the detailed description which follows, taken in conjunction with the accompanying drawings, which together illustrate, by way of example, features of the invention; and, wherein:

"FIG. 1 is a perspective view of selected segments of a stent in accordance with an embodiment of the invention;

"FIG. 2 is a side view of two struts and three end radii of a stent segment in accordance with an embodiment of the invention;

"FIG. 3 is a perspective view of end radii of a conventional stent and a stent in accordance with the present technology;

"FIG. 4 is a side, partial view of a stent strut in accordance with an embodiment of the invention;

"FIG. 5 is a side, partial view of another stent strut in accordance with an embodiment of the invention;

"FIG. 6 is a side, partial view of another stent strut in accordance with an embodiment of the invention;

"FIG. 7 is a side, partial view of another stent strut in accordance with an embodiment of the invention;

"FIG. 8 is a perspective, partial view of a cylindrical stent assembly in accordance with an embodiment of the invention; and

"FIG. 9 is a perspective, partially sectioned view of a stent assembly installed within an artery in accordance with an embodiment of the invention.

"Reference will now be made to the exemplary embodiments illustrated, and specific language will be used herein to describe the same. It will nevertheless be understood that no limitation of the scope of the invention is thereby intended."


Keywords for this news article include: Surgery, Angiology, Cardiology, Hematology, Restenosis, Angioplasty, Heart Disease, Catheterization, Arteriosclerosis, Myocardial Ischemia, Risk and Prevention, Surgical Technology, Coronary Artery Disease, Embolism and Thrombosis, Brigham Young University, Arterial Oclusive Diseases, Heart Disorders and Diseases.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2017, NewsRx LLC
Geneva, Switzerland --- By a News Reporte r-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventors Zhang, Fuli (Shanghai, CN); Yang, Zhezhou (Shanghai, CN); Bao, Rusheng (Taizhou, CN); Qiu, Pengcheng (Shanghai, CN); Jin, Linyong (Shanghai, CN); Pan, Hu (Shanghai, CN); Pan, Linyu (Shanghai, CN); Jiang, Dongming (Taizhou, CN); Xu, Weiwei (Taizhou, CN), filed on June 23, 2014, was published online on December 27, 2016.

The patent’s assignee for patent number 9527804 is Zhejiang Hisun Pharmaceutical Co., Ltd. (CN).

News editors obtained the following quote from the background information supplied by the inventors: "Praziquantel is a broad spectrum insecticide, and is especially suitable for the treatment of acute and chronic schistosomiasis along with complications, which is a choice drug for treating schistosomiasis at present. The structural formula of praziquantel is formula V as below:

"##STR00002##

"Francisco Yuste et al. (Journal of Heterocyclic Chemistry, 1986, Vol. 23, p 189-190.) discloses a method for preparing praziquantel with the following reaction scheme, wherein the key intermediate compound of formula IV was subjected to many reaction steps to obtain the praziquantel compound of formula V.

"##STR00003##

"As to the key intermediate 4-benzyl-1-phenethyl-piperazine-2,6-dione (the compound of formula IV) in the above reaction, Francisco Yuste et al. (Journal of Heterocyclic Chemistry, 1986, Vol. 23, p 189-190.) and Malcolm D. Brewer et al. (Journal of Medicinal Chemistry, 1989, Vol. 32, No. 9, p 2058-2062.) disclose a method for preparing this compound.

"##STR00004##

"As disclosed in the method, the compound of formula I was directly mixed with \( \beta\)-phenethylamine and heated to 200.\degree\ C., to obtain the compound of formula IV at a yield of 65%. This method has a low yield and produces many impurities, thus the product is hard to purify. Meanwhile, the high-temperature reaction not only is energy-consuming, but also has a high requirement on the device, which is hard to achieve industrial production.

"In view of the importance of the compound of formula IV in synthesizing praziquantel compound of formula V, it is greatly meaningful to develop a preparation method having high yield, high purity and being easily applicable in industrial production."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors’ summary information for this patent: "The present invention provides a new key intermediate (a compound of formula III) for synthesizing the schistosomicide, or pharmaceutically acceptable salts thereof.

"##STR00005##

"wherein, the pharmaceutically acceptable salts of the compound of formula III may be sulfates, hydrochlorides, phosphates, acetates, oxalates, formates, nitrates or mesylates.

"The present invention further provides a method for preparing the compound of
formula III comprising the reaction steps of:

"Step 1. carrying out a dehydration reaction between a compound of formula I and acetic anhydride

"##STR00006##
"to obtain a compound of formula II
"##STR00007##

"Step 2. carrying out an acylation reaction between the compound of formula II and \( \beta \)-phenethylamine with the presence of an aprotic organic solvent or without a solvent, to obtain the compound of formula III.

"In the above reaction step 1, the compound of formula II can be prepared from a compound of formula I by the method according to the literature (US2009105269; Journal of Heterocyclic Chemistry; vol. 3; 1966; p. 503-511).

"The aprotic organic solvents in step 2 are selected from ether, aromatic hydrocarbon, hydrocarbon or halogenated hydrocarbon, ester and ketone solvents.

"Further, the above ether solvents are selected from tetrahydrofuran, ethyl ether, 1,2-dimethoxyethane, methyl tert-butyl ether and 2-methyl tetrahydrofuran; the aromatic hydrocarbon solvents are selected from benzene, toluene, ethylbenzene and dimethylbenzene; the hydrocarbon or halogenated hydrocarbon solvents are selected from n-hexane, cyclohexane, n-heptane, dichloromethane, trichloromethane and dichloroethane; the ester solvents are selected from methyl formate, ethyl formate, methyl acetate, ethyl acetate and isopropyl acetate; and the ketone solvents are selected from acetone, butanone and methyl isobutyl ketone.

"Further, the aprotic organic solvents are preferably methyl tert-butyl ether, acetone, toluene, ethyl acetate or isopropyl acetate.

"In step 2, the temperature of the acylation reaction is 0-100 degree. C., preferably 5-40 degree. C., more preferably room temperature.

"The present invention further relates to a method for preparing the key intermediate of praziquantel with the following formula IV, comprising carrying out a cyclization reaction of the compound of formula III in the presence of a dehydrating agent and an alkaline substance in an aprotic organic solvent or without a solvent, to obtain the compound of formula IV as follow:

"##STR00008##

"The dehydrating agents in the cyclization reaction are selected from one or more substances of acetic anhydride, propionic anhydride, trifluoroacetic anhydride, acetyl chloride, propionyl chloride, chloroacetyl chloride, oxalyl chloride, phosgene and triphosgene, preferably acetic anhydride.

"The alkaline substances in the cyclization reaction are selected from one or more substances of triethylamine, imidazole, pyridine, 2-methylpyridine, 2,6-dimethylpyridine, 4-dimethylaminopyridine, piperidine, 1-methylpiperidine, morpholine, 4-methylmorpholine, quinoline, 1-methylpyrroldine, diisopropylamine, dimethylisopropylamine, di(isopropyl) ethylamine and sodium acetate, preferably triethylamine.

"The aprotic organic solvents in the cyclization reaction are selected from ether, aromatic hydrocarbon, hydrocarbon or halogenated hydrocarbon, ester and ketone solvents.

"Further, the above ether solvents are selected from tetrahydrofuran, ethyl ether, 1,2-dimethoxyethane, methyl tert-butyl ether and 2-methyltetrahydrofuran; the aromatic hydrocarbon solvents are selected from benzene, toluene, ethylbenzene and dimethylbenzene; the hydrocarbon or halogenated hydrocarbon solvents are selected from n-hexane, cyclohexane, n-heptane, dichloromethane, trichloromethane and dichloroethane; the ester solvents are selected from methyl formate, ethyl formate, methyl acetate, ethyl acetate and isopropyl acetate;
and the ketone solvents are selected from acetone, butanone and methyl isobutyl ketone.

"Further, the aprotic organic solvents in the cyclization reaction are preferably methyl tert-butyl ether, acetone, toluene, ethyl acetate or isopropyl acetate."

"The temperature of the cyclization reaction is 0-100.degree. C., preferably 40-80.degree. C.

"Another object of the present invention is to provide pharmaceutical acceptable salts of the compound of formula III, which can be prepared by the method as below: the compound of formula III was subjected to salt forming reaction in the presence of acid aqueous solution to obtain the pharmaceutical acceptable salts of the compound of formula III.

"The acid aqueous solutions can be selected from sulfuric acid, hydrochloric acid, phosphoric acid, acetic acid, oxalic acid, formic acid, nitric acid and methanesulfonic acid aqueous solutions.

"The present invention further relates to a method for preparing the compound of formula IV from the pharmaceutical acceptable salt of the compound of formula III: carrying out a cyclization reaction of the pharmaceutical acceptable salt of the compound of formula III in the presence of an alkaline substance and a dehydrating agent, to obtain the compound of formula IV, wherein the alkaline substance and the dehydrating agent are as defined above.

"The present invention further relates to use of the compound of formula III and the pharmaceutical acceptable salts thereof and the compound of formula IV in the preparation of schistosocide praziquantel.

"The design of synthetic process for preparing 4-benzyl-1-phenethyl-piperazine-2,6-dione (the compound of formula IV) is reasonable, economic and environmental. Additionally, the source of the raw materials is convenient, and the product has a high total yield (\( \geq 91\% \)). Furthermore, the compound of formula IV has a high chemical purity (the HPLC purity is more than 98\%) and is easy to achieve industrial mass production.

"The methods of the present invention overcome the shortcomings of current methods for preparing the compounds of formula IV, such as low production volumes, low purity, high energy consumption, high costs, and inability to achieve industrialized production, and provides a method for preparing the compound of formula IV, which is economical, environmental and easy to achieve industrialized production. In the present invention, the reaction solvent of the method is easily recycled and the method can produce the compound of formula IV at a high yield and with a high purity."

For additional information on this patent, see: Zhang, Fuli; Yang, Zhezhou; Bao, Rusheng; Qiu, Pengcheng; Jin, Linyong; Pan, Hu; Pan, Linyu; Jiang, Dongming; Xu, Weiwei. 4-Benzyl-1-Phenethyl-Piperazine-2,6-Dione Preparation Method, and Intermediate and Preparation Method. U.S. Patent Number 9527804, filed June 23, 2014, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9527804.PN.&OS=PN/9527804RS=PN/9527804

Keywords for this news article include: Antiinfectives, Zhejiang Hisun Pharmaceutical Co. Ltd, Anions, Acetone, Toluene, Chlorides, Anhydrides, Praziquantel, Anthelmintics, Helminthiasis, Ketone Bodies, Schistosomiasis, Hydrochloric Acid, Organic Chemicals, Benzene Derivatives, Cyclic Hydrocarbons, Drugs and Therapies, Trematode Infections, Aromatic Hydrocarbons.

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St. Jude Medical, Atrial Fibrillation Division, Inc.

**Patent Issued for Ablation Catheter Electrode Having Multiple Thermal Sensors and Method of Use (USPTO 9526574)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Wang, Huisun (Maple Grove, MN); Cao, Hong (Maple Grove, MN); Dando, Jeremy D. (Plymouth, MN), filed on September 30, 2014, was published online on December 27, 2016.

The assignee for this patent, patent number 9526574, is St. Jude Medical, Atrial Fibrillation Division, Inc. (St. Paul, MN).

Reporters obtained the following quote from the background information supplied by the inventors:

"a. Field of the Invention

The instant invention relates generally to devices and methods for ablating tissue. The diagnosis and treatment of electrophysiological diseases of the heart are described in connection with the devices and methods of the present invention. In particular, the instant invention relates to devices and methods related to cardiac ablation for the treatment of atrial fibrillation, as well as the advantages of devices that employ more accurate temperature monitoring during ablation at selected cardiac sites.

"b. Background Art

It is well known that atrial fibrillation results from disorganized electrical activity in the heart muscle, or myocardium. The surgical 'Maze' procedure has been developed for treating atrial fibrillation and involves the creation of a series of surgical incisions through the atrial myocardium in a pre-selected pattern to create conductive corridors of viable tissue bounded by non-conductive scar tissue.

In performing the Maze procedure and its variants, whether using ablation or surgical incisions, it is generally considered most efficacious to include a transmural incision or lesion that isolates the pulmonary veins from the surrounding myocardium. The pulmonary veins connect the lungs to the left atrium of the heart. The Maze procedures have been found to offer 57-70% success without antiarrhythmic drugs. However, they are also associated with a 20-60% recurrence rate several possible factors, including incomplete lesions, lesion recovery, non-pulmonary vein foci of the arrhythmia, or the need for further tissue modifications.

As an alternative to the surgical incisions used in the Maze procedure, transmural ablations of the heart have also been used. The use of catheters for ablating specific locations within the heart has been disclosed, for example in U.S. Pat. Nos. 4,641,649, 5,263,493, 5,231,995, 5,228,442 and 5,281,217. Such ablations may be performed either from within the chambers of the heart (endocardial ablation) using endovascular devices (e.g., catheters) introduced through arteries or veins, or from outside of the heart (epicardial ablation) using devices introduced into the chest. Various ablation techniques have been used, including cryogenic, radiofrequency (RF), laser and microwave ablation. The ablation devices are used to create transmural lesions--that is, lesions extending throughout a sufficient thickness of the myocardium to block electrical conduction, which effectively forms boundaries around the conductive corridors in the atrial myocardium. Perhaps the most advantageous aspect of the use of transmural ablation rather than surgical incisions is the ability to perform the procedure on the beating heart without the use of cardiopulmonary bypass.

Producing precise transmural lesions during cardiac ablation presents significant
obstacles for the physician for several reasons. First, the elongated and flexible vascular ablation devices are difficult to manipulate into the complicated geometries required for forming the lesions. Additionally, maintaining the proper positioning against the wall of a beating heart can be difficult. Also, visualization of cardiac anatomy and vascular devices is often inadequate which makes identifying the precise position of such devices in the heart difficult, which can result in misplaced lesions.

"During an ablation procedure, precise temperature regulation of the tissue under ablation is another issue encountered by the physician. Tissue ablation generally begins to occur at 50° C., while over-heating occurs at around 100° C. It can be important to monitor the temperature of the tissue during ablation. Most ablation devices accomplish this by measuring the electrode temperature during the ablation. The most common way to monitor the electrode temperature is to install a thermal sensor (e.g., thermocouple or thermistor) inside the tip electrode to measure its temperature.

"One of the shortcomings of current methods of monitoring electrode temperature is that the cylindrical shape of a typical ablation catheter tip often means that only a portion of the catheter tip is in direct contact with the ablation surface. Generally, the catheter electrodes themselves do not retain a great deal of thermal energy because they are made of materials with extremely high thermal conductivity, for instance, metals. Thus, the highest temperatures on the electrode itself are generally seen on that portion of the electrode which is direct contact with the tissue surface. Conversely, portions of the electrode not in direct contact with target tissue are most likely contacting blood or interstitial fluids. Since these fluids can conduct a significant amount of heat away from the ablating tissue, temperatures measured in the blood or interstitial fluid may appear to be significantly cooler than the ablating tissue temperature.

"Temperature monitoring devices that rely on measuring a point temperature on an electrode with only a single sensor can skew tissue temperature readings by other mechanisms. Since an ablation electrode tip can be quite long in comparison with the diameter of a catheter, the contact angle between the catheter and the ablating tissue can also be a significant factor. For instance, consider the case of a catheter electrode that is positioned with only its distal end contacting the tissue. If the temperature sensor is located on the proximal end of the electrode (which is not in contact with the tissue) then a significantly different temperature reading from the one present at the tissue may be measured. Whether the result of tissue-contacting angle or conduction of heat away from the electrode, the monitoring of only a single point temperature can produce misleading readings of the temperature at an ablation surface.

"If presented with an inaccurate temperature reading, a physician may apply an inappropriate amount of ablation energy to the site. If a tissue being ablated does not reach a sufficiently high temperature for a sufficient period of time, the target tissue may receive an incomplete ablation, which can significantly affect the efficacy of the treatment. On the other hand, excessively high electrode temperatures can cause tissue steam-pop, tissue-charring, or other serious over-heat related tissue damage. Additionally, blood contacting an overheated electrode can lead to the formation of coagulum, which can present thrombo-embolic hazards to the patient.

"The limitations of single point temperature monitoring are well known and several attempts have been made to overcome their disadvantages. U.S. Pat. No. 6,312,425 (Simpson, et. al.) discusses a design using multiple thermal sensors to monitor the temperature in a tip electrode. Simpson describes an arrangement of thermal sensors where one sensor is positioned at the distal apex of the tip and a plurality of other thermal sensors are positioned around the circumference of the electrode in a more proximal location on the catheter. Since the highest temperatures are most likely to be found at the portion of the electrode making contact with target tissue, by monitoring and comparing the temperature reading at the distal end of the
electrode to that at the proximal end, a determination can be made of both the maximum temperature being experienced by the tissue and which end of the electrode is performing the ablation.

"Similarly, U.S. Pat. No. 6,616,657 (by the same inventors) discusses a method of using the multiple temperature sensors to determine the orientation of the catheter. Experience with that device has shown that the variation in temperature between the end in contact with tissue and the non-contacting end is approximately 10 degree. C. Therefore, an ablation which is showing a temperature at the distal apex of the electrode that is 10 degree. warmer than the proximal sensor is assumed to be in an 'end-firing' position--with the distal end of the catheter providing all of the ablation energy to the tissue. Similarly, an observation that the proximal ports are 10 degree. warmer than the distal sensor means that the electrode is in a 'side-firing' position--with only the side portion of the catheter contacting the tissue. Temperature differences falling somewhere between 1-10 degree. are assumed to indicate a contacting angle between these two extremes."

"The thermal sensors described in each of the above publications are positioned at different ends of a relatively long electrode. However, it is often desirable to use a short electrode during an ablation procedure in order to improve RF energy transfer efficiency. A typical short electrode of this type has an electrode length of approximately 2.0-2.5 mm. This length is roughly comparable to the diameter of most ablation catheters. As mentioned previously, most ablation electrodes are made from materials having excellent thermal conductivity. In these situations, placement of temperature sensors at the proximal and distal ends of a relatively short electrode may create an undesirable situation where the temperature differences between the sensors will not be significant enough to measure because of the rapid conduction of heat energy from one end of the electrode to the other.

"What are needed, therefore, are devices and methods which allow for precise temperature measurement at several points in relatively short ablation electrodes. The devices and methods would preferably allow the physician to accurately measure the maximum temperature experienced by a target tissue during a thermal ablation and provide information that would allow the physician to determine the extent and orientation of contact between the ablat ing electrode and the target tissue."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "It is desirable to be able to detect and determine the maximum temperature experienced by a target tissue during an ablation procedure. Accurate determination of maximum temperature of an electrode at the target tissue provides increased safety to the patient and can provide the physician with information useful in the placement of ablation catheters, such as the orientation of the ablating surfaces.

"The present invention meets these and other objectives by providing devices and methods for accurately measuring the temperature of an ablation electrode when in contact with tissue, and monitoring temperature changes during an ablation procedure. In one aspect, the invention integrates an ablation catheter having an electrode assembly with at least two thermal sensors disposed near the external surface of the electrode ablating surfaces. The thermal sensors are separated by a thermal insulation member, which functions to thermally shield one thermal sensor from another to effectively produce two or more temperature measurements from two or more different points along the surface of the electrode. The results of the positioning of the thermal sensors combined with the separate temperature measurements at those positions can lead to a determination of the orientation of the ablating electrode and its external surfaces with respect to a target tissue. The invention is especially advantageous when a smaller ablating electrode is used, where the electrode length is approximately the same as its outer diameter in the case of a cylindrical electrode, or approximately the same as the cross-sectional length when
other shapes are employed. With the preferred size of electrodes of about 2.5 mm or about 2.0 mm in diameter and length, the thermal sensors cannot be effectively positioned at distal (or near the terminal end) and proximal (near the elongated catheter body end) areas of the electrode to generate temperature measurements at different ends of the electrode. By employing the electrodes described here, one of skill in the art can position thermal sensors at approximately the same distance from a distal end of the electrode and at different positions along the circumferential or external surface of cylindrical electrodes, for example. The measurement of temperatures from thermal sensors positioned in this manner can advantageously be used to determine which side or surface of the electrode is in contact with tissue and which is not. Furthermore, the use of thermal insulating members or materials to shield one thermal sensor from another, or create distinct isothermal zones of the electrode, provides more accurate temperature measurements.

"In preferred embodiments, the device of the invention comprises an electrode for an ablation catheter, where the tip has a distal end or tip, a partially hollowed core or body region, and a proximal region that is connected to the catheter with elongated end with control functions and a power source for activating an ablation procedure. The tip electrode is designed to incorporate at least two thermal sensors within the partially hollowed core or body region and preferably near the external surface of the electrode. The positioning of the thermal sensors with respect to thermal insulating material or members can effectively shield one thermal sensor from the temperature changes that might occur at the electrode surface near another thermal sensor. Thus, for example, one region of the electrode tip in contact with tissue may register a higher temperature than a region that is not in contact with tissue, and in small electrodes the proximity of these regions can cause both of the thermal sensors to register higher temperatures. Shielding a thermal sensor will substantially reduce the transfer of heat in a metallic electrode. Accordingly, more accurate temperature measurements from each positioned thermal sensor can be rendered into precise orientation information on the electrode tip and its placement on tissue or in the body.

"In another aspect, the invention comprises a method of manufacturing an electrode as described. Employing the partially hollowed region or cuts or slots from a side of the electrode, the manufacture or production of an electrode with multiple isothermal zones, each having a thermal sensor and separated by an insulation member or element, is relatively simple compared to other electrodes having thermal sensors at distal and proximal regions. For example, laser cutting or simple drilling of the metallic electrode from one end can be used to prepare holes or slots to accommodate a thermal sensor in appropriate positions and to accommodate the thermal insulation member or element. As describe here, the positioning of the thermal sensors and insulating members can vary. In preferred aspects where a 2.5 mm electrode is used, the thermal sensors can be positioned at about 0.25 mm from the external surface of the electrode through the use of the laser cutting or drilling process. Filling the hollow or partially hollowed region or holes or slots in the electrode with an appropriate polymer or adhesive can affix the thermal sensors and insulating members in place, and the polymer or adhesive selected can also provide some insulating properties to the electrode design. However, the shape, placement and material selected for the insulating members or elements are preferably employed in a manner where the insulating member is a separate and defined shape from the adhesive or affixing compound, as shown in some of the examples of the figures. Thus, in particular embodiments the methods of the invention encompass using a cylindrical or shaped metal or metal alloy electrode having a length approximately equal to its diameter, cutting three or more slots or holes in the base of the electrode opposite a distal end or tip to create a partially hollowed core region, filling or inserting a thermal insulation member into a slot or hole, and inserting two or more thermal sensors into different slots or holes such
that the thermal insulation member separates at least two thermal sensors, effectively creating an isothermal zone for each thermal sensor.

"In an advantageous aspect of the invention, the ablation catheter electrode is used to determine the orientation of the ablating surface by measuring the temperature at the thermal sensors or measuring the changes in temperature over time. These measurements can be used to determine the orientation of the electrode in contact with a target tissue."

"The foregoing and other aspects, features, details, utilities, and advantages of the present invention will be apparent from reading the following description and claims, and from reviewing the accompanying drawings."


Keywords for this news article include: Surgery, Angiology, Cardiology, Myocardium, Blood Vessels, Cardio Device, Heart Disease, Ablation Device, Medical Devices, Pulmonary Veins, Cardiac Arrhythmias, Surgical Technologies, Heart Disorders and Diseases, St. Jude Medical Atrial Fibrillation Division Inc..

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SORIN CRM SAS

Patent Issued for Active Implantable Medical Device for Atrial Stimulation for the Treatment of Heart Failure with Preserved Ejection Fraction (USPTO 9526901)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Amblard, Amel (Sceaux, FR); Limousin, Marcel (Paris, FR), filed on March 11, 2016, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9526901 is assigned to SORIN CRM SAS (Clamart, FR).

The following quote was obtained by the news editors from the background information supplied by the inventors: "The invention relates to 'active implantable medical devices' as defined by Directive 90/385/EEC of 20 Jun. 1990 of the Council of the European Communities, specifically implants to continuously monitor heart rhythm and deliver if necessary electrical pulses to the heart for stimulation, resynchronization and/or defibrillation in case of rhythm disorder detected by the device. It more particularly relates to devices for treating heart failure (HF), as an alternative or in addition to the treatment of cardiac rhythm disorders.

"This therapy is designed to resynchronize the contraction of the heart chambers (atrium and ventricle) so as to improve the patient's condition by optimizing the phases of the hemodynamic cycle. The cycle includes pre-ejection, isovolumetric contraction, systolic ejection, isovolumetric relaxation and finally filling of the cavity.

"Most of these devices implement a technique called 'CRT' (Cardiac Resynchronization Therapy) or 'BVP' (Bi-Ventricular Pacing) for delivering, as necessary,
electrical pulses needed to ensure joint and continuous stimulation of the two (left and right) ventricles to resynchronize them. This biventricular resynchronization technique however addresses only one of the forms of heart failure, known as 'systolic failure'. In this form of the disease, the heart muscle is unable to provide the force necessary to ensure adequate cardiac output, and the patient shows signs of expansion resulting in a delay of left ventricular depolarization. CRT biventricular pacing is then used to resynchronize the ventricles and make more uniform cardiac contraction.

"In the other form of heart failure called 'diastolic failure' or 'preserved ejection fraction heart failure' (HFpEF, Heart Failure with preserved Ejection Fraction), there is no desynchronization of the ventricles; it comes from a failure in the left ventricular filling. Biventricular CRT stimulation will be ineffective in this case. This condition affects about 40% of heart failure patients, and there is no known effective treatment to remedy it.

"This form of disease in some patients may be the result of a disorder of conduction in the atria (inter-atrial block), which delays the depolarization, and therefore the contraction of the left atrium (OG) with respect to the right atrium (OD). However, as atrioventricular conduction pathways are not altered, depolarization and contraction of the right (VD) and left (VG) ventricles occur within a reasonable time, without synchronization VD-VG. It is between the contraction of the left atrium and that of the left ventricle that the inter-atrial block OD-OG generates a poor sequencing OG-VG. The delay of the contraction of the left atrium has for consequence that it contracts substantially at the same moment as the left ventricle, and therefore cannot properly fulfill its function and contribute to the left ventricular active filling.

"To treat this heart failure with preserved ejection fraction, a technique of atrial overdriving, pathology, has been proposed. This is described for example in the U.S. Pat. No. 7,494,921B1, which describes permanently stimulating the left atrium to a frequency slightly above the spontaneous sinus rhythm frequency (i.e. the rate of the right atrium), thereby systematically causing premature depolarization of the left atrium and restoring an almost normal OG-VG sequence.

"Specifically, in this technique, the device regularly measures the spontaneous rhythm of the patient and applies a sequence of pacing pulses at a slightly faster rate, arbitrarily programmed to cause a prematurity in the order of 50 to 100 ms compared to an atrial coupling interval corresponding to the spontaneous sinus rhythm. After several cycles at this accelerated pace, the frequency gradually slows until reappearance of spontaneous activity, then the overdriving method is repeated in the same way.

"In the description of this technique, the 'atrial coupling interval' or 'atrial coupling' is defined as the time interval separating two spontaneous (in sinus rhythm, also designated as 'PP interval') or stimulated consecutive atrial events. The applied stimulation frequency thus varies continuously between values wherein it is too fast (overdriving period) or too slow (period of reappearance of spontaneous rhythm, with OD-VD synchronization), without real monitoring of the effectiveness of a possible return to a proper synchronization of the left cavities.

"It should also be noted that this pacing mode may interfere with the filling of the right cavities. In fact, due to premature stimulation of the left atrium, the OD-VD synchronization is significantly altered in a manner which may be incompatible with satisfactory filling of the right ventricle (we will clarify these aspects in the detailed description).

Improvement therapy in left ventricular filling is thus likely to induce adverse effects on the filling of the right ventricle, so in the cavity that was not affected by the pathology to be treated.

"Moreover, this technique requires the presence of a right ventricular sensing lead, so as to ensure that overdriving is controlled on the basis of the actual atrial activity, and not on signals detected at the atrium but actually due to the depolarization of the ventricles (far-field
signals).

"Another technique is described in EP 2471575 A1 (Sorin CRM SAS) which implements a sensor for collecting an endocardial acceleration signal (EA). The EA signal is analyzed to detect the presence of a specific component reflecting atrial contraction (EA4 component) and to identify the instant of occurrence of this component. If the EA4 component is present, this means that the sequencing of atrial contractions is correct because otherwise (i.e., left atrial contractions too late), the EA4 component would be mixed in the component of the EA signal corresponding to the immediately following ventricular contraction (EA1 component). The atrial stimulation interval (AA interval) is then dynamically adjusted depending on the result of this analysis.

"However, this technique requires an implantable lead provided with an endocardial acceleration sensor, and a generator capable of processing the EA signals delivered by such a sensor."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: "One object of the invention is to propose a new technique for treatment of heart failure with preserved ejection fraction in patients with mechanical inter-atrial delay, which overcomes the drawbacks of the methods proposed so far and which does not require the use of methods for collecting and analyzing an EA signal.

"Another object of the invention is to propose a technique that ensures recovery of diastolic function in a method that is relatively simple (in terms of resources used) and reactive (high efficiency obtained cycle to cycle).

"The invention operates by a unique atrial pacing to restore a satisfactory OG-VG sequencing (sequencing the contraction of the left atrium compared to that of the left ventricle), so that the atrium can properly fulfill its function of completion of the filling of the left ventricle.

"To implement the disclosed embodiments, there is no need for ventricular pacing and/or ventricular depolarization detection methods. The latter can of course exist, for example in the case of a multi-site pacemaker providing stimulation of the right ventricle or of the two ventricles in addition to the stimulation of the atria (triple or quadruple chamber pacemakers). But these ventricular methods are not involved in the treatment of heart failure with preserved ejection fraction, which aims to overcome pre-existing conduction condition between the atria, namely an inter-atrial block resulting in an excessive delay in conduction between the right atrium and the left atrium.

"Specifically, the invention provides a device including digital processor circuits configured for: sensing of right atrial depolarizations; sensing of left atrial depolarizations; delivering left atrial stimulation pulses; and delivering, selectively on the basis of adjustable controlling parameters, of premature the left atrial stimulation pulses, by applying a short inter-atrial coupling, shorter than the sinus rhythm coupling interval

"A feature of the invention is that the device has no means for collecting and analyzing the endocardial acceleration, and the digital processor is configured so as to:

"after a first cardiac cycle without left atrial stimulation, deliver a left atrial stimulation pulse during an immediately consecutive second cardiac cycle, with application of an inter-atrial coupling,

"the inter-atrial coupling applied during the second immediately consecutive cardiac cycle being a short coupling shorter than the sinus rhythm coupling interval, so that the left atrial stimulation pulse delivered during the second cardiac cycle is a premature pulse;

"deliver a not premature left-atrial stimulation pulse during a third cardiac cycle
immediately subsequent to the second cardiac cycle, with application of an inter-atrial coupling corresponding to the sinus rhythm coupling interval (D1), so as to: assess the right atrial coupling interval between the right atrial depolarizations during the second and third cardiac cycles; compare the right atrial coupling interval thus assessed to the sinus rhythm coupling interval; and

"modify or not, at least one of the adjustable controlling parameters according to the result of the comparison.

"According to various advantageous subsidiary characteristics:

"the modified or not controlling parameter depending on the result of the comparison is the short inter-atrial coupling;

"in that case, if the right atrial coupling interval is less than the sinus rhythm coupling interval (D1), the digital processor is further configured so as to change by one step the short inter-atrial coupling, then deliver a premature left atrial stimulation pulse during a subsequent cardiac cycle, with application of the short inter-atrial coupling changed by one step;

"on detection of a predetermined event, the digital processor is further configured so as to inhibit any delivery of left atrial stimulation pulse during at least one cardiac cycle; measure on at least one cardiac cycle the atrial escape interval and the inter-atrial delay; and store this escape interval as a coupling interval of the sinus rhythm for the determination of the short inter-atrial coupling and inter-atrial delay corresponding to the sinus rhythm coupling interval in the subsequent cycles;

"the predetermined event is the expiry of a predetermined fixed timing interval; and

"the predetermined event is the detection of the crossing of a predetermined threshold by the variation in the atrial coupling interval.

"According to one embodiment, there is an active implantable medical device, the device comprising digital processor circuits configured to sense right and left atrial depolarizations and deliver, selectively on the basis of adjustable controlling parameters, left atrial stimulation pulses according to a stimulation protocol. The stimulation protocol includes, after a first cardiac cycle without left atrial stimulation, delivering a left atrial stimulation pulse during an immediately consecutive second cardiac cycle at an inter-atrial coupling interval. The inter-atrial coupling interval applied during the second immediately consecutive cardiac cycle is a short coupling interval shorter than the sinus rhythm coupling interval, so that the left atrial stimulation pulse delivered during the second cardiac cycle is a premature pulse. The protocol further includes delivering a not premature left-atrial stimulation pulse during a third cardiac cycle immediately subsequent to the second cardiac cycle, at an inter-atrial coupling interval corresponding to the sinus rhythm coupling interval. The protocol also includes assessing the right atrial coupling interval between the right atrial depolarizations during the second and third cardiac cycles and comparing the right atrial coupling interval to the sinus rhythm coupling interval. And finally, modifying at least one of the adjustable controlling parameters if necessary according to the result of the comparison. The device has no means for collecting and analyzing the endocardial acceleration.

"According to another embodiment, there is a method for resynchronization of the contraction of the heart chambers. The method includes sensing right atrial depolarizations and sensing left atrial depolarizations. The method also includes delivering, selectively on the basis of adjustable controlling parameters, left atrial stimulation pulses according to a stimulation protocol. The stimulation protocol includes, after a first cardiac cycle without left atrial stimulation, delivering a left atrial stimulation pulse during an immediately consecutive second cardiac cycle at an inter-atrial coupling interval. The inter-atrial coupling interval applied during the second immediately consecutive cardiac cycle is a short coupling interval shorter than
the sinus rhythm coupling interval, so that the left atrial stimulation pulse delivered during the second cardiac cycle is a premature pulse. The protocol further includes delivering a not premature left-atrial stimulation pulse during a third cardiac cycle immediately subsequent to the second cardiac cycle, at an inter-atrial coupling interval corresponding to the sinus rhythm coupling interval; and assessing the right atrial coupling interval between the right atrial depolarizations during the second and third cardiac cycles. The protocol also includes comparing the right atrial coupling interval to the sinus rhythm coupling interval and modifying at least one of the adjustable controlling parameters if necessary according to the result of the comparison.

"According to yet another embodiment, there is a cardiac resynchronization system including a stimulation/detection electrode for positioning in the right atrium of a heart and a stimulation/detection electrode for positioning in the left atrium of the heart, wherein the electrodes are configured to be coupled to an implantable medical device. The implantable medical device includes a generator and digital processor circuits. The digital processor circuits are configured to sense right atrial depolarizations from the stimulation/detection electrode and sense left atrial depolarizations from the stimulation/detection electrode. The digital processor circuits are further configured to deliver a left atrial stimulation pulse during a cardiac cycle immediately following a preceding cardiac cycle with no left atrial stimulation, the left atrial stimulation pulse delivered at an inter-atrial coupling interval. The inter-atrial coupling interval is a short coupling interval shorter than the sinus rhythm coupling interval. The digital processor circuits are further configured to deliver a second left-atrial stimulation pulse during an immediately subsequent cardiac cycle at an inter-atrial coupling interval corresponding to the sinus rhythm coupling interval. The digital processor circuits are further configured to assess the right atrial coupling interval between the right atrial depolarizations during the consecutive cardiac cycles and compare the right atrial coupling interval to the sinus rhythm coupling interval. After comparing, the digital processor circuits are configured to determine whether to modify the inter-atrial coupling interval based on the result of the comparison."

URL and more information on this patent, see: Amblard, Amel; Limousin, Marcel. Active Implantable Medical Device for Atrial Stimulation for the Treatment of Heart Failure with Preserved Ejection Fraction. U.S. Patent Number 9526901, filed March 11, 2016, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9526901.PN.&OS=PN/9526901RS=PN/9526901

Keywords for this news article include: Therapy, Pathology, Cardiology, Heart Disease, Heart Failure, SORIN CRM SAS, Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Temple University-of the Commonwealth System of...

**Patent Issued for Administration of Angiocidin for Arresting the Growth of a Tumor Cell (USPTO 9526758)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Tuszyński, George P. (Pittsgrove, NJ); Wong, John F. (Los Angeles, CA); Williams, Taffy (Concord, NC), filed on October 24, 2014, was
published online on December 27, 2016.

The assignee for this patent, patent number 9526758, is Temple University-of the Commonwealth System of Higher Education (Philadelphia, PA).

Reporters obtained the following quote from the background information supplied by the inventors: "Various publications, including patents, published applications, technical articles and scholarly articles are cited throughout the specification. Each of these cited publications is incorporated by reference herein, in its entirety.

"Solid human tumors are often infiltrated by host immune cells, which can have a diverse effect on tumor progression. Among other cell types, macrophages are known to be a major component in the leukocyte infiltrate in tumors. These tumor-associated macrophages, (TAMs), have a complex dual function in their interactions with neoplastic cells (Mantovani, et al., Trends Immunol. 23: 549-555, 2002). First, TAMs stimulate cell destruction through antigen presentation to T-cells, which induces cytotoxic T-cells to kill tumor cells bearing the presented antigen. In contrast, TAMs also promote cell proliferation and angiogenesis, thus affecting tissue growth.

"These contradictory effects can be explained in terms of the 'macrophage balance hypothesis,' which asserts that the outcome of the interaction between macrophages and neoplastic cells depends on the number of macrophages recruited to the tumor microenvironment and their state of activation (Mantovani, et al., Immunol. Today 13: 265-270, 1992; Bingle, et al., J. Pathol. 196: 254-265, 2002; Nesbit, et al., J. Immunol. 166: 6483-6490). Nesbit, et al. have shown that, in a mouse model, high levels of monocyte chemoattractant protein-1 (MCP-1) secreted by melanoma cells is associated with massive monocyte/macrophage infiltration into the tumor mass, leading to destruction of the tumor within a few days. However, low levels of secreted MCP-1 stimulated angiogenesis and tumor growth. Furthermore, ex vivo-grown cytotoxic macrophages that recognize and destroy tumor cells, but not normal cells, are effective in murine models of metastasizing tumors. (Andreesen, et al., J. Leukocyte Biol. 64: 419-426, 1998). Accordingly, immunomodulation, in particular regulating macrophage activity, has potential as a therapeutic strategy for the treatment of tumors, secondary metastasis, and other disorders.


In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "The invention features methods for treating tumors such as glioma, breast cancer, and leukemia. The methods generally comprise administering to a subject having a glioma, breast cancer, or leukemia an amount of angiocidin effective to treat the glioma, breast cancer, or leukemia. The angiocidin can be administered to the subject as a composition comprising a pharmaceutically acceptable carrier. The amount of angiocidin administered to the subject can vary according to the type of tumor, or other variables, but generally will be a dose of about 0.001 to 10 mg/kg body weight of the subject.

"In some aspects, the methods further comprise administering to the subject an effective amount of a growth factor such as fibroblast growth factor-2 (FGF-2), nerve growth
factor (NGF), brain-derived neural factor (BDNF), neurotropin-3 (NT-3), epidermal growth factor (EGF), or stem cell growth factor (SCF). The angiocidin can complex with the growth factor. In some aspects, the angiocidin-growth factor complex can induce growth arrest of the tumor cells, such as the glioma, breast cancer, or leukemia cells. In some aspects, the angiocidin-growth factor complex can promote healthy stem cell differentiation at or proximal to the site of the glioma or breast cancer, or in the blood or the bone marrow.

"The invention also features methods for arresting growth of tumor cells. The methods generally comprise contacting the tumor cell with an amount of angiocidin effective to arrest growth of the tumor cell. In some aspects, subsequent to or concomitant with the growth arrest, the tumor cell undergoes apoptosis. The methods are preferably used to arrest the growth of glioma cells, breast cancer cells, leukemia cells, and melanoma cells. In some aspects, the angiocidin can be complexed with a growth factor such as fibroblast growth factor-2 or nerve growth factor.

"The invention also features methods for inducing differentiation of leukemia cells. The methods generally comprise contacting the leukemia cell with an amount of angiocidin effective to induce differentiation of the leukemia cell. Leukemia cell differentiation preferably inhibits the tumorigenicity of the leukemia cell. In some aspects, induced leukemia cell differentiation confers a non-cancerous phenotype.

"The invention also features methods for treating tumors that express a growth factor receptor. The methods generally comprise administering to a subject having a tumor that expresses a receptor for fibroblast growth factor-2, nerve growth factor, brain-derived neural factor, neurotropin-3, epidermal growth factor, or stem cell growth factor an amount of angiocidin effective to treat the tumor expressing a receptor for fibroblast growth factor-2, nerve growth factor, brain-derived neural factor, neurotropin-3, epidermal growth factor, or stem cell growth factor. The angiocidin can be administered to the subject as a composition comprising a pharmaceutically acceptable carrier. The amount of angiocidin administered to the subject can vary according to the type of tumor, or other variables, but generally will be a dose of about 0.001 to 10 mg/kg body weight of the subject. The tumor expressing a receptor for such growth factors can be, for example, glioma, breast cancer, leukemia, or melanoma among others."


Keywords for this news article include: Gliomas, Leukemia, Melanoma, Oncology, Monocytes, Hematology, Immunology, Fibroblasts, Macrophages, Angiogenesis, Breast Cancer, Myeloid Cells, Women's Health, Public Education, Cell Proliferation, Stem Cell Research, Cell Differentiation, Nerve Growth Factors, Nerve Tissue Proteins, Connective Tissue Cells.

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Patent Issued for Ang-2 Specific Antibodies and Uses (USPTO 9527910)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Lee, Yoon Sook (Hwaseong-si, KR); Kim, Chung Ho (Yongin-si, KR); Kim, Kyung Eun (Yongin-si, KR); Kim, Hyung-Chan (Yongin-si, KR); Lee, Kwang Hoon (Osan-si, KR); Lee, Hyo Seon (Hwaseong-si, KR); Han, Sang Yeul (Yongin-si, KR), filed on July 2, 2014, was published online on December 27, 2016.

The assignee for this patent, patent number 9527910, is SAMSUNG ELECTRONICS CO., LTD. (Suwon-Si, KR).

Reporters obtained the following quote from the background information supplied by the inventors: "The present disclosure relates to an anti-Ang-2 antibody specifically binding to an angiogenesis-inducing factor Angiopoietin-2 (Ang-2), and related compositions and methods utilizing such antibodies.

"Angiopoietin-2 (Ang-2) is an antagonistic ligand of a receptor Tie2 present at vascular endothelial cells and it suppresses signal transduction by Tie2 by competing with Angiopoietin-1 (Ang1), which is an agonist of Tie2, in binding Tie2. Ang1-Tie2 binding maintains the stability of vascular endothelial cells. Thus, interruption of this binding by Ang-2 may trigger signal transduction through this interruption, ultimately accelerating angiogenesis via the dynamic rearrangement of blood vessels.

"As angiogenesis is an essential element for the growth of cancer, preventing the additional growth of cancer by inhibiting the function of Tie2-dependent Ang-2 to suppress angiogenesis has been known by the research of several preclinical models and in fact, various attempts to prevent the progress of cancer using antibodies specific to Ang-2 are ongoing.

"Although there are phenomena showing that Ang-2 not only causes the growth of cancer through Tie2-dependent angiogenesis but also accelerates the metastasis of cancer through Tie2-independent mechanism, research results about the detailed mechanisms of action are yet to be elucidated.

"As a method for effectively inhibiting the progress of cancer by Ang-2, it is believed to be important to suppress Tie2 signaling by Ang-2, and it is expected to be possible to secure cancer treatment agents with superior performance by blocking Tie2-independent mechanisms of Ang-2.

"Accordingly, it is needed to elucidate Tie2-independent mechanisms of Ang-2 and to develop a substance suppressing them."
need thereof.

"Further provided is a method of preventing and/or treating a disease related to angiogenesis and/or Ang-2-dependent cell adhesion, including administering the anti-Ang-2 antibody or an antigen-binding fragment thereof to a subject in need thereof.

"Also provided is a method for detecting Ang-2, including treating a specimen obtained (isolated) from a subject with the anti-Ang-2 antibody or antigen-binding fragment thereof; and identifying the presence of an antigen-antibody reaction."


Keywords for this news article include: Antibodies, Cancer, Oncology, Immunology, Angiogenesis, Angiopoietin-2, Blood Proteins, Immunoglobulins, Angiogenic Proteins, SAMSUNG ELECTRONICS CO. LTD, Intercellular Signaling Peptides and Proteins.

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COVIDIEN LP

Patent Issued for Apparatus, System and Method for Performing an Electrosurgical Procedure (USPTO 9526577)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventor Brannan, Joseph D. (Lyons, CO), filed on September 1, 2015, was published online on December 27, 2016.

The patent's assignee for patent number 9526577 is COVIDIEN LP (Mansfield, MA).

News editors obtained the following quote from the background information supplied by the inventors: "Technical Field

"The present disclosure relates to an apparatus, system and method for performing an electrosurgical procedure. More particularly, the present disclosure relates to an apparatus, system and method including a directional microwave antenna probe and a catheter that are configured to perform a microwave ablation procedure.

"Description of Related Art

"Microwave ablation procedures, e.g., such as those performed for menorrhagia, are typically done to ablate the targeted tissue to denature or kill the tissue. Many procedures and types of devices utilizing electromagnetic radiation therapy are known in the art. Such microwave therapy is typically used in the treatment of tissue and organs such as the prostate, heart, and liver. One non-invasive procedure generally involves the treatment of tissue (e.g., a tumor) underlying the skin via the use of microwave energy. Typically, microwave energy is generated by a power source, e.g., microwave generator, and transmitted to tissue via a microwave antenna that is fed with a coaxial cable that operably couples to a radiating section of the microwave antenna.

"To treat the tissue, the radiating section of the microwave antenna may be
positioned inside the tissue of interest, e.g., the tumor, and microwave energy may be radiated thereabout. Typically, the microwave energy radiates with no specific directionality pattern, i.e., the direction of the microwave energy is not controlled. For example, under certain surgical environments, the microwave energy may radiate radially outward in a generally spherical pattern. While this spherical pattern of microwave energy may be suitable for treating certain shapes and/or types of tissue specimens, e.g., tissue specimens that exhibit a generally spherical shape, under certain circumstances, this spherical pattern of microwave energy may not be suitable for treating other shapes and/or types of tissue specimens, such as, for example, in the instance where the tumor is elongated or otherwise shaped."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventor's summary information for this patent: "The present disclosure provides a system for performing a microwave ablation procedure. The system includes a catheter including an open proximal end and a closed distal end configured to percutaneously access tissue. A directional microwave antenna probe adapted to connect to a source of microwave energy selectively couples to the catheter. The directional microwave antenna is rotatable within the catheter for directing the emission of microwave energy therefrom to tissue.

"The present disclosure provides an apparatus for performing a microwave ablation procedure. The apparatus includes a catheter including an open proximal end and a closed distal end configured to percutaneously access tissue. A directional microwave antenna probe adapted to connect to a source of microwave energy selectively couples to the catheter. The directional microwave antenna is rotatable within the catheter for directing the emission of microwave energy therefrom to tissue.

"The present disclosure also provides method of performing a microwave procedure. The method includes percutaneously accessing tissue with a catheter including an open proximal end and a closed distal end configured to percutaneously access tissue for adjacent placement thereto. A step of the method includes positioning a directional microwave antenna probe adapted to connect to a source of microwave energy into the catheter. The directional microwave antenna is rotatable within the catheter for directing the emission of microwave energy therefrom to tissue. And, transmitting microwave energy to the microwave antenna such that a desired tissue effect may be achieved is another step of the method."


Keywords for this news article include: COVIDIEN LP.

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**ALKERMES PHARMA IRELAND LIMITED**

**Patent Issued for Aripiprazole Formulations Having Increased Injection Speeds (USPTO 9526726)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Hickey, Magali B. (Westwood, MA); Vandiver,
Jennifer (Arlington, MA), filed on May 25, 2016, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents. Patent number 9526726 is assigned to ALKERMES PHARMA IRELAND LIMITED (Dublin, IE).

The following quote was obtained by the news editors from the background information supplied by the inventors: "U.S. Pat. Nos. 4,734,416 and 5,006,528 disclose aripiprazole, 7-4-[4-(2,3-dichlorophenyl)-1-piperazinyl]butoxy-3,4-dihydro-2(1H)-quinolinone or 7-4-[4-(2,3-dichlorophenyl)-1-piperazinyl]butoxy-3,4-dihydro carbostyril, as an atypical antipsychotic agent useful in the treatment of schizophrenia, bipolar disease, depression, and other CNS disorders. Aripiprazole has the following chemical structure:

"##STR00001##

"Aripiprazole is sold under the trade name ABILIFY.RTM.. It acts as a dopamine D_{2} partial agonist, serotonin 5-HT_{1A} receptor agonist, and is an antagonist of the serotonin 5-HT_{2A} receptor. ABILIFY.RTM. is currently administered orally on a once-a-day dosing schedule as ABILIFY.RTM. (aripiprazole) Tablets, ABILIFY DISCMELT.RTM. (aripiprazole) Orally Disintegrating Tablets, and ABILIFY.RTM. (aripiprazole) Oral Solution. Poor and variable patient compliance with a once-a-day dosing schedule of psychiatric drugs has been reported. Efforts have been made to provide drug dosage forms that may increase the compliance of patients and thereby lower the rate of relapse in the treatment of schizophrenia.

"U.S. Pat. Nos. 7,807,680, 8,338,427, and 8,338,428 describe long-acting aripiprazole sterile injectable formulations. Studies on aripiprazole free base injections showed a prolonged pharmacokinetic profile, but there have been reports of moderate to severe tissue irritation following intramuscular (IM) injection and subcutaneous (SC) injection. As such, there exists a need for improved methods of delivering antipsychotics, such as aripiprazole, thereby improving patient compliance and maximizing the pharmacological profile of the active agent."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: "In part, the invention provided herein relates to the intramuscular administration of pharmaceutical compositions comprising compounds of Formula (I) to a subject in need thereof using a rapid injection rate. It was discovered that the rapid injection rate resulted in fewer injection site failures, such as needle clogging. Surprisingly, the rapid injection rate did not cause a pain intensity above a normal threshold or any injection site reactions in the subject in need thereof. Thus, provided herein is an improved method of administering pharmaceutical compositions comprising compounds of Formula (I), wherein the method comprises intramuscular administration using a rapid or instantaneous injection speed.

"In one aspect, provided herein are methods of using pharmaceutical compositions comprising compounds of Formula (I) to treat disorders of the central nervous system, such as schizophrenia. In another aspect, provided herein is a method of intramuscular administration of a pharmaceutical composition to a subject in need thereof, comprising administering to said subject a therapeutically effective amount of the composition at an injection rate greater than or equal to 0.3 mL/s, wherein said pharmaceutical composition comprises:

"(a) 24-30 weight percent of a compound of Formula (I):
"##STR00002## wherein n is an integer between 4 and 14;
"(b) 0.3-0.4 weight percent sorbitan laurate;
"© 0.1-0.3 weight percent polysorbate 20; and
"(d) an aqueous vehicle
"wherein the percentages of (a), (b), and © are relative to the total weight of the composition.
"In another embodiment, the pharmaceutical composition comprises:
"(a) about 26.6 weight percent of a compound of Formula (I);
"(b) about 0.37 weight percent sorbitan laurate;
"© about 0.15 weight percent polysorbate 20; and
"(d) an aqueous vehicle
"wherein the percentages of (a), (b), and © are relative to the total weight of the composition.
"In another embodiment, component (a) of the pharmaceutical composition comprises a compound of Formula (I):
"##STR00003##
"wherein n is an integer between 9 and 11.
"In yet another embodiment, the pharmaceutical composition comprises:
"(a) 24-30 weight percent Compound 1:
"##STR00004##
"(b) 0.3-0.4 weight percent sorbitan laurate;
"© 0.1-0.3 weight percent polysorbate 20; and
"(d) an aqueous vehicle
"wherein the percentages of (a), (b), and © are relative to the total weight of the composition.
"In still another embodiment, the said pharmaceutical composition comprises:
"(a) about 26.6 weight percent Compound 1;
"(b) about 0.37 weight percent sorbitan laurate;
"© about 0.15 weight percent polysorbate 20; and
"(d) an aqueous vehicle
"wherein the percentages of (a), (b), and © are relative to the total weight of the composition.
"In some embodiments of the method, the injection is administered to the subject in the dorsal gluteal muscle. In other embodiments of the method, the injection is administered to the subject in the deltoid muscle.
"In some embodiments of the method, the needle does not experience injection failure due to needle clogging.
"In other embodiments, the method does not elicit a pain intensity above a normal threshold in the subject. In other embodiments, the method does not elicit any injection site reactions in the subject.
"In another aspect, provided herein is a method of treating a disorder of the central nervous system in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of the composition at an intravenous injection rate greater than or equal to 0.3 mL/s. In one embodiment of the method, the disorder is schizophrenia.
"In certain embodiments of the methods described above, the intramuscular injection rate is greater than 0.3 mL/s.
"In another aspect, provided herein is a kit useful for the treatment of a disorder of the central nervous system, comprising a therapeutically effective amount of a pharmaceutical
composition and further comprising instructions for intramuscular injection, wherein the intramuscular injection rate is greater than or equal to 0.3 mL/s. In one embodiment, the kit is adapted to be associated with a treatment regimen. In another embodiment of the kit, the intramuscular injection rate is greater than 0.3 mL/s."


Keywords for this news article include: Pharmaceuticals, Alcohols, Autacoids, Serotonin, Psychiatry, Polysorbates, Schizophrenia, Abilify Therapy, Organic Chemicals, Biological Factors, Drugs and Therapies, Aripiprazole Therapy, Polyethylene Glycols, Atypical Antipsychotics, Intramuscular Injections, Psychotherapeutic Agents, ALKERMES PHARMA IRELAND LIMITED.

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KOREA INSTITUTE OF SCIENCE AND...

Patent Issued for Aster Glehni Extracts, Fractions Or Compounds Isolated Therefrom for the Treatment Or Prevention of Hyperuricemia Or Gout (USPTO 9527879)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventors Kim, Hyoung Ja (Seoul, KR); Jin, Chang Bae (Seoul, KR); Son, Min Jeoung (Seoul, KR); Lee, Yong Sup (Seoul, KR); Yook, Chang Soo (Seoul, KR); Lee, Jae Yeol (Seoul, KR), filed on May 20, 2015, was published online on December 27, 2016.

The patent's assignee for patent number 9527879 is KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY (Seoul, KR).

News editors obtained the following quote from the background information supplied by the inventors: 

"(a) Technical Field

"The present invention relates to an Aster glehni extract, fractions thereof and the active compounds isolated therefrom, which are effective for the treatment, prevention and improvement of hyperuricemia or gout."

"(b) Background Art

"Hyperuricemia or gout is induced as the intake of uric acid increases due to westernized diet and the uric acid is not normally degraded in the body. The incidence of hyperuricemia or gout is increasing gradually as the intake of alcohols, animal viscera and seafood increases. It is reported that hyperuricemia or gout can increase the incidence of hypertension, hyperlipidemia, cancer, diabetes, obesity, etc.

"Gout occurs frequently in men in their 40s to 50s. However, due to the recent change in diet, the age of prevalence is gradually decreasing. It can occur easily in those who take immunosuppressants for a long time after organ transplantation, those who take diuretics for a long time and women of childbearing age. The currently used drugs for treating gout, allopurinol, benz bromarone, sulfinpyrazone and probenecid, were developed in 1950s and
Among these, allopurinol is the best known drug for gout treatment but there are concerns about hypersensitivity syndrome, which can be lethal, in addition to interstitial nephritis, renal disorder, hepatotoxicity, vasculitis and skin rash. Although benz bromarone is the most potent drug clinically used in the treatment of gout, its use is restricted because of severe hepatotoxicity. Although sulfinpyrazone and probenecid have been used until recently, they are known to cause renal failure.

"As described above, it is thought that the direct cause of gout is the increase in uric acid. Therefore, the inventors of the present invention have researched to develop a drug of natural origin for treating gout, which is substantially effective in decreasing uric acid.

"While searching for various natural products to develop a drug that exhibits potent effect of reducing uric acid, the inventors of the present invention have found out that Aster glehni has remarkable antiinflammatory, anticonvulsant, sedative or sleep-inducing effects. The excellent uric acid decreasing effect of Aster glehni has never been reported."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "The present invention is directed to providing a composition for treating, preventing and improving hyperuricemia or gout, which contains an Aster glehni extract, fractions thereof or specific active compounds isolated therefrom as an active ingredient.

"The present invention is also directed to providing a method for isolating the active compounds effective in decreasing the serum uric acid level from Aster glehni.

"The present invention is also directed to providing the active compound as novel compounds.

"In an aspect, the present invention provides a pharmaceutical composition or a health food composition for treating, preventing and improving hyperuricemia or gout, which contains an Aster glehni extract or fractions thereof.

"In another aspect, the present invention provides a pharmaceutical composition or a health food composition for treating, preventing and improving hyperuricemia or gout, which contains one or more compound selected from a group consisting of 6'-O-caffeoylampelopsisionoside, 6'-O-caffeoylroseoside, 6'-O-cafeoylsonchuinoside C, 6'-O-cafeooyldihydroxyrangin and glehnoside or a pharmaceutically acceptable salt, hydrate or solvate thereof.

"In another aspect, the present invention provides a pharmaceutical composition or a health food composition for treating, preventing and improving hyperuricemia or gout, which contains an Aster glehni extract or fractions thereof.

"In another aspect, the present invention provides a pharmaceutical composition or a health food composition for treating, preventing and improving hyperuricemia or gout, which contains one or more compound selected from a group consisting of 6'-O-caffeoylampelopsisionoside, 6'-O-cafeoylroseoside, 6'-O-cafeoylsonchuinoside C, 6'-O-cafeooyldihydroxyrangin and glehnoside or a pharmaceutically acceptable salt, hydrate or solvate thereof.

"In another aspect, the present invention provides a method for isolating the active compounds effective in decreasing the serum uric acid level from Aster glehni, which includes: 1) obtaining a solvent extract by extracting the aerial part or underground part of Aster glehni with one or more extraction solvent selected from dichloromethane, acetone, an aqueous solution of acetone, a C.sub.1-4 alcohol and an aqueous solution of a C.sub.1-4 alcohol; 2) obtaining an ethyl acetate fraction by extracting the solvent extract with water and ethyl acetate; and 3) obtaining 6'-O-caffeoylampelopsisionoside, 6'-O-cafeoylroseoside, 6'-O-cafeoylsonchuinoside C, 6'-O-cafeooyldihydroxyrangin and glehnoside by subjecting the ethyl acetate fraction to column chromatography.

"In another aspect, the present invention provides 6'-O-caffeoylampelopsisionoside, 6'-O-cafeoylroseoside, 6'-O-cafeoylsonchuinoside C, 6'-O-cafeooyldihydroxyrangin and glehnoside as novel compounds.

"The Aster glehni extract, the fraction thereof and the active compounds isolated therefrom according to the present invention are remarkably effective in reducing the serum uric acid level.

"Accordingly, the Aster glehni extract, the fraction thereof and the active compounds isolated therefrom according to the present invention can be effectively used as an active
ingredient to prepare a drug, health food, etc. for the treatment, prevention and improvement of hyperuricemia or gout.

"Specifically, the gout may include gouty arthritis, gouty renal disease and gouty nephrolithiasis."

For additional information on this patent, see: Kim, Hyoung Ja; Jin, Chang Bae; Son, Min Jeoung; Lee, Yong Sup; Yook, Chang Soo; Lee, Jae Yeol. Aster Glehni Extracts, Fractions Or Compounds Isolated Therefrom for the Treatment Or Prevention of Hyperuricemia Or Gout. U.S. Patent Number 9527879, filed May 20, 2015, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Pars er?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahmtl%2FPTG%2Fsrsnum.htm&r=1&f=G&l=50&s1= 9527879.PN.&OS=PN/9527879RS=PN/9527879

Keywords for this news article include: Hyperuricemia, Risk and Prevention, KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY.

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H. Lee Moffitt Cancer Center and Research Institute...

**Patent Issued for Bad Phosphorylation Determines Ovarian Cancer Chemo-Sensitivity and Patient Survival (USPTO 9528982)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Lancaster, Johnathan (Tampa, FL); Marchion, Douglas (Seminole, FL); Chen, Dung-Tsa (Tampa, FL), filed on August 26, 2013, was published online on December 27, 2016.

The assignee for this patent, patent number 9528982, is H. Lee Moffitt Cancer Center and Research Institute, Inc. (Tampa, FL).

Reporters obtained the following quote from the background information supplied by the inventors: "Ovarian cancer is the ninth most common cancer, and has the fifth highest mortality for cancers among women in the United States (American Cancer Society Statistics, 2012). As ovarian cancer symptoms tend to develop later in disease progression, most cases are advanced at diagnosis and have spread outside the ovary. Nearly all ovarian cancer patients receive a combination chemotherapy of cisplatin and/or carboplatin. Although the majority of patients with OVCA demonstrate remarkable sensitivity to platinum-based chemotherapy during primary therapy, the majority eventually develop platinum-resistant, recurrent disease (Baker, Salvage therapy for recurrent epithelial ovarian cancer. Hematol Oncol Clin North Am 2003; 17:977-988; Hansen, et al., New cytostatic drugs in ovarian cancer. Ann Oncol 1993; 4 Suppl 4:63-70).

"The development of chemoresistance dramatically affects survival for patients with cancer, and as such, targeted therapies that increase chemo-sensitivity offer the potential to significantly improve outcome. The clinical consequences of acquired chemoresistance are exemplified by the high mortality of patients with advanced-stage ovarian cancer (OVCA). Traditionally, resistance can only be determined retrospectively after patients have undergone therapy. Once platinum-resistance has developed, few active therapeutic options exist and patient survival is generally short-lived (Herrin and Thigpen, Chemotherapy for ovarian cancer: current concepts. Semin Surg Oncol 1999; 17:181-188). In this context, platinum resistance is frequently viewed as a surrogate clinical marker for more generic chemoresistance, and it is
likely that defining the molecular changes that drive the evolution of the platinum-resistant phenotype will contribute to a broader understanding of human cancer chemoresistance.

"Changes in cellular drug efflux, increased cellular glutathione levels, increased DNA repair, and drug tolerance have all been shown to contribute to platinum resistance (Godwin, et al., High resistance to cisplatin in human ovarian cancer cell lines is associated with marked increase of glutathione synthesis. Proc Natl Acad Sci USA 1992; 89:3070-3074; Johnson, et al., Increased platinum-DNA damage tolerance is associated with cisplatin resistance and cross-resistance to various chemotherapeutic agents in unrelated human ovarian cancer cell lines. Cancer Res 1997; 57:850-856; Johnson, et al., Relationship between platinum-DNA adduct formation and removal and cisplatin cytotoxicity in cisplatin-sensitive and -resistant human ovarian cancer cells. Cancer Res 1994; 54:5911-5916). More recently, genomic studies have defined gene expression signatures that may discriminate between cancers that are innately chemo-sensitive versus chemo-resistant (Benedetti, et al., Modulation of survival pathways in ovarian carcinoma cell lines resistant to platinum compounds. Mol Cancer Ther 2008; 7:679-687; Dressman, et al., An integrated genomic-based approach to individualized treatment of patients with advanced-stage ovarian cancer. J Clin Oncol 2007; 25:517-525; Jazaeri, et al., Gene expression profiles associated with response to chemotherapy in epithelial ovarian cancers. Clin Cancer Res 2005; 11:6300-6310). However, the genome-wide expression changes associated with the transition of a cancer cell from chemo-sensitive to chemo-resistant are less clear, and the discrete biologic pathways that drive the process are unknown.

"Outcomes for women with ovarian cancer could be improved by the identification of biomarkers capable of identifying resistant tumors and better therapies for treating them. Moreover, how these pathways influence clinical outcomes and their potential as therapeutic targets remain to be defined. As such, improved diagnostics are needed to identify likely chemotherapeutic-resistant cancers and novel targets for therapeutic approaches."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "Few clinical or biologic events impact patient outcome more than response to chemotherapy. A novel in vitro strategy and OVCA model identified the BAD-apoptosis pathway to be influential in the response shown in a range of human cancers to a variety of chemotherapies. Without being bound to any specific theory, BAD appears to function via modulation of BAD phosphorylation. BAD is a member of the BCL2 family of proteins, which are characterized by the presence of up to 4 BCL2-homology domains (Danial and Korsmeyer, Cell death: critical control points. Cell 2004; 116:205-219). This family includes inhibitors and promoters of apoptosis, such that cell survival versus death is determined by the relative ratio of pro-apoptotic (e.g., BCL-Xs, BAD, Bax, Bak) and anti-apoptotic (e.g., Bcl-2, Bcl-xL, MCL-1, A1, BAG-1) family members (Danial and Korsmeyer, Cell death: critical control points. Cell 2004; 116:205-219; Dejean, et al., Oligomeric Bax is a component of the putative cytochrome c release channel MAC, mitochondrial apoptosis-induced channel. Mol Biol Cell 2005; 16:2424-2432; Desagher, et al., Bid-induced conformational change of Bax is responsible for mitochondrial cytochrome c release during apoptosis. J Cell Biol 1999; 144:891-901; Kuwana, et al., Bid, Bax, and lipids cooperate to form supramolecular openings in the outer mitochondrial membrane. Cell 2002; 111:331-342). BAD selectively hetero-dimerizes with Bcl-xL and Bcl-2 but not with Bax, Bcl-xs, Mcl-1, A1, or itself. When BAD dimerizes with Bcl-xL, Bax is displaced, mitochondrial membrane permeability increases, and apoptosis is induced (Yang, et al., Bad, a heterodimeric partner for Bcl-XL and Bcl-2, displaces Bax and promotes cell death. Cell 1995; 80:285-291). However, BAD function is regulated by phosphorylation (including serine-112, -136, and -155). When phosphorylated, BAD is unable to heterodimerize with Bcl-2 or Bcl-xL, freeing Bcl-xL to
dimerize and functionally sequestrate Bax, such that it is no longer free to induce apoptosis (Yang, et al., Bad, a heterodimeric partner for Bcl-XL and Bcl-2, displaces Bax and promotes cell death. Cell 1995; 80:285-291). Thus, the phosphorylation status of BAD determines whether Bax is displaced from Bcl-XL to drive cell death. BAD is thought to be phosphorylated at serine-136 by protein kinase B (PKB/Akt) (del Peso, et al., Interleukin-3-induced phosphorylation of BAD through the protein kinase Akt. Science 1997; 278:687-689). In contrast, serine-112 is phosphorylated by mitogen-activated protein kinase-activated protein kinase-1 (MAPKAP-K1, also called RSK) and PKA. Serine-155, at the center of the BAD BH3 domain, is phosphorylated preferentially by PKA, which also inhibits Bcl-XL binding (Lizcano, et al., Regulation of BAD by cAMP-dependent protein kinase is mediated via phosphorylation of a novel site, Ser155. Biochem J 2000; 349:547-557; Tan, et al., BAD Ser-155 phosphorylation regulates BAD/Bcl-XL interaction and cell survival. J Biol Chem 2000; 275:25865-25869; Zhou, et al., Growth factors inactivate the cell death promoter BAD by phosphorylation of its BH3 domain on Ser155. J Biol Chem 2000; 275:25046-25051). Conversely, the activity of a series of phosphatases, including PP1, PP2A, and PPM1 (PP2C/PPM1A), as well as calcineurin, has been shown to have pro-apoptotic effects via dephosphorylation of BAD (Klumpp, et al., Protein phosphatase type 2C dephosphorylates BAD. Neurochem Int 2003; 42:555-560; Yang, et al., Calcineurin-mediated BAD Ser155 dephosphorylation in ammonia-induced apoptosis of cultured rat hippocampal neurons. Neurosci Lett 2004; 357:73-75).

"The BAD pathway was also identified to be independently associated with clinical outcome for many human cancers. Extensive validation of these findings (and the importance of the BAD pathway) was provided, with in vitro functional studies in addition to in vivo and in silico analyses of >800 patient specimens and/or datasets. Further validation of these findings is provided by the fact that many BAD pathway signature genes, including RAF1, BAD, GNG5, PPM1B, PPM1F, GNAS, PRKAR1A, BAX, PIK3CD, and PTPN11, have previously been reported to be associated with OVCA chemoresponse (Klumpp, et al., Protein phosphatase type 2C dephosphorylates BAD. Neurochem Int 2003; 42:555-560; Yang, et al., Calcineurin-mediated BAD Ser155 dephosphorylation in ammonia-induced apoptosis of cultured rat hippocampal neurons. Neurosci Lett 2004; 357:73-75). Consistently, levels of pBAD were found increased with OVCA cisplatin-resistance in both the cell lines and primary patient samples that were analyzed, and that pBAD protein levels are associated with poor overall survival from ovarian cancer. Further validation of the in vitro and in vivo findings provided by in silico analysis of genomic and chemosensitivity data from 60 cancer cell lines representing 9 tumor types and 8 different chemotherapeutics showed a similar representation of BAD-pathway genes associated with chemosensitivity, suggesting that the pathway may not only influence OVCA cell sensitivity to platinum but also influences many other cancer cell types to a range of different chemotherapeutic agents.

"As such, a method of determining clinical outcome or predicting clinical outcome of platinum-based cancer treatment, taxane cancer treatment, gemcitabine, or oxazophorine treatment was developed using a sample of a suspected or known cancer. Non-limiting examples of treatments include the clinical outcome is chemotherapeutic effect, wherein the chemotherapeutic is cisplatin, carboplatin, paclitaxel, gemcitabine, and cyclophosphamide. Further, non-limiting examples of cancers include cancer is ovarian cancer, colon cancers, malignant glioma, breast cancer, leukemia, melanoma, non-small cell lung cancer, central nervous system cancer, renal cancer, and prostate cancer. The phosphorylation level of a BCL2 antagonist of cell death pathway protein was determined in the sample, wherein the BCL2 antagonist of cell death pathway protein is BAD, Bax, BcL-XL, PP2C/PPM1A, AKT, EGFR, IRS-1, Shc, H-Ras, CDK1, G-protein alpha-s, G-protein beta/gamma, PI3K cat class 1A, c-Raf-
1, p90Rsk, MEK2 (MAP2K2), PKA-cat, PKA-reg or a combination thereof. Phosphorylation levels may be determined by any means known in the art, including immunofluorescence, Western blot, chip assay, and immunochemistry. The phosphorylation level of a BCL2 antagonist of cell death pathway protein in the sample was then compared to a median level of the phosphorylation level of a BCL2 antagonist of cell death pathway protein, and the responsiveness to treatment determined based on the level of phosphorylation. It is noted that an elevated level of phosphorylation of the BCL2 antagonist of cell death pathway protein in the sample compared to median levels indicates poor clinical outcome to the platinum-based treatment and a reduced level of phosphorylation of the BCL2 antagonist of cell death pathway protein in the sample compared to median levels indicates positive clinical outcome to the platinum-based treatment.

"One protein noted for its effect is BCL2 antagonist of cell death phosphorylation, which is optionally compared to median phosphorylated BCL2 antagonist of cell death as a cutoff for high/low categorization. In some variations, the BCL2 antagonist of cell death phosphorylation is detected on serine-112, serine-136, serine-155, or combinations thereof. Low levels of the serine-112 or serine-155 phosphorylation are indicative of superior survival. Alternatively, the BCL2 antagonist of cell death pathway protein is determined in a gene signature, using BAD, Bax, Bcl-XL, PP2C/PPM1A, AKT, EGFR, IRS-1, Shc, H-Ras, CDK1, G-protein alpha-s, G-protein beta/gamma, PI3K cat class 1A, c-Raf-1, p90Rsk, MEK2 (MAP2K2), PKA-cat, PKA-reg or a combination thereof; wherein the gene signature is determined by $\sigma_i$, where $x_i$ represents gene $i$ expression level and $w_i$ is the corresponding weight (loading coefficient) with $\sigma_i^2 = 1$. A BCL2 antagonist of cell death pathway signature score above the median value in all analyses indicates positive clinical outcome to the platinum-based treatment whereas a score below the median indicates poor clinical outcome to the platinum-based treatment.

"To support and further explore the clinical relevance of these findings, a 47-gene BAD-pathway signature was developed and evaluated. A panel of OVCA cell lines was subject to serial cisplatin-treatments and the induced cisplatin-resistance was quantified. In parallel, genome-wide expression changes were measured and genes with expression correlated with increasing cisplatin-resistance were analyzed for representation of biologic pathways. In light of the association between cisplatin-resistance and expression of BAD-pathway kinases and phosphatases, levels of phosphorylated-BAD protein were measured in both treated cell lines and also chemo-sensitive and chemo-resistant OVCA patient samples. BAD phosphorylation status was modified in vitro using targeted siRNA and phosphorylation-site mutagenesis strategies, and the impact on cisplatin-sensitivity measured. Expression of the BAD pathway was studied in a range of cancer cell types and the influence on sensitivity to a variety of chemotherapeutics measured. Finally, a BAD-pathway expression signature was developed and evaluated in treated cell lines and also datasets from 848 patients with a range of different tumor types, which was used to develop a method of determining clinical outcome or predicting clinical outcome of platinum-based cancer treatment, taxane cancer treatment, gemcitabine, or oxazophorine treatment. Non-limiting examples of treatments include chemotherapeutic is cisplatin, carboplatin, paclitaxel, gemcitabine, or cyclophosphamide. A sample of a suspected or known cancer was collected, such as by a biopsy or other means known. Examples of cancers include, without being bound to specific examples, ovarian cancer, colon cancers, malignant glioma, breast cancer, leukemia, melanoma, non-small cell lung cancer, central nervous system cancer, renal cancer, or prostate cancer. The phosphorylation level of a BCL2 antagonist of cell death pathway signature score was determined in the sample using the genes or proteins represented in Table 3, FIG. 5, or FIG. 9, wherein the BCL2 antagonist of cell death
pathway signature score is determined by $\Sigma_w x_i$, where $x_i$ represents gene $i$ expression level and $w_i$ is the corresponding weight (loading coefficient) with $\Sigma w_i^2 = 1$; where a BCL2 antagonist of cell death pathway signature score above the median value in all analyses indicates positive clinical outcome to the platinum-based treatment and a score below the median indicates poor clinical outcome to the platinum-based treatment. As discussed above, the phosphorylation level of a BCL2 antagonist of cell death pathway protein level may be detected by means known in the art, such as immunofluorescence. The BCL2 antagonist of cell death pathway signature score is optionally evaluated using a log-rank test.

"Testing of the signature in a panel of OVCA cells in which cisplatin-resistance was induced by serial treatments, along with 5 discrete clinical-genomic datasets obtained from 848 patients worldwide; it was demonstrated that a high BAD-pathway signature score is associated with favorable disease-free and/or survival in all tumor types examined. Importantly, analysis of OVCA genomic data and phospho-BAD protein levels from patients with advanced-stage disease suggested that the influence of the BAD pathway on overall survival may be more important than the volume of residual disease at the completion of primary surgery, typically one of the most important clinical determinants of outcome for patients with OVCA. Such findings could have substantial implications for future clinical treatment of patients with this disease.

"In addition to characterizing a mechanism by which human cancers develop resistance to chemotherapy, a pathway was identified that has significant clinical relevance as a potential biomarker of therapeutic response, overall patient survival, and also as a promising therapeutic target. In vitro manipulation of BAD-phosphorylation levels (by siRNA depletion of a BAD kinase or BAD phosphatase or by targeted mutagenesis of key BAD-phosphorylation sites) resulted in a corresponding change in cisplatin sensitivity, validating the findings and the importance of the BAD pathway. Further validation of the in vitro and in vivo findings is provided by in silico analysis of genomic and chemosensitivity data from 60 cancer cell lines representing 9 tumor types and 8 different chemotherapeutics showed of BAD-pathway genes associated with chemosensitivity, suggesting that the pathway may not only influence OVCA cell sensitivity to platinum but also influences many other cancer cell types to a range of different chemotherapeutic agents. Accordingly, a method of inducing apoptosis in chemotherapeutic-resistant cells was developed. Non-limiting examples of the cancers includes cancer cell is ovarian cancer, colon cancer, malignant glioma, breast cancer, tamoxifen-treated breast cancer, and combinations thereof. A cancer having chemotherapeutic resistance was identified and assayed to determine if the BCL2 antagonist of cell death is phosphorylated. The cancer was then transfected with a plasmid adapted to over-express non-phosphorylated BCL2 antagonist of cell death into a cancer with phosphorylated BCL2 antagonist of cell death, where the non-phosphorylated BCL2 antagonist of cell death causes the chemotherapeutic-resistant cancer cell to undergo apoptosis. In some variations, the non-phosphorylated BCL2 antagonist of cell death is non-phosphorylated BCL2 antagonist of cell death [S136A], non-phosphorylated BCL2 antagonist of cell death [S155A], or combinations thereof. The method is useful for chemotherapeutic-resistant cells to chemotherapeutics, such as carboplatin, paclitaxel, gemcitabine, cyclophosphamide, or cisplatin. In some variations, a chemotherapeutic is administering after the transfection. Examples of the chemotherapeutics includes carboplatin, paclitaxel, gemcitabine, cyclophosphamide, or cisplatin."

Keywords for this news article include: Antimetabolites, Antineoplastics, Serine, Taxoids, Genetics, Oncology, Terpenes, Cell Line, Cisplatin, Paclitaxel, Calcineurin, Carboplatin, Gemcitabine, Hydrocarbons, Breast Cancer, Cycloparaffins, Women's Health, Protein Kinases, Cyclophosphamide, Alkylating Agents, Mustard Compounds, Organic Chemicals, Chlorine Compounds.

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KUN SHAN UNIVERSITY

**Patent Issued for Biosensor Chip Having Precise Count Function and Method of Sensing Amount of Cells (USPTO 9528954)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventor Wu, Hung-Wei (Tainan, TW), filed on August 13, 2014, was published online on December 27, 2016.

The patent's assignee for patent number 9528954 is KUN SHAN UNIVERSITY (Tainan, TW).

News editors obtained the following quote from the background information supplied by the inventors: "The present invention generally relates to a biosensor chip and a method of sensing amount of cells, in particular with respect to a biosensor chip having precise count function and a sensing method."

"The purpose of cancer screening is aimed to detect cancer before the symptom is occurred. At present, the screening methods include medical imaging and indicator analysis of blood, urine . . . etc. Although medical imaging is of higher sensitivity towards cancer screening, it is still not suitable for detecting tumors of smaller than 0.1 cm (about 105 tumor cells). The conventional biomedical science indicators, such as prostate-specific antigen (PSA), cancer antigen 125 (CA-125), alpha-fetoprotein (AFP), human chorionic gonadotropin (HCG) and DR70, have been used as cancer marker on clinical detection; nonetheless, applying those detection methods to cancer screening still has various limitations, such as indirect determination on tumor cells counting, time-consuming blood sample separation or precision is interfered due to physical conditions (e.g. infection, inflammation or menstruation) and so on.

"Currently, many biologists focus on research into cancer cells, but numerous tumor cells (and/or cancer stem cells) are characterized of un-differentiated, resulting that is hard to distinguish from the differences. Therefore, as far as the biologists are concerned, the dielectric property of cell is regarded as one of significant tools which can be applied to count amount of cells. The known methods, however, are invasive and time-consuming, and cells necessitate to be separated from the growth surface, took out of cell culture vessel and stained before counted. As a result, how to reach purposes of low cost, high quality, low power-consumption and being able to detect less biological molecules becomes a problem of development of biosensor."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventor's summary information for this patent: "In view of the aforementioned problems of the conventional art, one purpose of the present invention is to provide a biosensor chip having precise count function and a method of sensing amount of cells
to detect amount of cells precisely.

"According to goal of the present invention, it provides a biosensor chip having precise count function comprising: a substrate; a plurality of ground wire waveguide layers located on two sides of the substrate; a signal waveguide layer located on the substrate and between the plurality of ground wire waveguide layers, wherein the signal waveguide layer has a recess which forms a cell sensing region; and a protective layer covering a portion of the ground wire waveguide layers and a portion of the signal waveguide layer to expose the recess.

"The aforementioned plurality of ground wire waveguide layers and the signal waveguide layer may be formed by stacking a first metal layer and a second metal layer. Wherein, the first metal layer and the second metal layer may be formed of Ni, Cr, Ti or Au, respectively.

"The aforementioned substrate may be a glass substrate.

"The aforementioned protective layer may be formed of SU-8 photoresist.

"Operating frequency band of the aforementioned biosensor chip having precise count function may be between 1 GHz and 40 GHz.

"In addition, the present invention further provides a method of sensing cell using the aforementioned biosensor chip having precise count function, wherein the cell may be placed in a culture medium, and the method of sensing cell may comprise: measuring the biosensor chip to obtain a cell scattering parameter .

"##EQU00001## and amount of the cells is obtained from the cell scattering parameter 

"##EQU00002##

"wherein the cell scattering parameter may be satisfied with following relations in order to remove the microwave parasitic effect of the culture medium and the substrate effectively:

".times..times..times..times. ##EQU00003## is a loaded scattering parameter obtained by measuring the biosensor chip injecting the cell and the culture medium;

"##EQU00004## is a medium scattering parameter obtained by measuring the biosensor chip only injecting the culture medium; and

"##EQU00005## is an unloaded scattering parameter obtained by measuring the biosensor chip not injecting the cell and the culture medium.

"The aforementioned method of sensing cell may further obtain a propagation constant .gamma.(f)=.alpha.(f)+j.beta.(f) from the cell scattering parameter 

".times. ##EQU00006## .alpha..function..times..times..function..times..+.times..times. ##EQU00006.2## .beta..function..times..times..function..times..+.times..times..times..- .pi..times..function. ##EQU00006.3## and wherein L is a length of the signal waveguide layer; .di-elect cons..sub.eff(f) is an effective dielectric constant; f is a frequency.

"The aforementioned method of sensing cell may further obtain a characteristic impedance

".function..times..times..pi..function..times..function.'function. ##EQU00007## from the effective dielectric constant .di-elect cons..sub.eff(f), and wherein K(x) is an elliptical integral of a first kind;

".times..times..times..function..pi..times..times..times..times..times..times..pi..function..times..times..times..times..times..times..times. ##EQU00008## s is a width of the signal waveguide layer; G is an interval between the ground wire waveguide layer and the signal waveguide layer;
and h is a thickness of the substrate.

"The aforementioned method of sensing cell may further obtain an equivalent resistance \( R(f) \) and an equivalent capacitance \( C(f) \) from relations of 
\[
\gamma(f) \times Z_0(f) = R(f) + j \omega L(f) \quad \text{and} \quad \frac{\gamma(f)}{Z_0(f)} = G(f) + j \omega C(f),
\]
wherein \( R(f) \) is a resistance, \( L(f) \) is an inductance, \( G(f) \) is a conductance, \( C(f) \) is a capacitance and \( \omega \) is an angular frequency.

"In accordance with the preceding description, according to a biosensor chip having precise count function and a method of sensing amount of cells of the present invention, there may have one or more advantages as follows:

"(1) The biosensor chip having precise count function is capable of detecting amount of cells precisely by a cell sensing region formed of a recess of the signal waveguide layer.

"(2) The biosensor chip having precise count function is capable of covering frequency band between 1 GHz and 40 GHz, and comparing with specific resonant peak measured by the conventional sensing chip, the biosensor chip is not only of higher sensitivity, but also has a wider frequency band and a continuous frequency response.

"(3) The biosensor chip having precise count function is capable of removing the microwave parasitic effect of the culture medium and the substrate effectively by the preceding scattering parameter relations so as to obtain a more precise amount of cells.

"Hereinafter, embodiments of the present invention will be described in detail with reference to the accompanying drawings so that those skilled in the art to which the present invention pertains can realize the present invention."


Keywords for this news article include: Cancer, Oncology, Biosensing, Bioengineering, Bionanotechnology, Nanobiotechnology, KUN SHAN UNIVERSITY, Diagnostics and Screening.

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cells, white blood cells, platelets and plasma. Although whole blood is useful, e.g., in blood replacement therapy during surgical procedures, individual blood components also have substantial utility in replacement therapies, coagulation therapy, wound healing and tissue regeneration, as described below.

"Red blood cells (RBCs) are flexible biconcave cells packed with hemoglobin which carry oxygen throughout the body. RBCs are the most dense whole blood component and thus can be readily separated from whole blood, e.g., by centrifugation or even by permitting settling under the force of gravity. Packed red cells can be transfused back into a donor patient (autologous transfusion) or transfused into a patient with a compatible blood type, e.g., having an appropriate A, B, AB, O and rh antigen type.

"White blood cells (WBCs) are a diverse array of cell types, e.g., lymphocytes, macrophages, and polymorphonuclear neutrophils (PMNs), which are primarily involved with immune responses and fighting infections. WBCs are generally somewhat less dense than RBCs and, together with platelets, form a white 'buffy coat' layer on top of RBCs during centrifugation of whole blood. Buffy coats can be a useful source of growth factors, blast cells and cytokines.

"Platelets are cell fragments shed into the blood stream by large megakaryocyte cells in the bone marrow. Platelets play an important role in coagulation of blood. When platelets contact damaged blood vessels, they aggregate and send chemical messages that can initiate the coagulation cascade. Patients with reduced peripheral blood platelet counts, e.g., patients with certain leukemias or sickle cell anemia, may require transfusions of platelets to help control bleeding episodes. Platelets settle through plasma more slowly than RBCs and WBCs due to their low density and small size. When whole blood is centrifuged, platelets can be found distributed in the plasma, in the buffy coat, and/or in the upper portion of the red cells, depending on the centrifugation time and centripetal forces involved.

"Plasma is a complex aqueous solution of proteins, lipids, small molecules and salts which acts as the transport medium for the other blood components. Plasma also contains elements necessary to the function of various biological systems, e.g., the coagulation cascade, the compliment cascade, hormones, buffers, nutrients, etc. Plasma can be stabilized with anticoagulants, e.g., citrate or heparin, for handling or storage. Plasma is the least dense of the blood components described here and presents as supernatant after centrifugation of whole blood.

"Plasma and/or platelets, in the absence of active anticoagulants, or in the presence of a catalyst, e.g. thrombin, can initiate coagulation or clotting to form a wound sealant or platelet gel useful to repair damaged tissues and to stop bleeding. Such wound sealants are generally more effective when they are concentrated and contain abundant platelets. Fibrin based wound sealants produced from pooled blood components have been available in Europe. Licensing of such products for use in the United States has been prolonged due to fear of disease transmission, though the first plasma-based fibrin sealant from pooled allogeneic sources was recently cleared. However, wound sealant preparations made from a patient's own (autologous) blood present minimal risk of disease transmission.

"Plasma can be harvested by filtration of blood directly from a patient. For example, in U.S. Pat. No. 4,498,983 to Bilsted, 'Pressure Cuff Draw Mode Enhancement System and Method for a Single Needle Blood Fractionation System', whole blood is drawn through a needle into an apparatus wherein the blood is treated with an anticoagulant and passed over a filter to remove some plasma. The plasma depleted blood is then reinfused into the patient along with some saline to make up the blood volume. Such filtered plasma will form a clot when exposed to thrombin. However, the concentration of fibrinogen in filtered plasma is too
low to act as an effective wound sealant.

"A plasma preparation can also be produced by centrifugation of whole blood (see, e.g., U.S. Pat. No. 3,145,713, 'Method and Apparatus for Processing Blood' and U.S. Pat. No. 4,151,844, 'Method and Apparatus for Separating Whole Blood into Its Components and for Automatically Collecting One Component'). Some platelets may remain in centrifuged plasma of these inventions to add some structure when it is clotted. However, without concentration, such plasma does not have the properties of an adequate fibrin glue.

"A fibrin glue wound sealant can be prepared by cryoprecipitation and centrifugation of plasma to concentrate fibrinogen. For example, a fibrin glue can be prepared by holding anticoagulated plasma in the cold to precipitate coagulation proteins, e.g., fibrinogen, followed by centrifugation to pellet and concentrate the cryoprecipitate. Just before application to a wound, thrombin is added to the cryoprecipitate to begin conversion of fibrinogen to fibrin whereby the fibrin glue clot is formed. The fibrin glue can stabilize surgical incisions and seal leaky blood vessels. Although such procedures can be helpful, they suffer from the time and effort required, the waste of disposed blood components, and the bulky equipment involved. Cryoprecipitated fibrin glues, particularly from autologous plasma, are not a practical solution to wound sealing on an emergency basis.

"In U.S. Pat. No. 5,585,007 to Antanavich, 'Plasma Concentrate and Tissue Sealant Methods and Apparatuses for Making Concentrated Plasma and/or Tissue Sealant', whole blood is separated by centripetal force and the plasma is concentrated by selective absorption of water. This device is an improvement over prior technology in that it both separates and concentrates plasma. Fifty (50) ml of whole blood is introduced into the top centrifugal chamber of the device, then the chamber is spun to sediment blood cells about the periphery of the chamber where they are captured, e.g., by a mat matrix. The rotation of the chamber is stopped, allowing liquid components of the blood to fall into a lower chamber where they are exposed to dehydrating beads which concentrate the liquid components to some extent.

"The Antanavich device lacks the flexibility required to accommodate different amounts of whole blood starting material, to adjust for variations in blood component proportions, or to control the character of concentrated products. For example, depending on the hematocrit of the whole blood, various amounts of liquid components remain trapped in the upper chamber and various proportions of water are removed by the dehydrating beads. Fine tuning the device to harvest special component mixtures, e.g., buffy coat, is not possible. In addition, many blood components, e.g. white blood cells, can not be collected or reinfused as they are lost in the device as waste material.

"There remains a need to provide an automated system to quickly and consistently separate and concentrate selected blood components in a single aseptically sealed instrument. Waste of blood components needs to be reduced by provision of technologies for high recovery and reconstitution of unselected blood components for reinfusion."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "The present invention provides an automated apparatus to consistently separate and/or concentrate blood components. The apparatus can include a separation disc, a concentrator and a control system to monitor and direct the flow of, e.g., blood and blood components, between containers. The apparatus can include a disposable component kit that is sterile, aseptically sealed and easily to load into the apparatus.

"In one aspect, the apparatus includes a whole blood container, a separation disc, a pump, a concentrator, a valve, a control system and detectors. Whole blood in the container can include blood components with differing densities and molecules with various molecular
weights. Blood, as used herein, can include, various suspensions of cells including, e.g., whole blood, other animal blood products, eukaryotic or prokaryotic cell culture fluids, and the like. The separation disc, mounted to rotate in the apparatus, has a first port in fluid communication with the whole blood container through a first conduit, and has a second port, e.g., near the disc axis of rotation. The pump can drive whole blood and blood components from the container through the first conduit to the separation disc and out the second port to the concentrator. The concentrator can have, e.g., an ultrafiltration membrane with a retentate side and permeate side and is in fluid communication with the second port of the separation disc through a second conduit. The valve can control, e.g., transfer of blood components through the second conduit. The control system can control, e.g., the pump, and the valve, to direct transfer of the blood between the container, the separation disc, and/or the concentrator. The detector can be connected to the control system and mounted on the apparatus in operative orientation to detect the fill level of the separation disc. In operation, for example:

"1) the control system directs the transfer of blood from the container to the separation disc,
"2) the separation disc rotates, creating a centripetal force which separates blood components in order of density,
"3) high density components accumulate at the periphery of the separation disc, and low density components, and/or intermediate density components, accumulate near the second port,
"4) the high density components accumulate to a level that triggers the detector which transmits a signal to the control system, and,
"5) the control system directs the valve to open allowing low density components and/or intermediate density components to flow from the separation disc outlet port into the concentrator and onto the retentate side of the membrane where the low molecular weight molecules pass through to the permeate side of the membrane, whereby the low density components and/or intermediate density components are concentrated into concentrated blood components.

"In a more basic form, the apparatus to produce concentrated blood components can comprises, e.g., a separation disc, a control system and a concentrator. The separation disc can receive blood through a first conduit and rotate, generating centripetal force, to separate the blood components according to density. The control system can direct operation of a first pump operably coupled to the first conduit to transfer blood and/or blood components to the separation disc. The separated blood components can include, e.g., plasma or buffy coat. The concentrator can receive separated blood components from the separation disc, through a second conduit, onto the retentate side of an ultrafiltration membrane. During operation of the apparatus, low molecular weight molecules in the blood components can be forced, by pressure, through the membrane to the permeate side of the membrane leaving the blood components concentrated on the retentate side. The concentrated blood components are a composition of the invention. The apparatus can automatically process, e.g., 100 to 500 ml of blood from a first container through the conduit and separation disc.

"The apparatus of the invention can have the separation disc, the centrifuge chamber, the concentrator, and the control system all within a bench top housing. The centrifuge chamber can be positioned within the apparatus on vibration isolation mounts. The separation disc can be rotatably mounted in the centrifuge chamber and locked into place with an iris-like chamber door. The iris door can be configured to center the separation disc, to comprise a port orienting keyway, to provide a mounting position for an RBC interface detector and/or to provide a force maintaining seal pressure on a rotary seal.
An RBC interface detector can be connected to the control system and mounted in operative orientation to the chamber in association with the separation disc to detect an RBC interface, buffy coat interface, or other interfaces. The control system can be connected to a junction valve which can direct separated components from the second conduit alternately to the concentrator or to a plasma container. The control system and RBC interface detector can be configured, e.g., to transfer low density components from the separation disc into the plasma container until the RBC interface is detected. The junction valve can then be switched to send selected blood components to a concentrator for concentration.

The control system can be in operatively connected (i.e., controlling power and/or receiving rotation rate information) with a drive motor that rotates the separation disc, and operatively connected (i.e., controlling actuation) to a valve operably coupled to the second conduit to direct the flow of separated components in the second conduit. The control system can set the separation speed to produce a force of about 2000.times.g during blood component separations. The control system can slow the rotation of the separation disc to produce a force between about 500.times.g and about 1000.times.g after detection of the RBC interface and direct opening of the valve to collect certain blood components. The composition of the blood components can be affected, e.g., by mounting the RBC level detector to trigger at a predetermined level of blood components in the separation disc. The control system can optionally pause separation and/or concentration operations to allow sampling of blood components before completion of processing. The control system can be operably connected to an air detector operatively coupled to the first conduit so that the pump will be stopped when air is detected in the first conduit.

The control system can be connected to an RBC detector on the second conduit to stop the first pump when RBCs are detected coming out of the separation disc. This mechanism can provide sharp resolution in the harvest of closely associated blood components, e.g., separated RBCs, WBCs and platelets. In addition, this mechanism can establish the end of a separation process pass and signal time to initiate transfer of depleted RBCs to a holding container. The control system can be connected to a junction valve operably coupled to the first conduit to direct transfer of residual blood components from the separation disc to an RBC holding container when the first pump is operated in reverse. Blood components, which were not sent to the concentrator, can be reconstituted by transferring separated components, to the RBC holding container, thereby reconstituting the residual blood component from the separation disc with separated components that were not received by the concentrator. Reconstituted components can be suitable for infusion into a patient or they can be further processed by the apparatus of the invention.

Concentrated blood components prepared by the apparatus of the invention are another aspect of the invention. The concentrated blood components can include growth factors present at levels 2-fold or more over peripheral blood levels. Concentrated growth factors of the invention can include, e.g., IGF, EGF at a concentration of about 100 pg/ml or more, FGF at a concentration of about 150 pg/ml or more, VEGF at a concentration of about 800 pg/ml or more, PDGF at a concentration of about 30 ng/ml or more, and/or TGF at a concentration of about 200 ng/ml or more.

The control system of the invention can be operably connected to detectors, e.g., pump turn counters, air detectors, optical array volume detectors and RBC detectors, to detect collection end points and to provide for calculation of component volumes. For example, the first pump can have a turn counter connected to the control system which can determine transferred blood volumes (V.sub.b) from the start of processing to the time air is detected in the first conduit. In another example, the volume of filtrate (V.sub.f) through the permeate side of the membrane can be detected by an optical array volume detector mounted to the holding
container and connected to the control system.

"The control system can receive an expected blood volume (V.sub.eb) from an operator interface and compare it to the determined blood volume (V.sub.b), then issue a notice to the operator if the expected and determined blood volumes do not match within about 30%, or more. The control system can calculate an expected separated blood component volume (V.sub.sce) by multiplying a separation factor, e.g., in the range of about 0.25 to about 0.4, times the lesser of the determined blood volume (V.sub.b) and the expected blood volume (V.sub.eb). A table or spreadsheet can be provided with an array of such calculations for ready reference by an operator. The control system can terminate separation processes by stopping the first pump when the volume of the separated components (V.sub.sc) equals the expected separated component volume (V.sub.esc). The control system can also terminate the concentration process when the volume of concentrated separated components (V.sub.csc) equals the volume of the separated components (V.sub.sc) multiplied by a concentration factor, e.g., about 0.2 to about 0.4.

"A disposable kit of the invention can include, e.g., the first conduit, the separation disc, the second conduit and/or the concentrator, which can all be loaded into the top of the apparatus. The first conduit and the second conduit can comprise peristaltic tubing. The disposable kit can be fabricated with one or more cassettes that guidedly mount, e.g., the conduit into valves, the conduit into detectors, and/or the conduit into pumps. Such cassettes can, e.g., firmly 'snap' conduit into functional association with valves, pumps and detectors in a fashion appreciated by those skilled in the art. The disposable kit components can be plastic and packaged in a sealed container, such as a plastic pouch or tray, and sterilized with gamma radiation.

"The separation disc can include a rotary seal, an inlet port, an outlet port, a keyway, a bowl, welded ribs and radial channels. The rotary seal can include a rubber seal spring which can be press-fitted into a graphite seal. The bowl can have an aspect ratio of 1 to 5, or less, to improve resolution of separated components. The inlet port and outlet port can be oriented in the same direction and a keyway can direct the pair of ports as the separation disc is loaded into the apparatus.

"The concentrator of the invention can be a tangential flow filter, e.g., a hollow fiber filter. The concentrator can have an ultrafiltration membrane with a molecular weight cut off of 2-150 kDa. A pressure gradient across the membrane can be provided by a fluid pump on the retentate side of the membrane or from a vacuum pump on the permeate side of the membrane. The concentrator can be part of a recirculating loop including the second conduit, a second pump operatively coupled to the conduit, and a second container. The control system can be connected to the pump to direct recirculation of separated components in the concentration loop.

"The present invention provides a method of producing concentrated blood components by processing blood with the apparatus of the invention. In one embodiment of the method, e.g., RBCs are detected in a separation disc at detection levels predetermined to provide a desired composition of separated blood components; separated components are collected from an outlet port proximate to the separation disc rotational axis until RBCs are detected in the collection stream; separated components are transferred to a concentrator; and, separated components are concentrated by ultrafiltration. Blood or blood components can be continuously loaded onto the separation disc while it is spinning. Separated components can be harvested in repeated milking cycles of collecting not more than about 10% of a separation disc volume and pausing collection for a time period before collecting again. In some embodiments, a pause in the cycle can allow the interface to stabilize between collections for improved resolution of blood components. The method of the invention can provide for the detection, collection, transfer, and concentration steps all in a single bench top instrument. The method provides a
control system for monitoring detection, directing collection, directing transfer, and/or directing concentration.

"The method of the invention additionally provides the steps of determining a total blood volume (V.sub.b) loaded onto the separation disc, monitoring a separated component volume (V.sub.sc), calculating an expected separated component volume (V.sub.sce), and ending collection of separated components when the separated component volume (V.sub.sc) equals the expected separated component volume (V.sub.sce). The expected separated component volume (V.sub.sce) can be calculated by multiplying the total blood volume (V.sub.b) by a separation factor. Collection of separated components volume (V.sub.sc) can be ended when an expected concentrated component volume (V.sub.cce) equals a monitored concentrated component volume (V.sub.cc). The expected concentrated component volume (V.sub.cce) can be calculated as the separated component volume (V.sub.sc) multiplied by a concentration factor. The concentrated component volume (V.sub.cc) can be calculated as the separated component volume (V.sub.sc) minus a concentrator filtrate volume (V.sub.f).

"Another aspect of the methods of the invention is manufacturing a disposable set by fabricating a separation disc coupled through a conduit to a concentrator. The manufacture of the disposable set can additionally include fabricating one or more cassettes configured to guidedly mount the disposable set to an apparatus. The method of the invention can further include the step of loading the disposable set into the apparatus.

"The present invention includes separated and concentrated blood components produced by the methods of the invention. Platelet poor plasma can be collected from the outlet port before the RBC interface is detected. Prothrombin in the platelet poor plasma can be converted into thrombin for use, e.g., in preparation of coagulated products of the invention. Concentrated blood components can be contacted with thrombin to prepare a fibrin gel, a wound sealant, and/or a bone graft substitute. The method can include isolating one or more growth factors, compliment cascade proteins and/or coagulation factors from the concentrated blood components."


Keywords for this news article include: Thrombin, Fibrinogen, Hematology, Blood Cells, Bioengineering, Blood Proteins, Peptide Hydrolases, Protein Precursors, Drugs and Therapies, Genetic Engineering, Risk and Prevention, Acute-Phase Proteins, Biomet Biologics LLC, Coagulation Modifiers, Enzymes and Coenzymes, Serine Endopeptidases, Biotechnology Companies.

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TECHNION RESEARCH AND DEVELOPMENT...

Patent Issued for Breath Analysis of Pulmonary Nodules (USPTO 9528979)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Haick, Hossam (Haifa, IL); Peled, Nir (Hod...
Hasharon, IL), filed on November 15, 2012, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9528979 is assigned to TECHNION RESEARCH AND DEVELOPMENT FOUNDATION LTD. (Haifa, IL).

The following quote was obtained by the news editors from the background information supplied by the inventors: "Lung cancer (LC) is the leading cause of cancer mortality with more than 1 million deaths worldwide every year. The recent National Lung Cancer Screening Trial (NLST) has proven that screening for lung cancer by low dose CT scans reduces the related mortality rate by 20%. Unfortunately, the false-positive rate was extremely high, with 96% of the 24% positive CT findings being non-cancerous. Retrospectively, individuals with false-positive findings underwent unnecessary invasive procedures that are costly and are associated with significant risks and increased mortality (N. Engl. J. Med. 2011; 365:395-409). Since low dose CT screening programs for lung cancer are expected to be launched in many countries in the near future, it is reasonable to expect a dramatic increase in the detection of small solitary pulmonary nodules (SPNs) as well as a dramatic increase in the invasive procedures, morbidity, mortality and health care costs.

"Volatile Organic Compounds (VOCs) are organic molecules characterized by a high vapor pressure at ordinary, room temperature conditions. These molecules evaporate from the cell and/or from the surrounding microenvironment and enter the bloodstream. Some VOCs are then secreted in exhaled breath through exchange via the lungs. VOCs that evaporate from the membrane of cancer cells induce changes in the blood chemistry. These changes are then reflected in the composition of VOCs in exhaled breath which can be used to diagnose cancer (Expert Rev. Mol. Diagn. 2011; 11: 207-217; memo 2010; 3: 106-112; J. Chromatog. B 2010; 878: 2643-2651; Lung Cancer 2010; 67: 227-231; Br. J. Cancer 2010; 103: 542-551; Nature Nanotech. 2009; 4: 669-673; BMC Cancer 2009; 9: 348; Clin. Chem. 1985; 31: 1278-1282; and Clin. Chem. Lab Med. 2009; 47: 550-560).


"WO 2007/086986 discloses a method for detecting a target analyte/biomarker in exhaled breath comprising: a) exposing to the exhaled breath a molecular recognition agent capable of selectively binding to the target analyte/biomarker, wherein the molecular recognition agent is linked with a signaling agent; and b) detecting a signal generated by the signaling agent.

"WO 2009/066293 to one of the inventors of the present invention discloses an
apparatus comprising at least one chemically sensitive sensor for detecting volatile and non-volatile compounds, wherein the chemically sensitive sensor comprises cubic nanoparticle conductive cores capped with an organic coating.

"WO 2010/079490 to one of the inventors of the present invention discloses a breath analyzer comprising an array of sensors of conductive nanoparticles capped with an organic coating for detecting cancer.

"WO 2009/144725 to one of the inventors of the present invention discloses sensor apparatuses comprising single-walled carbon nanotubes for measuring volatile organic compounds and methods of use thereof for determining breath analytes indicative of various cancers and, in particular, lung cancer.

"WO 2010/064239 to one of the inventors of the present application discloses a system comprising an array of sensors for measuring volatile organic compounds as biomarkers for diagnosis, prognosis and monitoring of renal insufficiencies.

In addition to the many studies that were aimed at identifying VOCs indicative of lung cancer from breath samples, Filipiak et al. (Cancer Cell Inter. 2008; 8: 17) disclosed a list of 60 substances observed in the headspace of medium as well as in the headspace of lung cancer cell line CALU-1. A significant increase in the concentrations of 4 VOCs and a decrease in the concentrations of 11 VOCs as compared to medium controls were detected after 18 hours. In another study, Chen et al. (Cancer 2007; 110: 835-844) identified 4 VOCs that were found to exist in all culture mediums of lung cancer cells and can be used as markers of lung cancer. Recent in vitro experiments of the headspace of cell lines identified three substances (decanal, acetaldehyde and 1,3-bis(1,1-dimethylethyl)-benzene) as main contributors to the separation between small cell and non-small cell lung cancer. Nine VOCs (two aldehydes, one alkane, two ketones, one alcohol and three benzene derivatives) showed differences between subtypes of non-small cell lung cancer of which 2-ethyl-1-hexanol, 1,3-dimethyl-benzene and 1,3-bis (1,1-dimethylethyl)-benzene were found at higher concentrations in the headspace of adenocarcinoma cell lines as compared to the headspace of squamous cell carcinoma cell lines (Nanomedicine (NBM) 2012; 8: 580-589).

"WO 2012/023138 to the inventors of the present invention discloses methods of diagnosing, prognosing or monitoring the treatment of pre-cancerous conditions of the lung e.g. bronchial dysplasia or atypical alveolar hyperplasia (AAH), or identifying a genetic alteration which is associated with lung cancer as a means of prognosing or monitoring the treatment or the recurrence of lung cancer, or predicting a patient's response and/or resistance to various treatment regimens.

"There remains an unmet need for a reliable biomarker assay technique for differentiating between benign nodules and malignant nodules in a non-invasive and cost-effective manner while dramatically reducing false-positive rates."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: "The present invention provides the use of 1-octene as a unique breath biomarker for lung cancer. The present invention further provides a system and methods for diagnosing, monitoring or prognosing lung cancer or differentiating between benign and malignant solitary pulmonary nodules, small cell and non-small cell lung cancer, adenocarcinoma and squamous cell carcinoma, and early and advanced stage lung cancer. The system and methods of the present invention can be used for predicting the responses to anti-cancer therapy (classical chemotherapy and/or targeted therapy).

"The present invention is based in part on the unexpected finding of a unique profile of
"VOCs for diagnosing lung cancer and the identification of 1-octene as a novel breath biomarker for lung cancer. Surprisingly, the use of a sensor array comprising at least one sensor comprising a random network of carbon nanotubes coated with polycyclic aromatic hydrocarbons and at least one sensor comprising film/assembly of metal nanoparticles coated with an organic coating, preferably thiols, in conjunction with a pattern recognition algorithm afforded the differentiation between benign and malignant solitary pulmonary nodules, small cell and non-small cell lung cancer, adenocarcinoma and squamous cell carcinoma, and early and advanced stage lung cancer.

"According to a first aspect, the present invention provides a set of volatile organic compounds as breath biomarkers for lung cancer, wherein the set comprises 1-octene.

"According to another aspect, the present invention provides a method of diagnosing, monitoring or prognosing lung cancer in a subject or predicting a patient's response to a treatment regimen, the method comprising the steps of: a) collecting a test breath sample from a test subject; b) determining the level of at least one volatile organic compound from a set of volatile organic compounds in the test sample, wherein the set of volatile organic compounds comprises 1-octene; and c) comparing the level of the at least one volatile organic compound from the test sample with the level of said at least one volatile organic compound in a control sample, whereby a significantly different level of said at least one volatile organic compound in the test sample as compared to the level of said compound in the control sample is indicative of lung cancer or provides the prediction of a patient's response to a treatment regimen.

"In one embodiment, the level of the at least one volatile organic compound in the test sample is increased as compared with the level of said compound in the control sample.

"In another embodiment, the level of the at least one volatile organic compound in the test sample is decreased as compared with the level of said compound in the control sample.

"In particular embodiments, the levels of a plurality of volatile organic compounds in the breath sample from a lung cancer patient form a pattern which is significantly different from the pattern of said volatile organic compounds in the control sample. According to further embodiments, the pattern is significantly different from a predetermined pattern of occurrence of volatile organic compounds in breath samples.

"According to various embodiments, the control sample may be obtained from a reference group comprising subjects that are not afflicted with lung cancer (negative control). In alternative embodiments, the control sample may be obtained from a population of patients known to be afflicted with lung cancer (positive control). The control sample, according to the principles of the present invention is obtained from at least one subject, preferably a plurality of subjects. A set of control samples may be stored as a reference collection of data.

"According to some embodiments, the step of determining the levels of volatile organic compounds in a sample comprises the use of at least one technique selected from the group consisting of Gas-Chromatography (GC), GC-lined Mass-Spectrometry (GC-MS), Proton Transfer Reaction Mass-Spectrometry (PTR-MS), Electronic nose device, and Quartz Crystal Microbalance (QCM). Each possibility represents a separate embodiment of the present invention.

"In a particular embodiment, the step of determining the levels of volatile organic compounds in a sample further comprises the use of a breath concentrator.

"In an exemplary embodiment, the step of determining the levels of volatile organic compounds in a sample comprises the use of Gas-Chromatography-Mass Spectrometry (GC-MS) combined with solid phase microextraction (SPME).

"In specific embodiments, solid phase microextraction comprises the use of extraction fibers coated with at least one polymer selected from the group consisting of
divinylbenzene, carboxen, polydimethylsiloxane and combinations thereof. Each possibility represents a separate embodiment of the present invention.

"In various embodiments, the test subject is selected from a subject who is at risk of developing lung cancer, a subject who is suspected of having lung cancer, and a subject who is afflicted with lung cancer. Each possibility represents a separate embodiment of the present invention.

"According to yet another aspect, the present invention provides a system for diagnosing, monitoring or prognosing lung cancer or stages or subtypes thereof in a subject or predicting a patient's response to a treatment regimen, the system comprising: (a) an apparatus comprising at least one sensor comprising single walled carbon nanotubes coated with polycyclic aromatic hydrocarbons, and at least one sensor comprising metal nanoparticles coated with an organic coating; (b) a detection means; and (c) a processing unit comprising a pattern recognition analyzer, wherein the pattern recognition analyzer receives sensor output signals and compares them to stored data so as to enable the diagnosis, monitoring or prognosis of lung cancer or stages or subtypes thereof or the prediction of a patient's response to a treatment regimen.

"In some embodiments, the polycyclic aromatic hydrocarbons are selected from arenes, polyarenes, and combinations thereof. Each possibility represents a separate embodiment of the present invention. In certain embodiments, the arenes or polyarenes are selected from the group consisting of naphthalene, acenaphthene, anthracene, phenanthrene, pyrene, benzo[a]pyrene, chrysene, fluoranthene, C_{18}-C_{180} graphenes and combinations thereof. Each possibility represents a separate embodiment of the present invention. In specific embodiments, the arenes or polyarenes are C_{18}-C_{180} graphenes, for example C_{42} graphene, C_{50} graphene and the like.

"In various embodiments, the arenes or polyarenes are substituted with hydrophobic or hydrophilic carbon chains and/or at least one functional group selected from the group consisting of ester, ether, alcohol, amine, imine, amide, ammonium, keto, aldehyde, halogen (halo), pyridyl, phosphate, thiol, sulfonate, sulfonyl, hydroxyl, carboxylate, carboxyl, and carbonate groups. Each possibility represents a separate embodiment of the present invention.

"In particular embodiments, the polycyclic aromatic hydrocarbons comprise hexa-peri-hexabenzocoronene (HBC) molecules, which are unsubstituted or substituted by any one of 2-ethyl-hexyl (HBC-C_{6,2}), 2-hexyldecane (HBC-C_{10,6}), 2-decyl tetradecane (HBC-C_{14,10}), and dodecane (HBC-C_{12}). Each possibility represents a separate embodiment of the present invention.

"In another embodiment, the single walled carbon nanotubes are organized in a random network configuration. In other embodiments, the single walled carbon nanotubes have diameters ranging from about 0.9 nanometer to about 5 nanometers, and lengths ranging from about 1 micrometer to about 50 micrometers.

"In further embodiments, the metal nanoparticles are selected from the group consisting of Au, Ag, Ni, Co, Pt, Pd, Cu, and Al nanoparticles and combinations thereof. Each possibility represents a separate embodiment of the present invention. In an exemplary embodiment, the metal nanoparticles are gold (Au) nanoparticles.

"In some embodiments, the organic coating of the metal nanoparticles comprises compounds selected from the group consisting of alkylthiols, arylthiols, alkylarylthiols, arylthiolates, omega-functionalized alkanethiolates, arenethiolates, (gamma-mercaptopropyl) tri-methyloxyisilane, dialkyl disulfides and combinations and derivatives thereof. Each possibility represents a separate embodiment of the present invention.

"In certain embodiments, the organic coating of the metal nanoparticles comprises
thiols.

"In particular embodiments, the organic coating of the metal nanoparticles comprises compounds selected from the group consisting of hexanethiol, 2-ethylhexanethiol, 3-methyl-1-butane thiol, octadecylamine, decanethiol, dodecanethiol, 2-mercaptobenzoxazole, 4-methoxy-tolu enethiol, tert-dodecanethiol, 2-amino-4-chlorobenzenethiol, 2-mercaptobenzimidazole, benzylmercaptan, 2-nitro-4-trifluoro-methylbenzenethiol, 2-naphthalenethiol, 2-nitro-4 trifluoro-methylbenzenethiol, and combinations thereof. Each possibility represents a separate embodiment of the present invention.

"In other embodiments, the metal nanoparticles have a morphology selected from a cubic, a spherical, and a spheroidal morphology. Each possibility represents a separate embodiment of the present invention.

"In certain embodiments, the at least one sensor is configured in a form selected from the group consisting of a capacitive sensor, a resistive sensor, a chemoresistive sensor, an impedance sensor, and a field effect transistor sensor. Each possibility represents a separate embodiment of the present invention.

"In some embodiments, the system comprises between 2 and 20 sensors, for example 8 sensors, 13 sensors, 18 sensors and the like. In other embodiments, the detection means comprises a device for measuring changes in resistance, conductance, alternating current (AC), frequency, capacitance, impedance, inductance, mobility, electrical potential, optical property or voltage threshold. Each possibility represents a separate embodiment of the present invention.

"In a further aspect, the present invention provides a method of diagnosing, monitoring or prognosing lung cancer or stages or subtypes thereof in a subject or predicting a patient's response to a treatment regimen, the method comprising the steps of: (a) providing a system comprising an apparatus comprising at least one sensor comprising single walled carbon nanotubes coated with polycyclic aromatic hydrocarbons, and at least one sensor comprising metal nanoparticles coated with an organic coating; a detection means; and a processing unit comprising a pattern recognition analyzer comprising at least one pattern recognition algorithm; (b) exposing the apparatus to a test exhaled breath sample; (c) measuring at least one response induced parameter from the apparatus upon exposure to the test sample to obtain a response pattern; and (d) analyzing the response pattern obtained in step (c) using a pattern recognition algorithm by comparing it to stored data obtained from a control sample whereby a significantly different response pattern of the test sample as compared the control sample is indicative of lung cancer or stages or subtypes thereof or provides the prediction of a patient's response to a treatment regimen.

"In some embodiments, the method of diagnosing, monitoring or prognosing lung cancer or stages or subtypes thereof in a subject or predicting a patient's response to a treatment regimen further enables the differentiation between subjects having benign solitary pulmonary nodules and subjects having malignant solitary pulmonary nodules. In other embodiments, the method enables the differentiation between subjects having small cell lung cancer and subjects having non-small cell lung cancer, and further enables the differentiation between subjects having non-small cell lung cancer in an early stage and subjects having non-small cell lung cancer in an advanced stage. In additional embodiments, the method enables the differentiation between subjects having adenocarcinoma and subjects having squamous cell carcinoma. In further embodiments, the method enables the differentiation between subjects having lung cancer and subjects having lung metastases.

"In certain embodiments, the method of diagnosing, monitoring or prognosing lung cancer or stages or subtypes thereof in a subject or predicting a patient's response to a treatment regimen is directed to prognosing a subject who is suspected of having lung cancer.
"In other embodiments, the method is directed to a subject having malignant solitary pulmonary nodules.

"The detected pattern can be analyzed using a pattern recognition analyzer which utilizes at least one pattern recognition algorithm. Suitable pattern recognition algorithms include, but are not limited to, artificial neural networks, multi-layer perceptron (MLP), generalized regression neural network (GRNN), fuzzy inference systems (FIS), self-organizing map (SOM), radial bias function (RBF), genetic algorithms (GAS), neuro-fuzzy systems (NFS), adaptive resonance theory (ART) and statistical methods including, but not limited to, principal component analysis (PCA), partial least squares (PLS), multiple linear regression (MLR), principal component regression (PCR), discriminant function analysis (DFA) including linear discriminant analysis (LDA), and cluster analysis including nearest neighbor. Each possibility represents a separate embodiment of the present invention. In an exemplary embodiment, the algorithm used to analyze the pattern is discriminant factor analysis (DFA).

"In certain embodiments, the response pattern is formed by the sensors detection of at least one volatile biomarker which is indicative of lung cancer or stages or subtypes thereof. In particular embodiments, the at least one volatile biomarker which is indicative of lung cancer or stages or subtypes thereof is 1-octene.

"In various embodiments, the test subject is a mammal, preferably a human.

"Further embodiments and the full scope of applicability of the present invention will become apparent from the detailed description given hereinafter. However, it should be understood that the detailed description and specific examples, while indicating preferred embodiments of the invention, are given by way of illustration only, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description."


Keywords for this news article include: Benzene, Genetics, Nanotube, Oncology, Cell Line, Algorithms, Adenocarcinoma, Lung Neoplasms, Nanotechnology, Organic Chemicals, Metal Nanoparticles, Risk and Prevention, Aromatic Hydrocarbons, Emerging Technologies, Molecular Recognition, Squamous Cell Carcinoma, Diagnostics and Screening, Non-Small Cell Lung Cancer.

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Patent number 9526800 is assigned to Massachusetts Institute of Technology (Cambridge, MA).

The following quote was obtained by the news editors from the background information supplied by the inventors: "Despite extensive study, cancer, and particularly the process of metastasis, remain major causes of illness and mortality. Prior indications suggest that changes in extracellular matrix (ECM) proteins may play significant roles in cancer progression and metastasis. The field of proteomics involves the study of proteins in complex physiological systems and their role in these systems. Large data sets have been generated using genomic and proteomic methods, but the use of that information to identify the role of extracellular matrix (ECM) proteins in disease has been limited. This is because the ECM is insoluble and crosslinked and its composition has been difficult to determine."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: "The invention in some aspects is a method involving administering to a subject having a tumor a binding reagent which interacts specifically with an extracellular matrix (ECM) protein, wherein the binding reagent is conjugated to an active agent in an effective amount to deliver the active agent to the tumor. The active agent may be or include a detectable label or a chemotherapeutic agent. The tumor may be, in some embodiments, metastatic.

"In some embodiments the ECM protein is a protein selected from an ECM protein signature characteristic of non-metastatic mammary carcinoma, an ECM protein signature characteristic of metastatic mammary carcinoma, an ECM protein signature characteristic of mammary carcinoma, an ECM protein signature characteristic of metastatic primary colon carcinoma, an ECM protein signature characteristic of colon carcinoma metastases, an ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary), and an ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer.

"In other embodiments the ECM protein is an ECM protein characteristic of metastatic tumors and is selected from an ECM protein signature characteristic of metastatic mammary carcinoma, an ECM protein signature characteristic of metastatic primary colon carcinoma, an ECM protein signature characteristic of colon carcinoma metastases, an ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary), and an ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer.

"The binding reagent in other embodiments is an antibody or an antibody fragment. The tumor in some embodiments is a tumor of the breast. The ECM protein may be selected from an ECM protein signature characteristic of metastatic mammary carcinoma. In some embodiments the ECM protein signature characteristic of metastatic mammary carcinoma is selected from subgroup 2A, subgroup 2B, and subgroup 2C.

"In other embodiments the ECM protein is selected from an ECM protein signature characteristic of non-metastatic mammary carcinoma. In some embodiments the ECM protein signature characteristic of non-metastatic mammary carcinoma is a protein selected from subgroup 1A, subgroup 1B, and subgroup 1C.

"In some embodiments the ECM protein is a selected from an ECM protein signature characteristic of mammary carcinoma. In other embodiments the ECM protein signature characteristic of mammary carcinoma is a protein selected from subgroup 3A, subgroup 3B, and subgroup 3C.

"The tumor may be a tumor of the colon. In some embodiments the ECM protein is
selected from an ECM protein signature characteristic of metastatic primary colon carcinoma. In other embodiments the ECM protein signature characteristic of metastatic primary colon carcinoma is a protein selected from subgroup 4A, subgroup 4B, and subgroup 4C. In yet other embodiments the ECM protein is selected from an ECM protein signature characteristic of colon carcinoma metastases and optionally the ECM protein signature characteristic of colon carcinoma metastases is a protein selected from subgroup 5A, subgroup 5B, and subgroup 5C. The ECM protein in other embodiments is selected from an ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary). In some embodiments the ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary) is a protein selected from subgroup 6A, subgroup 6B, and subgroup 6C. In yet other embodiments the ECM protein is selected from an ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer. In some embodiments the ECM protein whose expression is associated with colon cancer or metastatic colon cancer is a protein selected from subgroup 7A, subgroup 7B, and subgroup 7C.

"A composition of a binding reagent which interacts specifically with an extracellular matrix (ECM) protein, wherein the binding reagent is conjugated to an active agent is provided according to other aspects of the invention. The ECM protein may be a protein characteristic of cancers. In some embodiments the binding reagent is an antibody, and optionally is selected from the group consisting of a monoclonal antibody, a polyclonal antibody, a chimeric antibody, a humanized antibody, a human antibody, and an antibody fragment. In some embodiments the active agent is a detectable label or a chemotherapeutic agent.

"In other embodiments the ECM protein is selected from an ECM protein signature characteristic of metastatic mammary carcinoma. In some embodiments the ECM protein signature characteristic of metastatic mammary carcinoma is selected from subgroup 2A, subgroup 2B, and subgroup 2C. In other embodiments the ECM protein is selected from an ECM protein signature characteristic of non-metastatic mammary carcinoma. In some embodiments the ECM protein signature characteristic of non-metastatic mammary carcinoma is a protein selected from subgroup 1A, subgroup 1B, and subgroup 1C. The ECM protein is selected from an ECM protein signature characteristic of mammary carcinoma in some embodiments. In other embodiments the ECM protein signature characteristic of mammary carcinoma is a protein selected from subgroup 3A, subgroup 3B, and subgroup 3C.

"The ECM protein is selected from an ECM protein signature characteristic of metastatic primary colon carcinoma. In some embodiments the ECM protein signature characteristic of metastatic primary colon carcinoma is a protein selected from subgroup 4A, subgroup 4B, and subgroup 4C. In various embodiments the ECM protein is selected from an ECM protein signature characteristic of colon carcinoma metastases. In some embodiments the ECM protein signature characteristic of colon carcinoma metastases is a protein selected from subgroup 5A, subgroup 5B, and subgroup 5C. The ECM protein, in some embodiments, is selected from an ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary). In some embodiments the ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary) is a protein selected from subgroup 6A, subgroup 6B, and subgroup 6C. In other embodiments the ECM protein is selected from an ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer. In some embodiments the ECM protein whose expression is associated with colon cancer or metastatic colon cancer is a protein selected from subgroup 7A, subgroup 7B, and subgroup 7C.

"A method is provided, in aspects of the invention, for determining the presence or absence of one or more ECM proteins characteristic of metastatic carcinoma in a tumor and determining whether the cancerous tissues are metastatic based on the presence or absence of
one or more ECM proteins characteristic of metastatic carcinoma. The method may further comprise treating a subject whose tumor expresses one or more of the ECM proteins characteristic of metastatic carcinoma as identified herein with an anti-cancer agent, optionally any one of the compositions described herein. The presence of one or more of the ECM protein characteristic of metastatic carcinoma in the tumor indicates that the tumor is metastatic, in some embodiments. Two or more ECM protein characteristic of metastatic carcinoma may be detected in the tumor. Optionally, five or more ECM protein characteristic of metastatic carcinoma are detected in the tumor.

"In some embodiments the cancer is breast cancer and the ECM protein is selected from an ECM protein signature characteristic of metastatic mammary carcinoma. In some embodiments the ECM protein signature characteristic of metastatic mammary carcinoma is selected from subgroup 2A, subgroup 2B, and subgroup 2C.

"In other embodiments the tumor is a tumor of the colon. The ECM protein is selected from an ECM protein signature characteristic of metastatic primary colon carcinoma in some embodiments. In some embodiments the ECM protein signature characteristic of metastatic primary colon carcinoma is a protein selected from subgroup 4A, subgroup 4B, and subgroup 4C. In other embodiments the ECM protein is selected from an ECM protein signature characteristic of colon carcinoma metastases. In some embodiments the ECM protein signature characteristic of colon carcinoma metastases is a protein selected from subgroup 5A, subgroup 5B, and subgroup 5C. The ECM protein, in other embodiments, is selected from an ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary). In some embodiments the ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary) is a protein selected from subgroup 6A, subgroup 6B, and subgroup 6C. In other embodiments the ECM protein is selected from an ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer. In some embodiments the ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer is a protein selected from subgroup 7A, subgroup 7B, and subgroup 7C.

"Optionally, the method may involve determining whether an ECM protein characteristic of non-metastatic carcinoma is present in the tumor. In some embodiments the presence of one or more of the ECM proteins characteristic of non-metastatic carcinoma in the tumor indicates that the tumor is not metastatic. In other embodiments the ECM protein is selected from an ECM protein signature characteristic of non-metastatic mammary carcinoma. In some embodiments the ECM protein signature characteristic of non-metastatic mammary carcinoma is a protein selected from subgroup 1A, subgroup 1B, and subgroup 1C.

"Optionally, the tumor may be an isolated tumor sample from a subject.

"In some embodiments a level of expression of the ECM protein characteristic of metastatic carcinoma is measured and is at least twice a baseline level.

"In other embodiments the ECM protein characteristic of metastatic carcinoma is detected by immunohistochemistry.

"The method may be a method of tracking the progression of a tumor to a metastatic state by measuring the presence or absence of one or more ECM protein characteristic of metastatic carcinoma in the tumor over time.

"Alternatively, the method may involve determining whether or not a subject has metastatic cancer comprising, determining the presence or absence of a signature of ECM proteins whose expression is associated with metastatic cancer in an isolated tissue sample from a subject and determining whether the subject has metastatic cancer based on the presence or absence of the signature of ECM proteins, such that when the signature of ECM proteins is present in the isolated tissue sample the subject has metastatic cancer.
"A method for monitoring progression of a tumor to a metastatic state is provided in other aspects of the invention. The method involves measuring the presence or absence of a signature of ECM proteins in tissue samples isolated from the subject at a first time point and a second time point and determining the progression of the tumor to a metastatic state based on changes in the presence or absence of the signature of ECM proteins at the first and second time points. The method may also involve treating a subject having a signature of ECM proteins as identified herein with an anti-cancer agent, optionally any one of the compositions described herein.

"In some embodiments the cancer is colon cancer. The signature of ECM proteins, in some embodiments, includes at least 2, at least 5, at least 10, at least 15, at least 20, at least 25, at least 30 or all of the proteins selected from an ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer. In some embodiments the ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer is a protein selected from subgroup 7A, subgroup 7B, and subgroup 7C. In other embodiments the signature of ECM proteins includes at least 2, at least 5, at least 10, at least 15, at least 20, at least 25, at least 30 or all of the proteins selected from an ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary). In some embodiments the ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary) is a protein selected from subgroup 6A, subgroup 6B, and subgroup 6C. In yet other embodiments the signature of ECM proteins includes at least 2, at least 5, at least 10, at least 15, at least 20, at least 25, at least 30 or all of the proteins selected from an ECM protein signature characteristic of colon carcinoma metastases. In some embodiments the ECM protein signature characteristic of colon carcinoma metastases is a protein selected from subgroup 5A, subgroup 5B, and subgroup 5C. In other embodiments the signature of ECM proteins includes at least 2, at least 5, at least 10, at least 15, at least 20, at least 25, at least 30 or all of the proteins selected from an ECM protein signature characteristic of metastatic primary colon carcinoma. In some embodiments the ECM protein signature characteristic of metastatic primary colon carcinoma is a protein selected from subgroup 4A, subgroup 4B, and subgroup 4C.

"Alternatively, the cancer may be breast cancer. In some embodiments the signature of ECM proteins includes at least 2, at least 5, at least 10, at least 15, at least 20, at least 25, at least 30 or all of the proteins selected from the group consisting of an ECM protein signature characteristic of metastatic mammary carcinoma. In other embodiments the ECM protein signature characteristic of metastatic mammary carcinoma is selected from subgroup 2A, subgroup 2B, and subgroup 2C.

"In yet other embodiments the signature of ECM proteins includes at least 5, at least 15, or at least 30 of the selected proteins.

"The signature of ECM proteins may be a signature characteristic of metastatic carcinoma. In some embodiments when one or more of the ECM proteins characteristic of the signature of metastatic carcinoma is present at a higher level in the isolated tissue samples from the second time point the tumor has progressed to a metastatic state. In other embodiments when the signature of ECM protein characteristic of metastasis is present at a lower level in the isolated tissue samples from the second time point the tumor has regressed to a less metastatic state.

"The method may further comprise the step of determining a level of expression of a signature of primary ECM proteins in the isolated tissue samples and comparing the levels of the signature of primary ECM proteins to the levels of a signature of metastasis ECM proteins.

"In some embodiments the method involves administering a chemotherapeutic agent to the subject before the tissue sample is isolated from the subject at the second time point."
In other embodiments the proteins may be detected using one or more antibodies that specifically bind to the proteins using a mass spectrometry method and/or a chromatographic method or an immunohistochemical technique. The proteins are analyzed using a quantitative ELISA in other embodiments.

A kit is provided in other aspects of the invention. The kit includes a set of binding reagents which interacts specifically with a signature of ECM proteins whose expression is associated with metastatic colon or breast cancer; a set of reagents for performing an immunohistochemistry reaction using the set of binding reagents; and instructions for performing the immunohistochemistry reactions.

In some embodiments the set of binding reagents interacts specifically with at least 2, at least 5, at least 10, at least 15, at least 20, at least 25, at least 30 or all of the proteins selected from an ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer. In some embodiments the ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer is a protein selected from subgroup 7A, subgroup 7B, and subgroup 7C.

In some embodiments the set of binding reagents interacts specifically with at least 2, at least 5, at least 10, at least 15, at least 20, at least 25, at least 30 or all of the proteins selected from an ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary), and instructions include instructions for identifying the presence of ECM proteins characteristic of metastatic colon carcinoma (primary and secondary). In some embodiments the ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary) is a protein selected from subgroup 6A, subgroup 6B, and subgroup 6C.

In some embodiments the set of binding reagents interacts specifically with at least 2, at least 5, at least 10, at least 15, at least 20, at least 25, at least 30 or all of the proteins selected from an ECM protein signature characteristic of colon carcinoma metastases, and wherein the instructions include instructions for identifying the presence of ECM proteins characteristic of colon carcinoma metastases. In some embodiments the ECM protein signature characteristic of colon carcinoma metastases is a protein selected from subgroup 5A, subgroup 5B, and subgroup 5C.

The set of binding reagents interacts specifically with at least 2, at least 5, at least 10, at least 15, at least 20, at least 25, at least 30 or all of the proteins selected from an ECM protein signature characteristic of metastatic primary colon carcinoma, and wherein the instructions include instructions for identifying the presence of ECM protein characteristic of metastatic primary colon carcinoma in other embodiments. In some embodiments the ECM protein signature characteristic of metastatic primary colon carcinoma is a protein selected from subgroup 4A, subgroup 4B, and subgroup 4C.

In yet other embodiments the set of binding reagents interacts specifically with at least 2, at least 5, at least 10, at least 15, at least 20, at least 25, at least 30 or all of the proteins selected from an ECM protein signature characteristic of metastatic mammary carcinoma and wherein the instructions include instructions for identifying the presence of ECM protein characteristic of metastatic mammary carcinoma. In some embodiments the ECM protein signature characteristic of metastatic mammary carcinoma is selected from subgroup 2A, subgroup 2B, and subgroup 2C.

In some embodiments the set of binding reagents interacts specifically with at least 2, at least 5, at least 10, at least 15, at least 20, at least 25, at least 30 or all of the proteins selected from an ECM protein signature characteristic of mammary carcinoma, and wherein the instructions include instructions for identifying the presence of ECM protein characteristic of mammary carcinoma. In some embodiments the ECM protein signature characteristic of
mammary carcinoma is a protein selected from subgroup 3A, subgroup 3B, and subgroup 3C.

"The set of binding reagents interacts specifically with at least five, at least fifteen, or at least thirty of the selected proteins, in some embodiments.

"In other aspects the invention is a method, involving administering to a subject having a tumor an extracellular matrix (ECM) protein inhibitor, wherein the ECM protein inhibitor is an inhibitor of a protein selected from any of the proteins of an ECM protein signature characteristic of non-metastatic mammary carcinoma, an ECM protein signature characteristic of metastatic mammary carcinoma, an ECM protein signature characteristic of mammary carcinoma, an ECM protein signature characteristic of metastatic primary colon carcinoma, an ECM protein signature characteristic of colon carcinoma metastases, an ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary), and an ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer.

"In some embodiments the ECM protein is characteristic of metastatic carcinoma and is selected from an ECM protein signature characteristic of metastatic mammary carcinoma, an ECM protein signature characteristic of metastatic primary colon carcinoma, an ECM protein signature characteristic of colon carcinoma metastases, an ECM protein signature characteristic of metastatic colon carcinoma (primary & secondary), and an ECM protein signature whose expression is associated with colon cancer or metastatic colon cancer.

"This invention is not limited in its application to the details of construction and the arrangement of components set forth in the following description or illustrated in the drawings. The invention is capable of other embodiments and of being practiced or of being carried out in various ways. Also, the phraseology and terminology used herein is for the purpose of description and should not be regarded as limiting. The use of 'including,' 'comprising,' or 'having,' 'containing,' 'involving,' and variations thereof herein, is meant to encompass the items listed thereafter and equivalents thereof as well as additional items."


Keywords for this news article include: Antibodies, Genetics, Oncology, Peptides, Carcinomas, Immunology, Proteomics, Amino Acids, Colon Cancer, Breast Cancer, Blood Proteins, Women's Health, Immunoglobulins, Gastroenterology, Metastatic Cancer, Massachusetts Institute of Technology.

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Patents
Patent Issued for Chemical Induction of Lactation in Male Non-Human Mammals (USPTO 9526756)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventor Erickson, Jeffrey P. (East Woodstock, CT), filed on May 26, 2015, was published
online on December 27, 2016.

The patent's assignee for patent number 9526756 is Erickson; Jeffrey P. (East Woodstock, CT).

News editors obtained the following quote from the background information supplied by the inventors: "The therapeutic protein market is estimated to surpass $90 billion by 2010. Anonymous. 'Therapeutic Proteins: Research Report' Lead Discovery Ltd. (2005). Therapeutic proteins such as hormones, enzymes, peptides and antibiotics for use in disease therapy have been extracted from human plasma, animal tissues, or produced by recombinant DNA technology. These proteins are used to treat various cancers, heart attacks, stroke, cystic fibrosis, Gaucher's disease, diabetes, anemia and hemophilia. It is important that such products are free of blood-borne pathogens derived from human and animal tissues, thereby making manufacturing costs and capacity concerns that affect the successful commercialization of the therapeutic protein market.

"Presently, an inadequate protein supply and viral safety concerns surrounding plasmid-derived proteins have led to the development of recombinant production of therapeutic proteins. While genetically engineered plants, bacteria and yeast are adequate for producing simple mammalian proteins, they lack the cellular machinery to perform the complex protein glycosylation, carboxylation, assembly of subunits and folding (post-translational modification (PTM)), for biological activity.

"Consequently, it is a long felt need in the art to develop technology such that large amounts of transgenic proteins may be economically collected and processed from non-human transgenic mammals."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventor's summary information for this patent: "The present invention is related to the field of transgenic animals. Specifically, the invention is related to the expression of transgenic proteins in the milk of mammals. Lactation inducers have been utilized to optimize the production and collection of milk from transgenic mammals. It is contemplated that lactation may be induced in either male or female swine using a combination of a non-17.beta. estradiol, domperidone and oxytocin.

"In one embodiment, the present invention contemplates a method, comprising: a) providing; i) a first composition comprising an estrogen compound, wherein said first composition is a pharmaceutically acceptable formulation; ii) a second composition comprising a dopaminergic antagonist, wherein said second composition is a pharmaceutically acceptable formulation; iii) a third composition comprising oxytocin, wherein said third composition is a pharmaceutically acceptable formulation; iii) a non-pregnant mammal; b) administering a single dose of said first composition to said mammal; c) administering a single dose of said second composition to said mammal; and d) administering a single dose said third composition to said mammal. In one embodiment, the estrogen compound is long acting. In one embodiment, the third composition is administered on a daily basis after administering the second composition.

"In one embodiment, the present invention contemplates a method for inducing lactation in non-pregnant animals by administering a combination of estradiol, domperidone, and oxytocin. In one embodiment, the estradiol is not a 17.beta.-estradiol. In one embodiment, the combination of estradiol, domperidone, and oxytocin is administered to the mammal sequentially. In one embodiment, the combination of estradiol, domperidone, and oxytocin is administered to the mammal simultaneously. In one embodiment, the sequential administration comprises a separation of at least one hour. In one embodiment, the sequential administration comprises a separation of at least six hours. In one embodiment, the sequential administration comprises a separation of at least twelve hours. In one embodiment, the sequential
administration comprises a separation of at least one day. In one embodiment, the sequential administration comprises a separation of at least three days. In one embodiment, the sequential administration comprises a separation of at least seven days. In one embodiment, the sequential administration comprises a separation of at least fourteen days. In one embodiment, the method further comprises an administration of a pharmaceutically acceptable formulation comprising altrenogest. In one embodiment, the estradiol is long acting.

“In one embodiment, the present invention contemplates a method, comprising: a) providing; i) a first composition comprising a non-17.beta. estradiol, wherein said first composition is a pharmaceutically acceptable formulation; ii) a second composition comprising domperidone, wherein said second composition is a pharmaceutically acceptable formulation; iii) a third composition comprising oxytocin, wherein said third composition is a pharmaceutically acceptable formulation; iii) a non-pregnant mammal; b) administering a single dose of said first composition to said mammal; c) administering a single dose of said second composition to said mammal; d) administering a single dose said third composition to said mammal. In one embodiment, the method further comprises step (e) collecting a commercially viable volume of milk from said mammal. In one embodiment, the second composition is administered fourteen days after said first composition. In one embodiment, the third composition is administered twenty-four hours after said second composition. In one embodiment, the third composition is administered on a daily basis after said second composition. In one embodiment, the first composition is administered orally. In one embodiment, the second composition is administered orally. In one embodiment, the third composition is administered parenterally. In one embodiment, the parenteral administration comprises an intramuscular injection. In one embodiment, the oral administration comprises a gel. In one embodiment, the milk is collected on the same day as said oxytocin administration. In one embodiment, the non-pregnant mammal is a female. In one embodiment, the non-pregnant mammal is a male. In one embodiment, the female mammal is nulliparous. In one embodiment, the female mammal has not been pregnant for at least six months. In one embodiment, the female mammal has not been pregnant for at least twelve months. In one embodiment, the female mammal has delivered at least one litter. In one embodiment, the female mammal is a virgin. In one embodiment, the female mammal is prepubertal. In one embodiment, the non-17.beta. estradiol is long acting.”


Keywords for this news article include: Patents, Oxytocin, Estradiol, Estrogens, Technology, Amino Acids, Estrogen, Sex Hormones, Vaginal Agents, Peptide Hormones, Peptide Proteins, Oxytocic Agents, Drugs and Therapies, Vaginal Preparations, Utero Tone Agents, Hormone Replacement Therapy, Posterior Pituitary Hormones.

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Siemens PLC

Patent Issued for Combined MRI and Radiation Therapy System (USPTO 9526918)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventor Kruip, Marcel (Oxfordshire, GB), filed on November 12, 2013, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9526918 is assigned to Siemens PLC (Camberley, GB).

The following quote was obtained by the news editors from the background information supplied by the inventors:

"Field of the Invention"

"The present invention relates to combined MRI and radiation therapy equipment.

"Description of the Prior Art"

"Certain examples of combined MRI and radiation therapy equipment are known, but suffer from certain drawbacks. The present invention addresses at least some of those drawbacks.

"Radiation therapy typically uses gamma radiation, or similar, to target cancerous tissues in a patient. Such radiation may be generated either using an electron beam generated by an accelerator and aimed at a suitable target, or a radiation source containing a suitable radioactive isotope, such as cobalt-60.

"The use of a cobalt-60 source involves difficulties in storage, and prevention of over-exposure by operators. Screening of such sources can only be achieved by significant amounts of dense material such as lead or tungsten. Such sources are simple and are not affected by magnetic fields such as would be encountered in a combined MRI and radiation therapy system. The radiation produced is however of relatively low energy, and cannot be intensity-modulated.

"Radiation generation by electron beam acceleration onto a suitable target has the advantages of being able to produce higher-energy photons, and may be intensity modulated.

"The accelerators required to produce an electron beam, typically linear accelerators, are very sensitive to transverse magnetic fields, which makes their incorporation into MRI equipment difficult. The magnetic field deflects the path of the electron beam within the accelerators, destroying the efficacy of such radiation sources.

"An example arrangement which allows a linear electron accelerator (LINAC) to be built into an MRI system and used for combined MRI and radiation therapy is known from WO2003008986 and uses a radially-aligned LINAC. The LINAC and its associated target are arranged to project a radiation beam through an aperture or transparent window in a cryostat, between coils of a superconducting MRI magnet. The radially-aligned LINAC is arranged on the mid-plane of the magnet, and requires a lot of space around the magnet, making it impractical for many installations. The magnetic field of the main magnet is transverse to the LINAC, and interferes with the electron beam path. Only relatively low main magnet field strength (flux density) can be tolerated.

"A more compact arrangement of combined MRI and radiation therapy equipment is described in US Patent publication US2011/0213239A1, International Patent publication WO2012049466 and UK Patent GB2484529. In this arrangement, the linear accelerator (LINAC) is arranged parallel to the axis of the magnet and is situated between gradient coils and the main magnet field coils of an MRI system. Beam steering arrangements are provided to
deflect the generated electron beam from an axial path, parallel to the axis of the magnet, to a radial path, perpendicular to the axis, and then onto a suitable target. The LINAC and target are accordingly immersed in a relatively strong magnetic field.

"FIG. 1 corresponds to FIG. 1 of WO2012049466, US2011/0213239A1 and GB2484529. It shows a schematic representation of a conventional combined radiation therapy and magnetic resonance unit 1 with a magnetic resonance imaging part 3 and a radiation therapy part 5. The magnetic resonance imaging part 3 includes a main magnet 10, a gradient coil system having two (in this case symmetrical) partial gradient coils 21A, 21B, radio-frequency coils 14, for example two parts of a body coil 14A, 14B, and a patient bed 6. All these components of the magnetic resonance imaging part 3 are connected to a control unit 31 and an operating and display console 32.

"Both the main magnet 10 and the partial gradient coils 21A, 21B are essentially shaped like a hollow cylinder and arranged coaxially around the horizontal axis 15. The inner shell of the main magnet 10 limits in radial direction (perpendicular to the axis 15) a cylinder-shaped interior 7, in which the radiation therapy part 5, the gradient system, high-frequency coils 14 and the patient bed 6 are arranged. More precisely the radiation therapy part 5 is located in the interior 7 between a radially outer side of the gradient coil system 21A and 21B and a radially inwardly facing surface of a housing of the main magnet 10.

"In addition to the magnet coils, the main magnet 10 comprises further structural elements, such as supports, housing etc., and generates a homogenous main magnetic field necessary for magnetic resonance imaging. In the example shown, the direction of the main magnetic field is parallel to the horizontal axis 15. High-frequency coils 14 are used to excite nuclear spins in the patient. The signals emitted by the excited nuclear spins are received by the high-frequency coils 14.

"The axially spaced-apart partial gradient coils 21A, 21B in each case include gradient coils 20, which are in each case completely enclosed by a shield 27. The gradient coil 20 has supports and individual gradient coils that generate magnetic gradient fields for selective layer excitation and for location-coding of the magnetic resonance signals in three spatial directions.

"The radiation therapy part 5 is arranged on a gantry 8 and comprises a linear electron accelerator (LINAC) 9, a beam deflection arrangement 17, a target anode 19, a homogenizing body 22 and a collimator 23. The gantry 8 can feature a through-hole (broken lines), by which access to the magnetic resonance imaging 3 part is possible, through the gantry.

"The LINAC 9 has an electron source 11, for example a tungsten cathode, which generates an electron beam 13, which is accelerated parallel to the axis 15 of the main magnet 10. If the LINAC 9 generates pulsed electron beams 13, it can be built more compactly than one designed to provide a continuous electron beam. The LINAC 9 for example may generate electron beam pulses with a length of 5 .mu.s every 5 ms.

"The electrons of the electron beam 13 are accelerated by electric alternating fields in cylinder-shaped hollow conductors of the LINAC 9. The electrons of the electron beam 13 are accelerated to energies up to a magnitude of several MeV. The LINAC 9 is connected to an accelerator control unit 12 to control the alternating fields and the electron source 11.

"The electron beam 13 leaves the LINAC 9 at the end opposite the electron source and is deflected by the beam deflection arrangement 17 through 90.degree. radially inward towards axis 15. For this purpose the beam deflection arrangement 17 may have a magnet configured as an electromagnet made of non-ferromagnetic materials to prevent undesired interaction with the surrounding magnetic fields.

"To be able to deflect the pulsed electron beam 13 in a small space, the beam
deflection arrangement 17 must generate strong magnetic fields. To reduce the power loss, the magnetic field of the beam deflection arrangement 17 is a pulsed electro-magnetic field which is synchronized with the pulsed electron beam 13. For this purpose the beam deflection arrangement 17 is connected to a beam deflection control unit 18 which is also connected to the accelerator control unit 12.

"The deflected electron beam 13 hits the target anode 19 and generates a radiation beam that emerges from the target anode in the beam elongation along a beam path. The radiation beam is homogenized by the homogenizing body 22.

"The collimator 23 is arranged in an annular slot between the distanced partial gradient coils 21A, 21B in the beam path after the target anode 19. The proximity to the irradiation target thus achieved improves the radiation luminance and the effectiveness of the collimator 23.

"The collimator 23 enables the direction of the radiation beam and the cross-section of the radiation beam to be influenced. For this purpose the collimator 23 preferably incorporates moveable adjusters 24, which permit the radiation beam to pass only in a certain direction, e.g. only parallel to the radial direction 26 or up to an angle \( \alpha \) away from the beam axis 26, and with a certain cross-section. It is also possible to set the adjusters 24 of the collimator 23 in such a way that no radiation beams can pass parallel to the radial beam axis direction 26 and only angled radiation beams at certain angles from the radial direction 26 can pass through. To control the adjusters 24, the collimator 23 is connected to a collimator control unit 25. Such collimators are adequately known. By way of example, reference can be made to multi-leaf collimators. They make it possible to perform intensity modulated radiation therapy (IMRT), in which the size, shape and intensity of the radiation beam can be optimally adapted to the irradiation target. In particular IMRT also enables the irradiation center to be positioned outside the rotational axis of the radiation therapy device.

"The radiation beam penetrates the examination subject, in this case the patient P, and the radiation beam path runs through a diagnosis (imaging) volume D of the magnetic resonance imaging part 3. To minimize the local dose of radiation outside the irradiation target volume, the radiation therapy part rotates around the axis 15 of the main magnetic field. As a result, the full dose is applied only in the irradiation center B. The collimator 23 constantly adapts the cross-section of the radiation beam to the actual outline of the irradiation target even during rotation. The gantry 8 is configured for rotation of the radiation therapy part. A gantry control unit 29 controls the movement of the radiation therapy part 5. As an example the radiation therapy part 5 is shown as radiation therapy part 5' after rotation through 180 degree.

"The gantry control unit 29, the collimator control unit 25, the beam deflection control unit 18, the accelerator control unit 12 and the control unit 31 are connected to each other so that the diagnosis data collected by the magnetic resonance imaging part, for example the three-dimensional shape of the irradiation target, the rotational position of the radiation therapy part, as well as the collimator settings with regard to cross-section and direction of the radiation beam and the generation of pulsed beams described above can be coordinated with each other.

"The patient bed 6 is preferably moveable in three spatial directions so that the target area of the irradiation can be positioned precisely in the irradiation center B. For this purpose the control unit 31 is expediently configured for controlling a movement of the patient bed.

"This known arrangement, however, suffers from certain disadvantages. By locating the LINAC 9 and the target 19 within the main magnet 10, the coils of the main magnet must be of relatively large diameter, and the LINAC and target must be located close to the main magnet coils, in order to keep the overall size of the system to an acceptable diameter. Operation of this
arrangement has been demonstrated experimentally, but only where the magnetic field experienced by the LINAC 9 is of sufficient homogeneity. This is difficult to achieve when the LINAC is positioned close to the main magnet coils, as the electron beam quality may be degraded by variations in the magnetic field experienced by the electron beam due to variations in magnetic field orientation and strength. The magnetic resonance imaging part is designed to generate a homogeneous magnetic field in a central imaging region, and the magnetic field in the volume occupied by the LINAC 9 is rather less homogeneous. The magnetic field will be strong within the bore of the main magnet 10, but the magnetic field lines in the region will not be truly parallel, particularly near the end of the magnet, and some deflection and dispersion of the beam will result.

"The arrangement of FIG. 1 does not allow much space for radiation beam shaping devices such as multi-leaf collimator (MLC) conventionally and advantageously provided in radiation therapy equipment."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventor's summary information for this patent: "The present invention accordingly addresses at least some of these disadvantages and provides combined MRI and radiation therapy equipment as described below.

"According to the present invention, the LINAC required for generating an electron beam, which is in turn required for generating a radiation beam, is located radially outside of the main magnet, and accordingly allows the diameter of the main magnet coils to be reduced.

"The invention is applicable to actively-shielded solenoidal magnets, wherein shield coils of diameter greater than the main coils, but arranged coaxially with the main magnet coils, carry a current in the opposite direction as compared to a current carries by the main magnet coils. As is well known to those skilled in the art, such shield coils reduce the magnitude of a stray field around the MRI system. Preferably, the LINAC is arranged parallel to the axis of the main magnet, radially positioned between the radially outer surface of the main magnet coils and the radially inner surface of the shield coils. In this way, the combined MRI and radiation therapy equipment of the present invention has an outer diameter similar to that of a comparable MRI system, allowing installation in locations which would be impractical for a conventional combined MRI and radiation therapy system."


Keywords for this news article include: Siemens PLC, Radiation Therapy, Magnetic Resonance, Drugs and Therapies.

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The patent's inventor is Ross, Russell Frederick (Atlanta, GA).

This patent was filed on April 27, 2011 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Primary drug delivery methods include oral delivery and injections, but these methods present difficulties. For instance, injections are painful and both methods tend to provide bursts of agents rather than a preferred steady-state delivery. Additionally, the successful long term use of both oral delivery and injected delivery requires the patient to consistently meet the time requirements for the delivery method.

"Transdermal delivery materials have been developed in an attempt to provide a painless route for delivery of active agents over a sustained period with little or no interruption of the patient's daily routine. Unfortunately, natural dermal characteristics such as the overlapping corneocytes of the stratum corneum, the tight junction of the stratum granulosum, and Langerhans cells of the stratum spinosum that may institute an immune response and/or a foreign body response all present barriers to successful transdermal delivery of an active agent.

"Devices including microneedles that may facilitate transdermal delivery of active agents have improved transdermal delivery. A microneedle transdermal device includes an array of needles that may penetrate at least the stratum corneum of the skin and reach an underlying layer of the skin. In some devices, the microneedles are designed so as to penetrate to a depth that does not stimulate the nerve endings and institute a pain response. Examples of microneedle devices have been described in U.S. Pat. No. 6,334,856 to Allen, et al. and U.S. Pat. No. 7,226,439 to Prausnitz, et al., both of which are incorporated herein by reference.

"Unfortunately, even with the inclusion of microneedles on a transdermal device, transdermal devices are presently limited to delivery of low molecular weight agents that have a moderate lipophilicity and no charge. Even upon successful crossing of the natural dermal boundary, problems still exist with regard to maintaining the activity level of delivered agents and avoidance of foreign body and immune response.

"The nanotopography of a surface adjacent to a cell has been found to affect adhesive characteristics between the two as well as to effect cell behavior including morphology, motility, cytoskeleton architecture, proliferation, and differentiation (see, e.g., Hart, et al., European Cells and Materials, Vol. 10, Suppl. 2, 2005; Lim, et al., J R Soc Interface, Mar. 22, 2005, 2(2), 97-108; Yim, et al., Biomaterials, September, 2005, 26(26), 5405-5413). As an extension of this initial research, nanotopography of supporting substrates has been examined for use in tissue engineering (see, e.g., U.S. Patent Application Publication Nos. 2008/0026464 to Borenstein, et al. and 2008/0311172 to Schapira, et al.).

"What are needed in the art are improved drug delivery devices. For instance, devices that provide efficient delivery of active agents while decreasing potential immune and foreign body response to both the delivery device and the delivered agents would be beneficial."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventor's summary information for this patent: "According to one embodiment, disclosed is a composite microneedle array. An array may include a microneedle assembly that includes a support having a first surface and a second surface, wherein a plurality of microneedles extend outwardly from the first surface. An array may also include a film overlaying the microneedles of the microneedle assembly that at least partially conforms to the shape of the microneedles. The film may have a first surface and a second surface. The first surface of the film may be adhered to the microneedle assembly, and the second surface of the film may include thereon a plurality of nanostructures, the nanostructures being arranged in a
predetermined pattern.

"Also disclosed is a method for forming a composite microneedle array. A method may include laying a film over a microneedle assembly and engaging the film with the microneedle assembly such that the film at least partially conforms to the microneedles of the array and adheres to the microneedle assembly."

For the URL and additional information on this patent, see: Ross, Russell Frederick. Composite Microneedle Array Including Nanostructures Thereon. U.S. Patent Number 9526883, filed April 27, 2011, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sec2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&d=0&s1=9526883.PN.&OS=PN/9526883RS=PN/9526883

Keywords for this news article include: Biotechnology, Tissue Engineering, Biomedical Engineering, Biomedicine, Bioengineering, Nanostructural, Nanostructures, Nanotechnology, Nanotopography, Drugs and Therapies, Transdermal Delivery, Emerging Technologies, Kimberly-Clark Worldwide Inc.

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THE JOHNS HOPKINS UNIVERSITY

Patent Issued for Compounds for Treating Peripheral; Neuropathies and Other Neurodegenerative; Disorders (USPTO 9527817)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- THE JOHNS HOPKINS UNIVERSITY (Baltimore, MD) has been issued patent number 9527817, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Hoke, Ahmet (Towson, MD); Chen, Weiran (Columbia, MD); Zhu, Jing (Ellicott City, MD).

This patent was filed on June 21, 2012 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Neurodegenerative disorders affect many people worldwide. These disorders include peripheral neuropathies, which are a group of neurodegenerative disorders affecting the peripheral nerves, such as peripheral neuropathy caused by chemotherapy or diabetes; disorders of the central nervous system, such as Alzheimer's disease and Parkinson's disease; and motor neuron diseases, such as amyotrophic lateral sclerosis (ALS). Currently, no effective therapy for preventing nerve degeneration exists, except in cases of autoimmune peripheral neuropathies.

"Heat shock proteins are a class of functionally related proteins involved in the folding and unfolding of other proteins. They play an important role in the cell under normal conditions and also are a primary part of the heat shock response. They make up approximately 1% to 2% of total protein in unstressed cells. This percentage increases to 4% to 6% of total protein in cells that are stressed, such as during elevated temperatures, inflammation, or infection.

"Heat shock proteins have several important functions in a cell under normal conditions. One function is to act as intracellular chaperones for other proteins. By helping to
stabilize partially unfolded proteins, heat shock proteins aid in transporting proteins across membranes within a cell. They also play an important role in other protein-protein interactions, such as protein folding, assisting in the establishment of proper protein conformation, preventing unwanted protein aggregation, and carrying old proteins destined for degradation to a proteasome in the cell.

"Heat shock proteins, however, also can assist in promoting diseases or disorders. For example, heat shock proteins can aid in the correct functioning of tumor promoting proteins, such as oncoproteins, and they have been found to be overexpressed in a range of cancers. They also may contribute to tumor cell survival by stabilizing aberrant signaling proteins and by interfering with apoptosis."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "In some aspects, the presently disclosed subject matter provides a method for treating, inhibiting, delaying, or preventing a neurodegenerative disorder in a subject, the method comprising administering to the subject a therapeutically effective amount of a compound of Formula (I) or Formula (II):

###STR00001###

wherein: R.sub.1 is selected from the group consisting of H, substituted or unsubstituted alkyl, and --C(.dbd.O)--R.sub.6, wherein R.sub.6 is substituted or unsubstituted alkyl; R.sub.2, R.sub.3, and R.sub.4 are each independently substituted or unsubstituted alkyl; and R.sub.5 is selected from the group consisting of H, substituted or unsubstituted alkyl, and --C(.dbd.O)--R.sub.6; or a pharmaceutically acceptable salt thereof.

In particular aspects, the compound of Formula (I) or Formula (II) is selected from the group consisting of:

###STR00002###

"In yet more particular aspects, the compound of Formula (I) is:

###STR00003###

In particular embodiments, the peripheral neuropathy is selected from the group consisting of a chemotherapy-induced peripheral neuropathy, a diabetes-induced peripheral neuropathy, an HIV-associated peripheral neuropathy, an idiopathic peripheral neuropathy, an alcohol-induced peripheral neuropathy, and a drug-induced peripheral neuropathy.

In other aspects, the neurodegenerative disorder is of the central nervous system. In some embodiments, the neurodegenerative disorder is selected from the group consisting of Alzheimer’s disease, and Parkinson’s disease. In yet other aspects, the neurodegenerative disorder comprises a motor neuron disease. In some embodiments, the motor neuron disease is amyotrophic lateral sclerosis (ALS).

"In another aspect, the presently disclosed subject matter provides a method for modulating the overall activity of heat shock protein 90 (hsp90) without modulating the ATPase activity of hsp90 in a cell, the method comprising contacting the cell with a compound of Formula (I) or Formula (II), as defined hereinabove, in an amount sufficient to modulate the overall activity of hsp90 but not modulate the ATPase activity of hsp90.

In another aspect, the presently disclosed subject matter provides a method for screening for a neuroprotective compound that modulates the overall activity of hsp90, but does not modulate the ATPase activity of hsp90, the method comprising: contacting a cell having hsp90 overall activity with a candidate neuroprotective compound; contacting a cell that is inhibited for hsp90 overall activity with the candidate neuroprotective compound; adding a stress that can result in a neurodegenerative disorder to each cell; determining if the compound provides neuroprotection of the cell having hsp90 overall activity and does not provide neuroprotection of the cell which is inhibited for hsp90 overall activity; and determining the
ATPase activity of hsp90 in the cell having hsp90 overall activity.

"In yet another aspect, the presently disclosed subject matter provides a compound of the formula:

"#STR00004## or a pharmaceutically acceptable salt thereof.

"Certain aspects of the presently disclosed subject matter having been stated hereinabove, which are addressed in whole or in part by the presently disclosed subject matter, other aspects will become evident as the description proceeds when taken in connection with the accompanying Examples and Figures as best described herein below."


Keywords for this news article include: ATPase, Dementia, Peptides, Neurology, Amino Acids, Tauopathies, Efferent Neurons, Alzheimer Disease, Movement Disorders, Heat-Shock Proteins, Parkinson's Disease, Risk and Prevention, Molecular Chaperones, Motor Neuron Disease, Enzymes and Coenzymes, Peripheral Neuropathy, Parkinsonian Disorders, TDP-43 Proteinopathies.

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Pharmaceutical Companies

Patent Issued for Controlled Release Hydrocodone Formulations (USPTO 9526724)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Purdue Pharma L.P. (Stamford, CT) has been issued patent number 9526724, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Oshlack, Benjamin (Boca Raton, FL); Huang, Hua-Pin (Englewood Cliffs, NJ); Masselink, John K. (Old Tappan, NJ); Tonelli, Alfred (Congers, NY).

This patent was filed on February 9, 2016 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Once-a-day sustained release opioid formulations are disclosed in U.S. Pat. Nos. 5,478,577; 5,672,360; 5,958,459; 6,103,261; 6,143,332; 5,965,161; 5,958,452 and 5,968,551. All documents cited herein, including the foregoing, are incorporated by reference in their entireties for all purposes."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "It is an object of the present invention to substantially improve the efficiency and quality of pain management in human patients experiencing moderate pain.

"It is an object of certain embodiments of the present invention to provide bioavailable hydrocodone formulations suitable for once daily administration which substantially improve the efficiency and quality of pain management."
"It is an object of certain embodiments of the present invention to provide bioavailable controlled-release hydrocodone formulations suitable for once daily administration which provide a substantially increased duration of effect as compared to immediate release hydrocodone formulations.

"It is an object of certain embodiments of the invention to provide orally administrable controlled release opioid formulations suitable for once-a-day administration which provide an early onset of therapeutic effect and which, after rising to a maximum concentration during the dosage interval, provide a relatively flat serum plasma profile, meaning that the plasma level of the opioid provides a C.sub.24/C.sub.max ratio of about 0.55 to about 1.0, and which provides effective pain relief to the patient.

"The above objects and others are attained by virtue of the present invention, which in certain embodiments, provides a solid oral controlled-release dosage form comprising an analgesically effective amount of hydrocodone or a pharmaceutically acceptable salt thereof and a sufficient amount of a controlled release material to render the dosage form suitable for once-a-day administration, the dosage form after administration to a human patient or a population of patients providing a time to peak plasma concentration of hydrocodone in-vivo preferably from about 4 to about 14 hours (T.sub.max), and providing a C.sub.24/C.sub.max ratio of 0.55 to 1.0.

"In certain embodiments of the invention, the dosage form provides a time to maximum plasma concentration (T.sub.max) of hydrocodone in-vivo at about 6 to about 12 hours, at about 8 to about 10 hours, at about 4 to about 10 hours or at about 8 to about 14 hours after administration of the dosage form.

"In certain embodiments of the invention, the dosage form provides a C.sub.24/C.sub.max ratio of 0.55 to 1.0, of 0.55 to about 0.85, of 0.55 to 0.75 or of 0.60 to about 0.70.

"In certain preferred embodiments, the controlled release dosage form provides an in-vitro release when measured by the USP Basket Method at 100 rpm in 700 ml Simulated Gastric Fluid (SGF) at 37.degree. C. for 1 hour and thereafter switching to 900 ml with Phosphate Buffer to a pH of 7.5 at 37.degree. C., of at least 20% by weight hydrocodone or salt thereof released at 4 hrs, from about 20% to about 65% by weight hydrocodone or salt thereof released at 8 hrs, from about 45% to about 85% by weight hydrocodone or salt thereof released at 12 hrs, and at least 80% by weight hydrocodone or salt thereof released at 24 hours. Although the in-vitro release rate may be either pH-independent or pH-dependent as desired, in preferred embodiments of the invention the release of hydrocodone is pH-independent.

"In certain preferred embodiments, the controlled release dosage form provides an in-vitro release of the hydrocodone when measured by the USP Basket method at 100 rpm in 700 ml aqueous buffer at a pH of 1.2 at 37.degree. C. of from 10% to about 45% by weight hydrocodone or salt thereof released at 1 hour.

"In certain embodiments of the invention, the dosage form provides an in-vitro release rate, of hydrocodone or a pharmaceutically acceptable salt thereof, when measured by the USP Basket Method at 100 rpm in 900 ml aqueous buffer at a pH of between 1.6 and 7.2 at 37.degree. C. of from 0% to about 35% at 1 hour, from about 10% to about 70% at 4 hours, from about 20% to about 75% at 8 hours, from about 30% to about 80% at 12 hours, from about 40% to about 90% at 18 hours, and greater than about 60% at 24 hours; the in-vitro release rate being substantially independent of pH in that a difference, at any given time, between an amount of opioid released at one pH and an amount released at any other pH, when measured in-vitro using the USP Paddle Method of U.S. Pharmacopeia XXII (1990) at 100 rpm in 900 ml aqueous buffer, is no greater than 10%.

"In certain preferred embodiments the sustained release oral dosage form of the
The present invention provides hydrocodone plasma levels which are effective for 24 hourly dosing, characterized by a W.sub.50 for the hydrocodone of between 4 and 22 hours. In certain embodiments, the W.sub.50 is at least 4 hours, preferably at least 12 hours, and more preferably at least 18 hours.

"In certain embodiments the sustained release oral dosage form of the present invention comprises a matrix which includes a sustained release material and hydrocodone or a pharmaceutically acceptable salt thereof. In certain embodiments, the matrix is compressed into a tablet and may be optionally overcoated with a coating that in addition to the sustained release material of the matrix may control the release of the hydrocodone or pharmaceutically acceptable salt thereof from the formulation, such that blood levels of active ingredient are maintained within the therapeutic range over an extended period of time. In certain alternate embodiments, the matrix is encapsulated.

"In certain embodiments, the sustained release oral dosage form of the present invention comprises a plurality of pharmaceutically acceptable sustained release matrices comprising hydrocodone or a pharmaceutically acceptable salt thereof, the dosage form maintaining the blood plasma levels of hydrocodone within the therapeutic range over an extended period of time when administered to patients.

"In certain embodiments the sustained release oral dosage form of the present invention is an osmotic dosage form which comprises a single layer or bilayer core comprising hydrocodone or a pharmaceutically acceptable salt thereof; an expandable polymer; a semipermeable membrane surrounding the core; and a passageway disposed in the semipermeable membrane for sustained release of the hydrocodone or pharmaceutically acceptable salt thereof, such that blood levels of active ingredient are maintained within the therapeutic range over an extended period of time when administered to patients.

"In certain preferred embodiments of the invention, there is provided a once-a-day oral controlled release dosage form of hydrocodone which provides a C.sub.max of hydrocodone which less than about 60%, less than about 50% or less than about 40% of the C.sub.max of an equivalent dose of an immediate release hydrocodone reference formulation (e.g. Lortab.RTM.), and which provides effective analgesia during the 24 hour dosage interval.

"In certain preferred embodiments of the invention, there is provided a once-a-day oral controlled release hydrocodone dosage form which provides a rate of absorption during the time period from T.sub.max to about 24 hours after oral administration of the dosage form which is from about 45% to about 85% of the rate of elimination during the same time period.

"In certain preferred embodiments the dosage form of the present invention provides a therapeutic effect for at least about 24 hours after administration of the dosage form.

"In certain embodiments, any one or all of the above in-vivo parameters are achieved after a first administration of the dosage form to a human patient or a population of human patients.

"In certain alternative embodiments, any one or all of the above in-vivo parameters are achieved after steady state administration of the dosage form to a human patient or a population of human patients.

"Hydrocodone' is defined for purposes of the invention as including hydrocodone free base, as well as pharmaceutically acceptable salts and complexes of hydrocodone.

"The term 'USP Paddle or Basket Method' is the Paddle and Basket Method described, e.g., in U.S. Pharmacopoeia XXII (1990), herein incorporated by reference.

"The term 'pH-dependent' for purposes of the present invention is defined as having characteristics (e.g., dissolution) which vary according to environmental pH.
"The term 'pH-independent' for purposes of the present invention is defined as having characteristics (e.g., dissolution) which are substantially unaffected by pH.

"The term 'bioavailability' is defined for purposes of the present invention as the extent to which the drug (e.g., hydrocodone) is absorbed from the unit dosage forms.

"The term 'controlled-release' is defined for purposes of the present invention as the release of the drug (e.g., hydrocodone) at such a rate that blood (e.g., plasma) concentrations are maintained within the therapeutic range but below toxic concentrations over a period of time of about 12 hours or longer.

"The term 'C.sub.max' denotes the maximum plasma concentration obtained during the dosing interval.

"The term 'C.sub.24' as it is used herein is the plasma concentration of the drug at 24 hours after administration.

"The term 'T.sub.max' denotes the time to maximum plasma concentration (Cmax).

"The term 'W.sub.50' for purposes of the present invention is the duration over which the plasma concentrations are equal to or greater than 50% of the peak concentration.

"The term 'C.sub.24/C.sub.max ratio' is defined for purposes of the present invention as the ratio of the plasma concentration of the drug at 24 hours after administration to the highest plasma concentration of the drug attained within the dosing interval.

"The term 'semipermeable wall' for purposes of the present invention means that the wall is permeable to the passage of an exterior fluid, such as aqueous or biological fluid, in the environment of use, including the gastrointestinal tract, but impermeable to drug.

"The term 'minimum effective analgesic concentration' or 'MEAC' with respect to concentrations of opioids such as hydrocodone is very difficult to quantify. However, there is generally a minimally effective analgesic concentration of plasma hydrocodone below which no analgesia is provided. While there is an indirect relationship between, e.g., plasma hydrocodone levels and analgesia, higher and prolonged plasma levels are generally associated with superior pain relief. There is a lag time or hysteresis, between the time of peak plasma hydrocodone-levels and the time of peak drug effects. This holds true for the treatment of pain with opioid analgesics in general.

"For purposes of the invention, unless further specified, the term 'a patient' means that the discussion (or claim) is directed to the pharmacokinetic parameters of an individual patient or subject.

"The term 'population of patients' means that the discussion (or claim) is directed to the mean pharmacokinetic parameters of at least two patients or subjects.

"The term 'immediate release hydrocodone reference formulation' for purposes of the present invention, is an equivalent amount of the hydrocodone portion of Lortab.RTM., commercially available from UCB Pharma, Inc, or a pharmaceutical product that provides an immediate release of hydrocodone or a salt thereof.

"For purposes of the invention, the controlled release formulations disclosed herein and the immediate release control formulations are dose proportional. In such formulations, the pharmacokinetic parameters (e.g., AUC and C.sub.max) increase linearly from one dosage strength to another. Therefore the pharmacokinetic parameters of a particular dose can be inferred from the parameters of a different dose of the same formulation.

"The term 'first administration' means a single dose of the present invention at the initiation of therapy to an individual patient or a patient population.

"The term 'steady state' means that the amount of the drug reaching the system is approximately the same as the amount of the drug leaving the system. Thus, at 'steady-state', the
patient's body eliminates the drug at approximately the same rate that the drug becomes available to the patient's system through absorption into the blood stream.

"The controlled-release oral solid dosage forms of the present invention may be opioid-sparing. It is possible that the controlled-release oral solid dosage forms of the present invention may be dosed at a substantially lower daily dosage in comparison to conventional immediate-release products, with no difference in analgesic efficacy. At comparable daily dosages, greater efficacy may result with the use of the controlled-release oral solid dosage forms of the present invention in comparison to conventional immediate-release products."

For the URL and additional information on this patent, see: Oshlack, Benjamin; Huang, Hua-Pin; Masselink, John K.; Tonelli, Alfred. Controlled Release Hydrocodone Formulations. U.S. Patent Number 9526724, filed February 9, 2016, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HTOFF&p=1&u=%2Fntetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9526724.PN.&OS=PN/9526724RS=PN/9526724

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Patent Issued for Detachable End Effector and Loader (USPTO 9526516)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Parihar, Shailendra K. (Mason, OH); Haberstich, Wells D. (Loveland, OH), filed on August 31, 2015, was published online on December 27, 2016.

The assignee for this patent, patent number 9526516, is Ethicon Endo-Surgery, LLC (Guaynabo, PR).

Reporters obtained the following quote from the background information supplied by the inventors: "The present invention relates in general to surgical devices and procedures, and more particularly to minimally invasive surgery.

"Surgical procedures are often used to treat and cure a wide range of diseases, conditions, and injuries. Surgery often requires access to internal tissue through open surgical procedures or endoscopic surgical procedures. The term 'endoscopic' refers to all types of minimally invasive surgical procedures including laparoscopic, arthroscopic, natural orifice intraluminal, and natural orifice transluminal procedures. Endoscopic surgery has numerous advantages compared to traditional open surgical procedures, including reduced trauma, faster recovery, reduced risk of infection, and reduced scarring. Endoscopic surgery is often performed with an insufflatory fluid present within the body cavity, such as carbon dioxide or saline, to provide adequate space to perform the intended surgical procedures. The insufflated cavity is generally under pressure and is sometimes referred to as being in a state of pneumoperitoneum. Surgical access devices are often used to facilitate surgical manipulation of internal tissue while maintaining pneumoperitoneum. For example, trocars are often used to provide a port through which endoscopic surgical instruments are passed. Trocars generally
have an instrument seal, which prevents the insufflatory fluid from escaping while an instrument is positioned in the trocar.

"While a variety of different minimally invasive surgical devices are known, no one has previously made or used the surgical devices and methods in accordance with the present invention."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "In one embodiment, a surgical device comprises an elongate shaft having an outer tube and an inner rod positioned in the outer tube. The outer tube and inner rod each comprise a distal end and a proximal end. An actuator is operably connected to the proximal ends of the outer tube and the inner rod. An end effector is adapted for in vivo attachment to and detachment from the elongate shaft. The end effector comprises an outer casing comprising a first detent mating feature adapted to engage the distal end of the outer tube; an inner shuttle axially moveable relative the outer casing, the shuttle comprising a second detent mating feature adapted to engage the distal end of the inner rod; and a pair of surgical jaws having an opened position and closed position dependant on the relative axial position of the shuttle and casing. A tubular loader is sized to receive the end effector, the tubular loader comprising third detent mating feature adapted engage end effector.

"The first, second, and third detent mating features may have a threshold disengagement force $F_{sub.1}$, $F_{sub.2}$, and $F_{sub.3}$, respectively, of the following relative magnitudes: $F_{sub.1} < F_{sub.3} < F_{sub.2}$. The first detent mating feature may comprise a leaf spring on the outer casing adapted to engage a notch on the outer tube. The third detent mating feature may comprise a leaf spring on the tubular loader adapted to engage a notch on the outer casing. The second detent mating feature may comprise a pair of proximally oriented prongs, each having a medially oriented tooth adapted to engage a notch on the inner rod. The distal end of the outer tube may comprise a sloped surface adapted to engage and laterally spread the prongs thereby disengaging the teeth from the notch on the inner rod.

"In another embodiment, a surgical device comprises an elongate shaft comprising an outer tube and an inner rod positioned in the outer tube, the outer tube and inner rod each comprising a distal end and a proximal end. An actuator is operably connected to the proximal ends of the outer tube and the inner rod. An end effector is adapted for in vivo attachment to and detachment from the elongate shaft. The end effector comprises an outer casing comprising a first detent mating feature adapted to engage the distal end of the outer tube; an inner shuttle axially moveable relative the outer casing, the shuttle comprising a second detent mating feature adapted to engage the distal end of the inner rod; and a pair of surgical jaws having an opened position and closed position dependant on the relative axial position of the shuttle and casing. The second mating feature comprises a pair of proximally oriented prongs, each having a medially oriented tooth adapted to engage a notch on the inner rod. The distal end of the outer tube comprises a sloped surface adapted to engage and laterally spread the prongs thereby disengaging the teeth from the notch on the inner rod. The first mating feature may comprise a detent mechanism.

"In yet another embodiment, a surgical device comprises an elongate shaft comprising an outer tube and an inner rod positioned in the outer tube, the outer tube and inner rod each comprising a distal end and a proximal end. An actuator is operably connected to the proximal ends of the outer tube and the inner rod. An end effector is adapted for in vivo attachment to and detachment from the elongate shaft. The end effector comprises an outer casing and a means to attach the outer casing to the outer tube; an inner shuttle axially moveable relative the outer casing and a means to attach the shuttle to the inner rod; and a pair of surgical jaws having an opened position and closed position dependant on the relative axial position of the shuttle and casing. A tubular loader is sized to receive the end effector and includes a means..."
to attach the end effector in the tubular loader."


Keywords for this news article include: Risk and Prevention, Ethicon Endo-Surgery LLC.

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Janssen Biotech, Inc.

Patent Issued for Differentiation of Human Embryonic Stem Cells (USPTO 9528090)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventor Rezania, Alireza (Skillman, NJ), filed on August 17, 2011, was published online on December 27, 2016.

The assignee for this patent, patent number 9528090, is Janssen Biotech, Inc. (Horsham, PA).

Reporters obtained the following quote from the background information supplied by the inventors: "Advances in cell-replacement therapy for Type I diabetes mellitus and a shortage of transplantable islets of Langerhans have focused interest on developing sources of insulin-producing cells, or \( \beta \) cells, appropriate for engraftment. One approach is the generation of functional \( \beta \) cells from pluripotent stem cells, such as, for example, embryonic stem cells.

"In vertebrate embryonic development, a pluripotent cell gives rise to a group of cells comprising three germ layers (ectoderm, mesoderm, and endoderm) in a process known as gastrulation. Tissues such as, for example, thyroid, thymus, pancreas, gut, and liver, will develop from the endoderm, via an intermediate stage. The intermediate stage in this process is the formation of definitive endoderm. Definitive endoderm cells express a number of markers, such as, HNF3 beta, GATA4, MIXL1, CXCR4 and SOX17.

"Formation of the pancreas arises from the differentiation of definitive endoderm into pancreatic endoderm. Cells of the pancreatic endoderm express the pancreatic-duodenal homeobox gene, PDX1. In the absence of PDX1, the pancreas fails to develop beyond the formation of ventral and dorsal buds. Thus, PDX1 expression marks a critical step in pancreatic organogenesis. The mature pancreas contains, among other cell types, exocrine tissue and endocrine tissue. Exocrine and endocrine tissues arise from the differentiation of pancreatic endoderm.

"Cells bearing the features of islet cells have reportedly been derived from embryonic cells of the mouse. For example, Lumelsky et al. (Science 292:1389, 2001) report differentiation of mouse embryonic stem cells to insulin-secreting structures similar to pancreatic islets. Soria et al. (Diabetes 49:157, 2000) report that insulin-secreting cells derived from mouse embryonic stem cells normalize glycemia in streptozotocin-induced diabetic mice.

"In one example, Hori et al. (PNAS 99: 16105, 2002) disclose that treatment of mouse embryonic stem cells with inhibitors of phosphoinositide 3-kinase (LY294002) produced
cells that resembled β-cells.

"In another example, Blyszczuk et al. (PNAS 100:998, 2003) reports the generation of insulin-producing cells from mouse embryonic stem cells constitutively expressing Pax4.

"Micallef et al. reports that retinoic acid can regulate the commitment of embryonic stem cells to form PDX1 positive pancreatic endoderm. Retinoic acid is most effective at inducing Pdx1 expression when added to cultures at day 4 of embryonic stem cell differentiation during a period corresponding to the end of gastrulation in the embryo (Diabetes 54:301, 2005).

"Miyazaki et al. reports a mouse embryonic stem cell line over-expressing Pdx1. Their results show that exogenous Pdx1 expression clearly enhanced the expression of insulin, somatostatin, glucokinase, neurogenin3, p48, Pax6, and Hnf6 genes in the resulting differentiated cells (Diabetes 53: 1030, 2004).

"Skoudy et al. reports that activin A (a member of the TGF-β superfamily) upregulates the expression of exocrine pancreatic genes (p48 and amylase) and endocrine genes (Pdx1, insulin, and glucagon) in mouse embryonic stem cells. The maximal effect was observed using 1 nM activin A. They also observed that the expression level of insulin and Pdx1 mRNA was not affected by retinoic acid; however, 3 nM FGF7 treatment resulted in an increased level of the transcript for Pdx1 (Biochem. J. 379: 749, 2004).

"Shiraki et al. studied the effects of growth factors that specifically enhance differentiation of embryonic stem cells into PDX1 positive cells. They observed that TGF-β2 reproducibly yielded a higher proportion of PDX1 positive cells (Genes Cells. 2005 June; 10(6): 503-16.).

"Gordon et al. demonstrated the induction of brachyury [positive]/HNF3 beta [positive] endoderm cells from mouse embryonic stem cells in the absence of serum and in the presence of activin along with an inhibitor of Wnt signaling (US 2006/003446A1).

"Gordon et al. (PNAS, Vol 103, page 16806, 2006) states 'Wnt and TGF-β/nodal/activin signaling simultaneously were required for the generation of the anterior primitive streak'.

"However, the mouse model of embryonic stem cell development may not exactly mimic the developmental program in higher mammals, such as, for example, humans.

"Thomson et al. isolated embryonic stem cells from human blastocysts (Science 282:114, 1998). Concurrently, Gearhart and coworkers derived human embryonic germ (hEG) cell lines from fetal gonadal tissue (Shamblott et al., Proc. Natl. Acad. Sci. USA 95:13726, 1998). Unlike mouse embryonic stem cells, which can be prevented from differentiating simply by culturing with Leukemia Inhibitory Factor (LIF), human embryonic stem cells must be maintained under very special conditions (U.S. Pat. No. 6,200,806; WO 99/20741; WO 01/51616).

"D'Amour et al. describes the production of enriched cultures of human embryonic stem cell-derived definitive endoderm in the presence of a high concentration of activin and low serum (Nature Biotechnology 2005). Transplanting these cells under the kidney capsule of mice resulted in differentiation into more mature cells with characteristics of some endodermal organs. Human embryonic stem cell-derived definitive endoderm cells can be further differentiated into PDX1 positive cells after addition of FGF-10 (US 2005/0266554A1).

"D'Amour et al. (Nature Biotechnology--24, 1392-1401 (2006)) states: 'We have developed a differentiation process that converts human embryonic stem (hES) cells to endocrine cells capable of synthesizing the pancreatic hormones insulin, glucagon, somatostatin, pancreatic polypeptide and ghrelin. This process mimics in vivo pancreatic organogenesis by directing cells through stages resembling definitive endoderm, gut-tube endoderm, pancreatic
endoderm and endocrine precursor en route to cells that express endocrine hormones'.

"In another example, Fisk et al. reports a system for producing pancreatic islet cells from human embryonic stem cells (US2006/0040387A1). In this case, the differentiation pathway was divided into three stages. Human embryonic stem cells were first differentiated to endoderm using a combination of sodium butyrate and activin A. The cells were then cultured with TGF-.beta. antagonists such as Noggin in combination with EGF or betacellulin to generate PDX1 positive cells. The terminal differentiation was induced by nicotinamide.

"There still remains a significant need to develop in vitro methods to generate a functional insulin expressing cell, that more closely resemble a .beta. cell. The present invention takes an alternative approach to improve the efficiency of differentiating human embryonic stem cells toward insulin expressing cells, by generating a population of cells wherein greater than 85% of the cells in the population express markers characteristic of the definitive endoderm lineage."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventor's summary information for this patent: "In one embodiment, the present invention provides a population of cells, wherein greater than 85% of the cells in the population express markers characteristic of the definitive endoderm lineage.

"In embodiment, populations of pluripotent stem cells are differentiated into populations of cells expressing markers characteristic of the definitive endoderm lineage by culturing the pluripotent stem cells in medium supplemented with BSA and a factor selected from the group consisting of insulin and IGF-1. In one embodiment, differentiation of the population of pluripotent stem cells toward a population of cells expressing markers characteristic of the definitive endoderm lineage is achieved by treating the pluripotent stem cells with activin A and a Wnt ligand.

"In one embodiment, differentiation of the population of pluripotent stem cells toward a population of cells expressing markers characteristic of the definitive endoderm lineage is achieved by treating the pluripotent stem cells with GDF-8 and at least one other factor is selected from the group consisting of: aniline-pyridinotriazine, a cyclic aniline-pyridinotriazine, N-[1-(Phenylmethyl)azepan-4-yl]methyl-2-pyridin-3-ylacetamide, 4-[4-(4-[2-(Pyridin-2-ylamino)ethyl]amino-1,3,5-triazin-2-yl)pyridin-2-yl]oxybutan-1-ol, 3-(3-[4-(2-[Methyl(pyridin-2-ylamino)ethylamino]-1,3,5-triazin-2-yl]p- yridin-2-ylamino)propan-1-ol, N.about.4.about.-[2-(3-Fluorophenyl)ethyl]-N.about.2.about.-[3-(4-methylp-iperazin-1-yl) propyl]pyrido[2,3-d]pyrimidine-2,4-diamine, 1-Methyl-N-[4-(pyridin-3-yl-2-[3- (trifluoromethyl)phenyl]amino-1,3-thiazol-5-yl)ethyl]piperidine-4-carboxamide, 1,1-Dimethyllethyl[2-(4-[3-(3-hydroxypropyl)phenyl]-4H-1,2,4-triazol-3- -ylamino)phenyl] ethylcarbamate, 1,1-Dimethyllethyl[3-(5-[3-(hydroxypropyl)-2-(methylxy)phenyl]-1,3-oxazol-2-ylamino)phenyl]methylcarbamate, 1-(5-[6-(4-((4-Methylpiperazin-1yl)sulfonyl) phenylamino)pyrazin-2-yl]- thiophen-2-ylmethyl)piperidin-4-ol, 1-(4-[6-(4-((4-Methylpiperazin-1-yl)sulfonyl) phenylamino)pyrazin-2-yl]- thiophen-2-ylmethyl)piperidin-4-carboxamide, and 2-[4-(1-Methyllethyl)phenyl]amino-N-(2-thiophen-2-ylethyl)-7,8-dihydropy- rido[4,3-d] pyrimidine-6(5H)-carboxamide."


Keywords for this news article include: Biotechnology, Genetics, Glucagon, Proinsulin, Peptide Hormones, Peptide Proteins, Janssen Biotech Inc..
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SUNNYBROOK RESEARCH INSTITUTE

Patent Issued for Electrode Designs for Efficient Neural Stimulation (USPTO 9526890)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventors Golestanirad, Laleh (Brookline, MA); Graham, Simon J. (Toronto, CA), filed on April 10, 2015, was published online on December 27, 2016.

The patent's assignee for patent number 9526890 is SUNNYBROOK RESEARCH INSTITUTE (Toronto, Ontario, CA).

News editors obtained the following quote from the background information supplied by the inventors: "Electrical stimulation of the nervous system is a technique used for restoring function to individuals with various diseases or impairments. Planar electrodes in particular are being increasingly used in neuro-stimulator devices for stimulating the central and peripheral nervous systems in humans.

"Epidural spinal cord stimulation (ESCS), for example, includes electrical stimulation to the dorsal roots and/or the dorsal columns of the spinal cord. ESCS can be used for treating pain associated with various syndromes. Recently the combination of ESCS and partial weight bearing therapy has been shown to induce significant functional gains in the over-ground gait of individuals with chronic, incomplete spinal cord injury and with very low motor scores in their lower limbs.

"Epidural cortical stimulation (ECS) is used in the brain for transferring electrical stimulation via planar electrodes for therapeutic applications. ECS can be used for the treatment of a variety of disorders, such as neuropathic pain, movement disorders, Parkinson's disease, and stroke rehabilitation.

"Another application of electrical stimulation of the nervous system is transcranial direct current stimulation (tDCS). tDCS is a non-invasive, painless, safe and portable technique that has been found to modulate cortical excitability. The tDCS procedure is simple and economical--that is, the procedure is an injection of a weak DC current (less than 2 mA) between the surface electrodes that are connected to a stimulation device. tDCS has also shown promising results as a potential therapy in stroke, Parkinson's disease, depression and epilepsy. The advantages of tDCS, along with its positive results, reinforce its applicability within the clinical practice.

"Planar electrodes are also used in electrical stimulation for restoring and/or improving control of bladder functions. In cases of neurological diseases, for example, promising results have been shown in the restoration of continence and micturition.

"Deep brain stimulation (DBS) is another application of electrical stimulation of the nervous system. DBS involves high frequency electrical stimulation of the thalamic or basal ganglia structures (e.g., subthalamic nucleus (STN) or an internal segment of the globus pallidus) for the treatment of movement disorders. DBS is rapidly emerging as an alternative to surgical lesions.

"The most widely used medical implanted electrodes are those used in artificial cardiac pacemaker devices to apply electric currents to the muscles of the human heart. The
primary purpose of these devices is to maintain an adequate pace and rhythm of the heart's contractions. These devices have been used since the 1960s in millions of patients around the world.

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "In a broad aspect, there is provided an electrode for neural stimulation, the electrode comprising: an electrically conductive body, the body having a generally planar core portion, wherein the generally planar core portion has a plurality of holes therein, and wherein the plurality of holes has one or more internal perimeters.

"In some cases, each of the one or more internal perimeters comprises at least three edges and at least three vertices, each edge being joined to its adjacent edges at a respective one of the at least three vertices. In some cases, the at least three edges define a non-180.degree. angle at each vertex in the at least three vertices.

"In some cases, respective edges and vertices of the plurality of holes are configured to reduce a capacity dimension of a surface of the core portion to less than 2.

"In some cases, each of the one or more internal perimeters comprise at least twelve edges and at least twelve vertices. In some cases, the plurality of holes form a Sierpinski triangle of at least order 2.

"In some cases, each of the one or more internal perimeters comprise at least thirty-six edges and at least thirty-six vertices. In some cases, the plurality of holes form a Sierpinski square of at least order 2.

"In some cases, each of the plurality of holes has a perimeter shape that is self-similar to a perimeter shape of the generally planar core portion.

"In some cases, the generally planar core portion has a base shape that corresponds to a regular polygon having n sides. In some cases, n is at least three. In some cases, n is at least four.

"In some cases, a shape of the generally planar core portion is obtainable from a base shape that corresponds to a regular polygon having n sides by removing a first order smaller regular polygon having n sides from the interior of the base shape to provide a first order hole in the plurality of holes, the first order hole having n edges. In some cases, the shape is further obtainable by removing a plurality of k-th order smaller regular polygons having n sides from the interior of the base shape to provide a plurality of k-th order holes in the plurality of holes, each of the plurality of k-th order holes having n edges. In some cases, the shape is further obtainable by repeatedly removing the plurality of k-th order smaller regular polygons for two or more integer values of k. In some cases, the shape is further obtainable by dividing an area of the first order smaller regular polygon into a plurality of second order smaller regular polygons having n sides, and attaching the second order smaller regular polygons to one or more selected edges of the shape. In some cases, the shape is further obtainable by dividing an area of each of the plurality of k-th order smaller regular polygons to provide (k+1)-th order smaller regular polygons having n sides, and attaching the (k+1)-th order smaller regular polygons to an edge of the shape.

"In some cases, n is at least three. In some cases, n is at least four. In some cases, n is at least 20, and the generally planar core portion approximates a closed curve in shape.

"In some cases, k is between 2 and 5. In some cases, k is between 3 and 5.

"In some cases, the generally planar core portion forms a closed curve in shape, and wherein each of the plurality of holes forms a closed curve in shape. In some cases, a shape of the generally planar core portion is obtainable from a base shape that corresponds to a closed curve by removing a first order smaller closed curve from the interior of the base shape to
provide a first order hole in the plurality of holes. In some cases, the shape is further obtainable by removing a plurality of k-th order smaller closed curves from the interior of the base shape to provide a plurality of k-th order holes in the plurality of holes. In some cases, the shape is further obtainable by repeatedly removing the plurality of k-th order smaller closed curves for two or more integer values of k.

"In some cases, the generally planar core portion is curved.

"In some cases, the generally planar core portion is flexible.

"In another broad aspect, there is provided an electrode for neural stimulation, the electrode comprising: an electrically conductive body, the body having a core portion for increasing a neural activation function in a tissue, at a distance of 5 mm from a surface of the electrode, wherein an absolute value of the neural activation function is increased between 2 and 10 times relative to a solid surface electrode of equivalent area.

"In some cases, the neural activation function is increased in a direction orthogonal to the surface of the electrode.

"In some cases, the electrode is an ESCS electrode. In some cases, the electrode is an ECS electrode. In some cases, the electrode is a tDCS electrode. In some cases, the electrode is a DBS electrode. In some cases, the electrode is a cardiac pacemaker electrode."


Keywords for this news article include: Surgery, Cardiology, Spinal Cord, Movement Disorders, Parkinson's Disease, Deep Brain Stimulation, Parkinsonian Disorders, Brain Diseases and Conditions, SUNNYBROOK RESEARCH INSTITUTE, Basal Ganglia Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

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COVIDIEN LP

Patent Issued for Electrosurgical Instrument (USPTO 9526569)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- COVIDIEN LP (Mansfield, MA) has been issued patent number 9526569, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Brannan, Joseph D. (Lyons, CO); Ladtkow, Casey M. (Erie, CO).

This patent was filed on November 30, 2015 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Technical Field

"The present disclosure relates to an electrosurgical instrument. More particularly, the present disclosure relates to a directional microwave energy instrument configured to electrosurgically treat tissue in two modes of operation; a first mode of operation to
electrosurgically treat tissue; and a second mode of operation to dissect the tissue.

"Description of Related Art

"Standard surgical procedures for trauma, cancer and transplants in the kidney, liver, and like organs have several key shortcomings affecting efficacy, morbidity and mortality. In an effort to fully remove or resect an organ, the surgeon may be forced to breach the tissue causing a large amount of bleeding. Careful hemostasis can minimize blood loss and complications but is laborious and time consuming using the systems and methods known in the art. Uncontrollable bleeding, for example, is one of the leading causes that prevent such treatments from being offered to patients with cirrhotic livers.

"Typical methods for creating resections and/or controlling bleeding and blood loss include scalpels, electrocautery, ultrasonic scalpels, argon beam coagulators, and radio frequency (RF) surface dissectors. Typically, a surgeon utilizes one of the aforementioned therapies, e.g., a scalpel, for creating resections and another one of the aforementioned therapies, e.g., an argon beam coagulator, to control bleeding. These therapies, however, in their present form have one or more potential drawbacks, such as, for example, a complete lack or partial inability to create a hemostatic or near-hemostatic resection plane with any significant depth (e.g., the devices utilized to control bleeding, typically, create a small footprint)."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "As can be appreciated, a directional microwave and radio frequency energy instrument that is configured to electrosurgically treat tissue in two modes of operation to resect and dissect tissue may prove useful in the medical arts.

"Embodiments of the present disclosure are described in detail with reference to the drawing figures wherein like reference numerals identify similar or identical elements. As used herein, the term 'distal' refers to the portion that is being described which is further from a user, while the term 'proximal' refers to the portion that is being described which is closer to a user.

"An aspect of the present disclosure provides an electrosurgical instrument. The electrosurgical instrument includes an elongated housing having proximal and distal ends. The proximal end configured to couple to a source of electrosurgical energy via first and second channels extending along a length of the housing to the distal end thereof. The distal end including a reflector having a dielectric load operably coupled thereto and configured to receive at least a portion of the first channel therein. In a first mode of operation electrosurgical energy is transmitted to the first channel and reflected from the reflector to electrosurgically treat tissue. The reflector is configured to receive at least a portion of the second channel therein. In a second mode of operation electrosurgical energy transmitted to the second channel to dissect tissue. The reflector may be formed from a conductive metal tube having a diagonal cross-cut at least partially through a width thereof.

"The dielectric load may be shaped to complement a shape of the reflector. The dielectric load may be made from a material including, but not limited to ceramic, fluid and plastic. The dielectric load may include at least one aperture therein that is configured to receive at least a portion of the coaxial feed therein.

"In certain instances, the first channel is in the form of a coaxial feed that includes an outer conductor, a dielectric extending past the outer conductor and an inner conductor extending past both the outer conductor and dielectric. In this instance, the inner conductor does not extend past the reflector.

"In certain instances, the second channel may be in the form of an electrical lead including a monopolar electrode. In this instance, the monopolar electrode may be disposed at a distal tip of the reflector."
"In certain instances, the electrosurgical instrument may also include a microwave block that is operably coupled to the distal end of the electrosurgical instrument adjacent the dielectric load. In this particular instance, the microwave block includes a dielectric distal portion and a conductive proximal portion. The microwave block may be configured to prevent electrosurgical energy from exiting a distal side of the reflector when the electrosurgical instrument is in the first mode of operation. The dielectric portion of the microwave block may include a dielectric constant that is less than a dielectric constant of the dielectric load of the distal end.

"In certain instances, the electrosurgical instrument may also include a switch assembly that is supported on the housing and configured to place the electrosurgical instrument into the first and second modes of operation.

"In certain instances, the electrosurgical instrument may also include a cooling assembly that operably couples to the electrosurgical instrument and circulates at least one coolant through the electrosurgical instrument to prevent the reflector and electrode from exceeding a predetermined temperature.

"In certain instances, the electrosurgical instrument may also include a sensor assembly that is configured to detect when the electrosurgical instrument contacts tissue. In this instance, the sensor assembly may be an optical sensor assembly, electrode impedance sensor assembly and acoustic transducer response assembly.

"An aspect of the present disclosure provides an electrosurgical instrument. The electrosurgical instrument includes an elongated housing having proximal and distal ends. The proximal end is configured to couple to a source of electrosurgical energy via first and second channels extending along a length of the housing to the distal end thereof. A switch assembly is supported on the housing and is configured to place the electrosurgical instrument into first and second modes of operation. A reflector operably disposed at the distal end of the housing has a tapered configuration and is configured to provide an energy pattern in tissue proportional to a depth of the taper of the reflector. A dielectric load is shaped to complement a shape of the reflector for coupling the dielectric load to the reflector. The dielectric load is configured to receive at least a portion of the first channel therein. In the first mode of operation electrosurgical energy transmitted to the first channel is reflected from the reflector to electrosurgically treat tissue. The reflector is configured to receive at least a portion of the second channel therein. In the second mode of operation electrosurgical energy transmitted to the second channel to dissect tissue.

"The dielectric load may be made from a material including, but not limited to ceramic, fluid and plastic. The dielectric load may include at least one aperture therein that is configured to receive at least a portion of the coaxial feed therein.

"In certain instances, the first channel may be in the form of a coaxial feed that includes an outer conductor, a dielectric extending past the outer conductor and an inner conductor extending past both the outer conductor and dielectric. In this instance, the inner conductor does not extend past the reflector.

"In certain instances, the second channel may be in the form of an electrical lead including a monopolar electrode. In this instance, the monopolar electrode may be disposed at a distal tip of the reflector.

"In certain instances, the electrosurgical instrument may also include a microwave block that is operably coupled to the distal end of the electrosurgical instrument adjacent the dielectric load. In this particular instance, the microwave block includes a dielectric distal portion and a conductive proximal portion. The microwave block may be configured to shape electrosurgical energy exiting a distal side of the reflector and improve efficiency of the
electrosurgical instrument when the electrosurgical instrument is in the first mode of operation. The dielectric portion of the microwave block may include a dielectric constant that is less than a dielectric constant of the dielectric load of the distal end."


Keywords for this news article include: COVIDIEN LP.

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HITACHI METALS, LTD.

Patent Issued for External Fixation Device and Fixation Device Set (USPTO 9526523)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventors Aoki, Masaaki (Takasaki, JP); Ochi, Mitsuo (Hiroshima, JP), filed on June 11, 2013, was published online on December 27, 2016.

The patent's assignee for patent number 9526523 is HITACHI METALS, LTD. (Tokyo, JP).

News editors obtained the following quote from the background information supplied by the inventors: "Extensive articular cartilage damage is treated typically by making a small hole in the damaged area using a drill, or an awl to stimulate bleeding from bone marrow thereby introducing bone marrow mesenchymal cells into the joint. Applying a load, however, to the damaged part soon after the operation poses a risk of damaging still immature tissues.

"Patent Literature 1 discloses an example of an external fixation device which can be utilized in such a treatment of an articular cartilage damage. The external fixation device includes ball joints and a gear box, sandwiches the joint and mechanically fixes two sides of the joint in order to protect the damaged part, so that joint bone parts are separated from each other and the damaged part will have a reduced load. Then, with the external fixation device attached, the patient moves the joint."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "Technical Problem

"However, the external, fixation device disclosed in Patent Literature 1 includes a large number of parts and has a complicated structure.

"Patent Literature 2 discloses an external fixation device which includes a magnet. However, in this external fixation device, a pair of magnetic bodies, one of which fixed to a first bone portion and the other fixed to a second bone portion, contract to each other when the device is used, and cannot be utilized in treating an articular cartilage damage where the first bone portion and the second bone portion in a joint must be separated from each other.

"Therefore, a primary object of the present invention is to provide an external fixation device which includes a decreased number of parts and has a simple structure yet is
capable of separating a first bone portion and a second bone portion from each other in a joint thereby making possible to effectively treating the articular cartilage damage; and to provide a fixation device set.

"Solution to Problem

"According to an aspect of the present invention, there is provided an external fixation device for keeping a first bone portion and a second bone portion separated from each other in a joint, by attaching to a first pin which penetrates the first bone portion and to a second pin which penetrates the second bone portion. The device includes a first permanent magnet and a second permanent magnet which are opposed to each other, with their same poles facing each other; a first holding portion which is disposed on a surface of the first permanent magnet, on a side facing away from a surface opposing to the second permanent magnet, and is attached to the first pin; a second holding portion which is disposed on a surface of the second permanent magnet, on a side facing away from a surface opposing to the first permanent magnet, and is attached to the second pin; and a pair of first limiter portions which allow movement of the first permanent magnet and the second permanent magnet in a first direction defined as a direction of their repulsion force by sandwiching the first permanent magnet and the second permanent magnet from a second direction defined as a direction perpendicular to the first direction, and limit movement thereof in the second direction.

"In the present invention, the first permanent magnet and the second permanent magnet are disposed with their same poles opposed to each other, and a pair of first limiter portions sandwich the first permanent magnet and the second permanent magnet. Therefore, the first permanent magnet and the second permanent magnet repulse against each other, moving away from each other in the direction of the repulsion force, i.e., in the first direction. As a result, the first pin which is connected to the first permanent magnet via the first holding portion, and the second pin which is connected to the second permanent magnet via the second holding portion, move away from each other. This makes it possible to move a joint, with its first bone portion and second bone portion kept apart from each other, i.e., with the cartilage part of the cleft between articulations kept open. By utilizing the repulsion force between the first permanent magnet and the second permanent magnet as described above, it becomes possible to reduce the number of parts and simplify the structure, and therefore, it becomes possible to reduce a load to the damaged area of the articular cartilage (cartilage part under regeneration) and to effectively treat the articular cartilage damage. In other words, it becomes possible to obtain an external fixation device which includes a decreased number of parts and has a simple structure yet is capable of effectively treating the articular cartilage damage.

"Preferably, the external fixation device further includes a second limiter portion disposed to connect the pair of first limiter portions to each other to limit movement of the first permanent magnet and the second permanent magnet in a third direction defined as a direction perpendicular to both of the first direction and the second direction. In this case, it becomes possible to limit movement of the first permanent magnet and the second permanent magnet in the third direction which is the direction perpendicular to both of the first direction and the second direction. This prevents the first permanent magnet and the second permanent magnet from becoming twisted to each other, thereby providing a smoother linear reciprocating relative movement between the first permanent magnet and the second permanent magnet.

"Further preferably, the second limiter portion includes a magnetic member. In this case, the arrangement makes it possible to reduce a leakage magnetic field around the external fixation device. Therefore, the arrangement makes it possible to reduce adverse effect to the surrounds.

"Further, preferably, the external fixation device includes a ball joint for attaching at
least one of the first holding portion and the second holding portion to a corresponding one of the first pin and the second pin. In this case, at least one of the first holding portion and the second holding portion is attached to the corresponding pin(s) via the ball joint. Therefore, the arrangement allows simultaneous, relative stretching/contracting and pivoting movements between components on the first holding portion side and those on the second holding portion side of the external fixation device. Hence, the external fixation device is capable of following bending and stretching or pivoting movements of the joint, and the patient can move the joint freely. As a result, the joint can be moved smoothly, with a further reduced load onto the articular cartilage damage area (cartilage part under regeneration), making it possible to treat extensive articular cartilage damage more effectively.

"Preferably, the second holding portion is connected to the ball joint, whereas, the first holding portion has a through-hole for insertion of the first pin. In this case, the first holding portion can be attached easily to the first pin by inserting the first pin through the through-hole of the first holding portion, and by attaching the second holding portion to the second pin via the ball joint, the joint can be moved smoothly.

"Further preferably, at least one of the first holding portion and the second holding portion has a through-hole for insertion of the corresponding one of the first pin and the second pin. In this case, by inserting a corresponding pin(s), through the through-hole(s) of at least one of the first holding portion and the second holding portion, the holding portion is attached easily to the pin.

"Further, preferably, the external fixation device includes a slanted sleeve fitted into the through-hole. In this case, by fitting the slanted sleeve into the through-hole of the holding portion, the pin which penetrates the through-hole is oriented in a slanted direction. Therefore, it is possible to insert the pin into an area of the bone portion which has a high density of bone, depending on specific conditions of individual patients.

"Preferably, the pair of first limiter portions and the first holding portion are integral with each other. In this case, the arrangement further reduces the number of parts in the external fixation device.

"Further preferably, each of the first permanent magnet and the second permanent magnet is rectangular parallelepiped. In this case, it is possible to obtain a large repulsion force with a simple shape at reduced cost.

"According to another aspect of the present invention, there is provided a fixation device set which includes the above-described external fixation device for attaching to the first pin and the second pin on their common one end-side; and a pin fixture for attaching to the first pin and the second pin on their common another end-side. The pin fixture includes a fixture main body; a first connecting portion for connecting the fixture main body to the first pin; and a second connecting portion for connecting the fixture main body to the second pin.

"According to the present invention, the external fixation device is attached to a common one end-side of the first pin which penetrates the first bone portion and the second pin which penetrates the second bone portion, whereas the pin fixture is attached to the other common end-side of the first pin and the second pin. The arrangement reduces unnecessary movement of the first pin and the second pin, thereby reducing damage to the bone portions. This works effectively, especially for patients having a low density of bone. As described, it becomes possible to obtain the fixation device set which includes a decreased number of parts and has a simple structure yet is capable effectively treating the articular cartilage damage.

"Preferably, the first connecting portion is pivotable with respect to the fixture main body, whereas the second connecting portion is linearly movable with respect to the fixture main body. In this case, therefore, even if there happens to be variations in the position of the first pin
and the second pin on the pin fixture side as viewed from the joint, it is possible to allow for
such variations and keep holding the other end-side of the first pin and the second pin.

"The above-described object and other objects, characteristics, aspects and
advantages of the present invention will become clearer from the following detailed description
of embodiments of the present invention to be made with reference to the attached drawings."

For additional information on this patent, see: Aoki, Masaaki; Ochi, Mitsuo. External
Fixation Device and Fixation Device Set. U.S. Patent Number 9526523, filed June 11, 2013,
and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-
Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetacgi%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9526523.PN.&OS=PN/9526523RS=PN/9526523

Keywords for this news article include: Bone Marrow, Bone Research, Immune
System, HITACHI METALS LTD.,

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NYXOA SA

Patent Issued for External Resonance Matching between an Implanted
Device and an External Device (USPTO 9526906)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the
inventor Mashiach, Adi (Tel Aviv, IL), filed on July 26, 2013, was published online on
December 27, 2016.

The patent's assignee for patent number 9526906 is NYXOA SA (Mont-st-Guibert,
BE).

News editors obtained the following quote from the background information
supplied by the inventors: "Neural modulation presents the opportunity to treat many
physiological conditions and disorders by interacting with the body's own natural neural
processes. Neural modulation includes inhibition (e.g., blockage), stimulation, modification,
regulation, or therapeutic alteration of activity, electrical or chemical, in the central, peripheral,
or autonomic nervous system. By modulating the activity of the nervous system, for example
through the stimulation of nerves or the blockage of nerve signals, several different goals may
be achieved. Motor neurons may be stimulated at appropriate times to cause muscle
contractions. Sensory neurons may be blocked, for instance to relieve pain, or stimulated, for
instance to provide a signal to a subject. In other examples, modulation of the autonomic
nervous system may be used to adjust various involuntary physiological parameters, such as
heart rate and blood pressure. Neural modulation may provide the opportunity to treat several
diseases or physiological conditions, a few examples of which are described in detail below.

"Among the conditions to which neural modulation may be applied is obstructive
sleep apnea (OSA). OSA is a respiratory disorder characterized by recurrent episodes of partial
or complete obstruction of the upper airway during sleep. During the sleep of a person without
OSA, the pharyngeal muscles relax during sleep and gradually collapse, narrowing the airway.
The airway narrowing limits the effectiveness of the sleeper's breathing, causing a rise in
CO.sub.2 levels in the blood. The increase in CO.sub.2 results in the pharyngeal muscles
contracting to open the airway to restore proper breathing. The largest of the pharyngeal
muscles responsible for upper airway dilation is the genioglossus muscle, which is one of
several different muscles in the tongue. The genioglossus muscle is responsible for forward
tongue movement and the stiffening of the anterior pharyngeal wall. In patients with OSA, the neuromuscular activity of the genioglossus muscle is decreased compared to normal individuals, accounting for insufficient response and contraction to open the airway as compared to a normal individual. This lack of response contributes to a partial or total airway obstruction, which significantly limits the effectiveness of the sleeper's breathing. In OSA patients, there are often several airway obstruction events during the night. Because of the obstruction, there is a gradual decrease of oxygen levels in the blood (hypoxemia). Hypoxemia leads to night time arousals, which may be registered by EEG, showing that the brain awakes from any stage of sleep to a short arousal. During the arousal, there is a conscious breath or gasp, which resolves the airway obstruction. An increase in sympathetic tone activity rate through the release of hormones such as epinephrine and noradrenaline also often occurs as a response to hypoxemia. As a result of the increase in sympathetic tone, the heart enlarges in an attempt to pump more blood and increase the blood pressure and heart rate, further arousing the patient. After the resolution of the apnea event, as the patient returns to sleep, the airway collapses again, leading to further arousals.

"These repeated arousals, combined with repeated hypoxemia, leaves the patient sleep deprived, which leads to daytime somnolence and worsens cognitive function. This cycle can repeat itself up to hundreds of times per night in severe patients. Thus, the repeated fluctuations in and sympathetic tone and episodes of elevated blood pressure during the night evolve to high blood pressure through the entire day. Subsequently, high blood pressure and increased heart rate may cause other diseases.

"Efforts for treating OSA include Continuous Positive Airway Pressure (CPAP) treatment, which requires the patient to wear a mask through which air is blown into the nostrils to keep the airway open. Other treatment options include the implantation of rigid inserts in the soft palate to provide structural support, tracheotomies, or tissue ablation.

"Another condition to which neural modulation may be applied is the occurrence of migraine headaches. Pain sensation in the head is transmitted to the brain via the occipital nerve, specifically the greater occipital nerve, and the trigeminal nerve. When a subject experiences head pain, such as during a migraine headache, the inhibition of these nerves may serve to decrease or eliminate the sensation of pain.

"Neural modulation may also be applied to patients with hypertension. Blood pressure in the body is controlled via multiple feedback mechanisms. For example, baroreceptors in the carotid body in the carotid artery are sensitive to blood pressure changes within the carotid artery. The baroreceptors generate signals that are conducted to the brain via the glossopharyngeal nerve when blood pressure rises, signaling the brain to activate the body's regulation system to lower blood pressure, e.g., through changes to heart rate, and vasodilation/vasoconstriction. Conversely, parasympathetic nerve fibers on and around the renal arteries generate signals that are carried to the kidneys to initiate actions, such as salt retention and the release of angiotensin, which raise blood pressure. Modulating these nerves may provide the ability to exert some external control over blood pressure.

"The foregoing are just a few examples of conditions to which neuromodulation may be of benefit. But the embodiments of the invention described hereafter are not necessarily limited to treating only the above-described conditions."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventor's summary information for this patent: "Some embodiments of the disclosure may include a device for wirelessly powering an implant unit in a body of a subject from a location outside of the body of the subject, wherein the implant unit includes a secondary antenna for wirelessly receiving energy. The device may include a primary
antenna configured to be located external to the body of the subject, a circuit electrically connected to the primary antenna, and at least one processor electrically connected to the primary antenna and the circuit. The at least one processor may determine a resonant frequency mismatch between a first resonant frequency associated with the primary antenna and a second resonant frequency associated with the secondary antenna associated with the implant unit; and apply an adjustment to at least one component of the circuit to cause a change in the first resonant frequency associated with the primary antenna and a reduction in the resonant frequency mismatch.

"In some other embodiments, the device may include a primary antenna configured to be located external to a subject, a circuit electrically connected to the primary antenna and associated with a plurality of selectable capacitance values. The device may also include at least one processor configured to determine a transmission efficiency value between the primary antenna and the secondary antenna for each of a plurality of frequencies; and select a capacitance value to be included in the circuit, from among the plurality of selectable capacitance values, based on the determined transmission efficiencies.

"Additional features of the disclosure will be set forth in part in the description that follows, and in part will be obvious from the description, or may be learned by practice of the disclosed embodiments.

"It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory only, and are not restrictive of the invention, as claimed."


Keywords for this news article include: Pain, Headache, Angiology, NYXOAH SA, Blood Pressure, Airway Obstruction, Respiration Disorders, Obstructive Sleep Apnea, Neurologic Manifestations, Respiratory Insufficiency, Nervous System Diseases and Conditions, Respiratory Tract Diseases and Conditions.

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Intuitive Surgical Operations, Inc.

Patent Issued for Flow Reduction Hood Systems (USPTO 9526401)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventors Saadat, Vahid (Atherton, CA); Tam, Edmund (Mountain View, CA); Rothe, Chris A. (San Mateo, CA); Miller, David (Cupertino, CA); Peh, Ruey-Feng (Singapore, SG), filed on January 16, 2013, was published online on December 27, 2016.

The patent's assignee for patent number 9526401 is Intuitive Surgical Operations, Inc. (Sunnyvale, CA).

News editors obtained the following quote from the background information supplied by the inventors: "Conventional devices for accessing and visualizing interior regions of a body lumen are known. For example, ultrasound devices have been used to produce images
from within a body in vivo. Ultrasound has been used both with and without contrast agents, which typically enhance ultrasound-derived images.

"Other conventional methods have utilized catheters or probes having position sensors deployed within the body lumen, such as the interior of a cardiac chamber. These types of positional sensors are typically used to determine the movement of a cardiac tissue surface or the electrical activity within the cardiac tissue. When a sufficient number of points have been sampled by the sensors, a 'map' of the cardiac tissue may be generated.

"Another conventional device utilizes an inflatable balloon which is typically introduced intravascularly in a deflated state and then inflated against the tissue region to be examined. Imaging is typically accomplished by an optical fiber or other apparatus such as electronic chips for viewing the tissue through the membrane(s) of the inflated balloon. Moreover, the balloon must generally be inflated for imaging. Other conventional balloons utilize a cavity or depression formed at a distal end of the inflated balloon. This cavity or depression is pressed against the tissue to be examined and is flushed with a clear fluid to provide a clear pathway through the blood.

"However, such imaging balloons have many inherent disadvantages. For instance, such balloons generally require that the balloon be inflated to a relatively large size which may undesirably displace surrounding tissue and interfere with fine positioning of the imaging system against the tissue. Moreover, the working area created by such inflatable balloons are generally cramped and limited in size. Furthermore, inflated balloons may be susceptible to pressure changes in the surrounding fluid. For example, if the environment surrounding the inflated balloon undergoes pressure changes, e.g., during systolic and diastolic pressure cycles in a beating heart, the constant pressure change may affect the inflated balloon volume and its positioning to produce unsteady or undesirable conditions for optimal tissue imaging.

"Accordingly, these types of imaging modalities are generally unable to provide desirable images useful for sufficient diagnosis and therapy of the endoluminal structure, due in part to factors such as dynamic forces generated by the natural movement of the heart. Moreover, anatomic structures within the body can occlude or obstruct the image acquisition process. Also, the presence and movement of opaque bodily fluids such as blood generally make in vivo imaging of tissue regions within the heart difficult.

"Other external imaging modalities are also conventionally utilized. For example, computed tomography (CT) and magnetic resonance imaging (MRI) are typical modalities which are widely used to obtain images of body lumens such as the interior chambers of the heart. However, such imaging modalities fail to provide real-time imaging for intra-operative therapeutic procedures. Fluoroscopic imaging, for instance, is widely used to identify anatomic landmarks within the heart and other regions of the body. However, fluoroscopy fails to provide an accurate image of the tissue quality or surface and also fails to provide for instrumentation for performing tissue manipulation or other therapeutic procedures upon the visualized tissue regions. In addition, fluoroscopy provides a shadow of the intervening tissue onto a plate or sensor when it may be desirable to view the intraluminal surface of the tissue to diagnose pathologies or to perform some form of therapy on it.

"Moreover, many of the conventional imaging systems lack the capability to provide therapeutic treatments or are difficult to manipulate in providing effective therapies. For instance, the treatment in a patient's heart for atrial fibrillation is generally made difficult by a number of factors, such as visualization of the target tissue, access to the target tissue, and instrument articulation and management, amongst others.

"Conventional catheter techniques and devices, for example such as those described in U.S. Pat. Nos. 5,895,417; 5,941,845; and 6,129,724, used on the epicardial surface of the
heart may be difficult in assuring a transmural lesion or complete blockage of electrical signals. In addition, current devices may have difficulty dealing with varying thickness of tissue through which a transmural lesion desired.

"Conventional accompanying imaging devices, such as fluoroscopy, are unable to detect perpendicular electrode orientation, catheter movement during the cardiac cycle, and image catheter position throughout lesion formation. Without real-time visualization, it is difficult to reposition devices to another area that requires transmural lesion ablation. The absence of real-time visualization also poses the risk of incorrect placement and ablation of critical structures such as sinus node tissue which can lead to fatal consequences.

"Thus, a tissue imaging system which is able to provide real-time in vivo access to and images of tissue regions within body lumens such as the heart through opaque media such as blood and which also provides instruments for therapeutic procedures are desirable."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "The tissue-imaging apparatus described relates to variations of a device and/or method to provide real-time images in vivo of tissue regions within a body lumen such as a heart, which is filled with blood flowing dynamically therethrough. Such an apparatus may be utilized for many procedures, e.g., mitral valvuloplasty, left atrial appendage closure, arrhythmia ablation, transseptal access and patent foramen ovale closure among other procedures. Further details of such a visualization catheter and methods of use are shown and described in U.S. Pat. Pub. 2006/0184048 A1, which is incorporated herein by reference in its entirety.

"A tissue imaging and manipulation apparatus that may be utilized for procedures within a body lumen, such as the heart, in which visualization of the surrounding tissue is made difficult, if not impossible, by medium contained within the lumen such as blood, is described below. Generally, such a tissue imaging and manipulation apparatus comprises an optional delivery catheter or sheath through which a deployment catheter and imaging hood may be advanced for placement against or adjacent to the tissue to be imaged.

"The deployment catheter may define a fluid delivery lumen therethrough as well as an imaging lumen within which an optical imaging fiber or electronic imaging assembly may be disposed for imaging tissue. When deployed, the imaging hood may be expanded into any number of shapes, e.g., cylindrical, conical as shown, semi-spherical, etc., provided that an open area or field is defined by the imaging hood. The open area is the area within which the tissue region of interest may be imaged. The imaging hood may also define an atraumatic contact lip or edge for placement or abutment against the tissue region of interest. Moreover, the distal end of the deployment catheter or separate manipulatable catheters may be articulated through various controlling mechanisms such as push-pull wires manually or via computer control.

"The visualization catheter may also have one or more membranes or layers of a polymeric material which covers at least a portion of the open area. The membrane or layer may be an extension of the deployed hood or it may be a separate structure. In either case, the membrane or layer may define at least one opening which allows for fluid communication between the visualization hood and the fluid environment within which the catheter is immersed.

"In operation, after the imaging hood has been deployed, fluid may be pumped at a positive pressure through the fluid delivery lumen until the fluid fills the open area completely and displaces any blood from within the open area. When the hood and membrane or layer is pressed against the tissue region to be visualized or treated, the contact between the one or more openings and the tissue surface may help to retain the clear fluid within the hood for visualization. Moreover, the membrane or layer may help to retain the fluid within the hood.
while also minimizing any fluid leakage therefrom. Additionally, the one or more openings may also provide for direct access to the underlying tissue region to be treated by any number of tools or instruments positioned within the hood.

"The fluid may comprise any biocompatible fluid, e.g., saline, water, plasma, Fluorinert.TM., etc., which is sufficiently transparent to allow for relatively undistorted visualization through the fluid. The fluid may be pumped continuously or intermittently to allow for image capture by an optional processor which may be in communication with the assembly.

"The imaging hood may be deployed into an expanded shape and retracted within a catheter utilizing various mechanisms. Moreover, the imaging element, such as a CCD/CMOS imaging camera, may be positioned distally or proximally of the imaging hood when collapsed into its low-profile configuration. Such a configuration may reduce or eliminate friction during deployment and retraction as well as increase the available space within the catheter not only for the imaging unit but also for the hood.

"In further controlling the flow of the purging fluid within the hood, various measures may be taken in configuring the assembly to allow for the infusion and controlled retention of the clearing fluid into the hood. By controlling the infusion and retention of the clearing fluid, the introduction of the clearing fluid into the patient body may be limited and the clarity of the imaging of the underlying tissue through the fluid within the hood may be maintained for relatively longer periods of time by inhibiting, delaying, or preventing the infusion of surrounding blood into the viewing field.

"One variation for controlling the flow of the purging fluid within and from the hood may include a distensible and/or inflatable membrane which extends over the distal opening of the hood to at least partially enclose the open area or field with an aperture defined along the membrane. The aperture may be controlled to decrease or increase in size via a number of mechanisms to control the fluid rate therethrough. For instance, the aperture may be controlled by the inflation or deflation of the membrane extending over the hood opening. Other variations may utilize a membrane which is retractable over the hood to control aperture size.

"Other variations may include aperture openings having other configurations such as an aperture which is slotted transversely relative to the catheter. Such a slotted aperture may extend along the entire length of the diameter of the membrane or just along a portion thereof to facilitate access of an instrument, e.g., ablation instrument, to the underlying visualized tissue. Moreover, the aperture may also function, e.g., as a template for ablation probes to create linear ablation lesions on the contacted tissue by following the slotted aperture as well as restricting or inhibiting the flow of the purging fluid from the hood. Other variations for aperture configuration may include one or more slotted openings which extend in an arcuate or curved manner over the covering or membrane. Yet another variation may include a meshed membrane or covering over the distal opening of the hood.

"Other variations for controlling fluid flow may also include a plurality of inflatable elongate strips or barriers which extend over the opening of the hood adjacent to one another such that the entire distal opening of the hood may be closed by inflation or expansion of these strips or barriers. Yet another variation may comprise a rotatable barrier which may pivot or rotate relative to one or more stationary segments which are non-moving relative to the hood to transition between an open and closed configuration. By rotating the barrier, segmented openings may be formed between each respective adjacent segment. By fully rotating the barrier, the segmented openings may be fully opened and the size of the segmented openings formed can thus be controlled by rotating the barrier accordingly.

"In collapsing and/or deploying a hood having a flow-control aperture, one variation
for collapsing such an assembly may include use of a dilating instrument which may be advanced through the hood to engage the aperture. As the dilator is pushed further distally, the support struts supporting the hood may become straightened relative to the dilator and collapsed into a low-profile configuration. With this variation, the hood may be collapsed for delivery without having to retract the hood into a catheter sheath. Additionally, with the ability to collapse the hood distally rather than proximally, the projecting tip of the dilator may be used to actively dilate tissue openings, cavities, flaps, etc. such as the fossa ovalis or the coronary sinus."

For additional information on this patent, see: Saadat, Vahid; Tam, Edmund; Rothe, Chris A.; Miller, David; Peh, Ruey-Feng. Flow Reduction Hood Systems. U.S. Patent Number 9526401, filed January 16, 2013, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&p=1&u=%2Fnetacgi%2Fnh2html%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9526401.PN.&OS=PN/9526401RS=PN/9526401

Keywords for this news article include: Cardiology, Intuitive Surgical Operations Inc.

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Ochsner Clinic Foundation

Patent Issued for Fusion Proteins of Collagen-Binding Domain and Parathyroid Hormone (USPTO 9528099)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Gensure, Robert C. (New York, NY); Sakon, Joshua (Fayetteville, AR); Matsushita, Osamu (Okayama, JP); Ponnapakkam, Tulasi (New York, NY), filed on June 18, 2015, was published online on December 27, 2016. The assignee for this patent, patent number 9528099, is Ochsner Clinic Foundation (N/A).

Reporters obtained the following quote from the background information supplied by the inventors: "Osteoporosis is a bone disease characterized by thinning of bone tissue and loss of bone density over time. It is widely prevalent in the elderly. The National Osteoporosis Foundation estimates that by 2020 nearly 14 million Americans will suffer from osteoporosis. An additional 18 million may have low bone mass, or osteopenia. Osteoporosis can occur either because the body fails to make enough new bone or reabsorbs too much old bone, or both.

"Osteoporosis often progresses painlessly until a bone breaks. Any bone can be affected, but one of principal concern is the hip. A hip fracture impairs a person's ability to walk and causes prolonged and sometimes permanent disability.

"Osteoporosis can be treated with anabolic therapies or antiresorptive therapies. Anabolic therapies build new bone. But antiresorptive therapies do not. Instead they slow the resorption of existing bone. A major factor in the control of bone remodeling is parathyroid hormone (PTH). PTH and its analogs are the only class of anabolic therapeutics with proven clinical efficacy. Teriparatide is an approved therapeutic that is a shortened version of PTH. It consists of the N-terminal 34 amino acid residues of mature PTH (PTH(1-34)). Teriparatide is administered by once daily subcutaneous injection.
"PTH is an 84-amino acid peptide. It is involved in mineral ion homeostasis. Increased PTH mobilizes calcium from bone in response to calcium deficient diets or vitamin D insufficiency. PTH also affects osteoblasts and stromal cells. Although hyperparathyroidism is associated with bone loss, PTH administration causes bone gain. PTH binds to receptors on osteoblasts, specialized bone cells that synthesize bone, and this appears to prolong osteoblast life and increase osteoblast activity, causing bone gain.

"PTH-related peptide (PTHrP) is a 141-amino acid protein that is homologous to PTH over its first 13 amino acids but diverges thereafter (1-3). PTH and PTHrP act through a common PTH/PTHrP receptor.

"New treatments for osteoporosis are needed. Improved methods to deliver PTH, teriparatide, or other PTH/PTHrP receptor agonist agents are needed."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "One embodiment disclosed herein involves compositions or bioactive agents comprising a collagen-binding polypeptide segment linked to a PTH/PTHrP receptor agonist. The inventors have constructed fusion proteins containing residues 1-33 of PTH, an active agonist fragment of PTH, fused to a collagen-binding domain (CBD) of CloH, a collagenase from Clostridium histolyticum. The inventors have found that the fusion protein is more active than PTH(1-34) in promoting bone growth in vivo in mice, even when administered systemically. With local administration to, for instance, a fracture site, the difference in efficacy is expected to be even greater. Peptides that are antagonists of the PTH/PTHrP receptor can also be coupled to a CBD for targeted and enhanced bioactivity.

"Compositions or bioactive agents containing a collagen-binding polypeptide segment coupled to a non-peptidyl agonist or antagonist of the PTH/PTHrP receptor are also presented.

"Collagen is the most abundant protein in mammals. It is the major protein component of bone and cartilage. A CBD-bioactive agent fusion protein thus targets the bioactive agent to collagen, and generally to bone and cartilage. The CBD-PTH fusion proteins have longer half-lives than PTH because of their stable binding to collagen, which tends to remove them from circulation. They can be administered locally, for instance, at a fracture site, and will tend to remain at the site of administration through binding to collagen at or near the site of administration. In support of this longer half-life, a fusion protein containing epidermal growth factor (EGF) with a CBD was shown to have much longer half life than EGF alone (8). Data is also presented in Examples 4 and 5 herein showing that a PTH-CBD fusion protein administered weekly or monthly is as effective or more effective than PTH(1-34) administered daily.

"One embodiment provides a composition comprising: a collagen-binding polypeptide segment linked to a PTH/PTHrP receptor agonist; wherein the collagen-binding polypeptide segment is a bacterial collagen-binding polypeptide segment.

"One embodiment provides a composition comprising: a collagen-binding polypeptide segment linked to a PTH/PTHrP receptor agonist; wherein the collagen-binding polypeptide segment is a segment of a collagenase.

"One embodiment provides a composition comprising: a collagen-binding polypeptide segment linked to a PTH/PTHrP receptor agonist; wherein, over an 8-week period, the increase in bone mineral density of the composition injected with a vehicle intraperitoneally weekly in a mouse relative to the vehicle alone is at least 50% larger than the increase in bone mineral density of an equimolar amount of a composition consisting of the PTH/PTHrP agonist relative to the vehicle alone.
"That is, the bioactive agent (composition) causes an increase in bone mineral density in mice when administered at an appropriate dose in a vehicle, such as an aqueous buffer solution. A control treatment with the vehicle alone may also result in some change in bone mineral density, for example because the mice are juveniles that are still growing or elderly mice whose bone mineral density is otherwise declining. The appropriate way to measure the effect of the bioactive agent is to measure increase in bone mineral density in experimental mice treated with the agent minus increase (or decrease) in bone mineral density in control mice treated with vehicle alone. This increase in bone mineral density with administration of the agent after correction for change in bone mineral density in control mice receiving vehicle alone is at least 50% larger than the increase in bone mineral density in mice treated with an agent containing only the PTH/PTHrP receptor agonist (not coupled to a collagen-binding polypeptide segment), again after correcting for any changes in bone mineral density in control mice treated with vehicle alone. For instance, in FIG. 3 herein, described in Example 4, the vehicle control mice have an increase in bone mineral density during an 8-week treatment period of 5%, mice treated with PTH(1-34) (a PTH/PTHrP agonist) have an increase in BMD of about 7.5%, and mice treated with a PTH-CBD fusion protein containing PTH(1-33) coupled to a collagen-binding domain have an increase in BMD of over 15%. The mice treated with the PTH-CBD fusion protein thus have an increase in BMD after correcting for the change with vehicle alone of over 10% (over 15% minus 5%), and the mice treated with PTH(1-34) have an increase in BMD after correcting for the change with vehicle alone of about 2.5% (about 7.5% minus 5%). Thus, intraperitoneal weekly injection of the fusion protein causes over 300% more (over 4-times as much, over 10% versus about 2.5%) increase in BMD as injection of the PTH(1-34).

"Another embodiment provides a fusion protein comprising: a bacterial collagen-binding polypeptide segment; linked to a PTH/PTHrP receptor agonist polypeptide segment.

"Another embodiment provides a fusion protein comprising: a collagen-binding polypeptide segment of a collagenase; linked to a PTH/PTHrP receptor agonist polypeptide segment.

"Another embodiment provides a fusion protein comprising: a collagen-binding polypeptide segment; linked to a PTH/PTHrP receptor antagonist polypeptide segment.

"Another embodiment provides a composition comprising: a collagen-binding polypeptide segment; linked to a non-peptidyl PTH/PTHrP receptor agonist.

"Another embodiment provides a composition comprising: a collagen-binding polypeptide segment; linked to a non-peptidyl PTH/PTHrP receptor antagonist.

"Another embodiment provides a method of promoting bone growth in a mammal comprising: administering to the mammal a composition comprising: (a) a collagen-binding polypeptide segment; linked to (b) a PTH/PTHrP receptor agonist.

"Another embodiment provides a method of promoting bone growth in a mammal comprising: administering to the mammal a composition comprising (a) a collagen-binding polypeptide segment; linked to (b) a PTH/PTHrP receptor agonist.

"Another embodiment provides a method of promoting hair growth in a mammal comprising: administering to the mammal a composition comprising: (i) a collagen-binding polypeptide segment; linked to (ii) a PTH/PTHrP receptor agonist polypeptide segment.

"Another embodiment provides a method of promoting hair growth in a mammal comprising: administering to the mammal a composition comprising: (i) a collagen-binding polypeptide segment; linked to (ii) a PTH/PTHrP receptor antagonist.

"Another embodiment provides a method of promoting tissue growth around an
implant in a mammal comprising: administering to the mammal a composition comprising (a) a collagen-binding polypeptide segment; linked to (b) a PTH/PTHrP receptor agonist; wherein before, during, or after the step of administering the composition, the mammal receives an implant placed in contact with tissue in the mammal; and wherein the step of administering the composition is effective to promote tissue growth around the implant.

"Another embodiment provides a method of promoting immune reconstitution in a mammal comprising: administering to the mammal a composition comprising: (a) a collagen-binding polypeptide segment; linked to (b) a PTH/PTHrP receptor agonist; wherein before, during, or after the step of administering the composition, the mammal receives an administration of bone marrow stem cells. The composition enhances immune reconstitution by enhancing grafting, multiplication, and/or differentiation of the bone marrow stem cells.

"Another embodiment provides a method of promoting bone marrow stem cell mobilization in a mammal comprising: administering to the mammal a composition comprising: (a) a collagen-binding polypeptide segment; linked to (b) a PTH/PTHrP receptor agonist; wherein administering the composition increases the number of stem cells in circulating blood of the mammal (e.g., 7, 14, or 30 days after administering the fusion protein).

"Another embodiment provides a method of treating or preventing renal osteodystrophy in a mammal comprising: administering to the mammal a composition comprising: (a) a collagen-binding polypeptide segment; linked to (b) a PTH/PTHrP receptor antagonist; wherein the mammal is afflicted with renal osteodystrophy or renal disease and the composition is effective to reduce bone loss in the mammal.

"Another embodiment provides a method of treating or preventing (i.e., reducing incidence of) bone metastasis of cancer in a mammal comprising: administering to the mammal a composition comprising: (a) a collagen-binding polypeptide segment; linked to (b) a PTH/PTHrP receptor antagonist; wherein the composition is administered at a dosage effective to reduce incidence of bone metastasis of cancer or slow the growth of metastatic cancer in bone."


Keywords for this news article include: Cancer, Kidney, Rickets, Oncology, Nephrology, Amino Acids, Collagenases, Osteoporosis, Teriparatide, Bone Research, Fusion Proteins, Peptide Hormones, Peptide Proteins, Stem Cell Research, Drugs and Therapies, Renal Osteodystrophy, Dermatological Agents, Enzymes and Coenzymes, Topical Debriding Agents.

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WASHINGTON UNIVERSITY
Patent Issued for Glycoengineered Outer Membrane Vesicles and Use Thereof as Vaccines (USPTO 9526775)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Feldman, Mario (Edmonton, CA); Price, Nancy

"Current vaccines against Gram positive bacteria, like Streptococcus pneumoniae, consist of chemically prepared conjugates comprising capsular polysaccharide chemically coupled to a protein carrier. Gram positive bacteria do not produce OMVs.

"There remains a need for alternative OMV vaccines and OMV vaccines against
Gram positive bacteria.

"This background information is provided for the purpose of making known information believed by the applicant to be of possible relevance to the present invention. No admission is necessarily intended, nor should be construed, that any of the preceding information constitutes prior art against the present invention."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "An object of the present invention is to provide glycoengineered outer membrane vesicles ('geOMV') and methods of manufacture and use thereof. The glycoengineered OMV comprise an OMV from a gram-negative bacteria engineered to produce one or more glycans that are not naturally produced from the gram-negative bacteria. When the one or more heterologous glycans are antigenic, these glycoengineered OMVs can be useful as vaccines. Described herein is a method to generate an immune response using glycoengineered OMV in which diverse carbohydrates, including, for example, O antigens from Gram negative and capsule from Gram positive bacteria, are expressed in a bacterium producing OMV, such as Escherichia coli. In one example, it was possible to exploit the similarities between capsule and O antigen synthesis to generate engineered E. coli cells packing capsule from Gram positive bacteria into OMV, to elicit an IgG immune response to the capsule glycan.

"In accordance with an aspect of the present invention, there is provided a recombinant, gram-negative bacteria comprising heterologous DNA encoding an enzyme or enzymes that produce a heterologous glycan, wherein the recombinant bacteria presents the heterologous glycan on its surface as a component of lipopolysaccharides (LPS) that replaces all or a portion of the naturally-occurring O antigen. The heterologous glycan can be one or more of the following: oligosaccharide from N-glycosylated protein (e.g., Campylobacter); oligosaccharide from O-glycosylated protein (e.g., Acinetobacter baumannii, Neisseria or Pseudomonas); O antigen from a gram-negative bacteria (e.g., Burkholderia pseudomallei); capsular polysaccharide from a gram-positive bacteria (e.g., Staphylococcus aureus or Streptococcus pneumoniae) or from a gram-negative bacteria (e.g., Acinetobacter baumannii, Neisseria or Pseudomonas); synthetic or non-bacterial glycan (e.g., Lewis antigen, a glycan identified as an antigen on cancer cells, a glycan derived from a eukaryotic pathogen, such as a fungus, or a glycan derived from a viral pathogen); or a combination of one or more of the above.

"In accordance with another aspect of the invention, there is provided an outer membrane vesicle obtained from recombinant, gram-negative bacteria comprising heterologous DNA encoding an enzyme or enzymes that produce a heterologous glycan, wherein the recombinant bacteria presents the heterologous glycan on its surface as a component of lipopolysaccharides (LPS) that replaces all or a portion of the naturally-occurring O antigen, wherein the outer membrane vesicle expresses the heterologous glycan on its surface.

"In accordance with another aspect of the invention, there is provided an immunogenic composition comprising outer membrane vesicles as described herein, that are obtained from recombinant, gram-negative bacteria comprising heterologous DNA encoding an enzyme or enzymes that produce a heterologous glycan, wherein the recombinant bacteria presents the heterologous glycan on its surface as a component of lipopolysaccharides (LPS) that replaces all or a portion of the naturally-occurring O antigen, wherein the outer membrane vesicle expresses the heterologous glycan on its surface.

"In accordance with another aspect of the invention, there is provided a vaccine comprising outer membrane vesicles as described herein, that are obtained from recombinant, gram-negative bacteria comprising heterologous DNA encoding an enzyme or enzymes that
produce a heterologous glycan, wherein the recombinant bacteria presents the heterologous glycan on its surface as a component of lipopolysaccharides (LPS) that replaces all or a portion of the naturally-occurring O antigen, wherein the outer membrane vesicle expresses the heterologous glycan on its surface.

"In accordance with another aspect of the invention, there is provided a use of an immunogenic composition or vaccine, as described herein, to inoculate a subject against a pathogenic bacteria, wherein the heterologous glycan is derived from the pathogenic bacteria.

"In accordance with another aspect of the invention, there is provided a method of raising an immune response in a mammal comprising administering to the mammal glycoengineered outer membrane vesicles, optionally in an immunogenic composition or a vaccine as described herein."

For more information, see this patent: Feldman, Mario; Price, Nancy; Garcia-Quintanilla, Fatima; Ielmini, Maria Veronica. Glycoengineered Outer Membrane Vesicles and Use Thereof as Vaccines. U.S. Patent Number 9526775, filed April 26, 2013, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9526775.PN.&OS=PN/9526775RS=PN/9526775

Keywords for this news article include: Lipid A, Genetics, Vaccines, Deacylase, Endotoxins, Immunology, O Antigens, Engineering, Epidemiology, Immunization, Meningococcal, Neisseriaceae, Alcaligenaceae, Whooping Cough, Bacterial Toxins, Streptococaceae, Betaproteobacteria, Biological Factors, Biological Products, Lipopolysaccharides, Bordetella pertussis.

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PHARMED ARTIS GmbH

Patent Issued for Granzyme B Protease Variants (USPTO 9528101)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Barth, Stefan (Aachen, DE); Schiffer, Sonja (Juchen, DE); Hehmann-Titt, Grit (Aachen, DE), filed on September 21, 2012, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9528101 is assigned to PHARMED ARTIS GmbH (Aachen, DE).

The following quote was obtained by the news editors from the background information supplied by the inventors: "In the treatment of tumors, autoimmune diseases, allergies and tissue rejection reactions, it is a disadvantage that the currently available medicaments, such as chemotherapeutic agents, corticosteroids and immunosuppressive agents, have a potential of side effects which is sometimes considerable, due to their relative non-specificity. It has been attempted to moderate this by various therapeutical concepts. Especially the use of immunotherapeutic agents is an approach, which resulted in an increase of the specificity of medicaments, especially in tumor treatment.

"If the immunotherapeutic agent is an immunotoxin, then a monoclonal antibody (moAb) or an antibody fragment, which has a kinetic affinity for surface markers of tumor cells, is coupled with a cytotoxic reagent. If the immunotherapeutic agent is an anti-immunoconjugate for the treatment of autoimmune diseases, tissue rejection reactions or allergies, a structure relevant to pathogenesis or a fragment thereof is coupled to a toxin component. It has been
found that immunotoxins can be characterized by a high immunogenicity in clinical use. This causes the formation of neutralizing antibodies in the patient, which inactivate the immunotoxin. Generally, a repeated and/or continuous administration of the therapeutic agents is unavoidable for long-term curative effects. This is particularly clear in the suppression of tissue rejection reactions after transplantsations, or in the treatment of autoimmune diseases, due to the partly demonstrated genetically caused predisposition to a pathogenic autoimmune reaction.

"The peptidic cell poisons which have been mostly used to date and are thus best characterized are the bacterial toxins diphtheria toxin (DT) (Beaumelle, B. et al. 1992; Chaudhary, V. et al. 1990; Kuzel, T. M. et al. 1993; LeMaistre, C. et al. 1998), Pseudomonas exotoxin A (PE) (Fitz Gerald, D. J. et al. 1988; Pai, L. H. and Pastan, I. 1998), and the plant-derived ricin-A (Engert, A. et al. 1997; Matthey, B. et al. 2000; O'Hare, M. et al. 1990; Schnell, R. et al. 2000; Thorpe, P. E. et al. 1988; Youle, R. J. and Neville, D. M. J. 1980). The mechanism of cytotoxic activity is the same in all of these toxins despite of their different evolutionary backgrounds. The catalytic domain inhibits protein biosynthesis by a modification of the elongation factor EF-2, which is important to translation, or of the ribosomes directly, so that EF-2 can no longer bind (Endo, Y. et al. 1987; Iglewski, B. H. and Kabat, D. 1975).

"In most of the constructs employed to date, the systemic application of immunotoxins results in more or less strong side effects. In addition to the 'vascular leak' syndrome (Baluna, R. and Vitetta, E. S. 1997; Schnell, R. et al. 1998; Vitetta, E. S. 2000), thrombocytopenia, hemolysis, renal insufficiency and sickness occur, depending on the construct employed and the applied dosage. Dose-dependent and reversible liver damage could also be observed (Battelli, M. G. et al. 1996; Grossbard, M. L. et al. 1993; Harkonen, S. et al. 1987). In addition to the documented side effects, the immunogenicity of the constructs employed to be observed in the use of the immunoconjugates or immunotoxins is the key problem of immunotherapy (Khazaeli, M. B. et al. 1994). This applies, in particular, to the humoral defense against the catalytic domains employed, such as ricin (HARA) (Grossbard, M. L. et al. 1998), PE (Kreitman, R. J. et al. 2000), or DT (LeMaistre, E. F. et al. 1992).

Theoretically, all non-human structures can provoke an immune response. Thus, the repeated administration of immunotoxins and immunoconjugates is subject to limitations. A logical consequence of these problems is the development of human immunotoxins, now named human cytolytic fusion proteins (Rybak, S. et al. 1992).

"WO 01/80880 A1 discloses the use of granzyme B as a human immunoprotease. The cytotoxic lymphocyte serine proteinase granzyme B induces apoptosis of abnormal cells by cleaving intracellular proteins at sites similar to those cleaved by caspases. However, granzyme B has a number of efficient natural inhibitors that prevent granzyme B-mediated apoptosis in certain cell types.

"Therefore the availability of a human serine protease with improved apoptotic activity and reduced sensitivity towards activity-inhibiting substances would be highly advantageous."

In addition to the background information obtained for this patent, NewsRX journalists also obtained the inventors' summary information for this patent: 'In a first aspect, embodiments of the disclosure provide polypeptides comprising a serine protease variant of wildtype human granzyme B, having a modification at one or more positions and showing increased apoptotic activity compared to wildtype granzyme B and reduced sensitivity to activity-inhibiting substances.

"In a further aspect, embodiments of this disclosure relate to polypeptides comprising a serine protease variant of wildtype human granzyme B as shown in SEQ ID NO: 1, having a
modification at one or more positions selected from the group of positions that correspond structurally or by amino acid sequence homology to the positions 28 and/or 201, or variants, modified forms, homologs, fusion proteins, functional equivalents or functional fragments thereof, wherein said polypeptide having a greater apoptotic activity compared to wildtype granzyme B and reduced sensitivity to activity-inhibiting substances.

"In a further aspect, embodiments of this disclosure relate to polypeptides comprising a serine protease having at least 90% identity to amino acids 1-227 of SEQ ID NO: 1, and which, as compared to amino acids 1-227 of SEQ ID NO: 1, comprises at least one modification at one or more positions corresponding to position 28 and/or 201, or a modified form thereof, wherein said polypeptides having a greater apoptotic activity compared to wildtype granzyme B and reduced sensitivity to activity-inhibiting substances.

"In still another aspect, embodiments of this disclosure provide nucleic acids encoding polypeptides variants with serine protease activity as disclosed herein, as well as vectors and host cells comprising such nucleic acids.

"In other aspects, this disclosure relates to compositions comprising polypeptide variants as described herein, wherein the compositions may be useful for, or used in, therapeutical, cosmetic and/or diagnostic applications. In one advantageous embodiment, the composition is used as a therapeutical composition for the treatment of cancer.

"In a further aspect, embodiments of this disclosure relate to methods for producing the polypeptide variants in a host cell by transforming the host cell with a DNA construct, advantageously including a promoter having transcriptional activity in the host cell, cultivating the transformed host cell in a suitable culture medium to allow expression of said protease and producing the protease. The method may also include recovering the produced protease.

"In an advantageous embodiment of this disclosure, the polypeptide having serine protease activity has the nucleic acid sequence of SEQ ID NO: 3, SEQ ID NO: 4 or SEQ ID NO: 5 or variants, modified forms, homologs, fusion proteins, functional equivalents or functional fragments thereof.

"The polypeptides according to present disclosure can be used for preparing a medicament for preventing or treating a disease like allergy, autoimmune reaction, tissue rejection reaction, or chronic inflammation reaction, in particular cancer.

"In a further aspect, the disclosure relates to purified complexes comprising a binding structure and a polypeptide according to present disclosure, medicaments comprising such a complex in combination with a pharmacologically acceptable carrier or diluent and the use of such a complex for treating a malignant disease, an allergy, autoimmune reaction, tissue rejection reaction, or chronic inflammation reaction, in particular cancer.

"Further, embodiments of this disclosure relate generally to the use of the polypeptides, compositions and complexes according to the present disclosure for the induction of cell death, in particular induction of cell death by apoptosis. Advantageously, polypeptides, compositions and complexes of this disclosure may be used for treating cancer.

"Before the disclosure is described in detail, it is to be understood that this disclosure is not limited to the particular component parts of the devices described or process steps of the methods described as such devices and methods may vary. It is also to be understood that the terminology used herein is for purposes of describing particular embodiments only, and is not intended to be limiting. It must be noted that, as used in the specification and the appended claims, the singular forms 'a,' 'an' and 'the' include singular and/or plural referents unless the context clearly dictates otherwise. It is moreover to be understood that, in case parameter ranges are given which are delimited by numeric values, the ranges are deemed to include these limitation values.
"To provide a comprehensive disclosure without unduly lengthening the specification, the applicant hereby incorporates by reference each of the patents and patent applications referenced above, in particular the disclosure of WO 01/80880 A2 and US 2009/0081185 A1."


Keywords for this news article include: Antibodies, Cancer, Genetics, Oncology, Granzymes, Immunology, Immunotoxins, Blood Proteins, Immunoproteins, Nanotechnology, Immunoglobulins, Serum Globulins, Immunoonjugates, Serine Proteases, PHARMED ARTIS GmbH, Peptide Hydrolases, Neutral Amino Acids, Emerging Technologies, Enzymes and Coenzymes, Serine Endopeptidases.

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Development Center for Biotechnology

Patent Issued for Humanized Alpha-Enolase Specific Antibodies and Methods of Uses in Cancer Therapy (USPTO 9527922)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Development Center for Biotechnology (New Taipei, TW) has been issued patent number 9527922, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Tsai, Shih-Chong (New Taipei, TW); Yuan, Ta-Tung (New Taipei, TW); Tseng, Shih-Chi (New Taipei, TW); Lai, Jiann-Shiun (New Taipei, TW); Wu, Chia-Cheng (New Taipei, TW); Huang, Chao-Yang (New Taipei, TW); Tsai, Ya-Wei (New Taipei, TW); Lok, Ying-Yung (New Taipei, TW); Wu, Chung-Hsiun (New Taipei, TW); Shih, Neng-Yao (Miaoli County, TW); Liu, Ko-Jiunn (Miaoli County, TW); Chen, Li-Tzong (Miaoli County, TW).

This patent was filed on December 31, 2014 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Tumors result from aberrant, unrestrained proliferation of a single cell, generating a clone of transformed cells. Cancer is characterized by tumor cells' autonomous growth and ability to metastasize to distant sites.

"Tumor cells may express unique antigens that can be recognized by the immune system. Tumor-associated antigens include, but are not limited to, mutated oncogenes, mutated normal cellular proteins, aberrantly expressed cellular proteins, abnormal cell-surface proteins, and oncogenic viral proteins. The immune system views these tumor-associated antigens as non-self and can produce antibodies to eradicate these foreign antigen-bearing tumor cells, while sparing the healthy cells. Therefore, identification of immunogenic tumor-associated antigens may be used as targets for clinical prognostic or therapeutic applications in cancer treatment.

"Certain malignancies may be identified by pleural effusion, which is excess fluid in
the space between the lung and chest wall. Lung carcinoma, breast carcinoma, and lymphoma cause about 75% of all malignant pleural effusions. Malignant pleural effusion may be enriched with lymphocytic infiltrates and tumor cells. Tumor-associated immune complexes or autoantibodies, such as anti-p53, antinuclear, and anti-\textcopyright-Myc antibodies, have been found in effusion fluids and are associated with poor prognosis. Several lung tumor-associated antigens have also been identified in malignant effusion, including, cytokeratin 19 fragments, neuron-specific enolase (ENO2), squamous cell carcinoma antigen, and soluble HLA-I, etc.

"Alpha-enolase (enolase-1, ENO1) is a multiple functional protein, which was first found as a key enzyme of the glycolysis pathways. Under normal conditions, ENO1 is expressed in the cytosol. However, ENO1 is also found to express on the cell surfaces of many cancer cells as a plasminogen receptor and on activated hematopoietic cells, such as neutrophils, lymphocytes and monocytes. It is known that the up-regulation of plasminogen receptor proteins can induce a cascade response of the urokinase plasminogen activation system (uPAS).

"The urokinase plasminogen activator system (uPAS) consists of the urokinase plasminogen activator (uPA), its cognate receptor (uPAR) and two specific inhibitors, the plasminogen activator inhibitor 1 (PAI-1) and plasminogen activator inhibitor 2 (PAI-2). Urokinase plasminogen activator converts plasminogen proenzyme into an active serine protease, plasmin. Plasmin is involved in a number of tissue remodeling processes, such as basement membrane (BM) and extracellular matrix (ECM) remodeling, which is required in tumor progression and metastasis. In addition, it has been shown that the uPAS may be involved in the neoplastic evolution, affecting tumor angiogenesis, malignant cell proliferation, adhesion and migration, intra-vascularization, and growth at the metastatic site.

"Specifically, activation of plasminogen can result in extracellular matrix degradations, which in turn can lead to increased metastasis of cancer cells and infiltration of immune cells. In other words, ENO1 expression on cancer cell surfaces as a plasminogen receptor can increase invasion activities of the cancer cells. Therefore, ENO1 is a potential target for cancer therapy."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "Embodiments of the invention relate to targeted binding agents (e.g., antibodies, or binding fragments thereof) that specifically bind human ENO1, thereby inhibiting ligand (e.g., plasminogen) binding to ENO1. By inhibiting binding of plasminogen to ENO1, targeted binding agents of the invention can inhibit plasminogen activation, leading to reduced degradation of extracellular matrix, which in turn prevents or reduces dissociation of cancer cells from the extracellular matrix. Therefore, targeted binding agents in accordance with embodiments of the invention can be used to inhibit tumor growth and metastasis. Mechanisms by which this can be achieved may include, but are not limited to, inhibition of binding of a ligand (such as plasminogen) to its receptor ENO1, or abrogation of inter-reactions between the receptor ENO1 and its ligands, thereby reducing the effective concentration of ENO1.

"In accordance with one embodiment of the invention, a targeted binding agent is a humanized antibody that can bind to human ENO1 to prevent its ligands (e.g., plasminogen) from binding to ENO1. Preventing binding of plasminogen to the receptor can prevent plasminogen activation. This results in the inhibition of the urokinase plasminogen activation system (uPAS) in the extracellular matrix of cancer cells.

"In accordance with some embodiments of the invention, the humanized antibody may bind ENO1 with high affinities, such as with a K.sub.d of less than 0.3 nM. Such tight binding agents can inhibit ENO1 with high efficiencies.

"In accordance with some embodiments of the invention, a targeted binding agent is
an humanized antibody that can bind to human ENO1 and inhibit induced plasmin activity on cancer cells with high efficiencies, such as 40%, 50%, 60%, 70%, 80%, 90%, or 100% inhibition. The inhibition assays may be performed by inducing ENO1 expression (hence, plasminogen activation) in a cancer cell (such as U937 human lymphoma cells) by treatment with an inducer, such as lipopolysaccharide (LPS) (e.g., 10 microgram/mL, for 5 hours). Inhibition of such induced plasmin activity may be assayed with an antibody at a suitable concentration. Using an antibody of the invention, such inhibition may be detected at antibody concentrations as low as 20 microgram/ml or less.

"In accordance with some embodiments of the invention, a targeted binding agent is an antibody that can bind to human ENO1. Such an antibody may be used to inhibit the invasion activity of a cancer cell. For example, antibodies of the invention can inhibit greater than 40%, 50%, 60%, or 70% of the invasion activity of U937 human lymphoma cells at antibody concentrations as low as 50 microgram/ml or less.

"In accordance with some embodiments of the invention, a targeted binding agent is an antibody that can bind to human ENO1 to inhibit extracellular matrix degradation, thereby inhibiting cancer cell dissociation from the extracellular matrix. For example, an antibody of the invention can inhibit greater than 40%, 50%, or 60% of plasminogen mediated dissociation of CL1-5 cells from collagen or fibronectin at antibody concentrations as low as 50 microgram/ml or less.

"In accordance with some embodiments of the invention, a targeted binding agent (i.e. a humanized antibody) may comprise a heavy chain amino acid sequence of SEQ ID NO: 1, 10 or 11.

"In accordance with some embodiments of the invention, a targeted binding agent (i.e. a humanized antibody) may comprise a light chain variable region amino acid sequence of SEQ ID NO: 2 or 9.

"In accordance with some embodiments of the invention, a targeted binding agent (i.e. an antibody) may comprise a heavy chain amino acid sequence having a complementarity determining region (CDR) comprising one of the CDR sequences included in sequences 1, 10 or 11. It is noted that those of ordinary skill in the art can readily accomplish CDR determinations. See for example, Kabat et al., 'Sequences of Proteins of Immunological Interest,' Fifth Edition, NIH Publication 91-3242, Bethesda Md. (1991), vols. 1-3.

"In accordance with some embodiments of the invention, a targeted binding agent (i.e. an antibody) may comprise a light chain amino acid sequence having a complementarity determining region (CDR) comprising one of the CDR sequences included in sequence 2 or 9 (FIG. 6B).

"In accordance with some embodiments of the invention, a targeted binding agent is a humanized antibody, or a binding fragment thereof, wherein the antibody may be a monoclonal antibody.

"In accordance with some embodiments of the invention, a humanized antibody that can bind human ENO1 protein comprises a light chain amino acid sequence comprising any one of LCDR1, LCDR2 or LCDR3 sequences included in SEQ ID NO: 9 (FIG. 6B).

"In accordance with some embodiments of the invention, a humanized antibody that can bind human ENO1 protein comprises a light chain amino acid sequence comprising any two of LCDR1, LCDR2 or LCDR3 sequence included in sequence 2 or 9 (that is, LCDR1 and LCDR2, LCDR1 and LCDR3 or LCDR2 and LCDR3).

"In accordance with some embodiments of the invention, a humanized antibody that can bind human ENO1 protein comprises a light chain amino acid sequences that comprises LCDR1, LCDR2 and LCDR3 sequences included in sequence 2 or 9 (FIG. 6B). In accordance
with certain embodiments of the invention, an antibody may be a humanized antibody or a fully human monoclonal antibody.

"In accordance with some embodiments of the invention, an humanized antibody that can bind human ENO1 protein comprises a heavy chain amino acid sequence comprising any one of HCDR1, HCDR2 or HCDR3 sequence included in sequence 1, 10, or 11 (FIG. 6A and FIG. 6B).

"In accordance with some embodiments of the invention, a humanized antibody that can bind human ENO1 protein comprises a heavy chain amino acid sequence that comprises any two of HCDR1, HCDR2 or HCDR3 sequence included in a sequence 1, 10, or 11 (FIG. 6A and FIG. 6B). (that is, HCDR1 and HCDR2, HCDR1 and HCDR3 or HCDR2 and HCDR3).

"In accordance with some embodiments of the invention, a humanized antibody that can bind human ENO1 protein comprises a heavy chain amino acid sequence that comprises HCDR1, HCDR2 and HCDR3 sequences included in sequence 1, 10 or 11 (FIG. 6A and FIG. 6B).

"In accordance with some embodiments of the invention, a humanized antibody that can bind human ENO1 protein comprises a light chain amino acid sequence having a CDR comprising one of the CDR sequences included in sequence 2 or 9 (FIG. 6B). In accordance with some embodiments of the invention, said targeted binding agent comprises a heavy chain amino acid sequence having at least one of the CDR sequences included in sequence 1, 10, or 11, and a light chain amino acid sequence having at least one of the CDR sequences included in sequence 2 or 9.

"In accordance with some embodiments of the invention, a targeted binding agent (i.e. an antibody) can compete for binding of plasminogen to human ENO1 protein. In accordance with some embodiments of the invention, said targeted binding agent comprises a heavy chain amino acid sequence having at least one of the CDR sequences included in sequence 1, 10, or 11, and a light chain amino acid sequence having at least one of the CDR sequences included in sequence 2 or 9.

"Some embodiments of the invention relate to methods for assaying the level of human ENO1 protein in a patient or a patient sample. A method of the invention comprises contacting a humanized anti-ENO1 antibody with a biological sample from a patient, and detecting the level of binding between said antibody and human ENO1 protein in said sample. In more specific embodiments, the biological sample is blood or plasma.

"Other embodiments of the invention relate to compositions comprising a targeted binding agent, which may include a humanized antibody or a functional fragment thereof, and a pharmaceutically acceptable carrier.

"Still further embodiments of the invention relate to methods for effectively treating a subject (e.g., human or animal) suffering from an ENO1 disease or disorder. The method may include selecting a subject in need of a treatment for a neoplastic or non-neoplastic disease, and administering to the subject a therapeutically effective dose of an antibody (which may be a humanized or a fully human monoclonal antibody) that specifically binds to ENO1 protein.

"The humanized antibody of the invention can be used to treat a human ENO1 protein-related disease or disorder. A human ENO1 protein related disease or disorder may be any condition arising from aberrant activation or expression of human ENO1 protein. Examples of such diseases include where human ENO1 protein aberrantly interacts with its ligands, thereby altering cell-adhesion or cell signaling properties. This alteration in cell adhesion or cell signaling properties can result in neoplastic diseases or some immune diseases.
"For example, a human ENO1 protein-related disease may be a neoplastic disease, such as lung, breast, pancreas, liver, colorectal, and prostate cancers.

"Additional embodiments of the invention relate to methods for inhibiting ENO1-induced cell dissociation from extracellular matrix of cancers in a subject. These methods may include selecting a subject (e.g., a human or an animal) in need of treatment for ENO1-induced cell dissociation, and administering to said subject a therapeutically effective dose of an antibody, wherein said antibody specifically binds to ENO1. The antibody is a humanized or fully human monoclonal antibody.

"Further embodiments of the invention relate to the uses of a humanized antibody in the preparation of a medicament for the treatment of an ENO1-related disease or disorder in a subject (e.g., a human or an animal), wherein said antibody specifically binds to ENO1. The antibody is a humanized or fully human monoclonal antibody.

"In accordance with some embodiments of the invention, the targeted binding agents described herein can be used for the preparation of a medicament for the treatment of ENO1 protein-induced cell dissociation from extracellular matrix in an animal, wherein said antibody specifically binds to ENO1. The antibody is a humanized or fully human monoclonal antibody.

"Some embodiments of the invention described herein relate to monoclonal antibodies that bind human ENO1 and affect human ENO1 functions. Other embodiments of the invention relate to anti ENO1 antibody preparations with desirable properties for therapy applications. Such properties may include a high binding affinity for ENO1, the ability to neutralize ENO1 activity in vitro and in vivo, and the ability to inhibit ENO1 induced cell dissociation, growth and metastasis of tumors.

"In some embodiments, the invention relates to a humanized antibody that can bind to human ENO1 with very high affinity (i.e., low K.sub.d). For example a humanized antibody that is capable of binding ENO1 with a K.sub.d less than about 10.sup.-5, 10.sup.-6, 10.sup.-7, 10.sup.-8, 10.sup.-9, 10.sup.-10 or about 10.sup.-11 M, or any range or value there between. Affinity and/or avidity measurements can be performed using ELISA and/or BIACORE, as described herein or according to techniques known in the art.

"It will be appreciated that embodiments of the invention are not limited to any particular form of an antibody or method of generation or production. For example, the anti-ENO1 antibody may be a full-length antibody (e.g., having an intact human Fe region) or an antibody fragment (e.g., a Fab, Fab' or F(ab') sub.2, FV or Dab (Dabs are the smallest functional binding units of human antibodies). In addition, the antibody may be manufactured from a recombinantly produced cell that has been transformed or transfected with a gene or genes encoding the humanized antibody.

"Other embodiments of the invention relate to isolated nucleic acid molecules encoding any of the humanized antibodies described herein, vectors having isolated nucleic acid molecules encoding a humanized anti-ENO1 antibody or a host cell transformed with any of such nucleic acid molecules.

"In addition, some embodiments of the invention relate to a method for producing a humanized anti-ENO1 antibody by culturing host cells under conditions wherein a nucleic acid molecule is expressed to produce the antibody, followed by recovering the antibody. It should be realized that embodiments of the invention may also include any nucleic acid molecule which encodes a humanized antibody or fragment of a humanized antibody of the invention including nucleic acid sequences optimized for increasing yields of antibodies or fragments thereof when transfected into host cells for antibody production.

"Other embodiments relate to the generation and identification of isolated humanized antibodies that can bind specifically to human ENO1. Inhibition of the biological activity of
ENO1 can be effected by these antibodies to prevent ENO1 induced cell dissociation, invasion and other desired effects of cancers.

"Other embodiments of the invention relate to pharmaceutical compositions having an effective amount of a humanized anti-ENO1 antibody. The composition may further comprise a pharmaceutically acceptable carrier or diluent. In yet other embodiments, the anti-ENO1 antibody, or a fragment thereof, is conjugated to a therapeutic agent. The therapeutic agent can be, for example, a toxin or a radioisotope.

"Yet other embodiments of the invention relate to methods for treating diseases or conditions associated with the expression of ENO1 in a patient. The methods may include administering to a patient an effective amount of a humanized anti-ENO1 antibody. The humanized anti-ENO1 antibody can be administered alone, or can be administered in combination with additional antibodies or chemotherapeutic drug or radiation therapy. For example, a monoclonal, oligoclonal or polyclonal mixture of ENO1 antibody that block cell dissociation can be administered in combination with a drug shown to inhibit tumor cell proliferation directly. The method can be performed in vivo and the patient is preferably a human patient. In a preferred embodiment, the method concerns the treatment of an ENO1-related disease or disorder including, but not limited to, neoplastic diseases, such as lung, breast, pancreas, liver, colorectal, prostate cancers and or solid tumors.

"Some embodiments of the invention relate to a method for monitoring cancer development. The method may comprise determining the abundance of alpha-enolase proteins (ENO1) in a sample (e.g., cancer cells), wherein an increased level of ENO1 correlates with cancer severity. In accordance with embodiments of the invention, the abundance may be determined by measuring binding of an ENO1 specific antibody to the ENO1 proteins.

"Some embodiments of the invention relate to a method for detecting cancer. Such a method may comprise determining the abundance of ENO1-specific antibodies in serum samples, wherein a low level of ENO1-specific antibodies indicates the presence of a malignant tumor."

For the URL and additional information on this patent, see: Tsai, Shih-Chong; Yuan, Ta-Tung; Tseng, Shih-Chi; Lai, Jiann-Shiun; Wu, Chia-Cheng; Huang, Chao-Yang; Tsai, YaWei; Lok, Ying-Yung; Wu, Chung-Hsiun; Shih, Neng-Yao; Liu, Ko-Jiunn; Chen, Li-Tzong. Humanized Alpha-Enolase Specific Antibodies and Methods of Uses in Cancer Therapy. U.S. Patent Number 9527922, filed December 31, 2014, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&p=1&u=%2Fnetacgi%2FParser.dll%2FNetAcgi&For=PN&d=PN&s1=9527922.PN.&OS=PN/9527922RS=PN/9527922

Keywords for this news article include: Antibodies, Antigens, Enolase, Urokinase, Immunology, Amino Acids, Thrombolytics, Beta-Globulins, Blood Proteins, Immunoglobulins, Enzyme Precursors, Biological Factors, Cell Proliferation, Peptide Hydrolases, Drugs and Therapies, Extracellular Space, Extracellular Matrix, Coagulation Modifiers, Enzymes and Coenzymes.

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DANA-FARBER CANCER INSTITUTE, INC.

Patent Issued for Humanized Monoclonal Antibodies and Methods of Use (USPTO 9527924)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Marasco, Wayne A. (Wellesley, MA); Sui, Jianhua (Stoneham, MA); Avnir, Yuval (Boston, MA), filed on June 2, 2011, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9527924 is assigned to DANA-FARBER CANCER INSTITUTE, INC. (Boston, MA).

The following quote was obtained by the news editors from the background information supplied by the inventors: "An influenza pandemic represents one of the greatest acute infectious threats to human health. The 1918-1919 influenza pandemic caused an estimated 500,000 deaths in the United States, making it the most fatal event in all of US history. The spread of highly pathogenic avian influenza (HPAI) H5N1 influenza across Asia and now to the Middle East and northern Africa creates a substantial risk for a new pandemic to arise.

"Natural variation as well as escape mutants suggests that continued evolution of the virus should impact the decision on which strain(s) should be used for passive and active immunization. Although a number of important epitope mapping and neutralization escape studies have been reported new neutralizing antibodies and related structural studies are needed to develop immunization strategies to develop a ‘universal vaccine’ against a broad range of Group 1 influenza viruses. The challenges to developing a protective vaccine against Group 1 influenza are formidable and new approaches are needed to prevent and treat human infection by an ever changing enemy. There is a need to rapidly develop therapeutic strategies to elicit protective host's immunity, both passively and actively."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: "The invention is based upon the discovery of monoclonal antibodies which bind the human immunoglobulin heavy chain variable region germline gene VH1-69. The monoclonal antibody is fully human. In various aspects, the monoclonal antibody is a bivalent antibody, a monovalent antibody, a single chain antibody or fragment thereof. Exemplary monoclonal antibodies include a monoclonal antibody that binds to the same epitope as murine monoclonal antibody G6.

"The monoclonal antibodies of the invention can have a binding affinity that is 1 nM or less.

"The monoclonal antibody has a heavy chain variable amino acid sequence containing SEQ ID NOS: 2 or 12, and/or a light chain variable amino acid sequence containing SEQ ID NO: 4. The monoclonal antibody has a heavy chain variable nucleic acid sequence containing SEQ ID NOS: 1 or 11, and/or a light chain variable nucleic acid sequence containing SEQ ID NO: 3.

"Also provided by the invention is a monoclonal human immunoglobulin heavy chain variable region germline gene VH1-69 antibody or fragment thereof, where the antibody has a CDRH1: GYTFTSYW (SEQ ID NO: 5); CDRH2: VSPGNSDT (SEQ ID NO: 6); and CDRH3: TRSRYGNALDY (SEQ ID NO: 7) and a CDRL1: QGISSNIWV (SEQ ID NO: 8); CDRL2: HGT (SEQ ID NO: 9); and CDRL3: VQYSEQFPPT (SEQ ID NO: 10).
"In some aspects the antibody according to the invention is covalently linked to an antigen. The antibody is preferably a single chain antibody and the antigen is the stem region of the hemagglutinin (HA) protein of an influenza virus.

"Also included in the invention are methods of augmenting the immune response of a subject to an antigen by administering to the subject an anti-immunoglobulin variable region germline gene idiootype antibody and an immunogen capable of inducing an immune reaction to the antigen. In some aspects the antibody is covalently linked to the antigen. The germline gene encodes for a light chain polypeptide or a heavy chain polypeptide. Preferably, the variable region germline gene is VH1-69. The antigen is a virus, a bacterium, or a fungus. For example the virus is an influenza virus. Preferably, the immunogen is the hemagglutinin (HA) protein of an influenza virus or fragment thereof. Most preferably, the immunogen contains the stem region of the hemagglutinin (HA) protein of an influenza virus. The antibody can be administered prior to, concurrently with, or subsequent to the administration of the immunogen.

"Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. Although methods and materials similar or equivalent to those described herein can be used in the practice or testing of the present invention, suitable methods and materials are described below. All publications, patent applications, patents, and other references mentioned herein are incorporated by reference in their entirety. In case of conflict, the present specification, including definitions, will control. In addition, the materials, methods, and examples are illustrative only and not intended to be limiting.

"Other features and advantages of the invention will be apparent from the following detailed description and claims."


Keywords for this news article include: Antibodies, Therapy, Genetics, Vaccines, Influenza, Pandemics, Immunology, Epidemiology, Immunization, Blood Proteins, Immunoproteins, Immunoglobulins, Serum Globulins, Biological Products, DANA-FARBER CANCER INSTITUTE INC.

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LAZURE SCIENTIFIC, INC.
Patent Issued for Immune Mediated Cancer Cell Destruction, Systems and Methods (USPTO 9526911)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Azure, Larry (La Conner, WA); Hill, Charles E. (Issaquah, WA); Azure, Andrew L. (Mount Vernon, WA); Ponce, Rafael (Seattle, WA); Kunz, Lawrence L. (Greenbank, WA), filed on April 27, 2011, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9526911 is assigned to LAZURE SCIENTIFIC, INC. (Issaquah,
The following quote was obtained by the news editors from the background information supplied by the inventors: "The present invention relates generally to electric field delivery to a tissue of a patient. More particularly, the present invention provides systems and methods for delivering electric fields to a target tissue of a patient for destruction of cancerous cells and eliciting or induction of a specific anti-cancerous cell immune response in the patient.

"The immune system is the body's natural defense against infection and disease, destroying foreign elements such as harmful bacteria and viruses that enter the body. In order for the immune system to provide effective defense against disease, it has to recognize and label agents that are 'foreign' and distinguish foreign infection from the body's own non-harmful cells and components. Once this happens, cells in the immune system can function to eliminate the foreign agents.

"Another important role of the immune system is to identify and eliminate tumors. The transformed cells of tumors include proteins or antigens that are not found on normal cells. To the immune system, these antigens appear foreign, and their presence causes immune cells to attack the transformed tumor cells. The antigens produced by tumors can have several sources, and may include those derived from a foreign infecting agent, such as a virus, as well as the body's own proteins that have been mutated or altered, or proteins that occur at low levels in normal cells but reach high levels in tumor cells.

"One primary response of the immune system to tumors is to destroy the abnormal cells using so called natural killer T cells, sometimes with the assistance of other immune cells, such as helper T cells. Tumor antigens may be processed and presented by immune cells in a similar way to viral or bacterial antigens. This allows immune cells such as killer T cells to recognize the tumor cell as abnormal. In addition, in some instances antibodies are generated against tumor cells allowing for their destruction by the complement system.

"While the immune system represents a powerful and vital defense against cancer, in some cases, tumors evade the immune system and go on to become cancers. Thus, there is great interest in cancer immunotherapy treatments and techniques that utilize or stimulate the body's own immune system to better combat and eradicate cancerous cells in the body. Cancer immunotherapy aims to teach the body's own natural defenses to identify cancer cells correctly and then kill them. There are different types of cancer immunotherapy, including cancer vaccines and a treatment called Antigen-Specific Cancer Immunotherapeutics (ASCI).

"While cancer immunotherapy holds tremendous promise, to date very few effective treatments have been developed. Thus, there is continued interest in techniques and treatments that can stimulate a patient's immune system to better combat cancerous cell growth."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: "Systems and methods are provided for delivering electric fields to a target tissue of a patient for destruction of cancerous cells so as to elicit or induce a specific anti-cancerous cell immune response in the patient. Methods include establishing an electrical current flow through a volume of the target tissue so as to preferentially destroy cancerous cells in the volume.

"Thus, in one aspect, the present invention includes systems and related methods for delivering electric fields to a target tissue of a patient for destruction of cancerous cells, including establishing an electrical current flow through a volume of the target tissue so as to preferentially destroy cancerous cells in the volume and induce a specific host anti-cancerous cell immune response. The electrical current flow can be selected such that thermal based protein coagulation and denaturation in the cancerous cells or tissue is minimized or substantially avoided. Administering an immunostimulatory agent or adjuvant can further be
accomplished.

"In another aspect, the present invention further includes methods including identifying a first target tissue site and a second target tissue site; eliciting destruction of cancerous cells of the first target tissue site comprising establishing an electrical current flow through a volume of the second target tissue so as to preferentially destroy cancerous cells in the volume and induce a specific host anti-cancerous cell immune response so as to control growth of cancerous cells at a location remote from the second target tissue that have not directly received electrical current flow. In some instances, cancerous cells will have been seeded at the second target tissue site.

"The present invention further includes systems and methods for delivering electric fields to a target tissue of a patient for destruction of cancerous cells, including identifying a first target tissue site and a second target tissue site; eliciting destruction of cancerous cells of the first target tissue site including establishing an electrical current flow through a volume of the second target tissue so as to preferentially destroy cancerous cells in the volume; removing tissue or fluid from the second target tissue following electrical current application; delivering to the first target tissue site the tissue or fluid removed from the second target tissue, so as to reduce growth of cancerous cells at a location remote from the second target tissue that have not directly received electrical current flow.

"For a fuller understanding of the nature and advantages of the present invention, reference should be made to the ensuing detailed description and accompanying drawings. Other aspects, objects and advantages of the invention will be apparent from the drawings and detailed description that follows."


Keywords for this news article include: Antigens, Cancer, Tumors, Genetics, Oncology, Immunology, Immunotherapy, Biological Factors, Drugs and Therapies, LAZURE SCIENTIFIC INC., Hemic and Immune Systems.

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Teva Pharmaceuticals Industries Ltd.

Patent Issued for Inhalers and Housing Caps for Inhalers (USPTO 9526858)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventor Zuyderhoudt, Krijn Franciscus Marie (Leiden, NL), filed on November 30, 2011, was published online on December 27, 2016.

The assignee for this patent, patent number 9526858, is Teva Pharmaceuticals Industries Ltd. (Petach Tivka, IL).

Reporters obtained the following quote from the background information supplied by the inventors: "A known inhaler for inhalation into the airway of a user has a housing at least
partially defining a flow passageway extending through the inhaler from an air inlet to an outlet. A pressurised metered dose canister may be placed in the housing and, when a user sucks on a mouthpiece of the housing, air may be drawn into the housing between the canister and an inner wall of the housing and may flow along past the canister towards the outlet. The canister includes a valve stem and a metering valve arranged to seat in a valve stem block formed on the housing and a main canister body of the canister may be moved relative to the housing and valve stem so as to operate the metering valve and fire a metered dose of propellant and active drug through the valve stem block and into the flow passageway.

"This type of inhaler often works well, but some users may find it difficult to coordinate an inward breath for inhalation with firing of the canister and, if the canister is fired too early or late relative to an inhalation breath, optimum inhalation may not be achieved.

"In WO 2009/128491, which is incorporated by reference herein, a vinyl bag with holes in it is attached to an inhaler body to provide air flow resistance.

"In WO 98/41252, which is incorporated by reference herein, an inhaler includes an end cap and housing and the end cap is slideable relative to the housing between a configuration in which there are respective minimum and maximum air flows through the housing. The housing has to be specially formed with a rim and a special collar needs to be located between the housing and end cap and a movement of the collar relative to a dispensing container of the device is undesirably required during an initial setting up of the device. It may also be possible for fluff or debris to become lodged but difficult to sense near the air inlets of the device near the collar, potentially allowing inhalation thereof, and the air inlet area is limited by narrow gaps between the collar and housing.

"WO 2008/040062, which is incorporated by reference herein, discloses an inhaler with a cover cap arranged to seal the inhaler so that nothing may enter the inhaler through a housing top in order to exclude mud and dust and for use in wet conditions. The cover cap is flexible to allow operation of the device's canister without allowing mud or dust on the cap to be sucked in and inhaled. However, this requires a complicated arrangement of moving parts elsewhere on the housing in order to provide an air inlet. It is known to provide a breath-actuated inhaler in which the act of inhalation by a user causes a dose to be provided, but this type of device is fairly complicated and expensive."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventor's summary information for this patent: "The present invention aims to alleviate at least to a certain extent the problems of the prior art.

"According to a first aspect of the invention there is provided a housing cap apparatus for an inhaler, the housing cap having a valve for selectively restricting air flow through an air flow passageway of an inhaler. This is advantageous in that the valve can be used to restrict or prevent the user or patient from inhaling at a sub-optimal time relative to drug delivery and may, in particular prevent the user from inhaling substantially too early.

"Preferably, at least a portion thereof comprising a deformable portion formed of deformable material and including at least one valve, the deformable portion being deformable between a first configuration in which the valve is restricted and a second configuration in which the valve is open for allowing air flow through an air flow passageway of an inhaler. This is advantageous in that the valve can be used to restrict or prevent the user or patient from inhaling at a sub-optimal time relative to drug delivery and may, in particular prevent the user from inhaling substantially too early. Also, an inhaler using such a housing cap is reliable in its timing of dosing and inhalation, is easy to use and a relatively large valve opening may be achieved with little movement or effort. Additionally a smooth surface area can be provided in the region of the valve which is not likely to accumulate fluff or debris in a position from which
it may be inhaled.

"The housing cap may have a head portion at least partly formed of deformable material, the valve comprising at least one sealing aperture which is deformable between a closed configuration and an open configuration. The head portion may be formed at least partly of resiliently deformable material for self-closing the sealing aperture to the closed configuration and self-returning the head portion to a rest configuration thereof.

"The sealing aperture may be located on an inwardly concave surface of the head portion so as to be biased towards firmer sealing thereof in response to attempted negative inhaling pressure applied inside the head portion. Advantageously, therefore, the sealing arrangement cannot easily be opened just by inhaling with greater force. The sealing aperture may comprise an elongate sealing slit.

"The elongate sealing slit may be formed in a sidewall of the head portion.

"The sidewall may be generally at least part-cylindrical or at least part-conical when the sealing slit is in the closed configuration. The sidewall may have a lower generally cylindrical portion and an upper generally conical portion and the elongate sealing slit may extend at least partly along each of the generally cylindrical and generally conical portions.

"The sidewall may have a curved outwardly convex cross section when the sealing slit is closed. This has the advantage that the sidewall releasably collapses outwardly all around a perimeter thereof as the housing cap is deformed to the open configuration.

"The housing cap may include at least one corner and in which at least one said sealing slit is located substantially adjacent and/or aligned extending substantially towards the corner. This configuration has been found to be highly advantageous since it allows substantial opening of the sealing slit in response to little movement of input to the housing cap to open the slit.

"A series of said sealing slits may be arranged around the sidewall. In one example, four said sealing slits and four said corners may be provided. This arrangement is highly effective, enabling easy and wide opening of the slits to enable high air flow rates upon inhalation with little resistance due to pressure drop across the valve during proper inhalation. Between four and twenty said slits may be provided in some embodiments, some embodiments having between eight and fifteen said slits, one example having twelve said slits, another having four slits.

"When the sealing slit is closed, the head portion may have a generally flat top and the sealing slit may be oriented generally parallel to an axis perpendicular to the generally flat top of the head portion. Accordingly, manual pushing of the head portion along the axis perpendicular to the flat top may open the slit/series of slits.

"The generally flat top may be relatively rigid compared to the sidewall. Thus the sidewalls may deform without significant deformation of the flat top. The generally flat top may be: of thicker material than the sidewall, formed of stiffer material than the sidewall (such as being double-shot moulded integrally therewith), or both. Double shot moulding is possible when a stiffer material is used for the top. The extra stiffness of the top prevents undesirable deformation. For example, the centre of the top cannot easily be pushed down to fire the canister without the slits opening properly. The generally flat top may act to spread forces through the slits.

"The generally flat top may include an insert formed of stiffer and/or harder material than material of the sidewall.

"The sidewall may have a Shore A hardness of about 30, or from about 25 to about 35 Shore A. The generally flat top may have a Shore D hardness of about 40 or less, or from
about 35 to about 45 Shore D.

"The generally flat top may have a Shore A hardness of about 85, or from about 75 to about 100 Shore A.

"The generally flat top may incorporate a central concave finger grip. The finger grip may be surrounded by a chamfer. This encourages the user to push with a central force for good even deformation while also allowing enough room for the user's index finger to operate the housing cap comfortably and helps to align the finger.

"The sidewall may be arranged to adopt a deformed bulging configuration (such as an at least part-oblata spheroidal, an at least part-prolate spheroidal or at least part-spherical configuration) when the sealing slit is in the open configuration. With the sidewall cylindrical or conical in the closed configuration, as the head portion is pushed, the sidewall may gradually adopt a generally part-spheroidal configuration and it may transform through a generally part-prolate spheroidal configuration to a generally part-oblata spheroidal configuration or a generally part-spherical configuration as the sealing slit is progressively opened. The head portion may have an engagement portion arranged to engage, move and fire a metered dose canister. Such engagement may be direct or indirect such as via a return spring. The generally flat top may have a lower surface thereof having a downwardly convex central dome surround by a concave annular gutter leading to a downwardly extending cylindrical wall portion. The lower surface may therefore directly mate on top of and engage a metered dose canister with a corresponding mating surface. This advantageously allows a tight fit on the canister, minimising sideways movement if the head portion is pushed sideways, so that apertures/slits cannot be inadvertently deformed and opened without pushing the canister down to fire it.

"The engagement portion may comprise a component, such as an insert, the component having a flange of at least partly circular form for engaging a metered dose canister.

"The housing cap may include a skirt arrangement arranged to sealingly engage a housing of an inhaler. The slit or series of slits may be spaced from the skirt such that once the housing cap is fixed on the housing (of the inhaler), the slits are spaced from the housing such that when they are opened air may accordingly pass through the slits and into the housing. The skirt arrangement may include a stiffening portion, the stiffening portion having greater stiffness and/or hardness (durometer) than a sidewall portion of the housing cap.

"The skirt arrangement may have a shape arranged to fittingly match an end of an inhaler housing in only one relative angular configuration. The shape may have reflection symmetry, such as bilateral symmetry. The shape may have no rotational symmetry.

"The housing cap may be removable from the housing, such as by sliding or the provision of mutually engaging threads which permit a threaded twisting removal action for the housing cap. This may therefore advantageously allow cleaning of the housing cap and the housing of any inhaler to which it is attached.

"The valve may be operably-connected to a top of the cap such that depression of the top of the cap opens the valve from its closed, rest position. Preferably, the top of the cap is shaped to provide a corner aligned, adjacent or otherwise in communication with the valve, to facilitate opening of the valve. Further preferably, a top of the cap comprises an insert providing a corner aligned, adjacent or otherwise in communication with the valve, to facilitate opening of the valve. Most preferably, a corner per valve is provided, preferably four corners one for each of the four valves. This arrangement is highly effective, enabling easy and wide opening of the slits/valves to enable high air flow rates upon inhalation with little resistance due to pressure drop across the valve during proper inhalation. Preferably, the generally flat top includes a central concave finger grip. The finger grip may be surrounded by a chamfer.

"The generally flat top may have a lower surface thereof arranged to mate on top of a
A metered dose canister. The lower surface may have a downwardly convex central dome surrounded by a concave annular gutter leading to a downwardly extending cylindrical wall portion of the generally cylindrical flat top.

"The apparatus may include a skirt arranged to sealingly engage a housing of an inhaler. The cap may be arranged to be connectable to an inhaler housing by provision of mutually engaging threads which permit a threaded twisting removal or connection thereof. A second aspect of the invention provides an inhaler for inhalation into the airway of a user, the inhaler having a housing at least partially defining a flow passageway extending through the inhaler from an air inlet to an outlet, the inhaler including apparatus in accordance with the first aspect of the invention. Preferably, a metered dose canister is located in the housing.

"A third aspect of the present invention provides an inhaler for inhalation into the airway of a user, the inhaler having a housing at least partially defining a flow passageway extending through the inhaler from an air inlet to an outlet, wherein a valve is provided for selectively restricting the flow passageway. This is also advantageous in that the valve can be used to restrict or prevent the user or patient from inhaling at a sub-optimal time relative to drug delivery and may, in particular prevent the user from inhaling substantially too early.

"The inhaler may further comprise a housing cap apparatus in accordance with the first aspect of the invention.

"Preferably, the inhaler having a housing at least partially defining a flow passageway extending through the inhaler from an air inlet to an outlet, the inhaler having a deformable portion formed of deformable material and including at least one valve, the deformable portion being deformable between a first configuration in which the valve is restricted and a second configuration in which the valve is open for allowing air flow through the air flow passageway. This is advantageous in that the valve can be used to restrict or prevent the user or patient from inhaling at a sub-optimal time relative to drug delivery and may, in particular prevent the user from inhaling substantially too early. The deformable portion may comprise at least part of a housing cap, the housing cap being in accordance with the first aspect of the invention. A further aspect of the invention provides an inhaler for inhalation into the airway of a user, the inhaler having a housing at least partially defining a flow passageway extending through the inhaler from an air inlet to an outlet, wherein a valve is provided for selectively restricting the flow passageway. This is also advantageous in that the valve can be used to restrict or prevent the user or patient from inhaling at a sub-optimal time relative to drug delivery and may, in particular prevent the user from inhaling substantially too early.

"The outlet may comprise an aperture in a mouthpiece of the housing. The housing may have a canister-receiving portion arranged to receive a metered dose canister.

"The inhaler may include a metered dose canister arranged to be located in the canister-receiving portion, the canister having a main body which is movable in the canister-receiving portion for firing a metered dose of drug into the flow passageway.

"The canister may have a stem extending from the main body and a metering valve, the main body being pressurised and movable relative to the valve stem for firing the metered dose via the metering valve. Accordingly, a metered dose canister may advantageously be fired at a time when the valve is at a correct moment during or just after the valve for the flow passageway is opened or after the valve begins to open such that good timing and coordination may be achieved.

"The valve may be fully closable for fully preventing air flow along the flow passageway. Accordingly a user may be totally unable to inhale through the device when the valve is fully closed and will be prevented from starting an inhalation breath too long before a dose of drug is provided.
"The valve may be operable in response to a manual operation so as to permit airflow along the flow passageway. For example, the valve may be operable in response to a manual movement by hand of a metered dose canister received in the housing or by an element such as a housing cap or other actuator mounted to the housing and arranged to act upon such a canister. The canister and the valve may be arranged for coordinated opening of the valve and firing of the metered dose in response to a manual operation, the canister being moveable in the housing in response to the manual operation. In this case, the valve may be moveable in the housing in response to the manual operation. This is highly advantageous in that the provision of a drug, such as by way of a metered dose from the canister, may be timed to be at an optimum moment during an inhalation breath.

"The valve may include a sealing ring arranged to selectively form a seal between a metered dose canister and an inner wall of the housing. A metered dose canister may be located in the housing, the canister having a cylindrical surface arranged to selectively seal inside the sealing ring. The canister may have neck portion or other formation of smaller cross-dimension, e.g. diameter, than the cylindrical surface and may be slideable in the housing for placing the neck portion adjacent the sealing ring and spaced inwardly therefrom so as to open the valve. In this way, the valve may advantageously be opened at an optimum moment during movement of the canister so as to provide a dose of drug.

"A ring may be located in the housing and arranged to steady a canister inside the housing. This may therefore provide excellent sealing at the sealing ring and may assist in providing smooth sliding of the canister relative to the sealing ring. The sealing ring may be flexible and may additionally be arranged to deform from a closed configuration to an open configuration in which it permits airflow along the flow passageway. The inhaler may include a housing cap arranged to fit on the housing, at least part of the housing cap being moveable relative to the housing for opening and closing the valve. The housing may have at least one aperture formed in an outer wall thereof and the housing cap may have at least one inlet aperture formed through a wall thereof, the housing cap being moveable relative to the housing to place the apertures in and out of register with one another for opening and closing valve, respectively.

"The housing cap may have a skirt arranged to mate around the housing.

"The housing cap may be removably attachable to the housing.

"Housing caps in accordance with or used in any of the above aspects may advantageously be fitted to an inhaler housing thereby providing a valve for restricting or blocking airflow through the inhaler, such that opening of the valve from a restricted or fully blocking configuration may be coordinated with drug delivery for optimum inhalation. Housing caps with these features may be fitted to a wide range of existing inhaler housing bodies, thereby substantially improving the performance of the same without requiring substantial redesign costs.

"Housing caps in accordance with or used in any of the aspects of the invention may have a head portion formed of deformable material, the head portion incorporating the valve, which is in the form of at least one sealing aperture which is deformable between a closed configuration and an open configuration. The housing cap may be so deformable by pressing downwardly on the head portion. The closed configuration may be a relaxed or rest configuration of the head portion and the open configuration may be a deformed configuration thereof, such that the head portion may advantageously be biased towards and return to the closed configuration from the open configuration automatically. The head portion may be formed of resiliently deformable material for self-closing the aperture to the closed configuration and/or self-returning the head portion to the rest configuration."

For more information, see this patent: Zuyderhoudt, Krijn Franciscus Marie. Inhalers

Keywords for this news article include: Teva Pharmaceuticals Industries Ltd, Drugs and Therapies, Drug Delivery Systems.

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Vitae Pharmaceuticals, Inc.

Patent Issued for Inhibitors of Beta-Secretase (USPTO 9526727)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventors Bukhtiyarov, Yuri (Boothwyn, PA); Cacatian, Salvacion (Conshohocken, PA); Dillard, Lawrence Wayne (Yardley, PA); Dorner-Ciossek, Cornelia (Ingelheim am Rhein, DE); Fuchs, Klaus (Ingelheim am Rhein, DE); Jia, Lanqi (Horsham, PA); Lala, Deepak S. (Lower Gwynedd, PA); Morales-Ramos, Angel (Blue Bell, PA); Reeves, Jonathan (Ridgefield, CT); Singh, Suresh B. (Kendall Park, NJ); Venkatraman, Shankar (Lansdale, PA); Xu, Zhenrong (Chalfont, PA); Yuan, Jing (Lansdale, PA); Zhao, Yi (Blue Bell, PA); Zheng, Yajun (Hockessin, DE); Rast, Georg (Ingelheim am Rhein, DE), filed on February 4, 2015, was published online on December 27, 2016.

The patent's assignee for patent number 9526727 is Vitae Pharmaceuticals, Inc. (Fort Washington, PA).

News editors obtained the following quote from the background information supplied by the inventors: "beta.-Amyloid (also referred to herein as 'Abeta' or 'A.beta.') deposits and neurofibrillary tangles are two major pathologic characterizations associated with Alzheimer's disease (AD), including the genetically linked early onset familial forms due to mutations in amyloid precursor protein (APP), presenilin 1 and 2, as well as late onset sporadic AD. Clinically, AD is characterized by the loss of memory, cognition, reasoning, judgment, and orientation. Also affected, as the disease progresses, are motor, sensory and linguistic abilities until global impairment of multiple cognitive functions occurs. These cognitive losses take place gradually, but typically lead to severe impairment and eventual death in 4-12 years.

"beta.-Amyloid deposits are predominantly an aggregate of Abeta peptide, which in turn is a product of the proteolysis of APP. More specifically, AP peptide results from the cleavage of APP at the C-terminals by one or more .gamma.-secretases, and at the N-terminus by .beta.-secretase enzyme (BACE1), also known as aspartyl protease and memapsin2, as part of the .beta.-amyloidogenic pathway.

"BACE activity is correlated directly to the generation of A.beta. peptide from APP, and studies increasingly indicate that the inhibition of BACE inhibits the production of A.beta. peptide.

"Amyloidogenic plaques and vascular amyloid angiopathy also characterize the brains of patients with Trisomy 21 (Down Syndrome), Hereditary Cerebral Hemorrhage with Amyloidosis of the Dutch-type (HCHWA-D), and other neurodegenerative disorders. Neurofibrillary tangles also occur in other neurodegenerative disorders including dementia-inducing disorders.

"Recently, Abeta has been reported to be implicated in the development of retinal
ganglion cell (RGC) apoptosis in glaucoma, with evidence of caspase-3-mediated abnormal amyloid precursor protein processing, increased expression of Abeta in RGCs in experimental glaucoma and decreased vitreous A.beta. levels (consistent with retinal A.beta. deposition) in patients with glaucoma. Amyloid deposits have also been associated with macular degeneration in patients suffering from dry age-related macular degeneration (AMD) and in animal models of AMD.


As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "The present invention provides compounds that are BACE1 inhibitors and are useful as therapeutic agents in the treatment of a disease or disorder characterized by elevated .beta.-amyloid deposits or .beta.-amyloid levels in a patient. The disclosed BACE1 inhibitors are not only highly potent inhibitors of the BACE1 enzyme (assay 1) but also show: (1) highly potent inhibitory activity in the cellular Abeta assay (assay 2), (2) selectivity against the cardiac hERG channel in a cellular assay (assay 3), and (3) a low propensity to cause phospholipidosis in a cellular phospholipidosis assay (assay 4), as well.

"Thus, the present invention provides compounds which show a combination of high potency as BACE1 inhibitors, high selectivity against the cardiac hERG channel, and low phospholipidosis activity.

"One embodiment of the invention is a compound represented by a structural formula selected from:

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##STR00001## ##STR00002## ##STR00003## ##STR00004## ##STR00005##
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or a pharmaceutically acceptable salt of any of the foregoing compounds. The immediately foregoing compounds are referred to herein as 'compounds of the present invention'.

"Another embodiment of the invention is a compound of the present invention or a pharmaceutically acceptable salt thereof for use as a medicament.

"Another embodiment of the invention is a pharmaceutical composition comprising a compound of the present invention or a pharmaceutically acceptable salt thereof in admixture with a pharmaceutically acceptable adjuvant, diluent or carrier.

"Another embodiment of the invention is a compound of the present invention or a pharmaceutically acceptable salt thereof for use in the treatment of a BACE1 mediated disorder or disease in a subject.

"Another embodiment of the invention is the use of a compound of the present invention or a pharmaceutically acceptable salt thereof for the manufacture of a medicament for the treatment of a BACE1 mediated disorder in a subject.

"Another embodiment of the invention is a method of treating a subject with a BACE1 mediated disease or disorder, comprising administering to the subject an effective amount of a compound of the present invention or a pharmaceutically acceptable salt thereof.

"Yet another embodiment of the invention is an intermediate used in the preparation of a compound of the present invention. These intermediates are represented by a structural formula selected from:

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##STR00006## ##STR00007## ##STR00008## ##STR00009## or a salt of any of the foregoing compounds."

For additional information on this patent, see: Bukhtiyarov, Yuri; Cacatian, Salvacion; Dillard, Lawrence Wayne; Dorner-Ciossek, Cornelia; Fuchs, Klaus; Jia, Lanqi; Lala, Deepak S.; Morales-Ramos, Angel; Reeves, Jonathan; Singh, Suresh B.; Venkatraman, Shankar;
Biotechnology Companies

**Patent Issued for Injectable Biodegradable Particles (USPTO 9526804)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventor O'Gara, John E. (Ashland, MA), filed on July 10, 2012, was published online on December 27, 2016.

The assignee for this patent, patent number 9526804, is Boston Scientific Scimed, Inc. (Maple Grove, MN).

Reporters obtained the following quote from the background information supplied by the inventors: "Many clinical situations benefit from regulation of the vascular, lymphatic or duct systems by restricting the flow of body fluid or secretions. For example, the technique of embolization involves the introduction of particles into the circulation to occlude blood vessels, for example, so as to either arrest or prevent hemorrhaging or to cut off blood flow to a structure or organ. Permanent or temporary occlusion of blood vessels is desirable for managing various diseases and conditions.

"In a typical embolization procedure, local anesthesia is first given over a common artery. The artery is then percutaneously punctured and a catheter is inserted and fluoroscopically guided into the area of interest. An angiogram is then performed by injecting contrast agent through the catheter. An embolic agent is then deposited through the catheter. The embolic agent is chosen, for example, based on the size of the vessel to be occluded, the desired duration of occlusion, and/or the type of disease or condition to be treated, among others factors. A follow-up angiogram is usually performed to determine the specificity and completeness of the arterial occlusion.

"Various polymer-based microspheres are currently employed to embolize blood vessels. These microspheres are usually introduced to the location of the intended embolization through microcatheters. Many commercially available embolic microspheres are composed of polymers. Materials commonly used commercially for this purpose include polyvinyl alcohol (PVA), acetalized PVA (e.g., Contour SE.TM. embolic agent, Boston Scientific, Natick, Mass., USA) and crosslinked acrylic hydrogels (e.g., Embospheres.RTM., Biosphere Medical, Rockland, Mass., USA). Similar microspheres have been used in chemoembolization to increase the residence time of the therapeutic after delivery. In one specific instance, a therapeutic agent (doxorubicin) has been directly added to polyvinyl alcohol hydrogel microspheres such that it can be released locally after delivery (e.g., DC Bead.TM. drug delivery chemoembolization system, Biocompatibles International plc, Farnham, Surrey, UK)."
Other examples of commercially available microspheres include glass microspheres with entrapped radioisotopes (e.g., 90Y), in particular, TheraSpheres.TM., MDS Nordion, Ottawa, Canada and polymer microspheres that contain monomers that are capable of chelating radioisotopes (90Y), in particular, SIR-Spheres.RTM., SIRTex Medical, New South Wales, Australia.

"Currently, the only commercial biodegradable embolic material is GelFoam. Although used clinically, the material has the disadvantage that it is not available in a spherical form, which can lead to problems and variability during delivery through microcatheters. A spherical embolic material that is degradable would thus be attractive since it would have the benefits of the microsphere based materials such as a physician’s familiarity with microsphere handling and delivery as well as a longer and more flexible time period to handle and deliver the embolic material, while also possessing the capability of biodegrading over time in vivo, which is beneficial, for example, because the vasculature of the structure or organ being treated (e.g., tumor, etc.) may be accessed for additional treatments at a later time and/or because of reduced risk of complications or patient objections arising from a permanently implanted material.

"It is also known to use polymer-based microspheres as augmentative materials for aesthetic improvement, including improvement of skin contour. Furthermore, polymer-based microspheres have also been used as augmentative materials in the treatment of various diseases, disorders and conditions, including urinary incontinence, vesicourethral reflux, fecal incontinence, intrinsic sphincter deficiency (ISD) and gastro-esophageal reflux disease, among others. For instance, a common method for treating patients with urinary incontinence is via perirethral or transperineal injection of a bulking agent that contains polymer-based microspheres. In this regard, methods of injecting bulking agents for treatment of urinary incontinence commonly require the placement of a needle at a suitable treatment region, for example, perirethraly or transperineally. The bulking agent is injected into a plurality of locations, assisted by visual aids, causing the urethral lining to coapt. Commercially available bulking agents are typically biostable."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventor’s summary information for this patent: "In accordance with one aspect of the invention, biodegradable injectable polymeric particles are provided that contain a copolymer that contains a hydroxy-acid-based repeat unit selected from a mono(hydroxy acid) unit and a poly(hydroxy acid) unit, an alkyl-ether-based repeat unit selected from a mono(alkyl ether) unit and a poly(alkyl ether) unit, and an acid-based repeat unit selected from a unit comprising multiple carboxylic acid groups and derivatives thereof.

"Other aspects of the invention pertain to methods of making such particles. Still other aspects of the invention pertain to injectable compositions that comprise such particles and to methods of treatment that employ such injectable compositions.

"These and various additional aspects, embodiments and advantages of the present invention will become immediately apparent to those of ordinary skill in the art upon review of the Detailed Description and any appended claims to follow."
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SpineCore, Inc.

**Patent Issued for Intervertebral Disc and Insertion Methods Therefor (USPTO 9526634)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Errico, Joseph P. (Warren, NJ); Dudasik, Michael W. (Nutley, NJ); Errico, Thomas J. (New York, NY); Zubok, Rafail (Midland Park, NJ), filed on April 4, 2016, was published online on December 27, 2016.

The assignee for this patent, patent number 9526634, is SpineCore, Inc. (Allendale, NJ).

Reporters obtained the following quote from the background information supplied by the inventors: "The present invention is directed to a spinal joint replacement implant and more particularly to a cervical intervertebral disc implant having saddle shaped articulating surfaces and to methods of inserting the cervical intervertebral disc implant.

"As is well known to those skilled in the art, the structure of the intervertebral disc disposed between the cervical bones in the human spine comprises a peripheral fibrous shroud (the annulus) which circumscribes a spheroid of flexibly deformable material (the nucleus). The nucleus comprises a hydrophilic, elastomeric cartilaginous substance that cushions and supports the separation between the bones while also permitting articulation of the two vertebral bones relative to one another to the extent such articulation is allowed by the other soft tissue and bony structures surrounding the disc. The additional bony structures that define pathways of motion in various modes include the posterior joints (the facets) and the lateral intervertebral joints (the unco-vertebral joints). Soft tissue components, such as ligaments and tendons, constrain the overall segmental motion as well.

"Traumatic, genetic, and long term wearing phenomena contribute to the degeneration of the nucleus in the human spine. This degeneration of this critical disc material, from the hydrated, elastomeric material that supports the separation and flexibility of the vertebral bones, to a flattened and inflexible state, has profound effects on the mobility (instability and limited ranges of appropriate motion) of the segment, and can cause significant pain to the individual suffering from the condition. Although the specific causes of pain in patients suffering from degenerative disc disease of the cervical spine have not been definitively established, it has been recognized that pain may be the result of neurological implications (nerve fibers being compressed) and/or the subsequent degeneration of the surrounding tissues (the arthritic degeneration of the facet joints) as a result of their being overloaded.

"Traditionally, the treatment of choice for physicians caring for patients who suffer from significant degeneration of the cervical intervertebral disc is to remove some, or all, of the damaged disc. In instances in which a sufficient portion of the intervertebral disc material is removed, or in which much of the necessary spacing between the vertebrae has been lost (significant subsidence), restoration of the intervertebral separation is required.

"Unfortunately, until the advent of spine arthroplasty devices, the only methods known to surgeons to maintain the necessary disc height necessitated the immobilization of the segment. Immobilization is generally achieved by attaching metal plates to the anterior or posterior elements of the cervical spine, and the insertion of some osteoconductive material
(autograft, allograft, or other porous material) between the adjacent vertebrae of the segment. This immobilization and insertion of osteoconductive material has been utilized in pursuit of a fusion of the bones, which is a procedure carried out on tens of thousands of pain suffering patients per year.

"This sacrifice of mobility at the immobilized, or fused, segment, however, is not without consequences. It was traditionally held that the patient's surrounding joint segments would accommodate any additional articulation demanded of them during normal motion by virtue of the fused segment's immobility. While this is true over the short-term (provided only one, or at most two, segments have been fused), the effects of this increased range of articulation demanded of these adjacent segments has recently become a concern. Specifically, an increase in the frequency of returning patients who suffer from degeneration at adjacent levels has been reported.

"Whether this increase in adjacent level deterioration is truly associated with rigid fusion, or if it is simply a matter of the individual patient's predisposition to degeneration is unknown. Either way, however, it is clear that a progressive fusion of a long sequence of vertebrae is undesirable from the perspective of the patient's quality of life as well as from the perspective of pushing a patient to undergo multiple operative procedures.

"While spine arthroplasty has been developing in theory over the past several decades, and has even seen a number of early attempts in the lumbar spine show promising results, it is only recently that arthroplasty of the spine has become a truly realizable promise. The field of spine arthroplasty has several classes of devices. The most popular among these are: (a) the nucleus replacements, which are characterized by a flexible container filled with an elastomeric material that can mimic the healthy nucleus; and (b) the total disc replacements, which are designed with rigid baseplates that house a mechanical articulating structure that attempts to mimic and promote the healthy segmental motion.

"Among these solutions, the total disc replacements have begun to be regarded as the most probable long-term treatments for patients having moderate to severe lumbar disc degeneration. In the cervical spine, it is likely that these mechanical solutions will also become the treatment of choice. At present, there are two devices being tested clinically in humans for the indication of cervical disc degeneration. The first of these is the Bryan disc, disclosed in part in U.S. Pat. No. 6,001,130. The Bryan disc is comprised of a resilient nucleus body disposed in between concaval-covex upper and lower elements that retain the nucleus between adjacent vertebral bodies in the spine. The concaval-convex elements are L-shaped supports that have anterior wings that accept bones screws for securing to the adjacent vertebral bodies.

"The second of these devices being clinically tested is the Bristol disc, disclosed substantially in U.S. Pat. No. 6,113,637. The Bristol disc is comprised of two L-shaped elements, with corresponding ones of the legs of each element being interposed between the vertebrae and in opposition to one another. The other of the two legs are disposed outside of the intervertebral space and include screw holes through which the elements may be secured to the corresponding vertebra; the superior element being secured to the upper vertebral body and the inferior element being attached to the lower vertebral body. The opposing portions of each of the elements comprise the articulating surfaces that include an elliptical channel formed in the lower element and a convex hemispherical structure disposed in the channel.

"As is evident from the above descriptions, the centers of rotation for both of these devices, which are being clinically tested in human subjects, is disposed at some point in the disc space. More particularly with respect to the Bryan disc, the center of rotation is maintained at a central portion of the nucleus, and hence in the center of the disc space. The Bristol disc, as a function of its elongated channel (its elongated axis being oriented along the anterior to
posterior direction), has a moving center of rotation which is at all times maintained within the disc space at the rotational center of the hemispherical ball (near the top of the upper element).

"Thus, there remains a need for improved intervertebral discs, as well as new and improved methods for safely and efficiently implanting intervertebral discs."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "Disclosed herein are intervertebral discs or implants, surgical instruments and procedures in accordance with certain preferred embodiments of the present invention. It is contemplated, however, that the implants, instruments and procedures may be slightly modified, and/or used in whole or in part and with or without other instruments or procedures, and still fall within the scope of the present invention. Although the present invention may discuss a series of steps in a procedure, the steps can be accomplished in a different order, or be used individually, or in sub-groupings of any order, or in conjunction with other methods, without deviating from the scope of the invention.

"In certain preferred embodiments of the present invention, a method of inserting an intervertebral disc into a disc space includes accessing a spinal segment having a first vertebral body, a second vertebral body and a disc space between the first and second vertebral bodies, securing a first pin to the first vertebral body and a second pin to the second vertebral body, and using the first and second pins for distracting the disc space. The method preferably includes providing an inserter holding the intervertebral disc, engaging the inserter with the first and second pins, and advancing at least a portion of the inserter toward the disc space for inserting the intervertebral disc into the disc space, wherein the first and second pins align and guide the inserter toward the disc space.

"In certain preferred embodiments, the inserter desirably includes an inserter head having an upper channel and a lower channel. During the advancing step, the first pin is preferably in contact with the upper channel and the second pin is preferably in contact with the lower channel. The channels may taper inwardly toward one another for urging the first and second pins away from one another as the inserter advances toward the disc space (preferably to more fully open the disc space as the inserter advances toward the disc space). In certain preferred embodiments, the inserter head has a distal end adapted to contact vertebral bone and a proximal end, and the upper and lower channels taper inwardly toward one another between the proximal and distal ends of the inserter head. As a result, the channels are closer together near the distal end of the inserter than near the proximal end of the inserter. In preferred embodiments, the inserter head includes distally extending arms for securing an intervertebral disc implant. Each of the distally extending arms may include an inwardly extending projection engageable with the intervertebral disc implant.

"In other preferred embodiments of the present invention, a method of inserting an intervertebral disc implant into a disc space includes accessing a spinal segment having a first vertebral body, a second vertebral body and a disc space between the first and second vertebral bodies, securing a first pin to the first vertebral body and a second pin to the second vertebral body, and using the first and second pins for distracting the disc space. The method may include engaging a chisel guide having a distal head with the first and second pins, and advancing the chisel guide toward the disc space for inserting the distal head of the chisel guide into the disc space, whereby the first and second pins align and guide the chisel guide as the chisel guide advances toward the disc space. The method may also include coupling a chisel having one or more cutting blades with the chisel guide and advancing the one or more cutting blades toward the first and second vertebral bodies for forming channels in one or more endplates of the first and second vertebral bodies. The distal head of the chisel guide preferably has a top surface with at least one groove formed therein for guiding the one or more chisel blades toward the disc space. The bottom surface of the head may also have at least one groove for guiding the
chisel.

"The method may also include providing an inserter holding an intervertebral disc implant, and after forming channels in the one or more endplates of the first and second vertebral bodies, disengaging the chisel guide from the first and second pins and engaging the inserter with the first and second pins. The inserter is preferably advanced toward the disc space for inserting the intervertebral disc implant into the disc space, whereby the first and second pins align and guide the inserter as the inserter advances toward the disc space.

"In other preferred embodiments of the present invention, a kit includes a plurality of two-part intervertebral disc implants having different sizes, and a plurality of implant dispensers, each implant dispenser holding together the two parts of one of the two-part intervertebral disc implants so that it can be manipulated as a single implantable unit. Each implant dispenser preferably has indicia corresponding to the size of the intervertebral disc implant held by the implant dispenser. The indicia on the implant dispenser may include a color code or text indicating the size of the intervertebral disc implant held by the implant dispenser.

"In particular preferred embodiments, each intervertebral disc implant has a top element including a bone engaging surface and an articulating surface and a bottom element including a bone engaging surface and an articulating surface. The implant dispenser desirably holds the articulating surfaces of the top and bottom elements in contact with one another.

"The implant dispensers may be flexible. In preferred embodiments, an implant dispenser includes a first arm engaging a top element of the intervertebral disc implant, a second arm engaging a bottom element of the intervertebral disc implant, and a connecting element for interconnecting the first and second arms. The connecting element is preferably flexible for enabling the first and second arms to move away from one another for releasing the intervertebral disc.

"The kit may also include a plurality of inserters, the inserters being adapted to couple with the intervertebral disc implants while the intervertebral disc implants are held in the implant dispensers, so that the intervertebral disc implants can be transferred from the implant dispensers to the inserters. Each inserter preferably has indicia corresponding to the size of a corresponding one of the intervertebral disc implants. The indicia on the inserter may include a color code or text. The intervertebral disc implants are preferably transferable from the implant dispensers to the inserters while being maintained as a single implantable unit. In certain preferred embodiments, an implant inserter will couple directly to the intervertebral disc implant while the disc implant is held by an implant dispenser.

"In other preferred embodiments of the present invention, a template for marking score lines on a spinal segment includes a shaft having a proximal end and a distal end, and a template marker provided at the distal end of the shaft. The template marker preferably includes a cruciform-shaped structure having a first vertical arm and a second vertical arm that extends away from the first arm, the first and second vertical arms being aligned with one another along a first axis. The cruciform-shaped structure also preferably includes a first lateral arm and a second lateral arm extending away from the first lateral arm, the first and second lateral arms being aligned with one another along a second axis, whereby distal surfaces of the first and second lateral arms form a concave curved surface that conforms to an anterior surface of a disc between superior and inferior vertebral bodies.

"The template may include a central pin or a plurality of pins provided at the distal end of the lateral arms for being inserted into the natural disc for stabilizing the template adjacent the disc space, and the vertical arms and the lateral arms spread outwardly from the distal end of the shaft. The first vertical arm desirably includes a first distally extending tack for engaging an anterior surface of the first vertebral body and the second vertical arm desirably
includes a second distally extending tack for engaging an anterior surface of the second vertebral body.

"In certain preferred embodiments of the present invention, each of the top and bottom elements of the implant has an anterior wall that preferably connects the anterior ends of the protrusions on the element. The anterior wall preferably serves as a vertebral body stop to prevent over-insertion of the implant and/or posterior migration of the implant. The anterior wall preferably serves as an engageable feature for engagement with instruments, including but not limited to tamps, extraction or repositioning instruments. The anterior wall in some embodiments may have a curved posterior face to sit flush against a curved anterior endplate face. At least the posterior surface of the wall may be coated with an osteoconductive material to facilitate long-term fixation to the endplate surface.

"In certain preferred embodiments of the present invention, the intervertebral disc implants includes a top element and a bottom element. Each implant part may have protrusions with outwardly laterally facing surfaces. One or more of the outwardly laterally facing surfaces may have a vertically extending channel, or groove, or depression, or like feature for engagement with instruments, including but not limited to insertion, extraction or repositioning instruments. Preferably, the surface of this feature can be coated with an osteoconductive material to facilitate long-term fixation to the endplate bone.

"In certain preferred embodiments, the intervertebral disc implant, or the instruments, may alternatively or additionally incorporate any or all of the features discussed previously, disclosed herein, or discussed in U.S. patents and/or patent applications incorporated by reference herein. Preferably, the configuration of the bearing surfaces of the intervertebral disc implant in this preferred embodiment may be substantially similar to those of the other bearing surface configurations discussed previously, disclosed herein, or incorporated by reference herein.

"Prior to insertion of the intervertebral disc implant disclosed herein, a surgeon preferably performs a cervical anterior exposure and initial natural disc removal (e.g., discectomy). After simple exposure and initial natural disc removal, the surgeon may introduce a guide, such as a reference pin drill guide that enables the surgeon to anchor a pair of alignment or reference pins (e.g., Caspar pins) into the adjacent vertebral bones, preferably along the midline of the bones, and at predetermined vertical distances from the endplate edges.

"The present application discloses the use of reference or alignment pins for properly aligning tooling and/or implants with bone. The reference or alignment pins shown herein are merely representative examples of certain preferred embodiments of the present invention. It is contemplated that other reference or alignment tools and techniques may be used for properly aligning tools and/or implants with bone, and that these other reference or alignment tools and techniques are within the scope of the present invention.

"With the reference pins in place, the surgeon may apply distraction to the disc space by using a distraction tool, such as a standard Caspar distractor, and then complete the discectomy and distraction. Once the disc space is cleared and restored to a desired height, the surgeon may choose to remove the distraction tools and advance a guide, such as a burr or drill guide along the reference pins and into the disc space. The burr or drill guide preferably engages the reference pins as the burr/drill guide is advanced toward the disc space. Thus, the reference pins serve to provide proper alignment of the burr/drill guide relative to the disc space. In certain preferred embodiments, the burr/drill guide includes a distal head that fits within the disc space. The burr/drill guide preferably permits the surgeon to introduce a burr or drill bit through each of four holes in the guide and burr or drill pilot grooves or holes at predetermined locations in the endplates. As will be described in more detail below, the pilot grooves are used
to form protrusion channels for the protrusions of the intervertebral disc.

"In certain preferred embodiments of the present invention, in order to cut protrusion channels in the endplates, a chisel guide may be utilized. The chisel guide preferably includes a distal head that is insertable into the disc space. The distal head preferably has grooves formed in top and bottom surfaces of the distal head for guiding a chisel for cutting protrusion channels. The chisel guide preferably has alignment openings for sliding over the reference pins. The reference pins preferably align and direct the chisel guide into the disc space. Chisels may then be advanced along the sides of the chisel guide for cutting the protrusion channels. In certain preferred embodiments of the present invention, a first pair of chisels (e.g., roughening chisels) is advanced along the sides of chisel guide to cut channels. Preferably, the first pair of chisels cuts channels that are approximately 1 mm wide. A second pair of larger chisels (e.g., finishing chisels) can be used to widen the protrusion channels, preferably to about 2 mm. In other preferred embodiments of the present invention, a first pair of chisels is approximately 1 mm wide and 1.5 mm high, and a second pair of chisels (e.g., the finishing chisels) are 1.5 mm wide and 2.5 mm high.

"Once the protrusion channels have been cut, the implant may be mounted to an insertion tool (e.g., to the distal tip of an insertion tool) and inserted into the disc space. The insertion tool preferably includes upper and lower guide slots or openings that permit the insertion tool to slide along the reference pins. The guide slots are preferably ramped so that the disc space is distracted (to preferably approximately 2 mm wider than the height of the implant) to ensure easy insertion of the implant. In other preferred embodiments, the reference pins may also be engaged by a distraction tool to distract the disc space during insertion, e.g., if such distraction is necessary. This additional distraction may ensure that the device is implanted easily without requiring excessive impacting.

"Once the intervertebral disc implant has been inserted into the disc space, a tamping instrument may be used to adjust the final position of the disc components relative to one another and/or relative to the vertebral bones. Should the surgeon want to remove the device intra-operatively, or in the case of a revision, a proximal feature of the device (e.g., an anterior wall) may be engaged by an instrument (e.g., an extraction instrument) to pull the device free from the disc space.

"In other preferred procedures, after simple exposure and initial disc removal, the surgeon may introduce a guide, such as a reference pin grill guide, that permits the surgeon to drill guide holes in superior and inferior vertebral bodies (preferably parallel to one another) for the placement of the pair of reference pins. A second guide, such as a sleeve or reference pin driver guide may be used to ensure that the reference pins are placed in the pre-drilled holes so that the pins are parallel, and are driven into the adjacent vertebral bones preferably along the midline of the bones, and at predetermined distances from the endplates.

"With the reference pins in place, the surgeon may apply distraction to the disc space, e.g., by means of a distraction tool, and then complete the discectomy and distraction. The surgeon should preferably remove any anterior or posterior osteophytes that may interfere with the ultimate placement of the implant.

"It should be noted that features and methods and functionalities of the present invention, including but not limited to features and methods and functionalities for engaging one tool (or parts thereof) with one or more other tools (or parts thereof) or with the implants (or parts thereof), and vice-versa; for addressing, avoiding, manipulating, or engaging the patient's anatomy; for aligning one or more tools with anatomic or non-anatomic reference points; and for aligning the tools and implants with one another and/or a treatment space; are not and should not be limited to those embodied in and achieved by the structures and methods of the specific
embodiments described and shown, but rather the structures and methods of the specific embodiments described and shown are merely examples of structures and methods that can achieve certain features and methods and functionalities of the present invention.

"These and other preferred embodiments of the present invention will be described in more detail below."

For more information, see this patent: Errico, Joseph P.; Dudasik, Michael W.; Errico, Thomas J.; Zubok, Rafail. Intervertebral Disc and Insertion Methods Therefor. U.S. Patent Number 9526634, filed April 4, 2016, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Pars
er?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrsrchnum.htm&r=1&f=G&l=50&s1=9526634.PN.&OS=PN/9526634RS=PN/9526634

Keywords for this news article include: Pain, Surgery, Genetics, Discectomy, Arthroplasty, Bone Research, SpineCore Inc., Orthopedic Procedures, Neurologic Manifestations.

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MicroVention, Inc.

Patent Issued for Intracorporeal Occlusive Device and Method (USPTO 9526505)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Marks, Michael P. (Hillsborough, CA); Ross, Michael (Hillsborough, CA), filed on November 20, 2008, was published online on December 27, 2016.

The assignee for this patent, patent number 9526505, is MicroVention, Inc. (Tustin, CA).

Reporters obtained the following quote from the background information supplied by the inventors: "The present invention is generally directed to occlusion devices and, more specifically, to intracorporeal occlusion devices which can be used to treat a patient's blood vessels, intracorporeal conduits or other portions of a patient's body. A preferred embodiment can be used to treat intracranial aneurysms, arteriovenous fistulas, and other abnormalities within the cerebral vasculature.

"Cerebral aneurysms and other cerebral vascular abnormalities present a significant medical problem to the population of the United States. It is estimated that the number of ruptured intracranial aneurysms yearly is in the tens of thousands, often with devastating consequences for the patient. For a patient who has been diagnosed with a cerebral aneurysm, there are a few treatment modalities currently available. An invasive surgical treatment can be used where access to the external portion of the aneurysm is achieved by placing the patient under general anesthesia, performing a craniotomy, and brain tissue retraction. Once access has been gained to the external surface of the aneurysm, the neck of the aneurysm can be clipped. Clipping the aneurysm neck prevents the ingress of blood into the aneurysm cavity which can lead to rupture. Because of the invasive nature of the procedure and the vulnerability of the brain tissue surrounding the aneurysm, this procedure carries a high degree of risk with concomitant mortality and morbidity rates. This risk is particularly high when the aneurysm has
ruptured prior to the surgical intervention.

"An alternative to the surgical method currently in use involves percutaneous endovascular intervention. This method generally involves accessing the cerebral aneurysm by means of an intravascular microcatheter which is advanced under fluoroscopic imaging over a guidewire or the like within the patient's arteries from a puncture site in the patient's leg or arm. The distal end of the microcatheter is guided over a guidewire within a patient's vasculature and disposed adjacent the neck of the aneurysm. The distal tip of the microcatheter can then be directed into the cavity of the aneurysm and appropriate occlusive devices then delivered from a port in the distal end of the microcatheter. Presently, the most common occlusive device delivered via microcatheter is a vaso-occlusive coil which consists of stainless steel or radiopaque metals such as gold or platinum, tantalum. The vaso-occlusive coils are typically manufactured in a manner similar to the distal coils of a coronary guidewire, having a coil wire material with a small diameter and a coil outer diameter suitable for delivery through a microcatheter. Such vaso-occlusive coils are often given a secondary shape or configuration whereby the coils can be straightened and delivered through the inner lumen of a microcatheter, but form a convoluted or random space filling structure once delivered from the distal end of the microcatheter. The endovascular delivery of vaso-occlusive coils through a microcatheter represents a significant advance in treating cranial aneurysms. However, the coils are hollow bodies, often made of relatively soft metals which are subject to compaction due to the pressure exerted on the deployed coils by the patient's blood flow. Compaction and reforming of the coils leaves them susceptible to dislodging and being displaced within the patient's vasculature, with the potential for causing distal embolization. In addition, compaction of the coils into the dome of the aneurysm or blood clot surrounding the coils can lead to reappearance and regrowth of the aneurysm. Finally, aneurysms with wide necks having a dome to neck dimension ratio of less than 2 to 1 often do not provide a morphology conducive to retention of coils within the aneurysm. Thus currently available coils are generally contraindicated for use in wide neck aneurysms. What has been needed is an intracorporeal space filling device which can be delivered by non-invasive methods, is not subject to compaction or reforming and which is suitable for implantation in wide neck aneurysms."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "The invention is directed generally to an intracorporeal space filling device and a delivery system for positioning and deploying the space filling device within a patient. The invention is also directed to a method for using the space filling device.

"One preferred embodiment of the invention is an intracorporeal space filling device which has an elongate tubular shell with a lumen disposed within the shell. The lumen is in fluid communication with a first port in a first end of the shell, and a second port in a second end of the shell. A transmutable material is disposed within the lumen of the shell substantially filling the lumen. The transmutable material has properties which enable transformation from a non-rigid state to a substantially rigid state within a patient's body. The transmutable character of the transmutable material allows for a space filling device that is soft and flexible at the time of deployment into an intracorporeal cavity and rigid and substantially incompressible after being converted to a rigid state. Such a device can conform readily to the varied morphology of intracorporeal cavities and transmute to a substantially rigid mass upon activation or hardening of the transmutable material so as to be resistant to compression and reforming due to vascular or other types of pressures within a patient's body.

"The elongate shell is generally made of a polymeric wall material and is sealed at either or both of the first and second ends. The transmutable material which fills the lumen of the shell can be selected from a variety of suitable polymers which can be made rigid or
hardened by the application of a variety of energy types, such as light emitted from a laser or other source, radiofrequency energy, ultrasonic energy or other suitable means such as controlled changes in the pH of the material surrounding the transmutable material. The space filling device is typically configured for percutaneous delivery through a suitable microcatheter from an incision in a peripheral artery in a patient's arm or leg to a desired intracorporeal cavity, such as a cerebral aneurysm.

"Optionally, the space filling device may have an elongated longitudinal member secured to and preferably coextensive with the elongate tubular shell of the device. Typically, the elongated longitudinal member is a thin wire member that may or may not be configured to give a secondary shape to the space filling device when in an unconstrained relaxed state. The secondary shape of the longitudinal member can be a convoluted, folded, coiled or twisted configuration or any other suitable space filling configuration when in an unconstrained state which is imparted to the intracorporeal space filling device to which the elongated longitudinal member is secured. When the device is in a linear constrained state or configuration, it may be advanced through an inner lumen of a microcatheter or other similar device for delivery to a desired site within a patient's body. Once the space filling device is removed from the constraint of the microcatheter, it again assumes the space filling secondary shape. The elongated longitudinal member can be made from a variety of suitable materials, including stainless steel and shape memory alloys such as nickel titanium (NiTi). The elongated longitudinal member can be disposed along a longitudinal axis of the space filling device, embedded in the transmutable material, encapsulated within the wall material of the elongate tubular shell, or adjacent an outside surface of the elongate tubular shell or any other suitable location on the device. Preferably the elongate longitudinal member is substantially parallel to the longitudinal axis of the elongate shell or intracorporeal space filling device. The elongated longitudinal member can also be configured to be heated by the passage of various types of energy therethrough. For example, an elongated longitudinal member made of NiTi alloy can be configured to be heated by the passage of electrical current, including radiofrequency, or ultrasonic energy through it. Heating of the elongated longitudinal member can be used to transmute or rigidify the transmutable material within the elongate shell and to act as a mechanism for detachment of the intracorporeal space filling device from the distal end of the delivery system.

"In a preferred embodiment, the elongate tubular shell is configured to have an outer surface which is self adhering to create attachment points from contact point upon activation of the self adhering outer surface. Contact points along the length of the space filling device inevitably occur when the device is deployed within an intracorporeal cavity or channel and the space filling device assumes a folded or convoluted space filling configuration. The folded or convoluted space filling configuration may be due to the confinement of the void or channel, a secondary shape assumed by the device in a relaxed state, or both. The creation of attachment points results in a more rigid and stable space filling mass that is resistant to compaction and reforming.

"The intracorporeal space filling device may optionally have a helical coil disposed about an outer surface of the elongate tubular shell. The helical coil may have properties similar to those discussed above with regard to the elongated longitudinal member. For example, the helical coil can be configured to impose a convoluted, folded or space filling secondary shape on the space filling device when in a relaxed unconstrained state. The helical coil may also be configured to heat or otherwise activate transmutation of the transmutable material when various forms of energy are passed through it such as electrical current, ultrasonic energy or the like. The materials of the helical coil may also be similar to those discussed above with regard to the elongated longitudinal member.
"In an alternative embodiment, the space filling device has a transmutable material disposed about an elongated longitudinal member without an outer shell so that the transmutable material is exposed when the device is deployed within a patient's body. The elongated longitudinal member can have properties similar to those of the elongated longitudinal members discussed above. For example, the elongated longitudinal member can be made of a thin wire with a secondary shape. The secondary shape can be imparted on the space filling device when the device is in an unconstrained state. Secondary shapes can include convoluted or folded space filling configurations. Exposure of an outside surface of the transmutable material allows the transmutable material to adhere to itself upon transmutation at attachment points where different portions of the space filling device make contact due to the secondary shape assumed. When the space filling device is deployed in an intracorporeal cavity and assumes a folded, bunched or convoluted configuration due to a secondary shape of the elongated longitudinal member or the natural confinement of the cavity, inevitably, certain portions of the space filling device will make physical contact with other portions of the device. As such, the transmutable material of these portions will make contact at contact points and will cross-link, bond, or self adhere to each other to form attachment points upon transmutation of the transmutable material. The cross-linking or bonding of the device at attachment points results in a rigid mass which is resistive to compression and reforming. The self adhering property of the outside surface of the transmutable material can be as a result of the intrinsic properties of the transmutable material, or as a result of a coating applied to the transmutable material with self adhering properties.

"In another embodiment, the intracorporeal space filling device has a plurality of beads connected to at least one adjacent bead by a flexible member with connections to adjacent beads being configured to produce a linear array of the beads. Each bead has a transverse dimension and is generally spaced within one transverse dimension of adjacent beads, however, other appropriate spacings are possible. The space filling device of interconnected beads is generally configured for percutaneous delivery through a microcatheter or the like from an incision in a peripheral artery of a patient to a desired cavity within the patient's vasculature such as a cerebral aneurysm. The individual beads typically have a generally spherical shape, but can also be substantially elliptical or elongated. The beads can be made from any suitable material, but are preferably made from a polymer material, and more preferably a transmutable polymer material. In a particular embodiment, the beads may have an outer shell which defines a cavity which optionally contains suitable filler material. Suitable filler materials include biocompatible fluids such as a saline, silicone and the like, and polymers such as a transmutable material similar to the transmutable material discussed above.

"Embodiments with beads of exposed transmutable material can be cross-linked or bonded to adjacent beads which are in contact at the time of transmutation at a desired site within a patient's body. Adjacent beads in contact while deployed within a desired location within a patient can adhere or bond together and create attachment points upon transmutation of the transmutable material. The attachment points create a more stable and rigid mass than would be achieved by transmutation of the beads without attachment points.

"The flexible member connecting adjacent beads may consist of interconnected portions of a polymer wall material of the outer shell of each adjacent bead. The flexible member may also be an elongated longitudinal member disposed substantially along a longitudinal axis of the space filling device and being substantially coextensive with at least two adjacent beads of the space filling device. In embodiments of the space filling device having a flexible member consisting of an elongated longitudinal member, the elongated longitudinal member may be a thin wire, preferably of a shape memory alloy. The thin wire longitudinal member can be configured to be heated by a passage of energy through it in order to activate transmutation of transmutable material disposed thereon. The elongated longitudinal member
may also be configured to have a secondary shape or space filling configuration in a relaxed state as discussed above with regard to other elongated longitudinal members. The secondary shape or space filling configuration of the elongated longitudinal member would be imparted to the space filling device as a whole when in an unconstrained relaxed state.

"The intracorporeal space filling devices discussed above are generally deployed at a desired site within a patient's body by disposing the distal end of a microcatheter or the like such that a distal port in the distal end of the microcatheter is directed to a desired cavity or channel within a patient. The space filling device is then distally advanced within the inner lumen of the microcatheter, preferably by means of a delivery system which has an elongate shaft with a detachment mechanism disposed on the distal end of the system. The detachment mechanism is detachably secured to a first end of the space filling device which provides a detachable connection and allows for remote advancement and retraction of the space filling device within the patient prior to detachment. The space filling device is then distally advanced out of a port in the distal end of the microcatheter and into the cavity or channel of the patient. When the space filling device is appropriately positioned, the transmutable material within the device is activated so as to be hardened or rigidified, and the device detached from the delivery system. Preferably, the space filling device is detached by a detachment mechanism utilizing degradation of a polymer link between the delivery system and the first end of the space filling device. Degradation of the polymer link may be accomplished by a chain cleavage reaction which can be initiated by heating of the polymer link. Alternative detachment mechanisms include mechanical detachment, electrolytic detachment, detachment by shape memory alloy or shape memory polymer activation via application of RF energy, laser energy or ultrasonic energy, heating of a hot melt adhesive joint, ultrasonic link degradation, hydrokinetic pressure activation of a mechanical retention device, and the like.

"During deployment of a space filling device, a blocking balloon may be deployed adjacent the opening of an intracorporeal void and distal end of a microcatheter disposed within the void prior to distally advancing the space filling device from the distal end of the microcatheter into the cavity. The blocking balloon prevents egress of the space filling device from within the cavity during deployment of the device.

"These and other advantages of the invention will become more apparent from the following detailed description of the invention when taken in conjunction with the accompanying exemplary drawings."


Keywords for this news article include: Surgery, Angiology, Medical Devices, Cerebral Aneurysm, MicroVention Inc., Intracranial Aneurysm, Surgical Technologies, Cerebrovascular Disorders, Brain Diseases and Conditions, Cardiovascular Diseases and Conditions, Intracranial Arterial Diseases and Conditions, Central Nervous System Diseases and Conditions.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventor Lentz, David Christian (Bloomington, IN), filed on January 15, 2014, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9526872 is assigned to Cook Medical Technologies LLC (Bloomington, IN).

The following quote was obtained by the news editors from the background information supplied by the inventors: "Angioplasty and other surgical techniques that utilize the natural body passageways of a patient to gain access percutaneously to a site to be treated have seen great success. As techniques have improved and medical technology has advanced, these procedures, such as angioplasty, have been performed in ever smaller branches of the circulatory system. For instance, it is now even recognized that angioplasty procedures can be performed in an artery in the lower leg of a patient.

"In a typical procedure, access to the patient's circulatory system is gained using the Seldinger technique. In other words, a puncture through the skin and through the wall of a vein or artery is made followed by entry of a small wire guide through the needle. The needle is then withdrawn leaving the wire guide in place. Next, a dilator and introducer are slid over the wire and into the vein or artery. The dilator is then withdrawn leaving only the introducer in place. FIG. 8 shows a prior art procedural step during treatment of a location 8 in an artery 6 of a patient's leg 5 after placement of an introducer 11 through a puncture site 7. With the access to the patient passageway now secured, fluoroscopic techniques may be utilized to gain access to a desired treatment location 8, such as a plaque build up in a artery, remote from the puncture entry site 7. This may be accomplished by injecting radiopaque dye into the patient's circulatory system while a physician 80 manipulates a guide wire guide 40 slid through the introducer 11. While under fluoroscopic vision, the wire guide 40 is maneuvered so that its distal end is at or near the area 8 to be treated. Physician 80 will often manipulate wire guide 40 with one hand 82 while holding the introducer 11 in place with their other hand 81. Because of the size of the fluoroscopic area footprint 70 and the nearness of the treatment location 8 to the entry site 7, the physician may undergo exposure to direct radiation during this portion of the procedure because their hands 81 and 82 as well as their head 83 may be located within the fluoroscopic area 70. After wire guide 40 has been properly positioned, a guide catheter may be slid over the wire guide so that its distal end is at or near the treatment site 8. Next, a balloon dilation catheter may be slid through the guide catheter to the desired treatment location 8. The balloon may be inflated to push back the plaque at the problem location to reopen the passageway for good blood flow. Finally, the balloon catheter is deflated and withdrawn from the patient, followed by withdrawal of the introducer 11 and closure of the entry site 7.

"During the fluoroscopic portion of the treatment, direct radiation passes through the patient in an area 70 that generally includes the area 8 to be treated along with some of the arteries 6 and passageways that must be traversed in order to gain access to the treatment site 8. However, in some instances, such as gaining access to an artery in the lower leg 5 via an antigrade stick, the access location 7 and the treatment location 8 may be sufficiently close that the exposed proximal end of the introducer 11 and the site 8 to be treated may both lay within the fluoroscopic area 70 that experiences direct radiation. While short term exposure to
fluroscopy for the patient poses little risk, a physician performing hundreds of these interventions a year will be exposed unnecessarily to direct radiation that may cumulatively result in permanent tissue damage. When performing such a procedure, the physician's 80 hands 81, 82 and eyes (head 83) will temporarily be exposed to direct radiation while manipulating the wire guide 40 to gain access to a treatment site 8. Because of the risks involved with exposure to direct radiation, physicians are generally less inclined to perform procedures that require direct radiation exposure.

"The present disclosure is directed toward one or more of the problems set forth above."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventor's summary information for this patent: "In one aspect, an introducer assembly includes an introducer with a distal segment sized to be received through a puncture site and into a passageway within a patient, and a proximal segment with a fitting having a male luer. An extension includes a flexible tube extending between a first fitting with a female luer, and a second fitting with a male luer. The female luer of the extension is connected to the male luer of the introducer.

"In another aspect, a method of positioning a wire guide at a desired location in a passageway of a patient includes positioning a distal segment of an introducer through a puncture site into the passageway of the patient while a proximal segment extends outside the patient. An extension is connected to the proximal segment of the introducer. Radiopaque dye is injected into the passageway. The desired location for treatment and at least a portion of the introducer are positioned in a fluroscopic area while a proximal end of the extension is outside of the fluroscopic area. A wire guide is maneuvered through the extension and the introducer into the passageway, and toward the desired location from a location outside of the fluroscopic area while passing radiation through the fluroscopic area.

"In still another aspect, an introducer set includes a dilator mated to an introducer. An extension includes a flexible tube extending between a first fitting with a male luer and a second fitting with a female luer. The length between the male luer and the female luer of the extension being in a range of ten to thirty centimeters. The introducer, the dilator and the extension are sterile and sealed in a peel open package."


Keywords for this news article include: Angioplasty, Catheterization, Cook Medical Technologies LLC.

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THE REGENTS OF THE UNIVERSITY OF...

Patent Issued for LEDGF Peptides and Formulations Thereof for Treatment of Degenerative Disorders (USPTO 9526760)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- THE REGENTS OF THE UNIVERSITY OF COLORADO, A BODY CORPORATE (Denver, CO) has been issued patent number 9526760, according to news
reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Kompella, Uday B. (Aurora, CO); Baid, Rinku (Aurora, CO); Upadhyay, Arun K. (Aurora, CO); Yandrapu, Sarath (Christianburg, VA).

This patent was filed on May 21, 2013 and was published online on December 27, 2016.


"The unique anatomy and physiology of the eye is a major hurdle in the advancement of drug therapeutic for the back of the eye including retinal degenerative diseases. (Kompella et al., Ther Deliv. 1(3): p. 435-56). Topical routes of administration are inefficient in delivering drugs to the back of the eye because of the presence of various static barriers (cornea, conjunctiva, and sclera among others tissues) and dynamic barriers (blinking, tear film, tear turnover, and induced lacrimation). (Gaudana, R., et al., Ocular drug delivery. Aaps J, 2010. 12 (3): p. 348-60; Thrimawithana et al. Drug Discov Today, 2011. 16(5-6): p. 270-7). On the other hand blood retinal barrier (BRB), systemic degradation, systemic side effects, and low concentrations at target site are major challenges for the intravenous route. Other routes such as intra cameral, periocular, subretinal have their own subset of problems sharing some issues in common with topical and systemic route of administration (Baid et al. Drug Development and the back of the eye. ed. Kompella UB. 2010, p. 409-448: Springer). Local delivery such as an intravitreal injection places the drug to close proximity to the retina (the target tissue for retinal degenerative diseases) and thus is the most effective route in delivering drug to retina. However, frequent intravitreal injections of the drug leads to various complications such as retinal detachment, retinal hemorrhage, endophthalmitis, increased intraocular pressure, and not to mention patient compliance and infections. (Peyman et al. Retina, 2009. 29(7): p. 875-912; Wu et al. Semin Ophthalmol, 2009. 24(2): p. 100-5). Thus there is a need of for compositions and delivery system that can extend the retention of drugs in the eye.

"Novel drug delivery systems have gained major attention which could sustain or control the release of drug for extended period of time as well as increase the stability and bioavailability of therapeutic agents such as proteins, genes and other small molecules. Biodegradable (PLGA, PCL) and non-biodegradable (e.g Vitraset and Retisert) implants provides a platform for sustaining release of drug over several months to years. However, erratic drug release profile for biodegradable implants and requirement of highly invasive eye surgery are few drawbacks. Micro and nanoparticles provide sustained release of encapsulated molecules for weeks to months. However, use of organic solvents such as dichloromethane during preparation denatures and reduces protein efficacy leading to non-effective treatment. Further encapsulation efficiency, controlled particles size, and sterility during preparations are among the other hurdles. Iontophoresis, microneedles, ultrasound based ocular deliver have also been tried, however, the major advances are with the small molecule drugs and still are in
investigation stage and needs validations to establish their efficacy and safety. Thus non- or minimally-invasive, controlled, and sustained delivery to the posterior segment is becoming extremely vital with escalating advances in the emerging therapies for retinal degenerations."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "The present invention is directed to biologically active peptides of LEDGF that can be produced in high quantity, purity, or both. For example, the present invention is directed to peptides of LEDGF that can be produced at, or greater than, 20 mg per liter of culture and at, or greater than, 90% purity as quantified by SDS-PAGE and SEC-HPLC. In one exemplary embodiment the peptide is approximately a 40 kDa monomer, that may exist as an 80 kDa dimer. In another exemplary embodiment, the peptide has primarily a random coil structure and includes an N-terminal stress related binding domain, and optionally a TAT binding domain.

"In another exemplary embodiment, the peptide comprises amino acids 1-326 of LEDGF (LEDGF.sub.1-326). In yet another exemplary embodiment, the peptide comprises SEQ ID NO: 2. In another exemplary embodiment, the peptide comprises an amino acid sequence with at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, or at least 95% sequence identity with SEQ ID NO: 2. In addition, the present invention includes nucleic acid sequences encoding SEQ ID NO: 2, or nucleic acid sequences encoding amino acid sequences having at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, or at least 95% sequence identity with SEQ ID NO: 2. The present invention further includes vectors containing such nucleic acid sequences. In one exemplary embodiment, the vector is a pET-28a (+) vector.

"In another aspect, the present invention comprises compositions containing the LEDGF peptides. In one exemplary embodiment, the composition comprises the LEDGF peptide in combination with a pharmaceutical carrier, diluent, excipient, or combination thereof. In another exemplary embodiment, the composition comprises the LEDGF peptide associated with or bound to colloidal metal particles, such as zinc, to form nano-assemblies. In yet another exemplary embodiment, the compositions comprise the LEDGF peptide encapsulated or bound to an inner particle loaded into a porous outer particle. In certain exemplary embodiments, the LEDGF peptide used in the above compositions is LEDGF.sub.1-326.

"In another aspect, the present invention is directed to methods of treating protein aggregation-mediated diseases by administering the above LEDGF peptide compositions to a patient in need thereof. In certain exemplary embodiments, the protein aggregation-mediated disease is a retinal degeneration disease. Exemplary retinal degeneration diseases include, but are not limited to, age related macular degeneration (AMD) retinitis pigmentosa (RP) and diabetic retinopathy (DR). In another exemplary embodiment, the protein aggregation-mediated diseases are neurodegenerative diseases including, but not limited to, Alzheimer's disease (AD), Parkinson's disease (PD), Huntington's disease (HD), amyotrophic lateral sclerosis, or a prion disease."


Keywords for this news article include: Genetics, Peptides, Proteins, Amino Acids, Ophthalmology, Retinal Degeneration, Retinitis Pigmentosa, Retinal Diseases and Conditions,
Patent Issued for Lipidated Glycosaminoglycan Particles and Their Use in Drug and Gene Delivery for Diagnosis and Therapy (USPTO 9526705)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Margalit, Rimona (Givatayim, IL); Peer, Dan (Qiryat Ono, IL), filed on January 7, 2016, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9526705 is assigned to TEL-AVIV UNIVERSITY FUTURE TECHNOLOGY DEVELOPMENT L.P. (Tel-Aviv, IL).

The following quote was obtained by the news editors from the background information supplied by the inventors: "Glycosaminoglycans, or mucopolysaccharides, along with collagen, are the chief structural elements of all connective tissues. Glycosaminoglycans, or gags, are large complexes of polysaccharide chains associated with a small amount of protein. These compounds have the ability to bind large amounts of water, thereby producing a gel-like matrix that forms the body's connective tissues. Gags are long chains composed of repeating disaccharide units (aminosugar-acidic sugar repeating units). The aminosugar is typically glucosamine or galactosamine. The aminosugar can also be sulfated. The acidic sugar may be D-glucuronic acid or L-iduronic acid. In vivo, gags other than hyaluronic acid are covalently bound to a protein, forming proteoglycan monomers. The polysaccharide chains are elongated by the sequential addition of acidic sugars and aminosugars.

"Among the most common gags are hyaluronic acid, keratan sulfate, chondroitin sulfate, heparin sulfate, and dermatan sulfate. Gags may be chemically modified to contain more sulfur groups than in their initially extracted form. In addition, gags may be partially or completely synthesized and may be of either plant or animal origin.

"Hyaluronic acid is a naturally occurring member of the glycosaminoglycan family which is present in particularly high concentration in the cartilage and synovial fluid of articular joints, as well as in vitreous humor, in blood vessel walls, and umbilical cord and other connective tissues. Hyaluronic acid can be in a free form, such as in synovial fluid, and in an attached form, such as an extracellular matrix component. This polysaccharide consists of alternating N-acetyl-D-glucosamine and D-glucuronic acid residues joined by alternating beta-1,3-glucuronidic and beta-1,4-glucosaminidic bonds. In water, hyaluronic acid dissolves to form a highly viscous fluid. The molecular weight of hyaluronic acid isolated from natural sources generally falls within the range of 5.times.10.sup.4 up to 10.sup.7 daltons. Hyaluronic acid has a high affinity for the extracellular matrix and to a variety of tumors, including those of the breast, brain, lung, skin, and other organs and tissues.

"A drug delivery system is used for maintaining a constant blood level of a drug over a long period of time by administering a drug into the body, or for maintaining an optimal concentration of a drug in a specific target organ by systemic or local administration, and over a prolonged period of time.

"Chemically modified hyaluronic acid can be used for controlled release drug delivery. Balazs et al, in U.S. Pat. No. 4,582,865, state that 'cross-linked gels of hyaluronic
acid can slow down the release of a low molecular weight substance dispersed therein but not covalently attached to the gel macromolecular matrix.’

"Various forms of pharmaceutical preparations are used as drug delivery systems, including the use of a thin membrane of a polymer or the use of a liposome as a carrier for a drug.

"There are two basic classes of drug carriers: particulate systems, such as cells, microspheres, viral envelopes, and liposomes; and non-particulate systems, which are usually soluble systems, consisting of macromolecules such as proteins or synthetic polymers.

"Generally, microscopic and submicroscopic particulate carriers have several distinct advantages. They can perform as sustained-release or controlled-release drug depots, thus contributing to improvement in drug efficacy and allowing reduction in the frequency of dosing. By providing protection of both the entrapped drug and the biological environment, these carriers reduce the risks of drug inactivation and drug degradation. Since the pharmacokinetics of free drug release from the particles are different from directly-administered free drug, these carriers can be used to reduce toxicity and undesirable side effects.

"Despite the advantages offered, there are some difficulties associated with using drug encapsulating biopolymers. For example, biopolymers structured as microparticulates or nanoparticles have limited targeting abilities, limited retention and stability in circulation, potential toxicity upon chronic administration, and the inability to extravasate. Numerous attempts have been made to bind different recognizing substances, including antibodies, glycoproteins, and lectins, to particulate systems, such as liposomes, microspheres, and others, in order to confer upon them some measure of targeting. Although bonding of these recognizing agents to the particulate system has met with success, the resulting modified particulate systems did not perform as hoped, particularly in vivo.

"Other difficulties have also arisen when using such recognizing substances. For example, antibodies can be patient-specific, and thereby add cost to the drug therapy. Additionally, not all binding between recognizing substrate and carrier is covalent. Covalent bonding is essential, as non-covalent binding might result in dissociation of the recognizing substances from the particulate system at the site of administration, due to competition between the particulate system and the recognition counterparts to the target site for the recognizing substance. Upon such dissociation, the administered modified particulate system can revert to a regular particulate system, thereby defeating the purpose of administration of the modified particulate system."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: "It is an object of the present invention to overcome the deficiencies in the prior art.

"It is another object of the present invention to form glycosaminoglycan-based particles for encapsulating drugs.

"It is another object of the present invention to deliver drugs encapsulated in a glycosaminoglycan-based particle.

"It is a further object of the present invention to provide methods of drug delivery using particles of lipidated glycosaminoglycans as the drug delivery vehicles.

"In a preferred embodiment, the delivery is by oral administration of the particle formulation. In another preferred embodiment, the delivery is by intranasal administration of the particle formulation, especially for use in therapy of the brain and related organs (e.g., meninges and spinal cord) that seeks to bypass the blood-brain barrier (BBB). Along these lines, intraocular administration is also possible. In another preferred embodiment, the delivery means is by intravenous (i.v.) administration of the particle formulation, which is especially
advantageous when a longer-lasting i.v. formulation is desired.

"It is still another object of the present invention to provide gene delivery using particles of lipitated glycosaminoglycans as the gene delivery materials.

"The present invention provides a novel multi-product gene and drug delivery technology as well as methods of preparation and uses thereof. The delivery system comprises lipitated glycosaminoglycans, also known as gagomers, which are bioadhesive biopolymers produced by cross-linking a lipid having a primary amino group to a carboxylic acid-containing glycosaminoglycan. Micro- or nanoparticles are formed in a controlled manner, with dominant particle diameter ranges of about 2-5 microns for microparticles and about 50-200 nanometers for nanoparticles. Either small or large drugs, bioactive agents, or active ingredients such as antibiotics, chemotherapeutics, proteins, and nucleic acids can be entrapped in these particles with high efficiency, usually greater than 50%, even for large macromolecules. For example, for plasmid DNA the nanoparticles provide about 66% entrapment and the microparticles provide about 75% entrapment.

"For purposes of the present invention, 'drug' means any agent which can affect the body therapeutically, or which can be used in vivo for diagnosis. Examples of therapeutic drugs include chemotherapeutics for cancer treatment, antibiotics for treating infections, and antifungals for treating fungal infections. Examples of diagnostic drugs include radioactive isotopes such as 99Tc, 127I, and 67Gd, and fluorescent molecules which are used in visualizing sites of interest in the body.

"Preparation of the biopolymers of the present invention and drug entrapment are simple and cost-effective processes. These novel carriers act as sustained release drug depots, with half-lives in the range of 19–35 hours for the efflux of antibiotics and chemotherapeutics. These properties, together with their bioadhesive nature, provide these novel drug carriers the ability to perform as site-adherent, site-retained, sustained release drug depots for systemic, including oral, topical, and regional, including intranasal, administrations.

"Additionally, the gagomers of the present invention are non-toxic. When chemotherapeutic drugs were entrapped and tested in a cell culture model, the systems exhibited high potential in tumor treatment, even overcoming the well known impediment of drug resistance. Thus, the gagomers can be used as microscopic and submicroscopic drug delivery systems for a wide range of therapeutic activities, such as cancer, infectious diseases, wound healing, enzyme therapy, gene therapy, and others.

"Unexpectedly, the empty particles (containing only gagomers and no drug or other therapeutic formulation) also appear to have important tumor-inhibiting effects. Therefore, such particles may be useful for cancer therapy, especially for metastatic cancer, either as a main or adjuvant chemotherapeutic agent."

URL and more information on this patent, see: Margalit, Rimona; Peer, Dan. Lipidated Glycosaminoglycan Particles and Their Use in Drug and Gene Delivery for Diagnosis and Therapy. U.S. Patent Number 9526705, filed January 7, 2016, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fetrahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9526705.PN.&OS=PN/9526705RS=PN/9526705

Keywords for this news article include: Biotechnology, Genetics, Liposomes, Biopolymers, Nanoparticle, Nanotechnology, Drugs and Therapies, Drug Delivery Systems, Emerging Technologies, TEL-AVIV UNIVERSITY FUTURE TECHNOLOGY DEVELOPMENT L.P..

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Arrowhead Pharmaceuticals, Inc.

**Patent Issued for Low Density Lipoprotein Receptor-Mediated siRNA Delivery (USPTO 9526799)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Arrowhead Pharmaceuticals, Inc. (Pasadena, CA) has been issued patent number 9526799, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventor is Chatterton, Jon E. (Aliso Viejo, CA).

This patent was filed on February 9, 2016 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "RNA interference (RNAi) is a process by which double-stranded RNA (dsRNA) is used to silence gene expression. RNAi is induced by short (i.e. <30 nucleotide) double stranded RNA (dsRNA) molecules which are present in the cell (Fire et al., 1998, Nature 391:806-811). These short dsRNA molecules called 'short interfering RNA' or 'siRNA,' cause the destruction of messenger RNAs (mRNAs) which share sequence homology with the siRNA to within one nucleotide resolution (Elbashir et al., 2001, Genes Dev, 15:188-200). It is believed that one strand of the siRNA is incorporated into a ribonucleoprotein complex known as the RNA-induced silencing complex (RISC). RISC uses this siRNA strand to identify mRNA molecules that are at least partially complementary to the incorporated siRNA strand, and then cleaves these target mRNAs or inhibits their translation. The siRNA is apparently recycled much like a multiple-turnover enzyme, with 1 siRNA molecule capable of inducing cleavage of approximately 1000 mRNA molecules. siRNA-mediated RNAi degradation of an mRNA is therefore more effective than currently available technologies for inhibiting expression of a target gene.

"RNAi provides a very exciting approach to treating and/or preventing diseases. Some major benefits of RNAi compared with various traditional therapeutic approaches include: the ability of RNAi to target a very particular gene involved in the disease process with high specificity, thereby reducing or eliminating off target effects; RNAi is a normal cellular process leading to a highly specific RNA degradation and a cell-to-cell spreading of its gene silencing effect; and RNAi does not trigger a host immune response as in many antibody based therapies.

"Several interfering RNA delivery methods are being tested/developed for in vivo use. For example, siRNAs can be delivered 'naked' in saline solution; complexed with polycations, cationic lipids/lipid transfection reagents, or cationic peptides; as components of defined molecular conjugates (e.g., cholesterol-modified siRNA, TAT-DRBD/siRNA complexes); as components of liposomes; and as components of nanoparticles. These approaches have shown varying degrees of success. Thus, there is a need for new and improved methods for delivering siRNA molecules in vivo to achieve and enhance the therapeutic potential of RNAi."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventor's summary information for this patent: "The invention provides interfering RNA molecule-ligand conjugates, wherein the ligand can bind to a low density lipoprotein receptor (LDLR) or LDLR family member. The invention also provides methods of using the conjugates for delivering an interfering RNA molecule into a cell in vitro or in vivo. In one aspect, an interfering RNA molecule-ligand conjugate of the invention can be used to deliver an interfering RNA molecule to an eye of a patient."
"The invention further provides methods of treating or preventing an ocular disorder in a patient, comprising administering to the patient an interfering RNA molecule-ligand conjugate, wherein the ligand can bind to a low density lipoprotein receptor (LDLR) or LDLR family member and wherein the interfering RNA molecule can attenuate expression of a gene associated with the ocular disorder. In certain aspects, the ocular disorder is or is associated with ocular angiogenesis, dry eye, ocular inflammatory conditions, ocular hypertension, or glaucoma. In other aspects, the conjugate is administered by intraocular injection, subconjunctival injection, intravitreal injection, anterior or posterior juxtascleral injection, ocular topical application, intravenous injection, oral administration, intramuscular injection, intraperitoneal injection, transdermal application, intranasal application, or transmucosal application.

"Specific preferred embodiments of the invention will become evident from the following more detailed description of certain preferred embodiments and the claims."


Keywords for this news article include: Arrowhead Pharmaceuticals Inc., Lipids, Genetics, Membrane Proteins, Lipoprotein Receptors, Cell Surface Receptors.

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superconducting ring, or the like.

"FIGS. 6A and 6B are schematic diagrams of magnetic flux detecting coils showing an example of the SQUID in the related art. FIG. 6A is a diagram showing a magnetic flux detecting coil (magnetometer), which is wound once. FIG. 6B is a diagram showing a magnetic flux detecting coil that two parallel coils wound in opposite directions to each other are connected in series (first-order gradient type gradiometer).

"As shown in FIG. 6A, in a magnetometer 101, a magnetic field 110 coming into the coil is totally detected. Therefore, in order to detect only a magnetic field (for example, cardiac magnetism or cerebral magnetism) generated from near the coil, it is necessary to prepare a separate method of completely eliminating a noise by a magnetic field having the source distant from the coil (for example, external magnetic noise).

"As shown in FIG. 6B, in a first-order gradient type gradiometer 102, the magnetic field 110 is detected as a difference of detection signals detected from the two coils wound in the opposite directions to each other. For this reason, the influence of the magnetic field having the source distant from the coils is negated and becomes zero between the two coils, and only the magnetic field generated from near the coils is detected. However, the SQUID costs are high because a superconducting device or a Josephson device is used. In addition, the SQUID needs an effort because it is necessary to frequently supply liquid helium or liquid nitrogen to a cooling system in order to maintain a low temperature environment.

"On the other hand, there is an optically-pumped atomic magnetometer as a method of measuring a micro-magnetic field without using the SQUID. The optically-pumped atomic magnetometer is an apparatus that measures a magnetic field by detecting a magnetization state of an atom by causing an atom and a magnetic field to interact with each other using an optical pumping method (a method in which an electron spin of atoms is polarized using polarized light and the polarized atoms are detected with high sensitivity). For example, in Appl. Phys. B75, 605-612 (2002) and Appl. Phys. B76, 325-328 (2003), two laser beams having polarization directions different from each other are incident on a gas cell into which alkali metal atoms such as cesium and the like are injected, the two laser beams transmitted through the gas cell are each received with two photodetectors to detect light intensities. After that, optical signals detected by the two photodetectors are converted into electric signals to calculate a difference in intensity variations of the laser beams, and thereby measuring a micro-magnetic field excluding an influence of an external magnetic field.

"However, in the Appl. Phys. B75, 605-612 (2002) and Appl. Phys. B76, 325-328 (2003), there is a case where a noise occurs when optical signals detected by the two photodetectors are converted into electric signals to calculate a difference in intensity variations of the laser beams, and thereby causing difficulties to measure a micro-magnetic field with high accuracy. In addition, since two photodetectors are used as detectors, the structure of a magnetic sensor is complicated and the calculation also becomes complicated."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventor's summary information for this patent: "An advantage of some aspects of the invention is to provide a magnetic sensor that enables the measurement of a micro-magnetic field with high accuracy and achieves a simplified structure.

"According to an aspect of the invention, there is provided a magnetic sensor for measuring a magnetic field using an optical pumping method including a first gas in which a valence electron is composed of an odd number of atoms or ions, a probe light source which causes first circular polarized light to be incident on the first gas, a second gas in which a valence electron arranged on an optical path of second circular polarized light that is the first circular polarized light transmitted through the first gas is composed of an odd number of atoms
or ions, an AC magnetic field generator which generates an AC magnetic field in a direction intersecting with an optical axis of the first circular polarized light and the second circular polarized light for the first gas and the second gas and generates magnetic resonance, a bias magnetic field generator which generates bias magnetic fields in a direction parallel to the optical axis of the first circular polarized light and the second circular polarized light with different intensities for the first gas and the second gas and differentiates the optical transmittance of the first circular polarized light in the first gas from the optical transmittance of the second circular polarized light in the second gas, and a detector which detects a light amount of the first circular polarized light and third circular polarized light that is the second circular polarized light transmitted through the second gas.

"With the configuration, by generating magnetic resonance and a gradient magnetic field to the first gas and the second gas, the optical transmittance of the circular polarized light is different in the first gas and the second gas. In addition, the light amount of the circular polarized light before/after the light is transmitted through the first gas and the second gas is detected. Accordingly, a difference between the optical transmittance of the circular polarized light in the first gas and the optical transmittance of the circular polarized light in the second gas is obtained. Then, a difference between the magnetic field applied to the first gas and the magnetic field applied to the second gas is calculated. As a result, the influence of an external magnetic field for the first gas and the influence of an external magnetic field for the second gas offset each other, and thereby, only a measuring target magnetic field applied to the first gas is measured. In other words, the calculation of a difference in optical signals is performed without converting the optical signals into electric signals as in Appl. Phys. B75, 605-612 (2002) and Appl. Phys. B76, 325-328 (2003). In addition, since two photodetectors are not used as detectors, the structure of the magnetic sensor is simple and the calculation becomes smooth. Therefore, it is possible to provide the magnetic sensor that enables the measurement of a micro-magnetic field with high accuracy and achieves a simplified structure.

"Furthermore, according to the above aspect of the invention, there is provided the magnetic sensor in which the bias magnetic field generator generates a bias magnetic field so that the intensity of a bias magnetic field in the first gas is greater than that of a bias magnetic field in the second gas.

"With the configuration, the optical transmittance in the first gas and the second gas is assuredly different. Therefore, it is possible to provide the magnetic sensor that assuredly enables the measurement of a micro-magnetic field with high accuracy and achieves a simplified structure.

"Furthermore, according to the above aspect of the invention, there is provided the magnetic sensor in which the bias magnetic field generator may generate a bias magnetic field so that the intensity of the bias magnetic field in the second gas is greater than that of the bias magnetic field in the first gas.

"With the configuration, the optical transmittance in the first gas and the second gas is assuredly different. Therefore, it is possible to provide the magnetic sensor that assuredly enables the measurement of a micro-magnetic field with high accuracy and achieves a simplified structure.

"Furthermore, according to the above aspect of the invention, there is provided the magnetic sensor in which the first gas and the second gas may be injected into the same cell.

"With the configuration, since the first gas and the second gas are injected into the same cell, the structure of the device is simpler than a case where the first gas and the second gas are injected into difference cells. In addition, when the first gas and the second gas are injected into difference cells, the alignments of the optical axis of the probe light and each cell
have to be performed separately from each other, but when the first gas and the second gas are injected into the same cell, such alignment is completed for one time, and therefore, the setting becomes easy."


Keywords for this news article include: Cardiology, Electronics, Magnetic Flux, SEIKO EPSON CORPORATION.

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Patent Issued for Mandelic Acid Condensation Polymers (USPTO 9527793)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS (Urbana, IL) has been issued patent number 9527793, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Anderson, Jr., Robert A. (Chicago, IL); Diao, Xiao-Hui (Chicago, IL); Zaneveld, Lourens J. D. (Sao Paulo, BR); Chany, II, Calvin J. (Dubuque, IA); Krunic, Aleksej (Chicago, IL); Waller, Donald P. (Oak Brook, IL); Venton, Duane L. (Lombard, IL); Jain, Sanjay (Pune, IN).

This patent was filed on November 30, 2012 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "The HIV/AIDS epidemic has significantly and dramatically underscored the threat of STDs to the human population. Until there is a cure, or at least an effective treatment, the best, and perhaps only realistic, approach to this increasing problem of STDs (especially HIV/AIDS) appears to be reducing the risk of transmission of STDs by the causative pathogens and thus reducing the number of new infections. Even when STD treatments or cures become available, prevention will likely remain as the first line of defense for economic and medical reasons.

"At present, education in regard to STDs, their modes of transmission, and so-called 'safe-sex' techniques has, at least to some degree in the more developed countries, shown promise in reducing the risks of STD transmission through sexual activity. Screening of the blood supply has helped to reduce the risk of transmission of such STD-causing organisms via blood transfusions and related medical practices. Nonetheless, the spread of such STDs has not been halted to a satisfactory degree even in developed countries with active and progressive education programs. Even with their known effectiveness in preventing STDs, current safe-sex techniques are not always used, or are not always used properly, for many reasons (e.g., carelessness, lack of knowledge, improper techniques, cultural barriers, unplanned or spontaneous sexual activity, and the like). Moreover, even when used correctly, safe-sex techniques are not always effective. Various birth control devices--including barrier methods..."
and vaginal contraceptives--are currently available. Some of these may, in addition, also have a least some degree of anti-STD activity.

"Sexually transmitted diseases, especially HIV/AIDS, also present risks to health care providers and laboratory personnel working with STD-infected patients and/or blood and tissue samples from such patients. Physical contact with the bodily fluids of infected patients can, especially if there are breaks or cuts in the skin, increase the risk of transmission of the STD-causing organisms. In recent years, such health care providers and laboratory personnel have increasingly donned protective clothing and equipment when working with patients or biological samples where exposure to bodily fluids is possible. Latex gloves (often double or triple layered), goggles, protective clothing, and the like are often used when treating or examining patients in both medical and dental offices or working with biological samples from patients (e.g., blood, tissue, and the like). In spite of these precautions, exposure to bodily fluids can still occur. For example, sudden movement by a patient while having a blood sample withdrawn can cause blood to splatter and, perhaps, come in contact with an unprotected part of the body of other persons in the area; needle punctures or scalpel cuts can expose health-care providers to bodily fluids in spite of gloves and other protective layers; or aerosols containing blood and/or saliva can be generated during dental procedures which may contact the body of other persons. Although contact with unbroken and healthy skin is unlikely to result in transmission of the STD, breaks, cuts, or damage to the protective skin layer can increase the risk of transmission.

"Treatments are available for many STDs subsequent to infection, but such infections are increasingly showing resistance to available treatments. For example, HIV can become drug resistant to convention antiretroviral therapies. This phenomenon is well established and is monitored by the WHO in developing countries. In the Unites States, 50% of HIV patients receiving treatment are known to be infected with a strain of HIV that expresses resistance to at least one known treatment drug. In one study, nearly 30% of new HIV infections in one region of Africa were of a drug-resistant strain. The particular drug had been introduced only 18 months earlier. Patients with HIV must be monitored for such drug resistance and are typically on a cocktail of drugs to maintain suppression of the infection. Not only can a sexually active person become infected with an already drug resistant strain, but once infected and under treatment, HIV can mutate and thus become resistant to further treatment.

"Accordingly, what is needed are improved compounds, compositions, and methods for reducing the risk of STD infections. It would be desirable if such compounds, compositions, and methods would not interfere with the natural and protective vaginal mechanisms so as to maintain the naturally protective vaginal flora and maintain integrity of vaginal and cervical tissues, yet prevent pathogens from infecting host cells such as macrophages and CD4+ cells. It would also be desirable if such compounds, compositions, and methods would be relatively easy to use and have significantly fewer side effects than currently available products so that it would more likely be used on a consistent basis. It would also be desirable if such compounds, compositions, and methods could be used in heterosexual, homosexual, and bisexual relationships and for a wide range of sexual activities. It would also be desirable if such compounds, compositions, and methods could be implemented by either party to the sexual activity. It would also be desirable to provide compounds, compositions, and methods by which the risk of infection by sexually transmitted diseases, especially HIV/AIDS, could be reduced for individuals working with patients and/or biological samples."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "In one aspect, compounds having formula (I) are disclosed,
or a pharmaceutically acceptable salt, ester, amide, or prodrug form thereof,

wherein

R.sup.1, R.sup.2, and R.sup.3 are each independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, heteroaryl, aryl, and counterion;

R.sup.4 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, heteroaryl, and aryl;

R.sup.5, R.sup.6, and R.sup.7 are each independently selected from the group consisting of alkyl, alkoxy, hydroxy, and halogen;

n is an integer greater than zero; and

x, y, and z are each an integer independently selected from the group consisting of 0, 1, 2, 3, and 4.

In another aspect, compounds having repeating units of formula (II) are disclosed,

or a pharmaceutically acceptable salt, ester, amide, or prodrug form thereof,

wherein

R.sup.2 is independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, heterocycle, heteroaryl, aryl, and counterion.

In another aspect, disclosed are compositions comprising a compound of the invention and a pharmaceutically acceptable carrier. Preferably, the compositions are adapted for topical use as protective agents against transmission of one or more sexually transmitted diseases, and in particular, HIV/HSV.

In yet another aspect, disclosed is a process for producing a compound of the invention. In one embodiment, the process comprises cooling a strong acid to a temperature below 0.degree. C., preferably below -10.degree. C., more preferably below -25.degree. C., and most preferably below about -30.degree. C.; and adding mandelic acid or a mandelic acid derivative to the strong acid to provide a reaction mixture. In another embodiment, the process comprises providing a reaction mixture comprising mandelic acid or a mandelic acid derivative and a strong acid, wherein the reaction mixture is at a reduced temperature ranging from about -45.degree. C. to about -5.degree. C., preferably from about -35.degree. C. to -30.degree. C.

In another aspect, disclosed is a method for reducing the risk of infection. In one embodiment, the method comprises applying to the body or portion of the body of an individual an effective amount of a protective agent, wherein the protective agent comprises a compound of the invention. In another embodiment, the method comprises contacting a pathogen or cells susceptible to infection by the pathogen with an effective amount of a compound of the invention, thereby reducing the risk of transmission of the pathogen.

"The compounds, compositions, methods and processes are further described herein."

Patent Issued for Materials and Methods for Quality-Controlled Two-Color RT-QPCR Diagnostic Testing of Formalin Fixed Embedded And/Or Fresh-Frozen Samples (USPTO 9528161)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Willey, James C. (Toledo, OH); Yeo, Jiyoun (Maumee, OH); Crawford, Erin (Rossford, OH), filed on February 11, 2015, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9528161 is assigned to The University of Toledo (Toledo, OH).

The following quote was obtained by the news editors from the background information supplied by the inventors: "Reverse transcription quantitative real-time polymerase chain reaction (RT-qPCR) tests that measure transcript abundance of selected genes in clinical specimens have been demonstrated to increase cancer diagnostic accuracy and enable 'personalized medicine' through selection of the most effective treatment for each cancer."

"There are challenges to using such methods, however, and these methods do not work well when the amount of sample is small or when the sample contains degraded RNA.

"A particular challenge is that current clinical pathology sample collection and processing procedures focus on formalin fixation and paraffin embedding (FFPE) and fresh/fresh-frozen tissues rarely are available for molecular analysis. FFPE samples are difficult to work with because they yield RNA that 1) often contains PCR-interfering substances, and 2) is uniformly highly fragmented and often in low abundance. Economic factors prevent changing this workflow to ensure collection of samples in a form more conducive to molecular genetic analysis, such as fresh-frozen, therefore, there is a need to develop methods that are sufficiently robust to reliably conduct molecular genetic analysis in FFPE samples. These RT-qPCR tests must be able to assess FFPE samples with quality control and inter-laboratory reproducibility."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: "Described herein are materials, methods, and kits enabling accurate and reproducible two-color reverse-transcription real-time quantitative PCR (RT-qPCR) for quality-controlled molecular diagnostic testing of samples that may contain degraded RNA.

"In a particular embodiment described herein is a kit for use in molecular diagnostic testing of a sample, comprising a) synthetic competitive internal standards (IS), wherein known quantities of each IS are formulated into an internal standards mixture (ISM); b) an external standards mixture (ESM) comprising 1) purified synthetic native template (NT), and 2) synthetic competitive internal standards (IS), wherein known quantities of each purified synthetic NT and IS are formulated into the ESM; c) pairs of gene-specific primers (GSP) specific to specific genes and primers; and d) sequence-specific fluorometric hydrolysis probes, wherein all fluorometric hydrolysis probes are labeled with a fluorescent reporter."
"Another particular embodiment provided herein provides a method for using a kit described herein, comprising the steps of: a) extracting RNA from a sample; b) reverse-transcribing (RT) the RNA extracted from the sample; c) pre-amplifying cDNA generated by the RT of the RNA extracted from the sample along with the ISM, wherein the pre-amplification of the cDNA and ISM is done by polymerase chain reaction (PCR) using the pairs of GSP specific to the genes; d) performing a second round of PCR amplification for the genes, wherein a reaction mixture for a single gene comprises: 1) a dilution of the pre-amplified cDNA and ISM; 2) a primer mixture comprising the pairs of GSP corresponding to the genes; and 3) fluorometric hydrolysis probes specific for the single gene NT and corresponding IS; e) along with the second round of PCR amplification, for each gene, simultaneously performing PCR amplification on two distinct concentrations of the ESM, wherein each distinct concentration of ESM further comprises the same fluorometric hydrolysis probes specific for the single gene NT and corresponding IS of step d) 3); and f) quantifying the copy number for loading the genes (e.g., a control gene and one or more target genes).

"In another particular embodiment provided herein is a method for using a kit described herein, wherein the step of quantifying the copy number for each target gene comprises the steps of: a) calculating the difference in quantification cycle (Cq) between the NT and IS for a target gene using the formula \(\text{NT Cq-IS Cq}_{\text{Target Gene}}\); b) calculating an average difference in Cq between the NT and IS of two concentrations of ESM using the formula \(\frac{\text{NT Cq-IS Cq}_{\text{ESM Concentration 1}} + \text{NT Cq-IS Cq}_{\text{ESM Concentration 2}}}{2} = \text{NT Cq-IS Cq}_{\text{ESM}}\); c) calculating a corrected delta Cq using the formula \(\text{NT Cq-IS Cq}_{\text{Target Gene}} - \text{NT Cq-IS Cq}_{\text{ESM}}\); d) obtaining a target gene NT copy number by multiplying \(2^{-\text{corrected delta Cq}}\) by a known number of input IS copies corresponding to the target gene in the reaction; and e) normalizing the target gene NT copy number to a gene loading control NT value.

"In another particular embodiment provided herein is a method described herein, wherein the samples comprise material having degraded RNA therein.

"In another particular embodiment provided herein is a method described herein, wherein the samples comprise formalin fixed paraffin embedded (FFPE) samples.

"In another particular embodiment provided herein is a method described herein, wherein the samples comprise fresh-frozen samples.

"In a particular embodiment described herein is a kit for use in molecular diagnostic testing of a sample comprising: a) one or more synthetic competitive internal standards (IS), wherein each IS is synthesized to correspond with a unique target gene or reference gene, wherein an IS probe binding site has a 4-6 bp difference than that of a native template (NT), and wherein known quantities of the one or more IS are formulated into an internal standards mixture (ISM); b) an external standards mixture (ESM) comprising: 1) one or more purified synthetic NT, wherein each NT is synthesized to correspond with a unique target gene or reference gene; and 2) one or more synthetic competitive internal standards (IS), wherein each IS is synthesized to correspond with a unique target gene or reference gene, wherein known quantities of each purified synthetic NT and IS are formulated into the ESM; c) one or more pairs of gene-specific primers (GSP), wherein each pair of GSP is specific for a unique target gene or reference gene, and is designed to amplify a PCR product having a product size of approximately 60-80 base pairs and span introns/exon splice junctions of the unique target gene or reference gene; and d) at least one pair of fluorometric hydrolysis probes, wherein each pair of fluorometric probes is specific for a particular target gene or reference gene, and comprises a first fluorometric hydrolysis probe that is sequence-specific for an NT probe binding site and is labeled with a first fluorescent reporter, and a second fluorometric hydrolysis probe that is sequence specific for an IS probe binding site of an IS corresponding to the NT against which
the first fluorometric hydrolysis probe is sequence-specific for, and is labeled with a second fluorescent reporter.

"Another particular embodiment provided herein provides a method for using a kit described herein, comprising the steps of: a) extracting RNA from the sample; b) reverse-transcribing (RT) the RNA extracted from the sample; c) pre-amplifying cDNA generated by the RT of the RNA extracted from the sample along with ISM including IS for each target gene or reference gene, wherein the pre-amplification of the cDNA and ISM is done by polymerase chain reaction (PCR) using the pairs of GSP specific to each target gene or reference gene; d) performing a second round of PCR amplification for each target gene and at least one reference gene, wherein a reaction mixture for a single target gene or reference gene comprises: 1) a dilution of the pre-amplified cDNA and ISM; 2) a primer mixture comprising the one or more pairs of GSP; and 3) one pair of fluorometric hydrolysis probes, specific for a single target gene or reference gene and its corresponding IS; e) along with the second round of PCR amplification, for each target gene or reference gene, simultaneously performing a PCR amplification on two distinct concentrations of the ESM containing the same pair of fluorometric hydrolysis probes used in step d) 3); and f) quantifying the copy number for each target gene.

"In another particular embodiment provided herein is a method for using a kit described herein, wherein the step of quantifying the copy number for each target gene comprises the steps of: a) calculating the difference in quantification cycle (Cq) between the NT and IS for a target gene using the formula\(\text{[NT Cq-IS Cq].sub. Target Gene}\); b) calculating an average difference in Cq between the NT and IS of two concentrations of ESM using the formula \(\frac{\text{[NT Cq-IS Cq].sub.ESM Concentration 1} + \text{[NT Cq-IS Cq].sub.ESM Concentration 2}}{2} = \text{[NT Cq-IS Cq].sub.ESM}\); c) calculating a corrected delta Cq using the formula \(\text{[NT Cq-IS Cq].sub. Target Gene} - \text{[NT Cq-IS Cq].sub.ESM}\); d) obtaining a target gene NT copy number by multiplying \(2^{\text{(-corrected delta Cq)}}\) by the known number of input IS copies corresponding to the target gene in the reaction; and e) normalizing the target gene NT copy number to a reference gene loading control gene NT value.

"Another particular embodiment provided herein provides a method to control for inter-experimental variation occurring during two-color RT-qPCR amplification comprising: a) providing one or more synthetic competitive internal standards (IS), wherein each IS is synthesized to correspond with a unique target gene or reference gene, and wherein known quantities of the one or more IS are formulated into an internal standards mixture (ISM); b) providing an external standards mixture (ESM) comprising: 1) one or more purified synthetic NT, wherein each NT is synthesized to correspond with a unique target gene or reference gene; and 2) one or more synthetic competitive internal standards (IS), wherein each IS is synthesized to correspond with a unique target gene or reference gene, wherein known quantities of each purified synthetic NT and IS are formulated into the ESM; c) while running a two-color RT-qPCR amplification to quantify a target gene using the ISM, simultaneously amplify two distinct concentrations of ESM, wherein the ESM comprises probes for the NT and IS being quantified; d) correcting a measured copy number for one or more target genes by: 1) calculating the difference in quantification cycle (Cq) between NT and IS for a target gene \(\text{([NT Cq-IS Cq].sub. Target Gene)}\); 2) calculating an average difference in Cq between NT and IS of two concentrations of ESM \(\frac{\text{([NT Cq-IS Cq].sub.ESM Concentration 1} + \text{[NT Cq-IS Cq].sub.ESM Concentration 2}}{2} = \text{[NT Cq-IS Cq].sub.ESM}\); 3) calculating the corrected delta Cq using the formula \(\text{[NT Cq-IS Cq].sub. Target Gene} - \text{[NT Cq-IS Cq].sub.ESM}\); 4) obtaining a target gene NT copy number by multiplying \(2^{\text{(-corrected delta Cq)}}\) by the known number of input IS copies corresponding to the target gene in the reaction; and 5) normalizing the target gene NT copy number to a reference gene loading control gene NT value, wherein normalizing the target
gene NT copy number to a reference gene loading control gene NT value controls for inter-
experimental variation occurring during two-color RT-qPCR, as any variation in the observed
[NT Cq-IS Cq]_ESM relative to the expected value of 0 is attributable to the inter-
experimental variation.

"In another particular embodiment provided herein is a method, wherein the two-
color RT-qPCR amplification is being done on cDNA originated from a sample having
degraded RNA therein.

"In another particular embodiment provided herein is a method, wherein the inter-
experimental variation arises from variation in fluorescence specific activity.

"In another particular embodiment provided herein is a method, wherein the inter-
experimental variation arises from the RT-qPCR reaction being conducted on a different
machine.

"In another particular embodiment provided herein is a method, wherein the inter-
experimental variation arises from variation in equipment and procedures between different
laboratories.

"Other systems, methods, features, and advantages of the present invention will be or
will become apparent to one with skill in the art upon examination of the following drawings
and detailed description. It is intended that all such additional systems, methods, features, and
advantages be included within this description, be within the scope of the present invention, and
be protected by the accompanying claims."

URL and more information on this patent, see: Willey, James C.; Yeo, Jiyoun;
Crawford, Erin. Materials and Methods for Quality-Controlled Two-Color RT-QPCR
Diagnostic Testing of Formalin Fixed Embedded And/or Fresh-Frozen Samples. U.S. Patent
Number 9528161, filed February 11, 2015, and published online on December 27, 2016. Patent
URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1
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Diagnostics, Enzymes and Coenzymes, The University of Toledo.

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Ecolink Intelligent Technology, Inc.
Patent Issued for Method and Apparatus for Detecting a Hazard Alarm
Signal (USPTO 9530298)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the
inventors Gruber, Brandon (Vista, CA); Seelman, George (Temecula, CA), filed on July 7,
2015, was published online on December 27, 2016.

The patent's assignee for patent number 9530298 is Ecolink Intelligent Technology,
Inc. (Carlsbad, CA).

News editors obtained the following quote from the background information
supplied by the inventors: "I. Field of the Invention

"The present invention relates to home security and, more particularly, to a method
and apparatus for audible/visual detection of conventional consumer smoke or carbon monoxide
II. Description of Related Art

Many homes and businesses contain hazard alarms for detecting the presence of smoke and/or carbon monoxide. Such detectors are typically purchased by consumers at the retail level and installed in their homes and businesses. When a fire or excess carbon monoxide is detected, these detectors typically emit a piercing siren and/or visual effect (e.g., flashing light). However, older people often have hearing or mobility difficulty and remain at a significantly increased risk of injury even if the audible alarm sounds.

Home security monitoring vendors such as Ackerman or ADT.TM. offer networked detectors and failsafe deployment of first responders. Again, when an alarm condition is detected, these systems emit an audible local alarm and also send an alarm code to a central panel for alerting a remote monitoring station, which in turn dispatches proper authorities to the location where the alarm condition exists. However, these network detectors are typically system-specific, and are installed by a third party along with other detectors such as door and window monitors for unauthorized entry. These network systems and their dedicated alarms are expensive and not generally used for middle and low income housing.

Inexpensive consumer smoke or carbon monoxide detectors cannot communicate with home security systems, or vice versa, since these consumer-grade detectors generally lack the capability to wirelessly communicate with a centrally-located security panel. Further, most wireless security panels use proprietary protocols to reduce the ability for third party products to communicate with these panels. Consequently, when a consumer smoke or carbon monoxide detector sounds an alarm and no one is present inside the home, the alarm will not be acted on.

Consequently, there remains a need for an apparatus that would enable network monitoring of consumer-level fire and carbon monoxide alarms.

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors’ summary information for this patent: "Accordingly, it is an object of the present invention to provide a method and device for audibly and/or visually detecting activation of a conventional consumer smoke or carbon monoxide detector and for communicating that fact to a network security system for communication with a remote monitoring station.

"It is another object to accomplish the foregoing in an environment where multiple different alarm types may be activated at once, and to be able to discriminate the different alarm types.

"It is another object to accomplish the foregoing with a digital processor-based circuitry and a buffer for storing digital samples on a FIFO basis and for analyzing a contiguous subset of the digital samples stored in buffer memory to detect each cadence patterns.

"In accordance with the foregoing and other objects, the present invention comprises a method and apparatus for detecting an audible and/or visual alarm, typically in the form of a pattern warning signal, generated by one or more hazard alarms, and in response thereto sending an alert signal to a home security panel for notification to a remote monitoring station. Such an apparatus generally comprises an audio and/or visual detection device for converting such pattern warning signals to an analog signal, providing amplification and filtering to the analog signal, then converting it to a digital signal for evaluation by a processor."

For additional information on this patent, see: Gruber, Brandon; Seelman, George. Method and Apparatus for Detecting a Hazard Alarm Signal. U.S. Patent Number 9530298, filed July 7, 2015, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9530298.PN.
Patent Issued for Method and Apparatus for Treating a Carotid Artery (USPTO 9526504)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventor Chang, David W. (Sunnyvale, CA), filed on February 13, 2015, was published online on December 27, 2016.

The patent's assignee for patent number 9526504 is Silk Road Medical, Inc. (Sunnyvale, CA).

News editors obtained the following quote from the background information supplied by the inventors: "Field of the Invention

"Certain inventions disclosed herein relate to treating a carotid artery. For example, a carotid artery may have a lesion or a partial occlusion that can be treated using the methods and apparatus disclosed herein.

"Description of the Related Art

"Carotid angioplasty and stenting (CAS) is a minimally invasive approach for treating carotid stenoses. Since its introduction two decades ago, the use of CAS has steadily increased, with 8% of the 107,000 carotid procedures performed in Europe in 2001 utilizing CAS. The prospect of an outpatient procedure without the discomfort of a sizable neck incision appears to be driving patient decision making away from carotid endarterectomy, the standard procedure for carotid bifurcation disease for the past fifty years."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventor's summary information for this patent: "One disclosed embodiment comprises an apparatus for use in carotid angioplasty. The apparatus comprises a catheter having a distal end and a proximal end opposite the distal end, and first and second occlusive members, of which at least the first occlusive member is located on the catheter. The first and second occlusive members are configured to reverse the natural direction of blood flow in the internal carotid artery when the first occlusive member occludes the common carotid artery and the second occlusive member occludes the external carotid artery. The catheter has a first shaft portion extending proximally from the first occlusive member. The first shaft portion has a maximum cross-section sized to be insertable into the common carotid artery. The first shaft portion has a relatively short length suitable for transcervical access to the common carotid artery. The catheter has a blood entry port located distal of the first occlusive member. The apparatus further comprises a collection reservoir configured to be connected to the catheter and placed in passive fluid communication with the blood entry port.

"Another disclosed embodiment comprises a method of treating a lesion in a carotid artery in a patient. The method comprises inserting a catheter into the carotid vasculature via a transcervical approach, and occluding blood flow in the common carotid artery and the external carotid artery, thus reversing the direction of natural blood flow in the internal carotid artery.
The method further comprises allowing blood to flow into a blood entry port in the catheter, and passively collecting the blood in a reservoir.

"Another disclosed embodiment comprises an apparatus for use in carotid angioplasty. The apparatus comprises a catheter having a distal end and a proximal end opposite the distal end, and first and second occlusive members, of which at least the first occlusive member is located on the catheter. The first and second occlusive members are configured to reverse the natural direction of blood flow in the internal carotid artery when the first occlusive member occludes the common carotid artery and the second occlusive member occludes the external carotid artery. The catheter has a first shaft portion extending proximally from the first occlusive member. The first shaft portion has a maximum cross-section sized to be insertable into the common carotid artery. The first shaft portion has a relatively short length suitable for transcervical access to the common carotid artery. The catheter has a blood entry port located distal of the first occlusive member. The apparatus further comprises a passive fluid conduit and a collection reservoir. The collection reservoir is configured to be connected to the catheter via the passive fluid conduit.

"Another disclosed embodiment comprises a method for treating lesions in the carotid artery of a mammalian body. The method comprises transcervical access and blocking of blood flow through the common carotid artery to the venous system of the mammalian body and treating the lesion in the carotid artery. The method may optionally further comprise blocking blood flow through the external carotid artery.

"In the method, access to the carotid artery can optionally be obtained percutaneously, or via a cutdown incision, or with any suitable technique. The treating step of the method can optionally include dilating the lesion with a balloon. The treating step of the method can optionally include stenting the dilated lesion. The shunting step of the method can optionally include filtering the blood for debris. The blocking step of the method can optionally include occluding the external carotid artery with a balloon. The blocking step of the method can optionally include occluding the common carotid artery with a balloon. The blocking step of the method can optionally include clamping the common carotid artery. The introducing step of the method can optionally include introducing a single sheath with balloons to occlude the common and external carotid artery and a side port for deployment of an angioplasty balloon or stent. The blocking step of the method can optionally include introducing at least one catheter directly into the common carotid artery. The introducing step of the method can optionally include introducing first and second introducer sheaths directly into the common carotid artery. The introducing step of the method can optionally include introducing first and second balloon catheters directly into the common carotid artery.

"Another disclosed embodiment comprises a method for treating lesions in the carotid artery. The method comprises transcervical access, blocking blood flow through the common carotid artery to allow safe treatment of the lesion and returning blood flow back to the carotid artery. The method may further comprise blocking blood flow through the external carotid artery.

"In the method, the blood in the carotid artery may be actively withdrawn and returned to the carotid artery. In the method, access to the carotid artery can optionally be obtained percutaneously, or via a cutdown incision, or with any suitable technique. The treating step of the method can optionally include dilating the lesion with a balloon. The treating step of the method can optionally include stenting the dilated lesion. The shunting step of the method can optionally include filtering the blood for debris. The blocking step of the method can optionally include occluding the external carotid artery with a balloon. The blocking step of the method can optionally include occluding the common carotid artery with a balloon. The blocking step of the method can optionally include clamping the common carotid artery.
introducing step of the method can optionally include positioning a single sheath with balloons to occlude the common and external carotid artery and a side port for deployment of an angioplasty balloon or stent. The blocking step of the method can optionally include introducing at least one catheter directly into the common carotid artery. The introducing step of the method can optionally include introducing first and second introducer sheaths directly into the common carotid artery. The introducing step of the method can optionally include introducing first and second balloon catheters directly into the common carotid artery.

"Another disclosed embodiment comprises a method for treatment of lesions in the carotid artery. The method comprises transcervical access, blocking blood flow through the common carotid artery and passive collection of blood and debris and subsequent return of filtered blood to the carotid artery. The method may further comprise blocking blood flow through the external carotid artery.

"In the method, access to the carotid artery can optionally be obtained percutaneously, or via a cutdown incision, or with any suitable technique. The treating step of the method can optionally include dilating the lesion with a balloon. The treating step of the method can optionally include stenting the dilated lesion. The shunting step of the method can optionally include filtering the blood for debris. The blocking step of the method can optionally include occluding the external carotid artery with a balloon. The blocking step of the method can optionally include occluding the common carotid artery with a balloon. The blocking step of the method can optionally include clamping the common carotid artery. The introducing step of the method can optionally include positioning a single sheath with balloons to occlude the common and external carotid artery and a side port for deployment of an angioplasty balloon or stent. The blocking step of the method can optionally include introducing at least one catheter directly into the common carotid artery. The introducing step of the method can optionally include introducing first and second introducer sheaths directly into the common carotid artery. The introducing step of the method can optionally include introducing first and second balloon catheters directly into the common carotid artery.

"Certain objects and advantages of the invention are described herein. Of course, it is to be understood that not necessarily all such objects or advantages may be achieved in accordance with any particular embodiment of the invention. Thus, for example, those skilled in the art will recognize that the invention may be embodied or carried out in a manner that achieves or optimizes one advantage or group of advantages as taught herein without necessarily achieving other objects or advantages as may be taught or suggested herein.

"All of the embodiments summarized above are intended to be within the scope of the invention herein disclosed. However, despite the foregoing discussion of certain embodiments, only the appended claims (and not the present summary) are intended to define the invention. The summarized embodiments, and other embodiments of the present invention, will become readily apparent to those skilled in the art from the following detailed description of the preferred embodiments having reference to the attached figures, the invention not being limited to any particular embodiment(s) disclosed."
Artery, Cardiovascular Diseases and Conditions, Carotid Artery Diseases and Conditions.

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APERIAM MEDICAL, INC.

Patent Issued for Method and Device for Treatment of Hypertension and Other Maladies (USPTO 9526572)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventor Kunis, Christopher Gerard (Escondido, CA), filed on April 26, 2012, was published online on December 27, 2016.

The patent's assignee for patent number 9526572 is APERIAM MEDICAL, INC. (Boise, ID).

News editors obtained the following quote from the background information supplied by the inventors: "Hypertension is a common and dangerous disease and represents a significant global health issue that continues to grow. Present treatments for hypertension typically include lifestyle changes, surgical procedures such as angioplasty, and various drug therapies which can be effective in some cases. However, the overall rate of control of hypertension and the therapeutic efforts to prevent progression of related maladies such as myocardial infarction, heart failure, chronic kidney disease, and diabetic nephropathy remain unsatisfactory and new treatment options are desirable.

"This Background is provided to introduce a brief context for the Summary and Detailed Description that follow. This Background is not intended to be an aid in determining the scope of the claimed subject matter nor be viewed as limiting the claimed subject matter to implementations that solve any or all of the disadvantages or problems presented above."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventor's summary information for this patent: "Systems and methods for treating hypertension and other maladies are implemented using an implant device that is configured with one, two, or more coils of ribbon which form ring-like structures when deployed in a patient's vasculature and, in the case of multiple rings or sets of coils, are interconnected via respective extension arms formed from at least one helical-shaped winding. In an illustrative example, a delivery catheter is positioned in the patient's aorta near the right angle junction with renal vasculature so that the axis of the catheter is substantially perpendicular to the axis of the vasculature. Through operation of an implant device delivery system having a pigtail distal end, the ribbon emerges from the catheter tip and coils into the ring-like structures which deploy into the renal vasculature so that the longitudinal axes of the device and vasculature are substantially co-linear.

"In some implementations, the present systems and methods facilitate utilization of an implanted device that has an improved safety profile and which minimizes collateral damage over many current therapies. Therapy is delivered within the vessel having a focal tissue effect at the point of contact. Advantageously, no external energy source or capital investment is required for use with the implant device in many typical implementations. Methods utilized with the implant device need not directly integrate the device into the wall surface of the vessels. Rather, in an acute treatment, the implant device is designed and configured to apply and maintain radial or substantially radial force along the circumference of the vessels in which it is implanted, while employing a helical pattern of extension arms, connecting the two or more
coils, each forming a ring-like structure. The radial force imparted from the implanted device is found to efficaciously block or retard sympathetic nerve communication to the kidneys which is identified as a principle contributor to the pathophysiology of hypertension, kidney disease, and heart failure. The implant device can be configured with multiple rings so that the radial force can be imparted along a target length of renal vasculature. The implant device may further be delivered using a procedure under only local anesthesia rather than requiring general anesthesia.

"This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This Summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended to be used as an aid in determining the scope of the claimed subject matter."


Keywords for this news article include: Kidney, Anesthesia, Cardiology, Nephrology, Hypertension, Heart Disease, Heart Failure, Pain Medicine, APERIAM MEDICAL INC., Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

DANISCO US INC.

Patent Issued for Method for Amplifying Locus in Bacterial Cell (USPTO 9528114)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Ferrari, Eugenio (Reggioi, IT); Peres, Caroline M. (Palo Alto, CA), filed on March 27, 2009, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9528114 is assigned to DANISCO US INC. (Palo Alto, CA).

The following quote was obtained by the news editors from the background information supplied by the inventors: "Expression and recombinant production of exogenous polypeptides is a widely used technique. It is well known that cells can be transformed with nucleic acids encoding exogenous polypeptides of interest for expression and production of large quantities of the desired polypeptides. In some applications, the methods are used to produce vast amounts of polypeptide over what would be produced naturally by the originating organism. Indeed, expression of exogenous nucleic acid sequences, as well as over-expression of endogenous sequences have been extensively used in modern biotechnology.

"Despite advances in molecular biology and protein engineering, there remains a need for new methods and compositions that increase expression levels of polypeptides in host cells."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: 'Provided herein is a method of amplifying a genomic locus. In certain embodiments, the method may comprise: a) contacting a population of bacterial host cells with an inhibitor of an essential enzyme, where
the bacterial host cells comprise a genomic locus of the structure: A.sub.1-P-M-A.sub.2, where A.sub.1 and A.sub.2 are direct repeats, P comprises a coding sequence for a polypeptide of interest, and M comprises a coding sequence for the essential enzyme, and b) selecting for cells that are resistant to the inhibitor; where cells that are resistant to the inhibitor have multiple copies of the amplification unit. The bacterial host cell may be a Bacillus sp. cell, although other bacterial cell types, e.g., Streptomyces sp., are envisioned. In some embodiments, the polypeptide of interest is a subtilisin e.g. the subtilisin of SEQ ID NO:8, or mature form thereof set forth in SEQ ID NO:12. In certain cases, the method avoids the use of antibiotic markers and antibiotics, and provides an alternative to antibiotic-based amplification systems. In certain embodiments, the essential enzyme has the amino acid sequence of an enzyme e.g. a wild-type enzyme, that is endogenous to the cell. In particular embodiments, the bacterial host cell used in the method may or may not contain an inactivated endogenous gene encoding the essential enzyme, where the inactivated gene may be at a different genomic locus to the genomic locus of structure: A.sub.1-P-M-A.sub.2. In certain cases, the essential enzyme may be alanine racemase e.g. SEQ ID NO:11, and the inhibitor may be .beta.-chloro-D-alanine or cycloserine, although other enzyme/inhibitor combinations may be employed. In some embodiments, the amplification unit comprises the sequence set forth in SEQ ID NO:7.

"The amplification unit provides for expression of the essential enzyme encoded by region M. In particular embodiments, M may comprise a coding sequence and a promoter operably linked to the coding sequence, wherein the promoter is native to the coding sequence for the essential enzyme. In certain embodiments, the coding sequence and the promoter may be endogenous to the host cell. The amplification unit also provides for expression of the protein of interest encoded by region P. In particular embodiments, the coding sequence of P may be operably linked to an endogenous or non-endogenous promoter that is present in the adjacent direct repeat (A.sub.1). In other embodiments, the promoter for P may not be present in the adjacent direct repeat. Rather, the promoter may be present in region P."

"In some embodiments, the invention provides a bacterial host cell comprising a genomic locus comprising an amplification unit of the structure: A.sub.1-P-M-A.sub.2, wherein A.sub.1 and A.sub.2 are direct repeats, P comprises a coding sequence for a polypeptide of interest, and M comprises a coding sequence for an essential enzyme is also provided. In this embodiment, the amplification unit provides for significant expression of the essential enzyme. The bacterial host cell may be a Bacillus sp. cell, although other bacterial cell types, e.g., Streptomyces sp., are envisioned. In some embodiments, the polypeptide of interest is a subtilisin e.g. the subtilisin of SEQ ID NO:8, or mature form thereof set forth in SEQ ID NO:12. In certain cases, the method avoids the use of antibiotic markers and antibiotics, and provides an alternative to antibiotic-based amplification systems. In certain embodiments, the essential enzyme has the amino acid sequence of an enzyme e.g. a wild-type enzyme, that is endogenous to the cell. In particular embodiments, the bacterial host cell may or may not contain an inactivated endogenous gene encoding the essential enzyme, where the inactivated gene may be at a different genomic locus to the genomic locus of structure: A.sub.1-P-M-A.sub.2. In certain cases, the essential enzyme may be alanine racemase e.g. SEQ ID NO:11, and the inhibitor may be .beta.-chloro-D-alanine or cycloserine, although other enzyme/inhibitor combinations may be employed. In some embodiments, the amplification unit comprises the sequence set forth in SEQ ID NO:7.

"In other embodiments, the bacterial host cell of the invention comprises a genomic locus comprising multiple copies of an amplification unit of the structure: A.sub.1-P-M-A.sub.2, where A.sub.1 and A.sub.2 are direct repeats, P comprises a first coding sequence for a polypeptide of interest, and M comprises a second coding sequence of an essential enzyme. In some embodiments, the amplification unit comprises a polynucleotide sequence set forth in SEQ
ID NO:7. In some embodiments, the first coding sequence is operably linked to a promoter that is present in direct repeat A1. In particular embodiments, the bacterial host cell comprises a genomic locus comprising multiple copies an amplification unit described by the formula: 

\[(\text{A.sub.1-P-M}).\text{sub.n-A.sub.2}, \text{where n is at least 2, A.sub.1 and A.sub.2 are direct repeats, P comprises a coding sequence for a polypeptide of interest, and M encodes an essential enzyme, where the coding sequence of M is operably linked to an endogenous or non-endogenous promoter. In one embodiment, the coding sequence of M and the promoter may be endogenous to the host cell. In some embodiments, the bacterial host cell comprises a genomic locus comprising multiple copies e.g. at least 2 copies, of the amplification unit of SEQ ID NO:7. The amplification unit provides for expression of both the polypeptide of interest e.g. a subtilisin, and the essential enzyme. In some embodiments, the expressed polypeptide of interest is subtilisin FNA set forth in SEQ ID NO:8, or mature form thereof set forth in SEQ ID NO:12, and the essential enzyme is alanine racemase set forth is SEQ ID NO:11. In a particular embodiment, the promoter operably linked to the coding sequence of P may be part of the adjacent direct repeat (A.sub.1). In another embodiment, the promoter operably linked to the coding sequence of region P is present in region P rather than in the adjacent direct repeat.

"In another embodiment, the invention encompasses a bacterial cell culture that comprises growth medium and a population of bacterial host cells comprising at least one, at least 2 or more copies of the amplification unit of the structure A.sub.1-P-M-A.sub.2, wherein A.sub.1 and A.sub.2 are direct repeats, P comprises a first coding sequence for a protein of interest, and M comprises a second coding sequence of an essential enzyme. As described above, the amplification unit provides for expression of both the polypeptide of interest e.g. a subtilisin, and the essential enzyme. In some embodiments, the expressed polypeptide of interest is subtilisin FNA set forth in SEQ ID NO:8, or mature form thereof set forth in SEQ ID NO:12, and the essential enzyme is alanine racemase set forth is SEQ ID NO:11. In yet another embodiment, the bacterial cell culture may be employed in a protein production method that comprises: maintaining a culture of subject cells under conditions suitable to produce the polypeptide of interest encoded by the coding sequence. In particular embodiments, this method may further comprise recovering the polypeptide of interest from the culture medium."
inventors Pani, Amar K. (Lakeland, TN); Smeyne, Richard Jay (Collierville, TN), filed on
February 28, 2014, was published online on December 27, 2016.

The patent's assignee for patent number 9528976 is St. Jude Children's Research
Hospital (Memphis, TN).

News editors obtained the following quote from the background information
supplied by the inventors: "Purine and pyrimidine nucleosides and bases, the essential building
blocks of nucleic acids, occur widely throughout the animal kingdom and underlie a number of
critical functions including energy transduction, metabolism and cell signaling. One
endogenous purine nucleoside, adenosine (ADO), plays an important role in a number of
biochemical processes including energy transfer.

"In the nervous system, ADO acts as a non-classical inhibitory neurotransmitter
adenosine or its signaling have been linked to a number of neurological disorders including
schizophrenia (Boison, et al. (2012) Neuropharmacology 62:1527-43), panic disorder and
(2007) Prog. Neurobiol. 83:332-47). Alterations in ADO have also been linked to changes in a

"With the brain, extracellular ADO concentrations have been reported to be in the
(1982) Neurosci. Lett. 29:111-115). However, in response to cellular damage (e.g., seizure or
ischemia), these concentrations can quickly elevate (Zetterstrom, et al. (1982) supra; Berman,
Neurol. 32:618-24), suggesting that ADO, in addition to signaling, also can have a
neuroprotective function.

"Adenosine functions by binding to and signaling through four known receptor
compounds that acts via ADO signaling, and in particular by bind to the A2A receptor, is
caffeine. This drug's stimulatory effects are primarily (although not entirely) credited to its
inhibition of ADO via competitive inhibition of these receptors (Lazarus, et al. (2011) J.
Neurosci. 31:10067-75), effectively blocking adenosine signaling. The subsequent reduction in
ADO signaling leads to increased activity of other neurotransmitters including acetylcholine (Jin

"Conventionally, the ability to directly measure adenosine and its metabolites has
been difficult, and has generally been carried out by proxy. For example, aptamer-based
approaches have been described (Zhou & Zhao (2012) Analyst 137:4262-6; Liu & Yan (2012)
Commun. 31:4747-9), as have label-based (Huang, et al. (2011) Biosens. Bioelectron. 29:178-

"More direct approaches have also been suggested. For example, a combined high pressure liquid chromatography (HPLC) separation and electrochemical detection method has been described for identifying adenosine and guanosine (Henderson & Griffin (1984) J. Chromatograph. A 298:231-42). However, clean-up procedures were suggested to remove interfering material in biological samples. Similarly, a combined reversed-phase HPLC, gradient elution and electrochemical and UV detection method has been described for detecting adenosine, guanosine, inosine, guanine, hypoxanthine, xanthine and urate in mouse brain and serum, as well as in post-mortem human brain (Burdett, et al. (2012) Biomed. Chromatograph. Doi:10.1002/bmc.2760). Moreover, simultaneous detection of dopamine and adenosine has been described using a boron-doped diamond working electrode in combination with HPLC (Birbeck & Mathews (2012) Pittcon 2012, Abstract 1370-3; Birbeck & Mathews (2013) Anal. Chem. 85:7898-404)."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "The present invention is a method for simultaneously detecting adenosine, and its metabolites, by (i) separating the components of a biological sample by reversed phase high pressure liquid chromatography under isocratic elution conditions; (ii) collecting fractions; and (iii) simultaneously detecting the levels of adenosine, and metabolites thereof, in each fraction with a coulometric electrochemical detector. In one embodiment, the method also includes the step of comparing the detected levels of adenosine, and metabolites thereof, with a standard curve to quantitate the amount of adenosine, and metabolites thereof, present in the biological sample. In other embodiment, step (i) is carried out under acidic conditions or with a mobile phase containing sodium perchlorate and acetonitrile at a pH in the range of 2 to 4. In a further embodiment, the adenosine metabolites include adenosine monophosphate, adenosine diphosphate, and adenosine triphosphate."


Keywords for this news article include: Antiarrhythmic Agents, Genetics, Adenosine, Electrochemicals, Radiologic Agents, Drugs and Therapies, Radiologic Adjuncts, Cardiovascular Agents, Cardiac Stressing Agents, St. Jude Children's Research Hospital.

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Robert Bosch GmbH

Patent Issued for Method for Determining the Predisposition of a Patient to Changed Biotransformation and to the Development of Undesired Drug Effects in a Treatment of the Patient with Atrovastatin (2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Robert Bosch GmbH (Stuttgart, DE) has been issued patent number
9528156, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Klein, Kathrin (Stuttgart, DE); Riedmaier, Stephan (Stuttgart, DE); Zanger, Ulrich (Korntal, DE).

This patent was filed on February 23, 2010 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Muscle diseases, such as for example myopathies and rhabdomyeloses, are diseases of the muscles which can for example be triggered by the administration of statins.

"Statins, which include the active substance atorvastatin, are medicinal substances which are 3-hydroxy-3-methylglutaryl coenzyme A reductase (HMG CoA reductase) inhibitors. HMG CoA in turn is an intermediate of human cholesterol synthesis, because of which statins are mainly used as cholesterol lowering agents in fat metabolism disorders. Here, through the inhibition of HMG CoA reductase, the statins effect a lipid lowering in the blood. Since HMG CoA is a substance involved in the biosynthesis of cholesterol, less cholesterol is formed in the body under the action of statins than without the administration of statins. Inter alia, examples of the statins include atorvastatin, cerivastatin, fluvastatin, lovastatin, pravastatin, rosuvastatin and simvastatin.

"Although statins are generally regarded as useful drugs, there are problems in the therapy, namely firstly as regards the uncertainty in the prediction of the effect corresponding to a certain dose, and secondly in the risk of the development of undesired drug effects (also abbreviated herein as ‘UDE’ and generally also described as side-effects).

"All statins, including atorvastatin, can cause undesired drug effects, among which the most severe are the so-called toxic myopathies, wherein there are structural and functional changes in the skeletal musculature. The most severe form of toxic myopathy is rhabdomyelosis, which inter alia manifest themselves in complete lamming of all four limbs and can often take a fatal course. Up to the year 2003, ca. 3350 cases of rhabdomyelosis triggered by lipid lowering agents had been described in the literature.

"Also, the strength of action of the various statins at present obtainable on the market is different; thus for example fluvastatin exhibits a low myopathy incidence, but on the other hand exhibits one of the weakest lipid lowering actions even at the maximum dosage.

"As further undesired drug effects during the use of statins such as atorvastatin, liver damage, a decline in memory performance and alertness, as well as increased aggressivity and increased irritability have been observed, as well as headache, nausea, anemia, nerve damage, hair loss, and the like.

"Since not all patients who are subjected to treatment with statins, in particular atorvastatin, for lowering the cholesterol content develop undesired drug effects, and patients react differently to certain statins, in particular atorvastatin, and the dosages thereof, it would be desirable to be able to determine, in advance of statin therapy, in particular atorvastatin therapy, the predisposition of a patient to develop undesired drug effects or to react other than as desired to the therapy."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors’ summary information for this patent: "The purpose of the present disclosure is therefore to provide a method for determining a predisposition of a patient for the development of undesired drug effects or for altered efficacy in a treatment of the patient with statins.

"According to the present disclosure, this problem is solved in that, in a biological
sample from the patient the presence of at least one single nucleotide polymorphism (SNP) in
the UGT1A3 gene (uridine diphosphate glucuronosyl transferase gene 1A3) and/or increased
UGT1A3 gene expression is determined.

"The problem on which the disclosure is based is fully solved in this manner.

"In their own experiments on the basis of the study of many human liver samples, the
inventors were able to show that genetic variations in the UGT1A3 gene led to increased
UGT1A3 gene expression. Further, the inventors were able to show that the increased gene
expression was accompanied by increased lactonization of the statin atorvastatin (ATV).

"An increased content of ATV lactone is found in atorvastatin patients who suffer
from a myopathy, and also increased concentrations of hydroxy metabolites of atorvastatin (see
Hermann et al., 'Exposure of atorvastatin is unchanged but lactone and acid metabolite are
increased several-fold in patients with atorvastatin-induced myopathy', Clin. Pharmacol. Ther.,
2006, 79: 532-539). Moreover, it has been demonstrated on a cell culture model that in
comparison to the respective statin acids, statin lactones exhibit 14-37 fold increased
myotoxicity (Skottheim et al., Statin induced myotoxicity: the lactone forms are more potent
than the acid forms in human skeletal muscle cells in vitro; Eur. J. Pharm. Sci. 33: 317-25
(2008)).

"It is known that in vivo atorvastatin is biotransformed inter alia into 2-(ortho) and 4-
(para) hydroxy ATV acids (pharmacologically active metabolites). Alternatively, the free acid
side-chain can be converted into cyclic ATV lactone. Owing to the higher lipophilicity of the
ATV lactone, this is hydroxylated much more readily than ATV itself (see Jacobsen et al., Drug
Metabol. Dispos. 28(11): 1369-78 (2000)). Thus with the present discoveries the inventors
were able for the first time to show that the increased content of ATV lactone and of hydroxy
ATV lactone is attributable to an increased activity of the enzyme uridine diphosphate
glucuronosyl transferase, or rather to the increased activity of the isoform 1A3 of this enzyme
triggered by the genetic variations.

"The ATV lactonization can admittely be catalyzed by several UGT isoforms (see
for example Goosen et al.: 'Atorvastatin glucoronidation is minimally and non-selectively
inhibited by the fibrates Gemfibrozil, Fenofibrate and Fenofibric Acid', Am. Soc. Clinic.
Pharma. Therap., 2007: 35(8) 1315-1323), however it was not previously known which of the
isoforms assumes the main function in vivo. As already stated, UGTs (UDP glucuronosyl
transferases) are enzymes which inter alia cause the lactonization of statins, for example
atorvastatin. In turn, compared to the statins themselves, the lactonized statins are preferentially
converted by the enzyme CYP3A into hydroxy-statins lactones.

"Herein, the UGT1A3 gene is always understood to mean the coding sequence of this
gene as well as the intron sequences and the 5`- and 3` untranslated/regulatory regions of the
gene.

"With the method now existing, it is for the first time possible to screen patients who
are to undergo a statin treatment, in particular an atorvastatin treatment, or patients who are
already undergoing a statin treatment, so as to determine whether they are genetically
predisposed to increased activity of the isozyme UGT1A3, and thereby run the risk of forming
more statin lactone and hydroxy statin lactone, which can lead to the abovementioned muscle
diseases, or to a partial failure of therapy, since the statin lactones are pharmacologically
inactive metabolites. Thus in this case or in these patients, atorvastatin very probably does not
possess the same activity as is the case in patients who do not exhibit these polymorphisms.
Advantageously, by the determination of the polymorphisms it can then directly be predicted
whether atorvastatin is biotransformed to an increased extent and will thus be less effective at its
dosage than in a patient who does not exhibit the polymorphisms; if polymorphisms according
to the present disclosure are identified, either the actual or planned dosage of atorvastatin can be appropriately adapted, i.e. increased, in order to achieve a similar activity of atorvastatin as in wild type patients, or recourse can be had to another statin or another therapeutic approach in order to avoid undesired drug effects.

"According to the present disclosure, this is effected by the determination of at least one SNP in the UGT1A3 gene. Thereby, the therapy of the patient to be treated with the statin can be individually tailored, i.e. either entirely different alternatives to the statins can be used, or else the dosage and hence the efficacy of certain statins to be administered can be individually considered for the patient.

"As well as atorvastatin, other statins are at present also used, such as for example cerivastatin, fluvastatin, lovastatin, pravastatin, rosuvastatin and simvastatin.

"Said statins are at present sold on the market for example under the names Sortis.RTM., Lipitor.RTM. (atorvastatin), Baycol.RTM., Zenas.RTM. (cerivastatin), Cranoc.RTM., Lescol.RTM., Locol.RTM., Fractal.RTM. (fluvastatin), Mevinacor.RTM. (lovastatin), Mevalotin.RTM., Pravasin.RTM., Pravachol.RTM. (pravastatin), Crestor.RTM. (rosuvastatin), Gerossim.RTM., Simvabeta.RTM., Zocor.RTM. (simvastatin) and the corresponding generic forms thereof.

"With the method now available, a targeted and individualized cholesterol synthesis inhibitor therapy can now advantageously be provided whereby the patients who have to undergo such a therapy can be examined for the presence of SNPs in the UGT1A3 gene either before or during the treatment with one of said drugs. If an SNP which leads to increased expression of this gene and hence to increased activity of the UDP glucuronyl transferase is present, the treatment can be performed or continued either with alternatives to the statins or with a statin other than that intended, or else with a dosage other than the original one or that originally intended.

"In a further embodiment, it is preferred if at least one of the following haplotypes is determined in the method according to the disclosure: UGT1A3*2, UGT1A3*3, UGT1A3*6 and in particular one of the following SNPs in the UGT1A3 gene:

"UGT1A3*2: rs55772651, rs1983023, rs6304713, rs45507691, rs3806597, rs3806596, rs3821242, rs6706232, rs6431625, rs1786836 and rs7574296;

"UGT1A3*3: rs55772651, rs6304713, rs3806597, rs3806596, rs3821242, rs6706232 and rs7574296;

"UGT1A3*6: rs55772651, rs1983023, rs6304713, rs3806597, rs3806596, rs3821242, rs6706232, rs6431625, rs7574296 and rs45449995.

"Herein the expression 'genomic Pos. in AF297093' is used to designate an SNP for which no rs number is available, the position whereof in the UGT1 gene locus which is designated with the access number AF297093 according to the publicly accessible databases is correspondingly stated (on the UGT1 gene locus see for example the EMBL EBI database under http://www.ebi.ac.uk/cgi-bin/expasyfetch?AF297093 or the database GenBank of the National Center for Biotechnology Information NCBI http://www.ncbi.nlm.nih.gov/).

"SNPs (single nucleotide polymorphisms) designate variations of individual base pairs in a DNA strand compared to the wild type in a certain population. SNPs represent ca. 90% of all genetic variants in the human genome, and occur unequally strongly in certain regions in the genome. They are mutations, i.e. genetic changes, which have to a certain extent become established in the gene pool of a population. Also, the SNPs can occur as substitutions, in which a base, for example cytosine, is replaced by another base, for example thymine, or else as deletions or insertions.

"Here, SNPs always have one of two or very rarely also several states and are
allelically transmitted. The majority of the known SNPs affect non-coding regions in the genome, i.e. regions which lie either between genes or between exon regions of individual genes. In principle, these gene variants in non-coding regions can also affect regulatory sequences, e.g. promoters, enhancers or splicing sites and hence have effects on the expression of genes. SNPs which directly affect the coding sequence can be silent, i.e. the base substitution does not alter the translation of the corresponding triplet code into the analogous amino acid and hence thereby has no influence on the peptide sequence. However, because of different frequency of equivalent t-RNAs for specific base triplets, differences for the efficiency of the translation can arise and thus the expression of certain genes can be influenced post-transcriptionally by silent SNPs. Some SNPs have a coding function, i.e. the different alleles lead to the incorporation of a different amino acid into the resulting peptide, with the result that the function thereof can be changed.

"In the genome, if they are present biallelically, SNPs can occur in three possible genotypes, namely in one of two homozygotic forms (allele 1/allele 1 or allele 2/allele 2) or else in one heterozygotic form (allele 1/allele 2). Adjacent SNPs can be linked together to a varying extent. That is, up to a certain percentage they arise in the population in a certain combination only together and thus form a so-called haplotype. Here, 'coupling' is understood to mean the tendency that the alleles present each time at two different positions on one chromosome are passed on together (on the same chromosome), i.e. are transmitted coupled. In general here, with alleles that tend to be transmitted together the term 'linkage disequilibrium' is used.

"Since genomic DNA is double-stranded, each SNP can be identified with reference to each of the two strands. The SNPs preferred in the present application admittedly contain one substitution of one nucleotide by another at the polymorphic sites of the SNP, but SNPs can also be more complex and can have a deletion of a nucleotide from one, or an insertion of a nucleotide into, one of two corresponding sequences.

"The expression 'determine' as it is used herein for the determination of the SNPs, relates to various methods and processes for the analysis of one or more SNP at a certain site in the genome, and the expression also includes both direct determination, i.e. for example sequencing, and also indirect determination, i.e. for example amplification and/or hybridization.

"The inventors have now discovered that, surprisingly, it is possible on the basis of certain SNPs in the UGT1A3 gene to diagnose a genetic predisposition for the development of muscle diseases or a changed efficacy in the administration of statins.

"With the new method, it is now for the first time possible to prognosticate an individually probable exacerbation of a muscle disease on administration of atorvastatin or an individually probable lowered efficacy of atorvastatin.

"Also, in a further embodiment it is preferred if the at least one SNP is selected from the SNPs which are in linkage disequilibrium with the SNPs of the UGT1A3*2, UGT1A3*3 and UGT1A3*6 haplotypes.

"This means that in the context of the method according to the disclosure SNPs can also be detected which can likewise be used as markers of the haplotypes of the UGT1A3*2, UGT1A3*3 and UGT1A3*6, but are not explicitly listed here, but which are in linkage disequilibrium with the aforesaid SNPs (see for example Menard V. et al., 'Analysis of inherited genetic variations at the UGT1 locus in the French-Canadian population'. Hum Mutat. 2009 Feb. 8).

"In a further embodiment of the method according to the disclosure, it is preferred if the increased UGT1A3 gene expression is determined via an increased mRNA level and/or an increased protein level.

"The proof provided by the inventors that the genetic variations in the UGT1A3 gene
lead to increased UGT1A3 expression and hence also to increased activity of this enzyme is contrary to the knowledge previously obtained, albeit only by means of recombinant isoenzymes, according to which the genetic variations were as a rule associated with decreased function (see for example Chen et al., 'Genetic Variants of Human UGT1A3: Functional Characterization and Frequency Distribution in a Chinese Han Population', Drug Metabolism and Disposition, 2006, 34: 1462-1467; Caillier et al., 'A pharmacogenomics study of the human estrogen glucuronosyl transferase UGT1A3', Pharmacogenet. Genomics 2007, 17(7): 481-95).

"Hence the present discoveries and the method provided, although admittedly UGT1A3 and UGT1A3 polymorphisms were already identified in the state of the art, are novel and surprising, since the polymorphisms were associated with decreased activity or expression of UGT1A3. However the inventors of the present application have now precisely found out that the polymorphisms are accompanied by higher UGT1A3 expression and as a result also increased activity, which, as described further above, leads to the increased ATV lactonization.

"In particular in the process according to the disclosure it is preferred if for the detection of at least one SNP in the UGT1A3 gene an oligonucleotide is used which is selected from one of the oligonucleotides listed in Tables 1 and 2, or from the oligonucleotides with the SEQ ID Nos. 1 to 27:

"TABLE-US-00001 TABLE 1 UGT1A3 amplification primers. Ampl. SEQ-ID Genomic product No. position Primer sequence (5'.fw darw. 3') (bp) 1 144852-145219 ACGTTGGATGCTCTGGATGACTGAATTAAG 388 2 ACGTTGGATGCACTTGGAGGCTGGCTATG 3 145477-145927 ACGTTGGATGACTTGGATGTTCCCCAGAGT 471 4 ACGTTGGATGCTCTGGGGTGAGGACCACT 5 145934-146495 ACGTTGGATGACTTTGAGTCTCCACAGAGT 582 6 ACGTTGGATGACAGATGCATGACTGAGAAT 7 146519-146741 ACGTTGGATGCTCTGGGGTGAGGACCACT 5 145934-146495 ACGTTGGATGACTTTGAGTCTCCACAGAGT 582 6

"Here, the oligonucleotides with the SEQ ID Nos. 1, 3, 5 and 7 are forward ('f') primers and the oligonucleotides with the SEQ ID Nos. 2, 4, 6 and 8 reverse ('r') primers.

"TABLE-US-00002 TABLE 2 Extension primers for the MALDI-TOF mass spectrometric analysis SEQ-ID Genomic Mass of the ampl. No. Assay position Primer sequence (5'.fw darw. 3') product (Da) 9 1 144977 CTCCCTGAAACCCTACAGCA 5411.4 11 1 145154 GGATATTTCTTGTAAGGATCA 6475.2 12 3 145182 TGGGTGTTGTGTTTTTTT 5219.4 13 1 145531 CCTGGAAAGACCGATCA 5501.6 14 1 145669 TGCTACATTTGTCTTCTTC 5710.7 15 3 145765 CTGAGATGCCCAGAGATGCTCCAGCC 4858.2 17 1 145815 ACCAAACACTCTTACT 5034.3 18 2 145874 GCACTGGAGCTCCGCAAG 5509.6 19 2 145968 ACGAAATGCGTGGAGGAA 5459.3 20 3 146062 ATTTGGCTACCTTCTGCG 5501.6 1 146076 GACATATTTGCTCAACAGTCCTGCCTC 5770.8 21 1 146207 CCCTGAACTTTCTCAGCGATCA 6091.0 22 3 146207 GCGGCGCTCTTCTCAGCGATCA 6801.9 23 1 146253 GATTCCTACCTTTCTCTCTC 6374.2 24 1 146253 GATTCCTACCTTTCTCTCTC 6374.2 25 1 146271 AGAACATTTCCCATGTA 5218.4 26 1 146356 CACCAATTCAGACCACATGACATTC 7852.1 27 1 146542 TACCCAGGCAATC 4481.9

"Genomic (gen.) position corresponding to the file with the GenBank access number (Acc. Number) AF297093.1.

"With these oligonucleotides, the inventors were successfully able to amplify the regions containing the SNPs and to identify the SNPs via the extension of these oligonucleotides
(primers). Hence the present disclosure also relates to these oligonucleotides themselves.

"In a further embodiment it is preferred if at least one of the following methods is used for the determination of the at least one SNP: PCR-based methods, DNA sequencing methods, hybridization methods, mass spectroscopy, HPLC methods and primer extension methods.

"These methods are adequately known in the state of the art and are already used for the identification of SNPs. For example reference is hereby made to 'Guide to Mutation Detection' by Graham R. Taylor and Ian N. M. Day (Wiley & Sons, 2005) in which these methods are adequately described.

"In a further embodiment it is preferred if the following PCR cycles are used for the amplification of the SNP containing regions.

"Denaturation at ca. 95°. C. for 15 mins, followed by 5 cycles with the steps ca. 95°. C. for 20 secs, ca. 65°. C. for 30 secs and ca. 72°. C. for 1 min; followed by 40 cycles with the steps ca. 95°. C. for 20 secs, ca. 62°. C. for 30 secs and ca. 72°. C. for 1 min, followed by a final extension step at ca. 72°. C. for 10 mins.

"Further, the disclosure also relates to diagnostic kits for the determination of a predisposition of a patient for the development of muscle diseases in a treatment of the patient with statins, wherein the kit contains at least one oligonucleotide as described above.

"With the kit according to the disclosure a simple tool is provided with which at least one relevant SNP in the UGT1A3 gene and can be rapidly detected, whereby patients can be identified who will with high probability develop muscle diseases as a side-effect during a therapy with a statin.

"The disclosure further relates to the use of at least one SNP in the human UGT1A3 gene, in particular the SNPs rs55772651, rs1983023, rs56304713, rs45507691, rs3806597, Rs3806596, rs3821242, rs6706232, rs6431625, rs17868336, rs7574296, g.146356 (gen. Pos. In Af297093) and rs45449995 and also other SNPs which are in linkage disequilibrium with the UGT1A3*2, UGT1A3*3 and UGT1A3*6 haplotypes for the determination of the predisposition of a patient to the development of muscle diseases during the treatment of statins.

"Further advantages and features of the disclosure emerge from the following description and the attached diagrams.

"It goes without saying that the features stated above and features yet to be explained below are usable not only in the combination stated in each case, but also in other combinations or alone, without departing from the scope of the present disclosure."


Keywords for this news article include: Anticholesteremic, Antihyperlipidemic Agents, Antilipemic, Antioxidants, Pharmaceuticals, Genetics, Angiology, Cholesterol, Atorvastatin, Transferases, Robert Bosch GmbH, Lovastatin Therapy, Drugs and Therapies, Fluvastatin Therapy, Risk and Prevention, Simvastatin Therapy, Cerivastatin Therapy, Rosuvastatin Therapy.

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Patents

Patent Issued for Method for Diagnosing Glaucoma by Observing Connective Tissue of Lamina Cribrosa (USPTO 9526414)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Yoneya; Shin (Maebashi-Shi, JP) has been issued patent number 9526414, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventor is Yoneya, Shin (Maebashi, JP).

This patent was filed on May 23, 2014 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "In the past, glaucoma was regarded as a disease causing characteristic optic nerve disablement (optic nerve damage) due to ocular hypertension. However, an epidemiological research ('the Tajimi study') conducted from 2000 to 2001 has revealed that the prevalence rate of normal-tension glaucoma (normotensive glaucoma) is significantly higher than that of hypertension glaucoma (high-tension glaucoma) in Japan compared with the Western countries. At present, glaucoma is defined as 'a disease that involves distinctive changes in optic disc and the visual field and is marked by functional and structural abnormalities (disorders) in the eye in which optic nerve damage can ordinarily be alleviated and inhibited by sufficiently reducing intra-ocular pressure' (the Japan Glaucoma Society Guidelines for Glaucoma (3rd Edition)). Therefore, at present, the main purpose of glaucoma treatment is to reduce intra-ocular pressure. In addition, there have been attempts to develop neuroprotective agents in recent years. However, treatment of glaucoma involving the reduction of intra-ocular pressure has limitations. Thus, glaucoma is the leading disease in terms of the certification of physical disability caused by visual impairment in Japan.

"Regarding glaucoma in the Western countries, the prevalence rate of high-tension glaucoma has been higher than that of normal-tension glaucoma and thus there has been little attention to normal-tension glaucoma. In the history of glaucoma, the possibility of the presence of normal-tension glaucoma was suggested. For example, 'Duke-Elder's System of Ophthalmology' published in 1969 recites as follows: 'It is to be remembered that an intra-ocular pressure that is generally accepted as being within the normal range may produce the typically pathological effects at the optic disc and in the visual fields when the nerve head is unduly vulnerable and may occur, for example, in myopic eyes; these cases properly come under the definition of glaucoma.' It is suggested that the reason for the high prevalence rate of normal-tension glaucoma in Japan is associated with myopia. However, there has been no specific explanation why optic disc is 'fragile' in patients with myopia.

"Optic Nerve Structure and Optic Disc Structure

"Light enters into the eye and then is received by visual cells (the first neurons) so as to be converted into signals. The signals are further transmitted from bipolar cells (the second neurons) to ganglion cells. Axis cylinders of the ganglion cells serve as optic nerve fibers (the third neurons). The optic nerve fibers form a fascicle and the fascicle extends from optic disc outside the eye for signal transmission to the visual center of the brain.

"Optic disc has a relatively oblong elliptical shape with a diameter of about 1.6 mm and is positioned on the nasal side of macula lutea (limbus luteus).
Cylinders of ganglion cells form a fascicle of optic nerve fibers such that the fascicle extends outside the eye. In addition, the central retinal artery and vein also extend through optic disc. When the fascicle of optic nerve fibers extends outside the eye, the optic nerve fibers run through 500-600 lamina pores of lamina cribrosa formed with connective tissue. When viewed from the exterior of the eye, the optic nerve is positioned on the nasal side of the eyeball in a horizontal view.

"FIG. 2 shows a general image of a fascicle of optic nerve fibers extending through lamina cribrosa obtained by histological examination or scanning microscopic observation. However, there has been no literature about the anatomical role of lamina cribrosa as well as the morphological details thereof."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventor's summary information for this patent: "The inventors of this invention developed femto second mode-lock type optical coherence tomography (OCT) using a laser as a light source, which is disclosed in Suzuki M, Baba M, Yoneya S and Kuroda H. Efficient special broadening of Supercontinuum in photonic crystal fiber with self-phase modulation induced by femtosecond laser pulse, Applied Physics Letters 101. 191110 (2012). The present inventors further succeeded in three-dimensionally observing lamina cribrosa of the living eye by the OCT. Accordingly, the present inventors elucidated the mechanism of the onset of glaucoma by comparing normal eyes and glaucoma eyes and revealed that changes in connective tissue of lamina cribrosa caused by aging of optic disc and continuous mechanical stimulation are associated with the primary lesion of glaucoma. The above findings have led to the completion of the present invention.

"The present invention relates to a method for diagnosing the primary lesion of glaucoma by observing lamina cribrosa to determine the degree of movability of the lamina cribrosa with respect to the retina surface."


Keywords for this news article include: Myopia, Patents, Glaucoma, Epidemiology, Hypertension, Ophthalmology, Refractive Errors, Eye Diseases and Conditions, Cardiovascular Diseases and Conditions.

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Ghost Medical Technologies, Ltd.

**Patent Issued for Method for Non-Contrast Enhanced Magnetic Resonance Angiography (USPTO 9526423)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Ghost Medical Technologies, Ltd. (Highland Park, IL) has been issued patent number 9526423, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventor is Edelman, Robert (Highland Park, IL).
This patent was filed on May 25, 2016 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "The field of the invention is magnetic resonance imaging (‘MRI’) and systems. More particularly, the invention relates to methods for non-contrast enhanced magnetic resonance angiography (‘MRA’).

"When a substance such as human tissue is subjected to a uniform magnetic field (polarizing field B\textsubscript{0}), the individual magnetic moments of the nuclei in the tissue attempt to align with this polarizing field, but precess about it in random order at their characteristic Larmor frequency. If the substance, or tissue, is subjected to a magnetic field (excitation field B\textsubscript{1}) that is in the x-y plane and that is near the Larmor frequency, the net aligned moment, M\textsubscript{z}, may be rotated, or 'tipped', into the x-y plane to produce a net transverse magnetic moment M\textsubscript{xy}. A signal is emitted by the excited nuclei or 'spins', after the excitation signal B\textsubscript{1} is terminated, and this signal may be received and processed to form an image.

"When utilizing these ‘MR’ signals to produce images, magnetic field gradients (G\textsubscript{x}, G\textsubscript{y}, and G\textsubscript{z}) are employed. Typically, the region to be imaged is scanned by a sequence of measurement cycles in which these gradients vary according to the particular localization method being used. The resulting set of received MR signals are digitized and processed to reconstruct the image using one of many well known reconstruction techniques.

"The measurement cycle used to acquire each MR signal is performed under the direction of a pulse sequence produced by a pulse sequencer. Clinically available MRI systems store a library of such pulse sequences that can be prescribed to meet the needs of many different clinical applications. Research MRI systems include a library of clinically proven pulse sequences and they also enable the development of new pulse sequences.

"Magnetic resonance angiography (‘MRA’) uses the magnetic resonance phenomenon to produce images of the human vasculature. To enhance the diagnostic capability of MRA, a contrast agent such as gadolinium can be injected into the patient prior to the MRA scan. The trick with this contrast enhanced (‘CE’) MRA method is to acquire the central k-space views at the moment the bolus of contrast agent is flowing through the vasculature of interest. Collection of the central lines of k-space during peak arterial enhancement, therefore, is key to the success of a CE-MRA exam. If the central lines of k-space are acquired prior to the arrival of contrast, severe image artifacts can limit the diagnostic information in the image. Alternatively, arterial images acquired after the passage of the peak arterial contrast are sometimes obscured by the enhancement of veins. In many anatomic regions, such as the carotid or renal arteries, the separation between arterial and venous enhancement can be as short as 6 seconds.

"The short separation time between arterial and venous enhancement dictates the use of acquisition sequences of either low spatial resolution or very short repetition times (‘TR’). Short TR acquisition sequences severely limit the signal-to-noise ratio (‘SNR’) of the acquired images relative to those exams in which a longer TR is employed. The rapid acquisitions required by first pass CE-MRA methods thus impose an upper limit on either spatial or temporal resolution.

"Recently, a rare and serious pathology involving fibrosis of skin, joints, eyes, and internal organs referred to as nephrogenic systemic fibrosis (‘NSF’) has been correlated to the administration of gadolinium-based contrast agents to patients undergoing contrast-enhanced MRA studies. The link between gadolinium-based contrast agents and NSF is described, for example, by P. Marckmann, et al., in 'Nephrogenic Systemic Fibrosis: Suspected Causative Role of Gadodiamide Used for Contrast-Enhanced Magnetic Resonance Imaging,' J. Am. Soc. Nephrol., 2006; 17 (9):2359-2362. As a result of the increased incidence of NSF, methods for
MRA that do not rely on the administration of a contrast agent to the patient have become an important field of research. However, current methods for non-contrast angiography are limited in their utility because they are sensitive to patient motion, do not consistently or accurately portray vessel anatomy in patients with severe vascular disease, and require excessively long scan times.

"While single shot acquisition methods such as two-dimensional ('2D') balanced steady-state free precession ('bSSFP') have the potential to reduce motion artifacts and shorten exam times, arterial conspicuity is inadequate due to high background signal. Moreover, bSSFP methods do not lend themselves to the creation of maximum intensity projection ('MIP') angiograms. In one example, a saturation-recovery bSSFP pulse sequence employed for cardiac perfusion imaging following the administration of a paramagnetic contrast agent is described by W. G. Schreiber, et al., in 'Dynamic Contrast-Enhanced Myocardial Perfusion Imaging Using Saturation-Prepared TrueFISP,' JMRI, 2002; 16:641-652. However, this pulse sequence applies a spatially non-selective saturation pulse that suppresses the signal from blood and, thus, cannot be employed for MRA. Additionally, Schreiber's method does not provide a means for distinguishing arteries from veins.

"It is, in fact, particularly challenging to suppress venous signal with a single shot acquisition since, unlike arterial blood, venous blood typically flows slowly or even, for periods of time, not at all. In addition, the venous flow pattern is largely unpredictable, sometimes varying with a patient's respiration cycle, cardiac cycle, or both. Consequently, it is problematic to eliminate the signals from veins with single shot acquisitions, since venous blood flows only a short distance or not at all during the short scan time. Unfortunately, venous signals tend to overlap with arterial signals on projection images, thereby making it difficult or impossible to diagnose arterial disease using such methods for MRA. In addition, a robust single shot non-contrast MRA technique must provide an accurate depiction of arterial anatomy over a wide range of flow velocities, ranging from a few centimeters per second ('cm/sec') to more than 100 cm/sec. Moreover, the arterial anatomy must be depicted with sufficient arterial conspicuity to allow creation of a projection angiogram.

"Several approaches have been previously described to suppress venous signal on non-contrast MR angiograms as follows. One method for venous suppression has been accomplished using image subtraction. Techniques like fresh blood imaging ('FBI') involve the subtraction of two images with different arterial signals, but identical venous signals. In this manner, the venous, but not arterial, signals cancel with subtraction. Unlike the saturation-based methods, subtraction techniques eliminate the signals from both stationary and moving venous spins. However, image subtraction doubles scan time and greatly increases the sensitivity of the technique to patient motion. In addition, these methods require prior knowledge of flow velocities in order to maximize arterial conspicuity.

"Another method for suppressing venous signals is to employ a T.sub.2-weighted magnetization preparation pulse, which diminishes signal in veins since venous blood has a reduced oxygen tension. However, this method is inconsistently effective since the level of venous oxygenation varies widely and unpredictably.

"Yet another method is to repeatedly apply a saturation radio frequency ('RF') pulse just prior to the pulse sequence used for data acquisition, and to repeat this process multiple times at typical intervals of 20-200 milliseconds ('ms'). However, the use of a single shot acquisition with subsecond data acquisition time does not afford the time to repeatedly apply a saturation RF pulse. As a result, this approach is only applicable to multi-shot acquisition techniques where the data is acquired over tens of seconds to several minutes. Moreover, the repeated application of RF pulses causes marked suppression of arterial signal in tortuous
vessels, thereby limiting the diagnostic accuracy of these methods.

"A single shot acquisition method for MRA is described by R. Edelman, et al., in 'Fast Time-of-Flight MR Angiography with Improved Background Suppression,' Radiology, 1991; 179:867-870. This method requires the use of an inversion recovery preparation pulse and relies on arterial inflow during the data acquisition period to produce arterial contrast. In this respect, the inversion time ('TI') is selected solely to match the center lines of k-space to the 'null' point for the longitudinal magnetization of background tissue, and is not selected in order to allow for the inflow of arterial blood into the imaging slice. In other words, the purpose of the TI is to reduce the signal intensity of background tissues.

"This method suffers from several drawbacks. For example, the method acquires data over a lengthy time period on the order of one second, thereby encompassing both systole and diastole. With this lengthy time period required for data acquisition, it is not possible to synchronize TI to the period of rapid, systolic arterial flow, nor to the period of slow diastolic flow. Moreover, the TI employed by Edelman is too short (on the order of 75 ms) to allow for substantial arterial inflow. As a result, most of the arterial inflow occurs during the application of repeated RF pulses. As described above, the repeated application of RF pulses in this manner causes marked suppression of arterial signal in tortuous vessels, thereby limiting the diagnostic accuracy of such methods for MRA. The method also does not allow for the effective suppression of venous or fat signals, which are both essential to accurately depict the arteries.

"Other methods of non-contrast enhanced MRA are described, for example, by M. Katoh, et al., in 'Free-Breathing Renal MR Angiography With Steady-State Free-Precession (SSFP) and Slab-Selective Spin Inversion: Initial Results,' Kidney International, 2004; 66:1272-1278, and by Y. Yamashita, et al., in 'Selective Visualization of Renal Artery Using SSFP with Time-Spatial Labeling Inversion Pulse: Non-Contrast Enhanced MRA for Patients with Renal Failure,' Proc. Intl. Soc. Mag. Reson. Med. 13 (2005) p. 1715. The method described by Katoh utilizes a three-dimensional ('3D') acquisition with a pre-inversion of the 3D region, while Yamashita employs two inversion pulses (one spatially selective and the other spatially non-selective). Each of these methods uses inversion preparation pulses rather than saturation pulses and further requires the use of a 3D, rather than 2D, acquisition for MRA. Given the substantial thickness of the 3D imaging slab, inflowing unsaturated spins must travel a large distance (for example, up to several centimeters) to replace in-plane saturated ones. Consequently, there is poor depiction of slowly flowing arterial spins. In fact, the inversion time, TI, must be very long (on the order of 1 second) to provide adequate inflow of even moderately fast flowing arterial spins. The long TI spans both the systolic and diastolic phases of the cardiac cycle. Given the long TI, it is problematic to synchronize data acquisition to diastole. In addition, 3D acquisitions are too time-consuming to permit data acquisition within a single breath-holding period.

"A 2D adaptation of Yamashita's 'time-SLIP' acquisition is described by S. Yamada, et al., in 'Visualization of Cerebrospinal Fluid Movement with Spin Labeling at MR Imaging: Preliminary Results in Normal and Pathophysiologic Conditions,' Radiology, 2008; 249:644-652. This method, however, is employed to image the flow of cerebrospinal fluid flow rather than for MRA applications. Additionally, it uses two inversion pulses, rather than saturation pulses, and has a very long TI (on the order of 2500 ms) that is incompatible with MRA studies.

"It would therefore be desirable to provide a method for non-contrast enhanced MRA that produced images of a patient's vasculature in a relatively short duration of time while maintaining significant discrimination of the arteries and substantially suppressing venous signals. Moreover, it would be desirable to provide a method for non-contrast enhanced MRA that was insensitive to flow velocities and was relatively insensitive to patient motion and other
imaging artifacts."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventor's summary information for this patent: "The present invention overcomes the aforementioned drawbacks by providing a method for non-contrast enhanced magnetic resonance angiography (MRA) that has a short scan time and is insensitive to patient motion, while maintaining significant arterial conspicuity and substantial venous signal suppression. This is achieved by employing a two-dimensional ('2D') single shot acquisition.

"It is an aspect of the invention to provide a method for non-contrast enhanced MRA that is substantially insensitive to variations in arterial flow velocity or heart rate and that further substantially suppresses unwanted venous signal in a prescribed 2D imaging slice. A method for accurately depicting normal and diseased arteries despite a wide range of flow velocities is provided by synchronizing a quiescent interval ('QI') to the period of rapid, systolic arterial blood flow so as to maximize flow-related enhancement into the imaging slice. Additionally, this method is provided by synchronizing data acquisition to occur during diastole when arterial blood is stationary or flowing relatively slowly into a prescribed imaging slice. If venous blood flow is flowing in a cranial direction and arterial blood flow in a caudal direction, as is the case for the peripheral arteries, this venous suppression can be further augmented by the application of saturation pulses prior to the QI. The saturation pulses are applied not only in the imaging slice, but also in a slab contiguous with and caudal to the imaging slice. Likewise, when venous blood flow is flowing in a cranial direction and arterial blood in the cranial direction, as is the case in the internal jugular vein and common carotid artery, respectively, the slab is selected to be contiguous with and cranial to the imaging slice. In this manner, saturated venous spins and unsaturated arterial spins will flow into the imaging slice over the duration of the QI. Such a method differs fundamentally from previously described methods for suppressing venous signal since, in prior methods, saturation pulses were applied directly before the radio frequency ('RF') excitation, allowing negligible time for inflow of saturated venous spins into the imaging slice."

"It is another aspect of the invention to provide a method for non-contrast enhanced MRA that can produce images in a relatively short duration of time. For example, the entire length of the peripheral arteries can be imaged in 8 minutes with high arterial conspicuity and marked suppression of venous signal. Since the method uses a single shot acquisition, no ghost artifacts occur and the method is highly resistant to motion artifact. Previously described MRA techniques, including fresh blood imaging and 2D time of flight, do not use a single shot acquisition and thus are prone to motion artifacts and longer scan times. Additionally, the shortened scan time required with the method of the present invention allows for a series of 2D images to be obtained within a single breath-hold.

"The foregoing and other aspects and advantages of the invention will appear from the following description. In the description, reference is made to the accompanying drawings which form a part hereof, and in which there is shown by way of illustration a preferred embodiment of the invention. Such embodiment does not necessarily represent the full scope of the invention, however, and reference is made therefore to the claims and herein for interpreting the scope of the invention."


Keywords for this news article include:  Kidney, Angiology, Perfusion, Cardiology,
Patent Issued for Method for Producing Heterogeneous Catalysts Containing Metal Nanoparticles (USPTO 9527068)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Jia, Jifei (El Cerrito, CA); Wang, Jian (San Mateo, CA); Fujdala, Kyle L. (San Jose, CA), filed on April 1, 2013, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9527068 is assigned to Shubin, Inc. (Los Altos, CA).

The following quote was obtained by the news editors from the background information supplied by the inventors: "Field of the Invention"

"The present invention generally relates to the production of supported catalysts, and more particularly, to a method for making a heterogeneous catalyst containing metal nanoparticles dispersed throughout the support material for the heterogeneous catalyst.

"Description of the Related Art"

"Many industrial products such as fuels, lubricants, polymers, fibers, drugs, and other chemicals would not be manufacturable without the use of catalysts. Catalysts are also essential for the reduction of pollutants, particularly air pollutants created during the production of energy and by automobiles. Many industrial catalysts are composed of a high surface area support material upon which chemically active metal nanoparticles (i.e., nanometer sized metal particles) are dispersed. The support materials are generally inert, ceramic type materials having surface areas on the order of hundreds of square meters/gram. This high specific surface area usually requires a complex internal pore system. The metal nanoparticles are deposited on the support and dispersed throughout this internal pore system, and are generally between 1 and 100 nanometers in size.

"Processes for making supported catalysts go back many years. One such process for making platinum catalysts, for example, involves the contacting of a support material such as alumina with a metal salt solution such as chloroplatinic acid. The salt solution 'impregnates' or fills the pores of the support during this process. Following the impregnation, the support containing the salt solution would be air dried, causing the metal salt to precipitate within the pores. The support containing the crystallized metal salt would then be exposed to a hydrogen or carbon monoxide gas environment, reducing the solid metal salt to metal particles.

"Another process for making supported catalysts involves the steps of contacting a support material with a metal salt solution and reducing the metal ions to metal particles in situ using suitable reducing agents. The following are examples of this process. U.K. Patent No. 1,282,138 teaches methods for preparing metal catalysts using different reducing agents, including glucose, hydroxylamine hydrochloride, and hydrazine. U.S. Pat. No. 4,086,275 teaches methods for preparing copper catalysts using sodium borohydride as the in situ reducing agent. U.S. Pat. No. 4,835,131 teaches methods for preparing molybdenum on silica catalyst, copper on gamma-alumina catalyst, silver on silica catalyst and silver on gamma-alumina catalyst. The reducing agents used to prepare these catalysts include hydrazine, ammonium..."
hydroxide, and formaldehyde. U.S. Pat. Nos. 5,275,998 and 5,275,999 teach methods for preparing metal catalysts on carbon support and on alumina support using different reducing agents, including hydrazine hydrate, ascorbic acid, and sodium borohydride. According to these patents, supported catalysts having very small metal particle size (average size not greater than 2 nanometers) can be produced if the preparation steps are carried out in the presence of ethylene and/or acetylene (U.S. Pat. No. 5,275,998) or in the presence of carbon monoxide (U.S. Pat. No. 5,275,998). U.S. Pat. No. 6,686,308 teaches methods for preparing metal catalysts on silica using sodium citrate or potassium citrate as the reducing agent. This patent also teaches the use of colloid stabilizers including sodium sulfanilate, and discloses that it is preferable to use colloid stabilizers that can also act as reducing agents, namely ammonium citrate, potassium citrate, and sodium citrate.

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors’ summary information for this patent: "The present invention provides additional methods for preparing supported metal catalysts. According to an embodiment of the present invention, a monomer is added to a solvent containing metal salt and porous support materials and the solvent is stirred for a period of time to precipitate and/or reduce the metal salt in the pores of the support materials. The solids that are dispersed in the solvent are then separated from the liquid, dried and calcined to form the supported catalyst. The monomer that is added to the solvent is of a type that can be polymerized in the solvent to form oligomers or polymers, or both. Acrylic acid may be used as such a monomer.

"According to another embodiment of the present invention, a supported catalyst is prepared by first forming an interim supported metal catalyst through reduction or precipitation, and then carrying out the further steps of mixing the interim supported metal catalyst and metal salt of the same metal type in a solvent, adding a fixing agent to the solvent and stirring the solvent to precipitate or reduce the metal salt in the pores of the support materials for the catalyst, separating out the solid in the solvent, drying the separated solid, and calcining it. The fixing agent for causing the reduction or precipitation during the process for forming the interim supported metal catalyst is selected based on the particular metal-support combination being used. Likewise, the fixing agent that is added to the solvent is selected based on the particular metal-support combination being used.

"According to still another embodiment of the present invention, a supported catalyst is prepared by first forming an interim supported metal catalyst through reduction or precipitation, and then carrying out the further steps of mixing the interim supported metal catalyst and metal salt of a different metal type in a solvent, adding a fixing agent to the solvent, stirring the solvent, separating out the solid in the solvent, drying the separated solid, and calcining it. At least one of the fixing agents for causing the reduction or precipitation during the process for forming the interim supported metal catalyst and the fixing agent that is added to the solvent is a monomer of a type that can be polymerized in the solvent to form oligomers or polymers, or both. Acrylic acid may be used as such a monomer."


Keywords for this news article include: Chemicals, Shubin Inc., Nanotechnology, Carbon Monoxide, Reducing Agents, Sodium Borohydride, Metal Nanoparticles, Emerging Technologies, Indicators and Reagents.
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Patent Issued for Method of Making a Braided Lead with Imbedded Fixation Structures (USPTO 9526887)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Nuvectra Corporation (Plano, TX) has been issued patent number 9526887, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Finley, James (St. Anthony, MN); Swoyer, John M. (Blaine, MN).

This patent was filed on January 23, 2014 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Implantable medical electronics devices consist of an implanted pulse generator that is used to provide electrical stimulation to certain tissues and an implantable lead or leads that are used to transmit the electrical impulse to the targeted tissues. Examples include cardiac pacemaking, and a number of related applications for cardiac rhythm management, treatments for congestive heart failure, and implanted defibrillators. Other applications for implantable pulse generators include neurostimulation with a wide range of uses such as pain control, nervous tremor mitigation, incontinent treatment, epilepsy seizure reduction, vagus nerve stimulation for clinical depression, and the like.

"Despite various suture fixation devices, nerve stimulation leads can be dislodged from the most efficacious location due to stresses placed on the lead by the ambulatory patient. A surgical intervention is then necessary to reposition the electrode and affix the lead. The implantable pulse generator ('IPG') is programmed to deliver stimulation pulse energy to the electrode providing the optimal nerve response. The efficacy of the selected electrode can fade over time due to dislodgement or other causes.

"Physicians spend a great deal of time with the patient under a general anesthetic placing the small size stimulation electrodes relative to the target nerves. The patient is thereby exposed to the additional dangers associated with extended periods of time under a general anesthetic. Movement of the lead, whether over time from suture release or during implantation during suture sleeve installation, is to be avoided. As can be appreciated, unintended movement of any object positioned proximate a nerve may cause unintended nerve damage. Moreover reliable stimulation of a nerve requires consistent nerve response to the electrical stimulation that, in turn, requires consistent presence of the stimulation electrode proximate the target nerve. On the other hand, if the target nerve is too close to the electrode, inflammation or injury to the nerve can result, diminishing efficacy and possibly causing patient discomfort.

"Cardiac pacing leads are commonly provided with passive fixation mechanisms that non-invasively engage heart tissue in a heart chamber or cardiac blood vessel or active fixation mechanisms that invasively extend into the myocardium from the endocardium or epicardium. Endocardial pacing leads having pliant tines that provide passive fixation within interstices of trabeculae in the right ventricle and atrial appendage are well known in the art as exemplified by U.S. Pat. Nos. 3,902,501, 3,939,843, 4,033,357, 4,236,529, 4,269,198, 4,301,815, 4,402,328, 4,409,994, and 4,883,070, for example. Such tined leads typically employ tines that extend outwardly and proximally from a band proximal to a distal tip pace/sense electrode and that
catch in natural trabecular interstices when the distal tip electrode is advanced into the atrial appendage or the ventricular apex.

"Certain spinal cord stimulation leads have been proposed employing tines and/or vanes as stand-offs to urge the stimulation electrode in the epidural space toward the spinal cord as disclosed in U.S. Pat. Nos. 4,590,949 and 4,658,535, for example, and to stabilize the stimulation electrode in the epidural space as disclosed in U.S. Pat. No. 4,414,986, for example.

"Stimulation leads for certain pelvic floor disorders have been proposed with a fixation mechanism that includes a plurality of tine elements arrayed in a tine element array along a segment of the lead proximal to the stimulation electrode array, such as for example in U.S. Pat. Nos. 6,999,819; 7,330,764; 7,912,555; 8,000,805; and 8,036,756. Each tine element includes a plurality of flexible, pliant, tines. The tines are configured to be folded inward against the lead body when fitted into and constrained by the lumen of an introducer.

"Peripheral nerve field stimulation ('PNFS') involves delivery of stimulation to a specific peripheral nerve via one or more electrodes implanted proximate to or in contact with a peripheral nerve, such as disclosed in U.S. Pat. Publication No. 2009/0281594. PNFS may be used to deliver stimulation to, for example, the vagal nerves, cranial nerves, trigeminal nerves, ulnar nerves, median nerves, radial nerves, tibial nerves, and the common peroneal nerves. When PNFS is delivered to treat pain, one or more electrodes are implanted proximate to or in contact with a specific peripheral nerve that is responsible for the pain sensation.

"Tined leads can create problems during removal or explant. In particular, the human body recognizes a lead as a foreign body and forms fibrous tissue around the lead. The fibrous tissue strengthens the engagement with the tines. If the anchoring of the tines is stronger than the lead itself, the lead may break during removal, leaving fragments behind. These fragments can migrate creating pain and increasing the risk of infection. Additional surgery is often required to remove the fragments."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "The present disclosure is directed to a therapy delivery element configured for at least partial insertion in a living body. The therapy delivery element includes a plurality of fibers braided to form an elongated braided structure with a lumen. At least one reinforcing structure is woven into the fibers of the braided structure. A portion of the reinforcing structure extends from the braided structure to form a fixation structure. A conductor assembly including a plurality of conductors is located in the lumen. An electrode assembly is located at a distal end of the conductor assembly. The electrode assembly includes a plurality of electrodes that are electrically coupled to the conductors. A connector assembly is located at a proximal end of the conductor assembly. The connector assembly includes a plurality of electrical contacts that are electrically coupled to the conductors. At least one of the braided structure or the reinforcing structure is attached to at least one of the electrode assembly or the connector assembly.

"The braided structure can be attached to both the electrode assembly and the connector assembly. The reinforcing structure is preferably attached to at least the connector assembly. At least one reinforcing structure preferably extends substantially the entire length of the braided structure.

"In one embodiment, a tubular structure surrounds the braided structure. The tubular structure is preferably bonded to the braided structure. In one embodiment, the tubular structure is a thermoplastic material melted into engagement with the braided structure. The at least one reinforcing structure is preferably bonded to the braided structure.

"The fixation structure is preferably a distal end of the at least one reinforcing
structure pulled from the braided structure. The fixation structures can be distal ends of a plurality of the reinforcing structures pulled from the braided structure to form a plurality of fixation structures. The braided structure preferably includes least one reinforcing structure that extends the entire length of the braided structure. The fixation structures preferably have a shape configured to fold against the lead body during removal of the therapy delivery element from the living body.

"In one embodiment, a plurality of fixation structures is radially spaced around the elongated braided structure. The fixation structures can be axially and/or radially offset along the elongated braided structure.

"The braided structure and the reinforcing structure increase the tensile strength of the therapy delivery element by about at least about 15%, and more preferably at least about 30%. The fixation structures preferably have a length of at least about 0.050 inches.

"The present disclosure is also directed to a neurostimulation system including an implantable pulse generator. A therapy delivery element as discussed herein is provided. The electrical contacts on the connector assembly are configured to electrically couple with the implantable pulse generator. At least one of the braided structure or the reinforcing structure is attached to at least one of the electrode assembly or the connector assembly.

"The present disclosure is also directed to a method of making a therapy delivery element configured for at least partial insertion in a living body. The method includes braiding a plurality of fibers to form an elongated braided structure with a lumen. At least one reinforcing structure is woven into the fibers of the braided structure. A portion of the reinforcing structure extends from the braided structure to form at least one fixation structure. A conductor assembly with a plurality of conductors is located in the lumen of the braided structure. Electrodes on an electrode assembly are electrically coupled to the conductors. The electrode assembly is attached to a distal end of the conductor assembly. Electrical contacts on a connector assembly are electrically coupled to the conductors. The connector assembly is attached to a proximal end of the conductor assembly. At least one of the braided structure or the reinforcing structure is attached to at least one of the electrode assembly and the connector assembly.

"The method optionally includes attaching both the electrode assembly and the connector assembly to the braided structure. The method also optionally includes attaching the reinforcing structure to at least the connector assembly. In one embodiment, the method includes locating a tubular structure around the braided structure and bonding the tubular structure to the braided structure.

"In one embodiment, a distal end of at least one reinforcing structure is removed from the braided structure to form the fixation structure. The fixation structure can be shaped to fold against the lead body during removal of the therapy delivery element from the living body."
New York University

Patent Issued for Methods and Agents for Preventing and Treating Plasma Cell Dyscrasias (USPTO 9526712)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Orlov, Seth J. (New York, NY); Mazumder, Amitabha (East Setauket, NY); Doudican, Nicole (New York, NY), filed on February 25, 2014, was published online on December 27, 2016.

The assignee for this patent, patent number 9526712, is New York University (New York, NY).

Reporters obtained the following quote from the background information supplied by the inventors: "The citation of references herein shall not be construed as an admission that such is prior art to the present invention.

"Monoclonal gammopathy of undetermined significance (MGUS) and smoldering multiple myeloma (SMM) are asymptomatic myeloproliferative disorders characterized by monoclonal plasma cell proliferation. It is estimated that approximately 5% of the population above the age of 50 is affected by plasma cell dyscrasias [Kyle et al. N Engl J Med 354, 1362-1369, 2006]. Both conditions consistently precede multiple myeloma (MM), an incurable malignancy of terminally differentiated B cells, with recent studies demonstrating that these conditions represent one disease on a disease spectrum [Landgren. Hematology Am Soc Hematol Educ Program 2010, 295-302]. For patients with MGUS or SMM, the lifetime risk of progression to MM is estimated to be 15-59% [Perez-Persona et al. Blood 110, 2586-2592, 2007]. Consequently, MGUS and SMM patients require indefinite follow-up. Currently there is no accepted prevention or treatment strategy available for either condition--patients simply undergo continuous monitoring of plasma markers [Kumar. Cancer Treat Rev 36 Suppl 2, S3-11].

"Once MM develops, patients typically receive the proteasome inhibitor bortezomib (BTZ) as first line treatment. BTZ has demonstrated remarkable response rates in both relapsed and newly diagnosed MM. By virtue of inhibiting the proteasome, BTZ causes accumulation of misfolded proteins in the endoplasmic reticulum (ER) and activation of the unfolded protein response (UPR), which culminates in induction of caspase 12-mediated apoptosis [Chari et al. Biologics 4, 273-287, 2010]. An expansive, well developed rough ER highly specialized for the constant synthesis and secretion of large amounts of protein, namely immunoglobulin (Ig), is a defining characteristic of plasma cells. The innate biology of this class of cells is believed to account for the exquisite sensitivity of plasma cell disorders to agents like BTZ which target ER stress related signaling pathways to induce apoptosis.

"Given the clinically validated importance of targeting ER stress pathways in the treatment of MM and the biological similarities that exist between SMM and MM [Shah et al. Leukemia 23, 1964-1979, 2009], BTZ is also predicted to be effective in the management of MGUS and/or SMM. However, BTZ carries the potential for serious side effects; for example, more than 30% of the patients receiving BTZ treatment develop painful peripheral neuropathy [Cavaletti. Lancet Oncol 12, 120-121]. In fact, Takeda Pharmaceuticals recently received FDA approval for administration of BTZ by subcutaneous injection in an effort to reduce the number of patients experiencing severe nerve damage. It is expected that this will become the preferred route of administration. This route of administration, however, along with the potential for harmful side effects, precludes BTZ from being used in the treatment of MGUS/SMM."
In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "In a first aspect, a method for treating and/or preventing a myeloproliferative disorder characterized by monoclonal plasma cell proliferation in a subject is presented, the method comprising administering a therapeutically effective amount of S-allylcysteine (SAC), a compound comprising SAC, or a composition thereof to a patient afflicted with such a disorder so as to target cells involved in these disorders for cell killing via ER stress mediated pathways. In so doing, the method effectively reduces the number of proliferating monoclonal plasma cells in the subject, thereby treating the subject.

"In a second aspect, a method for treating and/or preventing a myeloproliferative disorder characterized by monoclonal plasma cell proliferation in a subject is presented, wherein the myeloproliferative disorder is an asymptomatic myeloproliferative disorder or a symptomatic myeloproliferative disorder, the method comprising administering a therapeutically effective amount of S-allylcysteine (SAC), a compound comprising SAC, or a composition thereof to a patient afflicted with such a disorder so as to target cells involved in these disorders for cell killing via ER stress mediated pathways. In a particular aspect, the asymptomatic myeloproliferative disorder is monoclonal gammopathy of undetermined significance (MGUS) or smoldering multiple myeloma (SMM). In another particular aspect, the symptomatic myeloproliferative disorder is multiple myeloma (MM). In a particular embodiment thereof, the subject has treatment resistant or refractive MM. Such embodiments may further comprise a chemotherapeutic agent, such as, for example, bortezomib (BTZ). BTZ may be administered before, concomitantly, or after SAC or a compound or composition thereof at the discretion of a skilled practitioner. In yet another embodiment, the subject is in remission following successful treatment for MM and methods described herein are implemented to slow or prevent relapse in the patient. Under such circumstances, the methods are implemented for preventive or prophylactic purposes.

"In a particular embodiment, the compound or composition consists essentially of SAC or consists of SAC.

"In another particular embodiment, the subject is a mammal. In a more particular embodiment, the subject is a human.

"In another aspect, a method for treating and/or preventing a myeloproliferative disorder characterized by monoclonal plasma cell proliferation in a patient or patient population is presented, the method comprising providing a patient afflicted with an asymptomatic myeloproliferative disorder or providing a patient population comprising patients afflicted with an asymptomatic myeloproliferative disorder and administering a therapeutically effective amount of S-allylcysteine (SAC), a compound comprising SAC, or a composition thereof to the patient or each one of the patients afflicted with the asymptomatic myeloproliferative disorder so as to target cells involved in this disorder for cell killing via ER stress mediated pathways. In a particular embodiment thereof, the patient or patient population has either MGUS or SMM. In a further embodiment thereof, the patient is a mammal (e.g., a human) or the patient population comprises mammals (e.g., humans). In a particular embodiment, the compound or composition consists essentially of SAC or consists of SAC.

"In another aspect, a method for treating and/or preventing a myeloproliferative disorder characterized by monoclonal plasma cell proliferation in a patient or patient population is presented, the method comprising selecting the patient afflicted with a symptomatic myeloproliferative disorder or patient population comprising patients afflicted with a symptomatic myeloproliferative disorder and administering a therapeutically effective amount of S-allylcysteine (SAC), a compound comprising SAC, or a composition thereof to the patient or each one of the patients afflicted with the symptomatic myeloproliferative disorder so as to
target cells involved in this disorder for cell killing via ER stress mediated pathways. In a particular embodiment thereof, the patient population has MM. In a particular embodiment thereof, the subject has treatment resistant or refractive MM. Such embodiments may further comprise a chemotherapeutic agent, such as, for example, bortezomib (BTZ). BTZ may be administered before, concomitantly, or after SAC or a compound or composition thereof at the discretion of a skilled practitioner. In yet another embodiment, the subject is in remission following successful treatment for MM and methods described herein are implemented to slow or prevent relapse in the patient. Under such circumstances, the methods are implemented for preventive or prophylactic purposes. In a further embodiment thereof, the patient population comprises mammals (e.g., humans). In a particular embodiment, the compound or composition consists essentially of SAC or consists of SAC.

"As described herein, the therapeutically effective amount of S-allylcysteine (SAC), a compound comprising SAC, or a composition thereof may be administered via a nutraceutical, a dietary supplement, or a drug. In a particular embodiment, the therapeutically effective amount of S-allylcysteine (SAC) is administered orally. In a more particular embodiment, the therapeutically effective amount of S-allylcysteine (SAC) is administered via AGE tablets. A suitable therapeutic regimen of AGE tablets comprises about 500-2,500 mg of AGE administered per day. In a particular embodiment thereof, three 500 mg AGE tablets are administered per day.

"Efficacy of the preventative and/or therapeutic methods described herein can be assessed by assaying a number of parameters, including: measuring the free light-chain ratio (rFLC) and the difference between clonal and nonclonal light-chain (dFLC) and involved free light-chain (iFLC), wherein a reduction in any of these parameters is a positive indicator of efficacy. A decrease in urinary deoxypyridinoline (uDPYD), a marker of bone resorption is also an indicator of efficacy, as is a decrease in serum creatinine levels.

"In another aspect, S-allylcysteine (SAC) or a compound or composition thereof is presented for use in the treatment of a myeloproliferative disorder in a subject, wherein the SAC or the compound or composition thereof is administered in a therapeutically effective amount to the subject. The myeloproliferative disorder may be an asymptomatic myeloproliferative disorder or a symptomatic myeloproliferative disorder. In a particular embodiment, the asymptomatic myeloproliferative disorder is MGUS or SMM. In another embodiment, the symptomatic myeloproliferative disorder is MM. In a more particular embodiment, the symptomatic myeloproliferative disorder is treatment resistant MM. Under such circumstances, the aforementioned use may be supplemented with use of chemotherapeutic agent, such as, for example, bortezomib (BTZ). Use of BTZ may entail administering before, concomitantly, or after SAC or a compound or composition thereof at the discretion of a skilled practitioner. In another embodiment, the aforementioned use is envisioned for treating a subject in remission following successful treatment of MM, in which case, the use of SAC or a compound or composition thereof is directed to preventive or prophylactic treatment of such patients so as to delay or prevent relapse to MM. As described herein, subjects and patients may be mammals, and more particularly, may be humans. In a more particular embodiment, the SAC or compound or composition thereof used consists essentially of SAC or consists of SAC.

"The therapeutically effective amount of S-allylcysteine (SAC) or the compound or composition thereof is administrable via a nutraceutical, a dietary supplement, or a drug. It may, moreover, be used in an oral formulation. AGE tablets are set forth as exemplary tablets for oral administration. An exemplary dosing regimen calls for use of about 500-2,500 mg of AGE per day. In a particular embodiment thereof, a dosing regimen comprises use of a total of three 500 mg AGE tablets per day. As described herein, efficacy may be determined by measuring clinical indicators of disease comprising free light-chain ratio (rFLC), a differential between clonal and
nonclonal light-chain (dFLC), involved free light-chain (iFLC), urinary deoxypyridinoline (uDPYD), and/or serum creatinine levels. In a particular embodiment, a decrease in any one of these clinical indicators of disease is a positive indicator of efficacy.

"In another aspect, use of S-allylcysteine (SAC) or a compound or composition thereof for the manufacture of a medicament for treating a myeloproliferative disorder in a subject is envisioned, wherein the medicament is prepared to be administered in a dosage regime whereby SAC or the compound or composition thereof is delivered in a therapeutically effective amount to the subject. The myeloproliferative disorder may be an asymptomatic myeloproliferative disorder (e.g., MGUS or SMM) or a symptomatic myeloproliferative disorder (e.g., MM). In a particular embodiment thereof, the medicament is prepared to be administered to a subject with treatment resistant MM. This embodiment may further comprise a medicament comprising a chemotherapeutic agent, such as, for example, bortezomib (BTZ), which may be administered in conjunction with a medicament comprising SAC or a compound or composition thereof. The medicament comprising BTZ may be administered before, concomitantly, or after a medicament comprising SAC or a compound or composition thereof at the discretion of a skilled practitioner. In another embodiment, the medicament is prepared to be administered to a subject in remission following successful treatment for MM. In accordance with such an implementation, the medicament is administered for preventive or prophylactic purposes so as to delay or prevent relapse to MM. In a particular embodiment, the subject is a mammal. In a more particular embodiment, the mammal is a human. In an even more particular embodiment, the medicament consists essentially of SAC or consists of SAC.

"The medicament may be prepared to be administered in the form of a nutraceutical, a dietary supplement, or a drug. In a particular embodiment thereof, the medicament is prepared to be administered orally. In a more particular embodiment, the medicament comprises AGE tablets, which are administrable in a dosing regimen of about 500-2,500 mg of AGE administered per day. In a still more particular embodiment, a total of three 500 mg AGE tablets are administered per day. Efficacy of the medicament may be determined by measuring clinical indicators of disease comprising free light-chain ratio (rFLC), a differential between clonal and nonclonal light-chain (dFLC), involved free light-chain (iFLC), urinary deoxypyridinoline (uDPYD), and/or serum creatinine levels, wherein a decrease in any one of the clinical indicators of disease is a positive indicator of efficacy.

"Other objects and advantages will become apparent to those skilled in the art from a review of the ensuing detailed description, which proceeds with reference to the following illustrative drawings, and the attendant claims."


Keywords for this news article include: Antineoplastics, Pharmaceuticals, Oncology, Immunology, Leukocytes, Blood Cells, Plasma Cells, Therapeutics, B-Lymphocytes, Multiple Myeloma, Paraproteinemias, Bortezomib Therapy, Cell Proliferation, Drugs and Therapies, New York University, Risk and Prevention, Hemostatic Disorders, Hemorrhagic Disorders.

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ABBOTT LABORATORIES

Patent Issued for Methods and Reagents for Diagnosing Rheumatoid Arthritis (USPTO 9528998)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Yoshimura, Toru (Matsudo, JP); Chiba, Ryotaro (Matsudo, JP), filed on April 14, 2011, was published online on December 27, 2016.

The assignee for this patent, patent number 9528998, is ABBOTT LABORATORIES (Abbott Park, IL).

Reporters obtained the following quote from the background information supplied by the inventors: "Rheumatoid arthritis (RA) is a serious, chronic autoimmune disease that afflicts about 1% of the world's population. Women are affected three times more often than men. RA primarily attacks the joints, where an inflammatory synovitis frequently destroys articular cartilage and causes ankylosis. RA may involve other tissues in diffuse inflammation including lungs, pericardium, pleura, and sclera. RA is both crippling and painful, and frequently leads to substantial loss of mobility and overall function.

"Diagnosis of RA is typically based initially on clinical signs and symptoms, but because the clinical indicators of RA are shared with a number of other common diseases and conditions, the clinical evaluation is usually supplemented by X-rays, and by blood tests for known markers, such as rheumatoid factor (RF). Thus, when RA is suspected from observation of clinical signs and symptoms, blood tests such as those testing for the presence of RF are typically used to help confirm a diagnosis. Known markers however do not necessarily detect RA with a very high level of sensitivity to RA and specificity for RA. For example, particularly during the earliest stages of RA in the first year, about 15-20% of patients do not seroconvert to RF and therefore an RF test on such a patient during this time will produce a false negative result. Moreover, RF is not 100% specific to RA, being present in about 10% of the healthy population and also in individuals with other inflammatory diseases or conditions, especially Sjogren's syndrome but also chronic hepatitis, any chronic viral infection, leukemia, dermatomyositis, infectious mononucleosis, systemic sclerosis and systemic lupus erythematosus. RF tests on such individuals will produce a significant number of false positive results. Serological markers of RA also include anti-citrullinated protein antibodies (ACPAs), as tested in the anti-CCP (cyclic citrullinated peptide) test and the anti-MCV (antibodies against mutated citrullinated Vimentin) assay, which also produce significant numbers of false positive and/or false positive results with respect to RA. Markers of RA with improved sensitivity and specificity for RA are needed so that positive diagnoses of RA can be confirmed as early as possible in the course of the disease."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "The present disclosure shows that the level of CCL-8 (Chemokine c-c motif Ligand 8) protein in a blood sample from a subject is a positive indicator of the presence of rheumatoid arthritis in the subject, with a high level of sensitivity and specificity. Moreover, levels of CCL8 in the blood are positively correlated with the severity of the disease in the subject, such that, for example, an elevated level of CCL8 in the blood indicates a severe case of rheumatoid arthritis.

"Accordingly, in one aspect, the present disclosure provides a method for diagnosing rheumatoid arthritis in a subject comprising measuring the level of CCL8 protein in a test sample obtained from the subject wherein the level of CCL8 protein in the test sample indicates
presence or absence of rheumatoid arthritis in the subject. The presence or absence of rheumatoid arthritis can be determined before clinical indicators of rheumatoid arthritis are present in the subject. The level of CCL8 protein in the test sample can be measured for example using an anti-CCL8 antibody. The test sample can be a blood sample including a plasma or a serum sample. The method may further comprise measuring the level of one or more additional markers of rheumatoid arthritis in the sample, wherein the level of each additional marker in the test sample further indicates presence or absence of rheumatoid arthritis in the subject. Such markers include for example CRP, a-CCP, CARF IgG, MMP-3 and Rheumatoid factor.

"In another aspect the present disclosure provides a method for determining the severity of rheumatoid arthritis in a subject comprising determining the presence or absence of an elevated level of CCL8 protein in a test sample obtained from the subject wherein the presence of an elevated level of CCL8 protein indicates that the rheumatoid arthritis in the subject is severe. The method may further comprise measuring the level of one or more markers of rheumatoid arthritis in the sample wherein the markers are selected from the group consisting of: CRP, a-CCP, CARF IgG, MMP-3 and Rheumatoid factor, wherein the level of the one or more markers in the test sample further indicates presence or absence of rheumatoid arthritis in the subject.

"In another aspect the present disclosure provides a diagnostic reagent for rheumatoid arthritis comprising an anti-CCL8 antibody or fragment thereof, and an antibody against at least one marker of rheumatoid arthritis selected from the group consisting of: CRP, a-CCP, CARF IgG, MMP-3 and Rheumatoid factor. The diagnostic reagent may be included in a diagnostic kit.

"In another aspect the present disclosure provides a method for identifying a candidate substance as a therapeutic agent for treating rheumatoid arthritis, comprising: a) administering a test substance to an animal subject having an animal model of rheumatoid arthritis; b) measuring the level of CCL8 protein in a test sample obtained from the animal subject; and c) selecting the test substance as a candidate substance as a therapeutic agent for treating rheumatoid arthritis substance if the level of CCL8 protein in the test sample is lower than the level of CCL8 protein in a test sample from a comparable animal subject not administered the test substance.

"In another aspect the present disclosure encompasses use of an anti-CCL8 antibody or fragment thereof as a diagnostic reagent for the diagnosis of rheumatoid arthritis in a subject.

"In another aspect the present disclosure encompasses use of an anti-CCL8 antibody or fragment thereof as an active ingredient in a pharmaceutical composition for the treatment of rheumatoid arthritis in a subject.

"In another aspect the present disclosure encompasses use of an anti-CCL8 antibody or fragment thereof in the manufacture of a reagent for the diagnosis of rheumatoid arthritis in a subject.

"In another aspect the present disclosure encompasses use of an anti-CCL8 antibody or fragment thereof in the manufacture of a pharmaceutical composition for the treatment of rheumatoid arthritis in a subject.

"In another aspect the present disclosure provides a method for monitoring the effect of a treatment of rheumatoid arthritis in a subject comprising: a) measuring a first level of CCL8 protein in a first test sample obtained from the subject before the treatment; b) measuring a second level of CCL8 protein in a second test sample obtained from the subject after the treatment begins; and c) comparing the first level of CCL8 protein and the second level of CCL8 protein, wherein a second level of CCL8 protein level that is lower than the first level of CCL8
protein is indicative of a therapeutic effect of the treatment in the subject.

"In any of the above methods, the level of CCL8 protein in the test sample can be measured for example using an anti-CCL8 antibody. In any of the above methods, the test sample(s) can be blood samples including plasma or serum samples. In any of the above methods, the level of CCL8 protein can be measured using a method selected from the group consisting of: mass spectrometry, high performance liquid chromatography, and two-dimensional electrophoresis."


Keywords for this news article include: Therapy, Genetics, Immunology, Autoantibodies, Blood Proteins, Immunoproteins, Immunoglobulins, Serum Globulins, Rheumatoid Factor, ABBOTT LABORATORIES, Rheumatoid Arthritis, Diagnostics and Screening, Joint Diseases and Conditions, Autoimmune Diseases and Conditions, Musculoskeletal Diseases and Conditions.

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Quest Diagnostics Investments Incoporated

**Patent Issued for Methods for Detecting Lacosamide by Mass Spectrometry (USPTO 9530635)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Boyadzhyan, Beatrisinga (San Juan Capistrano, CA); Thomassian, Karin (San Juan Capistrano, CA); Dermartirosian, Anita (San Juan Capistrano, CA); Jambor, Lou (San Juan Capistrano, CA), filed on June 30, 2014, was published online on December 27, 2016.

The assignee for this patent, patent number 9530635, is Quest Diagnostics Investments Incorporated (Wilmington, DE).

Reporters obtained the following quote from the background information supplied by the inventors: "The following description of the background of the invention is provided simply as an aid in understanding the invention and is not admitted to describe or constitute prior art to the invention.

"Lacosamide (also known as Vimpat.TM., erlosamide, and harkoseride) is a functionalized amino acid that is used as an adjunctive therapy the treatment of partial-onset seizures (Halasz et al., Epilepsia, 50(3):443-453, 2009). Lacosamide is also being investigated as a treatment for diabetic neuropathic pain (Ziegler et al. Diabetes Care. 2010 April; 33 (4):839-41). Lacosamide has dual mechanisms of action. In one mechanism, lacosamide selectively enhances slow inactivation of voltage-gated sodium channels, which in turn stabilizes hyperexcitable neuronal membranes and inhibits neuronal firing (Sheets et al., J Pharmacol Exp Ther. 2008 July; 326(1):89-99; Errington et al., Mol Pharmacol. 2008 January; 73(1):157-69). In another mechanism of action, lacosamide modulates collapsin response mediator protein-2 (CRMP-2), a protein that has altered expression in epilepsy and other
neurodegenerative diseases (Cada et al., Hospital Pharmacy 2009 June; 44(6), 497-508).

"Assays for lacosamide blood levels have been developed and are used by patients and physicians to optimize therapeutic dosages."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "The present invention provides methods for detecting the amount of lacosamide in a sample by mass spectrometry, including tandem mass spectrometry.

"In one aspect, methods are provided for determining the amount of lacosamide in a sample. Methods of this aspect include: (a) ionizing lacosamide from the sample to produce one or more lacosamide ions detectable by mass spectrometry, wherein the ions comprise one or more ions selected from the group consisting of ions with a mass/charge ratio of 251.0.+-0.5, 91.0.+-0.5, and 108.0.+-0.5; (b) determining the amount of one or more lacosamide ions by mass spectrometry; and © using the amount of the lacosamide ion(s) to determine the amount of lacosamide in the sample. In some embodiments, the mass spectrometry is tandem mass spectrometry. In some embodiments, the methods further include purifying lacosamide in the sample prior to mass spectrometry. In some embodiments, purifying includes purifying with liquid chromatography. In related embodiments, the liquid chromatography comprises high performance liquid chromatography (HPLC). In some embodiments, purifying includes one or more purification steps followed by liquid chromatography. In related embodiments, the one or more purification steps prior to liquid chromatography include protein precipitation. In some embodiments, the sample is generated by subjecting a body fluid to one or more processing steps. In some embodiments, the sample is generated by subjecting plasma or serum to one or more processing steps. In some embodiments, ionizing includes generating a lacosamide precursor ion with a mass/charge ratio of 251.0.+-0.5, and generating one or more lacosamide fragment ions selected from the group consisting of ions with a mass/charge ratio of 91.0.+-0.5 and 108.0.+-0.5. In some embodiments, ionizing is conducted in positive ion mode. In some embodiments, the method has a lower limit of quantitation within the range of 20 .mu.g/ml and 0.5 .mu.g/ml, inclusive.

"In a second aspect, methods are provided for determining the amount of lacosamide in a body fluid sample by tandem mass spectrometry. Methods of this aspect include: (a) ionizing lacosamide, purified from the body fluid sample by liquid chromatography, to generate a lacosamide precursor ion having a mass/charge ratio of 251.0.+-0.5; (b) producing one or more lacosamide fragment ions of the lacosamide precursor ion, wherein at least one of the one or more lacosamide fragment ions comprise an ion selected from the group of ions having a mass/charge ratio of 91.0.+-0.5 and 108.0.+-0.5; and © determining the amount of one or more of the ions generated in step (b) or © or both and relating the determined ions to the amount of lacosamide in the body fluid sample. In some embodiments, the methods have a lower limit of quantitation within the range of 20 .mu.g/ml and 0.5 .mu.g/ml, inclusive. In some embodiments, the liquid chromatography includes high performance liquid chromatography (HPLC). In some embodiments, the lacosamide purified from a body fluid sample is purified by one or more purification steps followed by liquid chromatography. In related embodiments, the one or more purification steps prior to liquid chromatography include protein precipitation. In some embodiments, the body fluid sample includes plasma or serum. In some embodiments, ionization is conducted in positive ion mode.

"As used herein, unless otherwise stated, the singular forms 'a,' 'an,' and 'the' include plural reference. Thus, for example, a reference to 'a protein' includes a plurality of protein molecules.

"As used herein, the term 'processing step' refers to any sample handling step without
limitation, including, for example: heating, cooling, centrifugation, or purification by any method known in the art. In particular, purification steps may include one or more of filtration, protein precipitation, liquid-liquid extraction, solid-phase extraction, liquid chromatography (including high performance liquid chromatography), and the like.

"As used herein, the term 'purification' or 'purifying' does not refer to removing all materials from the sample other than the analyte(s) of interest. Instead, purification refers to a procedure that enriches the amount of one or more analytes of interest relative to other components in the sample that may interfere with detection of the analyte of interest. Purification of the sample by various means may allow relative reduction of one or more interfering substances, e.g., one or more substances that may or may not interfere with the detection of selected lacosamide parent or daughter ions by mass spectrometry. Relative reduction as this term is used does not require that any substance, present with the analyte of interest in the material to be purified, is entirely removed by purification.

"As used herein, the term 'sample' refers to any sample that may contain lacosamide. As used herein, the term 'body fluid' means any fluid that can be isolated from the body of an individual. For example, 'body fluid' may include blood, plasma, serum, bile, saliva, urine, tears, perspiration, and the like.

"As used herein, the term 'chromatography' refers to a process in which a chemical mixture carried by a liquid or gas is separated into components as a result of differential distribution of the chemical entities as they flow around or over a stationary liquid or solid phase.

"As used herein, the term 'liquid chromatography' or 'LC' means a process of selective retardation of one or more components of a fluid solution as the fluid uniformly percolates through a column of a finely divided substance, or through capillary passageways. The retardation results from the distribution of the components of the mixture between one or more stationary phases and the bulk fluid, (i.e., mobile phase), as this fluid moves relative to the stationary phase(s). Examples of 'liquid chromatography' include reverse phase liquid chromatography (RPLC), high performance liquid chromatography (HPLC), and high turbulence liquid chromatography (HTLC).

"As used herein, the term 'high performance liquid chromatography' or 'HPLC' refers to liquid chromatography in which the degree of separation is increased by forcing the mobile phase under pressure through a stationary phase on a support matrix, typically a densely packed column.

"As used herein, the term 'high turbulence liquid chromatography' or 'HTLC' refers to a form of chromatography that utilizes turbulent flow of the material being assayed through the column packing as the basis for performing the separation. HTLC has been applied in the preparation of samples containing two unnamed drugs prior to analysis by mass spectrometry. See, e.g., Zimmer et al., J. Chromatogr. A 854: 23-35 (1999); see also, U.S. Pat. Nos. 5,968,367, 5,919,368, 5,795,469, and 5,772,874, which further explain HTLC. Persons of ordinary skill in the art understand 'turbulent flow'. When fluid flows slowly and smoothly, the flow is called 'laminar flow'. For example, fluid moving through an HPLC column at low flow rates is laminar. In laminar flow the motion of the particles of fluid is orderly with particles moving generally in straight lines. At faster velocities, the inertia of the water overcomes fluid frictional forces and turbulent flow results. Fluid not in contact with the irregular boundary 'outruns' that which is slowed by friction or deflected by an uneven surface. When a fluid is flowing turbulently, it flows in eddies and whirls (or vortices), with more 'drag' than when the flow is laminar. Many references are available for assisting in determining when fluid flow is laminar or turbulent (e.g., Turbulent Flow Analysis: Measurement and Prediction, P. S. Bernard
"As used herein, the term 'gas chromatography' or 'GC' refers to chromatography in which the sample mixture is vaporized and injected into a stream of carrier gas (as nitrogen or helium) moving through a column containing a stationary phase composed of a liquid or a particulate solid and is separated into its component compounds according to the affinity of the compounds for the stationary phase.

"As used herein, the term 'large particle column' or 'extraction column' refers to a chromatography column containing an average particle diameter greater than about 35 \( \mu \text{m} \), such as greater than about 50 \( \mu \text{m} \).

"As used herein, the term 'analytical column' refers to a chromatography column having sufficient chromatographic plates to effect a separation of materials in a sample that elute from the column sufficient to allow a determination of the presence or amount of an analyte. Such columns are often distinguished from 'extraction columns', which have the general purpose of separating or extracting retained material from non-retained materials in order to obtain a purified sample for further analysis. As used in this context, the term 'about' means\( \pm \)10%. In a preferred embodiment the analytical column contains particles of about 5 \( \mu \text{m} \) in diameter.

"As used herein, the term 'on-line' or 'inline', for example as used in 'on-line automated fashion' or 'on-line extraction' refers to a procedure performed without the need for operator intervention. In contrast, the term 'off-line' as used herein refers to a procedure requiring manual intervention of an operator. Thus, if samples are subjected to precipitation, and the supernatants are then manually loaded into an autosampler, the precipitation and loading steps are off-line from the subsequent steps. In various embodiments of the methods, one or more steps may be performed in an on-line automated fashion.

"As used herein, the term 'mass spectrometry' or 'MS' refers to an analytical technique to identify compounds by their mass. MS refers to methods of filtering, detecting, and measuring ions based on their mass-to-charge ratio, or 'm/z'. MS technology generally includes (1) ionizing the compounds to form charged compounds; and (2) detecting the molecular weight of the charged compounds and calculating a mass-to-charge ratio. The compounds may be ionized and detected by any suitable means. A 'mass spectrometer' generally includes an ionizer and an ion detector. In general, one or more molecules of interest are ionized, and the ions are subsequently introduced into a mass spectrographic instrument where, due to a combination of magnetic and electric fields, the ions follow a path in space that is dependent upon mass ('m') and charge ('z'). See, e.g., U.S. Pat. No. 6,204,500, entitled 'Mass Spectrometry From Surfaces;' U.S. Pat. No. 6,107,623, entitled 'Methods and Apparatus for Tandem Mass Spectrometry;' U.S. Pat. No. 6,268,144, entitled 'DNA Diagnostics Based On Mass Spectrometry;' U.S. Pat. No. 6,124,137, entitled 'Surface-Enhanced Photolabile Attachment And Release For Desorption And Detection Of Analytes;' Wright et al., Prostate Cancer and Prostatic Diseases 2:264-76 (1999); and Merchant and Weinberger, Electrophoresis 21:1164-67 (2000).

"As used herein, the term 'operating in negative ion mode' refers to those mass spectrometry methods where negative ions are generated and detected. The term 'operating in positive ion mode' as used herein, refers to those mass spectrometry methods where positive ions are generated and detected.

"As used herein, the term 'ionization' or 'ionizing' refers to the process of generating an analyte ion having a net electrical charge equal to one or more electron units. Negative ions are those having a net negative charge of one or more electron units, while positive ions are those having a net positive charge of one or more electron units.
"As used herein, the term 'electron ionization' or 'EI' refers to methods in which an analyte of interest in a gaseous or vapor phase interacts with a flow of electrons. Impact of the electrons with the analyte produces analyte ions, which may then be subjected to a mass spectrometry technique.

"As used herein, the term 'chemical ionization' or 'CI' refers to methods in which a reagent gas (e.g. ammonia) is subjected to electron impact, and analyte ions are formed by the interaction of reagent gas ions and analyte molecules.

"As used herein, the term 'fast atom bombardment' or 'FAB' refers to methods in which a beam of high energy atoms (often Xe or Ar) impacts a non-volatile sample, desorbing and ionizing molecules contained in the sample. Test samples are dissolved in a viscous liquid matrix such as glycerol, thioglycerol, m-nitrobenzyl alcohol, 18-crown-6 crown ether, 2-nitrophenyloctyl ether, sulfolane, diethanolamine, and triethanolamine. The choice of an appropriate matrix for a compound or sample is an empirical process.

"As used herein, the term 'matrix-assisted laser desorption ionization' or 'MALDI' refers to methods in which a non-volatile sample is exposed to laser irradiation, which desorbs and ionizes analytes in the sample by various ionization pathways, including photo-ionization, protonation, deprotonation, and cluster decay. For MALDI, the sample is mixed with an energy-absorbing matrix, which facilitates desorption of analyte molecules.

"As used herein, the term 'surface enhanced laser desorption ionization' or 'SELDI' refers to another method in which a non-volatile sample is exposed to laser irradiation, which desorbs and ionizes analytes in the sample by various ionization pathways, including photo-ionization, protonation, deprotonation, and cluster decay. For SELDI, the sample is typically bound to a surface that preferentially retains one or more analytes of interest. As in MALDI, this process may also employ an energy-absorbing material to facilitate ionization.

"As used herein, the term 'electrospray ionization' or 'ESI,' refers to methods in which a solution is passed along a short length of capillary tube, to the end of which is applied a high positive or negative electric potential. Solution reaching the end of the tube is vaporized (nebulized) into a jet or spray of very small droplets of solution in solvent vapor. This mist of droplets flows through an evaporation chamber. As the droplets get smaller the electrical surface charge density increases until such time that the natural repulsion between like charges causes ions as well as neutral molecules to be released.

"As used herein, the term 'atmospheric pressure chemical ionization' or 'APCI,' refers to mass spectrometry methods that are similar to ESI; however, APCI produces ions by ion-molecule reactions that occur within a plasma at atmospheric pressure. The plasma is maintained by an electric discharge between the spray capillary and a counter electrode. Then ions are typically extracted into the mass analyzer by use of a set of differentially pumped skimmer stages. A counterflow of dry and preheated N.sub.2 gas may be used to improve removal of solvent. The gas-phase ionization in APCI can be more effective than ESI for analyzing less-polar species.

"The term 'atmospheric pressure photoionization' or 'APPI' as used herein refers to the form of mass spectrometry where the mechanism for the photoionization of molecule M is photon absorption and electron ejection to form the molecular ion M+. Because the photon energy typically is just above the ionization potential, the molecular ion is less susceptible to dissociation. In many cases it may be possible to analyze samples without the need for chromatography, thus saving significant time and expense. In the presence of water vapor or protic solvents, the molecular ion can extract H to form MH+. This tends to occur if M has a high proton affinity. This does not affect quantitation accuracy because the sum of M+ and MH+ is constant. Drug compounds in protic solvents are usually observed as MH+, whereas

"As used herein, the term 'inductively coupled plasma' or 'ICP' refers to methods in which a sample interacts with a partially ionized gas at a sufficiently high temperature such that most elements are atomized and ionized.

"As used herein, the term 'field desorption' refers to methods in which a non-volatile test sample is placed on an ionization surface, and an intense electric field is used to generate analyte ions.

"As used herein, the term 'desorption' refers to the removal of an analyte from a surface and/or the entry of an analyte into a gaseous phase.

"As used herein, the term 'selective ion monitoring' is a detection mode for a mass spectrometric instrument in which only ions within a relatively narrow mass range, typically about one mass unit, are detected.

"As used herein, 'multiple reaction mode,' sometimes known as 'selected reaction monitoring,' is a detection mode for a mass spectrometric instrument in which a precursor ion and one or more fragment ions are selectively detected.

"As used herein, the term 'lower limit of quantification', 'limit of quantitation' or 'LOQ' refers to the point where measurements become quantitatively meaningful. The analyte response at this LOQ is identifiable, discrete and reproducible and is calculated as the mean plus 10 standard deviations (SD).

"As used herein, the term 'limit of detection' or 'LOD' is the point at which the measured value is larger than the uncertainty associated with it. The LOD is the point at which a value is beyond the uncertainty associated with its measurement and is defined as four standard deviations from the zero concentration.

"As used herein, an 'amount' of lacosamide in a body fluid sample refers generally to an absolute value reflecting the mass of lacosamide detectable in volume of body fluid. However, an amount also contemplates a relative amount in comparison to another lacosamide amount. For example, an amount of lacosamide in a body fluid can be an amount which is greater than a control or normal level of lacosamide normally present.

"The term 'about' as used herein in reference to quantitative measurements not including the measurement of the mass of an ion, refers to the indicated value plus or minus 10%. Mass spectrometry instruments can vary slightly in determining the mass of a given analyte. The term 'about' in the context of the mass of an ion or the mass/charge ratio of an ion refers to +/-0.50 atomic mass unit.

"The summary of the invention described above is non-limiting and other features and advantages of the invention will be apparent from the following detailed description of the invention, and from the claims."


Keywords for this news article include: Anticonvulsants, Blood, Plasma, Genetics, Hematology, Lacosamide, Imaging Technology, Drugs and Therapies, Central Nervous System
Agents, High-Performance Liquid Chromatography, Quest Diagnostics Investments Incorporated.

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**Quest Diagnostics Investments Incorporated**

**Patent Issued for Methods for Detecting Vitamin D Metabolites by Mass Spectrometry (USPTO 9529004)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Quest Diagnostics Investments Incorporated (Wilmington, DE) has been issued patent number 9529004, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Clarke, Nigel J. (Oceanside, CA); Holmquist, Brett (Thousand Oaks, CA); Lee, Gloria Kwang-Ja (Irvine, CA); Reitz, Richard E. (San Clemente, CA).

This patent was filed on January 25, 2016 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Vitamin D is an essential nutrient with important physiological roles in the positive regulation of calcium (Ca.sup.2+) homeostasis. Vitamin D can be made de novo in the skin by exposure to sunlight or it can be absorbed from the diet. There are two forms of vitamin D; vitamin D.sub.2 (ergocalciferol) and vitamin D.sub.3 (cholecalciferol). Vitamin D.sub.3 is the form synthesized de novo by animals. It is also a common supplement added to milk products and certain food products produced in the United States. Both dietary and intrinsically synthesized vitamin D.sub.3 must undergo metabolic activation to generate bioactive metabolites. In humans, the initial step of vitamin D.sub.3 activation occurs primarily in the liver and involves hydroxylation to form the intermediate metabolite 25-hydroxyvitamin D.sub.3 (25-hydroxycholecalciferol; calcifediol; 25OHD.sub.3). Calcifediol is the major form of vitamin D.sub.3 in the circulation. Circulating 25OHD.sub.3 is then converted by the kidney to 1,25-dihydroxyvitamin D.sub.3 (calcitriol; 1,25(OH).sub.2D.sub.3), which is generally believed to be the metabolite of vitamin D.sub.3 with the highest biological activity.

"Vitamin D.sub.2 is derived from fungal and plant sources. Many over-the-counter dietary supplements contain ergocalciferol (vitamin D.sub.2) rather than cholecalciferol (vitamin D.sub.3). Drisdol, the only high-potency prescription form of vitamin D available in the United States, is formulated with ergocalciferol. Vitamin D.sub.2 undergoes a similar pathway of metabolic activation in humans as vitamin D.sub.3, forming the metabolites 25-hydroxyvitamin D.sub.2 (25OHD.sub.2) and 1,25-dihydroxyvitamin D.sub.3 (1,25(OH).sub.2D.sub.3). Vitamin D.sub.2 and vitamin D.sub.3 have long been assumed to be biologically equivalent in humans, however recent reports suggest that there may be differences in the bioactivity and bioavailability of these two forms of vitamin D (Armas et. al., (2004) J. Clin. Endocrinol. Metab. 89:5387-5391).

"Measurement of vitamin D, the inactive vitamin D precursor, is rare in clinical settings and has little diagnostic value. Rather, serum levels of 25-hydroxyvitamin D.sub.3 and 25-hydroxyvitamin D.sub.2 (total 25-hydroxyvitamin D; '25OHD') are a useful index of vitamin D nutritional status and the efficacy of certain vitamin D analogs. Therefore, the measurement of 25OHD is commonly used in the diagnosis and management of disorders of calcium
metabolism. In this respect, low levels of 25OHD are indicative of vitamin D deficiency associated with diseases such as hypocalcemia, hypophosphatemia, secondary hyperparathyroidism, elevated alkaline phosphatase, osteomalacia in adults and rickets in children. In patients suspected of vitamin D intoxication, elevated levels of 25OHD distinguishes this disorder from other disorders that cause hypercalcemia.

"Measurement of 1,25(OH)₂D is also used in clinical settings, however, this metabolite has a more limited diagnostic usefulness than 25OHD. Factors that contribute to limitations of the diagnostic values of 1,25(OH)₂D as an index of vitamin D status include the precision of the endogenous regulation of renal production of the metabolite and its short half-life in circulation. However, certain disease states such as kidney failure can be diagnosed by reduced levels of circulating 1,25(OH)₂D and elevated levels of 1,25(OH)₂D may be indicative of excess parathyroid hormone or may be indicative of certain diseases such as sarcoidosis or certain types of lymphoma.


Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "The present invention provides methods for detecting the presence or amount of a vitamin D metabolite in a sample by mass spectrometry, including tandem mass spectrometry. Preferably, the methods of the invention do not include derivatizing the vitamin D metabolites prior to the mass spectrometry analysis.

"In one aspect, the invention provides a method for determining the presence or amount of a vitamin D metabolite in a sample. The method may include: (a) ionizing the vitamin D metabolite, if present in the sample; and (b) detecting the presence or amount of the ion by mass spectrometry and relating presence or amount of the detected ion to the presence or amount of the vitamin D metabolite in the sample. In some preferred embodiments, the ionization step (a) may include (i) ionizing the vitamin D metabolite, if present in the sample, to produce an ion of the vitamin D metabolite; (ii) isolating the ion of step (i) by mass spectrometry to provide a precursor ion; and (iii) effecting a collision between the precursor ion and an inert collision gas to produce at least one fragment ion detectable in a mass spectrometer. Preferably, at least one of the fragment ions is specific for the vitamin D metabolite of interest.

In certain embodiments of the invention, the fragment ions to be detected include at least one fragment ion other than that which results solely by a dehydration or deamination of the precursor ion. In some particularly preferred embodiments, the precursor ion is a protonated and dehydrated ion of the vitamin D metabolite. In certain embodiments the vitamin D metabolite is one or more vitamin D metabolites selected from the group consisting of 25-hydroxyvitamin D₃; 25-hydroxyvitamin D₂; 1,25-dihydroxyvitamin D₂; and 1,25-dihydroxyvitamin D₃.

"In a related aspect, the invention provides a method for determining the presence or
amount of a vitamin D metabolite in a sample by tandem mass spectrometry. The method may involve (a) generating a protonated and dehydrated precursor ion of the vitamin D metabolite if present in the sample; (b) generating one or more fragment ions of the precursor ion; and © detecting the presence or amount of one or more of the ions generated in step (a) or (b) or both and relating the detected ions to the presence or amount of the vitamin D metabolite in the sample. In certain embodiments, the method is used to detect the presence or amount of two or more vitamin D metabolites in a single assay. Preferably, the method does not involve derivatizing the samples or the vitamin D metabolites prior to analysis by mass spectrometry. In certain embodiments the vitamin D metabolite is one or more vitamin D metabolites selected from the group consisting of 25-hydroxyvitamin D₃; 25-hydroxyvitamin D₂; 1,25-dihydroxyvitamin D₂; and 1,25-dihydroxyvitamin D₃.

"In another aspect the invention provides a method for determining the presence or amount of two or more vitamin D metabolites in a sample in a single assay. The method includes ionizing the vitamin D metabolites, if present in the sample, to generate ions specific for each of the vitamin D metabolites of interest, detecting the presence or amount of the ions by mass spectrometry, and relating the presence or amount of the ions to the presence or amount of the vitamin D metabolites in the sample. In certain embodiments the mass spectrometry analysis of the method is tandem mass spectrometry.

"As used herein, the term 'vitamin D metabolite' refers to any chemical species that may be found in the circulation of an animal which is formed by a biosynthetic or metabolic pathway for vitamin D or a synthetic vitamin D analog. Vitamin D metabolites include forms of vitamin D that are generated by a biological organism, such as an animal, or that are generated by biotransformation of a naturally occurring form of vitamin D or a synthetic vitamin D analog. In certain preferred embodiments, a vitamin D metabolite is formed by the biotransformation of vitamin D₃ or vitamin D₂. In particularly preferred embodiments, the vitamin D metabolite is one or more compounds selected from the group consisting of 25-hydroxyvitamin D₃, 25-hydroxyvitamin D₂, 1,25-dihydroxyvitamin D₂ and 1,25-dihydroxyvitamin D₃.

"As used herein, the term 'purification' refers to a procedure that enriches the amount of one or more analytes of interest relative to one or more other components of the sample. Purification, as used herein does not require the isolation of an analyte from all others. In preferred embodiments, a purification step or procedure can be used to remove one or more interfering substances, e.g., one or more substances that would interfere with the operation of the instruments used in the methods or substances that may interfere with the detection of an analyte ion by mass spectrometry.

"As used herein, 'biological sample' refers to any sample from a biological source. As used herein, 'body fluid' means any fluid that can be isolated from the body of an individual. For example, 'body fluid' may include blood, plasma, serum, bile, saliva, urine, tears, perspiration, and the like.

"As used herein, 'derivatizing' means reacting two molecules to form a new molecule. Derivatizing agents may include isothiocyanate groups, dinitro-fluorophenyl groups, nitrophenoxycarbonyl groups, and/or phthalaldehyde groups.

"As used herein, 'chromatography' refers to a process in which a chemical mixture carried by a liquid or gas is separated into components as a result of differential distribution of the chemical entities as they flow around or over a stationary liquid or solid phase.

"As used herein, 'liquid chromatography' (LC) means a process of selective retardation of one or more components of a fluid solution as the fluid uniformly percolates through a column of a finely divided substance, or through capillary passageways. The
retardation results from the distribution of the components of the mixture between one or more stationary phases and the bulk fluid, (i.e., mobile phase), as this fluid moves relative to the stationary phase(s). 'Liquid chromatography' includes reverse phase liquid chromatography (RPLC), high performance liquid chromatography (HPLC) and high turbulence liquid chromatography (HTLC).

"As used herein, the term 'HPLC' or 'high performance liquid chromatography' refers to liquid chromatography in which the degree of separation is increased by forcing the mobile phase under pressure through a stationary phase, typically a densely packed column.

"As used herein, the term 'gas chromatography' refers to chromatography in which the sample mixture is vaporized and injected into a stream of carrier gas (as nitrogen or helium) moving through a column containing a stationary phase composed of a liquid or a particulate solid and is separated into its component compounds according to the affinity of the compounds for the stationary phase.

"As used herein, 'mass spectrometry' (MS) refers to an analytical technique to identify compounds by their mass. MS technology generally includes (1) ionizing the compounds to form charged compounds; and (2) detecting the molecular weight of the charged compound and calculating a mass-to-charge ratio (m/z). The compound may be ionized and detected by any suitable means. A 'mass spectrometer' generally includes an ionizer and an ion detector. See, e.g., U.S. Pat. No. 6,204,500, entitled 'Mass Spectrometry From Surfaces;' U.S. Pat. No. 6,107,623, entitled 'Methods and Apparatus for Tandem Mass Spectrometry;' U.S. Pat. No. 6,268,144, entitled 'DNA Diagnostics Based On Mass Spectrometry;' U.S. Pat. No. 6,124,137, entitled 'Surface-Enhanced Photolabile Attachment And Release For Desorption And Detection Of Analytes;' Wright et al., Prostate Cancer and Prostatic Diseases 2:264-76 (1999); and Merchant and Weinberger, Electrophoresis 21:1164-67 (2000).

"The term 'electron ionization' as used herein refers to methods in which an analyte of interest in a gaseous or vapor phase interacts with a flow of electrons. Impact of the electrons with the analyte produces analyte ions, which may then be subjected to a mass spectrometry technique.

"The term 'chemical ionization' as used herein refers to methods in which a reagent gas (e.g. ammonia) is subjected to electron impact, and analyte ions are formed by the interaction of reagent gas ions and analyte molecules.

"The term 'fast atom bombardment' as used herein refers to methods in which a beam of high energy atoms (often Xe or Ar) impacts a non-volatile sample, desorbing and ionizing molecules contained in the sample. Test samples are dissolved in a viscous liquid matrix such as glycerol, thioglycerol, m-nitrobenzyl alcohol, 18-crown-6 crown ether, 2-nitrophenyloctyl ether, sulfolane, diethanolamine, and triethanolamine.

"The term 'field desorption' as used herein refers to methods in which a non-volatile test sample is placed on an ionization surface, and an intense electric field is used to generate analyte ions.

"The term 'ionization' as used herein refers to the process of generating an analyte ion having a net electrical charge equal to one or more electron units. Negative ions are those having a net negative charge of one or more electron units, while positive ions are those having a net positive charge of one or more electron units.

"The term 'operating in negative ion mode' refers to those mass spectrometry methods where negative ions are detected. Similarly, 'operating in positive ion mode' refers to those mass spectrometry methods where positive ions are detected.

"The term 'desorption' as used herein refers to the removal of an analyte from a surface and/or the entry of an analyte into a gaseous phase.
"The term 'about' as used herein in reference to quantitative measurements, refers to the indicated value plus or minus 10%.


Keywords for this news article include: Genetics, Imaging Technology, High-Performance Liquid Chromatography, Quest Diagnostics Investments Incorporated.

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Yeda Research and Development Co. Ltd.

Patent Issued for Methods of Isolating Distinct Pancreatic Cell Types (USPTO 9526749)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Walker, Michael D. (Rehovot, IL); Soen, Yoav (Rehovot, IL); Sharivkin, Revital (Rehovot, IL), filed on February 20, 2015, was published online on December 27, 2016.

The assignee for this patent, patent number 9526749, is Yeda Research and Development Co. Ltd. (Rehovot, IL).

Reporters obtained the following quote from the background information supplied by the inventors: "Beta cells of the mature functional pancreas regulate metabolic homeostasis by controlled secretion of insulin. Impaired beta cell function and the resulting insufficient secretion of insulin, lead to persistently elevated levels of blood glucose, the hallmark of diabetes.

"Type 1 diabetes (T1D, also known as insulin dependent diabetes mellitus, IDDM) is an autoimmune disease that results in the destruction of the beta-cells in the pancreas. The collapse of glucose homeostasis and clinical manifestation of the disease is thought to occur only after 80-90% of pancreatic beta cells have been inactivated by the immune response. Incipient diabetes can be diagnosed by the detection of immunological markers of beta cell autoimmunity only after the onset of the autoimmune process.

"Type 2 Diabetes (T2D, formerly non-insulin-dependent diabetes mellitus, NIDDM, or adult-onset diabetes) is the most common form of diabetes, accounting for 90% of cases of diabetes. It is a metabolic disorder that is characterized by high blood glucose in the context of relative insulin resistance and insulin deficiency. Obesity is the primary cause of T2D in people who are genetically predisposed to the disease. Type 2 diabetes is initially managed by increasing exercise and dietary modification. If blood sugars are not lowered by these measures, medications such as metformin or insulin may be needed.

"Current treatments for diabetes are problematic and do not eliminate many of the long term complications associated with the disease. Consequently, there is great interest in developing improved treatments for diabetes.

"The adult pancreas is composed of endocrine and exocrine cell populations. The
endocrine cells are located within the islets of Langerhans, comprising cell-types of discrete functionalities (e.g. alpha cells producing glucagon, beta cells producing insulin, delta cells producing somatostatin etc.). In addition to the heterogeneity of the islets themselves, islet preparations are often contaminated by varying fractions of exocrine cells (including acinar cells, characterized by hydrolytic enzymes e.g. trypsin, chymotrypsin, amylase, lipase; and duct cells (Cleveland et al. 2012)) and even non-pancreatic cells. Pancreatic beta cells regulate metabolic homeostasis by controlled secretion of insulin; impaired beta cell function leads to persistently elevated levels of blood glucose, the hallmark of diabetes. Transplantation of functional pancreatic beta cells is one of the most promising approaches towards curing diabetes (Shapiro et al. 2000, N Engl J Med 343(4): 230-238; Serup et al. 2001, Bmj 322(7277): 29-32), but is currently limited by a severe shortage of donor tissue. This has motivated approaches capable of in vitro generation of functional insulin-producing cells (Kroon et al. 2008, Nat Biotechnol 26(4): 443-452; Russ et al. 2011, PLoS One 6(9): e25566). However, the lack of cell type-specific surface markers is a major obstacle for isolation of relevant cells.

"The ongoing world-wide epidemic of diabetes emphasizes the urgent need for improved diabetes treatments such as cell based therapies, hence the enormous interest in hESCs-derived pancreatic precursors. Recent results have demonstrated the potential of hESC-derived precursors to produce insulin in vivo (Kroon et al., Nat Biotechnol. 2008, 26,4, 443-52); yet the protocols are very inefficient and yield highly heterogeneous populations. Therefore, any future clinical use would likely require prospective identification and generation of precursor populations with higher fidelity.

"One approach is to generate beta cells in vitro from human embryonic stem cells (hESCs). hESCs are pluripotent cells, capable of generating every cell of the body. Since their initial derivation, hopes have been high that these cells might represent a source of unlimited numbers of beta cells, or beta cell progenitors for transplantation to diabetics. Another potential source is based on in vitro expansion of adult beta cells. Such expansion is accompanied by loss of beta cell markers and requires re-differentiation procedures to restore insulin expression (Russ et al., Diabetes. 2008, 57, 1575-83; Russ et al., PLoS One. 2011, 6, 9, e25566). Another serious impediment to cell replacement therapy is the current lack of cell surface markers selective for pancreatic cell subtypes.

"Current methods for identification of cell surface markers are based on flow cytometry, analysis of gene expression patterns and immunostaining. Higher throughput proteomics approaches based on antibody arrays, have also been used for profiling cell surface markers (Ko et al. 2005, Biomaterials 26(23): 4882-4891) and for discriminating cell populations based on differentially expressed markers (Sharivkin et al. Molecular & cellular proteomics 2012, 11(9): 586-595; and Belov et al. Cancer Res. 2001, 61, 4483-4489). Sharivkin et al. and Belov et al. have used antibody array procedures to screen for potential cell type-specific surface markers for human endoderm progenitors and leukemias, respectively. Although these platforms are very efficient for probing cell surface markers, they do not reveal association of specific markers with a particular function.

"Beta cell specific surface markers may facilitate identification and characterization of embryonic beta cell progenitors as well as purification of homogeneous insulin-producing cells from cultures derived from hESCs or re-differentiated beta cells. They may also allow isolation of adult beta cells, thus contributing to future diagnostic applications. One cell surface marker which might be selective for human beta cells is TMEM27. While antibodies were recently raised against this antigen (Vats et al. 2012, Diabetologia 55(9): 2407-2416), it is still unclear if they can be used to purify beta cells by flow cytometry or other methods.

"A variety of techniques have been previously employed in an attempt to isolate pancreatic beta cells. These include: genetic labeling (Meyer et al., Diabetes. 1998, 47, 1974-
1977), Newport green dye labeling (Łukowiak B et al., J Histochem Cytochem. 2001, 49, 519-528), elimination of duct cells (Banerjee and Otonkoski 2009, Diabetologia 52(4): 621-625), and the generation of hybridoma-derived antibodies which can enrich for different endocrine and non-endocrine cell types (Dorrell et al., Stem Cell Res. 2008, 1, 183-194). None of these techniques, however, relies on beta cell-specific surface markers and the isolated cell populations still exhibit an unknown degree of heterogeneity. The same lack of marker information applies to other endocrine subsets in human pancreas (i.e. alpha cells, delta cells etc.).

"There is an unmet need for robust screening procedures capable of identifying markers designating cells of desired type or function. Since tissue samples are often limited in quantity and availability, such procedures should permit functional analysis of multiple markers in parallel using small numbers of cells. Specifically, there is an unmet need for isolating insulin-producing beta cells within pancreatic tissue, for diagnostic and therapeutic uses in diabetes and other pancreatic-related disorders."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors’ summary information for this patent: "The present invention provides methods of isolation of specific populations of cells using newly identified markers and selection means. More specifically, the present invention provides efficient tag-free isolation of pancreatic cell subtypes using specific cell surface markers.

"The present invention further provides novel combinations of cell markers suitable for identifying or enriching distinct cell populations, particular distinct cell subtypes within human islets of Langerhans. Uses of the markers and of the isolated cells in diagnosis and treatment of diabetes and other pancreatic disorders are also provided, as well as methods of identifying markers for improvement of purification of beta cells from pancreatic tissue.

"Pancreatic beta cell specific surface markers are of particular interest as they may facilitate purification of mature, functional insulin-producing beta cells suitable for transplantation and/or for diagnostic applications. These markers may also be used for isolation of pluripotent or partially differentiated beta cell progenitors which may be used as an abundant source of beta cells for diabetes cell replacement therapy.

"It is now disclosed for the first time, using antibody array procedures that certain cell-surface markers, not previously identified in connection with pancreatic cells or with diabetes, are consistently expressed in human islets. These markers were utilized to fractionate distinct cell populations from human islets of Langerhans and to tag-free isolate enriched populations of insulin-producing beta cells from the tissue containing other types of cells.

"The present invention thus provides, according to one aspect, a method of isolating an enriched population of at least one distinct type of pancreatic cells from a heterogeneous population of cells, comprising sorting the cells using a combination of at least two cell-surface markers relevant to the cell type to be isolated.

"According to some embodiments the heterogeneous population of cells is selected from the group consisting of cells recovered or extracted from pancreatic tissue, committed lineages of stem cells and cultures of differentiated stem cells.

"According to various embodiments, the invention provides a method of isolating at least one distinct type of cells, wherein the at least one cell-type is selected from the group consisting of: beta cells (insulin secreting cells), delta cells (somatostatin secreting cells), alpha cells (glucagon secreting cells) and exocrine cells (trypsin secreting cells). Each possibility represents a separate embodiment of the invention.

"According to some specific embodiments, the invention provides methods of isolating beta cells or beta cell progenitors.
"The present invention provides, according to some embodiments, a method of isolating an enriched population of at least one distinct type of pancreatic cells from a heterogeneous population of cells selected from the group consisting of cells recovered or extracted from pancreatic tissue, committed lineages of stem cells and cultures of differentiated stem cells, comprising sorting the cells using a combination of at least two cell-surface markers relevant to the cell type to be isolated, wherein the at least one distinct type of cells is selected from the group consisting of: beta cells and delta cells, and wherein one cell-surface marker is CD9.

"According to some embodiments, the at least one distinct type of cells is selected from the group consisting of: beta cells and delta cells, and wherein a first cell marker is CD9.

"According to some embodiments, the beta cells are enriched for using positive sorting or selection with the cell-surface marker CD9 (NP_001760.1, human species).

"According to some embodiments, the cell surface marker CD9 is the first marker used for selection.

"According to some embodiments, the beta cells are enriched for using positive selection with a combination of the cell-surface markers CD9 and CD56.

"According to a specific embodiment, the CD56 is NP_000606.3.

"According to yet other embodiments, the beta cells are isolated using a combination of the cell-surface markers CD9 and EGFR, wherein CD9 is used for positive selection and EGFR is used for negative selection.

"According to some embodiments, the EGFR cells surface is NP_005219.2.

"According to yet other embodiments, the beta cells are isolated using positive selections with combination of the cell-surface markers CD9 and CD56 and further selection with at least one additional cell-surface marker.

"According to some embodiments, the at least one additional cell-surface marker is selected from the group consisting of: CD4, CD73, CD87, CCR4, CD165, CD85J, CD221, CD153 (CD30L), CD142, CD134, ITGB7, CD68, WNT16, CD18, CD6, CD77, CD61, and CD32. Each possibility represents a separate embodiment of the invention.

"According to some embodiments, at least one additional cell-surface marker is selected from the group consisting of: CD4 (NP_000607.1), CD73 (NP_001191742.1), CD87 (NP_002650.1), CCR4 (NP_005499.1), CD165 (Gene ID 23449), CD85J (NP_001075106.1), CD221 (NP_000866.1), CD153 (CD30L) (NP_001235.1), CD142 (NP_001171567.1), CD134 (NP_003318.1), ITGB7 (NP_000880.1), CD68 (NP_001035148.1), WNT16 (NP_057171.2), CD18 (NP_000202.2), CD6 (NP_001241679.1), CD77 (NP_059132.1), CD61 (NP_000203.2), and CD32 (NP_001002273.1). Each possibility represents a separate embodiment of the invention.

"According to yet other embodiments, the beta cells are isolated using a combination of at least two cell-surface markers wherein one marker is CD9 and at least one other marker is selected from the group consisting of: CD56 (NP_000606.3), EGFR (NP_005219.2), CD4 (NP_000607.1), CD73 (NP_001191742.1), CD87 (NP_002650.1), CCR4 (NP_005499.1), CD165 (Gene ID 23449), CD85J (NP_001075106.1), CD221 (NP_000866.1), CD153 (CD30L) (NP_001235.1), CD142 (NP_001171567.1), CD134 (NP_003318.1), ITGB7 (NP_000880.1), CD68 (NP_001035148.1), WNT16 (NP_057171.2), CD18 (NP_000202.2), CD6 (NP_001241679.1), CD77 (NP_059132.1), CD61 (NP_000203.2), and CD32 (NP_001002273.1). Each possibility represents a separate embodiment of the invention.

"According to some embodiments, the isolated beta cells are mature, functional insulin-producing cells.
According to some embodiments, the beta cells are isolated from extracts of human islets of Langerhans.

According to some embodiments, beta cells are isolated from committed lineages of stem cells and cultures of differentiated stem cells.

According to yet other embodiments, beta cells or beta cell progenitors are isolated from cultures derived from human stem cells.

According to some embodiments beta cells or beta cell progenitors are isolated from populations of human induced pluripotent stem cells.

According to other embodiments beta cells or beta cell progenitors are isolated from human adult stem cells.

According to yet other embodiments, beta cells or beta cell progenitors are isolated from human embryonic stem cells obtained by methods that do not involve the destruction of embryos.

According to other embodiments, isolated cells are selected from the group consisting of: insulin-secreting cells, somatostatin-secreting cells, trypsin-secreting cells and glucagon secreting cells.

According to some embodiments, a method for isolating glucagon-producing alpha cells is disclosed comprising using a combination of the cell surface markers CD9 and CD56 wherein the CD9 marker is used for negative selection and the CD56 is used for positive selection.

According to other embodiments, a method for isolating trypsin-producing acinar cells is disclosed comprising using a combination of the cell surface markers CD9 and CD56, wherein both markers are used for negative selection.

According to a specific embodiment the method of isolating an enriched population of at least one distinct type of pancreatic cells from a heterogeneous population of cells comprises the steps: i. obtaining a heterogeneous population of cells selected from the group consisting of cells recovered or extracted from pancreatic tissue, committed lineages of stem cells and cultures of differentiated stem cells; ii. exposing the cells obtained in (i) to a probe capable of identifying CD9+ cells and to at least one additional probe; iii. isolating cells expressing CD9 and the additional probe by sorting of cells, thereby isolating an enriched population of at least one distinct cell type selected from the group consisting of: beta cells and delta cells.

According to some embodiments, the at least one additional probe is selected from the group consisting of: CD56 (NP_000606.3), CD4 (NP_000607.1), CD73 (NP_001191742.1), CD87 (NP_002650.1), CCR4 (NP_005499.1), CD165 (Gene ID 23449), CD85J (NP_001075106.1), CD221 (NP_000866.1), CD153 (CD30L) (NP_001235.1), CD142 (NP_001171567.1), CD134 (NP_003318.1), ITGB7 (NP_000880.1), CD68 (NP_001035148.1), WNT16 (NP_057171.2), CD18 (NP_000202.2), CD6 (NP_001241679.1), CD77 (NP_059132.1), CD61 (NP_000203.2), and CD32 (NP_001002273.1). Each possibility represents a separate embodiment of the invention.

According to some embodiments, the at least one additional probe is selected from the group consisting of: CD56 (NP_000606.3), CD4 (NP_000607.1), CD73 (NP_001191742.1), CD87 (NP_002650.1), CCR4 (NP_005499.1), CD165 (Gene ID 23449), CD85J (NP_001075106.1), CD221 (NP_000866.1), CD153 (CD30L) (NP_001235.1), CD142 (NP_001171567.1), CD134 (NP_003318.1), ITGB7 (NP_000880.1), CD68 (NP_001035148.1), WNT16 (NP_057171.2), CD18 (NP_000202.2), CD6 (NP_001241679.1), CD77 (NP_059132.1), CD61 (NP_000203.2), and CD32 (NP_001002273.1). Each possibility represents a separate embodiment of the invention.

According to a specific embodiment, the at least one additional probe is CD56 used for positive selection of cells.

According to another specific embodiment, the at least one additional probe is
Epidermal Growth Factor Receptor (EGFR), used for negative selection of cells.

"According to some embodiments, the EGFR is NP_005219.2, NP_958439.1, NP_958440.1, or NP_958441.1. Each possibility represents a separate embodiment of the invention.

"According to some embodiments, purified cells of iii are subject to additional iterations comprising steps (ii)-(iii) with additional probes used for positive or negative selection of cells.

"According to some embodiments, the sorting methodology is fluorescence activated cell sorting (FACS).

"According to some embodiments, the distinct cell types are isolated from human pancreatic tissue.

"According to a specific embodiment, the cells are isolated from human islets of Langerhans.

"According to some embodiments, at least one cell-surface marker is used for positive or negative sorting of cells according to any of the methods described above, for isolating at least one distinct cell type of cells from human islets of Langerhans, wherein the at least one cell-surface marker is selected from the group consisting of: CD104, (Integrin, beta 4: AAI43739.1); CD11A, (integrin alpha-L isoform b precursor: NP_001107852.1); CD11B/MAC1, (integrin alpha-M isoform 2: NP_000623.2); CD11C, (integrin alpha-X: NP_000878.2); CD135, (Fms-related tyrosine kinase 3: AAI44041.1); CD140B, (Platelet-derived growth factor receptor, beta polypeptide: AAH32224.1); CD142, (Coagulation factor III/thromboplastin, tissue factor: AAH11029.1); CD146, (cell surface glycoprotein MUC18: NP_006491.2); CD147, (basigin: NP_940992.1); CD15, (alpha-(1,3)-fucosyltransferase: NP_002024.1); CD164, (CD164 antigen, salomucin, isoform CRA_: EAW48353.1); CD166, (Activated leukocyte cell adhesion molecule: AAH37097.1); CD177, (glycoprotein NB1: CAC83758.1); CD197, (C-C chemokine receptor type 7: NP_001829.1); CD221 3b7, (insulin-like growth factor 1 receptor: NP_000866.1); CD226, (T-cell immunoreceptor with Ig and ITIM: NP_776160.2); CD271, (tumor necrosis factor receptor superfamily member 16: NP_002498.1); CD28, (T-cell-specific surface glycoprotein isoform 2: NP_001230006.1); CD282, (toll-like receptor 2: NP_003255.2); CD29, (integrin beta-1 isoform 1A: NP_002202.2); CD3, (T-cell surface glycoprotein CD3 gamma chain: NP_000664.1); CD36, (antigen CD36: AAA58413.1); CD42b, (platelet glycoprotein 1b alpha chain: NP_000164.5); CD44, (cell surface glycoprotein CD44: AAB13625.1); CD45RB (interleukin-27 subunit alpha precursor: NP_663634.2); CD47, (leukocyte surface antigen CD47 isoform 2: NP_942088.1); CD49b, (integrin alpha-2: NP_002194.2); CD49E, (integrin alpha 5/fibronectin receptor, alpha polypeptide: AAH08786.1); CD49F, (Integrin, alpha 6: AAI36457.1); CD50, (Intercellular adhesion molecule 3: AAH58903.1); CD53, (leukocyte surface antigen CD53: NP_000551.1); CD54, (Intercellular adhesion molecule 1: AAH15969.1); CD55, (CD55 antigen, decay accelerating factor for complement/Cromer blood group, isoform CRA_i: EAW93497.1); CD57, (galactosylgalactosylxylosylprotein 3-beta-glucuronosyltransferase 1: NP_061114.2); CD59, (CD59 glycoprotein: NP_976076.1); CD61, (Integrin, beta 3/platelet glycoprotein Ma, antigen CD61: AAI27668.1); CD63, (CD63 antigen isoform A: NP_001244320.1); CD66, (integrin beta-2: NP_000202.2); CD66B, (Carcinoembryonic antigen-related cell adhesion molecule 8: AAH26263.1); CD66C, (Carcinoembryonic antigen-related cell adhesion molecule 6: AAH05008.1); CD71, (transferrin receptor protein 1: NP_001121620.1); CD81, (CD81 antigen/target of antiproliferative antibody 1: EAX02508.1); CD9, (CD9 antigen: NP_001760.1); CD90, (Thy-1 cell surface antigen: AAH65559.1); CD97, (CD97 antigen, isoform CRA_b: EAW84413.1); CD98, (cell-surface antigen heavy chain isoform c: NP_002385.3); CD99, (CD99 antigen isoform X24: XP_005274856.1); C-ERB-2, (protooncogene protein:
AAA35808.1); CLIP, (CAP-Gly domain-containing linker protein 1 isoform a: NP_002947.1); CXCXR4, (C-X-C chemokine receptor type 4 isoform a: NP_001008540.1); EGFR, (epidermal growth factor receptor variant A: ADL28125.1); HLA-A2, (MHC class I antigen HLA-A2: AAA87076.1); HLA-ABC, (MHC class I antigen, partial: AAA59602.1); HLA-DR, (MHC class II antigen: ADM15723.1); Hematopoietic progenitor cell, (KS1/4, epithelial cell adhesion: NP_002345.2); LTBR, (lymphotoxin beta receptor/TNFR superfamily, member 3: EAW88802.1); P-Glycoprotein: AAA59575.1; SCARB1, (scavenger receptor class B member 1: NP_005496.4); TROP-2 (integrin beta-1 isoform 1A: NP_596867.1); B2-microglobulin: AAA51811.1. Variants of said cell-surface markers, having different accession numbers are also included in the scope of the present invention. Each possibility represents a separate embodiment of the invention.

"According to some embodiments, the distinct cell-types are selected from the group consisting of: beta cells, delta cells, alpha cells and exocrine cells. Each possibility represents a separate embodiment of the invention.

"According to some embodiments the distinct cell type is beta cells or beta cell progenitors.

"Uses of the isolated cells for diagnosis and therapy, as well as for research, are also within the scope of the present invention.

"According to some embodiments, beta cells or beta cell progenitors, isolated according to the present invention are used for transplantation to a mammalian subject for prevention or treatment of diabetes.

"According to some embodiments, mature, functional insulin-producing beta cells, isolated according to the present invention are used for transplantation.

"According to other embodiments, beta cell progenitors, isolated from cultures derived from hESCs or re-differentiated beta cells, are used for transplantation.

"According to some embodiments, the mammalian subject is a human subject.

"A method of prevention or treatment of diabetes is also disclosed, comprising transplantation of to a mammalian subject in need thereof of a population of beta cells or beta cell progenitors isolated according to the methods of the present invention.

"According to some embodiments the mammalian subject is a human subject.

"According to some embodiments the population of beta cells comprises mature, functional insulin-producing beta cells.

"According to other embodiments, the beta cell progenitors were isolated from culture derived from hESCs or re-differentiated beta cells.

"According to other embodiments, the isolated cells are used for diagnostic applications or for development of diagnostic tools.

"According to some embodiments isolated cells according to the present invention are used to quantify the number and state of beta cells in subjects in need thereof, thus allowing detection of diabetes prior to the onset of hyperglycemia symptoms.

"According to other embodiments, embryonic stem cells or partially differentiated stem cells or beta cell progenitors isolated according to the present invention are used as a source of beta cells for diabetes cell replacement therapy.

"According to some embodiments, said embryonic stem cells comprise human cells obtained only by methods that that do not involve the destruction of embryos.

"According to yet other embodiments, isolated beta cells are used in research to study differentiation pathways that leads embryonic stem cells to become insulin-producing beta
"The present invention also provides a functional screening method for identifying cell-surface marker combinations suitable of purifying or enriching a population of cells within heterogeneous populations of cells, the method comprises the steps of: i. obtaining a heterogeneous population of cells; ii. applying the heterogeneous cells of (i) to an array comprising antibodies against cell-surface markers, to allow binding of cells to the array; iii. immunostaining the bound cells of (ii) with antibodies specific for a functional marker thereby identifying antibody stained loci enriched for functional cells; and iv. determining the cell-surface markers at the loci enriched for the functional cells of (iii).

"According to some embodiments, the method comprises fixing and permeabilizing the cells before immunostaining of (iii).

"According to some embodiments, cells obtained in (i) are isolated based on a relevant marker, before performing step (ii).

"According to some specific embodiments, isolation is performed by fluorescence activated cell sorting (FACS).

"According to some embodiments, marker combination is used for improving the degree of purity of cell isolation or for fractionation of heterogeneous cellular systems.

"According to some embodiments the functional screening method is used for identifying cell-surface marker combinations suitable of purifying enriched population of insulin-producing beta cells within pancreatic tissue, wherein the method comprises the following steps: i. obtaining a heterologous population of cells selected from the group consisting of cells recovered or extracted from pancreatic tissue, committed lineages of stem cells and cultures of differentiated stem cells; ii. isolating CD9+ cells from the cells obtained in (i); iii. applying the CD9+ cells of (ii) to an array comprising antibodies against cell-surface markers; iv. immunostaining the bound cells of (iii) with antibodies against insulin and somatostatin thereby identifying antibody stained loci enriched for beta and delta cells; and v. determining the cell-surface markers of the loci enriched for beta cells in (iv).

"According to other embodiments, the functional screening method is used for identifying cell-surface markers suitable of purifying enriched populations of cells selected from the group consisting of: pancreatic exocrine cells, pancreatic endocrine cells such as beta cells, alpha cells and non-pancreatic cells such as blood cells.

"According to some specific embodiments, the functional screening method is used for identifying further cell-surface markers suitable of purifying enriched populations of cells selected from the group consisting of: insulin-secreting cells, somatostatin-secreting cells, trypsin-secreting cells and glucagon secreting cells. Each possibility represents a separate embodiment of the invention.

"Further embodiments and the full scope of applicability of the present invention will become apparent from the detailed description given hereinafter. However, it should be understood that the detailed description and specific examples, while indicating preferred embodiments of the invention, are given by way of illustration only, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description."

Keywords for this news article include: Antibodies, Pharmaceuticals, Trypsin, Genetics, Cytometry, Integrins, Chemokines, Leukocytes, Proinsulin, Proteomics, Proglucagon, Epidemiology, Somatostatin, Immune System, Neuropeptides, Blood Proteins, Glycoconjugates, Immunoglobulins, Type 1 Diabetes, Type 2 Diabetes, Gastroenterology, Peptide Hormones, Peptide Proteins.

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CARDIAC DIMENSIONS PTY. LTD.

Patent Issued for Mitral Valve Annuloplasty Device with Twisted Anchor (USPTO 9526616)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Nieminen, Gregory (Bothell, WA); Thaler, Carly A. (Seattle, WA), filed on July 17, 2006, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9526616 is assigned to CARDIAC DIMENSIONS PTY. LTD. (Kirkland, WA).

The following quote was obtained by the news editors from the background information supplied by the inventors: "This invention relates generally to devices and methods for shaping tissue by deploying one or more devices in body lumens adjacent to the tissue. One particular application of the invention relates to a treatment for mitral valve regurgitation through deployment of a tissue shaping device in the patient's coronary sinus or great cardiac vein.

"The mitral valve is a portion of the heart that is located between the chambers of the left atrium and the left ventricle. When the left ventricle contracts to pump blood throughout the body, the mitral valve closes to prevent the blood being pumped back into the left atrium. In some patients, whether due to genetic malformation, disease or injury, the mitral valve fails to close properly causing a condition known as regurgitation, whereby blood is pumped into the atrium upon each contraction of the heart muscle. Regurgitation is a serious, often rapidly deteriorating, condition that reduces circulatory efficiency and must be corrected.

"Two of the more common techniques for restoring the function of a damaged mitral valve are to surgically replace the valve with a mechanical valve or to suture a flexible ring around the valve to support it. Each of these procedures is highly invasive because access to the heart is obtained through an opening in the patient's chest. Patients with mitral valve regurgitation are often relatively frail thereby increasing the risks associated with such an operation. A device to perform mitral valve annuloplasty is therefore needed that can be implanted percutaneously without opening the chest wall."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: "One aspect of the invention provides a tissue shaping device (such as a percutaneous mitral valve annuloplasty device) adapted to be deployed in a vessel to reshape tissue adjacent the vessel. The device comprises a first anchor and a second anchor adapted to be deployed by a catheter to engage a vessel wall, wherein the first anchor includes a shaping feature adapted to resist the compression of a first part of the first anchor and resist the expansion of a second part of the first anchor in response to a compressive force on the first part, and a support structure disposed between and operatively connecting the first anchor and the second anchor. In some embodiments the
anchors are adapted to engage a coronary sinus.

"In some embodiments the first anchor comprises two entwisted wire segments, possibly arranged in a figure-8 configuration having first and second arms coupled at least one coupling point (formed from, e.g., entwisted wire) as the shaping feature. In some embodiments, the coupling point is substantially at an apex of the first anchor when the anchor is in its deployed configuration. In some embodiments, the anchor's width is greater than its height in its deployed configuration.

"In some embodiments the device also includes an anchor lock adapted to lock the first anchor and/or the second anchor in an expanded configuration. In some embodiments the device has a coupler, which may include a tether and a hitch wire, which is adapted to couple the device to a delivery tool. In some embodiments the coupler is further adapted to release the device from the delivery tool. In some embodiments the device is adapted to be recaptured by the catheter.

"One aspect of the invention is a method of performing mitral valve annuloplasty on a patient's heart. The method comprises percutaneously delivering a mitral valve annuloplasty device to a vessel in the patient's heart, where the device comprises first and second anchors and a support structure disposed between and operatively connecting the first and second anchors, anchoring the first anchor of the mitral valve annuloplasty device in the vessel, resisting compression of a first part of the first anchor and resisting expansion of a second part of the first anchor in response to a compressive force on the first part, and anchoring the second anchor of the mitral valve annuloplasty device.

"In some embodiments the first anchoring step comprises expanding the first anchor from a delivery configuration to a deployed configuration in which the first anchor engages the coronary sinus. In some embodiments, the anchor's width in the deployed configuration is greater than its height. In some embodiments the method includes locking the first anchor in the deployed configuration.

"In some embodiments of the method the second anchoring step includes expanding the second anchor from a delivery configuration to a deployed configuration in which the second anchor engages the coronary sinus. In some embodiments the method includes locking the second anchor in the deployed configuration.

"In some embodiments the method includes capturing the first anchor and/or the second anchor within the catheter after the first anchoring step. The capturing step may include advancing a catheter distally over the anchor to place the anchor inside the catheter in the delivery configuration.

"In some embodiments the method includes applying a proximally directed force on the mitral valve annuloplasty device after the first anchoring step. In some embodiments the method includes uncoupling the device from a delivery tool after the second anchoring step. The uncoupling may comprise releasing a hitch wire from the device and removing a tether from the device."


Keywords for this news article include: Cardiology, Annuloplasty, CARDIAC DIMENSIONS PTY. LTD..

Our reports deliver fact-based news of research and discoveries from around the
Patent Issued for N-BOC-Dendrimers and Their Conjugates (USPTO 9526795)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventor Van, Sang (San Diego, CA), filed on August 27, 2013, was published online on December 27, 2016.

The assignee for this patent, patent number 9526795, is Annam Biosciences, LLC (San Diego, CA).

Reporters obtained the following quote from the background information supplied by the inventors: "Field of the Invention
"The present invention relates to a composition for enhancing drug delivery, imaging resolution and/or affinity. More specifically, the present invention relates to a composition comprising mono-protected Boc-dendrimers and their conjugates.

"Description of the Related Art
"Cancer continues to be a significant health problem in our society and the number of cases per year is increasing as the population ages. Cancer is likely to impact 1 in 3 of us. According to the American Cancer Society's annual cancer statistics report, 'Cancer Statistics, 2013,' 1.6 million Americans will be diagnosed with invasive cancer in 2013, and 0.5 million Americans will die from cancer this year. Cytotoxic agents are currently the major chemotherapeutic treatment modality for most types of cancer. However, current cancer chemotherapeutic treatments remain inherently toxic and have severe side effects.

"The role of magnetic resonance imaging (MRI) in the diagnosis and evaluation of cancer continues to evolve and become important because it is non-invasive and non-irradiating. See Bulte et al. 'Magnetic resonance microscopy and histology of the CNS,' Trends in Biotechnology, 2002, 20, S24-S28. Although images of tissues can be obtained, contrast agents significantly improve MRI resolution. A current FDA-approved MRI contrast agent is Gd-DTPA, commercialized as MAGNEVIST.RTM. gadopentetate dimeglumine Caravan et al. reported other Gd-chelates that are under development, see Caravan et al. 'Gadolinium(III) Chelates as MRI Contrast Agents: Structure, Dynamics, and Applications,' Chem. Rev. 1999, 99, 2293-2352. Similar to chemotherapeutic agents, currently approved contrast agents are also nonselective.

"The folate-receptor (FR) is overexpressed on a number of major malignancies including adenocarcinoma of the lung and ovarian cancer, see Pribble P, Edelman M J. EC145: a novel targeted agent for adenocarcinoma of the lung. Expert Opin Investig Drugs. 2012; 21 (5):755-61. However, relatively few small molecule drug conjugates with folic acid have been investigated since Dr. Fuchs's group at University of Purdue reported that Taxol-folic acid conjugates failed to demonstrate selective killing of folate receptor-expressing tumor cells in vitro or enhanced in vivo antitumor activity over Taxol when administered in an equimolar quantity formulated in the same injection vehicle. See Lee J W, Lu J Y, Low P S, Fuchs P L. Synthesis and evaluation of taxol-folic acid conjugates as targeted antineoplastics. Bioorg Med Chem. 2002, 10, 2397-414.

"U.S. Pat. No. 7,128,893 disclosed vitamin-targeted imaging agents coupled via a
divalent linker (vitamin-linker-imaging agent); U.S. Pat. No. 7,601,332 disclosed a vitamin-targeted drug delivery conjugate via a divalent linker (vitamin-linker-drug).

"Relatively few multi-valent linker platforms have been reported. See the following U.S. patents: U.S. Pat. No. 4,435,548; U.S. Pat. No. 4,507,466; U.S. Pat. No. 4,558,120; U.S. Pat. No. 4,568,737; U.S. Pat. No. 4,587,329; U.S. Pat. No. 4,871,779; U.S. Pat. No. 4,631,337. U.S. Pat. No. 5,714,166, disclosed bioactive and/or targeted dendrimer conjugates. However, when a drug is conjugated to a dendrimer and followed by conjugation of a vitamin, a number of species result because it is difficult to control the location and the amount of the drug and the vitamin on the dendrimer. See Majoros I J, Myc A, Thomas T, Mehta C B, Baker J R. PAMAM Dendrimer-Based Multifunctional Conjugate for Cancer Therapy: Synthesis, Characterization, and Functionality. Biomacromolecules 2006, 7, 572-579.

"Despite billions of dollars poured every year into developing better treatment options, there is an urgent need for safer and more effective therapies."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventor's summary information for this patent: "An embodiment provides an asymmetrical dendritic compound represented by the Formula (I): R.sup.1--X.sup.1--NH-L-Gn-(NH--X.sup.2--R.sup.2).sub.m (I)

"wherein: Gn is a dendritic PAMAM group, having a core group and a shell group, for which n is zero or an integer in the range of 1 to 3 that specifies the generation of the dendritic PAMAM group; R.sup.1--X.sup.1--NH-L is a group attached to the core group, wherein R.sup.1 is selected from H, NH.sub.2NH, CO.sub.2C(CH.sub.3).sub.3, a maleimide group, a targeting ligand, a drug, an imaging agent; X.sup.1 is absent or selected from C.sub.1-4 alkylene and C.sub.1-8 alkyleneoxide; and L is absent or selected from C.sub.1-4 alkylene and C.sub.1-8 alkyleneoxide; (NH--X.sup.2--R.sup.2).sub.m is a terminal group attached to the shell group, wherein m is 2, 4, 8 or 16 and specifies the number of the attached NH--X.sup.2--R.sup.2 terminal groups; each X.sup.2 is independently selected from C.sub.1-4 alkylene, succinimidyl, C.sub.1-8 alkyleneoxide, C.sub.1-4 alkylene, C.sub.1-8 alkyleneoxide, C.sub.1-4 alkylene, C.sub.1-8 alkyleneoxide, C.sub.1-4 alkylene, C.sub.1-8 alkyleneoxide, C.sub.1-4 alkylene, C.sub.1-8 alkyleneoxide, NH--C.sub.1-4 alkylene-NH, C.sub.1-8 alkylene-NH, C.sub.1-4 alkylene-NH, C.sub.1-8 alkylene-NH, and each R.sup.2 is independently selected from H, hydroxyl, a maleimide group, a succinimide group, a targeting ligand, a drug, an imaging agent; each a is independently an integer in the range of 1 to 4; and each R.sup.2 is different from R.sup.1.

"Another embodiment provides an asymmetrical dendritic compound as described herein that is represented by the Formulae (Ia), (Ib), (Ic) or (Id) as follows:

"##STR00001## ##STR00002##

"Another embodiment provides an asymmetrical dendritic compound as described herein in which R.sup.1 is selected from the group consisting of H, CO.sub.2C(CH.sub.3).sub.3, and maleimide.

"Another embodiment provides an asymmetrical dendritic compound as described herein in which R.sup.2 comprises a targeting ligand.

"Another embodiment provides an asymmetrical dendritic compound as described herein in which the targeting ligand is selected from the group consisting of folic acid, mannose, anisamide, RGD peptide, NGR peptide, galactosamine, antibody, antibody fragment, and protein.

"Another embodiment provides an asymmetrical dendritic compound as described herein in which R.sup.2 comprises an imaging agent.

"Another embodiment provides an asymmetrical dendritic compound as described herein in which the imaging agent is selected from the group consisting of a Gadolinium (III)-
chelate, a Technetium(99m)-chelate, a Gallium-chelate, and a Thallium-chelate.

"Another embodiment provides an asymmetrical dendritic compound as described herein in which the imaging agent is selected from the group consisting of $^{64}$Cu diacetyl-bis(N.sup.4-methylthiosemicarbazone), $^{18}$F-fluorodeoxyglucose, 3'-deoxy-3'-(.$sup.18$F) fluorothymidine, and $^{18}$F-fluoromisonidazole.

"Another embodiment provides an asymmetrical dendritic compound as described herein in which R.sup.2 comprises a drug.

"Another embodiment provides a therapeutic agent represented by the Formula (I), wherein: Gn is a dendritic PAMAM group, having a core group and a shell group, for which n is zero or an integer in the range of 1 to 3 that specifies the generation of the dendritic PAMAM group; R.sup.1--X.sup.1--NH-L is a group attached to the core group, wherein R.sup.1 is selected from a targeting ligand, an anticancer drug, and an imaging agent; X.sup.1 is absent or selected from C(.dbd.O)(CH.sub.2).sub.aC(.dbd.O), C.sub.1-4 alkylene and C.sub.1-8 alkyleneoxide; and L is absent or selected from C.sub.1-4 alkylene and C.sub.1-4 alkyleneoxide; (NH--X.sup.2--R.sup.2).sub.m is a terminal group attached to the shell group, wherein m is 2, 4, 8 or 16 and specifies the number of the attached NH--X.sup.2--R.sup.2 terminal groups; each X.sup.2 is independently absent or a linker selected from C.sub.1-4 alkylene, succinimidyl, C.sub.1-8 alkyleneoxide, C(.dbd.O)(CH.sub.2).sub.aC(.dbd.O), C(.dbd.O)(CH.sub.2).sub.aC(.dbd.O)--NH--C.sub.1-4alkylene-NH, C(.dbd.O)(CH.sub.2).sub.aC(.dbd.O)--NH--C.sub.1-8alkyleneoxide-NH; each R.sup.2 is independently selected from a targeting ligand, an anticancer drug, and an imaging agent; and each a is independently an integer in the range of 1 to 4; and each R.sup.2 is different from R.sup.1.

"Another embodiment provides a therapeutic agent as described herein in which one of R.sup.1 and R.sup.2 comprises a targeting ligand and the other of R.sup.1 and R.sup.2 comprises an anticancer drug or an imaging agent.

"Another embodiment provides a therapeutic agent as described herein in which R.sup.1 comprises an anticancer drug.

"Another embodiment provides a therapeutic agent as described herein in which the anticancer drug is selected from the group consisting of doxorubicin, platinum, paclitaxel, docetaxel, combretastin A-4, vinblastine, vincristine, vinorelbine, camptothecin, SN-38, etoposide, teniposide, auristatin, calicheamicin, maytansinoid, and duocarmycin.

"Another embodiment provides a therapeutic agent as described herein in which R.sup.1 comprises an anticancer drug and R.sup.2 comprises a folic acid targeting ligand.

"Another embodiment provides a therapeutic agent as described herein in which the imaging agent is selected from the group consisting of a Gadolinium (III)-chelate, a Technetium (99m)-chelate, a Gallium-chelate, and a Thallium-chelate.

"Another embodiment provides a therapeutic agent as described herein in which the imaging agent is selected from the group consisting of $^{64}$Cu diacetyl-bis(N.sup.4-methylthiosemicarbazone), $^{18}$F-fluorodeoxyglucose, 3'-deoxy-3'-(.$sup.18$F) fluorothymidine, and $^{18}$F-fluoromisonidazole.

"Another embodiment provides a method of delivering a therapeutic agent to a cell, comprising contacting the cell with a therapeutic agent as described herein. In an embodiment, the contacting is conducted in vitro. In another embodiment, the contacting is conducted in vivo.

"Another embodiment provides a method of treating cancer, comprising identifying a
patient in need of cancer treatment and administering a therapeutically effective amount of a therapeutic agent as described herein.

"Another embodiment provides a therapeutic agent as described herein for use in the treatment of cancer.

"Another embodiment provides the use of a therapeutic agent as described in the manufacture of a medicament for the treatment of cancer.

"Some embodiments disclosed herein relate to a N-Boc-dendrimer. Other embodiments disclosed herein relate to N-Boc-dendrimer with generation 0 (G0). Other embodiments disclosed herein related to N-Boc-dendrimers with generations 1 (G1), 2 (G2), 3 (G3), and 4 (G4).


"Some embodiments of the compositions disclosed herein relate to N-Boc-dendrimer that can include two targeting ligands. The targeting ligand is selected from the group consisting of folic acid, mannose, anisamide, RGD peptide, NGR peptide, galactosamine, antibody, antibody fragments, and protein. Other embodiments of the compositions disclosed herein relate to N-Boc-dendrimer that can include four targeting ligands. Other embodiments of the compositions disclosed herein relate to N-Boc-dendrimer that can include eight targeting ligands. Other embodiments of the compositions disclosed herein relate to N-Boc-dendrimer that can include sixteen targeting ligands. Other embodiments of the compositions disclosed herein relate to N-Boc-dendrimer that can include thirty-two targeting ligands.

"Some embodiments of the compositions disclosed herein relate to dendrimer that can include an imaging agent and two targeting ligands. The imaging agent can be selected from optical imaging agent and magnetic resonance imaging, and the targeting ligand is selected from the group consisting of folic acid, mannose, anisamide, RGD peptide, NGR peptide, galactosamine, antibody, antibody fragments, and protein. Other embodiments of the compositions disclosed herein relate to dendrimer that can include an imaging agent and four targeting ligands. Other embodiments of the compositions disclosed herein relate to dendrimer that can include an imaging agent and sixteen targeting ligands. Other embodiments of the compositions disclosed herein relate to dendrimer that can include thirty-two targeting ligands.

"Some embodiments described herein relate to a method of imaging a tumor that can include administering an effective amount of a dendrimer that includes an imaging contrast agent and two targeting ligands described herein. The targeting ligand is selected from the group consisting of folic acid, mannose, anisamide, RGD peptide, NGR peptide, galactosamine,
antibody, antibody fragments, and protein. Other embodiments described herein relate to a method of imaging a tumor using a dendrimer that includes an imaging contrast agent and four targeting ligands. Still other embodiments described herein relate to a method of imaging a tumor using a dendrimer that includes an imaging contrast agent and eight targeting ligands. Still other embodiments described herein relate to a method of imaging a tumor using a dendrimer that includes an imaging contrast agent and sixteen and thirty-two targeting ligands.

"Some embodiments described herein relate to a method of treating a tumor that can include administering an effective amount of a dendrimer that includes a drug and two targeting ligands described herein. The targeting ligand is selected from the group consisting of folic acid, mannose, anisamide, RGD peptide, NGR peptide, galactosamine, antibody, antibody fragments, and protein. Other embodiments described herein relate to a method of treating a tumor using a dendrimer that includes a drug and four targeting ligands. Still other embodiments described herein relate to a method of treating a tumor using a dendrimer that includes a drug and eight targeting ligands. Still other embodiments described herein relate to a method of treating a tumor using a dendrimer that includes a drug and sixteen targeting ligands. Still other embodiments described herein relate to a method of treating a tumor using a dendrimer that includes a drug and thirty-two targeting ligands.

Another embodiment described herein relates to a method of making the dendrimer that includes an imaging agent with two targeting ligands, four targeting ligands, eight targeting ligands, sixteen, or thirty-two targeting ligands comprising the steps of at dissolving N-Boc-dendrimer described herein in an aprotic solvent (e.g. DMF, DCM, or DMSO), and coupling with two targeting ligands, four targeting ligands, eight targeting ligands, sixteen, or thirty-two targeting ligands; then deprotect the Boc protecting group-dendrimer-two targeting ligands, four targeting ligands, eight targeting ligands, sixteen, or thirty-two targeting ligands, respectively, with trifluoroacetic acid and follow with a coupling of an imaging agent.

Another embodiment described herein relates to a method of making the dendrimer that includes an imaging agent with two targeting ligands, four targeting ligands, eight targeting ligands, sixteen targeting ligands, thirty-two ligands comprising the steps of at dissolving N-Boc-dendrimer described herein in an aprotic solvent (e.g. DMF or DMSO), and coupling with two targeting ligands, four targeting ligands, eight targeting ligands, sixteen, or thirty-two targeting ligands; then deprotect the Boc protecting group-dendrimer-two targeting ligands, four targeting ligands, eight targeting ligands, sixteen, or thirty-two targeting ligands, respectively, with trifluoroacetic acid and follow with coupling of an anticancer drug. The drug is selected from the group consisting of doxorubicin, platinum, SN-38, paclitaxel, docetaxel, combretastatin A-4, vinblastine, vincristine, vinorelbine, camptothecin, etoposide, teniposide, auristatin, calicheamicin, maytansinoid, and duocarmycin. The targeting ligand is selected from the group consisting of folic acid, mannose, anisamide, RGD peptide, NGR peptide, galactosamine, antibody, antibody fragments, and protein.

Some embodiments of the compositions disclosed herein relate to dendrimer that can include a maleimide group and two anticancer drugs. For example, the drug is selected from a group of doxorubicin, platinum, SN-38, paclitaxel, docetaxel, combretastatin A-4, vinblastine, vincristine, vinorelbine, camptothecin, etoposide, teniposide, auristatin, calicheamicin, maytansinoid, and duocarmycin. The targeting ligand is selected from the group consisting of folic acid, mannose, anisamide, RGD peptide, NGR peptide, galactosamine, antibody, antibody fragments, and protein. Other embodiments of the compositions disclosed herein relate to dendrimer that can include a drug and four targeting ligands. Other embodiments of the compositions disclosed herein relate to dendrimer that can include a drug and eight targeting ligands. Other embodiments of the compositions disclosed herein relate to dendrimer that can include a drug and sixteen and thirty-two targeting ligands.
Another embodiment described herein relates to a method of making the dendrimer that includes a maleimide group and two anticancer drugs, four anticancer drugs, eight anticancer drugs, sixteen, or thirty-two anticancer drugs comprising the steps of at dissolving N-Boc-dendrimer described herein in an aprotic solvent (e.g. DMF, DCM, or DMSO), and coupling with two anticancer drugs, four anticancer drugs, six anticancer drugs, sixteen, or thirty-two anticancer drugs; then deprotect the Boc protecting group-dendrimer-two anticancer drugs, four anticancer drugs, six anticancer drugs, sixteen, or thirty-two anticancer drugs with trifluoroacetic acid (TFA) and follow with coupling of a maleimide group.

"These and other embodiments are described in greater detail below."


Keywords for this news article include: Antibiotics - Antineoplastics, Antibodies, Pharmaceuticals, Taxoids, Maleates, Oncology, Peptides, Terpenes, Folic Acid, Immunology, Maleimides, Proteomics, Hydrocarbons, Naphthalenes, Imaging Agent, Taxol Therapy, Blood Proteins, Cancer Therapy, Cycloparaffins, Immunoglobulins, Medical Devices, Podophyllotoxin.

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Savage River, Inc.

Patent Issued for Nutrient-Dense Meat Structured Protein Products (USPTO 9526267)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventors Anderson, David (Agoura Hills, CA); Fuller, Justin (Columbia, MO); Geistlinger, Timothy (Oakland, CA), filed on April 15, 2015, was published online on December 27, 2016.

The patent's assignee for patent number 9526267 is Savage River, Inc. (El Segundo, CA).

News editors obtained the following quote from the background information supplied by the inventors: "A large number of individuals around the world follow vegetarian or vegan diets. Their dietary choices are motivated either by necessity (e.g., scarcity of resources, allergies or intolerances to animal-derived food products) or by ethical or health concerns (e.g., desire to take better care of the earth's resources and environment, concern about how farm animals are treated, fear of antibiotics and growth stimulants in animal products and of animal-born diseases, and understanding of the health advantages associated with plant-based diets).

"Vegetarian diets are associated with the many health benefits that a higher dietary content of fiber, folic acid, vitamins C and E, potassium, magnesium, many phytochemicals, as well as a lower dietary content of sugar, cholesterol, and hydrogenated or trans fats bring. Vegan diets contain even less saturated fat and cholesterol and even more dietary fiber.

"However, vegetarian and vegan diets are also associated with an increased risk of certain nutritional deficiencies. As a result, vegetarians and vegans are advised to supplement their plant-based diets with nutrients that are not readily available from plant sources but
necessary to meet physiological requirements, such as vitamins B-12 and D, calcium, zinc, iron, and long-chain n-3 (omega-3) fatty acids. They are also advised to ensure adequate protein intake.

"The need for protein and other essential nutrients not readily obtained from plant sources is generally satisfied by vegetarian and vegans by consuming nutrient fortified protein-rich non-animal derived foods, snack bars, drink mixes, and concentrated supplements in tablet or liquid form. Fortified foods and supplements are sold widely, and are also used by many athletes and non-vegetarians/-vegans who are concerned with eating a well-balanced, nutrient-dense diet to enhance their physical and mental performance. The available drink mixes and snack bars are, however, generally only eaten between and in addition to regular meals. No center-plate food item is presently available that can provide the supplemental nutrition sought by vegetarians and vegans.

"Therefore, there exists a need for nutrient-dense center-plate food items that provide vegetarians/vegans and non-vegetarians/-vegans both a regular non-animal protein source and the supplemental nutrients a plant-based diet cannot adequately provide. The present invention provides such nutrient-dense meat structured protein products, as well as cost-effective methods and processes for their production."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "One aspect of the present invention provides nutrient-dense meat structured protein products that comprise at least 30% by weight of water, at least 5% by weight of non-animal protein material, substantially aligned protein fibers, and essential nutrients such as iron, omega-3 fatty acids, calcium, antioxidants, and vitamin B-12.

"Another aspect of the present invention provides processes for producing the nutrient-dense meat structured protein products. In some embodiments, the processes comprise the steps of combining a non-animal protein material and water with at least one heat stable nutrient to form a dough; shearing and heating the dough so as to denature the proteins in the protein material and to produce protein fibers that are substantially aligned in a fibrous structure; and setting the dough to fix the fibrous structure previously obtained. In other embodiments, the processes comprise the steps of combining a non-animal protein material and water to form a dough; shearing and heating the dough so as to denature the proteins in the protein material and to produce protein fibers that are substantially aligned in a fibrous structure; setting the dough to fix the fibrous structure previously obtained, thereby obtaining a protein fibrous product; and subjecting the protein fibrous product to at least one post-processing step that involves addition of an essential nutrient to the meat structured protein products.

"Yet another aspect of the present invention provides nutrient-dense condiments that comprise essential nutrients, in particular non-heat stable nutrients such as omega-3 fatty acids, antioxidants, and vitamin B-12.

"Yet another aspect of the present invention provides packaged food products that comprise meat structured protein products or nutrient-dense meat structured protein products in combination with condiments or nutrient-dense condiments."

For additional information on this patent, see: Anderson, David; Fuller, Justin; Geistlinger, Timothy. Nutrient-Dense Meat Structured Protein Products. U.S. Patent Number 9526267, filed April 15, 2015, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahm1%2FPTO%2Fsrchnum.htm&r=1&f=G&d=50&s1=9526267.PN.&OS=PN/9526267&RS=PN/9526267

Keywords for this news article include: Savage River Inc.
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Macau University of Science and Technology

**Patent Issued for Oncogenic ROS1 Kinase Inhibitor (USPTO 9526722)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventors Yao, Xiao Jun (MO, MO); Leung, Lai Han (MO, MO); Luo, Lian Xiang (MO, MO); Zhou, Yan Ling (MO, MO); Liu, Liang (MO, MO), filed on June 19, 2015, was published online on December 27, 2016.

The assignee for this patent, patent number 9526722, is Macau University of Science and Technology (Macau, CN).

Reporters obtained the following quote from the background information supplied by the inventors: "Receptor tyrosine kinases (RTKs) are vital mediators of extracellular signals, which direct cell growth, survival and motility pathways. Several pathogenesis including chromosomal rearrangements, gene amplification, and point mutations result in abnormal and constitutive RTK activation which is in turn responsible for initiation and progression of many cancers, including non-small cell lung cancer (NSCLC). The first targetable fusion gene of RTK identified in NSCLC is Echinoderm microtubule associated protein like 4 ((EML4)-ALK). Oncogenic c-ros oncogene1 (ROS1) RTK is later reported to be fused with other forms of lung constitutive expressed 5' or 3'-fusion gene partners in NSCLC. Approximately 1.about.2% of NSCLC patients harbor multiple kinds of ROS1 chromosome rearrangement. Recent developments in targeted-based therapies have led to a major paradigm shift in oncology. Small-molecule tyrosine kinase inhibitors are applied to treat cancer patients who have tyrosine kinase gene fusions. Several tyrosine kinase inhibitors have been shown to have promising effect in the clinical practice. For example, Crizotinib, a potent ATP-competitive small molecule inhibitor of ALK, have now been approved by the FDA for treating NSCLC patients that are ALK rearrangement-positive. Crizotinib displays marked anti-tumor activity both in vitro and in vivo as well as in clinical practices. Since the tyrosine kinase domains of ALK and ROS1 are very similar, with 77% identity within the ATP-binding sites, most ALK inhibitors have cross activity against ROS1. In one early clinical trial of crizotinib to treat NSCLC patients harboring ROS1 rearrangements, the objective response rate was 72%, the median duration of response was 17.6 months and median progression-free survival was 19.2 months. Although most patients with ROS1-positive NSCLC exhibit substantial clinical benefit from Crizotinib, the efficacy of Crizotinib is limited by the development of acquired drug resistance. Accordingly, there is a need for new compound targeting ROS1 for cancer treatment."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventors' summary information for this patent: "The first aspect of the present invention relates to a compound having structure of "##STR00001##"The second aspect of the present invention relates to a composition comprising the compound of Formula I. One embodiment of the second aspect of the present invention relates to use of the composition comprises the compound of Formula I to inhibit activity of oncogene receptor tyrosine kinase (ROS1). The composition inhibits ROS1 kinase activity and suppresses phosphorylation of ROS1, as well as anti-apoptotic and growth signaling downstream to ROS1. "The third aspect of the present invention relates to a method of treating cancer.
comprising administering a composition comprises a compound of Formula I to a subject in need thereof. The subject in need thereof is a subject having an abnormality in ROS1 gene. The abnormality of ROS1 gene may be ROS1 chromosome rearrangement and/or ROS1 gene fusion. The subject in need thereof is ROS1-positive NSCLC individual. In one embodiment of the third aspect of the present invention, the cancer treated is non-small cell lung cancer (NSCLC).

"Those skilled in the art will appreciate that the invention described herein is susceptible to variations and modifications other than those specifically described.

"The invention includes all such variation and modifications. The invention also includes all of the steps and features referred to or indicated in the specification, individually or collectively, and any and all combinations or any two or more of the steps or features.

"Unless otherwise defined, all technical terms used herein have the same meaning as commonly understood to one of ordinary skill in the art to which the invention belongs.

"Other and advantages of the invention will be apparent to those skilled in the art from a review of the ensuing description."

For more information, see this patent: Yao, Xiao Jun; Leung, Lai Han; Luo, Lian Xiang; Zhou, Yan Ling; Liu, Liang. Oncogenic ROS1 Kinase Inhibitor. U.S. Patent Number 9526722, filed June 19, 2015, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2 Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9526722.PN.&OS=PN/9526722RS=PN/9526722

Keywords for this news article include: Cancer, Genetics, Oncology, Proteins, Proteomics, Tyrosine Kinase, Aromatic Amino Acids, Enzymes and Coenzymes, Macau University of Science and Technology.

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ForSight Vision4, Inc.

Patent Issued for Ophthalmic Implant for Delivering Therapeutic Substances (USPTO 9526654)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- ForSight Vision4, Inc. (Menlo Park, CA) has been issued patent number 9526654, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Erickson, Signe (Menlo Park, CA); Campbell, Randolph E. (Menlo Park, CA); Doud, Darren (Menlo Park, CA).

This patent was filed on March 27, 2014 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Diseases that affect vision can be treated with a variety of therapeutic agents, but the delivery of drugs to the eye continues to be challenging. Injections of therapeutic via the eye can be painful, involve some risk of infection, hemorrhage and retinal detachment. Depending on the frequency, intra-ocular injections can be time-consuming for both patient and physician. Consequently, in at least some instances the drug may be administered less often than the prescribed frequency resulting in sub-optimal treatment benefit. Further, bolus intra-ocular injections may not provide the ideal pharmacokinetics and
pharmacodynamics. A bolus injection of drug into the vitreous humor of a patient can result in a peak drug concentration several times higher than the desired therapeutic amount and then before the patient is able to get the next injection drop to a drug concentration that is far below therapeutic effectiveness."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors’ summary information for this patent: "In one aspect, disclosed is an implantable therapeutic device to treat a patient. The device includes a hollow refillable housing for implantation within the posterior segment of an eye through a penetration in the sclera of the eye. The housing has a proximal end region. A proximal retention structure protrudes outward from the proximal end region and has an access portion opening. A penetrable barrier is positioned at least in part within the access portion opening and is configured to be repeatedly penetrated. A rigid porous structure is positioned within a region of the housing away from the access portion opening. A reservoir chamber extends along an axis between the penetrable barrier and the porous structure. The reservoir chamber includes a volume sized to deliver therapeutic amounts of a therapeutic agent to the eye for an extended period of time. The access portion opening opens into the reservoir chamber. A cover is coupled to at least an upper surface of the proximal retention structure.

"In some variations, one or more of the following can optionally be included in any feasible combination in the above methods, apparatus, devices, and systems.

"The access portion opening can be over-molded by the cover. The cover can encapsulate and bond the proximal retention structure and an upper surface of the penetrable barrier can be positioned within the access portion opening. The cover can encapsulate and bond to at least an upper surface of the proximal retention structure. The cover can encapsulate and bond to a lower surface of the proximal retention structure. The cover can maintain a seal of the reservoir chamber volume. The cover and the proximal retention structure can have the same shape profile. The cover and the penetrable barrier can be penetrated during filling of the reservoir chamber. The cover and the penetrable barrier can be configured to reseal after penetration of the reservoir chamber. The proximal retention structure can include one or more through-holes. The penetrable barrier can be pre-molded and the cover can be over-molded. The penetrable barrier can be of a soft, high strength material and the cover can be a high durometer material. The cover can be a translucent material. The device can further include an anchor positioned within the access portion opening and in contact with at least a portion of the penetrable barrier. The penetrable barrier can further include a distal region that is flared and positioned within a proximal end region of the reservoir chamber.

"In an interrelated aspect, disclosed is an implantable therapeutic device to treat a patient having a hollow refillable housing for implantation within the posterior segment of an eye through a penetration in the sclera of the eye. The housing has a proximal end region. A proximal retention structure is protruding outward from the proximal end region and includes an access portion opening. A penetrable barrier is positioned at least in part within the access portion opening. The penetrable barrier is configured to be repeatedly penetrated. A rigid porous structure is positioned within a region of the housing away from the access portion opening. A reservoir chamber extends along an axis between the penetrable barrier and the porous structure. The reservoir chamber has a volume sized to deliver therapeutic amounts of a therapeutic agent to the eye for an extended period of time. The access portion opening opens into the reservoir chamber. An anchor is positioned within the access portion opening and in contact with at least a portion of the penetrable barrier.

"In some variations, one or more of the following can optionally be included in any feasible combination in the above methods, apparatus, devices, and systems.
"The penetrable barrier can be pre-molded with soft, high strength material. The anchor can be formed of a high durometer material that resists deformation. The penetrable barrier can be bonded to the anchor creating a single septum structure. The anchor can engage an undercut feature in the proximal end of the housing. The penetrable barrier can apply radial compression to the anchor. The device can further include a cover or a surface of the proximal retention structure. The device can further include a sealant element positioned within a proximal end region of the reservoir chamber and coupled to the penetrable barrier.

"More details of the devices, systems, and methods are set forth in the accompanying drawings and the description below. Other features and advantages will be apparent from the description and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

"These and other aspects will now be described in detail with reference to the following drawings. Generally speaking, the figures are not to scale in absolute terms or comparatively but are intended to be illustrative. Also, relative placement of features and elements may be modified for the purpose of illustrative clarity.

"FIG. 1 is a cross-sectional, schematic view of a portion of the human eye;

"FIG. 2 is a cross-sectional, schematic view of a portion of the human eye having an implementation of a therapeutic device implanted therein;

"FIG. 3A is an exploded, perspective view of an implementation of a therapeutic device;

"FIGS. 3B-3C are exploded, side views of the therapeutic device of FIG. 3A;

"FIGS. 3D-3E are top and bottom views, respectively, of the therapeutic device of FIG. 3A;

"FIG. 3F is a side, cross-sectional view of the therapeutic device of FIG. 3A;

"FIGS. 4A-4B are perspective and cross-sectional partial views, respectively, of an implementation of a therapeutic device;

"FIG. 5 is a side, cross-sectional partial view of an implementation of a therapeutic device;

"FIG. 6 is a side, cross-sectional partial view of an implementation of a therapeutic device."

For the URL and additional information on this patent, see: Erickson, Signe; Campbell, Randolph E.; Doud, Darren. Ophthalmic Implant for Delivering Therapeutic Substances. U.S. Patent Number 9526654, filed March 27, 2014, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fpatenthtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9526654.PN.&OS=PN/9526654RS=PN/9526654

Keywords for this news article include: Risk and Prevention, ForSight Vision4 Inc.

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THE PHANTOM LABORATORY, INCORPORATED

Patent Issued for Phantom and Method for Image Quality Assessment of a Digital Breast Tomosynthesis System (USPTO 9526471)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventors Goodenough, David J. (Myersville, MD); Levy, Joshua R. (Salem, NY), filed on April 25, 2014, was published online on December 27, 2016.

The patent's assignee for patent number 9526471 is THE PHANTOM LABORATORY, INCORPORATED (Greenwich, NY).

News editors obtained the following quote from the background information supplied by the inventors: "The present invention relates generally to the field of image quality assessment of medical imaging systems and, more particularly, to a phantom and method of assessing imaging quality of a digital breast tomosynthesis system.

"Breast cancer remains one of the most common cancers among women despite early detection methods such as breast self-examination, annual mammograms and clinical breast exams. The objective of screening mammography is to identify cancers while they are small and localized. However, some breast cancers still are missed while in their earliest stages, and it is widely agreed that imaging of dense breasts can be improved.

"In conventional two dimensional film or full field digital mammography (FFDM), overlapping dense fibroglandular tissue within the breast can reduce the visibility of malignant abnormalities or simulate the appearance of an abnormality. This can lead to unnecessary patient recalls, biopsies and psychological stress. In addition, mammography is known to be less sensitive in women with dense breasts, who are at higher risk of developing breast cancer.

"Digital breast tomosynthesis (DBT), also referred to as three-dimensional (3D) mammography, is a newly developed form of three-dimensional imaging with the potential to improve the accuracy of mammography by reducing tissue overlap. This overlap, which is sometimes known as anatomical noise, degrades image quality in standard 2D projection imaging and can mask suspicious areas.

"In DBT, the breast is compressed, in the standard fashion, between a compression paddle or plate and a breast support plate overlying an image receptor/detector. With the breast kept stationary, an x-ray tube is moved in an arcuate or isocentric motion and a series of low-dose images, known as projections, are taken at different angular locations of the tube over a limited total angular range known as the scan angle. The projections undergo a reconstruction process using algebraic reconstruction algorithms to produce high resolution images, also known as tomographic sections or slices, in planes parallel to the breast support plate. The number of reconstructed slices will depend upon the thickness of the compressed breast and the desired separation between slices, which might typically be around 1 mm. These sections can be viewed on a work station, either as individual slices or sequentially in a dynamic video mode. By minimizing the superimposition of overlying breast tissue, DBT has the potential to differentiate malignant features more definitively from non-malignant ones.

"Removal of confusing overlying tissue provides clearer imaging, better sensitivity and fewer patient recalls with DBT. Digital breast tomosynthesis also has the potential for lower radiation dosage and less breast compression. Significantly, by detecting breast cancer early, a woman's chances of survival are higher and she may have more treatment options available to her.
"Tomosynthesis differs from computed tomography (CT) in several significant aspects. In DBT, projections are obtained over only a limited range of angles, while in CT, projections are obtained through either 180° or 360° rotations of x-ray tubes and detectors.

"In conventional computed tomography (CT), a plane of interest is established by moving the detector and the x-ray tube in opposite directions. This establishes a plane of interest (or a plane of focus). Features within the plane of focus appear relatively sharp. A major disadvantage of this approach is that there is only a single plane of focus for each exposure and geometric configuration. Another disadvantage of CT imaging of the breast is the higher radiation dose involved in conventional system designs.

"In contrast, in tomosynthesis, an arbitrary number of planes may be retrospectively reconstructed from a single sequence of projection images. Typically, a series of projection images is obtained while the x-ray tube moves in a limited arcuate or linear motion. (However, the motion of the x-ray tube could be more complex and the imaging detector could be stationary or moving.) After the acquisition sequence is complete, the projection images are combined by shifting and adding these together to bring a specific plane into focus. Different planes can be brought into focus by varying the amount of shifting. Advantages of tomosynthesis over conventional projection imaging include: depth localization, improved conspicuity owing to the removal of the clutter caused by overlying tissue structures, and improved contrast of local structure by limiting the dynamic range to a single plane.

"The differences between tomosynthesis and CT impose different requirements on phantoms and methods of assessing image quality in the two different imaging modalities. As opposed to relatively well defined slices with finite extension in CT, tomosynthesis slices are less well defined with some degree of extension from the center of the slice of interest to the boundaries of the object being considered. Due to their disparate methods of reconstruction, artifacts and image problems are very different in tomosynthesis as compared to CT, and new and different approaches to the measurement of image quality in tomosynthesis are needed.

"In a recent study, entitled 'Evaluation of Various Mammography Phantoms for Image Quality Assessment in Digital Breast Tomosynthesis' by Claudia Brunner et al, four different existing mammography phantoms were investigated for their appropriateness for image quality evaluation in Digital Breast Tomosynthesis. This study concluded that, 'Although each phantom under study has its advantages, none of them allows a thorough quality evaluation of reconstructed tomosynthesis images'. It can also be noted from this study, that modulation transfer function (MTF) data is only available from transforming edge response function in one direction at a time, and no point source for 2D information and 2D MTF transform is available. Cited deficiencies in all phantoms studied include slice sensitivity profile.

"In a 'Protocol for the Quality Control of the Physical and Technical aspects of Digital Breast Tomosynthesis Systems', draft version 0.10, published in February 2013, by the European Reference Organisation for Quality Assured Breast Screening and Diagnostic Services (EUREF), a phantom for z-resolution in DBT is disclosed that comprises a planar array of 25 spaced apart aluminum spheres. In use, this phantom, must be repositioned and exposed at multiple different heights in a time consuming and repetitive procedure.

"The present invention provides a phantom and method of image quality assessment specifically tailored and optimized for digital breast tomosynthesis systems."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "According to the present invention, a phantom for calibrating a tomosynthesis imaging system includes at least one set of beads arranged as a first ramp and a second ramp in respective proximate
parallel vertical planes in a reverse staircase pattern along a vertical direction, with a final bead of the first ramp and an initial bead of the second ramp being located at substantially the same intermediate height within the phantom. The reverse staircase pattern may include a first ramp of spaced apart beads disposed in a first vertical plane and extending from a lower end of the first ramp along a first inclination up to a final end of the first ramp at an intermediate height of the phantom, and a second ramp of spaced apart beads disposed in a second vertical plane and extending from near the final end of the first ramp at the intermediate height up and back along a second inclination. The second vertical plane is located parallel to, and spaced from, the first vertical plane.

"The second vertical plane may be located adjacent the first vertical plane, and the beads of the second plurality do not vertically overlap the beads of the first plurality.

"The beads of the first plurality and/or of the second plurality may be spherical and may be identical in size. Each bead preferably has a size smaller than or comparable to resolution size of the imaging system or a small size, the impact of which may be calculated and used to correct (deconvolve) the effect of the bead size on the measured slice width of the tomosynthesis system. Each bead may comprise a solid sphere of metal or other material having a signal strength within a dynamic range of the imaging system, and may have a size and composition to minimize artifact spread function in other z-axis image planes. Center-to-center spacing of adjacent beads in the first plurality and/or the second plurality should be sufficient to avoid streaking of the beads into one another in an imaging plane.

"The first ramp of beads and the second ramp of beads of the phantom may be embedded in a uniform material that mimics x-ray attenuation of breast tissue. Preferably, full horizontal extent of the first ramp in the first vertical plane is substantially equal to full horizontal extent of the second ramp in the second vertical plane.

"The phantom may advantageously include at least one additional test object located in a position so as not to vertically overlap with the beads. The additional test object may include at least one of: spheres of different diameters, a square, for example, of thin Aluminum, fiducial markers, and at least one graded step incrementation ruler to measure missing tissue at a simulated chest wall.

"The first ramp and the second ramp of beads and the at least one additional test object preferably comprise a single test module of the phantom. The phantom may also include a blank non-structured module and/or a structured module that simulates a breast pattern. The additional module(s) may serve as a spacer for the test module.

"In another aspect of the present invention, the phantom may include at least two sets of beads, each being arranged as a first ramp and a second ramp in respective proximate parallel vertical planes in a reverse staircase pattern along the vertical direction, the at least two sets being horizontally spaced apart on opposite sides of the phantom, with the first ramp of the first set ascending in a first direction and the first ramp of the second set ascending in an opposite direction.

"The present invention also contemplates a method for image quality assessment of a tomosynthesis imaging system. The method may include providing a phantom having at least one set of beads arranged as a first ramp and a second ramp in respective proximate parallel planes in a reverse staircase pattern along a vertical direction with a final bead of the first ramp and an initial bead of the second ramp being located at substantially the same intermediate height within the phantom, scanning the phantom with the tomosynthesis imaging system; and, with results of scanning of the at least one set of beads, determining slice sensitivity profile along the vertical direction and at least one of: point spread function of at least one bead in a horizontal plane, or line spread function of at least one bead in the horizontal plane, or a two-
dimensional modulation transfer function as a function of spatial frequency. This determining may, advantageously, be based on a single scanning sequence of the phantom, and is preferably automated.

"According to another aspect of the invention, the slice sensitivity profile may be determined by plotting peak intensity of each bead as a function of bead vertical position, or integrating total bead intensity at each bead vertical position, or deriving a metric of bead intensity values as a function of each bead vertical position.

"According to a further aspect of the invention, the phantom may further includes a square, and the method may further include determining at least one of line spread function or modulation transfer function from scanning the square.

"The present invention further contemplates a method for image quality assessment of a digital breast tomosynthesis imaging system employing a phantom having a first ramp of spaced apart beads disposed in a first vertical plane and extending from a lower end of the first ramp along a first inclination up to a final end of the first ramp at an intermediate height of the phantom, a second ramp of spaced apart beads disposed in a second vertical plane, parallel and proximate the first vertical plane, and extending from near the final end of the first ramp at the intermediate height up and back along a second inclination, spheres of different diameters, a square, fiducial markers, and at least one graded step incrementation rule, all embedded, in a uniform material, in a single test module. The method may include scanning this phantom with the tomosynthesis imaging system; and, with results of said scanning, determining by automated analysis: slice sensitivity profile along a vertical direction from the beads, point spread function and corresponding modulation transfer function of at least one bead in a horizontal plane, contrast detail from the spheres of different diameters, low contrast contrast-to-noise ratio from the square, geometric distortion from the fiducial markers, and missed tissue at a simulated chest wall using the at least one graded step incrementation ruler."


Keywords for this news article include: Oncology, Women's Health, Imaging Technology, Computed Tomography, Risk and Prevention, Breast Cancer Screening, Diagnostics and Screening, THE PHANTOM LABORATORY INCORPORATED.

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NEUROPORE THERAPIES, INC.

Patent Issued for Phenyl-Urea and Phenyl-Carbamate Derivatives as Inhibitors of Protein Aggregation (USPTO 9527852)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventor Wrasidlo, Wolfgang (San Diego, CA), filed on March 15, 2013, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9527852 is assigned to NEUROPORE THERAPIES, INC. (San
The following quote was obtained by the news editors from the background information supplied by the inventors: "Neurodegenerative disorders of the aging population such as Alzheimer's disease (AD), Parkinson's disease (PD), and fronto-temporal dementia (FTD), affect over 20 million people in the United States and European Union alone and rank among the top causes of death for the elderly. A common feature among these neurological disorders is the chronic accumulation of proteins into neurotoxic aggregates. Each disease is characterized by the specific neuronal populations that are affected, the particular protein aggregates that are involved, and the clinical features that result from the neuronal degeneration.

"Studies suggest that the initial stages of protein aggregation involve mutation or post-translational modification (e.g., nitrosilation, oxidation) of the target protein, which then adopts an abnormal conformation that facilitates interactions with similarly misfolded proteins. The abnormal proteins then aggregate to form dimers, trimers, and higher-order multimers, also termed 'soluble oligomers,' which may disrupt synaptic function. Additionally, the aggregates may then anchor in the cell membrane and form globular oligomers (which in turn can form pores in the membrane) and/or protofibrils or fibrils. These larger, insoluble fibrils may function as reservoirs of the bioactive oligomers.

"The particular proteins implicated in these neurodegenerative diseases vary in identity and source. For example, in AD, the neurotoxic aggregates are composed of the secreted protein amyloid-beta (A(.beta.). In idiopathic Parkinson's disease (IPD), dementia with Lewy bodies (LBD), PD dementia (PDD), and multiple system atrophy (MSA), the neurotoxic aggregates are composed of .alpha.-synuclein (SYN), which is a synaptic protein that is intracellular under normal conditions. In FTD and amyotrophic lateral sclerosis (ALS), neurotoxic aggregates originate from other intracellular proteins such as tau, TDP-43, or SOD1. For certain diseases, such as AD, SYN aggregates with the primary protein. Thus, compounds that interfere with SYN aggregation may impact neurodegenerative pathologies of various etiologies.

"Two mechanisms are implicated in these neurodegenerative processes. In the first, the misfolded and/or aggregated proteins anchor to the various cell membrane structures. Binding of the misfolded or aggregated molecules to the plasma membrane or the membranes of organelles (e.g., mitochondria or lysosomes) may interfere with protein transcription, autophagy, mitochondrial function, and pore formation. By way of example, neurotoxic SYN aggregates and interacts with lipids in cell membranes, by a specific portion of the c-terminal region of the synuclein protein. Compounds that bind to this region can inhibit protein-protein or protein-lipid interactions and can therefore be used to block neurotoxic SYN oligomerization and membrane interaction. In the second process, aggregated protein is released from the anchored subunit and propagates to adjacent cells. This cell-to-cell propagation of toxic protein aggregates may then underlie the anatomic progression of neurodegeneration and worsening of symptoms. Small molecule drugs that interact with the target proteins may limit release and/or propagation, and therefore reduce the neurotoxic effects of aggregated proteins. Such compounds may therefore provide new therapies for AD, PD, LBD, MSA, and related neurodegenerative conditions.

"There remains a need for inhibitors of protein aggregation with desirable pharmaceutical properties. Certain phenyl-urea and carbamate derivatives have been found in the context of this invention to have protein aggregation modulating activity."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventor's summary information for this patent: "In one aspect, the invention relates to a chemical entity of the following Formula (I):
"##STR00001## wherein Het is a bicyclic heteroaryl in which at least one ring atom is a N, and said heteroaryl is unsubstituted or is substituted with one or more R.sup.a substituents; wherein each R.sup.a is independently hydroxyl, halo, amino, cyano, nitro, C.sub.1-4alkyl, haloalkyl, C.sub.1-4alkoxy, or halo-C.sub.1-4alkoxy; X is --CH.sub.2--; R.sup.z--, wherein R.sup.z is absent, --CH.sub.2--, --O--, --S--, or --NH--; one of W and Y is NH and the other is O or NH; Z is O or S; R.sup.1 is --NR.sup.bR.sup.c; guanidino; a monocyclic heteroaryl in which at least one ring atom is a N, and said heteroaryl is unsubstituted or is substituted with one or more R.sup.d substituents; or a monocyclic heterocycloalkyl, in which at least one ring atom is a N, and said heterocycloalkyl is unsubstituted or is substituted with one or more R.sup.e substituents; wherein R.sup.b and R.sup.c are each independently H or C.sub.1-4alkyl; each R.sup.d is independently hydroxyl, halo, amino, cyano, nitro, C.sub.1-4alkyl, haloalkyl, C.sub.1-4alkoxy, or halo-C.sub.1-4alkoxy; and each R.sup.e is independently hydroxyl, halo, amino, cyano, nitro, C.sub.1-4alkyl, haloalkyl, C.sub.1-4alkoxy, --C(O)C.sub.1-4alkyl, or --CO.sub.2C.sub.1-4alkyl; n is 0, 1, 2, 3, or 4; R.sup.2 is absent or is hydroxyl, methoxy, or trifluoromethoxy; and R.sup.3 is C.sub.1-6alkyl, C.sub.1-6alkoxy or C.sub.3-8cycloalkoxy, wherein said cycloalkoxy is unsubstituted or substituted with one or more substituents independently selected from the group consisting of hydroxyl, halo, amino, cyano, nitro, C.sub.1-4alkyl, haloalkyl, C.sub.1-4alkoxy, and halo-C.sub.1-4alkoxy; or a pharmaceutically acceptable salt thereof.

"In certain embodiments, the compound of Formula (I) is a compound selected from those species described or exemplified in the detailed description below.

"In another aspect, the invention relates to a pharmaceutical composition comprising at least one compound of Formula (I) or a pharmaceutically acceptable salt thereof. Pharmaceutical compositions according to the invention may further comprise a pharmaceutically acceptable excipient. The invention is also a compound of Formula I or a pharmaceutically acceptable salt thereof for use as a medicament.

"In another aspect, the invention is directed to a method of treating a neurodegenerative disease or condition associated with protein aggregation comprising administering to a subject in need of such treatment an effective amount of at least one compound of Formula (I) or a pharmaceutically acceptable salt thereof.

"In another aspect, the invention is directed to a method of treating a disease or medical condition associated with protein aggregation, comprising administering to a subject in need of such treatment an effective amount of at least one compound of Formula (I) or a pharmaceutically acceptable salt thereof. The invention is also directed at use of a compound of Formula I in the preparation of a medicament for the treatment of such diseases and medical conditions, and the use of such compounds and salts for treatment of such diseases and medical conditions.

"In yet another aspect, the invention relates to a method of interfering with the accumulation of protein or peptide aggregation in a cell, or preventing, slowing, reversing, or inhibiting protein or peptide aggregation in a cell, comprising contacting the cell with an effective amount of at least one compound of Formula (I) or a salt thereof, and/or with at least one pharmaceutical composition of the invention, wherein the contacting is in vitro, ex vivo, or in vivo.

"Additional embodiments, features, and advantages of the invention will be apparent from the following detailed description and through practice of the invention.

"For the sake of brevity, the disclosures of the publications cited in this specification, including patents, are herein incorporated by reference."

URL and more information on this patent, see: Wrasidlo, Wolfgang. Phenyl-Urea
and Phenyl-Carbamate Derivatives as Inhibitors of Protein Aggregation. U.S. Patent Number 9527852, filed March 15, 2013, and published online on December 27, 2016. Patent URL:
&OS=PN/9527852RS=PN/9527852

Keywords for this news article include: Urea, Dementia, Genetics, Peptides, Proteins, Carbamates, Amino Acids, Acyclic Acids, Cell Membrane, Organic Chemicals, Movement Disorders, Cellular Structures, Parkinson's Disease, Parkinsonian Disorders, NEUROPORE THERAPIES INC., Brain Diseases and Conditions, Basal Ganglia Diseases and Conditions.

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Duchesnay Inc.

Patent Issued for Plurimodal Release Formulation of Doxylamine and Pyridoxine And/Or Metabolites Or Salts (USPTO 9526703)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Duchesnay Inc. (Blainville, CA) has been issued patent number 9526703, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Vrandeck, Manon (St-Lazare, CA); St-Onge, Jean-Luc (Mirabel, CA); Gallo, Michele (Blainville, CA); Gervais, Eric (Blainville, CA).

This patent was filed on August 28, 2015 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Nausea and vomiting of pregnancy (NVP), also referred to as 'morning sickness,' is very common. It afflicts 50% to 80% of pregnant women with varying degrees of severity.

"Commonly occurring within the first 4 to 16 weeks of pregnancy, approximately 20% of women will continue to experience NVP for a longer period of time. Some women may suffer from NVP until the end of the pregnancy. Nausea and vomiting can have serious adverse effects. If severe enough, NVP can cause dehydration, with associated salt and vitamin imbalances. These and other effects can be harmful to the health of the woman and the well-being of her baby. In its most severe form, NVP may manifest itself as hyperemesis gravidarum, a potentially life threatening condition affecting 0.5% to 2% of pregnancies, which is characterized by protracted vomiting, retching, severe dehydration, and weight loss requiring hospitalization.

"The delayed release combination of doxylamine succinate/pyridoxine HCl (10 mg each), marketed in Canada under the trade-name Diclectin.RTM. and in the United States under the trade-name Diclegis.RTM., is the only medication approved in Canada and U.S. for the treatment of NVP. Its safety and effectiveness for the treatment of NVP is recognized by the medical community, and its safety throughout pregnancy has been long established.

"Nevertheless, there is a need for the development of novel pharmaceutical dosage systems and forms, for example those having an improved pharmacokinetics profile and/or stability, for the prevention and treatment of nausea and vomiting, such as in NVP.

"The present description refers to a number of documents, the content of which is
herein incorporated by reference in their entirety."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "The present invention relates to the following items 1 to 49:

"1. A solid oral dosage form comprising: a core comprising about 5 mg to about 40 mg of doxylamine or a salt thereof and about 5 mg to about 40 mg of pyridoxine or a salt thereof; an enteric coating surrounding said core; a first active ingredient-containing coating surrounding said enteric coating and comprising (i) about 5 mg to about 40 mg of doxylamine or a salt thereof, or (ii) about 5 mg to about 40 mg of pyridoxine or a salt thereof; and a second active ingredient-containing coating surrounding said intermediate coating and comprising (i) about 5 mg to about 40 mg of doxylamine or a salt thereof, or (ii) about 5 mg to about 40 mg of pyridoxine or a salt thereof; wherein if said first active ingredient-containing coating comprises said doxylamine or salt thereof, said second active ingredient-containing coating comprises said pyridoxine or salt thereof, and if said first active ingredient-containing coating comprises said pyridoxine or salt thereof, said second active ingredient-containing coating comprises said doxylamine or salt thereof.

"2. The solid oral dosage form of item 1, wherein said core comprises about 10 mg of said doxylamine or salt thereof.

"3. The solid oral dosage form of item 1 or 2, wherein said core comprises doxylamine succinate.

"4. The solid oral dosage form of any one of items 1 to 3, wherein said core comprises about 10 mg of said pyridoxine or salt thereof.

"5. The solid oral dosage form of any one of items 1 to 4, wherein said core comprises pyridoxine hydrochloride.

"6. The solid oral dosage form of any one of items 1 to 5, wherein said first or second active ingredient-containing coating comprises about 10 mg of said doxylamine or salt thereof.

"7. The solid oral dosage form of any one of items 1 to 6, wherein said first or second active ingredient-containing coating comprises doxylamine succinate.

"8. The solid oral dosage form of any one of items 1 to 7, wherein said first or second active ingredient-containing coating comprises about 10 mg of said pyridoxine or salt thereof.

"9. The solid oral dosage form of any one of items 1 to 8, wherein said first or second active ingredient-containing coating comprises pyridoxine hydrochloride.

"10. The solid oral dosage form of any one of items 1 to 9, wherein said first and/or second active ingredient-containing coating comprises a film coating system

"11. The solid oral dosage form of item 10, wherein said film coating system comprises a polymer and a plasticizer.

"12. The solid oral dosage form of any one of items 1 to 11, wherein said core is present in an amount of about 50% to about 70% (w/w) of said solid oral dosage form.

"13. The solid oral dosage form of item 12, wherein said core is present in an amount of about 55% to about 65% (w/w) of said solid oral dosage form.

"14. The solid oral dosage form of any one of items 1 to 13, wherein said enteric coating is present in an amount of about 2% to about 15% (w/w) of said solid oral dosage form.

"15. The solid oral dosage form of item 14, wherein said enteric coating is present in an amount of about 4% to about 12% (w/w) of said solid oral dosage form.
"16. The solid oral dosage form of any one of items 1 to 15, wherein said enteric coating comprises an acrylic polymer or co-polymer.

"17. The solid oral dosage form of item 16, wherein said acrylic polymer or co-polymer is a copolymer based on methacrylic acid and ethyl acrylate.

"18. The solid oral dosage form of any one of items 1 to 17, wherein said first active ingredient-containing coating is present in an amount of about 4% to about 12% (w/w) in said solid oral dosage form.

"19. The solid oral dosage form of item 18, wherein said first active ingredient-containing coating is present in an amount of about 6% to about 10% (w/w) in said solid oral dosage form.

"20. The solid oral dosage form of any one of items 1 to 19, further comprising a first intermediate coating surrounding said first active ingredient-containing coating.

"21. The solid oral dosage form of item 20, wherein said first intermediate coating is present in an amount of about 1% to about 4% (w/w) in said solid oral dosage form.

"22. The solid oral dosage form of item 21, wherein said first intermediate coating is present in an amount of about 2% to about 3% (w/w) in said solid oral dosage form.

"23. The solid oral dosage form of any one of items 20 to 22, wherein said first intermediate coating comprises a film coating system.

"24. The solid oral dosage form of item 23, wherein said film coating system comprises a polymer and a plasticizer.

"25. The solid oral dosage form of any one of items 1 to 24, wherein said second active ingredient-containing coating is present in an amount of about 5% to about 15% (w/w) of said solid oral dosage form.

"26. The solid oral dosage form of item 25, wherein said second active ingredient-containing coating is present in an amount of about 8% to about 12% (w/w) of said solid oral dosage form.

"27. The solid oral dosage form of any one of items 1 to 26, further comprising a second intermediate coating between said core and said enteric coating.

"28. The solid oral dosage form of item 27, wherein said second intermediate coating is present in an amount of about 1% to about 8% (w/w) of said solid oral dosage form.

"29. The solid oral dosage form of item 28, wherein said second intermediate coating is present in an amount of about 2% to about 6% (w/w) of said solid oral dosage form.

"30. The solid oral dosage form of any one of items 24 to 26, wherein said second intermediate coating comprises a film coating system comprising a polymer and a plasticizer.

"31. The solid oral dosage form of any one of items 27 to 30, further comprising a seal coating surrounding said second active ingredient-containing coating.

"32. The solid oral dosage form of item 31, wherein said seal coating is present in an amount of about 2% to about 10% (w/w) of said solid oral dosage form.

"33. The solid oral dosage form of item 32, wherein said seal coating is present in an amount of about 4% to about 8% (w/w) of said solid oral dosage form.

"34. The solid oral dosage form of any one of items 31 to 33, wherein said seal coating comprises a film coating system.

"35. The solid oral dosage form of item 34, wherein said film coating system comprises a polymer and a plasticizer.

"36. The solid oral dosage form of any one of items 31 to 35, further comprising a solid oral dosage form-coating agent surrounding said seal coating.
"37. The solid oral dosage form of item 36, wherein said solid oral dosage form-coating agent is present in an amount of about 0.005% to about 0.5% (w/w) of said solid oral dosage form.

"38. The solid oral dosage form of item 36 or 37, wherein said solid oral dosage form-coating agent comprises wax.

"39. The solid oral dosage form of any one of items 1 to 38, wherein said core further comprises one or more pharmaceutically acceptable excipients.

"40. The solid oral dosage form of item 39, wherein said core comprises microcrystalline cellulose, colloidal silicon dioxide, magnesium trisilicate, croscarmellose sodium and magnesium stearate.

"41. The solid oral dosage form of item 40, wherein said core comprises about 60% to about 65% (w/w) of microcrystalline cellulose, about 0.5 to about 1% (w/w) of colloidal silicon dioxide, about 16% to about 20% (w/w) of magnesium trisilicate, about 2% to about 3% (w/w) of croscarmellose sodium, and about 2% to about 3% (w/w) of magnesium stearate.

"42. The solid oral dosage form of any one of items 1 to 41, wherein said solid oral dosage form is a tablet.

"43. The solid oral dosage form of any one of items 1 to 42, for use in alleviating the symptoms of nausea and vomiting of human pregnancy.

"44. The solid oral dosage form of any one of items 1 to 42, for use in the manufacture of a medicament for alleviating the symptoms of nausea and vomiting of human pregnancy.

"45. Use of the solid oral dosage form of any one of items 1 to 42, for alleviating the symptoms of nausea and vomiting of human pregnancy.

"46. Use of the solid oral dosage form of any one of items 1 to 42, for the manufacture of a medicament for alleviating the symptoms of nausea and vomiting of human pregnancy.

"47. A method for alleviating the symptoms of nausea and vomiting of human pregnancy, said method comprising administering the solid oral dosage form of any one of items 1 to 42 to a pregnant human female in need thereof.

"48. A package comprising the solid oral dosage form of any one of items 1 to 42.

"49. The package of item 48, further comprising instructions for use of said solid oral dosage form for alleviating the symptoms of nausea and vomiting of human pregnancy.

"The present invention also relates to the following items 1a to 30a:

"1a. A solid oral dosage form comprising: (a) a core comprising from about 5 mg to about 40 mg of doxylamine and/or a pharmaceutically acceptable salt thereof and from about 5 mg to about 40 mg of pyridoxine and/or a pharmaceutically acceptable salt thereof; (b) an enteric coating surrounding said core; (c) a first active ingredient-containing coating surrounding said enteric coating and comprising (i) from about 5 mg to about 40 mg of doxylamine and/or a pharmaceutically acceptable salt thereof, or (ii) from about 5 mg to about 40 mg of pyridoxine and/or a pharmaceutically acceptable salt thereof; and (d) a second active ingredient-containing coating surrounding said first active ingredient-containing coating and comprising (i) from about 5 mg to about 40 mg of doxylamine and/or a pharmaceutically acceptable salt thereof, or (ii) from about 5 mg to about 40 mg of pyridoxine and/or a pharmaceutically acceptable salt thereof; wherein if said first active ingredient-containing coating comprises said doxylamine and/or pharmaceutically acceptable salt thereof, said second active ingredient-containing coating comprises said pyridoxine and/or pharmaceutically acceptable salt thereof, and if said first active ingredient-containing coating comprises said pyridoxine and/or pharmaceutically acceptable salt thereof.
acceptable salt thereof, said second active ingredient-containing coating comprises said
doxylamine and/or pharmaceutically acceptable salt thereof.

"2a. The solid oral dosage form of item 1a, wherein said core comprises about 10
mg of said doxylamine or pharmaceutically acceptable salt thereof.

"3a. The solid oral dosage form of item 1a, wherein said core comprises doxylamine
succinate.

"4a. The solid oral dosage form of item 1a, wherein said core comprises about 10
mg of said pyridoxine or pharmaceutically acceptable salt thereof.

"5a. The solid oral dosage form of item 1a, wherein said core comprises pyridoxine
hydrochloride.

"6a. The solid oral dosage form of item 1a, wherein said first or second active
ingredient-containing coating comprises about 10 mg of said doxylamine or pharmaceutically
acceptable salt thereof.

"7a. The solid oral dosage form of item 1a, wherein said first or second active
ingredient-containing coating comprises doxylamine succinate.

"8a. The solid oral dosage form of item 1a, wherein said first or second active
ingredient-containing coating comprises about 10 mg of said pyridoxine or pharmaceutically
acceptable salt thereof.

"9a. The solid oral dosage form of item 1a, wherein said first or second active
ingredient-containing coating comprises pyridoxine hydrochloride.

"10a. The solid oral dosage form of item 1a, wherein said first and/or second active
ingredient-containing coating comprises a film coating system.

"11a. The solid oral dosage form of item 1a, wherein said core is present in an
amount of about 50% to about 70% (w/w) of said solid oral dosage form.

"12a. The solid oral dosage form of item 1a, wherein said enteric coating is present
in an amount of about 2% to about 15% (w/w) of said solid oral dosage form.

"13a. The solid oral dosage form of item 1a, wherein said enteric coating comprises
an acrylic polymer or co-polymer.

"14a. The solid oral dosage form of item 13a, wherein said acrylic polymer or co-
polymer is a copolymer based on methacrylic acid and ethyl acrylate.

"15a. The solid oral dosage form of item 1a, wherein said first active ingredient-
containing coating is present in an amount of about 4% to about 12% (w/w) in said solid oral
dosage form.

"16a. The solid oral dosage form of item 1a, further comprising a first intermediate
coating surrounding said first active ingredient-containing coating.

"17a. The solid oral dosage form of item 16a, wherein said first intermediate coating
is present in an amount of about 1% to about 4% (w/w) in said solid oral dosage form.

"18a. The solid oral dosage form of item 16a, wherein said first intermediate coating
comprises a film coating system.

"19a. The solid oral dosage form of item 1a, wherein said second active ingredient-
containing coating is present in an amount of about 5% to about 15% (w/w) of said solid oral
dosage form.

"20a. The solid oral dosage form of item 1a, further comprising a second
intermediate coating between said core and said enteric coating.

"21a. The solid oral dosage form of item 1a, further comprising a third intermediate
coating between said enteric coating and said first active ingredient-containing coating.
"22a. The solid oral dosage form of item 1a, further comprising a seal coating surrounding said second active ingredient-containing coating.

"23a. The solid oral dosage form of item 22a, wherein said seal coating is present in an amount of about 2% to about 10% (w/w) of said solid oral dosage form.

"24a. The solid oral dosage form of item 22a, wherein said seal coating comprises a film coating system.

"25a. The solid oral dosage form of item 22a, further comprising a solid oral dosage form-coating agent surrounding said seal coating.

"26a. The solid oral dosage form of item 25a, wherein said solid oral dosage form-coating agent is present in an amount of about 0.005% to about 0.5% (w/w) of said solid oral dosage form.

"27a. The solid oral dosage form of item 25a, wherein said solid oral dosage form-coating agent comprises wax.

"28a. The solid oral dosage form of item 1a, wherein said solid oral dosage form is a tablet.

"29a. A solid oral dosage form comprising: (a) a core comprising about 10 mg of doxylamine succinate and about 10 mg of pyridoxine hydrochloride; (b) an enteric coating surrounding said core; (c) a first active ingredient-containing coating surrounding said enteric coating and comprising about 10 mg of pyridoxine hydrochloride; (d) a second active ingredient-containing coating surrounding said first active ingredient-containing coating and comprising about 10 mg of doxylamine succinate; (e) a seal coating surrounding said second active ingredient-containing coating; (f) a solid oral dosage form-coating agent surrounding said seal coating; (g) a first intermediate coating between said first active ingredient-containing coating and said second active ingredient-containing coating; (h) a second intermediate coating between said core and said enteric coating; and (i) a third intermediate coating between said enteric coating and said first active ingredient-containing coating.

"30a. A method for alleviating the symptoms of nausea and vomiting of human pregnancy, said method comprising administering the solid oral dosage form of item 1a to a pregnant human female in need thereof.

"Other objects, advantages and features of the present invention will become more apparent upon reading of the following non-restrictive description of specific embodiments thereof, given by way of example only with reference to the accompanying drawings."

For the URL and additional information on this patent, see: Vranderick, Manon; St-Onge, Jean-Luc; Gallo, Michele; Gervais, Eric. Plurimodal Release Formulation of Doxylamine and Pyridoxine And/Or Metabolites Or Salts. U.S. Patent Number 9526703, filed August 28, 2015, and published online on December 27, 2016. Patent URL:

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Patent Issued for Polymutant Tau Protein Variants and Their Use for Recapitulating Human Tauopathies (USPTO 9527894)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Universitaet Leipzig (Leipzig, DE) has been issued patent number 9527894, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Robitzki, Andrea (Viernheim, DE); Jahnke, Heinz-Georg (Leipzig, DE); Krinke, Dana (Leipzig, DE); Striggow, Frank (Gerwisch, DE); Mack, Till (Magdeburg, DE).

This patent was filed on April 28, 2011 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Since NFT are the most striking pathological feature in tauopathies, much attention has focused on understanding how the deposition of NFT may cause neurodegeneration, in essence using animal models recapitulating NFT pathology to investigate the mechanism of disease. It has long been postulated that the aggregation of tau into filaments and NFT results in a toxic gain of function. This view has been substantially challenged by observations that neuronal loss and memory impairment can experimentally be cured despite ongoing NFT formation (Santacruz et al. 2005). In some animal models, the tau-mediated loss of neurons does not even require NFT development. Thus, it is assumed that non-filamentous but already aggregated, globular tau intermediates on route to assemble into larger helical filaments may represent the neurotoxic tau species.

"Elevated levels of free tau, not bound to microtubules, presumably increases its likelihood to become misfolded, as well as undergo modifications or conformational changes that promote the formation of aggregated small globular oligomers that eventually will assemble into insoluble filaments. Covalent modifications stabilizing conformational changes most likely include phosphorylation since tau protein isolated from AD brain was found to be abnormally high phosphorylated at multiple critical sites (`hyperphosphorylated tau`) and it was demonstrated that pseudo-hyperphosphorylation (i.e. pseudo-phosphorylated at multiple sites along the protein) can facilitate abnormal conformation of tau protein (Jeganathan et al. 2008). In this context tau hyperphosphorylation was identified as diagnostic target (WO9311231A1) and different tau related Kinases identified as therapeutic target (WO2007088400A1).

"Given that tau is normally a highly soluble protein that does not readily aggregate, this matter has been difficult to assess in experimental models because of the resistance of tau to aggregate within an ideal time-frame for culture studies or within an animal's relatively short lifespan. Because high concentrations of tau are required to promote tau aggregation in experimental models, it is believed that the enhanced ability of tau to form small globular aggregates in the cytoplasm of neurons and glia in human tauopathies may be due to pathological conditions that locally increase the pool of tau available for aggregation. Yet it is unlikely that the amount of tau in various tauopathies is as high as in cell culture and animal models that artificially force massive tau overexpression and, therefore, much caution is needed extrapolating results from such model systems to the human condition.

"Further complicating matters is evidence that mouse tau appears to prevent tau aggregation in transgenic mice overexpressing wild-type human tau (htau). Nonetheless, transgenic mice that overexpress high levels of htau isoforms containing aggregation-promoting
mutations (e.g. P301L tau) can develop tau pathology even in the presence of endogenous mouse tau. The P301L and P301S mutations are among the first described FTD mutations and show a very early mean onset for FTD in man. Tau transgenic mouse models with expression of these mutants display onset of first signs of tau pathology starting at 2.5 to 5 months (Schindowski et al. 2006). WO 01/53340 A2 discloses mouse models expressing wildtype or tau with one mutation like the named P301L mutation for generating a neurodegenerative disease model as well as tool for drug development. Furthermore a transgenic mouse model with tau cDNA bearing three FTD mutations the tau pathology has been described (Lim et al., 2001).

"To accelerate tau aggregation in vitro, polyanionic cofactors or small molecule ligands are often used to facilitate tau aggregation. For example, in a cell culture model overexpressing full length tau, Congo red treatment stimulates the formation of filamentous tau aggregates and decreases cell viability (Bandyopadhyay et al. 2007). These and other results suggest that also in cell culture models tau aggregation causes cell death or, at least, accelerates its onset. However, no cell culture model has been described so far that does not force aggregation of tau by either artificial high concentrations of tau or addition of, at higher doses toxic, compounds in order to facilitate or precipitate aggregation (Ko et al. 2004, Tsukane et al. 2007, Nie et al. 2007). In view of modelling tauopathy disease mechanisms for drug development purposes, both strategies bear a high risk of producing artificial results since the mechanism of degeneration may significantly differ from tau pathology in the AD brain."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors’ summary information for this patent: "It has been found that cells expressing tau with multiple mutations show signs of neurodegeneration within 24 hours of cell culture. Cells expressing tau proteins with 4 FTDP-17 mutations showed lowered impedance (Example 2/FIG. 5). This was shown for two different tau proteins having different 4 times mutations. The effect was even more pronounced for a tau protein having five different FTDP-17 mutations.

"In a first aspect, the present invention relates to a tau protein comprising at least four different mutations associated with the condition frontotemporal dementia and parkinsonism linked to chromosome 17 (FTDP-17).

"A second aspect of the invention is a nucleic acid encoding the tau protein of the present invention.

"A third aspect of the invention is a plasmid or vector comprising the nucleic acid of the present invention.

"A fourth aspect of the invention is a cell comprising the nucleic acid or the vector or plasmid of the present invention.

"A fifth aspect of the invention is a cell expressing a mutated tau protein, wherein said cell exhibits a decrease in impedance after 24 hours of cell culture.

"A sixth aspect of the present invention is a method for identifying an agent for treating or preventing neurodegenerative disease, comprising (a) contacting a test compound with the cell of the present invention; and (b) determining whether the test substance modulates at least one marker indicative of the neurodegeneration.

"A seventh aspect of the invention is the use of the tau protein of the present invention, of the nucleic acid of the present invention, of the vector or plasmid of the present invention, or of the cell of the present invention for screening an agent or agents capable of modulating one or more markers of neurodegeneration.

"An eighth aspect of the invention is the use of the tau protein of the present invention, of the nucleic acid of the present invention, of the vector or plasmid of the present
invention, or of the cell of the present invention for the development of medicaments for the
treatment or prevention of neurodegenerative diseases.

"A ninth aspect of the invention is a method for recapitulating a tauopathy,
comprising the following steps: (a) providing the cell of the present invention; (b) culturing said
cell under conditions to allow expression of tau protein having abnormal conformation."

For the URL and additional information on this patent, see: Robitzki, Andrea; Jahnke, Heinz-Georg; Krinke, Dana; Striggow, Frank; Mack, Till. Polymutant Tau Protein
Variants and Their Use for Recapitulating Human Tauopathies. U.S. Patent Number 9527894,
filed April 28, 2011, and published online on December 27, 2016. Patent URL:
&OS=PN/9527894RS=PN/9527894

Keywords for this news article include: Genetics, Pathology, Tauopathies, Mental
Health, Risk and Prevention, Universitaet Leipzig, Frontotemporal Dementia, Nervous System
Diseases and Conditions, Neurodegenerative Diseases and Conditions.

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Merck Sharp & Dohme Corp.

Patent Issued for Protective Vaccine Based on Staphylococcus Aureus
SA2451 Protein (USPTO 9527892)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the
inventors McNeely, Tessie (Gwynedd Valley, PA); Montgomery, Donna Lorraine (Chalfont,
PA); Cope, Leslie (Hatfield, PA); Joshi, Amita (Lansdale, PA); Pancari, Gregory P.
(Doylestown, PA); Fan, Hongxia (North Wales, PA), filed on October 26, 2012, was published
online on December 27, 2016.

The patent's assignee for patent number 9527892 is Merck Sharp & Dohme Corp.
(Rahway, NJ).

News editors obtained the following quote from the background information
supplied by the inventors: "Staphylococcus aureus is a bacterial pathogen responsible for a wide
range of diseases and conditions, ranging from minor skin infections to serious life-threatening
wound infections, bacteraemia, endocarditis, pneumonia, osteomyelitis and toxic shock
syndrome. While S. aureus commonly colonizes in the nose and skin of healthy humans, often
causing only minor infections (e.g., pimples, boils), it can also cause systemic infections.
Examples of diseases and conditions caused by S. aureus include bacteremia, infective
endocarditis, folliculitis, furuncle, carbuncle, impetigo, bullous impetigo, cellulitis,
botryomycosis, toxic shock syndrome, scalded skin syndrome, central nervous system infections,
infective and inflammatory eye disease, osteomyelitis and other infections of joints and bones,
and respiratory tract infections. (The Staphylococci in Human Disease, Crossley and Archer

"Staphylococcus aureus is a nosocomial as well as a community-acquired pathogen
which causes several diseases ranging from. See Lowy et al., 1998, N. Engl. J. Med. 339:520-
32. The worldwide growing incidence of staphylococcal infections is strongly related to the
increased use of surgical devices and a growing number of immunocompromised patients. The
situation has become more serious since the increased use of antibiotics led to the emergence of

"Information concerning S. aureus polypeptide sequences has been obtained from sequencing the S. aureus genome. See Kuroda et al., 2001, Lancet 357:1225-1240; Baba et al., 2000, Lancet 359:1819-1827; Gill et al., 2005, J. Bacteriol. 187:2426-2438 and European Patent Publication EP 0 786 519. To some extent, bioinformatics has been employed in efforts to characterize polypeptide sequences obtained from genome sequencing. See, e.g., European Patent Publication EP 0 786 519 and U.S. Pat. No. 6,593,114.

"Techniques such as those involving display technology and sera from infected patients have also been used in an effort to help identify genes coding for potential antigens. See, e.g., International Publication Nos. WO 01/98499 and WO 02/059148; and Etz et al., 2002, Proc. Natl. Acad. Sci. USA 99:6573-6578. Numerous staphylococcal surface proteins have been identified so far using recently adopted technologies, like proteomics (see Brady et al., 2006, Infect. Immun. 74:3415; Gatlin et al., 2006, Proteomics 6:1530; Pieper et al., 2006, Proteomics 6:4246; Vytvytska et al., 2002, Proteomics 2:580; Nandakumar et al., 2005, J. Proteome Res. 4:250) or protein selection methods based on expression libraries (see Clarke et al., 2006, J. Infect. Dis. 193:1098; Etz et al., 2002, Proc. Natl. Acad Sci. USA 99:6573-8; Weichhart et al., 2003, Infect. Immun. 71:4633; and Yang et al., 2006, Vaccine 24:1117).

"Vaccines consisting of one or more antigenic determinants can provide protection against lethal challenge with S. aureus in mice. See Stranger-Jones et al., 2006, Proc. Natl. Acad. Sci. USA 103:16942-7 and Kuklin et al., 2006, Infect. Immun. 74:2215. Recombinantly expressed polypeptides can readily be made, purified, and formulated as vaccines. Additionally, recombinant proteins can be combined with additional components to make multicomponent polypeptide vaccines that induce a spectrum of immune responses. Despite this, there are no reported protein based vaccines for staphylococcal infections in humans or animals to date. Thus, there remains a need for immunogens that can provide protective immunity against Staphylococcal infections in human and/or animals."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "It is shown herein that SA2451-related polypeptides can provide protective immunity against S. aureus infection in a relevant animal model system. Accordingly, one aspect of the invention provides a composition comprising an immunologically effective amount of a polypeptide that is at least 95% identical to a SA2451 polypeptide (represented by SEQ ID NO:1) or a fragment of the polypeptide and a pharmaceutically acceptable carrier. In embodiments of the invention, the polypeptide is not SEQ ID NO:1 and it is at least 98% identical to SEQ ID NO:1. In more preferred embodiments, the polypeptide is at least 98% identical to SEQ ID NO:1.

"Also provided by the invention are compositions as described above, which further comprise one or more additional S. aureus antigens or one or more additional antigens from another Staph species, such as S. epidermidis. The compositions of the invention may further comprise an adjuvant.

"The present invention is further related to a method of inducing a protective immune response in a patient against an S. aureus infection comprising the steps of
administering to the patient an immunologically effective amount of any of the compositions or vaccines described herein. The compositions are administered to a patient in need thereof, wherein the patient is human or a non-human mammal such as a cow. In some embodiments of the methods described herein, the compositions are given to a patient who suffers from weakened immunity, has received a foreign body implant or is on renal dialysis.

"Also provided by the invention is the use of a polypeptide that is at least 95% identical to SEQ ID NO:1 or a fragment of the polypeptide in the manufacture of a medicament for inducing a protective immune response in a patient against S. aureus infection or the use of the compositions herein for inducing protective immunity against S. aureus.

"Further provided by the invention is a method of conferring passive immunity to S. aureus infection in a patient comprising administering to the patient one or more antibodies that specifically bind to a polypeptide of SEQ ID NO:1."

For additional information on this patent, see: McNeely, Tessie; Montgomery, Donna Lorraine; Cope, Leslie; Joshi, Amita; Pancari, Gregory P.; Fan, Hongxia. Protective Vaccine Based on Staphylococcus Aureus SA2451 Protein. U.S. Patent Number 9527892, filed October 26, 2012, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9527892.PN.&OS=PN/9527892RS=PN/9527892

Keywords for this news article include: Antibiotics, Antigens, Patents, Genetics, Impetigo, Vaccines, Bacillales, Cardiology, Immunology, Endocarditis, Immunization, Heart Disease, Osteomyelitis, Staph Infections, Staphylococcus aureus, Gram-Positive Bacteria.

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Array BioPharma Inc.

Patent Issued for Quinazoline Analogs as Receptor Tyrosine Kinase Inhibitors (USPTO 9527865)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Wallace, Eli (Lyons, CO); Topalov, George (Superior, CO); Lyssikatos, Joseph (Superior, CO); Buckmelter, Alexandre (Superior, CO); Zhao, Qian (Superior, CO), filed on September 7, 2012, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9527865 is assigned to Array BioPharma Inc. (Boulder, CO).

The following quote was obtained by the news editors from the background information supplied by the inventors: "This invention relates to novel inhibitors of type I receptor tyrosine kinases and related kinases, pharmaceutical compositions containing the inhibitors, and methods for preparing these inhibitors. The inhibitors are useful for the treatment of hyperproliferative diseases, such as cancer and inflammation, in mammals and especially in humans.

"The type I receptor tyrosine kinase family consists of four closely related receptors: EGFR (ErbB1 or HER1), ErbB2 (HER2), ErbB3 (HER), and ErbB4 (HER4) (Reviewed in
Riese and Steprn, Bioessays (1998) 20:41-48, Olayioye et al., EMBO Journal (2000) 19:3159-3167 and Schlessinger, Cell (2002) 110:669-672. These are single pass transmembrane glycoprotein receptors containing an extracellular ligand binding region and an intracellular signaling domain. In addition, all receptors contain an intracellular active tyrosine kinase domain with the exception of ErbB3 whose kinase domain does not exhibit enzymatic activity. These receptors transmit extracellular signals through the cytosol to the nucleus upon activation. The activation process is initiated by ligand binding to the extracellular domain of the receptor by one of a number of different hormones. Upon ligand binding, homo- or heterodimerization is induced which results in the activation of the tyrosine kinase domains and phosphorylation of tyrosines on the intracellular signaling domains. Since no known ligand for ErbB2 has been described and ErbB3 lacks an active kinase domain, these receptors must heterodimerize to elicit a response. The phosphotyrosines then recruit the necessary cofactors to initiate several different signaling cascades including the ras/raf/MEK/MAPK and PI3K/AKT pathways. The precise signal elicited will depend on what ligands are present since the intracellular signaling domains differ as to what pathways are activated. These signaling pathways lead to both cell proliferation and cell survival through inhibition of apoptosis.


"The type I tyrosine kinase receptor family have been an active area of anti-cancer research (Reviewed in Mendelsohn and Baselga, Oncogene (2000) 19:6550-6565 and Normanno et al., Endocrine-Related Cancer (2003) 10:1-21). Several inhibitors of the EGFR and the ErbB2 signaling pathway have demonstrated clinical efficacy in cancer treatment. Herceptin, a humanized version of anti-ErbB2 monoclonal antibody, was approved for use in breast cancer in the United States in 1998. Iressa and Tarceva are small molecule inhibitors of EGFR that are expected to be commercially available. In addition, several other antibodies and small molecules that target the interruption of the type I tyrosine kinase receptor signaling pathways are in clinical and preclinical development. For example, IMC-225, which is a humanized antibody against the extracellular domain of EGFR demonstrated efficacy and will likely be approved."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: "This invention provides compounds, methods to produce these compounds, and pharmaceutical compositions containing the compounds that inhibit type I receptor tyrosine kinases. Such compounds, generally referred to as quinazoline analogs, have utility as therapeutic agents for diseases that can be treated by the inhibition of type I receptor tyrosine kinases. They may also act as inhibitors of serine, threonine, and dual specificity kinases inhibitors. In general, the invention relates to quinazoline derivatives of general Formula I:

"##STR00002## wherein A is bonded to at least one of the carbons at positions 5, 6, 7 or 8 of the bicyclic ring and wherein the bicyclic ring is substituted by zero, one or two independent R.sup.3 groups; X is N, CH, CF or C--CN; A is Q or Z; Q is

"##STR00003## R.sup.1 is a substituted or unsubstituted, monocyclic or bicyclic, aryl or heteroaryl moiety; R.sup.2 is H or a substituted or unsubstituted C.sub.1-8 alkyl, allyl,
substituted benzyl; R.sup.3 is hydrogen, halogen, cyano, nitro, C.sub.1-C.sub.10 alkyl, C.sub.2-
C.sub.10 alkenyl, C.sub.2-C.sub.10 alkynyl, C.sub.3-C.sub.10 cycloalkyl, C.sub.3-C.sub.10
cycloalkylalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, partially unsaturated
heterocyclyl, heterocyclylalkyl, --NR.sup.4SO.sub.2R.sup.5--SO.sub.2NR.sup.6R.sup.4, --C(O)
R.sup.6, --C(O)OR.sup.6, --OC(O)R.sup.6, --NR.sup.4C(O)OR.sup.5, --NR.sup.4C(O)R.sup.6,
--C(O)NR.sup.4R.sup.6, --NR.sup.4R.sup.6, --NR.sup.4C(O)NR.sup.4R.sup.6, --OR.sup.6, --S
(O)R.sup.5, --SO.sub.2R.sup.5, or SR.sup.6, wherein said alkyl, alkenyl, alkynyl, cycloalkyl,
cycloalkylalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, partially unsaturated
heterocyclyl, and heterocyclylalkyl is optionally substituted with one to five groups
independently selected from the group consisting of oxo, halogen, cyano, nitro,
C.sub.1-C.sub.10 alkyl, C.sub.2-C.sub.10 alkenyl, C.sub.2-C.sub.10 alkynyl, C.sub.3-C.sub.10
cycloalkyl, C.sub.3-C.sub.10 cycloalkylalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy,
azido, --NR.sup.4SO.sub.2R.sup.5, --SO.sub.2NR.sup.6R.sup.4, --C(O)R.sup.6, --C(O)
OR.sup.6, --OC(O)R.sup.6, --NR.sup.4C(O)OR.sup.5, --NR.sup.4C(O)R.sup.6, --C(O)
NR.sup.4R.sup.6, --NR.sup.4R.sup.6, --NR.sup.4C(O)NR.sup.4R.sup.6, --NR.sup.4C(NC)
NR.sup.4R.sup.6, --OR.sup.6, --S(O)R.sup.5, --SO.sub.2R.sup.5, aryl, aryalkyl, heteroaryl,
heteroarylalkyl, heterocyclyl, and heterocyclylalkyl; R.sup.10 is hydrogen, halogen, cyano, nitro,
C.sub.1-C.sub.10 alkyl, C.sub.2-C.sub.10 alkenyl, C.sub.2-C.sub.10 alkynyl, C.sub.3-C.sub.10
cycloalkyl, C.sub.3-C.sub.10 cycloalkylalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl,
heterocyclyl, heterocyclylalkyl, partially unsaturated heterocyclyl --NR.sup.4SO.sub.2R.sup.5--
SO.sub.2NR.sup.6R.sup.4, --C(O)R.sup.6, --C(O)OR.sup.6, --OC(O)R.sup.6, --NR.sup.4C(O)
OR.sup.6, --C(O)OR.sup.6, --OC(O)R.sup.6, --NR.sup.4C(O)
OR.sup.5, --NR.sup.4C(O)R.sup.6, --C(O)NR.sup.4R.sup.6, --NR.sup.4R.sup.6, --NR.sup.4C
(O)NR.sup.4R.sup.6, --OR.sup.6, --S(O)R.sup.5, --SO.sub.2R.sup.5, or SR.sup.6, wherein said
alkyl, alkenyl, cycloalkyl, aryl, heteroaryl, heterocyclyl, and partially unsaturated heterocyclyl
is optionally substituted with one to five groups independently selected from the
substituted benzyl; R.sup.3 is hydrogen, halogen, cyano, nitro, C.sub.1-C.sub.10 alkyl, C.sub.2-
C.sub.10 alkenyl, C.sub.2-C.sub.10 alkynyl, C.sub.3-C.sub.10 cycloalkyl, C.sub.3-C.sub.10
cycloalkylalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, partially unsaturated
heterocyclyl, heterocyclylalkyl, --NR.sup.4SO.sub.2R.sup.5--SO.sub.2NR.sup.6R.sup.4, --C(O)
R.sup.6, --C(O)OR.sup.6, --OC(O)R.sup.6, --NR.sup.4C(O)OR.sup.5, --NR.sup.4C(O)R.sup.6,
--C(O)NR.sup.4R.sup.6, --NR.sup.4R.sup.6, --NR.sup.4C(O)NR.sup.4R.sup.6, --OR.sup.6, --S
(O)R.sup.5, --SO.sub.2R.sup.5, or SR.sup.6, wherein said alkyl, alkenyl, alkynyl, cycloalkyl,
cycloalkylalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, partially unsaturated
heterocyclyl, and heterocyclylalkyl is optionally substituted with one to five groups
independently selected from the group consisting of oxo, halogen, cyano, nitro,
C.sub.1-C.sub.10 alkyl, C.sub.2-C.sub.10 alkenyl, C.sub.2-C.sub.10 alkynyl, C.sub.3-C.sub.10
cycloalkyl, C.sub.3-C.sub.10 cycloalkylalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy,
azido, --NR.sup.4SO.sub.2R.sup.5, --SO.sub.2NR.sup.6R.sup.4, --C(O)R.sup.6, --C(O)
OR.sup.6, --OC(O)R.sup.6, --NR.sup.4C(O)OR.sup.5, --NR.sup.4C(O)R.sup.6, --C(O)
NR.sup.4R.sup.6, --NR.sup.4R.sup.6, --NR.sup.4C(O)NR.sup.4R.sup.6, --NR.sup.4C(NC)
NR.sup.4R.sup.6, --OR.sup.6, --S(O)R.sup.5, --SO.sub.2R.sup.5, aryl, aryalkyl, heteroaryl,
heteroarylalkyl, heterocyclyl, and heterocyclylalkyl, wherein g is 1 to 3 and each R.sup.10 can be the same or different; or one or more of said
R.sup.10 groups may be independently joined together with the atoms to which they are attached
to complete a 3 to 10 membered cycloalkyl ring or heterocycloalkyl ring optionally containing
one or more additional heteroatoms selected from the group consisting of O, S, SO, SO.sub.2
and NR.sup.6, where each ring carbon is optionally substituted with one to three groups
independently selected from the group consisting of halogen, C.sub.1-C.sub.10 alkyl, C.sub.2-
C.sub.10 alkenyl, C.sub.2-C.sub.10 alkynyl, C.sub.3-C.sub.10 cycloalkyl, C.sub.3-C.sub.10
cycloalkylalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, aryl,
OR.sup.8, NR.sup.6R.sup.8, SR.sup.6, heteroaryl, arylalkyl, heteroarylalkyl, heterocyclyl, and
heterocyclylalkyl, provided said ring does not contain two adjacent 0 or two adjacent S atoms; Z is
"##STR00004## wherein when R.sup.6.dbd.H then Z further includes
"##STR00005## and wherein Z includes one or more R.sup.8 or R.sup.9 groups,
wherein said R.sup.8 and R.sup.9 groups may be bonded to the same or different atoms; W and
V are independently selected from the group consisting of CR.sup.7R.sup.8, CR.sup.8R.sup.9,
O, NR.sup.6, S, SO, and SO.sub.2; Y is selected from the group consisting of S, SO, SO.sub.2,
CR.sup.7CR.sup.8, and CR.sup.8R.sup.9, provided that when W is O, NR.sup.6, S, SO, or
SO$\text{.sub.2}$, then $V$ is CR$\text{.sup.8R}.\text{sup.9}$, and when $V$ is O, NR$\text{.sup.6}$, S, SO, or SO$\text{.sub.2}$, then $W$ and $Y$ are each CR$\text{.sup.8R}.\text{sup.9}$; $R\text{.sup.4}$ is H or C$\text{.sub.1-6}$ alkyl; $R\text{.sup.5}$ is trifluoromethyl, C$\text{.sub.1-2C}.\text{sub.10}$ alky1, C$\text{.sub.3-3C}.\text{sub.10}$ cycloalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclylalkyl, or partially unsaturated heterocycle, wherein said alkyl, cycloalkyl, aryl, arylalkyl, heteroaryl, heterocyclylalkyl, heterocyclyl, heterocyclylalkyl is optionally substituted with one to five groups independently selected from the group consisting of oxo, halogen, C$\text{.sub.1-2C}.\text{sub.10}$ alky1, C$\text{.sub.2-2C}.\text{sub.10}$ alkenyl, C$\text{.sub.2-3C}.\text{sub.10}$ alkynyl, cyano, nitro, OR$\text{.sup.6}$, NR$\text{.sup.4R}.\text{sup.6}$, SR$\text{.sup.6}$, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, aryl, heteroaryl, arylalkyl, heterocyclyl, heterocyclyl, and heterocyclylalkyl; $R\text{.sup.6}$, $R\text{.sup.8}$ and $R\text{.sup.9}$ are independently selected from the group consisting of hydrogen, trifluoromethyl, C$\text{.sub.1-3C}.\text{sub.10}$ alky1, (CH$\text{.sub.2}).\text{sub.0-4C}.\text{sub.3-3C}.\text{sub.10}$ cycloalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, cycloalkyl, aryl, arylalkyl, heteroaryl, heterocyclylalkyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkylalkyl, partially unsaturated heterocycle, and heterocyclylalkylalkyl is optionally substituted with one to five groups independently selected from the group consisting of oxo, halogen, C$\text{.sub.1-2C}.\text{sub.10}$ alky1, C$\text{.sub.2-2C}.\text{sub.10}$ alkenyl, C$\text{.sub.2-3C}.\text{sub.10}$ alkynyl, C$\text{.sub.3-3C}.\text{sub.10}$ cycloalkyl, cyano, nitro, OR$\text{.sup.6}$, NR$\text{.sup.6R}.\text{sup.8}$, SR$\text{.sup.6}$, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, aryl, heteroaryl, heterocyclyl, heterocyclylalkyl, heterocyclylalkyl, heterocyclylalkylalkyl, partially unsaturated heterocyclyl and heterocyclylalkyl; $R\text{.sup.7}$ is hydrogen, halogen, cyano, nitro, C$\text{.sub.1-3C}.\text{sub.10}$ alky1, C$\text{.sub.2-2C}.\text{sub.10}$ alkenyl, C$\text{.sub.2-3C}.\text{sub.10}$ alkynyl, C$\text{.sub.2-3C}.\text{sub.10}$ cycloalkyl, C$\text{.sub.3-3C}.\text{sub.10}$ cycloalkylalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkylalkyl, partially unsaturated heterocycle, and heterocyclylalkylalkyl is optionally substituted with one to five groups independently selected from the group consisting of oxo, halogen, C$\text{.sub.1-2C}.\text{sub.10}$ alky1, C$\text{.sub.2-2C}.\text{sub.10}$ alkenyl, C$\text{.sub.2-3C}.\text{sub.10}$ alkynyl, C$\text{.sub.3-3C}.\text{sub.10}$ cycloalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, --NR$\text{.sup.4SO}.\text{sub.2R}.\text{sup.5}$--SO$\text{.sub.2NR}.\text{sub.6R}.\text{sup.4}$, --C(O)R$\text{.sup.6}$, --C(O)OR$\text{.sup.6}$, --OC(O)R$\text{.sup.6}$, --NR$\text{.sup.4C(O)OR}.\text{sub.6}$, --C(O)NR$\text{.sup.4R}.\text{sub.6}$, --NR$\text{.sup.4R}.\text{sup.6}$, --NR$\text{.sup.4C(O)NR}.\text{sub.6R}.\text{sup.4}$, --OR$\text{.sup.6}$, --S(O)R$\text{.sup.5}$, --SO$\text{.sub.2NR}.\text{sub.5}$, or $R\text{.sup.6}$, wherein said alkyl, alkenyl, alkynyl, cycloalkyl, aryl, heteroaryl heterocyclyl, and partially unsaturated heterocyclyl is optionally substituted with one to five groups independently selected from the group consisting of oxo, halogen, C$\text{.sub.1-2C}.\text{sub.10}$ alky1, C$\text{.sub.2-2C}.\text{sub.10}$ alkenyl, C$\text{.sub.2-3C}.\text{sub.10}$ alkynyl, C$\text{.sub.3-3C}.\text{sub.10}$ cycloalkyl, C$\text{.sub.3-3C}.\text{sub.10}$ cycloalkylalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, --NR$\text{.sup.4SO}.\text{sub.2R}.\text{sup.5}$, --SO$\text{.sub.2NR}.\text{sub.6R}.\text{sup.4}$, --C(O)R$\text{.sup.6}$, --C(O)OR$\text{.sup.6}$, --OC(O)R$\text{.sup.6}$, --NR$\text{.sup.4C(O)OR}.\text{sub.6}$, --C(O)NR$\text{.sup.4R}.\text{sub.6}$, --NR$\text{.sup.4R}.\text{sup.6}$, --NR$\text{.sup.4C(O)NR}.\text{sub.6R}.\text{sup.4}$, --OR$\text{.sup.6}$, --S(O)R$\text{.sup.5}$, --SO$\text{.sub.2NR}.\text{sub.5}$, --aryl, arylalkyl, heteroaryl, heterocyclylalkyl, heterocyclyl, partially unsaturated heterocyclyl and heterocyclylalkyl; or $R\text{.sup.4}$ and $R\text{.sup.6}$ together with the atoms to which they are attached may be independently joined to complete a 3 to 10 membered cycloalkyl ring or heterocyclylalkyl ring optionally containing one or more additional heteroatoms selected from the group consisting of O, S, SO, SO$\text{.sub.2}$ and NR$\text{.sup.6}$, wherein each ring carbon is optionally substituted with one to three...
groups independently selected from the group consisting of halogen, C\textsubscript{1}-C\textsubscript{10} alkyl, C\textsubscript{2}-C\textsubscript{10} alkenyl, C\textsubscript{2}-C\textsubscript{10} alkynyl, C\textsubscript{3}-C\textsubscript{10} cycloalkyl, C\textsubscript{3}-C\textsubscript{10} cycloalkylalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, aryl, OR\textsuperscript{8}, NR\textsuperscript{6}R\textsuperscript{8}, SR\textsuperscript{6}, N\textsuperscript{6}R\textsuperscript{6}, heteroaryl, aryalkyl, heteroaryalkyl, heterocyclyl, partially unsaturated heterocyclyl and heterocyclylalkyl, provided said ring does not contain two adjacent 0 or two adjacent S atoms; or R\textsuperscript{7} and R\textsuperscript{8} together with the atoms to which they are attached may be independently joined to complete a 3 to 10 membered cycloalkyl ring or heterocycloalkyl ring optionally containing one or more additional heteroatoms selected from the group consisting of O, S, SO, SO\textsubscript{2} and NR\textsuperscript{6}, wherein each ring carbon is optionally substituted with one to three groups independently selected from the group consisting of halogen, C\textsubscript{1}-C\textsubscript{10} alkyl, C\textsubscript{2}-C\textsubscript{10} alkenyl, C\textsubscript{2}-C\textsubscript{10} alkynyl, C\textsubscript{3}-C\textsubscript{10} cycloalkyl, C\textsubscript{3}-C\textsubscript{10} cycloalkylalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, aryl, OR\textsuperscript{8}, NR\textsuperscript{6}R\textsuperscript{8}, SR\textsuperscript{6}, N\textsuperscript{6}R\textsuperscript{6}, heteroaryl, aryalkyl, heteroaryalkyl, heterocyclyl, partially unsaturated heterocyclyl and heterocyclylalkyl; provided said ring does not contain two adjacent 0 or two adjacent S atoms; or R\textsuperscript{8} and R\textsuperscript{9} together with the atoms to which they are attached may be independently joined to complete a 3 to 10 membered cycloalkyl ring or heterocycloalkyl ring optionally containing one or more additional heteroatoms selected from the group consisting of O, S, SO, SO\textsubscript{2} and NR\textsuperscript{6}, wherein each ring carbon may be optionally substituted with one to three groups independently selected from the group consisting of halogen, C\textsubscript{1}-C\textsubscript{10} alkyl, C\textsubscript{2}-C\textsubscript{10} alkenyl, C\textsubscript{2}-C\textsubscript{10} alkynyl, C\textsubscript{3}-C\textsubscript{10} cycloalkyl, C\textsubscript{3}-C\textsubscript{10} cycloalkylalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, aryl, OR\textsuperscript{8}, NR\textsuperscript{6}R\textsuperscript{8}, SR\textsuperscript{6}, heteroaryl, aryalkyl, heteroaryalkyl, heterocyclyl, partially unsaturated heterocyclyl and heterocyclylalkyl, provided said ring does not contain two adjacent 0 or two adjacent S atoms; or R\textsuperscript{8} and R\textsuperscript{10} together with the atoms to which they are attached may be independently joined to complete a 3 to 10 membered cycloalkyl ring or heterocycloalkyl ring optionally containing one or more additional heteroatoms selected from the group consisting of O, S, SO, SO\textsubscript{2} and NR\textsuperscript{6}, wherein each ring carbon may be optionally substituted with one to three groups independently selected from the group consisting of halogen, C\textsubscript{1}-C\textsubscript{10} alkyl, C\textsubscript{2}-C\textsubscript{10} alkenyl, C\textsubscript{2}-C\textsubscript{10} alkynyl, C\textsubscript{3}-C\textsubscript{10} cycloalkyl, C\textsubscript{3}-C\textsubscript{10} cycloalkylalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, aryl, OR\textsuperscript{8}, NR\textsuperscript{6}R\textsuperscript{8}, SR\textsuperscript{6}, heteroaryl, aryalkyl, heteroaryalkyl, heterocyclyl, partially unsaturated heterocyclyl and heterocyclylalkyl, provided said ring does not contain two adjacent 0 or two adjacent S atoms; or R\textsuperscript{8} and R\textsuperscript{10} together with the atoms to which they are attached may be independently joined to complete a 3 to 10 membered cycloalkyl ring or heterocycloalkyl ring optionally containing one or more additional heteroatoms selected from the group consisting of O, S, SO, SO\textsubscript{2} and NR\textsuperscript{6}, wherein each ring carbon may be optionally substituted with one to three groups independently selected from the group consisting of halogen, C\textsubscript{1}-C\textsubscript{10} alkyl, C\textsubscript{2}-C\textsubscript{10} alkenyl, C\textsubscript{2}-C\textsubscript{10} alkynyl, C\textsubscript{3}-C\textsubscript{10} cycloalkyl, C\textsubscript{3}-C\textsubscript{10} cycloalkylalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, aryl, OR\textsuperscript{8}, NR\textsuperscript{6}R\textsuperscript{8}, SR\textsuperscript{6}, heteroaryl, aryalkyl, heteroaryalkyl, heterocyclyl, partially unsaturated heterocyclyl and heterocyclylalkyl, provided said ring does not contain two adjacent 0 or two adjacent S atoms; or R\textsuperscript{8} and R\textsuperscript{10} together with the atoms to which they are attached may be independently joined to complete a 3 to 10 membered cycloalkyl ring or heterocycloalkyl ring optionally containing one or more additional heteroatoms selected from the group consisting of O, S, SO, SO\textsubscript{2} and NR\textsuperscript{6}, wherein each ring carbon may be optionally substituted with one to three groups independently selected from the group consisting of halogen, C\textsubscript{1}-C\textsubscript{10} alkyl, C\textsubscript{2}-C\textsubscript{10} alkenyl, C\textsubscript{2}-C\textsubscript{10} alkynyl, C\textsubscript{3}-C\textsubscript{10} cycloalkyl, C\textsubscript{3}-C\textsubscript{10} cycloalkylalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, aryl, OR\textsuperscript{8}, NR\textsuperscript{6}R\textsuperscript{8}, SR\textsuperscript{6}, heteroaryl, aryalkyl, heteroaryalkyl, heterocyclyl, partially unsaturated heterocyclyl and heterocyclylalkyl, provided said ring does not contain two adjacent 0 or two adjacent S atoms; or R\textsuperscript{8} and R\textsuperscript{10} together with the atoms to which they are attached may be independently joined to complete a 3 to 10 membered cycloalkyl ring or heterocycloalkyl ring optionally containing one or more additional heteroatoms selected from the group consisting of O, S, SO, SO\textsubscript{2} and NR\textsuperscript{6}, wherein each ring carbon may be optionally substituted with one to three groups independently selected from the group consisting of halogen, C\textsubscript{1}-C\textsubscript{10} alkyl, C\textsubscript{2}-C\textsubscript{10} alkenyl, C\textsubscript{2}-C\textsubscript{10} alkynyl, C\textsubscript{3}-C\textsubscript{10} cycloalkyl, C\textsubscript{3}-C\textsubscript{10} cycloalkylalkyl, cyano, nitro, trifluoromethyl, difluoromethoxy, trifluoromethoxy, azido, aryl, OR\textsuperscript{8}, NR\textsuperscript{6}R\textsuperscript{8}, SR\textsuperscript{6}, heteroaryl, aryalkyl, heteroaryalkyl, heterocyclyl, partially unsaturated heterocyclyl and heterocyclylalkyl, provided said ring does not contain two adjacent 0 or two adjacent S atoms.

"The invention may also be directed to pharmaceutically acceptable prodrugs, pharmaceutically active metabolites, and pharmaceutically acceptable salts of the compound of general Formula I. Methods of making the compounds of Formula I are also described.

"In a further aspect, the present invention provides compounds that inhibit the activity of type I receptor tyrosine kinases such as EGFR, ErbB2, ErbB3, ErbB4, VEGFR2, Flt3
and FGFR, comprising compounds of Formula I.

"In a further aspect, the present invention provides a method of treating diseases or medical conditions mediated by type I receptor tyrosine kinases which comprises administering to a warm-blooded animal an effective amount of a compound of Formula I, or a pharmaceutically acceptable salt or in vivo cleavable prodrug thereof.

"In a further aspect, the present invention provides a method of inhibiting the production of type I receptor kinases which comprises administering to a warm-blooded animal an effective amount of a compound of Formula I, or a pharmaceutically acceptable salt or in vivo cleavable prodrug thereof.

"In a further aspect, the present invention provides a method of providing type I receptor kinase inhibitory effect comprising administering to a warm-blooded animal an effective amount of a compound of Formula I, or a pharmaceutically acceptable salt or in vivo cleavable prodrug thereof.

"In a further aspect, the present invention provides treating or preventing a type I receptor kinase mediated condition, comprising administering an amount of a compound effective to treat or prevent said type I receptor kinase-mediated condition or a pharmaceutical composition comprising said compound, to a human or animal in need thereof, wherein said compound is a compound of Formula I, or a pharmaceutically-acceptable salt or in vivo cleavable prodrug thereof. The type I receptor kinase mediated condition that can be treated according to the methods of this invention includes hyperproliferative disorders, such as cancer of the head and neck, lung, breast, colon, ovary, bladder, stomach, kidney, skin, pancreas, leukemias, lymphomas, esophagus, uterus or prostate, among other kinds of hyperproliferative disorders.

"The compounds of Formula I may be used advantageously in combination with other known therapeutic agents.

"The invention also relates to pharmaceutical compositions comprising an effective amount of an agent selected from compounds of Formula I or a pharmaceutically acceptable prodrug, pharmaceutically active metabolite, or pharmaceutically acceptable salt thereof.

"Additional advantages and novel features of this invention shall be set forth in part in the description that follows, and in part will become apparent to those skilled in the art upon examination of the following specification, or may be learned by the practice of the invention. The advantages of the invention may be realized and attained by means of the instrumentalities, combinations, compositions, and methods particularly pointed out in the appended claims.”

URL and more information on this patent, see: Wallace, Eli; Topalov, George; Lyssikatos, Joseph; Buckmelter, Alexandre; Zhao, Qian. Quinazoline Analogs as Receptor Tyrosine Kinase Inhibitors. U.S. Patent Number 9527865, filed September 7, 2012, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9527865.PN.&OS=PN/9527865RS=PN/9527865

Keywords for this news article include: Gases, Kinase, Elements, Genetics, Hydrogen, Oncology, Tyrosine, Breast Cancer, Women's Health, Inorganic Chemicals, Aromatic Amino Acids, Array BioPharma Inc., Enzymes and Coenzymes, Biotechnology Companies.

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**Patent Issued for Reagents and Methods for Detecting HCV (USPTO 9528163)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventors Uzgiris, Arejas (Berkeley, CA); Pandit, Sunil (Concord, CA); Palmer, Lance (Plainsboro, NJ), filed on June 20, 2012, was published online on December 27, 2016.

The patent's assignee for patent number 9528163 is Siemens Healthcare Diagnostics Inc. (Tarrytown, NY).

News editors obtained the following quote from the background information supplied by the inventors: "Hepatitis C virus (HCV) infection is a major health problem that leads to chronic liver disease, such as cirrhosis and hepatocellular carcinoma, in a substantial number of infected individuals, estimated to be 2-15% of the world's population. There are an estimated 3.9 million infected people in the United States alone, according to the U.S. Center for Disease Control, roughly five times the number of people infected with the human immunodeficiency virus (HIV). According to the World Health Organization, there are more than 170 million infected individuals worldwide, with at least 3 to 4 million people being infected each year. Once infected, about 20% of people clear the virus, but the rest harbor HCV for the rest of their lives. Ten to twenty percent of chronically infected individuals eventually develop liver-destroying cirrhosis or cancer. The viral disease is transmitted parenterally by contaminated blood and blood products, contaminated needles, or sexually, and vertically from infected mothers or carrier mothers to their off-spring."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "The present disclosure relates to oligonucleotide sequences for amplification primers and their use in performing nucleic acid amplifications of HCV, in particular regions that encode the NS3 polypeptide. In some embodiments the primers are used in nested PCR methods for the detection or sequencing of HCV NS3. The oligonucleotide sequences are also provided assembled as kits that can be used to detect or sequence HCV NS3.

"In some embodiments, isolated oligonucleotide amplification primers comprise a nucleic acid sequence selected from the group consisting of SEQ ID NOS: 1-20, complementary sequences thereof, active fragments thereof, and combinations thereof.

"In some embodiments, collections of primers for amplifying a portion of HCV NS3 1a genomic sequence are provided which comprise one or more forward primers selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, active fragments thereof, and combinations thereof; and one or more reverse primers selected from the group consisting of SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, active fragments thereof, and combinations thereof.

"In some embodiments, collections of primers for amplifying a portion of HCV NS3 1b genomic sequence are provided which comprise one or more forward primers selected from the group consisting of SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, active fragments thereof, and combinations thereof; and one or more reverse primers selected from the group consisting of SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, active fragments thereof, and combinations thereof.

"In some embodiments, kits for amplifying HCV NS3 by nested PCR are provided that comprise one of the aforementioned collections of primers as outer primers in combination
with a suitable set of inner primers.

"In some embodiments, methods of amplifying HCV NS3 in a sample are provided that comprise contacting a sample with one of the aforementioned collections of primers as outer primers and submitting the resulting mixture to a first nucleic acid amplification reaction. In some embodiments, these methods further comprise contacting a product from the first nucleic acid amplification reaction with a set of inner primers and submitting the resulting mixture to a second nucleic acid amplification reaction. In some embodiments, these methods further comprise sequencing a product from the second nucleic acid amplification reaction to detect an HCV NS3 polymorphism."

For additional information on this patent, see: Uzgiris, Arejas; Pandit, Sunil; Palmer, Lance. Reagents and Methods for Detecting HCV. U.S. Patent Number 9528163, filed June 20, 2012, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetacgi%2FnhlParser.nhp%3FNPH%3FIDL%3D9528163.PN.&OS=PN/9528163RS=PN/9528163

Keywords for this news article include: Genetics, Siemens Healthcare Diagnostics Inc.

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**Glycotope GmbH**

**Patent Issued for Recombinant Human Follicle-Stimulating Hormone (USPTO 9527899)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Goletz, Steffen (Berlin, DE); Stockl, Lars (Berlin, DE), filed on August 4, 2011, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9527899 is assigned to Glycotope GmbH (Berlin, DE).

The following quote was obtained by the news editors from the background information supplied by the inventors: "Gonadotropins are a group of protein hormones which regulate gonadal function in the male and female and thereby play an important role in human fertility. They are secreted by gonadotrope cells of the pituitary gland of vertebrates after stimulation by the gonadotropin-releasing hormone (GnRH). Gonadotropins are heterodimeric glycoproteins including follicle stimulating hormone (FSH), luteinizing hormone (LH) and chorionic gonadotropin (CG). The gonadotropins share identical alpha-subunits but comprise different beta-subunits which ensure receptor binding specificity.

"FSH comprises a 92 amino acid alpha-subunit and a 111 amino acid beta-subunit which confers specific binding to the FSH receptor. Both subunits of the natural protein are modified by glycosylation. The alpha-subunit is naturally glycosylated at Asn52 and Asn78 and the beta-subunit at Asn7 and Asn24. Both subunits are produced in the cells as precursor proteins and then processed and secreted. FSH regulates the development, growth, pubertal maturation, and reproductive processes of the body. In particular, it stimulates the maturation of germ cells and thus is involved in spermatogenesis and folliculogenesis.

"Folliculogenesis is induced by FSH, for example, by binding of FSH to FSH receptors on the surface of granulosa cells. FSH receptors are G protein-coupled receptors
which activate the coupled G protein upon binding of FSH. The G protein in turn activates
adenyl cyclase, resulting in the production of cAMP, a second messenger molecule. The
increasing cAMP concentration in the cell activates several downstream targets, in particular
cAMP dependent protein kinases, which then lead to the synthesis of progesterone and estradiol.
The progesterone and estradiol is secreted by the granulosa cells, inducing folliculogenesis.
Upon stimulation of the granulosa cells by FSH, they also release inhibin-B which forms a
negative feedback loop, inhibiting the production and secretion of FSH in the pituitary gland.
Inhibin-B was shown to be a good surrogate marker for the ovarian stimulation by FSH.

"FSH is widely used in the treatment of infertility, either alone or in combination
with other agents, in particular LH. In the art, generally FSH purified from post-menopausal
human urine (urinary FSH) or FSH recombinantly produced by Chinese hamster ovary (CHO)
cells has been used for human treatment. However, there is considerable heterogeneity
associated with FSH preparations due to different isoforms present. Individual FSH isoforms
exhibit identical amino acid sequences but differ in the extent and nature of their glycosylation.
Particular isoforms are characterized by heterogeneity of the carbohydrate branch structures and
differing amounts of sialic acid (a negatively charged terminal monosaccharide unit)
incorporation, both of which influence the specific bioactivity of the isoform. Thus, the
glycosylation pattern of the FSH has a significant influence on its biological activity.

"However, urinary FSH from different donors and different preparations can
significantly vary in its carbohydrate structures, resulting in a high batch-to-batch variation.
There are also safety concerns regarding the presence of viruses in the urinary products.
Furthermore, FSH obtained from CHO cells exhibits a glycosylation pattern specific for these
hamster cells which is not identical to human glycosylation patterns. These differences result in
varying biological activities and adverse effects of the obtained FSH and thus, of the
pharmaceutical preparations which are to be administered to the patient.

"In view of this, it is one object of the present invention to provide improved FSH
preparations.

"Furthermore, it is an object of the present invention to provide FSH preparations
with novel therapeutic or pharmacological characteristics.

"Furthermore, it is an object of the present invention to provide FSH preparations
which have an improved glycosylation pattern."

In addition to the background information obtained for this patent, NewsRx
journalists also obtained the inventors' summary information for this patent: "The present
inventors have found that improved FSH preparations obtained from human cells which
preferably have been selected for an optimized glycosylation are able to induce the secretion of
sex steroids such as estradiol and progesterone at lower concentrations than corresponding FSH
preparations obtained from human urine or CHO cells. Therefore, the FSH preparations
according to the present invention have surprising characteristics which are useful in therapy.

"The present invention provides, in a first aspect, a recombinant FSH preparation,
wherein the recombinant FSH in the preparation has a glycosylation pattern comprising one or
more of the following characteristics: (i) a relative amount of glycans carrying bisecting N-
acetylgalactosamine (bisGlcNAc) of at least 20%; (ii) a relative amount of glycans carrying
fucose of at least 30%; and/or (iii) a relative amount of 2,6-coupled sialic acid of at least 30%;
and/or (iv) it is a diverse glycosylation pattern.

"In a second aspect, the present invention provides a recombinant FSH preparation
obtainable by production in human cells or a human cell line, preferably in the cell line GT-5s
(DSM ACC3078, deposited on Jul. 28, 2010). It was found that FSH produced in a respective
cell line results in an improved glycosylation profile as is described above and below.
"Also provided is a pharmaceutical composition, comprising the recombinant FSH according to the present invention.

"Furthermore, the present invention pertains to the recombinant FSH preparation or the pharmaceutical composition according to the present invention for use in infertility treatment.

"Furthermore, the present invention pertains to the recombinant FSH preparation or the pharmaceutical composition according to the present invention for inducing and/or stimulating the secretion of sex steroids also independent of cAMP.

"Some experiments have shown that the low concentration effects of the FSH according to the invention are in certain circumstances independent of cAMP signaling in the target cells. Thus, the experiments suggest that the improved FSH preparations according to the present invention may induce the secretion of sex steroids such as progesterone at concentrations without an increase of cAMP secretion. Therefore, it is believed that certain embodiments of the improved FSH preparations according to the present invention are capable of inducing a signal transduction pathway leading to sex steroid secretion which is different from the known signal transduction pathway using cAMP as second messenger described for the commonly used FSH preparations.

"Furthermore, the present invention pertains to the recombinant FSH preparation or the pharmaceutical composition according to the present invention for stimulating or co-stimulating germ cell maturation by a biological process which is independent of cAMP signaling.

"Furthermore, the present invention pertains to the recombinant FSH preparation or the pharmaceutical composition according to the present invention for inducing and/or stimulating the secretion of sex steroids at FSH concentrations at which no significant cAMP release is induced.

"Other objects, features, advantages and aspects of the present invention will become apparent to those skilled in the art from the following description and appended claims. It should be understood, however, that the following description, appended claims, and specific examples, which indicate preferred embodiments of the application, are given by way of illustration only. Various changes and modifications within the spirit and scope of the disclosed invention will become readily apparent to those skilled in the art from reading the following."


Keywords for this news article include: Inhibins, CHO Cells, Cell Line, Estradiol, Estrogens, Amino Acids, Sex Hormones, Glycotope GmbH, Vaginal Agents, Endocrine Cells, Granulosa Cells, Endocrine Glands, Endocrine System, Gonadal Hormones, Ovarian Follicle, Peptide Hormones, Peptide Proteins, Pituitary Hormones, Drugs and Therapies, Vaginal Preparations.

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TOPHARMAN SHANGHAI CO., LTD.

Patent Issued for Salt and Polymorph of Pyrazolopyrimidinone Compound, and Pharmaceutical Composition Containing the Same, Preparation Method and Use (USPTO 9527849)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- TOPHARMAN SHANGHAI CO., LTD. (Shanghai, CN) has been issued patent number 9527849, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Li, Jianfeng (Shanghai, CN); Tian, Guanghui (Shanghai, CN); Wang, Zhen (Shanghai, CN); Suo, Jin (Shanghai, CN); Jiang, Xiangrui (Shanghai, CN); Liu, Zheng (Shanghai, CN); Yang, Xiaojun (Shanghai, CN); Xie, Zhu (Shanghai, CN); Zhao, Xianguo (Shanghai, CN); Zhu, Weiliang (Shanghai, CN); Jiang, Hualiang (Shanghai, CN); Shen, Jingshan (Shanghai, CN).

This patent was filed on August 14, 2012 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "It discloses the use of a class of pyrazolo[4,3-d]pyrimidine-7-one derivatives as cGMP-specific phosphodiesterase inhibitors to treat erectile dysfunction in the international application WO9428902 (CN1124926A). Then in WO0227848 (CN1325398T), it discloses another class of pyrazolo[4,3-d]pyrimidine-7-one derivatives having a potent inhibitory activity for type V of phosphodiesterase (PDE5), which can be used for the treatment of diseases relevant to PDE enzymes.

"A series of compounds having inhibitory activity against PDE5 are disclosed in the international application WO2007056955, which exhibit extremely high activity and selectivity for the PDE5 enzyme in the screening test in vitro of enzyme inhibitors and in which the compound 1-methyl-5-2-propoxy-5-[1-methyl-1-(2-pyrrolidin-1-yl)ethyl]aminosulfonyl-yl phenyl-3-propyl-1,6-dihydro-7H-pyrazolo[4,3-d]pyrimidin-7-one (compound Z, in the Example 80 in WO2007056955) represented by the following formula is included:

"##STR00002##

"However, the compound will significantly degrade at high temperature and in bright light, and has poor chemical stability. Therefore it is particularly important to develop a stable form of the compound Z. Moreover, the compound has disadvantage with poor water-solubility and is difficult to be dissolved, which will cause some negative impact on the pharmaceutical preparation process. On the other hand, the compound itself has a pungent odor, which also has a negative impact on the application as pharmaceutical preparations for human. Therefore, the object of the invention is to develop a form of compound Z suitable for preparing the medicine, which should have good stability, high water solubility, low hygroscopicity, no pungent odor and so on.

"The physical properties of pharmaceutical compounds and salts thereof, as well as their crystals and amorphous thereof have a greater impact on the bioavailability of the drugs, the purity of the drug substance, prescription of preparations etc. So in the pharmaceutical development, it is necessary to study what kinds of salts, crystalline forms, amorphous of the compounds are best to be as a drug. That is, since the above-described physical properties depend on the characteristics of the various compounds, it is usually difficult to predict pharmaceutically acceptable salts, crystals, and amorphousness of the original substances having
good properties; therefore there is a sustained need to study a variety of compounds.

"Thus, one object of the invention is to provide various salts, crystals and amorphousness of compound Z. In addition, another object of the invention is to provide crystals and amorphousness of compounds (I).

"Based on the deeply study on synthesis and separation of various salts and crystals of the compound Z, and researching work on the physical and chemical properties thereof, the present inventors found the forms of salts, crystals and solvate of compound Z having excellent physical properties, which can be used as raw material for medicine directly or intermediates for the manufacture of pharmaceutical raw materials, thereby completing the present invention."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "The present invention relates to a new salt of 1-methyl-5-2-propoxy-5-[1-methyl-1-(2-pyrrolidin-1-yl)ethyl]aminosulfon-yl]phenyl-3-propyl-1,6-dihydro-7H-pyrazolo[4,3-d]pyrimidin-7-one (compound Z), and pharmaceutically acceptable polymorph, solvate, hydrate, dehydrate, co-crystal, anhydrid, or amorphous form thereof, the pharmaceutical compositions and a pharmaceutical unit dosage form containing the same. The invention further relates to co-crystals or complexes of 1-methyl-5-2-propoxy-5-[1-methyl-1-(2-pyrrolidin-1-yl)ethyl]aminosulfon-yl]phenyl-3-propyl-1,6-dihydro-7H-pyrazolo[4,3-d]pyrimidin-7-one and pharmaceutical compositions containing the same. The present invention also relates to a process for the preparation thereof.

"According to one aspect of the present invention, an object of the present invention is to provide a salt of compound 1-methyl-5-2-propoxy-5-[1-methyl-1-(2-pyrrolidin-1-yl)ethyl]aminosulfon-yl]phenyl-3-propyl-1,6-dihydro-7H-pyrazolo[4,3-d]pyrimidin-7-one and the cocrystallization form thereof, having high stability, low moisture absorption, high purity, and being more readily formulated in pharmaceutical processing.

"According to one aspect of the present invention, A further object of the present invention is to provide a compound represented by formula (I) (i.e. the acid addition salts of compound 1-methyl-5-2-propoxy-5-[1-methyl-1-(2-pyrrolidin-1-yl)ethyl]aminosulfon-yl]phenyl-3-propyl-1,6-dihydro-7H-pyrazolo[4,3-d]pyrimidin-7-one and acid X) and pharmaceutically acceptable polymorph, solvate, hydrate, dehydrate, co-crystal, anhydrid, or amorphous form thereof:

"Wherein, X includes, but not limited to, organic or inorganic acid. For example, the organic acid includes, but not limited to, maleic acid, succinic acid, citric acid, tartaric acid, fumaric acid, formic acid, acetic acid, propionic acid, malonic acid, oxalic acid, benzoic acid, phthalic acid, methanesulfonic acid, benzenesulfonic acid, toluenesulfonic acid, naphthalenesulfonic acid, 1,5-naphthalenedisulfonic acid, camphamic acid, camphorsulfonic acid, salicylic acid, acetyl salicylic acid, aspartic acid, glutamic acid, lactic acid, gluconic acid, vitamin C acid, gallic acid, mandelic acid, malic acid, sorbic acid, trifluoroacetic acid, taurine, high taurine, 2-hydroxy ethyl sulfonic acid, cinnamic acid. The inorganic acid includes, but not limited to, hydrochloric acid, hydrobromic acid, hydroiodic acid, sulfuric acid, nitric acid, phosphoric acid, perchloric acid; and the similar protic acid.

"Wherein, X is preferably selected from the group consisting of an organic acid, hydrochloric acid, nitric acid and sulfuric acid.

"X is more preferably selected from the group consisting of maleic acid, succinic acid, citric acid, methanesulfonic acid, hydrochloric acid, nitric acid and sulfuric acid.

"X is more preferable maleic acid or succinic acid.

"The most preferable compound represented by formula (I) is the crystalline form A
of maleate of compound Z.

"The term of 'salt' described herein includes the pharmaceutically acceptable salts and pharmaceutically unacceptable salts. The pharmaceutically unacceptable salts are not preferable to be administrated to the patient, however they may be used to provide the pharmaceutical intermediates and a pharmaceutical bulk drug form.

"The term of 'pharmaceutically acceptable salts' or 'pharmaceutically acceptable acid addition salt' refers to salts prepared by using different pharmaceutically acceptable acid. The salts include, but not limited to, organic salts and inorganic salts, preferably, which are the salts of maleic acid, succinic acid, citric acid, methanesulfonic acid, hydrochloric acid, nitric acid or sulfuric acid, and is most preferably the salts of maleic acid or succinic acid.

"Another embodiment of the present invention relates to pharmaceutical compositions and dosage forms containing therapeutically or prophylactically effective amount of the pharmaceutically acceptable salts of compound 1-methyl-5-2-propoxy-5-[1-methyl-1-(2-pyrrolidin-1-yl)ethyl]aminosulfon-y]phenyl-3-propyl-1,6-dihydro-7H-pyrazolo[4,3-D]pyrimidin-7-one, or a polymorph, solvate, hydrate, dehydrate, co-crystal, anhydrid, or amorphous form.

"Optionally, the acid addition salt of 1-methyl-5-2-propoxy-5-[1-methyl-1-(2-pyrrolidin-1-yl)ethyl]aminosulfon-y]phenyl-3-propyl-1,6-dihydro-7H-pyrazolo[4,3-D]pyrimidin-7-one can absorb moisture to form a hydrate with planar water by placing in the air or by recrystallization. Such acid addition salts containing such moisture are still included in the present invention.

"The solvent in 'solvate' in the present invention may be any solvent used in the manufacture of the salts and crystallization and is not particularly limited. Specifically, for example the solvate may be hydrate, alcoholate, acetone solvate or toluene solvate, and preferably hydrate or alcoholate.

"A further embodiment of the invention relates to the preparation method of the pharmaceutical composition and dosage form comprising a therapeutically or prophylactically effective amount of the pharmaceutically acceptable salt of 1-methyl-5-2-propoxy-5-[1-methyl-1-(2-pyrrolidin-1-yl)ethyl]aminosulfon-y]phenyl-3-propyl-1,6-dihydro-7H-pyrazolo[4,3-D]pyrimidin-7-one, or a polymorph, solvate, hydrate, dehydrate, co-crystal, anhydrid, or amorphous form thereof. The particular preparation method is as follows:

"1. Preparation Method for the Salt of 1-methyl-5-2-propoxy-5-[1-methyl-1-(2-pyrrolidin-1-yl)ethyl]aminosulfon-y]phenyl-3-propyl-1,6-dihydro-7H-pyrazolo[4,3-D]pyrimidin-7-one (Compound Represented by Formula I)

"Referring to Preparation Example 80 of WO2007056955, the compound 1-methyl-5-2-propoxy-5-[1-methyl-1-(2-pyrrolidin-1-yl)ethyl]aminosulfon-y]phenyl-3-propyl-1,6-dihydro-7H-pyrazolo[4,3-D]pyrimidin-7-one (compound Z) is prepared. The compound represented by formula (I) can be prepared as the salt by reacting the corresponding acid with compound Z, the method of the present invention is as follows:

"Method I:

"1) Dissolving compound Z in a first solvent to form a solution a; 2) Dissolving a corresponding acid X in a second solvent to form a solution b; 3) Adding the solution a to the solution b, or adding the solution b to the solution a, so as to obtain a mixed solution, and then separating the salt of the compound Z from the mixed solution (i.e., a compound represented by formula I); Method II: 1) Dissolving compound Z in a first solvent to form a solution a; 2) Adding a corresponding acid X directly to the solution a, and then separating the salt of the compound Z from the solution (i.e., a compound represented by formula I); Method III: 1) Dissolving a corresponding acid X in a second solvent to form a solution b; 2) Adding
compound Z directly into the solution b, and then separating the salt of the compound Z from the solution (i.e., a compound represented by formula I);

"In the above-described method, the first and second solvents may be each independently selected from water, non-aqueous solvent or the mixed solvent thereof, more particularly, include water, alcohols, ethers, esters, hydrocarbons, ketones. The first and second solvents may each independently select from one or more of water; esters (such as ethyl acetate, methyl acetate, propyl acetate, butyl acetate, methyl formate, ethyl formate, propyl formate, butyl formate); alcohols (such as methanol, ethanol, propanol, isopropanol, butanol, ethylene glycol, propylene glycol); ethers (such as diethyl ether, dipropyl ether, diisopropyl ether, petroleum ether, ethylene glycol monomethyl ether, ethylene glycol monoethyl ether, ethylene glycol monopropyl ether, ethylene glycol dimethyl ether, ethylene glycol diethyl ether, propylene glycol monomethyl ether, propylene glycol monoethyl ether, propylene glycol dimethyl ether, tetrahydrofuran, dioxane, dimethoxyethane, diethylene glycol dimethyl ether); ketones (such as acetone, butanone, N-methylpyrrolidone, diethyl ketone); hydrocarbons (such as n-pentane, n-hexane, heptane); aromatic hydrocarbons (such as toluene, benzene, xylene, chlorobenzene, dichlorobenzene); alkylenes (such as methylene chloride, chloroform or 1,2-dichloroethane, carbon tetrachloride); acids (acetic acid, propionic acid); and nitriles (such as acetonitrile, propionitrile).

"The definition of the corresponding acid is same as the definition of X in formula (I).

"The reaction temperature may be varied according to the reagents or solvents, etc., and is generally from -20.degree. C. to 200.degree. C., preferably from 0.degree. C. to 100.degree. C.

"The reaction time is not limited and usually from 10 minutes to 10 hours.

"2. The Preparation Method for Various Crystalline Forms of Compound Z (Compound Represented by Formula I)

"Another aspect of the present invention provides a polymorph and solvate of the salt of Compound Z (Compound represented by formula I) and a preparation method thereof. In the mentioned method, the seed crystal may be added as necessary in the process. The 'seed crystal' herein refers to 'seed' of the compound represented by formula (I) or a homemade crystal material of the compound represented by formula (I), which is used to induce crystallization.

"Method I

"1) Dissolving compound Z in a third solvent to form a solution C; 2) Dissolving a corresponding acid X in a fourth solvent to form a solution D; 3) Adding the solution C into the solution D, or adding the solution D into the solution C, or adding the corresponding acid X directly into the solution C, so as to obtain a mixed solution E; 4) Optionally, adding a fifth solvent into the mixed solution E; 5) Precipitating the target crystal by standing, stirring or adding corresponding seed crystal into the solution prepared in step 4); Method II 1) Dissolving the salt of compound Z (compound represented by formula (I)) in the third solvent to form solution F; 2) Optionally, adding the fifth solvent into the solution F; 3) Precipitating the target crystal by standing, stirring or adding corresponding seed crystal into the solution prepared in step 2); Method III 1) Suspending the salt of compound Z (compound represented by formula (I)) in the third solvent to form suspension G; 2) Optionally, adding the fifth solvent into the solution G; 3) Precipitating the target crystal by heating, stirring and cooling the obtained solution, or adding seed crystal into the solution prepared in step 2);

"Wherein, the third solvent, the fourth solvent and the fifth solvent may be same or different. And the definitions of the third, fourth and fifth solvents are same as those of the above first and second solvents. The range of reaction temperature is same as that for preparing
the salt of the compound Z (compound represented by formula I).

"In particular, the preferred method for preparing the crystalline form A of compound Z maleate is as follows:

"Compound Z is suspended in alcohol and heated to 65.\degree\ C., then one equivalent of maleic acid is added therein, and the mixture is heated under temperature of 65.\degree\ C. for 0.5 to 3 hours. Optionally, active carbon is added to perform the decolorizing. And the resulting filtrate solution is allowed to stand or be stirred at room temperature so as to precipitate the solid, after that, the solid precipitate is isolated, i.e. crystalline form A of the compound Z maleate, which may be isolated by conventional means from the reaction mixture.

"3. Characterization of Crystalline Type of the Salt of Compound Z (Compound Represented by Formula I) in the Polymorph

"In general, the diffraction angle (2.\theta.) in X-ray powder diffraction may have a deviation of \pm 0.2.\degree.. Therefore, the following values of the diffraction angle should be understood to include a range of containing a deviation of \pm 0.2.\degree.. Accordingly, the present invention includes not only the crystals which are identically consistent with the X-ray powder diffraction peaks (diffraction angle), and but also the crystals consistent with the peak (diffraction angle) with a deviation of \pm 0.2.\degree..

"(1) Characterization of Crystalline Form A of Compound Z Maleate
"The present invention provides a crystalline form A of compound Z maleate.
"The data of DSC spectrum (FIG. 1) of the crystalline form A of compound Z maleate are as follows:
"The initial value (Onset)=166.164.+-.1.\degree. C., Peak value (Peak)=168.166. +-.1.\degree. C.
"The melting point of the crystalline form A of compound Z maleate is between 162.+-.2.\degree. C. and 163.+-.2.\degree. C.
"The data of X-ray powder diffraction pattern (see FIG. 2) of crystalline form A of maleate of compound Z are as follows (Table 1): the 2.\theta. diffraction angle is used to express X-ray powder diffraction, wherein the crystalline form has diffraction peaks at 6.30.\degree..+-.0.2.\degree., 20.18.\degree..+-.0.2.\degree., 22.30.\degree..+-.0.2.\degree. and 24.02.\degree..+-.0.2.\degree..

"(2) Characterization of the Amorphous Form of Compound Z Maleate
"The present invention provides an amorphous form of compound Z maleate, the X-ray powder diffraction pattern of which is shown in FIG. 3.

"(3) Characterization of the Crystalline Form I of Compound Z Succinate
"The present invention provides a crystalline form I of compound Z succinate.
"The data of DSC spectrum (FIG. 4) of compound Z succinate are as follows:
"The initial value (Onset)=151.214.+-.1.\degree. C., Peak value (Peak)=154.166. +-.1.\degree. C.
"The melting point of the crystalline form I of compound Z succinate is between 148.+-.2.\degree. C. and 149.+-.2.\degree. C.
"The data of X-ray powder diffraction pattern (FIG. 5) of the crystalline form I of compound Z succinate are as follows (Table 2): the 20 diffraction angle is used to express X-ray
powder diffraction, wherein the crystalline form has diffraction peaks at 6.42.degree..+-.0.2.degree., 8.00.degree..+-.0.2.degree., 18.34.degree..+-.0.2.degree. and 24.56.degree..+-.0.2.degree..


"(4) Characterization of the Crystalline Form I of Compound Z Methanesulfonate

"The present invention provides the crystalline form I of compound Z methanesulfonate.

"The data of X-ray powder diffraction pattern (FIG. 6) of the crystalline form I of compound Z methanesulfonate are as follows (Table 3): the 20 diffraction angle is used to express X-ray powder diffraction, wherein the crystalline form has diffraction peaks at 6.62.degree..+-.0.2.degree., 17.94.degree..+-.0.2.degree., 22.24.degree..+-.0.2.degree. and 26.45.degree..+-.0.2.degree..

"TABLE-US-00003 TABLE 3 X-ray powder diffraction data of crystalline form I of the compound Z methanesulfonate Diffraction angle (2. theta., degree) Intensity (I/I.sub.0, %) 6.615 100.0 15.819 17.6 16.143 16.3 17.942 35.5 18.472 19.2 22.238 28.9 26.452 19.7

"(5) Characterization of the Crystalline Form I of Compound Z Hydrochloride

"The present invention provides a crystalline form I of compound Z hydrochloride.

"The data of DSC spectrum (FIG. 7) of the crystalline form I of compound Z hydrochloride are as follows:

"Peak 1: Initial value (Onset)=137.331.+-.1.degree. C., Peak value (Peak)=143.000. +-.1.degree. C.

"Peak 2: Initial value (Onset)=197.891.+-.1.degree. C., Peak value (Peak)=201.333. +-.1degree. C.

"The data of X-ray powder diffraction pattern (FIG. 8) of the crystalline form I of compound Z hydrochloride are as follows (Table 4): the 2. theta. diffraction angle is used to express X-ray powder diffraction, wherein the crystalline form has diffraction peaks at 7.21.degree..+-.0.2.degree., 8.05.degree..+-.0.2.degree., 12.44.degree..+-.0.2.degree. and 16.32.degree..+-.0.2.degree..

"TABLE-US-00004 TABLE 4 X-ray powder diffraction data of crystalline form I of the compound Z hydrochloride Diffraction angle (2. theta., degree) Intensity (I/I.sub.0, %) 7.212 100.0 8.047 52.6 12.444 28.3 13.050 21.9 16.323 22.3 17.943 16.9 23.993 21.5 25.405 19.1

"(6) Characterization of the Crystalline Form II of Compound Z Hydrochloride

"The present invention provides a crystalline form II of compound Z hydrochloride.

"The data of DSC spectrum (FIG. 9) of the crystalline form II of compound Z hydrochloride are as follows:

"The initial value (Onset)=194.168.+-.2.degree. C., Peak value (Peak)=196.000. +-.2.degree. C.

"The data of X-ray powder diffraction pattern (FIG. 10) of the crystalline form II of compound Z hydrochloride are as follows (Table 5): the 2. theta. diffraction angle is used to express X-ray powder diffraction, wherein the crystalline form has diffraction peaks at 6.21.degree..+-.0.2.degree., 19.28.degree..+-.0.2.degree., 20.79.degree..+-.0.2.degree. and 24.45.degree..+-.0.2.degree.
TABLE-US-00005 TABLE 5 X-ray powder diffraction data of crystalline form II of the compound Z hydrochloride

<table>
<thead>
<tr>
<th>Diffraction angle (2θ, degree)</th>
<th>Intensity (I/I₀, %)</th>
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<tr>
<td>6.212</td>
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<tr>
<td>10.5</td>
<td>19.735</td>
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<tr>
<td>13.7</td>
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<td>15.5</td>
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<td>21.6</td>
<td>24.445</td>
</tr>
<tr>
<td>24.8</td>
<td>9.6</td>
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</table>

(7) Characterization of the Crystalline Form III of Compound Z Hydrochloride

The present invention provides a crystalline form III of compound Z hydrochloride.

The data of DSC spectrum (FIG. 11) of the crystalline form III of compound Z hydrochloride are as follows:

The initial value (Onset)=180.978.+-1.0 degree. C., Peak value (Peak)=182.666.+-1.0 degree. C.

The data of X-ray powder diffraction pattern (FIG. 12) of the crystalline form III of compound Z hydrochloride are as follows (Table 6): the 2θ. diffraction angle is used to express X-ray powder diffraction, wherein the crystalline form has diffraction peaks at 7.22. degree.+-0.2 degree., 16.64. degree.+-0.2 degree., 24.86. degree.+-0.2 degree. and 25.48. degree.+-0.2 degree..

TABLE-US-00006 TABLE 6 X-ray powder diffraction data of crystalline form III of the compound Z hydrochloride

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<tr>
<th>Diffraction angle (2θ, degree)</th>
<th>Intensity (I/I₀, %)</th>
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<tr>
<td>6.801</td>
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<tr>
<td>7.221</td>
<td>100.0</td>
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<tr>
<td>16.639</td>
<td>53.8</td>
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<tr>
<td>17.920</td>
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<tr>
<td>24.859</td>
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<td>26.260</td>
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</tr>
<tr>
<td>27.560</td>
<td>21.6</td>
</tr>
</tbody>
</table>

(8) Characterization of the Crystalline Form IV of Compound Z Hydrochloride

The present invention provides a crystalline form IV of compound Z hydrochloride.

The data of DSC spectrum (FIG. 13) of the crystalline form IV of compound Z hydrochloride are as follows:

The initial value (Onset)=180.050.+-1.0 degree. C., the peak temperature (Peak)=184.333.+-1.0 degree. C.

The initial value (Onset)=196.715.+-1.0 degree. C., the peak temperature (Peak)=199.333.+-1.0 degree. C.

The data of X-ray powder diffraction pattern (FIG. 14) of the crystalline form IV of compound Z hydrochloride are as follows (Table 7): the 2θ. diffraction angle is used to express X-ray powder diffraction, wherein the crystalline form has diffraction peaks at 7.41. degree.+-0.2 degree., 7.64. degree.+-0.2 degree., 17.55. degree.+-0.2 degree. and 25.83. degree.+-0.2 degree..

TABLE-US-00007 TABLE 7 X-ray powder diffraction data of crystalline form IV of the compound Z hydrochloride

<table>
<thead>
<tr>
<th>Diffraction angle (2θ, degree)</th>
<th>Intensity (I/I₀, %)</th>
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<td>21.3</td>
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<td>24.859</td>
<td>53.8</td>
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<td>25.461</td>
<td>20.4</td>
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<td>25.829</td>
<td>24.5</td>
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<tr>
<td>27.276</td>
<td>19.5</td>
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</tbody>
</table>

According to another aspect of the present invention, one object of the present invention is to provide a pharmaceutical composition comprising one or more compounds represented by formula (I) and pharmaceutically acceptable accessories, preferably a pharmaceutical composition comprising maleate, succinate, methanesulfonate, citrate, hydrochloride, sulfate of compound Z, more preferably a pharmaceutical composition comprising crystalline form A of compound Z maleate having a X-ray powder diffraction pattern shown in table 1.

The accessories may be an excipient, a binder, a lubricant, a disintegrating agent, a coloring agent, a corrective, an emulsifier, a surfactant, a solubilizer, a suspending agent, an isotonic agent, a buffering agent, preservatives, an antioxidant, a stabilizer, an absorption accelerators and the like commonly used in the pharmaceutical art, and a suitable combination...
of the foregoing accessories may be used if necessary.

"Preferably, the salts of the compound Z of the present invention may be formulated with at least one pharmaceutical excipient in the oral pharmaceutical composition, each dosage may contain 10 mg to 200 mg of the active ingredient.

"When preparing a solid composition in tablet type, the main active ingredient may be mixed with a pharmaceutical carrier such as starch, lactose, magnesium stearate, etc., or the tablet may be coated with a sugar-coating or other suitable material, or can be treated so as to allow the tablet to have a prolonged or slow releasing function, so that the tablet can release a predetermined amount of the active ingredient in a continuous manner.

"Or, a capsule dosage form can be obtained by mixing the active ingredient with a diluent and filling the resulting mixture into a capsule.

"When using the acid addition salts of the compound Z (compound represented by formula I) of the present invention as therapeutic agents or preventive medicines to treat the above-mentioned diseases, itself (or mixed with pharmaceutically acceptable excipient or diluent etc.) can be orally administered in form of tablet, capsule, granule, powder or syrup etc., or can be non-orally administered in form of injection, injectable powder, sprays or suppositories.

"These formulations may be prepared by conventional methods.

"The usage amount of medicine will be different according to the symptom, age, etc., for example, an adult can be administered 1 to 7 times in one to seven days according to the symptom, the dose is 0.01 mg to 1000 mg, and the administration manner is not limited.

"Another object of the present invention is to provide a use of the compound represented by the formula (I) in the preparation of a medicament for the prevention or treatment of diseases associated with PDE5 enzyme. The disease associated with PDE5 enzyme is erectile dysfunction, pulmonary hypertension, female sexual dysfunction, premature birth, dysmenorrhea, benign prostatic hyperplasia, bladder outlet obstruction, incontinence, unstable and variant angina, hypertension, congestive heart failure, renal failure, atherosclerosis, stroke, peripheral vascular disease, Raynaud's disease, inflammatory disease, bronchitis, chronic asthma, allergic asthma, allergic rhinitis, glaucoma or diseases characterized by enterocinesia disorders, etc."

For the URL and additional information on this patent, see: Li, Jianfeng; Tian, Guanghui; Wang, Zhen; Suo, Jin; Jiang, Xiangrui; Liu, Zheng; Yang, Xiaojun; Xie, Zhu; Zhao, Xianguo; Zhu, Weiliang; Jiang, Hualiang; Shen, Jingshan. Salt and Polymorph of Pyrazolopyrimidinone Compound, and Pharmaceutical Composition Containing the Same, Preparation Method and Use. U.S. Patent Number 9527849, filed August 14, 2012, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetacgi%2FParser%2Fsrchnum.htm&r=1&f=G&l=50&s1=9527849.PN.&OS=PN/9527849RS=PN/9527849

Keywords for this news article include: Alkenes, Succinates, Nitric Acid, Sulfur Acids, Succinic Acids, Sulfuric Acids, Ethylene Glycols, Hydrochloric Acid, Organic Chemicals, Propylene Glycols, Chlorine Compounds, Dicarboxylic Acids, Nitrogen Compounds, Phosphodiesterases, Noncarboxylic Acids, Risk and Prevention, Enzymes and Coenzymes.

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ST. JUDE MEDICAL COORDINATION CENTER BVBA

Patent Issued for Sensor Guide Wire Comprising a Polymer Layer (USPTO 9526454)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- ST. JUDE MEDICAL COORDINATION CENTER BVBA (Zaventem, BE) has been issued patent number 9526454, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Mellin, Lisa (Uppsala, SE); Torne, Karin (Uppsala, SE). This patent was filed on March 13, 2013 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "The present invention relates to a sensor guide wire, and in particular to a sensor guide wire provided with a polymer layer in the tip region.

"Today, there is an increased need for invasive measurements of physiological variables. For example, when investigating cardiovascular diseases, it is strongly desired to obtain local measurements of blood pressure, flow and temperature in order to evaluate the condition of the subject under measurement. Therefore, methods and devices have been developed for disposing a miniature sensor inside the body of an individual at a location where the measurements should be performed, and for communicating with the miniature sensor in order to provide the physician or medical technician with critical information as to the status of a patient's condition. Typically, the miniature sensor is arranged at a distal end of a guide wire, which is generally known in the art, and used for example in connection with the treatment of coronary disease.

"The distal end of the guide wire is inserted into the body of a patient, for example into an opening of the femoral artery, and placed at a desired location. Once the guide wire is placed by the physician into the appropriate location, e.g. in a coronary artery, the miniature sensor can measure the blood pressure and/or flow. The measurement of blood pressure is a way to diagnose e.g. the significance of a stenosis. For evident reasons, the dimensions of the sensor and the guide wire are fairly small; the guide wire typically has a diameter of 0.35 mm. Generally, the sensor element is in the form of an elongated, essentially rectangular chip with a pressure sensitive member in the form of a membrane provided thereon.

"In order to power the sensor and to communicate signals representing the measured physiological variable to a control unit acting as an interface device disposed outside the body, one or more microwires for transmitting the signals are connected to the sensor, and are routed along the guide wire to be passed out from the vessel to an external control unit via a connector assembly. Most commonly, extremely thin electrical cables are provided inside the guide wire, which itself is provided in the form of a tube (having an outer diameter of e.g. 0.35 mm), oftentimes made of stainless steel. In order to increase the bending strength and maneuverability of the tubular guide wire, a core wire is positioned inside the tube. The mentioned electrical leads are positioned in the space between the inner lumen wall of the tube and the core wire. Furthermore, the sensor chip is often arranged in a short tube, also referred to as a jacket or a sleeve. The jacket is hollow and accommodates, besides the sensor chip, a portion of a core wire and often at least one microwire. Furthermore, a first coil may be attached to the distal end of the jacket, and optionally a second coil may be attached to the proximal end of the jacket. The first and second coils may be attached to the respective end of the jacket, e.g. by gluing, or alternatively soldering. The purpose of the first coil is to provide a
tip with high flexibility. In addition, the distal coil is often designed to be radioopaque, to enable the user to locate the tip on an angiogram during use.

"A large flexibility of the sensor guide wire is advantageous in that it allows the sensor guide to be introduced into small and tortuous vessels. It should, however, also be recognized that if the core wire is too flexible, it would be difficult to push the sensor guide forward into the vessels, i.e. the sensor guide wire must possess a certain 'pushability' and a certain 'torquability.' Additionally, the sensor guide must be able to withstand the mechanical stress exerted on the core wire especially in sharp vessel bends.

"Several different designs of sensor guide wires are known in the prior art, and examples of such sensor guide wires are disclosed in U.S. Pat. No. 6,167,763 B1, which describes the cantilevered mounting of the sensor element, US RE39863 E1, which discloses the sensor element, and U.S. Pat. No. 6,248,083 B1, showing the complete sensor guide wire assembly, which all are assigned to the assignee of the present application, and which are hereby all incorporated by reference for the devices and methods described therein.

"A further example of a sensor guide wire is disclosed in WO 2009/054800 A1, assigned to the present assignee. The sensor guide wire has a proximal shaft region, a flexible region, a distal sensor region, and a tip region. The tip region of the sensor guide wire is provided with a tip core wire at least partly enclosed by a distal coil.

"Besides being flexible enough, it can be also important that the sensor guide wire tip responds when steering the sensor guide wire through the tortuous vessels, i.e. the sensor guide wire tip must also have sufficient 'steering response.' 'Steering response' is a measure of the irregular behavior of a sensor guide wire when the sensor guide wire tip is subjected to a non-linear pathway and rotated. This rotation is initiated by the user at the proximal end of the assembly, and depending on the characteristics of the different sections of the assembly, will be transferred along the wire in slightly different ways. The 'steering response' of a sensor guide wire tip is a general property of the distal tip components.

"The inventors of the present invention has further identified a need for a sensor guide wire with improved properties relating to the possibilities for the physician to feel constrictions and various bends and turns in the vessels when introducing the sensor guide wire. Thus, there is a need for a sensor guide wire which provides improved 'sensing capabilities.'"

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "An object of the present invention is to achieve a sensor guide wire which is easier to introduce into small and tortuous vessels than prior art sensor guide wires.

"A further object of the present invention is to provide a sensor guide wire with improved 'sensing capabilities,' i.e. which facilitates for the physician to feel constrictions and plaque, and accordingly, facilitates maneuvering through the various bends and turns in the vessels.

"Still another object of the present invention is to provide a sensor guide wire which is easy to position correctly in the vessel.

"According to one aspect of the present invention, the above mentioned objects can be achieved by a sensor guide wire comprising a polymer layer in the tip region.

"According to a further aspect of the present invention, the above mentioned objects are achieved by a sensor guide wire comprising a polymer layer in the tip region which is radioopaque.

"In accordance with an embodiment of the present invention, the sensor guide wire, used for intravascular measurements of at least one physiological or other variable in a living
body, has a proximal region, a distal sensor region and a tip region.

"The sensor guide wire further comprises, a sensor element arranged in the sensor region, and comprising a sensor portion, for measuring the variable and to generate a sensor signal in response to the variable. A core wire, having a longitudinal axis A, and comprising at least a tip core wire portion, extends essentially along the tip region of the sensor guide wire.

"The tip core wire portion further comprises a distal tip, and at least a major part of the tip core wire portion is provided with a polymer layer essentially enclosing the at least major part.

"The sensor guide wire according to one embodiment of the present invention provides a smoother surface, which does not hinder advancement of the sensor guide wire in the tortuous vessels.

"An embodiment of the present invention may further provide a sensor guide wire which comprises a clearly visible radioopaque tip portion which facilitates the positioning of the sensor guide wire in the vessels.

"According to a further aspect of the present invention, the distal tip of the tip core wire portion of the sensor guide wire may be provided with an enlargement. The enlargement facilitates a secure attachment of the polymer layer and reduces the forces that the layer is subjected to. Furthermore, the enlargement improves the 'sensing capabilities.'

"It is to be understood that both the foregoing general description and the following detailed descriptions are exemplary and explanatory only, and are not restrictive of the invention as claimed."


Keywords for this news article include: Angiology, Hemodynamics, Cardio Device, Blood Pressure, Medical Devices, ST. JUDE MEDICAL COORDINATION CENTER BVBA.

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MEDKARDIA LTD

Patent Issued for Stent Replacement System (USPTO 9526646)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- MEDKARDIA LTD. (Katsrin, IL) has been issued patent number 9526646, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Diamant, Valery (Katzrin, IL); Yasko, Nadezda (Tomsk, RU); Varshitsky, Boris (Jerusalem, IL); Borivker, Nachum (Jerusalem, IL); Lotan, Chaim (Jerusalem, IL).

This patent was filed on December 3, 2008 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Lesions in blood vessels can result from a build-up of an atherosclerotic plaque. The plaque build-up causes a narrowing of the vessel and reduced blood
flow therein. In the case of lesions in coronary arteries such reduced blood flow can lead to heart disease and death.

"Atherosclerotic lesions can also occur at or near an ostium--the opening of a branching conduit. Ostial lesions damage the ostium of a branching conduit. In aorto-ostial lesions, the treatment outcome using conventional balloon angioplasty has been limited by a low success rate and high incidence of restenosis, or recurrence of artery blockage. An attractive alternative for the treatment of this subset of lesions is coronary stenting.

"Coronary stent therapy of aorto-ostial lesions is limited by the need to precisely position the intravascular stent completely within the vascular lumen and as close as possible to the ostium. Limited visualization of the coronary artery ostium, angulations of the aorto-coronary segment and difficulties in the placement of the guiding catheter are all factors that affect the final result. If the stent is not placed far enough into the branch vessel, it extends into the aorta and thus may be subject to trauma from the guiding catheter. In this case, stent protrusion into the aortic lumen interferes with aortic blood flow and hastens further aortic catheterization. On the other hand, if the stent is placed too far into the branch vessel, it may miss the ostium and the tightest portion of the stenosis. In addition, there is the potential to compromise the lumen and subject the patient to a higher incidence of sub-acute stent thrombosis or restenosis, as well as a high risk for dissection, acute closure or rupture.

"Various stent placement systems for delivering stents to a vascular lumen immediately adjacent to an ostium are well known in the art. Such systems can utilize a balloon which is inflated around the catheter and used as a positioner against the ostial opening.

"For example, U.S. Pat. No. 5,749,890 describes a stent delivery assembly and method for stent placement in an ostial lesion. In particular, the stent delivery system of the invention comprises a break segment which changes configuration to facilitate localization of the target ostium.

"Balloon locators can function as a unitary body, however, since such balloons form a fairly rigid structure when inflated, angulation of an attached catheter with respect to an ostium while maintaining full contact between the balloon and the ostial opening, can be difficult if not impossible with such systems. Use of inflatable balloons is also limited by the need for complex inflation mechanisms.

"Locators are also known which include individual wire or polymer struts which are extended around the catheter and function as individual stops, each contacting a region of the ostial opening.

"For example, U.S. Pat. Appl. Publication No. 2004/181272A1 describes a stent combined with a positioning apparatus to effectively place the stent at a precise deployment site within a narrowed vascular region such as an artery. The stent is maneuvered through the vessel and is guided by a guiding catheter up the vessel to where the narrowing is located. Upon exiting the guiding catheter and approaching the deployment site within the coronary artery, a deployment site locator expands to contact the vascular structure and, thereby, effectively position the stent at the deployment site within the narrowed vessel.

"U.S. Pat. Appl. Publication No. 2007/156221A1 describes a stent positioning system, including an inflatable balloon for expanding a stent. The balloon, in its collapsed state, fits into and is adapted to carry the stent in its pre-expanded condition. Stent locator means are slidably accommodated in a guide catheter and adapted to change its shape prior to making contact with the interior wall surface of a major blood vessel in the ostial region of a smaller blood vessel branching off from the major vessel and prior to the expansion of the stent. Mechanical means for changing the shape of the stent locator means are also provided. The change of shape enables the locator means to abut the interior wall surface, thereby ensuring
correct apposition between the stent and the ostium of the smaller blood vessel.

"Locators in the form of independent and not interconnected loops are also known. For example, U.S. Pat. Appl. Publication No. 2007/173918A1 describes an apparatus and method for locating an ostium of a branch vessel. The apparatus includes a delivery catheter having a distal end sized for introduction into the branch, and locator elements including first ends fixed to the distal end and second ends free from the distal ends. The locator elements can be in the form of loops which are compressible from a transverse, deployed condition to an axial, contracted condition, wherein the second ends are disposed proximal to the first ends. During use, the catheter is directed through a guide catheter into the ostium with the locator elements compressed, and the locator elements are deployed within the branch in the contracted condition. The catheter is partially withdrawn from the branch, the locator elements resiliently expanding towards the deployed condition as they enter the main vessel. The catheter may be used to deliver a stent into the branch with the expanded locator elements facilitating positioning the stent.

"Locators with individual strut and loop attempt to overcome the limitations of balloon locators by providing independently movable struts and loops which are mechanically deployed and maintain independent contact with the tissue surrounding the ostium during catheter angulation. Although such configurations can in theory provide better catheter maneuverability, use of individual struts and loops can lead to strut mis-positioning and as a result escape of an individual strut(s) and/or loop(s) into the branch vessel."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "There is a need in the art to provide a stent delivery system that prevents both too distal and too proximal placement and implantation of the stent, i.e., a system that ensures proper stent-to-vessel positioning.

"It would also be advantageous to have a locator device which includes expandable locator elements that are elastically compliant while maintaining a single unitary structure.

"It would also be advantageous to have a locator device which includes expandable locator elements that forms a flexible, elastically compliant unitary structure when expanded.

"The present invention provides a comprehensive approach for accurate stent positioning. Generally, this approach provides a stent delivery system including one or more novel stent deployment site locators, attached to a guide catheter for a typical inflatable balloon outfitted stent.

"The present invention satisfies the aforementioned need by providing a novel system for delivering and placement of a stent or other medical prosthesis into or near an ostium of a vascular system or other tract system of an organism.

"As used herein, the phrase 'medical prosthesis' refers to any device which can be delivered into the body, specifically to a vessel such as a blood vessel. Examples of medical devices include, but are not limited to, stents, probes, angioplasty balloons and the like.

"The system comprises a delivery catheter having a proximal end, a distal end, and at least one lumen extending between the proximal and distal ends. The delivery catheter also includes an inflatable balloon mounted on the distal end of the delivery catheter for expanding and deploying the medical prosthesis placed on the balloon, and a stent deployment site locator configured for locating an exact place for positioning and facilitating the positioning of the medical prosthesis in or near an ostium.

"The deployment site locator comprises a plurality of filament elements that are interconnected between a locator proximal end and a locator distal end; thereby forming a unitary structure. The filament elements can be maintained in a compacted state within or on a catheter and expanded to form an interconnecting, interlocking or overlapping unitary structure.
The deployment site locator maintains a unitary and flexible structure (when expanded) and capable of being angled with respect to a longitudinal axis of a delivery catheter coupled to the locator.

"According to one embodiment of the present invention, the filament elements of the deployment site locator extend from a locator proximal end towards a locator distal end and then return after winding to the proximal end to form a plurality of filament loops. Contrary to the individual struts and loops of the prior art, the deployment site locator of the present invention includes interlocked or overlapping filament loops.

"The deployment site locator of the present invention can be integrated into a dedicated catheter system or configured as an add-on device which is attachable to standard or modified stent delivery catheter systems.

"According to one embodiment of the present invention, the filament elements of the deployment site locator extend from a locator proximal end towards a locator distal end and then return after winding to the proximal end to form a plurality of filament loops. Contrary to the individual struts and loops of the prior art, the deployment site locator of the present invention includes interlocked or overlapping filament loops.

"According to one embodiment of the present invention, the stent deployment site locator is mounted on the delivery catheter at the distal end before the inflatable balloon in relation to an operator using the system.

"According to another embodiment of the present invention, the stent deployment site locator is mounted on the delivery catheter at the distal end after the inflatable balloon in relation to an operator using the system.

"According to one embodiment of the present invention, the system for delivering and placement of a medical prosthesis comprises a carrier catheter configured for carrying the stent deployment site locator. The carrier catheter has a proximal end, a distal end, and an axially extending inner lumen provided within the carrier catheter to permit the stent delivery device to be inserted into the carrier catheter from the proximal end. The stent deployment site locator is mounted on the carrier catheter at the distal end.

"According to yet another embodiment of the present invention, the system for delivering and placement of a medical prosthesis comprises a clamp arranged on the carrier catheter for binding or pressing the carrier catheter and the delivery catheter together so as to hold them firmly and prevent their relative motion with respect to each other.

"According to still another embodiment of the present invention, the system for delivering and placement of a medical prosthesis comprises a guiding catheter including a lumen for housing the delivery catheter. The lumen has sufficient size for receiving the distal end of the delivery catheter therethrough together with the stent deployment site locator in a contracted condition.

"According to a further embodiment of the present invention, the system for delivering and placement of a medical prosthesis comprises a guiding catheter including a lumen for housing the carrier catheter. The lumen has sufficient size for receiving the distal end of the carrier catheter therethrough together with the stent deployment site locator in a contracted condition.

"According to one embodiment of the present invention, an outer diameter of the carrier catheter is less than an inner diameter of the guiding catheter to permit the carrier catheter to move within the guiding catheter.

"According to a further embodiment of the present invention, the system for delivering and placement of a medical prosthesis comprises a manipulator configured for manipulating the stent placement system for delivering and placing the medical prosthesis.

"According to one embodiment of the present invention, each filament of the plurality of filament elements originates from a certain point at the locator proximal end, and extends towards the locator distal end to form a loop and then returns to the same point at the locator proximal end.
"According to one embodiment of the present invention, the loops of the plurality of filament loops are not interconnected at said locator distal end.

"According to another embodiment of the present invention, a distal end of each loop is coupled to a distal end of the neighboring loops by means of a reinforcement wire to provide mechanical strengthening to the stent deployment site locator.

"According to still another embodiment of the present invention, each loop is overlapped and/or interlaced with at least one other neighboring loop.

"According to yet another embodiment of the present invention, the loops are directly bound to each other at overlapped points of the neighboring loops to provide mechanical strengthening to the stent deployment site locator.

"According to a further embodiment of the present invention, at least one wire is twisted around the loops at their distal ends.

"According to another embodiment of the present invention, each side of each loop is directly connected to a side of an adjacent loop at more than one point, thereby to provide structural rigidity and dilatation ability to said deployment site locator.

"According to another embodiment of the present invention, the connection of the sides of the loops along said proximal portion is achieved by twisting each pair of the filaments forming the corresponding sides.

"According to yet another embodiment of the present invention, the filaments of the plurality filament elements are made of metallic material having superelastic and thermomechanical shape memory characteristics. For example, the metallic material includes a radiopaque material.

"According to still another embodiment of the present invention, the filaments are made of non-metallic material.

"According to one embodiment of the present invention the system for delivering and placement of a medical prosthesis comprises a guide wire extending from a guide wire port at the proximal end of the stent delivery device through the lumen of the delivery catheter to an opening arranged in a tip of the distal end of the delivery catheter.

"For example, the guide wire port is arranged at the proximal end of the delivery catheter.

"According to another example, the guide wire port is arranged in a wall of the delivery catheter.

"According to yet another example, the guide wire port is arranged in a wall of the carrier catheter.

"According to still another example, the guide wire is fixed at the distal end of the delivery catheter.

"There has thus been outlined, rather broadly, the more important features of the invention in order that the detailed description thereof that follows hereinafter may be better understood. Additional details and advantages of the invention will be set forth in the detailed description, and in part will be appreciated from the description, or may be learned by practice of the invention."

For the URL and additional information on this patent, see: Diamant, Valery; Yasko, Nadezda; Varshitsky, Boris; Borivker, Nachum; Lotan, Chaim. Stent Replacement System. U.S. Patent Number 9526646, filed December 3, 2008, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnpthml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9526646.PN.&OS=PN/9526646RS=PN/9526646
Cardiac Pacemakers, Inc.

Patent Issued for System and Method for Evaluating a Patient Status for Use in Heart Failure Assessment (USPTO 9526456)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventor Bardy, Gust H. (Seattle, WA), filed on August 20, 2007, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9526456 is assigned to Cardiac Pacemakers, Inc. (St. Paul, MN).

The following quote was obtained by the news editors from the background information supplied by the inventors: "A broad class of medical subspecialties, including cardiology, endocrinology, hematology, neurology, gastroenterology, urology, ophthalmology, and otolaryngology, to name a few, rely on accurate and timely patient information for use in aiding health care providers in diagnosing and treating diseases and disorders. Often, proper medical diagnosis requires information on physiological events of short duration and sudden onset, yet these types of events are often occur infrequently and with little or no warning. Fortunately, such patient information can be obtained via external, implantable, cutaneous, subcutaneous, and manual medical devices, and combinations thereof. For example, in the area of cardiology, implantable pulse generators (IPGs) are commonly used to treat irregular heartbeats, known as arrhythmias. There are three basic types of IPGs. Cardiac pacemakers are used to manage bradycardia, an abnormally slow or irregular heartbeat. Bradycardia can cause symptoms such as fatigue, dizziness, and fainting. Implantable cardioverter defibrillators (ICDs) are used to treat tachycardia, heart rhythms that are abnormally fast and life threatening. Tachycardia can result in sudden cardiac death (SCD). Finally, implantable cardiovascular monitors and therapeutic devices are used to monitor and treat structural problems of the heart, such as congestive heart failure and rhythm problems.

"Pacemakers and ICDs, as well as other types of implantable and external medical devices, are equipped with an on-board, volatile memory in which telemetered signals can be stored for later retrieval and analysis. In addition, a growing class of cardiac medical devices, including implantable heart failure monitors, implantable event monitors, cardiovascular monitors, and therapy devices, are being used to provide similar stored device information. These devices are able to store more than thirty minutes of per heartbeat data. Typically, the telemetered signals can provide patient device information recorded on a per heartbeat, binned average basis, or derived basis from, for example, atrial electrical activity, ventricular electrical activity, minute ventilation, patient activity score, cardiac output score, mixed venous oxygen score, cardiovascular pressure measures, time of day, and any interventions and the relative success of such interventions. In addition, many such devices can have multiple sensors, or several devices can work together, for monitoring different sites within a patient's body.

"Presently, stored device information is retrieved using a proprietary interrogator or programmer, often during a clinic visit or following a device event. The volume of data
retrieved from a single device interrogation 'snapshot' can be large and proper interpretation and analysis can require significant physician time and detailed subspecialty knowledge, particularly by cardiologists and cardiac electrophysiologists. The sequential logging and analysis of regularly scheduled interrogations can create an opportunity for recognizing subtle and incremental changes in patient condition otherwise undetectable by inspection of a single 'snapshot.' However, present approaches to data interpretation and understanding and practical limitations on time and physician availability make such analysis impracticable.

"A prior art system for collecting and analyzing pacemaker and ICD telemetered signals in a clinical or office setting is the Model 9790 Programmer, manufactured by Medtronic, Inc., Minneapolis, Minn. This programmer can be used to retrieve data, such as patient electrocardiogram and any measured physiological conditions, collected by the IPG for recordation, display and printing. The retrieved data is displayed in chronological order and analyzed by a physician. Comparable prior art systems are available from other IPG manufacturers, such as the Model 2901 Programmer Recorder Monitor, manufactured by Guidant Corporation, Indianapolis, Ind., which includes a removable floppy diskette mechanism for patient data storage. These prior art systems lack remote communications facilities and must be operated with the patient present. These systems present a limited analysis of the collected data based on a single device interrogation and lack the capability to recognize trends in the data spanning multiple episodes over time or relative to a disease specific peer group.

"A prior art system for locating and communicating with a remote medical device implanted in an ambulatory patient is disclosed in U.S. Pat. No. 5,752,976 ('976). The implanted device includes a telemetry transceiver for communicating data and operating instructions between the implanted device and an external patient communications device. The communications device includes a communication link to a remote medical support network, a global positioning satellite receiver, and a patient activated link for permitting patient initiated communication with the medical support network.

"Related prior art systems for remotely communicating with and receiving telemetered signals from a medical device are disclosed in U.S. Pat. Nos. 5,113,869 ('869) and 5,336,245 ('245). In the '869 patent, an implanted AECG monitor can be automatically interrogated at preset times of day to telemeter out accumulated data to a telephonic communicator or a full disclosure recorder. The communicator can be automatically triggered to establish a telephonic communication link and transmit the accumulated data to an office or clinic through a modem. In the '245 patent, telemetered data is downloaded to a larger capacity, external data recorder and is forwarded to a clinic using an auto-dialer and fax modem operating in a personal computer-based programmer/interrogator. However, the '976 telemetry transceiver, '869 communicator, and '245 programmer/interrogator are limited to facilitating communication and transferal of downloaded patient data and do not include an ability to automatically track, recognize, and analyze trends in the data itself.

"In addition, the uses of multiple sensors situated within a patient's body at multiple sites are disclosed in U.S. Pat. No. 5,040,536 ('536) and U.S. Pat. No. 5,987,352 ('352). In the '536 patent, an intravascular pressure posture detector includes at least two pressure sensors implanted in different places in the cardiovascular system, such that differences in pressure with changes in posture are differentially measurable. However, the physiological measurements are used locally within the device, or in conjunction with any implantable device, to effect a therapeutic treatment. In the '352 patent, an event monitor can include additional sensors for monitoring and recording physiological signals during arrhythmia and syncopal events. The recorded signals can be used for diagnosis, research or therapeutic study, although no systematic approach to analyzing these signals, particularly with respect to peer and general population groups, is presented.
"Thus, there is a need for a system and method for providing continuous retrieval, transferal, and automated analysis of retrieved medical device information, such as telemetered signals, retrieved in general from a broad class of implantable and external medical devices. Preferably, the automated analysis would include recognizing a trend indicating disease absence, onset, progression, regression, and status quo and determining whether medical intervention is necessary.

"There is a further need for a system and method that would allow consideration of sets of collected measures, both actual and derived, from multiple device interrogations. These collected measures sets could then be compared and analyzed against short and long term periods of observation.

"There is a further need for a system and method that would enable the measures sets for an individual patient to be self-referenced and cross-referenced to similar or dissimilar patients and to the general patient population. Preferably, the historical collected measures sets of an individual patient could be compared and analyzed against those of other patients in general or of a disease specific peer group in particular."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventor's summary information for this patent: "The present invention provides a system and method for automated collection and analysis of patient information retrieved from an implantable medical device for remote patient care. The patient device information relates to individual measures recorded by and retrieved from implantable medical devices, such as IPGs and monitors. The patient device information is received on a regular, e.g., daily, basis as sets of collected measures, which are stored along with other patient records in a database. The information can be analyzed in an automated fashion and feedback provided to the patient at any time and in any location.

"An embodiment provides a system and method for evaluating a patient status for use in heart failure assessment. Physiological measures, which were directly recorded as data on a substantially continuous basis by a medical device for a patient or indirectly derived from the data are assembled. A status is determined for the patient through sampling and analysis of the physiological measures over a plurality of data assembly points. The physiological measures relative to the patient status are evaluated by analyzing any trend, including one of a status quo and a change in cardiac performance and comparing the trend to cardiac decompensation indications.

"A further embodiment provides a system and method for evaluating a patient status from sampled physiometry for use in heart failure assessment. Physiological measures, including at least one of direct measures regularly recorded on a substantially continuous basis by a medical device for a patient and measures derived from the direct measures are stored. At least one of those of the physiological measures, which each relate to a same type of physiometry, and those of the physiological measures, which each relate to a different type of physiometry are sampled. A status is determined for the patient through analysis of those sampled physiological measures assembled from a plurality of recordation points. The sampled physiological measures are evaluated. Trends that are indicated by the patient status, including one of a status quo and a change, which might affect cardiac performance of the patient, are identified. Each trend is compared to cardiac decompensation indications to generate a notification of parameter violations.

"Still other embodiments of the present invention will become readily apparent to those skilled in the art from the following detailed description, wherein is described embodiments of the invention by way of illustrating the best mode contemplated for carrying out the invention. As will be realized, the invention is capable of other and different embodiments"
and its several details are capable of modifications in various obvious respects, all without departing from the spirit and the scope of the present invention. Accordingly, the drawings and detailed description are to be regarded as illustrative in nature and not as restrictive."


Keywords for this news article include: Therapy, Cardiology, Bradycardia, Tachycardia, Cardio Device, Heart Disease, Heart Failure, Medical Devices, Cardiac Arrhythmias, Cardiac Pacemakers Inc., Heart Disorders and Diseases, Cardiovascular Diseases and Conditions.

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Medtentia International Ltd. Oy

Patent Issued for System for Improving the Function of a Heart Valve (USPTO 9526614)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Alexandria, Virginia, by NewsRx journalists, a patent by the inventor Keranen, Olli (Bjarred, SE), filed on August 4, 2010, was published online on December 27, 2016.

The assignee for this patent, patent number 9526614, is Medtentia International Ltd. Oy (Helsinki, FI).

Reporters obtained the following quote from the background information supplied by the inventors: "Diseased mitral and tricuspid valves frequently need replacement or repair. The mitral and tricuspid valve leaflets or supporting chordae may degenerate and weaken or the annulus may dilate leading to valve leak (insufficiency). The leaflets and chords may become calcified and thickened rendering them stenotic (obstructing forward flow). Finally, the valve relies on insertion of the chordae inside the ventricle. If the ventricle changes in shape, the valve support may become non-functional and the valve may leak.

"Mitral and tricuspid valve replacement and repair are traditionally performed with a suture technique. During valve replacement, sutures are spaced around the annulus (the point where the valve leaflet attaches to the heart) and then the sutures are attached to a prosthetic valve. The valve is lowered into position and when the sutures are tied, the valve is fastened to the annulus. The surgeon may remove all or part of the valve leaflets before inserting the prosthetic valve. In valve repair, a diseased valve is left in situ and surgical procedures are performed to restore its function. Frequently an annuloplasty ring is used to reduce the size of the annulus. The ring serves to reduce the diameter of the annulus and allow the leaflets to oppose each other normally. Sutures are used to attach a prosthetic ring to the annulus and to assist in plicating the annulus.

"In general, the annuloplasty rings and replacement valves must be sutured to the valve annulus and this is time consuming and tedious. If the ring is severely malpositioned, then the stitches must be removed and the ring repositioned relative to the valve annulus during restitching. In other cases, a less than optimum annuloplasty may be tolerated by the surgeon
rather than lengthening the time of the surgery to restitch the ring.

"During heart surgery, a premium is placed on reducing the amount of time used to replace and repair valves as the heart is frequently arrested and without perfusion. It would therefore be very useful to have a method to efficiently attach a prosthesis into the mitral or tricuspid valve position.

"In U.S. Pat. No. 6,419,696, an annuloplasty device is disclosed. The annuloplasty device comprises a first and a second support ring, which are connected to each other to form a coiled configuration. The first and second support rings are arranged to abut opposite sides of a valve annulus to trap valve tissue therebetween. This annuloplasty device may be easily applied to the valve by rotating the device into position on opposite sides of the valve annulus."

In addition to obtaining background information on this patent, NewsRx editors also obtained the inventor's summary information for this patent: "It is an object of the invention to provide an improved valve repair. It is a specific object of the invention to provide an annuloplasty device, which provides a lessened risk for rupture of valve leaflets when applied to the heart valve.

"These and other objects of the invention are accomplished by means of devices according to the independent claims. Preferred embodiments of the invention are apparent from the dependent claims.

"According to a first aspect of the invention, there is provided a device for improving the function of a heart valve comprised of valve tissue including an annulus and a plurality of leaflets. The device comprises a first loop-shaped support, which is configured to abut a first side of the heart valve, and a second loop-shaped support, which is configured to abut a second side of the heart valve opposite to said first side, whereby a portion of the valve tissue is trapped between the first and second supports, wherein an outer boundary of the second support is greater than an outer boundary of the first support.

"This device may be used to perform annuloplasty, that is to reshape the valve annulus, in order to improve the function of the valve. The first and second loop-shaped supports are to be positioned on opposite sides of the heart valve and trap valve tissue therebetween to fixate a desired shape of the valve. The device may also be used to carry and position a replacement heart valve.

"The feature that the outer boundary of the second support is greater than the outer boundary of the first support implies that the device, when properly positioned at a heart valve, may be arranged such that the first and second loop-shaped supports are displaced to one another on the opposite sides of the heart valve. It has been found that this arrangement diminishes a risk that a rupture is created in the leaflets, which during normal heart action bends over the lower support to open the valve. A possible explanation for this diminished rupture risk is that since the supports are displaced to one another, the pinch between the first and second supports does not sharply define a radial position in which the leaflets of the valve bend over the lower support. When using the device on an atrial valve, the lower support may now be arranged close to the annulus of the valve, which is larger on its ventricular side. Thereby, the device may also be arranged to minimally affect the movement of the leaflets during normal heart action. Further, a large lower support provides a possibility to move the support around the chords in the left ventricle during insertion of the device. However, it is conceivable that the diminished rupture risk may be achieved by instead making the outer boundary of the upper support greater than the outer boundary of the lower support.

"As used herein, the term 'loop-shaped' should be construed as a curved shape that may be closed as a ring with a circular, elliptic, or D-shaped form or any other closed form which may fit the shape of the valve annulus. The term 'loop-shaped' also includes a curved
shape that is open forming an arcuate shape, such as a C-shape or U-shape, which includes an angular turn of at least 180 degree. such that the support may abut valve tissue along a major part of the annular valve shape. The term 'loop-shaped' also includes a curved shape overlapping itself to form a portion of a coil.

"The first and the second loop-shaped supports may be separate entities and may be arranged to be connected when inserted in engagement with valve tissue.

"Alternatively, an end of the first loop-shaped support may be connected to an end of the second loop-shaped support through a connecting part, whereby the supports and the connecting part form a coil-shape.

"This implies that the first and second supports may be simultaneously applied in position at the heart valve. When used for an atrial valve, the coil-shape may be applied from the atrial side at a commissure between the leaflets of the atrial valve and be rotated 360 degree. such that one loop-shaped support is inserted through the commissure to extend along the valve on its ventricular side and the other loop-shaped support is arranged along the valve on its atrial side.

"The connecting part may be releasably attached to the first and second loop-shaped supports for disconnecting the end of the first loop-shaped support from the end of the second loop-shaped support after insertion to the heart valve.

"This implies that the device may be placed in abutment with the heart valve without having any part extending through the opening of the heart valve. Thus, the first and second supports may separately be arranged in abutment with valve tissue such that each support may over time grow into the valve tissue. As a result, the device does not present any surface of foreign material that may cause blood clot forming or tissue overgrowth in the opening of the heart valve.

"The first loop-shaped support may be continuous with the second loop-shaped support to form a coil-shaped member. This implies that the device has a simple design comprising a single coil-shaped part, which may easily be positioned in a heart valve by rotating the coil-shaped member such that the loop-shaped supports are arranged on opposite sides of the valve.

"An end portion of the coil-shaped member may be bent such that the end portion has a greater pitch than the rest of the coil-shaped member. This is especially advantageous when using the device to treat an atrial valve. When rotating the coil-shaped member for positioning the device, a greater pitch of the leading end of the coil-shaped member entering the ventricle implies that a risk that the coil-shaped member gets stuck in the chords during insertion is reduced.

"The second support may have a round cross-section. The first support may also have a round cross-section. This implies that a rounded edge is presented to the valve tissue being trapped, whereby a risk that a rupture is created in the leaflets is further diminished.

"The first and second supports may have equal shapes, wherein the second support is in larger scale than the first support. This implies that the relationship between the first and second support is equal over the entire valve. As a result, the pinch between the first and second supports is constant over the entire valve.

"The outer boundary of the first support may be larger than an inner boundary of the second support. This implies that the supports overlap somewhat, whereby the pinch between the supports certainly is sufficiently strong to maintain a remodelled shape of the heart valve.

"Preferably, the outer boundary of the first support corresponds to a curve through the center of the second support.
"The first and second supports are preferably D-shaped. Such shape would conform to the shape of the atrial valve annulus and is therefore especially useful for treatment of atrial valves.

"The first and second supports may each have an inner core covered by an outer layer, said inner core being formed from a more rigid material than said outer layer. The inner core may be formed from a metallic material, whereas the outer core may be formed from a fabric material. This implies that the surface of the support in contact with the valve tissue is soft to diminish the risk of rupture of the leaflets, whereas the support has a rigid shape which is maintained to retain a changed shape of the valve.

"Alternatively, the first and second supports may be formed from a shape memory material. This implies that the supports may assume a desired, predetermined shape when inserted into position and maintain this shape.

"The device may further comprise a plurality of fasteners arranged to extend between said first and second supports when the supports are placed on opposite sides of the heart valve. The fasteners would then serve to fix the position of the supports to each other and to the valve.

"The first and second supports may comprise bores for receiving said fasteners therethrough. Thus, the positioning of the fasteners in the supports is predetermined for accomplishing a secure fixation.

"The device may further comprise a removable material on at least one of said first and second supports for reducing friction between the respective supports and the valve tissue during initial engagement therewith, said material being removable to increase the friction during securement of the device to the valve tissue. The removable material provides a reduced friction which facilitates the guiding of the supports into abutment with the valve tissue and, when properly positioned, removing the removable material provides an increased friction that will serve to retain the relative position of the support and the valve tissue.

"The opposed surfaces of the first and second supports may be roughened to facilitate engagement with the valve tissue. The opposed surfaces may be roughened in a pattern extending along the longitudinal direction of the rings. This implies that the roughened surface will serve to prevent slippage of tissue through the pinch of the supports while presenting a low friction for the supports to be turned into position abutting the valve.

"According to a second aspect of the invention, there is provided a kit for improving the function of a heart valve comprised of valve tissue including an annulus and a plurality of leaflets. The kit comprises a first loop-shaped support, which is configured to abut a first side of the heart valve, a second loop-shaped support, which is configured to abut a second side of the heart valve opposite to said first side, whereby a portion of the valve tissue is trapped between the first and second supports. The kit further comprises at least one fastener for connecting the first and second supports when arranged in engagement with the heart valve.

"The kit may be used to perform annuloplasty, that is to reshape the valve annulus, in order to improve the function of the valve. The kit comprises first and second loop-shaped supports, which are to be positioned on opposite sides of the heart valve, and fasteners, which connect the supports and fixate them to each other and to the valve tissue. As a result, valve tissue will be trapped between the supports to fixate a desired shape of the valve. The first and second supports are separate entities which may be separately placed on opposite sides of the heart valve. This implies that while the first and second supports may over time grow into the valve tissue, the kit does not present any surface of foreign material that may cause blood clot forming or tissue overgrowth in the opening of the heart valve.

"The first and second supports may comprise receiving members for receiving said at least one fastener. The location of the receiving members at the first and second supports will
then determine the relationship between the first and second supports that will be fixated by the fasteners.

"The at least one fastener may be arranged on the first support and the second support may comprise receiving members for receiving said at least one fastener. As a result, the kit consists of fewer parts and the fasteners may be introduced into a patient together with the first support.

"The at least one fastener may comprise a sharp projection for penetrating valve tissue. This facilitates positioning of the fastener in the patient, since a relatively small force is needed for pushing the fastener through the valve tissue.

"The supports may be formed from a magnetic material such that the supports when being introduced on opposite sides of the heart valve may be subject to a magnetic field to attract the supports towards each other for temporarily fixating them on the opposite sides of the heart valve. In this way, the interrelationship of the supports may be at least temporarily fixated without the need of fasteners penetrating valve tissue. Thus, the positions of the supports may be temporarily fixated while the positions are secured by fasteners.

"According to a third aspect of the invention, there is provided a device for improving the function of a heart valve comprised of valve tissue including an annulus and a plurality of leaflets. The device comprises a first loop-shaped support, which is configured to abut a first side of the heart valve, a second loop-shaped support, which is configured to abut a second side of the heart valve opposite to said first side, whereby a portion of the valve tissue is trapped between the first and second supports, and a connecting part for connecting an end of the first loop-shaped support to an end of the second loop-shaped support such that the supports and the connecting part form a coil-shape.

"The device may be used to perform annuloplasty, that is to reshape the valve annulus, in order to improve the function of the valve. The device comprises first and second loop-shaped supports, which are to be positioned on opposite sides of the heart valve, and a connecting part, which connect the supports such that a coil-shape is formed. As a result, the coil-shape may be applied at a commissure between the leaflets of the heart valve and be rotated 360.degree. such that one loop-shaped support is inserted through the commissure to extend along one side of the valve and the other loop-shaped support is arranged along the opposite side of the valve. Thus, valve tissue will be trapped between the supports to fixate a desired shape of the valve.

"The connecting part may be releasably attached to at least one of the first and second loop-shaped supports for disconnecting the end of the first loop-shaped support from the end of the second loop-shaped support after insertion to the heart valve.

"This implies that the device may be placed in abutment with the heart valve without having any part extending through the opening of the heart valve. Thus, the first and second supports may separately be arranged in abutment with valve tissue such that the each support may over time grow into the valve tissue. As a result, the device does not present any surface of foreign material that may cause blood clot forming or tissue overgrowth in the opening of the heart valve.

"The device may further comprise a carrier removably coupled to the supports for carrying the supports to the heart valve, wherein the connecting part is attached to the carrier such that the connecting part may be removed with the carrier after the supports have been placed in engagement with valve tissue. As a result, the supports may be easily applied at the heart valve by rotating the coil-shaped member. After the insertion of the supports, the connecting part may be removed such that the implanted device does not present any surface of foreign material that may cause blood clot forming or tissue overgrowth in the opening of the

Keywords for this news article include: Surgery, Cardiology, Annuloplasty, Risk and Prevention, Medtentia International Ltd. Oy.

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Lubrizol Advanced Materials, Inc.

Patent Issued for Telechelic N-Alkylated Polyamide Polymers and Copolymers (USPTO 9527961)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventors Erdodi, Gabor (Cleveland, OH); Pourahmady, Naser (Solon, OH); Lai, John Ta-Yuan (Broadview Heights, OH), filed on February 3, 2014, was published online on December 27, 2016.

The patent's assignee for patent number 9527961 is Lubrizol Advanced Materials, Inc. (Cleveland, OH).

News editors obtained the following quote from the background information supplied by the inventors: "Vol. 38 (October 1946) of Industrial and Engineering Chemistry, pp. 1016-1019 titled Melting Points of N-Substituted Polyamides, by authors B. S. Biggs, C. J. Frosch, and R. H. Erickson studies the effect substitution on a nitrogen of a polyamide and the correlation of the polyamide melting points with the degree and type of substitution.


"U.S. Pat. No. 4,992,500 describes Aqueous Dispersions of Polyamides Emulsified with Rosin Derivatives.


Elastomers with Hydrolytic and Thermoxidative Stability. II. Polyurethanes with N-Alkylated Polyamide Soft Blocks discloses copolymides where the alkyl group on the amine is methyl, ethyl, isopropyl, or butyl and the diacid is a carbonate.

"U.S. Pat. No. 5,610,224 discloses an ionic and nonionic polyamide modified polyurethane polymers for use in coating compositions, method for forming, and coating compositions containing these polymers.

"EP 594 292 A1 describes N-alkylated aminoalcohols reacted with a lactone. That reaction product is reacted with a diester of a dicarboxylic acid or an anhydride of a dicarboxylic acid.

"U.S. Pat. No. 7,276,570 titled Compositions for Golf Equipment and assigned to Acushnet Company discloses golf balls comprising thermoplastic, thermoset, castable, or millable elastomer compositions comprising at least one polymer having a plurality of anionic moieties attached thereto. The compositions can be used as part of golf ball construction.


"WO2006/053777 A1 to Novartis Pharma Gmbh discloses crosslinkable poly (oxygenalkylene) containing polyamide prepolymers that can be used to provide water-soluble prepolymer that can be used as a component in contact lenses.

"US 2008/0090956 A1 discloses water-dilutable, hydroxy-functional polyurethanes containing amide structural units, a process for preparing them, and aqueous coating compositions prepared from them.


"EP 449419 A1 describes reacting primary aminoalcohols with acid terminated polyamideethers to create hydroxyl terminated polymers."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "This invention relates to low molecular weight polyamide oligomers and telechelic polyamides (including copolymers) comprising N-alkylated amide groups in the backbone structure. These polymers are useful as soft segments in the preparation of thermoplastic, thermoset, or elastomer resins and water-borne dispersions of those resins. The unique feature of these polyamide polymers is their ability to be processed as liquids at temperatures from 20 to 50 or 80 degree C., which makes them suitable for further reaction and polymerization forming various thermoplastic or thermoplastic elastomer compositions."


Keywords for this news article include: Lubrizol Advanced Materials Inc.

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Patent Issued for Transcatheter Valve Replacement (USPTO 9526612)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Alexandria, Virginia, NewsRx journalists report that a patent by the inventors Board, Stephanie Marie (West St. Paul, MN); Chalekian, Aaron J. (Savage, MN); Russo, Patrick P. (Vadnais Heights, MN); Oslund, John (Blaine, MN), filed on July 27, 2015, was published online on December 27, 2016.

The patent's assignee for patent number 9526612 is St. Jude Medical Cardiology Division, Inc. (St. Paul, MN).

News editors obtained the following quote from the background information supplied by the inventors: "The present disclosure relates to heart valve replacement and, in particular, to collapsible prosthetic heart valves. More particularly, the present disclosure relates to devices and methods for anchoring collapsible prosthetic heart valves within the native valve annulus.

"Prosthetic heart valves that are collapsible to a relatively small circumferential size can be delivered into a patient less invasively than valves that are not collapsible. For example, a collapsible valve may be delivered into a patient via a tube-like delivery apparatus such as a catheter, a trocar, a laparoscopic instrument, or the like. This collapsibility can avoid the need for a more invasive procedure such as full open-chest, open-heart surgery.

"Collapsible prosthetic heart valves typically take the form of a valve structure mounted on a stent. There are two types of stents on which the valve structures are ordinarily mounted: a self-expanding stent and a balloon-expandable stent. To place such valves into a delivery apparatus and ultimately into a patient, the valve must first be collapsed or crimped to reduce its circumferential size.

"When a collapsed prosthetic valve has reached the desired implant site in the patient (e.g., at or near the annulus of the patient's heart valve that is to be replaced by the prosthetic valve), the prosthetic valve can be deployed or released from the delivery apparatus and re-expanded to full operating size. For balloon-expandable valves, this generally involves releasing the entire valve, assuring its proper location, and then expanding a balloon positioned within the valve stent. For self-expanding valves, on the other hand, the stent automatically expands as the sheath covering the valve is withdrawn."

As a supplement to the background information on this patent, NewsRx correspondents also obtained the inventors' summary information for this patent: "In some embodiments, a prosthetic heart valve having an inflow end and an outflow end may include a collapsible and expandable stent and a collapsible and expandable valve assembly disposed within the stent and having a plurality of leaflets. The prosthetic heart valve may further include a collapsible and expandable frame formed of braided wires, the frame having a body portion and a lumen extending through the body portion for receiving the stent and the valve assembly.

"In some embodiments, a method of deploying a prosthetic heart valve at a target site is described. The prosthetic heart valve includes a collapsible and expandable stent, a collapsible and expandable valve assembly disposed within the stent, and a collapsible and expandable frame formed of braided wires, the frame having a body portion and a lumen extending through the body portion for receiving the stent and the valve assembly. The method includes deploying the prosthetic heart valve via a delivery device at the target site in a collapsed configuration and allowing the prosthetic heart valve to re-expand at the target site, the prosthetic heart valve being coupled to the delivery device, repositioning the prosthetic heart valve.
valve at the target site using the delivery device and decoupling the prosthetic heart valve from the delivery device after evaluating functionality of the prosthetic heart valve."


Keywords for this news article include: Heart Valves, Cardio Device, Medical Devices, St. Jude Medical Cardiology Division Inc.

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The UAB Research Foundation

**Patent Issued for Treating Basal-Like Genotype Cancers (USPTO 9527915)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- A patent by the inventors Buchsbaum, Donald J. (Alabaster, AL); Zhou, Tong (Birmingham, AL); LoBuglio, Albert F. (Birmingham, AL), filed on November 5, 2010, was published online on December 27, 2016, according to news reporting originating from Alexandria, Virginia, by NewsRx correspondents.

Patent number 9527915 is assigned to The UAB Research Foundation (Birmingham, AL).

The following quote was obtained by the news editors from the background information supplied by the inventors: "Triple negative breast cancer (TNBC) represents a significant proportion (about 20-25%) of breast cancer patients. TNBC is characterized by the absence of HER2, estrogen receptor (ER), and progesterone receptor (PR). TNBC has a poor prognosis, and no targeted approach to a therapy has been found to date."

In addition to the background information obtained for this patent, NewsRx journalists also obtained the inventors' summary information for this patent: "Provided are methods of treating a subject with cancer. The methods comprise selecting a subject with a breast cancer, wherein the breast cancer is a basal-like genotype cancer and wherein the breast cancer is HER2 non-amplified, and administering to the subject a death receptor agonist."

"Optionally, the methods comprise selecting a subject with a breast cancer, wherein the breast cancer has one or more characteristics selected from the group consisting of a luminal cell, HER2 amplified, or basal-like genotype; administering to the subject an IAP inhibitor; and administering to the subject a death receptor agonist.

"Also provided are methods of screening a breast cancer cell for responsiveness to a DR5 agonist. The methods comprise detecting a basal-like phenotype in the cancer cell; detecting the cancer cell is HER2 non-amplified; and detecting a reduced level of a DR5/DDX3/cIAP1 complex in the cancer cell as compared to a control.

"Also provided are methods of screening a triple negative breast cancer cell for responsiveness to a DR5 agonist. Optionally, the methods comprise detecting a level of a DR5/DDX3/cIAP1 complex in the cell and comparing it to a control. A lower level of complex in the cell as compared to the control indicates responsiveness.
"Optionally, the methods comprise detecting in the breast cancer cell a DDX3 lacking an N-terminal caspase-associated recruitment domain (CARD). The DDX3 lacking the N-terminal CARD indicates the breast cancer cell is responsive to a DR5 agonist.

"Optionally, the methods comprise detecting in the breast cancer cell IAP proteins including an 80 kDa baculovirus IAP repeat. The 80 kDa baculovirus IAP repeat indicates the breast cancer cell is not responsive to a DR5 agonist.

"Further provided are antibodies that selectively bind an N-terminal CARD of DDX3. Also provided are antibodies that selectively bind a DDX3 lacking an N-terminal CARD. Also provided are antibodies that selectively bind IAP proteins including an 80 kDa baculovirus IAP repeat (BIR)."


Keywords for this news article include: Antibodies, Oncology, Immunology, Breast Cancer, Blood Proteins, Women's Health, Immunoglobulins, Diagnostics and Screening, The UAB Research Foundation.

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KUNMING SHENGHUO PHARMACEUTICAL
Patent Issued for Use of Dencichine in Preparation of Drug for Treating Thrombocytopenia (USPTO 9526713)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- KUNMING SHENGHUO PHARMACEUTICAL (GROUP) CO., LTD. (Kunming, Yunnan, CN) has been issued patent number 9526713, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventors are Lan, Guihua (Kunming, CN); Lan, Feng (Kunming, CN); Sun, Xiaobo (Kunming, CN).

This patent was filed on May 24, 2013 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Platelets are the smallest blood cells with primary function of coagulation and hemostasis. When a body gets injured to bleed, platelets will gather at the site of injury in droves within several seconds. Firstly the platelets release vasoconstrictive substance for constricting the damaged blood vessel in varying degrees, then the platelets and other blood-clotting substance in the blood adhere to the damaged vessel wall and clump together to form a clot and accordingly block the damaged wounds and blood vessels. The platelet count of a healthy person is 100.times.10.sup.9/L.about.300.times.10.sup.9/L and the platelet's average life is 8.about.12 days. Thrombopenias means that the platelet count results are below a lower limit of reference value due to various reasons.

"Thrombopenias may cause the following harmfulness: 1. causing mucosal bleeding (such as nasal mucosa bleeding, oral mucosal bleeding, gastrointestinal mucosal bleeding,
genitourinary tract bleeding, vaginal bleeding, etc.); 2. postoperative massive hemorrhage; 3. multiple petechiae and purpura occurred most frequently in the legs; 4. causing gastrointestinal massive hemorrhage and central nervous system internal hemorrhage that may threaten life.

"Thrombopenia is caused by a great many reasons, such as decrease in platelets generation, excess destruction of platelets, excess retention of platelets within the spleen, etc. (1) Decrease of platelets generation is caused by destruction of hematopoietic stem cells or affection of their proliferation in the bone marrow cells due to some factors such as drugs, cancer, infection, ionizing radiation, etc. (2) Excess destruction of platelets may commonly be found in idiopathic thrombocytic purpura and consumptive thrombocytopenia, such as disseminated intravascular coagulation, thrombotic thrombocytic purpura. (3) Excess retention of platelets within the spleen may commonly be found in hypersplenism. The above factors often coexist on one body. In clinical, except that pseudo-thrombocytopenia doesn't need treating, both drug-induced thrombocytopenia and pathological thrombocytopenia need treating by treatment means.

"Drug-induced thrombocytopenia (DITP) is a hemorrhagic disease resulting from the decrease of platelet count in the blood due to some drugs, and manifests that the drug-induced platelet count is lower than 100.times.10.sup.9/L and the platelet count of severe thrombocytopenia is lower than 5.times.10.sup.9/L. DITP is often caused by the following drugs: anti-clotting drugs such as heparin, antineoplastic drugs and immunosuppressant, antibacterial drugs such as chloramphenicol and sulfonamides, antipyretic analgesics such as aspirin and acetaminophen, diuretics such as chlorothiazide, antiepileptic drugs such as phenytoin and carbamazepine, hypoglycemic drugs such as chlorpropamide and tolbutamide, oestrogenic substance such as diethylstilbestrol, some vaccines, some Chinese medicine preparations, some lipid-lowering drugs, cimetidine, bismuth, digitoxin, organic arsenics, and other drugs.

"The pathological thrombocytopenia mainly includes primary and secondary thrombocytic purpura, aplastic anemia, acute leukemia, megaloblastic anemia. DIC, hypersplenism, radiation syndrome, kala azar, typhoid fever, tuberculosis, bone metastases, and progressive extracorporeal circulation and the like. The most common in clinical is thrombocytic purpura.

"For many years, many scholars at home and abroad conduct in-depth research on the treatment of Thrombocytopenia, and have achieved some achievements. There are a plurality of methods for treating Thrombocytopenia, comprising first-line treatment: administration of glucocorticosteroid, intravenous immunoglobulin and splenectomy; second-line treatment: intravenous anti-Rh(D) immunoglobulin and immunosuppressant. The treatment methods, such as platelet transfusion, plasma exchange, protein immunoabsorption, can be used if the above first and second line treatments have failed. Wherein, the platelet transfusion is an effective method to treat Thrombocytopenia, but its clinical application is limited because of short preservation time, lack of blood supply, high cost, possible blood-borne infections, transfusion reaction and producing platelet antibodies. In addition, repetition of platelet transfusions may, cause platelet transfusion refractoriness, therefore threatening the patient's life all the time. Although interleukin-11 (IL-11) and thrombopoietin (TPO) have preferable curative effect for treating Thrombocytopenia, they are unable to be widely applied in clinic due to great adverse reactions and expensive price. Therefore, it is a goal to research and develop a safe and effective therapeutic drug which has significant social benefits and broad market prospects.

"With respect to Thrombocytopenia, there are also treatment theories in Traditional Chinese medicine (TCM) theory. For thrombocytic purpura (1TP), commonly used therapeutic drug are platelet increasing capsules, Weixuening particles, etc. For thrombocytopenia caused by chemotherapy, TCM considers chemotherapeutic drugs is a drastic
drug with pyretic toxicity, and they can consume qi and impair yin, and damage zang-fu viscera such as spleen, kidney and liver, thereby exhausting congenital and postnatal source and resulting in injury of qi and blood, deficiency of liver and kidney, hypofunctioning of spleen and stomach, etc. The most commonly used Traditional Chinese Medicine are Radix et Rhizoma Ginseng, Astragali Radix, Rhizoma Atractylodis Macrocephalae, Angelicae Sinensis Radix, Rehmanniae Radix, Asini Corii Colla, Spatholobii Caulis, Psoraleae Fructus, Lycii Fructus, Ligustri Lucidi Fructus, Agrimoniae Herba, Arachis hypogaea Linn, etc., as well as some compound preparations such as Compound Zaofan pills, and Sheng Ban Recipe.

"Radix et Rhizoma Notoginseng, aslo known as Panax notoginseng or Stephania sinica Diels, is dried roots of panax notoginseng (Burk.) F. H. Chen of Panax of araliaceae. As written in The Compendium of Materia Medica, 'Panax notoginseng has stypticity and analgesia effects, and can stop uncontrollable bleeding due to sword cuts, arrow wounds, falling injury, flogging injury and sore by applying the chewed or powdered Panax notoginseng onto the wounds. Panax notoginseng can also treat diseases such as hematemesis, dysentery characterized by blood in the stool, endometrorrhagia, persistent menstruation, postpartum retention of lochia, dysmenorrheal due to poor blood circulation, swelling and pain of eyes, and tigerbite and snakebite injury'. Referring to The Records of Combination between Traditional Chinese Medicine and Western Medicine. 'Panax notoginseng can dissipate extravasated blood without hurting new blood, which is a marvelous drug for regulating blood.' As referring to New Compilation of Materia Medic), 'Roots of panax notoginseng are miracle cures for stopping bleeding'. Chinese Pharmacopoeia defines the major function of Radix et Rhizoma Notoginseng as 'dissipating stasis and stopping bleeding, diminishing swelling and relieving pain'. Radix et Rhizoma Notoginseng is widely applied to treat internal and external hemorrhage syndrome caused by traumatic injury and internal injury for thousands of years.

"Dencichine (also called Neurotokin, chemical name: .beta.-N-oxalyl-L-.alpha.,.beta.-diaminopropionic acid, referred to as ODAP), is a non-protein amino acid, and is hemostatic active ingredient of Radix et Rhizoma Notoginseng. Rao et al isolated dencichine from a seed of Lathyrus sativus and identified its chemical constitution in 1964, and successfully synthesized the dencichine in 1971, and synchronously researched the relation between the optical activity and central toxicity of dencichine. Hereafter, various synthetic methods were successively reported. At present, the research on central neurotoxicity of Dencichine has gone deep into cellular and molecular level, and it is considered that the central neurotoxicity of dencichine is because that it is an analogue of L-Glutamate which polarizes central nervous system cell membrane and affects activity of ions including Na.sup.+ , K.sup.+ , Ca.sup.2+ , etc.

"In the middle of 1980s, Chinese medicine workers started to research synthesis, pharmacology and toxicology of dencichine. In 1984, Zhao Guoqiang et al., worked in Tianjin Institute of Traditional Chinese Medicine, synthesized dencichine which is the active hemostatic ingredients of Notoginseng Radix et Rhizoma, and researched the effect of dencichine and its enantiomorph of .beta.-N-oxalyl-D-.alpha.,.beta.-diaminopropionic acid on hemostasis, increase of platelet count and neurotoxicity, etc., thus finding out both dencichine and the enantiomorph thereof have a significant effect on the hemostasis and increase of platelet count, etc. Zhao Guoqiang dissolved 1 mg dencichine into 0.5 ml Ringer-Locke solution to prepare a mixed solution, and injected the mixed solution into abdominal cavity of a female mouse, and it was found that dencichine is able to markedly increase the platelet count by 30%. In 1988, Lu Qi et al of Jilin Agricultural University respectively separated dencichine used as hemostatic ingredient from Traditional Chinese Medicine such as Ginseng Radix et Rhizoma, whereby scientifically verifying that Traditional Chinese Medicine such as Ginseng Radix et Rhizoma etc. have hemostasis effect, which was recorded in ancient prescription. Liu Hezhi et al have researched hemostasis mechanism of dencichine, and considered that injection of Notoginseng
Radix et Rhizoma could make thrombocyte generate viscous deformation movement such as stretch, pseudopodia, aggregation, deformation, as a result some cells were broken down or dissolved, and degranulation and secretory response was caused, thereby inducing thrombocyte to release hemostatic active substance such as ADP, platelet factor and calcium ion, so as to achieve the hemostasis purpose.

"With respect to the report that dencichine can increase the platelet count, we carried out experimental research on dencichine for use in treatment of Thrombocytopenia. The results show that it has no obvious change on the platelet count of rabbits by using single-dose injection of dencichine and various doses of drug respectively (see Table 1).

"TABLE-US-00001 TABLE 1 Influence of Dencichine for injection on the platelet count of rabbits(n = 6, mean .+-.. SD) Dose PLT.(times.10.sup.9/L) Group (mg/kg) 0 min 30 min 60 min Sodium -- 529.0 .+-.. 54.2 512.8 .+-.. 54.7 524.8 .+-.. 49.9 chloride injection Reptilase .RTM. 0.3 613.0 .+-.. 118.8 488.5 .+-.. 141.9 519.2 .+-.. 90.5 KU/kg Dencichine 1.00 491.2 .+-.. 163.1 526.5 .+-.. 143.8 541.0 .+-.. 121.6 for injection 0.20 574.0 .+-.. 64.3 502.3 .+-.. 60.8 518.2 .+-.. 128.5 0.04 523.3 .+-.. 78.5 451.0 .+-.. 144.5 504.0 .+-.. 87.8

"In the repeated prophylactic administration process, prophylactic administration for 3 days, 5 days and 7 days respectively, the results show that prophylactic administration of interleukin 11 or dencichine for 5 days and 7 days respectively increase the platelet count (compared with that of model group). The platelet count had no significant difference compared with that of model group by prophylactic administration for 3 days (Table 2).

"TABLE-US-00002 TABLE 2 Influence of dencichine with different administration time on platelet count of rats with thrombocytopenia caused by carboplatin (x .+-.. sD. .times.10.sup.9/L) Injection of Prophylactic Carboplatin Initial value administration for 10 days Blank group 747.0 .+-.. 106.88 635.7 .+-.. 118.11 788.0 .+-.. 147.35 Model group 716.6 .+-.. 62.57 651.3 .+-.. 97.93 115.9 .+-.. 12.71 Prophylactic 732.3 .+-.. 197.06 860.5 .+-.. 113.92 179.5 .+-.. 26.76 administration of interleukin for 7 days Prophylactic 743.7 .+-.. 226.92 772.8 .+-.. 70.63# 166.2 .+-.. 18.20 administration of dencichine for 7 days Prophylactic 724.0 .+-.. 178.87 759.5 .+-.. 145.34 178.3 .+-.. 57.08 administration of interleukin for 5 days Prophylactic 736.2 .+-.. 182.37 773.2 .+-.. 142.02 176.2 .+-.. 28.34 administration of dencichine for 5 days Prophylactic 736.3 .+-.. 175.56 820.7 .+-.. 155.13 88.5 .+-.. 51.49 administration of interleukin for 3 days Prophylactic 717.5 .+-.. 276.94 656.3 .+-.. 67.35 110.2 .+-.. 40.43 administration of dencichine for 3 days

"Pharmacodynamic study further finds that dencichine has a significant effect against decrease of a rat's platelet count caused by carboplatin, which shows the effect for increasing thrombocyte, and simultaneously improving the function of thrombocyte to fight against decrease of thrombocyte aggregation rate of the rat caused by injecting carboplatin, thus increasing thrombocyte aggregation rate. So far, it has been reported that a little dencichine can be used as hemostatic drug in prior art, as disclosed in the patent application with publication No. CN1292376A that administrating a little dencichine can achieve hemostasis. However, it has never been reported that dencichine is able to treat Thrombocytopenia."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventors' summary information for this patent: "The present invention aims to provide a use of dencichine in manufacture of a medicament for the treatment of Thrombocytopenia.

"Preferably, the dencichine is made into an oral preparation or injectable preparation by adding pharmaceutically acceptable conventional excipients, so as to be used in clinical treatment of Thrombocytopenia.

"More preferably, the oral preparation is tablets, capsules, granules or powders; the
injectable preparation is injection liquid or powder injection. Wherein, the oral preparation is preferably dispersible tablets, orally disintegrating tablets or sustained release tablets; the injectable preparation is preferably injection liquid.

"The present invention has following technical effects:
"The present invention first discovers that dencichine can be used for the treatment of Thrombocytopenia. It has been demonstrated that dencichine can effectively inhibit thrombopenia and thrombocytopenic purpura caused by chemotherapy drugs in pharmacodynamic experiments of laboratory, which has significant effects and little side effects."

For the URL and additional information on this patent, see: Lan, Guihua; Lan, Feng; Sun, Xiaobo. Use of Dencichine in Preparation of Drug for Treating Thrombocytopenia. U.S. Patent Number 9526713, filed May 24, 2013, and published online on December 27, 2016. Patent URL: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetacgi%2FSearchPage%2FPage-1-40&h=100&s1=9526713.PN.&OS=PN/9526713RS=PN/9526713

Keywords for this news article include: Antineoplastics, Cytokines, Carboplatin, Interleukins, Alkylating Agents, Drugs and Therapies, Organoplatinum Compounds, KUNMING SHENHUA PHARMACEUTICAL, Intercellular Signaling Peptides and Proteins.

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CH BIOMEDICAL

Patent Issued for Ventricular Assist Device Controller with Integrated Power Source (USPTO 9526819)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- CH BIOMEDICAL (USA), INC. (Torrance, CA) has been issued patent number 9526819, according to news reporting originating out of Alexandria, Virginia, by NewsRx editors.

The patent's inventor is Chen, Chen (Santa Barbara, CA).

This patent was filed on September 26, 2014 and was published online on December 27, 2016.

From the background information supplied by the inventors, news correspondents obtained the following quote: "Ventricular assist devices are blood pumps, which assist blood circulation when a subject's heart is incapable of providing adequate blood circulation. FIG. 1 illustrates a conventional ventricular assist device (VAD) with extra-corporeal power and control components. The VAD 2 is implanted in a subject's body 4 near the heart 3. The VAD 2 is coupled by a percutaneous cable 6 to extra-corporeal components including a controller 8 and a power source. The power source may include and alternating current (AC) power source (not shown) and a pair of rechargeable batteries 10, 12, for example.

"Power cables 14, 16 couple the power sources to the controller 8. Conventionally, one end of each power cable 14, 16 includes a connector coupled to the power source and another end of each power cable 14, 16 includes another connector coupled to the controller 8. Normally, more than one rechargeable battery 10, 12 are coupled to a VAD controller 8, as shown, to provide improved safety. During operation of the VAD 2, when the controller 8 that is supplying power to the VAD 2 is disconnected from an AC power cable (not shown), two
batteries 10, 12 remain coupled to the controller 8 to ensure that sufficient and continuous power is provided to the VAD 2. When one of the rechargeable batteries 10, 12 (e.g., battery 10) is disconnected from the controller 8 to be charged, the other battery (e.g., battery 12) remains connected to the controller 8 and provide uninterrupted power to the controller 8 and blood pump 2. Within a short time after one battery 10 is disconnected from the controller 8, a fully charged standby battery is usually connected to the controller 8 via connecting cables 14. The system then resumes operation with at least two power sources connected to the controller.

"Normally, the two batteries 10, 12 are substantially similar or identical with the same capacity, size and weight. This type of conventional system generally draws power from one battery (e.g. 10) at a time until it is discharged to certain level. Then the system urges the patient to replace the substantially discharged battery with a fully-charged standby battery. During this period, the second battery (e.g. 12), which is connected to the controller, stands idle and remains at full capacity. However, in the conventional system, the time interval between changing batteries is usually determined by the life time of a single battery, rather than the sum of the life time of the two batteries. For example, if one battery 10 lasts five hours, then the patient is typically instructed to change battery every five hours, even though the second battery 12 is still capable of maintaining the system in normal operation for the next five hours. As a result, a patient using the conventional system generally carries a redundant battery of the same size and weight as an operational battery all the time. This causes inconvenience and burden that detrimentally affects the patients' normal activities.

"The conventional configuration as shown in FIG. 1, includes at least three extra-corporeal components including the controller 8, a first rechargeable battery 14 coupled to the controller 8 and a second rechargeable battery 16 separately coupled to the controller 8. These extra-corporeal components, which are carried by the subject, severely limit the subject's mobility and comfort. Moreover, the power cables 14, 16 that are coupled between controller 8 and batteries 10, 12 are prone to mechanical wear and include connectors that may eventually fail after being repeatedly connected and disconnected to the controller 8 and batteries 10, 12, for example, many times in a day every day. It is also possible that a connector of a power cable 14, 16 may loosen or that the power cable may become completely disconnected from the battery 10, 12 or controller 8. These failure modes impose a potentially fatal risk of power interruptions and/or control signal interruptions to a VAD that could prevent the VAD from operating."

Supplementing the background information on this patent, NewsRx reporters also obtained the inventor's summary information for this patent: "Aspects of the present disclosure include an extra-corporeal controller unit for an implantable ventricular assist device (VAD) in which rechargeable batteries and control circuitry are integrated into a single housing. The extra-corporeal components including the controller 8, a first rechargeable battery 14 coupled to the controller 8 and a second rechargeable battery 16 separately coupled to the controller 8. These extra-corporeal components, which are carried by the subject, severely limit the subject's mobility and comfort. Moreover, the power cables 14, 16 that are coupled between controller 8 and batteries 10, 12 are prone to mechanical wear and include connectors that may eventually fail after being repeatedly connected and disconnected to the controller 8 and batteries 10, 12, for example, many times in a day every day. It is also possible that a connector of a power cable 14, 16 may loosen or that the power cable may become completely disconnected from the battery 10, 12 or controller 8. These failure modes impose a potentially fatal risk of power interruptions and/or control signal interruptions to a VAD that could prevent the VAD from operating."

"According to another aspect of the present disclosure, the rechargeable power source includes two or more rechargeable batteries configured in respective battery modules. The battery modules are configured for removable installation in a housing of the controller unit. Mating power connectors are integrated in the battery modules and the housing. The mating connectors are configured to couple each battery to the control circuitry and/or to the percutaneous cable or the transcutaneous energy/signal transmission mechanism whenever the respective battery module containing the battery is installed in the housing.

"These and other features, aspects and advantages of the present disclosure will be
better understood with reference to the following drawings, description and claims."


Keywords for this news article include: Cardiology, CH BIOMEDICAL, Medical Devices, Ventricular Assist Device.

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**Patents**


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventors Nagaishi, Michihiro (Suwa-shi, JP); Yamashita, Hideto (Suwa-shi, JP), filed on June 6, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "The present invention relates to an advice generation method, an advice generation program, an advice generation system and an advice generation device."

"It is said that receiving instructions from a good coach or trainer is a short cut to improve skills in sports. In golf, for instance, there are services in which a player receives lessons directly from an instructor called a teaching pro or in which a player sends a video of his/her swings and receives advice on it.

"However, ordinary sports enthusiasts find it hard to spend a lot of time and money on receiving instructions, and often use commercially available practice machines to practice and improve their skills on their own. Many of such practice machines simply capture and display movements of the user who practices, the ball and the like, but such motion analysis alone is not enough for improvement in skills in sports. Thus, a sports practice machine which offers advice on points to be improved as a result of analysis is proposed.

"For example, JP-A-2013-27629 proposes an exercise instruction device which offers advice for instructions according to the physique, movement habits and the like of the user.

"However, even when the advice for instructions is generated according to characteristics of the user, if the content of the training menu indicated by the advice is rigorous for the user, many users find it difficult to continuously execute the proposed menu. Consequently, the user cannot sufficiently benefit from effects that can be achieved by continuous training."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventors' summary information for this patent application: "An advantage of some aspects of the invention is to propose training that is easily acceptable to
the user.

"The invention can be implemented in the following configurations or application examples.

"Application Example 1

An advice generation method according to this application example includes: acquiring personal information about a user; searching for a similar person who is similar to the user on the basis of the personal information; acquiring history information about physical training carried out by the similar person; and generating advice information on the physical training for the user on the basis of the history information.

"According to this method, personal information about the user is acquired and a similar person who is similar to the user is searched for on the basis of the personal information. Then, information about physical training carried out by the similar person is acquired and advice information about the physical training for the user is generated on the basis of the history information. Thus, since the advice information of physical training for the user is generated on the basis of the history information of the physical training carried out by a similar person whose personal information is similar to that of the user, physical training that is suitable for and acceptable to the user can be proposed.

"Application Example 2

In the advice generation method according to the application example, it is preferable that, in the acquisition of the personal information, the personal information including biological information about a biological body and motion information about a movement is acquired.

"According to the method with this configuration, in the acquisition of the personal information, the biological information of the user and the motion information are acquired as personal information. Therefore, information about the biological body of the user and information about the movement can be acquired as personal information.

"Application Example 3

In the advice generation method according to the application example, it is preferable that, in the search, by focusing on profile information including physical fitness information about physical fitness of the user and the personal information, the similar person who has the profile information that is the most similar to that of the user is searched for from information saved in a database.

"According to the method with this configuration, the similar person who has the physical fitness information and personal information that are the most similar to those of the user can be extracted from the information in the database.

"Application Example 4

In the advice generation method according to the application example, it is preferable that, in the acquisition of the history information, the history information including a training item carried out in the physical training and a training duration of the training items is acquired.

"According to the method with this configuration, by acquiring the history information, it is possible to acquire the information of the training item carried out in the physical training by the similar person and the training duration of each training item.

"Application Example 5

In the advice generation method according to the application example, it is preferable that, in the generation, a first training duration for the training item is decided on the basis of the motion information and then a third training duration recommended in the advice
information is decided on the basis of the first training duration that is decided and a second training duration indicated by the history information.

"According to the method with this configuration, the third training duration is decided on the basis of the first training duration decided on the basis of the motion information of the user and the second training duration indicated by the history information of the similar person. Therefore, a training duration that is not unreasonable and is more acceptable to the user can be proposed.

"Application Example 6
"In the advice generation method according to the application example, in the generation, the history information of the similar person may be generated as the advice information.

"Application Example 7
"In the advice generation method according to the application example, the biological information may include at least one of pulse rate, body temperature and blood pressure in the biological body.

"Application Example 8
"In the advice generation method according to the application example, the motion information may include at least one of acceleration and angular velocity generated by a movement of the user.

"Application Example 9
"It is preferable that the advice generation method according to the application example includes outputting the advice information that is generated.

"According to the method with this configuration, the advice information that is generated can be outputted and thus disclosed.

"Application Example 10
"An advice generation program according to this application example causes a computer to execute: a personal information acquisition function of acquiring personal information about a user; a search function of searching for an similar person who is similar to the user on the basis of the personal information; a history information acquisition function of acquiring history information about physical training carried out by the similar person; and a generation function of generating advice information on the physical training for the user on the basis of the history information.

"According to this configuration, personal information about the user is acquired and an similar person who is similar to the user is searched for on the basis of the personal information. Then, history information about physical training carried out by the similar person is acquired and advice information about the physical training for the user is generated on the basis of the history information. Thus, since the advice information of physical training for the user is generated on the basis of the history information of the physical training carried out by the similar person whose personal information is similar to that of the user, physical training that is suitable for and acceptable to the user can be proposed.

"Application Example 11
"An advice generation system according to this application example includes: a personal information acquirer which acquires personal information about a user; a searcher which searches for an similar person who is similar to the user on the basis of the personal information; a history information acquirer which acquires history information about physical training carried out by the similar person; and a generator which generates advice information on the physical training for the user on the basis of the history information.
"According to this configuration, personal information about the user is acquired and an similar person who is similar to the user is searched for on the basis of the personal information. Then, history information about physical training carried out by the similar person is acquired and advice information about the physical training for the user is generated on the basis of the history information. Thus, since the advice information of physical training for the user is generated on the basis of the history information of the physical training carried out by the similar person whose personal information is similar to that of the user, physical training that is suitable for and acceptable to the user can be proposed.

BRIEF DESCRIPTION OF THE DRAWINGS

"The invention will be described with reference to the accompanying drawings, wherein like numbers reference like elements.

"FIG. 1 shows the configuration of an exercise instruction system according to an embodiment of the invention.

"FIG. 2 shows the arrangement of components of the exercise instruction system.

"FIG. 3 shows a sensor module attached to a band.

"FIG. 4 shows the configuration of basic data.

"FIG. 5 explains an arm motion model.

"FIG. 6 shows an example of wearing a sensor module.

"FIG. 7 explains processing of deciding recommended training.

"FIG. 8 is a flowchart showing a flow of processing in the exercise instruction system.

"FIG. 9 shows a modification of the processing of deciding recommended training."
of a vehicle seat having at least one base sheet and a backrest frame comprising a left and a right vertically extending lateral top-hat profile-member and an upper and a lower top-hat profile-member which extends in the transverse direction. The top-hat profile-members are welded to the front side of the base sheet. The lateral top-hat profile-members are welded to the top-hat profile-members which extend in the transverse direction.

"DE 10 2006 000 850 B4 discloses a backrest structure having an integrally constructed, substantially peripheral frame. The frame extends at three edge regions of the base sheet and comprises two longitudinal portions which extend in a parallel manner and a transverse portion which connects the longitudinal portions. In order to increase the rigidity, the base sheet has reinforcement beads. In order to fix and secure a cushion, upholstery suspension channels are provided on the outer edge regions of the base sheet.

"DE 10 2010 054 185 A1 discloses a backrest having a frame which is constructed in several portions. The frame comprises two longitudinal struts which extend in a parallel manner along the lateral edge regions of the base sheet. A transverse strut is arranged along the upper edge region. In order to reinforce the base sheet, bead-like channels are impressed.

"DE 10 2005 001 606 B4 discloses a backrest structure having an integrally constructed frame sheet which extends over a large portion of the surface of the base sheet. The frame sheet and the base sheet are connected to each other by means of laser welding. In this instance, a laser beam penetrates the base sheet and the surface of the frame sheet, whereby a weld seam which welds the base sheet to the frame sheet is produced.

"DE 35 15 598 C2 discloses a weld connection of two thin metal sheets which form an inner and an outer sheet, for example, an inner and an outer sheet for doors and/or hatches in motor vehicles, wherein the outer sheet (2) forms a visually smooth outer face and is flanged in the edge region thereof. The outer sheet is flanged through 180.degree. on the rear face thereof, and the inner sheet is placed with an edge region on the flanged edge of the outer sheet. The connection between this sheet and the flanged edge is carried out by means of a laser beam from the side facing away from the outer face.

"Base sheets having a material thickness of 0.6 mm and more are generally used in the production of backrest structures. The trend in vehicle seat development is toward lightweight construction. Large sheet components, such as base sheets of backrest structures, have a very high weight proportion of the overall backrest. As a result of the large surface areas of the base sheets, a large amount of material is provided, which results in the high weight. Since the surface-areas of the sheet components cannot be reduced, with a predetermined material, for example, sheet steel, only the sheet thickness of the sheets can be reduced in order to save weight. Thus, the sheet thickness of large sheet components has in the past been continuously reduced. Below a sheet thickness of approximately 0.6 mm, however, weldability of the sheets is no longer ensured in a simple manner since too little material is available. As a result of the small material thickness, there is the risk during the welding process that the laser beam may burn a hole in the base sheet, whereby the sheet becomes damaged and is not welded to the frame. Adapters cannot readily be fitted to the thin sheets. The sheets which are becoming increasingly thin additionally involve an increased risk of injury during handling and further processing."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventors' summary information for this patent application:

"An object of the invention is to provide a backrest structure for a vehicle seat having a relatively thin base sheet and thereby reduced weight and a vehicle seat having reduced weight."

"A backrest structure of the generic type comprises a planar base sheet and an additional structural component which are connected to each other by means of laser welding
using at least one weld seam. The term 'planar' is intended in particular to be understood to mean substantially flat. However, individual geometries such as reinforcement beads require a deviation from an absolutely flat shape. The term 'weld seam' is also intended to be understood to refer to weld seams whose length substantially corresponds to the width. Consequently, weld seams also include weld spots.

"According to the invention, there is provision in the region of the at least one weld seam for at least one tongue of the base sheet to be bent through 180° and placed on the remaining base sheet, and for the at least one weld seam to connect the bent tongue, the remaining base sheet and the additional structural component to each other. Consequently, the weld seam extends over the bent part-region, the remaining base sheet and the additional structural component.

"As a result of the bending of the at least one tongue of the base sheet, a doubled material thickness of the base sheet is produced locally. As a result of the doubled material thickness, a weld seam can be produced in a simplified manner by means of laser welding. The risk that the laser beam may burn a hole in the base sheet is reduced. Also, any air gap which may remain between the base sheet and the tongue does not influence the laser welding operation or has only an insignificant influence. Consequently, a relatively thin base sheet with reduced weight can be used, whereby the vehicle seat also has a reduced weight. Furthermore, the production costs are reduced and the efficiency is thereby increased.

"According to an advantageous development of the invention, the at least one tongue is bent multiple times through 180° and placed on the remaining base sheet. The material thickness of the base sheet is thereby not only doubled but multiplied. As a result of the multiplied material thickness of the base sheet, a weld seam can be produced in an even more simplified manner by means of laser welding.

"An advantageous saving of weight is achieved when the base sheet has a material thickness of less than 0.5 mm. Preferably, the base sheet has a material thickness between 0.3 mm and 0.5 mm, in a particularly preferred manner of approximately 0.35 mm. This material thickness brings about an advantageous saving of weight and nonetheless enables safe production of a weld seam by means of laser welding.

"According to a preferred embodiment of the invention, the additional structural component is a backrest frame.

"The rigidity of the backrest structure can be increased by a plurality of bent tongues being arranged along an outer contour of the base sheet and being welded to the backrest frame. The spacings between individual tongues may be equidistant. However, the spacings between individual tongues may also be adapted to the loading of the backrest structure.

"According to an advantageous embodiment, the bent tongue is a rectangular tongue which is separated at three sides from the remaining base sheet and which is bent through 180°, at the fourth side which is connected to the remaining base sheet and placed on the remaining base sheet. Such a tongue can be produced in a relatively simple manner by means of punching from the base sheet at any location.

"According to another advantageous embodiment, the bent part-region is edge material which is located at the edge of the base sheet and which is in particular tongue-like. The punching operation can thereby be dispensed with and there is locally produced a relatively large securing region which is located at the edge of the base sheet.

"The base sheet may have at least one securing location which is inwardly spaced apart from the outer contour thereof. This may be supplemented by a securing region in the region of the outer contour of the base sheet. It is thus possible, for example, for backrest frames, which are provided as a top-hat profile-member with two securing flanges which extend
in a parallel manner, to be secured to the base sheet. Preferably, the securing locations each comprise a passage region and a tongue.

"If the edge material is simply bent through 180°, there is produced a flat edge contour, which does not have a sharp-edged but instead a rounded edge region. The risk of injury when a backrest structure is produced is thereby reduced.

"If the edge material is bent several times, wherein the edge material and the remaining base sheet enclose a geometric shape, a contoured edge contour is produced. The contoured edge contour also reduces the risk of injury since it does not have a sharp-edged, but instead a rounded edge region. In addition, the contoured edge contour increases the rigidity of the base sheet.

"According to an advantageous development of the invention, the backrest frame has an upholstery suspension channel for securing a cushion. It is consequently not necessary to provide an upholstery suspension channel on the base sheet and, consequently, the base sheet does not need to absorb the load resulting from the tension of the cushion and, consequently, a base sheet having a relatively thin material thickness can be used.

"According to another development of the invention, the base sheet additionally has an upholstery suspension region which is preferably integrated in the upholstery suspension channel of the backrest frame in a positive-locking manner. The rigidity of the upholstery suspension channel is thereby increased.

"The rigidity of the upholstery suspension channel is increased even further when the base sheet is doubled in the region of the upholstery suspension region.

"The rigidity of the base sheet can be increased by means of at least one reinforcement bead. Preferably, the base sheet is produced from sheet steel or sheet aluminum.

"According to another preferred embodiment of the invention, the additional structural component is a wire, in particular a Top Tether clip of an Isofix child seat securing system.

"The object is also achieved with a vehicle seat which comprises at least one backrest structure according to the invention.

"The invention is explained in greater detail below with reference to advantageous embodiments illustrated in the figures. However, the invention is not limited to these embodiments. The various features of novelty which characterize the invention are pointed out with particularity in the claims annexed to and forming a part of this disclosure. For a better understanding of the invention, its operating advantages and specific objects attained by its uses, reference is made to the accompanying drawings and descriptive matter in which preferred embodiments of the invention are illustrated.

BRIEF DESCRIPTION OF THE DRAWINGS

"In the drawings:

"FIG. 1 is a schematic, partially sectioned view of a vehicle seat;

"FIG. 2 is a perspective view of a backrest structure of the vehicle seat according to FIG. 1 according to a first embodiment;

"FIG. 3 is a view of a base sheet of the backrest structure according to FIG. 2;

"FIG. 4 is an enlarged illustration of the marked part-region of the base sheet according to FIG. 3;

"FIG. 5 is a sectional view taken along the line A-A from FIG. 4, wherein a portion of the frame is additionally illustrated;
"FIG. 6 is a view of a backrest structure of the vehicle seat according to FIG. 1 according to a second embodiment, when viewed in the travel direction;
"FIG. 7 is a sectional view taken along the line B-B from FIG. 6;
"FIG. 8 is a sectional view through a securing region of a base sheet according to a first configuration of the second embodiment;
"FIG. 9 is a sectional view through a securing region of a base sheet according to a second configuration of the second embodiment;
"FIG. 10 is a perspective view of a backrest structure of the vehicle seat according to FIG. 1 according to a third embodiment with a Top Tether clip; and
"FIG. 11 is a sectional view taken along line C-C from FIG. 10."


Keywords for this news article include: Patents.

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**Patents**

**Researchers Submit Patent Application, "Cancer Immunotherapy by Radiofrequency Electrical Membrane Breakdown (Rf-Emb)"**, for Approval (USPTO 20160367310)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventors Onik, Gary M. (Ft. Lauderdale, FL); Miessau, James A. (Branford, CT), filed on December 5, 2014, was made available online on December 29, 2016. No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "The present invention relates generally to the field of medical ablation of biological tissue for treatment of disease and, more particularly, to the controlled application of radio frequency energy to soft tissue and cancerous tissue in humans and mammals to ablate such tissue through cellular destruction by Electrical Membrane Breakdown.

"Cancer is not one single disease but rather a group of diseases with common characteristics that often result in sustained cell proliferation, reduced or delayed cell mortality, cooption of bodily angiogenesis and metabolic processes and evasion of bodily immune response which results in undesirable soft tissue growths called neoplasms or, more commonly, tumors. Removal or destruction of this aberrant tissue is a goal of many cancer treatment methods and modalities. Surgical tumor excision is one method of accomplishing this goal. Tissue ablation is another, minimally invasive method of destroying undesirable tissue in the body, and has been generally divided into thermal and non-thermal ablation technologies. Thermal ablation encompasses both the addition and removal of heat to destroy undesirable cells. Cryoablation is a well established technique that kills cells by freezing of the extracellular
compartment resulting in cell dehydration beginning at -15 C and by intracellular ice formation causing membrane rupture occurring at colder temperatures. Because cryoablative techniques can rupture the cell membrane without denaturing cell proteins under certain conditions, such techniques have the additional ability to stimulate an antitumor immune response in the patient.

"Heat based techniques are also well established for ablation of both cancerous and non-cancerous tissues and include radio-frequency (RF) thermal, microwave and high intensity focused ultrasound ablation which raise localized tissue temperatures well above the body's normal 37.0°C. These methods use various techniques to apply energy to the target cells to raise interstitial temperature. For example, RF thermal ablation uses a high frequency electric field to induce vibrations in the cell membrane that are converted to heat by friction. Cell death occurs in as little as 30 second once the cell temperature reaches 50.0°C and decreases as the temperature rises. At 60.0°C, cell death is instantaneous. If the intracellular temperature rises to between about 60 and 95.0°C, the mechanisms involved in cell death include cellular desiccation and protein coagulation. When the intracellular temperature reaches 100.0°C, cellular vaporization occurs as intracellular water boils to steam. In the context of tissue ablation, cell temperatures not exceeding 50.0°C are not considered clinically significant. Because cellular proteins are denatured by the heat of thermal ablation techniques, they are not available to stimulate a specific immune response as they may be with cryoablation. Both heat based and cryoablation techniques suffer from the drawback that they have little or no ability to spare normal structures in the treatment zone and so can be contraindicated based on tumor location or lead to complications from collateral injury.

"Non thermal ablation techniques include electrochemotherapy and irreversible electroporation which although quite distinct from one another, each rely on the phenomenon of electroporation. With reference to FIG. 1, electroporation refers to the fact that the plasma membrane of a cell exposed to high voltage pulsed electric fields within certain parameters, becomes temporarily permeable due to destabilization of the lipid bilayer and the formation of pores P. The cell plasma membrane consists of a lipid bilayer with a thickness t of approximately 5 nm. With reference to FIG. 2A, the membrane acts as a nonconducting, dielectric barrier forming, in essence, a capacitor. Physiological conditions produce a natural electric potential difference due to charge separation across the membrane between the inside and outside of the cell even in the absence of an applied electric field. This resting transmembrane potential V'm ranges from 40 mV for adipose cells to 85 mV for skeletal muscle cells and 90 mV cardiac muscle cells and can vary by cell size and ion concentration among other things.

"With continued reference to FIGS. 2B-2D, exposure of a cell to an externally applied electric field E induces an additional voltage V across the membrane as long as the external field is present. The induced transmembrane voltage is proportional to the strength of the external electric field and the radius of the cell. Formation of transmembrane pores P in the membrane occurs if the cumulative resting and applied transmembrane potential exceeds the threshold voltage which may typically be between 200 mV and 1 V. Poration of the membrane is reversible if the transmembrane potential does not exceed the critical value such that the pore area is small in relation to the total membrane surface. In such reversible electroporation, the cell membrane recovers after the applied field is removed and the cell remains viable. Above a critical transmembrane potential and with longer exposure times, poration becomes irreversible leading to eventual cell death due an influx of extracellular ions resulting in loss of homeostasis and subsequent apoptosis. Pathology after irreversible electroporation of a cell does not show structural or cellular changes until 24 hours after field exposure except in certain very limited tissue types. However, in all cases the mechanism of cellular destruction and death by IRE is apoptotic which requires considerable time to pass and is not visible pathologically in a time
frame to be clinically useful in determining the efficacy of IRE treatment which is an important clinical drawback to the method.

"Developed in the early 1990's, electrochemotherapy combines the physical effect of reversible cell membrane poration with administration of chemotherapy drugs such as cisplatin and bleomycin. By temporarily increasing the cell membrane permeability, uptake of non-permeant or poorly permeant chemotherapeutic drugs is greatly enhanced. After the electric field is discontinued, the pores close and the drug molecules are retained inside the target cells without significant damage to the exposed cells. This approach to chemotherapy grew out of earlier research developing electroporation as a technique for transfection of genes and DNA molecules for therapeutic effect. In this context, irreversible electroporation leading to cell death was viewed as a failure in as much as the treated cells did not survive to realize the modification as intended.

"Irreversible electroporation (IRE) as an ablation method grew out of the realization that the 'failure' to achieve reversible electroporation could be utilized to selectively kill undesired tissue. IRE effectively kills a predictable treatment area without the drawbacks of thermal ablation methods that destroy adjacent vascular and collagen structures. During a typical IRE treatment, one to three pairs of electrodes are placed in or around the tumor. Electrical pulses carefully chosen to induce an electrical field strength above the critical transmembrane potential are delivered in groups of 10, usually for nine cycles. Each 10-pulse cycle takes about one second, and the electrodes pause briefly before starting the next cycle. As described in U.S. Pat. No. 8,048,067 to Rubinsky, et. al and application Ser. No. 13/332,133 by Arena, et al. which are incorporated here by reference, the field strength and pulse characteristics are chosen to provide the necessary field strength for IRE but without inducing thermal effects as with RF thermal ablation. However, because cells ablated by IRE methods undergo apoptotic death without membrane rupture their ability to induce a supplemental immune response as observed with cryoablation is impaired. When used as the sole ablative tool in a treatment protocol, IRE's inability to induce a supplemental immune response is a substantial limitation to its therapeutic benefit for patients. On the other hand, cryoablation suffers from the significant clinical disadvantages arising from the extreme cold and its capacity to destroy nearby critical healthy structures. What is needed is a minimally invasive tissue ablation technology that can avoid damaging healthy tissue while exposing cellular contents without denaturing such cellular contents so that they can to trigger a clinically useful immune response."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventors' summary information for this patent application: "It is, therefore, an object of the present invention to provide a method of tissue ablation using electrical pulses which causes immediate cell death through the mechanism of complete break down the membrane of the cell.

"It is another object of the present invention to provide a method of tissue ablation that causes immediate cell death electrically breaking down the cell membrane such that it can be monitored by immediate pathologic, chemical or spectroscopic examination of the tissue to evaluate efficacy of the treatment and adjust the same as needed.

"It is yet another object of the present invention to provide a method of tissue ablation using electrical pulses that causes immediate cellular membrane breakdown non-thermally so that sensitive tissue structures are spared and the intra-cellular and membrane proteins are spilled into the extracellular space without denaturing to be exposed to the body's immune system in order to illicit a specific tumor immune response.

"It is yet another object of the present invention to provide a method of tissue ablation that exposes non-denatured intra-cellular and membrane proteins to the immune system
to illicit a specific tumor immune response which can be modulated and enhanced by a variety of additional immune modulators.

"According to the present invention, the above described and other objects are accomplished, by applying to undesirable tissue in the body an external electric field specifically configured to directly and completely disintegrate the cell membrane. Referre to as Electrical Membrane Breakdown (EMB), application of an external oscillating electric field causes vibration and flexing of the cell membrane which results in a dramatic and immediate mechanical tearing or rupturing the cell membrane. EMB applies significantly higher energy levels than prior art methods to rupture the cell membrane rather than to electroporate the cell membrane. Unlike prior art methods, EMB expels the entire contents of the cell into the extracellular fluid and exposes internal components of the cell membrane which induces an immunologic response by the subject.

"A system for generation of the electric field necessary to induce EMB includes a bipolar pulse generator operatively coupled to a controller for controlling generation and delivery of the electrical pulses necessary to generate an appropriate electric field. The field is generated by therapeutic probes placed in proximity to the soft tissue or cancerous cells within the body of the subject and the bipolar pulses are shaped, designed and applied to achieve that result in an optimal fashion. A temperature probe may be provided for temperature feedback to the controller which is configured to control the signal output characteristics of the signal generator. The EMB protocol calls for a series of short and intense bi-polar electric to generate an oscillating electric field between the electrodes that induce a similarly rapid and oscillating buildup of transmembrane potential across the cell membrane. The built up charge applies a an oscillating and flexing force to the cellular membrane which upon reaching a critical value causes extensive rupture of the membrane and spillage of the cellular content. In addition to being bi-polar, the electric pulses preferably trace a square wave form and are characterized by instant charge reversal that have substantially no relaxation time between the positive and negative polarities of the bi-polar pulse. Instant charge reversal pulses are significantly more effective in destruction of dielectric cell membranes

"Important characteristic of the applied electric field include the field strength (Volts/cm), frequency, polarity, shape, duration, number and spacing. Field strength (Volts/cm) is a function of both the applied voltage and the electrode spacing and is preferably in the range of 1,500 V/cm to 10,000 V/cm absent thermal considerations. RF-EMB ablation is preferably performed by application of a series of not less than 100 electric pulses in a pulse train so as to impart the energy necessary on the target tissue without developing thermal issues in any clinically significant way. The pulse duration is preferably from 100 to 1000 .mu.s. The relationship between the duration and frequency of each pulse determines the number of instantaneous charge reversals experienced by the cell membrane during each pulse. The duration of each inter pulse burst interval is determined by the controller based on thermal considerations. Real time temperature feedback of the treatment site may be provided to the controller by which the controller can modulate treatment parameters to eliminate thermal effects as desired. Current flow at the treatment site may also be monitored for this purpose.

"The EMB ablation method is carried out by first identifying the location of the soft tissue within the subject to be ablated by medical imaging techniques such as CT or MRI or other means. A preferred position and spacing of the electrodes relative to the target tissue is determined and from 1 to 6 needle electrodes connected to the controller and signal generator are inserted into position in and around the treatment site. Placement and positioning of the electrodes is confirmed by medical imaging and the pulse generator is activated to apply electrical pulses to the electrodes to generate the treatment field thereby causing electrical membrane breakdown of cells in the soft tissue.
"Electrical membrane breakdown causes immediate spillage of all intracellular components of the ruptured cells into an extracellular space and exposes the internal constituent parts of the cell and cell membrane including antigens which induce an immunologic response to destroy and remove this and like material in the body of the subject. The immunologic response can be enhanced by administration of agents that increase the immunologic response process including drugs. Electrical membrane breakdown causes immediate, visually observable tissue change, cellular membrane destruction and cell death such that the method may include the biopsy of a portion of the treated target tissue to verify treatment efficacy immediately after completion of the treatment while the patient is still in position for additional treatment. In other embodiments needle probes placed in critical treatment locations could monitor various parameters by means of chemical or spectroscopic means related to the immediate destruction and spillage of the intra-cellular contents also to verify treatment efficacy. In some situation, the mode of treatment may be switched from EMB to thermal ablation without removal or repositioning of the electrodes by reconfiguring the signal generated by the pulse generator to increase the tissue temperature at the electrodes according to known RF thermal techniques.

BRIEF DESCRIPTION OF THE DRAWINGS
"FIG. 1 is a diagram of a cell membrane pore.
"FIG. 2 is a diagram of cell membrane pore formation by a prior art method.
"FIG. 3 is a comparison of a prior art charge reversal with an instant charge reversal according to the present invention.
"FIG. 4 is a square wave from instant charge reversal pulse according to the present invention.
"FIG. 5 is a diagram of the forces imposed on a cell membrane as a function of electric field pulse width according to the present invention.
"FIG. 6 is a diagram of a prior art failure to deliver prescribed pulses due to excess current.
"FIG. 7 is a schematic diagram of a feedback loop according to the present invention by which a controller reduces an applied signal voltage to keep the current amperage at or below a maximum.
"FIG. 8 is a diagram of a reduction in applied signal voltage upon reaching a maximum current level to permit continued signal delivery according to the present invention.
"FIG. 9 is a schematic diagram of a pulse generation and delivery system for application of the method of the present invention.
"FIG. 10 is a diagram of the parameters of a partial pulse train according to the present invention.
"FIG. 11 is a chart of exemplary treatment protocol parameters according to the present invention.
"FIG. 12 is a diagram of the parameters of exemplary treatment protocol number 1.
"FIG. 13 is a diagram of the parameters of exemplary treatment protocol number 2.
"FIG. 14 is a diagram of the parameters of exemplary treatment protocol number 3.
"FIG. 15 is a diagram of the parameters of exemplary treatment protocol number 4."

For additional information on this patent application, see: Onik, Gary M.; Miessau, James A. Cancer Immunotherapy by Radiofrequency Electrical Membrane Breakdown (Rf-Emb). Filed December 5, 2014 and posted December 29, 2016. Patent URL: http://appft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fnetal%
Researchers Submit Patent Application, "Co-Crystals, Salts and Solid Forms of Tenofovir Alafenamide", for Approval (USPTO 20160368938)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventors Shi, Bing (Redwood City, CA); Su, Zhuoyi (Edmonton, CA); Wang, Fang (Foster City, CA), filed on June 13, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "Tenofovir alafenamide (TAF) is a nucleotide reverse transcriptase inhibitor useful for the treatment and prevention of HIV and HBV. TAF hemifumarate is described in U.S. Pat. No. 8,754,065 (incorporated by reference herein in its entirety). U.S. Pat. No. 6,043,230 (incorporated by reference herein in its entirety) and other publications describe the antiviral specificity of nucleotide analogs, such as tenofovir disoproxil."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventors’ summary information for this patent application: "The present disclosure provides co-crystals, salts and crystalline forms of tenofovir alafenamide and methods for the preparation, use and isolation of such forms.

"Some embodiments provide tenofovir alafenamide sesquifumarate and crystal forms thereof. Some embodiments provide tenofovir alafenamide sesquifumarate solvates and crystal forms thereof wherein the solvent is selected from the group consisting of isopropanol, methyl ethyl ketone, tetrahydrofuran and acetone.

"Another embodiment provides tenofovir alafenamide oxalate and crystal forms thereof. Another embodiment provides tenofovir alafenamide malonate and crystal forms thereof. Another embodiment provides tenofovir alafenamide L-malate and crystal forms thereof. Another embodiment provides tenofovir alafenamide saccharin and crystal forms thereof. Another embodiment provides tenofovir alafenamide muate and crystal forms thereof. Another embodiment provides tenofovir alafenamide maleate and crystal forms thereof. Another embodiment provides tenofovir alafenamide hydrochloride and crystal forms thereof. Another embodiment provides tenofovir alafenamide ethanesulfonate and crystal forms thereof. Another embodiment provides tenofovir alafenamide benzenesulfonate and crystal forms thereof.

"Another embodiment provides a crystal form of tenofovir alafenamide methanesulfonate, wherein the XRPD pattern comprises 2theta values of 8.7+.0.2, 9.9+.0.2, 10.1+.0.2, and 19.7+.0.2. Another embodiment provides a crystal form of tenofovir alafenamide methanesulfonate having an XRPD substantially as shown in FIG. 16a.

"Another embodiment provides a crystal form of tenofovir alafenamide
methanesulfonate, wherein the XRPD pattern comprises 2theta values of 9.0, 9.5, 18.6, and 22.4+-0.2. Another embodiment provides a crystal form of tenofovir alafenamide methanesulfonate having an XRPD substantially as shown in FIG. 16b.

"Another embodiment provides tenofovir alafenamide sulfate and crystal forms thereof.

"In some embodiments, is provided a pharmaceutical composition comprising the co-crystals, salts and/or crystal forms of tenofovir alafenamide disclosed herein and a pharmaceutically acceptable excipient.

"In some embodiments, is provided a method for treating an HIV infection comprising administering to a subject in need thereof a therapeutically effective amount of the co-crystals, salts and/or crystal forms of tenofovir alafenamide disclosed herein.

"In some embodiments, is provided a method for treating a hepatitis B virus (HBV) infection comprising administering to a subject in need thereof a therapeutically effective amount of the co-crystals, salts and/or crystal forms of tenofovir alafenamide disclosed herein.

"In some embodiments, are provided co-crystals, salts and/or crystal forms of tenofovir alafenamide disclosed herein or a composition thereof, for use in the prophylactic or therapeutic treatment of HIV.

"In some embodiments, are provided co-crystals, salts and/or crystal forms of tenofovir alafenamide disclosed herein or a composition thereof, for use in the prophylactic or therapeutic treatment of HBV.

BRIEF DESCRIPTION OF THE DRAWINGS

"FIG. 1. Presented in FIG. 1 is the experimental X-ray powder diffraction (XRPD) pattern of TAF sesquifumarate isopropanol solvate

"FIG. 2. Presented in FIG. 2 is the experimental X-ray powder diffraction (XRPD) pattern of TAF sesquifumarate methyl ethyl ketone solvate

"FIG. 3. Presented in FIG. 3 is the experimental X-ray powder diffraction (XRPD) pattern of TAF sesquifumarate THF solvate

"FIG. 4. Presented in FIG. 4 is the experimental X-ray powder diffraction (XRPD) pattern of TAF sesquifumarate acetone solvate

"FIG. 5. Presented in FIG. 5 is the Experimental X-ray powder diffraction (XRPD) pattern of TAF sesquifumarate

"FIG. 6. Presented in FIG. 6 is the experimental X-ray powder diffraction (XRPD) pattern of TAF oxalate

"FIG. 7. Presented in FIG. 7 is the Experimental X-ray powder diffraction (XRPD) pattern of TAF malonate

"FIG. 8. Presented in FIG. 8 is the experimental X-ray powder diffraction (XRPD) pattern of TAF L-malate

"FIG. 9. Presented in FIG. 9 is the experimental X-ray powder diffraction (XRPD) pattern of TAF saccharin

"FIG. 10. Presented in FIG. 10 is the experimental X-ray powder diffraction (XRPD) pattern of TAF mucate pattern 1

"FIG. 11. Presented in FIG. 11 is the experimental X-ray powder diffraction (XRPD) pattern of TAF mucate pattern 2

"FIG. 12. Presented in FIG. 12 is the experimental X-ray powder diffraction (XRPD) pattern of TAF maleate
FIG. 13. Presented in FIG. 13 is the experimental X-ray powder diffraction (XRPD) pattern of TAF hydrochloride.

FIG. 14. Presented in FIG. 14 is the experimental X-ray powder diffraction (XRPD) pattern of TAF ethanesulfonate.

FIG. 15. Presented in FIG. 15 is the experimental X-ray powder diffraction (XRPD) pattern of TAF benzenesulfonate.

FIG. 16a. Presented in FIG. 16a is the experimental X-ray powder diffraction (XRPD) pattern of TAF methanesulfonate pattern 1.

FIG. 16b. Presented in FIG. 16b is the Experimental X-ray powder diffraction (XRPD) pattern of TAF methanesulfonate pattern 2.

FIG. 17. Presented in FIG. 17 is the experimental X-ray powder diffraction (XRPD) pattern of TAF sulfate.

FIG. 18. Presented in FIG. 18 is the experimental differential scanning calorimetry (DSC) and Thermo-gravimetric Analysis (TGA) thermograms of tenofovir alafenamide hydrochloride.

FIG. 19. Presented in FIG. 19 is the experimental differential scanning calorimetry (DSC) thermogram of tenofovir alafenamide oxalate.

FIG. 20. Presented in FIG. 20 is the experimental Thermo-gravimetric Analysis (TGA) thermogram of tenofovir alafenamide oxalate.

FIG. 21. Presented in FIG. 21 is the experimental differential scanning calorimetry (DSC) of TAF sesquifumarate isopropanol solvate.

FIG. 22. Presented in FIG. 22 is the experimental differential scanning calorimetry (DSC) of TAF sesquifumarate.

FIG. 23. Presented in FIG. 23 is the experimental differential scanning calorimetry (DSC) and Thermo-gravimetric Analysis (TGA) of TAF saccharin.

FIG. 24. Presented in FIG. 24 is the experimental differential scanning calorimetry (DSC) and Thermo-gravimetric Analysis (TGA) of TAF malonate.

FIG. 25. Presented in FIG. 25 is the experimental differential scanning calorimetry (DSC) and Thermo-gravimetric Analysis (TGA) of TAF L-malate.

FIG. 26. Presented in FIG. 26 is the experimental differential scanning calorimetry (DSC) and Thermo-gravimetric Analysis (TGA) of TAF sulfate.

FIG. 27. Presented in FIG. 27 is the experimental differential scanning calorimetry (DSC) and Thermo-gravimetric Analysis (TGA) of TAF maleate.

FIG. 28. Presented in FIG. 28 is the experimental differential scanning calorimetry (DSC) and Thermo-gravimetric Analysis (TGA) of TAF ethanesulfonate.

FIG. 29. Presented in FIG. 29 is the experimental differential scanning calorimetry (DSC) and Thermo-gravimetric Analysis (TGA) of TAF benzenesulfonate.

FIG. 30. Presented in FIG. 30 is the experimental differential scanning calorimetry (DSC) and Thermo-gravimetric Analysis (TGA) of TAF methanesulfonate pattern 1.

FIG. 31. Presented in FIG. 31 is the experimental differential scanning calorimetry (DSC) and Thermo-gravimetric Analysis (TGA) of TAF mucate Pattern 1 (RC-947-20-38) and Pattern 2 (RC-947-20-37).

FIG. 32. Presented in FIG. 32 is the experimental differential scanning calorimetry (DSC) and Thermo-gravimetric Analysis (TGA) of TAF p-toluene sulfonate.

FIG. 33. Presented in FIG. 33 is the experimental Thermo-gravimetric Analysis of tenofovir alafenamide sesquifumarate IPA solvate (pattern 1).
"FIG. 34. Presented in FIG. 34 is the experimental Thermo-gravimetric Analysis of tenofovir alafenamide sesquifumarate MEK solvate (pattern 2)"

"FIG. 35. Presented in FIG. 35 is the experimental Thermo-gravimetric Analysis of tenofovir alafenamide sesquifumarate THF solvate (pattern 3)"

"FIG. 36. Presented in FIG. 36 is the experimental Thermo-gravimetric Analysis of tenofovir alafenamide sesquifumarate acetone solvate (pattern 4)"

"FIG. 37. Presented in FIG. 37 is the experimental Thermo-gravimetric Analysis of tenofovir alafenamide sesquifumarate (pattern 5)"


Keywords for this news article include: Antiinfectives, Antiretrovirals, Antivirals, Patents, Genetics, HIV/AIDS, Tenofovir, RNA Viruses, Retroviridae, HIV Infections, Vertebrate Viruses, Drugs and Therapies, Primate Lentiviruses, Differential Scanning Calorimetry, Immune System Diseases and Conditions, Viral Sexually Transmitted Diseases and Conditions.

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University of Southern California


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventors HOFMAN, Florence M. (Venice, CA); FERREIRA, Raquel M.S. (Braga, PT); GIANNOTTA, Steven L. (Pasadena, CA); CHEN, Thomas C. (La Canada Flintridge, CA), filed on March 11, 2015, was made available online on December 29, 2016. The patent's assignee is University of Southern California.

News editors obtained the following quote from the background information supplied by the inventors: "All publications cited herein are incorporated by reference in their entirety to the same extent as if each individual publication or patent application was specifically and individually indicated to be incorporated by reference. The following description includes information that may be useful in understanding the present invention. It is not an admission that any of the information provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

"The systemic delivery of miRNA without transfection reagents (naked delivery) has been successfully accomplished for the reduction of tumor metastasis in the mouse liver, by showing that naked miRNA can be internalized by tumor cells. In addition, intravenous injection of naked miRNA was shown to also enter virally infected liver cells. These applications were focused solely on the systemic delivery of miRNA into highly vascularized liver as the target organ, and not relevant to the neurovasculature.

"Cerebral Arteriovenous Malformations (AVM) are brain vascular lesions
comprising an abnormal tangle of vessels (nidus), in which arteries and veins are directly connected without an intervening capillary system. AVM affect approximately 300,000 people in the USA and can lead to serious neurological symptoms or death. Current medical treatments are highly invasive and can pose significant risks to nearby brain structures that regulate speech, movement and sensory processing, highlighting the importance of developing more efficacious and safer therapies.

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventors’ summary information for this patent application: "Human AVM-derived brain endothelial cells (AVM-BEC) have distinct and abnormal characteristics compared to normal BEC. Namely, AVM-BEC proliferate more rapidly, migrate faster, and produce aberrant vessel-like structures as compared to normal vasculature. AVM-BEC also express low levels of a key regulator of angiogenesis, thrombospondin-1 (TSP-1). These abnormal features are ameliorated with microRNA-18a (miR-18a) treatment. MiRNAs are small non-coding RNAs that inhibit gene expression by inducing cleavage or translational repression of messenger RNA (mRNA). Specifically, miR-18a inhibited TSP-1 transcriptional repressor, Inhibitor of DNA-binding protein-1 (Id-1), leading to increased TSP-1 levels and decreased vascular endothelial growth factor (VEGF)-A and VEGF-D secretion. miR-18a also regulated cell proliferation and improved tubule formation efficiency. Importantly, these effects were obtained with miRNA alone (naked delivery), in the absence of traditional transfection reagents, like lipofectamine, which cannot be used in vivo due to induced toxicity. Naked miRNAs have been shown to form complexes with circulating RNA-binding proteins, such as argonaute-2 (Ago-2), a member of the Argonaute protein family, which also includes Ago-1, Ago-3 and Ago-4. In human cells, Ago-2 takes part in the RNA-induced silencing complex (RISC) to promote endonucleolytic cleavage of mRNA.

"In this application, we show that AVM-BEC release Ago-2, which can be used to enhance the entry of extracellular miR-18a into brain endothelial cells. In vitro studies show that Ago-2 in combination with miR-18a is functional and able to stimulate TSP-1 production. Furthermore, miR-18a in combination with Ago-2 can be delivered in vivo by intravenous administration, resulting in increased circulating serum TSP-1 and decreased VEGF-A. Thus Ago-2 may be used to decrease angiogenic activity in brain endothelial cells, making Ago-2 a biocompatible miRNA-delivery platform suitable for treating neurovascular diseases and brain tumors.

"Various embodiments of the present invention provide a method of delivering a miRNA to a cell. The method may comprise or may consist of: providing the miRNA and an Ago-2 or a variant thereof; and contacting the cell with the miRNA and the Ago-2 or the variant thereof, thereby delivering the mRNA to the cell. In some embodiments, the miRNA and the Ago-2 or the variant thereof are provided in one composition. In other embodiments, the miRNA and the Ago-2 or the variant thereof are provided in separate compositions. Various embodiments of the present invention provide a kit for delivering a miRNA to a cell. The kit may comprise or may consist of a quantity of a miRNA; a quantity of an Ago-2 or a variant thereof; and instructions for using the Ago-2 or the variant thereof to deliver the miRNA.

"Various embodiments of the present invention provide a method of delivering a miRNA to a cell. The method may comprise or may consist of: providing the miRNA and an Ago-2 or a variant thereof; mixing the miRNA with the Ago-2 or the variant thereof; and contacting the cell with the mixture of the miRNA and the Ago-2 or the variant thereof, thereby delivering the mRNA to the cell. In various embodiments, the miRNA and the Ago-2 or the variant thereof form a ribonucleoprotein complex in the mixture.

"Various embodiments of the present invention provide a method of inhibiting or suppressing angiogenesis in a subject. The method may comprise or may consist of: providing a
miRNA and an Argonaute-2 (Ago-2) or a variant thereof; administering a therapeutically
effective amount of the miRNA and the Ago-2 or the variant thereof to the subject, thereby
inhibiting or suppressing angiogenesis in the subject. In some embodiments, the miRNA and the
Ago-2 or the variant thereof are provided in one composition. In other embodiments, the
miRNA and the Ago-2 or the variant thereof are provided in separate compositions. Various
embodiments of the present invention provide a kit for inhibiting or suppressing angiogenesis.
The kit may comprise or may consist of a quantity of a miRNA; a quantity of an Argonaute-2
(Ago-2) or a variant thereof; and instructions for using the miRNA and the Ago-2 or the variant
thereof to inhibit or suppress angiogenesis. In some embodiment, the miRNA is capable of
inhibiting or suppressing angiogenesis.

"Various embodiments of the present invention provide a method of inhibiting or
suppressing angiogenesis in a subject. The method may comprise or may consist of: providing a
miRNA and an Ago-2 or a variant thereof; mixing the miRNA with the Ago-2 or the variant
thereof; and administering a therapeutically effective amount of the mixture to the subject,
thereby inhibiting or suppressing angiogenesis in the subject. In various embodiments, the
miRNA and the Ago-2 or the variant thereof form a ribonucleoprotein complex in the mixture.
In some embodiment, the miRNA is capable of inhibiting or suppressing angiogenesis.

"Various embodiments of the present invention provide a method of promoting
angiogenesis in a subject. The method may comprise or may consist of: providing a miRNA and
an Argonaute-2 (Ago-2) or a variant thereof; administering a therapeutically effective amount of
the miRNA and the Ago-2 or the variant thereof to the subject, thereby promoting angiogenesis
in the subject. In some embodiments, the miRNA and the Ago-2 or the variant thereof are
provided in one composition. In other embodiments, the miRNA and the Ago-2 or the variant
thereof are provided in separate compositions. Various embodiments of the present invention
provide a kit for promoting angiogenesis. The kit may comprise or may consist of a quantity of a
miRNA; a quantity of an Argonaute-2 (Ago-2) or a variant thereof; and instructions for using
the miRNA and the Ago-2 or the variant thereof to promote angiogenesis. In some
embodiments, the miRNA is capable of promoting angiogenesis.

"Various embodiments of the present invention provide a method of promoting
angiogenesis in a subject. The method may comprise or may consist of: providing a miRNA and
an Ago-2 or a variant thereof; mixing the miRNA with the Ago-2 or the variant thereof; and
administering a therapeutically effective amount of the mixture to the subject, thereby
promoting angiogenesis in the subject. In various embodiments, the miRNA and the Ago-2 or
the variant thereof form a ribonucleoprotein complex in the mixture. In some embodiments, the
miRNA is capable of promoting angiogenesis.

"Various embodiments of the present invention provide a method of treating,
preventing, reducing the likelihood of having, reducing the severity of and/or slowing the
progression of a condition in a subject. The method may comprise or may consist of: providing a
miRNA and an Argonaute-2 (Ago-2) or a variant thereof; administering a therapeutically
effective amount of the miRNA and the Ago-2 or the variant thereof to the subject, thereby of
treating, preventing, reducing the likelihood of having, reducing the severity of and/or slowing
the progression of a condition in the subject. In some embodiments, the miRNA and the Ago-2
or the variant thereof are provided in one composition. In other embodiments, the miRNA and
the Ago-2 or the variant thereof are provided in separate compositions. Various embodiments of
the present invention provide a kit for treating, preventing, reducing the likelihood of having,
reducing the severity of and/or slowing the progression of a condition. The kit may comprise or
may consist of a quantity of a miRNA; a quantity of an Argonaute-2 (Ago-2) or a variant
thereof; and instructions for using the miRNA and the Ago-2 or the variant thereof to treat,
prevent, reduce the likelihood of having, reduce the severity of and/or slow the progression of
“Various embodiments of the present invention provide a method of treating, preventing, reducing the likelihood of having, reducing the severity of and/or slowing the progression of a condition in a subject. The method may comprise or may consist of: providing a miRNA and an Ago-2 or a variant thereof; mixing the miRNA and the Ago-2 or the variant thereof; and administering a therapeutically effective amount of the mixture to the subject, thereby treating, preventing, reducing the likelihood of having, reducing the severity of and/or slowing the progression of the condition in the subject. In various embodiments, the miRNA and the Ago-2 or the variant thereof form a ribonucleoprotein complex in the mixture.

In one embodiment, the miRNA and the Ago-2 or the variant thereof may be provided in one composition. In another embodiment, the miRNA and the Ago-2 or the variant thereof may be provided in two separate compositions. In various embodiments, the miRNA is administered at about 0.001 to 0.01, 0.01 to 0.1, 0.1 to 0.5, 0.5 to 5, 5 to 10, 10 to 20, 20 to 50, 50 to 100, 100 to 200, 200 to 300, 300 to 400, 400 to 500, 500 to 600, 600 to 700, 700 to 800, 800 to 900, or 900 to 1000 nmol/L. In various embodiments, the miRNA is administered intratumorally, intracranially, intraventricularly, epidurally, intradurally, intravascularly, intravenously, intraarterially, intramuscularly, subcutaneously, intraperitoneally, intranasally, or orally. In various embodiments, the mixture is administered once, twice, three or more times. In various embodiments, the mixture is administered 1-3 times per day, 1-7 times per week, or 1-9 times per month. In various embodiments, the mixture is administered for about 1-10 days, 10-20 days, 20-30 days, 30-40 days, 40-50 days, 50-60 days, 60-70 days, 70-80 days, 80-90 days, 90-100 days, 1-6 months, 6-12 months, or 1-5 years. In various embodiments, the Ago-2 or the variant thereof is administered at about 0.001 to 0.01, 0.01 to 0.1, 0.1 to 0.5, 0.5 to 5, 5 to 10, 10 to 20, 20 to 50, 50 to 100, 100 to 200, 200 to 300, 300 to 400, 400 to 500, 500 to 600, 600 to 700, 700 to 800, 800 to 900, or 900 to 1000 nmol/L. In various embodiments, the Ago-2 or the variant thereof is administered intratumorally, intracranially, intraventricularly, epidurally, intradurally, intravascularly, intravenously, intraarterially, intramuscularly, subcutaneously, intraperitoneally, intranasally, or orally. In various embodiments, the Ago-2 or the variant thereof is administered once, twice, three or more times. In various embodiments, the Ago-2 or the variant thereof is administered 1-3 times per day, 1-7 times per week, or 1-9 times per month. In various embodiments, the Ago-2 or the variant thereof is administered for about 1-10 days, 10-20 days, 20-30 days, 30-40 days, 40-50 days, 50-60 days, 60-70 days, 70-80 days, 80-90 days, 90-100 days, 1-6 months, 6-12 months, or 1-5 years.

Various methods described herein may further comprise providing and administering a therapeutically effective amount of an anti-angiogenic drug to the subject. Various kits described herein may further comprise a quantity of an anti-angiogenic drug. Various methods described herein may further comprise providing and administering a therapeutically effective amount of a chemotherapeutic agent to the subject. Various kits described herein may further comprise a quantity of a chemotherapeutic agent. Various embodiments of the present invention provide a composition. The composition may comprise or may consist of a miRNA and an Ago-2 or a variant thereof. In accordance with the present invention, the composition may be used for delivering the miRNA to a cell, inhibiting angiogenesis, promoting angiogenesis, and/or treating, preventing, reducing the likelihood of having, reducing the severity of and/or slowing the progression of a condition in a subject.

Various embodiments of the present invention provide a composition. The composition may comprise or may consist of a ribonucleoprotein complex of a miRNA and an Ago-2 or a variant thereof. In accordance with the present invention, the composition may be
used for delivering the miRNA to a cell, inhibiting angiogenesis, promoting angiogenesis and/or treating, preventing, reducing the likelihood of having, reducing the severity of and/or slowing the progression of a condition in a subject.

"In various embodiments, the subject is a human. In various embodiments, the miRNA is miR-18a or miR-128a. In some embodiment, the miRNA is capable of inhibiting or suppressing angiogenesis (e.g., miR-92, miR-92a, miR-221/22). In other embodiment, the miRNA is capable of promoting angiogenesis (e.g., miR-296, miR-126, mir-210, miR-130).

"Various compositions described herein may be formulated for intratumoral, intracranial, intraventricular, intrathecal, epidural, intradural, intravascular, intravenous, intramuscular, subcutaneous, intraperitoneal, intranasal, or oral administration. Various compositions described herein may further comprise an anti-angiogenic drug. Various compositions described herein may further comprise a chemotherapeutic agent. Various compositions described herein may further comprise a pharmaceutically acceptable excipient. Various compositions described herein may further comprise a pharmaceutically acceptable carrier.

"In accordance with the present invention, examples of anti-angiogenic drugs include but are not limited to Genentech/Roche (Bevacizumab/Avastin.RTM.), Bayer and Onyx Pharmaceuticals (sorafenib/Nexavar.RTM.), Pfizer (sunitib/Sutent.RTM.), GlaxoSmithKline (pazopanib/Votrient.RTM.), Novartis (everolimus/Affinitor.RTM.), Celgene (pomalidomide/Pomalyst.RTM.) and Ipsen and Active Biotech (tasquinimod/ABR-215050, CID 54682876).

"In accordance with the present invention, examples of the chemotherapeutic agent include but are not limited to Temozolomide, Actinomycin, Alitretinoin, All-trans retinoic acid, Azacitidine, Azathioprine, Bevacizumab, Bexatotene, Bleomycin, Bortezomib, Carboplatin, Capecitabine, Cetuximab, Cisplatin, Chlorambucil, Cyclophosphamide, Cytarabine, Daunorubicin, Docetaxel, Doxifuridine, Doxorubicin, Epirubicin, Eptothilone, Erlotinib, Etoposide, Fluorouracil, Gefitinib, Gemcitabine, Hydroxyurea, Idarubicin, Imatinib, Iplilimumab, Irinotecan, Mechlorethamine, Melphalan, Mercaptopurine, Methotrexate, Mitoxantrone, Ocresizumab, Ofatumumab, Oxaliplatin, Paclitaxel, Paniutumab, Pemetrexed, Rituximab, Tafelposide, Teniposide, Tioguanine, Topotecan, Tretinoin, Valrubicin, Vemurafenib, Vinblastine, Vincristine, Vinbeside, Vinorelbine, Vorinostat, Romidepsin, 5-fluorouracil (5-FU), 6-mercaptopurine (6-MP), Cladribine, Clorafarine, Flouxuridine, Fludarbine, Pentostatin, Mitomycin, ixabepilone, Estramustine, prednisone, methylprednisolone, dexamethasone or a combination thereof.

"Various compositions, methods and kits of the present invention find utility in the treatment of various conditions, including but not limited to neurovascular disease, brain vascular disease, cerebra arteriovenous malformation (AMV), stroke, tumor or cancer, brain tumor, glioma, glioblastoma, and glioblastoma multiform (GBM).

BRIEF DESCRIPTION OF THE DRAWINGS

"Exemplary embodiments are illustrated in referenced figures. It is intended that the embodiments and figures disclosed herein are to be considered illustrative rather than restrictive.

"FIG. 1 shows, in accordance with various embodiments of the invention, that AVM-BEC-conditioned media (AVM-BEC-CM) potentiates miR-18a internalization. A) AVM-BEC and control BEC were analyzed for intracellular miR-18a levels using qPCR. Control BEC were used as baseline (n=3; p<0.01). B) miR-18a (40 nmol/L) in combination with AVM-BEC-CM (black bars) or fresh culture media (white bars) was added to AVM-BEC and tested for intracellular miR-18a after 5, 10, 30 minutes, and 24 hours. AVM-BEC-CM enhanced miR-18a
entry up to 30 minutes (n=3-4; *p<0.05; p<0.01). C) Control BEC were treated with miR-18a (40 nmol/L) in combination with AVM-BEC-CM (black bar), control BEC-CM (gray bar) or fresh media (white bar). Intracellular miR-18a was analyzed (qPCR) after 30 minutes incubation; AVM-BEC-CM potentiated miR-18a internalization by control BEC (n=3; p<0.01). D) Control BEC were treated with miR-18a (40 nmol/L) and in the presence of serial diluted AVM-BEC-CM (diagonal line bars), demonstrating that progressively diluted AVM-BEC-CM loses its ability to enhance miR-18a internalization (n=3, p<0.01, p<0.001). Dotted line represents miR-18a uptake by control BEC in the presence of fresh media.

"FIG. 2 shows, in accordance with various embodiments of the invention, that Ago-2 is highly expressed by AVM-BEC. A) Basal expression of RNA-binding proteins (NPM, nucleophosmin-1; NCL, nucleolin; Ago-2, argonaute-2) in AVM-BEC and control BEC were analyzed by qPCR. Increased levels of NCL and Ago-2 in AVM-BEC as compared to control BEC were detected (n=3; p<0.01; *p<0.001). B) AVM-BEC were treated with siAgo (30-75 nmol/L), scrambled siAgo (50-75 nmol/L) and lipofectamine (2 ug/ml) and Ago-2 protein levels were analyzed by Western blotting. siAgo-2 (75 nmol/L) decreased approximately 50% of intracellular Ago-2 protein content (n=3; *p<0.05). A representative image depicting the effects of siAgo-2 (75 nmol/L) alone and in the presence of lipofectamine (2 .mu.g/ml) is shown below."

"FIG. 3 shows, in accordance with various embodiments of the invention, that Ago-2 silencing compromises miR-18a entry. A) Intracellular miR-18a detection in AVM-BEC, control BEC, tumor-derived endothelial cells (TuBEC), human umbilical vein endothelial cells (HUVEC), human microvascular endothelial cells (HMEC) and astrocytes treated with miR-18a (40 nmol/L) in the presence of siAgo-2-AVM-BEC-CM (dotted bars) or AVM-BEC-CM (black bars). Ago-2 silencing decreased miR-18 entry in AVM-BEC, control BEC and TuBEC (n=3; *p<0.05; p<0.001). B) Intracellular detection of miR-18a in control BEC (qPCR) after treating cells for 30 minutes with different concentrations of Ago-2 (0.01-4 nmol/L) in combination with miR-18a (40 nmol/L) showed that higher concentrations of Ago-2 (up to 0.4 nmol/L) increased miR-18a detection (n=3). Dotted line represents miR-18a uptake by control BEC in the presence of AVM-BEC-CM. C) Analysis of intracellular miR-18a (qPCR) showed that miR-18a (40 nmol/L) in combination with Ago-2 (0.4 nmol/L) (for 5, 30, 120 and 1440 minutes) was more resistant to degradation than miR-18a alone; maximum effect was observed at 120 minutes (n=3; p<0.01). D) AVM-BEC and control BEC were exposed to miR-18a in combination with siAgo-2-AVM-BEC-CM or AVM-BEC-CM. Ago-2 staining (red) showed that cells exposed to AVM-BEC-CM increased Ago-2 detection in control BEC when treated with miR-18a (40 nmol/L) (n=3, p<0.01). Nuclear staining is shown in blue.

"FIG. 4 shows, in accordance with various embodiments of the invention, that facilitated transport is involved in miR-18a delivery. A) AVM-BEC and control BEC were treated with AVM-BEC-CM plus miR-18a (40 nmol/L) at 4.degree. C. and 37.degree. C. for 30 minutes. Intracellular miR-18a was measured using qPCR as described previously, showing that at 4.degree. C. miRNA entry was only minimally compromised (n=3). B) The distribution of Ago-2 (red) was identified using immunocytochemistry. At 4.degree. C. untreated AVM-BEC expressed high levels of intracellular Ago-2 (i) compared to untreated control BEC (ii). When control BEC were treated with AVM-BEC-CM plus miR-18a at 4.degree. C., Ago-2 staining was apparent and associated with the cell membrane (iii; white arrows) (n=3). Blue staining denotes nuclear staining. C) The formation of a ribonucleoprotein complex between Ago-2 and miR-18a was determined by immunoprecipitation and immunoblotting (left panel) and qPCR (right panel). Ago-2 was detected only in the two fractions in contact with anti-Ago-2, as expected. Only the fraction with both Ago-2 and miR-18, but not miR-18a alone, led to the detection of miR-18a by qPCR. Rabbit IgG served as the isotypic control.

"FIG. 5 shows, in accordance with various embodiments of the invention, that Ago-2...
silencing decreases miR-18a-induced TSP-1 secretion. A) AVM-BEC were treated with siAgo-2 (75 nM) followed by miR-18a treatment (40 nmol/L) and cell supernatants tested for TSP-1 (n=4; *p<0.05). B) Control BEC were treated with varying concentrations of the miR-18a inhibitory sequence, antagonir (40-120 nmol/L). Antagomir treatment (80 nmol/L) significantly decreased TSP-1 levels (n=4; p<0.01).

"FIG. 6 shows, in accordance with various embodiments of the invention, that Co-treatment of miR-18a and Ago-2 in vivo 'normalizes' TSP-1 and VEGF-A plasma levels. A) Athymic nude mice were implanted with glioma cells intracranially. After 3 days, animals were treated intravenously with vehicle, miR-18a plus Ago-2, miR-18a alone or Ago-2 alone every 48 hours for three cycles. Subsequently, plasma was tested for TSP-1 (A) and VEGF-A (B). miR-18a and Ago-2 combination treatment caused the most significant increase of TSP-1 levels (n=5; *p<0.05; p<0.01, ***p<0.001), and reduction of VEGF-A levels (n=5; *p<0.05). Control plasma (healthy) was obtained from normal athymic mice."


Keywords for this news article include: Carrier Proteins, Endothelial Cells, Ribonucleoproteins, RNA-Binding Proteins, University of Southern California.

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**Patents**

**Researchers Submit Patent Application, "Compositions and Methods for the Treatment and Management of Steatosis in Human Liver", for Approval (USPTO 20160367537)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventor Rudel, Lawrence L. (Winston-Salem, NC), filed on June 18, 2014, was made available online on December 29, 2016.

No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "Several publications and patent documents are cited throughout the specification in order to describe the state of the art to which this invention pertains. Each of these references are incorporated herein as though set forth in full.

"Non-alcoholic fatty liver disease (NAFLD) has emerged as an epidemic in the United States and other industrialized countries.(1) Abnormal fat deposition in the liver worsens patient response to viral hepatitis therapy and steatosis has a significant rate of transition to cirrhosis and hepatocellular carcinoma.(2-4) It is estimated that one third of Americans have fatty liver, and that NAFL will eventually supplant hepatitis C as the leading indication for liver transplant in western countries.(5) Additionally, fatty liver disease has additional human health implications, since steatosis has been linked to insulin resistance, obesity, hyperlipidemia, and atherosclerotic heart disease in humans.(6-8) NAFLD is recognized as the main cause of hepatic
steatosis, one of the more common liver disorders in the general population.

"Studies have identified a number of genetic determinants of hepatic steatosis, which include mutations in the lysosomal acid lipase (NIPA) gene. Such mutations are recognized as contributing factors to the pathogenesis of cholesterol ester storage disease and Wolman disease. Both of these disease states are characterized by a lack of the LAL enzyme which results in massive accumulation of cholesterol ester and triglycerides in the liver, gut and other organs.

"Wolman disease, which is the early-onset form of LAL deficiency, is fatal in most instances, typically before one year of age.

"Late onset LAL deficiency, commonly referred to as cholesterol ester storage disease (CESD), may lead to cirrhosis of the liver, liver failure and death among children, adolescents and adults. Those diagnosed with CESD appear to be at an increased risk of stroke, due to atherosclerosis, i.e., the accumulation of lipids in the walls of major arteries.

"Individuals who suffer from Wolman disease and CESD frequently are undiagnosed because their symptoms are mistaken for those of more prevalent conditions, e.g., NAFLD, non-alcoholic steatohepatitis (NASH) and alcoholic liver disease.

"Currently, medical treatment for LAL deficiency disorders involve attempts at managing symptoms. Combination therapy for reducing cholesterol, together with a diet excluding food rich in cholesterol and triglycerides have been effective at reducing some symptoms of CESD. Intravenous nutritional support is sometimes used for Wolman disease patients, if bone marrow transplantation is being considered. See also, Scriver et al., The Metabolic and Molecular Bases of Inherited Disease, Vol. 2, Chap. 82 'Acid Lipase Deficiency: Wolman Disease and Cholesterol Ester Storage Disease', 2563-87 (1995).

"More recently, it has been proposed to treat LAL deficiency disorders by administering stem cells that provide lysosomal enzymes, or by enzyme replacement therapy using a human recombinant lysosomal acid lipase. See e.g., U.S. Pat. No. 7,927,587 to Blazer et al. and U.S. Pat. No.8,663,631 to Quinn. The therapeutic efficacy of such treatments, however, has yet to be established."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventor's summary information for this patent application: "In accordance with the present invention, a method for the treatment and or management of hepatic steatosis in a patient in need thereof is disclosed. An exemplary method entails administration of an effective amount of a steroyl-O-acyltransferase inhibitor, the inhibitor being effective to reduce cholesterol ester accumulation, thereby inhibiting or reducing symptoms associated with steatosis. In one embodiment, the inhibitor is an inhibitory nucleic acid molecule. In yet another embodiment, the inhibitor is pyripyoprene A derivative or a pharmaceutically acceptable salts, solvates or hydrates thereof. In yet another embodiment, the SOAT2 inhibitor is delivered in an amount effective to inhibit cholesterol ester accumulation in the liver of such patients.

BRIEF DESCRIPTION OF THE DRAWINGS

"FIG. 1 is a panel of bar graphs showing that the major lipid class present in liver of all clinical groups was triglyceride, and it appeared to systematically increase among the study groups with the highest average being found in the obese, NASH group.

"FIG. 2 is series of graphs showing the systematic increases among study groups in the two neutral lipid classes suggesting that mechanisms leading to accumulation of these lipids may be associated.

"FIG. 3 is a series of bar graphs showing the results of analysis of the acyl compositions of hepatic triglycerides and cholesterol esters as compared to the same lipid
classes in plasma.

"FIG. 4 is a series of bar graphs showing that the percentages of CEFA in the liver compared to those percentages in plasma across all study groups by paired t-test were higher in saturated and monounsaturated fatty acids which presumably represents the contribution made by the tissue SOAT2 enzyme.

"FIGS. 5A-5D are a series of tables showing unesterified and esterified cholesterol concentrations and contents in the liver, small intestine and spleen in LAL.sup.-/- mice given the SOAT2 inhibitor, PRD-125 from 21 to 52 or 53 days of age."


Keywords for this news article include: Lipase, Stroke, Patents, Therapy, Genetics, Hepatitis, Lipidoses, Steatosis, Healthcare, Epidemiology, Wolman Disease, Gastroenterology, Fatty Liver Disease, Risk and Prevention, Enzymes and Coenzymes, Diagnostics and Screening, Lipid Metabolism Disorders, Liver Diseases and Conditions, Cholesterol Ester Storage Disease.

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Patents

Researchers Submit Patent Application, "Immunogenic Compositions", for Approval (USPTO 20160367655)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventors Gallichan, Scott (Burlington, CA); Mancevski, Ausra (Toronto, CA); Reveneau, Nathalie (Toronto, CA); Su, Jin (Markham, CA); Dalencon, Francois (Lyon, FR); Haensler, Jean (Grezieu-la-Varrene, FR), filed on March 21, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "This invention relates to the field of immunogenic compositions which comprise an adjuvant. More particularly, the invention relates to adjuvanted immunogenic compositions (e.g., vaccines) against at least one or more Chlamydia species.

"Chlamydia bacteria are obligate intracellular pathogens of eukaryotic cells. Three species of the family Chlamydia infect humans--C. trachomatis, C. pneumoniae, and C. psittaci--and genomic sequences for each of these are publicly available.

"C. trachomatis organisms are dimorphic, and alternate between two distinct morphological forms, the infectious elementary bodies (EB) and the metabolically active reticulate bodies (RB) The EBs infect eukaryotic cells; they are endocytosed by mucosal cells into vesicular inclusions and are transformed into RB. Within the inclusion, the RBs replicate and redifferentiate into EBs before being released through cell lysis to infect neighbouring cells.

"Chlamydia trachomatis is the most prevalent sexually transmitted bacterial pathogen in the world, with an estimated 100 million clinically diagnosed cases occurring annually. In
addition, a similar or greater number of asymptomatic cases go undetected. The most common clinical presentations are urethritis and cervicitis. These acute manifestations typically resolve over a period of a few weeks. However, in certain patients, long-term sequelae may develop, including pelvic inflammatory disease, ectopic pregnancy, and infertility. In areas of the world with poor hygienic conditions, Chlamydia trachomatis causes trachoma and lymphogranuloma venerum (LGV). Although effective antibiotic therapy is available, eradication of these organisms will most likely only be achieved through a vaccination program. To date, no vaccine is commercially available against this infection.

"Compositions including the major outer membrane protein (referenced herein as 'MOMP') of Chlamydia trachomatis are known. In particular, the article entitled, 'Vaccination with the Chlamydia trachomatis Major Outer Membrane Protein Can Elicit an Immune Response as Protective as That Resulting from Inoculation with Live Bacteria', Sukumar Pal et. al., Infection and Immunity, December 2005, p. 8153-8160 discloses the use of Chlamydia antigens in conjunction with adjuvants in an immunization composition. The publication discloses studies using the adjuvants CpG+alum, or CpG+Montanide ISA 720. According to the authors of this publication, the results obtained with these adjuvants were quite encouraging, but still required improvement. Moreover, while these adjuvants are quite suitable for animals, their ability to be used in humans is uncertain. Indeed, CpG oligonucleotides have been known to perform well in animals, but not so well in humans and Montanide ISA 720, a water-in-oil emulsion, can be rather painful when administered to humans.

"Therefore, there still remains a need for a safe and effective immunogenic composition against Chlamydial infections." As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventors' summary information for this patent application:

"The present invention provides compositions such as immunogenic compositions (e.g., vaccine compositions), comprising a Chlamydial major outer membrane protein (referenced herein as 'MOMP') from at least one Chlamydial serovar, and an adjuvant, characterized in that the adjuvant comprises at least the product E6020 having CAS Registry Number 287180-63-6. In these embodiments, the adjuvant may further comprise at least one carrier system (such as e.g., emulsion, mineral particle).

"The MOMP protein may be derived from any species of Chlamydia (e.g., C. trachomatis, C. pneumoniae, C. psittaci, or C. trachomatis MoPn). In preferred embodiments, the composition comprises one or more major outer membrane proteins each derived from different serovars of C. trachomatis The invention also provides methods of inducing an immune response to a Chlamydia species (e.g., C. trachomatis) in a subject, by administering to the subject a composition of the invention.

"In one example the Chlamydial major outer membrane protein is derived from any species of Chlamydia (e.g. C. trachomatis, C. pneumoniae, C. psittaci, or C. trachomatis mouse pneumonitis (MoPn)). In preferred embodiments, the major outer membrane protein is derived from C. trachomatis. In a preferred embodiment, the composition includes two, three, four or more (e.g., five) Chlamydial major membrane proteins each derived from a different serovar of C. trachomatis.

"According to an embodiment of the present invention, the composition also comprises a carrier system which may assist in the delivery of the antigen and/or the product E6020, or which may increase the adjuvant effect of E6020.

"This carrier system can comprise a suspension of aluminum salts, such as aluminum hydroxide, aluminum phosphate, aluminum hydroxyphosphate, or a mixture of them. In preferred embodiments, aluminum hydroxide is included.
"According to an embodiment, the carrier may comprise an emulsion, and particularly an oil-in-water emulsion.

"According to a further embodiment of the present invention, the composition also comprises an immunostimulant such as a Toll-like Receptor 7/8 agonist, and particularly an imidazoquinoline product.

"The compositions can be in liquid form, dry powder form, freeze dried, spray dried or foam dried.

"Specific examples of the compositions of the invention include those set out in the examples herein such as for example, the Adjuvants of the invention, ADJ.A, and ADJ.B.

"The invention also provides a method of making compositions comprising at least one recombinant Chlamydial MOMP, and an adjuvant, characterized in that the adjuvant comprises at least product E6020 having CAS Number 287180-63-6.

"The method includes providing at least one Chlamydial MOMP and admixing the at least one recombinant MOMP with an adjuvant, the adjuvant comprising at least product E6020 having CAS Number 287180-63-6.

"The invention also provides methods of inducing an immune response to a Chlamydia species (e.g., C. trachomatis) in a subject, which involve administering to the subject a composition as described herein. In addition, the invention includes use of the compositions of the invention in inducing an immune response to Chlamydia species (e.g., C. trachomatis).

"The invention provides a number of advantages. For example, in addition to being safe for human use, the immunogenic composition of the present invention provides an immune response which is both significant and Th1 oriented or Th1/Th2 balanced and therefore, favorable for a Chlamydia vaccine. Other features and advantages of the invention will be apparent from the following Detailed Description, the Drawings, and the Claims.

BRIEF DESCRIPTION OF THE DRAWINGS

"FIG. 1: shows a representative Blue Native PAGE gel analysis of rMOMP (serovar E, C. trachomatis) protein samples: two pilot scale samples (left, A,B) and three lab scale samples (right, C--H)

"FIG. 2: shows a representative SDS-PAGE gel of rMOMP (serovar E, C. trachomatis) pilot scale (JR3182) protein samples demonstrating the structure of the rMOMP protein at various steps (i.e., samples of the solubilized IBs, the purified denatured MOMP (Q pool), the folded protein, and the final product)"

For additional information on this patent application, see: Gallichan, Scott; Mancevski, Ausra; Reveneau, Nathalie; Su, Jin; Dalencon, Francois; Haensler, Jean. Immunogenic Compositions. Filed March 21, 2016 and posted December 29, 2016. Patent URL: http://appft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fnethtml%2FPTO%2Fsearch-adv.html&r=6600&f=G&l=50&d=PG01&S1=20161222.PD.&OS=PD/20161222&RS=PD/20161222

Keywords for this news article include: Patents, Aluminum, Genetics, Vaccines, Vaccination, Chlamydiales, Immunization, Light Metals, Public Health, Membrane Proteins, Biological Products, Chlamydia trachomatis, Chlamydiaceae Infections, Bacterial Infections and Mycoses, Gram-Negative Bacterial Infections, Sexually Transmitted Diseases and Conditions (STDs).

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Researchers Submit Patent Application, "Lipid Nanodiscs and Nanorods as Modulators of Clotting Factor Function in Vivo", for Approval (USPTO 20160367677)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventor Stoilova-McPhie, Svetla (Dallas, TX), filed on June 17, 2016, was made available online on December 29, 2016.

The patent's assignee is Board of Regents, The University of Texas System.

News editors obtained the following quote from the background information supplied by the inventors: "Without limiting the scope of the invention, its background is described in connection with blood clotting.

"Factor VIII in its active form serves as the co-factor to the serine protease Factor IXa within the membrane-bound intrinsic tenase complex. The assembly of the FVIIIa-FIXa complex on the activated platelet surface increases FIXa proteolytic activity and Factor Xa generation more than 100,000 times, which is critical for normal hemostasis (1, 2). FVIII is a heterodimer composed of a variable length heavy chain (HC: A1-A2-B) of 90-200 kDa containing variable length B-domain and a constant length light chain (LC: A3-C1-C2) of 80 kDa. The LC and HC are non-covalently linked via divalent Ca.sup.2+ ion(s) (1). Factor VIII is activated by Thrombin resulting in the cleavage of the entire B domain and separation of the A2 and A1 domains (3). Activated FVIII (FVIIIa) is a heterotrimer composed of non-covalently linked A1, A2 domains and the LC. The A1 and LC retain the metal ion-dependent linkage through the A1-A3 domains, whereas the association of A2 to A1 is mediated solely by hydrophobic and electrostatic interactions (1, 2, 4-10). The A2 and A3 domains contain the main protease (FIXa) binding sites and the C domains hold the main membrane binding sites (11-13). The FVIIIa binds to the FIXa with high affinity in a membrane-dependent manner resulting in the intrinsic tenase (FVIIIa-FIXa) complex assembly on the activated platelet surface during the propagation phase of critical for sufficient Thrombin generation (1, 14, 15).

"Defect or deficiency of FVIII is cause for Hemophilia A, and Hemophilia A is effectively corrected by repetitive intravenous injection of recombinant or plasma-derived FVIII concentrates to prevent recurring bleeding (16). Despite the critical role of FVIII for normal hemostasis the knowledge of its membrane-bound organization alone or within the intrinsic tenase complex is incomplete, due to the complexity of its domain organization and instability of the active form--FVIIIa. This lack of structural information hampers drug discovery that can effectively regulate the activity of the intrinsic tenase complex and improve the design of new pro- and anti-coagulant drugs.

"In the last decade a new approach for functional and structural studies of membrane-associated proteins was developed based on lipid nanodiscs (ND) technologies that can mimic the lipid composition of physiological membranes. Lipid ND have been previously employed for functional assays of coagulation factors and complexes, such as the Tissue Factor-Factor VIIa complexes and showed the advantage of this approach over phospholipid vesicles and artificial membrane bilayers in terms of precise control of the local membrane composition that surrounds the coagulation complexes (17). ND are small, about 10 nm in diameter size circular lipid bilayer membrane patches stabilized by two molecules of amphiphilic membrane scaffolding proteins (MSP). They are produced by a self-assembly process, which creates a preparation of homogenous and highly stable lipid bilayer discs with controlled lipid
composition. Such small size of the available membrane surface can allow the assembly of macromolecular complexes that contain the protein molecules of interest attached to the ND membrane with a size and macromolecular mass suitable for visualization and structure determination by single particle EM (18). The geometry (flat membrane discs) and homogenous distribution of the ND makes them more desirable for structural studies than liposomes, which are more heterogeneous in size with a higher curvature and larger membrane surface that leads to overlap membrane-bound molecules in the EM images (19).

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventor's summary information for this patent application: "In another embodiment, the present invention includes a lipid nanodisk or nanotube composition comprising: a lipid composition comprising phosphatidylserine and galactosylceramide and a membrane-bound Factor VIII protein, a membrane-bound Factor IX protein, a membrane-bound Factor VIII-Factor IX protein complex, or a membrane-bound Factor V and Factor X proteins and their complex in or about the lipid nanodisks or nanotubes. In one aspect, the membrane-bound Factor VIII is a full length or B-domain deleted variant of recombinant FVIII. In another aspect, the phosphatidylserine and galactosylceramide lipids and any derived lipids are at a ratio from 20 to 80 percent by volume. In another aspect, the phosphatidylserine is used as a 20 to 50%, or 50 to 80% liquid composition. In another aspect, the membrane-bound Factor VIII to lipid ratio is from 1:47 to 1:72. In another aspect, the membrane-bound Factor VIII to lipid ratio is from 1:40 to 1:150. In another aspect, the nanodisk is in a phosphatidylserine 80% lipid composition and 1:47 membrane-bound Factor VIII to lipid ratio. In another aspect, the composition further comprises one or more amphiphilic membrane scaffolding proteins (MSP) and/or their derivatives of Apolipoproteins I. In another aspect, the Factor VIII protein, the Factor IX protein, the Factor VIII-Factor IX protein complex, or the Factor V, Factor X proteins and their complex is an activated form of the protein. In another aspect, the Factor VIII is activated truncated protein that forms a functional intrinsic tenase complex with a human FIXa on a negatively charged phospholipid surface.

"Another embodiment of the present invention includes a method of making a lipid nanodisk or nanotube comprising: dissolving phosphatidylserine and galactosylceramide lipids in an organic solvent; evaporating the organic solvent under a noble gas, reconstituting the lipids in an aqueous buffered solution with Na cholate, warming and sonicating the lipids until they are in solution, adding a membrane-bound Factor VIII protein, a membrane-bound Factor IX protein, a membrane-bound Factor VIII-Factor IX protein complex, or a membrane-bound Factor V and Factor X proteins and their complex into the lipids, and removing the Na Cholate with beads, wherein the NaCholate-beads that are removed by centrifugation. In one aspect, the membrane-bound Factor VIII is a full-length or a B-domain deleted variant of recombinant FVIII. In another aspect, the phosphatidylserine and galactosylceramide lipids and any derived lipids are at a ratio from 20 to 80 percent by volume. In another aspect, the phosphatidylserine is used as a 20 to 50%, or 50 to 80% liquid composition. In another aspect, the membrane-bound Factor VIII to lipid ratio is from 1:47 to 1:72. In another aspect, the membrane-bound Factor VIII to lipid ratio is from 1:40 to 1:150. In another aspect, the nanodisk is in a phosphatidylserine 80% lipid composition and 1:47 membrane-bound Factor VIII to lipid ratio. In another aspect, the composition further comprises one or more amphiphilic membrane scaffolding proteins (MSP) and/or their derivatives of Apolipoproteins I. In another aspect, the Factor VIII protein, the Factor IX protein, the Factor VIII-Factor IX protein complex, or the Factor V, Factor X proteins and their complex is an activated form of the protein. In another aspect, the Factor VIII is activated truncated protein that forms a functional intrinsic tenase complex with a human FIXa on a negatively charged phospholipid surface.

"Yet another embodiment includes a method of treating a disease of blood
coagulation comprising: identifying a subject in need of treatment for the disease of blood coagulation caused by a mutation in at least one of Factor V, Factor VIII, Factor IX, or Factor X; and providing the subject with a therapeutically effective amount of a phosphatidylerine and galactosylceramide nanodisk or nanotube composition comprising a membrane-bound Factor VIII protein, a membrane-bound Factor IX protein, a membrane-bound Factor VIII-Factor IX protein complex, or a membrane-bound Factor V and Factor X proteins complex, wherein the Factor V, Factor VIII, Factor IX, or Factor X are provided in an active or inactive form.

"Yet another embodiment includes a method of determining the effectiveness of a candidate drug that impacts Factor V, VIII, IX and/or X activity, the method comprising: (a) obtaining a serum or plasma from a normal subject and a subject with an abnormality in blood clotting; (b) preparing a stable lipid nanodisk or nanotube comprising phosphatidylerine and galactosylceramide that comprises at least one of: a membrane-bound Factor VIII protein, a membrane-bound Factor IX protein, a membrane-bound Factor VIII-Factor IX protein complex, or a membrane-bound Factor V-Factor X protein complex; (c) combining the serum or plasma from the normal and from the abnormal subjects; and (d) imaging the membrane-bound Factor VIII protein, the membrane-bound Factor IX protein, the membrane-bound FactorVIII-Factor IX protein, or the membrane-bound Factor VIII-Factor IX protein complex in the normal and the abnormal serum by at least one of electron microscopy or single-particle analysis; (e) adding the candidate drug to the nanodisks or nanotubes, and (f) imaging the nanodisks or nanotubes in the normal and the abnormal serum by at least one of electron microscopy or single-particle analysis to determine the structural differences in nanodisks or nanotubes comprising the membrane-bound Factor VIII protein, the membrane-bound Factor IX protein, the membrane-bound FactorVIII-Factor IX protein, or the membrane-bound Factor VIII-Factor IX protein complex in the presence or absence of the candidate drug.

"The present invention also includes compositions and methods for making a stable Factor VIII-Nanodisk (FVIII-ND) complexes suitable for structural studies by EM and single-particle analysis. The FVIII-ND of the present invention is a B-domain deleted recombinant porcine FVIII, which has a 84% sequence identity with the human FVIII analogue and is used as a drug for Hemophilia A in patients who develop antibodies against human FVIII (24, 25). Recombinant porcine FVIII lacking the B-domain has much higher expression level in cell culture than the human FVIII analogue, has a higher stability in its activated form and forms functional intrinsic tenase complexes with human FIXa on negatively charged phospholipid surface, which makes it an ideal candidate for structural and functional studies by EM at close to physiological conditions (26-28). To achieve a homogenous population of functional FVIII molecules bound to the PS-rich ND, the ND were first assembled at different PS concentration and MSP1D1 to lipid ratio. The ND population that was the most amenable for single particle analysis of the negatively stained FVIII-ND complexes adsorbed on amorphous carbon film was selected. The calculated FVIII membrane-bound organization at 25 Ångstrom resolution showed that FVIII organizes preferentially as a dimer at the ND surface on both or one side of the ND. This organization confirms the inventor's previous analysis for human and porcine FVIII helically organized on lipid nanotubes (LNT) with the same lipid composition (29, 30). The developed algorithm for monitoring the FVIII membrane-bound organization, as bound to ND is a significant step towards resolving the FVIIIa-FIXa functional organization on the activated platelet membrane. The lipid nanotechnologies employed in this study were also tested for their stability to stabilize active coagulation complexes in vivo.

BRIEF DESCRIPTION OF THE DRAWINGS

"For a more complete understanding of the features and advantages of the present invention, reference is now made to the detailed description of the invention along with the
accompanying figures and in which:

"FIGS. 1A to 1E are graphs that summarize the data obtained from electron microscope photographs of nanodisks (ND) at different lipid composition. Electron micrographs of negatively stained GC-based ND containing the following ratios of phosphatidylserine (PS) and galactosylceramide and a membrane scaffolding protein (MSP), in this case membrane scaffolding protein 1D1 (MSP1D1) (Sigma-Aldrich), are summarized in the following graphs: FIG. 1A) 80% PS, 1:72 MSP1D1 to lipids ratio; FIG. 1B) 80% PS, 1:47 MSP1D1 to lipids ratio; FIG. 1C) 50% PS, 1:47 MSP1D1 to lipids ratio, fraction I; FIG. 1D) 50% PS, 1:47 MSP1D1 to lipids ratio, fraction II; FIG. 1E) 20% PS, 1:47 MSP1D1 to lipids ratio. The graphs show the size distribution of the ND with different lipid composition, as characterized by direct measurements from the EM images of about 200 ND particles diameter. The ND particles with different diameter are separated in four groups and color-coded as follows: white <10 nm diameter, grey between 10.0 and 14.0 nm diameter, dark grey between 14 and 18 nm and black >18 nm. The average diameter and standard deviation are shown for each ND population. Representative class averages (2D class averages of ND particles with similar diameter, as classified by similarity in shape and density/mass distribution by the reference free 2D classification algorithms implemented in EMAN2 (34)) are shown under the graphs.

"FIGS. 2A to 2D are graphs that show size exclusion chromatography (SEC) elution profiles and dynamic light scattering (DLS) measurements of the ND at different PS compositions and MPS1D1 to lipids ratio. On the left are the elution profiles of the ND, as obtained from the FPLC. The scale at the bottom of the elution profiles show the diameters (d) of the particles in nm, as calibrated from the elution times of standard proteins with known Stokes radii: thyroglobulin, 8.5 nm; ferritin, 6.1 nm; bovine liver catalase, 5.2 nm; bovine serum albumin, 3.55 nm. On the right are shown the DLS particles distribution from the pooled FPLC fractions. The mean hydrodynamic radius (r) of the ND particles is shown in nm and their polydispersity, as a standard deviation (SD). The mass distribution of each ND population is shown as a percentage of the total mass of particles (y-axis, %). FIG. 2A: phosphatidylserine (PS) 80%, 1:72 MSP1D1 to lipids ratio; FIG. 2B: PS 80%, 1:47 MSP1D1 to lipids ratio; FIG. 2C: PS 50%, 1:47 MSP1D1 to lipids ratio. Two separate populations of ND were pooled into fraction I and fraction II and the DLS measurements were carried out separately for fraction I and fraction II. FIG. 2D: PS 20%, 1:47 MSP1D1 to lipids ratio.

"FIG. 3 is a graph that shows data digitized and the area measure with the UCSF Chimera software suite for image visualization and analysis. No Treatment, Nanodisks-(ND), pFVIII, pFVIII-ND. 1=30 seconds, 40=20 minutes.

"FIG. 4A is a graph that shows the averaged results shown on in FIG. 3 with the STDEV plotted to one side.

"FIG. 4B is a graph that shows the average total volume per condition (over 20 minutes) as shown on FIG. 4A. No treatment, -ND, -pFVIII, -pFVIII-ND. 1=30 seconds, 40=20 minutes.

"FIG. 5 is graph that shows the results of an anti-FVIII ELISA titer of rpFVIII (circles) and rpFVIIIND (squares). FVIII deficient mice were injected every 7 days with 2 .mu.g/mouse recombinant porcine FVIII alone or porcine FVIII-ND complex. Each mouse received 4 doses, and plasma was obtained one week after the final dose. Serial dilutions (1:2) of plasma were added to ELISA plates coated with porcine or human FVIII, and the highest plasma dilution that produced a reading of .gt;eq.0.2 OD over background at 450 nm were reported as endpoint titers.

"FIG. 6 shows a far UV-CD spectra and secondary structure deconvolution of MSP1D1 alone and when assembled in ND at different lipid composition.
"FIGS. 7A and 7B are EM micrographs of negatively stained Y branched and side-attached nanodisk (ND) stacks adsorbed on amorphous carbon assembled at MSP1E3D1 to lipids ratio of 1:150 after 60 minutes incubation with 10 mM CaCl.sub.2. The inset shows double and triple ND stacks formed bellow 5 mM CaCl2. Scale bar is 10 nm. The protein-lipid densities are in white. FIG. 7B. Cryo-EM micrographs of the ND stacks in amorphous ice (vitreous water) after 60 minutes incubation with 10 mM CaCl.sub.2. The protein-lipid densities are in black.

"FIG. 8. Electron micrographs of negatively stained ND and FVIII-ND complexe on amorphous carbon. The insets show magnified views of the square areas. Scale bar is 10 nm. Representative 2D class averages from selected ND and FVIII-ND particles boxed at 180.times.180 pixels at 2.9 .ANG./pix and masked with a radial mask.

"FIGS. 9A and 9B show the activity of FVIII in solution and bound to nanotubes (LNT) and ND containing 80% PS and scaffolding protein (MSP1D1) to lipid of 1:47 as measured by the activated partial thromboplastin time (aPTT) assay against FVIII deficient human plasma. FIG. 9A. Standard curve for Factor Assay Control plasma (FACT) containing 1 U/ml human FVIII. FIG. 9B. Activities of human and porcine FVIII in solution and when bound to LNT and ND. The LNT and ND were mixed in an excess of 10 times to the FVIII to secure that all FVIII molecules are in a membrane-bound state.

"FIGS. 10A and 10B are Cryo-EM micrographs (1024.times.1024 pixels @ 1.4 .ANG./pix) of porcine FVIII-LNT (FIG. 10A) and FVIIIa-LNT (FIG. 10B) helically organized on LNT. The insets show the Fourier transforms. FIG. 10C shows a SDS-PAGE of porcine FVIII and pFVIIIa, showing the trimeric nature of the FVIIIa molecule. The molecular weight of the standard proteins is in kDa.

"FIG. 11 shows the size distribution of PS-GC-ND assembled from PS:GC=4:1 ratio and two MSP: MSP1D1 and MSP1E3D1 at different MSP to lipid ratio. Left. EM micrographs of negatively stained ND adsorbed on amorphous carbon. Scale bar 50 nm. Right. Size distribution graphs as measured from the NS-EM micrographs."


Keywords for this news article include: Plasma, Nanorod, Genetics, Nanotube, Peptides, Protease, Education, Factor IX, Nanodiscs, Hematology, Proteomics, Amino Acids, Factor VIII, Cerebrosides, Hemophilia A, Micronutrient, Nanotechnology, Apolipoproteins, Diet and Nutrition, Drugs and Therapies, Galactosyleramides, Emerging Technologies, Enzymes and Coenzymes.

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Patents
Researchers Submit Patent Application, "Method and Improved Pharmaceutical Composition for Enhancing Transdermal Delivery of Pde-5 Inhibitor", for Approval (USPTO 20160367493)
Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventors LIU, Yee-Chien (New Taipei City, TW); WU, Pei-Ling (New Taipei City, TW), filed on June 16, 2016, was made available online on December 29, 2016. No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "The present disclosure relates to the field of drug delivery, and more particularly to the use of an enhancer to enhance the permeation of a pharmacologically active agent through human or animal skin.

"Phosphodiesterase (PDE) is an enzyme found in various tissues. The interest in PDEs as molecular targets of drug action has grown with the development of isozyme-selective PDE inhibitors that offer potent inhibition of selected isozymes without the side-effects attributed to nonselective inhibitors. Sildenafil, vardenafil and tadalafil are inhibitors of cGMP-specific phosphodiesterase type 5 (PDE-5).

"PDE-5 inhibitors are used to treat primary pulmonary hypertension (PPH), which is a disease in which blood vessels in the lungs become abnormally narrow; and erectile dysfunction. There are now three oral formulation containing PDE-5 inhibitors for treating erectile dysfunction (ED), they are Viagra (containing sildenafil) by Pfizer, Levitra (containing vardenafil) by Bayer Pharmaceutical and Glaxo-Smith-Kline-Beecham/Schering Plough, and Cialis (containing tadalafil) by Lilly-ICOS.

"Although oral delivery is a convenient and non-invasive way of delivering a pharmacologically active compound, yet it has its own disadvantages. For example, it is slow acting, for the drug would have to go through the gastrointestinal system of the recipient before it can reach the intended target site such as penis for ED treatment. Further, it is more likely to cause a number of side-effects, for the drug will be circulated systematically instead of exerting its function locally.

"Transdermal delivery is a feasible solution to the above-identified disadvantages of oral formulation of PDE-5 inhibitors. Various substances are known to enhance the ability of drugs and agents to diffuse through the skin and other tissues. The more popular approach has been the employment of surface active agents. However, many surface active agents enhance the permeability by actually damaging the barrier tissue. Only slight to moderate enhancement of penetration is effected with the prior art surface active agents. Another approach is to use certain organic solvents, such as dimethylsulfoxide (DMSO), dimethyl formamide (DMF) or N,N-dimethylacetamide, to enhance the penetration of active substances through stratum corneum. A disadvantage of using these solvents is that they are systemically distributed in a short period of time and cause undesirable side effects.

"Thus, it would be desirable to provide an improved transdermal formulation that overcomes the above-identified deficiency. Accordingly, this invention identifies several compounds that may enhance transdermal delivery of PDE-5 inhibitors, hence are useful for the development of an improved medicament for treating conditions or diseases mediated by PDE-5."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventors' summary information for this patent application: "The present disclosure is based on the finding that certain agent(s) is effective as an enhancer to promote transdermal delivery of a PDE-5 inhibitor, hence is useful as an agent or an adjuvant for developing a topical medicament for treating conditions or diseases mediated by PDE-5 such as erectile dysfunction or primary pulmonary hypertension.

"Accordingly, it is therefore an object of the present disclosure to provide an improved transdermal pharmaceutical composition with an enhanced transdermal absorption
rate of a PDE-5 inhibitor. According to embodiments of the present disclosure, the improved composition includes a phosphodiesterase type-5 (PDE-5) inhibitor or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient; and the improvement of the composition lies in having an enhancer of this invention, wherein the PDE-5 inhibitor and the enhancer are present in a ratio from about 20:1 to 2:1 in the improved composition of this invention. In one preferred example, the PDE-5 and the enhancer are present in a ratio of about 5:1 in the improved transdermal pharmaceutical composition.

"According to embodiments of the present disclosure, the enhancer is selected from the group consisting of cocamidopropyl betaine, sodium lauroamphoacetate, quaternium-60, isostearamidopropyl morpholine lactate, dipropylene glycol and a combination thereof. In one example, the enhancer is cocamidopropyl betaine. In another example, the enhancer is a mixture of cocamidopropyl betaine and sodium lauroamphoacetate. In still another example, the enhancer is a mixture of cocamidopropyl betaine, sodium lauroamphoacetate, and quaternium-60. In one preferred example, the enhancer is a mixture of cocamidopropyl betaine, sodium lauroamphoacetate, quaternium-60, and dipropylene glycol. The PDE-5 inhibitor is any of sildenafil, tadalafil or vardenafil. In one preferred example, the PDE-5 inhibitor is vardenafil, which is not in crystalline state.

"According to embodiments of the present disclosure, the improved pharmaceutical composition may be formulated into the form of a solution, a paste, a lotion, a cream, a gel, or a patch. In one embodiment, improved pharmaceutical composition is a gel. In another embodiment, the improved pharmaceutical composition is a skin patch.

"In another aspect, the present disclosure provides a method for enhancing transdermal delivery of a PDE-5 inhibitor in a subject. According to embodiments of the present disclosure, the method includes steps of administering to the subject the improved pharmaceutical composition of the present disclosure, which includes a PDE-5 inhibitor or a pharmaceutically acceptable salt thereof, a pharmaceutically acceptable excipient, and an enhancer of the present invention; wherein the PDE-5 inhibitor and the enhancer are present in a ratio from about 20:1 to 2:1 in the improved composition. In one preferred example, the PDE-5 and the enhancer are administered in a ratio of about 5:1.

"According to embodiments of the present disclosure, the enhancer of the present invention is any of cocamidopropyl betaine, sodium lauroamphoacetate, quaternium-60, isostearamidopropyl morpholine lactate, dipropylene glycol or a combination thereof. In one example, the enhancer is cocamidopropyl betaine. In another example, the enhancer is a mixture of cocamidopropyl betaine and sodium lauroamphoacetate. In still another example, the enhancer is a mixture of cocamidopropyl betaine, sodium lauroamphoacetate, and quaternium-60. In one preferred example, the enhancer is a mixture of cocamidopropyl betaine, sodium lauroamphoacetate, quaternium-60, and dipropylene glycol. The PDE-5 inhibitor is any of sildenafil, tadalafil or vardenafil. In one preferred example, the PDE-5 inhibitor is vardenafil, which is not in crystalline state.

"The improved method and/or pharmaceutical composition of the present disclosure can attain the same therapeutic benefits to the recipient thereof at a reduced level of PDE-5 inhibitor.

BRIEF DESCRIPTION OF THE DRAWINGS

"These and other features, aspects and advantages of the present invention will become better understood with reference to the following description, appended claims and the accompanying drawings, where:

"FIG. 1 illustrates the effects of formulations of Example 2.1 on in vitro transdermal
delivery of vardenafil in accordance with one embodiment of the present disclosure; and

"FIG. 2 illustrates the effects of the formulations of Example 2.1 and the skin patch of Example 2.2 on in vivo transdermal delivery of vardenafil in accordance with one embodiment of the present disclosure."


Keywords for this news article include: Biotechnology, Betaine, Patents, Sildenafil, Vardenafil, Impotence Agents, Phosphodiesterases, Drugs and Therapies, Transdermal Delivery, Cardiovascular Agents, Enzymes and Coenzymes, Surface-Active Agents, Genitourinary Tract Agents, Trimethyl Ammonium Compounds, Quaternary Ammonium Compounds.

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Patents


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventors STRADER, JAMES (AUSTIN, TX); PULITZER, JOVAN HUTTON (FRISCO, TX), filed on August 11, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "Immunotherapy basically involves a series of allergy shots given to reduce one's sensitivity to various allergens that may cause an allergic reaction. This immunotherapy can either be venom based or environmentally based. For venom based immunotherapy (VIT), treatments are available for allergies to stings such as honeybees, Yellowjackets, Hornets, paper wasps, fire ants and snakebites. For such things as insect stings, very small amount of the insect venom is injected under the skin in a dilute saline solution. This type of therapy is recommended for all patients who have experienced systemic reaction to insect sting and have specific IgE to venom allergens shown either my skin or blood test. Individuals with a history of a systemic reaction to an insect sting are at an increased risk of subsequent systemic sting reactions. VIT as compared to Environmental Immunotherapy is different than pollins and the such that one might be exposed to in the environment in that VIT is basically associated with allergens that are flown around inside a special injection device that, when counter, may threaten the lives of those who are sent to to it . . . . Insect venom allergy or snake venom. The primary offenders associated with VIT are prone primarily insects that sting rather than those that might or, as noted hereinabove, snakes. The insects that sting are typically members of the order of Hymenoptera of the class insect. This can include members of the Vespid family, Yellowjackets, yellow Hornets, white-faced Hornets and wasps. There also the
class of Apids, including honeybees and bumblebees. There's also the Formicid family that consists of fire ants and Harvester ants.

"To desensitize an individual against a particular venom, the process is to immunize the individual with small and graded doses of the venom. This is compared to the use of an anti-venom which is manufactured via a purified process in another animal such as a sheep. For example, the approved anti-venom for the pit viper (rattlesnake, copperhead and water moccasin) is based on a purified product made in sheep known as CroFab. These anti-venoms are typically administered through intravenous techniques. However, there are some antivenoms for such things as stonefish and redback spider that are administered intramuscularly. These antivenoms are injected after a bite, as they are designed to bind to and neutralize the venom, halting further damage, but do not reverse damage already done. This is compared to desensitizing an individual by small graded doses.

"In general, and antigen is any structural substance that serves as a target for the receptors of an adaptive immune response or, alternatively, and more simply stated, and antigen is any substance that causes an immune system to produce antibodies against it. An allergen is a type of antigen that produces an abnormally vigorous immune response in which the immune system fights off a perceived threat that would otherwise be harmless to the body. These reactions are termed allergies. Thus, by providing small graded doses of venom as the allergen, this would produce some type of immune response in the immune system that would generate anti-bodies to fight off the perceived threat. For small doses, the immune system can initially accommodate this and, as a doses increase, the immune system will continue to adapt and build up antibodies to this allergen, i.e., the venom of the particular insect or snake or other such. These allergens associated with the venom immunotherapy are specifically associated with allergens that originate from the internal organs of animals, insects or reptiles.

"Currently, most allergens associated with venom immunotherapy are not readily reimbursed when received from a pharmacist for the simple reason that the NDC code is not included in the database to which the pharmacist has access. Without an NDC code in the database, the pharmacist cannot access that information. By not being able to access information, the pharmacist cannot interface with a benefits provider for reimbursements nor can they have access to the Average Wholesale Price (AWP), which is the benchmark that has been used for many years for pricing and reimbursement of prescription drugs for both government and private payers. Initially, this AWP was intended to represent the average price that wholesalers used to sell medications to providers, such as physicians, pharmacies, and other customers. However, the AWP is not a true representation of actual market prices for either generic or brand drug products. AWP has often been compared to the 'list price' or 'sticker price', meaning it is an elevated drug price that is rarely what is actually paid. AWP is not a government-regulated figure, does not include buyer volume discounts or rebates often involved in prescription drug sales, and is subject to fraudulent manipulation by manufacturers or even wholesalers. As such, the AWP, while used throughout the industry, is a controversial pricing benchmark.

"The AWP may be determined by several different methods. The drug manufacturer may report the AWP to the individual publisher of drug pricing data, such as Medi-Span. The AWP may also be calculated by the publisher based upon a mark-up specified by the manufacturer that is applied to the wholesale acquisition cost (WAC) or direct price (DIRP). The WAC is the manufacturer's list price of the drug when sold to the wholesaler, while the DIRP is the manufacturer's list price when sold to non-wholesalers. Typically a 20% mark-up is applied to the manufacturer-supplied WAC or DIRP, which results in the AWP figure.

"The publishers then in turn sell these published AWPs to government, private insurance, and other buyers of prescription drugs, who use these data tables to determine
reimbursement and retail prices. Because AWP is a component of the formulas used to
determine reimbursement, elevated AWP numbers can drastically increase the dollar amount
that government, private insurance programs, and consumers with coinsurance must pay.

"Pharmacies typically buy drugs from a wholesaler and then sell them to the public. Many patients have coinsurance or copayments, where they only pay for a portion of their
prescription cost. The insurance company then pays the rest of the cost (the reimbursement) to
the pharmacy. Insurance companies include prescription benefit manager (PBM), health
maintenance organization (HMO) or government programs, such as Medicaid or Medicare Part
B or D. In addition, the pharmacy receives a dispensing fee for filling the prescription. Fees are,
for example, set between $3 to $5 per prescription, but may vary by state.

"Reimbursements are based on AWPs. However, pharmacies purchase drugs based
on the WAC. The difference between the WAC (what the pharmacy actually paid for the drug)
and the reimbursement from insurance (based on AWP) is known as the spread, and equates to
the profit that the pharmacy receives.

"Market pricing on brand drugs tend to be about 16.6 percent less than the AWP.
However, the relation of AWP to generic pricing is not clear. Older generics tend to have a large
spread between the AWP and WAC, which in turn gives a large spread, and higher profit
margins for the pharmacy or other provider of the drug. Many payers, such as PBMS or HMOs,
will determine a maximum allowable cost (MAC) pricing on generics to avoid being
overcharged. Newer generic products, compared to older generics, may not have as favorable of
a spread, thus the need for MAC.

"Collusion between AWP publishers and wholesalers to artificially inflate the AWP,
and in turn increase the spread, has led to court cases in the U.S. In these cases, it was alleged
that increasing the spread benefited the wholesaler because customers (pharmacies and large
institutions) were more likely to buy from them than a competing wholesaler where the spread
was not as desirable. The publisher of AWPs profited because pharmacies were more likely to
buy the pricing lists from the publisher that noted the higher AWPs used in calculating the
spread, than to buy them from other publishers with lower AWPs. Due to this pricing fraud,
many payers, including government payers, are no longer using AWP for pricing, and are
switching to other more transparent pricing benchmarks, such as WAC or AMP (average
manufacturers price). However, AWP may still be found in use in the U.S. because it has been
the standard for decades.

"However, in order for a pharmacist to access the AWP and to be able to interface
with benefits providers, the product associated with an NDC must be in the database. Currently,
nonvenoms are an item that does not exist in the database."

As a supplement to the background information on this patent application, NewsRx
correspondents also obtained the inventors' summary information for this patent application: "In
one aspect thereof, a method for adjudicating reimbursement for venom derived allergens
between a pharmacist and a reimbursing entity is provided. The method comprises obtaining at a
central control center National Drug Codes (NDC's) for a plurality of venom derived allergens at
a defined concentration level, each NDC uniquely identifying that particular allergen as to its
manufacture, the particular allergen, the packaging and the defined concentration level, and
further obtaining information as to a description of the particular venom derived allergen,
concentration level and manufacturer determining by the central control center an Average
Wholesale Price (AWP) for each of the venom derived allergens associated with each of the
NDC's, storing in a central control database the obtained NDC's in association with an
associated AWP and associated information for the venom derived allergen, which associated
information includes translation information to allow practitioners to determine from a desired
diluted level and number of doses of a desired NDC carrying venom derived antigen and a
known dilution procedure how to translate back to the amount of base concentration of the NDC
carrying venom derived antigen used to create the desired diluted level and number of doses,
accessing a third-party database accessible by a pharmacist and determining if any of the NDC's
in the central control database are contained within the third-party database and, if not,
transferring the associated NDC's not in the third-party database and that exist in the central
control database for each of the venom derived allergens to the third-party database in
association with the AWP and associated information for each of the venom derived allergens
for each of the NDC's, and uniquely associating each of the NDC's in the third-party database to
the central control center for adjudication information, and creating an adjudicating database at
the central control center having defined benefits associated with reimbursable entities for each
of the NDC's stored in the third-party database and in the central control database in association
with the translation information for each of the NDC-carrying venom derived allergens, wherein
a pharmacist can access this information by accessing a particular NDC in the third-party
database to obtain information regarding reimbursable benefits from the central control center
and enter the diluted level and number of doses and a claim with the central control center for
adjudication of the amount of base concentrate venom derived antigen used and wherein the
central control center is able to process any claim made by the pharmacist and reimburse the
pharmacist accordingly for the base concentrate venom derived antigen used to provide the
desired diluted level and number of doses of the desired NDC carrying venom derived antigen.

BRIEF DESCRIPTION OF THE DRAWINGS

"For a more complete understanding, reference is now made to the following
description taken in conjunction with the accompanying Drawings in which:
"FIG. 1 illustrates a general diagrammatic view of the overall interface of basic
databases;
"FIG. 1A illustrates an NDA code;
"FIG. 2 illustrates a diagrammatic view of a database that is populated by a central
control system;
"FIG. 3 illustrates a flow chart for the operation at the central control system for
receiving NDCs from the manufacturer;
"FIG. 4 illustrates a flow chart for the operation of populating third-party database by
the central control system;
"FIG. 5 illustrates a flow chart for the operation at the pharmaceutical location;
"FIG. 6 illustrates a flow chart for the overall generation of the AWP and the
interface with the benefit providers;
"FIG. 7 illustrates a diagrammatic view of flow beginning at the prick test and
following through to filling the prescription at the pharmacist location;
"FIG. 8 illustrates a flowchart for interfacing with database for accessing benefits by
the pharmacist;
"FIG. 9 illustrates a flowchart for the parsing operation at the database for parsing
non-NDC allergens to an NDC-bearing base concentrated allergen;
"FIG. 10 illustrates a diagrammatic view of a dilution sequence of diluting a
concentrated antigen extract;
"FIG. 11 illustrates a process flow for diluting an antigen extract;
"FIG. 12 illustrates a process flow for the overall distribution chain;
"FIG. 13 illustrates a process flow for multiple extracts; 
"FIG. 14 illustrates an alternate embodiment of FIG. 13; 
"FIG. 15 illustrates a flowchart for one example of processing a physician script; 
"FIG. 16 illustrates a diagrammatic view of a table in a relational database relating distributed doses back to NDC-bearing dose; 
"FIG. 16A illustrates a diagrammatic view of a table showing the dilution procedure; 
"FIG. 17 illustrates a second example of that illustrated in FIG. 15; 
"FIG. 18 illustrates a diagrammatic view of processing of a script received from a physician at a pharmacist to compound a patient-specific dosage; 
"FIG. 19 illustrates an alternate embodiment of that illustrated in FIG. 18; 
"FIG. 20A illustrates a diagrammatic view of a process of filling a script received from a position and FIG. 20B illustrates a table associated with such process; 
"FIG. 21 illustrates an overall process flow illustrating the prick test, the script flowing through to the final patient does; and 
"FIG. 22A illustrates a flowchart for parsing an antigen having a base dose with more than the prescribed antigens and FIG. 22B illustrates a table associated with the parsing operation."


Keywords for this news article include: Patents, Legal Issues.

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Patents

Researchers Submit Patent Application, "Method of Regeneration of Beta-Cyclodextrin Based Adsorbent-Coated Silica with Ozone", for Approval (USPTO 20160367967)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventor Suri, Rominder P.S. (Audubon, PA), filed on February 27, 2015, was made available online on December 29, 2016.

No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "The most commonly used adsorbent for water contaminants is granular activated carbon (GAC). After it is used in a water treatment process, the GAC having adsorbed contaminants is either discarded or reactivated by heating the GAC to high temperatures. However, regenerating or reactivating GAC is an expensive process because of the energy costs involved in heating. Similarly, discarding used GAC is not desirable from an environmental perspective, and replacing the GAC that is discarded can be expensive. In addition, there are costs and liability associated with the transport of used GAC."

"The use of silica particles coated with (\beta.-cyclodextrin ((\beta.-CD) polymer for the removal of contaminants from water is described by Suri and Bhattarai (International Patent Pub. No. WO 2013/059285, which is hereby incorporated by reference in its entirety). In Suri and Bhattari, the adsorbent .beta.-CD-coated particles can be packed in a column or bed, wherein water is allowed to flow through the column so that contaminants are adsorbed onto the .beta.-CD adsorbent particles. Alternatively, .beta.-CD-coated particles can be mixed with stationary water, i.e., water in a tank wherein the mixture of water and .beta.-CD-coated particles is stirred to remove contaminants from the water. After the capacity of the .beta.-CD-coated particles to adsorb contaminants is reached, the particles can be regenerated by treating them with an organic solvent such as methanol (see Suri and Bhattari at para ). However, the use of organic solvent for regenerating .beta.-CD adsorbent creates the need for treating or disposing of the organic solvent after the regeneration process.

"Thus, there is a continuing need for a method of regenerating .beta.-CD adsorbent after the .beta.-CD has been used for decontaminating water. The present invention addresses this continuing need in the art."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventor's summary information for this patent application: "The present invention relates to systems and methods for regenerating .beta.-cyclodextrin (\beta.-CD) for reuse in a water treatment process. In one embodiment, the method of the present invention comprises the steps of: providing a .beta.-CD adsorbent, wherein at least a portion of the surface of said .beta.-CD adsorbent comprises one or more contaminants, and
removing at least a portion of said one or more contaminants from said .beta.-CD adsorbent by contacting said one or more contaminants with ozone gas. In another embodiment, the present invention is a method for regenerating .beta.-cyclodextrin (.beta.-CD) contained in a water treatment column for reuse in a water treatment process, comprising the steps of: providing a column having a compartment and an inlet, wherein said compartment contains a plurality of .beta.-CD adsorbent particles, and wherein at least a portion of the surface of the plurality of particles comprises one or more contaminants; and adding ozone gas through said column inlet into said compartment, wherein said ozone gas contacts the surface of the plurality of .beta.-CD adsorbent particles in said compartment, thereby removing at least a portion of said one or more contaminants from said .beta.-CD adsorbent particles. In yet another embodiment, the present invention is a method for regenerating .beta.-cyclo dextrin (.beta.-CD) contained in a water treatment vessel, comprising the steps of: providing a water treatment vessel containing water and a plurality of .beta.-CD adsorbent particles, wherein said .beta.-CD adsorbent particles comprise one or more contaminants; and adding ozone gas to said vessel, wherein said ozone gas contacts the surface of the .beta.-CD adsorbent particles thereby removing at least a portion of said one or more contaminants from said .beta.-CD adsorbent particles.

"In various embodiments, the .beta.-CD adsorbent can be any adsorbent material comprising .beta.-CD. In one embodiment, the .beta.-CD adsorbent is a silica particle coated with .beta.-CD polymer.

"In various embodiments, the one or more contaminant adsorbed onto the .beta.-CD adsorbent can be any type of organic compound. In one embodiment, the one or more contaminants is a phenol, for example bisphenol A (BPA). In one embodiment, the one or more contaminants is a steroid hormone, for example an estrogen, a progestogen, or a testosterone. In one embodiment, the steroid hormone is selected from the group consisting of 17 .beta. estradiol 17.alpha.-ethynylestradiol, estriol, 17.alpha.-estradiol, trimegestone, estrone, 17.alpha.-dihydroequilin, medrogestone, progesterone, gestodone, norgestrel, equilin, desogestrel, and etonorgestrel. In one embodiment, the one or more contaminants is a perfluoro compound. In one embodiment, the perfluoro compound is selected from the group consisting of tridecafluorononanoic acid, perfluoroheptanoic acid, undecafluorohexanoic acid, perfluorodecanoic acid, heptafluorooctane salt and perfluorooctanoic acid (PFOA).

"The systems and methods of the present invention can regenerate the adsorbent capacity of a .beta.-CD adsorbent to any capacity that would be suitable for reuse in a water treatment process. In one embodiment, at least 50% of the adsorbent capacity of the .beta.-CD adsorbent is regenerated after contacting said contaminants with ozone gas. In one embodiment, at least 50% of the surface area of the .beta.-CD adsorbent is regenerated, i.e., free of contaminants, after contacting said contaminants with ozone gas.

BRIEF DESCRIPTION OF THE DRAWINGS

"The following detailed description of preferred embodiments of the invention will be better understood when read in conjunction with the appended drawings. For the purpose of illustrating the invention, there are shown in the drawings embodiments which are presently preferred. It should be understood, however, that the invention is not limited to the precise arrangements and instrumentalities of the embodiments shown in the drawings.

"FIG. 1, comprising FIG. 1A and FIG. 1B, is a set of schematic diagrams of an exemplary embodiment of a batch water treatment system during water treatment (FIG. 1A) and during regeneration of .beta.-CD (FIG. 1B).

"FIG. 2 is a set of schematic diagrams of an exemplary embodiment of a continuous water treatment system during both water treatment operation and regeneration of .beta.-CD.
"FIG. 3 is a graph showing data for the regeneration of β-CD coated silica with ozonation for the removal of BPA in triplicates [initial conc: 200 m/L; adsorbent dosage: 1.0 g/L; intial pH: 6.2-7.1; Ozonation at 1 wt % and 20 L/hr for 2 hr].

"FIG. 4 is a graph showing data for the regeneration of β-CD coated silica with ozonation for the removal of 17β estradiol in triplicates [initial conc: 200 m/L; adsorbent dosage: 1.0 g/L; intial pH: 6.3-7.0; Ozonation at 1 wt % and 20 L/hr for 2 hr]."


Keywords for this news article include: Ozone, Patents, Chemistry, Gonadal Hormones, Estradiol Congeners.

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Patents


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventors Marshall, Aaron (Winnipeg, CA); Hou, Sen (Winnipeg, CA), filed on April 27, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "IgA nephropathy (IgAN), also known as Berger disease, is the most common cause of chronic glomerulonephritis and leads to end stage kidney failure in about 25% of cases. Twenty to forty percent of IgAN patients receiving kidney transplants suffer disease recurrence within 5 years of transplant. The onset of IgAN has been associated with upper respiratory tract infections that trigger the mucosal immune system. As a result of hyper-reactivity of the mucosal immune system, B cells produce increased amounts of IgA leading to IgA deposition in kidney glomeruli. IgA deposition leads to glomerular inflammation, resulting in kidney dysfunction, hypertension and slow progression towards kidney failure.

"Current treatments for IgAN are aimed at slowing kidney damage and include antihypertensives to control blood pressure and steroid treatment to reduce inflammation. Long term dialysis and kidney transplantation are used to treat end stage kidney failure but have a large negative impact on patient quality of life. Currently, no specific treatment is available to correct hyper-active mucosal immune responses or reduce IgA levels.

"Research into pathological mechanisms and new treatments for IgAN have been hampered by lack of appropriate animal models. Currently reported mouse models for IgAN include a multigenic outbred model with variable disease progression (ddY mouse), a single gene knockout that affects IgA deposition but not IgA production (uteroglobulin knockout), and a recently reported mouse transgenic for a B cell activating factor (BAFF transgenic). None of
these models selectively impact on IgA production and have to date not been widely adopted for IgAN studies.

"IgAN is estimated to affect over 60,000 people in the US, and several fold higher incidence of IgAN is reported among Asian populations. IgAN is incurable and the current limited treatment options include management of hypertension and administering non-specific anti-inflammatories in order to delay the need for dialysis or transplantation. No targeted therapies for reducing IgA production are available."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventors' summary information for this patent application: "The invention relates to the discovery and characterization of polypeptides that play a role in the production of IgA, and to the generation of an animal model that exhibits IgA nephropathy. The compositions and methods embodied in the present invention are particularly useful for drug screening and/or treatment of disorders that involve IgA.

"Provided herein are uses of an FDC-SP polypeptide and a pharmaceutically acceptable carrier. In one embodiment, the use is in the manufacture of a medicament for treating an IgA mediated condition. In one embodiment, the use is for treating an IgA mediated condition. An example of such a condition includes a glomerulonephritis, such as IgA nephropathy and Henoch-Schonlein purpura. Another example of such a condition includes IgA pemphigus. In one embodiment, the use is in the manufacture of a medicament for decreasing IgA concentration. In one embodiment, the use is for decreasing IgA concentration. The FDC-SP polypeptide may include an amino acid sequence X₁X₂X₃PWX₄ (SEQ ID NO:1), wherein X₁ and X₂ are any amino acid, X₃ is Y, F, or N, and X₄ is Y or F, and wherein the amino acid sequence of the isolated polypeptide has at least 90% amino acid similarity with SEQ ID NO:2 or SEQ ID NO:4. The FDC-SP polypeptide may include an amino acid sequence X₁X₂X₃PWX₄ (SEQ ID NO:1), wherein X₁ and X₂ are any amino acid, X₃ is Y, F, or N, and X₄ is Y or F, and wherein the amino acid sequence of the isolated polypeptide has at least 90% amino acid similarity with a subset of consecutive amino acids chosen from SEQ ID NO:2 or 4.

"Also provided herein are methods of using an FDC-SP polypeptide. In one embodiment, a method includes altering IgA concentration in a subject by administering to the subject in need thereof an effective amount of an FDC-SP polypeptide, wherein the FDC-SP polypeptide results in a decreased IgA level in the subject compared to the subject before the administration. The IgA level may be decreased, for instance, in serum, in bronchoalveolar lavage fluid, in saliva, or a combination thereof. The method may further include identifying a subject having or at risk of an IgA mediated condition. The decrease may be a decrease of at least 10%.

"The FDC-SP polypeptide may include an amino acid sequence X₁X₂X₃PWX₄ (SEQ ID NO:1), wherein X₁ and X₂ are any amino acid, X₃ is Y, F, or N, and X₄ is Y or F, and wherein the amino acid sequence of the isolated polypeptide has at least 90% amino acid similarity with SEQ ID NO:2 or SEQ ID NO:4. The FDC-SP polypeptide may include an amino acid sequence X₁X₂X₃PWX₄ (SEQ ID NO:1), wherein X₁ and X₂ are any amino acid, X₃ is Y, F, or N, and X₄ is Y or F, and wherein the amino acid sequence of the isolated polypeptide has at least 90% amino acid similarity with a subset of consecutive amino acids chosen from SEQ ID NO:2 or 4.

"In one embodiment, a method includes treating a subject by administering to the subject an effective amount of a FDC-SP polypeptide, wherein the subject has signs of a disorder that includes excessive IgA production. An example of such a disorder includes a
glomerulonephritis, such as IgA nephropathy and Henoch-Schonlein purpura. Another example of such a disorder includes IgA pemphigus.

"Provided herein is an animal that has decreased expression of an endogenous FDC-SP coding sequence, and which develops pathophysiological features of IgA nephropathy selected from IgA deposition in kidneys, mesangial hyperproliferation, and polypeptide deposition in glomeruli. Also provided herein is an animal that has decreased expression of an endogenous FDC-SP coding sequence, wherein the animal has at least one of the following: increased IgA in serum, saliva, bronchoalveolar lavage fluid, or a combination thereof; increased IgA expressing B lymphocytes in circulation, lymphoid tissue, or a combination thereof; or increased IgA production in vitro by isolated B lymphocytes; wherein the increase is compared to a control mouse. In one embodiment, the animal may have a heterozygous disruption of an endogenous FDC-SP coding sequence. In one embodiment, the animal may have a homozygous disruption of an endogenous FDC-SP coding sequence. In one embodiment, the animal is not a human. In one embodiment, the animal is a mouse.

"Also provided herein is a cell from the animal, wherein the cell has decreased expression of an endogenous FDC-SP coding sequence. Examples of such cells include, but are not limited to, a follicular dendritic cell, a monocyte, or a macrophage. Also provided herein is a tissue from the animal. The tissue may be, but is not limited to, lymphoid tissue.

"Provided herein are methods for identifying a compound that decreases the concentration of IgA in an animal. In one embodiment, the method includes administering to an animal a compound, and measuring the concentration of IgA, wherein a decreased concentration of IgA in an animal administered the compound compared to the concentration of IgA before the administration indicates the compound decreases the concentration of IgA in an animal. The concentration of IgA may be decreased, for instance, in serum, saliva, bronchoalveolar lavage fluid, or a combination thereof. The concentration of IgA may be measured by determining the number of IgA expressing B lymphocytes in circulation, lymphoid tissue, or a combination thereof, of the animal. A decrease in the number of IgA expressing B lymphocytes indicates a decreased concentration of IgA in the animal.

"Provided herein are methods for identifying a compound that treats a condition associated with increased levels of IgA. In one embodiment, the method includes administering to an animal a compound, wherein the animal displays a sign of a condition associated with increased levels of IgA, and evaluating a sign of a condition associated with increased levels of IgA, wherein a decrease in the presence of a sign indicates treats a condition associated with increased levels of IgA. The sign may be selected from IgA deposition in kidneys, mesangial hyperproliferation, polypeptide deposition in glomeruli, proteinuria, or a combination thereof. The animal may include decreased expression of an FDC-SP polypeptide.

"Also provided herein are polypeptides. In one embodiment, a polypeptide has immuno-modulatory activity, and includes an amino acid sequence X.sub.1X.sub.2X.sub.3PWX.sub.4 (SEQ ID NO:1), wherein X.sub.1 and X.sub.2 are any amino acid, X.sub.3 is Y, F, or N, and X.sub.4 is Y or F, and wherein the isolated polypeptide either (1) comprises no greater than 40 amino acids, or (2) comprises greater than 45 amino acids. In one embodiment, a polypeptide has immuno-modulatory activity, and includes an amino acid sequence X.sub.1X.sub.2X.sub.3PWX.sub.4 (SEQ ID NO:1), wherein X.sub.1 and X.sub.2 are any amino acid, X.sub.3 is Y, F, or N, and X.sub.4 is Y or F, and wherein the amino acid sequence of the isolated polypeptide has at least 90% amino acid and no greater than 99% similarity with SEQ ID NO:2 or SEQ ID NO:4. In one embodiment, a polypeptide has immuno-modulatory activity, and includes an amino acid sequence X.sub.1X.sub.2X.sub.3PWX.sub.4 (SEQ ID NO:1), wherein X.sub.1 and X.sub.2 are any amino acid, X.sub.3 is Y, F, or N, and X.sub.4 is Y or F, and wherein the amino acid sequence of the isolated polypeptide has at least
90% similarity with a subset of consecutive amino acids chosen from SEQ ID NO:2 or 4.

"As used herein, the term 'polypeptide' refers broadly to a polymer of two or more amino acids joined together by peptide bonds. The term 'polypeptide' also includes molecules which contain more than one polypeptide joined by a disulfide bond, or complexes of polypeptides that are joined together, covalently or noncovalently, as multimers (e.g., dimers, tetramers). Thus, the terms peptide, oligopeptide, enzyme, and protein are all included within the definition of polypeptide and these terms are used interchangeably. It should be understood that these terms do not connote a specific length of a polymer of amino acids, nor are they intended to imply or distinguish whether the polypeptide is produced using recombinant techniques, chemical or enzymatic synthesis, or is naturally occurring. An 'isolated' polypeptide is one that has been removed from a cell. For instance, an isolated polypeptide is a polypeptide that has been removed from the cytoplasm a cell, and many of the polypeptides, nucleic acids, and other cellular material of its natural environment are no longer present. A 'purified' polypeptide is one that is at least 60% free, preferably at least 75% free, and most preferably at least 90% free from other components of a cell.

"As used herein, a polypeptide may be 'structurally similar' to a reference polypeptide if the amino acid sequence of the polypeptide possesses a specified amount of sequence similarity and/or sequence identity compared to the reference polypeptide. Thus, a polypeptide may be 'structurally similar' to a reference polypeptide if, compared to the reference polypeptide, it possesses a sufficient level of amino acid sequence identity, amino acid sequence similarity, or a combination thereof.

"As used herein, the term 'polynucleotide' refers to a polymeric form of nucleotides of any length, either ribonucleotides, deoxyribonucleotides, peptide nucleic acids, or a combination thereof, and includes both single-stranded molecules and double-stranded duplexes. A polynucleotide can be obtained directly from a natural source, or can be prepared with the aid of recombinant, enzymatic, or chemical techniques. A polynucleotide described herein may be isolated. An 'isolated' polynucleotide is one that has been removed from its natural environment. Polynucleotides that are produced by recombinant, enzymatic, or chemical techniques are considered to be isolated and purified by definition, since they were never present in a natural environment.

"A 'regulatory sequence' is a nucleotide sequence that regulates expression of a coding sequence to which it is operably linked. Nonlimiting examples of regulatory sequences include promoters, enhancers, transcription initiation sites, translation start sites, translation stop sites, transcription terminators, and poly(A) signals. The term 'operably linked' refers to a juxtaposition of components such that they are in a relationship permitting them to function in their intended manner. A regulatory sequence is 'operably linked' to a coding region when it is joined in such a way that expression of the coding region is achieved under conditions compatible with the regulatory sequence.

"The term 'complementary' refers to the ability of two single stranded polynucleotides to base pair with each other, where an adenine on one polynucleotide will base pair to a thymine or uracil on a second polynucleotide and a cytosine on one polynucleotide will base pair to a guanine on a second polynucleotide.

"Conditions that are 'suitable' for an event to occur, or 'suitable' conditions are conditions that do not prevent such events from occurring. Thus, these conditions permit, enhance, facilitate, and/or are conducive to the event.

"As used herein, an antibody that can 'specifically bind' a polypeptide is an antibody that interacts only with the epitope of the antigen that induced the synthesis of the antibody, or interacts with a structurally related epitope. An antibody that 'specifically binds' to an epitope
will, under the appropriate conditions, interact with the epitope even in the presence of a diversity of potential binding targets.

"As used herein, 'ex vivo' refers to a cell that has been removed from the body of an animal. Ex vivo cells include, for instance, primary cells (e.g., cells that have recently been removed from a subject and are capable of limited growth in tissue culture medium), and cultured cells (e.g., cells that are capable of long term culture in tissue culture medium).

"As used herein, 'B cell' refers to lymphocytes that are able to produce antibody that specifically bind an epitope of an antigen. Examples of B cells include plasma B cells, memory B cells, B-1 cells, B-2 cells, marginal zone B cells, and follicular B cells. A B cell may include surface antigens such as CD19, CD20, CD21, CD22, CD23, surface immunoglobulin, Ig-alpha (also known as CD79A), and Ig-beta (also known as CD79B).

"The term 'and/or' means one or all of the listed elements or a combination of any two or more of the listed elements.

"The words 'preferred' and 'preferably' refer to embodiments of the invention that may afford certain benefits, under certain circumstances. However, other embodiments may also be preferred, under the same or other circumstances. Furthermore, the recitation of one or more preferred embodiments does not imply that other embodiments are not useful, and is not intended to exclude other embodiments from the scope of the invention.

"The terms 'comprises' and variations thereof do not have a limiting meaning where these terms appear in the description and claims.

"Unless otherwise specified, 'a,' 'an,' 'the,' and 'at least one' are used interchangeably and mean one or more than one.

"Also herein, the recitations of numerical ranges by endpoints include all numbers subsumed within that range (e.g., 1 to 5 includes 1, 1.5, 2, 2.75, 3, 3.80, 4, 5, etc.).

"For any method disclosed herein that includes discrete steps, the steps may be conducted in any feasible order. And, as appropriate, any combination of two or more steps may be conducted simultaneously.

"The above summary of the present invention is not intended to describe each disclosed embodiment or every implementation of the present invention. The description that follows more particularly exemplifies illustrative embodiments. In several places throughout the application, guidance is provided through lists of examples, which examples can be used in various combinations. In each instance, the recited list serves only as a representative group and should not be interpreted as an exclusive list.

BRIEF DESCRIPTION OF THE FIGURES

"FIG. 1A shows amino acid sequence of a mouse FDC-SP polypeptide, mFDC-SP (SEQ ID NO:6), a rat FDC-SP polypeptide, rFDC-SP (SEQ ID NO:7), a human FDC-SP polypeptide, hFDC-SP (SEQ ID NO:8), and a chimpanzee FDC-SP polypeptide, cFDC-SP (SEQ ID NO:9). The site of cleavage of the secretion signal is shown by the arrow.

"FIG. 1B shows nucleotide sequence of human FDC-SP mRNA (SEQ ID NO:10).

"FIG. 2A shows schematic showing strategy for constructing a deletion within the mouse FDC-SP gene removing a coding region encoding an FDC-SP polypeptide (referred to as a knockout or KO below).

"FIG. 2B-01 through 2B-07 shows the nucleotide sequence (SEQ ID NO:14) of the gene targeting construct shown in FIG. 2A. The location and sequence of the primer SC3-416 (SEQ ID NO:11), and the location and reverse sequence of the primer SC3-412 (SEQ ID NO:12) and the primer 4R2 (SEQ ID NO:13) are shown. Also shown are the two LoxP sites.
"FIG. 3A. Saliva was collected from anesthetized 10-14 week old control CD1 mice (WT) or FDC-SP transgenic (TG) mice and then animals were sacrificed by cardiac puncture to collect blood. Bronchoalveolar lavage (BALF) fluid was collected by flushing lungs with 10 mL of PBS. Levels of IgA or IgM antibody isotypes were measured using specific ELISA assays.

"FIG. 4A. Saliva was collected from anesthetized 10-14 week old control C57BL6 mice (WT) or FDC-SP knockout (KO) mice generated using the targeting construct in FIG. 2. Animals were sacrificed by cardiac puncture to collect blood. Bronchoalveolar lavage (BALF) fluid was collected by flushing lungs with 10 mL of PBS. Levels of the indicated antibody isotypes were measured using specific ELISA assays.

"FIG. 5A. Mesenteric lymph node, cervical lymph node, spleen, and blood cells were collected from young adult FDC-SP KO mice and frequency of IgA+ B lymphocytes were measured by flow cytometry. Bottom panels represent results from additional flow cytometry analyses which indicate otherwise normal B cell subset composition in FDC-SP KO mice. Graphs represent mean and SEM of 4 mice per genotype. Cervical and mesenteric refer to lymph nodes. T1, transitional type 1, gated as B220+IgM+CD23-CD21- lymphocytes; T2, transitional type 2, gated as B220+IgM+CD23+CD21+ lymphocytes; MZ, marginal zone, gated as B220+IgM+CD23-CD21+ lymphocytes; FO, follicular or B2 cells, gated as B220+IgM+CD23+CD21- lymphocytes; pre, pre-B cells, gated as B220+IgM-CD43- lymphocytes; pro, pro-B, gated as B220+IgM-CD43+ lymphocytes; immature, immature B cells, gated as B220+IgM++CD43- lymphocytes; Mature, mature recirculating B cells, gated as B220++IgM+CD43- lymphocytes.

"FIG. 6A. B cells were purified from spleens of control (WT) or FDC-SP KO mice using negative selection with anti-CD43 coupled magnetic beads. Cells were cultured for 5 days with the indicated stimuli, supernatants were harvested and IgA production was assessed by ELISA assays.

"FIG. 7A. B cells were purified from spleens of control or FDC-SP TG mice using negative selection with anti-CD43 coupled magnetic beads. Cells were cultured for 5 days with the indicated stimuli, supernatants were harvested and IgA production was assessed by ELISA assays.

"FIG. 8A. B cells were purified from spleens of C57BL6 mice using negative selection with anti-CD43 coupled magnetic beads. Cells were cultured for 5 days with the indicated stimuli and the indicated percentage of a supernatant containing recombinant FDC-SP (FDC-SP SN) or a control supernatant (Control SN). The resulting levels of IgA production by the cultured cells were measured by ELISA assay.

"FIG. 9A. The indicated synthetic peptides P1-P3 corresponding to mouse FDC-SP were added at the indicated concentrations to cultures of mouse B cells stimulated to produce IgA (TGFb1+IL-5). The resulting levels of IgA or IgM production were assessed by ELISA assays of culture supernatants. Percentage of cultured cells expressing IgA was also determined by flow cytometry (middle graph). P1 corresponds to amino acids 18-33 of mFDC-SP, P2 corresponds to amino acids 35-65 of mFDC-SP, and P3 corresponds to amino acids 60-84 of FDC-SP. Note that peptide P1 had no effect. Control peptides C1 and C2 were scrambled versions of corresponding FDC-SP derived peptides. hFDC-SP, human FDC-SP; mFDC-SP, mouse FDC-SP; um, micromolar.

"FIG. 10A shows the effect of the indicated synthetic peptides on IgA or IgM production assessed by ELISA assays of culture supernatants collected after 5 days of culture. Control peptide C5 was a scrambled version of P8. hFDC-SP, human FDC-SP; mFDC-SP, mouse FDC-SP; um, micromolar. P5 corresponds to amino acids 46-59 of mFDC-SP, P7 corresponds to amino acids 68-84 of mFDC-SP, and P8 corresponds to amino acids 60-65 of..."
"FIG. 10B shows the effect of the indicated synthetic peptides on IgA or IgM production assessed by ELISA assays of culture supernatants collected after 7 days of culture. Control peptide C5 was a scrambled version of P8. hFDC-SP, human FDC-SP; mFDC-SP, mouse FDC-SP; um, micromolar. P5 corresponds to amino acids 46-59 of mFDC-SP, P7 corresponds to amino acids 68-84 of mFDC-SP, and P8 corresponds to amino acids 60-65 of FDC-SP.

"FIG. 11A. Urine or serum collected from mice greater than one year old were assessed for the indicated biomarkers of kidney dysfunction.

"FIG. 12A. Kidneys from FDC-SP KO mice were assessed for abnormal histology by staining sections of formalin-fixed kidney with H&E or PAS stain.

"FIG. 13A. Kidney cryosections stained with FITC-labeled anti-IgA."


Keywords for this news article include: Antibodies, Antibody-Producing Cells, Biotechnology, Patents, Genetics, Cytometry, Pemphigus, Cardiology, Immunology, Nephrology, Proteomics, Amino Acids, Blood Cells, Dermatology, Nephropathy, Hypertension, Inflammation, B-Lymphocytes, Bioengineering, Blood Proteins, Cultured Cells, Immunoproteins, Lymphoid Tissue.

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Kyoto University


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventors KAMEI, Kenichiro (Kyoto-shi, JP); CHEN, Yong (Kyoto-shi, JP), filed on February 24, 2015, was made available online on December 29, 2016.

The patent's assignee is Kyoto University.

News editors obtained the following quote from the background information supplied by the inventors: "The function of a cell in vivo is regulated in the extracellular microenvironment. The extracellular microenvironment consists mainly of (i) soluble factors such as growth factors, vitamins, and gas molecules, (ii) insoluble factors such as the stiffness of extracellular matrix proteins, and (iii) cell-cell interaction. These factors regulate the function of a cell while being intricately and strictly regulated. More specifically, in order to freely regulate the function of a target cell, such as a human ES cell and a human iPS cell, it is indispensable to freely regulate this extracellular microenvironment.

"However, the regulation occurs in an extremely small environment on a micrometer scale, and the traditional experimental cell culture technique using a 2D environment in a culture dish or a plate cannot reproduce the small environment. Thus, there is a demand for a
technique for creating an experimental 3D cell culture environment, which has been difficult to realize.

"Traditional experimental human ES/iPS cell culture techniques have been performed in a 2D environment such as a culture dish (Non-patent Literature 1 and 2).

"However, cells are present in a 3D environment in ordinary circumstances, and cannot express the original function in the 2D environment. In tissue engineering using human ES/iPS cells as well, it is very important to arrange a 3D environment.

"Size is also a very important factor. Cells in vivo are regulated in a microenvironment on a micrometer scale, for example, by the concentration gradients of soluble factors and the solidity of the extracellular substrate. It has been difficult for traditional techniques to regulate these factors. As a matter of course, it has been almost impossible to exhaustively analyze these factors."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventors' summary information for this patent application:

"Technical Problem

"An object of the present invention is to provide a microfluidic device suitable for culturing cells in a 3D environment and a 3D microculture method that enables the regulation and the analysis of function of cells, in particular, pluripotent stem cells.

"Solution to Problem

"The present invention developed a novel 3D cell microculture device for human ES cells and human iPS cells by using a microfluidic device. This microfluidic device enables the culture of an extremely small amount of cells, and can easily establish a 3D culture.

"Traditional culture and experimental techniques for the human ES cells and human iPS cells are performed in a 2D environment using a culture dish or a plate. However, the cells in vivo are regulated in a 3D microenvironment, and cannot fulfill the original function in the 2D environment. Thus, there has been a demand for a technique for creating an experimental 3D cell culture environment, which has been difficult to create by traditional techniques.

"The present inventors have been engaged in the development of a cell culture assay using a microfluidic device. The present invention has enabled a 3D culture by creating a 3D-like microenvironment using a microfluidic device, and using a highly biocompatible hydrogel as a cell support carrier.

"The present invention is a novel technique that has solved the problems of the existing methods and techniques. The following describes the features of the present invention in a preferable embodiment.

"(1) Development of a 3D culture method for cells, particularly for pluripotent stem cells, such as human ES/iPS cells, using a microfluidic device. (2) Creation of a 3D environment in a human ES/iPS cell culture method using a hydrogel (3) Simplification of cell introduction into and extract from the microfluidic device and a decrease in damages to the cells by using a phase transition hydrogel

"Specifically, the present invention provides the following microfluidic device and 3D microculture method.

"Item 1.

"A microfluidic device comprising at least one cell culture chamber, the or each chamber being connected to at least two openings, the device being configured to supply at least one physiologically active substance from at least one of the openings to the or each cell culture chamber in such a manner as to form a concentration gradient or concentration gradients in the or each chamber when cells and a hydrogel are introduced into the or each chamber to culture
the cells in a 3D-gel medium.

"Item 2.
"The microfluidic device according to item 1, wherein the hydrogel is formed inside the or each cell culture chamber.

"Item 3.
"The microfluidic device according to item 1 or 2, wherein a channel or channels connecting the at least one of the openings to the or each cell culture chamber are narrower than the diameter of the or each chamber.

"Item 4.
"A 3D cell microculture method comprising the steps of introducing cells and a fluidized hydrogel into the or each cell culture chamber of the microfluidic device according to any one of items 1 to 3;
"converting the hydrogel into a gel; and
"supplying at least one physiologically active substance from the at least one of the openings in such a manner as to form a concentration gradient or concentration gradients inside the or each cell culture chamber to culture the cells in the presence of the at least one physiologically active substance.

"Item 5.
"The 3D cell microculture method according to item 4, wherein the cells are pluripotent stem cells.

"Item 6.
"The 3D cell microculture method according to item 4, wherein the cells are human pluripotent stem cells.

"Item 7.
"The 3D microculture method according to any one of items 4 to 6, wherein multiple physiologically active substances are supplied into the or each cell culture chamber in such a manner as to form concentration gradients.

"Advantageous Effects of Invention
"The present invention enables a 3D cell microculture of cells, including pluripotent stem cells such as ES cells and iPS cells, using a microfluidic device. This microfluidic device enables a cell culture using an extremely small amount of cells, and can also easily establish a 3D culture.

"Because the microfluidic device according to the present invention can supply many different physiologically active substances to a 3D gel while forming respective concentration gradients thereof, the device can exhaustively screen various physiologically active substances for their action on the differentiation and functional regulation of cells, particularly pluripotent stem cells.

"The present invention is characterized in that the invention has created an extracellular microenvironment, which so far has been impossible to create in vitro, by using a microfluidic device, and developed a device for evaluating the cell response to the extracellular microenvironment. Because the functions of mammal cells, including human pluripotent stem cells, are strictly regulated in vivo by the extracellular microenvironment, it has been essential for the advancement of tissue engineering, cell transplant therapy, or regenerative medicine to know the regulation mechanism. The present development has overcome this problem, and can greatly contribute to the commercial viability of mammal pluripotent stem cells including human pluripotent stem cells.
"The device developed by the present invention can also be applied to drug discovery screening. Traditional cell-using drug discovery screening involves cells cultured in a 2D environment on a plate. However, the functional expression of cells requires the creation of a 3D environment; i.e., the cell response to a medicinal substance as a matter of course differs between a 2D culture and a 3D culture. The present invention also successfully achieved high throughput with a 3D culture, thus enabling a 3D culture of cells including human pluripotent stem cells, and drug discovery screening using the 3D culture.

"This extracellular microenvironment is very important not only for human pluripotent stem cells but also for cancer stem cells.

"Although the extracellular microenvironment has been suggested to be involved in the formation of cancer stem cells, it has been difficult to conduct a study on cancer stem cells in vitro. The 3D culture method of the present invention is applicable to the research of cancer stem cells, and can greatly contribute to the development of a basic remedy for cancer.

"It is also an advantage of the present invention that the use of the microfluidic device can decrease the amount and cost of a single sample.

"The use of the microfluidic device of the present invention can make it possible to stimulate cells physically and chemically at the same time, and to evaluate the cell response to the stimulations.

"In a preferable embodiment of the present invention, the invention has already gained an edge over other research in the achievement of high throughput using a 3D culture of human pluripotent stem cells. This high throughput is also advantageous in that the inlets of the device are arranged in the positions so as to correspond to the wells of a conventional 96-well plate, enabling the use of conventionally used equipment, such as an autoinjector, without modification. This is also a feature of the invention that the use of the microfluidic device can reduce the amount and cost of a single sample. Whereas 100 to 200 μL of a sample is necessary per sample in the use of a conventional 96-well plate, the amount of sample required by the present invention is 10 μL, which reduces the amount of sample to 1/10, achieving commercial viability.

BRIEF DESCRIPTION OF DRAWINGS

"FIG. 1: A conceptual diagram of a 3D microenvironmental culture of human pluripotent stem cells in the present invention. A mixed liquid of a fluidized hydrogel and human pluripotent stem cells is introduced into a microfluidic device to perform a 3D culture. Physiologically active substances necessary for the culture, such as growth factors, diffuse across the hydrogel, and are thereby supplied to the cells. Factors necessary for differentiation can also be optionally introduced.

"FIG. 2: A temperature-sensitive phase transition hydrogel (Mebiol.RTM.) used in the present invention. Changing the temperature enables the introduction of cells into a gel and the collection of the cells from the gel.

"FIG. 3: An experiment operation procedure of the present invention. 1. Preparation of a microfluidic device (.μ.FD). 2. A typical 2D culture of human pluripotent stem cells. 3. The human pluripotent stem cells are collected by an enzyme treatment or a physical treatment, and mixed with the hydrogel. 4. The mixture solution containing the human pluripotent stem cells and the hydrogel is introduced into the .μ.FD, and the temperature is changed to solidify the hydrogel. 5. 3D culture. The medium is replaced as necessary.

"FIG. 4: The steps for preparing a microfluidic device. A desired design was drawn by using 3D-CAD, and a mold of the structure was printed by a 3D printer. It is also possible to prepare a mold by typical photolithography or by using an injection-molding mold for mass
production. A PDMS liquid material (a mixture of a base and a curing agent) was poured into
the mold to prepare a device made of PDMS with a .\mu.FD structure.

"FIG. 5: Examples of the microfluidic device for a 3D culture according to the
present invention. Left: there is one large opening for cell introduction and medium
replacement, and one small opening as an outlet, with the two large and small openings
connected through a cell culture chamber. A medium, growth factors, and the like are
introduced from the large opening to thereby form the concentration gradients. Right: two large
openings are connected to a cell culture chamber. It is possible to homogeneously culture cells
in the cell culture chamber.

"FIG. 6: High throughput screening (HTS) microfluidic device (.\mu.FD). The 3D
culture of the present invention is also applicable to HTS-.\mu.FD.

"FIG. 7: Liquid feeding with an autoinjector. In 96-well (left figure) and 384-well
(right figure) formats, the correspondence between the pipette tips and HTS-.\mu.FD was
confirmed.

"FIG. 8: A photograph of human pluripotent stem cells that were 3D-cultured in a
.\mu.FD, and the shape of the colonies formed of human pluripotent stem cells cultured by
different techniques. When cultured in a .\mu.FD or a suspension culture, the human pluripotent
stem cells formed spherical cell aggregates. The traditional 2D culture formed a single-layered
colony.

"FIG. 9: The confirmation of the expression of human pluripotent stem cell markers
(OCT4 and NANOG) by immunofluorescent staining. Both markers exhibited high levels of
expression in the human pluripotent stem cells cultured in a .\mu.FD.

"FIG. 10: The confirmation of the expression of human pluripotent stem cell markers
(SSEA4 and TRA-1-60) and a differentiation marker (SSEA1) by flow cytometry. A 3D culture
was performed by using three gels with different degrees of solidity (Soft-HG, Mid-HG, and
Hard-HG). In every environment, the stem cell markers exhibited high levels of expression, and
the differentiation marker did not exhibit the expression.

"FIG. 11: The confirmation of the expression of human pluripotent stem cell markers
(SOX2, NANOG, and POU5F1 (OCT4)) by quantitative PCR. In every 3D culture (HG), the
stem cell markers exhibited high levels of expression as in the typical 2D culture (matrigel MG).

"FIG. 12: The 'solidity' of the 3D culture environment in a .\mu.FD can be changed by
the gel concentration. FIG. 12 shows the sizes of human pluripotent stem cell spheres in gels
with different degrees of solidity: too soft (45 mg mL.sup.-1), soft (61 mg mL.sup.-1), medium
(75 mg mL.sup.-1), and hard (91 mg mL.sup.-1). Although the spheres in the too soft hydrogel
can grow, the too soft gel cannot retain the cells.

"FIG. 13: High throughput screening (HTS) microfluidic device (.\mu.FD). As shown
in the photograph, screening using a 3D culture is possible. Cell-cycle analysis. Fewer G2/M
phase cells were present than those in the cells in a suspension culture.

"FIG. 14: The evaluation of cell activity (ATP) using a firefly luciferase. In every
condition, substantially the same ATP activity was confirmed with no damage to the cells.

"FIG. 15: The measurement of growth factor diffusion in a .\mu.FD/hydrogel. The
diffusion of bFGF (molecular weight: 17 kDa) and transferrin (molecular weight: 80 kDa) in
gels with different degrees of solidity was evaluated. Each factor was fluorescently labeled.
Factors with a smaller molecular weight rapidly diffused.

"FIG. 16: The diffusion of fluorescently labeled dextran in a .\mu.FD+hydrogel (Soft-
HG 61 mg mL.sup.-1). Fluorescently labeled dextran of different molecular weight was
prepared, and the way the dextran diffuses was observed with a fluorescence microscope. Larger
molecules did not easily diffuse in a hydrogel.

"FIG. 17: The diffusion of fluorescently labeled dextran in a .mu.FD+hydrogel (Soft-HG 61 mg mL.sup.-1). Fluorescently labeled dextran of different molecular weight was prepared, and the way the dextran diffuses was observed with a fluorescence microscope. While the fluorescence intensity was measured, the diffusion of the molecules was quantified. The diffusion decreased in accordance with the molecular weight.

"FIG. 18: The diffusion of fluorescently labeled dextran in a .mu.FD+hydrogel (Soft-HG 61 mg mL.sup.1). Dextran with a small molecular weight (3 to 5 kDa) was able to rapidly diffuse in a soft gel due to the influence of the solidity of the gel (concentration). However, dextran with a large molecular weight (10 kDa or more) was little affected by the solidity of the gel.

"FIG. 19: Colony formation efficiency of human pluripotent stem cells depending on the growth factor concentration gradient in a .mu.FD/hydrogel. Colonies were efficiently formed near the inlet in which the concentration of the growth factor was high.

"FIG. 20: High throughput screening (HTS) microfluidic device (.mu.FD) and a conceptual diagram of the microfluidic part. Cells mixed with a hydrogel were introduced into the cell culture chambers. It is possible to form a concentration gradient of a cell stimulant by connecting the tank for the medium for cell maintenance and the tank for the cell stimulation solution to each cell culture chamber.

"FIG. 21: Drawings of the designs of the cell culture chamber in a microfluidic device. Multiple concentration gradients can be formed in a single cell culture chamber. Various stimuli can be applied depending on the design of the microfluidic device."


Keywords for this news article include: Biotechnology, Tissue Engineering, Biomedical Engineering, Biomedicine, Cancer, Alcoholcs, Hydrogel, Oncology, Bioengineering, Kyoto University, Organic Chemicals, Stem Cell Research, Polyethylene Glycols, Regenerative Medicine, Pluripotent Stem Cells, Diagnostics and Screening.

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Patents

Researchers Submit Patent Application, "Non-Vented Vial Drug Delivery", for Approval (USPTO 20160367746)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventor Beiriger, Michael James (Pittsburgh, PA), filed on June 19, 2015, was made available online on December 29, 2016.

No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "During hemodialysis, impurities and toxins are removed from the
blood of a patient by drawing the blood out of the patient through a blood access site, typically via a catheter, and then passing the blood through an artificial kidney (often referred to as a 'dialyzer'). The artificial kidney includes microtubes that each separate a first conduit from a second conduit. Generally, a dialysis solution (often referred to as a 'dialysate') flows through the first conduit of the dialyzer while the patient's blood flows through the second conduits of the dialyzer, causing impurities and toxins to be transferred from the blood to the dialysate through the microtubes. The impurities and toxins can, for example, be removed from the blood by a diffusion process. After passing through the dialyzer, the purified blood is then returned to the patient.

"When kidney failure is diagnosed, patients are typically given medication to help control the symptoms and slow the progress of damage to the kidneys. Patients with chronic kidney failure generally take drugs, such as iron supplements, to control the balance of minerals in the body."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventor's summary information for this patent application: "In one aspect of the invention, a fluid line set includes a vial adapter having a base, a spike extending from a central region of the base, a sidewall extending from the base and substantially surrounding the spike, a fluid line having a first end connected to the vial adapter and a second end, and a cap removably attached to the second end of the fluid line such that the cap seals the second end of the fluid line. The base and the side wall at least partially define a cavity configured to receive a portion of a vial. The cap includes a deformable portion that at least partially defines a gas chamber. The cap is configured so that deformation of the deformable portion causes gas to be forced from the gas chamber to the vial adapter via the fluid line.

"In another aspect of the invention, a method includes causing gas to flow through a fluid line of a dialysis system until the gas enters a drug vial connected to a vial adapter assembly causing a pressure within the drug vial to increase, and clamping the fluid line after increasing the drug vial pressure.

"In yet another aspect of the invention, a dialysis system includes a dialysis machine including a blood pump and a drug pump, a blood line set including a blood line that can be operably connected to the blood pump and a drip chamber in fluid communication with the blood line, a fluid line set including a fluid line including a first end connected to a vial adapter and a second end, and a cap removably attached to the second end of the fluid line such that the cap seals the second end of the fluid line. The cap includes a deformable portion at least partially defining a gas chamber. The cap is configured so that deformation of the deformable portion causes gas to be forced from the gas chamber to the vial adapter via the fluid line.

"Implementations can include one or more of the following features.

"In some implementations, the cap further includes a one-way valve.

"In certain implementations, the one way valve is disposed between the second end of the fluid line and the gas chamber to prevent fluid from passing into the gas chamber from the fluid line.

"In some implementations, the chamber includes a volume of sterile gas.

"In certain implementations, the sterile gas is air.

"In some implementations, the volume of sterile gas includes less than 2 ml of sterile gas.

"In certain implementations, the volume of sterile gas includes 1 to 2 ml of sterile gas.

"In some implementations, the fluid line includes a first end connected to the vial
adapter and a second end and a cap removably attached to the second end of the fluid line such that the cap seals the second end of the fluid line. The cap includes a deformable portion at least partially defining a gas chamber. The cap is configured so that deformation of the deformable portion causes gas to be forced from the gas chamber to the vial adapter via the fluid line.

"In certain implementations, the method includes fluidly connecting a drug vial with the fluid line via the vial adapter assembly. The vial adapter assembly includes a vial adapter having a spike extending from a central region of a base.

"In some implementations, the drug vial includes an initial internal pressure equal to an ambient pressure.

"In certain implementations, the drug vial includes an initial gas volume of 0.3 ml to 2 ml.

"In some implementations, the gas flowing through the delivery line introduces gas into the drug vial.

"In certain implementations, the gas volume within the drug vial is 2 ml to 3 ml.

"In some implementations, the introduced gas within the drug vial increases a pressure within the drug vial.

"In certain implementations, the method further includes removing the cap from the second end of the fluid line.

"In some implementations, the method further includes connecting the second end of the fluid line to an extracorporeal blood circuit.

"In some implementations, the method further includes delivering drug from the drug vial to the extracorporeal blood circuit via the drug delivery line.

"In certain implementations, the cap further includes a one-way valve.

"In some implementations, the one-way valve is disposed between the second end of the fluid line and the gas chamber to prevent fluid from passing into the gas chamber from the fluid line.

"In certain implementations, the chamber includes a volume of sterile gas.

"In some implementations, the sterile gas is air.

"In certain implementations, the volume of sterile gas includes less than 2 ml of sterile gas.

"In some implementations, the volume of sterile gas includes 1 to 2 ml of sterile gas.

"In some implementations, the dialysis system further includes a drug vial connected to the vial adapter, such that deformation of the deformable portion introduces causes gas to be forced into the drug vial.

"In certain implementations, the drug vial includes an initial gas volume of 0.3 to 2 ml.

"In some implementations, the additional gas increases the gas volume to 1 to 3 ml.

"Implementations can include one or more of the following advantages.

"The drug line sets described herein are designed to be used in medical systems, such as hemodialysis systems. Introducing air into the drug vials via the drug line sets of such systems decreases the vacuum pressure within the drug vial, which helps to ensure that the vacuum pressure generated within the drug line set by a pump exceeds the competing vacuum within the drug vial. This additional air improves the process of priming the system by helping to ensure that the desired amount of drug can be withdrawn from the drug vial. In addition, introducing additional air into the drug vial can account for air volume variations between drug vials of different manufacturers or manufacturing lots, which helps to expand the compatibility
of the medical devices with a variety of drug vials without modifying any hardware components. Further, by introducing air into the drug vial via the drug delivery line set, both the drug delivery line and the additional air can be sterilized using a single sterilization process.

"Other aspects, features, and advantages will be apparent from the description and drawings, and from the claims.

DESCRIPTION OF DRAWINGS

"FIG. 1 is a front view of a hemodialysis machine including a drug delivery module mounted in a mid-section of the machine.

"FIG. 2 is an enlarged view of the midsection of the hemodialysis machine of FIG. 1.

"FIG. 3 is a perspective view of a drug delivery fluid line set including a vial spiking assembly and priming cap connected to a drug delivery line.

"FIG. 4A is a perspective view of the drug delivery line set including the priming cap in the unactuated state and an enlarged view of the priming cap in an unactuated state.

"FIG. 4B is a perspective view of the drug delivery line set including the priming cap in the actuated state and an enlarged view of the priming cap in an actuated state.

"FIG. 5 is an enlarged view of the drug delivery module of the hemodialysis machine of FIG. 1 isolated from the hemodialysis machine.

"FIG. 6 is a perspective view of the vial spiking assembly and a spike cover.

"FIG. 7 is a perspective view of the drug delivery line set partially loaded into the drug delivery module.

"FIG. 8 is a perspective view of the drug vial being loaded onto the vial adapter.

"FIG. 9 is a perspective view of the drug delivery line set being loaded into a peristaltic pump of the drug delivery module.

"FIG. 10 is an enlarged view of the midsection of the hemodialysis machine of FIG. 1 showing the drug delivery line set connected to the hemodialysis set prior to operating the pumps. Certain details of the hemodialysis machine have been omitted for simplicity.

"FIGS. 11A and 11B are a perspective views of an alternative priming cap in the form of a dropper."


Keywords for this news article include: Patents, Drugs and Therapies, Drug Delivery Systems.

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Patents


2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent
application by the inventors LEE, Ilsoon (Okemos, MI); YU, Jing (East Lansing, MI); SANYAL, Oishi (East Lansing, MI), filed on May 18, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "This section provides background information related to the present disclosure which is not necessarily prior art.

"Layer-by-layer (LbL) assembled PEMs have been considered as a versatile platform for surface modification. In 1990s, Gero Decher pioneered the LbL technique to build multilayers by dipping a positive-charged substrate into polyanion and polycation solutions alternately, resulting in PEMs with precise structure control in nanometer scale. (Decher G. Science, 1997, 277(5330): 1232-1237.) For conventional LbL process, the dipping time for polyanion and polycation solutions is around 10 minutes or more. Sufficient washing steps are also required. And, to achieve a proper thickness, 10 bilayers or more are always needed. Thus, slow processing becomes one of the major issues for the industrializing PEM products. The short-time LbL technique originally pioneered by Grunlan et al., (Hagen D A, Foster B, Stevens B, et al. ACS Macro Letters, 2014, 3(7): 663-666.) is an effective tool for fabricating porous PEM structures.

"The conventional LbL process is extremely time consuming and it takes several hours to fabricate a PEM film of desired thickness. Hence, although the process has been developed more than a decade ago, and extensive research, both in terms of fundamentals as well as applications have been carried out, this LbL process has not seen industrial acceptance.

"Multi-scale porous structures have been successfully built up either with a micro-sized porous structure on top of a nano-sized porous structure or the other way around. According to the previous studies about porous PEM films, either only one porous structure was developed in one sample (Hiller J A, et al., Nature Materials, 2002, 1(1): 59-63; Berg M C, et al., Biomacromolecules, 2006, 7(1): 357-364; Cho C, Zacharia N S. Langmuir, 2011, 28(1): 841-848), or with micro- and nano-structures on top of the surface randomly (Fu J, Ji J, Shen L, et al. Langmuir, 2008, 25(2): 672-675.)."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventors’ summary information for this patent application: "This section provides a general summary of the disclosure, and is not a comprehensive disclosure of its full scope or all of its features.

"Porous polyelectrolyte multilayer (PEM) films have been created with precise pore size control ranging from nano- to micro-scale. Layer-by-layer (LbL) technique has been applied for fabricating PEMs, and the porous treatment has been carried out under acidic condition.

"The primary purpose of our work aims at reducing the processing time of the process to fabricate porous PEM films without compromising on the quality of the prepared films. This will enable the tremendously versatile LbL coating process to be economically fabricated. Besides shortening the processing time, we also tried polyelectrolytes with high molecular weight. This enables a broader control of pore size. Multi-scale porous structures have been first developed in this work, with either micro-sized porous structure on top of nano-sized porous structure or the reverse.

"Porous polyelectrolyte multilayer (PEM) films have been fabricated via fast layer-by-layer (LbL) technique, followed by acidic treatment with pH varying from 1.8 to 2.4. In our approach, the dipping time has been shortened significantly. The dipping time can be as short as 10 seconds or can be extended to about 15 minutes. The film thickness can be tuned by manipulating dipping time, molecular weight, number of bilayers, etc.
In this work, we use Poly(acrylic acid) (PAA) as the polyanion, and Poly(allylamine hydrochloride)(PAH) as polycation. In order to achieve a broader control of pore size, PAA with high molecular weight (M_{sub.w}=225,000 \text{ g/mol}) has been tried. This high molecular weight PAA can form special microfibrous structure on the surface via LbL assembly with dipping time longer than 5 minutes. However, with 10 second dipping, the surface is flat and smooth, and after porous treatment with pH of 2.0, pore size of 20-50 nm can be obtained, which is much smaller than what has been reported in literatures. (Cho C, Zacharia N S. Langmuir, 2011, 28 (1): 841-848. Berg M C, et al., Biomacromolecules, 2006, 7(1): 357-364.)

In this invention, we can control the micro-sized and nano-sized porous regions. To fabricate multi-scale porous structure, we first make the bottom porous structure via LbL assembly followed by acid treatment and crosslink the structure. Then the top porous structure can be further built up through the same way. If the bottom porous structure is with a nano-sized structure, the top porous structure can be built up with no need to consider the molecular weight of polyelectrolytes. However, if the bottom has micro-sized porous structure, higher molecular weight of polyelectrolytes is required for the top porous structure since the polymer chain needs to be large enough to avoid filling into bottom pores.

This invention has potential for various applications, such as 1) membranes, 2) drug delivery, and 3) super hydrophobic coatings (i.e., self-cleaning). For drug delivery, the porous structure can be considered as a drug reservoir. This invention allows the design of certain porous structures to fulfill the release requirements, such as initial burst release, sustained release, or a combination of both. The release kinetics can be precisely controlled by tuning the porous structure. For membrane applications, these porous PEM structures can also be used to replace the porous polysulfone and polyamide layers of reverse osmosis (RO) membranes. In addition, micro- and nano-structured surface can be achieved with our approach, which can be further modified by fluorinated silane molecules to obtain super hydrophobic (self-cleaning) surfaces.

**DRAWINGS**

The drawings described herein are for illustrative purposes only of selected embodiments and not all possible implementations, and are not intended to limit the scope of the present disclosure.

Corresponding reference numerals indicate corresponding parts throughout the several views of the drawings.

"FIG. 1 illustrates polyelectrolytes used.
"FIG. 2 details the LbL process.
"FIG. 3 is a graph of thickness of PEM film formed as a function of dipping time.
"FIGS. 4-6 show micrographs of PEM films.
"FIG. 7 is a graph of roughness as a function of dipping time.
"FIGS. 8-12 show micrographs of PEM films.
"FIGS. 13 and 14 show graphs of film thickness as a function of dipping time, molecular weight of polyelectrolyte, and pH of porous treatment.
"FIGS. 15-17 show micrographs of PEM thin films.
"FIG. 18 shows XPS results from treated PEM films.
"FIG. 19 is a photo of a free-standing film prepared according to the described methods.
"FIGS. 20-23 show micrographs illustrating design of multiscale porous structures."
"FIG. 24 shows the effect of dipping time on (a) the thickness of PAH.sub.L/PAA.sub.L thin films before and after the post treatment and (b) the relative expansion of thickness and average surface pore size.

"In FIG. 25, FIGS. 25A and 25B, 25C and 25D, 25E and 25F, 25G and 25H, and 25I and 25J are the top-view and cross-sectional SEM images for porous (PAH.sub.L/PAA.sub.L).sub.20.5 films with dipping time of 10 s, 1 min, 5 min, 10 min and 15 min, respectively. The arrow in each cross-sectional image indicates the interface between the glass substrate and the deposited film.

"FIG. 26 shows (a) thickness of thin films before and after the post treatment (FIG. 26A) and (b) the relative expansion of thickness and average surface pore size for (PAH.sub.L/PAA.sub.L).sub.20.5, (PAH.sub.H/PAA.sub.L).sub.20.5, (PAH.sub.L/PAA.sub.H).sub.20.5, and (PAH.sub.H/PAA.sub.H).sub.20.5 (FIG. 26B). All the films were fabricated using dipping time of 10 s.

"In FIG. 27, FIGS. 27A and 27B, 27C and 27D, 27E and 27F, and 27G and 27H are the top-view and cross-sectional SEM images for porous (PAH.sub.L/PAA.sub.L).sub.20.5, (PAH.sub.H/PAA.sub.L).sub.20.5, (PAH.sub.L/PAA.sub.H).sub.20.5, and (PAH.sub.H/PAA.sub.H).sub.20.5 films, respectively. The arrow in each cross-sectional image indicates the interface between the glass substrate and the deposited film. All the films were fabricated using dipping time of 10 s.

"FIG. 28 shows SEM cross-sectional (FIG. 28A and FIG. 28B) and top view (FIG. 28C) images of multi-scale porous thin films with nano-sized porous film as the bottom and micro-sized porous film as the top. The arrow in FIG. 28A indicates the interface between the glass substrate and the deposited film. FIG. 28B is an enlarged image of the square area in FIG. 28A.

"FIG. 29 shows SEM cross-sectional (FIG. 29A and FIG. 29B) and top view (FIG. 29C) images of multi-scale porous thin films with micro-sized porous structure as the bottom and nano-sized porous structure as the top. The arrow in FIG. 29A indicates the interface between the glass substrate and the deposited film. FIG. 29B is an enlarged image of the square area in FIG. 29A.

"FIGS. 30A, 30B, 30C, 30D, and 30E show SEM images of the porous (PAH.sub.H/PAA.sub.L).sub.20.5 surfaces with dipping time of 10 s, 1 min, 5 min, 10 min and 15 min, respectively. (The porous induction was done at pH=2.0.)

"FIG. 31 shows the values of contact angle for porous (PAH.sub.L/PAA.sub.L).sub.20.5 and (PAH.sub.H/PAA.sub.L).sub.20.5 with different dipping time.

"FIG. 32 shows super hydrophilic and super hydrophobic surfaces achieved before and after CVD for porous PAH.sub.H/PAA.sub.L thin film with dipping time of 1 min and acidic treatment at pH=2.0.

"FIGS. 33A, 33B, 33C, 33D, and 33E show images of the (PAH.sub.L/PAA.sub.L).sub.20.5 surfaces with dipping time of 10 s, 1 min, 5 min, 10 min and 15 min, respectively.

"FIGS. 34A, 34B, 34C, 34D, and 34E show images of the (PAH.sub.L/PAA.sub.H).sub.20.5 surfaces with dipping time of 10 s, 1 min, 5 min, 10 min and 15 min, respectively.

"FIG. 35 shows the values of (FIG. 35A) roughness and (FIG. 35B) contact angle for (PAH.sub.L/PAA.sub.L).sub.20.5 and (PAH.sub.L/PAA.sub.H).sub.20.5 with different dipping time.
"FIGS. 36A, 36B, 36C, 36D, and 36E show SEM images of the porous (PAH._sub_.L/PAA._sub_.L).sub._20.5 surfaces with dipping time of 10 s, 1 min, 5 min, 10 min and 15 min, respectively. (The porous induction was done at pH of 2.0.)

"FIGS. 37A, 37B, 37C, 37D, and 37E show SEM images of the porous (PAH._sub_.H/PAA._sub_.L).sub._20.5 surfaces with dipping time of 10 s, 1 min, 5 min, 10 min and 15 min, respectively. (The porous induction was done at pH of 2.0.)

"FIG. 38 shows the values of (FIG. 38A) roughness and (FIG. 38B) contact angle for (PAH._sub_.L/PAA._sub_.L).sub._20.5 and (PAH._sub_.L/PAA._sub_.H).sub._20.5 with different dipping time. (The porous induction was done at pH of 2.0.)

"FIGS. 39A, 39B, 39C, and 39D show SEM images of the porous (PAH._sub_.H/PAA._sub_.L).sub._20.5 surfaces (dipping time of 1 min) with porous induction at pH 1.8, 2.0, 2.2 and 2.4, respectively."


Keywords for this news article include: Patents.

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Patents

Researchers Submit Patent Application, "Treatment of Dermatological Pathologies", for Approval (USPTO 20160368982)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- From Washington, D.C., NewsRx journalists report that a patent application by the inventor Simard, John (Austin, TX), filed on August 31, 2016, was made available online on December 29, 2016.

No assignee for this patent application has been made.

News editors obtained the following quote from the background information supplied by the inventors: "Inflammatory skin disorders acne, rosacea, and psoriasis afflict many millions of people. While not usually lethal, these conditions can cause physical discomfort and affect emotional well-being. There are currently a large number of different treatments for inflammatory skin disorders including corticosteroids, vitamin D analogs, coal tar, ultraviolet light, retinoids, methotrexate, cyclosporine, hydroxyurea, antibiotics, and biologic agents such as TNFalpha inhibitors. While these therapies have proven useful for many patients, many cause undesirable side-effects and none are ideal for every situation."

As a supplement to the background information on this patent application, NewsRx correspondents also obtained the inventor's summary information for this patent application: "The invention is based on the discovery that a mAb that specifically binds IL-1.alpha. is useful for reducing skin inflammation as well as treating inflammatory skin diseases including psoriasis vulgaris and acne vulgaris. This discovery was surprising for a number of reasons including previous reports that IL-1.alpha. levels are reduced in psoriatic skin (e.g., Bonifati et al., J Biol Regul Homeost Agents. 1997 Oct.-Dec.; 11(4):133-6) and a report implicating anakinra (IL-1 receptor antagonist) as a causative agent in the development of psoriasis."
Accordingly, the invention features a method of reducing skin inflammation in a human subject. This method can include the step of administering to the subject a pharmaceutical composition including a pharmaceutically acceptable carrier and an amount of an agent that selectively binds IL-1\(\alpha\). effective to reduce skin inflammation in the subject. The agent can be an anti-IL-1\(\alpha\) antibody such as a monoclonal antibody (e.g., of the IgG1 isotype), a monoclonal antibody that includes a complementarity determining region of MABp1, or MABp1. The skin inflammation can be associated with acne vulgaris and/or psoriasis vulgaris.

For example, one aspect of the invention features a method of reducing skin inflammation in a human subject by administering to the subject a pharmaceutical composition including a pharmaceutically acceptable carrier and an amount of an anti-IL-1\(\alpha\) Ab (or other agent that specifically and/or selectively binds IL-1\(\alpha\).) effective to reduce a symptom of skin inflammation (e.g., redness, swelling, leukocyte infiltration, or lesion development) in the subject by at least about 10\% (e.g., at least 8, 9, 10, 15, 17, 20, 30, 40, 50, 60, 70, 80, 90, or 100\%) as measured by any standard dermatological test. The anti-IL-1\(\alpha\). Ab can be a mAb such as an IgG1. The anti-IL-1\(\alpha\). Ab can be the mAb designated as MABp1 or a mAb that includes one or more complementarity determining regions (CDRs) of MABp1. The skin inflammation can be associated with acne or psoriasis. The pharmaceutical composition can be administered to the subject by injection, subcutaneously, intravenously, intramuscularly, or intradermally. In the method, the dose can be at least 0.25 (e.g., at least 0.2, 0.5, 0.75, 1, 2, 3, 4, or 5) mg/ml.

In other aspects, the invention includes use of an agent that selectively binds IL-1\(\alpha\). to treat skin inflammation in the subject and a pharmaceutical composition for treating skin inflammation in the subject, the composition comprising an agent that selectively binds IL-1\(\alpha\). In the foregoing, the agent can be an anti-IL-1\(\alpha\). antibody such as a monoclonal antibody (e.g., of the IgG1 isotype), a monoclonal antibody that includes a complementarity determining region of MABp1, or MABp1; and the skin inflammation can be associated with acne vulgaris and/or psoriasis vulgaris.

Unless otherwise defined, all technical terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. Commonly understood definitions of biological terms can be found in Rieger et al., Glossary of Genetics: Classical and Molecular, 5th edition, Springer-Verlag: New York, 1991; and Lewin, Genes V, Oxford University Press: New York, 1994. Commonly understood definitions of medical terms can be found in Stedman's Medical Dictionary, 27.sup.th Edition, Lippincott, Williams & Wilkins, 2000.

As used herein, an 'antibody' or 'Ab' is an immunoglobulin (Ig), a solution of identical or heterogeneous Igs, or a mixture of Igs. An 'Ab' can also refer to fragments and engineered versions of Igs such as Fab, F(ab'), and F(ab').sub.2 fragments; and scFv's, heteroconjugate Abs, and similar artificial molecules that employ Ig-derived CDRs to impart antigen specificity. A 'monoclonal antibody' or 'mAb' is an Ab expressed by one clonal B cell line or a population of Ab molecules that contains only one species of an antigen binding site capable of immunoreacting with a particular epitope of a particular antigen. A 'polyclonal Ab' is a mixture of heterogeneous Abs. Typically, a polyclonal Ab will include myriad different Ab molecules which bind a particular antigen with at least some of the different Abs immunoreacting with a different epitope of the antigen. As used herein, a polyclonal Ab can be a mixture of two or more mAbs.

An 'antigen-binding portion' of an Ab is contained within the variable region of the
Fab portion of an Ab and is the portion of the Ab that confers antigen specificity to the Ab (i.e., typically the three-dimensional pocket formed by the CDRs of the heavy and light chains of the Ab). A 'Fab portion' or 'Fab region' is the proteolytic fragment of a papain-digested Ig that contains the antigen-binding portion of that Ig. A 'non-Fab portion' is that portion of an Ab not within the Fab portion, e.g., an 'Fc portion' or 'Fc region.' A 'constant region' of an Ab is that portion of the Ab outside of the variable region. Generally encompassed within the constant region is the 'effector portion' of an Ab, which is the portion of an Ab that is responsible for binding other immune system components that facilitate the immune response. Thus, for example, the site on an Ab that binds complement components or Fc receptors (not via its antigen-binding portion) is an effector portion of that Ab.

"When referring to a protein molecule such as an Ab, 'purified' means separated from components that naturally accompany such molecules. Typically, an Ab or protein is purified when it is at least about 10% (e.g., 9%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 95%, 98%, 99%, 99.9%, and 100%), by weight, free from the non-Ab proteins or other naturally-occurring organic molecules with which it is naturally associated. Purity can be measured by any appropriate method, e.g., column chromatography, polyacrylamide gel electrophoresis, or HPLC analysis. A chemically-synthesized protein or other recombinant protein produced in a cell type other than the cell type in which it naturally occurs is 'purified.'

"By 'bind', 'binds', or 'reacts with' is meant that one molecule recognizes and adheres to a particular second molecule in a sample, but does not substantially recognize or adhere to other molecules in the sample. Generally, an Ab that 'specifically binds' another molecule has a K_{d} greater than about 10^{5}, 10^{6}, 10^{7}, 10^{8}, 10^{9}, 10^{10}, 10^{11}, or 10^{12} liters/mole for that other molecule. An Ab that 'selectively binds' a first molecule specifically binds the first molecule at a first epitope but does not specifically bind other molecules that do not have the first epitope. For example, an Ab which selectively binds IL-1 alpha specifically binds an epitope on IL-1 alpha but does not specifically bind IL-1beta (which does not have the epitope).

"A 'therapeutically effective amount' is an amount which is capable of producing a medically desirable effect in a treated animal or human (e.g., amelioration or prevention of a disease or symptom of a disease).

"Although methods and materials similar or equivalent to those described herein can be used in the practice or testing of the present invention, suitable methods and materials are described below. All applications and publications mentioned herein are incorporated by reference in their entirety. In the case of conflict, the present specification, including definitions will control. In addition, the particular embodiments discussed below are illustrative only and not intended to be limiting.

DETAILED DESCRIPTION

"The invention encompasses compositions and methods for reducing skin inflammation including ameliorating one or more symptoms of a dermatological pathology in a subject. The below described preferred embodiments illustrate adaptation of these compositions and methods. Nonetheless, from the description of these embodiments, other aspects of the invention can be made and/or practiced based on the description provided below.

"General Methodology

"Methods involving conventional immunological and molecular biological techniques are described herein. Immunological methods (for example, assays for detection and localization of antigen-Ab complexes, immunoprecipitation, immunoblotting, and the like) are generally known in the art and described in methodology treatises such as Current Protocols in
"Treatment of Skin Inflammation"

The compositions and methods described herein are useful for treating skin inflammation (e.g., associated with rosacea, eczema, psoriasis, xerosis, dermatitis, acne, pyoderma gangrenosum, urticaria, lichenoid disorders, bullous diseases such as bullous pemphigoid, cutaneous vasculitis, and granulomatous skin diseases) in a mammalian subject by administering to the subject a pharmaceutical composition including an amount of an anti-IL-1.alpha. Ab effective to improve at least one characteristic (e.g., reduction in the number or size of lesions, reduction of redness, and reduction in itchiness) of the inflammation in the subject. The mammalian subject might be any that suffers from skin inflammation including, human beings, dogs, cats, horses, cattle, sheep, goats, and pigs. Human subjects might be male, female, adults, children, seniors (65 and older), and those with other diseases. Particularly preferred subjects are those whose disease has progressed or failed to respond after treatment with other anti-inflammatory or anti-microbial agents such as retinoids, antibiotics, steroids or cytokine inhibitors such as TNFalpha inhibitors. Subjects who have developed a human anti-human antibody response due to prior administration of therapeutic antibodies are preferred when the anti-IL-1.alpha. Ab is a true human Ab (e.g., one that is naturally expressed in a human subject) such as MABp1. Any type of inflammatory skin disease susceptible to treatment with an anti-IL-1.alpha. Ab might be targeted. Anti-IL-1.alpha. Ab administration is thought to be particularly effective for treating acne vulgaris and psoriasis vulgaris.

"Antibodies and Other Agents that Target IL-1.alpha.

Any suitable type of Ab that specifically binds IL-1.alpha. and reduces a characteristic of skin inflammation and/or an inflammatory skin disease such as acne vulgaris or psoriasis vulgaris in a subject might be used in the invention. For example, the anti-IL-1.alpha. Ab used might be mAb, a polyclonal Ab, a mixture of mAbs, or an Ab fragment or engineered Ab-like molecule such as an scFv. The Ka of the Ab is preferably at least 1.times.10.sup.9 M.sup.-1 or greater (e.g., greater than 9.times.10.sup.10 M.sup.-1, 8.times.10.sup.10 M.sup.-1, 7.times.10.sup.10 M.sup.-1, 6.times.10.sup.10 M.sup.-1, 5.times.10.sup.10 M.sup.-1, 4.times.10.sup.10 M.sup.-1, 3.times.10.sup.10 M.sup.-1, 2.times.10.sup.10 M.sup.-1, or 1.times.10.sup.10 M.sup.-1). In a preferred embodiment, the invention utilizes a fully human mAb that includes (i) an antigen-binding variable region that exhibits very high binding affinity (e.g., at least nano or picomolar) for human IL-1.alpha. and (ii) a constant region. The human Ab is preferably an IgG1, although it might be of a different isotype such as IgM, IgA, or IgE, or subclass such as IgG2, IgG3, or IgG4. One example of a particularly useful mAb is MABp1, an IL-1.alpha.-specific IgG1 mAb described in U.S. patent application Ser. No. 12/455,458 filed on Jun. 1, 2009. Other useful mAbs are those that include at least one but preferably all the CDRs of MABp1.

"Because B lymphocytes which express Ig specific for human IL-1.alpha. occur
naturally in human beings, a presently preferred method for raising mAbs is to first isolate such a B lymphocyte from a subject and then immortalize it so that it can be continuously replicated in culture. Subjects lacking large numbers of naturally occurring B lymphocytes which express Ig specific for human IL-1.alpha. may be immunized with one or more human IL-1.alpha. antigens to increase the number of such B lymphocytes. Human mAbs are prepared by immortalizing a human Ab secreting cell (e.g., a human plasma cell). See, e.g., U.S. Pat. No. 4,634,664.

"In an exemplary method, one or more (e.g., 5, 10, 25, 50, 100, 1000, or more) human subjects are screened for the presence of such human IL-1-alpha-specific Ab in their blood. Those subjects that express the desired Ab can then be used as B lymphocyte donors. In one possible method, peripheral blood is obtained from a human donor that possesses B lymphocytes that express human IL-1.alpha.-specific Ab. Such B lymphocytes are then isolated from the blood sample, e.g., by cells sorting (e.g., fluorescence activated cell sorting, 'FACS'; or magnetic bead cell sorting) to select B lymphocytes expressing human IL-1.alpha.-specific Ig. These cells can then be immortalized by viral transformation (e.g., using EBV) or by fusion to another immortalized cell such as a human myeloma according to known techniques. The B lymphocytes within this population that express Ig specific for human IL-1.alpha. can then be isolated by limiting dilution methods (e.g., cells in wells of a microtiter plate that are positive for Ig specific for human IL-1.alpha. are selected and subcultured, and the process repeated until a desired clonal line can be isolated). See, e.g., Goding, MAbs: Principles and Practice, pp. 59-103, Academic Press, 1986. Those clonal cell lines that express Ig having at least nanomolar or picomolar binding affinities for human IL-1.alpha. are preferred. MAbs secreted by these clonal cell lines can be purified from the culture medium or a bodily fluid (e.g., ascites) by conventional Ig purification procedures such as salt cuts, size exclusion, ion exchange separation, and affinity chromatography.

"Although immortalized B lymphocytes might be used in in vitro cultures to directly produce mAbs, in certain cases it might be desirable to use heterologous expression systems to produce mAbs. See, e.g., the methods described in U.S. patent application Ser. No. 11/754,899. For example, the genes encoding an mAb specific for human IL-1.alpha. might be cloned and introduced into an expression vector (e.g., a plasmid-based expression vector) for expression in a heterologous host cell (e.g., CHO cells, COS cells, myeloma cells, and E. coli cells). Because Igs include heavy (H) and light (L) chains in an H\_sub.2L\_sub.2 configuration, the genes encoding each may be separately isolated and expressed in different vectors.

"Although generally less preferred due to the greater likelihood that a subject will develop an anti-Ab response, chimeric mAbs (e.g., 'humanized' mAbs), which are antigen-binding molecules having different portions derived from different animal species (e.g., variable region of a mouse Ig fused to the constant region of a human Ig), might be used in the invention. Such chimeric Abs can be prepared by methods known in the art. See, e.g., Morrison et al., Proc. Nat'l. Acad. Sci. USA, 81:6851, 1984; Neuberger et al., Nature, 312:604, 1984; Takeda et al., Nature, 314:452, 1984. Similarly, Abs can be humanized by methods known in the art. For example, mAbs with a desired binding specificity can be humanized by various vendors or as described in U.S. Pat. Nos. 5,693,762; 5,530,101; or 5,585,089.

nucleotide sequence encoding the Ab. In addition, modifications to nucleic acid sequences encoding mAbs might be altered (e.g., without changing the amino acid sequence of the mAb) for enhancing production of the mAb in certain expression systems (e.g., intron elimination and/or codon optimization for a given expression system). The mAbs described herein can also be modified by conjugation to another protein (e.g., another mAb) or non-protein molecule. For example, a mAb might be conjugated to a water soluble polymer such as polyethylene glycol or a carbon nanotube (See, e.g., Kam et al., Proc. Natl. Acad. Sci. USA 102: 11600-11605, 2005). See, U.S. patent application Ser. No. 11/754,899.

"Preferably, to ensure that high titers of human IL-1.alpha.-specific mAb can be administered to a subject with minimal adverse effects, the mAb compositions of the invention are at least 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 95, 96, 97, 98, 99, 99.9 or more percent by weight pure (excluding any excipients). The mAb compositions of the invention might include only a single type of mAb (i.e., one produced from a single clonal B lymphocyte line) or might include a mixture of two or more (e.g., 2, 3, 4, 5, 6, 7, 8, 9, 10 or more) different types of mAbs.

"To modify or enhance their function, the human IL-1.alpha. mAbs might be conjugated with another molecule such as a cytotoxin. A human IL-1.alpha. specific mAb might be conjugated with one or more cytotoxins to more effectively kill cells expressing IL-1.alpha.. Cytotoxins for use in the invention can be any cytotoxic agent (e.g., molecule that can kill a cell after contacting the cell) that can be conjugated to a human IL-1.alpha. specific mAb. Examples of cytotoxins include, without limitation, radionuclides (e.g., .sup.35S, .sup.14C, .sup.32P, .sup.125I, .sup.131I, .sup.90Y, .sup.89Zr, .sup.201Tl, .sup.186Re, .sup.188Re, .sup.57Cu, .sup.213Bi, and .sup.211At), conjugated radionuclides, and chemotherapeutic agents. Further examples of cytotoxins include, but are not limited to, antimetabolites (e.g., 5-fluorouricil (5-FU), methotrexate (MTX), fludarabine, etc.), anti-microtubule agents (e.g., vincristine, vinblastine, colchicine, taxanes (such as paclitaxel and docetaxel), etc.), alkylating agents (e.g., cyclophosphamide, melphalan, bischloroethylnitrosurea (BCNU), etc.), platinum agents (e.g., cisplatin (also termed cDDP), carboplatin, oxaliplatin, JM-216, CI-973, etc.), anthracyclines (e.g., doxorubicin, daunorubicin, etc.), antibiotic agents (e.g., mitomycin-C), topoisomerase inhibitors (e.g., etoposide, tenoposide, and camptothecins), or other cytotoxic agents such as ricin, diptheria toxin (DT), Pseudomonas exotoxin (PE) A, PE40, abrin, saporin, pokeweed viral protein, ethidium bromide, glucocorticoid, anthrax toxin and others. See, e.g., U.S. Pat. No. 5,932,188.

"While the IL-1.alpha. specific Abs described above are preferred for use in the invention, in some cases, other agents that specifically target IL-1.alpha. might be used so long as their administration leads to improvement of a characteristic of an inflammatory skin disease. These other agents might include vaccines that cause the production of anti-IL-1.alpha. Abs, proteins or peptides that bind IL-1.alpha., and small organic molecules which specifically target IL-1.alpha.. Those that do not specifically bind other agents that specifically target IL-1.beta. are preferred.

"Pharmaceutical Compositions and Methods

"The anti-IL-1.alpha. Ab compositions (and other agents that specifically target IL-1.alpha.) may be administered to animals or humans in pharmaceutically acceptable carriers (e.g., sterile saline), that are selected on the basis of mode and route of administration and standard pharmaceutical practice. A list of pharmaceutically acceptable carriers, as well as pharmaceutical formulations, can be found in Remington’s Pharmaceutical Sciences, a standard text in this field, and in USP/NF. Other substances may be added to the compositions and other steps taken to stabilize and/or preserve the compositions, and/or to facilitate their administration.
to a subject.

"For example, the Ab compositions might be lyophilized (see Draber et al., J. Immunol. Methods. 181:37, 1995; and PCT/US90/01383); dissolved in a solution including sodium and chloride ions; dissolved in a solution including one or more stabilizing agents such as albumin, glucose, maltose, sucrose, sorbitol, polyethylene glycol, and glycine; filtered (e.g., using a 0.45 and/or 0.2 micron filter); contacted with beta-propiolactone; and/or dissolved in a solution including a microbicide (e.g., a detergent, an organic solvent, and a mixture of a detergent and organic solvent.

"The Ab compositions may be administered to animals or humans by any suitable technique. Typically, such administration will be parenteral (e.g., intravenous, subcutaneous, intramuscular, or intraperitoneal introduction). The compositions may also be administered directly to the target site (e.g., the skin) by, for example, topical application. Other methods of delivery, e.g., liposomal delivery or diffusion from a device impregnated with the composition, are known in the art. The composition may be administered in a single bolus, multiple injections, or by continuous infusion (e.g., intravenously or by peritoneal dialysis).

"A therapeutically effective amount is an amount which is capable of producing a medically desirable result in a treated animal or human. An effective amount of anti-IL-1.alpha. Ab compositions is an amount which shows clinical efficacy in patients as measured by the improvement in one or more symptoms of skin inflammation. As is well known in the medical arts, dosage for any one animal or human depends on many factors, including the subject's size, body surface area, age, the particular composition to be administered, sex, time and route of administration, general health, and other drugs being administered concurrently. Preferred doses range from about 0.1 to 5 (e.g., 0.05, 0.1, 0.15, 0.2, 0.3, 0.4, 0.5, 1, 2, 3, 4, 5, or 6) mg/kg body weight. In some cases a single dose is effective at resolving an episode of skin inflammation. In other cases, doses may be given repeatedly, e.g., semi-weekly, weekly, bi-weekly, tri-weekly, semi-monthly, once every three weeks, monthly, bi-monthly, or as needed (if skin inflammation recurs)."


Keywords for this news article include: Antibodies, Patents, Therapy, Retinoids, Immunology, Carotenoids, Engineering, Lymphocytes, Blood Proteins, Immunoglobulins, Biological Factors, Mononuclear Leukocytes.

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Arbutus Biopharma Corp. Files SEC Form 10-Q/A, Quarterly Report [Sections 13 Or 15(D)] (Dec. 22, 2016)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Arbutus Biopharma Corp. (Form 10-Q/A) was posted on December 22, 2016.
The SIC code for this company is 2834, Pharmaceutical Preparations.
The SEC file number is 0000912282-16-000926.
The contact information for this company is 100-8900 GLENLYON PARKWAY,
BURNABY A1 V5J 5J8, 604-419-3200.
A U.S. Securities and Exchange Commission filing is a formal document or financial
statement submitted to the SEC by publicly-traded companies.
For additional information on this SEC filing see:
Keywords for this news article include: Pharmaceutical Companies, Pharmaceutical
Preparations, SEC Filing, Biopharmaceuticals, Drugs and Therapies, Arbutus Biopharma Corp..
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Arbutus Biopharma Corp. Files SEC Form S-3, Registration Statement
Under Securities Act of 1933 (Dec. 23, 2016)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness
& Wellness Week -- According to news reporting originating from Washington, D.C., by
NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Arbutus
Biopharma Corp. (Form S-3) was posted on December 23, 2016.
The SIC code for this company is 2834, Pharmaceutical Preparations.
The SEC file number is 0001193125-16-802728.
The contact information for this company is 100-8900 GLENLYON PARKWAY,
BURNABY A1 V5J 5J8, 604-419-3200.
Our editors provided additional information about Form S-3: This is the most
simplified registration form and it may only be used by companies that have been required to
report under the '34 Act for a minimum of twelve months and have met the timely filing
requirements set forth under Form S-2. Also, the offering and issuer must meet the eligibility
tests prescribed by the form. The form maximizes incorporating by reference information from
'34 Act filings.
A U.S. Securities and Exchange Commission filing is a formal document or financial
statement submitted to the SEC by publicly-traded companies.
For additional information on this SEC filing see:
Keywords for this news article include: Pharmaceutical Companies, Pharmaceutical
Preparations, SEC Filing, Biopharmaceuticals, Drugs and Therapies, Arbutus Biopharma Corp..
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Array Biopharma Inc. Files SEC Form 8-K, Current Report (Dec. 23, 2016)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Array Biopharma Inc. (Form 8-K) was posted on December 23, 2016.

The SIC code for this company is 2834, Pharmaceutical Preparations.

The contact information for this company is 3200 WALNUT STREET, BOULDER CO 80301, 303-381-6600.

Our editors provided additional information about Form 8-K: This is the "current report" that is used to report the occurrence of any material events or corporate changes which are of importance to investors or security holders and previously have not been reported by the registrant. It provides more current information on certain specified events than would Forms 10-Q or 10-K.

A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see: http://www.sec.gov/Archives/edgar/data/1100412/0001104659-16-163764-index.html.

Keywords for this news article include: Pharmaceutical Companies, Pharmaceutical Preparations, SEC Filing, Biopharmaceuticals, Drugs and Therapies, Array Biopharma Inc..

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Benitec Biopharma Ltd (Form 6-K) was posted on December 22, 2016.

The SIC code for this company is 2834, Pharmaceutical Preparations.

The contact information for this company is 120 BROADWAY, 32ND FLOOR, NEW YORK NY 10271, 212-238-3128.

Our editors provided additional information about Form 6-K: This report is used by certain foreign private issuers to furnish information: (i) required to be made public in the country of its domicile; (ii) filed with and made public by a foreign stock exchange on which its securities are traded; or (iii) distributed to security holders. The report must be furnished promptly after such material is made public. The form is not considered "filed" for Section 18 liability purposes. This is the only information furnished by foreign private issuers between
annual reports, since such issuers are not required to file on Forms 10-Q or 8-K.

A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see:

Keywords for this news article include: Pharmaceutical Companies, Pharmaceutical Preparations, SEC Filing, Biopharmaceuticals, Drugs and Therapies, Benitec Biopharma Ltd.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Can-fite Biopharma Ltd. (Form 6-K) was posted on December 27, 2016.

The SIC code for this company is 2834, Pharmaceutical Preparations.

The SEC file number is 0001213900-16-019730.

The contact information for this company is 10 BAREKET STREET, KIRYAT MATALON, P.O. BOX 7537, PETACH TIKVA L3 4951778, 972 39241114.

Our editors provided additional information about Form 6-K: This report is used by certain foreign private issuers to furnish information: (i) required to be made public in the country of its domicile; (ii) filed with and made public by a foreign stock exchange on which its securities are traded; or (iii) distributed to security holders. The report must be furnished promptly after such material is made public. The form is not considered "filed" for Section 18 liability purposes. This is the only information furnished by foreign private issuers between annual reports, since such issuers are not required to file on Forms 10-Q or 8-K.

A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see:

Keywords for this news article include: Pharmaceutical Companies, Pharmaceutical Preparations, SEC Filing, Biopharmaceuticals, Drugs and Therapies, Can-fite Biopharma Ltd..

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Medical Laboratories

Cancer Genetics, Inc. Files SEC Form S-1, General Form For Registration of Securities Under The Securities Act of 1933 (Dec. 22, 2016)
2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Cancer Genetics, Inc. (Form S-1) was posted on December 22, 2016.

The SIC code for this company is 8071, Medical Laboratories.
The SEC file number is 0001349929-16-000139.
The contact information for this company is 201 ROUTE 17 NORTH, 2ND FLOOR, RUTHERFORD NJ 07070, 201.528.9200.

Our editors provided additional information about Form S-1: This is the basic registration form. It can be used to register securities for which no other form is authorized or prescribed, except securities of foreign governments or political sub-divisions thereof.

A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see: http://www.sec.gov/Archives/edgar/data/1349929/0001349929-16-000139-index.html.

Keywords for this news article include: Oncology, SEC Filing, Cancer Genetics Inc., Medical Laboratories.

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Cti Biopharma Corp. Files SEC Form 8-K, Current Report (Dec. 23, 2016)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Cti Biopharma Corp. (Form 8-K) was posted on December 23, 2016.

The SIC code for this company is 2834, Pharmaceutical Preparations.
The SEC file number is 0000891293-16-000206.
The contact information for this company is 3101 WESTERN AVENUE, SUITE 600, SEATTLE WA 98121, 2062827100.

Our editors provided additional information about Form 8-K: This is the "current report" that is used to report the occurrence of any material events or corporate changes which are of importance to investors or security holders and previously have not been reported by the registrant. It provides more current information on certain specified events than would Forms 10-Q or 10-K.

A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see: http://www.sec.gov/Archives/edgar/data/891293/0000891293-16-000206-index.html.

Keywords for this news article include: Pharmaceutical Companies, Pharmaceutical Preparations, SEC Filing, Biopharmaceuticals, Cti Biopharma Corp., Drugs and Therapies.

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Cue Biopharma, Inc.

Cue Biopharma, Inc. Files SEC Form D, Notice of Exempt Offering of Securities (Dec. 22, 2016)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Cue Biopharma, Inc. (Form D) was posted on December 22, 2016.

The SEC file number is 0001645460-16-000004.

The contact information for this company is 675 W. KENDALL STREET, CAMBRIDGE MA 02142, 617-949-2680. Our editors provided additional information about Form D: Companies selling securities in reliance on a Regulation D exemption or a Section 4(6) exemption from the registration provisions of the ’33 Act must file a Form D as notice of such a sale. The form must be filed no later than 15 days after the first sale of securities. For additional information on Regulation D and Section 4(6) offerings, ask for a copy of the Regulation and the pamphlet entitled: "Q & A: Small Business and the SEC" from the Commission's Publications Unit or see the Small Business Section of the Commission's Web Site.

A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see: http://www.sec.gov/Archives/edgar/data/1645460/0001645460-16-000004-index.html.

Keywords for this news article include: Pharmaceutical Companies, Biopharmaceuticals, Cue Biopharma Inc., Drugs and Therapies.

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Galena Biopharma, Inc. (Form 8-K) was posted on December 22, 2016.

The SIC code for this company is 2834, Pharmaceutical Preparations.

The SEC file number is 0001390478-16-000167.

The contact information for this company is 4640 SW MACADAM AVENUE, SUITE 270, PORTLAND OR 97239, 855 855 GALE.

Our editors provided additional information about Form 8-K: This is the "current report" that is used to report the occurrence of any material events or corporate changes which are of importance to investors or security holders and previously have not been reported by the registrant. It provides more current information on certain specified events than would Forms 10-Q or 10-K.
A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see: http://www.sec.gov/Archives/edgar/data/1390478/0001390478-16-000167-index.html.

Keywords for this news article include: Pharmaceutical Preparations, SEC Filing, Biopharmaceuticals, Drugs and Therapies, Galena Biopharma Inc..

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**Biological Products, (No Diagnostic Substances)**

**Hemispherx Biopharma Inc. Files SEC Form 4, Statement of Changes in Beneficial Ownership of Securities (Dec. 23, 2016)**

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Hemispherx Biopharma Inc. (Form 4) was posted on December 23, 2016.

The SEC file number is 0001450324-16-000016.

The contact information for this company is 1617 JFK BLVD, SUITE #500, ONE PENN CENTER, PHILADELPHIA PA 19103, 215-988-0080.

Our editors provided additional information about Form 4: Every director, officer or owner of more than ten percent of a class of equity securities registered under Section 12 of the ’34 Act must file with the Commission a statement of ownership regarding such security. The initial filing is on Form 3 and changes are reported on Form 4. The Annual Statement of beneficial ownership of securities is on Form 5. The forms contain information on the reporting person’s relationship to the company and on purchases and sales of such equity securities.

A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see: http://www.sec.gov/Archives/edgar/data/1450324/0001450324-16-000016-index.html.

Keywords for this news article include: Pharmaceutical Companies, SEC Filing, Biopharmaceuticals, Biological Products, Drugs and Therapies, Hemispherx Biopharma Inc., (No Diagnostic Substances).

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**Surgical and Medical Instruments and Apparatus**


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The SIC code for this company is 3841, Surgical and Medical Instruments and Apparatus.

The SEC file number is 0001654954-16-005079.

The contact information for this company is 414 NORTH ORLEANS STREET, SUITE 502, CHICAGO IL 60610, 4078490290.

A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see: http://www.sec.gov/Archives/edgar/data/75439/0001654954-16-005079-index.html.

Keywords for this news article include: Oncology, SEC Filing, Medite Cancer Diagnostics Inc., Surgical and Medical Instruments and Apparatus.

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Redhill Biopharma Ltd. Files SEC Form 424B5, Prospectus [Rule 424(B) (5)] (Dec. 23, 2016)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Redhill Biopharma Ltd. (Form 424B5) was posted on December 23, 2016.

The SIC code for this company is 2834, Pharmaceutical Preparations.

The SEC file number is 0001171843-16-013768.

The contact information for this company is 21 HA'ARBA'A STREET, TEL AVIV L3 64739, 972-3-541-3131.

Our editors provided additional information about Form 424B5: Prospectus filed pursuant to Rule 424(b)(5).

A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see: http://www.sec.gov/Archives/edgar/data/1553846/0001171843-16-013768-index.html.

Keywords for this news article include: Pharmaceutical Companies, Pharmaceutical Preparations, SEC Filing, Biopharmaceuticals, Drugs and Therapies, Redhill Biopharma Ltd.

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The SIC code for this company is 2834, Pharmaceutical Preparations.
The SEC file number is 0001171843-16-013767.
The contact information for this company is 21 HA'ARBA'A STREET, TEL AVIV L3 64739, 972-3-541-3131.

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A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see: http://www.sec.gov/Archives/edgar/data/1553846/0001171843-16-013767-index.html.

Keywords for this news article include: Pharmaceutical Companies, Pharmaceutical Preparations, SEC Filing, Biopharmaceuticals, Drugs and Therapies, Redhill Biopharma Ltd..

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2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Strongbridge Biopharma Plc (Form 6-K) was posted on December 23, 2016.

The SIC code for this company is 2834, Pharmaceutical Preparations.
The SEC file number is 0001104659-16-163611.
The contact information for this company is 900 NORTHBROOK DRIVE, SUITE 200, TREVOSE PA 19053, (610) 254-9200.

Our editors provided additional information about Form 6-K: This report is used by certain foreign private issuers to furnish information: (i) required to be made public in the country of its domicile; (ii) filed with and made public by a foreign stock exchange on which its securities are traded; or (iii) distributed to security holders. The report must be furnished
promptly after such material is made public. The form is not considered "filed" for Section 18 liability purposes. This is the only information furnished by foreign private issuers between annual reports, since such issuers are not required to file on Forms 10-Q or 8-K.

A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see: http://www.sec.gov/Archives/edgar/data/1634432/0001104659-16-163611-index.html.

Keywords for this news article include: Pharmaceutical Preparations, SEC Filing, Biopharmaceuticals, Drugs and Therapies, Strongbridge Biopharma Plc.

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Theravance Biopharma, Inc. Files SEC Form CT ORDER, Confidential Treatment Order (Dec. 23, 2016)

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a U.S. Securities and Exchange Commission (SEC) filing by Theravance Biopharma, Inc. (Form CT ORDER) was posted on December 22, 2016.

The SIC code for this company is 2834, Pharmaceutical Preparations.
The SEC file number is 9999999997-16-028005.
The contact information for this company is UGLAND HOUSE, SOUTH CHURCH STREET, GEORGE TOWN, GRAND CAYMAN E9 KY1-1104, 650-808-6000.

A U.S. Securities and Exchange Commission filing is a formal document or financial statement submitted to the SEC by publicly-traded companies.

For additional information on this SEC filing see: http://www.sec.gov/Archives/edgar/data/1583107/9999999997-16-028005-index.html.

Keywords for this news article include: Pharmaceutical Preparations, SEC Filing, Biopharmaceuticals, Drugs and Therapies, Theravance Biopharma Inc.

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Pharmaceutical Companies

Pfizer's Trademark Application for "MINSAVAN" Filed

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a trademark application has been made for "MINSAVAN" by Janina Gorbach, representing Pfizer. This application was made available to the public on December 23, 2016.

The serial number for this application is 87268148.
The international trademark goods and services class code for this trademark application is 005.
As submitted by the applicant, this trademark application relates to the following goods and services: Pharmaceutical preparations for the treatment of cardiovascular, central nervous system, endocrine, gastrointestinal, genetic, immunological, infectious, inflammatory, menopausal, metabolic, autoimmune, musculoskeletal, neurological, ophthalmological, psychiatric, respiratory, urogenital, urological and viral diseases and disorders; pharmaceutical preparations for the treatment of erectile dysfunction, sexual dysfunction, cancer, pain and diabetes; pharmaceutical preparations for use in hematology; pharmaceutical preparations, namely, antifungal preparations, dermatological preparations, smoking cessation preparations, and tissue repair preparations; vaccines for human use.

The owner/registrar information for this application is: Janina Gorbach, Pfizer, 235 East 42nd Street, New York, NY 10017.

Keywords for this news article include: Pharmaceutical Companies, Pfizer, Genetics, Trademarks.

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Trademarks

Trademark Application for "HEALTHAHEAD" Filed by General Electric Company

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a trademark application has been made for "HEALTHAHEAD" by Cindy M. Zelson, representing General Electric Company. This application was made available to the public on December 24, 2016.

The international trademark goods and services class code for this trademark application is 044.

The serial number for this application is 87276924.

As submitted by the applicant, this trademark application relates to the following goods and services: Providing a website and mobile application featuring information in the field of general health and well-being, work-life balance, physical fitness, and healthcare benefits; providing a website and mobile application featuring tools for tracking personal goals, sharing information, and participating in groups and challenges all the fields of general health and well-being, work-life balance, physical fitness, and healthcare benefits; providing information in the field of general health and well-being, work-life balance, physical fitness, and healthcare benefits.

The owner/registrar information for this application is: Cindy M. Zelson, General Electric Company, 901 Main Ave. (trademarks: 801-4) , Norwalk, CT 06851.

Keywords for this news article include: Exercise, Trademarks, Physical Fitness, General Electric Company.

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Trademark Application for "POVELLYS" Filed by Pfizer

2017 JAN 14 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- According to news reporting originating from Washington, D.C., by NewsRx journalists, a trademark application has been made for "POVELLYS" by Heather Mcdonald, representing Pfizer. This application was made available to the public on December 24, 2016.

The international trademark goods and services class code for this trademark application is 005.

The serial number for this application is 87175390.

As submitted by the applicant, this trademark application relates to the following goods and services: Pharmaceutical preparations for the treatment of cardiovascular, central nervous system, endocrine, gastrointestinal, genetic immunological, infectious, inflammatory, menopausal, metabolic, autoimmune, musculoskeletal, neurological, ophthalmological, psychiatric, respiratory, urogenital, urological and viral diseases and disorders; pharmaceutical preparations for the treatment of erectile dysfunction, sexual dysfunction, cancer, pain and diabetes; pharmaceutical preparations for use in hematology; pharmaceutical preparations, namely, antifungal preparations, dermatological preparations, smoking cessation preparations, and tissue repair preparations; vaccines for human use.

The owner/registrar information for this application is: Heather Mcdonald, Pfizer, 235 East 42nd Street, New York, NY 10017.

Keywords for this news article include: Pharmaceutical Companies, Pfizer, Genetics, Trademarks.

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